Full wwPDB EM Validation Report (i)

Mar 18, 2025 – 11:27 PM EDT

PDB ID	:	9E2G
EMDB ID	:	EMD-47451
Title	:	Cryo-EM structure of 48 nm repeat of microtubule doublet from T. brucei flagellum
Authors	:	Xia, X.; Shimogawa, M.M.; Wang, H.; Liu, S.; Wijono, A.; Langousis, G.; Kassem, A.M.; Wohlschlegel, J.A.; Hill, K.; Zhou, Z.H.
Deposited on	:	2024-10-22
Resolution	:	2.80 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

The following versions of software and data (see references (1)) were used in the production of this report:

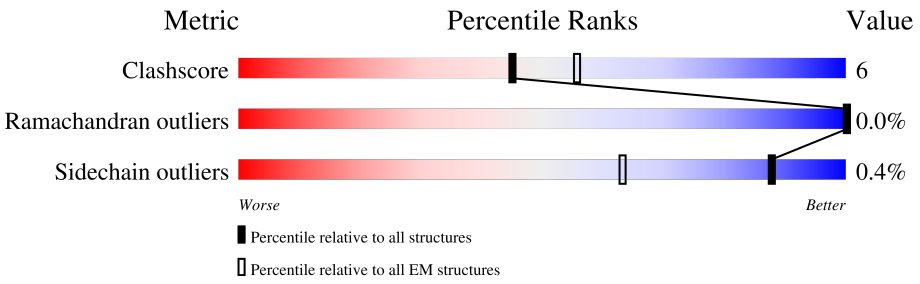
EMDB validation analysis	:	0.0.1.dev117
Mogul	:	2022.3.0, CSD as543be (2022)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.41.4

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 2.80 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	0A	752	16% 77% 10% • 12%
1	0B	752	24% 87% 10% •
1	0C	752	18% 88% 10% •
1	0D	752	16% • 83%
2	0E	779	16% 81% 13% 6%
3	0F	724	8% 77% 15% 8%
4	0G	779	22% 83% 14% •
5	0H	385	• 59% 9% • 32%

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Mol	Chain	Length	Quality of chain
5	0I	385	27% • 69%
5	0J	385	11% 89%
5	0K	385	• 85% 9% 6%
6	0M	483	7% 55% 8% 37%
6	0N	483	5% 31% • 65%
7	0O	436	• 27% 8% 65%
7	0P	436	6% 57% 11% • 31%
8	0Q	334	93% 7% •
9	0R	349	• 89% 9% • •
10	0S	422	• 92% 7% •
11	0T	422	6% 91% 7% •
12	0U	331	12% 80% 13% 8%
13	0V	219	31% 67% 10% 22%
14	0W	130	12% 75% 6% 19%
15	0X	270	• 55% 12% 33%
16	0Y	301	• 81% 9% 11%
17	0Z	552	10% 71% 14% 14%
18	1A	359	• 87% 12% •
19	1B	297	• 78% 15% 7%
20	1C	282	5% 77% 11% 12%
21	1D	320	• 85% 8% 7%
22	1E	249	8% 84% 11% 5%
23	1F	254	12% 79% 13% 8%
24	1G	182	15% 81% 10% 9%
25	1H	386	5% 59% 8% 33%

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Mol	Chain	Length	Quality of chain
26	1I	417	71% 6% 23%
26	1J	417	20% 79%
27	1K	415	9% 55% 9% 35%
27	1L	415	6% 28% 5% 67%
28	1M	415	8% 49% 6% 45%
28	1N	415	5% 23% 75%
29	1O	247	44% 51%
29	1P	247	22% 77%
29	4X	247	16% 83%
30	1Q	300	8% 83% 9% 8%
30	1R	300	6% 82% 10% 8%
30	1S	300	9% 81% 11% 8%
31	1T	312	8% 64% 8% 28%
31	1U	312	6% 66% 7% 28%
32	1V	294	53% 10% 37%
32	1W	294	52% 11% 37%
32	1X	294	54% 9% 37%
32	1Y	294	52% 11% 37%
32	1Z	294	53% 10% 37%
32	2A	294	55% 8% 37%
33	2B	629	84% 14%
33	2C	629	84% 16%
33	2D	629	6% 82% 17%
34	2E	274	6% 78% 9% 12%
34	2F	274	6% 74% 14% 12%

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Mol	Chain	Length	Quality of chain
35	2G	374	11% 40% 7% 53%
35	2H	374	13% 32% 7% 60%
36	2I	369	6% 67% 8% 24%
36	2J	369	5% 66% 9% 25%
36	2K	369	6% 65% 10% 25%
37	2L	272	8% 79% 8% 12%
37	2M	272	9% 81% 6% 12%
38	2N	262	• 83% 8% 9%
39	2O	483	8% 34% 6% 60%
39	2P	483	10% 51% 12% 37%
39	2Q	483	18% 55% 10% • 34%
39	2R	483	15% 30% 9% 61%
40	2S	515	• 11% • 85%
40	2T	515	9% 73% 11% 15%
40	2U	515	12% • 87%
41	2V	348	7% 33% • 64%
41	2W	348	18% 57% 10% 33%
41	2X	348	13% • 85%
41	2Y	348	18% 82% 13% •
41	2Z	348	18% 68% 9% • 22%
41	3A	348	• 25% 6% 68%
41	3B	348	7% 44% 6% 50%
41	3C	348	11% 50% 11% 39%
41	3D	348	17% 61% 11% • 27%
42	3E	266	12% 22% • 75%

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Mol	Chain	Length	Quality of chain
42	3F	266	23% 62% 8% 30%
42	3G	266	13% 57% 8% 35%
42	3H	266	11% 24% 6% 70%
42	3I	266	11% 38% 5% 58%
42	3J	266	11% 47% 9% 45%
42	3K	266	14% 5% 81%
42	3L	266	11% 60% 10% 29%
42	3M	266	8% 58% 14% 28%
42	3N	266	5% 15% 8% 76%
42	3O	266	11% 37% 9% 54%
42	3P	266	13% 39% 6% 55%
43	3Q	270	16% 45% 12% 43%
44	3R	325	6% 41% 9% 50%
45	3S	191	71% 13% 16%
46	3T	320	51% 46%
46	3U	320	38% 57%
47	3V	278	15% 69% 17% 14%
47	3W	278	22% 71% 15% 14%
47	3X	278	23% 68% 15% 17%
48	3Y	269	20% 78% 14% 7%
48	3Z	269	22% 35% 9% 55%
48	4A	269	47% 75% 13% 11%
49	4B	420	10% 24% 75%
49	4C	420	9% 23% 74%
49	4D	420	10% 21% 76%

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Mol	Chain	Length	Quality of chain
50	4E	337	10% 9% 88%
50	4F	337	13% 37% 61%
50	4G	337	9% 10% 88%
51	4H	329	25% 55% 6% 38%
52	4I	350	30% 7% 63%
52	4J	350	7% 92%
53	4K	286	6% 58% 13% 29%
53	4L	286	7% 31% 7% 63%
54	4M	193	50% 72% 11% 17%
54	4N	193	49% 67% 16% 17%
54	4O	193	80% 67% 15% 18%
55	4P	191	30% 62% 13% 25%
56	4Q	166	7% 37% 5% 57%
57	4R	161	7% 63% 16% 20%
57	4S	161	7% 74% 9% 17%
57	4Y	161	19% 5% 76%
58	4T	867	5% 7% 92%
58	4U	867	7% 92%
58	4V	867	7% 92%
58	4W	867	7% 92%
59	AA	451	5% 88% 10%
59	AC	451	87% 11%
59	AE	451	89% 9%
59	AG	451	88% 10%
59	AI	451	87% 11%

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Mol	Chain	Length	Quality of chain
59	AK	451	5% 87% 11%
59	AM	451	86% 12%
59	AO	451	86% 12%
59	AQ	451	87% 11%
59	AS	451	85% 13%
59	AU	451	5% 86% 12%
59	AW	451	88% 10%
59	AY	451	5% 82% 16%
59	BA	451	6% 86% 12%
59	BC	451	5% 83% 14%
59	BE	451	80% 18%
59	BG	451	84% 14%
59	BI	451	5% 82% 16%
59	BK	451	5% 86% 12%
59	BM	451	5% 85% 13%
59	BO	451	5% 88% 10%
59	BQ	451	5% 86% 12%
59	BS	451	85% 13%
59	BU	451	5% 82% 16%
59	BW	451	8% 82% 16%
59	BX	451	8% 82% 16%
59	BZ	451	85% 13%
59	CB	451	88% 10%
59	CD	451	84% 14%
59	CF	451	83% 14%

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Mol	Chain	Length	Quality of chain
59	CH	451	85% 13%
59	CJ	451	84% 14%
59	CM	451	5% 83% 15%
59	CO	451	5% 85% 13%
59	CQ	451	86% 12%
59	CS	451	6% 84% 14%
59	CU	451	5% 83% 15%
59	CW	451	5% 86% 12%
59	CY	451	88% 10%
59	DA	451	88% 10%
59	DC	451	86% 11%
59	DE	451	84% 13%
59	DG	451	86% 12%
59	DI	451	86% 11%
59	DK	451	84% 14%
59	DM	451	84% 14%
59	DO	451	86% 12%
59	DQ	451	88% 10%
59	DS	451	5% 87% 10%
59	DU	451	89% 9%
59	DX	451	86% 12%
59	DZ	451	89% 9%
59	EB	451	87% 11%
59	ED	451	88% 10%
59	EF	451	88% 10%

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Mol	Chain	Length	Quality of chain
59	EH	451	89% 9%
59	EJ	451	88% 10%
59	EL	451	87% 11%
59	EN	451	85% 13%
59	EP	451	84% 14%
59	ER	451	82% 15%
59	ET	451	86% 12%
59	EV	451	89% 9%
59	EX	451	87% 11%
59	EZ	451	87% 10%
59	FB	451	88% 10%
59	FD	451	89% 9%
59	FF	451	90% 8%
59	FH	451	85% 12%
59	FJ	451	88% 10%
59	FL	451	91% 7%
59	FN	451	90% 8%
59	FP	451	88% 10%
59	FR	451	89% 9%
59	FT	451	5% 88% 10%
59	FU	451	84% 14%
59	FW	451	87% 11%
59	FY	451	88% 10%
59	GA	451	88% 10%
59	GC	451	85% 13%

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Mol	Chain	Length	Quality of chain
59	GE	451	83% 15%
59	GG	451	86% 12%
59	GH	451	8% 81% 17%
59	GJ	451	8% 85% 13%
59	GL	451	13% 80% 17%
59	GN	451	10% 81% 17%
59	GP	451	12% 78% 20%
59	GR	451	12% 81% 17%
59	GT	451	11% 80% 18%
59	GU	451	6% 83% 15%
59	GW	451	84% 14%
59	GY	451	7% 78% 19%
59	HA	451	5% 80% 18%
59	HC	451	5% 81% 17%
59	HE	451	5% 80% 18%
59	HG	451	5% 84% 14%
59	HI	451	5% 83% 15%
59	HK	451	5% 84% 14%
59	HM	451	5% 81% 17%
59	HO	451	5% 84% 14%
59	HQ	451	6% 80% 18%
59	HT	451	5% 82% 15%
59	HV	451	5% 82% 16%
59	HX	451	5% 78% 20%
59	HZ	451	6% 78% 19%

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Mol	Chain	Length	Quality of chain
59	IB	451	81% 17%
59	ID	451	5% 82% 16%
59	IG	451	78% 20%
59	II	451	5% 82% 16%
59	IK	451	5% 81% 17%
59	IM	451	5% 80% 18%
59	IO	451	5% 84% 14%
59	IQ	451	5% 80% 18%
59	IT	451	81% 17%
59	IV	451	83% 15%
59	IX	451	77% 21%
59	IZ	451	77% 21%
59	JB	451	83% 15%
59	JD	451	79% 19%
59	JF	451	7% 84% 14%
59	JH	451	8% 82% 16%
59	JJ	451	6% 80% 18%
59	JL	451	6% 82% 16%
59	JN	451	6% 84% 14%
59	JP	451	83% 15%
59	JQ	451	11% 81% 17%
59	JS	451	8% 79% 18%
59	JU	451	5% 80% 18%
59	JW	451	6% 77% 20%
59	JY	451	6% 81% 17%

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Mol	Chain	Length	Quality of chain
59	KA	451	6% 82% 16%
59	KC	451	11% 83% 14%
59	KD	451	5% 82% 16%
59	KF	451	88% 10%
59	KH	451	5% 83% 15%
59	KJ	451	85% 13%
59	KL	451	86% 12%
59	KN	451	82% 16%
59	KP	451	8% 78% 20%
59	KQ	451	80% 18%
59	KS	451	84% 14%
59	KU	451	88% 10%
59	KW	451	86% 11%
59	KY	451	5% 86% 12%
59	LA	451	84% 14%
60	AB	442	82% 15%
60	AD	442	83% 14%
60	AF	442	84% 13%
60	AH	442	86% 11%
60	AJ	442	83% 14%
60	AL	442	86% 12%
60	AN	442	83% 14%
60	AP	442	86% 10%
60	AR	442	81% 16%
60	AT	442	82% 15%

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Mol	Chain	Length	Quality of chain
60	AV	442	82% 15%
60	AX	442	79% 18%
60	AZ	442	79% 17%
60	BB	442	83% 14%
60	BD	442	79% 18%
60	BF	442	82% 14%
60	BH	442	81% 16%
60	BJ	442	79% 18%
60	BL	442	81% 17%
60	BN	442	83% 14%
60	BP	442	80% 17%
60	BR	442	79% 18%
60	BT	442	81% 17%
60	BV	442	79% 17%
60	BY	442	81% 15%
60	CA	442	79% 18%
60	CC	442	76% 21%
60	CE	442	80% 17%
60	CG	442	76% 21%
60	CI	442	77% 20%
60	CL	442	82% 15%
60	CN	442	82% 16%
60	CP	442	78% 18%
60	CR	442	73% 24%
60	CT	442	78% 19%

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Mol	Chain	Length	Quality of chain
60	CV	442	76% 21%
60	CX	442	84% 13%
60	CZ	442	83% 14%
60	DB	442	81% 16%
60	DD	442	81% 16%
60	DF	442	84% 13%
60	DH	442	85% 12%
60	DJ	442	83% 14%
60	DL	442	81% 16%
60	DN	442	80% 17%
60	DP	442	82% 15%
60	DR	442	81% 16%
60	DT	442	84% 13%
60	DV	442	84% 13%
60	DW	442	79% 17%
60	DY	442	84% 13%
60	EA	442	81% 15%
60	EC	442	81% 15%
60	EE	442	83% 14%
60	EG	442	85% 12%
60	EI	442	85% 13%
60	EK	442	79% 18%
60	EM	442	81% 16%
60	EO	442	80% 17%
60	EQ	442	75% 22%

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Mol	Chain	Length	Quality of chain
60	ES	442	83% 15%
60	EU	442	81% 16%
60	EW	442	85% 12%
60	EY	442	81% 16%
60	FA	442	86% 11%
60	FC	442	82% 15%
60	FE	442	88% 10%
60	FG	442	83% 14%
60	FI	442	79% 17%
60	FK	442	84% 13%
60	FM	442	85% 12%
60	FO	442	82% 15%
60	FQ	442	80% 16%
60	FS	442	81% 15%
60	FV	442	83% 15%
60	FX	442	83% 14%
60	FZ	442	85% 12%
60	GB	442	83% 14%
60	GD	442	79% 18%
60	GF	442	81% 16%
60	GI	442	83% 14%
60	GK	442	8% 79% 18%
60	GM	442	10% 80% 16%
60	GO	442	9% 76% 20%
60	GQ	442	9% 75% 22%

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Mol	Chain	Length	Quality of chain
60	GS	442	10% 73% 23%
60	GV	442	78% 19%
60	GX	442	84% 12%
60	GZ	442	80% 17%
60	HB	442	76% 20%
60	HD	442	81% 15%
60	HF	442	5% 75% 21%
60	HH	442	78% 19%
60	HJ	442	79% 18%
60	HL	442	79% 17%
60	HN	442	81% 16%
60	HP	442	80% 17%
60	HR	442	75% 22%
60	HS	442	72% 24%
60	HU	442	78% 19%
60	HW	442	79% 18%
60	HY	442	78% 19%
60	IA	442	77% 20%
60	IC	442	81% 17%
60	IE	442	5% 78% 19%
60	IF	442	75% 22%
60	IH	442	79% 18%
60	IJ	442	81% 15%
60	IL	442	76% 21%
60	IN	442	79% 19%

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Mol	Chain	Length	Quality of chain
60	IP	442	72% 25%
60	IR	442	10% 80% 17%
60	IS	442	74% 23%
60	IU	442	74% 23%
60	IW	442	77% 20%
60	IY	442	74% 22%
60	JA	442	76% 21%
60	JC	442	78% 19%
60	JE	442	71% 26%
60	JG	442	76% 21%
60	JI	442	9% 76% 21%
60	JK	442	6% 74% 23%
60	JM	442	81% 16%
60	JO	442	78% 19%
60	JR	442	8% 75% 21%
60	JT	442	8% 79% 18%
60	JV	442	7% 80% 17%
60	JX	442	6% 83% 14%
60	JZ	442	5% 79% 18%
60	KB	442	6% 83% 14%
60	KE	442	83% 14%
60	KG	442	83% 14%
60	KI	442	84% 13%
60	KK	442	82% 15%
60	KM	442	80% 18%

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Mol	Chain	Length	Quality of chain
60	KO	442	83% 14%
60	KR	442	85% 12%
60	KT	442	78% 19%
60	KV	442	85% 12%
60	KX	442	81% 16%
60	KZ	442	85% 12%
60	LB	442	81% 15%

2 Entry composition (i)

There are 64 unique types of molecules in this entry. The entry contains 1215524 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called EF-hand domain-containing family member C2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	0A	662	5390	3423	929	1014	24	0	0
1	0B	730	5933	3757	1026	1121	29	0	0
1	0C	734	5972	3782	1036	1125	29	0	0
1	0D	131	1064	685	176	200	3	0	0

- Molecule 2 is a protein called EF-hand domain-containing family member C2.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	0E	730	5862	3718	1025	1088	31	0	0

- Molecule 3 is a protein called Rib72 protein-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	0F	665	5389	3412	938	1011	28	0	0

- Molecule 4 is a protein called CMF34/CARP4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	0G	758	6157	3875	1093	1162	27	0	0

- Molecule 5 is a protein called Flagellar protofilament ribbon protein, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	0H	263	2274	1382	453	430	9	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	0I	119	1052	644	205	196	7	0	0
5	0J	44	376	228	80	64	4	0	0
5	0K	363	3130	1907	616	593	14	0	0

- Molecule 6 is a protein called Cilia- and flagella-associated protein 53.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	0M	304	2576	1553	530	482	11	0	0
6	0N	169	1449	889	293	263	4	0	0

- Molecule 7 is a protein called Meiosis-specific nuclear structural protein 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	0O	154	1288	780	255	247	6	0	0
7	0P	303	2584	1574	505	502	3	0	0

- Molecule 8 is a protein called Nucleoside diphosphate kinase, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	0Q	332	2587	1637	446	484	20	0	0

- Molecule 9 is a protein called Nucleoside diphosphate kinase, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
9	0R	343	2685	1703	472	493	17	0	0

- Molecule 10 is a protein called EF-hand domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
10	0S	419	3331	2094	584	638	15	0	0

- Molecule 11 is a protein called EF-hand domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
11	0T	414	3295	2050	603	624	18	0	0

- Molecule 12 is a protein called Cyclic nucleotide-binding domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
12	0U	306	2446	1557	422	454	13	0	0

- Molecule 13 is a protein called TbMIP23.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
13	0V	170	1262	795	219	241	7	0	0

- Molecule 14 is a protein called FAP141.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
14	0W	105	836	503	167	161	5	0	0

- Molecule 15 is a protein called EF-hand domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
15	0X	181	1457	935	250	267	5	0	0

- Molecule 16 is a protein called Calpain-like cysteine peptidase, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
16	0Y	269	2100	1327	366	392	15	0	0

- Molecule 17 is a protein called EF-hand domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
17	0Z	472	3717	2352	651	692	22	0	0

- Molecule 18 is a protein called Calcium-binding protein, putative.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
18	1A	357	2920	1842	511	551	16	0	0

- Molecule 19 is a protein called EF-hand domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
19	1B	276	2252	1422	411	408	11	0	0

- Molecule 20 is a protein called Peptidyl-prolyl cis-trans isomerase.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
20	1C	247	1908	1188	346	360	14	0	0

- Molecule 21 is a protein called EF-hand domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
21	1D	298	2371	1516	415	427	13	0	0

- Molecule 22 is a protein called FAP107/MC11.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
22	1E	237	1880	1180	325	363	12	0	0

- Molecule 23 is a protein called T. brucei spp.-specific protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
23	1F	234	1861	1148	338	365	10	0	0

- Molecule 24 is a protein called FAP95/MC6.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
24	1G	165	1287	808	234	239	6	0	0

- Molecule 25 is a protein called FAP129.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
25	1H	258	2005	1242	371	379	13	0	0

- Molecule 26 is a protein called T. brucei spp.-specific protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
26	1I	320	2535	1574	465	490	6	0	0
			Total	C	N	O	S		
26	1J	89	707	444	129	132	2	0	0

- Molecule 27 is a protein called FAP21.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
27	1K	269	2119	1307	411	387	14	0	0
			Total	C	N	O	S		
27	1L	138	1103	680	209	204	10	0	0

- Molecule 28 is a protein called Flagellar associated protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
28	1M	227	1778	1109	330	331	8	0	0
			Total	C	N	O	S		
28	1N	105	814	506	150	156	2	0	0

- Molecule 29 is a protein called TbRib26b.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
29	1O	120	953	598	170	182	3	0	0
			Total	C	N	O			
29	1P	56	423	271	72	80		0	0
			Total	C	N	O	S		
29	4X	42	348	221	60	65	2	0	0

- Molecule 30 is a protein called PACRGA.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
30	1Q	277	2223	1425	399	393	6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
30	1R	277	2223	1425	399	393	6	0	0
30	1S	277	2223	1425	399	393	6	0	0

- Molecule 31 is a protein called PACRGB.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
31	1T	226	1819	1174	311	329	5	0	0
31	1U	226	1819	1174	311	329	5	0	0

- Molecule 32 is a protein called Cilia- and flagella-associated protein 20.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
32	1V	185	1537	985	271	273	8	0	0
32	1W	185	1537	985	271	273	8	0	0
32	1X	185	1537	985	271	273	8	0	0
32	1Y	185	1537	985	271	273	8	0	0
32	1Z	185	1537	985	271	273	8	0	0
32	2A	185	1537	985	271	273	8	0	0

- Molecule 33 is a protein called Cilia- and flagella-associated protein 52.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
33	2B	620	4671	2918	821	901	31	0	0
33	2C	627	4727	2953	829	914	31	0	0
33	2D	627	4727	2953	829	914	31	0	0

- Molecule 34 is a protein called Enkurin domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
34	2E	240	1867	1166	339	358	4	0	0
34	2F	240	1867	1166	339	358	4	0	0

- Molecule 35 is a protein called Enkurin domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
35	2G	175	1456	927	258	266	5	0	0
35	2H	150	1248	786	225	232	5	0	0

- Molecule 36 is a protein called MC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
36	2I	279	2217	1384	418	404	11	0	0
36	2J	275	2186	1366	412	398	10	0	0
36	2K	275	2186	1366	412	398	10	0	0

- Molecule 37 is a protein called MC5.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
37	2L	238	1900	1188	349	355	8	0	0
37	2M	238	1900	1188	349	355	8	0	0

- Molecule 38 is a protein called CCDC81 HU domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
38	2N	239	1911	1207	342	348	14	0	0

- Molecule 39 is a protein called Cilia- and flagella-associated protein 45.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
39	2O	193	1599	965	306	315	13	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
39	2P	303	2590	1566	517	496	11	0	0
			Total	C	N	O	S		
39	2Q	321	2678	1615	524	524	15	0	0
			Total	C	N	O	S		
39	2R	189	1613	968	325	311	9	0	0

- Molecule 40 is a protein called Trichohyalin-plectin-homology domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
40	2S	79	647	394	122	128	3	0	0
			Total	C	N	O	S		
40	2T	437	3667	2228	713	707	19	0	0
			Total	C	N	O	S		
40	2U	66	564	346	105	110	3	0	0

- Molecule 41 is a protein called Trichohyalin-plectin-homology domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
41	2V	126	1062	658	206	195	3	0	0
			Total	C	N	O	S		
41	2W	233	1977	1201	383	381	12	0	0
			Total	C	N	O	S		
41	2X	52	441	274	87	79	1	0	0
			Total	C	N	O	S		
41	2Y	333	2808	1716	549	530	13	0	0
			Total	C	N	O	S		
41	2Z	272	2259	1382	441	424	12	0	0
			Total	C	N	O	S		
41	3A	110	954	580	188	182	4	0	0
			Total	C	N	O	S		
41	3B	173	1421	877	275	263	6	0	0
			Total	C	N	O	S		
41	3C	213	1797	1088	349	348	12	0	0
			Total	C	N	O	S		
41	3D	253	2146	1307	417	410	12	0	0

- Molecule 42 is a protein called STOP axonemal protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
42	3E	66	517	329	91	94	3	0	0
42	3F	186	1483	940	261	273	9	0	0
42	3G	174	1388	889	242	251	6	0	0
42	3H	80	638	404	110	118	6	0	0
42	3I	112	890	566	156	163	5	0	0
42	3J	147	1184	745	214	218	7	0	0
42	3K	51	401	253	75	71	2	0	0
42	3L	188	1496	947	260	279	10	0	0
42	3M	191	1526	974	267	279	6	0	0
42	3N	63	497	312	86	93	6	0	0
42	3O	123	977	620	172	180	5	0	0
42	3P	121	967	612	173	176	6	0	0

- Molecule 43 is a protein called MC8.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
43	3Q	154	1293	822	224	238	9	0	0

- Molecule 44 is a protein called MC3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
44	3R	163	1338	844	232	252	10	0	0

- Molecule 45 is a protein called FAP90.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
45	3S	161	1281	794	235	244	8	0	0

- Molecule 46 is a protein called PBP36.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
46	3T	174	1398	895	257	241	5	0	0
46	3U	137	1120	704	212	199	5	0	0

- Molecule 47 is a protein called Enkurin domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
47	3V	239	1919	1191	366	351	11	0	0
47	3W	238	1905	1183	363	346	13	0	0
47	3X	231	1843	1145	349	336	13	0	0

- Molecule 48 is a protein called Enkurin domain-containing protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
48	3Y	249	2017	1253	377	376	11	0	0
48	3Z	120	990	609	183	193	5	0	0
48	4A	239	1937	1202	360	364	11	0	0

- Molecule 49 is a protein called PON3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
49	4B	104	858	528	167	155	8	0	0
49	4C	108	889	548	171	162	8	0	0
49	4D	101	831	513	159	151	8	0	0

- Molecule 50 is a protein called PON4.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
50	4E	40	327	199	60	67	1	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
50	4F	131	1054	633	203	208	10	0	0
50	4G	40	327	199	60	67	1	0	0

- Molecule 51 is a protein called MC7.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
51	4H	203	1642	1020	321	293	8	0	0

- Molecule 52 is a protein called FAP96C/MC15.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
52	4I	130	1013	639	175	193	6	0	0
52	4J	28	222	143	39	38	2	0	0

- Molecule 53 is a protein called FAP96B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
53	4K	202	1650	1067	289	286	8	0	0
53	4L	107	882	563	157	158	4	0	0

- Molecule 54 is a protein called MOP23A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
54	4M	160	1380	847	261	270	2	0	0
54	4N	160	1380	847	261	270	2	0	0
54	4O	159	1373	843	260	268	2	0	0

- Molecule 55 is a protein called MOP23B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
55	4P	144	1193	730	230	229	4	0	0

- Molecule 56 is a protein called MOP23C.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
56	4Q	71	583	368	100	113	2	0	0

- Molecule 57 is a protein called KIAA1430 homologue.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
57	4R	129	1116	682	225	204	5	0	0
			Total	C	N	O	S		
57	4S	134	1155	706	234	210	5	0	0
			Total	C	N	O	S		
57	4Y	38	327	201	67	58	1	0	0

- Molecule 58 is a protein called Starmaker.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
58	4T	72	643	395	130	116	2	0	0
			Total	C	N	O	S		
58	4U	72	643	395	130	116	2	0	0
			Total	C	N	O	S		
58	4V	72	643	395	130	116	2	0	0
			Total	C	N	O	S		
58	4W	72	643	395	130	116	2	0	0

- Molecule 59 is a protein called Tubulin alpha chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	AA	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AC	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AE	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AG	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AI	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AK	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AM	442	3421	2158	582	660	21	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	AO	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AQ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AS	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AU	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AW	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	AY	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BA	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BC	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BE	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BG	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BI	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BK	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BM	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BO	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BQ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BS	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BU	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BW	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BX	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	BZ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CB	442	3421	2158	582	660	21	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	CD	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CF	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CH	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CJ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CM	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CO	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CQ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CS	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CU	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CW	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	CY	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DA	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DC	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DE	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DG	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DI	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DK	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DM	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DO	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DQ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DS	442	3421	2158	582	660	21	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	DU	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DX	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	DZ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EB	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	ED	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EF	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EH	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EJ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EL	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EN	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EP	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	ER	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	ET	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EV	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EX	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	EZ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FB	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FD	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FF	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FH	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FJ	442	3421	2158	582	660	21	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	FL	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FN	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FP	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FR	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FT	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FU	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FW	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	FY	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GA	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GC	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GE	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GG	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GH	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GJ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GL	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GN	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GP	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GR	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GT	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GU	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	GW	442	3421	2158	582	660	21	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	GY	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HA	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HC	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HE	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HG	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HI	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HK	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HM	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HO	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HQ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HT	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HV	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HX	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	HZ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IB	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	ID	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IG	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	II	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IK	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IM	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IO	442	3421	2158	582	660	21	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	IQ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IT	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IV	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IX	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	IZ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JB	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JD	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JF	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JH	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JJ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JL	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JN	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JP	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JQ	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JS	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JU	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JW	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	JY	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	KA	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	KC	442	3421	2158	582	660	21	0	0
			Total	C	N	O	S		
59	KD	442	3421	2158	582	660	21	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
59	KF	442	3421	2158	582	660	21	0	0
59	KH	442	3421	2158	582	660	21	0	0
59	KJ	442	3421	2158	582	660	21	0	0
59	KL	442	3421	2158	582	660	21	0	0
59	KN	442	3421	2158	582	660	21	0	0
59	KP	442	3421	2158	582	660	21	0	0
59	KQ	442	3421	2158	582	660	21	0	0
59	KS	442	3421	2158	582	660	21	0	0
59	KU	442	3421	2158	582	660	21	0	0
59	KW	442	3421	2158	582	660	21	0	0
59	KY	442	3421	2158	582	660	21	0	0
59	LA	442	3421	2158	582	660	21	0	0

- Molecule 60 is a protein called Tubulin beta chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	AB	430	3372	2114	575	652	31	0	0
60	AD	430	3372	2114	575	652	31	0	0
60	AF	430	3372	2114	575	652	31	0	0
60	AH	430	3372	2114	575	652	31	0	0
60	AJ	430	3372	2114	575	652	31	0	0
60	AL	430	3372	2114	575	652	31	0	0
60	AN	430	3372	2114	575	652	31	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	AP	430	3372	2114	575	652	31	0	0
60	AR	430	3372	2114	575	652	31	0	0
60	AT	430	3372	2114	575	652	31	0	0
60	AV	430	3372	2114	575	652	31	0	0
60	AX	430	3372	2114	575	652	31	0	0
60	AZ	430	3372	2114	575	652	31	0	0
60	BB	430	3372	2114	575	652	31	0	0
60	BD	430	3372	2114	575	652	31	0	0
60	BF	430	3372	2114	575	652	31	0	0
60	BH	430	3372	2114	575	652	31	0	0
60	BJ	430	3372	2114	575	652	31	0	0
60	BL	430	3372	2114	575	652	31	0	0
60	BN	430	3372	2114	575	652	31	0	0
60	BP	430	3372	2114	575	652	31	0	0
60	BR	430	3372	2114	575	652	31	0	0
60	BT	430	3372	2114	575	652	31	0	0
60	BV	430	3372	2114	575	652	31	0	0
60	BY	430	3372	2114	575	652	31	0	0
60	CA	430	3372	2114	575	652	31	0	0
60	CC	430	3372	2114	575	652	31	0	0
60	CE	430	3372	2114	575	652	31	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	CG	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CI	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CL	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CN	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CP	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CR	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CT	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CV	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CX	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	CZ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DB	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DD	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DF	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DH	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DJ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DL	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DN	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DP	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DR	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DT	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	DV	430	3372	2114	575	652	31	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	DW	430	3372	2114	575	652	31	0	0
60	DY	430	3372	2114	575	652	31	0	0
60	EA	430	3372	2114	575	652	31	0	0
60	EC	430	3372	2114	575	652	31	0	0
60	EE	430	3372	2114	575	652	31	0	0
60	EG	430	3372	2114	575	652	31	0	0
60	EI	430	3372	2114	575	652	31	0	0
60	EK	430	3372	2114	575	652	31	0	0
60	EM	430	3372	2114	575	652	31	0	0
60	EO	430	3372	2114	575	652	31	0	0
60	EQ	430	3372	2114	575	652	31	0	0
60	ES	430	3372	2114	575	652	31	0	0
60	EU	430	3372	2114	575	652	31	0	0
60	EW	430	3372	2114	575	652	31	0	0
60	EY	430	3372	2114	575	652	31	0	0
60	FA	430	3372	2114	575	652	31	0	0
60	FC	430	3372	2114	575	652	31	0	0
60	FE	430	3372	2114	575	652	31	0	0
60	FG	430	3372	2114	575	652	31	0	0
60	FI	430	3372	2114	575	652	31	0	0
60	FK	430	3372	2114	575	652	31	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	FM	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	FO	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	FQ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	FS	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	FV	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	FX	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	FZ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GB	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GD	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GF	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GI	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GK	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GM	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GO	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GQ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GS	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GV	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GX	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	GZ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HB	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HD	430	3372	2114	575	652	31	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	HF	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HH	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HJ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HL	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HN	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HP	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HR	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HS	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HU	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HW	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	HY	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IA	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IC	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IE	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IF	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IH	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IJ	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IL	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IN	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IP	430	3372	2114	575	652	31	0	0
			Total	C	N	O	S		
60	IR	430	3372	2114	575	652	31	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	IS	430	3372	2114	575	652	31	0	0
60	IU	430	3372	2114	575	652	31	0	0
60	IW	430	3372	2114	575	652	31	0	0
60	IY	430	3372	2114	575	652	31	0	0
60	JA	430	3372	2114	575	652	31	0	0
60	JC	430	3372	2114	575	652	31	0	0
60	JE	430	3372	2114	575	652	31	0	0
60	JG	430	3372	2114	575	652	31	0	0
60	JI	430	3372	2114	575	652	31	0	0
60	JK	430	3372	2114	575	652	31	0	0
60	JM	430	3372	2114	575	652	31	0	0
60	JO	430	3372	2114	575	652	31	0	0
60	JR	430	3372	2114	575	652	31	0	0
60	JT	430	3372	2114	575	652	31	0	0
60	JV	430	3372	2114	575	652	31	0	0
60	JX	430	3372	2114	575	652	31	0	0
60	JZ	430	3372	2114	575	652	31	0	0
60	KB	430	3372	2114	575	652	31	0	0
60	KE	430	3372	2114	575	652	31	0	0
60	KG	430	3372	2114	575	652	31	0	0
60	KI	430	3372	2114	575	652	31	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
60	KK	430	3372	2114	575	652	31	0	0
60	KM	430	3372	2114	575	652	31	0	0
60	KO	430	3372	2114	575	652	31	0	0
60	KR	430	3372	2114	575	652	31	0	0
60	KT	430	3372	2114	575	652	31	0	0
60	KV	430	3372	2114	575	652	31	0	0
60	KX	430	3372	2114	575	652	31	0	0
60	KZ	430	3372	2114	575	652	31	0	0
60	LB	430	3372	2114	575	652	31	0	0

- Molecule 61 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
			Total	Zn	
61	2I	2	2	2	0
61	2K	1	1	1	0
61	2N	1	1	1	0
61	3V	2	2	2	0
61	3W	2	2	2	0
61	3X	3	3	3	0
61	3Y	2	2	2	0
61	4A	1	1	1	0
61	4B	1	1	1	0
61	4C	1	1	1	0

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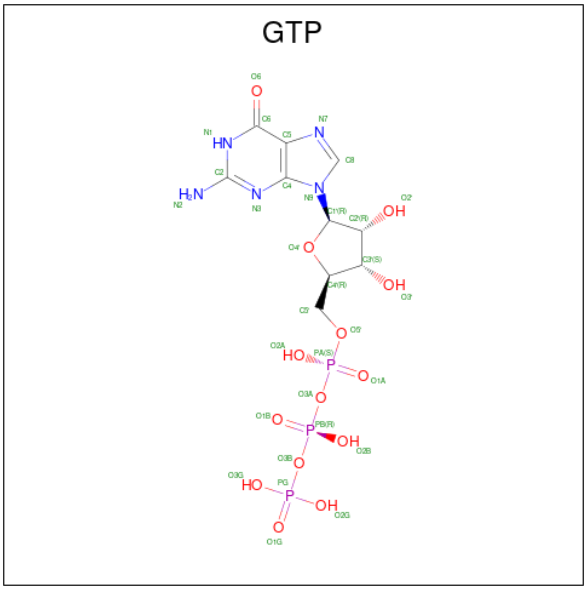
Mol	Chain	Residues	Atoms		AltConf
			Total	Zn	
61	4D	1	1	1	0
61	4F	3	3	3	0
61	FB	1	1	1	0
61	FN	1	1	1	0
61	FP	1	1	1	0
61	FR	1	1	1	0

- Molecule 62 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	AA	1	32	10	5	14	3	0
62	AC	1	32	10	5	14	3	0
62	AE	1	32	10	5	14	3	0
62	AG	1	32	10	5	14	3	0
62	AI	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	AK	1	32	10	5	14	3	0
62	AM	1	32	10	5	14	3	0
62	AO	1	32	10	5	14	3	0
62	AQ	1	32	10	5	14	3	0
62	AS	1	32	10	5	14	3	0
62	AU	1	32	10	5	14	3	0
62	AW	1	32	10	5	14	3	0
62	AY	1	32	10	5	14	3	0
62	BA	1	32	10	5	14	3	0
62	BC	1	32	10	5	14	3	0
62	BE	1	32	10	5	14	3	0
62	BG	1	32	10	5	14	3	0
62	BI	1	32	10	5	14	3	0
62	BK	1	32	10	5	14	3	0
62	BM	1	32	10	5	14	3	0
62	BO	1	32	10	5	14	3	0
62	BQ	1	32	10	5	14	3	0
62	BS	1	32	10	5	14	3	0
62	BU	1	32	10	5	14	3	0
62	BW	1	32	10	5	14	3	0
62	BX	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	BZ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CB	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CD	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CF	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CH	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CJ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CM	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CO	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CQ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CS	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CU	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CW	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	CY	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DA	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DC	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DE	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DG	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DI	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DK	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DM	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DO	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	DQ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DS	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DU	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DX	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	DZ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EB	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	ED	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EF	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EH	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EJ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EL	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EN	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EP	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	ER	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	ET	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EV	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EX	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	EZ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FB	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FD	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FF	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	FH	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FJ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FL	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FN	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FP	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FR	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FT	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FU	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FW	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	FY	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GA	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GC	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GE	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GG	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GH	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GJ	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GL	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GN	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GP	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GR	1	32	10	5	14	3	0
			Total	C	N	O	P	
62	GT	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	GU	1	32	10	5	14	3	0
62	GW	1	32	10	5	14	3	0
62	GY	1	32	10	5	14	3	0
62	HA	1	32	10	5	14	3	0
62	HC	1	32	10	5	14	3	0
62	HE	1	32	10	5	14	3	0
62	HG	1	32	10	5	14	3	0
62	HI	1	32	10	5	14	3	0
62	HK	1	32	10	5	14	3	0
62	HM	1	32	10	5	14	3	0
62	HO	1	32	10	5	14	3	0
62	HQ	1	32	10	5	14	3	0
62	HT	1	32	10	5	14	3	0
62	HV	1	32	10	5	14	3	0
62	HX	1	32	10	5	14	3	0
62	HZ	1	32	10	5	14	3	0
62	IB	1	32	10	5	14	3	0
62	ID	1	32	10	5	14	3	0
62	IG	1	32	10	5	14	3	0
62	II	1	32	10	5	14	3	0
62	IK	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	IM	1	32	10	5	14	3	0
62	IO	1	32	10	5	14	3	0
62	IQ	1	32	10	5	14	3	0
62	IT	1	32	10	5	14	3	0
62	IV	1	32	10	5	14	3	0
62	IX	1	32	10	5	14	3	0
62	IZ	1	32	10	5	14	3	0
62	JB	1	32	10	5	14	3	0
62	JD	1	32	10	5	14	3	0
62	JF	1	32	10	5	14	3	0
62	JH	1	32	10	5	14	3	0
62	JJ	1	32	10	5	14	3	0
62	JL	1	32	10	5	14	3	0
62	JN	1	32	10	5	14	3	0
62	JP	1	32	10	5	14	3	0
62	JQ	1	32	10	5	14	3	0
62	JS	1	32	10	5	14	3	0
62	JU	1	32	10	5	14	3	0
62	JW	1	32	10	5	14	3	0
62	JY	1	32	10	5	14	3	0
62	KA	1	32	10	5	14	3	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
62	KC	1	32	10	5	14	3	0
62	KD	1	32	10	5	14	3	0
62	KF	1	32	10	5	14	3	0
62	KH	1	32	10	5	14	3	0
62	KJ	1	32	10	5	14	3	0
62	KL	1	32	10	5	14	3	0
62	KN	1	32	10	5	14	3	0
62	KP	1	32	10	5	14	3	0
62	KQ	1	32	10	5	14	3	0
62	KS	1	32	10	5	14	3	0
62	KU	1	32	10	5	14	3	0
62	KW	1	32	10	5	14	3	0
62	KY	1	32	10	5	14	3	0
62	LA	1	32	10	5	14	3	0

- Molecule 63 is MAGNESIUM ION (three-letter code: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	AA	1	1	1	0
63	AC	1	1	1	0
63	AE	1	1	1	0
63	AG	1	1	1	0
63	AI	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	AK	1	1	1	0
63	AM	1	1	1	0
63	AO	1	1	1	0
63	AQ	1	1	1	0
63	AS	1	1	1	0
63	AU	1	1	1	0
63	AW	1	1	1	0
63	AY	1	1	1	0
63	BA	1	1	1	0
63	BC	1	1	1	0
63	BE	1	1	1	0
63	BG	1	1	1	0
63	BI	1	1	1	0
63	BK	1	1	1	0
63	BM	1	1	1	0
63	BO	1	1	1	0
63	BQ	1	1	1	0
63	BS	1	1	1	0
63	BU	1	1	1	0
63	BW	1	1	1	0
63	BX	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	CA	1	1	1	0
63	CB	1	1	1	0
63	CD	1	1	1	0
63	CF	1	1	1	0
63	CH	1	1	1	0
63	CJ	1	1	1	0
63	CM	1	1	1	0
63	CO	1	1	1	0
63	CQ	1	1	1	0
63	CS	1	1	1	0
63	CU	1	1	1	0
63	CW	1	1	1	0
63	CY	1	1	1	0
63	DA	1	1	1	0
63	DC	1	1	1	0
63	DE	1	1	1	0
63	DG	1	1	1	0
63	DI	1	1	1	0
63	DK	1	1	1	0
63	DM	1	1	1	0
63	DO	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	DQ	1	1	1	0
63	DS	1	1	1	0
63	DU	1	1	1	0
63	DX	1	1	1	0
63	DZ	1	1	1	0
63	EB	1	1	1	0
63	ED	1	1	1	0
63	EF	1	1	1	0
63	EH	1	1	1	0
63	EJ	1	1	1	0
63	EL	1	1	1	0
63	EN	1	1	1	0
63	EP	1	1	1	0
63	ER	1	1	1	0
63	ET	1	1	1	0
63	EV	1	1	1	0
63	EX	1	1	1	0
63	EZ	1	1	1	0
63	FB	1	1	1	0
63	FD	1	1	1	0
63	FF	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	FH	1	1	1	0
63	FJ	1	1	1	0
63	FL	1	1	1	0
63	FN	1	1	1	0
63	FP	1	1	1	0
63	FR	1	1	1	0
63	FT	1	1	1	0
63	FU	1	1	1	0
63	FW	1	1	1	0
63	FY	1	1	1	0
63	GA	1	1	1	0
63	GC	1	1	1	0
63	GE	1	1	1	0
63	GG	1	1	1	0
63	GH	1	1	1	0
63	GJ	1	1	1	0
63	GL	1	1	1	0
63	GN	1	1	1	0
63	GP	1	1	1	0
63	GR	1	1	1	0
63	GT	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	GU	1	1	1	0
63	GW	1	1	1	0
63	GY	1	1	1	0
63	HA	1	1	1	0
63	HC	1	1	1	0
63	HE	1	1	1	0
63	HG	1	1	1	0
63	HI	1	1	1	0
63	HK	1	1	1	0
63	HM	1	1	1	0
63	HO	1	1	1	0
63	HQ	1	1	1	0
63	HT	1	1	1	0
63	HV	1	1	1	0
63	HX	1	1	1	0
63	HZ	1	1	1	0
63	IB	1	1	1	0
63	ID	1	1	1	0
63	IG	1	1	1	0
63	II	1	1	1	0
63	IK	1	1	1	0

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Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	IM	1	1	1	0
63	IO	1	1	1	0
63	IQ	1	1	1	0
63	IT	1	1	1	0
63	IV	1	1	1	0
63	IX	1	1	1	0
63	IZ	1	1	1	0
63	JB	1	1	1	0
63	JD	1	1	1	0
63	JF	1	1	1	0
63	JH	1	1	1	0
63	JJ	1	1	1	0
63	JL	1	1	1	0
63	JN	1	1	1	0
63	JP	1	1	1	0
63	JQ	1	1	1	0
63	JS	1	1	1	0
63	JU	1	1	1	0
63	JW	1	1	1	0
63	JY	1	1	1	0
63	KA	1	1	1	0

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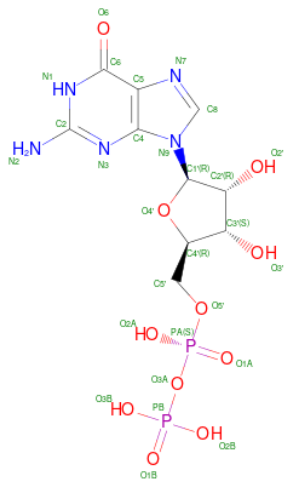
Mol	Chain	Residues	Atoms		AltConf
			Total	Mg	
63	KC	1	1	1	0
63	KD	1	1	1	0
63	KF	1	1	1	0
63	KH	1	1	1	0
63	KJ	1	1	1	0
63	KL	1	1	1	0
63	KN	1	1	1	0
63	KP	1	1	1	0
63	KQ	1	1	1	0
63	KS	1	1	1	0
63	KU	1	1	1	0
63	KW	1	1	1	0
63	KY	1	1	1	0
63	LA	1	1	1	0

- Molecule 64 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$) (labeled as "Ligand of Interest" by depositor).

GDP



Mol	Chain	Residues	Atoms					AltConf
64	AB	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AD	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AF	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AH	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AJ	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AL	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AN	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AP	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AR	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AT	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AV	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AX	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	AZ	1	Total	C	N	O	P	0
			28	10	5	11	2	
64	BB	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
64	BD	1	28	10	5	11	2	0
64	BF	1	28	10	5	11	2	0
64	BH	1	28	10	5	11	2	0
64	BJ	1	28	10	5	11	2	0
64	BL	1	28	10	5	11	2	0
64	BN	1	28	10	5	11	2	0
64	BP	1	28	10	5	11	2	0
64	BR	1	28	10	5	11	2	0
64	BT	1	28	10	5	11	2	0
64	BV	1	28	10	5	11	2	0
64	BY	1	28	10	5	11	2	0
64	CA	1	28	10	5	11	2	0
64	CC	1	28	10	5	11	2	0
64	CE	1	28	10	5	11	2	0
64	CG	1	28	10	5	11	2	0
64	CI	1	28	10	5	11	2	0
64	CL	1	28	10	5	11	2	0
64	CN	1	28	10	5	11	2	0
64	CP	1	28	10	5	11	2	0
64	CR	1	28	10	5	11	2	0
64	CT	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
64	CV	1	28	10	5	11	2	0
64	CX	1	28	10	5	11	2	0
64	CZ	1	28	10	5	11	2	0
64	DB	1	28	10	5	11	2	0
64	DD	1	28	10	5	11	2	0
64	DF	1	28	10	5	11	2	0
64	DH	1	28	10	5	11	2	0
64	DJ	1	28	10	5	11	2	0
64	DL	1	28	10	5	11	2	0
64	DN	1	28	10	5	11	2	0
64	DP	1	28	10	5	11	2	0
64	DR	1	28	10	5	11	2	0
64	DT	1	28	10	5	11	2	0
64	DV	1	28	10	5	11	2	0
64	DW	1	28	10	5	11	2	0
64	DY	1	28	10	5	11	2	0
64	EA	1	28	10	5	11	2	0
64	EC	1	28	10	5	11	2	0
64	EE	1	28	10	5	11	2	0
64	EG	1	28	10	5	11	2	0
64	EI	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
64	EK	1	28	10	5	11	2	0
64	EM	1	28	10	5	11	2	0
64	EO	1	28	10	5	11	2	0
64	EQ	1	28	10	5	11	2	0
64	ES	1	28	10	5	11	2	0
64	EU	1	28	10	5	11	2	0
64	EW	1	28	10	5	11	2	0
64	EY	1	28	10	5	11	2	0
64	FA	1	28	10	5	11	2	0
64	FC	1	28	10	5	11	2	0
64	FE	1	28	10	5	11	2	0
64	FG	1	28	10	5	11	2	0
64	FI	1	28	10	5	11	2	0
64	FK	1	28	10	5	11	2	0
64	FM	1	28	10	5	11	2	0
64	FO	1	28	10	5	11	2	0
64	FQ	1	28	10	5	11	2	0
64	FS	1	28	10	5	11	2	0
64	FV	1	28	10	5	11	2	0
64	FX	1	28	10	5	11	2	0
64	FZ	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
64	GB	1	28	10	5	11	2	0
64	GD	1	28	10	5	11	2	0
64	GF	1	28	10	5	11	2	0
64	GI	1	28	10	5	11	2	0
64	GK	1	28	10	5	11	2	0
64	GM	1	28	10	5	11	2	0
64	GO	1	28	10	5	11	2	0
64	GQ	1	28	10	5	11	2	0
64	GS	1	28	10	5	11	2	0
64	GV	1	28	10	5	11	2	0
64	GX	1	28	10	5	11	2	0
64	GZ	1	28	10	5	11	2	0
64	HB	1	28	10	5	11	2	0
64	HD	1	28	10	5	11	2	0
64	HF	1	28	10	5	11	2	0
64	HH	1	28	10	5	11	2	0
64	HJ	1	28	10	5	11	2	0
64	HL	1	28	10	5	11	2	0
64	HN	1	28	10	5	11	2	0
64	HP	1	28	10	5	11	2	0
64	HR	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
64	HS	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	HU	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	HW	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	HY	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IA	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IC	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IE	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IF	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IH	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IJ	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IL	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IN	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IP	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IR	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IS	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IU	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IW	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	IY	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	JA	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	JC	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	JE	1	28	10	5	11	2	0

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
64	JG	1	28	10	5	11	2	0
64	JI	1	28	10	5	11	2	0
64	JK	1	28	10	5	11	2	0
64	JM	1	28	10	5	11	2	0
64	JO	1	28	10	5	11	2	0
64	JR	1	28	10	5	11	2	0
64	JT	1	28	10	5	11	2	0
64	JV	1	28	10	5	11	2	0
64	JX	1	28	10	5	11	2	0
64	JZ	1	28	10	5	11	2	0
64	KB	1	28	10	5	11	2	0
64	KE	1	28	10	5	11	2	0
64	KG	1	28	10	5	11	2	0
64	KI	1	28	10	5	11	2	0
64	KK	1	28	10	5	11	2	0
64	KM	1	28	10	5	11	2	0
64	KO	1	28	10	5	11	2	0
64	KR	1	28	10	5	11	2	0
64	KT	1	28	10	5	11	2	0
64	KV	1	28	10	5	11	2	0
64	KX	1	28	10	5	11	2	0

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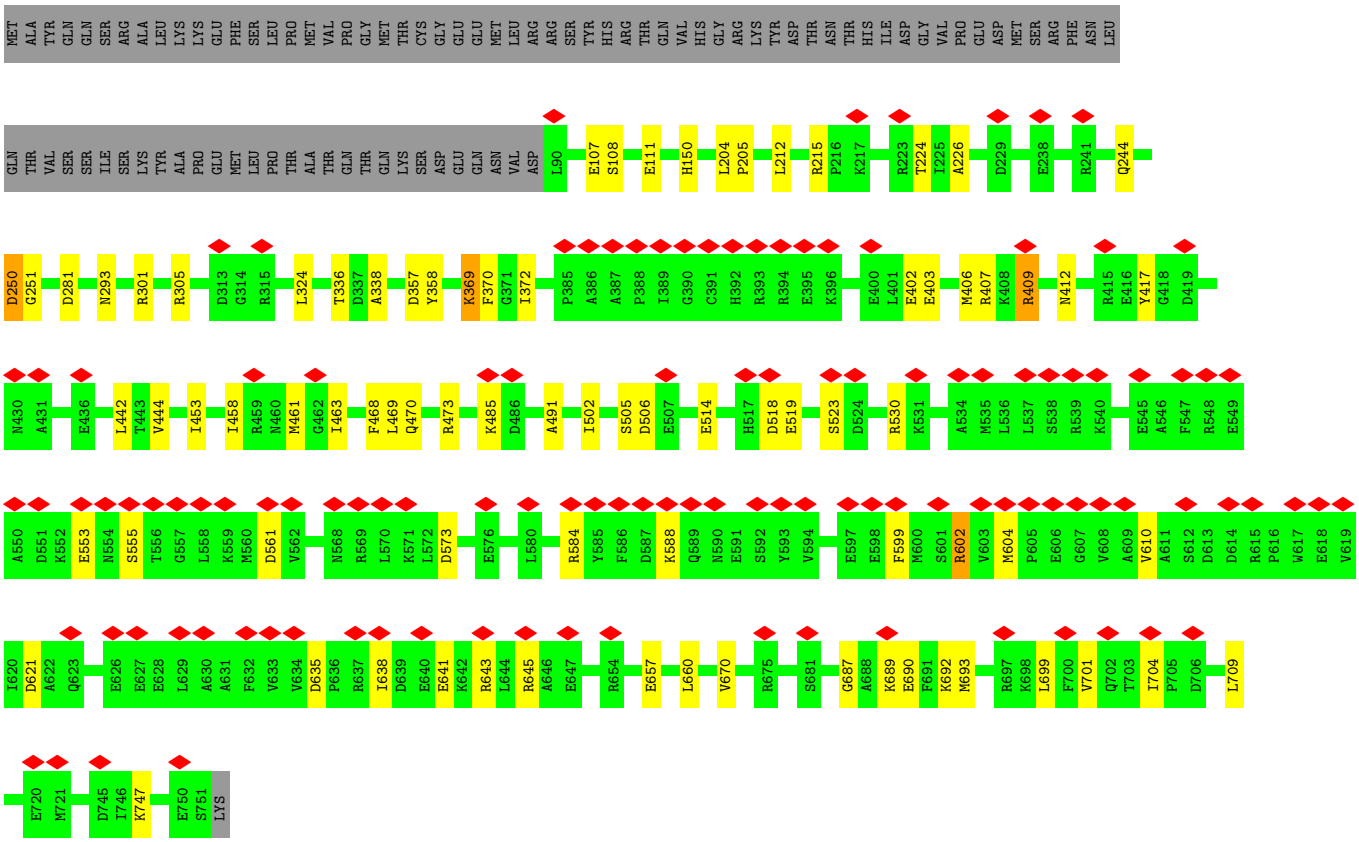
Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
64	KZ	1	28	10	5	11	2	0
			Total	C	N	O	P	
64	LB	1	28	10	5	11	2	0

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

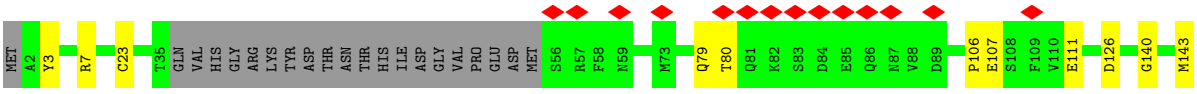
• Molecule 1: EF-hand domain-containing family member C2

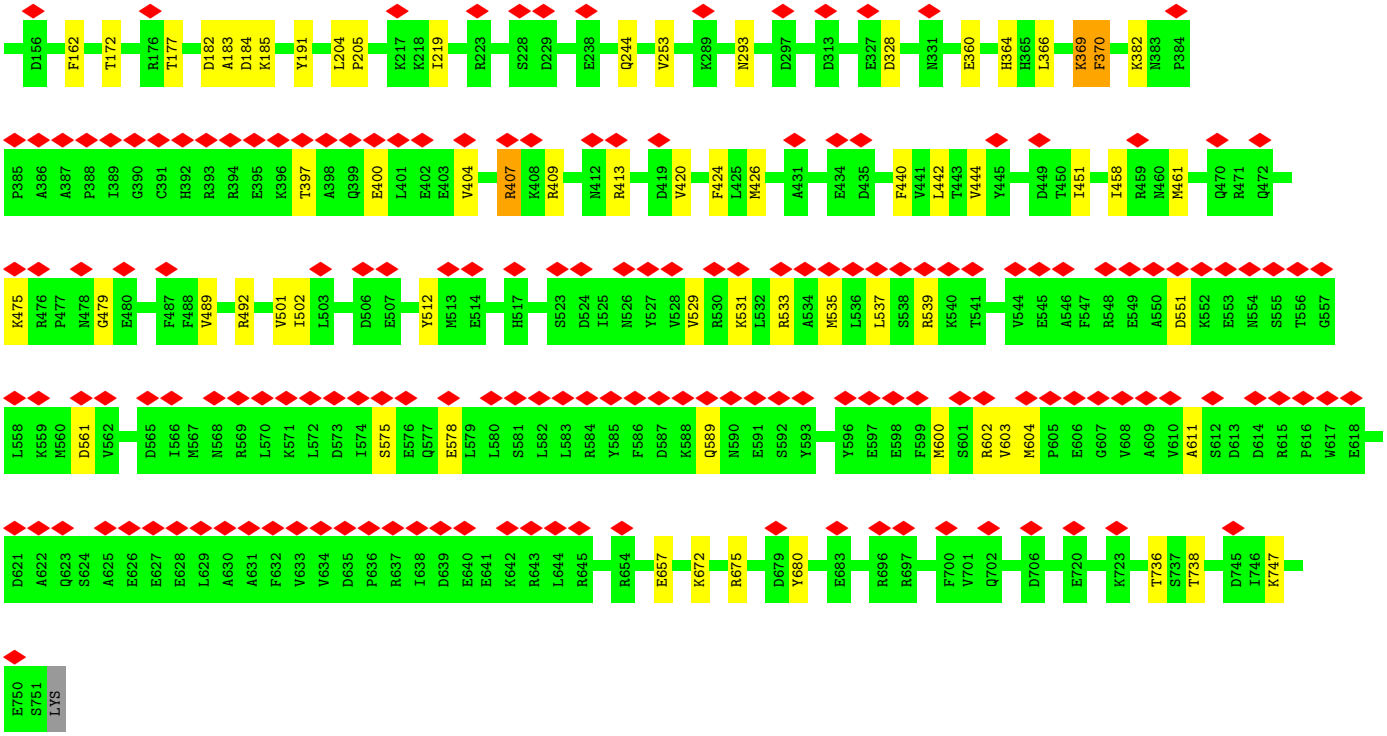
Chain 0A:



• Molecule 1: EF-hand domain-containing family member C2

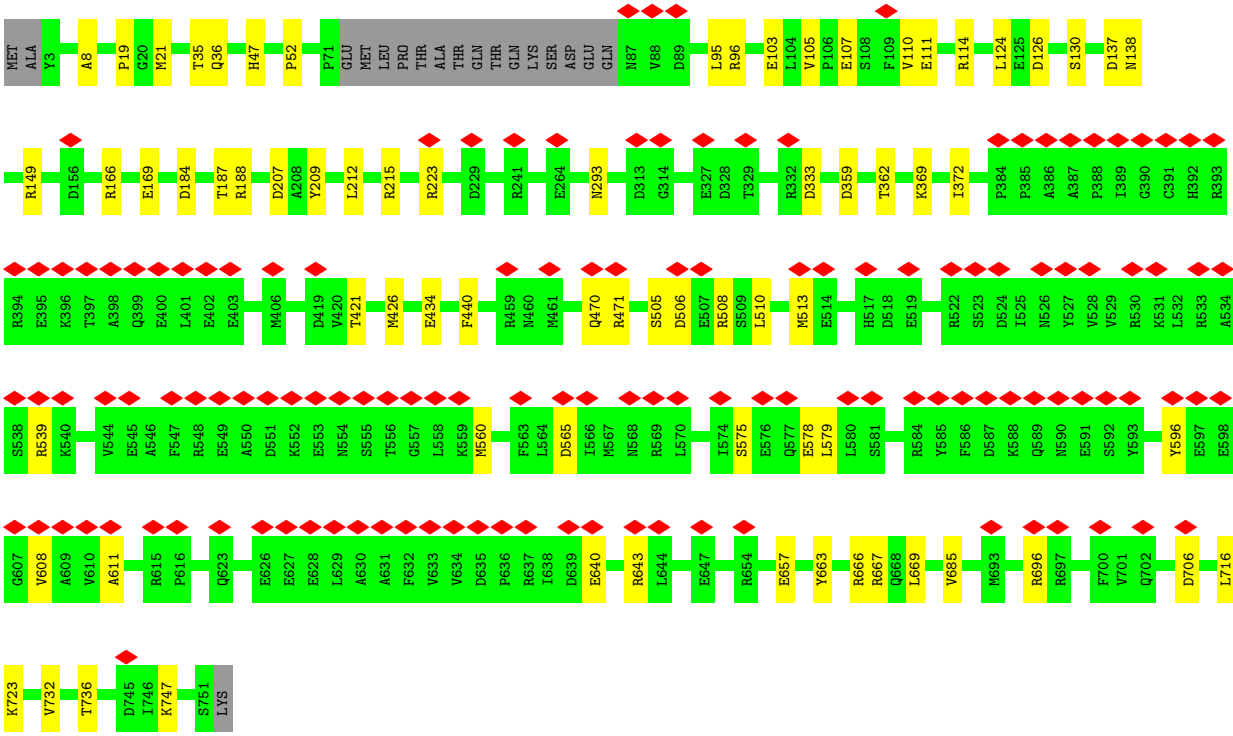
Chain 0B:





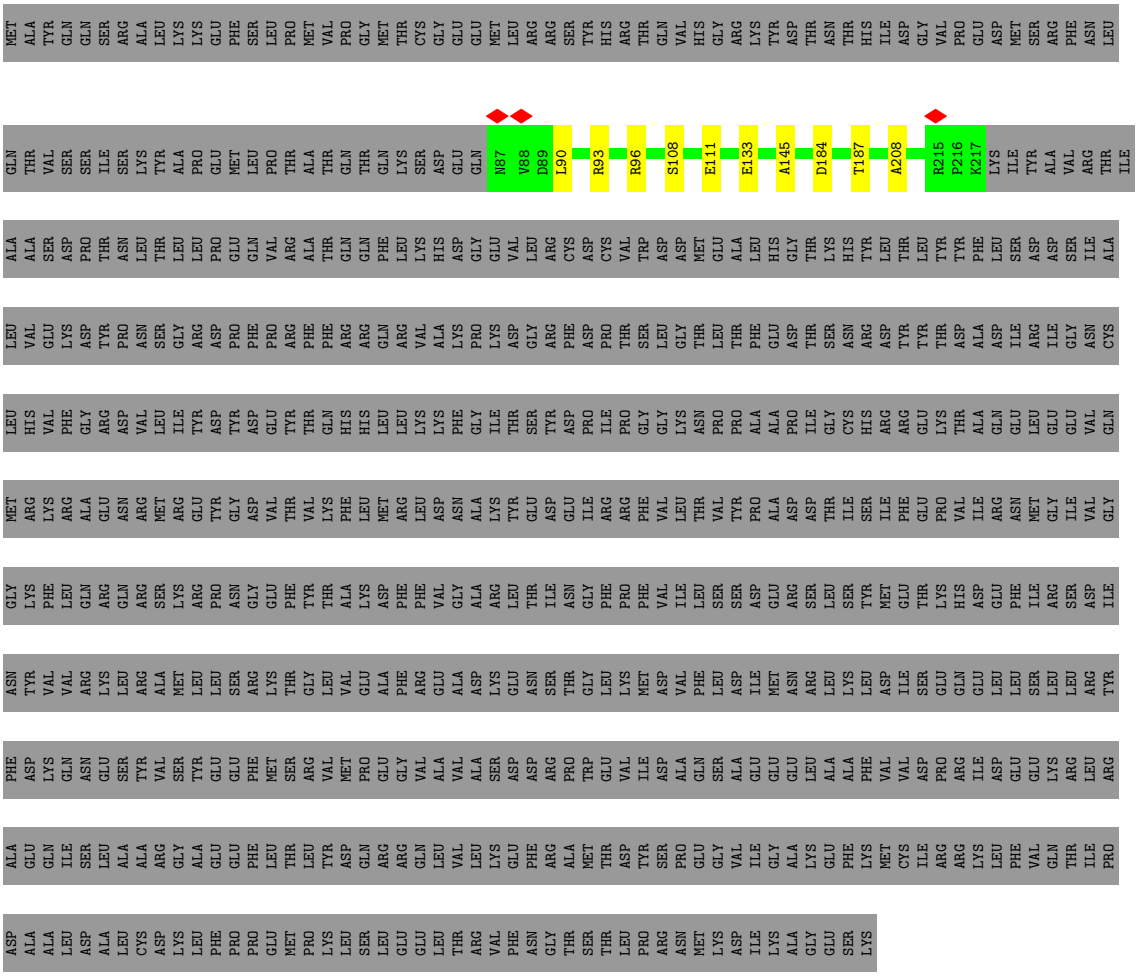
- Molecule 1: EF-hand domain-containing family member C2

Chain 0C:



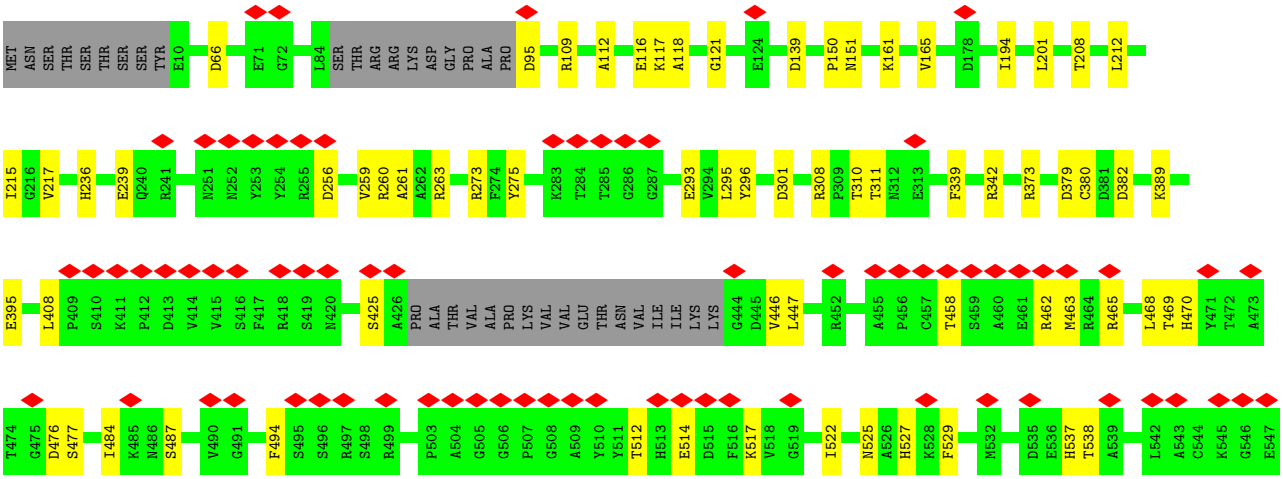
- Molecule 1: EF-hand domain-containing family member C2

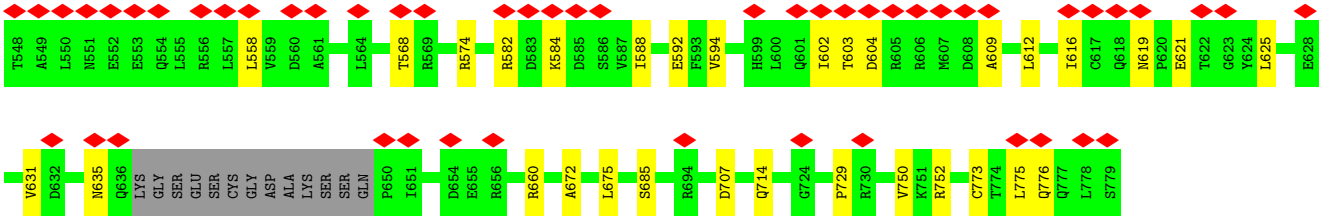
Chain 0D:



- Molecule 2: EF-hand domain-containing family member C2

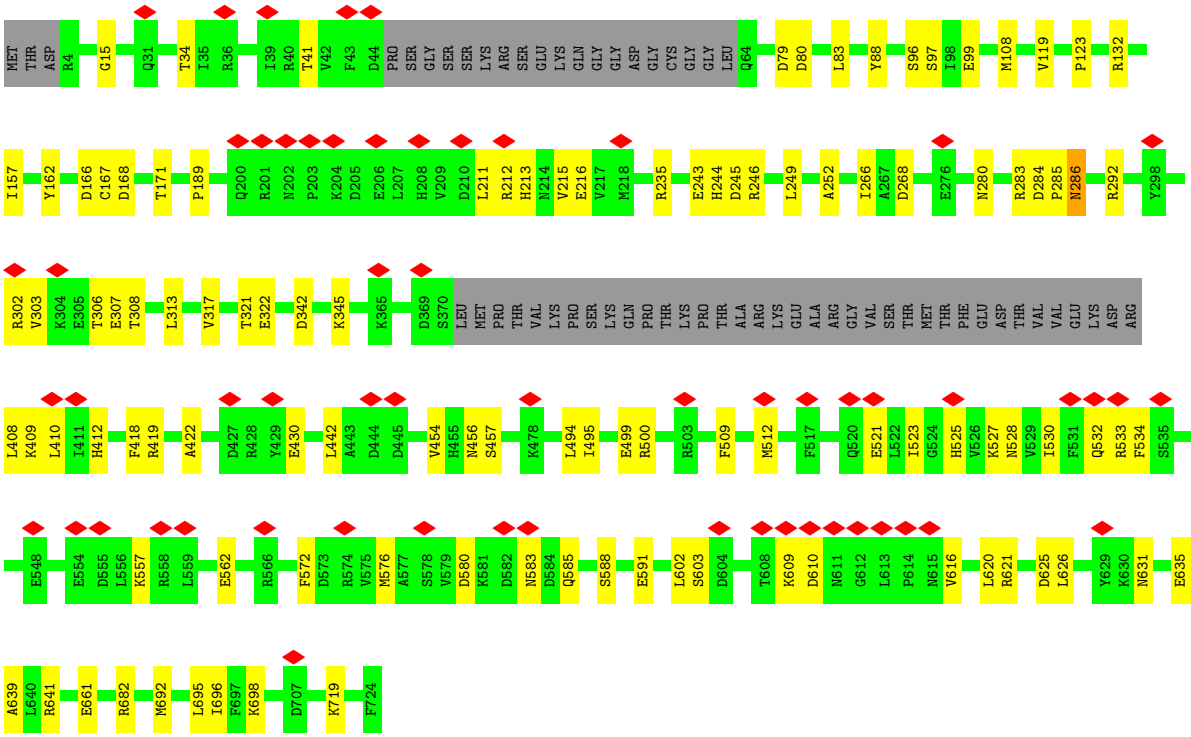
Chain 0E:





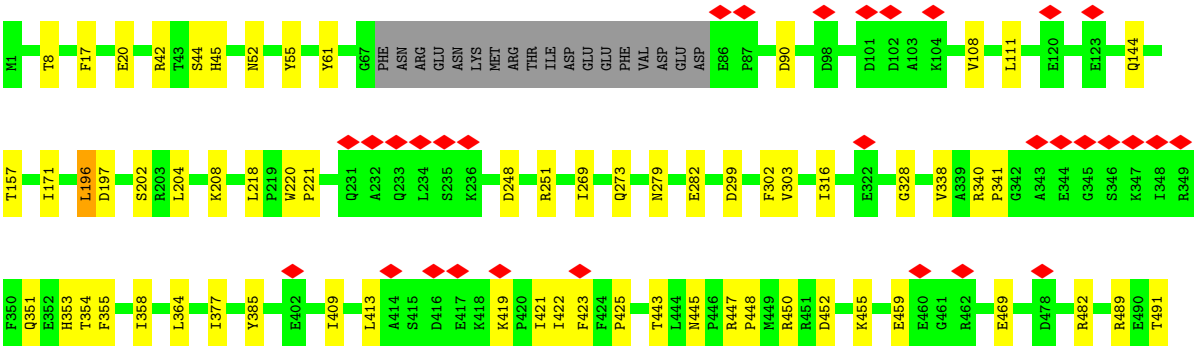
- Molecule 3: Rib72 protein-like protein

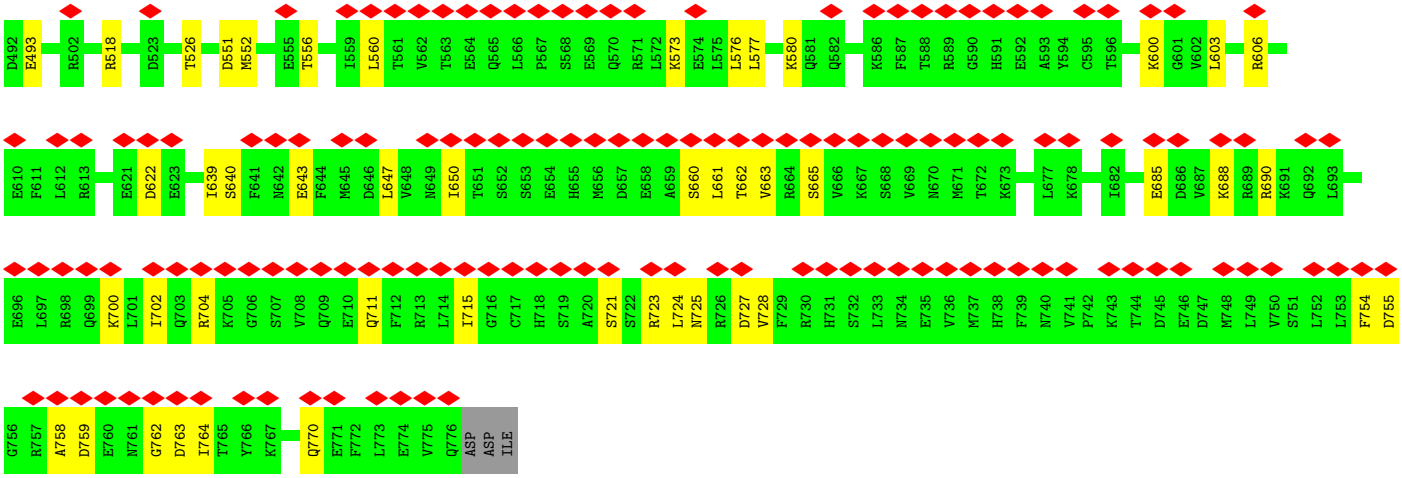
Chain 0F:



- Molecule 4: CMF34/CARP4

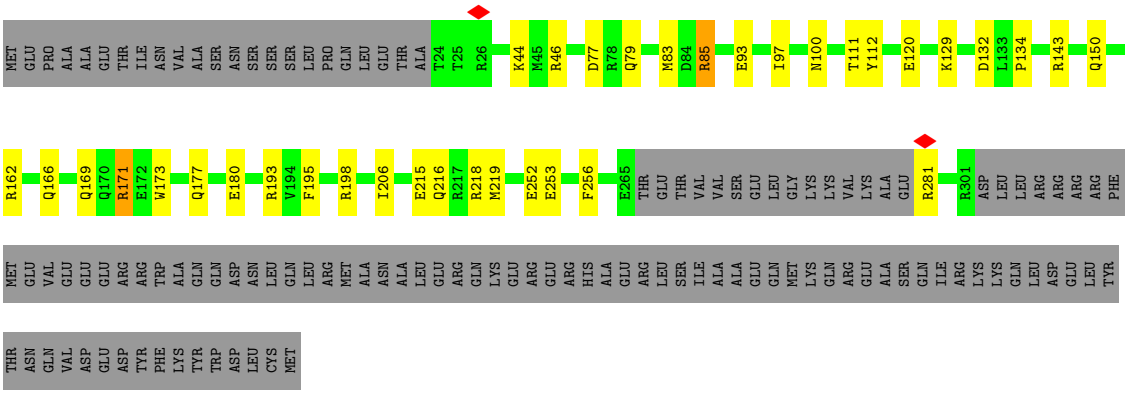
Chain 0G:





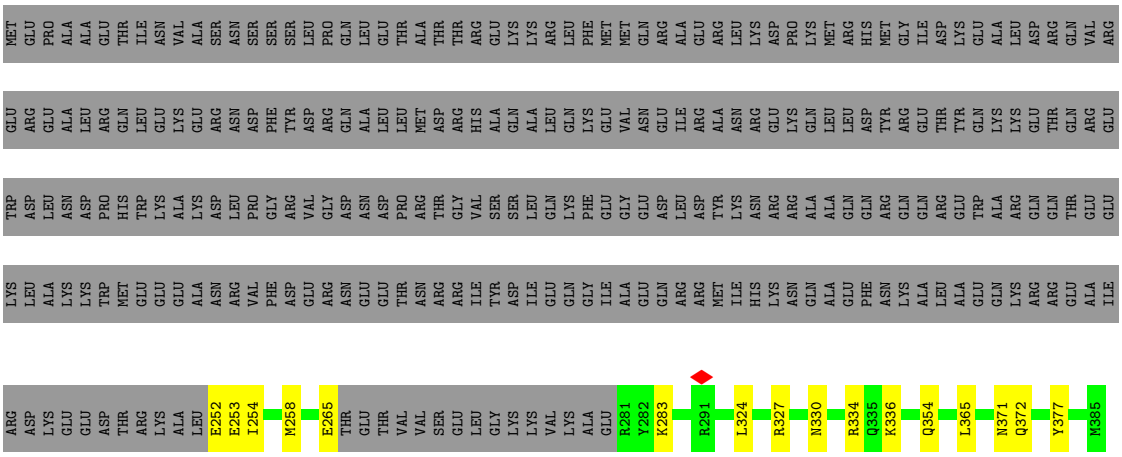
- Molecule 5: Flagellar protofilament ribbon protein, putative

Chain 0H:



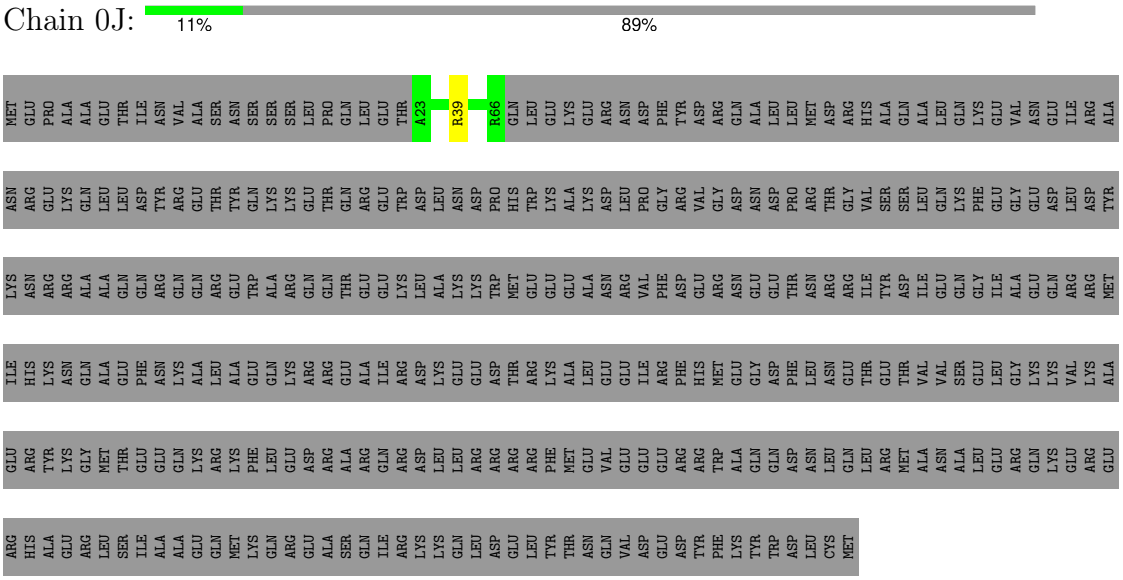
- Molecule 5: Flagellar protofilament ribbon protein, putative

Chain 0I:



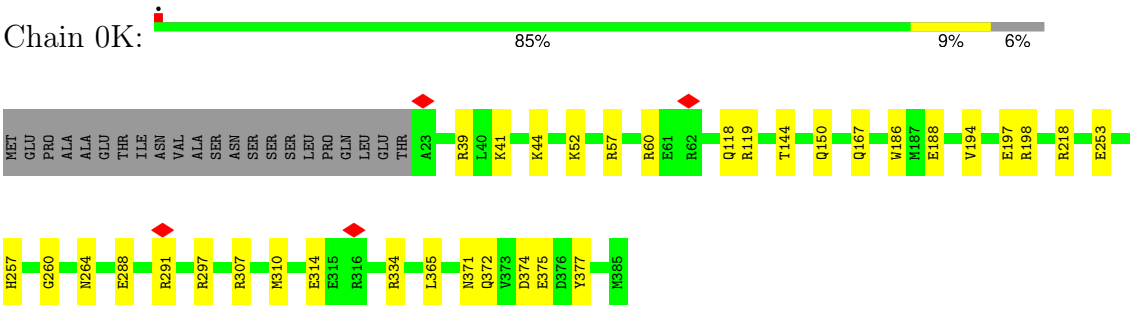
- Molecule 5: Flagellar protofilament ribbon protein, putative

Chain 0J:



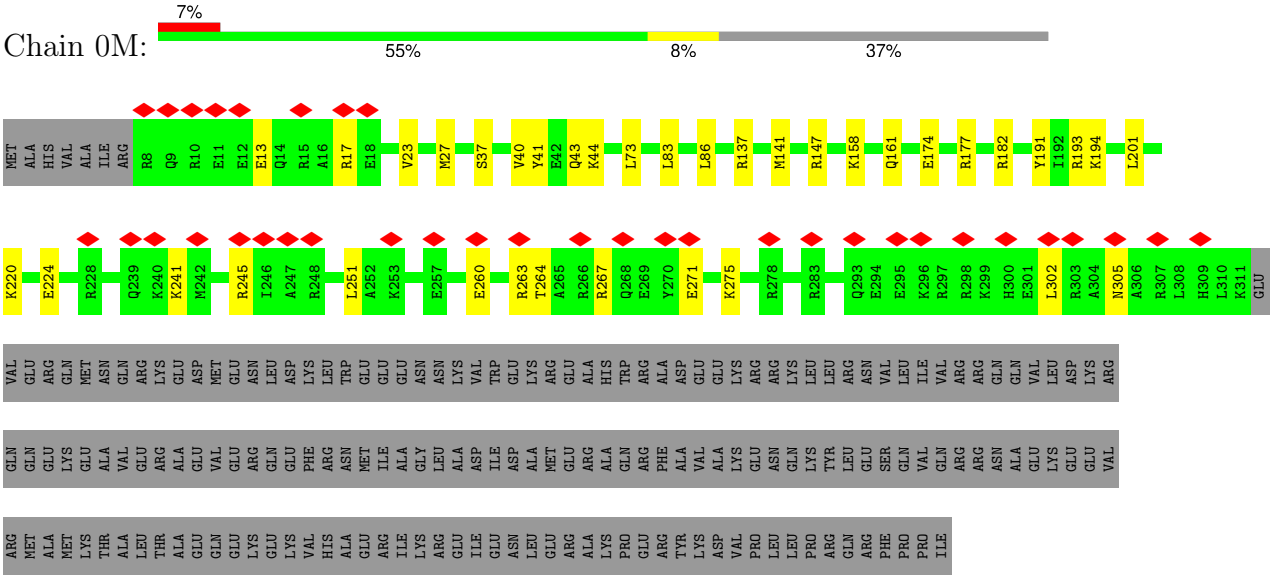
- Molecule 5: Flagellar protofilament ribbon protein, putative

Chain 0K:



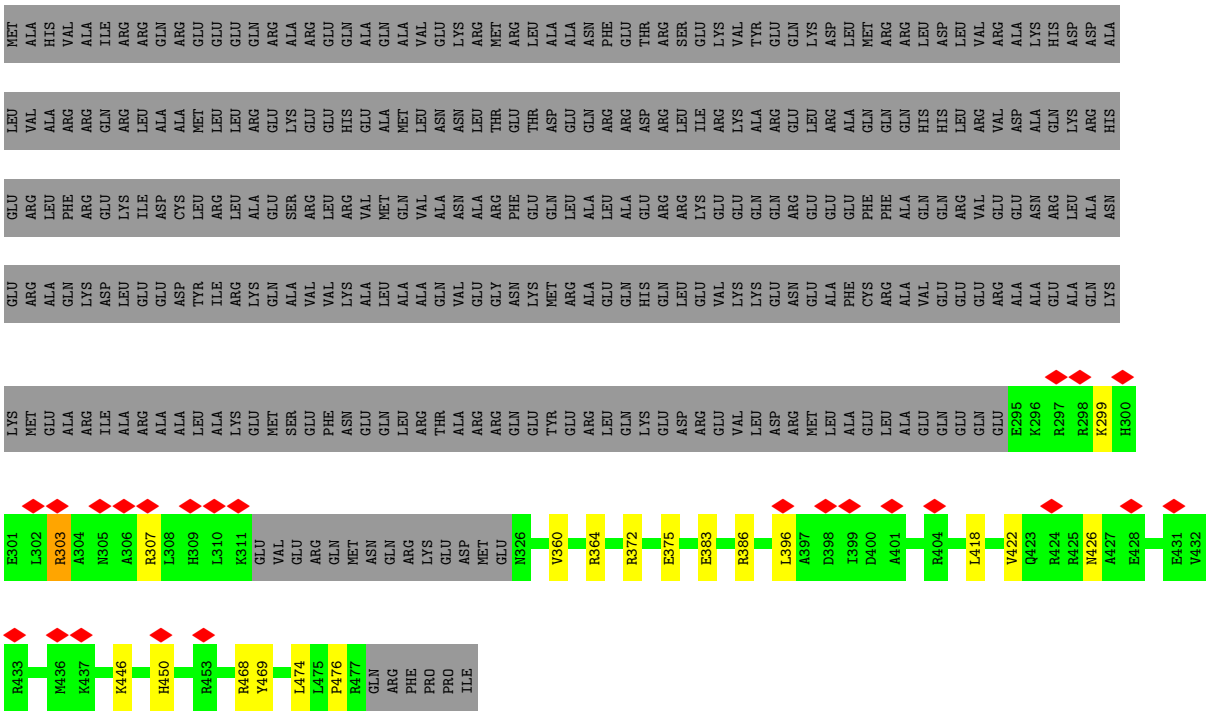
- Molecule 6: Cilia- and flagella-associated protein 53

Chain 0M:



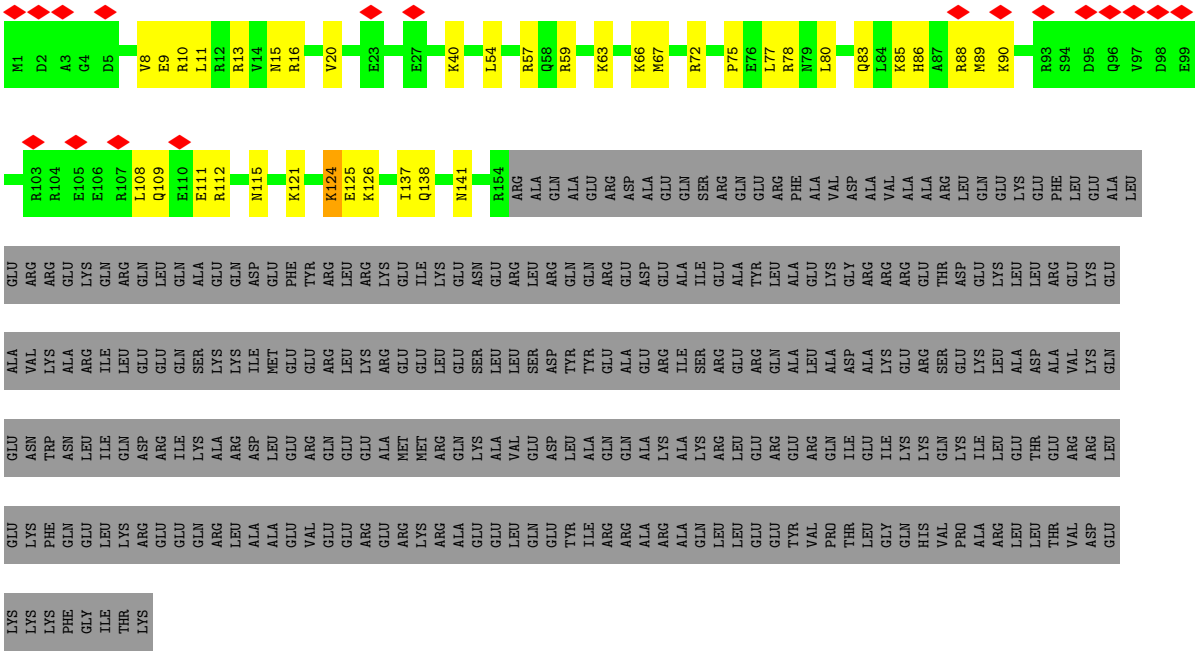
- Molecule 6: Cilia- and flagella-associated protein 53

Chain 0N:



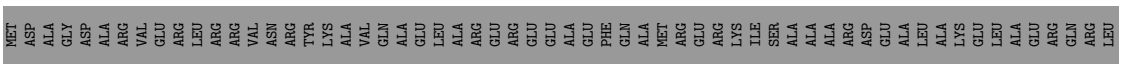
- Molecule 7: Meiosis-specific nuclear structural protein 1

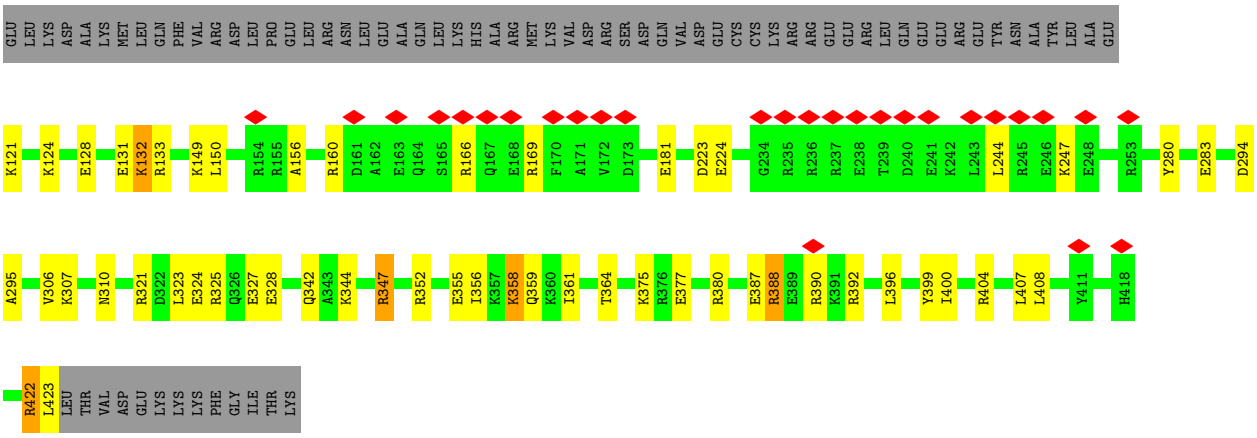
Chain 0O:



- Molecule 7: Meiosis-specific nuclear structural protein 1

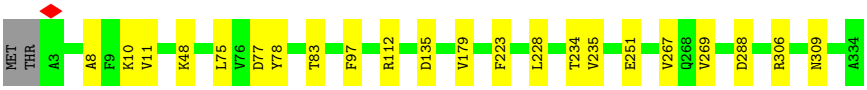
Chain 0P:





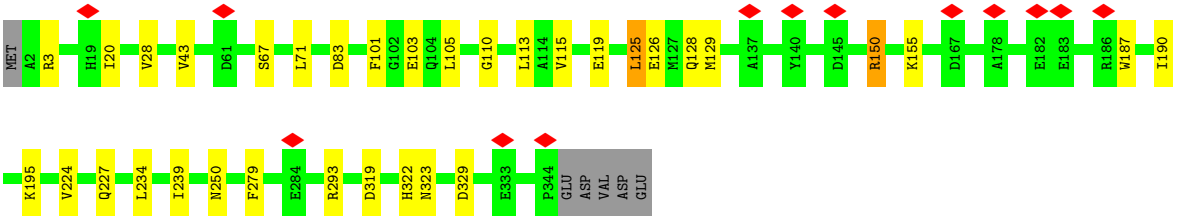
• Molecule 8: Nucleoside diphosphate kinase, putative

Chain 0Q:



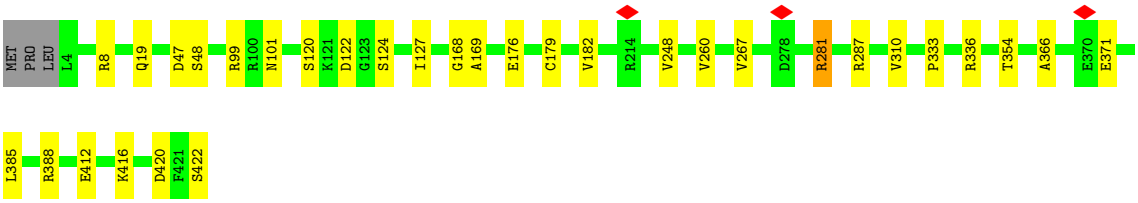
• Molecule 9: Nucleoside diphosphate kinase, putative

Chain 0R:



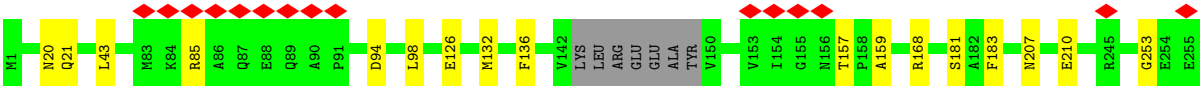
• Molecule 10: EF-hand domain-containing protein

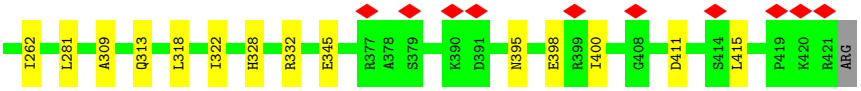
Chain 0S:



• Molecule 11: EF-hand domain-containing protein

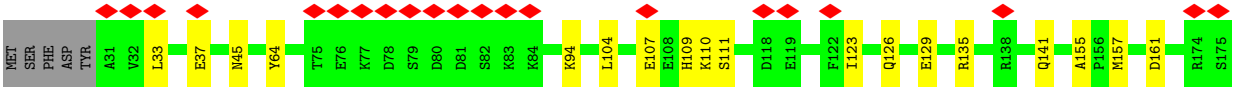
Chain 0T:

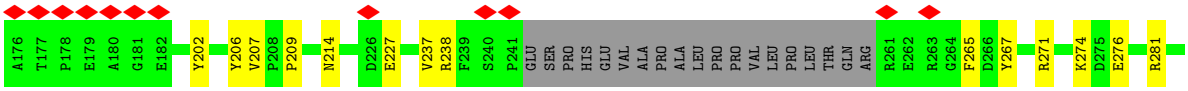


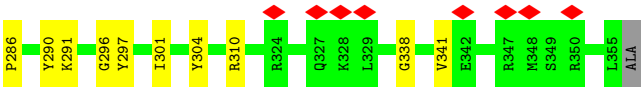


- Molecule 12: Cyclic nucleotide-binding domain-containing protein

Chain 0U:

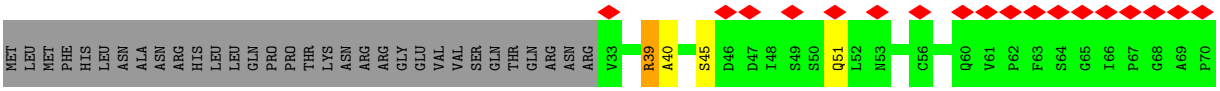


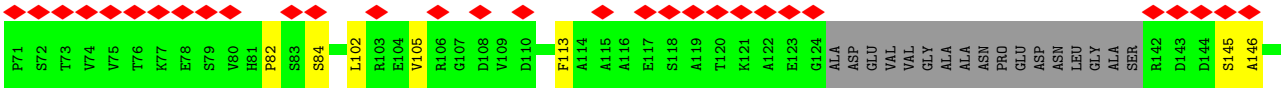


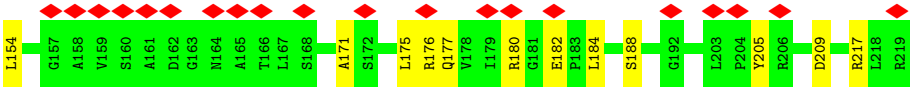


- Molecule 13: TbMIP23

Chain 0V:

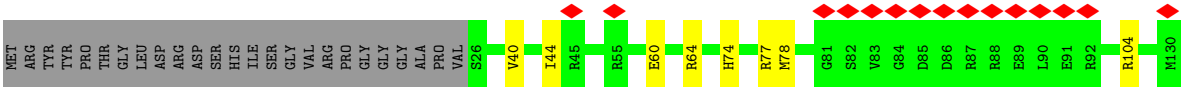






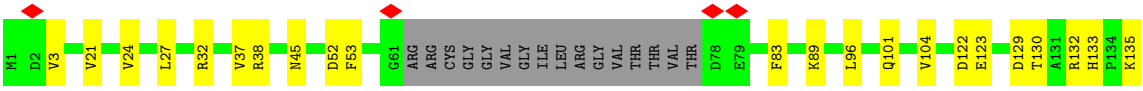
- Molecule 14: FAP141

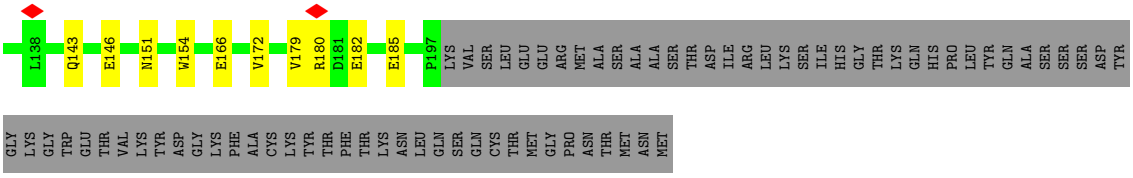
Chain 0W:



- Molecule 15: EF-hand domain-containing protein

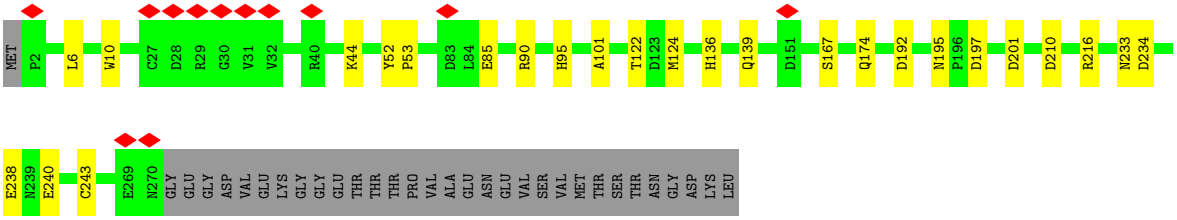
Chain 0X:





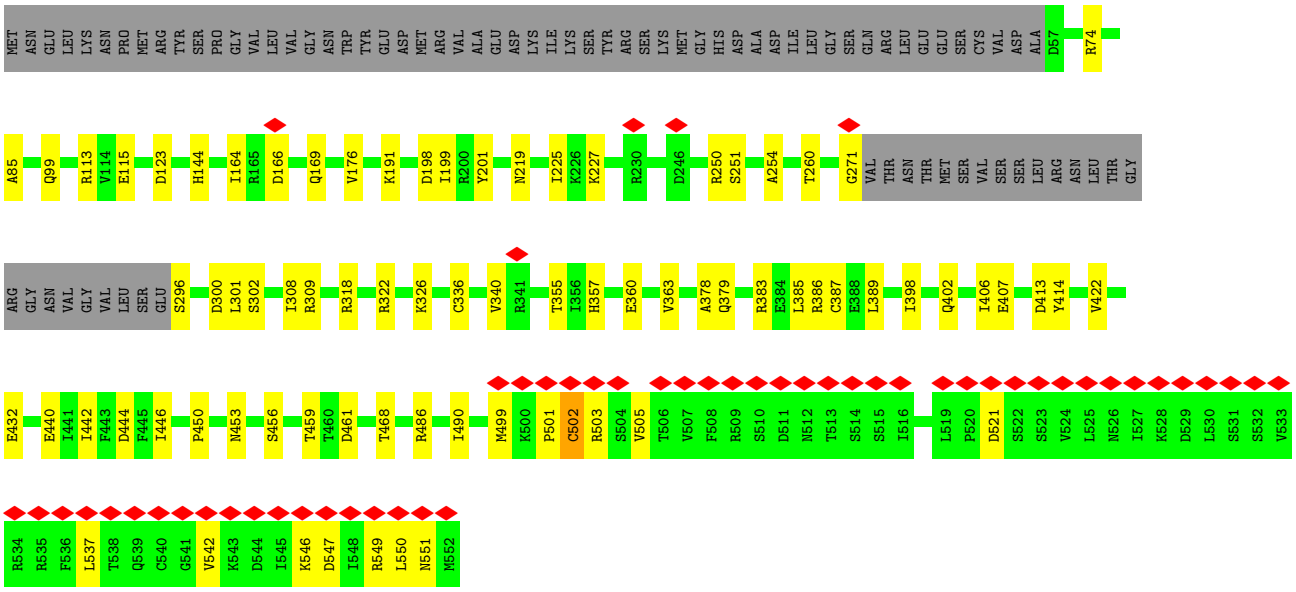
• Molecule 16: Calpain-like cysteine peptidase, putative

Chain 0Y:



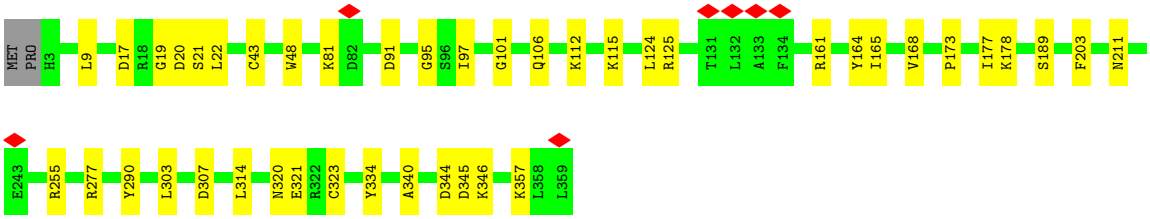
• Molecule 17: EF-hand domain-containing protein

Chain 0Z:



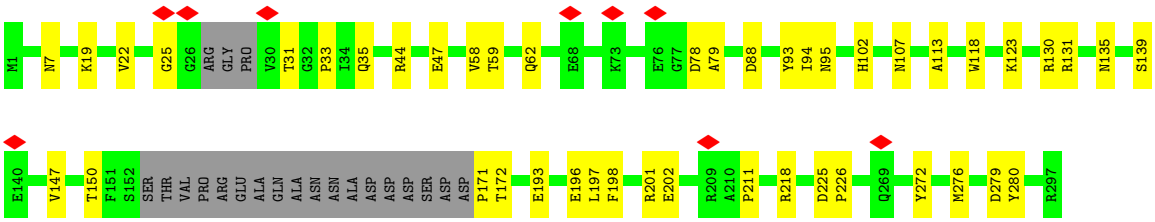
• Molecule 18: Calcium-binding protein, putative

Chain 1A:



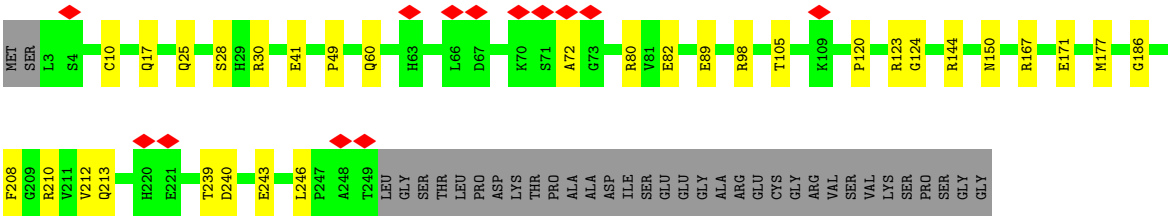
- Molecule 19: EF-hand domain-containing protein

Chain 1B:



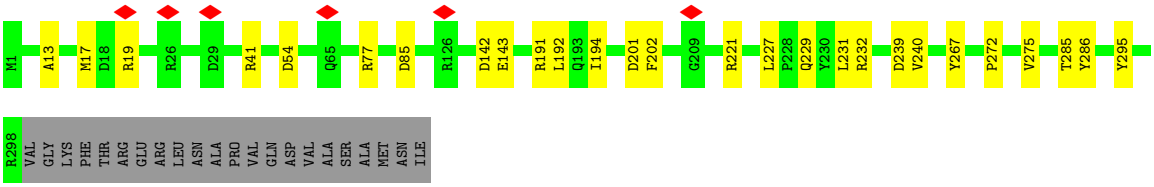
- Molecule 20: Peptidyl-prolyl cis-trans isomerase

Chain 1C:



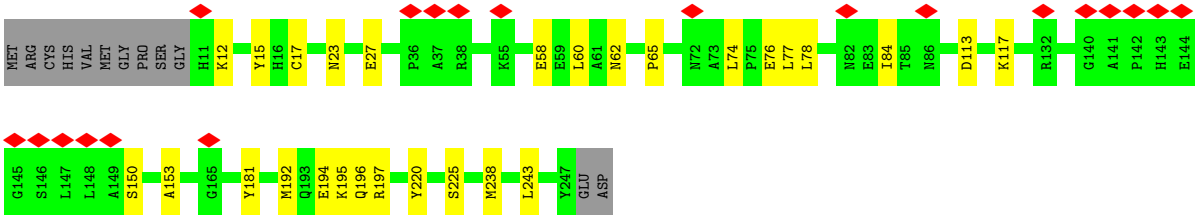
- Molecule 21: EF-hand domain-containing protein

Chain 1D:



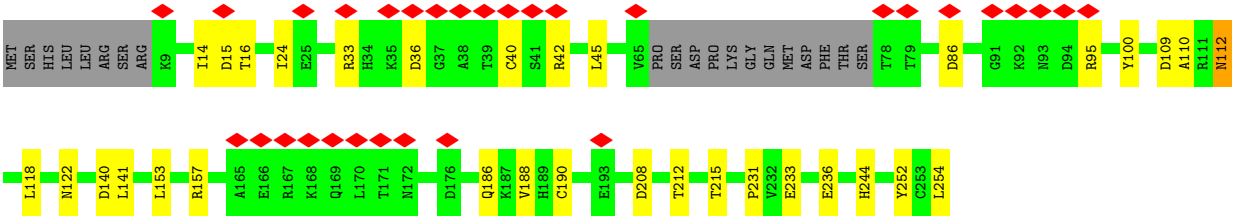
- Molecule 22: FAP107/MC11

Chain 1E:



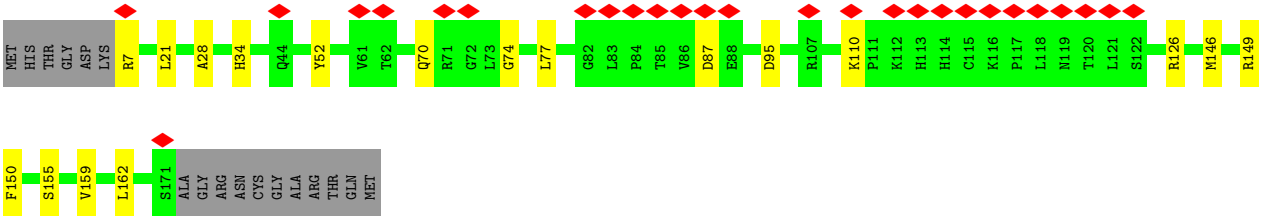
- Molecule 23: T. brucei spp.-specific protein

Chain 1F:



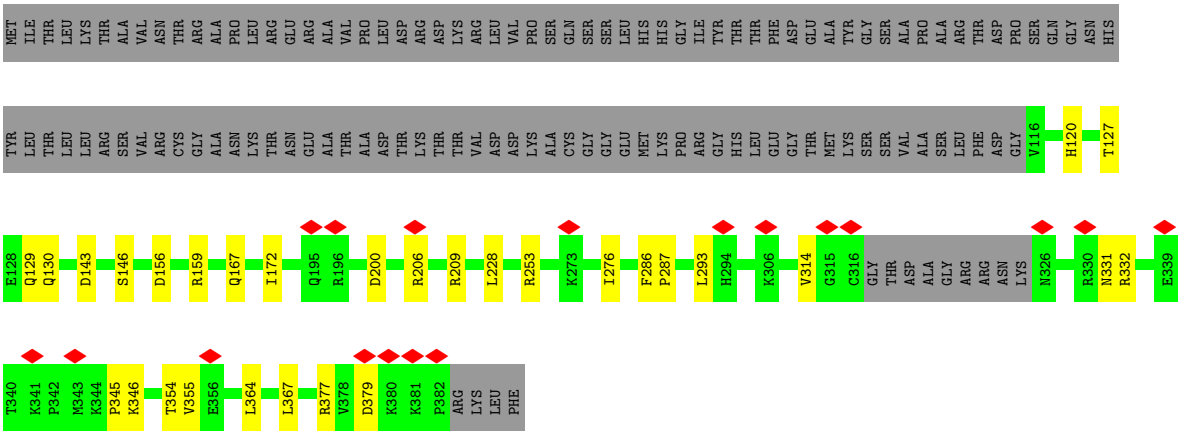
- Molecule 24: FAP95/MC6

Chain 1G:



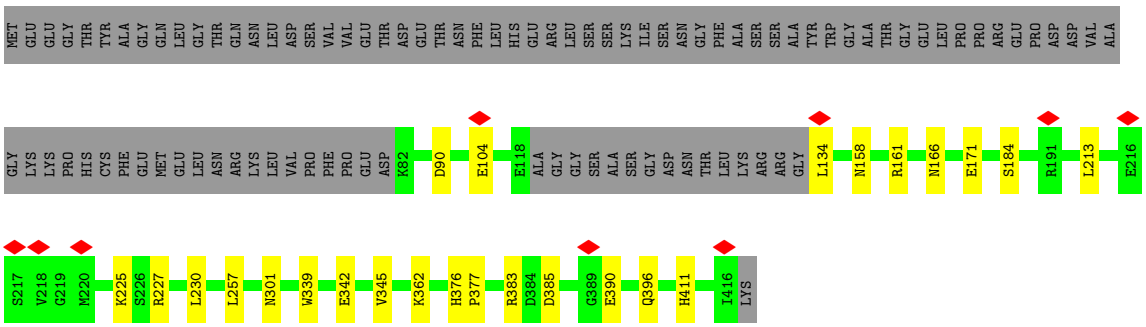
- Molecule 25: FAP129

Chain 1H:



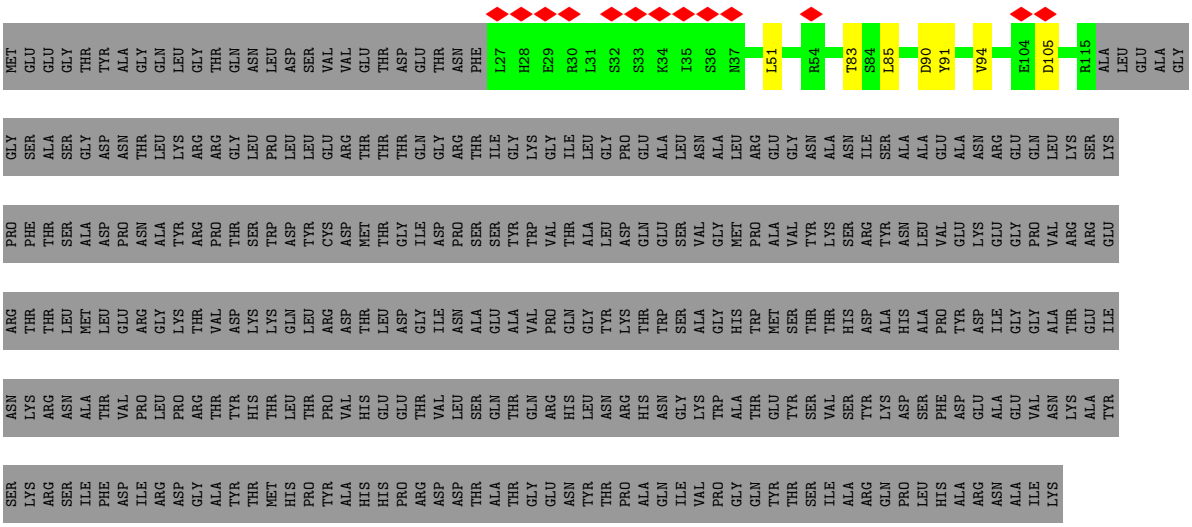
- Molecule 26: T. brucei spp.-specific protein

Chain 1I:



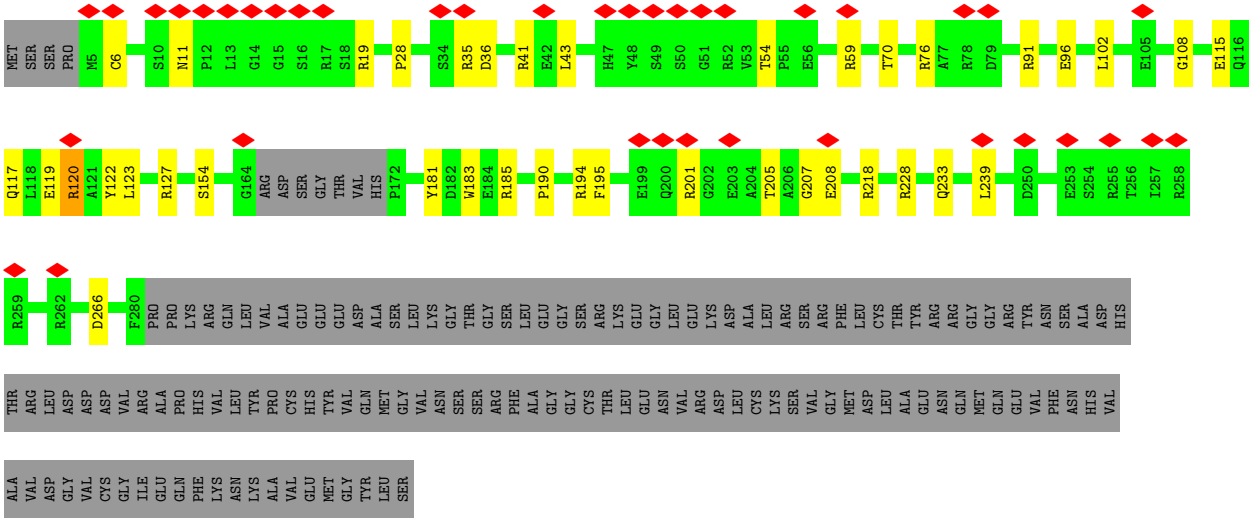
- Molecule 26: T. brucei spp.-specific protein

Chain 1J:



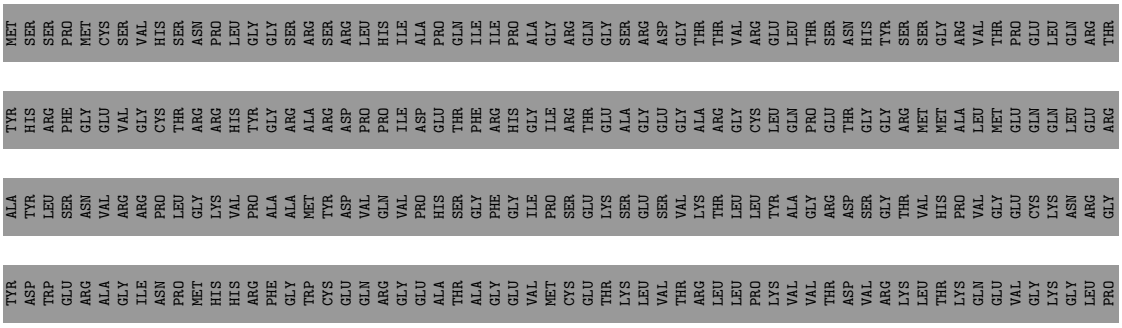
- Molecule 27: FAP21

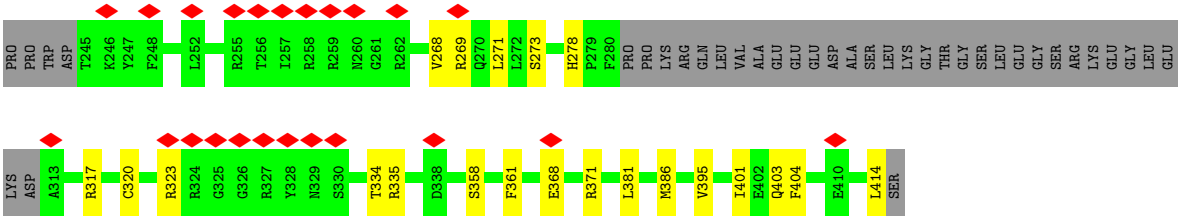
Chain 1K:



- Molecule 27: FAP21

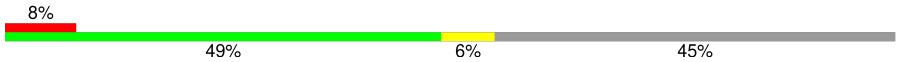
Chain 1L:

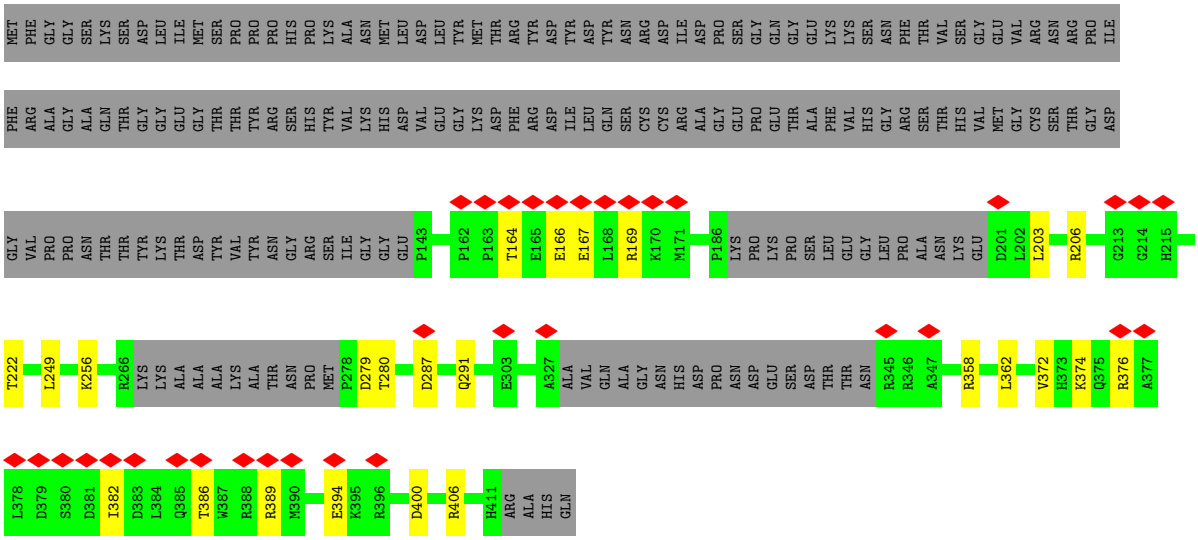




• Molecule 28: Flagellar associated protein

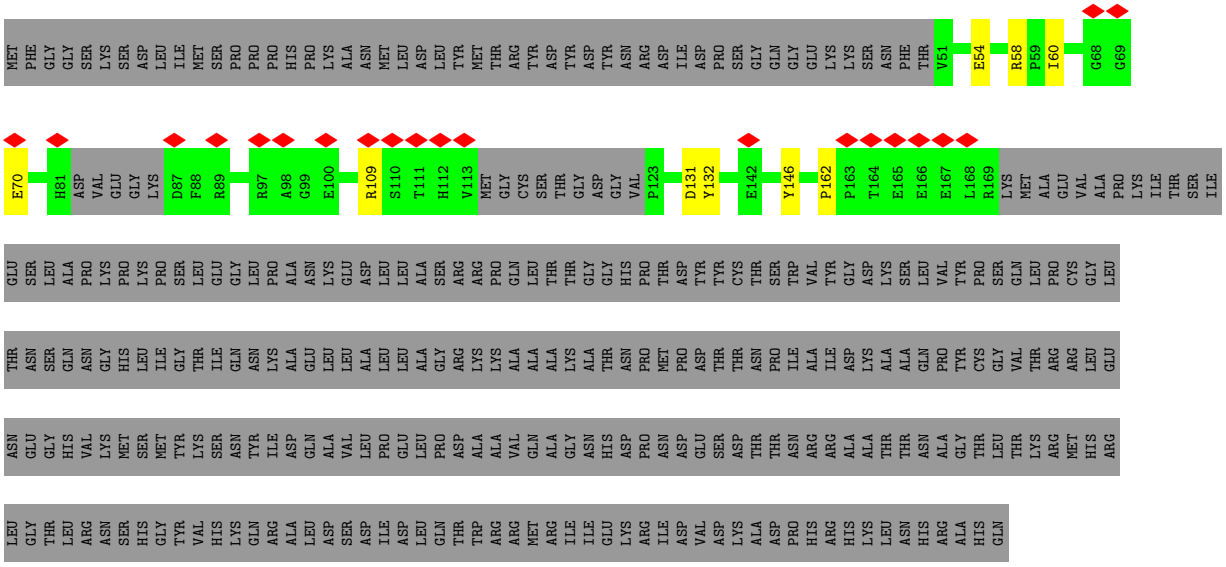
Chain 1M:





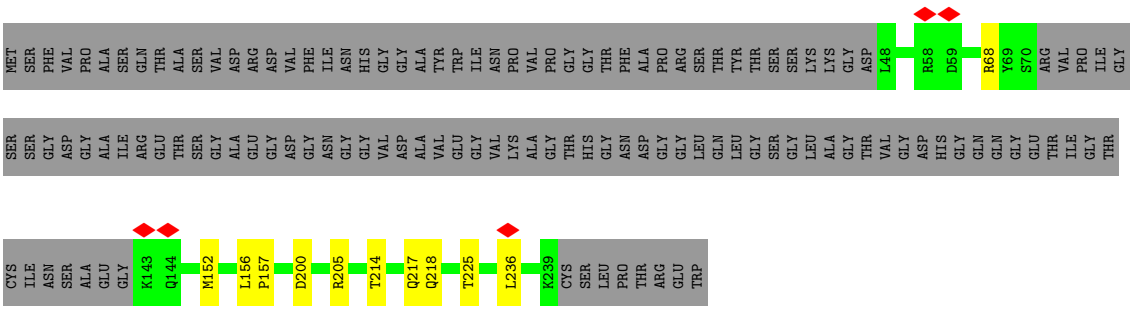
• Molecule 28: Flagellar associated protein

Chain 1N:



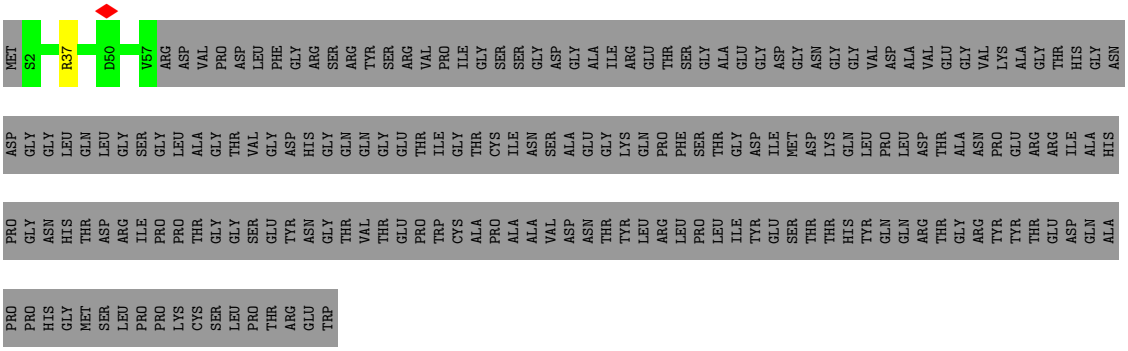
• Molecule 29: TbRib26b

Chain 1O:



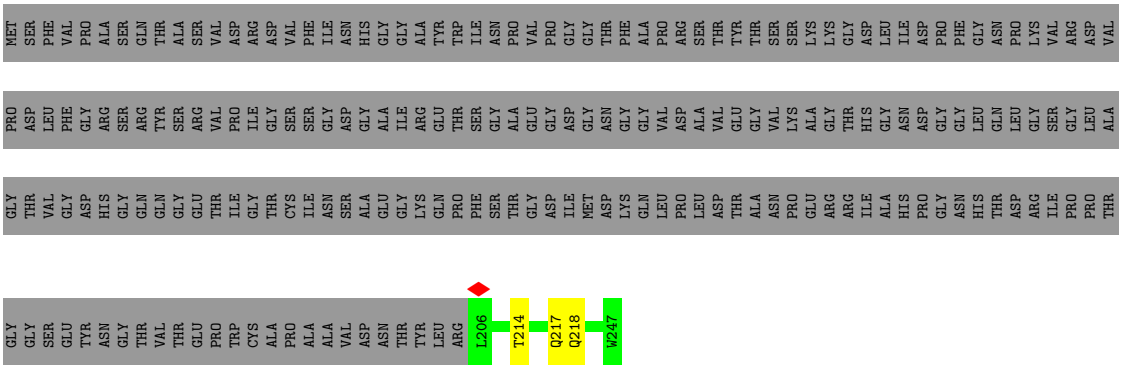
- Molecule 29: TbRib26b

Chain 1P:



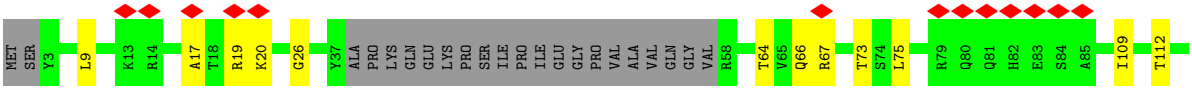
- Molecule 29: TbRib26b

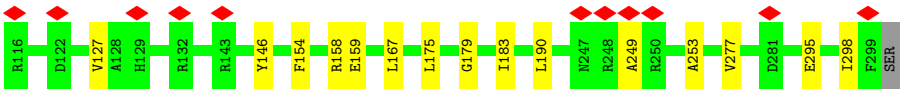
Chain 4X:



- Molecule 30: PACRGA

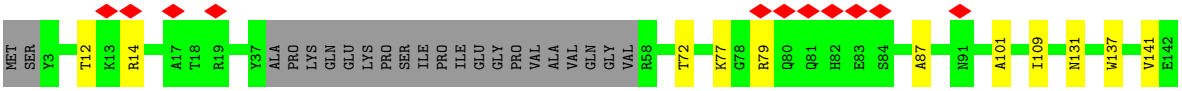
Chain 1Q:

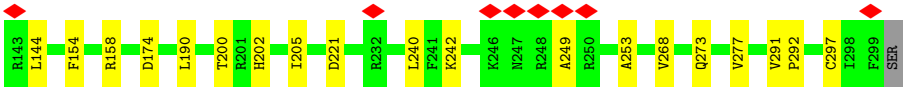




• Molecule 30: PACRGA

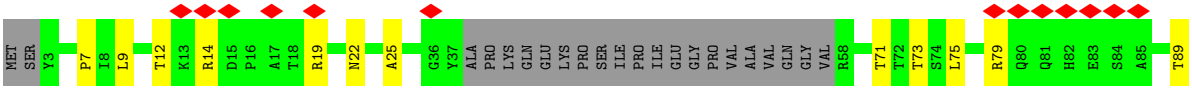
Chain 1R:

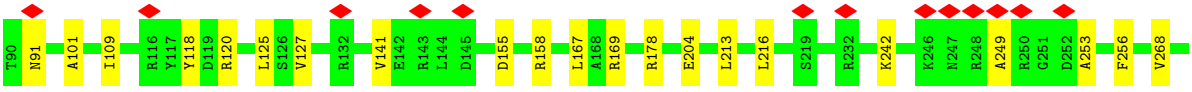




• Molecule 30: PACRGA

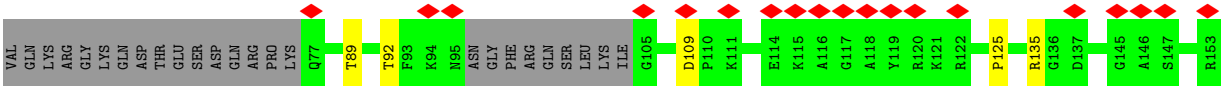
Chain 1S:





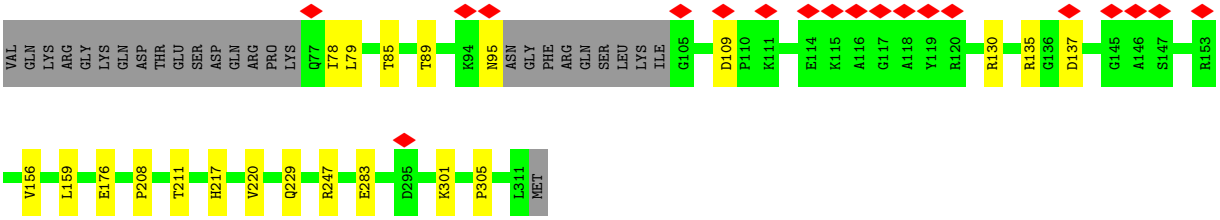
• Molecule 31: PACRGB

Chain 1T:



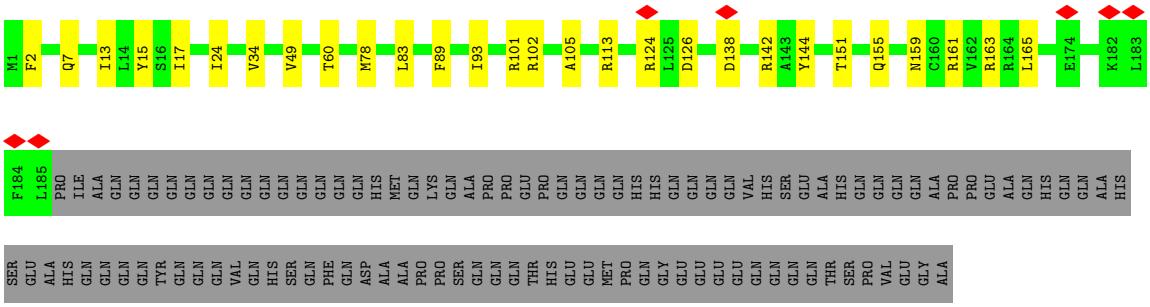
• Molecule 31: PACRGB

Chain 1U:



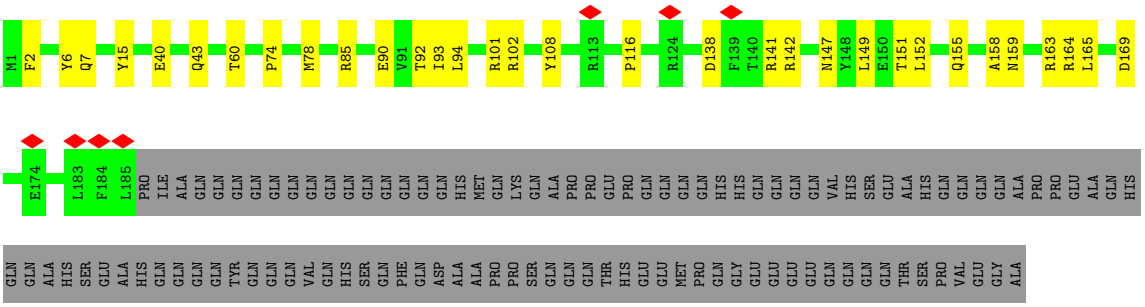
• Molecule 32: Cilia- and flagella-associated protein 20

Chain 1V:



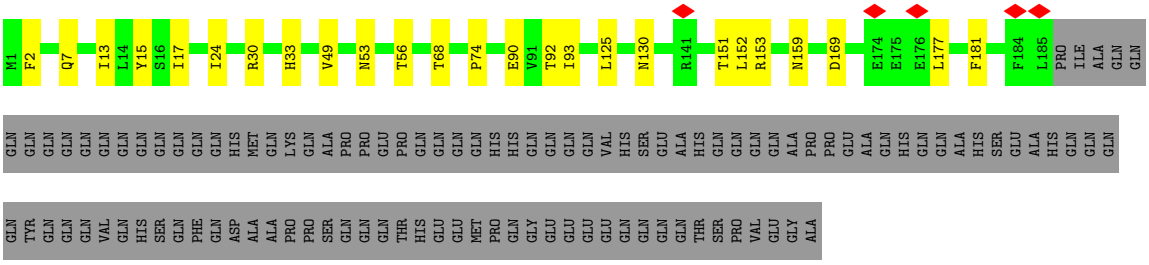
• Molecule 32: Cilia- and flagella-associated protein 20

Chain 1W:



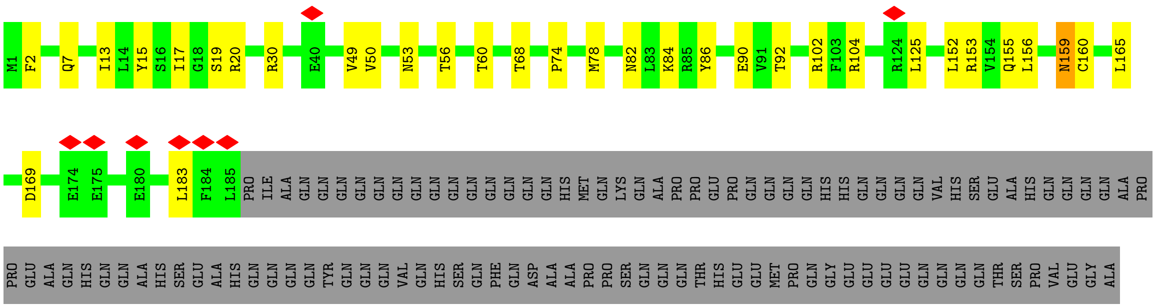
• Molecule 32: Cilia- and flagella-associated protein 20

Chain 1X:



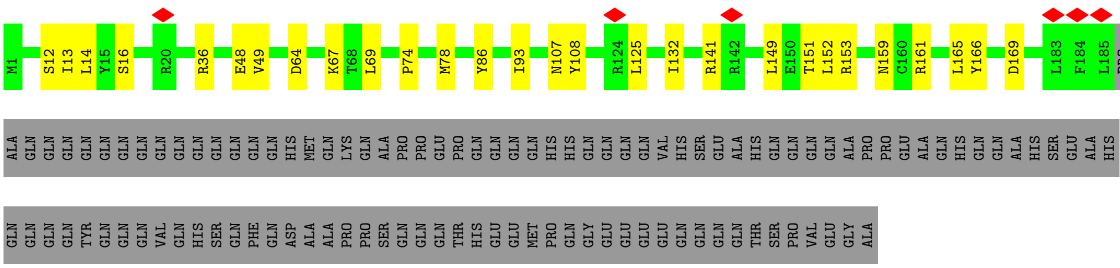
• Molecule 32: Cilia- and flagella-associated protein 20

Chain 1Y:



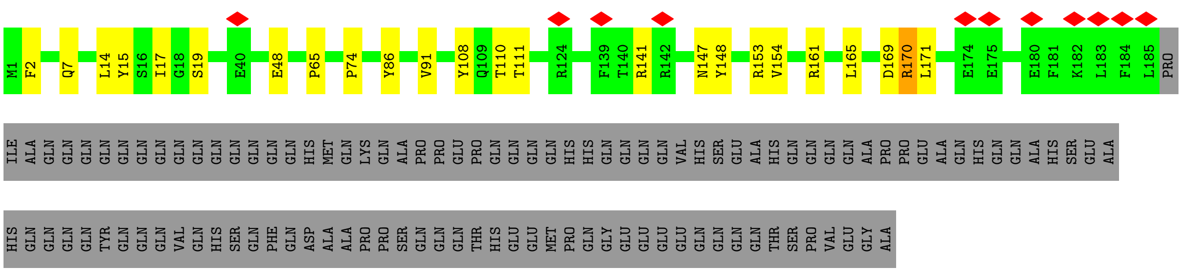
• Molecule 32: Cilia- and flagella-associated protein 20

Chain 1Z:



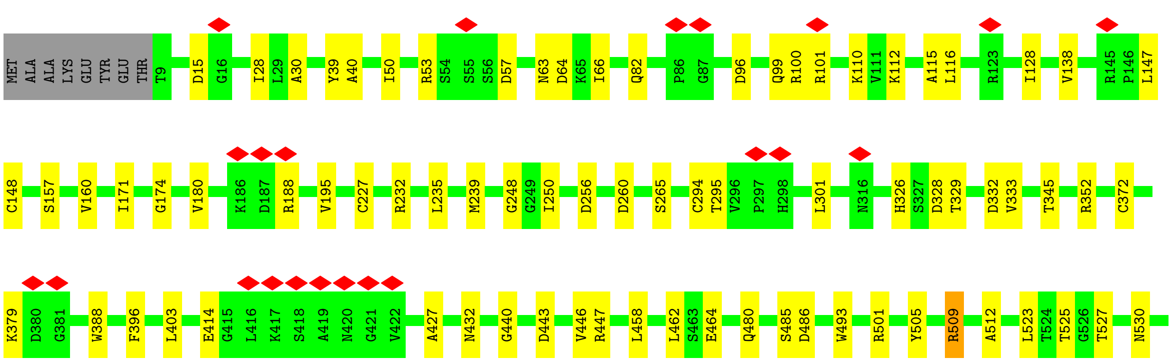
• Molecule 32: Cilia- and flagella-associated protein 20

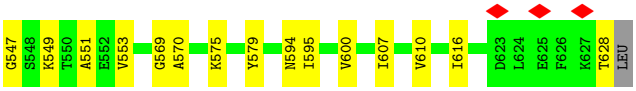
Chain 2A:



• Molecule 33: Cilia- and flagella-associated protein 52

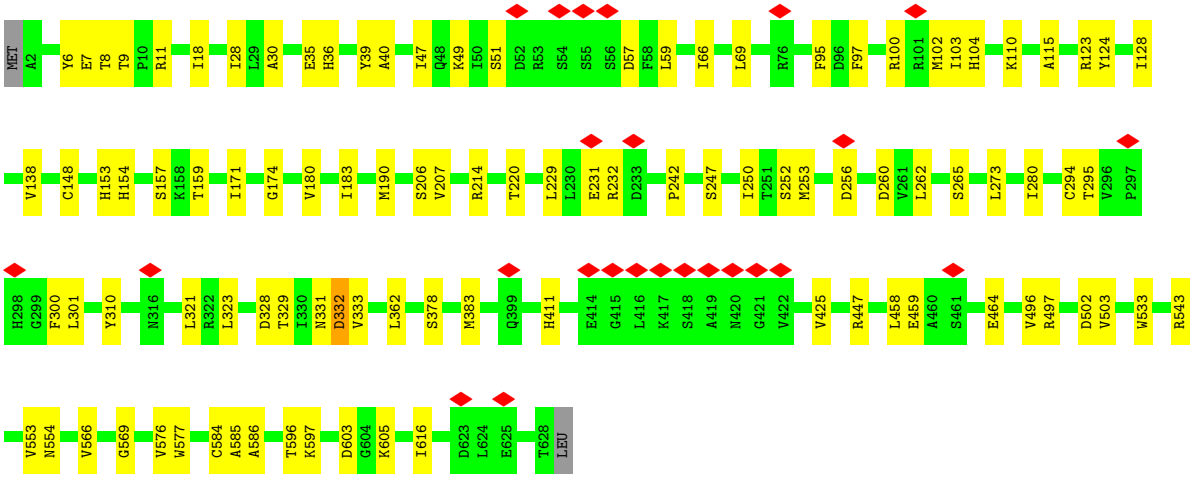
Chain 2B:





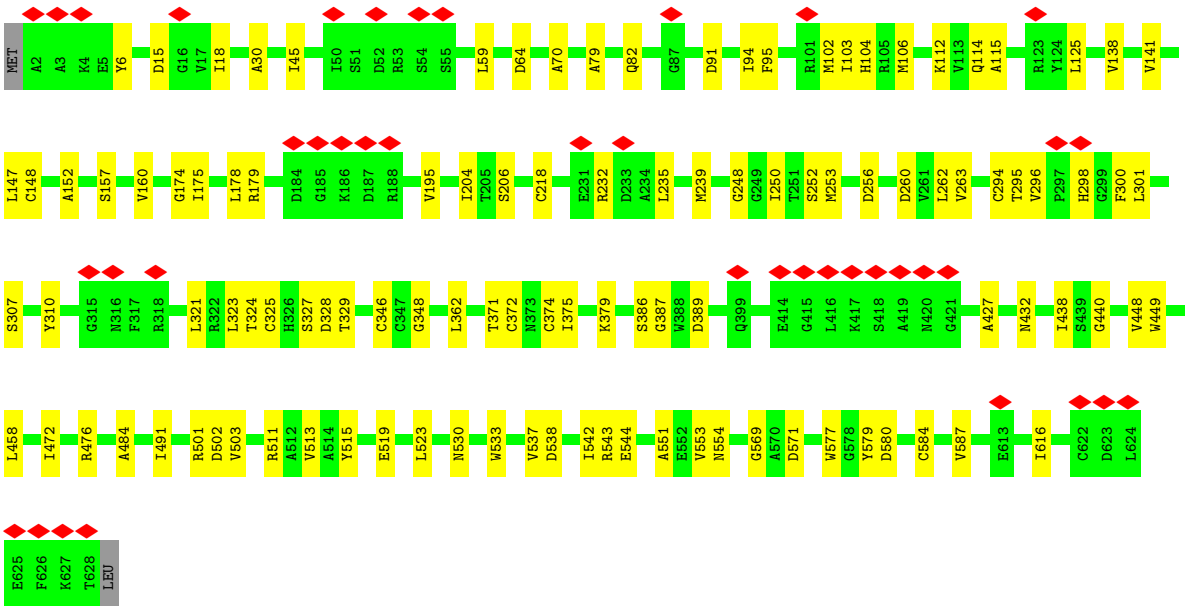
• Molecule 33: Cilia- and flagella-associated protein 52

Chain 2C:



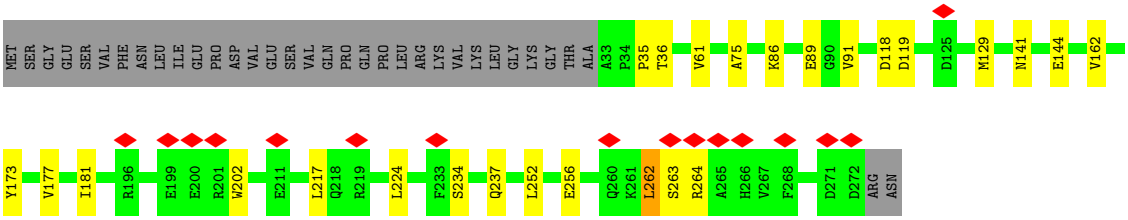
• Molecule 33: Cilia- and flagella-associated protein 52

Chain 2D:



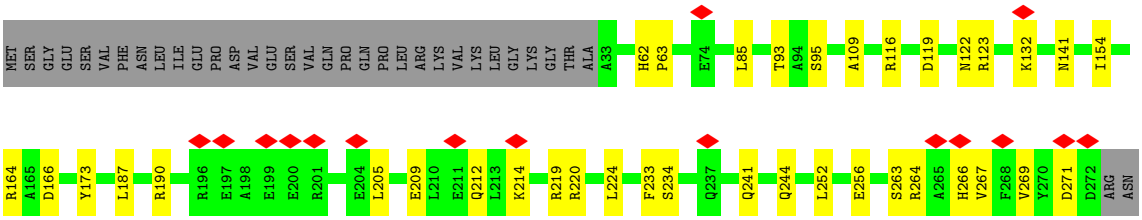
• Molecule 34: Enkurin domain-containing protein

Chain 2E:



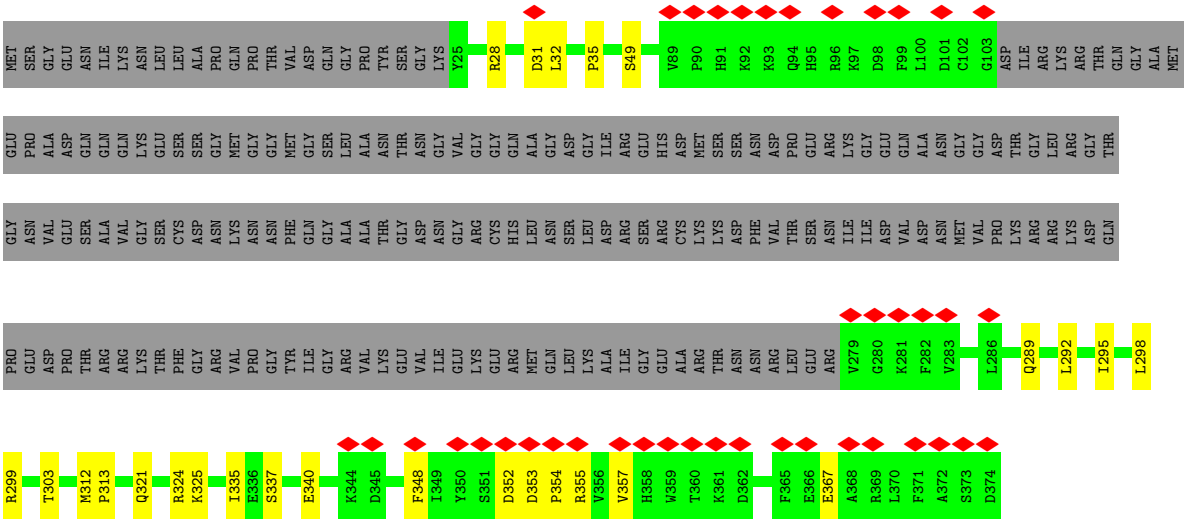
• Molecule 34: Enkurin domain-containing protein

Chain 2F:



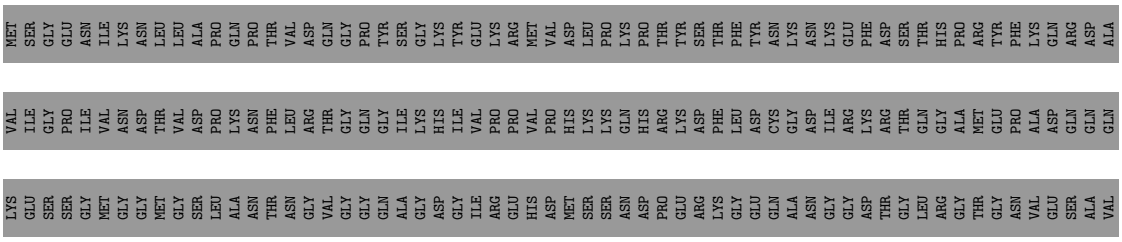
• Molecule 35: Enkurin domain-containing protein

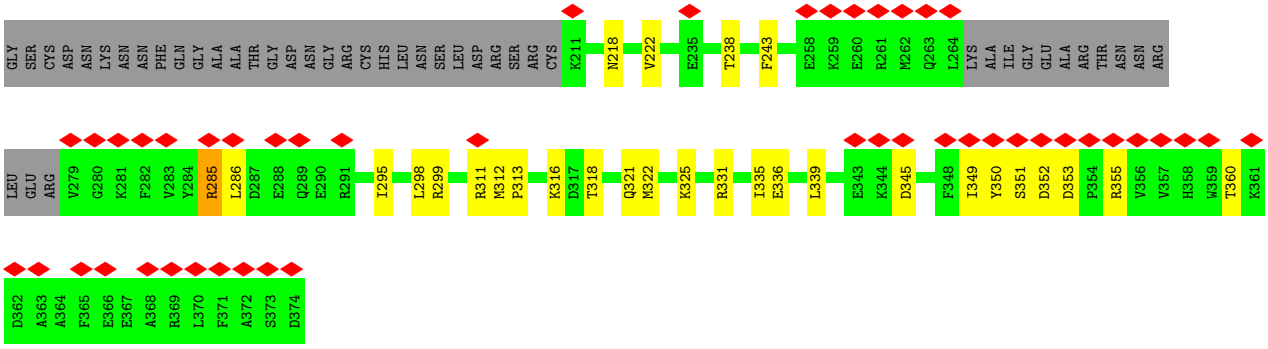
Chain 2G:



• Molecule 35: Enkurin domain-containing protein

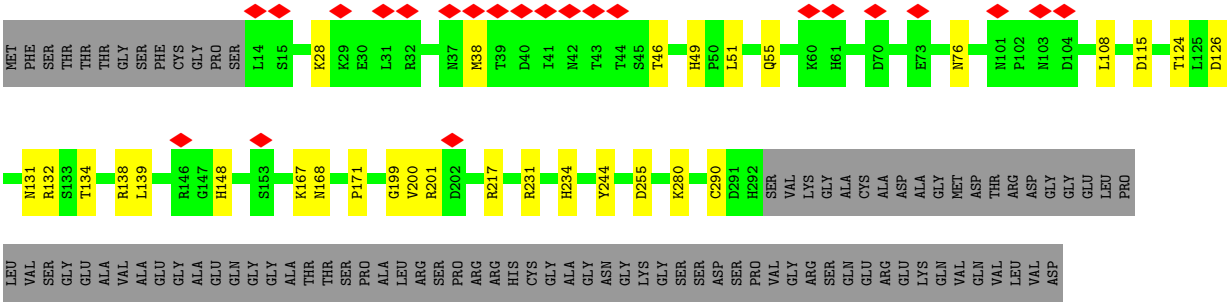
Chain 2H:





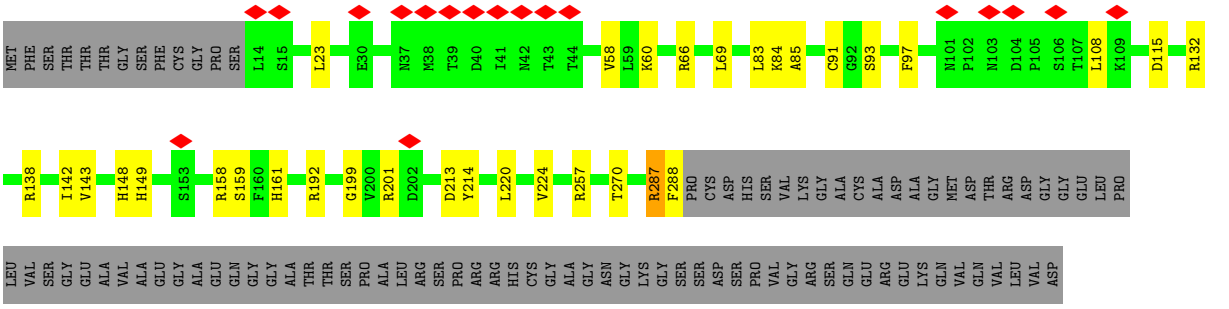
- Molecule 36: MC4

Chain 2I:



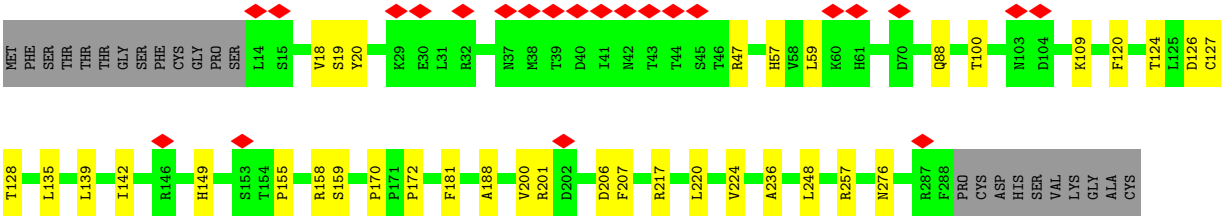
- Molecule 36: MC4

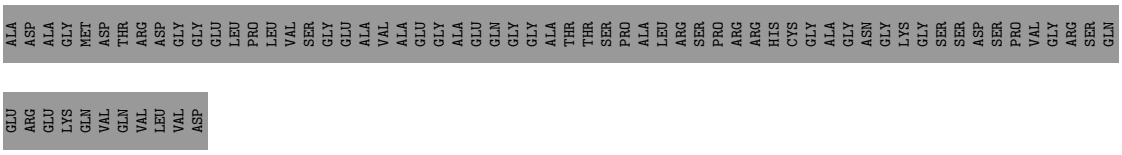
Chain 2J:



- Molecule 36: MC4

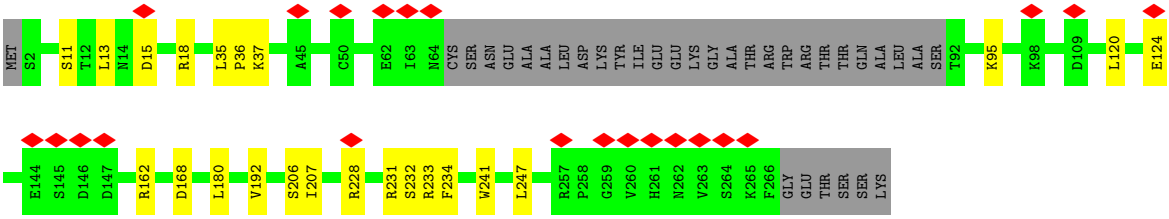
Chain 2K:





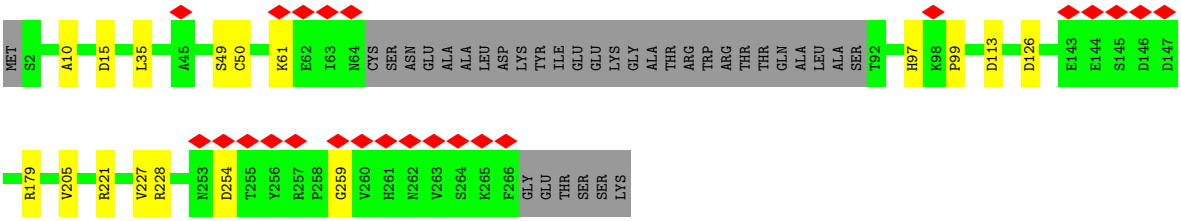
• Molecule 37: MC5

Chain 2L:



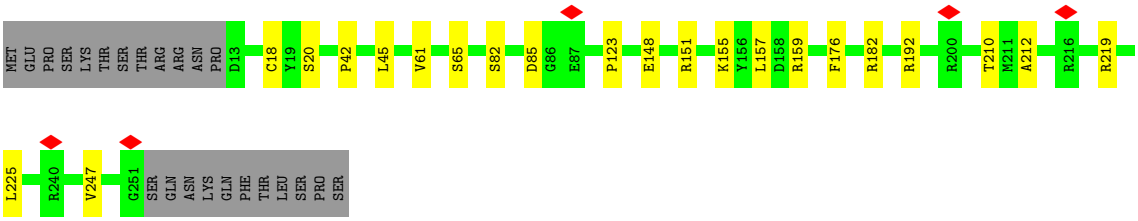
• Molecule 37: MC5

Chain 2M:



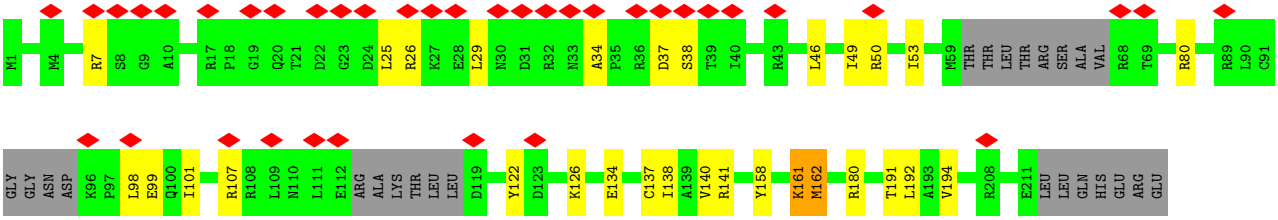
• Molecule 38: CCDC81 HU domain-containing protein

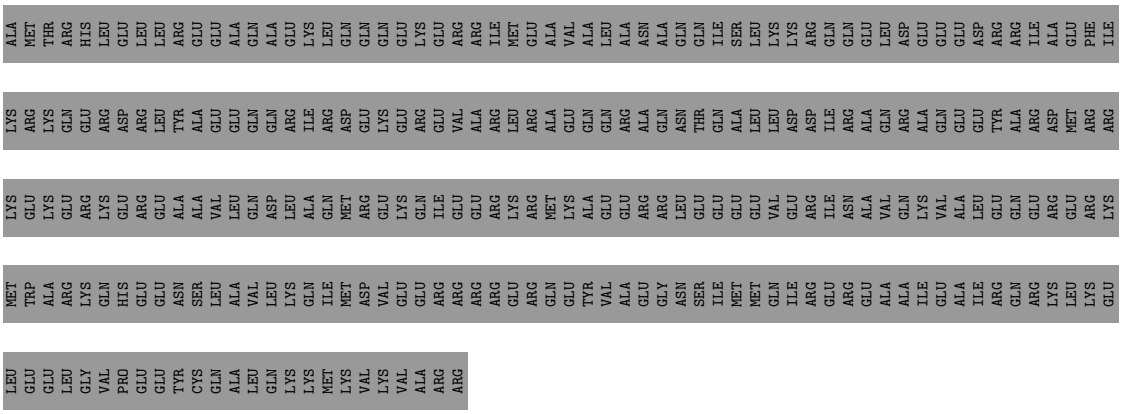
Chain 2N:



• Molecule 39: Cilia- and flagella-associated protein 45

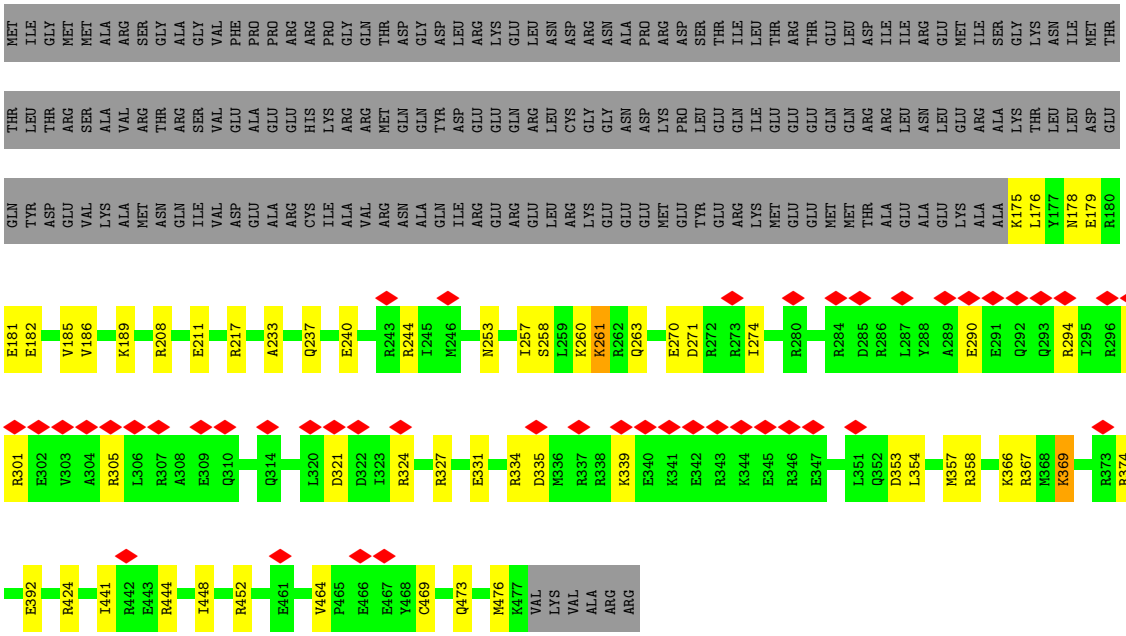
Chain 2O:





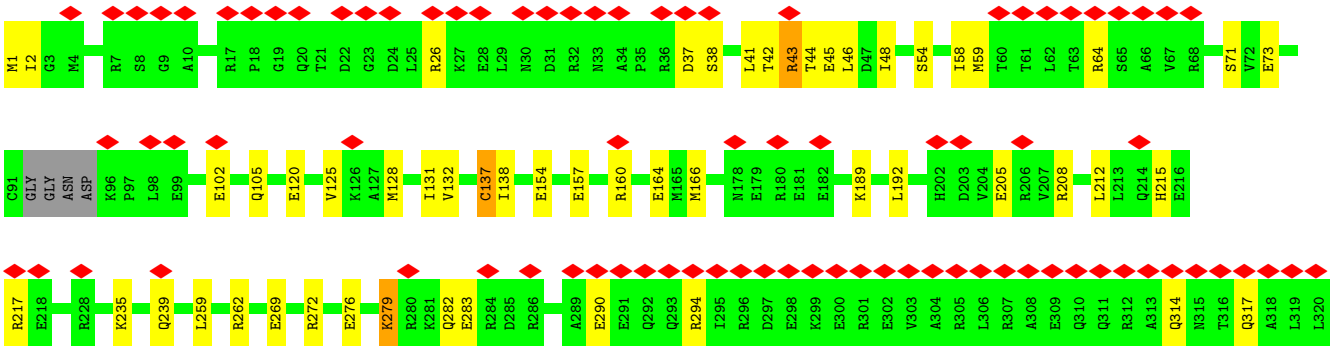
• Molecule 39: Cilia- and flagella-associated protein 45

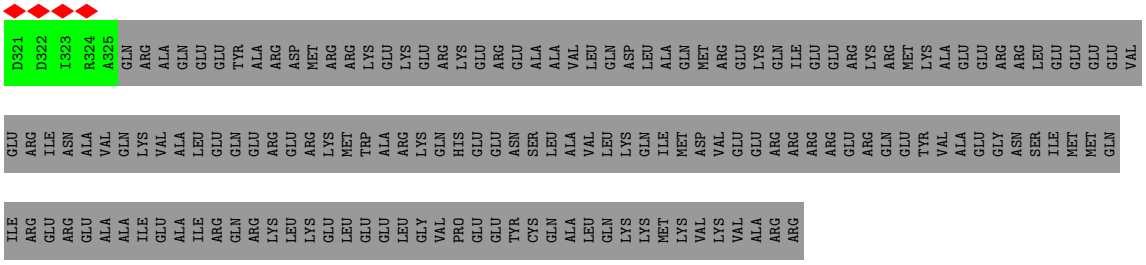
Chain 2P:



• Molecule 39: Cilia- and flagella-associated protein 45

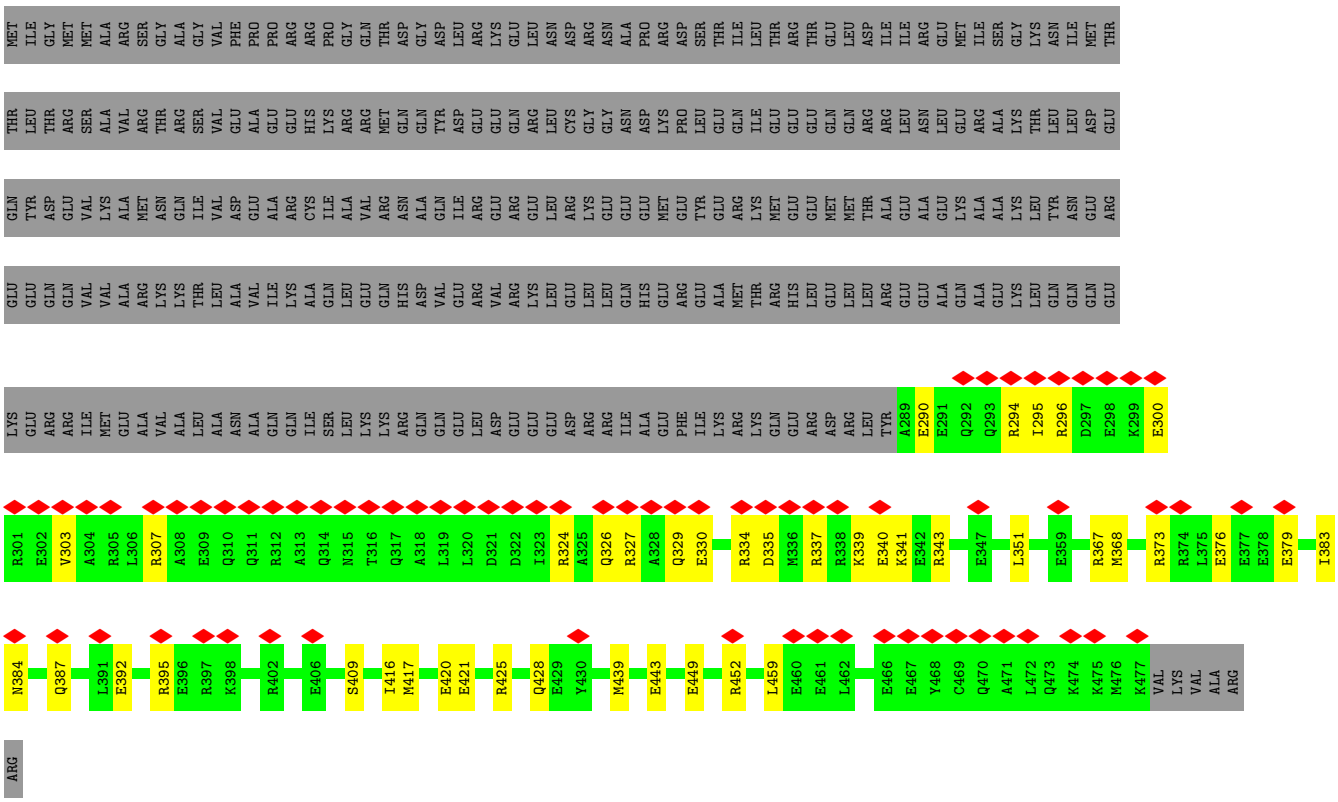
Chain 2Q:





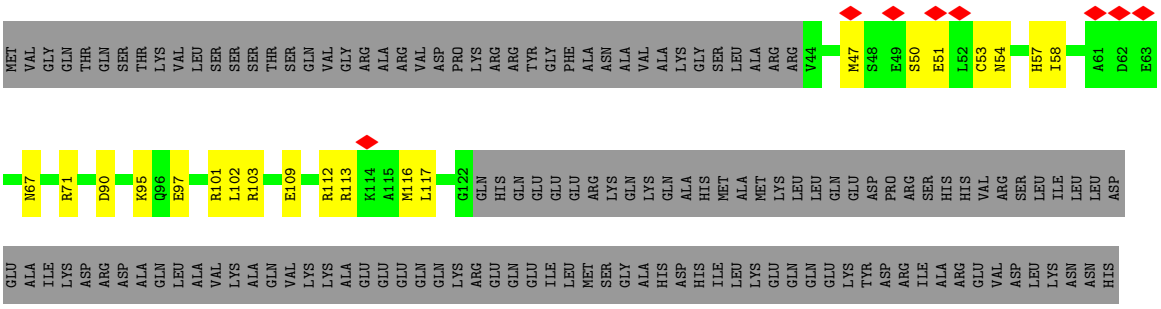
• Molecule 39: Cilia- and flagella-associated protein 45

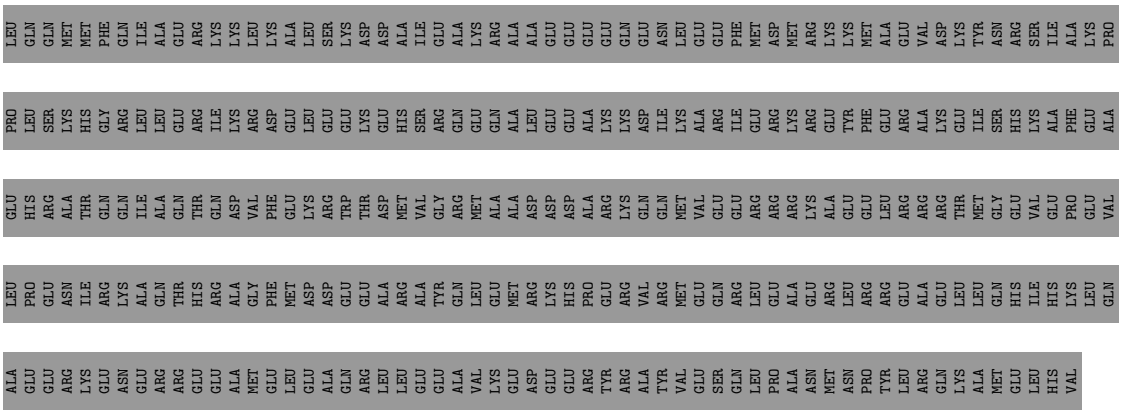
Chain 2R:



• Molecule 40: Trichohyalin-plectin-homology domain-containing protein

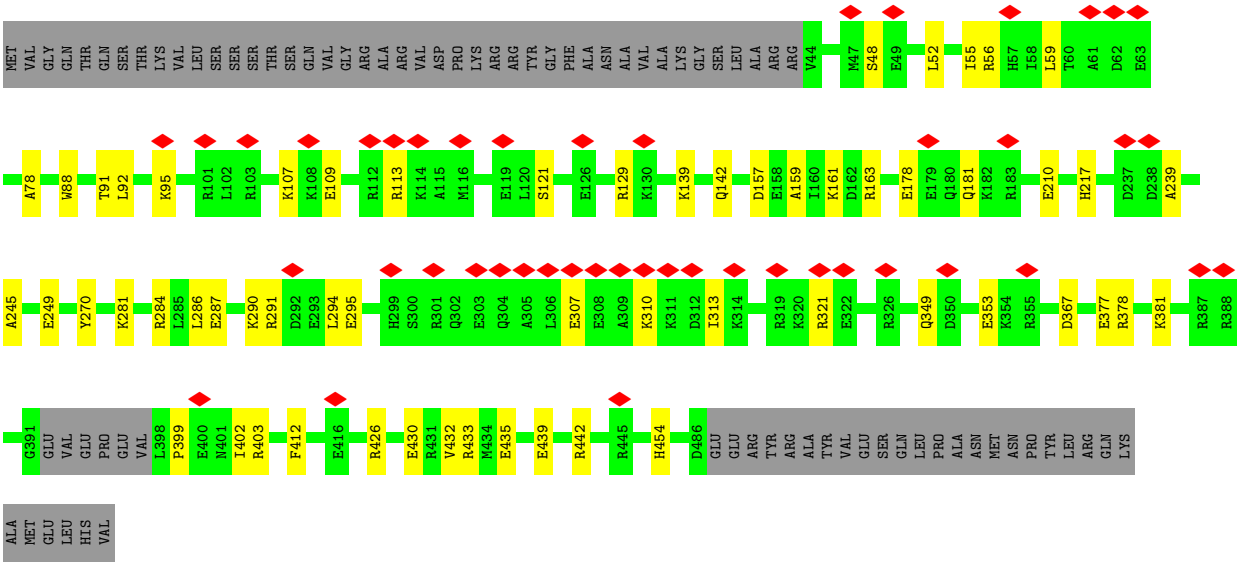
Chain 2S:





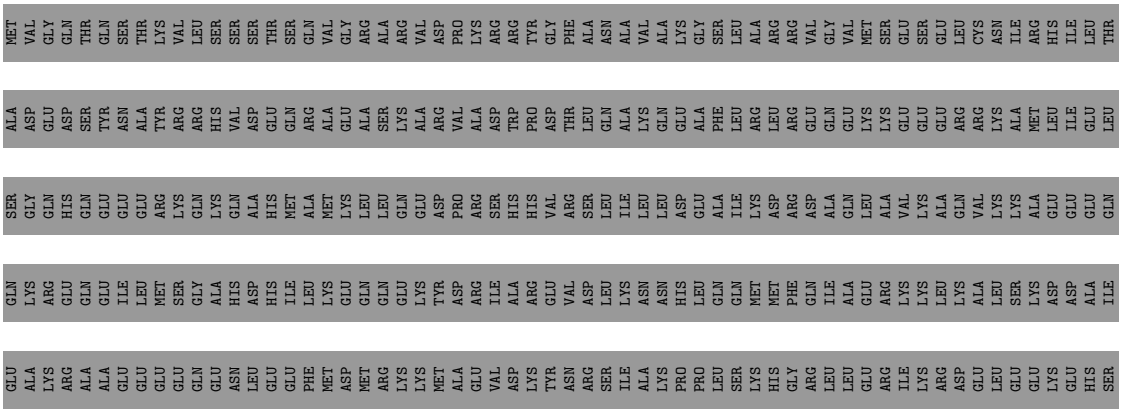
- Molecule 40: Trichohyalin-plectin-homology domain-containing protein

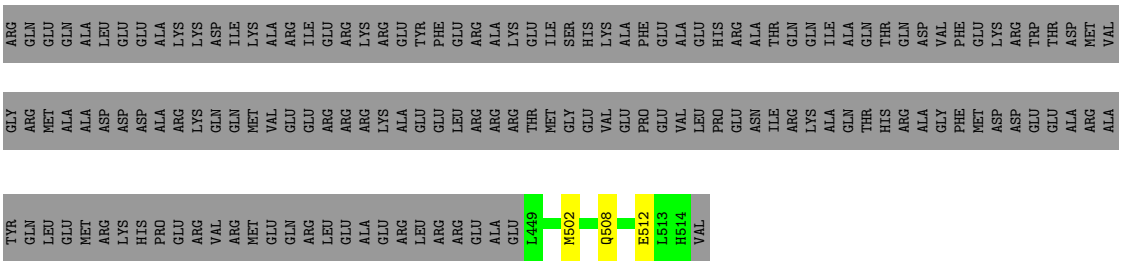
Chain 2T:



- Molecule 40: Trichohyalin-plectin-homology domain-containing protein

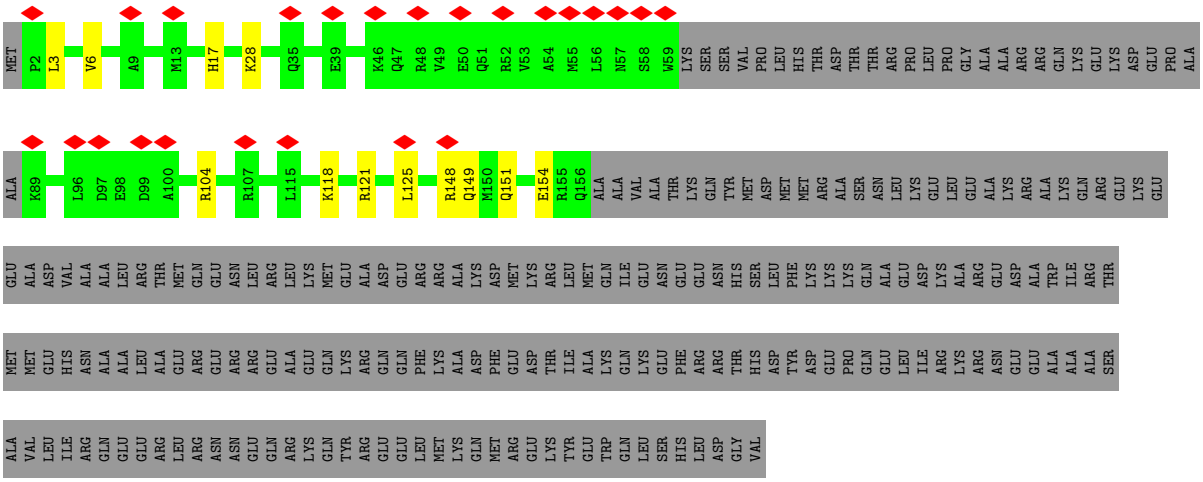
Chain 2U:





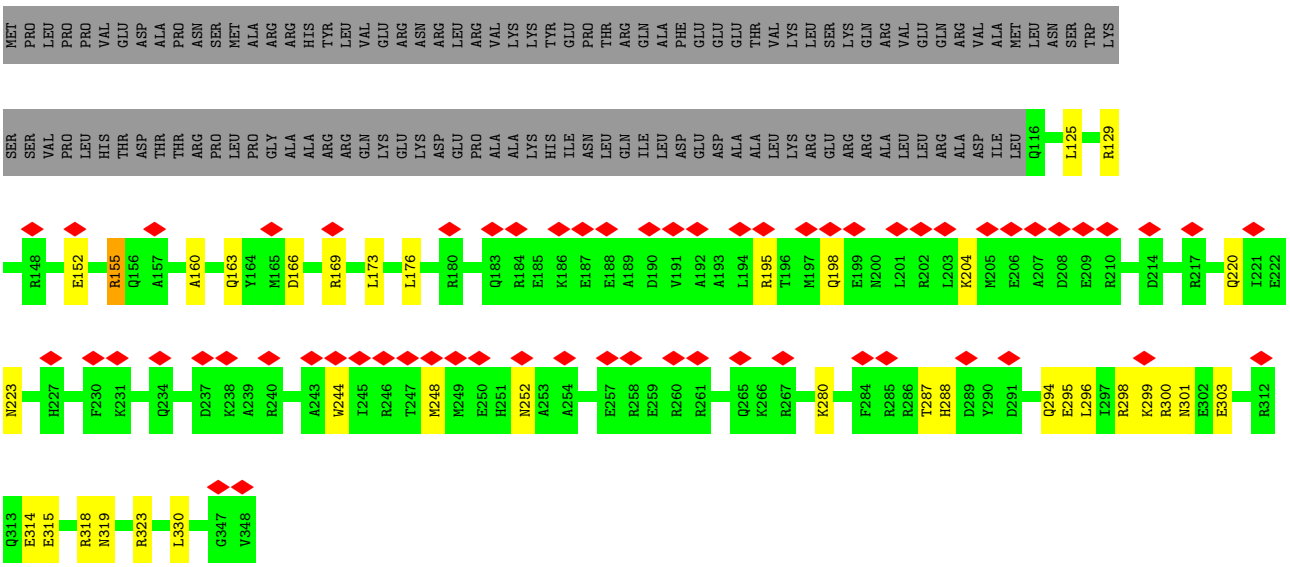
• Molecule 41: Trichohyalin-plectin-homology domain-containing protein

Chain 2V:



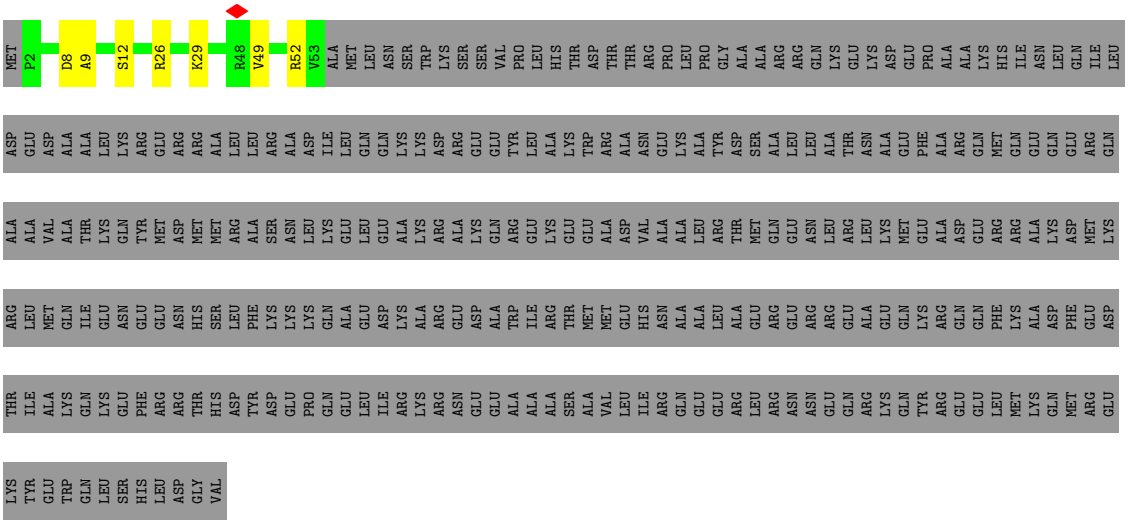
• Molecule 41: Trichohyalin-plectin-homology domain-containing protein

Chain 2W:



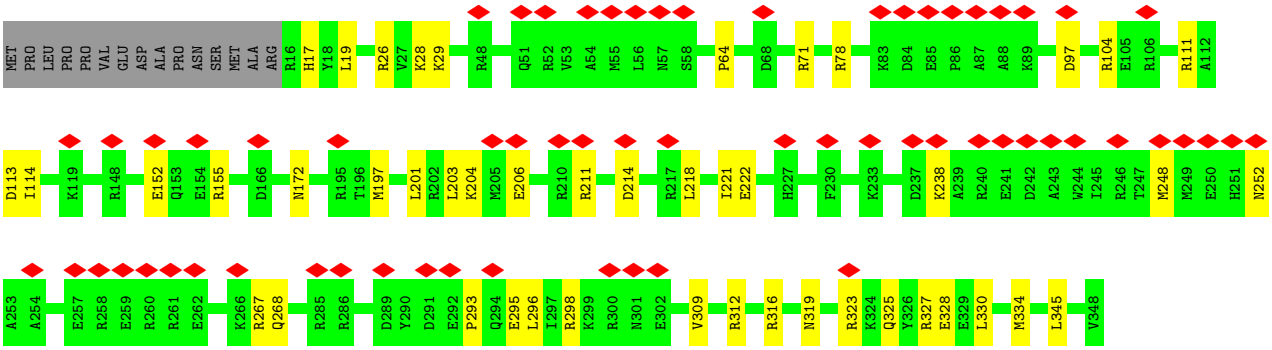
• Molecule 41: Trichohyalin-plectin-homology domain-containing protein

Chain 2X:



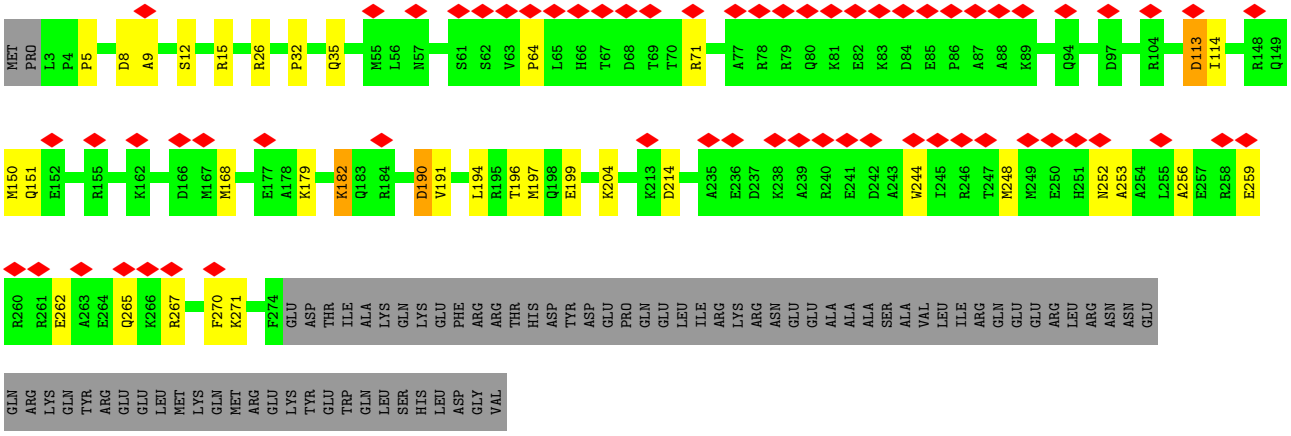
- Molecule 41: Trichohyalin-plectin-homology domain-containing protein

Chain 2Y:



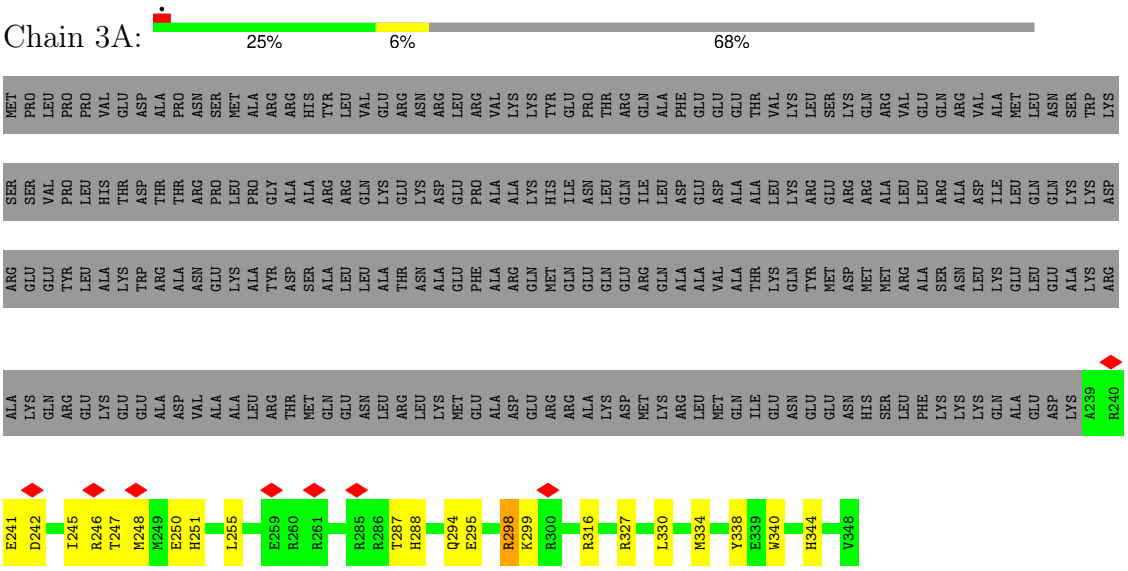
- Molecule 41: Trichohyalin-plectin-homology domain-containing protein

Chain 2Z:



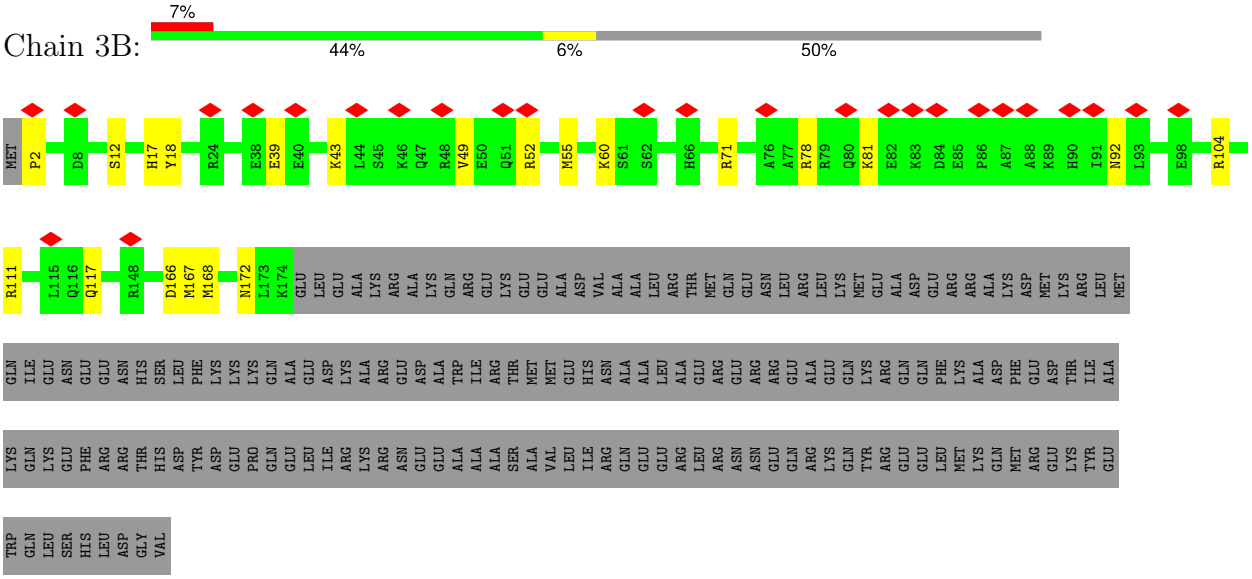
- Molecule 41: Trichohyalin-plectin-homology domain-containing protein

Chain 3A:



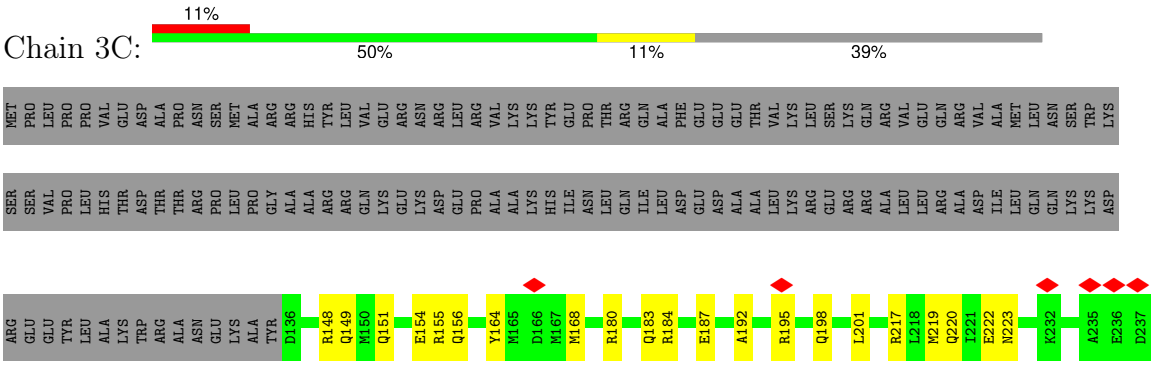
• Molecule 41: Trichohyalin-plectin-homology domain-containing protein

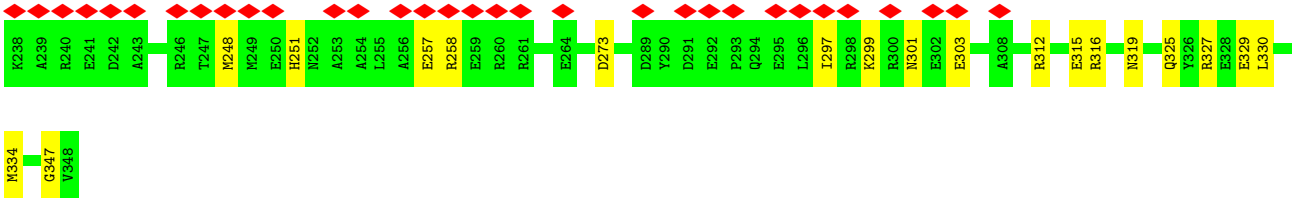
Chain 3B:



• Molecule 41: Trichohyalin-plectin-homology domain-containing protein

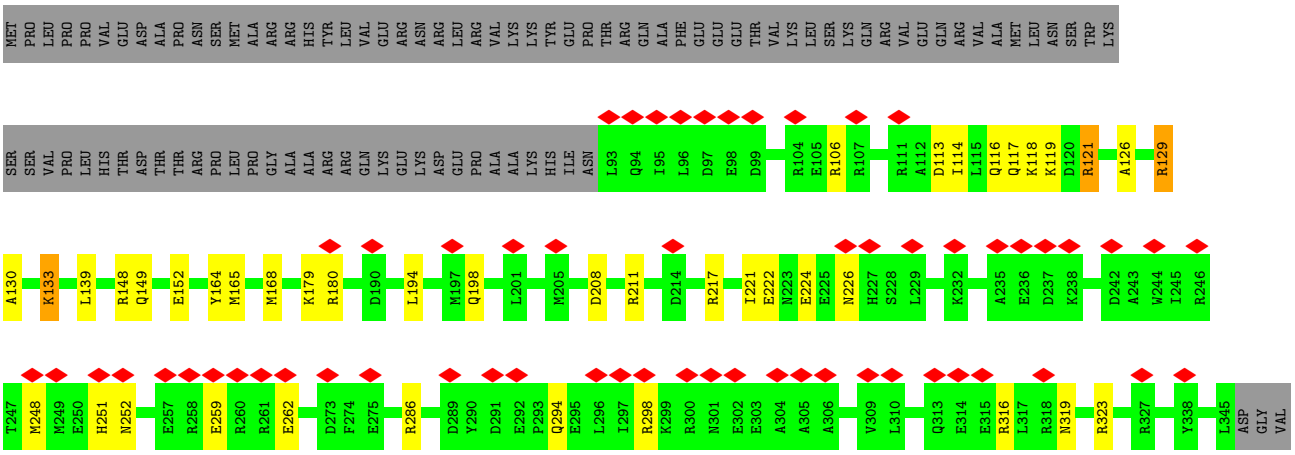
Chain 3C:





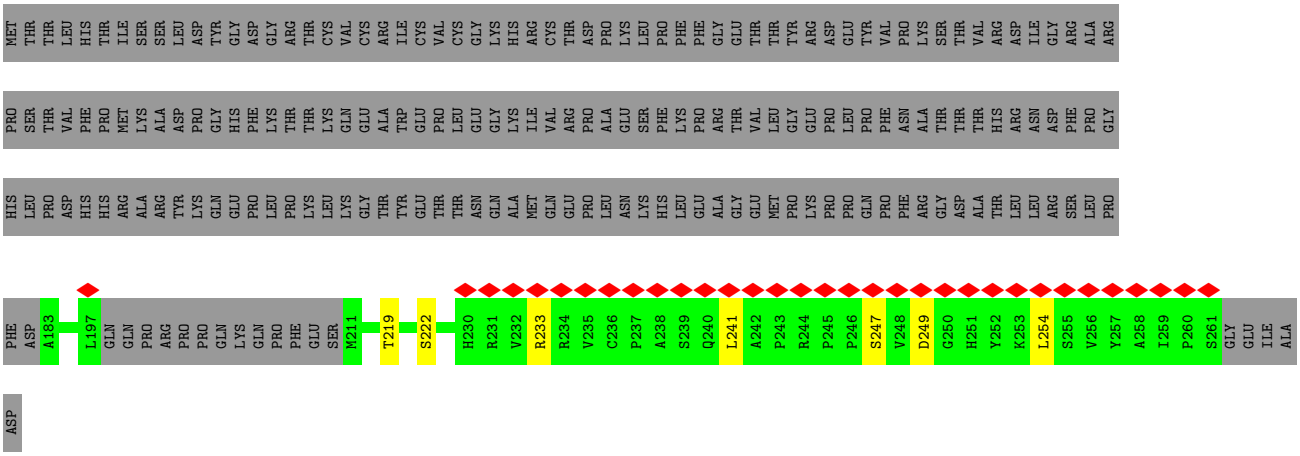
• Molecule 41: Trichohyalin-plectin-homology domain-containing protein

Chain 3D:



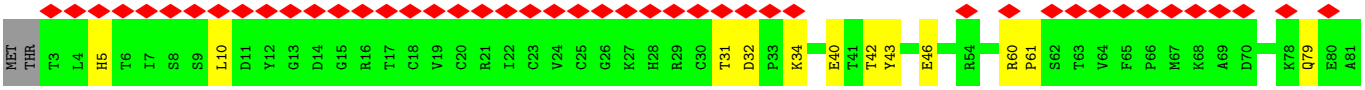
• Molecule 42: STOP axonemal protein

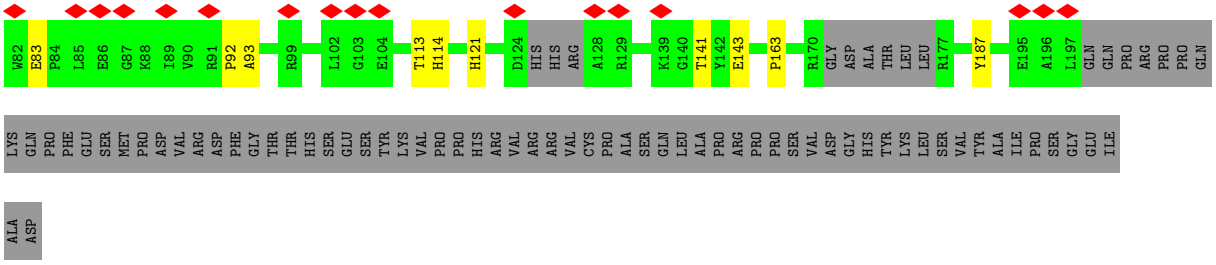
Chain 3E:



• Molecule 42: STOP axonemal protein

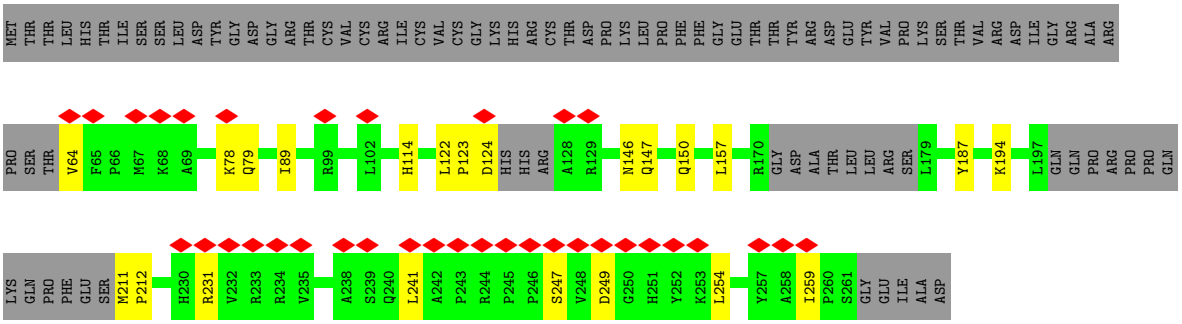
Chain 3F:





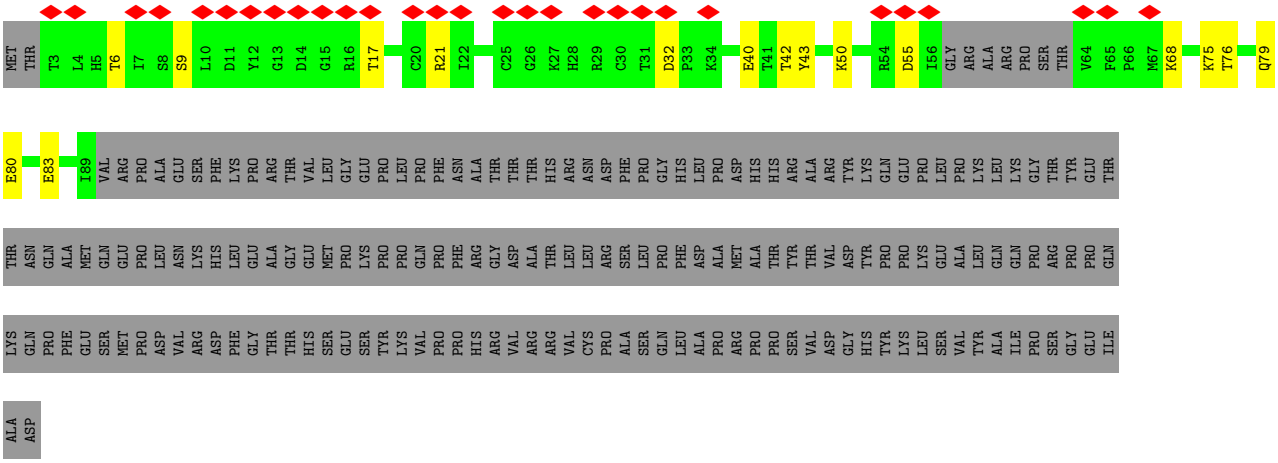
• Molecule 42: STOP axonemal protein

Chain 3G:



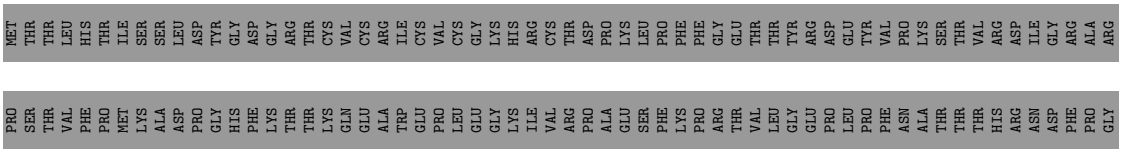
• Molecule 42: STOP axonemal protein

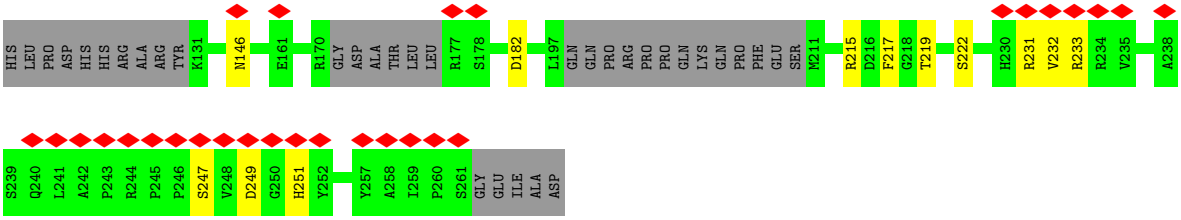
Chain 3H:



• Molecule 42: STOP axonemal protein

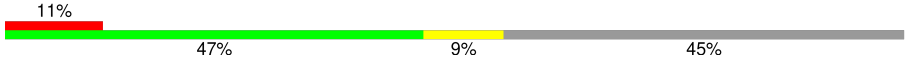
Chain 3I:

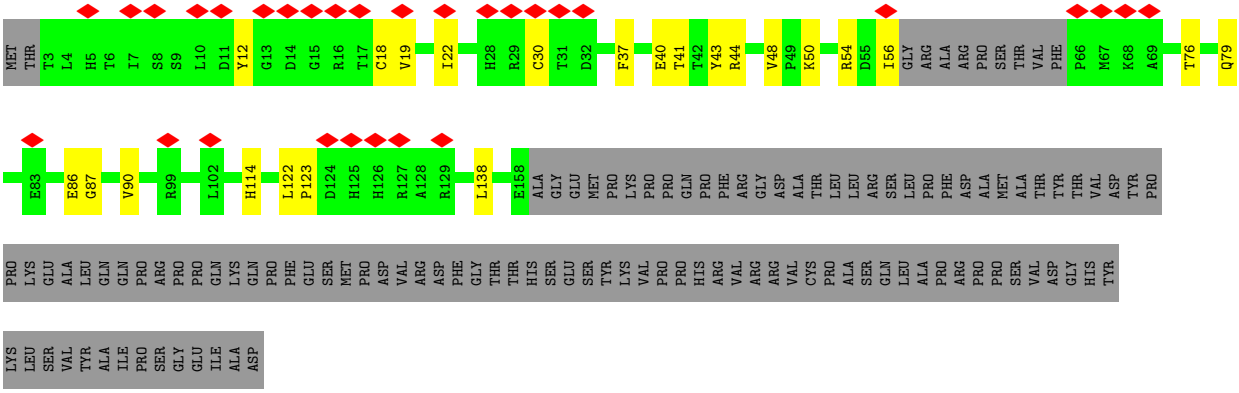




• Molecule 42: STOP axonemal protein

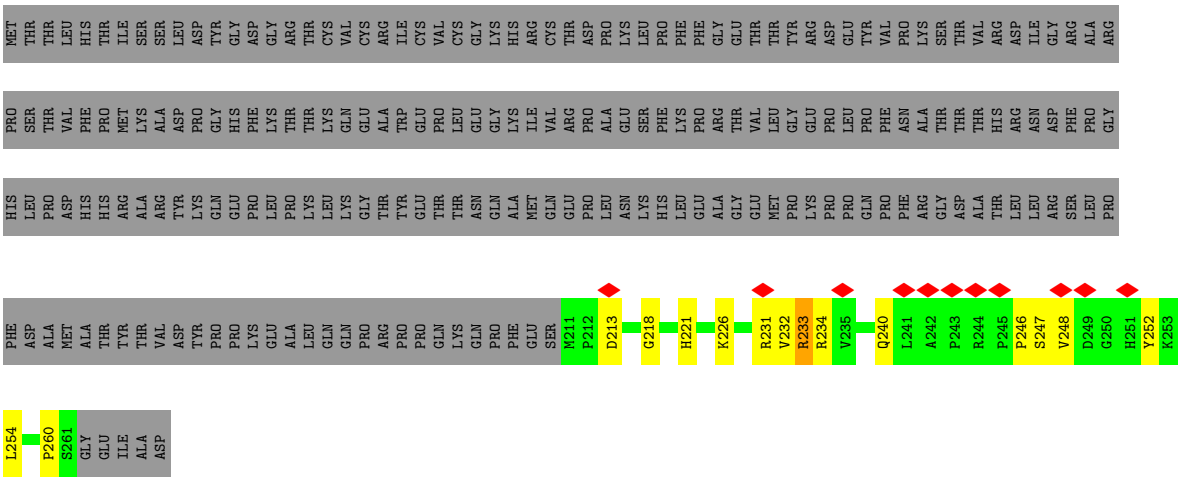
Chain 3J:





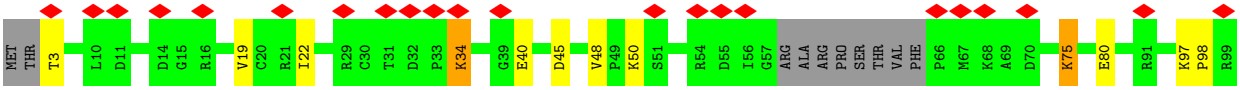
• Molecule 42: STOP axonemal protein

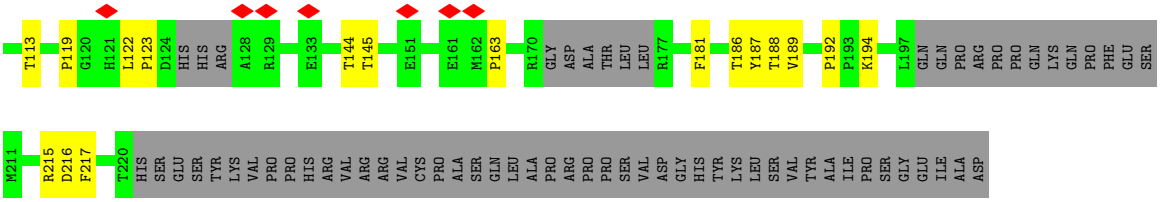
Chain 3K:



• Molecule 42: STOP axonemal protein

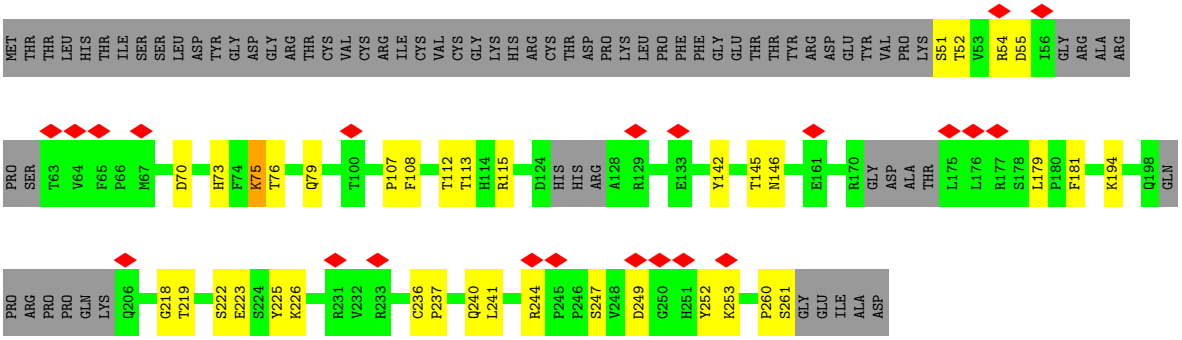
Chain 3L:





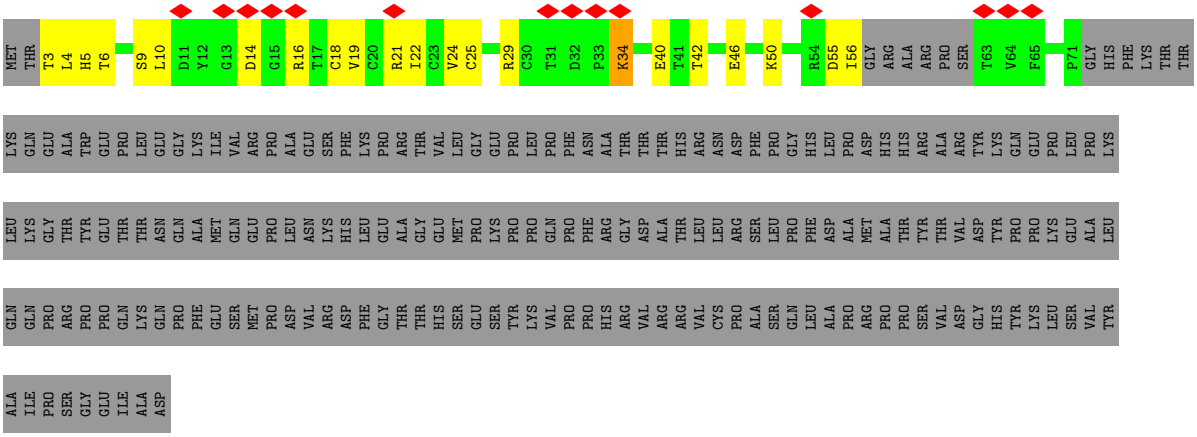
- Molecule 42: STOP axonemal protein

Chain 3M:



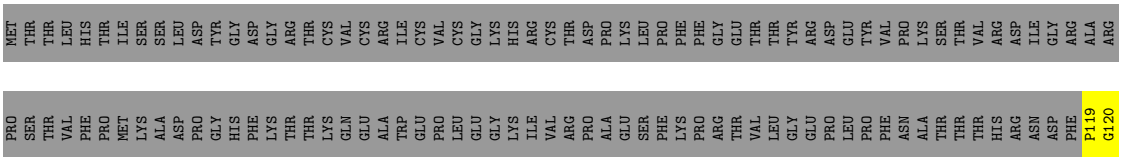
- Molecule 42: STOP axonemal protein

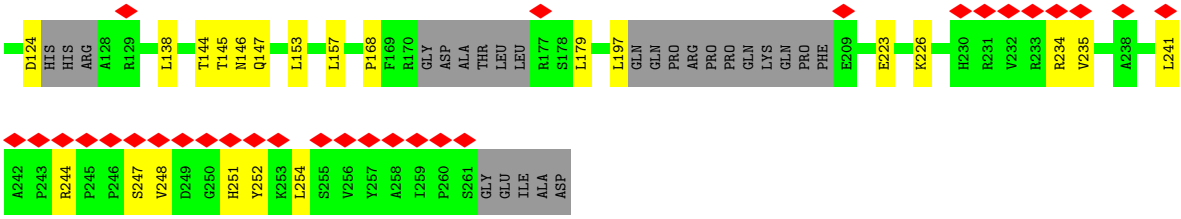
Chain 3N:



- Molecule 42: STOP axonemal protein

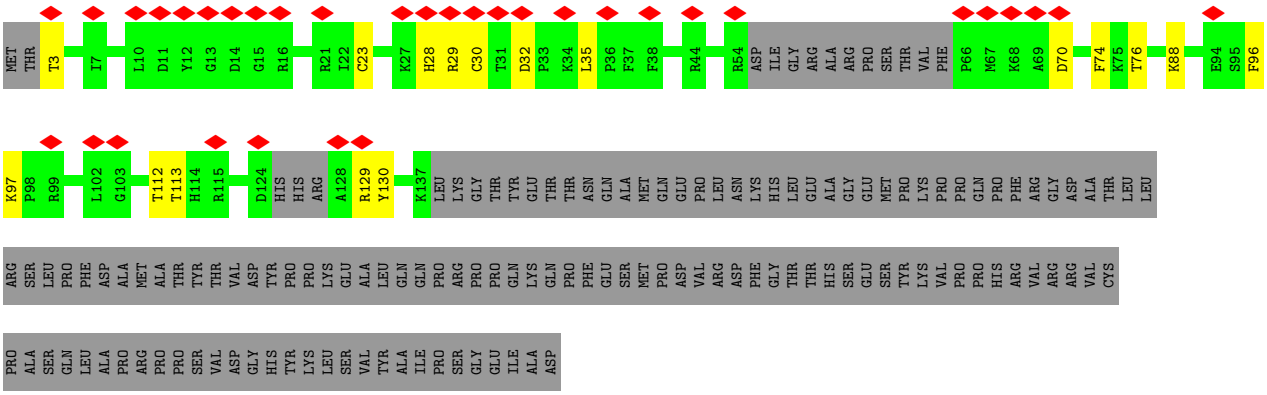
Chain 3O:





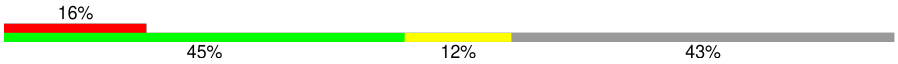
- Molecule 42: STOP axonemal protein

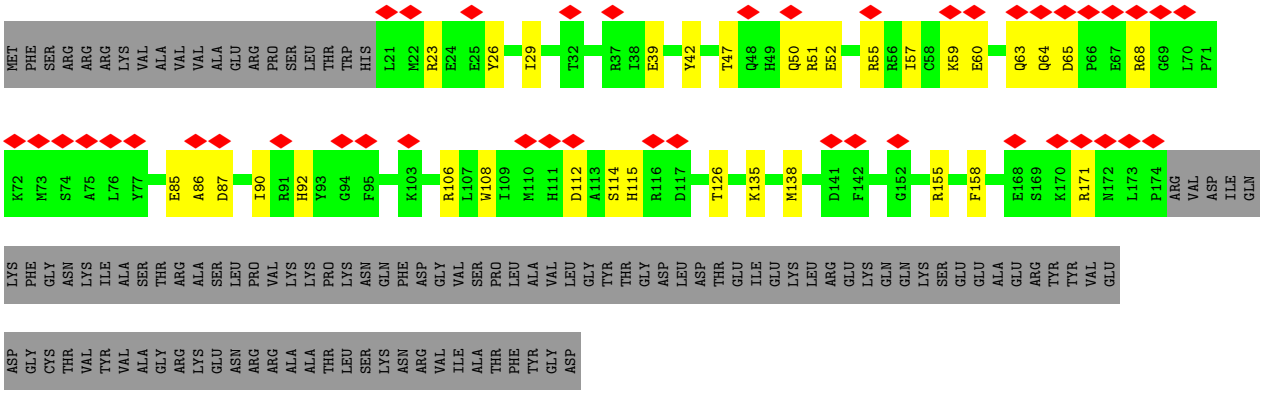
Chain 3P:



- Molecule 43: MC8

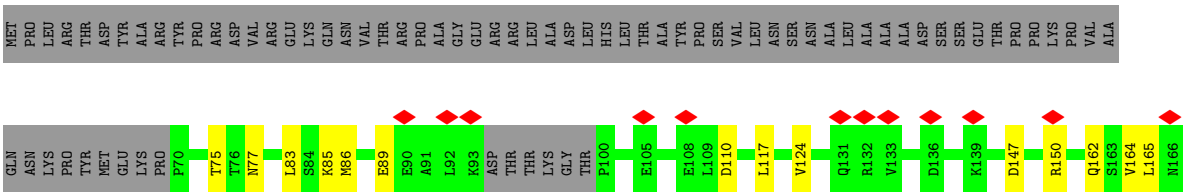
Chain 3Q:

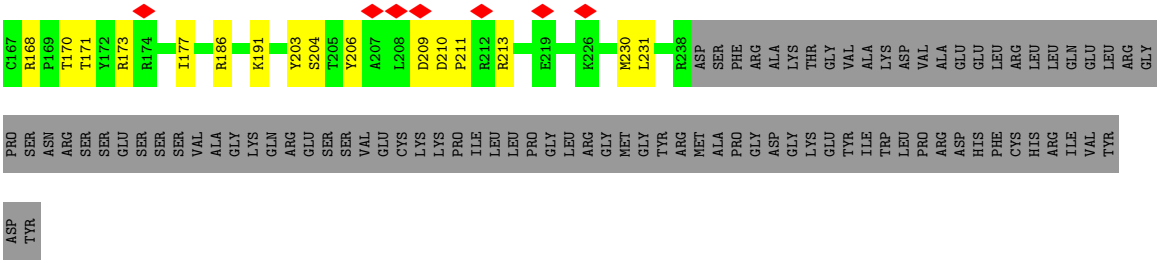




- Molecule 44: MC3

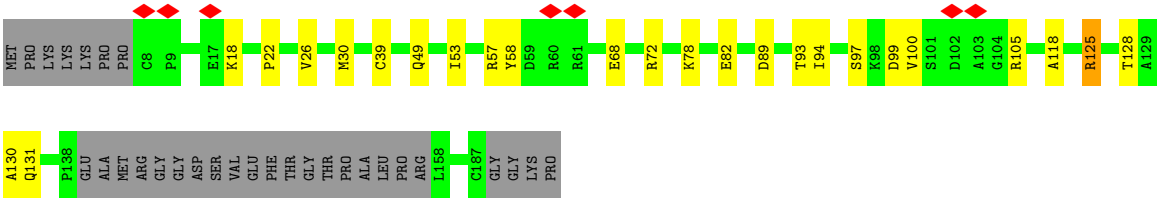
Chain 3R:





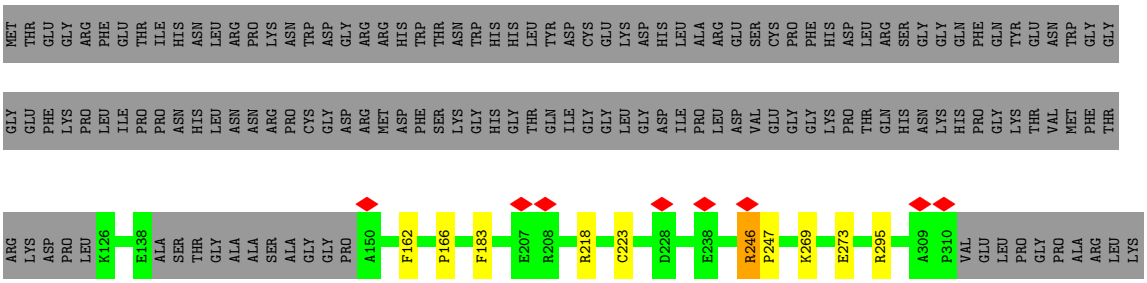
- Molecule 45: FAP90

Chain 3S:



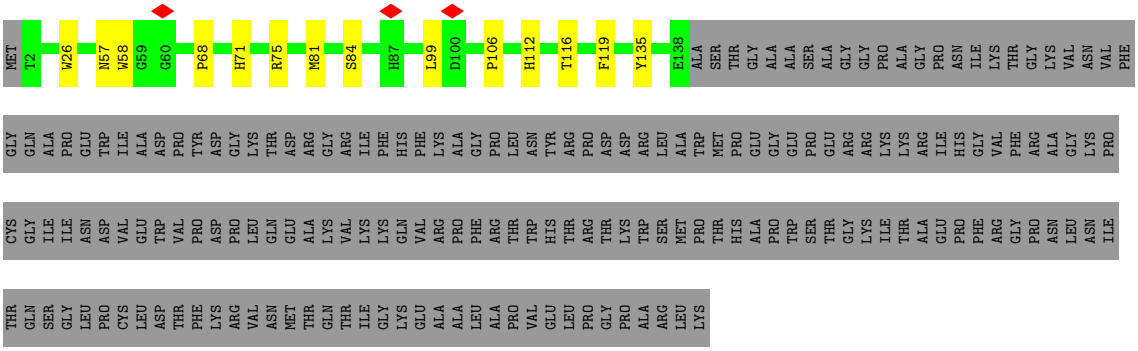
- Molecule 46: PBP36

Chain 3T:



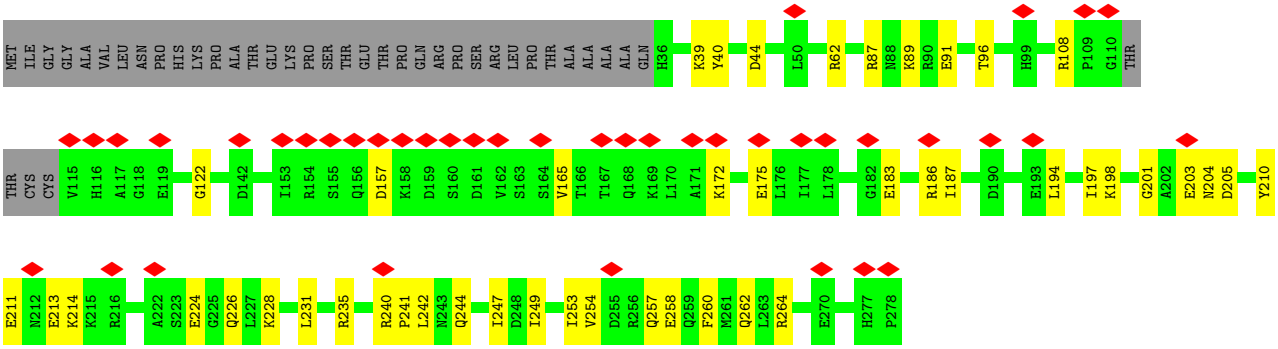
- Molecule 46: PBP36

Chain 3U:



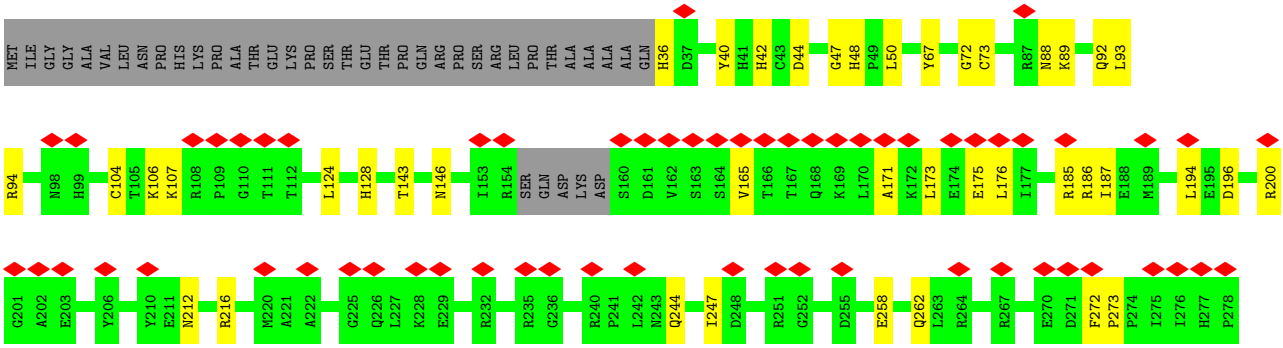
- Molecule 47: Enkurin domain-containing protein

Chain 3V:



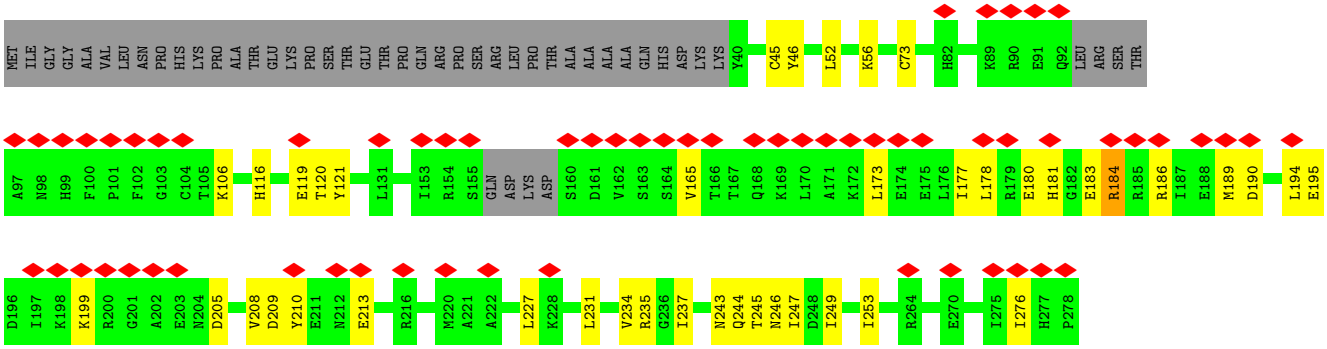
- Molecule 47: Enkurin domain-containing protein

Chain 3W:



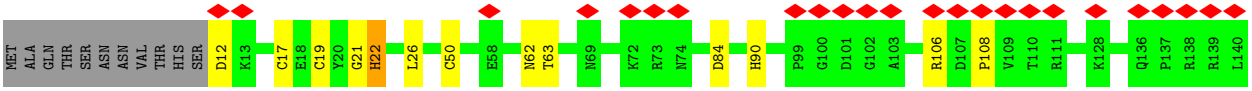
- Molecule 47: Enkurin domain-containing protein

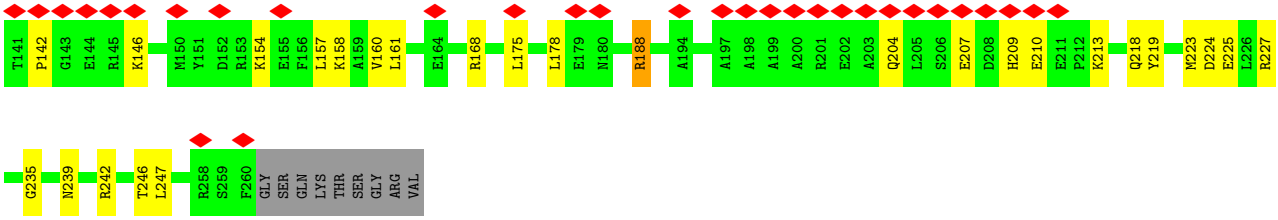
Chain 3X:



- Molecule 48: Enkurin domain-containing protein

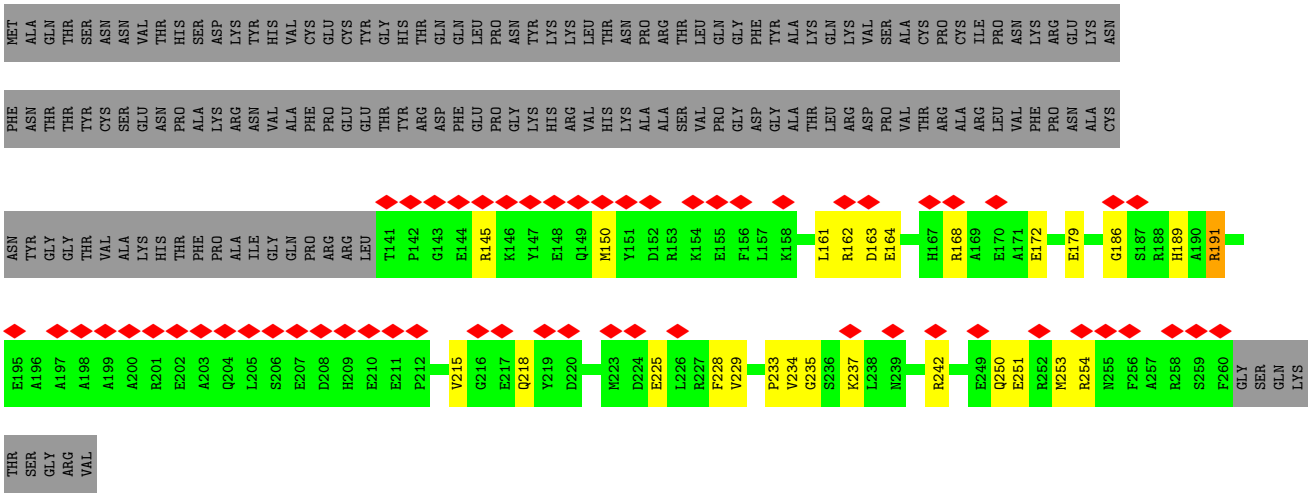
Chain 3Y:





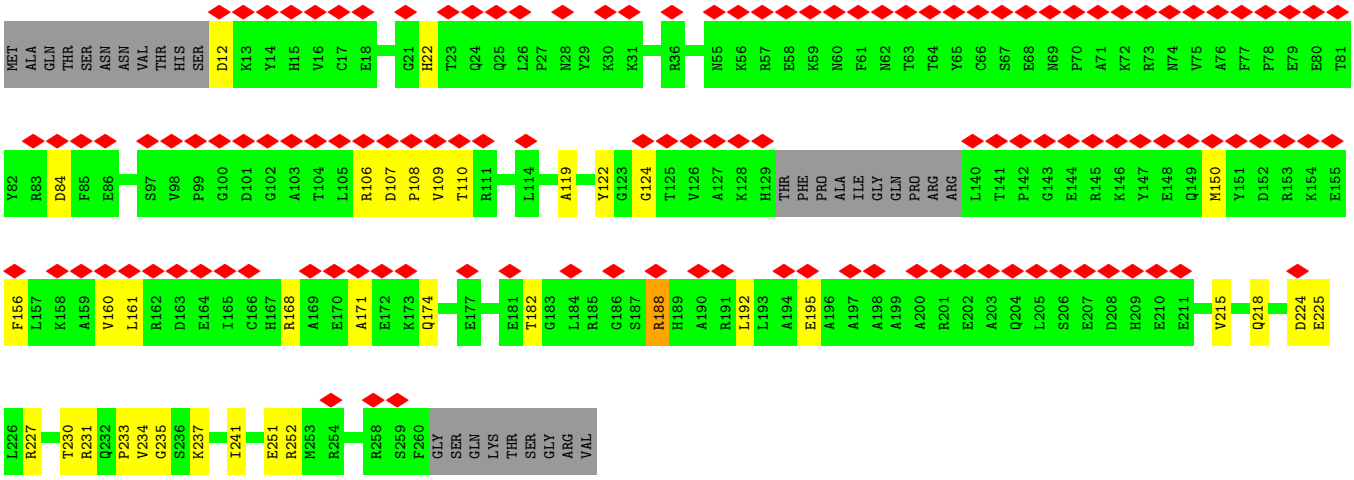
• Molecule 48: Enkurin domain-containing protein

Chain 3Z:



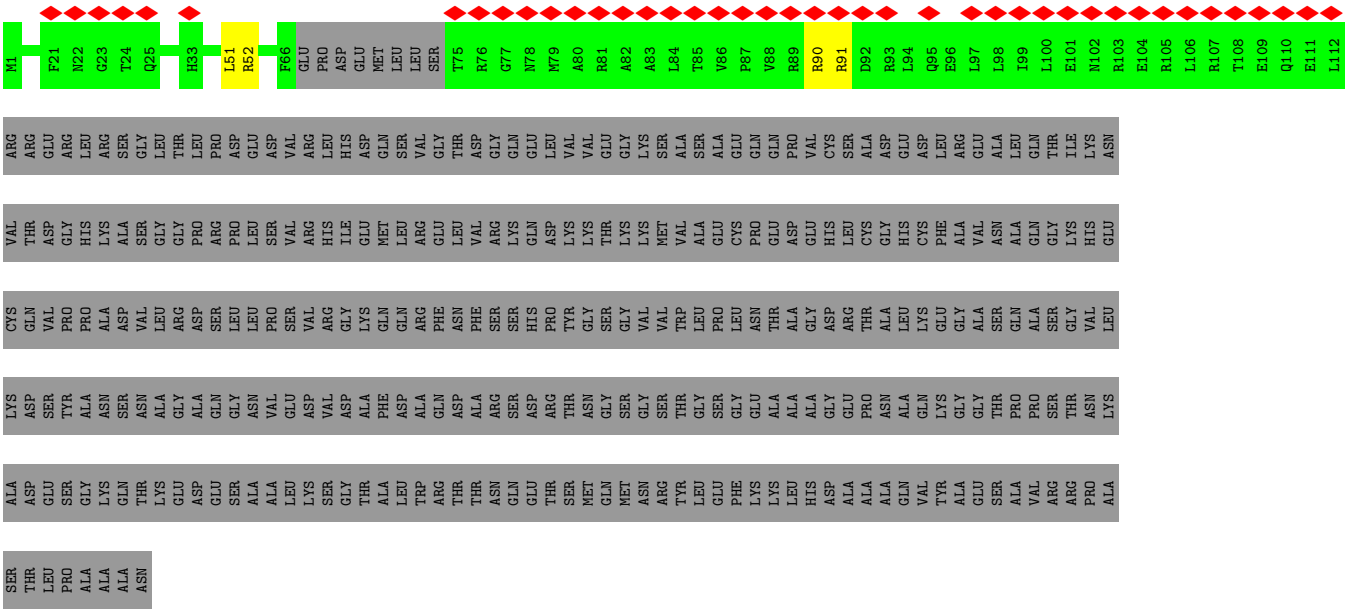
• Molecule 48: Enkurin domain-containing protein

Chain 4A:



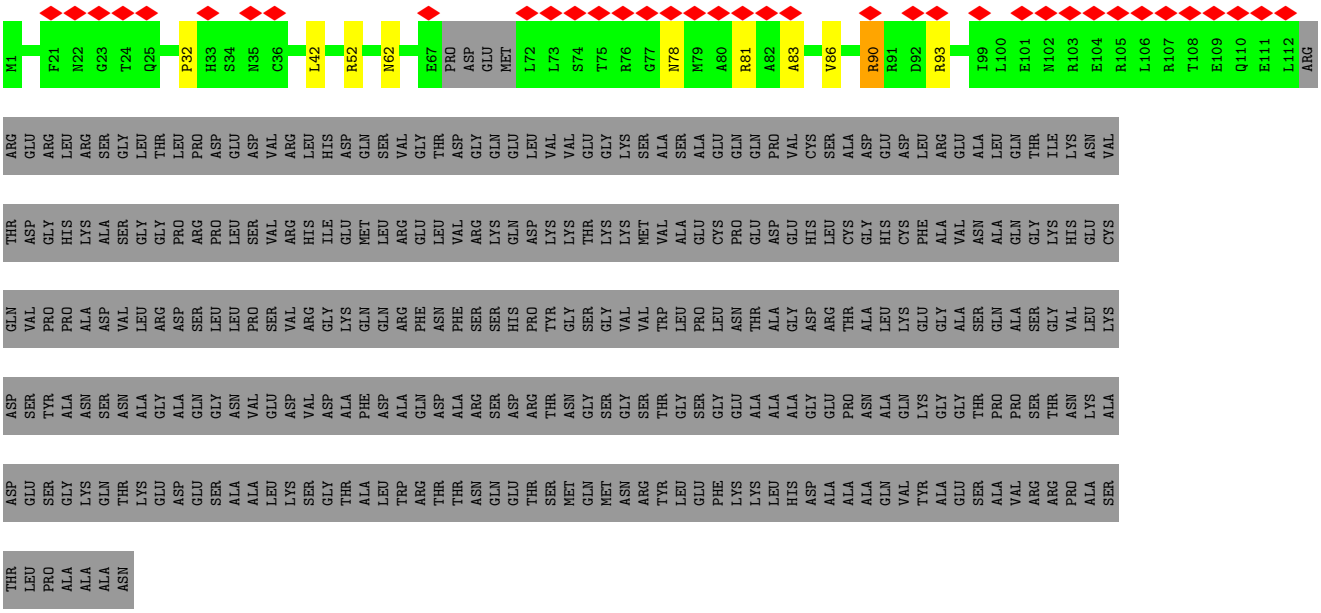
• Molecule 49: PON3

Chain 4B:



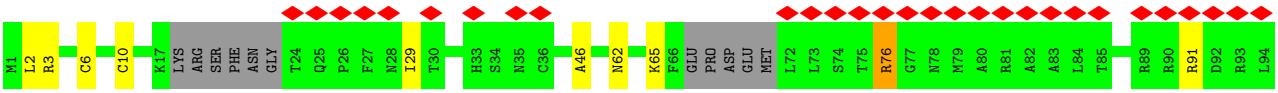
• Molecule 49: PON3

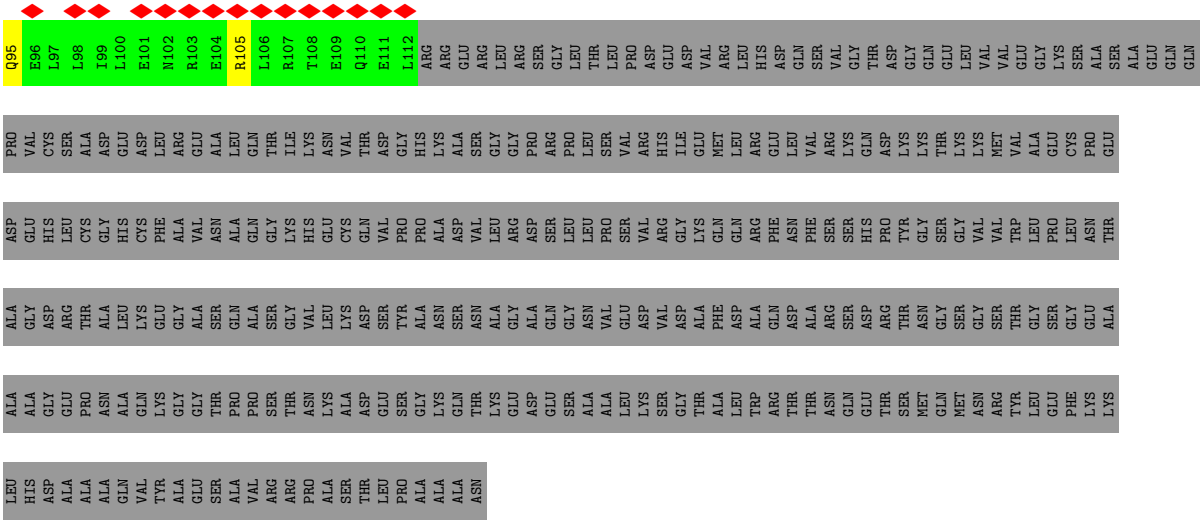
Chain 4C:



• Molecule 49: PON3

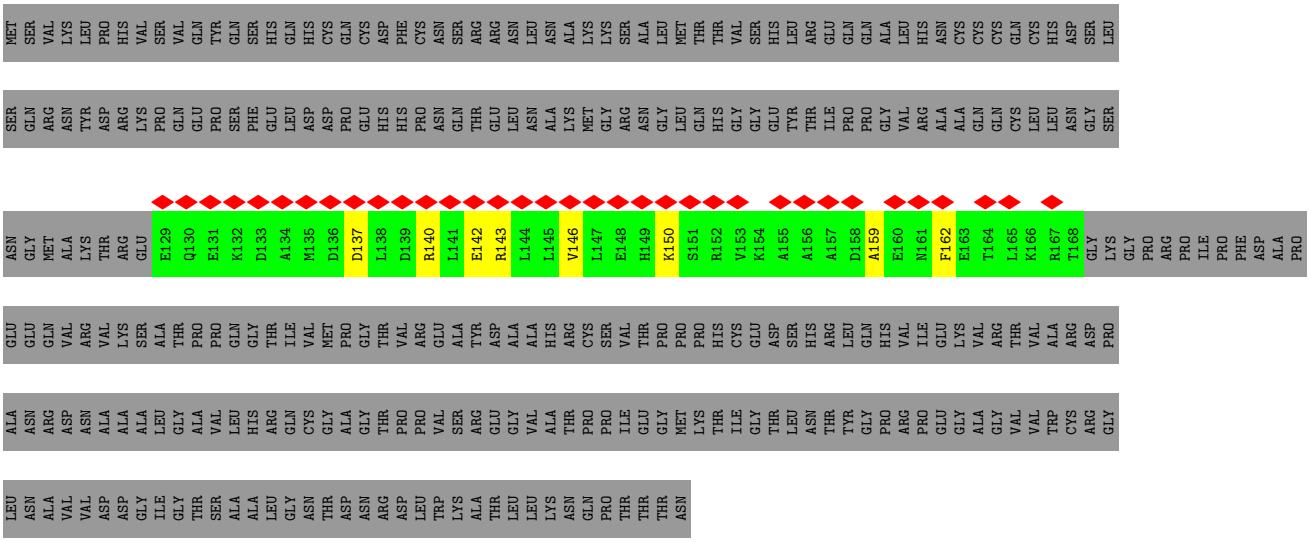
Chain 4D:





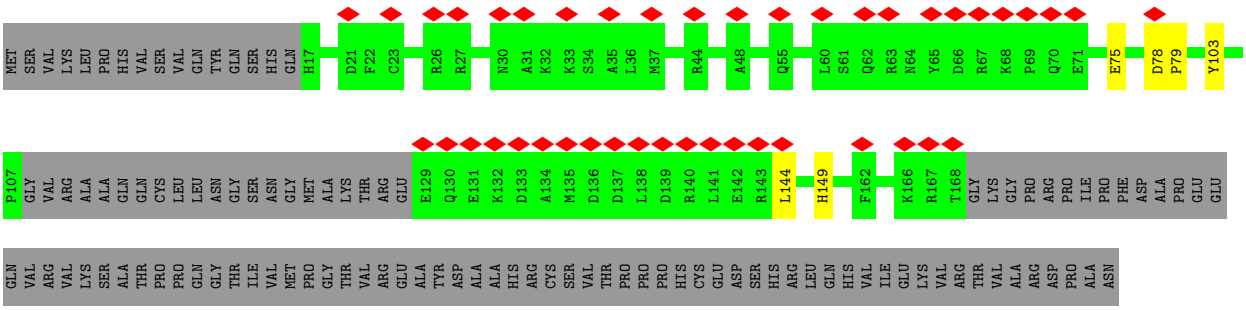
- Molecule 50: PON4

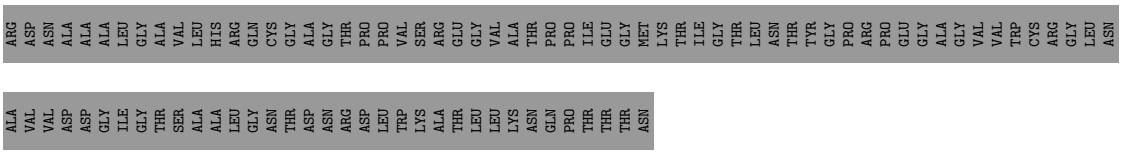
Chain 4E:



- Molecule 50: PON4

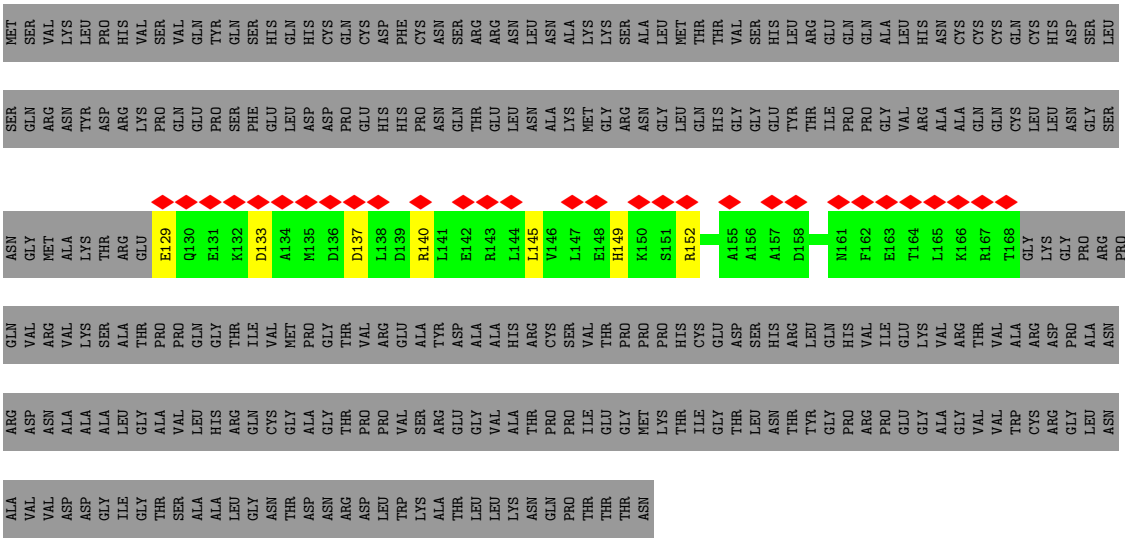
Chain 4F:





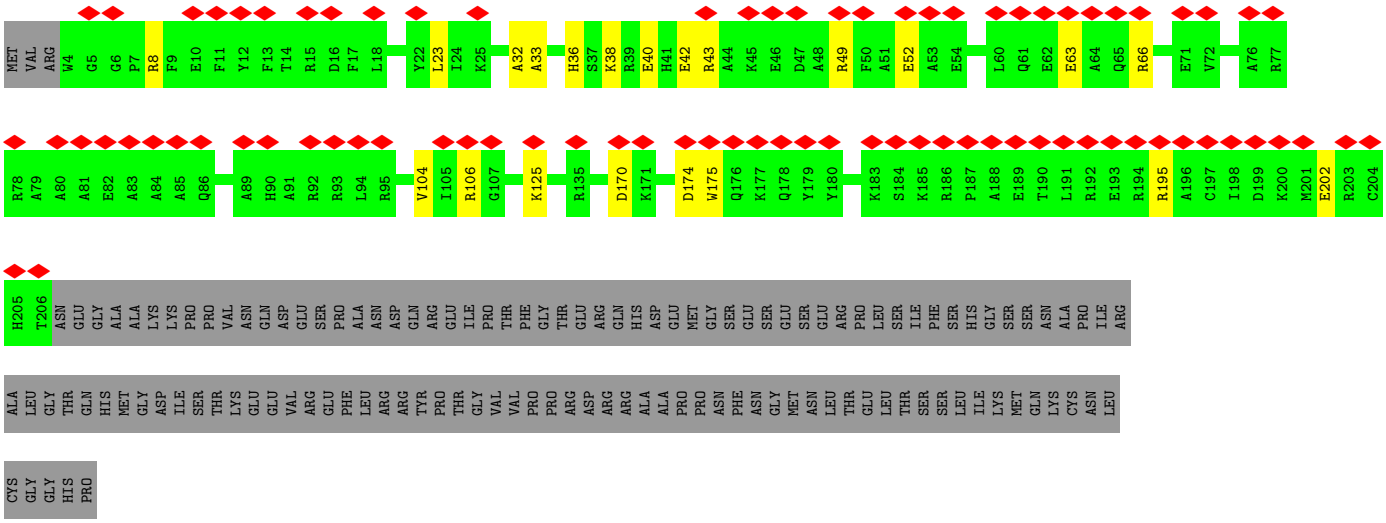
- Molecule 50: PON4

Chain 4G:



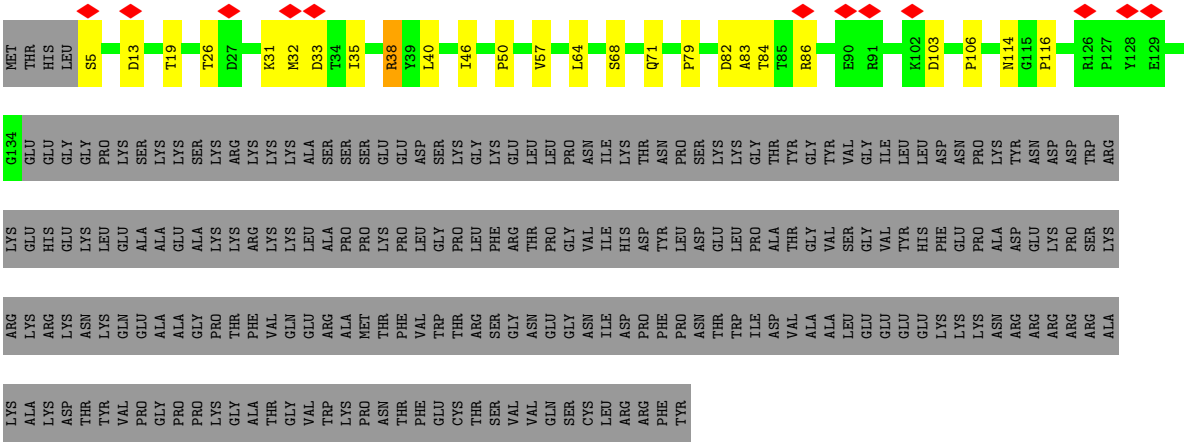
- Molecule 51: MC7

Chain 4H:



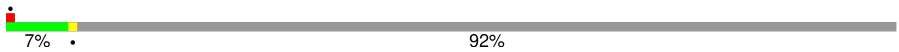
- Molecule 52: FAP96C/MC15

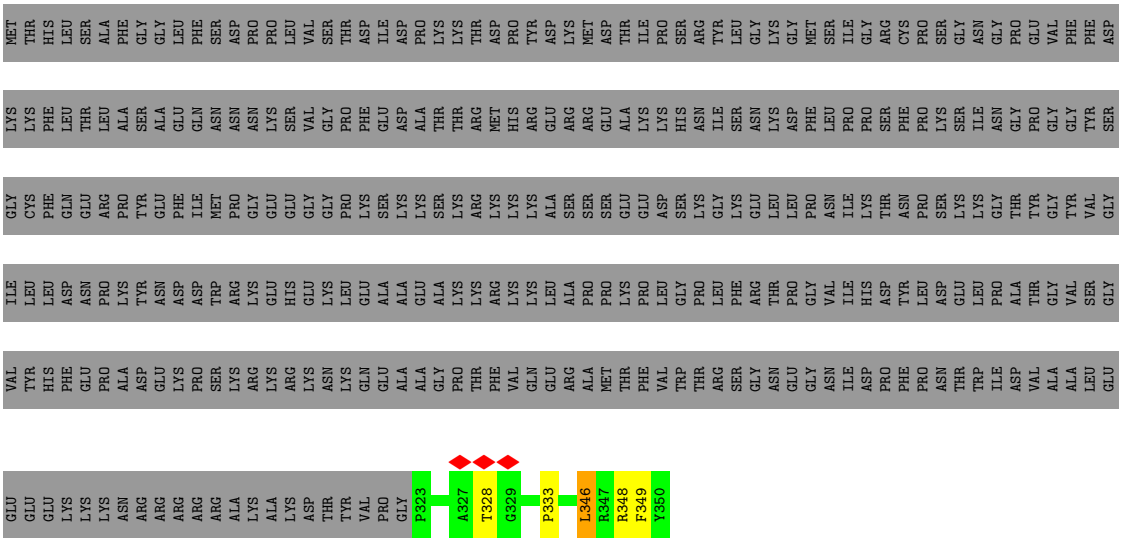
Chain 4I:



- Molecule 52: FAP96C/MC15

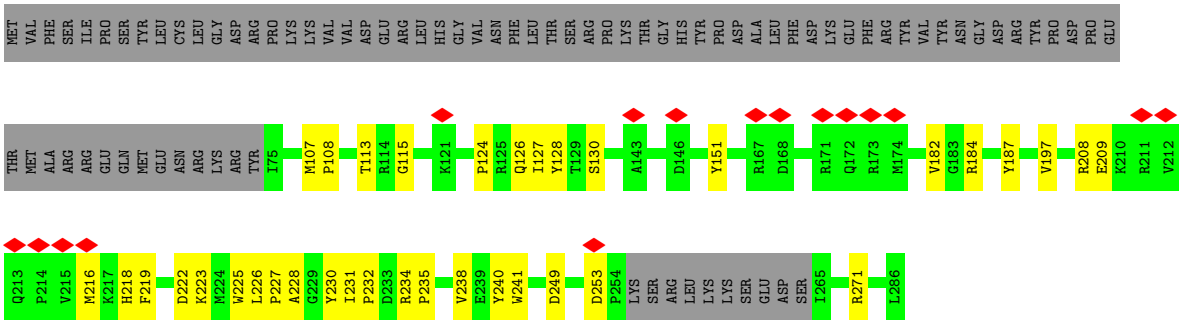
Chain 4J:





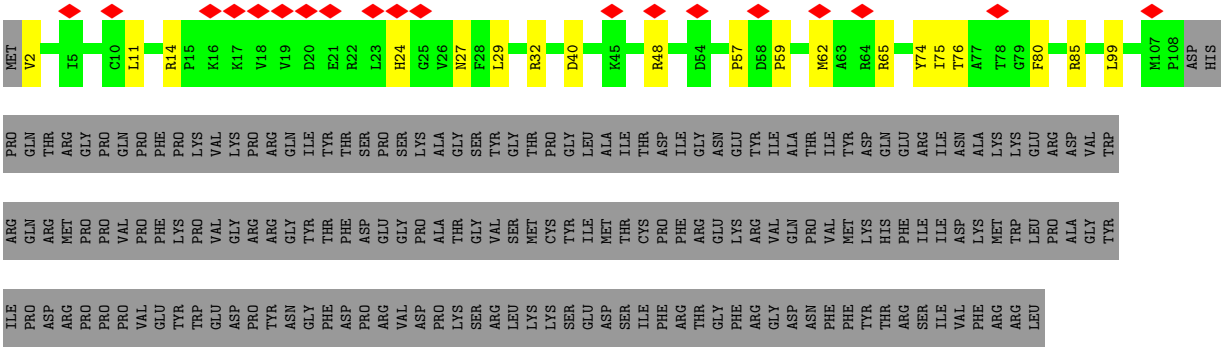
- Molecule 53: FAP96B

Chain 4K:



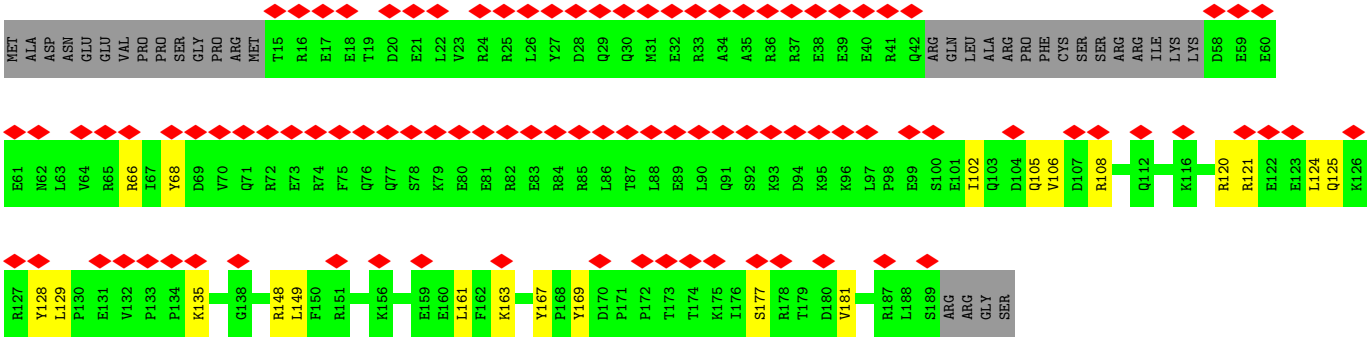
- Molecule 53: FAP96B

Chain 4L:



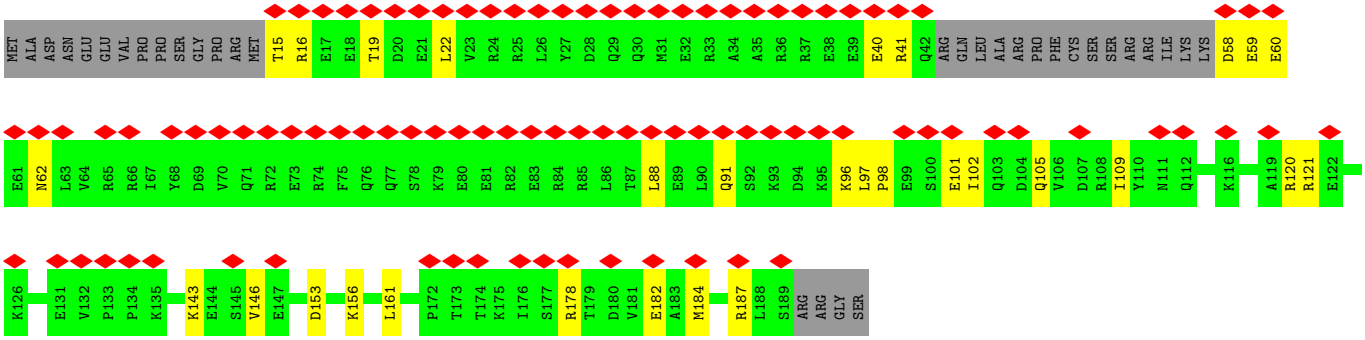
- Molecule 54: MOP23A

Chain 4M:



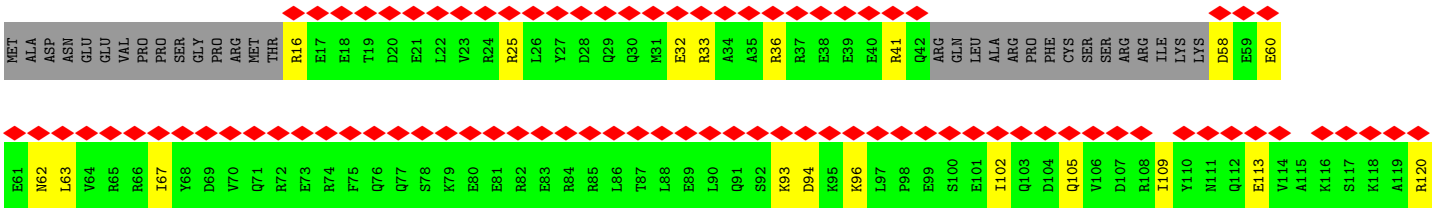
- Molecule 54: MOP23A

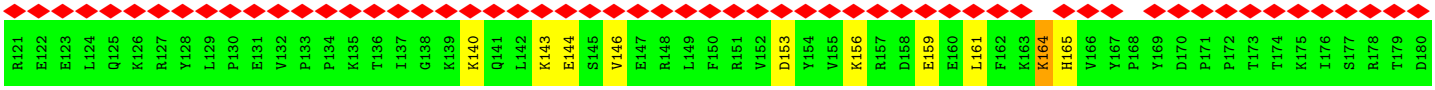
Chain 4N:

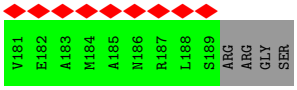


- Molecule 54: MOP23A

Chain 4O:

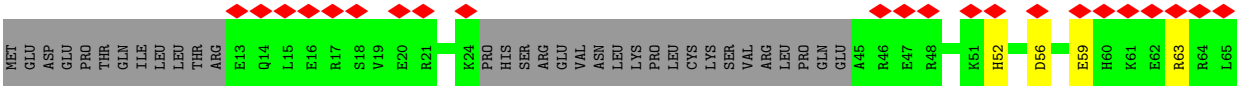


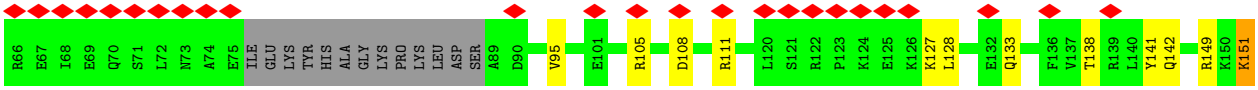




- Molecule 55: MOP23B

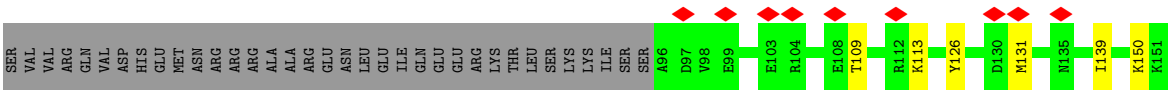
Chain 4P:

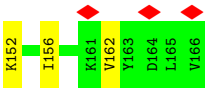




- Molecule 56: MOP23C

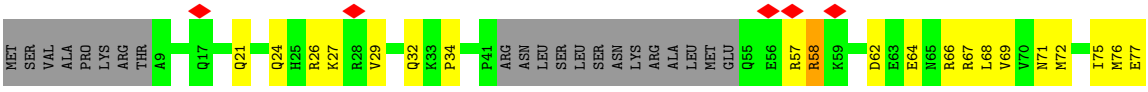
Chain 4Q:

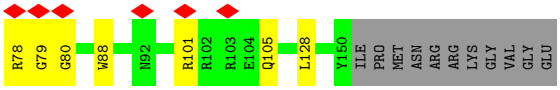




- Molecule 57: KIAA1430 homologue

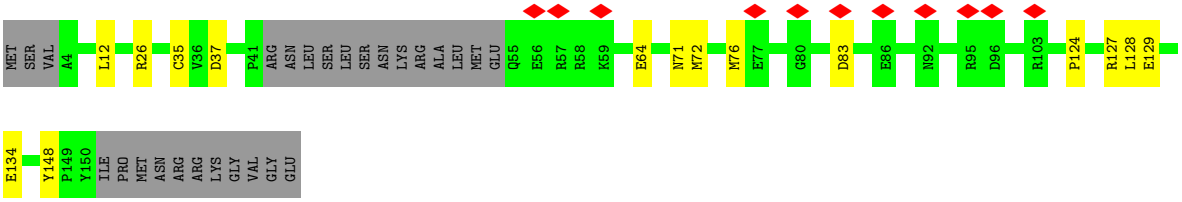
Chain 4R:





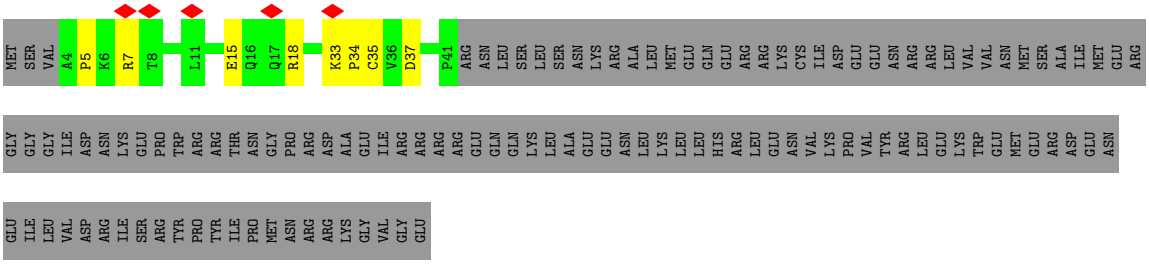
- Molecule 57: KIAA1430 homologue

Chain 4S:



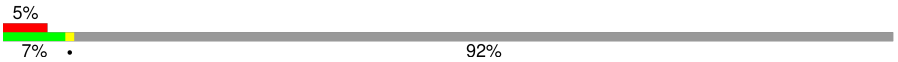
• Molecule 57: KIAA1430 homologue

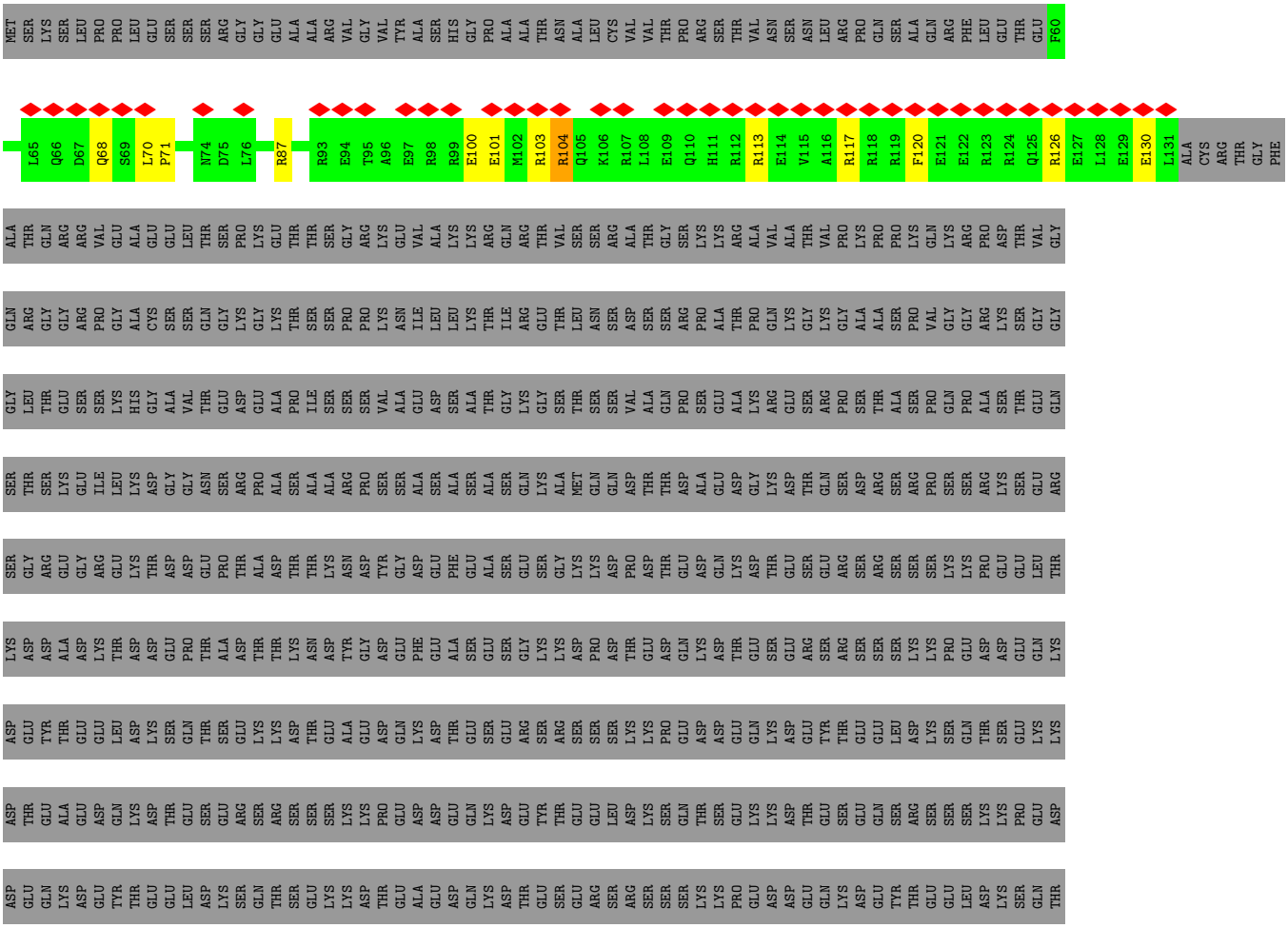
Chain 4Y:

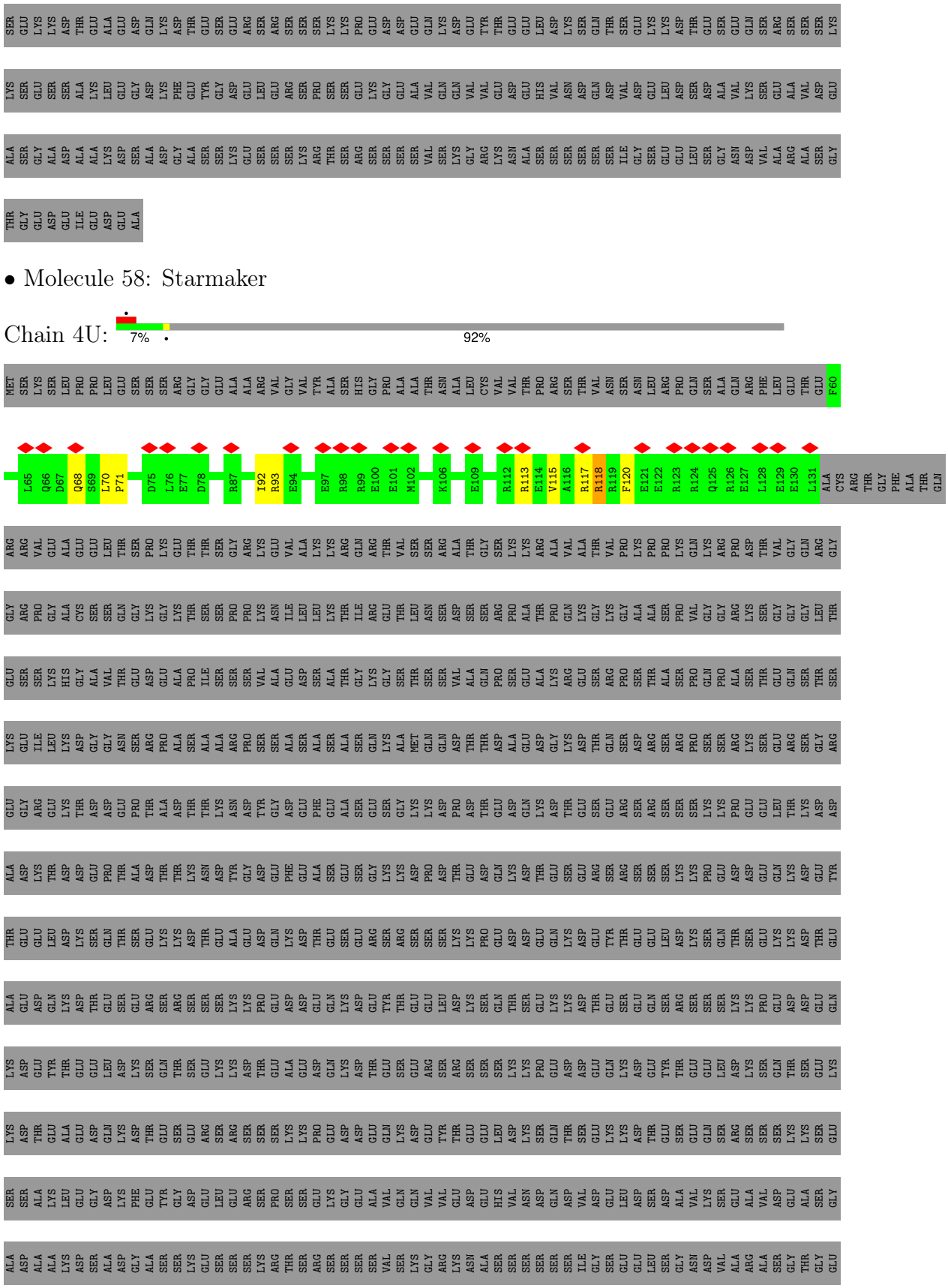


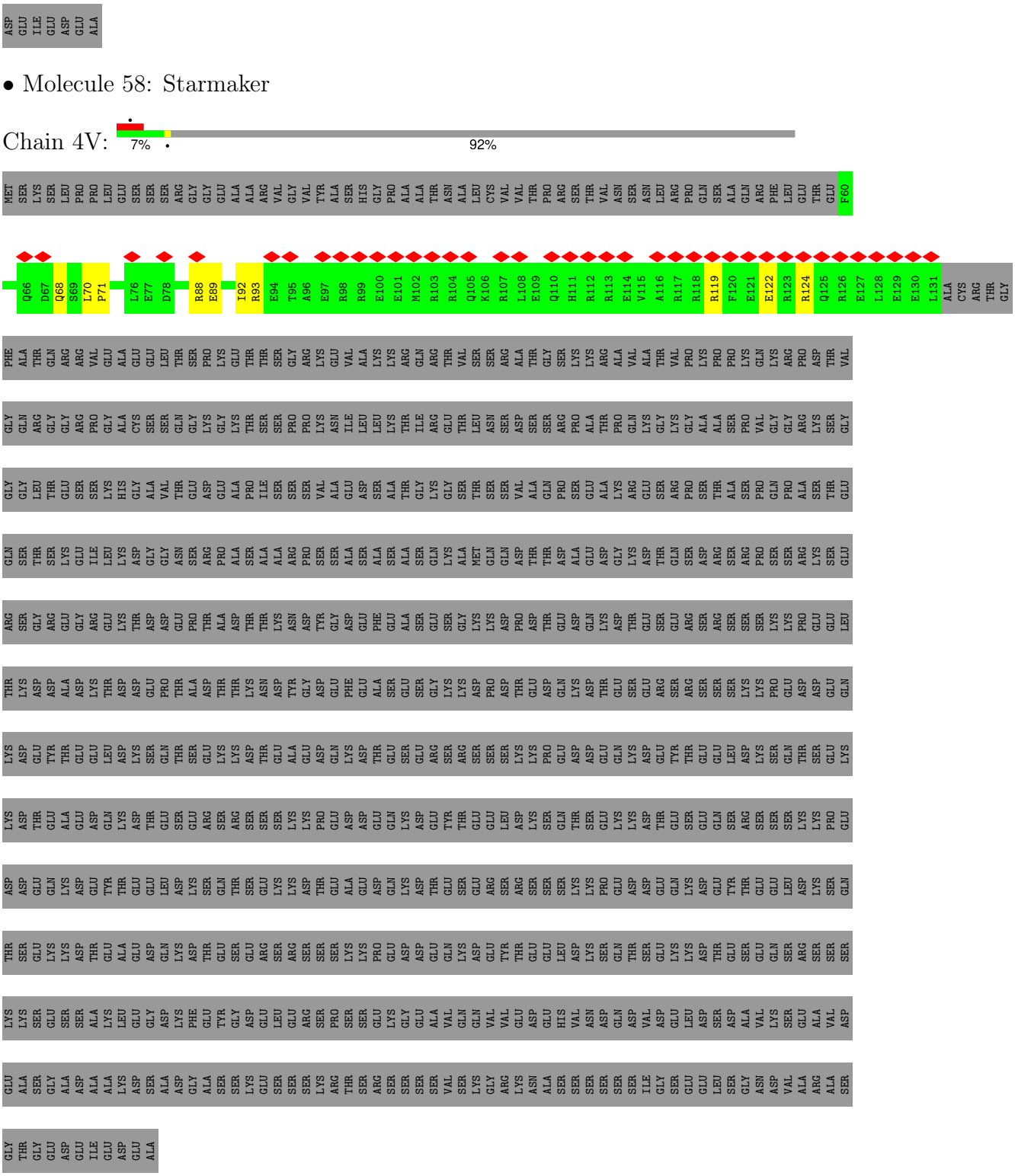
• Molecule 58: Starmaker

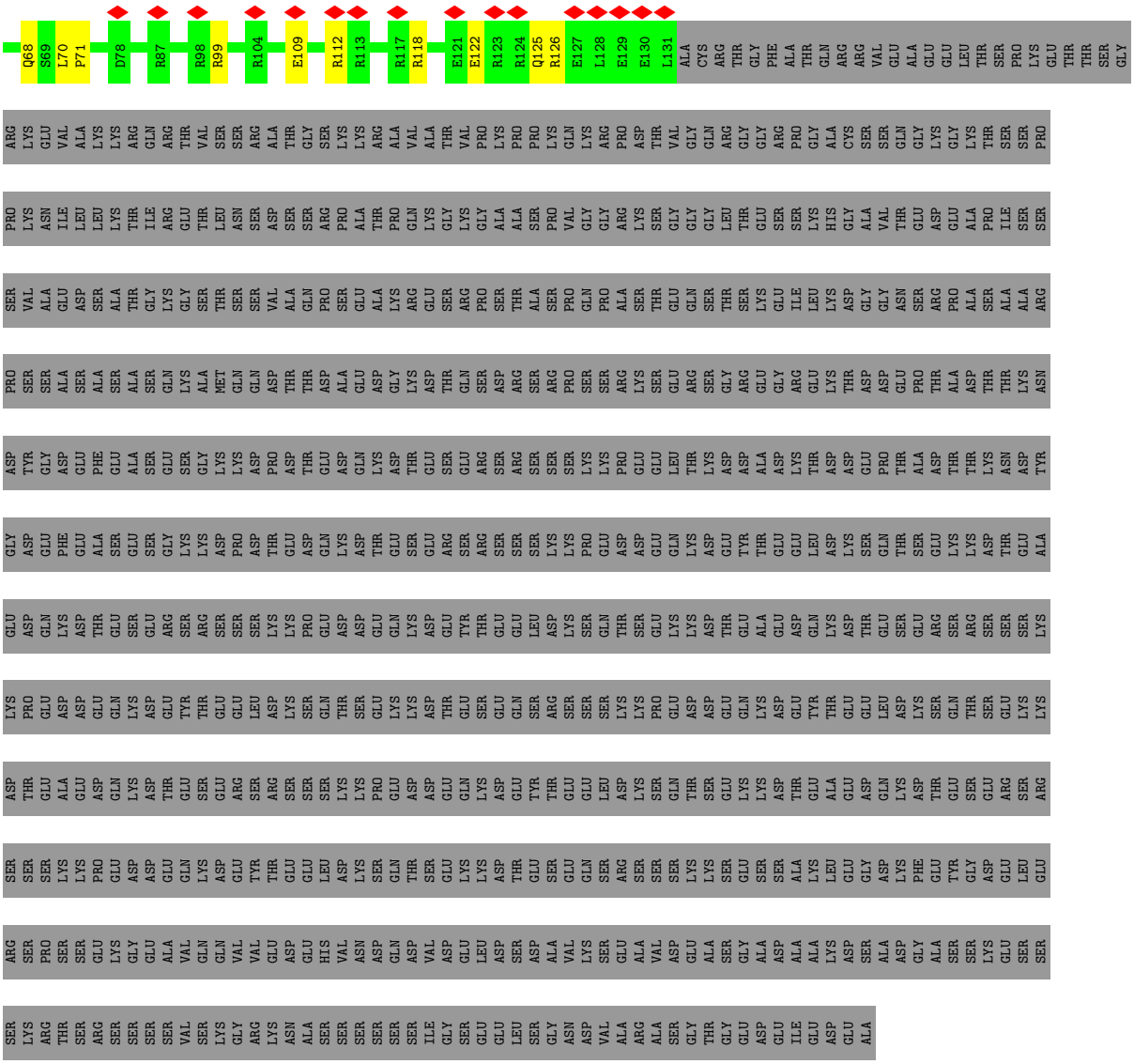
Chain 4T:





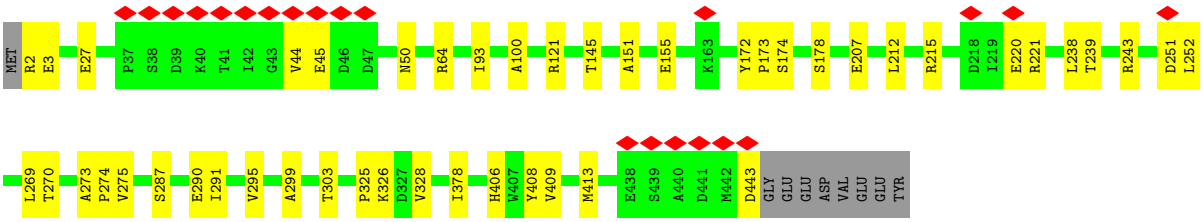

• Molecule 58: Starmaker
Chain 4U:
7%
92%


ASP GLU ILE GLU ASP GLU ALA
• Molecule 58: Starmaker
Chain 4V:
7%
92%
MET SER LYS SER LEU PRO PRO LEU GLU SER SER SER ARG GLY GLY GLU ALA ALA ARG VAL GLY VAL TYR ALA SER HIS GLY PRO ALA ALA THR ASN ALA LEU CYS VAL VAL THR PRO ARG SER THR VAL ASN SER ASN LEU ARG PRO GLN SER ALA GLN ARG PHE LEU GLU THR GLU F60
Q66 D67 Q68 S69 L70 P71 L76 E77 D78 R88 E89 I92 R93 E94 T95 A96 E97 R98 R99 E100 E101 M102 R103 R104 Q105 K106 R107 L108 E109 Q110 H111 R112 R113 E114 V115 A116 R117 R118 R119 F120 E121 E122 R123 R124 Q125 R126 E127 L128 E129 E130 L131
ALA CYS ARG THR GLY
PHE ALA THR GLN ARG ARG VAL GLU ALA GLU GLU LEU THR SER PRO LYS GLU THR THR SER GLY ARG LYS GLU VAL ALA LYS LYS ARG GLN ARG THR VAL SER SER ARG ALA THR GLY SER LYS LYS ARG ALA VAL ALA THR VAL PRO LYS PRO PRO LYS GLN LYS ARG PRO ASP THR VAL
GLY GLN ARG GLY GLY ARG PRO GLY ALA CYS SER SER GLN GLY LYS GLY LYS THR SER SER PRO PRO LYS ASN ILE LEU LEU LYS THR ILE ARG GLU THR LEU ASN SER ASP SER SER ARG PRO ALA THR PRO GLN LYS GLY LYS GLY ALA ALA SER PRO VAL GLY GLY ARG LYS SER GLY
GLY GLY LEU THR GLU SER SER LYS HIS GLY ALA VAL THR GLU ASP GLU ALA PRO ILE SER SER SER VAL ALA GLU ASP SER ALA THR GLY LYS GLY SER THR SER SER VAL ALA ALA GLN PRO SER GLU ALA LYS ARG GLU SER ARG PRO SER THR ALA SER PRO GLN PRO ALA SER THR GLU
GLN SER THR SER LYS GLU ILE LEU LYS ASP GLY GLY ASN SER ARG PRO ALA SER ALA ALA ARG PRO SER SER ALA ALA SER ALA SER ALA ALA SER GLN LYS ALA MET GLN GLN ASP THR THR ASP ALA GLU ASP GLY LYS ASP THR GLN SER ASP ARG SER ARG PRO SER SER ARG LYS SER GLU
ARG SER GLY ARG GLU GLY ARG GLU LYS THR ASP ASP GLU PRO THR ALA ASP THR THR ASP ALA SER GLU GLU PHE GLU ALA SER GLU SER GLY LYS LYS ASP PRO ASP THR GLU ASP GLN LYS ASP THR GLU SER GLU ARG SER ARG SER SER SER LYS LYS PRO GLU GLU GLU LEU
THR LYS ASP ASP ALA ASP LYS THR ASP ASP GLU PRO THR ALA ASP THR THR LYS ASN ASP TYR GLY ASP GLU PHE GLU ALA SER GLU SER GLY LYS LYS ASP PRO ASP THR GLU ASP GLN LYS ASP THR GLU SER GLU ARG SER ARG SER SER LYS LYS PRO GLU ASP ASP GLU GLN
LYS ASP GLU TYR THR GLU GLU LEU ASP LYS SER GLN THR SER GLU LYS LYS ASP THR GLU ALA GLU ASP GLN LYS ASP THR GLU SER GLU ARG SER SER ARG SER SER SER LYS PRO GLU ASP ASP GLU GLN LYS ASP GLU TYR THR GLU GLU GLU LEU ASP LYS SER GLN THR SER GLU LYS
LYS ASP THR GLU ALA GLU ASP GLN LYS ASP THR GLU SER GLN THR SER SER SER LYS LYS PRO GLU ASP ASP GLU GLN LYS ASP GLU TYR THR GLU GLU LEU ASP LYS SER GLN THR GLU SER GLU GLN SER ARG SER SER LYS LYS PRO GLU
ASP ASP GLU GLN LYS ASP GLU TYR THR GLU GLU LEU ASP LYS SER GLN THR SER GLU LYS LYS ASP THR GLU ALA GLU ASP GLN LYS ASP THR GLU SER GLU LYS LYS PRO GLU ASP ASP GLU GLN LYS ASP GLU TYR THR GLU GLU LEU ASP LYS SER GLN THR SER GLU LYS LYS
THR SER GLU LYS LYS ASP THR GLU ALA GLU ASP GLN LYS ASP THR GLU SER GLU ARG SER ARG SER SER LYS LYS PRO GLU GLU ASP ASP GLU GLN LYS ASP THR GLU SER GLU LYS LYS ASP THR GLU SER GLU GLN LYS ASP GLU TYR THR GLU GLU LEU ASP LYS SER GLN THR SER GLU LYS
LYS LYS SER GLU SER SER SER ALA LYS LEU GLU GLY ASP LYS PHE GLU TYR GLY ASP GLU LEU GLU ARG SER PRO SER SER GLU LYS LYS GLY GLU ALA VAL GLN GLN VAL VAL VAL GLU ASP GLU HIS VAL ASN ASP GLN ASP VAL ASP GLU LEU ASP SER ASP ALA VAL LYS SER GLU ALA VAL ASP
GLU ALA SER GLY ALA ASP ALA ALA LYS ASP SER ALA ASP GLY ALA SER SER LYS ARG THR SER ARG SER SER SER SER VAL SER LYS GLY ARG LYS ASN ALA SER SER SER SER SER ILE GLY SER GLU GLU LEU SER GLY ASN ASP VAL ALA ARG ALA SER
GLY THR GLY GLU ASP GLU ILE GLU ASP GLU ALA
• Molecule 58: Starmaker
Chain 4W:
7%
92%
MET SER LYS SER LEU PRO PRO LEU GLU SER SER SER ARG GLY GLY GLU ALA ALA ARG VAL GLY VAL TYR ALA SER HIS GLY PRO ALA ALA THR ASN ALA LEU CYS VAL VAL THR PRO ARG SER THR VAL ASN SER ASN LEU ARG PRO GLN SER ALA GLN ARG PHE LEU GLU THR GLU F60



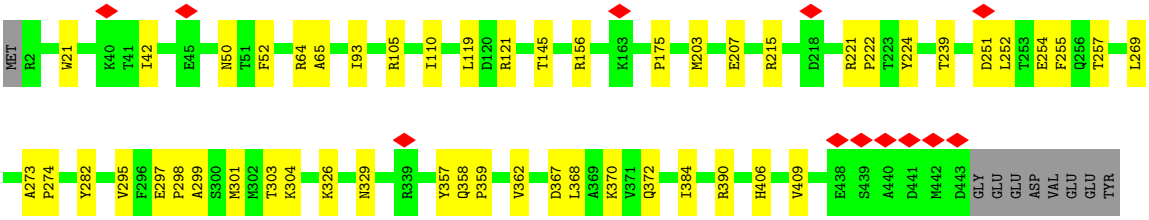
- Molecule 59: Tubulin alpha chain

Chain AA:



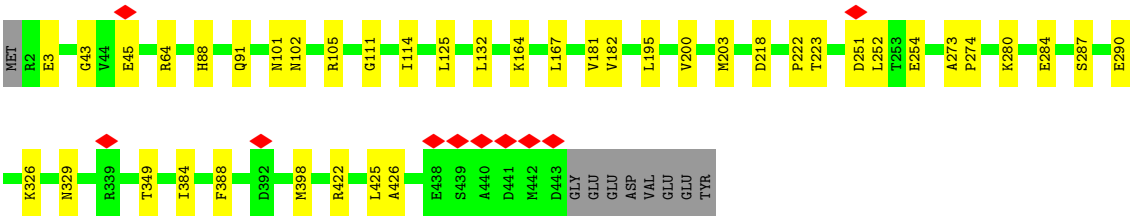
- Molecule 59: Tubulin alpha chain

Chain AC:



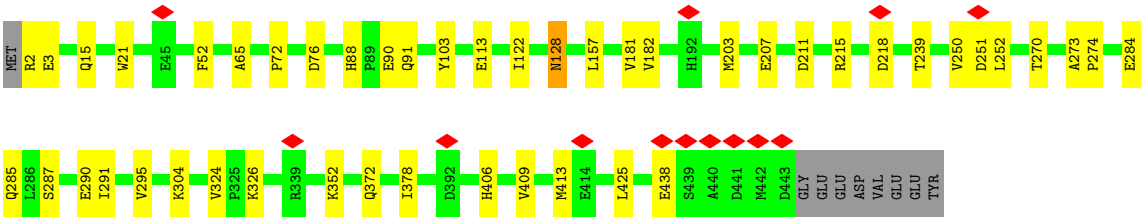
- Molecule 59: Tubulin alpha chain

Chain AE:



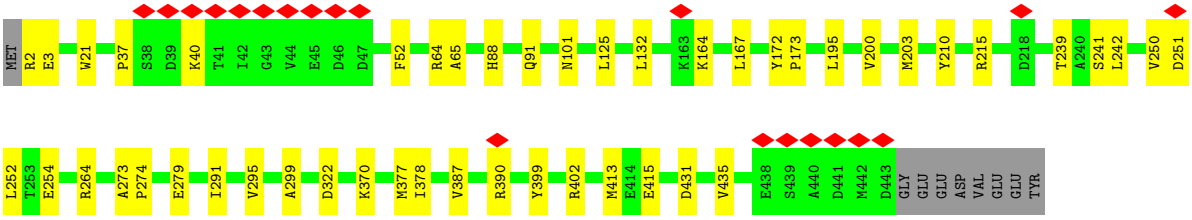
- Molecule 59: Tubulin alpha chain

Chain AG:



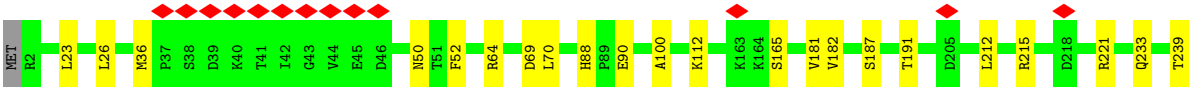
- Molecule 59: Tubulin alpha chain

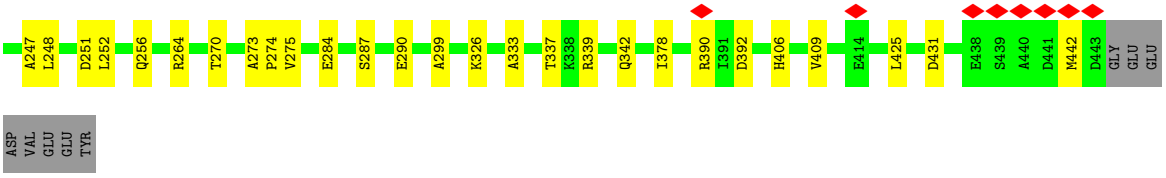
Chain AI:



- Molecule 59: Tubulin alpha chain

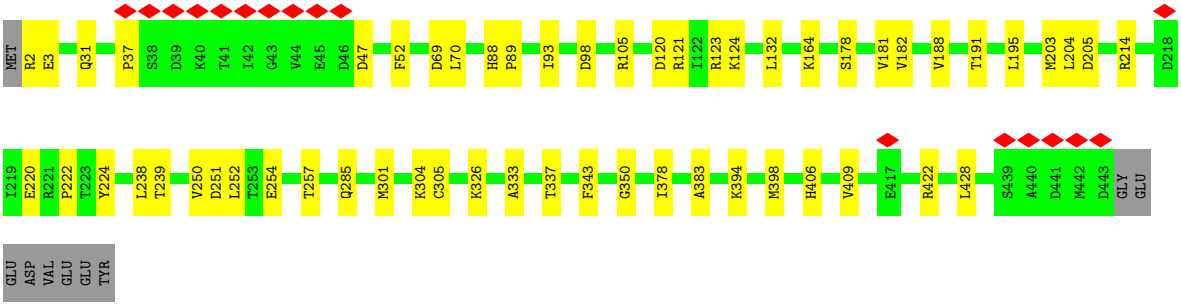
Chain AK:





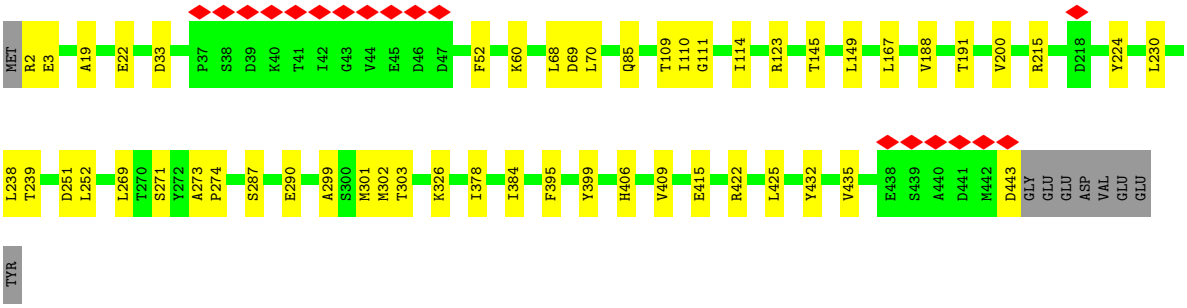
• Molecule 59: Tubulin alpha chain

Chain AM:



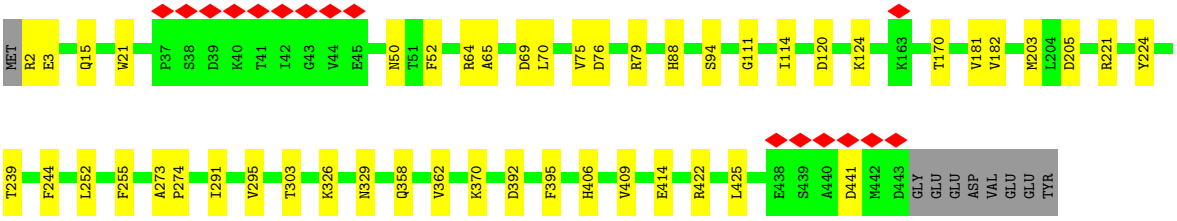
• Molecule 59: Tubulin alpha chain

Chain AO:



• Molecule 59: Tubulin alpha chain

Chain AQ:

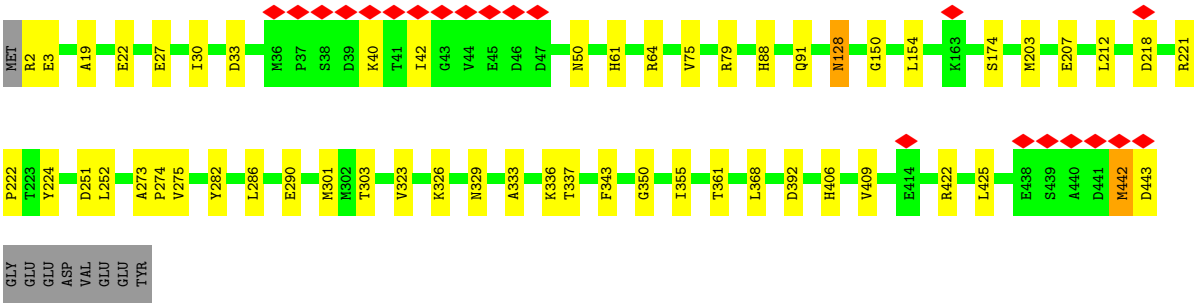


• Molecule 59: Tubulin alpha chain

Chain AS:

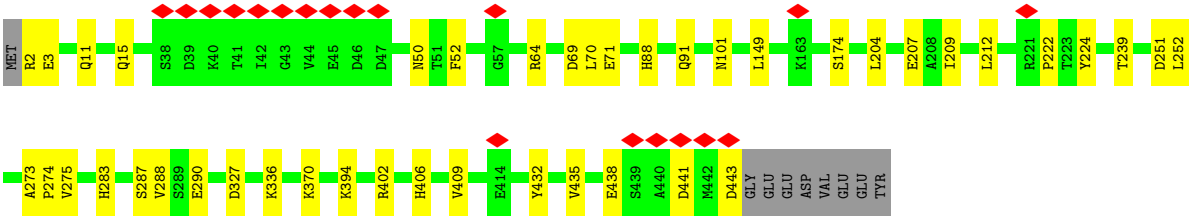
- Molecule 59: Tubulin alpha chain

Chain AU:



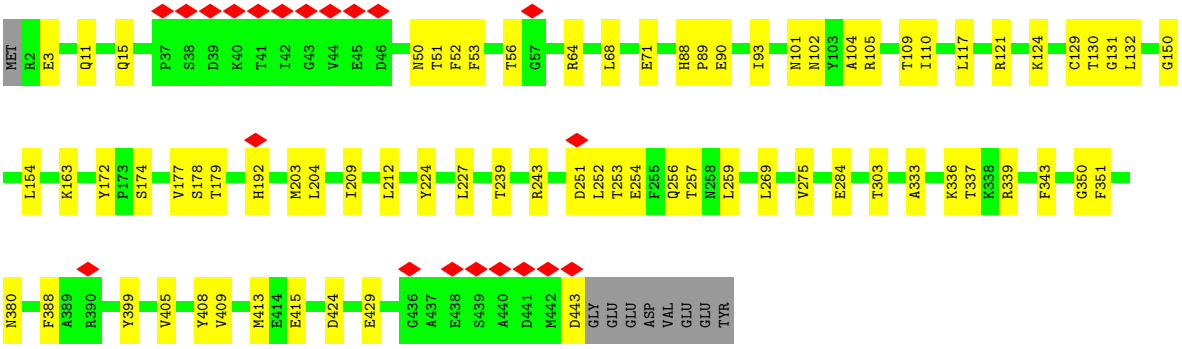
- Molecule 59: Tubulin alpha chain

Chain AW:



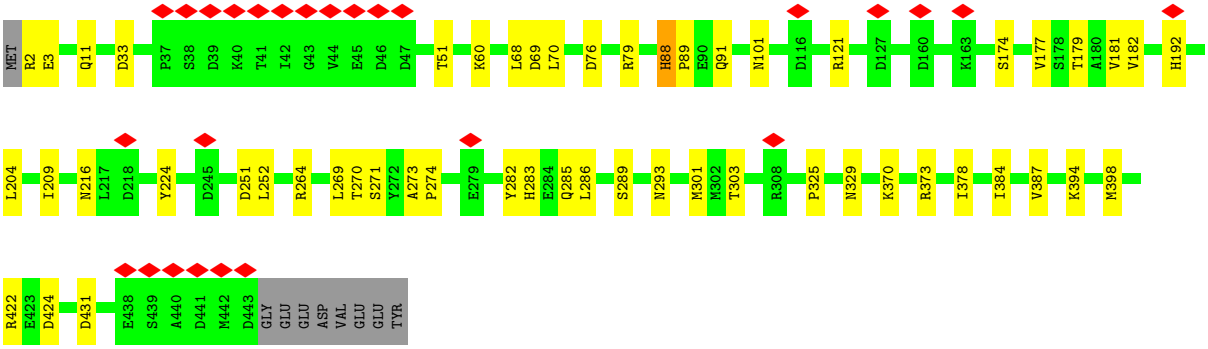
- Molecule 59: Tubulin alpha chain

Chain AY:



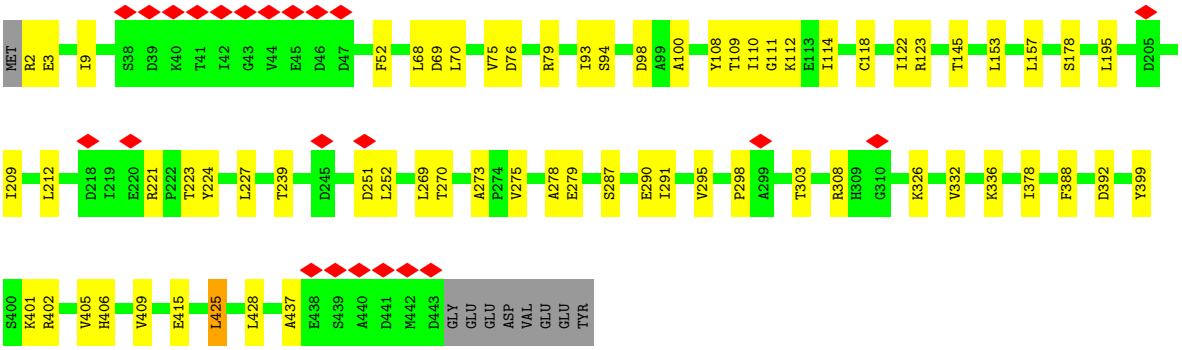
• Molecule 59: Tubulin alpha chain

Chain BA:



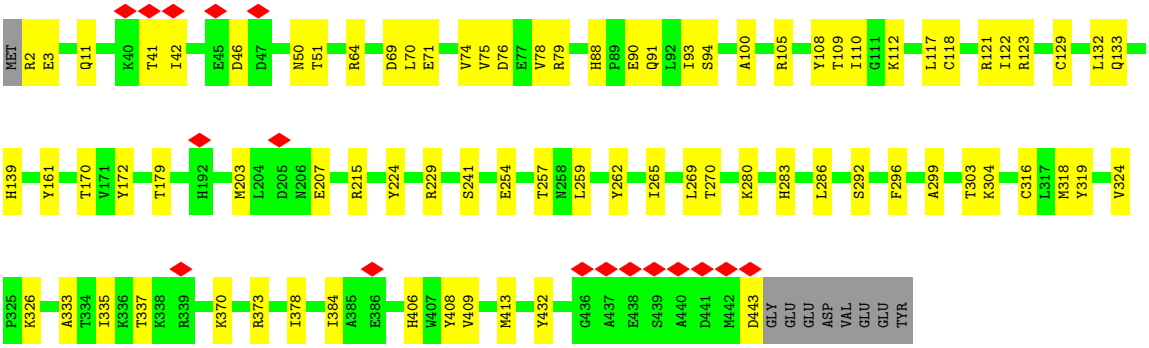
• Molecule 59: Tubulin alpha chain

Chain BC:



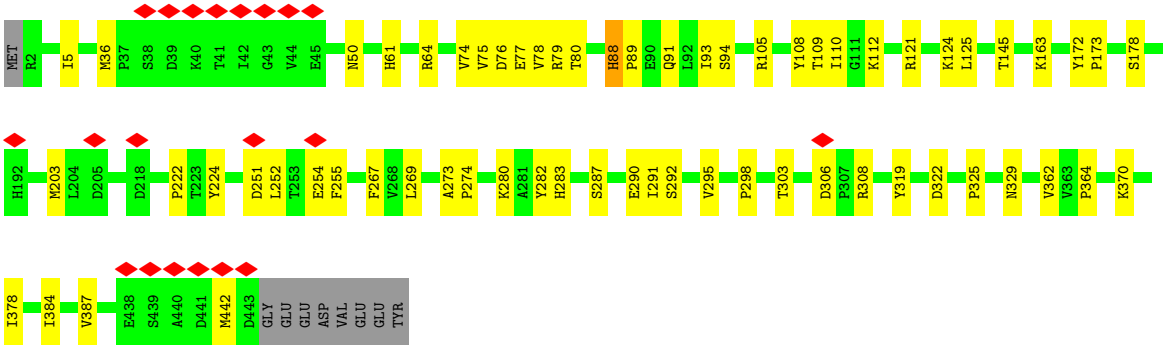
• Molecule 59: Tubulin alpha chain

Chain BE:



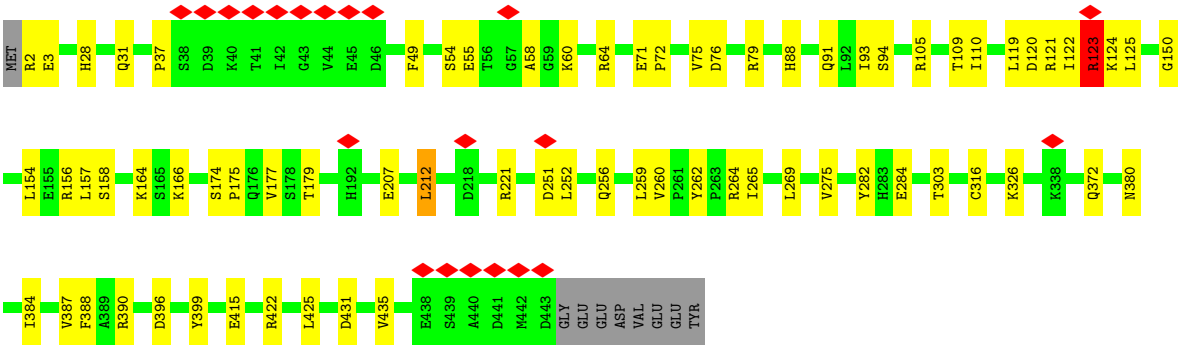
• Molecule 59: Tubulin alpha chain

Chain BG:



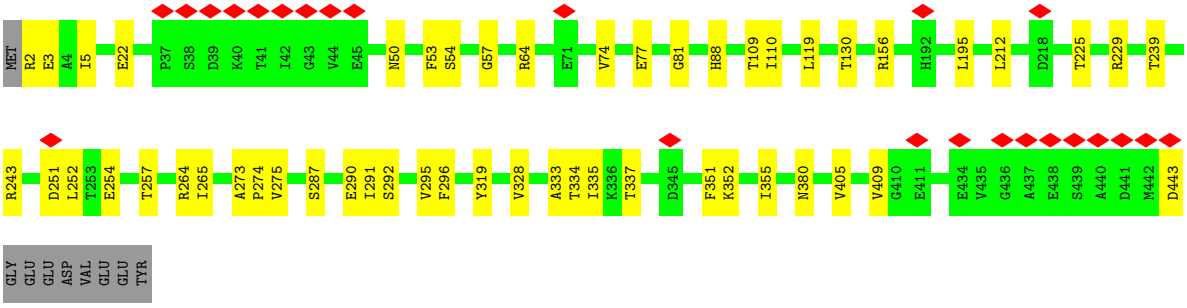
- Molecule 59: Tubulin alpha chain

Chain BI:



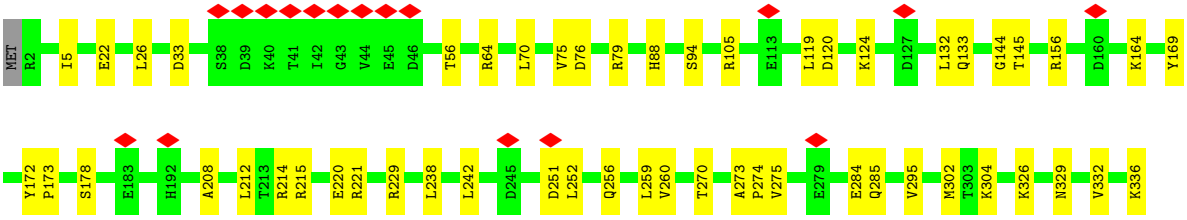
- Molecule 59: Tubulin alpha chain

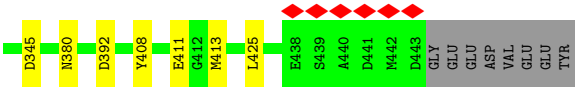
Chain BK:



- Molecule 59: Tubulin alpha chain

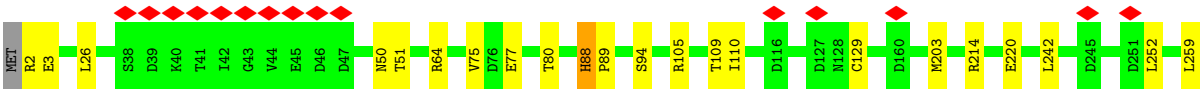
Chain BM:

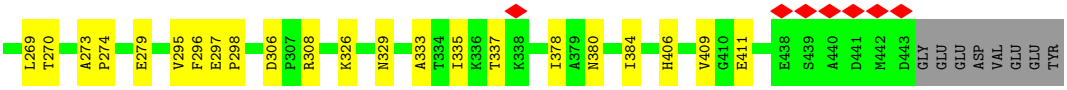




• Molecule 59: Tubulin alpha chain

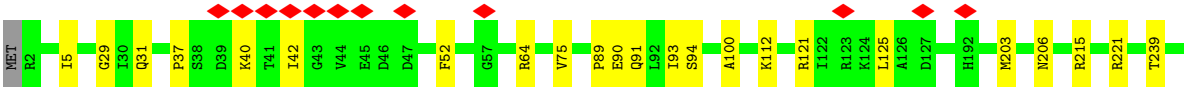
Chain BO:

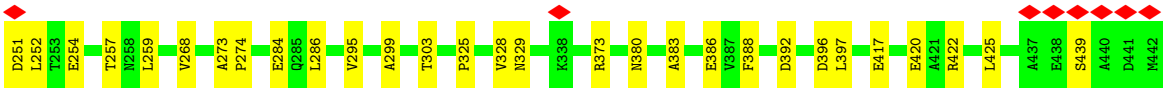


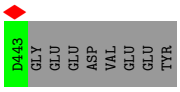


• Molecule 59: Tubulin alpha chain

Chain BQ:

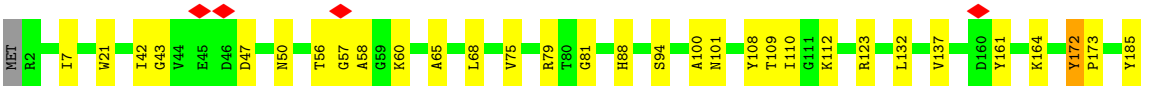


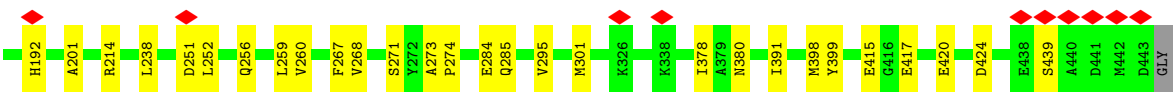


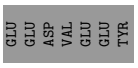


• Molecule 59: Tubulin alpha chain

Chain BS:

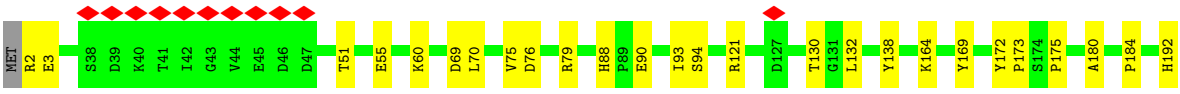


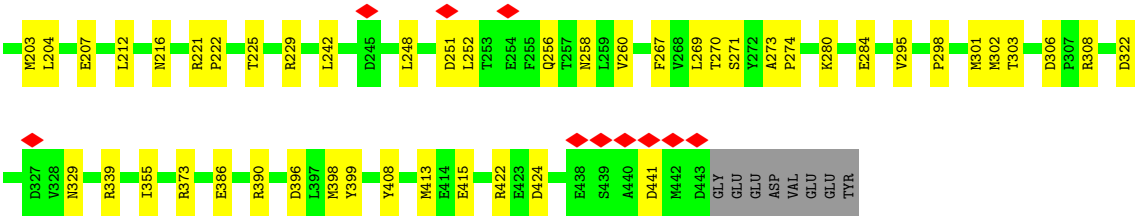




• Molecule 59: Tubulin alpha chain

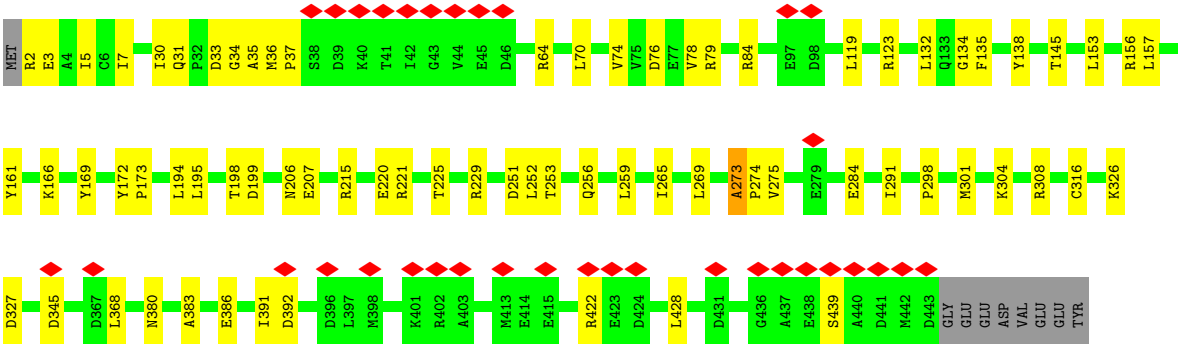
Chain BU:





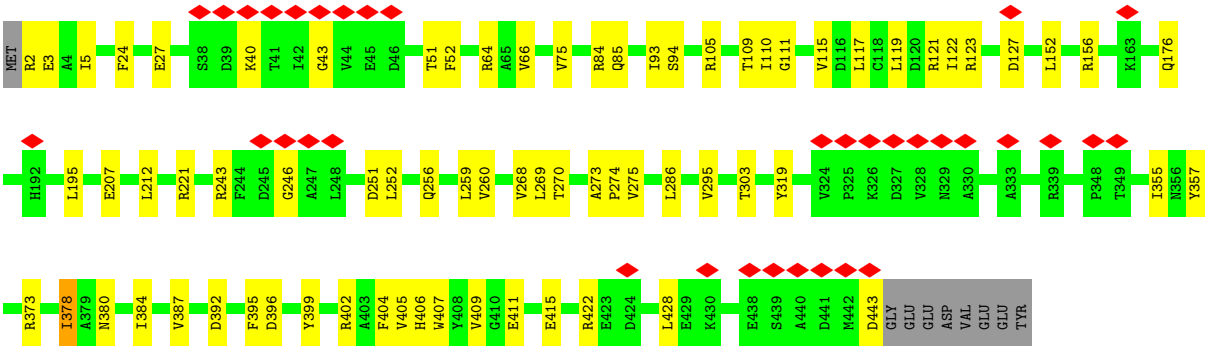
- Molecule 59: Tubulin alpha chain

Chain BW:



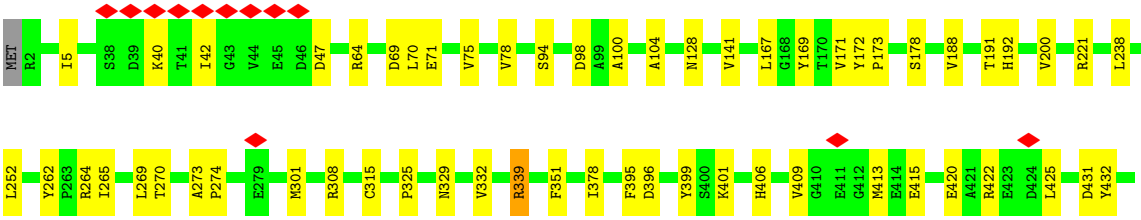
- Molecule 59: Tubulin alpha chain

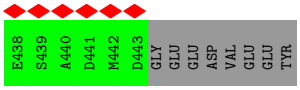
Chain BX:



- Molecule 59: Tubulin alpha chain

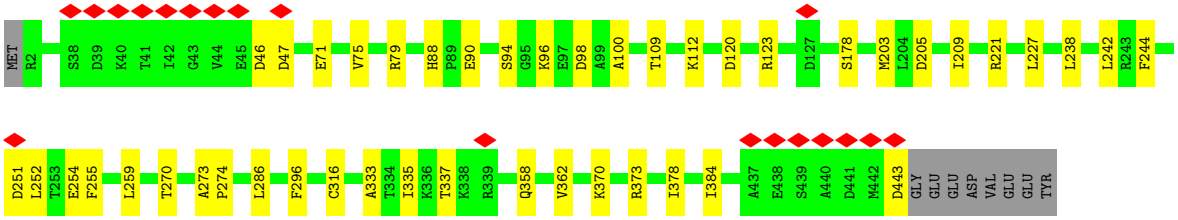
Chain BZ:





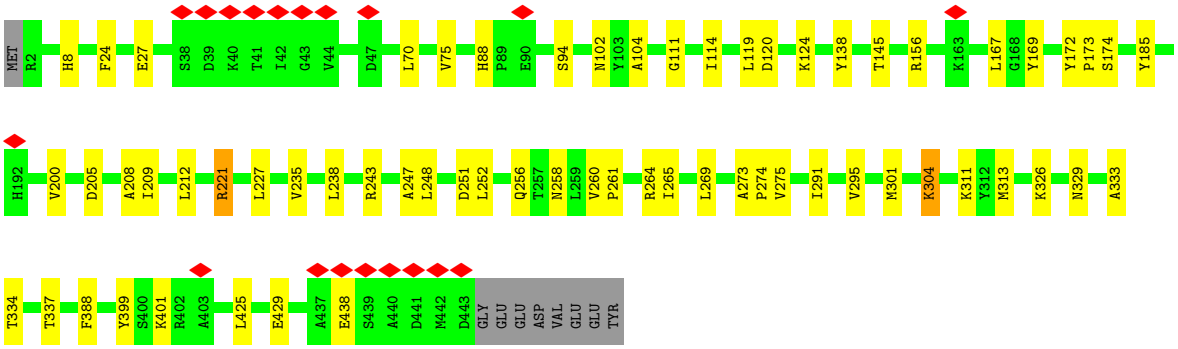
• Molecule 59: Tubulin alpha chain

Chain CB:



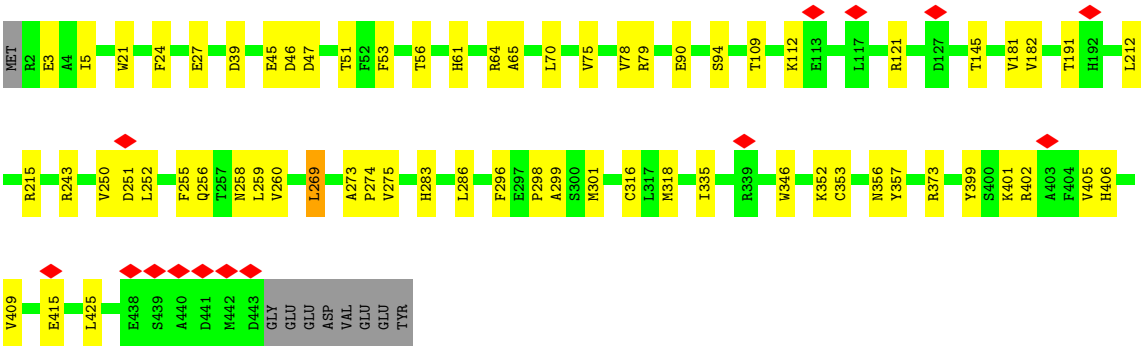
• Molecule 59: Tubulin alpha chain

Chain CD:



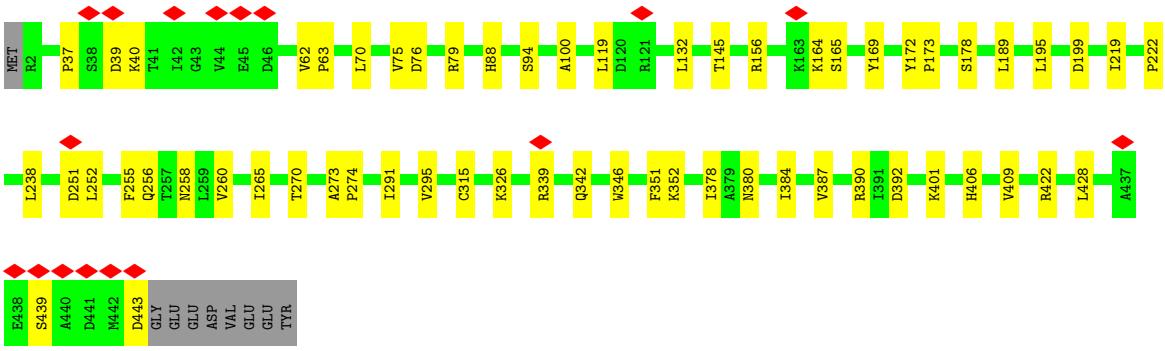
• Molecule 59: Tubulin alpha chain

Chain CF:



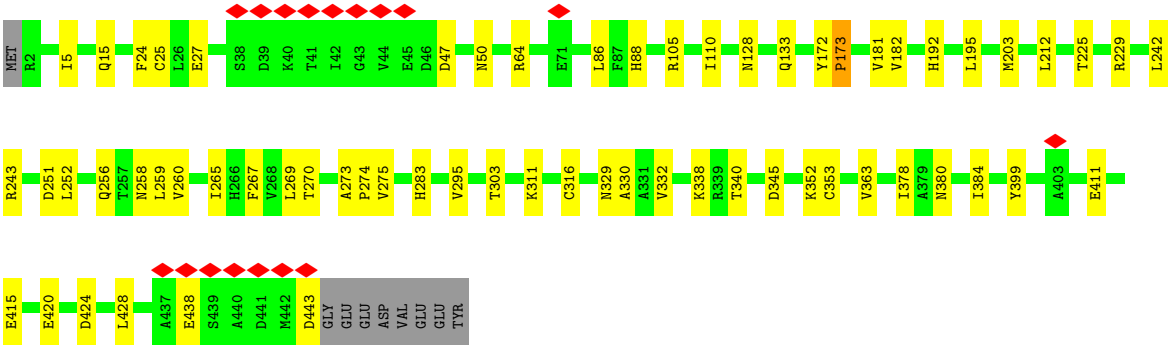
• Molecule 59: Tubulin alpha chain

Chain CH:



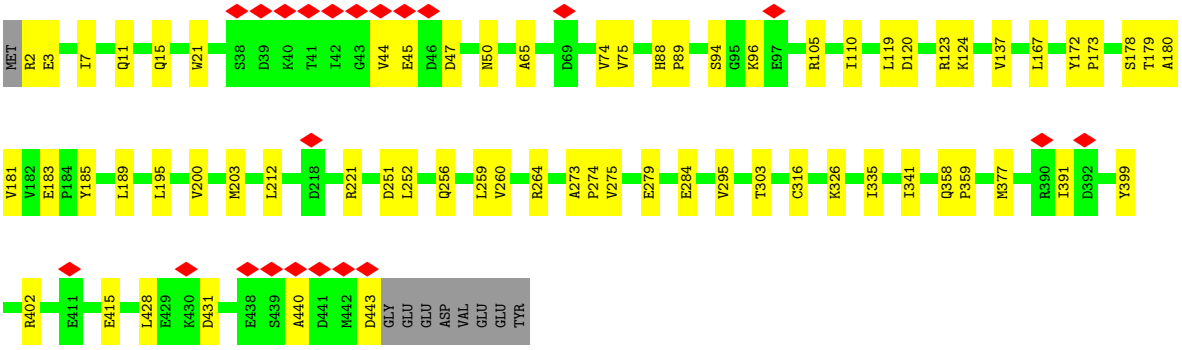
- Molecule 59: Tubulin alpha chain

Chain CJ:



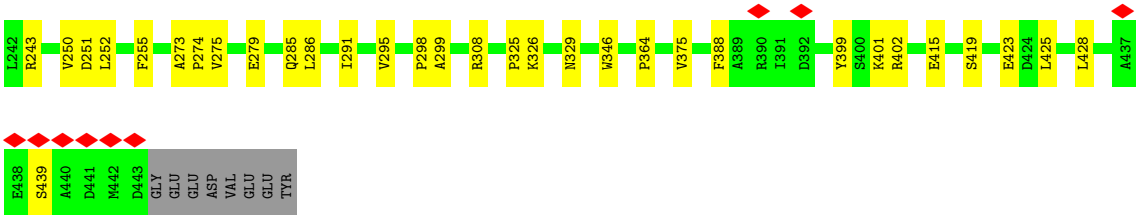
- Molecule 59: Tubulin alpha chain

Chain CM:



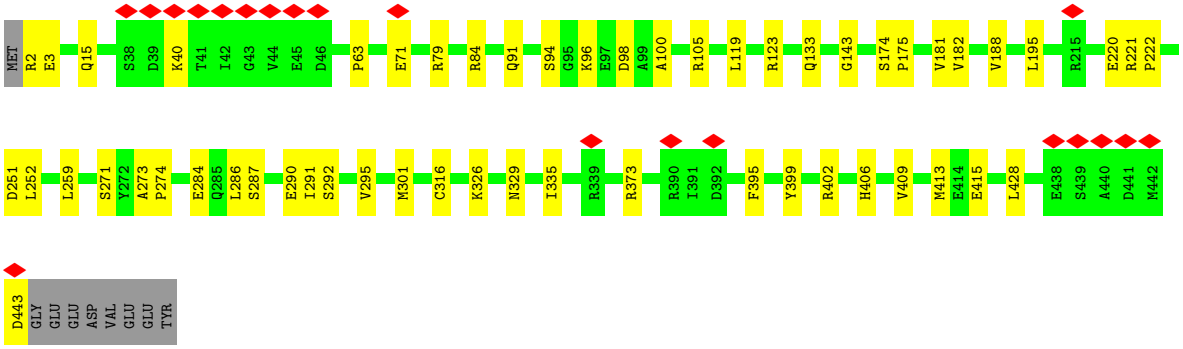
- Molecule 59: Tubulin alpha chain

Chain CO:



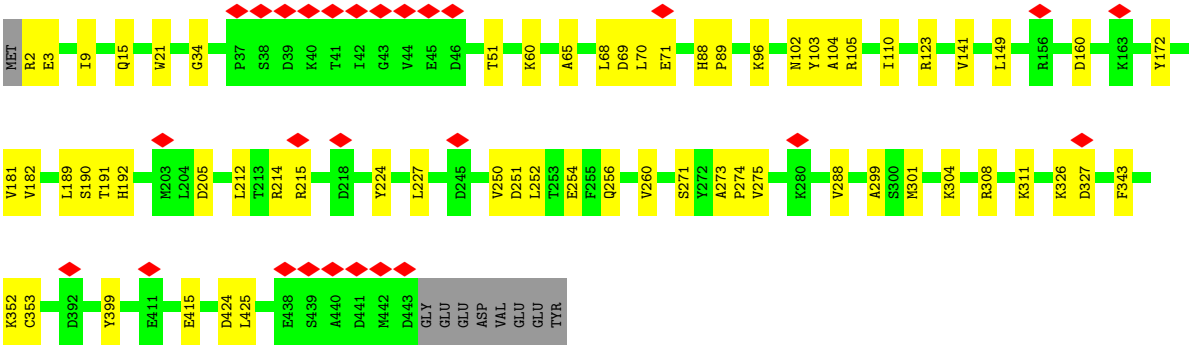
• Molecule 59: Tubulin alpha chain

Chain CQ:



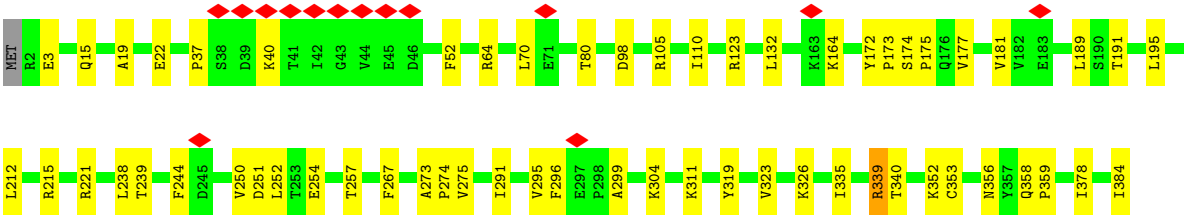
• Molecule 59: Tubulin alpha chain

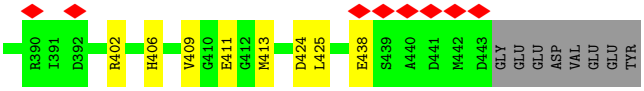
Chain CS:



• Molecule 59: Tubulin alpha chain

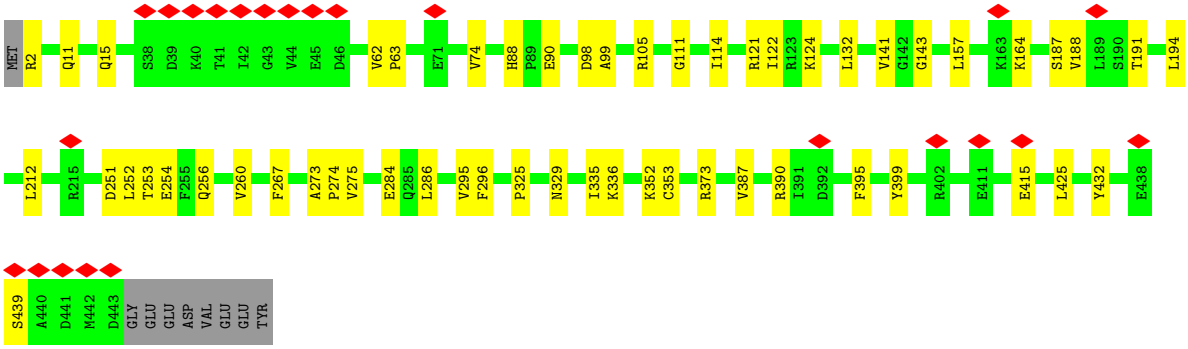
Chain CU:





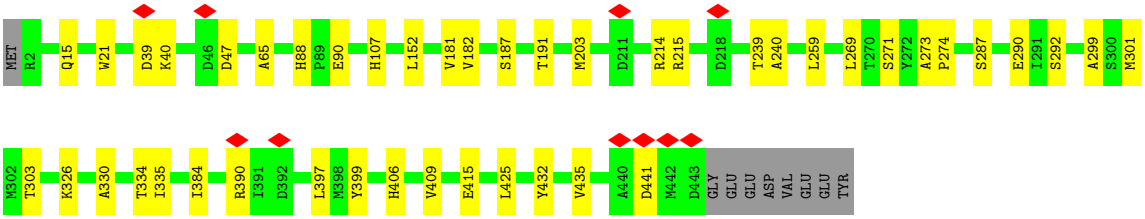
• Molecule 59: Tubulin alpha chain

Chain CW:



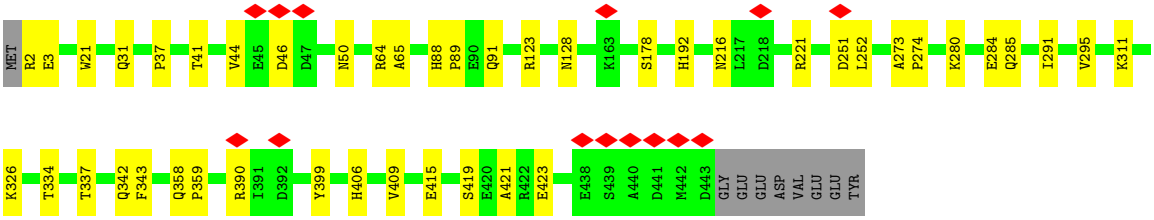
• Molecule 59: Tubulin alpha chain

Chain CY:



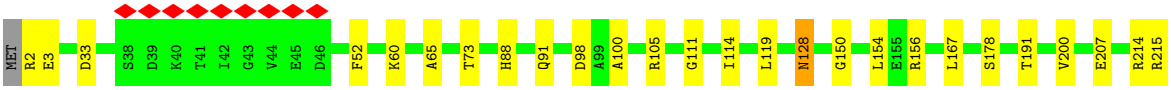
• Molecule 59: Tubulin alpha chain

Chain DA:



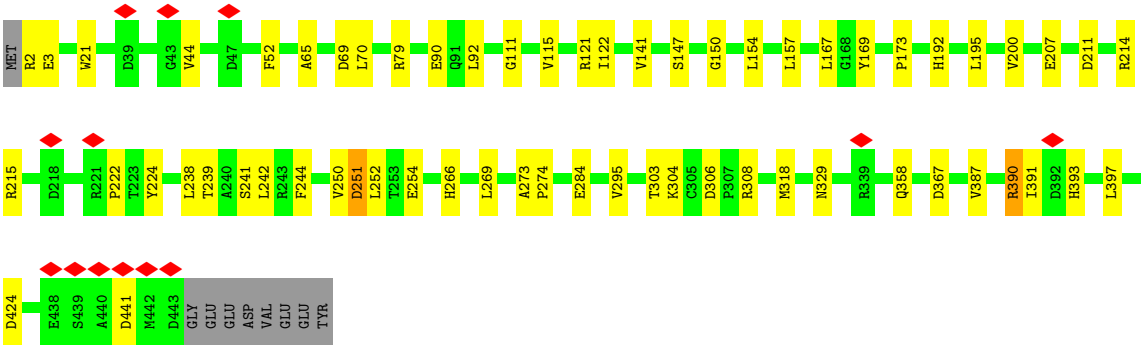
• Molecule 59: Tubulin alpha chain

Chain DC:



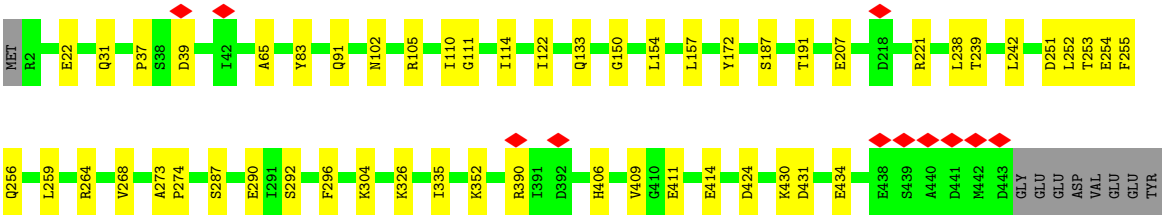
• Molecule 59: Tubulin alpha chain

Chain DE:



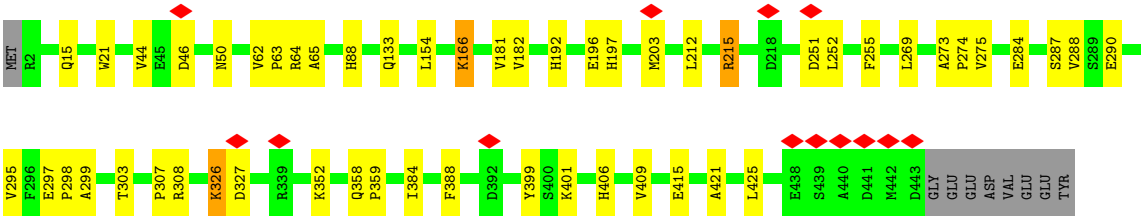
• Molecule 59: Tubulin alpha chain

Chain DG:



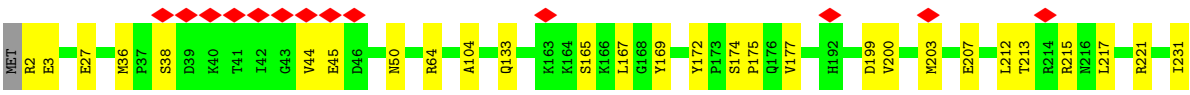
• Molecule 59: Tubulin alpha chain

Chain DI:



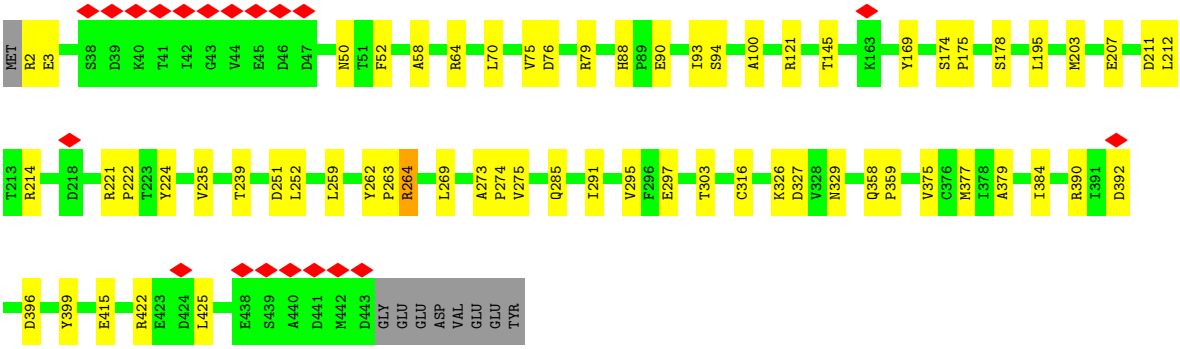
• Molecule 59: Tubulin alpha chain

Chain DK:



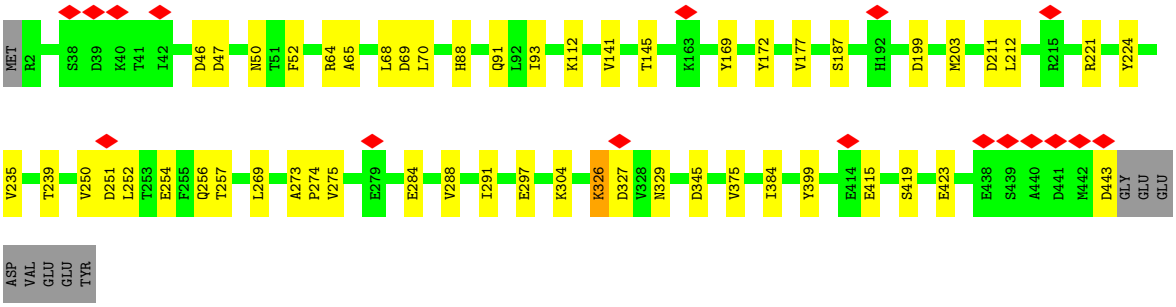
• Molecule 59: Tubulin alpha chain

Chain DM:



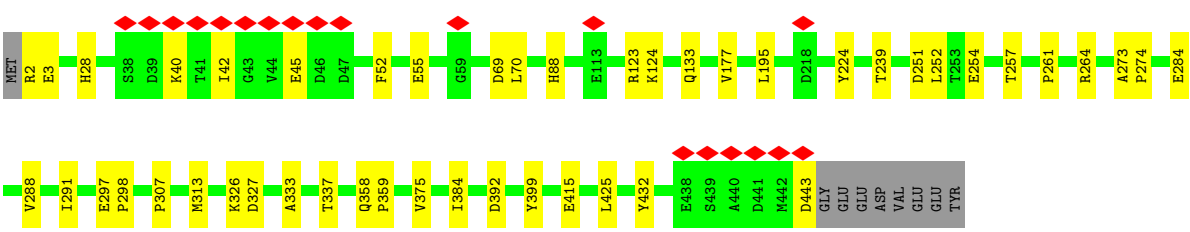
• Molecule 59: Tubulin alpha chain

Chain DO:



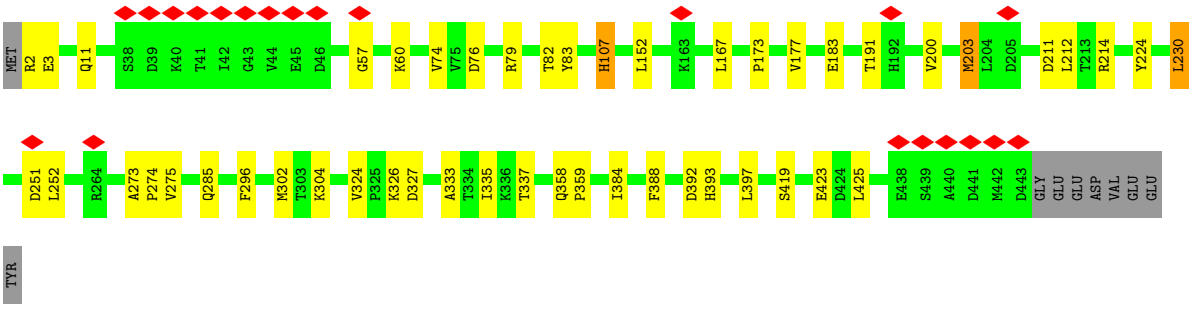
• Molecule 59: Tubulin alpha chain

Chain DQ:



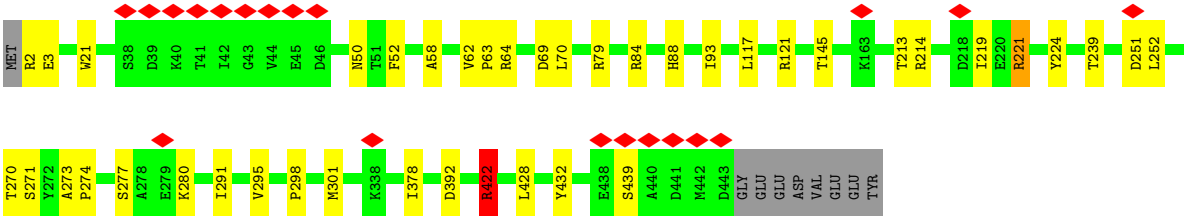
• Molecule 59: Tubulin alpha chain

Chain DS:



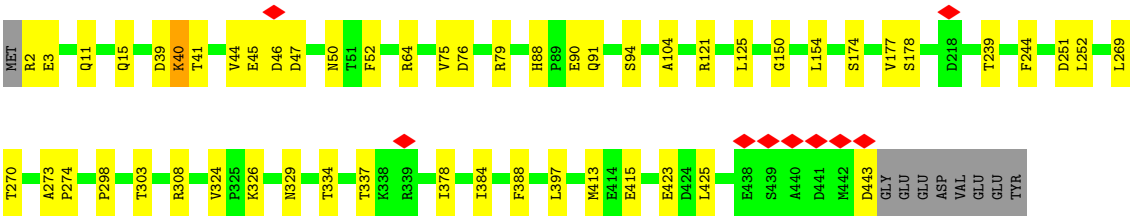
• Molecule 59: Tubulin alpha chain

Chain DU:



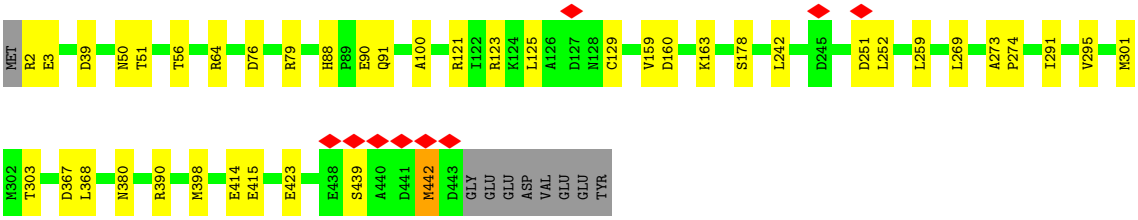
• Molecule 59: Tubulin alpha chain

Chain DX:



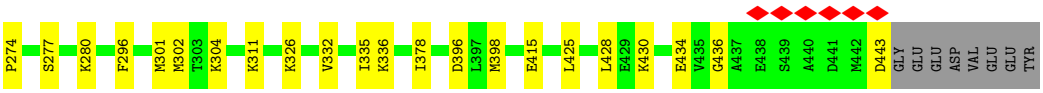
• Molecule 59: Tubulin alpha chain

Chain DZ:



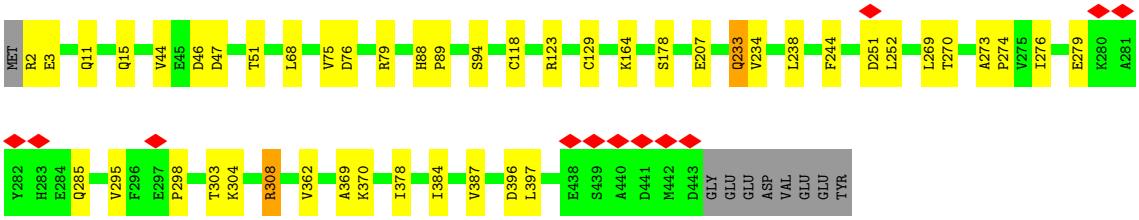
• Molecule 59: Tubulin alpha chain

Chain EB:



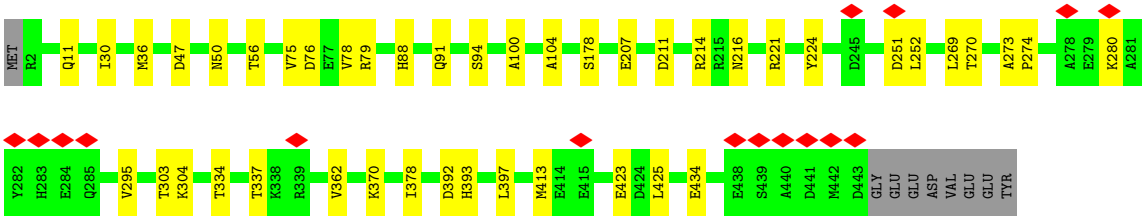
• Molecule 59: Tubulin alpha chain

Chain ED:



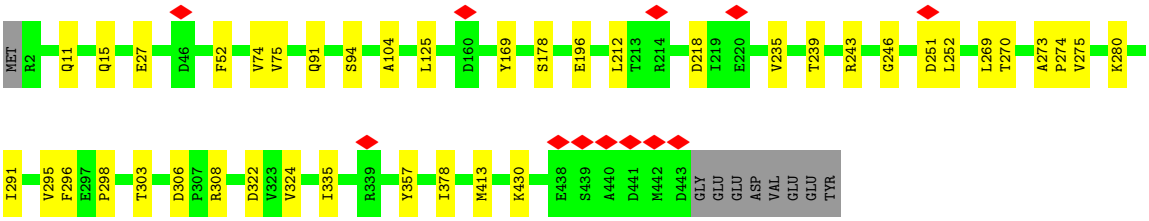
• Molecule 59: Tubulin alpha chain

Chain EF:



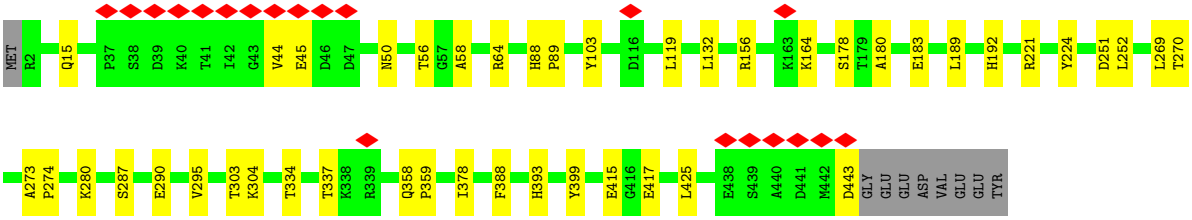
• Molecule 59: Tubulin alpha chain

Chain EH:



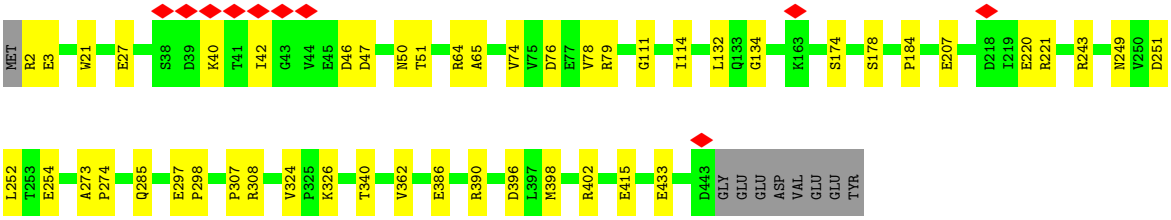
• Molecule 59: Tubulin alpha chain

Chain EJ:



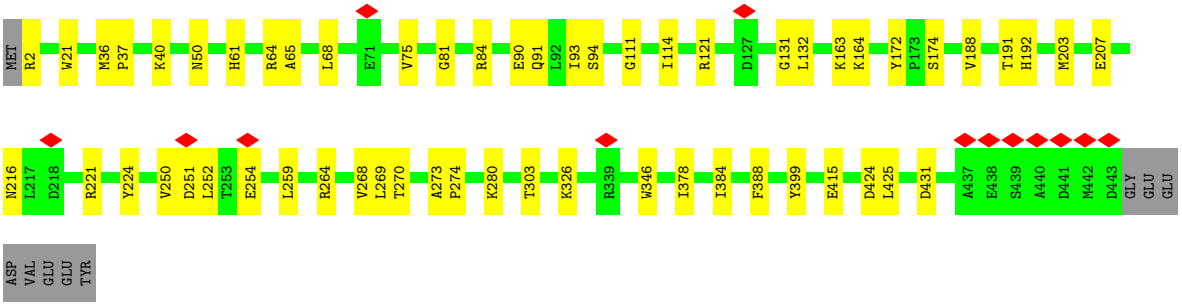
• Molecule 59: Tubulin alpha chain

Chain EL:



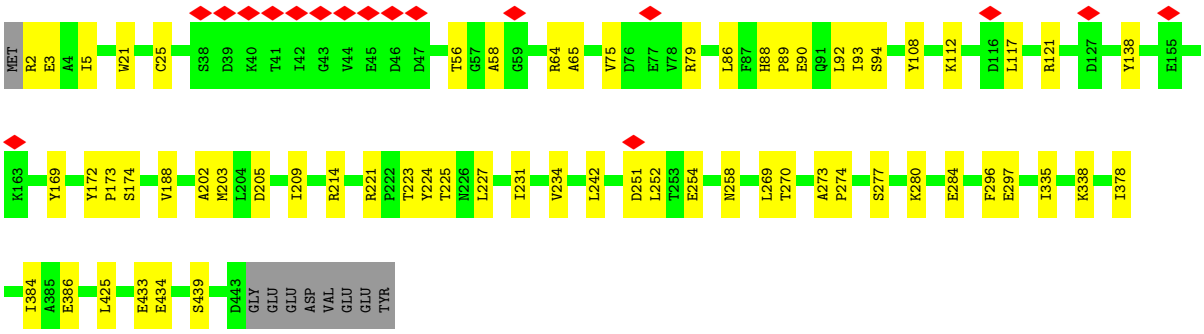
- Molecule 59: Tubulin alpha chain

Chain EN:



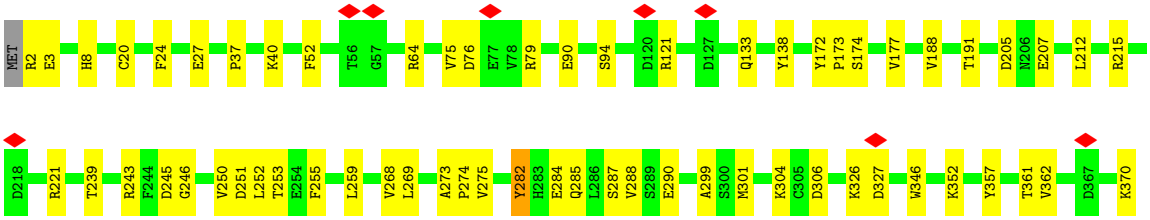
- Molecule 59: Tubulin alpha chain

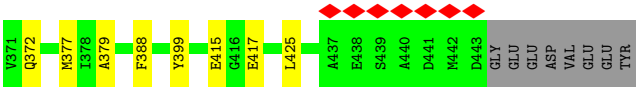
Chain EP:



- Molecule 59: Tubulin alpha chain

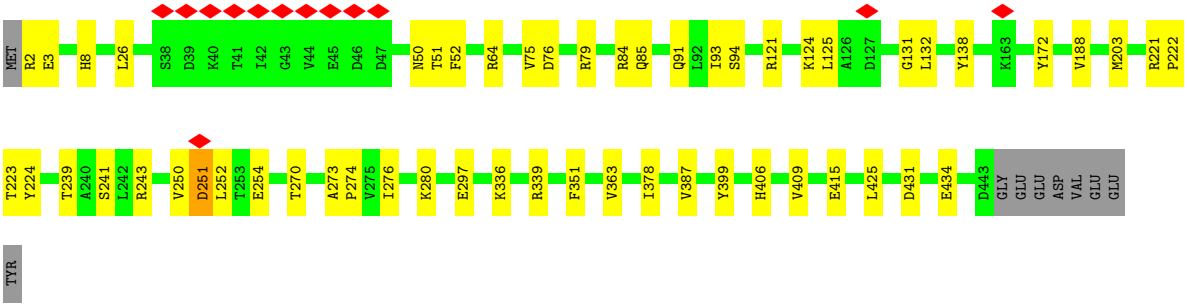
Chain ER:





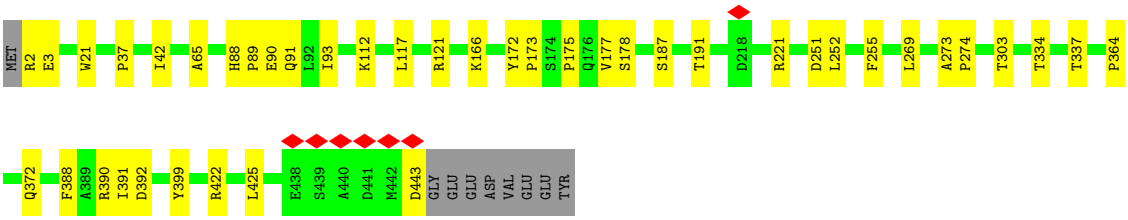
• Molecule 59: Tubulin alpha chain

Chain ET:



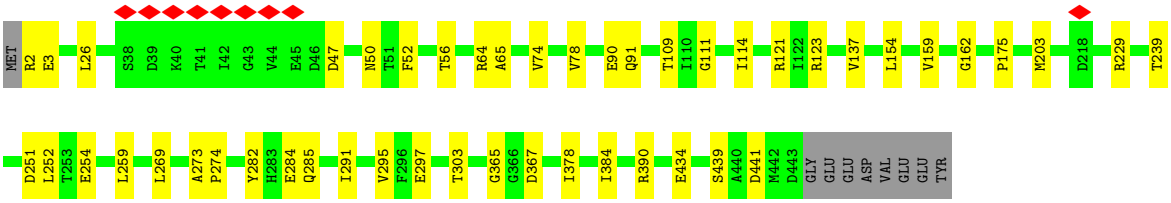
• Molecule 59: Tubulin alpha chain

Chain EV:



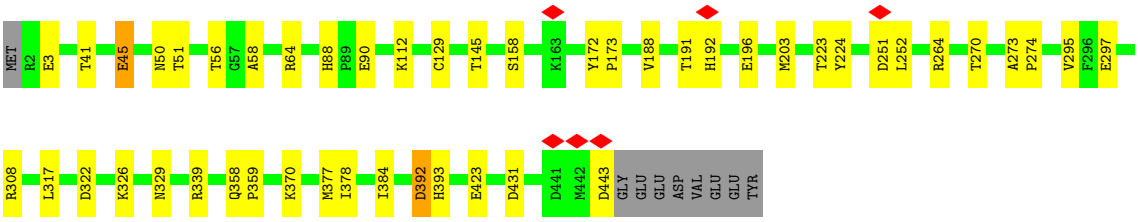
• Molecule 59: Tubulin alpha chain

Chain EX:



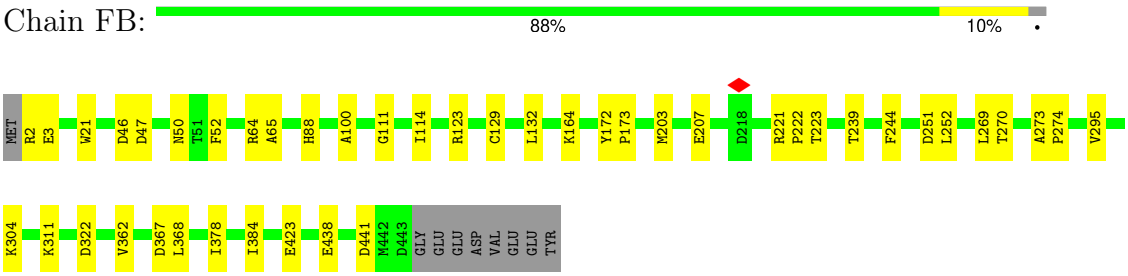
• Molecule 59: Tubulin alpha chain

Chain EZ:



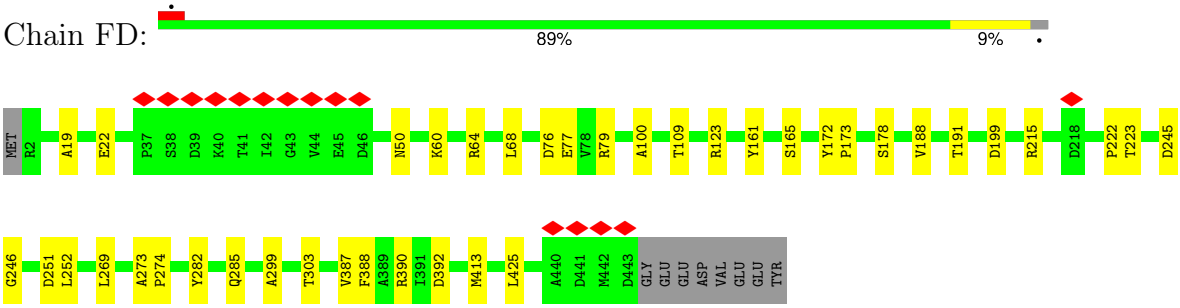
• Molecule 59: Tubulin alpha chain

Chain FB:



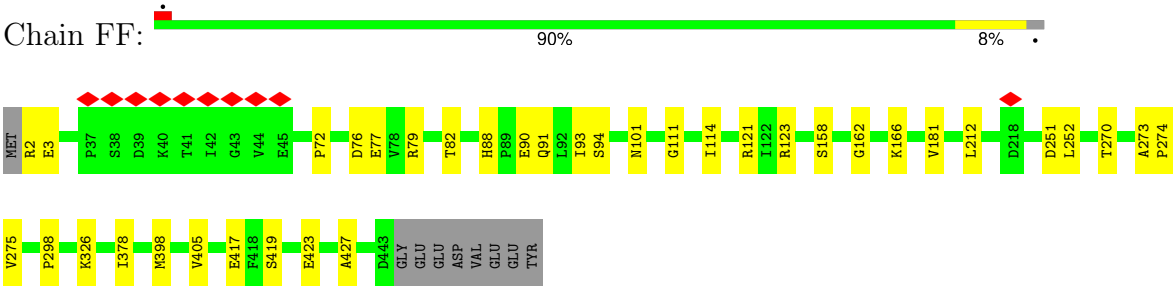
• Molecule 59: Tubulin alpha chain

Chain FD:



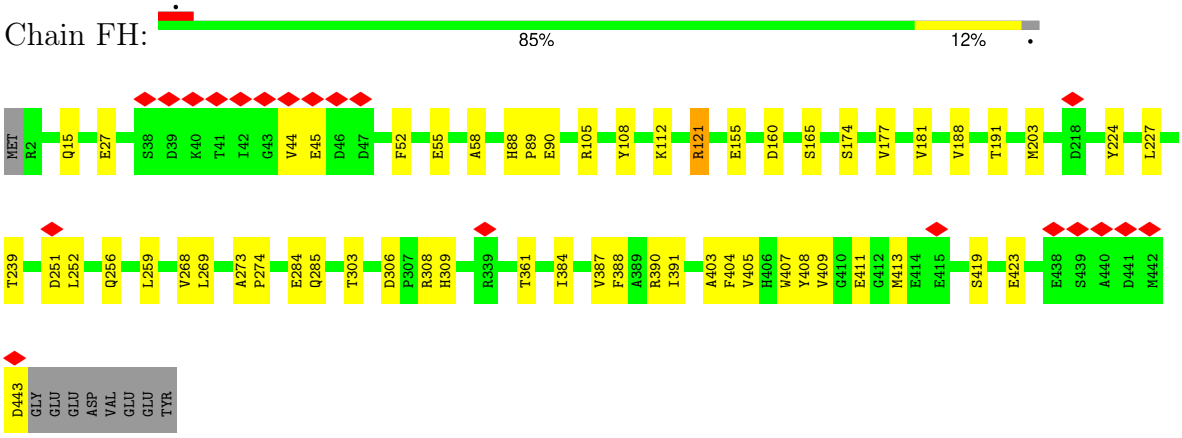
• Molecule 59: Tubulin alpha chain

Chain FF:



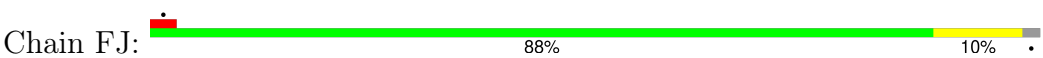
• Molecule 59: Tubulin alpha chain

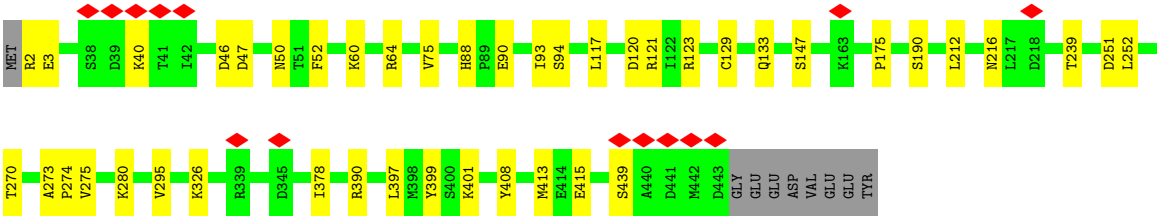
Chain FH:



• Molecule 59: Tubulin alpha chain

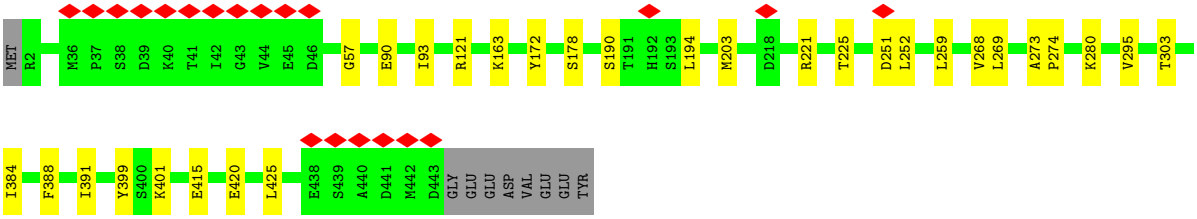
Chain FJ:





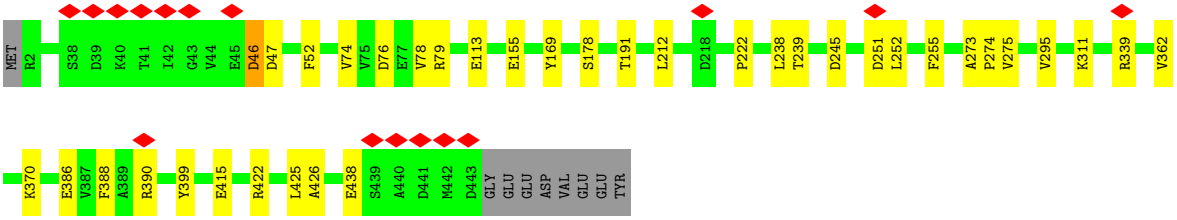
- Molecule 59: Tubulin alpha chain

Chain FL:



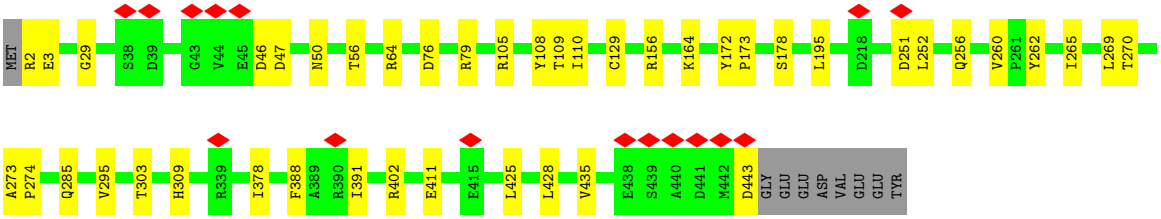
- Molecule 59: Tubulin alpha chain

Chain FN:



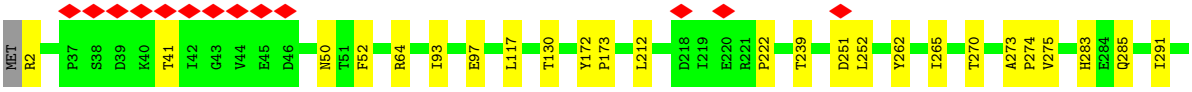
- Molecule 59: Tubulin alpha chain

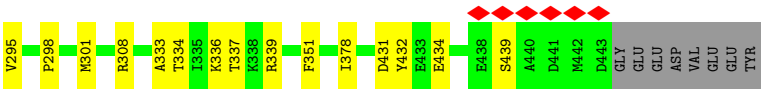
Chain FP:



- Molecule 59: Tubulin alpha chain

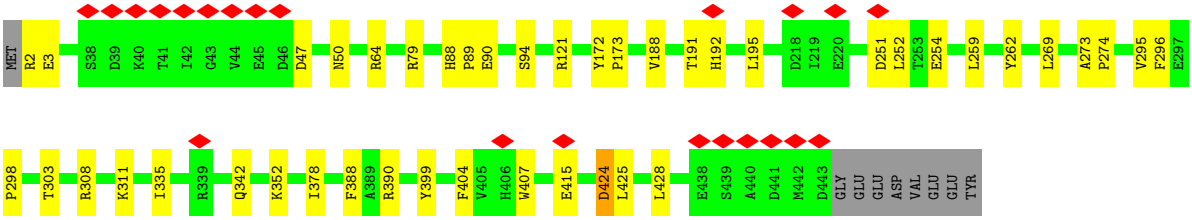
Chain FR:





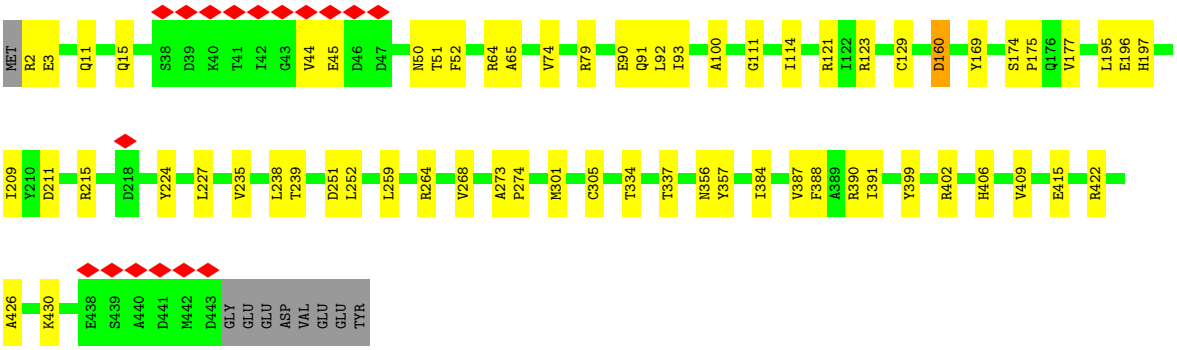
• Molecule 59: Tubulin alpha chain

Chain FT:



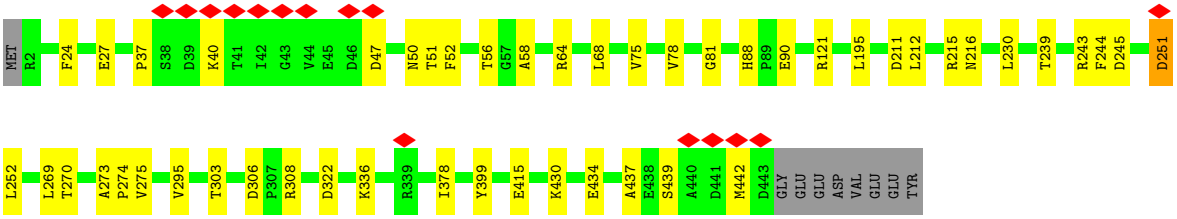
• Molecule 59: Tubulin alpha chain

Chain FU:



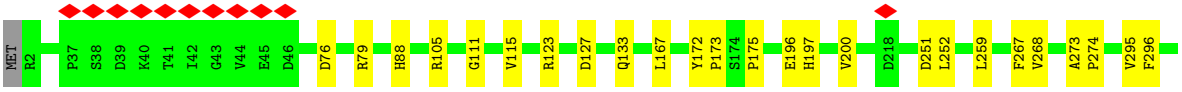
• Molecule 59: Tubulin alpha chain

Chain FW:



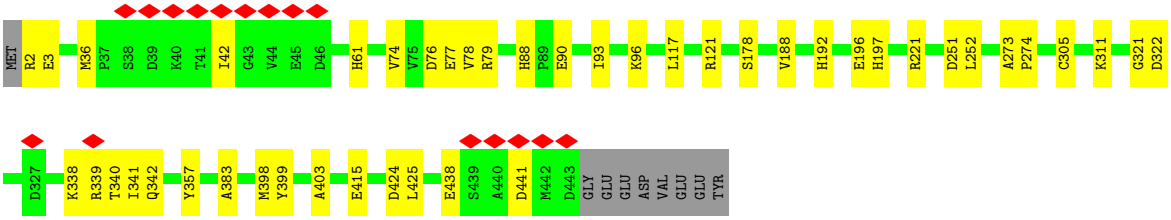
• Molecule 59: Tubulin alpha chain

Chain FY:



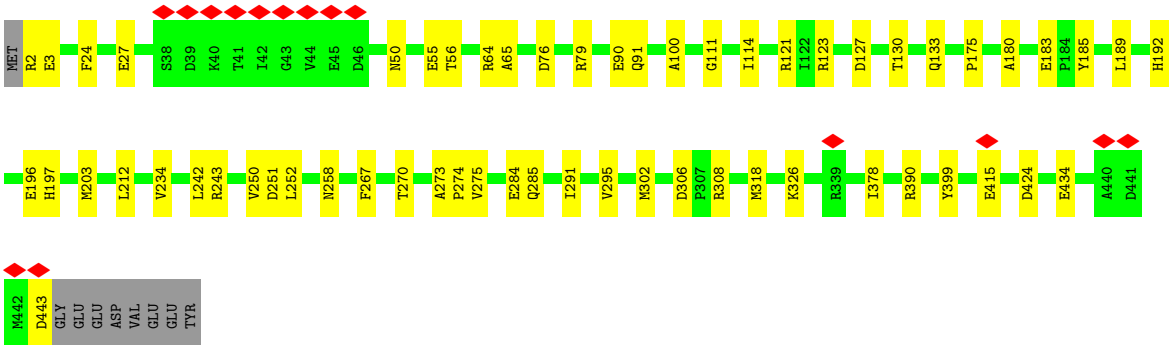
• Molecule 59: Tubulin alpha chain

Chain GA:



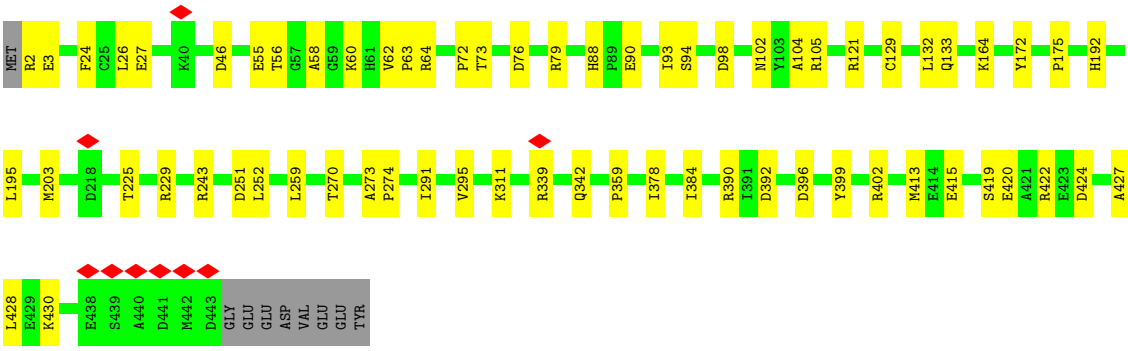
• Molecule 59: Tubulin alpha chain

Chain GC:



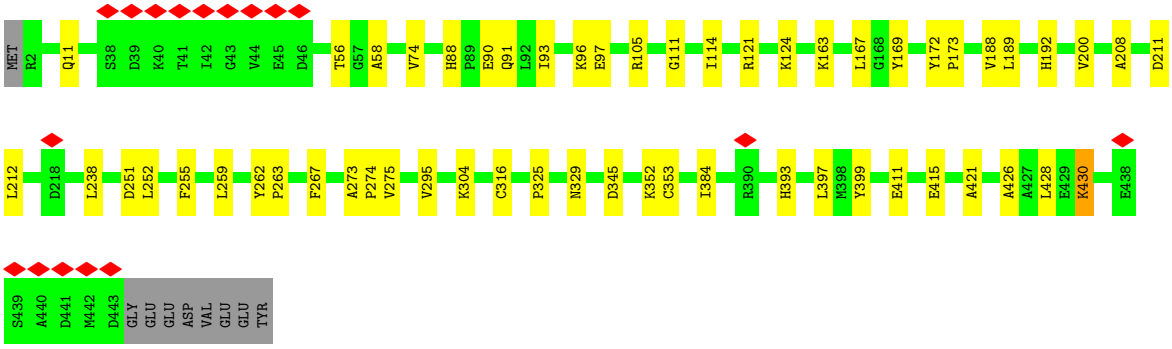
• Molecule 59: Tubulin alpha chain

Chain GE:



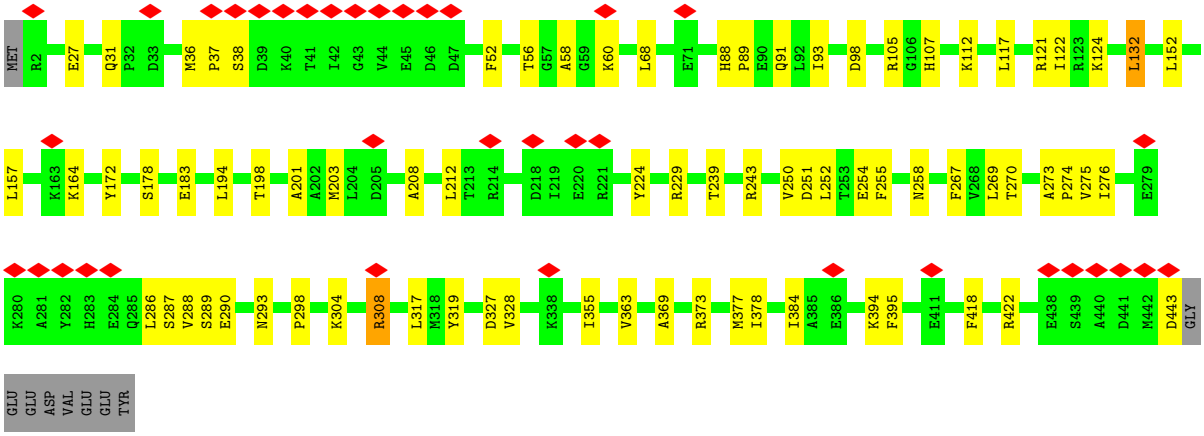
• Molecule 59: Tubulin alpha chain

Chain GG:



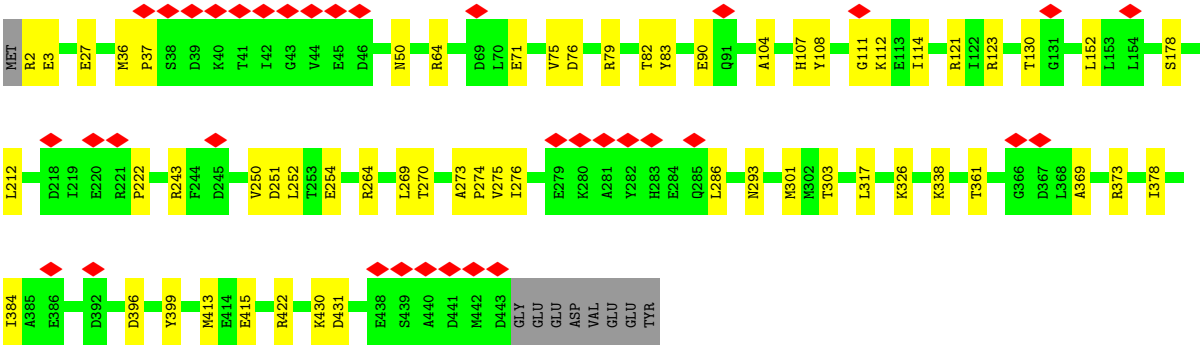
• Molecule 59: Tubulin alpha chain

Chain GH:



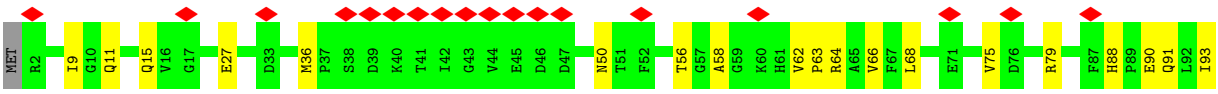
• Molecule 59: Tubulin alpha chain

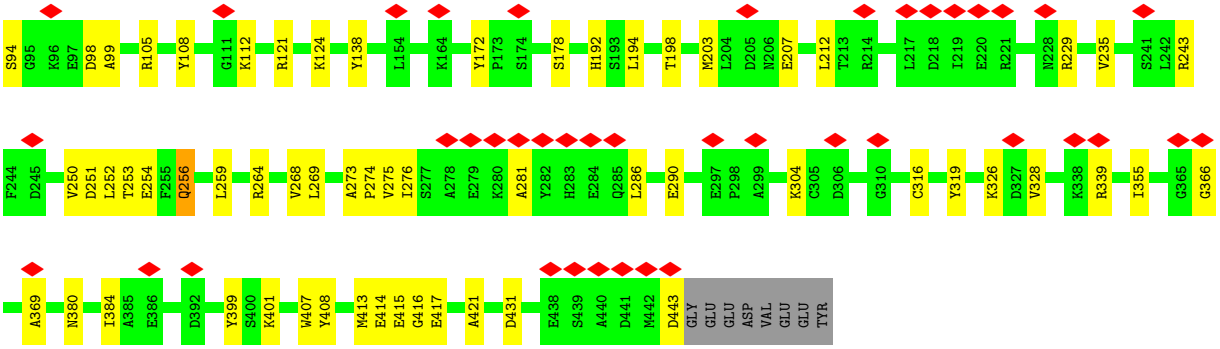
Chain GJ:



• Molecule 59: Tubulin alpha chain

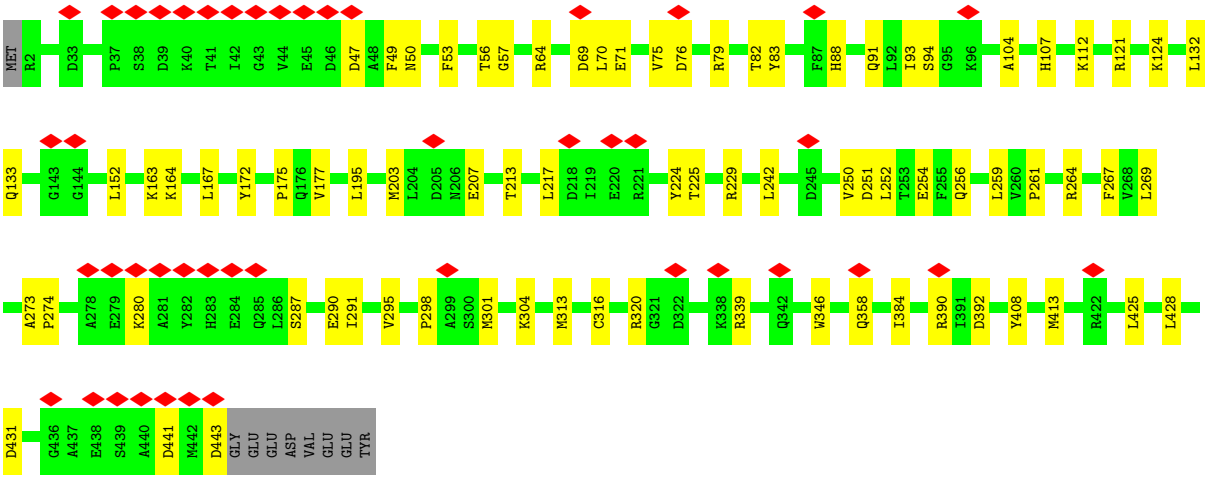
Chain GL:





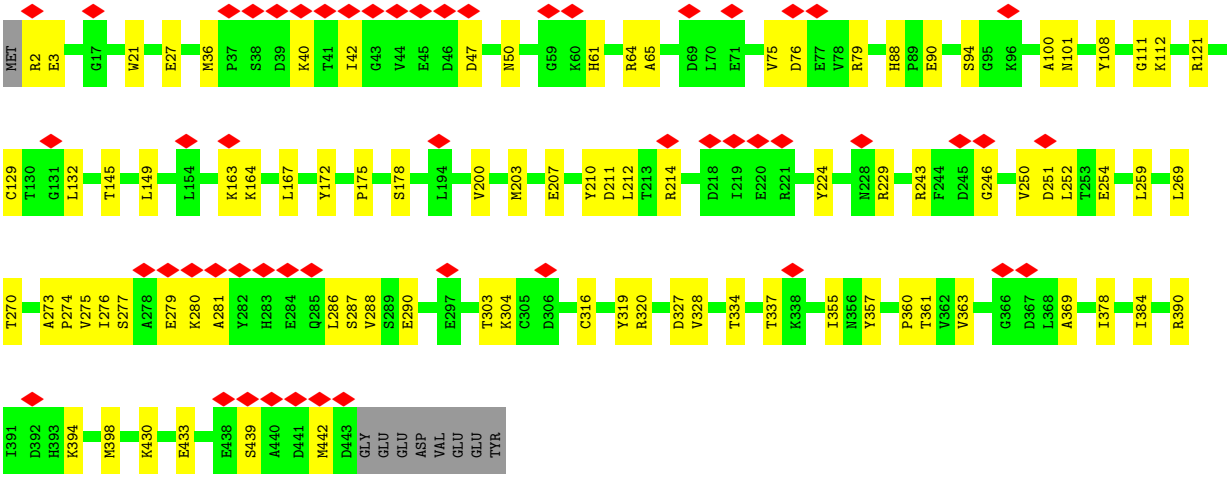
• Molecule 59: Tubulin alpha chain

Chain GN:



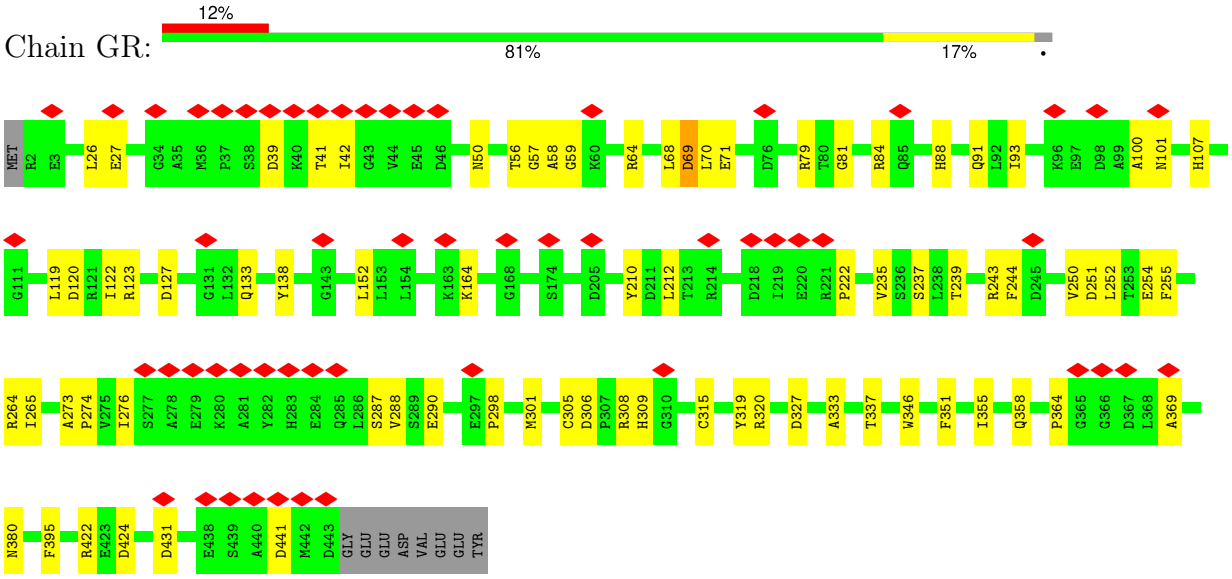
• Molecule 59: Tubulin alpha chain

Chain GP:



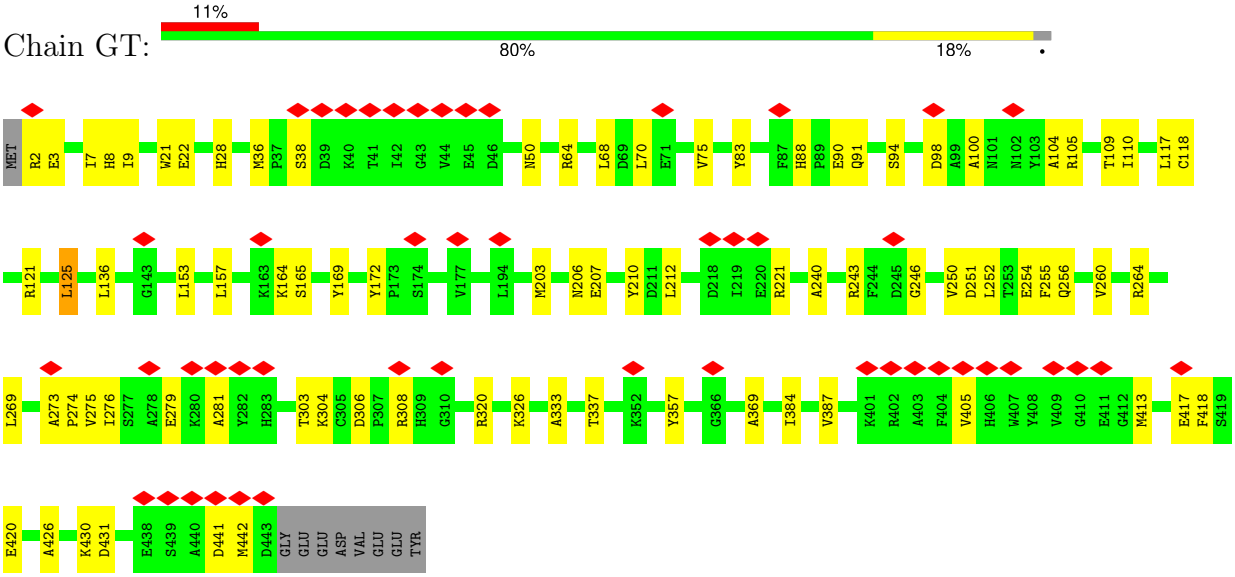
• Molecule 59: Tubulin alpha chain

Chain GR:



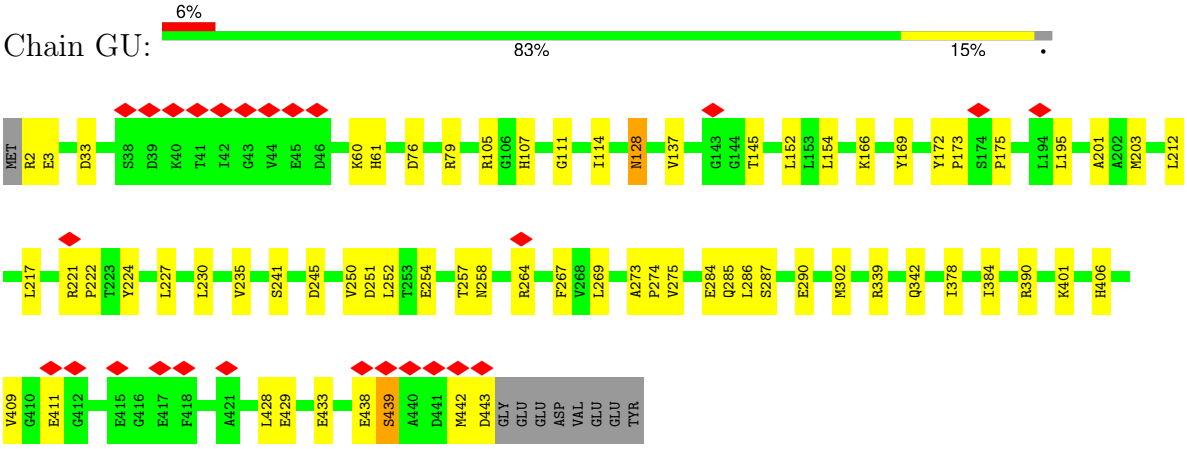
- Molecule 59: Tubulin alpha chain

Chain GT:



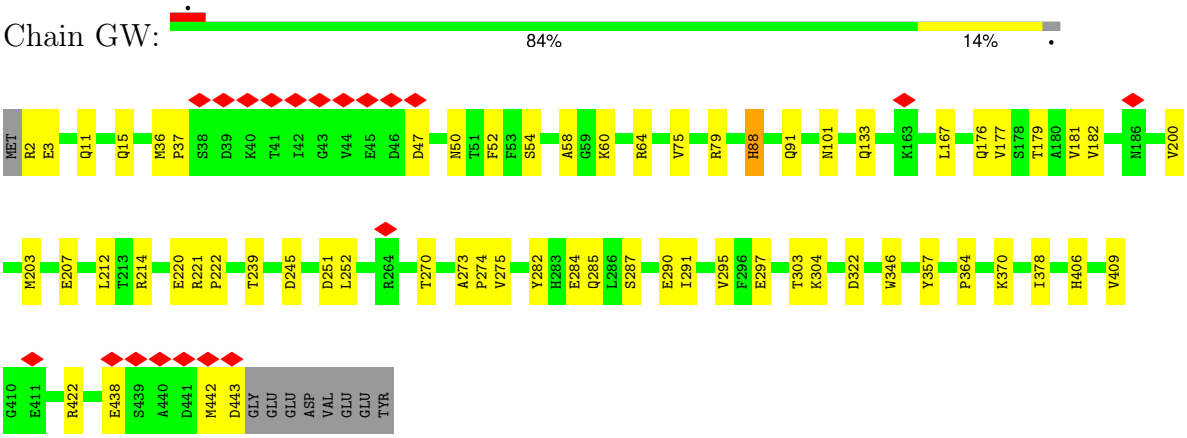
- Molecule 59: Tubulin alpha chain

Chain GU:



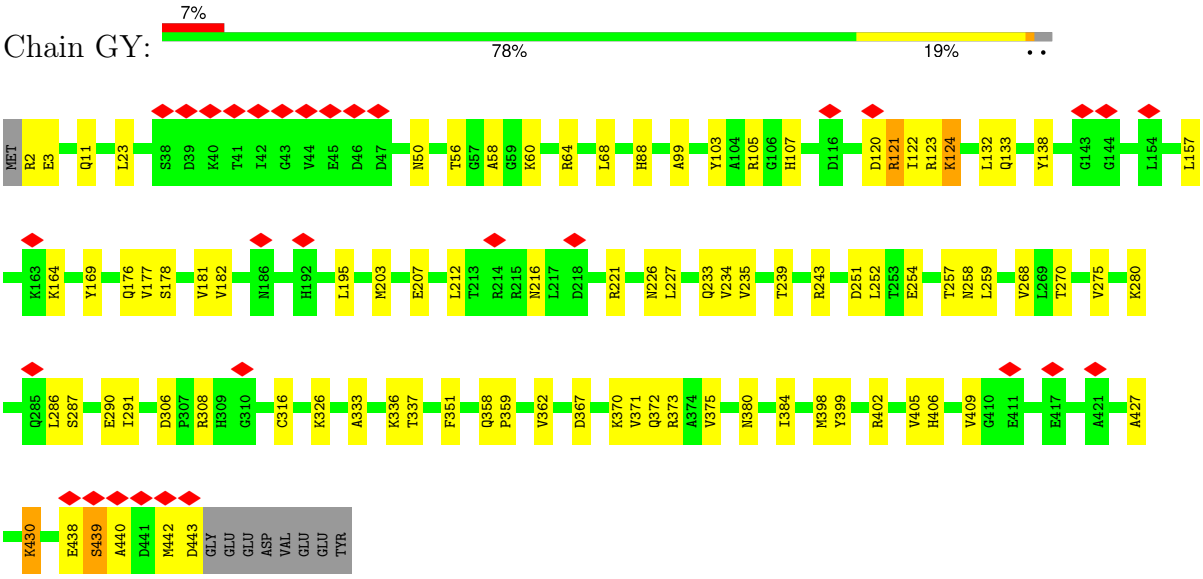
- Molecule 59: Tubulin alpha chain

Chain GW:



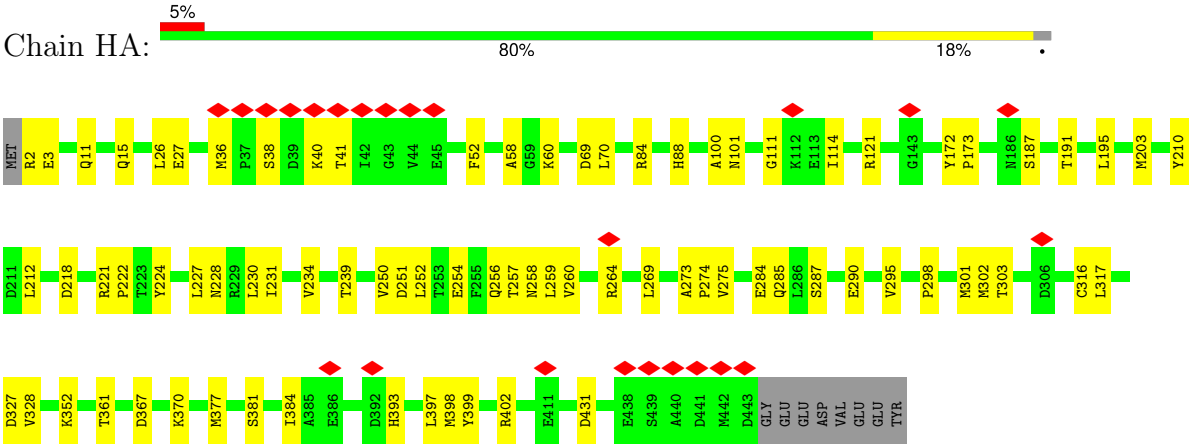
- Molecule 59: Tubulin alpha chain

Chain GY:



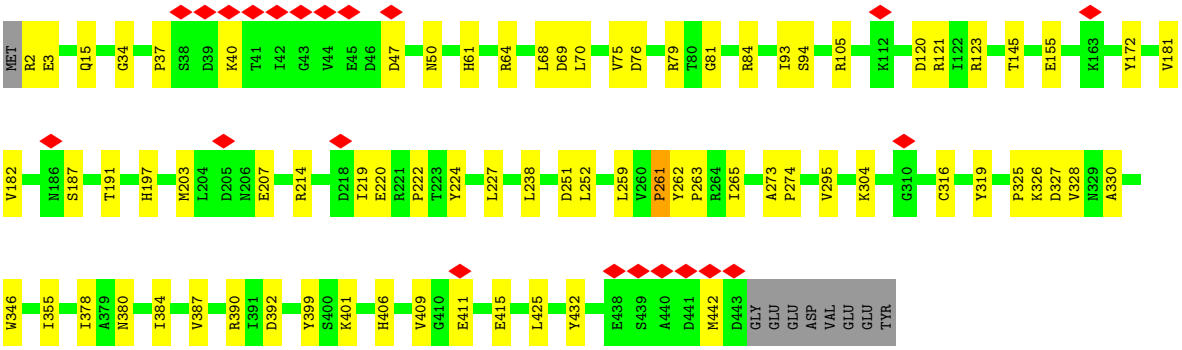
- Molecule 59: Tubulin alpha chain

Chain HA:



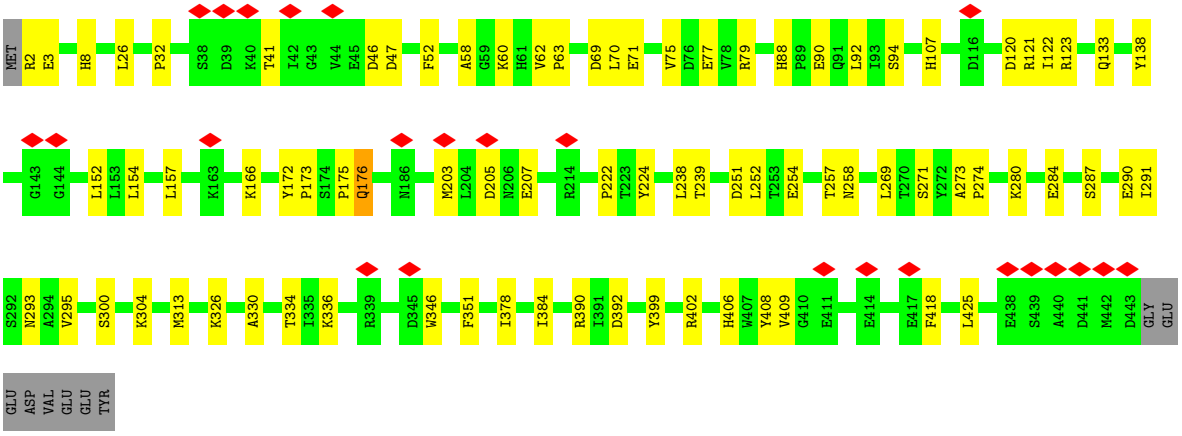
- Molecule 59: Tubulin alpha chain

Chain HC:



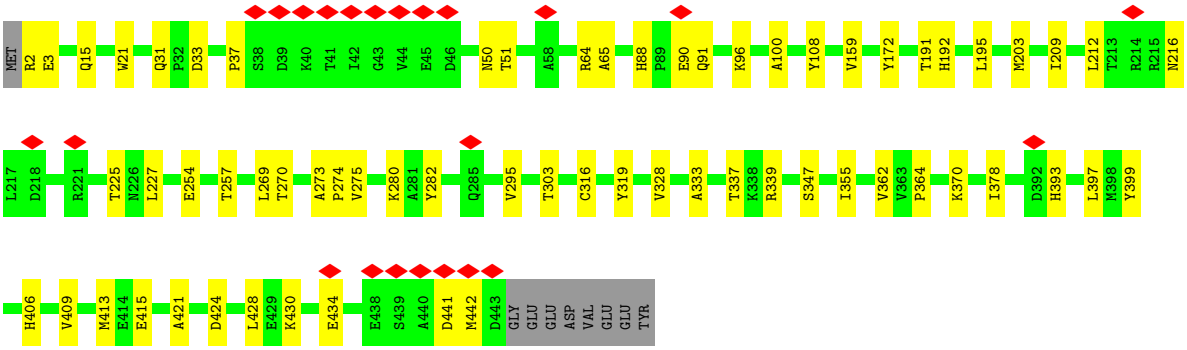
- Molecule 59: Tubulin alpha chain

Chain HE:



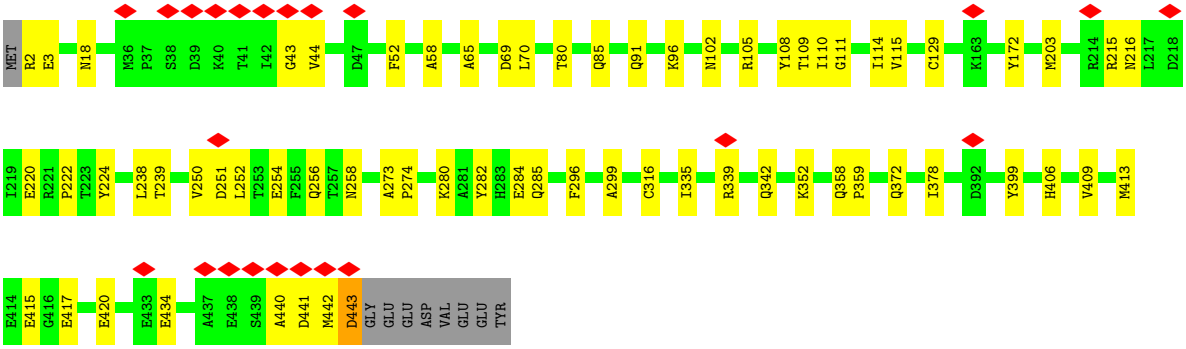
- Molecule 59: Tubulin alpha chain

Chain HG:



- Molecule 59: Tubulin alpha chain

Chain HI:



- Molecule 59: Tubulin alpha chain

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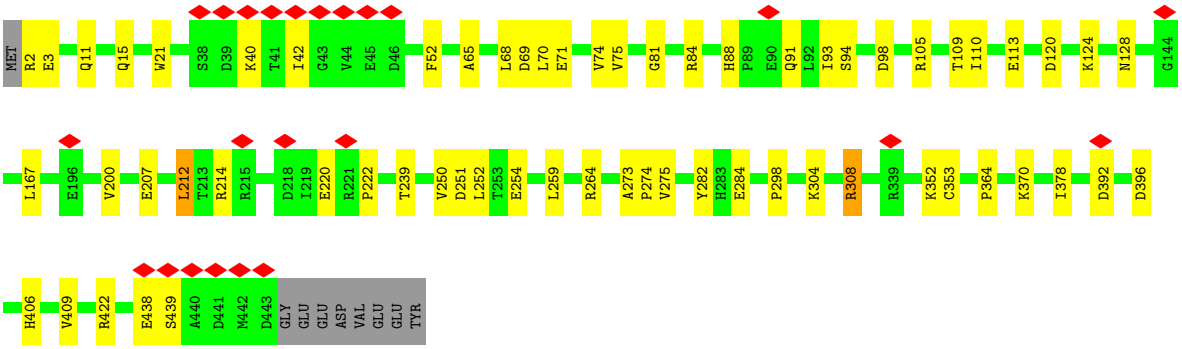
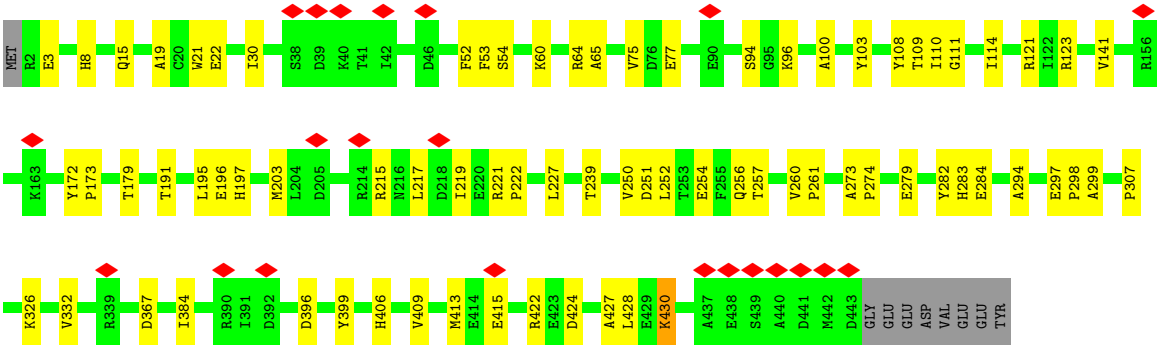


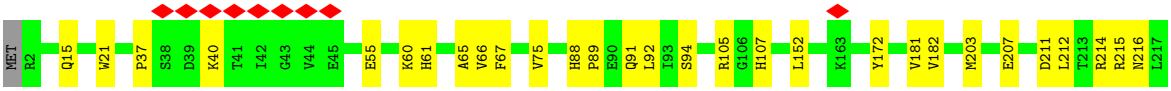
- Molecule 59: Tubulin alpha chain

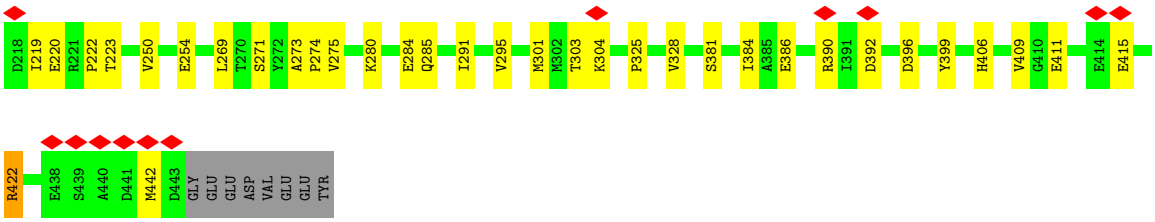
Chain HM:



- Molecule 59: Tubulin alpha chain

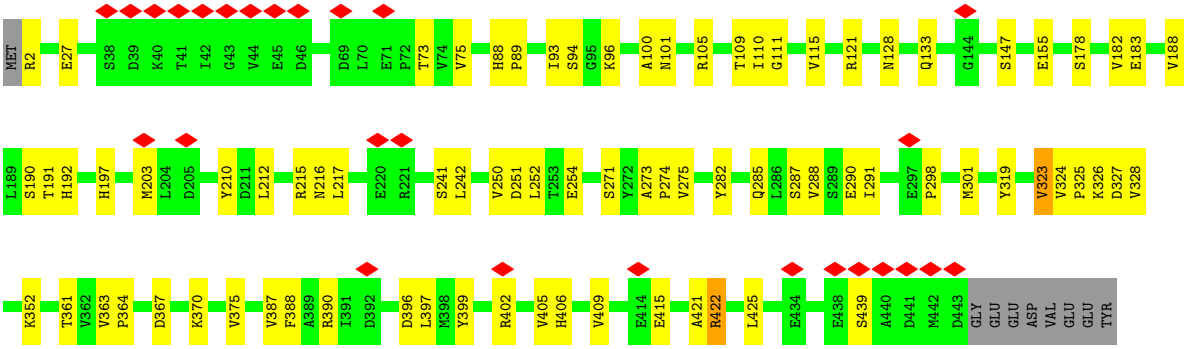
Chain HO:





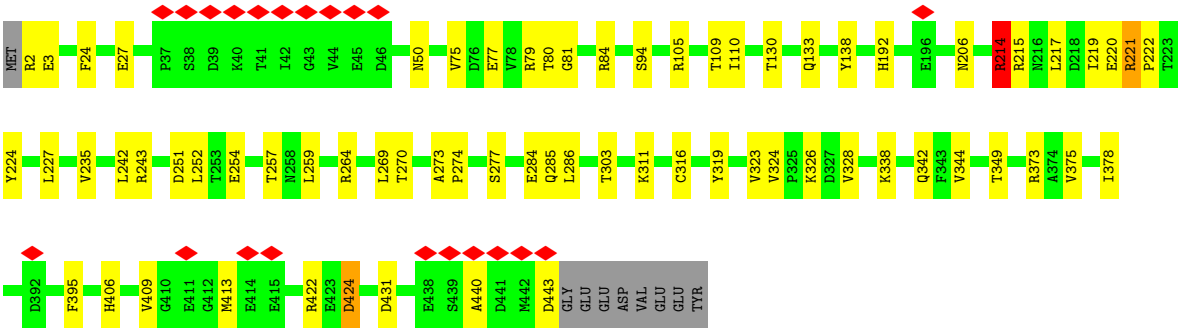
• Molecule 59: Tubulin alpha chain

Chain HQ:



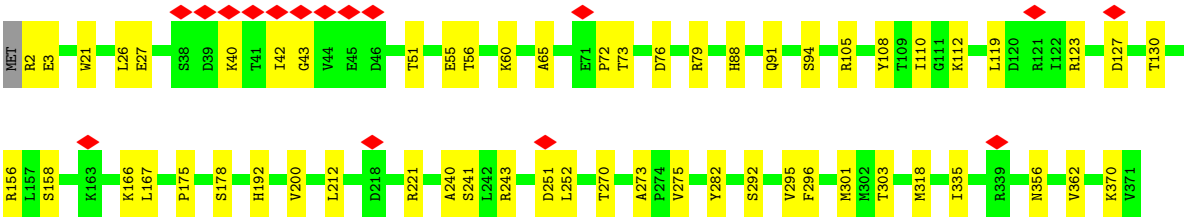
• Molecule 59: Tubulin alpha chain

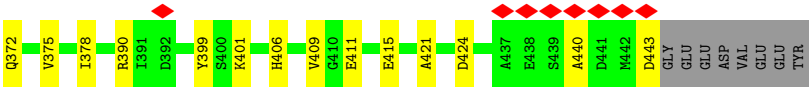
Chain HT:



• Molecule 59: Tubulin alpha chain

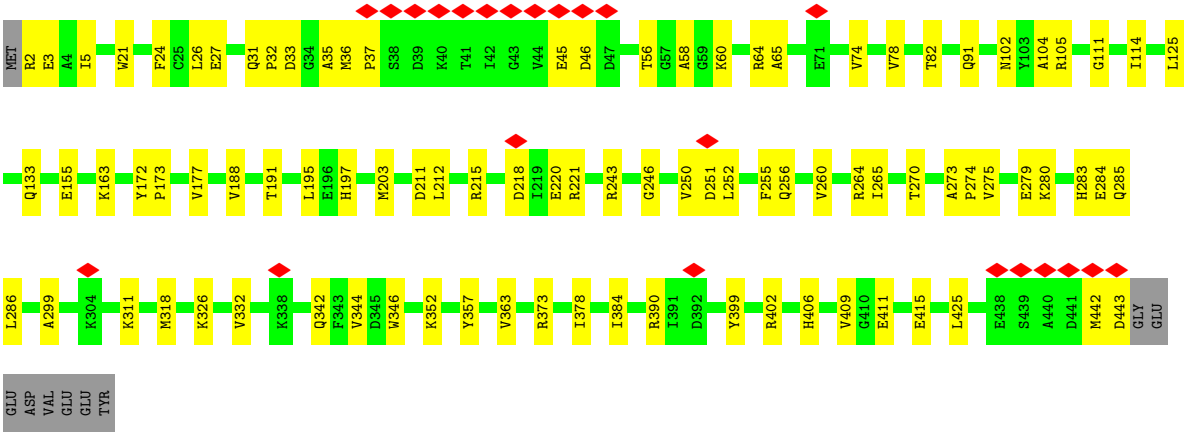
Chain HV:





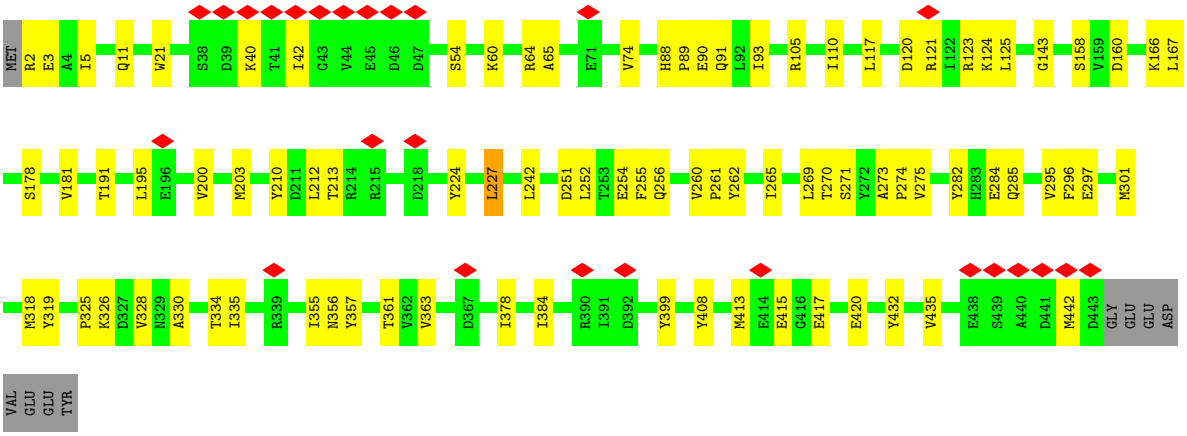
• Molecule 59: Tubulin alpha chain

Chain HX:



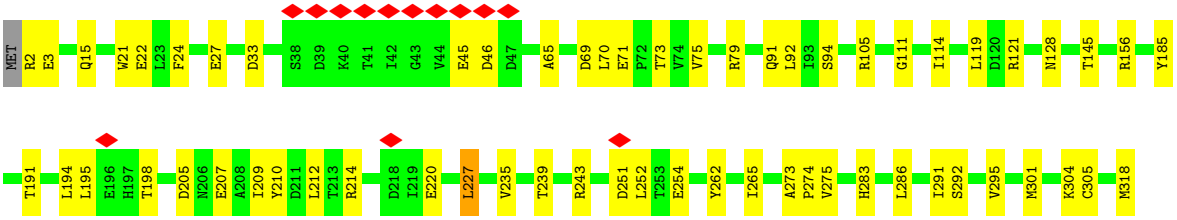
• Molecule 59: Tubulin alpha chain

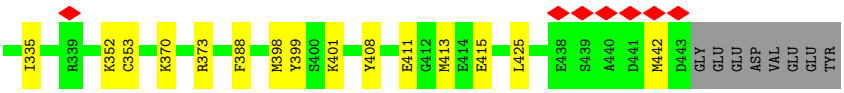
Chain HZ:



• Molecule 59: Tubulin alpha chain

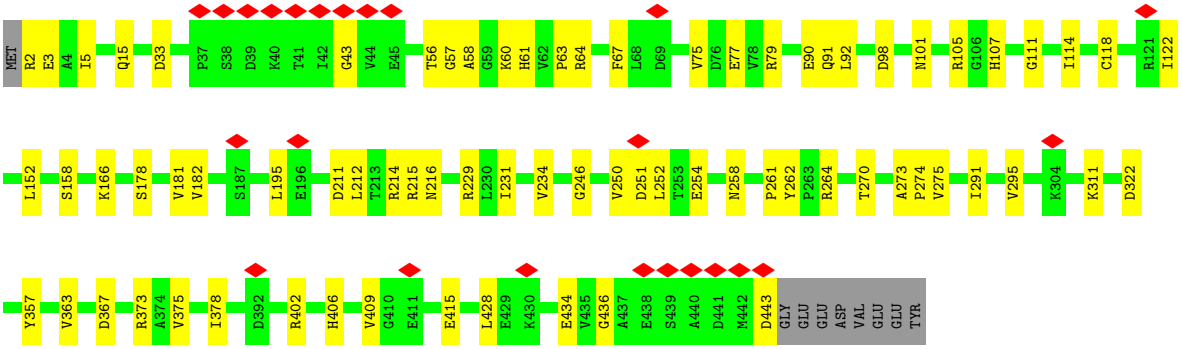
Chain IB:





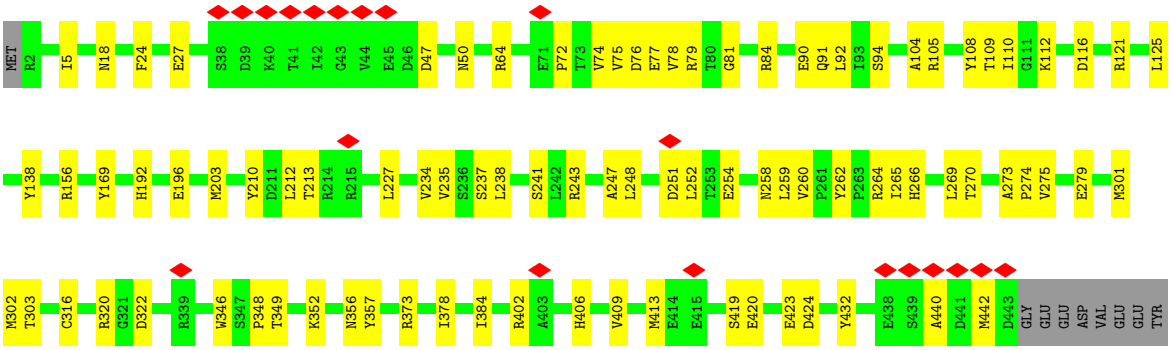
• Molecule 59: Tubulin alpha chain

Chain ID:



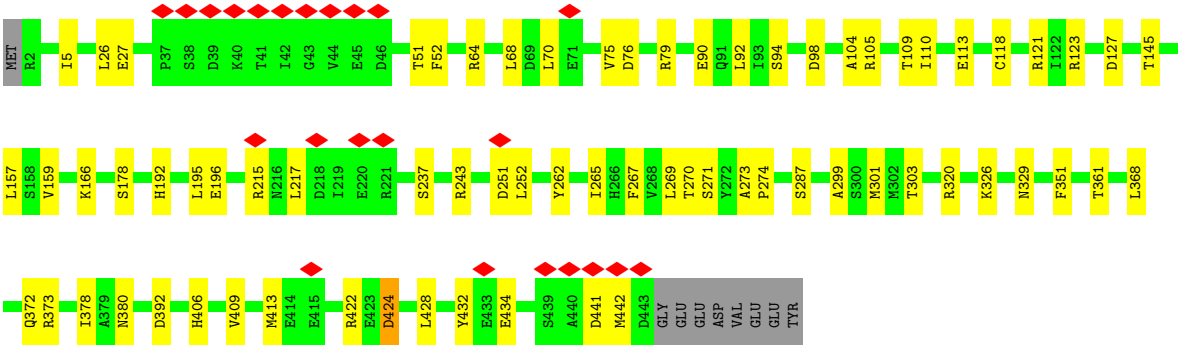
• Molecule 59: Tubulin alpha chain

Chain IG:



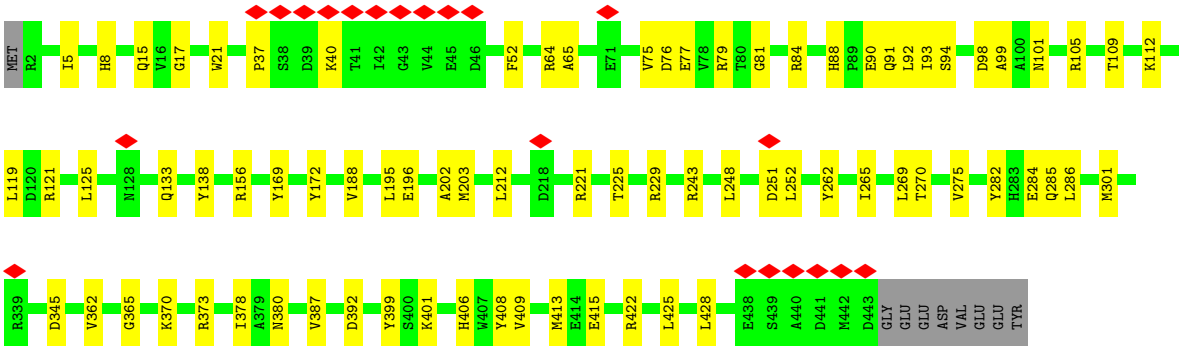
• Molecule 59: Tubulin alpha chain

Chain II:



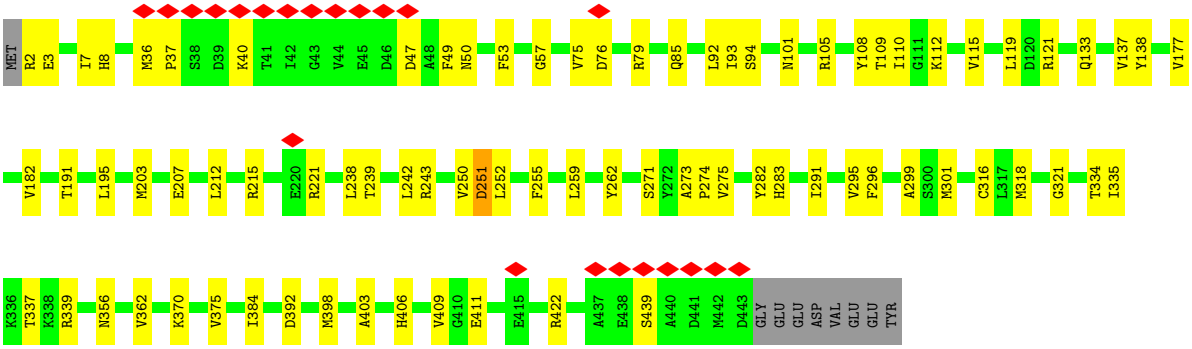
• Molecule 59: Tubulin alpha chain

Chain IK:



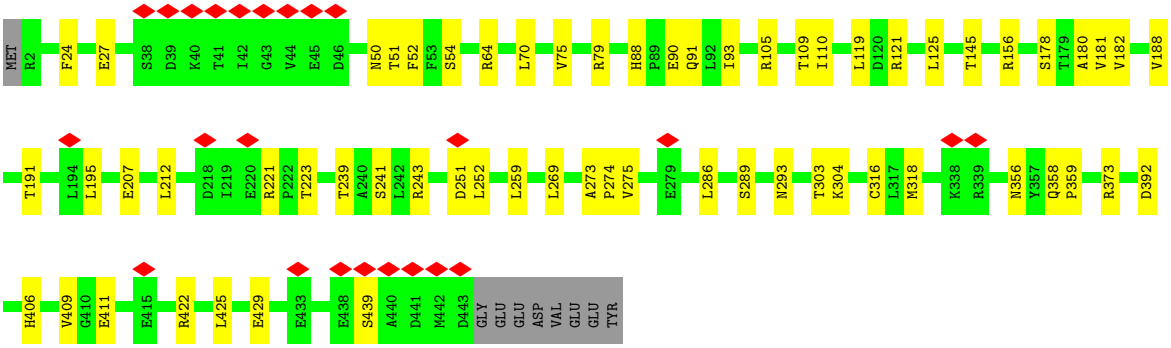
- Molecule 59: Tubulin alpha chain

Chain IM:



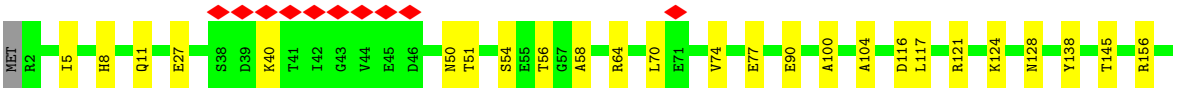
- Molecule 59: Tubulin alpha chain

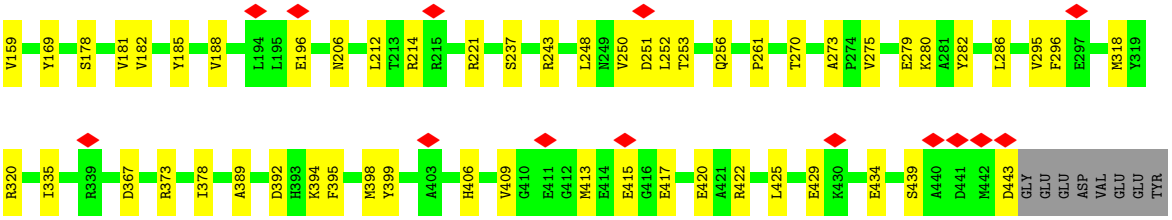
Chain IO:



- Molecule 59: Tubulin alpha chain

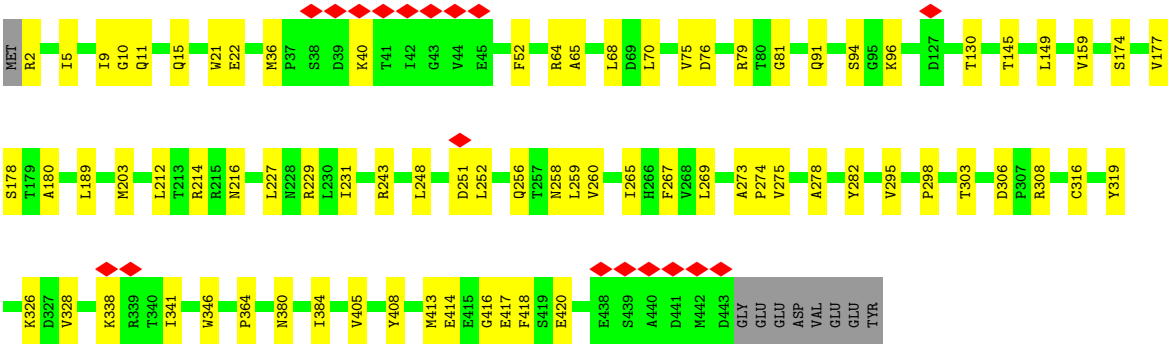
Chain IQ:





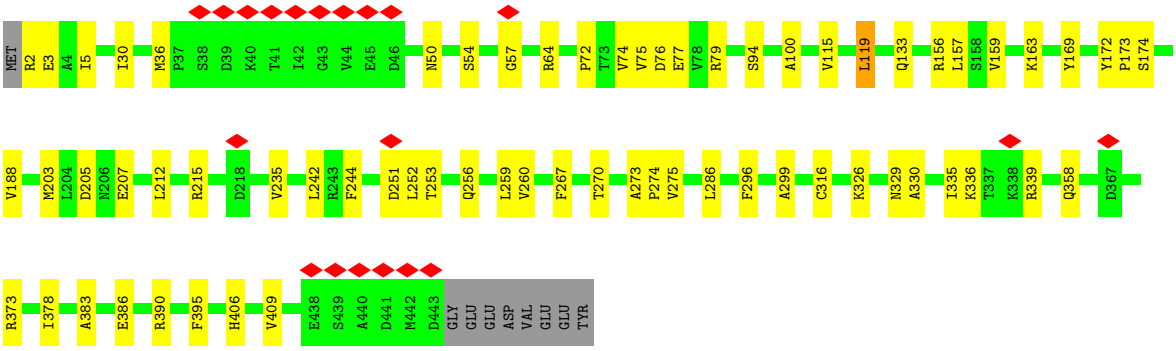
• Molecule 59: Tubulin alpha chain

Chain IT:



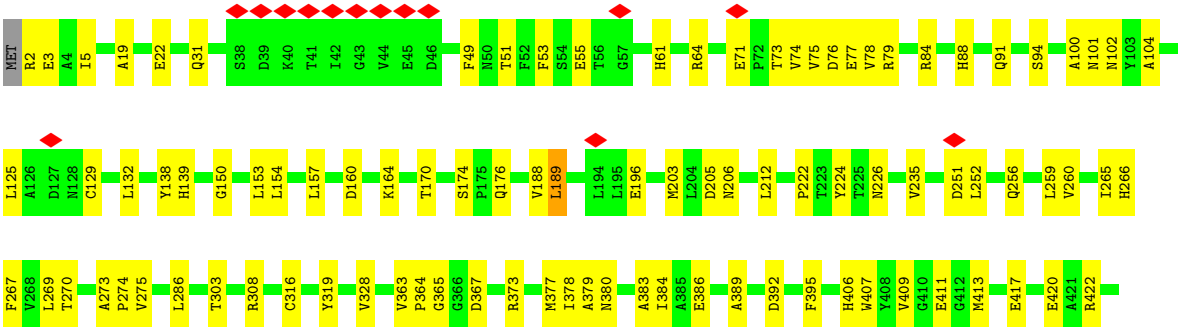
• Molecule 59: Tubulin alpha chain

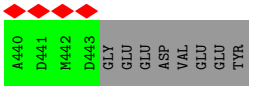
Chain IV:



• Molecule 59: Tubulin alpha chain

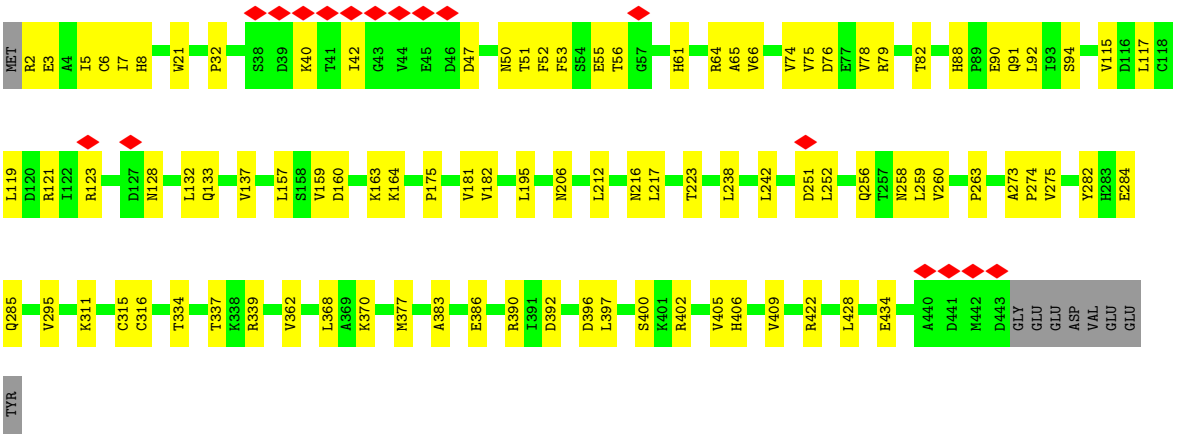
Chain IX:





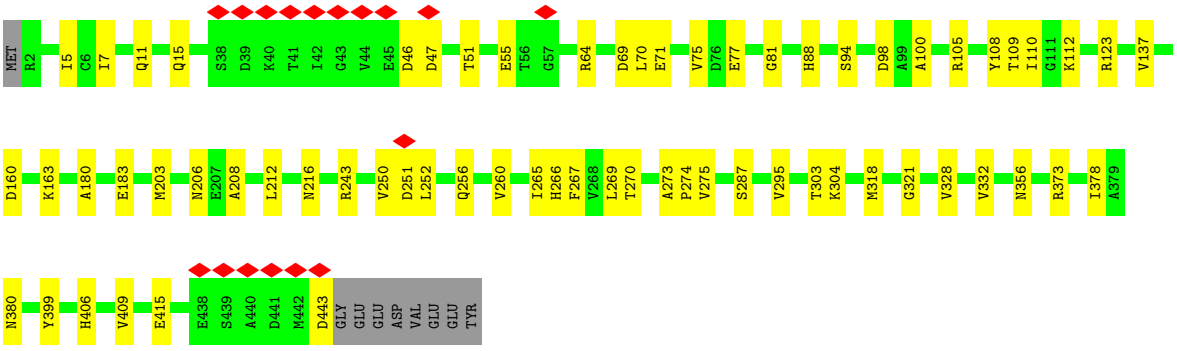
• Molecule 59: Tubulin alpha chain

Chain IZ:



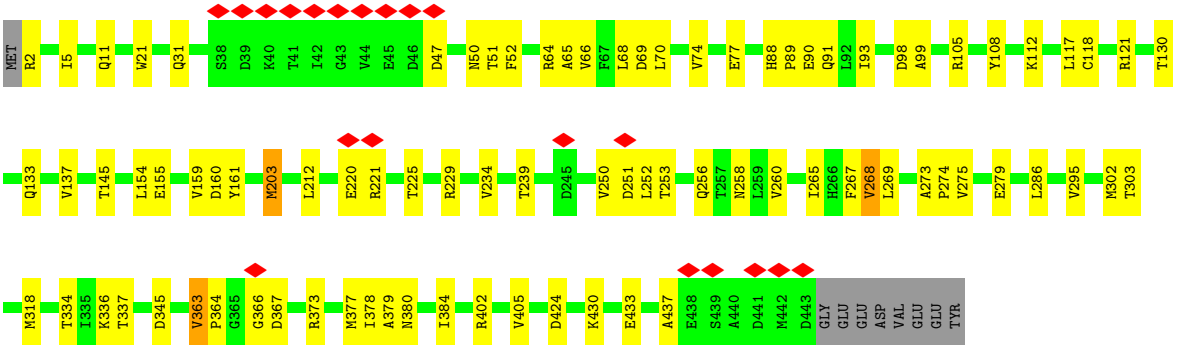
• Molecule 59: Tubulin alpha chain

Chain JB:



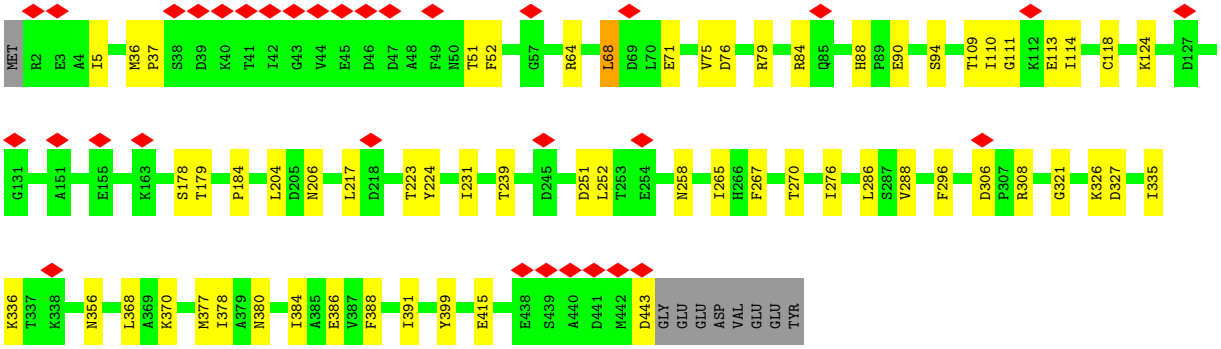
• Molecule 59: Tubulin alpha chain

Chain JD:



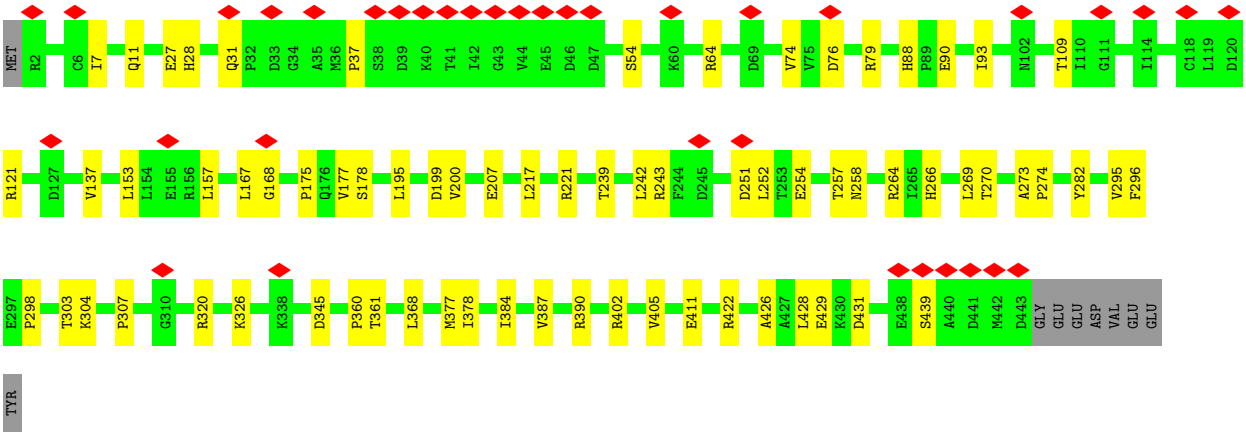
- Molecule 59: Tubulin alpha chain

Chain JF:



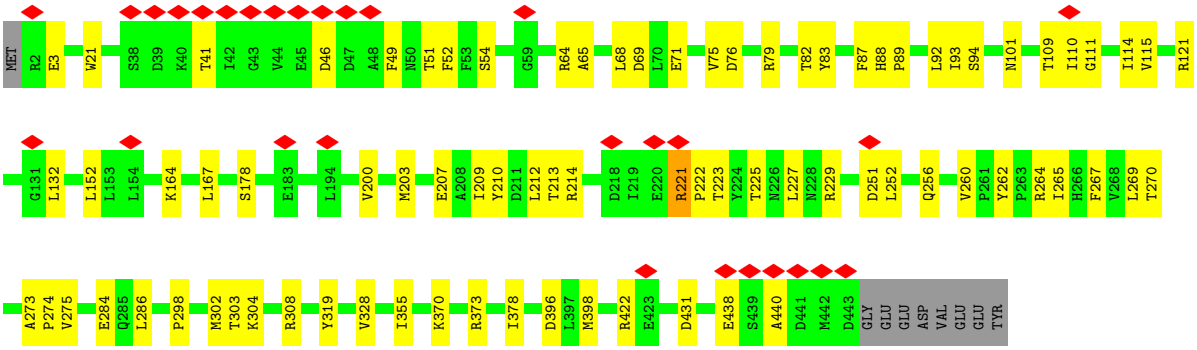
- Molecule 59: Tubulin alpha chain

Chain JH:



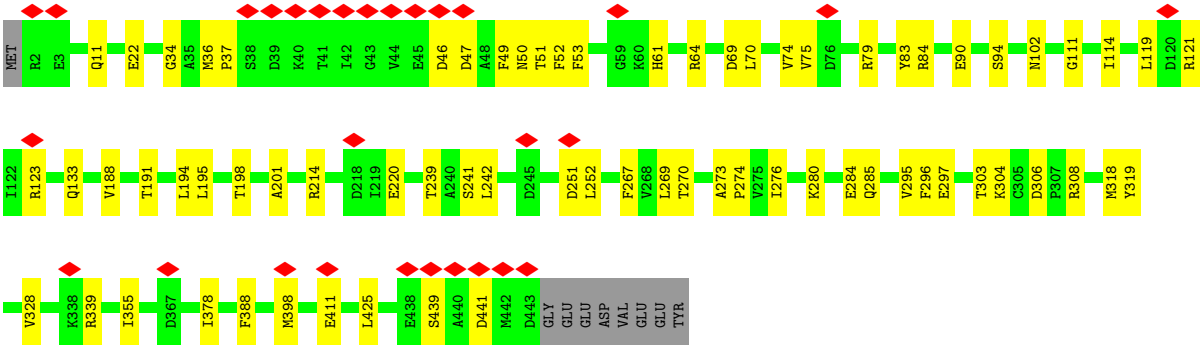
- Molecule 59: Tubulin alpha chain

Chain JJ:



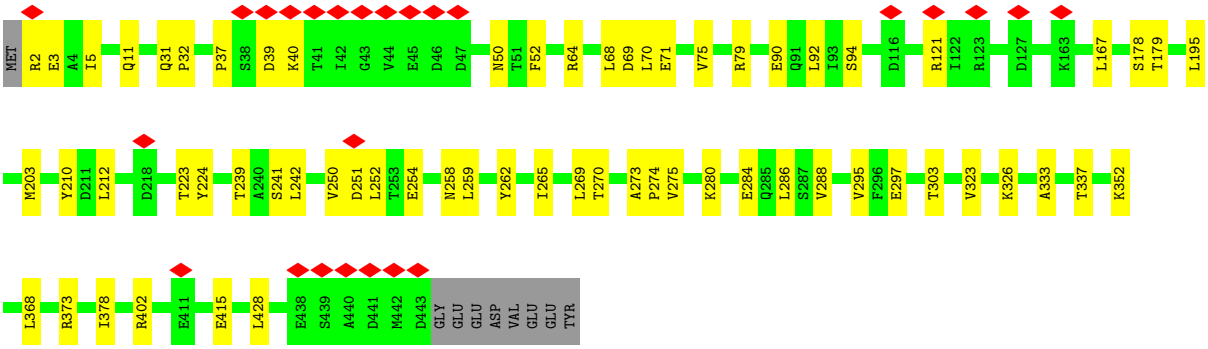
- Molecule 59: Tubulin alpha chain

Chain JL:



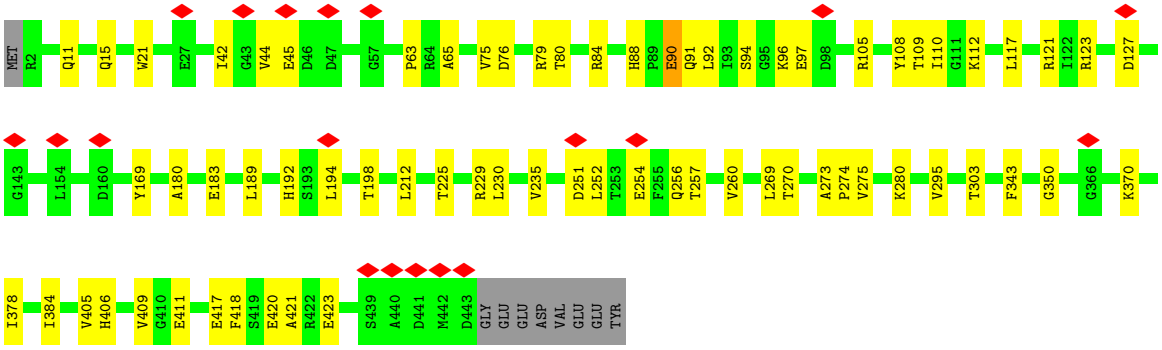
- Molecule 59: Tubulin alpha chain

Chain JN:



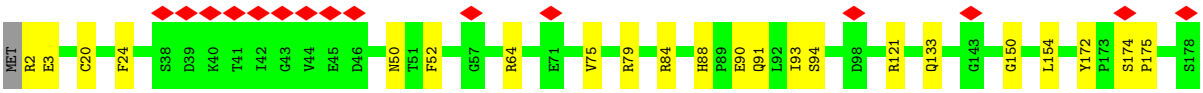
- Molecule 59: Tubulin alpha chain

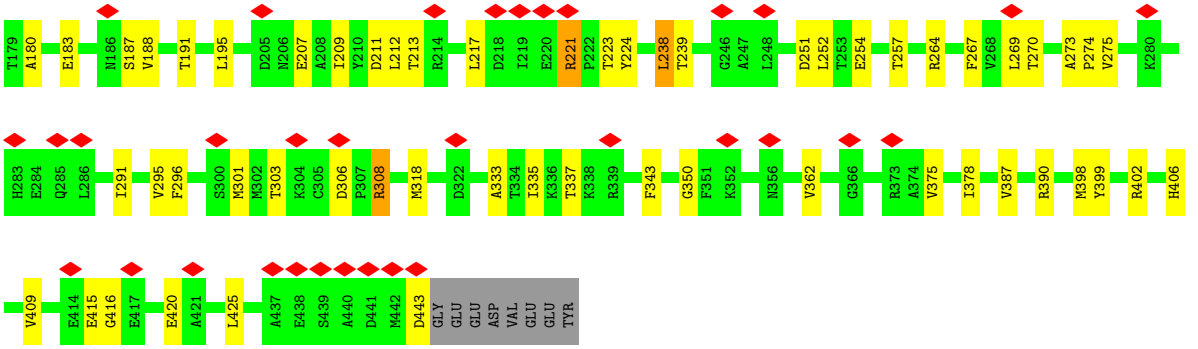
Chain JP:



- Molecule 59: Tubulin alpha chain

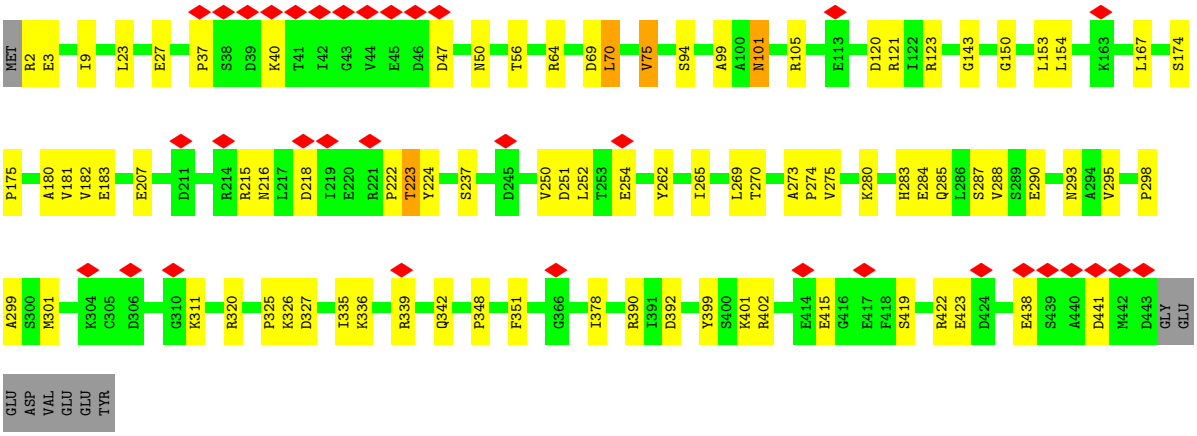
Chain JQ:





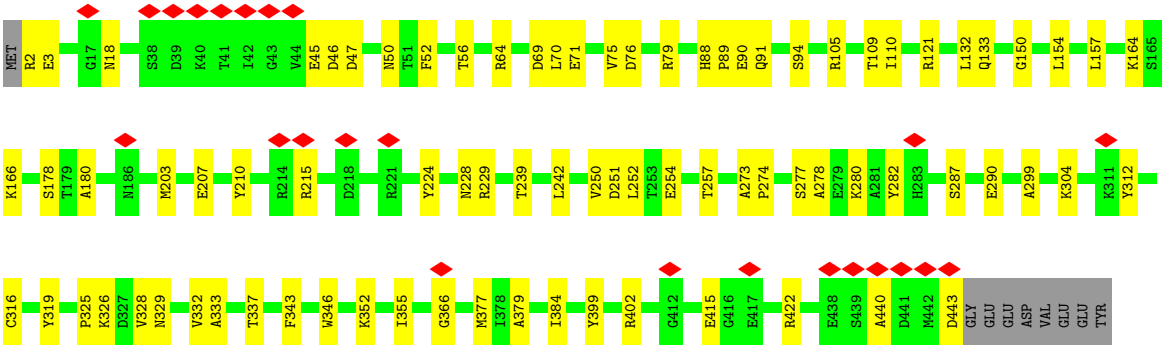
• Molecule 59: Tubulin alpha chain

Chain JS:



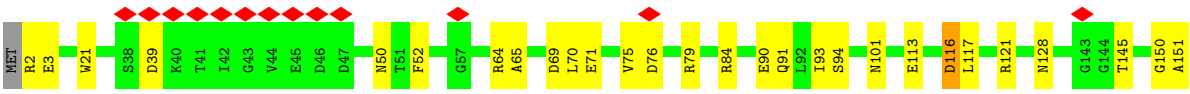
• Molecule 59: Tubulin alpha chain

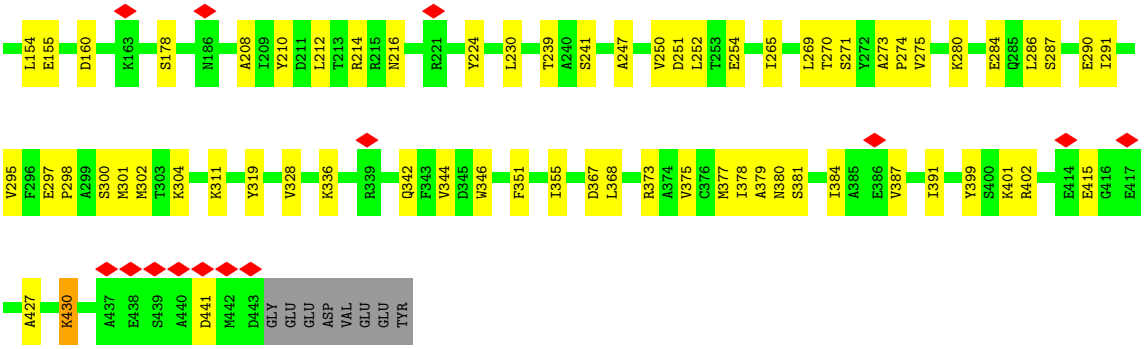
Chain JU:



• Molecule 59: Tubulin alpha chain

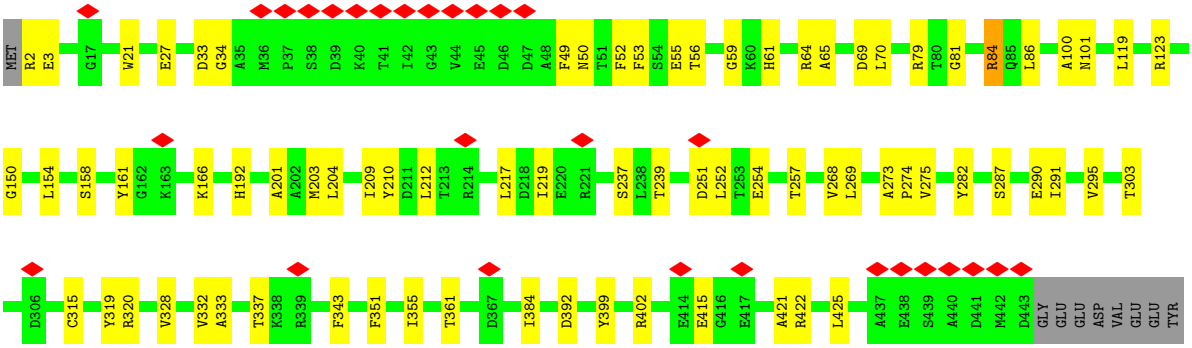
Chain JW:





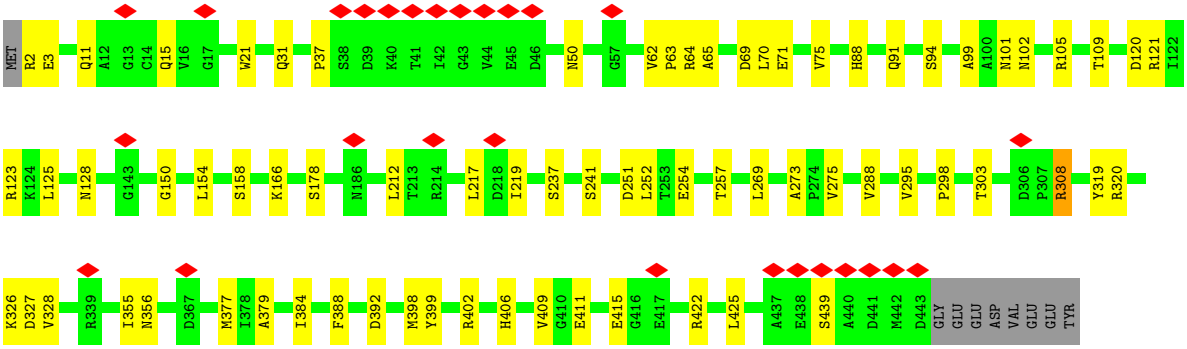
• Molecule 59: Tubulin alpha chain

Chain JY:



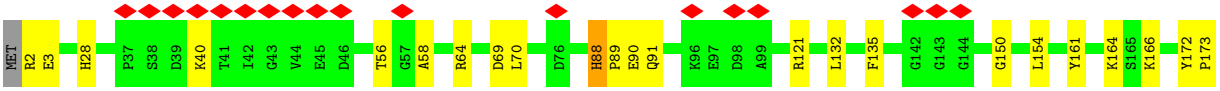
• Molecule 59: Tubulin alpha chain

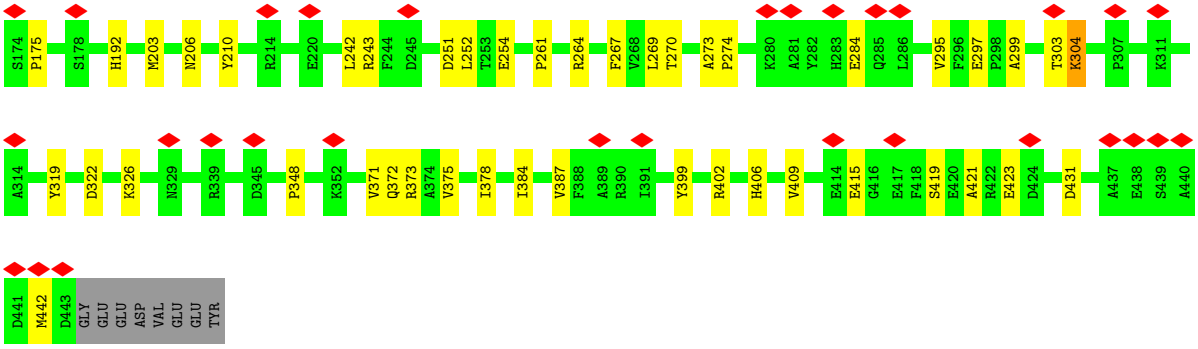
Chain KA:



• Molecule 59: Tubulin alpha chain

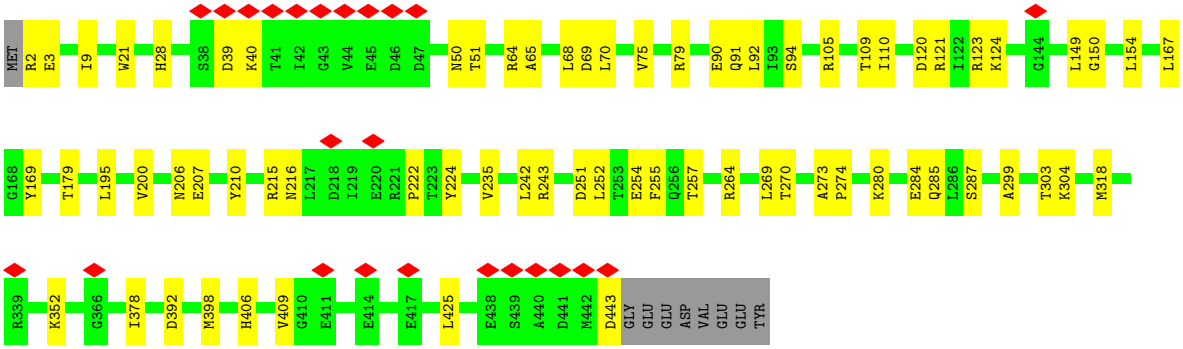
Chain KC:





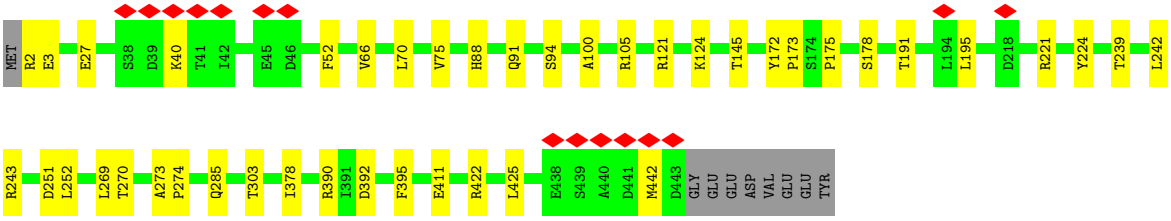
• Molecule 59: Tubulin alpha chain

Chain KD:



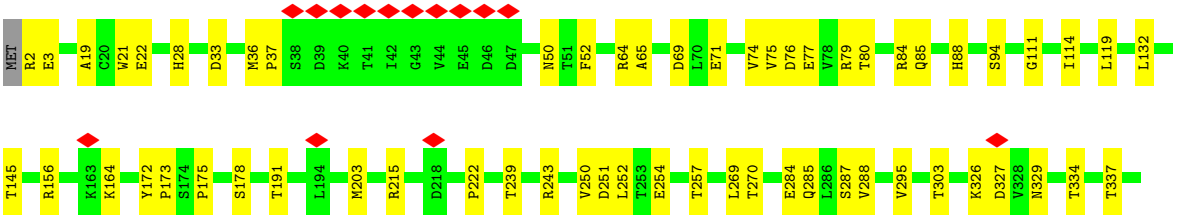
• Molecule 59: Tubulin alpha chain

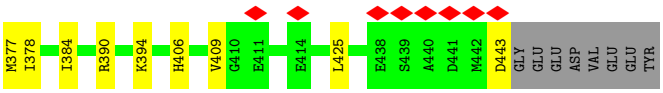
Chain KF:



• Molecule 59: Tubulin alpha chain

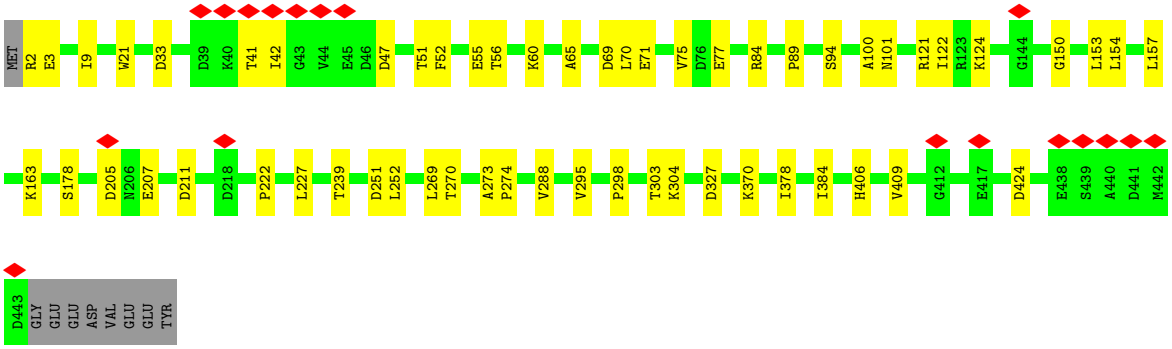
Chain KH:





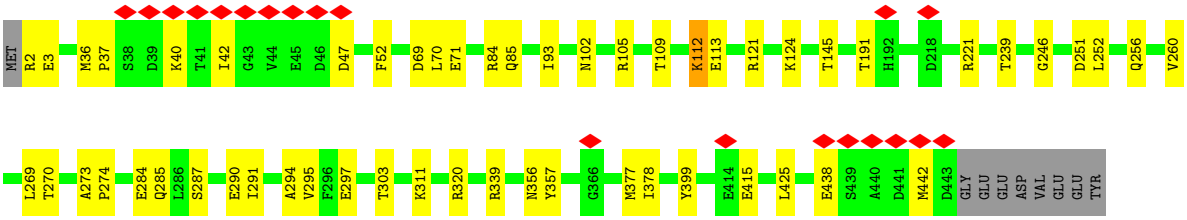
• Molecule 59: Tubulin alpha chain

Chain KJ:



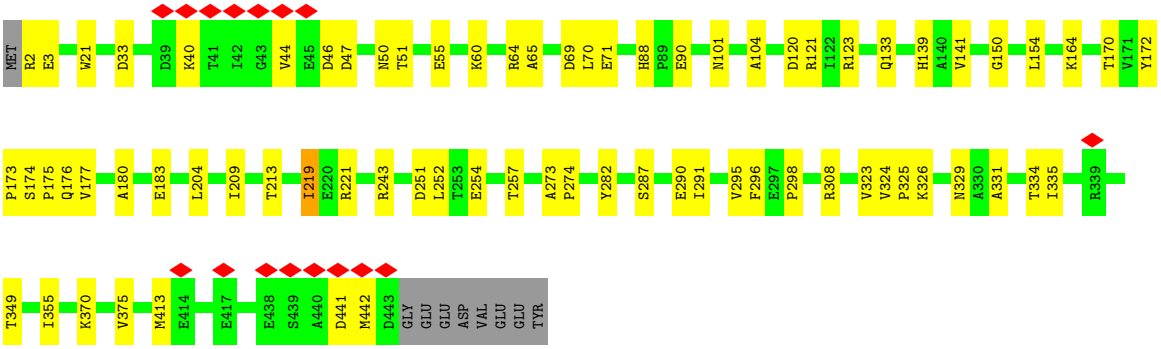
• Molecule 59: Tubulin alpha chain

Chain KL:



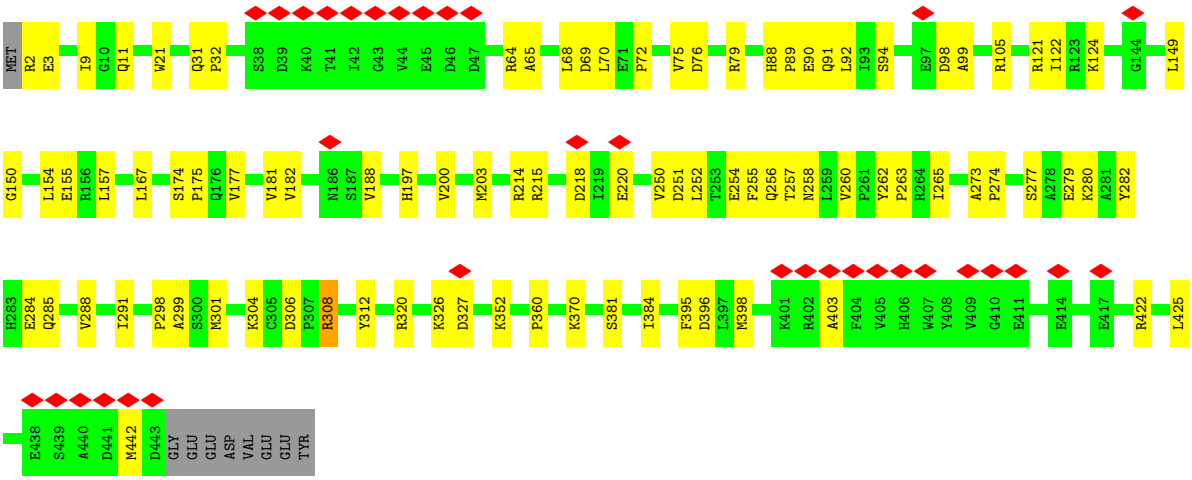
• Molecule 59: Tubulin alpha chain

Chain KN:



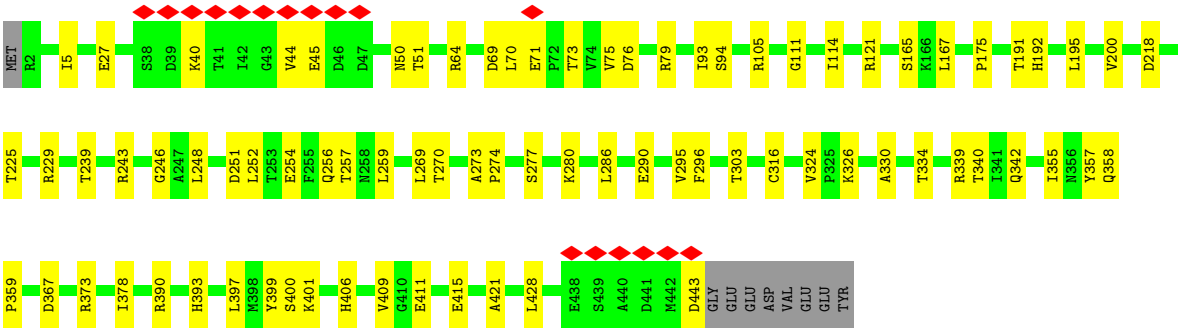
• Molecule 59: Tubulin alpha chain

Chain KP:



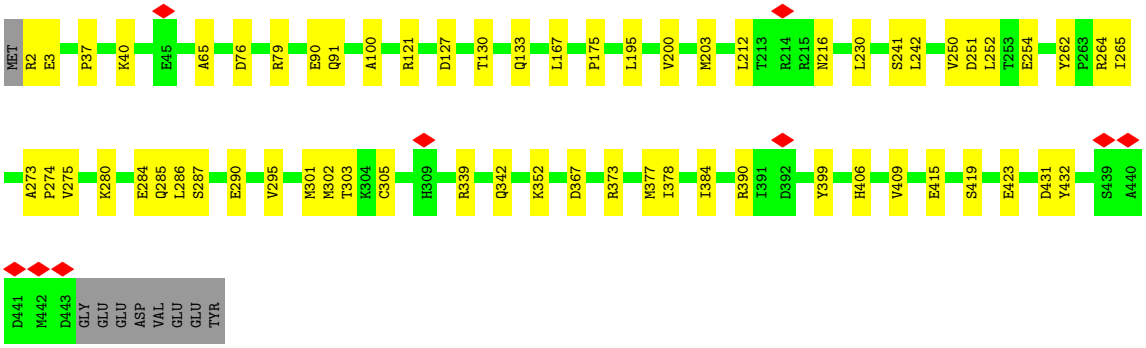
- Molecule 59: Tubulin alpha chain

Chain KQ:



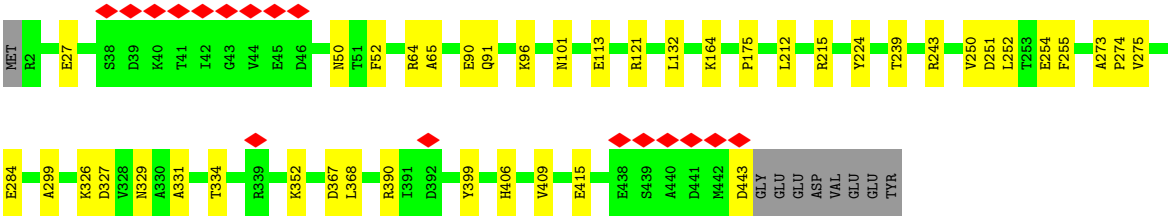
- Molecule 59: Tubulin alpha chain

Chain KS:



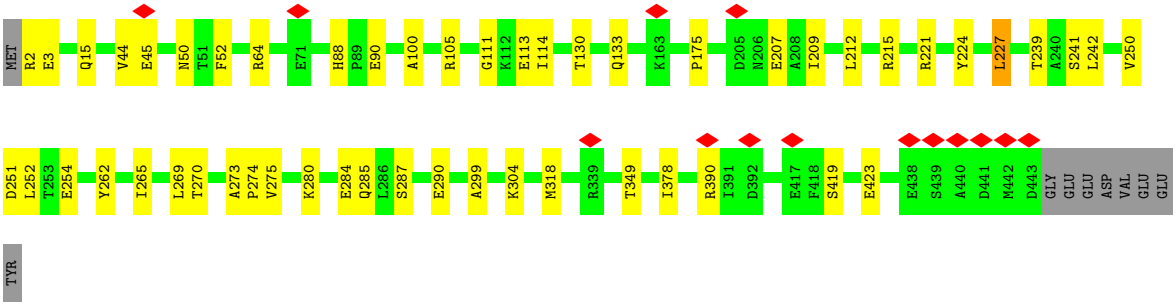
- Molecule 59: Tubulin alpha chain

Chain KU:



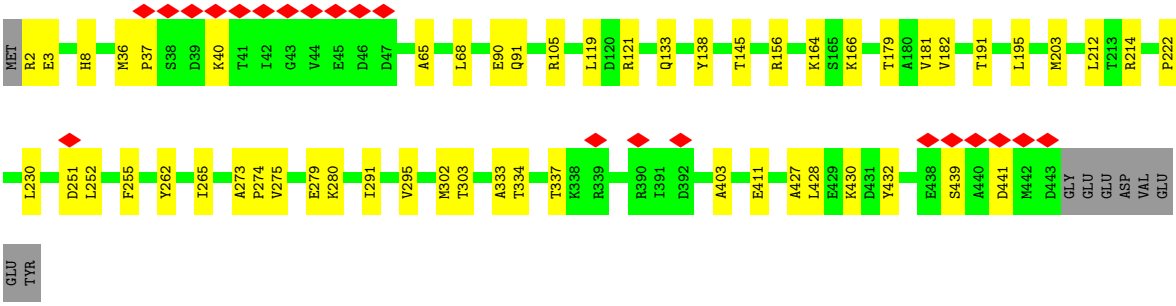
• Molecule 59: Tubulin alpha chain

Chain KW:



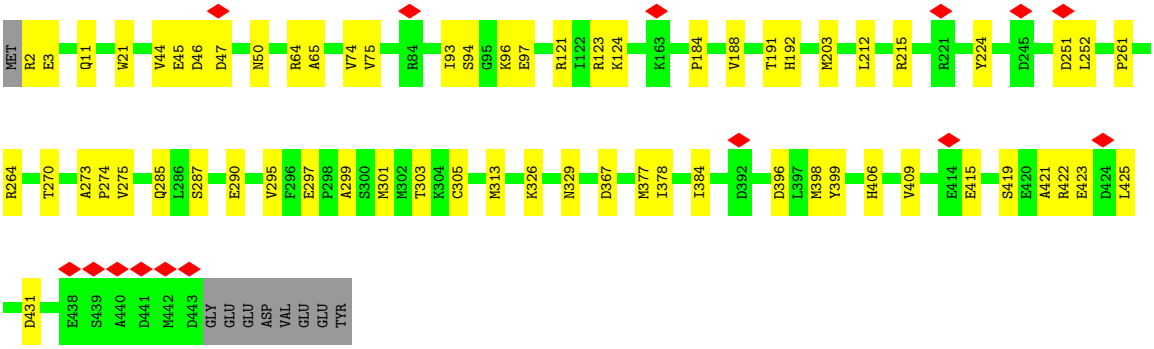
• Molecule 59: Tubulin alpha chain

Chain KY:



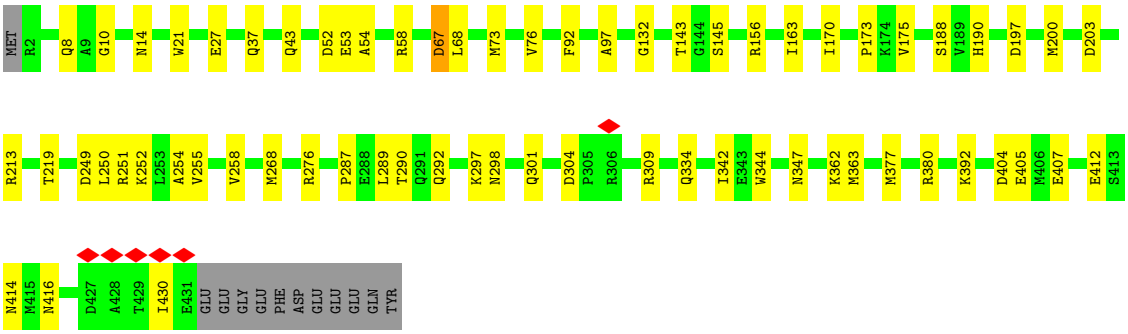
• Molecule 59: Tubulin alpha chain

Chain LA:



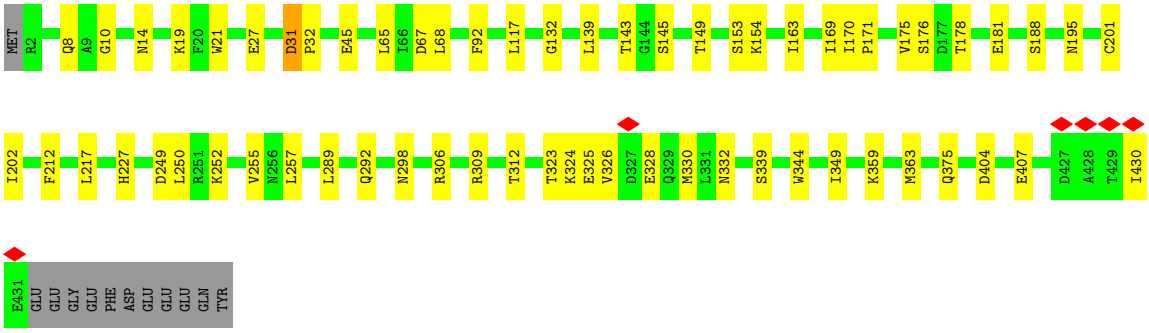
• Molecule 60: Tubulin beta chain

Chain AB:



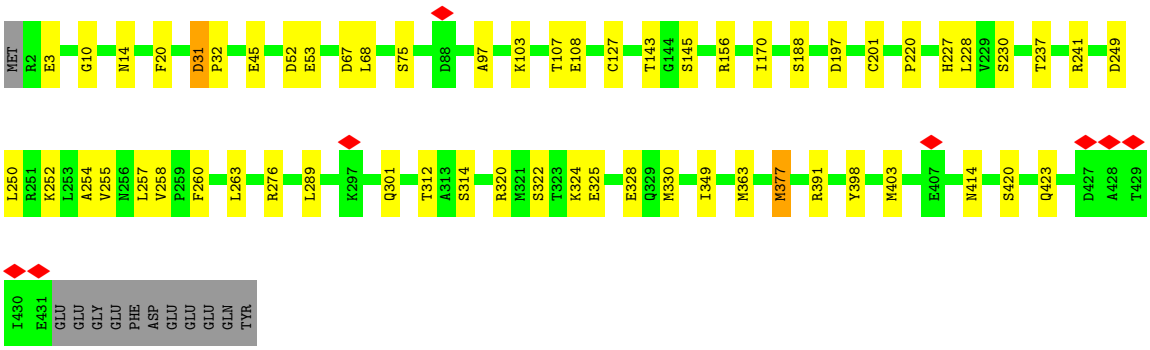
- Molecule 60: Tubulin beta chain

Chain AD:



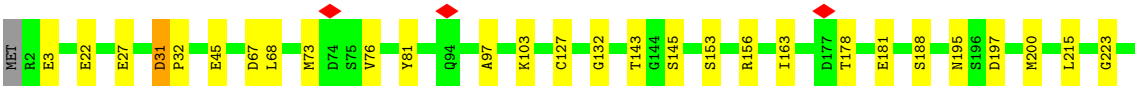
- Molecule 60: Tubulin beta chain

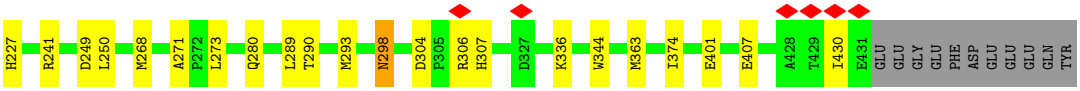
Chain AF:



- Molecule 60: Tubulin beta chain

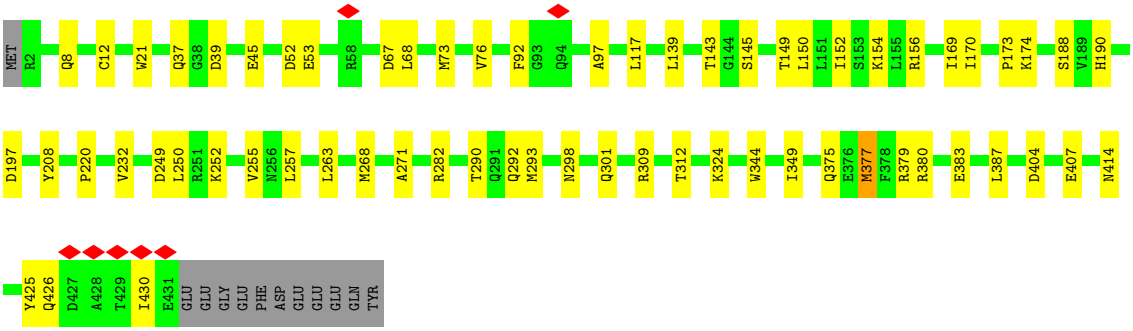
Chain AH:





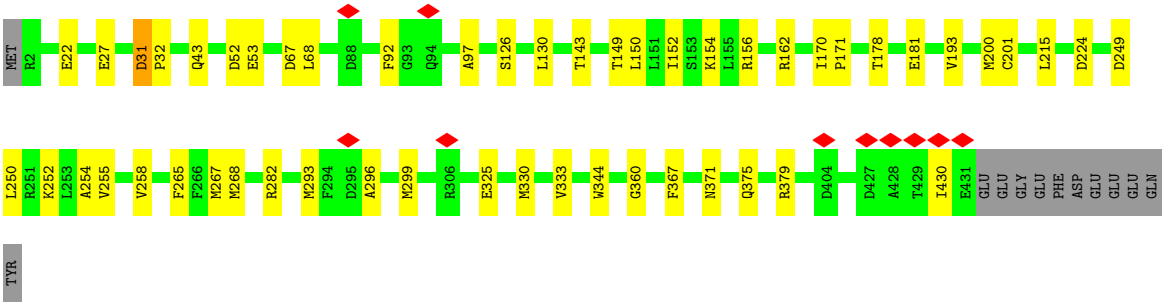
• Molecule 60: Tubulin beta chain

Chain AJ:



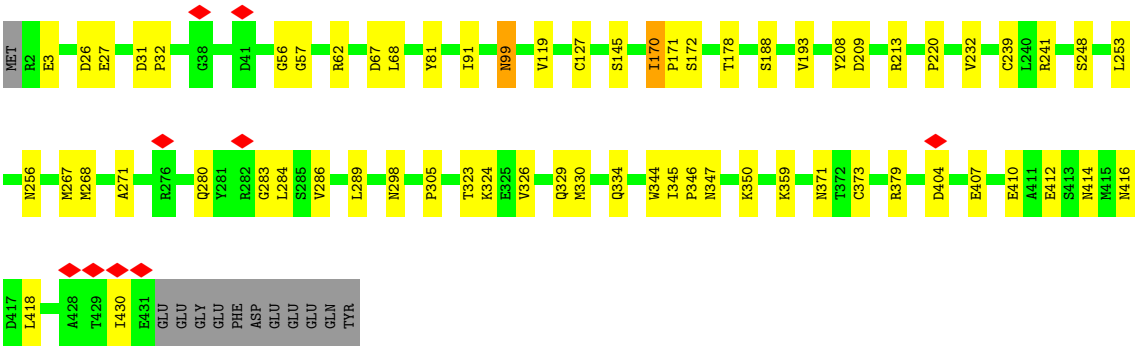
• Molecule 60: Tubulin beta chain

Chain AL:



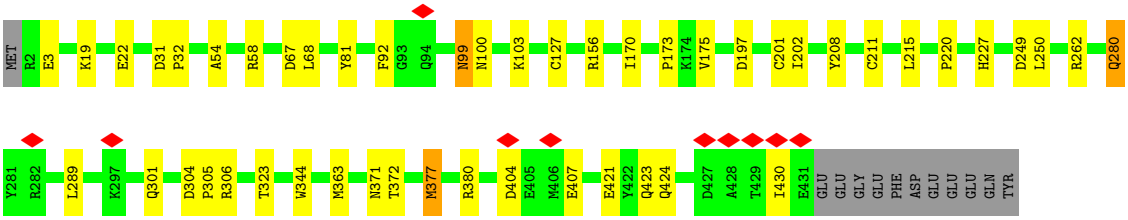
• Molecule 60: Tubulin beta chain

Chain AN:



• Molecule 60: Tubulin beta chain

Chain AP:



• Molecule 60: Tubulin beta chain

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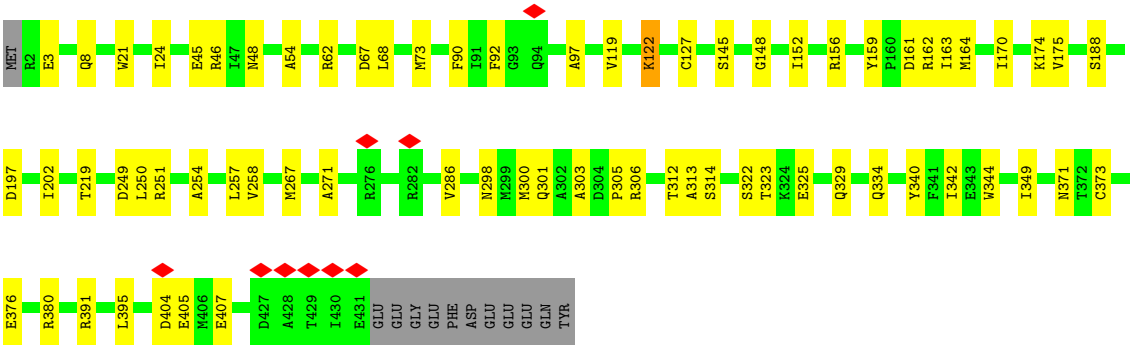
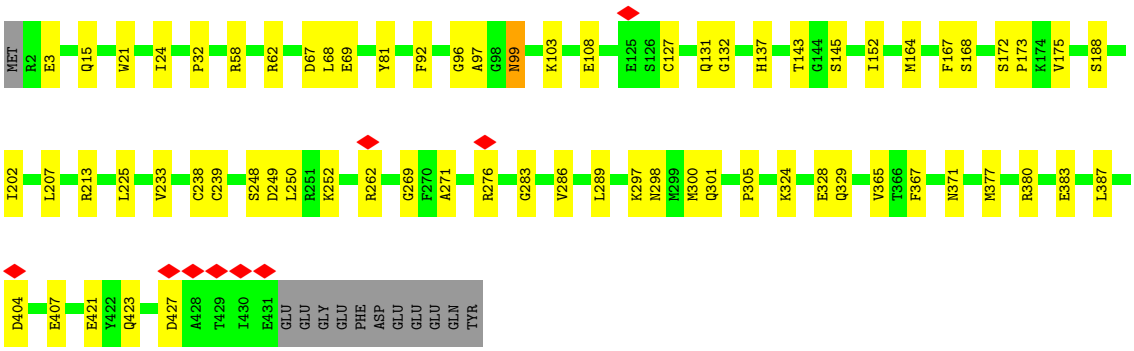


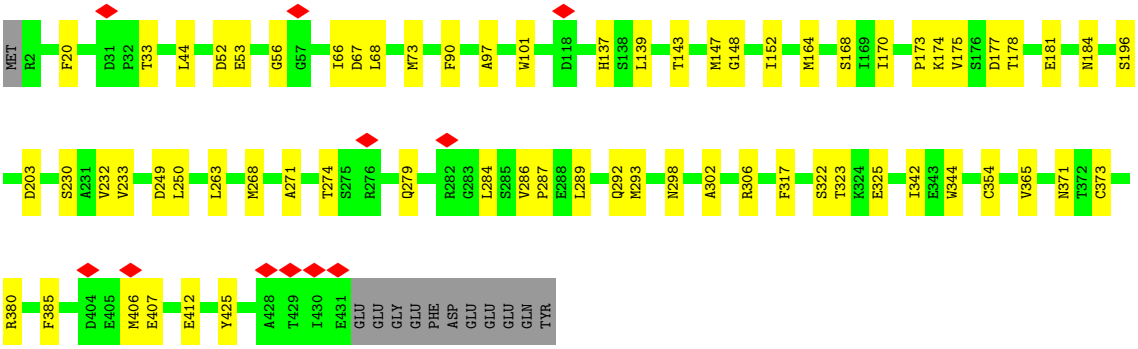
• Molecule 60: Tubulin beta chain

Chain AT:



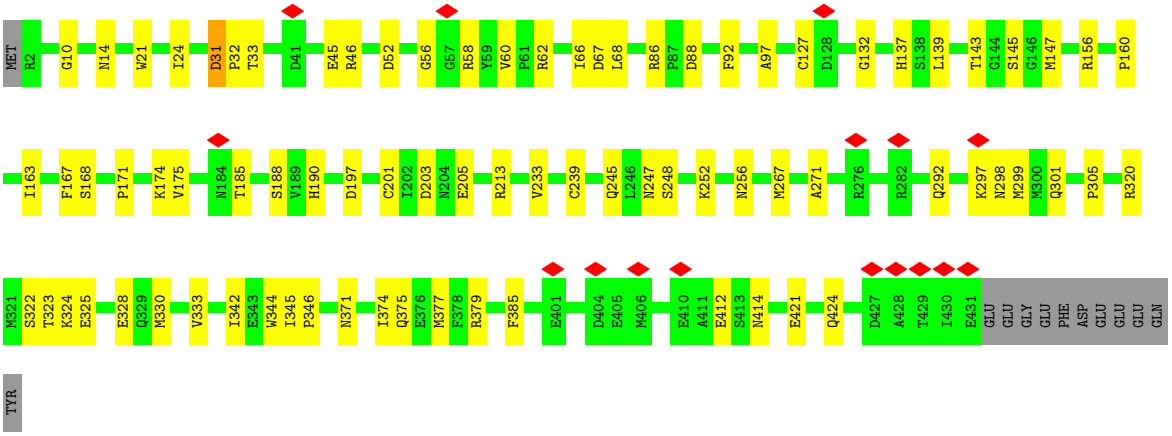
• Molecule 60: Tubulin beta chain

Chain AV:



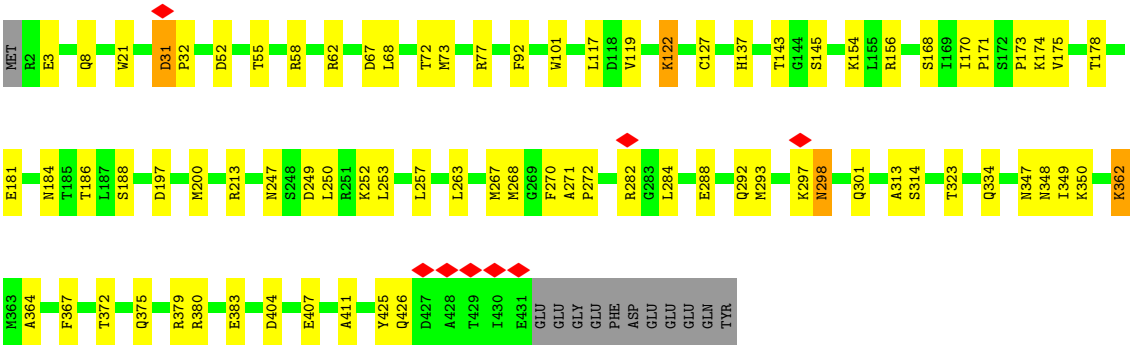
• Molecule 60: Tubulin beta chain

Chain AX:



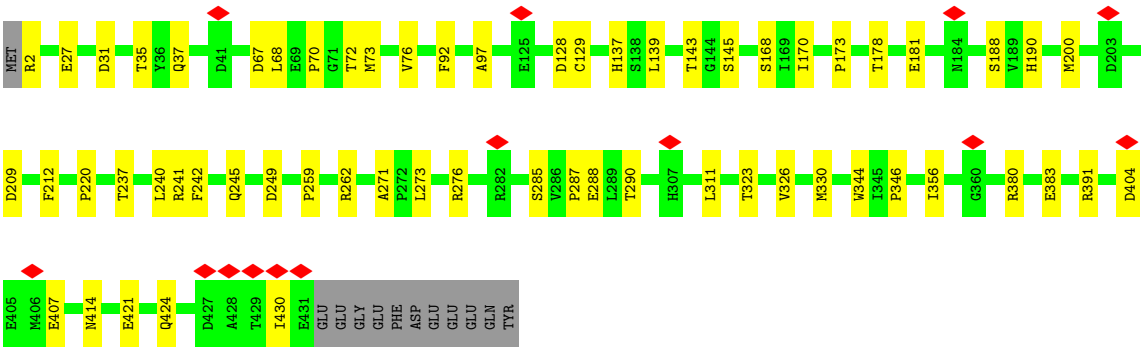
• Molecule 60: Tubulin beta chain

Chain AZ:



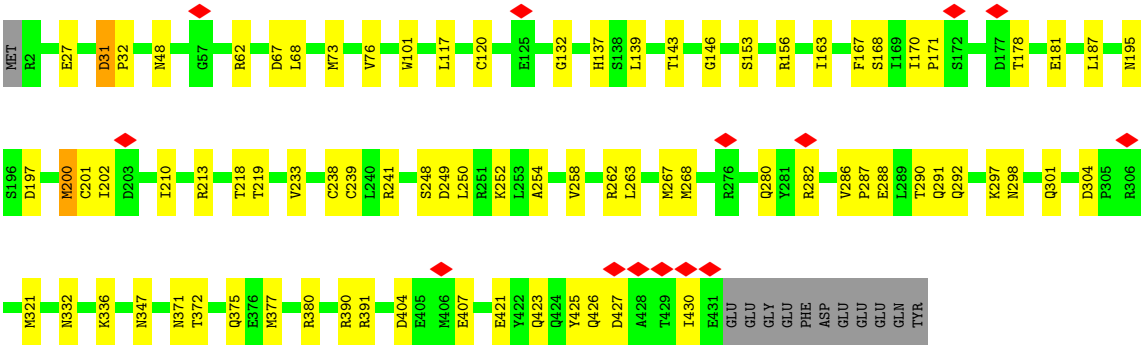
• Molecule 60: Tubulin beta chain

Chain BB:



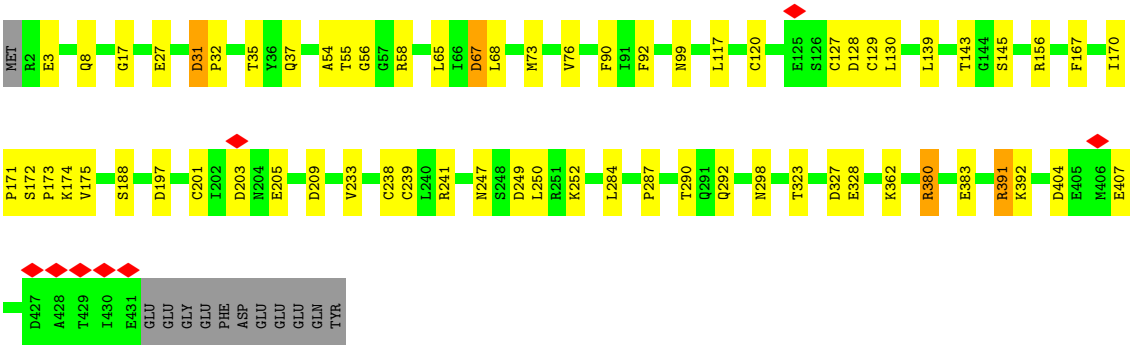
• Molecule 60: Tubulin beta chain

Chain BD:



- Molecule 60: Tubulin beta chain

Chain BF:



- Molecule 60: Tubulin beta chain

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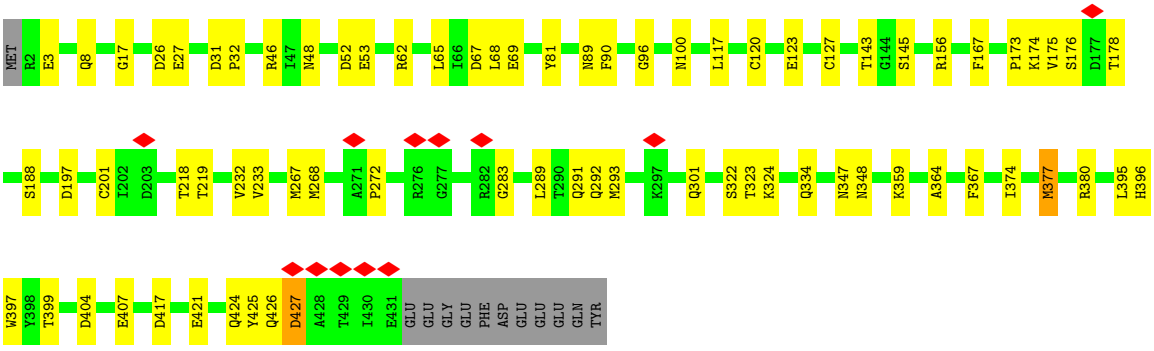
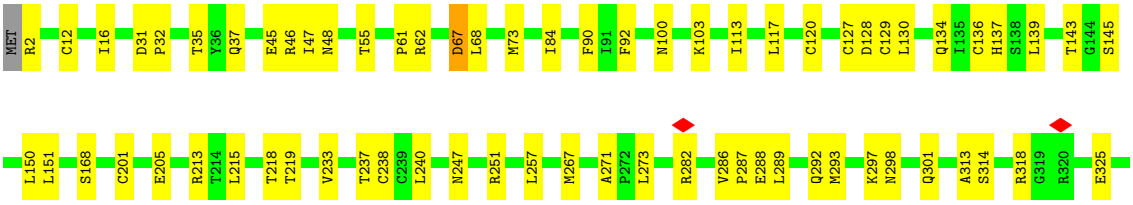
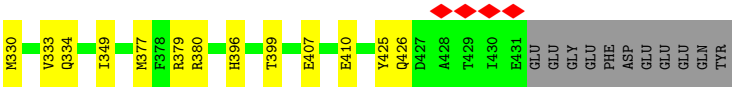


- Molecule 60: Tubulin beta chain

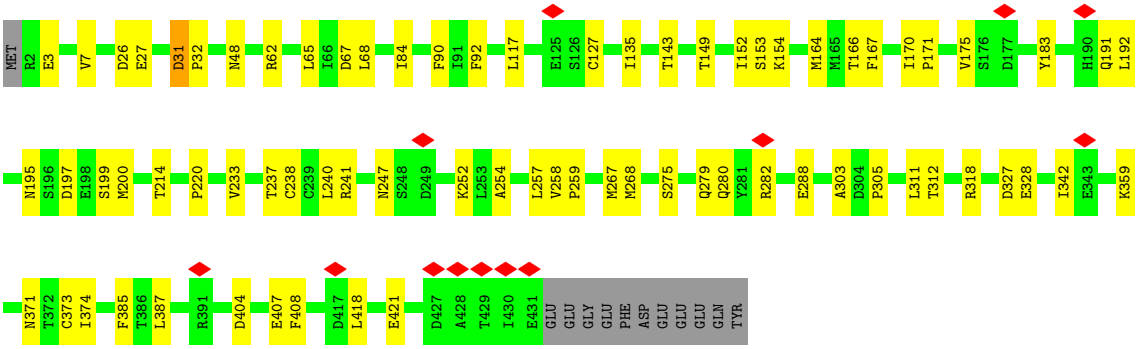
Chain BJ:





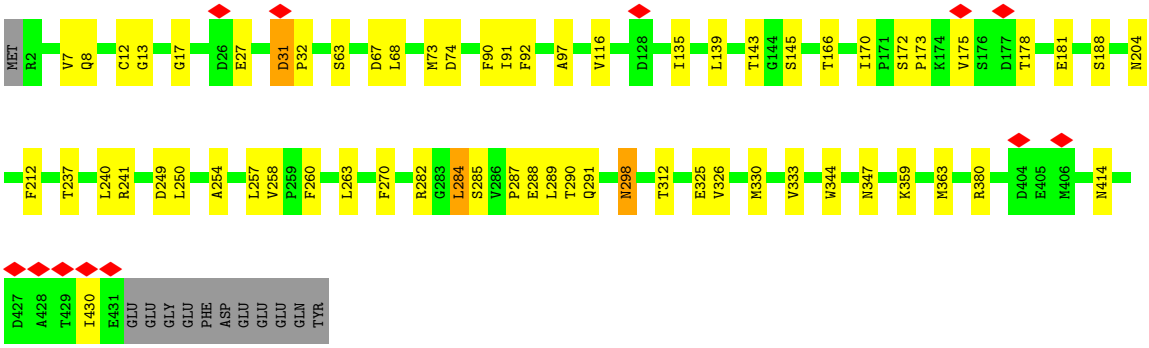
• Molecule 60: Tubulin beta chain

Chain BL:



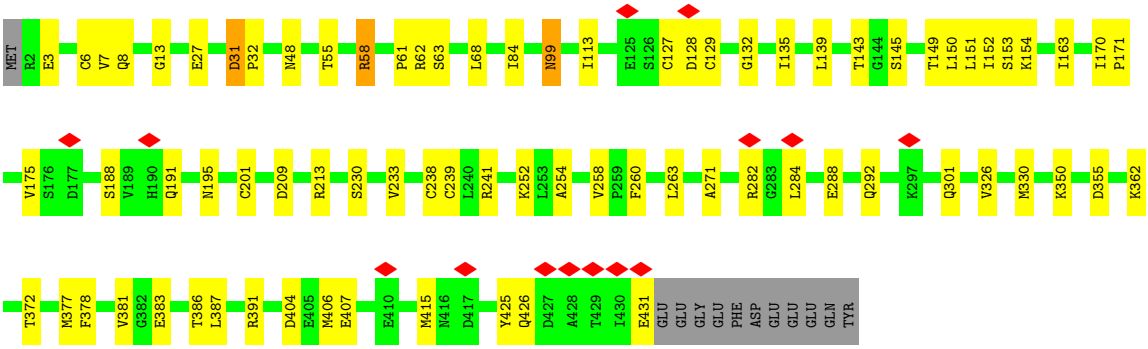
• Molecule 60: Tubulin beta chain

Chain BN:



• Molecule 60: Tubulin beta chain

Chain BP:



• Molecule 60: Tubulin beta chain

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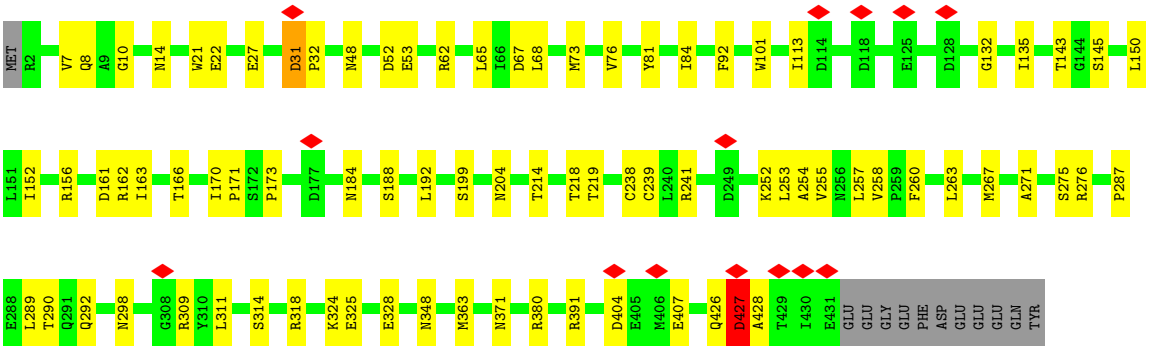
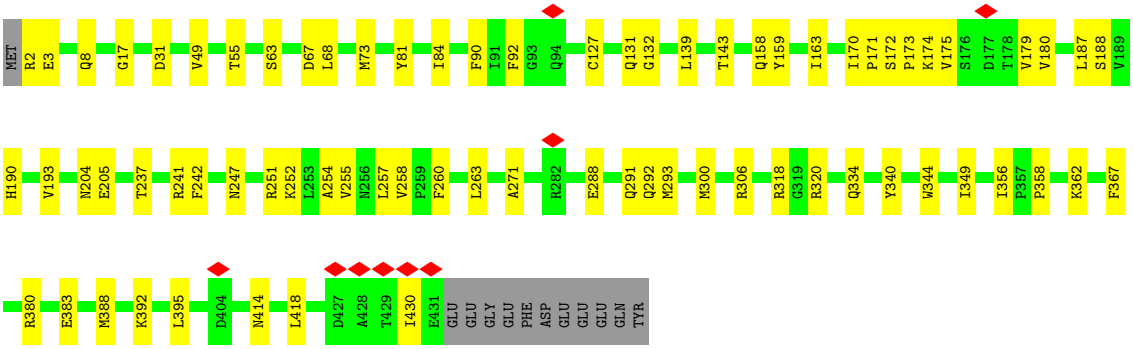


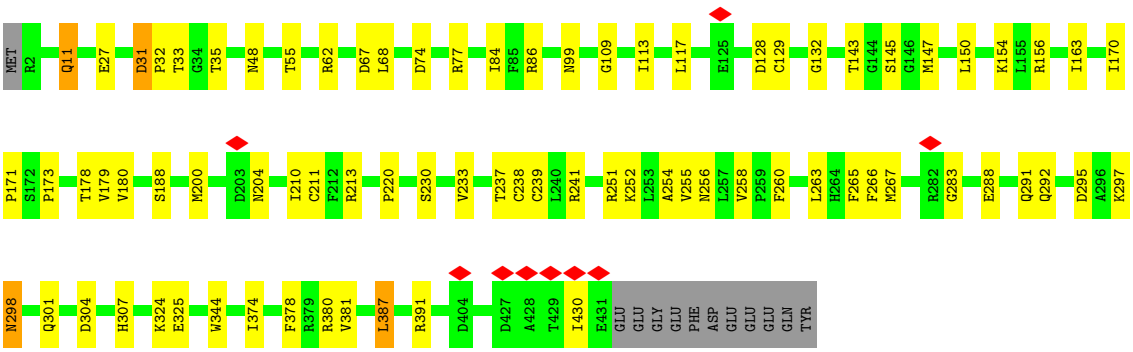
- Molecule 60: Tubulin beta chain

Chain BT:



- Molecule 60: Tubulin beta chain

Chain BV:



- Molecule 60: Tubulin beta chain

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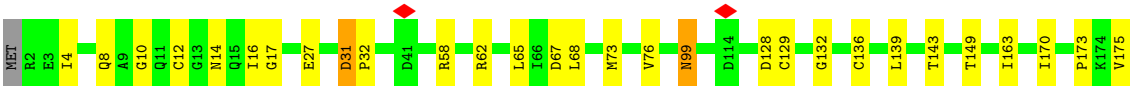

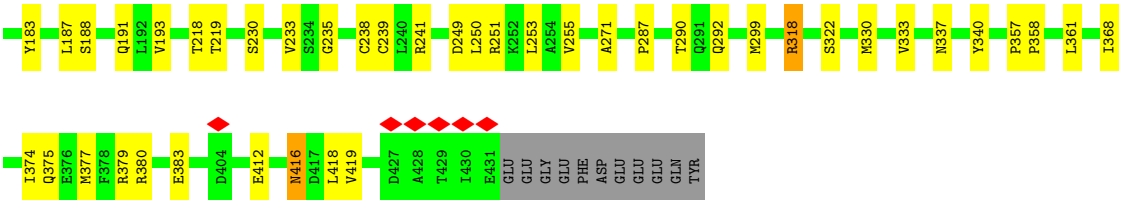

• Molecule 60: Tubulin beta chain

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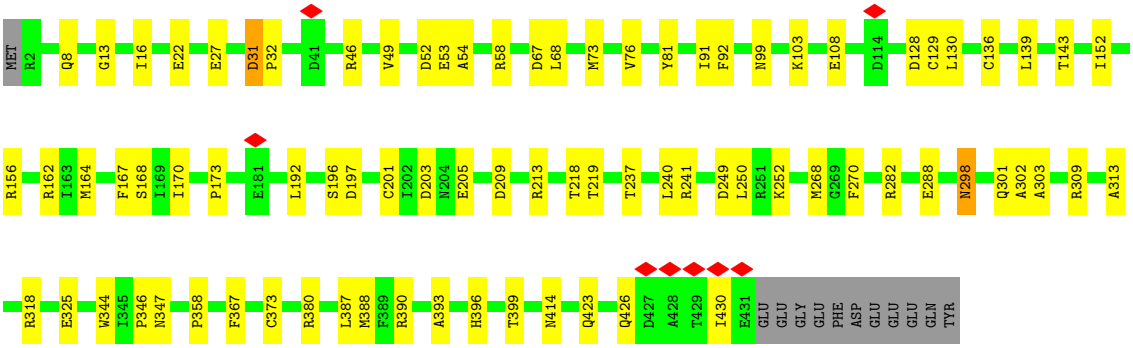

• Molecule 60: Tubulin beta chain

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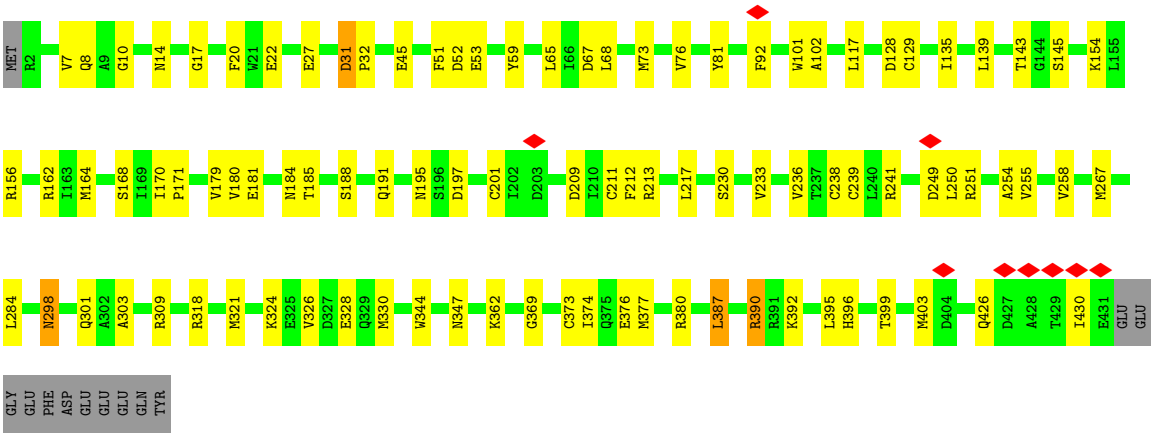

• Molecule 60: Tubulin beta chain

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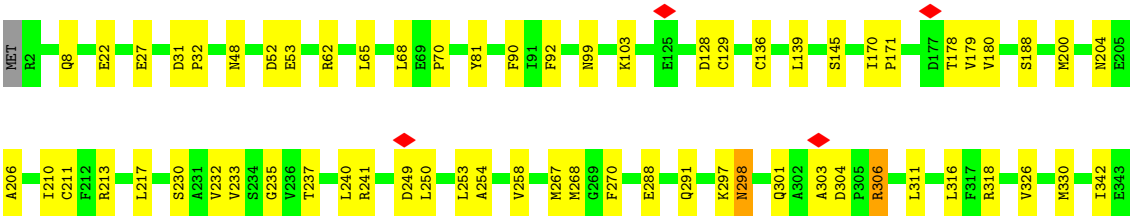

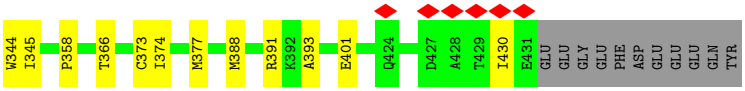

• Molecule 60: Tubulin beta chain

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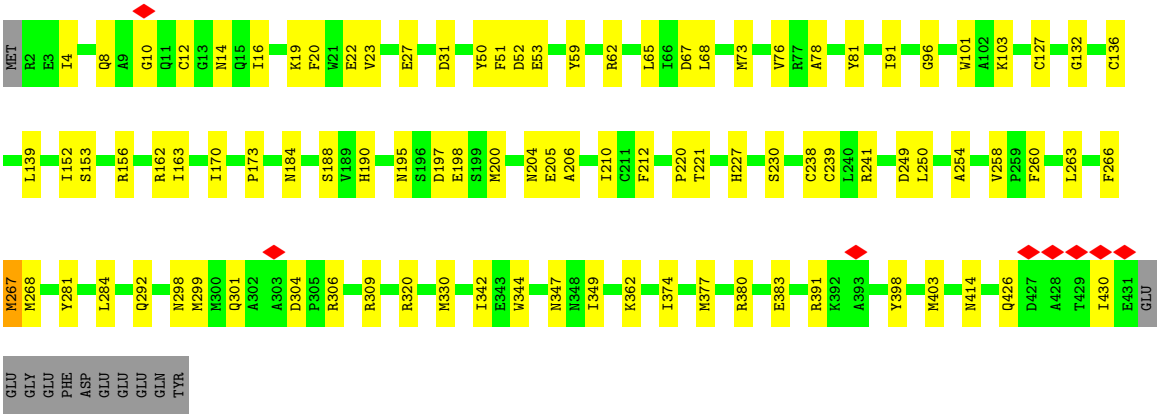

• Molecule 60: Tubulin beta chain

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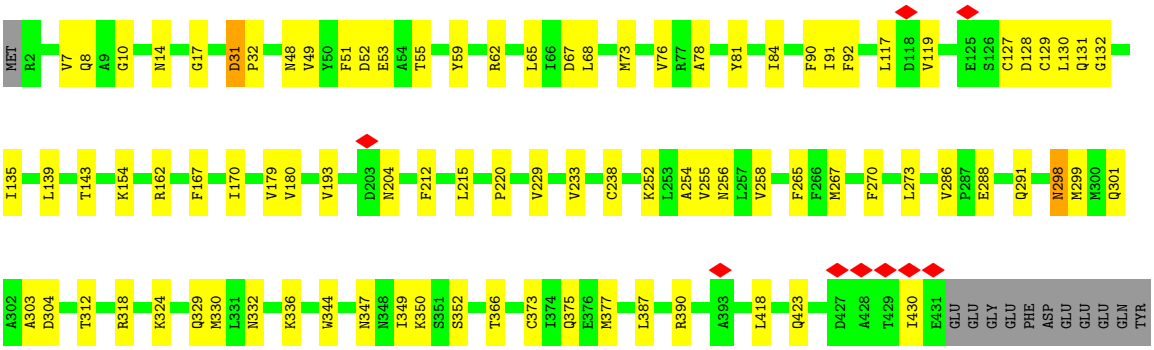
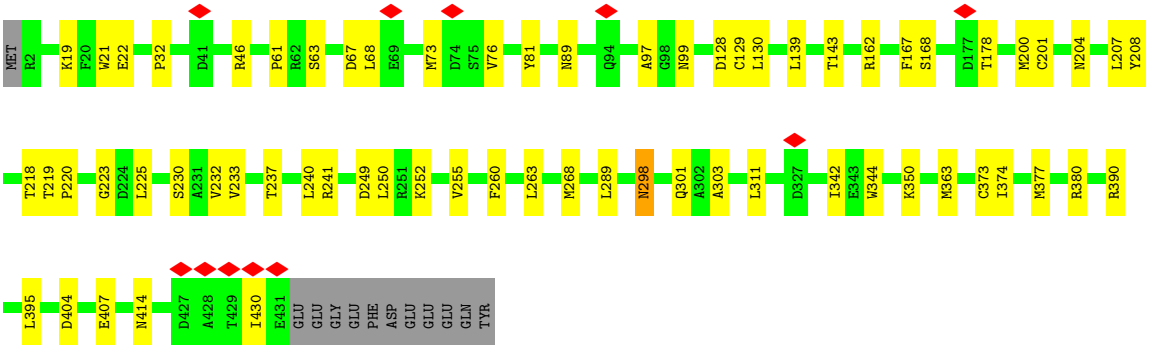


• Molecule 60: Tubulin beta chain

Chain CL:



• Molecule 60: Tubulin beta chain

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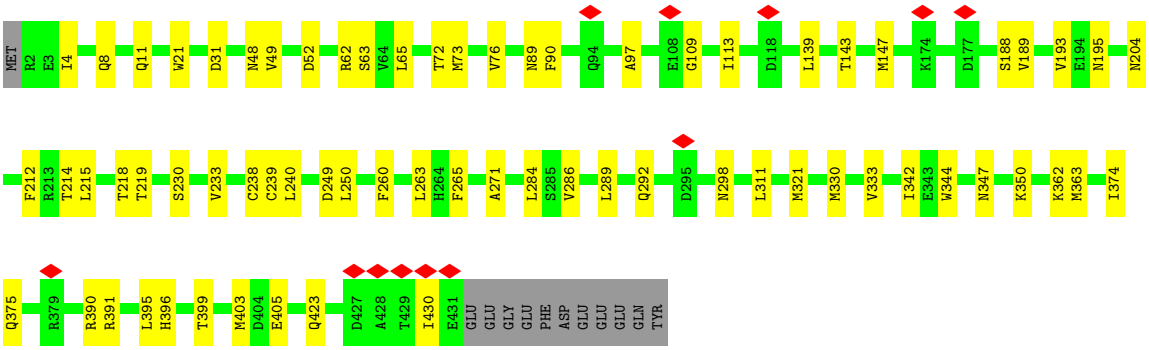

- Molecule 60: Tubulin beta chain

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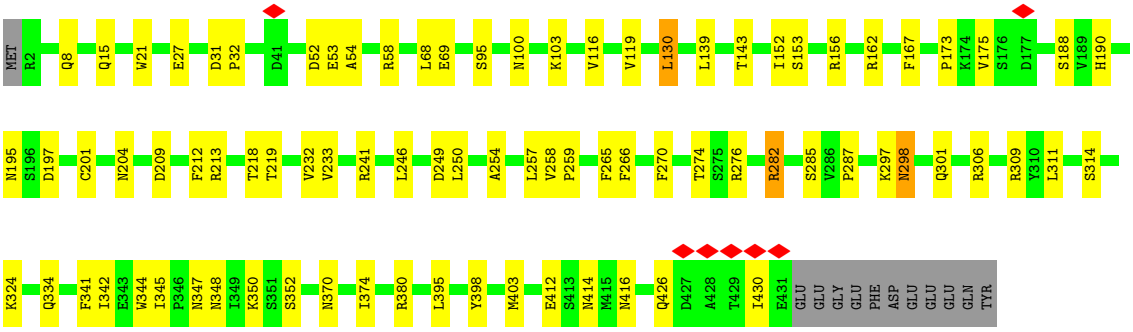

- Molecule 60: Tubulin beta chain

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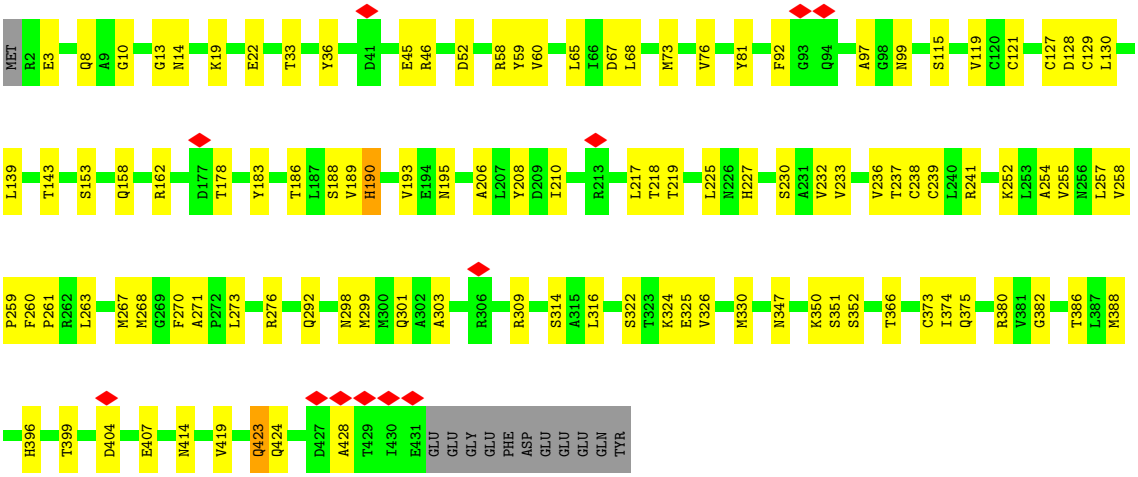

- Molecule 60: Tubulin beta chain

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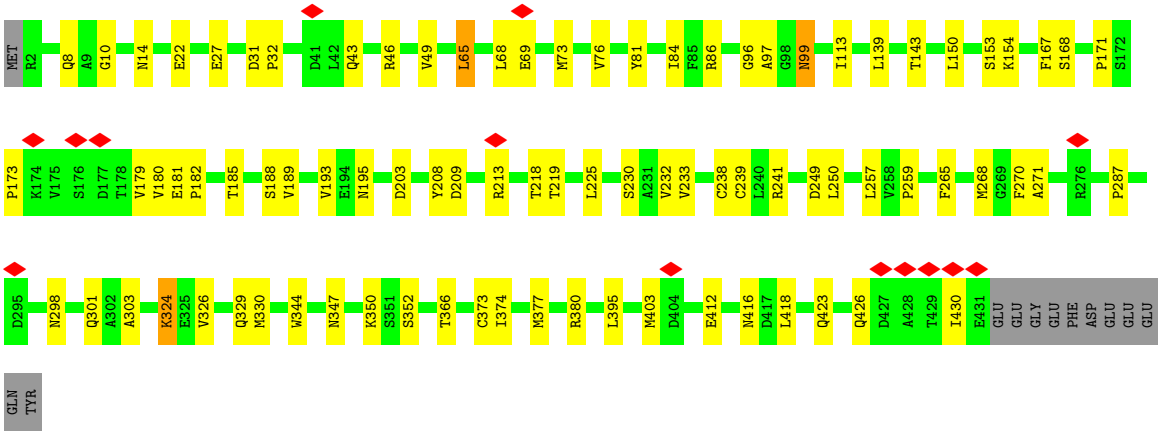

• Molecule 60: Tubulin beta chain

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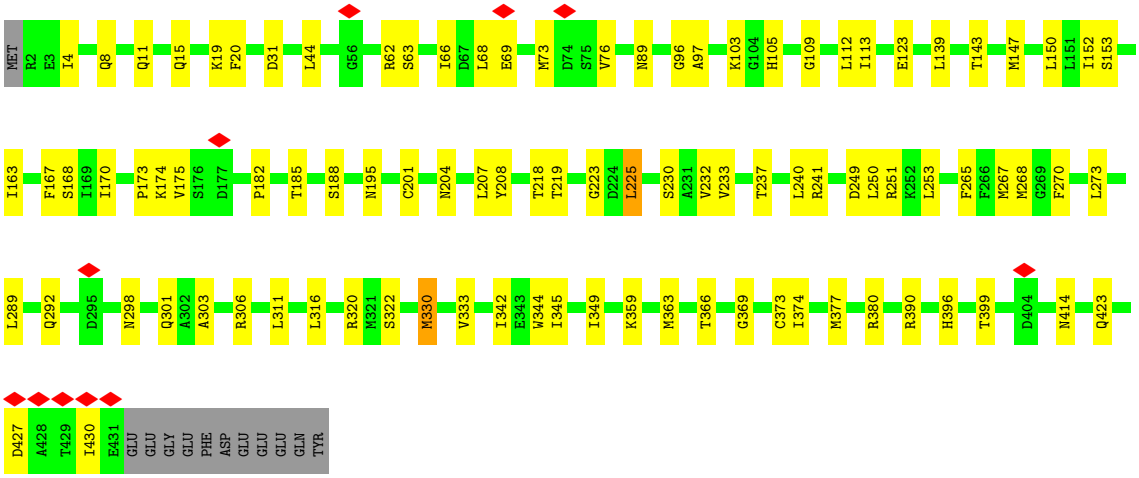

• Molecule 60: Tubulin beta chain

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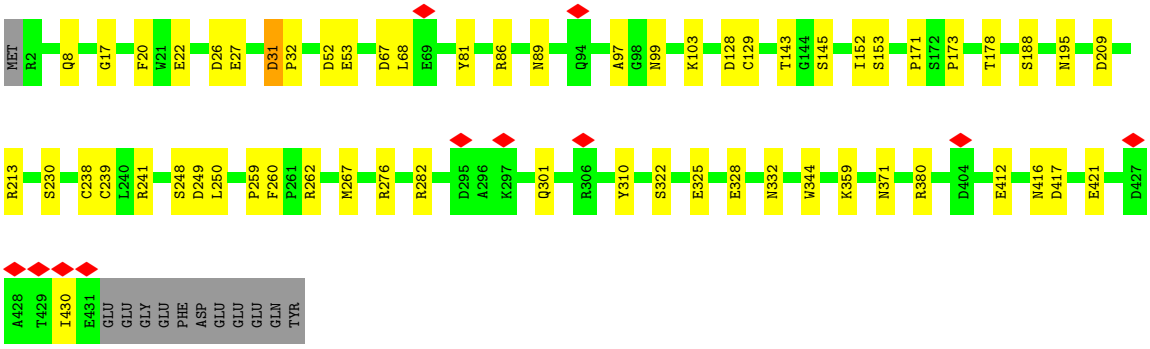

• Molecule 60: Tubulin beta chain

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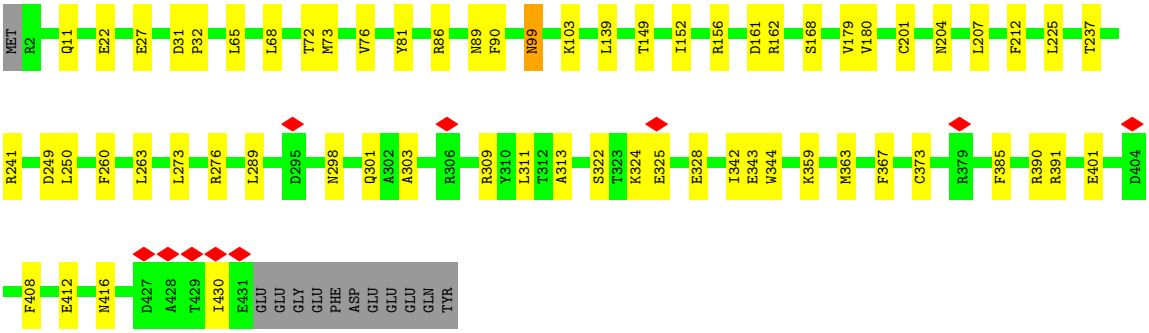

• Molecule 60: Tubulin beta chain

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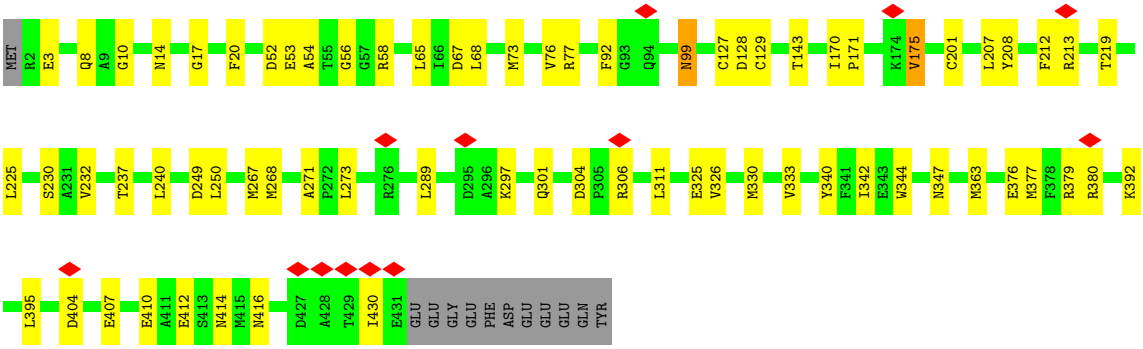

• Molecule 60: Tubulin beta chain

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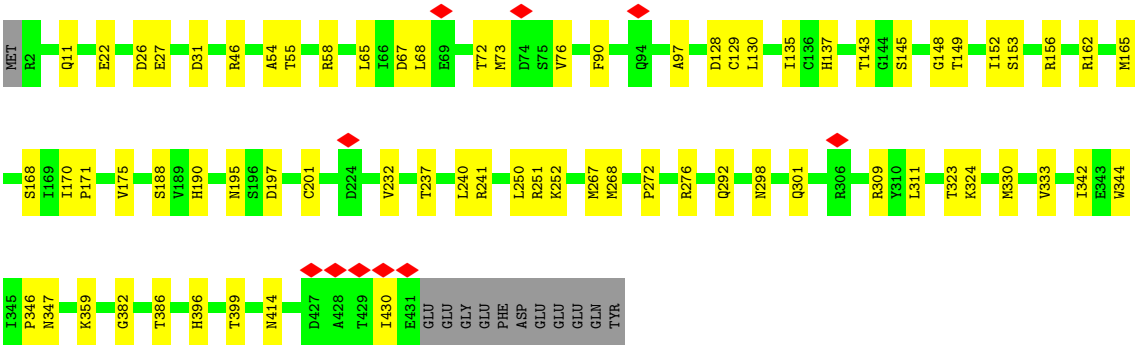

• Molecule 60: Tubulin beta chain

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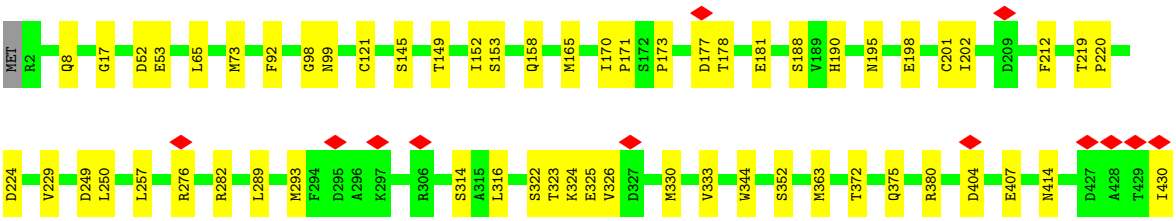

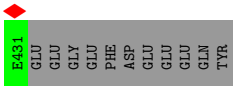

• Molecule 60: Tubulin beta chain

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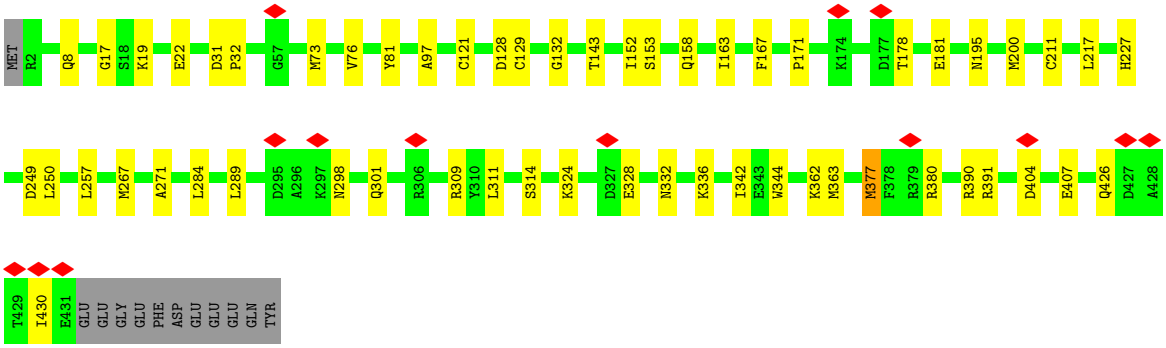

• Molecule 60: Tubulin beta chain

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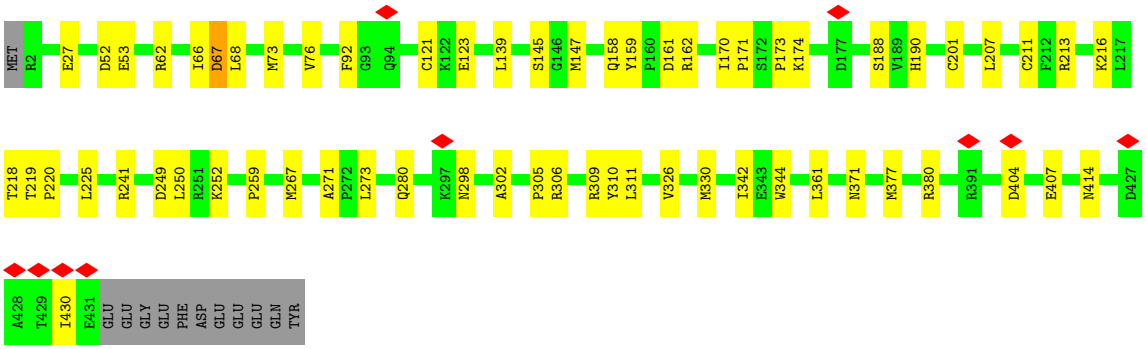
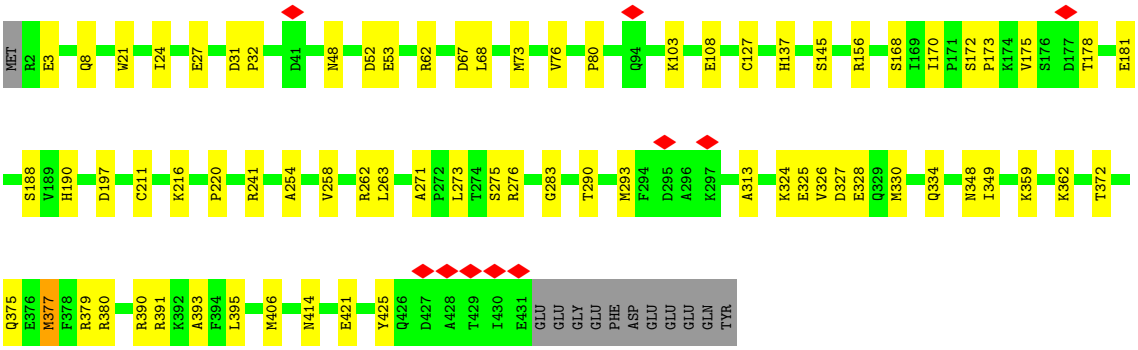


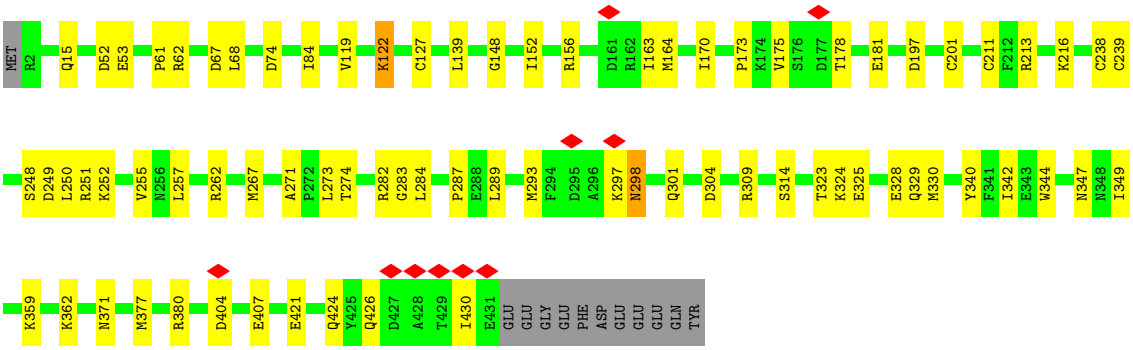
• Molecule 60: Tubulin beta chain

Chain DL:



• Molecule 60: Tubulin beta chain

Chain DN:



- Molecule 60: Tubulin beta chain

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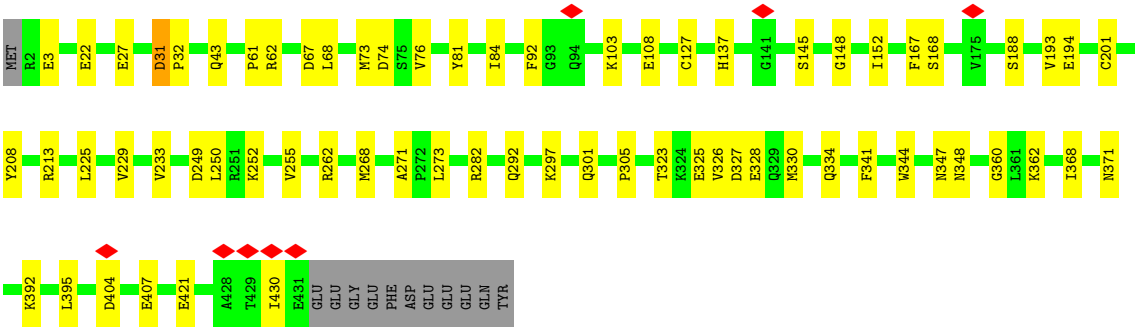

- Molecule 60: Tubulin beta chain

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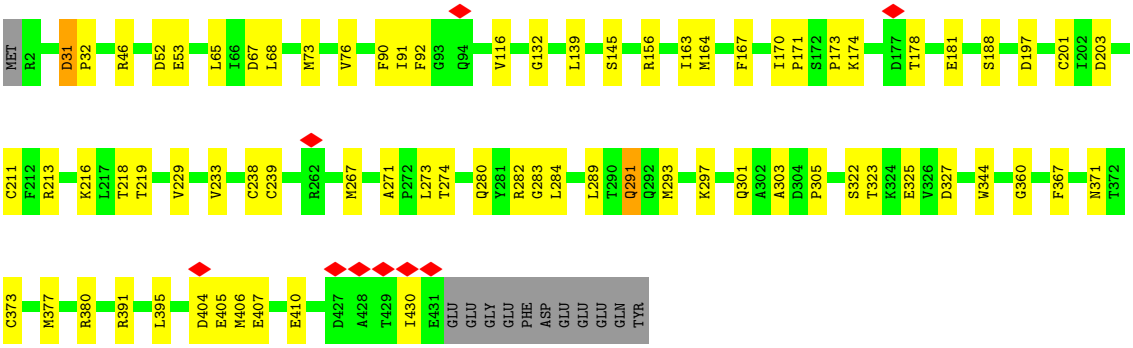
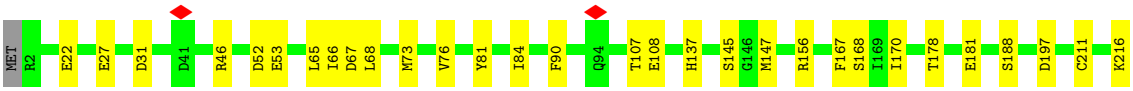
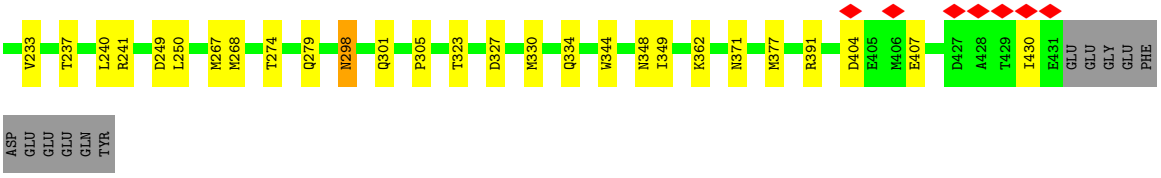


- Molecule 60: Tubulin beta chain

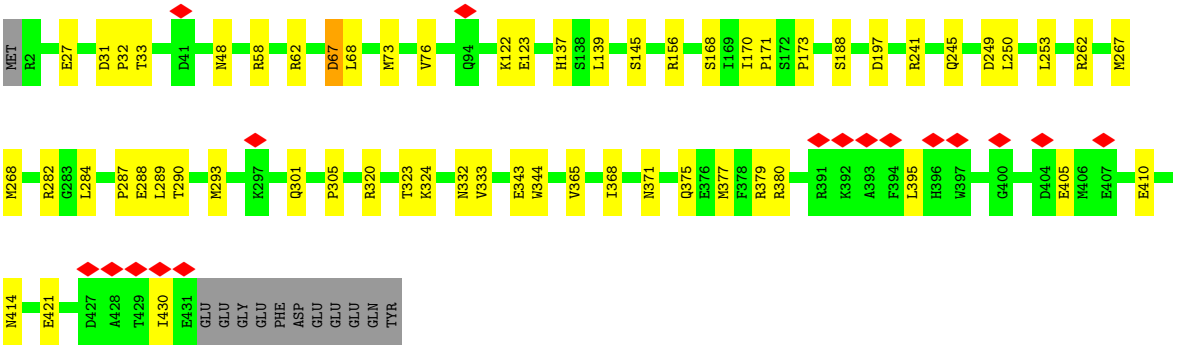
Chain DT:





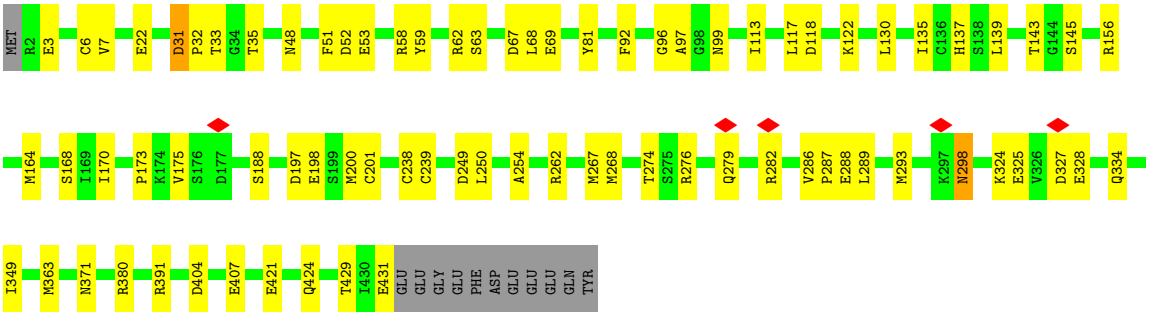
• Molecule 60: Tubulin beta chain

Chain DV:



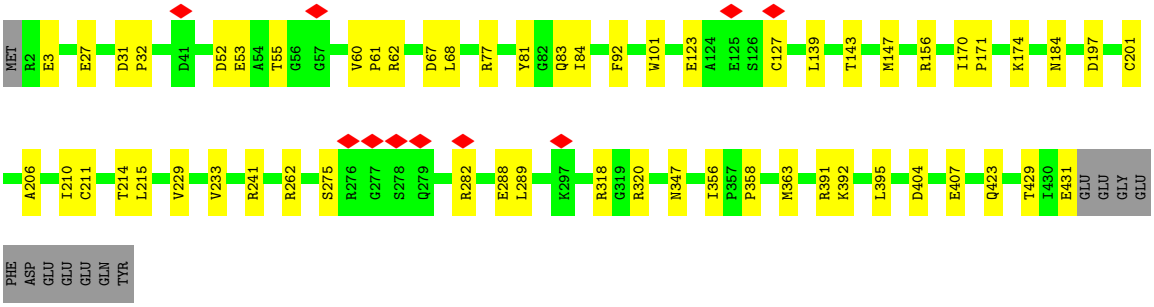
• Molecule 60: Tubulin beta chain

Chain DW:



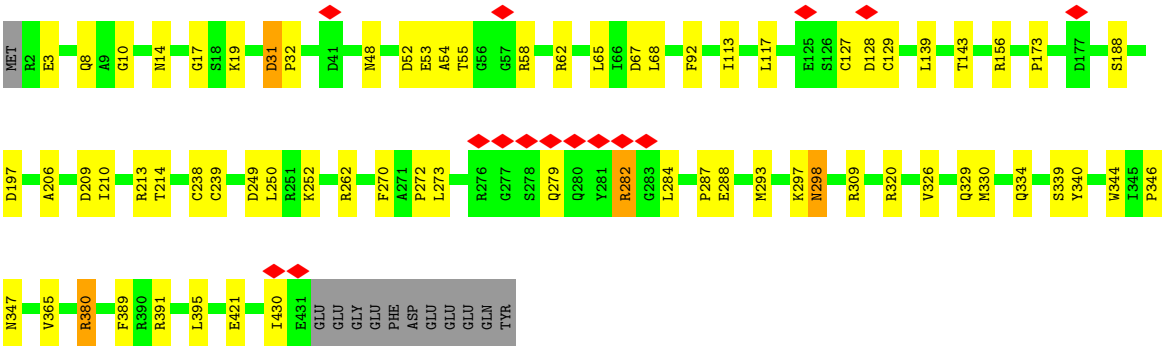
• Molecule 60: Tubulin beta chain

Chain DY:



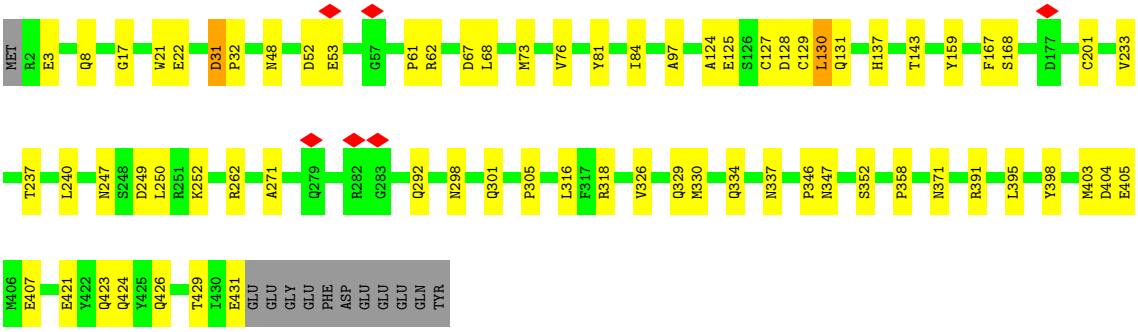
• Molecule 60: Tubulin beta chain

Chain EA:



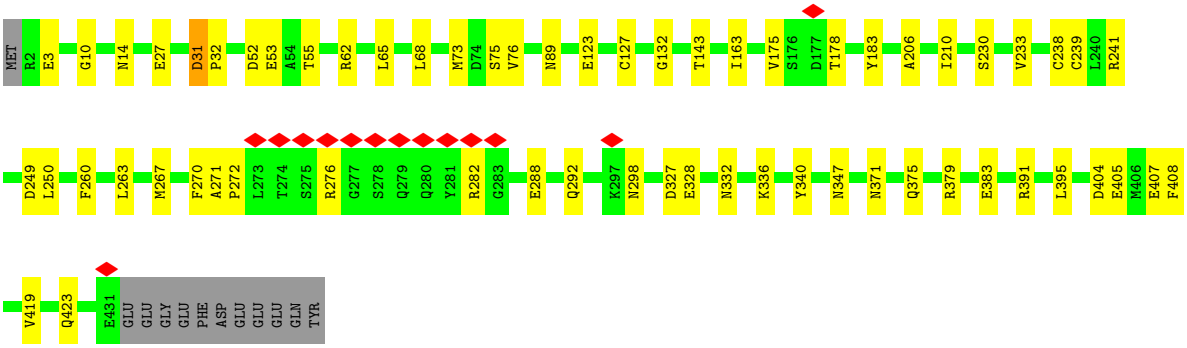
- Molecule 60: Tubulin beta chain

Chain EC:



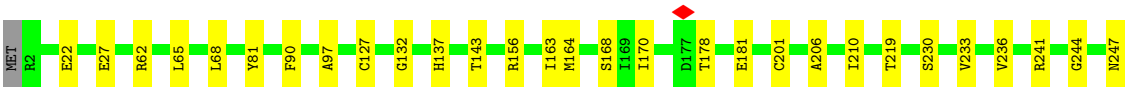
- Molecule 60: Tubulin beta chain

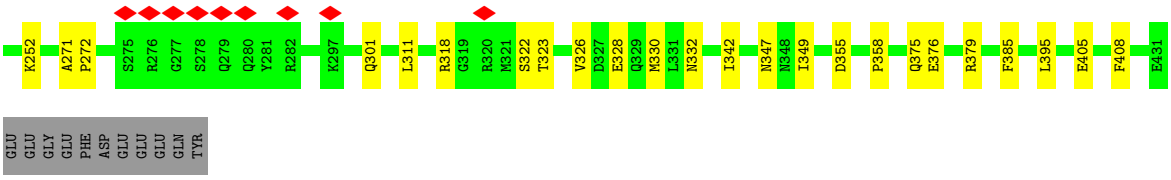
Chain EE:



- Molecule 60: Tubulin beta chain

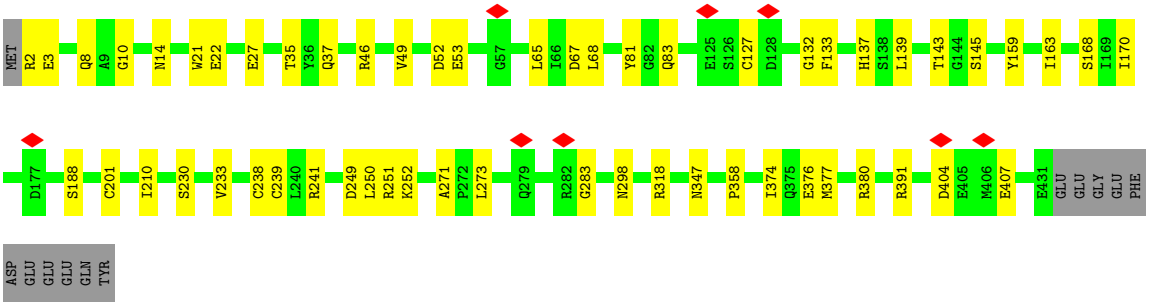
Chain EG:





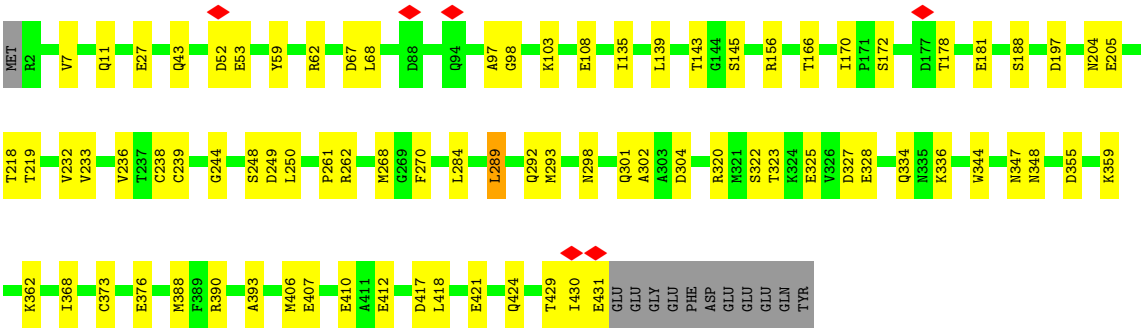
• Molecule 60: Tubulin beta chain

Chain EI:



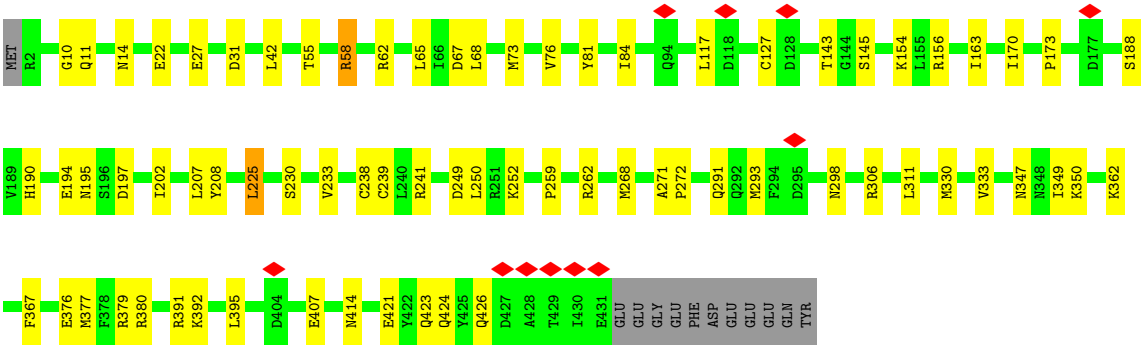
• Molecule 60: Tubulin beta chain

Chain EK:



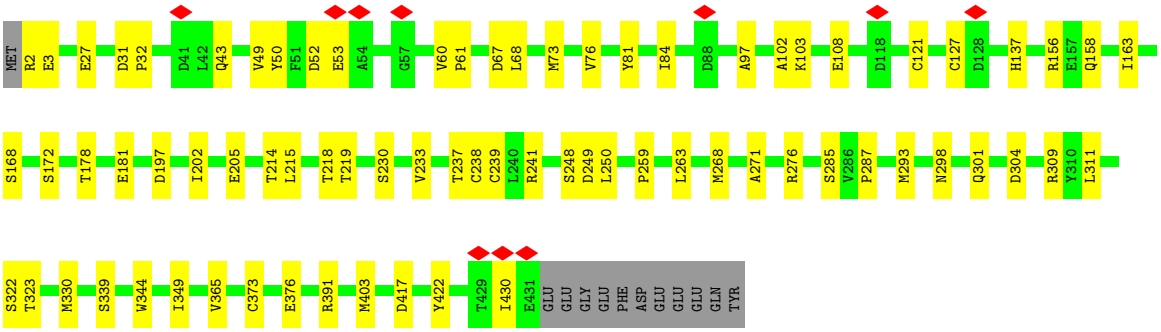
• Molecule 60: Tubulin beta chain

Chain EM:



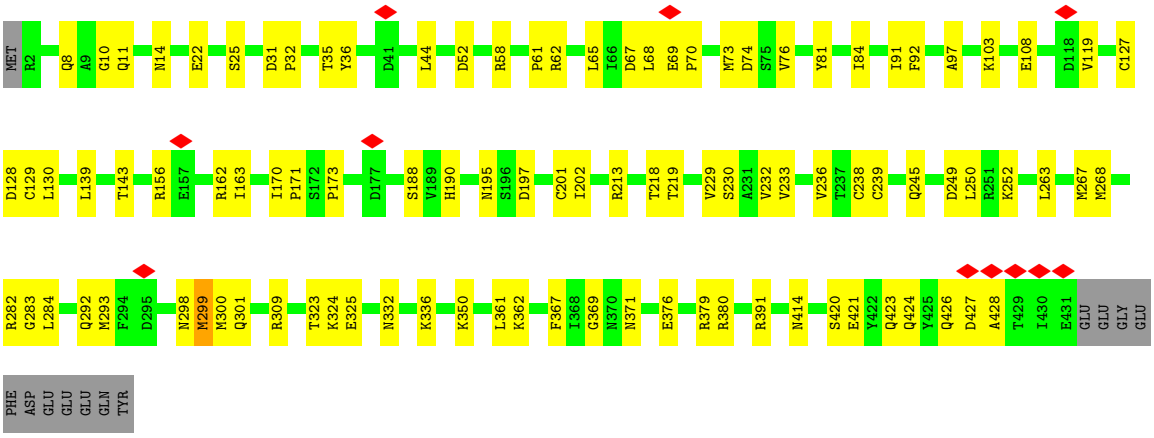
• Molecule 60: Tubulin beta chain

Chain EO:



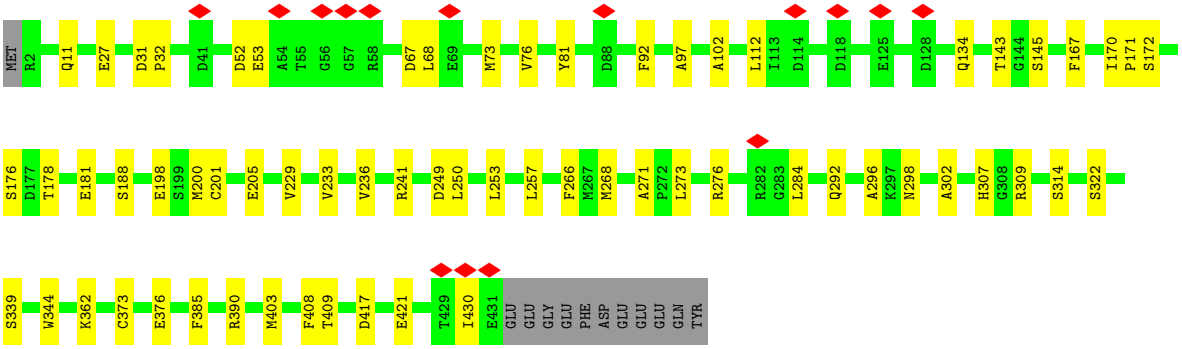
- Molecule 60: Tubulin beta chain

Chain EQ:



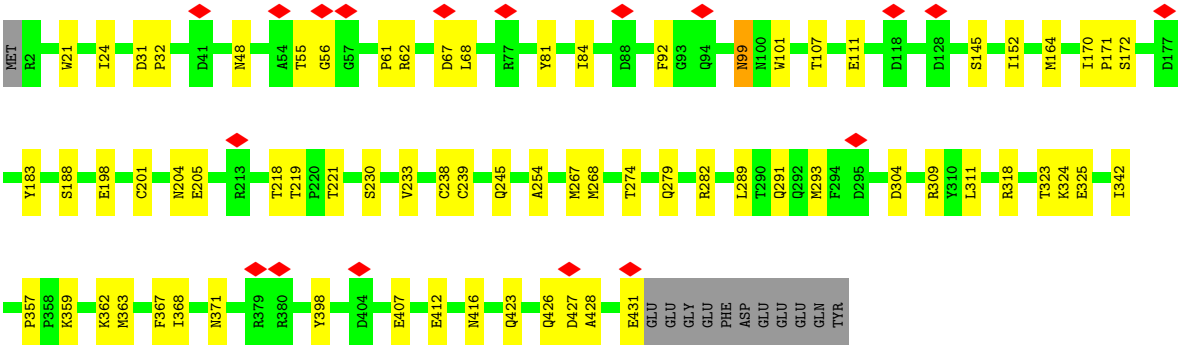
- Molecule 60: Tubulin beta chain

Chain ES:



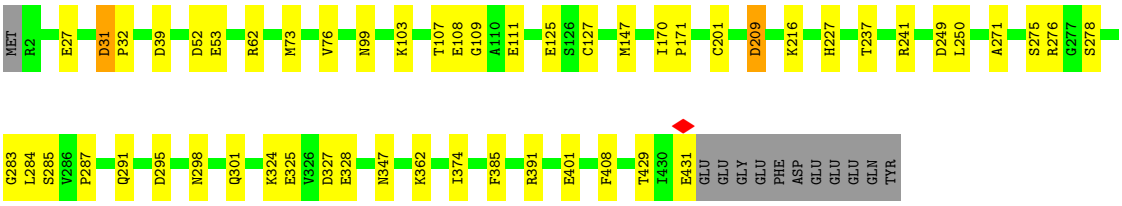
- Molecule 60: Tubulin beta chain

Chain EU:



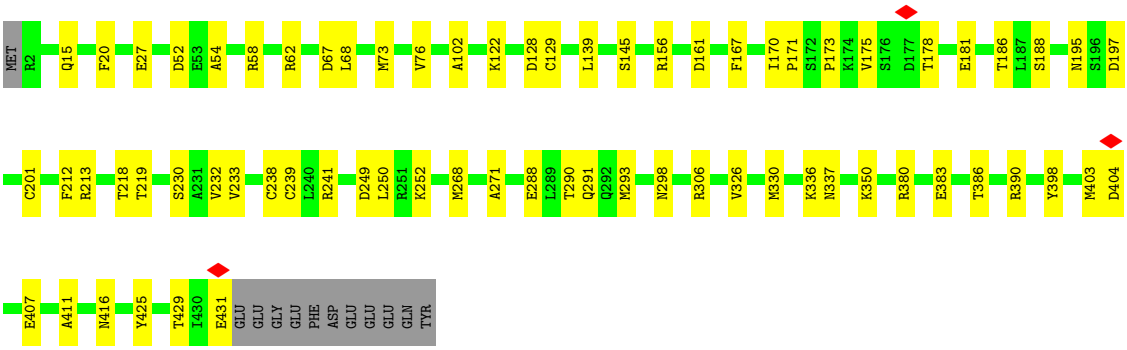
- Molecule 60: Tubulin beta chain

Chain EW:



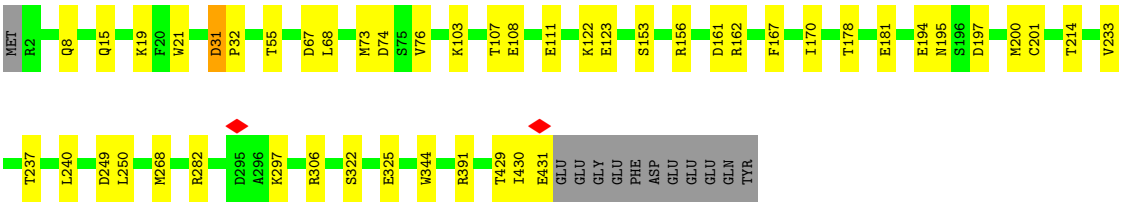
- Molecule 60: Tubulin beta chain

Chain EY:



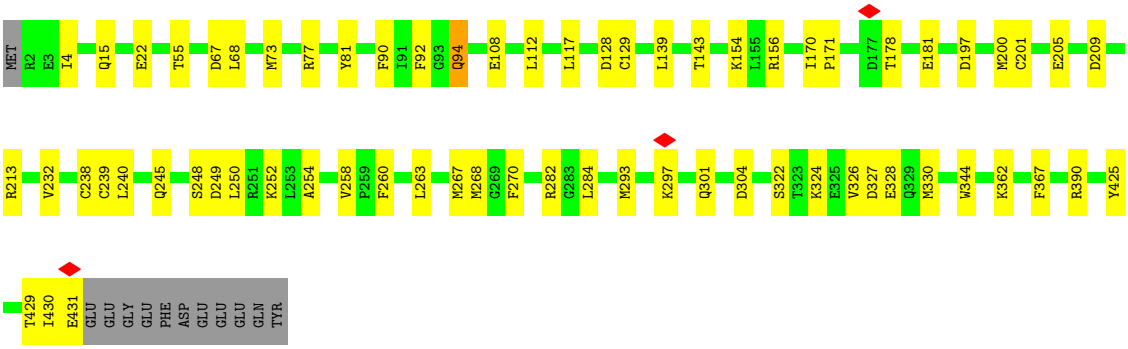
- Molecule 60: Tubulin beta chain

Chain FA:



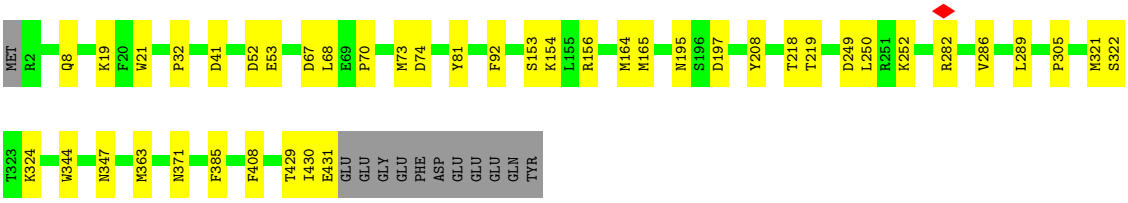
- Molecule 60: Tubulin beta chain

Chain FC:



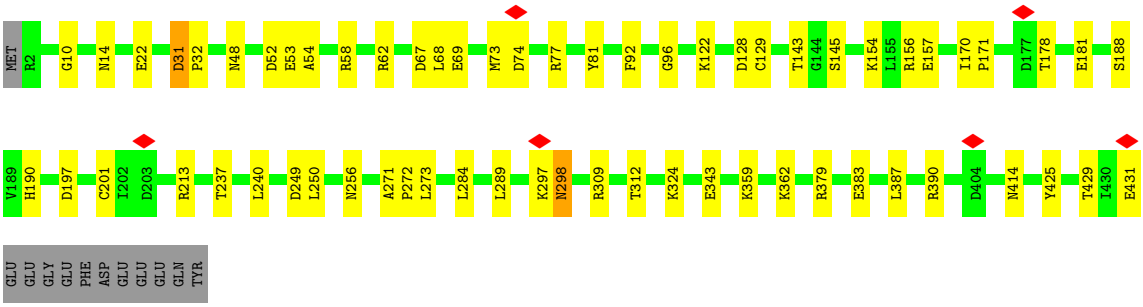
• Molecule 60: Tubulin beta chain

Chain FE:



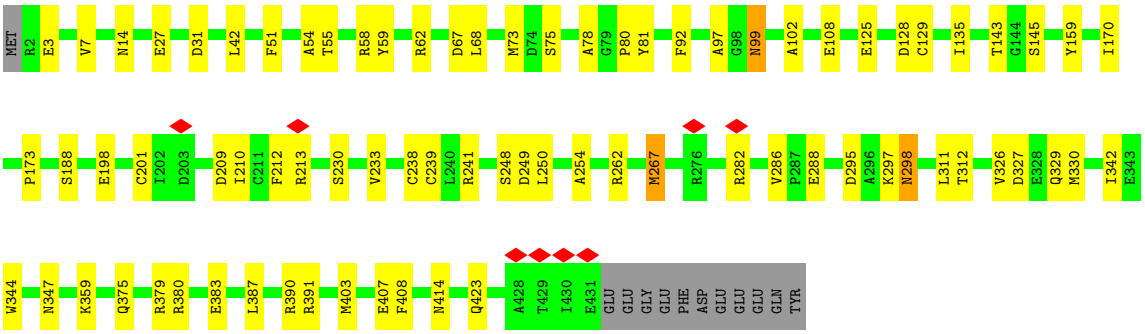
• Molecule 60: Tubulin beta chain

Chain FG:



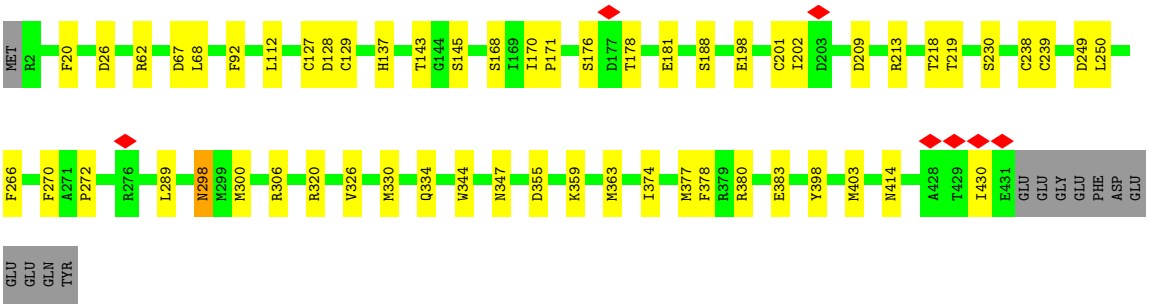
• Molecule 60: Tubulin beta chain

Chain FI:



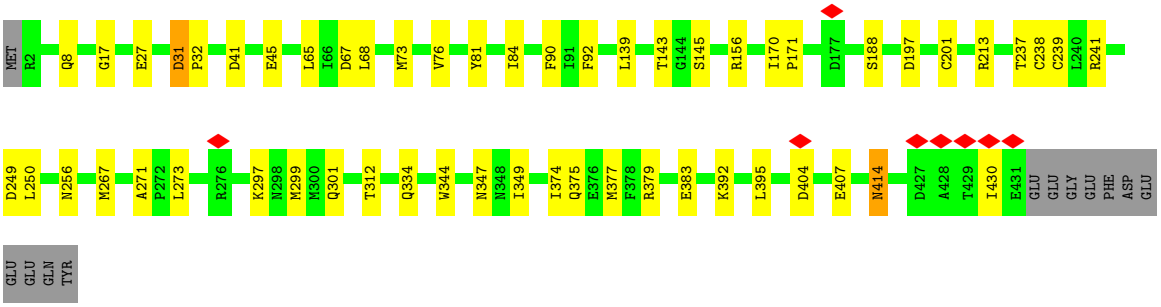
• Molecule 60: Tubulin beta chain

Chain FK:



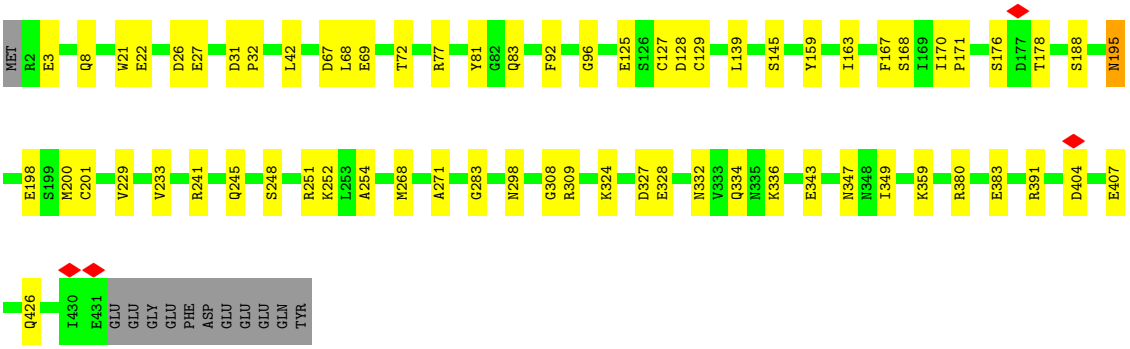
- Molecule 60: Tubulin beta chain

Chain FM:



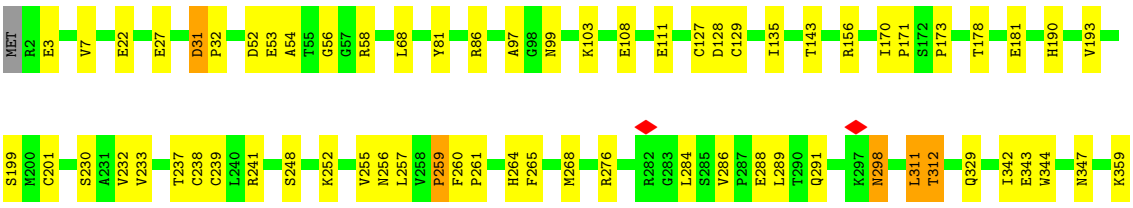
- Molecule 60: Tubulin beta chain

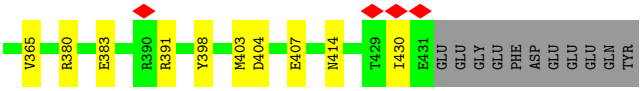
Chain FO:



- Molecule 60: Tubulin beta chain

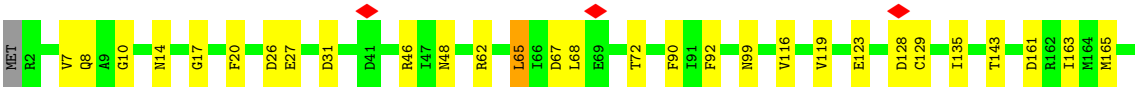
Chain FQ:

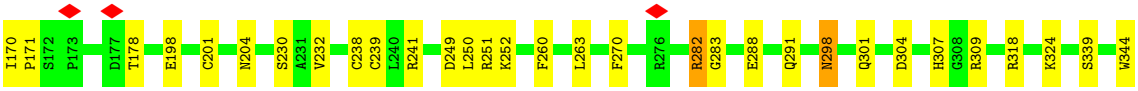


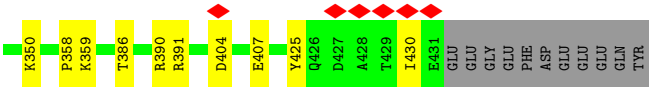


• Molecule 60: Tubulin beta chain

Chain FS:

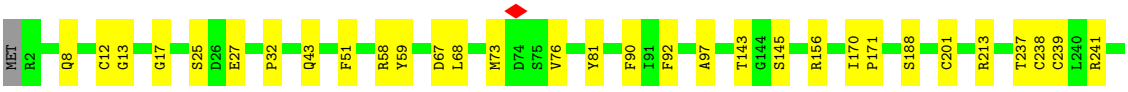


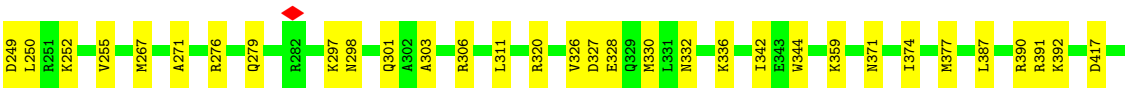


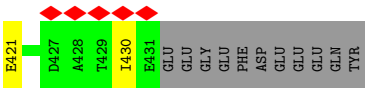


• Molecule 60: Tubulin beta chain

Chain FV:

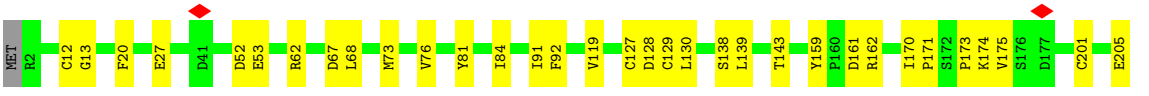


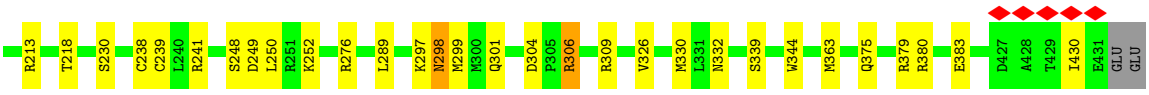


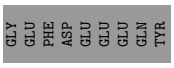


• Molecule 60: Tubulin beta chain

Chain FX:







• Molecule 60: Tubulin beta chain

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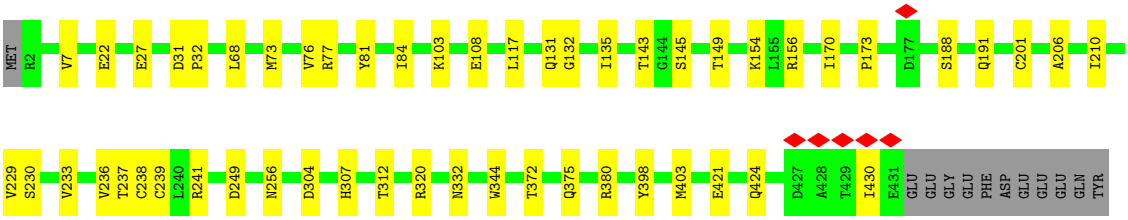
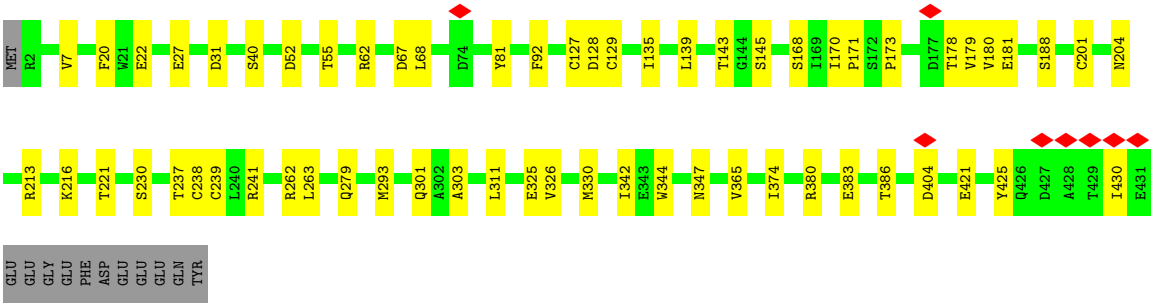


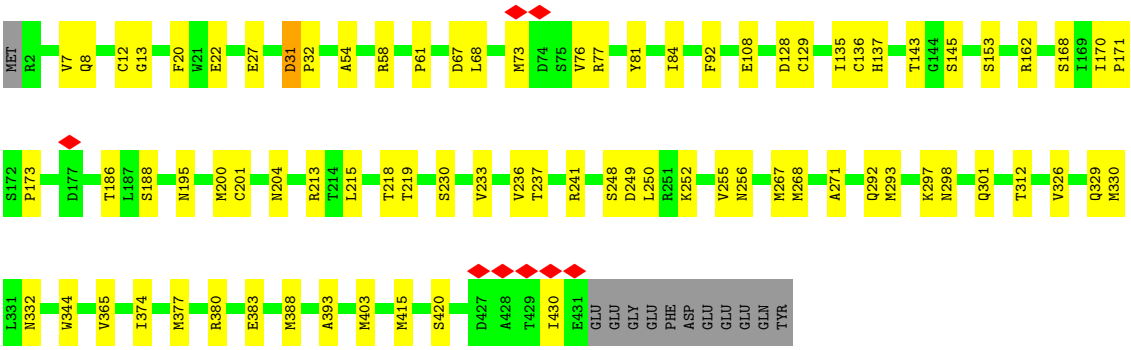
• Molecule 60: Tubulin beta chain

Chain GB:



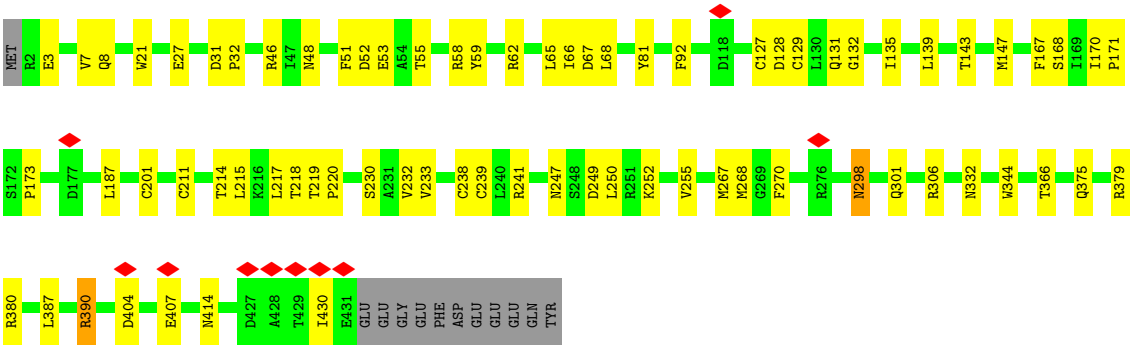
• Molecule 60: Tubulin beta chain

Chain GD:



• Molecule 60: Tubulin beta chain

Chain GF:



- Molecule 60: Tubulin beta chain

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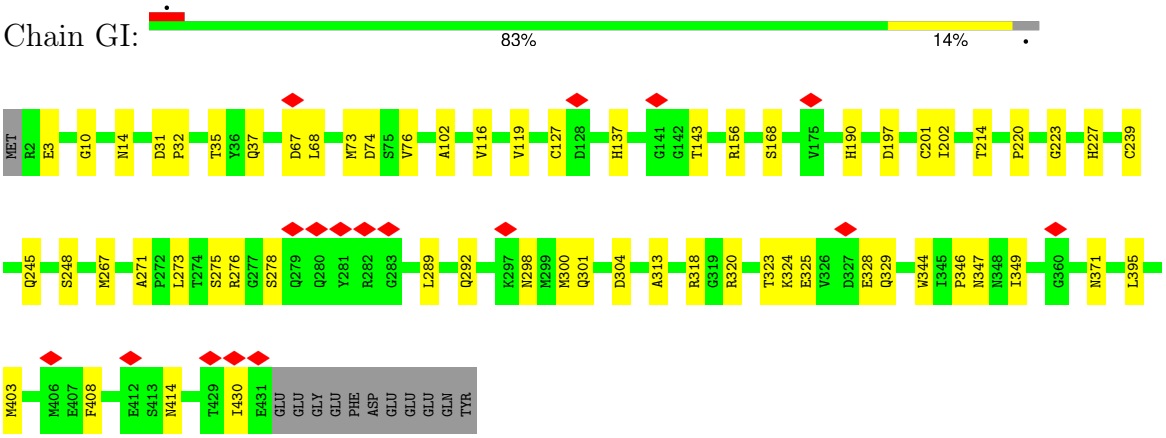
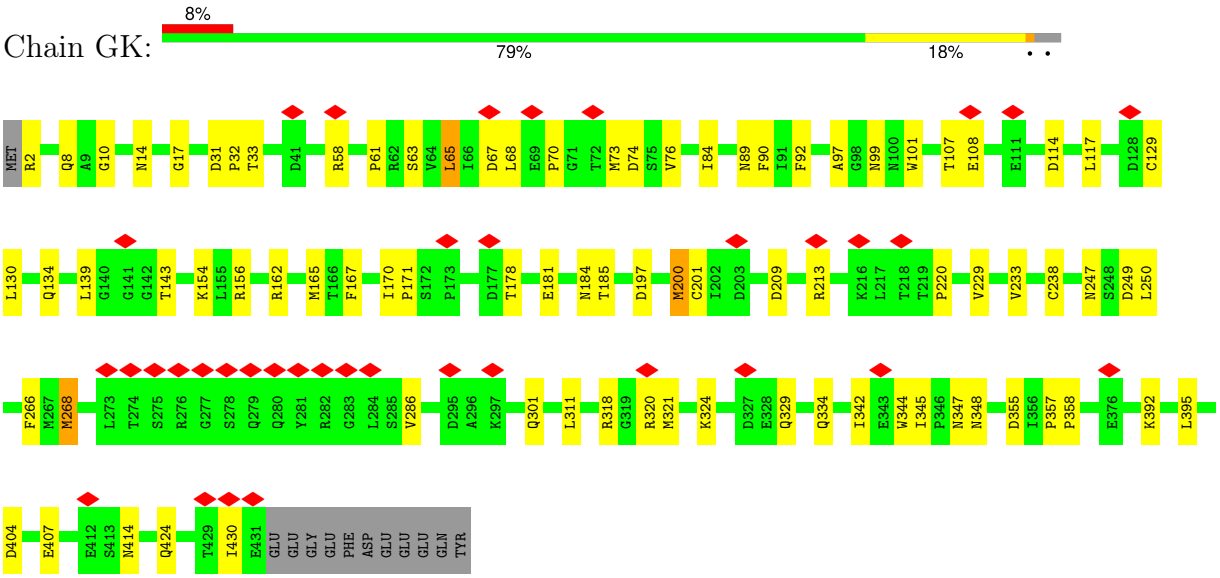


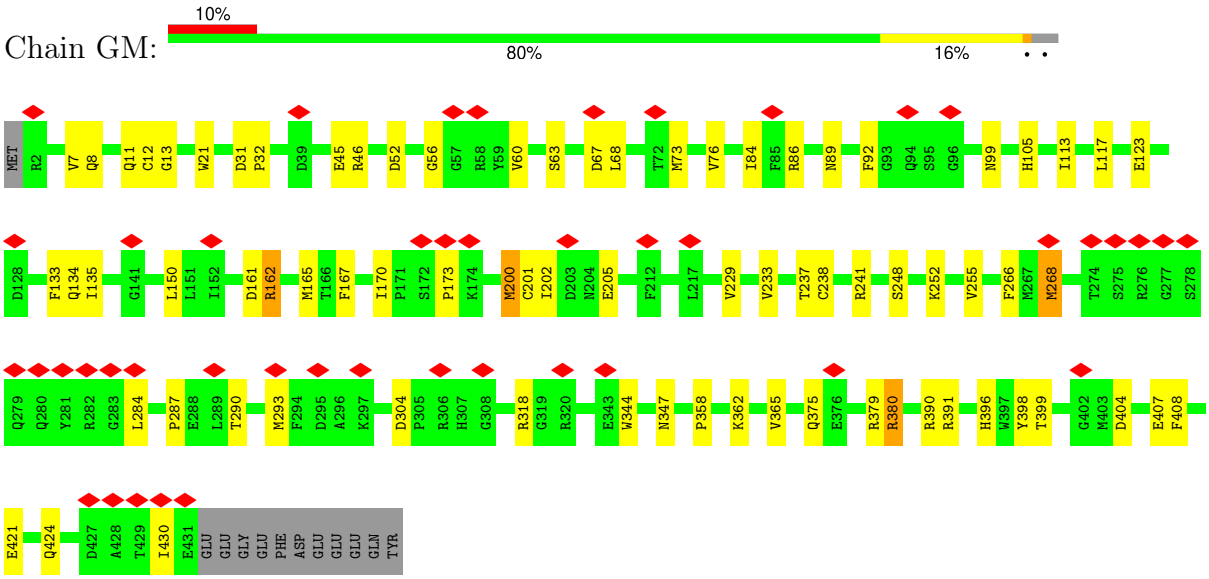
- Molecule 60: Tubulin beta chain

Chain GK:



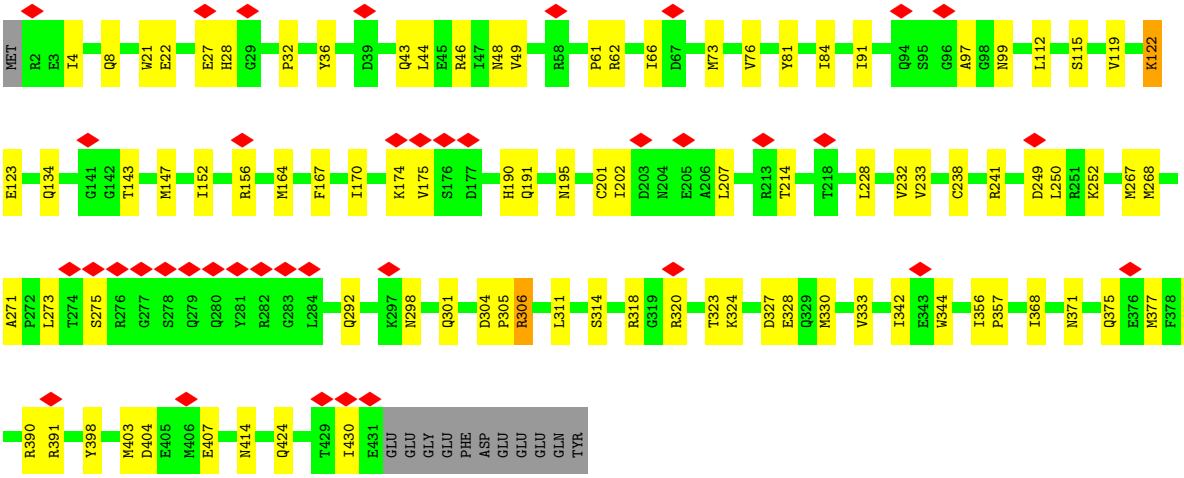
- Molecule 60: Tubulin beta chain

Chain GM:



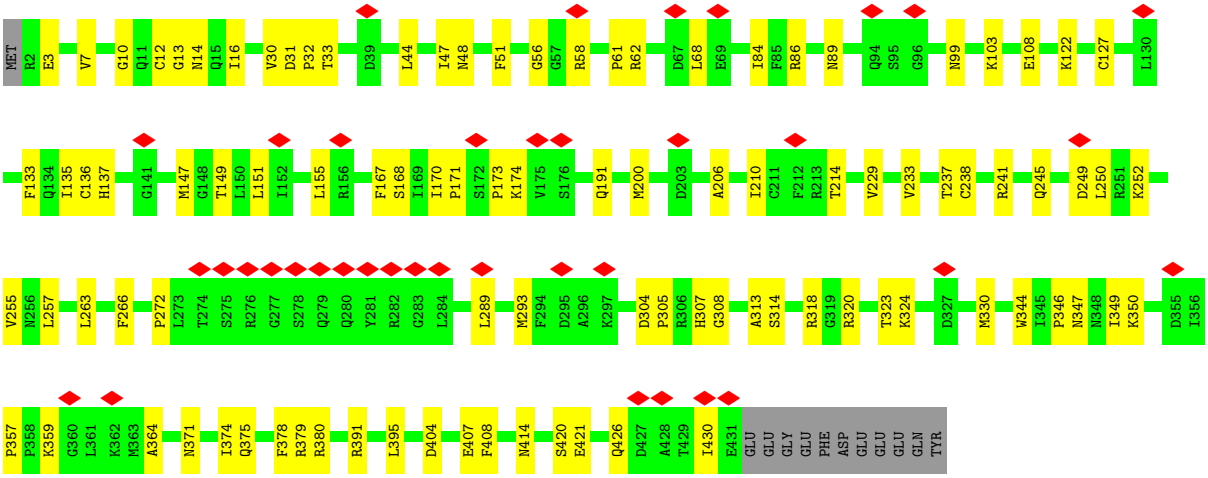
- Molecule 60: Tubulin beta chain

Chain GO:



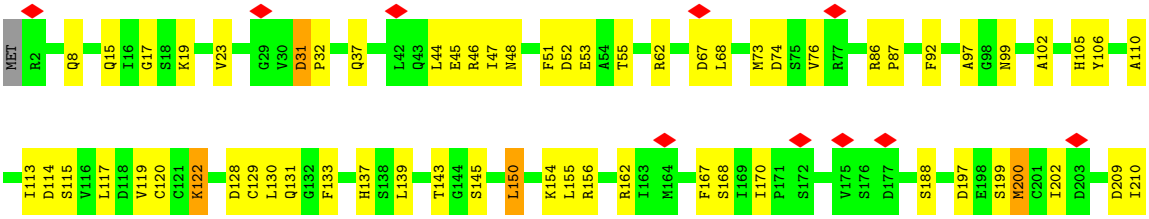
- Molecule 60: Tubulin beta chain

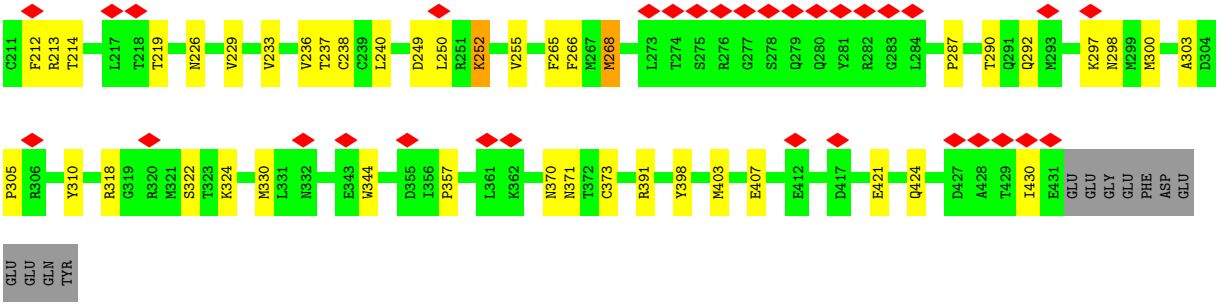
Chain GQ:



- Molecule 60: Tubulin beta chain

Chain GS:





• Molecule 60: Tubulin beta chain

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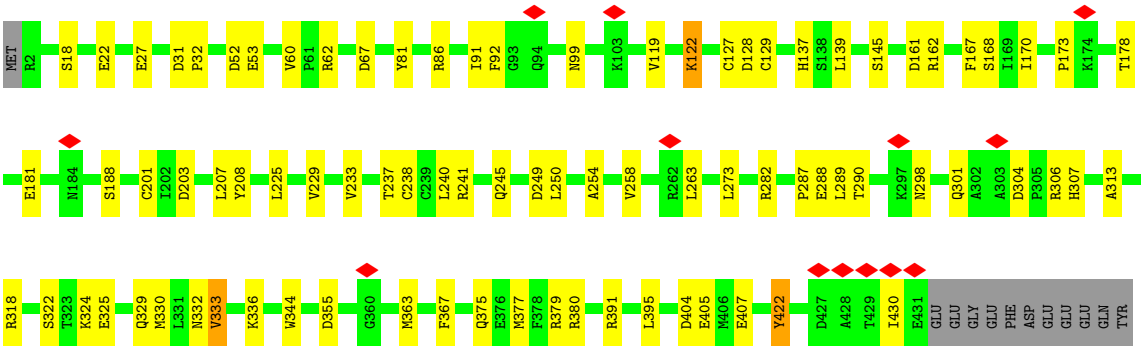
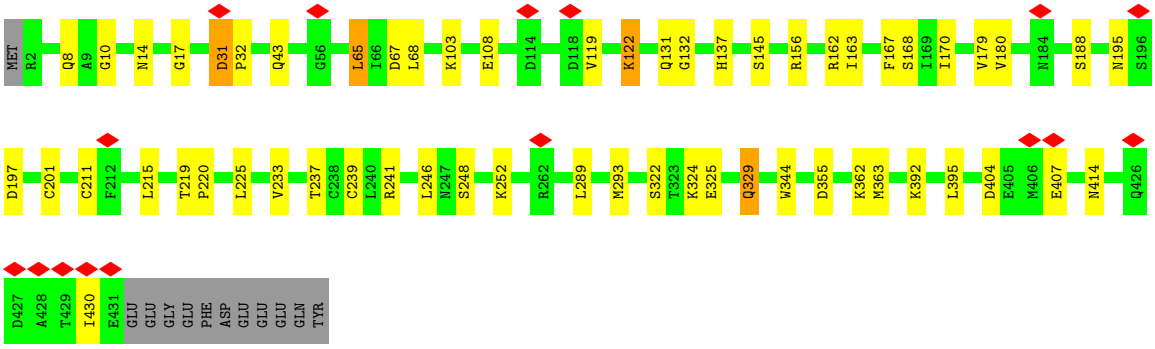


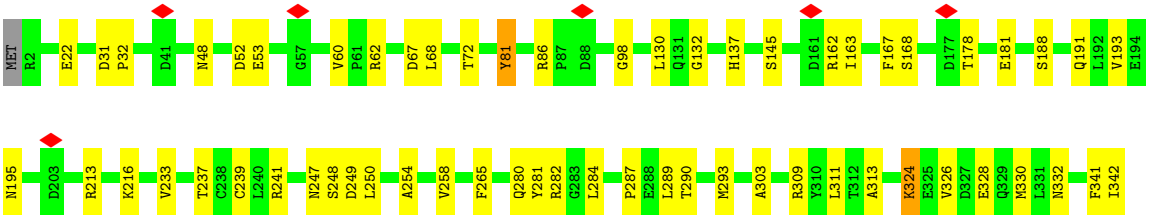
• Molecule 60: Tubulin beta chain

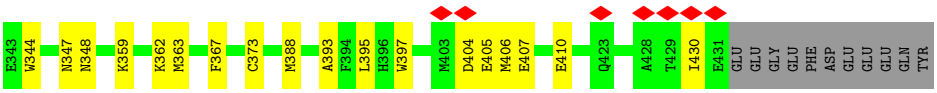
Chain GX:



• Molecule 60: Tubulin beta chain

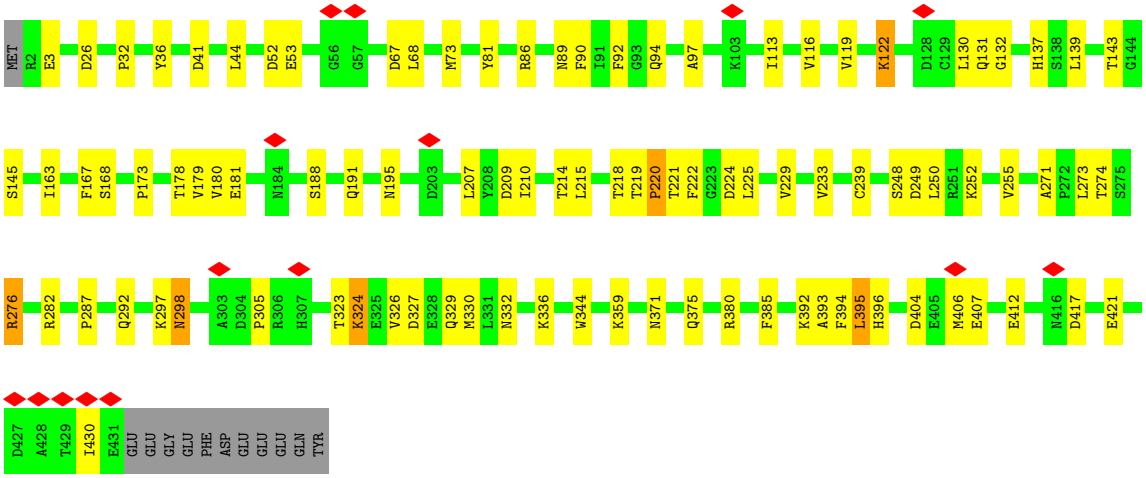
Chain GZ:





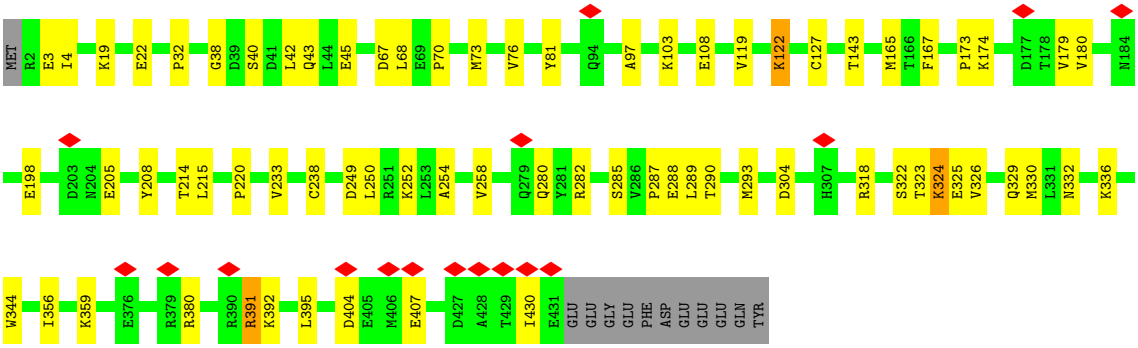
• Molecule 60: Tubulin beta chain

Chain HB:



• Molecule 60: Tubulin beta chain

Chain HD:



• Molecule 60: Tubulin beta chain

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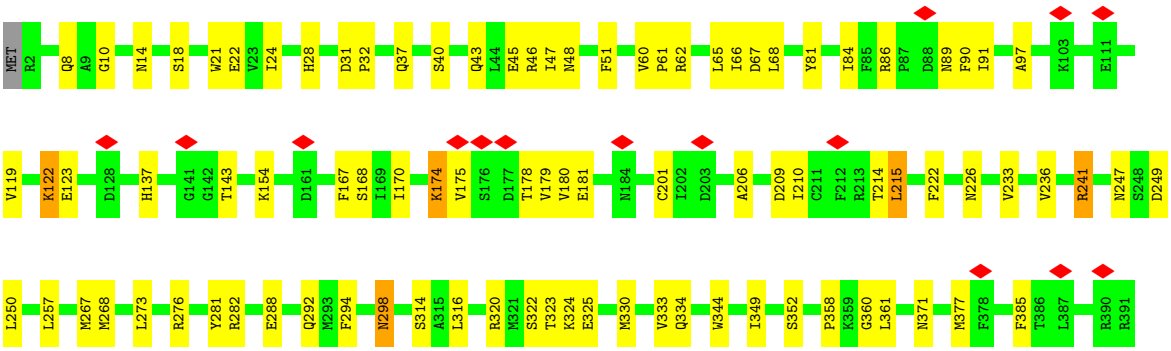
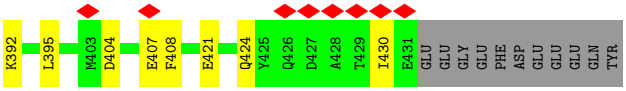
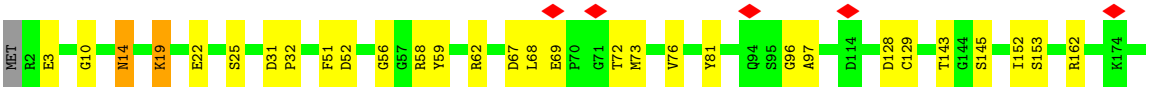
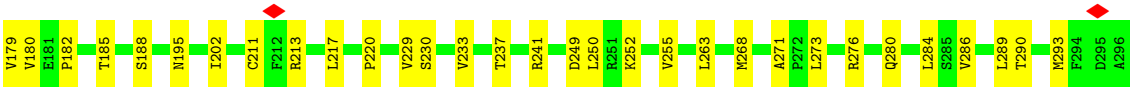


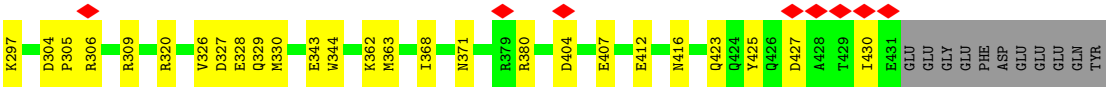


• Molecule 60: Tubulin beta chain

Chain HH:

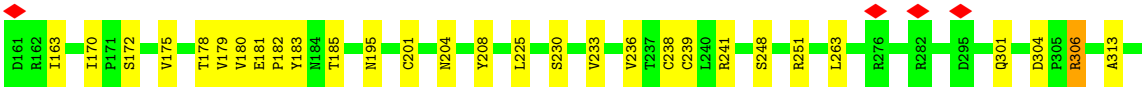


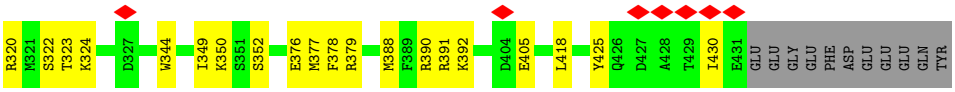




• Molecule 60: Tubulin beta chain

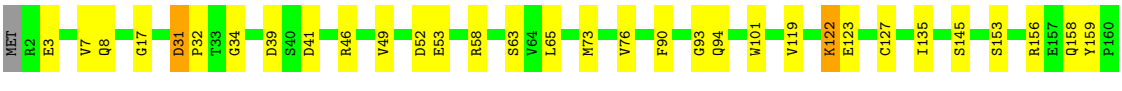
Chain HJ:

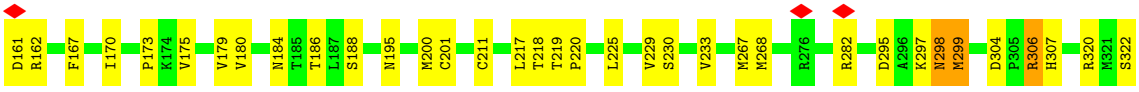


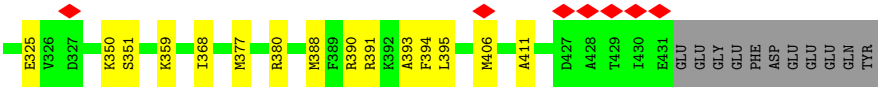


• Molecule 60: Tubulin beta chain

Chain HL:







• Molecule 60: Tubulin beta chain

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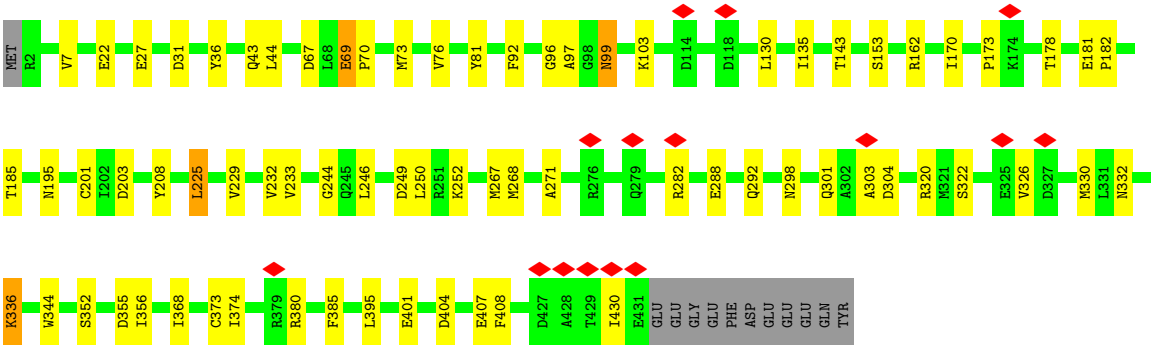
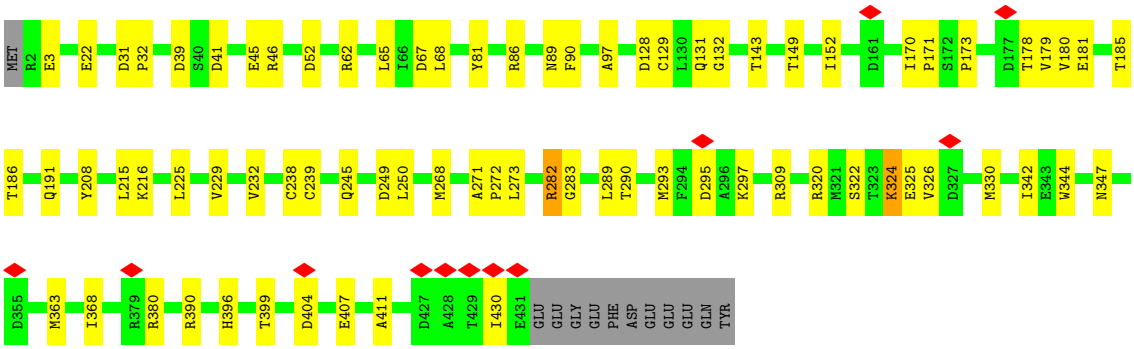


- Molecule 60: Tubulin beta chain

Chain HP:



- Molecule 60: Tubulin beta chain

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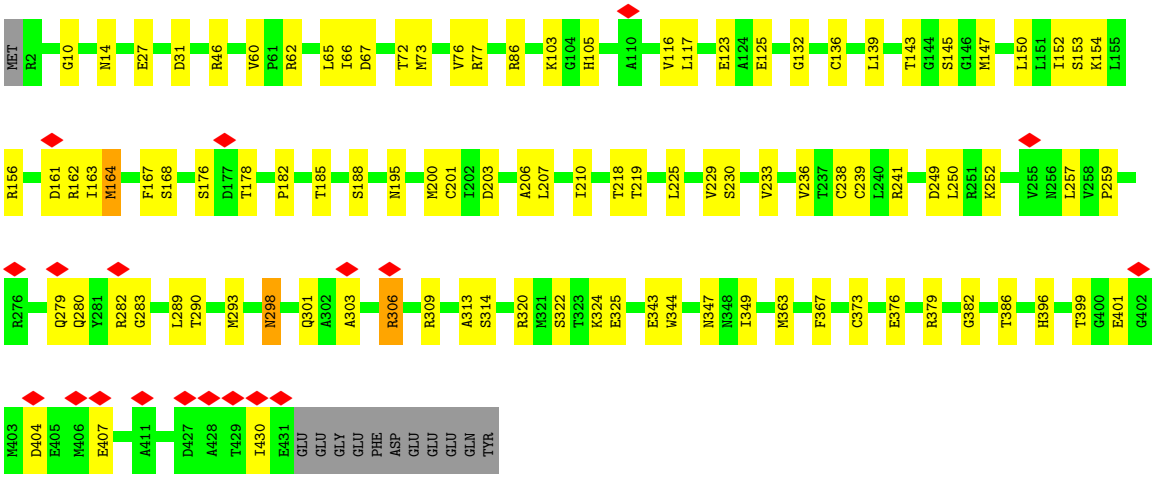

- Molecule 60: Tubulin beta chain

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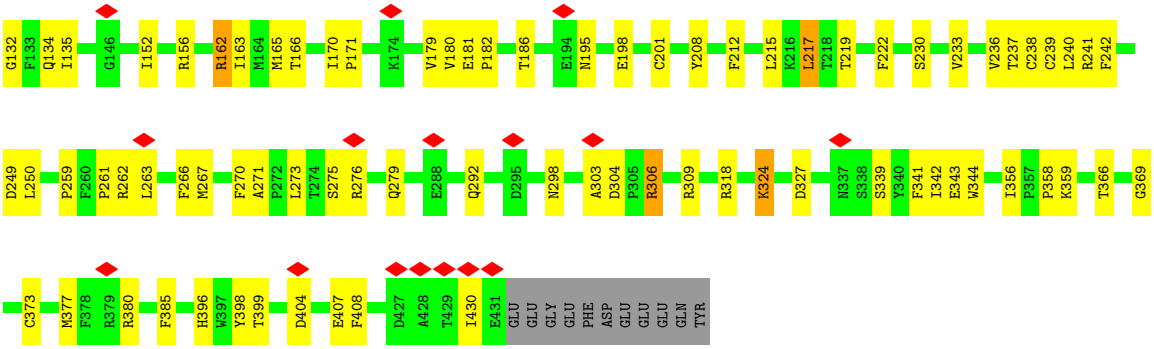

- Molecule 60: Tubulin beta chain

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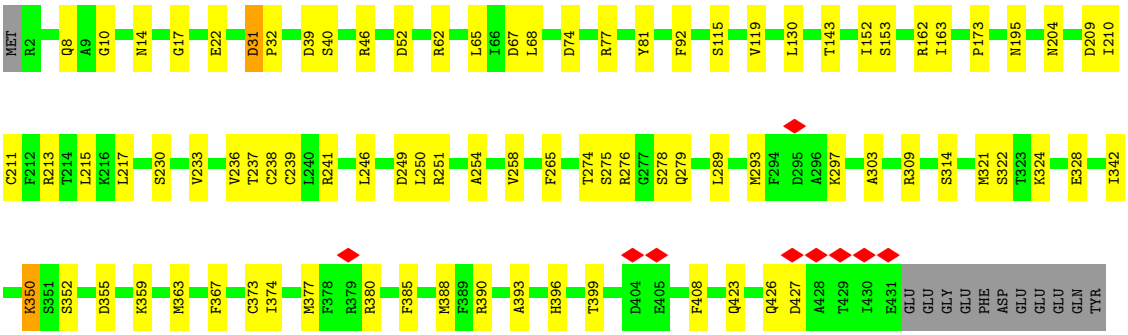

- Molecule 60: Tubulin beta chain

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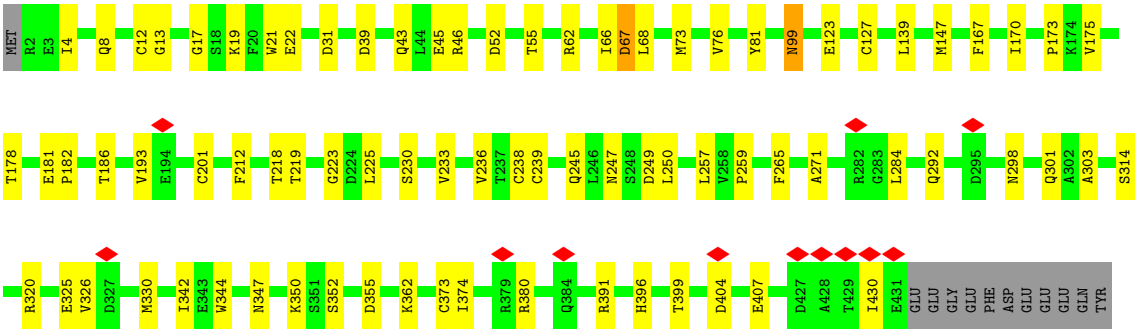
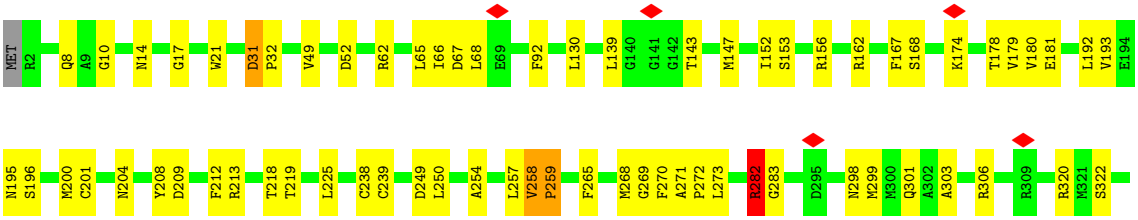
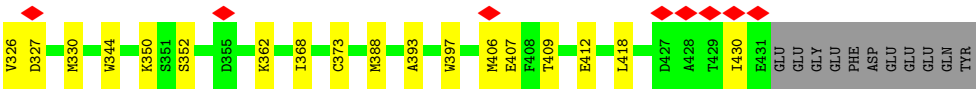


- Molecule 60: Tubulin beta chain

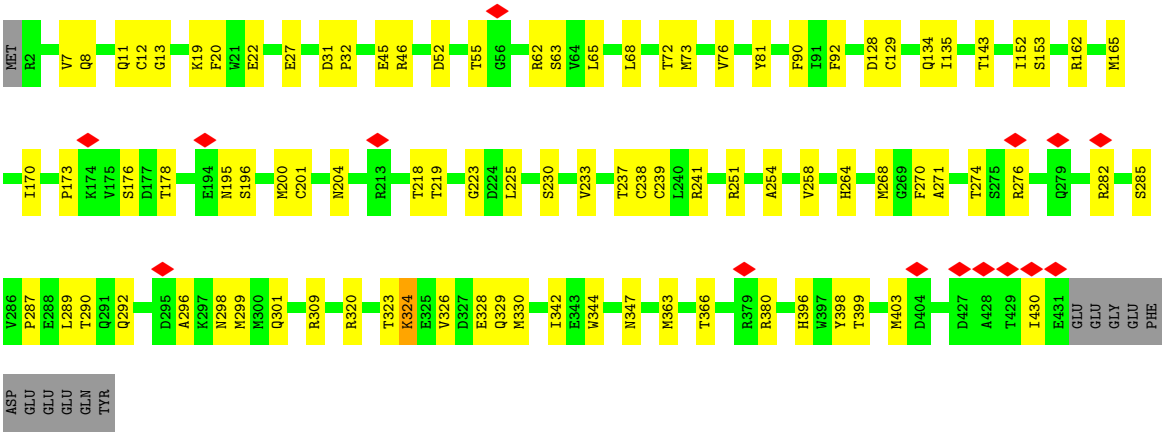
Chain HY:





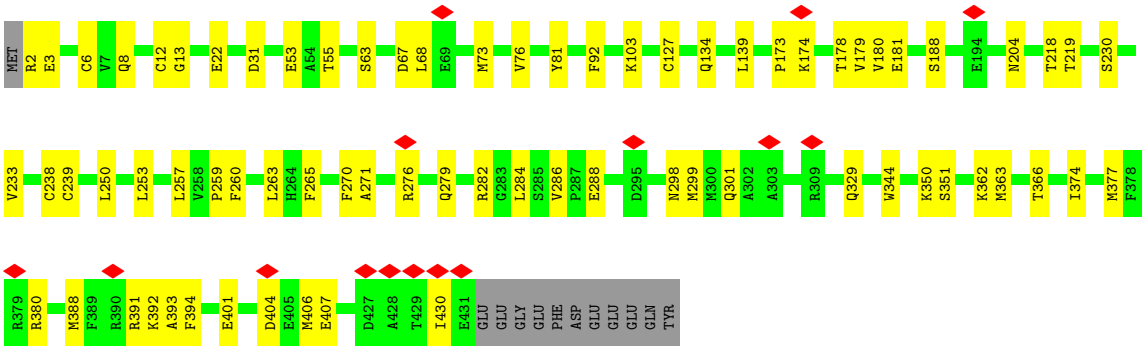
• Molecule 60: Tubulin beta chain

Chain IA:



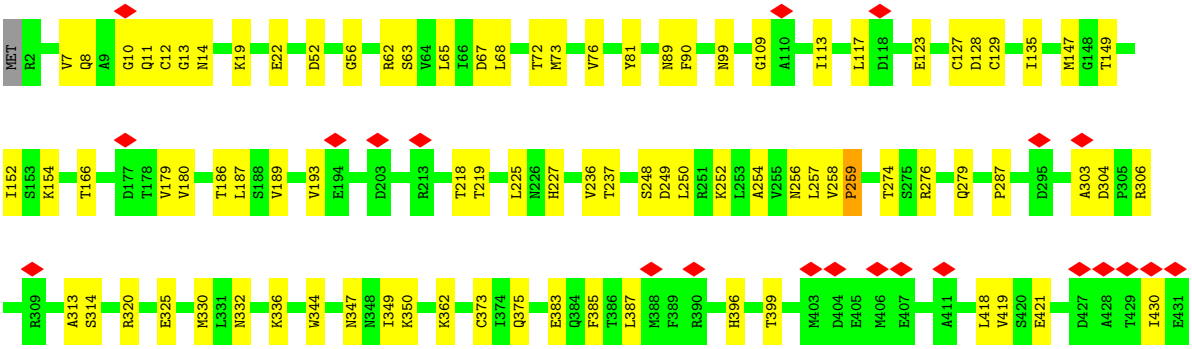
• Molecule 60: Tubulin beta chain

Chain IC:



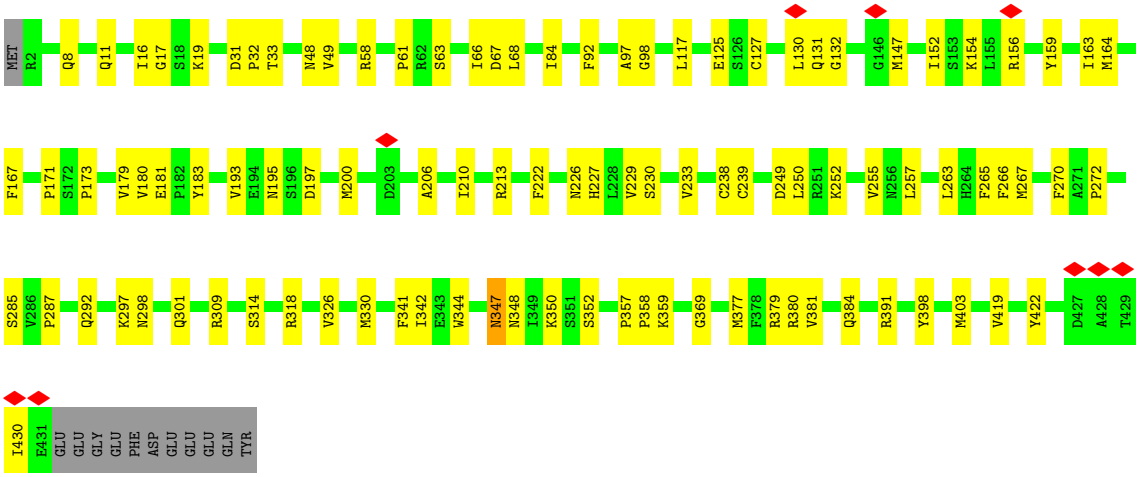
• Molecule 60: Tubulin beta chain

Chain IE:



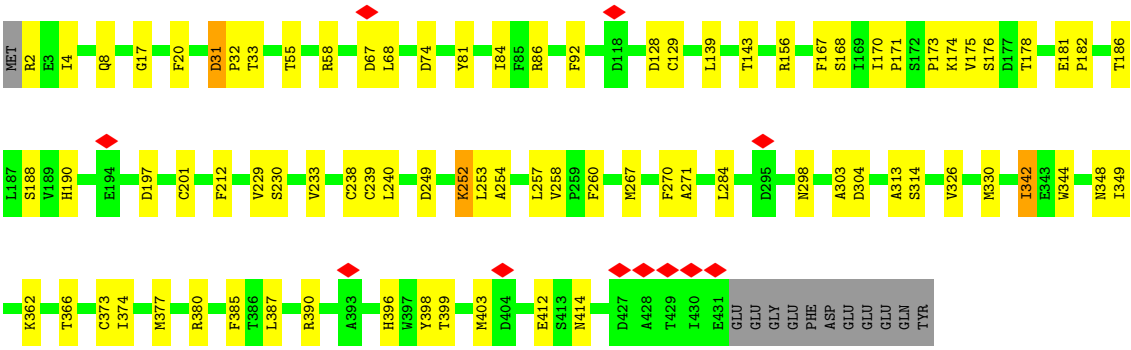
• Molecule 60: Tubulin beta chain

Chain IF:



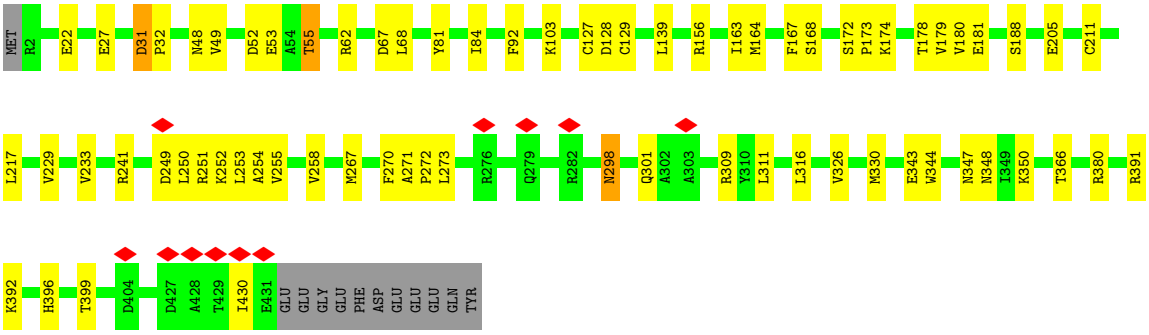
• Molecule 60: Tubulin beta chain

Chain IH:



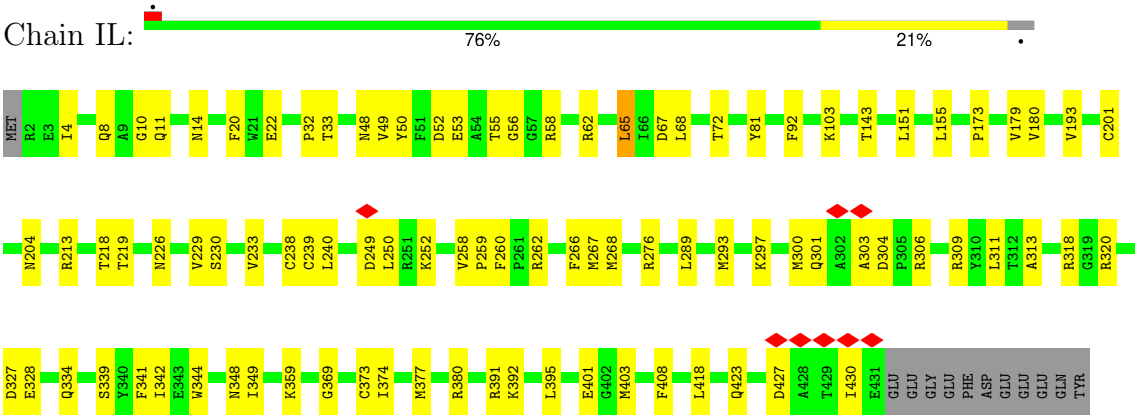
• Molecule 60: Tubulin beta chain

Chain IJ:



• Molecule 60: Tubulin beta chain

Chain IL:



- Molecule 60: Tubulin beta chain

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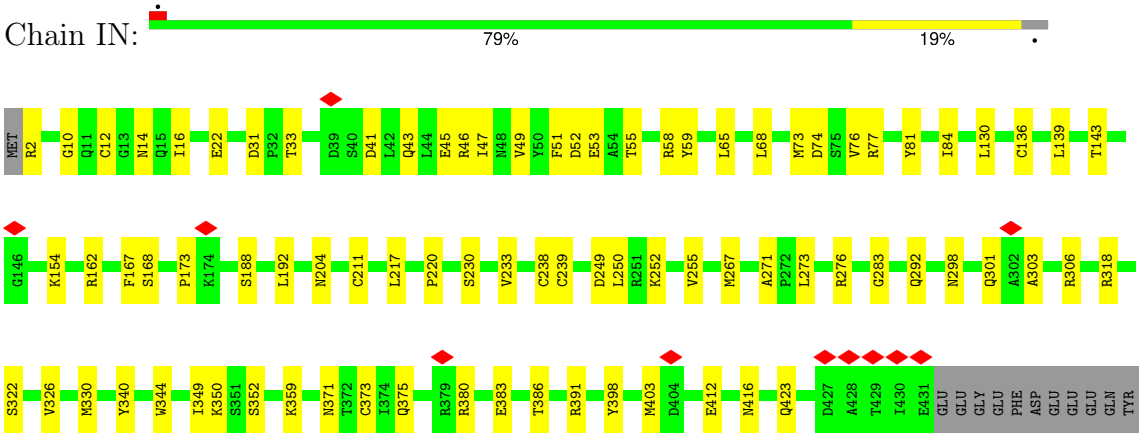

- Molecule 60: Tubulin beta chain

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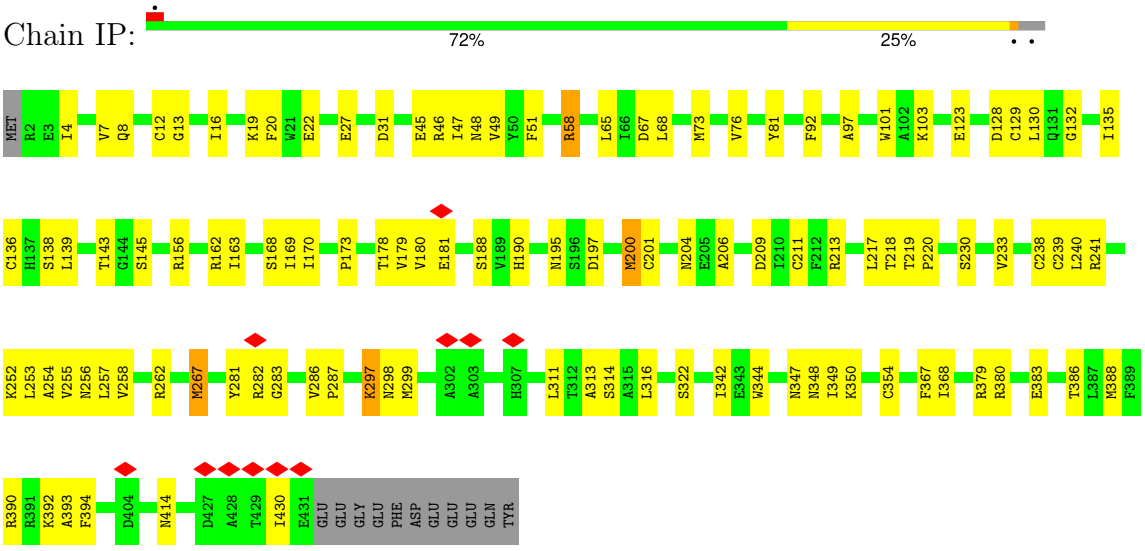
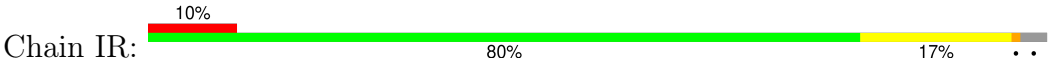
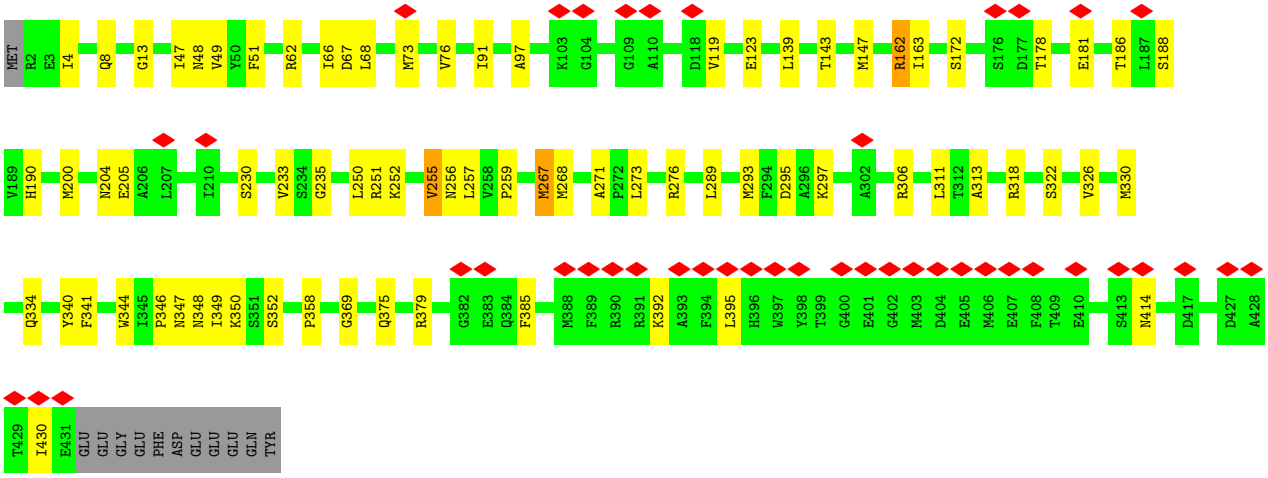


- Molecule 60: Tubulin beta chain

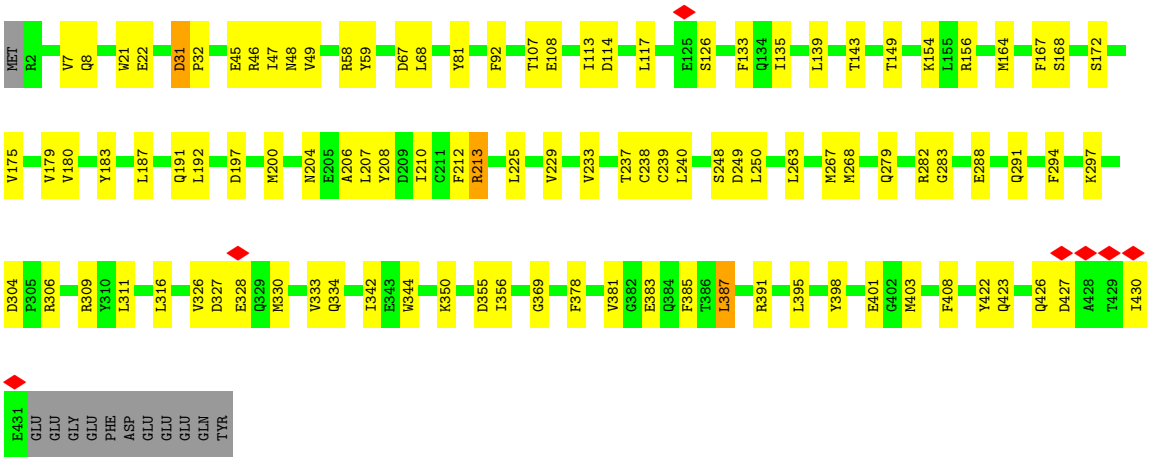
Chain IR:





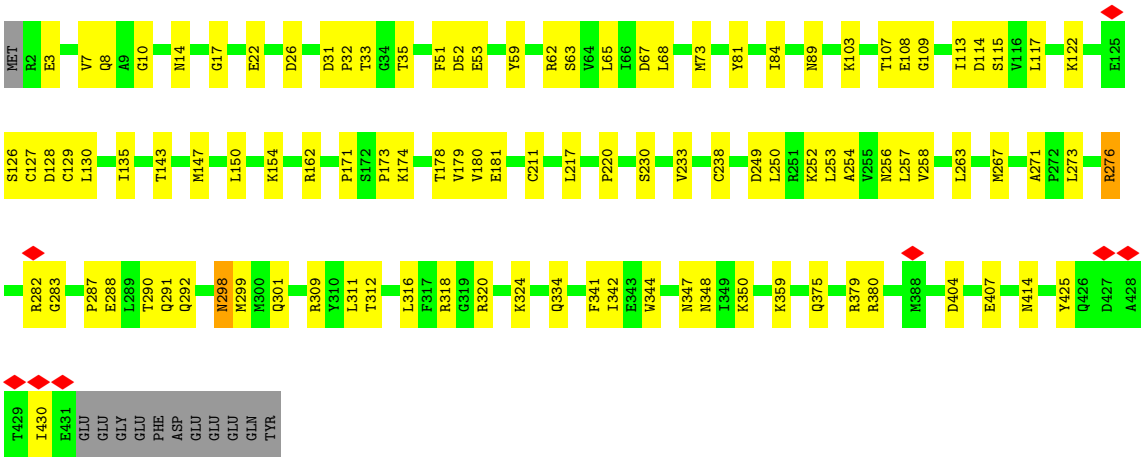
- Molecule 60: Tubulin beta chain

Chain IS:



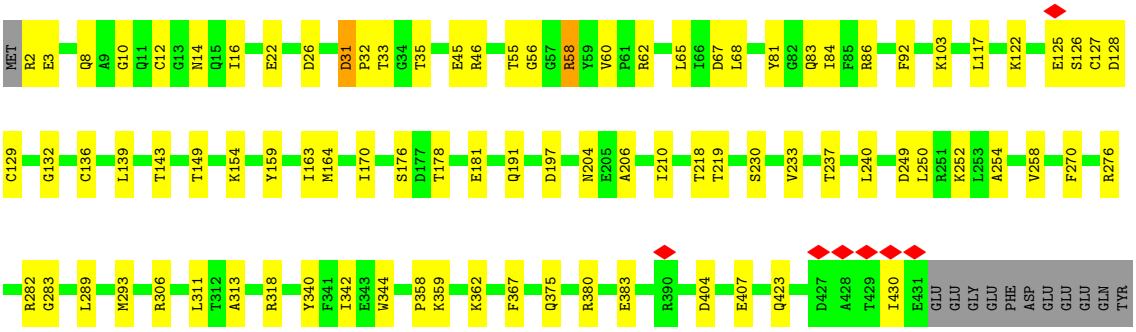
- Molecule 60: Tubulin beta chain

Chain IU:



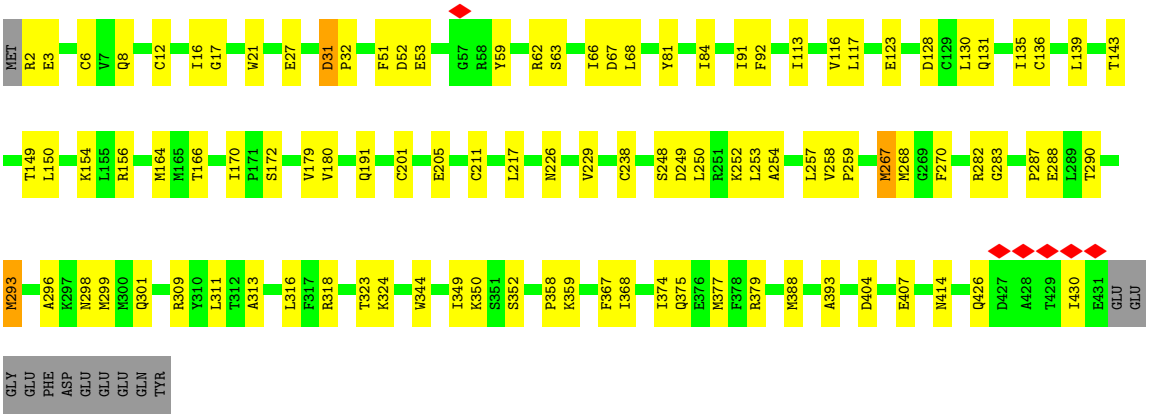
• Molecule 60: Tubulin beta chain

Chain IW:



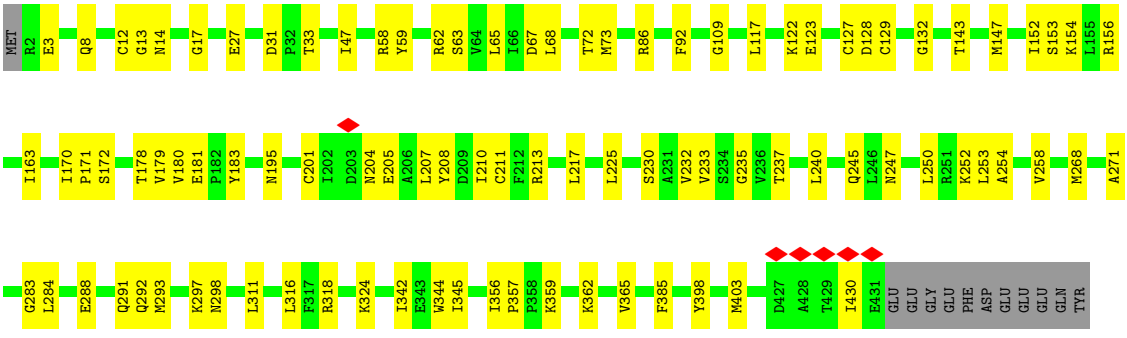
• Molecule 60: Tubulin beta chain

Chain IY:



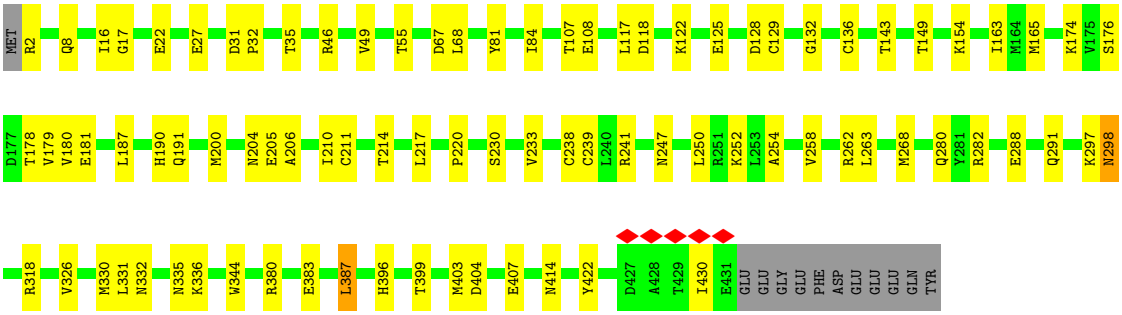
• Molecule 60: Tubulin beta chain

Chain JA:



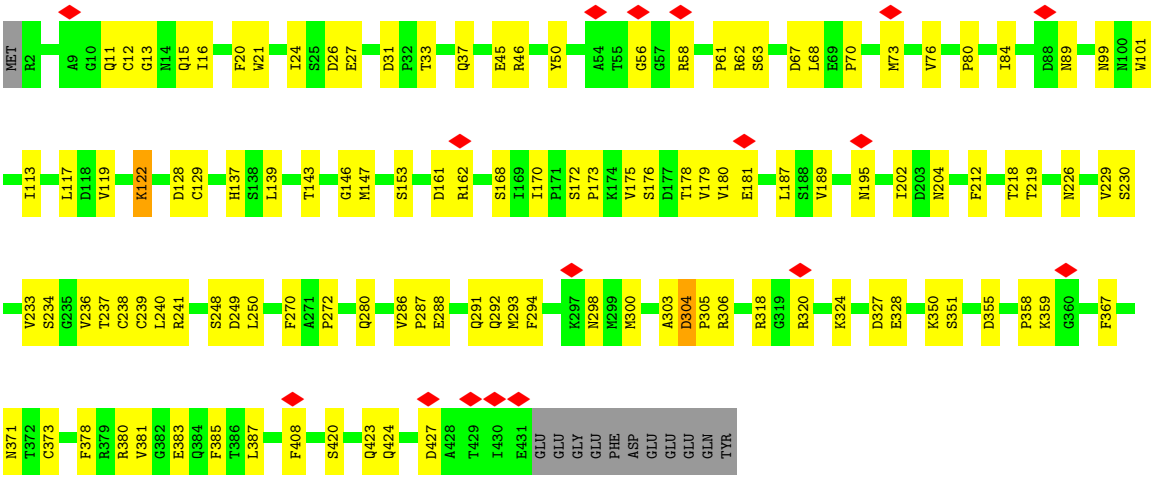
• Molecule 60: Tubulin beta chain

Chain JC:



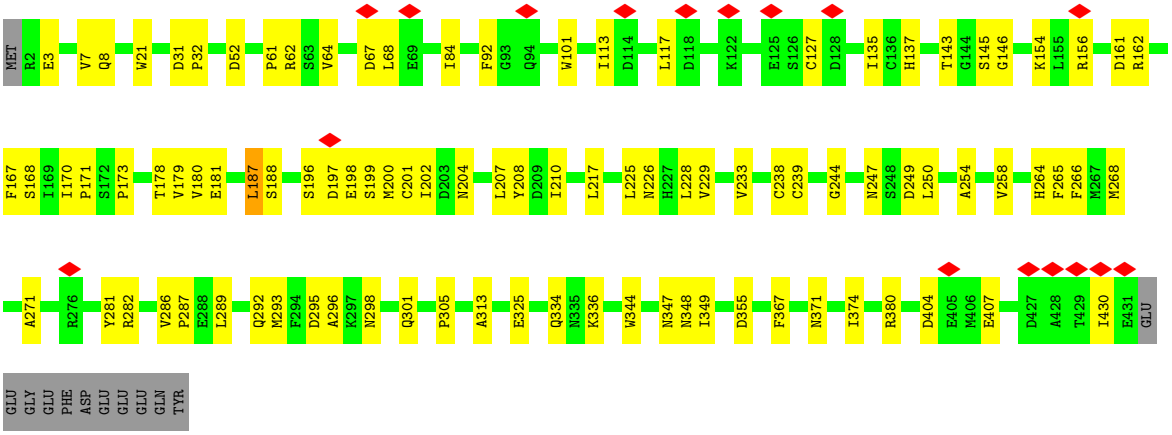
- Molecule 60: Tubulin beta chain

Chain JE:



- Molecule 60: Tubulin beta chain

Chain JG:



- Molecule 60: Tubulin beta chain

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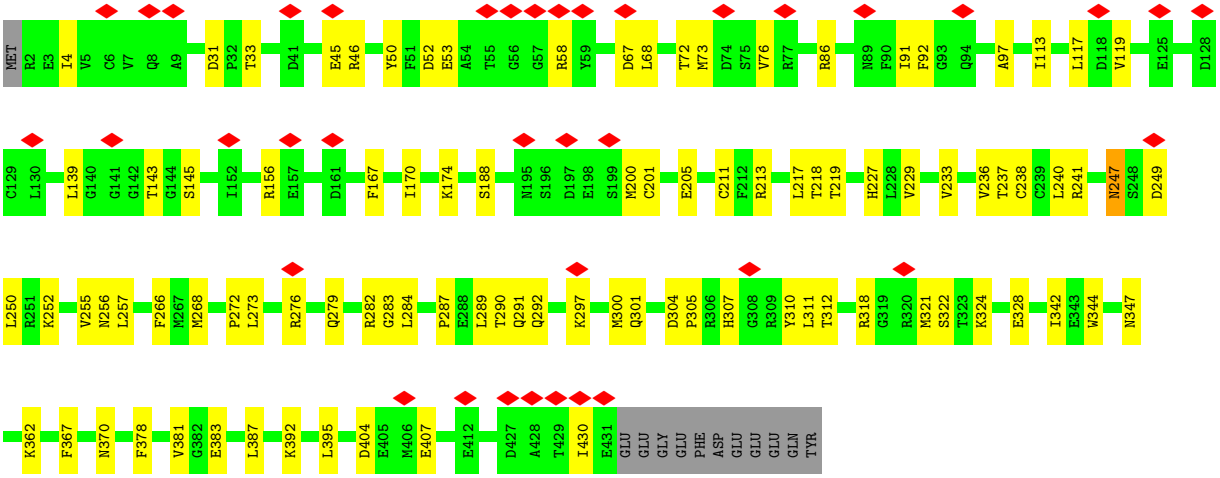
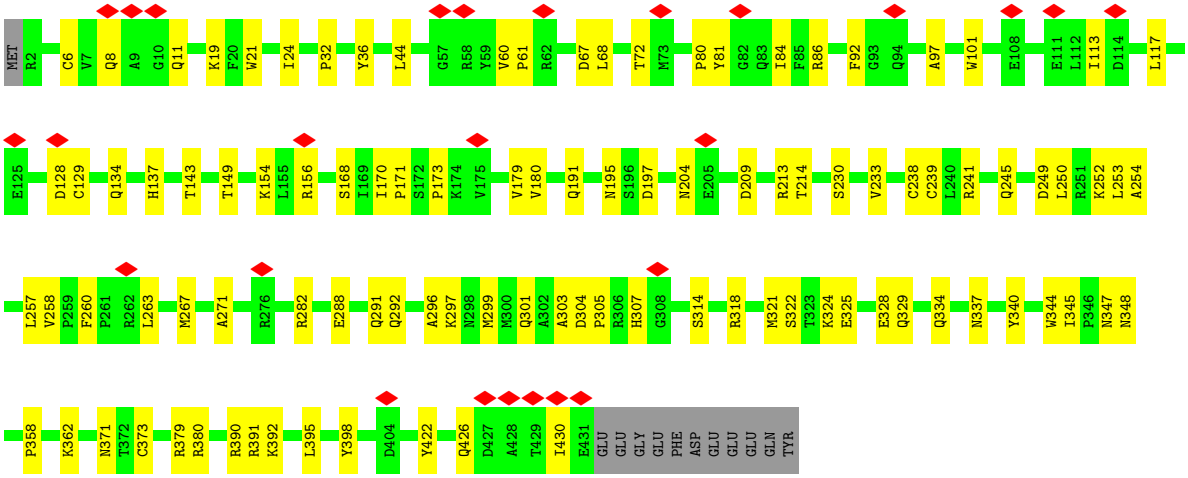


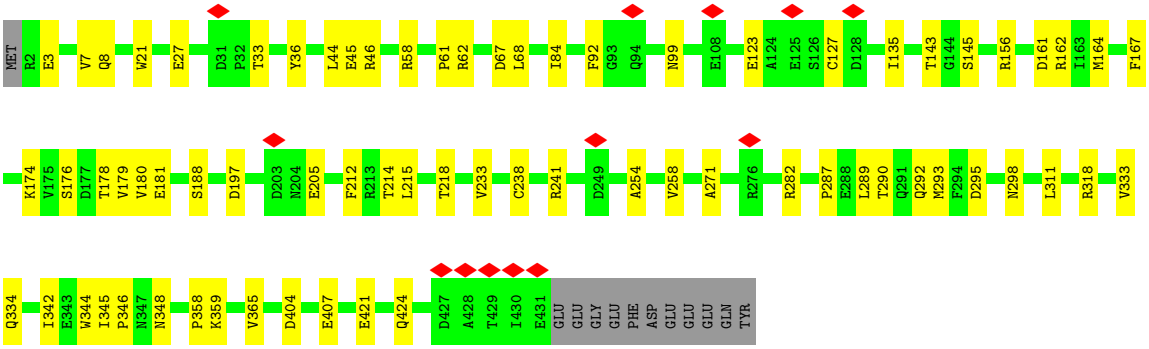
• Molecule 60: Tubulin beta chain

Chain JK:



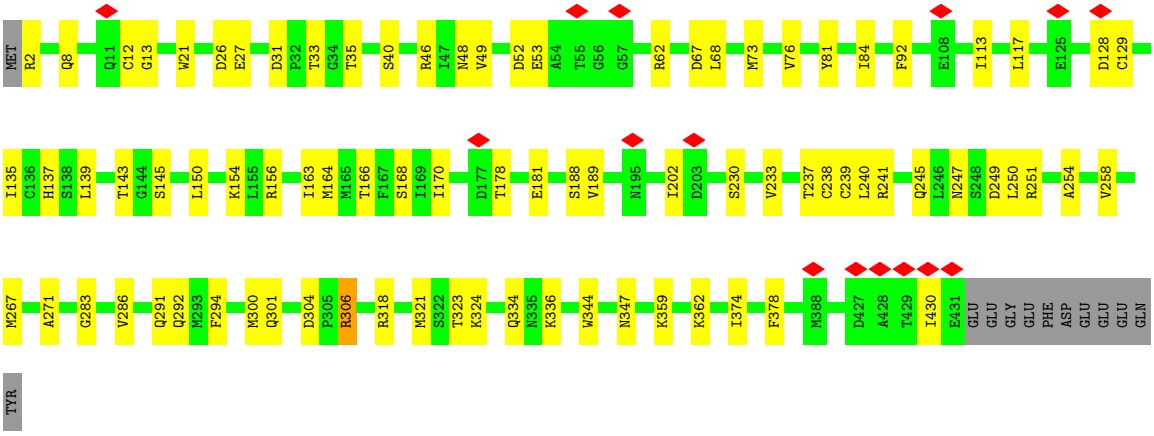
• Molecule 60: Tubulin beta chain

Chain JM:



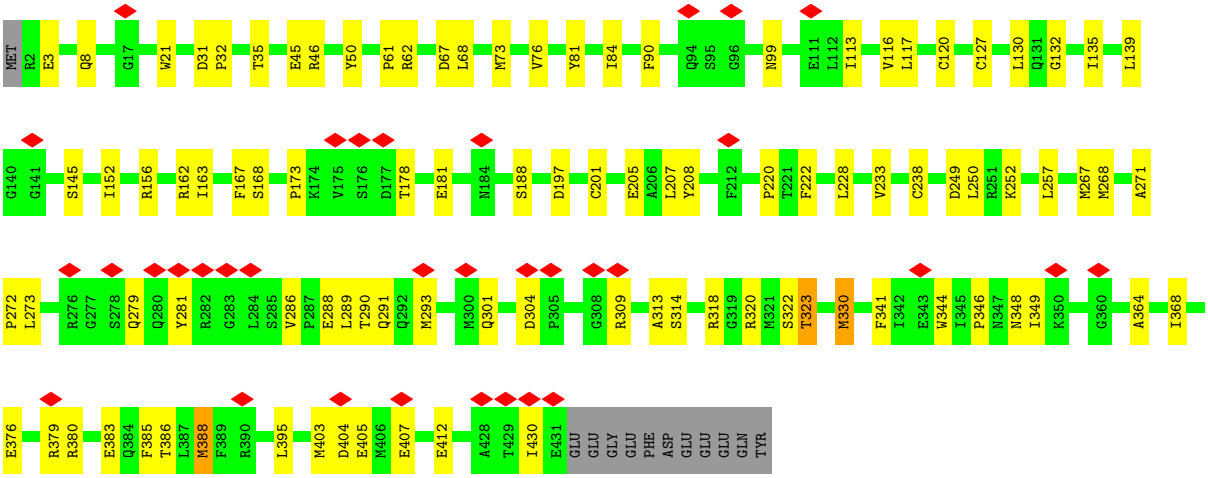
• Molecule 60: Tubulin beta chain

Chain JO:



• Molecule 60: Tubulin beta chain

Chain JR:



• Molecule 60: Tubulin beta chain

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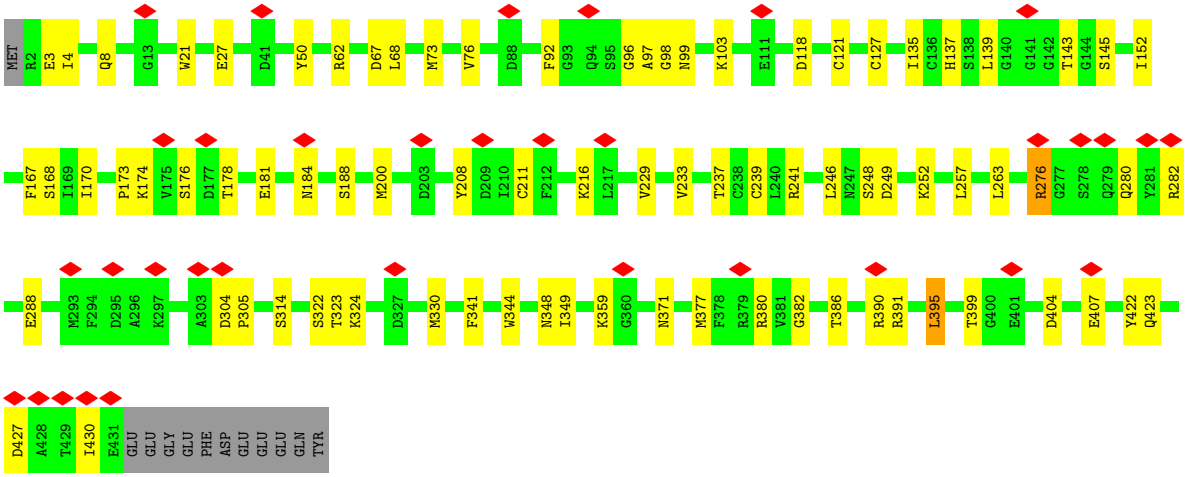

- Molecule 60: Tubulin beta chain

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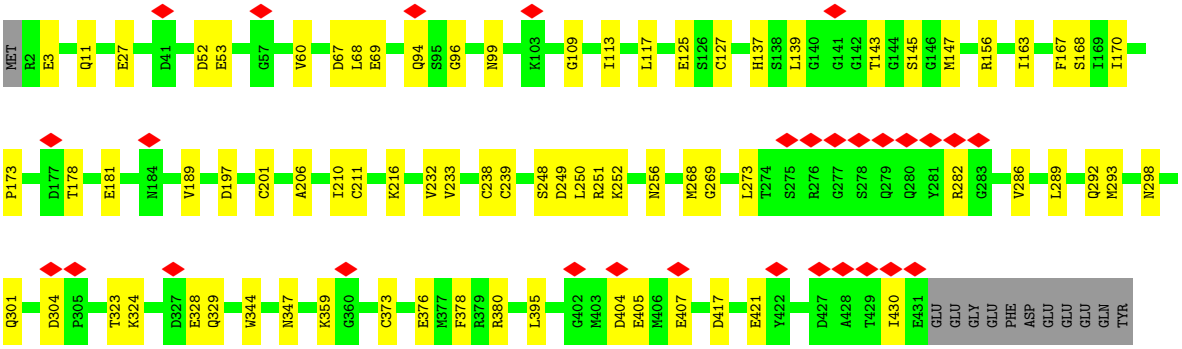
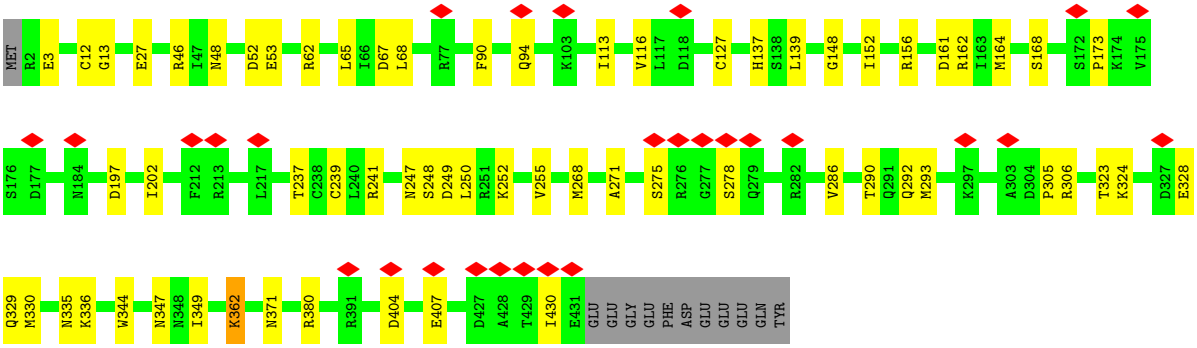


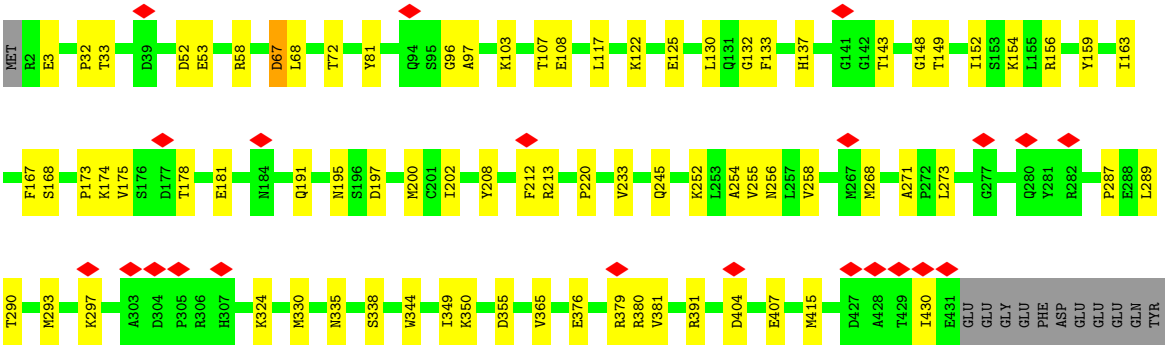
- Molecule 60: Tubulin beta chain

Chain JX:



- Molecule 60: Tubulin beta chain

Chain JZ:



- Molecule 60: Tubulin beta chain

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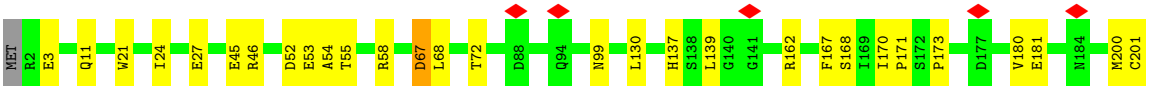

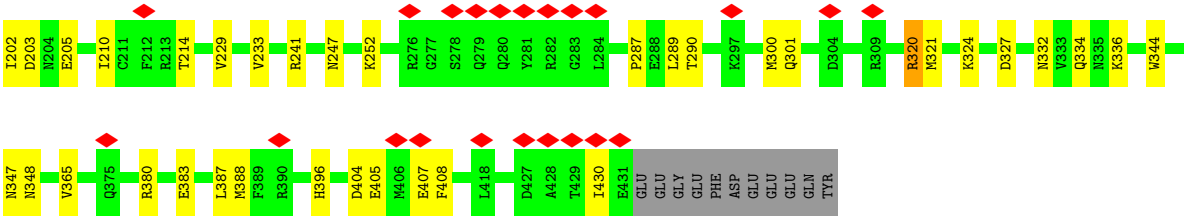

• Molecule 60: Tubulin beta chain

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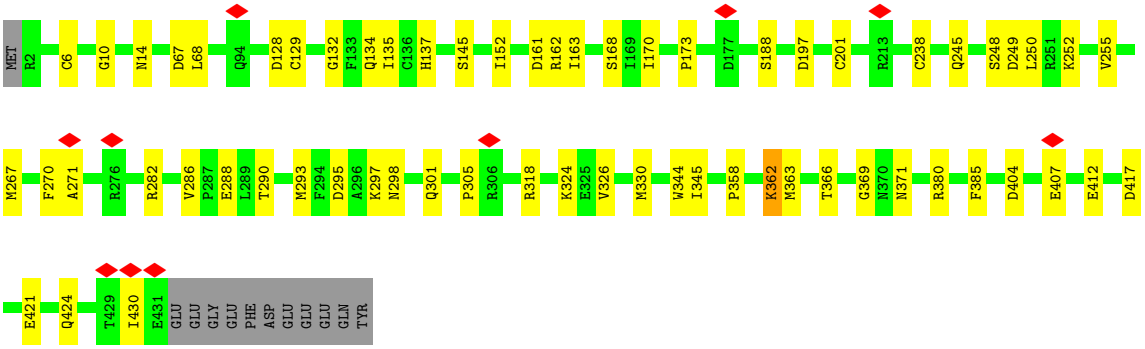
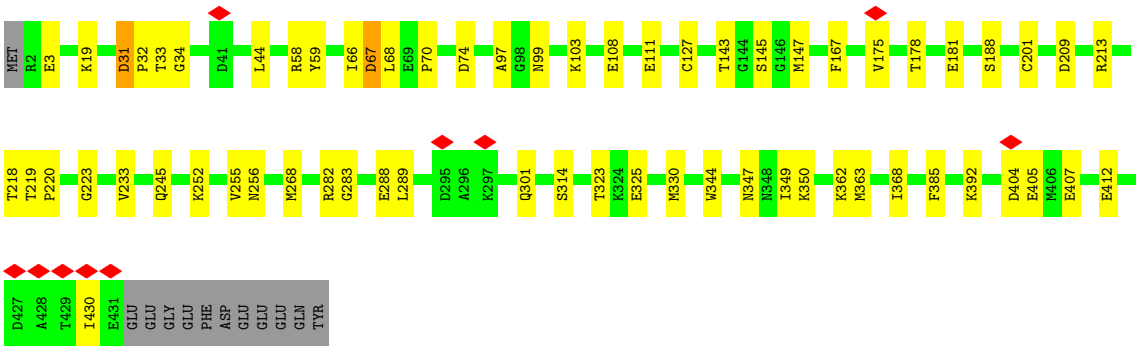


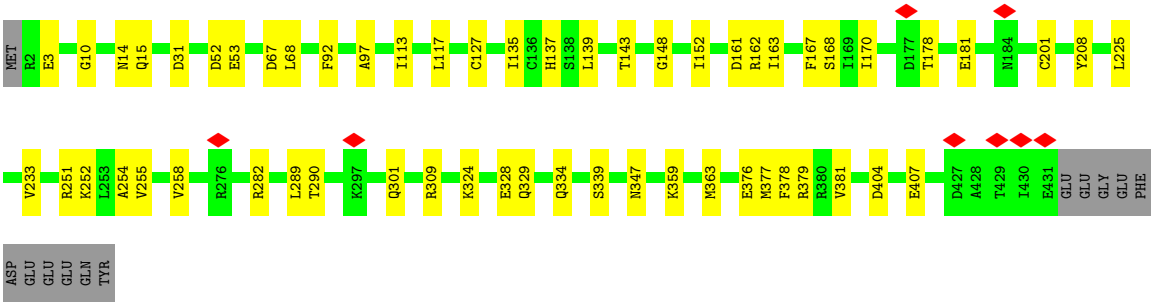
• Molecule 60: Tubulin beta chain

Chain KG:



• Molecule 60: Tubulin beta chain

Chain KI:



- Molecule 60: Tubulin beta chain

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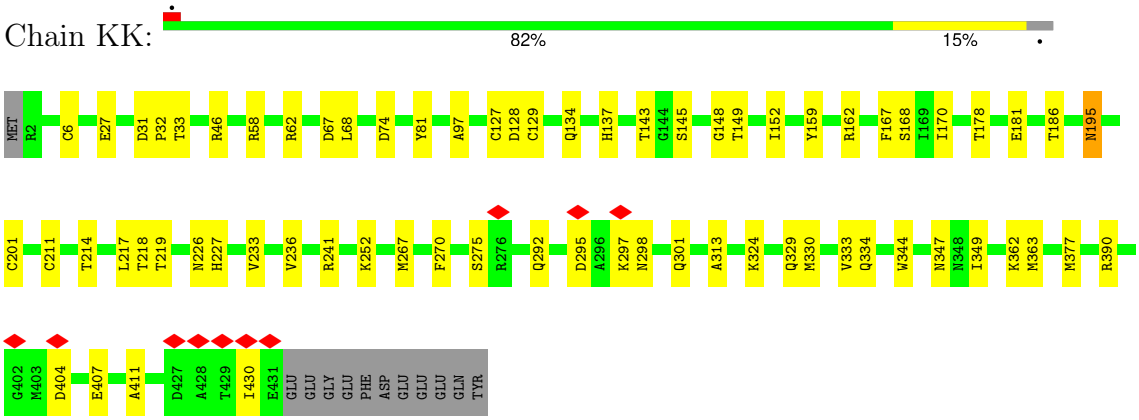

- Molecule 60: Tubulin beta chain

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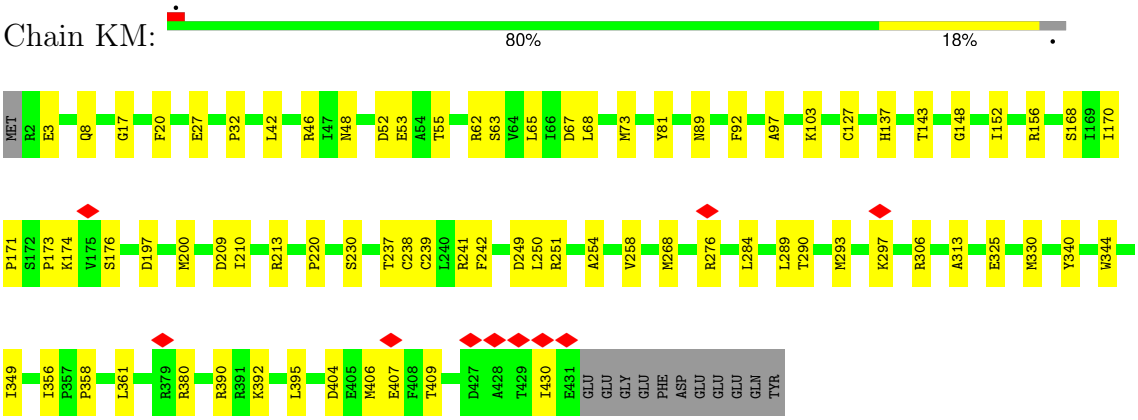
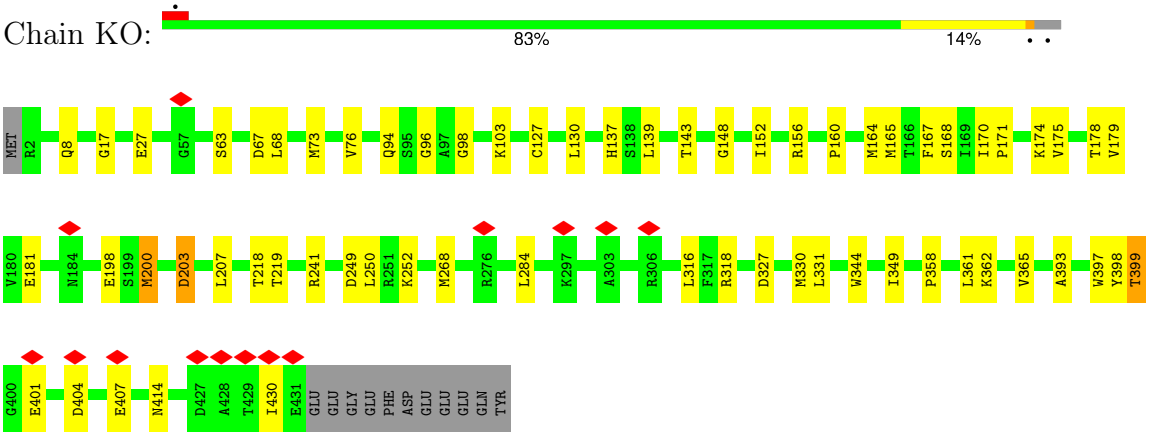


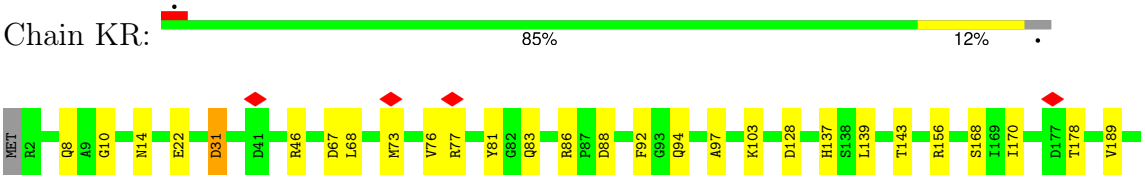
- Molecule 60: Tubulin beta chain

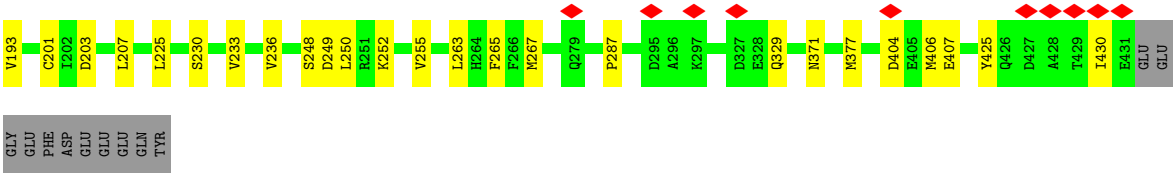
Chain KO:



- Molecule 60: Tubulin beta chain

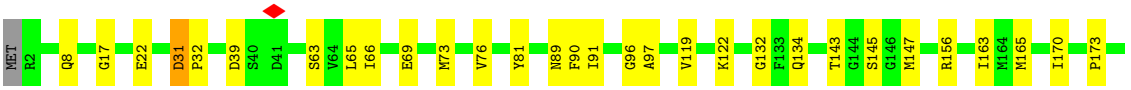
Chain KR:

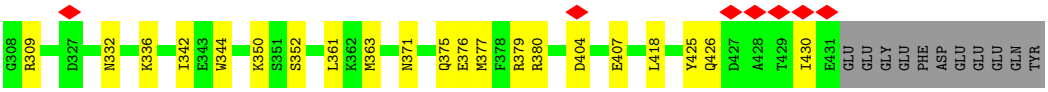




• Molecule 60: Tubulin beta chain

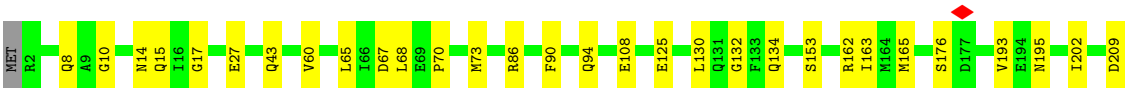
Chain KT:





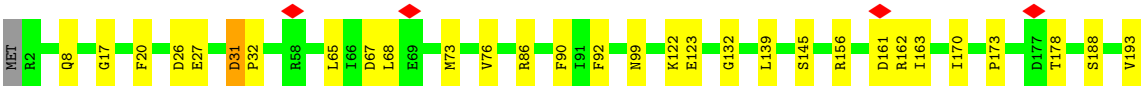
• Molecule 60: Tubulin beta chain

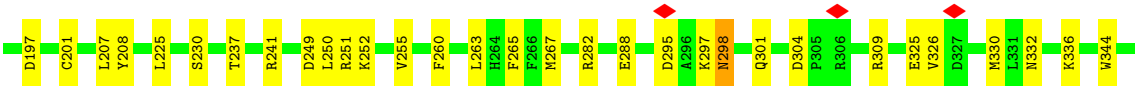
Chain KV:

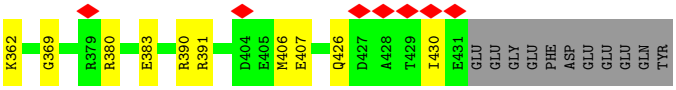


• Molecule 60: Tubulin beta chain

Chain KX:

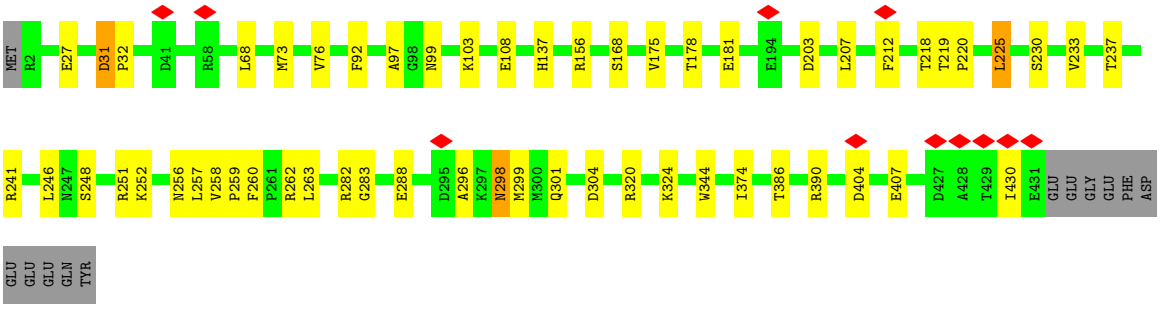






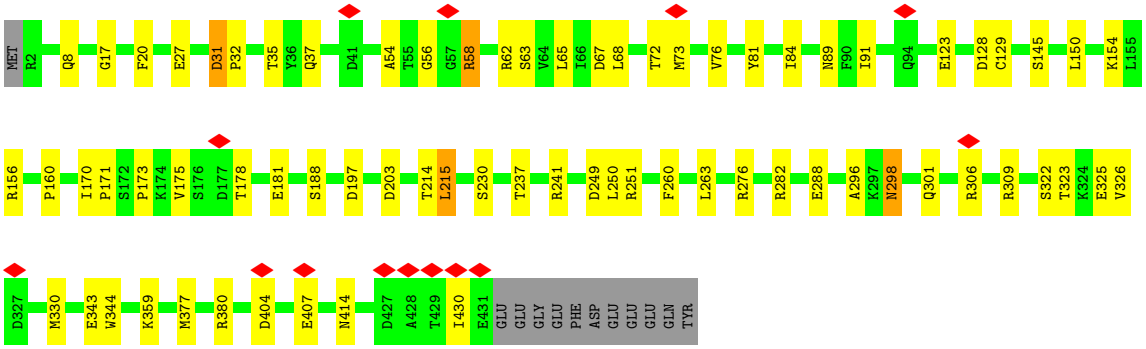
• Molecule 60: Tubulin beta chain

Chain KZ:



- Molecule 60: Tubulin beta chain

Chain LB:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	455012	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	45	Depositor
Minimum defocus (nm)	1600	Depositor
Maximum defocus (nm)	2400	Depositor
Magnification	81000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	1.875	Depositor
Minimum map value	0.000	Depositor
Average map value	0.035	Depositor
Map value standard deviation	0.105	Depositor
Recommended contour level	0.17	Depositor
Map size (Å)	499.40002, 358.6, 641.3	wwPDB
Map dimensions	454, 326, 583	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.1, 1.1, 1.1	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: MG, GTP, ZN, GDP

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	0A	0.29	0/5506	0.56	1/7437 (0.0%)
1	0B	0.28	0/6058	0.54	0/8179
1	0C	0.28	0/6100	0.56	1/8236 (0.0%)
1	0D	0.28	0/1091	0.51	0/1482
2	0E	0.28	0/6005	0.54	1/8131 (0.0%)
3	0F	0.29	0/5505	0.55	0/7432
4	0G	0.27	0/6276	0.56	2/8472 (0.0%)
5	0H	0.33	0/2303	0.58	1/3061 (0.0%)
5	0I	0.33	0/1065	0.56	0/1412
5	0J	0.25	0/378	0.58	0/496
5	0K	0.33	0/3170	0.56	0/4220
6	0M	0.32	0/2593	0.60	0/3444
6	0N	0.33	0/1464	0.62	0/1948
7	0O	0.31	0/1296	0.65	0/1720
7	0P	0.34	0/2600	0.68	0/3451
8	0Q	0.30	0/2642	0.53	1/3581 (0.0%)
9	0R	0.28	0/2741	0.55	1/3718 (0.0%)
10	0S	0.29	0/3398	0.52	0/4607
11	0T	0.29	0/3352	0.53	0/4527
12	0U	0.29	0/2503	0.54	0/3389
13	0V	0.27	0/1285	0.53	0/1751
14	0W	0.29	0/845	0.61	0/1129
15	0X	0.29	0/1489	0.54	0/2011
16	0Y	0.28	0/2164	0.53	0/2952
17	0Z	0.28	0/3791	0.52	0/5129
18	1A	0.29	0/2993	0.54	1/4043 (0.0%)
19	1B	0.29	0/2307	0.56	0/3114
20	1C	0.28	0/1956	0.56	0/2647
21	1D	0.29	0/2432	0.57	0/3302
22	1E	0.28	0/1923	0.52	0/2598
23	1F	0.28	0/1898	0.56	0/2574
24	1G	0.29	0/1316	0.56	1/1786 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
25	1H	0.26	0/2045	0.55	0/2779
26	1I	0.27	0/2596	0.54	0/3530
26	1J	0.27	0/726	0.52	0/982
27	1K	0.29	0/2168	0.56	0/2923
27	1L	0.27	0/1124	0.58	0/1511
28	1M	0.26	0/1813	0.54	1/2455 (0.0%)
28	1N	0.28	0/833	0.53	0/1127
29	1O	0.31	0/983	0.52	0/1343
29	1P	0.33	0/437	0.54	0/597
29	4X	0.27	0/361	0.48	0/494
30	1Q	0.29	0/2279	0.58	1/3083 (0.0%)
30	1R	0.29	0/2279	0.54	0/3083
30	1S	0.30	0/2279	0.56	0/3083
31	1T	0.28	0/1862	0.51	0/2526
31	1U	0.28	0/1862	0.51	0/2526
32	1V	0.29	0/1572	0.56	0/2124
32	1W	0.28	0/1572	0.55	0/2124
32	1X	0.29	0/1572	0.55	0/2124
32	1Y	0.30	0/1572	0.54	0/2124
32	1Z	0.29	0/1572	0.55	0/2124
32	2A	0.31	0/1572	0.55	0/2124
33	2B	0.28	0/4752	0.58	1/6445 (0.0%)
33	2C	0.28	0/4809	0.58	2/6522 (0.0%)
33	2D	0.27	0/4809	0.59	2/6522 (0.0%)
34	2E	0.29	0/1903	0.58	1/2566 (0.0%)
34	2F	0.29	0/1903	0.54	0/2566
35	2G	0.27	0/1488	0.57	0/1995
35	2H	0.28	0/1266	0.60	0/1688
36	2I	0.29	0/2276	0.56	1/3084 (0.0%)
36	2J	0.29	0/2243	0.57	1/3038 (0.0%)
36	2K	0.27	0/2243	0.55	0/3038
37	2L	0.27	0/1944	0.54	0/2631
37	2M	0.28	0/1944	0.52	0/2631
38	2N	0.30	0/1951	0.54	0/2639
39	2O	0.32	0/1607	0.59	0/2137
39	2P	0.38	0/2602	0.63	0/3452
39	2Q	0.33	0/2692	0.61	0/3587
39	2R	0.36	0/1619	0.69	0/2144
40	2S	0.27	0/654	0.68	0/875
40	2T	0.31	0/3705	0.62	1/4926 (0.0%)
40	2U	0.30	0/571	0.57	0/763
41	2V	0.28	0/1077	0.55	0/1443
41	2W	0.32	0/1998	0.62	0/2655

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
41	2X	0.28	0/449	0.63	0/603
41	2Y	0.31	0/2842	0.58	0/3790
41	2Z	0.31	0/2287	0.62	2/3054 (0.1%)
41	3A	0.31	0/967	0.63	0/1288
41	3B	0.32	0/1443	0.61	0/1938
41	3C	0.31	0/1814	0.63	0/2410
41	3D	0.35	0/2167	0.65	0/2881
42	3E	0.27	0/534	0.50	0/730
42	3F	0.29	0/1527	0.52	0/2073
42	3G	0.28	0/1435	0.55	0/1954
42	3H	0.28	0/654	0.60	1/883 (0.1%)
42	3I	0.28	0/918	0.54	0/1249
42	3J	0.27	0/1218	0.53	0/1650
42	3K	0.27	0/415	0.53	0/567
42	3L	0.32	0/1538	0.59	0/2084
42	3M	0.28	0/1574	0.57	1/2141 (0.0%)
42	3N	0.36	0/508	0.56	0/687
42	3O	0.31	0/1008	0.59	2/1370 (0.1%)
42	3P	0.27	0/995	0.56	0/1347
43	3Q	0.26	0/1329	0.53	0/1791
44	3R	0.32	0/1370	0.57	0/1856
45	3S	0.29	0/1304	0.54	0/1756
46	3T	0.28	0/1443	0.53	0/1957
46	3U	0.28	0/1160	0.52	0/1568
47	3V	0.29	0/1961	0.55	0/2639
47	3W	0.28	0/1947	0.59	1/2622 (0.0%)
47	3X	0.31	0/1883	0.61	0/2536
48	3Y	0.31	0/2061	0.59	0/2778
48	3Z	0.29	0/1004	0.64	0/1344
48	4A	0.29	0/1977	0.59	0/2662
49	4B	0.25	0/868	0.54	0/1157
49	4C	0.25	0/899	0.53	0/1199
49	4D	0.27	0/839	0.52	0/1119
50	4E	0.26	0/328	0.64	0/437
50	4F	0.26	0/1071	0.50	0/1439
50	4G	0.26	0/328	0.68	0/437
51	4H	0.31	0/1686	0.54	0/2272
52	4I	0.29	0/1042	0.51	0/1404
52	4J	0.40	0/229	0.54	0/310
53	4K	0.32	0/1707	0.57	0/2317
53	4L	0.31	0/907	0.56	0/1223
54	4M	0.27	0/1396	0.63	1/1865 (0.1%)
54	4N	0.25	0/1396	0.57	0/1865

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
54	4O	0.25	0/1389	0.55	0/1855
55	4P	0.27	0/1205	0.59	1/1602 (0.1%)
56	4Q	0.26	0/590	0.56	0/788
57	4R	0.31	0/1132	0.66	0/1514
57	4S	0.27	0/1172	0.62	0/1568
57	4Y	0.25	0/333	0.59	0/447
58	4T	0.28	0/655	0.67	0/877
58	4U	0.28	0/655	0.62	0/877
58	4V	0.28	0/655	0.60	0/877
58	4W	0.29	0/655	0.62	0/877
59	AA	0.34	0/3494	0.62	0/4744
59	AC	0.33	0/3494	0.62	0/4744
59	AE	0.34	0/3494	0.63	0/4744
59	AG	0.34	0/3494	0.61	0/4744
59	AI	0.32	0/3494	0.61	0/4744
59	AK	0.32	0/3494	0.61	0/4744
59	AM	0.33	0/3494	0.65	0/4744
59	AO	0.34	0/3494	0.65	0/4744
59	AQ	0.34	0/3494	0.63	0/4744
59	AS	0.34	0/3494	0.66	1/4744 (0.0%)
59	AU	0.33	0/3494	0.66	2/4744 (0.0%)
59	AW	0.33	0/3494	0.61	0/4744
59	AY	0.32	0/3494	0.63	1/4744 (0.0%)
59	BA	0.30	0/3494	0.61	0/4744
59	BC	0.33	0/3494	0.66	3/4744 (0.1%)
59	BE	0.33	0/3494	0.62	0/4744
59	BG	0.34	0/3494	0.62	0/4744
59	BI	0.34	0/3494	0.66	2/4744 (0.0%)
59	BK	0.32	0/3494	0.63	0/4744
59	BM	0.32	0/3494	0.63	1/4744 (0.0%)
59	BO	0.33	0/3494	0.60	0/4744
59	BQ	0.34	0/3494	0.62	1/4744 (0.0%)
59	BS	0.35	0/3494	0.63	1/4744 (0.0%)
59	BU	0.37	0/3494	0.64	1/4744 (0.0%)
59	BW	0.35	0/3494	0.63	0/4744
59	BX	0.32	0/3494	0.64	1/4744 (0.0%)
59	BZ	0.32	0/3494	0.63	1/4744 (0.0%)
59	CB	0.31	0/3494	0.62	0/4744
59	CD	0.33	0/3494	0.64	1/4744 (0.0%)
59	CF	0.32	0/3494	0.63	1/4744 (0.0%)
59	CH	0.33	0/3494	0.63	1/4744 (0.0%)
59	CJ	0.33	0/3494	0.67	2/4744 (0.0%)
59	CM	0.33	0/3494	0.62	0/4744

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
59	CO	0.31	0/3494	0.62	0/4744
59	CQ	0.32	0/3494	0.62	0/4744
59	CS	0.31	0/3494	0.64	0/4744
59	CU	0.33	0/3494	0.64	1/4744 (0.0%)
59	CW	0.31	0/3494	0.62	0/4744
59	CY	0.33	0/3494	0.58	0/4744
59	DA	0.32	0/3494	0.61	0/4744
59	DC	0.31	0/3494	0.59	0/4744
59	DE	0.34	0/3494	0.65	3/4744 (0.1%)
59	DG	0.35	0/3494	0.62	1/4744 (0.0%)
59	DI	0.32	0/3494	0.64	2/4744 (0.0%)
59	DK	0.33	0/3494	0.62	0/4744
59	DM	0.33	0/3494	0.63	0/4744
59	DO	0.34	0/3494	0.66	3/4744 (0.1%)
59	DQ	0.32	0/3494	0.61	1/4744 (0.0%)
59	DS	0.33	0/3494	0.64	2/4744 (0.0%)
59	DU	0.33	0/3494	0.60	0/4744
59	DX	0.32	0/3494	0.62	1/4744 (0.0%)
59	DZ	0.33	0/3494	0.59	0/4744
59	EB	0.32	0/3494	0.60	0/4744
59	ED	0.33	0/3494	0.60	1/4744 (0.0%)
59	EF	0.32	0/3494	0.60	0/4744
59	EH	0.31	0/3494	0.58	0/4744
59	EJ	0.31	0/3494	0.60	0/4744
59	EL	0.33	0/3494	0.62	0/4744
59	EN	0.31	0/3494	0.61	0/4744
59	EP	0.31	0/3494	0.61	0/4744
59	ER	0.32	0/3494	0.63	2/4744 (0.0%)
59	ET	0.32	0/3494	0.62	1/4744 (0.0%)
59	EV	0.31	0/3494	0.60	0/4744
59	EX	0.32	0/3494	0.60	0/4744
59	EZ	0.33	0/3494	0.61	1/4744 (0.0%)
59	FB	0.32	0/3494	0.60	3/4744 (0.1%)
59	FD	0.33	0/3494	0.63	0/4744
59	FF	0.33	0/3494	0.57	0/4744
59	FH	0.33	0/3494	0.63	1/4744 (0.0%)
59	FJ	0.31	0/3494	0.60	1/4744 (0.0%)
59	FL	0.32	0/3494	0.60	0/4744
59	FN	0.32	0/3494	0.62	1/4744 (0.0%)
59	FP	0.35	0/3494	0.60	0/4744
59	FR	0.31	0/3494	0.59	0/4744
59	FT	0.32	0/3494	0.60	1/4744 (0.0%)
59	FU	0.32	0/3494	0.63	1/4744 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
59	FW	0.31	0/3494	0.59	1/4744 (0.0%)
59	FY	0.35	0/3494	0.61	0/4744
59	GA	0.32	0/3494	0.61	0/4744
59	GC	0.34	0/3494	0.60	0/4744
59	GE	0.31	0/3494	0.60	0/4744
59	GG	0.36	0/3494	0.63	0/4744
59	GH	0.35	0/3494	0.64	1/4744 (0.0%)
59	GJ	0.31	0/3494	0.61	1/4744 (0.0%)
59	GL	0.33	0/3494	0.64	0/4744
59	GN	0.33	0/3494	0.64	0/4744
59	GP	0.33	0/3494	0.67	0/4744
59	GR	0.32	0/3494	0.64	3/4744 (0.1%)
59	GT	0.34	0/3494	0.68	2/4744 (0.0%)
59	GU	0.33	0/3494	0.63	2/4744 (0.0%)
59	GW	0.34	0/3494	0.63	0/4744
59	GY	0.34	0/3494	0.67	2/4744 (0.0%)
59	HA	0.34	0/3494	0.64	1/4744 (0.0%)
59	HC	0.35	0/3494	0.64	0/4744
59	HE	0.34	0/3494	0.67	1/4744 (0.0%)
59	HG	0.33	0/3494	0.64	1/4744 (0.0%)
59	HI	0.33	0/3494	0.65	0/4744
59	HK	0.32	0/3494	0.64	1/4744 (0.0%)
59	HM	0.34	0/3494	0.67	3/4744 (0.1%)
59	HO	0.33	0/3494	0.62	0/4744
59	HQ	0.35	0/3494	0.68	1/4744 (0.0%)
59	HT	0.33	0/3494	0.66	4/4744 (0.1%)
59	HV	0.30	0/3494	0.62	1/4744 (0.0%)
59	HX	0.34	0/3494	0.63	1/4744 (0.0%)
59	HZ	0.34	0/3494	0.65	1/4744 (0.0%)
59	IB	0.34	0/3494	0.65	1/4744 (0.0%)
59	ID	0.32	0/3494	0.65	1/4744 (0.0%)
59	IG	0.35	0/3494	0.65	2/4744 (0.0%)
59	II	0.34	0/3494	0.64	1/4744 (0.0%)
59	IK	0.33	0/3494	0.65	0/4744
59	IM	0.34	0/3494	0.65	1/4744 (0.0%)
59	IO	0.31	0/3494	0.63	0/4744
59	IQ	0.32	0/3494	0.65	1/4744 (0.0%)
59	IT	0.34	0/3494	0.63	0/4744
59	IV	0.35	0/3494	0.63	1/4744 (0.0%)
59	IX	0.34	0/3494	0.66	1/4744 (0.0%)
59	IZ	0.35	0/3494	0.66	0/4744
59	JB	0.32	0/3494	0.60	0/4744
59	JD	0.36	0/3494	0.66	1/4744 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
59	JF	0.32	0/3494	0.62	1/4744 (0.0%)
59	JH	0.33	0/3494	0.64	0/4744
59	JJ	0.35	0/3494	0.66	1/4744 (0.0%)
59	JL	0.33	0/3494	0.65	1/4744 (0.0%)
59	JN	0.34	0/3494	0.63	0/4744
59	JP	0.34	0/3494	0.63	2/4744 (0.0%)
59	JQ	0.33	0/3494	0.67	1/4744 (0.0%)
59	JS	0.37	0/3494	0.67	0/4744
59	JU	0.32	0/3494	0.65	0/4744
59	JW	0.33	0/3494	0.66	1/4744 (0.0%)
59	JY	0.34	0/3494	0.65	0/4744
59	KA	0.33	0/3494	0.68	1/4744 (0.0%)
59	KC	0.33	0/3494	0.65	0/4744
59	KD	0.33	0/3494	0.65	0/4744
59	KF	0.32	0/3494	0.60	0/4744
59	KH	0.32	0/3494	0.61	1/4744 (0.0%)
59	KJ	0.33	0/3494	0.65	2/4744 (0.0%)
59	KL	0.31	0/3494	0.61	0/4744
59	KN	0.34	0/3494	0.62	0/4744
59	KP	0.38	0/3494	0.70	1/4744 (0.0%)
59	KQ	0.31	0/3494	0.62	1/4744 (0.0%)
59	KS	0.31	0/3494	0.61	1/4744 (0.0%)
59	KU	0.32	0/3494	0.61	0/4744
59	KW	0.32	0/3494	0.65	1/4744 (0.0%)
59	KY	0.32	0/3494	0.62	0/4744
59	LA	0.32	0/3494	0.62	1/4744 (0.0%)
60	AB	0.35	0/3443	0.61	1/4657 (0.0%)
60	AD	0.32	0/3443	0.63	1/4657 (0.0%)
60	AF	0.34	0/3443	0.67	3/4657 (0.1%)
60	AH	0.30	0/3443	0.60	1/4657 (0.0%)
60	AJ	0.31	0/3443	0.62	2/4657 (0.0%)
60	AL	0.31	0/3443	0.62	1/4657 (0.0%)
60	AN	0.35	0/3443	0.64	2/4657 (0.0%)
60	AP	0.33	0/3443	0.66	3/4657 (0.1%)
60	AR	0.35	0/3443	0.65	1/4657 (0.0%)
60	AT	0.32	0/3443	0.64	1/4657 (0.0%)
60	AV	0.33	0/3443	0.64	1/4657 (0.0%)
60	AX	0.33	0/3443	0.68	2/4657 (0.0%)
60	AZ	0.32	0/3443	0.66	2/4657 (0.0%)
60	BB	0.31	0/3443	0.62	4/4657 (0.1%)
60	BD	0.34	0/3443	0.68	2/4657 (0.0%)
60	BF	0.33	0/3443	0.66	4/4657 (0.1%)
60	BH	0.34	0/3443	0.62	1/4657 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
60	BJ	0.36	0/3443	0.66	2/4657 (0.0%)
60	BL	0.32	0/3443	0.67	1/4657 (0.0%)
60	BN	0.30	0/3443	0.62	3/4657 (0.1%)
60	BP	0.34	0/3443	0.66	2/4657 (0.0%)
60	BR	0.34	0/3443	0.66	1/4657 (0.0%)
60	BT	0.33	0/3443	0.63	2/4657 (0.0%)
60	BV	0.33	0/3443	0.65	2/4657 (0.0%)
60	BY	0.34	0/3443	0.64	2/4657 (0.0%)
60	CA	0.33	0/3443	0.63	1/4657 (0.0%)
60	CC	0.34	0/3443	0.68	2/4657 (0.0%)
60	CE	0.33	0/3443	0.65	1/4657 (0.0%)
60	CG	0.33	0/3443	0.67	3/4657 (0.1%)
60	CI	0.34	0/3443	0.70	2/4657 (0.0%)
60	CL	0.31	0/3443	0.62	1/4657 (0.0%)
60	CN	0.31	0/3443	0.64	1/4657 (0.0%)
60	CP	0.32	0/3443	0.65	3/4657 (0.1%)
60	CR	0.35	0/3443	0.66	1/4657 (0.0%)
60	CT	0.32	0/3443	0.66	5/4657 (0.1%)
60	CV	0.32	0/3443	0.67	3/4657 (0.1%)
60	CX	0.34	0/3443	0.63	1/4657 (0.0%)
60	CZ	0.33	0/3443	0.63	0/4657
60	DB	0.34	0/3443	0.61	1/4657 (0.0%)
60	DD	0.31	0/3443	0.64	1/4657 (0.0%)
60	DF	0.32	0/3443	0.62	0/4657
60	DH	0.32	0/3443	0.63	1/4657 (0.0%)
60	DJ	0.31	0/3443	0.62	1/4657 (0.0%)
60	DL	0.33	0/3443	0.63	2/4657 (0.0%)
60	DN	0.32	0/3443	0.65	1/4657 (0.0%)
60	DP	0.34	0/3443	0.65	3/4657 (0.1%)
60	DR	0.32	0/3443	0.66	2/4657 (0.0%)
60	DT	0.32	0/3443	0.62	2/4657 (0.0%)
60	DV	0.33	0/3443	0.62	1/4657 (0.0%)
60	DW	0.32	0/3443	0.63	1/4657 (0.0%)
60	DY	0.32	0/3443	0.62	1/4657 (0.0%)
60	EA	0.32	0/3443	0.66	2/4657 (0.0%)
60	EC	0.32	0/3443	0.63	2/4657 (0.0%)
60	EE	0.34	0/3443	0.63	1/4657 (0.0%)
60	EG	0.32	0/3443	0.60	0/4657
60	EI	0.32	0/3443	0.61	0/4657
60	EK	0.32	0/3443	0.60	1/4657 (0.0%)
60	EM	0.32	0/3443	0.64	2/4657 (0.0%)
60	EO	0.32	0/3443	0.60	0/4657
60	EQ	0.32	0/3443	0.64	2/4657 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
60	ES	0.31	0/3443	0.62	1/4657 (0.0%)
60	EU	0.33	0/3443	0.65	2/4657 (0.0%)
60	EW	0.31	0/3443	0.61	2/4657 (0.0%)
60	EY	0.30	0/3443	0.61	0/4657
60	FA	0.30	0/3443	0.58	1/4657 (0.0%)
60	FC	0.32	0/3443	0.60	0/4657
60	FE	0.31	0/3443	0.57	0/4657
60	FG	0.31	0/3443	0.62	2/4657 (0.0%)
60	FI	0.37	0/3443	0.63	1/4657 (0.0%)
60	FK	0.31	0/3443	0.60	0/4657
60	FM	0.30	0/3443	0.59	1/4657 (0.0%)
60	FO	0.31	0/3443	0.63	0/4657
60	FQ	0.35	0/3443	0.64	1/4657 (0.0%)
60	FS	0.30	0/3443	0.62	2/4657 (0.0%)
60	FV	0.31	0/3443	0.61	0/4657
60	FX	0.31	0/3443	0.60	1/4657 (0.0%)
60	FZ	0.32	0/3443	0.64	0/4657
60	GB	0.31	0/3443	0.62	1/4657 (0.0%)
60	GD	0.33	0/3443	0.64	1/4657 (0.0%)
60	GF	0.32	0/3443	0.65	2/4657 (0.0%)
60	GI	0.31	0/3443	0.61	2/4657 (0.0%)
60	GK	0.31	0/3443	0.67	5/4657 (0.1%)
60	GM	0.32	0/3443	0.68	6/4657 (0.1%)
60	GO	0.31	0/3443	0.64	1/4657 (0.0%)
60	GQ	0.32	0/3443	0.67	1/4657 (0.0%)
60	GS	0.32	0/3443	0.73	9/4657 (0.2%)
60	GV	0.35	0/3443	0.66	0/4657
60	GX	0.32	0/3443	0.64	3/4657 (0.1%)
60	GZ	0.34	0/3443	0.66	2/4657 (0.0%)
60	HB	0.34	0/3443	0.65	2/4657 (0.0%)
60	HD	0.34	0/3443	0.66	2/4657 (0.0%)
60	HF	0.35	0/3443	0.68	3/4657 (0.1%)
60	HH	0.34	0/3443	0.65	3/4657 (0.1%)
60	HJ	0.33	0/3443	0.65	2/4657 (0.0%)
60	HL	0.32	0/3443	0.68	6/4657 (0.1%)
60	HN	0.33	0/3443	0.66	5/4657 (0.1%)
60	HP	0.34	0/3443	0.63	1/4657 (0.0%)
60	HR	0.32	0/3443	0.68	3/4657 (0.1%)
60	HS	0.36	0/3443	0.68	3/4657 (0.1%)
60	HU	0.32	0/3443	0.63	1/4657 (0.0%)
60	HW	0.32	0/3443	0.63	4/4657 (0.1%)
60	HY	0.32	0/3443	0.70	4/4657 (0.1%)
60	IA	0.31	0/3443	0.63	2/4657 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
60	IC	0.34	0/3443	0.65	3/4657 (0.1%)
60	IE	0.31	0/3443	0.68	2/4657 (0.0%)
60	IF	0.33	0/3443	0.66	0/4657
60	IH	0.32	0/3443	0.69	4/4657 (0.1%)
60	IJ	0.31	0/3443	0.62	2/4657 (0.0%)
60	IL	0.31	0/3443	0.64	1/4657 (0.0%)
60	IN	0.32	0/3443	0.65	1/4657 (0.0%)
60	IP	0.37	0/3443	0.70	4/4657 (0.1%)
60	IR	0.34	0/3443	0.65	1/4657 (0.0%)
60	IS	0.33	0/3443	0.69	6/4657 (0.1%)
60	IU	0.32	0/3443	0.65	1/4657 (0.0%)
60	IW	0.32	0/3443	0.65	1/4657 (0.0%)
60	IY	0.36	0/3443	0.69	1/4657 (0.0%)
60	JA	0.33	0/3443	0.63	2/4657 (0.0%)
60	JC	0.35	0/3443	0.69	3/4657 (0.1%)
60	JE	0.35	0/3443	0.70	1/4657 (0.0%)
60	JG	0.31	0/3443	0.66	2/4657 (0.0%)
60	JI	0.31	0/3443	0.65	0/4657
60	JK	0.32	0/3443	0.66	1/4657 (0.0%)
60	JM	0.31	0/3443	0.64	0/4657
60	JO	0.32	0/3443	0.62	0/4657
60	JR	0.34	0/3443	0.64	3/4657 (0.1%)
60	JT	0.34	0/3443	0.64	1/4657 (0.0%)
60	JV	0.31	0/3443	0.64	1/4657 (0.0%)
60	JX	0.32	0/3443	0.64	1/4657 (0.0%)
60	JZ	0.32	0/3443	0.64	1/4657 (0.0%)
60	KB	0.34	0/3443	0.67	2/4657 (0.0%)
60	KE	0.30	0/3443	0.62	1/4657 (0.0%)
60	KG	0.31	0/3443	0.63	2/4657 (0.0%)
60	KI	0.30	0/3443	0.63	1/4657 (0.0%)
60	KK	0.32	0/3443	0.60	0/4657
60	KM	0.33	0/3443	0.63	0/4657
60	KO	0.36	0/3443	0.66	0/4657
60	KR	0.32	0/3443	0.64	2/4657 (0.0%)
60	KT	0.33	0/3443	0.63	1/4657 (0.0%)
60	KV	0.31	0/3443	0.62	2/4657 (0.0%)
60	KX	0.32	0/3443	0.65	2/4657 (0.0%)
60	KZ	0.33	0/3443	0.65	2/4657 (0.0%)
60	LB	0.32	0/3443	0.65	2/4657 (0.0%)
All	All	0.32	0/1231985	0.62	376/1667820 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected

by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
23	1F	0	1
29	1O	0	1
36	2J	0	1
41	3D	0	1
42	3O	0	1
48	4A	0	1
53	4L	0	1
59	AW	0	1
59	BC	0	1
59	BW	0	1
59	CB	0	1
59	CD	0	1
59	DM	0	1
59	DU	0	3
59	FP	0	2
59	GT	0	1
59	GU	0	1
59	GY	0	2
59	HA	0	1
59	HT	0	3
59	JH	0	1
59	JQ	0	1
59	JY	0	2
59	KN	0	1
60	AN	0	1
60	BD	0	1
60	BF	0	1
60	BJ	0	1
60	BP	0	1
60	CA	0	1
60	DB	0	1
60	DL	0	2
60	FA	0	1
60	FI	0	1
60	GF	0	1
60	HD	0	1
60	HF	0	1
60	HS	0	1
60	HY	0	1
60	IR	0	2
60	IW	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
60	KB	0	1
60	KO	0	1
60	KZ	0	2
All	All	0	54

There are no bond length outliers.

All (376) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	DR	31	ASP	CB-CG-OD1	8.18	125.66	118.30
60	BF	31	ASP	CB-CG-OD1	8.15	125.63	118.30
60	EC	130	LEU	CA-CB-CG	8.07	133.87	115.30
60	HW	31	ASP	CB-CG-OD1	7.99	125.49	118.30
60	KZ	31	ASP	CB-CG-OD1	7.98	125.48	118.30
59	KW	227	LEU	CA-CB-CG	7.95	133.59	115.30
59	CF	269	LEU	CA-CB-CG	7.89	133.46	115.30
59	DI	326	LYS	CD-CE-NZ	-7.87	93.61	111.70
59	GT	157	LEU	CA-CB-CG	7.80	133.24	115.30
60	KT	31	ASP	CB-CG-OD1	7.78	125.30	118.30
60	CN	31	ASP	CB-CG-OD1	7.74	125.26	118.30
60	CT	31	ASP	CB-CG-OD1	7.74	125.26	118.30
60	HN	31	ASP	CB-CG-OD1	7.71	125.24	118.30
60	HY	31	ASP	CB-CG-OD1	7.70	125.23	118.30
60	HL	31	ASP	CB-CG-OD1	7.65	125.18	118.30
60	FA	31	ASP	CB-CG-OD1	7.60	125.14	118.30
60	AZ	31	ASP	CB-CG-OD1	7.53	125.08	118.30
59	DO	326	LYS	CD-CE-NZ	-7.53	94.38	111.70
60	KZ	225	LEU	CA-CB-CG	7.50	132.55	115.30
60	GD	31	ASP	CB-CG-OD1	7.49	125.04	118.30
60	AD	31	ASP	CB-CG-OD1	7.48	125.03	118.30
60	CV	31	ASP	CB-CG-OD1	7.46	125.01	118.30
60	HR	31	ASP	CB-CG-OD1	7.45	125.00	118.30
60	LB	31	ASP	CB-CG-OD1	7.45	125.00	118.30
34	2E	262	LEU	CA-CB-CG	7.42	132.38	115.30
60	AX	31	ASP	CB-CG-OD1	7.42	124.98	118.30
60	GK	268	MET	CA-CB-CG	7.40	125.88	113.30
60	AF	377	MET	CB-CG-SD	-7.40	90.21	112.40
59	BC	401	LYS	CD-CE-NZ	-7.39	94.70	111.70
60	AF	377	MET	CA-CB-CG	7.36	125.81	113.30
60	BP	31	ASP	CB-CG-OD1	7.34	124.90	118.30
60	GS	31	ASP	CB-CG-OD1	7.33	124.89	118.30
60	IJ	31	ASP	CB-CG-OD1	7.32	124.89	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	GZ	324	LYS	CD-CE-NZ	-7.31	94.89	111.70
60	BR	31	ASP	CB-CG-OD1	7.30	124.88	118.30
60	BV	31	ASP	CB-CG-OD1	7.30	124.87	118.30
60	IP	267	MET	CA-CB-CG	7.30	125.70	113.30
60	IS	31	ASP	CB-CG-OD1	7.30	124.87	118.30
60	BL	31	ASP	CB-CG-OD1	7.29	124.86	118.30
60	GO	304	ASP	CB-CG-OD1	7.29	124.86	118.30
60	EC	31	ASP	CB-CG-OD1	7.28	124.85	118.30
60	AF	31	ASP	CB-CG-OD1	7.28	124.85	118.30
60	BN	31	ASP	CB-CG-OD1	7.26	124.83	118.30
60	IH	31	ASP	CB-CG-OD1	7.22	124.80	118.30
60	IY	31	ASP	CB-CG-OD1	7.20	124.78	118.30
60	FM	31	ASP	CB-CG-OD1	7.19	124.77	118.30
59	BC	123	ARG	CA-CB-CG	7.17	129.18	113.40
60	IW	31	ASP	CB-CG-OD1	7.17	124.75	118.30
60	FQ	31	ASP	CB-CG-OD1	7.17	124.75	118.30
60	CX	31	ASP	CB-CG-OD1	7.16	124.74	118.30
60	EW	209	ASP	CB-CG-OD1	7.14	124.73	118.30
59	KP	326	LYS	CD-CE-NZ	-7.13	95.29	111.70
60	KG	31	ASP	CB-CG-OD1	7.13	124.71	118.30
60	BY	31	ASP	CB-CG-OD1	7.12	124.71	118.30
60	DD	31	ASP	CB-CG-OD1	7.10	124.69	118.30
60	AP	304	ASP	CB-CG-OD1	7.10	124.69	118.30
60	CA	31	ASP	CB-CG-OD1	7.09	124.68	118.30
60	CI	31	ASP	CB-CG-OD1	7.09	124.68	118.30
60	GX	225	LEU	CA-CB-CG	7.08	131.59	115.30
60	HP	31	ASP	CB-CG-OD1	7.05	124.64	118.30
60	KX	31	ASP	CB-CG-OD1	7.02	124.62	118.30
60	GS	330	MET	CB-CG-SD	6.98	133.35	112.40
60	HU	31	ASP	CB-CG-OD1	6.98	124.58	118.30
59	AS	401	LYS	CD-CE-NZ	-6.94	95.73	111.70
60	JG	187	LEU	CA-CB-CG	-6.94	99.34	115.30
60	AJ	349	ILE	CG1-CB-CG2	-6.91	96.19	111.40
60	CC	31	ASP	CB-CG-OD1	6.91	124.52	118.30
60	EW	31	ASP	CB-CG-OD1	6.91	124.52	118.30
60	DW	31	ASP	CB-CG-OD1	6.90	124.51	118.30
60	HS	31	ASP	CB-CG-OD1	6.90	124.51	118.30
60	FI	31	ASP	CB-CG-OD1	6.89	124.50	118.30
60	EE	31	ASP	CB-CG-OD1	6.87	124.48	118.30
36	2J	83	LEU	CA-CB-CG	6.86	131.08	115.30
60	EM	31	ASP	CB-CG-OD1	6.86	124.47	118.30
59	HM	227	LEU	CA-CB-CG	6.84	131.03	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	GS	150	LEU	CA-CB-CG	6.82	130.98	115.30
59	IG	424	ASP	CB-CG-OD1	6.80	124.42	118.30
60	DR	197	ASP	CB-CG-OD1	6.79	124.41	118.30
60	GM	268	MET	CA-CB-CG	6.79	124.85	113.30
60	GM	304	ASP	CB-CG-OD1	6.78	124.40	118.30
59	DO	345	ASP	CB-CG-OD1	6.77	124.39	118.30
59	GY	227	LEU	CA-CB-CG	6.76	130.85	115.30
59	IB	227	LEU	CA-CB-CG	6.70	130.71	115.30
60	DL	377	MET	CA-CB-CG	6.68	124.65	113.30
60	HR	164	MET	CB-CG-SD	-6.68	92.37	112.40
60	GK	74	ASP	CB-CG-OD1	6.66	124.30	118.30
60	EA	31	ASP	CB-CG-OD1	6.66	124.29	118.30
60	BD	31	ASP	CB-CG-OD1	6.65	124.29	118.30
60	IH	304	ASP	CB-CG-OD1	6.63	124.27	118.30
59	IV	157	LEU	CA-CB-CG	6.63	130.55	115.30
60	HB	324	LYS	CD-CE-NZ	-6.57	96.58	111.70
59	CJ	424	ASP	CB-CG-OD1	6.57	124.21	118.30
60	IL	65	LEU	CA-CB-CG	6.54	130.34	115.30
60	DT	268	MET	CA-CB-CG	6.51	124.37	113.30
60	FG	31	ASP	CB-CG-OD1	6.51	124.16	118.30
9	0R	125	LEU	CA-CB-CG	6.49	130.23	115.30
60	GS	74	ASP	CB-CG-OD1	6.49	124.14	118.30
60	AN	31	ASP	CB-CG-OD1	6.49	124.14	118.30
60	HJ	31	ASP	CB-CG-OD1	6.46	124.11	118.30
60	HH	19	LYS	CD-CE-NZ	-6.43	96.91	111.70
60	AL	31	ASP	CB-CG-OD1	6.42	124.08	118.30
60	JR	403	MET	CA-CB-CG	6.42	124.21	113.30
60	HH	31	ASP	CB-CG-OD1	6.41	124.07	118.30
60	CG	267	MET	CA-CB-CG	6.41	124.20	113.30
60	KI	31	ASP	CB-CG-OD1	6.36	124.02	118.30
60	BY	318	ARG	CG-CD-NE	6.36	125.14	111.80
2	0E	707	ASP	CB-CG-OD1	6.35	124.02	118.30
60	GM	200	MET	CB-CG-SD	6.35	131.44	112.40
59	KA	398	MET	CA-CB-CG	6.34	124.08	113.30
60	CC	387	LEU	CA-CB-CG	6.29	129.76	115.30
59	JF	68	LEU	CB-CG-CD2	-6.28	100.32	111.00
60	GX	31	ASP	CB-CG-OD1	6.26	123.93	118.30
60	KE	197	ASP	CB-CG-OD1	6.25	123.92	118.30
59	GH	132	LEU	CA-CB-CG	6.23	129.63	115.30
59	DQ	326	LYS	CD-CE-NZ	-6.22	97.40	111.70
60	CT	225	LEU	CA-CB-CG	6.21	129.59	115.30
60	GF	31	ASP	CB-CG-OD1	6.21	123.89	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	DL	377	MET	CB-CG-SD	-6.20	93.81	112.40
60	EQ	299	MET	CG-SD-CE	-6.20	90.29	100.20
60	IH	74	ASP	CB-CG-OD1	6.17	123.86	118.30
60	BB	200	MET	CB-CG-SD	6.17	130.90	112.40
60	JT	395	LEU	CA-CB-CG	6.17	129.48	115.30
59	FU	160	ASP	CB-CG-OD1	6.16	123.84	118.30
60	KV	395	LEU	CA-CB-CG	6.16	129.47	115.30
60	HN	225	LEU	CA-CB-CG	6.15	129.46	115.30
60	IA	225	LEU	CA-CB-CG	6.15	129.46	115.30
60	DH	377	MET	CB-CG-SD	-6.14	93.99	112.40
60	AX	88	ASP	CB-CG-OD1	6.13	123.81	118.30
30	1Q	9	LEU	CA-CB-CG	6.11	129.36	115.30
59	IG	227	LEU	CA-CB-CG	6.11	129.35	115.30
59	KJ	227	LEU	CA-CB-CG	6.11	129.35	115.30
60	DY	60	VAL	C-N-CD	-6.11	107.16	120.60
60	HL	406	MET	CA-CB-CG	6.09	123.65	113.30
59	ID	367	ASP	CB-CG-OD1	6.09	123.78	118.30
59	CJ	173	PRO	CA-N-CD	-6.08	102.99	111.50
59	GR	424	ASP	CB-CG-OD1	6.08	123.77	118.30
33	2D	147	LEU	CA-CB-CG	6.07	129.25	115.30
18	1A	20	ASP	CB-CG-OD1	6.06	123.75	118.30
60	CP	31	ASP	CB-CG-OD1	6.05	123.74	118.30
60	IR	267	MET	CB-CG-SD	6.04	130.50	112.40
24	1G	95	ASP	CB-CG-OD1	6.00	123.70	118.30
60	FG	74	ASP	CB-CG-OD1	6.00	123.70	118.30
60	CT	65	LEU	CA-CB-CG	5.99	129.07	115.30
59	BZ	47	ASP	CB-CG-OD1	5.98	123.69	118.30
60	GS	268	MET	CA-CB-CG	5.98	123.47	113.30
60	IA	324	LYS	CB-CG-CD	-5.98	96.06	111.60
60	KR	406	MET	CB-CG-SD	5.97	130.32	112.40
60	GI	74	ASP	CB-CG-OD1	5.97	123.67	118.30
60	HL	395	LEU	CA-CB-CG	5.96	129.01	115.30
59	DS	203	MET	CG-SD-CE	-5.96	90.67	100.20
60	GS	200	MET	CB-CG-SD	5.95	130.24	112.40
60	GM	200	MET	CA-CB-CG	-5.93	103.21	113.30
59	ER	326	LYS	CD-CE-NZ	-5.93	98.06	111.70
60	IE	225	LEU	CA-CB-CG	5.93	128.94	115.30
60	BF	209	ASP	CB-CG-OD1	5.92	123.63	118.30
60	GM	162	ARG	CG-CD-NE	5.92	124.22	111.80
60	DN	74	ASP	CB-CG-OD1	5.91	123.62	118.30
4	0G	196	LEU	CA-CB-CG	5.91	128.89	115.30
59	FN	46	ASP	CB-CG-OD1	5.91	123.61	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
60	HL	299	MET	CB-CG-SD	-5.91	94.68	112.40
60	AH	31	ASP	CB-CG-OD1	5.90	123.61	118.30
60	HN	395	LEU	CA-CB-CG	5.90	128.87	115.30
60	HN	336	LYS	CD-CE-NZ	-5.89	98.15	111.70
60	JV	252	LYS	CA-CB-CG	5.89	126.36	113.40
60	CI	299	MET	CB-CG-SD	5.87	130.02	112.40
59	KQ	367	ASP	CB-CG-OD1	5.87	123.58	118.30
59	DG	424	ASP	CB-CG-OD1	5.87	123.58	118.30
59	II	424	ASP	CB-CG-OD1	5.86	123.58	118.30
59	HM	424	ASP	CB-CG-OD1	5.86	123.58	118.30
60	AT	377	MET	CB-CG-SD	-5.86	94.83	112.40
59	AY	227	LEU	CA-CB-CG	5.84	128.72	115.30
59	FJ	397	LEU	CA-CB-CG	5.83	128.72	115.30
59	GY	398	MET	CA-CB-CG	5.83	123.21	113.30
60	HY	259	PRO	CA-N-CD	-5.83	103.34	111.50
60	JX	362	LYS	CA-CB-CG	5.82	126.20	113.40
60	DT	31	ASP	CB-CG-OD1	5.80	123.52	118.30
59	GU	286	LEU	CA-CB-CG	5.79	128.62	115.30
59	KJ	424	ASP	CB-CG-OD1	5.79	123.51	118.30
60	CG	267	MET	CB-CG-SD	-5.78	95.05	112.40
59	HT	338	LYS	CA-CB-CG	5.75	126.05	113.40
60	IC	31	ASP	CB-CG-OD1	5.75	123.47	118.30
59	JW	116	ASP	CB-CG-OD1	5.75	123.47	118.30
54	4M	124	LEU	CA-CB-CG	5.74	128.50	115.30
59	CU	424	ASP	CB-CG-OD1	5.73	123.46	118.30
60	HL	225	LEU	CA-CB-CG	5.73	128.48	115.30
60	KX	406	MET	CA-CB-CG	5.72	123.03	113.30
59	JL	195	LEU	CA-CB-CG	5.71	128.43	115.30
60	JR	252	LYS	CA-CB-CG	5.70	125.94	113.40
60	FS	65	LEU	CA-CB-CG	5.70	128.40	115.30
59	IQ	367	ASP	CB-CG-OD1	5.69	123.42	118.30
33	2D	362	LEU	CA-CB-CG	5.69	128.38	115.30
60	EQ	31	ASP	CB-CG-OD1	5.68	123.42	118.30
60	AR	164	MET	CB-CG-SD	-5.68	95.35	112.40
60	BB	31	ASP	CB-CG-OD1	5.68	123.41	118.30
60	AP	377	MET	CA-CB-CG	5.67	122.95	113.30
60	JE	304	ASP	CB-CG-OD1	5.67	123.41	118.30
60	HW	225	LEU	CA-CB-CG	5.67	128.34	115.30
60	GK	114	ASP	CB-CG-OD1	5.66	123.40	118.30
60	GX	65	LEU	CB-CG-CD2	-5.66	101.38	111.00
60	CR	299	MET	CB-CG-SD	5.65	129.34	112.40
59	CH	189	LEU	CB-CG-CD1	5.64	120.59	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	JJ	221	ARG	CA-CB-CG	5.64	125.81	113.40
1	0A	250	ASP	CB-CG-OD1	5.63	123.37	118.30
59	BI	212	LEU	CA-CB-CG	5.63	128.26	115.30
59	JD	424	ASP	CB-CG-OD1	5.62	123.36	118.30
59	HX	33	ASP	CB-CG-OD1	5.61	123.35	118.30
59	LA	367	ASP	CB-CG-OD1	5.61	123.35	118.30
60	BN	74	ASP	CB-CG-OD1	5.61	123.34	118.30
60	AP	377	MET	CB-CG-SD	-5.60	95.61	112.40
60	BT	31	ASP	CB-CG-OD1	5.59	123.33	118.30
59	HM	367	ASP	CB-CG-OD1	5.59	123.33	118.30
59	HT	413	MET	CB-CG-SD	-5.59	95.63	112.40
60	JC	31	ASP	CB-CG-OD1	5.58	123.33	118.30
59	KH	33	ASP	CB-CG-OD1	5.58	123.32	118.30
59	JP	90	GLU	CA-CB-CG	5.58	125.67	113.40
60	GS	200	MET	CA-CB-CG	-5.57	103.83	113.30
59	JQ	238	LEU	CA-CB-CG	5.57	128.11	115.30
60	HH	380	ARG	CB-CG-CD	-5.56	97.14	111.60
60	IN	31	ASP	CB-CG-OD1	5.56	123.30	118.30
59	JP	423	GLU	N-CA-CB	5.56	120.60	110.60
59	ER	282	TYR	CA-CB-CG	5.56	123.96	113.40
60	JA	31	ASP	CB-CG-OD1	5.55	123.30	118.30
60	IS	192	LEU	CA-CB-CG	5.55	128.07	115.30
60	EU	304	ASP	CB-CG-OD1	5.55	123.30	118.30
1	0C	565	ASP	CB-CG-OD1	5.55	123.29	118.30
60	KR	31	ASP	CB-CG-OD1	5.54	123.29	118.30
59	FT	424	ASP	CB-CG-OD1	5.53	123.28	118.30
60	DP	31	ASP	CB-CG-OD1	5.52	123.27	118.30
60	HY	406	MET	CA-CB-CG	5.52	122.68	113.30
60	ES	31	ASP	CB-CG-OD1	5.52	123.27	118.30
60	JK	304	ASP	CB-CG-OD1	5.51	123.26	118.30
59	BM	33	ASP	CB-CG-OD1	5.51	123.26	118.30
60	CE	200	MET	CA-CB-CG	5.51	122.67	113.30
59	DX	397	LEU	CA-CB-CG	5.50	127.96	115.30
60	BN	284	LEU	CA-CB-CG	5.50	127.94	115.30
59	DO	203	MET	CG-SD-CE	5.49	108.99	100.20
60	HJ	306	ARG	CA-CB-CG	5.49	125.47	113.40
59	GR	212	LEU	CA-CB-CG	5.48	127.91	115.30
60	IP	58	ARG	CA-CB-CG	5.48	125.46	113.40
59	FB	423	GLU	N-CA-CB	5.47	120.46	110.60
60	IH	252	LYS	CA-CB-CG	5.47	125.44	113.40
60	AV	406	MET	CA-CB-CG	5.46	122.58	113.30
60	IS	213	ARG	CA-CB-CG	5.45	125.39	113.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	HA	398	MET	CA-CB-CG	5.44	122.54	113.30
60	JC	387	LEU	CA-CB-CG	5.43	127.80	115.30
60	CG	31	ASP	CB-CG-OD1	5.43	123.19	118.30
60	HS	306	ARG	CA-CB-CG	5.43	125.34	113.40
60	JZ	67	ASP	CB-CG-OD1	5.43	123.18	118.30
60	FS	31	ASP	CB-CG-OD1	5.42	123.18	118.30
59	BQ	397	LEU	CA-CB-CG	5.42	127.76	115.30
60	DB	65	LEU	CA-CB-CG	5.42	127.75	115.30
60	IP	31	ASP	CB-CG-OD1	5.41	123.17	118.30
60	GS	55	THR	C-N-CA	-5.41	110.94	122.30
60	DJ	67	ASP	CB-CG-OD1	5.41	123.17	118.30
60	EK	289	LEU	CA-CB-CG	5.40	127.72	115.30
60	GS	252	LYS	CD-CE-NZ	-5.40	99.27	111.70
60	KB	55	THR	C-N-CA	-5.40	110.96	122.30
55	4P	155	LEU	CA-CB-CG	5.40	127.72	115.30
59	HQ	203	MET	CA-CB-CG	5.40	122.47	113.30
60	HB	324	LYS	CB-CG-CD	-5.39	97.58	111.60
59	GU	33	ASP	CB-CG-OD1	5.39	123.15	118.30
59	KS	367	ASP	CB-CG-OD1	5.38	123.14	118.30
41	2Z	113	ASP	CB-CG-OD1	5.38	123.14	118.30
60	KG	67	ASP	CB-CG-OD1	5.37	123.13	118.30
33	2B	96	ASP	CB-CG-OD1	5.37	123.13	118.30
60	HL	306	ARG	CA-CB-CG	5.37	125.20	113.40
60	GZ	324	LYS	CB-CG-CD	-5.36	97.67	111.60
59	AU	33	ASP	CB-CG-OD1	5.35	123.12	118.30
60	BH	31	ASP	CB-CG-OD1	5.35	123.12	118.30
60	GK	200	MET	CB-CG-SD	5.34	128.43	112.40
60	AB	67	ASP	CB-CG-OD1	5.34	123.11	118.30
60	BJ	67	ASP	CB-CG-OD1	5.34	123.11	118.30
60	JG	217	LEU	CA-CB-CG	5.34	127.59	115.30
59	HV	424	ASP	CB-CG-OD1	5.34	123.11	118.30
60	JC	118	ASP	CB-CG-OD1	5.34	123.11	118.30
60	DP	328	GLU	CA-CB-CG	5.34	125.14	113.40
42	3O	168	PRO	CA-N-CD	-5.33	104.03	111.50
59	DE	251	ASP	CB-CG-OD1	5.33	123.10	118.30
60	BF	67	ASP	CB-CG-OD1	5.33	123.10	118.30
60	JR	388	MET	CA-CB-CG	5.33	122.36	113.30
60	LB	215	LEU	CA-CB-CG	5.33	127.56	115.30
59	EZ	392	ASP	CB-CG-OD1	5.33	123.09	118.30
59	BS	172	TYR	CA-CB-CG	5.32	123.52	113.40
59	GT	125	LEU	CA-CB-CG	5.32	127.54	115.30
33	2C	362	LEU	CA-CB-CG	5.32	127.53	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	0G	622	ASP	CB-CG-OD1	5.31	123.08	118.30
60	EA	380	ARG	CA-CB-CG	5.31	125.08	113.40
60	HF	31	ASP	CB-CG-OD1	5.30	123.07	118.30
60	GI	289	LEU	CA-CB-CG	5.30	127.50	115.30
59	HE	176	GLN	CA-CB-CG	5.30	125.06	113.40
59	HT	424	ASP	CB-CG-OD1	5.30	123.07	118.30
59	ED	397	LEU	CA-CB-CG	5.29	127.47	115.30
60	BD	200	MET	CB-CG-SD	5.29	128.27	112.40
59	HK	212	LEU	CA-CB-CG	5.29	127.46	115.30
60	BV	387	LEU	CA-CB-CG	5.29	127.46	115.30
59	AU	301	MET	CG-SD-CE	-5.28	91.75	100.20
60	IJ	55	THR	C-N-CA	-5.28	111.21	122.30
59	FW	251	ASP	CB-CG-OD1	5.28	123.05	118.30
59	GJ	317	LEU	CA-CB-CG	5.27	127.42	115.30
60	KB	67	ASP	CB-CG-OD1	5.27	123.04	118.30
60	IS	187	LEU	CB-CG-CD2	-5.27	102.05	111.00
60	DP	328	GLU	N-CA-CB	5.26	120.07	110.60
60	GB	31	ASP	CB-CG-OD1	5.26	123.03	118.30
59	HZ	227	LEU	CA-CB-CG	5.26	127.39	115.30
60	BP	151	LEU	CA-CB-CG	5.25	127.38	115.30
8	0Q	135	ASP	CB-CG-OD1	5.25	123.03	118.30
59	ET	251	ASP	CB-CG-OD1	5.25	123.03	118.30
60	HD	45	GLU	CA-CB-CG	5.25	124.95	113.40
60	BJ	151	LEU	CA-CB-CG	5.25	127.38	115.30
59	HG	424	ASP	CB-CG-OD1	5.24	123.02	118.30
60	CL	395	LEU	CA-CB-CG	5.24	127.34	115.30
60	CP	395	LEU	CA-CB-CG	5.24	127.34	115.30
60	IC	406	MET	CB-CG-SD	5.23	128.10	112.40
59	BC	425	LEU	CB-CG-CD2	5.23	119.89	111.00
60	AZ	362	LYS	CD-CE-NZ	-5.22	99.68	111.70
60	EU	31	ASP	CB-CG-OD1	5.22	123.00	118.30
36	2I	255	ASP	CB-CG-OD1	5.22	123.00	118.30
59	DE	424	ASP	CB-CG-OD1	5.21	122.99	118.30
60	KV	65	LEU	CA-CB-CG	5.20	127.26	115.30
59	FB	423	GLU	CA-CB-CG	5.20	124.84	113.40
60	GF	187	LEU	CB-CG-CD1	5.20	119.84	111.00
60	BB	209	ASP	CB-CG-OD1	5.19	122.97	118.30
60	BF	380	ARG	CA-CB-CG	5.19	124.82	113.40
60	IP	200	MET	CB-CG-SD	5.19	127.97	112.40
59	DI	215	ARG	CG-CD-NE	-5.18	100.91	111.80
59	BU	396	ASP	CB-CG-OD1	5.18	122.96	118.30
59	BX	378	ILE	CG1-CB-CG2	-5.18	100.01	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	DS	230	LEU	CB-CG-CD2	-5.18	102.20	111.00
60	HW	55	THR	C-N-CA	-5.17	111.45	122.30
60	HF	209	ASP	CB-CG-OD1	5.16	122.95	118.30
59	HT	413	MET	CA-CB-CG	5.16	122.07	113.30
60	IS	383	GLU	N-CA-CB	5.16	119.88	110.60
40	2T	294	LEU	CA-CB-CG	5.15	127.15	115.30
42	3H	32	ASP	CB-CG-OD2	5.15	122.94	118.30
42	3M	107	PRO	CA-N-CD	-5.15	104.29	111.50
60	CT	324	LYS	CD-CE-NZ	-5.14	99.87	111.70
60	HN	69	GLU	CA-CB-CG	5.14	124.71	113.40
60	GM	380	ARG	CG-CD-NE	-5.14	101.01	111.80
60	CV	330	MET	CG-SD-CE	-5.13	91.99	100.20
60	AJ	377	MET	CG-SD-CE	-5.13	92.00	100.20
59	BI	123	ARG	CA-CB-CG	5.13	124.68	113.40
42	3O	124	ASP	CB-CG-OD1	5.12	122.91	118.30
60	BT	187	LEU	CB-CG-CD1	5.12	119.70	111.00
60	HS	67	ASP	CB-CG-OD1	5.12	122.91	118.30
60	HW	67	ASP	CB-CG-OD1	5.12	122.91	118.30
60	BB	200	MET	CA-CB-CG	-5.11	104.61	113.30
59	CD	304	LYS	CA-CB-CG	5.11	124.65	113.40
60	HY	258	VAL	C-N-CD	-5.11	109.35	120.60
59	IX	189	LEU	CB-CG-CD1	5.10	119.67	111.00
60	CV	225	LEU	CB-CG-CD2	5.10	119.66	111.00
60	HR	306	ARG	CA-CB-CG	5.09	124.60	113.40
60	IU	299	MET	CA-CB-CG	5.09	121.95	113.30
60	IC	299	MET	CB-CG-SD	-5.09	97.14	112.40
59	FH	121	ARG	CG-CD-NE	5.08	122.46	111.80
47	3W	173	LEU	CA-CB-CG	5.07	126.96	115.30
60	AN	253	LEU	CA-CB-CG	5.07	126.95	115.30
41	2Z	190	ASP	CB-CG-OD1	5.06	122.86	118.30
60	HD	324	LYS	CD-CE-NZ	-5.06	100.06	111.70
60	CT	395	LEU	CA-CB-CG	5.06	126.94	115.30
60	IE	259	PRO	CA-N-CD	-5.06	104.42	111.50
59	DE	367	ASP	CB-CG-OD1	5.06	122.85	118.30
60	JA	324	LYS	CD-CE-NZ	-5.06	100.07	111.70
5	0H	85	ARG	CG-CD-NE	-5.05	101.19	111.80
59	GR	69	ASP	CB-CG-OD1	5.05	122.84	118.30
60	FX	299	MET	CB-CG-SD	5.04	127.53	112.40
60	IS	387	LEU	CA-CB-CG	5.04	126.90	115.30
60	DV	67	ASP	CB-CG-OD1	5.04	122.84	118.30
60	HF	215	LEU	CA-CB-CG	5.04	126.88	115.30
28	1M	249	LEU	CA-CB-CG	5.03	126.87	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
59	IM	251	ASP	CB-CG-OD1	5.03	122.82	118.30
60	CP	130	LEU	CA-CB-CG	5.02	126.85	115.30
60	GQ	151	LEU	CA-CB-CG	5.02	126.84	115.30
33	2C	332	ASP	CB-CG-OD1	5.01	122.81	118.30
59	FB	322	ASP	CB-CG-OD1	5.01	122.81	118.30
60	GK	65	LEU	CA-CB-CG	5.00	126.81	115.30
60	EM	225	LEU	CB-CG-CD2	5.00	119.51	111.00

There are no chirality outliers.

All (54) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
23	1F	95	ARG	Sidechain
29	1O	68	ARG	Sidechain
36	2J	287	ARG	Sidechain
41	3D	121	ARG	Sidechain
42	3O	234	ARG	Sidechain
48	4A	188	ARG	Sidechain
53	4L	14	ARG	Sidechain
60	AN	379	ARG	Sidechain
59	AW	402	ARG	Sidechain
59	BC	221	ARG	Sidechain
60	BD	282	ARG	Sidechain
60	BF	391	ARG	Sidechain
60	BJ	379	ARG	Sidechain
60	BP	58	ARG	Sidechain
59	BW	215	ARG	Sidechain
60	CA	309	ARG	Sidechain
59	CB	221	ARG	Sidechain
59	CD	221	ARG	Sidechain
60	DB	380	ARG	Sidechain
60	DL	390	ARG	Sidechain
60	DL	391	ARG	Sidechain
59	DM	264	ARG	Sidechain
59	DU	214	ARG	Sidechain
59	DU	221	ARG	Sidechain
59	DU	422	ARG	Sidechain
60	FA	282	ARG	Sidechain
60	FI	262	ARG	Sidechain
59	FP	156	ARG	Sidechain
59	FP	402	ARG	Sidechain
60	GF	390	ARG	Sidechain

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Mol	Chain	Res	Type	Group
59	GT	221	ARG	Sidechain
59	GU	221	ARG	Sidechain
59	GY	121	ARG	Sidechain
59	GY	221	ARG	Sidechain
59	HA	221	ARG	Sidechain
60	HD	391	ARG	Sidechain
60	HF	241	ARG	Sidechain
60	HS	162	ARG	Sidechain
59	HT	214	ARG	Sidechain
59	HT	215	ARG	Sidechain
59	HT	221	ARG	Sidechain
60	HY	282	ARG	Sidechain
60	IR	162	ARG	Sidechain
60	IR	251	ARG	Sidechain
60	IW	58	ARG	Sidechain
59	JH	221	ARG	Sidechain
59	JQ	221	ARG	Sidechain
59	JY	79	ARG	Sidechain
59	JY	84	ARG	Sidechain
60	KB	320	ARG	Sidechain
59	KN	221	ARG	Sidechain
60	KO	318	ARG	Sidechain
60	KZ	251	ARG	Sidechain
60	KZ	262	ARG	Sidechain

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0A	5390	0	5328	47	0
1	0B	5933	0	5864	50	0
1	0C	5972	0	5894	43	0
1	0D	1064	0	1037	7	0
2	0E	5862	0	5700	70	0
3	0F	5389	0	5312	74	0
4	0G	6157	0	6132	70	0
5	0H	2274	0	2235	35	0
5	0I	1052	0	1023	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	0J	376	0	399	1	0
5	0K	3130	0	3087	33	0
6	0M	2576	0	2600	27	0
6	0N	1449	0	1484	15	0
7	0O	1288	0	1299	31	0
7	0P	2584	0	2623	39	0
8	0Q	2587	0	2547	11	0
9	0R	2685	0	2682	21	0
10	0S	3331	0	3274	17	0
11	0T	3295	0	3282	21	0
12	0U	2446	0	2448	27	0
13	0V	1262	0	1280	13	0
14	0W	836	0	819	6	0
15	0X	1457	0	1453	20	0
16	0Y	2100	0	2006	21	0
17	0Z	3717	0	3694	47	0
18	1A	2920	0	2749	29	0
19	1B	2252	0	2204	26	0
20	1C	1908	0	1818	17	0
21	1D	2371	0	2347	19	0
22	1E	1880	0	1835	22	0
23	1F	1861	0	1811	28	0
24	1G	1287	0	1283	14	0
25	1H	2005	0	2025	23	0
26	1I	2535	0	2459	25	0
26	1J	707	0	693	7	0
27	1K	2119	0	2082	37	0
27	1L	1103	0	1056	15	0
28	1M	1778	0	1791	19	0
28	1N	814	0	777	6	0
29	1O	953	0	909	9	0
29	1P	423	0	404	2	0
29	4X	348	0	329	3	0
30	1Q	2223	0	2243	13	0
30	1R	2223	0	2243	23	0
30	1S	2223	0	2243	21	0
31	1T	1819	0	1830	18	0
31	1U	1819	0	1830	14	0
32	1V	1537	0	1552	16	0
32	1W	1537	0	1552	19	0
32	1X	1537	0	1552	15	0
32	1Y	1537	0	1552	21	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
32	1Z	1537	0	1552	18	0
32	2A	1537	0	1552	15	0
33	2B	4671	0	4640	55	0
33	2C	4727	0	4691	56	0
33	2D	4727	0	4691	66	0
34	2E	1867	0	1871	21	0
34	2F	1867	0	1871	28	0
35	2G	1456	0	1465	16	0
35	2H	1248	0	1281	20	0
36	2I	2217	0	2172	24	0
36	2J	2186	0	2149	24	0
36	2K	2186	0	2149	30	0
37	2L	1900	0	1873	20	0
37	2M	1900	0	1873	13	0
38	2N	1911	0	1903	15	0
39	2O	1599	0	1604	28	0
39	2P	2590	0	2644	37	0
39	2Q	2678	0	2711	35	0
39	2R	1613	0	1637	34	0
40	2S	647	0	634	14	0
40	2T	3667	0	3654	50	0
40	2U	564	0	551	2	0
41	2V	1062	0	1074	11	0
41	2W	1977	0	1952	30	0
41	2X	441	0	453	8	0
41	2Y	2808	0	2818	41	0
41	2Z	2259	0	2282	30	0
41	3A	954	0	924	22	0
41	3B	1421	0	1446	13	0
41	3C	1797	0	1776	27	0
41	3D	2146	0	2141	38	0
42	3E	517	0	507	3	0
42	3F	1483	0	1458	15	0
42	3G	1388	0	1363	21	0
42	3H	638	0	625	12	0
42	3I	890	0	880	9	0
42	3J	1184	0	1160	20	0
42	3K	401	0	395	10	0
42	3L	1496	0	1461	33	0
42	3M	1526	0	1501	27	0
42	3N	497	0	487	20	0
42	3O	977	0	957	16	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
42	3P	967	0	951	19	0
43	3Q	1293	0	1241	24	0
44	3R	1338	0	1333	24	0
45	3S	1281	0	1266	23	0
46	3T	1398	0	1393	10	0
46	3U	1120	0	1049	15	0
47	3V	1919	0	1893	39	0
47	3W	1905	0	1880	31	0
47	3X	1843	0	1813	39	0
48	3Y	2017	0	1970	42	0
48	3Z	990	0	963	22	0
48	4A	1937	0	1886	34	0
49	4B	858	0	877	3	0
49	4C	889	0	910	7	0
49	4D	831	0	855	8	0
50	4E	327	0	326	6	0
50	4F	1054	0	997	5	0
50	4G	327	0	326	3	0
51	4H	1642	0	1602	15	0
52	4I	1013	0	978	23	0
52	4J	222	0	220	6	0
53	4K	1650	0	1620	35	0
53	4L	882	0	864	17	0
54	4M	1380	0	1384	18	0
54	4N	1380	0	1384	31	0
54	4O	1373	0	1377	24	0
55	4P	1193	0	1203	25	0
56	4Q	583	0	599	9	0
57	4R	1116	0	1116	25	0
57	4S	1155	0	1161	16	0
57	4Y	327	0	330	9	0
58	4T	643	0	632	9	0
58	4U	643	0	632	9	0
58	4V	643	0	632	8	0
58	4W	643	0	632	6	0
59	AA	3421	0	3336	34	0
59	AC	3421	0	3336	36	0
59	AE	3421	0	3336	27	0
59	AG	3421	0	3336	33	0
59	AI	3421	0	3336	35	0
59	AK	3421	0	3336	30	0
59	AM	3421	0	3336	38	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	AO	3421	0	3336	36	0
59	AQ	3421	0	3336	34	0
59	AS	3421	0	3336	40	0
59	AU	3421	0	3336	34	0
59	AW	3421	0	3336	29	0
59	AY	3421	0	3336	49	0
59	BA	3421	0	3336	37	0
59	BC	3421	0	3336	39	0
59	BE	3421	0	3336	57	0
59	BG	3421	0	3336	48	0
59	BI	3421	0	3336	54	0
59	BK	3421	0	3336	35	0
59	BM	3421	0	3336	39	0
59	BO	3421	0	3336	32	0
59	BQ	3421	0	3336	42	0
59	BS	3421	0	3336	41	0
59	BU	3421	0	3336	49	0
59	BW	3421	0	3336	42	0
59	BX	3421	0	3336	48	0
59	BZ	3421	0	3336	41	0
59	CB	3421	0	3336	30	0
59	CD	3421	0	3336	44	0
59	CF	3421	0	3336	46	0
59	CH	3421	0	3336	45	0
59	CJ	3421	0	3336	38	0
59	CM	3421	0	3336	42	0
59	CO	3421	0	3336	41	0
59	CQ	3421	0	3336	40	0
59	CS	3421	0	3336	40	0
59	CU	3421	0	3336	47	0
59	CW	3421	0	3336	37	0
59	CY	3421	0	3336	28	0
59	DA	3421	0	3336	29	0
59	DC	3421	0	3336	39	0
59	DE	3421	0	3336	36	0
59	DG	3421	0	3336	35	0
59	DI	3421	0	3336	38	0
59	DK	3421	0	3336	43	0
59	DM	3421	0	3336	44	0
59	DO	3421	0	3336	36	0
59	DQ	3421	0	3336	28	0
59	DS	3421	0	3336	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	DU	3421	0	3336	25	0
59	DX	3421	0	3336	33	0
59	DZ	3421	0	3336	31	0
59	EB	3421	0	3336	34	0
59	ED	3421	0	3336	32	0
59	EF	3421	0	3336	28	0
59	EH	3421	0	3336	29	0
59	EJ	3421	0	3336	29	0
59	EL	3421	0	3336	33	0
59	EN	3421	0	3336	35	0
59	EP	3421	0	3336	48	0
59	ER	3421	0	3336	52	0
59	ET	3421	0	3336	35	0
59	EV	3421	0	3336	32	0
59	EX	3421	0	3336	37	0
59	EZ	3421	0	3336	36	0
59	FB	3421	0	3336	33	0
59	FD	3421	0	3336	30	0
59	FF	3421	0	3336	24	0
59	FH	3421	0	3336	33	0
59	FJ	3421	0	3336	30	0
59	FL	3421	0	3336	21	0
59	FN	3421	0	3336	24	0
59	FP	3421	0	3336	30	0
59	FR	3421	0	3336	26	0
59	FT	3421	0	3336	29	0
59	FU	3421	0	3336	47	0
59	FW	3421	0	3336	34	0
59	FY	3421	0	3336	27	0
59	GA	3421	0	3336	30	0
59	GC	3421	0	3336	39	0
59	GE	3421	0	3336	51	0
59	GG	3421	0	3336	37	0
59	GH	3421	0	3336	56	0
59	GJ	3421	0	3336	34	0
59	GL	3421	0	3336	51	0
59	GN	3421	0	3336	52	0
59	GP	3421	0	3336	62	0
59	GR	3421	0	3336	59	0
59	GT	3421	0	3336	48	0
59	GU	3421	0	3336	45	0
59	GW	3421	0	3336	46	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	GY	3421	0	3336	62	0
59	HA	3421	0	3336	54	0
59	HC	3421	0	3336	57	0
59	HE	3421	0	3336	63	0
59	HG	3421	0	3336	43	0
59	HI	3421	0	3336	54	0
59	HK	3421	0	3336	49	0
59	HM	3421	0	3336	53	0
59	HO	3421	0	3336	40	0
59	HQ	3421	0	3336	55	0
59	HT	3421	0	3336	49	0
59	HV	3421	0	3336	47	0
59	HX	3421	0	3336	62	0
59	HZ	3421	0	3336	68	0
59	IB	3421	0	3336	52	0
59	ID	3421	0	3336	48	0
59	IG	3421	0	3336	57	0
59	II	3421	0	3336	49	0
59	IK	3421	0	3336	52	0
59	IM	3421	0	3336	55	0
59	IO	3421	0	3336	40	0
59	IQ	3421	0	3336	62	0
59	IT	3421	0	3336	57	0
59	IV	3421	0	3336	44	0
59	IX	3421	0	3336	62	0
59	IZ	3421	0	3336	69	0
59	JB	3421	0	3336	45	0
59	JD	3421	0	3336	61	0
59	JF	3421	0	3336	43	0
59	JH	3421	0	3336	44	0
59	JJ	3421	0	3336	68	0
59	JL	3421	0	3336	49	0
59	JN	3421	0	3336	49	0
59	JP	3421	0	3336	43	0
59	JQ	3421	0	3336	54	0
59	JS	3421	0	3336	59	0
59	JU	3421	0	3336	63	0
59	JW	3421	0	3336	69	0
59	JY	3421	0	3336	49	0
59	KA	3421	0	3336	50	0
59	KC	3421	0	3336	47	0
59	KD	3421	0	3336	49	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
59	KF	3421	0	3336	35	0
59	KH	3421	0	3336	50	0
59	KJ	3421	0	3336	41	0
59	KL	3421	0	3336	41	0
59	KN	3421	0	3336	48	0
59	KP	3421	0	3336	63	0
59	KQ	3421	0	3336	49	0
59	KS	3421	0	3336	38	0
59	KU	3421	0	3336	31	0
59	KW	3421	0	3336	39	0
59	KY	3421	0	3336	38	0
59	LA	3421	0	3336	42	0
60	AB	3372	0	3255	45	0
60	AD	3372	0	3255	41	0
60	AF	3372	0	3255	43	0
60	AH	3372	0	3255	33	0
60	AJ	3372	0	3255	42	0
60	AL	3372	0	3255	35	0
60	AN	3372	0	3255	42	0
60	AP	3372	0	3255	32	0
60	AR	3372	0	3255	47	0
60	AT	3372	0	3255	48	0
60	AV	3372	0	3255	44	0
60	AX	3372	0	3255	57	0
60	AZ	3372	0	3255	61	0
60	BB	3372	0	3255	37	0
60	BD	3372	0	3255	50	0
60	BF	3372	0	3255	47	0
60	BH	3372	0	3255	46	0
60	BJ	3372	0	3255	52	0
60	BL	3372	0	3255	52	0
60	BN	3372	0	3255	41	0
60	BP	3372	0	3255	49	0
60	BR	3372	0	3255	55	0
60	BT	3372	0	3255	48	0
60	BV	3372	0	3255	51	0
60	BY	3372	0	3255	46	0
60	CA	3372	0	3255	55	0
60	CC	3372	0	3255	64	0
60	CE	3372	0	3255	45	0
60	CG	3372	0	3255	65	0
60	CI	3372	0	3255	62	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	CL	3372	0	3255	42	0
60	CN	3372	0	3255	45	0
60	CP	3372	0	3255	58	0
60	CR	3372	0	3255	66	0
60	CT	3372	0	3255	54	0
60	CV	3372	0	3255	61	0
60	CX	3372	0	3255	38	0
60	CZ	3372	0	3255	40	0
60	DB	3372	0	3255	46	0
60	DD	3372	0	3255	51	0
60	DF	3372	0	3255	45	0
60	DH	3372	0	3255	34	0
60	DJ	3372	0	3255	43	0
60	DL	3372	0	3255	44	0
60	DN	3372	0	3255	55	0
60	DP	3372	0	3255	46	0
60	DR	3372	0	3255	52	0
60	DT	3372	0	3255	32	0
60	DV	3372	0	3255	36	0
60	DW	3372	0	3255	49	0
60	DY	3372	0	3255	41	0
60	EA	3372	0	3255	46	0
60	EC	3372	0	3255	45	0
60	EE	3372	0	3255	39	0
60	EG	3372	0	3255	34	0
60	EI	3372	0	3255	36	0
60	EK	3372	0	3255	58	0
60	EM	3372	0	3255	47	0
60	EO	3372	0	3255	53	0
60	EQ	3372	0	3255	72	0
60	ES	3372	0	3255	49	0
60	EU	3372	0	3255	46	0
60	EW	3372	0	3255	37	0
60	EY	3372	0	3255	45	0
60	FA	3372	0	3255	29	0
60	FC	3372	0	3255	52	0
60	FE	3372	0	3255	32	0
60	FG	3372	0	3255	37	0
60	FI	3372	0	3255	52	0
60	FK	3372	0	3255	36	0
60	FM	3372	0	3255	37	0
60	FO	3372	0	3255	46	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	FQ	3372	0	3255	51	0
60	FS	3372	0	3255	51	0
60	FV	3372	0	3255	46	0
60	FX	3372	0	3255	39	0
60	FZ	3372	0	3255	34	0
60	GB	3372	0	3255	42	0
60	GD	3372	0	3255	56	0
60	GF	3372	0	3255	46	0
60	GI	3372	0	3255	37	0
60	GK	3372	0	3255	53	0
60	GM	3372	0	3255	56	0
60	GO	3372	0	3255	63	0
60	GQ	3372	0	3255	70	0
60	GS	3372	0	3255	77	0
60	GV	3372	0	3255	57	0
60	GX	3372	0	3255	38	0
60	GZ	3372	0	3255	51	0
60	HB	3372	0	3255	62	0
60	HD	3372	0	3255	54	0
60	HF	3372	0	3255	68	0
60	HH	3372	0	3255	57	0
60	HJ	3372	0	3255	54	0
60	HL	3372	0	3255	51	0
60	HN	3372	0	3255	51	0
60	HP	3372	0	3255	48	0
60	HR	3372	0	3255	69	0
60	HS	3372	0	3255	74	0
60	HU	3372	0	3255	56	0
60	HW	3372	0	3255	55	0
60	HY	3372	0	3255	56	0
60	IA	3372	0	3255	59	0
60	IC	3372	0	3255	48	0
60	IE	3372	0	3255	62	0
60	IF	3372	0	3255	67	0
60	IH	3372	0	3255	55	0
60	IJ	3372	0	3255	48	0
60	IL	3372	0	3255	67	0
60	IN	3372	0	3255	61	0
60	IP	3372	0	3255	79	0
60	IR	3372	0	3255	49	0
60	IS	3372	0	3255	71	0
60	IU	3372	0	3255	76	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
60	IW	3372	0	3255	67	0
60	IY	3372	0	3255	68	0
60	JA	3372	0	3255	62	0
60	JC	3372	0	3255	61	0
60	JE	3372	0	3255	88	0
60	JG	3372	0	3255	71	0
60	JI	3372	0	3255	62	0
60	JK	3372	0	3255	83	0
60	JM	3372	0	3255	51	0
60	JO	3372	0	3255	57	0
60	JR	3372	0	3255	65	0
60	JT	3372	0	3255	57	0
60	JV	3372	0	3255	58	0
60	JX	3372	0	3255	47	0
60	JZ	3372	0	3255	55	0
60	KB	3372	0	3255	46	0
60	KE	3372	0	3255	44	0
60	KG	3372	0	3255	51	0
60	KI	3372	0	3255	34	0
60	KK	3372	0	3255	51	0
60	KM	3372	0	3255	52	0
60	KO	3372	0	3255	40	0
60	KR	3372	0	3255	38	0
60	KT	3372	0	3255	57	0
60	KV	3372	0	3255	40	0
60	KX	3372	0	3255	50	0
60	KZ	3372	0	3255	39	0
60	LB	3372	0	3255	47	0
61	2I	2	0	0	0	0
61	2K	1	0	0	0	0
61	2N	1	0	0	0	0
61	3V	2	0	0	0	0
61	3W	2	0	0	0	0
61	3X	3	0	0	0	0
61	3Y	2	0	0	0	0
61	4A	1	0	0	0	0
61	4B	1	0	0	0	0
61	4C	1	0	0	0	0
61	4D	1	0	0	0	0
61	4F	3	0	0	0	0
61	FB	1	0	0	0	0
61	FN	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
61	FP	1	0	0	0	0
61	FR	1	0	0	0	0
62	AA	32	0	12	1	0
62	AC	32	0	12	1	0
62	AE	32	0	12	0	0
62	AG	32	0	12	1	0
62	AI	32	0	12	0	0
62	AK	32	0	12	0	0
62	AM	32	0	12	0	0
62	AO	32	0	12	0	0
62	AQ	32	0	12	1	0
62	AS	32	0	12	2	0
62	AU	32	0	12	0	0
62	AW	32	0	12	0	0
62	AY	32	0	12	1	0
62	BA	32	0	12	1	0
62	BC	32	0	12	1	0
62	BE	32	0	12	1	0
62	BG	32	0	12	1	0
62	BI	32	0	12	1	0
62	BK	32	0	12	0	0
62	BM	32	0	12	1	0
62	BO	32	0	12	0	0
62	BQ	32	0	12	1	0
62	BS	32	0	12	0	0
62	BU	32	0	12	0	0
62	BW	32	0	12	1	0
62	BX	32	0	12	0	0
62	BZ	32	0	12	0	0
62	CB	32	0	12	0	0
62	CD	32	0	12	0	0
62	CF	32	0	12	0	0
62	CH	32	0	12	0	0
62	CJ	32	0	12	1	0
62	CM	32	0	12	1	0
62	CO	32	0	12	2	0
62	CQ	32	0	12	2	0
62	CS	32	0	12	1	0
62	CU	32	0	12	1	0
62	CW	32	0	12	2	0
62	CY	32	0	12	1	0
62	DA	32	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	DC	32	0	12	0	0
62	DE	32	0	12	0	0
62	DG	32	0	12	0	0
62	DI	32	0	12	1	0
62	DK	32	0	12	0	0
62	DM	32	0	12	0	0
62	DO	32	0	12	0	0
62	DQ	32	0	12	0	0
62	DS	32	0	12	0	0
62	DU	32	0	12	0	0
62	DX	32	0	12	0	0
62	DZ	32	0	12	0	0
62	EB	32	0	12	1	0
62	ED	32	0	12	0	0
62	EF	32	0	12	0	0
62	EH	32	0	12	1	0
62	EJ	32	0	12	1	0
62	EL	32	0	12	0	0
62	EN	32	0	12	0	0
62	EP	32	0	12	0	0
62	ER	32	0	12	0	0
62	ET	32	0	12	0	0
62	EV	32	0	12	0	0
62	EX	32	0	12	0	0
62	EZ	32	0	12	1	0
62	FB	32	0	12	0	0
62	FD	32	0	12	0	0
62	FF	32	0	12	0	0
62	FH	32	0	12	1	0
62	FJ	32	0	12	0	0
62	FL	32	0	12	0	0
62	FN	32	0	12	0	0
62	FP	32	0	12	0	0
62	FR	32	0	12	0	0
62	FT	32	0	12	0	0
62	FU	32	0	12	1	0
62	FW	32	0	12	0	0
62	FY	32	0	12	0	0
62	GA	32	0	12	0	0
62	GC	32	0	12	0	0
62	GE	32	0	12	0	0
62	GG	32	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	GH	32	0	12	0	0
62	GJ	32	0	12	0	0
62	GL	32	0	12	0	0
62	GN	32	0	12	1	0
62	GP	32	0	12	1	0
62	GR	32	0	12	0	0
62	GT	32	0	12	0	0
62	GU	32	0	12	1	0
62	GW	32	0	12	0	0
62	GY	32	0	12	0	0
62	HA	32	0	12	1	0
62	HC	32	0	12	3	0
62	HE	32	0	12	0	0
62	HG	32	0	12	1	0
62	HI	32	0	12	0	0
62	HK	32	0	12	1	0
62	HM	32	0	12	1	0
62	HO	32	0	12	1	0
62	HQ	32	0	12	2	0
62	HT	32	0	12	1	0
62	HV	32	0	12	0	0
62	HX	32	0	12	0	0
62	HZ	32	0	12	1	0
62	IB	32	0	12	1	0
62	ID	32	0	12	1	0
62	IG	32	0	12	0	0
62	II	32	0	12	0	0
62	IK	32	0	12	1	0
62	IM	32	0	12	0	0
62	IO	32	0	12	0	0
62	IQ	32	0	12	1	0
62	IT	32	0	12	0	0
62	IV	32	0	12	0	0
62	IX	32	0	12	1	0
62	IZ	32	0	12	1	0
62	JB	32	0	12	1	0
62	JD	32	0	12	0	0
62	JF	32	0	12	2	0
62	JH	32	0	12	0	0
62	JJ	32	0	12	0	0
62	JL	32	0	12	0	0
62	JN	32	0	12	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	JP	32	0	12	0	0
62	JQ	32	0	12	0	0
62	JS	32	0	12	0	0
62	JU	32	0	12	0	0
62	JW	32	0	12	1	0
62	JY	32	0	12	0	0
62	KA	32	0	12	0	0
62	KC	32	0	12	0	0
62	KD	32	0	12	1	0
62	KF	32	0	12	1	0
62	KH	32	0	12	1	0
62	KJ	32	0	12	0	0
62	KL	32	0	12	1	0
62	KN	32	0	12	0	0
62	KP	32	0	12	1	0
62	KQ	32	0	12	0	0
62	KS	32	0	12	0	0
62	KU	32	0	12	0	0
62	KW	32	0	12	1	0
62	KY	32	0	12	1	0
62	LA	32	0	12	0	0
63	AA	1	0	0	0	0
63	AC	1	0	0	0	0
63	AE	1	0	0	0	0
63	AG	1	0	0	0	0
63	AI	1	0	0	0	0
63	AK	1	0	0	0	0
63	AM	1	0	0	0	0
63	AO	1	0	0	0	0
63	AQ	1	0	0	0	0
63	AS	1	0	0	0	0
63	AU	1	0	0	0	0
63	AW	1	0	0	0	0
63	AY	1	0	0	0	0
63	BA	1	0	0	0	0
63	BC	1	0	0	0	0
63	BE	1	0	0	0	0
63	BG	1	0	0	0	0
63	BI	1	0	0	0	0
63	BK	1	0	0	0	0
63	BM	1	0	0	0	0
63	BO	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	BQ	1	0	0	0	0
63	BS	1	0	0	0	0
63	BU	1	0	0	0	0
63	BW	1	0	0	0	0
63	BX	1	0	0	0	0
63	CA	1	0	0	0	0
63	CB	1	0	0	0	0
63	CD	1	0	0	0	0
63	CF	1	0	0	0	0
63	CH	1	0	0	0	0
63	CJ	1	0	0	0	0
63	CM	1	0	0	0	0
63	CO	1	0	0	0	0
63	CQ	1	0	0	0	0
63	CS	1	0	0	0	0
63	CU	1	0	0	0	0
63	CW	1	0	0	0	0
63	CY	1	0	0	0	0
63	DA	1	0	0	0	0
63	DC	1	0	0	0	0
63	DE	1	0	0	0	0
63	DG	1	0	0	0	0
63	DI	1	0	0	0	0
63	DK	1	0	0	0	0
63	DM	1	0	0	0	0
63	DO	1	0	0	0	0
63	DQ	1	0	0	0	0
63	DS	1	0	0	0	0
63	DU	1	0	0	0	0
63	DX	1	0	0	0	0
63	DZ	1	0	0	0	0
63	EB	1	0	0	0	0
63	ED	1	0	0	0	0
63	EF	1	0	0	0	0
63	EH	1	0	0	0	0
63	EJ	1	0	0	0	0
63	EL	1	0	0	0	0
63	EN	1	0	0	0	0
63	EP	1	0	0	0	0
63	ER	1	0	0	0	0
63	ET	1	0	0	0	0
63	EV	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	EX	1	0	0	0	0
63	EZ	1	0	0	0	0
63	FB	1	0	0	0	0
63	FD	1	0	0	0	0
63	FF	1	0	0	0	0
63	FH	1	0	0	0	0
63	FJ	1	0	0	0	0
63	FL	1	0	0	0	0
63	FN	1	0	0	0	0
63	FP	1	0	0	0	0
63	FR	1	0	0	0	0
63	FT	1	0	0	0	0
63	FU	1	0	0	0	0
63	FW	1	0	0	0	0
63	FY	1	0	0	0	0
63	GA	1	0	0	0	0
63	GC	1	0	0	0	0
63	GE	1	0	0	0	0
63	GG	1	0	0	0	0
63	GH	1	0	0	0	0
63	GJ	1	0	0	0	0
63	GL	1	0	0	0	0
63	GN	1	0	0	0	0
63	GP	1	0	0	0	0
63	GR	1	0	0	0	0
63	GT	1	0	0	0	0
63	GU	1	0	0	0	0
63	GW	1	0	0	0	0
63	GY	1	0	0	0	0
63	HA	1	0	0	0	0
63	HC	1	0	0	0	0
63	HE	1	0	0	0	0
63	HG	1	0	0	0	0
63	HI	1	0	0	0	0
63	HK	1	0	0	0	0
63	HM	1	0	0	0	0
63	HO	1	0	0	0	0
63	HQ	1	0	0	0	0
63	HT	1	0	0	0	0
63	HV	1	0	0	0	0
63	HX	1	0	0	0	0
63	HZ	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
63	IB	1	0	0	0	0
63	ID	1	0	0	0	0
63	IG	1	0	0	0	0
63	II	1	0	0	0	0
63	IK	1	0	0	0	0
63	IM	1	0	0	0	0
63	IO	1	0	0	0	0
63	IQ	1	0	0	0	0
63	IT	1	0	0	0	0
63	IV	1	0	0	0	0
63	IX	1	0	0	0	0
63	IZ	1	0	0	0	0
63	JB	1	0	0	0	0
63	JD	1	0	0	0	0
63	JF	1	0	0	0	0
63	JH	1	0	0	0	0
63	JJ	1	0	0	0	0
63	JL	1	0	0	0	0
63	JN	1	0	0	0	0
63	JP	1	0	0	0	0
63	JQ	1	0	0	0	0
63	JS	1	0	0	0	0
63	JU	1	0	0	0	0
63	JW	1	0	0	0	0
63	JY	1	0	0	0	0
63	KA	1	0	0	0	0
63	KC	1	0	0	0	0
63	KD	1	0	0	0	0
63	KF	1	0	0	0	0
63	KH	1	0	0	0	0
63	KJ	1	0	0	0	0
63	KL	1	0	0	0	0
63	KN	1	0	0	0	0
63	KP	1	0	0	0	0
63	KQ	1	0	0	0	0
63	KS	1	0	0	0	0
63	KU	1	0	0	0	0
63	KW	1	0	0	0	0
63	KY	1	0	0	0	0
63	LA	1	0	0	0	0
64	AB	28	0	12	0	0
64	AD	28	0	12	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
64	AF	28	0	12	0	0
64	AH	28	0	12	0	0
64	AJ	28	0	12	0	0
64	AL	28	0	12	0	0
64	AN	28	0	12	0	0
64	AP	28	0	12	0	0
64	AR	28	0	12	0	0
64	AT	28	0	12	1	0
64	AV	28	0	12	1	0
64	AX	28	0	12	0	0
64	AZ	28	0	12	0	0
64	BB	28	0	12	0	0
64	BD	28	0	12	0	0
64	BF	28	0	12	0	0
64	BH	28	0	12	0	0
64	BJ	28	0	12	0	0
64	BL	28	0	12	0	0
64	BN	28	0	12	1	0
64	BP	28	0	12	0	0
64	BR	28	0	12	1	0
64	BT	28	0	12	1	0
64	BV	28	0	12	1	0
64	BY	28	0	12	0	0
64	CA	28	0	12	0	0
64	CC	28	0	12	0	0
64	CE	28	0	12	1	0
64	CG	28	0	12	1	0
64	CI	28	0	12	1	0
64	CL	28	0	12	1	0
64	CN	28	0	12	1	0
64	CP	28	0	12	2	0
64	CR	28	0	12	0	0
64	CT	28	0	12	0	0
64	CV	28	0	12	1	0
64	CX	28	0	12	0	0
64	CZ	28	0	12	1	0
64	DB	28	0	12	0	0
64	DD	28	0	12	0	0
64	DF	28	0	12	0	0
64	DH	28	0	12	0	0
64	DJ	28	0	12	0	0
64	DL	28	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
64	DN	28	0	12	1	0
64	DP	28	0	12	0	0
64	DR	28	0	12	0	0
64	DT	28	0	12	0	0
64	DV	28	0	12	0	0
64	DW	28	0	12	0	0
64	DY	28	0	12	0	0
64	EA	28	0	12	0	0
64	EC	28	0	12	0	0
64	EE	28	0	12	0	0
64	EG	28	0	12	0	0
64	EI	28	0	12	0	0
64	EK	28	0	12	1	0
64	EM	28	0	12	1	0
64	EO	28	0	12	0	0
64	EQ	28	0	12	1	0
64	ES	28	0	12	1	0
64	EU	28	0	12	1	0
64	EW	28	0	12	0	0
64	EY	28	0	12	1	0
64	FA	28	0	12	1	0
64	FC	28	0	12	1	0
64	FE	28	0	12	0	0
64	FG	28	0	12	0	0
64	FI	28	0	12	0	0
64	FK	28	0	12	0	0
64	FM	28	0	12	0	0
64	FO	28	0	12	0	0
64	FQ	28	0	12	0	0
64	FS	28	0	12	1	0
64	FV	28	0	12	0	0
64	FX	28	0	12	0	0
64	FZ	28	0	12	0	0
64	GB	28	0	12	1	0
64	GD	28	0	12	1	0
64	GF	28	0	12	0	0
64	GI	28	0	12	0	0
64	GK	28	0	12	0	0
64	GM	28	0	12	0	0
64	GO	28	0	12	0	0
64	GQ	28	0	12	0	0
64	GS	28	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
64	GV	28	0	12	0	0
64	GX	28	0	12	0	0
64	GZ	28	0	12	0	0
64	HB	28	0	12	0	0
64	HD	28	0	12	0	0
64	HF	28	0	12	0	0
64	HH	28	0	12	0	0
64	HJ	28	0	12	1	0
64	HL	28	0	12	0	0
64	HN	28	0	12	0	0
64	HP	28	0	12	0	0
64	HR	28	0	12	0	0
64	HS	28	0	12	0	0
64	HU	28	0	12	1	0
64	HW	28	0	12	0	0
64	HY	28	0	12	1	0
64	IA	28	0	12	1	0
64	IC	28	0	12	1	0
64	IE	28	0	12	1	0
64	IF	28	0	12	1	0
64	IH	28	0	12	0	0
64	IJ	28	0	12	1	0
64	IL	28	0	12	3	0
64	IN	28	0	12	1	0
64	IP	28	0	12	2	0
64	IR	28	0	12	1	0
64	IS	28	0	12	1	0
64	IU	28	0	12	0	0
64	IW	28	0	12	1	0
64	IY	28	0	12	0	0
64	JA	28	0	12	1	0
64	JC	28	0	12	1	0
64	JE	28	0	12	1	0
64	JG	28	0	12	1	0
64	JI	28	0	12	0	0
64	JK	28	0	12	2	0
64	JM	28	0	12	0	0
64	JO	28	0	12	0	0
64	JR	28	0	12	0	0
64	JT	28	0	12	0	0
64	JV	28	0	12	0	0
64	JX	28	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
64	JZ	28	0	12	0	0
64	KB	28	0	12	0	0
64	KE	28	0	12	0	0
64	KG	28	0	12	0	0
64	KI	28	0	12	1	0
64	KK	28	0	12	1	0
64	KM	28	0	12	0	0
64	KO	28	0	12	1	0
64	KR	28	0	12	0	0
64	KT	28	0	12	0	0
64	KV	28	0	12	1	0
64	KX	28	0	12	0	0
64	KZ	28	0	12	0	0
64	LB	28	0	12	0	0
All	All	1215524	0	1179168	14500	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 6.

All (14500) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:3Y:50:CYS:SG	48:3Y:90:HIS:HB2	1.43	1.55
48:3Y:50:CYS:SG	48:3Y:90:HIS:CB	2.16	1.30
48:3Y:50:CYS:SG	48:3Y:90:HIS:CA	2.35	1.13
47:3W:36:HIS:CD2	47:3W:40:TYR:O	2.15	1.00
48:3Y:50:CYS:SG	48:3Y:90:HIS:N	2.34	1.00
59:HE:222:PRO:HG2	60:HF:324:LYS:HZ2	1.38	0.88
60:AN:256:ASN:HD22	60:AN:350:LYS:HD2	1.37	0.88
59:BM:178:SER:OG	60:BN:347:ASN:ND2	2.07	0.88
54:4N:96:LYS:HB3	59:II:441:ASP:HA	1.56	0.88
59:AW:288:VAL:HG21	59:AW:327:ASP:HB3	1.56	0.88
59:AY:109:THR:HG23	59:AY:110:ILE:HG12	1.55	0.87
59:FP:109:THR:HG23	59:FP:110:ILE:HG12	1.57	0.87
59:GP:108:TYR:O	59:GP:112:LYS:NZ	2.07	0.87
59:AG:211:ASP:HB3	59:AG:215:ARG:HH21	1.39	0.86
60:AB:301:GLN:NE2	60:AB:377:MET:SD	2.49	0.86
59:FU:211:ASP:HB3	59:FU:215:ARG:HH21	1.41	0.86
60:GV:170:ILE:HD12	60:GV:377:MET:HE1	1.58	0.86
59:HQ:109:THR:HG23	59:HQ:110:ILE:HG12	1.58	0.86
59:CO:285:GLN:HE21	59:DA:128:ASN:HD21	1.23	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DZ:178:SER:HB3	60:EA:347:ASN:HD22	1.40	0.85
60:IL:213:ARG:HD2	60:IL:297:LYS:HD2	1.58	0.85
59:DX:178:SER:HB3	60:DY:347:ASN:HD22	1.42	0.85
59:BO:109:THR:HG23	59:BO:110:ILE:HG13	1.59	0.85
60:EQ:267:MET:HE1	60:EQ:371:ASN:HB3	1.58	0.85
60:JA:213:ARG:HH12	60:JA:297:LYS:HE3	1.41	0.85
59:EV:178:SER:OG	60:EW:347:ASN:ND2	2.09	0.85
59:KA:288:VAL:HG11	59:KA:327:ASP:HB3	1.55	0.85
47:3W:50:LEU:HD21	59:FN:155:GLU:OE2	1.77	0.85
59:AY:93:ILE:HD12	59:AY:117:LEU:HD22	1.59	0.85
59:EB:108:TYR:O	59:EB:112:LYS:NZ	2.09	0.85
59:KD:222:PRO:HG2	60:KE:324:LYS:HE3	1.59	0.85
59:KJ:178:SER:OG	60:KK:347:ASN:ND2	2.10	0.85
60:JE:101:TRP:HE1	60:JE:146:GLY:HA2	1.42	0.84
60:JR:289:LEU:O	60:JR:293:MET:HB2	1.77	0.84
59:IT:273:ALA:HB2	59:IT:295:VAL:HG23	1.59	0.84
59:KD:90:GLU:OE1	59:KD:121:ARG:NH1	2.11	0.84
59:IQ:394:LYS:HE2	60:IR:346:PRO:HB3	1.59	0.84
60:DW:274:THR:HG23	60:DW:279:GLN:HE21	1.41	0.84
59:JN:178:SER:OG	60:JO:347:ASN:ND2	2.10	0.84
47:3W:36:HIS:HD2	47:3W:40:TYR:O	1.59	0.84
60:IU:309:ARG:HD2	60:IU:342:ILE:HD13	1.59	0.84
59:BE:109:THR:HG23	59:BE:110:ILE:HG12	1.60	0.84
59:HQ:133:GLN:NE2	59:HQ:251:ASP:OD1	2.11	0.83
60:JE:101:TRP:CZ3	60:JE:187:LEU:HB3	2.13	0.83
59:JH:54:SER:HB3	59:JH:64:ARG:HH21	1.43	0.83
59:GJ:178:SER:OG	60:GK:347:ASN:ND2	2.10	0.83
41:3B:117:GLN:HE22	59:HQ:370:LYS:H	1.26	0.83
59:FD:191:THR:HG21	59:FD:425:LEU:HD12	1.60	0.83
60:IF:179:VAL:HG13	60:IF:180:VAL:HG23	1.60	0.83
59:BW:273:ALA:HB3	59:BW:274:PRO:HD3	1.60	0.83
59:KP:175:PRO:HG3	59:KP:304:LYS:HD2	1.60	0.83
59:DM:178:SER:OG	60:DN:347:ASN:ND2	2.12	0.82
59:CJ:338:LYS:NZ	59:CJ:340:THR:OG1	2.12	0.82
60:HY:282:ARG:NH1	60:HY:283:GLY:O	2.12	0.82
60:IY:282:ARG:NH1	60:IY:288:GLU:OE1	2.12	0.82
60:CI:332:ASN:OD1	60:CI:336:LYS:NZ	2.12	0.82
59:JS:75:VAL:HG21	59:JS:94:SER:HB2	1.60	0.82
60:EA:284:LEU:HD22	60:EA:288:GLU:HG2	1.62	0.82
59:GW:47:ASP:OD1	59:GW:50:ASN:ND2	2.12	0.82
60:FI:375:GLN:HE22	60:FI:423:GLN:HB2	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:LB:298:ASN:O	60:LB:298:ASN:ND2	2.13	0.82
23:1F:157:ARG:HH22	59:GA:42:ILE:HG21	1.43	0.82
60:JR:99:ASN:ND2	59:JS:254:GLU:OE1	2.12	0.82
48:3Y:50:CYS:SG	48:3Y:90:HIS:C	2.58	0.81
54:4O:109:ILE:O	54:4O:113:GLU:HB2	1.80	0.81
59:AA:178:SER:HB3	60:AB:347:ASN:HD22	1.45	0.81
59:AU:88:HIS:HB3	59:AU:91:GLN:HG3	1.62	0.81
60:EQ:11:GLN:NE2	64:EQ:501:GDP:O2A	2.13	0.81
60:IY:179:VAL:HG12	59:IZ:258:ASN:HD22	1.45	0.81
60:DW:282:ARG:HH21	60:DW:288:GLU:HB3	1.46	0.81
38:2N:157:LEU:HD21	38:2N:176:PHE:HB3	1.63	0.81
59:CU:215:ARG:NH2	59:CU:299:ALA:O	2.13	0.81
59:HA:212:LEU:HD21	59:HA:275:VAL:HG11	1.60	0.81
59:EB:178:SER:OG	60:EC:347:ASN:ND2	2.14	0.81
59:CH:178:SER:OG	60:CI:347:ASN:ND2	2.11	0.81
60:EA:298:ASN:O	60:EA:298:ASN:ND2	2.14	0.81
59:IQ:212:LEU:HD11	59:IQ:275:VAL:HG11	1.63	0.81
59:BC:178:SER:OG	60:BD:347:ASN:ND2	2.14	0.81
60:DN:173:PRO:HB3	60:DN:380:ARG:HD2	1.63	0.81
59:ER:191:THR:HG21	59:ER:425:LEU:HD12	1.62	0.80
59:GL:229:ARG:HH21	59:GL:366:GLY:HA2	1.46	0.80
60:HP:309:ARG:HD2	60:HP:342:ILE:HD13	1.63	0.80
60:CV:97:ALA:O	60:CV:103:LYS:NZ	2.15	0.80
60:FG:213:ARG:HH12	60:FG:297:LYS:HG2	1.44	0.80
60:HF:45:GLU:HG3	60:HF:46:ARG:HG2	1.62	0.80
60:EW:99:ASN:ND2	59:EX:254:GLU:OE1	2.15	0.80
60:KG:58:ARG:HE	60:KT:280:GLN:HE22	1.29	0.80
42:3M:146:ASN:ND2	59:HM:77:GLU:OE2	2.15	0.80
59:FD:178:SER:HB3	60:FE:347:ASN:HD22	1.45	0.80
59:FL:178:SER:HB3	60:FM:347:ASN:HD22	1.45	0.80
60:CC:309:ARG:NH1	60:CC:426:GLN:O	2.14	0.80
60:IL:11:GLN:HE22	64:IL:501:GDP:H8	1.30	0.80
60:CR:322:SER:OG	60:CR:325:GLU:OE1	1.99	0.80
59:HI:109:THR:HG23	59:HI:110:ILE:HG12	1.63	0.80
60:IR:318:ARG:HD2	60:IR:358:PRO:HD3	1.62	0.80
60:EE:332:ASN:OD1	60:EE:336:LYS:NZ	2.15	0.80
59:FT:191:THR:HG21	59:FT:425:LEU:HD12	1.64	0.80
60:IY:6:CYS:SG	60:IY:8:GLN:NE2	2.55	0.80
60:AZ:213:ARG:HH22	60:AZ:297:LYS:HZ3	1.30	0.80
60:AZ:334:GLN:HE22	60:AZ:348:ASN:H	1.28	0.80
60:EK:322:SER:OG	60:EK:325:GLU:OE1	2.00	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BY:318:ARG:HD2	60:BY:358:PRO:HD3	1.64	0.79
60:CX:322:SER:OG	60:CX:325:GLU:OE1	1.98	0.79
59:GP:167:LEU:HD22	59:GP:200:VAL:HG22	1.63	0.79
60:AF:324:LYS:NZ	60:AF:328:GLU:OE2	2.14	0.79
60:JT:99:ASN:ND2	59:JU:254:GLU:OE1	2.15	0.79
59:GN:50:ASN:O	59:GN:64:ARG:NH1	2.15	0.79
60:AX:174:LYS:HD3	60:AX:175:VAL:HG23	1.63	0.79
59:CU:221:ARG:HG3	60:CV:322:SER:HB3	1.63	0.79
59:EV:221:ARG:NH1	60:EW:325:GLU:OE1	2.15	0.79
59:AC:362:VAL:HG21	59:AC:370:LYS:HG3	1.64	0.79
59:EN:264:ARG:NH1	59:EN:431:ASP:OD2	2.15	0.79
59:GH:98:ASP:O	59:GH:105:ARG:NH1	2.15	0.79
59:GH:178:SER:HB3	60:GI:347:ASN:HD22	1.46	0.79
59:BQ:325:PRO:O	59:BQ:329:ASN:ND2	2.16	0.79
59:FN:191:THR:HG21	59:FN:425:LEU:HD12	1.62	0.79
60:JM:27:GLU:OE1	60:JM:241:ARG:NH2	2.14	0.79
41:3D:198:GLN:OE1	60:GZ:280:GLN:NE2	2.14	0.79
60:BR:173:PRO:HG3	60:BR:380:ARG:HE	1.46	0.79
60:EM:330:MET:HE2	60:EM:349:ILE:HG21	1.63	0.79
60:JC:163:ILE:HD12	60:JC:250:LEU:HD22	1.64	0.79
59:AI:167:LEU:HD22	59:AI:200:VAL:HG22	1.64	0.78
59:GE:311:LYS:NZ	59:GE:342:GLN:OE1	2.16	0.78
60:IL:8:GLN:HE21	60:IL:65:LEU:HD13	1.48	0.78
59:JH:178:SER:OG	60:JI:347:ASN:ND2	2.16	0.78
60:DJ:220:PRO:HD2	59:DK:326:LYS:HZ3	1.48	0.78
59:LA:75:VAL:HG21	59:LA:94:SER:HB2	1.65	0.78
54:4O:113:GLU:HG3	59:IG:264:ARG:HH12	1.47	0.78
59:AA:220:GLU:HG3	59:AA:221:ARG:HG3	1.66	0.78
60:IF:257:LEU:HD11	60:IF:314:SER:HB2	1.65	0.78
59:CJ:269:LEU:HD22	59:CJ:303:THR:HG21	1.65	0.78
59:IV:75:VAL:HG21	59:IV:94:SER:HB2	1.66	0.78
60:IN:350:LYS:NZ	60:IN:352:SER:OG	2.17	0.78
59:KJ:178:SER:HG	60:KK:347:ASN:ND2	1.81	0.78
59:HQ:287:SER:OG	59:HQ:290:GLU:OE1	2.02	0.78
59:JQ:75:VAL:HG21	59:JQ:94:SER:HB2	1.65	0.78
59:IX:222:PRO:O	60:IY:324:LYS:NZ	2.17	0.78
59:BK:5:ILE:HD13	59:BK:64:ARG:HB3	1.66	0.78
59:ED:178:SER:HB3	60:EE:347:ASN:HD22	1.48	0.78
60:GF:298:ASN:ND2	60:GF:298:ASN:O	2.16	0.78
39:2Q:128:MET:SD	39:2R:452:ARG:NH1	2.57	0.77
59:AI:215:ARG:NH2	59:AI:299:ALA:O	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DX:50:ASN:O	59:DX:64:ARG:NH2	2.16	0.77
59:KA:75:VAL:HG21	59:KA:94:SER:HB2	1.64	0.77
59:EF:75:VAL:HG21	59:EF:94:SER:HB2	1.65	0.77
59:HE:90:GLU:OE1	59:HE:121:ARG:NH1	2.17	0.77
60:IR:163:ILE:HD12	60:IR:250:LEU:HD22	1.65	0.77
60:KV:213:ARG:HH12	60:KV:297:LYS:HG2	1.49	0.77
6:0N:396:LEU:HD23	60:BB:276:ARG:HE	1.49	0.77
45:3S:128:THR:HB	45:3S:131:GLN:HG3	1.65	0.77
42:3G:146:ASN:O	42:3G:150:GLN:HB2	1.85	0.77
60:HP:52:ASP:OD1	60:HP:62:ARG:NH2	2.18	0.77
60:IW:55:THR:HG23	60:JI:283:GLY:HA2	1.67	0.77
39:2R:330:GLU:HB3	39:2R:334:ARG:HH12	1.49	0.77
60:DJ:218:THR:O	59:DK:326:LYS:NZ	2.16	0.77
59:HA:287:SER:OG	59:HA:290:GLU:OE1	2.03	0.77
59:HK:109:THR:HG23	59:HK:110:ILE:HG12	1.66	0.77
59:IZ:76:ASP:HA	59:IZ:79:ARG:HD2	1.66	0.77
59:JU:75:VAL:HG21	59:JU:94:SER:HB2	1.65	0.77
60:KG:99:ASN:ND2	59:KH:254:GLU:OE1	2.17	0.77
41:3C:217:ARG:NH2	42:3N:3:THR:O	2.18	0.77
60:AJ:173:PRO:HG3	60:AJ:380:ARG:HH11	1.49	0.77
59:BC:75:VAL:HG21	59:BC:94:SER:HB2	1.65	0.77
59:IT:22:GLU:OE1	59:IT:229:ARG:NH1	2.18	0.77
60:KG:282:ARG:HD3	60:KG:288:GLU:HG2	1.66	0.77
59:BG:178:SER:HB3	60:BH:347:ASN:HD22	1.49	0.77
59:CW:191:THR:HA	59:CW:194:LEU:HG	1.67	0.77
59:IG:47:ASP:OD1	59:IG:50:ASN:ND2	2.17	0.77
60:IJ:62:ARG:NH1	60:IJ:127:CYS:SG	2.58	0.77
59:JB:88:HIS:NE2	59:JN:284:GLU:OE2	2.17	0.77
59:KA:120:ASP:OD1	59:KA:123:ARG:NH2	2.18	0.77
4:0G:770:GLN:NE2	60:DD:55:THR:O	2.18	0.77
60:AT:62:ARG:NH2	60:AT:127:CYS:SG	2.58	0.77
59:BU:132:LEU:O	59:BU:164:LYS:NZ	2.18	0.77
59:GY:287:SER:OG	59:GY:290:GLU:OE1	2.03	0.77
60:IW:375:GLN:HE22	60:IW:423:GLN:HB2	1.49	0.77
59:JJ:115:VAL:HG11	59:JJ:152:LEU:HD22	1.66	0.77
60:JR:272:PRO:HG2	60:JR:364:ALA:HA	1.67	0.77
59:KH:75:VAL:HG21	59:KH:94:SER:HB2	1.67	0.77
39:2P:366:LYS:HE2	39:2P:367:ARG:HH21	1.50	0.76
54:4N:120:ARG:NH2	59:II:196:GLU:OE1	2.17	0.76
59:AU:30:ILE:HG12	59:AU:61:HIS:HD2	1.49	0.76
59:EL:402:ARG:NH1	59:EL:415:GLU:OE2	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JS:288:VAL:HG21	59:JS:327:ASP:HB3	1.67	0.76
60:KB:334:GLN:HE22	60:KB:348:ASN:H	1.33	0.76
60:CE:318:ARG:HD2	60:CE:358:PRO:HD3	1.65	0.76
60:CI:298:ASN:O	60:CI:298:ASN:ND2	2.13	0.76
60:GK:99:ASN:ND2	59:GL:254:GLU:OE1	2.18	0.76
59:JF:178:SER:OG	60:JG:347:ASN:ND2	2.18	0.76
59:JF:288:VAL:HG11	59:JF:327:ASP:HB3	1.66	0.76
59:ET:75:VAL:HG21	59:ET:94:SER:HB2	1.66	0.76
59:BG:108:TYR:O	59:BG:112:LYS:NZ	2.15	0.76
59:BS:47:ASP:OD1	59:BS:50:ASN:ND2	2.18	0.76
60:HS:6:CYS:SG	60:HS:134:GLN:NE2	2.58	0.76
59:JQ:306:ASP:OD2	59:JQ:308:ARG:NH1	2.18	0.76
41:3C:180:ARG:HB3	41:3C:184:ARG:HH12	1.51	0.76
53:4K:113:THR:HG22	53:4K:115:GLY:H	1.50	0.76
59:GR:306:ASP:HB3	59:GR:309:HIS:CD2	2.20	0.76
59:ER:75:VAL:HG21	59:ER:94:SER:HB3	1.66	0.76
59:KP:90:GLU:OE1	59:KP:121:ARG:NH1	2.18	0.76
59:BG:91:GLN:HE22	59:BG:125:LEU:HD21	1.51	0.76
59:GL:178:SER:HB2	60:GM:347:ASN:HD22	1.50	0.76
60:GZ:309:ARG:HD2	60:GZ:342:ILE:HD13	1.66	0.76
59:HV:221:ARG:NH1	60:HW:325:GLU:OE2	2.16	0.76
59:IB:239:THR:HG23	59:IB:243:ARG:HH12	1.50	0.76
59:KD:109:THR:HG23	59:KD:110:ILE:HG12	1.67	0.76
59:AO:215:ARG:NH2	59:AO:299:ALA:O	2.19	0.76
59:BG:109:THR:HG23	59:BG:110:ILE:HG12	1.68	0.76
60:BL:152:ILE:HG22	60:BL:195:ASN:HD22	1.48	0.76
59:BX:75:VAL:HG21	59:BX:94:SER:HB2	1.67	0.76
59:BX:84:ARG:NH1	59:BX:85:GLN:OE1	2.18	0.76
59:BZ:75:VAL:HG21	59:BZ:94:SER:HB3	1.68	0.76
59:IT:203:MET:HE3	59:IT:267:PHE:HB3	1.67	0.76
60:JT:173:PRO:HG2	60:JT:174:LYS:HD3	1.66	0.76
60:KM:48:ASN:O	60:KM:62:ARG:NH2	2.19	0.76
41:2Y:222:GLU:OE2	59:IM:370:LYS:NZ	2.18	0.76
59:EN:191:THR:HG21	59:EN:425:LEU:HD12	1.68	0.76
59:HM:396:ASP:OD1	59:HM:422:ARG:NH1	2.19	0.76
60:IS:311:LEU:HD23	60:IS:342:ILE:HG13	1.68	0.76
59:BW:298:PRO:HG3	59:BW:308:ARG:HH12	1.51	0.75
59:IQ:50:ASN:O	59:IQ:64:ARG:NH2	2.19	0.75
3:0F:419:ARG:NH1	59:CF:45:GLU:OE1	2.18	0.75
41:3B:168:MET:SD	41:3B:172:ASN:ND2	2.59	0.75
59:DK:169:TYR:HE2	59:DK:235:VAL:HG22	1.49	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HN:103:LYS:NZ	60:HN:401:GLU:OE1	2.18	0.75
59:IB:65:ALA:O	59:IB:91:GLN:NE2	2.19	0.75
60:AX:344:TRP:HD1	60:AX:345:ILE:HG13	1.49	0.75
59:GH:298:PRO:HG3	59:GH:308:ARG:HH22	1.52	0.75
59:GL:27:GLU:OE1	59:GL:243:ARG:NH2	2.18	0.75
60:HL:220:PRO:HG2	59:HM:326:LYS:HE3	1.68	0.75
60:KT:63:SER:O	60:KT:89:ASN:ND2	2.19	0.75
60:AT:213:ARG:HH12	60:AT:297:LYS:HG2	1.50	0.75
60:CZ:322:SER:OG	60:CZ:325:GLU:OE1	2.05	0.75
59:ID:158:SER:OG	59:ID:166:LYS:NZ	2.19	0.75
60:BF:54:ALA:HB3	60:BF:58:ARG:HB3	1.68	0.75
60:DY:282:ARG:HH21	60:DY:288:GLU:HB3	1.50	0.75
60:HY:350:LYS:NZ	60:HY:352:SER:OG	2.18	0.75
59:IQ:90:GLU:OE1	59:IQ:124:LYS:NZ	2.20	0.75
59:IT:5:ILE:HD13	59:IT:64:ARG:HB3	1.69	0.75
60:JC:174:LYS:NZ	60:JC:205:GLU:OE2	2.20	0.75
60:JE:21:TRP:HZ3	60:JE:61:PRO:HB2	1.52	0.75
40:2T:239:ALA:HB2	60:IW:56:GLY:HA3	1.69	0.75
59:EP:75:VAL:HG21	59:EP:94:SER:HB3	1.66	0.75
59:EP:297:GLU:OE2	59:FB:123:ARG:NH2	2.20	0.75
60:HB:274:THR:HG21	60:HB:282:ARG:HH12	1.52	0.75
59:DI:133:GLN:NE2	59:DI:251:ASP:OD1	2.20	0.75
59:FP:178:SER:HB3	60:FQ:347:ASN:HD22	1.52	0.75
59:HC:47:ASP:OD1	59:HC:50:ASN:ND2	2.19	0.75
59:HT:80:THR:O	59:HT:84:ARG:NH2	2.20	0.75
60:JE:63:SER:O	60:JE:89:ASN:ND2	2.20	0.75
5:0H:150:GLN:HE21	60:EQ:361:LEU:HD21	1.52	0.75
60:BB:237:THR:HG23	60:BB:240:LEU:HD12	1.67	0.75
60:CP:350:LYS:NZ	60:CP:352:SER:OG	2.19	0.75
60:DW:298:ASN:O	60:DW:298:ASN:ND2	2.19	0.75
60:EC:48:ASN:O	60:EC:62:ARG:NH2	2.19	0.75
60:BD:201:CYS:SG	60:BD:301:GLN:NE2	2.60	0.74
60:BL:7:VAL:HB	60:BL:135:ILE:HG22	1.67	0.74
60:DL:48:ASN:O	60:DL:62:ARG:NH2	2.20	0.74
41:2X:26:ARG:HA	41:2X:29:LYS:HZ3	1.52	0.74
59:BG:75:VAL:HG21	59:BG:94:SER:HB2	1.70	0.74
60:GQ:99:ASN:ND2	59:GR:254:GLU:OE1	2.20	0.74
59:HO:88:HIS:HD2	59:HO:89:PRO:HD2	1.53	0.74
59:JJ:223:THR:OG1	60:JK:245:GLN:NE2	2.20	0.74
60:GM:161:ASP:OD1	60:GM:162:ARG:NH1	2.20	0.74
59:GN:75:VAL:HG21	59:GN:94:SER:HB2	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IK:212:LEU:HD11	59:IK:275:VAL:HG11	1.69	0.74
60:JA:152:ILE:HG22	60:JA:195:ASN:HD22	1.52	0.74
59:KJ:56:THR:HA	59:KW:285:GLN:HE22	1.53	0.74
59:KN:101:ASN:OD1	60:KO:252:LYS:NZ	2.20	0.74
60:AV:371:ASN:ND2	60:AV:373:CYS:SG	2.61	0.74
59:BE:269:LEU:HD22	59:BE:303:THR:HG21	1.68	0.74
60:BJ:286:VAL:HG21	60:BJ:325:GLU:HB3	1.69	0.74
59:DE:214:ARG:HD2	60:DF:324:LYS:HE3	1.69	0.74
60:GQ:395:LEU:HD11	60:GQ:408:PHE:HE2	1.52	0.74
60:KE:248:SER:HA	60:KE:252:LYS:HD3	1.69	0.74
60:CR:8:GLN:NE2	60:CR:13:GLY:O	2.20	0.74
59:HV:212:LEU:HD11	59:HV:275:VAL:HG11	1.70	0.74
59:DI:287:SER:OG	59:DI:290:GLU:OE1	2.05	0.74
59:GT:264:ARG:NH1	59:GT:431:ASP:OD2	2.21	0.74
60:JE:173:PRO:HB3	60:JE:380:ARG:HH12	1.52	0.74
59:JP:123:ARG:NH1	59:JP:127:ASP:OD1	2.21	0.74
60:LB:178:THR:HB	60:LB:181:GLU:HG3	1.69	0.74
59:BE:11:GLN:OE1	60:BF:247:ASN:ND2	2.19	0.74
59:GR:239:THR:HG23	59:GR:243:ARG:HH12	1.52	0.74
59:IT:65:ALA:O	59:IT:91:GLN:NE2	2.21	0.74
59:CJ:265:ILE:HG22	59:CJ:380:ASN:HD21	1.51	0.74
59:EH:178:SER:OG	60:EI:347:ASN:ND2	2.21	0.74
60:HN:173:PRO:HA	60:HN:380:ARG:HH12	1.51	0.74
60:IJ:52:ASP:OD1	60:IJ:62:ARG:NH2	2.20	0.74
6:0N:360:VAL:HG23	59:BA:370:LYS:HG3	1.68	0.74
59:CB:178:SER:HB3	60:CC:347:ASN:HD22	1.50	0.74
60:CR:257:LEU:HD11	60:CR:314:SER:HB2	1.68	0.74
60:GD:292:GLN:HG2	60:GD:298:ASN:HD22	1.53	0.74
60:JV:99:ASN:ND2	59:JW:254:GLU:OE1	2.21	0.74
59:JW:50:ASN:O	59:JW:64:ARG:NH1	2.21	0.74
59:KJ:75:VAL:HG21	59:KJ:94:SER:HB2	1.68	0.74
59:LA:215:ARG:HH12	59:LA:299:ALA:HB1	1.51	0.74
24:1G:21:LEU:HG	60:AD:45:GLU:HG2	1.69	0.74
60:BH:232:VAL:HG21	60:BH:268:MET:HG2	1.70	0.74
60:CT:350:LYS:NZ	60:CT:352:SER:OG	2.19	0.74
60:FI:298:ASN:ND2	60:FI:298:ASN:O	2.20	0.74
60:HW:350:LYS:NZ	60:HW:352:SER:OG	2.18	0.74
60:IL:201:CYS:O	60:IL:301:GLN:NE2	2.18	0.74
11:0T:126:GLU:OE2	60:FZ:320:ARG:NH1	2.21	0.73
18:1A:81:LYS:NZ	18:1A:91:ASP:OD2	2.21	0.73
36:2J:148:HIS:ND1	59:EP:434:GLU:OE1	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AE:287:SER:OG	59:AE:290:GLU:OE1	2.06	0.73
60:CI:62:ARG:NH1	60:CI:127:CYS:SG	2.61	0.73
60:DV:301:GLN:NE2	60:DV:377:MET:SD	2.61	0.73
59:EF:47:ASP:OD1	59:EF:50:ASN:ND2	2.20	0.73
5:0I:265:GLU:OE1	5:0I:283:LYS:NZ	2.20	0.73
16:0Y:90:ARG:HH22	60:FQ:276:ARG:HG3	1.54	0.73
59:AG:287:SER:OG	59:AG:290:GLU:OE1	2.04	0.73
60:CC:7:VAL:HB	60:CC:135:ILE:HG12	1.69	0.73
59:CQ:287:SER:OG	59:CQ:290:GLU:OE1	2.06	0.73
60:GQ:308:GLY:HA2	60:GQ:426:GLN:HE22	1.53	0.73
59:HQ:191:THR:HG21	59:HQ:425:LEU:HD12	1.69	0.73
59:II:75:VAL:HG21	59:II:94:SER:HB3	1.70	0.73
59:JB:75:VAL:HG21	59:JB:94:SER:HB2	1.70	0.73
59:JW:75:VAL:HG21	59:JW:94:SER:HB2	1.70	0.73
8:0Q:48:LYS:NZ	60:AF:75:SER:O	2.21	0.73
60:AT:262:ARG:NH1	60:AT:421:GLU:OE1	2.21	0.73
60:BN:237:THR:HG23	60:BN:240:LEU:HD12	1.69	0.73
59:BQ:221:ARG:NH1	60:BR:325:GLU:OE2	2.21	0.73
59:IT:178:SER:OG	60:IU:347:ASN:ND2	2.20	0.73
59:IZ:123:ARG:NH2	59:JL:297:GLU:OE2	2.21	0.73
40:2S:97:GLU:OE1	40:2S:101:ARG:NH1	2.21	0.73
59:BI:75:VAL:HG21	59:BI:94:SER:HB2	1.70	0.73
59:BK:50:ASN:O	59:BK:64:ARG:NH2	2.19	0.73
60:CC:387:LEU:O	60:CC:390:ARG:NH1	2.17	0.73
60:DN:344:TRP:HB3	60:DN:430:ILE:HD11	1.70	0.73
60:ES:284:LEU:HD23	60:ES:362:LYS:HB2	1.70	0.73
59:GR:81:GLY:O	59:GR:84:ARG:NH1	2.21	0.73
60:HJ:350:LYS:NZ	60:HJ:352:SER:OG	2.18	0.73
59:KQ:75:VAL:HG21	59:KQ:94:SER:HB3	1.68	0.73
60:AH:223:GLY:O	60:AH:227:HIS:ND1	2.21	0.73
60:DW:48:ASN:O	60:DW:62:ARG:NH2	2.20	0.73
59:HM:75:VAL:HG21	59:HM:94:SER:HB3	1.68	0.73
60:IH:387:LEU:HD23	60:IH:390:ARG:HH12	1.54	0.73
60:IR:350:LYS:NZ	60:IR:352:SER:OG	2.18	0.73
59:BE:90:GLU:O	59:BE:121:ARG:NH1	2.20	0.73
59:BU:271:SER:OG	59:BU:301:MET:SD	2.47	0.73
60:CC:298:ASN:O	60:CC:298:ASN:ND2	2.20	0.73
59:ID:75:VAL:HG13	59:ID:92:LEU:HD12	1.70	0.73
60:IS:213:ARG:HH22	60:IS:297:LYS:HG2	1.54	0.73
2:0E:342:ARG:NH1	60:DF:224:ASP:OD1	2.22	0.73
54:4M:120:ARG:NH2	59:IQ:196:GLU:OE1	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BL:48:ASN:O	60:BL:62:ARG:NH2	2.21	0.73
60:HP:282:ARG:NH1	60:HP:283:GLY:O	2.22	0.73
60:HU:275:SER:HB3	60:HU:278:SER:HB3	1.69	0.73
60:IP:257:LEU:HD21	60:IP:314:SER:HB2	1.68	0.73
59:IX:5:ILE:HD13	59:IX:64:ARG:HB3	1.70	0.73
59:JH:76:ASP:OD1	59:JH:79:ARG:NH2	2.19	0.73
59:KL:287:SER:OG	59:KL:290:GLU:OE1	2.06	0.73
59:BO:75:VAL:HG21	59:BO:94:SER:HB2	1.70	0.73
59:DU:271:SER:OG	59:DU:301:MET:SD	2.47	0.73
59:JP:269:LEU:HD22	59:JP:303:THR:HG21	1.71	0.73
60:JT:257:LEU:HD21	60:JT:314:SER:HB2	1.69	0.73
1:0A:453:ILE:HG23	1:0A:468:PHE:HB3	1.69	0.73
49:4C:52:ARG:NH1	59:FB:441:ASP:O	2.22	0.73
59:BM:75:VAL:HG21	59:BM:94:SER:HB2	1.69	0.73
60:DP:201:CYS:O	60:DP:301:GLN:NE2	2.21	0.73
59:GR:306:ASP:HB3	59:GR:309:HIS:HD2	1.54	0.73
25:1H:314:VAL:HG23	59:AU:218:ASP:HB2	1.70	0.73
60:AP:344:TRP:HB3	60:AP:430:ILE:HD11	1.70	0.73
59:BU:75:VAL:HG21	59:BU:94:SER:HB2	1.71	0.73
59:DM:297:GLU:OE2	59:DZ:123:ARG:NH2	2.21	0.73
60:DY:318:ARG:HD3	60:DY:358:PRO:HD3	1.71	0.73
60:HL:8:GLN:HE21	60:HL:17:GLY:HA3	1.53	0.73
59:IK:75:VAL:HG21	59:IK:94:SER:HB2	1.71	0.73
59:IO:51:THR:HG21	59:IO:243:ARG:HG2	1.70	0.73
1:0C:8:ALA:HB3	18:1A:101:GLY:HA3	1.69	0.72
9:0R:67:SER:HA	9:0R:125:LEU:HD11	1.70	0.72
60:AP:170:ILE:HD11	60:AP:377:MET:HE3	1.71	0.72
60:BB:35:THR:OG1	60:BB:37:GLN:NE2	2.22	0.72
60:DY:61:PRO:HG3	60:DY:84:ILE:HD12	1.69	0.72
60:IE:274:THR:HG23	60:IE:279:GLN:HE21	1.54	0.72
59:JD:133:GLN:NE2	59:JD:251:ASP:OD1	2.22	0.72
59:KN:287:SER:OG	59:KN:290:GLU:OE1	2.05	0.72
60:AB:10:GLY:O	60:AB:14:ASN:ND2	2.22	0.72
59:BU:284:GLU:OE2	59:CH:88:HIS:NE2	2.18	0.72
59:EH:75:VAL:HG21	59:EH:94:SER:HB2	1.70	0.72
60:KT:350:LYS:NZ	60:KT:352:SER:OG	2.21	0.72
60:KX:295:ASP:OD2	60:KX:297:LYS:NZ	2.21	0.72
60:CV:344:TRP:HB3	60:CV:430:ILE:HD11	1.71	0.72
59:JU:109:THR:HG23	59:JU:110:ILE:HG12	1.71	0.72
60:JZ:107:THR:OG1	60:JZ:108:GLU:OE1	2.07	0.72
60:BY:271:ALA:O	60:BY:292:GLN:NE2	2.21	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JG:293:MET:HE3	60:JG:367:PHE:HB2	1.71	0.72
17:0Z:308:ILE:HD11	17:0Z:360:GLU:HB2	1.71	0.72
60:CR:271:ALA:O	60:CR:292:GLN:NE2	2.23	0.72
59:HV:119:LEU:HD11	59:HV:156:ARG:HG2	1.72	0.72
59:JB:11:GLN:NE2	59:JB:15:GLN:OE1	2.22	0.72
59:JN:195:LEU:HD11	59:JN:428:LEU:HD11	1.70	0.72
59:AS:75:VAL:HG21	59:AS:94:SER:HB2	1.69	0.72
60:CX:8:GLN:HE21	60:CX:17:GLY:HA3	1.54	0.72
59:DC:287:SER:OG	59:DC:290:GLU:OE1	2.06	0.72
60:DH:344:TRP:HB3	60:DH:430:ILE:HD11	1.72	0.72
59:DM:75:VAL:HG21	59:DM:94:SER:HB2	1.72	0.72
60:ES:172:SER:OG	60:ES:205:GLU:OE1	2.08	0.72
60:FS:201:CYS:HB2	60:FS:301:GLN:HE22	1.54	0.72
60:GB:145:SER:OG	60:GB:188:SER:OG	2.03	0.72
59:IB:75:VAL:HG21	59:IB:94:SER:HB2	1.71	0.72
60:KZ:248:SER:HA	60:KZ:252:LYS:HE3	1.70	0.72
27:1K:70:THR:HG23	59:AG:218:ASP:HB2	1.72	0.72
59:AO:287:SER:OG	59:AO:290:GLU:OE1	2.06	0.72
59:BC:287:SER:OG	59:BC:290:GLU:OE1	2.07	0.72
60:BR:309:ARG:HH12	60:BR:428:ALA:HA	1.53	0.72
59:BX:115:VAL:HG11	59:BX:152:LEU:HD22	1.71	0.72
60:FV:344:TRP:HB3	60:FV:430:ILE:HD11	1.71	0.72
59:FW:211:ASP:HB3	59:FW:215:ARG:HH21	1.55	0.72
59:HQ:75:VAL:HG21	59:HQ:94:SER:HB3	1.72	0.72
59:IM:109:THR:HG23	59:IM:110:ILE:HG23	1.70	0.72
59:JL:75:VAL:HG21	59:JL:94:SER:HB2	1.70	0.72
59:JN:11:GLN:NE2	59:JN:71:GLU:OE2	2.19	0.72
59:KD:75:VAL:HG21	59:KD:94:SER:HB2	1.71	0.72
59:KN:298:PRO:HG3	59:KN:308:ARG:HH12	1.54	0.72
57:4Y:35:CYS:SG	59:FU:264:ARG:NH1	2.63	0.72
60:EY:156:ARG:NH2	60:EY:197:ASP:OD1	2.18	0.72
59:IX:188:VAL:HG23	59:IX:189:LEU:HD12	1.72	0.72
59:BQ:392:ASP:HB3	59:BQ:422:ARG:HH12	1.55	0.72
59:BW:5:ILE:HD13	59:BW:64:ARG:HB3	1.71	0.72
60:JK:156:ARG:NH1	60:JK:195:ASN:O	2.22	0.72
5:0K:374:ASP:OD1	5:0K:375:GLU:N	2.23	0.72
35:2G:321:GLN:HA	35:2G:324:ARG:HD3	1.70	0.72
58:4V:89:GLU:HB3	58:4V:93:ARG:HH12	1.52	0.72
59:AM:98:ASP:O	59:AM:105:ARG:NH1	2.22	0.72
59:BS:75:VAL:HG21	59:BS:94:SER:HB2	1.72	0.72
60:CI:117:LEU:HD11	60:CI:154:LYS:HD3	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:ES:11:GLN:NE2	64:ES:501:GDP:O2A	2.20	0.72
59:GR:264:ARG:NH1	59:GR:431:ASP:OD2	2.23	0.72
59:JJ:396:ASP:OD1	59:JJ:422:ARG:NH1	2.23	0.72
24:1G:77:LEU:O	60:FV:276:ARG:NH1	2.23	0.71
60:CT:232:VAL:HG22	60:CT:268:MET:HE2	1.72	0.71
60:IC:8:GLN:NE2	60:IC:63:SER:OG	2.23	0.71
60:JZ:256:ASN:HD22	60:JZ:350:LYS:HD2	1.53	0.71
59:FU:195:LEU:HD21	59:FU:264:ARG:HH21	1.54	0.71
59:IT:75:VAL:HG21	59:IT:94:SER:HB2	1.72	0.71
60:BP:372:THR:HG21	60:BP:426:GLN:HB2	1.72	0.71
59:EP:90:GLU:O	59:EP:121:ARG:NH1	2.22	0.71
59:GG:208:ALA:HA	59:GG:304:LYS:HE3	1.73	0.71
59:KF:221:ARG:NH1	60:KG:325:GLU:OE2	2.23	0.71
57:4R:68:LEU:HD11	59:GE:419:SER:HB2	1.69	0.71
60:EM:11:GLN:NE2	64:EM:501:GDP:O2A	2.24	0.71
59:GE:64:ARG:NH1	59:GE:129:CYS:SG	2.63	0.71
59:IG:91:GLN:HE22	59:IG:125:LEU:HD21	1.55	0.71
59:JB:123:ARG:NH2	59:JN:297:GLU:OE2	2.24	0.71
60:JM:293:MET:HE2	60:JM:365:VAL:HG11	1.72	0.71
59:KP:98:ASP:O	59:KP:105:ARG:NH2	2.22	0.71
1:0B:657:GLU:OE1	1:0B:747:LYS:NZ	2.23	0.71
47:3W:196:ASP:OD2	47:3W:200:ARG:NH1	2.23	0.71
50:4E:146:VAL:HG13	50:4E:150:LYS:HZ1	1.54	0.71
59:AY:269:LEU:HD22	59:AY:303:THR:HG21	1.72	0.71
60:BR:27:GLU:OE2	60:BR:241:ARG:NH1	2.23	0.71
59:BW:195:LEU:HD21	59:BW:428:LEU:HD12	1.71	0.71
59:IZ:90:GLU:HG3	59:JL:280:LYS:HZ3	1.56	0.71
59:BC:9:ILE:HG22	59:BC:68:LEU:HD12	1.73	0.71
59:BX:123:ARG:NH1	59:BX:127:ASP:OD1	2.23	0.71
59:CH:75:VAL:HG21	59:CH:94:SER:HB3	1.71	0.71
59:DZ:91:GLN:HE22	59:DZ:125:LEU:HD21	1.54	0.71
59:EJ:178:SER:HB3	60:EK:347:ASN:HD22	1.55	0.71
59:HQ:101:ASN:H	60:HR:252:LYS:HZ1	1.39	0.71
59:IB:105:ARG:HG3	59:IB:411:GLU:HG2	1.72	0.71
25:1H:367:LEU:HD21	59:BG:364:PRO:HB3	1.71	0.71
59:GP:288:VAL:HG11	59:GP:327:ASP:HB3	1.72	0.71
60:IY:238:CYS:SG	60:IY:318:ARG:NE	2.60	0.71
59:BM:242:LEU:HD11	59:BM:252:LEU:HD11	1.73	0.71
60:CG:62:ARG:NH1	60:CG:127:CYS:SG	2.64	0.71
60:CG:67:ASP:OD1	60:CG:68:LEU:N	2.22	0.71
60:EC:237:THR:HG23	60:EC:240:LEU:HD12	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EQ:52:ASP:OD1	60:EQ:62:ARG:NH2	2.24	0.71
59:GL:98:ASP:O	59:GL:105:ARG:NH1	2.24	0.71
59:HK:75:VAL:HG21	59:HK:94:SER:HB3	1.71	0.71
59:IQ:188:VAL:HG23	59:IQ:425:LEU:HD22	1.73	0.71
41:2W:176:LEU:HD21	59:IT:278:ALA:HB3	1.73	0.71
60:CP:309:ARG:NH2	60:CP:426:GLN:O	2.23	0.71
59:GP:75:VAL:HG21	59:GP:94:SER:HB2	1.72	0.71
59:HM:215:ARG:NH2	59:HM:299:ALA:O	2.23	0.71
59:IX:3:GLU:HA	59:IX:51:THR:HA	1.72	0.71
59:AK:287:SER:OG	59:AK:290:GLU:OE1	2.06	0.71
59:CJ:212:LEU:HD11	59:CJ:275:VAL:HG11	1.72	0.71
59:FR:262:TYR:HB2	59:FR:265:ILE:HD13	1.73	0.71
60:GF:7:VAL:HG22	60:GF:135:ILE:HD12	1.73	0.71
60:GX:392:LYS:HE3	60:GX:395:LEU:HD23	1.72	0.71
60:HR:207:LEU:HB3	60:HR:225:LEU:HD22	1.72	0.71
59:II:178:SER:HB3	60:IJ:347:ASN:HD22	1.54	0.71
59:IM:47:ASP:OD1	59:IM:50:ASN:ND2	2.23	0.71
59:IQ:5:ILE:HD13	59:IQ:64:ARG:HB3	1.73	0.71
59:JN:75:VAL:HG21	59:JN:94:SER:HB2	1.71	0.71
59:KP:75:VAL:HG21	59:KP:94:SER:HB3	1.73	0.71
59:LA:399:TYR:OH	59:LA:415:GLU:OE2	2.09	0.71
42:3L:75:LYS:O	60:IA:320:ARG:NH1	2.23	0.70
60:IP:252:LYS:HE3	60:IP:350:LYS:HZ1	1.55	0.70
7:0P:156:ALA:HB1	7:0P:160:ARG:HH12	1.56	0.70
59:DC:399:TYR:OH	59:DC:415:GLU:OE2	2.09	0.70
59:GY:362:VAL:HG11	59:GY:370:LYS:HB2	1.72	0.70
59:HO:75:VAL:HG21	59:HO:94:SER:HB2	1.72	0.70
59:JD:273:ALA:HB2	59:JD:295:VAL:HG22	1.73	0.70
59:KW:287:SER:OG	59:KW:290:GLU:OE1	2.06	0.70
60:DD:130:LEU:HB3	60:DD:162:ARG:HH12	1.56	0.70
59:HC:81:GLY:O	59:HC:84:ARG:NH1	2.23	0.70
59:IK:98:ASP:O	59:IK:105:ARG:NH1	2.23	0.70
59:JD:47:ASP:OD1	59:JD:50:ASN:ND2	2.24	0.70
59:JL:46:ASP:OD1	59:JL:50:ASN:ND2	2.25	0.70
33:2C:103:ILE:O	33:2C:104:HIS:ND1	2.24	0.70
36:2J:149:HIS:N	59:EP:434:GLU:OE2	2.24	0.70
59:BI:221:ARG:NH1	60:BJ:325:GLU:OE2	2.24	0.70
60:DN:298:ASN:O	60:DN:298:ASN:ND2	2.23	0.70
60:EG:65:LEU:HD22	60:EG:90:PHE:HE1	1.55	0.70
59:KS:287:SER:OG	59:KS:290:GLU:OE1	2.08	0.70
47:3X:244:GLN:NE2	59:HT:79:ARG:O	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CM:178:SER:OG	60:CN:347:ASN:ND2	2.23	0.70
59:DO:288:VAL:HB	59:DO:327:ASP:HB3	1.73	0.70
59:ED:75:VAL:HG21	59:ED:94:SER:HB2	1.73	0.70
60:EK:334:GLN:NE2	60:EK:347:ASN:OD1	2.23	0.70
60:HL:153:SER:HA	60:HL:195:ASN:HD21	1.56	0.70
60:IE:257:LEU:HD11	60:IE:314:SER:HB2	1.71	0.70
60:JA:284:LEU:HD11	60:JA:362:LYS:HB2	1.71	0.70
59:JD:265:ILE:HG22	59:JD:380:ASN:HD21	1.57	0.70
41:2V:104:ARG:HH12	59:IQ:40:LYS:HG3	1.56	0.70
60:AN:410:GLU:O	60:AN:414:ASN:ND2	2.24	0.70
59:AQ:75:VAL:HG21	59:AQ:94:SER:HB2	1.73	0.70
60:AX:171:PRO:HG3	60:AX:185:THR:HG21	1.73	0.70
59:BE:75:VAL:HG21	59:BE:94:SER:HB2	1.72	0.70
59:BU:76:ASP:HA	59:BU:79:ARG:HD2	1.72	0.70
60:BY:412:GLU:O	60:BY:416:ASN:ND2	2.25	0.70
59:GC:27:GLU:OE2	59:GC:243:ARG:NH1	2.19	0.70
60:GQ:48:ASN:O	60:GQ:62:ARG:NH2	2.25	0.70
60:JK:179:VAL:HG13	60:JK:180:VAL:HG23	1.73	0.70
59:JU:132:LEU:O	59:JU:164:LYS:NZ	2.20	0.70
35:2G:292:LEU:HA	35:2G:295:ILE:HG12	1.74	0.70
60:AN:344:TRP:HB3	60:AN:430:ILE:HD11	1.72	0.70
60:BD:48:ASN:O	60:BD:62:ARG:NH2	2.25	0.70
60:HD:220:PRO:HG2	59:HE:326:LYS:HE2	1.74	0.70
59:HM:109:THR:HG23	59:HM:110:ILE:HG12	1.73	0.70
60:HR:152:ILE:HG22	60:HR:195:ASN:HD22	1.57	0.70
59:IT:298:PRO:HG3	59:IT:308:ARG:HH12	1.56	0.70
59:JY:399:TYR:OH	59:JY:415:GLU:OE2	2.09	0.70
59:KL:399:TYR:OH	59:KL:415:GLU:OE2	2.08	0.70
40:2T:310:LYS:HD2	40:2T:313:ILE:HD11	1.72	0.70
59:GY:121:ARG:NH2	59:GY:124:LYS:HE2	2.06	0.70
60:JG:170:ILE:HD13	60:JG:201:CYS:HB2	1.74	0.70
59:JY:287:SER:OG	59:JY:290:GLU:OE1	2.09	0.70
33:2C:49:LYS:NZ	33:2C:51:SER:OG	2.23	0.70
60:BT:190:HIS:CE1	60:BT:414:ASN:HD22	2.10	0.70
60:CL:260:PHE:HB2	60:CL:263:LEU:HD13	1.74	0.70
59:HC:15:GLN:NE2	62:HC:602:GTP:O6	2.25	0.70
60:IH:257:LEU:HD21	60:IH:314:SER:HB2	1.74	0.70
59:BI:109:THR:HG23	59:BI:110:ILE:HG12	1.72	0.69
59:CJ:181:VAL:HG13	59:CJ:182:VAL:HG23	1.73	0.69
59:EL:27:GLU:OE2	59:EL:243:ARG:NH1	2.25	0.69
60:GQ:304:ASP:OD1	60:GQ:307:HIS:ND1	2.20	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GS:48:ASN:O	60:GS:62:ARG:NH2	2.22	0.69
59:HO:399:TYR:OH	59:HO:415:GLU:OE2	2.10	0.69
60:HR:156:ARG:HH22	60:HR:164:MET:HB2	1.56	0.69
60:AH:22:GLU:HG2	60:AH:81:TYR:HD2	1.55	0.69
59:AQ:15:GLN:NE2	62:AQ:501:GTP:O6	2.25	0.69
60:BB:242:PHE:HB3	60:BB:356:ILE:HD13	1.74	0.69
60:BN:7:VAL:HB	60:BN:135:ILE:HD13	1.74	0.69
60:CI:350:LYS:NZ	60:CI:352:SER:OG	2.19	0.69
60:EW:107:THR:OG1	60:EW:401:GLU:OE2	2.10	0.69
60:FS:282:ARG:NH1	60:FS:283:GLY:O	2.25	0.69
60:IS:207:LEU:HB3	60:IS:225:LEU:HD22	1.72	0.69
59:JY:204:LEU:HD12	59:JY:209:ILE:HD11	1.73	0.69
53:4L:48:ARG:HG3	59:JF:308:ARG:HH21	1.58	0.69
54:4O:120:ARG:HD2	59:IG:196:GLU:HG2	1.73	0.69
60:DN:62:ARG:NH1	60:DN:127:CYS:SG	2.66	0.69
59:DU:392:ASP:HB3	59:DU:422:ARG:HH22	1.55	0.69
59:GU:442:MET:O	59:GU:443:ASP:HB2	1.90	0.69
60:JA:213:ARG:HH22	60:JA:297:LYS:HG2	1.57	0.69
1:0A:293:ASN:H	60:CV:218:THR:HG22	1.58	0.69
33:2B:63:ASN:OD1	33:2B:82:GLN:NE2	2.25	0.69
59:ER:221:ARG:HG3	60:ES:322:SER:HB3	1.74	0.69
59:ET:51:THR:HG21	59:ET:243:ARG:HG2	1.75	0.69
60:GD:8:GLN:NE2	60:GD:13:GLY:O	2.25	0.69
60:GZ:213:ARG:O	60:GZ:216:LYS:NZ	2.22	0.69
59:JP:88:HIS:HE2	59:KC:284:GLU:HG3	1.58	0.69
59:JS:262:TYR:HB2	59:JS:265:ILE:HD13	1.74	0.69
60:AN:232:VAL:HG11	60:AN:268:MET:HG2	1.74	0.69
60:DJ:377:MET:HA	60:DJ:380:ARG:HE	1.58	0.69
59:DX:75:VAL:HG21	59:DX:94:SER:HB2	1.74	0.69
59:DX:388:PHE:HB3	59:DX:425:LEU:HD21	1.74	0.69
60:GS:99:ASN:ND2	59:GT:254:GLU:OE1	2.26	0.69
59:HE:207:GLU:HG3	59:HE:304:LYS:HE2	1.74	0.69
60:IL:392:LYS:HD3	60:IL:395:LEU:HD13	1.75	0.69
59:JD:363:VAL:HG13	59:JD:366:GLY:HA3	1.74	0.69
59:JJ:221:ARG:HH12	60:JK:322:SER:H	1.40	0.69
11:0T:21:GLN:NE2	59:GA:321:GLY:O	2.25	0.69
16:0Y:124:MET:SD	16:0Y:139:GLN:NE2	2.65	0.69
41:3D:179:LYS:HZ2	41:3D:180:ARG:HH12	1.41	0.69
59:CY:399:TYR:OH	59:CY:415:GLU:OE2	2.11	0.69
60:DH:153:SER:HA	60:DH:195:ASN:HD21	1.58	0.69
59:DQ:399:TYR:OH	59:DQ:415:GLU:OE2	2.10	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DV:48:ASN:O	60:DV:62:ARG:NH2	2.25	0.69
59:GA:311:LYS:NZ	59:GA:438:GLU:OE2	2.25	0.69
60:GF:267:MET:SD	60:GF:301:GLN:NE2	2.66	0.69
59:GH:132:LEU:HD11	59:GH:164:LYS:HD3	1.74	0.69
59:GR:107:HIS:HD2	59:GR:152:LEU:HB2	1.57	0.69
59:IG:109:THR:HG23	59:IG:110:ILE:HG23	1.73	0.69
59:KJ:101:ASN:OD1	60:KK:252:LYS:NZ	2.24	0.69
60:KK:344:TRP:HB3	60:KK:430:ILE:HD11	1.73	0.69
59:KP:258:ASN:CB	59:KP:352:LYS:HD2	2.23	0.69
32:2A:74:PRO:HA	32:2A:148:TYR:HE2	1.57	0.69
53:4L:32:ARG:NH1	60:IU:126:SER:OG	2.26	0.69
59:AM:120:ASP:OD1	59:AM:123:ARG:NH2	2.26	0.69
59:BK:265:ILE:HG22	59:BK:380:ASN:HD21	1.58	0.69
59:CM:75:VAL:HG21	59:CM:94:SER:HB3	1.73	0.69
59:EP:254:GLU:OE2	59:EP:258:ASN:ND2	2.23	0.69
60:FK:320:ARG:NH1	60:FK:355:ASP:OD1	2.25	0.69
59:IZ:47:ASP:OD1	59:IZ:50:ASN:ND2	2.26	0.69
60:JK:334:GLN:HE22	60:JK:348:ASN:H	1.39	0.69
59:JU:287:SER:OG	59:JU:290:GLU:OE1	2.08	0.69
60:KG:33:THR:O	60:KG:58:ARG:NH1	2.25	0.69
60:LB:344:TRP:HB3	60:LB:430:ILE:HD11	1.73	0.69
5:0H:195:PHE:HB3	60:ES:362:LYS:HD2	1.74	0.69
36:2I:290:CYS:SG	38:2N:219:ARG:NH1	2.65	0.69
41:2W:294:GLN:NE2	41:2W:295:GLU:OE1	2.25	0.69
60:BL:117:LEU:HD11	60:BL:154:LYS:HG2	1.73	0.69
59:BZ:221:ARG:NE	60:CA:325:GLU:OE2	2.21	0.69
60:CG:281:TYR:O	60:CT:86:ARG:NH2	2.25	0.69
60:CG:391:ARG:HD3	59:CH:346:TRP:HB3	1.75	0.69
60:CL:130:LEU:HB3	60:CL:162:ARG:HH12	1.58	0.69
60:CV:330:MET:HG2	60:CV:349:ILE:HG21	1.73	0.69
59:CY:287:SER:OG	59:CY:290:GLU:OE1	2.07	0.69
59:DE:207:GLU:OE2	59:DE:304:LYS:NZ	2.25	0.69
59:ER:133:GLN:NE2	59:ER:251:ASP:OD1	2.26	0.69
60:FQ:27:GLU:OE1	60:FQ:241:ARG:NH2	2.25	0.69
59:HM:254:GLU:HA	59:HM:257:THR:HG22	1.75	0.69
59:HM:298:PRO:HB3	59:HM:307:PRO:HD2	1.75	0.69
59:ID:211:ASP:HB3	59:ID:215:ARG:HH21	1.57	0.69
60:KZ:212:PHE:HE1	60:KZ:220:PRO:HG3	1.57	0.69
60:LB:35:THR:OG1	60:LB:37:GLN:NE2	2.25	0.69
6:0M:13:GLU:HB3	6:0M:17:ARG:HH12	1.58	0.69
41:3D:168:MET:HA	59:GY:370:LYS:NZ	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:AL:344:TRP:HB3	60:AL:430:ILE:HD11	1.74	0.69
60:AP:220:PRO:HG2	59:AQ:326:LYS:HE2	1.74	0.69
59:FJ:133:GLN:NE2	59:FJ:251:ASP:OD1	2.26	0.69
59:JU:242:LEU:HD11	59:JU:252:LEU:HD11	1.74	0.69
60:JZ:344:TRP:HB3	60:JZ:430:ILE:HD11	1.75	0.69
60:KT:273:LEU:O	60:KT:292:GLN:NE2	2.26	0.69
6:0N:468:ARG:HE	6:0N:469:TYR:H	1.40	0.69
60:BJ:282:ARG:NH1	60:BJ:288:GLU:OE1	2.26	0.69
60:CV:301:GLN:NE2	60:CV:377:MET:SD	2.66	0.69
60:EU:274:THR:OG1	60:EU:279:GLN:OE1	2.11	0.69
59:GC:123:ARG:NH1	59:GC:127:ASP:OD1	2.25	0.69
60:IN:271:ALA:HA	60:IN:298:ASN:HD21	1.57	0.69
60:JO:237:THR:HG23	60:JO:240:LEU:HD12	1.74	0.69
59:KU:215:ARG:NH2	59:KU:299:ALA:O	2.26	0.69
1:0A:224:THR:HG22	1:0A:226:ALA:H	1.58	0.68
3:0F:457:SER:O	60:BR:276:ARG:NH1	2.26	0.68
32:1V:113:ARG:NH2	59:EH:196:GLU:OE2	2.26	0.68
59:EN:388:PHE:HB3	59:EN:425:LEU:HD21	1.76	0.68
59:GG:88:HIS:HD2	59:GG:90:GLU:HG2	1.56	0.68
59:GN:56:THR:HB	59:HA:285:GLN:HE21	1.56	0.68
60:GS:150:LEU:HD23	60:GS:154:LYS:HZ1	1.58	0.68
59:GU:287:SER:OG	59:GU:290:GLU:OE1	2.07	0.68
60:HU:152:ILE:HG22	60:HU:195:ASN:HD22	1.57	0.68
59:HV:2:ARG:HH22	59:HV:130:THR:HB	1.56	0.68
60:JA:170:ILE:HG22	60:JA:171:PRO:HD2	1.75	0.68
59:JF:111:GLY:HA2	59:JF:114:ILE:HG22	1.74	0.68
59:JY:55:GLU:OE1	59:JY:61:HIS:ND1	2.27	0.68
60:LB:298:ASN:C	60:LB:298:ASN:HD22	1.96	0.68
6:0M:201:LEU:HB3	59:BG:282:TYR:HE1	1.58	0.68
19:1B:272:TYR:HB3	60:EM:42:LEU:HD12	1.76	0.68
54:4M:68:TYR:OH	60:IC:392:LYS:NZ	2.23	0.68
59:AY:254:GLU:HA	59:AY:257:THR:HG22	1.75	0.68
60:CG:260:PHE:HB2	60:CG:263:LEU:HD13	1.75	0.68
59:DA:178:SER:HB3	60:DB:347:ASN:HD22	1.59	0.68
60:FO:334:GLN:HE21	60:FO:349:ILE:HD12	1.58	0.68
60:FS:298:ASN:O	60:FS:298:ASN:ND2	2.20	0.68
60:GX:220:PRO:HD2	59:GY:326:LYS:HZ3	1.58	0.68
59:HM:399:TYR:OH	59:HM:415:GLU:OE2	2.11	0.68
59:HO:216:ASN:O	59:HO:280:LYS:NZ	2.26	0.68
59:HQ:178:SER:OG	60:HR:347:ASN:ND2	2.27	0.68
60:KM:8:GLN:HE21	60:KM:65:LEU:HD22	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:LB:67:ASP:OD1	60:LB:68:LEU:N	2.26	0.68
1:0A:491:ALA:HB3	1:0A:502:ILE:HD12	1.75	0.68
1:0C:293:ASN:H	60:CL:218:THR:HG22	1.58	0.68
41:3A:327:ARG:HD2	59:HV:282:TYR:HE1	1.58	0.68
42:3F:93:ALA:O	59:BQ:42:ILE:HD11	1.93	0.68
59:CD:261:PRO:HG2	59:CD:265:ILE:HD11	1.75	0.68
60:DJ:67:ASP:OD1	60:DJ:68:LEU:N	2.26	0.68
60:GO:99:ASN:ND2	59:GP:254:GLU:OE1	2.26	0.68
59:GY:176:GLN:NE2	59:GY:207:GLU:OE2	2.27	0.68
60:JK:257:LEU:HD21	60:JK:314:SER:HB3	1.74	0.68
60:JV:232:VAL:HG21	60:JV:268:MET:SD	2.33	0.68
33:2D:294:CYS:HB3	33:2D:301:LEU:HB2	1.75	0.68
41:2W:125:LEU:HB3	41:2W:129:ARG:NH1	2.09	0.68
59:BI:123:ARG:HH12	59:BI:124:LYS:HE2	1.59	0.68
60:DV:344:TRP:HB3	60:DV:430:ILE:HD11	1.75	0.68
60:DW:286:VAL:HG23	60:DW:287:PRO:HD3	1.73	0.68
59:ER:215:ARG:HH12	59:ER:299:ALA:HB1	1.57	0.68
59:ET:222:PRO:HD2	60:EU:324:LYS:HD3	1.76	0.68
59:GJ:123:ARG:NH2	59:GW:297:GLU:OE2	2.27	0.68
60:GQ:200:MET:HG2	60:GQ:266:PHE:HB2	1.75	0.68
59:GW:221:ARG:NH1	60:GX:325:GLU:OE2	2.27	0.68
59:GY:178:SER:HB2	60:GZ:347:ASN:HD22	1.58	0.68
59:HZ:93:ILE:HD11	59:HZ:121:ARG:HG3	1.74	0.68
59:KD:254:GLU:HB3	59:KD:352:LYS:NZ	2.07	0.68
18:1A:21:SER:OG	18:1A:43:CYS:SG	2.50	0.68
59:AW:287:SER:OG	59:AW:290:GLU:OE1	2.08	0.68
59:AY:399:TYR:OH	59:AY:415:GLU:OE2	2.11	0.68
60:BR:170:ILE:HG13	60:BR:171:PRO:HD2	1.74	0.68
60:GZ:130:LEU:O	60:GZ:162:ARG:NH1	2.27	0.68
59:II:109:THR:HG23	59:II:110:ILE:HG13	1.76	0.68
60:KE:6:CYS:SG	60:KE:134:GLN:NE2	2.67	0.68
33:2C:115:ALA:HB3	33:2C:128:ILE:H	1.58	0.68
33:2D:511:ARG:HE	33:2D:554:ASN:HD22	1.39	0.68
35:2H:336:GLU:OE2	60:LB:276:ARG:NH1	2.27	0.68
41:2W:125:LEU:HB3	41:2W:129:ARG:HH12	1.58	0.68
59:AE:101:ASN:OD1	60:AF:252:LYS:NZ	2.27	0.68
59:BM:132:LEU:O	59:BM:164:LYS:NZ	2.26	0.68
59:BX:5:ILE:HD13	59:BX:64:ARG:HB3	1.76	0.68
60:CA:8:GLN:NE2	60:CA:13:GLY:O	2.25	0.68
59:CF:75:VAL:HG21	59:CF:94:SER:HB3	1.76	0.68
59:DA:216:ASN:O	59:DA:280:LYS:NZ	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GP:167:LEU:HD12	59:GP:252:LEU:HD23	1.76	0.68
59:HC:120:ASP:OD1	59:HC:123:ARG:NH2	2.26	0.68
59:JJ:178:SER:HB3	60:JK:347:ASN:HD22	1.58	0.68
42:3L:97:LYS:HD2	59:HZ:357:TYR:HD2	1.57	0.68
47:3W:36:HIS:CE1	47:3W:106:LYS:NZ	2.62	0.68
47:3X:235:ARG:NH2	48:4A:251:GLU:OE2	2.27	0.68
52:4I:38:ARG:NH2	60:KK:295:ASP:OD1	2.26	0.68
56:4Q:162:VAL:HG11	59:IZ:159:VAL:HG21	1.76	0.68
59:AA:215:ARG:HH22	59:AA:299:ALA:HB1	1.57	0.68
59:GG:192:HIS:HD2	59:GG:421:ALA:HA	1.57	0.68
60:GK:117:LEU:HD11	60:GK:154:LYS:HD3	1.76	0.68
59:GL:259:LEU:O	59:GL:380:ASN:ND2	2.26	0.68
60:GS:131:GLN:HA	60:GS:162:ARG:HH21	1.57	0.68
60:IJ:156:ARG:HD3	60:IJ:164:MET:HG3	1.74	0.68
5:0H:171:ARG:HG3	59:ER:282:TYR:HE1	1.59	0.68
16:0Y:233:ASN:ND2	16:0Y:238:GLU:OE1	2.26	0.68
59:AY:178:SER:OG	60:AZ:347:ASN:ND2	2.14	0.68
60:DD:237:THR:HG23	60:DD:240:LEU:HD12	1.76	0.68
59:DO:297:GLU:OE2	59:EB:123:ARG:NH2	2.27	0.68
59:DQ:195:LEU:HD11	59:DQ:264:ARG:HD2	1.76	0.68
59:JD:98:ASP:O	59:JD:105:ARG:NH1	2.26	0.68
59:KH:119:LEU:HD11	59:KH:156:ARG:HG2	1.75	0.68
9:0R:250:ASN:ND2	60:AB:37:GLN:OE1	2.24	0.68
60:AB:344:TRP:HB3	60:AB:430:ILE:HD11	1.76	0.68
59:AE:388:PHE:HB3	59:AE:425:LEU:HD21	1.74	0.68
59:CB:75:VAL:HG21	59:CB:94:SER:HB3	1.76	0.68
59:CB:209:ILE:HB	59:CB:227:LEU:HD22	1.75	0.68
59:CD:75:VAL:HG11	59:CD:94:SER:HB2	1.73	0.68
60:CL:344:TRP:HB3	60:CL:430:ILE:HD11	1.75	0.68
60:DF:8:GLN:HE21	60:DF:65:LEU:HG	1.59	0.68
60:HB:167:PHE:HE2	60:HB:233:VAL:HG13	1.57	0.68
59:JQ:175:PRO:HB3	59:JQ:390:ARG:HH12	1.57	0.68
5:0K:44:LYS:NZ	59:FH:55:GLU:OE2	2.24	0.68
40:2T:378:ARG:NH2	59:JB:55:GLU:OE1	2.27	0.68
47:3V:183:GLU:OE1	48:3Y:168:ARG:NH2	2.27	0.68
59:DI:399:TYR:OH	59:DI:415:GLU:OE2	2.11	0.68
60:GI:227:HIS:HB2	60:GI:276:ARG:HH21	1.59	0.68
60:HN:332:ASN:OD1	60:HN:336:LYS:NZ	2.25	0.68
60:KB:344:TRP:HB3	60:KB:430:ILE:HD11	1.75	0.68
1:0B:458:ILE:HB	1:0B:461:MET:HG2	1.75	0.67
60:AB:67:ASP:OD1	60:AB:68:LEU:N	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BA:325:PRO:O	59:BA:329:ASN:ND2	2.27	0.67
60:CG:398:TYR:HB3	60:CG:403:MET:HE2	1.75	0.67
60:DD:130:LEU:O	60:DD:162:ARG:NH1	2.27	0.67
60:FG:309:ARG:NH2	60:FG:343:GLU:OE2	2.28	0.67
59:FN:388:PHE:HB3	59:FN:425:LEU:HD21	1.76	0.67
60:IA:153:SER:HA	60:IA:195:ASN:HD21	1.60	0.67
59:IK:362:VAL:HG21	59:IK:370:LYS:HG2	1.76	0.67
60:IS:248:SER:OG	60:IS:350:LYS:NZ	2.27	0.67
59:KH:178:SER:HB2	60:KI:347:ASN:HD22	1.59	0.67
60:KV:70:PRO:HA	60:KV:73:MET:HE3	1.75	0.67
59:BO:242:LEU:HD11	59:BO:252:LEU:HD11	1.75	0.67
59:CF:46:ASP:OD1	59:CF:47:ASP:N	2.27	0.67
60:EI:35:THR:OG1	60:EI:37:GLN:NE2	2.27	0.67
59:FJ:75:VAL:HG21	59:FJ:94:SER:HB2	1.75	0.67
59:GA:178:SER:HB3	60:GB:347:ASN:HD22	1.58	0.67
59:GN:133:GLN:HE21	59:GN:242:LEU:HD11	1.58	0.67
60:HW:67:ASP:OD1	60:HW:68:LEU:N	2.28	0.67
59:JJ:88:HIS:HD2	59:JJ:89:PRO:HD2	1.58	0.67
60:JR:220:PRO:HG2	59:JS:326:LYS:HD3	1.77	0.67
60:JX:344:TRP:HB3	60:JX:430:ILE:HD11	1.76	0.67
60:LB:301:GLN:NE2	60:LB:377:MET:SD	2.65	0.67
44:3R:230:MET:O	60:KK:227:HIS:NE2	2.26	0.67
60:AB:392:LYS:NZ	60:AB:405:GLU:OE2	2.25	0.67
59:GE:396:ASP:OD1	59:GE:422:ARG:NH1	2.27	0.67
59:HK:222:PRO:O	60:HL:322:SER:OG	2.08	0.67
60:IY:309:ARG:NH1	60:IY:426:GLN:O	2.28	0.67
59:KS:399:TYR:OH	59:KS:415:GLU:OE2	2.10	0.67
59:BZ:325:PRO:O	59:BZ:329:ASN:ND2	2.28	0.67
60:CA:218:THR:HG23	60:CA:219:THR:HG22	1.77	0.67
60:FM:8:GLN:HE21	60:FM:65:LEU:HG	1.57	0.67
59:GP:47:ASP:OD1	59:GP:50:ASN:ND2	2.27	0.67
60:HS:259:PRO:HG2	60:HS:263:LEU:HD12	1.75	0.67
41:2Z:168:MET:HG2	59:IB:370:LYS:HD3	1.77	0.67
42:3L:123:PRO:HG3	59:HX:31:GLN:HG2	1.77	0.67
42:3N:42:THR:O	42:3N:46:GLU:HB2	1.94	0.67
59:CJ:5:ILE:HD13	59:CJ:64:ARG:HB3	1.76	0.67
60:DR:219:THR:HA	59:DS:326:LYS:NZ	2.10	0.67
59:EF:207:GLU:OE2	59:EF:304:LYS:NZ	2.27	0.67
59:IQ:181:VAL:HG13	59:IQ:182:VAL:HG23	1.75	0.67
60:JE:21:TRP:CZ3	60:JE:61:PRO:HB2	2.28	0.67
59:JS:167:LEU:HD11	59:JS:252:LEU:HD21	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:4H:33:ALA:HA	51:4H:36:HIS:CE1	2.30	0.67
59:AY:129:CYS:SG	59:AY:130:THR:N	2.66	0.67
59:BC:388:PHE:HB3	59:BC:425:LEU:HD21	1.76	0.67
59:CW:387:VAL:HA	59:CW:390:ARG:HH21	1.60	0.67
60:DP:62:ARG:NH1	60:DP:127:CYS:SG	2.68	0.67
59:DZ:269:LEU:HD22	59:DZ:303:THR:HG21	1.77	0.67
59:ET:221:ARG:NH1	60:EU:325:GLU:OE2	2.28	0.67
60:HY:52:ASP:OD1	60:HY:62:ARG:NH1	2.27	0.67
59:II:267:PHE:O	59:II:380:ASN:ND2	2.27	0.67
59:IQ:51:THR:HG21	59:IQ:243:ARG:HG2	1.76	0.67
5:0H:281:ARG:N	60:EU:221:THR:HG1	1.92	0.67
22:1E:58:GLU:O	22:1E:62:ASN:ND2	2.27	0.67
22:1E:225:SER:OG	59:FP:46:ASP:OD2	2.13	0.67
34:2E:217:LEU:HD22	39:2O:53:ILE:HD11	1.76	0.67
37:2M:61:LYS:HA	59:EN:163:LYS:HG2	1.76	0.67
41:3D:117:GLN:HE22	59:GW:370:LYS:H	1.41	0.67
60:BD:262:ARG:NH2	60:BD:421:GLU:OE2	2.28	0.67
59:GE:203:MET:HG3	59:GE:384:ILE:HD11	1.75	0.67
59:HT:270:THR:HG22	59:HT:378:ILE:HG13	1.77	0.67
60:HY:201:CYS:O	60:HY:301:GLN:NE2	2.27	0.67
59:II:269:LEU:HD22	59:II:303:THR:HG21	1.77	0.67
60:KB:67:ASP:OD1	60:KB:68:LEU:N	2.28	0.67
60:KG:67:ASP:OD1	60:KG:68:LEU:N	2.28	0.67
6:0N:383:GLU:OE1	6:0N:386:ARG:NH2	2.27	0.67
33:2D:372:CYS:SG	33:2D:386:SER:OG	2.52	0.67
39:2Q:262:ARG:NH2	44:3R:86:MET:SD	2.67	0.67
60:AD:344:TRP:HB3	60:AD:430:ILE:HD11	1.77	0.67
60:BR:48:ASN:O	60:BR:62:ARG:NH2	2.28	0.67
60:CC:156:ARG:NH2	60:CC:197:ASP:OD2	2.28	0.67
60:CG:309:ARG:NH2	60:CG:426:GLN:O	2.23	0.67
60:CL:204:ASN:OD1	64:CL:501:GDP:N2	2.27	0.67
60:CZ:149:THR:HA	60:CZ:152:ILE:HG12	1.77	0.67
60:DH:309:ARG:NH2	60:DH:426:GLN:O	2.28	0.67
60:FV:301:GLN:NE2	60:FV:377:MET:SD	2.65	0.67
60:GB:344:TRP:HB3	60:GB:430:ILE:HD11	1.75	0.67
60:HB:392:LYS:HA	60:HB:395:LEU:HD23	1.75	0.67
59:JQ:213:THR:HA	59:JQ:217:LEU:HB2	1.76	0.67
60:KT:220:PRO:HD2	59:KU:326:LYS:HD2	1.77	0.67
60:BJ:67:ASP:OD1	60:BJ:68:LEU:N	2.28	0.67
59:BU:298:PRO:HG3	59:BU:308:ARG:HH12	1.59	0.67
60:CI:298:ASN:HD22	60:CI:298:ASN:C	1.98	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DH:167:PHE:HA	60:DH:200:MET:HB2	1.77	0.67
60:FQ:257:LEU:HD23	60:FQ:312:THR:HB	1.76	0.67
59:GA:398:MET:HG3	59:GA:403:ALA:HB3	1.76	0.67
59:GR:69:ASP:OD1	59:GR:70:LEU:N	2.28	0.67
59:JF:296:PHE:HE2	59:JF:335:ILE:HG21	1.60	0.67
60:KT:65:LEU:HD22	60:KT:90:PHE:HE1	1.60	0.67
42:3H:50:LYS:HB3	59:IT:364:PRO:HG2	1.75	0.67
45:3S:78:LYS:NZ	45:3S:82:GLU:OE2	2.28	0.67
59:BE:3:GLU:HA	59:BE:51:THR:HA	1.76	0.67
60:BT:344:TRP:HB3	60:BT:430:ILE:HD11	1.76	0.67
60:DN:152:ILE:HD12	60:DN:164:MET:HE1	1.76	0.67
59:DO:269:LEU:HD21	59:DO:384:ILE:HD13	1.77	0.67
60:DV:67:ASP:OD1	60:DV:68:LEU:N	2.28	0.67
59:GG:325:PRO:O	59:GG:329:ASN:ND2	2.28	0.67
60:HR:322:SER:OG	60:HR:325:GLU:OE1	2.11	0.67
60:IC:22:GLU:HG2	60:IC:81:TYR:HD2	1.59	0.67
60:JA:237:THR:HG23	60:JA:240:LEU:HD12	1.77	0.67
60:JZ:67:ASP:OD1	60:JZ:68:LEU:N	2.28	0.67
60:JZ:200:MET:HB3	60:JZ:268:MET:HE3	1.76	0.67
60:KI:290:THR:HG21	60:KI:329:GLN:HB3	1.77	0.67
2:0E:339:PHE:HB3	60:DF:276:ARG:HH21	1.58	0.66
15:0X:27:LEU:O	15:0X:32:ARG:NH2	2.27	0.66
57:4R:58:ARG:NH1	57:4R:62:ASP:OD1	2.28	0.66
59:CF:212:LEU:HD11	59:CF:275:VAL:HG21	1.77	0.66
59:DS:191:THR:HG21	59:DS:425:LEU:HD12	1.77	0.66
59:HI:65:ALA:O	59:HI:91:GLN:NE2	2.25	0.66
60:IW:26:ASP:OD1	60:IW:359:LYS:NZ	2.28	0.66
59:IX:132:LEU:O	59:IX:164:LYS:NZ	2.27	0.66
60:AT:300:MET:O	60:AT:301:GLN:NE2	2.29	0.66
60:AZ:173:PRO:HG3	60:AZ:380:ARG:HD3	1.76	0.66
59:BM:5:ILE:HD13	59:BM:64:ARG:HB3	1.77	0.66
59:BM:105:ARG:HG2	59:BM:411:GLU:HG2	1.77	0.66
60:BP:391:ARG:NH1	59:BQ:439:SER:OG	2.27	0.66
59:CD:120:ASP:OD1	59:CD:124:LYS:NZ	2.28	0.66
60:CG:212:PHE:HZ	59:CH:326:LYS:HD2	1.60	0.66
59:CW:399:TYR:OH	59:CW:415:GLU:OE2	2.12	0.66
59:DM:285:GLN:HB3	59:DZ:56:THR:HA	1.77	0.66
60:DT:267:MET:HG2	60:DT:301:GLN:HG3	1.76	0.66
59:FN:46:ASP:OD1	59:FN:47:ASP:N	2.26	0.66
59:FU:65:ALA:O	59:FU:91:GLN:NE2	2.18	0.66
60:GM:396:HIS:HA	60:GM:399:THR:HG22	1.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GP:178:SER:HB2	60:GQ:347:ASN:HD22	1.60	0.66
59:IB:388:PHE:HB3	59:IB:425:LEU:HD21	1.76	0.66
60:JE:33:THR:O	60:JE:58:ARG:NH1	2.28	0.66
60:KX:391:ARG:HH11	59:KY:439:SER:HB3	1.60	0.66
60:BJ:318:ARG:HH11	60:BJ:318:ARG:HG2	1.60	0.66
60:DN:274:THR:HB	60:DN:282:ARG:HH21	1.61	0.66
59:EN:172:TYR:CD2	59:EN:203:MET:HE1	2.30	0.66
60:FS:7:VAL:HB	60:FS:135:ILE:HD13	1.77	0.66
60:HS:67:ASP:OD1	60:HS:68:LEU:N	2.29	0.66
60:KI:309:ARG:NH1	60:KI:339:SER:O	2.28	0.66
4:0G:725:ASN:ND2	4:0G:763:ASP:OD2	2.28	0.66
59:AA:50:ASN:O	59:AA:64:ARG:NH1	2.29	0.66
59:BI:54:SER:HB3	59:BI:64:ARG:HH21	1.60	0.66
59:DK:402:ARG:NH1	59:DK:415:GLU:OE2	2.28	0.66
59:FT:273:ALA:HB2	59:FT:295:VAL:HG23	1.76	0.66
62:GP:501:GTP:O3G	60:GQ:252:LYS:NZ	2.29	0.66
59:HA:254:GLU:HA	59:HA:257:THR:HG22	1.77	0.66
59:HC:219:ILE:HD12	59:HC:222:PRO:HG3	1.77	0.66
60:HW:218:THR:HG23	60:HW:219:THR:HG22	1.77	0.66
60:JG:201:CYS:SG	60:JG:301:GLN:NE2	2.68	0.66
41:2Y:252:ASN:OD1	60:IN:276:ARG:NH1	2.28	0.66
60:BP:48:ASN:O	60:BP:62:ARG:NH2	2.29	0.66
59:CM:399:TYR:OH	59:CM:415:GLU:OE2	2.10	0.66
60:FI:7:VAL:HB	60:FI:135:ILE:HD13	1.78	0.66
59:GC:192:HIS:NE2	59:GC:424:ASP:OD2	2.28	0.66
60:JA:153:SER:HA	60:JA:195:ASN:HD21	1.61	0.66
59:JF:109:THR:OG1	59:JF:110:ILE:HD12	1.96	0.66
4:0G:690:ARG:NH2	4:0G:755:ASP:OD2	2.29	0.66
27:1K:76:ARG:NH2	59:AS:85:GLN:OE1	2.28	0.66
40:2T:245:ALA:HB1	60:JI:276:ARG:HD2	1.77	0.66
57:4Y:33:LYS:HD3	57:4Y:34:PRO:HD2	1.76	0.66
59:AI:402:ARG:NH1	59:AI:415:GLU:OE2	2.26	0.66
60:AX:344:TRP:CD1	60:AX:345:ILE:HG13	2.31	0.66
59:BE:76:ASP:OD1	59:BE:79:ARG:NH1	2.29	0.66
60:BH:396:HIS:HA	60:BH:399:THR:HG22	1.78	0.66
59:DG:238:LEU:HD11	59:DG:255:PHE:HE2	1.60	0.66
60:DN:15:GLN:NE2	64:DN:501:GDP:O6	2.28	0.66
59:DO:399:TYR:OH	59:DO:415:GLU:OE2	2.14	0.66
60:KO:398:TYR:O	60:KO:401:GLU:N	2.28	0.66
59:KQ:269:LEU:HD22	59:KQ:303:THR:HG21	1.78	0.66
60:KV:15:GLN:NE2	64:KV:501:GDP:O6	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:0E:109:ARG:H	2:0E:208:THR:HG21	1.61	0.66
39:2Q:217:ARG:HH12	60:JM:58:ARG:HH21	1.43	0.66
59:AQ:273:ALA:HB2	59:AQ:295:VAL:HG22	1.78	0.66
59:DC:65:ALA:O	59:DC:91:GLN:NE2	2.29	0.66
60:EK:7:VAL:HB	60:EK:135:ILE:HG22	1.76	0.66
59:GR:69:ASP:OD1	59:GR:71:GLU:N	2.29	0.66
59:GY:239:THR:HG23	59:GY:243:ARG:HH12	1.61	0.66
60:HY:204:ASN:OD1	64:HY:501:GDP:N2	2.28	0.66
39:2P:217:ARG:NH2	60:JR:35:THR:OG1	2.29	0.66
52:4I:68:SER:OG	52:4I:71:GLN:OE1	2.14	0.66
59:BG:76:ASP:OD2	60:BH:46:ARG:NH2	2.28	0.66
59:BU:93:ILE:HD11	59:BU:121:ARG:HD3	1.77	0.66
60:EU:267:MET:HE1	60:EU:371:ASN:HB3	1.75	0.66
60:GM:173:PRO:HB3	60:GM:380:ARG:HH22	1.59	0.66
59:GT:22:GLU:OE1	59:GT:83:TYR:OH	2.12	0.66
59:HZ:252:LEU:HA	59:HZ:255:PHE:HD2	1.60	0.66
60:IU:32:PRO:HA	60:IU:84:ILE:HD11	1.78	0.66
59:JD:88:HIS:HD2	59:JD:89:PRO:HD2	1.61	0.66
60:JE:101:TRP:HZ3	60:JE:187:LEU:HB3	1.60	0.66
60:JE:237:THR:HG23	60:JE:240:LEU:HD12	1.77	0.66
59:JN:178:SER:HG	60:JO:347:ASN:HD22	1.41	0.66
59:JQ:223:THR:HA	60:JR:323:THR:HG22	1.78	0.66
60:LB:27:GLU:OE2	60:LB:241:ARG:NH2	2.28	0.66
25:1H:200:ASP:OD2	25:1H:209:ARG:NH2	2.29	0.66
26:1J:51:LEU:HD23	59:EX:26:LEU:HD23	1.77	0.66
41:2Z:259:GLU:OE1	60:IE:276:ARG:NH1	2.29	0.66
60:BP:8:GLN:NE2	60:BP:13:GLY:O	2.26	0.66
59:CO:212:LEU:HD11	59:CO:275:VAL:HG21	1.76	0.66
59:CS:215:ARG:HH12	59:CS:299:ALA:HB1	1.61	0.66
59:ID:5:ILE:HD13	59:ID:64:ARG:HB3	1.78	0.66
59:II:123:ARG:NH1	59:II:127:ASP:OD1	2.29	0.66
60:IL:313:ALA:HB3	60:IL:349:ILE:HG12	1.78	0.66
60:IP:204:ASN:OD1	64:IP:501:GDP:N2	2.28	0.66
59:JB:5:ILE:HD13	59:JB:64:ARG:HB3	1.76	0.66
59:JD:66:VAL:HG12	59:JD:91:GLN:NE2	2.11	0.66
59:JJ:3:GLU:OE1	59:JJ:64:ARG:NH1	2.29	0.66
59:JP:75:VAL:HG21	59:JP:94:SER:HB2	1.77	0.66
60:KE:318:ARG:HE	60:KE:358:PRO:HD3	1.60	0.66
59:LA:287:SER:N	59:LA:290:GLU:OE2	2.25	0.66
4:0G:469:GLU:OE1	4:0G:482:ARG:NH1	2.29	0.66
33:2B:195:VAL:HG22	33:2B:235:LEU:HD12	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2R:387:GLN:NE2	60:JT:276:ARG:O	2.28	0.66
46:3U:81:MET:HG2	60:EY:337:ASN:ND2	2.10	0.66
54:4N:15:THR:HG23	59:HI:442:MET:HE3	1.77	0.66
60:DT:344:TRP:HB3	60:DT:430:ILE:HD11	1.78	0.66
59:ED:285:GLN:NE2	59:EP:56:THR:OG1	2.22	0.66
59:EH:91:GLN:HE22	59:EH:125:LEU:HD21	1.61	0.66
59:GP:212:LEU:HD21	59:GP:275:VAL:HG21	1.77	0.66
60:HR:103:LYS:NZ	60:HR:401:GLU:OE1	2.29	0.66
60:HR:282:ARG:NH1	60:HR:283:GLY:O	2.29	0.66
59:HV:192:HIS:HD2	59:HV:421:ALA:HA	1.60	0.66
60:IA:7:VAL:HB	60:IA:135:ILE:HG22	1.77	0.66
60:IF:318:ARG:HE	60:IF:358:PRO:HD3	1.60	0.66
59:JH:7:ILE:HB	59:JH:137:VAL:HG12	1.78	0.66
60:KB:334:GLN:NE2	60:KB:348:ASN:H	1.94	0.66
30:1R:77:LYS:HE3	36:2J:58:VAL:HG23	1.78	0.65
41:2W:204:LYS:HD3	60:IU:276:ARG:HE	1.60	0.65
42:3K:246:PRO:HA	42:3K:252:TYR:HB3	1.77	0.65
59:AG:207:GLU:OE2	59:AG:304:LYS:NZ	2.28	0.65
60:AT:173:PRO:HB3	60:AT:380:ARG:HD3	1.78	0.65
60:BF:67:ASP:OD1	60:BF:68:LEU:N	2.29	0.65
60:CG:173:PRO:HB3	60:CG:380:ARG:HD3	1.76	0.65
60:CL:237:THR:HG23	60:CL:240:LEU:HD12	1.76	0.65
59:CW:325:PRO:O	59:CW:329:ASN:ND2	2.29	0.65
60:CX:344:TRP:HB3	60:CX:430:ILE:HD11	1.78	0.65
59:ED:76:ASP:OD1	59:ED:79:ARG:NH1	2.27	0.65
59:EF:88:HIS:HB3	59:EF:91:GLN:HG3	1.78	0.65
59:HO:15:GLN:NE2	62:HO:501:GTP:O6	2.29	0.65
60:HS:309:ARG:NH1	60:HS:339:SER:O	2.29	0.65
59:JH:254:GLU:HA	59:JH:257:THR:HG22	1.78	0.65
59:JL:133:GLN:HE21	59:JL:242:LEU:HD11	1.61	0.65
59:KP:396:ASP:OD1	59:KP:422:ARG:NH1	2.28	0.65
60:KX:344:TRP:HB3	60:KX:430:ILE:HD11	1.79	0.65
1:0B:244:GLN:NE2	59:DM:58:ALA:O	2.29	0.65
16:0Y:195:ASN:ND2	16:0Y:197:ASP:OD1	2.30	0.65
60:AB:334:GLN:HE22	60:AB:347:ASN:HA	1.61	0.65
60:AL:375:GLN:OE1	60:AL:379:ARG:NH2	2.29	0.65
59:CF:5:ILE:HD13	59:CF:64:ARG:HB3	1.77	0.65
59:CM:120:ASP:OD1	59:CM:124:LYS:NZ	2.30	0.65
60:CR:153:SER:HA	60:CR:195:ASN:ND2	2.11	0.65
59:DM:399:TYR:OH	59:DM:415:GLU:OE2	2.11	0.65
60:DT:237:THR:HG23	60:DT:240:LEU:HD12	1.76	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DX:298:PRO:HG3	59:DX:308:ARG:HH12	1.60	0.65
59:EX:111:GLY:HA2	59:EX:114:ILE:HG22	1.78	0.65
60:FK:170:ILE:HG21	60:FK:377:MET:HE3	1.76	0.65
59:GE:192:HIS:NE2	59:GE:424:ASP:OD2	2.29	0.65
60:HS:182:PRO:O	60:HS:186:THR:HG23	1.96	0.65
59:HV:399:TYR:OH	59:HV:415:GLU:OE2	2.11	0.65
60:JA:292:GLN:OE1	60:JA:298:ASN:ND2	2.29	0.65
60:JZ:149:THR:HB	60:JZ:191:GLN:HG2	1.78	0.65
60:AP:173:PRO:HB3	60:AP:380:ARG:HD3	1.78	0.65
59:AS:399:TYR:OH	59:AS:415:GLU:OE2	2.12	0.65
59:AS:406:HIS:HA	59:AS:409:VAL:HG12	1.79	0.65
60:BJ:35:THR:OG1	60:BJ:37:GLN:NE2	2.29	0.65
60:DD:344:TRP:HB3	60:DD:430:ILE:HD11	1.78	0.65
60:DF:149:THR:HA	60:DF:152:ILE:HG12	1.78	0.65
59:GG:88:HIS:CD2	59:GG:90:GLU:HG2	2.31	0.65
60:GM:202:ILE:HD11	60:GM:268:MET:HG2	1.78	0.65
59:HE:75:VAL:HG21	59:HE:94:SER:HB2	1.79	0.65
59:HK:88:HIS:HB3	59:HK:91:GLN:HE22	1.61	0.65
60:JM:27:GLU:HA	60:JM:359:LYS:HZ1	1.61	0.65
59:JP:90:GLU:OE1	59:JP:121:ARG:HD2	1.96	0.65
60:KT:170:ILE:HD13	60:KT:201:CYS:HB3	1.77	0.65
23:1F:109:ASP:OD1	60:GB:279:GLN:NE2	2.30	0.65
53:4L:27:ASN:ND2	60:JG:295:ASP:OD1	2.29	0.65
60:AZ:213:ARG:HH12	60:AZ:297:LYS:HZ2	1.43	0.65
59:BU:273:ALA:HB2	59:BU:295:VAL:HG23	1.78	0.65
60:CL:99:ASN:HD21	60:CL:178:THR:HG21	1.60	0.65
59:DA:399:TYR:OH	59:DA:415:GLU:OE2	2.13	0.65
60:EO:31:ASP:OD1	60:EO:32:PRO:HD2	1.96	0.65
59:FP:76:ASP:OD1	59:FP:79:ARG:NH1	2.28	0.65
59:GJ:27:GLU:OE1	59:GJ:243:ARG:NH2	2.30	0.65
59:GY:216:ASN:O	59:GY:280:LYS:NZ	2.24	0.65
60:IE:11:GLN:NE2	64:IE:501:GDP:O2A	2.28	0.65
60:JC:55:THR:HG23	60:JO:283:GLY:HA3	1.78	0.65
60:KG:344:TRP:HB3	60:KG:430:ILE:HD11	1.79	0.65
4:0G:328:GLY:HA3	60:DB:77:ARG:HH12	1.61	0.65
4:0G:724:LEU:HD23	4:0G:764:ILE:HD11	1.78	0.65
36:2K:206:ASP:OD1	36:2K:207:PHE:N	2.29	0.65
47:3V:194:LEU:HD22	48:3Y:178:LEU:HD13	1.77	0.65
57:4Y:34:PRO:HD3	59:FU:430:LYS:HZ2	1.59	0.65
59:BX:117:LEU:HB3	59:BX:121:ARG:HH12	1.61	0.65
60:CT:153:SER:HA	60:CT:195:ASN:HD21	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CU:191:THR:HG23	59:CU:425:LEU:HD11	1.78	0.65
59:DI:15:GLN:NE2	62:DI:602:GTP:O6	2.30	0.65
60:EK:52:ASP:OD1	60:EK:62:ARG:NH2	2.29	0.65
60:EM:55:THR:O	60:EM:58:ARG:NH1	2.28	0.65
59:FL:388:PHE:HB3	59:FL:425:LEU:HD21	1.77	0.65
60:GM:86:ARG:HE	60:GZ:282:ARG:HH12	1.44	0.65
59:GN:76:ASP:OD1	59:GN:79:ARG:NH1	2.30	0.65
59:HC:222:PRO:HD2	60:HD:324:LYS:HE3	1.78	0.65
60:HR:10:GLY:O	60:HR:14:ASN:ND2	2.28	0.65
59:IZ:75:VAL:HG21	59:IZ:94:SER:HB3	1.79	0.65
60:JA:204:ASN:OD1	64:JA:501:GDP:N2	2.30	0.65
60:KO:344:TRP:HB3	60:KO:430:ILE:HD11	1.78	0.65
1:0B:293:ASN:H	60:CN:218:THR:HG22	1.62	0.65
40:2T:249:GLU:OE1	60:JI:276:ARG:NE	2.30	0.65
41:3C:334:MET:HE3	59:HM:279:GLU:HA	1.77	0.65
59:AC:207:GLU:OE2	59:AC:304:LYS:NZ	2.29	0.65
59:BQ:75:VAL:HG21	59:BQ:94:SER:HB2	1.77	0.65
60:CL:139:LEU:HD13	60:CL:168:SER:HB2	1.78	0.65
60:DW:286:VAL:HG21	60:DW:325:GLU:HB3	1.78	0.65
60:FG:156:ARG:HH22	60:FG:197:ASP:HB2	1.61	0.65
59:FL:93:ILE:HD11	59:FL:121:ARG:HG3	1.77	0.65
60:GF:344:TRP:HB3	60:GF:430:ILE:HD11	1.78	0.65
59:GY:181:VAL:HG23	59:GY:182:VAL:HG23	1.76	0.65
60:HJ:27:GLU:OE2	60:HJ:241:ARG:NH2	2.29	0.65
60:HN:153:SER:HA	60:HN:195:ASN:HD21	1.62	0.65
59:HX:311:LYS:HZ2	59:HX:342:GLN:HB3	1.62	0.65
59:IG:212:LEU:HD21	59:IG:275:VAL:HG21	1.77	0.65
60:IY:66:ILE:HG22	60:IY:91:ILE:HD11	1.79	0.65
60:JA:398:TYR:HB3	60:JA:403:MET:HE2	1.79	0.65
60:JC:204:ASN:OD1	64:JC:501:GDP:N2	2.29	0.65
60:JE:204:ASN:OD1	64:JE:501:GDP:N2	2.30	0.65
60:JG:286:VAL:HG21	60:JG:325:GLU:HB3	1.79	0.65
59:KF:121:ARG:HH21	59:KF:124:LYS:HD2	1.61	0.65
4:0G:302:PHE:HZ	4:0G:413:LEU:HD11	1.62	0.65
10:0S:19:GLN:OE1	10:0S:101:ASN:ND2	2.27	0.65
37:2L:231:ARG:NH2	60:EQ:299:MET:O	2.29	0.65
42:3N:40:GLU:O	60:HH:320:ARG:NH2	2.30	0.65
47:3W:212:ASN:ND2	47:3W:273:PRO:O	2.29	0.65
60:AN:67:ASP:OD1	60:AN:68:LEU:N	2.30	0.65
59:BE:88:HIS:HD2	59:BE:90:GLU:H	1.45	0.65
60:BJ:237:THR:HG23	60:BJ:240:LEU:HD12	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CR:153:SER:HA	60:CR:195:ASN:HD21	1.61	0.65
59:DC:178:SER:HB3	60:DD:347:ASN:HD22	1.60	0.65
59:DE:242:LEU:HD11	59:DE:252:LEU:HD11	1.79	0.65
60:EM:62:ARG:NH2	60:EM:127:CYS:SG	2.69	0.65
60:FO:309:ARG:NH2	60:FO:343:GLU:OE1	2.29	0.65
60:FS:48:ASN:O	60:FS:62:ARG:NH1	2.28	0.65
59:HQ:147:SER:HG	59:HQ:190:SER:HG	1.42	0.65
59:HX:402:ARG:NH1	59:HX:415:GLU:OE2	2.30	0.65
59:IG:75:VAL:HG21	59:IG:94:SER:HB2	1.78	0.65
41:2W:298:ARG:NH2	41:2W:301:ASN:OD1	2.30	0.65
42:3N:42:THR:O	42:3N:46:GLU:CB	2.45	0.65
45:3S:22:PRO:HB2	52:4I:32:MET:HG3	1.79	0.65
45:3S:39:CYS:SG	60:JX:94:GLN:NE2	2.70	0.65
60:BF:173:PRO:HG2	60:BF:174:LYS:HD3	1.76	0.65
59:BI:396:ASP:OD1	59:BI:422:ARG:NH1	2.30	0.65
59:BW:275:VAL:HG13	59:BW:368:LEU:HD21	1.79	0.65
59:CD:311:LYS:NZ	59:CD:438:GLU:OE2	2.28	0.65
59:CF:215:ARG:HH12	59:CF:299:ALA:HB1	1.62	0.65
60:CL:201:CYS:SG	60:CL:301:GLN:NE2	2.69	0.65
59:DX:91:GLN:HE22	59:DX:125:LEU:HD21	1.61	0.65
60:DY:392:LYS:HD2	60:DY:395:LEU:HD12	1.79	0.65
59:EP:242:LEU:HD11	59:EP:252:LEU:HD11	1.79	0.65
60:GV:62:ARG:NH1	60:GV:127:CYS:SG	2.70	0.65
60:HB:344:TRP:HB3	60:HB:430:ILE:HD11	1.78	0.65
59:HC:75:VAL:HG21	59:HC:94:SER:HB2	1.78	0.65
60:HW:173:PRO:HA	60:HW:380:ARG:HH12	1.62	0.65
60:IA:134:GLN:NE2	60:IA:165:MET:SD	2.70	0.65
59:II:157:LEU:HD22	59:II:166:LYS:HD3	1.78	0.65
59:IQ:178:SER:OG	60:IR:347:ASN:ND2	2.30	0.65
59:JN:273:ALA:HB2	59:JN:295:VAL:HG23	1.78	0.65
17:0Z:422:VAL:HG11	17:0Z:501:PRO:HB3	1.78	0.65
53:4K:228:ALA:O	60:JK:291:GLN:NE2	2.30	0.65
60:BN:67:ASP:OD1	60:BN:68:LEU:N	2.29	0.65
60:BR:173:PRO:HG3	60:BR:380:ARG:NE	2.11	0.65
59:EF:362:VAL:HG21	59:EF:370:LYS:HG3	1.78	0.65
59:EN:75:VAL:HG21	59:EN:94:SER:HB2	1.78	0.65
60:GD:170:ILE:HD12	60:GD:201:CYS:HB3	1.79	0.65
60:GK:200:MET:HG2	60:GK:266:PHE:HB2	1.79	0.65
60:GV:344:TRP:HB3	60:GV:430:ILE:HD11	1.79	0.65
59:HI:442:MET:O	59:HI:443:ASP:C	2.35	0.65
60:HN:271:ALA:HA	60:HN:298:ASN:HD21	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HW:62:ARG:NH1	60:HW:127:CYS:SG	2.70	0.65
59:JF:75:VAL:HG21	59:JF:94:SER:HB3	1.77	0.65
60:JI:201:CYS:SG	60:JI:301:GLN:NE2	2.69	0.65
60:JI:240:LEU:HD11	60:JI:250:LEU:HD11	1.78	0.65
60:JM:156:ARG:NH2	60:JM:197:ASP:OD2	2.29	0.65
39:2R:330:GLU:HB3	39:2R:334:ARG:NH1	2.12	0.65
41:3A:248:MET:HA	41:3A:251:HIS:CE1	2.32	0.65
48:4A:241:ILE:HD11	60:HU:40:SER:HA	1.79	0.65
60:AZ:174:LYS:HD3	60:AZ:175:VAL:HG23	1.78	0.65
59:BO:297:GLU:OE2	59:CB:123:ARG:NH2	2.19	0.65
60:BY:16:ILE:HD11	60:BY:136:CYS:HB3	1.78	0.65
60:CA:27:GLU:OE2	60:CA:241:ARG:NH2	2.30	0.65
60:CV:153:SER:HA	60:CV:195:ASN:HD21	1.62	0.65
60:DF:153:SER:HA	60:DF:195:ASN:HD21	1.61	0.65
59:DG:207:GLU:OE2	59:DG:304:LYS:NZ	2.28	0.65
60:DP:31:ASP:OD1	60:DP:32:PRO:HD2	1.97	0.65
60:DV:173:PRO:HG3	60:DV:380:ARG:HE	1.62	0.65
60:HD:344:TRP:HB3	60:HD:430:ILE:HD11	1.78	0.65
59:HG:399:TYR:OH	59:HG:415:GLU:OE2	2.13	0.65
60:IR:313:ALA:HB3	60:IR:349:ILE:HG12	1.78	0.65
60:IS:423:GLN:NE2	60:IS:427:ASP:OD2	2.30	0.65
60:JG:286:VAL:HG23	60:JG:287:PRO:HD3	1.79	0.65
59:JP:108:TYR:O	59:JP:112:LYS:NZ	2.16	0.65
59:KD:216:ASN:O	59:KD:280:LYS:NZ	2.24	0.65
59:KP:251:ASP:HB3	59:KP:254:GLU:HG2	1.79	0.65
17:0Z:123:ASP:HB2	17:0Z:144:HIS:HB2	1.79	0.64
41:2Z:259:GLU:HB3	60:IE:276:ARG:HH22	1.61	0.64
42:3L:186:THR:N	60:HU:355:ASP:OD2	2.28	0.64
60:BL:282:ARG:NH1	60:BL:288:GLU:OE2	2.30	0.64
59:BZ:191:THR:HG21	59:BZ:425:LEU:HD12	1.79	0.64
59:DC:207:GLU:OE2	59:DC:304:LYS:NZ	2.30	0.64
59:HE:399:TYR:O	59:HE:402:ARG:NH2	2.30	0.64
60:HY:49:VAL:O	60:HY:62:ARG:NH2	2.30	0.64
60:IA:296:ALA:HA	60:IA:299:MET:HE2	1.79	0.64
60:IE:8:GLN:HE22	60:IE:63:SER:HB2	1.62	0.64
60:IF:384:GLN:HE22	59:IG:348:PRO:HB2	1.59	0.64
64:IJ:501:GDP:H2'	59:IK:248:LEU:HD11	1.79	0.64
60:LB:54:ALA:HB3	60:LB:58:ARG:HG2	1.80	0.64
13:0V:113:PHE:HD2	13:0V:217:ARG:HH21	1.43	0.64
54:4O:60:GLU:HG3	59:HT:440:ALA:HB3	1.79	0.64
59:BG:298:PRO:HG3	59:BG:308:ARG:HH21	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CQ:402:ARG:NH1	59:CQ:415:GLU:OE2	2.29	0.64
60:CV:396:HIS:HA	60:CV:399:THR:HG22	1.78	0.64
60:FC:156:ARG:NH2	60:FC:197:ASP:OD1	2.28	0.64
60:FC:178:THR:HG23	60:FC:181:GLU:HG3	1.78	0.64
59:FN:222:PRO:HD2	60:FO:324:LYS:HG3	1.78	0.64
60:FZ:149:THR:HB	60:FZ:191:GLN:HG2	1.80	0.64
60:GK:342:ILE:HD11	60:GK:345:ILE:HD12	1.80	0.64
59:HZ:40:LYS:HD3	59:HZ:42:ILE:HG23	1.77	0.64
59:IM:101:ASN:HB3	59:IM:182:VAL:HG21	1.79	0.64
60:JG:156:ARG:NH1	60:JG:197:ASP:OD2	2.30	0.64
59:JS:399:TYR:OH	59:JS:415:GLU:OE2	2.14	0.64
5:0H:216:GLN:NE2	26:1I:171:GLU:OE2	2.31	0.64
39:2P:178:ASN:OD1	39:2P:179:GLU:N	2.30	0.64
41:3C:148:ARG:NH1	41:3C:149:GLN:OE1	2.30	0.64
55:4P:163:ARG:HH12	59:JJ:308:ARG:HH11	1.46	0.64
59:DK:215:ARG:HH12	59:DK:299:ALA:HB1	1.62	0.64
60:EQ:156:ARG:NH1	60:EQ:197:ASP:OD2	2.30	0.64
60:ES:170:ILE:HG23	60:ES:171:PRO:HD2	1.80	0.64
59:FF:101:ASN:HD22	60:FG:256:ASN:HD21	1.46	0.64
59:FP:2:ARG:HG3	59:FP:3:GLU:OE1	1.97	0.64
60:FQ:170:ILE:HG22	60:FQ:171:PRO:HD2	1.80	0.64
59:FT:388:PHE:HB3	59:FT:425:LEU:HD21	1.80	0.64
60:GS:200:MET:HG2	60:GS:266:PHE:HB2	1.79	0.64
59:GY:121:ARG:O	59:GY:124:LYS:HG3	1.97	0.64
59:HK:120:ASP:OD1	59:HK:124:LYS:NZ	2.30	0.64
59:IZ:133:GLN:NE2	59:IZ:251:ASP:OD1	2.22	0.64
60:JC:332:ASN:OD1	60:JC:336:LYS:NZ	2.29	0.64
60:KM:156:ARG:NH2	60:KM:197:ASP:OD1	2.30	0.64
4:0G:353:HIS:HB2	4:0G:358:ILE:HG23	1.79	0.64
39:2Q:26:ARG:NH2	39:2Q:38:SER:O	2.29	0.64
41:3C:180:ARG:HB3	41:3C:184:ARG:NH1	2.13	0.64
42:3H:75:LYS:NZ	42:3H:80:GLU:OE1	2.30	0.64
45:3S:26:VAL:O	60:JX:94:GLN:NE2	2.31	0.64
60:AB:27:GLU:O	60:AB:43:GLN:NE2	2.31	0.64
60:AP:67:ASP:OD1	60:AP:68:LEU:N	2.30	0.64
59:AW:88:HIS:HB3	59:AW:91:GLN:HG2	1.79	0.64
60:BL:135:ILE:HD11	60:BL:166:THR:HG22	1.79	0.64
60:BR:267:MET:HE3	60:BR:371:ASN:HB3	1.79	0.64
59:GN:47:ASP:HB2	59:GN:50:ASN:OD1	1.97	0.64
59:HO:212:LEU:HA	59:HO:215:ARG:HE	1.63	0.64
60:HY:10:GLY:O	60:HY:14:ASN:ND2	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IV:72:PRO:HD2	60:IW:2:ARG:HH12	1.62	0.64
60:JC:298:ASN:O	60:JC:298:ASN:ND2	2.29	0.64
60:JE:318:ARG:HH11	60:JE:318:ARG:HG2	1.61	0.64
47:3W:94:ARG:HG2	47:3W:124:LEU:HD23	1.79	0.64
59:AU:222:PRO:O	60:AV:322:SER:OG	2.15	0.64
60:CE:304:ASP:OD2	60:CE:306:ARG:NE	2.31	0.64
59:FR:2:ARG:NH2	59:FR:130:THR:OG1	2.29	0.64
60:GS:237:THR:HG23	60:GS:240:LEU:HD12	1.79	0.64
59:HX:155:GLU:HG2	59:HX:197:HIS:HD2	1.63	0.64
59:IM:93:ILE:HD11	59:IM:121:ARG:HG3	1.78	0.64
60:IN:292:GLN:HG2	60:IN:298:ASN:HD22	1.63	0.64
59:IO:50:ASN:O	59:IO:64:ARG:NH2	2.27	0.64
60:KO:96:GLY:O	60:KO:103:LYS:NZ	2.30	0.64
59:KW:251:ASP:N	59:KW:254:GLU:OE1	2.26	0.64
60:KX:67:ASP:OD1	60:KX:68:LEU:N	2.31	0.64
17:0Z:459:THR:OG1	17:0Z:461:ASP:OD1	2.13	0.64
26:1I:362:LYS:NZ	59:FN:245:ASP:OD2	2.31	0.64
36:2J:85:ALA:HB3	36:2J:97:PHE:HB2	1.80	0.64
42:3L:188:THR:HA	42:3L:192:PRO:HG2	1.78	0.64
59:BW:259:LEU:HD21	59:BW:316:CYS:HB2	1.79	0.64
59:DA:342:GLN:NE2	59:DA:343:PHE:O	2.31	0.64
59:EJ:287:SER:N	59:EJ:290:GLU:OE2	2.28	0.64
60:GF:232:VAL:HG22	60:GF:268:MET:HE2	1.80	0.64
60:GZ:52:ASP:OD1	60:GZ:53:GLU:N	2.31	0.64
59:HQ:387:VAL:HA	59:HQ:390:ARG:HH21	1.62	0.64
60:IJ:173:PRO:HB3	60:IJ:380:ARG:HH22	1.62	0.64
59:JB:69:ASP:OD1	59:JB:70:LEU:N	2.31	0.64
60:JC:16:ILE:HD11	60:JC:136:CYS:HB3	1.79	0.64
60:JC:32:PRO:HG3	60:JC:81:TYR:HE1	1.61	0.64
59:KD:195:LEU:HD11	59:KD:264:ARG:HD2	1.79	0.64
60:LB:309:ARG:NH2	60:LB:343:GLU:OE1	2.29	0.64
1:0C:421:THR:O	1:0C:508:ARG:NH1	2.29	0.64
11:0T:20:ASN:ND2	59:GA:322:ASP:OD1	2.30	0.64
18:1A:164:TYR:OH	18:1A:203:PHE:O	2.15	0.64
31:1T:278:SER:O	31:1T:282:ASN:ND2	2.30	0.64
60:BT:242:PHE:HB3	60:BT:356:ILE:HD13	1.80	0.64
60:DY:318:ARG:NH1	60:DY:356:ILE:O	2.31	0.64
60:ES:176:SER:OG	60:ES:178:THR:O	2.15	0.64
60:EY:67:ASP:OD1	60:EY:68:LEU:N	2.30	0.64
60:IN:350:LYS:HZ3	60:IN:352:SER:HG	1.45	0.64
59:IX:226:ASN:ND2	59:IX:367:ASP:OD2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0B:444:VAL:HG12	1:0B:451:ILE:HG22	1.80	0.64
25:1H:276:ILE:HD11	59:AU:79:ARG:HG2	1.80	0.64
33:2D:374:CYS:HB2	33:2D:387:GLY:H	1.63	0.64
47:3W:36:HIS:CE1	47:3W:106:LYS:HZ3	2.16	0.64
59:AQ:120:ASP:OD1	59:AQ:124:LYS:NZ	2.26	0.64
60:DB:212:PHE:HZ	59:DC:326:LYS:HD2	1.61	0.64
59:EB:75:VAL:HG21	59:EB:94:SER:HB2	1.79	0.64
59:GE:73:THR:HG21	60:GF:247:ASN:HD22	1.62	0.64
59:IB:399:TYR:OH	59:IB:415:GLU:OE2	2.16	0.64
59:II:287:SER:HA	59:II:373:ARG:HH21	1.62	0.64
60:IP:311:LEU:HD23	60:IP:342:ILE:HG13	1.79	0.64
59:IX:76:ASP:OD1	59:IX:79:ARG:NH1	2.30	0.64
59:JS:218:ASP:OD2	59:JS:280:LYS:NZ	2.30	0.64
32:1Y:78:MET:HG2	32:1Y:165:LEU:HD22	1.79	0.64
39:2P:375:LEU:HD21	45:3S:125:ARG:HH12	1.63	0.64
40:2T:157:ASP:OD1	40:2T:161:LYS:NZ	2.28	0.64
59:BC:269:LEU:HD22	59:BC:303:THR:HG21	1.80	0.64
59:DG:287:SER:OG	59:DG:290:GLU:OE1	2.10	0.64
59:DZ:242:LEU:HD11	59:DZ:252:LEU:HD11	1.79	0.64
60:EQ:10:GLY:O	60:EQ:14:ASN:ND2	2.25	0.64
59:FJ:47:ASP:OD1	59:FJ:50:ASN:ND2	2.31	0.64
59:GH:27:GLU:OE2	59:GH:243:ARG:NH1	2.30	0.64
59:GP:207:GLU:OE1	59:GP:304:LYS:NZ	2.28	0.64
60:GX:344:TRP:HB3	60:GX:430:ILE:HD11	1.79	0.64
59:HO:88:HIS:HB3	59:HO:91:GLN:OE1	1.98	0.64
60:JK:6:CYS:SG	60:JK:134:GLN:NE2	2.65	0.64
60:KZ:301:GLN:HE22	60:KZ:374:ILE:HG13	1.62	0.64
1:0A:301:ARG:HH12	59:DI:44:VAL:HG21	1.63	0.64
41:3D:208:ASP:OD1	41:3D:211:ARG:NH2	2.29	0.64
60:AZ:73:MET:SD	60:AZ:77:ARG:NH1	2.71	0.64
59:BE:2:ARG:N	59:BE:133:GLN:OE1	2.30	0.64
60:BH:426:GLN:O	60:BH:427:ASP:C	2.37	0.64
60:CZ:103:LYS:NZ	60:CZ:401:GLU:OE1	2.30	0.64
60:DD:54:ALA:HB3	60:DD:58:ARG:HG3	1.79	0.64
60:DD:170:ILE:HD12	60:DD:201:CYS:HB3	1.79	0.64
59:DM:259:LEU:HD21	59:DM:316:CYS:HB2	1.79	0.64
60:FG:48:ASN:O	60:FG:62:ARG:NH1	2.29	0.64
59:GT:98:ASP:O	59:GT:105:ARG:NH2	2.23	0.64
59:HV:123:ARG:NH1	59:HV:127:ASP:OD1	2.31	0.64
60:IL:10:GLY:O	60:IL:14:ASN:ND2	2.27	0.64
59:IO:212:LEU:HD21	59:IO:275:VAL:HG21	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IP:27:GLU:OE2	60:IP:241:ARG:NH2	2.31	0.64
60:IP:139:LEU:HD21	60:IP:168:SER:HB2	1.80	0.64
59:JB:7:ILE:HB	59:JB:137:VAL:HG12	1.80	0.64
59:JF:76:ASP:OD1	59:JF:79:ARG:NH1	2.31	0.64
39:2Q:212:LEU:HA	39:2Q:215:HIS:CE1	2.33	0.63
60:AJ:282:ARG:NH2	60:AJ:292:GLN:OE1	2.31	0.63
59:AM:406:HIS:HA	59:AM:409:VAL:HG12	1.80	0.63
59:BX:195:LEU:HD21	59:BX:428:LEU:HD22	1.79	0.63
59:ED:207:GLU:OE2	59:ED:304:LYS:NZ	2.31	0.63
60:FG:237:THR:HG23	60:FG:240:LEU:HD12	1.80	0.63
60:HR:257:LEU:HD21	60:HR:314:SER:HB2	1.79	0.63
60:HS:396:HIS:HA	60:HS:399:THR:HG22	1.80	0.63
60:IH:139:LEU:HD11	60:IH:168:SER:HB2	1.79	0.63
60:JO:52:ASP:OD1	60:JO:53:GLU:N	2.31	0.63
59:JP:405:VAL:HG23	59:JP:418:PHE:HE2	1.63	0.63
59:KN:55:GLU:O	59:LA:285:GLN:NE2	2.31	0.63
59:KP:3:GLU:OE2	59:KP:64:ARG:NH1	2.32	0.63
3:0F:212:ARG:NH2	60:DP:74:ASP:OD2	2.31	0.63
28:1M:372:VAL:HG11	28:1M:394:GLU:HG3	1.80	0.63
31:1U:156:VAL:HA	31:1U:159:LEU:HD13	1.79	0.63
34:2F:116:ARG:NH1	59:EZ:158:SER:OG	2.31	0.63
47:3X:178:LEU:HA	47:3X:181:HIS:CE1	2.33	0.63
57:4R:101:ARG:NH1	60:GD:420:SER:OG	2.31	0.63
60:BJ:48:ASN:O	60:BJ:62:ARG:NH1	2.29	0.63
59:CW:251:ASP:OD1	59:CW:252:LEU:N	2.31	0.63
59:GP:276:ILE:HB	59:GP:281:ALA:HB1	1.79	0.63
59:HT:75:VAL:HG21	59:HT:94:SER:HB2	1.81	0.63
60:IU:114:ASP:OD1	60:IU:115:SER:N	2.31	0.63
60:AF:156:ARG:NH2	60:AF:197:ASP:OD1	2.31	0.63
59:BI:91:GLN:HE22	59:BI:121:ARG:HD2	1.63	0.63
59:CO:215:ARG:HH12	59:CO:299:ALA:HB1	1.63	0.63
59:CQ:195:LEU:HD21	59:CQ:428:LEU:HD22	1.79	0.63
59:CQ:259:LEU:HD21	59:CQ:316:CYS:HB2	1.79	0.63
59:DC:119:LEU:HD11	59:DC:156:ARG:HG2	1.79	0.63
60:EC:271:ALA:O	60:EC:292:GLN:NE2	2.31	0.63
59:FT:399:TYR:OH	59:FT:415:GLU:OE2	2.16	0.63
59:GA:76:ASP:OD1	59:GA:79:ARG:NH1	2.31	0.63
59:GP:27:GLU:OE1	59:GP:243:ARG:NH2	2.31	0.63
60:GZ:31:ASP:OD1	60:GZ:32:PRO:HD2	1.99	0.63
59:HE:69:ASP:OD1	59:HE:70:LEU:N	2.31	0.63
59:ID:118:CYS:O	59:ID:122:ILE:HD12	1.98	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:II:271:SER:HB3	59:II:301:MET:HG2	1.79	0.63
59:JB:216:ASN:HD22	59:JB:275:VAL:HG13	1.62	0.63
59:JU:88:HIS:HB3	59:JU:91:GLN:HG2	1.81	0.63
59:KF:75:VAL:HG21	59:KF:94:SER:HB2	1.79	0.63
59:LA:270:THR:HG22	59:LA:378:ILE:HG22	1.80	0.63
4:0G:518:ARG:HG2	4:0G:526:THR:HB	1.81	0.63
20:1C:171:GLU:OE2	20:1C:210:ARG:NH1	2.31	0.63
39:2Q:2:ILE:HD11	60:KT:276:ARG:HD2	1.79	0.63
41:3C:220:GLN:NE2	59:GW:58:ALA:O	2.28	0.63
54:4M:102:ILE:HG13	59:IQ:439:SER:HA	1.81	0.63
60:AF:289:LEU:HD11	60:AF:363:MET:HG3	1.79	0.63
60:BB:344:TRP:HB3	60:BB:430:ILE:HD11	1.81	0.63
60:BV:109:GLY:HA2	60:BV:147:MET:HE2	1.81	0.63
59:CJ:311:LYS:NZ	59:CJ:438:GLU:OE1	2.25	0.63
60:FO:170:ILE:HD12	60:FO:201:CYS:HB3	1.79	0.63
60:GS:305:PRO:HA	60:GS:371:ASN:HD21	1.63	0.63
59:HZ:105:ARG:HH11	59:HZ:110:ILE:HD13	1.62	0.63
60:IH:170:ILE:HD12	60:IH:201:CYS:HB3	1.78	0.63
59:IM:75:VAL:HG21	59:IM:94:SER:HB3	1.80	0.63
60:IN:306:ARG:NH1	60:IN:340:TYR:OH	2.32	0.63
59:JJ:87:PHE:HD2	59:JJ:92:LEU:HD21	1.64	0.63
6:0M:194:LYS:NZ	59:BS:57:GLY:O	2.25	0.63
33:2C:596:THR:HG22	33:2C:597:LYS:H	1.63	0.63
47:3V:157:ASP:OD2	49:4D:76:ARG:NH2	2.32	0.63
60:AT:15:GLN:NE2	64:AT:501:GDP:O6	2.30	0.63
60:CZ:31:ASP:OD1	60:CZ:32:PRO:HD2	1.98	0.63
59:DU:277:SER:OG	59:DU:280:LYS:NZ	2.28	0.63
60:EK:336:LYS:HE3	60:EW:125:GLU:OE1	1.99	0.63
60:ES:170:ILE:HD12	60:ES:201:CYS:HB3	1.79	0.63
60:FI:210:ILE:HD11	60:FI:298:ASN:HA	1.81	0.63
60:FV:67:ASP:OD1	60:FV:68:LEU:N	2.31	0.63
60:GB:262:ARG:NH1	60:GB:421:GLU:OE1	2.32	0.63
59:GP:270:THR:HG22	59:GP:378:ILE:HG22	1.81	0.63
60:GQ:86:ARG:CZ	60:HD:282:ARG:HE	2.12	0.63
59:KP:215:ARG:NH1	59:KP:299:ALA:O	2.29	0.63
2:0E:275:TYR:H	2:0E:379:ASP:HB3	1.64	0.63
5:0I:377:TYR:OH	60:EM:272:PRO:O	2.15	0.63
7:0P:132:LYS:HZ1	7:0P:133:ARG:HH12	1.47	0.63
21:1D:142:ASP:OD1	21:1D:143:GLU:N	2.31	0.63
27:1K:43:LEU:HD23	60:AH:215:LEU:HD22	1.78	0.63
30:1R:109:ILE:HG23	30:1R:158:ARG:HG2	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1W:93:ILE:HG22	32:1W:151:THR:HG22	1.80	0.63
41:2Z:248:MET:SD	41:2Z:252:ASN:ND2	2.71	0.63
42:3K:233:ARG:HH12	42:3K:234:ARG:HH21	1.46	0.63
57:4R:32:GLN:HE22	59:GG:426:ALA:HB1	1.62	0.63
59:AW:69:ASP:OD1	59:AW:70:LEU:N	2.31	0.63
59:CB:100:ALA:HB1	60:CC:255:VAL:HG21	1.81	0.63
60:CN:344:TRP:HB3	60:CN:430:ILE:HD11	1.78	0.63
59:DC:222:PRO:HD2	60:DD:324:LYS:HD3	1.80	0.63
60:EG:27:GLU:OE1	60:EG:241:ARG:NH1	2.25	0.63
59:FB:311:LYS:NZ	59:FB:438:GLU:OE2	2.31	0.63
59:FR:97:GLU:OE2	60:FS:251:ARG:NH1	2.31	0.63
59:GA:192:HIS:NE2	59:GA:424:ASP:OD2	2.32	0.63
59:HT:251:ASP:OD1	59:HT:252:LEU:N	2.32	0.63
60:IA:289:LEU:HD11	60:IA:363:MET:HG3	1.80	0.63
60:IF:31:ASP:OD1	60:IF:32:PRO:HD2	1.99	0.63
59:IT:68:LEU:HD21	59:IT:149:LEU:HD23	1.79	0.63
59:IV:212:LEU:HD21	59:IV:275:VAL:HG21	1.80	0.63
59:JW:210:TYR:HB3	60:JX:324:LYS:HE2	1.80	0.63
60:KM:344:TRP:HB3	60:KM:430:ILE:HD11	1.81	0.63
60:KO:330:MET:HE2	60:KO:349:ILE:HD13	1.79	0.63
19:1B:7:ASN:OD1	19:1B:107:ASN:ND2	2.31	0.63
30:1S:73:THR:HG22	30:1S:75:LEU:H	1.61	0.63
60:AD:170:ILE:HD12	60:AD:201:CYS:HB3	1.79	0.63
59:AO:399:TYR:OH	59:AO:415:GLU:OE2	2.16	0.63
59:AS:222:PRO:HD2	60:AT:324:LYS:HG2	1.81	0.63
59:BM:259:LEU:O	59:BM:380:ASN:ND2	2.32	0.63
59:CO:69:ASP:OD1	59:CO:70:LEU:N	2.32	0.63
59:EX:273:ALA:HB2	59:EX:295:VAL:HG22	1.80	0.63
60:FS:304:ASP:OD1	60:FS:307:HIS:ND1	2.32	0.63
59:GH:88:HIS:HB3	59:GH:91:GLN:OE1	1.99	0.63
60:HR:66:ILE:HD12	60:HR:116:VAL:HG21	1.79	0.63
60:IS:237:THR:HG23	60:IS:240:LEU:HD12	1.81	0.63
59:IZ:79:ARG:NH2	59:IZ:92:LEU:O	2.32	0.63
60:JG:208:TYR:HE1	60:JG:225:LEU:HD11	1.62	0.63
60:JI:344:TRP:HB3	60:JI:430:ILE:HD11	1.81	0.63
60:JM:33:THR:O	60:JM:58:ARG:NH1	2.32	0.63
60:KX:99:ASN:HD21	60:KX:178:THR:HG23	1.63	0.63
33:2D:204:ILE:HD11	33:2D:218:CYS:HB3	1.80	0.63
43:3Q:90:ILE:HG13	43:3Q:106:ARG:HB2	1.79	0.63
49:4D:62:ASN:OD1	49:4D:65:LYS:NZ	2.29	0.63
57:4R:34:PRO:HD3	59:GG:430:LYS:HE2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AK:221:ARG:NH1	60:AL:325:GLU:OE2	2.32	0.63
59:BI:119:LEU:HD23	59:BI:122:ILE:HD11	1.80	0.63
59:BI:282:TYR:O	59:BU:60:LYS:NZ	2.31	0.63
60:GF:170:ILE:HD12	60:GF:201:CYS:HB3	1.79	0.63
60:GK:311:LEU:HD23	60:GK:342:ILE:HD13	1.80	0.63
60:GQ:245:GLN:OE1	60:GQ:320:ARG:NH2	2.32	0.63
60:HJ:350:LYS:HZ3	60:HJ:352:SER:HG	1.45	0.63
60:HS:171:PRO:O	60:HS:380:ARG:NH2	2.32	0.63
60:IC:6:CYS:SG	60:IC:134:GLN:NE2	2.59	0.63
60:IC:260:PHE:HB2	60:IC:263:LEU:HD13	1.81	0.63
59:IV:259:LEU:HD11	59:IV:316:CYS:HB2	1.81	0.63
59:IX:269:LEU:HD22	59:IX:303:THR:HG21	1.80	0.63
59:KC:269:LEU:HD22	59:KC:303:THR:HG21	1.79	0.63
59:KN:174:SER:HB2	59:KN:175:PRO:HD2	1.80	0.63
1:0C:21:MET:HA	60:EW:276:ARG:HH21	1.64	0.63
36:2J:201:ARG:NH1	60:EO:301:GLN:O	2.31	0.63
36:2K:18:VAL:HG23	36:2K:59:LEU:HB2	1.80	0.63
43:3Q:138:MET:SD	59:JU:18:ASN:ND2	2.72	0.63
59:CD:169:TYR:HE2	59:CD:235:VAL:HG22	1.63	0.63
59:CS:399:TYR:OH	59:CS:415:GLU:OE2	2.17	0.63
60:CX:27:GLU:OE1	60:CX:241:ARG:NH2	2.32	0.63
59:ET:50:ASN:O	59:ET:64:ARG:NH1	2.31	0.63
59:EX:251:ASP:OD1	59:EX:252:LEU:N	2.32	0.63
59:FJ:399:TYR:OH	59:FJ:415:GLU:OE2	2.17	0.63
59:FL:399:TYR:OH	59:FL:415:GLU:OE2	2.16	0.63
60:GQ:33:THR:O	60:GQ:58:ARG:NH1	2.31	0.63
59:GR:50:ASN:O	59:GR:64:ARG:NH1	2.32	0.63
60:GX:8:GLN:HE21	60:GX:65:LEU:HD21	1.63	0.63
60:HF:294:PHE:HE2	60:HF:333:VAL:HG11	1.64	0.63
59:HT:2:ARG:NH2	59:HT:3:GLU:OE2	2.32	0.63
60:IU:67:ASP:OD1	60:IU:68:LEU:N	2.31	0.63
59:JD:203:MET:HE1	59:JD:267:PHE:HB3	1.81	0.63
59:JP:80:THR:O	59:JP:84:ARG:NH2	2.32	0.63
59:JQ:50:ASN:O	59:JQ:64:ARG:NH1	2.19	0.63
59:KA:69:ASP:OD1	59:KA:70:LEU:N	2.32	0.63
60:KG:175:VAL:HG22	59:KH:329:ASN:HD21	1.64	0.63
60:KI:15:GLN:NE2	64:KI:501:GDP:O6	2.32	0.63
59:KQ:399:TYR:OH	59:KQ:415:GLU:OE2	2.11	0.63
1:0B:182:ASP:OD1	1:0B:183:ALA:N	2.31	0.62
5:0H:253:GLU:OE1	60:EU:362:LYS:N	2.21	0.62
25:1H:253:ARG:NH1	59:AI:279:GLU:OE2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AI:242:LEU:HD11	59:AI:252:LEU:HD11	1.80	0.62
60:CI:73:MET:HA	60:CI:76:VAL:HG12	1.80	0.62
59:DC:191:THR:HG23	59:DC:425:LEU:HD21	1.81	0.62
60:DH:31:ASP:OD1	60:DH:32:PRO:HD2	1.99	0.62
60:EE:267:MET:HE3	60:EE:371:ASN:HB3	1.81	0.62
59:EJ:388:PHE:HB3	59:EJ:425:LEU:HD21	1.82	0.62
60:EK:327:ASP:OD1	60:EK:328:GLU:N	2.32	0.62
59:FY:251:ASP:OD1	59:FY:252:LEU:N	2.32	0.62
60:GK:61:PRO:HD3	60:GK:84:ILE:HG22	1.81	0.62
60:GO:292:GLN:O	60:GO:298:ASN:ND2	2.30	0.62
60:GX:219:THR:HA	59:GY:326:LYS:HZ3	1.61	0.62
60:IY:2:ARG:N	60:IY:3:GLU:OE2	2.32	0.62
59:JS:222:PRO:HD2	60:JT:324:LYS:CD	2.29	0.62
59:LA:273:ALA:HB2	59:LA:295:VAL:HG22	1.81	0.62
11:0T:328:HIS:O	11:0T:332:ARG:HG3	1.99	0.62
28:1M:167:GLU:OE1	60:EU:55:THR:OG1	2.16	0.62
35:2H:351:SER:HB3	35:2H:360:THR:HG21	1.81	0.62
41:2W:252:ASN:OD1	60:IW:276:ARG:NH1	2.33	0.62
46:3T:223:CYS:SG	59:FB:221:ARG:NH1	2.72	0.62
60:AD:10:GLY:O	60:AD:14:ASN:ND2	2.26	0.62
59:BG:280:LYS:HE3	59:BS:88:HIS:CE1	2.34	0.62
59:BM:70:LEU:HD22	59:BM:145:THR:HG22	1.81	0.62
60:CZ:207:LEU:HB3	60:CZ:225:LEU:HD22	1.80	0.62
60:DB:219:THR:HA	59:DC:326:LYS:HZ3	1.64	0.62
60:DN:309:ARG:NH1	60:DN:426:GLN:O	2.32	0.62
59:EN:93:ILE:HD11	59:EN:121:ARG:HG3	1.80	0.62
59:EP:269:LEU:HD21	59:EP:384:ILE:HD11	1.80	0.62
60:ES:257:LEU:HD11	60:ES:314:SER:HB2	1.80	0.62
60:FV:276:ARG:NH2	60:FV:279:GLN:OE1	2.32	0.62
59:IK:399:TYR:OH	59:IK:415:GLU:OE2	2.17	0.62
60:JX:152:ILE:HD12	60:JX:164:MET:HE1	1.81	0.62
32:1Z:78:MET:HG2	32:1Z:165:LEU:HG	1.81	0.62
47:3W:143:THR:HG23	60:FA:391:ARG:HD2	1.81	0.62
60:AJ:208:TYR:HE1	59:AK:326:LYS:HZ2	1.47	0.62
60:BN:298:ASN:O	60:BN:298:ASN:ND2	2.31	0.62
59:BX:270:THR:HG22	59:BX:378:ILE:HG23	1.80	0.62
60:DB:10:GLY:O	60:DB:14:ASN:ND2	2.25	0.62
59:DC:73:THR:HG22	60:DD:46:ARG:HH21	1.64	0.62
59:EL:76:ASP:OD1	59:EL:79:ARG:NH1	2.32	0.62
59:FU:15:GLN:NE2	62:FU:602:GTP:O6	2.31	0.62
59:FU:399:TYR:OH	59:FU:415:GLU:OE2	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GM:167:PHE:CD2	60:GM:233:VAL:HG22	2.35	0.62
59:HM:3:GLU:OE2	59:HM:64:ARG:NH1	2.32	0.62
59:HZ:117:LEU:O	59:HZ:121:ARG:HG2	1.99	0.62
60:IA:19:LYS:NZ	60:IA:223:GLY:O	2.32	0.62
60:IN:173:PRO:HB3	60:IN:380:ARG:HH22	1.64	0.62
60:JE:420:SER:O	60:JE:424:GLN:NE2	2.31	0.62
60:JK:344:TRP:HB3	60:JK:430:ILE:HD11	1.82	0.62
59:JY:402:ARG:NH1	59:JY:415:GLU:OE2	2.32	0.62
59:KF:242:LEU:HD11	59:KF:252:LEU:HD11	1.81	0.62
59:KJ:251:ASP:OD1	59:KJ:252:LEU:N	2.32	0.62
59:KL:69:ASP:OD1	59:KL:70:LEU:N	2.32	0.62
60:KR:10:GLY:O	60:KR:14:ASN:ND2	2.27	0.62
60:KZ:344:TRP:HB3	60:KZ:430:ILE:HD11	1.81	0.62
20:1C:49:PRO:HG3	20:1C:72:ALA:HB2	1.81	0.62
23:1F:110:ALA:H	60:GB:279:GLN:HE22	1.47	0.62
35:2H:286:LEU:HD13	35:2H:349:ILE:HD11	1.80	0.62
36:2I:234:HIS:NE2	49:4D:10:CYS:SG	2.72	0.62
42:3J:90:VAL:HG21	59:II:26:LEU:HG	1.82	0.62
42:3K:221:HIS:ND1	59:ID:77:GLU:OE2	2.33	0.62
45:3S:118:ALA:HA	59:KJ:84:ARG:HH12	1.65	0.62
59:DS:211:ASP:OD2	59:DS:304:LYS:NZ	2.28	0.62
60:GQ:10:GLY:O	60:GQ:14:ASN:ND2	2.30	0.62
60:IP:67:ASP:OD1	60:IP:68:LEU:N	2.31	0.62
60:IP:313:ALA:HB3	60:IP:349:ILE:HG12	1.80	0.62
60:JK:392:LYS:HG3	60:JK:395:LEU:HD23	1.80	0.62
60:KR:94:GLN:NE2	59:KS:130:THR:O	2.32	0.62
32:1W:102:ARG:NH1	59:EF:434:GLU:OE2	2.29	0.62
42:3F:92:PRO:HB2	59:BQ:42:ILE:HD13	1.81	0.62
42:3L:181:PHE:HB2	60:HU:359:LYS:HE3	1.81	0.62
48:3Y:106:ARG:HD3	48:3Y:108:PRO:HD2	1.81	0.62
60:AJ:190:HIS:CE1	60:AJ:414:ASN:HD22	2.18	0.62
59:AQ:406:HIS:HA	59:AQ:409:VAL:HG22	1.82	0.62
60:AR:156:ARG:NH1	60:AR:197:ASP:OD2	2.32	0.62
59:AS:69:ASP:OD1	59:AS:70:LEU:N	2.32	0.62
60:BJ:45:GLU:O	60:BJ:46:ARG:NH1	2.29	0.62
60:BV:74:ASP:OD1	60:BV:77:ARG:NH1	2.30	0.62
60:BY:10:GLY:O	60:BY:14:ASN:ND2	2.29	0.62
59:CH:339:ARG:O	59:CH:342:GLN:NE2	2.32	0.62
60:CP:156:ARG:NH2	60:CP:197:ASP:OD2	2.31	0.62
59:DI:298:PRO:HB3	59:DI:307:PRO:HD2	1.81	0.62
59:EP:138:TYR:HE1	59:EP:169:TYR:HD2	1.45	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HI:111:GLY:HA2	59:HI:114:ILE:HG22	1.81	0.62
60:IP:173:PRO:HB3	60:IP:380:ARG:HH22	1.65	0.62
59:IT:11:GLN:NE2	59:IT:15:GLN:OE1	2.33	0.62
59:JB:273:ALA:HB2	59:JB:295:VAL:HG23	1.81	0.62
59:JD:90:GLU:HB2	59:JP:280:LYS:HE3	1.82	0.62
59:JL:388:PHE:HB3	59:JL:425:LEU:HD21	1.82	0.62
60:KM:170:ILE:HG13	60:KM:171:PRO:HD2	1.81	0.62
8:0Q:228:LEU:HD13	8:0Q:267:VAL:HG12	1.82	0.62
15:0X:133:HIS:CD2	15:0X:135:LYS:HB2	2.35	0.62
33:2B:414:GLU:OE2	60:KZ:320:ARG:NH2	2.33	0.62
41:2W:315:GLU:OE1	41:2W:318:ARG:NH2	2.29	0.62
60:AT:407:GLU:N	60:AT:407:GLU:OE1	2.32	0.62
59:CS:69:ASP:OD1	59:CS:70:LEU:N	2.33	0.62
59:CW:132:LEU:O	59:CW:164:LYS:NZ	2.31	0.62
59:DI:154:LEU:HD22	59:DI:166:LYS:HD3	1.80	0.62
59:DK:175:PRO:HA	59:DK:390:ARG:HH12	1.65	0.62
59:DK:399:TYR:OH	59:DK:415:GLU:OE2	2.18	0.62
60:DL:175:VAL:HG22	59:DM:329:ASN:HD21	1.64	0.62
60:EE:292:GLN:HG2	60:EE:298:ASN:HD22	1.64	0.62
59:EH:11:GLN:HG3	59:EH:74:VAL:HG21	1.82	0.62
59:EP:5:ILE:HD13	59:EP:64:ARG:HB3	1.81	0.62
59:ER:362:VAL:HG21	59:ER:370:LYS:HA	1.81	0.62
59:FP:269:LEU:HD22	59:FP:303:THR:HG21	1.82	0.62
60:GS:226:ASN:HA	60:GS:229:VAL:HG22	1.81	0.62
60:HP:149:THR:HA	60:HP:152:ILE:HG12	1.79	0.62
60:HR:396:HIS:HA	60:HR:399:THR:HG22	1.81	0.62
60:IU:311:LEU:O	60:IU:348:ASN:ND2	2.28	0.62
59:IX:75:VAL:HG21	59:IX:94:SER:HB2	1.80	0.62
59:JD:212:LEU:HD21	59:JD:275:VAL:HG21	1.81	0.62
60:JR:313:ALA:HB3	60:JR:349:ILE:HG22	1.81	0.62
59:KJ:270:THR:HG22	59:KJ:378:ILE:HG22	1.82	0.62
3:0F:523:ILE:HG22	3:0F:527:LYS:HE3	1.82	0.62
27:1K:6:CYS:SG	59:AI:40:LYS:NZ	2.72	0.62
30:1R:12:THR:OG1	59:KW:45:GLU:OE2	2.15	0.62
40:2T:92:LEU:HA	40:2T:95:LYS:HE2	1.81	0.62
48:3Y:50:CYS:SG	48:3Y:90:HIS:O	2.57	0.62
59:AE:251:ASP:OD1	59:AE:252:LEU:N	2.32	0.62
60:BL:153:SER:HA	60:BL:195:ASN:HD21	1.64	0.62
59:BX:319:TYR:HB2	59:BX:355:ILE:HD13	1.81	0.62
60:CN:396:HIS:HA	60:CN:399:THR:HG22	1.81	0.62
59:DI:133:GLN:HG2	59:DI:252:LEU:HD12	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FY:273:ALA:HB2	59:FY:295:VAL:HG23	1.80	0.62
60:GM:237:THR:HG23	60:GM:241:ARG:HH12	1.64	0.62
60:GO:391:ARG:HH21	59:GP:439:SER:HB3	1.63	0.62
59:HG:430:LYS:NZ	59:HG:434:GLU:OE2	2.31	0.62
60:HY:167:PHE:HA	60:HY:200:MET:HB2	1.81	0.62
60:KG:220:PRO:HG2	59:KH:326:LYS:HZ1	1.64	0.62
11:0T:168:ARG:HH22	59:AE:43:GLY:HA2	1.64	0.62
16:0Y:167:SER:OG	16:0Y:240:GLU:OE2	2.16	0.62
25:1H:156:ASP:HA	25:1H:159:ARG:HG2	1.81	0.62
32:1Y:102:ARG:NH2	59:EB:434:GLU:OE2	2.33	0.62
42:3N:3:THR:OG1	42:3N:4:LEU:N	2.32	0.62
47:3X:244:GLN:OE1	59:HT:84:ARG:NH1	2.33	0.62
60:BJ:396:HIS:HA	60:BJ:399:THR:HG22	1.82	0.62
60:DL:375:GLN:OE1	60:DL:379:ARG:NH2	2.32	0.62
59:EB:234:VAL:HG21	59:EB:302:MET:HE2	1.82	0.62
60:EM:10:GLY:O	60:EM:14:ASN:ND2	2.27	0.62
60:FS:8:GLN:OE1	60:FS:17:GLY:HA3	2.00	0.62
60:GB:301:GLN:HE22	60:GB:374:ILE:HA	1.65	0.62
60:GV:237:THR:HG23	60:GV:240:LEU:HD12	1.81	0.62
59:HC:251:ASP:OD1	59:HC:252:LEU:N	2.33	0.62
59:HG:88:HIS:CD2	59:HG:90:GLU:HB2	2.35	0.62
60:HW:8:GLN:HE22	60:HW:21:TRP:HE1	1.48	0.62
60:IC:3:GLU:HB2	60:IC:127:CYS:SG	2.40	0.62
59:JW:216:ASN:O	59:JW:280:LYS:NZ	2.31	0.62
59:KF:88:HIS:HB3	59:KF:91:GLN:HE22	1.64	0.62
59:KH:222:PRO:HD2	60:KI:324:LYS:HG2	1.82	0.62
26:1J:94:VAL:HG12	59:EV:42:ILE:HB	1.80	0.62
27:1K:122:TYR:OH	60:AR:54:ALA:O	2.13	0.62
31:1T:170:ASP:OD1	31:1T:173:ARG:NH2	2.32	0.62
41:2Z:256:ALA:O	60:IE:276:ARG:NH2	2.32	0.62
41:3C:297:ILE:O	41:3C:301:ASN:ND2	2.33	0.62
42:3M:241:LEU:HD12	42:3M:260:PRO:HD3	1.82	0.62
58:4T:120:PHE:CD2	60:GQ:420:SER:HB2	2.34	0.62
60:AT:32:PRO:HB3	60:AT:81:TYR:CD1	2.35	0.62
60:DL:220:PRO:O	59:DM:326:LYS:NZ	2.20	0.62
60:EA:10:GLY:O	60:EA:14:ASN:ND2	2.28	0.62
60:EK:239:CYS:SG	60:EK:248:SER:N	2.70	0.62
59:ER:259:LEU:HD21	59:ER:268:VAL:HG11	1.81	0.62
60:EU:309:ARG:HH12	60:EU:428:ALA:HB2	1.65	0.62
60:FQ:255:VAL:HG13	60:FQ:256:ASN:HD22	1.65	0.62
59:GH:395:PHE:CD1	59:GH:422:ARG:HD3	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GU:105:ARG:HG3	59:GU:411:GLU:HG2	1.82	0.62
59:GY:177:VAL:HG21	60:GZ:324:LYS:NZ	2.15	0.62
59:HK:15:GLN:NE2	62:HK:501:GTP:O6	2.32	0.62
60:HP:396:HIS:HA	60:HP:399:THR:HG22	1.82	0.62
60:HS:10:GLY:O	60:HS:14:ASN:ND2	2.30	0.62
60:IL:309:ARG:NH1	60:IL:339:SER:O	2.33	0.62
60:IL:334:GLN:HG2	60:IL:341:PHE:HE2	1.64	0.62
59:JF:306:ASP:OD2	59:JF:308:ARG:NH2	2.33	0.62
59:JY:328:VAL:HG21	59:JY:355:ILE:HD11	1.80	0.62
59:KQ:69:ASP:OD1	59:KQ:70:LEU:N	2.33	0.62
6:0N:474:LEU:HG	6:0N:476:PRO:HD2	1.82	0.62
33:2B:294:CYS:SG	33:2B:295:THR:N	2.73	0.62
35:2G:312:MET:SD	35:2G:325:LYS:NZ	2.72	0.62
60:AR:21:TRP:HA	60:AR:24:ILE:HG22	1.81	0.62
60:CG:204:ASN:OD1	64:CG:501:GDP:N2	2.32	0.62
59:EP:88:HIS:ND1	59:EP:89:PRO:HD2	2.15	0.62
60:FA:15:GLN:NE2	64:FA:501:GDP:O6	2.32	0.62
59:FB:50:ASN:O	59:FB:64:ARG:NH1	2.33	0.62
60:GK:107:THR:OG1	60:GK:108:GLU:OE1	2.18	0.62
60:GM:86:ARG:NE	60:GZ:282:ARG:HH12	1.97	0.62
60:GQ:374:ILE:HG12	60:GQ:378:PHE:HE1	1.65	0.62
59:HA:101:ASN:OD1	60:HB:252:LYS:NZ	2.33	0.62
59:HV:105:ARG:HG3	59:HV:411:GLU:HG2	1.82	0.62
60:JK:282:ARG:NH2	60:JK:288:GLU:OE2	2.32	0.62
59:JS:47:ASP:OD1	59:JS:50:ASN:ND2	2.33	0.62
59:KQ:248:LEU:HD13	59:KQ:355:ILE:HD12	1.82	0.62
60:KV:209:ASP:HB3	60:KV:213:ARG:HH21	1.65	0.62
33:2B:480:GLN:OE1	33:2B:501:ARG:NH1	2.33	0.61
33:2D:103:ILE:O	33:2D:104:HIS:ND1	2.32	0.61
36:2I:201:ARG:NH1	60:ES:296:ALA:O	2.33	0.61
39:2P:358:ARG:NH2	59:KJ:370:LYS:O	2.33	0.61
42:3L:144:THR:OG1	60:HW:355:ASP:OD2	2.16	0.61
59:AQ:221:ARG:NE	60:AR:325:GLU:OE2	2.33	0.61
60:BH:334:GLN:HE22	60:BH:348:ASN:H	1.48	0.61
60:BJ:257:LEU:HD11	60:BJ:314:SER:HB3	1.80	0.61
60:BL:26:ASP:OD1	60:BL:359:LYS:NZ	2.30	0.61
59:BW:326:LYS:NZ	59:BW:327:ASP:OD1	2.33	0.61
60:CA:396:HIS:HA	60:CA:399:THR:HG22	1.80	0.61
60:CN:109:GLY:O	60:CN:113:ILE:HG12	1.99	0.61
60:EA:48:ASN:O	60:EA:62:ARG:NH2	2.33	0.61
59:GA:338:LYS:HE2	59:GA:341:ILE:HG12	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GD:267:MET:HG2	60:GD:301:GLN:NE2	2.15	0.61
59:GG:212:LEU:HD11	59:GG:275:VAL:HG21	1.82	0.61
59:GP:279:GLU:HG2	59:GP:280:LYS:HG2	1.81	0.61
60:HF:298:ASN:O	60:HF:298:ASN:ND2	2.33	0.61
59:IO:54:SER:HB2	59:IO:64:ARG:HH12	1.65	0.61
60:JR:279:GLN:HG3	60:JR:281:TYR:HE1	1.65	0.61
2:0E:342:ARG:O	60:DF:276:ARG:NH1	2.34	0.61
26:1I:376:HIS:HD2	26:1I:377:PRO:HD2	1.65	0.61
41:2V:121:ARG:HH21	41:2V:125:LEU:HD11	1.65	0.61
47:3V:39:LYS:NZ	59:FR:434:GLU:OE2	2.33	0.61
59:AS:91:GLN:OE1	59:AS:121:ARG:NH1	2.33	0.61
60:CA:344:TRP:HB3	60:CA:430:ILE:HD11	1.81	0.61
60:CP:412:GLU:OE1	60:CP:416:ASN:ND2	2.33	0.61
60:DW:407:GLU:N	60:DW:407:GLU:OE1	2.34	0.61
60:EA:213:ARG:HD3	60:EA:297:LYS:HE3	1.82	0.61
59:ET:399:TYR:OH	59:ET:415:GLU:OE2	2.17	0.61
59:FU:2:ARG:HG3	59:FU:3:GLU:OE1	2.00	0.61
59:GH:269:LEU:HD21	59:GH:384:ILE:HD13	1.82	0.61
59:GN:69:ASP:OD1	59:GN:71:GLU:N	2.33	0.61
59:GR:287:SER:OG	59:GR:290:GLU:OE1	2.13	0.61
60:IJ:172:SER:OG	60:IJ:205:GLU:OE1	2.18	0.61
59:IK:5:ILE:HD13	59:IK:64:ARG:HB3	1.81	0.61
60:IP:16:ILE:HD11	60:IP:136:CYS:HB3	1.80	0.61
59:JQ:2:ARG:N	59:JQ:133:GLN:OE1	2.34	0.61
60:JT:167:PHE:HE2	60:JT:233:VAL:HG13	1.65	0.61
59:JW:270:THR:HG22	59:JW:378:ILE:HG22	1.82	0.61
59:LA:287:SER:OG	59:LA:290:GLU:OE1	2.18	0.61
21:1D:201:ASP:OD1	21:1D:202:PHE:N	2.33	0.61
60:AN:407:GLU:N	60:AN:407:GLU:OE1	2.34	0.61
60:BD:390:ARG:NH2	59:BE:443:ASP:O	2.33	0.61
59:BS:259:LEU:O	59:BS:380:ASN:ND2	2.34	0.61
59:CU:311:LYS:NZ	59:CU:438:GLU:OE2	2.33	0.61
59:DG:242:LEU:HD11	59:DG:252:LEU:HD13	1.83	0.61
60:DH:407:GLU:OE1	60:DH:407:GLU:N	2.33	0.61
59:EN:37:PRO:HG2	59:EN:40:LYS:HG3	1.81	0.61
60:EU:289:LEU:HD11	60:EU:363:MET:HG3	1.81	0.61
59:FB:270:THR:HG22	59:FB:378:ILE:HG22	1.82	0.61
59:FY:399:TYR:OH	59:FY:415:GLU:OE2	2.18	0.61
59:GE:27:GLU:OE2	59:GE:243:ARG:NH1	2.32	0.61
60:GF:249:ASP:OD1	60:GF:250:LEU:N	2.33	0.61
60:GO:119:VAL:HG13	60:GO:122:LYS:HE3	1.80	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HK:207:GLU:OE2	59:HK:304:LYS:NZ	2.30	0.61
59:HQ:192:HIS:HD2	59:HQ:421:ALA:HA	1.64	0.61
60:HR:167:PHE:HA	60:HR:200:MET:HB2	1.81	0.61
60:HW:182:PRO:O	60:HW:186:THR:HG23	2.00	0.61
59:HX:27:GLU:OE2	59:HX:243:ARG:NH1	2.33	0.61
60:IA:396:HIS:HA	60:IA:399:THR:HG22	1.83	0.61
59:ID:178:SER:OG	60:IE:347:ASN:ND2	2.33	0.61
60:JG:178:THR:HB	60:JG:181:GLU:HG3	1.81	0.61
59:KH:406:HIS:HA	59:KH:409:VAL:HG12	1.82	0.61
60:KO:8:GLN:HE22	60:KO:63:SER:HB2	1.65	0.61
59:KP:284:GLU:HG3	59:KP:285:GLN:O	2.00	0.61
59:KS:203:MET:HG3	59:KS:384:ILE:HD11	1.82	0.61
59:KW:44:VAL:HG13	59:KW:45:GLU:HG2	1.80	0.61
60:KX:207:LEU:HB3	60:KX:225:LEU:HD22	1.80	0.61
22:1E:12:LYS:NZ	60:AL:126:SER:O	2.32	0.61
60:BD:101:TRP:CZ3	60:BD:187:LEU:HB3	2.34	0.61
60:BR:218:THR:HG23	60:BR:219:THR:HG22	1.81	0.61
60:CI:350:LYS:HZ3	60:CI:352:SER:HG	1.48	0.61
60:CP:15:GLN:NE2	64:CP:501:GDP:O6	2.33	0.61
59:DC:100:ALA:HA	60:DD:252:LYS:HD3	1.83	0.61
60:DR:173:PRO:HB3	60:DR:380:ARG:HD3	1.81	0.61
60:DT:107:THR:OG1	60:DT:108:GLU:OE1	2.16	0.61
60:EI:10:GLY:O	60:EI:14:ASN:ND2	2.29	0.61
60:EQ:61:PRO:HD3	60:EQ:84:ILE:HG22	1.83	0.61
59:FF:90:GLU:OE2	59:FF:121:ARG:NE	2.32	0.61
60:FV:25:SER:HB2	60:FV:81:TYR:HE2	1.65	0.61
60:FV:170:ILE:HG23	60:FV:171:PRO:HD2	1.83	0.61
59:GN:88:HIS:HB3	59:GN:91:GLN:HG2	1.81	0.61
59:HK:69:ASP:OD1	59:HK:70:LEU:N	2.33	0.61
60:HL:218:THR:HG23	60:HL:219:THR:HG22	1.82	0.61
60:HS:309:ARG:NH2	60:HS:343:GLU:OE2	2.33	0.61
59:HZ:270:THR:HG22	59:HZ:378:ILE:HG12	1.82	0.61
59:IM:271:SER:HB3	59:IM:301:MET:HG2	1.82	0.61
59:KA:69:ASP:OD1	59:KA:71:GLU:N	2.33	0.61
59:KL:191:THR:HG23	59:KL:425:LEU:HD11	1.83	0.61
13:0V:154:LEU:H	13:0V:171:ALA:HB3	1.64	0.61
34:2F:187:LEU:HD12	34:2F:190:ARG:HH22	1.66	0.61
59:AW:224:TYR:HB2	60:AX:245:GLN:HE21	1.66	0.61
60:AX:97:ALA:HB2	60:AX:143:THR:HB	1.82	0.61
59:BO:2:ARG:HG3	59:BO:3:GLU:OE1	2.00	0.61
59:CF:298:PRO:HA	59:CF:301:MET:HG3	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CG:292:GLN:OE1	60:CG:298:ASN:ND2	2.34	0.61
60:DL:21:TRP:HA	60:DL:24:ILE:HG22	1.82	0.61
60:DL:31:ASP:OD1	60:DL:32:PRO:HD2	2.00	0.61
59:DU:224:TYR:CE2	60:DV:323:THR:HG21	2.35	0.61
59:FY:167:LEU:HD22	59:FY:200:VAL:HB	1.83	0.61
60:FZ:131:GLN:HG3	60:FZ:132:GLY:H	1.65	0.61
60:GB:27:GLU:OE1	60:GB:241:ARG:NH2	2.24	0.61
59:HI:2:ARG:HG3	59:HI:3:GLU:OE1	2.01	0.61
60:IA:31:ASP:OD1	60:IA:32:PRO:HD2	2.00	0.61
60:IA:274:THR:OG1	60:IA:282:ARG:NH2	2.33	0.61
60:IE:10:GLY:O	60:IE:14:ASN:ND2	2.25	0.61
59:IO:88:HIS:ND1	59:IO:90:GLU:HG2	2.15	0.61
60:IW:204:ASN:OD1	64:IW:501:GDP:N2	2.33	0.61
60:IY:296:ALA:HA	60:IY:299:MET:HG2	1.82	0.61
59:JJ:286:LEU:O	59:JJ:373:ARG:NH1	2.33	0.61
60:KB:287:PRO:O	60:KB:290:THR:HG22	2.00	0.61
59:KC:406:HIS:HA	59:KC:409:VAL:HG12	1.83	0.61
59:KH:254:GLU:HA	59:KH:257:THR:HG22	1.81	0.61
60:KK:267:MET:HG2	60:KK:301:GLN:HG3	1.81	0.61
1:0A:690:GLU:HA	1:0A:693:MET:HG3	1.81	0.61
5:0K:186:TRP:NE1	46:3T:273:GLU:OE2	2.34	0.61
30:1S:79:ARG:HD2	36:2K:18:VAL:HG13	1.83	0.61
36:2K:170:PRO:HG3	36:2K:248:LEU:HD11	1.81	0.61
41:3B:104:ARG:NH2	59:HE:41:THR:O	2.30	0.61
60:AZ:284:LEU:HD12	60:AZ:362:LYS:HB3	1.81	0.61
60:BR:426:GLN:O	60:BR:427:ASP:C	2.39	0.61
59:BS:56:THR:HG23	59:BS:58:ALA:H	1.65	0.61
60:DN:287:PRO:HG3	60:DN:329:GLN:HE21	1.66	0.61
60:EI:52:ASP:OD1	60:EI:53:GLU:N	2.33	0.61
60:EO:373:CYS:O	60:EO:376:GLU:HG2	2.00	0.61
60:EY:27:GLU:OE1	60:EY:241:ARG:NH2	2.32	0.61
60:EY:186:THR:HG22	60:EY:411:ALA:HB1	1.82	0.61
59:GN:69:ASP:OD1	59:GN:70:LEU:N	2.34	0.61
59:GU:254:GLU:HA	59:GU:257:THR:HG22	1.83	0.61
59:HQ:27:GLU:HB2	59:HQ:361:THR:HG21	1.83	0.61
59:HQ:73:THR:HG22	60:HR:46:ARG:HH21	1.66	0.61
60:HY:397:TRP:HH2	59:HZ:256:GLN:HE21	1.48	0.61
60:JO:344:TRP:HB3	60:JO:430:ILE:HD11	1.82	0.61
59:JU:69:ASP:OD1	59:JU:70:LEU:N	2.33	0.61
59:JW:399:TYR:OH	59:JW:415:GLU:OE2	2.14	0.61
11:0T:395:ASN:HB2	11:0T:398:GLU:HB2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:3F:141:THR:OG1	42:3F:143:GLU:OE1	2.17	0.61
42:3M:51:SER:OG	42:3M:52:THR:N	2.33	0.61
42:3M:247:SER:OG	42:3M:249:ASP:OD1	2.19	0.61
42:3O:179:LEU:O	60:HD:359:LYS:NZ	2.28	0.61
59:BQ:91:GLN:HE22	59:BQ:125:LEU:HD21	1.64	0.61
60:CA:99:ASN:ND2	59:CB:254:GLU:OE1	2.34	0.61
60:CC:344:TRP:HB3	60:CC:430:ILE:HD11	1.81	0.61
59:DK:221:ARG:NH2	60:DL:325:GLU:OE1	2.33	0.61
60:DT:156:ARG:NH2	60:DT:197:ASP:OD1	2.28	0.61
59:ED:298:PRO:HG3	59:ED:308:ARG:HH22	1.64	0.61
59:GE:399:TYR:OH	59:GE:415:GLU:OE2	2.18	0.61
59:GP:36:MET:HB2	59:GP:61:HIS:HE1	1.65	0.61
59:HE:271:SER:OG	59:HE:300:SER:OG	2.18	0.61
59:HQ:251:ASP:OD1	59:HQ:252:LEU:N	2.34	0.61
60:IC:204:ASN:OD1	64:IC:501:GDP:N2	2.34	0.61
60:IL:11:GLN:HE21	64:IL:501:GDP:PA	2.23	0.61
60:JE:303:ALA:HB1	60:JE:373:CYS:HB3	1.83	0.61
60:JI:200:MET:HG3	60:JI:266:PHE:HB2	1.83	0.61
60:JK:204:ASN:OD1	64:JK:501:GDP:N2	2.34	0.61
59:JQ:52:PHE:HZ	59:JQ:239:THR:HG21	1.66	0.61
59:KA:328:VAL:HG21	59:KA:355:ILE:HD11	1.81	0.61
60:KB:171:PRO:HB3	60:KB:181:GLU:HG2	1.82	0.61
5:0I:371:ASN:HA	60:EM:362:LYS:HD2	1.81	0.61
32:1Z:108:TYR:OH	59:DZ:423:GLU:OE2	2.18	0.61
33:2B:505:TYR:OH	59:KL:84:ARG:NH1	2.34	0.61
41:2Y:323:ARG:NH2	59:ID:58:ALA:O	2.33	0.61
60:AJ:375:GLN:OE1	60:AJ:379:ARG:NH2	2.31	0.61
59:AK:251:ASP:OD1	59:AK:252:LEU:N	2.34	0.61
59:BC:399:TYR:OH	59:BC:415:GLU:OE2	2.19	0.61
60:BD:218:THR:HG23	60:BD:219:THR:HG22	1.81	0.61
60:BL:267:MET:HG3	60:BL:374:ILE:HD11	1.81	0.61
59:BQ:259:LEU:O	59:BQ:380:ASN:ND2	2.34	0.61
59:BX:3:GLU:OE2	59:BX:64:ARG:NE	2.33	0.61
60:CA:423:GLN:NE2	60:CA:426:GLN:OE1	2.31	0.61
60:CC:396:HIS:HA	60:CC:399:THR:HG22	1.81	0.61
60:CP:311:LEU:HD23	60:CP:342:ILE:HG21	1.82	0.61
59:CS:2:ARG:HG3	59:CS:3:GLU:OE1	2.01	0.61
60:DF:98:GLY:HA2	59:DG:254:GLU:HG2	1.82	0.61
60:EQ:267:MET:SD	60:EQ:301:GLN:NE2	2.74	0.61
60:EW:62:ARG:NH1	60:EW:127:CYS:SG	2.74	0.61
60:FX:298:ASN:O	60:FX:298:ASN:ND2	2.27	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GU:442:MET:O	59:GU:443:ASP:CB	2.49	0.61
59:HK:69:ASP:OD1	59:HK:71:GLU:N	2.33	0.61
59:IB:209:ILE:HB	59:IB:227:LEU:HD13	1.81	0.61
59:ID:75:VAL:O	59:ID:79:ARG:HG2	2.01	0.61
60:IR:256:ASN:HD22	60:IR:350:LYS:HG3	1.66	0.61
60:JK:391:ARG:HH21	59:JL:439:SER:HB3	1.66	0.61
60:JR:222:PHE:CE1	59:JS:325:PRO:HG3	2.36	0.61
59:KJ:69:ASP:OD1	59:KJ:70:LEU:N	2.33	0.61
59:KN:69:ASP:OD1	59:KN:70:LEU:N	2.32	0.61
4:0G:640:SER:OG	4:0G:643:GLU:OE1	2.19	0.61
41:3D:298:ARG:NH1	60:GQ:56:GLY:O	2.34	0.61
48:3Y:50:CYS:HG	48:3Y:90:HIS:C	2.03	0.61
50:4G:129:GLU:HA	50:4G:133:ASP:HB2	1.82	0.61
60:AB:412:GLU:OE2	60:AB:416:ASN:ND2	2.34	0.61
59:AM:132:LEU:O	59:AM:164:LYS:NZ	2.32	0.61
59:AS:50:ASN:O	59:AS:64:ARG:NH1	2.34	0.61
59:AW:406:HIS:HA	59:AW:409:VAL:HG12	1.83	0.61
59:BZ:269:LEU:HD13	59:BZ:301:MET:HE2	1.83	0.61
59:CO:419:SER:O	59:CO:423:GLU:HG3	2.01	0.61
60:CV:109:GLY:O	60:CV:113:ILE:HG12	2.01	0.61
60:CX:249:ASP:OD1	60:CX:250:LEU:N	2.33	0.61
60:EG:328:GLU:O	60:EG:332:ASN:ND2	2.31	0.61
59:EJ:287:SER:OG	59:EJ:290:GLU:OE1	2.18	0.61
60:EM:392:LYS:HA	60:EM:395:LEU:HD13	1.83	0.61
59:ER:388:PHE:HB3	59:ER:425:LEU:HD21	1.82	0.61
59:FB:2:ARG:HG3	59:FB:3:GLU:OE1	2.01	0.61
59:FB:111:GLY:HA2	59:FB:114:ILE:HG22	1.83	0.61
59:HV:301:MET:HG2	59:HV:303:THR:H	1.64	0.61
60:HW:350:LYS:HZ3	60:HW:352:SER:HG	1.47	0.61
60:IY:149:THR:HB	60:IY:191:GLN:HG2	1.82	0.61
60:JG:271:ALA:HA	60:JG:298:ASN:HD21	1.65	0.61
60:JV:239:CYS:SG	60:JV:248:SER:N	2.74	0.61
59:KA:99:ALA:HA	59:KA:105:ARG:HH11	1.65	0.61
59:KS:216:ASN:O	59:KS:280:LYS:NZ	2.34	0.61
60:KT:309:ARG:HH12	60:KT:342:ILE:HD12	1.65	0.61
17:0Z:406:ILE:O	29:1P:37:ARG:NH1	2.34	0.61
28:1M:166:GLU:OE2	28:1M:169:ARG:NH1	2.34	0.61
60:BB:27:GLU:OE1	60:BB:241:ARG:NH2	2.31	0.61
59:BC:406:HIS:HA	59:BC:409:VAL:HG12	1.82	0.61
60:BR:318:ARG:HH11	60:BR:318:ARG:HG2	1.64	0.61
59:CO:206:ASN:OD1	62:CO:501:GTP:N2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DY:31:ASP:OD1	60:DY:32:PRO:HD2	2.00	0.61
60:EE:271:ALA:HA	60:EE:298:ASN:HD21	1.66	0.61
59:EL:178:SER:HB2	60:EM:347:ASN:HD22	1.66	0.61
60:FI:403:MET:HB3	60:FI:407:GLU:OE2	2.00	0.61
60:FK:62:ARG:NH1	60:FK:127:CYS:SG	2.74	0.61
59:GC:399:TYR:OH	59:GC:415:GLU:OE2	2.18	0.61
60:GF:375:GLN:OE1	60:GF:379:ARG:NH2	2.34	0.61
60:GX:156:ARG:NH2	60:GX:197:ASP:OD1	2.29	0.61
59:GY:336:LYS:HE3	59:GY:351:PHE:HE1	1.66	0.61
59:HK:81:GLY:O	59:HK:84:ARG:NH1	2.34	0.61
59:ID:251:ASP:OD1	59:ID:252:LEU:N	2.34	0.61
60:JC:32:PRO:HG3	60:JC:81:TYR:CE1	2.36	0.61
59:JH:242:LEU:HD11	59:JH:252:LEU:HD11	1.83	0.61
59:JY:192:HIS:HD2	59:JY:421:ALA:HA	1.65	0.61
60:JZ:103:LYS:NZ	60:JZ:108:GLU:OE2	2.33	0.61
5:0H:134:PRO:O	5:0H:143:ARG:NH2	2.34	0.60
15:0X:129:ASP:OD1	15:0X:130:THR:N	2.34	0.60
60:BR:8:GLN:HE22	60:BR:21:TRP:HE1	1.46	0.60
59:BS:108:TYR:O	59:BS:112:LYS:NZ	2.25	0.60
60:CC:117:LEU:HD11	60:CC:154:LYS:HG2	1.83	0.60
59:CO:251:ASP:OD1	59:CO:252:LEU:N	2.34	0.60
59:DS:388:PHE:HB3	59:DS:425:LEU:HD21	1.83	0.60
59:EL:251:ASP:OD1	59:EL:252:LEU:N	2.34	0.60
60:FI:239:CYS:SG	60:FI:248:SER:N	2.72	0.60
60:FO:27:GLU:OE2	60:FO:241:ARG:NH2	2.34	0.60
60:FS:283:GLY:HA3	60:GF:55:THR:HG23	1.83	0.60
59:GL:108:TYR:O	59:GL:112:LYS:HE3	2.02	0.60
60:GM:248:SER:OG	60:GM:252:LYS:NZ	2.32	0.60
60:GZ:48:ASN:O	60:GZ:62:ARG:NH1	2.34	0.60
59:IM:215:ARG:HH12	59:IM:299:ALA:HB1	1.66	0.60
60:IU:375:GLN:HE22	60:IU:379:ARG:NH2	1.98	0.60
59:JW:251:ASP:OD1	59:JW:252:LEU:N	2.34	0.60
60:JZ:376:GLU:HG2	60:JZ:379:ARG:HH21	1.66	0.60
59:LA:96:LYS:HE3	60:LB:129:CYS:HB3	1.83	0.60
1:0C:539:ARG:HG2	1:0C:611:ALA:HB1	1.83	0.60
4:0G:279:ASN:ND2	4:0G:282:GLU:OE2	2.34	0.60
16:0Y:101:ALA:HB2	16:0Y:238:GLU:HG2	1.83	0.60
17:0Z:115:GLU:HG3	17:0Z:296:SER:HA	1.83	0.60
20:1C:239:THR:HG22	20:1C:240:ASP:H	1.65	0.60
41:2V:118:LYS:NZ	59:JD:279:GLU:OE2	2.30	0.60
42:3M:223:GLU:O	42:3M:226:LYS:NZ	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:AB:156:ARG:NH2	60:AB:197:ASP:OD1	2.34	0.60
60:AJ:173:PRO:HG2	60:AJ:174:LYS:HD3	1.82	0.60
59:AK:69:ASP:OD1	59:AK:70:LEU:N	2.33	0.60
59:BU:269:LEU:HD22	59:BU:303:THR:HG21	1.83	0.60
59:BW:132:LEU:HD23	59:BW:134:GLY:H	1.66	0.60
59:CH:406:HIS:HA	59:CH:409:VAL:HG12	1.82	0.60
60:CP:218:THR:HG23	60:CP:219:THR:HG22	1.83	0.60
59:CY:271:SER:OG	59:CY:301:MET:SD	2.58	0.60
59:DI:196:GLU:HG2	59:DI:197:HIS:ND1	2.16	0.60
59:DQ:298:PRO:HB3	59:DQ:307:PRO:HD2	1.83	0.60
60:EC:334:GLN:NE2	60:EC:347:ASN:OD1	2.34	0.60
60:EO:344:TRP:HB3	60:EO:430:ILE:HD11	1.83	0.60
60:FV:301:GLN:HE22	60:FV:374:ILE:HG13	1.66	0.60
60:GK:344:TRP:HB3	60:GK:430:ILE:HD11	1.82	0.60
59:GL:98:ASP:OD1	59:GL:99:ALA:N	2.34	0.60
60:GS:398:TYR:HB3	60:GS:403:MET:HE3	1.83	0.60
60:GV:375:GLN:OE1	60:GV:379:ARG:NH2	2.34	0.60
60:HF:249:ASP:OD1	60:HF:250:LEU:N	2.35	0.60
59:HZ:399:TYR:OH	59:HZ:415:GLU:OE2	2.19	0.60
60:IC:282:ARG:NH1	60:IC:288:GLU:OE2	2.33	0.60
59:KD:406:HIS:HA	59:KD:409:VAL:HG12	1.82	0.60
60:KE:173:PRO:HB3	60:KE:380:ARG:NH1	2.16	0.60
59:KH:80:THR:O	59:KH:84:ARG:NH2	2.31	0.60
59:KS:90:GLU:OE2	59:KS:121:ARG:NH2	2.34	0.60
59:LA:264:ARG:NH2	59:LA:431:ASP:OD2	2.33	0.60
1:0A:357:ASP:OD1	1:0A:358:TYR:N	2.34	0.60
17:0Z:432:GLU:OE2	17:0Z:486:ARG:NH1	2.34	0.60
29:1O:236:LEU:N	60:FE:41:ASP:OD2	2.33	0.60
41:3A:327:ARG:HG2	59:HI:58:ALA:HB1	1.83	0.60
42:3K:218:GLY:O	60:IE:320:ARG:NH1	2.34	0.60
46:3U:119:PHE:HA	60:EW:291:GLN:HE22	1.66	0.60
59:AE:251:ASP:N	59:AE:254:GLU:OE2	2.26	0.60
60:BT:173:PRO:HG2	60:BT:174:LYS:HD3	1.83	0.60
59:CF:75:VAL:O	59:CF:79:ARG:HG3	2.01	0.60
60:DF:344:TRP:HB3	60:DF:430:ILE:HD11	1.83	0.60
59:GW:2:ARG:N	59:GW:133:GLN:OE1	2.34	0.60
59:HC:262:TYR:HB3	59:HC:263:PRO:HD2	1.83	0.60
60:HU:396:HIS:HA	60:HU:399:THR:HG22	1.82	0.60
60:IH:313:ALA:HB3	60:IH:349:ILE:HG22	1.82	0.60
60:IN:58:ARG:HG2	60:IN:59:TYR:N	2.17	0.60
60:IP:8:GLN:NE2	60:IP:13:GLY:O	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IV:5:ILE:HD13	59:IV:64:ARG:HB3	1.82	0.60
60:IW:149:THR:HB	60:IW:191:GLN:HG2	1.82	0.60
60:JC:149:THR:HB	60:JC:191:GLN:HG2	1.83	0.60
60:JE:153:SER:OG	60:JE:195:ASN:OD1	2.17	0.60
59:KP:188:VAL:HG23	59:KP:425:LEU:HD12	1.83	0.60
1:0C:110:VAL:HG13	1:0C:111:GLU:HG3	1.84	0.60
17:0Z:225:ILE:HG22	17:0Z:227:LYS:H	1.65	0.60
32:1V:102:ARG:HH12	59:EH:430:LYS:HB3	1.65	0.60
32:1W:2:PHE:O	32:1W:7:GLN:NE2	2.34	0.60
33:2C:247:SER:O	33:2C:265:SER:OG	2.19	0.60
33:2D:523:LEU:HD11	33:2D:579:TYR:HE1	1.66	0.60
39:2P:240:GLU:OE2	39:2P:244:ARG:NH1	2.34	0.60
47:3X:183:GLU:HA	47:3X:186:ARG:HG2	1.83	0.60
49:4B:51:LEU:HD21	59:EX:434:GLU:HG2	1.84	0.60
59:AC:221:ARG:NH1	60:AD:325:GLU:OE2	2.31	0.60
60:AJ:232:VAL:HG11	60:AJ:268:MET:HG2	1.84	0.60
60:AJ:344:TRP:HB3	60:AJ:430:ILE:HD11	1.83	0.60
59:BI:388:PHE:HB3	59:BI:425:LEU:HD21	1.82	0.60
60:CR:10:GLY:O	60:CR:14:ASN:ND2	2.29	0.60
60:CR:267:MET:HB3	60:CR:374:ILE:HD11	1.84	0.60
59:CS:69:ASP:OD1	59:CS:71:GLU:N	2.34	0.60
59:DG:259:LEU:HD21	59:DG:268:VAL:HG11	1.83	0.60
60:EQ:62:ARG:NH1	60:EQ:127:CYS:SG	2.74	0.60
59:HQ:388:PHE:HB3	59:HQ:425:LEU:HD21	1.82	0.60
60:HR:303:ALA:HB1	60:HR:373:CYS:HB3	1.84	0.60
60:HU:10:GLY:O	60:HU:14:ASN:ND2	2.31	0.60
60:IL:311:LEU:O	60:IL:348:ASN:ND2	2.35	0.60
60:JI:318:ARG:HH11	60:JI:318:ARG:HG2	1.66	0.60
60:JT:423:GLN:NE2	60:JT:427:ASP:OD2	2.34	0.60
59:JY:210:TYR:CG	60:JZ:324:LYS:HE2	2.37	0.60
5:0K:260:GLY:O	5:0K:264:ASN:ND2	2.32	0.60
33:2C:153:HIS:CE1	33:2C:154:HIS:CE1	2.89	0.60
42:3N:50:LYS:HB3	59:HG:364:PRO:HG2	1.83	0.60
60:AT:21:TRP:HA	60:AT:24:ILE:HG22	1.82	0.60
59:AY:105:ARG:HA	59:AY:109:THR:HG22	1.84	0.60
60:BL:149:THR:HB	60:BL:191:GLN:HG2	1.81	0.60
60:CC:73:MET:HA	60:CC:76:VAL:HG12	1.83	0.60
60:CC:392:LYS:HE3	60:CC:395:LEU:HD13	1.82	0.60
60:CI:344:TRP:HB3	60:CI:430:ILE:HD11	1.84	0.60
59:CQ:399:TYR:OH	59:CQ:415:GLU:OE2	2.19	0.60
60:DD:149:THR:HA	60:DD:152:ILE:HG12	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DI:215:ARG:NH2	59:DI:299:ALA:O	2.34	0.60
60:DL:52:ASP:OD1	60:DL:53:GLU:N	2.35	0.60
59:ER:377:MET:HE2	59:ER:379:ALA:HB2	1.82	0.60
60:EW:283:GLY:HA2	60:FI:55:THR:HG22	1.83	0.60
59:FF:88:HIS:HB3	59:FF:91:GLN:HG2	1.84	0.60
60:FS:407:GLU:N	60:FS:407:GLU:OE1	2.34	0.60
60:GD:237:THR:HG23	60:GD:241:ARG:NH1	2.16	0.60
59:HE:273:ALA:HB2	59:HE:295:VAL:HG12	1.83	0.60
59:HZ:212:LEU:HD21	59:HZ:275:VAL:HG21	1.83	0.60
60:JA:156:ARG:NH1	60:JA:195:ASN:O	2.35	0.60
60:JC:396:HIS:HA	60:JC:399:THR:HG22	1.82	0.60
59:JJ:101:ASN:OD1	60:JK:252:LYS:NZ	2.28	0.60
60:JO:163:ILE:HD11	60:JO:251:ARG:HE	1.65	0.60
23:1F:188:VAL:HG21	59:FL:225:THR:HG21	1.84	0.60
34:2E:237:GLN:NE2	59:KL:47:ASP:OD2	2.34	0.60
41:2Y:152:GLU:OE2	41:2Y:155:ARG:NH2	2.35	0.60
41:3A:241:GLU:O	41:3A:245:ILE:HD12	2.01	0.60
41:3C:198:GLN:OE1	60:HH:280:GLN:NE2	2.34	0.60
41:3C:273:ASP:OD2	59:HK:370:LYS:NZ	2.26	0.60
60:CC:267:MET:HA	60:CC:301:GLN:HE21	1.65	0.60
60:CP:344:TRP:HB3	60:CP:430:ILE:HD11	1.84	0.60
59:DM:269:LEU:HD21	59:DM:384:ILE:HD13	1.83	0.60
60:EO:263:LEU:HG	60:EO:422:TYR:HE1	1.67	0.60
60:EQ:299:MET:HE2	60:EQ:301:GLN:HE22	1.65	0.60
60:FI:27:GLU:OE2	60:FI:241:ARG:NH2	2.34	0.60
60:FK:398:TYR:HB3	60:FK:403:MET:HE2	1.84	0.60
60:FO:195:ASN:N	60:FO:195:ASN:HD22	2.00	0.60
60:FZ:117:LEU:HD11	60:FZ:154:LYS:HD3	1.84	0.60
60:HF:330:MET:HB3	60:HF:349:ILE:HG21	1.83	0.60
59:HM:54:SER:HB3	59:HM:64:ARG:HH21	1.66	0.60
60:IR:235:GLY:HA2	60:IR:318:ARG:NH2	2.17	0.60
60:IS:113:ILE:HD11	60:IS:154:LYS:HG3	1.83	0.60
59:KF:270:THR:HG22	59:KF:378:ILE:HG22	1.83	0.60
59:KL:273:ALA:HB2	59:KL:295:VAL:HG22	1.83	0.60
3:0F:302:ARG:NH2	60:DD:22:GLU:O	2.34	0.60
31:1T:135:ARG:HH12	32:1W:149:LEU:HD22	1.66	0.60
39:2O:26:ARG:HH22	39:2O:34:ALA:HB3	1.67	0.60
59:BE:69:ASP:OD1	59:BE:71:GLU:N	2.34	0.60
60:BJ:215:LEU:HD11	60:BJ:273:LEU:HD23	1.82	0.60
60:CG:51:PHE:HB3	60:CG:59:TYR:HB3	1.82	0.60
59:DK:169:TYR:CE2	59:DK:235:VAL:HG22	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DP:262:ARG:NH2	60:DP:421:GLU:OE2	2.34	0.60
60:DW:175:VAL:HG11	59:DX:329:ASN:HB3	1.84	0.60
59:FD:269:LEU:HD22	59:FD:303:THR:HG21	1.82	0.60
60:FX:130:LEU:O	60:FX:162:ARG:NH2	2.33	0.60
60:GF:48:ASN:O	60:GF:62:ARG:NH1	2.33	0.60
60:GI:245:GLN:OE1	60:GI:320:ARG:NH2	2.32	0.60
60:GS:52:ASP:OD1	60:GS:53:GLU:N	2.35	0.60
59:HG:406:HIS:HA	59:HG:409:VAL:HG22	1.83	0.60
59:HM:172:TYR:HD1	59:HM:173:PRO:HD2	1.67	0.60
60:HS:171:PRO:HB3	60:HS:181:GLU:HG2	1.82	0.60
60:IC:271:ALA:HA	60:IC:298:ASN:HD21	1.66	0.60
59:ID:402:ARG:NH2	59:ID:415:GLU:OE2	2.33	0.60
59:IT:76:ASP:OD1	59:IT:79:ARG:NH1	2.31	0.60
60:IW:306:ARG:NH1	60:IW:340:TYR:OH	2.35	0.60
60:JE:212:PHE:HB2	59:JF:326:LYS:HE3	1.84	0.60
60:KM:406:MET:HA	60:KM:409:THR:HG22	1.84	0.60
60:KO:218:THR:HG23	60:KO:219:THR:HG23	1.84	0.60
59:KP:98:ASP:OD1	59:KP:99:ALA:N	2.34	0.60
60:KT:170:ILE:HD12	60:KT:377:MET:SD	2.41	0.60
5:0H:77:ASP:OD2	60:FA:55:THR:OG1	2.19	0.60
6:0M:13:GLU:HB3	6:0M:17:ARG:NH1	2.17	0.60
23:1F:40:CYS:SG	23:1F:42:ARG:NH1	2.74	0.60
31:1U:85:THR:O	60:EM:156:ARG:NH2	2.35	0.60
36:2K:217:ARG:NH1	59:EX:162:GLY:O	2.34	0.60
48:3Y:213:LYS:O	48:3Y:218:GLN:NE2	2.34	0.60
53:4L:27:ASN:HD21	60:JG:296:ALA:H	1.49	0.60
60:AH:156:ARG:NH2	60:AH:197:ASP:OD2	2.32	0.60
59:AO:406:HIS:HA	59:AO:409:VAL:HG22	1.84	0.60
59:BW:265:ILE:HG22	59:BW:380:ASN:HD21	1.67	0.60
60:CE:235:GLY:HA2	60:CE:318:ARG:NH2	2.16	0.60
59:CH:119:LEU:HD11	59:CH:156:ARG:HG2	1.82	0.60
59:CH:195:LEU:HD21	59:CH:428:LEU:HD22	1.83	0.60
59:DA:221:ARG:HG2	60:DB:325:GLU:OE2	2.01	0.60
59:DA:334:THR:O	59:DA:337:THR:HG22	2.02	0.60
60:EM:156:ARG:NH1	60:EM:197:ASP:OD1	2.35	0.60
59:FP:285:GLN:NE2	59:GC:55:GLU:O	2.35	0.60
60:GF:170:ILE:HG23	60:GF:171:PRO:HD2	1.84	0.60
59:GR:88:HIS:NE2	59:HE:284:GLU:OE2	2.29	0.60
59:HE:222:PRO:HG2	60:HF:324:LYS:NZ	2.15	0.60
59:HO:105:ARG:HG3	59:HO:411:GLU:HG2	1.84	0.60
60:HR:125:GLU:OE2	60:IE:336:LYS:NZ	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IG:108:TYR:O	59:IG:112:LYS:NZ	2.34	0.60
60:JK:21:TRP:HA	60:JK:24:ILE:HG22	1.83	0.60
60:JZ:380:ARG:HH11	60:JZ:380:ARG:HG2	1.66	0.60
60:KR:249:ASP:OD1	60:KR:250:LEU:N	2.35	0.60
60:LB:8:GLN:OE1	60:LB:17:GLY:HA3	2.02	0.60
60:LB:407:GLU:N	60:LB:407:GLU:OE1	2.34	0.60
7:0P:377:GLU:OE2	7:0P:380:ARG:NH2	2.35	0.60
12:0U:274:LYS:NZ	59:BO:80:THR:O	2.33	0.60
17:0Z:336:CYS:SG	17:0Z:379:GLN:NE2	2.75	0.60
27:1K:181:TYR:O	59:AO:85:GLN:NE2	2.34	0.60
27:1K:185:ARG:NH2	59:AO:33:ASP:OD2	2.32	0.60
60:AF:170:ILE:HD11	60:AF:377:MET:HE3	1.84	0.60
60:AJ:271:ALA:HA	60:AJ:298:ASN:HD21	1.66	0.60
60:BR:257:LEU:HD21	60:BR:314:SER:HB3	1.83	0.60
60:CR:396:HIS:HA	60:CR:399:THR:HG22	1.84	0.60
59:DO:50:ASN:O	59:DO:64:ARG:NH1	2.35	0.60
60:FO:167:PHE:CE2	60:FO:233:VAL:HG22	2.37	0.60
60:FS:201:CYS:HB2	60:FS:301:GLN:NE2	2.16	0.60
59:GJ:71:GLU:OE2	60:GK:247:ASN:ND2	2.35	0.60
59:GU:406:HIS:HA	59:GU:409:VAL:HG22	1.83	0.60
59:GW:406:HIS:HA	59:GW:409:VAL:HG22	1.82	0.60
60:IL:391:ARG:O	59:IM:262:TYR:OH	2.19	0.60
60:JT:96:GLY:O	60:JT:103:LYS:NZ	2.35	0.60
59:KQ:251:ASP:OD1	59:KQ:252:LEU:N	2.35	0.60
60:AP:201:CYS:O	60:AP:301:GLN:NE2	2.34	0.60
60:BH:218:THR:HG23	60:BH:219:THR:HG22	1.83	0.60
60:BV:304:ASP:OD1	60:BV:307:HIS:ND1	2.32	0.60
59:CB:259:LEU:HD21	59:CB:316:CYS:HB2	1.83	0.60
59:CJ:399:TYR:OH	59:CJ:415:GLU:OE2	2.13	0.60
60:CZ:390:ARG:HG3	60:CZ:391:ARG:HG2	1.83	0.60
59:DU:251:ASP:OD1	59:DU:252:LEU:N	2.35	0.60
60:ES:271:ALA:O	60:ES:292:GLN:NE2	2.35	0.60
60:FO:26:ASP:OD1	60:FO:359:LYS:NZ	2.33	0.60
59:FT:47:ASP:OD1	59:FT:50:ASN:ND2	2.35	0.60
60:FX:170:ILE:HD12	60:FX:201:CYS:HB3	1.84	0.60
59:GL:399:TYR:OH	59:GL:415:GLU:OE2	2.19	0.60
60:GM:318:ARG:HH12	60:GM:358:PRO:HD3	1.66	0.60
59:GN:259:LEU:HD21	59:GN:316:CYS:HB2	1.84	0.60
59:GP:277:SER:O	59:GP:281:ALA:HB3	2.02	0.60
60:HR:67:ASP:OD2	60:HR:72:THR:OG1	2.20	0.60
60:HS:275:SER:O	60:HS:279:GLN:NE2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HU:423:GLN:NE2	60:HU:427:ASP:OD2	2.35	0.60
60:IC:276:ARG:O	60:IC:279:GLN:NE2	2.34	0.60
60:IE:109:GLY:O	60:IE:113:ILE:HG12	2.01	0.60
59:IK:251:ASP:OD1	59:IK:252:LEU:N	2.35	0.60
59:IM:76:ASP:HA	59:IM:79:ARG:HD2	1.82	0.60
59:JQ:406:HIS:HA	59:JQ:409:VAL:HG12	1.84	0.60
60:JX:52:ASP:OD1	60:JX:53:GLU:N	2.35	0.60
60:KK:362:LYS:HG2	60:KK:363:MET:HG3	1.84	0.60
59:KP:68:LEU:HD21	59:KP:149:LEU:HD23	1.83	0.60
37:2L:228:ARG:NH2	37:2L:232:SER:O	2.35	0.59
42:3O:157:LEU:HD11	59:HE:32:PRO:HG2	1.82	0.59
54:4M:108:ARG:NH2	59:IQ:434:GLU:OE1	2.29	0.59
59:AI:399:TYR:OH	59:AI:415:GLU:OE2	2.20	0.59
60:BV:260:PHE:HB2	60:BV:263:LEU:HD13	1.84	0.59
59:BZ:406:HIS:HA	59:BZ:409:VAL:HG12	1.84	0.59
60:DB:410:GLU:O	60:DB:414:ASN:ND2	2.33	0.59
59:DQ:254:GLU:HA	59:DQ:257:THR:HG22	1.83	0.59
60:EA:309:ARG:NH1	60:EA:339:SER:O	2.34	0.59
60:EY:15:GLN:NE2	64:EY:501:GDP:O6	2.35	0.59
59:FN:76:ASP:OD1	59:FN:79:ARG:NH1	2.33	0.59
60:FO:327:ASP:OD1	60:FO:328:GLU:N	2.35	0.59
60:GM:318:ARG:NH1	60:GM:358:PRO:HD3	2.17	0.59
59:GW:88:HIS:O	59:GW:91:GLN:HG2	2.02	0.59
60:GX:8:GLN:OE1	60:GX:17:GLY:HA3	2.01	0.59
59:IK:203:MET:HE3	59:IK:387:VAL:HG11	1.84	0.59
59:JF:276:ILE:HD13	59:JF:286:LEU:HD21	1.84	0.59
60:KB:21:TRP:HA	60:KB:24:ILE:HG22	1.82	0.59
59:KD:68:LEU:HD21	59:KD:149:LEU:HD23	1.84	0.59
59:KJ:69:ASP:OD1	59:KJ:71:GLU:N	2.34	0.59
59:KY:133:GLN:NE2	59:KY:251:ASP:OD1	2.34	0.59
1:0D:108:SER:OG	1:0D:111:GLU:O	2.20	0.59
5:0H:173:TRP:CD2	59:ER:370:LYS:HD2	2.36	0.59
41:2V:104:ARG:HH22	59:IQ:40:LYS:HB2	1.67	0.59
41:2Y:293:PRO:HG2	41:2Y:296:LEU:HD23	1.85	0.59
47:3X:184:ARG:HB2	48:4A:168:ARG:HH12	1.67	0.59
60:CR:130:LEU:HB3	60:CR:162:ARG:HH21	1.66	0.59
59:CY:181:VAL:HG23	59:CY:182:VAL:HG13	1.83	0.59
59:DA:192:HIS:HD2	59:DA:421:ALA:HA	1.67	0.59
59:FJ:93:ILE:HD11	59:FJ:121:ARG:HG3	1.83	0.59
60:FQ:7:VAL:HB	60:FQ:135:ILE:HD13	1.85	0.59
60:FX:309:ARG:NH1	60:FX:339:SER:O	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GV:282:ARG:HD3	60:GV:288:GLU:HG2	1.83	0.59
59:HC:76:ASP:OD1	59:HC:79:ARG:NH1	2.34	0.59
60:HF:233:VAL:O	60:HF:236:VAL:HG12	2.01	0.59
59:HT:311:LYS:HE3	59:HT:344:VAL:HA	1.84	0.59
60:IE:149:THR:HA	60:IE:152:ILE:HG22	1.84	0.59
60:IH:167:PHE:CE2	60:IH:233:VAL:HG22	2.37	0.59
60:IJ:32:PRO:HA	60:IJ:84:ILE:HD11	1.83	0.59
59:IK:270:THR:HG22	59:IK:378:ILE:HG12	1.84	0.59
59:JJ:251:ASP:OD1	59:JJ:252:LEU:N	2.35	0.59
59:JL:284:GLU:HG2	59:JL:285:GLN:O	2.02	0.59
60:KO:407:GLU:N	60:KO:407:GLU:OE1	2.33	0.59
60:KV:344:TRP:HB3	60:KV:430:ILE:HD11	1.84	0.59
6:0M:174:GLU:OE2	6:0M:177:ARG:NH1	2.35	0.59
16:0Y:90:ARG:HH12	60:FQ:276:ARG:HE	1.49	0.59
31:1T:92:THR:HG21	37:2L:13:LEU:HD22	1.83	0.59
36:2I:46:THR:OG1	59:ER:417:GLU:OE2	2.19	0.59
39:2R:327:ARG:HD2	40:2T:121:SER:HB3	1.83	0.59
51:4H:125:LYS:NZ	59:FL:420:GLU:OE2	2.26	0.59
60:AX:322:SER:OG	60:AX:325:GLU:HG3	2.02	0.59
59:BC:298:PRO:HG3	59:BC:308:ARG:HH12	1.66	0.59
60:CN:193:VAL:HG22	60:CN:265:PHE:HZ	1.66	0.59
60:DD:267:MET:SD	60:DD:301:GLN:NE2	2.72	0.59
60:DT:298:ASN:O	60:DT:298:ASN:ND2	2.31	0.59
60:FA:156:ARG:NH1	60:FA:197:ASP:OD2	2.35	0.59
59:HI:399:TYR:OH	59:HI:415:GLU:OE2	2.16	0.59
60:HS:212:PHE:HB2	59:HT:326:LYS:HZ3	1.67	0.59
60:IF:238:CYS:HB2	60:IF:318:ARG:HH11	1.67	0.59
60:IL:8:GLN:N	60:IL:8:GLN:OE1	2.34	0.59
60:IR:204:ASN:OD1	64:IR:501:GDP:N2	2.29	0.59
59:JF:265:ILE:HG22	59:JF:380:ASN:HD21	1.67	0.59
59:JQ:254:GLU:HA	59:JQ:257:THR:HG22	1.83	0.59
60:KZ:407:GLU:N	60:KZ:407:GLU:OE1	2.34	0.59
1:0B:360:GLU:OE2	1:0B:364:HIS:NE2	2.33	0.59
42:3M:142:TYR:HD1	60:HN:356:ILE:HD12	1.67	0.59
57:4R:75:ILE:HD11	59:GE:427:ALA:HB2	1.85	0.59
59:AA:406:HIS:HA	59:AA:409:VAL:HG22	1.83	0.59
59:BZ:251:ASP:OD1	59:BZ:252:LEU:N	2.35	0.59
60:DL:27:GLU:OE1	60:DL:241:ARG:NH2	2.34	0.59
62:EH:501:GTP:O3G	60:EI:252:LYS:NZ	2.31	0.59
60:FO:77:ARG:NH2	60:FO:83:GLN:OE1	2.35	0.59
60:FQ:54:ALA:HB3	60:FQ:58:ARG:HG2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FQ:170:ILE:HG13	60:FQ:201:CYS:HB3	1.84	0.59
60:GS:133:PHE:HE2	60:GS:155:LEU:HD22	1.67	0.59
59:IQ:100:ALA:O	60:IR:255:VAL:HG11	2.02	0.59
60:JC:238:CYS:SG	60:JC:318:ARG:HD3	2.42	0.59
60:JE:178:THR:HB	60:JE:181:GLU:HG3	1.84	0.59
60:JI:247:ASN:O	60:JI:252:LYS:NZ	2.34	0.59
59:JJ:75:VAL:HG21	59:JJ:94:SER:HB2	1.85	0.59
59:JL:306:ASP:OD1	59:JL:308:ARG:HG2	2.02	0.59
60:KB:99:ASN:ND2	59:KC:254:GLU:OE1	2.36	0.59
59:KN:51:THR:HG21	59:KN:243:ARG:HG2	1.84	0.59
5:0H:166:GLN:OE1	59:ER:372:GLN:NE2	2.35	0.59
7:0P:364:THR:OG1	59:AU:282:TYR:OH	2.20	0.59
14:0W:60:GLU:OE2	14:0W:64:ARG:NH1	2.35	0.59
17:0Z:219:ASN:H	60:FI:81:TYR:HE1	1.51	0.59
27:1K:208:GLU:O	60:AB:276:ARG:NH2	2.36	0.59
33:2D:70:ALA:HB3	33:2D:79:ALA:HB3	1.83	0.59
39:2R:417:MET:HE1	43:3Q:85:GLU:HA	1.85	0.59
41:2W:315:GLU:HA	41:2W:318:ARG:HE	1.68	0.59
41:2Y:323:ARG:NH2	59:ID:56:THR:O	2.36	0.59
42:3F:163:PRO:HG2	59:BM:26:LEU:HD11	1.84	0.59
48:4A:235:GLY:HA2	59:HT:84:ARG:HH21	1.66	0.59
55:4P:157:GLU:HA	55:4P:161:LEU:HD23	1.83	0.59
60:AX:213:ARG:HH12	60:AX:297:LYS:HG2	1.68	0.59
59:BE:2:ARG:HG3	59:BE:3:GLU:OE1	2.02	0.59
59:BI:120:ASP:O	59:BI:123:ARG:HD3	2.02	0.59
60:BJ:334:GLN:HE21	60:BJ:349:ILE:HG12	1.67	0.59
59:BZ:178:SER:CB	60:CA:347:ASN:HD22	2.15	0.59
59:CO:15:GLN:NE2	62:CO:501:GTP:O6	2.33	0.59
59:DX:88:HIS:HB3	59:DX:91:GLN:HG2	1.85	0.59
59:GY:132:LEU:HD23	59:GY:164:LYS:HE2	1.84	0.59
60:HB:86:ARG:HB3	60:HB:89:ASN:ND2	2.18	0.59
59:HO:222:PRO:HD2	60:HP:324:LYS:HE2	1.83	0.59
59:HX:203:MET:HE1	59:HX:384:ILE:HD11	1.84	0.59
60:IF:156:ARG:HD3	60:IF:164:MET:HG3	1.83	0.59
60:IF:292:GLN:HG3	60:IF:298:ASN:HD22	1.66	0.59
60:IL:226:ASN:HA	60:IL:229:VAL:HG22	1.85	0.59
60:JR:156:ARG:NH2	60:JR:197:ASP:OD2	2.35	0.59
60:JT:344:TRP:HB3	60:JT:430:ILE:HD11	1.84	0.59
60:JV:27:GLU:HA	60:JV:359:LYS:NZ	2.17	0.59
59:KC:270:THR:HG22	59:KC:378:ILE:HG22	1.84	0.59
13:0V:177:GLN:NE2	13:0V:182:GLU:O	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1D:191:ARG:HE	21:1D:192:LEU:H	1.50	0.59
41:3C:327:ARG:HG2	59:HA:58:ALA:HB1	1.83	0.59
42:3G:150:GLN:NE2	59:IZ:82:THR:HG22	2.17	0.59
59:AC:93:ILE:HD11	59:AC:121:ARG:HG3	1.84	0.59
60:BF:407:GLU:N	60:BF:407:GLU:OE1	2.35	0.59
59:BU:90:GLU:OE1	59:BU:121:ARG:NH2	2.34	0.59
60:CL:46:ARG:HG2	60:CL:241:ARG:HA	1.83	0.59
59:CS:123:ARG:NH2	59:CS:160:ASP:OD2	2.33	0.59
59:DE:318:MET:SD	59:DE:318:MET:N	2.76	0.59
60:DW:3:GLU:HB2	60:DW:62:ARG:HH21	1.67	0.59
60:DW:31:ASP:OD1	60:DW:32:PRO:HD2	2.03	0.59
59:EV:90:GLU:OE1	59:EV:121:ARG:NH1	2.36	0.59
59:FH:15:GLN:NE2	62:FH:501:GTP:O6	2.35	0.59
59:GG:399:TYR:OH	59:GG:415:GLU:OE2	2.21	0.59
60:GI:344:TRP:HB3	60:GI:430:ILE:HD11	1.84	0.59
59:GU:173:PRO:O	59:GU:390:ARG:NH2	2.34	0.59
60:GZ:313:ALA:HB1	60:GZ:367:PHE:HE1	1.66	0.59
60:HB:287:PRO:HA	60:HB:329:GLN:HE21	1.66	0.59
60:HJ:392:LYS:NZ	60:HJ:405:GLU:OE2	2.35	0.59
59:IB:15:GLN:NE2	62:IB:602:GTP:O6	2.33	0.59
60:IC:53:GLU:O	60:IP:282:ARG:NH2	2.35	0.59
59:IG:251:ASP:OD1	59:IG:252:LEU:N	2.36	0.59
59:II:90:GLU:OE2	59:II:121:ARG:NH1	2.36	0.59
60:JM:334:GLN:HE22	60:JM:348:ASN:H	1.50	0.59
60:JT:377:MET:HG3	60:JT:380:ARG:HH22	1.67	0.59
59:JU:105:ARG:HH12	60:JV:251:ARG:HD3	1.67	0.59
60:LB:170:ILE:HG13	60:LB:171:PRO:HD2	1.84	0.59
7:0P:156:ALA:HB1	7:0P:160:ARG:NH1	2.18	0.59
18:1A:165:ILE:HD12	18:1A:173:PRO:HA	1.85	0.59
33:2C:57:ASP:OD2	33:2C:100:ARG:NH1	2.35	0.59
34:2E:173:TYR:HB2	37:2L:95:LYS:HG2	1.84	0.59
41:3D:323:ARG:NH1	59:GR:57:GLY:O	2.35	0.59
42:3H:76:THR:OG1	42:3H:79:GLN:OE1	2.14	0.59
50:4E:159:ALA:HA	50:4E:162:PHE:CE2	2.38	0.59
60:AF:257:LEU:HD11	60:AF:314:SER:HB2	1.83	0.59
59:AM:121:ARG:NH1	59:AM:121:ARG:HA	2.18	0.59
60:BF:292:GLN:HG3	60:BF:298:ASN:ND2	2.18	0.59
59:BZ:172:TYR:CD1	59:BZ:173:PRO:HD2	2.38	0.59
60:CR:232:VAL:HG22	60:CR:268:MET:HE2	1.84	0.59
59:CU:189:LEU:HD13	59:CU:413:MET:HE1	1.85	0.59
59:CY:214:ARG:HD2	60:CZ:324:LYS:NZ	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DO:65:ALA:O	59:DO:91:GLN:NE2	2.36	0.59
59:EH:218:ASP:OD2	59:EH:280:LYS:NZ	2.35	0.59
60:EQ:170:ILE:HD12	60:EQ:201:CYS:HB2	1.85	0.59
60:ES:134:GLN:HE21	60:ES:167:PHE:HE2	1.49	0.59
60:FE:156:ARG:NH1	60:FE:197:ASP:OD2	2.35	0.59
59:FR:212:LEU:HD11	59:FR:275:VAL:HG21	1.85	0.59
60:FS:318:ARG:HD2	60:FS:358:PRO:HD3	1.85	0.59
59:GH:251:ASP:OD1	59:GH:252:LEU:N	2.36	0.59
60:GO:214:THR:O	60:GO:275:SER:OG	2.20	0.59
59:GY:178:SER:HB2	60:GZ:347:ASN:ND2	2.17	0.59
60:HY:209:ASP:O	60:HY:213:ARG:HG2	2.02	0.59
60:IC:388:MET:HG3	60:IC:393:ALA:HB3	1.84	0.59
59:IX:286:LEU:O	59:IX:373:ARG:NH1	2.35	0.59
60:JO:26:ASP:OD1	60:JO:359:LYS:NZ	2.33	0.59
60:JR:344:TRP:HB3	60:JR:430:ILE:HD11	1.84	0.59
59:JS:99:ALA:O	59:JS:105:ARG:HD3	2.03	0.59
60:JV:156:ARG:NH2	60:JV:197:ASP:OD1	2.35	0.59
60:KV:407:GLU:N	60:KV:407:GLU:OE1	2.35	0.59
14:0W:77:ARG:HE	59:FW:244:PHE:HE1	1.51	0.59
18:1A:9:LEU:HA	60:EK:320:ARG:HB3	1.85	0.59
36:2J:97:PHE:HB3	36:2J:108:LEU:HD11	1.85	0.59
40:2T:439:GLU:OE1	40:2T:442:ARG:NH2	2.36	0.59
41:2W:248:MET:O	41:2W:252:ASN:ND2	2.34	0.59
42:3L:97:LYS:HE3	42:3L:98:PRO:HD2	1.85	0.59
47:3X:45:CYS:HB2	47:3X:52:LEU:HD12	1.84	0.59
53:4L:40:ASP:OD2	59:IT:96:LYS:NZ	2.36	0.59
54:4N:16:ARG:HD3	59:HI:442:MET:CG	2.33	0.59
59:AC:175:PRO:HB3	59:AC:390:ARG:NH1	2.18	0.59
59:BS:273:ALA:HB2	59:BS:295:VAL:HG23	1.84	0.59
60:CC:230:SER:HA	60:CC:233:VAL:HG12	1.84	0.59
60:DW:173:PRO:HB3	60:DW:380:ARG:HD3	1.84	0.59
59:EN:251:ASP:OD1	59:EN:252:LEU:N	2.36	0.59
59:ER:282:TYR:CZ	59:FD:60:LYS:HE2	2.37	0.59
60:GF:407:GLU:N	60:GF:407:GLU:OE1	2.35	0.59
60:GI:201:CYS:SG	60:GI:301:GLN:NE2	2.76	0.59
59:GL:75:VAL:HG21	59:GL:94:SER:HB2	1.84	0.59
59:HZ:178:SER:HB3	60:IA:347:ASN:HD22	1.67	0.59
60:IL:303:ALA:HB1	60:IL:373:CYS:SG	2.43	0.59
59:IQ:399:TYR:OH	59:IQ:415:GLU:OE2	2.15	0.59
60:IU:113:ILE:HD12	60:IU:150:LEU:HG	1.85	0.59
59:IZ:217:LEU:HD21	59:IZ:368:LEU:HD23	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JG:167:PHE:CD2	60:JG:233:VAL:HG22	2.37	0.59
59:JY:69:ASP:OD1	59:JY:70:LEU:N	2.36	0.59
1:0A:485:LYS:NZ	1:0A:519:GLU:O	2.35	0.59
1:0A:530:ARG:NH2	1:0A:621:ASP:O	2.36	0.59
5:0K:307:ARG:HA	5:0K:310:MET:HE3	1.84	0.59
30:1Q:73:THR:HG22	30:1Q:75:LEU:H	1.68	0.59
42:3M:76:THR:H	42:3M:79:GLN:NE2	2.01	0.59
45:3S:68:GLU:OE2	45:3S:72:ARG:NH2	2.36	0.59
54:4O:161:LEU:HD22	59:IT:159:VAL:HG22	1.84	0.59
60:AX:21:TRP:HA	60:AX:24:ILE:HG22	1.84	0.59
60:AX:375:GLN:HE22	60:AX:379:ARG:HH22	1.51	0.59
60:DF:220:PRO:HD2	59:DG:326:LYS:HE2	1.85	0.59
59:DO:419:SER:O	59:DO:423:GLU:HG3	2.02	0.59
60:EI:132:GLY:HA3	60:EI:163:ILE:HG13	1.84	0.59
59:FD:388:PHE:HB3	59:FD:425:LEU:HD21	1.85	0.59
59:FH:251:ASP:OD1	59:FH:252:LEU:N	2.36	0.59
59:GR:107:HIS:CD2	59:GR:152:LEU:HB2	2.37	0.59
59:GR:298:PRO:HG3	59:GR:308:ARG:HH12	1.67	0.59
59:II:262:TYR:HB2	59:II:265:ILE:HD13	1.85	0.59
60:JE:11:GLN:NE2	60:JE:15:GLN:HE21	2.00	0.59
60:JG:404:ASP:OD1	60:JG:407:GLU:HG3	2.03	0.59
59:JN:223:THR:OG1	60:JO:245:GLN:NE2	2.35	0.59
60:KE:290:THR:HA	60:KE:293:MET:HE2	1.84	0.59
59:KF:251:ASP:OD1	59:KF:252:LEU:N	2.36	0.59
60:KK:407:GLU:N	60:KK:407:GLU:OE1	2.35	0.59
59:KL:69:ASP:OD1	59:KL:71:GLU:N	2.36	0.59
59:KL:251:ASP:OD1	59:KL:252:LEU:N	2.35	0.59
3:0F:616:VAL:HG11	3:0F:621:ARG:HH22	1.67	0.59
5:0K:314:GLU:OE2	29:1O:205:ARG:NH1	2.34	0.59
7:0O:83:GLN:HA	7:0O:86:HIS:CD2	2.38	0.59
32:1W:78:MET:HG2	32:1W:165:LEU:HD22	1.83	0.59
33:2C:464:GLU:OE2	59:KH:85:GLN:NE2	2.35	0.59
33:2D:379:LYS:HE3	33:2D:432:ASN:HA	1.83	0.59
36:2I:138:ARG:O	60:ES:390:ARG:NH1	2.36	0.59
39:2P:290:GLU:OE2	39:2P:294:ARG:NH1	2.35	0.59
41:3A:316:ARG:HH12	59:HI:44:VAL:HA	1.66	0.59
46:3T:218:ARG:HG2	60:FO:125:GLU:HG3	1.83	0.59
59:AC:215:ARG:HH12	59:AC:299:ALA:HB1	1.68	0.59
60:BD:239:CYS:SG	60:BD:248:SER:N	2.75	0.59
59:BE:384:ILE:HD11	59:BE:432:TYR:CZ	2.37	0.59
59:BG:222:PRO:HD2	60:BH:324:LYS:HD2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BI:179:THR:HG21	62:BI:501:GTP:H3'	1.84	0.59
59:BQ:5:ILE:HD13	59:BQ:64:ARG:HB3	1.85	0.59
59:BQ:206:ASN:OD1	62:BQ:602:GTP:N2	2.35	0.59
60:BT:247:ASN:O	60:BT:252:LYS:NZ	2.35	0.59
59:BW:31:GLN:HE22	59:BW:37:PRO:HD3	1.68	0.59
59:BX:259:LEU:O	59:BX:380:ASN:ND2	2.36	0.59
60:CE:204:ASN:OD1	64:CE:501:GDP:N2	2.35	0.59
59:DI:406:HIS:HA	59:DI:409:VAL:HG22	1.84	0.59
60:DW:267:MET:HE3	60:DW:371:ASN:HB3	1.84	0.59
60:EO:239:CYS:SG	60:EO:248:SER:N	2.73	0.59
59:FJ:88:HIS:ND1	59:FJ:90:GLU:HG2	2.17	0.59
59:GE:251:ASP:OD1	59:GE:252:LEU:N	2.36	0.59
59:GG:172:TYR:CD1	59:GG:173:PRO:HD2	2.37	0.59
59:GW:212:LEU:HD21	59:GW:275:VAL:HG11	1.83	0.59
60:HH:327:ASP:OD1	60:HH:328:GLU:N	2.36	0.59
59:IT:178:SER:HG	60:IU:347:ASN:ND2	2.00	0.59
59:IT:319:TYR:HE2	59:IT:328:VAL:HG13	1.68	0.59
60:JG:204:ASN:OD1	64:JG:501:GDP:N2	2.36	0.59
60:JO:46:ARG:HG2	60:JO:241:ARG:HA	1.83	0.59
59:KJ:406:HIS:HA	59:KJ:409:VAL:HG22	1.84	0.59
12:0U:297:TYR:OH	60:CC:45:GLU:OE2	2.20	0.58
32:1V:34:VAL:HG22	32:1V:49:VAL:HG12	1.84	0.58
32:1Y:74:PRO:HD2	32:1Y:169:ASP:HA	1.85	0.58
37:2M:113:ASP:HA	37:2M:221:ARG:HH21	1.68	0.58
47:3V:226:GLN:NE2	47:3V:257:GLN:OE1	2.28	0.58
51:4H:40:GLU:OE2	51:4H:43:ARG:NH2	2.36	0.58
54:4M:121:ARG:NH2	54:4M:125:GLN:OE1	2.36	0.58
59:AE:45:GLU:N	59:AE:45:GLU:OE1	2.36	0.58
60:AF:220:PRO:O	59:AG:326:LYS:NZ	2.25	0.58
59:AK:406:HIS:HA	59:AK:409:VAL:HG22	1.85	0.58
60:AX:201:CYS:HB2	60:AX:301:GLN:HE22	1.68	0.58
59:AY:129:CYS:SG	59:AY:132:LEU:N	2.76	0.58
60:BP:391:ARG:HH11	59:BQ:439:SER:HG	1.49	0.58
60:BV:344:TRP:HB3	60:BV:430:ILE:HD11	1.84	0.58
59:EP:209:ILE:HB	59:EP:227:LEU:HD22	1.85	0.58
60:EQ:91:ILE:HD11	60:EQ:119:VAL:HG21	1.84	0.58
59:FF:93:ILE:HD11	59:FF:121:ARG:HG3	1.84	0.58
59:GW:273:ALA:HB2	59:GW:295:VAL:HG22	1.85	0.58
60:HD:208:TYR:CE1	59:HE:326:LYS:HE3	2.38	0.58
59:HO:211:ASP:O	59:HO:214:ARG:HG2	2.02	0.58
60:HP:407:GLU:N	60:HP:407:GLU:OE1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HW:344:TRP:HB3	60:HW:430:ILE:HD11	1.84	0.58
60:IH:396:HIS:HA	60:IH:399:THR:HG22	1.83	0.58
60:IJ:396:HIS:HA	60:IJ:399:THR:HG22	1.83	0.58
60:JK:271:ALA:O	60:JK:292:GLN:HG2	2.02	0.58
59:KA:406:HIS:HA	59:KA:409:VAL:HG12	1.85	0.58
59:KP:181:VAL:HG13	59:KP:182:VAL:HG13	1.84	0.58
7:0O:138:GLN:HA	7:0O:141:ASN:HD21	1.68	0.58
12:0U:141:GLN:NE2	12:0U:227:GLU:OE2	2.36	0.58
19:1B:25:GLY:O	19:1B:35:GLN:NE2	2.33	0.58
19:1B:88:ASP:OD2	19:1B:95:ASN:ND2	2.34	0.58
33:2C:157:SER:HA	33:2C:174:GLY:HA3	1.83	0.58
33:2D:438:ILE:HD12	33:2D:448:VAL:HG22	1.85	0.58
60:AF:220:PRO:HD2	59:AG:326:LYS:HZ3	1.68	0.58
60:AR:404:ASP:HB3	60:AR:407:GLU:OE1	2.03	0.58
60:AZ:334:GLN:HE21	60:AZ:349:ILE:HG12	1.68	0.58
60:BT:175:VAL:HG13	59:BU:329:ASN:OD1	2.02	0.58
60:CG:304:ASP:OD2	60:CG:306:ARG:NE	2.36	0.58
60:CX:239:CYS:SG	60:CX:248:SER:N	2.76	0.58
60:DF:173:PRO:HB3	60:DF:380:ARG:HD2	1.86	0.58
60:DJ:344:TRP:HB3	60:DJ:430:ILE:HD11	1.85	0.58
60:DV:156:ARG:HH22	60:DV:197:ASP:HB2	1.67	0.58
59:EB:93:ILE:HD11	59:EB:121:ARG:HG3	1.85	0.58
60:EC:130:LEU:HD23	60:EC:131:GLN:O	2.04	0.58
59:EN:90:GLU:OE1	59:EN:121:ARG:NH2	2.31	0.58
59:FR:273:ALA:HB2	59:FR:295:VAL:HG22	1.84	0.58
59:GL:264:ARG:NH1	59:GL:431:ASP:OD2	2.34	0.58
60:GQ:395:LEU:HD11	60:GQ:408:PHE:CE2	2.36	0.58
60:HD:407:GLU:N	60:HD:407:GLU:OE1	2.36	0.58
59:HE:251:ASP:OD1	59:HE:252:LEU:N	2.36	0.58
60:HU:289:LEU:HD11	60:HU:363:MET:HG3	1.85	0.58
60:IF:32:PRO:HA	60:IF:84:ILE:HD11	1.85	0.58
60:IL:311:LEU:HD13	60:IL:342:ILE:HG21	1.86	0.58
60:JE:320:ARG:HH12	60:JE:355:ASP:HB3	1.69	0.58
59:JU:69:ASP:OD1	59:JU:71:GLU:N	2.35	0.58
5:0K:288:GLU:OE1	5:0K:291:ARG:NH2	2.37	0.58
6:0M:147:ARG:NH1	59:BE:370:LYS:O	2.36	0.58
13:0V:102:LEU:HD13	13:0V:175:LEU:HD22	1.83	0.58
32:1W:108:TYR:OH	59:EF:423:GLU:OE2	2.20	0.58
34:2E:234:SER:OG	60:KK:74:ASP:OD2	2.19	0.58
36:2J:213:ASP:OD1	36:2J:214:TYR:N	2.31	0.58
39:2R:384:ASN:OD1	60:JT:280:GLN:NE2	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2R:425:ARG:HG3	43:3Q:92:HIS:CE1	2.38	0.58
60:BJ:286:VAL:HG23	60:BJ:287:PRO:HD3	1.85	0.58
59:BZ:178:SER:HB2	60:CA:347:ASN:HD22	1.67	0.58
60:CE:145:SER:OG	60:CE:188:SER:OG	2.21	0.58
59:DA:419:SER:O	59:DA:423:GLU:HG3	2.03	0.58
60:EK:156:ARG:NH1	60:EK:197:ASP:OD2	2.36	0.58
59:EP:251:ASP:OD1	59:EP:252:LEU:N	2.36	0.58
59:FH:105:ARG:HG3	59:FH:411:GLU:HG2	1.84	0.58
60:GO:8:GLN:HE22	60:GO:21:TRP:HE1	1.50	0.58
60:GZ:22:GLU:HG2	60:GZ:81:TYR:CD2	2.38	0.58
59:HZ:120:ASP:OD1	59:HZ:124:LYS:NZ	2.28	0.58
59:IV:74:VAL:O	59:IV:77:GLU:HG3	2.03	0.58
59:JF:179:THR:HG21	62:JF:501:GTP:H3'	1.83	0.58
60:JI:45:GLU:OE2	60:JI:46:ARG:NH2	2.35	0.58
21:1D:286:TYR:OH	59:BE:46:ASP:OD2	2.22	0.58
32:1Y:68:THR:HB	32:1Y:152:LEU:HB2	1.85	0.58
42:3J:43:TYR:HE2	59:IK:81:GLY:HA3	1.67	0.58
42:3O:153:LEU:HD11	59:HE:26:LEU:HD21	1.85	0.58
45:3S:100:VAL:H	60:KX:362:LYS:HZ1	1.49	0.58
60:BD:407:GLU:N	60:BD:407:GLU:OE1	2.36	0.58
60:BL:170:ILE:HG22	60:BL:171:PRO:HD2	1.85	0.58
60:BL:318:ARG:HH11	60:BL:318:ARG:HG2	1.66	0.58
59:BU:175:PRO:HG2	59:BU:207:GLU:OE1	2.03	0.58
59:BW:2:ARG:HG3	59:BW:3:GLU:HG3	1.85	0.58
60:CN:52:ASP:OD1	60:CN:62:ARG:NH2	2.37	0.58
60:CP:52:ASP:OD1	60:CP:53:GLU:N	2.36	0.58
59:EB:271:SER:HB3	59:EB:301:MET:HG2	1.84	0.58
59:ED:251:ASP:OD1	59:ED:252:LEU:N	2.37	0.58
59:ER:90:GLU:OE1	59:ER:121:ARG:NH2	2.36	0.58
59:FN:212:LEU:HD11	59:FN:275:VAL:HG21	1.84	0.58
59:GC:270:THR:HG22	59:GC:378:ILE:HG22	1.85	0.58
60:GD:7:VAL:HB	60:GD:135:ILE:HG12	1.84	0.58
59:GY:226:ASN:ND2	59:GY:367:ASP:OD2	2.34	0.58
59:HE:406:HIS:HA	59:HE:409:VAL:HG22	1.84	0.58
59:HT:406:HIS:HA	59:HT:409:VAL:HG12	1.85	0.58
59:HX:251:ASP:OD1	59:HX:252:LEU:N	2.37	0.58
59:IQ:117:LEU:HB3	59:IQ:121:ARG:HH22	1.65	0.58
60:IY:226:ASN:HA	60:IY:229:VAL:HG22	1.85	0.58
60:JC:178:THR:O	60:JC:181:GLU:HG3	2.04	0.58
60:JG:226:ASN:HA	60:JG:229:VAL:HG12	1.85	0.58
59:JH:387:VAL:HA	59:JH:390:ARG:HH21	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JY:237:SER:HA	59:JY:320:ARG:HH11	1.68	0.58
60:JZ:191:GLN:OE1	60:JZ:195:ASN:ND2	2.35	0.58
4:0G:702:ILE:O	59:CQ:221:ARG:NH2	2.28	0.58
36:2I:28:LYS:HE3	36:2I:38:MET:HG2	1.86	0.58
39:2Q:166:MET:SD	60:JX:362:LYS:HE3	2.43	0.58
41:3D:222:GLU:OE1	41:3D:226:ASN:ND2	2.36	0.58
42:3F:60:ARG:HD2	42:3F:61:PRO:HD2	1.85	0.58
42:3G:78:LYS:HD3	59:JD:77:GLU:HG2	1.85	0.58
59:AA:215:ARG:HH12	59:AA:299:ALA:HB1	1.68	0.58
59:BI:399:TYR:OH	59:BI:415:GLU:OE2	2.20	0.58
59:CF:399:TYR:OH	59:CF:415:GLU:OE2	2.21	0.58
60:CG:380:ARG:O	60:CG:383:GLU:HG2	2.04	0.58
59:CQ:406:HIS:HA	59:CQ:409:VAL:HG12	1.85	0.58
60:CV:139:LEU:HD11	60:CV:168:SER:HB2	1.86	0.58
60:EK:406:MET:O	60:EK:410:GLU:HG3	2.03	0.58
59:ER:251:ASP:OD1	59:ER:252:LEU:N	2.37	0.58
59:FD:172:TYR:CD1	59:FD:173:PRO:HD2	2.38	0.58
59:FL:259:LEU:HD21	59:FL:268:VAL:HG11	1.85	0.58
60:FV:73:MET:HB2	60:FV:92:PHE:CZ	2.38	0.58
60:FX:27:GLU:OE2	60:FX:241:ARG:NH2	2.35	0.58
60:FZ:131:GLN:NE2	60:FZ:249:ASP:OD1	2.36	0.58
60:GI:35:THR:O	60:GI:37:GLN:NE2	2.37	0.58
59:GP:259:LEU:HD21	59:GP:316:CYS:HB2	1.84	0.58
59:HC:222:PRO:O	60:HD:324:LYS:NZ	2.30	0.58
59:HC:406:HIS:HA	59:HC:409:VAL:HG22	1.84	0.58
60:HD:165:MET:HG3	60:HD:198:GLU:HG3	1.84	0.58
60:HH:290:THR:HA	60:HH:293:MET:HG2	1.85	0.58
59:HQ:100:ALA:HA	60:HR:252:LYS:HD2	1.84	0.58
59:HX:5:ILE:HD13	59:HX:64:ARG:HB3	1.85	0.58
59:IQ:206:ASN:OD1	62:IQ:501:GTP:N2	2.35	0.58
60:KI:52:ASP:OD1	60:KI:53:GLU:N	2.37	0.58
60:KO:143:THR:N	64:KO:501:GDP:O2B	2.32	0.58
1:0B:600:MET:O	1:0B:604:MET:N	2.35	0.58
2:0E:256:ASP:OD2	2:0E:260:ARG:NH2	2.35	0.58
18:1A:314:LEU:O	18:1A:320:ASN:ND2	2.36	0.58
24:1G:70:GLN:NE2	59:FW:322:ASP:OD1	2.37	0.58
41:3C:223:ASN:HD21	59:HI:282:TYR:HD1	1.52	0.58
44:3R:85:LYS:NZ	44:3R:89:GLU:OE2	2.36	0.58
59:BA:283:HIS:HB3	59:BM:88:HIS:HD2	1.68	0.58
60:BJ:282:ARG:HH21	60:BV:86:ARG:CZ	2.16	0.58
59:BM:70:LEU:HB2	59:BM:145:THR:HG21	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CC:27:GLU:OE2	60:CC:241:ARG:NH2	2.37	0.58
60:CG:152:ILE:HG22	60:CG:195:ASN:ND2	2.18	0.58
60:CI:52:ASP:OD1	60:CI:53:GLU:N	2.35	0.58
59:CM:195:LEU:HD21	59:CM:428:LEU:HD22	1.86	0.58
60:CT:10:GLY:O	60:CT:14:ASN:ND2	2.27	0.58
59:FJ:401:LYS:HD2	60:FK:344:TRP:CD2	2.38	0.58
60:FX:375:GLN:OE1	60:FX:379:ARG:NH2	2.36	0.58
60:HF:407:GLU:N	60:HF:407:GLU:OE1	2.36	0.58
60:IA:344:TRP:HB3	60:IA:430:ILE:HD11	1.86	0.58
59:IK:90:GLU:OE1	59:IK:121:ARG:NH2	2.36	0.58
59:IK:408:TYR:HD2	59:IK:413:MET:HE2	1.68	0.58
59:IT:405:VAL:HG23	59:IT:418:PHE:HE2	1.67	0.58
60:IW:237:THR:HG23	60:IW:240:LEU:HD12	1.85	0.58
59:IZ:259:LEU:HD21	59:IZ:316:CYS:HB2	1.86	0.58
59:JL:276:ILE:HD11	59:JL:280:LYS:HG2	1.86	0.58
59:JL:328:VAL:HG21	59:JL:355:ILE:HD11	1.86	0.58
59:JU:215:ARG:HH22	59:JU:299:ALA:HA	1.67	0.58
59:KP:31:GLN:OE1	59:KP:32:PRO:HD2	2.04	0.58
59:KP:320:ARG:HH12	59:KP:360:PRO:HA	1.69	0.58
10:0S:366:ALA:HB1	10:0S:371:GLU:HG3	1.86	0.58
34:2F:132:LYS:HE2	60:EY:416:ASN:HB3	1.84	0.58
42:3I:251:HIS:HA	42:3J:30:CYS:HB3	1.86	0.58
42:3O:223:GLU:O	42:3O:226:LYS:NZ	2.37	0.58
49:4B:52:ARG:NH1	59:EX:441:ASP:O	2.37	0.58
59:AG:251:ASP:OD1	59:AG:252:LEU:N	2.37	0.58
59:AK:339:ARG:O	59:AK:342:GLN:NE2	2.37	0.58
60:AR:407:GLU:OE1	60:AR:407:GLU:N	2.37	0.58
59:BA:88:HIS:HB3	59:BA:91:GLN:OE1	2.04	0.58
59:BE:292:SER:HB3	59:BE:335:ILE:HD11	1.85	0.58
60:BY:238:CYS:HB3	60:BY:318:ARG:NH2	2.19	0.58
59:CO:291:ILE:HG22	59:CO:375:VAL:HG12	1.86	0.58
59:CU:244:PHE:HB2	59:CU:356:ASN:HD21	1.67	0.58
59:DM:70:LEU:HD22	59:DM:145:THR:HG22	1.85	0.58
59:DO:169:TYR:HE2	59:DO:235:VAL:HG22	1.66	0.58
60:DP:3:GLU:HG3	60:DP:62:ARG:HH12	1.68	0.58
60:EU:21:TRP:HA	60:EU:24:ILE:HG22	1.84	0.58
60:GF:167:PHE:CZ	60:GF:233:VAL:HG23	2.38	0.58
60:GQ:173:PRO:HG2	60:GQ:174:LYS:HD3	1.86	0.58
60:HB:249:ASP:OD1	60:HB:250:LEU:N	2.36	0.58
59:HO:181:VAL:HG23	59:HO:182:VAL:HG13	1.84	0.58
59:HO:406:HIS:HA	59:HO:409:VAL:HG12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HW:52:ASP:OD1	60:HW:62:ARG:NH2	2.36	0.58
60:IE:396:HIS:HA	60:IE:399:THR:HG22	1.86	0.58
59:IQ:117:LEU:HB3	59:IQ:121:ARG:NH2	2.18	0.58
60:IR:375:GLN:O	60:IR:379:ARG:HG3	2.03	0.58
59:JL:319:TYR:HB2	59:JL:355:ILE:HD13	1.85	0.58
59:KJ:100:ALA:HA	60:KK:252:LYS:HG3	1.86	0.58
25:1H:143:ASP:OD1	25:1H:146:SER:OG	2.22	0.58
39:2P:331:GLU:OE2	39:2P:334:ARG:NH2	2.36	0.58
41:3A:242:ASP:HB3	41:3A:246:ARG:HH12	1.69	0.58
59:BI:175:PRO:HB3	59:BI:390:ARG:NH1	2.18	0.58
59:BQ:396:ASP:OD2	59:BQ:422:ARG:NH2	2.36	0.58
60:CC:387:LEU:HD12	60:CC:390:ARG:NH1	2.18	0.58
60:CL:63:SER:O	60:CL:89:ASN:ND2	2.36	0.58
60:CR:218:THR:HG23	60:CR:219:THR:HG22	1.86	0.58
59:CW:212:LEU:HD21	59:CW:275:VAL:HG21	1.85	0.58
60:DP:344:TRP:HB3	60:DP:430:ILE:HD11	1.85	0.58
60:DV:282:ARG:NH1	60:DV:288:GLU:OE2	2.36	0.58
60:EK:344:TRP:HB3	60:EK:430:ILE:HD11	1.85	0.58
60:EQ:173:PRO:HG3	60:EQ:380:ARG:HH21	1.69	0.58
60:FA:344:TRP:HB3	60:FA:430:ILE:HD11	1.86	0.58
59:GC:251:ASP:OD1	59:GC:252:LEU:N	2.36	0.58
59:GL:68:LEU:HD22	59:GL:93:ILE:HD11	1.86	0.58
59:HA:250:VAL:HA	59:HA:254:GLU:OE2	2.04	0.58
59:IM:133:GLN:HE21	59:IM:242:LEU:HD21	1.69	0.58
60:IP:218:THR:HG23	60:IP:219:THR:HG22	1.85	0.58
59:KA:319:TYR:HB2	59:KA:355:ILE:HD13	1.85	0.58
60:KB:130:LEU:O	60:KB:162:ARG:NH2	2.36	0.58
60:KK:170:ILE:HD13	60:KK:201:CYS:HB3	1.85	0.58
60:KV:130:LEU:O	60:KV:162:ARG:NH2	2.34	0.58
7:0P:306:VAL:HG23	59:AS:370:LYS:HG3	1.86	0.58
30:1R:137:TRP:NE1	30:1R:174:ASP:OD2	2.37	0.58
34:2F:93:THR:HG22	34:2F:95:SER:H	1.68	0.58
37:2M:61:LYS:NZ	59:EN:163:LYS:O	2.36	0.58
42:3J:50:LYS:HZ3	59:IK:365:GLY:H	1.52	0.58
47:3X:249:ILE:O	47:3X:253:ILE:HG12	2.04	0.58
53:4L:29:LEU:HB2	60:JG:336:LYS:HD2	1.85	0.58
59:AG:181:VAL:HG23	59:AG:182:VAL:HG13	1.85	0.58
59:AK:215:ARG:NH1	59:AK:299:ALA:HB1	2.19	0.58
59:AM:52:PHE:CZ	59:AM:239:THR:HG21	2.39	0.58
59:AW:174:SER:HB3	59:AW:207:GLU:HG3	1.86	0.58
59:BC:273:ALA:HB2	59:BC:295:VAL:HG22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BE:93:ILE:HD11	59:BE:121:ARG:HG3	1.86	0.58
59:BK:254:GLU:HA	59:BK:257:THR:HG22	1.86	0.58
59:BM:76:ASP:OD1	59:BM:79:ARG:NH1	2.36	0.58
60:CI:170:ILE:HD11	60:CI:377:MET:HE2	1.86	0.58
60:CN:311:LEU:HD23	60:CN:342:ILE:HG21	1.84	0.58
60:DR:167:PHE:CE2	60:DR:233:VAL:HG22	2.39	0.58
59:EV:334:THR:O	59:EV:337:THR:HG22	2.03	0.58
59:GY:251:ASP:OD1	59:GY:252:LEU:N	2.37	0.58
59:HA:2:ARG:HG3	59:HA:3:GLU:OE1	2.03	0.58
59:HI:251:ASP:OD1	59:HI:252:LEU:N	2.37	0.58
59:HI:316:CYS:SG	59:HI:352:LYS:NZ	2.63	0.58
59:HQ:399:TYR:OH	59:HQ:415:GLU:OE2	2.21	0.58
60:HU:52:ASP:OD1	60:HU:62:ARG:NH2	2.33	0.58
59:IB:119:LEU:HD11	59:IB:156:ARG:HG2	1.86	0.58
60:IP:130:LEU:O	60:IP:162:ARG:NH1	2.37	0.58
59:IT:180:ALA:HB1	60:IU:256:ASN:HD21	1.69	0.58
60:JE:119:VAL:O	60:JE:122:LYS:HG3	2.04	0.58
60:JE:161:ASP:OD1	60:JE:162:ARG:NH1	2.37	0.58
60:JR:32:PRO:HB3	60:JR:81:TYR:CD1	2.39	0.58
60:JR:222:PHE:HE1	59:JS:325:PRO:HG3	1.69	0.58
60:KB:52:ASP:OD1	60:KB:53:GLU:N	2.36	0.58
59:KU:406:HIS:HA	59:KU:409:VAL:HG12	1.86	0.58
59:KW:419:SER:O	59:KW:423:GLU:HG3	2.04	0.58
2:0E:582:ARG:N	2:0E:592:GLU:OE2	2.34	0.58
18:1A:95:GLY:HA2	18:1A:115:LYS:HE3	1.86	0.58
29:1O:214:THR:OG1	59:FD:77:GLU:OE2	2.16	0.58
42:3G:122:LEU:HD12	42:3G:123:PRO:HD2	1.85	0.58
60:AR:342:ILE:HG23	60:AR:344:TRP:HE3	1.69	0.58
60:AZ:407:GLU:N	60:AZ:407:GLU:OE1	2.36	0.58
60:BB:407:GLU:N	60:BB:407:GLU:OE1	2.37	0.58
59:BI:174:SER:OG	59:BI:177:VAL:O	2.22	0.58
59:BO:298:PRO:HG3	59:BO:308:ARG:HH12	1.69	0.58
59:BX:109:THR:HB	59:BX:110:ILE:HD12	1.85	0.58
60:CL:130:LEU:O	60:CL:162:ARG:NH1	2.37	0.58
60:CN:204:ASN:OD1	64:CN:501:GDP:N2	2.36	0.58
60:CV:170:ILE:HD12	60:CV:201:CYS:HB3	1.86	0.58
60:DB:8:GLN:OE1	60:DB:17:GLY:HA3	2.03	0.58
60:EK:232:VAL:HG22	60:EK:270:PHE:HB2	1.85	0.58
60:GK:201:CYS:O	60:GK:301:GLN:NE2	2.37	0.58
60:GX:31:ASP:OD1	60:GX:32:PRO:HD2	2.03	0.58
59:HX:211:ASP:O	59:HX:215:ARG:HG3	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HY:8:GLN:HE22	60:HY:21:TRP:HE1	1.51	0.58
60:IJ:253:LEU:HD11	60:IJ:316:LEU:HD11	1.86	0.58
59:IO:178:SER:HB3	60:IP:347:ASN:HD22	1.68	0.58
59:IZ:5:ILE:HD13	59:IZ:64:ARG:HB3	1.86	0.58
60:JE:26:ASP:OD1	60:JE:359:LYS:NZ	2.29	0.58
59:JJ:88:HIS:NE2	59:JW:284:GLU:OE2	2.36	0.58
60:KB:67:ASP:OD2	60:KB:72:THR:OG1	2.20	0.58
60:KI:208:TYR:HE1	60:KI:225:LEU:HD11	1.68	0.58
59:KN:331:ALA:O	59:KN:334:THR:N	2.37	0.58
60:KR:178:THR:OG1	59:KS:352:LYS:NZ	2.36	0.58
59:KW:15:GLN:NE2	62:KW:602:GTP:O6	2.37	0.58
5:0K:39:ARG:NH2	26:1J:90:ASP:OD2	2.36	0.57
5:0K:57:ARG:NH2	18:1A:320:ASN:O	2.36	0.57
5:0K:144:THR:HG22	5:0K:150:GLN:HB2	1.86	0.57
37:2L:120:LEU:HD12	37:2L:124:GLU:HB3	1.84	0.57
41:3A:327:ARG:HD2	59:HV:282:TYR:CE1	2.39	0.57
59:AC:406:HIS:HA	59:AC:409:VAL:HG22	1.84	0.57
60:AJ:377:MET:O	60:AJ:380:ARG:HG2	2.04	0.57
60:AT:283:GLY:HA3	60:BF:55:THR:HG21	1.85	0.57
59:BI:76:ASP:OD1	59:BI:79:ARG:NH1	2.37	0.57
59:BI:269:LEU:HD22	59:BI:303:THR:HG21	1.86	0.57
60:BL:152:ILE:HG22	60:BL:195:ASN:ND2	2.17	0.57
60:CX:26:ASP:O	60:CX:359:LYS:NZ	2.37	0.57
60:DJ:207:LEU:HB3	60:DJ:225:LEU:HD22	1.86	0.57
59:DS:285:GLN:HB3	59:EF:56:THR:HA	1.84	0.57
59:ED:270:THR:HG22	59:ED:378:ILE:HG22	1.86	0.57
59:EZ:251:ASP:OD1	59:EZ:252:LEU:N	2.37	0.57
59:FN:311:LYS:NZ	59:FN:438:GLU:OE2	2.30	0.57
60:GD:344:TRP:HB3	60:GD:430:ILE:HD11	1.86	0.57
59:GH:56:THR:HG23	59:GH:58:ALA:H	1.69	0.57
59:GH:270:THR:HG22	59:GH:378:ILE:HG22	1.84	0.57
59:GJ:36:MET:HE3	59:GJ:37:PRO:HD2	1.86	0.57
60:GM:32:PRO:HA	60:GM:84:ILE:HD11	1.85	0.57
60:GQ:44:LEU:HD12	60:GQ:47:ILE:HD12	1.86	0.57
60:GS:407:GLU:N	60:GS:407:GLU:OE1	2.37	0.57
59:GY:406:HIS:HA	59:GY:409:VAL:HG22	1.85	0.57
59:HA:60:LYS:HD3	59:HM:282:TYR:CZ	2.39	0.57
59:HC:259:LEU:HD21	59:HC:316:CYS:HB2	1.85	0.57
59:HK:406:HIS:HA	59:HK:409:VAL:HG12	1.84	0.57
60:HL:161:ASP:OD1	60:HL:162:ARG:NH1	2.37	0.57
59:IB:207:GLU:OE2	59:IB:304:LYS:HB2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IS:213:ARG:NH2	60:IS:297:LYS:HG2	2.19	0.57
60:IW:16:ILE:HD11	60:IW:136:CYS:HB3	1.86	0.57
59:JF:71:GLU:CD	60:JG:247:ASN:HD21	2.07	0.57
59:KD:270:THR:HG22	59:KD:378:ILE:HG22	1.85	0.57
59:KS:339:ARG:O	59:KS:342:GLN:NE2	2.37	0.57
59:KW:2:ARG:HH21	59:KW:130:THR:HG23	1.69	0.57
59:LA:96:LYS:HD3	59:LA:97:GLU:HG3	1.86	0.57
60:LB:282:ARG:NH1	60:LB:288:GLU:OE2	2.37	0.57
1:0B:184:ASP:OD1	1:0B:185:LYS:N	2.37	0.57
1:0C:166:ARG:HB3	1:0C:169:GLU:HG3	1.84	0.57
4:0G:443:THR:HG22	4:0G:445:ASN:H	1.69	0.57
28:1M:203:LEU:HD22	59:EH:322:ASP:HB2	1.86	0.57
59:AI:91:GLN:HE22	59:AI:125:LEU:HD21	1.69	0.57
59:CD:208:ALA:HA	59:CD:304:LYS:NZ	2.18	0.57
59:CM:88:HIS:ND1	59:CM:89:PRO:HD2	2.18	0.57
59:CU:254:GLU:HA	59:CU:257:THR:HG22	1.85	0.57
60:DY:170:ILE:HD12	60:DY:201:CYS:HB3	1.86	0.57
60:EO:121:CYS:SG	60:EO:158:GLN:NE2	2.75	0.57
59:ER:399:TYR:OH	59:ER:415:GLU:OE2	2.21	0.57
59:EX:284:GLU:HG2	59:EX:285:GLN:O	2.05	0.57
60:FM:237:THR:HG23	60:FM:241:ARG:NH1	2.19	0.57
59:FY:105:ARG:HG3	59:FY:411:GLU:HG2	1.85	0.57
60:GB:301:GLN:HG2	60:GB:303:ALA:H	1.69	0.57
60:HN:267:MET:HG2	60:HN:301:GLN:HE21	1.67	0.57
59:HT:284:GLU:HG2	59:HT:285:GLN:O	2.04	0.57
59:HV:251:ASP:OD1	59:HV:252:LEU:N	2.36	0.57
59:HX:172:TYR:HD1	59:HX:173:PRO:HD2	1.69	0.57
60:IH:176:SER:HB3	59:II:351:PHE:HB2	1.86	0.57
60:IJ:178:THR:O	60:IJ:181:GLU:HG3	2.04	0.57
60:IN:412:GLU:OE2	60:IN:416:ASN:ND2	2.37	0.57
60:JI:312:THR:OG1	60:JI:370:ASN:ND2	2.32	0.57
60:JM:27:GLU:HA	60:JM:359:LYS:NZ	2.19	0.57
59:KA:392:ASP:HB3	59:KA:422:ARG:HH22	1.69	0.57
59:KH:178:SER:HB2	60:KI:347:ASN:ND2	2.19	0.57
59:KN:44:VAL:HG12	59:KN:46:ASP:HB2	1.86	0.57
32:1V:83:LEU:HD11	32:1V:161:ARG:HD2	1.86	0.57
42:3M:112:THR:HB	42:3M:115:ARG:HG3	1.85	0.57
53:4K:271:ARG:NH2	60:IW:126:SER:OG	2.37	0.57
57:4R:128:LEU:N	59:GC:434:GLU:OE2	2.37	0.57
58:4W:122:GLU:OE2	58:4W:126:ARG:NH2	2.38	0.57
60:BJ:16:ILE:HD11	60:BJ:136:CYS:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BO:406:HIS:HA	59:BO:409:VAL:HG12	1.86	0.57
60:CA:173:PRO:HB3	60:CA:380:ARG:HD2	1.86	0.57
60:CA:303:ALA:HB1	60:CA:373:CYS:SG	2.44	0.57
60:CC:303:ALA:HB1	60:CC:373:CYS:SG	2.44	0.57
60:CE:391:ARG:HD3	59:CF:346:TRP:HB3	1.86	0.57
60:CI:204:ASN:OD1	64:CI:501:GDP:N2	2.32	0.57
59:CS:212:LEU:HD21	59:CS:275:VAL:HG21	1.84	0.57
60:DF:407:GLU:N	60:DF:407:GLU:OE1	2.37	0.57
60:DL:173:PRO:HB3	60:DL:380:ARG:HD3	1.86	0.57
60:EC:262:ARG:NH1	60:EC:421:GLU:OE1	2.37	0.57
60:EC:316:LEU:HD23	60:EC:352:SER:HB2	1.86	0.57
60:FC:90:PHE:HB3	60:FC:92:PHE:HE1	1.68	0.57
59:GL:401:LYS:HD3	60:GM:344:TRP:CE3	2.39	0.57
59:HE:69:ASP:OD1	59:HE:71:GLU:N	2.37	0.57
60:HS:270:PHE:HD1	60:HS:366:THR:HG22	1.69	0.57
59:IB:273:ALA:HB2	59:IB:295:VAL:HG22	1.86	0.57
59:ID:291:ILE:HG22	59:ID:375:VAL:HG12	1.85	0.57
60:IE:113:ILE:HD11	60:IE:147:MET:HG3	1.85	0.57
59:II:406:HIS:HA	59:II:409:VAL:HG12	1.86	0.57
60:IL:423:GLN:NE2	60:IL:427:ASP:OD2	2.37	0.57
59:IV:259:LEU:HD21	59:IV:378:ILE:HG13	1.84	0.57
60:JC:331:LEU:HG	60:JC:335:ASN:HD21	1.68	0.57
60:JE:226:ASN:HA	60:JE:229:VAL:HG22	1.85	0.57
59:JF:5:ILE:HD13	59:JF:64:ARG:HB3	1.86	0.57
59:KP:251:ASP:OD1	59:KP:252:LEU:N	2.37	0.57
2:0E:672:ALA:HA	59:CU:221:ARG:HB3	1.84	0.57
30:1S:12:THR:HG23	30:1S:14:ARG:H	1.69	0.57
41:3D:294:GLN:HE21	60:GQ:56:GLY:HA2	1.68	0.57
59:AU:406:HIS:HA	59:AU:409:VAL:HG22	1.86	0.57
59:BS:7:ILE:HB	59:BS:137:VAL:HG12	1.85	0.57
59:CD:119:LEU:HD11	59:CD:156:ARG:HG2	1.86	0.57
60:CG:212:PHE:CZ	59:CH:326:LYS:HD2	2.39	0.57
60:DB:73:MET:HA	60:DB:76:VAL:HG22	1.85	0.57
60:DJ:305:PRO:HB3	60:DJ:310:TYR:HE1	1.70	0.57
59:DM:212:LEU:HD21	59:DM:275:VAL:HG11	1.85	0.57
60:FE:73:MET:HE1	60:FE:92:PHE:HB3	1.86	0.57
60:GQ:16:ILE:HD11	60:GQ:136:CYS:HB3	1.86	0.57
59:HM:406:HIS:HA	59:HM:409:VAL:HG22	1.86	0.57
60:HW:396:HIS:HA	60:HW:399:THR:HG22	1.85	0.57
59:HZ:251:ASP:OD1	59:HZ:252:LEU:N	2.38	0.57
60:IH:303:ALA:HB1	60:IH:373:CYS:SG	2.45	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JS:69:ASP:OD1	59:JS:70:LEU:N	2.37	0.57
60:KM:358:PRO:HG2	60:KM:361:LEU:HB2	1.85	0.57
59:KQ:270:THR:HG22	59:KQ:378:ILE:HG22	1.84	0.57
60:KR:267:MET:HE3	60:KR:371:ASN:HB3	1.85	0.57
1:0A:403:GLU:OE2	1:0A:407:ARG:NH2	2.37	0.57
28:1N:70:GLU:O	60:EA:320:ARG:NH1	2.37	0.57
33:2B:600:VAL:HG12	33:2B:607:ILE:HG12	1.85	0.57
34:2F:266:HIS:NE2	39:2Q:37:ASP:O	2.36	0.57
39:2P:381:GLU:OE2	45:3S:72:ARG:NH1	2.36	0.57
41:2W:323:ARG:HD2	59:IM:57:GLY:O	2.04	0.57
41:3C:155:ARG:NH1	41:3C:156:GLN:OE1	2.38	0.57
47:3V:187:ILE:HD13	48:3Y:188:ARG:HH22	1.68	0.57
60:BN:254:ALA:O	60:BN:258:VAL:HG12	2.05	0.57
60:CN:260:PHE:HB2	60:CN:263:LEU:HD13	1.85	0.57
60:CT:232:VAL:HG23	60:CT:270:PHE:HB2	1.86	0.57
60:DP:407:GLU:N	60:DP:407:GLU:OE1	2.37	0.57
60:EQ:14:ASN:OD1	60:EQ:65:LEU:HD12	2.04	0.57
59:ER:8:HIS:CE1	59:ER:138:TYR:CD2	2.93	0.57
60:FS:263:LEU:HD21	60:FS:425:TYR:HD2	1.69	0.57
60:GD:170:ILE:HG23	60:GD:171:PRO:HD2	1.85	0.57
59:GH:288:VAL:HG21	59:GH:327:ASP:HB3	1.86	0.57
60:GS:97:ALA:HB2	60:GS:143:THR:HB	1.84	0.57
59:GU:76:ASP:OD1	59:GU:79:ARG:NH1	2.38	0.57
60:HB:239:CYS:SG	60:HB:248:SER:N	2.76	0.57
59:HK:214:ARG:NH1	59:HK:220:GLU:OE1	2.38	0.57
59:HQ:155:GLU:HG2	59:HQ:197:HIS:HD2	1.69	0.57
59:JJ:212:LEU:HD21	59:JJ:275:VAL:HG21	1.86	0.57
60:JO:334:GLN:NE2	60:JO:347:ASN:OD1	2.31	0.57
59:JP:269:LEU:HD21	59:JP:384:ILE:HG22	1.87	0.57
60:KB:289:LEU:HD12	60:KB:365:VAL:HG12	1.86	0.57
60:KI:67:ASP:OD1	60:KI:68:LEU:N	2.37	0.57
59:KN:69:ASP:OD1	59:KN:71:GLU:N	2.36	0.57
13:0V:45:SER:O	13:0V:51:GLN:NE2	2.36	0.57
41:2Y:113:ASP:OD1	41:2Y:114:ILE:N	2.37	0.57
42:3G:114:HIS:CE1	59:JB:81:GLY:HA3	2.39	0.57
48:3Z:162:ARG:NH2	49:4C:83:ALA:O	2.37	0.57
59:AM:69:ASP:OD1	59:AM:70:LEU:N	2.37	0.57
59:AY:102:ASN:OD1	59:AY:105:ARG:N	2.36	0.57
60:BF:99:ASN:HB2	59:BG:254:GLU:OE1	2.04	0.57
59:BG:222:PRO:O	60:BH:322:SER:OG	2.23	0.57
60:BH:48:ASN:O	60:BH:62:ARG:NH1	2.36	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BI:105:ARG:HH12	60:BJ:251:ARG:HD3	1.69	0.57
59:CU:15:GLN:NE2	62:CU:602:GTP:O6	2.38	0.57
59:DA:273:ALA:HB2	59:DA:295:VAL:HG22	1.86	0.57
60:DB:54:ALA:HB3	60:DB:58:ARG:HG2	1.86	0.57
60:DP:3:GLU:HG3	60:DP:62:ARG:NH1	2.20	0.57
59:ED:384:ILE:O	59:ED:387:VAL:HG22	2.05	0.57
59:EF:334:THR:O	59:EF:337:THR:HG22	2.05	0.57
59:EX:90:GLU:OE1	59:EX:121:ARG:NH2	2.28	0.57
59:FP:3:GLU:OE2	59:FP:129:CYS:HB3	2.04	0.57
59:GN:88:HIS:NE2	59:HA:284:GLU:OE2	2.38	0.57
59:GY:254:GLU:HA	59:GY:257:THR:HG22	1.86	0.57
60:GZ:406:MET:O	60:GZ:410:GLU:HG2	2.05	0.57
60:HS:179:VAL:HG13	60:HS:180:VAL:HG13	1.84	0.57
60:HS:292:GLN:HG2	60:HS:298:ASN:HD22	1.69	0.57
59:HZ:319:TYR:HB2	59:HZ:355:ILE:HD13	1.86	0.57
60:IN:81:TYR:O	60:IN:84:ILE:HG12	2.04	0.57
59:IO:181:VAL:HG13	59:IO:182:VAL:HG13	1.86	0.57
60:IS:355:ASP:OD1	60:IS:356:ILE:HG12	2.03	0.57
59:IT:414:GLU:HG3	59:IT:416:GLY:H	1.69	0.57
59:IZ:212:LEU:HD11	59:IZ:275:VAL:HG11	1.87	0.57
59:JB:88:HIS:CE1	59:JN:280:LYS:HE3	2.39	0.57
59:JD:286:LEU:O	59:JD:373:ARG:NH1	2.34	0.57
59:JJ:132:LEU:O	59:JJ:164:LYS:NZ	2.34	0.57
59:JQ:269:LEU:HD22	59:JQ:303:THR:HG21	1.87	0.57
59:KA:50:ASN:O	59:KA:64:ARG:NH1	2.37	0.57
59:KQ:165:SER:HB2	59:KQ:256:GLN:HE22	1.68	0.57
59:KY:181:VAL:HG23	59:KY:182:VAL:HG13	1.85	0.57
2:0E:660:ARG:HG2	2:0E:775:LEU:HD21	1.86	0.57
7:0O:90:LYS:HE2	59:BI:58:ALA:HB2	1.87	0.57
25:1H:159:ARG:HH12	25:1H:172:ILE:HD11	1.68	0.57
42:3P:129:ARG:NH1	42:3P:130:TYR:O	2.36	0.57
56:4Q:150:LYS:NZ	59:IZ:263:PRO:HB3	2.19	0.57
60:AJ:309:ARG:NH2	60:AJ:426:GLN:O	2.38	0.57
59:AK:181:VAL:HG23	59:AK:182:VAL:HG13	1.84	0.57
60:AL:67:ASP:OD1	60:AL:68:LEU:N	2.37	0.57
59:BA:33:ASP:O	59:BA:60:LYS:NZ	2.37	0.57
60:CT:230:SER:HA	60:CT:233:VAL:HG12	1.86	0.57
59:CW:15:GLN:NE2	62:CW:602:GTP:O6	2.36	0.57
60:DL:283:GLY:HA3	60:DY:55:THR:HG23	1.86	0.57
59:DO:221:ARG:HH12	60:DP:325:GLU:CD	2.08	0.57
60:DT:66:ILE:HD12	60:DT:147:MET:HE2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DY:81:TYR:O	60:DY:84:ILE:HG12	2.04	0.57
59:EN:81:GLY:O	59:EN:84:ARG:NH1	2.37	0.57
60:GM:200:MET:HG2	60:GM:266:PHE:HB2	1.86	0.57
59:GW:133:GLN:NE2	59:GW:251:ASP:OD1	2.38	0.57
60:IA:237:THR:HG23	60:IA:241:ARG:NH1	2.20	0.57
60:IC:284:LEU:HD21	60:IC:362:LYS:HG2	1.86	0.57
59:JJ:264:ARG:NH2	59:JJ:431:ASP:OD2	2.37	0.57
60:JR:257:LEU:HD11	60:JR:314:SER:HB2	1.87	0.57
60:JV:68:LEU:HD22	60:JV:143:THR:HG22	1.87	0.57
59:KC:304:LYS:O	59:KC:304:LYS:HD2	2.05	0.57
59:KQ:254:GLU:HA	59:KQ:257:THR:HG22	1.86	0.57
60:KR:407:GLU:N	60:KR:407:GLU:OE1	2.37	0.57
2:0E:574:ARG:HB2	60:CV:44:LEU:HD21	1.85	0.57
4:0G:647:LEU:HA	4:0G:650:ILE:HD12	1.87	0.57
5:0K:198:ARG:NH2	26:1I:390:GLU:OE2	2.35	0.57
33:2B:115:ALA:HB3	33:2B:128:ILE:HB	1.85	0.57
39:2O:140:VAL:HG11	59:KN:370:LYS:HE3	1.86	0.57
41:2W:195:ARG:NH2	41:2W:198:GLN:OE1	2.38	0.57
47:3W:88:ASN:O	47:3W:92:GLN:HB2	2.04	0.57
59:AM:195:LEU:HD12	59:AM:428:LEU:HD12	1.86	0.57
60:AR:313:ALA:HB3	60:AR:349:ILE:HD13	1.85	0.57
59:AS:251:ASP:N	59:AS:254:GLU:OE1	2.33	0.57
59:BG:269:LEU:HD22	59:BG:303:THR:HG21	1.86	0.57
59:BG:325:PRO:O	59:BG:329:ASN:ND2	2.36	0.57
59:BU:3:GLU:HA	59:BU:51:THR:HA	1.86	0.57
60:CE:52:ASP:OD1	60:CE:53:GLU:N	2.38	0.57
60:CP:54:ALA:HB3	60:CP:58:ARG:HG2	1.85	0.57
59:DG:133:GLN:NE2	59:DG:242:LEU:HD13	2.20	0.57
60:EI:27:GLU:OE2	60:EI:241:ARG:NH1	2.37	0.57
60:GQ:210:ILE:O	60:GQ:214:THR:OG1	2.19	0.57
59:GW:207:GLU:OE2	59:GW:304:LYS:NZ	2.37	0.57
60:HD:404:ASP:HB3	60:HD:407:GLU:OE1	2.05	0.57
59:HI:111:GLY:O	59:HI:115:VAL:HG13	2.05	0.57
59:II:215:ARG:HH12	59:II:299:ALA:HB1	1.70	0.57
60:IN:16:ILE:HD11	60:IN:136:CYS:HB3	1.85	0.57
60:IS:344:TRP:HB3	60:IS:430:ILE:HD11	1.87	0.57
60:IW:289:LEU:O	60:IW:293:MET:HB2	2.05	0.57
60:JC:262:ARG:NH2	60:JC:414:ASN:OD1	2.37	0.57
60:JK:230:SER:HA	60:JK:233:VAL:HG12	1.87	0.57
59:JL:22:GLU:OE1	59:JL:83:TYR:OH	2.09	0.57
60:JV:163:ILE:HD11	60:JV:251:ARG:HB2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JW:401:LYS:HD2	60:JX:344:TRP:CE3	2.39	0.57
60:KB:287:PRO:HA	60:KB:290:THR:HG22	1.86	0.57
59:KC:90:GLU:O	59:KC:121:ARG:NH1	2.38	0.57
59:KW:221:ARG:NH1	60:KX:325:GLU:OE2	2.38	0.57
5:0H:46:ARG:NH2	23:1F:252:TYR:O	2.38	0.57
17:0Z:74:ARG:NH2	17:0Z:271:GLY:O	2.38	0.57
31:1U:79:LEU:HD21	60:EM:194:GLU:HG3	1.87	0.57
33:2B:333:VAL:HG22	33:2B:345:THR:HG22	1.86	0.57
34:2E:86:LYS:HB2	34:2E:89:GLU:HG3	1.85	0.57
40:2T:430:GLU:OE2	40:2T:433:ARG:NH2	2.38	0.57
42:3G:78:LYS:HE3	42:3G:79:GLN:HE22	1.69	0.57
42:3K:231:ARG:HE	42:3K:232:VAL:H	1.53	0.57
48:3Y:235:GLY:HA2	59:HC:84:ARG:HH12	1.69	0.57
48:3Y:242:ARG:O	48:3Y:246:THR:OG1	2.20	0.57
57:4S:127:ARG:NH1	57:4S:129:GLU:OE2	2.32	0.57
60:AD:132:GLY:HA3	60:AD:163:ILE:HG13	1.87	0.57
60:AN:62:ARG:NH1	60:AN:127:CYS:SG	2.78	0.57
60:AN:239:CYS:SG	60:AN:248:SER:N	2.76	0.57
60:AT:286:VAL:HG12	60:AT:329:GLN:HG3	1.86	0.57
60:AX:271:ALA:HA	60:AX:298:ASN:HD21	1.70	0.57
59:BA:264:ARG:NH1	59:BA:431:ASP:OD2	2.37	0.57
59:BU:399:TYR:OH	59:BU:415:GLU:OE2	2.23	0.57
59:BZ:178:SER:HB2	60:CA:347:ASN:ND2	2.20	0.57
59:CB:100:ALA:HB2	60:CC:251:ARG:HG2	1.86	0.57
60:CC:10:GLY:O	60:CC:14:ASN:ND2	2.32	0.57
60:CE:388:MET:HG3	60:CE:393:ALA:HB3	1.87	0.57
59:DM:88:HIS:ND1	59:DM:90:GLU:HG2	2.20	0.57
60:DV:31:ASP:OD1	60:DV:32:PRO:HD2	2.04	0.57
59:DZ:259:LEU:O	59:DZ:380:ASN:ND2	2.37	0.57
59:ER:27:GLU:HB3	59:ER:361:THR:HG21	1.87	0.57
60:EU:318:ARG:HB3	60:EU:357:PRO:HA	1.86	0.57
60:FX:52:ASP:OD1	60:FX:53:GLU:N	2.37	0.57
60:FX:249:ASP:OD1	60:FX:250:LEU:N	2.38	0.57
59:GH:287:SER:OG	59:GH:290:GLU:OE2	2.22	0.57
60:GI:318:ARG:HG2	60:GI:318:ARG:HH11	1.70	0.57
60:GQ:167:PHE:HE2	60:GQ:233:VAL:HG13	1.70	0.57
59:HI:284:GLU:HG2	59:HI:285:GLN:O	2.05	0.57
60:HJ:239:CYS:SG	60:HJ:248:SER:N	2.78	0.57
60:HN:178:THR:N	60:HN:181:GLU:OE2	2.36	0.57
60:IA:32:PRO:HB3	60:IA:81:TYR:CD1	2.39	0.57
59:IO:27:GLU:OE2	59:IO:243:ARG:NH1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IY:318:ARG:NH1	60:IY:358:PRO:HD3	2.20	0.57
59:IZ:56:THR:HA	59:JL:285:GLN:HB3	1.85	0.57
60:JC:122:LYS:HE3	60:JO:291:GLN:HG2	1.86	0.57
60:JM:271:ALA:O	60:JM:292:GLN:NE2	2.38	0.57
59:JQ:180:ALA:O	59:JQ:183:GLU:HG3	2.04	0.57
59:JQ:209:ILE:O	59:JQ:213:THR:HG23	2.05	0.57
59:KA:178:SER:HB2	60:KB:347:ASN:HD22	1.70	0.57
60:KX:298:ASN:O	60:KX:298:ASN:ND2	2.27	0.57
3:0F:588:SER:OG	3:0F:591:GLU:OE1	2.18	0.57
4:0G:196:LEU:HB2	4:0G:218:LEU:HB2	1.86	0.57
25:1H:346:LYS:HG3	59:BG:80:THR:HG22	1.86	0.57
33:2D:195:VAL:HG12	33:2D:235:LEU:HD12	1.87	0.57
34:2F:234:SER:OG	60:KG:74:ASP:OD2	2.22	0.57
36:2I:217:ARG:NH1	59:FF:162:GLY:O	2.35	0.57
47:3W:73:CYS:SG	47:3W:128:HIS:ND1	2.78	0.57
47:3W:165:VAL:HG11	48:3Z:150:MET:HB3	1.86	0.57
54:4M:135:LYS:HE2	59:JD:437:ALA:HB2	1.86	0.57
60:AZ:253:LEU:HD23	60:AZ:350:LYS:HZ3	1.69	0.57
59:DI:273:ALA:HB2	59:DI:295:VAL:HG12	1.87	0.57
60:EA:14:ASN:OD1	60:EA:65:LEU:HD12	2.05	0.57
60:EA:54:ALA:HB3	60:EA:58:ARG:HB3	1.87	0.57
59:FP:388:PHE:HB3	59:FP:425:LEU:HD21	1.86	0.57
59:GE:392:ASP:OD2	59:GE:422:ARG:NE	2.37	0.57
59:HA:36:MET:SD	59:HA:38:SER:OG	2.60	0.57
60:HH:10:GLY:O	60:HH:14:ASN:ND2	2.32	0.57
60:HL:119:VAL:HG13	60:HL:122:LYS:HE3	1.86	0.57
59:IB:235:VAL:O	59:IB:239:THR:HG22	2.04	0.57
59:IK:188:VAL:HG23	59:IK:425:LEU:HD22	1.87	0.57
60:IP:209:ASP:HB2	60:IP:213:ARG:HD3	1.86	0.57
59:IX:3:GLU:OE2	59:IX:129:CYS:HB3	2.05	0.57
59:JN:179:THR:HG21	62:JN:501:GTP:H3'	1.86	0.57
60:JO:68:LEU:HD22	60:JO:143:THR:HG22	1.87	0.57
59:JU:254:GLU:HA	59:JU:257:THR:HG22	1.87	0.57
59:JW:319:TYR:HB2	59:JW:355:ILE:HD13	1.87	0.57
2:0E:470:HIS:ND1	2:0E:476:ASP:O	2.37	0.56
52:4I:46:ILE:HD12	60:KK:333:VAL:HG22	1.86	0.56
59:AM:181:VAL:HG23	59:AM:182:VAL:HG13	1.86	0.56
60:AV:232:VAL:HG11	60:AV:268:MET:HG2	1.87	0.56
60:BF:173:PRO:HG3	60:BF:380:ARG:HH11	1.69	0.56
60:CA:16:ILE:HD11	60:CA:136:CYS:HB3	1.87	0.56
60:DT:391:ARG:HD3	59:DU:439:SER:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DY:289:LEU:HD11	60:DY:363:MET:HG3	1.87	0.56
60:EU:172:SER:OG	60:EU:205:GLU:OE1	2.23	0.56
59:FJ:251:ASP:OD1	59:FJ:252:LEU:N	2.38	0.56
60:GB:62:ARG:NH1	60:GB:127:CYS:SG	2.77	0.56
60:GD:61:PRO:HD3	60:GD:84:ILE:HG22	1.87	0.56
60:GK:201:CYS:SG	60:GK:301:GLN:NE2	2.78	0.56
60:GO:61:PRO:HD3	60:GO:84:ILE:HG22	1.87	0.56
60:GQ:375:GLN:OE1	60:GQ:379:ARG:NH2	2.38	0.56
60:GV:27:GLU:OE1	60:GV:241:ARG:NH2	2.33	0.56
60:IC:22:GLU:HG2	60:IC:81:TYR:CD2	2.39	0.56
60:IN:167:PHE:HE2	60:IN:233:VAL:HG23	1.69	0.56
60:IP:178:THR:HB	60:IP:181:GLU:HG3	1.86	0.56
60:IS:401:GLU:OE2	60:IS:403:MET:HG3	2.05	0.56
60:JC:132:GLY:HA3	60:JC:163:ILE:HG13	1.87	0.56
59:JN:31:GLN:HG2	59:JN:37:PRO:HD3	1.86	0.56
60:JV:289:LEU:O	60:JV:293:MET:HB2	2.05	0.56
59:KD:215:ARG:NH1	59:KD:299:ALA:O	2.37	0.56
60:KO:178:THR:HB	60:KO:181:GLU:HG3	1.88	0.56
59:KQ:192:HIS:HD2	59:KQ:421:ALA:HA	1.70	0.56
4:0G:704:ARG:O	4:0G:711:GLN:NE2	2.32	0.56
33:2C:242:PRO:HG3	33:2C:280:ILE:HD11	1.88	0.56
41:2W:244:TRP:CE3	60:IW:362:LYS:HE3	2.40	0.56
47:3W:216:ARG:NH1	47:3W:272:PHE:O	2.38	0.56
59:AC:298:PRO:HA	59:AC:301:MET:HE3	1.86	0.56
59:AG:88:HIS:HB3	59:AG:91:GLN:HG3	1.87	0.56
60:AL:149:THR:HA	60:AL:152:ILE:HG22	1.86	0.56
59:BE:50:ASN:O	59:BE:64:ARG:NH1	2.38	0.56
59:BI:284:GLU:OE2	59:BU:88:HIS:NE2	2.34	0.56
60:BY:379:ARG:O	60:BY:383:GLU:HG3	2.04	0.56
59:CH:172:TYR:CD1	59:CH:173:PRO:HD2	2.40	0.56
60:CI:238:CYS:HB2	60:CI:318:ARG:NH1	2.20	0.56
59:CJ:329:ASN:OD1	59:CJ:330:ALA:N	2.38	0.56
60:DD:396:HIS:HA	60:DD:399:THR:HG22	1.86	0.56
59:DE:222:PRO:O	60:DF:322:SER:OG	2.20	0.56
59:DK:50:ASN:O	59:DK:64:ARG:NH1	2.38	0.56
60:DR:167:PHE:CD2	60:DR:233:VAL:HG22	2.40	0.56
60:EO:237:THR:HG23	60:EO:241:ARG:NH1	2.19	0.56
60:EQ:218:THR:HG23	60:EQ:219:THR:HG22	1.87	0.56
60:FM:27:GLU:OE2	60:FM:241:ARG:NH2	2.36	0.56
60:FS:386:THR:O	60:FS:390:ARG:HG3	2.05	0.56
60:GD:73:MET:HA	60:GD:76:VAL:HG12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GH:212:LEU:HD11	59:GH:275:VAL:HG21	1.86	0.56
60:HB:94:GLN:OE1	59:HC:2:ARG:NH1	2.36	0.56
59:HG:319:TYR:HB2	59:HG:355:ILE:HD13	1.87	0.56
59:HM:15:GLN:NE2	62:HM:501:GTP:O6	2.39	0.56
60:HR:382:GLY:O	60:HR:386:THR:HG23	2.05	0.56
59:HZ:123:ARG:NH2	59:HZ:160:ASP:OD2	2.38	0.56
59:IO:289:SER:O	59:IO:293:ASN:ND2	2.36	0.56
59:JJ:68:LEU:HD22	59:JJ:93:ILE:HD11	1.86	0.56
59:JP:192:HIS:HD2	59:JP:421:ALA:HA	1.70	0.56
59:JQ:212:LEU:HD21	59:JQ:275:VAL:HG11	1.87	0.56
59:JU:178:SER:HB3	60:JV:347:ASN:HD22	1.69	0.56
59:KS:406:HIS:HA	59:KS:409:VAL:HG12	1.87	0.56
3:0F:636:ALA:HB1	3:0F:698:LYS:HB2	1.86	0.56
21:1D:229:GLN:OE1	21:1D:232:ARG:NH1	2.38	0.56
32:1W:163:ARG:HG3	32:1W:164:ARG:H	1.70	0.56
32:1Y:53:ASN:ND2	59:EB:396:ASP:OD1	2.38	0.56
32:2A:141:ARG:NH2	32:2A:147:ASN:OD1	2.38	0.56
39:2Q:58:ILE:HG23	39:2Q:59:MET:HG3	1.86	0.56
40:2S:54:ASN:HA	40:2S:57:HIS:HD1	1.70	0.56
41:3D:316:ARG:HD3	59:GR:42:ILE:HD13	1.86	0.56
42:3O:145:THR:HA	60:HF:320:ARG:HH12	1.69	0.56
47:3V:89:LYS:HB3	47:3V:96:THR:HG21	1.88	0.56
48:4A:22:HIS:ND1	59:FH:155:GLU:OE2	2.37	0.56
29:4X:218:GLN:HB3	59:FF:82:THR:HG22	1.86	0.56
59:AA:238:LEU:HD21	59:AA:378:ILE:HD11	1.87	0.56
59:AC:203:MET:HG3	59:AC:384:ILE:HD11	1.86	0.56
59:AG:284:GLU:HG3	59:AG:285:GLN:O	2.05	0.56
59:AO:269:LEU:HD22	59:AO:303:THR:HG21	1.85	0.56
59:AQ:50:ASN:O	59:AQ:64:ARG:NH1	2.38	0.56
59:AS:251:ASP:OD1	59:AS:252:LEU:N	2.39	0.56
59:BK:54:SER:HB3	59:BK:64:ARG:HH12	1.69	0.56
60:BP:254:ALA:O	60:BP:258:VAL:HG12	2.05	0.56
59:BQ:284:GLU:OE2	59:CD:88:HIS:NE2	2.37	0.56
59:BW:119:LEU:HD21	59:BW:156:ARG:HB3	1.88	0.56
59:BX:395:PHE:HD2	59:BX:422:ARG:HH11	1.50	0.56
60:CC:238:CYS:SG	60:CC:318:ARG:HD3	2.45	0.56
59:CF:181:VAL:HG23	59:CF:182:VAL:HG13	1.87	0.56
60:CG:190:HIS:CD2	60:CG:414:ASN:HD21	2.24	0.56
60:CL:218:THR:HG23	60:CL:219:THR:HG22	1.87	0.56
60:CL:289:LEU:HD11	60:CL:363:MET:HG3	1.88	0.56
59:CO:399:TYR:OH	59:CO:415:GLU:OE2	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CT:113:ILE:HG13	60:CT:150:LEU:HD23	1.87	0.56
60:CT:218:THR:HG23	60:CT:219:THR:HG22	1.87	0.56
59:CU:174:SER:OG	59:CU:177:VAL:O	2.22	0.56
60:CZ:161:ASP:OD1	60:CZ:162:ARG:NH1	2.38	0.56
60:DN:239:CYS:SG	60:DN:248:SER:N	2.78	0.56
59:EB:216:ASN:O	59:EB:280:LYS:NZ	2.36	0.56
59:ED:3:GLU:HA	59:ED:51:THR:HA	1.87	0.56
60:EE:282:ARG:NH1	60:EE:288:GLU:OE2	2.39	0.56
60:EK:172:SER:OG	60:EK:205:GLU:OE1	2.23	0.56
59:FL:203:MET:HG3	59:FL:384:ILE:HD11	1.85	0.56
60:FS:288:GLU:OE1	60:FS:291:GLN:NE2	2.38	0.56
59:FU:174:SER:OG	59:FU:177:VAL:O	2.22	0.56
60:FX:304:ASP:OD2	60:FX:306:ARG:NE	2.32	0.56
60:GB:404:ASP:OD2	60:GO:306:ARG:NH2	2.38	0.56
59:GC:250:VAL:HG21	59:GC:318:MET:HE3	1.86	0.56
59:GG:252:LEU:HA	59:GG:255:PHE:HD2	1.70	0.56
60:GI:156:ARG:NH2	60:GI:197:ASP:OD1	2.35	0.56
60:GS:44:LEU:HD12	60:GS:47:ILE:HD12	1.87	0.56
60:GS:87:PRO:HD3	60:HF:281:TYR:CE2	2.40	0.56
60:HJ:344:TRP:HB3	60:HJ:430:ILE:HD11	1.87	0.56
59:HO:67:PHE:HB2	59:HO:92:LEU:HD13	1.88	0.56
60:HS:241:ARG:HG3	60:HS:242:PHE:HD1	1.70	0.56
60:IA:292:GLN:HG2	60:IA:298:ASN:ND2	2.20	0.56
60:IC:103:LYS:NZ	60:IC:401:GLU:OE2	2.38	0.56
59:IG:406:HIS:HA	59:IG:409:VAL:HG12	1.86	0.56
60:IJ:179:VAL:HG13	60:IJ:180:VAL:HG13	1.86	0.56
59:IO:223:THR:HG22	60:IP:322:SER:HA	1.86	0.56
60:IR:295:ASP:OD2	60:IR:297:LYS:NZ	2.33	0.56
59:JD:430:LYS:O	59:JD:433:GLU:HG3	2.05	0.56
60:JG:101:TRP:HE1	60:JG:146:GLY:HA2	1.71	0.56
59:JN:259:LEU:HD21	59:JN:378:ILE:HG13	1.86	0.56
59:KD:254:GLU:HA	59:KD:257:THR:HG22	1.87	0.56
60:KE:407:GLU:N	60:KE:407:GLU:OE1	2.37	0.56
60:KG:103:LYS:HG2	60:KG:108:GLU:OE1	2.06	0.56
59:KJ:207:GLU:HG2	59:KJ:304:LYS:HE3	1.87	0.56
60:KK:170:ILE:HD12	60:KK:377:MET:SD	2.46	0.56
59:KQ:239:THR:OG1	59:KQ:243:ARG:NH1	2.38	0.56
60:LB:156:ARG:NH2	60:LB:197:ASP:OD2	2.38	0.56
1:0C:575:SER:N	1:0C:578:GLU:OE2	2.36	0.56
20:1C:10:CYS:SG	20:1C:30:ARG:NH1	2.78	0.56
23:1F:233:GLU:OE1	59:EZ:45:GLU:HA	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2I:124:THR:HG21	60:ES:421:GLU:HA	1.87	0.56
50:4E:146:VAL:HG13	50:4E:150:LYS:NZ	2.20	0.56
58:4U:92:ILE:HG23	58:4U:93:ARG:HD2	1.86	0.56
60:AR:148:GLY:O	60:AR:152:ILE:HG12	2.05	0.56
59:BE:254:GLU:HA	59:BE:257:THR:HG22	1.88	0.56
60:BJ:113:ILE:HD12	60:BJ:150:LEU:HG	1.88	0.56
59:CJ:251:ASP:OD1	59:CJ:252:LEU:N	2.39	0.56
60:CX:310:TYR:CD1	60:CX:371:ASN:HB2	2.39	0.56
60:CZ:313:ALA:HB1	60:CZ:367:PHE:HE1	1.70	0.56
59:DC:33:ASP:O	59:DC:60:LYS:NZ	2.38	0.56
60:DJ:190:HIS:CD2	60:DJ:414:ASN:HD22	2.23	0.56
59:DM:251:ASP:OD1	59:DM:252:LEU:N	2.39	0.56
60:EG:62:ARG:NH1	60:EG:127:CYS:SG	2.78	0.56
60:EU:407:GLU:N	60:EU:407:GLU:OE1	2.38	0.56
59:EV:88:HIS:HB3	59:EV:91:GLN:HG2	1.87	0.56
60:FK:374:ILE:O	60:FK:377:MET:HG2	2.05	0.56
59:FW:399:TYR:OH	59:FW:415:GLU:OE2	2.23	0.56
59:GC:90:GLU:OE1	59:GC:121:ARG:NH2	2.39	0.56
59:HM:30:ILE:HD12	59:HM:53:PHE:HD2	1.71	0.56
59:HT:109:THR:HG23	59:HT:110:ILE:HG23	1.87	0.56
64:IF:501:GDP:H2'	59:IG:248:LEU:HD11	1.87	0.56
60:IL:204:ASN:OD1	64:IL:501:GDP:N2	2.38	0.56
60:JA:109:GLY:HA2	60:JA:147:MET:HE2	1.88	0.56
59:JL:11:GLN:HG3	59:JL:74:VAL:HG21	1.86	0.56
59:JS:222:PRO:HD2	60:JT:324:LYS:HD3	1.88	0.56
59:JY:101:ASN:OD1	60:JZ:252:LYS:NZ	2.38	0.56
1:0A:409:ARG:HA	1:0A:412:ASN:HB2	1.87	0.56
17:0Z:549:ARG:NH1	17:0Z:551:ASN:OD1	2.39	0.56
18:1A:303:LEU:O	29:1P:37:ARG:NH2	2.38	0.56
22:1E:243:LEU:HD22	60:FC:205:GLU:HG3	1.88	0.56
33:2D:82:GLN:HG3	33:2D:91:ASP:HB2	1.87	0.56
33:2D:157:SER:HA	33:2D:174:GLY:HA3	1.87	0.56
39:2P:297:ASP:HB3	39:2P:301:ARG:NH1	2.21	0.56
44:3R:209:ASP:HB3	44:3R:211:PRO:HD2	1.86	0.56
60:AB:407:GLU:N	60:AB:407:GLU:OE1	2.38	0.56
59:BE:69:ASP:OD1	59:BE:70:LEU:N	2.39	0.56
60:BN:289:LEU:HD11	60:BN:363:MET:HG3	1.88	0.56
59:BU:69:ASP:OD1	59:BU:70:LEU:N	2.37	0.56
59:CU:251:ASP:OD1	59:CU:252:LEU:N	2.39	0.56
59:DE:306:ASP:OD2	59:DE:308:ARG:NH2	2.38	0.56
59:DU:270:THR:HG22	59:DU:378:ILE:HG12	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GP:276:ILE:HG13	59:GP:369:ALA:HB3	1.86	0.56
60:GS:45:GLU:O	60:GS:46:ARG:HD3	2.05	0.56
60:GX:132:GLY:HA3	60:GX:163:ILE:HG13	1.87	0.56
60:GZ:132:GLY:HA3	60:GZ:163:ILE:HG13	1.88	0.56
59:HA:210:TYR:CD1	60:HB:324:LYS:HD2	2.40	0.56
59:HA:251:ASP:OD1	59:HA:252:LEU:N	2.38	0.56
60:HS:74:ASP:HA	60:HS:77:ARG:HD3	1.86	0.56
59:HX:91:GLN:HE22	59:HX:125:LEU:HD21	1.71	0.56
60:IP:388:MET:HB3	60:IP:393:ALA:HB3	1.87	0.56
60:IS:288:GLU:OE1	60:IS:291:GLN:NE2	2.38	0.56
59:IX:383:ALA:O	59:IX:386:GLU:HG2	2.06	0.56
59:JW:113:GLU:N	59:JW:113:GLU:OE1	2.38	0.56
59:KH:295:VAL:HG22	59:KH:377:MET:HE2	1.87	0.56
4:0G:340:ARG:HG3	4:0G:341:PRO:HD2	1.87	0.56
19:1B:135:ASN:O	19:1B:139:SER:OG	2.20	0.56
26:1J:85:LEU:HD12	59:EV:364:PRO:HA	1.86	0.56
39:2R:367:ARG:NH2	39:2R:368:MET:SD	2.70	0.56
52:4I:5:SER:N	52:4I:13:ASP:OD1	2.38	0.56
57:4S:134:GLU:OE1	60:FV:392:LYS:NZ	2.27	0.56
59:BS:285:GLN:HB3	59:CF:56:THR:HA	1.87	0.56
60:CC:249:ASP:OD1	60:CC:250:LEU:N	2.39	0.56
59:CM:251:ASP:OD1	59:CM:252:LEU:N	2.39	0.56
59:DK:27:GLU:OE2	59:DK:236:SER:OG	2.22	0.56
59:DM:90:GLU:HG3	59:DM:121:ARG:NH1	2.21	0.56
59:DS:324:VAL:HG11	59:DS:326:LYS:HE2	1.88	0.56
60:EO:218:THR:HG23	60:EO:219:THR:HG22	1.86	0.56
59:ET:2:ARG:N	59:ET:131:GLY:O	2.39	0.56
59:EV:93:ILE:HD11	59:EV:121:ARG:HG3	1.86	0.56
59:EZ:50:ASN:O	59:EZ:64:ARG:NH1	2.39	0.56
60:GF:8:GLN:HE22	60:GF:21:TRP:HE1	1.51	0.56
60:GO:97:ALA:HB2	60:GO:143:THR:HB	1.87	0.56
59:GR:27:GLU:OE2	59:GR:243:ARG:NH2	2.36	0.56
60:GX:289:LEU:HD11	60:GX:363:MET:HG3	1.88	0.56
59:HX:215:ARG:NH2	59:HX:299:ALA:HB1	2.20	0.56
60:IF:33:THR:O	60:IF:58:ARG:NH2	2.39	0.56
60:IJ:252:LYS:HG3	60:IJ:350:LYS:HE2	1.88	0.56
60:IN:230:SER:HA	60:IN:233:VAL:HG12	1.88	0.56
60:JE:24:ILE:HD12	60:JE:241:ARG:HH22	1.71	0.56
60:JX:335:ASN:OD1	60:JX:336:LYS:N	2.39	0.56
59:JY:123:ARG:HH21	59:JY:161:TYR:HE1	1.52	0.56
60:JZ:212:PHE:HZ	59:KA:326:LYS:HB3	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KL:284:GLU:HG2	59:KL:285:GLN:O	2.05	0.56
60:KM:52:ASP:OD1	60:KM:53:GLU:N	2.39	0.56
3:0F:235:ARG:NE	59:DQ:55:GLU:OE2	2.36	0.56
35:2G:353:ASP:OD1	35:2G:355:ARG:NH1	2.38	0.56
41:3C:257:GLU:OE1	41:3C:258:ARG:NH1	2.38	0.56
53:4K:222:ASP:OD1	53:4K:223:LYS:N	2.38	0.56
59:AA:27:GLU:OE1	59:AA:243:ARG:NH2	2.39	0.56
60:AD:19:LYS:HD2	60:AD:227:HIS:CE1	2.41	0.56
59:AE:181:VAL:HG23	59:AE:182:VAL:HG13	1.87	0.56
60:AJ:407:GLU:N	60:AJ:407:GLU:OE1	2.38	0.56
60:BR:309:ARG:NH1	60:BR:428:ALA:HA	2.20	0.56
60:CA:313:ALA:HB1	60:CA:367:PHE:HE1	1.71	0.56
60:CC:170:ILE:HD12	60:CC:201:CYS:HB3	1.87	0.56
60:CC:209:ASP:O	60:CC:213:ARG:HG2	2.06	0.56
59:CD:251:ASP:OD1	59:CD:252:LEU:N	2.39	0.56
60:CG:391:ARG:NH1	59:CH:439:SER:OG	2.39	0.56
60:CI:167:PHE:CE2	60:CI:233:VAL:HG22	2.41	0.56
60:CT:193:VAL:HG22	60:CT:265:PHE:CZ	2.40	0.56
60:CV:204:ASN:OD1	64:CV:501:GDP:N2	2.38	0.56
59:DC:251:ASP:OD1	59:DC:252:LEU:N	2.39	0.56
60:DV:262:ARG:NH1	60:DV:421:GLU:OE1	2.38	0.56
60:EM:67:ASP:OD1	60:EM:68:LEU:N	2.37	0.56
60:EQ:73:MET:HB2	60:EQ:92:PHE:CE2	2.40	0.56
60:ES:178:THR:N	60:ES:181:GLU:OE2	2.36	0.56
60:FK:209:ASP:HB3	60:FK:213:ARG:HH21	1.71	0.56
60:GI:271:ALA:O	60:GI:292:GLN:NE2	2.38	0.56
60:IE:63:SER:O	60:IE:89:ASN:ND2	2.29	0.56
60:IF:347:ASN:O	60:IF:347:ASN:ND2	2.37	0.56
59:IZ:2:ARG:N	59:IZ:133:GLN:OE1	2.38	0.56
60:JA:253:LEU:HD11	60:JA:316:LEU:HD11	1.87	0.56
60:JE:173:PRO:CB	60:JE:380:ARG:HH12	2.17	0.56
59:JH:269:LEU:HD21	59:JH:384:ILE:HD13	1.87	0.56
59:JJ:167:LEU:HD22	59:JJ:200:VAL:HG22	1.88	0.56
60:JR:201:CYS:O	60:JR:301:GLN:NE2	2.38	0.56
60:KB:404:ASP:HB3	60:KB:407:GLU:OE1	2.06	0.56
60:LB:8:GLN:HE21	60:LB:65:LEU:HD22	1.70	0.56
1:0C:96:ARG:NE	1:0C:184:ASP:OD2	2.31	0.56
2:0E:468:LEU:HD11	2:0E:477:SER:HB3	1.87	0.56
32:1Z:64:ASP:HB3	32:1Z:67:LYS:HG2	1.87	0.56
55:4P:52:HIS:ND1	55:4P:56:ASP:OD2	2.38	0.56
57:4Y:18:ARG:HH21	59:FU:402:ARG:HD3	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AQ:181:VAL:HG23	59:AQ:182:VAL:HG13	1.86	0.56
60:AR:267:MET:HE3	60:AR:371:ASN:HB3	1.87	0.56
60:AZ:175:VAL:HG13	59:BA:329:ASN:OD1	2.05	0.56
60:BN:175:VAL:HG13	59:BO:329:ASN:OD1	2.06	0.56
60:BT:318:ARG:HD3	60:BT:358:PRO:HD3	1.88	0.56
59:CJ:258:ASN:HD22	59:CJ:352:LYS:HG2	1.69	0.56
60:CT:179:VAL:HG23	60:CT:180:VAL:HG13	1.87	0.56
59:DC:98:ASP:O	59:DC:105:ARG:NH1	2.39	0.56
59:DK:254:GLU:HA	59:DK:257:THR:HG22	1.87	0.56
60:DP:268:MET:HE1	60:DP:368:ILE:HA	1.88	0.56
59:GG:251:ASP:OD1	59:GG:252:LEU:N	2.39	0.56
60:GS:292:GLN:O	60:GS:298:ASN:ND2	2.37	0.56
59:GY:286:LEU:HB3	59:GY:291:ILE:HD11	1.87	0.56
60:HF:8:GLN:HE22	60:HF:21:TRP:HE1	1.54	0.56
60:HF:21:TRP:HA	60:HF:24:ILE:HG22	1.88	0.56
59:HO:396:ASP:OD2	59:HO:422:ARG:NH2	2.37	0.56
60:HS:52:ASP:OD1	60:HS:62:ARG:NH2	2.37	0.56
59:IG:237:SER:HA	59:IG:320:ARG:HH11	1.71	0.56
59:II:251:ASP:OD1	59:II:252:LEU:N	2.39	0.56
60:IP:344:TRP:HB3	60:IP:430:ILE:HD11	1.88	0.56
60:IR:230:SER:HA	60:IR:233:VAL:HG12	1.87	0.56
64:IS:501:GDP:H2'	59:IT:248:LEU:HD11	1.86	0.56
60:IU:22:GLU:HG2	60:IU:81:TYR:HD2	1.69	0.56
60:IW:10:GLY:O	60:IW:14:ASN:ND2	2.32	0.56
60:IW:375:GLN:NE2	60:IW:423:GLN:HB2	2.20	0.56
60:IY:407:GLU:N	60:IY:407:GLU:OE1	2.39	0.56
60:JM:161:ASP:OD1	60:JM:162:ARG:NE	2.36	0.56
59:JW:212:LEU:HD21	59:JW:275:VAL:HG21	1.88	0.56
59:JY:319:TYR:HB2	59:JY:355:ILE:HD13	1.87	0.56
60:KB:210:ILE:O	60:KB:214:THR:OG1	2.19	0.56
59:KC:251:ASP:OD1	59:KC:252:LEU:N	2.39	0.56
3:0F:268:ASP:OD2	3:0F:292:ARG:NH2	2.39	0.56
5:0J:39:ARG:NH2	26:1I:90:ASP:OD2	2.39	0.56
27:1K:54:THR:OG1	27:1K:59:ARG:NH2	2.39	0.56
34:2F:269:VAL:HG12	39:2Q:41:LEU:HB2	1.87	0.56
35:2G:352:ASP:OD2	40:2T:48:SER:OG	2.23	0.56
35:2H:316:LYS:HB3	35:2H:321:GLN:HE21	1.71	0.56
55:4P:183:THR:HG21	60:JI:392:LYS:NZ	2.20	0.56
60:AD:330:MET:HE2	60:AD:349:ILE:HG21	1.88	0.56
59:AK:284:GLU:OE2	59:AW:88:HIS:NE2	2.34	0.56
59:AU:251:ASP:OD1	59:AU:252:LEU:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AW:50:ASN:O	59:AW:64:ARG:NH1	2.38	0.56
59:AW:71:GLU:OE2	60:AX:247:ASN:ND2	2.35	0.56
59:BE:105:ARG:HA	59:BE:109:THR:HG22	1.88	0.56
60:BJ:238:CYS:HB2	60:BJ:318:ARG:NH1	2.21	0.56
59:BQ:254:GLU:HA	59:BQ:257:THR:HG22	1.88	0.56
60:CA:52:ASP:OD1	60:CA:53:GLU:N	2.39	0.56
59:CH:265:ILE:HG22	59:CH:380:ASN:HD21	1.70	0.56
59:CJ:270:THR:HG22	59:CJ:378:ILE:HG22	1.88	0.56
59:CO:11:GLN:HE22	60:CP:246:LEU:HA	1.70	0.56
60:EA:262:ARG:NH1	60:EA:421:GLU:OE2	2.38	0.56
60:FI:212:PHE:HB2	59:FJ:326:LYS:HE3	1.86	0.56
60:FI:298:ASN:HD22	60:FI:298:ASN:C	2.09	0.56
59:FU:52:PHE:CZ	59:FU:239:THR:HG21	2.41	0.56
59:FU:406:HIS:HA	59:FU:409:VAL:HG12	1.87	0.56
59:GT:279:GLU:N	59:GT:279:GLU:OE1	2.39	0.56
59:HI:417:GLU:HA	59:HI:420:GLU:HG2	1.88	0.56
59:HM:251:ASP:OD1	59:HM:252:LEU:N	2.39	0.56
60:HU:14:ASN:OD1	60:HU:65:LEU:HD12	2.06	0.56
60:IF:200:MET:HE2	60:IF:266:PHE:HB2	1.88	0.56
60:IY:249:ASP:OD1	60:IY:250:LEU:N	2.39	0.56
60:JG:334:GLN:HE22	60:JG:348:ASN:H	1.54	0.56
59:JJ:88:HIS:CD2	59:JJ:89:PRO:HD2	2.41	0.56
59:JP:251:ASP:OD1	59:JP:252:LEU:N	2.39	0.56
60:JV:109:GLY:HA2	60:JV:147:MET:HE1	1.88	0.56
59:KN:254:GLU:HA	59:KN:257:THR:HG22	1.88	0.56
60:KX:237:THR:HG23	60:KX:241:ARG:NH1	2.20	0.56
5:0I:371:ASN:OD1	5:0I:372:GLN:N	2.39	0.56
32:1V:93:ILE:HA	32:1V:151:THR:HA	1.88	0.56
38:2N:61:VAL:HG11	38:2N:192:ARG:HH21	1.70	0.56
38:2N:82:SER:OG	38:2N:85:ASP:OD1	2.22	0.56
41:3A:316:ARG:NH1	59:HI:43:GLY:O	2.39	0.56
42:3G:114:HIS:HE1	59:JB:81:GLY:HA3	1.70	0.56
46:3T:162:PHE:HD2	60:FG:324:LYS:HE2	1.71	0.56
52:4I:106:PRO:HG2	60:JV:125:GLU:OE2	2.06	0.56
54:4N:16:ARG:HD3	59:HI:442:MET:HG3	1.88	0.56
57:4S:72:MET:O	57:4S:76:MET:HG2	2.06	0.56
60:AD:68:LEU:HD22	60:AD:143:THR:HG22	1.87	0.56
60:AL:31:ASP:OD1	60:AL:32:PRO:HD2	2.06	0.56
59:AW:204:LEU:HD12	59:AW:209:ILE:HD11	1.88	0.56
59:BE:41:THR:HG23	59:BE:42:ILE:HG13	1.86	0.56
60:DP:392:LYS:HA	60:DP:395:LEU:HD12	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EN:399:TYR:OH	59:EN:415:GLU:OE2	2.21	0.56
60:EO:172:SER:OG	60:EO:205:GLU:OE1	2.17	0.56
60:EY:173:PRO:HG3	60:EY:380:ARG:CZ	2.35	0.56
59:FR:285:GLN:NE2	59:GE:55:GLU:O	2.38	0.56
60:FS:67:ASP:OD2	60:FS:72:THR:OG1	2.23	0.56
60:FZ:7:VAL:HB	60:FZ:135:ILE:HD12	1.87	0.56
59:GT:417:GLU:HA	59:GT:420:GLU:HG2	1.88	0.56
59:HC:265:ILE:HG22	59:HC:380:ASN:HD21	1.71	0.56
59:HG:216:ASN:O	59:HG:280:LYS:NZ	2.36	0.56
59:HQ:406:HIS:HA	59:HQ:409:VAL:HG12	1.87	0.56
59:HT:220:GLU:O	59:HT:222:PRO:HD3	2.06	0.56
59:IK:79:ARG:NH2	59:IK:92:LEU:O	2.39	0.56
59:IV:215:ARG:NH2	59:IV:299:ALA:HB1	2.21	0.56
59:IX:71:GLU:OE2	59:IX:73:THR:HG23	2.06	0.56
60:IY:259:PRO:HG2	60:IY:311:LEU:HD21	1.88	0.56
59:IZ:206:ASN:OD1	62:IZ:602:GTP:N2	2.39	0.56
59:IZ:396:ASP:OD1	59:IZ:397:LEU:N	2.39	0.56
59:JF:386:GLU:OE1	59:JF:386:GLU:N	2.39	0.56
60:JK:61:PRO:HD3	60:JK:84:ILE:HG12	1.86	0.56
60:JX:404:ASP:HB3	60:JX:407:GLU:OE1	2.07	0.56
60:KE:238:CYS:HB2	60:KE:318:ARG:HH11	1.70	0.56
59:KP:273:ALA:HB1	59:KP:291:ILE:HB	1.86	0.56
22:1E:194:GLU:OE1	60:FQ:359:LYS:NZ	2.38	0.55
41:2Z:194:LEU:HA	41:2Z:197:MET:HG2	1.88	0.55
48:3Z:162:ARG:NH2	49:4C:86:VAL:O	2.39	0.55
54:4N:178:ARG:HH12	54:4N:182:GLU:HB3	1.70	0.55
60:AF:237:THR:HG23	60:AF:241:ARG:NH1	2.21	0.55
59:AO:251:ASP:OD1	59:AO:252:LEU:N	2.39	0.55
60:BH:291:GLN:NE2	60:BH:292:GLN:HG3	2.21	0.55
60:BR:289:LEU:HD11	60:BR:363:MET:HG3	1.88	0.55
59:BS:284:GLU:HG2	59:BS:285:GLN:O	2.06	0.55
59:BU:408:TYR:HB3	59:BU:413:MET:HE2	1.87	0.55
60:BY:27:GLU:OE2	60:BY:241:ARG:NH2	2.39	0.55
60:CE:65:LEU:HD12	60:CE:90:PHE:CE1	2.41	0.55
59:CO:27:GLU:OE2	59:CO:243:ARG:NH1	2.38	0.55
60:CP:173:PRO:HB3	60:CP:380:ARG:HD3	1.88	0.55
60:DL:334:GLN:NE2	60:DL:348:ASN:OD1	2.39	0.55
59:EX:297:GLU:OE2	59:FJ:123:ARG:NH2	2.37	0.55
60:FG:52:ASP:OD1	60:FG:53:GLU:N	2.39	0.55
59:FY:76:ASP:OD1	59:FY:79:ARG:NH1	2.37	0.55
59:GE:2:ARG:NH2	59:GE:3:GLU:OE2	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GH:88:HIS:NE2	59:GU:284:GLU:OE2	2.39	0.55
60:GM:238:CYS:SG	60:GM:318:ARG:NE	2.73	0.55
60:HP:3:GLU:OE2	60:HP:62:ARG:NH1	2.39	0.55
60:IH:229:VAL:O	60:IH:233:VAL:HG23	2.07	0.55
60:IL:230:SER:HA	60:IL:233:VAL:HG12	1.89	0.55
60:IW:318:ARG:HE	60:IW:358:PRO:HD3	1.72	0.55
59:IZ:334:THR:O	59:IZ:337:THR:OG1	2.20	0.55
60:JZ:96:GLY:O	60:JZ:103:LYS:NZ	2.27	0.55
59:KW:251:ASP:OD1	59:KW:252:LEU:N	2.39	0.55
3:0F:166:ASP:OD1	3:0F:167:CYS:N	2.38	0.55
10:0S:412:GLU:O	10:0S:416:LYS:HG2	2.06	0.55
17:0Z:254:ALA:HB2	60:FI:80:PRO:HA	1.88	0.55
25:1H:346:LYS:NZ	59:BG:77:GLU:OE2	2.39	0.55
55:4P:138:THR:OG1	55:4P:142:GLN:OE1	2.19	0.55
59:AA:270:THR:HG22	59:AA:378:ILE:HG12	1.88	0.55
60:AD:117:LEU:HD21	60:AD:154:LYS:HB3	1.87	0.55
60:AH:344:TRP:HB3	60:AH:430:ILE:HD11	1.88	0.55
60:AJ:149:THR:HA	60:AJ:152:ILE:HG22	1.88	0.55
59:AM:214:ARG:NH2	59:AM:220:GLU:OE1	2.34	0.55
60:BF:31:ASP:OD1	60:BF:32:PRO:HD2	2.05	0.55
59:BG:93:ILE:HD11	59:BG:121:ARG:HG3	1.89	0.55
60:BH:374:ILE:HG13	60:BH:377:MET:HE3	1.89	0.55
60:BJ:213:ARG:HD2	60:BJ:297:LYS:HG2	1.87	0.55
60:CA:346:PRO:O	60:CA:347:ASN:OD1	2.24	0.55
59:CS:181:VAL:HG23	59:CS:182:VAL:HG13	1.87	0.55
60:CV:292:GLN:O	60:CV:298:ASN:ND2	2.35	0.55
60:ES:309:ARG:NH1	60:ES:339:SER:O	2.39	0.55
60:FA:429:THR:HG23	60:FA:431:GLU:HG2	1.88	0.55
59:FW:251:ASP:OD1	59:FW:252:LEU:N	2.39	0.55
59:GW:75:VAL:O	59:GW:79:ARG:HD3	2.06	0.55
59:GW:251:ASP:OD1	59:GW:252:LEU:N	2.40	0.55
60:GZ:289:LEU:O	60:GZ:293:MET:HG3	2.06	0.55
60:HJ:152:ILE:HG23	60:HJ:195:ASN:ND2	2.22	0.55
60:HU:309:ARG:HD3	60:HU:342:ILE:HD13	1.89	0.55
59:IG:18:ASN:HD21	59:IG:78:VAL:HG22	1.70	0.55
59:IO:75:VAL:HG12	59:IO:79:ARG:HE	1.71	0.55
60:JK:390:ARG:NH2	59:JL:441:ASP:OD2	2.39	0.55
59:JN:269:LEU:HD22	59:JN:303:THR:HG21	1.88	0.55
59:JP:254:GLU:HA	59:JP:257:THR:HG22	1.88	0.55
59:JY:203:MET:HG3	59:JY:384:ILE:HD11	1.88	0.55
59:KN:50:ASN:O	59:KN:64:ARG:NH1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KS:419:SER:O	59:KS:423:GLU:HG3	2.05	0.55
1:0B:589:GLN:OE1	1:0B:602:ARG:NH1	2.34	0.55
18:1A:165:ILE:HD11	18:1A:177:ILE:HG13	1.88	0.55
21:1D:194:ILE:HA	21:1D:221:ARG:NH2	2.21	0.55
33:2B:447:ARG:HH11	33:2B:458:LEU:HD11	1.71	0.55
42:3H:40:GLU:O	60:IU:320:ARG:NH2	2.40	0.55
42:3J:76:THR:OG1	42:3J:79:GLN:OE1	2.25	0.55
29:4X:214:THR:HG23	29:4X:217:GLN:HE21	1.71	0.55
60:AL:267:MET:HE3	60:AL:371:ASN:HB3	1.88	0.55
60:CG:10:GLY:O	60:CG:14:ASN:ND2	2.33	0.55
59:CH:37:PRO:HD2	59:CH:40:LYS:HE2	1.88	0.55
60:CR:407:GLU:N	60:CR:407:GLU:OE1	2.38	0.55
60:CV:292:GLN:HG2	60:CV:298:ASN:ND2	2.21	0.55
59:CW:296:PHE:CE2	59:CW:335:ILE:HD13	2.41	0.55
60:DB:52:ASP:OD1	60:DB:53:GLU:N	2.39	0.55
60:DR:344:TRP:HB3	60:DR:430:ILE:HD11	1.88	0.55
60:DW:262:ARG:NH1	60:DW:421:GLU:OE1	2.35	0.55
60:DW:327:ASP:OD1	60:DW:328:GLU:N	2.40	0.55
60:EK:284:LEU:HD23	60:EK:362:LYS:HB3	1.89	0.55
59:EP:169:TYR:HD1	59:EP:202:ALA:HB3	1.72	0.55
59:ER:284:GLU:HG2	59:ER:285:GLN:O	2.06	0.55
59:ET:93:ILE:HD11	59:ET:121:ARG:HG3	1.88	0.55
60:EW:237:THR:HG23	60:EW:241:ARG:NH1	2.21	0.55
59:FB:207:GLU:OE2	59:FB:304:LYS:NZ	2.37	0.55
60:GB:20:PHE:HA	60:GB:230:SER:HB2	1.89	0.55
60:GF:230:SER:HA	60:GF:233:VAL:HG12	1.87	0.55
59:GN:242:LEU:HD12	59:GN:252:LEU:HG	1.87	0.55
60:GO:48:ASN:O	60:GO:62:ARG:NH2	2.39	0.55
59:GR:222:PRO:O	60:GS:322:SER:OG	2.19	0.55
59:GU:251:ASP:OD1	59:GU:252:LEU:N	2.40	0.55
60:HB:394:PHE:CE1	59:HC:261:PRO:HA	2.42	0.55
59:HK:40:LYS:HG3	59:HK:42:ILE:H	1.71	0.55
60:HL:52:ASP:OD1	60:HL:53:GLU:N	2.39	0.55
59:HM:52:PHE:CZ	59:HM:239:THR:HG21	2.42	0.55
60:HS:241:ARG:HG3	60:HS:242:PHE:CD1	2.41	0.55
59:ID:212:LEU:HD11	59:ID:275:VAL:HG21	1.89	0.55
60:IJ:67:ASP:OD1	60:IJ:68:LEU:N	2.40	0.55
60:IJ:344:TRP:HB3	60:IJ:430:ILE:HD11	1.88	0.55
60:IN:303:ALA:HB1	60:IN:373:CYS:SG	2.47	0.55
60:IS:249:ASP:OD1	60:IS:250:LEU:N	2.39	0.55
60:JG:161:ASP:OD1	60:JG:162:ARG:NH1	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JS:284:GLU:HG3	59:JS:285:GLN:O	2.06	0.55
59:KP:250:VAL:HB	59:KP:255:PHE:HE1	1.71	0.55
60:KT:218:THR:HG23	60:KT:219:THR:H	1.70	0.55
59:LA:11:GLN:HG3	59:LA:74:VAL:HG21	1.89	0.55
60:LB:67:ASP:OD2	60:LB:72:THR:OG1	2.20	0.55
1:0A:244:GLN:NE2	59:DU:58:ALA:O	2.39	0.55
1:0C:223:ARG:HD3	59:DK:45:GLU:HG2	1.88	0.55
26:1I:339:TRP:HB3	60:FO:42:LEU:HD12	1.89	0.55
31:1U:130:ARG:NH2	31:1U:176:GLU:OE2	2.37	0.55
32:1X:15:TYR:CE2	32:1X:17:ILE:HB	2.42	0.55
33:2B:547:GLY:O	33:2B:575:LYS:NZ	2.37	0.55
49:4D:91:ARG:O	49:4D:95:GLN:NE2	2.40	0.55
57:4R:72:MET:SD	59:GE:422:ARG:NH2	2.79	0.55
60:AH:103:LYS:NZ	60:AH:401:GLU:OE1	2.33	0.55
59:BE:100:ALA:HA	60:BF:252:LYS:HG3	1.88	0.55
59:BQ:273:ALA:HB2	59:BQ:295:VAL:HG23	1.88	0.55
59:BU:192:HIS:CE1	59:BU:424:ASP:OD2	2.60	0.55
59:CD:174:SER:OG	59:CD:205:ASP:OD1	2.16	0.55
60:CR:382:GLY:O	60:CR:386:THR:HG23	2.07	0.55
60:CV:218:THR:HG23	60:CV:219:THR:HG22	1.88	0.55
60:CZ:179:VAL:HG23	60:CZ:180:VAL:HG13	1.87	0.55
60:DR:170:ILE:HG23	60:DR:171:PRO:HD2	1.88	0.55
60:DR:274:THR:HB	60:DR:282:ARG:HH21	1.71	0.55
60:EA:293:MET:HE2	60:EA:365:VAL:HG11	1.89	0.55
59:ER:133:GLN:HE21	59:ER:253:THR:HG23	1.71	0.55
59:EX:269:LEU:HD22	59:EX:303:THR:HG21	1.88	0.55
59:FN:399:TYR:OH	59:FN:415:GLU:OE2	2.23	0.55
59:FU:251:ASP:OD1	59:FU:252:LEU:N	2.39	0.55
59:FU:384:ILE:O	59:FU:387:VAL:HG22	2.06	0.55
60:GV:119:VAL:O	60:GV:122:LYS:HG3	2.06	0.55
59:HE:254:GLU:HA	59:HE:257:THR:HG22	1.89	0.55
60:HH:153:SER:HA	60:HH:195:ASN:HD21	1.71	0.55
59:HI:339:ARG:O	59:HI:342:GLN:NE2	2.40	0.55
60:HL:267:MET:HG3	60:HL:299:MET:HE2	1.87	0.55
60:IC:67:ASP:OD1	60:IC:68:LEU:N	2.38	0.55
60:IR:306:ARG:NH1	60:IR:340:TYR:OH	2.39	0.55
59:IV:172:TYR:CD1	59:IV:173:PRO:HD2	2.42	0.55
59:JS:251:ASP:OD1	59:JS:252:LEU:N	2.39	0.55
59:KA:71:GLU:OE2	60:KB:247:ASN:ND2	2.38	0.55
60:KG:218:THR:HG23	60:KG:219:THR:HG22	1.89	0.55
59:KL:270:THR:HG22	59:KL:378:ILE:HG12	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:0E:514:GLU:O	2:0E:517:LYS:NZ	2.39	0.55
2:0E:537:HIS:CE1	59:CH:39:ASP:HB3	2.42	0.55
12:0U:301:ILE:HB	12:0U:304:TYR:HB2	1.87	0.55
18:1A:344:ASP:OD1	18:1A:345:ASP:N	2.40	0.55
22:1E:76:GLU:HB3	22:1E:84:ILE:HD11	1.89	0.55
33:2B:248:GLY:N	60:KZ:31:ASP:OD2	2.37	0.55
42:3I:217:PHE:HE2	60:IN:43:GLN:HE21	1.54	0.55
60:AL:170:ILE:HG23	60:AL:171:PRO:HD2	1.87	0.55
60:AV:274:THR:O	60:AV:279:GLN:NE2	2.35	0.55
59:BC:195:LEU:HD21	59:BC:428:LEU:HD12	1.88	0.55
60:BL:280:GLN:OE1	60:BY:58:ARG:NH2	2.39	0.55
60:BR:14:ASN:OD1	60:BR:65:LEU:HD12	2.07	0.55
60:BV:204:ASN:OD1	64:BV:501:GDP:N2	2.39	0.55
60:BY:218:THR:HG23	60:BY:219:THR:HG22	1.89	0.55
60:CN:218:THR:HG23	60:CN:219:THR:HG23	1.89	0.55
59:DC:406:HIS:HA	59:DC:409:VAL:HG12	1.88	0.55
59:DX:269:LEU:HD22	59:DX:303:THR:HG21	1.89	0.55
59:DX:334:THR:O	59:DX:337:THR:HG22	2.06	0.55
60:EC:398:TYR:HB3	60:EC:403:MET:HE2	1.89	0.55
60:EE:260:PHE:HB2	60:EE:263:LEU:HD13	1.87	0.55
60:FI:379:ARG:O	60:FI:383:GLU:HG3	2.06	0.55
59:FP:172:TYR:CD1	59:FP:173:PRO:HD2	2.41	0.55
60:GO:344:TRP:HB3	60:GO:430:ILE:HD11	1.89	0.55
59:GP:394:LYS:HG2	60:GQ:346:PRO:HG3	1.87	0.55
60:HF:119:VAL:O	60:HF:122:LYS:HG3	2.06	0.55
60:HJ:69:GLU:OE2	60:HJ:96:GLY:N	2.40	0.55
60:HL:8:GLN:OE1	60:HL:63:SER:OG	2.24	0.55
59:HX:311:LYS:NZ	59:HX:342:GLN:HB3	2.21	0.55
60:IC:350:LYS:NZ	60:IC:351:SER:O	2.35	0.55
59:IG:203:MET:HE1	59:IG:384:ILE:HD11	1.88	0.55
60:IJ:167:PHE:HE2	60:IJ:233:VAL:HG13	1.72	0.55
59:KQ:330:ALA:O	59:KQ:334:THR:HG23	2.06	0.55
33:2D:248:GLY:N	60:KR:31:ASP:OD2	2.31	0.55
36:2I:171:PRO:HB2	49:4D:2:LEU:HD13	1.88	0.55
40:2T:129:ARG:NH2	60:JE:37:GLN:HE21	2.05	0.55
42:3G:247:SER:OG	42:3G:249:ASP:OD1	2.24	0.55
42:3I:247:SER:OG	42:3I:249:ASP:OD1	2.24	0.55
54:4N:153:ASP:HB2	54:4N:156:LYS:HG2	1.88	0.55
55:4P:59:GLU:OE1	55:4P:63:ARG:NH2	2.40	0.55
58:4U:70:LEU:HD12	58:4U:71:PRO:HD2	1.89	0.55
60:AN:286:VAL:HG12	60:AN:329:GLN:HG3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:AR:342:ILE:HG23	60:AR:344:TRP:CE3	2.42	0.55
60:BD:202:ILE:HD11	60:BD:268:MET:HE1	1.87	0.55
59:BO:270:THR:HG22	59:BO:378:ILE:HG22	1.87	0.55
59:BX:269:LEU:HD22	59:BX:303:THR:HG21	1.88	0.55
60:CV:230:SER:HA	60:CV:233:VAL:HG12	1.89	0.55
60:CZ:324:LYS:HE2	60:CZ:328:GLU:HG3	1.89	0.55
59:DO:46:ASP:OD1	59:DO:47:ASP:N	2.40	0.55
60:DR:170:ILE:HD12	60:DR:201:CYS:HB3	1.88	0.55
59:ET:297:GLU:OE2	59:FF:123:ARG:NH2	2.25	0.55
59:EZ:264:ARG:NH2	59:EZ:431:ASP:OD2	2.39	0.55
60:FC:282:ARG:O	60:FC:282:ARG:HD2	2.07	0.55
60:FM:379:ARG:O	60:FM:383:GLU:HG3	2.06	0.55
60:FS:344:TRP:HB3	60:FS:430:ILE:HD11	1.88	0.55
59:GA:221:ARG:NH1	60:GB:325:GLU:OE2	2.39	0.55
60:HF:32:PRO:HB3	60:HF:81:TYR:CD1	2.41	0.55
60:HU:390:ARG:HH22	59:HV:440:ALA:HB3	1.72	0.55
60:IC:284:LEU:HD11	60:IC:362:LYS:HD2	1.89	0.55
59:II:98:ASP:O	59:II:105:ARG:NH1	2.40	0.55
59:II:217:LEU:HD21	59:II:368:LEU:HD23	1.87	0.55
59:IM:215:ARG:HH22	59:IM:299:ALA:HB1	1.72	0.55
60:IS:68:LEU:HD22	60:IS:143:THR:HB	1.89	0.55
59:IX:406:HIS:HA	59:IX:409:VAL:HG12	1.88	0.55
59:JN:242:LEU:HD11	59:JN:252:LEU:HD11	1.88	0.55
59:JQ:399:TYR:OH	59:JQ:415:GLU:OE2	2.16	0.55
59:KD:179:THR:HG21	62:KD:501:GTP:H3'	1.88	0.55
59:KP:174:SER:OG	59:KP:177:VAL:O	2.23	0.55
60:KX:326:VAL:O	60:KX:330:MET:HG2	2.07	0.55
1:0B:204:LEU:HD12	1:0B:205:PRO:HD2	1.89	0.55
3:0F:661:GLU:OE2	3:0F:682:ARG:NH1	2.39	0.55
4:0G:299:ASP:OD1	60:CP:276:ARG:NH2	2.35	0.55
4:0G:551:ASP:OD1	4:0G:552:MET:N	2.38	0.55
7:0O:75:PRO:HA	7:0O:78:ARG:HD3	1.89	0.55
33:2D:328:ASP:OD1	33:2D:329:THR:N	2.35	0.55
36:2J:143:VAL:HG21	60:EO:391:ARG:HD3	1.88	0.55
41:2X:8:ASP:OD1	41:2X:9:ALA:N	2.37	0.55
47:3V:244:GLN:NE2	59:HC:84:ARG:O	2.39	0.55
50:4F:144:LEU:HD21	51:4H:202:GLU:HG2	1.89	0.55
59:AA:172:TYR:HD1	59:AA:173:PRO:HD2	1.72	0.55
60:AB:200:MET:HG2	60:AB:268:MET:SD	2.47	0.55
60:AP:208:TYR:CE1	59:AQ:326:LYS:HE3	2.42	0.55
59:BA:88:HIS:ND1	59:BA:89:PRO:HD2	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BA:251:ASP:OD1	59:BA:252:LEU:N	2.40	0.55
60:BR:135:ILE:HB	60:BR:166:THR:HG22	1.89	0.55
59:BX:384:ILE:O	59:BX:387:VAL:HG12	2.07	0.55
60:CL:32:PRO:HB3	60:CL:81:TYR:CD1	2.41	0.55
60:CL:390:ARG:HH22	59:CM:440:ALA:HB3	1.72	0.55
60:CT:193:VAL:HG22	60:CT:265:PHE:HZ	1.71	0.55
59:CW:191:THR:HG21	59:CW:425:LEU:HD21	1.89	0.55
60:DB:237:THR:HG23	60:DB:240:LEU:HD12	1.88	0.55
60:FI:128:ASP:OD1	60:FI:129:CYS:N	2.39	0.55
60:FI:391:ARG:HH11	59:FJ:439:SER:HB3	1.70	0.55
60:FM:8:GLN:OE1	60:FM:17:GLY:HA3	2.07	0.55
59:FR:50:ASN:O	59:FR:64:ARG:NH1	2.40	0.55
59:HI:406:HIS:HA	59:HI:409:VAL:HG12	1.89	0.55
59:HZ:167:LEU:HD12	59:HZ:252:LEU:HD23	1.88	0.55
60:IW:218:THR:HG23	60:IW:219:THR:HG22	1.87	0.55
60:JE:292:GLN:OE1	60:JE:298:ASN:ND2	2.30	0.55
59:JH:199:ASP:OD1	59:JH:200:VAL:N	2.40	0.55
60:JM:99:ASN:ND2	59:JN:254:GLU:OE1	2.38	0.55
59:JS:419:SER:O	59:JS:423:GLU:HG2	2.06	0.55
60:JV:268:MET:SD	60:JV:269:GLY:N	2.80	0.55
59:KQ:27:GLU:OE1	59:KQ:243:ARG:NH2	2.39	0.55
60:KT:97:ALA:HB2	60:KT:143:THR:HB	1.89	0.55
2:0E:217:VAL:HG22	28:1M:256:LYS:HZ3	1.71	0.55
17:0Z:318:ARG:NH1	17:0Z:444:ASP:OD2	2.40	0.55
18:1A:323:CYS:HB2	26:1J:83:THR:HG22	1.89	0.55
27:1K:96:GLU:HB3	60:AF:276:ARG:HH22	1.71	0.55
38:2N:247:VAL:HG21	59:FF:427:ALA:HB2	1.89	0.55
41:2Y:64:PRO:HG2	48:4A:233:PRO:HA	1.88	0.55
58:4T:126:ARG:NH1	58:4T:130:GLU:OE2	2.40	0.55
57:4Y:7:ARG:NH2	57:4Y:15:GLU:OE1	2.40	0.55
59:AG:15:GLN:NE2	62:AG:501:GTP:O6	2.39	0.55
59:AY:408:TYR:HD2	59:AY:413:MET:HE1	1.72	0.55
60:BH:272:PRO:HG3	60:BH:364:ALA:HA	1.88	0.55
60:BR:68:LEU:HD13	60:BR:143:THR:OG1	2.07	0.55
59:BZ:399:TYR:OH	59:BZ:415:GLU:OE2	2.25	0.55
59:CU:98:ASP:O	59:CU:105:ARG:NH1	2.40	0.55
59:DK:334:THR:O	59:DK:337:THR:HG22	2.06	0.55
60:DW:3:GLU:OE2	60:DW:130:LEU:HA	2.06	0.55
60:DY:3:GLU:OE2	60:DY:127:CYS:HB3	2.07	0.55
60:EI:170:ILE:HD12	60:EI:201:CYS:HB3	1.89	0.55
59:EJ:334:THR:O	59:EJ:337:THR:HG22	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EL:298:PRO:HB3	59:EL:307:PRO:HD2	1.89	0.55
60:EM:376:GLU:HG2	60:EM:379:ARG:HH21	1.72	0.55
60:FX:62:ARG:NH1	60:FX:127:CYS:SG	2.79	0.55
59:GH:286:LEU:HD23	59:GH:290:GLU:HG3	1.88	0.55
60:GO:238:CYS:SG	60:GO:318:ARG:NE	2.80	0.55
60:GV:32:PRO:HB3	60:GV:81:TYR:CD1	2.42	0.55
59:HC:69:ASP:OD1	59:HC:70:LEU:N	2.40	0.55
60:HF:170:ILE:HD13	60:HF:201:CYS:HB3	1.88	0.55
59:HQ:363:VAL:HG13	59:HQ:364:PRO:HD2	1.88	0.55
60:IH:170:ILE:HG23	60:IH:171:PRO:HD2	1.88	0.55
60:IR:68:LEU:HD22	60:IR:143:THR:HG22	1.89	0.55
59:IT:212:LEU:HD11	59:IT:275:VAL:HG11	1.89	0.55
59:IX:91:GLN:HE22	59:IX:125:LEU:HD21	1.72	0.55
59:IZ:223:THR:OG1	60:JA:245:GLN:NE2	2.40	0.55
59:JB:109:THR:OG1	59:JB:110:ILE:HD12	2.07	0.55
60:JE:128:ASP:OD1	60:JE:129:CYS:N	2.40	0.55
60:JM:311:LEU:HD23	60:JM:342:ILE:HD13	1.89	0.55
59:JN:11:GLN:NE2	60:JO:247:ASN:OD1	2.40	0.55
59:JU:76:ASP:OD1	59:JU:79:ARG:NH1	2.39	0.55
60:KE:417:ASP:O	60:KE:421:GLU:HG3	2.07	0.55
3:0F:249:LEU:HG	3:0F:266:ILE:HD11	1.89	0.55
6:0M:37:SER:HB2	60:FZ:77:ARG:HG2	1.89	0.55
33:2D:152:ALA:O	33:2D:179:ARG:NH1	2.37	0.55
33:2D:553:VAL:HA	33:2D:569:GLY:HA3	1.88	0.55
36:2J:132:ARG:NH2	60:EO:417:ASP:OD2	2.39	0.55
37:2L:37:LYS:HD3	60:EQ:420:SER:OG	2.07	0.55
41:2Z:214:ASP:OD1	42:3L:3:THR:N	2.40	0.55
42:3P:88:LYS:HE3	59:GW:364:PRO:HG2	1.89	0.55
44:3R:170:THR:HG22	44:3R:173:ARG:HG3	1.89	0.55
54:4N:58:ASP:O	54:4N:62:ASN:ND2	2.40	0.55
59:AI:251:ASP:OD1	59:AI:252:LEU:N	2.40	0.55
59:AI:387:VAL:HA	59:AI:390:ARG:HH21	1.72	0.55
60:AN:271:ALA:HA	60:AN:298:ASN:HD21	1.71	0.55
60:BL:259:PRO:HG2	60:BL:311:LEU:HD21	1.89	0.55
59:CD:401:LYS:HZ1	60:CE:430:ILE:HA	1.72	0.55
60:CI:193:VAL:HG12	60:CI:265:PHE:HZ	1.72	0.55
60:CI:318:ARG:HG2	60:CI:318:ARG:HH11	1.71	0.55
59:DE:251:ASP:OD1	59:DE:252:LEU:N	2.40	0.55
59:DG:406:HIS:HA	59:DG:409:VAL:HG12	1.89	0.55
59:DZ:442:MET:SD	59:DZ:442:MET:N	2.80	0.55
60:EA:128:ASP:OD1	60:EA:129:CYS:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EE:10:GLY:O	60:EE:14:ASN:ND2	2.31	0.55
60:EQ:376:GLU:HA	60:EQ:379:ARG:NH1	2.21	0.55
60:EW:170:ILE:HG13	60:EW:201:CYS:HB3	1.89	0.55
60:FG:31:ASP:OD1	60:FG:32:PRO:HD2	2.07	0.55
60:FZ:22:GLU:HG2	60:FZ:81:TYR:CD1	2.42	0.55
59:GJ:27:GLU:HG3	59:GJ:361:THR:HG21	1.88	0.55
60:GS:209:ASP:O	60:GS:210:ILE:C	2.45	0.55
60:GV:167:PHE:CE2	60:GV:233:VAL:HG22	2.41	0.55
59:HE:107:HIS:CD2	59:HE:152:LEU:HB2	2.41	0.55
60:HP:290:THR:HA	60:HP:293:MET:HG2	1.88	0.55
60:HS:267:MET:N	60:HS:369:GLY:O	2.29	0.55
59:HT:319:TYR:HE2	59:HT:328:VAL:HG13	1.72	0.55
60:HU:423:GLN:NE2	60:HU:426:GLN:OE1	2.40	0.55
59:IB:69:ASP:OD1	59:IB:70:LEU:N	2.39	0.55
59:IB:251:ASP:OD1	59:IB:252:LEU:N	2.40	0.55
60:IC:179:VAL:HG13	60:IC:180:VAL:HG13	1.89	0.55
59:IG:116:ASP:OD1	59:IG:156:ARG:NH1	2.40	0.55
59:IZ:406:HIS:HA	59:IZ:409:VAL:HG12	1.89	0.55
59:JH:345:ASP:OD2	59:JH:439:SER:OG	2.24	0.55
59:KY:273:ALA:HB2	59:KY:295:VAL:HG22	1.88	0.55
23:1F:122:ASN:ND2	59:GA:77:GLU:OE2	2.40	0.55
33:2D:501:ARG:HG3	33:2D:502:ASP:H	1.71	0.55
41:2Z:8:ASP:OD1	41:2Z:9:ALA:N	2.36	0.55
42:3O:138:LEU:HD21	60:HF:360:GLY:HA3	1.89	0.55
43:3Q:65:ASP:HB3	43:3Q:68:ARG:HB2	1.88	0.55
59:AY:254:GLU:N	59:AY:254:GLU:OE2	2.40	0.55
60:BD:280:GLN:O	60:BP:55:THR:HG21	2.06	0.55
60:BD:372:THR:HG21	60:BD:426:GLN:HB2	1.89	0.55
60:BF:284:LEU:HD12	60:BF:362:LYS:HB3	1.88	0.55
60:BH:173:PRO:HG3	60:BH:380:ARG:HD3	1.88	0.55
60:BL:407:GLU:N	60:BL:407:GLU:OE1	2.40	0.55
60:CN:289:LEU:HD11	60:CN:363:MET:HG3	1.89	0.55
59:DO:254:GLU:HA	59:DO:257:THR:HG22	1.88	0.55
60:DV:377:MET:O	60:DV:380:ARG:HG2	2.07	0.55
60:EG:375:GLN:HG3	60:EG:379:ARG:HH12	1.73	0.55
60:FK:170:ILE:HG23	60:FK:171:PRO:HD2	1.88	0.55
60:FM:344:TRP:HB3	60:FM:430:ILE:HD11	1.88	0.55
60:FS:26:ASP:O	60:FS:359:LYS:NZ	2.31	0.55
60:GI:73:MET:HA	60:GI:76:VAL:HG12	1.89	0.55
60:GM:248:SER:HA	60:GM:252:LYS:HE3	1.88	0.55
59:GT:90:GLU:OE1	59:GT:121:ARG:NH1	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GV:229:VAL:O	60:GV:233:VAL:HG23	2.07	0.55
59:HC:265:ILE:HD12	59:HC:432:TYR:CE1	2.42	0.55
60:HR:203:ASP:OD1	60:HR:206:ALA:N	2.33	0.55
59:HT:222:PRO:HD2	60:HU:324:LYS:HB3	1.89	0.55
60:JE:239:CYS:SG	60:JE:248:SER:N	2.80	0.55
59:KA:217:LEU:HB3	59:KA:219:ILE:HD12	1.89	0.55
59:KH:251:ASP:OD1	59:KH:252:LEU:N	2.40	0.55
59:KY:8:HIS:CE1	59:KY:138:TYR:CD2	2.95	0.55
4:0G:111:LEU:HB3	4:0G:197:ASP:HB3	1.89	0.54
42:3H:43:TYR:HE2	59:IT:81:GLY:HA3	1.71	0.54
42:3P:129:ARG:NE	59:GU:245:ASP:OD2	2.40	0.54
60:AJ:377:MET:HA	60:AJ:380:ARG:HE	1.72	0.54
60:AT:152:ILE:HG12	60:AT:164:MET:HE1	1.87	0.54
59:BC:212:LEU:HD21	59:BC:275:VAL:HG21	1.89	0.54
59:BE:108:TYR:O	59:BE:112:LYS:NZ	2.26	0.54
59:BK:319:TYR:HB2	59:BK:355:ILE:HD13	1.89	0.54
60:BV:33:THR:HG23	60:BV:35:THR:HG23	1.89	0.54
59:CH:76:ASP:OD1	59:CH:79:ARG:NH1	2.37	0.54
59:CY:39:ASP:OD1	59:CY:40:LYS:N	2.40	0.54
60:CZ:303:ALA:HB1	60:CZ:373:CYS:SG	2.47	0.54
60:DF:289:LEU:O	60:DF:293:MET:HG3	2.06	0.54
60:DH:271:ALA:HA	60:DH:298:ASN:HD21	1.71	0.54
60:DP:167:PHE:CD2	60:DP:233:VAL:HG22	2.43	0.54
60:FV:417:ASP:O	60:FV:421:GLU:HG2	2.06	0.54
59:GH:88:HIS:CD2	59:GH:89:PRO:HD2	2.42	0.54
60:GI:325:GLU:O	60:GI:329:GLN:HG2	2.07	0.54
60:GK:318:ARG:HB3	60:GK:357:PRO:HA	1.89	0.54
59:GP:334:THR:O	59:GP:337:THR:OG1	2.23	0.54
59:GT:88:HIS:HB3	59:GT:91:GLN:OE1	2.07	0.54
59:GT:251:ASP:OD1	59:GT:252:LEU:N	2.40	0.54
60:GX:119:VAL:O	60:GX:122:LYS:HG3	2.06	0.54
59:HC:50:ASN:O	59:HC:64:ARG:NH1	2.28	0.54
59:HE:8:HIS:HD1	59:HE:138:TYR:HD2	1.54	0.54
60:HJ:6:CYS:SG	60:HJ:134:GLN:NE2	2.62	0.54
60:HJ:170:ILE:HD13	60:HJ:201:CYS:HB3	1.89	0.54
60:HW:45:GLU:O	60:HW:46:ARG:HD3	2.07	0.54
60:IJ:229:VAL:O	60:IJ:233:VAL:HG23	2.07	0.54
59:IT:256:GLN:O	59:IT:260:VAL:HG22	2.06	0.54
59:IV:251:ASP:OD1	59:IV:252:LEU:N	2.41	0.54
59:JB:51:THR:HG21	59:JB:243:ARG:HG2	1.88	0.54
60:JE:172:SER:OG	60:JE:175:VAL:O	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JJ:207:GLU:OE2	59:JJ:304:LYS:NZ	2.40	0.54
59:JQ:88:HIS:NE2	59:KD:284:GLU:OE2	2.40	0.54
59:LA:396:ASP:OD2	59:LA:422:ARG:NH2	2.38	0.54
60:LB:203:ASP:OD1	60:LB:301:GLN:NE2	2.41	0.54
1:0A:453:ILE:HG22	1:0A:469:LEU:HB2	1.88	0.54
4:0G:459:GLU:OE2	4:0G:489:ARG:NH1	2.40	0.54
22:1E:194:GLU:OE2	22:1E:197:ARG:NH1	2.40	0.54
40:2T:129:ARG:HH21	60:JE:37:GLN:HE21	1.54	0.54
60:AX:45:GLU:O	60:AX:46:ARG:NH1	2.39	0.54
59:BG:172:TYR:CG	59:BG:173:PRO:HD2	2.42	0.54
59:BW:206:ASN:OD1	62:BW:501:GTP:N2	2.39	0.54
59:BX:27:GLU:OE2	59:BX:243:ARG:NH1	2.39	0.54
59:CD:326:LYS:HA	59:CD:329:ASN:ND2	2.22	0.54
59:CW:188:VAL:O	59:CW:191:THR:HG22	2.08	0.54
59:DA:251:ASP:OD1	59:DA:252:LEU:N	2.40	0.54
60:DH:22:GLU:HG2	60:DH:81:TYR:CD1	2.42	0.54
59:DO:177:VAL:HG13	60:DP:327:ASP:HB3	1.89	0.54
60:DW:404:ASP:HB3	60:DW:407:GLU:OE1	2.07	0.54
59:DX:174:SER:OG	59:DX:177:VAL:O	2.25	0.54
59:FJ:46:ASP:OD1	59:FJ:47:ASP:N	2.39	0.54
60:FO:128:ASP:OD1	60:FO:129:CYS:N	2.40	0.54
60:FS:252:LYS:HD3	60:FS:350:LYS:HE3	1.88	0.54
59:FY:427:ALA:HB2	59:GL:339:ARG:NH2	2.21	0.54
59:GA:93:ILE:HD11	59:GA:121:ARG:HG3	1.88	0.54
60:GQ:289:LEU:O	60:GQ:293:MET:HB2	2.07	0.54
59:GR:319:TYR:HB2	59:GR:355:ILE:HD13	1.88	0.54
59:HC:172:TYR:CE2	59:HC:203:MET:HG2	2.42	0.54
60:HF:404:ASP:HB3	60:HF:407:GLU:OE1	2.07	0.54
59:HT:319:TYR:HB3	59:HT:323:VAL:HG11	1.89	0.54
59:HX:31:GLN:HG3	59:HX:35:ALA:O	2.07	0.54
59:HX:218:ASP:OD2	59:HX:280:LYS:NZ	2.40	0.54
59:ID:15:GLN:NE2	62:ID:501:GTP:O6	2.40	0.54
60:IU:254:ALA:O	60:IU:258:VAL:HG12	2.07	0.54
60:IY:313:ALA:HB1	60:IY:367:PHE:CE1	2.42	0.54
59:JD:108:TYR:HA	59:JD:112:LYS:NZ	2.22	0.54
59:JF:68:LEU:HD21	59:JF:118:CYS:SG	2.46	0.54
60:JG:179:VAL:HG13	60:JG:180:VAL:HG13	1.90	0.54
59:JQ:402:ARG:NH1	59:JQ:415:GLU:OE2	2.39	0.54
60:KE:270:PHE:HD1	60:KE:366:THR:HG22	1.73	0.54
59:KL:102:ASN:HB3	59:KL:105:ARG:HB2	1.89	0.54
59:KN:251:ASP:OD1	59:KN:252:LEU:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:0F:500:ARG:CZ	59:CF:39:ASP:HB3	2.37	0.54
21:1D:221:ARG:NH2	60:BF:35:THR:HG21	2.22	0.54
30:1S:19:ARG:NH2	30:1S:25:ALA:O	2.37	0.54
31:1U:301:LYS:NZ	31:1U:305:PRO:O	2.40	0.54
32:1Y:2:PHE:O	32:1Y:7:GLN:NE2	2.39	0.54
41:2Z:113:ASP:OD1	41:2Z:114:ILE:N	2.41	0.54
41:3D:217:ARG:NH2	42:3P:3:THR:O	2.37	0.54
56:4Q:126:TYR:O	59:IZ:339:ARG:NH2	2.28	0.54
59:AC:251:ASP:OD1	59:AC:252:LEU:N	2.41	0.54
60:AD:67:ASP:OD1	60:AD:68:LEU:N	2.41	0.54
59:CB:286:LEU:O	59:CB:373:ARG:NH1	2.40	0.54
60:DJ:280:GLN:OE1	60:DW:58:ARG:NH1	2.40	0.54
60:DN:267:MET:HE3	60:DN:371:ASN:HB3	1.88	0.54
60:DP:334:GLN:HE22	60:DP:347:ASN:HA	1.71	0.54
60:DR:229:VAL:O	60:DR:233:VAL:HG23	2.07	0.54
60:DT:46:ARG:HG2	60:DT:241:ARG:HA	1.89	0.54
60:DW:33:THR:HG23	60:DW:35:THR:HG23	1.89	0.54
59:FB:251:ASP:OD1	59:FB:252:LEU:N	2.40	0.54
59:FT:311:LYS:NZ	59:FT:342:GLN:OE1	2.36	0.54
60:HP:128:ASP:OD1	60:HP:129:CYS:N	2.40	0.54
59:IM:334:THR:O	59:IM:337:THR:OG1	2.22	0.54
60:IU:3:GLU:HG3	60:IU:62:ARG:NH1	2.23	0.54
59:IX:392:ASP:HB2	59:IX:422:ARG:CZ	2.37	0.54
60:JG:249:ASP:OD1	60:JG:250:LEU:N	2.40	0.54
59:JS:181:VAL:HG23	59:JS:182:VAL:HG13	1.88	0.54
60:JT:208:TYR:HB3	59:JU:326:LYS:NZ	2.22	0.54
60:KT:260:PHE:HB2	60:KT:263:LEU:HD13	1.90	0.54
60:KX:156:ARG:NH2	60:KX:197:ASP:OD2	2.41	0.54
1:0A:336:THR:HG23	1:0A:338:ALA:H	1.73	0.54
2:0E:151:ASN:H	60:DR:218:THR:HG22	1.71	0.54
26:1I:301:ASN:HD21	59:FB:362:VAL:H	1.56	0.54
33:2B:553:VAL:HA	33:2B:569:GLY:HA3	1.90	0.54
33:2D:371:THR:N	33:2D:389:ASP:OD2	2.36	0.54
39:2O:26:ARG:NH1	39:2O:37:ASP:OD1	2.37	0.54
39:2P:441:ILE:HG23	60:KM:276:ARG:HH21	1.71	0.54
42:3E:247:SER:OG	42:3E:249:ASP:OD1	2.25	0.54
47:3V:258:GLU:OE2	48:3Y:227:ARG:NH1	2.40	0.54
59:AG:270:THR:HG22	59:AG:378:ILE:HG12	1.87	0.54
59:AS:179:THR:HG21	62:AS:602:GTP:H3'	1.89	0.54
60:AZ:282:ARG:NH2	60:AZ:288:GLU:OE1	2.35	0.54
60:AZ:375:GLN:OE1	60:AZ:379:ARG:NH2	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BK:53:PHE:O	59:BK:64:ARG:NH2	2.40	0.54
60:BL:254:ALA:O	60:BL:258:VAL:HG12	2.07	0.54
59:BS:256:GLN:O	59:BS:260:VAL:HG22	2.07	0.54
60:BV:32:PRO:HA	60:BV:84:ILE:HD11	1.89	0.54
60:CI:73:MET:HE3	60:CI:92:PHE:HB3	1.89	0.54
60:CI:387:LEU:HA	60:CI:390:ARG:NH1	2.21	0.54
59:CO:90:GLU:HG2	59:CO:121:ARG:HE	1.73	0.54
60:CZ:260:PHE:HB2	60:CZ:263:LEU:HD13	1.89	0.54
59:DA:284:GLU:HG2	59:DA:285:GLN:O	2.07	0.54
60:DB:212:PHE:CZ	59:DC:326:LYS:HD2	2.42	0.54
60:DD:156:ARG:NH2	60:DD:197:ASP:OD2	2.41	0.54
59:DX:46:ASP:OD1	59:DX:47:ASP:N	2.40	0.54
60:EG:244:GLY:HA2	60:EG:355:ASP:OD1	2.07	0.54
59:EL:132:LEU:HD23	59:EL:134:GLY:H	1.71	0.54
60:FE:289:LEU:HD11	60:FE:363:MET:HG3	1.89	0.54
60:FI:375:GLN:NE2	60:FI:423:GLN:HB2	2.20	0.54
59:GT:7:ILE:HD11	59:GT:153:LEU:HD21	1.89	0.54
59:GT:256:GLN:O	59:GT:260:VAL:HG22	2.08	0.54
60:HJ:132:GLY:HA3	60:HJ:163:ILE:HG13	1.90	0.54
60:HS:344:TRP:HB3	60:HS:430:ILE:HD11	1.88	0.54
59:HZ:88:HIS:ND1	59:HZ:89:PRO:HD2	2.23	0.54
59:HZ:203:MET:HA	59:HZ:203:MET:HE3	1.90	0.54
60:IA:8:GLN:NE2	60:IA:63:SER:OG	2.40	0.54
59:IQ:237:SER:HA	59:IQ:320:ARG:HH11	1.72	0.54
60:IU:179:VAL:HG13	60:IU:180:VAL:HG13	1.89	0.54
59:IV:76:ASP:OD1	59:IV:79:ARG:NH1	2.38	0.54
59:IV:270:THR:HG22	59:IV:378:ILE:HG22	1.90	0.54
60:IY:156:ARG:HH21	60:IY:164:MET:HB3	1.71	0.54
59:JD:256:GLN:O	59:JD:260:VAL:HG12	2.07	0.54
59:JL:51:THR:HG22	59:JL:52:PHE:CD1	2.43	0.54
59:JY:251:ASP:OD1	59:JY:252:LEU:N	2.40	0.54
59:KA:251:ASP:OD1	59:KA:252:LEU:N	2.40	0.54
60:KV:8:GLN:OE1	60:KV:17:GLY:HA3	2.07	0.54
60:KV:237:THR:HG23	60:KV:241:ARG:NH1	2.21	0.54
59:KY:212:LEU:HD11	59:KY:275:VAL:HG21	1.88	0.54
1:0C:696:ARG:NH2	1:0C:706:ASP:OD1	2.41	0.54
39:2P:469:CYS:O	39:2P:473:GLN:HG3	2.08	0.54
41:2W:319:ASN:O	41:2W:323:ARG:HG2	2.07	0.54
45:3S:93:THR:HG23	45:3S:94:ILE:HD12	1.88	0.54
48:4A:119:ALA:HB1	48:4A:124:GLY:HA2	1.89	0.54
59:BA:91:GLN:HE21	59:BA:121:ARG:HH22	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BE:215:ARG:NH2	59:BE:299:ALA:O	2.41	0.54
60:CE:326:VAL:O	60:CE:330:MET:HG2	2.07	0.54
60:CI:130:LEU:O	60:CI:162:ARG:NH1	2.40	0.54
59:DC:242:LEU:HD11	59:DC:252:LEU:HD11	1.90	0.54
59:DI:181:VAL:HG23	59:DI:182:VAL:HG13	1.88	0.54
59:DM:169:TYR:CE2	59:DM:235:VAL:HG22	2.43	0.54
59:DO:251:ASP:OD1	59:DO:252:LEU:N	2.40	0.54
60:DT:170:ILE:HD12	60:DT:377:MET:SD	2.48	0.54
60:DT:334:GLN:OE1	60:DT:348:ASN:ND2	2.38	0.54
59:EJ:270:THR:HG22	59:EJ:378:ILE:HG12	1.88	0.54
59:EP:284:GLU:OE2	59:FB:88:HIS:NE2	2.39	0.54
60:FC:429:THR:HG23	60:FC:431:GLU:HG2	1.90	0.54
60:FV:170:ILE:HD12	60:FV:201:CYS:HB3	1.88	0.54
59:GP:101:ASN:OD1	60:GQ:252:LYS:HE3	2.08	0.54
60:GS:145:SER:HB3	60:GS:188:SER:OG	2.07	0.54
60:HS:303:ALA:HB1	60:HS:373:CYS:SG	2.47	0.54
59:ID:67:PHE:HB2	59:ID:92:LEU:HD13	1.90	0.54
60:IF:8:GLN:HE22	60:IF:63:SER:HB2	1.72	0.54
60:IF:230:SER:HA	60:IF:233:VAL:HG12	1.90	0.54
60:IH:374:ILE:O	60:IH:377:MET:HG2	2.07	0.54
59:II:270:THR:HG22	59:II:378:ILE:HG22	1.88	0.54
59:IV:119:LEU:HG	59:IV:156:ARG:HG2	1.90	0.54
59:IX:407:TRP:O	59:IX:411:GLU:HG2	2.07	0.54
59:JB:212:LEU:HD21	59:JB:275:VAL:HG21	1.89	0.54
59:JB:265:ILE:HG22	59:JB:380:ASN:HD21	1.73	0.54
60:JC:176:SER:OG	60:JC:178:THR:O	2.24	0.54
60:JI:46:ARG:HG2	60:JI:241:ARG:HA	1.89	0.54
59:JJ:209:ILE:CD1	59:JJ:302:MET:HG3	2.38	0.54
59:JS:270:THR:HG22	59:JS:378:ILE:HG22	1.89	0.54
60:JT:390:ARG:HH22	59:JU:440:ALA:HB3	1.72	0.54
60:JV:52:ASP:OD1	60:JV:53:GLU:N	2.40	0.54
60:KE:135:ILE:HD13	60:KE:152:ILE:HD11	1.90	0.54
59:KJ:56:THR:HA	59:KW:285:GLN:NE2	2.22	0.54
60:KK:33:THR:O	60:KK:58:ARG:NH1	2.40	0.54
59:KN:323:VAL:HG23	59:KN:355:ILE:HG23	1.89	0.54
59:KW:215:ARG:NH1	59:KW:299:ALA:HB1	2.21	0.54
10:0S:260:VAL:HG12	10:0S:267:VAL:HG22	1.87	0.54
39:2Q:160:ARG:NH1	39:2Q:164:GLU:OE2	2.40	0.54
41:2V:6:VAL:HG23	59:IM:85:GLN:HE22	1.72	0.54
47:3W:247:ILE:HG13	59:HK:84:ARG:HH21	1.71	0.54
59:AM:205:ASP:OD2	59:AM:304:LYS:N	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BD:117:LEU:HA	60:BD:120:CYS:SG	2.48	0.54
59:BO:203:MET:HE1	59:BO:384:ILE:HD11	1.90	0.54
59:BX:212:LEU:HD21	59:BX:275:VAL:HG21	1.87	0.54
60:CC:68:LEU:HD13	60:CC:143:THR:OG1	2.07	0.54
60:CE:230:SER:HA	60:CE:233:VAL:HG12	1.88	0.54
59:CJ:47:ASP:OD1	59:CJ:50:ASN:ND2	2.41	0.54
59:CO:273:ALA:HB2	59:CO:295:VAL:HG22	1.89	0.54
60:DF:170:ILE:HD12	60:DF:201:CYS:HB3	1.89	0.54
59:DK:133:GLN:HG3	59:DK:252:LEU:HD12	1.89	0.54
60:EQ:423:GLN:O	60:EQ:426:GLN:HG2	2.07	0.54
59:EX:259:LEU:HD21	59:EX:378:ILE:HG13	1.89	0.54
60:FA:249:ASP:OD1	60:FA:250:LEU:N	2.40	0.54
59:GR:119:LEU:HD23	59:GR:122:ILE:HD11	1.89	0.54
60:GS:31:ASP:HB2	60:GS:37:GLN:OE1	2.06	0.54
60:HH:344:TRP:HB3	60:HH:430:ILE:HD11	1.89	0.54
60:HN:344:TRP:HB3	60:HN:430:ILE:HD11	1.90	0.54
59:IG:270:THR:HG22	59:IG:378:ILE:HG12	1.89	0.54
60:IP:97:ALA:O	60:IP:103:LYS:HD2	2.07	0.54
60:IU:130:LEU:O	60:IU:162:ARG:NH2	2.31	0.54
59:IV:406:HIS:HA	59:IV:409:VAL:HG12	1.88	0.54
60:IY:270:PHE:O	60:IY:298:ASN:ND2	2.38	0.54
59:JB:270:THR:HG22	59:JB:378:ILE:HG22	1.89	0.54
59:JU:157:LEU:HB3	59:JU:166:LYS:HZ1	1.72	0.54
59:KA:402:ARG:HG3	59:KA:402:ARG:HH11	1.72	0.54
59:KN:33:ASP:O	59:KN:60:LYS:NZ	2.41	0.54
60:KT:69:GLU:OE2	60:KT:96:GLY:N	2.41	0.54
11:0T:157:THR:HG22	11:0T:159:ALA:H	1.72	0.54
32:1Y:60:THR:HG22	32:1Y:155:GLN:HG2	1.90	0.54
41:3D:168:MET:HA	59:GY:370:LYS:HZ1	1.73	0.54
53:4L:75:ILE:HG22	53:4L:76:THR:HG23	1.90	0.54
54:4N:98:PRO:HG2	54:4N:101:GLU:HB2	1.89	0.54
55:4P:141:TYR:HD2	55:4P:142:GLN:HE21	1.54	0.54
55:4P:169:GLN:NE2	59:JJ:440:ALA:HA	2.22	0.54
59:BE:406:HIS:HA	59:BE:409:VAL:HG12	1.88	0.54
59:BX:251:ASP:OD1	59:BX:252:LEU:N	2.41	0.54
60:CX:267:MET:SD	60:CX:301:GLN:NE2	2.81	0.54
60:DJ:267:MET:HE3	60:DJ:371:ASN:HB3	1.88	0.54
59:DK:388:PHE:HB2	59:DK:429:GLU:OE2	2.08	0.54
60:EC:318:ARG:HD3	60:EC:358:PRO:HD3	1.89	0.54
60:FI:407:GLU:HG2	60:FI:408:PHE:N	2.22	0.54
60:FK:170:ILE:HD12	60:FK:201:CYS:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FO:139:LEU:HD11	60:FO:168:SER:HB2	1.90	0.54
59:GG:267:PHE:HB3	59:GG:384:ILE:HD13	1.89	0.54
59:GN:251:ASP:OD1	59:GN:252:LEU:N	2.41	0.54
60:GO:170:ILE:HD12	60:GO:377:MET:SD	2.48	0.54
60:GX:131:GLN:HA	60:GX:162:ARG:HH21	1.72	0.54
60:IC:73:MET:HA	60:IC:76:VAL:HG22	1.89	0.54
60:IE:313:ALA:HB3	60:IE:349:ILE:HG22	1.90	0.54
59:IG:76:ASP:HA	59:IG:79:ARG:HD2	1.88	0.54
59:IK:76:ASP:HA	59:IK:79:ARG:HD2	1.89	0.54
60:IL:344:TRP:HB3	60:IL:430:ILE:HD11	1.89	0.54
59:IV:256:GLN:O	59:IV:260:VAL:HG22	2.07	0.54
59:IX:256:GLN:O	59:IX:260:VAL:HG22	2.07	0.54
59:JB:69:ASP:OD1	59:JB:71:GLU:N	2.38	0.54
59:JF:88:HIS:CD2	59:JF:90:GLU:HB2	2.42	0.54
59:KC:264:ARG:NE	59:KC:431:ASP:OD2	2.37	0.54
1:0B:23:CYS:O	5:0I:336:LYS:NZ	2.41	0.54
12:0U:155:ALA:HB1	12:0U:209:PRO:HG2	1.89	0.54
13:0V:146:ALA:O	13:0V:180:ARG:NH1	2.41	0.54
21:1D:221:ARG:CZ	60:BF:37:GLN:HE22	2.20	0.54
41:3A:242:ASP:HB3	41:3A:246:ARG:NH1	2.23	0.54
47:3W:89:LYS:HD2	59:FN:113:GLU:HG2	1.88	0.54
47:3W:258:GLU:OE2	47:3W:262:GLN:NE2	2.41	0.54
60:AT:103:LYS:HG2	60:AT:108:GLU:OE1	2.08	0.54
60:AZ:298:ASN:O	60:AZ:298:ASN:ND2	2.41	0.54
60:BB:212:PHE:HB2	59:BC:326:LYS:HZ3	1.73	0.54
60:BL:175:VAL:HG23	59:BM:329:ASN:OD1	2.08	0.54
60:CL:230:SER:HA	60:CL:233:VAL:HG12	1.89	0.54
59:CM:15:GLN:NE2	62:CM:602:GTP:O6	2.41	0.54
59:CQ:181:VAL:HG23	59:CQ:182:VAL:HG13	1.90	0.54
60:CZ:412:GLU:OE2	60:CZ:416:ASN:ND2	2.41	0.54
59:DE:211:ASP:HB3	59:DE:215:ARG:HH21	1.72	0.54
60:DF:257:LEU:HD11	60:DF:314:SER:HB2	1.89	0.54
60:DV:267:MET:HE3	60:DV:371:ASN:HB3	1.89	0.54
60:FQ:230:SER:HA	60:FQ:233:VAL:HG12	1.90	0.54
60:FZ:170:ILE:HD12	60:FZ:201:CYS:HB3	1.89	0.54
60:GB:170:ILE:HG23	60:GB:171:PRO:HD2	1.89	0.54
60:GB:170:ILE:HD12	60:GB:201:CYS:HB3	1.90	0.54
59:GT:121:ARG:O	59:GT:125:LEU:HD12	2.06	0.54
59:GT:136:LEU:HD22	59:GT:169:TYR:HE2	1.73	0.54
59:GW:181:VAL:HG23	59:GW:182:VAL:HG13	1.89	0.54
60:HH:32:PRO:HB3	60:HH:81:TYR:CE1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HK:251:ASP:OD1	59:HK:252:LEU:N	2.40	0.54
59:HQ:111:GLY:O	59:HQ:115:VAL:HG13	2.07	0.54
60:HS:170:ILE:HG23	60:HS:171:PRO:HD2	1.90	0.54
59:HT:254:GLU:HA	59:HT:257:THR:HG22	1.90	0.54
59:IO:269:LEU:HD22	59:IO:303:THR:HG21	1.90	0.54
60:IP:230:SER:HA	60:IP:233:VAL:HG12	1.90	0.54
60:IR:252:LYS:O	60:IR:255:VAL:HG12	2.08	0.54
59:IX:3:GLU:OE1	59:IX:64:ARG:NH1	2.41	0.54
59:IX:270:THR:HG22	59:IX:378:ILE:HG22	1.89	0.54
60:JG:7:VAL:HG13	60:JG:64:VAL:HG13	1.90	0.54
60:JK:11:GLN:NE2	64:JK:501:GDP:O1B	2.40	0.54
60:JR:404:ASP:HB3	60:JR:407:GLU:OE1	2.07	0.54
59:JW:336:LYS:HE2	59:JW:351:PHE:HE2	1.73	0.54
60:JZ:3:GLU:OE2	60:JZ:130:LEU:HA	2.07	0.54
60:KE:295:ASP:OD2	60:KE:297:LYS:HB2	2.07	0.54
60:KT:156:ARG:NH2	60:KT:197:ASP:OD1	2.39	0.54
60:KV:292:GLN:O	60:KV:298:ASN:ND2	2.35	0.54
60:KX:390:ARG:NH2	59:KY:441:ASP:OD1	2.41	0.54
33:2D:484:ALA:HB2	33:2D:513:VAL:HG23	1.90	0.54
47:3X:165:VAL:HG21	48:4A:150:MET:HG3	1.89	0.54
48:3Z:163:ASP:OD1	48:3Z:164:GLU:N	2.40	0.54
58:4U:117:ARG:NH1	60:GO:424:GLN:OE1	2.41	0.54
58:4V:70:LEU:HD12	58:4V:71:PRO:HD2	1.90	0.54
60:AZ:119:VAL:O	60:AZ:122:LYS:HG3	2.07	0.54
59:BG:76:ASP:HA	59:BG:79:ARG:HE	1.73	0.54
60:BV:31:ASP:OD1	60:BV:32:PRO:HD2	2.08	0.54
59:BX:256:GLN:O	59:BX:260:VAL:HG22	2.08	0.54
59:CF:191:THR:HG23	59:CF:425:LEU:HD11	1.90	0.54
59:CF:256:GLN:O	59:CF:260:VAL:HG22	2.08	0.54
59:CS:214:ARG:HH21	60:CT:324:LYS:HG2	1.73	0.54
59:CU:172:TYR:CD1	59:CU:173:PRO:HD2	2.43	0.54
59:DG:105:ARG:HG3	59:DG:411:GLU:HG2	1.90	0.54
60:DV:249:ASP:O	60:DV:253:LEU:HD12	2.08	0.54
59:DX:76:ASP:OD1	59:DX:79:ARG:NH1	2.39	0.54
60:EA:173:PRO:HG3	60:EA:380:ARG:NH1	2.22	0.54
60:EU:238:CYS:SG	60:EU:239:CYS:N	2.80	0.54
59:EX:50:ASN:O	59:EX:64:ARG:NH1	2.40	0.54
59:FJ:175:PRO:HB3	59:FJ:390:ARG:NH1	2.23	0.54
60:FS:10:GLY:O	60:FS:14:ASN:ND2	2.31	0.54
59:FY:111:GLY:O	59:FY:115:VAL:HG13	2.07	0.54
59:FY:175:PRO:HG3	59:FY:304:LYS:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GA:88:HIS:CD2	59:GA:90:GLU:HB2	2.42	0.54
60:GK:200:MET:HB3	60:GK:268:MET:HE2	1.89	0.54
60:GO:407:GLU:N	60:GO:407:GLU:OE1	2.38	0.54
59:GP:328:VAL:HG21	59:GP:355:ILE:HD11	1.90	0.54
60:GQ:313:ALA:HB3	60:GQ:349:ILE:HD13	1.89	0.54
59:GT:269:LEU:HD21	59:GT:384:ILE:HD13	1.90	0.54
60:HW:173:PRO:HA	60:HW:380:ARG:NH1	2.23	0.54
59:HZ:11:GLN:OE1	59:HZ:74:VAL:HG21	2.08	0.54
60:IE:375:GLN:HB2	60:IE:419:VAL:HG23	1.88	0.54
60:IL:304:ASP:OD2	60:IL:306:ARG:NE	2.34	0.54
59:IZ:181:VAL:HG23	59:IZ:182:VAL:HG13	1.90	0.54
60:JE:21:TRP:CH2	60:JE:63:SER:HB3	2.43	0.54
59:JL:295:VAL:HG23	59:JL:296:PHE:HD1	1.71	0.54
59:JU:325:PRO:HA	59:JU:328:VAL:HG12	1.89	0.54
59:JU:399:TYR:OH	59:JU:415:GLU:OE2	2.25	0.54
60:JV:167:PHE:HE2	60:JV:233:VAL:HG13	1.72	0.54
60:KV:249:ASP:OD1	60:KV:250:LEU:N	2.41	0.54
59:LA:406:HIS:HA	59:LA:409:VAL:HG22	1.90	0.54
60:LB:237:THR:HG23	60:LB:241:ARG:NH1	2.23	0.54
1:0A:692:LYS:HG2	1:0A:709:LEU:HD21	1.90	0.54
1:0B:475:LYS:NZ	1:0B:479:GLY:O	2.38	0.54
1:0C:470:GLN:HG3	1:0C:471:ARG:H	1.72	0.54
17:0Z:407:GLU:HG3	17:0Z:490:ILE:HD12	1.90	0.54
32:2A:108:TYR:OH	59:DX:423:GLU:OE2	2.26	0.54
34:2F:164:ARG:NH1	34:2F:166:ASP:OD1	2.41	0.54
36:2J:192:ARG:NH2	59:EP:338:LYS:O	2.41	0.54
58:4T:113:ARG:O	58:4T:117:ARG:HG2	2.08	0.54
59:AM:343:PHE:HE2	59:AM:350:GLY:HA3	1.73	0.54
59:AS:325:PRO:HA	59:AS:328:VAL:HG12	1.90	0.54
59:BA:271:SER:HB2	59:BA:301:MET:HA	1.90	0.54
59:BI:91:GLN:NE2	59:BI:121:ARG:HD2	2.23	0.54
60:BJ:377:MET:O	60:BJ:380:ARG:HG2	2.08	0.54
59:BK:2:ARG:HG3	59:BK:3:GLU:HG3	1.90	0.54
59:BM:172:TYR:CG	59:BM:173:PRO:HD2	2.43	0.54
60:BN:31:ASP:OD1	60:BN:32:PRO:HD2	2.06	0.54
60:BT:68:LEU:HD13	60:BT:143:THR:OG1	2.08	0.54
60:CC:254:ALA:O	60:CC:258:VAL:HG12	2.08	0.54
60:CP:153:SER:HA	60:CP:195:ASN:HD21	1.72	0.54
60:CP:212:PHE:HZ	59:CQ:326:LYS:HD2	1.72	0.54
60:CR:208:TYR:CE1	60:CR:225:LEU:HD11	2.42	0.54
59:CS:352:LYS:HD2	59:CS:353:CYS:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CT:350:LYS:HZ3	60:CT:352:SER:HG	1.53	0.54
60:CZ:86:ARG:HB3	60:CZ:89:ASN:ND2	2.23	0.54
60:CZ:237:THR:HG23	60:CZ:241:ARG:NH1	2.23	0.54
60:CZ:289:LEU:HD11	60:CZ:363:MET:HG3	1.90	0.54
59:DI:252:LEU:HA	59:DI:255:PHE:HD2	1.72	0.54
59:DM:396:ASP:CG	59:DM:422:ARG:HH12	2.11	0.54
59:ER:172:TYR:CD1	59:ER:173:PRO:HD2	2.43	0.54
59:FH:284:GLU:HG2	59:FH:285:GLN:O	2.07	0.54
60:FS:68:LEU:HD12	60:FS:143:THR:HB	1.89	0.54
59:GJ:286:LEU:O	59:GJ:373:ARG:NH1	2.41	0.54
59:GN:82:THR:HG23	59:GN:83:TYR:CD1	2.43	0.54
60:HB:97:ALA:HB2	60:HB:143:THR:HB	1.90	0.54
59:HK:98:ASP:O	59:HK:105:ARG:NH1	2.41	0.54
60:HN:303:ALA:HB1	60:HN:373:CYS:SG	2.48	0.54
60:IS:204:ASN:O	60:IS:208:TYR:HD1	1.92	0.54
59:IT:174:SER:OG	59:IT:177:VAL:O	2.26	0.54
59:JJ:398:MET:HE1	60:JK:345:ILE:HA	1.90	0.54
60:JZ:167:PHE:HE2	60:JZ:233:VAL:HG13	1.73	0.54
60:JZ:200:MET:HB3	60:JZ:268:MET:CE	2.37	0.54
60:JZ:391:ARG:NH1	59:KA:439:SER:OG	2.38	0.54
60:KG:58:ARG:HG2	60:KG:59:TYR:N	2.22	0.54
60:KK:6:CYS:SG	60:KK:134:GLN:NE2	2.64	0.54
60:KM:8:GLN:OE1	60:KM:17:GLY:HA3	2.08	0.54
59:KQ:93:ILE:HD11	59:KQ:121:ARG:HG3	1.89	0.54
59:KU:251:ASP:OD1	59:KU:252:LEU:N	2.41	0.54
6:0M:83:LEU:O	27:1K:117:GLN:NE2	2.39	0.53
23:1F:110:ALA:H	60:GB:279:GLN:NE2	2.06	0.53
28:1M:358:ARG:HH12	28:1M:362:LEU:HG	1.72	0.53
33:2D:94:ILE:HB	33:2D:104:HIS:HB2	1.90	0.53
59:AS:384:ILE:HD11	59:AS:432:TYR:CZ	2.43	0.53
59:AY:174:SER:OG	59:AY:177:VAL:O	2.25	0.53
59:BC:332:VAL:O	59:BC:336:LYS:HG2	2.09	0.53
60:BJ:330:MET:SD	60:BJ:349:ILE:HG21	2.48	0.53
60:BL:117:LEU:HD21	60:BL:154:LYS:HB3	1.89	0.53
59:BS:123:ARG:HH21	59:BS:161:TYR:HE1	1.55	0.53
59:BZ:75:VAL:HA	59:BZ:78:VAL:HG12	1.90	0.53
59:CD:8:HIS:CE1	59:CD:138:TYR:HD2	2.26	0.53
60:CI:254:ALA:O	60:CI:258:VAL:HG12	2.08	0.53
60:CT:287:PRO:HG3	60:CT:329:GLN:HE21	1.73	0.53
59:CW:286:LEU:O	59:CW:373:ARG:NH1	2.41	0.53
60:DF:178:THR:HG23	60:DF:181:GLU:HG3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DV:268:MET:HE1	60:DV:368:ILE:HA	1.90	0.53
60:EC:31:ASP:OD1	60:EC:32:PRO:HD2	2.08	0.53
60:EG:132:GLY:HA3	60:EG:163:ILE:HG13	1.89	0.53
60:EG:311:LEU:HD23	60:EG:342:ILE:HG13	1.90	0.53
59:ET:251:ASP:OD1	59:ET:252:LEU:N	2.42	0.53
59:FJ:401:LYS:HD2	60:FK:344:TRP:CE3	2.44	0.53
59:FP:270:THR:HG22	59:FP:378:ILE:HG22	1.88	0.53
60:GK:10:GLY:O	60:GK:14:ASN:ND2	2.27	0.53
59:GL:56:THR:HG23	59:GL:58:ALA:H	1.74	0.53
59:GP:250:VAL:HA	59:GP:254:GLU:OE2	2.07	0.53
59:GU:169:TYR:CE2	59:GU:235:VAL:HG22	2.43	0.53
59:GU:241:SER:OG	59:GU:250:VAL:N	2.41	0.53
60:GV:161:ASP:OD1	60:GV:162:ARG:NH1	2.41	0.53
60:HS:212:PHE:HB2	59:HT:326:LYS:NZ	2.23	0.53
60:HW:230:SER:HA	60:HW:233:VAL:HG12	1.90	0.53
60:IJ:391:ARG:O	59:IK:262:TYR:OH	2.25	0.53
60:IL:238:CYS:SG	60:IL:318:ARG:HD3	2.48	0.53
59:IO:406:HIS:HA	59:IO:409:VAL:HG12	1.90	0.53
60:IU:8:GLN:HG2	60:IU:17:GLY:HA3	1.89	0.53
60:IU:109:GLY:HA2	60:IU:147:MET:HE2	1.89	0.53
60:JC:214:THR:HG22	60:JC:297:LYS:HE2	1.89	0.53
60:JE:68:LEU:HD22	60:JE:143:THR:HG22	1.90	0.53
59:KL:221:ARG:NE	60:KM:325:GLU:OE2	2.41	0.53
59:KP:288:VAL:HB	59:KP:327:ASP:HB3	1.91	0.53
59:KP:306:ASP:CG	59:KP:308:ARG:HH11	2.10	0.53
60:KX:249:ASP:OD1	60:KX:250:LEU:N	2.41	0.53
10:0S:47:ASP:OD1	10:0S:48:SER:N	2.41	0.53
16:0Y:136:HIS:HB2	16:0Y:139:GLN:HG3	1.90	0.53
17:0Z:422:VAL:HG11	17:0Z:501:PRO:CB	2.38	0.53
37:2M:126:ASP:OD2	37:2M:179:ARG:NH1	2.41	0.53
42:3E:241:LEU:HD22	42:3E:254:LEU:HD13	1.90	0.53
45:3S:100:VAL:HG23	45:3S:105:ARG:HH22	1.71	0.53
47:3V:187:ILE:HG23	48:3Y:175:LEU:HD12	1.89	0.53
54:4O:156:LYS:HA	54:4O:159:GLU:HG2	1.90	0.53
60:BL:32:PRO:HA	60:BL:84:ILE:HD11	1.90	0.53
60:BT:174:LYS:HE2	60:BT:205:GLU:OE2	2.09	0.53
60:CA:170:ILE:HD12	60:CA:201:CYS:HB3	1.90	0.53
60:CT:303:ALA:HB1	60:CT:373:CYS:SG	2.48	0.53
59:DK:251:ASP:OD1	59:DK:252:LEU:N	2.41	0.53
59:DX:270:THR:HG22	59:DX:378:ILE:HG22	1.90	0.53
60:EA:67:ASP:OD1	60:EA:68:LEU:N	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EQ:32:PRO:HG3	60:EQ:81:TYR:HE1	1.72	0.53
59:FD:76:ASP:OD1	59:FD:79:ARG:NH1	2.40	0.53
59:FH:174:SER:OG	59:FH:177:VAL:O	2.26	0.53
60:FO:229:VAL:O	60:FO:233:VAL:HG23	2.08	0.53
59:GE:98:ASP:O	59:GE:105:ARG:NH1	2.41	0.53
59:GH:239:THR:HG22	59:GH:243:ARG:HE	1.72	0.53
59:GL:212:LEU:HD21	59:GL:275:VAL:HG21	1.90	0.53
60:GM:344:TRP:HB3	60:GM:430:ILE:HD11	1.90	0.53
59:GT:384:ILE:O	59:GT:387:VAL:HG12	2.08	0.53
59:HI:215:ARG:NH1	59:HI:299:ALA:HB1	2.24	0.53
59:HM:203:MET:SD	59:HM:384:ILE:HD11	2.48	0.53
60:HP:45:GLU:O	60:HP:46:ARG:HD3	2.08	0.53
60:IA:201:CYS:HB2	60:IA:301:GLN:NE2	2.24	0.53
59:JP:212:LEU:HD21	59:JP:275:VAL:HG11	1.90	0.53
59:JQ:251:ASP:OD1	59:JQ:252:LEU:N	2.41	0.53
60:KI:170:ILE:HD13	60:KI:201:CYS:HB3	1.90	0.53
60:KT:8:GLN:OE1	60:KT:17:GLY:HA3	2.08	0.53
60:KV:10:GLY:O	60:KV:14:ASN:ND2	2.29	0.53
7:0P:132:LYS:HZ2	7:0P:133:ARG:HH22	1.57	0.53
22:1E:192:MET:O	22:1E:196:GLN:HG2	2.08	0.53
27:1K:233:GLN:HG2	59:AA:220:GLU:HG2	1.91	0.53
31:1U:89:THR:HG21	60:EM:163:ILE:HD13	1.90	0.53
35:2H:285:ARG:NH1	35:2H:286:LEU:O	2.41	0.53
39:2O:191:THR:HA	59:KP:370:LYS:NZ	2.24	0.53
39:2P:297:ASP:HB3	39:2P:301:ARG:HH12	1.73	0.53
41:2Z:15:ARG:HH12	59:HI:80:THR:HB	1.72	0.53
47:3V:198:LYS:HE3	47:3V:203:GLU:HB3	1.90	0.53
60:AJ:12:CYS:SG	60:AJ:169:ILE:HD12	2.49	0.53
59:BI:119:LEU:HA	59:BI:122:ILE:HG12	1.90	0.53
60:BT:254:ALA:O	60:BT:258:VAL:HG12	2.08	0.53
59:BU:203:MET:HE1	59:BU:267:PHE:HB3	1.89	0.53
59:BX:406:HIS:HA	59:BX:409:VAL:HG12	1.89	0.53
60:CG:16:ILE:HD11	60:CG:136:CYS:HB3	1.89	0.53
60:EK:204:ASN:OD1	64:EK:501:GDP:N2	2.41	0.53
60:EM:230:SER:HA	60:EM:233:VAL:HG12	1.90	0.53
60:EU:67:ASP:OD1	60:EU:68:LEU:N	2.40	0.53
60:FA:103:LYS:NZ	60:FA:108:GLU:OE1	2.42	0.53
59:FD:188:VAL:O	59:FD:191:THR:HG22	2.08	0.53
60:FQ:31:ASP:OD1	60:FQ:32:PRO:HD2	2.08	0.53
59:GA:196:GLU:HG3	59:GA:197:HIS:ND1	2.23	0.53
59:GE:132:LEU:HD22	59:GE:164:LYS:HZ3	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GK:130:LEU:O	60:GK:162:ARG:NH1	2.41	0.53
60:HB:139:LEU:HG	60:HB:168:SER:HB2	1.89	0.53
60:HB:324:LYS:HA	60:HB:327:ASP:OD1	2.09	0.53
60:HS:271:ALA:HA	60:HS:298:ASN:HD21	1.73	0.53
60:IC:344:TRP:HB3	60:IC:430:ILE:HD11	1.90	0.53
59:ID:229:ARG:HH12	59:ID:363:VAL:HG11	1.73	0.53
59:IM:7:ILE:HB	59:IM:137:VAL:HG12	1.90	0.53
59:JB:406:HIS:HA	59:JB:409:VAL:HG12	1.90	0.53
59:JJ:46:ASP:HB3	59:JJ:49:PHE:HD2	1.72	0.53
59:JJ:109:THR:HB	59:JJ:110:ILE:HD12	1.90	0.53
59:JJ:256:GLN:O	59:JJ:260:VAL:HG22	2.09	0.53
59:KP:88:HIS:HB3	59:KP:91:GLN:HG2	1.91	0.53
59:KS:133:GLN:NE2	59:KS:251:ASP:OD1	2.41	0.53
59:KY:65:ALA:O	59:KY:91:GLN:NE2	2.36	0.53
1:0C:596:TYR:HA	1:0C:599:PHE:HB3	1.89	0.53
2:0E:537:HIS:CD2	59:CH:40:LYS:HG2	2.44	0.53
4:0G:353:HIS:ND1	4:0G:354:THR:O	2.41	0.53
17:0Z:164:ILE:O	60:FI:359:LYS:NZ	2.41	0.53
33:2D:530:ASN:ND2	33:2D:544:GLU:OE1	2.42	0.53
41:2Z:114:ILE:HD13	59:HZ:282:TYR:HD1	1.73	0.53
41:3D:319:ASN:O	41:3D:323:ARG:HB2	2.07	0.53
45:3S:30:MET:HE3	52:4I:35:ILE:HD11	1.89	0.53
60:AJ:52:ASP:OD1	60:AJ:53:GLU:N	2.42	0.53
60:CE:237:THR:HG23	60:CE:240:LEU:HD12	1.90	0.53
60:DV:170:ILE:HG22	60:DV:171:PRO:HD2	1.90	0.53
60:DW:429:THR:HG23	60:DW:431:GLU:HG2	1.91	0.53
59:EX:47:ASP:OD1	59:EX:47:ASP:N	2.41	0.53
59:FJ:270:THR:HG22	59:FJ:378:ILE:HG22	1.89	0.53
59:FN:238:LEU:HD21	59:FN:255:PHE:HE2	1.73	0.53
60:FV:311:LEU:HD23	60:FV:342:ILE:HG13	1.91	0.53
60:GD:54:ALA:HB3	60:GD:58:ARG:HG3	1.91	0.53
59:HA:399:TYR:OH	59:HA:402:ARG:NH2	2.40	0.53
59:HM:60:LYS:HD2	59:HZ:282:TYR:CE2	2.44	0.53
60:IE:186:THR:HG23	60:IE:187:LEU:HD12	1.89	0.53
60:IR:8:GLN:NE2	60:IR:13:GLY:O	2.42	0.53
60:IS:32:PRO:HB3	60:IS:81:TYR:CD1	2.44	0.53
60:JC:165:MET:SD	60:JC:250:LEU:HD11	2.48	0.53
60:JM:61:PRO:HD3	60:JM:84:ILE:HG22	1.91	0.53
60:KB:3:GLU:OE2	60:KB:130:LEU:HA	2.07	0.53
59:KQ:406:HIS:HA	59:KQ:409:VAL:HG12	1.89	0.53
59:LA:212:LEU:HD11	59:LA:275:VAL:HG21	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0A:324:LEU:HA	60:DH:227:HIS:HE1	1.74	0.53
3:0F:500:ARG:NH2	59:CF:39:ASP:HB3	2.23	0.53
4:0G:422:ILE:HG13	4:0G:423:PHE:H	1.72	0.53
23:1F:186:GLN:HA	23:1F:190:CYS:HB2	1.89	0.53
30:1R:154:PHE:HE2	30:1R:190:LEU:HD13	1.73	0.53
41:2V:17:HIS:HA	60:IN:41:ASP:OD2	2.09	0.53
46:3U:112:HIS:N	60:EW:209:ASP:OD2	2.40	0.53
47:3W:67:TYR:HB3	47:3W:72:GLY:HA2	1.90	0.53
51:4H:38:LYS:NZ	51:4H:42:GLU:OE2	2.41	0.53
59:AC:52:PHE:CZ	59:AC:239:THR:HG21	2.43	0.53
59:AC:282:TYR:CZ	59:AO:60:LYS:HD2	2.43	0.53
59:AU:323:VAL:HG13	59:AU:355:ILE:HG23	1.89	0.53
60:AZ:334:GLN:HE22	60:AZ:348:ASN:N	2.01	0.53
60:BF:127:CYS:SG	60:BF:130:LEU:HB2	2.48	0.53
59:BQ:392:ASP:HB3	59:BQ:422:ARG:NH1	2.23	0.53
60:CG:96:GLY:O	60:CG:103:LYS:NZ	2.34	0.53
60:CP:350:LYS:HZ3	60:CP:352:SER:HG	1.52	0.53
59:CY:406:HIS:HA	59:CY:409:VAL:HG12	1.89	0.53
59:DI:215:ARG:HH22	59:DI:299:ALA:C	2.12	0.53
60:EC:429:THR:HG23	60:EC:431:GLU:HG2	1.91	0.53
59:EP:2:ARG:HG3	59:EP:3:GLU:OE1	2.08	0.53
60:ES:344:TRP:HB3	60:ES:430:ILE:HD11	1.89	0.53
59:EZ:273:ALA:HB2	59:EZ:295:VAL:HG23	1.91	0.53
60:FM:31:ASP:OD1	60:FM:32:PRO:HD2	2.09	0.53
59:FU:301:MET:HE3	59:FU:305:CYS:O	2.08	0.53
60:FV:27:GLU:HA	60:FV:359:LYS:NZ	2.24	0.53
60:GQ:7:VAL:HB	60:GQ:135:ILE:HG12	1.90	0.53
60:GV:322:SER:OG	60:GV:325:GLU:HB2	2.08	0.53
60:GV:404:ASP:HB3	60:GV:407:GLU:OE1	2.08	0.53
59:HC:181:VAL:HG23	59:HC:182:VAL:HG13	1.89	0.53
59:HC:238:LEU:HD21	59:HC:378:ILE:HD11	1.89	0.53
59:HE:52:PHE:CZ	59:HE:239:THR:HG21	2.44	0.53
60:HF:282:ARG:HH21	60:HF:288:GLU:HG2	1.71	0.53
60:HS:104:GLY:HA2	60:HS:108:GLU:OE2	2.09	0.53
60:IA:45:GLU:O	60:IA:46:ARG:HD3	2.09	0.53
60:IE:12:CYS:SG	60:IE:13:GLY:N	2.81	0.53
59:IM:291:ILE:O	59:IM:295:VAL:HG23	2.09	0.53
60:IW:3:GLU:HG3	60:IW:62:ARG:NH1	2.23	0.53
59:JB:287:SER:HA	59:JB:373:ARG:HH11	1.73	0.53
60:JE:423:GLN:NE2	60:JE:427:ASP:OD2	2.42	0.53
59:JF:270:THR:HG22	59:JF:378:ILE:HG22	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JO:249:ASP:OD1	60:JO:250:LEU:N	2.41	0.53
60:JR:388:MET:HE1	59:JS:348:PRO:HD2	1.91	0.53
59:JW:178:SER:HB2	60:JX:347:ASN:HD22	1.73	0.53
60:JX:239:CYS:SG	60:JX:248:SER:N	2.77	0.53
59:JY:210:TYR:CD2	60:JZ:324:LYS:HE2	2.44	0.53
60:KB:139:LEU:HG	60:KB:168:SER:HB2	1.91	0.53
60:KK:214:THR:O	60:KK:275:SER:OG	2.25	0.53
60:KM:237:THR:HG23	60:KM:241:ARG:NH1	2.24	0.53
59:KN:104:ALA:HB2	59:KN:413:MET:HE3	1.89	0.53
59:KP:79:ARG:NH2	59:KP:92:LEU:O	2.40	0.53
59:KS:251:ASP:OD1	59:KS:252:LEU:N	2.41	0.53
60:KT:282:ARG:NH2	60:KT:288:GLU:OE2	2.31	0.53
60:LB:173:PRO:HD3	60:LB:380:ARG:CZ	2.39	0.53
1:0C:52:PRO:HD3	5:0I:327:ARG:HH21	1.72	0.53
2:0E:342:ARG:HG2	60:DF:276:ARG:HH12	1.74	0.53
7:0P:121:LYS:O	7:0P:124:LYS:NZ	2.37	0.53
11:0T:281:LEU:HD12	11:0T:322:ILE:HD11	1.91	0.53
23:1F:140:ASP:OD1	23:1F:141:LEU:N	2.42	0.53
31:1T:289:GLU:OE1	31:1T:307:TYR:OH	2.16	0.53
33:2B:332:ASP:OD1	33:2B:333:VAL:N	2.42	0.53
42:3O:138:LEU:CD2	60:HF:360:GLY:HA3	2.39	0.53
45:3S:97:SER:OG	45:3S:99:ASP:OD1	2.25	0.53
60:BJ:127:CYS:SG	60:BJ:130:LEU:HB2	2.49	0.53
59:BK:54:SER:HB3	59:BK:64:ARG:NH1	2.24	0.53
59:BM:120:ASP:O	59:BM:124:LYS:HG2	2.08	0.53
60:BT:204:ASN:OD1	64:BT:501:GDP:N2	2.42	0.53
60:BY:68:LEU:HD13	60:BY:143:THR:OG1	2.09	0.53
59:CF:215:ARG:NH1	59:CF:299:ALA:HB1	2.23	0.53
60:CI:303:ALA:HB1	60:CI:373:CYS:HB3	1.89	0.53
59:CS:3:GLU:HA	59:CS:51:THR:HA	1.90	0.53
59:DA:406:HIS:HA	59:DA:409:VAL:HG12	1.91	0.53
59:DO:52:PHE:CZ	59:DO:239:THR:HG21	2.44	0.53
60:DW:7:VAL:HB	60:DW:135:ILE:HG12	1.89	0.53
60:FE:52:ASP:OD1	60:FE:53:GLU:N	2.41	0.53
60:FG:69:GLU:OE2	60:FG:96:GLY:N	2.42	0.53
59:FH:165:SER:HB2	59:FH:256:GLN:HE22	1.72	0.53
60:FX:12:CYS:SG	60:FX:13:GLY:N	2.81	0.53
60:GI:267:MET:HE1	60:GI:371:ASN:HB3	1.89	0.53
59:GP:229:ARG:HH12	59:GP:363:VAL:HG21	1.74	0.53
60:GS:150:LEU:CD2	60:GS:154:LYS:HZ1	2.22	0.53
60:GV:170:ILE:HD13	60:GV:201:CYS:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HQ:155:GLU:HG2	59:HQ:197:HIS:CD2	2.43	0.53
60:HR:161:ASP:OD1	60:HR:162:ARG:NH1	2.41	0.53
59:IB:214:ARG:NH1	59:IB:220:GLU:HA	2.24	0.53
60:IF:152:ILE:HG12	60:IF:164:MET:HE1	1.90	0.53
60:IH:170:ILE:HG21	60:IH:377:MET:HE3	1.91	0.53
59:II:113:GLU:N	59:II:113:GLU:OE1	2.40	0.53
59:IO:241:SER:HA	59:IO:356:ASN:HD22	1.74	0.53
60:IP:206:ALA:HA	60:IP:209:ASP:OD2	2.09	0.53
60:IP:311:LEU:O	60:IP:348:ASN:ND2	2.36	0.53
59:IT:251:ASP:OD1	59:IT:252:LEU:N	2.42	0.53
60:JA:117:LEU:HD11	60:JA:154:LYS:HG3	1.91	0.53
59:JB:269:LEU:HD22	59:JB:303:THR:HG21	1.90	0.53
60:JM:407:GLU:N	60:JM:407:GLU:OE1	2.41	0.53
60:JO:135:ILE:HB	60:JO:166:THR:HG22	1.90	0.53
59:JU:56:THR:HA	59:KH:285:GLN:HB2	1.91	0.53
18:1A:255:ARG:HG3	18:1A:340:ALA:HB2	1.90	0.53
31:1U:217:HIS:HB3	31:1U:220:VAL:HG12	1.90	0.53
32:1X:30:ARG:HB3	32:1X:56:THR:HG22	1.91	0.53
33:2B:64:ASP:HB2	33:2B:82:GLN:HE21	1.74	0.53
33:2C:294:CYS:HB3	33:2C:301:LEU:HB2	1.89	0.53
41:2Y:26:ARG:HG3	60:HS:56:GLY:HA2	1.90	0.53
49:4B:91:ARG:NH1	50:4E:142:GLU:OE1	2.42	0.53
53:4K:227:PRO:HB2	60:JK:291:GLN:HE22	1.74	0.53
53:4K:231:ILE:HD12	53:4K:232:PRO:HD2	1.91	0.53
54:4O:161:LEU:HD23	54:4O:164:LYS:HE3	1.91	0.53
55:4P:151:LYS:HE3	55:4P:152:HIS:CE1	2.43	0.53
59:AI:195:LEU:HD21	59:AI:264:ARG:HD2	1.91	0.53
59:AM:398:MET:HE2	60:AN:345:ILE:HA	1.90	0.53
60:BD:377:MET:O	60:BD:380:ARG:HG2	2.08	0.53
60:BN:204:ASN:OD1	64:BN:501:GDP:N2	2.42	0.53
59:BO:105:ARG:HA	59:BO:109:THR:HG22	1.89	0.53
60:BP:139:LEU:HD12	60:BP:170:ILE:HG12	1.91	0.53
60:BR:204:ASN:OD1	64:BR:501:GDP:N2	2.41	0.53
60:BT:271:ALA:O	60:BT:292:GLN:HG2	2.08	0.53
59:BW:284:GLU:OE2	59:CJ:88:HIS:NE2	2.39	0.53
60:BY:67:ASP:OD1	60:BY:68:LEU:N	2.42	0.53
59:CD:8:HIS:CE1	59:CD:138:TYR:CD2	2.97	0.53
60:CR:270:PHE:HD1	60:CR:366:THR:HG22	1.73	0.53
60:CV:423:GLN:NE2	60:CV:427:ASP:OD2	2.42	0.53
60:DB:311:LEU:HD23	60:DB:342:ILE:HG21	1.91	0.53
59:DC:128:ASN:HD22	59:DC:128:ASN:C	2.12	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DO:284:GLU:OE2	59:EB:88:HIS:NE2	2.42	0.53
59:EB:270:THR:HG22	59:EB:378:ILE:HG22	1.90	0.53
60:EE:14:ASN:OD1	60:EE:65:LEU:HD12	2.08	0.53
59:EJ:269:LEU:HD22	59:EJ:303:THR:HG21	1.89	0.53
60:EK:373:CYS:O	60:EK:376:GLU:HG2	2.09	0.53
59:EZ:172:TYR:CD1	59:EZ:173:PRO:HD2	2.44	0.53
59:FF:251:ASP:OD1	59:FF:252:LEU:N	2.42	0.53
59:FL:273:ALA:HB2	59:FL:295:VAL:HG23	1.91	0.53
60:FS:260:PHE:HB2	60:FS:263:LEU:HD13	1.91	0.53
59:GN:225:THR:O	59:GN:229:ARG:HG2	2.08	0.53
60:GS:167:PHE:HE2	60:GS:233:VAL:HG13	1.74	0.53
60:GZ:98:GLY:O	59:HA:257:THR:HG21	2.08	0.53
60:HD:119:VAL:O	60:HD:122:LYS:HG3	2.08	0.53
59:HG:212:LEU:HD11	59:HG:275:VAL:HG21	1.89	0.53
60:HJ:52:ASP:OD1	60:HJ:53:GLU:N	2.42	0.53
59:HO:172:TYR:CE2	59:HO:203:MET:HG2	2.44	0.53
60:HR:309:ARG:NH1	60:HR:343:GLU:OE1	2.38	0.53
60:HU:237:THR:HG23	60:HU:241:ARG:NH1	2.24	0.53
60:IF:11:GLN:NE2	59:IG:247:ALA:O	2.42	0.53
60:IR:267:MET:HG2	60:IR:369:GLY:O	2.09	0.53
60:IS:31:ASP:OD1	60:IS:32:PRO:HD2	2.09	0.53
60:JG:334:GLN:NE2	60:JG:347:ASN:OD1	2.41	0.53
59:JH:93:ILE:HD11	59:JH:121:ARG:HG3	1.90	0.53
60:JI:52:ASP:OD1	60:JI:53:GLU:N	2.42	0.53
59:JU:319:TYR:HB2	59:JU:355:ILE:HD13	1.90	0.53
59:KA:237:SER:HA	59:KA:320:ARG:HH11	1.74	0.53
59:KC:273:ALA:HB2	59:KC:295:VAL:HG12	1.89	0.53
2:0E:494:PHE:HA	60:CG:78:ALA:HA	1.91	0.53
9:0R:126:GLU:HB2	9:0R:155:LYS:HB3	1.90	0.53
22:1E:195:LYS:HE3	29:1O:157:PRO:HG3	1.90	0.53
47:3X:190:ASP:OD2	48:4A:188:ARG:NH1	2.42	0.53
59:AA:151:ALA:O	59:AA:155:GLU:HG3	2.09	0.53
60:AB:289:LEU:HD11	60:AB:363:MET:HG3	1.91	0.53
59:AW:432:TYR:HA	59:AW:435:VAL:HG12	1.90	0.53
60:BD:332:ASN:OD1	60:BD:336:LYS:HD2	2.08	0.53
59:BM:251:ASP:OD1	59:BM:252:LEU:N	2.42	0.53
60:BN:8:GLN:HG2	60:BN:17:GLY:HA3	1.91	0.53
60:DD:135:ILE:HD13	60:DD:152:ILE:HG22	1.90	0.53
59:DE:250:VAL:HA	59:DE:254:GLU:OE2	2.09	0.53
59:DI:251:ASP:OD1	59:DI:252:LEU:N	2.41	0.53
59:DU:213:THR:HB	59:DU:219:ILE:HD11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DW:69:GLU:OE2	60:DW:96:GLY:N	2.41	0.53
60:EG:170:ILE:HD13	60:EG:201:CYS:HB3	1.91	0.53
59:ET:406:HIS:HA	59:ET:409:VAL:HG12	1.89	0.53
59:EV:191:THR:OG1	59:EV:425:LEU:HD11	2.09	0.53
59:FB:100:ALA:HA	60:FC:252:LYS:HG3	1.91	0.53
59:GC:2:ARG:NH2	59:GC:3:GLU:OE2	2.42	0.53
60:GS:31:ASP:OD1	60:GS:32:PRO:HD2	2.09	0.53
59:GT:172:TYR:CE1	59:GT:203:MET:HG3	2.44	0.53
60:GX:219:THR:HA	59:GY:326:LYS:NZ	2.24	0.53
60:HS:237:THR:HG23	60:HS:241:ARG:NH1	2.24	0.53
59:HV:406:HIS:HA	59:HV:409:VAL:HG12	1.91	0.53
60:HY:218:THR:HG23	60:HY:219:THR:HG22	1.90	0.53
60:IE:22:GLU:HG2	60:IE:81:TYR:CD1	2.42	0.53
60:IL:258:VAL:HG22	60:IL:266:PHE:HZ	1.74	0.53
60:IN:238:CYS:SG	60:IN:318:ARG:HD3	2.49	0.53
59:IQ:251:ASP:OD1	59:IQ:252:LEU:N	2.41	0.53
59:IX:100:ALA:HA	60:IY:252:LYS:HG2	1.91	0.53
60:IY:374:ILE:O	60:IY:377:MET:HG3	2.09	0.53
59:JB:98:ASP:O	59:JB:105:ARG:NH1	2.42	0.53
60:JI:218:THR:HG23	60:JI:219:THR:HG22	1.91	0.53
59:JJ:319:TYR:HB2	59:JJ:355:ILE:HD13	1.90	0.53
60:JM:156:ARG:HH21	60:JM:164:MET:HB2	1.74	0.53
60:JO:128:ASP:OD1	60:JO:129:CYS:N	2.42	0.53
60:JR:271:ALA:HB3	60:JR:272:PRO:HD3	1.91	0.53
60:KK:390:ARG:HH12	59:KL:442:MET:HB3	1.73	0.53
59:KP:262:TYR:HB2	59:KP:265:ILE:HD13	1.90	0.53
60:KR:86:ARG:HG2	60:KR:88:ASP:OD1	2.09	0.53
5:0K:60:ARG:NH2	18:1A:321:GLU:OE1	2.41	0.53
5:0K:334:ARG:NH2	16:0Y:201:ASP:OD1	2.39	0.53
7:0P:181:GLU:OE2	15:0X:132:ARG:NH2	2.42	0.53
32:1X:2:PHE:O	32:1X:7:GLN:NE2	2.42	0.53
60:AV:271:ALA:HA	60:AV:298:ASN:HD21	1.74	0.53
60:AZ:145:SER:HB3	60:AZ:188:SER:OG	2.09	0.53
59:BC:76:ASP:OD1	59:BC:79:ARG:NH2	2.28	0.53
59:BC:270:THR:HG22	59:BC:378:ILE:HG22	1.90	0.53
60:BD:31:ASP:OD1	60:BD:32:PRO:HD2	2.09	0.53
59:BU:225:THR:O	59:BU:229:ARG:HG3	2.09	0.53
59:BU:270:THR:HG23	59:BU:302:MET:HB2	1.90	0.53
59:CD:209:ILE:HB	59:CD:227:LEU:CD1	2.39	0.53
60:CI:10:GLY:O	60:CI:14:ASN:ND2	2.38	0.53
59:CM:212:LEU:HD21	59:CM:275:VAL:HG11	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CP:398:TYR:HB3	60:CP:403:MET:HE2	1.89	0.53
59:CW:98:ASP:O	59:CW:105:ARG:NH1	2.42	0.53
60:CX:145:SER:HB2	60:CX:188:SER:OG	2.09	0.53
60:DB:170:ILE:HD12	60:DB:201:CYS:HB3	1.91	0.53
59:DQ:251:ASP:OD1	59:DQ:252:LEU:N	2.41	0.53
60:EK:178:THR:HB	60:EK:181:GLU:HG3	1.90	0.53
60:EM:73:MET:HA	60:EM:76:VAL:HG22	1.91	0.53
59:ER:188:VAL:O	59:ER:191:THR:HG22	2.09	0.53
60:FE:429:THR:HG23	60:FE:431:GLU:HG2	1.91	0.53
60:FG:170:ILE:HD12	60:FG:201:CYS:HB3	1.90	0.53
60:FO:69:GLU:OE2	60:FO:96:GLY:N	2.42	0.53
60:FS:128:ASP:OD1	60:FS:129:CYS:N	2.42	0.53
59:GC:50:ASN:O	59:GC:64:ARG:NH1	2.42	0.53
60:GD:248:SER:HA	60:GD:252:LYS:HE2	1.91	0.53
60:GI:313:ALA:HB3	60:GI:349:ILE:HD13	1.90	0.53
60:GM:167:PHE:HD2	60:GM:233:VAL:HG22	1.72	0.53
59:HK:52:PHE:CZ	59:HK:239:THR:HG21	2.44	0.53
60:IA:218:THR:HG23	60:IA:219:THR:HG22	1.91	0.53
59:IB:212:LEU:HD21	59:IB:275:VAL:HG21	1.90	0.53
60:IH:175:VAL:HG22	59:II:329:ASN:OD1	2.09	0.53
60:IJ:32:PRO:HB3	60:IJ:81:TYR:CD1	2.44	0.53
59:IO:251:ASP:OD1	59:IO:252:LEU:N	2.42	0.53
60:IP:252:LYS:HA	60:IP:255:VAL:HG12	1.91	0.53
59:KD:224:TYR:HB2	60:KE:245:GLN:NE2	2.24	0.53
60:KI:10:GLY:O	60:KI:14:ASN:ND2	2.32	0.53
7:0O:11:LEU:O	7:0O:15:ASN:ND2	2.40	0.53
11:0T:43:LEU:HG	60:AF:45:GLU:HG3	1.91	0.53
32:1W:138:ASP:OD2	32:1W:142:ARG:NH2	2.42	0.53
36:2K:126:ASP:OD1	36:2K:127:CYS:N	2.42	0.53
42:3L:187:TYR:O	42:3L:192:PRO:HD2	2.09	0.53
53:4K:234:ARG:HD3	53:4K:235:PRO:HD2	1.91	0.53
60:AR:161:ASP:OD1	60:AR:162:ARG:HD2	2.09	0.53
60:CI:7:VAL:HB	60:CI:135:ILE:HG13	1.91	0.53
60:CV:4:ILE:HD11	60:CV:240:LEU:HD23	1.90	0.53
59:DE:269:LEU:HD22	59:DE:303:THR:HG21	1.90	0.53
60:DH:390:ARG:HG3	60:DH:391:ARG:HG2	1.90	0.53
59:DS:76:ASP:OD1	59:DS:79:ARG:NH1	2.41	0.53
59:ER:288:VAL:HB	59:ER:327:ASP:HB3	1.90	0.53
59:ET:76:ASP:OD1	59:ET:79:ARG:NH1	2.40	0.53
59:FB:3:GLU:OE2	59:FB:129:CYS:HB3	2.09	0.53
60:FM:375:GLN:O	60:FM:379:ARG:HG3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GE:2:ARG:N	59:GE:133:GLN:HE21	2.06	0.53
60:GK:178:THR:HG23	60:GK:181:GLU:HG3	1.91	0.53
60:GO:36:TYR:CE2	60:GO:44:LEU:HD13	2.43	0.53
60:GS:119:VAL:O	60:GS:122:LYS:HG3	2.08	0.53
60:HD:40:SER:O	60:HD:43:GLN:HG2	2.09	0.53
59:HG:195:LEU:HD11	59:HG:428:LEU:HD12	1.91	0.53
60:HL:390:ARG:HH12	60:HL:391:ARG:HB2	1.73	0.53
60:HN:178:THR:HB	60:HN:181:GLU:HG3	1.91	0.53
60:HR:73:MET:O	60:HR:77:ARG:HG3	2.09	0.53
60:HW:284:LEU:HD12	60:HW:362:LYS:HE2	1.90	0.53
59:HX:45:GLU:HG2	59:HX:46:ASP:H	1.74	0.53
60:IF:398:TYR:HB3	60:IF:403:MET:HE2	1.91	0.53
59:IG:24:PHE:HA	59:IG:27:GLU:HG2	1.92	0.53
59:IG:90:GLU:O	59:IG:121:ARG:NH1	2.41	0.53
60:IR:344:TRP:HB3	60:IR:430:ILE:HD11	1.91	0.53
59:IZ:256:GLN:O	59:IZ:260:VAL:HG22	2.08	0.53
60:JG:52:ASP:HB2	60:JG:62:ARG:HH21	1.73	0.53
60:JO:230:SER:HA	60:JO:233:VAL:HG12	1.90	0.53
59:JU:251:ASP:OD1	59:JU:252:LEU:N	2.42	0.53
59:KA:91:GLN:OE1	59:KA:121:ARG:NH1	2.42	0.53
60:KT:65:LEU:HD22	60:KT:90:PHE:CE1	2.44	0.53
60:KZ:237:THR:HG23	60:KZ:241:ARG:NH1	2.23	0.53
2:0E:447:LEU:HD22	2:0E:538:THR:HG23	1.90	0.52
5:0I:354:GLN:HE22	59:EL:362:VAL:HG21	1.74	0.52
12:0U:161:ASP:OD1	12:0U:161:ASP:N	2.41	0.52
31:1U:109:ASP:OD1	60:EA:340:TYR:OH	2.26	0.52
41:2Y:319:ASN:O	41:2Y:323:ARG:HG2	2.09	0.52
41:3B:166:ASP:OD1	41:3B:167:MET:N	2.42	0.52
42:3F:43:TYR:HE2	59:BS:81:GLY:HA3	1.75	0.52
47:3X:194:LEU:HD21	48:4A:182:THR:HG21	1.90	0.52
58:4U:113:ARG:O	58:4U:117:ARG:HG2	2.09	0.52
60:AD:289:LEU:HD11	60:AD:363:MET:HG3	1.91	0.52
59:AW:441:ASP:OD2	59:AW:443:ASP:O	2.27	0.52
60:AZ:3:GLU:HG3	60:AZ:62:ARG:NH1	2.24	0.52
60:BJ:218:THR:HG23	60:BJ:219:THR:HG22	1.90	0.52
60:BP:31:ASP:OD1	60:BP:32:PRO:HD2	2.08	0.52
60:BR:67:ASP:OD1	60:BR:68:LEU:N	2.41	0.52
60:CE:48:ASN:O	60:CE:62:ARG:NH1	2.42	0.52
60:CG:8:GLN:HB2	60:CG:65:LEU:HD13	1.91	0.52
60:CX:328:GLU:O	60:CX:332:ASN:ND2	2.39	0.52
60:DB:344:TRP:HB3	60:DB:430:ILE:HD11	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DI:388:PHE:HB3	59:DI:425:LEU:HD21	1.91	0.52
60:DJ:67:ASP:HB3	60:DJ:73:MET:SD	2.50	0.52
59:DM:50:ASN:O	59:DM:64:ARG:NH1	2.43	0.52
59:DX:90:GLU:O	59:DX:121:ARG:NH1	2.42	0.52
60:EE:375:GLN:HG3	60:EE:379:ARG:HH12	1.74	0.52
60:EG:230:SER:HA	60:EG:233:VAL:HG12	1.91	0.52
60:EK:218:THR:HG23	60:EK:219:THR:HG22	1.90	0.52
59:FP:50:ASN:O	59:FP:64:ARG:NH1	2.42	0.52
60:FQ:52:ASP:OD1	60:FQ:53:GLU:N	2.42	0.52
59:FU:259:LEU:HD21	59:FU:268:VAL:HG11	1.90	0.52
60:FX:73:MET:HA	60:FX:76:VAL:HG12	1.91	0.52
59:GA:399:TYR:OH	59:GA:415:GLU:OE2	2.27	0.52
59:GC:175:PRO:HB3	59:GC:390:ARG:HH11	1.75	0.52
60:GD:213:ARG:HH21	60:GD:297:LYS:HG2	1.74	0.52
60:GD:388:MET:HG3	60:GD:393:ALA:HB3	1.91	0.52
60:GK:33:THR:O	60:GK:58:ARG:NH1	2.42	0.52
59:GW:222:PRO:HD2	60:GX:324:LYS:HE2	1.91	0.52
59:HC:392:ASP:OD1	59:HC:425:LEU:HD23	2.09	0.52
60:HJ:230:SER:HA	60:HJ:233:VAL:HG12	1.89	0.52
60:HL:268:MET:HE2	60:HL:368:ILE:HA	1.90	0.52
60:HP:179:VAL:HG23	60:HP:180:VAL:HG13	1.90	0.52
60:HU:303:ALA:HB1	60:HU:373:CYS:SG	2.49	0.52
60:IH:387:LEU:HD23	60:IH:390:ARG:NH1	2.23	0.52
60:IN:391:ARG:HH21	59:IO:439:SER:HB3	1.74	0.52
60:IR:139:LEU:HD22	60:IR:188:SER:HB3	1.90	0.52
60:IU:14:ASN:OD1	60:IU:65:LEU:HD12	2.10	0.52
60:IY:117:LEU:HG	60:IY:154:LYS:HD2	1.92	0.52
60:IY:248:SER:OG	60:IY:350:LYS:NZ	2.42	0.52
60:JO:156:ARG:HH21	60:JO:164:MET:HB2	1.74	0.52
59:JP:270:THR:HG22	59:JP:378:ILE:HG22	1.91	0.52
59:JP:343:PHE:HE2	59:JP:350:GLY:HA3	1.73	0.52
59:JW:402:ARG:NH1	59:JW:415:GLU:OE2	2.41	0.52
60:KG:404:ASP:HB3	60:KG:407:GLU:OE1	2.09	0.52
59:KH:172:TYR:HD1	59:KH:173:PRO:HD2	1.74	0.52
60:KM:380:ARG:HH11	60:KM:380:ARG:HG3	1.74	0.52
59:KP:69:ASP:OD1	59:KP:70:LEU:N	2.42	0.52
2:0E:382:ASP:HB2	59:DG:39:ASP:HB2	1.90	0.52
5:0K:253:GLU:OE1	60:FC:362:LYS:N	2.41	0.52
6:0N:307:ARG:NE	59:BK:57:GLY:O	2.42	0.52
32:1Z:16:SER:O	32:1Z:36:ARG:NH1	2.42	0.52
33:2C:214:ARG:HD2	33:2C:231:GLU:HG2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2O:46:LEU:HG	39:2O:50:ARG:HH21	1.74	0.52
39:2Q:290:GLU:HB3	39:2Q:294:ARG:HH21	1.74	0.52
40:2T:426:ARG:NH1	60:JC:35:THR:OG1	2.41	0.52
42:3H:68:LYS:HA	42:3H:68:LYS:HE3	1.91	0.52
42:3P:97:LYS:HZ3	59:GW:357:TYR:HB2	1.74	0.52
59:AA:251:ASP:OD1	59:AA:252:LEU:N	2.42	0.52
60:AF:254:ALA:O	60:AF:258:VAL:HG12	2.09	0.52
59:AQ:221:ARG:NH2	60:AR:325:GLU:OE2	2.42	0.52
60:AT:423:GLN:NE2	60:AT:427:ASP:OD2	2.42	0.52
59:AY:178:SER:HG	60:AZ:347:ASN:HD22	1.52	0.52
59:BG:362:VAL:HB	59:BG:370:LYS:HD3	1.92	0.52
60:BR:132:GLY:HA3	60:BR:163:ILE:HB	1.91	0.52
59:CQ:273:ALA:HB2	59:CQ:295:VAL:HG22	1.90	0.52
59:CS:311:LYS:NZ	59:CS:343:PHE:O	2.42	0.52
60:CT:139:LEU:HD11	60:CT:168:SER:HB2	1.90	0.52
60:CV:232:VAL:HG22	60:CV:268:MET:HE2	1.90	0.52
59:DC:269:LEU:HD22	59:DC:303:THR:HG21	1.90	0.52
59:DK:44:VAL:HG13	59:DK:45:GLU:OE1	2.08	0.52
60:DN:119:VAL:O	60:DN:122:LYS:HG3	2.08	0.52
59:DO:211:ASP:OD2	59:DO:304:LYS:NZ	2.42	0.52
59:EB:398:MET:HE2	60:EC:346:PRO:HD2	1.90	0.52
59:ED:234:VAL:O	59:ED:238:LEU:HD12	2.08	0.52
59:EF:273:ALA:HB2	59:EF:295:VAL:HG23	1.91	0.52
60:EQ:376:GLU:HG2	60:EQ:379:ARG:HH12	1.74	0.52
59:GN:56:THR:HB	59:HA:285:GLN:NE2	2.25	0.52
59:GT:100:ALA:HB2	59:GT:105:ARG:HH22	1.74	0.52
60:GV:249:ASP:OD1	60:GV:250:LEU:N	2.43	0.52
60:GZ:344:TRP:HB3	60:GZ:430:ILE:HD11	1.91	0.52
59:HC:319:TYR:HB2	59:HC:355:ILE:HD13	1.90	0.52
60:HL:122:LYS:NZ	60:HL:123:GLU:OE2	2.25	0.52
60:HW:391:ARG:HD3	59:HX:346:TRP:HB3	1.91	0.52
59:HZ:60:LYS:HD2	59:IM:282:TYR:CZ	2.44	0.52
59:II:5:ILE:HD13	59:II:64:ARG:HB3	1.91	0.52
60:IW:249:ASP:OD1	60:IW:250:LEU:N	2.42	0.52
60:JA:183:TYR:CD2	60:JA:398:TYR:HE2	2.27	0.52
60:JV:395:LEU:HD21	60:JV:405:GLU:HG2	1.91	0.52
60:JX:3:GLU:OE2	60:JX:127:CYS:HB3	2.08	0.52
60:JX:249:ASP:OD1	60:JX:250:LEU:N	2.42	0.52
60:KG:31:ASP:OD1	60:KG:32:PRO:HD2	2.09	0.52
60:KG:220:PRO:HG2	59:KH:326:LYS:NZ	2.25	0.52
59:KH:88:HIS:NE2	59:KU:284:GLU:OE2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KH:270:THR:HG22	59:KH:378:ILE:HG22	1.90	0.52
59:KH:288:VAL:HB	59:KH:327:ASP:HB3	1.91	0.52
60:KO:148:GLY:O	60:KO:152:ILE:HG12	2.09	0.52
15:0X:21:VAL:HA	15:0X:24:VAL:HG12	1.90	0.52
35:2H:222:VAL:HG11	59:FF:405:VAL:HG21	1.91	0.52
39:2P:175:LYS:HG2	39:2P:176:LEU:HG	1.90	0.52
41:3D:179:LYS:HZ3	41:3D:180:ARG:HH22	1.57	0.52
47:3V:62:ARG:HH12	47:3V:122:GLY:HA3	1.74	0.52
47:3X:181:HIS:HA	48:4A:168:ARG:HH22	1.73	0.52
49:4C:78:ASN:HA	49:4C:81:ARG:HG2	1.92	0.52
55:4P:108:ASP:OD1	55:4P:111:ARG:NH1	2.43	0.52
60:AF:31:ASP:OD1	60:AF:32:PRO:HD2	2.09	0.52
60:AJ:156:ARG:NH2	60:AJ:197:ASP:OD1	2.43	0.52
60:AT:404:ASP:HB3	60:AT:407:GLU:OE1	2.09	0.52
60:AV:177:ASP:OD2	64:AV:501:GDP:O2'	2.21	0.52
60:AX:203:ASP:HB3	60:AX:205:GLU:CD	2.30	0.52
59:AY:172:TYR:CE2	59:AY:203:MET:HG2	2.45	0.52
60:BF:117:LEU:HA	60:BF:120:CYS:SG	2.49	0.52
60:BF:391:ARG:O	60:BF:392:LYS:HB2	2.08	0.52
60:BH:117:LEU:HA	60:BH:120:CYS:SG	2.50	0.52
59:BW:153:LEU:O	59:BW:157:LEU:HG	2.10	0.52
60:CA:173:PRO:HD2	60:CA:205:GLU:OE2	2.10	0.52
60:CC:52:ASP:OD1	60:CC:53:GLU:N	2.42	0.52
59:CH:256:GLN:O	59:CH:260:VAL:HG22	2.09	0.52
59:CH:258:ASN:HD22	59:CH:352:LYS:HB2	1.74	0.52
59:CS:251:ASP:OD1	59:CS:252:LEU:N	2.42	0.52
60:CT:344:TRP:HB3	60:CT:430:ILE:HD11	1.91	0.52
59:CY:330:ALA:O	59:CY:334:THR:HG23	2.09	0.52
59:EP:203:MET:HE1	59:EP:384:ILE:HD12	1.91	0.52
59:ET:270:THR:HG22	59:ET:378:ILE:HG22	1.90	0.52
60:FC:267:MET:SD	60:FC:301:GLN:NE2	2.82	0.52
60:FM:139:LEU:HD12	60:FM:170:ILE:HG12	1.91	0.52
60:FS:249:ASP:OD1	60:FS:250:LEU:N	2.42	0.52
60:FZ:398:TYR:HB3	60:FZ:403:MET:HE2	1.90	0.52
60:GK:318:ARG:HD3	60:GK:358:PRO:HD3	1.91	0.52
60:GO:122:LYS:NZ	60:GO:123:GLU:OE2	2.27	0.52
59:GP:269:LEU:HD22	59:GP:303:THR:HG21	1.91	0.52
59:GU:401:LYS:HD2	60:GV:344:TRP:CE3	2.43	0.52
59:HE:46:ASP:OD1	59:HE:47:ASP:N	2.42	0.52
60:HH:179:VAL:HG13	60:HH:180:VAL:HG13	1.91	0.52
59:HQ:325:PRO:O	59:HQ:328:VAL:HG22	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HV:292:SER:HB3	59:HV:335:ILE:HD11	1.91	0.52
60:IA:12:CYS:SG	60:IA:13:GLY:N	2.81	0.52
59:IO:119:LEU:HD21	59:IO:156:ARG:HG2	1.91	0.52
59:IO:188:VAL:HG23	59:IO:425:LEU:HD22	1.91	0.52
60:IU:298:ASN:O	60:IU:298:ASN:ND2	2.39	0.52
60:JA:33:THR:O	60:JA:58:ARG:NH1	2.42	0.52
60:JC:179:VAL:HG13	60:JC:180:VAL:HG13	1.92	0.52
59:JD:51:THR:HG22	59:JD:52:PHE:CD1	2.44	0.52
59:JF:321:GLY:N	59:JF:356:ASN:O	2.39	0.52
60:JG:167:PHE:HD2	60:JG:233:VAL:HG22	1.74	0.52
59:JL:119:LEU:O	59:JL:123:ARG:HG2	2.09	0.52
60:KB:396:HIS:CE1	59:KC:261:PRO:O	2.62	0.52
59:KD:167:LEU:HD22	59:KD:200:VAL:HB	1.90	0.52
59:KQ:105:ARG:HG3	59:KQ:411:GLU:HG2	1.92	0.52
3:0F:456:ASN:H	60:BR:218:THR:HG22	1.74	0.52
17:0Z:191:LYS:HD2	17:0Z:201:TYR:HE1	1.74	0.52
23:1F:33:ARG:NH1	23:1F:86:ASP:OD2	2.41	0.52
27:1L:320:CYS:O	27:1L:403:GLN:NE2	2.41	0.52
30:1S:7:PRO:HG2	30:1S:9:LEU:HD23	1.92	0.52
32:1V:78:MET:HG2	32:1V:165:LEU:HD22	1.90	0.52
33:2C:256:ASP:OD1	33:2C:260:ASP:N	2.42	0.52
41:3A:287:THR:HG23	41:3A:288:HIS:ND1	2.25	0.52
59:AC:105:ARG:HG2	59:AC:110:ILE:HD12	1.92	0.52
59:AG:103:TYR:HD2	59:AG:413:MET:HE1	1.75	0.52
59:BC:209:ILE:HB	59:BC:227:LEU:HD22	1.91	0.52
60:BF:327:ASP:OD1	60:BF:328:GLU:N	2.42	0.52
60:BR:254:ALA:O	60:BR:258:VAL:HG22	2.10	0.52
59:CD:172:TYR:CD1	59:CD:173:PRO:HD2	2.45	0.52
60:CG:14:ASN:OD1	60:CG:65:LEU:HD12	2.10	0.52
60:DB:175:VAL:HG11	60:DB:208:TYR:HE2	1.74	0.52
59:DC:394:LYS:HG2	60:DD:346:PRO:HG3	1.91	0.52
60:DJ:66:ILE:HD12	60:DJ:147:MET:HE2	1.91	0.52
60:DJ:73:MET:HA	60:DJ:76:VAL:HG22	1.90	0.52
59:DM:221:ARG:NE	60:DN:325:GLU:OE2	2.43	0.52
60:DP:404:ASP:HB3	60:DP:407:GLU:OE1	2.10	0.52
59:DQ:69:ASP:OD1	59:DQ:70:LEU:N	2.43	0.52
60:DV:305:PRO:HA	60:DV:371:ASN:HD21	1.74	0.52
60:EU:230:SER:HA	60:EU:233:VAL:HG12	1.91	0.52
60:GD:237:THR:HG23	60:GD:241:ARG:HH12	1.72	0.52
59:GH:239:THR:HB	59:GH:243:ARG:HH21	1.73	0.52
59:GL:11:GLN:O	59:GL:15:GLN:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GN:291:ILE:O	59:GN:295:VAL:HG23	2.09	0.52
60:GS:249:ASP:OD1	60:GS:250:LEU:N	2.42	0.52
59:HK:113:GLU:OE1	59:HK:113:GLU:N	2.40	0.52
60:HP:344:TRP:HB3	60:HP:430:ILE:HD11	1.90	0.52
59:IK:15:GLN:NE2	62:IK:602:GTP:O6	2.42	0.52
60:IP:254:ALA:O	60:IP:258:VAL:HG12	2.09	0.52
60:IW:31:ASP:OD1	60:IW:32:PRO:HD2	2.08	0.52
60:IY:375:GLN:OE1	60:IY:379:ARG:NH2	2.43	0.52
60:JA:240:LEU:HD11	60:JA:250:LEU:HG	1.92	0.52
59:JB:256:GLN:O	59:JB:260:VAL:HG22	2.10	0.52
60:JC:238:CYS:SG	60:JC:239:CYS:N	2.82	0.52
59:KC:132:LEU:HD21	59:KC:135:PHE:HE1	1.75	0.52
59:KC:203:MET:HE3	59:KC:384:ILE:HD11	1.90	0.52
11:0T:253:GLY:O	11:0T:332:ARG:NH2	2.43	0.52
30:1S:89:THR:HG23	30:1S:91:ASN:H	1.74	0.52
33:2C:28:ILE:HD13	33:2C:39:TYR:HB3	1.90	0.52
37:2M:49:SER:OG	37:2M:50:CYS:N	2.42	0.52
39:2P:357:MET:SD	59:KJ:370:LYS:HD3	2.49	0.52
40:2S:53:CYS:O	40:2S:57:HIS:ND1	2.41	0.52
42:3F:5:HIS:HB2	42:3F:10:LEU:HG	1.92	0.52
47:3V:87:ARG:NH2	60:FS:161:ASP:OD2	2.43	0.52
60:AD:328:GLU:O	60:AD:332:ASN:ND2	2.36	0.52
59:AM:254:GLU:HA	59:AM:257:THR:HG22	1.90	0.52
59:AW:224:TYR:HB2	60:AX:245:GLN:NE2	2.23	0.52
60:BD:249:ASP:OD1	60:BD:250:LEU:N	2.42	0.52
59:BX:117:LEU:HB3	59:BX:121:ARG:NH1	2.24	0.52
60:CC:156:ARG:HH21	60:CC:164:MET:HB2	1.74	0.52
60:CL:311:LEU:HD23	60:CL:342:ILE:HG21	1.91	0.52
60:CV:390:ARG:NH2	59:CW:439:SER:OG	2.41	0.52
60:CX:173:PRO:HB3	60:CX:380:ARG:HD2	1.91	0.52
59:DC:128:ASN:O	59:DC:128:ASN:ND2	2.43	0.52
59:DE:284:GLU:OE2	59:DQ:88:HIS:NE2	2.39	0.52
59:DM:195:LEU:HD21	59:DM:264:ARG:HH11	1.73	0.52
60:DR:404:ASP:HB3	60:DR:407:GLU:OE1	2.09	0.52
60:EQ:283:GLY:HA3	60:FC:55:THR:HG23	1.90	0.52
59:ER:212:LEU:HD21	59:ER:275:VAL:HG21	1.91	0.52
60:ES:52:ASP:OD1	60:ES:53:GLU:N	2.42	0.52
60:FK:289:LEU:HD11	60:FK:363:MET:HG3	1.91	0.52
60:GB:311:LEU:HD23	60:GB:342:ILE:HG21	1.91	0.52
59:GC:273:ALA:HB2	59:GC:295:VAL:HG22	1.90	0.52
60:GK:209:ASP:O	60:GK:213:ARG:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GL:319:TYR:HB2	59:GL:355:ILE:HD13	1.91	0.52
60:GQ:238:CYS:SG	60:GQ:318:ARG:NE	2.83	0.52
59:GR:56:THR:HG23	59:GR:58:ALA:H	1.74	0.52
59:GR:288:VAL:HG11	59:GR:327:ASP:HB3	1.92	0.52
60:HB:326:VAL:O	60:HB:330:MET:HG2	2.10	0.52
60:HH:237:THR:HG23	60:HH:241:ARG:NH1	2.23	0.52
59:HQ:2:ARG:N	59:HQ:133:GLN:OE1	2.42	0.52
59:HQ:242:LEU:HD11	59:HQ:252:LEU:HD11	1.92	0.52
60:HS:31:ASP:OD1	60:HS:32:PRO:HD2	2.10	0.52
60:HY:14:ASN:OD1	60:HY:65:LEU:HD12	2.09	0.52
59:JN:275:VAL:HG23	59:JN:368:LEU:HD21	1.91	0.52
59:JU:207:GLU:OE2	59:JU:304:LYS:NZ	2.36	0.52
60:JV:68:LEU:HD11	60:JV:147:MET:HE3	1.91	0.52
60:JX:286:VAL:HG12	60:JX:329:GLN:OE1	2.10	0.52
60:KE:67:ASP:OD1	60:KE:68:LEU:N	2.42	0.52
60:KG:19:LYS:NZ	60:KG:223:GLY:O	2.42	0.52
60:KM:97:ALA:HB2	60:KM:143:THR:HB	1.90	0.52
59:KY:90:GLU:OE1	59:KY:121:ARG:NH2	2.42	0.52
59:LA:419:SER:O	59:LA:423:GLU:HG3	2.08	0.52
19:1B:59:THR:HG22	19:1B:93:TYR:HE1	1.75	0.52
32:1V:15:TYR:CE2	32:1V:17:ILE:HB	2.44	0.52
33:2C:123:ARG:NH2	33:2C:124:TYR:OH	2.41	0.52
33:2D:256:ASP:OD1	33:2D:260:ASP:N	2.42	0.52
41:2V:149:GLN:HE22	42:3G:64:VAL:HG22	1.73	0.52
41:2W:296:LEU:HA	41:2W:299:LYS:HG2	1.92	0.52
41:2Y:267:ARG:NH1	41:2Y:268:GLN:OE1	2.43	0.52
43:3Q:155:ARG:HA	43:3Q:158:PHE:CE2	2.44	0.52
48:3Y:17:CYS:HB3	48:3Y:22:HIS:NE2	2.24	0.52
60:BD:101:TRP:HE1	60:BD:146:GLY:HA2	1.75	0.52
59:BE:88:HIS:CD2	59:BE:90:GLU:H	2.28	0.52
60:BN:135:ILE:HB	60:BN:166:THR:HG22	1.90	0.52
60:BT:252:LYS:HA	60:BT:255:VAL:HG12	1.92	0.52
60:BV:48:ASN:O	60:BV:62:ARG:NH2	2.39	0.52
60:CA:67:ASP:OD1	60:CA:68:LEU:N	2.43	0.52
59:CM:172:TYR:OH	59:CM:391:ILE:HD12	2.09	0.52
60:CR:14:ASN:OD1	60:CR:65:LEU:HD12	2.10	0.52
59:CW:256:GLN:O	59:CW:260:VAL:HG22	2.09	0.52
60:DF:8:GLN:OE1	60:DF:17:GLY:HA3	2.10	0.52
60:DF:289:LEU:HD11	60:DF:363:MET:HG3	1.92	0.52
60:DR:31:ASP:OD1	60:DR:32:PRO:HD2	2.09	0.52
60:DV:410:GLU:O	60:DV:414:ASN:ND2	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EH:27:GLU:OE2	59:EH:243:ARG:NH2	2.42	0.52
59:EV:388:PHE:HA	59:EV:391:ILE:HG22	1.90	0.52
60:FI:295:ASP:OD2	60:FI:297:LYS:HB2	2.09	0.52
60:FQ:239:CYS:SG	60:FQ:248:SER:N	2.81	0.52
60:GD:67:ASP:OD1	60:GD:68:LEU:N	2.43	0.52
60:GF:52:ASP:OD1	60:GF:53:GLU:N	2.42	0.52
60:GF:173:PRO:HB3	60:GF:380:ARG:NH1	2.24	0.52
60:GO:375:GLN:O	60:GO:379:ARG:HG3	2.09	0.52
59:GP:27:GLU:HG2	59:GP:361:THR:HG21	1.91	0.52
59:HE:120:ASP:OD1	59:HE:123:ARG:NH2	2.43	0.52
60:HR:156:ARG:NH2	60:HR:164:MET:HB2	2.23	0.52
60:HW:292:GLN:HG2	60:HW:298:ASN:ND2	2.24	0.52
59:HX:406:HIS:HA	59:HX:409:VAL:HG12	1.91	0.52
59:IT:189:LEU:HD11	59:IT:418:PHE:HE1	1.73	0.52
59:IV:326:LYS:HA	59:IV:329:ASN:ND2	2.24	0.52
59:JF:267:PHE:HD2	59:JF:388:PHE:HZ	1.58	0.52
60:JG:305:PRO:HA	60:JG:371:ASN:HD21	1.75	0.52
60:JM:289:LEU:HD23	60:JM:365:VAL:HG12	1.92	0.52
60:JV:249:ASP:OD1	60:JV:250:LEU:N	2.42	0.52
59:KC:384:ILE:O	59:KC:387:VAL:HG22	2.10	0.52
60:KV:94:GLN:OE1	59:KW:2:ARG:NH2	2.43	0.52
3:0F:321:THR:OG1	3:0F:322:GLU:OE1	2.26	0.52
5:0H:206:ILE:HG22	60:ES:276:ARG:NH1	2.24	0.52
36:2K:19:SER:HB2	36:2K:88:GLN:HB3	1.91	0.52
37:2L:231:ARG:NH1	60:EQ:301:GLN:O	2.43	0.52
40:2S:51:GLU:HA	40:2S:54:ASN:HD21	1.74	0.52
47:3W:244:GLN:NE2	59:HK:84:ARG:O	2.24	0.52
47:3X:116:HIS:HB3	47:3X:120:THR:HG21	1.92	0.52
60:AT:69:GLU:OE2	60:AT:96:GLY:N	2.43	0.52
60:AT:324:LYS:HE2	60:AT:328:GLU:OE2	2.10	0.52
59:BK:225:THR:O	59:BK:229:ARG:HG2	2.10	0.52
60:CA:209:ASP:HB3	60:CA:213:ARG:HH12	1.74	0.52
60:CA:282:ARG:NH2	60:CA:288:GLU:OE2	2.36	0.52
60:CC:73:MET:CE	60:CC:92:PHE:HB3	2.40	0.52
59:CJ:27:GLU:OE2	59:CJ:243:ARG:NH1	2.43	0.52
60:CL:167:PHE:CZ	60:CL:233:VAL:HG23	2.44	0.52
60:CL:374:ILE:O	60:CL:377:MET:HG2	2.10	0.52
59:CO:195:LEU:HD11	59:CO:428:LEU:HD13	1.92	0.52
59:CY:215:ARG:HH12	59:CY:299:ALA:HB1	1.75	0.52
60:EA:214:THR:HG21	60:EA:273:LEU:HD12	1.91	0.52
59:EX:137:VAL:HG21	59:EX:154:LEU:HD21	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EY:252:LYS:HG2	60:EY:350:LYS:HE3	1.92	0.52
60:FO:170:ILE:HG23	60:FO:171:PRO:HD2	1.91	0.52
60:FQ:237:THR:HG23	60:FQ:241:ARG:NH1	2.24	0.52
60:GD:73:MET:HE3	60:GD:92:PHE:HB3	1.92	0.52
59:GP:76:ASP:OD1	59:GP:79:ARG:NH1	2.39	0.52
60:HF:137:HIS:O	60:HF:168:SER:HA	2.10	0.52
60:HN:173:PRO:HA	60:HN:380:ARG:NH1	2.23	0.52
60:HR:325:GLU:OE1	60:HR:325:GLU:N	2.43	0.52
59:HV:270:THR:HG22	59:HV:378:ILE:HG22	1.92	0.52
60:HY:153:SER:HA	60:HY:195:ASN:HD21	1.74	0.52
60:IA:230:SER:HA	60:IA:233:VAL:HG12	1.92	0.52
60:IH:31:ASP:OD1	60:IH:32:PRO:HD2	2.08	0.52
60:IN:52:ASP:OD1	60:IN:53:GLU:N	2.43	0.52
59:IT:36:MET:HB3	59:IT:40:LYS:HZ1	1.74	0.52
59:IZ:3:GLU:OE1	59:IZ:64:ARG:NH1	2.42	0.52
59:IZ:273:ALA:HB2	59:IZ:295:VAL:HG23	1.92	0.52
59:JP:63:PRO:O	59:JP:91:GLN:NE2	2.43	0.52
59:KC:206:ASN:O	59:KC:210:TYR:HD1	1.93	0.52
59:KD:206:ASN:O	59:KD:210:TYR:HD1	1.93	0.52
60:KM:254:ALA:O	60:KM:258:VAL:HG12	2.10	0.52
1:0A:281:ASP:OD2	1:0A:305:ARG:NH2	2.43	0.52
1:0A:553:GLU:OE1	1:0A:555:SER:OG	2.27	0.52
2:0E:389:LYS:HE2	2:0E:395:GLU:HG3	1.91	0.52
4:0G:8:THR:HG21	4:0G:52:ASN:HB2	1.91	0.52
33:2D:491:ILE:HG12	33:2D:503:VAL:HG23	1.91	0.52
41:2Z:26:ARG:HG3	60:HJ:56:GLY:HA2	1.92	0.52
42:3E:219:THR:HG23	42:3E:222:SER:H	1.75	0.52
43:3Q:59:LYS:NZ	43:3Q:63:GLN:OE1	2.43	0.52
47:3V:240:ARG:HH22	59:HO:220:GLU:HG3	1.75	0.52
47:3X:227:LEU:HD23	47:3X:231:LEU:HD23	1.92	0.52
52:4I:38:ARG:HE	60:KK:297:LYS:HG3	1.75	0.52
60:AH:73:MET:HA	60:AH:76:VAL:HG22	1.92	0.52
60:AV:68:LEU:HD22	60:AV:143:THR:HG22	1.92	0.52
59:AY:53:PHE:O	59:AY:64:ARG:NH2	2.43	0.52
60:BJ:117:LEU:HA	60:BJ:120:CYS:SG	2.50	0.52
60:BV:170:ILE:HG23	60:BV:171:PRO:HD2	1.92	0.52
60:CI:252:LYS:HA	60:CI:255:VAL:HG12	1.92	0.52
60:CL:303:ALA:HB1	60:CL:373:CYS:SG	2.50	0.52
59:CU:352:LYS:HD2	59:CU:353:CYS:N	2.24	0.52
60:DN:67:ASP:OD1	60:DN:68:LEU:N	2.43	0.52
60:DY:391:ARG:HH11	59:DZ:439:SER:HA	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EB:277:SER:HB3	59:EB:280:LYS:HD2	1.92	0.52
59:EB:332:VAL:O	59:EB:336:LYS:HG3	2.10	0.52
60:EU:107:THR:O	60:EU:111:GLU:HG3	2.10	0.52
60:EU:170:ILE:HG23	60:EU:171:PRO:HD2	1.92	0.52
60:EW:271:ALA:HA	60:EW:298:ASN:HD21	1.74	0.52
60:FG:429:THR:HG23	60:FG:431:GLU:HG2	1.90	0.52
59:FJ:50:ASN:O	59:FJ:64:ARG:NH1	2.43	0.52
59:FU:50:ASN:O	59:FU:64:ARG:NH1	2.43	0.52
60:FV:327:ASP:OD1	60:FV:328:GLU:N	2.43	0.52
59:GJ:269:LEU:HD21	59:GJ:384:ILE:HD13	1.92	0.52
60:GK:73:MET:HE1	60:GK:92:PHE:CD1	2.45	0.52
59:GP:172:TYR:CE2	59:GP:203:MET:HG2	2.45	0.52
59:GT:117:LEU:O	59:GT:121:ARG:HG2	2.10	0.52
60:HB:119:VAL:O	60:HB:122:LYS:HG3	2.10	0.52
59:HE:175:PRO:HG2	59:HE:207:GLU:OE2	2.09	0.52
60:HF:174:LYS:HD2	60:HF:175:VAL:HG23	1.91	0.52
59:HG:192:HIS:HD2	59:HG:421:ALA:HA	1.75	0.52
59:HQ:105:ARG:HA	59:HQ:109:THR:HG22	1.92	0.52
60:JK:238:CYS:HB2	60:JK:318:ARG:HH11	1.74	0.52
59:JS:222:PRO:HD2	60:JT:324:LYS:HD2	1.91	0.52
60:JT:173:PRO:HB3	60:JT:380:ARG:HD2	1.92	0.52
59:KD:398:MET:HE1	60:KE:345:ILE:HA	1.92	0.52
59:KH:175:PRO:HB3	59:KH:390:ARG:NH1	2.24	0.52
59:KL:294:ALA:O	59:KL:297:GLU:HG2	2.10	0.52
60:KR:252:LYS:HA	60:KR:255:VAL:HG12	1.91	0.52
23:1F:15:ASP:OD1	23:1F:16:THR:N	2.43	0.52
52:4I:50:PRO:HG2	52:4I:57:VAL:HG12	1.92	0.52
53:4L:80:PHE:HE2	60:JE:294:PHE:HB3	1.74	0.52
59:AE:284:GLU:OE2	59:AQ:88:HIS:NE2	2.41	0.52
60:AV:164:MET:CE	60:AV:196:SER:HA	2.39	0.52
60:BV:113:ILE:HD12	60:BV:150:LEU:HG	1.92	0.52
60:BY:318:ARG:HG2	60:BY:357:PRO:HA	1.91	0.52
60:BY:358:PRO:HG2	60:BY:361:LEU:HB2	1.92	0.52
60:CN:390:ARG:HD2	60:CN:391:ARG:HD2	1.91	0.52
60:DN:324:LYS:NZ	60:DN:328:GLU:HG3	2.25	0.52
60:DY:391:ARG:NH1	59:DZ:439:SER:HA	2.25	0.52
59:EF:270:THR:HG22	59:EF:378:ILE:HG22	1.91	0.52
60:EQ:170:ILE:HG23	60:EQ:171:PRO:HD2	1.92	0.52
60:EQ:202:ILE:HD12	60:EQ:300:MET:HB3	1.92	0.52
60:FS:62:ARG:HG2	60:FS:123:GLU:OE2	2.10	0.52
60:GO:22:GLU:HG2	60:GO:81:TYR:HD2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GU:222:PRO:HG2	60:GV:324:LYS:HB2	1.91	0.52
59:HG:191:THR:O	59:HG:195:LEU:HD23	2.09	0.52
60:HP:131:GLN:HG3	60:HP:132:GLY:H	1.74	0.52
60:HR:153:SER:HA	60:HR:195:ASN:HD21	1.75	0.52
59:IX:319:TYR:HE2	59:IX:328:VAL:HG13	1.74	0.52
60:IY:31:ASP:OD1	60:IY:32:PRO:HD2	2.10	0.52
59:JL:51:THR:HG21	59:JL:242:LEU:HD22	1.92	0.52
59:JP:79:ARG:HG2	59:JP:92:LEU:HD13	1.91	0.52
59:KA:88:HIS:HB3	59:KA:91:GLN:HG2	1.91	0.52
59:KN:88:HIS:ND1	59:KN:90:GLU:HG2	2.24	0.52
59:KQ:76:ASP:OD1	59:KQ:79:ARG:NH1	2.41	0.52
60:KR:67:ASP:OD1	60:KR:68:LEU:N	2.41	0.52
1:0A:204:LEU:HD12	1:0A:205:PRO:HD2	1.90	0.52
2:0E:685:SER:O	2:0E:714:GLN:NE2	2.43	0.52
4:0G:600:LYS:O	4:0G:688:LYS:NZ	2.42	0.52
30:1R:101:ALA:HB1	60:EC:423:GLN:HG2	1.91	0.52
30:1S:101:ALA:HB1	60:DY:423:GLN:HG2	1.91	0.52
40:2T:109:GLU:OE2	40:2T:113:ARG:NH1	2.43	0.52
48:3Z:215:VAL:HA	48:3Z:218:GLN:NE2	2.25	0.52
48:4A:227:ARG:HG3	48:4A:231:ARG:HH12	1.74	0.52
54:4O:140:LYS:O	54:4O:144:GLU:HG3	2.09	0.52
59:AI:291:ILE:O	59:AI:295:VAL:HG23	2.10	0.52
60:AR:202:ILE:HD12	60:AR:300:MET:HB2	1.92	0.52
60:BN:212:PHE:CE2	59:BO:326:LYS:HG2	2.45	0.52
60:BV:99:ASN:HD21	60:BV:178:THR:HG21	1.74	0.52
60:CX:128:ASP:OD1	60:CX:129:CYS:N	2.43	0.52
60:CX:153:SER:HA	60:CX:195:ASN:ND2	2.24	0.52
59:CY:15:GLN:NE2	62:CY:501:GTP:O6	2.42	0.52
59:DG:111:GLY:HA2	59:DG:114:ILE:HG22	1.92	0.52
60:DN:148:GLY:O	60:DN:152:ILE:HG12	2.09	0.52
60:EE:31:ASP:OD1	60:EE:32:PRO:HD2	2.10	0.52
59:EF:100:ALA:HA	60:EG:252:LYS:HG3	1.92	0.52
59:EL:51:THR:HG21	59:EL:243:ARG:HG2	1.92	0.52
59:EN:192:HIS:ND1	59:EN:424:ASP:OD2	2.43	0.52
59:ER:24:PHE:HA	59:ER:27:GLU:HG2	1.92	0.52
60:EU:204:ASN:OD1	64:EU:501:GDP:N2	2.40	0.52
60:FC:67:ASP:OD1	60:FC:68:LEU:N	2.42	0.52
60:FI:230:SER:HA	60:FI:233:VAL:HG12	1.92	0.52
59:FN:251:ASP:OD1	59:FN:252:LEU:N	2.43	0.52
60:GB:179:VAL:HG13	60:GB:180:VAL:HG13	1.92	0.52
60:HF:344:TRP:HB3	60:HF:430:ILE:HD11	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HF:392:LYS:HA	60:HF:395:LEU:HD23	1.91	0.52
60:HJ:204:ASN:OD1	64:HJ:501:GDP:N2	2.43	0.52
60:HJ:390:ARG:HG3	60:HJ:391:ARG:HG2	1.92	0.52
60:HR:67:ASP:OD1	60:HR:67:ASP:N	2.41	0.52
59:IK:392:ASP:HB3	59:IK:422:ARG:CZ	2.40	0.52
60:IP:179:VAL:HG13	60:IP:180:VAL:HG13	1.92	0.52
59:JL:398:MET:HE2	60:JM:346:PRO:HD2	1.92	0.52
60:JV:11:GLN:NE2	59:JW:247:ALA:O	2.40	0.52
59:JY:212:LEU:HD21	59:JY:275:VAL:HG11	1.90	0.52
59:KC:419:SER:O	59:KC:423:GLU:HG3	2.09	0.52
60:KK:404:ASP:HB3	60:KK:407:GLU:OE1	2.09	0.52
60:KX:252:LYS:HA	60:KX:255:VAL:HG12	1.90	0.52
60:LB:31:ASP:OD1	60:LB:32:PRO:HD2	2.09	0.52
3:0F:408:LEU:HG	3:0F:410:LEU:H	1.74	0.51
3:0F:422:ALA:HB2	3:0F:494:LEU:HD23	1.91	0.51
18:1A:19:GLY:O	18:1A:125:ARG:NH1	2.43	0.51
22:1E:74:LEU:HB2	22:1E:77:LEU:HD23	1.91	0.51
32:2A:19:SER:N	60:KR:128:ASP:OD1	2.39	0.51
35:2G:31:ASP:OD1	59:EJ:393:HIS:NE2	2.43	0.51
42:3L:188:THR:HG21	48:4A:237:LYS:HE2	1.91	0.51
43:3Q:86:ALA:HB1	43:3Q:106:ARG:HG3	1.92	0.51
58:4V:89:GLU:HB3	58:4V:93:ARG:NH1	2.24	0.51
60:AJ:145:SER:HB3	60:AJ:188:SER:OG	2.10	0.51
60:AR:322:SER:OG	60:AR:325:GLU:HG3	2.11	0.51
60:BB:262:ARG:NH1	60:BB:421:GLU:OE2	2.39	0.51
59:BC:118:CYS:O	59:BC:122:ILE:HD12	2.10	0.51
59:BW:172:TYR:CG	59:BW:173:PRO:HD2	2.45	0.51
60:CA:54:ALA:HB3	60:CA:58:ARG:HG2	1.92	0.51
60:CC:298:ASN:HD22	60:CC:298:ASN:C	2.12	0.51
60:DD:309:ARG:HD3	60:DD:342:ILE:HA	1.92	0.51
59:DM:169:TYR:HE2	59:DM:235:VAL:HG22	1.75	0.51
59:DQ:52:PHE:CZ	59:DQ:239:THR:HG21	2.45	0.51
59:FP:109:THR:HG21	59:FP:411:GLU:OE2	2.10	0.51
60:FX:159:TYR:HB3	60:FX:162:ARG:HG2	1.92	0.51
59:GH:289:SER:O	59:GH:293:ASN:ND2	2.42	0.51
60:GM:252:LYS:HA	60:GM:255:VAL:HG12	1.92	0.51
59:GT:36:MET:HG2	59:GT:38:SER:H	1.76	0.51
60:GV:238:CYS:SG	60:GV:318:ARG:NE	2.82	0.51
60:HB:3:GLU:OE2	60:HB:130:LEU:HA	2.11	0.51
60:HB:298:ASN:ND2	60:HB:298:ASN:O	2.43	0.51
60:HF:40:SER:HB3	60:HF:43:GLN:HE21	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HR:14:ASN:OD1	60:HR:65:LEU:HD12	2.10	0.51
60:HS:45:GLU:HG2	60:HS:46:ARG:HH11	1.74	0.51
59:IB:262:TYR:HD2	59:IB:265:ILE:HD12	1.74	0.51
60:IS:58:ARG:HH22	60:JE:280:GLN:HE21	1.56	0.51
60:IU:344:TRP:HB3	60:IU:430:ILE:HD11	1.92	0.51
60:IY:290:THR:HA	60:IY:293:MET:HE3	1.91	0.51
60:JC:344:TRP:HB3	60:JC:430:ILE:HD11	1.92	0.51
60:JK:8:GLN:HE22	60:JK:21:TRP:HE1	1.58	0.51
60:JM:174:LYS:NZ	60:JM:205:GLU:OE2	2.40	0.51
59:JP:189:LEU:HD11	59:JP:418:PHE:HE1	1.74	0.51
59:KD:79:ARG:NH2	59:KD:92:LEU:O	2.42	0.51
60:KE:270:PHE:O	60:KE:298:ASN:ND2	2.43	0.51
60:KM:213:ARG:HD2	60:KM:297:LYS:HG2	1.92	0.51
1:0A:212:LEU:HD12	1:0A:215:ARG:HE	1.75	0.51
2:0E:463:MET:O	2:0E:465:ARG:NH1	2.43	0.51
2:0E:537:HIS:NE2	59:CH:39:ASP:HB3	2.26	0.51
3:0F:83:LEU:HB3	3:0F:171:THR:HG22	1.91	0.51
15:0X:122:ASP:OD1	15:0X:123:GLU:N	2.43	0.51
21:1D:221:ARG:HH22	60:BF:35:THR:HG21	1.75	0.51
27:1K:117:GLN:HG2	27:1K:120:ARG:NH1	2.25	0.51
30:1Q:277:VAL:HG22	30:1Q:298:ILE:HD11	1.92	0.51
33:2B:28:ILE:HD13	33:2B:39:TYR:HB3	1.92	0.51
42:3N:3:THR:HG1	42:3N:4:LEU:H	1.57	0.51
44:3R:173:ARG:HA	44:3R:177:ILE:HG13	1.92	0.51
53:4K:187:TYR:O	59:JL:214:ARG:HG2	2.11	0.51
53:4K:197:VAL:HG11	59:IZ:117:LEU:HD22	1.92	0.51
60:AH:298:ASN:O	60:AH:298:ASN:ND2	2.43	0.51
59:BM:22:GLU:OE2	59:BM:229:ARG:NH1	2.41	0.51
60:BY:149:THR:HB	60:BY:191:GLN:HG2	1.92	0.51
59:BZ:104:ALA:HB2	59:BZ:413:MET:HE3	1.92	0.51
60:DB:128:ASP:OD1	60:DB:129:CYS:N	2.43	0.51
60:EA:213:ARG:HH11	60:EA:297:LYS:HE3	1.75	0.51
60:EC:395:LEU:HD21	60:EC:405:GLU:HG2	1.91	0.51
60:EE:68:LEU:HD13	60:EE:143:THR:OG1	2.10	0.51
59:EP:224:TYR:HD1	59:EP:227:LEU:HD12	1.76	0.51
60:EW:284:LEU:HD22	60:EW:362:LYS:HB3	1.93	0.51
59:GE:24:PHE:HA	59:GE:27:GLU:HG2	1.92	0.51
59:GP:319:TYR:HB2	59:GP:355:ILE:HD13	1.92	0.51
59:GR:251:ASP:OD1	59:GR:252:LEU:N	2.43	0.51
59:GY:177:VAL:HG21	60:GZ:324:LYS:HZ3	1.75	0.51
59:HG:88:HIS:HD2	59:HG:90:GLU:HB2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HO:212:LEU:HD21	59:HO:275:VAL:HG11	1.91	0.51
60:HR:298:ASN:ND2	60:HR:298:ASN:O	2.44	0.51
60:HY:388:MET:HG2	60:HY:393:ALA:HB3	1.92	0.51
60:IL:391:ARG:HH11	59:IM:439:SER:HB3	1.74	0.51
59:IM:251:ASP:OD1	59:IM:252:LEU:N	2.42	0.51
59:IO:105:ARG:HG2	59:IO:411:GLU:HG2	1.93	0.51
59:IQ:54:SER:HB3	59:IQ:64:ARG:NH1	2.25	0.51
60:IW:230:SER:HA	60:IW:233:VAL:HG12	1.92	0.51
59:IX:75:VAL:HG23	59:IX:79:ARG:HH12	1.75	0.51
60:IY:12:CYS:O	60:IY:16:ILE:HG22	2.10	0.51
60:IY:52:ASP:OD1	60:IY:53:GLU:N	2.43	0.51
59:JD:5:ILE:HD13	59:JD:64:ARG:HB3	1.91	0.51
60:JE:176:SER:OG	60:JE:178:THR:O	2.28	0.51
60:JG:170:ILE:HG23	60:JG:171:PRO:HD2	1.92	0.51
60:JI:145:SER:HB3	60:JI:188:SER:OG	2.10	0.51
59:JW:328:VAL:HG21	59:JW:355:ILE:HD11	1.93	0.51
59:KQ:339:ARG:O	59:KQ:342:GLN:NE2	2.43	0.51
60:KR:263:LEU:HD21	60:KR:425:TYR:HD2	1.75	0.51
60:KV:60:VAL:HG21	60:KV:86:ARG:HH21	1.74	0.51
60:LB:322:SER:OG	60:LB:325:GLU:HG3	2.11	0.51
1:0A:470:GLN:HE21	60:CI:78:ALA:CB	2.23	0.51
30:1R:242:LYS:HA	30:1R:268:VAL:HG11	1.93	0.51
41:2Z:64:PRO:HB2	48:3Z:233:PRO:HA	1.91	0.51
41:3D:148:ARG:HH12	41:3D:152:GLU:HG2	1.74	0.51
42:3M:218:GLY:O	60:HJ:320:ARG:NH1	2.42	0.51
46:3U:57:ASN:O	59:EZ:308:ARG:NH1	2.42	0.51
47:3X:237:ILE:HD12	47:3X:246:ASN:HD22	1.75	0.51
53:4L:59:PRO:HA	53:4L:62:MET:HG2	1.93	0.51
60:AN:26:ASP:OD1	60:AN:359:LYS:NZ	2.36	0.51
60:AN:280:GLN:OE1	60:AZ:58:ARG:NH1	2.44	0.51
59:AO:52:PHE:CZ	59:AO:239:THR:HG21	2.45	0.51
59:AQ:224:TYR:CE2	60:AR:323:THR:HG21	2.45	0.51
60:AR:3:GLU:OE2	60:AR:127:CYS:HB3	2.09	0.51
60:AX:156:ARG:HH11	60:AX:160:PRO:HA	1.76	0.51
60:AX:324:LYS:HE3	60:AX:328:GLU:HG3	1.92	0.51
59:BA:269:LEU:HD21	59:BA:384:ILE:HD13	1.92	0.51
60:BD:170:ILE:HG23	60:BD:171:PRO:HD2	1.92	0.51
59:BG:5:ILE:HD13	59:BG:64:ARG:HB3	1.92	0.51
59:BO:279:GLU:N	59:BO:279:GLU:OE2	2.43	0.51
60:BP:209:ASP:HB3	60:BP:213:ARG:HH21	1.74	0.51
59:CF:406:HIS:HA	59:CF:409:VAL:HG12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CX:86:ARG:HB3	60:CX:89:ASN:ND2	2.25	0.51
59:DE:52:PHE:CZ	59:DE:239:THR:HG21	2.45	0.51
60:DP:167:PHE:CE2	60:DP:233:VAL:HG22	2.45	0.51
60:EA:8:GLN:HG2	60:EA:17:GLY:HA3	1.93	0.51
60:EA:31:ASP:OD1	60:EA:32:PRO:HD2	2.10	0.51
60:EA:52:ASP:OD1	60:EA:53:GLU:N	2.43	0.51
60:EC:292:GLN:HG3	60:EC:298:ASN:HD22	1.75	0.51
60:EU:291:GLN:OE1	60:FG:122:LYS:HD2	2.09	0.51
59:FJ:2:ARG:HG3	59:FJ:3:GLU:OE1	2.10	0.51
60:GF:46:ARG:HG2	60:GF:241:ARG:HA	1.92	0.51
60:HD:285:SER:N	60:HD:288:GLU:OE1	2.43	0.51
60:HH:211:CYS:SG	60:HH:220:PRO:HB3	2.50	0.51
62:HQ:501:GTP:PG	60:HR:252:LYS:HZ3	2.34	0.51
59:HZ:242:LEU:HD11	59:HZ:252:LEU:HD11	1.92	0.51
60:IA:65:LEU:HD22	60:IA:90:PHE:CE2	2.45	0.51
59:IB:291:ILE:O	59:IB:295:VAL:HG23	2.10	0.51
59:IK:81:GLY:O	59:IK:84:ARG:NH2	2.43	0.51
59:IX:251:ASP:OD1	59:IX:252:LEU:N	2.44	0.51
60:JC:22:GLU:HG2	60:JC:81:TYR:CD2	2.45	0.51
60:JE:189:VAL:HG21	60:JE:378:PHE:HE1	1.74	0.51
60:JM:214:THR:OG1	60:JM:215:LEU:HD12	2.10	0.51
59:JU:133:GLN:HG3	59:JU:252:LEU:HD13	1.93	0.51
60:KK:31:ASP:OD1	60:KK:32:PRO:HD2	2.10	0.51
60:KT:237:THR:HG23	60:KT:241:ARG:NH1	2.26	0.51
2:0E:584:LYS:HE3	59:CU:80:THR:HB	1.93	0.51
7:0O:72:ARG:HA	7:0O:77:LEU:HD22	1.93	0.51
7:0O:138:GLN:HA	7:0O:141:ASN:ND2	2.26	0.51
12:0U:296:GLY:O	59:CB:79:ARG:NH1	2.44	0.51
32:1X:53:ASN:ND2	59:ED:396:ASP:OD1	2.44	0.51
32:1X:92:THR:HB	32:1X:153:ARG:HB3	1.92	0.51
32:1X:125:LEU:HG	32:1X:130:ASN:HD21	1.75	0.51
33:2C:502:ASP:OD1	33:2C:503:VAL:N	2.43	0.51
35:2G:28:ARG:HD3	35:2G:32:LEU:HD21	1.92	0.51
39:2O:122:TYR:O	39:2O:126:LYS:NZ	2.37	0.51
39:2P:233:ALA:O	39:2P:237:GLN:HG3	2.11	0.51
41:3D:323:ARG:HH12	59:GR:58:ALA:C	2.13	0.51
42:3L:75:LYS:HD2	60:IA:320:ARG:NH1	2.25	0.51
57:4R:64:GLU:OE2	59:GE:402:ARG:NH2	2.38	0.51
60:AN:404:ASP:HB3	60:AN:407:GLU:OE1	2.11	0.51
60:BD:132:GLY:HA3	60:BD:163:ILE:HB	1.93	0.51
60:BH:293:MET:HE2	60:BH:367:PHE:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BL:65:LEU:HD13	60:BL:90:PHE:CE1	2.45	0.51
59:BU:192:HIS:HE1	59:BU:424:ASP:OD2	1.94	0.51
60:CC:22:GLU:HG2	60:CC:81:TYR:CD2	2.46	0.51
59:CD:27:GLU:OE2	59:CD:243:ARG:NH1	2.40	0.51
60:CP:265:PHE:HB3	60:CP:374:ILE:HD13	1.92	0.51
60:CR:230:SER:HA	60:CR:233:VAL:HG12	1.93	0.51
59:CS:250:VAL:HG12	59:CS:352:LYS:HE2	1.92	0.51
59:CW:254:GLU:OE1	59:CW:254:GLU:N	2.44	0.51
60:DV:122:LYS:NZ	60:DV:123:GLU:OE2	2.33	0.51
59:EL:174:SER:OG	59:EL:207:GLU:OE1	2.28	0.51
60:FE:165:MET:HE1	60:FE:250:LEU:HD22	1.91	0.51
60:GS:156:ARG:NH1	60:GS:197:ASP:OD2	2.44	0.51
59:GY:88:HIS:NE2	59:HK:284:GLU:OE2	2.43	0.51
60:HD:322:SER:HB3	60:HD:325:GLU:HG2	1.92	0.51
59:IB:286:LEU:O	59:IB:373:ARG:NH1	2.42	0.51
60:IC:265:PHE:HB3	60:IC:374:ILE:HD13	1.93	0.51
60:IF:132:GLY:HA3	60:IF:163:ILE:HG13	1.92	0.51
59:IV:115:VAL:HG22	59:IV:119:LEU:HD23	1.91	0.51
59:JN:402:ARG:NH2	59:JN:415:GLU:HG3	2.25	0.51
60:JO:189:VAL:HG11	60:JO:378:PHE:HE2	1.75	0.51
59:KC:164:LYS:O	59:KC:166:LYS:NZ	2.43	0.51
60:KM:200:MET:HG3	60:KM:268:MET:SD	2.51	0.51
59:KP:155:GLU:HG3	59:KP:197:HIS:CE1	2.45	0.51
59:KQ:111:GLY:HA2	59:KQ:114:ILE:HG22	1.92	0.51
59:KU:250:VAL:HA	59:KU:254:GLU:OE2	2.10	0.51
2:0E:619:ASN:ND2	2:0E:621:GLU:OE2	2.43	0.51
30:1S:71:THR:HG23	60:EK:261:PRO:HB3	1.91	0.51
33:2C:496:VAL:HG13	33:2C:497:ARG:HG3	1.92	0.51
40:2T:239:ALA:HB2	60:IW:56:GLY:CA	2.39	0.51
54:4M:163:LYS:HA	54:4M:167:TYR:HB2	1.92	0.51
55:4P:128:LEU:HB3	55:4P:133:GLN:HB2	1.92	0.51
60:AF:10:GLY:O	60:AF:14:ASN:ND2	2.29	0.51
59:AG:113:GLU:OE1	59:AG:113:GLU:N	2.41	0.51
59:AI:172:TYR:HD1	59:AI:173:PRO:HD2	1.74	0.51
60:AN:145:SER:HB3	60:AN:188:SER:OG	2.11	0.51
59:AO:238:LEU:HD21	59:AO:378:ILE:HD13	1.93	0.51
60:AP:3:GLU:OE2	60:AP:127:CYS:HB3	2.10	0.51
59:AU:224:TYR:CE2	60:AV:323:THR:HG21	2.46	0.51
60:AZ:117:LEU:HD21	60:AZ:154:LYS:HB3	1.91	0.51
59:BG:88:HIS:ND1	59:BG:89:PRO:HD2	2.26	0.51
59:BI:54:SER:HB3	59:BI:64:ARG:NH2	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BO:259:LEU:O	59:BO:380:ASN:ND2	2.38	0.51
60:CG:309:ARG:HE	60:CG:342:ILE:HD13	1.75	0.51
60:CI:68:LEU:HD13	60:CI:143:THR:OG1	2.10	0.51
60:CP:190:HIS:CE1	60:CP:414:ASN:HD22	2.29	0.51
60:CR:375:GLN:OE1	60:CR:423:GLN:HG2	2.11	0.51
59:DE:122:ILE:HD13	59:DE:157:LEU:HD21	1.92	0.51
59:DI:203:MET:O	59:DI:303:THR:OG1	2.28	0.51
59:EH:298:PRO:HG3	59:EH:308:ARG:HH12	1.74	0.51
60:EW:429:THR:HG23	60:EW:431:GLU:HG2	1.93	0.51
59:FH:419:SER:O	59:FH:423:GLU:HG3	2.11	0.51
59:FU:387:VAL:O	59:FU:390:ARG:HG2	2.09	0.51
59:GC:291:ILE:O	59:GC:295:VAL:HG23	2.10	0.51
60:GF:404:ASP:HB3	60:GF:407:GLU:OE1	2.10	0.51
60:GM:52:ASP:HB3	60:GM:60:VAL:HG23	1.93	0.51
60:GM:134:GLN:HG2	60:GM:165:MET:SD	2.51	0.51
60:GS:15:GLN:HG3	60:GS:226:ASN:ND2	2.25	0.51
60:HB:179:VAL:HG13	60:HB:180:VAL:HG13	1.92	0.51
60:HF:47:ILE:HG12	60:HF:51:PHE:HB2	1.93	0.51
60:HH:252:LYS:HA	60:HH:255:VAL:HG12	1.93	0.51
59:HV:401:LYS:HZ1	60:HW:430:ILE:HD13	1.75	0.51
60:IC:173:PRO:HB3	60:IC:380:ARG:HH22	1.76	0.51
59:IK:101:ASN:OD1	60:IL:252:LYS:NZ	2.31	0.51
60:IR:350:LYS:HZ3	60:IR:352:SER:HG	1.56	0.51
59:JJ:54:SER:HB3	59:JJ:64:ARG:NH2	2.25	0.51
60:JO:12:CYS:SG	60:JO:13:GLY:N	2.84	0.51
59:JP:117:LEU:O	59:JP:121:ARG:HG2	2.10	0.51
59:KA:254:GLU:HA	59:KA:257:THR:HG22	1.92	0.51
60:KI:378:PHE:HA	60:KI:381:VAL:HG22	1.92	0.51
59:KQ:324:VAL:HG12	59:KQ:326:LYS:HG2	1.93	0.51
60:KT:289:LEU:HD11	60:KT:363:MET:HG3	1.91	0.51
2:0E:594:VAL:HG23	2:0E:609:ALA:HB3	1.92	0.51
9:0R:128:GLN:HE22	9:0R:195:LYS:N	2.08	0.51
32:1Z:48:GLU:HG2	32:1Z:161:ARG:HG2	1.92	0.51
33:2B:171:ILE:HG12	33:2B:180:VAL:HG22	1.93	0.51
49:4D:3:ARG:HG3	49:4D:6:CYS:SG	2.50	0.51
52:4I:64:LEU:HB3	59:KJ:298:PRO:HG2	1.93	0.51
60:BF:172:SER:HB3	60:BF:175:VAL:HG22	1.92	0.51
60:BV:27:GLU:OE2	60:BV:241:ARG:NH2	2.43	0.51
60:CG:19:LYS:HE2	60:CG:227:HIS:ND1	2.25	0.51
60:CI:31:ASP:OD1	60:CI:32:PRO:HD2	2.11	0.51
60:CR:303:ALA:HB1	60:CR:373:CYS:HB3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CR:404:ASP:HB3	60:CR:407:GLU:OE1	2.11	0.51
59:CS:191:THR:HG23	59:CS:425:LEU:HD11	1.91	0.51
59:EB:100:ALA:HA	60:EC:252:LYS:HG3	1.93	0.51
59:EB:113:GLU:OE1	59:EB:113:GLU:N	2.43	0.51
59:ED:3:GLU:OE2	59:ED:129:CYS:HB3	2.10	0.51
60:EG:330:MET:HE2	60:EG:349:ILE:HG21	1.93	0.51
59:ER:245:ASP:OD1	59:ER:246:GLY:N	2.43	0.51
60:EY:218:THR:HG23	60:EY:219:THR:HG22	1.93	0.51
60:FA:153:SER:HA	60:FA:195:ASN:HD22	1.75	0.51
60:FC:284:LEU:HD22	60:FC:362:LYS:HB3	1.93	0.51
60:FV:391:ARG:NH1	59:FW:439:SER:HB3	2.26	0.51
59:GL:269:LEU:HD21	59:GL:384:ILE:HD13	1.93	0.51
59:GL:281:ALA:HB2	59:GL:369:ALA:HB1	1.93	0.51
59:GP:36:MET:HB2	59:GP:61:HIS:CE1	2.46	0.51
59:GP:251:ASP:OD1	59:GP:252:LEU:N	2.44	0.51
59:GR:235:VAL:O	59:GR:239:THR:HG22	2.10	0.51
60:GX:220:PRO:HD2	59:GY:326:LYS:NZ	2.26	0.51
59:GY:122:ILE:HD13	59:GY:157:LEU:HD21	1.92	0.51
60:HB:214:THR:HG22	60:HB:297:LYS:NZ	2.25	0.51
59:HC:187:SER:O	59:HC:191:THR:HG23	2.09	0.51
59:HI:222:PRO:HD2	60:HJ:324:LYS:HD3	1.91	0.51
59:HQ:254:GLU:HG3	59:HQ:352:LYS:NZ	2.26	0.51
60:HS:404:ASP:O	60:HS:407:GLU:HG2	2.10	0.51
59:IB:352:LYS:HD2	59:IB:353:CYS:N	2.25	0.51
60:IE:344:TRP:HB3	60:IE:430:ILE:HD11	1.92	0.51
60:IF:309:ARG:HD2	60:IF:342:ILE:HD13	1.92	0.51
60:IJ:163:ILE:HD11	60:IJ:251:ARG:HB2	1.93	0.51
59:IM:362:VAL:HG21	59:IM:370:LYS:HB2	1.93	0.51
60:IP:139:LEU:HD12	60:IP:188:SER:OG	2.11	0.51
60:IY:51:PHE:HB3	60:IY:59:TYR:HB3	1.92	0.51
59:IZ:40:LYS:HD3	59:IZ:42:ILE:HG12	1.93	0.51
59:IZ:51:THR:HG22	59:IZ:52:PHE:CD1	2.45	0.51
60:JA:344:TRP:HB3	60:JA:430:ILE:HD11	1.91	0.51
59:JD:251:ASP:OD1	59:JD:252:LEU:N	2.44	0.51
60:JR:271:ALA:O	60:JR:273:LEU:N	2.39	0.51
60:KB:11:GLN:HG3	60:KB:72:THR:HG21	1.92	0.51
59:KH:334:THR:O	59:KH:337:THR:OG1	2.27	0.51
59:KJ:122:ILE:HD13	59:KJ:157:LEU:HD21	1.92	0.51
60:KK:62:ARG:NH1	60:KK:127:CYS:SG	2.84	0.51
59:KL:105:ARG:HH12	60:KM:251:ARG:HD3	1.76	0.51
59:KP:122:ILE:HD13	59:KP:157:LEU:HD11	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KP:167:LEU:HD22	59:KP:200:VAL:HB	1.92	0.51
60:KT:263:LEU:HD21	60:KT:425:TYR:HD2	1.75	0.51
60:KX:407:GLU:OE1	60:KX:407:GLU:N	2.43	0.51
7:0P:388:ARG:HH22	7:0P:392:ARG:NH2	2.08	0.51
15:0X:101:GLN:HA	15:0X:104:VAL:HG12	1.91	0.51
18:1A:178:LYS:HD2	18:1A:334:TYR:HB2	1.91	0.51
27:1L:334:THR:HG21	27:1L:395:VAL:HG11	1.92	0.51
30:1Q:179:GLY:HA3	30:1Q:183:ILE:HD11	1.92	0.51
41:2Y:78:ARG:HG2	48:4A:252:ARG:HH12	1.75	0.51
41:2Y:295:GLU:HA	41:2Y:298:ARG:HG2	1.93	0.51
41:3D:114:ILE:HD11	59:GW:282:TYR:HB2	1.91	0.51
54:4M:161:LEU:HD21	59:JD:159:VAL:HG22	1.92	0.51
60:AB:73:MET:HA	60:AB:76:VAL:HG12	1.93	0.51
60:AB:170:ILE:HG21	60:AB:377:MET:HE1	1.93	0.51
60:AH:132:GLY:HA3	60:AH:163:ILE:HG13	1.91	0.51
60:AL:52:ASP:OD1	60:AL:53:GLU:N	2.43	0.51
60:AP:305:PRO:HA	60:AP:371:ASN:HD21	1.76	0.51
59:AS:52:PHE:CZ	59:AS:239:THR:HG21	2.46	0.51
60:BD:101:TRP:HE3	60:BD:187:LEU:HD13	1.75	0.51
59:BE:179:THR:HG21	62:BE:501:GTP:H3'	1.92	0.51
60:BF:173:PRO:HG3	60:BF:380:ARG:NH1	2.25	0.51
60:BT:260:PHE:HB2	60:BT:263:LEU:HD13	1.92	0.51
60:CC:14:ASN:OD1	60:CC:65:LEU:HD12	2.10	0.51
60:CE:235:GLY:HA2	60:CE:318:ARG:HH21	1.76	0.51
60:CG:22:GLU:HG2	60:CG:81:TYR:CD1	2.46	0.51
60:CI:330:MET:HG2	60:CI:349:ILE:HG21	1.93	0.51
60:CL:73:MET:HA	60:CL:76:VAL:HG22	1.93	0.51
59:CM:264:ARG:NH2	59:CM:431:ASP:OD2	2.43	0.51
59:DE:111:GLY:O	59:DE:115:VAL:HG23	2.10	0.51
59:EH:11:GLN:HE21	59:EH:15:GLN:NE2	2.09	0.51
60:EI:230:SER:HA	60:EI:233:VAL:HG12	1.93	0.51
60:ES:229:VAL:O	60:ES:233:VAL:HG12	2.11	0.51
60:EW:31:ASP:OD1	60:EW:32:PRO:HD2	2.09	0.51
60:EW:170:ILE:HG22	60:EW:171:PRO:HD2	1.92	0.51
59:FR:172:TYR:CG	59:FR:173:PRO:HD2	2.46	0.51
60:FS:170:ILE:HG23	60:FS:171:PRO:HD2	1.93	0.51
60:FS:404:ASP:HB3	60:FS:407:GLU:OE1	2.11	0.51
59:GN:57:GLY:H	59:HA:285:GLN:NE2	2.08	0.51
60:GS:202:ILE:HD11	60:GS:268:MET:HG2	1.92	0.51
59:GU:339:ARG:O	59:GU:342:GLN:NE2	2.43	0.51
60:GX:119:VAL:HG13	60:GX:122:LYS:HE3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HK:88:HIS:HB3	59:HK:91:GLN:NE2	2.23	0.51
59:HV:27:GLU:OE2	59:HV:243:ARG:NH1	2.43	0.51
59:IM:406:HIS:HA	59:IM:409:VAL:HG12	1.92	0.51
60:IN:10:GLY:O	60:IN:14:ASN:ND2	2.36	0.51
60:IW:254:ALA:O	60:IW:258:VAL:HG22	2.10	0.51
59:IZ:362:VAL:HG21	59:IZ:370:LYS:HD2	1.92	0.51
59:JJ:111:GLY:HA2	59:JJ:114:ILE:HG22	1.92	0.51
60:JK:156:ARG:NH1	60:JK:197:ASP:OD1	2.44	0.51
59:JP:273:ALA:HB2	59:JP:295:VAL:HG23	1.93	0.51
60:JV:201:CYS:O	60:JV:301:GLN:NE2	2.44	0.51
60:JX:137:HIS:O	60:JX:168:SER:HA	2.11	0.51
59:KC:192:HIS:HD2	59:KC:421:ALA:HA	1.76	0.51
60:KG:97:ALA:HB2	60:KG:143:THR:HB	1.91	0.51
60:KO:178:THR:N	60:KO:181:GLU:OE2	2.44	0.51
60:KT:282:ARG:NH2	60:KT:292:GLN:OE1	2.44	0.51
1:0C:657:GLU:OE1	1:0C:747:LYS:HE3	2.11	0.51
8:0Q:11:VAL:HG12	8:0Q:75:LEU:HA	1.91	0.51
23:1F:254:LEU:HD12	59:EN:326:LYS:HB3	1.92	0.51
27:1K:194:ARG:HG2	59:AC:372:GLN:HG2	1.93	0.51
30:1Q:19:ARG:HH12	30:1Q:26:GLY:HA3	1.75	0.51
30:1R:200:THR:HG23	30:1R:202:HIS:H	1.75	0.51
33:2B:115:ALA:O	33:2B:116:LEU:HD23	2.10	0.51
34:2E:162:VAL:HG13	59:EP:386:GLU:HG2	1.92	0.51
44:3R:147:ASP:OD1	44:3R:150:ARG:NH2	2.44	0.51
29:4X:214:THR:HB	59:FF:77:GLU:OE2	2.10	0.51
60:AH:31:ASP:OD1	60:AH:32:PRO:HD2	2.09	0.51
59:AS:334:THR:O	59:AS:337:THR:HG22	2.11	0.51
59:AY:50:ASN:O	59:AY:64:ARG:NH2	2.42	0.51
59:BA:289:SER:O	59:BA:293:ASN:ND2	2.40	0.51
59:BM:256:GLN:O	59:BM:260:VAL:HG22	2.11	0.51
59:BQ:325:PRO:HA	59:BQ:328:VAL:HG12	1.92	0.51
59:BX:268:VAL:CG2	59:BX:378:ILE:HG22	2.40	0.51
59:CH:222:PRO:HD2	60:CI:324:LYS:HE3	1.93	0.51
59:CM:172:TYR:CZ	59:CM:391:ILE:HD12	2.45	0.51
59:CM:256:GLN:O	59:CM:260:VAL:HG22	2.11	0.51
60:CP:209:ASP:HB3	60:CP:213:ARG:HH21	1.76	0.51
60:CZ:27:GLU:HA	60:CZ:359:LYS:NZ	2.25	0.51
60:DF:170:ILE:HG23	60:DF:171:PRO:HD2	1.92	0.51
59:DU:50:ASN:O	59:DU:64:ARG:NH1	2.44	0.51
60:EI:68:LEU:HD13	60:EI:143:THR:OG1	2.11	0.51
59:EN:2:ARG:N	59:EN:131:GLY:O	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EQ:22:GLU:HA	60:EQ:81:TYR:CE2	2.46	0.51
59:FL:90:GLU:OE1	59:FL:121:ARG:NH2	2.44	0.51
60:FQ:289:LEU:HD23	60:FQ:365:VAL:HG12	1.93	0.51
59:FU:169:TYR:HE2	59:FU:235:VAL:HG22	1.75	0.51
59:GA:251:ASP:OD1	59:GA:252:LEU:N	2.44	0.51
59:GG:188:VAL:HG13	59:GG:189:LEU:HD22	1.93	0.51
59:GT:212:LEU:HD21	59:GT:275:VAL:HG21	1.93	0.51
59:GW:52:PHE:CZ	59:GW:239:THR:HG21	2.46	0.51
59:HE:238:LEU:HD11	59:HE:378:ILE:HD13	1.92	0.51
60:HS:309:ARG:HE	60:HS:342:ILE:HD13	1.75	0.51
60:IC:301:GLN:NE2	60:IC:377:MET:SD	2.84	0.51
59:ID:406:HIS:HA	59:ID:409:VAL:HG12	1.92	0.51
60:IE:52:ASP:OD1	60:IE:62:ARG:NH2	2.43	0.51
60:IE:248:SER:HA	60:IE:252:LYS:HE3	1.93	0.51
59:II:192:HIS:ND1	59:II:424:ASP:OD2	2.44	0.51
60:IS:172:SER:OG	60:IS:175:VAL:O	2.29	0.51
60:IS:378:PHE:HA	60:IS:381:VAL:HG22	1.93	0.51
60:JT:404:ASP:HB3	60:JT:407:GLU:OE1	2.11	0.51
60:KE:252:LYS:HA	60:KE:255:VAL:HG12	1.93	0.51
60:KM:97:ALA:C	60:KM:103:LYS:HZ1	2.13	0.51
59:KN:172:TYR:HD1	59:KN:173:PRO:HD2	1.76	0.51
60:KT:134:GLN:HG2	60:KT:165:MET:HE3	1.93	0.51
60:KX:161:ASP:OD1	60:KX:162:ARG:NH1	2.44	0.51
30:1Q:109:ILE:HG23	30:1Q:158:ARG:HG2	1.91	0.51
33:2C:447:ARG:HH11	33:2C:458:LEU:HD11	1.76	0.51
36:2K:47:ARG:NH1	59:EJ:417:GLU:OE1	2.44	0.51
36:2K:100:THR:OG1	36:2K:109:LYS:NZ	2.41	0.51
41:3A:247:THR:O	41:3A:251:HIS:ND1	2.44	0.51
42:3G:187:TYR:HB3	59:IX:77:GLU:OE1	2.11	0.51
42:3O:244:ARG:HG3	42:3O:252:TYR:HB2	1.93	0.51
48:4A:12:ASP:OD1	48:4A:12:ASP:N	2.44	0.51
52:4I:103:ASP:OD1	52:4I:103:ASP:N	2.42	0.51
53:4K:124:PRO:HG2	60:JO:306:ARG:HB3	1.92	0.51
56:4Q:109:THR:O	56:4Q:113:LYS:HG2	2.10	0.51
60:AH:97:ALA:HB2	60:AH:143:THR:HB	1.91	0.51
59:AI:250:VAL:HA	59:AI:254:GLU:OE2	2.11	0.51
59:AU:27:GLU:HG2	59:AU:361:THR:HG21	1.92	0.51
59:BA:384:ILE:O	59:BA:387:VAL:HG12	2.10	0.51
59:BC:2:ARG:HG3	59:BC:3:GLU:OE1	2.11	0.51
60:BD:73:MET:HA	60:BD:76:VAL:HG22	1.93	0.51
59:BI:2:ARG:HG3	59:BI:3:GLU:OE1	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BJ:407:GLU:HA	60:BJ:410:GLU:OE2	2.09	0.51
60:BL:247:ASN:O	60:BL:252:LYS:NZ	2.43	0.51
60:BL:257:LEU:HA	60:BL:312:THR:HG21	1.93	0.51
59:BO:273:ALA:HB2	59:BO:295:VAL:HG23	1.93	0.51
60:BV:213:ARG:HH11	60:BV:297:LYS:HG2	1.74	0.51
59:BX:268:VAL:HG22	59:BX:378:ILE:HG22	1.92	0.51
59:CF:251:ASP:OD1	59:CF:252:LEU:N	2.44	0.51
59:CF:252:LEU:HA	59:CF:255:PHE:HD2	1.76	0.51
60:CG:73:MET:HA	60:CG:76:VAL:HG12	1.93	0.51
60:CI:387:LEU:HD21	59:CJ:345:ASP:O	2.11	0.51
59:CQ:63:PRO:O	59:CQ:91:GLN:NE2	2.42	0.51
60:DD:170:ILE:HG23	60:DD:171:PRO:HD2	1.91	0.51
60:DN:262:ARG:NH1	60:DN:421:GLU:OE2	2.44	0.51
59:DS:419:SER:O	59:DS:423:GLU:HG3	2.10	0.51
59:DZ:398:MET:HE2	60:EA:346:PRO:HD2	1.93	0.51
60:EI:249:ASP:OD1	60:EI:250:LEU:N	2.44	0.51
59:FU:3:GLU:HA	59:FU:51:THR:HA	1.93	0.51
60:FV:32:PRO:HG3	60:FV:81:TYR:CE1	2.45	0.51
60:FV:391:ARG:HH11	59:FW:439:SER:HB3	1.74	0.51
60:GK:171:PRO:HG3	60:GK:185:THR:OG1	2.11	0.51
60:GO:170:ILE:HD13	60:GO:201:CYS:HB3	1.93	0.51
60:GO:207:LEU:HD22	60:GO:228:LEU:HD23	1.93	0.51
59:HC:384:ILE:HD11	59:HC:432:TYR:OH	2.10	0.51
60:HD:391:ARG:HG2	60:HD:391:ARG:O	2.11	0.51
59:HE:336:LYS:HE3	59:HE:351:PHE:HE1	1.75	0.51
60:HF:267:MET:HE1	60:HF:371:ASN:HB3	1.91	0.51
60:HU:246:LEU:HD22	60:HU:352:SER:HA	1.92	0.51
59:IB:401:LYS:HZ1	60:IC:430:ILE:HD13	1.76	0.51
60:IH:249:ASP:O	60:IH:252:LYS:HB2	2.11	0.51
60:IJ:31:ASP:OD1	60:IJ:32:PRO:HD2	2.10	0.51
59:IK:37:PRO:HB2	59:IK:40:LYS:HB3	1.91	0.51
59:IK:286:LEU:O	59:IK:373:ARG:NH1	2.40	0.51
60:IS:58:ARG:NH2	60:JE:280:GLN:HE21	2.09	0.51
59:IT:269:LEU:HD22	59:IT:303:THR:HG21	1.93	0.51
59:JJ:51:THR:HG22	59:JJ:52:PHE:CD1	2.46	0.51
59:JS:50:ASN:O	59:JS:64:ARG:NH1	2.44	0.51
59:JW:271:SER:HG	59:JW:300:SER:HG	1.59	0.51
60:KB:27:GLU:CD	60:KB:241:ARG:HH22	2.13	0.51
60:KE:404:ASP:HB3	60:KE:407:GLU:OE1	2.11	0.51
60:KX:31:ASP:OD1	60:KX:32:PRO:HD2	2.11	0.51
1:0A:250:ASP:OD1	1:0A:251:GLY:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2A:86:TYR:OH	59:DX:415:GLU:OE1	2.21	0.51
36:2I:49:HIS:CD2	36:2I:51:LEU:H	2.28	0.51
54:4N:15:THR:CG2	59:HI:442:MET:HE3	2.40	0.51
60:AN:220:PRO:HG2	59:AO:326:LYS:HD3	1.92	0.51
60:AX:267:MET:HE2	60:AX:299:MET:HG2	1.92	0.51
60:AZ:31:ASP:OD1	60:AZ:32:PRO:HD2	2.11	0.51
60:BD:292:GLN:HG2	60:BD:298:ASN:OD1	2.11	0.51
59:BO:3:GLU:HA	59:BO:51:THR:HA	1.93	0.51
59:BQ:259:LEU:HD21	59:BQ:268:VAL:HG11	1.92	0.51
60:BR:31:ASP:OD1	60:BR:32:PRO:HD2	2.11	0.51
59:CB:270:THR:HG22	59:CB:378:ILE:HG22	1.92	0.51
59:CJ:256:GLN:O	59:CJ:260:VAL:HG22	2.11	0.51
60:CP:175:VAL:HG13	59:CQ:329:ASN:OD1	2.11	0.51
59:CQ:222:PRO:HD2	60:CR:324:LYS:HD3	1.92	0.51
60:CR:267:MET:HB2	60:CR:301:GLN:NE2	2.25	0.51
60:CT:423:GLN:NE2	60:CT:426:GLN:OE1	2.42	0.51
60:DJ:27:GLU:OE1	60:DJ:241:ARG:NH2	2.43	0.51
60:DP:3:GLU:OE2	60:DP:127:CYS:HB3	2.11	0.51
60:DP:193:VAL:HG22	60:DP:262:ARG:HD2	1.93	0.51
60:EY:429:THR:HG23	60:EY:431:GLU:HG2	1.92	0.51
60:GD:200:MET:HB3	60:GD:268:MET:SD	2.51	0.51
59:GH:178:SER:OG	59:GH:183:GLU:OE1	2.21	0.51
60:GK:334:GLN:HE22	60:GK:348:ASN:H	1.58	0.51
60:GM:63:SER:O	60:GM:89:ASN:ND2	2.33	0.51
59:HE:408:TYR:HD2	59:HE:418:PHE:HZ	1.57	0.51
59:HT:311:LYS:HZ3	59:HT:342:GLN:HB2	1.76	0.51
60:IE:304:ASP:OD2	60:IE:306:ARG:NH2	2.44	0.51
60:IH:167:PHE:HE2	60:IH:233:VAL:HG22	1.75	0.51
59:IQ:8:HIS:CE1	59:IQ:138:TYR:CD2	2.99	0.51
60:IS:179:VAL:HG13	60:IS:180:VAL:HG13	1.93	0.51
60:IU:22:GLU:HG2	60:IU:81:TYR:CD2	2.46	0.51
59:IV:383:ALA:O	59:IV:386:GLU:HG2	2.11	0.51
60:JA:122:LYS:NZ	60:JM:295:ASP:OD2	2.39	0.51
60:JE:101:TRP:NE1	60:JE:146:GLY:HA2	2.18	0.51
60:JE:230:SER:HA	60:JE:233:VAL:HG12	1.92	0.51
59:JH:251:ASP:OD1	59:JH:252:LEU:N	2.44	0.51
59:JW:52:PHE:HZ	59:JW:239:THR:HG21	1.76	0.51
60:KV:73:MET:HG2	60:KV:90:PHE:HD2	1.76	0.51
59:KY:251:ASP:OD1	59:KY:252:LEU:N	2.44	0.51
60:KZ:282:ARG:HD3	60:KZ:288:GLU:HG2	1.91	0.51
59:LA:184:PRO:HG2	59:LA:398:MET:HE2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:LA:251:ASP:OD1	59:LA:252:LEU:N	2.43	0.51
10:0S:179:CYS:HA	10:0S:182:VAL:HG12	1.94	0.50
12:0U:237:VAL:HG23	12:0U:238:ARG:H	1.76	0.50
33:2D:294:CYS:SG	33:2D:295:THR:N	2.84	0.50
39:2P:258:SER:O	39:2P:261:LYS:HG3	2.11	0.50
39:2Q:217:ARG:HH12	60:JM:58:ARG:NH2	2.08	0.50
41:3B:39:GLU:HB3	41:3B:43:LYS:NZ	2.26	0.50
41:3C:248:MET:HA	41:3C:251:HIS:CE1	2.46	0.50
42:3I:219:THR:HG23	42:3I:222:SER:H	1.76	0.50
43:3Q:42:TYR:HE1	43:3Q:51:ARG:HB2	1.76	0.50
52:4I:38:ARG:NE	60:KK:297:LYS:HG3	2.26	0.50
54:4O:96:LYS:HB3	59:IG:440:ALA:HA	1.93	0.50
57:4S:83:ASP:OD1	57:4S:83:ASP:N	2.44	0.50
59:AE:203:MET:HG3	59:AE:384:ILE:HD11	1.93	0.50
59:AO:269:LEU:HD21	59:AO:384:ILE:HD13	1.92	0.50
59:BA:11:GLN:NE2	60:BB:245:GLN:O	2.44	0.50
59:BG:287:SER:OG	59:BG:290:GLU:OE1	2.27	0.50
59:BI:105:ARG:HD2	59:BI:109:THR:HG21	1.92	0.50
59:BK:351:PHE:O	59:BK:352:LYS:HD3	2.11	0.50
60:BV:117:LEU:HD11	60:BV:154:LYS:HG2	1.93	0.50
59:BX:396:ASP:OD1	59:BX:422:ARG:NH1	2.44	0.50
60:CI:130:LEU:HB3	60:CI:162:ARG:HH12	1.76	0.50
60:CL:97:ALA:HB2	60:CL:143:THR:HB	1.93	0.50
60:CN:230:SER:HA	60:CN:233:VAL:HG12	1.93	0.50
59:DA:311:LYS:HD2	59:DA:342:GLN:OE1	2.12	0.50
59:DI:284:GLU:OE2	59:DU:88:HIS:NE2	2.41	0.50
60:DJ:219:THR:HA	59:DK:326:LYS:NZ	2.26	0.50
59:DU:79:ARG:O	59:DU:84:ARG:HG2	2.11	0.50
60:EC:52:ASP:OD1	60:EC:53:GLU:N	2.43	0.50
59:EJ:56:THR:HG23	59:EJ:58:ALA:H	1.76	0.50
60:EO:68:LEU:HD12	60:EO:97:ALA:HB2	1.94	0.50
59:FD:285:GLN:HB3	59:FP:56:THR:HA	1.92	0.50
60:FI:3:GLU:HG2	60:FI:62:ARG:NH1	2.26	0.50
60:GI:68:LEU:HD22	60:GI:143:THR:HG22	1.93	0.50
59:GJ:50:ASN:O	59:GJ:64:ARG:NH1	2.44	0.50
59:GU:201:ALA:HB3	59:GU:267:PHE:HD1	1.76	0.50
59:GW:179:THR:HG21	60:GX:246:LEU:HD11	1.93	0.50
60:HB:132:GLY:HA3	60:HB:163:ILE:HB	1.92	0.50
60:HN:69:GLU:OE2	60:HN:96:GLY:N	2.45	0.50
59:HX:102:ASN:OD1	59:HX:104:ALA:N	2.44	0.50
59:HX:279:GLU:OE2	59:HX:283:HIS:HE1	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IL:238:CYS:SG	60:IL:239:CYS:N	2.84	0.50
60:IU:271:ALA:O	60:IU:292:GLN:HG2	2.11	0.50
60:JA:232:VAL:HG11	60:JA:268:MET:SD	2.52	0.50
59:JN:52:PHE:HZ	59:JN:239:THR:HG21	1.76	0.50
60:JO:117:LEU:HD11	60:JO:154:LYS:HZ3	1.76	0.50
59:KF:88:HIS:HB3	59:KF:91:GLN:NE2	2.24	0.50
59:KH:250:VAL:HA	59:KH:254:GLU:OE2	2.11	0.50
60:KO:200:MET:HG3	60:KO:268:MET:SD	2.51	0.50
60:LB:20:PHE:HA	60:LB:230:SER:HB2	1.93	0.50
1:0A:561:ASP:OD1	1:0A:561:ASP:N	2.44	0.50
16:0Y:197:ASP:HB3	59:FR:41:THR:HB	1.93	0.50
25:1H:127:THR:HB	25:1H:130:GLN:HG3	1.92	0.50
28:1M:287:ASP:OD1	28:1M:287:ASP:N	2.44	0.50
33:2D:432:ASN:ND2	33:2D:476:ARG:O	2.43	0.50
41:2Y:204:LYS:HG3	60:IL:276:ARG:HH12	1.76	0.50
58:4V:119:ARG:O	58:4V:122:GLU:HG3	2.12	0.50
59:AY:3:GLU:HA	59:AY:51:THR:HA	1.94	0.50
59:BA:270:THR:HG22	59:BA:378:ILE:HG22	1.93	0.50
60:BD:404:ASP:HB3	60:BD:407:GLU:OE1	2.11	0.50
59:BE:123:ARG:HH21	59:BE:161:TYR:HE1	1.60	0.50
59:BG:88:HIS:HB3	59:BG:91:GLN:HG2	1.93	0.50
60:BV:132:GLY:HA3	60:BV:163:ILE:HB	1.93	0.50
59:BW:123:ARG:HD2	59:BW:161:TYR:OH	2.11	0.50
60:CA:31:ASP:OD1	60:CA:32:PRO:HD2	2.11	0.50
59:CM:11:GLN:OE1	59:CM:74:VAL:HG21	2.11	0.50
59:CS:15:GLN:NE2	62:CS:501:GTP:O6	2.42	0.50
60:DD:148:GLY:O	60:DD:152:ILE:HG23	2.11	0.50
60:DJ:377:MET:O	60:DJ:380:ARG:HG2	2.11	0.50
59:DS:107:HIS:HE1	59:DS:152:LEU:HD13	1.75	0.50
59:EH:11:GLN:O	59:EH:15:GLN:HG3	2.11	0.50
60:EO:52:ASP:OD1	60:EO:53:GLU:N	2.44	0.50
60:EO:178:THR:O	60:EO:181:GLU:HG3	2.11	0.50
60:EO:202:ILE:HD11	60:EO:268:MET:SD	2.51	0.50
59:EP:214:ARG:HH11	60:EQ:324:LYS:HE3	1.76	0.50
59:ET:8:HIS:CE1	59:ET:138:TYR:CD2	2.99	0.50
60:EU:412:GLU:OE2	60:EU:416:ASN:ND2	2.39	0.50
59:EV:221:ARG:HH11	59:EV:221:ARG:HG2	1.77	0.50
59:EZ:3:GLU:HA	59:EZ:51:THR:HA	1.93	0.50
60:FG:67:ASP:OD1	60:FG:68:LEU:N	2.42	0.50
59:FW:269:LEU:HD22	59:FW:303:THR:HG21	1.92	0.50
59:FW:270:THR:HG22	59:FW:378:ILE:HG22	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FW:306:ASP:OD2	59:FW:308:ARG:NH2	2.44	0.50
60:FZ:73:MET:HA	60:FZ:76:VAL:HG12	1.93	0.50
60:FZ:344:TRP:HB3	60:FZ:430:ILE:HD11	1.94	0.50
59:GC:133:GLN:HE21	59:GC:242:LEU:HD13	1.75	0.50
59:GC:284:GLU:HG2	59:GC:285:GLN:O	2.11	0.50
60:GO:73:MET:HA	60:GO:76:VAL:HG12	1.94	0.50
60:GQ:237:THR:HG23	60:GQ:241:ARG:NH1	2.27	0.50
60:GV:207:LEU:HB3	60:GV:225:LEU:HD22	1.92	0.50
60:GZ:311:LEU:HD23	60:GZ:342:ILE:HG13	1.93	0.50
59:HE:238:LEU:HD21	59:HE:378:ILE:HD11	1.92	0.50
60:HH:230:SER:HA	60:HH:233:VAL:HG12	1.93	0.50
59:HK:352:LYS:HD2	59:HK:353:CYS:N	2.26	0.50
59:HO:88:HIS:CD2	59:HO:89:PRO:HD2	2.41	0.50
60:HP:181:GLU:O	60:HP:185:THR:HG23	2.11	0.50
60:HR:249:ASP:OD1	60:HR:250:LEU:N	2.43	0.50
60:HS:230:SER:HA	60:HS:233:VAL:HG12	1.93	0.50
60:HU:230:SER:HA	60:HU:233:VAL:HG12	1.93	0.50
60:HW:19:LYS:NZ	60:HW:223:GLY:O	2.45	0.50
59:HZ:54:SER:HB3	59:HZ:64:ARG:HH12	1.76	0.50
59:ID:195:LEU:HD21	59:ID:428:LEU:HD22	1.94	0.50
60:IF:213:ARG:NH2	60:IF:297:LYS:O	2.45	0.50
59:IK:91:GLN:HE22	59:IK:125:LEU:HD21	1.76	0.50
59:JL:47:ASP:HB2	59:JL:49:PHE:CE1	2.46	0.50
60:JX:12:CYS:SG	60:JX:13:GLY:N	2.84	0.50
60:JX:148:GLY:O	60:JX:152:ILE:HG12	2.12	0.50
59:KA:392:ASP:OD1	59:KA:425:LEU:HD23	2.11	0.50
59:KC:56:THR:HG23	59:KC:58:ALA:H	1.76	0.50
59:KC:69:ASP:OD1	59:KC:70:LEU:N	2.45	0.50
60:KR:404:ASP:HB3	60:KR:407:GLU:OE1	2.11	0.50
60:KT:178:THR:HB	60:KT:181:GLU:HG3	1.92	0.50
3:0F:533:ARG:NH1	3:0F:562:GLU:OE2	2.44	0.50
4:0G:425:PRO:HG3	12:0U:338:GLY:HA3	1.92	0.50
5:0H:143:ARG:HH11	26:1I:257:LEU:HD13	1.75	0.50
15:0X:38:ARG:HD2	15:0X:53:PHE:CE2	2.46	0.50
29:1O:214:THR:O	29:1O:218:GLN:HG3	2.10	0.50
32:2A:48:GLU:HG3	32:2A:161:ARG:HG2	1.93	0.50
33:2B:464:GLU:OE2	59:KL:85:GLN:NE2	2.45	0.50
58:4W:68:GLN:HA	60:FX:332:ASN:ND2	2.27	0.50
59:AA:325:PRO:HA	59:AA:328:VAL:HG12	1.92	0.50
59:AC:252:LEU:HA	59:AC:255:PHE:HD2	1.77	0.50
60:AN:410:GLU:HG3	60:AN:414:ASN:HD21	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:AR:119:VAL:O	60:AR:122:LYS:HG3	2.11	0.50
60:AT:145:SER:HB3	60:AT:188:SER:OG	2.11	0.50
60:AV:271:ALA:O	60:AV:292:GLN:NE2	2.45	0.50
60:AX:156:ARG:NH2	60:AX:197:ASP:OD2	2.45	0.50
59:AY:388:PHE:HB2	59:AY:429:GLU:OE2	2.11	0.50
59:BO:109:THR:HG23	59:BO:110:ILE:N	2.27	0.50
59:BO:109:THR:HG21	59:BO:411:GLU:OE2	2.12	0.50
60:CA:237:THR:HG23	60:CA:240:LEU:HD12	1.93	0.50
59:CD:212:LEU:HD21	59:CD:275:VAL:HG21	1.93	0.50
60:CR:19:LYS:HZ3	60:CR:227:HIS:HB2	1.76	0.50
59:DC:259:LEU:HD21	59:DC:268:VAL:HG11	1.93	0.50
60:DH:404:ASP:HB3	60:DH:407:GLU:OE1	2.12	0.50
59:DQ:42:ILE:HG13	59:DQ:45:GLU:HA	1.93	0.50
59:DS:326:LYS:HG3	59:DS:327:ASP:N	2.26	0.50
60:EG:318:ARG:HD3	60:EG:358:PRO:HD3	1.92	0.50
60:EO:309:ARG:NH1	60:EO:339:SER:O	2.44	0.50
59:ET:26:LEU:HD13	59:ET:363:VAL:HG23	1.93	0.50
59:FD:245:ASP:OD1	59:FD:246:GLY:N	2.44	0.50
59:FT:188:VAL:O	59:FT:191:THR:HG22	2.11	0.50
60:GF:131:GLN:HG3	60:GF:132:GLY:H	1.77	0.50
59:GN:49:PHE:HB2	59:GN:53:PHE:HB2	1.93	0.50
60:GQ:12:CYS:SG	60:GQ:13:GLY:N	2.84	0.50
60:HF:222:PHE:O	60:HF:226:ASN:ND2	2.44	0.50
59:HK:212:LEU:HD21	59:HK:275:VAL:HG11	1.93	0.50
60:HL:298:ASN:O	60:HL:298:ASN:ND2	2.45	0.50
60:HP:289:LEU:HD11	60:HP:363:MET:HG3	1.93	0.50
60:HU:31:ASP:OD1	60:HU:32:PRO:HD2	2.12	0.50
60:HU:374:ILE:HG13	60:HU:377:MET:HE3	1.93	0.50
60:HW:139:LEU:HD12	60:HW:170:ILE:HG22	1.94	0.50
59:HX:105:ARG:HG3	59:HX:411:GLU:HG2	1.93	0.50
60:HY:271:ALA:HA	60:HY:298:ASN:HD21	1.75	0.50
59:IB:408:TYR:HB3	59:IB:413:MET:HE2	1.93	0.50
60:IH:178:THR:O	60:IH:181:GLU:HG3	2.10	0.50
60:IH:182:PRO:O	60:IH:186:THR:HG23	2.12	0.50
59:IQ:406:HIS:HA	59:IQ:409:VAL:HG12	1.92	0.50
60:IU:230:SER:HA	60:IU:233:VAL:HG12	1.93	0.50
60:IW:60:VAL:HG11	60:IW:86:ARG:HB2	1.91	0.50
59:JH:27:GLU:HG3	59:JH:361:THR:OG1	2.11	0.50
59:JH:217:LEU:HD21	59:JH:368:LEU:HD23	1.93	0.50
59:JP:343:PHE:CE2	59:JP:350:GLY:HA3	2.46	0.50
59:JS:273:ALA:HB2	59:JS:295:VAL:HG12	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JZ:254:ALA:O	60:JZ:258:VAL:HG22	2.10	0.50
60:JZ:289:LEU:HD23	60:JZ:365:VAL:HG12	1.93	0.50
60:KT:299:MET:HE1	60:KT:305:PRO:HG2	1.92	0.50
59:KY:105:ARG:HG3	59:KY:411:GLU:HG2	1.94	0.50
60:LB:8:GLN:HE21	60:LB:65:LEU:CD2	2.25	0.50
1:0B:672:LYS:HG2	1:0B:675:ARG:HH21	1.76	0.50
32:1Z:93:ILE:HA	32:1Z:151:THR:HA	1.93	0.50
39:2R:428:GLN:HB3	43:3Q:126:THR:HG21	1.93	0.50
41:2Y:327:ARG:NH1	59:IQ:282:TYR:OH	2.45	0.50
42:3F:40:GLU:O	60:BT:320:ARG:NH1	2.43	0.50
42:3J:19:VAL:HG22	42:3J:30:CYS:SG	2.51	0.50
49:4C:32:PRO:HD2	49:4C:42:LEU:HD23	1.92	0.50
59:AQ:291:ILE:O	59:AQ:295:VAL:HG23	2.10	0.50
60:AZ:270:PHE:HE1	60:AZ:364:ALA:HB1	1.75	0.50
60:BH:219:THR:HA	59:BI:326:LYS:HE2	1.93	0.50
59:BI:384:ILE:O	59:BI:387:VAL:HG22	2.11	0.50
60:BP:230:SER:HA	60:BP:233:VAL:HG12	1.93	0.50
60:BV:230:SER:HA	60:BV:233:VAL:HG12	1.93	0.50
59:BX:392:ASP:HB3	59:BX:422:ARG:NH2	2.26	0.50
60:BY:31:ASP:OD1	60:BY:32:PRO:HD2	2.11	0.50
59:BZ:178:SER:CB	60:CA:347:ASN:ND2	2.73	0.50
59:CB:296:PHE:CE2	59:CB:335:ILE:HD13	2.47	0.50
59:CH:384:ILE:O	59:CH:387:VAL:HG22	2.11	0.50
60:CL:130:LEU:HB3	60:CL:162:ARG:NH1	2.26	0.50
59:CM:47:ASP:HB2	59:CM:50:ASN:OD1	2.12	0.50
60:CR:99:ASN:HD21	60:CR:178:THR:CG2	2.25	0.50
60:CV:152:ILE:HG22	60:CV:195:ASN:ND2	2.25	0.50
60:CV:253:LEU:HD21	60:CV:316:LEU:HD11	1.93	0.50
59:DG:255:PHE:CE1	59:DG:259:LEU:HD22	2.47	0.50
60:DH:377:MET:O	60:DH:380:ARG:HG2	2.11	0.50
60:DL:290:THR:HA	60:DL:293:MET:HE3	1.93	0.50
60:EM:423:GLN:O	60:EM:426:GLN:HG3	2.11	0.50
60:EO:330:MET:HE3	60:EO:349:ILE:HD13	1.94	0.50
60:FO:404:ASP:HB3	60:FO:407:GLU:OE1	2.12	0.50
59:FW:56:THR:HG23	59:FW:58:ALA:H	1.76	0.50
60:FX:175:VAL:HG13	59:FY:329:ASN:OD1	2.12	0.50
59:GC:2:ARG:HH22	59:GC:130:THR:HG22	1.76	0.50
60:GD:218:THR:HG23	60:GD:219:THR:HG23	1.94	0.50
59:GP:210:TYR:HB3	60:GQ:324:LYS:HE2	1.92	0.50
59:GT:207:GLU:OE2	59:GT:304:LYS:HE3	2.11	0.50
59:GT:240:ALA:HB2	59:GT:320:ARG:HH21	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HA:259:LEU:HD21	59:HA:316:CYS:HB2	1.93	0.50
60:HH:412:GLU:O	60:HH:416:ASN:OD1	2.30	0.50
60:HY:178:THR:HB	60:HY:181:GLU:HG3	1.92	0.50
59:HZ:60:LYS:HE2	59:IM:283:HIS:ND1	2.27	0.50
60:IA:309:ARG:HD3	60:IA:342:ILE:HA	1.94	0.50
59:ID:270:THR:HG22	59:ID:378:ILE:HG12	1.93	0.50
59:IG:258:ASN:ND2	59:IG:352:LYS:HG3	2.27	0.50
59:IK:225:THR:O	59:IK:229:ARG:HD3	2.12	0.50
60:IN:51:PHE:HB3	60:IN:59:TYR:HB3	1.93	0.50
60:IP:139:LEU:CD2	60:IP:168:SER:HB2	2.40	0.50
60:IP:297:LYS:C	60:IP:299:MET:H	2.15	0.50
60:IW:132:GLY:HA3	60:IW:163:ILE:HB	1.93	0.50
59:IZ:53:PHE:O	59:IZ:64:ARG:NH2	2.40	0.50
59:IZ:66:VAL:HG12	59:IZ:91:GLN:NE2	2.27	0.50
59:JD:52:PHE:HZ	59:JD:239:THR:HG21	1.75	0.50
60:JG:281:TYR:O	60:JG:282:ARG:HD2	2.11	0.50
60:JK:97:ALA:HB2	60:JK:143:THR:HB	1.94	0.50
59:JU:229:ARG:HH11	59:JU:366:GLY:HA2	1.77	0.50
60:KK:390:ARG:HH22	59:KL:442:MET:HB3	1.76	0.50
59:KN:326:LYS:HA	59:KN:329:ASN:ND2	2.26	0.50
59:KS:76:ASP:OD1	59:KS:79:ARG:NH1	2.41	0.50
59:KW:113:GLU:N	59:KW:113:GLU:OE1	2.42	0.50
1:0B:529:VAL:HG23	1:0B:603:VAL:HG22	1.92	0.50
5:0H:129:LYS:HB3	60:FC:55:THR:HG22	1.93	0.50
9:0R:293:ARG:HD2	9:0R:329:ASP:HA	1.94	0.50
39:2O:192:LEU:HD12	59:KP:282:TYR:HE1	1.76	0.50
48:3Z:250:GLN:HA	48:3Z:253:MET:HE2	1.92	0.50
48:4A:171:ALA:O	48:4A:174:GLN:HG3	2.12	0.50
53:4L:85:ARG:NE	60:IS:126:SER:O	2.39	0.50
60:AN:3:GLU:OE2	60:AN:127:CYS:HB3	2.11	0.50
60:AR:254:ALA:O	60:AR:258:VAL:HG12	2.11	0.50
59:AU:212:LEU:HD21	59:AU:275:VAL:HG21	1.93	0.50
60:AV:66:ILE:HD12	60:AV:147:MET:HE2	1.93	0.50
60:BD:167:PHE:CE2	60:BD:233:VAL:HG22	2.47	0.50
60:BH:417:ASP:O	60:BH:421:GLU:HG3	2.11	0.50
60:BP:152:ILE:HG22	60:BP:195:ASN:ND2	2.26	0.50
59:BU:256:GLN:O	59:BU:260:VAL:HG22	2.12	0.50
59:BZ:401:LYS:HZ2	60:CA:430:ILE:HD13	1.76	0.50
59:CD:388:PHE:HB2	59:CD:429:GLU:OE2	2.11	0.50
60:CE:253:LEU:HD21	60:CE:316:LEU:HD11	1.94	0.50
59:CF:90:GLU:OE1	59:CF:121:ARG:NH2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CQ:251:ASP:OD1	59:CQ:252:LEU:N	2.44	0.50
60:DD:128:ASP:OD1	60:DD:129:CYS:N	2.45	0.50
59:DK:174:SER:OG	59:DK:207:GLU:HB2	2.11	0.50
59:DO:291:ILE:HD12	59:DO:375:VAL:HG12	1.94	0.50
59:EB:296:PHE:CE2	59:EB:335:ILE:HD13	2.46	0.50
59:EH:296:PHE:CE2	59:EH:335:ILE:HD13	2.45	0.50
60:EM:170:ILE:HD11	60:EM:377:MET:HE1	1.93	0.50
59:GL:9:ILE:HG22	59:GL:68:LEU:HD12	1.94	0.50
59:GP:320:ARG:HH12	59:GP:360:PRO:HA	1.77	0.50
59:GR:100:ALA:HB1	60:GS:255:VAL:HG11	1.93	0.50
59:GR:119:LEU:HA	59:GR:122:ILE:HG12	1.92	0.50
60:GS:139:LEU:HD12	60:GS:170:ILE:HG22	1.92	0.50
59:HC:219:ILE:CD1	59:HC:222:PRO:HG3	2.42	0.50
59:HK:298:PRO:HG3	59:HK:308:ARG:HH12	1.77	0.50
60:HU:211:CYS:SG	60:HU:217:LEU:HD12	2.52	0.50
60:HU:254:ALA:O	60:HU:258:VAL:HG12	2.11	0.50
59:HZ:181:VAL:HA	60:IA:347:ASN:OD1	2.11	0.50
60:IF:173:PRO:HB3	60:IF:380:ARG:HH12	1.76	0.50
60:IJ:309:ARG:HH22	60:IJ:343:GLU:HG2	1.76	0.50
59:IM:392:ASP:HB3	59:IM:422:ARG:CZ	2.41	0.50
60:IN:139:LEU:HD11	60:IN:168:SER:HB3	1.94	0.50
60:JA:68:LEU:HD13	60:JA:143:THR:OG1	2.12	0.50
59:JD:402:ARG:CZ	59:JD:405:VAL:HG21	2.41	0.50
59:JH:295:VAL:HG23	59:JH:296:PHE:CD1	2.47	0.50
59:JS:401:LYS:HD2	60:JT:344:TRP:CE3	2.47	0.50
59:KF:105:ARG:HG3	59:KF:411:GLU:HG2	1.94	0.50
60:KG:209:ASP:OD1	60:KG:213:ARG:NH2	2.44	0.50
1:0D:111:GLU:HB3	1:0D:208:ALA:HB3	1.93	0.50
3:0F:306:THR:O	3:0F:307:GLU:HB2	2.12	0.50
7:0P:244:LEU:HA	7:0P:247:LYS:HE2	1.94	0.50
19:1B:58:VAL:HG13	19:1B:94:ILE:HB	1.92	0.50
30:1S:127:VAL:HG22	30:1S:167:LEU:HD21	1.94	0.50
34:2E:252:LEU:O	34:2E:256:GLU:HG2	2.11	0.50
42:3L:75:LYS:NZ	42:3L:80:GLU:OE1	2.39	0.50
43:3Q:64:GLN:NE2	43:3Q:112:ASP:OD2	2.38	0.50
47:3V:224:GLU:OE2	47:3V:228:LYS:NZ	2.43	0.50
60:AF:67:ASP:OD1	60:AF:68:LEU:N	2.44	0.50
60:AL:254:ALA:O	60:AL:258:VAL:HG12	2.11	0.50
60:AL:282:ARG:HH21	60:AX:86:ARG:CZ	2.24	0.50
60:AV:385:PHE:HE2	60:AV:412:GLU:HB2	1.76	0.50
59:BI:31:GLN:HG2	59:BI:37:PRO:HD3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BT:2:ARG:O	60:BT:49:VAL:HG23	2.11	0.50
60:BT:172:SER:OG	60:BT:205:GLU:OE2	2.29	0.50
60:BV:200:MET:HG3	60:BV:266:PHE:HB2	1.92	0.50
59:BX:402:ARG:HB2	59:BX:402:ARG:NH1	2.26	0.50
60:CA:73:MET:HA	60:CA:76:VAL:HG22	1.93	0.50
60:CC:284:LEU:HD12	60:CC:362:LYS:HB2	1.93	0.50
60:CG:132:GLY:HA3	60:CG:163:ILE:HG13	1.93	0.50
60:CP:249:ASP:OD1	60:CP:250:LEU:N	2.45	0.50
59:CQ:292:SER:HB3	59:CQ:335:ILE:HD11	1.94	0.50
60:CR:237:THR:HG23	60:CR:241:ARG:NH1	2.27	0.50
59:CU:212:LEU:HD21	59:CU:275:VAL:HG21	1.93	0.50
59:CW:352:LYS:HD2	59:CW:353:CYS:N	2.26	0.50
60:DN:178:THR:HG23	60:DN:181:GLU:HG3	1.94	0.50
60:DP:194:GLU:N	60:DP:194:GLU:OE1	2.44	0.50
59:DQ:392:ASP:OD1	59:DQ:425:LEU:HD23	2.11	0.50
60:DT:178:THR:HB	60:DT:181:GLU:HG3	1.92	0.50
59:DU:52:PHE:CZ	59:DU:239:THR:HG21	2.47	0.50
60:DW:97:ALA:HB2	60:DW:143:THR:HB	1.92	0.50
60:EK:249:ASP:OD1	60:EK:250:LEU:N	2.44	0.50
60:EM:117:LEU:HD11	60:EM:154:LYS:HD2	1.94	0.50
59:EP:172:TYR:HD1	59:EP:173:PRO:HD2	1.76	0.50
59:ET:172:TYR:HD2	59:ET:203:MET:HE2	1.77	0.50
59:EV:175:PRO:HB3	59:EV:390:ARG:CZ	2.42	0.50
60:EY:20:PHE:HA	60:EY:230:SER:HB2	1.93	0.50
60:FC:22:GLU:HG2	60:FC:81:TYR:CD1	2.47	0.50
59:FJ:408:TYR:HB3	59:FJ:413:MET:HE2	1.92	0.50
59:GG:167:LEU:HD22	59:GG:200:VAL:HB	1.94	0.50
59:GL:268:VAL:HG12	59:GL:380:ASN:OD1	2.12	0.50
59:GN:195:LEU:HD21	59:GN:264:ARG:HD2	1.94	0.50
62:GN:602:GTP:O3G	60:GO:252:LYS:NZ	2.43	0.50
59:GP:175:PRO:O	59:GP:390:ARG:NH2	2.45	0.50
59:GY:203:MET:HG3	59:GY:384:ILE:HD11	1.92	0.50
60:HB:305:PRO:HA	60:HB:371:ASN:HD21	1.77	0.50
59:HE:121:ARG:HA	59:HE:121:ARG:NE	2.27	0.50
60:HF:316:LEU:HD23	60:HF:352:SER:HB2	1.92	0.50
59:HG:108:TYR:HE2	59:HG:413:MET:HE2	1.76	0.50
60:HH:284:LEU:HD21	60:HH:362:LYS:HG2	1.94	0.50
59:HK:68:LEU:HG	59:HK:93:ILE:HD11	1.92	0.50
59:HO:222:PRO:O	60:HP:322:SER:HB2	2.10	0.50
60:HS:7:VAL:HB	60:HS:135:ILE:HG22	1.93	0.50
60:HS:27:GLU:OE1	60:HS:241:ARG:NH2	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HX:270:THR:HG22	59:HX:378:ILE:HG22	1.93	0.50
60:HY:67:ASP:OD1	60:HY:68:LEU:N	2.44	0.50
60:IA:73:MET:HA	60:IA:76:VAL:HG22	1.93	0.50
59:IB:212:LEU:HG	59:IB:275:VAL:HG11	1.93	0.50
60:IF:379:ARG:HE	60:IF:419:VAL:HG11	1.76	0.50
60:IN:22:GLU:HG2	60:IN:81:TYR:CD1	2.46	0.50
59:IX:19:ALA:O	59:IX:22:GLU:HG3	2.12	0.50
60:JC:67:ASP:OD1	60:JC:68:LEU:N	2.44	0.50
60:JX:3:GLU:HG3	60:JX:62:ARG:NH1	2.26	0.50
60:KE:286:VAL:O	60:KE:290:THR:HG23	2.11	0.50
59:KF:52:PHE:CZ	59:KF:239:THR:HG21	2.47	0.50
60:KI:254:ALA:O	60:KI:258:VAL:HG12	2.12	0.50
60:KO:179:VAL:HG23	59:KP:352:LYS:HG3	1.93	0.50
4:0G:355:PHE:HE1	60:DB:76:VAL:HG12	1.75	0.50
9:0R:129:MET:HB2	9:0R:239:ILE:HG22	1.94	0.50
33:2C:378:SER:HB2	33:2C:383:MET:HB2	1.94	0.50
37:2L:162:ARG:NH1	37:2L:168:ASP:OD1	2.40	0.50
43:3Q:171:ARG:HD3	59:JU:45:GLU:HB2	1.94	0.50
44:3R:168:ARG:O	44:3R:168:ARG:HD2	2.12	0.50
47:3V:197:ILE:O	47:3V:201:GLY:N	2.45	0.50
54:4O:164:LYS:NZ	54:4O:165:HIS:CE1	2.80	0.50
56:4Q:150:LYS:HZ2	59:IZ:263:PRO:HB3	1.77	0.50
60:AH:289:LEU:HD11	60:AH:363:MET:HG3	1.93	0.50
59:AO:70:LEU:HD22	59:AO:145:THR:HG22	1.93	0.50
60:BD:375:GLN:NE2	60:BD:423:GLN:HE21	2.09	0.50
59:BG:203:MET:HE3	59:BG:267:PHE:HD1	1.77	0.50
59:BQ:91:GLN:NE2	59:BQ:125:LEU:HD21	2.26	0.50
60:BT:293:MET:HE3	60:BT:367:PHE:HB2	1.93	0.50
59:BX:221:ARG:HG2	60:BY:322:SER:HB3	1.94	0.50
60:CN:8:GLN:HE22	60:CN:21:TRP:HE1	1.58	0.50
60:CN:395:LEU:HD21	60:CN:405:GLU:HG2	1.92	0.50
59:DE:222:PRO:HD2	60:DF:324:LYS:HD3	1.93	0.50
60:DY:27:GLU:CD	60:DY:241:ARG:HH22	2.15	0.50
60:EE:52:ASP:OD1	60:EE:53:GLU:N	2.45	0.50
60:EI:14:ASN:OD1	60:EI:65:LEU:HD12	2.11	0.50
59:EJ:15:GLN:NE2	62:EJ:602:GTP:O6	2.44	0.50
60:EK:429:THR:HG23	60:EK:431:GLU:HG2	1.93	0.50
60:EM:207:LEU:HB2	60:EM:225:LEU:HD22	1.94	0.50
59:EN:270:THR:HG22	59:EN:378:ILE:HG12	1.91	0.50
60:FA:31:ASP:OD1	60:FA:32:PRO:HD2	2.12	0.50
59:FT:298:PRO:HG2	59:FT:308:ARG:HH12	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GD:204:ASN:OD1	64:GD:501:GDP:N2	2.45	0.50
60:GD:230:SER:HA	60:GD:233:VAL:HG12	1.93	0.50
59:GJ:293:ASN:OD1	59:GJ:338:LYS:NZ	2.45	0.50
60:HH:97:ALA:HB2	60:HH:143:THR:HB	1.94	0.50
59:HK:88:HIS:NE2	59:HX:284:GLU:OE2	2.44	0.50
59:HK:105:ARG:HA	59:HK:109:THR:HG22	1.94	0.50
60:HR:404:ASP:HB3	60:HR:407:GLU:OE1	2.12	0.50
60:HS:261:PRO:HG2	60:HS:262:ARG:NH1	2.27	0.50
59:HT:27:GLU:OE2	59:HT:243:ARG:NH1	2.45	0.50
59:HX:24:PHE:HA	59:HX:27:GLU:HG2	1.93	0.50
59:IG:402:ARG:O	60:IH:260:PHE:HE1	1.95	0.50
60:IH:68:LEU:HD22	60:IH:143:THR:HG22	1.93	0.50
60:IP:380:ARG:HA	60:IP:383:GLU:OE1	2.12	0.50
59:IX:74:VAL:O	59:IX:78:VAL:HG23	2.11	0.50
60:JC:117:LEU:HD11	60:JC:154:LYS:HG2	1.93	0.50
60:JM:167:PHE:CE2	60:JM:233:VAL:HG22	2.46	0.50
60:JR:117:LEU:HA	60:JR:120:CYS:SG	2.52	0.50
60:JT:359:LYS:HD3	60:JT:359:LYS:H	1.75	0.50
59:KC:371:VAL:HG12	59:KC:373:ARG:H	1.76	0.50
59:KS:286:LEU:O	59:KS:373:ARG:NH1	2.44	0.50
1:0A:641:GLU:OE2	1:0A:645:ARG:NH1	2.44	0.50
1:0B:162:PHE:O	1:0B:191:TYR:OH	2.28	0.50
5:0H:120:GLU:OE2	59:EP:225:THR:OG1	2.29	0.50
5:0K:119:ARG:HE	59:EX:365:GLY:HA3	1.75	0.50
30:1R:297:CYS:O	32:1Y:84:LYS:NZ	2.40	0.50
39:2P:182:GLU:HA	39:2P:185:VAL:HG22	1.93	0.50
41:2Z:190:ASP:OD1	41:2Z:191:VAL:N	2.45	0.50
42:3J:12:TYR:OH	42:3J:18:CYS:SG	2.69	0.50
42:3J:50:LYS:NZ	59:IK:365:GLY:H	2.10	0.50
42:3K:247:SER:OG	42:3K:248:VAL:N	2.44	0.50
44:3R:204:SER:HA	59:JY:61:HIS:HD2	1.76	0.50
47:3X:245:THR:HG21	59:IG:279:GLU:HG3	1.92	0.50
54:4O:120:ARG:NH1	59:IG:196:GLU:OE2	2.45	0.50
59:AK:215:ARG:HH12	59:AK:299:ALA:HB1	1.77	0.50
59:AY:259:LEU:O	59:AY:380:ASN:ND2	2.45	0.50
59:BG:50:ASN:O	59:BG:64:ARG:NH1	2.45	0.50
59:BG:280:LYS:HE3	59:BS:88:HIS:HE1	1.76	0.50
60:BH:267:MET:HA	60:BH:301:GLN:NE2	2.27	0.50
59:BI:256:GLN:O	59:BI:260:VAL:HG22	2.12	0.50
59:BK:119:LEU:HD11	59:BK:156:ARG:HG2	1.93	0.50
59:BQ:93:ILE:HD11	59:BQ:121:ARG:HG3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BU:306:ASP:OD2	59:BU:308:ARG:NH2	2.45	0.50
59:BX:51:THR:HG22	59:BX:52:PHE:CD1	2.47	0.50
59:BX:402:ARG:HG3	59:BX:405:VAL:HB	1.94	0.50
60:CC:8:GLN:HG2	60:CC:17:GLY:HA3	1.94	0.50
60:CG:156:ARG:NH2	60:CG:197:ASP:OD2	2.45	0.50
60:CP:152:ILE:HG22	60:CP:195:ASN:ND2	2.25	0.50
60:CR:375:GLN:HB2	60:CR:419:VAL:HG13	1.93	0.50
60:CV:265:PHE:HB3	60:CV:374:ILE:HD13	1.94	0.50
59:DZ:88:HIS:HB3	59:DZ:91:GLN:HG2	1.94	0.50
59:EB:207:GLU:OE2	59:EB:304:LYS:NZ	2.44	0.50
60:EO:230:SER:HA	60:EO:233:VAL:HG12	1.94	0.50
59:EZ:56:THR:HG22	59:EZ:58:ALA:H	1.77	0.50
59:FY:267:PHE:HB3	59:FY:384:ILE:HD13	1.93	0.50
59:GH:287:SER:N	59:GH:290:GLU:OE1	2.44	0.50
59:GP:3:GLU:HG2	59:GP:64:ARG:HH22	1.77	0.50
59:HA:11:GLN:O	59:HA:15:GLN:HG3	2.11	0.50
60:HB:32:PRO:HB3	60:HB:81:TYR:CD1	2.46	0.50
60:IS:139:LEU:HD11	60:IS:168:SER:HB2	1.94	0.50
60:JE:73:MET:HA	60:JE:76:VAL:HG22	1.93	0.50
60:JI:252:LYS:HA	60:JI:255:VAL:HG12	1.94	0.50
59:JY:33:ASP:OD1	59:JY:34:GLY:N	2.44	0.50
59:KA:105:ARG:HG2	59:KA:411:GLU:HG2	1.93	0.50
60:KB:396:HIS:HE1	59:KC:261:PRO:O	1.94	0.50
59:KC:175:PRO:HD3	59:KC:304:LYS:HE2	1.92	0.50
59:KH:191:THR:HG23	59:KH:425:LEU:HD11	1.94	0.50
59:KN:204:LEU:HD12	59:KN:209:ILE:HD11	1.94	0.50
1:0B:253:VAL:HG13	59:DA:41:THR:HG23	1.94	0.50
30:1Q:127:VAL:HG22	30:1Q:167:LEU:HD21	1.94	0.50
34:2E:144:GLU:HG2	37:2L:180:LEU:HD21	1.93	0.50
39:2P:366:LYS:O	39:2P:369:LYS:HG3	2.12	0.50
39:2Q:71:SER:OG	39:2Q:73:GLU:OE1	2.30	0.50
39:2R:439:MET:SD	39:2R:443:GLU:OE2	2.70	0.50
40:2T:159:ALA:O	40:2T:163:ARG:HG3	2.12	0.50
54:4M:102:ILE:O	54:4M:105:GLN:HB3	2.12	0.50
59:AA:212:LEU:HD11	59:AA:275:VAL:HG11	1.92	0.50
59:AM:178:SER:OG	60:AN:347:ASN:ND2	2.45	0.50
59:AU:50:ASN:O	59:AU:64:ARG:NH1	2.45	0.50
60:AX:31:ASP:OD1	60:AX:32:PRO:HD2	2.12	0.50
59:BW:220:GLU:C	59:BW:221:ARG:HD3	2.32	0.50
60:CC:238:CYS:SG	60:CC:239:CYS:N	2.84	0.50
60:CN:189:VAL:O	60:CN:193:VAL:HG23	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CQ:291:ILE:O	59:CQ:295:VAL:HG23	2.12	0.50
60:CV:11:GLN:NE2	60:CV:15:GLN:OE1	2.44	0.50
59:DK:169:TYR:OH	59:DK:238:LEU:HD23	2.11	0.50
60:EM:173:PRO:HG2	60:EM:380:ARG:NE	2.26	0.50
60:FA:170:ILE:HD13	60:FA:201:CYS:HB3	1.92	0.50
59:FH:384:ILE:O	59:FH:387:VAL:HG22	2.12	0.50
59:FL:280:LYS:HE3	59:FY:88:HIS:HE1	1.77	0.50
59:FU:79:ARG:NH2	59:FU:92:LEU:O	2.44	0.50
60:GV:178:THR:HB	60:GV:181:GLU:HG3	1.93	0.50
59:GY:50:ASN:O	59:GY:64:ARG:NH1	2.45	0.50
60:HF:97:ALA:HB2	60:HF:143:THR:HB	1.94	0.50
60:HL:158:GLN:HG3	60:HL:159:TYR:CE1	2.46	0.50
60:HL:295:ASP:OD1	60:HL:297:LYS:HE2	2.12	0.50
59:IB:205:ASP:OD2	59:IB:304:LYS:N	2.36	0.50
60:IE:113:ILE:HG22	60:IE:117:LEU:HG	1.94	0.50
60:IF:222:PHE:O	60:IF:226:ASN:ND2	2.45	0.50
60:IW:125:GLU:OE2	60:IW:159:TYR:OH	2.21	0.50
60:JI:310:TYR:HE2	60:JI:367:PHE:HZ	1.59	0.50
60:JK:11:GLN:HG3	60:JK:72:THR:HG21	1.94	0.50
59:JP:169:TYR:HE2	59:JP:235:VAL:HG22	1.77	0.50
60:JR:207:LEU:HD22	60:JR:228:LEU:HD23	1.93	0.50
59:JS:180:ALA:HB3	59:JS:183:GLU:HG3	1.93	0.50
59:JS:251:ASP:O	59:JS:254:GLU:HG2	2.12	0.50
59:KH:172:TYR:HD2	59:KH:203:MET:HG2	1.77	0.50
60:KK:46:ARG:HG2	60:KK:241:ARG:HA	1.93	0.50
59:KL:40:LYS:HD3	59:KL:42:ILE:HG12	1.94	0.50
60:KO:170:ILE:HG13	60:KO:171:PRO:HD2	1.93	0.50
59:KP:88:HIS:ND1	59:KP:89:PRO:HD2	2.27	0.50
59:KQ:358:GLN:OE1	59:KQ:359:PRO:HD2	2.12	0.50
1:0A:108:SER:OG	1:0A:111:GLU:O	2.29	0.49
33:2C:332:ASP:OD1	33:2C:333:VAL:N	2.45	0.49
34:2E:118:ASP:OD1	34:2E:119:ASP:N	2.44	0.49
36:2K:181:PHE:HB3	59:EL:207:GLU:OE2	2.13	0.49
42:3N:10:LEU:HA	42:3N:21:ARG:HE	1.77	0.49
60:AD:27:GLU:HA	60:AD:359:LYS:NZ	2.25	0.49
60:AV:148:GLY:O	60:AV:152:ILE:HG12	2.11	0.49
60:AX:375:GLN:OE1	60:AX:379:ARG:NH2	2.44	0.49
59:BI:72:PRO:HD2	60:BJ:2:ARG:NH2	2.27	0.49
60:BL:31:ASP:OD1	60:BL:32:PRO:HD2	2.11	0.49
60:BP:55:THR:HG23	60:BP:58:ARG:HB3	1.94	0.49
60:BP:260:PHE:HB2	60:BP:263:LEU:HD13	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BW:225:THR:O	59:BW:229:ARG:HG3	2.12	0.49
59:BZ:270:THR:HG22	59:BZ:378:ILE:HG22	1.93	0.49
60:CC:376:GLU:O	60:CC:380:ARG:HG3	2.11	0.49
60:CL:249:ASP:OD1	60:CL:250:LEU:N	2.45	0.49
60:CN:193:VAL:HG22	60:CN:265:PHE:CZ	2.45	0.49
60:CR:22:GLU:HG2	60:CR:81:TYR:CD2	2.47	0.49
60:CT:32:PRO:HA	60:CT:84:ILE:HD11	1.93	0.49
60:CT:249:ASP:OD1	60:CT:250:LEU:N	2.45	0.49
59:CU:296:PHE:CE2	59:CU:335:ILE:HD13	2.48	0.49
59:DA:291:ILE:O	59:DA:295:VAL:HG23	2.12	0.49
60:DB:392:LYS:HG3	60:DB:395:LEU:HD13	1.94	0.49
60:DH:324:LYS:HZ3	60:DH:328:GLU:HG3	1.77	0.49
59:DQ:358:GLN:OE1	59:DQ:359:PRO:HD2	2.12	0.49
59:EB:15:GLN:NE2	62:EB:501:GTP:O6	2.45	0.49
59:EH:270:THR:HG22	59:EH:378:ILE:HG22	1.94	0.49
59:EL:50:ASN:O	59:EL:64:ARG:NH1	2.45	0.49
60:EM:81:TYR:O	60:EM:84:ILE:HG12	2.12	0.49
60:EY:232:VAL:HG11	60:EY:268:MET:HE3	1.94	0.49
60:FM:170:ILE:HD12	60:FM:201:CYS:HB3	1.93	0.49
60:FM:334:GLN:HE21	60:FM:349:ILE:HD12	1.76	0.49
59:FT:251:ASP:OD1	59:FT:252:LEU:N	2.44	0.49
59:FY:406:HIS:HA	59:FY:409:VAL:HG12	1.94	0.49
59:GE:132:LEU:HD22	59:GE:164:LYS:NZ	2.27	0.49
59:GH:229:ARG:HD3	59:GH:363:VAL:HG11	1.93	0.49
59:GR:101:ASN:OD1	60:GS:252:LYS:NZ	2.37	0.49
59:GT:50:ASN:O	59:GT:64:ARG:NH1	2.44	0.49
59:GW:291:ILE:O	59:GW:295:VAL:HG23	2.12	0.49
60:GZ:249:ASP:OD1	60:GZ:250:LEU:N	2.45	0.49
60:HU:8:GLN:HG2	60:HU:17:GLY:HA3	1.92	0.49
59:HZ:54:SER:HB3	59:HZ:64:ARG:NH1	2.27	0.49
60:IH:326:VAL:O	60:IH:330:MET:HG2	2.11	0.49
60:IJ:298:ASN:O	60:IJ:298:ASN:ND2	2.44	0.49
60:IN:167:PHE:CE2	60:IN:233:VAL:HG23	2.46	0.49
60:IP:394:PHE:CD1	59:IQ:261:PRO:HA	2.47	0.49
59:IQ:54:SER:HB3	59:IQ:64:ARG:HH12	1.77	0.49
60:IS:330:MET:O	60:IS:334:GLN:HG2	2.12	0.49
59:IV:169:TYR:CE2	59:IV:235:VAL:HG22	2.47	0.49
59:IV:169:TYR:HE2	59:IV:235:VAL:HG22	1.77	0.49
59:IZ:7:ILE:HB	59:IZ:137:VAL:HG12	1.92	0.49
59:JD:225:THR:O	59:JD:229:ARG:HG3	2.12	0.49
59:JQ:79:ARG:O	59:JQ:84:ARG:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JR:178:THR:HB	60:JR:181:GLU:HG3	1.93	0.49
59:JS:311:LYS:NZ	59:JS:438:GLU:OE2	2.36	0.49
59:JU:178:SER:HB3	60:JV:347:ASN:ND2	2.26	0.49
59:KD:392:ASP:HB3	59:KD:425:LEU:HD23	1.94	0.49
59:KL:36:MET:HE3	59:KL:37:PRO:HD2	1.92	0.49
60:KX:73:MET:HA	60:KX:76:VAL:HG12	1.94	0.49
60:LB:73:MET:HE1	60:LB:91:ILE:O	2.12	0.49
3:0F:602:LEU:HD12	3:0F:641:ARG:HG3	1.94	0.49
4:0G:341:PRO:HD3	4:0G:364:LEU:HD12	1.92	0.49
4:0G:606:ARG:NH1	4:0G:685:GLU:OE1	2.44	0.49
4:0G:725:ASN:HB2	4:0G:728:VAL:HG12	1.94	0.49
27:1K:28:PRO:HG3	59:AI:370:LYS:HE2	1.94	0.49
30:1S:256:PHE:HB2	60:KR:88:ASP:OD2	2.12	0.49
34:2F:173:TYR:OH	59:EL:396:ASP:HA	2.11	0.49
40:2S:102:LEU:HD12	40:2S:103:ARG:HE	1.76	0.49
41:3B:2:PRO:O	41:3B:18:TYR:OH	2.29	0.49
47:3X:244:GLN:OE1	59:HT:84:ARG:HD3	2.12	0.49
59:AM:47:ASP:OD1	59:AM:47:ASP:N	2.44	0.49
60:AN:170:ILE:HG22	60:AN:171:PRO:HD2	1.94	0.49
59:BC:291:ILE:O	59:BC:295:VAL:HG23	2.12	0.49
60:BF:27:GLU:OE2	60:BF:241:ARG:NH2	2.45	0.49
60:BH:52:ASP:OD1	60:BH:53:GLU:N	2.44	0.49
60:BH:201:CYS:SG	60:BH:301:GLN:NE2	2.85	0.49
60:BN:27:GLU:OE1	60:BN:241:ARG:NH2	2.27	0.49
60:BP:7:VAL:HB	60:BP:135:ILE:HD13	1.94	0.49
60:BP:263:LEU:HD21	60:BP:425:TYR:HD2	1.77	0.49
60:BY:99:ASN:O	60:BY:99:ASN:ND2	2.45	0.49
60:BY:183:TYR:O	60:BY:187:LEU:HG	2.12	0.49
59:CM:44:VAL:HG13	59:CM:45:GLU:OE1	2.11	0.49
59:DM:222:PRO:HD2	60:DN:324:LYS:HG2	1.94	0.49
60:DN:52:ASP:OD1	60:DN:53:GLU:N	2.45	0.49
59:DO:88:HIS:HB3	59:DO:91:GLN:HG3	1.94	0.49
60:DP:73:MET:HA	60:DP:76:VAL:HG22	1.93	0.49
60:EQ:391:ARG:HG3	59:ER:346:TRP:HB3	1.94	0.49
60:EW:285:SER:HB3	60:EW:287:PRO:HD2	1.94	0.49
60:FA:200:MET:HG2	60:FA:268:MET:SD	2.52	0.49
60:FC:260:PHE:HB2	60:FC:263:LEU:HD13	1.94	0.49
59:FH:404:PHE:HB3	59:FH:407:TRP:HD1	1.76	0.49
60:FK:26:ASP:O	60:FK:359:LYS:NZ	2.35	0.49
59:GE:195:LEU:HD21	59:GE:428:LEU:HD22	1.94	0.49
60:GO:190:HIS:CE1	60:GO:414:ASN:HD22	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GP:246:GLY:HA2	59:GP:357:TYR:CD1	2.48	0.49
60:GQ:122:LYS:NZ	60:HD:282:ARG:HH22	2.10	0.49
59:GR:250:VAL:HA	59:GR:254:GLU:OE2	2.13	0.49
59:HA:269:LEU:HD22	59:HA:303:THR:HG21	1.94	0.49
59:HC:401:LYS:HD2	60:HD:344:TRP:CE3	2.48	0.49
60:HF:273:LEU:O	60:HF:292:GLN:NE2	2.39	0.49
59:HI:52:PHE:CZ	59:HI:239:THR:HG21	2.47	0.49
59:HM:191:THR:O	59:HM:195:LEU:HD23	2.12	0.49
60:HN:407:GLU:OE1	60:HN:407:GLU:N	2.44	0.49
60:HP:249:ASP:OD1	60:HP:250:LEU:N	2.45	0.49
59:HQ:210:TYR:HD2	60:HR:324:LYS:HZ1	1.60	0.49
59:HQ:298:PRO:HA	59:HQ:301:MET:HE2	1.93	0.49
59:HX:191:THR:O	59:HX:195:LEU:HD23	2.13	0.49
59:IB:79:ARG:NH2	59:IB:92:LEU:O	2.44	0.49
60:IN:188:SER:O	60:IN:192:LEU:HD13	2.12	0.49
60:IP:47:ILE:HG22	60:IP:51:PHE:HB2	1.94	0.49
60:IR:62:ARG:HG3	60:IR:123:GLU:OE2	2.12	0.49
60:IU:52:ASP:OD1	60:IU:53:GLU:N	2.45	0.49
60:IW:122:LYS:NZ	60:JI:282:ARG:HH22	2.09	0.49
59:IZ:273:ALA:HB2	59:IZ:295:VAL:CG2	2.43	0.49
60:JA:178:THR:HB	60:JA:181:GLU:HG3	1.93	0.49
60:JE:179:VAL:HG23	60:JE:180:VAL:HG13	1.95	0.49
60:JG:210:ILE:HD11	60:JG:298:ASN:HA	1.93	0.49
60:JI:305:PRO:HB3	60:JI:310:TYR:HE1	1.77	0.49
59:JS:269:LEU:HD23	59:JS:301:MET:HE3	1.93	0.49
59:JW:178:SER:HB2	60:JX:347:ASN:ND2	2.27	0.49
60:KG:143:THR:O	60:KG:147:MET:HG2	2.12	0.49
60:KG:289:LEU:HD11	60:KG:363:MET:HG3	1.92	0.49
59:KL:291:ILE:O	59:KL:295:VAL:HG23	2.12	0.49
60:KT:31:ASP:OD1	60:KT:32:PRO:HD2	2.12	0.49
60:KX:27:GLU:OE1	60:KX:241:ARG:NH2	2.43	0.49
3:0F:283:ARG:HH12	60:CR:276:ARG:NH1	2.11	0.49
8:0Q:77:ASP:OD1	8:0Q:78:TYR:N	2.46	0.49
27:1L:268:VAL:HG21	60:AL:224:ASP:HA	1.94	0.49
32:1Y:15:TYR:CE2	32:1Y:17:ILE:HB	2.48	0.49
33:2D:18:ILE:HG13	33:2D:616:ILE:HB	1.94	0.49
39:2R:337:ARG:HB3	39:2R:341:LYS:NZ	2.27	0.49
40:2T:313:ILE:HD13	60:JK:80:PRO:HB3	1.93	0.49
41:2Z:71:ARG:HD2	48:3Z:228:PHE:CD2	2.46	0.49
42:3L:123:PRO:HD3	59:HX:32:PRO:HD3	1.93	0.49
47:3W:44:ASP:O	47:3W:47:GLY:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:3W:48:HIS:HB2	59:FN:155:GLU:OE2	2.12	0.49
55:4P:172:PRO:O	55:4P:175:LEU:N	2.45	0.49
59:AG:52:PHE:CZ	59:AG:239:THR:HG21	2.47	0.49
60:AH:407:GLU:N	60:AH:407:GLU:OE1	2.42	0.49
60:AL:170:ILE:HD13	60:AL:201:CYS:HB3	1.94	0.49
60:AP:156:ARG:HH22	60:AP:197:ASP:HB2	1.78	0.49
59:AU:203:MET:O	59:AU:303:THR:OG1	2.27	0.49
60:AX:271:ALA:HA	60:AX:298:ASN:ND2	2.27	0.49
60:BB:67:ASP:OD1	60:BB:68:LEU:N	2.45	0.49
59:BG:384:ILE:O	59:BG:387:VAL:HG22	2.12	0.49
59:BO:105:ARG:NH2	59:BO:110:ILE:HD11	2.26	0.49
60:BP:27:GLU:OE1	60:BP:241:ARG:NH2	2.40	0.49
60:BY:235:GLY:HA2	60:BY:318:ARG:NH2	2.27	0.49
60:CG:52:ASP:OD1	60:CG:53:GLU:N	2.45	0.49
59:CS:141:VAL:HG21	59:CS:172:TYR:HE1	1.76	0.49
60:CV:19:LYS:NZ	60:CV:223:GLY:O	2.45	0.49
60:DF:249:ASP:OD1	60:DF:250:LEU:N	2.46	0.49
60:DL:254:ALA:O	60:DL:258:VAL:HG12	2.12	0.49
60:DP:201:CYS:C	60:DP:301:GLN:HE22	2.15	0.49
60:DV:290:THR:HA	60:DV:293:MET:HE3	1.94	0.49
60:DY:67:ASP:OD1	60:DY:68:LEU:N	2.44	0.49
59:ER:255:PHE:O	59:ER:259:LEU:HB3	2.11	0.49
60:FC:73:MET:HB2	60:FC:92:PHE:CZ	2.46	0.49
60:FQ:284:LEU:HD12	60:FQ:289:LEU:HD11	1.95	0.49
60:GB:52:ASP:OD1	60:GB:62:ARG:NH2	2.45	0.49
60:GQ:68:LEU:HD11	60:GQ:147:MET:HE3	1.93	0.49
60:GS:344:TRP:HB3	60:GS:430:ILE:HD11	1.94	0.49
60:GX:145:SER:HB3	60:GX:188:SER:OG	2.12	0.49
59:HG:362:VAL:HG11	59:HG:370:LYS:HD2	1.94	0.49
60:HW:257:LEU:HD11	60:HW:314:SER:HB2	1.94	0.49
60:IY:68:LEU:HD13	60:IY:143:THR:OG1	2.12	0.49
60:IY:316:LEU:HD12	60:IY:352:SER:HB2	1.94	0.49
60:JT:341:PHE:HB3	60:JT:348:ASN:ND2	2.27	0.49
59:KD:121:ARG:NE	59:KD:121:ARG:HA	2.26	0.49
59:KP:174:SER:OG	59:KP:177:VAL:HG23	2.11	0.49
60:KX:173:PRO:HB3	60:KX:380:ARG:NE	2.28	0.49
9:0R:103:GLU:OE2	9:0R:150:ARG:N	2.40	0.49
14:0W:78:MET:HA	59:FW:245:ASP:OD2	2.12	0.49
17:0Z:398:ILE:O	17:0Z:402:GLN:HG3	2.12	0.49
25:1H:354:THR:OG1	25:1H:355:VAL:N	2.45	0.49
28:1M:376:ARG:NH1	28:1M:382:ILE:O	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2B:512:ALA:HB3	33:2B:525:THR:H	1.77	0.49
33:2C:566:VAL:HG22	33:2C:576:VAL:HG22	1.93	0.49
34:2E:177:VAL:O	34:2E:181:ILE:HG12	2.12	0.49
42:3L:187:TYR:HE2	59:HT:81:GLY:HA3	1.77	0.49
46:3U:68:PRO:HG2	46:3U:71:HIS:HB2	1.94	0.49
46:3U:84:SER:O	60:EY:336:LYS:NZ	2.46	0.49
54:4N:40:GLU:OE2	54:4N:41:ARG:NH1	2.45	0.49
60:AD:143:THR:N	64:AD:501:GDP:O2B	2.46	0.49
60:AN:267:MET:HE1	60:AN:373:CYS:SG	2.52	0.49
59:AO:2:ARG:HG3	59:AO:3:GLU:OE1	2.13	0.49
59:BA:3:GLU:HA	59:BA:51:THR:HA	1.94	0.49
60:BF:404:ASP:HB3	60:BF:407:GLU:OE1	2.11	0.49
59:BI:150:GLY:O	59:BI:154:LEU:HD23	2.12	0.49
59:BQ:221:ARG:HH11	59:BQ:221:ARG:HG2	1.78	0.49
59:BX:111:GLY:O	59:BX:115:VAL:HG13	2.12	0.49
59:BX:176:GLN:NE2	59:BX:207:GLU:OE2	2.45	0.49
60:CG:330:MET:HG2	60:CG:349:ILE:HG21	1.93	0.49
60:CR:254:ALA:O	60:CR:258:VAL:HG12	2.13	0.49
60:CZ:344:TRP:HB3	60:CZ:430:ILE:HD11	1.93	0.49
60:DJ:121:CYS:SG	60:DJ:158:GLN:OE1	2.68	0.49
60:DL:170:ILE:HD11	60:DL:377:MET:HE3	1.94	0.49
59:DS:251:ASP:OD1	59:DS:252:LEU:N	2.45	0.49
60:DV:343:GLU:OE1	60:DV:343:GLU:N	2.36	0.49
59:DX:150:GLY:O	59:DX:154:LEU:HD23	2.12	0.49
60:EA:3:GLU:OE2	60:EA:127:CYS:HB3	2.12	0.49
59:ED:44:VAL:HG23	59:ED:244:PHE:HE1	1.78	0.49
59:EF:216:ASN:O	59:EF:280:LYS:NZ	2.44	0.49
59:EJ:119:LEU:HD21	59:EJ:156:ARG:HB3	1.94	0.49
60:EU:311:LEU:HD23	60:EU:342:ILE:HG13	1.93	0.49
60:EW:52:ASP:OD1	60:EW:53:GLU:N	2.46	0.49
60:FC:139:LEU:HD12	60:FC:170:ILE:HG12	1.94	0.49
60:FK:270:PHE:CE1	60:FK:272:PRO:HD2	2.48	0.49
59:FL:269:LEU:HD22	59:FL:303:THR:HG21	1.94	0.49
60:FO:407:GLU:OE1	60:FO:407:GLU:N	2.40	0.49
59:FR:298:PRO:HA	59:FR:301:MET:HG3	1.95	0.49
59:FU:90:GLU:OE2	59:FU:121:ARG:HD3	2.12	0.49
60:FV:237:THR:HG23	60:FV:241:ARG:NH1	2.27	0.49
59:FW:212:LEU:HD21	59:FW:275:VAL:HG21	1.93	0.49
59:GE:172:TYR:CG	59:GE:203:MET:HE1	2.47	0.49
59:GW:287:SER:N	59:GW:290:GLU:OE1	2.44	0.49
60:HB:407:GLU:OE1	60:HB:407:GLU:N	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HH:22:GLU:HA	60:HH:81:TYR:CD2	2.48	0.49
60:HH:249:ASP:OD1	60:HH:250:LEU:N	2.45	0.49
60:HN:404:ASP:HB3	60:HN:407:GLU:OE1	2.13	0.49
60:HS:215:LEU:HD21	60:HS:273:LEU:HD23	1.95	0.49
60:HY:152:ILE:HG22	60:HY:195:ASN:ND2	2.27	0.49
60:IF:267:MET:N	60:IF:369:GLY:O	2.38	0.49
60:IJ:167:PHE:CE2	60:IJ:233:VAL:HG22	2.46	0.49
60:IL:50:TYR:HA	60:IL:62:ARG:HH12	1.76	0.49
60:IN:238:CYS:SG	60:IN:239:CYS:N	2.85	0.49
59:IV:296:PHE:CE2	59:IV:335:ILE:HD13	2.47	0.49
60:IW:14:ASN:OD1	60:IW:65:LEU:HD12	2.12	0.49
60:JA:14:ASN:OD1	60:JA:65:LEU:HD12	2.13	0.49
59:JF:217:LEU:HD21	59:JF:368:LEU:HD23	1.94	0.49
59:JH:269:LEU:HD22	59:JH:303:THR:HG21	1.95	0.49
59:JJ:210:TYR:CE1	59:JJ:227:LEU:HD21	2.48	0.49
60:JK:329:GLN:HE21	60:JK:329:GLN:HA	1.76	0.49
59:JN:52:PHE:CZ	59:JN:239:THR:HG21	2.47	0.49
59:JQ:175:PRO:HB3	59:JQ:390:ARG:NH1	2.25	0.49
60:JV:3:GLU:OE2	60:JV:127:CYS:HB3	2.13	0.49
60:JV:292:GLN:HG2	60:JV:298:ASN:ND2	2.27	0.49
60:JZ:52:ASP:OD1	60:JZ:53:GLU:N	2.45	0.49
60:KE:249:ASP:OD1	60:KE:250:LEU:N	2.45	0.49
60:KG:58:ARG:HE	60:KT:280:GLN:NE2	2.05	0.49
60:KI:135:ILE:HD13	60:KI:152:ILE:HD11	1.94	0.49
60:KO:249:ASP:OD1	60:KO:250:LEU:N	2.45	0.49
59:KS:37:PRO:HG2	59:KS:40:LYS:HB2	1.94	0.49
60:KV:134:GLN:HG2	60:KV:165:MET:HE3	1.94	0.49
60:KZ:218:THR:HG23	60:KZ:219:THR:HG23	1.94	0.49
3:0F:308:THR:HG21	60:DD:276:ARG:HB2	1.94	0.49
7:0O:8:VAL:HG21	60:GD:77:ARG:HG2	1.93	0.49
16:0Y:6:LEU:HD22	60:AJ:45:GLU:HG3	1.94	0.49
30:1S:155:ASP:OD1	30:1S:158:ARG:NH1	2.41	0.49
31:1T:109:ASP:OD1	31:1T:109:ASP:N	2.45	0.49
32:2A:14:LEU:HD23	32:2A:165:LEU:HD13	1.94	0.49
33:2B:157:SER:HA	33:2B:174:GLY:HA3	1.95	0.49
39:2R:373:ARG:O	39:2R:376:GLU:HG2	2.13	0.49
40:2S:109:GLU:OE2	40:2S:113:ARG:NH2	2.46	0.49
41:3B:111:ARG:NH2	59:HE:58:ALA:O	2.46	0.49
43:3Q:114:SER:OG	43:3Q:115:HIS:N	2.45	0.49
47:3V:44:ASP:OD1	47:3V:108:ARG:NH2	2.45	0.49
48:3Z:145:ARG:HB3	51:4H:175:TRP:CH2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AM:250:VAL:HA	59:AM:254:GLU:OE2	2.13	0.49
59:BA:2:ARG:HG3	59:BA:3:GLU:H	1.77	0.49
59:BA:192:HIS:NE2	59:BA:424:ASP:OD2	2.46	0.49
59:BA:269:LEU:HD22	59:BA:303:THR:HG21	1.93	0.49
59:BE:270:THR:HG22	59:BE:378:ILE:HG22	1.95	0.49
60:BV:387:LEU:HD21	59:BW:345:ASP:O	2.12	0.49
59:CD:269:LEU:HD22	59:CD:301:MET:HE1	1.95	0.49
60:CG:173:PRO:HD2	60:CG:205:GLU:OE2	2.12	0.49
59:CO:286:LEU:HB3	59:CO:291:ILE:HD11	1.95	0.49
60:CR:121:CYS:SG	60:CR:158:GLN:NE2	2.84	0.49
60:CR:186:THR:O	60:CR:189:VAL:HG12	2.13	0.49
59:CY:203:MET:HG3	59:CY:384:ILE:HD11	1.94	0.49
60:CZ:311:LEU:HD23	60:CZ:342:ILE:HG21	1.95	0.49
59:DK:212:LEU:HD21	59:DK:275:VAL:HG21	1.94	0.49
60:DL:263:LEU:HD11	60:DL:425:TYR:CD2	2.47	0.49
60:DN:287:PRO:HG3	60:DN:329:GLN:NE2	2.26	0.49
60:ES:178:THR:O	60:ES:181:GLU:HG3	2.12	0.49
60:EU:99:ASN:O	60:EU:99:ASN:ND2	2.45	0.49
60:FG:170:ILE:HG23	60:FG:171:PRO:HD2	1.94	0.49
60:FK:176:SER:OG	60:FK:178:THR:O	2.30	0.49
60:FO:67:ASP:OD1	60:FO:68:LEU:N	2.45	0.49
59:FT:172:TYR:CG	59:FT:173:PRO:HD2	2.47	0.49
60:FV:12:CYS:SG	60:FV:13:GLY:N	2.86	0.49
60:FX:248:SER:HA	60:FX:252:LYS:HE3	1.95	0.49
60:GO:390:ARG:HH12	59:GP:442:MET:HG2	1.78	0.49
60:GQ:391:ARG:HD3	59:GR:346:TRP:HB3	1.94	0.49
60:GS:86:ARG:HG2	60:HF:281:TYR:HD2	1.77	0.49
59:HA:172:TYR:HD1	59:HA:173:PRO:HD2	1.77	0.49
60:HB:145:SER:HB3	60:HB:188:SER:OG	2.12	0.49
60:HH:202:ILE:HD13	60:HH:229:VAL:HG22	1.94	0.49
60:HS:186:THR:HG21	60:HS:385:PHE:CD2	2.47	0.49
60:HW:62:ARG:HG3	60:HW:123:GLU:OE2	2.13	0.49
59:IK:133:GLN:NE2	59:IK:252:LEU:HD12	2.27	0.49
59:IO:93:ILE:HD11	59:IO:121:ARG:HG3	1.94	0.49
60:IU:288:GLU:O	60:IU:291:GLN:HG3	2.12	0.49
60:IW:22:GLU:HG2	60:IW:81:TYR:CD2	2.47	0.49
60:JE:270:PHE:CZ	60:JE:272:PRO:HD2	2.48	0.49
60:JG:3:GLU:OE2	60:JG:127:CYS:HB3	2.12	0.49
60:JI:247:ASN:C	60:JI:247:ASN:HD22	2.13	0.49
59:JJ:46:ASP:HB3	59:JJ:49:PHE:CD2	2.47	0.49
59:JJ:328:VAL:HG21	59:JJ:355:ILE:HD11	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JM:212:PHE:CG	59:JN:326:LYS:HE2	2.48	0.49
59:JN:90:GLU:OE1	59:JN:121:ARG:NH2	2.44	0.49
59:JP:169:TYR:CE2	59:JP:235:VAL:HG22	2.47	0.49
59:JS:402:ARG:NH1	59:JS:415:GLU:OE2	2.46	0.49
59:JY:254:GLU:HA	59:JY:257:THR:HG22	1.93	0.49
59:KN:326:LYS:HA	59:KN:329:ASN:HD21	1.78	0.49
60:KO:152:ILE:HD12	60:KO:164:MET:HE1	1.95	0.49
59:LA:301:MET:HE3	59:LA:305:CYS:O	2.13	0.49
3:0F:580:ASP:OD2	3:0F:583:ASN:N	2.40	0.49
4:0G:17:PHE:HD2	4:0G:20:GLU:HG2	1.77	0.49
4:0G:248:ASP:OD1	4:0G:251:ARG:NH1	2.34	0.49
6:0M:263:ARG:HG3	6:0M:267:ARG:HH12	1.78	0.49
15:0X:151:ASN:HA	15:0X:154:TRP:HB2	1.93	0.49
34:2F:119:ASP:OD1	34:2F:119:ASP:N	2.44	0.49
38:2N:182:ARG:NH2	60:EU:431:GLU:OE1	2.45	0.49
40:2S:113:ARG:HA	40:2S:116:MET:HG3	1.93	0.49
60:AD:145:SER:HB3	60:AD:188:SER:OG	2.13	0.49
60:AR:73:MET:HG3	60:AR:90:PHE:HD2	1.77	0.49
59:BO:306:ASP:OD2	59:BO:308:ARG:NH2	2.46	0.49
59:BX:399:TYR:OH	59:BX:415:GLU:OE2	2.29	0.49
60:BY:251:ARG:O	60:BY:255:VAL:HG23	2.13	0.49
60:CA:270:PHE:O	60:CA:298:ASN:ND2	2.45	0.49
60:CC:31:ASP:OD1	60:CC:32:PRO:HD2	2.12	0.49
60:CP:274:THR:HG21	60:CP:282:ARG:HE	1.76	0.49
60:CV:207:LEU:CB	60:CV:225:LEU:HD22	2.43	0.49
60:DB:376:GLU:O	60:DB:379:ARG:HG2	2.12	0.49
60:DP:22:GLU:HG2	60:DP:81:TYR:CD1	2.48	0.49
60:DT:52:ASP:OD1	60:DT:53:GLU:N	2.46	0.49
60:DW:139:LEU:HD12	60:DW:170:ILE:HG12	1.94	0.49
60:EM:271:ALA:HA	60:EM:298:ASN:HD21	1.77	0.49
59:FH:188:VAL:O	59:FH:191:THR:HG22	2.12	0.49
59:FN:178:SER:HB3	60:FO:347:ASN:ND2	2.28	0.49
60:GB:7:VAL:HB	60:GB:135:ILE:HG12	1.93	0.49
59:GL:192:HIS:HD2	59:GL:421:ALA:HA	1.78	0.49
60:HB:271:ALA:O	60:HB:292:GLN:NE2	2.45	0.49
60:HH:32:PRO:HB3	60:HH:81:TYR:CD1	2.48	0.49
60:HS:14:ASN:OD1	60:HS:65:LEU:HD12	2.13	0.49
60:HS:135:ILE:HD11	60:HS:152:ILE:HD11	1.95	0.49
60:HY:212:PHE:HD2	59:HZ:326:LYS:HZ1	1.60	0.49
59:II:76:ASP:OD1	59:II:79:ARG:NH1	2.43	0.49
60:IL:52:ASP:OD1	60:IL:53:GLU:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IL:334:GLN:HG2	60:IL:341:PHE:CE2	2.47	0.49
60:IR:392:LYS:O	60:IR:392:LYS:HD2	2.12	0.49
60:JA:67:ASP:OD2	60:JA:72:THR:OG1	2.22	0.49
60:JA:293:MET:HE2	60:JA:365:VAL:HG13	1.94	0.49
60:JC:230:SER:HA	60:JC:233:VAL:HG12	1.93	0.49
59:JF:52:PHE:HZ	59:JF:239:THR:HG21	1.78	0.49
60:JR:249:ASP:OD1	60:JR:250:LEU:N	2.45	0.49
60:JV:238:CYS:SG	60:JV:239:CYS:N	2.86	0.49
60:JX:67:ASP:OD1	60:JX:68:LEU:N	2.45	0.49
59:KP:258:ASN:HB3	59:KP:352:LYS:HD2	1.93	0.49
60:KR:67:ASP:HB3	60:KR:73:MET:HE2	1.95	0.49
60:KT:344:TRP:HB3	60:KT:430:ILE:HD11	1.94	0.49
1:0B:172:THR:HB	1:0B:177:THR:HG22	1.95	0.49
1:0C:95:LEU:HG	1:0C:124:LEU:HD11	1.94	0.49
2:0E:259:VAL:O	2:0E:263:ARG:HG2	2.13	0.49
7:0P:149:LYS:NZ	7:0P:150:LEU:HD22	2.28	0.49
7:0P:323:LEU:O	7:0P:327:GLU:HG3	2.13	0.49
17:0Z:413:ASP:OD1	17:0Z:414:TYR:N	2.46	0.49
17:0Z:537:LEU:HB3	17:0Z:542:VAL:HB	1.95	0.49
22:1E:65:PRO:HG2	59:GE:359:PRO:HG2	1.94	0.49
23:1F:153:LEU:HD21	23:1F:157:ARG:HH21	1.77	0.49
28:1N:131:ASP:OD1	28:1N:132:TYR:N	2.45	0.49
30:1Q:64:THR:HG21	30:1Q:67:ARG:NH1	2.28	0.49
32:1Y:50:VAL:HG22	32:1Y:159:ASN:HB3	1.95	0.49
33:2C:40:ALA:HB2	33:2C:69:LEU:HD11	1.94	0.49
33:2D:125:LEU:HD23	33:2D:141:VAL:HG22	1.95	0.49
34:2F:256:GLU:CD	60:KT:276:ARG:HH22	2.16	0.49
42:3F:187:TYR:HE2	59:BK:81:GLY:HA3	1.78	0.49
42:3J:43:TYR:HB2	59:IK:77:GLU:OE2	2.13	0.49
48:3Y:12:ASP:OD1	48:3Y:12:ASP:N	2.45	0.49
48:3Z:225:GLU:O	48:3Z:229:VAL:HG23	2.12	0.49
60:AL:178:THR:OG1	60:AL:181:GLU:HG3	2.13	0.49
59:AM:343:PHE:CE2	59:AM:350:GLY:HA3	2.47	0.49
60:AR:306:ARG:HA	60:AR:340:TYR:HE2	1.78	0.49
60:AZ:271:ALA:O	60:AZ:292:GLN:NE2	2.45	0.49
59:BI:71:GLU:OE2	60:BJ:247:ASN:ND2	2.37	0.49
59:BM:119:LEU:HD11	59:BM:156:ARG:HG2	1.95	0.49
60:BP:282:ARG:NH1	60:BP:288:GLU:OE1	2.46	0.49
60:BR:292:GLN:NE2	60:BR:298:ASN:HD21	2.10	0.49
60:BT:237:THR:HG23	60:BT:241:ARG:NH1	2.28	0.49
59:BW:33:ASP:OD1	59:BW:34:GLY:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CD:208:ALA:HA	59:CD:304:LYS:HZ3	1.77	0.49
60:CG:4:ILE:HB	60:CG:50:TYR:HE1	1.77	0.49
60:CG:198:GLU:HG3	60:CG:266:PHE:CE2	2.47	0.49
60:CI:193:VAL:HG12	60:CI:265:PHE:CZ	2.47	0.49
60:CP:201:CYS:O	60:CP:301:GLN:NE2	2.45	0.49
60:CR:252:LYS:HA	60:CR:255:VAL:HG12	1.95	0.49
59:CS:105:ARG:O	59:CS:110:ILE:HG12	2.12	0.49
60:CT:22:GLU:HG2	60:CT:81:TYR:CD1	2.48	0.49
60:CV:208:TYR:CE1	60:CV:225:LEU:HD11	2.47	0.49
60:CZ:201:CYS:HB2	60:CZ:301:GLN:NE2	2.28	0.49
60:DB:289:LEU:HD11	60:DB:363:MET:HG3	1.94	0.49
59:DE:141:VAL:O	59:DE:147:SER:OG	2.30	0.49
60:DJ:404:ASP:HB3	60:DJ:407:GLU:OE1	2.13	0.49
59:DK:104:ALA:HB2	59:DK:413:MET:HE2	1.95	0.49
60:DR:219:THR:HA	59:DS:326:LYS:HZ2	1.77	0.49
60:EK:244:GLY:HA2	60:EK:355:ASP:OD1	2.12	0.49
60:EO:178:THR:N	60:EO:181:GLU:OE2	2.39	0.49
59:EV:117:LEU:O	59:EV:121:ARG:HG2	2.11	0.49
60:FA:178:THR:HB	60:FA:181:GLU:HG3	1.94	0.49
59:FF:76:ASP:OD1	59:FF:79:ARG:NH1	2.42	0.49
59:FH:224:TYR:HD1	59:FH:227:LEU:HD12	1.77	0.49
60:FO:308:GLY:HA2	60:FO:426:GLN:HE22	1.77	0.49
60:FS:20:PHE:HA	60:FS:230:SER:OG	2.12	0.49
59:GP:269:LEU:HD21	59:GP:384:ILE:HD13	1.94	0.49
59:GT:2:ARG:HG3	59:GT:3:GLU:OE1	2.13	0.49
59:GU:195:LEU:HD22	59:GU:264:ARG:HD2	1.95	0.49
59:GY:235:VAL:O	59:GY:239:THR:HG22	2.11	0.49
59:GY:358:GLN:OE1	59:GY:359:PRO:HD2	2.12	0.49
60:HF:358:PRO:HG2	60:HF:361:LEU:HB2	1.95	0.49
59:HG:65:ALA:O	59:HG:91:GLN:NE2	2.44	0.49
60:HP:32:PRO:HB3	60:HP:81:TYR:CD1	2.47	0.49
60:HS:249:ASP:OD1	60:HS:250:LEU:N	2.45	0.49
60:IA:170:ILE:HD13	60:IA:201:CYS:HB3	1.94	0.49
60:IC:270:PHE:HD1	60:IC:366:THR:HG22	1.77	0.49
59:IO:109:THR:HB	59:IO:110:ILE:HD12	1.95	0.49
59:IO:119:LEU:HD11	59:IO:156:ARG:HD3	1.93	0.49
60:JE:293:MET:SD	60:JE:367:PHE:HB2	2.52	0.49
60:JK:305:PRO:HA	60:JK:371:ASN:HD21	1.78	0.49
60:JO:304:ASP:OD1	60:JO:306:ARG:NE	2.45	0.49
60:JO:374:ILE:HG12	60:JO:378:PHE:HE1	1.77	0.49
59:JS:2:ARG:HG3	59:JS:3:GLU:OE1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JY:392:ASP:OD1	59:JY:425:LEU:HD23	2.12	0.49
59:KA:384:ILE:HG12	59:KA:388:PHE:HE1	1.77	0.49
4:0G:577:LEU:HD21	4:0G:661:LEU:HG	1.95	0.49
5:0H:132:ASP:OD2	60:EQ:362:LYS:NZ	2.29	0.49
16:0Y:174:GLN:HB2	16:0Y:243:CYS:HB2	1.95	0.49
30:1R:87:ALA:O	60:EC:337:ASN:ND2	2.45	0.49
33:2B:57:ASP:OD2	33:2B:100:ARG:NH1	2.46	0.49
33:2B:294:CYS:HB3	33:2B:301:LEU:HB2	1.94	0.49
35:2H:318:THR:OG1	35:2H:321:GLN:NE2	2.44	0.49
41:2Z:252:ASN:OD1	41:2Z:253:ALA:N	2.46	0.49
42:3M:113:THR:OG1	60:HP:320:ARG:NH1	2.44	0.49
44:3R:210:ASP:OD1	44:3R:211:PRO:HD3	2.12	0.49
47:3X:52:LEU:HD11	47:3X:116:HIS:CE1	2.47	0.49
53:4L:32:ARG:NH1	60:IU:126:SER:O	2.46	0.49
56:4Q:152:LYS:HD3	59:IZ:163:LYS:HA	1.95	0.49
59:AE:223:THR:HG22	60:AF:322:SER:HA	1.94	0.49
60:AR:271:ALA:HA	60:AR:298:ASN:HD21	1.77	0.49
60:AV:67:ASP:OD1	60:AV:68:LEU:N	2.46	0.49
60:BR:81:TYR:O	60:BR:84:ILE:HG12	2.13	0.49
60:CC:267:MET:HA	60:CC:301:GLN:NE2	2.28	0.49
59:CD:256:GLN:O	59:CD:260:VAL:HG22	2.13	0.49
60:CG:139:LEU:HD22	60:CG:188:SER:HB3	1.95	0.49
59:CM:172:TYR:CD1	59:CM:173:PRO:HD2	2.47	0.49
60:CP:212:PHE:CZ	59:CQ:326:LYS:HD2	2.48	0.49
59:CQ:79:ARG:HH22	59:CQ:94:SER:HB3	1.77	0.49
59:DA:44:VAL:HG23	59:DA:46:ASP:HB2	1.95	0.49
60:DF:219:THR:HA	59:DG:326:LYS:HE2	1.95	0.49
60:DJ:52:ASP:OD1	60:DJ:53:GLU:N	2.46	0.49
60:DV:145:SER:HB3	60:DV:188:SER:OG	2.12	0.49
59:ED:276:ILE:HG23	59:ED:369:ALA:HB3	1.94	0.49
60:EE:270:PHE:CE1	60:EE:272:PRO:HD2	2.48	0.49
60:EQ:36:TYR:CZ	60:EQ:44:LEU:HG	2.48	0.49
60:ES:27:GLU:OE2	60:ES:241:ARG:NH2	2.45	0.49
60:EU:218:THR:HG23	60:EU:219:THR:HG22	1.94	0.49
60:FC:239:CYS:SG	60:FC:248:SER:N	2.84	0.49
60:FG:73:MET:HB2	60:FG:92:PHE:CZ	2.48	0.49
60:FX:20:PHE:HA	60:FX:230:SER:HB2	1.94	0.49
59:GH:56:THR:HA	59:GU:285:GLN:HG2	1.95	0.49
60:GO:404:ASP:HB3	60:GO:407:GLU:OE1	2.13	0.49
59:GW:284:GLU:HG2	59:GW:285:GLN:O	2.12	0.49
59:GY:120:ASP:O	59:GY:123:ARG:HG2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HD:332:ASN:HB3	60:HD:336:LYS:NZ	2.27	0.49
59:HG:31:GLN:HE22	59:HG:37:PRO:HD3	1.78	0.49
60:HH:145:SER:HB2	60:HH:188:SER:OG	2.13	0.49
60:HH:289:LEU:HD11	60:HH:363:MET:HG3	1.95	0.49
60:HH:404:ASP:HB3	60:HH:407:GLU:OE1	2.13	0.49
60:HJ:149:THR:O	60:HJ:152:ILE:HG22	2.13	0.49
60:HR:201:CYS:O	60:HR:301:GLN:NE2	2.45	0.49
60:HS:238:CYS:SG	60:HS:239:CYS:N	2.85	0.49
60:IL:289:LEU:O	60:IL:293:MET:HB2	2.12	0.49
60:IY:344:TRP:HB3	60:IY:430:ILE:HD11	1.94	0.49
60:JK:113:ILE:HD11	60:JK:154:LYS:HG3	1.94	0.49
59:JY:269:LEU:HD22	59:JY:303:THR:HG21	1.94	0.49
59:KD:2:ARG:HG3	59:KD:3:GLU:OE1	2.13	0.49
59:KH:269:LEU:HD22	59:KH:303:THR:HG21	1.93	0.49
60:KO:67:ASP:OD1	60:KO:68:LEU:N	2.44	0.49
60:KX:132:GLY:HA3	60:KX:163:ILE:HG13	1.94	0.49
59:KY:291:ILE:O	59:KY:295:VAL:HG23	2.13	0.49
2:0E:112:ALA:HB2	2:0E:201:LEU:HD23	1.94	0.49
2:0E:512:THR:HG23	2:0E:514:GLU:H	1.78	0.49
4:0G:204:LEU:O	4:0G:208:LYS:HG2	2.12	0.49
4:0G:660:SER:HB2	4:0G:663:VAL:HG22	1.95	0.49
6:0N:422:VAL:HB	59:BC:278:ALA:HB1	1.95	0.49
7:0P:294:ASP:OD1	7:0P:295:ALA:N	2.46	0.49
33:2C:603:ASP:HB2	33:2C:605:LYS:NZ	2.27	0.49
36:2J:23:LEU:HB3	36:2J:84:LYS:HB2	1.94	0.49
41:2Y:104:ARG:HH21	59:HV:42:ILE:HG23	1.78	0.49
48:3Z:234:VAL:O	59:HK:84:ARG:NH2	2.41	0.49
48:4A:122:TYR:HB2	59:EV:399:TYR:HD2	1.77	0.49
58:4V:88:ARG:O	58:4V:92:ILE:HG12	2.13	0.49
60:AD:404:ASP:HB3	60:AD:407:GLU:OE1	2.13	0.49
59:AE:64:ARG:HG2	59:AE:125:LEU:HD21	1.95	0.49
59:AE:218:ASP:OD2	59:AE:280:LYS:NZ	2.45	0.49
60:BN:73:MET:HE3	60:BN:90:PHE:HB3	1.94	0.49
60:BV:68:LEU:HD13	60:BV:143:THR:OG1	2.13	0.49
59:BX:93:ILE:HD11	59:BX:121:ARG:HD2	1.94	0.49
60:CN:73:MET:HA	60:CN:76:VAL:HG22	1.95	0.49
60:CN:212:PHE:HZ	59:CO:326:LYS:HG3	1.77	0.49
60:CN:249:ASP:OD1	60:CN:250:LEU:N	2.46	0.49
60:CX:412:GLU:OE2	60:CX:416:ASN:ND2	2.41	0.49
60:DP:229:VAL:O	60:DP:233:VAL:HG23	2.13	0.49
59:DZ:3:GLU:HA	59:DZ:51:THR:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EC:73:MET:HA	60:EC:76:VAL:HG22	1.94	0.49
60:EE:3:GLU:OE2	60:EE:127:CYS:HB3	2.12	0.49
59:EJ:399:TYR:OH	59:EJ:415:GLU:OE2	2.30	0.49
60:ES:373:CYS:O	60:ES:376:GLU:HG2	2.13	0.49
60:FC:301:GLN:N	60:FC:301:GLN:OE1	2.45	0.49
60:FM:65:LEU:HD22	60:FM:90:PHE:CE2	2.48	0.49
59:FP:172:TYR:CG	59:FP:173:PRO:HD2	2.48	0.49
59:FW:90:GLU:OE1	59:FW:121:ARG:NH2	2.44	0.49
59:FY:402:ARG:NH2	59:FY:415:GLU:OE2	2.46	0.49
60:FZ:131:GLN:HG3	60:FZ:132:GLY:N	2.26	0.49
59:GJ:264:ARG:NH2	59:GJ:431:ASP:OD2	2.45	0.49
60:GK:392:LYS:HD3	60:GK:395:LEU:HD12	1.95	0.49
60:GM:173:PRO:HB3	60:GM:380:ARG:NH2	2.27	0.49
60:GM:173:PRO:HG2	60:GM:205:GLU:OE1	2.13	0.49
59:GR:133:GLN:HA	59:GR:164:LYS:HE3	1.94	0.49
59:HE:79:ARG:NH2	59:HE:92:LEU:O	2.46	0.49
59:HE:205:ASP:OD2	59:HE:304:LYS:N	2.43	0.49
60:HJ:22:GLU:HG2	60:HJ:81:TYR:CD1	2.48	0.49
60:HJ:97:ALA:HB2	60:HJ:143:THR:HB	1.94	0.49
60:HR:207:LEU:O	60:HR:210:ILE:HG22	2.12	0.49
59:IB:45:GLU:OE1	59:IB:46:ASP:N	2.46	0.49
60:IC:230:SER:HA	60:IC:233:VAL:HG12	1.95	0.49
60:IC:238:CYS:SG	60:IC:239:CYS:N	2.86	0.49
60:IF:67:ASP:O	60:IF:92:PHE:HA	2.13	0.49
60:IF:252:LYS:HA	60:IF:255:VAL:HG22	1.95	0.49
60:IH:313:ALA:N	60:IH:348:ASN:O	2.34	0.49
60:IN:375:GLN:NE2	60:IN:423:GLN:OE1	2.44	0.49
59:IO:207:GLU:OE2	59:IO:304:LYS:NZ	2.39	0.49
60:JE:202:ILE:HG23	60:JE:300:MET:HB3	1.94	0.49
59:JH:320:ARG:HH12	59:JH:360:PRO:HA	1.78	0.49
59:JJ:203:MET:SD	59:JJ:267:PHE:HB3	2.53	0.49
59:JJ:225:THR:O	59:JJ:229:ARG:HG3	2.12	0.49
59:JN:5:ILE:HD13	59:JN:64:ARG:HB3	1.95	0.49
60:JR:67:ASP:OD1	60:JR:68:LEU:N	2.45	0.49
60:JR:395:LEU:HD21	60:JR:405:GLU:HG2	1.95	0.49
60:JT:391:ARG:HD3	59:JU:346:TRP:CB	2.43	0.49
60:JV:206:ALA:O	60:JV:210:ILE:HG12	2.13	0.49
60:JX:305:PRO:HA	60:JX:371:ASN:HD21	1.77	0.49
59:KA:392:ASP:HA	59:KA:422:ARG:HH12	1.76	0.49
60:KM:268:MET:SD	60:KM:268:MET:N	2.85	0.49
59:KP:9:ILE:HG23	59:KP:68:LEU:HD22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KU:113:GLU:N	59:KU:113:GLU:OE1	2.44	0.49
2:0E:750:VAL:HG12	2:0E:752:ARG:H	1.78	0.49
4:0G:452:ASP:OD2	4:0G:455:LYS:NZ	2.35	0.49
5:0H:256:PHE:CD1	26:1I:134:LEU:HD22	2.48	0.49
5:0I:324:LEU:HD13	18:1A:48:TRP:CZ3	2.47	0.49
7:0O:10:ARG:NE	59:GE:46:ASP:HB2	2.28	0.49
9:0R:20:ILE:HG21	60:AB:58:ARG:HH11	1.77	0.49
23:1F:208:ASP:OD1	59:EZ:370:LYS:NZ	2.46	0.49
29:1O:152:MET:HA	29:1O:156:LEU:HD12	1.95	0.49
41:2V:3:LEU:HD11	59:IM:79:ARG:HH11	1.78	0.49
41:2Y:316:ARG:HA	41:2Y:319:ASN:ND2	2.27	0.49
41:2Z:244:TRP:HE1	60:IE:362:LYS:NZ	2.10	0.49
41:3D:323:ARG:HH12	59:GR:59:GLY:N	2.11	0.49
42:3L:19:VAL:HA	42:3L:22:ILE:HG12	1.95	0.49
42:3P:97:LYS:NZ	59:GW:245:ASP:OD1	2.45	0.49
47:3V:235:ARG:HD3	48:3Y:247:LEU:HD13	1.95	0.49
47:3V:260:PHE:HE2	47:3V:264:ARG:HH11	1.58	0.49
60:AB:52:ASP:OD1	60:AB:53:GLU:N	2.46	0.49
60:AB:254:ALA:O	60:AB:258:VAL:HG22	2.12	0.49
59:AC:358:GLN:OE1	59:AC:359:PRO:HD2	2.13	0.49
60:AF:257:LEU:HA	60:AF:312:THR:HG21	1.94	0.49
60:AN:220:PRO:C	59:AO:326:LYS:HZ2	2.16	0.49
59:AU:442:MET:O	59:AU:443:ASP:C	2.51	0.49
60:AZ:156:ARG:NH2	60:AZ:197:ASP:OD2	2.43	0.49
60:BR:73:MET:SD	60:BR:92:PHE:HB3	2.53	0.49
59:BU:2:ARG:HG3	59:BU:3:GLU:HG3	1.94	0.49
60:CX:417:ASP:O	60:CX:421:GLU:HG2	2.13	0.49
60:DB:249:ASP:OD1	60:DB:250:LEU:N	2.46	0.49
59:DK:213:THR:HG22	59:DK:217:LEU:HD12	1.95	0.49
60:DN:330:MET:SD	60:DN:349:ILE:HG21	2.53	0.49
60:DT:170:ILE:HD11	60:DT:301:GLN:HE22	1.77	0.49
59:ED:285:GLN:HE22	59:EP:56:THR:HG1	1.56	0.49
60:EE:3:GLU:HG3	60:EE:62:ARG:NH1	2.28	0.49
60:EE:395:LEU:HD21	60:EE:405:GLU:HG2	1.94	0.49
59:EF:104:ALA:HB2	59:EF:413:MET:HE3	1.95	0.49
60:EM:391:ARG:HG3	59:EN:346:TRP:HB3	1.95	0.49
59:ER:20:CYS:HB3	59:ER:24:PHE:HE2	1.78	0.49
59:FF:270:THR:HG22	59:FF:378:ILE:HG22	1.93	0.49
60:FK:334:GLN:OE1	60:FK:347:ASN:ND2	2.46	0.49
60:FQ:252:LYS:HA	60:FQ:255:VAL:HG12	1.95	0.49
60:FQ:286:VAL:HG12	60:FQ:329:GLN:HG3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FT:88:HIS:CD2	59:FT:89:PRO:HD2	2.48	0.49
59:FW:24:PHE:HA	59:FW:27:GLU:HG2	1.94	0.49
59:GA:188:VAL:HG13	59:GA:425:LEU:HD12	1.95	0.49
59:GC:111:GLY:HA2	59:GC:114:ILE:HG22	1.95	0.49
60:GF:218:THR:HG23	60:GF:219:THR:HG22	1.94	0.49
60:GK:392:LYS:HA	60:GK:395:LEU:HD12	1.95	0.49
59:GN:273:ALA:HB2	59:GN:295:VAL:HG22	1.95	0.49
60:HJ:73:MET:HE3	60:HJ:90:PHE:HD2	1.77	0.49
59:HO:284:GLU:HG2	59:HO:285:GLN:O	2.12	0.49
59:ID:98:ASP:O	59:ID:105:ARG:NH1	2.46	0.49
59:ID:107:HIS:CD2	59:ID:152:LEU:HB2	2.47	0.49
59:ID:246:GLY:HA2	59:ID:357:TYR:CD2	2.47	0.49
60:IF:391:ARG:HD3	59:IG:346:TRP:HB3	1.94	0.49
59:IG:322:ASP:OD2	59:IG:373:ARG:NH2	2.46	0.49
60:IJ:254:ALA:O	60:IJ:258:VAL:HG22	2.13	0.49
59:IM:79:ARG:NH2	59:IM:92:LEU:O	2.45	0.49
60:IN:330:MET:HE2	60:IN:349:ILE:HG21	1.94	0.49
59:IO:191:THR:O	59:IO:195:LEU:HD23	2.12	0.49
60:IS:239:CYS:SG	60:IS:316:LEU:HD11	2.53	0.49
60:IY:268:MET:HG2	60:IY:368:ILE:HD13	1.94	0.49
60:JE:50:TYR:O	60:JE:62:ARG:HG2	2.13	0.49
59:JH:298:PRO:HB3	59:JH:307:PRO:HD2	1.95	0.49
60:JI:279:GLN:NE2	60:JI:282:ARG:O	2.45	0.49
59:JL:90:GLU:OE2	59:JL:121:ARG:NE	2.46	0.49
59:JQ:387:VAL:HA	59:JQ:390:ARG:NH2	2.28	0.49
60:KG:330:MET:SD	60:KG:349:ILE:HG21	2.53	0.49
60:KO:203:ASP:O	60:KO:207:LEU:HD13	2.12	0.49
1:0A:584:ARG:O	1:0A:588:LYS:HB3	2.13	0.48
3:0F:557:LYS:HZ3	3:0F:572:PHE:HD1	1.60	0.48
13:0V:145:SER:HA	13:0V:180:ARG:HD3	1.95	0.48
21:1D:227:LEU:HD23	21:1D:231:LEU:HG	1.96	0.48
30:1Q:249:ALA:HB1	30:1Q:253:ALA:HB3	1.95	0.48
32:1W:60:THR:HG22	32:1W:155:GLN:HG2	1.95	0.48
33:2B:250:ILE:HA	33:2B:265:SER:HA	1.95	0.48
33:2B:443:ASP:OD1	33:2B:443:ASP:N	2.41	0.48
33:2C:6:TYR:O	33:2C:11:ARG:NH2	2.46	0.48
39:2Q:205:GLU:OE1	39:2Q:208:ARG:NH2	2.46	0.48
41:2Y:323:ARG:NE	59:ID:57:GLY:O	2.46	0.48
41:2Z:150:MET:HB2	60:IA:276:ARG:HH12	1.77	0.48
41:2Z:151:GLN:HG2	60:IA:276:ARG:HH22	1.78	0.48
47:3V:258:GLU:O	47:3V:262:GLN:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:3Y:224:ASP:OD1	48:3Y:225:GLU:N	2.46	0.48
50:4E:142:GLU:HG3	50:4E:143:ARG:HD2	1.95	0.48
50:4G:137:ASP:HA	50:4G:140:ARG:HG3	1.95	0.48
60:BD:27:GLU:CD	60:BD:241:ARG:HH22	2.17	0.48
60:BD:254:ALA:O	60:BD:258:VAL:HG22	2.12	0.48
60:BF:145:SER:HB3	60:BF:188:SER:OG	2.13	0.48
60:BH:26:ASP:OD1	60:BH:359:LYS:NZ	2.39	0.48
59:CB:251:ASP:OD1	59:CB:252:LEU:N	2.46	0.48
59:CY:214:ARG:HD2	60:CZ:324:LYS:HZ2	1.75	0.48
60:DD:175:VAL:HG13	59:DE:329:ASN:OD1	2.13	0.48
59:DG:105:ARG:O	59:DG:110:ILE:HG22	2.12	0.48
60:DJ:145:SER:HB2	60:DJ:188:SER:OG	2.13	0.48
60:DJ:170:ILE:HG23	60:DJ:171:PRO:HD2	1.95	0.48
60:EC:22:GLU:HG2	60:EC:81:TYR:CD1	2.48	0.48
59:EF:30:ILE:HD13	59:EF:36:MET:HG3	1.95	0.48
60:EK:135:ILE:HD11	60:EK:166:THR:HG22	1.95	0.48
59:ER:8:HIS:HE1	59:ER:138:TYR:CD2	2.31	0.48
59:ET:336:LYS:HD3	59:ET:351:PHE:HE1	1.78	0.48
59:EV:172:TYR:CG	59:EV:173:PRO:HD2	2.48	0.48
59:FB:269:LEU:HD21	59:FB:384:ILE:HD13	1.95	0.48
59:FH:306:ASP:OD1	59:FH:308:ARG:HG2	2.13	0.48
60:FM:249:ASP:OD1	60:FM:250:LEU:N	2.46	0.48
60:FO:22:GLU:HG2	60:FO:81:TYR:CD1	2.48	0.48
60:GD:374:ILE:O	60:GD:377:MET:HG2	2.13	0.48
60:GO:4:ILE:HG21	60:GO:134:GLN:HG3	1.95	0.48
60:GS:117:LEU:HA	60:GS:120:CYS:SG	2.53	0.48
59:GU:137:VAL:HG21	59:GU:154:LEU:HD21	1.95	0.48
60:GV:313:ALA:HB1	60:GV:367:PHE:HE1	1.77	0.48
60:GX:239:CYS:SG	60:GX:248:SER:N	2.86	0.48
59:GY:438:GLU:O	59:GY:439:SER:C	2.49	0.48
59:HK:167:LEU:HD22	59:HK:200:VAL:HB	1.96	0.48
59:HQ:88:HIS:ND1	59:HQ:89:PRO:HD2	2.27	0.48
60:HU:68:LEU:HD22	60:HU:143:THR:HG22	1.94	0.48
59:HZ:251:ASP:HB3	59:HZ:254:GLU:OE1	2.13	0.48
59:HZ:284:GLU:HG2	59:HZ:285:GLN:O	2.13	0.48
60:IF:318:ARG:HH21	60:IF:358:PRO:HB3	1.78	0.48
59:IG:27:GLU:OE2	59:IG:243:ARG:NH1	2.45	0.48
59:II:262:TYR:HB2	59:II:265:ILE:CD1	2.42	0.48
60:IP:73:MET:HA	60:IP:76:VAL:HG22	1.93	0.48
59:IQ:27:GLU:OE1	59:IQ:243:ARG:NH1	2.41	0.48
60:JA:230:SER:HA	60:JA:233:VAL:HG12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JI:97:ALA:HB2	60:JI:143:THR:HB	1.94	0.48
60:JI:378:PHE:HA	60:JI:381:VAL:HG22	1.94	0.48
60:JK:334:GLN:HE22	60:JK:348:ASN:N	2.09	0.48
59:JN:167:LEU:HD12	59:JN:252:LEU:HD23	1.95	0.48
60:JT:27:GLU:HA	60:JT:359:LYS:NZ	2.28	0.48
59:JW:387:VAL:O	59:JW:391:ILE:HG12	2.13	0.48
59:JY:50:ASN:O	59:JY:64:ARG:NH1	2.46	0.48
60:KB:54:ALA:HB3	60:KB:58:ARG:HG3	1.95	0.48
59:KJ:55:GLU:O	59:KW:285:GLN:NE2	2.46	0.48
60:KK:226:ASN:OD1	64:KK:501:GDP:N1	2.40	0.48
59:KS:250:VAL:HA	59:KS:254:GLU:OE2	2.13	0.48
59:LA:46:ASP:OD1	59:LA:47:ASP:N	2.45	0.48
59:LA:93:ILE:HD11	59:LA:121:ARG:HG3	1.95	0.48
1:0B:111:GLU:OE2	60:DL:276:ARG:NH1	2.43	0.48
2:0E:339:PHE:O	60:DF:276:ARG:NE	2.46	0.48
27:1K:123:LEU:O	27:1K:127:ARG:HG2	2.13	0.48
30:1S:125:LEU:HD13	30:1S:167:LEU:HD22	1.93	0.48
35:2H:353:ASP:OD1	35:2H:355:ARG:NH1	2.42	0.48
36:2K:124:THR:HG22	60:EK:424:GLN:HG2	1.94	0.48
42:3F:114:HIS:HB2	59:BO:77:GLU:OE2	2.14	0.48
42:3N:5:HIS:HB2	42:3N:10:LEU:HD21	1.96	0.48
47:3X:106:LYS:HD3	47:3X:121:TYR:HB3	1.96	0.48
54:4M:105:GLN:NE2	59:IQ:434:GLU:O	2.47	0.48
55:4P:151:LYS:HE2	59:IX:196:GLU:HG3	1.95	0.48
60:AH:145:SER:HB2	60:AH:188:SER:OG	2.13	0.48
60:AN:208:TYR:CE1	59:AO:326:LYS:HE2	2.48	0.48
60:AT:172:SER:OG	60:AT:175:VAL:N	2.40	0.48
59:BC:52:PHE:HZ	59:BC:239:THR:HG21	1.78	0.48
59:BC:109:THR:OG1	59:BC:110:ILE:HG12	2.12	0.48
59:BK:239:THR:HB	59:BK:243:ARG:HH12	1.78	0.48
60:BR:113:ILE:HD12	60:BR:150:LEU:HG	1.94	0.48
60:BR:253:LEU:O	60:BR:257:LEU:HD23	2.13	0.48
59:BX:105:ARG:HG2	59:BX:411:GLU:HG2	1.95	0.48
59:BZ:188:VAL:HG21	59:BZ:395:PHE:CE2	2.48	0.48
60:CA:167:PHE:HE1	60:CA:268:MET:SD	2.36	0.48
60:CC:67:ASP:OD1	60:CC:68:LEU:N	2.46	0.48
59:CD:334:THR:O	59:CD:337:THR:OG1	2.25	0.48
59:CH:270:THR:HG22	59:CH:378:ILE:HG12	1.94	0.48
60:CL:377:MET:HA	60:CL:380:ARG:NH1	2.28	0.48
59:CM:203:MET:O	59:CM:303:THR:OG1	2.31	0.48
59:CO:76:ASP:OD1	59:CO:79:ARG:NH1	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CQ:119:LEU:O	59:CQ:123:ARG:HG2	2.13	0.48
60:CV:267:MET:N	60:CV:369:GLY:O	2.33	0.48
59:CW:90:GLU:OE2	59:CW:121:ARG:HD3	2.13	0.48
59:DE:195:LEU:HD12	59:DE:266:HIS:HE1	1.78	0.48
60:DY:52:ASP:OD1	60:DY:53:GLU:N	2.46	0.48
60:EA:156:ARG:HH22	60:EA:197:ASP:CG	2.17	0.48
60:EI:374:ILE:O	60:EI:377:MET:HG2	2.13	0.48
60:FG:10:GLY:O	60:FG:14:ASN:ND2	2.30	0.48
60:FI:387:LEU:HA	60:FI:390:ARG:HH12	1.78	0.48
60:FZ:304:ASP:OD1	60:FZ:307:HIS:ND1	2.42	0.48
59:GE:225:THR:O	59:GE:229:ARG:HG2	2.13	0.48
59:GN:132:LEU:HG	59:GN:164:LYS:HE3	1.94	0.48
60:GO:32:PRO:HB3	60:GO:81:TYR:CD1	2.48	0.48
59:GR:127:ASP:OD2	59:HE:293:ASN:ND2	2.46	0.48
59:GU:128:ASN:O	59:GU:128:ASN:ND2	2.40	0.48
59:GY:259:LEU:HD21	59:GY:316:CYS:HB2	1.95	0.48
59:HA:317:LEU:HD23	59:HA:377:MET:HG3	1.94	0.48
60:HD:3:GLU:OE2	60:HD:127:CYS:HB3	2.13	0.48
60:HF:330:MET:SD	60:HF:349:ILE:HG12	2.52	0.48
59:HG:15:GLN:NE2	62:HG:602:GTP:O6	2.42	0.48
60:HH:211:CYS:SG	60:HH:217:LEU:HD12	2.53	0.48
60:HP:97:ALA:HB2	60:HP:143:THR:HB	1.95	0.48
60:HP:208:TYR:CD1	60:HP:225:LEU:HD11	2.48	0.48
59:HQ:291:ILE:HG22	59:HQ:375:VAL:HG12	1.94	0.48
60:IA:52:ASP:OD1	60:IA:62:ARG:NH2	2.47	0.48
60:IA:398:TYR:HB3	60:IA:403:MET:HE2	1.95	0.48
60:IF:238:CYS:SG	60:IF:239:CYS:N	2.87	0.48
59:II:237:SER:HA	59:II:320:ARG:HH11	1.78	0.48
60:IP:45:GLU:HG3	60:IP:46:ARG:HG2	1.95	0.48
60:IS:22:GLU:HG2	60:IS:81:TYR:CD2	2.48	0.48
60:IS:282:ARG:NH1	60:IS:283:GLY:O	2.46	0.48
59:IV:286:LEU:O	59:IV:373:ARG:NH1	2.44	0.48
60:IY:282:ARG:CZ	60:IY:288:GLU:HB2	2.43	0.48
59:JL:214:ARG:NH1	59:JL:220:GLU:HA	2.28	0.48
60:JM:68:LEU:HD13	60:JM:143:THR:OG1	2.13	0.48
60:JR:376:GLU:HA	60:JR:379:ARG:HG2	1.95	0.48
59:JS:250:VAL:HA	59:JS:254:GLU:OE2	2.13	0.48
59:JW:401:LYS:HD2	60:JX:344:TRP:CD2	2.48	0.48
59:JY:2:ARG:HG3	59:JY:3:GLU:OE1	2.13	0.48
59:KF:178:SER:HB3	60:KG:347:ASN:ND2	2.28	0.48
59:KF:392:ASP:OD1	59:KF:425:LEU:HD23	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KH:172:TYR:CD2	59:KH:203:MET:HG2	2.48	0.48
60:KM:238:CYS:SG	60:KM:239:CYS:N	2.87	0.48
60:KV:230:SER:HA	60:KV:233:VAL:HG12	1.95	0.48
60:KZ:298:ASN:O	60:KZ:298:ASN:ND2	2.35	0.48
2:0E:484:ILE:HB	2:0E:487:SER:HB2	1.94	0.48
28:1M:166:GLU:HB3	60:EU:56:GLY:HA2	1.94	0.48
37:2L:35:LEU:HD21	60:EQ:424:GLN:HB3	1.93	0.48
39:2O:29:LEU:HB3	39:2O:34:ALA:HB2	1.95	0.48
39:2O:158:TYR:O	39:2O:161:LYS:HG2	2.13	0.48
40:2T:377:GLU:O	40:2T:381:LYS:HG2	2.13	0.48
42:3K:240:GLN:HE21	42:3K:260:PRO:HB2	1.78	0.48
47:3V:87:ARG:O	47:3V:91:GLU:HG3	2.13	0.48
48:4A:235:GLY:HA2	59:HT:84:ARG:NH2	2.27	0.48
53:4L:62:MET:HA	53:4L:65:ARG:HG2	1.95	0.48
60:AB:67:ASP:HB3	60:AB:73:MET:SD	2.54	0.48
60:AD:14:ASN:OD1	60:AD:65:LEU:HD12	2.13	0.48
59:AM:2:ARG:HG3	59:AM:3:GLU:OE1	2.12	0.48
60:AP:54:ALA:HB3	60:AP:58:ARG:HG2	1.94	0.48
60:AP:404:ASP:HB3	60:AP:407:GLU:OE1	2.13	0.48
60:AR:67:ASP:OD1	60:AR:68:LEU:N	2.46	0.48
59:BO:3:GLU:OE2	59:BO:129:CYS:HB3	2.13	0.48
60:BP:128:ASP:OD1	60:BP:129:CYS:N	2.46	0.48
59:BW:194:LEU:O	59:BW:198:THR:HG22	2.13	0.48
60:DF:153:SER:CA	60:DF:195:ASN:HD21	2.26	0.48
60:DY:229:VAL:O	60:DY:233:VAL:HG12	2.13	0.48
60:EQ:252:LYS:HG2	60:EQ:350:LYS:HE2	1.94	0.48
59:FD:123:ARG:NH2	59:FD:161:TYR:HE1	2.11	0.48
59:FD:222:PRO:HD2	60:FE:324:LYS:HD3	1.95	0.48
60:FO:31:ASP:OD1	60:FO:32:PRO:HD2	2.13	0.48
60:FO:176:SER:OG	60:FO:178:THR:O	2.31	0.48
60:FQ:257:LEU:O	60:FQ:259:PRO:HD3	2.13	0.48
60:FV:267:MET:HE1	60:FV:371:ASN:HB3	1.95	0.48
60:GB:293:MET:HE2	60:GB:365:VAL:HG11	1.95	0.48
60:GF:51:PHE:HB3	60:GF:59:TYR:HB3	1.94	0.48
59:GN:172:TYR:CE2	59:GN:203:MET:HG2	2.48	0.48
59:GP:40:LYS:HZ3	59:GP:42:ILE:HG23	1.78	0.48
60:GQ:137:HIS:O	60:GQ:168:SER:HA	2.13	0.48
60:GZ:326:VAL:O	60:GZ:330:MET:HG2	2.12	0.48
60:HB:86:ARG:HB3	60:HB:89:ASN:HD22	1.78	0.48
60:HH:407:GLU:OE1	60:HH:407:GLU:N	2.44	0.48
59:HI:3:GLU:OE2	59:HI:129:CYS:HB3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HO:207:GLU:OE2	59:HO:304:LYS:NZ	2.32	0.48
59:HZ:265:ILE:HG23	59:HZ:432:TYR:HE1	1.78	0.48
60:IE:65:LEU:HG	60:IE:90:PHE:CE2	2.48	0.48
60:IF:127:CYS:SG	60:IF:130:LEU:HB2	2.52	0.48
59:IK:408:TYR:CD2	59:IK:413:MET:HE2	2.46	0.48
60:IN:249:ASP:OD1	60:IN:250:LEU:N	2.46	0.48
59:JB:399:TYR:OH	59:JB:415:GLU:OE2	2.31	0.48
59:JH:11:GLN:HG3	59:JH:74:VAL:HG21	1.94	0.48
60:JR:130:LEU:O	60:JR:162:ARG:NH2	2.42	0.48
59:JU:210:TYR:HB3	60:JV:324:LYS:HE2	1.95	0.48
60:JX:173:PRO:HA	60:JX:380:ARG:NH1	2.28	0.48
60:KB:167:PHE:CE2	60:KB:233:VAL:HG22	2.48	0.48
60:KK:27:GLU:OE1	60:KK:241:ARG:NH2	2.43	0.48
60:KK:167:PHE:CE1	60:KK:233:VAL:HG22	2.48	0.48
60:KM:8:GLN:NE2	60:KM:65:LEU:HD22	2.28	0.48
59:KS:264:ARG:NH2	59:KS:431:ASP:OD2	2.46	0.48
3:0F:302:ARG:HH21	60:DD:26:ASP:HB2	1.77	0.48
17:0Z:318:ARG:NH1	17:0Z:440:GLU:OE2	2.46	0.48
26:1J:105:ASP:OD1	26:1J:105:ASP:N	2.46	0.48
32:1Y:90:GLU:OE2	32:1Y:104:ARG:NH2	2.46	0.48
33:2B:523:LEU:HD11	33:2B:579:TYR:HE1	1.78	0.48
34:2F:209:GLU:HA	34:2F:212:GLN:HG2	1.94	0.48
41:2Z:179:LYS:O	41:2Z:182:LYS:HG3	2.13	0.48
42:3P:96:PHE:CE2	59:GW:322:ASP:HB2	2.49	0.48
47:3W:194:LEU:HG	48:3Z:186:GLY:HA3	1.95	0.48
60:AD:31:ASP:OD1	60:AD:32:PRO:HD2	2.14	0.48
60:AH:200:MET:HG2	60:AH:268:MET:SD	2.53	0.48
60:AH:268:MET:SD	60:AH:268:MET:N	2.86	0.48
60:AJ:404:ASP:HB3	60:AJ:407:GLU:OE1	2.12	0.48
60:AN:283:GLY:HA3	60:AZ:55:THR:HG21	1.96	0.48
60:BB:220:PRO:HG3	59:BC:326:LYS:HZ1	1.77	0.48
60:BF:156:ARG:NH2	60:BF:197:ASP:OD2	2.41	0.48
60:BP:252:LYS:HG2	60:BP:350:LYS:HE2	1.95	0.48
59:BQ:251:ASP:OD1	59:BQ:252:LEU:N	2.47	0.48
60:CE:232:VAL:HG22	60:CE:268:MET:HE2	1.94	0.48
59:CJ:352:LYS:HD2	59:CJ:353:CYS:N	2.28	0.48
59:CO:69:ASP:OD1	59:CO:71:GLU:N	2.43	0.48
59:CQ:284:GLU:OE2	59:DC:88:HIS:NE2	2.45	0.48
60:CR:97:ALA:HB2	60:CR:143:THR:HB	1.95	0.48
60:CV:311:LEU:HD23	60:CV:342:ILE:HG21	1.95	0.48
60:DH:284:LEU:HD12	60:DH:362:LYS:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DN:175:VAL:HG12	59:DO:329:ASN:OD1	2.13	0.48
59:DQ:297:GLU:OE2	59:ED:123:ARG:NH2	2.46	0.48
59:DX:104:ALA:HB2	59:DX:413:MET:HE2	1.94	0.48
59:EZ:88:HIS:CE1	59:EZ:90:GLU:HG2	2.48	0.48
60:FC:4:ILE:HD11	60:FC:240:LEU:HD23	1.96	0.48
59:FD:223:THR:HG22	60:FE:322:SER:HA	1.95	0.48
60:FM:170:ILE:HG23	60:FM:171:PRO:HD2	1.95	0.48
59:FU:175:PRO:HB3	59:FU:390:ARG:CZ	2.43	0.48
59:GE:259:LEU:HD21	59:GE:378:ILE:HG13	1.95	0.48
60:GI:202:ILE:HD12	60:GI:300:MET:HB3	1.95	0.48
60:GI:214:THR:HG21	60:GI:273:LEU:HD22	1.95	0.48
59:GL:251:ASP:OD1	59:GL:252:LEU:N	2.47	0.48
59:GU:2:ARG:HG3	59:GU:3:GLU:OE1	2.12	0.48
59:GY:399:TYR:O	59:GY:402:ARG:NH1	2.47	0.48
60:GZ:328:GLU:OE2	60:GZ:332:ASN:ND2	2.41	0.48
59:HT:264:ARG:NH2	59:HT:431:ASP:OD2	2.37	0.48
59:HZ:2:ARG:HG3	59:HZ:3:GLU:OE2	2.13	0.48
60:IE:249:ASP:OD1	60:IE:250:LEU:N	2.46	0.48
60:IJ:271:ALA:O	60:IJ:273:LEU:N	2.45	0.48
59:IM:239:THR:HB	59:IM:243:ARG:HH12	1.78	0.48
60:IP:190:HIS:CE1	60:IP:414:ASN:HD22	2.30	0.48
59:IV:172:TYR:CG	59:IV:173:PRO:HD2	2.48	0.48
60:JK:128:ASP:OD1	60:JK:129:CYS:N	2.46	0.48
59:JL:251:ASP:OD1	59:JL:252:LEU:N	2.47	0.48
60:JM:67:ASP:O	60:JM:92:PHE:HA	2.13	0.48
59:JN:69:ASP:OD1	59:JN:70:LEU:N	2.47	0.48
59:JQ:291:ILE:HD12	59:JQ:375:VAL:HG12	1.95	0.48
60:JR:61:PRO:HD3	60:JR:84:ILE:HG12	1.95	0.48
59:JU:46:ASP:OD1	59:JU:47:ASP:N	2.44	0.48
60:JZ:178:THR:OG1	60:JZ:181:GLU:HG3	2.14	0.48
60:JZ:330:MET:SD	60:JZ:349:ILE:HG21	2.52	0.48
59:KD:210:TYR:CE2	60:KE:324:LYS:HD3	2.48	0.48
59:KH:2:ARG:HG3	59:KH:3:GLU:OE1	2.14	0.48
59:KJ:47:ASP:N	59:KJ:47:ASP:OD1	2.46	0.48
59:KQ:51:THR:HG21	59:KQ:243:ARG:HG2	1.94	0.48
60:KR:170:ILE:HD13	60:KR:201:CYS:HB3	1.95	0.48
60:KT:145:SER:HB2	60:KT:188:SER:OG	2.13	0.48
59:KW:215:ARG:HH12	59:KW:299:ALA:HB1	1.78	0.48
5:0H:162:ARG:O	5:0H:166:GLN:HG3	2.14	0.48
26:1I:342:GLU:OE1	60:FO:245:GLN:NE2	2.47	0.48
27:1L:401:ILE:H	27:1L:401:ILE:HD12	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:2A:91:VAL:HG22	32:2A:154:VAL:HG12	1.95	0.48
43:3Q:23:ARG:NE	43:3Q:39:GLU:OE2	2.46	0.48
44:3R:231:LEU:HD11	60:KK:270:PHE:HE2	1.79	0.48
60:AB:203:ASP:OD2	60:AB:301:GLN:NE2	2.47	0.48
60:AD:169:ILE:HD13	60:AD:202:ILE:HB	1.96	0.48
59:AI:2:ARG:HG3	59:AI:3:GLU:OE1	2.14	0.48
59:AO:69:ASP:OD1	59:AO:70:LEU:N	2.46	0.48
60:AV:52:ASP:OD1	60:AV:53:GLU:N	2.47	0.48
60:AZ:156:ARG:HH22	60:AZ:197:ASP:CG	2.16	0.48
59:BG:105:ARG:HA	59:BG:109:THR:HG22	1.96	0.48
60:BN:344:TRP:HB3	60:BN:430:ILE:HD11	1.94	0.48
59:BQ:417:GLU:HA	59:BQ:420:GLU:HG2	1.95	0.48
60:BV:238:CYS:SG	60:BV:239:CYS:N	2.86	0.48
59:BW:76:ASP:OD1	59:BW:79:ARG:NH1	2.46	0.48
59:CO:399:TYR:O	59:CO:402:ARG:NH1	2.46	0.48
60:CR:260:PHE:HB2	60:CR:263:LEU:HD13	1.96	0.48
60:DF:326:VAL:O	60:DF:330:MET:HG2	2.13	0.48
60:DH:171:PRO:HB3	60:DH:181:GLU:CD	2.34	0.48
60:DP:148:GLY:O	60:DP:152:ILE:HG12	2.12	0.48
60:DR:145:SER:HB3	60:DR:188:SER:OG	2.13	0.48
60:DW:156:ARG:NH2	60:DW:197:ASP:OD2	2.47	0.48
60:EK:388:MET:HB3	60:EK:393:ALA:HB3	1.96	0.48
59:EN:36:MET:SD	59:EN:61:HIS:NE2	2.87	0.48
60:EY:54:ALA:HB3	60:EY:58:ARG:HG2	1.94	0.48
59:EZ:88:HIS:HE1	59:EZ:90:GLU:HG2	1.78	0.48
59:EZ:188:VAL:O	59:EZ:191:THR:HG22	2.13	0.48
59:FD:215:ARG:HH12	59:FD:299:ALA:HB1	1.77	0.48
59:FH:27:GLU:HG2	59:FH:361:THR:OG1	2.14	0.48
59:GH:208:ALA:HA	59:GH:304:LYS:NZ	2.28	0.48
59:GH:298:PRO:HD3	59:GH:308:ARG:HH12	1.79	0.48
60:GK:63:SER:O	60:GK:89:ASN:ND2	2.32	0.48
59:GL:250:VAL:HA	59:GL:254:GLU:OE2	2.13	0.48
60:GQ:30:VAL:HG21	60:GQ:51:PHE:CE2	2.48	0.48
60:GQ:86:ARG:NH2	60:HD:282:ARG:HE	2.11	0.48
59:GR:237:SER:HA	59:GR:320:ARG:HH21	1.77	0.48
59:GT:250:VAL:HG11	59:GT:255:PHE:HE1	1.78	0.48
59:GT:269:LEU:HD22	59:GT:303:THR:HG21	1.94	0.48
59:GY:2:ARG:HG3	59:GY:3:GLU:OE1	2.13	0.48
60:HB:119:VAL:HG13	60:HB:122:LYS:HE3	1.95	0.48
60:HB:396:HIS:HE1	59:HC:261:PRO:O	1.96	0.48
60:HN:271:ALA:HA	60:HN:298:ASN:ND2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HT:2:ARG:HH21	59:HT:130:THR:HG22	1.79	0.48
60:HU:293:MET:HG3	60:HU:367:PHE:HB2	1.95	0.48
59:HX:188:VAL:HG23	59:HX:425:LEU:HD22	1.96	0.48
59:IG:419:SER:O	59:IG:423:GLU:HG3	2.14	0.48
60:IL:4:ILE:HD11	60:IL:240:LEU:HD23	1.96	0.48
60:IL:259:PRO:HD2	60:IL:260:PHE:H	1.78	0.48
59:IM:273:ALA:HB2	59:IM:295:VAL:HG22	1.95	0.48
60:IP:156:ARG:NH1	60:IP:197:ASP:OD2	2.45	0.48
59:IX:2:ARG:HG3	59:IX:3:GLU:H	1.78	0.48
59:IX:188:VAL:HG21	59:IX:395:PHE:CD2	2.49	0.48
59:JF:88:HIS:CE1	59:JS:283:HIS:HB3	2.49	0.48
59:JF:267:PHE:CD2	59:JF:388:PHE:HZ	2.31	0.48
60:JI:311:LEU:HD13	60:JI:342:ILE:HG13	1.96	0.48
59:JL:53:PHE:O	59:JL:64:ARG:NH2	2.46	0.48
59:KJ:3:GLU:HA	59:KJ:51:THR:HA	1.96	0.48
59:KL:2:ARG:HG3	59:KL:3:GLU:OE1	2.14	0.48
59:KU:326:LYS:HG3	59:KU:327:ASP:N	2.29	0.48
60:KV:153:SER:HA	60:KV:195:ASN:HD22	1.78	0.48
59:KY:2:ARG:HG3	59:KY:3:GLU:OE1	2.13	0.48
1:0B:397:THR:OG1	1:0B:400:GLU:OE1	2.25	0.48
1:0B:426:MET:HB2	1:0B:440:PHE:HB2	1.95	0.48
1:0B:539:ARG:NH2	1:0B:611:ALA:O	2.46	0.48
5:0H:177:GLN:O	5:0H:180:GLU:HG3	2.13	0.48
17:0Z:309:ARG:NH1	17:0Z:385:LEU:O	2.35	0.48
26:1I:230:LEU:HD13	59:ER:245:ASP:OD2	2.13	0.48
33:2B:256:ASP:OD1	33:2B:260:ASP:N	2.45	0.48
36:2J:142:ILE:HG13	36:2J:143:VAL:HG23	1.95	0.48
41:3C:192:ALA:O	41:3C:195:ARG:HG3	2.14	0.48
42:3G:147:GLN:HA	42:3G:150:GLN:HB3	1.95	0.48
46:3U:26:TRP:HE3	59:EZ:393:HIS:CE1	2.30	0.48
48:4A:227:ARG:O	48:4A:230:THR:OG1	2.28	0.48
55:4P:169:GLN:CG	59:JJ:438:GLU:HB3	2.43	0.48
60:AB:404:ASP:HB3	60:AB:407:GLU:OE1	2.12	0.48
60:AX:139:LEU:HG	60:AX:168:SER:HB2	1.96	0.48
59:AY:3:GLU:OE2	59:AY:129:CYS:HB2	2.13	0.48
60:AZ:257:LEU:HD11	60:AZ:314:SER:HB2	1.94	0.48
60:BL:238:CYS:HB2	60:BL:318:ARG:NH1	2.29	0.48
60:BR:52:ASP:OD1	60:BR:53:GLU:N	2.45	0.48
59:BU:386:GLU:O	59:BU:390:ARG:HG3	2.14	0.48
59:CD:24:PHE:HA	59:CD:27:GLU:HG2	1.94	0.48
59:CF:286:LEU:O	59:CF:373:ARG:NH1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CG:173:PRO:HG2	60:CG:380:ARG:HH11	1.79	0.48
59:CH:172:TYR:CG	59:CH:173:PRO:HD2	2.49	0.48
60:CI:73:MET:CE	60:CI:92:PHE:HB3	2.44	0.48
60:CN:113:ILE:HD11	60:CN:147:MET:HG3	1.96	0.48
59:CQ:100:ALA:O	60:CR:255:VAL:HG11	2.14	0.48
59:CS:256:GLN:O	59:CS:260:VAL:HG22	2.14	0.48
60:CV:173:PRO:HG2	60:CV:174:LYS:HD3	1.95	0.48
60:CZ:99:ASN:O	60:CZ:99:ASN:ND2	2.47	0.48
60:CZ:249:ASP:OD1	60:CZ:250:LEU:N	2.47	0.48
59:DA:88:HIS:ND1	59:DA:89:PRO:HD2	2.28	0.48
60:DB:412:GLU:OE2	60:DB:416:ASN:ND2	2.47	0.48
60:DJ:249:ASP:OD1	60:DJ:250:LEU:N	2.47	0.48
60:DL:324:LYS:NZ	60:DL:328:GLU:HG3	2.28	0.48
59:DO:326:LYS:N	59:DO:326:LYS:HD3	2.28	0.48
60:DV:73:MET:HA	60:DV:76:VAL:HG22	1.96	0.48
59:EN:221:ARG:HG2	60:EO:322:SER:HB3	1.96	0.48
60:EQ:426:GLN:HG3	60:EQ:427:ASP:OD1	2.13	0.48
59:ER:174:SER:HA	59:ER:205:ASP:OD2	2.14	0.48
60:EU:170:ILE:HD12	60:EU:201:CYS:HB3	1.95	0.48
60:FG:379:ARG:O	60:FG:383:GLU:HG3	2.13	0.48
60:FI:54:ALA:HB3	60:FI:58:ARG:HB2	1.96	0.48
60:FK:68:LEU:HD13	60:FK:143:THR:OG1	2.14	0.48
59:FN:386:GLU:O	59:FN:390:ARG:NE	2.44	0.48
60:FV:67:ASP:HB3	60:FV:92:PHE:CE2	2.48	0.48
60:FX:344:TRP:HB3	60:FX:430:ILE:HD11	1.96	0.48
60:GD:12:CYS:SG	60:GD:13:GLY:N	2.87	0.48
60:GK:8:GLN:OE1	60:GK:17:GLY:HA3	2.12	0.48
59:GU:172:TYR:CE2	59:GU:203:MET:HG2	2.49	0.48
60:GV:52:ASP:OD1	60:GV:53:GLU:N	2.46	0.48
60:GV:145:SER:HB2	60:GV:188:SER:OG	2.13	0.48
60:HB:178:THR:HB	60:HB:181:GLU:HG3	1.95	0.48
60:HD:173:PRO:HB3	60:HD:380:ARG:HD2	1.96	0.48
60:HF:122:LYS:NZ	60:HF:123:GLU:OE2	2.43	0.48
60:HH:51:PHE:HB3	60:HH:59:TYR:HB3	1.95	0.48
59:HM:217:LEU:HB3	59:HM:219:ILE:HD12	1.96	0.48
60:HN:268:MET:SD	60:HN:368:ILE:HD13	2.53	0.48
60:HR:105:HIS:O	60:HR:150:LEU:HD11	2.14	0.48
60:HU:130:LEU:O	60:HU:162:ARG:NH1	2.46	0.48
60:HY:249:ASP:OD1	60:HY:250:LEU:N	2.46	0.48
60:HY:254:ALA:O	60:HY:258:VAL:HG22	2.13	0.48
59:ID:215:ARG:HG3	59:ID:216:ASN:OD1	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IG:259:LEU:HD21	59:IG:316:CYS:HB2	1.96	0.48
60:IL:55:THR:HG23	60:IY:283:GLY:HA3	1.94	0.48
59:IO:54:SER:HB2	59:IO:64:ARG:NH1	2.28	0.48
60:IU:10:GLY:O	60:IU:14:ASN:ND2	2.37	0.48
59:JB:251:ASP:OD1	59:JB:252:LEU:N	2.47	0.48
59:JH:387:VAL:HA	59:JH:390:ARG:NH2	2.28	0.48
59:JL:295:VAL:HG23	59:JL:296:PHE:CD1	2.48	0.48
59:JU:180:ALA:HB1	60:JV:256:ASN:HD21	1.78	0.48
59:KC:203:MET:HE1	59:KC:267:PHE:HB3	1.96	0.48
59:KD:105:ARG:HA	59:KD:109:THR:HG22	1.96	0.48
59:KN:120:ASP:O	59:KN:123:ARG:HG2	2.13	0.48
59:KS:2:ARG:HG3	59:KS:3:GLU:OE1	2.14	0.48
59:KU:212:LEU:HD21	59:KU:275:VAL:HG11	1.96	0.48
60:LB:249:ASP:OD1	60:LB:250:LEU:N	2.47	0.48
1:0A:406:MET:HE1	1:0A:409:ARG:HH22	1.78	0.48
2:0E:558:LEU:HD11	2:0E:603:THR:HG21	1.96	0.48
5:0K:188:GLU:OE1	26:1I:411:HIS:HB2	2.13	0.48
5:0K:377:TYR:OH	60:FG:272:PRO:O	2.23	0.48
27:1L:368:GLU:OE1	27:1L:371:ARG:NH2	2.46	0.48
33:2B:549:LYS:HZ2	39:2O:99:GLU:HG3	1.77	0.48
41:3A:287:THR:HG23	41:3A:288:HIS:CE1	2.49	0.48
42:3I:233:ARG:HE	59:IM:40:LYS:HG3	1.78	0.48
47:3V:204:ASN:OD1	47:3V:205:ASP:N	2.47	0.48
47:3W:176:LEU:HG	48:3Z:161:LEU:HD11	1.96	0.48
48:4A:106:ARG:HG2	48:4A:108:PRO:HD2	1.96	0.48
58:4T:117:ARG:HA	58:4T:120:PHE:CZ	2.49	0.48
59:AI:273:ALA:HB2	59:AI:295:VAL:HG22	1.95	0.48
60:AL:97:ALA:HB2	60:AL:143:THR:HB	1.95	0.48
60:AV:97:ALA:HB2	60:AV:143:THR:HG22	1.94	0.48
60:AZ:3:GLU:OE2	60:AZ:127:CYS:HB3	2.12	0.48
60:AZ:253:LEU:HD23	60:AZ:350:LYS:NZ	2.28	0.48
59:BC:68:LEU:HD22	59:BC:93:ILE:HD11	1.96	0.48
60:BH:156:ARG:NH2	60:BH:197:ASP:OD2	2.46	0.48
59:CD:265:ILE:HD12	59:CD:313:MET:HE1	1.96	0.48
60:CI:8:GLN:HG2	60:CI:17:GLY:HA3	1.96	0.48
60:CI:81:TYR:O	60:CI:84:ILE:HG12	2.13	0.48
59:CJ:195:LEU:HD21	59:CJ:428:LEU:HD22	1.95	0.48
59:CM:105:ARG:O	59:CM:110:ILE:HG12	2.14	0.48
59:CO:210:TYR:CD1	60:CP:324:LYS:HD3	2.48	0.48
59:CQ:406:HIS:CD2	60:CR:261:PRO:HD3	2.49	0.48
59:DA:123:ARG:HH11	59:DA:123:ARG:HG2	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DD:165:MET:HE1	60:DD:250:LEU:HD22	1.96	0.48
59:DG:187:SER:O	59:DG:191:THR:HG23	2.13	0.48
59:DQ:2:ARG:HG3	59:DQ:3:GLU:OE1	2.14	0.48
60:DR:52:ASP:OD1	60:DR:53:GLU:N	2.47	0.48
59:DS:2:ARG:HG3	59:DS:3:GLU:OE1	2.14	0.48
59:DZ:76:ASP:OD1	59:DZ:79:ARG:NH1	2.40	0.48
60:EA:209:ASP:O	60:EA:213:ARG:HG2	2.14	0.48
60:EC:8:GLN:HE22	60:EC:21:TRP:HE1	1.61	0.48
59:EH:269:LEU:HD22	59:EH:303:THR:HG21	1.95	0.48
59:EX:65:ALA:O	59:EX:91:GLN:NE2	2.35	0.48
60:EY:73:MET:HA	60:EY:76:VAL:HG22	1.96	0.48
59:FB:172:TYR:HD1	59:FB:173:PRO:HD2	1.79	0.48
60:GD:27:GLU:CD	60:GD:241:ARG:HH21	2.17	0.48
60:GD:292:GLN:HG2	60:GD:298:ASN:ND2	2.25	0.48
60:GQ:61:PRO:HD3	60:GQ:84:ILE:HG22	1.95	0.48
60:GV:263:LEU:HD22	60:GV:422:TYR:CE1	2.48	0.48
59:GY:291:ILE:HG22	59:GY:375:VAL:HG12	1.96	0.48
60:GZ:287:PRO:HA	60:GZ:290:THR:HG22	1.96	0.48
59:HG:316:CYS:SG	59:HG:378:ILE:HB	2.54	0.48
59:HT:133:GLN:HE21	59:HT:242:LEU:HD11	1.79	0.48
60:IE:99:ASN:O	60:IE:99:ASN:ND2	2.47	0.48
60:IF:267:MET:HA	60:IF:301:GLN:NE2	2.28	0.48
59:II:215:ARG:NH1	59:II:299:ALA:HB1	2.28	0.48
59:IO:425:LEU:O	59:IO:429:GLU:HG3	2.14	0.48
60:IP:390:ARG:NH1	59:IQ:439:SER:OG	2.43	0.48
59:IQ:417:GLU:HA	59:IQ:420:GLU:HG2	1.95	0.48
59:IZ:91:GLN:HA	59:IZ:91:GLN:OE1	2.11	0.48
59:IZ:284:GLU:HG2	59:IZ:285:GLN:O	2.14	0.48
60:JG:113:ILE:HG13	60:JG:117:LEU:HD23	1.96	0.48
60:JG:289:LEU:O	60:JG:293:MET:HB2	2.13	0.48
60:JG:380:ARG:CZ	60:JG:380:ARG:HB3	2.44	0.48
59:JS:101:ASN:ND2	59:JS:143:GLY:HA2	2.29	0.48
59:JS:150:GLY:O	59:JS:154:LEU:HD23	2.14	0.48
59:JU:157:LEU:HB3	59:JU:166:LYS:NZ	2.28	0.48
60:KM:55:THR:HG23	60:KZ:283:GLY:HA3	1.95	0.48
60:KT:249:ASP:OD1	60:KT:250:LEU:N	2.47	0.48
59:KY:36:MET:HG3	59:KY:37:PRO:HD2	1.96	0.48
1:0B:575:SER:N	1:0B:578:GLU:OE1	2.46	0.48
3:0F:123:PRO:HD2	3:0F:132:ARG:HG2	1.95	0.48
4:0G:44:SER:HA	59:FB:47:ASP:OD1	2.14	0.48
4:0G:351:GLN:HB3	4:0G:358:ILE:HD11	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:0N:468:ARG:NE	6:0N:469:TYR:H	2.09	0.48
7:0P:352:ARG:O	7:0P:356:ILE:HD12	2.14	0.48
21:1D:85:ASP:HB3	59:BS:42:ILE:O	2.13	0.48
25:1H:286:PHE:CD1	25:1H:287:PRO:HD2	2.49	0.48
30:1S:22:ASN:HB2	30:1S:109:ILE:HD12	1.95	0.48
33:2D:112:LYS:HE3	33:2D:114:GLN:HB3	1.94	0.48
33:2D:348:GLY:HA2	33:2D:371:THR:HG23	1.96	0.48
39:2O:158:TYR:HA	39:2O:161:LYS:HE2	1.94	0.48
48:3Y:142:PRO:HB2	48:3Y:146:LYS:NZ	2.28	0.48
54:4M:66:ARG:NH2	59:ID:434:GLU:OE1	2.47	0.48
59:AU:75:VAL:HG12	59:AU:79:ARG:HE	1.78	0.48
60:BF:167:PHE:CZ	60:BF:233:VAL:HG22	2.49	0.48
60:BL:200:MET:HG2	60:BL:268:MET:SD	2.54	0.48
60:BN:8:GLN:HE22	60:BN:63:SER:HB2	1.78	0.48
60:BP:113:ILE:HD12	60:BP:150:LEU:HG	1.96	0.48
60:BT:380:ARG:O	60:BT:383:GLU:HG2	2.13	0.48
59:BX:24:PHE:HA	59:BX:27:GLU:HG2	1.95	0.48
59:BX:286:LEU:O	59:BX:373:ARG:NH1	2.46	0.48
60:CG:254:ALA:O	60:CG:258:VAL:HG22	2.14	0.48
60:CV:167:PHE:CZ	60:CV:233:VAL:HG23	2.48	0.48
59:CW:122:ILE:HG21	59:CW:157:LEU:HD21	1.96	0.48
60:CX:52:ASP:OD1	60:CX:53:GLU:N	2.47	0.48
60:CX:67:ASP:OD1	60:CX:68:LEU:N	2.47	0.48
59:DI:358:GLN:OE1	59:DI:359:PRO:HD2	2.13	0.48
59:DK:172:TYR:HE2	59:DK:203:MET:SD	2.37	0.48
59:EV:252:LEU:HA	59:EV:255:PHE:HD2	1.78	0.48
59:FB:222:PRO:O	60:FC:322:SER:OG	2.30	0.48
60:FC:117:LEU:HD11	60:FC:154:LYS:HB3	1.95	0.48
59:FD:251:ASP:OD1	59:FD:252:LEU:N	2.47	0.48
60:FG:54:ALA:HB3	60:FG:58:ARG:HB3	1.95	0.48
60:FI:102:ALA:HB2	60:FI:403:MET:CE	2.44	0.48
60:FV:27:GLU:O	60:FV:43:GLN:NE2	2.45	0.48
60:GF:8:GLN:HB2	60:GF:65:LEU:HD13	1.96	0.48
60:GF:270:PHE:HD1	60:GF:366:THR:HG22	1.78	0.48
59:GH:107:HIS:CD2	59:GH:152:LEU:HB2	2.49	0.48
59:GR:210:TYR:CG	60:GS:324:LYS:HD3	2.49	0.48
59:HE:60:LYS:HZ3	59:HQ:282:TYR:HD2	1.61	0.48
60:HJ:149:THR:HA	60:HJ:152:ILE:HG22	1.96	0.48
60:HP:178:THR:HB	60:HP:181:GLU:HG3	1.96	0.48
60:HY:31:ASP:OD1	60:HY:32:PRO:HD2	2.14	0.48
60:IE:218:THR:HG23	60:IE:219:THR:HG22	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IK:362:VAL:HG21	59:IK:370:LYS:CG	2.42	0.48
60:IL:22:GLU:HG2	60:IL:81:TYR:HD2	1.78	0.48
60:IU:68:LEU:HD13	60:IU:143:THR:OG1	2.14	0.48
60:IU:404:ASP:OD1	60:IU:407:GLU:HG3	2.13	0.48
59:IX:206:ASN:OD1	62:IX:501:GTP:N2	2.45	0.48
60:IY:170:ILE:HD13	60:IY:201:CYS:HB3	1.96	0.48
59:JF:399:TYR:OH	59:JF:415:GLU:OE2	2.29	0.48
59:JL:75:VAL:HG23	59:JL:79:ARG:HH21	1.78	0.48
60:JM:8:GLN:HE22	60:JM:21:TRP:HE1	1.62	0.48
59:JS:392:ASP:HB3	59:JS:422:ARG:CZ	2.43	0.48
59:JY:150:GLY:O	59:JY:154:LEU:HD23	2.13	0.48
60:KE:161:ASP:OD1	60:KE:162:ARG:HD2	2.13	0.48
59:KH:19:ALA:HA	59:KH:22:GLU:HG2	1.95	0.48
60:KI:178:THR:HB	60:KI:181:GLU:HG3	1.96	0.48
60:KK:218:THR:HG22	60:KK:219:THR:HG23	1.96	0.48
60:KK:330:MET:SD	60:KK:349:ILE:HG21	2.53	0.48
60:KM:27:GLU:OE1	60:KM:241:ARG:NH2	2.46	0.48
1:0A:442:LEU:HD21	1:0A:444:VAL:HG13	1.96	0.48
1:0C:35:THR:HA	59:EX:47:ASP:OD1	2.14	0.48
4:0G:385:TYR:CE2	4:0G:409:ILE:HD13	2.49	0.48
26:1I:342:GLU:HA	26:1I:345:VAL:HG22	1.95	0.48
28:1N:162:PRO:CD	60:DW:276:ARG:HH22	2.27	0.48
32:1W:94:LEU:HB2	32:1W:152:LEU:HD11	1.96	0.48
33:2D:577:TRP:CD2	33:2D:584:CYS:HB3	2.49	0.48
41:2W:166:ASP:O	41:2W:169:ARG:HG2	2.14	0.48
42:3M:253:LYS:HE3	42:3N:16:ARG:HG2	1.95	0.48
43:3Q:29:ILE:H	43:3Q:29:ILE:HD12	1.77	0.48
53:4K:231:ILE:HG12	60:JK:328:GLU:HG3	1.96	0.48
60:AD:176:SER:OG	59:AE:349:THR:OG1	2.21	0.48
60:AF:420:SER:O	60:AF:423:GLN:HG3	2.14	0.48
60:AH:67:ASP:OD1	60:AH:68:LEU:N	2.47	0.48
59:AI:377:MET:O	59:AI:378:ILE:HD13	2.13	0.48
59:AK:270:THR:HG22	59:AK:378:ILE:HG22	1.96	0.48
60:AL:296:ALA:HA	60:AL:299:MET:HE2	1.95	0.48
59:AW:251:ASP:OD1	59:AW:252:LEU:N	2.47	0.48
60:BH:27:GLU:HA	60:BH:359:LYS:HE2	1.96	0.48
60:BH:67:ASP:OD1	60:BH:68:LEU:N	2.46	0.48
59:CB:362:VAL:HG21	59:CB:370:LYS:HE2	1.96	0.48
60:CE:254:ALA:O	60:CE:258:VAL:HG22	2.13	0.48
60:CE:374:ILE:O	60:CE:377:MET:HG2	2.14	0.48
60:CG:73:MET:HE1	60:CG:91:ILE:O	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CG:238:CYS:SG	60:CG:239:CYS:N	2.86	0.48
60:CP:257:LEU:HD21	60:CP:314:SER:HB2	1.96	0.48
59:DC:252:LEU:HA	59:DC:255:PHE:HD2	1.79	0.48
60:DH:178:THR:HG22	59:DI:352:LYS:HE3	1.96	0.48
59:DO:141:VAL:HG11	59:DO:172:TYR:HE1	1.78	0.48
59:DQ:123:ARG:NH1	59:DQ:124:LYS:HD3	2.29	0.48
60:DY:170:ILE:HG23	60:DY:171:PRO:HD2	1.95	0.48
59:ET:52:PHE:HZ	59:ET:239:THR:HG21	1.79	0.48
59:FP:251:ASP:OD1	59:FP:252:LEU:N	2.46	0.48
59:FP:443:ASP:OD1	59:FP:443:ASP:N	2.47	0.48
59:FT:79:ARG:HH22	59:FT:94:SER:HB3	1.79	0.48
59:GA:311:LYS:HD3	59:GA:342:GLN:HG3	1.95	0.48
59:GC:24:PHE:HA	59:GC:27:GLU:HG2	1.95	0.48
60:GD:403:MET:HB3	60:GD:403:MET:HE2	1.70	0.48
59:GG:262:TYR:HB3	59:GG:263:PRO:HD2	1.95	0.48
59:GU:195:LEU:HD21	59:GU:428:LEU:HD12	1.94	0.48
60:GX:211:CYS:HA	60:GX:215:LEU:HD13	1.95	0.48
59:HA:231:ILE:O	59:HA:234:VAL:N	2.47	0.48
59:HG:254:GLU:O	59:HG:257:THR:HG22	2.14	0.48
60:HJ:179:VAL:HG23	60:HJ:180:VAL:HG13	1.95	0.48
59:HO:386:GLU:HB3	59:HO:390:ARG:HH12	1.79	0.48
60:HP:149:THR:HB	60:HP:191:GLN:HG2	1.95	0.48
60:HR:176:SER:OG	60:HR:178:THR:O	2.32	0.48
60:HW:99:ASN:O	60:HW:99:ASN:ND2	2.47	0.48
60:IL:267:MET:N	60:IL:369:GLY:O	2.30	0.48
60:IN:45:GLU:HG3	60:IN:46:ARG:HG2	1.95	0.48
60:IP:58:ARG:NE	60:JC:280:GLN:HE22	2.11	0.48
60:JC:68:LEU:HD22	60:JC:143:THR:HB	1.96	0.48
59:JF:51:THR:HG22	59:JF:52:PHE:CD1	2.49	0.48
59:JF:204:LEU:HD13	59:JF:231:ILE:HD12	1.96	0.48
60:JM:176:SER:OG	60:JM:178:THR:O	2.30	0.48
60:JO:145:SER:HB3	60:JO:188:SER:OG	2.14	0.48
60:JT:330:MET:HG3	60:JT:349:ILE:HD12	1.96	0.48
60:JV:373:CYS:O	60:JV:376:GLU:HG2	2.14	0.48
59:KQ:69:ASP:OD1	59:KQ:71:GLU:N	2.42	0.48
59:LA:203:MET:SD	59:LA:384:ILE:HD11	2.53	0.48
1:0B:531:LYS:O	1:0B:535:MET:HG2	2.14	0.48
5:0K:118:GLN:NE2	59:EX:367:ASP:OD2	2.46	0.48
11:0T:400:ILE:HD13	11:0T:415:LEU:HD21	1.96	0.48
26:1I:134:LEU:C	60:EU:359:LYS:HZ1	2.17	0.48
28:1M:279:ASP:OD1	28:1M:280:THR:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2W:220:GLN:HA	41:2W:223:ASN:ND2	2.29	0.48
41:3B:52:ARG:HA	41:3B:55:MET:HG2	1.95	0.48
42:3F:121:HIS:HB2	59:BO:26:LEU:HD13	1.95	0.48
42:3O:144:THR:H	42:3O:147:GLN:HE22	1.61	0.48
46:3U:75:ARG:H	60:EY:213:ARG:HH12	1.60	0.48
52:4J:346:LEU:HD13	52:4J:346:LEU:HA	1.73	0.48
53:4K:107:MET:SD	54:4M:169:TYR:HB3	2.53	0.48
55:4P:95:VAL:HG22	60:IJ:392:LYS:HD2	1.96	0.48
57:4R:64:GLU:CD	59:GE:402:ARG:HH22	2.15	0.48
59:AK:23:LEU:HD11	59:AK:233:GLN:OE1	2.14	0.48
59:BA:283:HIS:HB3	59:BM:88:HIS:CD2	2.46	0.48
60:BD:67:ASP:OD1	60:BD:68:LEU:N	2.47	0.48
60:BF:170:ILE:HD12	60:BF:201:CYS:HB3	1.96	0.48
59:BK:212:LEU:HD21	59:BK:275:VAL:HG11	1.96	0.48
60:BP:149:THR:HB	60:BP:191:GLN:HG2	1.96	0.48
60:BV:173:PRO:CG	60:BV:380:ARG:HD3	2.44	0.48
60:CL:252:LYS:HA	60:CL:255:VAL:HG12	1.96	0.48
60:DD:130:LEU:HB3	60:DD:162:ARG:NH1	2.27	0.48
60:DF:177:ASP:O	59:DG:352:LYS:HD2	2.14	0.48
59:DX:52:PHE:CZ	59:DX:239:THR:HG21	2.49	0.48
59:DZ:414:GLU:N	59:DZ:414:GLU:OE1	2.47	0.48
59:EN:203:MET:HG3	59:EN:384:ILE:HD11	1.96	0.48
60:FC:254:ALA:O	60:FC:258:VAL:HG22	2.14	0.48
59:FD:100:ALA:HA	60:FE:252:LYS:HG2	1.96	0.48
60:FQ:190:HIS:CE1	60:FQ:414:ASN:HD22	2.32	0.48
59:FT:90:GLU:OE2	59:FT:121:ARG:NH2	2.45	0.48
59:GJ:396:ASP:OD2	59:GJ:422:ARG:NH2	2.47	0.48
60:GS:287:PRO:HA	60:GS:290:THR:HG22	1.96	0.48
60:GZ:167:PHE:CE2	60:GZ:233:VAL:HG22	2.49	0.48
60:HB:209:ASP:O	60:HB:210:ILE:C	2.52	0.48
60:HD:254:ALA:O	60:HD:258:VAL:HG22	2.13	0.48
59:HE:175:PRO:O	59:HE:390:ARG:NH2	2.47	0.48
60:HR:218:THR:HG23	60:HR:219:THR:HG22	1.96	0.48
60:HS:398:TYR:HD2	60:HS:408:PHE:HZ	1.62	0.48
60:HY:257:LEU:O	60:HY:259:PRO:HD2	2.13	0.48
59:HZ:256:GLN:O	59:HZ:260:VAL:HG12	2.13	0.48
60:IA:20:PHE:HA	60:IA:230:SER:OG	2.13	0.48
59:IB:209:ILE:HB	59:IB:227:LEU:CD1	2.43	0.48
59:IB:292:SER:HB3	59:IB:335:ILE:HD11	1.96	0.48
59:IK:119:LEU:HD11	59:IK:156:ARG:HG2	1.96	0.48
60:IP:138:SER:HA	60:IP:169:ILE:HB	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IP:313:ALA:O	60:IP:349:ILE:HA	2.14	0.48
60:IS:309:ARG:NH1	60:IS:426:GLN:O	2.47	0.48
60:IU:211:CYS:SG	60:IU:220:PRO:HB3	2.54	0.48
60:JT:135:ILE:HD13	60:JT:152:ILE:HD11	1.95	0.48
59:KA:2:ARG:HG3	59:KA:3:GLU:OE1	2.14	0.48
59:KD:9:ILE:HG23	59:KD:68:LEU:HD22	1.96	0.48
59:KF:88:HIS:HB3	59:KF:91:GLN:OE1	2.14	0.48
59:KH:52:PHE:HZ	59:KH:239:THR:HG21	1.78	0.48
59:KS:242:LEU:HD11	59:KS:252:LEU:HD11	1.96	0.48
60:LB:128:ASP:OD1	60:LB:129:CYS:N	2.46	0.48
60:LB:214:THR:OG1	60:LB:215:LEU:HD12	2.14	0.48
3:0F:280:ASN:OD1	60:CR:217:LEU:HD12	2.13	0.47
3:0F:280:ASN:HA	60:CR:218:THR:HG22	1.96	0.47
6:0M:41:TYR:HA	6:0M:44:LYS:HG2	1.95	0.47
12:0U:290:TYR:CE2	12:0U:291:LYS:HE3	2.49	0.47
18:1A:161:ARG:O	18:1A:165:ILE:HG12	2.14	0.47
23:1F:112:ASN:C	23:1F:112:ASN:HD22	2.17	0.47
28:1N:54:GLU:OE1	28:1N:58:ARG:NH1	2.47	0.47
40:2T:157:ASP:OD2	40:2U:502:MET:HG2	2.13	0.47
59:AA:408:TYR:HB3	59:AA:413:MET:HE2	1.96	0.47
60:AF:252:LYS:HA	60:AF:255:VAL:HG12	1.95	0.47
59:AM:31:GLN:HE21	59:AM:37:PRO:HG3	1.79	0.47
59:AO:395:PHE:HE2	59:AO:422:ARG:HB2	1.78	0.47
60:AT:67:ASP:OD1	60:AT:68:LEU:N	2.47	0.47
60:AZ:67:ASP:OD1	60:AZ:68:LEU:N	2.47	0.47
59:BA:181:VAL:O	59:BA:398:MET:HE1	2.14	0.47
60:BD:287:PRO:O	60:BD:290:THR:HG22	2.14	0.47
60:BL:68:LEU:HD13	60:BL:143:THR:OG1	2.14	0.47
59:BM:273:ALA:HB2	59:BM:295:VAL:CG2	2.44	0.47
60:BP:27:GLU:OE1	60:BP:241:ARG:NH1	2.47	0.47
60:BV:237:THR:HG23	60:BV:241:ARG:NH1	2.29	0.47
60:BY:14:ASN:OD1	60:BY:65:LEU:HD12	2.13	0.47
59:CB:333:ALA:O	59:CB:337:THR:HG23	2.14	0.47
60:CL:208:TYR:CE1	60:CL:225:LEU:HD11	2.49	0.47
59:CO:105:ARG:O	59:CO:110:ILE:HG12	2.14	0.47
60:CP:173:PRO:HG3	60:CP:380:ARG:NH1	2.29	0.47
60:CT:167:PHE:CZ	60:CT:233:VAL:HG23	2.49	0.47
60:CV:182:PRO:HA	60:CV:185:THR:HG22	1.96	0.47
60:DJ:302:ALA:HB3	60:DJ:380:ARG:HH22	1.79	0.47
60:DL:67:ASP:OD1	60:DL:68:LEU:N	2.47	0.47
60:DW:156:ARG:HH22	60:DW:197:ASP:CG	2.17	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DZ:3:GLU:OE2	59:DZ:129:CYS:HB3	2.13	0.47
59:EF:221:ARG:HG2	60:EG:322:SER:HB3	1.96	0.47
60:EY:249:ASP:OD1	60:EY:250:LEU:N	2.46	0.47
59:EZ:317:LEU:HD23	59:EZ:377:MET:HB2	1.95	0.47
60:FE:32:PRO:HG3	60:FE:81:TYR:CZ	2.50	0.47
59:FF:158:SER:HB2	59:FF:166:LYS:HZ2	1.78	0.47
59:GC:203:MET:HE1	59:GC:267:PHE:HB3	1.95	0.47
60:GK:286:VAL:HG12	60:GK:329:GLN:HG3	1.95	0.47
60:GO:318:ARG:HG2	60:GO:357:PRO:HA	1.96	0.47
59:GU:169:TYR:HE2	59:GU:235:VAL:HG22	1.79	0.47
59:HI:172:TYR:CD2	59:HI:203:MET:HE1	2.48	0.47
60:HN:385:PHE:HZ	60:HN:408:PHE:HB3	1.79	0.47
59:HV:55:GLU:HG2	59:HV:56:THR:O	2.14	0.47
59:HX:246:GLY:HA2	59:HX:357:TYR:CD2	2.49	0.47
59:HZ:158:SER:OG	59:HZ:166:LYS:NZ	2.46	0.47
60:IF:180:VAL:HG12	60:IF:180:VAL:O	2.14	0.47
60:IJ:139:LEU:HD12	60:IJ:188:SER:OG	2.14	0.47
59:IQ:250:VAL:HG11	59:IQ:318:MET:HE1	1.96	0.47
60:IU:334:GLN:HA	60:IU:341:PHE:HE2	1.78	0.47
60:IW:404:ASP:HB3	60:IW:407:GLU:OE1	2.14	0.47
60:IW:407:GLU:OE1	60:IW:407:GLU:N	2.45	0.47
59:IZ:195:LEU:HD13	59:IZ:428:LEU:HD11	1.96	0.47
60:JK:60:VAL:HG21	60:JK:86:ARG:HH21	1.78	0.47
59:JN:2:ARG:HG3	59:JN:3:GLU:OE1	2.14	0.47
60:JX:202:ILE:HD11	60:JX:268:MET:HB2	1.96	0.47
59:KA:241:SER:HA	59:KA:356:ASN:HD22	1.79	0.47
59:KF:172:TYR:HD1	59:KF:173:PRO:HD2	1.79	0.47
59:KF:191:THR:O	59:KF:195:LEU:HD23	2.14	0.47
60:KG:209:ASP:OD2	60:KG:213:ARG:NH1	2.47	0.47
60:KZ:68:LEU:HD12	60:KZ:97:ALA:HB2	1.96	0.47
1:0D:96:ARG:NE	1:0D:184:ASP:OD2	2.41	0.47
7:0P:325:ARG:O	7:0P:328:GLU:HG3	2.14	0.47
34:2E:224:LEU:HB3	34:2E:252:LEU:HD21	1.96	0.47
36:2I:126:ASP:OD1	36:2I:126:ASP:N	2.47	0.47
36:2K:172:PRO:HG3	59:EL:308:ARG:HG2	1.95	0.47
40:2T:139:LYS:HG3	60:JE:80:PRO:HG3	1.96	0.47
42:3J:138:LEU:HB2	60:IF:359:LYS:HG2	1.96	0.47
48:3Y:62:ASN:ND2	59:FP:108:TYR:OH	2.46	0.47
54:4N:19:THR:HA	54:4N:22:LEU:HG	1.96	0.47
54:4N:153:ASP:N	54:4N:153:ASP:OD1	2.48	0.47
58:4T:101:GLU:O	58:4T:104:ARG:HD3	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AM:238:LEU:HD11	59:AM:378:ILE:HD11	1.96	0.47
59:AS:2:ARG:HG3	59:AS:3:GLU:OE1	2.13	0.47
60:AV:137:HIS:O	60:AV:168:SER:HA	2.14	0.47
60:AV:203:ASP:OD1	60:AV:203:ASP:N	2.44	0.47
60:BT:8:GLN:HE22	60:BT:63:SER:HB2	1.79	0.47
59:CH:238:LEU:HG	59:CH:255:PHE:HE2	1.79	0.47
59:CJ:15:GLN:NE2	62:CJ:501:GTP:O6	2.47	0.47
59:CU:358:GLN:OE1	59:CU:359:PRO:HD2	2.14	0.47
59:CW:284:GLU:OE2	59:DI:88:HIS:NE2	2.46	0.47
60:DH:332:ASN:OD1	60:DH:336:LYS:NZ	2.34	0.47
59:DK:2:ARG:HG3	59:DK:3:GLU:OE1	2.14	0.47
60:DN:362:LYS:HA	60:DN:362:LYS:HE3	1.95	0.47
59:DO:212:LEU:HD11	59:DO:275:VAL:HG11	1.95	0.47
60:EE:238:CYS:SG	60:EE:239:CYS:N	2.88	0.47
60:EG:178:THR:HB	60:EG:181:GLU:HG3	1.96	0.47
59:EJ:50:ASN:O	59:EJ:64:ARG:NH1	2.46	0.47
59:EL:2:ARG:HG3	59:EL:3:GLU:OE1	2.14	0.47
59:EN:188:VAL:O	59:EN:191:THR:HG22	2.13	0.47
60:EQ:292:GLN:HG2	60:EQ:298:ASN:HD22	1.78	0.47
59:ET:121:ARG:NH2	59:ET:124:LYS:HD2	2.29	0.47
60:FI:108:GLU:N	60:FI:108:GLU:OE1	2.47	0.47
59:FJ:212:LEU:HD21	59:FJ:275:VAL:HG21	1.96	0.47
60:FO:248:SER:HA	60:FO:252:LYS:HE3	1.95	0.47
59:FP:285:GLN:HG3	59:GC:56:THR:HA	1.96	0.47
60:FQ:311:LEU:HA	60:FQ:342:ILE:HG13	1.96	0.47
60:FS:178:THR:HG22	59:FT:352:LYS:HE2	1.97	0.47
59:FU:224:TYR:HD1	59:FU:227:LEU:HD12	1.79	0.47
60:FV:390:ARG:HG3	60:FV:391:ARG:HG2	1.96	0.47
60:FZ:156:ARG:O	60:FZ:156:ARG:HD3	2.14	0.47
59:GJ:251:ASP:OD1	59:GJ:252:LEU:N	2.47	0.47
59:GJ:399:TYR:OH	59:GJ:415:GLU:OE2	2.29	0.47
60:GO:28:HIS:HA	60:GO:43:GLN:OE1	2.14	0.47
59:GP:3:GLU:HG2	59:GP:64:ARG:NH2	2.29	0.47
60:GS:105:HIS:HD1	60:GS:106:TYR:HD1	1.61	0.47
59:GT:276:ILE:HG13	59:GT:369:ALA:HB3	1.96	0.47
59:HA:298:PRO:O	59:HA:301:MET:HG2	2.13	0.47
60:HF:322:SER:OG	60:HF:324:LYS:HG2	2.14	0.47
59:HM:108:TYR:HE2	59:HM:413:MET:HE3	1.79	0.47
60:HN:229:VAL:O	60:HN:233:VAL:HG12	2.14	0.47
60:HS:23:VAL:O	60:HS:27:GLU:HG3	2.14	0.47
60:HW:4:ILE:O	60:HW:62:ARG:HD2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HY:344:TRP:HB3	60:HY:430:ILE:HD11	1.95	0.47
59:HZ:210:TYR:HA	59:HZ:213:THR:HG22	1.95	0.47
60:IC:218:THR:HG23	60:IC:219:THR:HG22	1.95	0.47
60:IJ:252:LYS:HA	60:IJ:255:VAL:HG22	1.96	0.47
59:IM:177:VAL:HG11	59:IM:207:GLU:HB2	1.95	0.47
60:IP:239:CYS:SG	60:IP:354:CYS:HB2	2.54	0.47
59:IX:88:HIS:NE2	59:JJ:284:GLU:OE2	2.46	0.47
60:IY:293:MET:HG3	60:IY:367:PHE:HB2	1.96	0.47
59:IZ:251:ASP:OD1	59:IZ:252:LEU:N	2.47	0.47
59:JD:90:GLU:OE2	59:JD:121:ARG:NE	2.47	0.47
60:JE:20:PHE:HE1	60:JE:234:SER:HB3	1.78	0.47
59:JF:36:MET:HE3	59:JF:37:PRO:HD2	1.96	0.47
60:JM:68:LEU:HD22	60:JM:143:THR:HB	1.96	0.47
60:JM:293:MET:HE1	60:JM:365:VAL:HG21	1.96	0.47
59:JQ:187:SER:O	59:JQ:191:THR:HG23	2.13	0.47
59:JQ:221:ARG:HB3	60:JR:322:SER:HB2	1.95	0.47
60:JV:52:ASP:HB3	60:JV:60:VAL:HG23	1.96	0.47
60:JV:173:PRO:HB3	60:JV:380:ARG:HH12	1.79	0.47
59:KA:150:GLY:O	59:KA:154:LEU:HD23	2.14	0.47
59:KD:251:ASP:OD1	59:KD:252:LEU:N	2.47	0.47
60:KM:67:ASP:O	60:KM:92:PHE:HA	2.14	0.47
60:KM:209:ASP:O	60:KM:210:ILE:C	2.50	0.47
60:KT:22:GLU:HG3	60:KT:81:TYR:CE2	2.49	0.47
59:KY:262:TYR:HB2	59:KY:265:ILE:CD1	2.44	0.47
1:0A:635:ASP:HB3	1:0A:638:ILE:HG22	1.95	0.47
1:0B:533:ARG:O	1:0B:537:LEU:HB2	2.14	0.47
3:0F:307:GLU:OE2	60:DD:272:PRO:HB2	2.14	0.47
16:0Y:85:GLU:OE2	22:1E:181:TYR:OH	2.15	0.47
17:0Z:166:ASP:OD1	17:0Z:169:GLN:HG3	2.14	0.47
17:0Z:501:PRO:O	17:0Z:502:CYS:C	2.52	0.47
25:1H:286:PHE:CE1	60:AV:56:GLY:HA2	2.50	0.47
25:1H:377:ARG:NH2	25:1H:379:ASP:OD2	2.33	0.47
34:2E:262:LEU:HD23	34:2E:263:SER:N	2.29	0.47
36:2K:139:LEU:HD21	60:EK:412:GLU:HG2	1.96	0.47
37:2L:11:SER:O	37:2L:18:ARG:NH2	2.45	0.47
39:2Q:192:LEU:HD11	59:JY:282:TYR:CE1	2.49	0.47
42:3G:259:ILE:HD11	42:3H:17:THR:HG21	1.97	0.47
53:4K:225:TRP:HB2	60:JK:340:TYR:HE2	1.79	0.47
60:AF:170:ILE:HD11	60:AF:377:MET:CE	2.44	0.47
60:AH:290:THR:HA	60:AH:293:MET:HE2	1.96	0.47
59:AI:413:MET:HB2	59:AI:413:MET:HE3	1.69	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AK:88:HIS:CD2	59:AK:90:GLU:HB2	2.50	0.47
60:AX:239:CYS:SG	60:AX:248:SER:N	2.83	0.47
60:AZ:52:ASP:HB2	60:AZ:62:ARG:HE	1.78	0.47
60:BB:391:ARG:NH2	59:BC:437:ALA:O	2.46	0.47
60:BV:254:ALA:O	60:BV:258:VAL:HG12	2.15	0.47
60:BY:235:GLY:HA2	60:BY:318:ARG:HH21	1.78	0.47
59:BZ:172:TYR:CG	59:BZ:173:PRO:HD2	2.49	0.47
60:CC:8:GLN:HB2	60:CC:65:LEU:HD13	1.97	0.47
60:CT:99:ASN:O	60:CT:99:ASN:ND2	2.47	0.47
60:CX:22:GLU:HG2	60:CX:81:TYR:CD1	2.49	0.47
59:DE:224:TYR:CE2	60:DF:323:THR:HG21	2.49	0.47
60:DF:190:HIS:CE1	60:DF:414:ASN:HD22	2.32	0.47
60:DP:326:VAL:O	60:DP:330:MET:HG2	2.13	0.47
59:DQ:333:ALA:O	59:DQ:337:THR:HG23	2.15	0.47
59:DS:82:THR:HG23	59:DS:83:TYR:CD1	2.49	0.47
59:DU:2:ARG:HG3	59:DU:3:GLU:OE1	2.14	0.47
59:EF:178:SER:HB3	60:EG:347:ASN:ND2	2.28	0.47
59:EP:138:TYR:CE1	59:EP:169:TYR:HD2	2.28	0.47
59:EZ:223:THR:HG22	59:EZ:224:TYR:H	1.79	0.47
59:FP:265:ILE:HD11	59:FP:435:VAL:HG21	1.95	0.47
59:FU:169:TYR:CE2	59:FU:235:VAL:HG22	2.49	0.47
59:FW:27:GLU:OE2	59:FW:243:ARG:NH1	2.48	0.47
59:GH:31:GLN:HG2	59:GH:37:PRO:HD3	1.94	0.47
60:GK:107:THR:HG1	60:GK:108:GLU:CD	2.17	0.47
60:GM:45:GLU:OE1	60:GM:46:ARG:NH2	2.45	0.47
60:GQ:133:PHE:CD2	60:GQ:155:LEU:HD13	2.49	0.47
60:GS:15:GLN:HG3	60:GS:226:ASN:HD21	1.79	0.47
59:GT:28:HIS:NE2	59:GT:243:ARG:HD2	2.29	0.47
59:GY:257:THR:HG23	59:GY:258:ASN:OD1	2.15	0.47
60:HF:179:VAL:HG23	60:HF:180:VAL:HG13	1.95	0.47
60:HJ:128:ASP:OD1	60:HJ:129:CYS:N	2.47	0.47
60:HL:173:PRO:HA	60:HL:380:ARG:HH12	1.78	0.47
59:HM:256:GLN:O	59:HM:260:VAL:HG22	2.15	0.47
60:HP:404:ASP:HB3	60:HP:407:GLU:OE1	2.13	0.47
60:HU:67:ASP:O	60:HU:92:PHE:HA	2.14	0.47
59:HX:221:ARG:HB3	60:HY:322:SER:HB3	1.94	0.47
59:IM:295:VAL:HG21	59:IM:375:VAL:HG13	1.95	0.47
60:IN:204:ASN:OD1	64:IN:501:GDP:N2	2.47	0.47
60:IN:273:LEU:O	60:IN:292:GLN:NE2	2.28	0.47
60:IW:8:GLN:HB2	60:IW:65:LEU:HD13	1.95	0.47
59:IZ:383:ALA:O	59:IZ:386:GLU:HG2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JG:61:PRO:HD3	60:JG:84:ILE:HG22	1.95	0.47
60:JG:313:ALA:HB3	60:JG:349:ILE:HG13	1.96	0.47
59:JP:109:THR:HG21	59:JP:411:GLU:OE2	2.13	0.47
59:JS:224:TYR:CD2	60:JT:323:THR:HG21	2.49	0.47
59:KC:399:TYR:OH	59:KC:415:GLU:OE2	2.18	0.47
59:KD:255:PHE:HE1	59:KD:318:MET:HE1	1.79	0.47
60:KM:3:GLU:OE2	60:KM:127:CYS:HB3	2.14	0.47
59:KQ:5:ILE:HD13	59:KQ:64:ARG:HB3	1.96	0.47
59:KQ:286:LEU:HA	59:KQ:290:GLU:OE2	2.14	0.47
60:KV:237:THR:HG23	60:KV:241:ARG:HH12	1.79	0.47
59:KW:318:MET:SD	59:KW:318:MET:N	2.87	0.47
2:0E:150:PRO:HA	60:DR:218:THR:HG21	1.97	0.47
6:0M:137:ARG:O	6:0M:141:MET:HG3	2.14	0.47
7:0O:59:ARG:HG3	60:AV:33:THR:HG21	1.97	0.47
19:1B:193:GLU:O	19:1B:197:LEU:HG	2.14	0.47
27:1L:269:ARG:O	27:1L:273:SER:OG	2.25	0.47
31:1T:89:THR:HG21	60:EQ:163:ILE:HD13	1.97	0.47
31:1U:208:PRO:HA	31:1U:211:THR:HG22	1.96	0.47
34:2E:202:TRP:HH2	39:2O:25:LEU:HD23	1.79	0.47
35:2H:345:ASP:OD1	35:2H:345:ASP:N	2.47	0.47
41:3A:340:TRP:NE1	41:3A:344:HIS:CE1	2.82	0.47
46:3T:183:PHE:CE1	60:FE:305:PRO:HD2	2.49	0.47
47:3X:186:ARG:HA	47:3X:189:MET:HG2	1.95	0.47
47:3X:237:ILE:HD11	47:3X:246:ASN:HA	1.96	0.47
49:4C:90:ARG:HA	49:4C:93:ARG:HD2	1.96	0.47
59:AA:44:VAL:HG13	59:AA:45:GLU:OE1	2.13	0.47
59:AC:215:ARG:HH22	59:AC:299:ALA:HA	1.79	0.47
60:AD:170:ILE:HG23	60:AD:171:PRO:HD2	1.96	0.47
60:AF:260:PHE:HB2	60:AF:263:LEU:HD13	1.97	0.47
59:AS:91:GLN:HE22	59:AS:125:LEU:HD21	1.79	0.47
60:AV:407:GLU:OE1	60:AV:407:GLU:N	2.43	0.47
60:BD:267:MET:HE1	60:BD:371:ASN:HB3	1.97	0.47
59:BK:287:SER:HB3	59:BK:290:GLU:OE1	2.14	0.47
60:BL:303:ALA:HB1	60:BL:373:CYS:HB2	1.97	0.47
60:BN:172:SER:HB3	60:BN:175:VAL:HB	1.95	0.47
60:CE:311:LEU:HD23	60:CE:342:ILE:HG13	1.95	0.47
59:CF:24:PHE:HA	59:CF:27:GLU:HG2	1.95	0.47
59:CM:7:ILE:HB	59:CM:137:VAL:HG12	1.95	0.47
59:CS:102:ASN:OD1	59:CS:104:ALA:N	2.47	0.47
59:CU:406:HIS:HA	59:CU:409:VAL:HG12	1.97	0.47
59:DG:238:LEU:HD11	59:DG:255:PHE:CE2	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DI:196:GLU:HG2	59:DI:197:HIS:CE1	2.50	0.47
60:DN:156:ARG:NH2	60:DN:197:ASP:OD2	2.47	0.47
60:DR:67:ASP:OD1	60:DR:68:LEU:N	2.47	0.47
60:DR:73:MET:HA	60:DR:76:VAL:HG22	1.95	0.47
60:DY:101:TRP:HB2	60:DY:184:ASN:OD1	2.15	0.47
60:DY:139:LEU:HD12	60:DY:170:ILE:HG12	1.97	0.47
60:EA:67:ASP:O	60:EA:92:PHE:HA	2.14	0.47
59:ED:68:LEU:HD21	59:ED:118:CYS:SG	2.54	0.47
60:EO:259:PRO:HG2	60:EO:311:LEU:HD23	1.96	0.47
60:ES:200:MET:HG2	60:ES:268:MET:SD	2.55	0.47
60:FI:209:ASP:OD2	60:FI:213:ARG:NH2	2.47	0.47
60:FK:145:SER:HB3	60:FK:188:SER:OG	2.15	0.47
60:FS:232:VAL:HG22	60:FS:270:PHE:HB2	1.95	0.47
59:FU:111:GLY:HA2	59:FU:114:ILE:HG22	1.97	0.47
60:GD:252:LYS:HA	60:GD:255:VAL:HG12	1.95	0.47
59:GG:172:TYR:CG	59:GG:173:PRO:HD2	2.49	0.47
60:GI:239:CYS:SG	60:GI:248:SER:N	2.84	0.47
60:HB:52:ASP:OD1	60:HB:53:GLU:N	2.46	0.47
60:HF:48:ASN:O	60:HF:62:ARG:NH2	2.43	0.47
59:HG:96:LYS:HD2	59:HG:96:LYS:HA	1.64	0.47
60:HH:423:GLN:NE2	60:HH:427:ASP:OD2	2.48	0.47
59:HI:220:GLU:O	60:HJ:324:LYS:HE2	2.14	0.47
59:HK:128:ASN:HD21	59:HX:285:GLN:HE22	1.62	0.47
59:HM:222:PRO:O	60:HN:322:SER:HB2	2.13	0.47
59:HM:250:VAL:HA	59:HM:254:GLU:OE2	2.14	0.47
60:HN:267:MET:HG3	60:HN:374:ILE:HD11	1.96	0.47
59:HT:206:ASN:OD1	62:HT:501:GTP:N2	2.47	0.47
59:HT:269:LEU:HG	59:HT:303:THR:HG21	1.96	0.47
60:IA:254:ALA:O	60:IA:258:VAL:HG22	2.14	0.47
59:IB:191:THR:O	59:IB:195:LEU:HD23	2.14	0.47
60:IC:178:THR:O	60:IC:181:GLU:HG3	2.15	0.47
60:IF:16:ILE:HD11	60:IF:229:VAL:HG11	1.95	0.47
60:IH:284:LEU:HD12	60:IH:362:LYS:HB2	1.96	0.47
60:IL:22:GLU:HG2	60:IL:81:TYR:CD2	2.49	0.47
60:IL:218:THR:HG23	60:IL:219:THR:HG22	1.95	0.47
60:IL:374:ILE:O	60:IL:377:MET:HG3	2.14	0.47
60:JG:207:LEU:HD22	60:JG:228:LEU:HD23	1.96	0.47
60:JI:174:LYS:HB2	60:JI:205:GLU:OE2	2.15	0.47
59:JQ:3:GLU:O	59:JQ:133:GLN:NE2	2.47	0.47
59:JU:2:ARG:HG3	59:JU:3:GLU:OE1	2.14	0.47
59:JW:93:ILE:HG12	59:JW:117:LEU:HD22	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JW:214:ARG:HH12	60:JX:324:LYS:HZ1	1.63	0.47
59:JW:269:LEU:HD21	59:JW:384:ILE:HG22	1.95	0.47
59:KC:88:HIS:HB3	59:KC:91:GLN:HG2	1.96	0.47
59:KH:269:LEU:HD21	59:KH:384:ILE:HD13	1.96	0.47
59:KJ:33:ASP:O	59:KJ:60:LYS:NZ	2.47	0.47
60:KO:167:PHE:HD1	60:KO:200:MET:HB2	1.79	0.47
59:KS:203:MET:O	59:KS:303:THR:OG1	2.32	0.47
60:KT:296:ALA:HA	60:KT:299:MET:HE2	1.96	0.47
59:LA:2:ARG:HG3	59:LA:3:GLU:OE1	2.15	0.47
2:0E:612:LEU:O	2:0E:616:ILE:HG12	2.14	0.47
3:0F:528:ASN:OD1	3:0F:532:GLN:NE2	2.44	0.47
27:1K:41:ARG:NH1	60:AH:227:HIS:HB3	2.30	0.47
27:1L:278:HIS:HB3	60:AX:56:GLY:HA3	1.97	0.47
32:1X:177:LEU:HD23	32:1X:181:PHE:HB3	1.97	0.47
42:3G:89:ILE:HG12	59:JD:31:GLN:HE22	1.79	0.47
42:3G:114:HIS:HB2	59:JB:77:GLU:OE2	2.14	0.47
47:3X:195:GLU:HB3	47:3X:199:LYS:NZ	2.29	0.47
48:3Z:235:GLY:HA2	59:HK:84:ARG:HH12	1.78	0.47
53:4K:219:PHE:HE2	60:JK:426:GLN:HE22	1.63	0.47
60:AD:257:LEU:HD23	60:AD:312:THR:HG22	1.97	0.47
59:BE:262:TYR:HD2	59:BE:265:ILE:HD12	1.80	0.47
59:BI:174:SER:HB2	59:BI:207:GLU:HG3	1.95	0.47
60:BY:173:PRO:HB3	60:BY:380:ARG:HD2	1.96	0.47
60:BY:230:SER:HA	60:BY:233:VAL:HG12	1.95	0.47
60:BY:375:GLN:HG3	60:BY:419:VAL:HG13	1.97	0.47
60:CC:212:PHE:HZ	59:CD:326:LYS:HE2	1.80	0.47
59:CM:119:LEU:O	59:CM:123:ARG:HG3	2.14	0.47
59:CO:24:PHE:HA	59:CO:27:GLU:HG2	1.95	0.47
60:DB:232:VAL:HG11	60:DB:268:MET:SD	2.54	0.47
59:DE:79:ARG:NH2	59:DE:92:LEU:O	2.45	0.47
60:DH:257:LEU:HD11	60:DH:314:SER:HB2	1.95	0.47
59:DO:141:VAL:HG12	59:DO:187:SER:HA	1.96	0.47
59:DO:169:TYR:CE2	59:DO:235:VAL:HG22	2.48	0.47
60:DP:67:ASP:OD1	60:DP:68:LEU:N	2.45	0.47
59:DQ:177:VAL:HG13	60:DR:327:ASP:HB2	1.95	0.47
59:DS:212:LEU:HD21	59:DS:275:VAL:HG11	1.97	0.47
59:EB:69:ASP:OD1	59:EB:70:LEU:N	2.47	0.47
60:EK:53:GLU:HG2	60:EK:59:TYR:CE1	2.50	0.47
60:EO:3:GLU:OE2	60:EO:127:CYS:HB3	2.15	0.47
60:EO:102:ALA:HB2	60:EO:403:MET:HE2	1.97	0.47
60:FI:14:ASN:OD1	60:FI:73:MET:HE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FR:222:PRO:HD2	60:FS:324:LYS:HD3	1.96	0.47
59:FU:195:LEU:HD21	59:FU:264:ARG:NH2	2.26	0.47
60:GQ:330:MET:SD	60:GQ:349:ILE:HG21	2.55	0.47
59:GT:70:LEU:HB3	59:GT:98:ASP:HA	1.95	0.47
59:GU:60:LYS:HG2	59:GU:61:HIS:N	2.28	0.47
59:GY:362:VAL:HG11	59:GY:370:LYS:CB	2.42	0.47
60:GZ:145:SER:HB3	60:GZ:188:SER:OG	2.13	0.47
59:HA:273:ALA:HB2	59:HA:295:VAL:HG12	1.96	0.47
60:HB:26:ASP:OD2	60:HB:359:LYS:HD3	2.14	0.47
60:HB:417:ASP:O	60:HB:421:GLU:HG3	2.15	0.47
59:HC:2:ARG:HG3	59:HC:3:GLU:OE1	2.13	0.47
59:HC:327:ASP:O	59:HC:330:ALA:N	2.48	0.47
60:HD:167:PHE:CE2	60:HD:233:VAL:HG22	2.49	0.47
60:HD:214:THR:OG1	60:HD:215:LEU:HD12	2.14	0.47
60:HF:170:ILE:HD12	60:HF:377:MET:SD	2.54	0.47
59:HI:108:TYR:HE2	59:HI:413:MET:HE3	1.79	0.47
59:HV:178:SER:HB3	60:HW:347:ASN:HD22	1.79	0.47
59:HX:155:GLU:HG2	59:HX:197:HIS:CD2	2.45	0.47
60:HY:179:VAL:HG13	60:HY:180:VAL:HG13	1.95	0.47
59:HZ:90:GLU:HG3	59:HZ:121:ARG:NH1	2.30	0.47
60:IE:19:LYS:NZ	60:IE:227:HIS:HB2	2.29	0.47
60:IE:179:VAL:HG13	60:IE:180:VAL:HG13	1.97	0.47
60:IE:254:ALA:O	60:IE:258:VAL:HG12	2.14	0.47
60:IF:68:LEU:HD22	60:IF:97:ALA:HB2	1.95	0.47
59:IO:24:PHE:HA	59:IO:27:GLU:HG2	1.96	0.47
60:IP:8:GLN:OE1	60:IP:136:CYS:HB2	2.14	0.47
60:IP:238:CYS:SG	60:IP:239:CYS:N	2.87	0.47
60:IR:172:SER:OG	60:IR:205:GLU:OE1	2.33	0.47
60:IS:183:TYR:HD1	60:IS:385:PHE:CE2	2.32	0.47
60:IS:294:PHE:CD2	60:IS:333:VAL:HG21	2.49	0.47
60:JA:128:ASP:OD1	60:JA:129:CYS:N	2.47	0.47
60:JA:235:GLY:HA2	60:JA:318:ARG:NH2	2.29	0.47
59:JB:273:ALA:HB2	59:JB:295:VAL:CG2	2.44	0.47
60:JE:99:ASN:HD21	60:JE:178:THR:HG23	1.79	0.47
60:JE:238:CYS:HB2	60:JE:318:ARG:NH1	2.29	0.47
59:JJ:111:GLY:O	59:JJ:115:VAL:HG13	2.14	0.47
60:JK:254:ALA:O	60:JK:258:VAL:HG22	2.15	0.47
60:JO:254:ALA:O	60:JO:258:VAL:HG22	2.15	0.47
59:JQ:387:VAL:HG22	59:JQ:390:ARG:HH21	1.79	0.47
59:KF:175:PRO:HB3	59:KF:390:ARG:NH1	2.29	0.47
60:KV:404:ASP:HB3	60:KV:407:GLU:OE1	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:LA:192:HIS:HD2	59:LA:421:ALA:HA	1.79	0.47
1:0B:79:GLN:HG3	1:0B:80:THR:HG23	1.96	0.47
3:0F:96:SER:OG	3:0F:99:GLU:O	2.30	0.47
3:0F:213:HIS:HA	3:0F:216:GLU:HG2	1.97	0.47
17:0Z:503:ARG:NH2	17:0Z:521:ASP:OD1	2.48	0.47
23:1F:36:ASP:N	23:1F:36:ASP:OD1	2.48	0.47
26:1I:227:ARG:HB3	60:EQ:74:ASP:OD2	2.15	0.47
33:2C:328:ASP:OD1	33:2C:329:THR:N	2.40	0.47
39:2Q:132:VAL:HG12	39:2R:459:LEU:HD12	1.96	0.47
40:2T:139:LYS:HE2	40:2T:142:GLN:NE2	2.29	0.47
40:2T:270:TYR:HD2	59:JJ:370:LYS:HD3	1.78	0.47
41:2Z:267:ARG:HA	41:2Z:270:PHE:CE2	2.49	0.47
42:3J:122:LEU:HD12	42:3J:123:PRO:HD2	1.97	0.47
42:3K:226:LYS:HE2	42:3K:226:LYS:HB2	1.71	0.47
42:3M:219:THR:HG23	42:3M:222:SER:H	1.79	0.47
42:3N:6:THR:HG23	42:3N:9:SER:H	1.78	0.47
48:3Z:189:HIS:HA	48:3Z:191:ARG:NH1	2.30	0.47
53:4K:209:GLU:HG3	56:4Q:156:ILE:HG21	1.97	0.47
54:4O:41:ARG:HH22	59:HG:159:VAL:HG23	1.79	0.47
57:4S:37:ASP:OD1	57:4S:37:ASP:N	2.44	0.47
59:AM:121:ARG:HH12	59:AM:124:LYS:HD3	1.78	0.47
60:AN:334:GLN:NE2	60:AN:347:ASN:OD1	2.43	0.47
60:AP:301:GLN:OE1	60:AP:377:MET:HE1	2.15	0.47
59:BG:121:ARG:HE	59:BG:124:LYS:HD2	1.79	0.47
60:BL:387:LEU:HD21	59:BM:345:ASP:O	2.15	0.47
60:BN:27:GLU:HA	60:BN:359:LYS:HE3	1.95	0.47
60:BT:8:GLN:HG2	60:BT:17:GLY:HA3	1.97	0.47
60:CP:173:PRO:HG3	60:CP:380:ARG:HH11	1.78	0.47
59:CQ:79:ARG:O	59:CQ:84:ARG:HG3	2.14	0.47
60:CR:190:HIS:O	60:CR:193:VAL:HG12	2.14	0.47
59:CU:238:LEU:HD11	59:CU:378:ILE:HD11	1.96	0.47
60:CZ:73:MET:HA	60:CZ:76:VAL:HG12	1.97	0.47
59:DA:65:ALA:O	59:DA:91:GLN:NE2	2.44	0.47
60:DB:99:ASN:O	60:DB:99:ASN:ND2	2.32	0.47
59:DE:69:ASP:OD1	59:DE:70:LEU:N	2.47	0.47
60:DH:152:ILE:HG22	60:DH:195:ASN:ND2	2.28	0.47
59:DS:107:HIS:CE1	59:DS:152:LEU:HD13	2.50	0.47
60:DW:67:ASP:O	60:DW:92:PHE:HA	2.15	0.47
59:EF:76:ASP:OD1	59:EF:79:ARG:NH1	2.46	0.47
60:EQ:201:CYS:O	60:EQ:202:ILE:HD13	2.15	0.47
60:EQ:332:ASN:OD1	60:EQ:336:LYS:NZ	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FC:108:GLU:OE2	60:FC:108:GLU:N	2.47	0.47
60:FC:249:ASP:OD1	60:FC:250:LEU:N	2.47	0.47
59:FF:419:SER:O	59:FF:423:GLU:HG3	2.14	0.47
60:FG:249:ASP:OD1	60:FG:250:LEU:N	2.47	0.47
60:FI:68:LEU:HD13	60:FI:143:THR:OG1	2.15	0.47
60:FQ:343:GLU:HG3	60:FQ:430:ILE:HG12	1.95	0.47
59:FU:169:TYR:OH	59:FU:238:LEU:HD13	2.14	0.47
60:FV:73:MET:HA	60:FV:76:VAL:HG22	1.97	0.47
60:GD:8:GLN:NE2	60:GD:136:CYS:SG	2.88	0.47
60:GD:186:THR:HG23	60:GD:415:MET:SD	2.55	0.47
59:GH:121:ARG:HE	59:GH:124:LYS:HD3	1.78	0.47
60:GM:293:MET:HE2	60:GM:365:VAL:HG11	1.96	0.47
59:GT:246:GLY:HA2	59:GT:357:TYR:CE1	2.50	0.47
60:GV:99:ASN:HD21	60:GV:178:THR:HG23	1.79	0.47
60:GZ:404:ASP:HB3	60:GZ:407:GLU:OE1	2.14	0.47
60:HD:119:VAL:HG13	60:HD:122:LYS:HE3	1.97	0.47
60:HF:214:THR:OG1	60:HF:215:LEU:HD12	2.14	0.47
59:HI:413:MET:HG3	59:HI:417:GLU:OE2	2.15	0.47
60:HS:198:GLU:HG2	60:HS:266:PHE:CE2	2.50	0.47
60:HY:407:GLU:N	60:HY:407:GLU:OE1	2.44	0.47
60:IC:179:VAL:HG12	59:ID:258:ASN:OD1	2.14	0.47
59:ID:181:VAL:HG22	60:IE:347:ASN:O	2.15	0.47
60:IF:117:LEU:HD11	60:IF:154:LYS:HG2	1.97	0.47
60:IU:249:ASP:OD1	60:IU:250:LEU:N	2.47	0.47
60:IW:344:TRP:HB3	60:IW:430:ILE:HD11	1.95	0.47
59:IX:176:GLN:N	59:IX:176:GLN:OE1	2.48	0.47
60:JA:132:GLY:HA3	60:JA:163:ILE:HG13	1.96	0.47
59:JD:268:VAL:HG21	59:JD:378:ILE:HB	1.96	0.47
60:JE:327:ASP:OD1	60:JE:328:GLU:N	2.48	0.47
59:JF:251:ASP:OD1	59:JF:252:LEU:N	2.48	0.47
60:JT:4:ILE:HB	60:JT:50:TYR:HE1	1.78	0.47
60:JZ:32:PRO:HG3	60:JZ:81:TYR:CE1	2.49	0.47
60:KE:132:GLY:HA3	60:KE:163:ILE:HG13	1.97	0.47
59:KN:441:ASP:OD1	59:KN:441:ASP:N	2.45	0.47
60:KO:139:LEU:HD12	60:KO:170:ILE:HD13	1.96	0.47
60:KZ:73:MET:HA	60:KZ:76:VAL:HG12	1.96	0.47
1:0B:106:PRO:HB2	1:0B:107:GLU:OE1	2.14	0.47
1:0C:359:ASP:O	1:0C:362:THR:OG1	2.32	0.47
2:0E:273:ARG:NH1	2:0E:275:TYR:OH	2.48	0.47
3:0F:79:ASP:OD1	3:0F:80:ASP:N	2.48	0.47
3:0F:108:MET:HG2	3:0F:119:VAL:HG22	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:0G:422:ILE:HG12	12:0U:341:VAL:O	2.15	0.47
5:0H:79:GLN:O	5:0H:83:MET:HG3	2.15	0.47
6:0M:264:THR:HA	6:0M:267:ARG:CZ	2.45	0.47
7:0P:223:ASP:OD1	7:0P:224:GLU:N	2.47	0.47
27:1K:11:ASN:OD1	27:1K:19:ARG:NH1	2.48	0.47
27:1L:358:SER:HA	27:1L:361:PHE:CE2	2.50	0.47
28:1M:386:THR:HA	28:1M:389:ARG:HD2	1.97	0.47
30:1S:141:VAL:HB	30:1S:178:ARG:HD2	1.96	0.47
33:2B:530:ASN:HA	33:2B:547:GLY:H	1.80	0.47
36:2J:159:SER:N	59:EP:433:GLU:OE2	2.48	0.47
36:2K:158:ARG:HD2	59:EL:433:GLU:OE2	2.14	0.47
39:2P:452:ARG:NH1	39:2P:476:MET:O	2.47	0.47
42:3H:55:ASP:OD1	42:3H:55:ASP:N	2.48	0.47
42:3N:14:ASP:OD1	42:3N:14:ASP:N	2.48	0.47
47:3V:235:ARG:CZ	48:3Y:247:LEU:HB3	2.44	0.47
47:3W:247:ILE:CG1	59:HK:84:ARG:HH21	2.27	0.47
48:3Y:157:LEU:HA	48:3Y:160:VAL:HG22	1.97	0.47
51:4H:63:GLU:OE2	51:4H:66:ARG:NH2	2.41	0.47
54:4M:148:ARG:HH12	54:4M:149:LEU:HB3	1.80	0.47
54:4N:121:ARG:HH22	59:II:159:VAL:HG22	1.80	0.47
60:AB:145:SER:HB2	60:AB:188:SER:OG	2.15	0.47
60:AD:153:SER:HA	60:AD:195:ASN:HD22	1.78	0.47
59:AO:167:LEU:HD22	59:AO:200:VAL:HB	1.96	0.47
60:AR:3:GLU:N	60:AR:3:GLU:OE1	2.48	0.47
60:AT:137:HIS:O	60:AT:168:SER:HA	2.15	0.47
60:AT:213:ARG:NH1	60:AT:297:LYS:HG2	2.24	0.47
59:AU:275:VAL:HG23	59:AU:368:LEU:HD21	1.97	0.47
60:AV:164:MET:HE3	60:AV:196:SER:HA	1.96	0.47
60:AV:178:THR:OG1	60:AV:181:GLU:HG3	2.15	0.47
60:AX:371:ASN:O	60:AX:374:ILE:HG12	2.14	0.47
60:BF:203:ASP:HB3	60:BF:205:GLU:HG2	1.97	0.47
59:BG:224:TYR:CZ	60:BH:323:THR:HG21	2.50	0.47
59:BI:120:ASP:HA	59:BI:123:ARG:HD2	1.95	0.47
60:BJ:100:ASN:HB3	60:BJ:103:LYS:HD3	1.97	0.47
60:BL:237:THR:OG1	60:BL:240:LEU:HD12	2.14	0.47
60:BL:404:ASP:HB3	60:BL:407:GLU:OE1	2.15	0.47
60:BN:249:ASP:OD1	60:BN:250:LEU:N	2.47	0.47
60:BP:99:ASN:O	60:BP:99:ASN:ND2	2.48	0.47
59:BQ:215:ARG:HH12	59:BQ:299:ALA:HB1	1.79	0.47
59:BU:221:ARG:NH1	60:BV:325:GLU:OE2	2.48	0.47
60:BV:252:LYS:HA	60:BV:255:VAL:HG12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BV:378:PHE:HA	60:BV:381:VAL:HG22	1.97	0.47
60:BY:287:PRO:HA	60:BY:290:THR:HG22	1.97	0.47
59:BZ:167:LEU:HD22	59:BZ:200:VAL:HB	1.97	0.47
60:CA:130:LEU:O	60:CA:162:ARG:NH1	2.47	0.47
59:CB:238:LEU:HG	59:CB:255:PHE:HE2	1.79	0.47
59:CF:401:LYS:HZ3	60:CG:430:ILE:HD13	1.80	0.47
60:CI:167:PHE:HE2	60:CI:233:VAL:HG22	1.80	0.47
59:CJ:50:ASN:O	59:CJ:64:ARG:NH1	2.48	0.47
59:CQ:271:SER:OG	59:CQ:301:MET:HG2	2.15	0.47
59:CS:192:HIS:ND1	59:CS:424:ASP:OD2	2.43	0.47
60:CT:68:LEU:HD12	60:CT:97:ALA:HB2	1.95	0.47
59:CU:52:PHE:CZ	59:CU:239:THR:HG21	2.50	0.47
60:CX:86:ARG:HB3	60:CX:89:ASN:HD22	1.79	0.47
60:CX:209:ASP:HB3	60:CX:213:ARG:NH2	2.30	0.47
60:DB:3:GLU:OE2	60:DB:127:CYS:HB3	2.15	0.47
59:DC:150:GLY:O	59:DC:154:LEU:HG	2.14	0.47
59:DG:102:ASN:HB3	59:DG:105:ARG:HB2	1.97	0.47
59:DM:174:SER:OG	59:DM:207:GLU:HB2	2.15	0.47
60:DP:103:LYS:HG2	60:DP:108:GLU:OE1	2.15	0.47
60:DR:203:ASP:OD2	60:DR:377:MET:HE2	2.14	0.47
59:DZ:100:ALA:HA	60:EA:252:LYS:HG2	1.97	0.47
59:EB:430:LYS:O	59:EB:434:GLU:HG3	2.15	0.47
60:EC:249:ASP:OD1	60:EC:250:LEU:N	2.47	0.47
60:EI:318:ARG:HE	60:EI:358:PRO:HD3	1.78	0.47
59:EL:46:ASP:OD1	59:EL:47:ASP:N	2.48	0.47
60:EQ:35:THR:OG1	60:EQ:58:ARG:NH2	2.48	0.47
60:EY:398:TYR:HD2	60:EY:403:MET:HE3	1.80	0.47
60:FC:15:GLN:NE2	64:FC:501:GDP:O6	2.47	0.47
60:FC:293:MET:HG3	60:FC:367:PHE:HB2	1.96	0.47
60:FE:344:TRP:HB3	60:FE:430:ILE:HD11	1.96	0.47
60:FI:170:ILE:HD13	60:FI:201:CYS:HB3	1.97	0.47
60:FM:81:TYR:O	60:FM:84:ILE:HG12	2.14	0.47
60:FQ:22:GLU:HG2	60:FQ:81:TYR:CD2	2.50	0.47
59:FR:251:ASP:OD1	59:FR:252:LEU:N	2.48	0.47
59:FU:388:PHE:HA	59:FU:391:ILE:HG22	1.97	0.47
60:FV:238:CYS:SG	60:FV:239:CYS:N	2.88	0.47
59:FY:172:TYR:HB3	59:FY:173:PRO:HD2	1.97	0.47
60:GB:237:THR:OG1	60:GB:241:ARG:NH1	2.48	0.47
59:GC:196:GLU:HG3	59:GC:197:HIS:ND1	2.30	0.47
60:GD:256:ASN:O	60:GD:312:THR:HG21	2.15	0.47
59:GE:270:THR:HG22	59:GE:378:ILE:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GH:52:PHE:CZ	59:GH:239:THR:HG21	2.50	0.47
60:GK:2:ARG:N	60:GK:129:CYS:HG	2.11	0.47
60:GK:73:MET:HA	60:GK:76:VAL:HG22	1.97	0.47
60:GM:390:ARG:HH12	59:GN:441:ASP:HB2	1.79	0.47
59:GP:2:ARG:HG3	59:GP:3:GLU:OE1	2.14	0.47
60:GQ:344:TRP:HB3	60:GQ:430:ILE:HD11	1.96	0.47
60:GS:398:TYR:HB3	60:GS:403:MET:CE	2.45	0.47
59:GY:442:MET:O	59:GY:443:ASP:C	2.52	0.47
59:HG:31:GLN:NE2	59:HG:37:PRO:HD3	2.29	0.47
59:HI:358:GLN:OE1	59:HI:359:PRO:HD2	2.14	0.47
60:HJ:304:ASP:OD1	60:HJ:304:ASP:N	2.47	0.47
60:HR:293:MET:HG3	60:HR:367:PHE:HB2	1.97	0.47
60:HR:313:ALA:HB3	60:HR:349:ILE:HD13	1.96	0.47
60:HR:344:TRP:HB3	60:HR:430:ILE:HD11	1.97	0.47
60:HS:135:ILE:HG12	60:HS:166:THR:HG22	1.96	0.47
59:HT:24:PHE:HA	59:HT:27:GLU:HG2	1.96	0.47
59:HV:73:THR:HG21	60:HW:247:ASN:ND2	2.30	0.47
60:HW:175:VAL:HG11	59:HX:332:VAL:HG13	1.97	0.47
59:HX:195:LEU:HD12	59:HX:264:ARG:HD2	1.96	0.47
60:HY:67:ASP:O	60:HY:92:PHE:HA	2.15	0.47
59:HZ:21:TRP:CZ2	59:HZ:65:ALA:HB2	2.49	0.47
59:HZ:261:PRO:HD2	59:HZ:262:TYR:H	1.80	0.47
59:IG:81:GLY:O	59:IG:84:ARG:NH2	2.47	0.47
59:IG:262:TYR:HB2	59:IG:265:ILE:CD1	2.45	0.47
60:IH:86:ARG:CZ	60:IU:282:ARG:HH21	2.27	0.47
60:IL:103:LYS:NZ	60:IL:401:GLU:OE2	2.42	0.47
60:IL:151:LEU:O	60:IL:155:LEU:HG	2.14	0.47
59:IM:105:ARG:O	59:IM:110:ILE:HG12	2.14	0.47
59:IO:221:ARG:HB3	60:IP:322:SER:HB3	1.97	0.47
59:IO:259:LEU:HD21	59:IO:316:CYS:HB2	1.97	0.47
59:IT:214:ARG:HG3	60:IU:324:LYS:NZ	2.29	0.47
60:IU:171:PRO:HB3	60:IU:181:GLU:OE1	2.15	0.47
60:IW:206:ALA:O	60:IW:210:ILE:HG12	2.15	0.47
60:IY:81:TYR:CE2	60:IY:84:ILE:HD13	2.49	0.47
59:IZ:216:ASN:HD22	59:IZ:275:VAL:HG13	1.80	0.47
60:JA:3:GLU:HG3	60:JA:127:CYS:SG	2.55	0.47
60:JG:173:PRO:HB3	60:JG:380:ARG:HE	1.79	0.47
60:JG:229:VAL:O	60:JG:233:VAL:HG23	2.15	0.47
59:JH:137:VAL:HG23	59:JH:168:GLY:HA2	1.95	0.47
60:JI:238:CYS:HB2	60:JI:318:ARG:NH1	2.30	0.47
60:JI:249:ASP:OD1	60:JI:250:LEU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JM:3:GLU:HG3	60:JM:127:CYS:SG	2.55	0.47
60:JM:179:VAL:HG23	60:JM:180:VAL:HG13	1.96	0.47
59:JQ:270:THR:HG22	59:JQ:378:ILE:HG22	1.96	0.47
60:JR:309:ARG:NH2	60:JR:341:PHE:O	2.47	0.47
60:JV:27:GLU:HA	60:JV:359:LYS:HZ1	1.77	0.47
59:JW:2:ARG:HG3	59:JW:3:GLU:OE1	2.14	0.47
59:JW:250:VAL:HA	59:JW:254:GLU:OE2	2.14	0.47
59:KC:203:MET:SD	59:KC:203:MET:N	2.88	0.47
59:KC:297:GLU:CD	59:KC:299:ALA:H	2.18	0.47
59:KF:269:LEU:HD22	59:KF:303:THR:HG21	1.96	0.47
60:KG:178:THR:OG1	60:KG:181:GLU:HG3	2.15	0.47
60:KG:385:PHE:HE2	60:KG:412:GLU:HB2	1.80	0.47
59:KJ:2:ARG:HG3	59:KJ:3:GLU:H	1.78	0.47
60:KK:67:ASP:OD1	60:KK:68:LEU:N	2.48	0.47
60:KK:329:GLN:O	60:KK:333:VAL:HG23	2.15	0.47
60:KO:174:LYS:HG2	60:KO:175:VAL:HG13	1.96	0.47
60:KR:287:PRO:N	60:KR:329:GLN:HE22	2.13	0.47
60:KV:86:ARG:HH11	60:KV:86:ARG:HG2	1.78	0.47
60:KX:193:VAL:HG22	60:KX:265:PHE:HZ	1.79	0.47
60:KZ:73:MET:HE3	60:KZ:92:PHE:HB3	1.96	0.47
1:0A:514:GLU:OE2	1:0A:523:SER:OG	2.30	0.47
1:0C:716:LEU:HD11	1:0C:732:VAL:HG11	1.96	0.47
1:0D:96:ARG:H	1:0D:187:THR:HG21	1.79	0.47
2:0E:310:THR:HG23	2:0E:311:THR:HG22	1.95	0.47
4:0G:303:VAL:HG13	4:0G:316:ILE:HG23	1.97	0.47
31:1U:109:ASP:OD1	31:1U:109:ASP:N	2.48	0.47
32:2A:65:PRO:HA	32:2A:153:ARG:HH22	1.79	0.47
41:2Y:316:ARG:HA	41:2Y:319:ASN:HD21	1.80	0.47
42:3N:34:LYS:HB3	42:3N:34:LYS:HE3	1.40	0.47
54:4M:106:VAL:HG22	60:IP:392:LYS:HE2	1.97	0.47
54:4O:25:ARG:NH2	54:4O:32:GLU:OE2	2.42	0.47
54:4O:33:ARG:HD2	54:4O:36:ARG:HH21	1.80	0.47
60:AH:3:GLU:OE2	60:AH:127:CYS:HB3	2.15	0.47
59:AO:443:ASP:OD1	59:AO:443:ASP:N	2.48	0.47
60:AP:99:ASN:O	60:AP:99:ASN:ND2	2.48	0.47
59:AQ:395:PHE:HE2	59:AQ:422:ARG:HB2	1.80	0.47
59:BA:179:THR:HG21	62:BA:501:GTP:H3'	1.96	0.47
59:BC:223:THR:OG1	59:BC:224:TYR:N	2.46	0.47
59:BK:251:ASP:OD1	59:BK:252:LEU:N	2.48	0.47
60:BN:12:CYS:SG	60:BN:13:GLY:N	2.88	0.47
60:BN:68:LEU:HD13	60:BN:143:THR:OG1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BR:10:GLY:O	60:BR:14:ASN:ND2	2.41	0.47
59:CD:326:LYS:HA	59:CD:329:ASN:HD21	1.80	0.47
59:CF:27:GLU:OE2	59:CF:243:ARG:NH1	2.44	0.47
59:CH:443:ASP:OD1	59:CH:443:ASP:N	2.46	0.47
59:CM:96:LYS:HD2	59:CM:96:LYS:HA	1.66	0.47
60:CN:292:GLN:HG2	60:CN:298:ASN:ND2	2.30	0.47
59:DC:2:ARG:HG3	59:DC:3:GLU:OE1	2.14	0.47
59:DC:252:LEU:HA	59:DC:255:PHE:CD2	2.50	0.47
59:DG:296:PHE:CE2	59:DG:335:ILE:HD13	2.50	0.47
60:DH:8:GLN:OE1	60:DH:17:GLY:HA3	2.15	0.47
59:DK:264:ARG:NH2	59:DK:431:ASP:OD2	2.41	0.47
60:DN:163:ILE:HD11	60:DN:251:ARG:HB2	1.96	0.47
60:DT:145:SER:HB3	60:DT:188:SER:OG	2.15	0.47
60:EO:52:ASP:HB3	60:EO:60:VAL:HG23	1.96	0.47
59:ER:2:ARG:HG3	59:ER:3:GLU:OE1	2.14	0.47
59:FN:362:VAL:HG21	59:FN:370:LYS:HD2	1.96	0.47
59:GE:192:HIS:HE1	59:GE:420:GLU:HG2	1.80	0.47
60:GF:211:CYS:SG	60:GF:220:PRO:HB3	2.55	0.47
60:GM:45:GLU:CD	60:GM:46:ARG:HH21	2.18	0.47
60:GV:167:PHE:HE2	60:GV:233:VAL:HG13	1.80	0.47
59:GY:133:GLN:HA	59:GY:164:LYS:NZ	2.30	0.47
59:HA:69:ASP:OD1	59:HA:70:LEU:N	2.48	0.47
59:HA:258:ASN:HD22	59:HA:352:LYS:HD2	1.80	0.47
59:HC:265:ILE:HG23	59:HC:432:TYR:OH	2.15	0.47
59:HE:122:ILE:HD13	59:HE:157:LEU:HD21	1.96	0.47
59:HM:427:ALA:HA	59:HM:430:LYS:HG3	1.97	0.47
60:HN:22:GLU:HG2	60:HN:81:TYR:CD1	2.49	0.47
60:HW:178:THR:HB	60:HW:181:GLU:HG3	1.97	0.47
59:HX:442:MET:HB3	59:HX:443:ASP:H	1.58	0.47
59:HZ:296:PHE:CE2	59:HZ:335:ILE:HD13	2.49	0.47
60:IN:130:LEU:HB3	60:IN:162:ARG:HH12	1.79	0.47
60:IU:63:SER:O	60:IU:89:ASN:ND2	2.46	0.47
60:IU:273:LEU:HD12	60:IU:298:ASN:HD21	1.80	0.47
60:IU:287:PRO:HA	60:IU:290:THR:HG22	1.97	0.47
60:JC:326:VAL:O	60:JC:330:MET:HG2	2.15	0.47
59:JD:220:GLU:HB3	59:JD:221:ARG:NH1	2.30	0.47
59:JN:210:TYR:HB3	60:JO:324:LYS:NZ	2.30	0.47
60:JX:324:LYS:NZ	60:JX:328:GLU:HG3	2.30	0.47
60:JZ:213:ARG:HD2	60:JZ:297:LYS:HG2	1.96	0.47
60:KE:201:CYS:HB2	60:KE:301:GLN:HE22	1.79	0.47
60:KG:268:MET:HE2	60:KG:368:ILE:HG13	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KI:3:GLU:OE2	60:KI:127:CYS:HB3	2.14	0.47
60:KM:176:SER:OG	59:KN:349:THR:OG1	2.25	0.47
59:KN:180:ALA:HB3	59:KN:183:GLU:HG3	1.96	0.47
59:KQ:195:LEU:HD11	59:KQ:428:LEU:HD13	1.97	0.47
59:KQ:286:LEU:O	59:KQ:373:ARG:NH1	2.47	0.47
60:KX:8:GLN:OE1	60:KX:17:GLY:HA3	2.15	0.47
60:KZ:230:SER:HA	60:KZ:233:VAL:HG12	1.97	0.47
2:0E:212:LEU:HA	2:0E:215:ILE:HG22	1.97	0.47
7:0P:387:GLU:O	7:0P:390:ARG:HG3	2.15	0.47
17:0Z:389:LEU:HG	17:0Z:468:THR:HG22	1.96	0.47
18:1A:112:LYS:NZ	18:1A:189:SER:O	2.47	0.47
26:1I:104:GLU:OE1	60:FG:77:ARG:NH2	2.48	0.47
33:2B:549:LYS:HZ1	39:2O:99:GLU:HA	1.80	0.47
33:2D:115:ALA:HB1	33:2D:160:VAL:HG12	1.96	0.47
37:2M:15:ASP:N	37:2M:15:ASP:OD1	2.45	0.47
39:2R:392:GLU:O	39:2R:395:ARG:HG3	2.15	0.47
40:2T:399:PRO:HG2	40:2T:402:ILE:HG12	1.97	0.47
42:3N:42:THR:O	42:3N:46:GLU:HB3	2.14	0.47
44:3R:170:THR:OG1	60:JZ:355:ASP:OD2	2.32	0.47
48:3Z:189:HIS:HA	48:3Z:191:ARG:HH11	1.79	0.47
57:4R:80:GLY:H	59:GE:430:LYS:NZ	2.12	0.47
60:AB:292:GLN:HG2	60:AB:298:ASN:ND2	2.30	0.47
60:AD:257:LEU:HA	60:AD:312:THR:HG21	1.96	0.47
60:AP:175:VAL:HG11	59:AQ:329:ASN:HB3	1.97	0.47
60:AP:201:CYS:O	60:AP:202:ILE:HD13	2.15	0.47
60:AP:289:LEU:HD11	60:AP:363:MET:HG3	1.96	0.47
59:AU:19:ALA:HA	59:AU:22:GLU:HG2	1.97	0.47
60:AV:173:PRO:HA	60:AV:380:ARG:NH2	2.30	0.47
59:AY:129:CYS:SG	59:AY:131:GLY:N	2.88	0.47
59:AY:239:THR:HG22	59:AY:243:ARG:NH1	2.30	0.47
59:BA:285:GLN:HB3	59:BM:56:THR:HA	1.97	0.47
60:BF:73:MET:HA	60:BF:76:VAL:HG22	1.97	0.47
59:BZ:188:VAL:O	59:BZ:191:THR:HG22	2.15	0.47
59:CF:269:LEU:HG	59:CF:301:MET:HE1	1.97	0.47
60:CG:20:PHE:O	60:CG:23:VAL:HG12	2.15	0.47
59:CH:251:ASP:OD1	59:CH:252:LEU:N	2.48	0.47
60:CI:229:VAL:O	60:CI:233:VAL:HG23	2.14	0.47
60:CN:284:LEU:HB2	60:CN:362:LYS:HD3	1.97	0.47
60:CN:375:GLN:NE2	60:CN:423:GLN:OE1	2.47	0.47
60:CP:8:GLN:HE22	60:CP:21:TRP:HE1	1.62	0.47
59:CQ:286:LEU:O	59:CQ:373:ARG:NH1	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CV:66:ILE:HD12	60:CV:147:MET:SD	2.55	0.47
59:DE:44:VAL:HG13	59:DE:244:PHE:HE1	1.80	0.47
59:DI:297:GLU:HG2	59:DI:299:ALA:H	1.79	0.47
59:DM:2:ARG:HG3	59:DM:3:GLU:OE1	2.15	0.47
59:DM:203:MET:O	59:DM:303:THR:OG1	2.33	0.47
59:DQ:288:VAL:HB	59:DQ:327:ASP:HB3	1.97	0.47
60:EO:27:GLU:O	60:EO:43:GLN:NE2	2.46	0.47
60:ES:198:GLU:HG2	60:ES:266:PHE:HE2	1.80	0.47
59:EX:291:ILE:O	59:EX:295:VAL:HG23	2.14	0.47
60:EY:404:ASP:HB3	60:EY:407:GLU:OE1	2.15	0.47
59:FD:413:MET:HB2	59:FD:413:MET:HE3	1.77	0.47
59:FF:2:ARG:HG3	59:FF:3:GLU:OE1	2.15	0.47
60:FK:178:THR:OG1	60:FK:181:GLU:HG3	2.15	0.47
60:FO:391:ARG:HA	60:FO:391:ARG:HD2	1.77	0.47
59:FP:105:ARG:HA	59:FP:109:THR:HG22	1.97	0.47
59:FU:334:THR:O	59:FU:337:THR:OG1	2.29	0.47
59:GL:328:VAL:HG21	59:GL:355:ILE:HD11	1.95	0.47
60:GM:421:GLU:HA	60:GM:424:GLN:HG2	1.97	0.47
59:GN:392:ASP:OD1	59:GN:425:LEU:HD23	2.15	0.47
60:GO:167:PHE:CD2	60:GO:233:VAL:HG22	2.50	0.47
59:GP:398:MET:SD	60:GQ:346:PRO:HD2	2.55	0.47
60:HD:238:CYS:HB2	60:HD:318:ARG:HH21	1.79	0.47
60:HH:25:SER:HB2	60:HH:81:TYR:HE2	1.80	0.47
60:HL:175:VAL:HG21	59:HM:332:VAL:HG11	1.97	0.47
60:HN:232:VAL:HG21	60:HN:268:MET:HG2	1.96	0.47
60:HN:244:GLY:HA2	60:HN:355:ASP:OD1	2.15	0.47
59:HQ:271:SER:OG	59:HQ:301:MET:HG2	2.14	0.47
60:HR:376:GLU:HG2	60:HR:379:ARG:HH21	1.79	0.47
60:HU:74:ASP:HA	60:HU:77:ARG:HD3	1.97	0.47
60:HU:374:ILE:O	60:HU:377:MET:HG2	2.15	0.47
59:HV:362:VAL:HG21	59:HV:370:LYS:HB3	1.96	0.47
60:IL:179:VAL:HG13	60:IL:180:VAL:HG13	1.96	0.47
59:IQ:296:PHE:CE2	59:IQ:335:ILE:HD13	2.50	0.47
60:IR:289:LEU:O	60:IR:293:MET:HB2	2.15	0.47
59:IT:2:ARG:HH11	59:IT:130:THR:HG23	1.80	0.47
59:IX:174:SER:HA	59:IX:205:ASP:OD2	2.15	0.47
59:JB:180:ALA:O	59:JB:183:GLU:HG3	2.14	0.47
59:JD:260:VAL:HG23	59:JD:265:ILE:O	2.15	0.47
60:JG:254:ALA:O	60:JG:258:VAL:HG22	2.15	0.47
59:JJ:54:SER:HB3	59:JJ:64:ARG:HH21	1.77	0.47
59:JJ:221:ARG:HH22	60:JK:321:MET:HA	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JJ:270:THR:HG22	59:JJ:378:ILE:HG22	1.95	0.47
60:JO:271:ALA:O	60:JO:292:GLN:HG2	2.15	0.47
60:JT:67:ASP:OD1	60:JT:68:LEU:N	2.47	0.47
60:JT:181:GLU:HA	60:JT:184:ASN:HD21	1.78	0.47
60:JZ:108:GLU:OE1	60:JZ:108:GLU:N	2.48	0.47
60:KI:201:CYS:HB2	60:KI:301:GLN:HE22	1.80	0.47
59:KL:269:LEU:HD22	59:KL:303:THR:HG21	1.97	0.47
59:KP:312:TYR:HD1	59:KP:381:SER:HB2	1.79	0.47
59:LA:96:LYS:CD	59:LA:97:GLU:HG3	2.44	0.47
3:0F:521:GLU:HG3	3:0F:525:HIS:CE1	2.50	0.47
4:0G:220:TRP:CD2	4:0G:221:PRO:HD2	2.50	0.47
30:1S:118:TYR:OH	59:KS:127:ASP:OD2	2.33	0.47
32:1Y:92:THR:HB	32:1Y:153:ARG:HB3	1.97	0.47
33:2B:427:ALA:HB3	33:2B:440:GLY:H	1.80	0.47
33:2D:427:ALA:HB3	33:2D:440:GLY:H	1.79	0.47
39:2Q:128:MET:HA	39:2Q:131:ILE:HG22	1.97	0.47
39:2R:379:GLU:O	39:2R:383:ILE:HD12	2.14	0.47
42:3H:6:THR:HG23	42:3H:9:SER:H	1.79	0.47
42:3L:48:VAL:O	42:3L:50:LYS:N	2.48	0.47
42:3M:145:THR:HG22	60:HN:320:ARG:NH1	2.30	0.47
42:3O:251:HIS:ND1	42:3P:30:CYS:SG	2.84	0.47
47:3X:46:TYR:CE1	47:3X:52:LEU:HD13	2.49	0.47
47:3X:56:LYS:NZ	47:3X:119:GLU:O	2.48	0.47
48:4A:215:VAL:HA	48:4A:218:GLN:NE2	2.30	0.47
53:4K:130:SER:HB2	60:JO:336:LYS:NZ	2.30	0.47
60:AF:237:THR:HG23	60:AF:241:ARG:HH12	1.80	0.47
60:AN:284:LEU:HD12	60:AN:289:LEU:HD21	1.97	0.47
60:AR:305:PRO:HA	60:AR:371:ASN:HD21	1.79	0.47
59:AW:101:ASN:ND2	60:AX:256:ASN:HD21	2.13	0.47
60:AX:292:GLN:HG2	60:AX:298:ASN:HD22	1.80	0.47
59:AY:52:PHE:CZ	59:AY:239:THR:HG21	2.49	0.47
59:BC:251:ASP:OD1	59:BC:252:LEU:N	2.49	0.47
59:BG:287:SER:N	59:BG:290:GLU:OE2	2.31	0.47
59:BK:195:LEU:HD21	59:BK:264:ARG:NH1	2.30	0.47
60:BL:385:PHE:HZ	60:BL:408:PHE:HD2	1.63	0.47
60:BN:260:PHE:HB2	60:BN:263:LEU:HD13	1.96	0.47
60:BP:175:VAL:HG21	59:BQ:329:ASN:HB3	1.96	0.47
60:CE:22:GLU:HG2	60:CE:81:TYR:CD1	2.50	0.47
59:CH:401:LYS:HZ3	60:CI:430:ILE:HD13	1.80	0.47
59:CJ:24:PHE:HA	59:CJ:27:GLU:HG2	1.96	0.47
59:CQ:2:ARG:HG3	59:CQ:3:GLU:OE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CQ:181:VAL:HG12	60:CR:347:ASN:O	2.15	0.47
60:CV:330:MET:HA	60:CV:333:VAL:HG12	1.97	0.47
60:DJ:219:THR:HA	59:DK:326:LYS:HZ3	1.78	0.47
60:DN:213:ARG:NH1	60:DN:297:LYS:HG2	2.30	0.47
60:DW:68:LEU:HD13	60:DW:143:THR:OG1	2.14	0.47
59:DZ:2:ARG:HG3	59:DZ:3:GLU:H	1.80	0.47
60:EG:22:GLU:HG2	60:EG:81:TYR:CD1	2.50	0.47
60:EI:22:GLU:HG2	60:EI:81:TYR:CD1	2.49	0.47
59:EL:184:PRO:HG2	59:EL:398:MET:HE1	1.96	0.47
60:EM:291:GLN:OE1	60:EY:122:LYS:NZ	2.48	0.47
60:EO:391:ARG:NH2	59:EP:439:SER:OG	2.47	0.47
59:EV:2:ARG:HG3	59:EV:3:GLU:OE1	2.14	0.47
59:FD:123:ARG:HH21	59:FD:161:TYR:HE1	1.61	0.47
59:FD:215:ARG:NH1	59:FD:299:ALA:HB1	2.30	0.47
59:FL:251:ASP:OD1	59:FL:252:LEU:N	2.48	0.47
59:FP:46:ASP:OD1	59:FP:47:ASP:N	2.42	0.47
59:GP:145:THR:HG23	59:GP:149:LEU:HD12	1.97	0.47
59:GT:333:ALA:O	59:GT:337:THR:HG23	2.15	0.47
59:GY:427:ALA:HA	59:GY:430:LYS:HG3	1.97	0.47
60:HH:19:LYS:O	60:HH:22:GLU:HB2	2.13	0.47
59:HI:222:PRO:HD2	60:HJ:324:LYS:HE2	1.97	0.47
59:HK:250:VAL:HA	59:HK:254:GLU:OE2	2.13	0.47
60:HL:73:MET:HA	60:HL:76:VAL:HG22	1.96	0.47
59:HO:291:ILE:O	59:HO:295:VAL:HG23	2.14	0.47
59:HQ:101:ASN:H	60:HR:252:LYS:NZ	2.10	0.47
60:HS:132:GLY:HA3	60:HS:163:ILE:O	2.15	0.47
60:HY:268:MET:HE1	60:HY:368:ILE:HA	1.97	0.47
59:HZ:105:ARG:HH21	60:IA:251:ARG:HH12	1.63	0.47
60:IS:68:LEU:HD13	60:IS:143:THR:OG1	2.15	0.47
59:IV:203:MET:HE1	59:IV:267:PHE:HB3	1.97	0.47
59:JP:225:THR:O	59:JP:229:ARG:HG3	2.15	0.47
59:JS:120:ASP:HA	59:JS:123:ARG:HG2	1.97	0.47
60:KM:404:ASP:HB3	60:KM:407:GLU:OE1	2.15	0.47
59:KP:218:ASP:OD2	59:KP:280:LYS:NZ	2.37	0.47
59:KS:175:PRO:HB3	59:KS:390:ARG:HH11	1.80	0.47
59:KU:175:PRO:HB3	59:KU:390:ARG:NH1	2.30	0.47
59:KW:262:TYR:HB2	59:KW:265:ILE:CD1	2.45	0.47
60:KX:201:CYS:HB2	60:KX:301:GLN:NE2	2.30	0.47
2:0E:773:CYS:HA	2:0E:776:GLN:HE21	1.80	0.46
3:0F:97:SER:HA	60:DP:360:GLY:HA3	1.95	0.46
27:1K:117:GLN:O	27:1K:120:ARG:NH1	2.32	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1W:141:ARG:NH2	32:1W:147:ASN:OD1	2.47	0.46
34:2E:61:VAL:HG21	59:FD:109:THR:HG23	1.98	0.46
35:2G:35:PRO:HB2	59:EJ:304:LYS:HE3	1.97	0.46
36:2K:135:LEU:HD21	60:EK:412:GLU:HG3	1.96	0.46
39:2R:307:ARG:HH21	59:JQ:362:VAL:HG12	1.80	0.46
45:3S:100:VAL:H	60:KX:362:LYS:NZ	2.13	0.46
48:3Y:84:ASP:OD1	48:3Y:84:ASP:N	2.47	0.46
48:4A:109:VAL:HG22	48:4A:110:THR:HG23	1.97	0.46
54:4N:178:ARG:NH1	54:4N:182:GLU:HB3	2.29	0.46
60:AJ:73:MET:HA	60:AJ:76:VAL:HG12	1.97	0.46
60:AJ:263:LEU:HD11	60:AJ:425:TYR:CD2	2.49	0.46
60:AP:262:ARG:NE	60:AP:421:GLU:OE1	2.43	0.46
60:AV:73:MET:HE3	60:AV:90:PHE:HD2	1.80	0.46
60:AX:137:HIS:O	60:AX:168:SER:HA	2.15	0.46
60:AZ:170:ILE:HG13	60:AZ:171:PRO:HD2	1.97	0.46
59:BK:296:PHE:CE2	59:BK:335:ILE:HD13	2.50	0.46
60:BN:284:LEU:HD21	60:BN:363:MET:HG2	1.97	0.46
59:BQ:31:GLN:HG2	59:BQ:37:PRO:HD3	1.97	0.46
60:BR:260:PHE:HB2	60:BR:263:LEU:HD13	1.95	0.46
60:BT:334:GLN:HE21	60:BT:349:ILE:HG13	1.80	0.46
59:CJ:225:THR:O	59:CJ:229:ARG:HG3	2.15	0.46
60:CP:274:THR:CG2	60:CP:282:ARG:HH21	2.27	0.46
60:CT:189:VAL:O	60:CT:193:VAL:HG23	2.15	0.46
60:DF:322:SER:HB3	60:DF:325:GLU:OE1	2.15	0.46
60:DL:172:SER:HB3	60:DL:175:VAL:HB	1.97	0.46
60:DT:67:ASP:OD1	60:DT:68:LEU:N	2.48	0.46
60:DW:145:SER:HB3	60:DW:188:SER:OG	2.15	0.46
59:ED:46:ASP:OD1	59:ED:47:ASP:N	2.49	0.46
59:EF:392:ASP:OD1	59:EF:425:LEU:HD23	2.15	0.46
59:EN:259:LEU:HD21	59:EN:268:VAL:HG11	1.96	0.46
60:EO:249:ASP:OD1	60:EO:250:LEU:N	2.48	0.46
60:EQ:249:ASP:OD1	60:EQ:250:LEU:N	2.47	0.46
59:EV:187:SER:O	59:EV:191:THR:HG23	2.15	0.46
60:EW:391:ARG:NH2	59:EX:439:SER:OG	2.48	0.46
59:FJ:147:SER:HB2	59:FJ:190:SER:OG	2.16	0.46
59:FP:256:GLN:O	59:FP:260:VAL:HG22	2.14	0.46
60:FQ:193:VAL:HA	60:FQ:264:HIS:HE1	1.79	0.46
60:FQ:404:ASP:HB3	60:FQ:407:GLU:OE1	2.16	0.46
59:FR:283:HIS:CG	59:GE:60:LYS:HZ1	2.33	0.46
60:FV:90:PHE:HB3	60:FV:92:PHE:HE1	1.80	0.46
60:GD:73:MET:CE	60:GD:92:PHE:HB3	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GR:91:GLN:OE1	59:GR:91:GLN:N	2.44	0.46
60:GS:73:MET:HA	60:GS:76:VAL:HG12	1.98	0.46
59:GU:224:TYR:O	59:GU:227:LEU:N	2.48	0.46
60:GZ:86:ARG:CZ	60:HL:282:ARG:HH21	2.28	0.46
59:HE:71:GLU:CD	60:HF:247:ASN:HD21	2.18	0.46
60:HJ:263:LEU:HD11	60:HJ:425:TYR:HD2	1.80	0.46
59:HM:294:ALA:O	59:HM:297:GLU:HG2	2.14	0.46
60:HP:326:VAL:O	60:HP:330:MET:HG2	2.15	0.46
59:HQ:101:ASN:HB3	59:HQ:182:VAL:HG21	1.97	0.46
59:HQ:212:LEU:HD21	59:HQ:275:VAL:HG11	1.97	0.46
60:HR:27:GLU:OE1	60:HR:241:ARG:NH2	2.39	0.46
60:HS:170:ILE:HD12	60:HS:201:CYS:HB3	1.97	0.46
60:HS:318:ARG:NH1	60:HS:358:PRO:HG3	2.30	0.46
59:HZ:5:ILE:HD12	59:HZ:125:LEU:HD21	1.96	0.46
59:II:27:GLU:HB2	59:II:361:THR:HG21	1.96	0.46
59:II:79:ARG:NH2	59:II:92:LEU:O	2.42	0.46
60:IP:7:VAL:HB	60:IP:135:ILE:HG13	1.96	0.46
60:IP:211:CYS:SG	60:IP:217:LEU:HD12	2.55	0.46
59:IX:389:ALA:HA	59:IX:392:ASP:OD2	2.16	0.46
60:JC:254:ALA:O	60:JC:258:VAL:HG22	2.15	0.46
60:JE:68:LEU:HD11	60:JE:147:MET:HE1	1.96	0.46
59:JU:402:ARG:NH2	59:JU:415:GLU:HG3	2.30	0.46
59:JW:150:GLY:O	59:JW:154:LEU:HD23	2.15	0.46
60:JZ:289:LEU:O	60:JZ:293:MET:HB2	2.15	0.46
60:JZ:404:ASP:HB3	60:JZ:407:GLU:OE1	2.15	0.46
60:KM:249:ASP:OD1	60:KM:250:LEU:N	2.48	0.46
60:KM:313:ALA:HB3	60:KM:349:ILE:HD13	1.98	0.46
59:KQ:175:PRO:HB3	59:KQ:390:ARG:CZ	2.45	0.46
60:KR:73:MET:HA	60:KR:76:VAL:HG12	1.96	0.46
1:0C:426:MET:HG2	1:0C:440:PHE:HB2	1.98	0.46
5:0K:253:GLU:HG2	60:FC:284:LEU:HD11	1.96	0.46
15:0X:143:GLN:HA	15:0X:146:GLU:HG2	1.96	0.46
22:1E:78:LEU:HD22	60:GD:215:LEU:HD13	1.98	0.46
32:1W:15:TYR:HD1	32:1W:164:ARG:HB3	1.80	0.46
32:1X:90:GLU:OE2	32:1X:92:THR:OG1	2.30	0.46
37:2L:180:LEU:HD23	37:2L:192:VAL:HG21	1.97	0.46
39:2O:162:MET:HG2	60:KO:362:LYS:HG3	1.96	0.46
39:2P:464:VAL:HG23	39:2P:469:CYS:HB3	1.96	0.46
41:2W:298:ARG:NH1	60:IL:56:GLY:O	2.49	0.46
41:3D:217:ARG:O	41:3D:221:ILE:HD12	2.15	0.46
42:3J:48:VAL:O	42:3J:50:LYS:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:3M:179:LEU:O	60:HL:359:LYS:NZ	2.47	0.46
59:AA:291:ILE:O	59:AA:295:VAL:HG23	2.15	0.46
60:AB:73:MET:CE	60:AB:92:PHE:HB3	2.45	0.46
59:AG:128:ASN:HD22	59:AG:128:ASN:C	2.17	0.46
59:AI:241:SER:OG	59:AI:250:VAL:N	2.48	0.46
59:AQ:2:ARG:HG3	59:AQ:3:GLU:OE1	2.14	0.46
59:AS:88:HIS:HB3	59:AS:91:GLN:HG2	1.96	0.46
59:AU:336:LYS:HE2	59:AU:336:LYS:HB2	1.80	0.46
59:AY:88:HIS:CD2	59:AY:89:PRO:HD2	2.50	0.46
59:BE:269:LEU:HD21	59:BE:384:ILE:HG22	1.96	0.46
60:BH:68:LEU:HD13	60:BH:143:THR:OG1	2.14	0.46
59:BO:214:ARG:NH1	59:BO:220:GLU:OE1	2.37	0.46
59:BZ:262:TYR:HD2	59:BZ:265:ILE:HD12	1.79	0.46
60:CE:103:LYS:NZ	60:CE:401:GLU:OE2	2.32	0.46
60:CG:344:TRP:HB3	60:CG:430:ILE:HD11	1.97	0.46
60:CI:270:PHE:HD1	60:CI:366:THR:HG22	1.80	0.46
60:CN:11:GLN:HA	60:CN:72:THR:HG21	1.98	0.46
60:CP:298:ASN:O	60:CP:298:ASN:ND2	2.41	0.46
59:CU:105:ARG:O	59:CU:110:ILE:HG12	2.15	0.46
59:CY:191:THR:OG1	59:CY:425:LEU:HD21	2.15	0.46
60:CZ:212:PHE:HZ	59:DA:326:LYS:HE2	1.80	0.46
59:DM:76:ASP:OD1	59:DM:79:ARG:NH1	2.48	0.46
59:DM:262:TYR:HB3	59:DM:263:PRO:HD2	1.97	0.46
59:DO:250:VAL:HA	59:DO:254:GLU:OE2	2.15	0.46
59:DS:11:GLN:HG3	59:DS:74:VAL:HG21	1.97	0.46
59:DS:177:VAL:HG13	60:DT:327:ASP:HB3	1.97	0.46
59:DU:428:LEU:HD21	59:DU:432:TYR:HE2	1.80	0.46
60:DW:67:ASP:OD1	60:DW:68:LEU:N	2.47	0.46
60:EE:230:SER:HA	60:EE:233:VAL:HG12	1.97	0.46
60:EQ:97:ALA:HB2	60:EQ:143:THR:HB	1.96	0.46
59:EZ:3:GLU:OE2	59:EZ:129:CYS:HB3	2.15	0.46
60:FA:67:ASP:OD1	60:FA:68:LEU:N	2.47	0.46
59:FH:388:PHE:HA	59:FH:391:ILE:HG22	1.98	0.46
60:FS:163:ILE:HD11	60:FS:251:ARG:HB2	1.96	0.46
59:FY:259:LEU:HD21	59:FY:268:VAL:HG11	1.96	0.46
59:GA:117:LEU:O	59:GA:121:ARG:HG2	2.14	0.46
59:GG:11:GLN:HG3	59:GG:74:VAL:HG11	1.97	0.46
60:GQ:103:LYS:HG2	60:GQ:108:GLU:OE1	2.16	0.46
60:GS:167:PHE:CE2	60:GS:233:VAL:HG22	2.50	0.46
59:HI:238:LEU:HD11	59:HI:378:ILE:HD11	1.97	0.46
59:HK:438:GLU:O	59:HK:439:SER:HB2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HR:62:ARG:HG3	60:HR:123:GLU:OE2	2.15	0.46
60:HS:73:MET:HA	60:HS:76:VAL:HG12	1.97	0.46
59:IB:2:ARG:HG3	59:IB:3:GLU:OE1	2.15	0.46
60:IS:113:ILE:HG12	60:IS:117:LEU:HD23	1.98	0.46
59:IV:30:ILE:HD12	59:IV:36:MET:HG2	1.98	0.46
59:JB:206:ASN:OD1	62:JB:501:GTP:N2	2.43	0.46
60:JE:26:ASP:O	60:JE:359:LYS:NZ	2.43	0.46
59:JJ:210:TYR:CD1	60:JK:324:LYS:HE2	2.50	0.46
60:JO:238:CYS:SG	60:JO:318:ARG:HD3	2.55	0.46
60:JO:362:LYS:HD3	60:JO:362:LYS:HA	1.72	0.46
60:JT:208:TYR:HB3	59:JU:326:LYS:HZ2	1.80	0.46
59:JW:269:LEU:O	59:JW:378:ILE:HA	2.14	0.46
59:KA:392:ASP:CA	59:KA:422:ARG:HH12	2.28	0.46
59:KJ:21:TRP:CZ2	59:KJ:65:ALA:HB2	2.50	0.46
60:KO:404:ASP:HB3	60:KO:407:GLU:OE1	2.15	0.46
59:KP:72:PRO:HB2	59:KP:76:ASP:OD2	2.15	0.46
60:KT:170:ILE:CD1	60:KT:201:CYS:HB3	2.45	0.46
59:KY:37:PRO:HB2	59:KY:40:LYS:HB3	1.96	0.46
59:KY:203:MET:O	59:KY:303:THR:OG1	2.26	0.46
1:0C:666:ARG:HE	1:0C:669:LEU:HD22	1.81	0.46
3:0F:509:PHE:HA	3:0F:512:MET:HE2	1.98	0.46
5:0I:254:ILE:O	5:0I:258:MET:HG3	2.16	0.46
14:0W:74:HIS:HA	59:FW:47:ASP:OD2	2.15	0.46
17:0Z:340:VAL:HG21	17:0Z:378:ALA:HB2	1.97	0.46
17:0Z:355:THR:HG22	24:1G:126:ARG:HH21	1.80	0.46
18:1A:357:LYS:HE2	59:EV:37:PRO:HB3	1.97	0.46
24:1G:150:PHE:HB3	60:FI:42:LEU:HD12	1.97	0.46
35:2G:298:LEU:HD12	35:2G:335:ILE:HG23	1.97	0.46
37:2L:206:SER:OG	37:2L:207:ILE:N	2.48	0.46
41:2Z:259:GLU:HB3	60:IE:276:ARG:HH12	1.80	0.46
41:3C:183:GLN:NE2	41:3C:187:GLU:OE2	2.38	0.46
42:3N:46:GLU:OE2	59:HG:225:THR:OG1	2.28	0.46
44:3R:164:VAL:HG23	44:3R:165:LEU:HD12	1.97	0.46
48:4A:84:ASP:OD1	48:4A:84:ASP:N	2.47	0.46
51:4H:23:LEU:HD12	60:HJ:92:PHE:HZ	1.79	0.46
54:4N:15:THR:CG2	59:HI:440:ALA:HB1	2.45	0.46
54:4O:58:ASP:O	54:4O:62:ASN:ND2	2.48	0.46
58:4U:120:PHE:CG	60:GO:424:GLN:HG3	2.50	0.46
59:AO:271:SER:OG	59:AO:301:MET:HG2	2.15	0.46
60:AR:45:GLU:HG2	60:AR:46:ARG:NH1	2.30	0.46
59:AY:284:GLU:OE2	59:BK:88:HIS:NE2	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:AZ:313:ALA:HB3	60:AZ:349:ILE:HD13	1.96	0.46
59:BA:174:SER:OG	59:BA:177:VAL:O	2.33	0.46
59:BE:408:TYR:O	59:BE:413:MET:HG2	2.15	0.46
60:BT:306:ARG:NH1	60:BT:340:TYR:OH	2.42	0.46
60:BY:8:GLN:HG2	60:BY:17:GLY:HA3	1.97	0.46
59:CB:242:LEU:HD11	59:CB:252:LEU:HG	1.96	0.46
59:CF:250:VAL:HG11	59:CF:318:MET:SD	2.55	0.46
59:CH:169:TYR:OH	59:CH:238:LEU:HD13	2.16	0.46
60:CP:232:VAL:HG22	60:CP:270:PHE:HB2	1.96	0.46
59:CQ:96:LYS:HA	59:CQ:96:LYS:HD2	1.77	0.46
60:CV:342:ILE:HG23	60:CV:345:ILE:HG22	1.96	0.46
59:CW:121:ARG:NH2	59:CW:124:LYS:HD3	2.31	0.46
60:DB:67:ASP:OD1	60:DB:68:LEU:N	2.46	0.46
59:DC:111:GLY:HA2	59:DC:114:ILE:HG22	1.97	0.46
59:DE:244:PHE:CD1	59:DE:358:GLN:HG3	2.49	0.46
60:DF:212:PHE:HZ	59:DG:326:LYS:HD2	1.79	0.46
59:DO:70:LEU:HD22	59:DO:145:THR:HG22	1.97	0.46
60:DV:282:ARG:O	60:DV:282:ARG:HG3	2.16	0.46
59:DX:2:ARG:HG3	59:DX:3:GLU:OE1	2.15	0.46
59:ED:88:HIS:ND1	59:ED:89:PRO:HD2	2.31	0.46
60:EM:68:LEU:HD12	60:EM:143:THR:HB	1.97	0.46
59:EP:108:TYR:O	59:EP:112:LYS:HD3	2.15	0.46
59:EV:251:ASP:OD1	59:EV:252:LEU:N	2.49	0.46
60:EY:52:ASP:OD1	60:EY:62:ARG:NH2	2.45	0.46
60:FC:200:MET:HB3	60:FC:268:MET:SD	2.55	0.46
59:FW:37:PRO:HD2	59:FW:40:LYS:HD3	1.97	0.46
59:FW:75:VAL:HA	59:FW:78:VAL:HG12	1.98	0.46
60:FZ:372:THR:O	60:FZ:375:GLN:HG2	2.15	0.46
59:GH:36:MET:HG2	59:GH:38:SER:HB3	1.96	0.46
60:GO:22:GLU:HG2	60:GO:81:TYR:CD2	2.50	0.46
60:GQ:133:PHE:HE2	60:GQ:155:LEU:HD22	1.80	0.46
60:GX:404:ASP:HB3	60:GX:407:GLU:OE1	2.15	0.46
60:GZ:67:ASP:OD1	60:GZ:68:LEU:N	2.48	0.46
59:HQ:93:ILE:HD11	59:HQ:121:ARG:HG3	1.98	0.46
59:HQ:178:SER:OG	59:HQ:183:GLU:OE1	2.27	0.46
59:HQ:188:VAL:O	59:HQ:191:THR:HG22	2.16	0.46
60:HR:229:VAL:O	60:HR:233:VAL:HG12	2.16	0.46
60:HR:257:LEU:O	60:HR:259:PRO:HD3	2.14	0.46
60:HS:309:ARG:NH2	60:HS:341:PHE:O	2.49	0.46
60:HU:204:ASN:OD1	64:HU:501:GDP:N2	2.40	0.46
60:IA:290:THR:HG21	60:IA:329:GLN:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IC:55:THR:HG23	60:IP:283:GLY:HA3	1.96	0.46
59:IK:93:ILE:HD11	59:IK:121:ARG:HG3	1.97	0.46
59:IM:108:TYR:O	59:IM:112:LYS:NZ	2.31	0.46
59:IQ:138:TYR:HE1	59:IQ:169:TYR:CD2	2.33	0.46
59:IT:9:ILE:HG22	59:IT:68:LEU:HD13	1.96	0.46
60:IU:238:CYS:SG	60:IU:318:ARG:NE	2.88	0.46
60:IU:252:LYS:HG2	60:IU:350:LYS:HE2	1.98	0.46
60:IY:8:GLN:HG2	60:IY:17:GLY:HA3	1.96	0.46
60:JA:183:TYR:HD1	60:JA:385:PHE:CE2	2.33	0.46
59:JB:46:ASP:OD1	59:JB:47:ASP:N	2.45	0.46
59:JJ:222:PRO:HG2	60:JK:324:LYS:HD2	1.96	0.46
60:JK:253:LEU:O	60:JK:257:LEU:HD23	2.14	0.46
59:JL:241:SER:HB2	59:JL:318:MET:HE1	1.97	0.46
60:JM:238:CYS:SG	60:JM:318:ARG:NE	2.69	0.46
59:JP:405:VAL:HG23	59:JP:418:PHE:CE2	2.49	0.46
59:JU:88:HIS:NE2	59:KH:284:GLU:OE2	2.46	0.46
60:JZ:381:VAL:HB	60:JZ:415:MET:HE2	1.97	0.46
59:KC:2:ARG:HG3	59:KC:3:GLU:OE1	2.14	0.46
59:KJ:222:PRO:HD2	60:KK:324:LYS:HG2	1.97	0.46
59:KN:2:ARG:HG3	59:KN:3:GLU:OE1	2.15	0.46
60:KX:65:LEU:HG	60:KX:90:PHE:CE1	2.50	0.46
60:KX:145:SER:HB3	60:KX:188:SER:OG	2.15	0.46
60:LB:56:GLY:H	60:LB:58:ARG:NH1	2.12	0.46
1:0A:660:LEU:HD12	1:0A:747:LYS:HD2	1.96	0.46
7:0O:137:ILE:O	7:0O:141:ASN:ND2	2.49	0.46
9:0R:234:LEU:HD12	9:0R:279:PHE:HB3	1.98	0.46
26:1I:376:HIS:CD2	26:1I:377:PRO:HD2	2.47	0.46
28:1M:374:LYS:HB2	28:1M:374:LYS:HE3	1.76	0.46
33:2D:449:TRP:CE3	33:2D:458:LEU:HB3	2.50	0.46
57:4R:24:GLN:HA	57:4R:27:LYS:HE2	1.97	0.46
60:AX:385:PHE:HE2	60:AX:412:GLU:HB2	1.79	0.46
60:BB:421:GLU:HA	60:BB:424:GLN:HG3	1.97	0.46
59:BW:383:ALA:O	59:BW:386:GLU:HG2	2.16	0.46
59:CB:88:HIS:CD2	59:CB:90:GLU:HB2	2.51	0.46
60:CC:387:LEU:HD12	60:CC:390:ARG:HH12	1.79	0.46
59:CJ:443:ASP:OD1	59:CJ:443:ASP:N	2.48	0.46
59:CQ:15:GLN:NE2	62:CQ:602:GTP:O6	2.47	0.46
59:DE:167:LEU:HD22	59:DE:200:VAL:HB	1.98	0.46
60:DN:119:VAL:HG13	60:DN:122:LYS:HE3	1.97	0.46
60:DN:284:LEU:HD12	60:DN:289:LEU:HD21	1.97	0.46
59:DQ:284:GLU:OE2	59:ED:88:HIS:NE2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DS:324:VAL:CG1	59:DS:326:LYS:HE2	2.45	0.46
59:DX:44:VAL:HG13	59:DX:244:PHE:HE1	1.80	0.46
59:EB:88:HIS:ND1	59:EB:89:PRO:HD2	2.31	0.46
60:EC:67:ASP:OD1	60:EC:68:LEU:N	2.48	0.46
60:EE:73:MET:HA	60:EE:76:VAL:HG22	1.96	0.46
59:EH:52:PHE:HZ	59:EH:239:THR:HG21	1.80	0.46
59:EJ:180:ALA:O	59:EJ:183:GLU:HG3	2.15	0.46
60:EK:320:ARG:NH1	60:EK:355:ASP:OD2	2.49	0.46
60:EK:418:LEU:HA	60:EK:421:GLU:HG2	1.98	0.46
60:EQ:103:LYS:HE3	60:EQ:108:GLU:OE2	2.16	0.46
59:EX:2:ARG:HG3	59:EX:3:GLU:OE1	2.15	0.46
59:FB:132:LEU:O	59:FB:164:LYS:NZ	2.42	0.46
60:FO:271:ALA:HA	60:FO:298:ASN:HD21	1.80	0.46
59:FR:291:ILE:O	59:FR:295:VAL:HG23	2.15	0.46
60:FZ:173:PRO:HB3	60:FZ:380:ARG:HH22	1.79	0.46
59:GC:250:VAL:HG21	59:GC:318:MET:CE	2.44	0.46
60:GD:173:PRO:HB3	60:GD:380:ARG:NH1	2.31	0.46
59:GG:111:GLY:HA2	59:GG:114:ILE:HG22	1.98	0.46
60:GS:87:PRO:HD3	60:HF:281:TYR:HE2	1.79	0.46
59:GT:405:VAL:HG12	59:GT:418:PHE:HE2	1.80	0.46
59:HC:224:TYR:CE2	60:HD:323:THR:HG21	2.50	0.46
60:HF:322:SER:HB3	60:HF:325:GLU:OE1	2.16	0.46
59:HG:33:ASP:OD1	59:HG:33:ASP:N	2.45	0.46
60:HJ:263:LEU:HD11	60:HJ:425:TYR:CD2	2.50	0.46
60:HW:326:VAL:O	60:HW:330:MET:HG2	2.15	0.46
60:IE:303:ALA:HB1	60:IE:373:CYS:SG	2.55	0.46
60:IH:254:ALA:O	60:IH:258:VAL:HG22	2.15	0.46
59:IM:212:LEU:HD21	59:IM:275:VAL:HG11	1.97	0.46
60:IP:20:PHE:HA	60:IP:230:SER:OG	2.16	0.46
60:IP:101:TRP:HD1	60:IP:145:SER:HB2	1.80	0.46
60:IS:47:ILE:HG21	60:IS:59:TYR:HD2	1.80	0.46
60:IS:263:LEU:HD22	60:IS:422:TYR:CE1	2.51	0.46
60:IY:16:ILE:HD13	60:IY:136:CYS:SG	2.56	0.46
60:IY:324:LYS:HE3	60:IY:324:LYS:HB3	1.67	0.46
60:JA:73:MET:HE3	60:JA:73:MET:HA	1.98	0.46
60:JC:68:LEU:HD13	60:JC:143:THR:OG1	2.15	0.46
60:JC:211:CYS:SG	60:JC:220:PRO:HB3	2.55	0.46
60:JE:288:GLU:O	60:JE:291:GLN:HG3	2.15	0.46
60:JO:178:THR:OG1	60:JO:181:GLU:HG3	2.15	0.46
60:JO:240:LEU:HD11	60:JO:250:LEU:HG	1.97	0.46
60:JT:97:ALA:HB2	60:JT:143:THR:HB	1.95	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JU:105:ARG:HD2	59:JU:109:THR:HG21	1.96	0.46
60:KT:178:THR:HG22	60:KT:180:VAL:H	1.80	0.46
59:KY:179:THR:HG21	60:KZ:246:LEU:HD21	1.97	0.46
60:LB:145:SER:HB3	60:LB:188:SER:OG	2.16	0.46
1:0A:505:SER:OG	1:0A:506:ASP:N	2.49	0.46
3:0F:34:THR:OG1	3:0F:41:THR:OG1	2.32	0.46
4:0G:45:HIS:HA	60:FA:74:ASP:OD2	2.15	0.46
5:0K:297:ARG:HG2	59:FD:282:TYR:HE1	1.81	0.46
8:0Q:97:PHE:HZ	8:0Q:179:VAL:HG21	1.81	0.46
30:1S:169:ARG:NH1	30:1S:204:GLU:OE2	2.48	0.46
31:1T:262:ASN:HB3	32:1X:33:HIS:HA	1.98	0.46
36:2K:47:ARG:HH21	59:EJ:192:HIS:CG	2.32	0.46
39:2O:191:THR:HA	59:KP:370:LYS:HZ3	1.80	0.46
39:2Q:137:CYS:SG	39:2Q:138:ILE:N	2.89	0.46
41:3A:294:GLN:NE2	60:HH:56:GLY:O	2.48	0.46
42:3L:215:ARG:HH22	60:HS:359:LYS:HG2	1.81	0.46
43:3Q:155:ARG:HA	43:3Q:158:PHE:HE2	1.81	0.46
44:3R:203:TYR:CD2	59:JY:86:LEU:HB2	2.51	0.46
47:3V:249:ILE:O	47:3V:253:ILE:HG12	2.15	0.46
57:4S:64:GLU:OE2	59:FY:402:ARG:NH1	2.49	0.46
59:AG:203:MET:HB3	59:AG:203:MET:HE2	1.80	0.46
60:AJ:8:GLN:HE22	60:AJ:21:TRP:HE1	1.63	0.46
60:AJ:290:THR:HA	60:AJ:293:MET:HE2	1.97	0.46
59:AK:215:ARG:NH2	59:AK:299:ALA:O	2.32	0.46
60:AX:62:ARG:NH1	60:AX:127:CYS:SG	2.88	0.46
59:BI:264:ARG:NH2	59:BI:431:ASP:OD2	2.48	0.46
60:BJ:67:ASP:O	60:BJ:92:PHE:HA	2.16	0.46
59:BQ:388:PHE:HB3	59:BQ:425:LEU:HD21	1.97	0.46
59:BS:172:TYR:CG	59:BS:173:PRO:HD2	2.51	0.46
59:BU:222:PRO:CG	60:BV:324:LYS:HD3	2.46	0.46
60:CA:156:ARG:NH1	60:CA:197:ASP:OD2	2.46	0.46
60:CI:65:LEU:HD22	60:CI:90:PHE:CE1	2.51	0.46
60:CT:8:GLN:HE21	60:CT:65:LEU:HD13	1.81	0.46
60:CV:270:PHE:HD1	60:CV:366:THR:HG22	1.80	0.46
59:CY:187:SER:O	59:CY:191:THR:HG23	2.14	0.46
60:DL:359:LYS:H	60:DL:359:LYS:HD2	1.80	0.46
60:DY:282:ARG:NE	60:DY:288:GLU:OE1	2.49	0.46
59:EJ:88:HIS:ND1	59:EJ:89:PRO:HD2	2.30	0.46
60:FQ:260:PHE:HB3	60:FQ:261:PRO:HD2	1.97	0.46
60:FZ:145:SER:HB3	60:FZ:188:SER:OG	2.15	0.46
59:GG:259:LEU:HD11	59:GG:316:CYS:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GS:305:PRO:HA	60:GS:371:ASN:ND2	2.30	0.46
59:GU:339:ARG:CZ	59:GU:339:ARG:HA	2.46	0.46
60:GZ:281:TYR:O	60:GZ:282:ARG:HD3	2.15	0.46
59:HE:269:LEU:HD21	59:HE:384:ILE:HD13	1.97	0.46
59:HK:21:TRP:CZ2	59:HK:65:ALA:HB2	2.51	0.46
59:HO:325:PRO:HA	59:HO:328:VAL:HG22	1.96	0.46
59:HT:105:ARG:O	59:HT:110:ILE:HG12	2.15	0.46
59:HT:224:TYR:O	59:HT:227:LEU:N	2.49	0.46
59:HX:2:ARG:HG3	59:HX:3:GLU:OE1	2.15	0.46
60:IC:73:MET:CE	60:IC:92:PHE:HB3	2.46	0.46
59:IM:8:HIS:CD2	59:IM:138:TYR:HD2	2.32	0.46
59:IM:259:LEU:HD21	59:IM:316:CYS:HB2	1.98	0.46
60:IP:238:CYS:SG	60:IP:316:LEU:HD21	2.56	0.46
60:IU:3:GLU:OE2	60:IU:127:CYS:HB3	2.16	0.46
60:IU:178:THR:O	60:IU:181:GLU:HG3	2.15	0.46
59:JB:100:ALA:HA	60:JC:252:LYS:HG3	1.97	0.46
59:JB:108:TYR:O	59:JB:112:LYS:HD3	2.16	0.46
59:JB:203:MET:CE	59:JB:267:PHE:HB3	2.46	0.46
59:JD:50:ASN:O	59:JD:64:ARG:NH1	2.48	0.46
59:JH:195:LEU:HD21	59:JH:264:ARG:NH2	2.31	0.46
59:KD:169:TYR:CE2	59:KD:235:VAL:HG22	2.51	0.46
59:KH:132:LEU:HG	59:KH:164:LYS:NZ	2.30	0.46
60:KI:404:ASP:HB3	60:KI:407:GLU:OE1	2.16	0.46
60:KX:20:PHE:HA	60:KX:230:SER:HB2	1.97	0.46
1:0C:685:VAL:HG23	1:0C:723:LYS:HE3	1.97	0.46
6:0N:426:ASN:ND2	59:BC:279:GLU:OE2	2.49	0.46
33:2C:35:GLU:HG3	33:2C:36:HIS:HD2	1.80	0.46
33:2C:447:ARG:HD3	33:2C:458:LEU:HD11	1.98	0.46
33:2D:250:ILE:HG23	33:2D:263:VAL:HG13	1.98	0.46
34:2F:85:LEU:HD21	60:FA:194:GLU:HG3	1.97	0.46
36:2K:120:PHE:HE2	60:EK:262:ARG:HD3	1.80	0.46
42:3L:186:THR:HA	42:3L:189:VAL:HG12	1.97	0.46
47:3X:237:ILE:CD1	47:3X:246:ASN:HD22	2.29	0.46
60:AJ:97:ALA:HB2	60:AJ:143:THR:HB	1.97	0.46
60:AZ:293:MET:SD	60:AZ:367:PHE:HB2	2.56	0.46
59:BE:224:TYR:CE2	60:BF:323:THR:HG21	2.51	0.46
60:BN:288:GLU:HA	60:BN:291:GLN:HG2	1.98	0.46
59:BW:207:GLU:OE2	59:BW:304:LYS:NZ	2.48	0.46
59:BW:269:LEU:HD23	59:BW:301:MET:HE1	1.97	0.46
60:CC:179:VAL:HG12	59:CD:258:ASN:OD1	2.16	0.46
59:CO:401:LYS:HZ1	60:CP:430:ILE:HD13	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CX:31:ASP:OD1	60:CX:32:PRO:HD2	2.15	0.46
59:DK:371:VAL:HG12	59:DK:373:ARG:H	1.80	0.46
59:EB:326:LYS:HE3	59:EB:326:LYS:HB3	1.81	0.46
60:EC:247:ASN:O	60:EC:252:LYS:NZ	2.48	0.46
60:EO:293:MET:HE2	60:EO:365:VAL:HG11	1.97	0.46
60:ES:273:LEU:O	60:ES:292:GLN:NE2	2.32	0.46
60:EY:173:PRO:HG3	60:EY:380:ARG:NH1	2.30	0.46
59:FD:50:ASN:O	59:FD:64:ARG:NH1	2.48	0.46
60:FM:238:CYS:SG	60:FM:239:CYS:N	2.89	0.46
60:FV:8:GLN:HG2	60:FV:17:GLY:HA3	1.96	0.46
60:FX:68:LEU:HD13	60:FX:143:THR:OG1	2.16	0.46
60:GD:293:MET:HE2	60:GD:365:VAL:HG11	1.97	0.46
59:GE:27:GLU:CD	59:GE:243:ARG:HH12	2.18	0.46
59:GU:107:HIS:CD2	59:GU:152:LEU:HB2	2.50	0.46
59:HC:325:PRO:HA	59:HC:328:VAL:HG12	1.96	0.46
59:HG:269:LEU:HD22	59:HG:303:THR:HG21	1.98	0.46
60:HJ:313:ALA:HB3	60:HJ:349:ILE:HD13	1.97	0.46
59:HK:396:ASP:OD1	59:HK:422:ARG:NH1	2.49	0.46
60:HN:99:ASN:ND2	60:HN:99:ASN:O	2.49	0.46
60:HP:229:VAL:HA	60:HP:232:VAL:HG12	1.98	0.46
60:HR:153:SER:HA	60:HR:195:ASN:ND2	2.30	0.46
60:HU:249:ASP:OD1	60:HU:250:LEU:N	2.48	0.46
60:IN:14:ASN:OD1	60:IN:65:LEU:HD12	2.15	0.46
60:IP:68:LEU:HD13	60:IP:143:THR:OG1	2.16	0.46
60:IS:133:PHE:HB2	60:IS:164:MET:HE1	1.98	0.46
60:IU:51:PHE:HB3	60:IU:59:TYR:HB3	1.97	0.46
60:IW:8:GLN:OE1	60:IW:136:CYS:HB2	2.15	0.46
60:IW:33:THR:O	60:IW:58:ARG:NH1	2.49	0.46
60:IY:179:VAL:HG13	60:IY:180:VAL:HG13	1.98	0.46
60:IY:267:MET:HG3	60:IY:268:MET:N	2.30	0.46
59:JD:363:VAL:HG23	59:JD:364:PRO:HD2	1.98	0.46
59:JF:384:ILE:HD12	59:JF:384:ILE:HA	1.78	0.46
60:JV:292:GLN:O	60:JV:298:ASN:ND2	2.38	0.46
59:KC:372:GLN:HB3	59:KC:373:ARG:HH11	1.79	0.46
60:KK:334:GLN:NE2	60:KK:347:ASN:OD1	2.43	0.46
59:KP:306:ASP:OD2	59:KP:308:ARG:NH1	2.47	0.46
60:KR:230:SER:HA	60:KR:233:VAL:HG12	1.97	0.46
59:KY:222:PRO:HD2	60:KZ:324:LYS:HD3	1.97	0.46
1:0C:36:GLN:N	59:EX:47:ASP:OD2	2.46	0.46
5:0K:39:ARG:HE	26:1J:91:TYR:HE2	1.64	0.46
7:0O:111:GLU:OE2	60:BJ:55:THR:OG1	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:0T:132:MET:HG3	11:0T:136:PHE:CD2	2.51	0.46
12:0U:64:TYR:HE2	12:0U:214:ASN:HD22	1.63	0.46
30:1R:273:GLN:O	30:1R:277:VAL:HG23	2.16	0.46
31:1T:229:GLN:HG3	31:1T:284:THR:HG22	1.96	0.46
32:1Y:86:TYR:OH	59:EB:415:GLU:OE1	2.20	0.46
32:1Z:14:LEU:HD23	32:1Z:165:LEU:HD13	1.97	0.46
36:2J:257:ARG:NH1	60:FA:111:GLU:OE2	2.38	0.46
38:2N:61:VAL:HG11	38:2N:192:ARG:NH2	2.31	0.46
38:2N:151:ARG:O	38:2N:155:LYS:HG2	2.16	0.46
39:2P:374:ARG:NH1	39:2P:378:GLU:OE2	2.48	0.46
39:2R:303:VAL:O	39:2R:307:ARG:HG2	2.16	0.46
39:2R:326:GLN:O	39:2R:329:GLN:HG3	2.16	0.46
42:3L:113:THR:HG22	60:HY:320:ARG:HH12	1.80	0.46
42:3M:237:PRO:HD2	42:3N:24:VAL:HG22	1.97	0.46
44:3R:124:VAL:HG11	59:JN:32:PRO:HB2	1.98	0.46
49:4D:2:LEU:HD23	49:4D:2:LEU:H	1.81	0.46
56:4Q:131:MET:SD	59:IZ:311:LYS:NZ	2.70	0.46
59:AE:132:LEU:HD22	59:AE:164:LYS:HE3	1.97	0.46
60:AL:27:GLU:O	60:AL:43:GLN:NE2	2.47	0.46
60:AR:48:ASN:O	60:AR:62:ARG:NH2	2.49	0.46
59:AU:2:ARG:HG3	59:AU:3:GLU:OE1	2.15	0.46
59:AU:174:SER:OG	59:AU:207:GLU:HG3	2.15	0.46
60:AX:167:PHE:CE2	60:AX:233:VAL:HG22	2.51	0.46
59:BM:408:TYR:HB3	59:BM:413:MET:SD	2.56	0.46
60:BP:404:ASP:HB3	60:BP:407:GLU:OE1	2.16	0.46
60:CA:73:MET:HE3	60:CA:92:PHE:HB3	1.98	0.46
60:CC:101:TRP:HB2	60:CC:184:ASN:OD1	2.16	0.46
60:CC:170:ILE:HG23	60:CC:171:PRO:HD2	1.97	0.46
60:CE:8:GLN:OE1	60:CE:136:CYS:HB2	2.16	0.46
60:CN:391:ARG:HG3	59:CO:346:TRP:HB3	1.97	0.46
59:CQ:188:VAL:HG11	59:CQ:395:PHE:CE2	2.50	0.46
59:CQ:220:GLU:HB3	59:CQ:221:ARG:HD3	1.96	0.46
59:CS:224:TYR:HD1	59:CS:227:LEU:HD12	1.81	0.46
60:CX:153:SER:HA	60:CX:195:ASN:HD21	1.80	0.46
60:DL:8:GLN:HE22	60:DL:21:TRP:HE1	1.63	0.46
59:DM:384:ILE:HA	59:DM:384:ILE:HD12	1.84	0.46
60:DW:52:ASP:OD1	60:DW:53:GLU:N	2.48	0.46
59:DZ:251:ASP:OD1	59:DZ:252:LEU:N	2.49	0.46
59:EH:251:ASP:OD1	59:EH:252:LEU:N	2.48	0.46
59:EN:269:LEU:HD22	59:EN:303:THR:HG21	1.97	0.46
59:EP:277:SER:OG	59:EP:280:LYS:HG3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:ET:241:SER:OG	59:ET:250:VAL:N	2.49	0.46
60:FI:282:ARG:NH2	60:FI:288:GLU:OE1	2.39	0.46
60:FQ:238:CYS:SG	60:FQ:239:CYS:N	2.89	0.46
60:FV:213:ARG:HD2	60:FV:297:LYS:HD2	1.98	0.46
60:GB:67:ASP:O	60:GB:92:PHE:HA	2.16	0.46
59:GT:90:GLU:OE1	59:GT:121:ARG:HD3	2.16	0.46
60:GX:237:THR:HG23	60:GX:241:ARG:NH1	2.30	0.46
60:HL:350:LYS:HD2	60:HL:351:SER:N	2.31	0.46
59:HM:96:LYS:HD2	59:HM:96:LYS:HA	1.73	0.46
60:HU:115:SER:O	60:HU:119:VAL:HG23	2.15	0.46
60:IC:139:LEU:HD22	60:IC:188:SER:HB3	1.96	0.46
59:ID:107:HIS:HD2	59:ID:152:LEU:HB2	1.81	0.46
60:IJ:211:CYS:SG	60:IJ:217:LEU:HD12	2.55	0.46
60:IN:12:CYS:O	60:IN:16:ILE:HG12	2.15	0.46
60:IN:252:LYS:HA	60:IN:255:VAL:HG22	1.98	0.46
60:IN:326:VAL:O	60:IN:330:MET:HG2	2.16	0.46
59:IQ:104:ALA:HB2	59:IQ:413:MET:SD	2.56	0.46
60:IW:45:GLU:OE1	60:IW:46:ARG:NE	2.49	0.46
59:IZ:400:SER:O	59:IZ:402:ARG:NH1	2.49	0.46
59:JL:36:MET:HG3	59:JL:37:PRO:HD2	1.98	0.46
59:JN:68:LEU:HD23	59:JN:68:LEU:HA	1.75	0.46
60:JZ:67:ASP:OD2	60:JZ:72:THR:OG1	2.23	0.46
59:KA:399:TYR:OH	59:KA:415:GLU:OE2	2.34	0.46
60:KB:202:ILE:HD12	60:KB:300:MET:HB3	1.98	0.46
60:KI:137:HIS:O	60:KI:168:SER:HA	2.16	0.46
60:KM:148:GLY:O	60:KM:152:ILE:HG12	2.15	0.46
60:KR:22:GLU:HG2	60:KR:81:TYR:CD1	2.51	0.46
60:KT:332:ASN:HB3	60:KT:336:LYS:NZ	2.29	0.46
60:KX:8:GLN:HG3	60:KX:65:LEU:HD13	1.98	0.46
1:0A:518:ASP:OD1	1:0A:518:ASP:N	2.46	0.46
1:0B:400:GLU:O	1:0B:404:VAL:N	2.48	0.46
3:0F:639:ALA:HB1	3:0F:695:LEU:HD12	1.98	0.46
6:0M:43:GLN:NE2	6:0M:44:LYS:HD2	2.31	0.46
16:0Y:192:ASP:OD2	16:0Y:216:ARG:NH1	2.49	0.46
35:2G:354:PRO:HA	35:2G:357:VAL:HB	1.98	0.46
37:2M:205:VAL:N	60:EY:161:ASP:OD2	2.35	0.46
41:2W:152:GLU:O	41:2W:155:ARG:HD3	2.15	0.46
41:3D:252:ASN:HD21	60:HB:276:ARG:HB2	1.80	0.46
42:3I:215:ARG:HD3	60:IN:359:LYS:HA	1.97	0.46
46:3U:58:TRP:NE1	59:EZ:297:GLU:OE2	2.46	0.46
46:3U:135:TYR:OH	59:FH:160:ASP:OD2	2.26	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:4I:19:THR:HG21	59:JY:119:LEU:HB3	1.98	0.46
59:AG:88:HIS:CD2	59:AG:90:GLU:HB2	2.51	0.46
59:AO:109:THR:HG22	59:AO:110:ILE:HD13	1.96	0.46
60:AV:286:VAL:HG23	60:AV:287:PRO:HD3	1.98	0.46
59:AY:212:LEU:HD21	59:AY:275:VAL:HG21	1.97	0.46
59:AY:251:ASP:OD1	59:AY:252:LEU:N	2.49	0.46
60:AZ:297:LYS:HB2	60:AZ:297:LYS:HE2	1.65	0.46
60:BB:173:PRO:HB3	60:BB:380:ARG:CZ	2.46	0.46
60:BP:170:ILE:HG23	60:BP:171:PRO:HD2	1.96	0.46
59:BU:184:PRO:HG2	59:BU:398:MET:SD	2.55	0.46
59:BZ:178:SER:OG	60:CA:347:ASN:ND2	2.49	0.46
60:CC:374:ILE:O	60:CC:377:MET:HG2	2.15	0.46
60:CL:67:ASP:OD1	60:CL:68:LEU:N	2.48	0.46
59:CO:2:ARG:HG3	59:CO:3:GLU:OE1	2.15	0.46
60:CT:209:ASP:HB3	60:CT:213:ARG:NH2	2.31	0.46
60:CV:289:LEU:HD11	60:CV:363:MET:HG3	1.97	0.46
60:DH:289:LEU:HD11	60:DH:363:MET:HG3	1.97	0.46
59:DI:44:VAL:HG23	59:DI:46:ASP:HB2	1.97	0.46
59:DK:167:LEU:HD22	59:DK:200:VAL:HB	1.98	0.46
59:DK:298:PRO:HB3	59:DK:307:PRO:HD2	1.98	0.46
60:DV:395:LEU:HD21	60:DV:405:GLU:HG2	1.97	0.46
60:EC:125:GLU:OE2	60:EC:159:TYR:OH	2.29	0.46
59:EH:291:ILE:O	59:EH:295:VAL:HG23	2.16	0.46
59:EL:297:GLU:OE2	59:EX:123:ARG:NH2	2.28	0.46
60:EQ:423:GLN:HG2	60:EQ:426:GLN:NE2	2.31	0.46
59:FD:19:ALA:HA	59:FD:22:GLU:HG2	1.98	0.46
59:FH:259:LEU:HD21	59:FH:268:VAL:HG11	1.98	0.46
59:FH:443:ASP:OD1	59:FH:443:ASP:N	2.49	0.46
60:FI:238:CYS:SG	60:FI:239:CYS:N	2.88	0.46
60:FK:377:MET:HG3	60:FK:378:PHE:N	2.31	0.46
60:FM:156:ARG:HH22	60:FM:197:ASP:HB2	1.80	0.46
60:FQ:173:PRO:HB3	60:FQ:380:ARG:HH12	1.80	0.46
59:GN:264:ARG:NH2	59:GN:431:ASP:OD2	2.49	0.46
60:GQ:305:PRO:HA	60:GQ:371:ASN:HD21	1.80	0.46
60:GS:128:ASP:OD1	60:GS:129:CYS:N	2.49	0.46
60:GS:213:ARG:HD2	60:GS:297:LYS:HZ3	1.81	0.46
59:GW:2:ARG:HG3	59:GW:3:GLU:OE1	2.16	0.46
59:HE:154:LEU:HD22	59:HE:166:LYS:HD3	1.96	0.46
60:HH:73:MET:HA	60:HH:76:VAL:HG12	1.98	0.46
59:HI:69:ASP:OD1	59:HI:70:LEU:N	2.49	0.46
60:HL:46:ARG:O	60:HL:49:VAL:HG12	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HO:66:VAL:HA	59:HO:91:GLN:HB3	1.97	0.46
60:HR:279:GLN:NE2	60:HR:280:GLN:HG2	2.30	0.46
59:HT:221:ARG:HB3	60:HU:322:SER:HB2	1.97	0.46
60:HY:192:LEU:HD22	60:HY:196:SER:HB2	1.98	0.46
60:IC:12:CYS:SG	60:IC:13:GLY:N	2.89	0.46
60:IH:8:GLN:HG2	60:IH:17:GLY:HA3	1.98	0.46
60:IH:267:MET:HB3	60:IH:374:ILE:HD11	1.97	0.46
60:IS:167:PHE:CE2	60:IS:233:VAL:HG22	2.51	0.46
59:JD:11:GLN:HG2	59:JD:74:VAL:HG11	1.98	0.46
60:JE:67:ASP:OD1	60:JE:68:LEU:N	2.49	0.46
60:JI:272:PRO:HB3	60:JI:289:LEU:HD21	1.97	0.46
60:JI:404:ASP:HB3	60:JI:407:GLU:OE1	2.16	0.46
60:JK:149:THR:HB	60:JK:191:GLN:HG2	1.98	0.46
59:JL:304:LYS:HD2	59:JL:304:LYS:HA	1.79	0.46
60:JT:50:TYR:O	60:JT:62:ARG:HG2	2.15	0.46
59:JU:277:SER:HB3	59:JU:280:LYS:NZ	2.30	0.46
60:JV:67:ASP:OD1	60:JV:68:LEU:N	2.48	0.46
59:JW:90:GLU:HB3	59:JW:121:ARG:HH22	1.80	0.46
60:JX:237:THR:HG23	60:JX:241:ARG:NH1	2.31	0.46
59:KC:322:ASP:O	59:KC:373:ARG:NE	2.46	0.46
60:KO:156:ARG:NH1	60:KO:160:PRO:O	2.49	0.46
59:KP:121:ARG:HA	59:KP:121:ARG:NE	2.30	0.46
59:KW:88:HIS:HD2	59:KW:90:GLU:HB2	1.80	0.46
59:KW:262:TYR:HB2	59:KW:265:ILE:HD13	1.97	0.46
60:KX:173:PRO:HB3	60:KX:380:ARG:CZ	2.46	0.46
60:KX:304:ASP:OD1	60:KX:304:ASP:N	2.49	0.46
60:LB:404:ASP:HB3	60:LB:407:GLU:OE1	2.16	0.46
1:0C:19:PRO:HA	60:EW:227:HIS:CD2	2.51	0.46
3:0F:313:LEU:HD22	60:DD:276:ARG:HG3	1.97	0.46
4:0G:338:VAL:HG11	4:0G:377:ILE:HD12	1.97	0.46
5:0H:44:LYS:HG3	23:1F:252:TYR:CE2	2.50	0.46
7:0P:328:GLU:OE1	60:BF:56:GLY:HA3	2.15	0.46
8:0Q:8:ALA:H	8:0Q:83:THR:HG21	1.80	0.46
37:2L:15:ASP:OD1	37:2L:15:ASP:N	2.46	0.46
38:2N:148:GLU:OE2	38:2N:151:ARG:NH2	2.49	0.46
44:3R:171:THR:HG21	60:JZ:245:GLN:NE2	2.31	0.46
46:3U:99:LEU:HD21	59:FJ:117:LEU:HD23	1.97	0.46
47:3X:209:ASP:OD2	47:3X:276:ILE:N	2.49	0.46
47:3X:210:TYR:O	47:3X:213:GLU:HG3	2.16	0.46
52:4J:333:PRO:HG2	60:JZ:122:LYS:HA	1.98	0.46
53:4K:216:MET:HG2	60:JK:379:ARG:HH12	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AA:2:ARG:HG3	59:AA:3:GLU:OE1	2.15	0.46
59:AA:215:ARG:NH2	59:AA:299:ALA:HB1	2.28	0.46
59:AC:222:PRO:HD2	60:AD:324:LYS:HD3	1.98	0.46
60:AD:309:ARG:NH1	60:AD:339:SER:O	2.49	0.46
60:AJ:383:GLU:O	60:AJ:387:LEU:HD23	2.16	0.46
59:AU:128:ASN:HD22	59:AU:128:ASN:C	2.20	0.46
60:AZ:263:LEU:HD11	60:AZ:425:TYR:CD2	2.51	0.46
59:BG:251:ASP:OD1	59:BG:252:LEU:N	2.49	0.46
59:BK:333:ALA:O	59:BK:337:THR:HG23	2.16	0.46
59:BK:351:PHE:C	59:BK:352:LYS:HD3	2.36	0.46
60:CA:388:MET:HG3	60:CA:393:ALA:HB3	1.97	0.46
59:CB:178:SER:HB3	60:CC:347:ASN:ND2	2.27	0.46
60:CG:153:SER:HA	60:CG:195:ASN:HD21	1.81	0.46
59:CM:181:VAL:HA	60:CN:347:ASN:OD1	2.15	0.46
59:CW:188:VAL:HG21	59:CW:395:PHE:CE2	2.51	0.46
59:CY:269:LEU:HD22	59:CY:303:THR:HG21	1.97	0.46
59:DE:173:PRO:HG2	59:DE:391:ILE:HD11	1.97	0.46
59:DM:93:ILE:HD11	59:DM:121:ARG:HG3	1.97	0.46
60:DP:73:MET:HE3	60:DP:92:PHE:HB3	1.98	0.46
60:DT:305:PRO:HA	60:DT:371:ASN:HD21	1.81	0.46
60:EA:279:GLN:O	60:EA:282:ARG:NH2	2.49	0.46
59:ET:188:VAL:HG13	59:ET:425:LEU:HD12	1.98	0.46
59:FN:191:THR:CG2	59:FN:425:LEU:HD12	2.42	0.46
59:FT:259:LEU:HD21	59:FT:378:ILE:HG22	1.98	0.46
59:FY:123:ARG:NH2	59:FY:127:ASP:OD1	2.49	0.46
59:GE:291:ILE:O	59:GE:295:VAL:HG23	2.16	0.46
60:GI:137:HIS:O	60:GI:168:SER:HA	2.15	0.46
60:GI:292:GLN:HG2	60:GI:298:ASN:ND2	2.31	0.46
59:GN:250:VAL:HG13	59:GN:254:GLU:OE2	2.15	0.46
60:GO:32:PRO:HB3	60:GO:81:TYR:CE1	2.51	0.46
60:GO:174:LYS:HG3	60:GO:175:VAL:HG23	1.98	0.46
60:GV:173:PRO:HB3	60:GV:380:ARG:NH1	2.31	0.46
60:GV:207:LEU:CB	60:GV:225:LEU:HD22	2.46	0.46
59:GW:203:MET:O	59:GW:303:THR:OG1	2.33	0.46
60:GX:10:GLY:O	60:GX:14:ASN:ND2	2.35	0.46
60:GZ:254:ALA:O	60:GZ:258:VAL:HG12	2.15	0.46
60:HF:61:PRO:HD3	60:HF:84:ILE:HG12	1.98	0.46
59:HG:328:VAL:HG21	59:HG:355:ILE:HD11	1.97	0.46
60:HJ:172:SER:HB2	60:HJ:175:VAL:HB	1.98	0.46
60:HP:215:LEU:O	60:HP:216:LYS:C	2.54	0.46
59:HQ:285:GLN:HA	59:HQ:285:GLN:NE2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HS:48:ASN:OD1	60:HS:49:VAL:N	2.49	0.46
60:IE:67:ASP:OD1	60:IE:68:LEU:N	2.48	0.46
59:IQ:188:VAL:HG11	59:IQ:395:PHE:CE2	2.51	0.46
59:IT:408:TYR:O	59:IT:413:MET:HG2	2.15	0.46
59:IZ:315:CYS:HB3	59:IZ:377:MET:HE2	1.98	0.46
60:JC:187:LEU:HD21	60:JC:403:MET:HE1	1.97	0.46
59:JD:234:VAL:HG21	59:JD:302:MET:SD	2.56	0.46
60:JG:344:TRP:HB3	60:JG:430:ILE:HD11	1.98	0.46
60:JI:284:LEU:HD22	60:JI:362:LYS:HB2	1.98	0.46
60:JK:303:ALA:HB1	60:JK:373:CYS:HB3	1.97	0.46
60:JM:318:ARG:NH1	60:JM:358:PRO:HD3	2.30	0.46
59:JU:52:PHE:CZ	59:JU:239:THR:HG21	2.50	0.46
60:JX:48:ASN:O	60:JX:62:ARG:NH2	2.49	0.46
59:JY:315:CYS:HB2	59:JY:351:PHE:CD1	2.51	0.46
60:KE:326:VAL:O	60:KE:330:MET:HG2	2.16	0.46
60:KG:19:LYS:HB3	60:KG:19:LYS:HE2	1.77	0.46
59:KQ:401:LYS:HZ3	60:KR:430:ILE:HD13	1.80	0.46
60:KZ:27:GLU:OE1	60:KZ:241:ARG:NH2	2.48	0.46
22:1E:150:SER:HB2	22:1E:153:ALA:HB3	1.98	0.46
23:1F:118:LEU:HD13	60:GB:40:SER:HB3	1.98	0.46
25:1H:206:ARG:HD2	27:1L:317:ARG:HE	1.80	0.46
32:1X:68:THR:HG23	32:1X:152:LEU:HB2	1.97	0.46
33:2C:252:SER:O	33:2C:253:MET:HG2	2.15	0.46
34:2E:141:ASN:OD1	60:FC:425:TYR:OH	2.31	0.46
42:3F:113:THR:N	60:BP:355:ASP:OD2	2.48	0.46
47:3V:254:VAL:HG13	48:3Y:227:ARG:NH1	2.30	0.46
48:3Y:62:ASN:OD1	48:3Y:63:THR:N	2.49	0.46
54:4N:22:LEU:HD13	59:HI:434:GLU:HG3	1.98	0.46
57:4R:67:ARG:HH22	59:GR:309:HIS:CE1	2.34	0.46
57:4S:128:LEU:HD11	59:FW:437:ALA:HB3	1.97	0.46
58:4V:68:GLN:OE1	60:FZ:332:ASN:ND2	2.49	0.46
60:AB:213:ARG:HH21	60:AB:297:LYS:HG2	1.81	0.46
60:AD:249:ASP:OD1	60:AD:250:LEU:N	2.49	0.46
60:AH:153:SER:HA	60:AH:195:ASN:HD22	1.81	0.46
60:AP:22:GLU:HG2	60:AP:81:TYR:CD1	2.51	0.46
60:AR:334:GLN:HE21	60:AR:349:ILE:HG12	1.81	0.46
59:AS:392:ASP:OD1	59:AS:425:LEU:HD23	2.16	0.46
60:AV:317:PHE:O	60:AV:354:CYS:N	2.49	0.46
59:BE:296:PHE:CE2	59:BE:335:ILE:HD13	2.50	0.46
59:BE:408:TYR:HB3	59:BE:413:MET:SD	2.56	0.46
60:BH:167:PHE:CD2	60:BH:233:VAL:HG22	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BT:73:MET:CE	60:BT:90:PHE:HB3	2.46	0.46
59:BW:265:ILE:HG22	59:BW:380:ASN:ND2	2.31	0.46
60:CA:249:ASP:OD1	60:CA:250:LEU:N	2.49	0.46
60:CC:179:VAL:HG13	60:CC:180:VAL:HG13	1.97	0.46
60:CR:3:GLU:OE2	60:CR:127:CYS:HB3	2.16	0.46
59:CU:37:PRO:HB2	59:CU:40:LYS:HB3	1.97	0.46
59:CU:181:VAL:HG11	60:CV:345:ILE:HD11	1.98	0.46
59:CW:99:ALA:HA	59:CW:105:ARG:HH11	1.81	0.46
60:CZ:86:ARG:HB3	60:CZ:89:ASN:HD22	1.79	0.46
60:DN:309:ARG:HD2	60:DN:342:ILE:HD13	1.97	0.46
60:DP:252:LYS:HA	60:DP:255:VAL:HG12	1.98	0.46
60:DP:341:PHE:HB3	60:DP:348:ASN:ND2	2.31	0.46
59:DQ:52:PHE:HZ	59:DQ:239:THR:HG21	1.79	0.46
60:DW:249:ASP:OD1	60:DW:250:LEU:N	2.49	0.46
59:EH:306:ASP:OD2	59:EH:308:ARG:NH2	2.49	0.46
59:EN:21:TRP:CZ2	59:EN:65:ALA:HB2	2.51	0.46
60:EO:68:LEU:HA	60:EO:68:LEU:HD23	1.80	0.46
59:ER:76:ASP:OD1	59:ER:79:ARG:NH1	2.43	0.46
60:FK:198:GLU:HG2	60:FK:266:PHE:HE2	1.81	0.46
60:FQ:68:LEU:HD22	60:FQ:143:THR:HB	1.97	0.46
59:FU:44:VAL:HG13	59:FU:45:GLU:OE1	2.15	0.46
59:FW:215:ARG:HG3	59:FW:216:ASN:OD1	2.15	0.46
60:FX:213:ARG:HE	60:FX:297:LYS:NZ	2.14	0.46
59:GJ:90:GLU:HG3	59:GJ:121:ARG:HH11	1.81	0.46
59:GJ:269:LEU:HD22	59:GJ:303:THR:HG21	1.97	0.46
60:GQ:3:GLU:OE2	60:GQ:127:CYS:HB3	2.16	0.46
59:GT:104:ALA:HB2	59:GT:413:MET:HE2	1.98	0.46
59:GW:167:LEU:HD22	59:GW:200:VAL:HG22	1.97	0.46
60:HD:4:ILE:HD11	60:HD:250:LEU:HD11	1.98	0.46
60:HD:73:MET:HA	60:HD:76:VAL:HG12	1.98	0.46
60:HJ:178:THR:HB	60:HJ:181:GLU:HG3	1.98	0.46
60:HJ:378:PHE:HD2	60:HJ:418:LEU:HD22	1.81	0.46
59:HM:141:VAL:HG21	59:HM:172:TYR:CE1	2.50	0.46
59:HO:181:VAL:HG12	60:HP:347:ASN:O	2.16	0.46
60:HR:117:LEU:HD11	60:HR:154:LYS:HG3	1.98	0.46
59:HV:240:ALA:O	59:HV:356:ASN:ND2	2.49	0.46
60:IE:418:LEU:HA	60:IE:421:GLU:HG2	1.97	0.46
59:IK:99:ALA:HA	59:IK:105:ARG:HH11	1.81	0.46
59:IK:109:THR:HA	59:IK:112:LYS:NZ	2.31	0.46
60:IN:47:ILE:HG22	60:IN:51:PHE:HB2	1.96	0.46
60:IW:176:SER:OG	60:IW:178:THR:O	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KA:158:SER:HA	59:KA:166:LYS:NZ	2.31	0.46
60:KK:32:PRO:HG3	60:KK:81:TYR:CE1	2.51	0.46
60:KM:290:THR:HA	60:KM:293:MET:HE3	1.98	0.46
59:KS:241:SER:OG	59:KS:250:VAL:N	2.44	0.46
59:KS:262:TYR:HB2	59:KS:265:ILE:CD1	2.45	0.46
60:KT:200:MET:HG2	60:KT:268:MET:CE	2.46	0.46
60:KV:27:GLU:OE1	60:KV:241:ARG:NH2	2.48	0.46
1:0B:551:ASP:OD1	1:0B:551:ASP:N	2.47	0.45
2:0E:558:LEU:HD22	2:0E:612:LEU:HD13	1.98	0.45
6:0M:251:LEU:HD13	59:BI:372:GLN:OE1	2.16	0.45
11:0T:262:ILE:HD11	11:0T:345:GLU:OE2	2.16	0.45
12:0U:276:GLU:OE2	12:0U:281:ARG:N	2.49	0.45
18:1A:22:LEU:HD13	18:1A:124:LEU:HD22	1.98	0.45
27:1K:154:SER:HB2	60:AD:217:LEU:HD12	1.98	0.45
28:1M:400:ASP:OD1	28:1M:400:ASP:N	2.47	0.45
32:1Z:86:TYR:OH	59:DZ:415:GLU:OE1	2.21	0.45
32:1Z:125:LEU:HD21	32:1Z:132:ILE:HD11	1.98	0.45
32:2A:169:ASP:OD1	32:2A:169:ASP:N	2.50	0.45
35:2G:299:ARG:O	35:2G:303:THR:HG23	2.16	0.45
36:2I:200:VAL:HG13	60:ES:302:ALA:HB1	1.98	0.45
36:2K:20:TYR:CE1	36:2K:57:HIS:HB2	2.51	0.45
39:2O:7:ARG:NH2	60:KX:26:ASP:OD2	2.48	0.45
39:2Q:120:GLU:HA	39:2Q:125:VAL:HG21	1.98	0.45
41:2X:29:LYS:HZ1	41:2Y:345:LEU:HD23	1.81	0.45
54:4N:102:ILE:O	54:4N:105:GLN:HB3	2.16	0.45
60:AJ:377:MET:HA	60:AJ:380:ARG:NE	2.30	0.45
59:AK:187:SER:O	59:AK:191:THR:HG23	2.16	0.45
60:AL:149:THR:O	60:AL:152:ILE:HG22	2.16	0.45
60:AT:167:PHE:CE2	60:AT:233:VAL:HG22	2.51	0.45
60:BF:8:GLN:CD	60:BF:17:GLY:HA3	2.36	0.45
60:BF:68:LEU:HD22	60:BF:143:THR:HB	1.98	0.45
60:BH:167:PHE:CE2	60:BH:233:VAL:HG22	2.51	0.45
60:BT:81:TYR:O	60:BT:84:ILE:HG12	2.16	0.45
60:BT:300:MET:HB2	60:BT:300:MET:HE2	1.86	0.45
59:BU:180:ALA:HB1	60:BV:256:ASN:HD21	1.81	0.45
60:CC:267:MET:N	60:CC:369:GLY:O	2.35	0.45
59:CF:296:PHE:CE2	59:CF:335:ILE:HD13	2.52	0.45
60:CG:206:ALA:O	60:CG:210:ILE:HG12	2.16	0.45
60:CI:288:GLU:HA	60:CI:291:GLN:HG3	1.97	0.45
60:CN:284:LEU:HD12	60:CN:362:LYS:HG2	1.98	0.45
60:CT:203:ASP:OD1	60:CT:301:GLN:HA	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CU:132:LEU:HG	59:CU:164:LYS:HE2	1.98	0.45
60:DH:121:CYS:SG	60:DH:158:GLN:OE1	2.69	0.45
60:DN:175:VAL:HG11	59:DO:329:ASN:HD21	1.82	0.45
60:DR:132:GLY:HA3	60:DR:163:ILE:HB	1.99	0.45
60:DV:293:MET:HE2	60:DV:365:VAL:HG11	1.98	0.45
59:EB:181:VAL:HG23	59:EB:182:VAL:HG23	1.97	0.45
60:EK:238:CYS:SG	60:EK:239:CYS:N	2.88	0.45
60:EK:268:MET:SD	60:EK:368:ILE:HG12	2.56	0.45
60:EQ:67:ASP:OD1	60:EQ:68:LEU:N	2.46	0.45
59:ET:250:VAL:HA	59:ET:254:GLU:OE2	2.16	0.45
59:EZ:203:MET:HG3	59:EZ:384:ILE:HD11	1.98	0.45
60:FC:238:CYS:SG	60:FC:239:CYS:N	2.89	0.45
60:FM:68:LEU:HD13	60:FM:143:THR:OG1	2.16	0.45
60:GB:179:VAL:HG12	59:GC:258:ASN:OD1	2.16	0.45
59:GE:76:ASP:OD1	59:GE:79:ARG:NH1	2.45	0.45
60:GK:167:PHE:CE2	60:GK:233:VAL:HG22	2.51	0.45
59:GL:66:VAL:HA	59:GL:91:GLN:HB2	1.96	0.45
59:GN:320:ARG:HD3	59:GN:358:GLN:O	2.16	0.45
60:GQ:350:LYS:HB2	60:GQ:350:LYS:HE2	1.50	0.45
59:GT:75:VAL:HG21	59:GT:94:SER:HB2	1.98	0.45
60:HB:214:THR:OG1	60:HB:215:LEU:HD12	2.15	0.45
60:HD:19:LYS:HA	60:HD:22:GLU:OE1	2.16	0.45
60:HD:249:ASP:OD1	60:HD:250:LEU:N	2.49	0.45
59:HE:2:ARG:N	59:HE:133:GLN:HE22	2.14	0.45
60:HH:179:VAL:HG12	59:HI:258:ASN:OD1	2.15	0.45
59:HK:88:HIS:HB3	59:HK:91:GLN:OE1	2.16	0.45
59:HX:246:GLY:HA2	59:HX:357:TYR:HD2	1.82	0.45
60:IF:171:PRO:HB3	60:IF:181:GLU:HG2	1.97	0.45
60:IJ:311:LEU:O	60:IJ:348:ASN:ND2	2.40	0.45
59:IK:265:ILE:HG22	59:IK:380:ASN:HD21	1.81	0.45
60:IW:103:LYS:HB2	60:IW:103:LYS:HE2	1.74	0.45
59:IX:259:LEU:HD21	59:IX:316:CYS:HB2	1.98	0.45
60:JA:67:ASP:O	60:JA:92:PHE:HA	2.15	0.45
60:JE:305:PRO:HA	60:JE:371:ASN:HD21	1.81	0.45
59:JF:113:GLU:OE1	59:JF:113:GLU:N	2.46	0.45
60:JG:62:ARG:HE	60:JG:62:ARG:HB3	1.51	0.45
60:JI:31:ASP:OD1	60:JI:33:THR:HG22	2.16	0.45
59:JQ:90:GLU:O	59:JQ:121:ARG:NH1	2.49	0.45
59:JQ:172:TYR:HH	59:JQ:267:PHE:HE2	1.64	0.45
60:JT:98:GLY:O	59:JU:257:THR:HG21	2.17	0.45
60:KK:148:GLY:O	60:KK:152:ILE:HG12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KM:67:ASP:OD1	60:KM:68:LEU:N	2.48	0.45
60:KM:390:ARG:HH21	59:KN:442:MET:HB3	1.81	0.45
59:KQ:259:LEU:HD11	59:KQ:316:CYS:HB2	1.98	0.45
60:KT:252:LYS:HA	60:KT:255:VAL:HG12	1.98	0.45
60:KV:67:ASP:OD1	60:KV:68:LEU:N	2.47	0.45
1:0B:400:GLU:O	1:0B:404:VAL:HG23	2.16	0.45
3:0F:88:TYR:CE2	3:0F:189:PRO:HG3	2.51	0.45
3:0F:211:LEU:O	3:0F:215:VAL:HG23	2.16	0.45
3:0F:495:ILE:O	3:0F:495:ILE:HG13	2.15	0.45
5:0K:253:GLU:OE2	5:0K:257:HIS:NE2	2.42	0.45
15:0X:21:VAL:HG23	15:0X:89:LYS:HG2	1.97	0.45
17:0Z:301:LEU:HD12	17:0Z:363:VAL:HG13	1.98	0.45
19:1B:276:MET:HG2	19:1B:280:TYR:CD2	2.51	0.45
20:1C:17:GLN:NE2	20:1C:25:GLN:OE1	2.47	0.45
21:1D:272:PRO:HA	21:1D:275:VAL:HG12	1.98	0.45
28:1M:358:ARG:NH1	28:1M:362:LEU:HG	2.31	0.45
33:2D:30:ALA:HB2	33:2D:294:CYS:SG	2.55	0.45
36:2J:66:ARG:NH2	36:2J:69:LEU:HD22	2.31	0.45
39:2R:449:GLU:O	39:2R:452:ARG:HB2	2.16	0.45
41:2Z:5:PRO:HB3	41:3A:338:TYR:CD2	2.52	0.45
47:3V:226:GLN:NE2	48:3Y:219:TYR:OH	2.50	0.45
52:4J:333:PRO:HD2	60:JZ:125:GLU:HG3	1.98	0.45
57:4R:79:GLY:N	59:GE:430:LYS:HZ3	2.14	0.45
57:4Y:18:ARG:HH22	59:FU:415:GLU:HG3	1.81	0.45
60:AB:249:ASP:OD1	60:AB:250:LEU:N	2.49	0.45
60:AH:249:ASP:OD1	60:AH:250:LEU:N	2.49	0.45
59:AW:283:HIS:HB3	59:BI:88:HIS:HD2	1.80	0.45
60:AX:190:HIS:CE1	60:AX:414:ASN:HD22	2.34	0.45
60:BB:178:THR:OG1	60:BB:181:GLU:HG3	2.17	0.45
60:BP:68:LEU:HD13	60:BP:143:THR:OG1	2.16	0.45
60:BV:210:ILE:HD11	60:BV:298:ASN:HA	1.98	0.45
60:CI:67:ASP:OD1	60:CI:68:LEU:N	2.49	0.45
59:CM:179:THR:O	60:CN:350:LYS:HD2	2.16	0.45
59:CO:88:HIS:ND1	59:CO:89:PRO:HD2	2.32	0.45
60:CT:412:GLU:OE2	60:CT:416:ASN:ND2	2.42	0.45
60:CX:97:ALA:HB2	60:CX:143:THR:HB	1.98	0.45
59:CY:47:ASP:OD1	59:CY:47:ASP:N	2.49	0.45
59:DA:50:ASN:O	59:DA:64:ARG:NH1	2.49	0.45
59:DE:2:ARG:HG3	59:DE:3:GLU:OE1	2.15	0.45
59:DM:121:ARG:HA	59:DM:121:ARG:NE	2.32	0.45
60:EC:32:PRO:HA	60:EC:84:ILE:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EJ:280:LYS:HZ1	59:EV:90:GLU:HG2	1.81	0.45
60:FA:322:SER:OG	60:FA:325:GLU:HG3	2.16	0.45
60:FC:232:VAL:HG22	60:FC:270:PHE:HB2	1.97	0.45
60:FZ:103:LYS:HG2	60:FZ:108:GLU:OE1	2.16	0.45
59:GE:273:ALA:HB2	59:GE:295:VAL:CG2	2.46	0.45
59:GG:96:LYS:HG3	59:GG:97:GLU:HG3	1.98	0.45
59:GJ:75:VAL:O	59:GJ:79:ARG:HD3	2.16	0.45
59:GP:64:ARG:NH2	59:GP:129:CYS:SG	2.77	0.45
59:GR:395:PHE:CE2	59:GR:422:ARG:HG3	2.51	0.45
60:GX:137:HIS:O	60:GX:168:SER:HA	2.17	0.45
60:HL:179:VAL:HG23	60:HL:180:VAL:HG13	1.98	0.45
60:HN:332:ASN:CG	60:HN:336:LYS:HZ3	2.16	0.45
60:HP:41:ASP:OD1	60:HP:41:ASP:N	2.49	0.45
60:HR:73:MET:HA	60:HR:76:VAL:HG12	1.98	0.45
59:HZ:271:SER:HB3	59:HZ:301:MET:HG2	1.98	0.45
59:HZ:408:TYR:HB3	59:HZ:413:MET:CE	2.46	0.45
59:IM:321:GLY:N	59:IM:356:ASN:O	2.37	0.45
60:JC:247:ASN:O	60:JC:252:LYS:NZ	2.50	0.45
60:JE:31:ASP:HB2	60:JE:37:GLN:OE1	2.16	0.45
59:JF:184:PRO:HA	59:JF:391:ILE:HD11	1.98	0.45
60:JK:249:ASP:OD1	60:JK:250:LEU:N	2.49	0.45
59:JL:270:THR:HG22	59:JL:378:ILE:HG22	1.98	0.45
59:JN:270:THR:HG22	59:JN:378:ILE:HG22	1.97	0.45
59:JP:417:GLU:HA	59:JP:420:GLU:HG2	1.98	0.45
59:JQ:301:MET:HE2	59:JQ:303:THR:O	2.15	0.45
60:JT:167:PHE:CE2	60:JT:233:VAL:HG22	2.52	0.45
59:KA:11:GLN:O	59:KA:15:GLN:HG3	2.16	0.45
60:KE:344:TRP:HB3	60:KE:430:ILE:HD11	1.97	0.45
60:KE:362:LYS:HD2	60:KE:363:MET:HE3	1.98	0.45
60:KK:137:HIS:O	60:KK:168:SER:HA	2.16	0.45
59:KN:90:GLU:O	59:KN:121:ARG:NH1	2.49	0.45
60:LB:156:ARG:HH11	60:LB:160:PRO:HA	1.81	0.45
2:0E:446:VAL:HG13	2:0E:469:THR:HG23	1.98	0.45
4:0G:55:TYR:HB3	5:0H:85:ARG:NH2	2.30	0.45
4:0G:491:THR:OG1	4:0G:493:GLU:OE1	2.25	0.45
5:0I:330:ASN:O	5:0I:334:ARG:HG2	2.15	0.45
7:0P:387:GLU:OE1	7:0P:390:ARG:NE	2.50	0.45
15:0X:3:VAL:HG11	15:0X:52:ASP:HB3	1.99	0.45
22:1E:238:MET:HE1	60:FC:213:ARG:HH12	1.82	0.45
24:1G:34:HIS:HB2	60:FX:276:ARG:HH11	1.81	0.45
24:1G:146:MET:SD	24:1G:149:ARG:NH2	2.90	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1V:60:THR:HG22	32:1V:155:GLN:HG2	1.99	0.45
34:2F:122:ASN:OD1	34:2F:123:ARG:N	2.49	0.45
37:2L:234:PHE:CE1	60:FC:94:GLN:HG2	2.51	0.45
41:3C:164:TYR:O	41:3C:168:MET:HG2	2.16	0.45
41:3D:248:MET:HA	41:3D:251:HIS:CD2	2.51	0.45
42:3L:217:PHE:HB3	60:HS:42:LEU:HD12	1.98	0.45
57:4R:101:ARG:O	57:4R:105:GLN:HG2	2.16	0.45
60:AB:309:ARG:HE	60:AB:342:ILE:HD13	1.80	0.45
59:AI:3:GLU:HG2	59:AI:64:ARG:NH1	2.30	0.45
60:AL:330:MET:HA	60:AL:333:VAL:HG12	1.98	0.45
59:AS:269:LEU:HD21	59:AS:384:ILE:HG22	1.98	0.45
60:AT:249:ASP:OD1	60:AT:250:LEU:N	2.49	0.45
59:AU:40:LYS:HD3	59:AU:42:ILE:HG12	1.97	0.45
60:BB:404:ASP:HB3	60:BB:407:GLU:OE1	2.16	0.45
60:BF:68:LEU:HD13	60:BF:143:THR:OG1	2.16	0.45
59:BI:158:SER:HB3	59:BI:166:LYS:HZ2	1.81	0.45
59:BI:259:LEU:O	59:BI:380:ASN:ND2	2.46	0.45
60:BR:192:LEU:HD21	60:BR:199:SER:OG	2.16	0.45
60:CA:313:ALA:HB1	60:CA:367:PHE:CE1	2.49	0.45
60:CE:8:GLN:HB2	60:CE:65:LEU:HD23	1.99	0.45
60:CG:20:PHE:HA	60:CG:230:SER:OG	2.16	0.45
59:CH:315:CYS:HB2	59:CH:351:PHE:CD1	2.51	0.45
59:CM:2:ARG:HG3	59:CM:3:GLU:OE1	2.16	0.45
60:CP:285:SER:OG	60:CP:287:PRO:HD2	2.17	0.45
60:CP:324:LYS:N	60:CP:324:LYS:HD2	2.32	0.45
59:CU:105:ARG:NH2	60:CV:251:ARG:HH12	2.14	0.45
60:CZ:27:GLU:OE1	60:CZ:241:ARG:NH2	2.48	0.45
59:DC:214:ARG:HH11	59:DC:215:ARG:NH1	2.14	0.45
59:DG:430:LYS:NZ	59:DG:434:GLU:OE2	2.30	0.45
59:DU:392:ASP:HB3	59:DU:422:ARG:NH2	2.28	0.45
60:DW:170:ILE:HD12	60:DW:201:CYS:HB3	1.98	0.45
60:EA:3:GLU:N	60:EA:3:GLU:OE1	2.50	0.45
60:EM:259:PRO:HG2	60:EM:311:LEU:HD23	1.97	0.45
59:EN:68:LEU:HD23	59:EN:68:LEU:HA	1.82	0.45
59:ET:276:ILE:HG13	59:ET:280:LYS:HE3	1.98	0.45
59:FJ:216:ASN:O	59:FJ:280:LYS:NZ	2.31	0.45
60:FO:3:GLU:OE2	60:FO:127:CYS:HB3	2.16	0.45
60:FQ:298:ASN:O	60:FQ:298:ASN:ND2	2.48	0.45
59:FW:52:PHE:CZ	59:FW:239:THR:HG21	2.51	0.45
60:FX:326:VAL:O	60:FX:330:MET:HG2	2.17	0.45
60:FZ:27:GLU:CD	60:FZ:241:ARG:HH21	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GI:403:MET:HE3	60:GI:408:PHE:CZ	2.51	0.45
60:GK:167:PHE:HE2	60:GK:233:VAL:HG13	1.82	0.45
59:GL:36:MET:HE2	59:GL:36:MET:HB3	1.85	0.45
60:GO:152:ILE:HG22	60:GO:195:ASN:HB3	1.97	0.45
59:HE:224:TYR:CE2	60:HF:323:THR:HG21	2.52	0.45
60:HF:66:ILE:HD13	60:HF:91:ILE:HG23	1.97	0.45
59:HG:333:ALA:O	59:HG:337:THR:HG23	2.16	0.45
60:HJ:67:ASP:OD1	60:HJ:68:LEU:N	2.49	0.45
60:HL:7:VAL:HB	60:HL:135:ILE:HG12	1.98	0.45
60:HS:377:MET:O	60:HS:380:ARG:HG3	2.15	0.45
59:HT:319:TYR:CD1	59:HT:375:VAL:HB	2.52	0.45
59:HX:56:THR:HG23	59:HX:58:ALA:H	1.81	0.45
60:HY:8:GLN:HG2	60:HY:17:GLY:HA3	1.97	0.45
60:IA:324:LYS:HG3	60:IA:328:GLU:HG2	1.98	0.45
59:II:27:GLU:OE2	59:II:243:ARG:NH1	2.49	0.45
60:IN:73:MET:HA	60:IN:76:VAL:HG12	1.98	0.45
60:JC:206:ALA:O	60:JC:210:ILE:HG12	2.17	0.45
59:JF:296:PHE:HE1	59:JF:377:MET:SD	2.40	0.45
60:JI:383:GLU:O	60:JI:387:LEU:HD23	2.16	0.45
60:JM:254:ALA:O	60:JM:258:VAL:HG22	2.16	0.45
59:JN:251:ASP:OD1	59:JN:252:LEU:N	2.50	0.45
60:JV:344:TRP:HB3	60:JV:430:ILE:HD11	1.98	0.45
60:KE:421:GLU:HA	60:KE:424:GLN:HG2	1.98	0.45
59:KF:395:PHE:CD2	59:KF:422:ARG:HD3	2.52	0.45
59:KN:273:ALA:HB2	59:KN:295:VAL:CG2	2.47	0.45
59:KQ:246:GLY:HA2	59:KQ:357:TYR:CD2	2.52	0.45
60:KV:330:MET:HA	60:KV:333:VAL:HG12	1.99	0.45
2:0E:602:ILE:HG22	2:0E:603:THR:HG23	1.99	0.45
11:0T:94:ASP:OD1	11:0T:94:ASP:N	2.45	0.45
12:0U:107:GLU:HA	12:0U:110:LYS:HZ1	1.80	0.45
14:0W:40:VAL:O	14:0W:44:ILE:HD12	2.16	0.45
33:2C:47:ILE:HD13	33:2C:97:PHE:HE1	1.81	0.45
33:2C:95:PHE:CD2	33:2C:102:MET:HB2	2.52	0.45
33:2D:15:ASP:OD1	33:2D:15:ASP:N	2.49	0.45
35:2H:312:MET:CE	35:2H:325:LYS:HD3	2.46	0.45
36:2I:139:LEU:HD23	60:ES:409:THR:HG23	1.97	0.45
36:2K:248:LEU:HA	36:2K:276:ASN:HD22	1.81	0.45
39:2P:260:LYS:O	39:2P:263:GLN:HG3	2.15	0.45
39:2Q:1:MET:HG2	60:KT:361:LEU:HD21	1.98	0.45
39:2Q:282:GLN:NE2	39:2Q:283:GLU:HG3	2.31	0.45
39:2R:324:ARG:HG2	39:2R:327:ARG:HH21	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:2R:409:SER:HB2	59:JU:282:TYR:HE1	1.81	0.45
41:2Y:17:HIS:ND1	60:HS:41:ASP:OD2	2.24	0.45
41:2Z:196:THR:O	41:2Z:199:GLU:HG3	2.16	0.45
41:3D:259:GLU:O	41:3D:262:GLU:HG3	2.17	0.45
42:3J:86:GLU:OE1	42:3J:87:GLY:N	2.50	0.45
57:4S:124:PRO:HB3	59:FW:430:LYS:HB3	1.98	0.45
59:AA:443:ASP:OD1	59:AA:443:ASP:N	2.49	0.45
60:AB:175:VAL:HG11	59:AC:329:ASN:HB3	1.97	0.45
59:AC:254:GLU:HA	59:AC:257:THR:HG22	1.99	0.45
60:AJ:150:LEU:O	60:AJ:154:LYS:HG2	2.17	0.45
59:AM:222:PRO:HD2	60:AN:324:LYS:HE2	1.97	0.45
59:AQ:69:ASP:OD1	59:AQ:70:LEU:N	2.49	0.45
60:AV:203:ASP:OD2	60:AV:302:ALA:N	2.50	0.45
59:AY:104:ALA:HB2	59:AY:413:MET:CE	2.46	0.45
59:BG:283:HIS:CE1	59:BS:60:LYS:HZ1	2.35	0.45
60:BH:283:GLY:HA2	60:BT:55:THR:HB	1.98	0.45
59:BI:3:GLU:HG2	59:BI:64:ARG:HH12	1.81	0.45
59:BI:28:HIS:CE1	59:BI:49:PHE:HA	2.51	0.45
60:BN:326:VAL:O	60:BN:330:MET:HG2	2.16	0.45
59:BU:212:LEU:HD12	59:BU:216:ASN:OD1	2.16	0.45
59:CB:443:ASP:N	59:CB:443:ASP:OD1	2.50	0.45
60:CC:233:VAL:O	60:CC:236:VAL:HG12	2.17	0.45
59:CD:388:PHE:HB3	59:CD:425:LEU:HD11	1.98	0.45
60:CR:206:ALA:O	60:CR:210:ILE:HG12	2.16	0.45
59:DK:425:LEU:HD12	59:DK:425:LEU:HA	1.82	0.45
59:DZ:50:ASN:O	59:DZ:64:ARG:NH1	2.49	0.45
60:EA:270:PHE:CE1	60:EA:272:PRO:HD2	2.51	0.45
60:EE:404:ASP:HB3	60:EE:407:GLU:OE1	2.17	0.45
60:EG:68:LEU:HD13	60:EG:143:THR:OG1	2.17	0.45
60:EG:156:ARG:HH21	60:EG:164:MET:HB2	1.82	0.45
59:EP:270:THR:HG22	59:EP:378:ILE:HG22	1.97	0.45
59:EP:296:PHE:CZ	59:EP:335:ILE:HG21	2.51	0.45
60:EW:327:ASP:OD1	60:EW:328:GLU:N	2.50	0.45
59:FH:108:TYR:O	59:FH:112:LYS:HD2	2.16	0.45
60:FM:374:ILE:O	60:FM:377:MET:HG2	2.16	0.45
60:FO:3:GLU:N	60:FO:3:GLU:OE1	2.49	0.45
60:FQ:111:GLU:N	60:FQ:111:GLU:OE1	2.49	0.45
60:GB:68:LEU:HD13	60:GB:143:THR:OG1	2.16	0.45
60:GQ:12:CYS:O	60:GQ:16:ILE:HG12	2.16	0.45
60:HD:42:LEU:HD13	60:HD:356:ILE:HD11	1.98	0.45
59:HG:209:ILE:HB	59:HG:227:LEU:HG	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HM:19:ALA:HA	59:HM:22:GLU:HG2	1.99	0.45
60:HN:304:ASP:OD1	60:HN:304:ASP:N	2.50	0.45
60:HU:46:ARG:HG3	60:HU:241:ARG:O	2.15	0.45
60:HW:12:CYS:SG	60:HW:13:GLY:N	2.90	0.45
60:IC:73:MET:HE1	60:IC:92:PHE:HB3	1.98	0.45
59:IG:241:SER:HA	59:IG:356:ASN:HD22	1.81	0.45
60:IL:33:THR:O	60:IL:58:ARG:NH2	2.49	0.45
60:IN:292:GLN:HG2	60:IN:298:ASN:ND2	2.30	0.45
59:IQ:117:LEU:HB3	59:IQ:121:ARG:HH12	1.82	0.45
60:IS:48:ASN:OD1	60:IS:49:VAL:N	2.49	0.45
59:IT:338:LYS:HB2	59:IT:341:ILE:HG22	1.98	0.45
59:IV:329:ASN:OD1	59:IV:330:ALA:N	2.49	0.45
60:IY:313:ALA:HB1	60:IY:367:PHE:HE1	1.81	0.45
60:JC:200:MET:HB3	60:JC:268:MET:HE3	1.98	0.45
60:JE:113:ILE:HG13	60:JE:117:LEU:HD23	1.98	0.45
59:JJ:221:ARG:NH1	60:JK:322:SER:H	2.09	0.45
60:JR:32:PRO:HB3	60:JR:81:TYR:CE1	2.52	0.45
59:JS:215:ARG:HH22	59:JS:299:ALA:HA	1.81	0.45
60:JZ:220:PRO:HG2	59:KA:326:LYS:HG3	1.98	0.45
59:KA:269:LEU:HD22	59:KA:303:THR:HG21	1.98	0.45
59:KH:50:ASN:O	59:KH:64:ARG:NH1	2.49	0.45
60:KT:376:GLU:O	60:KT:379:ARG:HG2	2.16	0.45
59:KU:252:LEU:HA	59:KU:255:PHE:HD1	1.81	0.45
60:KZ:296:ALA:HA	60:KZ:299:MET:CE	2.47	0.45
5:0K:194:VAL:O	5:0K:197:GLU:HG2	2.17	0.45
30:1S:249:ALA:HB1	30:1S:253:ALA:HB3	1.98	0.45
31:1U:135:ARG:NH1	31:1U:137:ASP:OD2	2.46	0.45
32:1Z:49:VAL:O	32:1Z:159:ASN:N	2.50	0.45
33:2B:326:HIS:CE1	33:2B:352:ARG:HE	2.34	0.45
33:2C:262:LEU:HD11	33:2C:300:PHE:CD2	2.52	0.45
34:2E:91:VAL:HG11	60:FE:156:ARG:HB3	1.97	0.45
34:2F:141:ASN:ND2	60:EY:425:TYR:OH	2.33	0.45
36:2I:244:TYR:HE1	36:2I:280:LYS:HD3	1.82	0.45
39:2P:253:ASN:O	39:2P:257:ILE:HG12	2.16	0.45
39:2P:424:ARG:HG2	52:4J:349:PHE:CE2	2.52	0.45
39:2Q:42:THR:N	39:2Q:45:GLU:OE2	2.50	0.45
42:3M:225:TYR:HE2	59:HI:18:ASN:HB3	1.81	0.45
44:3R:110:ASP:OD2	60:JO:40:SER:HB2	2.16	0.45
47:3W:185:ARG:HH21	50:4F:149:HIS:CE1	2.33	0.45
51:4H:8:ARG:NH1	60:HW:301:GLN:O	2.49	0.45
53:4K:241:TRP:CD2	55:4P:163:ARG:HD2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:4N:15:THR:HG21	59:HI:440:ALA:HB1	1.99	0.45
54:4N:105:GLN:OE1	59:II:434:GLU:HB3	2.16	0.45
57:4S:148:TYR:CE1	57:4Y:5:PRO:HB3	2.52	0.45
58:4W:99:ARG:NH1	59:FW:442:MET:SD	2.89	0.45
60:AB:8:GLN:HE22	60:AB:21:TRP:HE1	1.63	0.45
60:AD:178:THR:HB	60:AD:181:GLU:HG3	1.97	0.45
60:AD:326:VAL:O	60:AD:330:MET:HG2	2.16	0.45
59:AG:406:HIS:HA	59:AG:409:VAL:HG12	1.97	0.45
60:AJ:271:ALA:HA	60:AJ:298:ASN:ND2	2.30	0.45
59:BC:100:ALA:HA	60:BD:252:LYS:HG2	1.98	0.45
59:BC:108:TYR:O	59:BC:112:LYS:HE3	2.17	0.45
59:BE:129:CYS:SG	59:BE:132:LEU:HB2	2.57	0.45
59:BE:292:SER:OG	59:BE:319:TYR:OH	2.27	0.45
60:BH:8:GLN:OE1	60:BH:17:GLY:HA3	2.16	0.45
60:BY:139:LEU:HD12	60:BY:170:ILE:HG22	1.97	0.45
59:CB:203:MET:HG3	59:CB:384:ILE:HD11	1.98	0.45
60:CR:99:ASN:HD21	60:CR:178:THR:HG23	1.81	0.45
60:CR:316:LEU:HD23	60:CR:352:SER:HB2	1.99	0.45
60:CT:208:TYR:HE1	59:CU:326:LYS:HZ2	1.63	0.45
59:CU:339:ARG:NH1	59:CU:340:THR:HG23	2.31	0.45
60:CX:282:ARG:O	60:CX:282:ARG:HG3	2.16	0.45
59:CY:21:TRP:CZ2	59:CY:65:ALA:HB2	2.52	0.45
60:DF:52:ASP:OD1	60:DF:53:GLU:N	2.49	0.45
60:DJ:173:PRO:HG3	60:DJ:380:ARG:HD2	1.97	0.45
60:DL:262:ARG:NH1	60:DL:421:GLU:OE1	2.50	0.45
59:DM:52:PHE:CZ	59:DM:239:THR:HG21	2.52	0.45
60:DN:257:LEU:HD21	60:DN:314:SER:HB3	1.98	0.45
60:DR:322:SER:OG	60:DR:325:GLU:HG3	2.17	0.45
60:EE:3:GLU:N	60:EE:3:GLU:OE1	2.50	0.45
59:EF:75:VAL:O	59:EF:78:VAL:HG12	2.15	0.45
59:ET:91:GLN:HE22	59:ET:125:LEU:HD21	1.82	0.45
60:EW:275:SER:HB2	60:EW:278:SER:OG	2.17	0.45
59:FH:405:VAL:HG12	59:FH:409:VAL:HG23	1.97	0.45
60:FM:156:ARG:NH2	60:FM:197:ASP:HB2	2.31	0.45
60:FO:67:ASP:O	60:FO:92:PHE:HA	2.16	0.45
59:FP:164:LYS:HE2	59:FP:164:LYS:HB2	1.68	0.45
60:GB:22:GLU:HG2	60:GB:81:TYR:CD1	2.51	0.45
60:GD:20:PHE:HA	60:GD:230:SER:HB2	1.97	0.45
60:GF:238:CYS:SG	60:GF:239:CYS:N	2.90	0.45
60:GF:252:LYS:HA	60:GF:255:VAL:HG12	1.98	0.45
60:GI:3:GLU:OE2	60:GI:127:CYS:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GL:75:VAL:HG23	59:GL:79:ARG:HH21	1.80	0.45
60:GS:19:LYS:O	60:GS:23:VAL:HG23	2.17	0.45
59:GW:36:MET:HG3	59:GW:37:PRO:HD2	1.99	0.45
59:HA:210:TYR:CE1	59:HA:227:LEU:HD11	2.51	0.45
59:HE:330:ALA:O	59:HE:334:THR:HG23	2.16	0.45
60:HH:14:ASN:H	60:HH:14:ASN:HD22	1.63	0.45
60:HH:286:VAL:HG12	60:HH:329:GLN:NE2	2.31	0.45
59:HI:250:VAL:HA	59:HI:254:GLU:OE2	2.17	0.45
59:HK:2:ARG:HG3	59:HK:3:GLU:OE1	2.15	0.45
60:HP:67:ASP:OD1	60:HP:68:LEU:N	2.49	0.45
59:HQ:288:VAL:HG22	59:HQ:323:VAL:HG12	1.98	0.45
59:HV:21:TRP:CZ2	59:HV:65:ALA:HB2	2.51	0.45
59:IB:24:PHE:HA	59:IB:27:GLU:HG2	1.97	0.45
59:IB:210:TYR:CE1	59:IB:227:LEU:HD21	2.51	0.45
60:IF:131:GLN:N	60:IF:131:GLN:OE1	2.50	0.45
59:IG:169:TYR:OH	59:IG:238:LEU:HD23	2.16	0.45
60:IH:67:ASP:OD1	60:IH:68:LEU:N	2.50	0.45
60:IS:164:MET:O	60:IS:197:ASP:HB2	2.17	0.45
60:IS:229:VAL:O	60:IS:233:VAL:HG23	2.16	0.45
60:IW:122:LYS:HE2	60:JI:291:GLN:NE2	2.31	0.45
60:JG:196:SER:HB3	60:JG:264:HIS:HE2	1.81	0.45
60:JI:72:THR:O	60:JI:76:VAL:HG13	2.17	0.45
59:JJ:269:LEU:HD22	59:JJ:303:THR:HG21	1.98	0.45
60:JK:209:ASP:OD1	60:JK:213:ARG:HD3	2.16	0.45
60:JK:214:THR:HG22	60:JK:297:LYS:NZ	2.32	0.45
59:JN:402:ARG:HH22	59:JN:415:GLU:HG3	1.81	0.45
59:JU:203:MET:SD	59:JU:384:ILE:HD11	2.57	0.45
60:JV:324:LYS:NZ	60:JV:328:GLU:HG3	2.32	0.45
60:JX:3:GLU:N	60:JX:3:GLU:OE1	2.49	0.45
60:JZ:132:GLY:HA3	60:JZ:163:ILE:HG13	1.98	0.45
60:KE:145:SER:HB2	60:KE:188:SER:OG	2.17	0.45
60:KE:282:ARG:HD3	60:KE:288:GLU:HG2	1.99	0.45
60:KG:385:PHE:CE2	60:KG:412:GLU:HB2	2.51	0.45
60:KM:284:LEU:HD11	60:KM:289:LEU:HD21	1.99	0.45
60:KO:27:GLU:OE1	60:KO:241:ARG:NH2	2.48	0.45
59:KQ:400:SER:OG	59:KQ:401:LYS:HD2	2.16	0.45
60:KT:304:ASP:OD1	60:KT:307:HIS:ND1	2.43	0.45
60:KV:401:GLU:HA	60:KV:401:GLU:OE1	2.17	0.45
59:KW:3:GLU:HG2	59:KW:64:ARG:CZ	2.47	0.45
59:KW:212:LEU:HD21	59:KW:275:VAL:HG21	1.99	0.45
1:0B:140:GLY:O	60:DL:275:SER:OG	2.35	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:0E:425:SER:HB3	2:0E:729:PRO:HB2	1.98	0.45
6:0M:302:LEU:HA	6:0M:305:ASN:HD21	1.82	0.45
9:0R:110:GLY:HA3	9:0R:227:GLN:HB2	1.99	0.45
13:0V:205:TYR:OH	13:0V:209:ASP:O	2.27	0.45
17:0Z:85:ALA:HB1	17:0Z:113:ARG:HG2	1.99	0.45
32:1V:138:ASP:OD2	32:1V:142:ARG:NH1	2.49	0.45
33:2B:328:ASP:OD1	33:2B:329:THR:N	2.42	0.45
33:2C:554:ASN:N	33:2C:554:ASN:OD1	2.49	0.45
39:2R:290:GLU:N	39:2R:290:GLU:OE1	2.49	0.45
41:3C:347:GLY:HA3	59:HM:221:ARG:HD2	1.99	0.45
42:3O:241:LEU:HD12	42:3O:254:LEU:HD13	1.98	0.45
47:3V:183:GLU:HB3	48:3Y:168:ARG:NH1	2.31	0.45
47:3W:171:ALA:O	47:3W:175:GLU:HG2	2.15	0.45
59:AA:93:ILE:HD11	59:AA:121:ARG:HG3	1.98	0.45
59:AA:215:ARG:NH2	59:AA:299:ALA:O	2.50	0.45
59:AK:52:PHE:CZ	59:AK:239:THR:HG21	2.52	0.45
59:AS:69:ASP:OD1	59:AS:71:GLU:N	2.44	0.45
60:AT:173:PRO:HB3	60:AT:380:ARG:CD	2.46	0.45
59:AW:212:LEU:HD21	59:AW:275:VAL:HG11	1.99	0.45
59:BA:101:ASN:HB3	59:BA:182:VAL:HG21	1.98	0.45
60:BJ:139:LEU:O	60:BJ:145:SER:OG	2.33	0.45
60:BL:220:PRO:HD2	59:BM:326:LYS:HD3	1.97	0.45
59:BZ:141:VAL:HG12	59:BZ:171:VAL:O	2.16	0.45
60:CA:139:LEU:HD11	60:CA:168:SER:HB2	1.98	0.45
60:CG:156:ARG:HD2	60:CG:156:ARG:HA	1.77	0.45
60:CI:51:PHE:HB3	60:CI:59:TYR:HB3	1.99	0.45
60:CL:19:LYS:NZ	60:CL:223:GLY:O	2.48	0.45
59:CM:335:ILE:HG23	59:CM:341:ILE:HD13	1.98	0.45
60:CR:52:ASP:HB3	60:CR:60:VAL:HG23	1.99	0.45
59:CS:352:LYS:HD2	59:CS:353:CYS:H	1.81	0.45
60:CV:63:SER:O	60:CV:89:ASN:ND2	2.32	0.45
60:CV:73:MET:HA	60:CV:76:VAL:HG12	1.99	0.45
59:DA:2:ARG:HG3	59:DA:3:GLU:OE1	2.16	0.45
60:DB:326:VAL:O	60:DB:330:MET:HG2	2.17	0.45
60:DD:268:MET:SD	60:DD:268:MET:N	2.90	0.45
60:DL:73:MET:HA	60:DL:76:VAL:HG22	1.98	0.45
60:DL:145:SER:HB3	60:DL:188:SER:OG	2.16	0.45
60:DP:145:SER:HB3	60:DP:188:SER:OG	2.17	0.45
59:DQ:28:HIS:O	59:DQ:40:LYS:NZ	2.49	0.45
59:DX:251:ASP:OD1	59:DX:252:LEU:N	2.50	0.45
59:DX:324:VAL:HG12	59:DX:326:LYS:HG2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:ED:11:GLN:O	59:ED:15:GLN:HG3	2.17	0.45
60:EE:292:GLN:HG2	60:EE:298:ASN:ND2	2.28	0.45
60:EG:395:LEU:HD21	60:EG:405:GLU:HG2	1.97	0.45
59:EL:324:VAL:HG12	59:EL:326:LYS:HG2	1.97	0.45
59:EN:224:TYR:CE2	60:EO:323:THR:HG21	2.52	0.45
59:EV:166:LYS:HB2	59:EV:166:LYS:HE2	1.85	0.45
59:EZ:358:GLN:OE1	59:EZ:359:PRO:HD2	2.16	0.45
59:FU:422:ARG:HH12	59:FU:426:ALA:HB2	1.81	0.45
59:FW:68:LEU:HD23	59:FW:68:LEU:HA	1.78	0.45
59:GN:175:PRO:O	59:GN:390:ARG:NH1	2.35	0.45
59:GN:177:VAL:HG13	60:GO:327:ASP:HB2	1.99	0.45
60:GS:156:ARG:HD2	60:GS:156:ARG:HA	1.79	0.45
60:GS:421:GLU:O	60:GS:424:GLN:HG2	2.16	0.45
60:GV:18:SER:O	60:GV:22:GLU:HG2	2.17	0.45
60:GV:254:ALA:O	60:GV:258:VAL:HG12	2.16	0.45
60:GZ:284:LEU:HD12	60:GZ:362:LYS:HB3	1.99	0.45
60:HN:7:VAL:HB	60:HN:135:ILE:HG12	1.99	0.45
60:HN:27:GLU:O	60:HN:43:GLN:NE2	2.49	0.45
60:HW:212:PHE:HB2	59:HX:326:LYS:HE3	1.98	0.45
59:HZ:143:GLY:HA3	62:HZ:501:GTP:O3A	2.15	0.45
60:IH:33:THR:O	60:IH:58:ARG:NH2	2.50	0.45
59:IQ:389:ALA:HA	59:IQ:429:GLU:OE2	2.16	0.45
60:IU:117:LEU:HD22	60:IU:154:LYS:HG2	1.99	0.45
60:IU:173:PRO:HA	60:IU:380:ARG:NH1	2.30	0.45
60:IY:254:ALA:O	60:IY:258:VAL:HG12	2.16	0.45
60:JA:8:GLN:HG2	60:JA:17:GLY:HA3	1.98	0.45
60:JA:67:ASP:OD1	60:JA:68:LEU:N	2.49	0.45
60:JE:233:VAL:O	60:JE:236:VAL:HG12	2.15	0.45
60:JE:286:VAL:HG13	60:JE:287:PRO:HD3	1.99	0.45
59:JF:206:ASN:OD1	62:JF:501:GTP:N2	2.47	0.45
59:JJ:82:THR:HG23	59:JJ:83:TYR:CD1	2.52	0.45
59:JJ:121:ARG:HA	59:JJ:121:ARG:NH1	2.31	0.45
59:JS:56:THR:HA	59:KF:285:GLN:HB3	1.98	0.45
59:JS:223:THR:OG1	59:JS:224:TYR:N	2.50	0.45
60:JZ:117:LEU:HD11	60:JZ:154:LYS:HG3	1.98	0.45
59:KD:39:ASP:OD1	59:KD:39:ASP:N	2.48	0.45
59:KQ:165:SER:HB2	59:KQ:256:GLN:NE2	2.32	0.45
60:KR:170:ILE:HD12	60:KR:377:MET:SD	2.56	0.45
59:KS:377:MET:O	59:KS:378:ILE:HD13	2.17	0.45
60:KT:263:LEU:HD21	60:KT:425:TYR:CD2	2.52	0.45
60:KX:380:ARG:O	60:KX:383:GLU:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0B:680:TYR:HE1	60:DB:56:GLY:HA3	1.82	0.45
5:0H:215:GLU:HG2	5:0H:218:ARG:HH21	1.82	0.45
9:0R:83:ASP:HB3	59:AC:42:ILE:HG22	1.97	0.45
20:1C:98:ARG:HG3	20:1C:243:GLU:CD	2.37	0.45
30:1R:12:THR:HG23	30:1R:14:ARG:H	1.81	0.45
33:2C:206:SER:HB3	33:2C:253:MET:HG3	1.99	0.45
33:2D:252:SER:O	33:2D:253:MET:HG2	2.15	0.45
35:2G:49:SER:OG	59:EV:112:LYS:O	2.25	0.45
35:2H:352:ASP:OD2	40:2S:50:SER:N	2.46	0.45
39:2Q:259:LEU:HD21	44:3R:83:LEU:HD22	1.99	0.45
40:2S:51:GLU:HA	40:2S:54:ASN:ND2	2.32	0.45
40:2S:54:ASN:O	40:2S:58:ILE:HD12	2.17	0.45
41:2Y:327:ARG:HG2	59:IQ:282:TYR:HE1	1.82	0.45
48:4A:224:ASP:O	48:4A:227:ARG:HG2	2.17	0.45
51:4H:170:ASP:OD1	51:4H:170:ASP:N	2.47	0.45
57:4R:76:MET:SD	58:4T:87:ARG:NH2	2.89	0.45
59:AC:367:ASP:OD1	59:AC:368:LEU:HD12	2.17	0.45
59:AM:251:ASP:OD1	59:AM:252:LEU:N	2.50	0.45
59:AO:19:ALA:HA	59:AO:22:GLU:HG2	1.98	0.45
59:AS:101:ASN:OD1	60:AT:252:LYS:HD2	2.17	0.45
59:AY:121:ARG:HD2	59:AY:121:ARG:HA	1.65	0.45
60:BD:139:LEU:HG	60:BD:168:SER:HB2	1.99	0.45
59:BE:241:SER:HB2	59:BE:318:MET:HE1	1.99	0.45
59:BI:212:LEU:HD21	59:BI:275:VAL:HG21	1.99	0.45
60:BY:374:ILE:O	60:BY:377:MET:HG2	2.17	0.45
59:BZ:396:ASP:OD2	59:BZ:422:ARG:NH2	2.49	0.45
60:CA:318:ARG:HD3	60:CA:358:PRO:HD3	1.99	0.45
59:CH:326:LYS:HE3	59:CH:326:LYS:HB3	1.83	0.45
60:CL:128:ASP:OD1	60:CL:129:CYS:N	2.49	0.45
60:CN:214:THR:OG1	60:CN:215:LEU:HD12	2.17	0.45
59:CQ:443:ASP:OD1	59:CQ:443:ASP:N	2.50	0.45
59:CY:239:THR:O	59:CY:240:ALA:C	2.54	0.45
60:DF:121:CYS:SG	60:DF:158:GLN:NE2	2.87	0.45
59:DO:199:ASP:OD2	59:DO:256:GLN:NE2	2.50	0.45
59:DQ:384:ILE:HD11	59:DQ:432:TYR:CZ	2.51	0.45
59:DS:224:TYR:CE2	60:DT:323:THR:HG21	2.52	0.45
60:DV:27:GLU:OE1	60:DV:241:ARG:NH2	2.46	0.45
60:EM:262:ARG:NE	60:EM:421:GLU:OE2	2.50	0.45
60:EQ:230:SER:HA	60:EQ:233:VAL:HG12	1.99	0.45
59:ER:172:TYR:CG	59:ER:173:PRO:HD2	2.52	0.45
60:ES:145:SER:HB2	60:ES:188:SER:OG	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EX:203:MET:HE1	59:EX:384:ILE:HD11	1.97	0.45
59:EZ:443:ASP:OD1	59:EZ:443:ASP:N	2.50	0.45
60:FG:68:LEU:HD13	60:FG:143:THR:OG1	2.17	0.45
59:FH:44:VAL:HG13	59:FH:45:GLU:OE1	2.17	0.45
59:FT:192:HIS:ND1	59:FT:424:ASP:OD2	2.45	0.45
59:FU:196:GLU:HG3	59:FU:197:HIS:CG	2.52	0.45
59:GE:273:ALA:HB3	59:GE:274:PRO:HD3	1.98	0.45
59:GG:105:ARG:HA	59:GG:411:GLU:OE2	2.16	0.45
60:GI:275:SER:HB3	60:GI:278:SER:HB3	1.98	0.45
59:GJ:2:ARG:HG3	59:GJ:3:GLU:OE1	2.16	0.45
60:GK:97:ALA:HB2	60:GK:143:THR:HB	1.99	0.45
60:GM:73:MET:HA	60:GM:76:VAL:HG12	1.97	0.45
60:GO:115:SER:O	60:GO:119:VAL:HG23	2.16	0.45
60:GO:390:ARG:NH1	59:GP:442:MET:HG2	2.31	0.45
59:GP:251:ASP:O	59:GP:254:GLU:HG2	2.16	0.45
60:GQ:272:PRO:HG2	60:GQ:364:ALA:HA	1.98	0.45
59:HA:100:ALA:O	60:HB:255:VAL:HG11	2.17	0.45
59:HC:222:PRO:HD2	60:HD:324:LYS:CE	2.45	0.45
60:HH:67:ASP:OD1	60:HH:68:LEU:N	2.49	0.45
60:HS:98:GLY:O	59:HT:257:THR:HG21	2.17	0.45
60:HW:303:ALA:HB1	60:HW:373:CYS:SG	2.56	0.45
60:HY:409:THR:HA	60:HY:412:GLU:HG3	1.98	0.45
59:ID:90:GLU:OE2	59:IQ:280:LYS:NZ	2.41	0.45
60:IF:98:GLY:HA2	59:IG:254:GLU:OE2	2.17	0.45
59:IM:109:THR:HG21	59:IM:411:GLU:OE2	2.16	0.45
59:IQ:117:LEU:HB3	59:IQ:121:ARG:NH1	2.31	0.45
60:IS:8:GLN:HE22	60:IS:21:TRP:HE1	1.64	0.45
59:IX:265:ILE:HG22	59:IX:380:ASN:HD21	1.82	0.45
60:IY:62:ARG:HG3	60:IY:123:GLU:OE2	2.16	0.45
60:IY:81:TYR:CZ	60:IY:84:ILE:HD13	2.51	0.45
59:IZ:175:PRO:O	59:IZ:390:ARG:NH2	2.48	0.45
60:JA:12:CYS:SG	60:JA:13:GLY:N	2.90	0.45
60:JE:378:PHE:HA	60:JE:381:VAL:HG22	1.98	0.45
59:JL:102:ASN:HD22	59:JL:411:GLU:HG3	1.81	0.45
59:JL:201:ALA:HB3	59:JL:267:PHE:HD1	1.81	0.45
59:JN:203:MET:HE3	59:JN:203:MET:HB2	1.88	0.45
59:JP:105:ARG:HG2	59:JP:411:GLU:HG2	1.99	0.45
60:JV:407:GLU:OE1	60:JV:407:GLU:N	2.46	0.45
59:JW:76:ASP:OD1	59:JW:79:ARG:NH1	2.50	0.45
59:KD:69:ASP:OD1	59:KD:70:LEU:N	2.50	0.45
59:KS:167:LEU:HD22	59:KS:200:VAL:HB	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:LB:63:SER:O	60:LB:89:ASN:ND2	2.41	0.45
1:0B:420:VAL:HG21	1:0B:512:TYR:CZ	2.52	0.45
1:0B:424:PHE:CD2	1:0B:442:LEU:HD23	2.52	0.45
5:0H:93:GLU:O	5:0H:97:ILE:HG12	2.17	0.45
5:0K:41:LYS:HD3	5:0K:41:LYS:HA	1.84	0.45
16:0Y:44:LYS:NZ	16:0Y:234:ASP:OD2	2.45	0.45
18:1A:164:TYR:HD1	18:1A:168:VAL:HG21	1.81	0.45
19:1B:113:ALA:HB2	19:1B:196:GLU:HG3	1.98	0.45
20:1C:105:THR:HB	20:1C:120:PRO:HG3	1.99	0.45
23:1F:45:LEU:HD13	60:AH:45:GLU:HB2	1.98	0.45
23:1F:236:GLU:OE2	46:3T:295:ARG:NH1	2.49	0.45
33:2B:509:ARG:HE	33:2B:527:THR:HG21	1.82	0.45
33:2C:183:ILE:HG22	33:2C:190:MET:HG2	1.99	0.45
34:2F:109:ALA:HB2	59:EZ:112:LYS:HD3	1.99	0.45
41:2Y:204:LYS:HE2	60:IL:276:ARG:CZ	2.46	0.45
41:2Y:211:ARG:HA	41:2Y:214:ASP:OD2	2.17	0.45
41:3B:17:HIS:HA	60:HB:41:ASP:OD2	2.16	0.45
41:3C:222:GLU:OE1	59:HI:372:GLN:NE2	2.50	0.45
41:3C:330:LEU:HD23	59:HM:282:TYR:HB2	1.98	0.45
41:3D:165:MET:O	41:3D:168:MET:HB3	2.16	0.45
54:4N:16:ARG:N	59:HI:442:MET:HE3	2.32	0.45
55:4P:105:ARG:NH1	59:IK:196:GLU:OE2	2.50	0.45
56:4Q:139:ILE:HG13	59:IZ:434:GLU:OE2	2.17	0.45
60:AB:287:PRO:HA	60:AB:290:THR:HG22	1.99	0.45
59:AC:119:LEU:HD11	59:AC:156:ARG:HB3	1.98	0.45
60:AF:52:ASP:OD1	60:AF:53:GLU:N	2.49	0.45
59:AI:101:ASN:OD1	60:AJ:252:LYS:HE3	2.16	0.45
60:AJ:67:ASP:OD1	60:AJ:68:LEU:N	2.50	0.45
60:AP:249:ASP:OD1	60:AP:250:LEU:N	2.49	0.45
59:AQ:52:PHE:CZ	59:AQ:239:THR:HG21	2.51	0.45
59:AQ:111:GLY:HA2	59:AQ:114:ILE:HG22	1.99	0.45
59:AQ:170:THR:O	59:AQ:203:MET:HE3	2.16	0.45
60:AR:257:LEU:HA	60:AR:312:THR:HG21	1.99	0.45
60:AR:286:VAL:HG12	60:AR:329:GLN:HG3	1.99	0.45
60:AZ:3:GLU:N	60:AZ:3:GLU:OE1	2.50	0.45
60:BF:287:PRO:HA	60:BF:290:THR:HG22	1.98	0.45
60:BJ:31:ASP:HB2	60:BJ:37:GLN:OE1	2.17	0.45
59:BK:291:ILE:O	59:BK:295:VAL:HG23	2.16	0.45
60:BL:153:SER:HA	60:BL:195:ASN:ND2	2.31	0.45
59:BM:392:ASP:OD1	59:BM:425:LEU:HD23	2.16	0.45
60:BT:139:LEU:HD22	60:BT:188:SER:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BW:166:LYS:N	59:BW:199:ASP:OD2	2.42	0.45
59:CB:205:ASP:O	59:CB:209:ILE:HG13	2.17	0.45
60:CP:139:LEU:HD22	60:CP:188:SER:OG	2.17	0.45
60:CR:233:VAL:O	60:CR:236:VAL:HG12	2.17	0.45
60:CV:163:ILE:HD11	60:CV:251:ARG:HE	1.82	0.45
60:DF:282:ARG:O	60:DF:282:ARG:HG3	2.17	0.45
59:DI:192:HIS:ND1	59:DI:421:ALA:HA	2.31	0.45
60:DJ:170:ILE:HD12	60:DJ:201:CYS:HB3	1.98	0.45
60:DN:201:CYS:O	60:DN:301:GLN:NE2	2.50	0.45
60:DW:391:ARG:HA	60:DW:391:ARG:HD2	1.68	0.45
60:EA:249:ASP:OD1	60:EA:250:LEU:N	2.49	0.45
60:EE:375:GLN:OE1	60:EE:423:GLN:HG2	2.17	0.45
59:EH:52:PHE:CZ	59:EH:239:THR:HG21	2.52	0.45
60:EM:293:MET:HG3	60:EM:367:PHE:HB2	1.97	0.45
59:EP:269:LEU:O	59:EP:378:ILE:HA	2.17	0.45
60:EQ:8:GLN:HB2	60:EQ:65:LEU:HD13	1.99	0.45
60:EY:145:SER:HB3	60:EY:188:SER:OG	2.17	0.45
60:FA:19:LYS:HA	60:FA:19:LYS:HD3	1.85	0.45
60:FI:173:PRO:HB3	60:FI:380:ARG:NH1	2.31	0.45
60:FK:249:ASP:OD1	60:FK:250:LEU:N	2.49	0.45
59:FN:52:PHE:CZ	59:FN:239:THR:HG21	2.52	0.45
60:FO:139:LEU:HD13	60:FO:170:ILE:HG12	1.97	0.45
59:FR:52:PHE:HZ	59:FR:239:THR:HG21	1.82	0.45
59:FU:3:GLU:OE2	59:FU:129:CYS:HB3	2.16	0.45
59:FY:324:VAL:HG12	59:FY:326:LYS:HG2	1.99	0.45
60:GF:139:LEU:HD11	60:GF:168:SER:HB2	1.99	0.45
59:GL:207:GLU:HG3	59:GL:304:LYS:HE2	1.99	0.45
60:GM:99:ASN:ND2	59:GN:254:GLU:OE1	2.49	0.45
60:GM:170:ILE:HD13	60:GM:201:CYS:HB3	1.99	0.45
60:GM:229:VAL:O	60:GM:233:VAL:HG23	2.17	0.45
59:GR:244:PHE:CG	59:GR:358:GLN:NE2	2.82	0.45
60:GS:213:ARG:HD2	60:GS:297:LYS:NZ	2.32	0.45
59:GW:52:PHE:HZ	59:GW:239:THR:HG21	1.82	0.45
59:HE:287:SER:O	59:HE:291:ILE:HG12	2.17	0.45
59:HG:270:THR:HG22	59:HG:378:ILE:HD12	1.99	0.45
59:HM:30:ILE:HD12	59:HM:53:PHE:CD2	2.51	0.45
59:HO:271:SER:HB3	59:HO:301:MET:HA	1.99	0.45
60:HR:27:GLU:CD	60:HR:241:ARG:HH22	2.20	0.45
60:HS:8:GLN:HG2	60:HS:17:GLY:HA3	1.99	0.45
60:HS:130:LEU:HB3	60:HS:162:ARG:NH1	2.32	0.45
59:HT:214:ARG:HD2	60:HU:324:LYS:NZ	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HU:153:SER:HA	60:HU:195:ASN:HD21	1.80	0.45
59:HV:443:ASP:OD1	59:HV:443:ASP:N	2.49	0.45
60:IJ:270:PHE:HD1	60:IJ:366:THR:HG22	1.82	0.45
60:IL:32:PRO:HB3	60:IL:81:TYR:CD1	2.51	0.45
60:IP:48:ASN:OD1	60:IP:49:VAL:N	2.50	0.45
59:IQ:392:ASP:HB3	59:IQ:422:ARG:CZ	2.47	0.45
60:IR:66:ILE:HG21	60:IR:147:MET:CE	2.47	0.45
60:IW:67:ASP:OD1	60:IW:68:LEU:N	2.49	0.45
60:JC:81:TYR:O	60:JC:84:ILE:HG12	2.17	0.45
59:JD:269:LEU:HD22	59:JD:303:THR:HG21	1.99	0.45
60:JG:137:HIS:O	60:JG:168:SER:HA	2.17	0.45
60:JI:91:ILE:HD11	60:JI:119:VAL:HG21	1.97	0.45
60:JI:237:THR:HB	60:JI:240:LEU:HD12	1.99	0.45
60:JO:113:ILE:HD12	60:JO:150:LEU:HG	1.99	0.45
60:JT:282:ARG:NH1	60:JT:288:GLU:OE2	2.48	0.45
59:JW:69:ASP:OD1	59:JW:70:LEU:N	2.50	0.45
59:JW:265:ILE:HG22	59:JW:380:ASN:HD21	1.81	0.45
59:JW:427:ALA:HA	59:JW:430:LYS:HG3	1.97	0.45
60:JX:271:ALA:O	60:JX:292:GLN:NE2	2.49	0.45
59:KU:132:LEU:HD23	59:KU:164:LYS:HE3	1.99	0.45
6:0M:220:LYS:NZ	6:0M:224:GLU:OE2	2.50	0.45
7:0O:40:LYS:HE3	60:AJ:37:GLN:O	2.16	0.45
20:1C:41:GLU:HB3	20:1C:80:ARG:HG3	1.97	0.45
27:1K:96:GLU:HB3	60:AF:276:ARG:NH2	2.31	0.45
30:1S:120:ARG:NH1	32:1Z:149:LEU:O	2.50	0.45
31:1T:125:PRO:HG2	31:1T:173:ARG:HH11	1.82	0.45
33:2C:59:LEU:HD23	33:2C:95:PHE:CD2	2.52	0.45
33:2D:64:ASP:HB2	33:2D:82:GLN:HE22	1.81	0.45
36:2I:199:GLY:HA2	60:ES:307:HIS:CE1	2.51	0.45
39:2R:326:GLN:HE22	60:JE:56:GLY:HA3	1.82	0.45
41:3D:113:ASP:O	41:3D:116:GLN:HG3	2.17	0.45
42:3J:19:VAL:HA	42:3J:22:ILE:HG12	1.99	0.45
42:3P:32:ASP:OD1	42:3P:32:ASP:N	2.47	0.45
51:4H:32:ALA:O	51:4H:36:HIS:ND1	2.45	0.45
52:4I:82:ASP:N	52:4I:82:ASP:OD1	2.50	0.45
60:AJ:301:GLN:NE2	60:AJ:377:MET:SD	2.69	0.45
60:AN:27:GLU:OE1	60:AN:241:ARG:NH2	2.44	0.45
59:AW:2:ARG:HG3	59:AW:3:GLU:OE1	2.16	0.45
59:AY:224:TYR:CE2	60:AZ:323:THR:HG21	2.51	0.45
60:BB:190:HIS:CE1	60:BB:414:ASN:HD22	2.35	0.45
59:BM:133:GLN:HG3	59:BM:252:LEU:HD13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BM:332:VAL:O	59:BM:336:LYS:HG2	2.16	0.45
60:BP:378:PHE:HB3	60:BP:415:MET:HE2	1.99	0.45
60:BR:324:LYS:O	60:BR:328:GLU:HG2	2.17	0.45
60:BY:253:LEU:HD23	60:BY:368:ILE:HD12	1.99	0.45
60:CC:326:VAL:O	60:CC:330:MET:HG2	2.17	0.45
60:CE:99:ASN:ND2	60:CE:178:THR:HG21	2.31	0.45
60:CE:179:VAL:HG12	59:CF:258:ASN:OD1	2.17	0.45
59:CF:259:LEU:HD21	59:CF:316:CYS:HB2	1.97	0.45
59:CJ:105:ARG:HB2	59:CJ:411:GLU:OE1	2.16	0.45
60:CL:207:LEU:CB	60:CL:225:LEU:HD22	2.46	0.45
60:CX:171:PRO:O	60:CX:380:ARG:NH2	2.50	0.45
59:DK:390:ARG:HG3	59:DK:390:ARG:HH11	1.82	0.45
60:DY:27:GLU:OE1	60:DY:241:ARG:NH2	2.43	0.45
60:DY:429:THR:HG23	60:DY:431:GLU:HG2	1.99	0.45
59:ED:279:GLU:N	59:ED:279:GLU:OE1	2.50	0.45
60:EI:391:ARG:HA	60:EI:391:ARG:HD2	1.70	0.45
60:EI:404:ASP:HB3	60:EI:407:GLU:OE1	2.17	0.45
59:ER:250:VAL:HG22	59:ER:352:LYS:HZ2	1.82	0.45
60:EY:170:ILE:HD12	60:EY:201:CYS:HB3	1.99	0.45
59:EZ:270:THR:HG22	59:EZ:378:ILE:HG12	1.97	0.45
60:FG:387:LEU:HD23	60:FG:390:ARG:HH21	1.82	0.45
59:FL:273:ALA:HB2	59:FL:295:VAL:CG2	2.47	0.45
60:FS:238:CYS:SG	60:FS:239:CYS:N	2.89	0.45
59:FW:336:LYS:HB2	59:FW:336:LYS:HE2	1.73	0.45
60:FX:289:LEU:HD11	60:FX:363:MET:HG3	1.99	0.45
59:GC:100:ALA:O	60:GD:255:VAL:HG11	2.16	0.45
59:GE:175:PRO:HB3	59:GE:390:ARG:CZ	2.47	0.45
60:GF:67:ASP:O	60:GF:92:PHE:HA	2.16	0.45
59:GJ:104:ALA:HB2	59:GJ:413:MET:SD	2.56	0.45
59:GJ:301:MET:HE2	59:GJ:301:MET:HB2	1.79	0.45
60:GK:156:ARG:HH22	60:GK:197:ASP:CG	2.20	0.45
60:GZ:397:TRP:HZ2	59:HA:260:VAL:HG13	1.81	0.45
60:HF:385:PHE:HZ	60:HF:408:PHE:HB3	1.81	0.45
59:HQ:324:VAL:HG23	59:HQ:326:LYS:H	1.82	0.45
59:HT:286:LEU:O	59:HT:373:ARG:NH1	2.49	0.45
60:HU:215:LEU:HD23	60:HU:274:THR:O	2.16	0.45
59:HZ:88:HIS:CD2	59:HZ:90:GLU:HB3	2.52	0.45
59:HZ:417:GLU:HA	59:HZ:420:GLU:HG2	1.98	0.45
59:IB:21:TRP:CZ2	59:IB:65:ALA:HB2	2.51	0.45
60:IE:62:ARG:HG3	60:IE:123:GLU:OE2	2.16	0.45
60:IH:330:MET:HB3	60:IH:349:ILE:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IJ:48:ASN:OD1	60:IJ:49:VAL:N	2.50	0.45
60:IP:253:LEU:O	60:IP:257:LEU:HD23	2.17	0.45
60:IR:186:THR:HG21	60:IR:385:PHE:CE2	2.52	0.45
60:IS:179:VAL:HG12	59:IT:258:ASN:OD1	2.16	0.45
59:IT:189:LEU:HD11	59:IT:418:PHE:CE1	2.51	0.45
59:JH:28:HIS:CE1	59:JH:243:ARG:HD2	2.52	0.45
60:JT:322:SER:OG	60:JT:324:LYS:HG2	2.17	0.45
59:JU:50:ASN:O	59:JU:64:ARG:NH1	2.50	0.45
60:JV:137:HIS:O	60:JV:168:SER:HA	2.16	0.45
60:JZ:97:ALA:HB2	60:JZ:143:THR:HB	1.98	0.45
59:KA:392:ASP:HB3	59:KA:422:ARG:NH2	2.32	0.45
60:KB:137:HIS:O	60:KB:168:SER:HA	2.16	0.45
60:KV:213:ARG:NH1	60:KV:297:LYS:HG2	2.25	0.45
59:KY:195:LEU:HD11	59:KY:428:LEU:HD12	1.98	0.45
59:KY:252:LEU:HA	59:KY:255:PHE:HD2	1.82	0.45
4:0G:573:LYS:HD2	4:0G:665:SER:HB3	1.99	0.45
5:0K:167:GLN:HA	59:FL:57:GLY:O	2.17	0.45
8:0Q:223:PHE:HB3	8:0Q:269:VAL:HG13	1.99	0.45
17:0Z:326:LYS:HG3	17:0Z:450:PRO:HG3	1.98	0.45
23:1F:212:THR:HB	59:EZ:322:ASP:OD1	2.16	0.45
25:1H:120:HIS:H	60:AL:360:GLY:HA2	1.81	0.45
32:1Z:74:PRO:HD2	32:1Z:169:ASP:HA	1.99	0.45
33:2C:459:GLU:HG2	33:2C:459:GLU:O	2.17	0.45
42:3L:40:GLU:OE2	42:3L:45:ASP:HB2	2.17	0.45
42:3O:247:SER:OG	42:3O:248:VAL:N	2.50	0.45
43:3Q:52:GLU:OE1	43:3Q:55:ARG:NH2	2.50	0.45
48:3Z:251:GLU:OE2	48:3Z:254:ARG:NH2	2.50	0.45
52:4I:114:ASN:ND2	59:JU:94:SER:O	2.49	0.45
59:AC:21:TRP:CZ2	59:AC:65:ALA:HB2	2.52	0.45
59:AI:37:PRO:HG2	59:AI:40:LYS:HG3	1.98	0.45
59:AI:88:HIS:HB3	59:AI:91:GLN:HG3	1.99	0.45
59:AK:26:LEU:HD23	59:AK:26:LEU:HA	1.84	0.45
59:AU:392:ASP:OD1	59:AU:425:LEU:HD23	2.17	0.45
60:AX:67:ASP:OD1	60:AX:68:LEU:N	2.47	0.45
60:AZ:119:VAL:HG13	60:AZ:122:LYS:HE3	1.99	0.45
60:AZ:200:MET:HB3	60:AZ:268:MET:SD	2.57	0.45
60:BF:380:ARG:O	60:BF:383:GLU:HG2	2.16	0.45
60:BL:311:LEU:HA	60:BL:342:ILE:HG13	1.99	0.45
59:BO:50:ASN:O	59:BO:64:ARG:NH1	2.50	0.45
60:BT:293:MET:HE2	60:BT:367:PHE:HD2	1.80	0.45
60:CA:152:ILE:HA	60:CA:164:MET:HE2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CA:162:ARG:HH11	60:CA:162:ARG:HG2	1.81	0.45
60:CN:63:SER:O	60:CN:89:ASN:ND2	2.33	0.45
60:CT:171:PRO:HB3	60:CT:181:GLU:OE1	2.17	0.45
60:DL:313:ALA:HB3	60:DL:349:ILE:HD13	1.99	0.45
59:DO:443:ASP:OD1	59:DO:443:ASP:N	2.50	0.45
59:DU:70:LEU:HD22	59:DU:145:THR:HG22	1.99	0.45
59:EF:269:LEU:HD22	59:EF:303:THR:HG21	1.98	0.45
60:EI:145:SER:HB3	60:EI:188:SER:OG	2.17	0.45
60:EO:238:CYS:SG	60:EO:239:CYS:N	2.90	0.45
59:FU:123:ARG:NH2	59:FU:160:ASP:OD1	2.50	0.45
60:FV:252:LYS:HA	60:FV:255:VAL:HG12	1.98	0.45
59:GC:180:ALA:N	59:GC:183:GLU:OE2	2.39	0.45
59:GL:90:GLU:HG3	59:GL:121:ARG:HD3	1.98	0.45
59:GR:239:THR:HG23	59:GR:243:ARG:NH1	2.26	0.45
59:GR:333:ALA:O	59:GR:337:THR:HG23	2.17	0.45
59:GW:270:THR:HG22	59:GW:378:ILE:HG22	1.99	0.45
60:HB:252:LYS:HA	60:HB:255:VAL:HG12	1.99	0.45
59:HE:176:GLN:OE1	59:HE:390:ARG:NH2	2.47	0.45
59:HV:296:PHE:CE2	59:HV:335:ILE:HD13	2.52	0.45
59:IB:33:ASP:OD1	59:IB:33:ASP:N	2.45	0.45
59:ID:79:ARG:HE	59:ID:92:LEU:HB3	1.80	0.45
60:IF:318:ARG:HB3	60:IF:357:PRO:HA	1.97	0.45
60:IF:384:GLN:NE2	59:IG:348:PRO:HB2	2.28	0.45
59:IG:237:SER:HA	59:IG:320:ARG:NH1	2.33	0.45
59:IG:269:LEU:HG	59:IG:303:THR:HG21	1.99	0.45
59:IX:224:TYR:CE2	60:IY:323:THR:HG21	2.52	0.45
60:JI:68:LEU:HD13	60:JI:143:THR:OG1	2.17	0.45
60:JK:67:ASP:O	60:JK:92:PHE:HA	2.16	0.45
60:JK:68:LEU:HD22	60:JK:143:THR:HB	1.98	0.45
59:JL:269:LEU:HD22	59:JL:303:THR:HG21	1.99	0.45
60:JM:7:VAL:HB	60:JM:135:ILE:HG12	1.99	0.45
59:JN:212:LEU:HD21	59:JN:275:VAL:HG21	1.98	0.45
59:JN:250:VAL:HG11	59:JN:352:LYS:HZ1	1.82	0.45
60:JR:205:GLU:HA	60:JR:208:TYR:HD2	1.82	0.45
60:JV:3:GLU:N	60:JV:3:GLU:OE1	2.50	0.45
59:JW:441:ASP:OD1	59:JW:441:ASP:N	2.50	0.45
59:JY:56:THR:HA	59:KL:285:GLN:HB3	1.98	0.45
59:KH:145:THR:HG22	62:KH:501:GTP:O3B	2.17	0.45
59:KJ:288:VAL:HB	59:KJ:327:ASP:HB3	1.97	0.45
60:KK:145:SER:O	60:KK:149:THR:HG23	2.17	0.45
59:KP:398:MET:HG3	59:KP:403:ALA:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0C:505:SER:OG	1:0C:506:ASP:N	2.50	0.44
3:0F:303:VAL:HG23	3:0F:317:VAL:HG21	1.98	0.44
17:0Z:99:GLN:HB3	17:0Z:176:VAL:HG11	2.00	0.44
19:1B:58:VAL:HG23	19:1B:62:GLN:HG3	1.98	0.44
21:1D:239:ASP:OD1	21:1D:240:VAL:N	2.50	0.44
25:1H:331:ASN:OD1	25:1H:332:ARG:N	2.48	0.44
31:1U:95:ASN:ND2	37:2M:10:ALA:O	2.43	0.44
32:1W:74:PRO:HD2	32:1W:169:ASP:HA	1.99	0.44
33:2C:171:ILE:HG12	33:2C:180:VAL:HG22	2.00	0.44
41:3C:219:MET:SD	59:GW:58:ALA:HB2	2.57	0.44
41:3D:179:LYS:HZ2	41:3D:180:ARG:NH1	2.12	0.44
42:3F:79:GLN:O	42:3F:83:GLU:HG2	2.16	0.44
42:3L:181:PHE:HB3	60:HU:39:ASP:OD1	2.16	0.44
48:3Z:168:ARG:HG2	48:3Z:172:GLU:OE1	2.17	0.44
52:4I:84:THR:HG21	60:JV:94:GLN:OE1	2.17	0.44
53:4K:151:TYR:OH	59:JB:160:ASP:OD2	2.23	0.44
57:4R:67:ARG:HH22	59:GR:309:HIS:HE1	1.64	0.44
59:AG:250:VAL:HG22	59:AG:352:LYS:HZ2	1.83	0.44
59:AM:285:GLN:HB3	59:AY:56:THR:HB	1.98	0.44
59:AU:286:LEU:HA	59:AU:290:GLU:OE1	2.16	0.44
60:BB:285:SER:OG	60:BB:288:GLU:HG2	2.17	0.44
59:BM:214:ARG:NH2	59:BM:220:GLU:OE1	2.48	0.44
59:BO:333:ALA:O	59:BO:337:THR:HG23	2.17	0.44
60:BP:271:ALA:O	60:BP:292:GLN:HG2	2.17	0.44
60:BT:288:GLU:HA	60:BT:291:GLN:HG2	1.98	0.44
59:BU:2:ARG:HH11	59:BU:130:THR:HG23	1.82	0.44
59:BU:203:MET:CE	59:BU:267:PHE:HB3	2.46	0.44
59:BU:242:LEU:HD11	59:BU:252:LEU:HG	1.99	0.44
59:BW:70:LEU:HD13	59:BW:145:THR:OG1	2.17	0.44
60:BY:139:LEU:HD22	60:BY:188:SER:HB3	1.99	0.44
60:CA:192:LEU:HD12	60:CA:196:SER:HB2	2.00	0.44
59:CM:259:LEU:HD11	59:CM:316:CYS:HB2	1.98	0.44
59:CO:252:LEU:HA	59:CO:255:PHE:HD1	1.82	0.44
60:CP:257:LEU:O	60:CP:259:PRO:HD3	2.16	0.44
60:CR:273:LEU:HD12	60:CR:298:ASN:HD21	1.82	0.44
60:CT:374:ILE:O	60:CT:377:MET:HG2	2.16	0.44
59:CW:273:ALA:HB2	59:CW:295:VAL:CG2	2.47	0.44
59:DG:414:GLU:N	59:DG:414:GLU:OE1	2.51	0.44
60:DH:167:PHE:CE2	60:DH:200:MET:HG3	2.52	0.44
59:DK:392:ASP:OD1	59:DK:425:LEU:HD23	2.17	0.44
60:DT:73:MET:HA	60:DT:76:VAL:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EA:344:TRP:HB3	60:EA:430:ILE:HD11	1.99	0.44
60:EI:139:LEU:HD12	60:EI:170:ILE:HG12	1.98	0.44
60:ES:97:ALA:HB2	60:ES:143:THR:HB	1.98	0.44
60:ES:233:VAL:O	60:ES:236:VAL:HG12	2.17	0.44
60:FC:67:ASP:O	60:FC:92:PHE:HA	2.17	0.44
60:FE:249:ASP:OD1	60:FE:250:LEU:N	2.49	0.44
59:FF:181:VAL:O	59:FF:398:MET:HE1	2.18	0.44
60:FQ:156:ARG:HA	60:FQ:156:ARG:HD2	1.85	0.44
59:FW:51:THR:HG21	59:FW:243:ARG:HD3	1.99	0.44
59:GL:443:ASP:OD1	59:GL:443:ASP:N	2.49	0.44
60:GO:311:LEU:HD23	60:GO:342:ILE:HG13	1.99	0.44
59:GU:401:LYS:HE2	59:GU:401:LYS:HB3	1.73	0.44
60:HJ:233:VAL:O	60:HJ:236:VAL:HG12	2.17	0.44
60:HL:65:LEU:HD22	60:HL:90:PHE:CE2	2.51	0.44
60:HN:173:PRO:CA	60:HN:380:ARG:HH12	2.25	0.44
60:HW:233:VAL:O	60:HW:236:VAL:HG12	2.17	0.44
60:IF:8:GLN:HG2	60:IF:17:GLY:HA3	1.99	0.44
60:IN:162:ARG:HG3	60:IN:162:ARG:HH11	1.81	0.44
59:IZ:392:ASP:HB3	59:IZ:422:ARG:NH1	2.32	0.44
60:JA:210:ILE:HD11	60:JA:298:ASN:HA	1.99	0.44
60:JC:288:GLU:OE2	60:JC:291:GLN:NE2	2.49	0.44
59:JD:52:PHE:CZ	59:JD:239:THR:HG21	2.53	0.44
60:JE:20:PHE:CD2	60:JE:21:TRP:CD1	3.06	0.44
59:JL:194:LEU:O	59:JL:198:THR:HG22	2.18	0.44
60:JO:46:ARG:O	60:JO:49:VAL:HG12	2.17	0.44
59:JQ:188:VAL:HG13	59:JQ:425:LEU:HD12	1.98	0.44
60:JR:156:ARG:HH22	60:JR:197:ASP:CG	2.20	0.44
60:JV:404:ASP:HB3	60:JV:407:GLU:OE1	2.17	0.44
59:JW:377:MET:SD	59:JW:379:ALA:HB2	2.57	0.44
60:KM:46:ARG:HG2	60:KM:241:ARG:HA	1.98	0.44
59:KS:265:ILE:HG23	59:KS:432:TYR:CZ	2.52	0.44
59:LA:273:ALA:HB3	59:LA:274:PRO:HD3	2.00	0.44
60:LB:380:ARG:HH11	60:LB:380:ARG:HG3	1.82	0.44
3:0F:345:LYS:HE2	3:0F:345:LYS:HB3	1.85	0.44
4:0G:721:SER:O	4:0G:723:ARG:NH1	2.51	0.44
5:0H:195:PHE:HB3	60:ES:362:LYS:CD	2.45	0.44
30:1R:200:THR:HG21	30:1R:205:ILE:HD12	1.99	0.44
32:1Z:141:ARG:HD2	32:1Z:141:ARG:HA	1.73	0.44
34:2E:264:ARG:HB2	39:2O:38:SER:OG	2.16	0.44
35:2H:316:LYS:HB3	35:2H:321:GLN:HG3	1.99	0.44
36:2K:200:VAL:HG13	60:EK:302:ALA:HB1	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:2T:403:ARG:NH2	44:3R:117:LEU:HD11	2.33	0.44
42:3P:74:PHE:HZ	60:GX:43:GLN:HE21	1.66	0.44
48:3Z:229:VAL:HG22	48:3Z:242:ARG:HD2	1.98	0.44
54:4M:177:SER:O	54:4M:181:VAL:HG23	2.17	0.44
60:AB:132:GLY:HA3	60:AB:163:ILE:HG13	1.98	0.44
60:AF:145:SER:HB3	60:AF:188:SER:OG	2.17	0.44
59:AG:273:ALA:HB2	59:AG:295:VAL:CG2	2.47	0.44
59:AM:214:ARG:HH12	59:AM:220:GLU:HA	1.82	0.44
59:AO:111:GLY:HA2	59:AO:114:ILE:HG22	1.99	0.44
59:AO:224:TYR:CE2	60:AP:323:THR:HG21	2.52	0.44
59:AQ:409:VAL:HG12	59:AQ:414:GLU:O	2.18	0.44
60:AT:269:GLY:N	60:AT:367:PHE:O	2.46	0.44
59:BS:268:VAL:HG12	59:BS:380:ASN:OD1	2.17	0.44
59:BU:204:LEU:HD22	59:BU:302:MET:HE2	1.99	0.44
59:BU:248:LEU:HD12	59:BU:355:ILE:HD12	1.99	0.44
59:BZ:315:CYS:HB2	59:BZ:351:PHE:CD1	2.51	0.44
60:CA:68:LEU:HD13	60:CA:143:THR:OG1	2.17	0.44
59:CD:169:TYR:OH	59:CD:238:LEU:HD13	2.17	0.44
59:CD:172:TYR:CG	59:CD:173:PRO:HD2	2.52	0.44
59:CD:261:PRO:HG3	59:CD:313:MET:HE3	1.99	0.44
60:CL:298:ASN:O	60:CL:298:ASN:ND2	2.33	0.44
59:CW:11:GLN:OE1	59:CW:74:VAL:HG21	2.17	0.44
60:DB:73:MET:CE	60:DB:92:PHE:HB3	2.47	0.44
59:DG:31:GLN:HE21	59:DG:37:PRO:HG3	1.81	0.44
59:DS:358:GLN:OE1	59:DS:359:PRO:HD2	2.18	0.44
60:DT:167:PHE:CE2	60:DT:233:VAL:HG22	2.52	0.44
60:DY:3:GLU:N	60:DY:3:GLU:OE1	2.50	0.44
59:EB:169:TYR:OH	59:EB:238:LEU:HD13	2.17	0.44
60:EE:183:TYR:HD2	60:EE:408:PHE:CE2	2.35	0.44
60:EG:201:CYS:HB2	60:EG:301:GLN:NE2	2.32	0.44
60:FO:200:MET:HB3	60:FO:268:MET:SD	2.57	0.44
60:FQ:103:LYS:HG2	60:FQ:108:GLU:OE2	2.17	0.44
60:FQ:380:ARG:O	60:FQ:383:GLU:HG2	2.17	0.44
59:FY:306:ASP:OD2	59:FY:308:ARG:NH2	2.50	0.44
60:GD:271:ALA:O	60:GD:292:GLN:NE2	2.51	0.44
59:GG:255:PHE:O	59:GG:259:LEU:HB2	2.17	0.44
59:GH:56:THR:HG22	59:GH:60:LYS:H	1.81	0.44
59:GH:172:TYR:CE2	59:GH:203:MET:HG2	2.53	0.44
59:GH:317:LEU:HD23	59:GH:377:MET:HG3	1.98	0.44
60:GK:65:LEU:HG	60:GK:90:PHE:CE1	2.52	0.44
59:GP:111:GLY:HA3	59:GP:149:LEU:HD21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GR:91:GLN:O	59:GR:93:ILE:HD12	2.17	0.44
59:GY:138:TYR:HD1	59:GY:169:TYR:HB2	1.81	0.44
60:GZ:395:LEU:HD21	60:GZ:405:GLU:HG2	1.99	0.44
59:HC:327:ASP:O	59:HC:328:VAL:C	2.54	0.44
60:HD:326:VAL:O	60:HD:330:MET:HG2	2.17	0.44
60:HF:421:GLU:O	60:HF:424:GLN:HG3	2.17	0.44
60:HL:170:ILE:HD13	60:HL:201:CYS:HB3	1.98	0.44
60:HR:143:THR:O	60:HR:147:MET:HB3	2.18	0.44
60:HS:22:GLU:HG2	60:HS:81:TYR:CG	2.52	0.44
60:HW:257:LEU:O	60:HW:259:PRO:HD3	2.15	0.44
59:HX:311:LYS:HE3	59:HX:344:VAL:HA	1.99	0.44
59:ID:101:ASN:HB3	59:ID:182:VAL:HG21	1.98	0.44
60:IF:213:ARG:HH12	60:IF:297:LYS:HG2	1.81	0.44
59:IG:234:VAL:HG21	59:IG:302:MET:SD	2.57	0.44
60:IH:398:TYR:HB3	60:IH:403:MET:HE2	2.00	0.44
59:IO:91:GLN:HE22	59:IO:125:LEU:HD21	1.83	0.44
60:IP:46:ARG:O	60:IP:49:VAL:HG12	2.17	0.44
60:IS:47:ILE:HG21	60:IS:59:TYR:CD2	2.52	0.44
60:IS:67:ASP:O	60:IS:92:PHE:HA	2.17	0.44
60:IU:31:ASP:OD2	60:IU:33:THR:HG22	2.18	0.44
59:IX:138:TYR:OH	59:IX:235:VAL:HG21	2.17	0.44
60:IY:135:ILE:HB	60:IY:166:THR:HG22	1.99	0.44
60:IY:253:LEU:O	60:IY:257:LEU:HD23	2.17	0.44
60:JE:137:HIS:O	60:JE:168:SER:HA	2.17	0.44
59:JJ:21:TRP:CZ2	59:JJ:65:ALA:HB2	2.52	0.44
60:JK:19:LYS:HD3	60:JK:19:LYS:HA	1.78	0.44
59:JN:79:ARG:NH2	59:JN:92:LEU:O	2.50	0.44
59:JP:273:ALA:HB2	59:JP:295:VAL:CG2	2.47	0.44
59:JQ:402:ARG:HH12	59:JQ:415:GLU:CD	2.21	0.44
60:JR:73:MET:HG2	60:JR:90:PHE:HD2	1.81	0.44
59:JS:23:LEU:HD23	59:JS:27:GLU:HG3	1.99	0.44
59:JS:237:SER:HA	59:JS:320:ARG:HH21	1.83	0.44
60:JZ:287:PRO:HA	60:JZ:290:THR:HG22	1.99	0.44
60:KE:318:ARG:HH21	60:KE:358:PRO:N	2.15	0.44
60:KZ:103:LYS:HG2	60:KZ:108:GLU:OE2	2.17	0.44
60:KZ:386:THR:O	60:KZ:390:ARG:HG3	2.17	0.44
1:0A:150:HIS:HA	28:1M:206:ARG:HA	1.99	0.44
2:0E:139:ASP:OD1	2:0E:139:ASP:N	2.49	0.44
2:0E:293:GLU:OE2	2:0E:308:ARG:NE	2.50	0.44
3:0F:15:GLY:O	60:EO:276:ARG:NH1	2.50	0.44
3:0F:499:GLU:HB3	59:CF:39:ASP:OD1	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:0X:180:ARG:NE	15:0X:182:GLU:OE2	2.49	0.44
27:1K:205:THR:HG23	27:1K:207:GLY:H	1.83	0.44
32:1V:2:PHE:O	32:1V:7:GLN:NE2	2.50	0.44
33:2C:294:CYS:SG	33:2C:295:THR:N	2.91	0.44
35:2G:312:MET:HG3	35:2G:313:PRO:HD2	2.00	0.44
36:2I:76:ASN:HD22	36:2I:108:LEU:HD22	1.83	0.44
41:2W:298:ARG:NH1	60:IL:56:GLY:HA3	2.33	0.44
41:2Z:204:LYS:HB2	41:2Z:204:LYS:HE3	1.82	0.44
41:3A:340:TRP:HE1	41:3A:344:HIS:CE1	2.35	0.44
41:3C:201:LEU:HA	60:HH:276:ARG:HH21	1.82	0.44
54:4N:184:MET:SD	54:4N:187:ARG:NH2	2.90	0.44
55:4P:163:ARG:NH1	59:JJ:308:ARG:HG2	2.31	0.44
60:AR:395:LEU:HD21	60:AR:405:GLU:HG2	1.99	0.44
59:AU:333:ALA:O	59:AU:337:THR:HG23	2.18	0.44
60:AZ:404:ASP:HB3	60:AZ:407:GLU:OE1	2.17	0.44
60:BD:68:LEU:HD13	60:BD:143:THR:OG1	2.17	0.44
60:BD:263:LEU:HD11	60:BD:425:TYR:CD2	2.52	0.44
60:BF:128:ASP:OD1	60:BF:129:CYS:N	2.50	0.44
59:BI:164:LYS:HD2	59:BI:164:LYS:H	1.82	0.44
60:BP:3:GLU:OE2	60:BP:127:CYS:HB3	2.17	0.44
60:BP:238:CYS:SG	60:BP:239:CYS:N	2.90	0.44
60:BV:391:ARG:NH2	59:BW:439:SER:OG	2.51	0.44
59:BW:251:ASP:OD1	59:BW:252:LEU:N	2.50	0.44
59:BZ:100:ALA:HA	60:CA:252:LYS:HG3	1.99	0.44
60:CC:102:ALA:HB2	60:CC:403:MET:HE2	2.00	0.44
60:CE:139:LEU:HD13	60:CE:188:SER:HB2	2.00	0.44
60:CE:179:VAL:HG13	60:CE:180:VAL:HG13	1.98	0.44
60:CI:215:LEU:HD21	60:CI:273:LEU:HD12	2.00	0.44
59:CO:27:GLU:CD	59:CO:243:ARG:HH12	2.20	0.44
60:CP:162:ARG:HD3	60:CP:162:ARG:HA	1.70	0.44
60:CP:254:ALA:O	60:CP:258:VAL:HG22	2.17	0.44
60:CP:342:ILE:HG23	60:CP:345:ILE:HG22	1.99	0.44
60:CX:99:ASN:HD21	60:CX:178:THR:CG2	2.29	0.44
59:DC:443:ASP:OD1	59:DC:443:ASP:N	2.49	0.44
60:DN:238:CYS:SG	60:DN:239:CYS:N	2.91	0.44
60:DN:249:ASP:OD1	60:DN:250:LEU:N	2.51	0.44
59:DU:62:VAL:HA	59:DU:63:PRO:HD3	1.70	0.44
59:DX:178:SER:HB3	60:DY:347:ASN:ND2	2.22	0.44
60:DY:68:LEU:HD11	60:DY:147:MET:SD	2.57	0.44
59:ED:2:ARG:HG3	59:ED:3:GLU:H	1.82	0.44
60:EO:156:ARG:NH1	60:EO:197:ASP:OD2	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EQ:282:ARG:HH21	60:EQ:284:LEU:HD23	1.82	0.44
60:EW:27:GLU:OE1	60:EW:241:ARG:NH2	2.49	0.44
60:FM:67:ASP:O	60:FM:92:PHE:HA	2.17	0.44
60:FS:391:ARG:O	59:FT:262:TYR:OH	2.32	0.44
60:FV:326:VAL:O	60:FV:330:MET:HG2	2.17	0.44
60:FX:81:TYR:O	60:FX:84:ILE:HG12	2.17	0.44
60:FX:238:CYS:SG	60:FX:239:CYS:N	2.90	0.44
60:GI:190:HIS:CE1	60:GI:414:ASN:HD22	2.35	0.44
60:GK:67:ASP:OD1	60:GK:68:LEU:N	2.50	0.44
60:GK:101:TRP:HB2	60:GK:184:ASN:OD1	2.17	0.44
59:GL:259:LEU:HD21	59:GL:316:CYS:HB2	1.98	0.44
59:GL:414:GLU:OE1	59:GL:416:GLY:N	2.50	0.44
60:GM:67:ASP:OD1	60:GM:68:LEU:N	2.48	0.44
60:GM:105:HIS:CD2	60:GM:150:LEU:HB2	2.52	0.44
59:GN:224:TYR:CE2	60:GO:323:THR:HG21	2.52	0.44
59:GN:287:SER:N	59:GN:290:GLU:OE1	2.44	0.44
60:GQ:395:LEU:HD12	60:GQ:395:LEU:HA	1.56	0.44
59:GU:111:GLY:HA2	59:GU:114:ILE:HG22	1.99	0.44
59:GY:371:VAL:HG12	59:GY:373:ARG:H	1.82	0.44
59:HA:88:HIS:NE2	59:HM:284:GLU:OE2	2.46	0.44
59:HA:251:ASP:O	59:HA:254:GLU:HG2	2.18	0.44
60:HD:70:PRO:HA	60:HD:73:MET:HE1	1.99	0.44
59:HE:69:ASP:OD1	59:HE:71:GLU:HG2	2.17	0.44
60:HF:294:PHE:CD2	60:HF:333:VAL:HG21	2.52	0.44
60:HJ:60:VAL:HG21	60:HJ:86:ARG:NH2	2.33	0.44
60:HL:230:SER:HA	60:HL:233:VAL:HG12	2.00	0.44
60:HN:170:ILE:HD13	60:HN:201:CYS:HB3	1.99	0.44
59:HT:222:PRO:HG2	60:HU:324:LYS:HD3	1.99	0.44
59:HV:2:ARG:NH2	59:HV:3:GLU:OE2	2.49	0.44
59:HV:76:ASP:OD1	59:HV:79:ARG:NH1	2.49	0.44
59:HZ:167:LEU:HD22	59:HZ:200:VAL:HB	2.00	0.44
59:HZ:210:TYR:CE1	59:HZ:227:LEU:HD21	2.52	0.44
60:IH:253:LEU:O	60:IH:257:LEU:HD23	2.18	0.44
60:IN:139:LEU:CD1	60:IN:168:SER:HB3	2.46	0.44
60:IR:97:ALA:HB2	60:IR:143:THR:HG22	1.99	0.44
59:IV:50:ASN:O	59:IV:64:ARG:NH1	2.51	0.44
60:IY:172:SER:HB2	60:IY:205:GLU:OE1	2.17	0.44
59:IZ:21:TRP:CZ2	59:IZ:65:ALA:HB2	2.53	0.44
60:JC:107:THR:OG1	60:JC:108:GLU:OE1	2.35	0.44
59:JH:31:GLN:HG3	59:JH:37:PRO:HD3	1.98	0.44
59:JN:286:LEU:O	59:JN:373:ARG:NH1	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JQ:150:GLY:O	59:JQ:154:LEU:HD23	2.17	0.44
59:JQ:387:VAL:HA	59:JQ:390:ARG:HH21	1.83	0.44
60:JR:145:SER:HB2	60:JR:188:SER:OG	2.16	0.44
59:JW:91:GLN:O	59:JW:93:ILE:HD12	2.18	0.44
59:KC:40:LYS:H	59:KC:40:LYS:HG2	1.62	0.44
59:KD:50:ASN:O	59:KD:64:ARG:NH1	2.50	0.44
59:KJ:52:PHE:CZ	59:KJ:239:THR:HG21	2.53	0.44
59:KL:311:LYS:NZ	59:KL:438:GLU:OE2	2.50	0.44
60:KO:94:GLN:OE1	59:KP:2:ARG:NH1	2.51	0.44
60:KO:165:MET:HA	60:KO:198:GLU:O	2.17	0.44
60:KT:305:PRO:HA	60:KT:371:ASN:HD21	1.82	0.44
59:KY:333:ALA:O	59:KY:337:THR:HG23	2.17	0.44
1:0B:293:ASN:H	60:CN:218:THR:CG2	2.30	0.44
2:0E:379:ASP:OD1	2:0E:380:CYS:N	2.50	0.44
3:0F:168:ASP:HA	20:1C:28:SER:HA	1.98	0.44
3:0F:418:PHE:HE1	3:0F:442:LEU:HD11	1.83	0.44
3:0F:532:GLN:O	60:CG:320:ARG:NH2	2.50	0.44
17:0Z:505:VAL:HG23	17:0Z:550:LEU:HA	2.00	0.44
20:1C:89:GLU:OE2	20:1C:167:ARG:NH2	2.49	0.44
24:1G:162:LEU:HD23	24:1G:162:LEU:HA	1.88	0.44
36:2I:231:ARG:HD3	59:FF:417:GLU:HG3	1.98	0.44
39:2R:421:GLU:HG3	43:3Q:92:HIS:ND1	2.33	0.44
40:2T:307:GLU:O	40:2T:310:LYS:N	2.50	0.44
41:3D:130:ALA:O	41:3D:133:LYS:HG3	2.17	0.44
41:3D:194:LEU:HD13	60:GM:56:GLY:HA3	2.00	0.44
53:4K:226:LEU:O	60:JK:337:ASN:ND2	2.48	0.44
54:4O:153:ASP:OD1	54:4O:153:ASP:N	2.51	0.44
57:4S:124:PRO:HG2	57:4S:127:ARG:HE	1.83	0.44
59:AE:181:VAL:O	59:AE:398:MET:HE1	2.17	0.44
59:AG:291:ILE:O	59:AG:295:VAL:HG23	2.17	0.44
60:AL:130:LEU:O	60:AL:162:ARG:NH2	2.50	0.44
59:AQ:205:ASP:OD2	59:AQ:303:THR:HG23	2.16	0.44
60:AZ:380:ARG:O	60:AZ:383:GLU:HG2	2.17	0.44
59:BA:204:LEU:HD12	59:BA:209:ILE:HD11	2.00	0.44
59:BG:273:ALA:HB2	59:BG:295:VAL:CG2	2.48	0.44
60:BH:334:GLN:HE22	60:BH:348:ASN:N	2.15	0.44
60:BJ:286:VAL:CG2	60:BJ:287:PRO:HD3	2.47	0.44
59:BK:273:ALA:HB2	59:BK:295:VAL:CG2	2.47	0.44
60:BP:145:SER:HB3	60:BP:188:SER:OG	2.17	0.44
60:BV:173:PRO:HG3	60:BV:380:ARG:HD3	1.99	0.44
60:BV:211:CYS:SG	60:BV:220:PRO:HB3	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BW:392:ASP:HB3	59:BW:422:ARG:CZ	2.47	0.44
59:BX:119:LEU:HD11	59:BX:156:ARG:HG2	1.98	0.44
59:BX:396:ASP:OD2	59:BX:422:ARG:NH2	2.50	0.44
60:BY:132:GLY:HA3	60:BY:163:ILE:HG13	1.99	0.44
59:CF:21:TRP:CZ2	59:CF:65:ALA:HB2	2.53	0.44
59:CJ:259:LEU:HD21	59:CJ:316:CYS:HB2	1.98	0.44
60:CP:68:LEU:HD13	60:CP:143:THR:OG1	2.18	0.44
60:CT:46:ARG:O	60:CT:49:VAL:HG12	2.18	0.44
60:CT:257:LEU:O	60:CT:259:PRO:HD3	2.17	0.44
60:CV:62:ARG:HG3	60:CV:123:GLU:OE2	2.17	0.44
60:CV:68:LEU:HD23	60:CV:143:THR:OG1	2.17	0.44
60:CX:20:PHE:HA	60:CX:230:SER:HB2	2.00	0.44
59:DA:31:GLN:HG3	59:DA:37:PRO:HD3	1.99	0.44
59:DI:212:LEU:HD11	59:DI:275:VAL:HG21	2.00	0.44
59:DI:252:LEU:HA	59:DI:255:PHE:CD2	2.51	0.44
59:DQ:133:GLN:NE2	59:DQ:251:ASP:OD2	2.48	0.44
60:DR:282:ARG:O	60:DR:282:ARG:HG3	2.17	0.44
60:DV:375:GLN:OE1	60:DV:379:ARG:NH2	2.48	0.44
60:DY:214:THR:O	60:DY:275:SER:OG	2.36	0.44
59:EB:195:LEU:HD21	59:EB:428:LEU:HD22	1.99	0.44
59:EB:443:ASP:OD1	59:EB:443:ASP:N	2.50	0.44
60:EC:81:TYR:HD2	60:EC:84:ILE:HD12	1.83	0.44
60:EC:305:PRO:HA	60:EC:371:ASN:HD21	1.83	0.44
60:EK:145:SER:HB3	60:EK:188:SER:OG	2.18	0.44
60:EM:376:GLU:HG2	60:EM:379:ARG:NH2	2.32	0.44
60:EQ:190:HIS:CE1	60:EQ:414:ASN:HD22	2.35	0.44
60:FE:164:MET:HA	60:FE:164:MET:HE3	1.99	0.44
60:FE:385:PHE:HZ	60:FE:408:PHE:HB3	1.82	0.44
60:FI:99:ASN:O	60:FI:99:ASN:ND2	2.50	0.44
59:FL:273:ALA:HB3	59:FL:274:PRO:HD3	1.99	0.44
60:FS:309:ARG:NH1	60:FS:339:SER:O	2.49	0.44
60:FX:170:ILE:HG23	60:FX:171:PRO:HD2	1.98	0.44
60:FZ:68:LEU:HD13	60:FZ:143:THR:OG1	2.18	0.44
59:GE:104:ALA:HB2	59:GE:413:MET:HE3	2.00	0.44
60:GM:7:VAL:HB	60:GM:135:ILE:HD13	1.98	0.44
60:GM:12:CYS:SG	60:GM:13:GLY:N	2.90	0.44
59:GR:315:CYS:HB2	59:GR:351:PHE:CD1	2.53	0.44
60:GS:86:ARG:HG2	60:HF:281:TYR:CD2	2.53	0.44
60:GV:391:ARG:NH2	59:GW:346:TRP:CD1	2.86	0.44
60:HB:221:THR:HG22	60:HB:224:ASP:OD2	2.17	0.44
60:HD:287:PRO:HA	60:HD:329:GLN:HE21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HF:206:ALA:O	60:HF:210:ILE:HG12	2.17	0.44
59:HK:392:ASP:O	59:HK:422:ARG:NH1	2.45	0.44
60:HL:101:TRP:HB2	60:HL:184:ASN:OD1	2.18	0.44
60:HR:290:THR:HA	60:HR:293:MET:HE2	2.00	0.44
60:HW:265:PHE:HB3	60:HW:374:ILE:HD13	2.00	0.44
59:IB:239:THR:CG2	59:IB:243:ARG:HH12	2.24	0.44
59:II:105:ARG:HA	59:II:109:THR:HG22	2.00	0.44
59:IQ:221:ARG:HH11	59:IQ:221:ARG:HG3	1.81	0.44
60:IR:73:MET:HA	60:IR:76:VAL:HG12	2.00	0.44
60:IS:149:THR:HB	60:IS:191:GLN:HG2	1.99	0.44
60:IU:311:LEU:HD23	60:IU:342:ILE:HG13	1.99	0.44
60:JI:4:ILE:HB	60:JI:50:TYR:HE1	1.83	0.44
60:JK:67:ASP:OD1	60:JK:68:LEU:N	2.48	0.44
60:JO:33:THR:HG23	60:JO:35:THR:HG23	1.99	0.44
59:JQ:91:GLN:O	59:JQ:93:ILE:HD12	2.18	0.44
59:JQ:195:LEU:HD11	59:JQ:264:ARG:HE	1.82	0.44
59:JS:216:ASN:ND2	59:JS:275:VAL:O	2.51	0.44
59:JU:443:ASP:OD1	59:JU:443:ASP:N	2.51	0.44
60:JV:417:ASP:O	60:JV:421:GLU:HG3	2.17	0.44
59:JY:332:VAL:HG13	59:JY:351:PHE:CD2	2.51	0.44
59:JY:333:ALA:O	59:JY:337:THR:HG23	2.17	0.44
59:KC:3:GLU:HG2	59:KC:64:ARG:NH1	2.33	0.44
59:KD:65:ALA:O	59:KD:91:GLN:NE2	2.51	0.44
59:KD:269:LEU:HD22	59:KD:303:THR:HG21	1.98	0.44
60:KG:175:VAL:HG22	59:KH:329:ASN:ND2	2.32	0.44
60:KG:314:SER:HB3	60:KG:368:ILE:HG22	1.98	0.44
59:KH:285:GLN:HE22	59:KH:287:SER:HB2	1.82	0.44
59:KJ:121:ARG:HH21	59:KJ:124:LYS:HD2	1.83	0.44
60:KK:233:VAL:O	60:KK:236:VAL:HG12	2.18	0.44
59:KN:177:VAL:HG13	60:KO:327:ASP:OD2	2.17	0.44
59:KP:298:PRO:HA	59:KP:301:MET:CE	2.47	0.44
60:KR:73:MET:CE	60:KR:92:PHE:HB3	2.47	0.44
59:KU:399:TYR:OH	59:KU:415:GLU:OE2	2.36	0.44
59:KW:52:PHE:CZ	59:KW:239:THR:HG21	2.52	0.44
59:KW:284:GLU:N	59:KW:284:GLU:OE1	2.51	0.44
60:LB:81:TYR:O	60:LB:84:ILE:HG12	2.18	0.44
3:0F:692:MET:O	3:0F:696:ILE:HG12	2.18	0.44
4:0G:90:ASP:OD2	28:1M:406:ARG:NH2	2.50	0.44
23:1F:212:THR:OG1	23:1F:215:THR:N	2.41	0.44
32:1W:6:TYR:HB2	59:KY:121:ARG:HH12	1.83	0.44
32:1Y:82:ASN:HB3	32:1Y:125:LEU:HD23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2B:99:GLN:OE1	33:2B:101:ARG:NH1	2.51	0.44
33:2D:106:MET:N	33:2D:106:MET:SD	2.91	0.44
36:2K:188:ALA:HB3	59:EL:340:THR:HG21	1.99	0.44
37:2L:36:PRO:O	37:2L:37:LYS:HD2	2.17	0.44
39:2O:141:ARG:HG3	59:KN:282:TYR:OH	2.17	0.44
40:2T:52:LEU:O	40:2T:56:ARG:HG2	2.17	0.44
40:2T:313:ILE:CD1	60:JK:80:PRO:HB3	2.48	0.44
41:3B:78:ARG:HH11	41:3B:78:ARG:HG2	1.81	0.44
53:4K:253:ASP:OD1	53:4K:253:ASP:N	2.46	0.44
54:4O:113:GLU:HG3	59:IG:264:ARG:NH1	2.25	0.44
59:AC:297:GLU:OE2	59:AO:123:ARG:NH2	2.48	0.44
60:AH:200:MET:HB3	60:AH:268:MET:HE1	1.99	0.44
60:AH:304:ASP:OD1	60:AH:307:HIS:ND1	2.50	0.44
60:AN:91:ILE:HD11	60:AN:119:VAL:HG21	2.00	0.44
60:AP:211:CYS:HA	60:AP:215:LEU:HD13	2.00	0.44
60:AR:119:VAL:HG13	60:AR:122:LYS:HE3	2.00	0.44
59:AW:11:GLN:O	59:AW:15:GLN:HG3	2.16	0.44
60:AZ:213:ARG:HH22	60:AZ:297:LYS:NZ	2.08	0.44
60:BF:156:ARG:HD3	60:BF:156:ARG:O	2.18	0.44
59:BI:251:ASP:OD1	59:BI:252:LEU:N	2.51	0.44
60:BL:214:THR:O	60:BL:275:SER:OG	2.34	0.44
60:BL:418:LEU:O	60:BL:421:GLU:HG3	2.17	0.44
60:BT:179:VAL:HG13	60:BT:180:VAL:HG13	1.98	0.44
59:BW:31:GLN:NE2	59:BW:35:ALA:O	2.51	0.44
59:BZ:71:GLU:HB3	59:BZ:98:ASP:OD1	2.17	0.44
59:BZ:264:ARG:NE	59:BZ:431:ASP:OD2	2.45	0.44
59:CJ:283:HIS:HB2	59:CW:88:HIS:HD2	1.83	0.44
60:CP:27:GLU:CD	60:CP:241:ARG:HH21	2.21	0.44
60:CP:266:PHE:HE1	60:CP:370:ASN:HD22	1.65	0.44
59:CU:291:ILE:O	59:CU:295:VAL:HG23	2.17	0.44
60:CZ:204:ASN:OD1	64:CZ:501:GDP:N2	2.51	0.44
59:DA:273:ALA:HB3	59:DA:274:PRO:HD3	2.00	0.44
60:DB:404:ASP:HB3	60:DB:407:GLU:OE1	2.18	0.44
60:DD:311:LEU:HD23	60:DD:342:ILE:HG21	1.99	0.44
59:DG:22:GLU:HG3	59:DG:83:TYR:OH	2.17	0.44
59:DG:292:SER:HB3	59:DG:335:ILE:HD11	2.00	0.44
59:DK:291:ILE:HD12	59:DK:375:VAL:HG12	1.98	0.44
60:DR:211:CYS:O	60:DR:216:LYS:N	2.51	0.44
60:DR:406:MET:O	60:DR:410:GLU:HG2	2.17	0.44
60:DT:22:GLU:HG2	60:DT:81:TYR:CD1	2.53	0.44
60:DT:81:TYR:O	60:DT:84:ILE:HG12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EG:219:THR:HG22	59:EH:324:VAL:HG11	1.99	0.44
59:EX:52:PHE:CZ	59:EX:239:THR:HG21	2.52	0.44
59:EZ:172:TYR:CG	59:EZ:173:PRO:HD2	2.52	0.44
59:FB:384:ILE:HD12	59:FB:384:ILE:HA	1.82	0.44
60:FX:12:CYS:SG	60:FX:138:SER:N	2.90	0.44
60:GF:139:LEU:CD1	60:GF:168:SER:HB2	2.48	0.44
59:GG:208:ALA:CA	59:GG:304:LYS:HE3	2.45	0.44
59:GG:211:ASP:OD2	59:GG:304:LYS:NZ	2.40	0.44
59:GJ:276:ILE:HG13	59:GJ:369:ALA:HB3	2.00	0.44
59:GL:326:LYS:HB3	59:GL:326:LYS:HE2	1.68	0.44
60:GS:199:SER:O	60:GS:265:PHE:HA	2.17	0.44
59:GT:281:ALA:HB2	59:GT:369:ALA:HB1	2.00	0.44
59:HE:203:MET:HG3	59:HE:384:ILE:HD11	1.99	0.44
60:HF:22:GLU:HA	60:HF:81:TYR:CD2	2.53	0.44
59:HG:2:ARG:HH21	59:HG:50:ASN:ND2	2.16	0.44
59:HG:21:TRP:CZ2	59:HG:65:ALA:HB2	2.53	0.44
60:HH:67:ASP:OD2	60:HH:72:THR:OG1	2.29	0.44
59:HI:216:ASN:O	59:HI:280:LYS:NZ	2.45	0.44
59:HK:128:ASN:HD21	59:HX:285:GLN:NE2	2.14	0.44
59:HK:392:ASP:HB3	59:HK:422:ARG:CZ	2.46	0.44
60:HL:34:GLY:HA3	60:HL:58:ARG:HG3	2.00	0.44
60:HL:186:THR:HG22	60:HL:411:ALA:HB1	2.00	0.44
60:HL:211:CYS:SG	60:HL:217:LEU:HD12	2.58	0.44
59:HQ:215:ARG:HG3	59:HQ:216:ASN:OD1	2.18	0.44
60:HS:242:PHE:HD2	60:HS:356:ILE:HG13	1.82	0.44
60:HU:324:LYS:O	60:HU:328:GLU:HG2	2.17	0.44
60:HW:271:ALA:O	60:HW:292:GLN:NE2	2.50	0.44
59:HZ:166:LYS:HE2	59:HZ:166:LYS:HB3	1.70	0.44
60:IA:173:PRO:HB3	60:IA:380:ARG:HH12	1.81	0.44
60:IE:7:VAL:O	60:IE:135:ILE:HD12	2.18	0.44
60:IF:179:VAL:HG23	59:IG:349:THR:O	2.17	0.44
60:IH:238:CYS:SG	60:IH:239:CYS:N	2.90	0.44
60:IH:342:ILE:HD13	60:IH:342:ILE:HA	1.82	0.44
59:II:68:LEU:HD22	59:II:118:CYS:SG	2.57	0.44
60:IW:67:ASP:O	60:IW:92:PHE:HA	2.17	0.44
60:IW:270:PHE:HE1	60:IW:318:ARG:NH2	2.15	0.44
60:IY:201:CYS:HB2	60:IY:301:GLN:NE2	2.33	0.44
60:JC:298:ASN:HD22	60:JC:298:ASN:C	2.21	0.44
59:JH:402:ARG:HG2	59:JH:405:VAL:HG21	2.00	0.44
59:JJ:223:THR:HG1	60:JK:245:GLN:HE22	1.59	0.44
59:JJ:262:TYR:HD2	59:JJ:265:ILE:HD12	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JQ:2:ARG:HG3	59:JQ:3:GLU:OE1	2.17	0.44
60:JR:132:GLY:HA3	60:JR:163:ILE:HG13	1.98	0.44
60:JX:139:LEU:HG	60:JX:168:SER:HB2	2.00	0.44
60:JX:161:ASP:OD2	60:JX:162:ARG:NH1	2.51	0.44
59:KD:207:GLU:CD	59:KD:304:LYS:HZ2	2.21	0.44
59:KJ:41:THR:HG23	59:KJ:42:ILE:HG12	2.00	0.44
60:KZ:31:ASP:OD1	60:KZ:32:PRO:HD2	2.16	0.44
60:LB:31:ASP:HB2	60:LB:37:GLN:OE1	2.18	0.44
2:0E:165:VAL:HG11	2:0E:194:ILE:HG23	2.00	0.44
3:0F:215:VAL:HG22	60:DP:92:PHE:HZ	1.82	0.44
4:0G:422:ILE:HG12	12:0U:341:VAL:C	2.37	0.44
15:0X:21:VAL:HG13	15:0X:166:GLU:HG2	1.99	0.44
17:0Z:537:LEU:HD22	17:0Z:542:VAL:HG21	1.99	0.44
27:1L:386:MET:HG3	27:1L:404:PHE:HZ	1.82	0.44
30:1R:221:ASP:OD1	30:1R:221:ASP:N	2.50	0.44
32:1Y:19:SER:O	32:1Y:20:ARG:NE	2.50	0.44
33:2D:346:CYS:HB3	33:2D:375:ILE:HD11	1.98	0.44
34:2E:35:PRO:HB2	59:ER:304:LYS:HE2	1.99	0.44
36:2K:201:ARG:HB3	60:EK:304:ASP:HB3	2.00	0.44
39:2P:270:GLU:OE1	60:KG:362:LYS:NZ	2.46	0.44
39:2R:340:GLU:O	39:2R:343:ARG:HG3	2.18	0.44
40:2T:412:PHE:CE1	60:JO:362:LYS:HE3	2.52	0.44
42:3P:76:THR:OG1	60:GX:355:ASP:OD2	2.33	0.44
47:3W:194:LEU:HD22	48:3Z:179:GLU:HB3	2.00	0.44
47:3X:173:LEU:HD13	48:4A:161:LEU:HD22	2.00	0.44
47:3X:234:VAL:O	47:3X:237:ILE:HG22	2.18	0.44
57:4R:77:GLU:OE1	57:4R:78:ARG:NH2	2.50	0.44
60:AB:304:ASP:OD1	60:AB:304:ASP:N	2.51	0.44
60:AF:201:CYS:HB2	60:AF:301:GLN:NE2	2.32	0.44
59:AI:172:TYR:CD2	59:AI:203:MET:HG2	2.52	0.44
60:AV:249:ASP:OD1	60:AV:250:LEU:N	2.50	0.44
60:AX:330:MET:HA	60:AX:333:VAL:HG12	1.99	0.44
59:BC:402:ARG:HB3	59:BC:405:VAL:HG11	2.00	0.44
59:BE:172:TYR:CE2	59:BE:203:MET:HG2	2.53	0.44
59:BK:292:SER:HB2	59:BK:335:ILE:HD11	2.00	0.44
59:BK:334:THR:O	59:BK:337:THR:OG1	2.30	0.44
59:BM:270:THR:HG23	59:BM:302:MET:HB2	2.00	0.44
60:BN:178:THR:HB	60:BN:181:GLU:HG3	2.00	0.44
59:BQ:100:ALA:HA	60:BR:252:LYS:HG3	2.00	0.44
60:BT:67:ASP:OD1	60:BT:68:LEU:N	2.50	0.44
60:CE:211:CYS:SG	60:CE:217:LEU:HD12	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CG:292:GLN:HE22	60:CG:298:ASN:HB2	1.82	0.44
60:CG:374:ILE:O	60:CG:377:MET:HG2	2.18	0.44
60:CL:21:TRP:CZ3	60:CL:61:PRO:HB3	2.53	0.44
59:CM:273:ALA:HB2	59:CM:295:VAL:CG2	2.48	0.44
59:CM:273:ALA:HB3	59:CM:274:PRO:HD3	1.99	0.44
59:DG:150:GLY:O	59:DG:154:LEU:HG	2.18	0.44
60:DJ:73:MET:CE	60:DJ:92:PHE:HB3	2.48	0.44
60:DJ:159:TYR:HB3	60:DJ:162:ARG:HG2	1.99	0.44
60:DL:137:HIS:O	60:DL:168:SER:HA	2.18	0.44
59:DM:211:ASP:HA	59:DM:214:ARG:HG2	2.00	0.44
60:DP:208:TYR:CE1	60:DP:225:LEU:HD11	2.52	0.44
60:DY:404:ASP:HB3	60:DY:407:GLU:OE1	2.18	0.44
60:EA:210:ILE:HG23	60:EA:273:LEU:HD13	2.00	0.44
60:EA:334:GLN:NE2	60:EA:347:ASN:OD1	2.34	0.44
60:EG:326:VAL:O	60:EG:330:MET:HG2	2.18	0.44
59:EP:21:TRP:CZ2	59:EP:65:ALA:HB2	2.53	0.44
60:FA:73:MET:HA	60:FA:76:VAL:HG22	1.99	0.44
60:FE:282:ARG:HH21	60:FQ:86:ARG:CZ	2.31	0.44
59:FF:212:LEU:HD21	59:FF:275:VAL:HG21	1.99	0.44
60:FK:67:ASP:O	60:FK:92:PHE:HA	2.18	0.44
60:FK:218:THR:HG23	60:FK:219:THR:HG22	1.98	0.44
59:FP:273:ALA:HB2	59:FP:295:VAL:CG2	2.48	0.44
60:FQ:128:ASP:OD1	60:FQ:129:CYS:N	2.51	0.44
59:FU:387:VAL:HG12	59:FU:390:ARG:NH1	2.32	0.44
59:FW:195:LEU:HD23	59:FW:195:LEU:HA	1.84	0.44
60:FZ:81:TYR:O	60:FZ:84:ILE:HG12	2.18	0.44
59:GA:178:SER:HB3	60:GB:347:ASN:ND2	2.31	0.44
59:GE:192:HIS:CE1	59:GE:420:GLU:HG2	2.51	0.44
60:GI:245:GLN:CD	60:GI:320:ARG:HH22	2.20	0.44
60:GK:320:ARG:NH2	60:GK:355:ASP:OD1	2.50	0.44
59:GL:286:LEU:HA	59:GL:290:GLU:OE2	2.17	0.44
60:GO:232:VAL:HG11	60:GO:268:MET:HG2	1.98	0.44
60:GO:267:MET:HE2	60:GO:371:ASN:HB3	1.98	0.44
60:GS:130:LEU:O	60:GS:162:ARG:NE	2.50	0.44
60:GX:103:LYS:HG2	60:GX:108:GLU:OE1	2.18	0.44
60:GX:167:PHE:CE2	60:GX:233:VAL:HG22	2.52	0.44
59:HI:224:TYR:CE2	60:HJ:323:THR:HG21	2.52	0.44
60:HS:156:ARG:HG3	60:HS:195:ASN:HB3	2.00	0.44
60:IC:394:PHE:HD1	59:ID:261:PRO:HA	1.83	0.44
59:ID:2:ARG:HG3	59:ID:3:GLU:OE2	2.18	0.44
60:IH:270:PHE:HD1	60:IH:366:THR:HG22	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IK:345:ASP:OD1	59:IK:345:ASP:N	2.48	0.44
60:IP:19:LYS:HA	60:IP:22:GLU:OE1	2.17	0.44
60:IR:392:LYS:HG2	60:IR:395:LEU:HB3	1.99	0.44
60:IS:167:PHE:CD2	60:IS:233:VAL:HG22	2.52	0.44
59:IT:306:ASP:OD2	59:IT:308:ARG:NH2	2.50	0.44
60:JC:8:GLN:HG3	60:JC:17:GLY:HA3	2.00	0.44
60:JC:211:CYS:SG	60:JC:217:LEU:HD12	2.56	0.44
60:JE:20:PHE:HD2	60:JE:21:TRP:CD1	2.35	0.44
60:JI:287:PRO:HA	60:JI:290:THR:HG22	1.99	0.44
59:JJ:76:ASP:OD1	59:JJ:79:ARG:NH1	2.48	0.44
60:JK:267:MET:HE2	60:JK:301:GLN:HB3	2.00	0.44
60:JO:73:MET:HA	60:JO:76:VAL:HG12	2.00	0.44
59:JS:175:PRO:O	59:JS:390:ARG:NH2	2.35	0.44
60:JX:46:ARG:HG2	60:JX:241:ARG:HA	2.00	0.44
60:JX:275:SER:HB2	60:JX:278:SER:OG	2.17	0.44
59:KA:101:ASN:OD1	60:KB:252:LYS:HE3	2.18	0.44
60:KB:203:ASP:HB3	60:KB:205:GLU:CD	2.38	0.44
59:KC:273:ALA:HB3	59:KC:274:PRO:HD3	2.00	0.44
59:KD:443:ASP:OD1	59:KD:443:ASP:N	2.51	0.44
60:KE:385:PHE:HE2	60:KE:412:GLU:HB2	1.83	0.44
59:KH:443:ASP:OD1	59:KH:443:ASP:N	2.51	0.44
59:KL:105:ARG:HH12	60:KM:251:ARG:CD	2.31	0.44
59:KN:46:ASP:OD1	59:KN:47:ASP:N	2.49	0.44
60:KR:156:ARG:O	60:KR:156:ARG:HD3	2.18	0.44
59:KU:65:ALA:O	59:KU:91:GLN:NE2	2.41	0.44
60:KV:132:GLY:HA3	60:KV:163:ILE:HG13	1.99	0.44
60:KX:73:MET:HE3	60:KX:92:PHE:HB3	1.99	0.44
60:KZ:404:ASP:HB3	60:KZ:407:GLU:OE1	2.17	0.44
59:LA:191:THR:HG23	59:LA:425:LEU:HD21	1.99	0.44
1:0C:212:LEU:HD12	1:0C:215:ARG:HE	1.83	0.44
1:0D:133:GLU:OE1	1:0D:145:ALA:N	2.50	0.44
4:0G:700:LYS:O	4:0G:704:ARG:NE	2.48	0.44
6:0N:446:LYS:O	6:0N:450:HIS:ND1	2.39	0.44
7:0O:54:LEU:HD23	7:0O:54:LEU:HA	1.87	0.44
9:0R:101:PHE:HD2	9:0R:105:LEU:HD23	1.83	0.44
13:0V:176:ARG:HG2	13:0V:188:SER:HB2	1.99	0.44
27:1K:115:GLU:O	27:1K:119:GLU:HG2	2.17	0.44
33:2D:64:ASP:HB2	33:2D:82:GLN:NE2	2.33	0.44
33:2D:310:TYR:CZ	33:2D:321:LEU:HD12	2.52	0.44
40:2T:310:LYS:HA	40:2T:313:ILE:HG12	1.98	0.44
42:3L:50:LYS:NZ	59:IB:22:GLU:OE1	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:3O:146:ASN:ND2	59:HE:77:GLU:OE2	2.51	0.44
47:3V:257:GLN:OE1	48:3Y:219:TYR:OH	2.36	0.44
48:3Y:204:GLN:HA	48:3Y:207:GLU:HG2	1.99	0.44
52:4I:33:ASP:OD1	52:4I:33:ASP:N	2.48	0.44
54:4N:15:THR:CG2	59:HI:442:MET:CE	2.96	0.44
54:4N:88:LEU:HA	54:4N:91:GLN:HG2	1.99	0.44
55:4P:169:GLN:HG2	59:JJ:438:GLU:HB3	1.99	0.44
60:AL:193:VAL:HG22	60:AL:265:PHE:CZ	2.52	0.44
60:AR:391:ARG:HD3	59:AS:439:SER:OG	2.18	0.44
60:AT:239:CYS:SG	60:AT:248:SER:N	2.85	0.44
59:BC:111:GLY:HA2	59:BC:114:ILE:HG22	1.99	0.44
60:BD:213:ARG:HD2	60:BD:297:LYS:HG2	2.00	0.44
59:BE:121:ARG:HG3	59:BE:121:ARG:HH11	1.82	0.44
60:BF:67:ASP:O	60:BF:92:PHE:HA	2.17	0.44
60:BL:67:ASP:O	60:BL:92:PHE:HA	2.18	0.44
60:BN:173:PRO:HB3	60:BN:380:ARG:NH1	2.33	0.44
60:BN:257:LEU:HD12	60:BN:312:THR:OG1	2.18	0.44
60:BR:135:ILE:HG21	60:BR:152:ILE:HD11	1.99	0.44
60:CE:206:ALA:O	60:CE:210:ILE:HG12	2.17	0.44
60:CG:267:MET:HG2	60:CG:299:MET:SD	2.58	0.44
60:CR:238:CYS:SG	60:CR:239:CYS:N	2.90	0.44
60:CR:350:LYS:HD2	60:CR:351:SER:N	2.33	0.44
59:CU:326:LYS:HD3	59:CU:326:LYS:N	2.33	0.44
59:DA:358:GLN:OE1	59:DA:359:PRO:HD2	2.18	0.44
60:DD:97:ALA:HB2	60:DD:143:THR:HB	1.98	0.44
60:DF:404:ASP:HB3	60:DF:407:GLU:OE1	2.18	0.44
59:DG:264:ARG:NH2	59:DG:431:ASP:OD2	2.51	0.44
60:DR:156:ARG:HH21	60:DR:164:MET:HG2	1.83	0.44
60:DR:283:GLY:HA3	60:EE:55:THR:OG1	2.18	0.44
60:DV:332:ASN:OD1	60:DV:333:VAL:N	2.50	0.44
60:EI:67:ASP:OD1	60:EI:68:LEU:N	2.49	0.44
60:EK:407:GLU:OE1	60:EK:407:GLU:N	2.49	0.44
60:EM:330:MET:HA	60:EM:333:VAL:HG12	2.00	0.44
59:ER:287:SER:OG	59:ER:290:GLU:HG2	2.17	0.44
60:EY:175:VAL:HG11	59:EZ:329:ASN:HB3	1.99	0.44
60:FM:404:ASP:HB3	60:FM:407:GLU:OE1	2.17	0.44
59:FN:273:ALA:HB2	59:FN:295:VAL:HG13	1.99	0.44
59:FW:273:ALA:HB2	59:FW:295:VAL:CG2	2.48	0.44
60:GD:22:GLU:HG2	60:GD:81:TYR:CD1	2.52	0.44
60:GF:211:CYS:SG	60:GF:217:LEU:HD12	2.57	0.44
60:GF:214:THR:OG1	60:GF:215:LEU:HD12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GH:269:LEU:O	59:GH:378:ILE:HA	2.17	0.44
60:GI:67:ASP:OD1	60:GI:68:LEU:N	2.50	0.44
59:GL:121:ARG:HH21	59:GL:124:LYS:HD3	1.83	0.44
59:GL:194:LEU:O	59:GL:198:THR:HG22	2.17	0.44
60:GO:156:ARG:HD3	60:GO:164:MET:HG3	1.98	0.44
60:GQ:206:ALA:O	60:GQ:210:ILE:HG12	2.18	0.44
60:GZ:52:ASP:HB3	60:GZ:60:VAL:HG23	1.98	0.44
59:HA:230:LEU:HB3	59:HA:302:MET:CE	2.48	0.44
60:HH:3:GLU:OE2	60:HH:62:ARG:NH2	2.50	0.44
60:HL:220:PRO:O	59:HM:326:LYS:NZ	2.25	0.44
59:HM:21:TRP:CZ2	59:HM:65:ALA:HB2	2.52	0.44
59:HM:427:ALA:O	59:HM:430:LYS:HG3	2.18	0.44
60:HY:153:SER:HA	60:HY:195:ASN:ND2	2.32	0.44
59:HZ:318:MET:SD	59:HZ:318:MET:N	2.91	0.44
60:IA:11:GLN:HA	60:IA:72:THR:HG21	1.99	0.44
60:IC:284:LEU:HD13	60:IC:363:MET:HG2	2.00	0.44
59:ID:231:ILE:O	59:ID:234:VAL:HG12	2.16	0.44
60:IH:67:ASP:O	60:IH:92:PHE:HA	2.18	0.44
60:IJ:53:GLU:O	60:IW:282:ARG:NH2	2.51	0.44
60:IJ:174:LYS:HD2	60:IJ:205:GLU:OE2	2.18	0.44
60:IL:55:THR:CG2	60:IY:283:GLY:HA3	2.48	0.44
60:IP:22:GLU:HG3	60:IP:81:TYR:CD1	2.53	0.44
60:IR:235:GLY:HA2	60:IR:318:ARG:HH21	1.82	0.44
59:IT:40:LYS:HB3	59:IT:40:LYS:HE2	1.73	0.44
59:IT:414:GLU:N	59:IT:417:GLU:OE1	2.51	0.44
60:IY:91:ILE:HD12	60:IY:116:VAL:HG22	2.00	0.44
60:JG:31:ASP:OD1	60:JG:32:PRO:HD2	2.18	0.44
60:JG:271:ALA:HA	60:JG:298:ASN:ND2	2.33	0.44
60:JM:334:GLN:HE22	60:JM:348:ASN:N	2.14	0.44
59:JN:50:ASN:O	59:JN:64:ARG:NH1	2.51	0.44
60:JO:139:LEU:HD12	60:JO:170:ILE:HG22	2.00	0.44
59:JQ:224:TYR:HE1	60:JR:323:THR:OG1	2.01	0.44
60:JR:238:CYS:SG	60:JR:318:ARG:HD3	2.58	0.44
60:JT:239:CYS:SG	60:JT:248:SER:N	2.87	0.44
59:JY:273:ALA:HB2	59:JY:295:VAL:CG2	2.48	0.44
60:JZ:256:ASN:ND2	60:JZ:350:LYS:HD2	2.26	0.44
60:KE:128:ASP:OD1	60:KE:129:CYS:N	2.51	0.44
60:KG:97:ALA:O	60:KG:103:LYS:HD2	2.18	0.44
59:KH:74:VAL:HA	59:KH:77:GLU:HG2	2.00	0.44
60:KK:211:CYS:HB3	60:KK:217:LEU:HD12	2.00	0.44
60:KO:127:CYS:SG	60:KO:130:LEU:HB2	2.58	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KQ:121:ARG:HD3	59:KQ:121:ARG:HA	1.86	0.44
59:KU:443:ASP:OD1	59:KU:443:ASP:N	2.51	0.44
60:LB:62:ARG:HG3	60:LB:123:GLU:OE2	2.17	0.44
1:0A:458:ILE:HD11	1:0A:461:MET:SD	2.58	0.44
16:0Y:6:LEU:HB2	16:0Y:10:TRP:CE2	2.53	0.44
17:0Z:322:ARG:HD2	17:0Z:322:ARG:HA	1.81	0.44
28:1M:164:THR:O	28:1M:166:GLU:N	2.50	0.44
32:1V:49:VAL:O	32:1V:159:ASN:N	2.50	0.44
33:2D:307:SER:OG	33:2D:327:SER:OG	2.30	0.44
34:2F:224:LEU:HB3	34:2F:252:LEU:HD12	1.99	0.44
39:2P:353:ASP:OD1	39:2P:354:LEU:N	2.51	0.44
39:2P:375:LEU:HD11	45:3S:125:ARG:HH22	1.83	0.44
42:3O:144:THR:H	42:3O:147:GLN:NE2	2.16	0.44
46:3T:269:LYS:HE3	60:FM:45:GLU:HB3	1.99	0.44
48:3Z:237:LYS:HD2	60:HL:41:ASP:OD2	2.18	0.44
57:4Y:18:ARG:HE	59:FU:402:ARG:NE	2.15	0.44
59:AA:273:ALA:HB3	59:AA:274:PRO:HD3	1.99	0.44
60:AD:212:PHE:HZ	59:AE:326:LYS:HG2	1.82	0.44
60:AF:391:ARG:HD2	60:AF:391:ARG:HA	1.78	0.44
60:AH:153:SER:HA	60:AH:195:ASN:ND2	2.33	0.44
60:AJ:220:PRO:O	59:AK:326:LYS:HE2	2.18	0.44
60:AP:31:ASP:OD1	60:AP:32:PRO:HD2	2.17	0.44
60:AT:271:ALA:HA	60:AT:298:ASN:HD21	1.83	0.44
59:BE:324:VAL:HG12	59:BE:326:LYS:HG2	1.99	0.44
60:BH:176:SER:OG	60:BH:178:THR:O	2.34	0.44
60:BP:170:ILE:HD12	60:BP:201:CYS:HB3	2.00	0.44
59:BW:7:ILE:HD11	59:BW:135:PHE:HD1	1.83	0.44
59:CF:352:LYS:HD2	59:CF:353:CYS:N	2.32	0.44
60:CN:48:ASN:OD1	60:CN:49:VAL:N	2.50	0.44
59:CS:205:ASP:OD2	59:CS:304:LYS:N	2.35	0.44
60:DH:73:MET:HA	60:DH:76:VAL:HG12	2.00	0.44
59:DO:384:ILE:HD12	59:DO:384:ILE:HA	1.87	0.44
60:DR:173:PRO:HB3	60:DR:380:ARG:CD	2.48	0.44
60:DR:293:MET:HE3	60:DR:367:PHE:HD1	1.83	0.44
59:DZ:291:ILE:O	59:DZ:295:VAL:HG23	2.17	0.44
60:EA:139:LEU:HD22	60:EA:188:SER:HB3	2.00	0.44
60:EA:326:VAL:O	60:EA:330:MET:HG2	2.18	0.44
60:EO:214:THR:OG1	60:EO:215:LEU:HD12	2.18	0.44
59:EP:117:LEU:O	59:EP:121:ARG:HG2	2.18	0.44
59:ET:3:GLU:HG2	59:ET:132:LEU:HA	2.00	0.44
59:FB:367:ASP:OD1	59:FB:368:LEU:HD12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FG:154:LYS:HA	60:FG:157:GLU:HG2	2.00	0.44
60:FG:298:ASN:O	60:FG:298:ASN:ND2	2.50	0.44
60:FM:213:ARG:HH11	60:FM:297:LYS:HG2	1.83	0.44
60:FM:392:LYS:HD2	60:FM:395:LEU:HD13	1.98	0.44
59:GA:273:ALA:HB3	59:GA:274:PRO:HD3	1.99	0.44
60:GF:3:GLU:N	60:GF:3:GLU:OE1	2.51	0.44
59:GH:276:ILE:HG13	59:GH:369:ALA:HB3	2.00	0.44
60:GM:398:TYR:HD2	60:GM:408:PHE:HZ	1.66	0.44
60:GS:391:ARG:HD2	60:GS:391:ARG:HA	1.80	0.44
59:GT:240:ALA:CB	59:GT:320:ARG:HH21	2.30	0.44
60:HD:179:VAL:HG23	60:HD:180:VAL:HG13	1.98	0.44
60:HH:271:ALA:O	60:HH:273:LEU:N	2.51	0.44
59:HK:11:GLN:OE1	59:HK:74:VAL:HG21	2.18	0.44
60:HL:119:VAL:O	60:HL:122:LYS:HG3	2.18	0.44
59:HO:223:THR:OG1	60:HP:245:GLN:NE2	2.49	0.44
60:HP:390:ARG:NH2	59:HQ:439:SER:OG	2.51	0.44
59:HV:108:TYR:O	59:HV:112:LYS:HE3	2.18	0.44
60:HW:238:CYS:SG	60:HW:239:CYS:N	2.90	0.44
60:HY:66:ILE:HD12	60:HY:147:MET:SD	2.58	0.44
60:IC:391:ARG:HA	60:IC:391:ARG:HD2	1.67	0.44
59:IO:358:GLN:OE1	59:IO:359:PRO:HD2	2.18	0.44
60:IP:12:CYS:O	60:IP:16:ILE:HG12	2.18	0.44
59:JD:229:ARG:HH11	59:JD:363:VAL:HG11	1.82	0.44
59:JD:334:THR:O	59:JD:337:THR:OG1	2.25	0.44
59:JP:406:HIS:HA	59:JP:409:VAL:HG12	1.98	0.44
60:JT:139:LEU:HD12	60:JT:170:ILE:HG22	1.99	0.44
59:KC:161:TYR:HB3	59:KC:164:LYS:HE2	2.00	0.44
60:KG:252:LYS:HA	60:KG:255:VAL:HG12	2.00	0.44
60:KG:282:ARG:HD2	60:KG:283:GLY:O	2.18	0.44
59:KL:105:ARG:HD2	59:KL:109:THR:OG1	2.18	0.44
59:KN:139:HIS:CE1	59:KN:170:THR:HG22	2.53	0.44
59:KP:203:MET:HG3	59:KP:384:ILE:HD11	2.00	0.44
59:KW:273:ALA:HB3	59:KW:274:PRO:HD3	2.00	0.44
1:0C:130:SER:HB3	1:0C:149:ARG:HB3	2.00	0.44
3:0F:243:GLU:HG3	3:0F:244:HIS:ND1	2.33	0.44
7:0O:67:MET:HE1	7:0P:399:TYR:CE2	2.53	0.44
9:0R:28:VAL:HG23	9:0R:43:VAL:HG22	2.00	0.44
11:0T:207:ASN:OD1	11:0T:210:GLU:HG3	2.18	0.44
12:0U:310:ARG:HA	12:0U:310:ARG:HD2	1.87	0.44
31:1T:161:TYR:HE1	31:1T:190:LEU:HB3	1.83	0.44
32:1V:13:ILE:HB	32:1V:24:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1V:124:ARG:NH1	32:1V:126:ASP:OD1	2.51	0.44
32:1W:101:ARG:NH1	32:1W:116:PRO:O	2.51	0.44
33:2B:551:ALA:HB1	33:2B:570:ALA:HB3	1.98	0.44
41:2Y:330:LEU:O	41:2Y:334:MET:HG2	2.18	0.44
42:3G:194:LYS:HZ1	59:IX:363:VAL:HG12	1.83	0.44
42:3P:97:LYS:HZ3	59:GW:357:TYR:HD2	1.66	0.44
45:3S:105:ARG:NE	45:3S:105:ARG:HA	2.32	0.44
47:3W:186:ARG:NH1	47:3W:187:ILE:HD11	2.33	0.44
59:AC:273:ALA:HB3	59:AC:274:PRO:HD3	1.99	0.44
59:AK:212:LEU:HD11	59:AK:275:VAL:HG21	2.00	0.44
59:AM:188:VAL:O	59:AM:191:THR:HG22	2.18	0.44
59:AM:203:MET:O	59:AM:204:LEU:HD23	2.18	0.44
59:AO:188:VAL:O	59:AO:191:THR:HG22	2.18	0.44
60:AV:286:VAL:HG21	60:AV:325:GLU:HB3	2.00	0.44
60:AX:10:GLY:O	60:AX:14:ASN:ND2	2.38	0.44
59:BA:76:ASP:OD1	59:BA:79:ARG:NH1	2.50	0.44
60:BB:145:SER:HB3	60:BB:188:SER:OG	2.18	0.44
59:BE:207:GLU:OE2	59:BE:304:LYS:NZ	2.50	0.44
59:BE:259:LEU:HD21	59:BE:316:CYS:HB2	2.00	0.44
60:BL:237:THR:HG23	60:BL:241:ARG:HH21	1.83	0.44
59:BQ:52:PHE:CZ	59:BQ:239:THR:HG21	2.53	0.44
60:BR:8:GLN:HB2	60:BR:65:LEU:HD13	2.00	0.44
60:BR:145:SER:HB3	60:BR:188:SER:OG	2.17	0.44
59:BU:280:LYS:HE3	59:CH:88:HIS:HE1	1.81	0.44
60:CA:22:GLU:HG2	60:CA:81:TYR:CD1	2.52	0.44
59:CD:333:ALA:O	59:CD:337:THR:HG23	2.18	0.44
60:CE:303:ALA:HB1	60:CE:373:CYS:HB2	2.00	0.44
60:CG:27:GLU:OE1	60:CG:241:ARG:NH2	2.49	0.44
59:CJ:133:GLN:HE21	59:CJ:242:LEU:HD21	1.83	0.44
60:CP:167:PHE:CZ	60:CP:233:VAL:HG22	2.53	0.44
60:CR:326:VAL:O	60:CR:330:MET:HG2	2.18	0.44
59:CU:19:ALA:HA	59:CU:22:GLU:HG2	2.00	0.44
60:CZ:22:GLU:HG2	60:CZ:81:TYR:CD1	2.53	0.44
59:DI:401:LYS:HB2	59:DI:401:LYS:HE3	1.83	0.44
60:DL:175:VAL:HG22	59:DM:329:ASN:ND2	2.31	0.44
60:DR:174:LYS:HA	60:DR:174:LYS:HD3	1.80	0.44
59:DS:230:LEU:HD21	59:DS:302:MET:CE	2.48	0.44
60:DT:249:ASP:OD1	60:DT:250:LEU:N	2.51	0.44
60:EC:326:VAL:O	60:EC:330:MET:HG2	2.17	0.44
59:EF:251:ASP:OD1	59:EF:252:LEU:N	2.51	0.44
60:EG:137:HIS:O	60:EG:168:SER:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:EI:2:ARG:O	60:EI:49:VAL:HG23	2.18	0.44
60:EK:292:GLN:HG2	60:EK:298:ASN:ND2	2.32	0.44
60:EM:252:LYS:HG2	60:EM:350:LYS:HE2	1.99	0.44
60:EO:263:LEU:HG	60:EO:422:TYR:CE1	2.49	0.44
60:EQ:130:LEU:HD23	60:EQ:162:ARG:HE	1.83	0.44
60:EU:67:ASP:O	60:EU:92:PHE:HA	2.18	0.44
60:EY:219:THR:HA	59:EZ:326:LYS:HE2	2.00	0.44
60:FE:286:VAL:HG22	60:FE:321:MET:HE3	2.00	0.44
60:FI:125:GLU:OE2	60:FI:159:TYR:OH	2.31	0.44
59:FL:190:SER:O	59:FL:194:LEU:HD12	2.18	0.44
60:FO:167:PHE:HE2	60:FO:233:VAL:HG22	1.80	0.44
59:FP:273:ALA:HB3	59:FP:274:PRO:HD3	2.00	0.44
59:FW:50:ASN:O	59:FW:64:ARG:NH1	2.51	0.44
59:FW:273:ALA:HB3	59:FW:274:PRO:HD3	2.00	0.44
60:GB:128:ASP:OD1	60:GB:129:CYS:N	2.51	0.44
59:GC:443:ASP:OD1	59:GC:443:ASP:N	2.51	0.44
60:GM:133:PHE:O	60:GM:165:MET:HG3	2.18	0.44
60:GM:173:PRO:CB	60:GM:380:ARG:HH22	2.29	0.44
60:GO:379:ARG:HB3	60:GO:379:ARG:NH1	2.32	0.44
60:GV:128:ASP:OD1	60:GV:129:CYS:N	2.51	0.44
60:GZ:193:VAL:HG22	60:GZ:265:PHE:CZ	2.53	0.44
59:HX:212:LEU:HD21	59:HX:275:VAL:HG21	1.99	0.44
59:ID:33:ASP:C	59:ID:60:LYS:HZ3	2.21	0.44
60:IH:139:LEU:HD23	60:IH:188:SER:HB2	1.99	0.44
60:IL:67:ASP:O	60:IL:92:PHE:HA	2.16	0.44
60:IN:55:THR:OG1	60:JA:283:GLY:HA3	2.17	0.44
59:IO:52:PHE:HZ	59:IO:239:THR:HG21	1.83	0.44
60:IS:58:ARG:C	60:IS:59:TYR:HD1	2.21	0.44
60:IS:213:ARG:HH22	60:IS:297:LYS:CG	2.29	0.44
60:JA:62:ARG:HG3	60:JA:123:GLU:OE2	2.18	0.44
60:JC:128:ASP:OD1	60:JC:129:CYS:N	2.50	0.44
60:JE:249:ASP:OD1	60:JE:250:LEU:N	2.51	0.44
60:JG:179:VAL:HG12	59:JH:258:ASN:OD1	2.18	0.44
59:JH:296:PHE:HE1	59:JH:377:MET:HG3	1.83	0.44
59:JQ:52:PHE:CZ	59:JQ:239:THR:HG21	2.50	0.44
59:JQ:269:LEU:O	59:JQ:378:ILE:HA	2.18	0.44
59:JQ:273:ALA:HB2	59:JQ:295:VAL:HG12	1.99	0.44
60:JR:50:TYR:O	60:JR:62:ARG:HG3	2.18	0.44
60:JT:145:SER:HB3	60:JT:188:SER:OG	2.18	0.44
60:JZ:174:LYS:HG3	60:JZ:175:VAL:HG23	1.99	0.44
59:KA:21:TRP:CZ2	59:KA:65:ALA:HB2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KB:167:PHE:HE2	60:KB:233:VAL:HG13	1.81	0.44
59:KF:52:PHE:HZ	59:KF:239:THR:HG21	1.82	0.44
59:KF:395:PHE:HD2	59:KF:422:ARG:HD3	1.83	0.44
60:KI:97:ALA:HB2	60:KI:143:THR:HB	2.00	0.44
60:KR:193:VAL:HG22	60:KR:265:PHE:HZ	1.82	0.44
60:KT:122:LYS:HB2	60:KT:122:LYS:HE2	1.81	0.44
59:KU:52:PHE:CZ	59:KU:239:THR:HG21	2.53	0.44
59:KU:96:LYS:HD2	59:KU:96:LYS:HA	1.64	0.44
59:KY:214:ARG:HG2	59:KY:214:ARG:HH11	1.83	0.44
60:KZ:203:ASP:O	60:KZ:207:LEU:HD12	2.18	0.44
60:LB:326:VAL:O	60:LB:330:MET:HG2	2.18	0.44
1:0C:560:MET:HE2	1:0C:579:LEU:HB2	2.00	0.43
2:0E:161:LYS:HE2	60:EE:75:SER:HA	1.99	0.43
3:0F:620:LEU:HD22	21:1D:77:ARG:HG3	1.99	0.43
5:0K:218:ARG:HH11	5:0K:218:ARG:HG2	1.83	0.43
10:0S:333:PRO:HD2	10:0S:336:ARG:HD2	2.00	0.43
15:0X:96:LEU:HD21	15:0X:172:VAL:HG23	2.00	0.43
17:0Z:198:ASP:OD1	17:0Z:199:ILE:N	2.51	0.43
19:1B:279:ASP:OD1	19:1B:280:TYR:N	2.48	0.43
30:1Q:146:TYR:HE1	30:1Q:175:LEU:HD22	1.82	0.43
33:2B:446:VAL:HB	33:2B:462:LEU:HB2	1.99	0.43
39:2P:181:GLU:O	39:2P:185:VAL:HG13	2.18	0.43
39:2R:417:MET:HA	39:2R:420:GLU:HG2	2.00	0.43
41:3A:298:ARG:HD2	41:3A:298:ARG:HA	1.79	0.43
41:3D:126:ALA:O	41:3D:129:ARG:N	2.51	0.43
41:3D:194:LEU:O	41:3D:198:GLN:HG2	2.18	0.43
42:3L:119:PRO:HA	59:HX:82:THR:HG21	2.00	0.43
53:4K:249:ASP:OD1	53:4K:249:ASP:N	2.51	0.43
60:AR:249:ASP:OD1	60:AR:250:LEU:N	2.51	0.43
60:AR:301:GLN:HE21	60:AR:303:ALA:HB3	1.82	0.43
59:BC:402:ARG:HB3	59:BC:405:VAL:CG1	2.48	0.43
59:BE:269:LEU:O	59:BE:378:ILE:HA	2.18	0.43
60:BF:173:PRO:HG3	60:BF:380:ARG:HD3	2.00	0.43
59:BG:74:VAL:O	59:BG:78:VAL:HG23	2.17	0.43
60:BN:285:SER:O	60:BN:288:GLU:HG3	2.17	0.43
60:BP:61:PRO:HD3	60:BP:84:ILE:HG22	1.99	0.43
59:BS:251:ASP:OD1	59:BS:252:LEU:N	2.51	0.43
59:BS:259:LEU:HD21	59:BS:378:ILE:HG22	2.00	0.43
60:CC:284:LEU:HD12	60:CC:362:LYS:HE2	2.00	0.43
59:CY:273:ALA:HB3	59:CY:274:PRO:HD3	2.00	0.43
60:CZ:68:LEU:HD23	60:CZ:68:LEU:HA	1.85	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DD:65:LEU:HD22	60:DD:90:PHE:CE2	2.53	0.43
59:DE:273:ALA:HB3	59:DE:274:PRO:HD3	2.00	0.43
59:DG:273:ALA:HB3	59:DG:274:PRO:HD3	2.01	0.43
60:DH:211:CYS:HB3	60:DH:217:LEU:HD13	2.00	0.43
60:DJ:252:LYS:HA	60:DJ:252:LYS:HD3	1.79	0.43
60:DL:327:ASP:OD1	60:DL:328:GLU:N	2.51	0.43
60:DL:362:LYS:HD3	60:DL:362:LYS:HA	1.76	0.43
60:DR:291:GLN:HE21	60:DR:291:GLN:HB3	1.56	0.43
60:DR:305:PRO:HA	60:DR:371:ASN:HD21	1.83	0.43
60:DY:62:ARG:HG3	60:DY:123:GLU:OE2	2.18	0.43
60:EC:3:GLU:OE2	60:EC:127:CYS:HB3	2.18	0.43
59:EN:174:SER:OG	59:EN:207:GLU:HB2	2.17	0.43
59:EP:188:VAL:HG13	59:EP:425:LEU:HD12	1.99	0.43
60:EQ:91:ILE:O	60:EQ:92:PHE:CD1	2.71	0.43
59:ER:269:LEU:HD13	59:ER:301:MET:HE1	1.99	0.43
59:EZ:392:ASP:OD1	59:EZ:393:HIS:N	2.51	0.43
60:FI:97:ALA:HB2	60:FI:143:THR:HB	1.99	0.43
60:FI:286:VAL:HG12	60:FI:329:GLN:HG3	1.99	0.43
59:FJ:273:ALA:HB2	59:FJ:295:VAL:CG2	2.47	0.43
59:FR:93:ILE:HG23	59:FR:117:LEU:HD23	1.99	0.43
60:FX:67:ASP:OD1	60:FX:68:LEU:N	2.50	0.43
60:GB:326:VAL:O	60:GB:330:MET:HG2	2.18	0.43
59:GJ:212:LEU:HD21	59:GJ:275:VAL:HG21	2.00	0.43
60:GK:229:VAL:O	60:GK:233:VAL:HG23	2.18	0.43
60:GM:86:ARG:NH1	60:GM:123:GLU:OE1	2.49	0.43
60:GS:8:GLN:CD	60:GS:17:GLY:HA3	2.39	0.43
60:GS:102:ALA:HB2	60:GS:403:MET:HE2	2.00	0.43
60:GV:329:GLN:HA	60:GV:332:ASN:HD21	1.82	0.43
59:GY:60:LYS:HZ2	59:HK:282:TYR:HE2	1.64	0.43
59:HC:224:TYR:HD1	59:HC:227:LEU:HD12	1.81	0.43
60:HF:154:LYS:HA	60:HF:154:LYS:HD2	1.92	0.43
59:HM:123:ARG:NH2	59:HZ:297:GLU:OE2	2.30	0.43
60:HN:401:GLU:OE2	60:HN:401:GLU:HA	2.18	0.43
59:HO:269:LEU:HD22	59:HO:303:THR:OG1	2.18	0.43
60:HS:261:PRO:HG2	60:HS:262:ARG:HH12	1.81	0.43
59:HV:241:SER:HA	59:HV:356:ASN:HD22	1.83	0.43
60:HY:193:VAL:HG11	60:HY:418:LEU:HD22	1.99	0.43
60:IA:11:GLN:HG3	60:IA:12:CYS:N	2.33	0.43
59:ID:111:GLY:HA2	59:ID:114:ILE:HG22	1.99	0.43
60:IE:62:ARG:NH1	60:IE:127:CYS:SG	2.91	0.43
60:IE:256:ASN:ND2	60:IE:350:LYS:HD2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IE:274:THR:O	60:IE:279:GLN:NE2	2.51	0.43
60:IF:350:LYS:HZ1	60:IF:352:SER:HB3	1.83	0.43
60:IH:212:PHE:CD2	59:II:326:LYS:HE2	2.53	0.43
60:IL:48:ASN:OD1	60:IL:49:VAL:N	2.50	0.43
60:IN:33:THR:O	60:IN:58:ARG:NH1	2.51	0.43
59:IQ:11:GLN:HG2	59:IQ:74:VAL:HG21	2.00	0.43
60:IR:190:HIS:CE1	60:IR:414:ASN:HD22	2.36	0.43
60:IS:267:MET:N	60:IS:369:GLY:O	2.32	0.43
59:IT:216:ASN:HD22	59:IT:275:VAL:HG13	1.83	0.43
59:IX:102:ASN:OD1	59:IX:104:ALA:N	2.50	0.43
59:IZ:242:LEU:HD11	59:IZ:252:LEU:HD21	1.99	0.43
60:JA:254:ALA:O	60:JA:258:VAL:HG12	2.18	0.43
60:JC:200:MET:HE2	60:JC:268:MET:HG2	2.00	0.43
60:JG:200:MET:HG3	60:JG:266:PHE:HB2	1.99	0.43
59:JJ:227:LEU:HD11	60:JK:324:LYS:HE2	1.99	0.43
60:JK:318:ARG:HE	60:JK:358:PRO:HD3	1.83	0.43
59:JN:273:ALA:HB2	59:JN:295:VAL:CG2	2.47	0.43
59:JP:230:LEU:HD23	59:JP:230:LEU:HA	1.88	0.43
59:JU:224:TYR:O	59:JU:228:ASN:ND2	2.51	0.43
59:JW:79:ARG:O	59:JW:84:ARG:HG3	2.18	0.43
59:JW:271:SER:HB2	59:JW:301:MET:HA	2.00	0.43
60:JX:330:MET:SD	60:JX:349:ILE:HG21	2.57	0.43
60:KI:163:ILE:HD11	60:KI:251:ARG:HE	1.83	0.43
59:KP:68:LEU:HD21	59:KP:149:LEU:CD2	2.47	0.43
59:KP:273:ALA:HB3	59:KP:274:PRO:HD3	2.00	0.43
59:KP:277:SER:HB3	59:KP:280:LYS:HE2	2.00	0.43
1:0B:404:VAL:HA	1:0B:407:ARG:NH1	2.33	0.43
1:0C:107:GLU:OE1	60:DJ:361:LEU:HD13	2.18	0.43
7:0P:355:GLU:O	7:0P:358:LYS:HG3	2.18	0.43
9:0R:323:ASN:OD1	9:0R:323:ASN:N	2.51	0.43
10:0S:281:ARG:HH21	10:0S:385:LEU:HD23	1.83	0.43
23:1F:231:PRO:HG2	23:1F:244:HIS:CG	2.54	0.43
24:1G:74:GLY:HA3	24:1G:77:LEU:HG	1.99	0.43
32:2A:15:TYR:CE2	32:2A:17:ILE:HB	2.53	0.43
33:2C:9:THR:HG23	33:2C:585:ALA:HA	2.00	0.43
33:2C:30:ALA:HB2	33:2C:294:CYS:SG	2.58	0.43
36:2J:199:GLY:HA3	60:EO:376:GLU:OE1	2.18	0.43
40:2T:210:GLU:OE1	59:IV:57:GLY:HA3	2.18	0.43
41:2Y:325:GLN:O	41:2Y:328:GLU:HG3	2.18	0.43
41:3C:299:LYS:NZ	41:3C:303:GLU:OE2	2.48	0.43
42:3I:146:ASN:ND2	59:IQ:77:GLU:OE2	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:3V:210:TYR:O	47:3V:213:GLU:HG3	2.18	0.43
48:3Y:19:CYS:C	48:3Y:21:GLY:H	2.21	0.43
53:4L:74:TYR:CZ	60:JE:306:ARG:HD3	2.54	0.43
60:AH:3:GLU:N	60:AH:3:GLU:OE1	2.51	0.43
59:AK:264:ARG:NE	59:AK:431:ASP:OD2	2.48	0.43
59:AM:333:ALA:O	59:AM:337:THR:HG23	2.17	0.43
60:AN:209:ASP:HB3	60:AN:213:ARG:NH2	2.32	0.43
59:AQ:244:PHE:CD1	59:AQ:358:GLN:HG3	2.53	0.43
59:AS:312:TYR:HB2	59:AS:343:PHE:CD1	2.53	0.43
59:AW:336:LYS:HE2	59:AW:336:LYS:HB2	1.78	0.43
60:AZ:270:PHE:CE1	60:AZ:272:PRO:HD2	2.53	0.43
60:BD:137:HIS:O	60:BD:168:SER:HA	2.18	0.43
60:BD:288:GLU:O	60:BD:291:GLN:HG2	2.18	0.43
59:BM:221:ARG:NH1	60:BN:325:GLU:OE2	2.36	0.43
60:BP:3:GLU:N	60:BP:3:GLU:OE1	2.51	0.43
59:BW:138:TYR:HE1	59:BW:169:TYR:CD2	2.36	0.43
59:CD:169:TYR:CE2	59:CD:235:VAL:HG22	2.50	0.43
60:CG:139:LEU:HD12	60:CG:170:ILE:HG22	1.99	0.43
59:CJ:203:MET:HG3	59:CJ:384:ILE:HD11	2.00	0.43
59:CQ:98:ASP:O	59:CQ:105:ARG:NH2	2.42	0.43
60:CR:259:PRO:HB2	60:CR:260:PHE:CD1	2.53	0.43
60:CR:267:MET:HB2	60:CR:301:GLN:HE21	1.83	0.43
60:CT:270:PHE:HD1	60:CT:366:THR:HG22	1.83	0.43
60:CV:232:VAL:HG13	60:CV:268:MET:HE2	2.00	0.43
59:CW:143:GLY:HA3	62:CW:602:GTP:O3A	2.18	0.43
60:DB:306:ARG:HH11	60:DB:340:TYR:HE2	1.66	0.43
60:DH:19:LYS:HE2	60:DH:227:HIS:HB2	2.00	0.43
60:DL:178:THR:OG1	60:DL:181:GLU:HG3	2.17	0.43
60:DT:27:GLU:OE1	60:DT:241:ARG:NH2	2.45	0.43
59:DU:69:ASP:OD1	59:DU:70:LEU:N	2.51	0.43
60:DY:67:ASP:O	60:DY:92:PHE:HA	2.19	0.43
60:DY:174:LYS:HA	60:DY:174:LYS:HD3	1.80	0.43
59:ED:164:LYS:HE2	59:ED:164:LYS:HB2	1.75	0.43
59:EH:246:GLY:HA2	59:EH:357:TYR:CD2	2.53	0.43
60:EI:3:GLU:OE2	60:EI:127:CYS:HB3	2.18	0.43
60:EK:11:GLN:HE22	59:EL:249:ASN:H	1.66	0.43
60:EK:334:GLN:HE22	60:EK:348:ASN:H	1.66	0.43
60:EQ:263:LEU:HD21	60:EQ:421:GLU:HG2	1.99	0.43
59:EV:443:ASP:N	59:EV:443:ASP:OD1	2.50	0.43
60:FA:122:LYS:NZ	60:FA:123:GLU:OE2	2.32	0.43
59:FD:273:ALA:HB3	59:FD:274:PRO:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FG:271:ALA:O	60:FG:273:LEU:N	2.50	0.43
59:FH:90:GLU:OE2	59:FH:121:ARG:NH2	2.51	0.43
60:FI:51:PHE:HB3	60:FI:59:TYR:HB3	2.00	0.43
60:FM:8:GLN:HE21	60:FM:65:LEU:CG	2.28	0.43
59:GA:88:HIS:HD2	59:GA:90:GLU:HB2	1.83	0.43
59:GC:306:ASP:OD1	59:GC:308:ARG:HG3	2.18	0.43
59:GG:267:PHE:CE2	59:GG:428:LEU:HD21	2.53	0.43
60:GK:139:LEU:HD12	60:GK:170:ILE:HG22	1.99	0.43
59:GP:121:ARG:HA	59:GP:121:ARG:NE	2.33	0.43
60:GS:67:ASP:O	60:GS:92:PHE:HA	2.17	0.43
60:GS:210:ILE:O	60:GS:214:THR:OG1	2.26	0.43
59:GW:11:GLN:O	59:GW:15:GLN:HG3	2.17	0.43
59:HA:111:GLY:HA2	59:HA:114:ILE:HG22	2.00	0.43
59:HA:121:ARG:HA	59:HA:121:ARG:HE	1.83	0.43
60:HB:137:HIS:O	60:HB:168:SER:HA	2.18	0.43
60:HB:332:ASN:O	60:HB:336:LYS:HE2	2.17	0.43
59:HM:215:ARG:HH22	59:HM:299:ALA:HB1	1.83	0.43
60:HR:203:ASP:OD2	60:HR:301:GLN:HA	2.18	0.43
59:HX:250:VAL:CG1	59:HX:352:LYS:HZ1	2.31	0.43
60:IA:128:ASP:OD1	60:IA:129:CYS:N	2.51	0.43
59:IG:105:ARG:O	59:IG:110:ILE:HG12	2.17	0.43
59:IG:192:HIS:NE2	59:IG:420:GLU:OE1	2.51	0.43
59:IK:169:TYR:HD1	59:IK:202:ALA:HB3	1.82	0.43
60:IL:313:ALA:O	60:IL:349:ILE:HA	2.18	0.43
60:IN:267:MET:HG2	60:IN:301:GLN:NE2	2.32	0.43
60:IR:311:LEU:O	60:IR:348:ASN:ND2	2.36	0.43
60:IW:12:CYS:O	60:IW:16:ILE:HG12	2.17	0.43
60:IW:68:LEU:HD13	60:IW:143:THR:OG1	2.18	0.43
60:IW:311:LEU:HD23	60:IW:342:ILE:HG13	2.00	0.43
60:IY:313:ALA:O	60:IY:349:ILE:HA	2.19	0.43
59:IZ:121:ARG:HD3	59:IZ:121:ARG:HA	1.62	0.43
60:JA:318:ARG:HD2	60:JA:356:ILE:O	2.17	0.43
60:JG:117:LEU:HG	60:JG:154:LYS:HD2	2.00	0.43
60:JI:67:ASP:O	60:JI:92:PHE:HA	2.19	0.43
59:JJ:69:ASP:OD1	59:JJ:71:GLU:HG2	2.18	0.43
60:JK:101:TRP:HB3	60:JK:398:TYR:HE2	1.83	0.43
59:JQ:333:ALA:O	59:JQ:337:THR:HG23	2.18	0.43
59:KC:242:LEU:HD11	59:KC:252:LEU:HD11	1.99	0.43
60:KE:385:PHE:CE2	60:KE:412:GLU:HB2	2.53	0.43
59:KL:93:ILE:HD11	59:KL:121:ARG:HG3	2.00	0.43
59:KL:191:THR:HG21	59:KL:425:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KN:176:GLN:HB3	60:KO:331:LEU:HD11	1.99	0.43
60:KO:73:MET:HA	60:KO:76:VAL:HG22	1.99	0.43
60:KO:358:PRO:HG2	60:KO:361:LEU:HB2	1.99	0.43
59:KP:21:TRP:CZ2	59:KP:65:ALA:HB2	2.53	0.43
59:KQ:225:THR:O	59:KQ:229:ARG:HG3	2.18	0.43
59:KS:301:MET:HE3	59:KS:305:CYS:O	2.18	0.43
59:LA:123:ARG:HH12	59:LA:124:LYS:NZ	2.16	0.43
1:0B:126:ASP:N	1:0B:126:ASP:OD1	2.51	0.43
1:0C:105:VAL:HG22	1:0C:114:ARG:HH21	1.82	0.43
1:0C:605:PRO:HG2	1:0C:608:VAL:HG11	2.00	0.43
4:0G:603:LEU:HD23	4:0G:639:ILE:HB	2.00	0.43
6:0M:86:LEU:HD21	10:0S:8:ARG:HE	1.83	0.43
17:0Z:379:GLN:O	17:0Z:383:ARG:HG2	2.19	0.43
20:1C:60:GLN:OE1	20:1C:124:GLY:N	2.51	0.43
23:1F:109:ASP:HA	60:GB:279:GLN:HE22	1.82	0.43
27:1L:269:ARG:HH22	60:AL:22:GLU:HB3	1.83	0.43
32:2A:14:LEU:HD12	32:2A:14:LEU:HA	1.86	0.43
33:2D:533:TRP:HB2	33:2D:543:ARG:HB3	1.99	0.43
39:2R:294:ARG:HG3	39:2R:295:ILE:HD12	1.99	0.43
39:2R:335:ASP:O	39:2R:339:LYS:HG2	2.18	0.43
41:2W:314:GLU:O	41:2W:318:ARG:HD3	2.18	0.43
41:3D:139:LEU:HD13	60:GX:362:LYS:HG2	2.00	0.43
42:3M:194:LYS:HD3	59:HK:364:PRO:HB2	2.00	0.43
47:3V:40:TYR:OH	59:FR:431:ASP:OD2	2.21	0.43
47:3V:231:LEU:HD22	48:3Y:247:LEU:HD12	2.00	0.43
53:4K:184:ARG:HD2	60:JA:128:ASP:HA	1.99	0.43
60:AB:97:ALA:HB2	60:AB:143:THR:HB	2.01	0.43
60:AD:139:LEU:HD12	60:AD:170:ILE:HG12	2.01	0.43
59:AG:250:VAL:HG22	59:AG:352:LYS:NZ	2.33	0.43
60:AL:293:MET:HG3	60:AL:367:PHE:HB2	1.99	0.43
59:AM:326:LYS:HD3	59:AM:326:LYS:HA	1.79	0.43
60:AP:100:ASN:HB3	60:AP:103:LYS:HB2	2.00	0.43
59:AS:324:VAL:HG12	59:AS:326:LYS:HG2	2.00	0.43
60:AV:289:LEU:O	60:AV:293:MET:HB2	2.18	0.43
60:BD:391:ARG:HA	60:BD:391:ARG:HD2	1.67	0.43
59:BK:74:VAL:O	59:BK:77:GLU:HG2	2.18	0.43
60:BR:271:ALA:O	60:BR:292:GLN:HG2	2.18	0.43
59:BS:100:ALA:HB2	60:BT:251:ARG:HG2	1.99	0.43
59:BS:271:SER:OG	59:BS:301:MET:SD	2.76	0.43
60:BT:132:GLY:HA3	60:BT:163:ILE:HB	2.00	0.43
59:BX:443:ASP:OD1	59:BX:443:ASP:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BY:318:ARG:CD	60:BY:358:PRO:HD3	2.43	0.43
59:BZ:339:ARG:HD3	59:BZ:339:ARG:H	1.82	0.43
60:CE:70:PRO:HB3	60:CE:92:PHE:CD2	2.53	0.43
59:CF:3:GLU:HA	59:CF:51:THR:HA	2.00	0.43
59:CF:356:ASN:OD1	59:CF:357:TYR:N	2.52	0.43
59:CH:392:ASP:HB3	59:CH:422:ARG:CZ	2.48	0.43
60:CI:139:LEU:HD12	60:CI:170:ILE:HG22	2.00	0.43
60:CX:259:PRO:HB2	60:CX:260:PHE:CD1	2.53	0.43
59:DI:269:LEU:HD21	59:DI:384:ILE:HG12	2.00	0.43
60:DJ:326:VAL:O	60:DJ:330:MET:HG2	2.18	0.43
59:ED:273:ALA:HB2	59:ED:295:VAL:HG23	2.00	0.43
59:EF:224:TYR:CE2	60:EG:323:THR:HG21	2.53	0.43
60:EG:385:PHE:HZ	60:EG:408:PHE:HB3	1.83	0.43
59:EH:104:ALA:HB2	59:EH:413:MET:HE3	2.00	0.43
60:EQ:139:LEU:HD22	60:EQ:188:SER:OG	2.17	0.43
60:EQ:233:VAL:O	60:EQ:236:VAL:HG12	2.19	0.43
59:ER:52:PHE:CZ	59:ER:239:THR:HG21	2.53	0.43
59:ET:203:MET:HE1	59:ET:387:VAL:HG11	2.00	0.43
60:EU:81:TYR:O	60:EU:84:ILE:HG22	2.18	0.43
60:EW:216:LYS:HE3	60:EW:216:LYS:HB3	1.83	0.43
60:FA:161:ASP:OD1	60:FA:162:ARG:NH1	2.50	0.43
59:FB:273:ALA:HB2	59:FB:295:VAL:CG2	2.48	0.43
60:FC:68:LEU:HD13	60:FC:143:THR:OG1	2.18	0.43
59:FJ:273:ALA:HB3	59:FJ:274:PRO:HD3	2.01	0.43
60:FQ:288:GLU:OE1	60:FQ:291:GLN:NE2	2.51	0.43
59:FT:2:ARG:HG3	59:FT:3:GLU:OE1	2.19	0.43
60:FV:51:PHE:HB3	60:FV:59:TYR:HB3	2.00	0.43
59:FY:196:GLU:HG3	59:FY:197:HIS:CG	2.53	0.43
60:FZ:256:ASN:O	60:FZ:312:THR:HG21	2.18	0.43
59:GG:91:GLN:O	59:GG:93:ILE:HD12	2.18	0.43
60:GI:10:GLY:O	60:GI:14:ASN:ND2	2.44	0.43
60:GQ:257:LEU:HD11	60:GQ:314:SER:HB3	2.00	0.43
59:GR:276:ILE:HG23	59:GR:369:ALA:HB3	1.99	0.43
60:GS:233:VAL:O	60:GS:236:VAL:HG12	2.17	0.43
60:HD:285:SER:O	60:HD:288:GLU:HG2	2.18	0.43
60:HH:305:PRO:HA	60:HH:371:ASN:HD21	1.83	0.43
60:HJ:376:GLU:O	60:HJ:379:ARG:HG2	2.18	0.43
59:HM:196:GLU:CB	59:HM:197:HIS:HD2	2.31	0.43
60:HW:22:GLU:HG2	60:HW:81:TYR:CD2	2.53	0.43
60:HY:156:ARG:HA	60:HY:156:ARG:HD2	1.87	0.43
59:HZ:5:ILE:CD1	59:HZ:125:LEU:HD21	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HZ:178:SER:CB	60:IA:347:ASN:HD22	2.31	0.43
60:IA:8:GLN:HE21	60:IA:65:LEU:HG	1.84	0.43
60:IE:73:MET:HA	60:IE:76:VAL:HG12	2.01	0.43
60:IF:377:MET:O	60:IF:381:VAL:HG22	2.18	0.43
60:IL:173:PRO:HA	60:IL:380:ARG:HH12	1.81	0.43
60:IP:67:ASP:O	60:IP:92:PHE:HA	2.18	0.43
60:IP:394:PHE:HD1	59:IQ:261:PRO:HA	1.83	0.43
60:IS:282:ARG:NH2	60:IS:288:GLU:HB2	2.34	0.43
60:IU:256:ASN:ND2	60:IU:350:LYS:HD2	2.33	0.43
59:IX:222:PRO:HG2	60:IY:324:LYS:HZ1	1.82	0.43
59:IZ:74:VAL:O	59:IZ:78:VAL:HG23	2.18	0.43
60:JA:207:LEU:HB3	60:JA:225:LEU:HD22	2.00	0.43
59:JD:250:VAL:HG11	59:JD:318:MET:SD	2.58	0.43
60:JR:330:MET:HG3	60:JR:349:ILE:HD12	2.00	0.43
60:JR:341:PHE:HB3	60:JR:348:ASN:ND2	2.34	0.43
60:JT:139:LEU:HG	60:JT:168:SER:HB2	2.01	0.43
59:KC:150:GLY:O	59:KC:154:LEU:HD23	2.19	0.43
60:KE:10:GLY:O	60:KE:14:ASN:ND2	2.39	0.43
60:KE:137:HIS:O	60:KE:168:SER:HA	2.17	0.43
60:KI:252:LYS:HA	60:KI:255:VAL:HG12	2.00	0.43
59:KN:213:THR:HB	59:KN:219:ILE:HD11	2.00	0.43
60:KO:316:LEU:O	60:KO:365:VAL:HA	2.17	0.43
60:KT:132:GLY:HA3	60:KT:163:ILE:HG13	1.99	0.43
60:KX:237:THR:HG23	60:KX:241:ARG:HH12	1.83	0.43
59:KY:119:LEU:HD11	59:KY:156:ARG:HB3	2.00	0.43
1:0A:573:ASP:OD1	1:0A:573:ASP:N	2.47	0.43
9:0R:3:ARG:HB3	59:AC:357:TYR:HB3	2.00	0.43
11:0T:181:SER:OG	11:0T:183:PHE:O	2.36	0.43
17:0Z:398:ILE:HG22	17:0Z:402:GLN:HE21	1.83	0.43
17:0Z:546:LYS:HD2	17:0Z:547:ASP:HB2	2.00	0.43
25:1H:364:LEU:HD23	25:1H:364:LEU:HA	1.84	0.43
32:1Z:12:SER:HA	32:1Z:166:TYR:HA	2.01	0.43
36:2J:201:ARG:HG2	60:EO:304:ASP:HB3	1.99	0.43
39:2R:296:ARG:O	39:2R:300:GLU:HG2	2.18	0.43
41:2Y:203:LEU:O	41:2Y:206:GLU:HG3	2.18	0.43
42:3N:55:ASP:OD1	42:3N:56:ILE:N	2.52	0.43
57:4S:12:LEU:HD23	57:4S:12:LEU:HA	1.86	0.43
60:AB:190:HIS:CE1	60:AB:414:ASN:HD22	2.37	0.43
59:AE:222:PRO:HD2	60:AF:324:LYS:HD3	2.00	0.43
60:AF:107:THR:OG1	60:AF:108:GLU:OE1	2.36	0.43
60:AJ:252:LYS:HA	60:AJ:255:VAL:HG12	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AM:121:ARG:HA	59:AM:121:ARG:HH11	1.82	0.43
59:AM:224:TYR:CE2	60:AN:323:THR:HG21	2.54	0.43
60:AN:305:PRO:HA	60:AN:371:ASN:HD21	1.84	0.43
59:AQ:76:ASP:OD1	59:AQ:79:ARG:NH1	2.47	0.43
60:AR:163:ILE:HD11	60:AR:251:ARG:HB2	2.00	0.43
60:AT:131:GLN:HG3	60:AT:132:GLY:H	1.83	0.43
60:AX:132:GLY:HA3	60:AX:163:ILE:HB	2.00	0.43
59:AY:405:VAL:HG22	59:AY:409:VAL:HG23	2.01	0.43
60:BB:67:ASP:O	60:BB:92:PHE:HA	2.17	0.43
60:BB:70:PRO:O	60:BB:73:MET:HG3	2.18	0.43
59:BC:69:ASP:OD1	59:BC:70:LEU:N	2.51	0.43
59:BI:259:LEU:HD21	59:BI:316:CYS:HB2	2.00	0.43
60:BJ:318:ARG:HG2	60:BJ:318:ARG:NH1	2.31	0.43
60:BP:132:GLY:HA3	60:BP:163:ILE:HB	2.01	0.43
59:BZ:5:ILE:HD13	59:BZ:64:ARG:HB2	2.01	0.43
59:BZ:40:LYS:HE2	59:BZ:42:ILE:HD12	1.99	0.43
59:CH:100:ALA:O	60:CI:255:VAL:HG11	2.19	0.43
60:CL:22:GLU:HG2	60:CL:81:TYR:CD2	2.53	0.43
59:CQ:273:ALA:HB3	59:CQ:274:PRO:HD3	2.00	0.43
59:CS:251:ASP:HB3	59:CS:254:GLU:HG3	2.00	0.43
60:CT:68:LEU:HD12	60:CT:143:THR:HB	2.00	0.43
59:CU:172:TYR:CG	59:CU:173:PRO:HD2	2.53	0.43
59:DI:273:ALA:HB2	59:DI:295:VAL:CG1	2.47	0.43
60:DN:152:ILE:HD12	60:DN:164:MET:CE	2.48	0.43
60:DV:139:LEU:HD12	60:DV:170:ILE:HG12	2.01	0.43
60:EI:238:CYS:HB2	60:EI:318:ARG:HH11	1.83	0.43
60:EM:249:ASP:OD1	60:EM:250:LEU:N	2.51	0.43
60:EO:73:MET:HA	60:EO:76:VAL:HG22	2.00	0.43
60:EQ:232:VAL:HG11	60:EQ:268:MET:SD	2.57	0.43
60:EW:73:MET:HA	60:EW:76:VAL:HG22	2.00	0.43
60:EW:385:PHE:HZ	60:EW:408:PHE:HB3	1.82	0.43
60:FC:77:ARG:HD3	60:FC:77:ARG:HA	1.88	0.43
60:FG:145:SER:HB3	60:FG:188:SER:OG	2.19	0.43
59:FH:52:PHE:CZ	59:FH:239:THR:HG21	2.53	0.43
59:FR:270:THR:HG22	59:FR:378:ILE:HG22	2.01	0.43
59:FR:273:ALA:HB3	59:FR:274:PRO:HD3	2.00	0.43
59:FR:336:LYS:HD3	59:FR:351:PHE:HE1	1.82	0.43
60:FS:65:LEU:HB2	60:FS:90:PHE:HA	1.99	0.43
59:FT:172:TYR:CD2	59:FT:173:PRO:HD2	2.53	0.43
59:FY:273:ALA:HB3	59:FY:274:PRO:HD3	1.99	0.43
60:GF:232:VAL:HG23	60:GF:270:PHE:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GI:116:VAL:HA	60:GI:119:VAL:HG12	2.01	0.43
60:GM:375:GLN:OE1	60:GM:379:ARG:NH2	2.51	0.43
60:GM:391:ARG:HH22	59:GN:346:TRP:HD1	1.67	0.43
59:GN:207:GLU:HB3	59:GN:304:LYS:HZ3	1.83	0.43
60:GV:137:HIS:O	60:GV:168:SER:HA	2.17	0.43
60:GV:330:MET:O	60:GV:333:VAL:HG12	2.18	0.43
60:GV:332:ASN:HB2	60:GV:336:LYS:NZ	2.33	0.43
60:GX:289:LEU:O	60:GX:293:MET:HB2	2.17	0.43
59:GY:103:TYR:OH	59:GY:107:HIS:ND1	2.48	0.43
60:HF:178:THR:HB	60:HF:181:GLU:HG3	2.00	0.43
59:HG:347:SER:O	59:HG:347:SER:OG	2.32	0.43
60:HL:394:PHE:HD1	59:HM:261:PRO:HA	1.82	0.43
60:HN:268:MET:H	60:HN:301:GLN:HE22	1.66	0.43
60:HP:268:MET:SD	60:HP:368:ILE:HD13	2.59	0.43
60:HU:265:PHE:HB3	60:HU:374:ILE:HD13	2.01	0.43
59:HX:273:ALA:HB3	59:HX:274:PRO:HD3	2.00	0.43
60:IE:113:ILE:HG21	60:IE:154:LYS:HE3	2.00	0.43
60:IH:387:LEU:HA	60:IH:390:ARG:NH1	2.33	0.43
60:IL:11:GLN:HA	60:IL:72:THR:HG21	2.01	0.43
60:IP:267:MET:HE2	60:IP:299:MET:HG2	2.00	0.43
60:IP:379:ARG:O	60:IP:383:GLU:HG3	2.18	0.43
59:IQ:270:THR:HG22	59:IQ:378:ILE:HG22	2.00	0.43
60:IR:257:LEU:O	60:IR:259:PRO:HD2	2.19	0.43
60:IS:200:MET:HB3	60:IS:268:MET:SD	2.58	0.43
59:IT:265:ILE:HG22	59:IT:380:ASN:HD21	1.84	0.43
60:IU:128:ASP:OD1	60:IU:129:CYS:N	2.51	0.43
60:JI:211:CYS:SG	60:JI:217:LEU:HD12	2.59	0.43
59:JJ:221:ARG:NH2	60:JK:321:MET:HA	2.33	0.43
60:JM:45:GLU:HG3	60:JM:46:ARG:HG2	1.99	0.43
60:JO:267:MET:HG2	60:JO:301:GLN:OE1	2.18	0.43
60:JT:73:MET:HE2	60:JT:92:PHE:HB3	1.99	0.43
59:JU:224:TYR:CE2	60:JV:323:THR:HG21	2.52	0.43
60:JV:69:GLU:OE2	60:JV:96:GLY:N	2.52	0.43
60:JV:273:LEU:O	60:JV:292:GLN:NE2	2.51	0.43
60:KB:173:PRO:HB3	60:KB:380:ARG:CZ	2.48	0.43
60:KG:145:SER:HB3	60:KG:188:SER:OG	2.18	0.43
60:KK:201:CYS:HB2	60:KK:301:GLN:NE2	2.33	0.43
59:KL:273:ALA:HB3	59:KL:274:PRO:HD3	2.01	0.43
59:KQ:443:ASP:OD1	59:KQ:443:ASP:N	2.51	0.43
60:KR:77:ARG:NH2	60:KR:83:GLN:HA	2.32	0.43
59:KS:65:ALA:O	59:KS:91:GLN:NE2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KS:212:LEU:HD21	59:KS:275:VAL:HG11	2.01	0.43
59:KW:111:GLY:HA2	59:KW:114:ILE:HG22	1.99	0.43
1:0C:663:TYR:O	1:0C:667:ARG:HG3	2.19	0.43
7:0O:9:GLU:HB3	7:0O:13:ARG:HH12	1.84	0.43
7:0O:9:GLU:HB3	7:0O:13:ARG:NH1	2.33	0.43
7:0O:40:LYS:HD2	60:AJ:39:ASP:HB3	2.00	0.43
31:1T:217:HIS:HB3	31:1T:220:VAL:HG22	2.01	0.43
33:2C:553:VAL:HA	33:2C:569:GLY:HA3	2.00	0.43
36:2I:131:ASN:HA	36:2I:134:THR:HG22	2.00	0.43
36:2K:159:SER:OG	59:EL:433:GLU:O	2.24	0.43
41:3C:316:ARG:HA	41:3C:319:ASN:ND2	2.33	0.43
47:3X:184:ARG:HB2	48:4A:168:ARG:HH22	1.83	0.43
50:4F:78:ASP:HB2	50:4F:79:PRO:HD3	2.00	0.43
53:4K:240:TYR:OH	59:IX:160:ASP:OD2	2.23	0.43
54:4O:164:LYS:HZ1	54:4O:165:HIS:CE1	2.36	0.43
55:4P:163:ARG:HH12	59:JJ:308:ARG:HG2	1.83	0.43
58:4V:68:GLN:HA	60:FZ:332:ASN:ND2	2.33	0.43
60:AP:280:GLN:HE21	60:AP:280:GLN:HB3	1.71	0.43
59:AQ:362:VAL:HG11	59:AQ:370:LYS:HB2	2.01	0.43
60:AV:385:PHE:CE2	60:AV:412:GLU:HB2	2.53	0.43
59:AW:394:LYS:HG2	60:AX:346:PRO:HG3	2.00	0.43
60:AX:375:GLN:NE2	60:AX:379:ARG:HH22	2.16	0.43
60:AZ:267:MET:HG2	60:AZ:301:GLN:OE1	2.19	0.43
59:BA:69:ASP:OD1	59:BA:70:LEU:N	2.50	0.43
60:BB:139:LEU:HD12	60:BB:170:ILE:HG22	2.01	0.43
59:BO:273:ALA:HB2	59:BO:295:VAL:CG2	2.49	0.43
59:BO:273:ALA:HB3	59:BO:274:PRO:HD3	2.00	0.43
60:BV:163:ILE:HD11	60:BV:251:ARG:HE	1.83	0.43
59:BX:51:THR:HG22	59:BX:52:PHE:HD1	1.83	0.43
60:CA:387:LEU:HA	60:CA:390:ARG:HH12	1.83	0.43
60:CE:249:ASP:OD1	60:CE:250:LEU:N	2.52	0.43
59:CF:75:VAL:HA	59:CF:78:VAL:HG12	2.01	0.43
60:CR:68:LEU:HD13	60:CR:143:THR:OG1	2.19	0.43
60:DD:190:HIS:CE1	60:DD:414:ASN:HD22	2.37	0.43
60:DF:372:THR:O	60:DF:375:GLN:HG2	2.19	0.43
60:DH:97:ALA:HB2	60:DH:143:THR:HB	1.98	0.43
60:DH:301:GLN:HE21	60:DH:377:MET:CE	2.31	0.43
60:DN:309:ARG:HG3	60:DN:340:TYR:C	2.39	0.43
60:DN:421:GLU:HA	60:DN:424:GLN:HG3	2.01	0.43
60:DP:362:LYS:HD3	60:DP:362:LYS:HA	1.64	0.43
60:DR:284:LEU:HD12	60:DR:289:LEU:HD21	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DY:206:ALA:O	60:DY:210:ILE:HG12	2.18	0.43
59:EF:393:HIS:O	59:EF:397:LEU:HD13	2.18	0.43
60:EK:68:LEU:HD13	60:EK:143:THR:OG1	2.19	0.43
59:EL:74:VAL:O	59:EL:78:VAL:HG23	2.18	0.43
60:EQ:25:SER:HB2	60:EQ:81:TYR:CE2	2.53	0.43
59:ER:133:GLN:HE22	59:ER:251:ASP:CG	2.22	0.43
60:FE:305:PRO:HA	60:FE:371:ASN:HD21	1.83	0.43
60:FI:145:SER:HB3	60:FI:188:SER:OG	2.19	0.43
60:FO:139:LEU:HD23	60:FO:188:SER:HB2	2.01	0.43
59:FT:273:ALA:HB3	59:FT:274:PRO:HD3	2.00	0.43
59:GH:319:TYR:HB2	59:GH:355:ILE:HD13	1.99	0.43
60:GK:249:ASP:OD1	60:GK:250:LEU:N	2.51	0.43
60:GM:287:PRO:HA	60:GM:290:THR:HG22	2.01	0.43
59:GU:429:GLU:O	59:GU:433:GLU:HG3	2.18	0.43
59:GU:438:GLU:O	59:GU:439:SER:C	2.56	0.43
60:GX:329:GLN:HE21	60:GX:329:GLN:HA	1.84	0.43
60:GZ:237:THR:HG23	60:GZ:241:ARG:NH1	2.34	0.43
59:HG:3:GLU:OE2	59:HG:64:ARG:HD3	2.17	0.43
60:HN:326:VAL:O	60:HN:330:MET:HG2	2.19	0.43
60:HR:282:ARG:HD3	60:HR:283:GLY:O	2.19	0.43
59:ID:60:LYS:HD2	59:ID:61:HIS:N	2.33	0.43
60:IF:249:ASP:OD1	60:IF:250:LEU:N	2.51	0.43
59:II:392:ASP:HB3	59:II:422:ARG:CZ	2.47	0.43
59:IK:88:HIS:HB3	59:IK:91:GLN:HG2	2.01	0.43
59:IO:119:LEU:HD11	59:IO:156:ARG:CD	2.49	0.43
60:IY:179:VAL:HG12	59:IZ:258:ASN:ND2	2.24	0.43
59:IZ:397:LEU:HD21	60:JA:344:TRP:HA	2.00	0.43
59:JD:68:LEU:HD22	59:JD:118:CYS:SG	2.59	0.43
59:JD:137:VAL:HG21	59:JD:154:LEU:HD21	1.99	0.43
60:JE:70:PRO:HA	60:JE:73:MET:HE1	2.00	0.43
60:JE:350:LYS:HD3	60:JE:351:SER:H	1.83	0.43
59:JF:223:THR:HG22	59:JF:224:TYR:H	1.84	0.43
60:JG:202:ILE:HD11	60:JG:268:MET:HE3	2.00	0.43
59:JQ:20:CYS:O	59:JQ:24:PHE:HD1	2.02	0.43
59:JQ:238:LEU:HD23	59:JQ:318:MET:CE	2.48	0.43
59:JS:216:ASN:ND2	59:JS:275:VAL:HG23	2.33	0.43
60:JT:229:VAL:O	60:JT:233:VAL:HG23	2.18	0.43
59:JU:105:ARG:HA	59:JU:109:THR:HG22	2.01	0.43
59:JW:311:LYS:HG2	59:JW:342:GLN:OE1	2.17	0.43
60:JZ:391:ARG:HD2	60:JZ:391:ARG:HA	1.72	0.43
59:KD:28:HIS:NE2	59:KD:243:ARG:HD2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:KJ:273:ALA:HB3	59:KJ:274:PRO:HD3	2.00	0.43
60:KM:137:HIS:O	60:KM:168:SER:HA	2.19	0.43
59:KN:133:GLN:HA	59:KN:164:LYS:HZ1	1.83	0.43
60:KO:398:TYR:O	60:KO:399:THR:C	2.56	0.43
59:KP:214:ARG:NH1	59:KP:220:GLU:OE1	2.31	0.43
59:KP:262:TYR:HB3	59:KP:263:PRO:HD2	2.01	0.43
60:KR:68:LEU:HD22	60:KR:143:THR:HG22	2.00	0.43
59:KS:230:LEU:HD23	59:KS:302:MET:HE2	2.00	0.43
60:KX:86:ARG:NH2	60:KX:123:GLU:OE2	2.51	0.43
59:KY:273:ALA:HB3	59:KY:274:PRO:HD3	2.01	0.43
59:KY:427:ALA:HA	59:KY:430:LYS:HG2	1.99	0.43
1:0B:366:LEU:CD2	1:0B:370:PHE:HE1	2.32	0.43
2:0E:66:ASP:O	5:0H:193:ARG:NE	2.52	0.43
5:0H:111:THR:HG21	19:1B:102:HIS:CE1	2.53	0.43
12:0U:267:TYR:OH	12:0U:271:ARG:NH2	2.49	0.43
15:0X:37:VAL:HG11	15:0X:83:PHE:HD2	1.83	0.43
19:1B:131:ARG:HH21	19:1B:171:PRO:HB3	1.84	0.43
19:1B:225:ASP:HB2	19:1B:226:PRO:HD3	2.00	0.43
23:1F:14:ILE:HB	23:1F:24:ILE:HD13	2.00	0.43
30:1R:141:VAL:HA	30:1R:144:LEU:HD13	2.01	0.43
30:1S:213:LEU:HD12	30:1S:216:LEU:HD23	2.00	0.43
31:1T:213:LEU:HB3	31:1T:252:VAL:HG21	2.01	0.43
33:2B:30:ALA:HB2	33:2B:294:CYS:SG	2.58	0.43
34:2F:264:ARG:HH21	60:KT:39:ASP:HB3	1.83	0.43
35:2H:322:MET:O	35:2H:325:LYS:HB2	2.19	0.43
40:2T:56:ARG:HG2	40:2T:56:ARG:HH11	1.82	0.43
42:3J:40:GLU:O	60:IL:320:ARG:NH1	2.49	0.43
42:3M:75:LYS:O	60:HR:320:ARG:NH2	2.41	0.43
44:3R:186:ARG:HE	52:4J:348:ARG:HG3	1.83	0.43
47:3W:89:LYS:HG2	47:3W:93:LEU:HD12	1.99	0.43
47:3X:231:LEU:HA	47:3X:234:VAL:HG22	2.00	0.43
53:4K:230:TYR:CE2	60:IY:128:ASP:HB3	2.52	0.43
53:4L:2:VAL:HG12	59:JH:177:VAL:HG23	2.00	0.43
57:4S:71:ASN:OD1	57:4S:72:MET:N	2.52	0.43
57:4S:76:MET:HA	59:FY:430:LYS:CE	2.48	0.43
59:AA:325:PRO:O	59:AA:328:VAL:HG12	2.18	0.43
59:AG:273:ALA:HB3	59:AG:274:PRO:HD3	1.99	0.43
59:AO:191:THR:HG21	59:AO:425:LEU:HD13	1.99	0.43
59:AS:166:LYS:HE2	59:AS:197:HIS:O	2.19	0.43
59:AU:150:GLY:O	59:AU:154:LEU:HD23	2.19	0.43
60:AV:20:PHE:HA	60:AV:230:SER:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BB:97:ALA:HB2	60:BB:143:THR:HB	1.99	0.43
60:BD:200:MET:HB3	60:BD:268:MET:SD	2.59	0.43
60:BD:286:VAL:HB	60:BD:287:PRO:HD3	2.01	0.43
60:BH:32:PRO:HG3	60:BH:81:TYR:CZ	2.54	0.43
60:BJ:12:CYS:O	60:BJ:16:ILE:HG12	2.18	0.43
59:BK:443:ASP:OD1	59:BK:443:ASP:N	2.52	0.43
60:BL:3:GLU:OE2	60:BL:127:CYS:HB3	2.17	0.43
60:BN:97:ALA:HB2	60:BN:143:THR:HB	2.00	0.43
60:BR:22:GLU:HG2	60:BR:81:TYR:CD1	2.54	0.43
59:BX:40:LYS:HE3	59:BX:43:GLY:HA3	2.00	0.43
60:CC:139:LEU:CD1	60:CC:168:SER:HB2	2.49	0.43
59:CM:21:TRP:CZ2	59:CM:65:ALA:HB2	2.54	0.43
60:CN:271:ALA:O	60:CN:292:GLN:NE2	2.52	0.43
60:CR:73:MET:HA	60:CR:76:VAL:HG12	2.00	0.43
59:CS:141:VAL:HG13	59:CS:190:SER:HB3	2.01	0.43
59:CS:215:ARG:HH22	59:CS:299:ALA:HA	1.83	0.43
59:CU:267:PHE:HB3	59:CU:384:ILE:HD13	2.00	0.43
60:CX:173:PRO:HB3	60:CX:380:ARG:CD	2.49	0.43
60:DB:3:GLU:N	60:DB:3:GLU:OE1	2.52	0.43
60:DD:11:GLN:HA	60:DD:72:THR:HG21	2.01	0.43
60:DF:8:GLN:HE21	60:DF:65:LEU:CG	2.30	0.43
60:DP:27:GLU:O	60:DP:43:GLN:NE2	2.45	0.43
60:DR:267:MET:HG2	60:DR:301:GLN:CD	2.38	0.43
60:EA:206:ALA:O	60:EA:210:ILE:HG12	2.19	0.43
59:ED:273:ALA:HB3	59:ED:274:PRO:HD3	2.01	0.43
60:EE:249:ASP:OD1	60:EE:250:LEU:N	2.51	0.43
60:ES:68:LEU:HD23	60:ES:143:THR:OG1	2.19	0.43
60:FC:327:ASP:OD1	60:FC:328:GLU:N	2.52	0.43
60:FO:198:GLU:OE2	60:FO:254:ALA:HB2	2.19	0.43
59:GA:441:ASP:OD1	59:GA:441:ASP:N	2.45	0.43
60:GB:173:PRO:HB3	60:GB:380:ARG:CZ	2.48	0.43
59:GG:345:ASP:OD1	59:GG:345:ASP:N	2.52	0.43
59:GH:112:LYS:HE3	59:GH:112:LYS:HB2	1.91	0.43
59:GH:224:TYR:CE2	60:GI:323:THR:HG21	2.54	0.43
60:GK:220:PRO:HD2	59:GL:326:LYS:NZ	2.33	0.43
59:GL:253:THR:O	59:GL:256:GLN:HG3	2.19	0.43
59:GN:207:GLU:CD	59:GN:304:LYS:HZ2	2.22	0.43
59:GN:443:ASP:N	59:GN:443:ASP:OD1	2.52	0.43
59:GP:132:LEU:O	59:GP:164:LYS:NZ	2.24	0.43
59:GP:430:LYS:HE3	59:GP:433:GLU:OE1	2.18	0.43
59:GT:164:LYS:HD3	59:GT:165:SER:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GU:175:PRO:HA	59:GU:390:ARG:CZ	2.48	0.43
59:GY:370:LYS:HE3	59:GY:370:LYS:HB3	1.59	0.43
60:GZ:362:LYS:HE2	60:GZ:362:LYS:HA	2.01	0.43
59:HA:187:SER:O	59:HA:191:THR:HG23	2.18	0.43
59:HA:224:TYR:CE2	60:HB:323:THR:HG21	2.53	0.43
59:HC:207:GLU:HG2	59:HC:304:LYS:HE3	2.00	0.43
59:HC:238:LEU:HD11	59:HC:378:ILE:HD13	2.00	0.43
59:HE:2:ARG:HG3	59:HE:3:GLU:OE1	2.18	0.43
59:HG:393:HIS:O	59:HG:397:LEU:HD23	2.19	0.43
60:HH:320:ARG:CZ	60:HH:320:ARG:HB2	2.48	0.43
60:HJ:238:CYS:SG	60:HJ:239:CYS:N	2.91	0.43
59:HQ:319:TYR:HB3	59:HQ:323:VAL:HG21	2.01	0.43
60:HR:139:LEU:HG	60:HR:168:SER:OG	2.18	0.43
60:HW:8:GLN:HG2	60:HW:17:GLY:HA3	1.99	0.43
60:HW:292:GLN:O	60:HW:298:ASN:ND2	2.47	0.43
60:IA:200:MET:HB3	60:IA:268:MET:SD	2.58	0.43
60:IA:326:VAL:O	60:IA:330:MET:HG2	2.18	0.43
59:IB:121:ARG:HA	59:IB:121:ARG:HD2	1.67	0.43
60:IH:156:ARG:NH1	60:IH:197:ASP:OD2	2.52	0.43
60:IJ:22:GLU:HG3	60:IJ:81:TYR:CE2	2.54	0.43
59:IM:115:VAL:O	59:IM:119:LEU:HD23	2.19	0.43
59:IM:177:VAL:CG1	59:IM:207:GLU:HB2	2.49	0.43
60:IN:211:CYS:SG	60:IN:217:LEU:HD12	2.58	0.43
60:IP:132:GLY:HA3	60:IP:163:ILE:HG13	2.01	0.43
64:IP:501:GDP:H2'	59:IQ:248:LEU:HD11	1.99	0.43
60:IS:58:ARG:O	60:IS:59:TYR:HD1	2.02	0.43
59:IV:174:SER:HB3	59:IV:207:GLU:HG3	2.01	0.43
59:IX:150:GLY:O	59:IX:154:LEU:HD23	2.18	0.43
60:JA:47:ILE:HD13	60:JA:59:TYR:CE2	2.54	0.43
60:JA:211:CYS:SG	60:JA:217:LEU:HD12	2.58	0.43
59:JB:208:ALA:HB2	59:JB:304:LYS:HG2	1.98	0.43
59:JB:321:GLY:N	59:JB:356:ASN:O	2.45	0.43
60:JC:179:VAL:HG12	59:JD:258:ASN:OD1	2.18	0.43
59:JD:2:ARG:HH11	59:JD:130:THR:HG23	1.83	0.43
60:JG:244:GLY:HA2	60:JG:355:ASP:OD2	2.17	0.43
59:JH:207:GLU:OE2	59:JH:304:LYS:NZ	2.45	0.43
60:JM:179:VAL:HG22	59:JN:258:ASN:OD1	2.19	0.43
60:JM:404:ASP:OD1	60:JM:404:ASP:N	2.31	0.43
59:JW:90:GLU:HB3	59:JW:121:ARG:HH12	1.84	0.43
59:JW:116:ASP:OD1	59:JW:117:LEU:N	2.51	0.43
59:JY:21:TRP:CZ2	59:JY:65:ALA:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KB:324:LYS:O	60:KB:327:ASP:N	2.51	0.43
59:KC:175:PRO:HD3	59:KC:304:LYS:HG2	2.01	0.43
59:KN:273:ALA:HB2	59:KN:295:VAL:HG23	1.99	0.43
59:KQ:167:LEU:HD22	59:KQ:200:VAL:HB	2.00	0.43
60:KR:170:ILE:HG13	60:KR:203:ASP:OD1	2.19	0.43
59:KS:273:ALA:HB3	59:KS:274:PRO:HD3	2.01	0.43
59:KU:326:LYS:HE3	59:KU:326:LYS:HB2	1.75	0.43
1:0C:126:ASP:OD2	28:1N:146:TYR:N	2.49	0.43
2:0E:776:GLN:OE1	60:CV:320:ARG:NH1	2.52	0.43
5:0H:111:THR:HG21	19:1B:102:HIS:NE2	2.33	0.43
5:0K:371:ASN:OD1	5:0K:372:GLN:N	2.52	0.43
7:0O:121:LYS:O	7:0O:124:LYS:HG3	2.18	0.43
7:0P:375:LYS:HB2	7:0P:375:LYS:HE3	1.71	0.43
12:0U:104:LEU:HB2	12:0U:109:HIS:CE1	2.54	0.43
22:1E:60:LEU:HD12	59:GE:26:LEU:HD12	2.00	0.43
26:1I:383:ARG:NH2	26:1I:385:ASP:OD2	2.51	0.43
27:1K:102:LEU:HD23	27:1K:102:LEU:HA	1.83	0.43
27:1K:102:LEU:HD12	60:AF:227:HIS:ND1	2.34	0.43
32:1X:74:PRO:HD2	32:1X:169:ASP:HA	1.99	0.43
33:2B:115:ALA:HB1	33:2B:160:VAL:HG12	1.99	0.43
33:2B:138:VAL:HB	33:2B:148:CYS:SG	2.58	0.43
33:2B:372:CYS:HB2	33:2B:388:TRP:CD2	2.54	0.43
33:2D:296:VAL:HG12	33:2D:298:HIS:H	1.83	0.43
34:2F:220:ARG:HD2	34:2F:220:ARG:HA	1.78	0.43
41:2W:330:LEU:HD23	59:IZ:282:TYR:HB2	2.00	0.43
41:2Y:197:MET:O	41:2Y:201:LEU:HD23	2.18	0.43
42:3G:157:LEU:HD21	59:IZ:32:PRO:HD2	2.00	0.43
42:3L:34:LYS:HB2	42:3L:34:LYS:HE2	1.40	0.43
47:3X:245:THR:O	47:3X:249:ILE:HG12	2.19	0.43
48:4A:156:PHE:O	48:4A:160:VAL:HG23	2.18	0.43
52:4I:116:PRO:HG3	59:JU:89:PRO:HB2	2.00	0.43
52:4J:328:THR:O	60:KM:340:TYR:OH	2.34	0.43
57:4R:66:ARG:HA	57:4R:69:VAL:HG12	1.99	0.43
59:AE:273:ALA:HB3	59:AE:274:PRO:HD3	2.00	0.43
60:AH:178:THR:HB	60:AH:181:GLU:HG3	2.01	0.43
59:AQ:273:ALA:HB3	59:AQ:274:PRO:HD3	2.01	0.43
60:BB:128:ASP:OD1	60:BB:129:CYS:N	2.52	0.43
60:BB:259:PRO:HG2	60:BB:311:LEU:HD23	2.00	0.43
60:BD:238:CYS:SG	60:BD:239:CYS:N	2.91	0.43
59:BE:91:GLN:HA	59:BE:121:ARG:HH12	1.84	0.43
60:BF:170:ILE:HG23	60:BF:171:PRO:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BG:269:LEU:O	59:BG:378:ILE:HA	2.19	0.43
59:BG:273:ALA:HB3	59:BG:274:PRO:HD3	2.01	0.43
60:BJ:313:ALA:HB3	60:BJ:349:ILE:CD1	2.49	0.43
60:BL:65:LEU:HD13	60:BL:90:PHE:HE1	1.83	0.43
59:BM:215:ARG:HB3	59:BM:215:ARG:NH1	2.32	0.43
59:BQ:203:MET:HE2	59:BQ:203:MET:HB3	1.69	0.43
59:BU:55:GLU:HA	59:BU:60:LYS:O	2.19	0.43
60:BV:265:PHE:HB3	60:BV:374:ILE:HD13	2.01	0.43
60:BY:73:MET:HA	60:BY:76:VAL:HG12	2.01	0.43
59:CB:273:ALA:HB3	59:CB:274:PRO:HD3	2.00	0.43
60:CV:303:ALA:HB1	60:CV:373:CYS:HB3	2.00	0.43
59:DE:150:GLY:O	59:DE:154:LEU:HG	2.17	0.43
59:DE:393:HIS:O	59:DE:397:LEU:HD23	2.18	0.43
59:DI:62:VAL:HA	59:DI:63:PRO:HD3	1.83	0.43
60:DJ:211:CYS:O	60:DJ:216:LYS:N	2.52	0.43
59:DK:443:ASP:N	59:DK:443:ASP:OD1	2.52	0.43
60:DL:170:ILE:HD11	60:DL:377:MET:CE	2.48	0.43
60:DR:271:ALA:O	60:DR:273:LEU:N	2.50	0.43
60:DW:22:GLU:HG2	60:DW:81:TYR:CD1	2.52	0.43
60:DW:51:PHE:HB3	60:DW:59:TYR:HB3	1.99	0.43
60:DW:118:ASP:O	60:DW:122:LYS:HG2	2.19	0.43
59:DZ:367:ASP:OD1	59:DZ:368:LEU:HD12	2.19	0.43
60:EK:139:LEU:HD12	60:EK:170:ILE:HG22	2.01	0.43
60:FC:326:VAL:O	60:FC:330:MET:HG2	2.18	0.43
59:FJ:401:LYS:HE2	59:FJ:401:LYS:HB3	1.87	0.43
60:FM:41:ASP:O	60:FM:45:GLU:HG3	2.18	0.43
60:FQ:232:VAL:CG1	60:FQ:268:MET:HE2	2.49	0.43
60:FV:332:ASN:OD1	60:FV:336:LYS:HE2	2.18	0.43
60:FX:174:LYS:HB2	60:FX:205:GLU:OE2	2.19	0.43
60:GB:139:LEU:CD1	60:GB:168:SER:HB2	2.49	0.43
60:GD:145:SER:HB3	60:GD:188:SER:OG	2.19	0.43
59:GE:273:ALA:HB2	59:GE:295:VAL:HG22	2.00	0.43
59:GR:441:ASP:OD1	59:GR:441:ASP:N	2.51	0.43
60:GS:113:ILE:HG12	60:GS:154:LYS:HE3	2.00	0.43
59:GW:214:ARG:HH12	59:GW:220:GLU:CD	2.21	0.43
60:GZ:289:LEU:HD11	60:GZ:363:MET:HG3	2.00	0.43
60:HB:393:ALA:C	60:HB:394:PHE:HD1	2.22	0.43
59:HG:273:ALA:HB3	59:HG:274:PRO:HD3	2.00	0.43
60:HH:213:ARG:NH1	60:HH:297:LYS:HD2	2.34	0.43
60:HL:3:GLU:OE2	60:HL:127:CYS:HB3	2.18	0.43
60:HU:213:ARG:HH12	60:HU:297:LYS:HB3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:HZ:65:ALA:O	59:HZ:91:GLN:NE2	2.52	0.43
59:HZ:210:TYR:CZ	59:HZ:227:LEU:HD21	2.54	0.43
59:HZ:330:ALA:O	59:HZ:334:THR:HG23	2.19	0.43
60:IA:196:SER:HB3	60:IA:264:HIS:CE1	2.54	0.43
59:IB:111:GLY:HA2	59:IB:114:ILE:HG22	2.00	0.43
60:IC:404:ASP:HB3	60:IC:407:GLU:OE1	2.18	0.43
60:IE:287:PRO:HD3	60:IE:325:GLU:OE2	2.18	0.43
59:IK:52:PHE:CE1	59:IK:243:ARG:HD3	2.54	0.43
59:IQ:185:TYR:CZ	59:IQ:398:MET:HE3	2.54	0.43
60:IS:398:TYR:O	60:IS:401:GLU:HG3	2.19	0.43
60:IW:154:LYS:HE2	60:IW:154:LYS:HB2	1.87	0.43
59:IZ:6:CYS:HG	59:IZ:8:HIS:CE1	2.34	0.43
60:JE:45:GLU:O	60:JE:46:ARG:HD3	2.19	0.43
60:JI:236:VAL:HG13	60:JI:237:THR:HG23	2.00	0.43
60:JI:273:LEU:O	60:JI:292:GLN:NE2	2.51	0.43
60:JK:68:LEU:HD13	60:JK:143:THR:OG1	2.19	0.43
60:JO:202:ILE:HG23	60:JO:300:MET:HB3	2.01	0.43
60:JO:240:LEU:HD21	60:JO:249:ASP:OD1	2.19	0.43
60:JR:139:LEU:CD2	60:JR:168:SER:HB2	2.49	0.43
60:JT:176:SER:OG	60:JT:178:THR:O	2.37	0.43
60:JV:178:THR:HB	60:JV:181:GLU:HG3	2.00	0.43
59:KJ:205:ASP:HB2	59:KJ:304:LYS:H	1.83	0.43
59:KQ:393:HIS:O	59:KQ:397:LEU:HD23	2.19	0.43
59:KU:50:ASN:O	59:KU:64:ARG:NH1	2.52	0.43
59:KU:224:TYR:CE2	60:KV:323:THR:HG21	2.54	0.43
59:KU:252:LEU:HA	59:KU:255:PHE:CD1	2.54	0.43
60:KZ:257:LEU:O	60:KZ:259:PRO:HD3	2.18	0.43
59:LA:377:MET:HB3	59:LA:377:MET:HE2	1.94	0.43
1:0A:402:GLU:O	1:0A:406:MET:HG2	2.19	0.43
2:0E:117:LYS:HD3	2:0E:118:ALA:O	2.19	0.43
2:0E:604:ASP:N	2:0E:604:ASP:OD1	2.50	0.43
25:1H:228:LEU:HD23	25:1H:228:LEU:HA	1.86	0.43
30:1Q:112:THR:OG1	30:1Q:159:GLU:OE2	2.30	0.43
30:1R:154:PHE:CE2	30:1R:190:LEU:HD13	2.51	0.43
32:1V:101:ARG:HD3	32:1V:144:TYR:CE2	2.53	0.43
32:2A:2:PHE:O	32:2A:7:GLN:NE2	2.52	0.43
35:2H:218:ASN:OD1	60:FG:425:TYR:OH	2.32	0.43
35:2H:295:ILE:HG22	35:2H:299:ARG:HH11	1.84	0.43
40:2S:67:ASN:O	40:2S:71:ARG:HG2	2.18	0.43
40:2T:217:HIS:NE2	59:JH:282:TYR:HB2	2.34	0.43
40:2T:432:VAL:HA	40:2T:435:GLU:OE1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:2W:287:THR:HG23	41:2W:288:HIS:ND1	2.34	0.43
44:3R:213:ARG:HA	44:3R:213:ARG:HD2	1.76	0.43
45:3S:57:ARG:O	45:3S:57:ARG:HD2	2.19	0.43
51:4H:49:ARG:O	51:4H:52:GLU:HG3	2.18	0.43
51:4H:104:VAL:HG21	51:4H:106:ARG:HH21	1.83	0.43
59:AE:102:ASN:HB3	59:AE:105:ARG:HB2	2.00	0.43
60:AF:3:GLU:HG3	60:AF:127:CYS:SG	2.59	0.43
59:AM:422:ARG:HG3	59:AM:422:ARG:HH11	1.84	0.43
60:AV:139:LEU:HD12	60:AV:170:ILE:HG22	2.01	0.43
60:AX:203:ASP:OD2	60:AX:377:MET:HE1	2.19	0.43
60:AZ:249:ASP:OD1	60:AZ:250:LEU:N	2.52	0.43
60:AZ:253:LEU:O	60:AZ:257:LEU:HD13	2.17	0.43
60:BB:137:HIS:O	60:BB:168:SER:HA	2.19	0.43
59:BE:333:ALA:O	59:BE:337:THR:HG23	2.18	0.43
60:BL:67:ASP:OD1	60:BL:68:LEU:N	2.52	0.43
60:BR:287:PRO:HA	60:BR:290:THR:HG22	2.01	0.43
59:BS:101:ASN:OD1	60:BT:252:LYS:HG2	2.18	0.43
59:BS:109:THR:OG1	59:BS:110:ILE:HG12	2.18	0.43
59:BX:2:ARG:HG3	59:BX:3:GLU:H	1.83	0.43
60:BY:175:VAL:HG13	59:BZ:329:ASN:OD1	2.19	0.43
60:CC:211:CYS:SG	60:CC:217:LEU:HD12	2.58	0.43
60:CE:344:TRP:O	60:CE:345:ILE:HD13	2.19	0.43
59:CJ:267:PHE:HB3	59:CJ:384:ILE:HD13	2.01	0.43
60:CR:45:GLU:OE1	60:CR:46:ARG:NE	2.52	0.43
60:CZ:237:THR:HG23	60:CZ:241:ARG:HH12	1.82	0.43
59:DC:273:ALA:HB3	59:DC:274:PRO:HD3	2.01	0.43
60:DR:391:ARG:HA	60:DR:391:ARG:HD2	1.78	0.43
59:DS:333:ALA:O	59:DS:337:THR:HG23	2.18	0.43
59:EB:50:ASN:O	59:EB:64:ARG:NH1	2.51	0.43
60:EC:329:GLN:HE21	60:EC:329:GLN:HA	1.83	0.43
60:EE:206:ALA:O	60:EE:210:ILE:HG12	2.19	0.43
60:EG:376:GLU:HG2	60:EG:379:ARG:NH2	2.33	0.43
59:EJ:443:ASP:OD1	59:EJ:443:ASP:N	2.52	0.43
60:EK:289:LEU:O	60:EK:293:MET:HB2	2.18	0.43
59:EP:25:CYS:SG	59:EP:86:LEU:HD11	2.59	0.43
60:EU:32:PRO:HG3	60:EU:81:TYR:CE1	2.53	0.43
60:EY:139:LEU:HD12	60:EY:170:ILE:HG12	2.00	0.43
60:EY:238:CYS:SG	60:EY:239:CYS:N	2.92	0.43
59:FD:392:ASP:OD1	59:FD:425:LEU:HD22	2.19	0.43
59:FH:269:LEU:HD22	59:FH:303:THR:HG21	2.01	0.43
59:FL:172:TYR:OH	59:FL:391:ILE:HG13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FY:296:PHE:CZ	59:FY:335:ILE:HG21	2.54	0.43
59:GA:305:CYS:SG	59:GA:383:ALA:HB1	2.58	0.43
59:GC:65:ALA:O	59:GC:91:GLN:NE2	2.52	0.43
60:GF:3:GLU:OE2	60:GF:127:CYS:HB3	2.19	0.43
60:GF:68:LEU:HD12	60:GF:143:THR:HG22	2.00	0.43
59:GG:273:ALA:HB3	59:GG:274:PRO:HD3	2.00	0.43
59:GG:393:HIS:O	59:GG:397:LEU:HD23	2.19	0.43
59:GJ:108:TYR:O	59:GJ:112:LYS:HE3	2.19	0.43
59:GL:62:VAL:HA	59:GL:63:PRO:HD3	1.85	0.43
59:GN:213:THR:HG22	59:GN:217:LEU:HD12	2.01	0.43
59:GP:211:ASP:HA	59:GP:214:ARG:HG2	2.00	0.43
59:GP:224:TYR:CE2	60:GQ:323:THR:HG21	2.53	0.43
59:GR:88:HIS:HE1	59:HE:280:LYS:NZ	2.16	0.43
59:GR:120:ASP:HA	59:GR:123:ARG:HG2	1.99	0.43
60:GS:47:ILE:HG22	60:GS:51:PHE:HB2	2.01	0.43
59:GU:166:LYS:HE2	59:GU:166:LYS:HB2	1.82	0.43
59:GY:23:LEU:HD11	59:GY:233:GLN:OE1	2.19	0.43
60:HB:271:ALA:O	60:HB:273:LEU:N	2.51	0.43
60:HB:395:LEU:HD13	60:HB:395:LEU:HA	1.83	0.43
60:HF:60:VAL:HG21	60:HF:86:ARG:NH2	2.34	0.43
60:HH:152:ILE:HG22	60:HH:195:ASN:ND2	2.33	0.43
60:HN:282:ARG:HE	60:HN:288:GLU:HG2	1.84	0.43
60:HN:292:GLN:HG2	60:HN:298:ASN:HD22	1.83	0.43
60:HP:173:PRO:HB3	60:HP:380:ARG:NH1	2.34	0.43
60:HS:2:ARG:NH2	60:HS:240:LEU:HG	2.34	0.43
60:HU:22:GLU:HG2	60:HU:81:TYR:CD1	2.54	0.43
59:HV:158:SER:OG	59:HV:166:LYS:HE3	2.19	0.43
59:HV:318:MET:O	59:HV:375:VAL:HA	2.19	0.43
60:HY:130:LEU:HD22	60:HY:162:ARG:HE	1.84	0.43
60:IA:22:GLU:HG2	60:IA:81:TYR:CD2	2.54	0.43
59:IB:254:GLU:OE2	59:IB:352:LYS:NZ	2.41	0.43
59:ID:322:ASP:OD2	59:ID:373:ARG:NH2	2.51	0.43
60:IF:238:CYS:CB	60:IF:318:ARG:HH11	2.31	0.43
59:IG:138:TYR:OH	59:IG:235:VAL:HG21	2.19	0.43
60:IJ:27:GLU:CD	60:IJ:241:ARG:HH21	2.22	0.43
60:IJ:167:PHE:CD2	60:IJ:233:VAL:HG22	2.54	0.43
60:IL:193:VAL:HG11	60:IL:418:LEU:HD22	2.00	0.43
60:IN:267:MET:CE	60:IN:371:ASN:HB3	2.49	0.43
60:IP:170:ILE:HD13	60:IP:201:CYS:HB3	2.00	0.43
60:IP:313:ALA:HB1	60:IP:367:PHE:CE1	2.54	0.43
60:IW:380:ARG:O	60:IW:383:GLU:HG2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JC:190:HIS:CE1	60:JC:414:ASN:HD22	2.37	0.43
60:JI:86:ARG:HH11	60:JV:282:ARG:HH21	1.66	0.43
60:JK:113:ILE:HG12	60:JK:117:LEU:HD23	2.01	0.43
60:JK:170:ILE:CG1	60:JK:171:PRO:HD2	2.48	0.43
59:JU:377:MET:SD	59:JU:379:ALA:HB2	2.59	0.43
59:JW:291:ILE:HG22	59:JW:375:VAL:HG12	2.01	0.43
59:JY:52:PHE:CZ	59:JY:239:THR:HG21	2.53	0.43
60:KE:305:PRO:HA	60:KE:371:ASN:HD21	1.82	0.43
60:KG:111:GLU:OE1	60:KG:111:GLU:N	2.47	0.43
59:KP:90:GLU:OE2	59:KP:121:ARG:HD3	2.18	0.43
59:KW:241:SER:OG	59:KW:250:VAL:N	2.45	0.43
1:0C:207:ASP:OD1	1:0C:209:TYR:N	2.52	0.43
3:0F:245:ASP:OD1	3:0F:246:ARG:N	2.52	0.43
5:0I:365:LEU:HD23	5:0I:365:LEU:HA	1.88	0.43
5:0K:365:LEU:HD23	5:0K:365:LEU:HA	1.86	0.43
9:0R:71:LEU:HD12	9:0R:71:LEU:HA	1.86	0.43
9:0R:115:VAL:HG23	9:0R:119:GLU:OE1	2.19	0.43
24:1G:7:ARG:NH2	60:FX:301:GLN:O	2.50	0.43
27:1L:271:LEU:HD23	60:AL:215:LEU:HD22	2.00	0.43
32:1V:17:ILE:HD11	32:1V:163:ARG:HH22	1.83	0.43
33:2D:323:LEU:HD12	33:2D:324:THR:H	1.83	0.43
34:2F:269:VAL:HG11	39:2Q:46:LEU:HD12	2.00	0.43
34:2F:271:ASP:HA	39:2Q:43:ARG:HD2	2.00	0.43
35:2G:337:SER:O	35:2G:340:GLU:HG3	2.19	0.43
40:2T:454:HIS:NE2	59:JP:370:LYS:O	2.36	0.43
41:3D:221:ILE:HA	41:3D:224:GLU:HG2	2.01	0.43
47:3V:211:GLU:HA	47:3V:214:LYS:HG2	2.01	0.43
53:4K:182:VAL:HG11	60:JM:333:VAL:HA	2.01	0.43
59:AE:167:LEU:HD22	59:AE:200:VAL:HB	2.01	0.43
59:AK:333:ALA:O	59:AK:337:THR:HG23	2.18	0.43
59:AK:392:ASP:OD1	59:AK:425:LEU:HD23	2.19	0.43
59:AM:88:HIS:ND1	59:AM:89:PRO:HD2	2.34	0.43
59:AY:11:GLN:HE21	59:AY:15:GLN:NE2	2.17	0.43
59:BE:74:VAL:O	59:BE:78:VAL:HG23	2.19	0.43
60:BH:65:LEU:HD12	60:BH:90:PHE:CE1	2.54	0.43
60:BH:100:ASN:HD21	60:BH:397:TRP:HB3	1.83	0.43
60:BH:404:ASP:HB3	60:BH:407:GLU:OE1	2.19	0.43
60:BJ:271:ALA:O	60:BJ:292:GLN:NE2	2.52	0.43
60:BN:145:SER:HB3	60:BN:188:SER:OG	2.19	0.43
59:BS:68:LEU:HA	59:BS:68:LEU:HD23	1.64	0.43
60:BT:179:VAL:HG12	59:BU:258:ASN:OD1	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CC:324:LYS:O	60:CC:328:GLU:HG2	2.18	0.43
60:CE:213:ARG:HD2	60:CE:297:LYS:NZ	2.33	0.43
60:CI:193:VAL:HG11	60:CI:418:LEU:HD22	2.00	0.43
60:CL:99:ASN:HD21	60:CL:178:THR:CG2	2.27	0.43
60:CP:204:ASN:OD1	64:CP:501:GDP:N2	2.44	0.43
60:CR:36:TYR:HB2	60:CR:59:TYR:HE2	1.84	0.43
59:CS:68:LEU:HD21	59:CS:149:LEU:HD23	2.00	0.43
59:CW:273:ALA:HB3	59:CW:274:PRO:HD3	2.00	0.43
59:DC:167:LEU:HD22	59:DC:200:VAL:HB	2.01	0.43
60:DD:145:SER:HB3	60:DD:188:SER:OG	2.19	0.43
60:DH:132:GLY:HA3	60:DH:163:ILE:HG13	2.01	0.43
59:DK:174:SER:OG	59:DK:177:VAL:HB	2.19	0.43
60:DL:190:HIS:CD2	60:DL:414:ASN:HD22	2.36	0.43
59:DM:326:LYS:HG3	59:DM:327:ASP:N	2.34	0.43
60:DN:252:LYS:HA	60:DN:255:VAL:HG12	2.00	0.43
60:DW:324:LYS:NZ	60:DW:328:GLU:OE2	2.52	0.43
60:EC:137:HIS:O	60:EC:168:SER:HA	2.19	0.43
59:EJ:251:ASP:OD1	59:EJ:252:LEU:N	2.52	0.43
59:EJ:273:ALA:HB3	59:EJ:274:PRO:HD3	2.00	0.43
60:EM:145:SER:HB3	60:EM:188:SER:OG	2.19	0.43
60:EQ:22:GLU:HA	60:EQ:81:TYR:HE2	1.84	0.43
60:ES:67:ASP:OD1	60:ES:68:LEU:N	2.51	0.43
59:EZ:273:ALA:HB2	59:EZ:295:VAL:CG2	2.48	0.43
60:FC:324:LYS:HA	60:FC:327:ASP:OD2	2.19	0.43
60:FO:125:GLU:OE2	60:FO:159:TYR:OH	2.32	0.43
60:FX:128:ASP:OD1	60:FX:129:CYS:N	2.52	0.43
59:GE:62:VAL:HA	59:GE:63:PRO:HD3	1.88	0.43
59:GJ:111:GLY:HA2	59:GJ:114:ILE:HG22	1.99	0.43
59:GL:414:GLU:OE2	59:GL:417:GLU:HG2	2.19	0.43
59:GN:104:ALA:HB2	59:GN:413:MET:CE	2.49	0.43
60:GO:330:MET:HA	60:GO:333:VAL:HG12	2.01	0.43
60:GS:238:CYS:SG	60:GS:318:ARG:HD3	2.59	0.43
60:GV:119:VAL:HG13	60:GV:122:LYS:HE3	2.01	0.43
59:GY:99:ALA:HA	59:GY:105:ARG:HD2	1.99	0.43
59:HA:172:TYR:CD2	59:HA:203:MET:HG2	2.54	0.43
60:HJ:21:TRP:CZ3	60:HJ:61:PRO:HB3	2.54	0.43
60:HL:93:GLY:O	60:HL:94:GLN:NE2	2.51	0.43
60:HP:295:ASP:C	60:HP:297:LYS:H	2.21	0.43
59:HQ:241:SER:OG	59:HQ:250:VAL:N	2.41	0.43
60:HR:60:VAL:HG21	60:HR:86:ARG:NH2	2.33	0.43
60:HU:67:ASP:OD1	60:HU:68:LEU:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HW:73:MET:HA	60:HW:76:VAL:HG12	2.01	0.43
59:HX:36:MET:HE3	59:HX:37:PRO:HD2	1.99	0.43
59:HX:255:PHE:HE1	59:HX:318:MET:HE2	1.84	0.43
60:IA:73:MET:HE3	60:IA:92:PHE:HB3	2.01	0.43
59:IB:251:ASP:O	59:IB:254:GLU:HG2	2.19	0.43
60:IE:236:VAL:HG13	60:IE:237:THR:HG23	2.01	0.43
60:IF:263:LEU:HD22	60:IF:422:TYR:CE1	2.54	0.43
59:IG:273:ALA:HB3	59:IG:274:PRO:HD3	2.01	0.43
60:IH:55:THR:HG23	60:IU:283:GLY:HA3	2.01	0.43
60:IN:380:ARG:HA	60:IN:383:GLU:HG2	2.00	0.43
60:IP:65:LEU:HD13	60:IP:65:LEU:HA	1.84	0.43
59:IQ:116:ASP:OD1	59:IQ:156:ARG:NH1	2.52	0.43
60:IU:173:PRO:HG2	60:IU:174:LYS:HD3	2.00	0.43
59:IV:188:VAL:HG21	59:IV:395:PHE:CE2	2.54	0.43
59:IX:269:LEU:HD21	59:IX:384:ILE:HG22	2.00	0.43
60:IY:211:CYS:SG	60:IY:217:LEU:HD12	2.59	0.43
60:JG:208:TYR:HD2	59:JH:326:LYS:HZ1	1.66	0.43
60:JI:392:LYS:HE3	60:JI:395:LEU:HD23	2.01	0.43
60:JK:260:PHE:HB2	60:JK:263:LEU:HD23	2.01	0.43
59:JL:273:ALA:HB3	59:JL:274:PRO:HD3	2.01	0.43
60:JM:421:GLU:HA	60:JM:424:GLN:HG2	2.00	0.43
60:JO:67:ASP:O	60:JO:92:PHE:HA	2.19	0.43
60:JR:73:MET:HA	60:JR:76:VAL:HG12	2.01	0.43
60:JR:113:ILE:HA	60:JR:116:VAL:HG22	2.01	0.43
60:JR:385:PHE:CE2	60:JR:412:GLU:HB2	2.54	0.43
59:JS:293:ASN:HA	59:JS:335:ILE:HD11	2.01	0.43
60:JT:263:LEU:HD13	60:JT:422:TYR:CE1	2.54	0.43
60:JZ:208:TYR:HE1	59:KA:326:LYS:HZ2	1.67	0.43
59:KF:91:GLN:HG3	59:KF:121:ARG:HH12	1.84	0.43
59:KJ:273:ALA:HB2	59:KJ:295:VAL:HG12	2.01	0.43
60:KM:242:PHE:CD1	60:KM:356:ILE:HD12	2.54	0.43
59:KQ:273:ALA:HB3	59:KQ:274:PRO:HD3	2.01	0.43
59:KU:273:ALA:HB3	59:KU:274:PRO:HD3	2.01	0.43
59:KU:331:ALA:O	59:KU:334:THR:N	2.52	0.43
59:KY:145:THR:HG22	62:KY:602:GTP:O3B	2.19	0.43
60:KZ:178:THR:HB	60:KZ:181:GLU:HG3	2.01	0.43
1:0C:434:GLU:HG3	60:BL:279:GLN:HE21	1.83	0.43
2:0E:568:THR:HB	59:CH:219:ILE:HG23	2.00	0.43
3:0F:530:ILE:HG23	3:0F:534:PHE:HD2	1.83	0.43
4:0G:576:LEU:O	4:0G:580:LYS:HG3	2.19	0.43
7:0O:85:LYS:O	7:0O:88:ARG:HG3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:0S:420:ASP:O	10:0S:422:SER:N	2.52	0.43
22:1E:17:CYS:SG	22:1E:27:GLU:HG2	2.59	0.43
33:2C:229:LEU:HD11	33:2C:231:GLU:HG3	2.00	0.43
33:2D:178:LEU:HD12	33:2D:204:ILE:HD13	2.00	0.43
41:2X:26:ARG:HB3	60:IE:56:GLY:O	2.19	0.43
42:3L:113:THR:HG22	60:HY:320:ARG:NH1	2.34	0.43
54:4M:128:TYR:CD2	59:IQ:159:VAL:HG21	2.54	0.43
59:AA:178:SER:HB3	60:AB:347:ASN:ND2	2.25	0.43
59:AG:2:ARG:HG3	59:AG:3:GLU:OE1	2.19	0.43
60:AH:280:GLN:OE1	60:AT:58:ARG:NH1	2.52	0.43
60:AN:326:VAL:O	60:AN:330:MET:HG2	2.19	0.43
59:AS:273:ALA:HB2	59:AS:295:VAL:HG12	2.01	0.43
60:AT:97:ALA:HB2	60:AT:143:THR:HB	2.01	0.43
60:AX:52:ASP:HB3	60:AX:60:VAL:HG23	2.00	0.43
59:AY:150:GLY:O	59:AY:154:LEU:HD23	2.18	0.43
60:BB:271:ALA:O	60:BB:273:LEU:N	2.52	0.43
59:BQ:112:LYS:HB3	59:BQ:112:LYS:HE2	1.75	0.43
59:BQ:383:ALA:O	59:BQ:386:GLU:HG2	2.18	0.43
59:BU:251:ASP:OD1	59:BU:252:LEU:N	2.51	0.43
60:CE:128:ASP:OD1	60:CE:129:CYS:N	2.52	0.43
60:CE:170:ILE:HG22	60:CE:171:PRO:CD	2.48	0.43
59:CM:167:LEU:HD22	59:CM:200:VAL:HB	2.01	0.43
60:CN:139:LEU:HD22	60:CN:188:SER:OG	2.18	0.43
60:CN:265:PHE:HB3	60:CN:374:ILE:HD13	2.00	0.43
60:CP:69:GLU:OE2	60:CP:95:SER:HA	2.19	0.43
60:CV:69:GLU:OE2	60:CV:96:GLY:N	2.52	0.43
60:CZ:11:GLN:HA	60:CZ:72:THR:HG21	2.01	0.43
60:DJ:271:ALA:HA	60:DJ:298:ASN:HD21	1.84	0.43
60:DL:326:VAL:O	60:DL:330:MET:HG2	2.19	0.43
59:DM:88:HIS:CE1	59:DM:90:GLU:HG2	2.54	0.43
59:DQ:224:TYR:CE2	60:DR:323:THR:HG21	2.54	0.43
59:DX:11:GLN:O	59:DX:15:GLN:HG3	2.18	0.43
60:EA:238:CYS:SG	60:EA:239:CYS:N	2.92	0.43
60:EC:61:PRO:HD3	60:EC:84:ILE:HG22	1.99	0.43
60:EC:97:ALA:HB2	60:EC:143:THR:HB	2.00	0.43
60:EE:379:ARG:O	60:EE:383:GLU:HG3	2.19	0.43
59:EJ:44:VAL:HG13	59:EJ:45:GLU:OE1	2.18	0.43
60:EM:27:GLU:OE1	60:EM:241:ARG:NH2	2.49	0.43
60:ES:32:PRO:HG3	60:ES:81:TYR:CZ	2.54	0.43
60:EU:198:GLU:OE1	60:EU:254:ALA:HB2	2.19	0.43
59:FB:203:MET:HE2	59:FB:384:ILE:HD11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FB:223:THR:OG1	60:FC:245:GLN:NE2	2.45	0.43
59:FB:273:ALA:HB3	59:FB:274:PRO:HD3	2.01	0.43
60:FE:218:THR:HG23	60:FE:219:THR:HG23	2.01	0.43
60:FG:128:ASP:OD1	60:FG:129:CYS:N	2.52	0.43
59:FH:273:ALA:HB3	59:FH:274:PRO:HD3	2.01	0.43
59:FL:401:LYS:HZ1	60:FM:430:ILE:HA	1.84	0.43
59:FU:273:ALA:HB3	59:FU:274:PRO:HD3	2.00	0.43
60:FZ:230:SER:HA	60:FZ:233:VAL:HG12	2.01	0.43
60:GI:220:PRO:HD2	59:GJ:326:LYS:HD2	2.01	0.43
59:GL:276:ILE:HG13	59:GL:369:ALA:HB3	2.01	0.43
60:GS:110:ALA:HA	60:GS:113:ILE:HG22	2.00	0.43
60:GS:114:ASP:OD1	60:GS:115:SER:N	2.51	0.43
59:GU:203:MET:SD	59:GU:384:ILE:HD11	2.59	0.43
60:GV:240:LEU:HD11	60:GV:250:LEU:HG	2.01	0.43
60:HB:73:MET:HE2	60:HB:90:PHE:HD2	1.84	0.43
59:HC:37:PRO:HG2	59:HC:40:LYS:HE3	2.01	0.43
60:HN:70:PRO:HA	60:HN:73:MET:HE1	2.00	0.43
60:HN:73:MET:HA	60:HN:76:VAL:HG12	2.01	0.43
60:HN:249:ASP:OD1	60:HN:250:LEU:N	2.51	0.43
59:HQ:396:ASP:OD2	59:HQ:422:ARG:NH2	2.48	0.43
60:HR:289:LEU:HD11	60:HR:363:MET:HG3	2.01	0.43
60:HS:304:ASP:OD1	60:HS:304:ASP:N	2.45	0.43
60:HU:238:CYS:SG	60:HU:239:CYS:N	2.92	0.43
60:HU:385:PHE:HZ	60:HU:408:PHE:HB3	1.84	0.43
60:IA:68:LEU:HD23	60:IA:143:THR:OG1	2.19	0.43
60:IF:67:ASP:OD1	60:IF:68:LEU:N	2.52	0.43
60:IS:107:THR:OG1	60:IS:108:GLU:OE1	2.37	0.43
60:IS:212:PHE:HB2	59:IT:326:LYS:HE3	2.01	0.43
60:IU:3:GLU:N	60:IU:3:GLU:OE1	2.52	0.43
59:IV:133:GLN:HE21	59:IV:242:LEU:HD13	1.84	0.43
59:IZ:273:ALA:HB3	59:IZ:274:PRO:HD3	2.01	0.43
59:JB:163:LYS:HD3	59:JB:163:LYS:HA	1.82	0.43
60:JE:27:GLU:HA	60:JE:359:LYS:HE2	2.01	0.43
60:JG:198:GLU:HA	60:JG:264:HIS:HB2	2.01	0.43
59:JH:88:HIS:CE1	59:JH:90:GLU:OE1	2.71	0.43
60:JI:167:PHE:HE2	60:JI:233:VAL:HG13	1.83	0.43
59:JL:69:ASP:OD1	59:JL:70:LEU:N	2.52	0.43
60:JM:67:ASP:OD1	60:JM:68:LEU:N	2.50	0.43
60:JM:344:TRP:O	60:JM:345:ILE:HD13	2.19	0.43
60:JV:139:LEU:O	60:JV:145:SER:OG	2.37	0.43
59:JW:344:VAL:HB	59:JW:346:TRP:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JX:156:ARG:HH22	60:JX:197:ASP:CG	2.22	0.43
60:JZ:335:ASN:O	60:JZ:338:SER:OG	2.35	0.43
59:KA:425:LEU:HD12	59:KA:425:LEU:HA	1.90	0.43
59:KF:273:ALA:HB3	59:KF:274:PRO:HD3	2.01	0.43
60:KI:148:GLY:O	60:KI:152:ILE:HG12	2.18	0.43
59:LA:261:PRO:HG2	59:LA:313:MET:HE3	2.00	0.43
2:0E:116:GLU:OE2	60:DR:280:GLN:NE2	2.52	0.42
2:0E:522:ILE:HG13	2:0E:529:PHE:HB2	2.00	0.42
3:0F:286:ASN:HD22	3:0F:286:ASN:C	2.15	0.42
5:0I:354:GLN:NE2	59:EL:362:VAL:HG21	2.34	0.42
19:1B:59:THR:HG22	19:1B:93:TYR:CE1	2.53	0.42
32:1Y:30:ARG:HB2	32:1Y:56:THR:HG21	2.01	0.42
33:2B:50:ILE:O	33:2B:53:ARG:NH1	2.52	0.42
33:2D:6:TYR:HB3	33:2D:587:VAL:HG11	2.00	0.42
36:2K:220:LEU:O	36:2K:224:VAL:HG22	2.19	0.42
41:2Y:111:ARG:HH22	59:HV:60:LYS:N	2.16	0.42
42:3H:40:GLU:HG2	60:IU:320:ARG:NH2	2.33	0.42
42:3M:240:GLN:NE2	42:3M:261:SER:O	2.51	0.42
42:3P:112:THR:OG1	60:GV:355:ASP:OD2	2.26	0.42
43:3Q:57:ILE:HA	43:3Q:60:GLU:HG2	2.00	0.42
50:4E:137:ASP:O	50:4E:140:ARG:HG3	2.19	0.42
50:4F:75:GLU:N	50:4F:75:GLU:OE1	2.52	0.42
52:4I:79:PRO:HA	59:JW:160:ASP:O	2.19	0.42
53:4K:128:TYR:HD2	60:JC:125:GLU:HG3	1.84	0.42
57:4S:35:CYS:HB3	59:GN:339:ARG:HH22	1.84	0.42
59:AI:273:ALA:HB3	59:AI:274:PRO:HD3	2.00	0.42
59:AS:393:HIS:O	59:AS:397:LEU:HD23	2.19	0.42
60:AX:145:SER:HB3	60:AX:188:SER:OG	2.19	0.42
59:AY:339:ARG:HH11	59:AY:339:ARG:HA	1.84	0.42
59:AY:443:ASP:OD1	59:AY:443:ASP:N	2.52	0.42
60:BD:268:MET:HB3	60:BD:268:MET:HE2	1.92	0.42
60:BH:156:ARG:HH22	60:BH:197:ASP:CG	2.23	0.42
60:BJ:330:MET:HA	60:BJ:333:VAL:HG12	2.01	0.42
60:BL:257:LEU:HD12	60:BL:312:THR:HB	2.02	0.42
59:BM:284:GLU:HG2	59:BM:285:GLN:O	2.19	0.42
59:BM:408:TYR:O	59:BM:413:MET:HG2	2.18	0.42
60:BN:139:LEU:HD12	60:BN:170:ILE:HG22	2.01	0.42
60:BP:383:GLU:O	60:BP:386:THR:HG22	2.19	0.42
59:BS:75:VAL:O	59:BS:79:ARG:HG3	2.18	0.42
60:BT:158:GLN:O	60:BT:159:TYR:HD1	2.01	0.42
59:BX:404:PHE:HD2	59:BX:407:TRP:HZ3	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BY:249:ASP:OD1	60:BY:250:LEU:N	2.51	0.42
59:CB:71:GLU:HB3	59:CB:98:ASP:HB3	2.00	0.42
59:CF:273:ALA:HB3	59:CF:274:PRO:HD3	2.00	0.42
59:CO:181:VAL:HG11	60:CP:345:ILE:HD11	2.01	0.42
59:CO:195:LEU:HD12	59:CO:195:LEU:HA	1.74	0.42
59:CQ:413:MET:HE3	59:CQ:413:MET:HB2	1.76	0.42
60:CV:207:LEU:HB3	60:CV:225:LEU:HD22	2.01	0.42
60:DF:145:SER:HB2	60:DF:188:SER:OG	2.19	0.42
60:DF:202:ILE:HD13	60:DF:229:VAL:HG22	2.00	0.42
60:DL:3:GLU:OE2	60:DL:127:CYS:HB3	2.19	0.42
60:DN:156:ARG:HH22	60:DN:197:ASP:CG	2.22	0.42
59:DS:393:HIS:O	59:DS:397:LEU:HD23	2.19	0.42
60:DT:330:MET:SD	60:DT:349:ILE:HG21	2.59	0.42
60:EA:262:ARG:HB2	60:EA:262:ARG:HH11	1.83	0.42
60:EE:375:GLN:HG3	60:EE:379:ARG:NH1	2.34	0.42
59:EJ:103:TYR:CE2	59:EJ:189:LEU:HB3	2.54	0.42
59:EV:273:ALA:HB3	59:EV:274:PRO:HD3	2.01	0.42
60:EY:178:THR:OG1	60:EY:181:GLU:HG3	2.19	0.42
60:FC:171:PRO:HB3	60:FC:181:GLU:OE1	2.18	0.42
60:FE:67:ASP:OD1	60:FE:68:LEU:N	2.51	0.42
60:FE:153:SER:HA	60:FE:195:ASN:ND2	2.34	0.42
60:FI:249:ASP:OD1	60:FI:250:LEU:N	2.52	0.42
60:FK:67:ASP:OD1	60:FK:68:LEU:N	2.49	0.42
60:FM:145:SER:HB3	60:FM:188:SER:OG	2.18	0.42
60:FQ:190:HIS:O	60:FQ:193:VAL:HG12	2.19	0.42
60:FQ:199:SER:HB2	60:FQ:265:PHE:HD1	1.84	0.42
60:FS:391:ARG:HD2	60:FS:391:ARG:HA	1.80	0.42
59:GC:76:ASP:OD1	59:GC:79:ARG:NH1	2.47	0.42
60:GD:68:LEU:HD13	60:GD:143:THR:OG1	2.18	0.42
59:GE:72:PRO:HA	59:GE:94:SER:OG	2.19	0.42
59:GJ:76:ASP:OD1	59:GJ:79:ARG:NH2	2.30	0.42
60:GO:271:ALA:O	60:GO:273:LEU:N	2.52	0.42
60:GS:102:ALA:HB2	60:GS:403:MET:CE	2.49	0.42
59:GU:222:PRO:HG3	60:GV:324:LYS:HD2	1.99	0.42
60:HB:404:ASP:HB3	60:HB:407:GLU:OE1	2.19	0.42
59:HC:155:GLU:HG2	59:HC:197:HIS:CE1	2.54	0.42
59:HC:273:ALA:HB3	59:HC:274:PRO:HD3	2.01	0.42
60:HD:238:CYS:CB	60:HD:318:ARG:HE	2.32	0.42
60:HF:65:LEU:HD12	60:HF:90:PHE:CE2	2.54	0.42
59:HM:103:TYR:CD2	59:HM:413:MET:HE1	2.54	0.42
60:HP:86:ARG:HB3	60:HP:89:ASN:OD1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HR:132:GLY:HA3	60:HR:163:ILE:HG13	2.01	0.42
59:HT:273:ALA:HB3	59:HT:274:PRO:HD3	2.01	0.42
59:HV:167:LEU:HD22	59:HV:200:VAL:HB	2.01	0.42
59:HX:111:GLY:HA2	59:HX:114:ILE:HG22	2.01	0.42
59:HX:260:VAL:HG23	59:HX:265:ILE:O	2.19	0.42
60:HY:303:ALA:HB1	60:HY:373:CYS:HB3	2.01	0.42
60:IA:285:SER:OG	60:IA:287:PRO:HD2	2.18	0.42
59:ID:63:PRO:O	59:ID:91:GLN:NE2	2.43	0.42
59:IG:301:MET:HG2	59:IG:303:THR:H	1.82	0.42
59:II:372:GLN:N	59:II:372:GLN:OE1	2.52	0.42
60:IJ:249:ASP:OD1	60:IJ:250:LEU:N	2.51	0.42
59:IK:269:LEU:HD23	59:IK:301:MET:HE1	2.01	0.42
60:IN:267:MET:HG2	60:IN:301:GLN:CD	2.39	0.42
59:IQ:181:VAL:HA	60:IR:347:ASN:OD1	2.19	0.42
60:IS:114:ASP:OD1	60:IS:114:ASP:N	2.52	0.42
59:IT:70:LEU:HD13	59:IT:145:THR:OG1	2.19	0.42
60:IU:122:LYS:NZ	60:JG:282:ARG:HH21	2.17	0.42
59:IZ:7:ILE:O	59:IZ:137:VAL:HA	2.19	0.42
59:IZ:132:LEU:HD22	59:IZ:164:LYS:HE2	2.00	0.42
60:JG:67:ASP:OD1	60:JG:68:LEU:N	2.52	0.42
60:JG:101:TRP:CE3	60:JG:187:LEU:HD13	2.54	0.42
60:JG:145:SER:HB3	60:JG:188:SER:OG	2.19	0.42
60:JM:292:GLN:HG3	60:JM:298:ASN:OD1	2.19	0.42
59:JP:96:LYS:HG3	59:JP:97:GLU:HG3	2.00	0.42
59:JQ:273:ALA:HB3	59:JQ:274:PRO:HD3	2.01	0.42
60:JR:45:GLU:OE1	60:JR:46:ARG:NE	2.52	0.42
59:JS:339:ARG:O	59:JS:342:GLN:NE2	2.52	0.42
59:JU:273:ALA:HB3	59:JU:274:PRO:HD3	2.01	0.42
59:JW:381:SER:O	59:JW:384:ILE:HG12	2.19	0.42
60:JZ:133:PHE:HE1	60:JZ:159:TYR:HD2	1.67	0.42
60:KB:180:VAL:HG12	60:KB:180:VAL:O	2.19	0.42
59:KC:319:TYR:CD1	59:KC:375:VAL:HG22	2.54	0.42
59:KJ:211:ASP:OD2	59:KJ:304:LYS:NZ	2.52	0.42
59:KN:141:VAL:HG21	59:KN:172:TYR:CD1	2.54	0.42
59:KW:50:ASN:O	59:KW:64:ARG:NH1	2.52	0.42
3:0F:454:VAL:HG13	3:0F:457:SER:HB3	1.99	0.42
12:0U:157:MET:HG2	12:0U:206:TYR:HB3	2.01	0.42
22:1E:113:ASP:O	22:1E:117:LYS:HB2	2.19	0.42
25:1H:167:GLN:HG2	25:1H:167:GLN:O	2.19	0.42
27:1K:183:TRP:CD2	27:1K:190:PRO:HG3	2.54	0.42
31:1T:207:VAL:HA	31:1T:210:LYS:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:1X:13:ILE:HB	32:1X:24:ILE:HD11	2.01	0.42
33:2B:227:CYS:HB3	33:2B:239:MET:HB3	2.01	0.42
33:2C:576:VAL:HB	33:2C:586:ALA:HB3	1.99	0.42
33:2D:175:ILE:O	33:2D:175:ILE:HG13	2.19	0.42
33:2D:427:ALA:HB3	33:2D:440:GLY:N	2.33	0.42
33:2D:538:ASP:OD1	33:2D:538:ASP:N	2.52	0.42
37:2M:228:ARG:NH1	37:2M:259:GLY:O	2.52	0.42
39:2Q:102:GLU:O	39:2Q:105:GLN:HG3	2.19	0.42
39:2Q:269:GLU:O	39:2Q:272:ARG:HG3	2.19	0.42
39:2Q:314:GLN:O	39:2Q:317:GLN:HG3	2.19	0.42
41:2Y:97:ASP:HA	59:HV:43:GLY:HA2	2.00	0.42
41:2Y:204:LYS:HE2	60:IL:276:ARG:NH1	2.34	0.42
41:3B:12:SER:O	59:HA:84:ARG:NH2	2.52	0.42
42:3M:76:THR:H	42:3M:79:GLN:HE22	1.65	0.42
52:4I:31:LYS:HD3	52:4I:31:LYS:HA	1.69	0.42
53:4K:218:HIS:HB3	60:JK:307:HIS:CE1	2.53	0.42
53:4L:57:PRO:HG2	53:4L:62:MET:HB3	2.01	0.42
54:4O:16:ARG:NH1	59:HG:441:ASP:O	2.52	0.42
54:4O:140:LYS:HA	54:4O:143:LYS:NZ	2.35	0.42
55:4P:149:ARG:O	55:4P:153:ILE:HG12	2.18	0.42
57:4R:88:TRP:CZ2	60:GQ:307:HIS:HD2	2.37	0.42
58:4T:68:GLN:HA	60:GF:332:ASN:ND2	2.34	0.42
59:AE:88:HIS:HB3	59:AE:91:GLN:HG3	2.00	0.42
60:AJ:139:LEU:HD13	60:AJ:170:ILE:HG22	2.01	0.42
59:AO:273:ALA:HB3	59:AO:274:PRO:HD3	2.00	0.42
59:AO:384:ILE:HD12	59:AO:384:ILE:HA	1.93	0.42
59:AQ:252:LEU:HA	59:AQ:255:PHE:CD2	2.54	0.42
60:AR:68:LEU:HD12	60:AR:97:ALA:HB2	1.99	0.42
60:BH:289:LEU:O	60:BH:293:MET:HB2	2.19	0.42
60:BR:391:ARG:HH21	59:BS:439:SER:HB3	1.84	0.42
59:BS:173:PRO:HG2	59:BS:391:ILE:HD13	2.02	0.42
60:BT:67:ASP:O	60:BT:92:PHE:HA	2.19	0.42
60:BT:392:LYS:HD2	60:BT:395:LEU:HD22	2.00	0.42
59:BU:422:ARG:O	59:BU:422:ARG:NH1	2.51	0.42
60:BY:330:MET:HA	60:BY:333:VAL:HG12	2.02	0.42
60:BY:375:GLN:O	60:BY:379:ARG:HG3	2.19	0.42
60:CA:103:LYS:HG2	60:CA:108:GLU:OE1	2.18	0.42
59:CB:120:ASP:OD1	59:CB:123:ARG:NH2	2.52	0.42
60:CI:128:ASP:OD1	60:CI:129:CYS:N	2.52	0.42
60:CN:391:ARG:HD3	59:CO:439:SER:OG	2.18	0.42
60:CX:173:PRO:HB3	60:CX:380:ARG:NE	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DB:267:MET:HG2	60:DB:301:GLN:OE1	2.19	0.42
59:DC:52:PHE:CZ	59:DC:239:THR:HG21	2.54	0.42
59:DE:273:ALA:HB2	59:DE:295:VAL:HG12	2.01	0.42
60:DH:249:ASP:OD1	60:DH:250:LEU:N	2.52	0.42
60:DN:404:ASP:HB3	60:DN:407:GLU:OE1	2.20	0.42
59:DQ:273:ALA:HB3	59:DQ:274:PRO:HD3	2.01	0.42
59:DS:60:LYS:HE2	59:DS:60:LYS:HB3	1.74	0.42
60:DW:198:GLU:OE1	60:DW:254:ALA:HB2	2.18	0.42
59:DZ:273:ALA:HB2	59:DZ:295:VAL:CG2	2.50	0.42
60:EC:329:GLN:HA	60:EC:329:GLN:NE2	2.34	0.42
59:ED:269:LEU:O	59:ED:378:ILE:HA	2.19	0.42
59:EH:212:LEU:HD21	59:EH:275:VAL:HG11	2.00	0.42
60:EI:238:CYS:SG	60:EI:318:ARG:HD3	2.59	0.42
60:EI:271:ALA:O	60:EI:273:LEU:N	2.52	0.42
60:EK:103:LYS:HG2	60:EK:108:GLU:OE1	2.19	0.42
60:EO:237:THR:HG23	60:EO:241:ARG:HH12	1.85	0.42
59:ET:223:THR:OG1	60:EU:245:GLN:NE2	2.50	0.42
60:EW:301:GLN:HE22	60:EW:374:ILE:HG13	1.84	0.42
60:FK:170:ILE:HD13	60:FK:377:MET:HE1	2.01	0.42
60:FO:283:GLY:HA3	60:GB:55:THR:HB	2.02	0.42
60:FQ:68:LEU:HD13	60:FQ:143:THR:OG1	2.18	0.42
60:FS:99:ASN:OD1	59:FT:254:GLU:HG2	2.18	0.42
60:FZ:173:PRO:HB3	60:FZ:380:ARG:NH2	2.34	0.42
60:FZ:237:THR:OG1	60:FZ:241:ARG:NH1	2.53	0.42
59:GH:443:ASP:OD1	59:GH:443:ASP:N	2.52	0.42
60:GI:324:LYS:NZ	60:GI:328:GLU:HG3	2.34	0.42
59:GL:50:ASN:O	59:GL:64:ARG:NH1	2.52	0.42
60:GM:284:LEU:HD12	60:GM:362:LYS:HB2	2.00	0.42
59:GN:107:HIS:CD2	59:GN:152:LEU:HB2	2.54	0.42
60:GO:267:MET:HG2	60:GO:301:GLN:CD	2.40	0.42
59:GP:100:ALA:O	60:GQ:255:VAL:HG11	2.20	0.42
59:GT:426:ALA:HB1	59:GT:430:LYS:NZ	2.33	0.42
60:GZ:341:PHE:HB3	60:GZ:348:ASN:ND2	2.34	0.42
60:HB:220:PRO:HG3	59:HC:326:LYS:HD2	2.01	0.42
59:HC:399:TYR:OH	59:HC:415:GLU:OE2	2.36	0.42
62:HC:602:GTP:O3G	60:HD:252:LYS:NZ	2.33	0.42
60:HD:67:ASP:OD1	60:HD:68:LEU:N	2.51	0.42
60:HD:304:ASP:OD1	60:HD:304:ASP:N	2.52	0.42
60:HF:257:LEU:HD21	60:HF:314:SER:HB2	2.01	0.42
60:HJ:34:GLY:O	60:HJ:58:ARG:HA	2.19	0.42
60:HJ:182:PRO:HA	60:HJ:185:THR:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HU:163:ILE:HD11	60:HU:251:ARG:HE	1.85	0.42
60:HW:66:ILE:HD12	60:HW:147:MET:SD	2.59	0.42
59:HX:285:GLN:OE1	59:HX:285:GLN:N	2.50	0.42
59:HZ:191:THR:O	59:HZ:195:LEU:HD23	2.19	0.42
59:HZ:273:ALA:HB2	59:HZ:295:VAL:HG13	2.00	0.42
59:ID:311:LYS:NZ	59:ID:436:GLY:O	2.48	0.42
60:IE:186:THR:HG21	60:IE:385:PHE:CD2	2.54	0.42
60:IF:167:PHE:CE2	60:IF:233:VAL:HG23	2.55	0.42
59:IG:5:ILE:HD13	59:IG:64:ARG:HB3	2.00	0.42
60:IH:128:ASP:OD1	60:IH:129:CYS:N	2.52	0.42
60:IJ:55:THR:HB	60:IW:283:GLY:HA3	1.99	0.42
59:IM:2:ARG:HG3	59:IM:3:GLU:OE1	2.19	0.42
59:IT:21:TRP:CZ2	59:IT:65:ALA:HB2	2.54	0.42
60:IU:211:CYS:SG	60:IU:217:LEU:HD12	2.59	0.42
59:IV:336:LYS:HE2	59:IV:336:LYS:HB2	1.70	0.42
59:IX:153:LEU:O	59:IX:157:LEU:HG	2.18	0.42
59:IZ:55:GLU:OE2	59:IZ:61:HIS:NE2	2.52	0.42
60:JG:374:ILE:HD12	60:JG:374:ILE:HA	1.91	0.42
59:JH:270:THR:HG22	59:JH:378:ILE:HG22	2.01	0.42
60:JK:36:TYR:CZ	60:JK:44:LEU:HD21	2.54	0.42
59:JP:180:ALA:O	59:JP:183:GLU:HG3	2.18	0.42
60:JR:173:PRO:HB3	60:JR:380:ARG:HH12	1.83	0.42
60:JR:267:MET:HA	60:JR:301:GLN:NE2	2.34	0.42
59:JS:9:ILE:HD11	59:JS:153:LEU:HD23	2.00	0.42
60:JT:211:CYS:O	60:JT:216:LYS:N	2.53	0.42
60:JV:211:CYS:O	60:JV:216:LYS:N	2.52	0.42
60:KB:320:ARG:H	60:KB:320:ARG:HG2	1.72	0.42
59:KD:68:LEU:HD21	59:KD:149:LEU:CD2	2.48	0.42
59:KH:36:MET:HG3	59:KH:37:PRO:HD2	2.01	0.42
59:KJ:269:LEU:HD22	59:KJ:303:THR:HG21	2.01	0.42
59:KJ:273:ALA:HB2	59:KJ:295:VAL:CG1	2.49	0.42
60:KM:3:GLU:N	60:KM:3:GLU:OE1	2.52	0.42
59:KN:21:TRP:CZ2	59:KN:65:ALA:HB2	2.53	0.42
59:KP:188:VAL:HG11	59:KP:395:PHE:CE2	2.54	0.42
59:KQ:50:ASN:OD1	59:KQ:64:ARG:NH2	2.52	0.42
59:KW:224:TYR:HA	59:KW:227:LEU:HD23	2.00	0.42
59:LA:21:TRP:CZ2	59:LA:65:ALA:HB2	2.54	0.42
1:0B:489:VAL:HA	1:0B:502:ILE:HG21	2.01	0.42
2:0E:458:THR:O	2:0E:462:ARG:N	2.51	0.42
2:0E:525:ASN:O	2:0E:527:HIS:ND1	2.47	0.42
3:0F:284:ASP:HA	3:0F:285:PRO:HD3	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:0G:421:ILE:HD11	60:CP:32:PRO:HB2	2.01	0.42
7:0O:16:ARG:O	7:0O:20:VAL:HG23	2.19	0.42
7:0P:344:LYS:HA	7:0P:347:ARG:NH1	2.34	0.42
8:0Q:288:ASP:OD2	27:1K:108:GLY:HA3	2.19	0.42
11:0T:21:GLN:NE2	59:GA:357:TYR:HA	2.35	0.42
16:0Y:52:TYR:HA	16:0Y:53:PRO:HD3	1.89	0.42
19:1B:19:LYS:HA	19:1B:22:VAL:HG12	2.01	0.42
20:1C:177:MET:HG3	20:1C:208:PHE:HE1	1.85	0.42
33:2D:262:LEU:HD21	33:2D:300:PHE:CE2	2.54	0.42
36:2K:142:ILE:HG21	60:EK:390:ARG:HH21	1.84	0.42
40:2T:270:TYR:CD2	59:JJ:370:LYS:HD3	2.54	0.42
41:2Y:28:LYS:HE3	41:2Y:28:LYS:HB2	1.78	0.42
41:3B:92:ASN:OD1	41:3B:92:ASN:N	2.51	0.42
41:3D:149:GLN:O	41:3D:152:GLU:HG3	2.19	0.42
42:3L:145:THR:HG22	60:HW:320:ARG:HH12	1.84	0.42
45:3S:57:ARG:HE	45:3S:58:TYR:HE1	1.65	0.42
46:3T:246:ARG:HH12	60:FA:306:ARG:NH1	2.16	0.42
48:3Y:223:MET:O	48:3Y:227:ARG:HG2	2.19	0.42
51:4H:40:GLU:O	51:4H:43:ARG:HG3	2.19	0.42
53:4K:238:VAL:HG11	59:JJ:298:PRO:HG2	2.01	0.42
54:4N:105:GLN:O	54:4N:109:ILE:HG12	2.19	0.42
60:AJ:249:ASP:OD1	60:AJ:250:LEU:N	2.52	0.42
59:AM:305:CYS:SG	59:AM:383:ALA:HB1	2.59	0.42
60:AR:267:MET:HE3	60:AR:373:CYS:SG	2.59	0.42
59:AS:93:ILE:HD11	59:AS:121:ARG:HG3	2.00	0.42
59:BG:91:GLN:OE1	59:BG:121:ARG:NH1	2.52	0.42
60:BH:145:SER:HB3	60:BH:188:SER:OG	2.19	0.42
60:BL:27:GLU:HA	60:BL:359:LYS:HE2	2.01	0.42
59:BM:169:TYR:OH	59:BM:238:LEU:HD13	2.19	0.42
60:BV:179:VAL:HG13	60:BV:180:VAL:HG13	2.00	0.42
59:BW:253:THR:HA	59:BW:256:GLN:OE1	2.19	0.42
60:CC:145:SER:HB3	60:CC:188:SER:OG	2.19	0.42
59:CD:291:ILE:O	59:CD:295:VAL:HG23	2.19	0.42
59:CF:70:LEU:HD13	59:CF:145:THR:OG1	2.20	0.42
59:CF:301:MET:HE2	59:CF:301:MET:HB3	1.92	0.42
60:CG:12:CYS:O	60:CG:16:ILE:HG12	2.20	0.42
60:CG:68:LEU:HD23	60:CG:68:LEU:HA	1.88	0.42
60:CG:267:MET:HA	60:CG:301:GLN:NE2	2.34	0.42
60:CR:33:THR:O	60:CR:58:ARG:NH1	2.52	0.42
60:CR:273:LEU:HD12	60:CR:298:ASN:ND2	2.34	0.42
59:CS:271:SER:OG	59:CS:301:MET:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:CT:139:LEU:HD23	60:CT:188:SER:HB3	2.00	0.42
60:CT:271:ALA:HA	60:CT:298:ASN:HD21	1.84	0.42
59:CU:37:PRO:HB2	59:CU:40:LYS:HE3	2.00	0.42
60:CV:237:THR:HG23	60:CV:241:ARG:HH21	1.83	0.42
60:CZ:385:PHE:HZ	60:CZ:408:PHE:HB3	1.84	0.42
60:DB:297:LYS:HD3	60:DB:297:LYS:HA	1.88	0.42
59:DG:253:THR:HA	59:DG:256:GLN:HE21	1.85	0.42
60:DN:304:ASP:OD1	60:DN:304:ASP:N	2.51	0.42
59:DO:69:ASP:OD1	59:DO:70:LEU:N	2.52	0.42
59:DS:296:PHE:CE2	59:DS:335:ILE:HD13	2.54	0.42
59:DU:21:TRP:CZ3	59:DU:63:PRO:HB3	2.55	0.42
60:DV:245:GLN:CD	60:DV:320:ARG:HH22	2.23	0.42
60:DW:334:GLN:HE21	60:DW:349:ILE:HD12	1.84	0.42
59:DX:39:ASP:O	59:DX:40:LYS:HB3	2.19	0.42
60:EC:201:CYS:HB2	60:EC:301:GLN:HE22	1.84	0.42
59:EF:11:GLN:HE22	60:EG:247:ASN:H	1.66	0.42
60:EI:8:GLN:HE22	60:EI:21:TRP:HE1	1.67	0.42
60:EM:14:ASN:OD1	60:EM:65:LEU:HD12	2.19	0.42
59:EP:223:THR:OG1	60:EQ:245:GLN:NE2	2.47	0.42
60:ES:102:ALA:HB2	60:ES:403:MET:SD	2.59	0.42
60:EW:324:LYS:HA	60:EW:327:ASP:OD2	2.20	0.42
60:FA:167:PHE:CE2	60:FA:233:VAL:HG22	2.54	0.42
59:FB:203:MET:CE	59:FB:384:ILE:HD11	2.49	0.42
60:FE:8:GLN:HE22	60:FE:21:TRP:HE1	1.68	0.42
60:FG:284:LEU:HD12	60:FG:289:LEU:HD21	2.01	0.42
60:FM:267:MET:HG2	60:FM:301:GLN:OE1	2.19	0.42
59:FN:273:ALA:HB3	59:FN:274:PRO:HD3	2.01	0.42
60:FQ:99:ASN:HD21	60:FQ:178:THR:HG23	1.85	0.42
60:FQ:398:TYR:HD2	60:FQ:403:MET:HE3	1.84	0.42
60:FS:165:MET:HG3	60:FS:198:GLU:HG3	2.02	0.42
60:GB:67:ASP:OD1	60:GB:68:LEU:N	2.51	0.42
59:GC:273:ALA:HB2	59:GC:295:VAL:CG2	2.49	0.42
59:GE:88:HIS:CE1	59:GE:90:GLU:HB2	2.54	0.42
60:GF:128:ASP:OD1	60:GF:129:CYS:N	2.52	0.42
59:GL:407:TRP:CD2	60:GM:255:VAL:HG23	2.55	0.42
59:GN:298:PRO:HA	59:GN:301:MET:HE2	2.00	0.42
60:GS:240:LEU:HD21	60:GS:249:ASP:OD1	2.19	0.42
59:HA:269:LEU:HD21	59:HA:384:ILE:HG22	2.00	0.42
59:HE:392:ASP:OD1	59:HE:425:LEU:HD23	2.19	0.42
60:HH:52:ASP:OD1	60:HH:62:ARG:NH2	2.39	0.42
59:HI:296:PHE:CE2	59:HI:335:ILE:HD13	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HL:322:SER:HB3	60:HL:325:GLU:OE1	2.19	0.42
59:HQ:387:VAL:HA	59:HQ:390:ARG:NH2	2.30	0.42
62:HQ:501:GTP:O2G	60:HR:252:LYS:NZ	2.52	0.42
59:HT:259:LEU:HD21	59:HT:316:CYS:HB2	2.01	0.42
60:IJ:128:ASP:OD1	60:IJ:129:CYS:N	2.52	0.42
59:IK:284:GLU:HG2	59:IK:285:GLN:O	2.19	0.42
60:IL:249:ASP:OD1	60:IL:250:LEU:N	2.52	0.42
59:IQ:56:THR:HG23	59:IQ:58:ALA:H	1.85	0.42
60:IS:326:VAL:O	60:IS:330:MET:HG2	2.19	0.42
59:IT:203:MET:HE3	59:IT:384:ILE:HD11	2.01	0.42
59:IX:203:MET:CE	59:IX:267:PHE:HB3	2.50	0.42
60:IY:404:ASP:HB3	60:IY:407:GLU:OE1	2.19	0.42
60:JE:350:LYS:HD3	60:JE:351:SER:N	2.34	0.42
59:JF:443:ASP:OD1	59:JF:443:ASP:N	2.52	0.42
59:JH:153:LEU:O	59:JH:157:LEU:HD23	2.20	0.42
60:JK:180:VAL:O	60:JK:180:VAL:HG12	2.19	0.42
59:JN:224:TYR:CE2	60:JO:323:THR:HG21	2.53	0.42
60:JO:67:ASP:OD1	60:JO:68:LEU:N	2.51	0.42
59:JS:336:LYS:HE2	59:JS:351:PHE:HE2	1.83	0.42
60:JV:27:GLU:HA	60:JV:359:LYS:HZ3	1.84	0.42
59:JW:101:ASN:OD1	60:JX:252:LYS:NZ	2.33	0.42
59:JW:295:VAL:HG21	59:JW:375:VAL:HG13	2.00	0.42
60:JZ:148:GLY:O	60:JZ:152:ILE:HG12	2.19	0.42
59:KD:222:PRO:HD2	60:KE:324:LYS:HG3	2.00	0.42
59:KF:40:LYS:HD3	59:KF:40:LYS:HA	1.83	0.42
59:KH:390:ARG:HG2	59:KH:394:LYS:NZ	2.35	0.42
60:KK:195:ASN:N	60:KK:195:ASN:HD22	2.17	0.42
59:KQ:191:THR:O	59:KQ:195:LEU:HD23	2.20	0.42
59:KY:191:THR:O	59:KY:195:LEU:HD23	2.19	0.42
1:0B:492:ARG:HG3	1:0B:501:VAL:HG12	2.01	0.42
2:0E:263:ARG:HG3	2:0E:263:ARG:HH11	1.85	0.42
2:0E:631:VAL:O	2:0E:635:ASN:ND2	2.52	0.42
7:0O:112:ARG:H	7:0O:112:ARG:HG2	1.71	0.42
7:0P:128:GLU:HA	7:0P:131:GLU:HG3	2.02	0.42
7:0P:396:LEU:O	7:0P:400:ILE:HG12	2.19	0.42
8:0Q:112:ARG:HE	8:0Q:112:ARG:HB2	1.67	0.42
11:0T:98:LEU:HD23	11:0T:98:LEU:HA	1.92	0.42
11:0T:281:LEU:HD22	11:0T:318:LEU:HD23	2.01	0.42
11:0T:411:ASP:OD1	11:0T:411:ASP:N	2.52	0.42
18:1A:290:TYR:O	18:1A:357:LYS:NZ	2.48	0.42
20:1C:150:ASN:OD1	20:1C:186:GLY:HA3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:1D:13:ALA:O	21:1D:17:MET:HB2	2.20	0.42
25:1H:293:LEU:HD21	60:AV:44:LEU:HD23	2.01	0.42
30:1R:101:ALA:HB2	60:EC:426:GLN:OE1	2.19	0.42
33:2B:147:LEU:HB2	33:2B:188:ARG:HE	1.84	0.42
33:2B:485:SER:OG	33:2B:486:ASP:N	2.52	0.42
33:2C:323:LEU:HD12	33:2C:323:LEU:HA	1.84	0.42
33:2D:138:VAL:HB	33:2D:148:CYS:SG	2.59	0.42
33:2D:515:TYR:HD2	33:2D:519:GLU:HG2	1.83	0.42
33:2D:537:VAL:HG21	40:2T:78:ALA:HA	2.01	0.42
36:2K:236:ALA:HB1	59:EX:159:VAL:HG11	2.01	0.42
38:2N:210:THR:HG22	38:2N:212:ALA:H	1.84	0.42
40:2T:295:GLU:HG2	60:JK:362:LYS:HD2	2.00	0.42
41:2V:151:GLN:HA	41:2V:154:GLU:HG2	2.01	0.42
41:2Y:19:LEU:HB3	60:HS:44:LEU:HD23	2.01	0.42
41:2Y:152:GLU:O	41:2Y:155:ARG:HG3	2.19	0.42
41:2Z:12:SER:HB2	59:HI:85:GLN:HG3	2.01	0.42
42:3G:124:ASP:OD1	42:3G:124:ASP:N	2.52	0.42
42:3M:70:ASP:OD1	42:3M:73:HIS:HB2	2.19	0.42
45:3S:49:GLN:O	45:3S:53:ILE:HG12	2.19	0.42
53:4L:99:LEU:HD11	60:JE:324:LYS:HE3	2.02	0.42
60:AD:252:LYS:HA	60:AD:255:VAL:HG12	2.01	0.42
60:AL:156:ARG:O	60:AL:156:ARG:HD3	2.19	0.42
60:AN:412:GLU:OE2	60:AN:416:ASN:ND2	2.46	0.42
60:AR:145:SER:HB2	60:AR:188:SER:OG	2.19	0.42
60:AR:159:TYR:HB3	60:AR:162:ARG:HG2	2.02	0.42
60:AT:99:ASN:O	60:AT:99:ASN:ND2	2.53	0.42
60:AX:67:ASP:O	60:AX:92:PHE:HA	2.19	0.42
59:AY:204:LEU:HD12	59:AY:209:ILE:HD11	2.01	0.42
60:AZ:67:ASP:O	60:AZ:92:PHE:HA	2.19	0.42
60:BH:395:LEU:HD12	60:BH:395:LEU:HA	1.75	0.42
59:BO:269:LEU:O	59:BO:378:ILE:HA	2.19	0.42
60:BV:291:GLN:HG3	60:BV:292:GLN:N	2.34	0.42
59:BX:221:ARG:HG2	60:BY:322:SER:CB	2.49	0.42
59:BX:246:GLY:HA2	59:BX:357:TYR:CD2	2.55	0.42
59:CF:75:VAL:O	59:CF:78:VAL:HG12	2.19	0.42
59:CH:132:LEU:HD22	59:CH:164:LYS:HD3	2.02	0.42
60:CI:267:MET:HA	60:CI:301:GLN:NE2	2.34	0.42
59:CM:180:ALA:N	59:CM:183:GLU:OE2	2.41	0.42
60:CP:130:LEU:HB3	60:CP:162:ARG:HH12	1.84	0.42
59:CS:273:ALA:HB3	59:CS:274:PRO:HD3	2.01	0.42
59:CU:250:VAL:HG22	59:CU:352:LYS:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DA:273:ALA:HB2	59:DA:295:VAL:CG2	2.50	0.42
60:DH:267:MET:HG2	60:DH:301:GLN:OE1	2.19	0.42
60:DH:311:LEU:HD23	60:DH:342:ILE:HG21	2.02	0.42
60:DL:156:ARG:HH22	60:DL:197:ASP:CG	2.22	0.42
60:DN:271:ALA:O	60:DN:273:LEU:N	2.53	0.42
60:DP:137:HIS:O	60:DP:168:SER:HA	2.19	0.42
60:DP:282:ARG:HH12	60:DP:292:GLN:NE2	2.17	0.42
60:DR:67:ASP:O	60:DR:92:PHE:HA	2.20	0.42
60:EI:46:ARG:O	60:EI:49:VAL:HG12	2.19	0.42
59:EN:273:ALA:HB3	59:EN:274:PRO:HD3	2.01	0.42
60:EQ:73:MET:HA	60:EQ:76:VAL:HG12	2.02	0.42
59:EV:90:GLU:HB3	59:EV:121:ARG:NH1	2.35	0.42
60:EW:103:LYS:HG2	60:EW:108:GLU:OE1	2.19	0.42
60:FA:214:THR:HG22	60:FA:297:LYS:NZ	2.34	0.42
60:FK:298:ASN:O	60:FK:298:ASN:ND2	2.41	0.42
59:FN:74:VAL:O	59:FN:78:VAL:HG23	2.20	0.42
59:FP:262:TYR:HD2	59:FP:265:ILE:HD12	1.84	0.42
60:FZ:238:CYS:SG	60:FZ:239:CYS:N	2.92	0.42
59:GA:96:LYS:HD2	59:GA:96:LYS:HA	1.68	0.42
60:GB:263:LEU:HD11	60:GB:425:TYR:CE2	2.55	0.42
59:GJ:107:HIS:CD2	59:GJ:152:LEU:HB2	2.54	0.42
59:GJ:250:VAL:HA	59:GJ:254:GLU:OE2	2.18	0.42
59:GL:273:ALA:HB3	59:GL:274:PRO:HD3	2.00	0.42
60:GM:404:ASP:HB3	60:GM:407:GLU:OE1	2.19	0.42
60:GO:66:ILE:HG13	60:GO:147:MET:HE3	2.01	0.42
60:GO:249:ASP:OD1	60:GO:250:LEU:N	2.51	0.42
60:GQ:404:ASP:HB3	60:GQ:407:GLU:OE1	2.20	0.42
60:GS:67:ASP:OD1	60:GS:68:LEU:N	2.52	0.42
60:GV:208:TYR:CE1	60:GV:225:LEU:HD11	2.54	0.42
59:GY:212:LEU:HD21	59:GY:275:VAL:HG11	2.02	0.42
60:GZ:388:MET:HG3	60:GZ:393:ALA:HB3	2.01	0.42
60:HH:153:SER:HA	60:HH:195:ASN:ND2	2.34	0.42
60:HH:304:ASP:OD1	60:HH:304:ASP:N	2.53	0.42
60:HL:320:ARG:HH11	60:HL:320:ARG:HG3	1.85	0.42
59:HV:65:ALA:O	59:HV:91:GLN:NE2	2.53	0.42
59:ID:250:VAL:HA	59:ID:254:GLU:OE2	2.19	0.42
60:IF:344:TRP:HB3	60:IF:430:ILE:HD11	2.00	0.42
59:IO:180:ALA:HB1	60:IP:256:ASN:HD21	1.83	0.42
59:IX:55:GLU:OE2	59:IX:61:HIS:NE2	2.53	0.42
60:JC:404:ASP:OD1	60:JC:407:GLU:N	2.52	0.42
59:JD:273:ALA:HB3	59:JD:274:PRO:HD3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JI:229:VAL:O	60:JI:233:VAL:HG23	2.20	0.42
60:JK:154:LYS:HA	60:JK:154:LYS:HD3	1.87	0.42
60:JR:31:ASP:OD1	60:JR:32:PRO:HD2	2.20	0.42
59:JS:37:PRO:HB2	59:JS:40:LYS:HD3	2.01	0.42
59:JS:174:SER:OG	59:JS:207:GLU:HB2	2.18	0.42
60:JT:237:THR:HG23	60:JT:241:ARG:NH1	2.35	0.42
59:JU:150:GLY:O	59:JU:154:LEU:HD23	2.19	0.42
59:JU:325:PRO:O	59:JU:328:VAL:HG12	2.20	0.42
60:JV:286:VAL:HG12	60:JV:329:GLN:HG3	2.01	0.42
59:KF:224:TYR:CE2	60:KG:323:THR:HG21	2.54	0.42
59:KH:69:ASP:OD1	59:KH:71:GLU:HG2	2.19	0.42
60:KK:292:GLN:O	60:KK:298:ASN:ND2	2.46	0.42
60:KM:42:LEU:HD13	60:KM:356:ILE:HD11	2.01	0.42
59:KN:150:GLY:O	59:KN:154:LEU:HD23	2.20	0.42
60:KX:260:PHE:HB2	60:KX:263:LEU:HD13	2.02	0.42
60:KZ:175:VAL:HG13	59:LA:329:ASN:OD1	2.19	0.42
60:KZ:260:PHE:HB2	60:KZ:263:LEU:CD1	2.49	0.42
59:LA:44:VAL:HB	59:LA:45:GLU:OE1	2.19	0.42
1:0B:328:ASP:N	60:CZ:276:ARG:HH12	2.17	0.42
3:0F:430:GLU:O	60:BR:276:ARG:NH2	2.53	0.42
6:0M:191:TYR:OH	21:1D:54:ASP:OD2	2.38	0.42
10:0S:124:SER:HB2	10:0S:169:ALA:HB1	2.00	0.42
10:0S:287:ARG:HE	10:0S:287:ARG:HB2	1.68	0.42
17:0Z:357:HIS:N	17:0Z:360:GLU:OE2	2.49	0.42
22:1E:238:MET:HE3	22:1E:238:MET:HB3	1.74	0.42
27:1L:323:ARG:O	27:1L:335:ARG:NH1	2.52	0.42
30:1Q:154:PHE:CD2	30:1Q:190:LEU:HD22	2.54	0.42
33:2B:594:ASN:OD1	33:2B:595:ILE:N	2.51	0.42
33:2C:40:ALA:HB1	33:2C:66:ILE:HG21	2.01	0.42
33:2C:138:VAL:HB	33:2C:148:CYS:SG	2.59	0.42
33:2C:411:HIS:HB2	33:2C:425:VAL:HG22	2.01	0.42
35:2H:312:MET:HG3	35:2H:313:PRO:HD2	2.00	0.42
39:2O:141:ARG:NH2	59:KN:370:LYS:O	2.53	0.42
39:2R:351:LEU:HD12	39:2R:351:LEU:HA	1.92	0.42
40:2T:281:LYS:HG2	40:2T:284:ARG:HH12	1.83	0.42
42:3N:18:CYS:SG	42:3N:19:VAL:N	2.92	0.42
43:3Q:47:THR:HB	43:3Q:50:GLN:HB2	2.00	0.42
47:3X:186:ARG:HG3	48:4A:188:ARG:NH2	2.35	0.42
53:4K:126:GLN:HB2	53:4K:128:TYR:HE1	1.83	0.42
59:AA:220:GLU:HG3	59:AA:221:ARG:CG	2.44	0.42
60:AL:193:VAL:HG22	60:AL:265:PHE:HZ	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:AX:267:MET:CE	60:AX:299:MET:HG2	2.50	0.42
60:BB:287:PRO:HA	60:BB:290:THR:HG22	2.02	0.42
60:BF:3:GLU:OE2	60:BF:127:CYS:HB2	2.20	0.42
60:BF:139:LEU:HD22	60:BF:188:SER:HB3	2.01	0.42
60:BL:175:VAL:O	60:BL:175:VAL:HG13	2.19	0.42
60:BP:6:CYS:O	60:BP:63:SER:HA	2.19	0.42
59:BQ:121:ARG:HA	59:BQ:121:ARG:HD3	1.78	0.42
60:BR:404:ASP:HB3	60:BR:407:GLU:OE1	2.20	0.42
60:BT:362:LYS:HB3	60:BT:362:LYS:HE2	1.86	0.42
60:BY:337:ASN:HB3	60:BY:340:TYR:HD2	1.84	0.42
59:CH:70:LEU:HD13	59:CH:145:THR:OG1	2.19	0.42
60:CI:179:VAL:HG13	60:CI:180:VAL:HG13	1.99	0.42
60:CL:350:LYS:HA	60:CL:350:LYS:HD3	1.63	0.42
60:CN:286:VAL:HG22	60:CN:321:MET:HE3	2.01	0.42
59:CQ:2:ARG:N	59:CQ:133:GLN:OE1	2.53	0.42
59:CS:96:LYS:HD2	59:CS:96:LYS:HA	1.71	0.42
60:CV:173:PRO:HB3	60:CV:380:ARG:HD3	2.01	0.42
60:CX:103:LYS:HB2	60:CX:103:LYS:HE3	1.79	0.42
60:CX:152:ILE:HG22	60:CX:195:ASN:ND2	2.34	0.42
59:CY:432:TYR:HA	59:CY:435:VAL:HG12	2.01	0.42
60:DB:68:LEU:HD23	60:DB:143:THR:OG1	2.20	0.42
60:DB:213:ARG:NH1	60:DB:297:LYS:HE3	2.34	0.42
59:DE:273:ALA:HB2	59:DE:295:VAL:CG1	2.50	0.42
59:DI:21:TRP:CZ2	59:DI:65:ALA:HB2	2.55	0.42
59:DM:175:PRO:HB3	59:DM:390:ARG:NH1	2.34	0.42
59:DM:358:GLN:OE1	59:DM:359:PRO:HD2	2.20	0.42
59:DM:377:MET:HE2	59:DM:379:ALA:HB2	2.01	0.42
60:DR:201:CYS:O	60:DR:301:GLN:NE2	2.53	0.42
60:DT:137:HIS:O	60:DT:168:SER:HA	2.19	0.42
59:DZ:273:ALA:HB3	59:DZ:274:PRO:HD3	2.02	0.42
59:EF:211:ASP:HA	59:EF:214:ARG:HG2	2.01	0.42
60:EI:238:CYS:SG	60:EI:239:CYS:N	2.92	0.42
59:EJ:358:GLN:OE1	59:EJ:359:PRO:HD2	2.20	0.42
60:EK:97:ALA:HB2	60:EK:143:THR:HB	2.01	0.42
60:EK:233:VAL:O	60:EK:236:VAL:HG12	2.20	0.42
60:EM:22:GLU:HG2	60:EM:81:TYR:CD1	2.55	0.42
59:ET:273:ALA:HB3	59:ET:274:PRO:HD3	2.02	0.42
59:EX:273:ALA:HB2	59:EX:295:VAL:CG2	2.47	0.42
60:EY:271:ALA:HA	60:EY:298:ASN:HD21	1.85	0.42
59:FT:88:HIS:CE1	59:FT:90:GLU:HG2	2.55	0.42
60:FZ:229:VAL:O	60:FZ:233:VAL:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GK:238:CYS:HB2	60:GK:318:ARG:HH21	1.84	0.42
59:GL:88:HIS:H	59:GL:91:GLN:NE2	2.17	0.42
60:GM:31:ASP:OD1	60:GM:32:PRO:HD2	2.20	0.42
60:GM:237:THR:HG23	60:GM:241:ARG:NH1	2.31	0.42
59:GN:269:LEU:HD21	59:GN:384:ILE:HD13	2.01	0.42
60:GO:391:ARG:NH2	59:GP:439:SER:HB3	2.33	0.42
59:GP:287:SER:OG	59:GP:290:GLU:OE1	2.27	0.42
59:GT:273:ALA:HB3	59:GT:274:PRO:HD3	2.00	0.42
59:GU:257:THR:HG23	59:GU:258:ASN:OD1	2.18	0.42
59:GW:60:LYS:HD2	59:HI:282:TYR:CZ	2.54	0.42
59:HA:327:ASP:OD1	59:HA:328:VAL:N	2.52	0.42
59:HA:381:SER:O	59:HA:384:ILE:HG12	2.19	0.42
59:HG:100:ALA:O	60:HH:255:VAL:HG11	2.19	0.42
59:HI:273:ALA:HB3	59:HI:274:PRO:HD3	2.00	0.42
60:HJ:3:GLU:OE2	60:HJ:62:ARG:NH1	2.52	0.42
60:HJ:156:ARG:HD3	60:HJ:156:ARG:O	2.20	0.42
60:HJ:208:TYR:CE1	60:HJ:225:LEU:HD11	2.54	0.42
60:HP:215:LEU:HD21	60:HP:273:LEU:HB3	2.02	0.42
59:HV:72:PRO:HA	59:HV:94:SER:HB2	2.02	0.42
60:IA:238:CYS:SG	60:IA:239:CYS:N	2.92	0.42
60:IA:271:ALA:O	60:IA:292:GLN:NE2	2.53	0.42
60:IC:67:ASP:O	60:IC:92:PHE:HA	2.19	0.42
59:IM:40:LYS:HE3	59:IM:40:LYS:HB3	1.87	0.42
59:IM:238:LEU:HD11	59:IM:255:PHE:CE1	2.53	0.42
60:IN:398:TYR:HB3	60:IN:403:MET:HE2	2.00	0.42
59:IQ:253:THR:O	59:IQ:256:GLN:HG2	2.19	0.42
60:IR:178:THR:HB	60:IR:181:GLU:HG3	2.01	0.42
60:IS:45:GLU:OE1	60:IS:46:ARG:NE	2.53	0.42
60:IU:267:MET:HE2	60:IU:301:GLN:HB3	2.01	0.42
59:IV:163:LYS:HD3	59:IV:163:LYS:HA	1.84	0.42
60:IW:139:LEU:HD12	60:IW:170:ILE:HG22	2.01	0.42
59:IX:273:ALA:HB3	59:IX:274:PRO:HD3	2.02	0.42
60:JA:179:VAL:HG13	60:JA:180:VAL:HG13	2.00	0.42
60:JE:286:VAL:CG1	60:JE:287:PRO:HD3	2.50	0.42
60:JG:8:GLN:HE22	60:JG:21:TRP:HE1	1.68	0.42
60:JK:263:LEU:HD13	60:JK:422:TYR:CE1	2.54	0.42
59:JN:273:ALA:HB3	59:JN:274:PRO:HD3	2.01	0.42
60:JO:8:GLN:HE22	60:JO:21:TRP:HE1	1.68	0.42
60:JT:3:GLU:OE2	60:JT:127:CYS:HB3	2.20	0.42
59:KF:27:GLU:OE1	59:KF:243:ARG:NH1	2.46	0.42
59:KF:145:THR:HG22	62:KF:501:GTP:O3B	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KI:334:GLN:HE22	60:KI:347:ASN:HA	1.84	0.42
59:KJ:89:PRO:HG2	59:KW:280:LYS:HE3	2.02	0.42
60:KK:128:ASP:OD1	60:KK:129:CYS:N	2.52	0.42
59:KL:112:LYS:HE3	59:KL:113:GLU:OE2	2.19	0.42
59:KN:273:ALA:HB3	59:KN:274:PRO:HD3	2.01	0.42
60:KV:67:ASP:HB3	60:KV:73:MET:CE	2.48	0.42
60:KX:208:TYR:CE1	60:KX:225:LEU:HD11	2.53	0.42
1:0C:95:LEU:HD22	1:0C:187:THR:HA	2.02	0.42
4:0G:144:GLN:OE1	4:0G:157:THR:HG22	2.18	0.42
4:0G:727:ASP:OD1	4:0G:727:ASP:N	2.52	0.42
4:0G:754:PHE:HD2	4:0G:758:ALA:HB2	1.84	0.42
4:0G:759:ASP:HB3	4:0G:762:GLY:H	1.84	0.42
9:0R:113:LEU:HD23	9:0R:113:LEU:HA	1.89	0.42
19:1B:31:THR:HG23	19:1B:33:PRO:HD2	2.02	0.42
25:1H:345:PRO:HA	59:BG:80:THR:HG23	2.02	0.42
26:1I:225:LYS:HD2	59:ER:357:TYR:HB3	2.00	0.42
27:1K:91:ARG:NE	59:AG:372:GLN:OE1	2.45	0.42
27:1K:218:ARG:NH2	60:AN:56:GLY:HA3	2.35	0.42
30:1S:242:LYS:HA	30:1S:268:VAL:HG21	2.02	0.42
31:1T:295:ASP:N	31:1T:295:ASP:OD1	2.50	0.42
32:1W:90:GLU:OE2	32:1W:92:THR:OG1	2.34	0.42
33:2B:628:THR:O	39:2O:80:ARG:NH2	2.39	0.42
39:2O:134:GLU:O	39:2O:138:ILE:HG12	2.19	0.42
39:2P:444:ARG:O	39:2P:448:ILE:HG12	2.18	0.42
39:2Q:235:LYS:O	39:2Q:239:GLN:HG2	2.19	0.42
41:2W:173:LEU:O	41:2W:176:LEU:N	2.52	0.42
41:3D:286:ARG:HH11	41:3D:286:ARG:HG2	1.85	0.42
44:3R:83:LEU:HD23	44:3R:83:LEU:HA	1.90	0.42
46:3U:58:TRP:CZ3	59:EZ:308:ARG:HD3	2.54	0.42
46:3U:106:PRO:HB3	59:FJ:129:CYS:O	2.19	0.42
47:3V:172:LYS:O	47:3V:175:GLU:HG2	2.19	0.42
49:4D:29:ILE:HD11	49:4D:46:ALA:HB3	2.01	0.42
52:4I:26:THR:O	59:KL:339:ARG:HD2	2.20	0.42
58:4T:100:GLU:OE1	58:4T:103:ARG:NH1	2.46	0.42
58:4U:115:VAL:O	58:4U:118:ARG:HD3	2.20	0.42
59:AA:287:SER:N	59:AA:290:GLU:OE1	2.52	0.42
60:AR:175:VAL:HG11	59:AS:329:ASN:HB3	2.02	0.42
59:AW:149:LEU:HA	59:AW:149:LEU:HD12	1.83	0.42
60:BB:2:ARG:NH1	60:BB:249:ASP:OD2	2.53	0.42
60:BH:3:GLU:OE2	60:BH:127:CYS:HB3	2.20	0.42
59:BI:212:LEU:HD21	59:BI:275:VAL:HG11	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BJ:201:CYS:SG	60:BJ:301:GLN:NE2	2.92	0.42
59:BK:22:GLU:CD	59:BK:229:ARG:HH12	2.23	0.42
59:BK:109:THR:OG1	59:BK:110:ILE:HG12	2.20	0.42
60:BL:167:PHE:CZ	60:BL:233:VAL:HG22	2.55	0.42
59:BQ:286:LEU:O	59:BQ:373:ARG:NH1	2.48	0.42
60:BR:252:LYS:HA	60:BR:255:VAL:HG12	2.01	0.42
59:BS:172:TYR:CD1	59:BS:173:PRO:HD2	2.55	0.42
59:BU:280:LYS:HE3	59:CH:88:HIS:CE1	2.54	0.42
59:BW:273:ALA:CB	59:BW:274:PRO:HD3	2.40	0.42
60:BY:238:CYS:SG	60:BY:239:CYS:N	2.92	0.42
60:CA:46:ARG:O	60:CA:49:VAL:HG12	2.20	0.42
60:CE:27:GLU:OE1	60:CE:241:ARG:NH2	2.51	0.42
60:CE:31:ASP:OD1	60:CE:32:PRO:HD2	2.20	0.42
60:CE:267:MET:HA	60:CE:301:GLN:NE2	2.35	0.42
59:CJ:229:ARG:NH1	59:CJ:363:VAL:HG11	2.34	0.42
60:CL:232:VAL:HG22	60:CL:268:MET:HE2	2.01	0.42
59:CM:185:TYR:O	59:CM:189:LEU:HG	2.19	0.42
60:CN:238:CYS:SG	60:CN:239:CYS:N	2.92	0.42
60:CR:67:ASP:O	60:CR:92:PHE:HA	2.19	0.42
59:CU:105:ARG:HG3	59:CU:411:GLU:OE1	2.19	0.42
59:CU:273:ALA:HB3	59:CU:274:PRO:HD3	2.02	0.42
60:CV:20:PHE:HA	60:CV:230:SER:HB2	2.01	0.42
59:CW:336:LYS:HB2	59:CW:336:LYS:HE2	1.87	0.42
60:CX:68:LEU:HD23	60:CX:68:LEU:HA	1.82	0.42
59:CY:215:ARG:NH1	59:CY:299:ALA:HB1	2.34	0.42
59:DK:36:MET:HG2	59:DK:38:SER:H	1.83	0.42
60:DL:271:ALA:O	60:DL:273:LEU:N	2.53	0.42
59:DS:214:ARG:HG3	59:DS:214:ARG:HH11	1.85	0.42
59:DU:273:ALA:HB3	59:DU:274:PRO:HD3	2.02	0.42
60:EE:89:ASN:ND2	60:EE:123:GLU:OE2	2.53	0.42
60:EE:379:ARG:HG3	60:EE:419:VAL:HG11	2.01	0.42
60:EK:301:GLN:HG3	60:EK:302:ALA:N	2.34	0.42
59:EP:273:ALA:HB3	59:EP:274:PRO:HD3	2.02	0.42
60:EQ:238:CYS:SG	60:EQ:239:CYS:N	2.92	0.42
60:EQ:309:ARG:HH12	60:EQ:428:ALA:N	2.18	0.42
59:ER:37:PRO:HG2	59:ER:40:LYS:HG2	2.01	0.42
60:ES:134:GLN:NE2	60:ES:167:PHE:HE2	2.17	0.42
59:EX:52:PHE:HZ	59:EX:239:THR:HG21	1.85	0.42
60:EY:290:THR:HA	60:EY:293:MET:SD	2.60	0.42
59:FD:387:VAL:HA	59:FD:390:ARG:HH21	1.85	0.42
60:FK:112:LEU:HD23	60:FK:112:LEU:HA	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FK:128:ASP:OD1	60:FK:129:CYS:N	2.52	0.42
60:FO:67:ASP:OD2	60:FO:72:THR:OG1	2.17	0.42
59:FU:100:ALA:O	60:FV:255:VAL:HG11	2.19	0.42
60:FV:156:ARG:O	60:FV:156:ARG:HD3	2.20	0.42
59:GJ:430:LYS:HB2	59:GJ:430:LYS:HE2	1.82	0.42
60:GO:167:PHE:CE2	60:GO:233:VAL:HG22	2.54	0.42
60:GQ:86:ARG:HB3	60:GQ:89:ASN:ND2	2.35	0.42
59:GR:250:VAL:HG11	59:GR:255:PHE:CE1	2.55	0.42
60:GS:154:LYS:HB2	60:GS:154:LYS:HE2	1.85	0.42
59:GT:68:LEU:HD11	59:GT:118:CYS:SG	2.60	0.42
59:GY:56:THR:HG23	59:GY:58:ALA:H	1.84	0.42
60:HB:406:MET:HG3	60:HB:407:GLU:OE1	2.20	0.42
59:HE:62:VAL:HA	59:HE:63:PRO:HD3	1.78	0.42
60:HH:182:PRO:HA	60:HH:185:THR:HG22	2.02	0.42
59:HO:273:ALA:HB3	59:HO:274:PRO:HD3	2.02	0.42
59:HO:273:ALA:HB2	59:HO:295:VAL:HG22	2.00	0.42
60:HP:186:THR:HG22	60:HP:411:ALA:HB1	2.02	0.42
60:IE:11:GLN:HA	60:IE:72:THR:HG21	2.02	0.42
60:IE:332:ASN:OD1	60:IE:336:LYS:HE3	2.20	0.42
60:IF:125:GLU:OE2	60:IF:159:TYR:OH	2.27	0.42
60:IF:156:ARG:NH1	60:IF:197:ASP:OD2	2.53	0.42
60:IF:341:PHE:HD1	60:IF:348:ASN:HD22	1.67	0.42
60:IJ:67:ASP:O	60:IJ:92:PHE:HA	2.19	0.42
59:IK:401:LYS:HE3	60:IL:344:TRP:CG	2.55	0.42
59:IM:191:THR:O	59:IM:195:LEU:HD23	2.19	0.42
60:IN:130:LEU:HB3	60:IN:162:ARG:NH1	2.34	0.42
59:IO:273:ALA:HB3	59:IO:274:PRO:HD3	2.02	0.42
59:IT:227:LEU:O	59:IT:231:ILE:HD12	2.20	0.42
59:IT:273:ALA:HB3	59:IT:274:PRO:HD3	2.01	0.42
60:IU:26:ASP:O	60:IU:359:LYS:NZ	2.48	0.42
60:IU:107:THR:OG1	60:IU:108:GLU:OE1	2.38	0.42
60:IU:282:ARG:NH1	60:IU:288:GLU:OE1	2.50	0.42
59:IV:119:LEU:HD13	59:IV:119:LEU:HA	1.76	0.42
59:IV:205:ASP:OD2	59:IV:207:GLU:HB2	2.19	0.42
59:IX:417:GLU:O	59:IX:420:GLU:HG3	2.19	0.42
59:JB:273:ALA:HB3	59:JB:274:PRO:HD3	2.02	0.42
60:JC:46:ARG:O	60:JC:49:VAL:HG12	2.19	0.42
60:JE:61:PRO:HG3	60:JE:84:ILE:HG13	2.01	0.42
60:JE:119:VAL:HG13	60:JE:122:LYS:HE3	2.01	0.42
60:JO:48:ASN:O	60:JO:62:ARG:NH1	2.53	0.42
59:JQ:443:ASP:N	59:JQ:443:ASP:OD1	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JU:329:ASN:HA	59:JU:332:VAL:HG12	2.01	0.42
59:JU:333:ALA:O	59:JU:337:THR:HG23	2.19	0.42
60:JV:189:VAL:HG21	60:JV:378:PHE:CE2	2.54	0.42
59:JW:52:PHE:CZ	59:JW:239:THR:HG21	2.54	0.42
59:JW:287:SER:HB3	59:JW:290:GLU:OE1	2.20	0.42
59:JW:367:ASP:OD1	59:JW:368:LEU:HD12	2.19	0.42
59:JW:401:LYS:HE2	59:JW:401:LYS:HB3	1.88	0.42
59:JY:81:GLY:O	59:JY:84:ARG:HG3	2.20	0.42
59:JY:343:PHE:HZ	59:JY:351:PHE:CE1	2.37	0.42
60:JZ:33:THR:O	60:JZ:58:ARG:NH1	2.53	0.42
60:JZ:156:ARG:HH22	60:JZ:197:ASP:CG	2.23	0.42
59:KA:31:GLN:HG2	59:KA:37:PRO:HD3	2.01	0.42
60:KE:362:LYS:CD	60:KE:363:MET:HE3	2.50	0.42
60:KI:161:ASP:OD1	60:KI:162:ARG:HD2	2.20	0.42
60:KI:170:ILE:HD12	60:KI:377:MET:SD	2.60	0.42
60:KO:137:HIS:O	60:KO:168:SER:HA	2.20	0.42
60:KO:397:TRP:CZ2	59:KP:256:GLN:HG2	2.54	0.42
60:KR:189:VAL:O	60:KR:193:VAL:HG23	2.19	0.42
60:KT:173:PRO:HD3	60:KT:380:ARG:CZ	2.50	0.42
59:KW:175:PRO:HB3	59:KW:390:ARG:HD3	2.01	0.42
59:KW:209:ILE:HB	59:KW:227:LEU:HD13	2.01	0.42
59:KY:181:VAL:CG2	60:KZ:256:ASN:HA	2.49	0.42
60:KZ:282:ARG:HD2	60:KZ:283:GLY:O	2.20	0.42
60:LB:150:LEU:O	60:LB:154:LYS:HG2	2.20	0.42
1:0A:461:MET:HE2	1:0A:463:ILE:HB	2.02	0.42
3:0F:576:MET:HE1	3:0F:585:GLN:HA	2.02	0.42
4:0G:556:THR:HG22	4:0G:560:LEU:HG	2.02	0.42
12:0U:33:LEU:HD22	12:0U:37:GLU:HB3	2.02	0.42
24:1G:87:ASP:N	24:1G:87:ASP:OD1	2.52	0.42
30:1R:72:THR:HG21	60:EO:163:ILE:HD13	2.01	0.42
30:1R:79:ARG:NH2	36:2J:60:LYS:O	2.50	0.42
30:1R:131:ASN:ND2	60:KV:108:GLU:HG2	2.35	0.42
33:2C:577:TRP:CD2	33:2C:584:CYS:HB3	2.55	0.42
39:2P:186:VAL:HA	39:2P:189:LYS:HG2	2.00	0.42
41:2W:314:GLU:OE2	41:2W:318:ARG:HD2	2.19	0.42
41:2Y:218:LEU:HA	41:2Y:221:ILE:HG12	2.02	0.42
42:3M:54:ARG:HE	42:3M:55:ASP:H	1.68	0.42
46:3U:116:THR:OG1	60:EW:295:ASP:OD1	2.29	0.42
47:3V:241:PRO:O	47:3V:242:LEU:HB2	2.19	0.42
48:3Z:251:GLU:O	48:3Z:254:ARG:HG3	2.19	0.42
54:4N:59:GLU:HG2	54:4N:60:GLU:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:4R:80:GLY:H	59:GE:430:LYS:HZ3	1.67	0.42
60:AB:252:LYS:HA	60:AB:255:VAL:HG12	2.02	0.42
60:AB:362:LYS:HD3	60:AB:362:LYS:HA	1.71	0.42
60:AF:330:MET:SD	60:AF:349:ILE:HG21	2.60	0.42
60:AJ:257:LEU:HA	60:AJ:312:THR:HG21	2.01	0.42
59:AK:70:LEU:HD23	59:AK:70:LEU:HA	1.82	0.42
60:AN:3:GLU:HG3	60:AN:62:ARG:NH1	2.34	0.42
59:AO:68:LEU:HD21	59:AO:149:LEU:HD21	2.02	0.42
60:AT:3:GLU:OE2	60:AT:127:CYS:HB3	2.19	0.42
59:AY:192:HIS:NE2	59:AY:424:ASP:OD2	2.53	0.42
60:AZ:8:GLN:HE22	60:AZ:21:TRP:HE1	1.67	0.42
59:BI:55:GLU:HA	59:BI:60:LYS:O	2.19	0.42
60:BN:330:MET:HA	60:BN:333:VAL:HG12	2.02	0.42
60:BV:267:MET:HA	60:BV:301:GLN:NE2	2.35	0.42
60:BV:283:GLY:HA3	60:CI:55:THR:HB	2.01	0.42
59:BX:273:ALA:HB3	59:BX:274:PRO:HD3	2.01	0.42
60:CA:73:MET:HE1	60:CA:91:ILE:O	2.19	0.42
60:CI:65:LEU:HD22	60:CI:90:PHE:HE1	1.85	0.42
60:CL:207:LEU:HB2	60:CL:225:LEU:HD22	2.01	0.42
60:CR:139:LEU:HD22	60:CR:188:SER:HB3	2.01	0.42
60:CV:249:ASP:OD1	60:CV:250:LEU:N	2.52	0.42
60:DB:175:VAL:HG11	60:DB:208:TYR:CE2	2.54	0.42
60:DB:304:ASP:OD1	60:DB:304:ASP:N	2.52	0.42
59:DC:178:SER:HB3	60:DD:347:ASN:ND2	2.30	0.42
60:DD:153:SER:HA	60:DD:195:ASN:ND2	2.35	0.42
60:DD:359:LYS:HB3	60:DD:359:LYS:HE3	1.83	0.42
60:DL:103:LYS:HG2	60:DL:108:GLU:OE1	2.20	0.42
60:DN:283:GLY:HA3	60:EA:55:THR:HB	2.02	0.42
60:DR:213:ARG:HG2	60:DR:297:LYS:NZ	2.34	0.42
60:DT:404:ASP:HB3	60:DT:407:GLU:OE1	2.19	0.42
60:EG:206:ALA:O	60:EG:210:ILE:HG12	2.20	0.42
60:EQ:128:ASP:OD1	60:EQ:129:CYS:N	2.51	0.42
59:ER:174:SER:OG	59:ER:207:GLU:HB2	2.19	0.42
59:EX:273:ALA:HB3	59:EX:274:PRO:HD3	2.02	0.42
59:FF:111:GLY:HA2	59:FF:114:ILE:HG22	2.01	0.42
59:FF:273:ALA:HB3	59:FF:274:PRO:HD3	2.02	0.42
60:FI:326:VAL:O	60:FI:330:MET:HG2	2.20	0.42
60:FO:163:ILE:HD11	60:FO:251:ARG:HB2	2.02	0.42
59:FR:222:PRO:HD2	60:FS:324:LYS:CD	2.50	0.42
60:FX:67:ASP:O	60:FX:92:PHE:HA	2.19	0.42
60:FZ:421:GLU:O	60:FZ:424:GLN:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GB:204:ASN:OD1	64:GB:501:GDP:N2	2.52	0.42
60:GB:238:CYS:SG	60:GB:239:CYS:N	2.93	0.42
59:GC:212:LEU:HD21	59:GC:275:VAL:HG11	2.01	0.42
59:GC:273:ALA:HB3	59:GC:274:PRO:HD3	2.01	0.42
60:GD:128:ASP:OD1	60:GD:129:CYS:N	2.53	0.42
60:GF:66:ILE:HD12	60:GF:147:MET:SD	2.60	0.42
59:GG:352:LYS:HD2	59:GG:353:CYS:N	2.34	0.42
59:GH:394:LYS:HG2	60:GI:346:PRO:HG3	2.01	0.42
59:GR:301:MET:HE3	59:GR:305:CYS:O	2.20	0.42
60:GV:203:ASP:OD2	60:GV:301:GLN:NE2	2.52	0.42
59:GY:195:LEU:HD12	59:GY:195:LEU:HA	1.83	0.42
60:GZ:191:GLN:HE21	60:GZ:195:ASN:ND2	2.18	0.42
59:HA:264:ARG:NE	59:HA:431:ASP:OD2	2.51	0.42
59:HA:393:HIS:O	59:HA:397:LEU:HD23	2.20	0.42
59:HE:313:MET:HG2	59:HE:346:TRP:CZ2	2.55	0.42
59:HG:31:GLN:OE1	59:HG:31:GLN:N	2.51	0.42
60:HH:69:GLU:OE2	60:HH:96:GLY:N	2.53	0.42
59:HI:102:ASN:HB3	59:HI:105:ARG:HB2	2.02	0.42
60:HL:145:SER:HB3	60:HL:188:SER:OG	2.19	0.42
59:HM:195:LEU:HD11	59:HM:428:LEU:HD12	2.02	0.42
60:HN:170:ILE:HG13	60:HN:203:ASP:OD1	2.20	0.42
59:HO:60:LYS:NZ	59:IB:283:HIS:HA	2.35	0.42
60:HW:193:VAL:HG22	60:HW:265:PHE:HZ	1.84	0.42
59:HX:56:THR:HG22	59:HX:60:LYS:H	1.83	0.42
60:IC:391:ARG:O	59:ID:262:TYR:OH	2.32	0.42
60:IF:193:VAL:HG12	60:IF:265:PHE:CE1	2.55	0.42
60:IJ:139:LEU:CD2	60:IJ:168:SER:HB3	2.50	0.42
59:IK:8:HIS:CE1	59:IK:17:GLY:HA2	2.55	0.42
59:IQ:221:ARG:HB3	60:IR:322:SER:HB3	2.00	0.42
60:IU:263:LEU:HD11	60:IU:425:TYR:CD2	2.55	0.42
59:IZ:402:ARG:HB3	59:IZ:405:VAL:CG1	2.50	0.42
60:JE:218:THR:HG23	60:JE:219:THR:HG23	2.02	0.42
60:JE:304:ASP:OD1	60:JE:305:PRO:HD2	2.18	0.42
60:JG:67:ASP:O	60:JG:92:PHE:HA	2.19	0.42
59:JH:426:ALA:O	59:JH:429:GLU:HG2	2.20	0.42
60:JK:173:PRO:HA	60:JK:380:ARG:CZ	2.50	0.42
60:JM:287:PRO:HA	60:JM:290:THR:HG22	2.00	0.42
59:JN:39:ASP:N	59:JN:39:ASP:OD1	2.53	0.42
60:JR:272:PRO:CG	60:JR:364:ALA:HA	2.41	0.42
59:JS:298:PRO:O	59:JS:301:MET:HG2	2.20	0.42
60:JT:137:HIS:O	60:JT:168:SER:HA	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JT:200:MET:HE3	60:JT:200:MET:HB2	1.90	0.42
59:JW:241:SER:OG	59:JW:250:VAL:N	2.51	0.42
60:JX:252:LYS:HA	60:JX:255:VAL:HG12	2.01	0.42
60:KB:173:PRO:HB3	60:KB:380:ARG:HD2	2.01	0.42
60:KB:287:PRO:O	60:KB:290:THR:N	2.53	0.42
59:KF:269:LEU:O	59:KF:378:ILE:HA	2.19	0.42
59:KH:52:PHE:CZ	59:KH:239:THR:HG21	2.55	0.42
59:KL:36:MET:HE2	59:KL:36:MET:HB3	1.73	0.42
59:KL:256:GLN:O	59:KL:260:VAL:HG12	2.19	0.42
59:KQ:218:ASP:OD2	59:KQ:280:LYS:NZ	2.52	0.42
60:KR:193:VAL:HG22	60:KR:265:PHE:CZ	2.55	0.42
60:KR:233:VAL:O	60:KR:236:VAL:HG12	2.20	0.42
59:KU:164:LYS:HA	59:KU:164:LYS:HD3	1.87	0.42
60:KV:376:GLU:O	60:KV:379:ARG:HG2	2.20	0.42
59:KY:265:ILE:HG23	59:KY:432:TYR:CZ	2.54	0.42
59:LA:398:MET:HB2	59:LA:398:MET:HE3	1.92	0.42
60:LB:173:PRO:HG3	60:LB:380:ARG:NH1	2.34	0.42
1:0A:657:GLU:OE1	1:0A:747:LYS:HE2	2.20	0.42
1:0B:3:TYR:O	1:0B:7:ARG:HG2	2.20	0.42
1:0B:382:LYS:HD2	1:0B:382:LYS:HA	1.84	0.42
1:0B:738:THR:OG1	59:CO:364:PRO:O	2.37	0.42
6:0M:40:VAL:O	6:0M:44:LYS:HG2	2.19	0.42
6:0M:158:LYS:O	6:0M:161:GLN:HG3	2.20	0.42
10:0S:127:ILE:HD12	10:0S:168:GLY:HA2	2.01	0.42
22:1E:12:LYS:HB3	22:1E:12:LYS:HE3	1.87	0.42
22:1E:15:TYR:HA	60:AL:53:GLU:OE1	2.20	0.42
24:1G:155:SER:O	24:1G:159:VAL:HG23	2.20	0.42
32:1Y:156:LEU:HD12	32:1Y:156:LEU:HA	1.91	0.42
32:1Z:69:LEU:HD23	32:1Z:69:LEU:HA	1.93	0.42
33:2C:533:TRP:CZ3	33:2C:543:ARG:HD2	2.54	0.42
34:2E:36:THR:HG21	59:ER:306:ASP:HB2	2.01	0.42
36:2J:158:ARG:HB3	59:EP:433:GLU:OE2	2.19	0.42
41:2W:300:ARG:O	41:2W:303:GLU:HG3	2.20	0.42
41:2Y:334:MET:SD	59:IQ:279:GLU:HG3	2.60	0.42
50:4G:145:LEU:O	50:4G:149:HIS:HB2	2.19	0.42
60:AF:398:TYR:HB3	60:AF:403:MET:HE2	2.02	0.42
59:AG:128:ASN:O	59:AG:128:ASN:ND2	2.37	0.42
60:AL:252:LYS:HA	60:AL:255:VAL:HG12	2.02	0.42
59:AM:301:MET:HE3	59:AM:305:CYS:O	2.20	0.42
60:AP:173:PRO:HB3	60:AP:380:ARG:CD	2.46	0.42
59:AQ:21:TRP:CZ2	59:AQ:65:ALA:HB2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AU:221:ARG:HG2	60:AV:325:GLU:OE2	2.19	0.42
60:AV:101:TRP:HB2	60:AV:184:ASN:OD1	2.19	0.42
59:AY:179:THR:HG21	62:AY:602:GTP:H3'	2.01	0.42
59:BA:273:ALA:HB3	59:BA:274:PRO:HD3	2.02	0.42
59:BE:283:HIS:HD2	59:BQ:89:PRO:HD2	1.85	0.42
59:BI:3:GLU:HG2	59:BI:64:ARG:NH1	2.35	0.42
60:BJ:61:PRO:HD3	60:BJ:84:ILE:HG22	2.01	0.42
59:BM:144:GLY:HA3	62:BM:501:GTP:O3B	2.19	0.42
60:BN:67:ASP:O	60:BN:92:PHE:HA	2.19	0.42
60:BN:91:ILE:HD12	60:BN:116:VAL:HG12	2.00	0.42
60:BR:7:VAL:HG22	60:BR:135:ILE:HA	2.02	0.42
59:BU:273:ALA:HB3	59:BU:274:PRO:HD3	2.02	0.42
60:CC:162:ARG:HA	60:CC:162:ARG:HD3	1.88	0.42
60:CG:200:MET:HB3	60:CG:268:MET:SD	2.60	0.42
60:CI:91:ILE:HD11	60:CI:119:VAL:HG21	2.00	0.42
60:CN:4:ILE:HD11	60:CN:240:LEU:HD23	2.02	0.42
60:CV:273:LEU:H	60:CV:292:GLN:HE22	1.68	0.42
59:DA:21:TRP:CZ2	59:DA:65:ALA:HB2	2.55	0.42
59:DA:178:SER:HB3	60:DB:347:ASN:ND2	2.31	0.42
59:DC:273:ALA:HB2	59:DC:295:VAL:CG1	2.50	0.42
60:DF:330:MET:HA	60:DF:333:VAL:HG12	2.02	0.42
59:DI:288:VAL:HB	59:DI:327:ASP:HB3	2.01	0.42
60:DJ:305:PRO:HA	60:DJ:371:ASN:HD21	1.84	0.42
60:DL:372:THR:O	60:DL:375:GLN:HG2	2.20	0.42
60:DN:211:CYS:O	60:DN:216:LYS:N	2.52	0.42
60:DN:377:MET:HG3	60:DN:380:ARG:HH22	1.85	0.42
60:DP:61:PRO:HG3	60:DP:84:ILE:HG13	2.02	0.42
59:DQ:443:ASP:OD1	59:DQ:443:ASP:N	2.52	0.42
59:DU:298:PRO:HA	59:DU:301:MET:HG2	2.01	0.42
60:DV:284:LEU:HD12	60:DV:289:LEU:HD21	2.01	0.42
59:DZ:269:LEU:HD13	59:DZ:301:MET:HE1	2.01	0.42
60:EK:98:GLY:HA2	59:EL:254:GLU:OE2	2.19	0.42
60:EM:208:TYR:CE1	60:EM:225:LEU:HD11	2.54	0.42
60:EM:238:CYS:SG	60:EM:239:CYS:N	2.92	0.42
60:EQ:293:MET:HG3	60:EQ:367:PHE:HB2	2.01	0.42
60:EQ:301:GLN:N	60:EQ:301:GLN:OE1	2.53	0.42
59:EV:21:TRP:CZ2	59:EV:65:ALA:HB2	2.54	0.42
60:EY:170:ILE:HG23	60:EY:171:PRO:HD2	2.02	0.42
60:FA:237:THR:HG23	60:FA:240:LEU:HD12	2.01	0.42
60:FK:20:PHE:HA	60:FK:230:SER:OG	2.20	0.42
60:FQ:97:ALA:HB2	60:FQ:143:THR:HB	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FV:249:ASP:OD1	60:FV:250:LEU:N	2.52	0.42
59:GA:36:MET:HG3	59:GA:61:HIS:CE1	2.54	0.42
60:GF:8:GLN:NE2	60:GF:21:TRP:HE1	2.16	0.42
60:GF:387:LEU:HD22	60:GF:390:ARG:HH12	1.85	0.42
60:GI:31:ASP:OD1	60:GI:32:PRO:HD2	2.20	0.42
59:GL:138:TYR:OH	59:GL:235:VAL:HG11	2.19	0.42
60:GM:113:ILE:HG13	60:GM:117:LEU:HD23	2.02	0.42
59:GN:408:TYR:HB3	59:GN:413:MET:HE1	2.01	0.42
60:GO:202:ILE:HD11	60:GO:268:MET:HB3	2.01	0.42
60:GQ:167:PHE:CE2	60:GQ:233:VAL:HG22	2.54	0.42
60:GS:318:ARG:HB3	60:GS:357:PRO:HA	2.00	0.42
59:GU:145:THR:HG22	62:GU:501:GTP:O3B	2.20	0.42
60:GV:167:PHE:CD2	60:GV:233:VAL:HG22	2.55	0.42
59:GY:103:TYR:HH	59:GY:107:HIS:HD1	1.64	0.42
59:HC:387:VAL:O	59:HC:390:ARG:HG2	2.20	0.42
59:HE:336:LYS:HE3	59:HE:351:PHE:CE1	2.55	0.42
59:HI:96:LYS:HD2	59:HI:96:LYS:HA	1.69	0.42
59:HI:441:ASP:O	59:HI:442:MET:HE2	2.19	0.42
60:HL:46:ARG:HD3	60:HL:46:ARG:HA	1.89	0.42
59:HM:111:GLY:HA2	59:HM:114:ILE:HG22	2.01	0.42
60:HY:238:CYS:SG	60:HY:239:CYS:N	2.93	0.42
60:IA:152:ILE:HG22	60:IA:195:ASN:ND2	2.35	0.42
59:IB:318:MET:SD	59:IB:318:MET:N	2.93	0.42
60:IF:180:VAL:HG13	60:IF:183:TYR:HD2	1.85	0.42
60:IF:379:ARG:HE	60:IF:419:VAL:CG1	2.33	0.42
60:IL:68:LEU:HD13	60:IL:143:THR:OG1	2.20	0.42
59:IM:203:MET:SD	59:IM:384:ILE:HD11	2.59	0.42
60:IN:154:LYS:HA	60:IN:154:LYS:HD2	1.95	0.42
60:IR:313:ALA:O	60:IR:349:ILE:HA	2.20	0.42
60:IS:206:ALA:O	60:IS:210:ILE:HG12	2.20	0.42
59:IT:408:TYR:HB3	59:IT:413:MET:SD	2.59	0.42
59:IX:49:PHE:HD2	59:IX:53:PHE:HB2	1.84	0.42
59:IX:377:MET:SD	59:IX:379:ALA:HB2	2.60	0.42
60:IY:130:LEU:HG	60:IY:131:GLN:O	2.19	0.42
59:IZ:157:LEU:HD23	59:IZ:157:LEU:HA	1.91	0.42
60:JA:344:TRP:O	60:JA:345:ILE:HD13	2.20	0.42
60:JC:2:ARG:O	60:JC:49:VAL:HG23	2.20	0.42
59:JH:167:LEU:HD22	59:JH:200:VAL:HG12	2.02	0.42
59:JN:288:VAL:HG21	59:JN:323:VAL:HG23	2.02	0.42
60:JO:27:GLU:HA	60:JO:359:LYS:HE2	2.02	0.42
60:JR:267:MET:O	60:JR:268:MET:HE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JV:167:PHE:CE2	60:JV:233:VAL:HG22	2.55	0.42
59:JW:208:ALA:HB2	59:JW:304:LYS:HG2	2.02	0.42
59:KA:402:ARG:HG3	59:KA:402:ARG:NH1	2.34	0.42
60:KB:383:GLU:O	60:KB:387:LEU:HD23	2.20	0.42
59:KH:203:MET:CE	59:KH:384:ILE:HD11	2.49	0.42
59:KJ:269:LEU:O	59:KJ:378:ILE:HA	2.20	0.42
59:KJ:269:LEU:HD21	59:KJ:384:ILE:HG22	2.02	0.42
59:KP:124:LYS:HE2	59:KP:124:LYS:HB2	1.85	0.42
59:KS:273:ALA:HB2	59:KS:295:VAL:CG1	2.50	0.42
60:KT:177:ASP:O	59:KU:352:LYS:HD2	2.20	0.42
59:KY:164:LYS:HE2	59:KY:164:LYS:HB2	1.82	0.42
59:KY:262:TYR:HB2	59:KY:265:ILE:HD13	2.01	0.42
60:KZ:156:ARG:HD3	60:KZ:156:ARG:O	2.20	0.42
59:LA:297:GLU:OE1	59:LA:297:GLU:N	2.53	0.42
1:0A:604:MET:HE3	1:0A:610:VAL:HG12	2.01	0.42
1:0A:687:GLY:N	1:0A:690:GLU:OE2	2.27	0.42
2:0E:675:LEU:HD23	59:CU:221:ARG:NH2	2.35	0.42
4:0G:447:ARG:HD3	4:0G:448:PRO:HD2	2.00	0.42
7:0P:422:ARG:HD3	7:0P:423:LEU:HB2	2.02	0.42
12:0U:45:ASN:OD1	12:0U:111:SER:OG	2.34	0.42
15:0X:38:ARG:HD2	15:0X:53:PHE:CD2	2.54	0.42
21:1D:267:TYR:HA	59:BE:229:ARG:HH21	1.85	0.42
27:1K:195:PHE:CE1	59:AC:282:TYR:HB2	2.55	0.42
30:1R:249:ALA:HB1	30:1R:253:ALA:HB3	2.02	0.42
39:2Q:276:GLU:O	39:2Q:279:LYS:HG3	2.20	0.42
41:3A:295:GLU:OE1	41:3A:299:LYS:NZ	2.50	0.42
41:3A:330:LEU:O	41:3A:334:MET:HG2	2.20	0.42
42:3J:114:HIS:HB2	59:IG:77:GLU:OE2	2.20	0.42
47:3W:146:ASN:OD1	49:4C:62:ASN:ND2	2.52	0.42
54:4M:129:LEU:HD23	54:4M:129:LEU:HA	1.90	0.42
54:4N:97:LEU:O	59:II:441:ASP:N	2.53	0.42
55:4P:127:LYS:HD2	55:4P:127:LYS:HA	1.87	0.42
59:AK:50:ASN:O	59:AK:64:ARG:NH1	2.53	0.42
60:AL:150:LEU:O	60:AL:154:LYS:HG2	2.20	0.42
60:AR:8:GLN:HE22	60:AR:21:TRP:HE1	1.67	0.42
60:AR:174:LYS:HG3	60:AR:175:VAL:HG22	2.02	0.42
60:AR:219:THR:HA	59:AS:326:LYS:NZ	2.33	0.42
59:AS:69:ASP:OD1	59:AS:71:GLU:HG2	2.19	0.42
59:AS:287:SER:HA	59:AS:373:ARG:HH11	1.84	0.42
59:AU:343:PHE:CE2	59:AU:350:GLY:HA3	2.54	0.42
60:AZ:178:THR:OG1	60:AZ:181:GLU:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BB:73:MET:HA	60:BB:76:VAL:HG22	2.02	0.42
60:BD:153:SER:N	60:BD:195:ASN:HD21	2.18	0.42
60:BF:249:ASP:OD1	60:BF:250:LEU:N	2.52	0.42
59:BG:291:ILE:O	59:BG:295:VAL:HG23	2.19	0.42
60:BH:424:GLN:HG3	60:BH:425:TYR:N	2.35	0.42
59:BI:262:TYR:HD2	59:BI:265:ILE:HD12	1.84	0.42
59:BK:273:ALA:HB3	59:BK:274:PRO:HD3	2.00	0.42
60:BN:287:PRO:HA	60:BN:290:THR:HG22	2.01	0.42
59:BO:88:HIS:ND1	59:BO:89:PRO:HD2	2.35	0.42
60:BP:284:LEU:HD12	60:BP:362:LYS:HB3	2.02	0.42
60:BP:383:GLU:O	60:BP:387:LEU:HD13	2.20	0.42
60:BV:145:SER:HB3	60:BV:188:SER:OG	2.20	0.42
59:CD:273:ALA:HB3	59:CD:274:PRO:HD3	2.01	0.42
59:CH:291:ILE:O	59:CH:295:VAL:HG23	2.18	0.42
60:CI:48:ASN:OD1	60:CI:49:VAL:N	2.53	0.42
59:CM:221:ARG:HH11	59:CM:221:ARG:HG2	1.85	0.42
59:CQ:143:GLY:HA3	62:CQ:602:GTP:O3A	2.20	0.42
60:CT:73:MET:HA	60:CT:76:VAL:HG12	2.01	0.42
60:DD:137:HIS:O	60:DD:168:SER:HA	2.20	0.42
60:DF:316:LEU:HD23	60:DF:352:SER:HB2	2.00	0.42
60:DH:128:ASP:OD1	60:DH:129:CYS:N	2.52	0.42
60:DN:139:LEU:HD12	60:DN:170:ILE:HG22	2.02	0.42
60:DN:164:MET:O	60:DN:197:ASP:HB2	2.20	0.42
60:DV:249:ASP:OD1	60:DV:250:LEU:N	2.53	0.42
59:DX:269:LEU:O	59:DX:378:ILE:HA	2.19	0.42
59:EF:273:ALA:HB2	59:EF:295:VAL:CG2	2.50	0.42
59:EF:273:ALA:HB3	59:EF:274:PRO:HD3	2.02	0.42
60:EG:233:VAL:O	60:EG:236:VAL:HG12	2.20	0.42
60:EI:133:PHE:HE1	60:EI:159:TYR:HD2	1.66	0.42
60:EO:3:GLU:N	60:EO:3:GLU:OE1	2.52	0.42
59:ER:250:VAL:HG22	59:ER:352:LYS:NZ	2.35	0.42
60:EU:268:MET:SD	60:EU:368:ILE:HG12	2.60	0.42
59:EV:88:HIS:CD2	59:EV:89:PRO:HD2	2.55	0.42
59:FF:72:PRO:HA	59:FF:94:SER:OG	2.20	0.42
60:FI:311:LEU:HD23	60:FI:342:ILE:HG13	2.01	0.42
59:FT:296:PHE:CE1	59:FT:335:ILE:HD13	2.54	0.42
60:FV:67:ASP:O	60:FV:92:PHE:HA	2.20	0.42
59:GA:2:ARG:HG3	59:GA:3:GLU:OE1	2.20	0.42
59:GC:185:TYR:O	59:GC:189:LEU:HD12	2.20	0.42
59:GE:93:ILE:HD11	59:GE:121:ARG:HG3	2.01	0.42
60:GF:7:VAL:CG2	60:GF:135:ILE:HD12	2.46	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GF:58:ARG:HE	60:GF:58:ARG:HB3	1.66	0.42
59:GG:169:TYR:OH	59:GG:238:LEU:HD23	2.20	0.42
59:GJ:273:ALA:HB3	59:GJ:274:PRO:HD3	2.01	0.42
59:GN:273:ALA:HB3	59:GN:274:PRO:HD3	2.01	0.42
59:GP:273:ALA:HB3	59:GP:274:PRO:HD3	2.01	0.42
60:GQ:133:PHE:HD2	60:GQ:155:LEU:HD13	1.85	0.42
60:GQ:263:LEU:HD21	60:GQ:421:GLU:HG2	2.01	0.42
59:GR:79:ARG:O	59:GR:84:ARG:HG2	2.20	0.42
59:GR:265:ILE:HG22	59:GR:380:ASN:HD21	1.85	0.42
59:GR:273:ALA:HB3	59:GR:274:PRO:HD3	2.01	0.42
59:HE:88:HIS:CD2	59:HE:90:GLU:HB3	2.55	0.42
59:HE:121:ARG:HA	59:HE:121:ARG:HE	1.84	0.42
60:HF:167:PHE:CE1	60:HF:233:VAL:HG22	2.55	0.42
59:HG:209:ILE:HG21	59:HG:227:LEU:HA	2.00	0.42
59:HM:179:THR:HG21	60:HN:246:LEU:HD11	2.01	0.42
59:HM:273:ALA:HB3	59:HM:274:PRO:HD3	2.01	0.42
60:HN:130:LEU:HG	60:HN:162:ARG:HE	1.85	0.42
60:HP:22:GLU:HA	60:HP:81:TYR:CD2	2.55	0.42
60:HP:271:ALA:HB3	60:HP:272:PRO:HD3	2.02	0.42
60:HR:72:THR:O	60:HR:76:VAL:HG12	2.20	0.42
60:HR:145:SER:HB3	60:HR:188:SER:HB2	2.02	0.42
60:HS:208:TYR:HB3	59:HT:326:LYS:HE3	2.01	0.42
60:HW:170:ILE:HD13	60:HW:201:CYS:HB3	2.01	0.42
60:HY:208:TYR:CE1	60:HY:225:LEU:HD11	2.54	0.42
59:IB:194:LEU:O	59:IB:198:THR:HG22	2.20	0.42
60:IE:128:ASP:OD1	60:IE:129:CYS:N	2.53	0.42
60:IJ:267:MET:HA	60:IJ:301:GLN:NE2	2.35	0.42
59:IK:172:TYR:CE2	59:IK:203:MET:HG2	2.55	0.42
60:IP:383:GLU:O	60:IP:386:THR:HG22	2.20	0.42
60:IR:67:ASP:OD1	60:IR:68:LEU:N	2.50	0.42
59:IT:10:GLY:N	59:IT:68:LEU:O	2.53	0.42
60:IU:334:GLN:HA	60:IU:341:PHE:CE2	2.55	0.42
60:JC:288:GLU:O	60:JC:291:GLN:HG3	2.19	0.42
60:JE:12:CYS:SG	60:JE:13:GLY:N	2.93	0.42
60:JE:12:CYS:O	60:JE:16:ILE:HG22	2.20	0.42
60:JE:139:LEU:HD12	60:JE:170:ILE:HG22	2.01	0.42
60:JG:7:VAL:HB	60:JG:135:ILE:HD12	2.02	0.42
60:JK:81:TYR:O	60:JK:84:ILE:HG22	2.20	0.42
60:JK:296:ALA:HA	60:JK:299:MET:HG3	2.02	0.42
60:JM:145:SER:HB3	60:JM:188:SER:OG	2.20	0.42
59:JP:21:TRP:CZ2	59:JP:65:ALA:HB2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JT:118:ASP:HA	60:JT:121:CYS:SG	2.60	0.42
59:JU:312:TYR:HB2	59:JU:343:PHE:CD1	2.55	0.42
60:JV:170:ILE:HD13	60:JV:201:CYS:HB3	2.01	0.42
60:JV:359:LYS:HD3	60:JV:359:LYS:H	1.84	0.42
59:KP:11:GLN:HB3	62:KP:501:GTP:O1A	2.20	0.42
60:KT:309:ARG:NH2	60:KT:426:GLN:O	2.53	0.42
59:KW:100:ALA:O	60:KX:255:VAL:HG11	2.20	0.42
59:LA:224:TYR:CE2	60:LB:323:THR:HG21	2.54	0.42
1:0A:670:VAL:HG22	1:0A:699:LEU:HD21	2.02	0.42
2:0E:296:TYR:OH	2:0E:301:ASP:OD1	2.31	0.42
2:0E:408:LEU:HD23	2:0E:408:LEU:HA	1.93	0.42
6:0M:193:ARG:NH1	59:BG:322:ASP:HB3	2.34	0.42
7:0O:108:LEU:HB3	7:0O:112:ARG:HH12	1.85	0.42
7:0O:109:GLN:OE1	7:0O:112:ARG:NH2	2.53	0.42
8:0Q:251:GLU:OE2	8:0Q:306:ARG:NE	2.39	0.42
15:0X:182:GLU:HA	15:0X:185:GLU:HG2	2.01	0.42
16:0Y:90:ARG:NH1	60:FQ:276:ARG:HE	2.13	0.42
17:0Z:251:SER:HA	60:FI:78:ALA:HB1	2.02	0.42
21:1D:285:THR:HG21	21:1D:295:TYR:H	1.85	0.42
24:1G:52:TYR:HE2	59:FW:81:GLY:HA3	1.84	0.42
28:1M:222:THR:HG23	60:EG:355:ASP:OD2	2.20	0.42
34:2E:75:ALA:HB1	60:FE:154:LYS:HE3	2.00	0.42
35:2H:331:ARG:O	35:2H:335:ILE:HG12	2.20	0.42
36:2I:148:HIS:ND1	59:ET:434:GLU:OE1	2.51	0.42
36:2K:149:HIS:CE1	36:2K:155:PRO:HD2	2.55	0.42
41:2Z:267:ARG:C	41:2Z:271:LYS:HZ2	2.24	0.42
41:3C:312:ARG:HA	41:3C:315:GLU:HG2	2.01	0.42
42:3F:92:PRO:O	59:BQ:42:ILE:HD12	2.20	0.42
42:3G:211:MET:HA	42:3G:212:PRO:HD3	1.94	0.42
42:3I:231:ARG:HH21	42:3I:232:VAL:HG22	1.85	0.42
42:3L:216:ASP:OD1	42:3L:216:ASP:N	2.53	0.42
47:3V:186:ARG:C	48:3Y:188:ARG:HH21	2.22	0.42
47:3W:104:CYS:HB3	47:3W:107:LYS:HZ2	1.85	0.42
53:4K:107:MET:HG2	54:4M:169:TYR:CD2	2.55	0.42
53:4K:108:PRO:HB3	59:JD:160:ASP:OD1	2.20	0.42
54:4O:93:LYS:NZ	54:4O:94:ASP:O	2.53	0.42
54:4O:102:ILE:O	54:4O:105:GLN:HG2	2.20	0.42
59:AA:239:THR:O	59:AA:243:ARG:HD3	2.20	0.42
59:AA:269:LEU:HD22	59:AA:303:THR:HG21	2.02	0.42
59:AC:252:LEU:HA	59:AC:255:PHE:CD2	2.54	0.42
60:AD:292:GLN:HG2	60:AD:298:ASN:ND2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AK:273:ALA:HB3	59:AK:274:PRO:HD3	2.01	0.42
60:AP:201:CYS:HB2	60:AP:301:GLN:HE22	1.85	0.42
59:AW:52:PHE:CZ	59:AW:239:THR:HG21	2.55	0.42
59:AW:101:ASN:OD1	60:AX:252:LYS:NZ	2.39	0.42
60:AX:60:VAL:HG21	60:AX:86:ARG:NH2	2.35	0.42
59:AY:68:LEU:HA	59:AY:68:LEU:HD23	1.90	0.42
60:AZ:372:THR:OG1	60:AZ:426:GLN:HG3	2.19	0.42
59:BA:224:TYR:CE2	60:BB:323:THR:HG21	2.55	0.42
59:BA:286:LEU:O	59:BA:373:ARG:NH1	2.43	0.42
59:BE:118:CYS:O	59:BE:122:ILE:HG12	2.20	0.42
59:BG:306:ASP:OD2	59:BG:308:ARG:HB2	2.20	0.42
60:BH:89:ASN:ND2	60:BH:123:GLU:OE2	2.42	0.42
59:BI:91:GLN:O	59:BI:93:ILE:HD12	2.20	0.42
59:BU:322:ASP:O	59:BU:373:ARG:HD3	2.20	0.42
60:BV:128:ASP:OD1	60:BV:129:CYS:N	2.53	0.42
59:CD:167:LEU:HD22	59:CD:200:VAL:HB	2.02	0.42
59:CH:62:VAL:HA	59:CH:63:PRO:HD3	1.85	0.42
60:CI:256:ASN:O	60:CI:312:THR:HG21	2.20	0.42
59:CO:273:ALA:HB3	59:CO:274:PRO:HD3	2.01	0.42
60:CV:105:HIS:O	60:CV:150:LEU:HD11	2.20	0.42
59:CW:253:THR:O	59:CW:256:GLN:HG2	2.20	0.42
60:CX:262:ARG:HE	60:CX:421:GLU:HG3	1.84	0.42
59:DC:284:GLU:OE2	59:DO:88:HIS:NE2	2.48	0.42
59:DI:50:ASN:O	59:DI:64:ARG:NH1	2.53	0.42
60:DJ:174:LYS:HA	60:DJ:174:LYS:HD3	1.83	0.42
59:DM:100:ALA:O	60:DN:255:VAL:HG11	2.19	0.42
59:DM:291:ILE:HD12	59:DM:375:VAL:HG12	2.02	0.42
60:DR:395:LEU:HD21	60:DR:405:GLU:HG2	2.01	0.42
60:DT:211:CYS:O	60:DT:216:LYS:N	2.53	0.42
60:EE:391:ARG:HA	60:EE:391:ARG:HD2	1.75	0.42
59:EH:269:LEU:O	59:EH:378:ILE:HA	2.20	0.42
60:EI:283:GLY:HA3	60:EU:55:THR:HG21	2.02	0.42
59:EL:21:TRP:CZ2	59:EL:65:ALA:HB2	2.55	0.42
59:EL:386:GLU:O	59:EL:390:ARG:HG3	2.20	0.42
59:EN:132:LEU:O	59:EN:164:LYS:NZ	2.45	0.42
60:EQ:229:VAL:O	60:EQ:233:VAL:HG12	2.20	0.42
59:EX:282:TYR:CE2	59:FJ:60:LYS:HD2	2.55	0.42
60:EY:128:ASP:OD1	60:EY:129:CYS:N	2.52	0.42
60:EY:290:THR:O	60:EY:293:MET:HG2	2.20	0.42
60:FC:170:ILE:HD12	60:FC:201:CYS:HB3	2.01	0.42
59:FH:390:ARG:NH1	59:FH:390:ARG:HB2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FK:238:CYS:SG	60:FK:239:CYS:N	2.92	0.42
60:FM:73:MET:HA	60:FM:76:VAL:HG12	2.02	0.42
59:FU:11:GLN:HG3	59:FU:74:VAL:HG21	2.00	0.42
59:GG:121:ARG:NH2	59:GG:124:LYS:HD2	2.35	0.42
59:GJ:2:ARG:HD2	59:GJ:130:THR:HG23	2.02	0.42
60:GK:286:VAL:HG22	60:GK:321:MET:HE3	2.01	0.42
59:GR:26:LEU:HD11	59:GR:364:PRO:HD2	2.00	0.42
60:GS:303:ALA:HB1	60:GS:373:CYS:HB2	2.02	0.42
59:GU:212:LEU:HD11	59:GU:275:VAL:HG21	2.01	0.42
59:GW:36:MET:HE2	59:GW:36:MET:HB2	1.91	0.42
59:GY:234:VAL:HG11	59:GY:270:THR:HG21	2.02	0.42
60:GZ:137:HIS:O	60:GZ:168:SER:HA	2.19	0.42
60:HJ:170:ILE:HD12	60:HJ:377:MET:SD	2.60	0.42
60:HJ:201:CYS:HB2	60:HJ:301:GLN:NE2	2.35	0.42
60:HN:97:ALA:HB2	60:HN:143:THR:HB	2.00	0.42
60:HP:3:GLU:OE2	60:HP:62:ARG:NH2	2.53	0.42
59:HQ:324:VAL:HG22	59:HQ:327:ASP:H	1.85	0.42
60:HU:321:MET:HB2	60:HU:322:SER:H	1.72	0.42
59:HX:256:GLN:O	59:HX:260:VAL:HG12	2.19	0.42
60:IA:176:SER:OG	60:IA:178:THR:O	2.38	0.42
60:IF:326:VAL:O	60:IF:330:MET:HG2	2.19	0.42
59:II:104:ALA:HB2	59:II:413:MET:CE	2.50	0.42
59:II:273:ALA:HB3	59:II:274:PRO:HD3	2.02	0.42
60:IL:403:MET:HE3	60:IL:408:PHE:CZ	2.55	0.42
59:IM:273:ALA:HB3	59:IM:274:PRO:HD3	2.01	0.42
60:IP:58:ARG:CZ	60:JC:280:GLN:HE22	2.33	0.42
59:IQ:286:LEU:O	59:IQ:373:ARG:NH1	2.48	0.42
59:IT:417:GLU:O	59:IT:420:GLU:HG2	2.20	0.42
60:IU:103:LYS:HE2	60:IU:103:LYS:HB2	1.77	0.42
60:IW:122:LYS:HZ1	60:JI:282:ARG:HH22	1.67	0.42
59:IX:101:ASN:OD1	60:IY:252:LYS:HD2	2.19	0.42
59:IZ:7:ILE:HA	59:IZ:66:VAL:HG22	2.01	0.42
60:JC:163:ILE:CD1	60:JC:250:LEU:HD22	2.42	0.42
59:JF:84:ARG:HH11	59:JF:84:ARG:HG3	1.85	0.42
59:JL:188:VAL:O	59:JL:191:THR:HG22	2.19	0.42
60:JM:178:THR:HB	60:JM:181:GLU:HG3	2.01	0.42
60:JO:137:HIS:O	60:JO:168:SER:HA	2.20	0.42
59:JQ:207:GLU:O	59:JQ:211:ASP:N	2.48	0.42
60:JT:178:THR:OG1	60:JT:181:GLU:HG3	2.19	0.42
59:JW:145:THR:HG22	62:JW:602:GTP:O3B	2.20	0.42
59:JY:201:ALA:O	59:JY:268:VAL:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KE:201:CYS:HB2	60:KE:301:GLN:NE2	2.35	0.42
60:KG:66:ILE:HD12	60:KG:147:MET:CE	2.50	0.42
59:KH:28:HIS:CE1	59:KH:243:ARG:HD2	2.54	0.42
59:KH:74:VAL:O	59:KH:77:GLU:HG2	2.20	0.42
60:KM:220:PRO:CG	59:KN:326:LYS:HD2	2.50	0.42
59:KS:100:ALA:O	60:KT:255:VAL:HG11	2.20	0.42
60:KX:139:LEU:HD12	60:KX:170:ILE:HG22	2.02	0.42
60:KX:267:MET:HG2	60:KX:369:GLY:O	2.20	0.42
60:KZ:137:HIS:O	60:KZ:168:SER:HA	2.19	0.42
60:KZ:237:THR:HG23	60:KZ:241:ARG:HH12	1.85	0.42
60:LB:73:MET:HA	60:LB:76:VAL:HG12	2.02	0.42
60:LB:260:PHE:HB2	60:LB:263:LEU:CD1	2.50	0.42
1:0A:417:TYR:OH	1:0A:519:GLU:OE2	2.24	0.41
1:0A:473:ARG:H	1:0A:473:ARG:HG2	1.64	0.41
3:0F:625:ASP:OD1	3:0F:626:LEU:N	2.52	0.41
5:0H:169:GLN:NE2	26:1I:213:LEU:HD23	2.35	0.41
5:0H:198:ARG:NH2	26:1I:184:SER:O	2.51	0.41
5:0H:219:MET:SD	26:1I:166:ASN:HB3	2.60	0.41
7:0P:342:GLN:HG2	60:AT:276:ARG:NH1	2.34	0.41
7:0P:344:LYS:HA	7:0P:347:ARG:HH11	1.85	0.41
12:0U:202:TYR:HE2	12:0U:207:VAL:HG13	1.85	0.41
13:0V:40:ALA:HB3	13:0V:84:SER:HB3	2.02	0.41
19:1B:147:VAL:O	19:1B:150:THR:OG1	2.27	0.41
26:1I:225:LYS:HE2	26:1I:225:LYS:HB3	1.76	0.41
27:1L:278:HIS:CE1	60:AX:58:ARG:HH11	2.38	0.41
30:1R:240:LEU:HD13	60:EC:424:GLN:HG3	2.02	0.41
32:1Y:17:ILE:HG23	60:KV:125:GLU:O	2.19	0.41
32:1Z:86:TYR:HA	32:1Z:107:ASN:HD21	1.84	0.41
33:2D:542:ILE:HG21	40:2T:91:THR:HG22	2.02	0.41
34:2F:233:PHE:HE1	60:KG:70:PRO:HB3	1.84	0.41
36:2I:124:THR:HG21	60:ES:421:GLU:HG3	2.02	0.41
36:2I:132:ARG:NH1	60:ES:417:ASP:OD2	2.53	0.41
40:2T:287:GLU:O	40:2T:291:ARG:HG3	2.20	0.41
41:2W:169:ARG:HB2	59:IT:282:TYR:HE1	1.85	0.41
43:3Q:87:ASP:OD1	43:3Q:106:ARG:NE	2.47	0.41
47:3V:165:VAL:HG22	48:3Y:154:LYS:HE2	2.02	0.41
47:3W:212:ASN:OD1	47:3W:272:PHE:HB3	2.18	0.41
54:4N:143:LYS:O	54:4N:146:VAL:HG12	2.20	0.41
54:4O:63:LEU:O	54:4O:67:ILE:HG12	2.20	0.41
59:AE:195:LEU:HD23	59:AE:195:LEU:HA	1.87	0.41
59:AG:72:PRO:HB2	59:AG:76:ASP:OD2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AG:425:LEU:HD12	59:AG:425:LEU:HA	1.89	0.41
60:AJ:117:LEU:HD11	60:AJ:154:LYS:HB3	2.02	0.41
60:AN:32:PRO:HG3	60:AN:81:TYR:CZ	2.55	0.41
60:AP:371:ASN:OD1	60:AP:372:THR:N	2.53	0.41
59:AW:273:ALA:HB3	59:AW:274:PRO:HD3	2.02	0.41
59:AY:253:THR:O	59:AY:256:GLN:HG2	2.20	0.41
60:BD:210:ILE:HD11	60:BD:298:ASN:HA	2.01	0.41
59:BE:3:GLU:OE1	59:BE:3:GLU:N	2.40	0.41
60:BH:334:GLN:NE2	60:BH:347:ASN:OD1	2.53	0.41
59:BM:273:ALA:HB3	59:BM:274:PRO:HD3	2.02	0.41
60:BR:161:ASP:OD1	60:BR:162:ARG:NH1	2.53	0.41
60:BT:131:GLN:OE1	60:BT:163:ILE:HD13	2.20	0.41
60:BT:291:GLN:HG3	60:BT:292:GLN:N	2.35	0.41
60:CA:128:ASP:OD1	60:CA:129:CYS:N	2.53	0.41
60:CA:156:ARG:HD2	60:CA:156:ARG:HA	1.91	0.41
59:CJ:273:ALA:HB3	59:CJ:274:PRO:HD3	2.02	0.41
59:CQ:71:GLU:HB3	59:CQ:98:ASP:HB3	2.02	0.41
60:CT:27:GLU:CD	60:CT:241:ARG:HH21	2.24	0.41
60:CT:209:ASP:HB3	60:CT:213:ARG:CZ	2.50	0.41
59:CU:175:PRO:HG3	59:CU:304:LYS:HG2	2.02	0.41
60:CX:310:TYR:CE1	60:CX:371:ASN:HB2	2.55	0.41
60:CZ:65:LEU:HD22	60:CZ:90:PHE:CE2	2.55	0.41
60:CZ:309:ARG:NH1	60:CZ:343:GLU:OE1	2.52	0.41
60:DJ:213:ARG:HE	60:DJ:213:ARG:HB2	1.72	0.41
59:DU:93:ILE:HD11	59:DU:121:ARG:HG3	2.01	0.41
60:DV:287:PRO:HA	60:DV:290:THR:HG22	2.02	0.41
60:DW:421:GLU:HA	60:DW:424:GLN:HG2	2.02	0.41
60:EC:8:GLN:HG2	60:EC:17:GLY:HA3	2.02	0.41
59:EH:296:PHE:HE2	59:EH:335:ILE:HD13	1.85	0.41
59:EL:273:ALA:HB3	59:EL:274:PRO:HD3	2.02	0.41
60:ES:112:LEU:HD23	60:ES:112:LEU:HA	1.90	0.41
60:FE:249:ASP:HB3	60:FE:252:LYS:HG3	2.01	0.41
60:FG:256:ASN:O	60:FG:312:THR:HG21	2.19	0.41
60:FI:387:LEU:HA	60:FI:390:ARG:NH1	2.35	0.41
59:FN:169:TYR:OH	59:FN:238:LEU:HD13	2.20	0.41
59:FU:391:ILE:HD12	59:FU:391:ILE:HA	1.96	0.41
59:FW:230:LEU:HD23	59:FW:230:LEU:HA	1.94	0.41
60:FX:380:ARG:O	60:FX:383:GLU:HG2	2.20	0.41
60:GD:249:ASP:OD1	60:GD:250:LEU:N	2.53	0.41
59:GN:91:GLN:O	59:GN:93:ILE:HD12	2.19	0.41
59:GP:132:LEU:HG	59:GP:164:LYS:HE2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GT:9:ILE:HD13	59:GT:68:LEU:HB2	2.02	0.41
60:GV:304:ASP:OD2	60:GV:307:HIS:ND1	2.53	0.41
59:HC:70:LEU:HD23	59:HC:70:LEU:HA	1.84	0.41
59:HG:172:TYR:CE2	59:HG:203:MET:HG2	2.54	0.41
60:HL:229:VAL:O	60:HL:233:VAL:HG12	2.20	0.41
60:HP:32:PRO:HB3	60:HP:81:TYR:CE1	2.55	0.41
59:IG:79:ARG:NH2	59:IG:92:LEU:O	2.53	0.41
60:IH:173:PRO:HG2	60:IH:174:LYS:HD2	2.01	0.41
60:IN:68:LEU:HD13	60:IN:143:THR:OG1	2.19	0.41
59:IO:70:LEU:HD13	59:IO:145:THR:OG1	2.20	0.41
60:IP:128:ASP:OD1	60:IP:129:CYS:N	2.53	0.41
60:IP:262:ARG:HH11	60:IP:262:ARG:HG2	1.85	0.41
60:IP:286:VAL:HB	60:IP:287:PRO:HD3	2.02	0.41
59:IX:84:ARG:HH11	59:IX:84:ARG:HG3	1.84	0.41
60:JA:288:GLU:O	60:JA:291:GLN:HG3	2.20	0.41
59:JB:250:VAL:HG11	59:JB:318:MET:SD	2.59	0.41
59:JD:253:THR:O	59:JD:256:GLN:HG2	2.19	0.41
59:JJ:273:ALA:HB3	59:JJ:274:PRO:HD3	2.02	0.41
60:JK:170:ILE:HG13	60:JK:171:PRO:HD2	2.01	0.41
59:JL:111:GLY:HA2	59:JL:114:ILE:HG22	2.03	0.41
59:JN:262:TYR:HD2	59:JN:265:ILE:HD12	1.85	0.41
60:JO:238:CYS:SG	60:JO:239:CYS:N	2.93	0.41
59:JW:273:ALA:HB3	59:JW:274:PRO:HD3	2.02	0.41
59:KD:242:LEU:HD11	59:KD:252:LEU:HD21	2.02	0.41
59:KF:70:LEU:HA	59:KF:70:LEU:HD23	1.85	0.41
60:KG:34:GLY:HA3	60:KG:58:ARG:HG3	2.02	0.41
60:KI:113:ILE:HG13	60:KI:117:LEU:HD23	2.02	0.41
60:KI:289:LEU:HD11	60:KI:363:MET:HG3	2.02	0.41
60:KI:359:LYS:HB3	60:KI:359:LYS:HE3	1.89	0.41
59:KJ:150:GLY:O	59:KJ:154:LEU:HD23	2.20	0.41
60:KR:248:SER:HA	60:KR:252:LYS:HE3	2.02	0.41
60:KV:27:GLU:O	60:KV:43:GLN:NE2	2.51	0.41
60:KZ:296:ALA:HA	60:KZ:299:MET:HE1	2.00	0.41
4:0G:42:ARG:HG2	59:FB:244:PHE:HE1	1.84	0.41
4:0G:711:GLN:O	4:0G:715:ILE:HG12	2.20	0.41
5:0H:111:THR:HG23	5:0H:112:TYR:CD2	2.54	0.41
5:0I:252:GLU:HB3	5:0I:253:GLU:H	1.65	0.41
5:0K:198:ARG:NH1	26:1I:396:GLN:O	2.53	0.41
6:0M:241:LYS:O	6:0M:245:ARG:HG2	2.20	0.41
9:0R:187:TRP:HA	9:0R:190:ILE:HD12	2.02	0.41
13:0V:184:LEU:HD23	13:0V:184:LEU:HA	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:0Y:210:ASP:OD1	16:0Y:210:ASP:N	2.52	0.41
18:1A:97:ILE:HG13	18:1A:115:LYS:HG3	2.02	0.41
19:1B:78:ASP:OD1	19:1B:79:ALA:N	2.54	0.41
27:1K:218:ARG:HH21	60:AN:56:GLY:HA3	1.84	0.41
33:2B:15:ASP:N	33:2B:15:ASP:OD1	2.52	0.41
35:2G:348:PHE:HD2	35:2G:367:GLU:HB3	1.85	0.41
39:2O:137:CYS:O	39:2O:141:ARG:HG2	2.20	0.41
39:2P:388:LYS:O	39:2P:392:GLU:HG2	2.20	0.41
40:2T:55:ILE:O	40:2T:59:LEU:HB2	2.20	0.41
41:3A:247:THR:O	41:3A:250:GLU:HG3	2.19	0.41
42:3J:18:CYS:HB2	42:3J:30:CYS:SG	2.60	0.41
42:3J:54:ARG:HH12	42:3J:56:ILE:HD12	1.85	0.41
42:3L:187:TYR:HB2	59:HT:77:GLU:OE2	2.19	0.41
42:3L:192:PRO:O	42:3L:194:LYS:HG3	2.20	0.41
42:3M:236:CYS:HB2	42:3N:25:CYS:HB3	2.01	0.41
42:3O:119:PRO:HB2	42:3O:120:GLY:H	1.72	0.41
42:3P:113:THR:HG21	60:GV:245:GLN:NE2	2.35	0.41
58:4U:68:GLN:HG2	60:GD:332:ASN:ND2	2.35	0.41
60:AD:153:SER:HA	60:AD:195:ASN:ND2	2.35	0.41
59:AE:111:GLY:HA2	59:AE:114:ILE:HG22	2.02	0.41
60:AP:19:LYS:NZ	60:AP:227:HIS:HB2	2.35	0.41
60:AP:170:ILE:HD11	60:AP:377:MET:CE	2.42	0.41
59:AQ:52:PHE:HZ	59:AQ:239:THR:HG21	1.85	0.41
59:AS:238:LEU:HD21	59:AS:378:ILE:HD13	2.02	0.41
59:BC:153:LEU:O	59:BC:157:LEU:HD23	2.20	0.41
59:BK:328:VAL:HG21	59:BK:355:ILE:HD11	2.01	0.41
60:BN:282:ARG:HH21	60:BN:288:GLU:HB2	1.85	0.41
60:BN:284:LEU:HD12	60:BN:288:GLU:OE2	2.20	0.41
59:BQ:273:ALA:HB2	59:BQ:295:VAL:CG2	2.50	0.41
59:BS:132:LEU:HD23	59:BS:164:LYS:HZ1	1.84	0.41
60:BT:170:ILE:HG22	60:BT:171:PRO:HD2	2.03	0.41
60:BV:298:ASN:O	60:BV:298:ASN:ND2	2.36	0.41
59:BZ:265:ILE:HG23	59:BZ:432:TYR:CE1	2.55	0.41
60:CC:20:PHE:HA	60:CC:230:SER:OG	2.21	0.41
60:CE:170:ILE:HD12	60:CE:170:ILE:HG23	1.83	0.41
59:CF:109:THR:HA	59:CF:112:LYS:NZ	2.35	0.41
59:CF:402:ARG:HB3	59:CF:405:VAL:CG1	2.50	0.41
60:CI:375:GLN:NE2	60:CI:423:GLN:OE1	2.47	0.41
59:CO:388:PHE:HB3	59:CO:425:LEU:HD21	2.00	0.41
60:CP:100:ASN:HB3	60:CP:103:LYS:HD3	2.01	0.41
60:CR:128:ASP:OD1	60:CR:129:CYS:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CS:326:LYS:HD3	59:CS:326:LYS:HA	1.44	0.41
60:CT:173:PRO:HB3	60:CT:380:ARG:HH21	1.86	0.41
60:CT:403:MET:HE2	60:CT:403:MET:HB3	1.87	0.41
59:CU:3:GLU:OE2	59:CU:64:ARG:NH2	2.53	0.41
60:CV:175:VAL:HG13	59:CW:329:ASN:OD1	2.20	0.41
60:DN:156:ARG:O	60:DN:156:ARG:HD3	2.19	0.41
60:DR:303:ALA:HB1	60:DR:373:CYS:HB2	2.03	0.41
59:DS:392:ASP:OD2	59:DS:425:LEU:HD22	2.21	0.41
60:DV:170:ILE:CG2	60:DV:171:PRO:HD2	2.50	0.41
59:DX:273:ALA:HB3	59:DX:274:PRO:HD3	2.02	0.41
60:EG:97:ALA:HB2	60:EG:143:THR:HB	2.01	0.41
60:EK:67:ASP:OD1	60:EK:68:LEU:N	2.50	0.41
60:EO:60:VAL:HA	60:EO:61:PRO:HD3	1.76	0.41
60:EO:81:TYR:O	60:EO:84:ILE:HG12	2.20	0.41
60:EY:122:LYS:HE2	60:EY:122:LYS:HB2	1.85	0.41
60:FI:67:ASP:O	60:FI:92:PHE:HA	2.19	0.41
59:FR:333:ALA:O	59:FR:337:THR:HG23	2.20	0.41
60:FS:116:VAL:HA	60:FS:119:VAL:HG12	2.02	0.41
60:FS:288:GLU:HA	60:FS:291:GLN:HG2	2.01	0.41
59:FT:50:ASN:O	59:FT:64:ARG:NH1	2.53	0.41
60:FX:173:PRO:HB3	60:FX:380:ARG:NH1	2.35	0.41
59:FY:133:GLN:NE2	59:FY:251:ASP:OD1	2.53	0.41
59:GL:172:TYR:CE2	59:GL:203:MET:HG2	2.55	0.41
60:GQ:318:ARG:HB3	60:GQ:357:PRO:HA	2.01	0.41
59:GR:88:HIS:HB3	59:GR:91:GLN:NE2	2.35	0.41
60:GS:137:HIS:O	60:GS:168:SER:HA	2.21	0.41
60:GV:304:ASP:OD1	60:GV:304:ASP:N	2.42	0.41
60:HF:324:LYS:HB3	60:HF:324:LYS:HE2	1.77	0.41
60:HJ:183:TYR:OH	60:HJ:388:MET:HG2	2.19	0.41
59:HM:100:ALA:HA	60:HN:252:LYS:HG3	2.02	0.41
60:HP:238:CYS:SG	60:HP:239:CYS:N	2.93	0.41
60:HU:173:PRO:HB3	60:HU:380:ARG:HH12	1.85	0.41
60:HU:209:ASP:OD1	60:HU:210:ILE:N	2.53	0.41
59:HV:273:ALA:HB2	59:HV:295:VAL:CG2	2.50	0.41
60:HY:362:LYS:HE3	60:HY:362:LYS:HB3	1.85	0.41
59:HZ:5:ILE:CD1	59:HZ:64:ARG:HB3	2.50	0.41
59:ID:273:ALA:HB2	59:ID:295:VAL:CG1	2.50	0.41
60:IF:19:LYS:HZ1	60:IF:227:HIS:HB2	1.85	0.41
59:IG:72:PRO:HD2	60:IH:2:ARG:HH12	1.85	0.41
59:II:27:GLU:HB2	59:II:361:THR:CG2	2.51	0.41
59:IK:138:TYR:CE1	59:IK:169:TYR:HD2	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IM:250:VAL:HG11	59:IM:318:MET:SD	2.60	0.41
59:IM:398:MET:HG3	59:IM:403:ALA:HB3	2.02	0.41
60:IR:271:ALA:O	60:IR:273:LEU:N	2.51	0.41
60:IS:7:VAL:HB	60:IS:135:ILE:CD1	2.49	0.41
59:IT:9:ILE:HA	59:IT:68:LEU:HB3	2.02	0.41
60:IW:3:GLU:OE2	60:IW:127:CYS:HB3	2.20	0.41
60:IW:3:GLU:N	60:IW:3:GLU:OE1	2.54	0.41
60:IY:388:MET:HG3	60:IY:393:ALA:HB3	2.00	0.41
60:JA:247:ASN:O	60:JA:252:LYS:NZ	2.51	0.41
60:JI:321:MET:HB2	60:JI:322:SER:H	1.69	0.41
60:JM:62:ARG:HG3	60:JM:123:GLU:OE2	2.19	0.41
60:JO:31:ASP:OD2	60:JO:33:THR:HG22	2.19	0.41
60:JR:220:PRO:C	59:JS:326:LYS:HZ2	2.23	0.41
59:JS:441:ASP:OD1	59:JS:441:ASP:N	2.47	0.41
59:JW:224:TYR:CE2	60:JX:323:THR:HG21	2.54	0.41
60:JZ:173:PRO:HB3	60:JZ:380:ARG:CZ	2.50	0.41
59:KA:62:VAL:HA	59:KA:63:PRO:HD3	1.85	0.41
59:KA:212:LEU:HD21	59:KA:275:VAL:HG11	2.02	0.41
59:KA:377:MET:SD	59:KA:379:ALA:HB2	2.60	0.41
59:KD:121:ARG:HH21	59:KD:124:LYS:HD2	1.85	0.41
60:KK:97:ALA:HB2	60:KK:143:THR:HB	2.01	0.41
60:KK:186:THR:HG22	60:KK:411:ALA:HB1	2.01	0.41
59:KQ:44:VAL:HG13	59:KQ:45:GLU:OE1	2.19	0.41
59:LA:203:MET:O	59:LA:303:THR:OG1	2.36	0.41
1:0C:184:ASP:O	1:0C:188:ARG:HG3	2.20	0.41
1:0D:145:ALA:HA	60:EI:83:GLN:HE22	1.85	0.41
2:0E:121:GLY:O	60:DR:360:GLY:HA2	2.21	0.41
2:0E:261:ALA:HB3	59:DS:57:GLY:O	2.20	0.41
6:0M:260:GLU:HA	6:0M:263:ARG:HG2	2.01	0.41
6:0N:364:ARG:HD2	59:BA:282:TYR:CE1	2.55	0.41
7:0P:280:TYR:O	7:0P:283:GLU:HG3	2.20	0.41
9:0R:224:VAL:HG13	15:0X:45:ASN:HD21	1.85	0.41
14:0W:104:ARG:HA	14:0W:104:ARG:HD2	1.93	0.41
17:0Z:453:ASN:HB2	17:0Z:456:SER:HB3	2.01	0.41
20:1C:60:GLN:O	20:1C:123:ARG:NH1	2.53	0.41
21:1D:41:ARG:NH1	59:BS:43:GLY:O	2.54	0.41
27:1K:233:GLN:NE2	27:1K:239:LEU:HD12	2.35	0.41
33:2B:379:LYS:HG3	33:2B:432:ASN:HA	2.01	0.41
33:2B:462:LEU:HB3	33:2B:493:TRP:CH2	2.54	0.41
33:2D:551:ALA:HB3	33:2D:571:ASP:OD1	2.19	0.41
36:2K:201:ARG:NH1	60:EK:301:GLN:O	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2K:257:ARG:NH2	60:EW:111:GLU:OE2	2.45	0.41
37:2L:228:ARG:HE	37:2L:228:ARG:HB3	1.54	0.41
39:2O:194:VAL:HG11	59:KP:370:LYS:HD3	2.02	0.41
39:2Q:154:GLU:O	39:2Q:157:GLU:HG3	2.20	0.41
42:3M:241:LEU:HD21	42:3M:244:ARG:HH21	1.86	0.41
42:3N:19:VAL:HA	42:3N:22:ILE:HG12	2.02	0.41
42:3P:96:PHE:CD2	59:GW:322:ASP:HB2	2.56	0.41
47:3X:234:VAL:HA	47:3X:237:ILE:HG22	2.02	0.41
60:AH:374:ILE:H	60:AH:374:ILE:HG12	1.71	0.41
59:AI:172:TYR:CD1	59:AI:173:PRO:HD2	2.53	0.41
60:AJ:67:ASP:O	60:AJ:92:PHE:HA	2.19	0.41
59:AS:273:ALA:HB3	59:AS:274:PRO:HD3	2.01	0.41
59:AU:326:LYS:HZ2	59:AU:329:ASN:HD22	1.66	0.41
60:AX:213:ARG:NH1	60:AX:297:LYS:HG2	2.34	0.41
59:AY:343:PHE:CE2	59:AY:350:GLY:HA3	2.55	0.41
60:BD:101:TRP:NE1	60:BD:146:GLY:HA2	2.35	0.41
59:BE:215:ARG:NH2	59:BE:299:ALA:HB1	2.36	0.41
60:BJ:289:LEU:O	60:BJ:293:MET:HB2	2.20	0.41
60:BL:183:TYR:HD1	60:BL:385:PHE:CE2	2.39	0.41
59:BQ:29:GLY:HA3	59:BQ:40:LYS:HE3	2.02	0.41
60:CA:162:ARG:NH1	60:CA:162:ARG:HG2	2.35	0.41
60:CC:51:PHE:HB3	60:CC:59:TYR:HB3	2.01	0.41
60:CC:73:MET:HE3	60:CC:92:PHE:HB3	2.01	0.41
59:CM:377:MET:HB2	59:CM:377:MET:HE3	1.82	0.41
59:CO:166:LYS:HD2	59:CO:197:HIS:O	2.21	0.41
59:DI:196:GLU:CG	59:DI:197:HIS:CE1	3.03	0.41
60:DJ:62:ARG:HG3	60:DJ:123:GLU:OE2	2.21	0.41
60:DL:156:ARG:HD3	60:DL:156:ARG:O	2.20	0.41
60:DP:3:GLU:N	60:DP:3:GLU:OE1	2.52	0.41
60:DP:305:PRO:HA	60:DP:371:ASN:HD21	1.85	0.41
60:DT:274:THR:HG23	60:DT:279:GLN:HG2	2.02	0.41
60:DY:156:ARG:HH22	60:DY:197:ASP:CG	2.24	0.41
59:EB:273:ALA:HB3	59:EB:274:PRO:HD3	2.02	0.41
60:EC:124:ALA:HB1	60:EC:130:LEU:HD11	2.01	0.41
60:EO:268:MET:HE2	60:EO:268:MET:HB3	1.56	0.41
60:EQ:376:GLU:O	60:EQ:380:ARG:HG3	2.20	0.41
60:ES:73:MET:HA	60:ES:76:VAL:HG12	2.03	0.41
60:FG:22:GLU:HG2	60:FG:81:TYR:CD1	2.56	0.41
60:FG:178:THR:OG1	60:FG:181:GLU:HG3	2.21	0.41
60:FG:359:LYS:HE3	60:FG:359:LYS:HB3	1.77	0.41
59:FN:422:ARG:NH1	59:FN:426:ALA:HB2	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FT:88:HIS:ND1	59:FT:90:GLU:HG2	2.35	0.41
60:FX:139:LEU:HD12	60:FX:170:ILE:HG12	2.02	0.41
60:GD:137:HIS:O	60:GD:168:SER:HA	2.20	0.41
59:GE:102:ASN:HB3	59:GE:105:ARG:HB2	2.02	0.41
59:GH:395:PHE:HZ	59:GH:418:PHE:HD1	1.68	0.41
60:GO:398:TYR:HD2	60:GO:403:MET:HE1	1.86	0.41
60:GQ:173:PRO:HB3	60:GQ:380:ARG:HD3	2.02	0.41
59:GU:273:ALA:HB3	59:GU:274:PRO:HD3	2.02	0.41
60:GV:395:LEU:HD21	60:GV:405:GLU:HG2	2.03	0.41
60:GZ:239:CYS:SG	60:GZ:248:SER:N	2.88	0.41
59:HA:273:ALA:HB3	59:HA:274:PRO:HD3	2.01	0.41
59:HC:121:ARG:NE	59:HC:121:ARG:HA	2.35	0.41
60:HD:97:ALA:HB2	60:HD:143:THR:HB	2.02	0.41
60:HL:304:ASP:OD2	60:HL:307:HIS:ND1	2.54	0.41
60:HR:230:SER:HA	60:HR:233:VAL:HG12	2.03	0.41
59:HT:138:TYR:HE2	59:HT:235:VAL:HG11	1.86	0.41
60:HW:249:ASP:OD1	60:HW:250:LEU:N	2.53	0.41
60:HY:212:PHE:HB2	59:HZ:326:LYS:NZ	2.35	0.41
59:HZ:224:TYR:CE1	60:IA:323:THR:HG21	2.55	0.41
59:HZ:325:PRO:HA	59:HZ:328:VAL:HG22	2.01	0.41
59:IB:70:LEU:HD23	59:IB:145:THR:OG1	2.20	0.41
60:IC:174:LYS:HA	60:IC:174:LYS:HD2	1.79	0.41
60:IE:257:LEU:O	60:IE:259:PRO:HD2	2.20	0.41
60:IE:383:GLU:O	60:IE:387:LEU:HD23	2.21	0.41
60:IH:20:PHE:HA	60:IH:230:SER:OG	2.19	0.41
59:II:70:LEU:HD13	59:II:145:THR:OG1	2.20	0.41
59:II:195:LEU:HD21	59:II:428:LEU:HD22	2.01	0.41
60:IJ:271:ALA:HB3	60:IJ:272:PRO:HD3	2.03	0.41
59:IK:195:LEU:HD21	59:IK:428:LEU:HD22	2.02	0.41
59:IM:221:ARG:HB3	60:IN:322:SER:HB3	2.01	0.41
59:IM:273:ALA:HB2	59:IM:295:VAL:CG2	2.50	0.41
59:IQ:273:ALA:HB2	59:IQ:295:VAL:CG1	2.50	0.41
60:IS:156:ARG:NH1	60:IS:197:ASP:OD2	2.52	0.41
60:IS:391:ARG:HD3	59:IT:346:TRP:CG	2.55	0.41
60:IU:267:MET:CE	60:IU:301:GLN:HB3	2.51	0.41
59:IV:2:ARG:HG3	59:IV:3:GLU:OE1	2.20	0.41
59:IX:139:HIS:CE1	59:IX:170:THR:HG22	2.54	0.41
59:IZ:160:ASP:OD1	59:JL:339:ARG:NH2	2.54	0.41
59:JD:88:HIS:CD2	59:JD:89:PRO:HD2	2.48	0.41
60:JG:3:GLU:N	60:JG:3:GLU:OE1	2.53	0.41
60:JO:2:ARG:O	60:JO:49:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JR:167:PHE:CE2	60:JR:233:VAL:HG22	2.55	0.41
60:JT:382:GLY:O	60:JT:386:THR:HG23	2.21	0.41
59:JW:151:ALA:O	59:JW:155:GLU:HG3	2.20	0.41
59:JW:297:GLU:HA	59:JW:298:PRO:HD2	1.88	0.41
59:KH:215:ARG:HB2	59:KH:215:ARG:NH1	2.35	0.41
60:KI:67:ASP:O	60:KI:92:PHE:HA	2.20	0.41
60:KM:32:PRO:HG3	60:KM:81:TYR:CZ	2.55	0.41
60:KM:173:PRO:HG2	60:KM:174:LYS:HD3	2.03	0.41
60:KM:330:MET:SD	60:KM:349:ILE:HG21	2.60	0.41
59:KN:291:ILE:HG22	59:KN:375:VAL:HG12	2.01	0.41
60:KO:8:GLN:HG2	60:KO:17:GLY:HA3	2.01	0.41
59:KP:150:GLY:O	59:KP:154:LEU:HD23	2.19	0.41
60:KV:193:VAL:HG22	60:KV:262:ARG:HD2	2.02	0.41
1:0C:736:THR:HG21	59:CM:279:GLU:HG2	2.02	0.41
1:0D:90:LEU:HA	1:0D:93:ARG:HD2	2.02	0.41
2:0E:273:ARG:HD3	2:0E:295:LEU:HD21	2.02	0.41
3:0F:286:ASN:O	3:0F:286:ASN:ND2	2.42	0.41
4:0G:660:SER:O	4:0G:662:THR:N	2.53	0.41
5:0K:52:LYS:NZ	59:FH:58:ALA:O	2.29	0.41
6:0N:418:LEU:O	6:0N:422:VAL:HG12	2.20	0.41
7:0P:166:ARG:O	7:0P:169:ARG:HG2	2.20	0.41
7:0P:404:ARG:NH1	7:0P:408:LEU:HD11	2.35	0.41
9:0R:319:ASP:OD1	9:0R:322:HIS:N	2.50	0.41
20:1C:82:GLU:HB2	20:1C:246:LEU:HD21	2.01	0.41
20:1C:212:VAL:O	20:1C:213:GLN:HG2	2.21	0.41
33:2B:110:LYS:O	33:2B:112:LYS:N	2.52	0.41
33:2C:220:THR:O	33:2C:250:ILE:HG22	2.21	0.41
35:2H:350:TYR:N	40:2S:47:MET:O	2.47	0.41
39:2P:327:ARG:O	39:2P:331:GLU:HG2	2.20	0.41
39:2Q:212:LEU:HA	39:2Q:215:HIS:HE1	1.84	0.41
40:2T:178:GLU:O	40:2T:181:GLN:HG3	2.20	0.41
41:2X:26:ARG:HA	41:2X:29:LYS:NZ	2.30	0.41
41:2Y:71:ARG:NH1	48:4A:225:GLU:OE1	2.54	0.41
41:3D:179:LYS:NZ	41:3D:180:ARG:HH22	2.19	0.41
42:3G:194:LYS:NZ	59:IX:365:GLY:H	2.19	0.41
42:3I:182:ASP:OD1	42:3I:182:ASP:N	2.53	0.41
44:3R:206:TYR:OH	59:JY:59:GLY:HA3	2.20	0.41
46:3T:246:ARG:HA	46:3T:247:PRO:HD3	1.96	0.41
57:4R:62:ASP:O	57:4R:66:ARG:NE	2.51	0.41
60:AB:219:THR:HA	59:AC:326:LYS:HE3	2.02	0.41
59:AC:273:ALA:HB2	59:AC:295:VAL:CG1	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AE:3:GLU:CD	59:AE:64:ARG:HH12	2.23	0.41
59:AG:122:ILE:HD13	59:AG:157:LEU:HD21	2.01	0.41
60:AN:99:ASN:OD1	60:AN:178:THR:HG21	2.20	0.41
59:AS:145:THR:HG22	62:AS:602:GTP:O3B	2.21	0.41
59:AS:156:ARG:HA	59:AS:156:ARG:HD2	1.93	0.41
60:AT:248:SER:HA	60:AT:252:LYS:HE2	2.01	0.41
60:AZ:137:HIS:O	60:AZ:168:SER:HA	2.20	0.41
60:AZ:186:THR:HG22	60:AZ:411:ALA:HB1	2.03	0.41
60:BB:380:ARG:O	60:BB:383:GLU:HG2	2.20	0.41
60:BD:101:TRP:CE3	60:BD:187:LEU:HD13	2.54	0.41
59:BQ:273:ALA:HB3	59:BQ:274:PRO:HD3	2.02	0.41
60:BR:101:TRP:HB2	60:BR:184:ASN:OD1	2.20	0.41
60:BR:156:ARG:HA	60:BR:156:ARG:HD2	1.81	0.41
59:BU:175:PRO:HB3	59:BU:390:ARG:NH1	2.36	0.41
60:BY:193:VAL:HG21	60:BY:418:LEU:HD12	2.02	0.41
60:CC:128:ASP:OD1	60:CC:129:CYS:N	2.53	0.41
60:CE:68:LEU:HA	60:CE:68:LEU:HD12	1.85	0.41
59:CF:191:THR:HG21	59:CF:425:LEU:HD21	2.03	0.41
60:CG:249:ASP:OD1	60:CG:250:LEU:N	2.53	0.41
60:CG:284:LEU:HD22	60:CG:362:LYS:HB2	2.01	0.41
59:CJ:105:ARG:O	59:CJ:110:ILE:HG22	2.20	0.41
59:CM:358:GLN:OE1	59:CM:359:PRO:HD2	2.19	0.41
60:CP:116:VAL:HA	60:CP:119:VAL:HG12	2.02	0.41
60:CR:183:TYR:OH	60:CR:388:MET:HG2	2.20	0.41
60:CT:193:VAL:HG21	60:CT:418:LEU:HD22	2.02	0.41
60:DD:27:GLU:OE1	60:DD:241:ARG:NH2	2.52	0.41
59:DG:65:ALA:O	59:DG:91:GLN:NE2	2.51	0.41
59:DK:231:ILE:O	59:DK:235:VAL:HG23	2.21	0.41
59:DM:273:ALA:HB3	59:DM:274:PRO:HD3	2.03	0.41
60:EC:128:ASP:OD1	60:EC:129:CYS:N	2.53	0.41
59:ED:68:LEU:HD23	59:ED:68:LEU:HA	1.78	0.41
59:EJ:224:TYR:CE2	60:EK:323:THR:HG21	2.55	0.41
59:EN:50:ASN:O	59:EN:64:ARG:NH1	2.53	0.41
60:EQ:69:GLU:HG2	60:EQ:70:PRO:HD2	2.01	0.41
60:ES:249:ASP:OD1	60:ES:250:LEU:N	2.52	0.41
59:EV:269:LEU:HD22	59:EV:303:THR:HG21	2.02	0.41
60:EW:109:GLY:HA2	60:EW:147:MET:SD	2.60	0.41
60:FA:8:GLN:HE22	60:FA:21:TRP:HE1	1.69	0.41
60:FE:208:TYR:HB3	59:FF:326:LYS:NZ	2.36	0.41
59:FH:181:VAL:HG13	60:FI:347:ASN:O	2.20	0.41
59:FH:203:MET:HG3	59:FH:384:ILE:HD11	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FI:198:GLU:OE1	60:FI:254:ALA:HB2	2.20	0.41
60:FO:32:PRO:HG3	60:FO:81:TYR:CZ	2.56	0.41
59:FT:404:PHE:O	59:FT:407:TRP:HE3	2.03	0.41
60:GD:380:ARG:O	60:GD:383:GLU:HG2	2.21	0.41
59:GH:122:ILE:HD13	59:GH:157:LEU:HD11	2.02	0.41
59:GH:273:ALA:HB3	59:GH:274:PRO:HD3	2.02	0.41
60:GK:2:ARG:N	60:GK:129:CYS:SG	2.93	0.41
59:GN:203:MET:CE	59:GN:267:PHE:HB3	2.51	0.41
60:GQ:249:ASP:OD1	60:GQ:250:LEU:N	2.53	0.41
60:GS:202:ILE:HD12	60:GS:300:MET:HB2	2.03	0.41
60:GV:91:ILE:HD11	60:GV:119:VAL:HG21	2.01	0.41
60:GX:322:SER:HB3	60:GX:325:GLU:OE1	2.20	0.41
59:HA:195:LEU:HD23	59:HA:195:LEU:HA	1.82	0.41
60:HB:36:TYR:CZ	60:HB:44:LEU:HG	2.55	0.41
59:HM:8:HIS:CE1	59:HM:21:TRP:HE1	2.39	0.41
59:HQ:402:ARG:HD2	59:HQ:405:VAL:HG21	2.02	0.41
60:HR:233:VAL:O	60:HR:236:VAL:HG12	2.20	0.41
60:HS:217:LEU:HD13	60:HS:217:LEU:HA	1.77	0.41
59:HV:372:GLN:N	59:HV:372:GLN:OE1	2.53	0.41
60:IA:55:THR:HG23	60:IN:283:GLY:HA3	2.02	0.41
60:IA:204:ASN:OD1	64:IA:501:GDP:N2	2.45	0.41
60:IH:167:PHE:CD2	60:IH:233:VAL:HG22	2.56	0.41
60:IL:391:ARG:HD3	59:IM:439:SER:HB3	2.01	0.41
60:IP:123:GLU:OE1	60:IP:123:GLU:HA	2.21	0.41
59:IV:273:ALA:HB3	59:IV:274:PRO:HD3	2.02	0.41
59:IX:104:ALA:HB2	59:IX:413:MET:SD	2.59	0.41
59:IX:212:LEU:HD21	59:IX:275:VAL:HG11	2.02	0.41
59:JD:69:ASP:OD1	59:JD:70:LEU:N	2.52	0.41
59:JD:367:ASP:OD1	59:JD:367:ASP:N	2.53	0.41
60:JE:383:GLU:O	60:JE:387:LEU:HD23	2.21	0.41
59:JF:124:LYS:HD3	59:JF:124:LYS:HA	1.87	0.41
59:JH:239:THR:HB	59:JH:243:ARG:HH12	1.86	0.41
60:JI:139:LEU:HD12	60:JI:170:ILE:HG22	2.03	0.41
60:JI:156:ARG:HH11	60:JI:156:ARG:HG3	1.85	0.41
60:JI:167:PHE:CE2	60:JI:233:VAL:HG22	2.56	0.41
59:JL:49:PHE:HD2	59:JL:53:PHE:HB2	1.86	0.41
59:JP:256:GLN:O	59:JP:260:VAL:HG22	2.20	0.41
60:JX:271:ALA:HB2	60:JX:293:MET:HG2	2.01	0.41
60:KB:388:MET:CE	59:KC:348:PRO:HD2	2.50	0.41
59:KD:21:TRP:CZ2	59:KD:65:ALA:HB2	2.55	0.41
59:KD:222:PRO:HG2	60:KE:324:LYS:CE	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KE:271:ALA:HA	60:KE:298:ASN:ND2	2.35	0.41
60:KI:324:LYS:O	60:KI:328:GLU:HG2	2.20	0.41
60:KI:376:GLU:O	60:KI:379:ARG:HG2	2.21	0.41
60:KM:237:THR:HG23	60:KM:241:ARG:HH12	1.83	0.41
59:KP:256:GLN:O	59:KP:260:VAL:HG12	2.20	0.41
60:KR:139:LEU:HD12	60:KR:170:ILE:HG22	2.02	0.41
59:KY:230:LEU:HD23	59:KY:302:MET:HE2	2.02	0.41
4:0G:45:HIS:ND1	59:FB:47:ASP:OD2	2.46	0.41
5:0K:119:ARG:HD2	59:EX:229:ARG:HH12	1.85	0.41
6:0N:396:LEU:HB3	60:BB:276:ARG:HD3	2.02	0.41
7:0P:307:LYS:HA	7:0P:310:ASN:HD21	1.85	0.41
12:0U:94:LYS:HE2	12:0U:109:HIS:CD2	2.56	0.41
17:0Z:442:ILE:O	17:0Z:446:ILE:HG12	2.21	0.41
20:1C:144:ARG:HD2	20:1C:144:ARG:HA	1.77	0.41
26:1I:158:ASN:HA	26:1I:161:ARG:HG2	2.02	0.41
32:1Y:49:VAL:O	32:1Y:159:ASN:HA	2.20	0.41
32:1Z:152:LEU:O	32:1Z:153:ARG:HB2	2.20	0.41
33:2B:628:THR:C	39:2O:80:ARG:HH12	2.24	0.41
33:2C:242:PRO:HD3	33:2C:273:LEU:HD21	2.02	0.41
35:2G:289:GLN:OE1	35:2G:289:GLN:N	2.53	0.41
37:2M:254:ASP:OD1	37:2M:254:ASP:N	2.50	0.41
39:2O:49:ILE:O	39:2O:53:ILE:HG12	2.21	0.41
39:2R:452:ARG:CZ	39:2R:452:ARG:HA	2.51	0.41
40:2S:116:MET:SD	40:2S:117:LEU:HD22	2.61	0.41
40:2T:349:GLN:O	40:2T:353:GLU:HG2	2.21	0.41
40:2U:508:GLN:O	40:2U:512:GLU:HG3	2.21	0.41
41:2Y:248:MET:O	41:2Y:252:ASN:ND2	2.54	0.41
42:3G:241:LEU:HD11	42:3G:254:LEU:HG	2.02	0.41
42:3P:35:LEU:HB2	60:GZ:359:LYS:HD3	2.03	0.41
48:4A:107:ASP:OD1	48:4A:107:ASP:N	2.54	0.41
55:4P:172:PRO:HB3	59:JJ:440:ALA:O	2.21	0.41
58:4T:70:LEU:HD12	58:4T:71:PRO:HD2	2.01	0.41
58:4W:109:GLU:O	58:4W:112:ARG:HG3	2.20	0.41
57:4Y:37:ASP:OD1	57:4Y:37:ASP:N	2.44	0.41
60:AB:276:ARG:HG3	60:AB:276:ARG:HH11	1.84	0.41
59:AC:50:ASN:O	59:AC:64:ARG:NH1	2.53	0.41
59:AI:21:TRP:CZ2	59:AI:65:ALA:HB2	2.56	0.41
59:AI:431:ASP:O	59:AI:435:VAL:HG22	2.21	0.41
59:AO:395:PHE:HD2	59:AO:422:ARG:HD3	1.85	0.41
59:AS:33:ASP:HA	59:AS:85:GLN:HB2	2.02	0.41
60:AT:383:GLU:O	60:AT:387:LEU:HD23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AU:442:MET:H	59:AU:442:MET:HG2	1.64	0.41
60:AV:20:PHE:CE1	60:AV:233:VAL:HG12	2.55	0.41
60:AX:342:ILE:HG12	60:AX:344:TRP:CE2	2.55	0.41
59:AY:333:ALA:O	59:AY:337:THR:HG23	2.20	0.41
60:BB:326:VAL:O	60:BB:330:MET:HG2	2.20	0.41
60:BD:304:ASP:OD1	60:BD:304:ASP:N	2.53	0.41
60:BH:69:GLU:OE2	60:BH:96:GLY:N	2.54	0.41
60:BJ:128:ASP:OD1	60:BJ:129:CYS:N	2.54	0.41
59:BQ:203:MET:O	59:BQ:303:THR:OG1	2.38	0.41
60:BR:67:ASP:O	60:BR:92:PHE:HA	2.21	0.41
60:BR:238:CYS:SG	60:BR:239:CYS:N	2.93	0.41
60:BV:288:GLU:HA	60:BV:291:GLN:HG2	2.01	0.41
60:BY:128:ASP:OD1	60:BY:129:CYS:N	2.53	0.41
59:BZ:169:TYR:OH	59:BZ:238:LEU:HD13	2.21	0.41
59:BZ:401:LYS:NZ	60:CA:430:ILE:HD13	2.34	0.41
59:CB:96:LYS:HD3	59:CB:96:LYS:HA	1.91	0.41
59:CB:209:ILE:CB	59:CB:227:LEU:HD22	2.46	0.41
60:CC:181:GLU:O	60:CC:185:THR:HG22	2.20	0.41
60:CN:97:ALA:HB2	60:CN:143:THR:HB	2.03	0.41
60:CN:403:MET:HE2	60:CN:403:MET:HB3	1.90	0.41
59:CS:9:ILE:HD13	59:CS:68:LEU:HB3	2.01	0.41
59:CU:123:ARG:HH11	59:CU:123:ARG:HG2	1.85	0.41
60:CV:139:LEU:HD23	60:CV:188:SER:HB3	2.02	0.41
59:CW:141:VAL:HG22	59:CW:187:SER:HA	2.02	0.41
60:DB:271:ALA:O	60:DB:273:LEU:N	2.52	0.41
60:DD:232:VAL:HG21	60:DD:268:MET:HB3	2.02	0.41
59:DE:169:TYR:OH	59:DE:238:LEU:HD12	2.20	0.41
59:DI:326:LYS:N	59:DI:326:LYS:HD3	2.35	0.41
59:DM:224:TYR:CE2	60:DN:323:THR:HG21	2.55	0.41
59:DO:68:LEU:HD23	59:DO:93:ILE:HB	2.02	0.41
59:DO:224:TYR:CE2	60:DP:323:THR:HG21	2.56	0.41
59:DS:203:MET:HG3	59:DS:384:ILE:HD11	2.02	0.41
59:ED:269:LEU:HD22	59:ED:303:THR:HG21	2.01	0.41
60:EE:132:GLY:HA3	60:EE:163:ILE:HG12	2.02	0.41
59:EH:273:ALA:HB3	59:EH:274:PRO:HD3	2.02	0.41
60:EI:137:HIS:O	60:EI:168:SER:HA	2.20	0.41
59:EJ:132:LEU:HD22	59:EJ:164:LYS:HD3	2.03	0.41
59:EP:174:SER:HA	59:EP:205:ASP:OD2	2.21	0.41
59:ET:431:ASP:HA	59:ET:434:GLU:HG2	2.01	0.41
60:EU:145:SER:HB2	60:EU:188:SER:OG	2.20	0.41
59:EV:392:ASP:HB3	59:EV:422:ARG:CZ	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FB:223:THR:HG1	60:FC:245:GLN:HE22	1.64	0.41
60:FO:380:ARG:O	60:FO:383:GLU:HG2	2.20	0.41
60:FS:68:LEU:HD23	60:FS:68:LEU:HA	1.89	0.41
60:FV:301:GLN:HG2	60:FV:303:ALA:H	1.85	0.41
60:FX:213:ARG:HE	60:FX:297:LYS:HZ3	1.66	0.41
60:GF:32:PRO:HG3	60:GF:81:TYR:CZ	2.56	0.41
59:GH:121:ARG:NE	59:GH:121:ARG:HA	2.35	0.41
60:GI:395:LEU:HD12	60:GI:395:LEU:HA	1.81	0.41
60:GK:134:GLN:HG2	60:GK:165:MET:HE3	2.01	0.41
60:GM:73:MET:CE	60:GM:92:PHE:HB3	2.50	0.41
60:GS:229:VAL:O	60:GS:233:VAL:HG23	2.20	0.41
59:GT:206:ASN:O	59:GT:210:TYR:HD1	2.04	0.41
59:GW:101:ASN:OD1	60:GX:252:LYS:HE3	2.20	0.41
60:GX:8:GLN:NE2	60:GX:65:LEU:HD21	2.33	0.41
59:GY:306:ASP:OD1	59:GY:308:ARG:NE	2.54	0.41
59:HA:88:HIS:HA	59:HM:283:HIS:ND1	2.35	0.41
60:HD:287:PRO:HA	60:HD:290:THR:HG22	2.03	0.41
60:HD:392:LYS:NZ	60:HD:395:LEU:HD23	2.36	0.41
59:HE:172:TYR:HD1	59:HE:173:PRO:HD2	1.85	0.41
60:HF:86:ARG:HB3	60:HF:89:ASN:OD1	2.21	0.41
60:HH:309:ARG:HH22	60:HH:343:GLU:HG2	1.84	0.41
60:HW:404:ASP:HB3	60:HW:407:GLU:OE1	2.20	0.41
60:HY:269:GLY:HA3	60:HY:299:MET:HE2	2.03	0.41
59:IB:71:GLU:OE1	59:IB:73:THR:OG1	2.38	0.41
60:IF:206:ALA:O	60:IF:210:ILE:HG12	2.21	0.41
60:IH:81:TYR:O	60:IH:84:ILE:HG22	2.21	0.41
60:IH:385:PHE:CE2	60:IH:412:GLU:HB2	2.56	0.41
59:IM:49:PHE:HB2	59:IM:53:PHE:HD2	1.85	0.41
60:IP:4:ILE:HD11	60:IP:240:LEU:HD23	2.03	0.41
60:IR:47:ILE:HG22	60:IR:51:PHE:HB2	2.03	0.41
60:IS:238:CYS:SG	60:IS:239:CYS:N	2.93	0.41
59:IT:52:PHE:CE1	59:IT:243:ARG:HD3	2.56	0.41
59:IT:259:LEU:HD21	59:IT:316:CYS:HB2	2.02	0.41
60:IU:73:MET:HE3	60:IU:73:MET:HB3	1.91	0.41
59:IV:390:ARG:NH1	59:IV:390:ARG:HB2	2.35	0.41
60:IW:380:ARG:HA	60:IW:383:GLU:HG2	2.02	0.41
59:IX:260:VAL:HG12	59:IX:266:HIS:HA	2.01	0.41
60:JA:27:GLU:HA	60:JA:359:LYS:HE3	2.01	0.41
60:JA:170:ILE:HG13	60:JA:201:CYS:HB3	2.03	0.41
60:JC:380:ARG:O	60:JC:383:GLU:HG2	2.21	0.41
60:JM:36:TYR:CZ	60:JM:44:LEU:HD21	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JQ:416:GLY:O	59:JQ:420:GLU:HG3	2.21	0.41
60:JR:156:ARG:HD3	60:JR:156:ARG:O	2.20	0.41
60:JR:268:MET:HE2	60:JR:368:ILE:HG13	2.02	0.41
59:JS:273:ALA:HB3	59:JS:274:PRO:HD3	2.01	0.41
60:JT:395:LEU:O	60:JT:399:THR:HG23	2.20	0.41
60:JZ:97:ALA:O	60:JZ:103:LYS:HE3	2.20	0.41
60:KB:229:VAL:O	60:KB:233:VAL:HG23	2.20	0.41
59:KF:224:TYR:HD2	60:KG:245:GLN:HG2	1.86	0.41
60:KG:3:GLU:HG3	60:KG:127:CYS:SG	2.60	0.41
59:KH:21:TRP:CZ2	59:KH:65:ALA:HB2	2.55	0.41
60:KI:139:LEU:HG	60:KI:168:SER:HB2	2.03	0.41
59:KL:320:ARG:HA	59:KL:356:ASN:O	2.20	0.41
60:KM:73:MET:H	60:KM:73:MET:HG2	1.66	0.41
60:KM:392:LYS:HE2	60:KM:395:LEU:HD23	2.02	0.41
60:KT:404:ASP:HB3	60:KT:407:GLU:OE1	2.20	0.41
59:KU:101:ASN:OD1	60:KV:252:LYS:HE3	2.20	0.41
59:KU:367:ASP:OD1	59:KU:368:LEU:HD12	2.21	0.41
59:KW:269:LEU:O	59:KW:378:ILE:HA	2.20	0.41
59:KY:164:LYS:O	59:KY:166:LYS:NZ	2.54	0.41
60:KZ:212:PHE:HZ	59:LA:326:LYS:HG3	1.86	0.41
59:LA:123:ARG:HH11	59:LA:123:ARG:HG2	1.85	0.41
60:LB:251:ARG:HH11	60:LB:251:ARG:HG2	1.86	0.41
4:0G:55:TYR:HB3	5:0H:85:ARG:HH22	1.85	0.41
16:0Y:122:THR:OG1	60:FQ:56:GLY:O	2.38	0.41
17:0Z:250:ARG:HD3	60:FI:75:SER:HB2	2.03	0.41
17:0Z:387:CYS:HB3	18:1A:211:ASN:HD21	1.85	0.41
29:1O:200:ASP:OD1	29:1O:200:ASP:N	2.53	0.41
33:2B:610:VAL:HG12	33:2B:616:ILE:HG12	2.02	0.41
33:2C:159:THR:HG21	33:2C:207:VAL:HG23	2.03	0.41
33:2D:206:SER:HB3	33:2D:253:MET:HG3	2.02	0.41
36:2J:91:CYS:SG	36:2J:93:SER:OG	2.73	0.41
37:2M:227:VAL:HG21	60:EM:306:ARG:HE	1.83	0.41
38:2N:18:CYS:SG	38:2N:20:SER:OG	2.71	0.41
38:2N:42:PRO:HA	38:2N:45:LEU:HD12	2.03	0.41
39:2P:208:ARG:O	39:2P:211:GLU:HG3	2.21	0.41
39:2Q:44:THR:O	39:2Q:48:ILE:HG12	2.21	0.41
41:2Y:172:ASN:HD21	59:IK:370:LYS:HB2	1.84	0.41
41:3B:49:VAL:HA	41:3B:52:ARG:HG2	2.02	0.41
42:3G:194:LYS:HZ2	59:IX:364:PRO:HD2	1.86	0.41
42:3H:42:THR:HA	60:IU:320:ARG:HH12	1.85	0.41
44:3R:75:THR:HG22	44:3R:77:ASN:H	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:3S:89:ASP:O	45:3S:93:THR:HG22	2.20	0.41
46:3U:99:LEU:HD23	59:FJ:120:ASP:HB2	2.03	0.41
47:3V:247:ILE:HG12	59:HC:84:ARG:HH21	1.85	0.41
60:AB:68:LEU:HA	60:AB:68:LEU:HD23	1.82	0.41
60:AD:67:ASP:O	60:AD:92:PHE:HA	2.20	0.41
60:AH:271:ALA:O	60:AH:273:LEU:N	2.54	0.41
59:AM:93:ILE:HD11	59:AM:121:ARG:HG3	2.02	0.41
60:AR:376:GLU:O	60:AR:380:ARG:HG3	2.20	0.41
60:AT:238:CYS:SG	60:AT:239:CYS:N	2.94	0.41
60:AV:284:LEU:HD12	60:AV:289:LEU:HD21	2.02	0.41
59:BA:271:SER:HB2	59:BA:301:MET:HG2	2.03	0.41
59:BU:138:TYR:HE1	59:BU:169:TYR:CD2	2.39	0.41
59:BU:172:TYR:CD2	59:BU:173:PRO:HD2	2.56	0.41
59:BZ:192:HIS:NE2	59:BZ:420:GLU:OE2	2.46	0.41
59:CB:109:THR:HA	59:CB:112:LYS:NZ	2.36	0.41
59:CM:284:GLU:OE2	59:CY:88:HIS:NE2	2.54	0.41
60:CN:330:MET:HA	60:CN:333:VAL:HG12	2.03	0.41
60:CP:27:GLU:OE1	60:CP:241:ARG:NH2	2.48	0.41
60:CT:69:GLU:OE2	60:CT:96:GLY:N	2.53	0.41
59:CU:319:TYR:HB3	59:CU:323:VAL:HG11	2.03	0.41
59:CY:107:HIS:CD2	59:CY:152:LEU:HB2	2.56	0.41
59:CY:326:LYS:HB2	59:CY:326:LYS:HE2	1.82	0.41
59:CY:397:LEU:HD23	59:CY:397:LEU:HA	1.87	0.41
60:DB:207:LEU:HB2	60:DB:225:LEU:HD22	2.01	0.41
59:DG:221:ARG:HH11	59:DG:221:ARG:HG3	1.84	0.41
59:DG:251:ASP:OD1	59:DG:252:LEU:N	2.51	0.41
60:DL:156:ARG:NH2	60:DL:197:ASP:OD2	2.45	0.41
60:DR:218:THR:HG23	60:DR:219:THR:HG22	2.03	0.41
59:DZ:90:GLU:OE1	59:DZ:121:ARG:NH2	2.46	0.41
60:EA:68:LEU:HD13	60:EA:143:THR:OG1	2.20	0.41
59:EB:425:LEU:HA	59:EB:425:LEU:HD23	1.84	0.41
60:EC:404:ASP:HB3	60:EC:407:GLU:OE1	2.20	0.41
60:EE:132:GLY:HA3	60:EE:163:ILE:CG1	2.50	0.41
60:EG:375:GLN:HG3	60:EG:379:ARG:NH1	2.34	0.41
59:EJ:273:ALA:HB2	59:EJ:295:VAL:CG1	2.50	0.41
60:EM:190:HIS:CE1	60:EM:414:ASN:HD22	2.39	0.41
59:EP:231:ILE:O	59:EP:234:VAL:HG12	2.20	0.41
60:EQ:267:MET:HG2	60:EQ:369:GLY:O	2.21	0.41
59:ET:84:ARG:HG3	59:ET:85:GLN:HG2	2.03	0.41
59:EV:172:TYR:CD2	59:EV:173:PRO:HD2	2.54	0.41
60:EY:167:PHE:CZ	60:EY:233:VAL:HG22	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:FD:178:SER:HB3	60:FE:347:ASN:ND2	2.24	0.41
60:FI:267:MET:H	60:FI:267:MET:HG2	1.72	0.41
60:FK:137:HIS:O	60:FK:168:SER:HA	2.21	0.41
60:FQ:3:GLU:HG3	60:FQ:127:CYS:SG	2.61	0.41
60:FV:58:ARG:HG2	60:FV:59:TYR:N	2.36	0.41
59:GC:2:ARG:HH22	59:GC:130:THR:CG2	2.34	0.41
60:GD:267:MET:HG2	60:GD:301:GLN:HE22	1.82	0.41
60:GD:377:MET:HE2	60:GD:377:MET:HB3	1.76	0.41
59:GE:339:ARG:HA	59:GE:339:ARG:HD3	1.75	0.41
59:GH:254:GLU:HB2	59:GH:258:ASN:ND2	2.35	0.41
60:GI:292:GLN:HE21	60:GI:298:ASN:HD21	1.69	0.41
60:GI:304:ASP:OD1	60:GI:304:ASP:N	2.53	0.41
60:GK:238:CYS:SG	60:GK:318:ARG:NH2	2.93	0.41
60:GO:327:ASP:OD1	60:GO:328:GLU:N	2.54	0.41
60:GQ:229:VAL:O	60:GQ:233:VAL:HG23	2.19	0.41
59:GU:250:VAL:HA	59:GU:254:GLU:OE2	2.20	0.41
60:GV:273:LEU:HD12	60:GV:298:ASN:OD1	2.20	0.41
59:GY:333:ALA:O	59:GY:337:THR:HG23	2.20	0.41
59:HC:273:ALA:HB2	59:HC:295:VAL:HG12	2.02	0.41
59:HO:219:ILE:HD12	59:HO:219:ILE:HA	1.96	0.41
59:HO:392:ASP:HB3	59:HO:422:ARG:HH12	1.86	0.41
60:HR:136:CYS:HA	60:HR:167:PHE:O	2.20	0.41
59:HT:217:LEU:HD13	59:HT:277:SER:HB3	2.01	0.41
60:HU:8:GLN:HB2	60:HU:65:LEU:HD13	2.01	0.41
59:HV:105:ARG:O	59:HV:110:ILE:HG12	2.20	0.41
60:HY:174:LYS:HA	60:HY:174:LYS:HD3	1.86	0.41
60:HY:268:MET:HE3	60:HY:368:ILE:HG23	2.03	0.41
59:HZ:273:ALA:HB3	59:HZ:274:PRO:HD3	2.02	0.41
60:IC:250:LEU:HA	60:IC:253:LEU:HD12	2.03	0.41
60:IE:135:ILE:CG2	60:IE:166:THR:HG22	2.51	0.41
60:IE:274:THR:HG23	60:IE:279:GLN:NE2	2.27	0.41
60:IJ:103:LYS:HE2	60:IJ:103:LYS:HB2	1.73	0.41
60:IR:91:ILE:HD11	60:IR:119:VAL:HG21	2.02	0.41
60:IW:178:THR:HB	60:IW:181:GLU:HG3	2.01	0.41
59:IZ:115:VAL:HG22	59:IZ:119:LEU:HD23	2.03	0.41
59:JD:273:ALA:HB2	59:JD:295:VAL:CG2	2.48	0.41
59:JH:121:ARG:HA	59:JH:121:ARG:NE	2.36	0.41
60:JI:113:ILE:HG13	60:JI:117:LEU:HD23	2.03	0.41
60:JK:137:HIS:O	60:JK:168:SER:HA	2.21	0.41
60:JR:383:GLU:O	60:JR:386:THR:HG22	2.19	0.41
60:JT:304:ASP:OD1	60:JT:304:ASP:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:JW:21:TRP:CZ2	59:JW:65:ALA:HB2	2.56	0.41
59:JW:304:LYS:HA	59:JW:304:LYS:HD2	1.88	0.41
60:JZ:137:HIS:O	60:JZ:168:SER:HA	2.21	0.41
60:JZ:271:ALA:O	60:JZ:273:LEU:N	2.52	0.41
59:KA:105:ARG:HA	59:KA:109:THR:OG1	2.21	0.41
59:KA:273:ALA:HB2	59:KA:295:VAL:HG22	2.03	0.41
60:KB:167:PHE:CD2	60:KB:233:VAL:HG22	2.55	0.41
59:KC:28:HIS:CE1	59:KC:243:ARG:HD2	2.55	0.41
59:KC:88:HIS:ND1	59:KC:89:PRO:HD2	2.35	0.41
59:KC:372:GLN:O	59:KC:373:ARG:HD2	2.20	0.41
59:KF:2:ARG:HG3	59:KF:3:GLU:H	1.85	0.41
59:KL:52:PHE:CZ	59:KL:239:THR:HG21	2.56	0.41
60:KO:284:LEU:HD13	60:KO:284:LEU:HA	1.90	0.41
59:KW:133:GLN:HE21	59:KW:242:LEU:HD13	1.84	0.41
1:0A:107:GLU:CD	60:DT:362:LYS:HG2	2.41	0.41
1:0B:185:LYS:HD3	59:DZ:39:ASP:OD1	2.21	0.41
5:0K:310:MET:HE1	29:1O:225:THR:HG23	2.02	0.41
7:0P:358:LYS:O	7:0P:361:ILE:HG22	2.21	0.41
19:1B:197:LEU:O	19:1B:201:ARG:HG2	2.20	0.41
19:1B:211:PRO:HG3	19:1B:218:ARG:HD3	2.02	0.41
31:1T:269:TYR:OH	60:KX:123:GLU:OE2	2.30	0.41
32:1W:40:GLU:O	32:1W:43:GLN:NE2	2.53	0.41
33:2C:18:ILE:HG13	33:2C:616:ILE:HB	2.03	0.41
34:2E:129:MET:HE2	60:FC:390:ARG:HD3	2.03	0.41
34:2F:154:ILE:HG23	59:EX:109:THR:HG23	2.03	0.41
34:2F:214:LYS:HE2	34:2F:263:SER:HB3	2.01	0.41
40:2S:90:ASP:O	40:2S:95:LYS:NZ	2.54	0.41
41:2Z:32:PRO:O	41:2Z:35:GLN:HG3	2.21	0.41
41:3C:151:GLN:HA	41:3C:154:GLU:HG2	2.02	0.41
42:3M:108:PHE:HB3	60:HP:39:ASP:OD1	2.20	0.41
59:AA:145:THR:HG22	62:AA:501:GTP:O3B	2.20	0.41
60:AD:8:GLN:HE22	60:AD:21:TRP:HE1	1.69	0.41
60:AF:97:ALA:HB2	60:AF:143:THR:HB	2.02	0.41
60:AF:156:ARG:NH1	60:AF:197:ASP:OD2	2.50	0.41
60:AF:322:SER:OG	60:AF:325:GLU:HG2	2.21	0.41
59:AO:238:LEU:HD21	59:AO:378:ILE:CD1	2.50	0.41
59:AQ:70:LEU:HA	59:AQ:70:LEU:HD23	1.85	0.41
60:AT:202:ILE:HA	60:AT:301:GLN:NE2	2.36	0.41
60:AT:207:LEU:HD12	60:AT:225:LEU:HD23	2.02	0.41
59:AU:422:ARG:HH11	59:AU:422:ARG:HG3	1.86	0.41
60:AV:342:ILE:HG23	60:AV:344:TRP:HE3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:BE:280:LYS:HZ1	59:BQ:90:GLU:CG	2.33	0.41
60:BF:156:ARG:HH22	60:BF:197:ASP:CG	2.21	0.41
59:BO:296:PHE:CZ	59:BO:335:ILE:HG21	2.56	0.41
59:BS:21:TRP:CZ2	59:BS:65:ALA:HB2	2.55	0.41
59:BS:417:GLU:O	59:BS:420:GLU:HG2	2.21	0.41
60:BV:295:ASP:OD1	60:BV:297:LYS:HE2	2.21	0.41
59:BW:172:TYR:HE2	59:BW:391:ILE:HG13	1.85	0.41
60:BY:12:CYS:O	60:BY:16:ILE:HG12	2.21	0.41
60:CC:191:GLN:O	60:CC:195:ASN:ND2	2.51	0.41
60:CE:270:PHE:HD1	60:CE:366:THR:HG22	1.85	0.41
59:CS:181:VAL:HG12	60:CT:347:ASN:O	2.21	0.41
60:CT:150:LEU:O	60:CT:154:LYS:HG2	2.20	0.41
60:DB:20:PHE:HA	60:DB:230:SER:HB2	2.03	0.41
59:DC:224:TYR:CE2	60:DD:323:THR:HG21	2.55	0.41
59:DE:90:GLU:OE2	59:DE:121:ARG:NH1	2.53	0.41
59:DK:336:LYS:HE3	59:DK:336:LYS:HB3	1.96	0.41
60:DP:271:ALA:O	60:DP:273:LEU:N	2.52	0.41
60:DR:238:CYS:SG	60:DR:239:CYS:N	2.94	0.41
59:DS:273:ALA:HB3	59:DS:274:PRO:HD3	2.03	0.41
60:DV:137:HIS:O	60:DV:168:SER:HA	2.21	0.41
60:DW:289:LEU:HD11	60:DW:363:MET:HG3	2.02	0.41
59:EJ:178:SER:CB	60:EK:347:ASN:HD22	2.30	0.41
59:EL:40:LYS:HB3	59:EL:42:ILE:HG23	2.02	0.41
59:ER:3:GLU:HG2	59:ER:64:ARG:CZ	2.51	0.41
59:ER:273:ALA:HB3	59:ER:274:PRO:HD3	2.02	0.41
60:ES:362:LYS:HD3	60:ES:362:LYS:HA	1.70	0.41
60:EU:101:TRP:HD1	60:EU:145:SER:HG	1.65	0.41
59:EV:177:VAL:HG23	60:EW:327:ASP:HB2	2.03	0.41
60:EY:68:LEU:HD23	60:EY:68:LEU:HA	1.72	0.41
60:EY:383:GLU:O	60:EY:386:THR:HG22	2.21	0.41
60:FA:107:THR:O	60:FA:111:GLU:HG2	2.21	0.41
60:FC:128:ASP:OD1	60:FC:129:CYS:N	2.52	0.41
60:FC:297:LYS:HD2	60:FC:297:LYS:HA	1.89	0.41
60:FE:19:LYS:HA	60:FE:19:LYS:HD3	1.79	0.41
60:FG:190:HIS:CE1	60:FG:414:ASN:HD22	2.37	0.41
60:FK:326:VAL:O	60:FK:330:MET:HG2	2.21	0.41
60:FM:256:ASN:O	60:FM:312:THR:HG21	2.21	0.41
60:FZ:206:ALA:O	60:FZ:210:ILE:HG12	2.20	0.41
59:GH:107:HIS:HD2	59:GH:152:LEU:HD12	1.85	0.41
59:GH:250:VAL:HG11	59:GH:255:PHE:CE1	2.56	0.41
59:GH:328:VAL:HG21	59:GH:355:ILE:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:GR:56:THR:HG23	59:GR:58:ALA:N	2.36	0.41
60:GS:68:LEU:HD13	60:GS:143:THR:OG1	2.21	0.41
60:GV:289:LEU:HD11	60:GV:363:MET:HG3	2.02	0.41
59:GW:442:MET:HB3	59:GW:443:ASP:H	1.70	0.41
59:GY:402:ARG:HB3	59:GY:405:VAL:CG1	2.50	0.41
60:HB:173:PRO:HA	60:HB:380:ARG:CZ	2.50	0.41
59:HC:214:ARG:HH12	59:HC:220:GLU:CD	2.24	0.41
59:HG:50:ASN:OD1	59:HG:51:THR:N	2.54	0.41
60:HH:128:ASP:OD1	60:HH:129:CYS:N	2.54	0.41
59:HI:222:PRO:O	60:HJ:322:SER:HB2	2.20	0.41
59:HK:259:LEU:HD21	59:HK:378:ILE:HG13	2.01	0.41
60:HL:156:ARG:HD2	60:HL:156:ARG:HA	1.87	0.41
60:HS:292:GLN:HG2	60:HS:298:ASN:ND2	2.33	0.41
60:HU:388:MET:HG3	60:HU:393:ALA:HB3	2.02	0.41
59:HX:74:VAL:O	59:HX:78:VAL:HG23	2.21	0.41
59:HX:286:LEU:O	59:HX:373:ARG:NH1	2.52	0.41
59:HX:318:MET:HE1	59:HX:352:LYS:NZ	2.35	0.41
59:HZ:252:LEU:H	59:HZ:252:LEU:HD12	1.86	0.41
60:IH:4:ILE:HD11	60:IH:240:LEU:HD23	2.02	0.41
60:IH:173:PRO:HB3	60:IH:380:ARG:CZ	2.51	0.41
59:II:265:ILE:HG23	59:II:432:TYR:CE1	2.56	0.41
60:IN:383:GLU:O	60:IN:386:THR:HG22	2.21	0.41
60:IU:257:LEU:HD12	60:IU:312:THR:OG1	2.21	0.41
60:IW:117:LEU:HD11	60:IW:154:LYS:HG2	2.03	0.41
60:IY:139:LEU:HD12	60:IY:170:ILE:HG22	2.03	0.41
60:JA:318:ARG:HG2	60:JA:357:PRO:HA	2.01	0.41
59:JD:93:ILE:HD11	59:JD:117:LEU:HD23	2.03	0.41
59:JF:336:LYS:HB3	59:JF:336:LYS:HE2	1.81	0.41
60:JG:187:LEU:HD23	60:JG:187:LEU:HA	1.77	0.41
59:JL:84:ARG:HH11	59:JL:84:ARG:HG2	1.85	0.41
59:JP:44:VAL:O	59:JP:45:GLU:HB2	2.21	0.41
59:JQ:343:PHE:CE2	59:JQ:350:GLY:HA3	2.56	0.41
60:JR:288:GLU:HA	60:JR:291:GLN:OE1	2.21	0.41
60:JT:8:GLN:HE22	60:JT:21:TRP:HE1	1.67	0.41
59:JY:27:GLU:HG3	59:JY:361:THR:HG21	2.01	0.41
59:JY:332:VAL:HG13	59:JY:351:PHE:HD2	1.86	0.41
59:KA:298:PRO:HG3	59:KA:308:ARG:HH21	1.86	0.41
60:KB:167:PHE:HE1	60:KB:200:MET:HE3	1.84	0.41
60:KB:405:GLU:HA	60:KB:408:PHE:HD2	1.85	0.41
59:KF:121:ARG:HA	59:KF:121:ARG:NE	2.36	0.41
59:KF:422:ARG:HG3	59:KF:422:ARG:HH11	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KG:256:ASN:ND2	60:KG:350:LYS:HE2	2.36	0.41
60:KG:392:LYS:HE2	60:KG:405:GLU:OE2	2.21	0.41
59:KH:76:ASP:OD1	59:KH:79:ARG:NH1	2.52	0.41
60:KI:167:PHE:CE2	60:KI:233:VAL:HG22	2.56	0.41
59:KJ:9:ILE:HD11	59:KJ:153:LEU:HD23	2.03	0.41
59:KQ:277:SER:HB3	59:KQ:280:LYS:NZ	2.36	0.41
60:KR:137:HIS:O	60:KR:168:SER:HA	2.21	0.41
59:KW:105:ARG:CZ	60:KX:251:ARG:HH12	2.34	0.41
60:KX:282:ARG:NH1	60:KX:288:GLU:OE2	2.54	0.41
60:KZ:304:ASP:OD1	60:KZ:304:ASP:N	2.51	0.41
1:0B:736:THR:HG21	59:CO:279:GLU:HG2	2.03	0.41
3:0F:631:ASN:O	3:0F:635:GLU:HG3	2.20	0.41
3:0F:719:LYS:HE3	3:0F:719:LYS:HB3	1.86	0.41
4:0G:108:VAL:HG23	4:0G:202:SER:HB3	2.02	0.41
5:0H:252:GLU:HG2	5:0H:256:PHE:CE2	2.55	0.41
6:0N:372:ARG:O	6:0N:375:GLU:HG2	2.20	0.41
7:0O:80:LEU:HD11	7:0P:407:LEU:HD23	2.03	0.41
8:0Q:234:THR:HG22	8:0Q:235:VAL:H	1.86	0.41
16:0Y:90:ARG:HG3	16:0Y:95:HIS:ND1	2.36	0.41
18:1A:307:ASP:N	18:1A:307:ASP:OD1	2.54	0.41
24:1G:28:ALA:HA	60:FX:218:THR:HG21	2.02	0.41
31:1T:109:ASP:OD1	60:EE:340:TYR:OH	2.39	0.41
32:2A:170:ARG:NH1	32:2A:171:LEU:O	2.54	0.41
33:2C:331:ASN:O	33:2C:597:LYS:NZ	2.53	0.41
34:2F:220:ARG:NH1	39:2Q:54:SER:O	2.54	0.41
35:2H:238:THR:HG23	35:2H:243:PHE:CZ	2.55	0.41
35:2H:298:LEU:HB3	35:2H:339:LEU:HD21	2.02	0.41
36:2J:138:ARG:HH12	36:2J:270:THR:HG22	1.86	0.41
41:2W:280:LYS:HE2	41:2W:280:LYS:HB3	1.77	0.41
41:2Y:309:VAL:O	41:2Y:312:ARG:HG2	2.20	0.41
41:3A:298:ARG:HH22	60:HH:58:ARG:N	2.19	0.41
43:3Q:171:ARG:HH22	59:JU:47:ASP:HB2	1.85	0.41
51:4H:174:ASP:OD1	51:4H:175:TRP:N	2.54	0.41
54:4O:143:LYS:HA	54:4O:146:VAL:HG12	2.03	0.41
55:4P:163:ARG:NH1	59:JJ:308:ARG:HH11	2.15	0.41
57:4R:26:ARG:HA	57:4R:29:VAL:HG12	2.03	0.41
60:AF:249:ASP:OD1	60:AF:250:LEU:N	2.53	0.41
60:AF:320:ARG:HH11	60:AF:320:ARG:HG2	1.85	0.41
60:AH:27:GLU:OE1	60:AH:241:ARG:NH2	2.53	0.41
59:AK:165:SER:HB2	59:AK:256:GLN:HE22	1.85	0.41
60:AP:67:ASP:O	60:AP:92:PHE:HA	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:AU:273:ALA:HB3	59:AU:274:PRO:HD3	2.03	0.41
60:AV:174:LYS:HG3	60:AV:175:VAL:HG13	2.03	0.41
60:AV:263:LEU:HD11	60:AV:425:TYR:HD2	1.85	0.41
60:BB:67:ASP:OD2	60:BB:72:THR:OG1	2.24	0.41
59:BI:91:GLN:OE1	59:BI:125:LEU:HD21	2.21	0.41
60:BJ:47:ILE:HD12	60:BJ:47:ILE:HA	1.90	0.41
60:BJ:73:MET:SD	60:BJ:90:PHE:HD2	2.44	0.41
60:BJ:267:MET:HG2	60:BJ:301:GLN:NE2	2.36	0.41
60:BJ:292:GLN:HG2	60:BJ:298:ASN:OD1	2.20	0.41
60:BL:192:LEU:HD21	60:BL:199:SER:HB3	2.03	0.41
59:BS:172:TYR:CZ	59:BS:391:ILE:HD12	2.55	0.41
60:BV:11:GLN:HE21	60:BV:11:GLN:HB3	1.70	0.41
60:BV:156:ARG:HD2	60:BV:156:ARG:HA	1.85	0.41
59:BX:66:VAL:HG21	59:BX:122:ILE:HD11	2.03	0.41
59:CD:273:ALA:HB2	59:CD:295:VAL:CG2	2.51	0.41
60:CG:267:MET:HE3	60:CG:299:MET:HG2	2.03	0.41
59:CH:273:ALA:HB3	59:CH:274:PRO:HD3	2.03	0.41
59:CJ:329:ASN:HA	59:CJ:332:VAL:HG12	2.03	0.41
60:DD:67:ASP:OD1	60:DD:68:LEU:N	2.52	0.41
60:DF:165:MET:HG3	60:DF:198:GLU:HG3	2.03	0.41
59:DG:172:TYR:OH	59:DG:191:THR:HG22	2.21	0.41
59:DQ:261:PRO:HG3	59:DQ:313:MET:HE2	2.01	0.41
60:DW:137:HIS:O	60:DW:168:SER:HA	2.21	0.41
60:DY:262:ARG:HH11	60:DY:262:ARG:HG3	1.86	0.41
60:EA:389:PHE:CE1	60:EA:395:LEU:HD21	2.56	0.41
60:EA:391:ARG:HD2	60:EA:391:ARG:HA	1.84	0.41
60:EC:391:ARG:HA	60:EC:391:ARG:HD2	1.92	0.41
59:ED:362:VAL:HG12	59:ED:370:LYS:NZ	2.35	0.41
60:EE:27:GLU:OE2	60:EE:241:ARG:NH2	2.39	0.41
59:EL:111:GLY:HA2	59:EL:114:ILE:HG22	2.03	0.41
60:EO:2:ARG:O	60:EO:49:VAL:HG23	2.21	0.41
60:EO:103:LYS:HG2	60:EO:108:GLU:OE1	2.21	0.41
60:EO:285:SER:OG	60:EO:287:PRO:HD2	2.21	0.41
60:EU:61:PRO:HD3	60:EU:84:ILE:HG12	2.02	0.41
59:FH:177:VAL:HG13	60:FI:327:ASP:HB2	2.03	0.41
59:FH:408:TYR:HB3	59:FH:413:MET:HE2	2.02	0.41
60:FI:342:ILE:HD13	60:FI:342:ILE:HA	1.97	0.41
59:FL:280:LYS:HE3	59:FY:88:HIS:CE1	2.56	0.41
59:FP:195:LEU:HD13	59:FP:428:LEU:HD13	2.01	0.41
60:FQ:391:ARG:NH1	59:FR:439:SER:OG	2.53	0.41
60:FV:271:ALA:HA	60:FV:298:ASN:HD21	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:FV:387:LEU:HA	60:FV:390:ARG:NH1	2.36	0.41
59:GC:326:LYS:HE3	59:GC:326:LYS:HB3	1.81	0.41
60:GD:68:LEU:HD21	60:GD:108:GLU:HG3	2.03	0.41
60:GD:326:VAL:O	60:GD:330:MET:HG2	2.21	0.41
60:GK:404:ASP:HB3	60:GK:407:GLU:OE1	2.20	0.41
60:GM:67:ASP:O	60:GM:92:PHE:HA	2.21	0.41
60:GO:191:GLN:O	60:GO:195:ASN:ND2	2.50	0.41
59:GP:88:HIS:CE1	59:GP:90:GLU:OE1	2.74	0.41
59:GP:286:LEU:HA	59:GP:286:LEU:HD13	1.84	0.41
60:GQ:30:VAL:HG21	60:GQ:51:PHE:HE2	1.86	0.41
59:GT:306:ASP:OD1	59:GT:308:ARG:NE	2.44	0.41
60:GX:170:ILE:HD13	60:GX:201:CYS:HB3	2.03	0.41
60:GZ:67:ASP:OD2	60:GZ:72:THR:OG1	2.28	0.41
60:HB:44:LEU:HD23	60:HB:44:LEU:HA	1.92	0.41
60:HB:73:MET:SD	60:HB:92:PHE:HB3	2.61	0.41
60:HB:191:GLN:O	60:HB:195:ASN:ND2	2.49	0.41
60:HD:19:LYS:HA	60:HD:19:LYS:HD3	1.87	0.41
60:HD:103:LYS:HG2	60:HD:108:GLU:OE1	2.20	0.41
60:HD:173:PRO:HB3	60:HD:380:ARG:CZ	2.51	0.41
60:HD:174:LYS:NZ	60:HD:205:GLU:OE2	2.47	0.41
59:HE:273:ALA:HB3	59:HE:274:PRO:HD3	2.02	0.41
60:HF:67:ASP:OD1	60:HF:68:LEU:N	2.50	0.41
60:HH:268:MET:HE3	60:HH:368:ILE:HG23	2.03	0.41
60:HN:103:LYS:HZ3	60:HN:103:LYS:HB2	1.86	0.41
59:HO:37:PRO:HB2	59:HO:40:LYS:HE3	2.03	0.41
59:HO:250:VAL:HA	59:HO:254:GLU:OE2	2.21	0.41
60:HP:322:SER:OG	60:HP:325:GLU:HG2	2.21	0.41
60:HR:182:PRO:HA	60:HR:185:THR:HG22	2.03	0.41
59:HV:273:ALA:HB2	59:HV:295:VAL:HG23	2.02	0.41
59:HX:133:GLN:NE2	59:HX:252:LEU:HG	2.36	0.41
60:IC:394:PHE:CD1	59:ID:261:PRO:HA	2.55	0.41
59:ID:211:ASP:HA	59:ID:214:ARG:HG2	2.02	0.41
60:IE:330:MET:HB3	60:IE:349:ILE:HD12	2.02	0.41
60:IE:347:ASN:OD1	60:IE:347:ASN:N	2.53	0.41
60:IF:66:ILE:HD12	60:IF:147:MET:SD	2.61	0.41
59:IG:265:ILE:HG23	59:IG:432:TYR:CZ	2.56	0.41
60:IJ:326:VAL:O	60:IJ:330:MET:HG2	2.21	0.41
59:IM:36:MET:HE3	59:IM:37:PRO:HD2	2.03	0.41
59:IO:27:GLU:CD	59:IO:243:ARG:HH12	2.23	0.41
59:IO:318:MET:HE3	59:IO:318:MET:HA	2.02	0.41
60:IS:330:MET:HA	60:IS:333:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JA:172:SER:OG	60:JA:205:GLU:OE1	2.39	0.41
59:JB:287:SER:HA	59:JB:373:ARG:NH1	2.34	0.41
59:JD:21:TRP:CZ2	59:JD:65:ALA:HB2	2.55	0.41
59:JD:161:TYR:N	59:JD:161:TYR:CD1	2.89	0.41
60:JE:318:ARG:HE	60:JE:358:PRO:HD3	1.85	0.41
59:JJ:214:ARG:HA	59:JJ:214:ARG:HD3	1.89	0.41
59:JN:333:ALA:O	59:JN:337:THR:HG23	2.20	0.41
60:JO:81:TYR:O	60:JO:84:ILE:HG12	2.20	0.41
59:JP:109:THR:OG1	59:JP:110:ILE:HG12	2.21	0.41
59:JQ:174:SER:OG	59:JQ:207:GLU:HG3	2.20	0.41
59:JQ:296:PHE:CE2	59:JQ:335:ILE:HG21	2.56	0.41
60:JT:249:ASP:H	60:JT:252:LYS:HB3	1.83	0.41
60:JX:65:LEU:HD22	60:JX:90:PHE:CE2	2.56	0.41
60:JX:290:THR:HA	60:JX:293:MET:CE	2.51	0.41
59:JY:49:PHE:HB2	59:JY:53:PHE:HD2	1.85	0.41
59:JY:217:LEU:HB3	59:JY:219:ILE:HD12	2.03	0.41
60:KB:45:GLU:OE1	60:KB:46:ARG:NE	2.54	0.41
60:KB:201:CYS:O	60:KB:301:GLN:NE2	2.54	0.41
59:KC:402:ARG:N	59:KC:402:ARG:HD2	2.34	0.41
59:KD:121:ARG:HA	59:KD:121:ARG:HE	1.85	0.41
59:KD:150:GLY:O	59:KD:154:LEU:HD23	2.21	0.41
60:KG:3:GLU:OE2	60:KG:127:CYS:HB3	2.21	0.41
59:KQ:73:THR:HG22	60:KR:46:ARG:NH2	2.36	0.41
60:KX:260:PHE:HB2	60:KX:263:LEU:CD1	2.51	0.41
59:KY:279:GLU:OE2	59:KY:280:LYS:HG3	2.21	0.41
60:KZ:212:PHE:CZ	59:LA:326:LYS:HG3	2.55	0.41
4:0G:61:TYR:CZ	5:0H:83:MET:HG2	2.56	0.41
4:0G:171:ILE:HD12	28:1N:60:ILE:HG22	2.03	0.41
6:0M:73:LEU:HD23	6:0M:73:LEU:HA	1.90	0.41
7:0O:125:GLU:OE2	7:0O:126:LYS:HE3	2.21	0.41
7:0P:342:GLN:HG2	60:AT:276:ARG:HH12	1.86	0.41
11:0T:309:ALA:O	11:0T:313:GLN:HG3	2.21	0.41
19:1B:118:TRP:O	19:1B:123:LYS:NZ	2.32	0.41
27:1K:36:ASP:OD1	27:1K:36:ASP:N	2.53	0.41
28:1M:256:LYS:HA	28:1M:256:LYS:HD3	1.85	0.41
29:1O:214:THR:O	29:1O:217:GLN:HG3	2.21	0.41
30:1Q:295:GLU:HG3	32:1W:85:ARG:HD2	2.02	0.41
31:1T:208:PRO:HA	31:1T:211:THR:HG22	2.02	0.41
32:1X:13:ILE:O	32:1X:13:ILE:HG13	2.20	0.41
32:1X:49:VAL:O	32:1X:159:ASN:N	2.53	0.41
32:2A:110:THR:HG23	32:2A:111:THR:HG23	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2D:307:SER:HB3	33:2D:325:CYS:HB2	2.03	0.41
36:2K:128:THR:HG23	60:EK:417:ASP:OD1	2.21	0.41
37:2L:233:ARG:HB2	60:EQ:213:ARG:NH2	2.36	0.41
39:2O:98:LEU:HA	39:2O:101:ILE:HG12	2.02	0.41
40:2T:286:LEU:O	40:2T:290:LYS:HG2	2.21	0.41
41:3A:255:LEU:HD11	60:HS:276:ARG:HD2	2.02	0.41
42:3H:79:GLN:O	42:3H:83:GLU:HG3	2.21	0.41
42:3M:244:ARG:HG3	42:3M:252:TYR:HB3	2.03	0.41
42:3P:97:LYS:NZ	59:GW:357:TYR:HD2	2.19	0.41
45:3S:130:ALA:HB3	59:KJ:77:GLU:OE2	2.21	0.41
47:3V:247:ILE:HD11	48:3Y:239:ASN:HD21	1.86	0.41
47:3V:254:VAL:HG13	48:3Y:227:ARG:HH12	1.84	0.41
47:3X:247:ILE:HD13	48:4A:234:VAL:HG23	2.02	0.41
48:3Y:26:LEU:HD23	48:3Y:26:LEU:HA	1.92	0.41
48:3Y:142:PRO:HB2	48:3Y:146:LYS:HZ1	1.86	0.41
48:3Y:158:LYS:HA	48:3Y:161:LEU:HD12	2.03	0.41
48:3Y:209:HIS:ND1	48:3Y:210:GLU:O	2.50	0.41
48:4A:192:LEU:HA	48:4A:195:GLU:OE1	2.21	0.41
53:4K:127:ILE:HD11	60:JO:294:PHE:CD1	2.56	0.41
53:4K:127:ILE:C	53:4K:128:TYR:HD1	2.25	0.41
53:4K:235:PRO:HD3	59:JJ:214:ARG:HG3	2.02	0.41
54:4N:161:LEU:HG	59:IV:159:VAL:HG22	2.03	0.41
57:4R:34:PRO:CD	59:GG:430:LYS:HE2	2.49	0.41
59:AG:21:TRP:CZ2	59:AG:65:ALA:HB2	2.56	0.41
59:AI:210:TYR:HB3	60:AJ:324:LYS:NZ	2.36	0.41
60:AL:67:ASP:O	60:AL:92:PHE:HA	2.21	0.41
59:AO:230:LEU:HD23	59:AO:302:MET:HE3	2.02	0.41
59:AQ:441:ASP:N	59:AQ:441:ASP:OD1	2.53	0.41
60:AT:202:ILE:HA	60:AT:301:GLN:HE22	1.85	0.41
59:AW:222:PRO:O	60:AX:322:SER:HB2	2.21	0.41
59:AW:224:TYR:CE2	60:AX:323:THR:HG21	2.56	0.41
60:AZ:101:TRP:HB2	60:AZ:184:ASN:OD1	2.20	0.41
59:BC:70:LEU:HB3	59:BC:98:ASP:HA	2.03	0.41
59:BC:145:THR:HG22	62:BC:501:GTP:O3B	2.21	0.41
60:BD:156:ARG:NH2	60:BD:197:ASP:OD1	2.54	0.41
60:BF:65:LEU:HD12	60:BF:90:PHE:CE2	2.56	0.41
59:BG:145:THR:HG22	62:BG:501:GTP:O3B	2.21	0.41
59:BI:122:ILE:HD12	59:BI:157:LEU:HD11	2.03	0.41
60:BL:305:PRO:HA	60:BL:371:ASN:HD21	1.85	0.41
59:BM:212:LEU:HD21	59:BM:275:VAL:HG11	2.03	0.41
60:BP:378:PHE:HA	60:BP:381:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:BP:406:MET:HE2	60:BP:406:MET:HA	2.02	0.41
60:BR:73:MET:HA	60:BR:76:VAL:HG12	2.03	0.41
59:BS:185:TYR:CE1	59:BS:398:MET:HE2	2.56	0.41
59:BS:201:ALA:HB3	59:BS:267:PHE:HD1	1.85	0.41
59:BS:273:ALA:HB3	59:BS:274:PRO:HD3	2.03	0.41
60:BT:3:GLU:OE2	60:BT:127:CYS:HB3	2.21	0.41
60:BT:193:VAL:HG21	60:BT:418:LEU:HD12	2.03	0.41
60:BT:257:LEU:HD23	60:BT:257:LEU:HA	1.91	0.41
60:BV:67:ASP:OD1	60:BV:68:LEU:N	2.53	0.41
60:BY:4:ILE:O	60:BY:62:ARG:HD2	2.21	0.41
59:BZ:69:ASP:OD1	59:BZ:70:LEU:N	2.54	0.41
60:CA:139:LEU:CD1	60:CA:168:SER:HB2	2.51	0.41
59:CB:46:ASP:OD1	59:CB:47:ASP:N	2.52	0.41
59:CD:70:LEU:HD13	59:CD:145:THR:OG1	2.21	0.41
59:CD:185:TYR:HH	59:CD:399:TYR:HD1	1.67	0.41
60:CG:162:ARG:HG3	60:CG:162:ARG:HH11	1.86	0.41
60:CG:220:PRO:O	60:CG:221:THR:OG1	2.24	0.41
59:CH:273:ALA:HB2	59:CH:295:VAL:HG22	2.02	0.41
59:CJ:192:HIS:NE2	59:CJ:420:GLU:OE2	2.52	0.41
60:CN:65:LEU:HD22	60:CN:90:PHE:CE2	2.55	0.41
59:CO:325:PRO:O	59:CO:329:ASN:ND2	2.49	0.41
59:CQ:174:SER:OG	59:CQ:175:PRO:HD2	2.21	0.41
60:CR:309:ARG:NH2	60:CR:428:ALA:O	2.54	0.41
59:CS:21:TRP:CZ2	59:CS:65:ALA:HB2	2.56	0.41
59:CS:34:GLY:O	59:CS:60:LYS:HG3	2.21	0.41
59:CS:103:TYR:CE2	59:CS:189:LEU:HB3	2.56	0.41
60:CT:173:PRO:HB3	60:CT:380:ARG:HE	1.86	0.41
60:CT:326:VAL:O	60:CT:330:MET:HG2	2.21	0.41
60:CV:8:GLN:N	60:CV:8:GLN:OE1	2.54	0.41
59:CW:111:GLY:HA2	59:CW:114:ILE:HG22	2.03	0.41
59:CW:212:LEU:HG	59:CW:275:VAL:HG11	2.02	0.41
59:CW:267:PHE:HD1	59:CW:432:TYR:HH	1.69	0.41
60:CX:238:CYS:SG	60:CX:239:CYS:N	2.93	0.41
60:CZ:273:LEU:HD12	60:CZ:298:ASN:ND2	2.36	0.41
60:DB:170:ILE:HG23	60:DB:171:PRO:HD2	2.02	0.41
60:DB:330:MET:HA	60:DB:333:VAL:HG12	2.02	0.41
59:DG:122:ILE:HG21	59:DG:157:LEU:HD21	2.03	0.41
60:DJ:259:PRO:HG2	60:DJ:311:LEU:HD23	2.02	0.41
60:DL:211:CYS:O	60:DL:216:LYS:N	2.53	0.41
60:DP:249:ASP:OD1	60:DP:250:LEU:N	2.54	0.41
59:DQ:291:ILE:HD12	59:DQ:375:VAL:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:DR:46:ARG:HA	60:DR:46:ARG:HD3	1.96	0.41
60:DT:65:LEU:HD22	60:DT:90:PHE:CE2	2.56	0.41
60:DW:6:CYS:O	60:DW:63:SER:HA	2.21	0.41
60:DW:113:ILE:HG13	60:DW:117:LEU:HD23	2.03	0.41
60:DW:200:MET:HB3	60:DW:268:MET:SD	2.61	0.41
59:DX:443:ASP:N	59:DX:443:ASP:OD1	2.54	0.41
60:DY:320:ARG:HG3	60:DY:320:ARG:HH11	1.86	0.41
60:EM:202:ILE:HD11	60:EM:268:MET:HE1	2.02	0.41
59:EN:216:ASN:O	59:EN:280:LYS:NZ	2.53	0.41
60:EO:67:ASP:OD1	60:EO:68:LEU:N	2.53	0.41
59:EP:224:TYR:CE2	60:EQ:323:THR:HG21	2.56	0.41
59:EP:252:LEU:H	59:EP:252:LEU:HD12	1.86	0.41
59:ER:27:GLU:OE2	59:ER:243:ARG:NH1	2.54	0.41
59:ER:174:SER:HB3	59:ER:177:VAL:O	2.21	0.41
60:ES:67:ASP:O	60:ES:92:PHE:HA	2.21	0.41
60:EU:279:GLN:HE22	60:EU:282:ARG:HH21	1.67	0.41
60:EU:293:MET:HG3	60:EU:367:PHE:HB2	2.03	0.41
60:EU:426:GLN:HG3	60:EU:427:ASP:N	2.36	0.41
60:EW:391:ARG:HA	60:EW:391:ARG:HD3	1.91	0.41
60:EY:288:GLU:O	60:EY:291:GLN:HG3	2.20	0.41
60:EY:326:VAL:O	60:EY:330:MET:HG2	2.21	0.41
59:EZ:192:HIS:NE2	59:EZ:196:GLU:OE1	2.54	0.41
59:EZ:273:ALA:HB3	59:EZ:274:PRO:HD3	2.03	0.41
60:FC:304:ASP:OD1	60:FC:304:ASP:N	2.54	0.41
60:FC:344:TRP:HB3	60:FC:430:ILE:HD11	2.02	0.41
59:FD:68:LEU:HD23	59:FD:68:LEU:HA	1.79	0.41
60:FI:27:GLU:CD	60:FI:241:ARG:HH21	2.22	0.41
60:FK:202:ILE:HG23	60:FK:300:MET:HB3	2.03	0.41
60:FK:344:TRP:HB3	60:FK:430:ILE:HD11	2.02	0.41
60:FS:298:ASN:HD22	60:FS:298:ASN:C	2.14	0.41
59:FT:195:LEU:HD11	59:FT:428:LEU:HD13	2.03	0.41
59:FU:93:ILE:HD11	59:FU:121:ARG:HG3	2.01	0.41
60:FV:27:GLU:HA	60:FV:359:LYS:HZ3	1.85	0.41
60:FX:161:ASP:OD1	60:FX:162:ARG:HD2	2.20	0.41
59:GA:74:VAL:O	59:GA:78:VAL:HG23	2.21	0.41
59:GE:56:THR:HG22	59:GE:58:ALA:H	1.86	0.41
60:GF:27:GLU:OE1	60:GF:241:ARG:NH2	2.47	0.41
59:GG:56:THR:HG23	59:GG:58:ALA:H	1.86	0.41
59:GG:273:ALA:HB2	59:GG:295:VAL:CG1	2.51	0.41
59:GH:286:LEU:O	59:GH:373:ARG:NH1	2.53	0.41
60:GI:223:GLY:O	60:GI:276:ARG:NH2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:GK:70:PRO:HB3	60:GK:73:MET:HE3	2.03	0.41
59:GN:428:LEU:HA	59:GN:431:ASP:OD2	2.21	0.41
60:GO:305:PRO:HA	60:GO:371:ASN:ND2	2.36	0.41
59:GP:269:LEU:O	59:GP:378:ILE:HA	2.21	0.41
60:GQ:31:ASP:CG	60:GQ:32:PRO:HD2	2.41	0.41
60:GQ:103:LYS:HE3	60:GQ:103:LYS:HB2	1.93	0.41
60:GQ:149:THR:OG1	60:GQ:191:GLN:HB3	2.21	0.41
59:GR:39:ASP:OD2	59:GR:41:THR:OG1	2.33	0.41
59:GT:109:THR:OG1	59:GT:110:ILE:HG12	2.21	0.41
59:GU:60:LYS:HE2	59:HG:282:TYR:CE2	2.56	0.41
59:GW:54:SER:HB3	59:GW:64:ARG:CZ	2.51	0.41
59:GY:68:LEU:HD12	59:GY:68:LEU:HA	1.94	0.41
60:GZ:130:LEU:HB3	60:GZ:162:ARG:HH12	1.86	0.41
59:HC:93:ILE:HD11	59:HC:121:ARG:HG3	2.03	0.41
59:HC:105:ARG:HG3	59:HC:411:GLU:HG2	2.03	0.41
59:HC:145:THR:HG22	62:HC:602:GTP:O3B	2.21	0.41
60:HD:38:GLY:HA3	60:HD:43:GLN:OE1	2.21	0.41
60:HD:208:TYR:HE1	59:HE:326:LYS:HE3	1.84	0.41
59:HE:287:SER:OG	59:HE:290:GLU:HG2	2.21	0.41
60:HF:32:PRO:HB3	60:HF:81:TYR:CE1	2.56	0.41
60:HH:263:LEU:HD11	60:HH:425:TYR:CD2	2.56	0.41
60:HJ:251:ARG:HH11	60:HJ:251:ARG:HG2	1.86	0.41
59:HK:273:ALA:HB3	59:HK:274:PRO:HD3	2.02	0.41
60:HL:388:MET:HG3	60:HL:393:ALA:HB3	2.03	0.41
60:HN:67:ASP:O	60:HN:92:PHE:HA	2.20	0.41
59:HO:381:SER:O	59:HO:384:ILE:HG12	2.21	0.41
59:HQ:217:LEU:CD1	59:HQ:367:ASP:HB2	2.50	0.41
59:HQ:287:SER:O	59:HQ:291:ILE:HG12	2.21	0.41
59:HQ:397:LEU:HD23	59:HQ:397:LEU:HA	1.86	0.41
60:HS:2:ARG:HH21	60:HS:240:LEU:HG	1.86	0.41
60:HS:179:VAL:O	59:HT:349:THR:HG23	2.21	0.41
59:HT:395:PHE:CD2	59:HT:422:ARG:HD3	2.56	0.41
60:HU:233:VAL:O	60:HU:236:VAL:HG12	2.21	0.41
60:HU:314:SER:OG	60:HU:350:LYS:HE3	2.21	0.41
59:HX:220:GLU:C	59:HX:221:ARG:HD2	2.41	0.41
59:HX:390:ARG:NH1	59:HX:390:ARG:HB2	2.35	0.41
60:HY:68:LEU:HB2	60:HY:143:THR:HG21	2.02	0.41
60:HY:270:PHE:CE2	60:HY:272:PRO:HD2	2.55	0.41
60:IA:270:PHE:HD1	60:IA:366:THR:HG22	1.86	0.41
60:IC:286:VAL:HG12	60:IC:329:GLN:HG3	2.03	0.41
59:IG:260:VAL:HG22	59:IG:266:HIS:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IH:190:HIS:CE1	60:IH:414:ASN:HD22	2.39	0.41
59:IK:8:HIS:CE1	59:IK:138:TYR:CD2	3.08	0.41
60:IL:252:LYS:HE2	60:IL:252:LYS:HB2	1.85	0.41
60:IL:268:MET:HB2	60:IL:300:MET:HE2	2.03	0.41
60:IN:2:ARG:O	60:IN:49:VAL:HG23	2.20	0.41
60:IN:74:ASP:HA	60:IN:77:ARG:HG2	2.03	0.41
60:IP:281:TYR:O	60:IP:282:ARG:HG2	2.21	0.41
60:IR:4:ILE:O	60:IR:62:ARG:HD2	2.20	0.41
60:IR:68:LEU:HD13	60:IR:143:THR:HB	2.03	0.41
60:IS:327:ASP:OD1	60:IS:328:GLU:N	2.54	0.41
59:IV:72:PRO:CD	60:IW:2:ARG:HH12	2.32	0.41
59:IV:244:PHE:CE2	59:IV:358:GLN:HG2	2.55	0.41
60:IW:164:MET:O	60:IW:197:ASP:HB2	2.21	0.41
60:IY:67:ASP:O	60:IY:92:PHE:HA	2.20	0.41
60:JA:86:ARG:HD3	60:JM:282:ARG:HH21	1.86	0.41
60:JA:208:TYR:CE1	60:JA:225:LEU:HD11	2.56	0.41
60:JA:311:LEU:HD23	60:JA:342:ILE:HG13	2.03	0.41
59:JD:229:ARG:HH12	59:JD:363:VAL:HG21	1.86	0.41
60:JE:21:TRP:CD1	60:JE:21:TRP:N	2.88	0.41
60:JE:226:ASN:HA	60:JE:229:VAL:CG2	2.49	0.41
60:JG:68:LEU:HD13	60:JG:143:THR:OG1	2.20	0.41
60:JI:213:ARG:HH11	60:JI:297:LYS:HG2	1.85	0.41
60:JI:324:LYS:O	60:JI:328:GLU:HG2	2.20	0.41
60:JK:32:PRO:HB3	60:JK:81:TYR:CE1	2.56	0.41
60:JK:238:CYS:SG	60:JK:239:CYS:N	2.94	0.41
60:JK:305:PRO:HA	60:JK:371:ASN:ND2	2.35	0.41
60:JK:322:SER:OG	60:JK:325:GLU:HB2	2.21	0.41
59:JL:34:GLY:O	59:JL:61:HIS:N	2.46	0.41
59:JL:276:ILE:HD11	59:JL:280:LYS:CG	2.50	0.41
59:JL:276:ILE:HA	59:JL:276:ILE:HD12	1.79	0.41
59:JN:40:LYS:H	59:JN:40:LYS:HG2	1.60	0.41
59:JN:241:SER:OG	59:JN:250:VAL:N	2.49	0.41
59:JP:76:ASP:OD1	59:JP:79:ARG:NH2	2.54	0.41
60:JR:135:ILE:HD12	60:JR:152:ILE:HD11	2.02	0.41
60:JR:286:VAL:O	60:JR:290:THR:HG23	2.21	0.41
60:JR:288:GLU:HA	60:JR:291:GLN:NE2	2.35	0.41
60:JR:380:ARG:HH11	60:JR:380:ARG:HG3	1.85	0.41
59:JS:121:ARG:HA	59:JS:121:ARG:NE	2.36	0.41
59:JU:90:GLU:HB3	59:JU:121:ARG:NH1	2.36	0.41
59:JU:250:VAL:HG13	59:JU:254:GLU:OE2	2.20	0.41
60:JV:113:ILE:HG13	60:JV:117:LEU:HD23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:JV:304:ASP:OD1	60:JV:304:ASP:N	2.51	0.41
59:JW:71:GLU:CD	60:JX:247:ASN:HD21	2.24	0.41
59:JW:128:ASN:O	59:JW:128:ASN:ND2	2.54	0.41
59:JW:230:LEU:HB3	59:JW:302:MET:HE1	2.03	0.41
59:JY:273:ALA:HB3	59:JY:274:PRO:HD3	2.03	0.41
60:JZ:202:ILE:HD11	60:JZ:268:MET:HE2	2.03	0.41
59:KD:273:ALA:HB3	59:KD:274:PRO:HD3	2.02	0.41
59:KF:66:VAL:HA	59:KF:91:GLN:HB3	2.03	0.41
59:KF:100:ALA:O	60:KG:255:VAL:HG11	2.21	0.41
60:KG:44:LEU:HD23	60:KG:44:LEU:HA	1.86	0.41
60:KG:167:PHE:CE2	60:KG:233:VAL:HG13	2.56	0.41
59:KL:377:MET:HB3	59:KL:377:MET:HE2	1.87	0.41
59:KN:296:PHE:CZ	59:KN:335:ILE:HG21	2.56	0.41
59:KP:88:HIS:O	59:KP:91:GLN:HB2	2.21	0.41
60:KR:77:ARG:HH22	60:KR:83:GLN:HA	1.86	0.41
60:KR:97:ALA:O	60:KR:103:LYS:HD2	2.21	0.41
59:KS:195:LEU:HD12	59:KS:195:LEU:HA	1.82	0.41
60:KT:193:VAL:HG21	60:KT:418:LEU:HD12	2.02	0.41
60:KT:375:GLN:HG3	60:KT:379:ARG:HH21	1.86	0.41
60:KV:67:ASP:HB3	60:KV:73:MET:HE2	2.02	0.41
60:KV:202:ILE:HD11	60:KV:268:MET:SD	2.61	0.41
59:KW:270:THR:HG22	59:KW:378:ILE:HG22	2.02	0.41
60:KX:309:ARG:NH2	60:KX:426:GLN:O	2.54	0.41
60:KX:332:ASN:OD1	60:KX:336:LYS:HE3	2.21	0.41
60:KZ:207:LEU:HB2	60:KZ:225:LEU:HD13	2.03	0.41
60:LB:296:ALA:HB3	60:LB:306:ARG:HH12	1.86	0.41
1:0B:219:ILE:HD11	60:DL:80:PRO:HA	2.02	0.41
1:0C:333:ASP:OD1	1:0C:333:ASP:N	2.47	0.41
1:0C:640:GLU:OE1	1:0C:643:ARG:NH2	2.42	0.41
3:0F:302:ARG:HH12	60:DD:22:GLU:HB3	1.86	0.41
3:0F:409:LYS:HA	3:0F:412:HIS:HB3	2.03	0.41
12:0U:94:LYS:HE2	12:0U:109:HIS:NE2	2.36	0.41
12:0U:265:PHE:HB2	12:0U:286:PRO:HD3	2.03	0.41
27:1K:35:ARG:NH2	59:AI:322:ASP:OD1	2.54	0.41
30:1S:7:PRO:HB3	33:2D:239:MET:HB3	2.02	0.41
32:1X:93:ILE:HA	32:1X:151:THR:HA	2.03	0.41
33:2D:95:PHE:CE2	33:2D:102:MET:HB2	2.56	0.41
34:2F:241:GLN:O	34:2F:244:GLN:NE2	2.52	0.41
36:2J:93:SER:HB3	36:2J:115:ASP:HB3	2.02	0.41
40:2T:163:ARG:NH1	59:JF:370:LYS:O	2.48	0.41
41:3C:325:GLN:O	41:3C:329:GLU:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:3K:213:ASP:N	42:3K:213:ASP:OD1	2.43	0.41
42:3M:181:PHE:HB3	60:HL:39:ASP:OD1	2.20	0.41
54:4N:22:LEU:HD13	59:HI:434:GLU:CG	2.51	0.41
59:AA:100:ALA:HB1	60:AB:251:ARG:HG2	2.02	0.41
59:AA:326:LYS:H	59:AA:326:LYS:HG3	1.69	0.41
60:AD:145:SER:O	60:AD:149:THR:HG23	2.21	0.41
59:AK:100:ALA:O	60:AL:255:VAL:HG11	2.21	0.41
59:AO:432:TYR:HA	59:AO:435:VAL:HG12	2.03	0.41
60:AT:289:LEU:HD12	60:AT:365:VAL:HG12	2.02	0.41
60:AV:286:VAL:CG2	60:AV:287:PRO:HD3	2.51	0.41
59:BE:117:LEU:O	59:BE:121:ARG:HG2	2.21	0.41
59:BE:139:HIS:NE2	59:BE:170:THR:HG22	2.35	0.41
60:BJ:31:ASP:OD1	60:BJ:32:PRO:HD2	2.21	0.41
60:BN:270:PHE:H	60:BN:298:ASN:HD21	1.69	0.41
60:BP:230:SER:HA	60:BP:233:VAL:CG1	2.51	0.41
60:BR:311:LEU:O	60:BR:348:ASN:ND2	2.45	0.41
59:BW:30:ILE:HG13	59:BW:36:MET:HG2	2.03	0.41
59:BX:273:ALA:HB2	59:BX:295:VAL:CG1	2.51	0.41
60:CA:203:ASP:OD2	60:CA:302:ALA:HB2	2.21	0.41
59:CD:111:GLY:HA2	59:CD:114:ILE:HG22	2.03	0.41
59:CD:247:ALA:O	59:CD:248:LEU:HD23	2.21	0.41
60:CE:288:GLU:O	60:CE:291:GLN:HG3	2.20	0.41
59:CH:273:ALA:HB2	59:CH:295:VAL:CG2	2.51	0.41
60:CI:131:GLN:HG3	60:CI:132:GLY:H	1.85	0.41
60:CI:212:PHE:HE1	60:CI:220:PRO:HG3	1.85	0.41
59:CM:443:ASP:OD1	59:CM:443:ASP:N	2.54	0.41
59:CO:298:PRO:HG3	59:CO:308:ARG:HH12	1.86	0.41
60:CR:232:VAL:CG2	60:CR:268:MET:HE2	2.48	0.41
59:CU:352:LYS:HD2	59:CU:353:CYS:H	1.86	0.41
60:CV:359:LYS:HE2	60:CV:359:LYS:HB3	1.94	0.41
59:CW:62:VAL:HA	59:CW:63:PRO:HD3	1.80	0.41
59:DC:105:ARG:NH2	60:DD:251:ARG:HH12	2.19	0.41
59:DK:252:LEU:HA	59:DK:255:PHE:CD2	2.56	0.41
59:DM:291:ILE:O	59:DM:295:VAL:HG13	2.21	0.41
60:DN:156:ARG:NH2	60:DN:164:MET:HB2	2.36	0.41
60:DN:289:LEU:O	60:DN:293:MET:HG3	2.21	0.41
60:DR:65:LEU:HD12	60:DR:90:PHE:CE2	2.55	0.41
59:DS:107:HIS:CE1	59:DS:152:LEU:HB2	2.56	0.41
60:DW:135:ILE:HD12	60:DW:164:MET:HE1	2.03	0.41
60:DY:68:LEU:HD13	60:DY:143:THR:OG1	2.21	0.41
60:EA:113:ILE:HG13	60:EA:117:LEU:HD23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EH:273:ALA:HB2	59:EH:295:VAL:HG22	2.03	0.41
60:EK:27:GLU:O	60:EK:43:GLN:NE2	2.50	0.41
60:EO:271:ALA:HA	60:EO:298:ASN:HD21	1.86	0.41
59:EP:79:ARG:NH2	59:EP:92:LEU:O	2.53	0.41
59:EZ:145:THR:HG22	62:EZ:501:GTP:O3B	2.21	0.41
59:FB:21:TRP:CZ2	59:FB:65:ALA:HB2	2.56	0.41
59:FB:52:PHE:CZ	59:FB:239:THR:HG21	2.56	0.41
60:FE:70:PRO:O	60:FE:74:ASP:N	2.44	0.41
60:FM:414:ASN:HD22	60:FM:414:ASN:C	2.23	0.41
59:FR:334:THR:O	59:FR:337:THR:OG1	2.29	0.41
60:FS:46:ARG:HA	60:FS:46:ARG:HD3	1.93	0.41
60:FV:97:ALA:HB2	60:FV:143:THR:HB	2.01	0.41
59:FY:318:MET:SD	59:FY:318:MET:N	2.94	0.41
60:GD:31:ASP:OD1	60:GD:32:PRO:HD2	2.19	0.41
60:GD:153:SER:HA	60:GD:195:ASN:ND2	2.36	0.41
59:GH:56:THR:HG23	59:GH:58:ALA:N	2.34	0.41
59:GL:401:LYS:HE2	59:GL:401:LYS:HB2	1.89	0.41
59:GP:21:TRP:CZ2	59:GP:65:ALA:HB2	2.56	0.41
59:GT:105:ARG:HG3	59:GT:109:THR:OG1	2.21	0.41
59:GU:230:LEU:HD23	59:GU:302:MET:HE2	2.02	0.41
59:GU:269:LEU:O	59:GU:378:ILE:HA	2.21	0.41
60:GV:60:VAL:HG21	60:GV:86:ARG:NH2	2.36	0.41
59:GW:176:GLN:NE2	59:GW:177:VAL:HG23	2.36	0.41
59:GW:273:ALA:HB3	59:GW:274:PRO:HD3	2.02	0.41
59:GY:427:ALA:O	59:GY:430:LYS:HG3	2.21	0.41
60:GZ:178:THR:HB	60:GZ:181:GLU:HG3	2.02	0.41
60:HB:113:ILE:O	60:HB:116:VAL:HG22	2.21	0.41
60:HB:229:VAL:O	60:HB:233:VAL:HG23	2.21	0.41
59:HK:212:LEU:CD2	59:HK:275:VAL:HG11	2.51	0.41
60:HL:158:GLN:HG3	60:HL:159:TYR:CD1	2.56	0.41
60:HN:208:TYR:HE1	60:HN:225:LEU:HD21	1.85	0.41
59:HO:107:HIS:ND1	59:HO:152:LEU:HB2	2.36	0.41
59:HV:51:THR:HG21	59:HV:243:ARG:HG2	2.03	0.41
60:HW:39:ASP:H	60:HW:43:GLN:NE2	2.19	0.41
60:HW:167:PHE:CZ	60:HW:233:VAL:HG23	2.56	0.41
59:HX:21:TRP:CZ2	59:HX:65:ALA:HB2	2.56	0.41
60:HY:271:ALA:O	60:HY:273:LEU:N	2.53	0.41
60:IF:61:PRO:HD3	60:IF:84:ILE:HG22	2.03	0.41
59:IG:104:ALA:HB2	59:IG:413:MET:CE	2.51	0.41
60:IH:55:THR:CG2	60:IU:283:GLY:HA3	2.51	0.41
59:IO:286:LEU:O	59:IO:373:ARG:NH1	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IQ:394:LYS:HD2	59:IQ:394:LYS:HA	1.61	0.41
60:IR:200:MET:HB3	60:IR:268:MET:SD	2.61	0.41
59:IV:253:THR:O	59:IV:256:GLN:HG2	2.21	0.41
60:IW:81:TYR:O	60:IW:84:ILE:HG22	2.21	0.41
60:IW:128:ASP:OD1	60:IW:129:CYS:N	2.53	0.41
60:JA:8:GLN:HE22	60:JA:63:SER:HB2	1.85	0.41
59:JD:336:LYS:HB2	59:JD:336:LYS:HE2	1.75	0.41
60:JT:73:MET:HA	60:JT:76:VAL:HG12	2.03	0.41
60:JT:305:PRO:HA	60:JT:371:ASN:HD21	1.86	0.41
59:JU:215:ARG:HH12	59:JU:299:ALA:HB1	1.85	0.41
59:JU:316:CYS:SG	59:JU:352:LYS:HD2	2.61	0.41
59:JW:427:ALA:O	59:JW:430:LYS:HG3	2.20	0.41
60:JX:173:PRO:HA	60:JX:380:ARG:CZ	2.51	0.41
59:JY:158:SER:N	59:JY:166:LYS:HZ1	2.19	0.41
60:KB:332:ASN:O	60:KB:336:LYS:HG2	2.21	0.41
59:KC:172:TYR:CD2	59:KC:203:MET:HG3	2.56	0.41
59:KC:269:LEU:O	59:KC:378:ILE:HA	2.21	0.41
59:KD:120:ASP:HA	59:KD:123:ARG:HG2	2.02	0.41
59:KD:285:GLN:OE1	59:KD:287:SER:N	2.54	0.41
60:KE:267:MET:HG2	60:KE:369:GLY:O	2.21	0.41
60:KG:201:CYS:O	60:KG:301:GLN:NE2	2.54	0.41
60:KM:63:SER:O	60:KM:89:ASN:ND2	2.41	0.41
60:KO:98:GLY:O	59:KP:257:THR:HG21	2.20	0.41
59:KP:279:GLU:OE2	59:KP:279:GLU:N	2.54	0.41
59:KS:167:LEU:HD12	59:KS:252:LEU:HD23	2.03	0.41
59:KS:284:GLU:HG2	59:KS:285:GLN:O	2.20	0.41
60:KV:233:VAL:O	60:KV:236:VAL:HG12	2.20	0.41
59:KW:207:GLU:OE2	59:KW:304:LYS:HG2	2.22	0.41
59:KY:68:LEU:HA	59:KY:68:LEU:HD13	1.86	0.41
2:0E:236:HIS:HA	2:0E:239:GLU:HG2	2.03	0.40
3:0F:602:LEU:HB3	3:0F:603:SER:H	1.75	0.40
4:0G:269:ILE:O	4:0G:273:GLN:HG2	2.21	0.40
6:0M:271:GLU:OE2	6:0M:275:LYS:NZ	2.42	0.40
6:0M:302:LEU:HA	6:0M:305:ASN:ND2	2.36	0.40
7:0O:57:ARG:HE	7:0O:57:ARG:HB2	1.77	0.40
7:0O:63:LYS:HE2	7:0O:67:MET:HE2	2.04	0.40
7:0P:356:ILE:HG23	7:0P:359:GLN:HE21	1.86	0.40
13:0V:102:LEU:HA	13:0V:105:VAL:HG22	2.03	0.40
18:1A:106:GLN:HB2	60:EW:39:ASP:HB3	2.02	0.40
32:1W:158:ALA:HB1	32:1W:159:ASN:OD1	2.21	0.40
33:2D:45:ILE:HB	33:2D:59:LEU:HB2	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:2D:427:ALA:HB1	33:2D:472:ILE:HG12	2.01	0.40
33:2D:580:ASP:OD1	40:2T:88:TRP:NE1	2.53	0.40
37:2L:241:TRP:HE1	60:EQ:218:THR:HA	1.86	0.40
37:2M:35:LEU:HD11	60:EM:424:GLN:OE1	2.21	0.40
39:2R:337:ARG:O	39:2R:340:GLU:HG2	2.21	0.40
39:2R:416:ILE:HG22	59:JU:278:ALA:HB1	2.02	0.40
40:2T:55:ILE:HG22	40:2T:56:ARG:HH22	1.86	0.40
40:2T:367:ASP:OD1	60:JM:218:THR:OG1	2.35	0.40
42:3J:41:THR:HG22	42:3J:44:ARG:HG3	2.03	0.40
42:3K:254:LEU:HD23	42:3K:254:LEU:H	1.86	0.40
42:3L:163:PRO:HG2	59:HV:26:LEU:HD11	2.03	0.40
43:3Q:108:TRP:CD1	43:3Q:112:ASP:HB2	2.55	0.40
47:3X:177:ILE:HA	47:3X:180:GLU:HG3	2.03	0.40
47:3X:184:ARG:HB2	48:4A:168:ARG:NH1	2.34	0.40
58:4U:68:GLN:OE1	60:GD:329:GLN:NE2	2.41	0.40
58:4U:68:GLN:HA	60:GD:332:ASN:ND2	2.35	0.40
58:4W:122:GLU:O	58:4W:125:GLN:HG3	2.20	0.40
59:AK:36:MET:HE2	59:AK:36:MET:HB2	1.94	0.40
59:AQ:392:ASP:OD1	59:AQ:425:LEU:HD23	2.21	0.40
60:AT:271:ALA:HA	60:AT:298:ASN:ND2	2.36	0.40
60:AT:305:PRO:HA	60:AT:371:ASN:HD21	1.85	0.40
60:AV:293:MET:HE2	60:AV:365:VAL:HG11	2.03	0.40
60:AX:305:PRO:HA	60:AX:371:ASN:HD21	1.85	0.40
60:BD:178:THR:OG1	60:BD:181:GLU:HG3	2.21	0.40
59:BE:286:LEU:O	59:BE:373:ARG:NH1	2.45	0.40
59:BI:119:LEU:HD11	59:BI:156:ARG:HG2	2.02	0.40
59:BK:405:VAL:HG22	59:BK:409:VAL:HG23	2.03	0.40
60:BP:301:GLN:OE1	60:BP:377:MET:HE1	2.21	0.40
60:BP:326:VAL:O	60:BP:330:MET:HG2	2.21	0.40
60:BR:214:THR:O	60:BR:275:SER:OG	2.39	0.40
59:BS:238:LEU:HD12	59:BS:378:ILE:HD11	2.03	0.40
60:BV:117:LEU:HD21	60:BV:154:LYS:HB3	2.03	0.40
59:BW:273:ALA:HB1	59:BW:291:ILE:HB	2.03	0.40
59:CD:264:ARG:HH11	59:CD:264:ARG:HG2	1.86	0.40
59:CF:283:HIS:CG	59:CS:60:LYS:HZ1	2.39	0.40
59:CH:390:ARG:HB2	59:CH:390:ARG:NH1	2.36	0.40
59:CO:241:SER:HG	59:CO:250:VAL:H	1.66	0.40
60:CP:341:PHE:HB3	60:CP:348:ASN:ND2	2.36	0.40
59:CS:288:VAL:HB	59:CS:327:ASP:HB3	2.03	0.40
60:CZ:139:LEU:CD1	60:CZ:168:SER:HB2	2.51	0.40
59:DE:241:SER:OG	59:DE:250:VAL:N	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:DI:273:ALA:HB3	59:DI:274:PRO:HD3	2.03	0.40
60:DJ:271:ALA:O	60:DJ:273:LEU:N	2.54	0.40
59:DO:68:LEU:HD23	59:DO:68:LEU:HA	1.86	0.40
59:DS:167:LEU:HD22	59:DS:200:VAL:HB	2.03	0.40
60:DW:293:MET:HE2	60:DW:293:MET:HB3	1.90	0.40
59:DZ:159:VAL:HG13	59:DZ:160:ASP:OD1	2.22	0.40
59:EB:311:LYS:NZ	59:EB:436:GLY:O	2.38	0.40
59:ED:233:GLN:HA	59:ED:233:GLN:HE21	1.85	0.40
60:EG:271:ALA:HB3	60:EG:272:PRO:HD3	2.03	0.40
60:ES:171:PRO:HB3	60:ES:181:GLU:OE1	2.20	0.40
59:ET:91:GLN:HE22	59:ET:125:LEU:HD11	1.87	0.40
60:EU:183:TYR:CD2	60:EU:398:TYR:HE2	2.39	0.40
60:EW:249:ASP:OD1	60:EW:250:LEU:N	2.54	0.40
59:EX:74:VAL:O	59:EX:78:VAL:HG23	2.21	0.40
60:EY:102:ALA:HB2	60:EY:403:MET:HE3	2.02	0.40
60:FK:380:ARG:HG2	60:FK:380:ARG:NH1	2.36	0.40
59:FL:401:LYS:HZ1	60:FM:430:ILE:HD13	1.86	0.40
60:FS:67:ASP:O	60:FS:92:PHE:HA	2.22	0.40
60:FS:204:ASN:OD1	64:FS:501:GDP:N2	2.53	0.40
60:FS:282:ARG:NH2	60:FS:288:GLU:HB2	2.36	0.40
59:FU:422:ARG:NH1	59:FU:426:ALA:HB2	2.36	0.40
60:FZ:31:ASP:OD1	60:FZ:32:PRO:HD2	2.21	0.40
59:GA:338:LYS:HE3	59:GA:340:THR:HB	2.02	0.40
59:GG:430:LYS:HB3	59:GG:430:LYS:HE3	1.84	0.40
59:GH:93:ILE:HG21	59:GH:117:LEU:HD22	2.03	0.40
59:GH:201:ALA:HB3	59:GH:267:PHE:HD1	1.85	0.40
59:GL:408:TYR:HD2	59:GL:413:MET:HE3	1.85	0.40
59:GN:121:ARG:HH21	59:GN:124:LYS:HD3	1.86	0.40
59:GR:68:LEU:HD13	59:GR:68:LEU:HA	1.91	0.40
60:GS:305:PRO:HB3	60:GS:310:TYR:HE1	1.86	0.40
59:GT:8:HIS:CE1	59:GT:21:TRP:HE1	2.40	0.40
59:GY:268:VAL:HG12	59:GY:380:ASN:OD1	2.21	0.40
59:HA:40:LYS:HG2	59:HA:41:THR:HG23	2.03	0.40
60:HD:32:PRO:HG3	60:HD:81:TYR:CZ	2.55	0.40
59:HE:222:PRO:HD2	60:HF:324:LYS:HD2	2.02	0.40
60:HF:22:GLU:HG2	60:HF:81:TYR:CD2	2.56	0.40
59:HG:273:ALA:HB2	59:HG:295:VAL:CG2	2.51	0.40
60:HL:170:ILE:HD12	60:HL:377:MET:SD	2.61	0.40
59:HM:121:ARG:HA	59:HM:121:ARG:NE	2.36	0.40
60:HN:182:PRO:HA	60:HN:185:THR:HG22	2.03	0.40
60:HS:233:VAL:O	60:HS:236:VAL:HG12	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HU:213:ARG:NH2	60:HU:297:LYS:HZ3	2.19	0.40
59:HV:40:LYS:HE3	59:HV:40:LYS:HB3	1.87	0.40
59:HX:105:ARG:CG	59:HX:411:GLU:HG2	2.50	0.40
60:HY:193:VAL:HG12	60:HY:265:PHE:CZ	2.57	0.40
60:IA:238:CYS:HA	60:IA:241:ARG:NH1	2.35	0.40
59:IB:273:ALA:HB3	59:IB:274:PRO:HD3	2.02	0.40
59:IB:301:MET:HE3	59:IB:305:CYS:O	2.21	0.40
59:IB:352:LYS:HD2	59:IB:353:CYS:H	1.86	0.40
60:IC:257:LEU:O	60:IC:259:PRO:HD3	2.20	0.40
60:IF:270:PHE:CE2	60:IF:272:PRO:HD2	2.56	0.40
59:IG:356:ASN:OD1	59:IG:357:TYR:N	2.55	0.40
60:IH:271:ALA:HA	60:IH:298:ASN:HD21	1.86	0.40
59:II:51:THR:HG22	59:II:52:PHE:CD1	2.56	0.40
60:IJ:139:LEU:HD21	60:IJ:168:SER:HB3	2.03	0.40
60:IL:327:ASP:OD1	60:IL:328:GLU:N	2.54	0.40
59:IO:392:ASP:HB3	59:IO:422:ARG:CZ	2.50	0.40
60:IP:311:LEU:HD23	60:IP:311:LEU:HA	1.90	0.40
59:IQ:443:ASP:N	59:IQ:443:ASP:OD1	2.54	0.40
60:IR:48:ASN:OD1	60:IR:49:VAL:N	2.54	0.40
60:IU:31:ASP:OD1	60:IU:32:PRO:HD2	2.21	0.40
60:IU:33:THR:HG23	60:IU:35:THR:HG23	2.02	0.40
59:IV:100:ALA:HA	60:IW:252:LYS:HG2	2.03	0.40
59:IZ:238:LEU:HD12	59:IZ:238:LEU:HA	1.88	0.40
59:JB:260:VAL:HG12	59:JB:266:HIS:HA	2.03	0.40
59:JB:443:ASP:OD1	59:JB:443:ASP:N	2.53	0.40
60:JC:27:GLU:OE2	60:JC:241:ARG:NH2	2.51	0.40
59:JD:377:MET:SD	59:JD:379:ALA:HB2	2.61	0.40
60:JE:385:PHE:CZ	60:JE:408:PHE:HD2	2.38	0.40
60:JG:156:ARG:HA	60:JG:156:ARG:HD2	1.75	0.40
59:JH:273:ALA:HB3	59:JH:274:PRO:HD3	2.03	0.40
60:JI:304:ASP:CG	60:JI:307:HIS:HD1	2.23	0.40
60:JK:24:ILE:HD11	60:JK:241:ARG:NH2	2.35	0.40
59:JL:52:PHE:CZ	59:JL:239:THR:HG21	2.57	0.40
59:JY:291:ILE:O	59:JY:295:VAL:HG23	2.21	0.40
59:KA:102:ASN:HB2	59:KA:105:ARG:HG3	2.02	0.40
60:KK:178:THR:OG1	60:KK:181:GLU:HG3	2.20	0.40
59:KQ:273:ALA:HB2	59:KQ:295:VAL:CG1	2.51	0.40
59:KS:262:TYR:HB2	59:KS:265:ILE:HD13	2.02	0.40
60:KV:176:SER:HB3	59:KW:349:THR:OG1	2.20	0.40
59:LA:50:ASN:O	59:LA:64:ARG:NH1	2.54	0.40
1:0A:701:VAL:HG11	1:0A:704:ILE:HD12	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0B:561:ASP:OD1	1:0B:561:ASP:N	2.51	0.40
3:0F:610:ASP:OD1	3:0F:610:ASP:N	2.54	0.40
6:0M:23:VAL:O	6:0M:27:MET:HG2	2.21	0.40
6:0N:299:LYS:O	6:0N:303:ARG:NE	2.49	0.40
7:0O:66:LYS:HA	7:0O:66:LYS:HD3	1.89	0.40
7:0O:89:MET:HG3	59:AW:370:LYS:NZ	2.37	0.40
7:0O:112:ARG:HA	7:0O:115:ASN:HB2	2.02	0.40
7:0P:321:ARG:O	7:0P:324:GLU:HG3	2.20	0.40
12:0U:123:ILE:HG22	12:0U:126:GLN:H	1.85	0.40
13:0V:39:ARG:HB3	13:0V:82:PRO:HB3	2.03	0.40
15:0X:179:VAL:HG13	15:0X:180:ARG:HG3	2.04	0.40
19:1B:198:PHE:O	19:1B:202:GLU:HB2	2.21	0.40
22:1E:220:TYR:CD1	59:FP:29:GLY:HA2	2.57	0.40
27:1L:381:LEU:HD21	27:1L:414:LEU:HD21	2.03	0.40
30:1R:291:VAL:HA	30:1R:292:PRO:HD3	1.92	0.40
33:2B:40:ALA:HB1	33:2B:66:ILE:HG21	2.04	0.40
33:2B:396:PHE:CE2	33:2B:403:LEU:HB2	2.57	0.40
33:2C:7:GLU:HG2	33:2C:8:THR:HG23	2.02	0.40
33:2C:310:TYR:CZ	33:2C:321:LEU:HD12	2.56	0.40
34:2F:62:HIS:HA	34:2F:63:PRO:HD3	1.95	0.40
36:2J:220:LEU:O	36:2J:224:VAL:HG22	2.20	0.40
37:2L:247:LEU:HD21	60:FC:77:ARG:HG2	2.03	0.40
38:2N:219:ARG:NH1	38:2N:225:LEU:HD22	2.36	0.40
39:2P:321:ASP:O	39:2P:324:ARG:HG2	2.21	0.40
41:2V:148:ARG:O	41:2V:151:GLN:HG3	2.21	0.40
41:2X:49:VAL:HA	41:2X:52:ARG:HE	1.86	0.40
41:2Z:267:ARG:HA	41:2Z:270:PHE:CD2	2.57	0.40
42:3J:37:PHE:HB2	60:IL:359:LYS:NZ	2.35	0.40
42:3L:145:THR:HG21	60:HW:245:GLN:HE21	1.86	0.40
43:3Q:26:TYR:HA	43:3Q:29:ILE:HD13	2.02	0.40
46:3T:166:PRO:HG3	59:FF:298:PRO:HG2	2.03	0.40
48:4A:227:ARG:HG3	48:4A:231:ARG:NH1	2.36	0.40
57:4S:26:ARG:HE	57:4S:26:ARG:HB2	1.70	0.40
59:AC:269:LEU:HG	59:AC:303:THR:HG21	2.03	0.40
59:AE:422:ARG:HH12	59:AE:426:ALA:HB2	1.87	0.40
59:AI:52:PHE:CZ	59:AI:239:THR:HG21	2.56	0.40
59:AI:167:LEU:HD12	59:AI:252:LEU:HD23	2.03	0.40
59:AI:399:TYR:OH	59:AI:402:ARG:NH1	2.54	0.40
60:AL:200:MET:HG2	60:AL:268:MET:CE	2.52	0.40
59:AM:394:LYS:HG3	60:AN:346:PRO:HG3	2.02	0.40
59:AQ:203:MET:O	59:AQ:303:THR:OG1	2.39	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:AT:67:ASP:O	60:AT:92:PHE:HA	2.21	0.40
60:AX:421:GLU:HA	60:AX:424:GLN:HG2	2.02	0.40
60:AZ:213:ARG:HH12	60:AZ:297:LYS:NZ	2.13	0.40
59:BA:68:LEU:HA	59:BA:68:LEU:HD13	1.82	0.40
59:BA:121:ARG:HD2	59:BA:121:ARG:HA	1.85	0.40
59:BC:392:ASP:OD2	59:BC:425:LEU:HD22	2.21	0.40
59:BI:265:ILE:HD11	59:BI:435:VAL:HG21	2.04	0.40
60:BL:327:ASP:OD1	60:BL:328:GLU:N	2.54	0.40
59:BM:208:ALA:HB2	59:BM:304:LYS:HG2	2.03	0.40
60:BT:388:MET:HB3	60:BT:388:MET:HE2	1.94	0.40
59:BZ:332:VAL:HG13	59:BZ:351:PHE:CD2	2.55	0.40
60:CE:298:ASN:O	60:CE:298:ASN:ND2	2.35	0.40
59:CF:53:PHE:HB3	59:CF:61:HIS:HB3	2.02	0.40
60:CG:190:HIS:CG	60:CG:414:ASN:HD21	2.39	0.40
60:CI:67:ASP:O	60:CI:92:PHE:HA	2.22	0.40
59:CJ:172:TYR:HB3	59:CJ:173:PRO:CD	2.51	0.40
60:CL:167:PHE:CE2	60:CL:200:MET:HE2	2.55	0.40
60:CL:220:PRO:HD2	59:CM:326:LYS:HD2	2.02	0.40
60:CP:213:ARG:HD2	60:CP:297:LYS:NZ	2.36	0.40
60:CP:306:ARG:HH11	60:CP:306:ARG:HG3	1.86	0.40
60:CP:334:GLN:HE22	60:CP:347:ASN:HA	1.86	0.40
60:CR:115:SER:O	60:CR:119:VAL:HG23	2.21	0.40
59:CS:88:HIS:ND1	59:CS:89:PRO:HD2	2.36	0.40
60:CV:112:LEU:HD23	60:CV:112:LEU:HA	1.85	0.40
59:CY:88:HIS:CD2	59:CY:90:GLU:HB2	2.56	0.40
59:CY:292:SER:HB3	59:CY:335:ILE:HD11	2.02	0.40
60:DD:382:GLY:O	60:DD:386:THR:HG23	2.21	0.40
59:DE:387:VAL:HA	59:DE:390:ARG:HH21	1.86	0.40
60:DF:73:MET:SD	60:DF:92:PHE:HB3	2.61	0.40
60:DJ:161:ASP:OD1	60:DJ:162:ARG:HD2	2.21	0.40
60:DN:61:PRO:HG3	60:DN:84:ILE:HG13	2.03	0.40
60:DR:178:THR:OG1	60:DR:181:GLU:HG3	2.21	0.40
59:DS:173:PRO:HB3	59:DS:183:GLU:OE2	2.21	0.40
59:DZ:3:GLU:H	59:DZ:3:GLU:HG2	1.51	0.40
60:EA:287:PRO:HG3	60:EA:329:GLN:HE21	1.86	0.40
59:EB:234:VAL:HG21	59:EB:302:MET:CE	2.50	0.40
60:EC:167:PHE:CZ	60:EC:233:VAL:HG22	2.56	0.40
59:EH:169:TYR:CE2	59:EH:235:VAL:HG22	2.57	0.40
60:EK:178:THR:N	60:EK:181:GLU:OE2	2.53	0.40
59:EN:65:ALA:O	59:EN:91:GLN:NE2	2.32	0.40
60:EO:50:TYR:OH	60:EO:237:THR:HG21	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EP:93:ILE:HD11	59:EP:121:ARG:HG3	2.02	0.40
59:ER:8:HIS:CE1	59:ER:138:TYR:HD2	2.38	0.40
59:ET:224:TYR:CE2	60:EU:323:THR:HG21	2.57	0.40
59:FD:165:SER:HA	59:FD:199:ASP:OD2	2.22	0.40
59:FJ:40:LYS:HE3	59:FJ:40:LYS:HB3	1.89	0.40
60:FK:380:ARG:O	60:FK:383:GLU:HG2	2.21	0.40
60:FM:267:MET:HE3	60:FM:299:MET:HG2	2.04	0.40
60:FO:145:SER:HB3	60:FO:188:SER:OG	2.21	0.40
59:FP:172:TYR:OH	59:FP:391:ILE:HG13	2.21	0.40
60:FS:8:GLN:HE21	60:FS:65:LEU:HD13	1.86	0.40
60:FV:320:ARG:HG2	60:FV:320:ARG:HH11	1.86	0.40
60:FZ:233:VAL:O	60:FZ:236:VAL:HG12	2.22	0.40
60:GB:213:ARG:O	60:GB:216:LYS:NZ	2.54	0.40
60:GD:233:VAL:O	60:GD:236:VAL:HG12	2.21	0.40
59:GH:68:LEU:HD22	59:GH:93:ILE:HD11	2.04	0.40
60:GI:102:ALA:HB2	60:GI:403:MET:CE	2.51	0.40
60:GO:318:ARG:HD2	60:GO:356:ILE:O	2.21	0.40
60:GS:209:ASP:O	60:GS:212:PHE:N	2.55	0.40
60:GV:139:LEU:HG	60:GV:168:SER:HB2	2.02	0.40
60:GV:282:ARG:NH1	60:GV:288:GLU:OE2	2.49	0.40
59:HA:367:ASP:OD1	59:HA:367:ASP:N	2.54	0.40
59:HA:370:LYS:HZ2	59:HA:370:LYS:HG2	1.75	0.40
59:HC:34:GLY:O	59:HC:61:HIS:N	2.31	0.40
60:HF:10:GLY:O	60:HF:14:ASN:ND2	2.38	0.40
60:HF:18:SER:O	60:HF:22:GLU:HG3	2.20	0.40
59:HK:264:ARG:HG3	59:HK:264:ARG:HH11	1.86	0.40
59:HO:21:TRP:CZ2	59:HO:65:ALA:HB2	2.56	0.40
60:HP:170:ILE:CG1	60:HP:171:PRO:HD2	2.51	0.40
59:HQ:273:ALA:HB3	59:HQ:274:PRO:HD3	2.03	0.40
60:HS:324:LYS:HA	60:HS:327:ASP:OD2	2.20	0.40
59:HT:443:ASP:OD1	59:HT:443:ASP:N	2.47	0.40
60:HY:326:VAL:O	60:HY:330:MET:HG2	2.20	0.40
59:HZ:432:TYR:HA	59:HZ:435:VAL:HG12	2.03	0.40
59:IB:239:THR:HG23	59:IB:243:ARG:NH1	2.27	0.40
60:IE:189:VAL:O	60:IE:193:VAL:HG23	2.21	0.40
60:IF:213:ARG:HH12	60:IF:297:LYS:CG	2.34	0.40
59:IM:296:PHE:CZ	59:IM:335:ILE:HG21	2.56	0.40
60:IN:380:ARG:O	60:IN:383:GLU:HG2	2.21	0.40
60:IR:326:VAL:O	60:IR:330:MET:HG2	2.21	0.40
60:IS:297:LYS:HB3	60:IS:297:LYS:HE2	1.77	0.40
60:IS:304:ASP:OD2	60:IS:306:ARG:NH2	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:IS:387:LEU:HD21	59:IT:346:TRP:HA	2.04	0.40
60:IU:359:LYS:HB2	60:IU:359:LYS:HE3	1.82	0.40
60:IW:359:LYS:HE3	60:IW:359:LYS:HB2	1.86	0.40
60:IY:113:ILE:HD12	60:IY:150:LEU:HG	2.03	0.40
60:JC:282:ARG:HD3	60:JC:288:GLU:CD	2.41	0.40
60:JG:3:GLU:HG3	60:JG:62:ARG:NH1	2.36	0.40
59:JH:109:THR:HG21	59:JH:411:GLU:OE2	2.21	0.40
59:JH:175:PRO:HB3	59:JH:390:ARG:HH12	1.85	0.40
59:JH:200:VAL:HA	59:JH:266:HIS:HB2	2.02	0.40
59:JJ:3:GLU:OE2	59:JJ:64:ARG:HD3	2.20	0.40
59:JJ:213:THR:OG1	60:JK:324:LYS:NZ	2.47	0.40
59:JP:11:GLN:O	59:JP:15:GLN:HG3	2.21	0.40
59:JQ:398:MET:SD	60:JR:346:PRO:HD2	2.61	0.40
60:JR:3:GLU:OE2	60:JR:127:CYS:HB3	2.21	0.40
60:JR:8:GLN:HE22	60:JR:21:TRP:HE1	1.69	0.40
60:JR:304:ASP:OD1	60:JR:304:ASP:N	2.52	0.40
60:JV:324:LYS:HZ2	60:JV:328:GLU:HG3	1.86	0.40
60:JX:113:ILE:O	60:JX:116:VAL:HG22	2.20	0.40
59:KA:91:GLN:HE22	59:KA:125:LEU:HD21	1.86	0.40
60:KB:139:LEU:HD12	60:KB:170:ILE:HG22	2.02	0.40
59:KD:50:ASN:OD1	59:KD:51:THR:N	2.55	0.40
59:KL:121:ARG:NH1	59:KL:124:LYS:HD2	2.36	0.40
59:KL:145:THR:HG22	62:KL:602:GTP:O3B	2.21	0.40
59:KQ:40:LYS:HD2	59:KQ:40:LYS:HA	1.87	0.40
1:0C:137:ASP:OD1	1:0C:138:ASN:N	2.54	0.40
1:0C:510:LEU:HA	1:0C:513:MET:HB2	2.02	0.40
2:0E:95:ASP:OD1	2:0E:95:ASP:N	2.53	0.40
3:0F:157:ILE:HB	3:0F:162:TYR:CE1	2.56	0.40
3:0F:252:ALA:HB3	3:0F:342:ASP:HB3	2.03	0.40
5:0K:371:ASN:HA	60:FG:362:LYS:HD3	2.03	0.40
10:0S:99:ARG:HD2	10:0S:176:GLU:HB2	2.03	0.40
10:0S:248:VAL:HG11	10:0S:310:VAL:HG21	2.03	0.40
17:0Z:300:ASP:O	17:0Z:302:SER:N	2.52	0.40
18:1A:17:ASP:HB3	60:EK:359:LYS:HG3	2.02	0.40
19:1B:44:ARG:O	19:1B:47:GLU:HG2	2.21	0.40
27:1K:102:LEU:HD11	60:AF:228:LEU:HD23	2.02	0.40
27:1K:228:ARG:HH12	60:AN:57:GLY:H	1.69	0.40
31:1U:78:ILE:HG23	60:EM:407:GLU:HG2	2.04	0.40
32:1Y:183:LEU:H	32:1Y:183:LEU:HD23	1.86	0.40
32:1Z:13:ILE:O	32:1Z:13:ILE:HG13	2.21	0.40
36:2I:115:ASP:OD1	36:2I:115:ASP:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:2I:168:ASN:O	59:ET:339:ARG:NH2	2.55	0.40
36:2J:158:ARG:HB2	36:2J:161:HIS:CE1	2.56	0.40
37:2M:97:HIS:CD2	37:2M:99:PRO:HG3	2.57	0.40
38:2N:155:LYS:O	38:2N:159:ARG:HG3	2.21	0.40
41:3D:116:GLN:HA	41:3D:119:LYS:HZ3	1.85	0.40
42:3O:197:LEU:HD23	42:3O:197:LEU:HA	1.91	0.40
42:3P:70:ASP:OD1	42:3P:70:ASP:N	2.54	0.40
52:4I:83:ALA:O	52:4I:86:ARG:HG2	2.21	0.40
54:4N:105:GLN:HE22	59:II:434:GLU:C	2.25	0.40
57:4S:127:ARG:HA	59:FW:434:GLU:OE2	2.21	0.40
59:AC:145:THR:HG22	62:AC:501:GTP:O3B	2.20	0.40
60:AF:220:PRO:CD	59:AG:326:LYS:HZ3	2.31	0.40
60:AH:22:GLU:HG2	60:AH:81:TYR:CD2	2.45	0.40
59:AI:132:LEU:O	59:AI:164:LYS:NZ	2.31	0.40
59:AK:247:ALA:O	59:AK:248:LEU:HD23	2.21	0.40
60:AP:421:GLU:O	60:AP:424:GLN:HG3	2.22	0.40
60:AR:67:ASP:O	60:AR:92:PHE:HA	2.20	0.40
60:AT:3:GLU:HG3	60:AT:127:CYS:SG	2.61	0.40
60:AX:33:THR:O	60:AX:58:ARG:NH1	2.53	0.40
60:AZ:68:LEU:HD13	60:AZ:143:THR:OG1	2.21	0.40
60:BF:238:CYS:SG	60:BF:239:CYS:N	2.94	0.40
59:BG:255:PHE:CE1	59:BG:378:ILE:HD11	2.56	0.40
60:BJ:68:LEU:HD13	60:BJ:143:THR:CG2	2.52	0.40
59:BS:192:HIS:ND1	59:BS:424:ASP:OD2	2.55	0.40
59:BS:399:TYR:OH	59:BS:415:GLU:OE2	2.39	0.40
59:CB:244:PHE:CE2	59:CB:358:GLN:HG2	2.56	0.40
60:CT:8:GLN:OE1	60:CT:8:GLN:N	2.55	0.40
60:CT:238:CYS:SG	60:CT:239:CYS:N	2.94	0.40
60:DD:73:MET:HA	60:DD:76:VAL:HG12	2.02	0.40
60:DH:324:LYS:NZ	60:DH:328:GLU:HG3	2.35	0.40
59:DK:431:ASP:O	59:DK:435:VAL:HG12	2.22	0.40
60:DP:213:ARG:HD2	60:DP:297:LYS:HG2	2.03	0.40
60:DR:91:ILE:HD12	60:DR:116:VAL:HG12	2.03	0.40
59:DU:93:ILE:HD13	59:DU:117:LEU:HD22	2.03	0.40
59:DU:291:ILE:O	59:DU:295:VAL:HG13	2.21	0.40
60:DV:33:THR:O	60:DV:58:ARG:NH1	2.54	0.40
60:DW:238:CYS:SG	60:DW:239:CYS:N	2.95	0.40
59:DX:384:ILE:HD12	59:DX:384:ILE:HA	1.97	0.40
60:EI:210:ILE:HD11	60:EI:298:ASN:HA	2.02	0.40
60:EI:238:CYS:HB2	60:EI:318:ARG:NH1	2.36	0.40
60:EI:251:ARG:HH11	60:EI:251:ARG:HG3	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:EL:220:GLU:OE1	59:EL:221:ARG:HG2	2.21	0.40
59:EL:285:GLN:HB3	59:EX:56:THR:HA	2.02	0.40
59:EN:250:VAL:HA	59:EN:254:GLU:OE2	2.21	0.40
60:EO:156:ARG:HA	60:EO:156:ARG:HD2	1.88	0.40
60:ES:271:ALA:HA	60:ES:298:ASN:HD21	1.86	0.40
60:ES:385:PHE:HZ	60:ES:408:PHE:HB3	1.85	0.40
59:ET:52:PHE:CZ	59:ET:239:THR:HG21	2.55	0.40
60:EU:423:GLN:O	60:EU:426:GLN:HG2	2.20	0.40
59:EX:175:PRO:HB3	59:EX:390:ARG:NH1	2.36	0.40
60:EY:212:PHE:HZ	59:EZ:326:LYS:HD2	1.87	0.40
60:FA:156:ARG:HA	60:FA:156:ARG:HD2	1.91	0.40
59:FH:88:HIS:ND1	59:FH:89:PRO:HD2	2.35	0.40
60:FQ:178:THR:HB	60:FQ:181:GLU:HG3	2.03	0.40
59:FU:209:ILE:HB	59:FU:227:LEU:HD22	2.03	0.40
60:FV:359:LYS:HD3	60:FV:359:LYS:H	1.86	0.40
60:GB:383:GLU:O	60:GB:386:THR:HG22	2.22	0.40
59:GC:234:VAL:HG21	59:GC:302:MET:CE	2.52	0.40
59:GH:194:LEU:O	59:GH:198:THR:HG22	2.21	0.40
59:GJ:82:THR:HG23	59:GJ:83:TYR:CD1	2.56	0.40
59:GJ:270:THR:HG22	59:GJ:378:ILE:HG22	2.03	0.40
60:GK:31:ASP:OD1	60:GK:32:PRO:HD2	2.21	0.40
60:GO:91:ILE:HG22	60:GO:112:LEU:HD21	2.03	0.40
60:GO:314:SER:OG	60:GO:368:ILE:HB	2.21	0.40
60:GO:324:LYS:NZ	60:GO:328:GLU:OE2	2.40	0.40
60:GX:179:VAL:HG23	60:GX:180:VAL:HG13	2.03	0.40
59:GY:11:GLN:HE22	60:GZ:247:ASN:H	1.68	0.40
59:HA:26:LEU:HD23	59:HA:26:LEU:HA	1.84	0.40
59:HA:52:PHE:HZ	59:HA:239:THR:HG21	1.87	0.40
59:HA:228:ASN:HD21	62:HA:501:GTP:HN1	1.69	0.40
59:HE:107:HIS:HD2	59:HE:152:LEU:HB2	1.84	0.40
60:HF:268:MET:HE3	60:HF:268:MET:HB3	1.94	0.40
60:HH:217:LEU:HD23	60:HH:217:LEU:HA	1.92	0.40
60:HH:326:VAL:O	60:HH:330:MET:HG2	2.21	0.40
60:HJ:60:VAL:HA	60:HJ:61:PRO:HD3	1.81	0.40
60:HJ:73:MET:HA	60:HJ:76:VAL:HG22	2.02	0.40
60:HL:31:ASP:OD1	60:HL:32:PRO:HD2	2.21	0.40
60:HN:246:LEU:HD22	60:HN:352:SER:HA	2.04	0.40
60:HR:238:CYS:SG	60:HR:239:CYS:N	2.94	0.40
59:HX:177:VAL:HG13	60:HY:327:ASP:HB2	2.04	0.40
60:HY:152:ILE:HG22	60:HY:195:ASN:HD22	1.86	0.40
59:HZ:261:PRO:HD2	59:HZ:265:ILE:HB	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IB:195:LEU:HA	59:IB:195:LEU:HD13	1.89	0.40
59:ID:273:ALA:HB3	59:ID:274:PRO:HD3	2.03	0.40
60:IE:149:THR:O	60:IE:152:ILE:HG22	2.21	0.40
60:IE:330:MET:HB3	60:IE:349:ILE:CD1	2.52	0.40
60:IJ:252:LYS:HB2	60:IJ:252:LYS:HE3	1.92	0.40
59:IK:21:TRP:CZ2	59:IK:65:ALA:HB2	2.56	0.40
59:IK:406:HIS:HA	59:IK:409:VAL:HG12	2.03	0.40
60:IN:211:CYS:SG	60:IN:220:PRO:HB3	2.62	0.40
60:IP:200:MET:HE3	60:IP:368:ILE:HG12	2.03	0.40
60:IU:253:LEU:HD11	60:IU:316:LEU:HD21	2.03	0.40
60:IW:62:ARG:HE	60:IW:62:ARG:HB3	1.63	0.40
59:IX:91:GLN:NE2	59:IX:125:LEU:HD21	2.35	0.40
60:JA:271:ALA:O	60:JA:292:GLN:NE2	2.54	0.40
60:JC:387:LEU:HD21	59:JD:345:ASP:O	2.21	0.40
59:JD:70:LEU:HD13	59:JD:145:THR:OG1	2.21	0.40
59:JD:155:GLU:O	59:JD:159:VAL:HG23	2.20	0.40
59:JD:265:ILE:HG22	59:JD:380:ASN:ND2	2.32	0.40
60:JG:286:VAL:CG2	60:JG:287:PRO:HD3	2.50	0.40
60:JI:250:LEU:H	60:JI:250:LEU:HD12	1.86	0.40
60:JI:268:MET:O	60:JI:300:MET:HG3	2.21	0.40
59:JP:194:LEU:O	59:JP:198:THR:HG22	2.21	0.40
59:JP:273:ALA:HB3	59:JP:274:PRO:HD3	2.03	0.40
59:JQ:318:MET:HE3	59:JQ:318:MET:HB2	1.90	0.40
60:JV:189:VAL:HG21	60:JV:378:PHE:HE2	1.86	0.40
59:JW:39:ASP:OD1	59:JW:39:ASP:N	2.48	0.40
59:JW:90:GLU:CB	59:JW:121:ARG:HH12	2.35	0.40
59:JW:286:LEU:O	59:JW:373:ARG:NH1	2.52	0.40
59:JY:422:ARG:HG3	59:JY:422:ARG:HH11	1.87	0.40
60:KM:20:PHE:HA	60:KM:230:SER:HB2	2.03	0.40
59:KQ:295:VAL:HG23	59:KQ:296:PHE:CD1	2.57	0.40
60:KT:73:MET:HA	60:KT:76:VAL:HG12	2.04	0.40
60:KT:170:ILE:HG13	60:KT:203:ASP:OD1	2.21	0.40
59:KU:90:GLU:HG3	59:KU:121:ARG:HE	1.86	0.40
59:KU:175:PRO:HB3	59:KU:390:ARG:CZ	2.51	0.40
59:KU:326:LYS:HA	59:KU:329:ASN:HD22	1.85	0.40
60:KX:122:LYS:HB2	60:KX:122:LYS:HE3	1.70	0.40
1:0C:103:GLU:OE2	60:DJ:280:GLN:NE2	2.38	0.40
2:0E:588:ILE:HB	2:0E:625:LEU:HB3	2.03	0.40
4:0G:44:SER:OG	59:FB:46:ASP:HB2	2.21	0.40
7:0P:124:LYS:H	7:0P:124:LYS:HG2	1.76	0.40
12:0U:129:GLU:O	12:0U:135:ARG:HD2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:1K:266:ASP:N	27:1K:266:ASP:OD1	2.54	0.40
32:1V:89:PHE:CE1	32:1V:105:ALA:HB3	2.57	0.40
34:2F:205:LEU:HB2	34:2F:267:VAL:HG23	2.03	0.40
36:2I:167:LYS:HB3	36:2I:167:LYS:HE3	1.86	0.40
38:2N:65:SER:HB2	38:2N:123:PRO:HA	2.03	0.40
39:2P:271:ASP:O	39:2P:274:ILE:HG22	2.21	0.40
39:2P:335:ASP:CG	39:2P:339:LYS:HZ2	2.25	0.40
41:2V:6:VAL:HG23	59:IM:85:GLN:NE2	2.34	0.40
41:2W:160:ALA:O	41:2W:163:GLN:HG3	2.21	0.40
41:2X:8:ASP:O	41:2X:12:SER:N	2.55	0.40
41:2X:49:VAL:HG12	41:2X:52:ARG:NH2	2.37	0.40
41:3D:116:GLN:HA	41:3D:119:LYS:NZ	2.36	0.40
41:3D:164:TYR:HE1	59:GY:372:GLN:OE1	2.04	0.40
45:3S:18:LYS:HD3	52:4I:40:LEU:HD13	2.03	0.40
50:4F:103:TYR:OH	59:EZ:423:GLU:HG3	2.21	0.40
55:4P:175:LEU:HD23	55:4P:175:LEU:HA	1.95	0.40
57:4R:21:GLN:O	57:4R:24:GLN:HG3	2.22	0.40
58:4V:124:ARG:HG3	60:GK:424:GLN:HE22	1.86	0.40
58:4W:70:LEU:HD12	58:4W:71:PRO:HD2	2.02	0.40
59:AG:324:VAL:HG12	59:AG:326:LYS:HG2	2.04	0.40
60:AR:257:LEU:HD11	60:AR:314:SER:HB2	2.02	0.40
59:AS:203:MET:O	59:AS:204:LEU:HD23	2.21	0.40
59:AU:425:LEU:HD12	59:AU:425:LEU:HA	1.90	0.40
59:AY:71:GLU:OE2	60:AZ:247:ASN:ND2	2.55	0.40
59:AY:101:ASN:OD1	60:AZ:252:LYS:HE3	2.21	0.40
59:AY:124:LYS:HE3	59:AY:124:LYS:HB2	1.91	0.40
59:BA:394:LYS:HG2	60:BB:346:PRO:HG3	2.02	0.40
60:BJ:134:GLN:NE2	60:BJ:233:VAL:HG13	2.36	0.40
60:BJ:137:HIS:O	60:BJ:168:SER:HA	2.21	0.40
60:BJ:282:ARG:HH21	60:BV:86:ARG:NH1	2.19	0.40
60:BP:153:SER:HA	60:BP:195:ASN:HD21	1.87	0.40
59:BU:280:LYS:HB3	59:BU:280:LYS:HE2	1.73	0.40
59:BZ:265:ILE:HG23	59:BZ:432:TYR:HE1	1.87	0.40
59:BZ:273:ALA:HB3	59:BZ:274:PRO:HD3	2.03	0.40
59:CF:181:VAL:HG12	60:CG:347:ASN:O	2.20	0.40
60:CG:101:TRP:HB2	60:CG:184:ASN:OD1	2.21	0.40
60:CI:304:ASP:OD1	60:CI:304:ASP:N	2.52	0.40
59:CJ:25:CYS:SG	59:CJ:86:LEU:HD11	2.61	0.40
60:CL:404:ASP:HB3	60:CL:407:GLU:OE1	2.22	0.40
59:CM:402:ARG:HG2	59:CM:402:ARG:HH11	1.87	0.40
59:CO:273:ALA:HB2	59:CO:295:VAL:CG2	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CQ:40:LYS:HA	59:CQ:40:LYS:HD3	1.86	0.40
60:CT:182:PRO:HA	60:CT:185:THR:HG22	2.02	0.40
59:CU:70:LEU:HD23	59:CU:110:ILE:HD12	2.02	0.40
59:CU:191:THR:O	59:CU:195:LEU:HD23	2.21	0.40
59:CU:339:ARG:HD3	59:CU:339:ARG:H	1.87	0.40
59:CW:2:ARG:HD3	59:CW:2:ARG:HA	1.78	0.40
60:CZ:156:ARG:HA	60:CZ:156:ARG:HD3	1.91	0.40
59:DE:21:TRP:CZ2	59:DE:65:ALA:HB2	2.57	0.40
60:DJ:139:LEU:HD12	60:DJ:170:ILE:HG12	2.02	0.40
59:DK:165:SER:HA	59:DK:199:ASP:OD2	2.21	0.40
60:DR:139:LEU:HD12	60:DR:170:ILE:HG12	2.03	0.40
59:DX:90:GLU:HB3	59:DX:121:ARG:NH1	2.36	0.40
59:EN:111:GLY:HA2	59:EN:114:ILE:HG22	2.03	0.40
60:EO:137:HIS:O	60:EO:168:SER:HA	2.21	0.40
59:EP:56:THR:HG23	59:EP:58:ALA:H	1.86	0.40
59:EP:221:ARG:HD3	60:EQ:325:GLU:OE2	2.22	0.40
60:ES:253:LEU:O	60:ES:257:LEU:HD13	2.20	0.40
60:EU:48:ASN:O	60:EU:62:ARG:NH1	2.54	0.40
60:FC:209:ASP:OD1	60:FC:213:ARG:HG2	2.22	0.40
60:FE:70:PRO:HA	60:FE:73:MET:HE2	2.03	0.40
60:FO:8:GLN:HE22	60:FO:21:TRP:HE1	1.69	0.40
60:FO:332:ASN:OD1	60:FO:336:LYS:HE2	2.21	0.40
59:FT:269:LEU:HD22	59:FT:303:THR:HG21	2.04	0.40
59:FT:308:ARG:HG3	59:FT:308:ARG:HH11	1.87	0.40
59:FU:52:PHE:HZ	59:FU:239:THR:HG21	1.85	0.40
59:FU:356:ASN:OD1	59:FU:357:TYR:N	2.54	0.40
60:FV:145:SER:OG	60:FV:188:SER:OG	2.16	0.40
59:GC:203:MET:CE	59:GC:267:PHE:HB3	2.51	0.40
60:GM:8:GLN:HE22	60:GM:21:TRP:HE1	1.67	0.40
60:GO:27:GLU:OE1	60:GO:241:ARG:NH2	2.54	0.40
60:GV:67:ASP:O	60:GV:92:PHE:HA	2.21	0.40
60:GX:67:ASP:OD1	60:GX:68:LEU:N	2.53	0.40
60:GZ:303:ALA:HB1	60:GZ:373:CYS:HB2	2.04	0.40
60:HB:67:ASP:OD1	60:HB:68:LEU:N	2.52	0.40
60:HB:131:GLN:OE1	60:HB:163:ILE:HD12	2.21	0.40
60:HD:289:LEU:O	60:HD:293:MET:HB2	2.21	0.40
59:HQ:96:LYS:HD2	59:HQ:96:LYS:HA	1.78	0.40
59:HV:175:PRO:HB3	59:HV:390:ARG:NH1	2.36	0.40
59:HV:178:SER:CB	60:HW:347:ASN:HD22	2.33	0.40
59:HX:26:LEU:HD23	59:HX:363:VAL:HG22	2.02	0.40
60:HY:139:LEU:HG	60:HY:168:SER:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:IB:185:TYR:OH	59:IB:398:MET:HG2	2.21	0.40
60:IC:2:ARG:HG3	60:IC:2:ARG:HH11	1.86	0.40
60:IF:285:SER:OG	60:IF:287:PRO:HD2	2.22	0.40
59:IG:74:VAL:O	59:IG:78:VAL:HG23	2.22	0.40
59:IG:210:TYR:HA	59:IG:213:THR:HG22	2.03	0.40
60:IL:20:PHE:HA	60:IL:230:SER:OG	2.21	0.40
60:IL:262:ARG:HH11	60:IL:262:ARG:HG2	1.86	0.40
59:IQ:117:LEU:HB3	59:IQ:121:ARG:CZ	2.51	0.40
60:IR:162:ARG:HG3	60:IR:163:ILE:H	1.85	0.40
60:IR:334:GLN:HA	60:IR:341:PHE:HE2	1.86	0.40
60:IS:279:GLN:OE1	60:IS:279:GLN:N	2.54	0.40
60:IS:309:ARG:HD2	60:IS:342:ILE:HD13	2.02	0.40
59:IV:203:MET:HE3	59:IV:203:MET:HB2	1.99	0.40
60:IY:21:TRP:CZ2	60:IY:63:SER:HB3	2.57	0.40
60:IY:287:PRO:HA	60:IY:290:THR:HG22	2.04	0.40
60:JA:8:GLN:HB2	60:JA:65:LEU:HD13	2.04	0.40
60:JE:99:ASN:HD22	59:JF:258:ASN:HD21	1.68	0.40
59:JF:52:PHE:CZ	59:JF:239:THR:HG21	2.56	0.40
60:JG:199:SER:O	60:JG:265:PHE:HA	2.21	0.40
60:JG:292:GLN:HG2	60:JG:298:ASN:HD22	1.87	0.40
59:JH:273:ALA:HB2	59:JH:295:VAL:CG1	2.51	0.40
60:JI:73:MET:O	60:JI:76:VAL:HG22	2.20	0.40
60:JI:257:LEU:O	60:JI:370:ASN:ND2	2.55	0.40
59:KC:172:TYR:HD1	59:KC:173:PRO:HD2	1.86	0.40
59:KD:40:LYS:HD2	59:KD:40:LYS:HA	1.87	0.40
60:KE:170:ILE:HD13	60:KE:201:CYS:HB3	2.03	0.40
59:KH:111:GLY:HA2	59:KH:114:ILE:HG22	2.03	0.40
60:KK:313:ALA:HB3	60:KK:349:ILE:CD1	2.51	0.40
59:KL:84:ARG:HG3	59:KL:85:GLN:HG3	2.04	0.40
59:KN:40:LYS:HB2	59:KN:44:VAL:HG21	2.03	0.40
59:KN:324:VAL:HG13	59:KN:325:PRO:HD2	2.03	0.40
60:KR:207:LEU:HB3	60:KR:225:LEU:HG	2.03	0.40
60:KV:376:GLU:HA	60:KV:379:ARG:HG2	2.04	0.40
60:KX:380:ARG:HA	60:KX:383:GLU:HG2	2.04	0.40
59:KY:334:THR:O	59:KY:337:THR:OG1	2.32	0.40
1:0A:599:PHE:HA	1:0A:602:ARG:HH21	1.86	0.40
1:0B:143:MET:HB2	60:DY:77:ARG:HH21	1.87	0.40
1:0B:409:ARG:O	1:0B:413:ARG:HG2	2.22	0.40
10:0S:120:SER:OG	10:0S:122:ASP:OD1	2.40	0.40
10:0S:354:THR:HB	10:0S:388:ARG:HB3	2.03	0.40
23:1F:100:TYR:O	60:GB:221:THR:HG21	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:1Q:17:ALA:HA	30:1Q:20:LYS:NZ	2.36	0.40
31:1U:229:GLN:NE2	31:1U:283:GLU:OE1	2.55	0.40
32:1Y:13:ILE:HG13	32:1Y:13:ILE:O	2.21	0.40
33:2D:138:VAL:H	33:2D:148:CYS:HB2	1.86	0.40
39:2O:180:ARG:HE	39:2O:180:ARG:HB2	1.74	0.40
40:2T:139:LYS:HG3	60:JE:80:PRO:HB3	2.03	0.40
41:2W:323:ARG:HH11	41:2W:323:ARG:HG3	1.86	0.40
41:2Y:316:ARG:HH12	59:ID:43:GLY:HA3	1.86	0.40
41:2Z:262:GLU:O	41:2Z:265:GLN:HG3	2.22	0.40
41:3D:106:ARG:HA	41:3D:106:ARG:HD3	1.89	0.40
42:3F:42:THR:O	42:3F:46:GLU:HB2	2.22	0.40
42:3P:23:CYS:SG	42:3P:28:HIS:ND1	2.68	0.40
47:3X:205:ASP:HA	47:3X:208:VAL:HB	2.03	0.40
47:3X:243:ASN:HB3	47:3X:246:ASN:OD1	2.21	0.40
53:4L:24:HIS:HA	60:IU:114:ASP:OD2	2.21	0.40
59:AA:174:SER:OG	59:AA:207:GLU:HB2	2.21	0.40
60:AB:54:ALA:HB3	60:AB:58:ARG:HB2	2.04	0.40
60:AB:173:PRO:HB3	60:AB:380:ARG:NE	2.36	0.40
59:AC:156:ARG:HG3	59:AC:156:ARG:HH11	1.87	0.40
59:AC:224:TYR:CE2	60:AD:323:THR:HG21	2.56	0.40
60:AD:175:VAL:HG13	59:AE:329:ASN:OD1	2.21	0.40
60:AF:20:PHE:HA	60:AF:230:SER:HB2	2.04	0.40
60:AF:103:LYS:HG2	60:AF:108:GLU:OE1	2.22	0.40
60:AL:249:ASP:OD1	60:AL:250:LEU:N	2.53	0.40
60:AN:193:VAL:HG21	60:AN:418:LEU:HD12	2.03	0.40
60:AX:66:ILE:HG13	60:AX:147:MET:HE3	2.02	0.40
59:AY:90:GLU:C	59:AY:121:ARG:HH12	2.24	0.40
59:AY:336:LYS:HE3	59:AY:351:PHE:CE2	2.57	0.40
60:AZ:67:ASP:OD2	60:AZ:72:THR:OG1	2.31	0.40
59:BG:36:MET:HB2	59:BG:61:HIS:CE1	2.56	0.40
59:BG:292:SER:OG	59:BG:319:TYR:OH	2.32	0.40
59:BK:2:ARG:HH11	59:BK:130:THR:HG23	1.86	0.40
60:BL:164:MET:O	60:BL:197:ASP:HB2	2.21	0.40
60:BP:154:LYS:HE2	60:BP:154:LYS:HB2	1.85	0.40
59:BW:74:VAL:O	59:BW:78:VAL:HG23	2.21	0.40
59:BW:84:ARG:HG3	59:BW:84:ARG:HH11	1.87	0.40
59:CD:102:ASN:OD1	59:CD:104:ALA:N	2.54	0.40
59:CH:165:SER:HA	59:CH:199:ASP:OD2	2.21	0.40
60:CI:286:VAL:HG12	60:CI:329:GLN:HG3	2.03	0.40
59:CJ:273:ALA:HB2	59:CJ:295:VAL:CG1	2.51	0.40
60:CT:27:GLU:O	60:CT:43:GLN:NE2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
59:CU:402:ARG:N	59:CU:402:ARG:HD2	2.36	0.40
59:CY:441:ASP:OD1	59:CY:441:ASP:N	2.55	0.40
60:DD:68:LEU:HD23	60:DD:68:LEU:HA	1.85	0.40
60:DD:292:GLN:O	60:DD:298:ASN:ND2	2.52	0.40
60:DD:330:MET:HA	60:DD:333:VAL:HG12	2.03	0.40
60:DF:173:PRO:HB3	60:DF:380:ARG:CD	2.50	0.40
60:DJ:309:ARG:HD2	60:DJ:342:ILE:HD13	2.03	0.40
59:DM:392:ASP:OD1	59:DM:425:LEU:HD23	2.21	0.40
59:DO:273:ALA:HB3	59:DO:274:PRO:HD3	2.04	0.40
60:DR:219:THR:HA	59:DS:326:LYS:HZ3	1.84	0.40
59:DS:304:LYS:HE2	59:DS:304:LYS:HB2	1.81	0.40
59:DX:44:VAL:HG12	59:DX:45:GLU:N	2.37	0.40
60:DY:77:ARG:NH1	60:DY:83:GLN:HA	2.36	0.40
60:DY:211:CYS:HA	60:DY:215:LEU:HD13	2.02	0.40
60:EA:19:LYS:HB2	60:EA:19:LYS:HE2	1.95	0.40
60:EE:327:ASP:OD1	60:EE:328:GLU:N	2.55	0.40
60:EI:376:GLU:O	60:EI:380:ARG:HG3	2.21	0.40
60:EM:207:LEU:CB	60:EM:225:LEU:HD22	2.51	0.40
60:EU:152:ILE:HG12	60:EU:164:MET:HE3	2.03	0.40
59:FB:273:ALA:HB2	59:FB:295:VAL:HG23	2.03	0.40
60:FC:112:LEU:HD23	60:FC:112:LEU:HA	1.92	0.40
59:FJ:52:PHE:CZ	59:FJ:239:THR:HG21	2.57	0.40
60:FM:271:ALA:O	60:FM:273:LEU:N	2.54	0.40
59:FR:265:ILE:HG23	59:FR:432:TYR:CZ	2.57	0.40
60:FS:27:GLU:OE2	60:FS:241:ARG:NH2	2.54	0.40
60:FX:91:ILE:HD11	60:FX:119:VAL:HG21	2.03	0.40
60:GB:178:THR:N	60:GB:181:GLU:OE2	2.55	0.40
59:GH:132:LEU:CD1	59:GH:164:LYS:HD3	2.46	0.40
59:GJ:222:PRO:HD2	60:GK:324:LYS:HD3	2.03	0.40
60:GM:290:THR:HA	60:GM:293:MET:HE3	2.04	0.40
59:GN:167:LEU:HD21	59:GN:256:GLN:NE2	2.36	0.40
59:GN:172:TYR:CD2	59:GN:203:MET:HG2	2.57	0.40
59:GN:261:PRO:HG3	59:GN:313:MET:HE2	2.04	0.40
60:GO:46:ARG:O	60:GO:49:VAL:HG22	2.21	0.40
60:GQ:170:ILE:HG13	60:GQ:171:PRO:HD2	2.02	0.40
59:GR:138:TYR:OH	59:GR:235:VAL:HG11	2.21	0.40
60:GS:113:ILE:CG1	60:GS:154:LYS:HE3	2.52	0.40
59:GT:326:LYS:HB3	59:GT:326:LYS:NZ	2.37	0.40
60:GV:31:ASP:OD1	60:GV:32:PRO:HD2	2.22	0.40
60:GV:287:PRO:HA	60:GV:290:THR:HG22	2.03	0.40
59:HA:27:GLU:HG2	59:HA:361:THR:HG21	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:HB:207:LEU:HB3	60:HB:225:LEU:HD22	2.02	0.40
60:HB:385:PHE:CE2	60:HB:412:GLU:HB2	2.56	0.40
59:HC:68:LEU:HD13	59:HC:68:LEU:HA	1.92	0.40
60:HD:179:VAL:HG22	59:HE:258:ASN:OD1	2.21	0.40
60:HF:28:HIS:CE1	60:HF:241:ARG:HD2	2.57	0.40
60:HH:162:ARG:HD3	60:HH:162:ARG:HA	1.76	0.40
60:HL:167:PHE:HA	60:HL:200:MET:HB2	2.04	0.40
60:HN:36:TYR:CZ	60:HN:44:LEU:HG	2.56	0.40
59:HO:55:GLU:OE2	59:HO:61:HIS:NE2	2.54	0.40
60:HP:65:LEU:HD22	60:HP:90:PHE:CE2	2.57	0.40
59:HT:192:HIS:ND1	59:HT:424:ASP:OD2	2.54	0.40
60:HW:342:ILE:HD11	60:HW:344:TRP:NE1	2.37	0.40
59:HX:399:TYR:OH	59:HX:415:GLU:OE2	2.19	0.40
59:HZ:269:LEU:CD2	59:HZ:384:ILE:HD11	2.51	0.40
59:HZ:356:ASN:OD1	59:HZ:357:TYR:N	2.54	0.40
60:IA:27:GLU:OE2	60:IA:241:ARG:NH2	2.55	0.40
60:IF:48:ASN:OD1	60:IF:49:VAL:N	2.55	0.40
59:II:392:ASP:HB3	59:II:422:ARG:NH2	2.37	0.40
60:IP:211:CYS:SG	60:IP:220:PRO:HB3	2.62	0.40
59:IQ:70:LEU:HD13	59:IQ:145:THR:OG1	2.21	0.40
60:IS:395:LEU:HD11	60:IS:408:PHE:HE2	1.87	0.40
59:IT:405:VAL:HG23	59:IT:418:PHE:CE2	2.52	0.40
60:IU:7:VAL:HB	60:IU:135:ILE:HD12	2.02	0.40
60:IW:33:THR:HG23	60:IW:35:THR:HG23	2.04	0.40
60:IW:313:ALA:HB1	60:IW:367:PHE:CE1	2.57	0.40
59:IX:76:ASP:HA	59:IX:79:ARG:HH11	1.87	0.40
60:IY:27:GLU:HA	60:IY:359:LYS:HE2	2.03	0.40
59:IZ:88:HIS:CE1	59:JL:280:LYS:HD2	2.57	0.40
60:JA:271:ALA:N	60:JA:293:MET:HE1	2.36	0.40
59:JB:105:ARG:HB3	59:JB:110:ILE:HD13	2.03	0.40
59:JB:328:VAL:O	59:JB:332:VAL:HG22	2.22	0.40
60:JC:263:LEU:HD22	60:JC:422:TYR:CE1	2.57	0.40
59:JD:99:ALA:HA	59:JD:105:ARG:HH11	1.87	0.40
60:JG:238:CYS:SG	60:JG:239:CYS:N	2.95	0.40
59:JH:428:LEU:HA	59:JH:431:ASP:OD2	2.21	0.40
60:JO:286:VAL:HG22	60:JO:321:MET:HE3	2.03	0.40
59:JS:47:ASP:CG	59:JS:50:ASN:HD22	2.24	0.40
59:JS:287:SER:HB3	59:JS:290:GLU:OE1	2.22	0.40
60:JX:27:GLU:OE1	60:JX:241:ARG:NH2	2.54	0.40
59:JY:70:LEU:HD13	59:JY:70:LEU:HA	1.93	0.40
59:JY:100:ALA:O	60:JZ:255:VAL:HG11	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
60:KK:68:LEU:HD23	60:KK:68:LEU:HA	1.85	0.40
60:KK:159:TYR:HB3	60:KK:162:ARG:HG3	2.02	0.40
59:KL:246:GLY:HA2	59:KL:357:TYR:HD2	1.85	0.40
59:KQ:340:THR:HA	59:KQ:342:GLN:HE22	1.85	0.40
60:KT:66:ILE:HG13	60:KT:147:MET:HE3	2.02	0.40
60:KT:91:ILE:HD11	60:KT:119:VAL:HG21	2.03	0.40
59:KU:27:GLU:OE1	59:KU:243:ARG:NH2	2.46	0.40
59:LA:188:VAL:O	59:LA:191:THR:HG22	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0A	660/752 (88%)	636 (96%)	23 (4%)	1 (0%)	44	73
1	0B	726/752 (96%)	705 (97%)	20 (3%)	1 (0%)	48	77
1	0C	730/752 (97%)	706 (97%)	24 (3%)	0	100	100
1	0D	129/752 (17%)	126 (98%)	3 (2%)	0	100	100
2	0E	722/779 (93%)	703 (97%)	19 (3%)	0	100	100
3	0F	659/724 (91%)	629 (95%)	30 (5%)	0	100	100
4	0G	754/779 (97%)	713 (95%)	41 (5%)	0	100	100
5	0H	259/385 (67%)	254 (98%)	5 (2%)	0	100	100
5	0I	115/385 (30%)	111 (96%)	4 (4%)	0	100	100
5	0J	42/385 (11%)	40 (95%)	2 (5%)	0	100	100
5	0K	361/385 (94%)	353 (98%)	8 (2%)	0	100	100
6	0M	302/483 (62%)	300 (99%)	2 (1%)	0	100	100
6	0N	165/483 (34%)	160 (97%)	5 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	0O	152/436 (35%)	152 (100%)	0	0	100	100
7	0P	301/436 (69%)	301 (100%)	0	0	100	100
8	0Q	330/334 (99%)	323 (98%)	7 (2%)	0	100	100
9	0R	341/349 (98%)	327 (96%)	14 (4%)	0	100	100
10	0S	417/422 (99%)	406 (97%)	11 (3%)	0	100	100
11	0T	410/422 (97%)	388 (95%)	22 (5%)	0	100	100
12	0U	302/331 (91%)	289 (96%)	13 (4%)	0	100	100
13	0V	166/219 (76%)	158 (95%)	8 (5%)	0	100	100
14	0W	103/130 (79%)	100 (97%)	3 (3%)	0	100	100
15	0X	177/270 (66%)	172 (97%)	5 (3%)	0	100	100
16	0Y	267/301 (89%)	260 (97%)	7 (3%)	0	100	100
17	0Z	468/552 (85%)	456 (97%)	12 (3%)	0	100	100
18	1A	355/359 (99%)	346 (98%)	9 (2%)	0	100	100
19	1B	270/297 (91%)	264 (98%)	6 (2%)	0	100	100
20	1C	245/282 (87%)	230 (94%)	15 (6%)	0	100	100
21	1D	296/320 (92%)	281 (95%)	15 (5%)	0	100	100
22	1E	235/249 (94%)	224 (95%)	11 (5%)	0	100	100
23	1F	230/254 (91%)	220 (96%)	10 (4%)	0	100	100
24	1G	163/182 (90%)	155 (95%)	8 (5%)	0	100	100
25	1H	254/386 (66%)	249 (98%)	5 (2%)	0	100	100
26	1I	316/417 (76%)	305 (96%)	11 (4%)	0	100	100
26	1J	87/417 (21%)	84 (97%)	3 (3%)	0	100	100
27	1K	265/415 (64%)	250 (94%)	15 (6%)	0	100	100
27	1L	134/415 (32%)	128 (96%)	6 (4%)	0	100	100
28	1M	219/415 (53%)	203 (93%)	16 (7%)	0	100	100
28	1N	99/415 (24%)	92 (93%)	7 (7%)	0	100	100
29	1O	116/247 (47%)	112 (97%)	4 (3%)	0	100	100
29	1P	54/247 (22%)	53 (98%)	1 (2%)	0	100	100
29	4X	40/247 (16%)	38 (95%)	2 (5%)	0	100	100
30	1Q	273/300 (91%)	262 (96%)	11 (4%)	0	100	100
30	1R	273/300 (91%)	261 (96%)	12 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
30	1S	273/300 (91%)	265 (97%)	8 (3%)	0	100	100
31	1T	222/312 (71%)	218 (98%)	4 (2%)	0	100	100
31	1U	222/312 (71%)	217 (98%)	5 (2%)	0	100	100
32	1V	183/294 (62%)	174 (95%)	9 (5%)	0	100	100
32	1W	183/294 (62%)	175 (96%)	8 (4%)	0	100	100
32	1X	183/294 (62%)	176 (96%)	7 (4%)	0	100	100
32	1Y	183/294 (62%)	175 (96%)	8 (4%)	0	100	100
32	1Z	183/294 (62%)	173 (94%)	10 (6%)	0	100	100
32	2A	183/294 (62%)	174 (95%)	9 (5%)	0	100	100
33	2B	618/629 (98%)	571 (92%)	47 (8%)	0	100	100
33	2C	625/629 (99%)	574 (92%)	51 (8%)	0	100	100
33	2D	625/629 (99%)	570 (91%)	55 (9%)	0	100	100
34	2E	238/274 (87%)	228 (96%)	10 (4%)	0	100	100
34	2F	238/274 (87%)	229 (96%)	9 (4%)	0	100	100
35	2G	171/374 (46%)	162 (95%)	9 (5%)	0	100	100
35	2H	146/374 (39%)	141 (97%)	5 (3%)	0	100	100
36	2I	277/369 (75%)	260 (94%)	17 (6%)	0	100	100
36	2J	273/369 (74%)	260 (95%)	13 (5%)	0	100	100
36	2K	273/369 (74%)	263 (96%)	10 (4%)	0	100	100
37	2L	234/272 (86%)	224 (96%)	10 (4%)	0	100	100
37	2M	234/272 (86%)	224 (96%)	10 (4%)	0	100	100
38	2N	237/262 (90%)	231 (98%)	6 (2%)	0	100	100
39	2O	185/483 (38%)	183 (99%)	2 (1%)	0	100	100
39	2P	301/483 (62%)	299 (99%)	2 (1%)	0	100	100
39	2Q	317/483 (66%)	313 (99%)	4 (1%)	0	100	100
39	2R	187/483 (39%)	186 (100%)	1 (0%)	0	100	100
40	2S	77/515 (15%)	74 (96%)	3 (4%)	0	100	100
40	2T	433/515 (84%)	427 (99%)	6 (1%)	0	100	100
40	2U	64/515 (12%)	63 (98%)	1 (2%)	0	100	100
41	2V	122/348 (35%)	122 (100%)	0	0	100	100
41	2W	231/348 (66%)	226 (98%)	5 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
41	2X	50/348 (14%)	50 (100%)	0	0	100	100
41	2Y	331/348 (95%)	329 (99%)	2 (1%)	0	100	100
41	2Z	270/348 (78%)	269 (100%)	1 (0%)	0	100	100
41	3A	108/348 (31%)	107 (99%)	1 (1%)	0	100	100
41	3B	171/348 (49%)	171 (100%)	0	0	100	100
41	3C	211/348 (61%)	206 (98%)	5 (2%)	0	100	100
41	3D	251/348 (72%)	248 (99%)	3 (1%)	0	100	100
42	3E	62/266 (23%)	61 (98%)	1 (2%)	0	100	100
42	3F	180/266 (68%)	172 (96%)	8 (4%)	0	100	100
42	3G	166/266 (62%)	158 (95%)	8 (5%)	0	100	100
42	3H	76/266 (29%)	72 (95%)	4 (5%)	0	100	100
42	3I	106/266 (40%)	103 (97%)	3 (3%)	0	100	100
42	3J	143/266 (54%)	137 (96%)	6 (4%)	0	100	100
42	3K	49/266 (18%)	48 (98%)	1 (2%)	0	100	100
42	3L	178/266 (67%)	164 (92%)	14 (8%)	0	100	100
42	3M	181/266 (68%)	174 (96%)	7 (4%)	0	100	100
42	3N	59/266 (22%)	59 (100%)	0	0	100	100
42	3O	115/266 (43%)	112 (97%)	3 (3%)	0	100	100
42	3P	115/266 (43%)	110 (96%)	5 (4%)	0	100	100
43	3Q	152/270 (56%)	146 (96%)	6 (4%)	0	100	100
44	3R	159/325 (49%)	155 (98%)	4 (2%)	0	100	100
45	3S	157/191 (82%)	150 (96%)	7 (4%)	0	100	100
46	3T	170/320 (53%)	162 (95%)	8 (5%)	0	100	100
46	3U	135/320 (42%)	129 (96%)	6 (4%)	0	100	100
47	3V	235/278 (84%)	220 (94%)	15 (6%)	0	100	100
47	3W	234/278 (84%)	223 (95%)	11 (5%)	0	100	100
47	3X	225/278 (81%)	210 (93%)	15 (7%)	0	100	100
48	3Y	247/269 (92%)	232 (94%)	15 (6%)	0	100	100
48	3Z	118/269 (44%)	112 (95%)	6 (5%)	0	100	100
48	4A	235/269 (87%)	221 (94%)	14 (6%)	0	100	100
49	4B	100/420 (24%)	97 (97%)	3 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	4C	104/420 (25%)	100 (96%)	4 (4%)	0	100	100
49	4D	95/420 (23%)	93 (98%)	2 (2%)	0	100	100
50	4E	38/337 (11%)	38 (100%)	0	0	100	100
50	4F	127/337 (38%)	125 (98%)	2 (2%)	0	100	100
50	4G	38/337 (11%)	37 (97%)	1 (3%)	0	100	100
51	4H	201/329 (61%)	197 (98%)	4 (2%)	0	100	100
52	4I	128/350 (37%)	125 (98%)	3 (2%)	0	100	100
52	4J	26/350 (7%)	23 (88%)	3 (12%)	0	100	100
53	4K	198/286 (69%)	186 (94%)	12 (6%)	0	100	100
53	4L	105/286 (37%)	99 (94%)	6 (6%)	0	100	100
54	4M	156/193 (81%)	155 (99%)	1 (1%)	0	100	100
54	4N	156/193 (81%)	155 (99%)	1 (1%)	0	100	100
54	4O	155/193 (80%)	154 (99%)	1 (1%)	0	100	100
55	4P	138/191 (72%)	134 (97%)	4 (3%)	0	100	100
56	4Q	69/166 (42%)	68 (99%)	1 (1%)	0	100	100
57	4R	125/161 (78%)	124 (99%)	1 (1%)	0	100	100
57	4S	130/161 (81%)	128 (98%)	2 (2%)	0	100	100
57	4Y	36/161 (22%)	32 (89%)	4 (11%)	0	100	100
58	4T	70/867 (8%)	70 (100%)	0	0	100	100
58	4U	70/867 (8%)	70 (100%)	0	0	100	100
58	4V	70/867 (8%)	70 (100%)	0	0	100	100
58	4W	70/867 (8%)	70 (100%)	0	0	100	100
59	AA	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	AC	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	AE	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	AG	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	AI	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	AK	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	AM	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	AO	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	AQ	440/451 (98%)	420 (96%)	20 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
59	AS	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	AU	440/451 (98%)	428 (97%)	12 (3%)	0	100	100
59	AW	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	AY	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	BA	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	BC	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	BE	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	BG	440/451 (98%)	422 (96%)	18 (4%)	0	100	100
59	BI	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	BK	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	BM	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	BO	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	BQ	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	BS	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	BU	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	BW	440/451 (98%)	424 (96%)	15 (3%)	1 (0%)	44	73
59	BX	440/451 (98%)	420 (96%)	20 (4%)	0	100	100
59	BZ	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	CB	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	CD	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	CF	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	CH	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	CJ	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	CM	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	CO	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	CQ	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	CS	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	CU	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	CW	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	CY	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	DA	440/451 (98%)	426 (97%)	14 (3%)	0	100	100

Continued on next page...

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
59	DC	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	DE	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	DG	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	DI	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	DK	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	DM	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	DO	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	DQ	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	DS	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	DU	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	DX	440/451 (98%)	423 (96%)	16 (4%)	1 (0%)	44	73
59	DZ	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	EB	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	ED	440/451 (98%)	428 (97%)	12 (3%)	0	100	100
59	EF	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	EH	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	EJ	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	EL	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	EN	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	EP	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	ER	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	ET	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	EV	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	EX	440/451 (98%)	428 (97%)	12 (3%)	0	100	100
59	EZ	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	FB	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	FD	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	FF	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	FH	440/451 (98%)	425 (97%)	14 (3%)	1 (0%)	44	73
59	FJ	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	FL	440/451 (98%)	424 (96%)	16 (4%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
59	FN	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	FP	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	FR	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	FT	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	FU	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	FW	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	FY	440/451 (98%)	421 (96%)	19 (4%)	0	100	100
59	GA	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	GC	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	GE	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	GG	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	GH	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	GJ	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	GL	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	GN	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	GP	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	GR	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	GT	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	GU	440/451 (98%)	421 (96%)	18 (4%)	1 (0%)	44	73
59	GW	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	GY	440/451 (98%)	427 (97%)	11 (2%)	2 (0%)	25	56
59	HA	440/451 (98%)	421 (96%)	18 (4%)	1 (0%)	44	73
59	HC	440/451 (98%)	425 (97%)	14 (3%)	1 (0%)	44	73
59	HE	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	HG	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	HI	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	HK	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	HM	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	HO	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	HQ	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	HT	440/451 (98%)	423 (96%)	17 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
59	HV	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	HX	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	HZ	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	IB	440/451 (98%)	428 (97%)	12 (3%)	0	100	100
59	ID	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	IG	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	II	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	IK	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	IM	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	IO	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	IQ	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	IT	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	IV	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	IX	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	IZ	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	JB	440/451 (98%)	428 (97%)	12 (3%)	0	100	100
59	JD	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	JF	440/451 (98%)	428 (97%)	12 (3%)	0	100	100
59	JH	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	JJ	440/451 (98%)	422 (96%)	18 (4%)	0	100	100
59	JL	440/451 (98%)	428 (97%)	12 (3%)	0	100	100
59	JN	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	JP	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	JQ	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	JS	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	JU	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	JW	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	JY	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	KA	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	KC	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	KD	440/451 (98%)	422 (96%)	18 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
59	KF	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	KH	440/451 (98%)	427 (97%)	13 (3%)	0	100	100
59	KJ	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
59	KL	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	KN	440/451 (98%)	422 (96%)	18 (4%)	0	100	100
59	KP	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	KQ	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	KS	440/451 (98%)	423 (96%)	17 (4%)	0	100	100
59	KU	440/451 (98%)	424 (96%)	16 (4%)	0	100	100
59	KW	440/451 (98%)	425 (97%)	15 (3%)	0	100	100
59	KY	440/451 (98%)	423 (96%)	16 (4%)	1 (0%)	44	73
59	LA	440/451 (98%)	426 (97%)	14 (3%)	0	100	100
60	AB	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	AD	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	AF	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	AH	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	AJ	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	AL	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	AN	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	AP	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	AR	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	AT	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	AV	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	AX	428/442 (97%)	416 (97%)	12 (3%)	0	100	100
60	AZ	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	BB	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	BD	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	BF	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	BH	428/442 (97%)	415 (97%)	12 (3%)	1 (0%)	44	73
60	BJ	428/442 (97%)	416 (97%)	11 (3%)	1 (0%)	44	73
60	BL	428/442 (97%)	421 (98%)	7 (2%)	0	100	100

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Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
60	BN	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	BP	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	BR	428/442 (97%)	415 (97%)	12 (3%)	1 (0%)	44	73
60	BT	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	BV	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	BY	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	CA	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	CC	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	CE	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	CG	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	CI	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	CL	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	CN	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	CP	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	CR	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	CT	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	CV	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	CX	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	CZ	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	DB	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	DD	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	DF	428/442 (97%)	416 (97%)	12 (3%)	0	100	100
60	DH	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	DJ	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	DL	428/442 (97%)	419 (98%)	8 (2%)	1 (0%)	44	73
60	DN	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	DP	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	DR	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	DT	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	DV	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	DW	428/442 (97%)	417 (97%)	11 (3%)	0	100	100

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Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
60	DY	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	EA	428/442 (97%)	413 (96%)	15 (4%)	0	100	100
60	EC	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	EE	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	EG	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	EI	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	EK	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	EM	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	EO	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	EQ	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	ES	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	EU	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	EW	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	EY	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	FA	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	FC	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	FE	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	FG	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	FI	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	FK	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	FM	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	FO	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	FQ	428/442 (97%)	419 (98%)	8 (2%)	1 (0%)	44	73
60	FS	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	FV	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	FX	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	FZ	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	GB	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	GD	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	GF	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	GI	428/442 (97%)	418 (98%)	10 (2%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
60	GK	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	GM	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	GO	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	GQ	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	GS	428/442 (97%)	416 (97%)	12 (3%)	0	100	100
60	GV	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	GX	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	GZ	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	HB	428/442 (97%)	418 (98%)	9 (2%)	1 (0%)	44	73
60	HD	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	HF	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	HH	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	HJ	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	HL	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	HN	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	HP	428/442 (97%)	416 (97%)	12 (3%)	0	100	100
60	HR	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	HS	428/442 (97%)	415 (97%)	13 (3%)	0	100	100
60	HU	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	HW	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	HY	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	IA	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	IC	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	IE	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	IF	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	IH	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	IJ	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	IL	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	IN	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	IP	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	IR	428/442 (97%)	419 (98%)	9 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
60	IS	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	IU	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	IW	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	IY	428/442 (97%)	414 (97%)	14 (3%)	0	100	100
60	JA	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	JC	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	JE	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	JG	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	JI	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	JK	428/442 (97%)	421 (98%)	7 (2%)	0	100	100
60	JM	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	JO	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	JR	428/442 (97%)	416 (97%)	12 (3%)	0	100	100
60	JT	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	JV	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	JX	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	JZ	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	KB	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	KE	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	KG	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
60	KI	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	KK	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	KM	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	KO	428/442 (97%)	415 (97%)	11 (3%)	2 (0%)	25	56
60	KR	428/442 (97%)	418 (98%)	10 (2%)	0	100	100
60	KT	428/442 (97%)	417 (97%)	11 (3%)	0	100	100
60	KV	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	KX	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	KZ	428/442 (97%)	419 (98%)	9 (2%)	0	100	100
60	LB	428/442 (97%)	420 (98%)	8 (2%)	0	100	100
All	All	152773/175732 (87%)	148265 (97%)	4489 (3%)	19 (0%)	100	100

All (19) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
60	DL	393	ALA
59	GU	439	SER
59	HC	261	PRO
60	KO	393	ALA
59	KY	403	ALA
60	BH	427	ASP
60	BR	427	ASP
59	FH	403	ALA
59	GY	439	SER
59	BW	273	ALA
60	FQ	259	PRO
1	0A	369	LYS
1	0B	369	LYS
60	BJ	426	GLN
59	DX	40	LYS
59	GY	440	ALA
59	HA	222	PRO
60	KO	399	THR
60	HB	220	PRO

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0A	587/669 (88%)	580 (99%)	7 (1%)	67	89
1	0B	649/669 (97%)	646 (100%)	3 (0%)	86	95
1	0C	653/669 (98%)	650 (100%)	3 (0%)	86	95
1	0D	117/669 (18%)	117 (100%)	0	100	100
2	0E	632/674 (94%)	631 (100%)	1 (0%)	92	97
3	0F	590/640 (92%)	588 (100%)	2 (0%)	91	97
4	0G	686/707 (97%)	684 (100%)	2 (0%)	91	97
5	0H	235/344 (68%)	233 (99%)	2 (1%)	75	92
5	0I	109/344 (32%)	109 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	0J	39/344 (11%)	39 (100%)	0	100	100
5	0K	325/344 (94%)	325 (100%)	0	100	100
6	0M	261/421 (62%)	260 (100%)	1 (0%)	89	96
6	0N	150/421 (36%)	149 (99%)	1 (1%)	81	94
7	0O	129/376 (34%)	128 (99%)	1 (1%)	79	93
7	0P	263/376 (70%)	258 (98%)	5 (2%)	52	82
8	0Q	284/286 (99%)	282 (99%)	2 (1%)	81	94
9	0R	290/296 (98%)	289 (100%)	1 (0%)	91	97
10	0S	363/366 (99%)	362 (100%)	1 (0%)	91	97
11	0T	364/371 (98%)	363 (100%)	1 (0%)	91	97
12	0U	270/292 (92%)	270 (100%)	0	100	100
13	0V	139/180 (77%)	138 (99%)	1 (1%)	81	94
14	0W	86/105 (82%)	86 (100%)	0	100	100
15	0X	160/235 (68%)	160 (100%)	0	100	100
16	0Y	227/253 (90%)	227 (100%)	0	100	100
17	0Z	409/479 (85%)	405 (99%)	4 (1%)	73	91
18	1A	315/317 (99%)	313 (99%)	2 (1%)	84	95
19	1B	242/259 (93%)	240 (99%)	2 (1%)	79	93
20	1C	207/234 (88%)	207 (100%)	0	100	100
21	1D	251/269 (93%)	250 (100%)	1 (0%)	89	96
22	1E	205/215 (95%)	204 (100%)	1 (0%)	86	95
23	1F	207/226 (92%)	206 (100%)	1 (0%)	86	95
24	1G	144/156 (92%)	143 (99%)	1 (1%)	81	94
25	1H	227/332 (68%)	226 (100%)	1 (0%)	89	96
26	1I	270/349 (77%)	270 (100%)	0	100	100
26	1J	77/349 (22%)	77 (100%)	0	100	100
27	1K	225/348 (65%)	223 (99%)	2 (1%)	75	92
27	1L	118/348 (34%)	118 (100%)	0	100	100
28	1M	192/347 (55%)	191 (100%)	1 (0%)	86	95
28	1N	85/347 (24%)	84 (99%)	1 (1%)	67	89
29	1O	105/196 (54%)	105 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
29	1P	46/196 (24%)	46 (100%)	0	100	100
29	4X	39/196 (20%)	39 (100%)	0	100	100
30	1Q	234/253 (92%)	233 (100%)	1 (0%)	89	96
30	1R	234/253 (92%)	234 (100%)	0	100	100
30	1S	234/253 (92%)	234 (100%)	0	100	100
31	1T	200/274 (73%)	200 (100%)	0	100	100
31	1U	200/274 (73%)	199 (100%)	1 (0%)	86	95
32	1V	173/270 (64%)	173 (100%)	0	100	100
32	1W	173/270 (64%)	173 (100%)	0	100	100
32	1X	173/270 (64%)	173 (100%)	0	100	100
32	1Y	173/270 (64%)	171 (99%)	2 (1%)	67	89
32	1Z	173/270 (64%)	173 (100%)	0	100	100
32	2A	173/270 (64%)	172 (99%)	1 (1%)	84	95
33	2B	512/519 (99%)	510 (100%)	2 (0%)	89	96
33	2C	517/519 (100%)	515 (100%)	2 (0%)	89	96
33	2D	517/519 (100%)	516 (100%)	1 (0%)	92	97
34	2E	200/230 (87%)	200 (100%)	0	100	100
34	2F	200/230 (87%)	199 (100%)	1 (0%)	86	95
35	2G	160/321 (50%)	160 (100%)	0	100	100
35	2H	137/321 (43%)	135 (98%)	2 (2%)	60	86
36	2I	245/311 (79%)	244 (100%)	1 (0%)	89	96
36	2J	241/311 (78%)	239 (99%)	2 (1%)	79	93
36	2K	241/311 (78%)	241 (100%)	0	100	100
37	2L	209/236 (89%)	209 (100%)	0	100	100
37	2M	209/236 (89%)	209 (100%)	0	100	100
38	2N	211/234 (90%)	211 (100%)	0	100	100
39	2O	172/426 (40%)	169 (98%)	3 (2%)	56	84
39	2P	269/426 (63%)	266 (99%)	3 (1%)	70	90
39	2Q	284/426 (67%)	279 (98%)	5 (2%)	54	83
39	2R	166/426 (39%)	166 (100%)	0	100	100
40	2S	68/448 (15%)	67 (98%)	1 (2%)	60	86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
40	2T	382/448 (85%)	380 (100%)	2 (0%)	86	95
40	2U	59/448 (13%)	59 (100%)	0	100	100
41	2V	111/303 (37%)	110 (99%)	1 (1%)	75	92
41	2W	201/303 (66%)	200 (100%)	1 (0%)	86	95
41	2X	49/303 (16%)	49 (100%)	0	100	100
41	2Y	290/303 (96%)	288 (99%)	2 (1%)	81	94
41	2Z	233/303 (77%)	232 (100%)	1 (0%)	89	96
41	3A	97/303 (32%)	96 (99%)	1 (1%)	73	91
41	3B	149/303 (49%)	146 (98%)	3 (2%)	50	81
41	3C	184/303 (61%)	184 (100%)	0	100	100
41	3D	218/303 (72%)	214 (98%)	4 (2%)	54	83
42	3E	58/235 (25%)	57 (98%)	1 (2%)	56	84
42	3F	164/235 (70%)	161 (98%)	3 (2%)	54	83
42	3G	153/235 (65%)	152 (99%)	1 (1%)	81	94
42	3H	72/235 (31%)	71 (99%)	1 (1%)	62	87
42	3I	100/235 (43%)	100 (100%)	0	100	100
42	3J	132/235 (56%)	132 (100%)	0	100	100
42	3K	46/235 (20%)	45 (98%)	1 (2%)	47	79
42	3L	166/235 (71%)	163 (98%)	3 (2%)	54	83
42	3M	170/235 (72%)	169 (99%)	1 (1%)	84	95
42	3N	58/235 (25%)	56 (97%)	2 (3%)	32	66
42	3O	109/235 (46%)	108 (99%)	1 (1%)	75	92
42	3P	108/235 (46%)	107 (99%)	1 (1%)	75	92
43	3Q	143/242 (59%)	142 (99%)	1 (1%)	81	94
44	3R	151/289 (52%)	149 (99%)	2 (1%)	65	88
45	3S	136/159 (86%)	135 (99%)	1 (1%)	81	94
46	3T	147/267 (55%)	146 (99%)	1 (1%)	81	94
46	3U	119/267 (45%)	119 (100%)	0	100	100
47	3V	206/237 (87%)	206 (100%)	0	100	100
47	3W	205/237 (86%)	204 (100%)	1 (0%)	86	95
47	3X	198/237 (84%)	196 (99%)	2 (1%)	73	91

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
48	3Y	212/229 (93%)	210 (99%)	2 (1%)	75	92
48	3Z	102/229 (44%)	101 (99%)	1 (1%)	73	91
48	4A	204/229 (89%)	204 (100%)	0	100	100
49	4B	96/350 (27%)	95 (99%)	1 (1%)	73	91
49	4C	100/350 (29%)	99 (99%)	1 (1%)	73	91
49	4D	94/350 (27%)	92 (98%)	2 (2%)	48	80
50	4E	35/283 (12%)	35 (100%)	0	100	100
50	4F	118/283 (42%)	118 (100%)	0	100	100
50	4G	35/283 (12%)	34 (97%)	1 (3%)	37	71
51	4H	164/273 (60%)	163 (99%)	1 (1%)	84	95
52	4I	112/301 (37%)	111 (99%)	1 (1%)	75	92
52	4J	25/301 (8%)	24 (96%)	1 (4%)	27	60
53	4K	177/255 (69%)	176 (99%)	1 (1%)	84	95
53	4L	95/255 (37%)	94 (99%)	1 (1%)	70	90
54	4M	153/182 (84%)	153 (100%)	0	100	100
54	4N	153/182 (84%)	153 (100%)	0	100	100
54	4O	152/182 (84%)	151 (99%)	1 (1%)	81	94
55	4P	132/177 (75%)	131 (99%)	1 (1%)	79	93
56	4Q	63/149 (42%)	63 (100%)	0	100	100
57	4R	120/148 (81%)	117 (98%)	3 (2%)	42	75
57	4S	124/148 (84%)	124 (100%)	0	100	100
57	4Y	35/148 (24%)	35 (100%)	0	100	100
58	4T	67/763 (9%)	66 (98%)	1 (2%)	60	86
58	4U	67/763 (9%)	66 (98%)	1 (2%)	60	86
58	4V	67/763 (9%)	67 (100%)	0	100	100
58	4W	67/763 (9%)	66 (98%)	1 (2%)	60	86
59	AA	368/376 (98%)	368 (100%)	0	100	100
59	AC	368/376 (98%)	368 (100%)	0	100	100
59	AE	368/376 (98%)	368 (100%)	0	100	100
59	AG	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	AI	368/376 (98%)	368 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
59	AK	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	AM	368/376 (98%)	368 (100%)	0	100	100
59	AO	368/376 (98%)	368 (100%)	0	100	100
59	AQ	368/376 (98%)	368 (100%)	0	100	100
59	AS	368/376 (98%)	368 (100%)	0	100	100
59	AU	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	AW	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	AY	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	BA	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	BC	368/376 (98%)	368 (100%)	0	100	100
59	BE	368/376 (98%)	368 (100%)	0	100	100
59	BG	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	BI	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	BK	368/376 (98%)	368 (100%)	0	100	100
59	BM	368/376 (98%)	368 (100%)	0	100	100
59	BO	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	BQ	368/376 (98%)	368 (100%)	0	100	100
59	BS	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	BU	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	BW	368/376 (98%)	368 (100%)	0	100	100
59	BX	368/376 (98%)	368 (100%)	0	100	100
59	BZ	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	CB	368/376 (98%)	368 (100%)	0	100	100
59	CD	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	CF	368/376 (98%)	368 (100%)	0	100	100
59	CH	368/376 (98%)	368 (100%)	0	100	100
59	CJ	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	CM	368/376 (98%)	368 (100%)	0	100	100
59	CO	368/376 (98%)	368 (100%)	0	100	100
59	CQ	368/376 (98%)	368 (100%)	0	100	100
59	CS	368/376 (98%)	367 (100%)	1 (0%)	91	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
59	CU	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	CW	368/376 (98%)	368 (100%)	0	100	100
59	CY	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	DA	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	DC	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	DE	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	DG	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	DI	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	DK	368/376 (98%)	368 (100%)	0	100	100
59	DM	368/376 (98%)	368 (100%)	0	100	100
59	DO	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	DQ	368/376 (98%)	368 (100%)	0	100	100
59	DS	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	DU	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	DX	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	DZ	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	EB	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	ED	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	EF	368/376 (98%)	368 (100%)	0	100	100
59	EH	368/376 (98%)	368 (100%)	0	100	100
59	EJ	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	EL	368/376 (98%)	368 (100%)	0	100	100
59	EN	368/376 (98%)	368 (100%)	0	100	100
59	EP	368/376 (98%)	368 (100%)	0	100	100
59	ER	368/376 (98%)	368 (100%)	0	100	100
59	ET	368/376 (98%)	368 (100%)	0	100	100
59	EV	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	EX	368/376 (98%)	368 (100%)	0	100	100
59	EZ	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	FB	368/376 (98%)	368 (100%)	0	100	100
59	FD	368/376 (98%)	368 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
59	FF	368/376 (98%)	368 (100%)	0	100	100
59	FH	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	FJ	368/376 (98%)	368 (100%)	0	100	100
59	FL	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	FN	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	FP	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	FR	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	FT	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	FU	368/376 (98%)	368 (100%)	0	100	100
59	FW	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	FY	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	GA	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	GC	368/376 (98%)	368 (100%)	0	100	100
59	GE	368/376 (98%)	368 (100%)	0	100	100
59	GG	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	GH	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	GJ	368/376 (98%)	368 (100%)	0	100	100
59	GL	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	GN	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	GP	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	GR	368/376 (98%)	368 (100%)	0	100	100
59	GT	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	GU	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	GW	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	GY	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	HA	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	HC	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	HE	368/376 (98%)	368 (100%)	0	100	100
59	HG	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	HI	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	HK	368/376 (98%)	367 (100%)	1 (0%)	91	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
59	HM	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	HO	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	HQ	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	HT	368/376 (98%)	364 (99%)	4 (1%)	70	90
59	HV	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	HX	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	HZ	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	IB	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	ID	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	IG	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	II	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	IK	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	IM	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	IO	368/376 (98%)	368 (100%)	0	100	100
59	IQ	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	IT	368/376 (98%)	368 (100%)	0	100	100
59	IV	368/376 (98%)	365 (99%)	3 (1%)	79	93
59	IX	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	IZ	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	JB	368/376 (98%)	368 (100%)	0	100	100
59	JD	368/376 (98%)	364 (99%)	4 (1%)	70	90
59	JF	368/376 (98%)	368 (100%)	0	100	100
59	JH	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	JJ	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	JL	368/376 (98%)	368 (100%)	0	100	100
59	JN	368/376 (98%)	368 (100%)	0	100	100
59	JP	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	JQ	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	JS	368/376 (98%)	364 (99%)	4 (1%)	70	90
59	JU	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	JW	368/376 (98%)	367 (100%)	1 (0%)	91	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
59	JY	368/376 (98%)	368 (100%)	0	100	100
59	KA	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	KC	368/376 (98%)	364 (99%)	4 (1%)	70	90
59	KD	368/376 (98%)	368 (100%)	0	100	100
59	KF	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	KH	368/376 (98%)	368 (100%)	0	100	100
59	KJ	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	KL	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	KN	368/376 (98%)	367 (100%)	1 (0%)	91	97
59	KP	368/376 (98%)	366 (100%)	2 (0%)	86	95
59	KQ	368/376 (98%)	368 (100%)	0	100	100
59	KS	368/376 (98%)	368 (100%)	0	100	100
59	KU	368/376 (98%)	368 (100%)	0	100	100
59	KW	368/376 (98%)	368 (100%)	0	100	100
59	KY	368/376 (98%)	368 (100%)	0	100	100
59	LA	368/376 (98%)	368 (100%)	0	100	100
60	AB	374/385 (97%)	374 (100%)	0	100	100
60	AD	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	AF	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	AH	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	AJ	374/385 (97%)	374 (100%)	0	100	100
60	AL	374/385 (97%)	374 (100%)	0	100	100
60	AN	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	AP	374/385 (97%)	370 (99%)	4 (1%)	70	90
60	AR	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	AT	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	AV	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	AX	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	AZ	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	BB	374/385 (97%)	374 (100%)	0	100	100
60	BD	374/385 (97%)	371 (99%)	3 (1%)	79	93

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
60	BF	374/385 (97%)	374 (100%)	0	100	100
60	BH	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	BJ	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	BL	374/385 (97%)	374 (100%)	0	100	100
60	BN	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	BP	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	BR	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	BT	374/385 (97%)	374 (100%)	0	100	100
60	BV	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	BY	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	CA	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	CC	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	CE	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	CG	374/385 (97%)	374 (100%)	0	100	100
60	CI	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	CL	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	CN	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	CP	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	CR	374/385 (97%)	369 (99%)	5 (1%)	65	88
60	CT	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	CV	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	CX	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	CZ	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	DB	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	DD	374/385 (97%)	374 (100%)	0	100	100
60	DF	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	DH	374/385 (97%)	374 (100%)	0	100	100
60	DJ	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	DL	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	DN	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	DP	374/385 (97%)	374 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
60	DR	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	DT	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	DV	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	DW	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	DY	374/385 (97%)	374 (100%)	0	100	100
60	EA	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	EC	374/385 (97%)	374 (100%)	0	100	100
60	EE	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	EG	374/385 (97%)	374 (100%)	0	100	100
60	EI	374/385 (97%)	374 (100%)	0	100	100
60	EK	374/385 (97%)	374 (100%)	0	100	100
60	EM	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	EO	374/385 (97%)	374 (100%)	0	100	100
60	EQ	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	ES	374/385 (97%)	374 (100%)	0	100	100
60	EU	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	EW	374/385 (97%)	374 (100%)	0	100	100
60	EY	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	FA	374/385 (97%)	374 (100%)	0	100	100
60	FC	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	FE	374/385 (97%)	374 (100%)	0	100	100
60	FG	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	FI	374/385 (97%)	368 (98%)	6 (2%)	58	85
60	FK	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	FM	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	FO	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	FQ	374/385 (97%)	370 (99%)	4 (1%)	70	90
60	FS	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	FV	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	FX	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	FZ	374/385 (97%)	374 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
60	GB	374/385 (97%)	374 (100%)	0	100	100
60	GD	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	GF	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	GI	374/385 (97%)	374 (100%)	0	100	100
60	GK	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	GM	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	GO	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	GQ	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	GS	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	GV	374/385 (97%)	370 (99%)	4 (1%)	70	90
60	GX	374/385 (97%)	370 (99%)	4 (1%)	70	90
60	GZ	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	HB	374/385 (97%)	366 (98%)	8 (2%)	48	80
60	HD	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	HF	374/385 (97%)	368 (98%)	6 (2%)	58	85
60	HH	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	HJ	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	HL	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	HN	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	HP	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	HR	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	HS	374/385 (97%)	368 (98%)	6 (2%)	58	85
60	HU	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	HW	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	HY	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	IA	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	IC	374/385 (97%)	374 (100%)	0	100	100
60	IE	374/385 (97%)	374 (100%)	0	100	100
60	IF	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	IH	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	IJ	374/385 (97%)	373 (100%)	1 (0%)	91	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
60	IL	374/385 (97%)	374 (100%)	0	100	100
60	IN	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	IP	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	IR	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	IS	374/385 (97%)	374 (100%)	0	100	100
60	IU	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	IW	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	IY	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	JA	374/385 (97%)	374 (100%)	0	100	100
60	JC	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	JE	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	JG	374/385 (97%)	374 (100%)	0	100	100
60	JI	374/385 (97%)	370 (99%)	4 (1%)	70	90
60	JK	374/385 (97%)	374 (100%)	0	100	100
60	JM	374/385 (97%)	374 (100%)	0	100	100
60	JO	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	JR	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	JT	374/385 (97%)	372 (100%)	2 (0%)	86	95
60	JV	374/385 (97%)	374 (100%)	0	100	100
60	JX	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	JZ	374/385 (97%)	374 (100%)	0	100	100
60	KB	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	KE	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	KG	374/385 (97%)	374 (100%)	0	100	100
60	KI	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	KK	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	KM	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	KO	374/385 (97%)	371 (99%)	3 (1%)	79	93
60	KR	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	KT	374/385 (97%)	373 (100%)	1 (0%)	91	97
60	KV	374/385 (97%)	374 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
60	KX	374/385 (97%)	373 (100%)	1 (0%)	91 97
60	KZ	374/385 (97%)	371 (99%)	3 (1%)	79 93
60	LB	374/385 (97%)	369 (99%)	5 (1%)	65 88
All	All	131521/150498 (87%)	131008 (100%)	513 (0%)	88 96

All (513) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	0A	369	LYS
1	0A	370	PHE
1	0A	372	ILE
1	0A	409	ARG
1	0A	602	ARG
1	0A	643	ARG
1	0A	689	LYS
1	0B	369	LYS
1	0B	370	PHE
1	0B	407	ARG
1	0C	47	HIS
1	0C	369	LYS
1	0C	372	ILE
2	0E	373	ARG
3	0F	286	ASN
3	0F	609	LYS
4	0G	419	LYS
4	0G	450	ARG
5	0H	100	ASN
5	0H	171	ARG
6	0M	182	ARG
6	0N	303	ARG
7	0O	124	LYS
7	0P	132	LYS
7	0P	347	ARG
7	0P	358	LYS
7	0P	388	ARG
7	0P	422	ARG
8	0Q	10	LYS
8	0Q	309	ASN
9	0R	150	ARG
10	0S	281	ARG
11	0T	85	ARG

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Mol	Chain	Res	Type
13	0V	39	ARG
17	0Z	260	THR
17	0Z	386	ARG
17	0Z	499	MET
17	0Z	502	CYS
18	1A	277	ARG
18	1A	346	LYS
19	1B	130	ARG
19	1B	172	THR
21	1D	19	ARG
22	1E	23	ASN
23	1F	112	ASN
24	1G	110	LYS
25	1H	129	GLN
27	1K	120	ARG
27	1K	201	ARG
28	1M	291	GLN
28	1N	109	ARG
30	1Q	66	GLN
31	1U	247	ARG
32	1Y	159	ASN
32	1Y	160	CYS
32	2A	170	ARG
33	2B	232	ARG
33	2B	509	ARG
33	2C	110	LYS
33	2C	232	ARG
33	2D	232	ARG
34	2F	219	ARG
35	2H	285	ARG
35	2H	311	ARG
36	2I	55	GLN
36	2J	287	ARG
36	2J	288	PHE
39	2O	107	ARG
39	2O	161	LYS
39	2O	162	MET
39	2P	261	LYS
39	2P	305	ARG
39	2P	369	LYS
39	2Q	43	ARG
39	2Q	64	ARG

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Mol	Chain	Res	Type
39	2Q	137	CYS
39	2Q	189	LYS
39	2Q	279	LYS
40	2S	112	ARG
40	2T	107	LYS
40	2T	321	ARG
41	2V	28	LYS
41	2W	155	ARG
41	2Y	29	LYS
41	2Y	238	LYS
41	2Z	182	LYS
41	3A	298	ARG
41	3B	60	LYS
41	3B	71	ARG
41	3B	81	LYS
41	3D	118	LYS
41	3D	121	ARG
41	3D	129	ARG
41	3D	133	LYS
42	3E	233	ARG
42	3F	31	THR
42	3F	32	ASP
42	3F	34	LYS
42	3G	231	ARG
42	3H	21	ARG
42	3K	233	ARG
42	3L	34	LYS
42	3L	75	LYS
42	3L	122	LEU
42	3M	75	LYS
42	3N	29	ARG
42	3N	34	LYS
42	3O	235	VAL
42	3P	29	ARG
43	3Q	135	LYS
44	3R	162	GLN
44	3R	191	LYS
45	3S	125	ARG
46	3T	246	ARG
47	3W	42	HIS
47	3X	73	CYS
47	3X	184	ARG

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Mol	Chain	Res	Type
48	3Y	22	HIS
48	3Y	188	ARG
48	3Z	191	ARG
49	4B	90	ARG
49	4C	90	ARG
49	4D	76	ARG
49	4D	105	ARG
50	4G	152	ARG
51	4H	195	ARG
52	4I	38	ARG
52	4J	346	LEU
53	4K	208	ARG
53	4L	11	LEU
54	4O	164	LYS
55	4P	151	LYS
57	4R	57	ARG
57	4R	58	ARG
57	4R	71	ASN
58	4T	104	ARG
58	4U	118	ARG
58	4W	118	ARG
60	AD	306	ARG
60	AD	375	GLN
60	AF	414	ASN
59	AG	128	ASN
59	AG	438	GLU
60	AH	298	ASN
60	AH	306	ARG
60	AH	336	LYS
59	AK	112	LYS
59	AK	390	ARG
59	AK	442	MET
60	AN	99	ASN
60	AN	170	ILE
60	AN	172	SER
60	AP	99	ASN
60	AP	280	GLN
60	AP	306	ARG
60	AP	423	GLN
60	AR	122	LYS
60	AR	170	ILE
60	AT	99	ASN

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Mol	Chain	Res	Type
59	AU	128	ASN
59	AU	442	MET
60	AV	306	ARG
59	AW	438	GLU
60	AX	320	ARG
59	AY	163	LYS
60	AZ	122	LYS
60	AZ	298	ASN
59	BA	88	HIS
59	BA	216	ASN
59	BA	422	ARG
60	BD	321	MET
60	BD	427	ASP
60	BD	430	ILE
59	BG	88	HIS
59	BG	163	LYS
59	BG	442	MET
60	BH	174	LYS
60	BH	175	VAL
60	BH	377	MET
59	BI	123	ARG
60	BJ	205	GLU
60	BJ	425	TYR
60	BN	298	ASN
60	BN	414	ASN
59	BO	88	HIS
60	BP	99	ASN
60	BP	431	GLU
60	BR	427	ASP
59	BS	214	ARG
59	BU	339	ARG
59	BU	441	ASP
60	BV	11	GLN
60	BV	55	THR
60	BV	298	ASN
60	BY	99	ASN
60	BY	299	MET
60	BY	416	ASN
59	BZ	128	ASN
59	BZ	308	ARG
59	BZ	339	ARG
60	CA	298	ASN

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Mol	Chain	Res	Type
60	CA	301	GLN
60	CA	414	ASN
60	CC	298	ASN
60	CC	321	MET
60	CC	390	ARG
59	CD	221	ARG
60	CE	298	ASN
60	CE	306	ARG
60	CI	298	ASN
59	CJ	128	ASN
60	CL	298	ASN
60	CL	414	ASN
60	CN	195	ASN
60	CP	282	ARG
60	CP	298	ASN
60	CR	190	HIS
60	CR	380	ARG
60	CR	414	ASN
60	CR	423	GLN
60	CR	424	GLN
59	CS	308	ARG
60	CT	99	ASN
59	CU	339	ARG
60	CV	306	ARG
60	CV	414	ASN
60	CX	276	ARG
59	CY	259	LEU
59	CY	390	ARG
60	CZ	99	ASN
59	DA	390	ARG
60	DB	99	ASN
60	DB	175	VAL
60	DB	377	MET
59	DC	128	ASN
59	DE	192	HIS
59	DE	390	ARG
59	DE	441	ASP
60	DF	99	ASN
59	DG	239	THR
59	DG	390	ARG
59	DI	166	LYS
59	DI	308	ARG

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Mol	Chain	Res	Type
60	DJ	306	ARG
60	DL	395	LEU
60	DL	406	MET
60	DN	122	LYS
60	DN	298	ASN
60	DN	359	LYS
59	DO	112	LYS
60	DR	291	GLN
59	DS	107	HIS
60	DT	298	ASN
59	DU	221	ARG
59	DU	422	ARG
60	DV	324	LYS
60	DW	99	ASN
60	DW	298	ASN
59	DX	41	THR
59	DZ	163	LYS
59	DZ	390	ARG
59	DZ	442	MET
60	EA	282	ARG
60	EA	298	ASN
59	EB	163	LYS
59	ED	233	GLN
59	ED	308	ARG
60	EE	175	VAL
60	EE	178	THR
60	EE	276	ARG
59	EJ	221	ARG
60	EM	58	ARG
60	EM	195	ASN
60	EQ	195	ASN
60	EU	99	ASN
59	EV	372	GLN
60	EY	195	ASN
60	EY	306	ARG
60	EY	390	ARG
59	EZ	41	THR
59	EZ	45	GLU
59	EZ	339	ARG
60	FC	94	GLN
60	FG	298	ASN
59	FH	309	HIS

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Mol	Chain	Res	Type
60	FI	99	ASN
60	FI	267	MET
60	FI	298	ASN
60	FI	312	THR
60	FI	344	TRP
60	FI	414	ASN
60	FK	298	ASN
60	FK	306	ARG
60	FK	414	ASN
59	FL	163	LYS
59	FL	221	ARG
60	FM	414	ASN
59	FN	339	ARG
60	FO	195	ASN
59	FP	309	HIS
60	FQ	298	ASN
60	FQ	311	LEU
60	FQ	312	THR
60	FQ	344	TRP
59	FR	308	ARG
59	FR	339	ARG
60	FS	282	ARG
60	FS	298	ASN
59	FT	390	ARG
60	FV	306	ARG
59	FW	88	HIS
60	FX	298	ASN
60	FX	306	ARG
59	FY	303	THR
59	FY	339	ARG
59	GA	339	ARG
60	GD	162	ARG
60	GF	298	ASN
60	GF	306	ARG
60	GF	414	ASN
59	GG	163	LYS
59	GG	430	LYS
59	GH	308	ARG
60	GK	414	ASN
59	GL	256	GLN
60	GM	11	GLN
59	GN	112	LYS

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Mol	Chain	Res	Type
59	GN	163	LYS
59	GN	280	LYS
60	GO	122	LYS
60	GO	306	ARG
60	GO	320	ARG
59	GP	163	LYS
60	GQ	359	LYS
60	GQ	414	ASN
60	GS	122	LYS
60	GS	219	THR
60	GS	370	ASN
59	GT	441	ASP
59	GT	442	MET
59	GU	128	ASN
59	GU	217	LEU
60	GV	122	LYS
60	GV	306	ARG
60	GV	333	VAL
60	GV	422	TYR
59	GW	88	HIS
59	GW	422	ARG
59	GW	438	GLU
60	GX	122	LYS
60	GX	195	ASN
60	GX	329	GLN
60	GX	414	ASN
59	GY	124	LYS
59	GY	430	LYS
60	GZ	81	TYR
59	HA	218	ASP
59	HA	256	GLN
60	HB	122	LYS
60	HB	218	THR
60	HB	219	THR
60	HB	222	PHE
60	HB	276	ARG
60	HB	298	ASN
60	HB	375	GLN
60	HB	395	LEU
59	HC	346	TRP
59	HC	442	MET
60	HD	122	LYS

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Mol	Chain	Res	Type
60	HD	280	GLN
60	HF	37	GLN
60	HF	122	LYS
60	HF	174	LYS
60	HF	276	ARG
60	HF	298	ASN
60	HF	334	GLN
59	HG	339	ARG
59	HG	442	MET
60	HH	14	ASN
60	HH	306	ARG
59	HI	256	GLN
59	HI	443	ASP
60	HJ	306	ARG
59	HK	308	ARG
60	HL	122	LYS
60	HL	298	ASN
60	HL	306	ARG
59	HM	430	LYS
60	HN	99	ASN
59	HO	422	ARG
59	HO	442	MET
60	HP	282	ARG
60	HP	324	LYS
59	HQ	128	ASN
59	HQ	323	VAL
59	HQ	422	ARG
60	HR	298	ASN
60	HR	306	ARG
60	HS	165	MET
60	HS	217	LEU
60	HS	219	THR
60	HS	222	PHE
60	HS	306	ARG
60	HS	324	LYS
59	HT	50	ASN
59	HT	214	ARG
59	HT	219	ILE
59	HT	324	VAL
60	HU	276	ARG
60	HU	279	GLN
60	HU	350	LYS

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Mol	Chain	Res	Type
59	HV	88	HIS
60	HW	99	ASN
59	HX	163	LYS
60	HY	282	ARG
60	HY	306	ARG
59	HZ	361	THR
59	HZ	363	VAL
59	HZ	442	MET
60	IA	162	ARG
59	IB	128	ASN
59	IB	442	MET
59	ID	264	ARG
59	ID	443	ASP
60	IF	195	ASN
60	IF	347	ASN
59	IG	442	MET
60	IH	342	ILE
60	IH	344	TRP
59	II	442	MET
60	IJ	298	ASN
59	IK	221	ARG
59	IK	282	TYR
59	IM	339	ARG
60	IN	344	TRP
60	IP	195	ASN
60	IP	297	LYS
60	IP	298	ASN
59	IQ	128	ASN
59	IQ	214	ARG
60	IR	255	VAL
60	IR	276	ARG
60	IU	276	ARG
60	IU	298	ASN
60	IU	414	ASN
59	IV	54	SER
59	IV	119	LEU
59	IV	339	ARG
60	IW	83	GLN
59	IX	31	GLN
59	IX	308	ARG
60	IY	267	MET
60	IY	293	MET

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Mol	Chain	Res	Type
60	IY	414	ASN
59	IZ	128	ASN
60	JC	298	ASN
59	JD	203	MET
59	JD	268	VAL
59	JD	363	VAL
59	JD	384	ILE
60	JE	122	LYS
59	JH	422	ARG
60	JI	58	ARG
60	JI	227	HIS
60	JI	247	ASN
60	JI	256	ASN
59	JJ	41	THR
60	JO	306	ARG
59	JP	42	ILE
59	JQ	308	ARG
60	JR	320	ARG
60	JR	323	THR
60	JR	330	MET
59	JS	70	LEU
59	JS	75	VAL
59	JS	101	ASN
59	JS	223	THR
60	JT	246	LEU
60	JT	276	ARG
59	JU	422	ARG
59	JW	430	LYS
60	JX	306	ARG
59	KA	128	ASN
59	KA	308	ARG
60	KB	321	MET
59	KC	88	HIS
59	KC	304	LYS
59	KC	326	LYS
59	KC	442	MET
60	KE	362	LYS
59	KF	442	MET
60	KI	282	ARG
59	KJ	163	LYS
60	KK	195	ASN
59	KL	112	LYS

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Mol	Chain	Res	Type
60	KM	306	ARG
59	KN	219	ILE
60	KO	200	MET
60	KO	203	ASP
60	KO	414	ASN
59	KP	308	ARG
59	KP	442	MET
60	KR	8	GLN
60	KT	218	THR
60	KX	298	ASN
60	KZ	99	ASN
60	KZ	258	VAL
60	KZ	298	ASN
60	LB	58	ARG
60	LB	175	VAL
60	LB	298	ASN
60	LB	359	LYS
60	LB	414	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (371) such sidechains are listed below:

Mol	Chain	Res	Type
2	0E	601	GLN
3	0F	286	ASN
3	0F	525	HIS
4	0G	279	ASN
5	0H	150	GLN
6	0N	414	ASN
7	0O	141	ASN
9	0R	128	GLN
12	0U	109	HIS
17	0Z	379	GLN
20	1C	96	ASN
20	1C	128	HIS
22	1E	62	ASN
26	1I	301	ASN
26	1I	376	HIS
30	1S	233	GLN
32	1X	33	HIS
33	2B	326	HIS
33	2C	153	HIS
33	2D	554	ASN

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Mol	Chain	Res	Type
36	2I	49	HIS
41	2W	172	ASN
41	2Y	172	ASN
41	3B	117	GLN
41	3C	322	GLN
41	3D	117	GLN
42	3G	114	HIS
42	3G	150	GLN
47	3W	36	HIS
48	3Y	22	HIS
48	3Y	24	GLN
49	4D	95	GLN
53	4L	27	ASN
54	4O	165	HIS
29	4X	217	GLN
57	4Y	21	GLN
59	AA	285	GLN
60	AB	298	ASN
60	AB	334	GLN
59	AG	133	GLN
59	AI	91	GLN
60	AJ	414	ASN
59	AK	256	GLN
60	AN	256	ASN
60	AN	298	ASN
59	AQ	15	GLN
60	AR	301	GLN
59	AS	133	GLN
60	AT	15	GLN
59	AU	133	GLN
60	AV	298	ASN
60	AV	371	ASN
60	AX	256	ASN
60	AX	298	ASN
60	AX	414	ASN
59	AY	15	GLN
59	AY	88	HIS
60	AZ	334	GLN
60	BB	37	GLN
60	BD	11	GLN
60	BD	195	ASN
60	BD	298	ASN

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Mol	Chain	Res	Type
60	BD	301	GLN
60	BD	423	GLN
59	BE	11	GLN
59	BE	88	HIS
59	BE	283	HIS
59	BE	285	GLN
60	BF	247	ASN
59	BG	8	HIS
60	BH	291	GLN
60	BH	301	GLN
60	BH	334	GLN
59	BI	329	ASN
60	BJ	37	GLN
60	BJ	301	GLN
59	BK	380	ASN
60	BL	195	ASN
60	BP	195	ASN
60	BP	426	GLN
59	BQ	61	HIS
59	BQ	128	ASN
60	BR	298	ASN
59	BS	285	GLN
60	BT	414	ASN
59	BU	101	ASN
59	BU	192	HIS
60	BV	99	ASN
59	BW	31	GLN
59	BX	128	ASN
60	CA	347	ASN
60	CC	190	HIS
60	CC	414	ASN
59	CD	8	HIS
59	CD	285	GLN
60	CE	414	ASN
59	CF	50	ASN
59	CF	128	ASN
60	CG	190	HIS
60	CG	292	GLN
60	CG	298	ASN
59	CH	11	GLN
59	CH	258	ASN
60	CI	334	GLN

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Mol	Chain	Res	Type
60	CL	99	ASN
60	CL	301	GLN
59	CM	329	ASN
60	CN	347	ASN
59	CO	11	GLN
60	CP	15	GLN
60	CP	416	ASN
59	CQ	128	ASN
59	CQ	133	GLN
60	CR	99	ASN
60	CR	195	ASN
60	CR	292	GLN
60	CR	301	GLN
60	CR	414	ASN
60	CR	416	ASN
60	CT	195	ASN
60	CT	414	ASN
59	CU	15	GLN
59	CU	101	ASN
60	CV	11	GLN
60	CV	195	ASN
60	CV	334	GLN
60	CV	347	ASN
60	CV	414	ASN
60	CX	89	ASN
60	CX	99	ASN
60	CZ	89	ASN
60	CZ	99	ASN
59	DA	128	ASN
59	DE	285	GLN
60	DF	195	ASN
60	DF	371	ASN
59	DG	50	ASN
59	DG	249	ASN
60	DH	247	ASN
60	DH	301	GLN
59	DI	15	GLN
59	DI	133	GLN
60	DJ	298	ASN
60	DJ	414	ASN
60	DL	334	GLN
60	DL	414	ASN

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Mol	Chain	Res	Type
59	DM	283	HIS
59	DM	329	ASN
60	DN	11	GLN
60	DN	15	GLN
59	DO	11	GLN
59	DO	31	GLN
60	DP	334	GLN
60	DP	348	ASN
59	DQ	101	ASN
59	DQ	283	HIS
59	DS	107	HIS
59	DS	256	GLN
59	DU	176	GLN
59	DU	283	HIS
60	DV	371	ASN
60	DW	279	GLN
59	DX	293	ASN
60	DY	190	HIS
59	EB	256	GLN
60	EC	414	ASN
60	EE	298	ASN
59	EH	11	GLN
60	EI	37	GLN
59	EJ	372	GLN
60	EM	195	ASN
60	EM	227	HIS
60	EM	301	GLN
60	EM	347	ASN
59	EP	197	HIS
59	ER	8	HIS
59	ER	133	GLN
59	ER	372	GLN
59	ET	8	HIS
59	ET	91	GLN
59	ET	133	GLN
59	EV	88	HIS
60	EW	298	ASN
60	EW	301	GLN
59	EZ	393	HIS
60	FA	279	GLN
59	FF	101	ASN
60	FG	8	GLN

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Mol	Chain	Res	Type
59	FH	256	GLN
60	FI	375	GLN
60	FI	414	ASN
59	FJ	50	ASN
60	FK	414	ASN
60	FM	414	ASN
60	FO	334	GLN
60	FO	347	ASN
59	FP	101	ASN
59	FP	197	HIS
60	FQ	256	ASN
59	FT	88	HIS
60	FX	301	GLN
60	GB	279	GLN
60	GB	301	GLN
60	GD	292	GLN
60	GD	298	ASN
60	GD	301	GLN
59	GE	88	HIS
60	GF	8	GLN
59	GG	192	HIS
59	GH	258	ASN
59	GH	309	HIS
60	GI	292	GLN
60	GI	301	GLN
60	GI	334	GLN
60	GK	99	ASN
60	GK	301	GLN
60	GK	414	ASN
60	GK	424	GLN
59	GL	128	ASN
60	GM	190	HIS
59	GN	283	HIS
60	GO	99	ASN
60	GQ	99	ASN
60	GS	195	ASN
60	GS	371	ASN
59	GT	8	HIS
59	GU	226	ASN
60	GV	89	ASN
60	GV	99	ASN
59	GW	61	HIS

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Mol	Chain	Res	Type
59	GW	91	GLN
60	GX	414	ASN
60	GZ	195	ASN
60	GZ	245	GLN
59	HA	285	GLN
59	HC	15	GLN
59	HC	380	ASN
59	HE	11	GLN
60	HF	43	GLN
60	HF	89	ASN
59	HG	192	HIS
60	HH	99	ASN
60	HH	280	GLN
59	HK	128	ASN
60	HL	195	ASN
59	HM	197	HIS
60	HN	298	ASN
60	HN	301	GLN
59	HO	15	GLN
59	HO	88	HIS
59	HQ	133	GLN
59	HQ	192	HIS
60	HR	195	ASN
60	HS	134	GLN
60	HS	298	ASN
59	HT	50	ASN
60	HU	195	ASN
60	HU	279	GLN
60	HU	301	GLN
60	HU	347	ASN
59	HV	128	ASN
59	HV	192	HIS
59	HX	283	HIS
60	HY	298	ASN
59	HZ	285	GLN
60	IA	8	GLN
60	IA	347	ASN
59	ID	8	HIS
60	IE	99	ASN
60	IF	298	ASN
60	IF	347	ASN
60	IH	298	ASN

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Mol	Chain	Res	Type
59	IK	8	HIS
60	IL	11	GLN
60	IL	298	ASN
60	IL	348	ASN
59	IM	133	GLN
60	IN	83	GLN
60	IN	279	GLN
60	IN	298	ASN
60	IN	334	GLN
60	IP	414	ASN
59	IQ	8	HIS
59	IQ	11	GLN
59	IQ	15	GLN
60	IR	298	ASN
60	IR	347	ASN
59	IT	11	GLN
59	IT	101	ASN
60	IU	11	GLN
60	IU	190	HIS
60	IU	256	ASN
60	IU	347	ASN
60	IU	375	GLN
60	IU	414	ASN
60	IW	83	GLN
60	IW	291	GLN
60	IW	375	GLN
60	IY	8	GLN
60	IY	347	ASN
59	IZ	91	GLN
59	IZ	258	ASN
60	JA	195	ASN
60	JA	292	GLN
60	JA	298	ASN
59	JB	8	HIS
59	JB	18	ASN
60	JC	280	GLN
60	JC	335	ASN
59	JD	88	HIS
59	JD	91	GLN
59	JD	128	ASN
60	JE	11	GLN
60	JE	99	ASN

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Mol	Chain	Res	Type
60	JE	280	GLN
60	JE	424	GLN
59	JF	88	HIS
59	JF	380	ASN
60	JG	14	ASN
60	JG	247	ASN
60	JG	298	ASN
60	JG	301	GLN
60	JG	334	GLN
60	JI	301	GLN
59	JJ	192	HIS
60	JK	245	GLN
60	JK	291	GLN
60	JK	329	GLN
60	JK	334	GLN
60	JM	334	GLN
59	JN	11	GLN
60	JO	247	ASN
59	JP	192	HIS
59	JQ	8	HIS
59	JQ	133	GLN
60	JR	99	ASN
60	JR	280	GLN
59	JS	102	ASN
60	JT	99	ASN
59	JU	101	ASN
60	JV	99	ASN
60	JV	301	GLN
60	JX	94	GLN
59	JY	192	HIS
60	JZ	256	ASN
60	KB	8	GLN
60	KB	190	HIS
60	KB	334	GLN
60	KB	396	HIS
59	KC	192	HIS
59	KC	258	ASN
60	KE	134	GLN
60	KG	99	ASN
59	KH	329	ASN
60	KK	195	ASN
59	KN	11	GLN

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Mol	Chain	Res	Type
60	KO	396	HIS
60	KO	414	ASN
59	KP	61	HIS
59	KQ	192	HIS
60	KR	329	GLN
59	KS	133	GLN
60	KT	280	GLN
59	KU	329	ASN
59	KW	285	GLN
60	KX	99	ASN
59	KY	8	HIS
59	KY	133	GLN
59	LA	192	HIS
59	LA	285	GLN
60	LB	37	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 456 ligands modelled in this entry, 169 are monoatomic - leaving 287 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
62	GTP	JN	501	63	29,34,34	1.24	1 (3%)	35,54,54	1.32	5 (14%)
62	GTP	IB	602	63	29,34,34	1.20	1 (3%)	35,54,54	1.33	4 (11%)
64	GDP	EK	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.14	3 (10%)
64	GDP	FI	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.13	3 (10%)
64	GDP	FM	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.11	3 (10%)
62	GTP	CY	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	KP	501	63	29,34,34	1.23	3 (10%)	35,54,54	1.37	5 (14%)
64	GDP	IU	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.09	3 (10%)
64	GDP	EW	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.04	3 (10%)
64	GDP	EE	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.08	3 (10%)
62	GTP	BI	501	63	29,34,34	1.22	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	EL	602	63	29,34,34	1.21	1 (3%)	35,54,54	1.32	4 (11%)
62	GTP	KU	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.33	4 (11%)
62	GTP	ER	602	63	29,34,34	1.21	1 (3%)	35,54,54	1.33	5 (14%)
64	GDP	GQ	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.09	3 (10%)
62	GTP	GT	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.33	5 (14%)
64	GDP	IH	501	-	25,30,30	0.95	1 (4%)	30,47,47	1.07	3 (10%)
62	GTP	DA	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.35	4 (11%)
64	GDP	CT	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	DZ	602	63	29,34,34	1.21	1 (3%)	35,54,54	1.34	5 (14%)
64	GDP	HL	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.12	3 (10%)
64	GDP	HY	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.12	3 (10%)
64	GDP	EG	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	CF	602	63	29,34,34	1.20	1 (3%)	35,54,54	1.31	5 (14%)
64	GDP	AL	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.14	3 (10%)
62	GTP	DI	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.35	5 (14%)
64	GDP	JV	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.15	3 (10%)
62	GTP	KJ	602	63	29,34,34	1.22	2 (6%)	35,54,54	1.41	5 (14%)
64	GDP	AZ	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.09	3 (10%)
64	GDP	BD	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.14	3 (10%)
62	GTP	CQ	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	DG	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.39	4 (11%)
64	GDP	DY	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	II	501	63	29,34,34	1.24	1 (3%)	35,54,54	1.35	5 (14%)
64	GDP	DT	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.12	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
64	GDP	EC	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	KI	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.15	3 (10%)
64	GDP	CR	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.17	3 (10%)
64	GDP	DD	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.15	3 (10%)
64	GDP	KV	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.18	3 (10%)
64	GDP	AH	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.11	3 (10%)
62	GTP	GP	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	IK	602	63	29,34,34	1.23	2 (6%)	35,54,54	1.41	5 (14%)
62	GTP	IO	501	63	29,34,34	1.24	1 (3%)	35,54,54	1.34	5 (14%)
64	GDP	IJ	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	HW	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.14	3 (10%)
64	GDP	JC	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.07	3 (10%)
64	GDP	KG	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.11	3 (10%)
62	GTP	AG	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.37	5 (14%)
62	GTP	DE	501	63	29,34,34	1.18	2 (6%)	35,54,54	1.41	4 (11%)
62	GTP	FY	602	63	29,34,34	1.22	2 (6%)	35,54,54	1.39	5 (14%)
62	GTP	CU	602	63	29,34,34	1.19	1 (3%)	35,54,54	1.36	4 (11%)
64	GDP	JG	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.11	3 (10%)
62	GTP	GN	602	63	29,34,34	1.22	1 (3%)	35,54,54	1.39	5 (14%)
62	GTP	HE	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.38	6 (17%)
64	GDP	HB	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.16	3 (10%)
64	GDP	CE	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.06	3 (10%)
62	GTP	JF	501	63	29,34,34	1.22	1 (3%)	35,54,54	1.33	5 (14%)
62	GTP	AY	602	63	29,34,34	1.21	2 (6%)	35,54,54	1.34	5 (14%)
62	GTP	BE	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	IM	602	63	29,34,34	1.23	1 (3%)	35,54,54	1.36	5 (14%)
64	GDP	KB	501	-	25,30,30	1.04	2 (8%)	30,47,47	1.15	3 (10%)
62	GTP	FN	502	63	29,34,34	1.20	1 (3%)	35,54,54	1.33	5 (14%)
64	GDP	HP	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.23	3 (10%)
62	GTP	DO	602	63	29,34,34	1.23	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	HO	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.44	4 (11%)
64	GDP	GF	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.17	3 (10%)
62	GTP	BA	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	CH	602	63	29,34,34	1.23	2 (6%)	35,54,54	1.34	4 (11%)
62	GTP	EX	602	63	29,34,34	1.19	1 (3%)	35,54,54	1.35	5 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
64	GDP	JZ	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.08	3 (10%)
64	GDP	DR	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.11	3 (10%)
64	GDP	JA	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.16	3 (10%)
64	GDP	IR	501	-	25,30,30	1.02	1 (4%)	30,47,47	1.09	3 (10%)
62	GTP	JS	602	63	29,34,34	1.00	2 (6%)	35,54,54	0.78	0
64	GDP	HU	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	FS	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	KQ	602	63	29,34,34	1.19	2 (6%)	35,54,54	1.39	5 (14%)
62	GTP	EB	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.32	5 (14%)
64	GDP	FG	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.15	3 (10%)
62	GTP	JY	602	63	29,34,34	1.21	2 (6%)	35,54,54	1.36	5 (14%)
64	GDP	GX	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	DN	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.12	3 (10%)
64	GDP	DP	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.15	3 (10%)
62	GTP	AC	501	63	29,34,34	1.18	1 (3%)	35,54,54	1.35	5 (14%)
62	GTP	AU	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	EF	602	63	29,34,34	1.19	1 (3%)	35,54,54	1.30	5 (14%)
64	GDP	EI	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.09	3 (10%)
64	GDP	FA	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.05	2 (6%)
64	GDP	GO	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.14	3 (10%)
62	GTP	DX	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.33	5 (14%)
64	GDP	HF	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.14	3 (10%)
64	GDP	HN	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.16	3 (10%)
62	GTP	FU	602	63	29,34,34	1.21	3 (10%)	35,54,54	1.36	5 (14%)
64	GDP	DL	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	EO	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.08	3 (10%)
62	GTP	KF	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.37	5 (14%)
64	GDP	IE	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.09	3 (10%)
62	GTP	DU	602	63	29,34,34	1.22	2 (6%)	35,54,54	1.36	5 (14%)
64	GDP	FE	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	BP	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	JT	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.23	3 (10%)
62	GTP	JD	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.36	5 (14%)
62	GTP	IV	602	63	29,34,34	1.22	2 (6%)	35,54,54	1.34	5 (14%)
64	GDP	HH	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.20	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
62	GTP	GA	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.40	4 (11%)
62	GTP	DM	602	63	29,34,34	1.21	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	KC	602	63	29,34,34	1.27	3 (10%)	35,54,54	1.43	5 (14%)
64	GDP	AB	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.14	3 (10%)
62	GTP	BW	501	63	29,34,34	1.23	2 (6%)	35,54,54	1.37	5 (14%)
64	GDP	KT	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.19	3 (10%)
62	GTP	FL	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.32	5 (14%)
64	GDP	IP	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.11	3 (10%)
62	GTP	KN	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.36	4 (11%)
64	GDP	FQ	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.14	3 (10%)
64	GDP	KK	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.18	3 (10%)
64	GDP	HR	501	-	25,30,30	1.04	2 (8%)	30,47,47	1.20	3 (10%)
62	GTP	GL	501	63	29,34,34	1.18	2 (6%)	35,54,54	1.31	5 (14%)
62	GTP	KS	602	63	29,34,34	1.19	2 (6%)	35,54,54	1.32	5 (14%)
62	GTP	BM	501	63	29,34,34	1.20	1 (3%)	35,54,54	1.32	5 (14%)
64	GDP	GD	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.13	3 (10%)
64	GDP	GS	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.09	3 (10%)
62	GTP	GC	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	KL	602	63	29,34,34	1.20	1 (3%)	35,54,54	1.37	4 (11%)
64	GDP	AV	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.18	3 (10%)
64	GDP	CN	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	DV	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.16	3 (10%)
64	GDP	DF	501	-	25,30,30	1.03	3 (12%)	30,47,47	0.78	0
64	GDP	FC	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.06	3 (10%)
64	GDP	JX	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.13	3 (10%)
62	GTP	ED	602	63	29,34,34	1.20	1 (3%)	35,54,54	1.31	5 (14%)
62	GTP	DC	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.35	5 (14%)
64	GDP	JE	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	IS	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.14	3 (10%)
62	GTP	GE	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.36	4 (11%)
64	GDP	EQ	501	-	25,30,30	0.95	1 (4%)	30,47,47	1.20	3 (10%)
64	GDP	GV	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.12	3 (10%)
64	GDP	DW	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	KO	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	JI	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.09	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
62	GTP	CS	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	EV	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.34	5 (14%)
62	GTP	FH	501	63	29,34,34	1.19	1 (3%)	35,54,54	1.33	5 (14%)
62	GTP	BU	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.35	4 (11%)
62	GTP	BZ	501	63	29,34,34	1.18	1 (3%)	35,54,54	1.34	5 (14%)
62	GTP	ID	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.40	5 (14%)
62	GTP	HA	501	63	29,34,34	1.22	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	IG	501	63	29,34,34	1.24	1 (3%)	35,54,54	1.36	5 (14%)
62	GTP	HT	501	63	29,34,34	1.20	1 (3%)	35,54,54	1.34	4 (11%)
62	GTP	JU	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	AE	602	63	29,34,34	1.19	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	BK	602	63	29,34,34	1.21	1 (3%)	35,54,54	1.32	4 (11%)
62	GTP	HX	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.37	5 (14%)
64	GDP	AD	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	KH	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	ET	602	63	29,34,34	1.21	2 (6%)	35,54,54	1.36	5 (14%)
64	GDP	ES	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.06	3 (10%)
64	GDP	FO	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.17	3 (10%)
62	GTP	AK	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.34	5 (14%)
64	GDP	KZ	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.09	3 (10%)
64	GDP	HS	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	JM	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.13	3 (10%)
62	GTP	JJ	501	63	29,34,34	1.22	1 (3%)	35,54,54	1.35	5 (14%)
62	GTP	IZ	602	63	29,34,34	1.24	1 (3%)	35,54,54	1.36	5 (14%)
64	GDP	HD	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.23	3 (10%)
62	GTP	HK	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.35	4 (11%)
62	GTP	JL	602	63	29,34,34	1.19	1 (3%)	35,54,54	1.30	4 (11%)
62	GTP	FF	501	63	29,34,34	1.19	1 (3%)	35,54,54	1.34	5 (14%)
62	GTP	GJ	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	JH	501	63	29,34,34	1.19	1 (3%)	35,54,54	1.38	5 (14%)
62	GTP	DK	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	CM	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.34	4 (11%)
62	GTP	HG	602	63	29,34,34	1.21	2 (6%)	35,54,54	1.39	4 (11%)
64	GDP	BR	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.06	2 (6%)
62	GTP	AM	602	63	29,34,34	1.19	2 (6%)	35,54,54	1.39	5 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
62	GTP	BX	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.38	5 (14%)
64	GDP	CV	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.14	3 (10%)
62	GTP	KD	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.41	5 (14%)
62	GTP	JP	501	63	29,34,34	1.20	1 (3%)	35,54,54	1.33	5 (14%)
64	GDP	GB	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.18	3 (10%)
64	GDP	LB	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.17	3 (10%)
64	GDP	EU	501	-	25,30,30	1.00	1 (4%)	30,47,47	1.14	3 (10%)
64	GDP	BV	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.10	3 (10%)
62	GTP	GW	501	63	29,34,34	1.18	2 (6%)	35,54,54	1.34	5 (14%)
62	GTP	CB	501	63	29,34,34	1.20	1 (3%)	35,54,54	1.30	4 (11%)
62	GTP	KY	602	63	29,34,34	1.18	2 (6%)	35,54,54	1.35	5 (14%)
62	GTP	BG	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.33	5 (14%)
64	GDP	BY	501	-	25,30,30	1.01	1 (4%)	30,47,47	1.15	3 (10%)
62	GTP	EH	501	63	29,34,34	1.18	1 (3%)	35,54,54	1.33	5 (14%)
62	GTP	HC	602	63	29,34,34	1.19	2 (6%)	35,54,54	1.35	5 (14%)
64	GDP	AN	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.17	3 (10%)
64	GDP	CG	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.12	3 (10%)
64	GDP	BT	501	-	25,30,30	0.95	1 (4%)	30,47,47	1.08	3 (10%)
64	GDP	BL	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.07	3 (10%)
64	GDP	JR	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.12	3 (10%)
64	GDP	DJ	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	BC	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.33	5 (14%)
62	GTP	JW	602	63	29,34,34	1.20	2 (6%)	35,54,54	1.37	5 (14%)
64	GDP	CP	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.20	3 (10%)
64	GDP	FX	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.16	3 (10%)
62	GTP	HM	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.34	4 (11%)
64	GDP	CL	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	AJ	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.11	3 (10%)
64	GDP	EA	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	HZ	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.35	4 (11%)
64	GDP	HJ	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	CZ	501	-	25,30,30	1.03	2 (8%)	30,47,47	1.17	3 (10%)
64	GDP	IW	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.13	3 (10%)
64	GDP	AF	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.19	3 (10%)
62	GTP	IT	602	63	29,34,34	1.22	1 (3%)	35,54,54	1.32	5 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
62	GTP	HI	602	63	29,34,34	1.21	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	HQ	501	63	29,34,34	1.18	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	AQ	501	63	29,34,34	1.20	1 (3%)	35,54,54	1.43	5 (14%)
64	GDP	KR	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.15	3 (10%)
64	GDP	JO	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.17	3 (10%)
62	GTP	FR	502	63	29,34,34	1.19	1 (3%)	35,54,54	1.35	5 (14%)
62	GTP	DQ	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.38	5 (14%)
64	GDP	KX	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	KM	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.13	3 (10%)
62	GTP	EZ	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.34	5 (14%)
62	GTP	AS	602	63	29,34,34	1.17	1 (3%)	35,54,54	1.37	5 (14%)
62	GTP	GU	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	EP	602	63	29,34,34	1.23	1 (3%)	35,54,54	1.34	5 (14%)
64	GDP	AP	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.21	3 (10%)
64	GDP	BF	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.10	3 (10%)
64	GDP	DH	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.21	3 (10%)
62	GTP	FD	602	63	29,34,34	1.19	1 (3%)	35,54,54	1.32	5 (14%)
64	GDP	IC	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.21	3 (10%)
64	GDP	FK	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.10	3 (10%)
62	GTP	BS	501	63	29,34,34	1.20	1 (3%)	35,54,54	1.33	4 (11%)
64	GDP	JK	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.17	3 (10%)
62	GTP	HV	501	63	29,34,34	1.22	1 (3%)	35,54,54	1.36	5 (14%)
62	GTP	AO	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.38	5 (14%)
64	GDP	BH	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.08	3 (10%)
64	GDP	GZ	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.15	3 (10%)
62	GTP	CW	602	63	29,34,34	1.21	2 (6%)	35,54,54	1.35	4 (11%)
64	GDP	IN	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.10	3 (10%)
62	GTP	EN	602	63	29,34,34	1.20	1 (3%)	35,54,54	1.33	4 (11%)
62	GTP	KA	602	63	29,34,34	1.19	2 (6%)	35,54,54	1.37	5 (14%)
62	GTP	EJ	602	63	29,34,34	1.19	1 (3%)	35,54,54	1.32	5 (14%)
62	GTP	FJ	602	63	29,34,34	1.20	1 (3%)	35,54,54	1.36	5 (14%)
62	GTP	GY	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	FB	502	63	29,34,34	1.21	1 (3%)	35,54,54	1.36	5 (14%)
64	GDP	CI	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.10	3 (10%)
64	GDP	FV	501	-	25,30,30	0.99	1 (4%)	30,47,47	1.13	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
64	GDP	BN	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.07	3 (10%)
62	GTP	IX	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.37	5 (14%)
64	GDP	BB	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.10	3 (10%)
64	GDP	FZ	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.16	3 (10%)
64	GDP	GK	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.08	3 (10%)
64	GDP	GM	501	-	25,30,30	1.01	2 (8%)	30,47,47	1.16	3 (10%)
62	GTP	CJ	501	63	29,34,34	1.23	2 (6%)	35,54,54	1.38	5 (14%)
62	GTP	FT	602	63	29,34,34	1.19	2 (6%)	35,54,54	1.35	5 (14%)
64	GDP	CX	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.14	3 (10%)
64	GDP	IA	501	-	25,30,30	0.98	1 (4%)	30,47,47	1.09	3 (10%)
64	GDP	IY	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.11	3 (10%)
64	GDP	CC	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.07	3 (10%)
62	GTP	GG	501	63	29,34,34	1.19	1 (3%)	35,54,54	1.39	5 (14%)
62	GTP	JQ	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.39	5 (14%)
64	GDP	KE	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.11	3 (10%)
62	GTP	DS	501	63	29,34,34	1.21	1 (3%)	35,54,54	1.36	5 (14%)
64	GDP	IF	501	-	25,30,30	1.00	2 (8%)	30,47,47	1.16	3 (10%)
64	GDP	IL	501	-	25,30,30	1.04	2 (8%)	30,47,47	1.21	3 (10%)
62	GTP	JB	501	63	29,34,34	1.23	1 (3%)	35,54,54	1.35	5 (14%)
62	GTP	FP	502	63	29,34,34	1.19	2 (6%)	35,54,54	1.33	5 (14%)
62	GTP	AA	501	63	29,34,34	1.20	2 (6%)	35,54,54	1.37	4 (11%)
62	GTP	AI	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.33	4 (11%)
62	GTP	AW	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.34	5 (14%)
62	GTP	GR	501	63	29,34,34	1.21	2 (6%)	35,54,54	1.34	5 (14%)
62	GTP	IQ	501	63	29,34,34	1.25	2 (6%)	35,54,54	1.39	5 (14%)
62	GTP	CO	501	63	29,34,34	1.17	1 (3%)	35,54,54	1.34	4 (11%)
62	GTP	LA	501	63	29,34,34	1.19	2 (6%)	35,54,54	1.35	5 (14%)
64	GDP	AT	501	-	25,30,30	1.02	2 (8%)	30,47,47	1.15	3 (10%)
64	GDP	CA	602	-	25,30,30	0.96	1 (4%)	30,47,47	1.12	3 (10%)
64	GDP	AR	501	-	25,30,30	0.97	2 (8%)	30,47,47	1.12	3 (10%)
62	GTP	CD	501	63	29,34,34	1.24	1 (3%)	35,54,54	1.31	3 (8%)
64	GDP	EM	501	-	25,30,30	0.96	1 (4%)	30,47,47	1.13	3 (10%)
62	GTP	FW	501	63	29,34,34	1.22	1 (3%)	35,54,54	1.37	4 (11%)
64	GDP	DB	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.13	3 (10%)
64	GDP	GI	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.14	3 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
62	GTP	KW	602	63	29,34,34	1.18	2 (6%)	35,54,54	1.36	5 (14%)
62	GTP	BO	501	63	29,34,34	1.19	1 (3%)	35,54,54	1.32	5 (14%)
64	GDP	BJ	501	-	25,30,30	0.99	2 (8%)	30,47,47	1.12	3 (10%)
64	GDP	AX	501	-	25,30,30	0.98	2 (8%)	30,47,47	1.08	3 (10%)
64	GDP	EY	501	-	25,30,30	0.97	1 (4%)	30,47,47	1.11	3 (10%)
62	GTP	GH	602	63	29,34,34	1.22	2 (6%)	35,54,54	1.34	4 (11%)
62	GTP	BQ	602	63	29,34,34	1.20	1 (3%)	35,54,54	1.32	5 (14%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
62	GTP	JN	501	63	-	5/18/38/38	0/3/3/3
62	GTP	IB	602	63	-	5/18/38/38	0/3/3/3
64	GDP	EK	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FI	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FM	501	-	-	2/12/32/32	0/3/3/3
62	GTP	CY	501	63	-	5/18/38/38	0/3/3/3
62	GTP	KP	501	63	-	5/18/38/38	0/3/3/3
64	GDP	IU	501	-	-	2/12/32/32	0/3/3/3
64	GDP	EW	501	-	-	2/12/32/32	0/3/3/3
64	GDP	EE	501	-	-	2/12/32/32	0/3/3/3
62	GTP	BI	501	63	-	5/18/38/38	0/3/3/3
62	GTP	EL	602	63	-	5/18/38/38	0/3/3/3
62	GTP	KU	501	63	-	5/18/38/38	0/3/3/3
62	GTP	ER	602	63	-	5/18/38/38	0/3/3/3
64	GDP	GQ	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GT	501	63	-	5/18/38/38	0/3/3/3
64	GDP	IH	501	-	-	2/12/32/32	0/3/3/3
62	GTP	DA	501	63	-	5/18/38/38	0/3/3/3
64	GDP	CT	501	-	-	2/12/32/32	0/3/3/3
62	GTP	DZ	602	63	-	5/18/38/38	0/3/3/3
64	GDP	HL	501	-	-	2/12/32/32	0/3/3/3
64	GDP	HY	501	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
64	GDP	EG	501	-	-	2/12/32/32	0/3/3/3
62	GTP	CF	602	63	-	5/18/38/38	0/3/3/3
64	GDP	AL	501	-	-	2/12/32/32	0/3/3/3
62	GTP	DI	602	63	-	5/18/38/38	0/3/3/3
64	GDP	JV	501	-	-	2/12/32/32	0/3/3/3
62	GTP	KJ	602	63	-	5/18/38/38	0/3/3/3
64	GDP	AZ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	BD	501	-	-	2/12/32/32	0/3/3/3
62	GTP	CQ	602	63	-	5/18/38/38	0/3/3/3
62	GTP	DG	602	63	-	5/18/38/38	0/3/3/3
64	GDP	DY	501	-	-	2/12/32/32	0/3/3/3
62	GTP	II	501	63	-	5/18/38/38	0/3/3/3
64	GDP	DT	501	-	-	2/12/32/32	0/3/3/3
64	GDP	EC	501	-	-	2/12/32/32	0/3/3/3
64	GDP	KI	501	-	-	2/12/32/32	0/3/3/3
64	GDP	CR	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DD	501	-	-	2/12/32/32	0/3/3/3
64	GDP	KV	501	-	-	2/12/32/32	0/3/3/3
64	GDP	AH	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GP	501	63	-	5/18/38/38	0/3/3/3
62	GTP	IK	602	63	-	5/18/38/38	0/3/3/3
62	GTP	IO	501	63	-	5/18/38/38	0/3/3/3
64	GDP	IJ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	HW	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JC	501	-	-	2/12/32/32	0/3/3/3
64	GDP	KG	501	-	-	2/12/32/32	0/3/3/3
62	GTP	AG	501	63	-	5/18/38/38	0/3/3/3
62	GTP	DE	501	63	-	5/18/38/38	0/3/3/3
62	GTP	FY	602	63	-	5/18/38/38	0/3/3/3
62	GTP	CU	602	63	-	5/18/38/38	0/3/3/3
64	GDP	JG	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GN	602	63	-	5/18/38/38	0/3/3/3
62	GTP	HE	501	63	-	5/18/38/38	0/3/3/3
64	GDP	HB	501	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
64	GDP	CE	501	-	-	2/12/32/32	0/3/3/3
62	GTP	JF	501	63	-	5/18/38/38	0/3/3/3
62	GTP	AY	602	63	-	5/18/38/38	0/3/3/3
62	GTP	BE	501	63	-	5/18/38/38	0/3/3/3
62	GTP	IM	602	63	-	5/18/38/38	0/3/3/3
64	GDP	KB	501	-	-	2/12/32/32	0/3/3/3
62	GTP	FN	502	63	-	5/18/38/38	0/3/3/3
64	GDP	HP	501	-	-	2/12/32/32	0/3/3/3
62	GTP	DO	602	63	-	5/18/38/38	0/3/3/3
62	GTP	HO	501	63	-	5/18/38/38	0/3/3/3
64	GDP	GF	501	-	-	2/12/32/32	0/3/3/3
62	GTP	BA	501	63	-	5/18/38/38	0/3/3/3
62	GTP	CH	602	63	-	5/18/38/38	0/3/3/3
62	GTP	EX	602	63	-	5/18/38/38	0/3/3/3
64	GDP	JZ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DR	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JA	501	-	-	2/12/32/32	0/3/3/3
64	GDP	IR	501	-	-	2/12/32/32	0/3/3/3
62	GTP	JS	602	63	-	5/18/38/38	0/3/3/3
64	GDP	HU	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FS	501	-	-	2/12/32/32	0/3/3/3
62	GTP	KQ	602	63	-	5/18/38/38	0/3/3/3
62	GTP	EB	501	63	-	5/18/38/38	0/3/3/3
64	GDP	FG	501	-	-	2/12/32/32	0/3/3/3
62	GTP	JY	602	63	-	5/18/38/38	0/3/3/3
64	GDP	GX	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DN	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DP	501	-	-	2/12/32/32	0/3/3/3
62	GTP	AC	501	63	-	5/18/38/38	0/3/3/3
62	GTP	AU	501	63	-	5/18/38/38	0/3/3/3
62	GTP	EF	602	63	-	5/18/38/38	0/3/3/3
64	GDP	EI	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FA	501	-	-	2/12/32/32	0/3/3/3
64	GDP	GO	501	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
62	GTP	DX	501	63	-	5/18/38/38	0/3/3/3
64	GDP	HF	501	-	-	2/12/32/32	0/3/3/3
64	GDP	HN	501	-	-	2/12/32/32	0/3/3/3
62	GTP	FU	602	63	-	5/18/38/38	0/3/3/3
64	GDP	DL	501	-	-	2/12/32/32	0/3/3/3
64	GDP	EO	501	-	-	2/12/32/32	0/3/3/3
62	GTP	KF	501	63	-	5/18/38/38	0/3/3/3
64	GDP	IE	501	-	-	2/12/32/32	0/3/3/3
62	GTP	DU	602	63	-	5/18/38/38	0/3/3/3
64	GDP	FE	501	-	-	2/12/32/32	0/3/3/3
64	GDP	BP	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JT	501	-	-	2/12/32/32	0/3/3/3
62	GTP	JD	501	63	-	5/18/38/38	0/3/3/3
62	GTP	IV	602	63	-	5/18/38/38	0/3/3/3
64	GDP	HH	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GA	501	63	-	5/18/38/38	0/3/3/3
62	GTP	DM	602	63	-	5/18/38/38	0/3/3/3
62	GTP	KC	602	63	-	5/18/38/38	0/3/3/3
64	GDP	AB	501	-	-	2/12/32/32	0/3/3/3
62	GTP	BW	501	63	-	5/18/38/38	0/3/3/3
64	GDP	KT	501	-	-	2/12/32/32	0/3/3/3
62	GTP	FL	501	63	-	5/18/38/38	0/3/3/3
64	GDP	IP	501	-	-	2/12/32/32	0/3/3/3
62	GTP	KN	501	63	-	5/18/38/38	0/3/3/3
64	GDP	FQ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	KK	501	-	-	2/12/32/32	0/3/3/3
64	GDP	HR	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GL	501	63	-	5/18/38/38	0/3/3/3
62	GTP	KS	602	63	-	5/18/38/38	0/3/3/3
62	GTP	BM	501	63	-	5/18/38/38	0/3/3/3
64	GDP	GD	501	-	-	2/12/32/32	0/3/3/3
64	GDP	GS	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GC	501	63	-	5/18/38/38	0/3/3/3
62	GTP	KL	602	63	-	5/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
64	GDP	AV	501	-	-	2/12/32/32	0/3/3/3
64	GDP	CN	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DV	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DF	501	-	-	3/12/32/32	0/3/3/3
64	GDP	FC	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JX	501	-	-	2/12/32/32	0/3/3/3
62	GTP	ED	602	63	-	5/18/38/38	0/3/3/3
62	GTP	DC	602	63	-	5/18/38/38	0/3/3/3
64	GDP	JE	501	-	-	2/12/32/32	0/3/3/3
64	GDP	IS	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GE	501	63	-	5/18/38/38	0/3/3/3
64	GDP	EQ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	GV	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DW	501	-	-	2/12/32/32	0/3/3/3
64	GDP	KO	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JI	501	-	-	2/12/32/32	0/3/3/3
62	GTP	CS	501	63	-	5/18/38/38	0/3/3/3
62	GTP	EV	501	63	-	5/18/38/38	0/3/3/3
62	GTP	FH	501	63	-	5/18/38/38	0/3/3/3
62	GTP	BU	501	63	-	5/18/38/38	0/3/3/3
62	GTP	BZ	501	63	-	5/18/38/38	0/3/3/3
62	GTP	ID	501	63	-	5/18/38/38	0/3/3/3
62	GTP	HA	501	63	-	5/18/38/38	0/3/3/3
62	GTP	IG	501	63	-	5/18/38/38	0/3/3/3
62	GTP	HT	501	63	-	5/18/38/38	0/3/3/3
62	GTP	JU	602	63	-	5/18/38/38	0/3/3/3
62	GTP	AE	602	63	-	5/18/38/38	0/3/3/3
62	GTP	BK	602	63	-	5/18/38/38	0/3/3/3
62	GTP	HX	501	63	-	5/18/38/38	0/3/3/3
64	GDP	AD	501	-	-	2/12/32/32	0/3/3/3
62	GTP	KH	501	63	-	5/18/38/38	0/3/3/3
62	GTP	ET	602	63	-	5/18/38/38	0/3/3/3
64	GDP	ES	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FO	501	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
62	GTP	AK	602	63	-	5/18/38/38	0/3/3/3
64	GDP	KZ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	HS	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JM	501	-	-	2/12/32/32	0/3/3/3
62	GTP	JJ	501	63	-	5/18/38/38	0/3/3/3
62	GTP	IZ	602	63	-	5/18/38/38	0/3/3/3
64	GDP	HD	501	-	-	2/12/32/32	0/3/3/3
62	GTP	HK	501	63	-	5/18/38/38	0/3/3/3
62	GTP	JL	602	63	-	5/18/38/38	0/3/3/3
62	GTP	FF	501	63	-	5/18/38/38	0/3/3/3
62	GTP	GJ	501	63	-	5/18/38/38	0/3/3/3
62	GTP	JH	501	63	-	5/18/38/38	0/3/3/3
62	GTP	DK	501	63	-	5/18/38/38	0/3/3/3
62	GTP	CM	602	63	-	5/18/38/38	0/3/3/3
62	GTP	HG	602	63	-	5/18/38/38	0/3/3/3
64	GDP	BR	501	-	-	2/12/32/32	0/3/3/3
62	GTP	AM	602	63	-	5/18/38/38	0/3/3/3
62	GTP	BX	501	63	-	5/18/38/38	0/3/3/3
64	GDP	CV	501	-	-	2/12/32/32	0/3/3/3
62	GTP	KD	501	63	-	5/18/38/38	0/3/3/3
62	GTP	JP	501	63	-	5/18/38/38	0/3/3/3
64	GDP	GB	501	-	-	2/12/32/32	0/3/3/3
64	GDP	LB	501	-	-	2/12/32/32	0/3/3/3
64	GDP	EU	501	-	-	2/12/32/32	0/3/3/3
64	GDP	BV	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GW	501	63	-	5/18/38/38	0/3/3/3
62	GTP	CB	501	63	-	5/18/38/38	0/3/3/3
62	GTP	KY	602	63	-	5/18/38/38	0/3/3/3
62	GTP	BG	501	63	-	5/18/38/38	0/3/3/3
64	GDP	BY	501	-	-	2/12/32/32	0/3/3/3
62	GTP	EH	501	63	-	5/18/38/38	0/3/3/3
62	GTP	HC	602	63	-	5/18/38/38	0/3/3/3
64	GDP	AN	501	-	-	2/12/32/32	0/3/3/3
64	GDP	CG	501	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
64	GDP	BT	501	-	-	2/12/32/32	0/3/3/3
64	GDP	BL	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JR	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DJ	501	-	-	2/12/32/32	0/3/3/3
62	GTP	BC	501	63	-	5/18/38/38	0/3/3/3
62	GTP	JW	602	63	-	5/18/38/38	0/3/3/3
64	GDP	CP	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FX	501	-	-	2/12/32/32	0/3/3/3
62	GTP	HM	501	63	-	5/18/38/38	0/3/3/3
64	GDP	CL	501	-	-	2/12/32/32	0/3/3/3
64	GDP	AJ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	EA	501	-	-	2/12/32/32	0/3/3/3
62	GTP	HZ	501	63	-	5/18/38/38	0/3/3/3
64	GDP	HJ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	CZ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	IW	501	-	-	2/12/32/32	0/3/3/3
64	GDP	AF	501	-	-	2/12/32/32	0/3/3/3
62	GTP	IT	602	63	-	5/18/38/38	0/3/3/3
62	GTP	HI	602	63	-	5/18/38/38	0/3/3/3
62	GTP	HQ	501	63	-	5/18/38/38	0/3/3/3
62	GTP	AQ	501	63	-	5/18/38/38	0/3/3/3
64	GDP	KR	501	-	-	2/12/32/32	0/3/3/3
64	GDP	JO	501	-	-	2/12/32/32	0/3/3/3
62	GTP	FR	502	63	-	5/18/38/38	0/3/3/3
62	GTP	DQ	501	63	-	5/18/38/38	0/3/3/3
64	GDP	KX	501	-	-	2/12/32/32	0/3/3/3
64	GDP	KM	501	-	-	2/12/32/32	0/3/3/3
62	GTP	EZ	501	63	-	5/18/38/38	0/3/3/3
62	GTP	AS	602	63	-	5/18/38/38	0/3/3/3
62	GTP	GU	501	63	-	5/18/38/38	0/3/3/3
62	GTP	EP	602	63	-	5/18/38/38	0/3/3/3
64	GDP	AP	501	-	-	2/12/32/32	0/3/3/3
64	GDP	BF	501	-	-	2/12/32/32	0/3/3/3
64	GDP	DH	501	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
62	GTP	FD	602	63	-	5/18/38/38	0/3/3/3
64	GDP	IC	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FK	501	-	-	2/12/32/32	0/3/3/3
62	GTP	BS	501	63	-	5/18/38/38	0/3/3/3
64	GDP	JK	501	-	-	2/12/32/32	0/3/3/3
62	GTP	HV	501	63	-	5/18/38/38	0/3/3/3
62	GTP	AO	501	63	-	5/18/38/38	0/3/3/3
64	GDP	BH	501	-	-	2/12/32/32	0/3/3/3
64	GDP	GZ	501	-	-	2/12/32/32	0/3/3/3
62	GTP	CW	602	63	-	5/18/38/38	0/3/3/3
64	GDP	IN	501	-	-	2/12/32/32	0/3/3/3
62	GTP	EN	602	63	-	5/18/38/38	0/3/3/3
62	GTP	KA	602	63	-	5/18/38/38	0/3/3/3
62	GTP	EJ	602	63	-	5/18/38/38	0/3/3/3
62	GTP	FJ	602	63	-	5/18/38/38	0/3/3/3
62	GTP	GY	501	63	-	5/18/38/38	0/3/3/3
62	GTP	FB	502	63	-	5/18/38/38	0/3/3/3
64	GDP	CI	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FV	501	-	-	2/12/32/32	0/3/3/3
64	GDP	BN	501	-	-	2/12/32/32	0/3/3/3
62	GTP	IX	501	63	-	5/18/38/38	0/3/3/3
64	GDP	BB	501	-	-	2/12/32/32	0/3/3/3
64	GDP	FZ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	GK	501	-	-	2/12/32/32	0/3/3/3
64	GDP	GM	501	-	-	2/12/32/32	0/3/3/3
62	GTP	CJ	501	63	-	5/18/38/38	0/3/3/3
62	GTP	FT	602	63	-	5/18/38/38	0/3/3/3
64	GDP	CX	501	-	-	2/12/32/32	0/3/3/3
64	GDP	IA	501	-	-	2/12/32/32	0/3/3/3
64	GDP	IY	501	-	-	2/12/32/32	0/3/3/3
64	GDP	CC	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GG	501	63	-	5/18/38/38	0/3/3/3
62	GTP	JQ	501	63	-	5/18/38/38	0/3/3/3
64	GDP	KE	501	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
62	GTP	DS	501	63	-	5/18/38/38	0/3/3/3
64	GDP	IF	501	-	-	2/12/32/32	0/3/3/3
64	GDP	IL	501	-	-	2/12/32/32	0/3/3/3
62	GTP	JB	501	63	-	5/18/38/38	0/3/3/3
62	GTP	FP	502	63	-	5/18/38/38	0/3/3/3
62	GTP	AA	501	63	-	5/18/38/38	0/3/3/3
62	GTP	AI	501	63	-	5/18/38/38	0/3/3/3
62	GTP	AW	501	63	-	5/18/38/38	0/3/3/3
62	GTP	GR	501	63	-	5/18/38/38	0/3/3/3
62	GTP	IQ	501	63	-	5/18/38/38	0/3/3/3
62	GTP	CO	501	63	-	5/18/38/38	0/3/3/3
62	GTP	LA	501	63	-	5/18/38/38	0/3/3/3
64	GDP	AT	501	-	-	2/12/32/32	0/3/3/3
64	GDP	CA	602	-	-	2/12/32/32	0/3/3/3
64	GDP	AR	501	-	-	2/12/32/32	0/3/3/3
62	GTP	CD	501	63	-	5/18/38/38	0/3/3/3
64	GDP	EM	501	-	-	2/12/32/32	0/3/3/3
62	GTP	FW	501	63	-	5/18/38/38	0/3/3/3
64	GDP	DB	501	-	-	2/12/32/32	0/3/3/3
64	GDP	GI	501	-	-	2/12/32/32	0/3/3/3
62	GTP	KW	602	63	-	5/18/38/38	0/3/3/3
62	GTP	BO	501	63	-	5/18/38/38	0/3/3/3
64	GDP	BJ	501	-	-	2/12/32/32	0/3/3/3
64	GDP	AX	501	-	-	2/12/32/32	0/3/3/3
64	GDP	EY	501	-	-	2/12/32/32	0/3/3/3
62	GTP	GH	602	63	-	5/18/38/38	0/3/3/3
62	GTP	BQ	602	63	-	5/18/38/38	0/3/3/3

All (478) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	JF	501	GTP	C5-C6	-4.56	1.38	1.47
62	BU	501	GTP	C5-C6	-4.56	1.38	1.47
62	CD	501	GTP	C5-C6	-4.54	1.38	1.47
62	DZ	602	GTP	C5-C6	-4.53	1.38	1.47
62	JJ	501	GTP	C5-C6	-4.53	1.38	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	EB	501	GTP	C5-C6	-4.52	1.38	1.47
62	DX	501	GTP	C5-C6	-4.51	1.38	1.47
62	IT	602	GTP	C5-C6	-4.50	1.38	1.47
62	IZ	602	GTP	C5-C6	-4.49	1.38	1.47
62	ED	602	GTP	C5-C6	-4.48	1.38	1.47
62	CJ	501	GTP	C5-C6	-4.47	1.38	1.47
62	KC	602	GTP	C5-C6	-4.47	1.38	1.47
62	JP	501	GTP	C5-C6	-4.47	1.38	1.47
62	AQ	501	GTP	C5-C6	-4.46	1.38	1.47
62	DO	602	GTP	C5-C6	-4.46	1.38	1.47
62	BW	501	GTP	C5-C6	-4.46	1.38	1.47
62	JN	501	GTP	C5-C6	-4.46	1.38	1.47
62	KJ	602	GTP	C5-C6	-4.46	1.38	1.47
62	JB	501	GTP	C5-C6	-4.45	1.38	1.47
62	DQ	501	GTP	C5-C6	-4.45	1.38	1.47
62	BS	501	GTP	C5-C6	-4.45	1.38	1.47
62	II	501	GTP	C5-C6	-4.45	1.38	1.47
62	IV	602	GTP	C5-C6	-4.45	1.38	1.47
62	CH	602	GTP	C5-C6	-4.44	1.38	1.47
62	IG	501	GTP	C5-C6	-4.44	1.38	1.47
62	BI	501	GTP	C5-C6	-4.43	1.38	1.47
62	IK	602	GTP	C5-C6	-4.43	1.38	1.47
62	EP	602	GTP	C5-C6	-4.43	1.38	1.47
62	DU	602	GTP	C5-C6	-4.43	1.38	1.47
62	FJ	602	GTP	C5-C6	-4.43	1.38	1.47
62	DS	501	GTP	C5-C6	-4.43	1.38	1.47
62	BK	602	GTP	C5-C6	-4.43	1.38	1.47
62	BG	501	GTP	C5-C6	-4.43	1.38	1.47
62	FY	602	GTP	C5-C6	-4.42	1.38	1.47
62	KD	501	GTP	C5-C6	-4.42	1.38	1.47
62	EF	602	GTP	C5-C6	-4.42	1.38	1.47
62	IQ	501	GTP	C5-C6	-4.42	1.38	1.47
62	JQ	501	GTP	C5-C6	-4.42	1.38	1.47
62	KP	501	GTP	C5-C6	-4.41	1.38	1.47
62	IX	501	GTP	C5-C6	-4.41	1.38	1.47
62	ET	602	GTP	C5-C6	-4.41	1.38	1.47
62	EL	602	GTP	C5-C6	-4.41	1.38	1.47
62	BM	501	GTP	C5-C6	-4.40	1.38	1.47
62	AY	602	GTP	C5-C6	-4.40	1.38	1.47
62	BQ	602	GTP	C5-C6	-4.40	1.38	1.47
62	CF	602	GTP	C5-C6	-4.40	1.38	1.47
62	GU	501	GTP	C5-C6	-4.40	1.38	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	CQ	602	GTP	C5-C6	-4.39	1.38	1.47
62	GH	602	GTP	C5-C6	-4.39	1.38	1.47
62	FH	501	GTP	C5-C6	-4.39	1.38	1.47
62	JW	602	GTP	C5-C6	-4.39	1.38	1.47
62	CB	501	GTP	C5-C6	-4.39	1.38	1.47
62	KF	501	GTP	C5-C6	-4.39	1.38	1.47
62	FN	502	GTP	C5-C6	-4.39	1.38	1.47
62	FW	501	GTP	C5-C6	-4.39	1.38	1.47
62	JL	602	GTP	C5-C6	-4.39	1.38	1.47
62	IO	501	GTP	C5-C6	-4.39	1.38	1.47
62	AO	501	GTP	C5-C6	-4.38	1.38	1.47
62	DC	602	GTP	C5-C6	-4.38	1.38	1.47
62	BC	501	GTP	C5-C6	-4.37	1.38	1.47
62	GL	501	GTP	C5-C6	-4.37	1.38	1.47
62	GN	602	GTP	C5-C6	-4.37	1.38	1.47
62	BE	501	GTP	C5-C6	-4.37	1.38	1.47
62	FB	502	GTP	C5-C6	-4.37	1.38	1.47
62	IB	602	GTP	C5-C6	-4.37	1.38	1.47
62	LA	501	GTP	C5-C6	-4.36	1.38	1.47
62	ER	602	GTP	C5-C6	-4.36	1.38	1.47
62	JD	501	GTP	C5-C6	-4.36	1.38	1.47
62	BO	501	GTP	C5-C6	-4.36	1.38	1.47
62	IM	602	GTP	C5-C6	-4.36	1.38	1.47
62	EN	602	GTP	C5-C6	-4.36	1.38	1.47
62	HC	602	GTP	C5-C6	-4.35	1.38	1.47
62	AU	501	GTP	C5-C6	-4.35	1.38	1.47
62	KH	501	GTP	C5-C6	-4.35	1.38	1.47
62	EJ	602	GTP	C5-C6	-4.35	1.38	1.47
62	GP	501	GTP	C5-C6	-4.34	1.38	1.47
62	AM	602	GTP	C5-C6	-4.34	1.38	1.47
62	HA	501	GTP	C5-C6	-4.34	1.38	1.47
62	KA	602	GTP	C5-C6	-4.34	1.38	1.47
62	KL	602	GTP	C5-C6	-4.34	1.38	1.47
62	EV	501	GTP	C5-C6	-4.34	1.38	1.47
62	KU	501	GTP	C5-C6	-4.34	1.38	1.47
62	GT	501	GTP	C5-C6	-4.33	1.38	1.47
62	AE	602	GTP	C5-C6	-4.33	1.38	1.47
62	CW	602	GTP	C5-C6	-4.33	1.38	1.47
62	GG	501	GTP	C5-C6	-4.33	1.38	1.47
62	GW	501	GTP	C5-C6	-4.33	1.38	1.47
62	FU	602	GTP	C5-C6	-4.33	1.38	1.47
62	HV	501	GTP	C5-C6	-4.33	1.38	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	KN	501	GTP	C5-C6	-4.33	1.38	1.47
62	EH	501	GTP	C5-C6	-4.33	1.38	1.47
62	GR	501	GTP	C5-C6	-4.33	1.38	1.47
62	BA	501	GTP	C5-C6	-4.32	1.38	1.47
62	AW	501	GTP	C5-C6	-4.32	1.38	1.47
62	JH	501	GTP	C5-C6	-4.32	1.38	1.47
62	GJ	501	GTP	C5-C6	-4.32	1.38	1.47
62	GC	501	GTP	C5-C6	-4.31	1.38	1.47
62	HX	501	GTP	C5-C6	-4.31	1.38	1.47
62	AK	602	GTP	C5-C6	-4.30	1.38	1.47
62	EX	602	GTP	C5-C6	-4.30	1.38	1.47
62	JY	602	GTP	C5-C6	-4.30	1.38	1.47
62	KY	602	GTP	C5-C6	-4.30	1.38	1.47
62	AA	501	GTP	C5-C6	-4.29	1.39	1.47
62	DA	501	GTP	C5-C6	-4.29	1.39	1.47
62	DI	602	GTP	C5-C6	-4.29	1.39	1.47
62	CU	602	GTP	C5-C6	-4.29	1.39	1.47
62	GE	501	GTP	C5-C6	-4.29	1.39	1.47
62	HE	501	GTP	C5-C6	-4.29	1.39	1.47
62	FR	502	GTP	C5-C6	-4.29	1.39	1.47
62	HZ	501	GTP	C5-C6	-4.28	1.39	1.47
62	CY	501	GTP	C5-C6	-4.28	1.39	1.47
62	DK	501	GTP	C5-C6	-4.28	1.39	1.47
62	AG	501	GTP	C5-C6	-4.28	1.39	1.47
62	DM	602	GTP	C5-C6	-4.28	1.39	1.47
62	FF	501	GTP	C5-C6	-4.28	1.39	1.47
62	GA	501	GTP	C5-C6	-4.28	1.39	1.47
62	BX	501	GTP	C5-C6	-4.28	1.39	1.47
62	CS	501	GTP	C5-C6	-4.28	1.39	1.47
62	KQ	602	GTP	C5-C6	-4.28	1.39	1.47
62	HK	501	GTP	C5-C6	-4.28	1.39	1.47
62	FP	502	GTP	C5-C6	-4.28	1.39	1.47
62	FT	602	GTP	C5-C6	-4.27	1.39	1.47
62	JU	602	GTP	C5-C6	-4.27	1.39	1.47
62	CO	501	GTP	C5-C6	-4.27	1.39	1.47
62	BZ	501	GTP	C5-C6	-4.27	1.39	1.47
62	FL	501	GTP	C5-C6	-4.27	1.39	1.47
62	GY	501	GTP	C5-C6	-4.27	1.39	1.47
62	ID	501	GTP	C5-C6	-4.26	1.39	1.47
62	FD	602	GTP	C5-C6	-4.26	1.39	1.47
62	KS	602	GTP	C5-C6	-4.26	1.39	1.47
62	HQ	501	GTP	C5-C6	-4.25	1.39	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	EZ	501	GTP	C5-C6	-4.25	1.39	1.47
62	HT	501	GTP	C5-C6	-4.25	1.39	1.47
62	KW	602	GTP	C5-C6	-4.24	1.39	1.47
62	HI	602	GTP	C5-C6	-4.24	1.39	1.47
62	CM	602	GTP	C5-C6	-4.24	1.39	1.47
62	AS	602	GTP	C5-C6	-4.24	1.39	1.47
62	AC	501	GTP	C5-C6	-4.22	1.39	1.47
62	DG	602	GTP	C5-C6	-4.21	1.39	1.47
62	HG	602	GTP	C5-C6	-4.20	1.39	1.47
62	DE	501	GTP	C5-C6	-4.20	1.39	1.47
62	HM	501	GTP	C5-C6	-4.19	1.39	1.47
62	AI	501	GTP	C5-C6	-4.19	1.39	1.47
62	HO	501	GTP	C5-C6	-4.11	1.39	1.47
64	CI	501	GDP	C6-N1	-2.91	1.33	1.37
64	IP	501	GDP	C6-N1	-2.84	1.33	1.37
64	HY	501	GDP	C6-N1	-2.83	1.33	1.37
64	BV	501	GDP	C6-N1	-2.82	1.33	1.37
64	BY	501	GDP	C6-N1	-2.80	1.33	1.37
64	IR	501	GDP	C6-N1	-2.79	1.33	1.37
64	HS	501	GDP	C6-N1	-2.79	1.33	1.37
64	DF	501	GDP	C5-C6	-2.75	1.42	1.47
64	IL	501	GDP	C6-N1	-2.74	1.33	1.37
62	JS	602	GTP	C5-C6	-2.74	1.42	1.47
64	IS	501	GDP	C6-N1	-2.73	1.33	1.37
64	CG	501	GDP	C6-N1	-2.72	1.33	1.37
64	CE	501	GDP	C6-N1	-2.71	1.33	1.37
64	KB	501	GDP	C6-N1	-2.71	1.33	1.37
64	IC	501	GDP	C6-N1	-2.71	1.33	1.37
64	EU	501	GDP	C6-N1	-2.70	1.33	1.37
64	BR	501	GDP	C6-N1	-2.68	1.33	1.37
64	JC	501	GDP	C6-N1	-2.65	1.33	1.37
64	FO	501	GDP	C6-N1	-2.64	1.33	1.37
64	CZ	501	GDP	O4'-C1'	2.64	1.44	1.40
64	JV	501	GDP	C6-N1	-2.64	1.33	1.37
64	HL	501	GDP	C6-N1	-2.63	1.33	1.37
64	KG	501	GDP	C6-N1	-2.63	1.33	1.37
64	IJ	501	GDP	C6-N1	-2.62	1.33	1.37
64	KO	501	GDP	C6-N1	-2.62	1.33	1.37
64	HR	501	GDP	C6-N1	-2.62	1.33	1.37
64	JO	501	GDP	C6-N1	-2.62	1.33	1.37
64	CC	501	GDP	C6-N1	-2.62	1.33	1.37
64	FV	501	GDP	C6-N1	-2.62	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	HP	501	GDP	C6-N1	-2.61	1.33	1.37
64	IA	501	GDP	C6-N1	-2.61	1.33	1.37
64	HD	501	GDP	O4'-C1'	2.61	1.44	1.40
64	BF	501	GDP	C6-N1	-2.61	1.33	1.37
64	AP	501	GDP	C6-N1	-2.60	1.33	1.37
64	JA	501	GDP	C6-N1	-2.60	1.33	1.37
64	IN	501	GDP	C6-N1	-2.60	1.33	1.37
64	GB	501	GDP	C6-N1	-2.60	1.33	1.37
64	IW	501	GDP	C6-N1	-2.60	1.33	1.37
64	GM	501	GDP	C6-N1	-2.60	1.33	1.37
64	IU	501	GDP	C6-N1	-2.59	1.33	1.37
64	FZ	501	GDP	C6-N1	-2.59	1.33	1.37
64	CP	501	GDP	C6-N1	-2.59	1.33	1.37
64	BD	501	GDP	C6-N1	-2.59	1.33	1.37
64	IE	501	GDP	C6-N1	-2.59	1.33	1.37
64	KI	501	GDP	C6-N1	-2.58	1.33	1.37
64	IH	501	GDP	C6-N1	-2.58	1.33	1.37
64	EO	501	GDP	C6-N1	-2.58	1.33	1.37
64	EE	501	GDP	C6-N1	-2.57	1.33	1.37
64	HH	501	GDP	C6-N1	-2.57	1.33	1.37
64	EW	501	GDP	C6-N1	-2.57	1.33	1.37
64	EC	501	GDP	C6-N1	-2.57	1.33	1.37
64	GI	501	GDP	C6-N1	-2.57	1.33	1.37
64	JX	501	GDP	C6-N1	-2.57	1.33	1.37
64	CL	501	GDP	C6-N1	-2.57	1.33	1.37
64	DW	501	GDP	C6-N1	-2.57	1.33	1.37
64	AD	501	GDP	C6-N1	-2.56	1.33	1.37
64	GV	501	GDP	C6-N1	-2.56	1.33	1.37
64	IY	501	GDP	C6-N1	-2.56	1.33	1.37
64	AN	501	GDP	C6-N1	-2.55	1.33	1.37
64	BH	501	GDP	C6-N1	-2.55	1.33	1.37
64	DP	501	GDP	C6-N1	-2.55	1.33	1.37
64	GD	501	GDP	C6-N1	-2.55	1.33	1.37
64	HB	501	GDP	C6-N1	-2.55	1.33	1.37
64	BN	501	GDP	C6-N1	-2.55	1.33	1.37
64	HU	501	GDP	C6-N1	-2.55	1.33	1.37
64	AV	501	GDP	C6-N1	-2.55	1.33	1.37
64	KM	501	GDP	C6-N1	-2.55	1.33	1.37
64	DD	501	GDP	C6-N1	-2.55	1.33	1.37
64	FA	501	GDP	C6-N1	-2.54	1.33	1.37
64	CN	501	GDP	C6-N1	-2.54	1.33	1.37
64	FK	501	GDP	C6-N1	-2.54	1.33	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	JI	501	GDP	C6-N1	-2.54	1.33	1.37
64	CT	501	GDP	C6-N1	-2.54	1.33	1.37
64	FI	501	GDP	C6-N1	-2.53	1.33	1.37
64	JT	501	GDP	O4'-C1'	2.53	1.44	1.40
64	BL	501	GDP	C6-N1	-2.53	1.33	1.37
64	KT	501	GDP	O4'-C1'	2.53	1.44	1.40
64	JM	501	GDP	C6-N1	-2.53	1.33	1.37
64	KE	501	GDP	C6-N1	-2.52	1.33	1.37
64	AB	501	GDP	C6-N1	-2.52	1.33	1.37
64	JG	501	GDP	C6-N1	-2.52	1.33	1.37
64	JR	501	GDP	C6-N1	-2.52	1.33	1.37
64	CV	501	GDP	C6-N1	-2.52	1.33	1.37
64	FG	501	GDP	C6-N1	-2.52	1.33	1.37
64	JZ	501	GDP	C6-N1	-2.52	1.33	1.37
64	AP	501	GDP	O4'-C1'	2.51	1.44	1.40
64	IF	501	GDP	C6-N1	-2.51	1.34	1.37
64	AJ	501	GDP	C6-N1	-2.51	1.34	1.37
64	JE	501	GDP	C6-N1	-2.51	1.34	1.37
64	EA	501	GDP	C6-N1	-2.51	1.34	1.37
64	KV	501	GDP	C6-N1	-2.51	1.34	1.37
64	AT	501	GDP	C6-N1	-2.51	1.34	1.37
64	DR	501	GDP	C6-N1	-2.51	1.34	1.37
64	EG	501	GDP	C6-N1	-2.50	1.34	1.37
64	BJ	501	GDP	C6-N1	-2.50	1.34	1.37
64	CA	602	GDP	C6-N1	-2.50	1.34	1.37
64	FE	501	GDP	C6-N1	-2.50	1.34	1.37
64	KR	501	GDP	C6-N1	-2.50	1.34	1.37
64	BP	501	GDP	C6-N1	-2.49	1.34	1.37
64	CX	501	GDP	C6-N1	-2.49	1.34	1.37
64	JT	501	GDP	C6-N1	-2.49	1.34	1.37
64	IL	501	GDP	O4'-C1'	2.49	1.44	1.40
64	ES	501	GDP	C6-N1	-2.48	1.34	1.37
64	FS	501	GDP	C6-N1	-2.48	1.34	1.37
64	HN	501	GDP	C6-N1	-2.48	1.34	1.37
64	FX	501	GDP	C6-N1	-2.48	1.34	1.37
64	BT	501	GDP	C6-N1	-2.47	1.34	1.37
64	AX	501	GDP	C6-N1	-2.47	1.34	1.37
64	LB	501	GDP	C6-N1	-2.47	1.34	1.37
64	HW	501	GDP	C6-N1	-2.47	1.34	1.37
64	DH	501	GDP	O4'-C1'	2.46	1.44	1.40
64	EI	501	GDP	C6-N1	-2.46	1.34	1.37
64	EK	501	GDP	C6-N1	-2.46	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	DY	501	GDP	C6-N1	-2.46	1.34	1.37
64	KZ	501	GDP	C6-N1	-2.46	1.34	1.37
64	AT	501	GDP	O4'-C1'	2.45	1.44	1.40
64	FQ	501	GDP	C6-N1	-2.45	1.34	1.37
64	GF	501	GDP	C6-N1	-2.45	1.34	1.37
64	DV	501	GDP	C6-N1	-2.45	1.34	1.37
64	KX	501	GDP	C6-N1	-2.45	1.34	1.37
64	FC	501	GDP	C6-N1	-2.45	1.34	1.37
64	CR	501	GDP	C6-N1	-2.44	1.34	1.37
64	KV	501	GDP	O4'-C1'	2.44	1.44	1.40
64	EM	501	GDP	C6-N1	-2.44	1.34	1.37
64	DB	501	GDP	C6-N1	-2.44	1.34	1.37
64	DN	501	GDP	C6-N1	-2.44	1.34	1.37
64	AR	501	GDP	C6-N1	-2.43	1.34	1.37
64	DT	501	GDP	C6-N1	-2.43	1.34	1.37
64	HD	501	GDP	C6-N1	-2.43	1.34	1.37
64	HF	501	GDP	C6-N1	-2.43	1.34	1.37
64	KT	501	GDP	C6-N1	-2.43	1.34	1.37
64	EY	501	GDP	C6-N1	-2.43	1.34	1.37
64	CP	501	GDP	O4'-C1'	2.42	1.44	1.40
64	HR	501	GDP	O4'-C1'	2.42	1.44	1.40
64	KK	501	GDP	C6-N1	-2.42	1.34	1.37
64	GK	501	GDP	C6-N1	-2.42	1.34	1.37
64	HF	501	GDP	O4'-C1'	2.41	1.44	1.40
64	DJ	501	GDP	C6-N1	-2.41	1.34	1.37
64	GO	501	GDP	C6-N1	-2.40	1.34	1.37
64	CZ	501	GDP	C6-N1	-2.40	1.34	1.37
64	GX	501	GDP	C6-N1	-2.40	1.34	1.37
64	GZ	501	GDP	C6-N1	-2.40	1.34	1.37
64	JR	501	GDP	O4'-C1'	2.39	1.44	1.40
64	KB	501	GDP	O4'-C1'	2.39	1.44	1.40
64	DL	501	GDP	C6-N1	-2.39	1.34	1.37
64	AV	501	GDP	O4'-C1'	2.38	1.44	1.40
64	GQ	501	GDP	C6-N1	-2.38	1.34	1.37
64	AF	501	GDP	C6-N1	-2.38	1.34	1.37
64	BB	501	GDP	C6-N1	-2.38	1.34	1.37
64	FM	501	GDP	C6-N1	-2.38	1.34	1.37
64	GZ	501	GDP	O4'-C1'	2.37	1.44	1.40
64	KK	501	GDP	O4'-C1'	2.37	1.44	1.40
64	AH	501	GDP	C6-N1	-2.37	1.34	1.37
64	AZ	501	GDP	C6-N1	-2.37	1.34	1.37
64	DJ	501	GDP	O4'-C1'	2.37	1.44	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	JK	501	GDP	C6-N1	-2.37	1.34	1.37
64	HJ	501	GDP	C6-N1	-2.37	1.34	1.37
64	DH	501	GDP	C6-N1	-2.36	1.34	1.37
64	AL	501	GDP	C6-N1	-2.36	1.34	1.37
64	HP	501	GDP	O4'-C1'	2.36	1.44	1.40
64	EQ	501	GDP	C6-N1	-2.35	1.34	1.37
64	GX	501	GDP	O4'-C1'	2.34	1.44	1.40
64	GS	501	GDP	C6-N1	-2.34	1.34	1.37
64	KR	501	GDP	O4'-C1'	2.33	1.44	1.40
64	LB	501	GDP	O4'-C1'	2.33	1.43	1.40
64	IC	501	GDP	O4'-C1'	2.32	1.43	1.40
64	BD	501	GDP	O4'-C1'	2.31	1.43	1.40
64	KX	501	GDP	O4'-C1'	2.30	1.43	1.40
64	DT	501	GDP	O4'-C1'	2.29	1.43	1.40
64	AN	501	GDP	O4'-C1'	2.29	1.43	1.40
64	CR	501	GDP	O4'-C1'	2.29	1.43	1.40
64	AF	501	GDP	O4'-C1'	2.28	1.43	1.40
64	DB	501	GDP	O4'-C1'	2.28	1.43	1.40
64	JV	501	GDP	O4'-C1'	2.28	1.43	1.40
64	EA	501	GDP	O4'-C1'	2.27	1.43	1.40
64	GM	501	GDP	O4'-C1'	2.27	1.43	1.40
64	AJ	501	GDP	O4'-C1'	2.25	1.43	1.40
64	FZ	501	GDP	O4'-C1'	2.25	1.43	1.40
64	HB	501	GDP	O4'-C1'	2.25	1.43	1.40
64	DP	501	GDP	O4'-C1'	2.25	1.43	1.40
64	KI	501	GDP	O4'-C1'	2.24	1.43	1.40
64	AL	501	GDP	O4'-C1'	2.24	1.43	1.40
64	CX	501	GDP	O4'-C1'	2.24	1.43	1.40
64	GV	501	GDP	O4'-C1'	2.24	1.43	1.40
64	JX	501	GDP	O4'-C1'	2.24	1.43	1.40
64	DD	501	GDP	O4'-C1'	2.24	1.43	1.40
62	JS	602	GTP	C8-N7	-2.23	1.31	1.34
64	AB	501	GDP	O4'-C1'	2.23	1.43	1.40
62	HE	501	GTP	C2-N3	2.22	1.38	1.33
64	CN	501	GDP	O4'-C1'	2.22	1.43	1.40
64	HJ	501	GDP	O4'-C1'	2.21	1.43	1.40
64	FX	501	GDP	O4'-C1'	2.21	1.43	1.40
64	KM	501	GDP	O4'-C1'	2.21	1.43	1.40
64	KE	501	GDP	O4'-C1'	2.21	1.43	1.40
62	HC	602	GTP	C2-N3	2.20	1.38	1.33
64	AD	501	GDP	O4'-C1'	2.20	1.43	1.40
64	FG	501	GDP	O4'-C1'	2.20	1.43	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	DV	501	GDP	O4'-C1'	2.20	1.43	1.40
64	DL	501	GDP	O4'-C1'	2.19	1.43	1.40
64	FE	501	GDP	O4'-C1'	2.19	1.43	1.40
64	HW	501	GDP	O4'-C1'	2.19	1.43	1.40
64	DF	501	GDP	C8-N7	-2.19	1.31	1.34
64	GK	501	GDP	O4'-C1'	2.18	1.43	1.40
64	CV	501	GDP	O4'-C1'	2.18	1.43	1.40
64	JK	501	GDP	O4'-C1'	2.18	1.43	1.40
64	AX	501	GDP	O4'-C1'	2.18	1.43	1.40
64	JE	501	GDP	O4'-C1'	2.18	1.43	1.40
64	DW	501	GDP	O4'-C1'	2.18	1.43	1.40
64	HL	501	GDP	O4'-C1'	2.17	1.43	1.40
64	DY	501	GDP	O4'-C1'	2.17	1.43	1.40
64	HS	501	GDP	O4'-C1'	2.17	1.43	1.40
64	BJ	501	GDP	O4'-C1'	2.17	1.43	1.40
62	HA	501	GTP	C2-N3	2.16	1.38	1.33
62	AA	501	GTP	C5-C4	-2.16	1.37	1.43
64	HH	501	GDP	O4'-C1'	2.15	1.43	1.40
64	IF	501	GDP	O4'-C1'	2.15	1.43	1.40
62	GP	501	GTP	C2-N3	2.15	1.38	1.33
64	CL	501	GDP	O4'-C1'	2.15	1.43	1.40
64	GB	501	GDP	O4'-C1'	2.14	1.43	1.40
64	HN	501	GDP	O4'-C1'	2.14	1.43	1.40
64	EK	501	GDP	O4'-C1'	2.14	1.43	1.40
64	IE	501	GDP	O4'-C1'	2.14	1.43	1.40
62	DK	501	GTP	C2-N3	2.14	1.38	1.33
62	AK	602	GTP	C2-N3	2.14	1.38	1.33
62	GJ	501	GTP	C2-N3	2.14	1.38	1.33
62	DM	602	GTP	C2-N3	2.14	1.38	1.33
64	EG	501	GDP	O4'-C1'	2.13	1.43	1.40
64	JO	501	GDP	O4'-C1'	2.13	1.43	1.40
62	DE	501	GTP	C2-N3	2.12	1.38	1.33
62	KC	602	GTP	C2-N3	2.12	1.38	1.33
64	GF	501	GDP	O4'-C1'	2.12	1.43	1.40
64	HY	501	GDP	O4'-C1'	2.12	1.43	1.40
64	FM	501	GDP	O4'-C1'	2.12	1.43	1.40
62	AG	501	GTP	C2-N3	2.11	1.38	1.33
62	JW	602	GTP	C2-N3	2.11	1.38	1.33
64	DR	501	GDP	O4'-C1'	2.11	1.43	1.40
64	AR	501	GDP	O4'-C1'	2.11	1.43	1.40
62	GH	602	GTP	C2-N3	2.11	1.38	1.33
62	AI	501	GTP	C2-N3	2.11	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	AH	501	GDP	O4'-C1'	2.11	1.43	1.40
62	GL	501	GTP	C2-N3	2.10	1.38	1.33
62	HQ	501	GTP	C2-N3	2.10	1.38	1.33
62	GW	501	GTP	C2-N3	2.10	1.38	1.33
64	BP	501	GDP	O4'-C1'	2.10	1.43	1.40
62	KQ	602	GTP	C2-N3	2.10	1.38	1.33
62	GU	501	GTP	C2-N3	2.10	1.38	1.33
64	GI	501	GDP	O4'-C1'	2.10	1.43	1.40
64	GS	501	GDP	O4'-C1'	2.10	1.43	1.40
64	DN	501	GDP	O4'-C1'	2.09	1.43	1.40
62	DO	602	GTP	C2-N3	2.09	1.38	1.33
64	KG	501	GDP	O4'-C1'	2.09	1.43	1.40
62	JU	602	GTP	C2-N3	2.09	1.38	1.33
62	AW	501	GTP	C2-N3	2.09	1.38	1.33
62	AU	501	GTP	C2-N3	2.09	1.38	1.33
64	GQ	501	GDP	O4'-C1'	2.09	1.43	1.40
64	KO	501	GDP	O4'-C1'	2.09	1.43	1.40
64	KZ	501	GDP	O4'-C1'	2.09	1.43	1.40
64	JZ	501	GDP	O4'-C1'	2.09	1.43	1.40
62	AO	501	GTP	C2-N3	2.09	1.38	1.33
62	HI	602	GTP	C2-N3	2.09	1.38	1.33
62	GR	501	GTP	C2-N3	2.09	1.38	1.33
62	HO	501	GTP	C2-N3	2.09	1.38	1.33
62	DG	602	GTP	C2-N3	2.08	1.38	1.33
64	EC	501	GDP	O4'-C1'	2.08	1.43	1.40
62	BC	501	GTP	C2-N3	2.08	1.38	1.33
64	JM	501	GDP	O4'-C1'	2.08	1.43	1.40
64	IP	501	GDP	O4'-C1'	2.08	1.43	1.40
62	GY	501	GTP	C2-N3	2.07	1.38	1.33
64	FQ	501	GDP	O4'-C1'	2.07	1.43	1.40
62	BG	501	GTP	C2-N3	2.07	1.38	1.33
62	DI	602	GTP	C2-N3	2.07	1.38	1.33
62	KW	602	GTP	C2-N3	2.07	1.38	1.33
62	HM	501	GTP	C5-C4	-2.07	1.38	1.43
62	IQ	501	GTP	C2-N3	2.06	1.38	1.33
62	FL	501	GTP	C2-N3	2.06	1.38	1.33
62	FY	602	GTP	C5-C4	-2.06	1.38	1.43
62	CQ	602	GTP	C5-C4	-2.06	1.38	1.43
62	EZ	501	GTP	C2-N3	2.06	1.38	1.33
62	GT	501	GTP	C2-N3	2.06	1.38	1.33
62	LA	501	GTP	C2-N3	2.06	1.38	1.33
64	AZ	501	GDP	O4'-C1'	2.06	1.43	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
62	FP	502	GTP	C2-N3	2.06	1.38	1.33
64	BB	501	GDP	O4'-C1'	2.06	1.43	1.40
62	KY	602	GTP	C2-N3	2.06	1.38	1.33
62	BA	501	GTP	C2-N3	2.05	1.38	1.33
64	FO	501	GDP	O4'-C1'	2.05	1.43	1.40
62	JQ	501	GTP	C2-N3	2.05	1.38	1.33
62	KA	602	GTP	C2-N3	2.05	1.38	1.33
62	KN	501	GTP	C2-N3	2.05	1.38	1.33
62	HG	602	GTP	C2-N3	2.05	1.38	1.33
62	KJ	602	GTP	C2-N3	2.05	1.38	1.33
62	KH	501	GTP	C2-N3	2.05	1.38	1.33
62	AM	602	GTP	C2-N3	2.04	1.38	1.33
62	BE	501	GTP	C2-N3	2.04	1.38	1.33
62	BX	501	GTP	C2-N3	2.04	1.38	1.33
62	EV	501	GTP	C2-N3	2.04	1.38	1.33
64	HU	501	GDP	O4'-C1'	2.04	1.43	1.40
62	KU	501	GTP	C2-N3	2.04	1.38	1.33
62	BI	501	GTP	C2-N3	2.04	1.38	1.33
62	JY	602	GTP	C2-N3	2.04	1.38	1.33
62	CJ	501	GTP	C5-C4	-2.04	1.38	1.43
62	GC	501	GTP	C2-N3	2.03	1.38	1.33
62	FU	602	GTP	C5-C4	-2.03	1.38	1.43
64	FS	501	GDP	O4'-C1'	2.03	1.43	1.40
62	DA	501	GTP	C2-N3	2.03	1.38	1.33
62	KP	501	GTP	C2-N3	2.03	1.38	1.33
62	DU	602	GTP	C2-N3	2.03	1.38	1.33
62	KF	501	GTP	C2-N3	2.03	1.38	1.33
62	KC	602	GTP	C5-C4	-2.02	1.38	1.43
62	ID	501	GTP	C5-C4	-2.02	1.38	1.43
62	AE	602	GTP	C2-N3	2.02	1.38	1.33
62	IV	602	GTP	C2-N3	2.02	1.38	1.33
62	IK	602	GTP	C5-C4	-2.02	1.38	1.43
62	HK	501	GTP	C2-N3	2.02	1.38	1.33
62	ET	602	GTP	C5-C4	-2.02	1.38	1.43
64	FK	501	GDP	O4'-C1'	2.02	1.43	1.40
62	CY	501	GTP	C2-N3	2.01	1.38	1.33
62	KS	602	GTP	C2-N3	2.01	1.38	1.33
64	IJ	501	GDP	O4'-C1'	2.01	1.43	1.40
62	CW	602	GTP	C2-N3	2.01	1.38	1.33
64	CT	501	GDP	O4'-C1'	2.01	1.43	1.40
62	CH	602	GTP	C5-C4	-2.01	1.38	1.43
62	DQ	501	GTP	C2-N3	2.01	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
64	DF	501	GDP	C5-C4	-2.01	1.38	1.43
62	AY	602	GTP	C2-N3	2.01	1.38	1.33
62	KD	501	GTP	C2-N3	2.01	1.38	1.33
62	BW	501	GTP	C5-C4	-2.01	1.38	1.43
62	DC	602	GTP	C2-N3	2.01	1.38	1.33
62	CS	501	GTP	C5-C4	-2.01	1.38	1.43
62	FU	602	GTP	C2-N3	2.00	1.38	1.33
62	KP	501	GTP	C5-C4	-2.00	1.38	1.43
62	CM	602	GTP	C2-N3	2.00	1.38	1.33
62	FT	602	GTP	C2-N3	2.00	1.38	1.33
64	FC	501	GDP	O4'-C1'	2.00	1.43	1.40

All (1109) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	HM	501	GTP	C8-N7-C5	3.85	109.10	102.55
62	HG	602	GTP	C8-N7-C5	3.82	109.06	102.55
62	IK	602	GTP	C8-N7-C5	3.82	109.05	102.55
62	BX	501	GTP	C8-N7-C5	3.80	109.02	102.55
62	DA	501	GTP	C8-N7-C5	3.80	109.01	102.55
62	GA	501	GTP	C8-N7-C5	3.79	109.00	102.55
62	GC	501	GTP	C8-N7-C5	3.79	109.00	102.55
62	AA	501	GTP	C8-N7-C5	3.78	108.99	102.55
62	HO	501	GTP	C8-N7-C5	3.78	108.99	102.55
62	FB	502	GTP	C8-N7-C5	3.78	108.99	102.55
62	GE	501	GTP	C8-N7-C5	3.78	108.99	102.55
62	GY	501	GTP	C8-N7-C5	3.78	108.98	102.55
62	HQ	501	GTP	C8-N7-C5	3.78	108.98	102.55
62	CH	602	GTP	C8-N7-C5	3.77	108.97	102.55
62	CQ	602	GTP	C8-N7-C5	3.77	108.97	102.55
62	FY	602	GTP	C8-N7-C5	3.77	108.97	102.55
62	BW	501	GTP	C8-N7-C5	3.77	108.96	102.55
62	DG	602	GTP	C8-N7-C5	3.77	108.96	102.55
62	IZ	602	GTP	C8-N7-C5	3.77	108.96	102.55
62	AM	602	GTP	C8-N7-C5	3.76	108.96	102.55
62	AE	602	GTP	C8-N7-C5	3.76	108.95	102.55
62	ID	501	GTP	C8-N7-C5	3.76	108.95	102.55
62	HT	501	GTP	C8-N7-C5	3.76	108.95	102.55
62	FW	501	GTP	C8-N7-C5	3.76	108.94	102.55
62	JU	602	GTP	C8-N7-C5	3.76	108.94	102.55
62	HX	501	GTP	C8-N7-C5	3.76	108.94	102.55
62	IM	602	GTP	C8-N7-C5	3.75	108.94	102.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	JD	501	GTP	C8-N7-C5	3.75	108.94	102.55
62	BZ	501	GTP	C8-N7-C5	3.75	108.94	102.55
62	KP	501	GTP	C8-N7-C5	3.75	108.93	102.55
62	LA	501	GTP	C8-N7-C5	3.75	108.93	102.55
62	CO	501	GTP	C8-N7-C5	3.75	108.93	102.55
62	DE	501	GTP	C8-N7-C5	3.75	108.93	102.55
62	CJ	501	GTP	C8-N7-C5	3.74	108.92	102.55
62	AC	501	GTP	C8-N7-C5	3.74	108.91	102.55
62	CY	501	GTP	C8-N7-C5	3.74	108.91	102.55
62	BS	501	GTP	C8-N7-C5	3.73	108.90	102.55
62	HI	602	GTP	C8-N7-C5	3.73	108.90	102.55
62	HV	501	GTP	C8-N7-C5	3.73	108.90	102.55
62	CF	602	GTP	C8-N7-C5	3.73	108.90	102.55
62	JY	602	GTP	C8-N7-C5	3.73	108.90	102.55
62	JQ	501	GTP	C8-N7-C5	3.73	108.90	102.55
62	CU	602	GTP	C8-N7-C5	3.73	108.90	102.55
62	FJ	602	GTP	C8-N7-C5	3.73	108.90	102.55
62	KA	602	GTP	C8-N7-C5	3.73	108.90	102.55
62	AG	501	GTP	C8-N7-C5	3.73	108.89	102.55
62	EH	501	GTP	C8-N7-C5	3.73	108.89	102.55
62	KH	501	GTP	C8-N7-C5	3.73	108.89	102.55
62	DK	501	GTP	C8-N7-C5	3.72	108.89	102.55
62	CS	501	GTP	C8-N7-C5	3.72	108.89	102.55
62	EX	602	GTP	C8-N7-C5	3.72	108.88	102.55
62	FL	501	GTP	C8-N7-C5	3.72	108.88	102.55
62	DC	602	GTP	C8-N7-C5	3.71	108.87	102.55
62	CD	501	GTP	C8-N7-C5	3.71	108.87	102.55
62	IX	501	GTP	C8-N7-C5	3.71	108.87	102.55
62	FT	602	GTP	C8-N7-C5	3.71	108.87	102.55
62	FU	602	GTP	C8-N7-C5	3.71	108.86	102.55
62	FF	501	GTP	C8-N7-C5	3.71	108.86	102.55
62	AI	501	GTP	C8-N7-C5	3.71	108.86	102.55
62	FR	502	GTP	C8-N7-C5	3.71	108.86	102.55
62	HZ	501	GTP	C8-N7-C5	3.71	108.86	102.55
62	GG	501	GTP	C8-N7-C5	3.71	108.86	102.55
62	HK	501	GTP	C8-N7-C5	3.70	108.85	102.55
62	GU	501	GTP	C8-N7-C5	3.70	108.85	102.55
62	BK	602	GTP	C8-N7-C5	3.69	108.84	102.55
62	BI	501	GTP	C8-N7-C5	3.69	108.84	102.55
62	EV	501	GTP	C8-N7-C5	3.69	108.84	102.55
62	II	501	GTP	C8-N7-C5	3.69	108.84	102.55
62	KF	501	GTP	C8-N7-C5	3.69	108.84	102.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	EL	602	GTP	C8-N7-C5	3.69	108.84	102.55
62	IQ	501	GTP	C8-N7-C5	3.69	108.84	102.55
62	BE	501	GTP	C8-N7-C5	3.69	108.83	102.55
62	KS	602	GTP	C8-N7-C5	3.69	108.83	102.55
62	CM	602	GTP	C8-N7-C5	3.69	108.83	102.55
62	EZ	501	GTP	C8-N7-C5	3.69	108.83	102.55
62	ET	602	GTP	C8-N7-C5	3.69	108.83	102.55
62	BG	501	GTP	C8-N7-C5	3.69	108.83	102.55
62	JB	501	GTP	C8-N7-C5	3.69	108.83	102.55
62	KY	602	GTP	C8-N7-C5	3.69	108.83	102.55
62	KQ	602	GTP	C8-N7-C5	3.69	108.82	102.55
62	JP	501	GTP	C8-N7-C5	3.68	108.82	102.55
62	BU	501	GTP	C8-N7-C5	3.68	108.82	102.55
62	EB	501	GTP	C8-N7-C5	3.68	108.82	102.55
62	GW	501	GTP	C8-N7-C5	3.68	108.81	102.55
62	JW	602	GTP	C8-N7-C5	3.68	108.81	102.55
62	FP	502	GTP	C8-N7-C5	3.68	108.81	102.55
62	BQ	602	GTP	C8-N7-C5	3.68	108.81	102.55
62	GR	501	GTP	C8-N7-C5	3.68	108.81	102.55
62	KJ	602	GTP	C8-N7-C5	3.68	108.81	102.55
62	HA	501	GTP	C8-N7-C5	3.67	108.80	102.55
62	KL	602	GTP	C8-N7-C5	3.67	108.80	102.55
62	EJ	602	GTP	C8-N7-C5	3.67	108.80	102.55
62	KC	602	GTP	C8-N7-C5	3.67	108.80	102.55
62	KD	501	GTP	C8-N7-C5	3.67	108.80	102.55
62	KN	501	GTP	C8-N7-C5	3.67	108.79	102.55
62	CW	602	GTP	C8-N7-C5	3.67	108.79	102.55
62	HC	602	GTP	C8-N7-C5	3.67	108.79	102.55
62	BM	501	GTP	C8-N7-C5	3.66	108.79	102.55
62	EN	602	GTP	C8-N7-C5	3.66	108.79	102.55
62	AQ	501	GTP	C8-N7-C5	3.66	108.79	102.55
62	ER	602	GTP	C8-N7-C5	3.66	108.79	102.55
62	BA	501	GTP	C8-N7-C5	3.66	108.78	102.55
62	DI	602	GTP	C8-N7-C5	3.66	108.78	102.55
62	AY	602	GTP	C8-N7-C5	3.66	108.78	102.55
62	CB	501	GTP	C8-N7-C5	3.66	108.78	102.55
62	IV	602	GTP	C8-N7-C5	3.66	108.78	102.55
62	HE	501	GTP	C8-N7-C5	3.66	108.78	102.55
62	IG	501	GTP	C8-N7-C5	3.66	108.77	102.55
62	EF	602	GTP	C8-N7-C5	3.65	108.77	102.55
62	KU	501	GTP	C8-N7-C5	3.65	108.77	102.55
62	KW	602	GTP	C8-N7-C5	3.65	108.77	102.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	FN	502	GTP	C8-N7-C5	3.65	108.76	102.55
62	JN	501	GTP	C8-N7-C5	3.65	108.76	102.55
62	AK	602	GTP	C8-N7-C5	3.64	108.75	102.55
62	BO	501	GTP	C8-N7-C5	3.64	108.75	102.55
62	DU	602	GTP	C8-N7-C5	3.64	108.75	102.55
62	DM	602	GTP	C8-N7-C5	3.64	108.75	102.55
62	AS	602	GTP	C8-N7-C5	3.64	108.74	102.55
62	IB	602	GTP	C8-N7-C5	3.63	108.74	102.55
62	JF	501	GTP	C8-N7-C5	3.63	108.73	102.55
62	EP	602	GTP	C8-N7-C5	3.63	108.72	102.55
62	JH	501	GTP	C8-N7-C5	3.63	108.72	102.55
62	DS	501	GTP	C8-N7-C5	3.62	108.72	102.55
62	GP	501	GTP	C8-N7-C5	3.62	108.71	102.55
62	IO	501	GTP	C8-N7-C5	3.62	108.71	102.55
62	DZ	602	GTP	C8-N7-C5	3.62	108.71	102.55
62	DQ	501	GTP	C8-N7-C5	3.62	108.70	102.55
62	JJ	501	GTP	C8-N7-C5	3.61	108.69	102.55
62	IT	602	GTP	C8-N7-C5	3.60	108.68	102.55
62	JL	602	GTP	C8-N7-C5	3.60	108.68	102.55
62	ED	602	GTP	C8-N7-C5	3.60	108.68	102.55
62	FD	602	GTP	C8-N7-C5	3.60	108.67	102.55
62	AO	501	GTP	C8-N7-C5	3.59	108.67	102.55
62	GN	602	GTP	C8-N7-C5	3.59	108.66	102.55
62	AU	501	GTP	C8-N7-C5	3.59	108.66	102.55
62	FH	501	GTP	C8-N7-C5	3.59	108.66	102.55
62	GL	501	GTP	C8-N7-C5	3.58	108.65	102.55
62	GH	602	GTP	C8-N7-C5	3.58	108.65	102.55
62	GJ	501	GTP	C8-N7-C5	3.58	108.64	102.55
62	BC	501	GTP	C8-N7-C5	3.58	108.64	102.55
62	DX	501	GTP	C8-N7-C5	3.58	108.64	102.55
62	AW	501	GTP	C8-N7-C5	3.58	108.64	102.55
62	GT	501	GTP	C8-N7-C5	3.57	108.63	102.55
64	HD	501	GDP	O4'-C1'-N9	3.54	113.43	108.75
62	DO	602	GTP	C8-N7-C5	3.53	108.56	102.55
64	AP	501	GDP	O4'-C1'-N9	3.44	113.31	108.75
64	JT	501	GDP	O4'-C1'-N9	3.41	113.27	108.75
64	KK	501	GDP	O4'-C1'-N9	3.39	113.24	108.75
64	DH	501	GDP	O4'-C1'-N9	3.34	113.17	108.75
64	IL	501	GDP	O4'-C1'-N9	3.33	113.17	108.75
62	AQ	501	GTP	O4'-C1'-N9	3.33	113.16	108.75
62	KC	602	GTP	C5-C6-N1	3.31	120.39	114.07
64	HP	501	GDP	O4'-C1'-N9	3.31	113.13	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	AF	501	GDP	O4'-C1'-N9	3.31	113.13	108.75
64	AV	501	GDP	O4'-C1'-N9	3.28	113.10	108.75
64	IC	501	GDP	O4'-C1'-N9	3.28	113.09	108.75
62	GU	501	GTP	C2-N1-C6	-3.27	119.12	125.11
62	FY	602	GTP	C5-C6-N1	3.25	120.28	114.07
62	HO	501	GTP	C2-N1-C6	-3.25	119.16	125.11
62	BX	501	GTP	C5-C6-N1	3.24	120.26	114.07
62	KD	501	GTP	O4'-C1'-N9	3.24	113.04	108.75
62	GA	501	GTP	C5-C6-N1	3.23	120.22	114.07
62	DE	501	GTP	C5-C6-N1	3.22	120.22	114.07
62	IK	602	GTP	C2-N1-C6	-3.22	119.22	125.11
62	FY	602	GTP	C2-N1-C6	-3.21	119.23	125.11
62	HO	501	GTP	C5-C6-N1	3.21	120.20	114.07
62	KQ	602	GTP	C2-N1-C6	-3.21	119.24	125.11
62	ID	501	GTP	C2-N1-C6	-3.21	119.24	125.11
62	HO	501	GTP	O4'-C1'-N9	3.20	112.99	108.75
64	AN	501	GDP	O4'-C1'-N9	3.20	112.99	108.75
62	HE	501	GTP	C5-C6-N1	3.20	120.17	114.07
62	KQ	602	GTP	C5-C6-N1	3.19	120.17	114.07
62	KC	602	GTP	C2-N1-C6	-3.19	119.27	125.11
62	KJ	602	GTP	C5-C6-N1	3.19	120.15	114.07
62	ID	501	GTP	C5-C6-N1	3.18	120.15	114.07
62	CQ	602	GTP	C2-N1-C6	-3.18	119.29	125.11
64	CR	501	GDP	C8-N7-C5	3.18	107.96	102.55
62	DO	602	GTP	C2-N1-C6	-3.18	119.30	125.11
62	BX	501	GTP	C2-N1-C6	-3.17	119.30	125.11
62	FW	501	GTP	C5-C6-N1	3.17	120.12	114.07
62	HZ	501	GTP	C2-N1-C6	-3.17	119.31	125.11
62	DE	501	GTP	C2-N1-C6	-3.16	119.32	125.11
62	FU	602	GTP	C2-N1-C6	-3.16	119.32	125.11
64	GM	501	GDP	C8-N7-C5	3.16	107.93	102.55
62	CU	602	GTP	C2-N1-C6	-3.16	119.33	125.11
62	FU	602	GTP	C5-C6-N1	3.16	120.10	114.07
62	CH	602	GTP	C2-N1-C6	-3.16	119.33	125.11
64	GB	501	GDP	O4'-C1'-N9	3.16	112.93	108.75
62	AK	602	GTP	C5-C6-N1	3.16	120.09	114.07
62	KY	602	GTP	C5-C6-N1	3.15	120.09	114.07
62	IQ	501	GTP	C2-N1-C6	-3.15	119.34	125.11
62	HI	602	GTP	C5-C6-N1	3.15	120.09	114.07
64	CZ	501	GDP	O4'-C1'-N9	3.15	112.93	108.75
62	DC	602	GTP	C5-C6-N1	3.15	120.08	114.07
62	HC	602	GTP	C5-C6-N1	3.15	120.07	114.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	HZ	501	GTP	C5-C6-N1	3.15	120.07	114.07
62	CJ	501	GTP	C2-N1-C6	-3.14	119.35	125.11
62	CQ	602	GTP	C5-C6-N1	3.14	120.07	114.07
62	HQ	501	GTP	C5-C6-N1	3.14	120.07	114.07
64	BY	501	GDP	C8-N7-C5	3.14	107.90	102.55
62	DG	602	GTP	C2-N1-C6	-3.14	119.36	125.11
62	CS	501	GTP	C5-C6-N1	3.14	120.06	114.07
62	HG	602	GTP	C2-N1-C6	-3.14	119.36	125.11
62	LA	501	GTP	C5-C6-N1	3.14	120.06	114.07
62	HE	501	GTP	C2-N1-C6	-3.14	119.36	125.11
62	ET	602	GTP	C5-C6-N1	3.14	120.06	114.07
62	KJ	602	GTP	C2-N1-C6	-3.14	119.36	125.11
64	AT	501	GDP	O4'-C1'-N9	3.14	112.90	108.75
62	DG	602	GTP	C5-C6-N1	3.14	120.05	114.07
64	FZ	501	GDP	O4'-C1'-N9	3.13	112.90	108.75
62	FB	502	GTP	C5-C6-N1	3.13	120.05	114.07
62	JQ	501	GTP	C5-C6-N1	3.13	120.05	114.07
62	EX	602	GTP	C5-C6-N1	3.13	120.04	114.07
62	GJ	501	GTP	C5-C6-N1	3.13	120.03	114.07
62	DU	602	GTP	C2-N1-C6	-3.12	119.39	125.11
62	IM	602	GTP	C5-C6-N1	3.12	120.02	114.07
62	AO	501	GTP	C5-C6-N1	3.12	120.02	114.07
62	EL	602	GTP	C5-C6-N1	3.12	120.02	114.07
64	FO	501	GDP	O4'-C1'-N9	3.12	112.88	108.75
62	DI	602	GTP	C2-N1-C6	-3.12	119.40	125.11
64	LB	501	GDP	O4'-C1'-N9	3.12	112.88	108.75
62	KY	602	GTP	C2-N1-C6	-3.12	119.41	125.11
62	GW	501	GTP	C2-N1-C6	-3.12	119.41	125.11
62	GG	501	GTP	C5-C6-N1	3.11	120.01	114.07
62	CS	501	GTP	C2-N1-C6	-3.11	119.42	125.11
62	CU	602	GTP	C5-C6-N1	3.11	120.00	114.07
62	HG	602	GTP	C5-C6-N1	3.11	120.00	114.07
62	JQ	501	GTP	C2-N1-C6	-3.11	119.42	125.11
64	IC	501	GDP	C8-N7-C5	3.11	107.84	102.55
62	AM	602	GTP	C2-N1-C6	-3.11	119.42	125.11
62	DI	602	GTP	C5-C6-N1	3.11	120.00	114.07
62	EP	602	GTP	C5-C6-N1	3.10	119.99	114.07
62	DO	602	GTP	C5-C6-N1	3.10	119.99	114.07
62	IM	602	GTP	C2-N1-C6	-3.10	119.43	125.11
62	DK	501	GTP	C5-C6-N1	3.10	119.99	114.07
62	AQ	501	GTP	C5-C6-N1	3.10	119.99	114.07
64	HH	501	GDP	O4'-C1'-N9	3.10	112.85	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	AC	501	GTP	C5-C6-N1	3.10	119.98	114.07
62	GU	501	GTP	C5-C6-N1	3.10	119.98	114.07
62	DU	602	GTP	C5-C6-N1	3.10	119.98	114.07
62	DZ	602	GTP	C5-C6-N1	3.09	119.97	114.07
62	ER	602	GTP	C5-C6-N1	3.09	119.97	114.07
62	IB	602	GTP	C5-C6-N1	3.09	119.97	114.07
64	DV	501	GDP	O4'-C1'-N9	3.09	112.85	108.75
62	AK	602	GTP	C2-N1-C6	-3.09	119.45	125.11
62	HA	501	GTP	C2-N1-C6	-3.09	119.45	125.11
62	HI	602	GTP	C2-N1-C6	-3.09	119.45	125.11
62	EZ	501	GTP	C5-C6-N1	3.09	119.96	114.07
62	AC	501	GTP	C2-N1-C6	-3.09	119.46	125.11
62	FW	501	GTP	C2-N1-C6	-3.09	119.46	125.11
62	GN	602	GTP	C5-C6-N1	3.09	119.96	114.07
64	CX	501	GDP	O4'-C1'-N9	3.09	112.84	108.75
62	FJ	602	GTP	C5-C6-N1	3.09	119.96	114.07
62	HC	602	GTP	C2-N1-C6	-3.09	119.46	125.11
62	CJ	501	GTP	C5-C6-N1	3.09	119.96	114.07
62	KD	501	GTP	C2-N1-C6	-3.09	119.46	125.11
62	AE	602	GTP	C5-C6-N1	3.09	119.96	114.07
62	KP	501	GTP	C2-N1-C6	-3.08	119.46	125.11
62	KW	602	GTP	C5-C6-N1	3.08	119.95	114.07
62	AM	602	GTP	C5-C6-N1	3.08	119.95	114.07
62	CO	501	GTP	C5-C6-N1	3.08	119.95	114.07
64	CV	501	GDP	C8-N7-C5	3.08	107.80	102.55
62	CD	501	GTP	C5-C6-N1	3.08	119.95	114.07
62	IK	602	GTP	C5-C6-N1	3.08	119.95	114.07
62	KU	501	GTP	C5-C6-N1	3.08	119.95	114.07
62	CW	602	GTP	C5-C6-N1	3.08	119.95	114.07
62	KU	501	GTP	C2-N1-C6	-3.08	119.47	125.11
64	CR	501	GDP	O4'-C1'-N9	3.08	112.83	108.75
62	GC	501	GTP	C5-C6-N1	3.08	119.94	114.07
62	KH	501	GTP	C5-C6-N1	3.08	119.94	114.07
62	GA	501	GTP	C2-N1-C6	-3.08	119.48	125.11
64	CI	501	GDP	C8-N7-C5	3.08	107.79	102.55
62	DC	602	GTP	C2-N1-C6	-3.08	119.48	125.11
62	KL	602	GTP	C5-C6-N1	3.08	119.94	114.07
62	BA	501	GTP	C5-C6-N1	3.08	119.94	114.07
62	FT	602	GTP	C5-C6-N1	3.08	119.94	114.07
62	KW	602	GTP	C2-N1-C6	-3.08	119.48	125.11
62	BI	501	GTP	C5-C6-N1	3.08	119.94	114.07
62	DM	602	GTP	C2-N1-C6	-3.07	119.49	125.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	FT	602	GTP	C2-N1-C6	-3.07	119.49	125.11
62	HQ	501	GTP	C2-N1-C6	-3.07	119.49	125.11
62	JY	602	GTP	C2-N1-C6	-3.07	119.49	125.11
62	IV	602	GTP	C5-C6-N1	3.07	119.93	114.07
64	KT	501	GDP	O4'-C1'-N9	3.07	112.82	108.75
62	JW	602	GTP	C5-C6-N1	3.07	119.93	114.07
62	JU	602	GTP	C5-C6-N1	3.07	119.93	114.07
64	HH	501	GDP	C8-N7-C5	3.07	107.78	102.55
62	CM	602	GTP	C5-C6-N1	3.07	119.92	114.07
64	KB	501	GDP	O4'-C1'-N9	3.07	112.81	108.75
62	GY	501	GTP	C5-C6-N1	3.07	119.92	114.07
62	KA	602	GTP	C2-N1-C6	-3.07	119.50	125.11
64	AF	501	GDP	C8-N7-C5	3.07	107.77	102.55
62	AG	501	GTP	C5-C6-N1	3.07	119.92	114.07
62	FR	502	GTP	C5-C6-N1	3.07	119.92	114.07
62	KN	501	GTP	C2-N1-C6	-3.07	119.50	125.11
62	GE	501	GTP	C5-C6-N1	3.06	119.92	114.07
62	IV	602	GTP	C2-N1-C6	-3.06	119.50	125.11
62	DA	501	GTP	C5-C6-N1	3.06	119.92	114.07
62	AO	501	GTP	C2-N1-C6	-3.06	119.50	125.11
62	LA	501	GTP	C2-N1-C6	-3.06	119.50	125.11
62	DQ	501	GTP	C5-C6-N1	3.06	119.91	114.07
64	CA	602	GDP	C8-N7-C5	3.06	107.76	102.55
62	HA	501	GTP	C5-C6-N1	3.06	119.91	114.07
62	BK	602	GTP	C5-C6-N1	3.06	119.91	114.07
62	GH	602	GTP	C5-C6-N1	3.06	119.91	114.07
62	AA	501	GTP	C2-N1-C6	-3.06	119.51	125.11
62	IQ	501	GTP	C5-C6-N1	3.06	119.91	114.07
62	DQ	501	GTP	C2-N1-C6	-3.06	119.51	125.11
62	BW	501	GTP	C5-C6-N1	3.06	119.90	114.07
62	CY	501	GTP	C5-C6-N1	3.06	119.90	114.07
64	KV	501	GDP	C8-N7-C5	3.06	107.75	102.55
62	FD	602	GTP	C5-C6-N1	3.06	119.90	114.07
62	BZ	501	GTP	C2-N1-C6	-3.06	119.52	125.11
64	HL	501	GDP	C8-N7-C5	3.05	107.75	102.55
62	GG	501	GTP	C2-N1-C6	-3.05	119.52	125.11
62	FR	502	GTP	C2-N1-C6	-3.05	119.52	125.11
62	KH	501	GTP	C2-N1-C6	-3.05	119.52	125.11
62	BW	501	GTP	C2-N1-C6	-3.05	119.52	125.11
62	AI	501	GTP	C5-C6-N1	3.05	119.89	114.07
62	CW	602	GTP	C2-N1-C6	-3.05	119.53	125.11
62	HK	501	GTP	C2-N1-C6	-3.05	119.53	125.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	AE	602	GTP	C2-N1-C6	-3.05	119.53	125.11
62	HK	501	GTP	C5-C6-N1	3.05	119.89	114.07
62	HM	501	GTP	C5-C6-N1	3.04	119.88	114.07
62	KD	501	GTP	C5-C6-N1	3.04	119.88	114.07
64	CP	501	GDP	C8-N7-C5	3.04	107.73	102.55
62	HX	501	GTP	C5-C6-N1	3.04	119.88	114.07
62	IX	501	GTP	C5-C6-N1	3.04	119.88	114.07
62	FF	501	GTP	C5-C6-N1	3.04	119.87	114.07
62	BQ	602	GTP	C5-C6-N1	3.04	119.87	114.07
62	JY	602	GTP	C5-C6-N1	3.04	119.87	114.07
62	AG	501	GTP	C2-N1-C6	-3.04	119.54	125.11
62	BZ	501	GTP	C5-C6-N1	3.04	119.87	114.07
64	GB	501	GDP	C8-N7-C5	3.04	107.73	102.55
62	IG	501	GTP	C2-N1-C6	-3.04	119.54	125.11
62	IO	501	GTP	C2-N1-C6	-3.04	119.54	125.11
64	HP	501	GDP	C8-N7-C5	3.04	107.72	102.55
62	KS	602	GTP	C5-C6-N1	3.04	119.87	114.07
62	GY	501	GTP	C2-N1-C6	-3.04	119.55	125.11
62	JW	602	GTP	C2-N1-C6	-3.04	119.55	125.11
62	EN	602	GTP	C5-C6-N1	3.04	119.87	114.07
62	CO	501	GTP	C2-N1-C6	-3.04	119.55	125.11
64	DD	501	GDP	O4'-C1'-N9	3.04	112.77	108.75
62	JU	602	GTP	C2-N1-C6	-3.04	119.55	125.11
62	EV	501	GTP	C2-N1-C6	-3.04	119.55	125.11
62	BU	501	GTP	C5-C6-N1	3.04	119.86	114.07
62	KF	501	GTP	C5-C6-N1	3.04	119.86	114.07
62	HX	501	GTP	C2-N1-C6	-3.04	119.55	125.11
62	CY	501	GTP	C2-N1-C6	-3.03	119.56	125.11
62	BI	501	GTP	C2-N1-C6	-3.03	119.56	125.11
62	HT	501	GTP	C5-C6-N1	3.03	119.86	114.07
62	KJ	602	GTP	O4'-C1'-N9	3.03	112.77	108.75
62	BM	501	GTP	C5-C6-N1	3.03	119.85	114.07
62	EH	501	GTP	C5-C6-N1	3.03	119.85	114.07
62	BQ	602	GTP	C2-N1-C6	-3.03	119.56	125.11
62	FB	502	GTP	C2-N1-C6	-3.03	119.56	125.11
62	ER	602	GTP	C2-N1-C6	-3.03	119.56	125.11
62	KA	602	GTP	C5-C6-N1	3.03	119.85	114.07
62	GN	602	GTP	C2-N1-C6	-3.03	119.57	125.11
62	EJ	602	GTP	C5-C6-N1	3.03	119.84	114.07
62	CB	501	GTP	C2-N1-C6	-3.03	119.57	125.11
62	HM	501	GTP	C2-N1-C6	-3.03	119.57	125.11
64	HN	501	GDP	C8-N7-C5	3.03	107.70	102.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	CP	501	GDP	O4'-C1'-N9	3.03	112.76	108.75
64	HB	501	GDP	O4'-C1'-N9	3.03	112.76	108.75
62	DM	602	GTP	C5-C6-N1	3.02	119.84	114.07
62	DK	501	GTP	C2-N1-C6	-3.02	119.57	125.11
64	KT	501	GDP	C8-N7-C5	3.02	107.70	102.55
62	IX	501	GTP	C2-N1-C6	-3.02	119.58	125.11
62	KP	501	GTP	C5-C6-N1	3.02	119.84	114.07
64	BD	501	GDP	O4'-C1'-N9	3.02	112.75	108.75
62	AA	501	GTP	C5-C6-N1	3.02	119.84	114.07
64	KV	501	GDP	O4'-C1'-N9	3.02	112.75	108.75
62	BC	501	GTP	C5-C6-N1	3.02	119.83	114.07
62	EJ	602	GTP	C2-N1-C6	-3.02	119.58	125.11
64	DB	501	GDP	C8-N7-C5	3.02	107.69	102.55
64	CG	501	GDP	C8-N7-C5	3.02	107.69	102.55
62	JH	501	GTP	C5-C6-N1	3.02	119.83	114.07
62	AQ	501	GTP	C2-N1-C6	-3.02	119.59	125.11
62	GC	501	GTP	C2-N1-C6	-3.02	119.59	125.11
62	KS	602	GTP	C2-N1-C6	-3.02	119.59	125.11
62	DX	501	GTP	C5-C6-N1	3.02	119.83	114.07
62	FH	501	GTP	C5-C6-N1	3.02	119.83	114.07
64	AB	501	GDP	O4'-C1'-N9	3.02	112.75	108.75
62	BO	501	GTP	C5-C6-N1	3.02	119.83	114.07
62	FN	502	GTP	C2-N1-C6	-3.02	119.59	125.11
64	HR	501	GDP	O4'-C1'-N9	3.02	112.74	108.75
62	EZ	501	GTP	C2-N1-C6	-3.01	119.59	125.11
62	BS	501	GTP	C5-C6-N1	3.01	119.82	114.07
64	FG	501	GDP	O4'-C1'-N9	3.01	112.74	108.75
62	BE	501	GTP	C5-C6-N1	3.01	119.81	114.07
62	CB	501	GTP	C5-C6-N1	3.01	119.81	114.07
62	CF	602	GTP	C5-C6-N1	3.01	119.81	114.07
62	JH	501	GTP	C2-N1-C6	-3.01	119.61	125.11
62	GW	501	GTP	C5-C6-N1	3.01	119.81	114.07
62	II	501	GTP	C5-C6-N1	3.01	119.81	114.07
62	GP	501	GTP	C2-N1-C6	-3.01	119.61	125.11
62	EB	501	GTP	C5-C6-N1	3.01	119.81	114.07
62	HV	501	GTP	C5-C6-N1	3.01	119.81	114.07
62	AS	602	GTP	O4'-C1'-N9	3.01	112.73	108.75
62	EV	501	GTP	C5-C6-N1	3.01	119.80	114.07
62	JD	501	GTP	C5-C6-N1	3.00	119.80	114.07
64	GF	501	GDP	C8-N7-C5	3.00	107.66	102.55
62	II	501	GTP	C2-N1-C6	-3.00	119.62	125.11
62	GE	501	GTP	C2-N1-C6	-3.00	119.62	125.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	HT	501	GTP	C2-N1-C6	-3.00	119.62	125.11
64	GF	501	GDP	O4'-C1'-N9	3.00	112.72	108.75
62	DS	501	GTP	C2-N1-C6	-3.00	119.62	125.11
62	FP	502	GTP	C5-C6-N1	3.00	119.79	114.07
62	AI	501	GTP	C2-N1-C6	-3.00	119.62	125.11
62	CH	602	GTP	C5-C6-N1	3.00	119.79	114.07
62	JJ	501	GTP	C5-C6-N1	3.00	119.79	114.07
64	FI	501	GDP	C8-N7-C5	3.00	107.65	102.55
64	BR	501	GDP	C8-N7-C5	3.00	107.65	102.55
62	IG	501	GTP	C5-C6-N1	3.00	119.79	114.07
62	FH	501	GTP	C2-N1-C6	-2.99	119.63	125.11
62	IZ	602	GTP	C5-C6-N1	2.99	119.78	114.07
62	EX	602	GTP	C2-N1-C6	-2.99	119.63	125.11
64	HJ	501	GDP	C8-N7-C5	2.99	107.64	102.55
62	AU	501	GTP	C5-C6-N1	2.99	119.78	114.07
62	HV	501	GTP	C2-N1-C6	-2.99	119.63	125.11
64	DH	501	GDP	C8-N7-C5	2.99	107.64	102.55
62	ED	602	GTP	C5-C6-N1	2.99	119.78	114.07
64	AP	501	GDP	C8-N7-C5	2.99	107.64	102.55
64	GM	501	GDP	O4'-C1'-N9	2.99	112.71	108.75
64	CX	501	GDP	C8-N7-C5	2.99	107.64	102.55
62	EL	602	GTP	C2-N1-C6	-2.99	119.64	125.11
64	CZ	501	GDP	C8-N7-C5	2.99	107.64	102.55
62	GJ	501	GTP	C2-N1-C6	-2.99	119.64	125.11
62	EP	602	GTP	C2-N1-C6	-2.99	119.64	125.11
62	AW	501	GTP	C5-C6-N1	2.99	119.77	114.07
62	DS	501	GTP	C5-C6-N1	2.99	119.77	114.07
64	GD	501	GDP	C8-N7-C5	2.98	107.63	102.55
64	JO	501	GDP	C8-N7-C5	2.98	107.63	102.55
62	ED	602	GTP	C2-N1-C6	-2.98	119.65	125.11
64	KR	501	GDP	O4'-C1'-N9	2.98	112.70	108.75
62	FP	502	GTP	C2-N1-C6	-2.98	119.65	125.11
62	FJ	602	GTP	C2-N1-C6	-2.98	119.65	125.11
64	CL	501	GDP	C8-N7-C5	2.98	107.62	102.55
62	FL	501	GTP	C5-C6-N1	2.98	119.76	114.07
64	FO	501	GDP	C8-N7-C5	2.98	107.62	102.55
64	AB	501	GDP	C8-N7-C5	2.98	107.62	102.55
64	IS	501	GDP	C8-N7-C5	2.98	107.62	102.55
62	JB	501	GTP	C5-C6-N1	2.98	119.75	114.07
64	GZ	501	GDP	O4'-C1'-N9	2.98	112.69	108.75
64	JV	501	GDP	O4'-C1'-N9	2.98	112.69	108.75
62	KN	501	GTP	C5-C6-N1	2.98	119.75	114.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	CD	501	GTP	C2-N1-C6	-2.98	119.66	125.11
62	JJ	501	GTP	C2-N1-C6	-2.98	119.66	125.11
62	GP	501	GTP	C5-C6-N1	2.98	119.75	114.07
62	BC	501	GTP	C2-N1-C6	-2.98	119.66	125.11
64	HF	501	GDP	O4'-C1'-N9	2.97	112.69	108.75
62	CM	602	GTP	C2-N1-C6	-2.97	119.67	125.11
62	EH	501	GTP	C2-N1-C6	-2.97	119.67	125.11
64	JA	501	GDP	C8-N7-C5	2.97	107.61	102.55
62	KC	602	GTP	O4'-C1'-N9	2.97	112.69	108.75
64	KK	501	GDP	C8-N7-C5	2.97	107.60	102.55
62	KF	501	GTP	C2-N1-C6	-2.97	119.68	125.11
62	ET	602	GTP	C2-N1-C6	-2.97	119.68	125.11
62	JP	501	GTP	C5-C6-N1	2.97	119.73	114.07
64	CN	501	GDP	C8-N7-C5	2.97	107.60	102.55
64	DD	501	GDP	C8-N7-C5	2.97	107.60	102.55
62	CF	602	GTP	C2-N1-C6	-2.96	119.69	125.11
62	JD	501	GTP	C2-N1-C6	-2.96	119.69	125.11
62	AY	602	GTP	C5-C6-N1	2.96	119.72	114.07
62	FN	502	GTP	C5-C6-N1	2.96	119.72	114.07
64	HW	501	GDP	C8-N7-C5	2.96	107.59	102.55
62	AU	501	GTP	C2-N1-C6	-2.96	119.69	125.11
62	FL	501	GTP	C2-N1-C6	-2.96	119.69	125.11
64	JG	501	GDP	C8-N7-C5	2.96	107.59	102.55
64	LB	501	GDP	C8-N7-C5	2.96	107.59	102.55
62	DZ	602	GTP	C2-N1-C6	-2.96	119.69	125.11
64	AL	501	GDP	O4'-C1'-N9	2.96	112.67	108.75
62	FF	501	GTP	C2-N1-C6	-2.96	119.69	125.11
62	IT	602	GTP	C2-N1-C6	-2.96	119.69	125.11
64	HD	501	GDP	C8-N7-C5	2.96	107.59	102.55
62	IO	501	GTP	C5-C6-N1	2.96	119.71	114.07
62	BK	602	GTP	C2-N1-C6	-2.96	119.70	125.11
62	DA	501	GTP	C2-N1-C6	-2.96	119.70	125.11
62	IB	602	GTP	C2-N1-C6	-2.96	119.70	125.11
62	JF	501	GTP	C5-C6-N1	2.96	119.71	114.07
64	CL	501	GDP	O4'-C1'-N9	2.96	112.66	108.75
62	BO	501	GTP	C2-N1-C6	-2.95	119.70	125.11
64	JO	501	GDP	O4'-C1'-N9	2.95	112.66	108.75
62	FD	602	GTP	C2-N1-C6	-2.95	119.70	125.11
62	BA	501	GTP	C2-N1-C6	-2.95	119.70	125.11
62	DX	501	GTP	C2-N1-C6	-2.95	119.70	125.11
64	HN	501	GDP	O4'-C1'-N9	2.95	112.66	108.75
62	GR	501	GTP	C5-C6-N1	2.95	119.70	114.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	HY	501	GDP	C8-N7-C5	2.95	107.57	102.55
62	BU	501	GTP	C2-N1-C6	-2.95	119.71	125.11
62	IZ	602	GTP	C2-N1-C6	-2.95	119.71	125.11
62	GH	602	GTP	C2-N1-C6	-2.95	119.71	125.11
64	KM	501	GDP	O4'-C1'-N9	2.95	112.65	108.75
62	AS	602	GTP	C2-N1-C6	-2.95	119.71	125.11
62	AS	602	GTP	C5-C6-N1	2.95	119.69	114.07
64	JT	501	GDP	C8-N7-C5	2.95	107.57	102.55
62	KL	602	GTP	C2-N1-C6	-2.95	119.72	125.11
64	FZ	501	GDP	C8-N7-C5	2.95	107.56	102.55
64	HS	501	GDP	C8-N7-C5	2.95	107.56	102.55
62	GN	602	GTP	O4'-C1'-N9	2.94	112.65	108.75
64	GI	501	GDP	C8-N7-C5	2.94	107.56	102.55
64	KO	501	GDP	C8-N7-C5	2.94	107.56	102.55
64	BF	501	GDP	C8-N7-C5	2.94	107.56	102.55
64	CT	501	GDP	C8-N7-C5	2.94	107.56	102.55
62	AM	602	GTP	O4'-C1'-N9	2.94	112.65	108.75
62	BG	501	GTP	C5-C6-N1	2.94	119.68	114.07
62	BM	501	GTP	C2-N1-C6	-2.94	119.73	125.11
64	IN	501	GDP	C8-N7-C5	2.94	107.55	102.55
62	EB	501	GTP	C2-N1-C6	-2.94	119.73	125.11
64	FX	501	GDP	C8-N7-C5	2.94	107.55	102.55
64	HR	501	GDP	C8-N7-C5	2.94	107.55	102.55
64	AX	501	GDP	C8-N7-C5	2.94	107.55	102.55
64	EG	501	GDP	C8-N7-C5	2.94	107.55	102.55
64	HU	501	GDP	C8-N7-C5	2.94	107.55	102.55
64	EK	501	GDP	C8-N7-C5	2.94	107.55	102.55
62	AW	501	GTP	C2-N1-C6	-2.94	119.74	125.11
64	AJ	501	GDP	C8-N7-C5	2.93	107.55	102.55
62	BS	501	GTP	C2-N1-C6	-2.93	119.74	125.11
64	IP	501	GDP	C8-N7-C5	2.93	107.54	102.55
62	KL	602	GTP	O4'-C1'-N9	2.93	112.63	108.75
62	DQ	501	GTP	O4'-C1'-N9	2.93	112.63	108.75
64	AV	501	GDP	C8-N7-C5	2.93	107.54	102.55
62	DE	501	GTP	O4'-C1'-N9	2.93	112.63	108.75
64	BD	501	GDP	C8-N7-C5	2.93	107.53	102.55
62	BE	501	GTP	C2-N1-C6	-2.93	119.75	125.11
62	EN	602	GTP	C2-N1-C6	-2.93	119.75	125.11
64	BV	501	GDP	C8-N7-C5	2.93	107.53	102.55
64	GX	501	GDP	C8-N7-C5	2.93	107.53	102.55
64	EA	501	GDP	O4'-C1'-N9	2.93	112.62	108.75
62	JU	602	GTP	O4'-C1'-N9	2.93	112.62	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	DP	501	GDP	C8-N7-C5	2.92	107.53	102.55
64	EO	501	GDP	C8-N7-C5	2.92	107.53	102.55
64	DJ	501	GDP	C8-N7-C5	2.92	107.52	102.55
64	DB	501	GDP	O4'-C1'-N9	2.92	112.62	108.75
62	IT	602	GTP	C5-C6-N1	2.92	119.64	114.07
64	IF	501	GDP	C8-N7-C5	2.92	107.52	102.55
64	JR	501	GDP	C8-N7-C5	2.92	107.52	102.55
62	JB	501	GTP	C2-N1-C6	-2.92	119.77	125.11
64	AH	501	GDP	C8-N7-C5	2.92	107.52	102.55
64	GO	501	GDP	C8-N7-C5	2.92	107.51	102.55
64	KR	501	GDP	C8-N7-C5	2.92	107.51	102.55
64	JE	501	GDP	C8-N7-C5	2.91	107.51	102.55
64	BP	501	GDP	C8-N7-C5	2.91	107.51	102.55
64	BN	501	GDP	C8-N7-C5	2.91	107.51	102.55
64	EU	501	GDP	C8-N7-C5	2.91	107.51	102.55
62	BG	501	GTP	C2-N1-C6	-2.91	119.78	125.11
62	GT	501	GTP	C5-C6-N1	2.91	119.62	114.07
64	FC	501	GDP	C8-N7-C5	2.91	107.50	102.55
64	AL	501	GDP	C8-N7-C5	2.91	107.50	102.55
64	KG	501	GDP	C8-N7-C5	2.91	107.50	102.55
64	FQ	501	GDP	C8-N7-C5	2.91	107.50	102.55
64	KE	501	GDP	C8-N7-C5	2.91	107.50	102.55
62	EF	602	GTP	C5-C6-N1	2.91	119.62	114.07
64	JX	501	GDP	C8-N7-C5	2.91	107.50	102.55
62	EF	602	GTP	C2-N1-C6	-2.91	119.79	125.11
62	GR	501	GTP	C2-N1-C6	-2.91	119.79	125.11
64	BB	501	GDP	C8-N7-C5	2.91	107.50	102.55
64	EU	501	GDP	O4'-C1'-N9	2.91	112.60	108.75
64	EY	501	GDP	C8-N7-C5	2.91	107.50	102.55
62	JN	501	GTP	C5-C6-N1	2.90	119.61	114.07
64	GV	501	GDP	C8-N7-C5	2.90	107.49	102.55
64	HF	501	GDP	C8-N7-C5	2.90	107.49	102.55
64	GI	501	GDP	O4'-C1'-N9	2.90	112.59	108.75
64	DP	501	GDP	O4'-C1'-N9	2.90	112.59	108.75
64	DT	501	GDP	C8-N7-C5	2.90	107.49	102.55
64	CC	501	GDP	C8-N7-C5	2.90	107.49	102.55
64	CE	501	GDP	C8-N7-C5	2.90	107.49	102.55
64	FS	501	GDP	C8-N7-C5	2.90	107.49	102.55
64	KX	501	GDP	C8-N7-C5	2.90	107.49	102.55
62	GL	501	GTP	C5-C6-N1	2.90	119.60	114.07
64	AT	501	GDP	C8-N7-C5	2.90	107.48	102.55
62	JL	602	GTP	C5-C6-N1	2.90	119.60	114.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	KM	501	GDP	C8-N7-C5	2.90	107.48	102.55
64	HY	501	GDP	O4'-C1'-N9	2.90	112.58	108.75
64	DL	501	GDP	C8-N7-C5	2.90	107.48	102.55
64	KI	501	GDP	C8-N7-C5	2.90	107.48	102.55
62	DO	602	GTP	O4'-C1'-N9	2.89	112.58	108.75
64	GZ	501	GDP	C8-N7-C5	2.89	107.48	102.55
64	DY	501	GDP	C8-N7-C5	2.89	107.47	102.55
62	GL	501	GTP	C2-N1-C6	-2.89	119.82	125.11
64	BT	501	GDP	C8-N7-C5	2.89	107.47	102.55
64	EE	501	GDP	C8-N7-C5	2.89	107.46	102.55
64	IR	501	GDP	C8-N7-C5	2.89	107.46	102.55
64	GS	501	GDP	C8-N7-C5	2.89	107.46	102.55
64	IU	501	GDP	C8-N7-C5	2.89	107.46	102.55
64	GK	501	GDP	C8-N7-C5	2.88	107.46	102.55
64	KB	501	GDP	C8-N7-C5	2.88	107.46	102.55
62	DK	501	GTP	O4'-C1'-N9	2.88	112.57	108.75
64	EI	501	GDP	C8-N7-C5	2.88	107.46	102.55
62	JL	602	GTP	C2-N1-C6	-2.88	119.83	125.11
62	AO	501	GTP	O4'-C1'-N9	2.88	112.57	108.75
64	FG	501	GDP	C8-N7-C5	2.88	107.45	102.55
64	IY	501	GDP	C8-N7-C5	2.88	107.45	102.55
64	BL	501	GDP	C8-N7-C5	2.88	107.45	102.55
64	JV	501	GDP	C8-N7-C5	2.88	107.45	102.55
64	FM	501	GDP	C8-N7-C5	2.88	107.45	102.55
64	IA	501	GDP	C8-N7-C5	2.88	107.45	102.55
64	JZ	501	GDP	C8-N7-C5	2.88	107.45	102.55
64	HB	501	GDP	C8-N7-C5	2.88	107.44	102.55
64	IJ	501	GDP	C8-N7-C5	2.87	107.44	102.55
64	KI	501	GDP	O4'-C1'-N9	2.87	112.55	108.75
64	JM	501	GDP	C8-N7-C5	2.87	107.44	102.55
62	GT	501	GTP	C2-N1-C6	-2.87	119.86	125.11
64	ES	501	GDP	C8-N7-C5	2.87	107.43	102.55
62	AY	602	GTP	C2-N1-C6	-2.86	119.87	125.11
64	JC	501	GDP	C8-N7-C5	2.86	107.43	102.55
64	IH	501	GDP	C8-N7-C5	2.86	107.42	102.55
64	AD	501	GDP	C8-N7-C5	2.86	107.42	102.55
64	IE	501	GDP	C8-N7-C5	2.86	107.42	102.55
64	KZ	501	GDP	C8-N7-C5	2.86	107.42	102.55
64	DJ	501	GDP	O4'-C1'-N9	2.86	112.54	108.75
64	DN	501	GDP	C8-N7-C5	2.86	107.42	102.55
64	IW	501	GDP	C8-N7-C5	2.86	107.42	102.55
62	JP	501	GTP	C2-N1-C6	-2.86	119.87	125.11

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	AZ	501	GDP	C8-N7-C5	2.86	107.42	102.55
64	FA	501	GDP	C8-N7-C5	2.86	107.42	102.55
64	BY	501	GDP	O4'-C1'-N9	2.85	112.53	108.75
64	CV	501	GDP	O4'-C1'-N9	2.85	112.53	108.75
64	FK	501	GDP	C8-N7-C5	2.85	107.41	102.55
64	CN	501	GDP	O4'-C1'-N9	2.85	112.53	108.75
64	JX	501	GDP	O4'-C1'-N9	2.85	112.53	108.75
64	BJ	501	GDP	C8-N7-C5	2.85	107.40	102.55
64	EQ	501	GDP	C8-N7-C5	2.85	107.40	102.55
64	FV	501	GDP	C8-N7-C5	2.85	107.40	102.55
64	JI	501	GDP	C8-N7-C5	2.85	107.40	102.55
64	GV	501	GDP	O4'-C1'-N9	2.85	112.52	108.75
64	EA	501	GDP	C8-N7-C5	2.85	107.39	102.55
64	EW	501	GDP	C8-N7-C5	2.84	107.39	102.55
62	JF	501	GTP	C2-N1-C6	-2.84	119.91	125.11
64	BH	501	GDP	C8-N7-C5	2.84	107.38	102.55
64	KX	501	GDP	O4'-C1'-N9	2.84	112.51	108.75
64	GQ	501	GDP	C8-N7-C5	2.84	107.38	102.55
64	HJ	501	GDP	O4'-C1'-N9	2.83	112.50	108.75
64	DW	501	GDP	O4'-C1'-N9	2.83	112.50	108.75
64	JK	501	GDP	C8-N7-C5	2.83	107.37	102.55
62	KA	602	GTP	O4'-C1'-N9	2.83	112.50	108.75
64	EC	501	GDP	C8-N7-C5	2.83	107.36	102.55
64	JK	501	GDP	O4'-C1'-N9	2.82	112.49	108.75
64	FE	501	GDP	C8-N7-C5	2.82	107.36	102.55
64	EK	501	GDP	O4'-C1'-N9	2.82	112.48	108.75
62	JY	602	GTP	O4'-C1'-N9	2.82	112.48	108.75
64	DV	501	GDP	C8-N7-C5	2.81	107.34	102.55
64	IJ	501	GDP	O4'-C1'-N9	2.81	112.47	108.75
64	EM	501	GDP	C8-N7-C5	2.81	107.34	102.55
64	AR	501	GDP	C8-N7-C5	2.81	107.34	102.55
64	GO	501	GDP	O4'-C1'-N9	2.81	112.47	108.75
62	GU	501	GTP	O4'-C1'-N9	2.81	112.47	108.75
62	JQ	501	GTP	O4'-C1'-N9	2.80	112.46	108.75
64	DN	501	GDP	O4'-C1'-N9	2.80	112.46	108.75
64	DR	501	GDP	C8-N7-C5	2.80	107.31	102.55
64	FM	501	GDP	O4'-C1'-N9	2.80	112.46	108.75
64	AN	501	GDP	C8-N7-C5	2.80	107.31	102.55
62	KP	501	GTP	O4'-C1'-N9	2.80	112.45	108.75
64	IF	501	GDP	O4'-C1'-N9	2.79	112.45	108.75
64	FX	501	GDP	O4'-C1'-N9	2.79	112.45	108.75
62	DS	501	GTP	O4'-C1'-N9	2.79	112.44	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	FV	501	GDP	O4'-C1'-N9	2.78	112.43	108.75
64	HW	501	GDP	O4'-C1'-N9	2.78	112.43	108.75
62	JN	501	GTP	C2-N1-C6	-2.77	120.03	125.11
64	FS	501	GDP	O4'-C1'-N9	2.77	112.42	108.75
64	DY	501	GDP	O4'-C1'-N9	2.77	112.42	108.75
64	DW	501	GDP	C8-N7-C5	2.77	107.26	102.55
64	DT	501	GDP	O4'-C1'-N9	2.77	112.42	108.75
64	AD	501	GDP	O4'-C1'-N9	2.76	112.41	108.75
64	CT	501	GDP	O4'-C1'-N9	2.76	112.41	108.75
64	GX	501	GDP	O4'-C1'-N9	2.76	112.41	108.75
62	DG	602	GTP	O4'-C1'-N9	2.76	112.40	108.75
64	DR	501	GDP	O4'-C1'-N9	2.76	112.40	108.75
62	AA	501	GTP	O4'-C1'-N9	2.76	112.40	108.75
62	HG	602	GTP	O4'-C1'-N9	2.75	112.39	108.75
64	AR	501	GDP	O4'-C1'-N9	2.75	112.39	108.75
62	KF	501	GTP	O4'-C1'-N9	2.74	112.38	108.75
64	KE	501	GDP	O4'-C1'-N9	2.74	112.38	108.75
62	AU	501	GTP	O4'-C1'-N9	2.74	112.38	108.75
62	KH	501	GTP	O4'-C1'-N9	2.74	112.38	108.75
62	KQ	602	GTP	O4'-C1'-N9	2.74	112.37	108.75
64	EG	501	GDP	O4'-C1'-N9	2.73	112.37	108.75
64	JA	501	GDP	O4'-C1'-N9	2.73	112.37	108.75
62	JW	602	GTP	O4'-C1'-N9	2.73	112.36	108.75
62	DM	602	GTP	O4'-C1'-N9	2.73	112.36	108.75
64	BJ	501	GDP	O4'-C1'-N9	2.70	112.32	108.75
62	AG	501	GTP	O4'-C1'-N9	2.70	112.32	108.75
64	FQ	501	GDP	O4'-C1'-N9	2.69	112.31	108.75
62	GH	602	GTP	O4'-C1'-N9	2.69	112.31	108.75
64	EY	501	GDP	O4'-C1'-N9	2.69	112.31	108.75
64	BB	501	GDP	O4'-C1'-N9	2.68	112.30	108.75
64	IL	501	GDP	C8-N7-C5	2.68	107.11	102.55
64	KG	501	GDP	O4'-C1'-N9	2.68	112.30	108.75
64	EC	501	GDP	O4'-C1'-N9	2.68	112.30	108.75
64	AH	501	GDP	O4'-C1'-N9	2.67	112.29	108.75
64	GD	501	GDP	O4'-C1'-N9	2.67	112.28	108.75
64	AZ	501	GDP	O4'-C1'-N9	2.66	112.27	108.75
64	IW	501	GDP	O4'-C1'-N9	2.66	112.27	108.75
62	GY	501	GTP	O4'-C1'-N9	2.66	112.27	108.75
62	GP	501	GTP	O4'-C1'-N9	2.66	112.27	108.75
62	AW	501	GTP	O4'-C1'-N9	2.66	112.27	108.75
62	GA	501	GTP	O4'-C1'-N9	2.66	112.27	108.75
64	HL	501	GDP	O4'-C1'-N9	2.65	112.26	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	KO	501	GDP	O4'-C1'-N9	2.65	112.26	108.75
64	BP	501	GDP	O4'-C1'-N9	2.65	112.26	108.75
64	IA	501	GDP	O4'-C1'-N9	2.65	112.26	108.75
64	EQ	501	GDP	O4'-C1'-N9	2.64	112.25	108.75
64	IS	501	GDP	O4'-C1'-N9	2.64	112.25	108.75
64	JR	501	GDP	O4'-C1'-N9	2.64	112.25	108.75
64	HS	501	GDP	O4'-C1'-N9	2.64	112.25	108.75
64	AJ	501	GDP	O4'-C1'-N9	2.64	112.24	108.75
62	BI	501	GTP	O4'-C1'-N9	2.62	112.22	108.75
64	FI	501	GDP	O4'-C1'-N9	2.62	112.22	108.75
62	DU	602	GTP	O4'-C1'-N9	2.62	112.22	108.75
64	HU	501	GDP	O4'-C1'-N9	2.61	112.20	108.75
62	IK	602	GTP	O4'-C1'-N9	2.61	112.20	108.75
62	HA	501	GTP	O4'-C1'-N9	2.61	112.20	108.75
64	IY	501	GDP	O4'-C1'-N9	2.60	112.19	108.75
64	JG	501	GDP	O4'-C1'-N9	2.59	112.18	108.75
64	DL	501	GDP	O4'-C1'-N9	2.59	112.18	108.75
64	JE	501	GDP	O4'-C1'-N9	2.58	112.17	108.75
64	JM	501	GDP	O4'-C1'-N9	2.58	112.17	108.75
62	AE	602	GTP	O4'-C1'-N9	2.57	112.16	108.75
64	FK	501	GDP	O4'-C1'-N9	2.57	112.16	108.75
64	GS	501	GDP	O4'-C1'-N9	2.57	112.15	108.75
64	IP	501	GDP	O4'-C1'-N9	2.56	112.14	108.75
64	EI	501	GDP	O4'-C1'-N9	2.54	112.12	108.75
62	GC	501	GTP	O4'-C1'-N9	2.54	112.11	108.75
64	JI	501	GDP	O4'-C1'-N9	2.54	112.11	108.75
62	HC	602	GTP	O4'-C1'-N9	2.53	112.10	108.75
62	KW	602	GTP	O4'-C1'-N9	2.53	112.10	108.75
64	EM	501	GDP	O4'-C1'-N9	2.53	112.10	108.75
62	GG	501	GTP	O4'-C1'-N9	2.52	112.09	108.75
62	IQ	501	GTP	O4'-C1'-N9	2.52	112.09	108.75
64	KZ	501	GDP	O4'-C1'-N9	2.52	112.09	108.75
62	FY	602	GTP	O4'-C1'-N9	2.52	112.08	108.75
62	IG	501	GTP	O4'-C1'-N9	2.52	112.08	108.75
64	CA	602	GDP	O4'-C1'-N9	2.51	112.08	108.75
62	KN	501	GTP	O4'-C1'-N9	2.51	112.08	108.75
64	BH	501	GDP	O4'-C1'-N9	2.51	112.08	108.75
64	EE	501	GDP	O4'-C1'-N9	2.49	112.05	108.75
64	IN	501	GDP	O4'-C1'-N9	2.49	112.05	108.75
64	EO	501	GDP	O4'-C1'-N9	2.49	112.05	108.75
62	AY	602	GTP	O4'-C1'-N9	2.49	112.05	108.75
64	BF	501	GDP	O4'-C1'-N9	2.49	112.05	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	BV	501	GDP	O4'-C1'-N9	2.48	112.03	108.75
64	GQ	501	GDP	O4'-C1'-N9	2.48	112.03	108.75
62	GW	501	GTP	O4'-C1'-N9	2.47	112.03	108.75
64	IU	501	GDP	O4'-C1'-N9	2.47	112.02	108.75
62	HQ	501	GTP	O4'-C1'-N9	2.46	112.01	108.75
64	HP	501	GDP	C5-C6-N1	2.46	118.75	114.07
62	IM	602	GTP	O4'-C1'-N9	2.45	112.00	108.75
62	ET	602	GTP	O4'-C1'-N9	2.45	111.99	108.75
64	CG	501	GDP	O4'-C1'-N9	2.45	111.99	108.75
64	AX	501	GDP	O4'-C1'-N9	2.44	111.98	108.75
62	ID	501	GTP	O4'-C1'-N9	2.44	111.98	108.75
62	GT	501	GTP	O4'-C1'-N9	2.43	111.97	108.75
62	FJ	602	GTP	O4'-C1'-N9	2.43	111.97	108.75
62	IZ	602	GTP	O4'-C1'-N9	2.43	111.97	108.75
64	CC	501	GDP	O4'-C1'-N9	2.43	111.97	108.75
64	BL	501	GDP	O4'-C1'-N9	2.43	111.97	108.75
62	EV	501	GTP	O4'-C1'-N9	2.43	111.96	108.75
62	JH	501	GTP	O4'-C1'-N9	2.42	111.96	108.75
62	DX	501	GTP	O4'-C1'-N9	2.42	111.96	108.75
62	EB	501	GTP	O4'-C1'-N9	2.42	111.96	108.75
64	GK	501	GDP	O4'-C1'-N9	2.41	111.94	108.75
62	GR	501	GTP	O4'-C1'-N9	2.41	111.94	108.75
62	BA	501	GTP	O4'-C1'-N9	2.40	111.93	108.75
62	EN	602	GTP	O4'-C1'-N9	2.40	111.92	108.75
62	IO	501	GTP	O4'-C1'-N9	2.40	111.92	108.75
64	JC	501	GDP	O4'-C1'-N9	2.39	111.92	108.75
62	HE	501	GTP	O4'-C1'-N9	2.39	111.91	108.75
62	BC	501	GTP	O4'-C1'-N9	2.39	111.91	108.75
62	GJ	501	GTP	O4'-C1'-N9	2.38	111.90	108.75
62	AK	602	GTP	O4'-C1'-N9	2.38	111.90	108.75
64	CI	501	GDP	O4'-C1'-N9	2.37	111.88	108.75
64	ES	501	GDP	O4'-C1'-N9	2.36	111.88	108.75
62	CS	501	GTP	O4'-C1'-N9	2.36	111.88	108.75
62	DZ	602	GTP	O4'-C1'-N9	2.36	111.87	108.75
62	DA	501	GTP	O4'-C1'-N9	2.35	111.86	108.75
62	EX	602	GTP	O4'-C1'-N9	2.35	111.86	108.75
62	BG	501	GTP	O4'-C1'-N9	2.35	111.86	108.75
62	BE	501	GTP	O4'-C1'-N9	2.35	111.86	108.75
62	FW	501	GTP	O4'-C1'-N9	2.34	111.85	108.75
62	AI	501	GTP	O4'-C1'-N9	2.34	111.85	108.75
62	EZ	501	GTP	O4'-C1'-N9	2.34	111.85	108.75
62	JN	501	GTP	O4'-C1'-N9	2.34	111.85	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	FE	501	GDP	O4'-C1'-N9	2.34	111.85	108.75
62	BS	501	GTP	O6-C6-C5	-2.34	119.68	124.32
64	CE	501	GDP	O4'-C1'-N9	2.34	111.85	108.75
62	AC	501	GTP	O4'-C1'-N9	2.34	111.84	108.75
62	HI	602	GTP	O4'-C1'-N9	2.33	111.84	108.75
62	LA	501	GTP	O4'-C1'-N9	2.33	111.83	108.75
62	CY	501	GTP	O4'-C1'-N9	2.33	111.83	108.75
62	HM	501	GTP	O4'-C1'-N9	2.33	111.83	108.75
62	JJ	501	GTP	O6-C6-C5	-2.31	119.74	124.32
62	FN	502	GTP	O4'-C1'-N9	2.31	111.81	108.75
62	FU	602	GTP	O4'-C1'-N9	2.31	111.81	108.75
62	IX	501	GTP	O4'-C1'-N9	2.30	111.80	108.75
62	HK	501	GTP	O4'-C1'-N9	2.30	111.80	108.75
62	IV	602	GTP	O4'-C1'-N9	2.29	111.79	108.75
62	KS	602	GTP	O4'-C1'-N9	2.29	111.78	108.75
62	HC	602	GTP	O6-C6-C5	-2.29	119.78	124.32
62	GE	501	GTP	O4'-C1'-N9	2.29	111.78	108.75
62	KU	501	GTP	O4'-C1'-N9	2.29	111.78	108.75
62	DC	602	GTP	O4'-C1'-N9	2.29	111.78	108.75
64	KV	501	GDP	C5-C6-N1	2.28	118.42	114.07
64	IH	501	GDP	O4'-C1'-N9	2.28	111.77	108.75
62	EP	602	GTP	O4'-C1'-N9	2.28	111.77	108.75
62	IT	602	GTP	O4'-C1'-N9	2.28	111.76	108.75
64	JZ	501	GDP	O4'-C1'-N9	2.28	111.76	108.75
62	JJ	501	GTP	O4'-C1'-N9	2.27	111.76	108.75
62	BX	501	GTP	O4'-C1'-N9	2.27	111.76	108.75
62	II	501	GTP	O4'-C1'-N9	2.27	111.76	108.75
62	JF	501	GTP	O6-C6-C5	-2.27	119.83	124.32
62	HV	501	GTP	O4'-C1'-N9	2.26	111.74	108.75
62	DQ	501	GTP	O6-C6-C5	-2.26	119.85	124.32
64	AP	501	GDP	C5-C6-N1	2.25	118.37	114.07
64	HR	501	GDP	C5-C6-N1	2.25	118.37	114.07
62	FF	501	GTP	O4'-C1'-N9	2.25	111.73	108.75
62	FP	502	GTP	O4'-C1'-N9	2.25	111.73	108.75
62	KY	602	GTP	O4'-C1'-N9	2.25	111.73	108.75
62	FT	602	GTP	O4'-C1'-N9	2.25	111.73	108.75
62	FB	502	GTP	O4'-C1'-N9	2.25	111.72	108.75
62	DI	602	GTP	O4'-C1'-N9	2.24	111.72	108.75
64	FC	501	GDP	O4'-C1'-N9	2.24	111.72	108.75
62	BU	501	GTP	O6-C6-C5	-2.24	119.88	124.32
64	EU	501	GDP	C5-C6-N1	2.24	118.34	114.07
62	EF	602	GTP	O4'-C1'-N9	2.24	111.72	108.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	IE	501	GDP	O4'-C1'-N9	2.24	111.72	108.75
64	FG	501	GDP	C5-C6-N1	2.24	118.34	114.07
62	BC	501	GTP	O6-C6-C5	-2.23	119.89	124.32
64	HN	501	GDP	C5-C6-N1	2.23	118.33	114.07
64	BN	501	GDP	O4'-C1'-N9	2.23	111.70	108.75
62	DS	501	GTP	O6-C6-C5	-2.23	119.91	124.32
64	FX	501	GDP	C5-C6-N1	2.22	118.30	114.07
62	DX	501	GTP	O6-C6-C5	-2.22	119.92	124.32
62	BI	501	GTP	O6-C6-C5	-2.21	119.93	124.32
64	EW	501	GDP	O4'-C1'-N9	2.21	111.68	108.75
62	HE	501	GTP	O6-C6-C5	-2.21	119.93	124.32
62	AY	602	GTP	O6-C6-C5	-2.21	119.93	124.32
64	HD	501	GDP	C5-C6-N1	2.21	118.29	114.07
62	JF	501	GTP	O4'-C1'-N9	2.21	111.67	108.75
62	GU	501	GTP	O6-C6-C5	-2.21	119.94	124.32
62	JP	501	GTP	O6-C6-C5	-2.21	119.94	124.32
62	JB	501	GTP	O6-C6-C5	-2.21	119.94	124.32
62	BW	501	GTP	O4'-C1'-N9	2.21	111.67	108.75
64	BV	501	GDP	C5-C6-N1	2.20	118.28	114.07
62	CO	501	GTP	O4'-C1'-N9	2.20	111.67	108.75
64	HL	501	GDP	C5-C6-N1	2.20	118.27	114.07
62	BM	501	GTP	O6-C6-C5	-2.20	119.96	124.32
64	FE	501	GDP	C5-C6-N1	2.20	118.27	114.07
62	HX	501	GTP	O4'-C1'-N9	2.20	111.66	108.75
64	IR	501	GDP	O4'-C1'-N9	2.20	111.66	108.75
62	EH	501	GTP	O6-C6-C5	-2.20	119.97	124.32
62	BE	501	GTP	O6-C6-C5	-2.20	119.97	124.32
62	EB	501	GTP	O6-C6-C5	-2.19	119.97	124.32
62	KC	602	GTP	O6-C6-C5	-2.19	119.97	124.32
64	JO	501	GDP	C5-C6-N1	2.19	118.25	114.07
62	JD	501	GTP	O6-C6-C5	-2.19	119.98	124.32
64	HS	501	GDP	C5-C6-N1	2.19	118.25	114.07
62	DO	602	GTP	O6-C6-C5	-2.19	119.98	124.32
62	HA	501	GTP	O6-C6-C5	-2.19	119.98	124.32
62	ER	602	GTP	O4'-C1'-N9	2.19	111.65	108.75
62	BK	602	GTP	O6-C6-C5	-2.19	119.99	124.32
62	AE	602	GTP	O6-C6-C5	-2.18	119.99	124.32
64	CT	501	GDP	C5-C6-N1	2.18	118.24	114.07
64	FI	501	GDP	C5-C6-N1	2.18	118.23	114.07
64	BT	501	GDP	O4'-C1'-N9	2.18	111.64	108.75
62	HZ	501	GTP	O4'-C1'-N9	2.18	111.64	108.75
64	AD	501	GDP	C5-C6-N1	2.18	118.23	114.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	BD	501	GDP	C5-C6-N1	2.18	118.23	114.07
62	DU	602	GTP	O6-C6-C5	-2.18	120.00	124.32
62	JL	602	GTP	O6-C6-C5	-2.18	120.00	124.32
62	AO	501	GTP	O6-C6-C5	-2.18	120.00	124.32
62	FJ	602	GTP	O6-C6-C5	-2.18	120.00	124.32
64	FO	501	GDP	C5-C6-N1	2.18	118.23	114.07
64	FA	501	GDP	C5-C6-N1	2.18	118.23	114.07
64	KI	501	GDP	C5-C6-N1	2.18	118.23	114.07
62	HT	501	GTP	O4'-C1'-N9	2.18	111.63	108.75
64	IA	501	GDP	C5-C6-N1	2.17	118.22	114.07
64	CN	501	GDP	C5-C6-N1	2.17	118.22	114.07
64	HB	501	GDP	C5-C6-N1	2.17	118.22	114.07
64	KX	501	GDP	C5-C6-N1	2.17	118.22	114.07
62	CB	501	GTP	O6-C6-C5	-2.17	120.02	124.32
64	AR	501	GDP	C5-C6-N1	2.17	118.21	114.07
64	DH	501	GDP	C5-C6-N1	2.17	118.21	114.07
62	IG	501	GTP	O6-C6-C5	-2.17	120.02	124.32
64	GZ	501	GDP	C5-C6-N1	2.17	118.21	114.07
62	BZ	501	GTP	O4'-C1'-N9	2.17	111.62	108.75
62	FR	502	GTP	O4'-C1'-N9	2.17	111.62	108.75
64	LB	501	GDP	C5-C6-N1	2.17	118.20	114.07
62	JQ	501	GTP	O6-C6-C5	-2.17	120.03	124.32
64	HF	501	GDP	C5-C6-N1	2.17	118.20	114.07
64	AL	501	GDP	C5-C6-N1	2.16	118.20	114.07
64	EO	501	GDP	C5-C6-N1	2.16	118.20	114.07
62	EH	501	GTP	O4'-C1'-N9	2.16	111.61	108.75
64	GB	501	GDP	C5-C6-N1	2.16	118.20	114.07
62	FN	502	GTP	O6-C6-C5	-2.16	120.03	124.32
62	JW	602	GTP	O6-C6-C5	-2.16	120.03	124.32
62	FL	501	GTP	O4'-C1'-N9	2.16	111.61	108.75
64	BF	501	GDP	C5-C6-N1	2.16	118.19	114.07
64	FZ	501	GDP	C5-C6-N1	2.16	118.19	114.07
62	BA	501	GTP	O6-C6-C5	-2.16	120.04	124.32
62	JN	501	GTP	O6-C6-C5	-2.16	120.04	124.32
64	JX	501	GDP	C5-C6-N1	2.16	118.19	114.07
64	CZ	501	GDP	C5-C6-N1	2.16	118.19	114.07
62	GP	501	GTP	O6-C6-C5	-2.16	120.04	124.32
64	KZ	501	GDP	C5-C6-N1	2.16	118.19	114.07
64	HY	501	GDP	C5-C6-N1	2.16	118.19	114.07
64	KG	501	GDP	C5-C6-N1	2.16	118.19	114.07
64	JZ	501	GDP	C5-C6-N1	2.16	118.19	114.07
62	FP	502	GTP	O6-C6-C5	-2.16	120.05	124.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	DP	501	GDP	C5-C6-N1	2.16	118.18	114.07
64	HJ	501	GDP	C5-C6-N1	2.16	118.18	114.07
62	JH	501	GTP	O6-C6-C5	-2.15	120.05	124.32
64	JT	501	GDP	C5-C6-N1	2.15	118.18	114.07
64	HH	501	GDP	C5-C6-N1	2.15	118.18	114.07
64	BP	501	GDP	C5-C6-N1	2.15	118.18	114.07
64	BT	501	GDP	C5-C6-N1	2.15	118.18	114.07
64	FV	501	GDP	C5-C6-N1	2.15	118.18	114.07
64	GI	501	GDP	C5-C6-N1	2.15	118.18	114.07
62	JB	501	GTP	O4'-C1'-N9	2.15	111.60	108.75
64	FQ	501	GDP	C5-C6-N1	2.15	118.17	114.07
64	HW	501	GDP	C5-C6-N1	2.15	118.17	114.07
64	IR	501	GDP	C5-C6-N1	2.15	118.17	114.07
64	CL	501	GDP	C5-C6-N1	2.15	118.17	114.07
64	GD	501	GDP	C5-C6-N1	2.15	118.17	114.07
62	KJ	602	GTP	O6-C6-C5	-2.15	120.06	124.32
64	KE	501	GDP	C5-C6-N1	2.15	118.17	114.07
62	IM	602	GTP	O6-C6-C5	-2.15	120.06	124.32
64	DB	501	GDP	C5-C6-N1	2.15	118.17	114.07
62	GL	501	GTP	O6-C6-C5	-2.15	120.06	124.32
62	IB	602	GTP	O6-C6-C5	-2.15	120.06	124.32
64	AN	501	GDP	C5-C6-N1	2.15	118.17	114.07
64	EK	501	GDP	C5-C6-N1	2.15	118.17	114.07
64	KR	501	GDP	C5-C6-N1	2.15	118.16	114.07
64	FK	501	GDP	C5-C6-N1	2.15	118.16	114.07
62	GC	501	GTP	O6-C6-C5	-2.14	120.07	124.32
64	IL	501	GDP	C5-C6-N1	2.14	118.16	114.07
62	FD	602	GTP	O4'-C1'-N9	2.14	111.59	108.75
62	IT	602	GTP	O6-C6-C5	-2.14	120.07	124.32
64	GF	501	GDP	C5-C6-N1	2.14	118.16	114.07
64	AT	501	GDP	C5-C6-N1	2.14	118.16	114.07
64	GX	501	GDP	C5-C6-N1	2.14	118.16	114.07
64	IS	501	GDP	C5-C6-N1	2.14	118.15	114.07
62	FD	602	GTP	O6-C6-C5	-2.14	120.08	124.32
64	AH	501	GDP	C5-C6-N1	2.14	118.15	114.07
62	BG	501	GTP	O6-C6-C5	-2.14	120.08	124.32
62	HX	501	GTP	O6-C6-C5	-2.14	120.08	124.32
62	FY	602	GTP	O6-C6-C5	-2.14	120.09	124.32
62	ED	602	GTP	O4'-C1'-N9	2.13	111.58	108.75
62	IX	501	GTP	O6-C6-C5	-2.13	120.09	124.32
64	FS	501	GDP	C5-C6-N1	2.13	118.14	114.07
64	JI	501	GDP	C5-C6-N1	2.13	118.14	114.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
64	DD	501	GDP	C5-C6-N1	2.13	118.14	114.07
64	GS	501	GDP	C5-C6-N1	2.13	118.14	114.07
64	DN	501	GDP	C5-C6-N1	2.13	118.13	114.07
62	IV	602	GTP	O6-C6-C5	-2.13	120.10	124.32
62	BW	501	GTP	O6-C6-C5	-2.13	120.10	124.32
62	FR	502	GTP	O6-C6-C5	-2.13	120.10	124.32
64	AJ	501	GDP	C5-C6-N1	2.13	118.13	114.07
62	GR	501	GTP	O6-C6-C5	-2.13	120.10	124.32
62	FL	501	GTP	O6-C6-C5	-2.13	120.11	124.32
64	DY	501	GDP	C5-C6-N1	2.12	118.12	114.07
64	IH	501	GDP	C5-C6-N1	2.12	118.12	114.07
64	BJ	501	GDP	C5-C6-N1	2.12	118.12	114.07
62	GT	501	GTP	O6-C6-C5	-2.12	120.11	124.32
64	GO	501	GDP	C5-C6-N1	2.12	118.12	114.07
64	IC	501	GDP	C5-C6-N1	2.12	118.12	114.07
62	KF	501	GTP	O6-C6-C5	-2.12	120.11	124.32
64	AF	501	GDP	C5-C6-N1	2.12	118.12	114.07
64	BN	501	GDP	C5-C6-N1	2.12	118.12	114.07
64	EM	501	GDP	C5-C6-N1	2.12	118.11	114.07
62	CF	602	GTP	O6-C6-C5	-2.12	120.12	124.32
64	KM	501	GDP	C5-C6-N1	2.12	118.11	114.07
64	DJ	501	GDP	C5-C6-N1	2.12	118.11	114.07
64	IE	501	GDP	C5-C6-N1	2.12	118.11	114.07
64	ES	501	GDP	C5-C6-N1	2.12	118.11	114.07
62	GL	501	GTP	O4'-C1'-N9	2.12	111.55	108.75
64	CP	501	GDP	C5-C6-N1	2.12	118.11	114.07
62	FH	501	GTP	O4'-C1'-N9	2.12	111.55	108.75
62	II	501	GTP	O6-C6-C5	-2.12	120.13	124.32
64	IN	501	GDP	C5-C6-N1	2.12	118.11	114.07
64	JC	501	GDP	C5-C6-N1	2.12	118.11	114.07
64	JA	501	GDP	C5-C6-N1	2.11	118.10	114.07
64	CC	501	GDP	C5-C6-N1	2.11	118.10	114.07
62	FT	602	GTP	O6-C6-C5	-2.11	120.13	124.32
64	DL	501	GDP	C5-C6-N1	2.11	118.10	114.07
62	BM	501	GTP	O4'-C1'-N9	2.11	111.55	108.75
64	EY	501	GDP	C5-C6-N1	2.11	118.10	114.07
62	CQ	602	GTP	O6-C6-C5	-2.11	120.14	124.32
64	AV	501	GDP	C5-C6-N1	2.11	118.09	114.07
64	CX	501	GDP	C5-C6-N1	2.11	118.09	114.07
64	KT	501	GDP	C5-C6-N1	2.11	118.09	114.07
62	IQ	501	GTP	O6-C6-C5	-2.11	120.14	124.32
62	KH	501	GTP	O6-C6-C5	-2.11	120.14	124.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	EP	602	GTP	O6-C6-C5	-2.11	120.14	124.32
64	DV	501	GDP	C5-C6-N1	2.11	118.09	114.07
64	IW	501	GDP	C5-C6-N1	2.11	118.09	114.07
64	IJ	501	GDP	C5-C6-N1	2.10	118.08	114.07
64	EC	501	GDP	C5-C6-N1	2.10	118.08	114.07
62	DK	501	GTP	O6-C6-C5	-2.10	120.15	124.32
62	AM	602	GTP	O6-C6-C5	-2.10	120.15	124.32
64	EA	501	GDP	C5-C6-N1	2.10	118.08	114.07
64	JV	501	GDP	C5-C6-N1	2.10	118.08	114.07
62	KW	602	GTP	O6-C6-C5	-2.10	120.16	124.32
62	KS	602	GTP	O6-C6-C5	-2.10	120.16	124.32
62	ED	602	GTP	O6-C6-C5	-2.10	120.16	124.32
64	IU	501	GDP	C5-C6-N1	2.10	118.07	114.07
62	CH	602	GTP	O6-C6-C5	-2.10	120.16	124.32
62	GW	501	GTP	O6-C6-C5	-2.10	120.16	124.32
64	IF	501	GDP	C5-C6-N1	2.10	118.07	114.07
64	HU	501	GDP	C5-C6-N1	2.10	118.07	114.07
64	JR	501	GDP	C5-C6-N1	2.10	118.07	114.07
64	FM	501	GDP	C5-C6-N1	2.10	118.07	114.07
62	FB	502	GTP	O6-C6-C5	-2.10	120.17	124.32
64	DT	501	GDP	C5-C6-N1	2.09	118.06	114.07
62	AU	501	GTP	O6-C6-C5	-2.09	120.17	124.32
62	IZ	602	GTP	O6-C6-C5	-2.09	120.17	124.32
64	KO	501	GDP	C5-C6-N1	2.09	118.06	114.07
64	EG	501	GDP	C5-C6-N1	2.09	118.06	114.07
62	CM	602	GTP	O4'-C1'-N9	2.09	111.52	108.75
62	EF	602	GTP	O6-C6-C5	-2.09	120.17	124.32
64	JG	501	GDP	C5-C6-N1	2.09	118.06	114.07
62	BQ	602	GTP	O6-C6-C5	-2.09	120.18	124.32
62	IK	602	GTP	O6-C6-C5	-2.09	120.18	124.32
64	DW	501	GDP	C5-C6-N1	2.09	118.06	114.07
62	DZ	602	GTP	O6-C6-C5	-2.09	120.18	124.32
62	DM	602	GTP	O6-C6-C5	-2.09	120.18	124.32
64	EI	501	GDP	C5-C6-N1	2.09	118.05	114.07
64	JE	501	GDP	C5-C6-N1	2.09	118.05	114.07
64	BB	501	GDP	C5-C6-N1	2.09	118.05	114.07
62	ER	602	GTP	O6-C6-C5	-2.08	120.19	124.32
64	EW	501	GDP	C5-C6-N1	2.08	118.04	114.07
62	KA	602	GTP	O6-C6-C5	-2.08	120.19	124.32
62	EJ	602	GTP	O4'-C1'-N9	2.08	111.51	108.75
62	AW	501	GTP	O6-C6-C5	-2.08	120.19	124.32
62	LA	501	GTP	O6-C6-C5	-2.08	120.19	124.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	ID	501	GTP	O6-C6-C5	-2.08	120.19	124.32
64	KB	501	GDP	C5-C6-N1	2.08	118.04	114.07
64	GV	501	GDP	C5-C6-N1	2.08	118.03	114.07
64	EE	501	GDP	C5-C6-N1	2.08	118.03	114.07
62	CU	602	GTP	O4'-C1'-N9	2.08	111.50	108.75
62	KY	602	GTP	O6-C6-C5	-2.08	120.20	124.32
64	AB	501	GDP	C5-C6-N1	2.08	118.03	114.07
64	AZ	501	GDP	C5-C6-N1	2.08	118.03	114.07
62	CJ	501	GTP	O6-C6-C5	-2.08	120.21	124.32
64	GK	501	GDP	C5-C6-N1	2.07	118.03	114.07
64	CE	501	GDP	C5-C6-N1	2.07	118.03	114.07
64	JM	501	GDP	C5-C6-N1	2.07	118.03	114.07
62	ET	602	GTP	O6-C6-C5	-2.07	120.21	124.32
64	JK	501	GDP	C5-C6-N1	2.07	118.02	114.07
62	BQ	602	GTP	O2B-PB-O3B	2.07	112.87	107.27
62	EL	602	GTP	O6-C6-C5	-2.07	120.21	124.32
64	GM	501	GDP	C5-C6-N1	2.07	118.02	114.07
62	JU	602	GTP	O6-C6-C5	-2.07	120.22	124.32
62	CJ	501	GTP	O4'-C1'-N9	2.07	111.49	108.75
62	CS	501	GTP	O6-C6-C5	-2.07	120.22	124.32
62	FU	602	GTP	O6-C6-C5	-2.07	120.22	124.32
64	EQ	501	GDP	C5-C6-N1	2.07	118.01	114.07
62	FH	501	GTP	O6-C6-C5	-2.06	120.23	124.32
62	GG	501	GTP	O6-C6-C5	-2.06	120.23	124.32
62	AC	501	GTP	O6-C6-C5	-2.06	120.23	124.32
62	BX	501	GTP	O6-C6-C5	-2.06	120.23	124.32
62	AG	501	GTP	O6-C6-C5	-2.06	120.24	124.32
62	EX	602	GTP	O6-C6-C5	-2.06	120.24	124.32
64	BL	501	GDP	C5-C6-N1	2.06	118.00	114.07
62	BO	501	GTP	O6-C6-C5	-2.06	120.24	124.32
64	IP	501	GDP	C5-C6-N1	2.06	117.99	114.07
62	EJ	602	GTP	O6-C6-C5	-2.06	120.25	124.32
62	JY	602	GTP	O6-C6-C5	-2.06	120.25	124.32
64	AX	501	GDP	C5-C6-N1	2.06	117.99	114.07
64	DR	501	GDP	C5-C6-N1	2.05	117.99	114.07
62	BZ	501	GTP	O6-C6-C5	-2.05	120.25	124.32
62	IO	501	GTP	O6-C6-C5	-2.05	120.25	124.32
62	KQ	602	GTP	O6-C6-C5	-2.05	120.25	124.32
62	HE	501	GTP	O2B-PB-O3B	2.05	112.82	107.27
64	BH	501	GDP	C5-C6-N1	2.05	117.98	114.07
62	CQ	602	GTP	O4'-C1'-N9	2.05	111.46	108.75
62	AQ	501	GTP	O2B-PB-O3B	2.05	112.81	107.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
62	JD	501	GTP	O4'-C1'-N9	2.05	111.46	108.75
62	AS	602	GTP	O6-C6-C5	-2.05	120.26	124.32
62	KD	501	GTP	O6-C6-C5	-2.05	120.26	124.32
64	FC	501	GDP	C5-C6-N1	2.05	117.97	114.07
62	HI	602	GTP	O6-C6-C5	-2.05	120.27	124.32
62	GN	602	GTP	O6-C6-C5	-2.05	120.27	124.32
64	BY	501	GDP	C5-C6-N1	2.05	117.97	114.07
64	KK	501	GDP	C5-C6-N1	2.04	117.97	114.07
62	BO	501	GTP	O4'-C1'-N9	2.04	111.45	108.75
62	EZ	501	GTP	O6-C6-C5	-2.04	120.28	124.32
62	FF	501	GTP	O6-C6-C5	-2.04	120.28	124.32
62	KP	501	GTP	O6-C6-C5	-2.03	120.29	124.32
64	GQ	501	GDP	C5-C6-N1	2.03	117.95	114.07
64	CG	501	GDP	C5-C6-N1	2.03	117.95	114.07
62	CY	501	GTP	O6-C6-C5	-2.03	120.30	124.32
62	GY	501	GTP	O6-C6-C5	-2.03	120.30	124.32
62	HV	501	GTP	O6-C6-C5	-2.03	120.30	124.32
62	AK	602	GTP	O6-C6-C5	-2.03	120.30	124.32
64	BR	501	GDP	O4'-C1'-N9	2.03	111.43	108.75
64	CR	501	GDP	C5-C6-N1	2.03	117.94	114.07
64	CV	501	GDP	C5-C6-N1	2.03	117.94	114.07
64	CA	602	GDP	C5-C6-N1	2.03	117.94	114.07
64	IY	501	GDP	C5-C6-N1	2.02	117.93	114.07
62	JP	501	GTP	O4'-C1'-N9	2.02	111.43	108.75
62	CW	602	GTP	O6-C6-C5	-2.02	120.31	124.32
64	CI	501	GDP	C5-C6-N1	2.02	117.92	114.07
62	HQ	501	GTP	O6-C6-C5	-2.01	120.33	124.32
62	DI	602	GTP	O6-C6-C5	-2.01	120.34	124.32
62	GJ	501	GTP	O6-C6-C5	-2.01	120.34	124.32
62	CF	602	GTP	O2B-PB-O3B	2.00	112.69	107.27
62	DC	602	GTP	O6-C6-C5	-2.00	120.35	124.32
62	EV	501	GTP	O6-C6-C5	-2.00	120.35	124.32

There are no chirality outliers.

All (1010) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
62	AA	501	GTP	C5'-O5'-PA-O3A
62	AA	501	GTP	C5'-O5'-PA-O1A
62	AA	501	GTP	C5'-O5'-PA-O2A
62	AC	501	GTP	C5'-O5'-PA-O3A
62	AC	501	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	AC	501	GTP	C5'-O5'-PA-O2A
62	AE	602	GTP	C5'-O5'-PA-O3A
62	AE	602	GTP	C5'-O5'-PA-O1A
62	AE	602	GTP	C5'-O5'-PA-O2A
62	AG	501	GTP	C5'-O5'-PA-O3A
62	AG	501	GTP	C5'-O5'-PA-O1A
62	AG	501	GTP	C5'-O5'-PA-O2A
62	AI	501	GTP	C5'-O5'-PA-O3A
62	AI	501	GTP	C5'-O5'-PA-O1A
62	AI	501	GTP	C5'-O5'-PA-O2A
62	AK	602	GTP	C5'-O5'-PA-O3A
62	AK	602	GTP	C5'-O5'-PA-O1A
62	AK	602	GTP	C5'-O5'-PA-O2A
62	AM	602	GTP	C5'-O5'-PA-O3A
62	AM	602	GTP	C5'-O5'-PA-O1A
62	AM	602	GTP	C5'-O5'-PA-O2A
62	AO	501	GTP	C5'-O5'-PA-O3A
62	AO	501	GTP	C5'-O5'-PA-O1A
62	AO	501	GTP	C5'-O5'-PA-O2A
62	AQ	501	GTP	C5'-O5'-PA-O3A
62	AQ	501	GTP	C5'-O5'-PA-O1A
62	AQ	501	GTP	C5'-O5'-PA-O2A
62	AS	602	GTP	C5'-O5'-PA-O3A
62	AS	602	GTP	C5'-O5'-PA-O1A
62	AS	602	GTP	C5'-O5'-PA-O2A
62	AU	501	GTP	C5'-O5'-PA-O3A
62	AU	501	GTP	C5'-O5'-PA-O1A
62	AU	501	GTP	C5'-O5'-PA-O2A
62	AW	501	GTP	C5'-O5'-PA-O3A
62	AW	501	GTP	C5'-O5'-PA-O1A
62	AW	501	GTP	C5'-O5'-PA-O2A
62	AY	602	GTP	C5'-O5'-PA-O3A
62	AY	602	GTP	C5'-O5'-PA-O1A
62	AY	602	GTP	C5'-O5'-PA-O2A
62	BA	501	GTP	C5'-O5'-PA-O3A
62	BA	501	GTP	C5'-O5'-PA-O1A
62	BA	501	GTP	C5'-O5'-PA-O2A
62	BC	501	GTP	C5'-O5'-PA-O3A
62	BC	501	GTP	C5'-O5'-PA-O1A
62	BC	501	GTP	C5'-O5'-PA-O2A
62	BE	501	GTP	C5'-O5'-PA-O3A
62	BE	501	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	BE	501	GTP	C5'-O5'-PA-O2A
62	BG	501	GTP	C5'-O5'-PA-O3A
62	BG	501	GTP	C5'-O5'-PA-O1A
62	BG	501	GTP	C5'-O5'-PA-O2A
62	BI	501	GTP	C5'-O5'-PA-O3A
62	BI	501	GTP	C5'-O5'-PA-O1A
62	BI	501	GTP	C5'-O5'-PA-O2A
62	BK	602	GTP	C5'-O5'-PA-O3A
62	BK	602	GTP	C5'-O5'-PA-O1A
62	BK	602	GTP	C5'-O5'-PA-O2A
62	BM	501	GTP	C5'-O5'-PA-O3A
62	BM	501	GTP	C5'-O5'-PA-O1A
62	BM	501	GTP	C5'-O5'-PA-O2A
62	BO	501	GTP	C5'-O5'-PA-O3A
62	BO	501	GTP	C5'-O5'-PA-O1A
62	BO	501	GTP	C5'-O5'-PA-O2A
62	BQ	602	GTP	C5'-O5'-PA-O3A
62	BQ	602	GTP	C5'-O5'-PA-O1A
62	BQ	602	GTP	C5'-O5'-PA-O2A
62	BS	501	GTP	C5'-O5'-PA-O3A
62	BS	501	GTP	C5'-O5'-PA-O1A
62	BS	501	GTP	C5'-O5'-PA-O2A
62	BU	501	GTP	C5'-O5'-PA-O3A
62	BU	501	GTP	C5'-O5'-PA-O1A
62	BU	501	GTP	C5'-O5'-PA-O2A
62	BW	501	GTP	C5'-O5'-PA-O3A
62	BW	501	GTP	C5'-O5'-PA-O1A
62	BW	501	GTP	C5'-O5'-PA-O2A
62	BX	501	GTP	C5'-O5'-PA-O3A
62	BX	501	GTP	C5'-O5'-PA-O1A
62	BX	501	GTP	C5'-O5'-PA-O2A
62	BZ	501	GTP	C5'-O5'-PA-O3A
62	BZ	501	GTP	C5'-O5'-PA-O1A
62	BZ	501	GTP	C5'-O5'-PA-O2A
62	CB	501	GTP	C5'-O5'-PA-O3A
62	CB	501	GTP	C5'-O5'-PA-O1A
62	CB	501	GTP	C5'-O5'-PA-O2A
62	CD	501	GTP	C5'-O5'-PA-O3A
62	CD	501	GTP	C5'-O5'-PA-O1A
62	CD	501	GTP	C5'-O5'-PA-O2A
62	CF	602	GTP	C5'-O5'-PA-O3A
62	CF	602	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	CF	602	GTP	C5'-O5'-PA-O2A
62	CH	602	GTP	C5'-O5'-PA-O3A
62	CH	602	GTP	C5'-O5'-PA-O1A
62	CH	602	GTP	C5'-O5'-PA-O2A
62	CJ	501	GTP	C5'-O5'-PA-O3A
62	CJ	501	GTP	C5'-O5'-PA-O1A
62	CJ	501	GTP	C5'-O5'-PA-O2A
62	CM	602	GTP	C5'-O5'-PA-O3A
62	CM	602	GTP	C5'-O5'-PA-O1A
62	CM	602	GTP	C5'-O5'-PA-O2A
62	CO	501	GTP	C5'-O5'-PA-O3A
62	CO	501	GTP	C5'-O5'-PA-O1A
62	CO	501	GTP	C5'-O5'-PA-O2A
62	CQ	602	GTP	C5'-O5'-PA-O3A
62	CQ	602	GTP	C5'-O5'-PA-O1A
62	CQ	602	GTP	C5'-O5'-PA-O2A
62	CS	501	GTP	C5'-O5'-PA-O3A
62	CS	501	GTP	C5'-O5'-PA-O1A
62	CS	501	GTP	C5'-O5'-PA-O2A
62	CU	602	GTP	C5'-O5'-PA-O3A
62	CU	602	GTP	C5'-O5'-PA-O1A
62	CU	602	GTP	C5'-O5'-PA-O2A
62	CW	602	GTP	C5'-O5'-PA-O3A
62	CW	602	GTP	C5'-O5'-PA-O1A
62	CW	602	GTP	C5'-O5'-PA-O2A
62	CY	501	GTP	C5'-O5'-PA-O3A
62	CY	501	GTP	C5'-O5'-PA-O1A
62	CY	501	GTP	C5'-O5'-PA-O2A
62	DA	501	GTP	C5'-O5'-PA-O3A
62	DA	501	GTP	C5'-O5'-PA-O1A
62	DA	501	GTP	C5'-O5'-PA-O2A
62	DC	602	GTP	C5'-O5'-PA-O3A
62	DC	602	GTP	C5'-O5'-PA-O1A
62	DC	602	GTP	C5'-O5'-PA-O2A
62	DE	501	GTP	C5'-O5'-PA-O3A
62	DE	501	GTP	C5'-O5'-PA-O1A
62	DE	501	GTP	C5'-O5'-PA-O2A
62	DG	602	GTP	C5'-O5'-PA-O3A
62	DG	602	GTP	C5'-O5'-PA-O1A
62	DG	602	GTP	C5'-O5'-PA-O2A
62	DI	602	GTP	C5'-O5'-PA-O3A
62	DI	602	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	DI	602	GTP	C5'-O5'-PA-O2A
62	DK	501	GTP	C5'-O5'-PA-O3A
62	DK	501	GTP	C5'-O5'-PA-O1A
62	DK	501	GTP	C5'-O5'-PA-O2A
62	DM	602	GTP	C5'-O5'-PA-O3A
62	DM	602	GTP	C5'-O5'-PA-O1A
62	DM	602	GTP	C5'-O5'-PA-O2A
62	DO	602	GTP	C5'-O5'-PA-O3A
62	DO	602	GTP	C5'-O5'-PA-O1A
62	DO	602	GTP	C5'-O5'-PA-O2A
62	DQ	501	GTP	C5'-O5'-PA-O3A
62	DQ	501	GTP	C5'-O5'-PA-O1A
62	DQ	501	GTP	C5'-O5'-PA-O2A
62	DS	501	GTP	C5'-O5'-PA-O3A
62	DS	501	GTP	C5'-O5'-PA-O1A
62	DS	501	GTP	C5'-O5'-PA-O2A
62	DU	602	GTP	C5'-O5'-PA-O3A
62	DU	602	GTP	C5'-O5'-PA-O1A
62	DU	602	GTP	C5'-O5'-PA-O2A
62	DX	501	GTP	C5'-O5'-PA-O3A
62	DX	501	GTP	C5'-O5'-PA-O1A
62	DX	501	GTP	C5'-O5'-PA-O2A
62	DZ	602	GTP	C5'-O5'-PA-O3A
62	DZ	602	GTP	C5'-O5'-PA-O1A
62	DZ	602	GTP	C5'-O5'-PA-O2A
62	EB	501	GTP	C5'-O5'-PA-O3A
62	EB	501	GTP	C5'-O5'-PA-O1A
62	EB	501	GTP	C5'-O5'-PA-O2A
62	ED	602	GTP	C5'-O5'-PA-O3A
62	ED	602	GTP	C5'-O5'-PA-O1A
62	ED	602	GTP	C5'-O5'-PA-O2A
62	EF	602	GTP	C5'-O5'-PA-O3A
62	EF	602	GTP	C5'-O5'-PA-O1A
62	EF	602	GTP	C5'-O5'-PA-O2A
62	EH	501	GTP	C5'-O5'-PA-O3A
62	EH	501	GTP	C5'-O5'-PA-O1A
62	EH	501	GTP	C5'-O5'-PA-O2A
62	EJ	602	GTP	C5'-O5'-PA-O3A
62	EJ	602	GTP	C5'-O5'-PA-O1A
62	EJ	602	GTP	C5'-O5'-PA-O2A
62	EL	602	GTP	C5'-O5'-PA-O3A
62	EL	602	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	EL	602	GTP	C5'-O5'-PA-O2A
62	EN	602	GTP	C5'-O5'-PA-O3A
62	EN	602	GTP	C5'-O5'-PA-O1A
62	EN	602	GTP	C5'-O5'-PA-O2A
62	EP	602	GTP	C5'-O5'-PA-O3A
62	EP	602	GTP	C5'-O5'-PA-O1A
62	EP	602	GTP	C5'-O5'-PA-O2A
62	ER	602	GTP	C5'-O5'-PA-O3A
62	ER	602	GTP	C5'-O5'-PA-O1A
62	ER	602	GTP	C5'-O5'-PA-O2A
62	ET	602	GTP	C5'-O5'-PA-O3A
62	ET	602	GTP	C5'-O5'-PA-O1A
62	ET	602	GTP	C5'-O5'-PA-O2A
62	EV	501	GTP	C5'-O5'-PA-O3A
62	EV	501	GTP	C5'-O5'-PA-O1A
62	EV	501	GTP	C5'-O5'-PA-O2A
62	EX	602	GTP	C5'-O5'-PA-O3A
62	EX	602	GTP	C5'-O5'-PA-O1A
62	EX	602	GTP	C5'-O5'-PA-O2A
62	EZ	501	GTP	C5'-O5'-PA-O3A
62	EZ	501	GTP	C5'-O5'-PA-O1A
62	EZ	501	GTP	C5'-O5'-PA-O2A
62	FB	502	GTP	C5'-O5'-PA-O3A
62	FB	502	GTP	C5'-O5'-PA-O1A
62	FB	502	GTP	C5'-O5'-PA-O2A
62	FD	602	GTP	C5'-O5'-PA-O3A
62	FD	602	GTP	C5'-O5'-PA-O1A
62	FD	602	GTP	C5'-O5'-PA-O2A
62	FF	501	GTP	C5'-O5'-PA-O3A
62	FF	501	GTP	C5'-O5'-PA-O1A
62	FF	501	GTP	C5'-O5'-PA-O2A
62	FH	501	GTP	C5'-O5'-PA-O3A
62	FH	501	GTP	C5'-O5'-PA-O1A
62	FH	501	GTP	C5'-O5'-PA-O2A
62	FJ	602	GTP	C5'-O5'-PA-O3A
62	FJ	602	GTP	C5'-O5'-PA-O1A
62	FJ	602	GTP	C5'-O5'-PA-O2A
62	FL	501	GTP	C5'-O5'-PA-O3A
62	FL	501	GTP	C5'-O5'-PA-O1A
62	FL	501	GTP	C5'-O5'-PA-O2A
62	FN	502	GTP	C5'-O5'-PA-O3A
62	FN	502	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	FN	502	GTP	C5'-O5'-PA-O2A
62	FP	502	GTP	C5'-O5'-PA-O3A
62	FP	502	GTP	C5'-O5'-PA-O1A
62	FP	502	GTP	C5'-O5'-PA-O2A
62	FR	502	GTP	C5'-O5'-PA-O3A
62	FR	502	GTP	C5'-O5'-PA-O1A
62	FR	502	GTP	C5'-O5'-PA-O2A
62	FT	602	GTP	C5'-O5'-PA-O3A
62	FT	602	GTP	C5'-O5'-PA-O1A
62	FT	602	GTP	C5'-O5'-PA-O2A
62	FU	602	GTP	C5'-O5'-PA-O3A
62	FU	602	GTP	C5'-O5'-PA-O1A
62	FU	602	GTP	C5'-O5'-PA-O2A
62	FW	501	GTP	C5'-O5'-PA-O3A
62	FW	501	GTP	C5'-O5'-PA-O1A
62	FW	501	GTP	C5'-O5'-PA-O2A
62	FY	602	GTP	C5'-O5'-PA-O3A
62	FY	602	GTP	C5'-O5'-PA-O1A
62	FY	602	GTP	C5'-O5'-PA-O2A
62	GA	501	GTP	C5'-O5'-PA-O3A
62	GA	501	GTP	C5'-O5'-PA-O1A
62	GA	501	GTP	C5'-O5'-PA-O2A
62	GC	501	GTP	C5'-O5'-PA-O3A
62	GC	501	GTP	C5'-O5'-PA-O1A
62	GC	501	GTP	C5'-O5'-PA-O2A
62	GE	501	GTP	C5'-O5'-PA-O3A
62	GE	501	GTP	C5'-O5'-PA-O1A
62	GE	501	GTP	C5'-O5'-PA-O2A
62	GG	501	GTP	C5'-O5'-PA-O3A
62	GG	501	GTP	C5'-O5'-PA-O1A
62	GG	501	GTP	C5'-O5'-PA-O2A
62	GH	602	GTP	C5'-O5'-PA-O3A
62	GH	602	GTP	C5'-O5'-PA-O1A
62	GH	602	GTP	C5'-O5'-PA-O2A
62	GJ	501	GTP	C5'-O5'-PA-O3A
62	GJ	501	GTP	C5'-O5'-PA-O1A
62	GJ	501	GTP	C5'-O5'-PA-O2A
62	GL	501	GTP	C5'-O5'-PA-O3A
62	GL	501	GTP	C5'-O5'-PA-O1A
62	GL	501	GTP	C5'-O5'-PA-O2A
62	GN	602	GTP	C5'-O5'-PA-O3A
62	GN	602	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	GN	602	GTP	C5'-O5'-PA-O2A
62	GP	501	GTP	C5'-O5'-PA-O3A
62	GP	501	GTP	C5'-O5'-PA-O1A
62	GP	501	GTP	C5'-O5'-PA-O2A
62	GR	501	GTP	C5'-O5'-PA-O3A
62	GR	501	GTP	C5'-O5'-PA-O1A
62	GR	501	GTP	C5'-O5'-PA-O2A
62	GT	501	GTP	C5'-O5'-PA-O3A
62	GT	501	GTP	C5'-O5'-PA-O1A
62	GT	501	GTP	C5'-O5'-PA-O2A
62	GU	501	GTP	C5'-O5'-PA-O3A
62	GU	501	GTP	C5'-O5'-PA-O1A
62	GU	501	GTP	C5'-O5'-PA-O2A
62	GW	501	GTP	C5'-O5'-PA-O3A
62	GW	501	GTP	C5'-O5'-PA-O1A
62	GW	501	GTP	C5'-O5'-PA-O2A
62	GY	501	GTP	C5'-O5'-PA-O3A
62	GY	501	GTP	C5'-O5'-PA-O1A
62	GY	501	GTP	C5'-O5'-PA-O2A
62	HA	501	GTP	C5'-O5'-PA-O3A
62	HA	501	GTP	C5'-O5'-PA-O1A
62	HA	501	GTP	C5'-O5'-PA-O2A
62	HC	602	GTP	C5'-O5'-PA-O3A
62	HC	602	GTP	C5'-O5'-PA-O1A
62	HC	602	GTP	C5'-O5'-PA-O2A
62	HE	501	GTP	C5'-O5'-PA-O3A
62	HE	501	GTP	C5'-O5'-PA-O1A
62	HE	501	GTP	C5'-O5'-PA-O2A
62	HG	602	GTP	C5'-O5'-PA-O3A
62	HG	602	GTP	C5'-O5'-PA-O1A
62	HG	602	GTP	C5'-O5'-PA-O2A
62	HI	602	GTP	C5'-O5'-PA-O3A
62	HI	602	GTP	C5'-O5'-PA-O1A
62	HI	602	GTP	C5'-O5'-PA-O2A
62	HK	501	GTP	C5'-O5'-PA-O3A
62	HK	501	GTP	C5'-O5'-PA-O1A
62	HK	501	GTP	C5'-O5'-PA-O2A
62	HM	501	GTP	C5'-O5'-PA-O3A
62	HM	501	GTP	C5'-O5'-PA-O1A
62	HM	501	GTP	C5'-O5'-PA-O2A
62	HO	501	GTP	C5'-O5'-PA-O3A
62	HO	501	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	HO	501	GTP	C5'-O5'-PA-O2A
62	HQ	501	GTP	C5'-O5'-PA-O3A
62	HQ	501	GTP	C5'-O5'-PA-O1A
62	HQ	501	GTP	C5'-O5'-PA-O2A
62	HT	501	GTP	C5'-O5'-PA-O3A
62	HT	501	GTP	C5'-O5'-PA-O1A
62	HT	501	GTP	C5'-O5'-PA-O2A
62	HV	501	GTP	C5'-O5'-PA-O3A
62	HV	501	GTP	C5'-O5'-PA-O1A
62	HV	501	GTP	C5'-O5'-PA-O2A
62	HX	501	GTP	C5'-O5'-PA-O3A
62	HX	501	GTP	C5'-O5'-PA-O1A
62	HX	501	GTP	C5'-O5'-PA-O2A
62	HZ	501	GTP	C5'-O5'-PA-O3A
62	HZ	501	GTP	C5'-O5'-PA-O1A
62	HZ	501	GTP	C5'-O5'-PA-O2A
62	IB	602	GTP	C5'-O5'-PA-O3A
62	IB	602	GTP	C5'-O5'-PA-O1A
62	IB	602	GTP	C5'-O5'-PA-O2A
62	ID	501	GTP	C5'-O5'-PA-O3A
62	ID	501	GTP	C5'-O5'-PA-O1A
62	ID	501	GTP	C5'-O5'-PA-O2A
62	IG	501	GTP	C5'-O5'-PA-O3A
62	IG	501	GTP	C5'-O5'-PA-O1A
62	IG	501	GTP	C5'-O5'-PA-O2A
62	II	501	GTP	C5'-O5'-PA-O3A
62	II	501	GTP	C5'-O5'-PA-O1A
62	II	501	GTP	C5'-O5'-PA-O2A
62	IK	602	GTP	C5'-O5'-PA-O3A
62	IK	602	GTP	C5'-O5'-PA-O1A
62	IK	602	GTP	C5'-O5'-PA-O2A
62	IM	602	GTP	C5'-O5'-PA-O3A
62	IM	602	GTP	C5'-O5'-PA-O1A
62	IM	602	GTP	C5'-O5'-PA-O2A
62	IO	501	GTP	C5'-O5'-PA-O3A
62	IO	501	GTP	C5'-O5'-PA-O1A
62	IO	501	GTP	C5'-O5'-PA-O2A
62	IQ	501	GTP	C5'-O5'-PA-O3A
62	IQ	501	GTP	C5'-O5'-PA-O1A
62	IQ	501	GTP	C5'-O5'-PA-O2A
62	IT	602	GTP	C5'-O5'-PA-O3A
62	IT	602	GTP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
62	IT	602	GTP	C5'-O5'-PA-O2A
62	IV	602	GTP	C5'-O5'-PA-O3A
62	IV	602	GTP	C5'-O5'-PA-O1A
62	IV	602	GTP	C5'-O5'-PA-O2A
62	IX	501	GTP	C5'-O5'-PA-O3A
62	IX	501	GTP	C5'-O5'-PA-O1A
62	IX	501	GTP	C5'-O5'-PA-O2A
62	IZ	602	GTP	C5'-O5'-PA-O3A
62	IZ	602	GTP	C5'-O5'-PA-O1A
62	IZ	602	GTP	C5'-O5'-PA-O2A
62	JB	501	GTP	C5'-O5'-PA-O3A
62	JB	501	GTP	C5'-O5'-PA-O1A
62	JB	501	GTP	C5'-O5'-PA-O2A
62	JD	501	GTP	C5'-O5'-PA-O3A
62	JD	501	GTP	C5'-O5'-PA-O1A
62	JD	501	GTP	C5'-O5'-PA-O2A
62	JF	501	GTP	C5'-O5'-PA-O3A
62	JF	501	GTP	C5'-O5'-PA-O1A
62	JF	501	GTP	C5'-O5'-PA-O2A
62	JH	501	GTP	C5'-O5'-PA-O3A
62	JH	501	GTP	C5'-O5'-PA-O1A
62	JH	501	GTP	C5'-O5'-PA-O2A
62	JJ	501	GTP	C5'-O5'-PA-O3A
62	JJ	501	GTP	C5'-O5'-PA-O1A
62	JJ	501	GTP	C5'-O5'-PA-O2A
62	JL	602	GTP	C5'-O5'-PA-O3A
62	JL	602	GTP	C5'-O5'-PA-O1A
62	JL	602	GTP	C5'-O5'-PA-O2A
62	JN	501	GTP	C5'-O5'-PA-O3A
62	JN	501	GTP	C5'-O5'-PA-O1A
62	JN	501	GTP	C5'-O5'-PA-O2A
62	JP	501	GTP	C5'-O5'-PA-O3A
62	JP	501	GTP	C5'-O5'-PA-O1A
62	JP	501	GTP	C5'-O5'-PA-O2A
62	JQ	501	GTP	C5'-O5'-PA-O3A
62	JQ	501	GTP	C5'-O5'-PA-O1A
62	JQ	501	GTP	C5'-O5'-PA-O2A
62	JS	602	GTP	C5'-O5'-PA-O3A
62	JS	602	GTP	C5'-O5'-PA-O1A
62	JS	602	GTP	C4'-C5'-O5'-PA
62	JS	602	GTP	O4'-C4'-C5'-O5'
62	JU	602	GTP	C5'-O5'-PA-O3A

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Mol	Chain	Res	Type	Atoms
62	JU	602	GTP	C5'-O5'-PA-O1A
62	JU	602	GTP	C5'-O5'-PA-O2A
62	JW	602	GTP	C5'-O5'-PA-O3A
62	JW	602	GTP	C5'-O5'-PA-O1A
62	JW	602	GTP	C5'-O5'-PA-O2A
62	JY	602	GTP	C5'-O5'-PA-O3A
62	JY	602	GTP	C5'-O5'-PA-O1A
62	JY	602	GTP	C5'-O5'-PA-O2A
62	KA	602	GTP	C5'-O5'-PA-O3A
62	KA	602	GTP	C5'-O5'-PA-O1A
62	KA	602	GTP	C5'-O5'-PA-O2A
62	KC	602	GTP	C5'-O5'-PA-O3A
62	KC	602	GTP	C5'-O5'-PA-O1A
62	KC	602	GTP	C5'-O5'-PA-O2A
62	KD	501	GTP	C5'-O5'-PA-O3A
62	KD	501	GTP	C5'-O5'-PA-O1A
62	KD	501	GTP	C5'-O5'-PA-O2A
62	KF	501	GTP	C5'-O5'-PA-O3A
62	KF	501	GTP	C5'-O5'-PA-O1A
62	KF	501	GTP	C5'-O5'-PA-O2A
62	KH	501	GTP	C5'-O5'-PA-O3A
62	KH	501	GTP	C5'-O5'-PA-O1A
62	KH	501	GTP	C5'-O5'-PA-O2A
62	KJ	602	GTP	C5'-O5'-PA-O3A
62	KJ	602	GTP	C5'-O5'-PA-O1A
62	KJ	602	GTP	C5'-O5'-PA-O2A
62	KL	602	GTP	C5'-O5'-PA-O3A
62	KL	602	GTP	C5'-O5'-PA-O1A
62	KL	602	GTP	C5'-O5'-PA-O2A
62	KN	501	GTP	C5'-O5'-PA-O3A
62	KN	501	GTP	C5'-O5'-PA-O1A
62	KN	501	GTP	C5'-O5'-PA-O2A
62	KP	501	GTP	C5'-O5'-PA-O3A
62	KP	501	GTP	C5'-O5'-PA-O1A
62	KP	501	GTP	C5'-O5'-PA-O2A
62	KQ	602	GTP	C5'-O5'-PA-O3A
62	KQ	602	GTP	C5'-O5'-PA-O1A
62	KQ	602	GTP	C5'-O5'-PA-O2A
62	KS	602	GTP	C5'-O5'-PA-O3A
62	KS	602	GTP	C5'-O5'-PA-O1A
62	KS	602	GTP	C5'-O5'-PA-O2A
62	KU	501	GTP	C5'-O5'-PA-O3A

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Mol	Chain	Res	Type	Atoms
62	KU	501	GTP	C5'-O5'-PA-O1A
62	KU	501	GTP	C5'-O5'-PA-O2A
62	KW	602	GTP	C5'-O5'-PA-O3A
62	KW	602	GTP	C5'-O5'-PA-O1A
62	KW	602	GTP	C5'-O5'-PA-O2A
62	KY	602	GTP	C5'-O5'-PA-O3A
62	KY	602	GTP	C5'-O5'-PA-O1A
62	KY	602	GTP	C5'-O5'-PA-O2A
62	LA	501	GTP	C5'-O5'-PA-O3A
62	LA	501	GTP	C5'-O5'-PA-O1A
62	LA	501	GTP	C5'-O5'-PA-O2A
64	AB	501	GDP	C5'-O5'-PA-O3A
64	AD	501	GDP	C5'-O5'-PA-O3A
64	AF	501	GDP	C5'-O5'-PA-O3A
64	AH	501	GDP	C5'-O5'-PA-O3A
64	AJ	501	GDP	C5'-O5'-PA-O3A
64	AL	501	GDP	C5'-O5'-PA-O3A
64	AN	501	GDP	C5'-O5'-PA-O3A
64	AP	501	GDP	C5'-O5'-PA-O3A
64	AR	501	GDP	C5'-O5'-PA-O3A
64	AT	501	GDP	C5'-O5'-PA-O3A
64	AV	501	GDP	C5'-O5'-PA-O3A
64	AX	501	GDP	C5'-O5'-PA-O3A
64	AZ	501	GDP	C5'-O5'-PA-O3A
64	BB	501	GDP	C5'-O5'-PA-O3A
64	BD	501	GDP	C5'-O5'-PA-O3A
64	BF	501	GDP	C5'-O5'-PA-O3A
64	BH	501	GDP	C5'-O5'-PA-O3A
64	BJ	501	GDP	C5'-O5'-PA-O3A
64	BL	501	GDP	C5'-O5'-PA-O3A
64	BN	501	GDP	C5'-O5'-PA-O3A
64	BP	501	GDP	C5'-O5'-PA-O3A
64	BR	501	GDP	C5'-O5'-PA-O3A
64	BT	501	GDP	C5'-O5'-PA-O3A
64	BV	501	GDP	C5'-O5'-PA-O3A
64	BY	501	GDP	C5'-O5'-PA-O3A
64	CA	602	GDP	C5'-O5'-PA-O3A
64	CC	501	GDP	C5'-O5'-PA-O3A
64	CE	501	GDP	C5'-O5'-PA-O3A
64	CG	501	GDP	C5'-O5'-PA-O3A
64	CI	501	GDP	C5'-O5'-PA-O3A
64	CL	501	GDP	C5'-O5'-PA-O3A

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Mol	Chain	Res	Type	Atoms
64	CN	501	GDP	C5'-O5'-PA-O3A
64	CP	501	GDP	C5'-O5'-PA-O3A
64	CR	501	GDP	C5'-O5'-PA-O3A
64	CT	501	GDP	C5'-O5'-PA-O3A
64	CV	501	GDP	C5'-O5'-PA-O3A
64	CX	501	GDP	C5'-O5'-PA-O3A
64	CZ	501	GDP	C5'-O5'-PA-O3A
64	DB	501	GDP	C5'-O5'-PA-O3A
64	DD	501	GDP	C5'-O5'-PA-O3A
64	DF	501	GDP	C5'-O5'-PA-O3A
64	DF	501	GDP	C5'-O5'-PA-O1A
64	DH	501	GDP	C5'-O5'-PA-O3A
64	DJ	501	GDP	C5'-O5'-PA-O3A
64	DL	501	GDP	C5'-O5'-PA-O3A
64	DN	501	GDP	C5'-O5'-PA-O3A
64	DP	501	GDP	C5'-O5'-PA-O3A
64	DR	501	GDP	C5'-O5'-PA-O3A
64	DT	501	GDP	C5'-O5'-PA-O3A
64	DV	501	GDP	C5'-O5'-PA-O3A
64	DW	501	GDP	C5'-O5'-PA-O3A
64	DY	501	GDP	C5'-O5'-PA-O3A
64	EA	501	GDP	C5'-O5'-PA-O3A
64	EC	501	GDP	C5'-O5'-PA-O3A
64	EE	501	GDP	C5'-O5'-PA-O3A
64	EG	501	GDP	C5'-O5'-PA-O3A
64	EI	501	GDP	C5'-O5'-PA-O3A
64	EK	501	GDP	C5'-O5'-PA-O3A
64	EM	501	GDP	C5'-O5'-PA-O3A
64	EO	501	GDP	C5'-O5'-PA-O3A
64	EQ	501	GDP	C5'-O5'-PA-O3A
64	ES	501	GDP	C5'-O5'-PA-O3A
64	EU	501	GDP	C5'-O5'-PA-O3A
64	EW	501	GDP	C5'-O5'-PA-O3A
64	EY	501	GDP	C5'-O5'-PA-O3A
64	FA	501	GDP	C5'-O5'-PA-O3A
64	FC	501	GDP	C5'-O5'-PA-O3A
64	FE	501	GDP	C5'-O5'-PA-O3A
64	FG	501	GDP	C5'-O5'-PA-O3A
64	FI	501	GDP	C5'-O5'-PA-O3A
64	FK	501	GDP	C5'-O5'-PA-O3A
64	FM	501	GDP	C5'-O5'-PA-O3A
64	FO	501	GDP	C5'-O5'-PA-O3A

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Mol	Chain	Res	Type	Atoms
64	FQ	501	GDP	C5'-O5'-PA-O3A
64	FS	501	GDP	C5'-O5'-PA-O3A
64	FV	501	GDP	C5'-O5'-PA-O3A
64	FX	501	GDP	C5'-O5'-PA-O3A
64	FZ	501	GDP	C5'-O5'-PA-O3A
64	GB	501	GDP	C5'-O5'-PA-O3A
64	GD	501	GDP	C5'-O5'-PA-O3A
64	GF	501	GDP	C5'-O5'-PA-O3A
64	GI	501	GDP	C5'-O5'-PA-O3A
64	GK	501	GDP	C5'-O5'-PA-O3A
64	GM	501	GDP	C5'-O5'-PA-O3A
64	GO	501	GDP	C5'-O5'-PA-O3A
64	GQ	501	GDP	C5'-O5'-PA-O3A
64	GS	501	GDP	C5'-O5'-PA-O3A
64	GV	501	GDP	C5'-O5'-PA-O3A
64	GX	501	GDP	C5'-O5'-PA-O3A
64	GZ	501	GDP	C5'-O5'-PA-O3A
64	HB	501	GDP	C5'-O5'-PA-O3A
64	HD	501	GDP	C5'-O5'-PA-O3A
64	HF	501	GDP	C5'-O5'-PA-O3A
64	HH	501	GDP	C5'-O5'-PA-O3A
64	HJ	501	GDP	C5'-O5'-PA-O3A
64	HL	501	GDP	C5'-O5'-PA-O3A
64	HN	501	GDP	C5'-O5'-PA-O3A
64	HP	501	GDP	C5'-O5'-PA-O3A
64	HR	501	GDP	C5'-O5'-PA-O3A
64	HS	501	GDP	C5'-O5'-PA-O3A
64	HU	501	GDP	C5'-O5'-PA-O3A
64	HW	501	GDP	C5'-O5'-PA-O3A
64	HY	501	GDP	C5'-O5'-PA-O3A
64	IA	501	GDP	C5'-O5'-PA-O3A
64	IC	501	GDP	C5'-O5'-PA-O3A
64	IE	501	GDP	C5'-O5'-PA-O3A
64	IF	501	GDP	C5'-O5'-PA-O3A
64	IH	501	GDP	C5'-O5'-PA-O3A
64	IJ	501	GDP	C5'-O5'-PA-O3A
64	IL	501	GDP	C5'-O5'-PA-O3A
64	IN	501	GDP	C5'-O5'-PA-O3A
64	IP	501	GDP	C5'-O5'-PA-O3A
64	IR	501	GDP	C5'-O5'-PA-O3A
64	IS	501	GDP	C5'-O5'-PA-O3A
64	IU	501	GDP	C5'-O5'-PA-O3A

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Mol	Chain	Res	Type	Atoms
64	IW	501	GDP	C5'-O5'-PA-O3A
64	IY	501	GDP	C5'-O5'-PA-O3A
64	JA	501	GDP	C5'-O5'-PA-O3A
64	JC	501	GDP	C5'-O5'-PA-O3A
64	JE	501	GDP	C5'-O5'-PA-O3A
64	JG	501	GDP	C5'-O5'-PA-O3A
64	JI	501	GDP	C5'-O5'-PA-O3A
64	JK	501	GDP	C5'-O5'-PA-O3A
64	JM	501	GDP	C5'-O5'-PA-O3A
64	JO	501	GDP	C5'-O5'-PA-O3A
64	JR	501	GDP	C5'-O5'-PA-O3A
64	JT	501	GDP	C5'-O5'-PA-O3A
64	JV	501	GDP	C5'-O5'-PA-O3A
64	JX	501	GDP	C5'-O5'-PA-O3A
64	JZ	501	GDP	C5'-O5'-PA-O3A
64	KB	501	GDP	C5'-O5'-PA-O3A
64	KE	501	GDP	C5'-O5'-PA-O3A
64	KG	501	GDP	C5'-O5'-PA-O3A
64	KI	501	GDP	C5'-O5'-PA-O3A
64	KK	501	GDP	C5'-O5'-PA-O3A
64	KM	501	GDP	C5'-O5'-PA-O3A
64	KO	501	GDP	C5'-O5'-PA-O3A
64	KR	501	GDP	C5'-O5'-PA-O3A
64	KT	501	GDP	C5'-O5'-PA-O3A
64	KV	501	GDP	C5'-O5'-PA-O3A
64	KX	501	GDP	C5'-O5'-PA-O3A
64	KZ	501	GDP	C5'-O5'-PA-O3A
64	LB	501	GDP	C5'-O5'-PA-O3A
62	JS	602	GTP	C3'-C4'-C5'-O5'
62	AA	501	GTP	PG-O3B-PB-O1B
62	AC	501	GTP	PG-O3B-PB-O1B
62	AE	602	GTP	PG-O3B-PB-O1B
62	AG	501	GTP	PG-O3B-PB-O1B
62	AM	602	GTP	PG-O3B-PB-O1B
62	AO	501	GTP	PG-O3B-PB-O1B
62	AQ	501	GTP	PG-O3B-PB-O1B
62	AS	602	GTP	PG-O3B-PB-O1B
62	AU	501	GTP	PG-O3B-PB-O1B
62	AY	602	GTP	PG-O3B-PB-O1B
62	BE	501	GTP	PG-O3B-PB-O1B
62	BG	501	GTP	PG-O3B-PB-O1B
62	BI	501	GTP	PG-O3B-PB-O1B

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Mol	Chain	Res	Type	Atoms
62	BK	602	GTP	PG-O3B-PB-O1B
62	BO	501	GTP	PG-O3B-PB-O1B
62	BQ	602	GTP	PG-O3B-PB-O1B
62	BS	501	GTP	PG-O3B-PB-O1B
62	BU	501	GTP	PG-O3B-PB-O1B
62	BW	501	GTP	PG-O3B-PB-O1B
62	BX	501	GTP	PG-O3B-PB-O1B
62	BZ	501	GTP	PG-O3B-PB-O1B
62	CB	501	GTP	PG-O3B-PB-O1B
62	CD	501	GTP	PG-O3B-PB-O1B
62	CF	602	GTP	PG-O3B-PB-O1B
62	CH	602	GTP	PG-O3B-PB-O1B
62	CJ	501	GTP	PG-O3B-PB-O1B
62	CM	602	GTP	PG-O3B-PB-O1B
62	CO	501	GTP	PG-O3B-PB-O1B
62	CS	501	GTP	PG-O3B-PB-O1B
62	CU	602	GTP	PG-O3B-PB-O1B
62	CW	602	GTP	PG-O3B-PB-O1B
62	CY	501	GTP	PG-O3B-PB-O1B
62	DC	602	GTP	PG-O3B-PB-O1B
62	DE	501	GTP	PG-O3B-PB-O1B
62	DG	602	GTP	PG-O3B-PB-O1B
62	DI	602	GTP	PG-O3B-PB-O1B
62	DK	501	GTP	PG-O3B-PB-O1B
62	DM	602	GTP	PG-O3B-PB-O1B
62	DO	602	GTP	PG-O3B-PB-O1B
62	DQ	501	GTP	PG-O3B-PB-O1B
62	DS	501	GTP	PG-O3B-PB-O1B
62	DX	501	GTP	PG-O3B-PB-O1B
62	DZ	602	GTP	PG-O3B-PB-O1B
62	EB	501	GTP	PG-O3B-PB-O1B
62	ED	602	GTP	PG-O3B-PB-O1B
62	EF	602	GTP	PG-O3B-PB-O1B
62	EH	501	GTP	PG-O3B-PB-O1B
62	EJ	602	GTP	PG-O3B-PB-O1B
62	EL	602	GTP	PG-O3B-PB-O1B
62	EN	602	GTP	PG-O3B-PB-O1B
62	EP	602	GTP	PG-O3B-PB-O1B
62	ER	602	GTP	PG-O3B-PB-O1B
62	ET	602	GTP	PG-O3B-PB-O1B
62	EV	501	GTP	PG-O3B-PB-O1B
62	EX	602	GTP	PG-O3B-PB-O1B

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Mol	Chain	Res	Type	Atoms
62	FB	502	GTP	PG-O3B-PB-O1B
62	FD	602	GTP	PG-O3B-PB-O1B
62	FF	501	GTP	PG-O3B-PB-O1B
62	FH	501	GTP	PG-O3B-PB-O1B
62	FJ	602	GTP	PG-O3B-PB-O1B
62	FN	502	GTP	PG-O3B-PB-O1B
62	FP	502	GTP	PG-O3B-PB-O1B
62	FR	502	GTP	PG-O3B-PB-O1B
62	FT	602	GTP	PG-O3B-PB-O1B
62	FU	602	GTP	PG-O3B-PB-O1B
62	FW	501	GTP	PG-O3B-PB-O1B
62	FY	602	GTP	PG-O3B-PB-O1B
62	GA	501	GTP	PG-O3B-PB-O1B
62	GC	501	GTP	PG-O3B-PB-O1B
62	GE	501	GTP	PG-O3B-PB-O1B
62	GG	501	GTP	PG-O3B-PB-O1B
62	GH	602	GTP	PG-O3B-PB-O1B
62	GJ	501	GTP	PG-O3B-PB-O1B
62	GL	501	GTP	PG-O3B-PB-O1B
62	GN	602	GTP	PG-O3B-PB-O1B
62	GP	501	GTP	PG-O3B-PB-O1B
62	GR	501	GTP	PG-O3B-PB-O1B
62	GT	501	GTP	PG-O3B-PB-O1B
62	HO	501	GTP	PG-O3B-PB-O1B
62	HQ	501	GTP	PG-O3B-PB-O1B
62	HT	501	GTP	PG-O3B-PB-O1B
62	HV	501	GTP	PG-O3B-PB-O1B
62	HX	501	GTP	PG-O3B-PB-O1B
62	HZ	501	GTP	PG-O3B-PB-O1B
62	IB	602	GTP	PG-O3B-PB-O1B
62	ID	501	GTP	PG-O3B-PB-O1B
62	IG	501	GTP	PG-O3B-PB-O1B
62	II	501	GTP	PG-O3B-PB-O1B
62	IK	602	GTP	PG-O3B-PB-O1B
62	IO	501	GTP	PG-O3B-PB-O1B
62	IT	602	GTP	PG-O3B-PB-O1B
62	IX	501	GTP	PG-O3B-PB-O1B
62	IZ	602	GTP	PG-O3B-PB-O1B
62	JB	501	GTP	PG-O3B-PB-O1B
62	JD	501	GTP	PG-O3B-PB-O1B
62	JF	501	GTP	PG-O3B-PB-O1B
62	JH	501	GTP	PG-O3B-PB-O1B

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Mol	Chain	Res	Type	Atoms
62	JJ	501	GTP	PG-O3B-PB-O1B
62	JP	501	GTP	PG-O3B-PB-O1B
62	JW	602	GTP	PG-O3B-PB-O1B
62	KA	602	GTP	PG-O3B-PB-O1B
62	KJ	602	GTP	PG-O3B-PB-O1B
62	KN	501	GTP	PG-O3B-PB-O1B
62	KQ	602	GTP	PG-O3B-PB-O1B
62	KU	501	GTP	PG-O3B-PB-O1B
62	KW	602	GTP	PG-O3B-PB-O1B
62	KY	602	GTP	PG-O3B-PB-O1B
62	AI	501	GTP	PG-O3B-PB-O1B
62	AK	602	GTP	PG-O3B-PB-O1B
62	AW	501	GTP	PG-O3B-PB-O1B
62	BA	501	GTP	PG-O3B-PB-O1B
62	BC	501	GTP	PG-O3B-PB-O1B
62	BM	501	GTP	PG-O3B-PB-O1B
62	CQ	602	GTP	PG-O3B-PB-O1B
62	DA	501	GTP	PG-O3B-PB-O1B
62	DU	602	GTP	PG-O3B-PB-O1B
62	EZ	501	GTP	PG-O3B-PB-O1B
62	FL	501	GTP	PG-O3B-PB-O1B
62	GU	501	GTP	PG-O3B-PB-O1B
62	GW	501	GTP	PG-O3B-PB-O1B
62	GY	501	GTP	PG-O3B-PB-O1B
62	HA	501	GTP	PG-O3B-PB-O1B
62	HC	602	GTP	PG-O3B-PB-O1B
62	HE	501	GTP	PG-O3B-PB-O1B
62	HG	602	GTP	PG-O3B-PB-O1B
62	HI	602	GTP	PG-O3B-PB-O1B
62	HK	501	GTP	PG-O3B-PB-O1B
62	HM	501	GTP	PG-O3B-PB-O1B
62	IM	602	GTP	PG-O3B-PB-O1B
62	IQ	501	GTP	PG-O3B-PB-O1B
62	IV	602	GTP	PG-O3B-PB-O1B
62	JL	602	GTP	PG-O3B-PB-O1B
62	JN	501	GTP	PG-O3B-PB-O1B
62	JQ	501	GTP	PG-O3B-PB-O1B
62	JU	602	GTP	PG-O3B-PB-O1B
62	JY	602	GTP	PG-O3B-PB-O1B
62	KC	602	GTP	PG-O3B-PB-O1B
62	KD	501	GTP	PG-O3B-PB-O1B
62	KF	501	GTP	PG-O3B-PB-O1B

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Mol	Chain	Res	Type	Atoms
62	KH	501	GTP	PG-O3B-PB-O1B
62	KL	602	GTP	PG-O3B-PB-O1B
62	KS	602	GTP	PG-O3B-PB-O1B
62	LA	501	GTP	PG-O3B-PB-O1B
64	AB	501	GDP	C5'-O5'-PA-O1A
64	AD	501	GDP	C5'-O5'-PA-O1A
64	AF	501	GDP	C5'-O5'-PA-O1A
64	AH	501	GDP	C5'-O5'-PA-O1A
64	AJ	501	GDP	C5'-O5'-PA-O1A
64	AL	501	GDP	C5'-O5'-PA-O1A
64	AN	501	GDP	C5'-O5'-PA-O1A
64	AP	501	GDP	C5'-O5'-PA-O1A
64	AR	501	GDP	C5'-O5'-PA-O1A
64	AT	501	GDP	C5'-O5'-PA-O1A
64	AV	501	GDP	C5'-O5'-PA-O1A
64	AX	501	GDP	C5'-O5'-PA-O1A
64	AZ	501	GDP	C5'-O5'-PA-O1A
64	BB	501	GDP	C5'-O5'-PA-O1A
64	BD	501	GDP	C5'-O5'-PA-O1A
64	BF	501	GDP	C5'-O5'-PA-O1A
64	BH	501	GDP	C5'-O5'-PA-O1A
64	BJ	501	GDP	C5'-O5'-PA-O1A
64	BL	501	GDP	C5'-O5'-PA-O1A
64	BN	501	GDP	C5'-O5'-PA-O1A
64	BP	501	GDP	C5'-O5'-PA-O1A
64	BR	501	GDP	C5'-O5'-PA-O1A
64	BT	501	GDP	C5'-O5'-PA-O1A
64	BV	501	GDP	C5'-O5'-PA-O1A
64	BY	501	GDP	C5'-O5'-PA-O1A
64	CA	602	GDP	C5'-O5'-PA-O1A
64	CC	501	GDP	C5'-O5'-PA-O1A
64	CE	501	GDP	C5'-O5'-PA-O1A
64	CG	501	GDP	C5'-O5'-PA-O1A
64	CI	501	GDP	C5'-O5'-PA-O1A
64	CL	501	GDP	C5'-O5'-PA-O1A
64	CN	501	GDP	C5'-O5'-PA-O1A
64	CP	501	GDP	C5'-O5'-PA-O1A
64	CR	501	GDP	C5'-O5'-PA-O1A
64	CT	501	GDP	C5'-O5'-PA-O1A
64	CV	501	GDP	C5'-O5'-PA-O1A
64	CX	501	GDP	C5'-O5'-PA-O1A
64	CZ	501	GDP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
64	DB	501	GDP	C5'-O5'-PA-O1A
64	DD	501	GDP	C5'-O5'-PA-O1A
64	DH	501	GDP	C5'-O5'-PA-O1A
64	DJ	501	GDP	C5'-O5'-PA-O1A
64	DL	501	GDP	C5'-O5'-PA-O1A
64	DN	501	GDP	C5'-O5'-PA-O1A
64	DP	501	GDP	C5'-O5'-PA-O1A
64	DR	501	GDP	C5'-O5'-PA-O1A
64	DT	501	GDP	C5'-O5'-PA-O1A
64	DV	501	GDP	C5'-O5'-PA-O1A
64	DW	501	GDP	C5'-O5'-PA-O1A
64	DY	501	GDP	C5'-O5'-PA-O1A
64	EA	501	GDP	C5'-O5'-PA-O1A
64	EC	501	GDP	C5'-O5'-PA-O1A
64	EE	501	GDP	C5'-O5'-PA-O1A
64	EG	501	GDP	C5'-O5'-PA-O1A
64	EI	501	GDP	C5'-O5'-PA-O1A
64	EK	501	GDP	C5'-O5'-PA-O1A
64	EM	501	GDP	C5'-O5'-PA-O1A
64	EO	501	GDP	C5'-O5'-PA-O1A
64	EQ	501	GDP	C5'-O5'-PA-O1A
64	ES	501	GDP	C5'-O5'-PA-O1A
64	EU	501	GDP	C5'-O5'-PA-O1A
64	EW	501	GDP	C5'-O5'-PA-O1A
64	EY	501	GDP	C5'-O5'-PA-O1A
64	FA	501	GDP	C5'-O5'-PA-O1A
64	FC	501	GDP	C5'-O5'-PA-O1A
64	FE	501	GDP	C5'-O5'-PA-O1A
64	FG	501	GDP	C5'-O5'-PA-O1A
64	FI	501	GDP	C5'-O5'-PA-O1A
64	FK	501	GDP	C5'-O5'-PA-O1A
64	FM	501	GDP	C5'-O5'-PA-O1A
64	FO	501	GDP	C5'-O5'-PA-O1A
64	FQ	501	GDP	C5'-O5'-PA-O1A
64	FS	501	GDP	C5'-O5'-PA-O1A
64	FV	501	GDP	C5'-O5'-PA-O1A
64	FX	501	GDP	C5'-O5'-PA-O1A
64	FZ	501	GDP	C5'-O5'-PA-O1A
64	GB	501	GDP	C5'-O5'-PA-O1A
64	GD	501	GDP	C5'-O5'-PA-O1A
64	GF	501	GDP	C5'-O5'-PA-O1A
64	GI	501	GDP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
64	GK	501	GDP	C5'-O5'-PA-O1A
64	GM	501	GDP	C5'-O5'-PA-O1A
64	GO	501	GDP	C5'-O5'-PA-O1A
64	GQ	501	GDP	C5'-O5'-PA-O1A
64	GS	501	GDP	C5'-O5'-PA-O1A
64	GV	501	GDP	C5'-O5'-PA-O1A
64	GX	501	GDP	C5'-O5'-PA-O1A
64	GZ	501	GDP	C5'-O5'-PA-O1A
64	HB	501	GDP	C5'-O5'-PA-O1A
64	HD	501	GDP	C5'-O5'-PA-O1A
64	HF	501	GDP	C5'-O5'-PA-O1A
64	HH	501	GDP	C5'-O5'-PA-O1A
64	HJ	501	GDP	C5'-O5'-PA-O1A
64	HL	501	GDP	C5'-O5'-PA-O1A
64	HN	501	GDP	C5'-O5'-PA-O1A
64	HP	501	GDP	C5'-O5'-PA-O1A
64	HR	501	GDP	C5'-O5'-PA-O1A
64	HS	501	GDP	C5'-O5'-PA-O1A
64	HU	501	GDP	C5'-O5'-PA-O1A
64	HW	501	GDP	C5'-O5'-PA-O1A
64	HY	501	GDP	C5'-O5'-PA-O1A
64	IA	501	GDP	C5'-O5'-PA-O1A
64	IC	501	GDP	C5'-O5'-PA-O1A
64	IE	501	GDP	C5'-O5'-PA-O1A
64	IF	501	GDP	C5'-O5'-PA-O1A
64	IH	501	GDP	C5'-O5'-PA-O1A
64	IJ	501	GDP	C5'-O5'-PA-O1A
64	IL	501	GDP	C5'-O5'-PA-O1A
64	IN	501	GDP	C5'-O5'-PA-O1A
64	IP	501	GDP	C5'-O5'-PA-O1A
64	IR	501	GDP	C5'-O5'-PA-O1A
64	IS	501	GDP	C5'-O5'-PA-O1A
64	IU	501	GDP	C5'-O5'-PA-O1A
64	IW	501	GDP	C5'-O5'-PA-O1A
64	IY	501	GDP	C5'-O5'-PA-O1A
64	JA	501	GDP	C5'-O5'-PA-O1A
64	JC	501	GDP	C5'-O5'-PA-O1A
64	JE	501	GDP	C5'-O5'-PA-O1A
64	JG	501	GDP	C5'-O5'-PA-O1A
64	JI	501	GDP	C5'-O5'-PA-O1A
64	JK	501	GDP	C5'-O5'-PA-O1A
64	JM	501	GDP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
64	JO	501	GDP	C5'-O5'-PA-O1A
64	JR	501	GDP	C5'-O5'-PA-O1A
64	JT	501	GDP	C5'-O5'-PA-O1A
64	JV	501	GDP	C5'-O5'-PA-O1A
64	JX	501	GDP	C5'-O5'-PA-O1A
64	JZ	501	GDP	C5'-O5'-PA-O1A
64	KB	501	GDP	C5'-O5'-PA-O1A
64	KE	501	GDP	C5'-O5'-PA-O1A
64	KG	501	GDP	C5'-O5'-PA-O1A
64	KI	501	GDP	C5'-O5'-PA-O1A
64	KK	501	GDP	C5'-O5'-PA-O1A
64	KM	501	GDP	C5'-O5'-PA-O1A
64	KO	501	GDP	C5'-O5'-PA-O1A
64	KR	501	GDP	C5'-O5'-PA-O1A
64	KT	501	GDP	C5'-O5'-PA-O1A
64	KV	501	GDP	C5'-O5'-PA-O1A
64	KX	501	GDP	C5'-O5'-PA-O1A
64	KZ	501	GDP	C5'-O5'-PA-O1A
64	LB	501	GDP	C5'-O5'-PA-O1A
62	CD	501	GTP	PG-O3B-PB-O2B
62	KP	501	GTP	PG-O3B-PB-O1B
62	AA	501	GTP	PG-O3B-PB-O2B
62	AC	501	GTP	PG-O3B-PB-O2B
62	AE	602	GTP	PG-O3B-PB-O2B
62	AG	501	GTP	PG-O3B-PB-O2B
62	AI	501	GTP	PG-O3B-PB-O2B
62	AK	602	GTP	PG-O3B-PB-O2B
62	AM	602	GTP	PG-O3B-PB-O2B
62	AO	501	GTP	PG-O3B-PB-O2B
62	AQ	501	GTP	PG-O3B-PB-O2B
62	AS	602	GTP	PG-O3B-PB-O2B
62	AU	501	GTP	PG-O3B-PB-O2B
62	AW	501	GTP	PG-O3B-PB-O2B
62	AY	602	GTP	PG-O3B-PB-O2B
62	BM	501	GTP	PG-O3B-PB-O2B
62	BW	501	GTP	PG-O3B-PB-O2B
62	CH	602	GTP	PG-O3B-PB-O2B
62	CJ	501	GTP	PG-O3B-PB-O2B
62	CM	602	GTP	PG-O3B-PB-O2B
62	CQ	602	GTP	PG-O3B-PB-O2B
62	CS	501	GTP	PG-O3B-PB-O2B
62	CU	602	GTP	PG-O3B-PB-O2B

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Mol	Chain	Res	Type	Atoms
62	CW	602	GTP	PG-O3B-PB-O2B
62	CY	501	GTP	PG-O3B-PB-O2B
62	DA	501	GTP	PG-O3B-PB-O2B
62	DE	501	GTP	PG-O3B-PB-O2B
62	DG	602	GTP	PG-O3B-PB-O2B
62	DI	602	GTP	PG-O3B-PB-O2B
62	DK	501	GTP	PG-O3B-PB-O2B
62	DM	602	GTP	PG-O3B-PB-O2B
62	DO	602	GTP	PG-O3B-PB-O2B
62	DQ	501	GTP	PG-O3B-PB-O2B
62	DS	501	GTP	PG-O3B-PB-O2B
62	EF	602	GTP	PG-O3B-PB-O2B
62	EJ	602	GTP	PG-O3B-PB-O2B
62	EL	602	GTP	PG-O3B-PB-O2B
62	EN	602	GTP	PG-O3B-PB-O2B
62	EP	602	GTP	PG-O3B-PB-O2B
62	ER	602	GTP	PG-O3B-PB-O2B
62	ET	602	GTP	PG-O3B-PB-O2B
62	EV	501	GTP	PG-O3B-PB-O2B
62	EX	602	GTP	PG-O3B-PB-O2B
62	FB	502	GTP	PG-O3B-PB-O2B
62	FD	602	GTP	PG-O3B-PB-O2B
62	FF	501	GTP	PG-O3B-PB-O2B
62	FH	501	GTP	PG-O3B-PB-O2B
62	FJ	602	GTP	PG-O3B-PB-O2B
62	FL	501	GTP	PG-O3B-PB-O2B
62	FN	502	GTP	PG-O3B-PB-O2B
62	FP	502	GTP	PG-O3B-PB-O2B
62	FR	502	GTP	PG-O3B-PB-O2B
62	FU	602	GTP	PG-O3B-PB-O2B
62	FW	501	GTP	PG-O3B-PB-O2B
62	GA	501	GTP	PG-O3B-PB-O2B
62	GC	501	GTP	PG-O3B-PB-O2B
62	GE	501	GTP	PG-O3B-PB-O2B
62	GG	501	GTP	PG-O3B-PB-O2B
62	GH	602	GTP	PG-O3B-PB-O2B
62	GJ	501	GTP	PG-O3B-PB-O2B
62	GN	602	GTP	PG-O3B-PB-O2B
62	GP	501	GTP	PG-O3B-PB-O2B
62	GR	501	GTP	PG-O3B-PB-O2B
62	GT	501	GTP	PG-O3B-PB-O2B
62	GU	501	GTP	PG-O3B-PB-O2B

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Mol	Chain	Res	Type	Atoms
62	HA	501	GTP	PG-O3B-PB-O2B
62	HC	602	GTP	PG-O3B-PB-O2B
62	HE	501	GTP	PG-O3B-PB-O2B
62	HG	602	GTP	PG-O3B-PB-O2B
62	HI	602	GTP	PG-O3B-PB-O2B
62	HK	501	GTP	PG-O3B-PB-O2B
62	HM	501	GTP	PG-O3B-PB-O2B
62	HT	501	GTP	PG-O3B-PB-O2B
62	HV	501	GTP	PG-O3B-PB-O2B
62	HX	501	GTP	PG-O3B-PB-O2B
62	HZ	501	GTP	PG-O3B-PB-O2B
62	ID	501	GTP	PG-O3B-PB-O2B
62	IG	501	GTP	PG-O3B-PB-O2B
62	II	501	GTP	PG-O3B-PB-O2B
62	IK	602	GTP	PG-O3B-PB-O2B
62	IM	602	GTP	PG-O3B-PB-O2B
62	IO	501	GTP	PG-O3B-PB-O2B
62	IQ	501	GTP	PG-O3B-PB-O2B
62	IZ	602	GTP	PG-O3B-PB-O2B
62	JD	501	GTP	PG-O3B-PB-O2B
62	JH	501	GTP	PG-O3B-PB-O2B
62	JN	501	GTP	PG-O3B-PB-O2B
62	JQ	501	GTP	PG-O3B-PB-O2B
62	JU	602	GTP	PG-O3B-PB-O2B
62	JW	602	GTP	PG-O3B-PB-O2B
62	JY	602	GTP	PG-O3B-PB-O2B
62	KA	602	GTP	PG-O3B-PB-O2B
62	KC	602	GTP	PG-O3B-PB-O2B
62	KD	501	GTP	PG-O3B-PB-O2B
62	KF	501	GTP	PG-O3B-PB-O2B
62	KJ	602	GTP	PG-O3B-PB-O2B
62	KL	602	GTP	PG-O3B-PB-O2B
62	KN	501	GTP	PG-O3B-PB-O2B
62	KQ	602	GTP	PG-O3B-PB-O2B
62	KU	501	GTP	PG-O3B-PB-O2B
62	KW	602	GTP	PG-O3B-PB-O2B
64	DF	501	GDP	C4'-C5'-O5'-PA
62	BA	501	GTP	PG-O3B-PB-O2B
62	BC	501	GTP	PG-O3B-PB-O2B
62	BE	501	GTP	PG-O3B-PB-O2B
62	BG	501	GTP	PG-O3B-PB-O2B
62	BI	501	GTP	PG-O3B-PB-O2B

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Mol	Chain	Res	Type	Atoms
62	BK	602	GTP	PG-O3B-PB-O2B
62	BO	501	GTP	PG-O3B-PB-O2B
62	BQ	602	GTP	PG-O3B-PB-O2B
62	BS	501	GTP	PG-O3B-PB-O2B
62	BU	501	GTP	PG-O3B-PB-O2B
62	BX	501	GTP	PG-O3B-PB-O2B
62	BZ	501	GTP	PG-O3B-PB-O2B
62	CB	501	GTP	PG-O3B-PB-O2B
62	CF	602	GTP	PG-O3B-PB-O2B
62	CO	501	GTP	PG-O3B-PB-O2B
62	DC	602	GTP	PG-O3B-PB-O2B
62	DU	602	GTP	PG-O3B-PB-O2B
62	DX	501	GTP	PG-O3B-PB-O2B
62	DZ	602	GTP	PG-O3B-PB-O2B
62	EB	501	GTP	PG-O3B-PB-O2B
62	ED	602	GTP	PG-O3B-PB-O2B
62	EH	501	GTP	PG-O3B-PB-O2B
62	EZ	501	GTP	PG-O3B-PB-O2B
62	FT	602	GTP	PG-O3B-PB-O2B
62	FY	602	GTP	PG-O3B-PB-O2B
62	GL	501	GTP	PG-O3B-PB-O2B
62	GW	501	GTP	PG-O3B-PB-O2B
62	GY	501	GTP	PG-O3B-PB-O2B
62	HO	501	GTP	PG-O3B-PB-O2B
62	HQ	501	GTP	PG-O3B-PB-O2B
62	IB	602	GTP	PG-O3B-PB-O2B
62	IT	602	GTP	PG-O3B-PB-O2B
62	IV	602	GTP	PG-O3B-PB-O2B
62	IX	501	GTP	PG-O3B-PB-O2B
62	JB	501	GTP	PG-O3B-PB-O2B
62	JF	501	GTP	PG-O3B-PB-O2B
62	JJ	501	GTP	PG-O3B-PB-O2B
62	JL	602	GTP	PG-O3B-PB-O2B
62	JP	501	GTP	PG-O3B-PB-O2B
62	KH	501	GTP	PG-O3B-PB-O2B
62	KP	501	GTP	PG-O3B-PB-O2B
62	KS	602	GTP	PG-O3B-PB-O2B
62	KY	602	GTP	PG-O3B-PB-O2B
62	LA	501	GTP	PG-O3B-PB-O2B

There are no ring outliers.

108 monomers are involved in 121 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
62	JN	501	GTP	1	0
62	IB	602	GTP	1	0
64	EK	501	GDP	1	0
62	CY	501	GTP	1	0
62	KP	501	GTP	1	0
62	BI	501	GTP	1	0
64	HY	501	GDP	1	0
62	DI	602	GTP	1	0
62	CQ	602	GTP	2	0
64	KI	501	GDP	1	0
64	KV	501	GDP	1	0
62	GP	501	GTP	1	0
62	IK	602	GTP	1	0
64	IJ	501	GDP	1	0
64	JC	501	GDP	1	0
62	AG	501	GTP	1	0
62	CU	602	GTP	1	0
64	JG	501	GDP	1	0
62	GN	602	GTP	1	0
64	CE	501	GDP	1	0
62	JF	501	GTP	2	0
62	AY	602	GTP	1	0
62	BE	501	GTP	1	0
62	HO	501	GTP	1	0
62	BA	501	GTP	1	0
64	JA	501	GDP	1	0
64	IR	501	GDP	1	0
64	HU	501	GDP	1	0
64	FS	501	GDP	1	0
62	EB	501	GTP	1	0
64	DN	501	GDP	1	0
62	AC	501	GTP	1	0
64	FA	501	GDP	1	0
62	FU	602	GTP	1	0
62	KF	501	GTP	1	0
64	IE	501	GDP	1	0
62	BW	501	GTP	1	0
64	IP	501	GDP	2	0
64	KK	501	GDP	1	0
62	BM	501	GTP	1	0
64	GD	501	GDP	1	0
62	KL	602	GTP	1	0
64	AV	501	GDP	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
64	CN	501	GDP	1	0
64	FC	501	GDP	1	0
64	JE	501	GDP	1	0
64	IS	501	GDP	1	0
64	EQ	501	GDP	1	0
64	KO	501	GDP	1	0
62	CS	501	GTP	1	0
62	FH	501	GTP	1	0
62	ID	501	GTP	1	0
62	HA	501	GTP	1	0
62	HT	501	GTP	1	0
64	AD	501	GDP	1	0
62	KH	501	GTP	1	0
64	ES	501	GDP	1	0
62	IZ	602	GTP	1	0
62	HK	501	GTP	1	0
62	CM	602	GTP	1	0
62	HG	602	GTP	1	0
64	BR	501	GDP	1	0
64	CV	501	GDP	1	0
62	KD	501	GTP	1	0
64	GB	501	GDP	1	0
64	EU	501	GDP	1	0
64	BV	501	GDP	1	0
62	KY	602	GTP	1	0
62	BG	501	GTP	1	0
62	EH	501	GTP	1	0
62	HC	602	GTP	3	0
64	CG	501	GDP	1	0
64	BT	501	GDP	1	0
62	BC	501	GTP	1	0
62	JW	602	GTP	1	0
64	CP	501	GDP	2	0
62	HM	501	GTP	1	0
64	CL	501	GDP	1	0
62	HZ	501	GTP	1	0
64	HJ	501	GDP	1	0
64	CZ	501	GDP	1	0
64	IW	501	GDP	1	0
62	HQ	501	GTP	2	0
62	AQ	501	GTP	1	0
62	EZ	501	GTP	1	0

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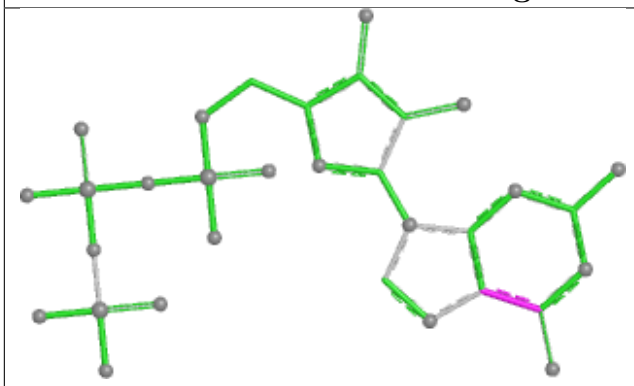
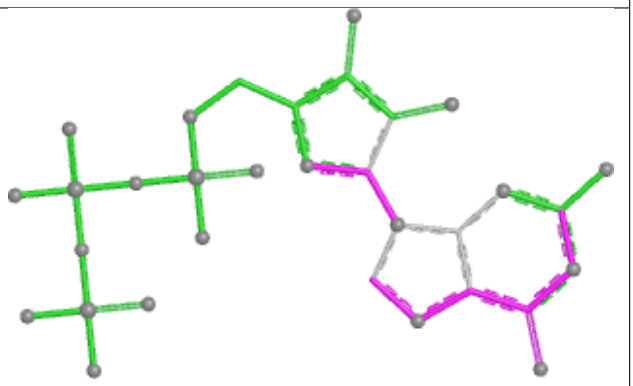
Mol	Chain	Res	Type	Clashes	Symm-Clashes
62	AS	602	GTP	2	0
62	GU	501	GTP	1	0
64	IC	501	GDP	1	0
64	JK	501	GDP	2	0
62	CW	602	GTP	2	0
64	IN	501	GDP	1	0
62	EJ	602	GTP	1	0
64	CI	501	GDP	1	0
64	BN	501	GDP	1	0
62	IX	501	GTP	1	0
62	CJ	501	GTP	1	0
64	IA	501	GDP	1	0
64	IF	501	GDP	1	0
64	IL	501	GDP	3	0
62	JB	501	GTP	1	0
62	AA	501	GTP	1	0
62	IQ	501	GTP	1	0
62	CO	501	GTP	2	0
64	AT	501	GDP	1	0
64	EM	501	GDP	1	0
62	KW	602	GTP	1	0
64	EY	501	GDP	1	0
62	BQ	602	GTP	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

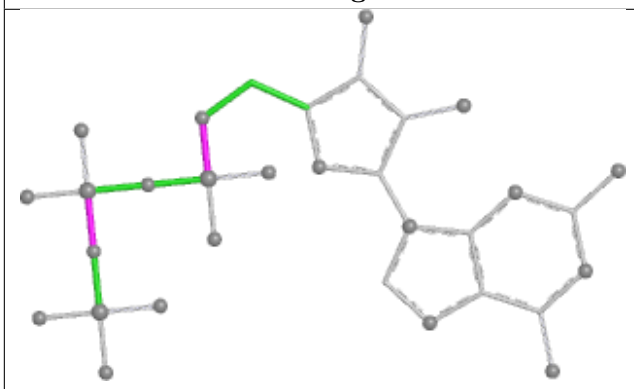
Ligand GTP JN 501



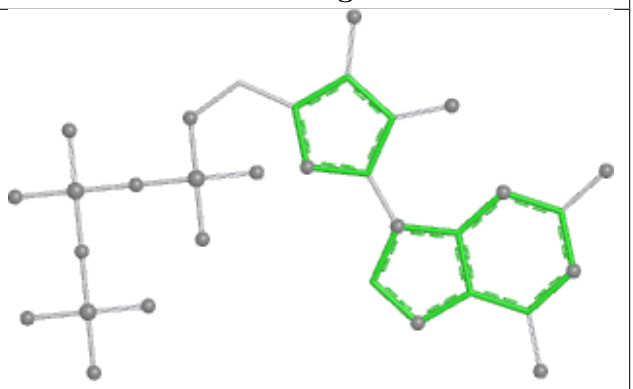
Bond lengths



Bond angles

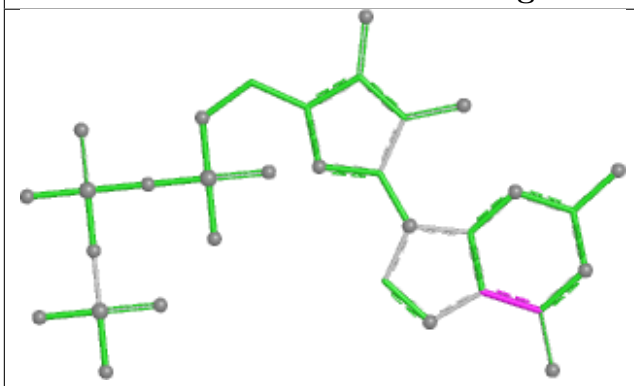


Torsions

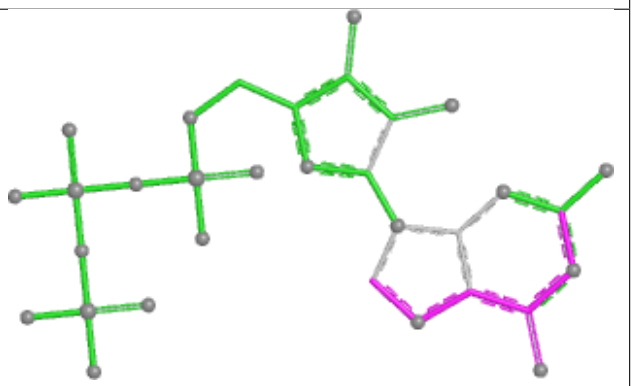


Rings

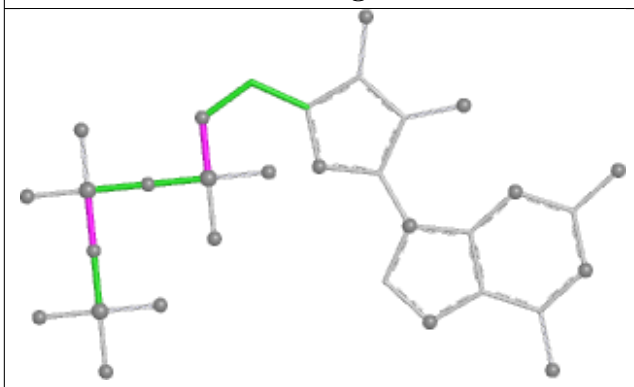
Ligand GTP IB 602



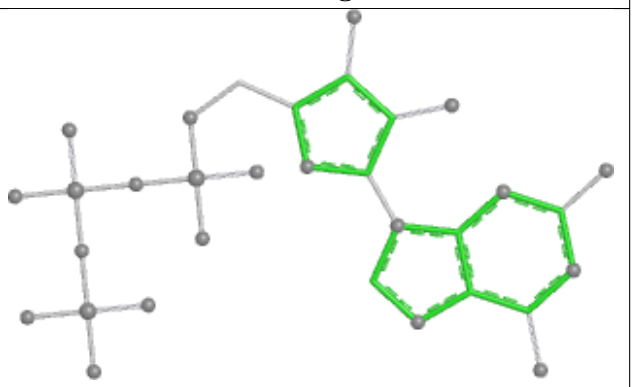
Bond lengths



Bond angles

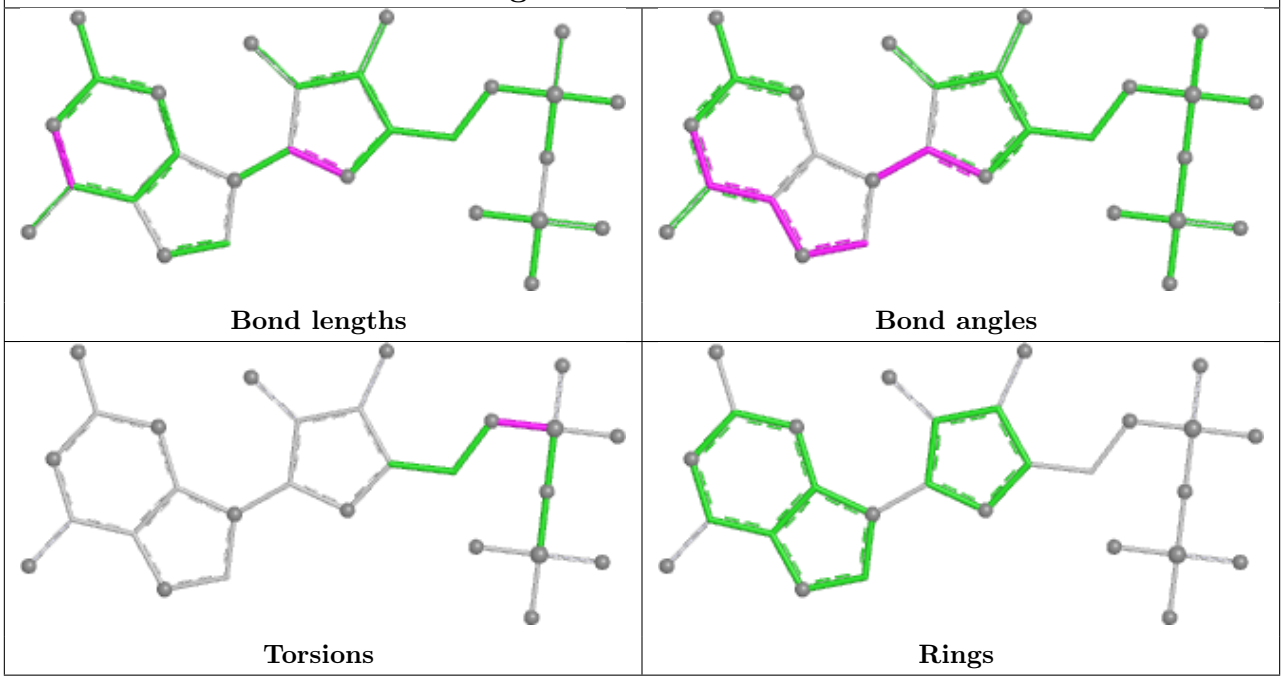


Torsions

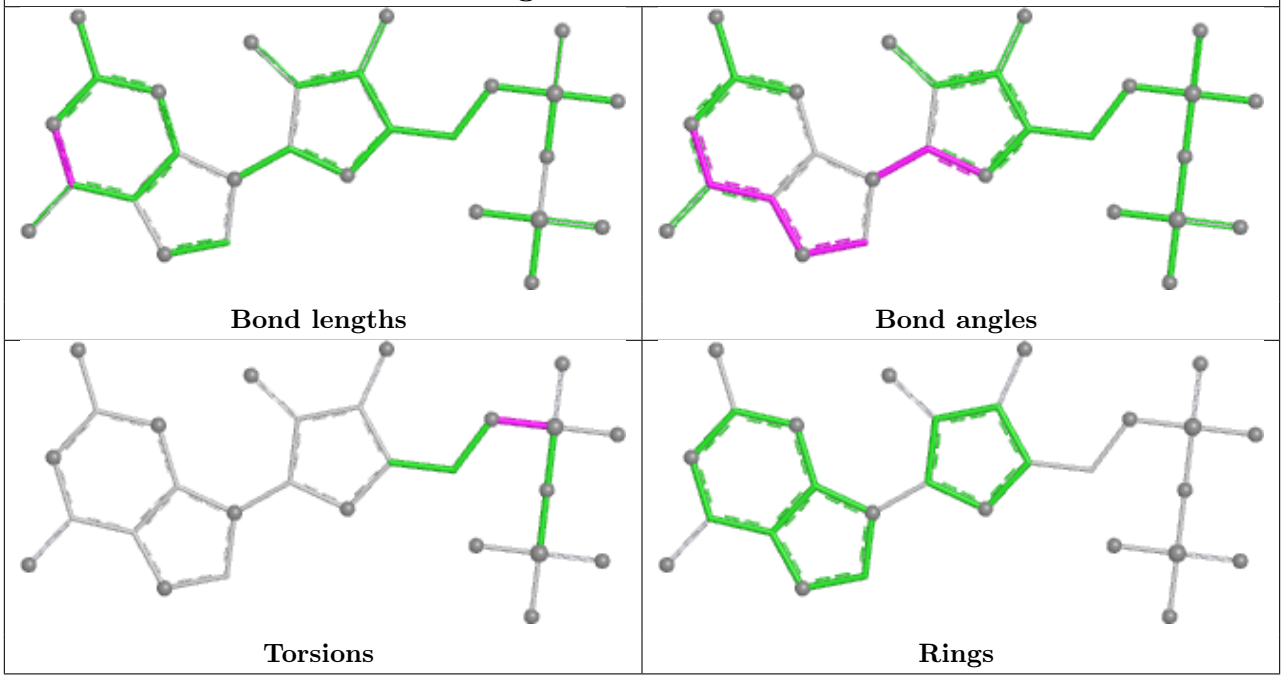


Rings

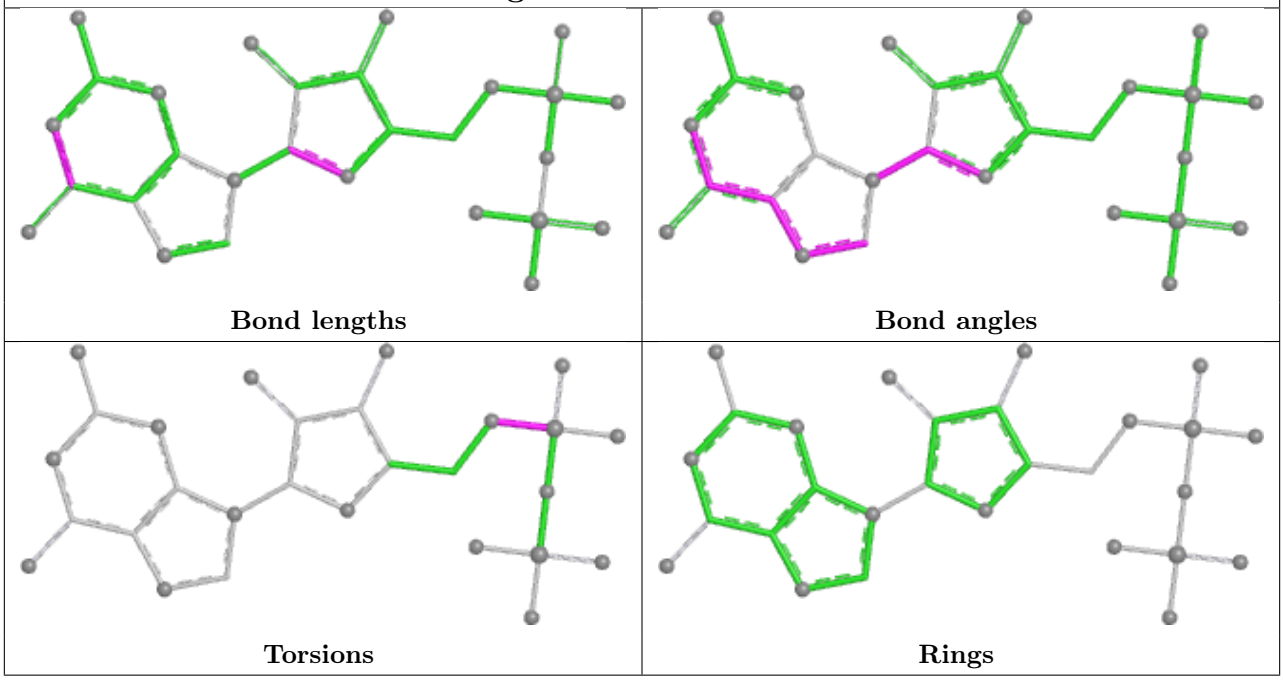
Ligand GDP EK 501



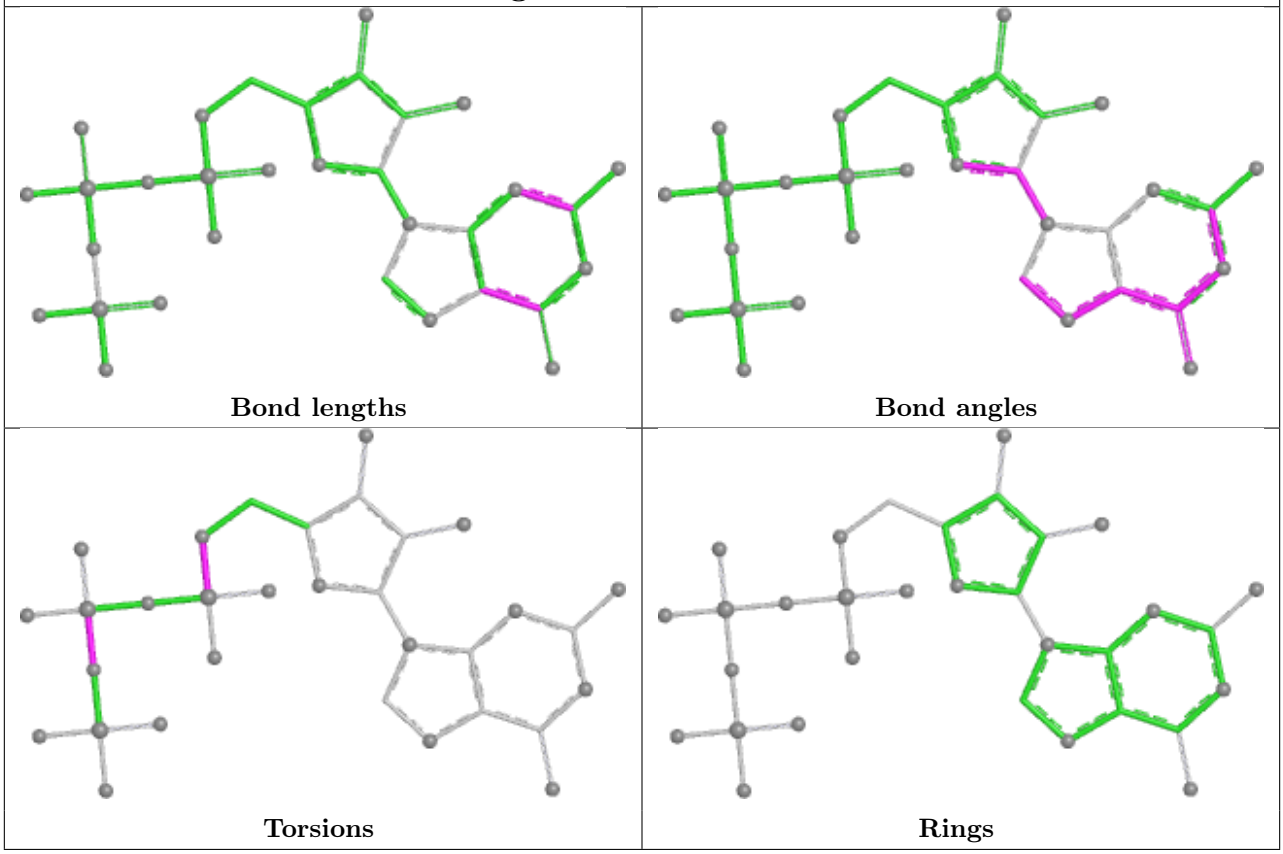
Ligand GDP FI 501



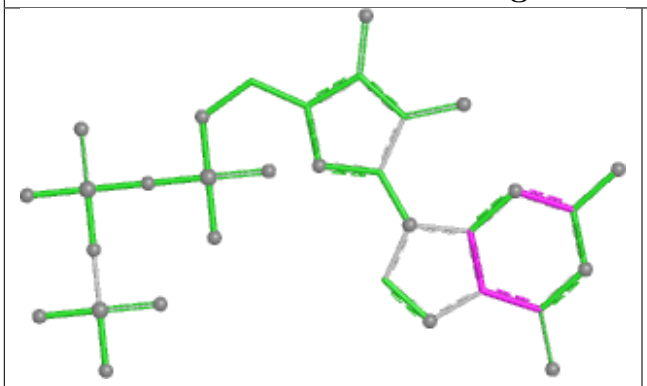
Ligand GDP FM 501



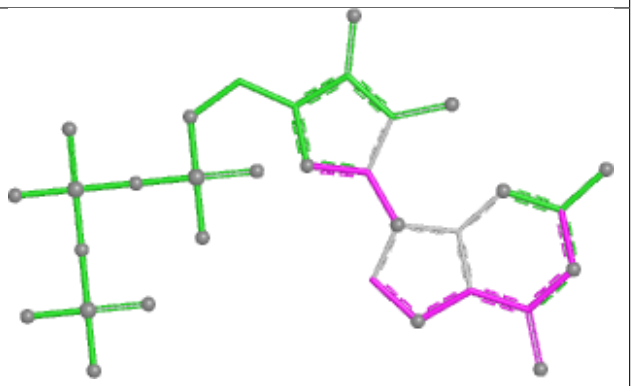
Ligand GTP CY 501



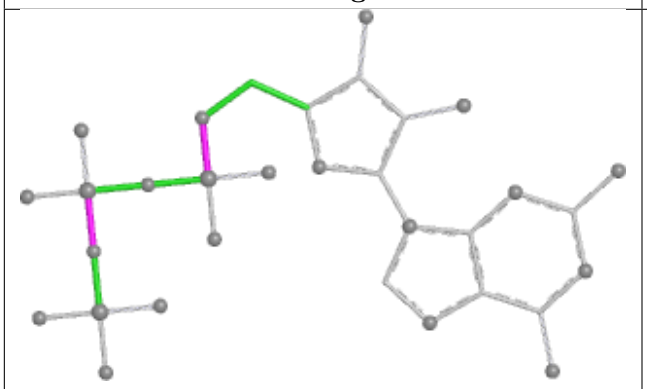
Ligand GTP KP 501



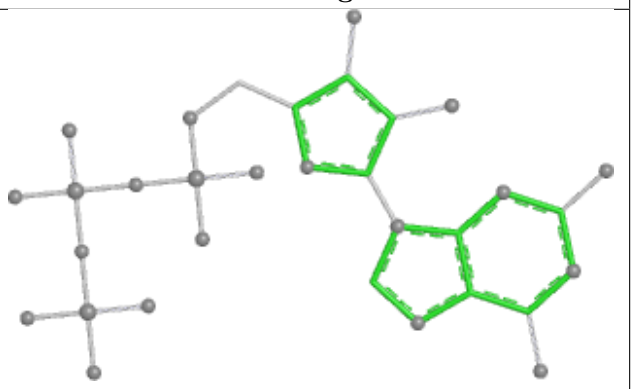
Bond lengths



Bond angles

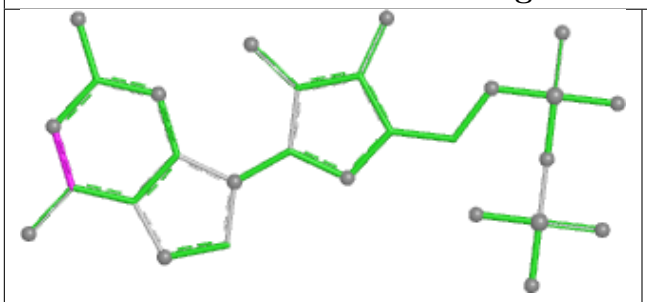


Torsions



Rings

Ligand GDP IU 501



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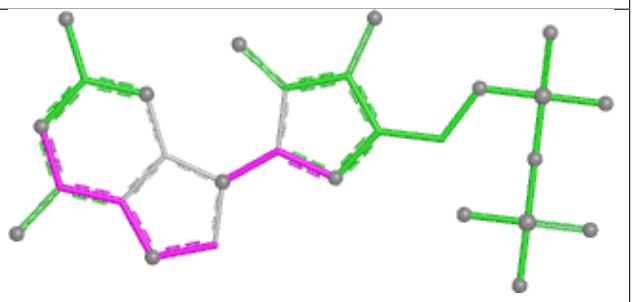

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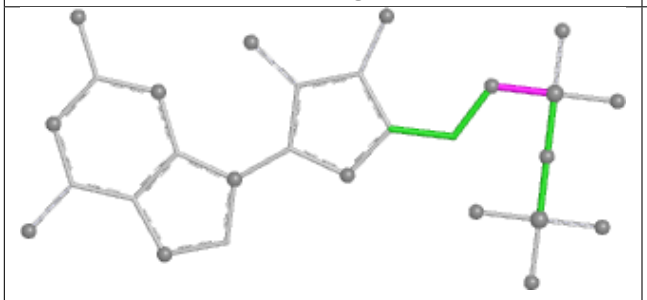
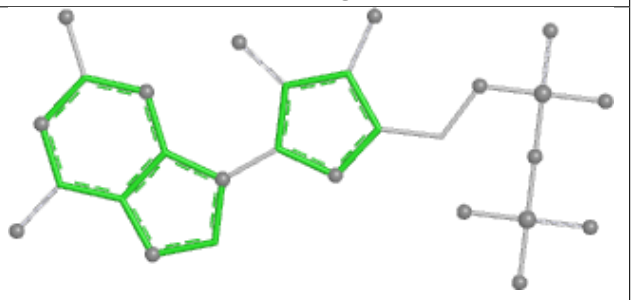
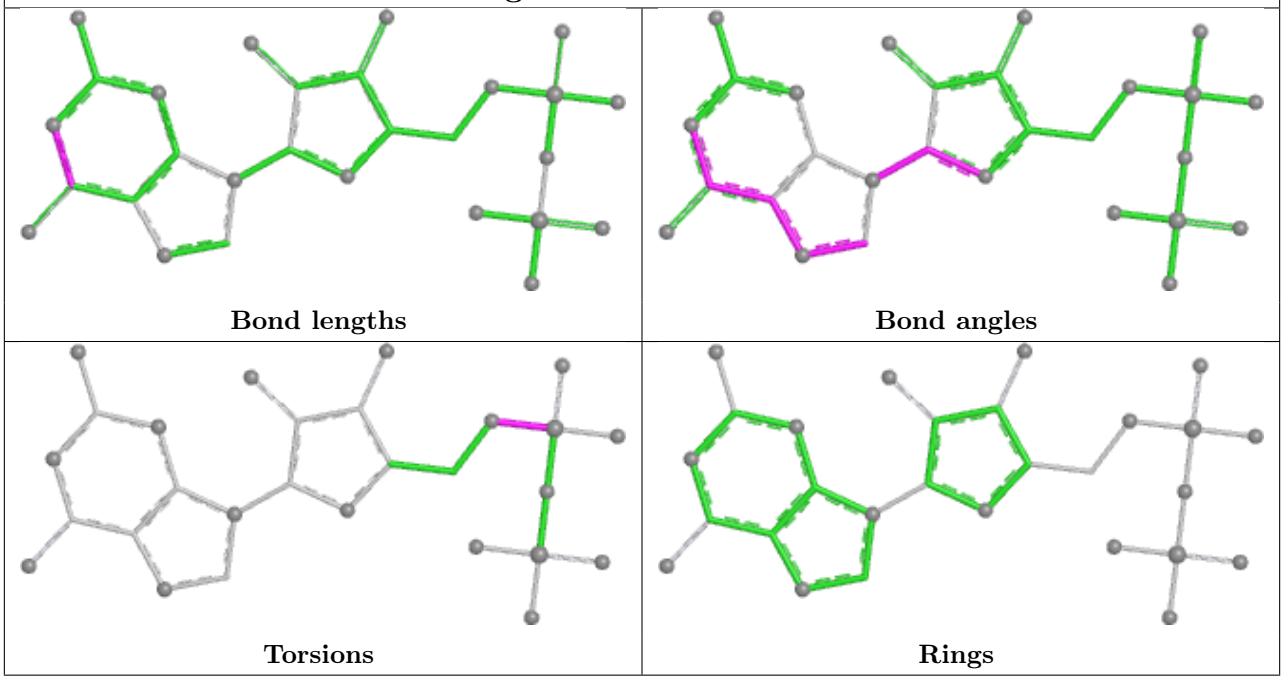


Torsions



Rings

Ligand GDP EW 501



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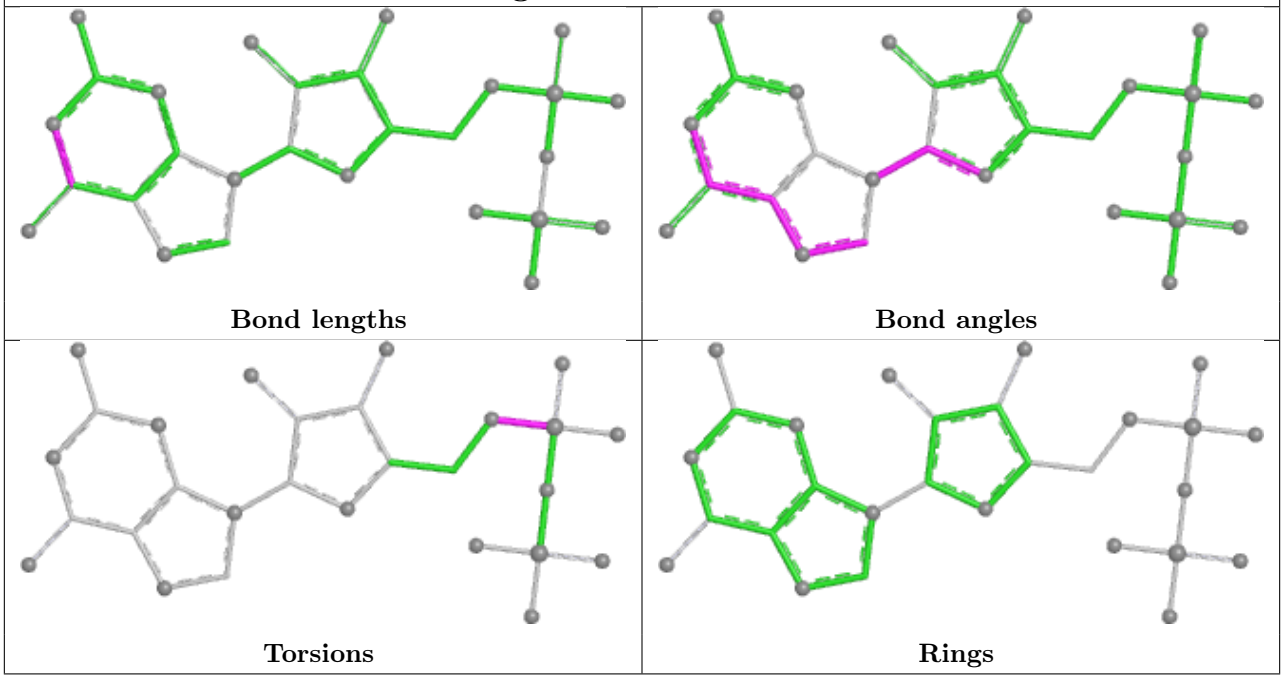

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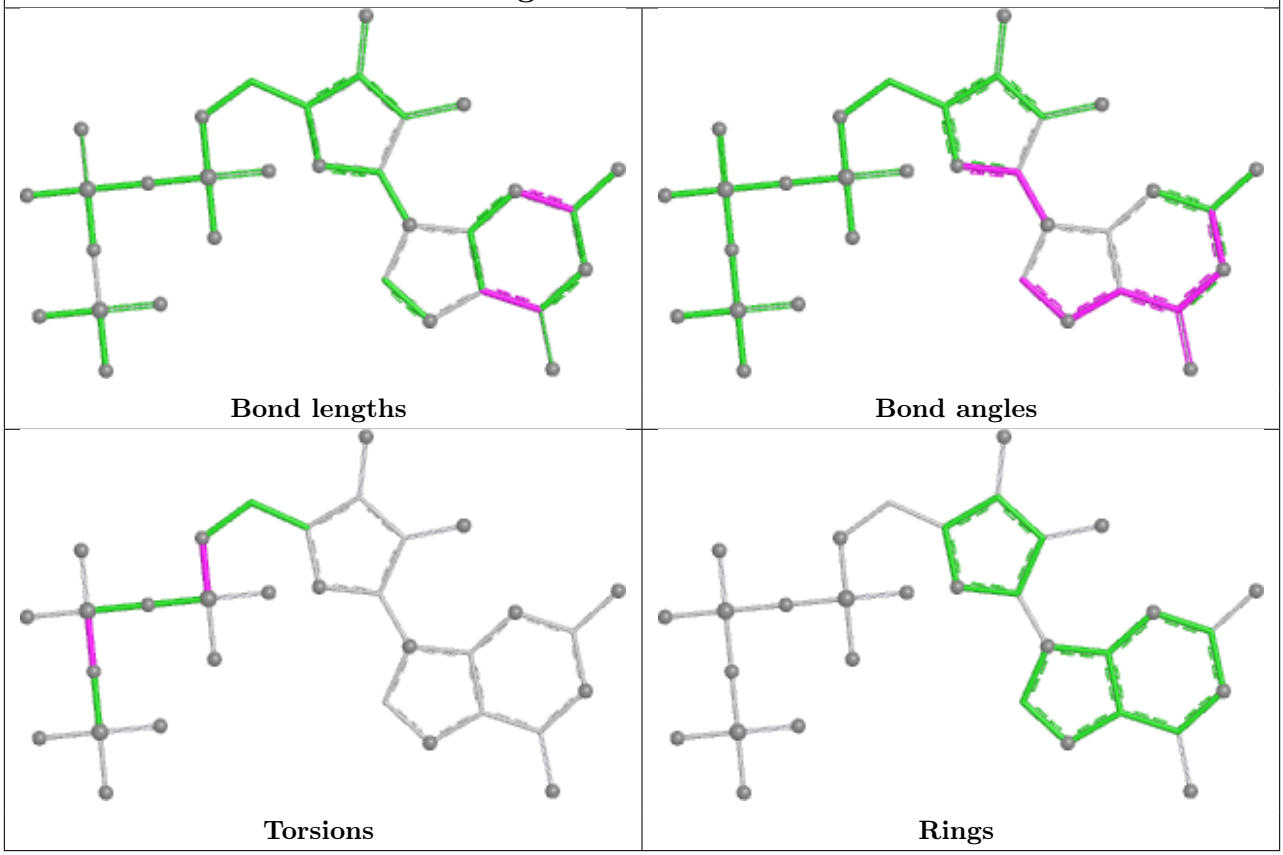

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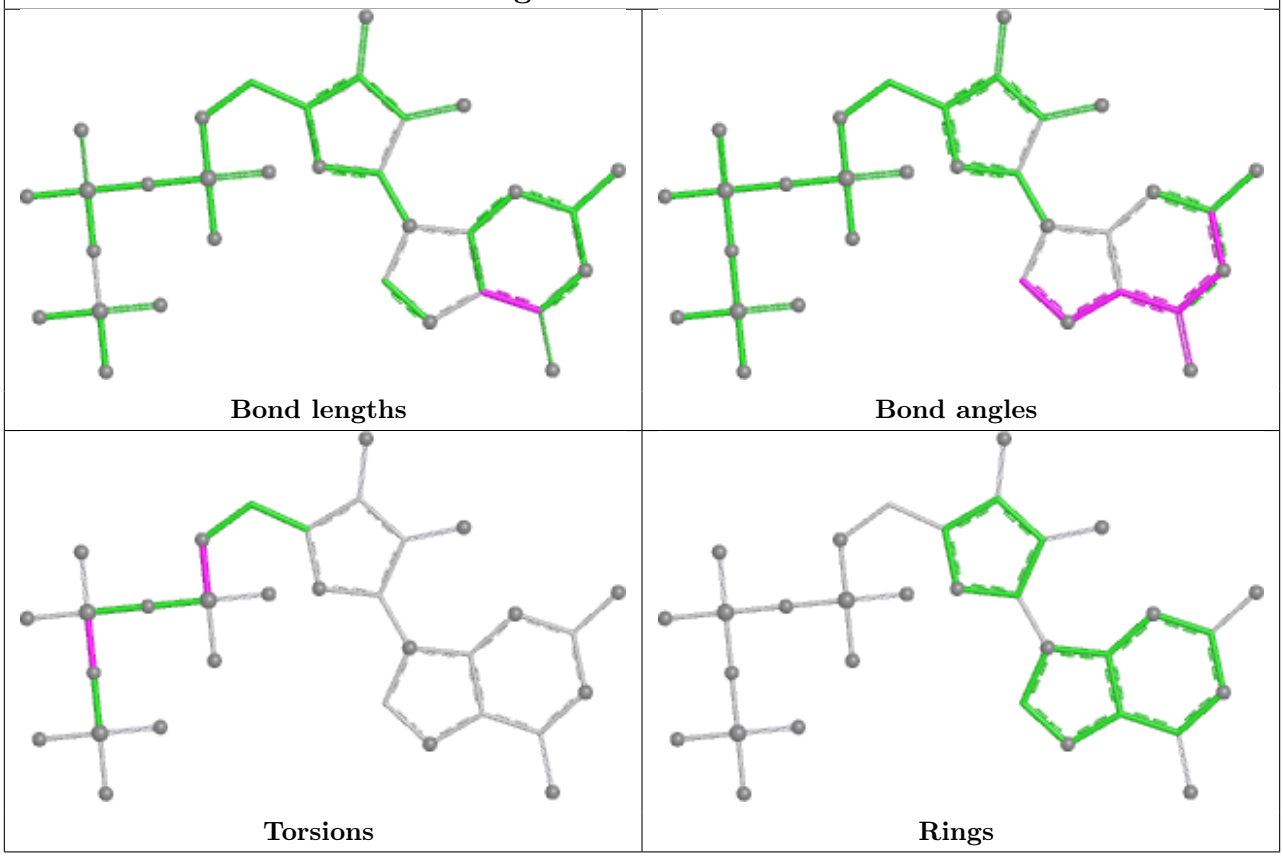

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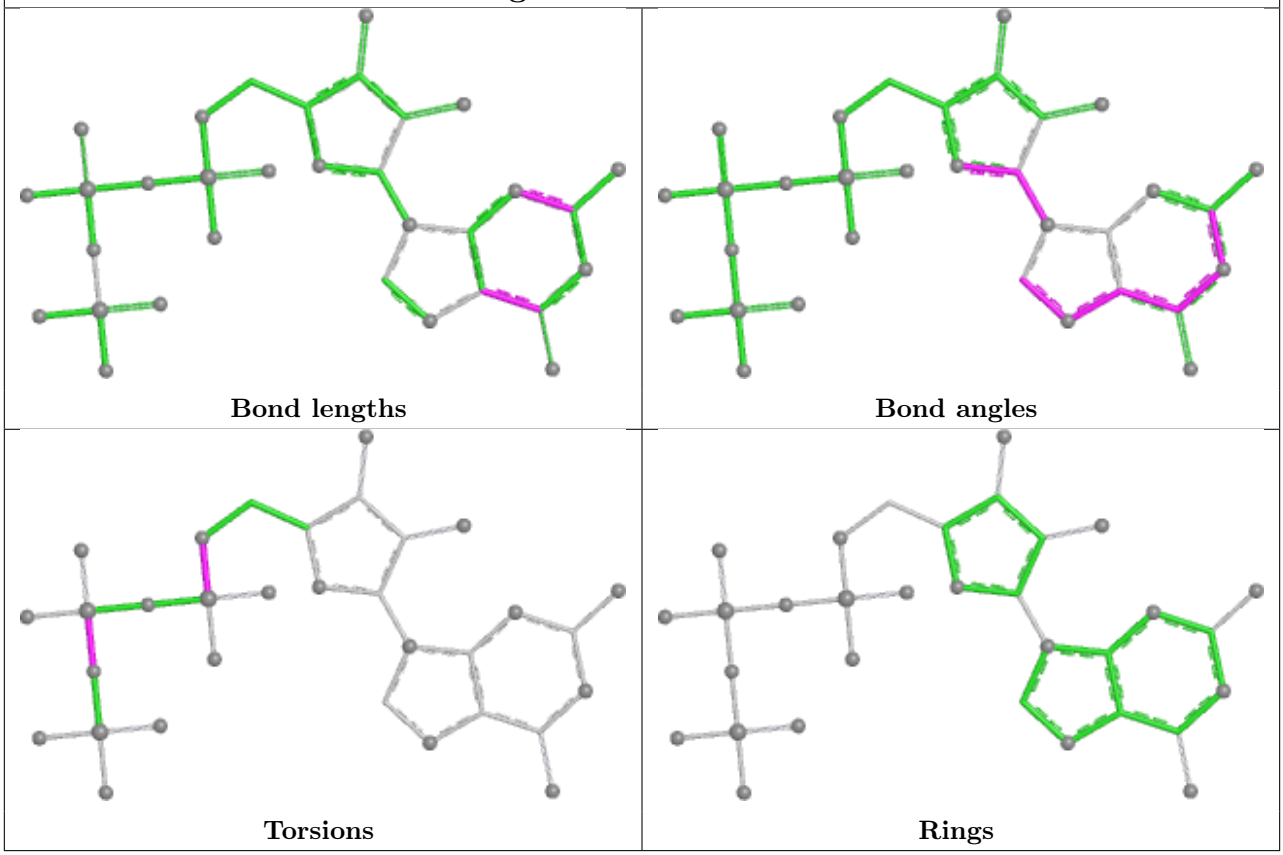

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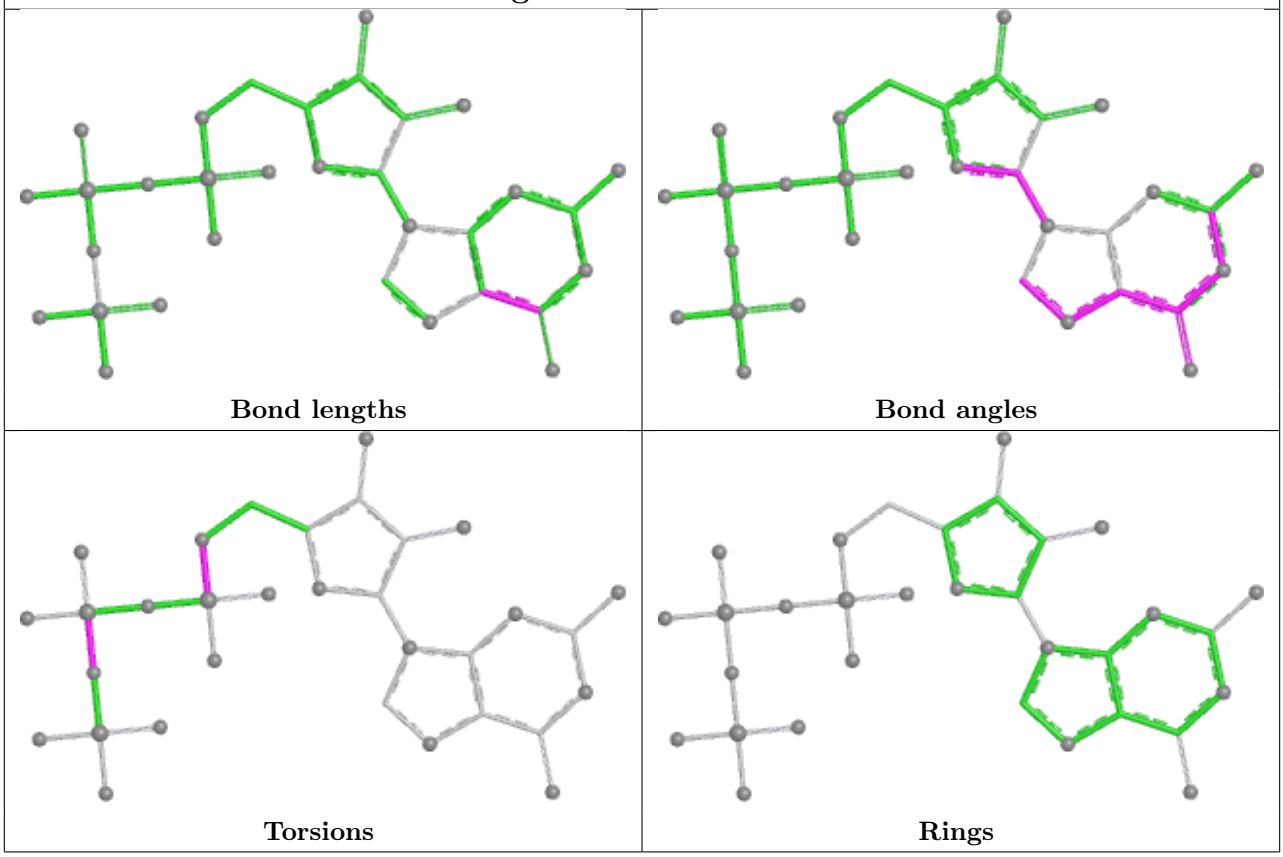

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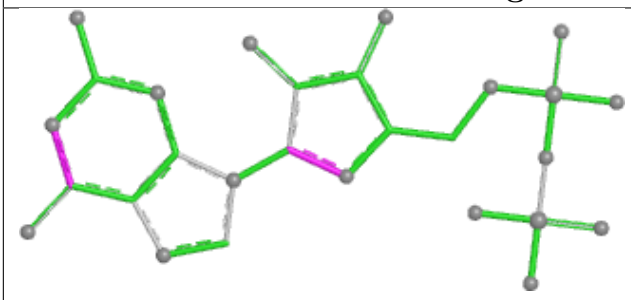

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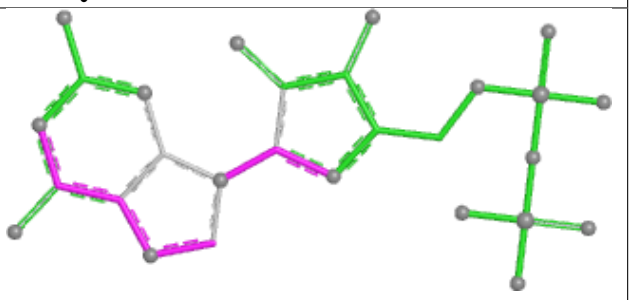
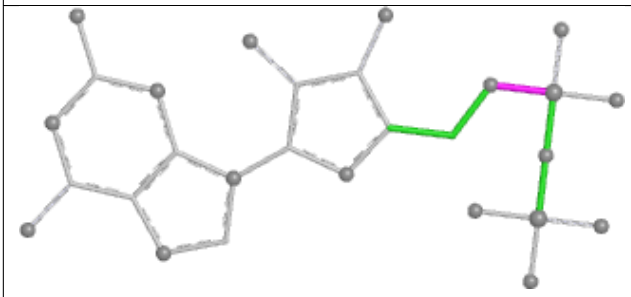
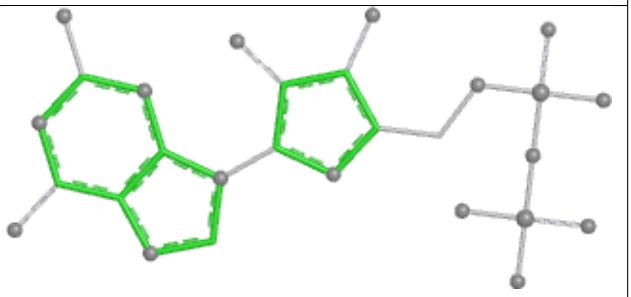


Bond angles

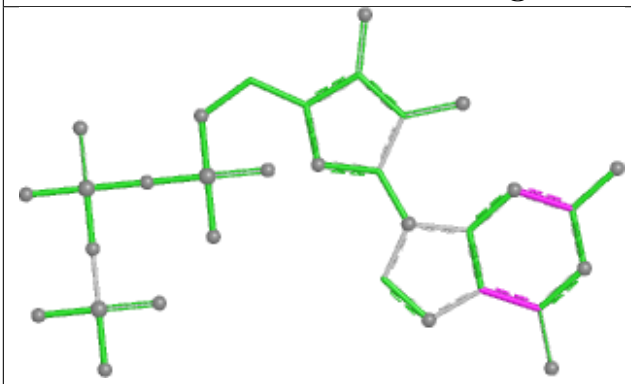


Torsions



Rings

Ligand GTP GT 501



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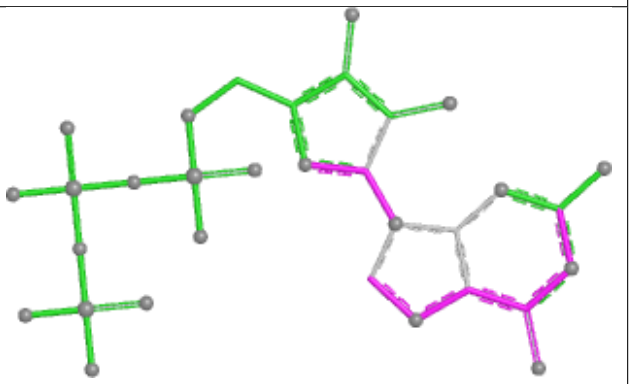

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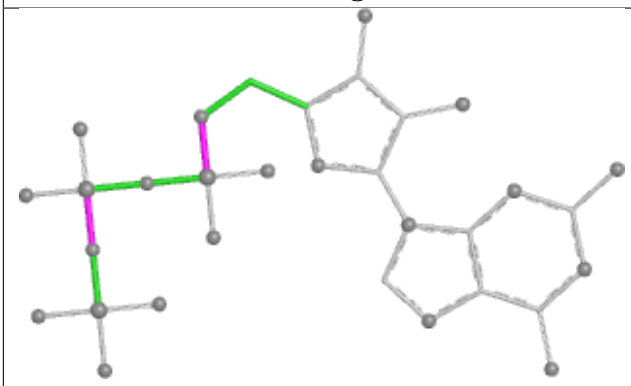

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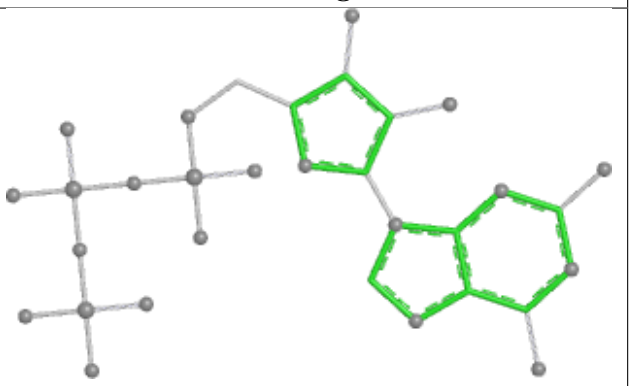

Rings

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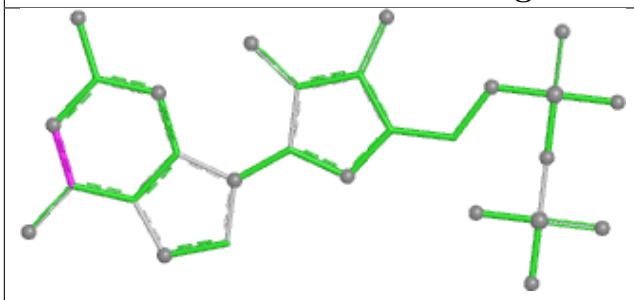

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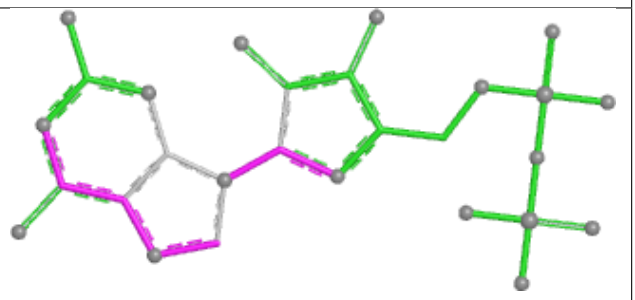

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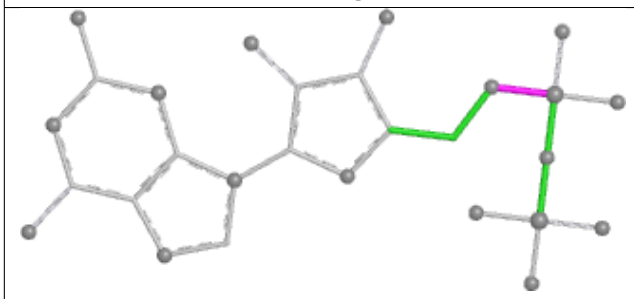

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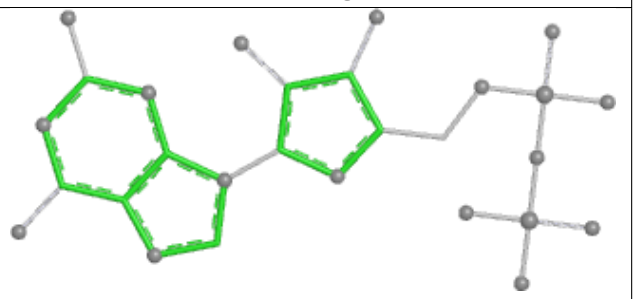

Rings

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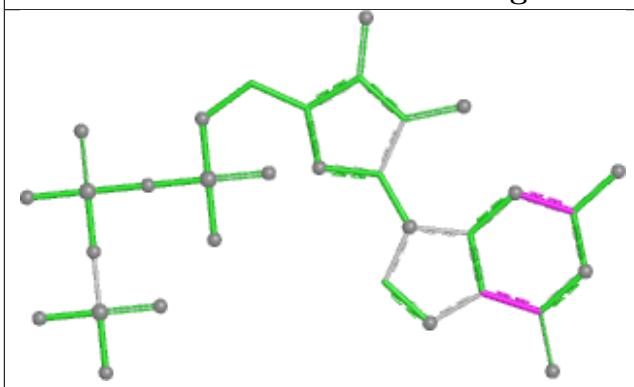

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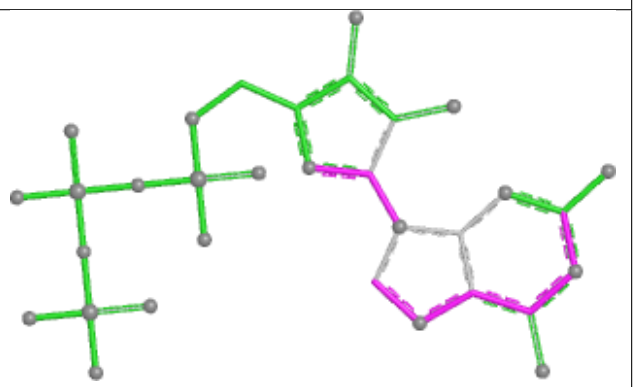

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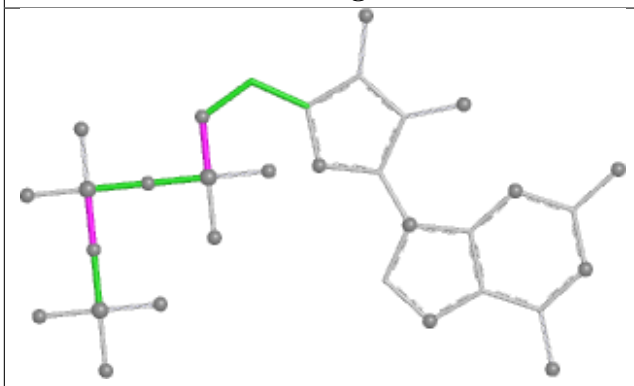

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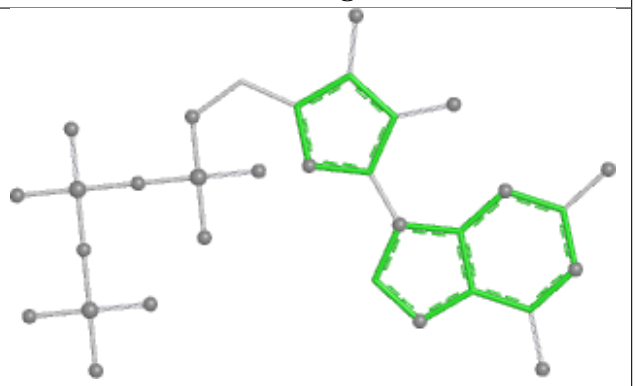

Rings

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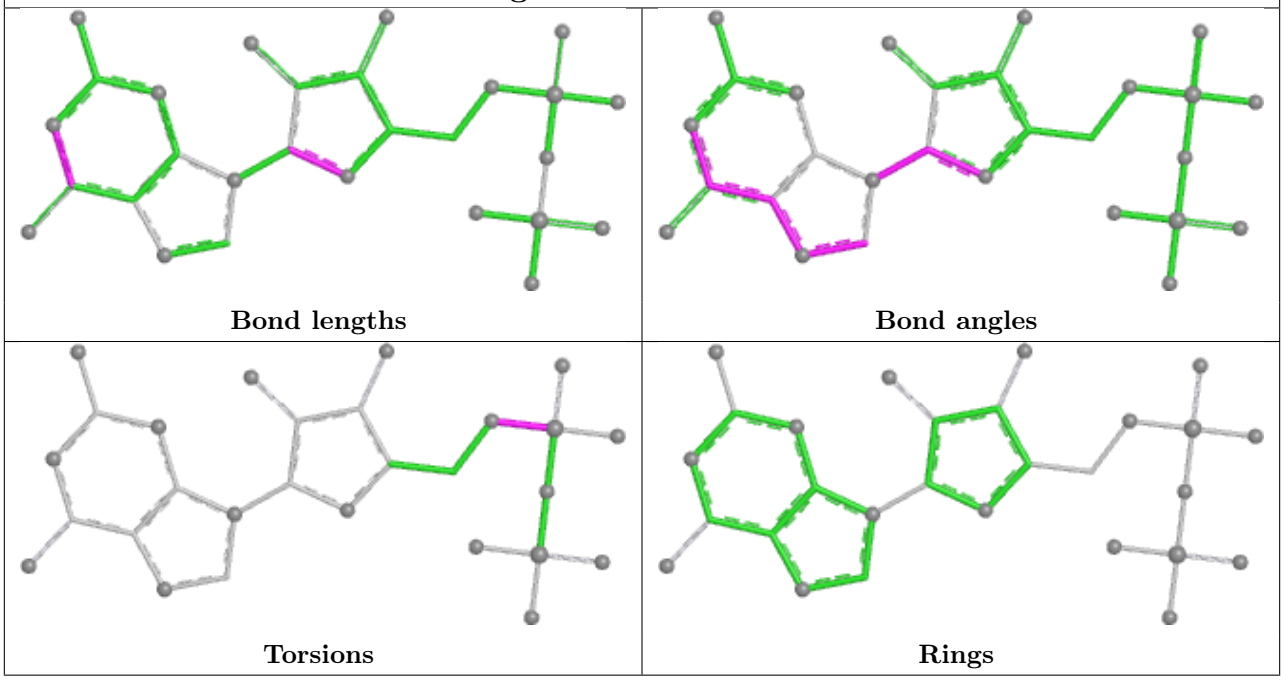
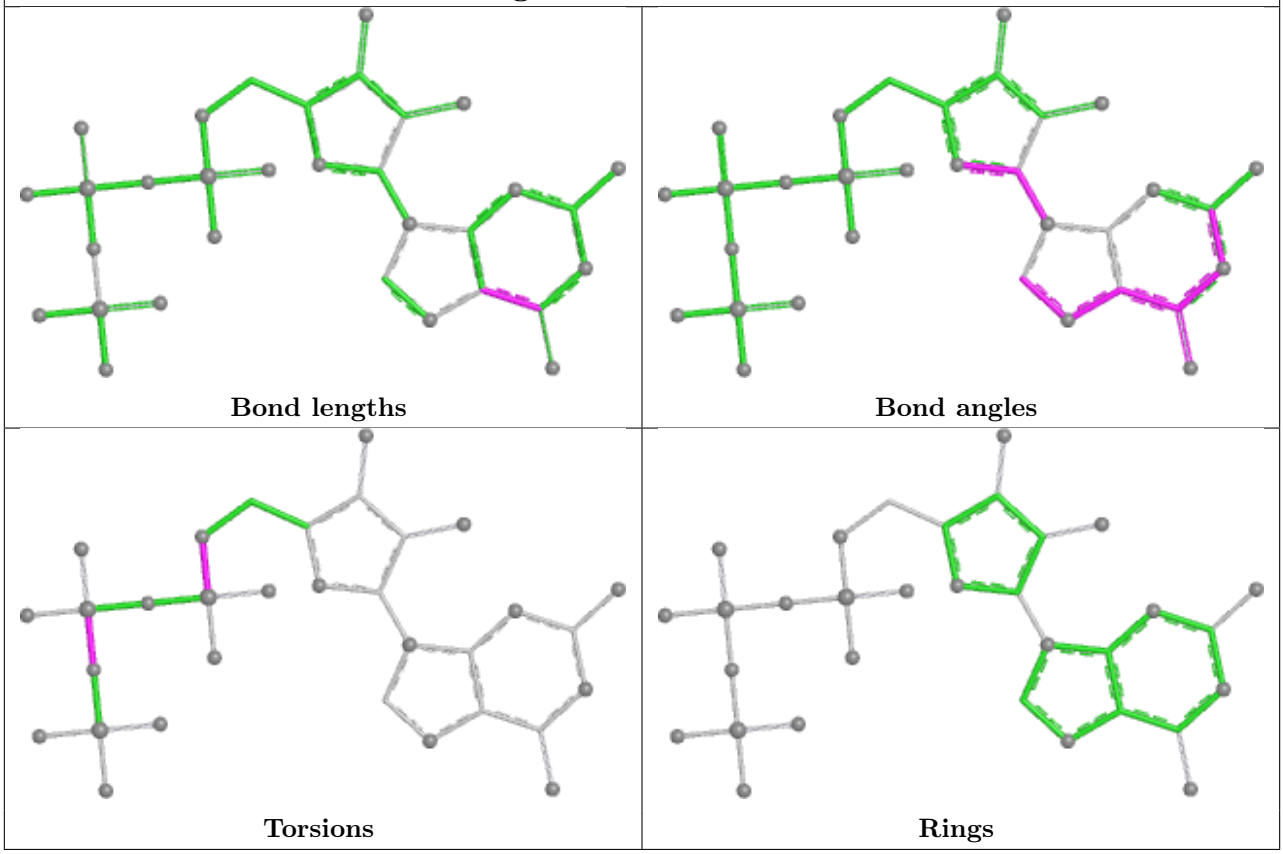
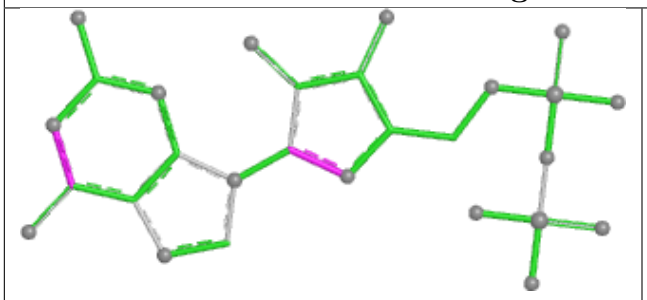


Ligand GTP DZ 602



Ligand GDP HL 501



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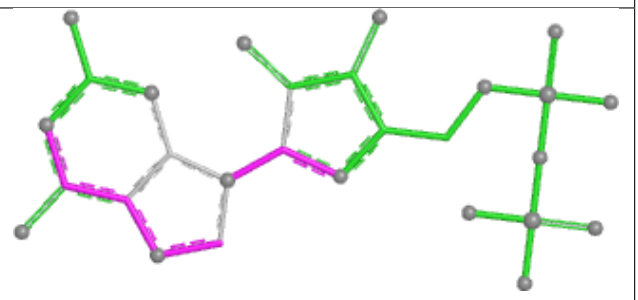

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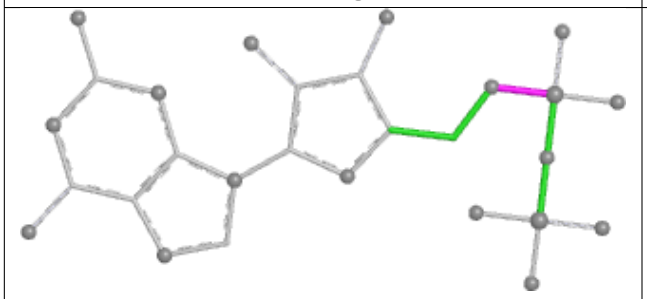

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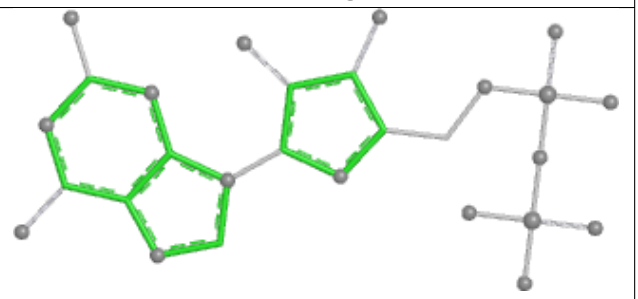

Rings

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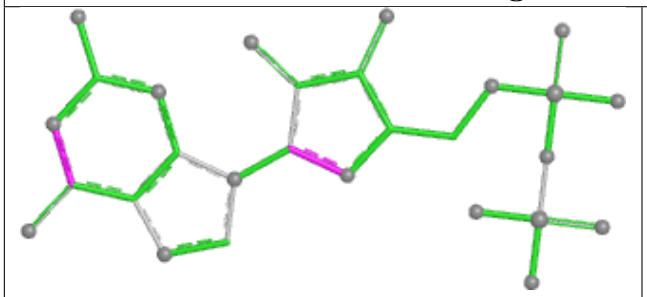

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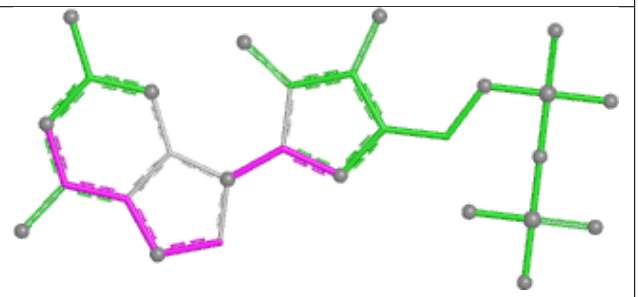

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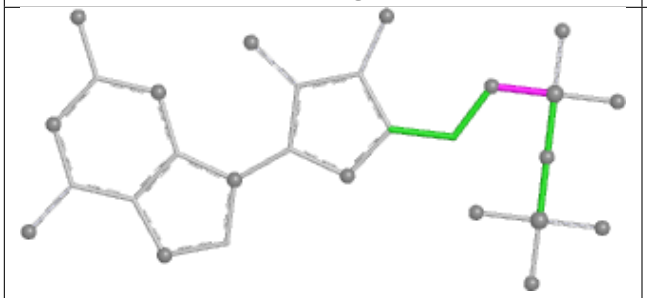

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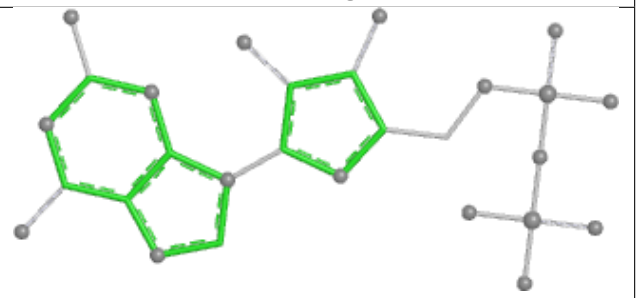

Rings

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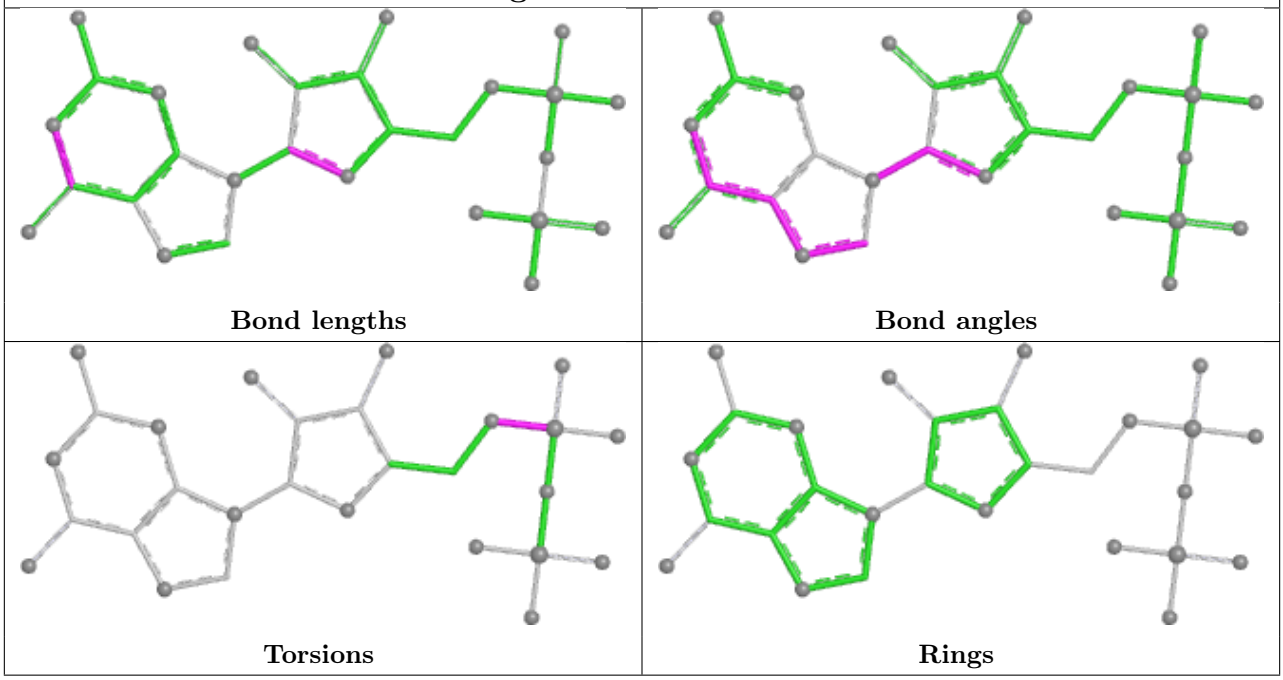

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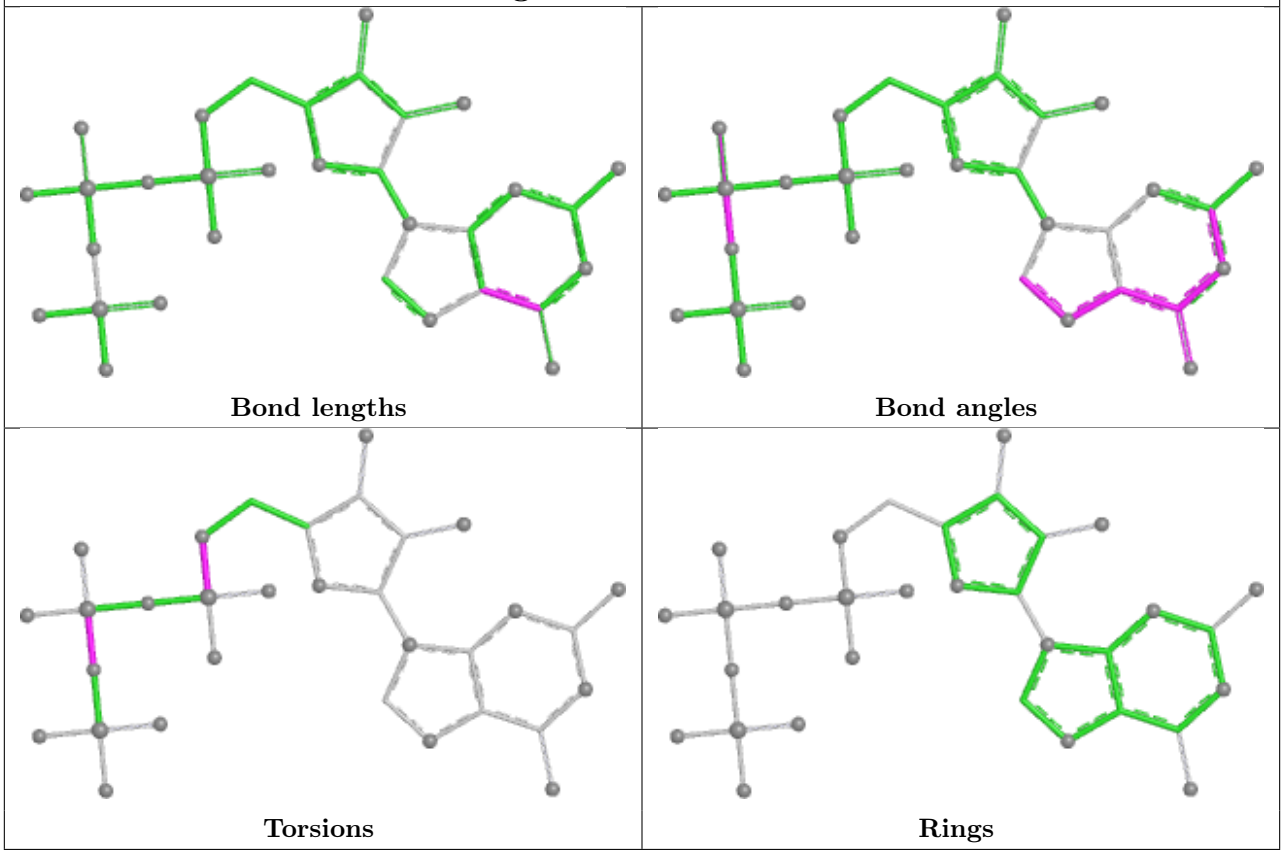

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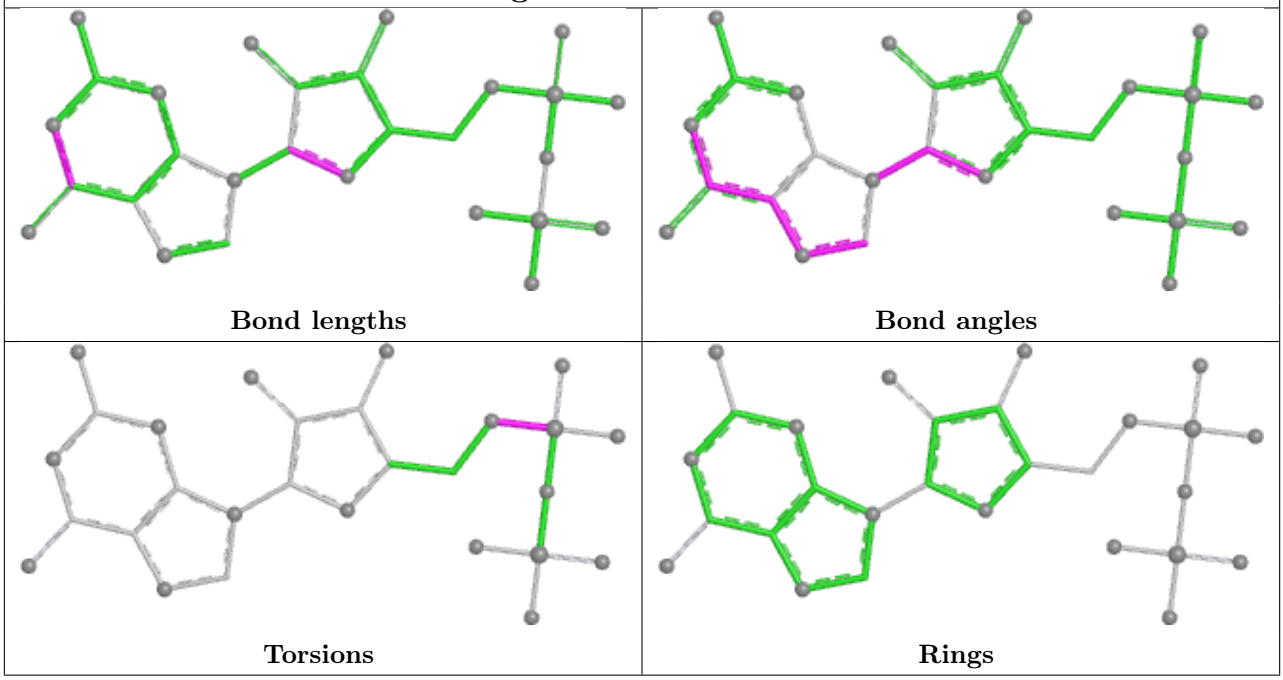

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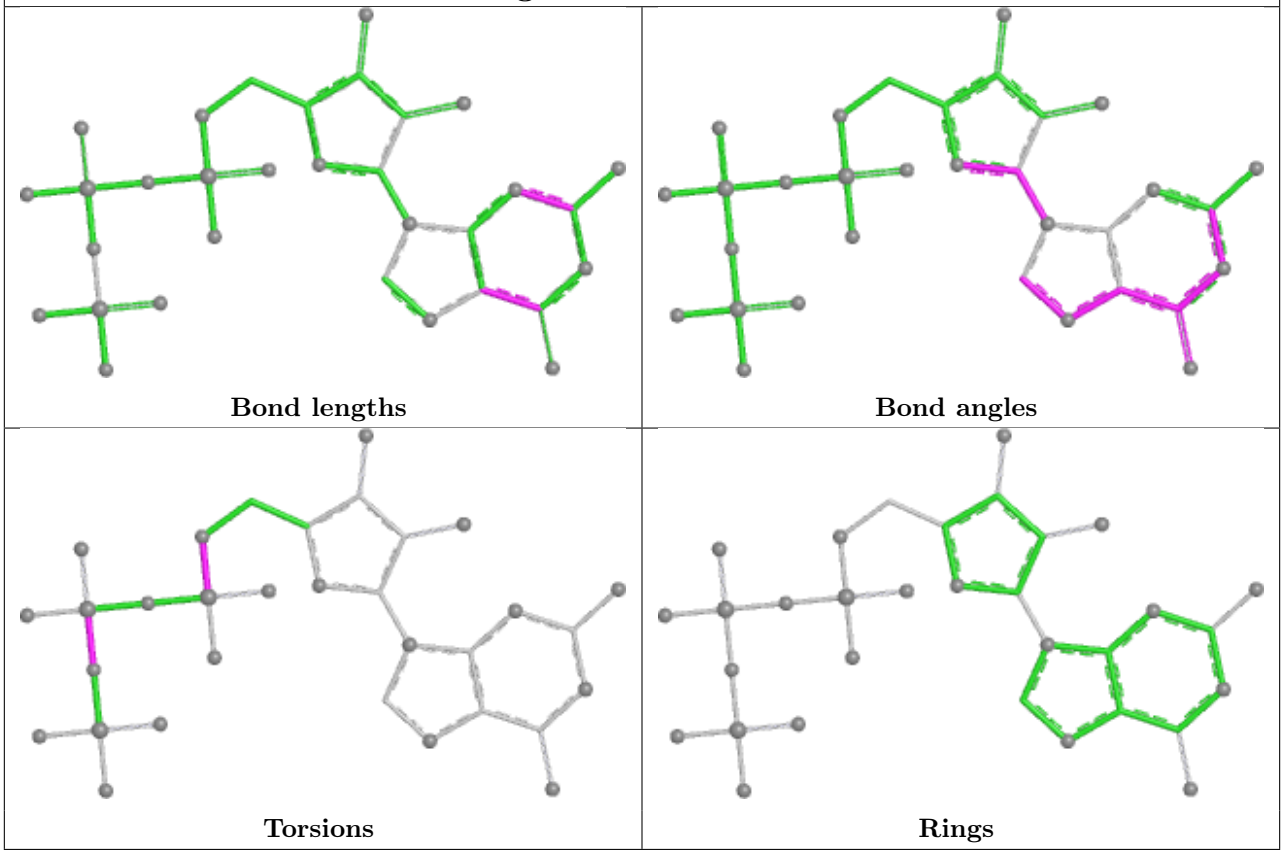

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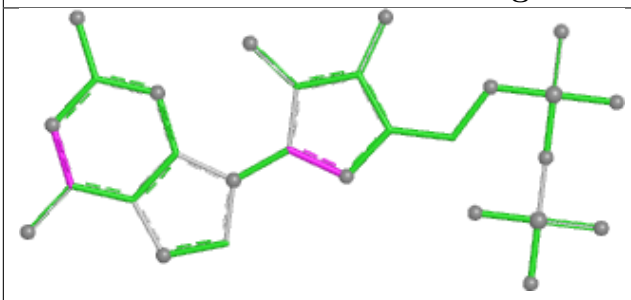

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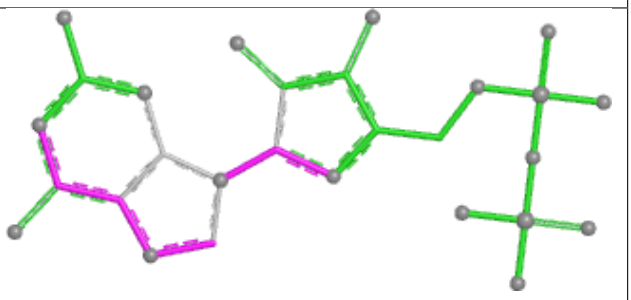
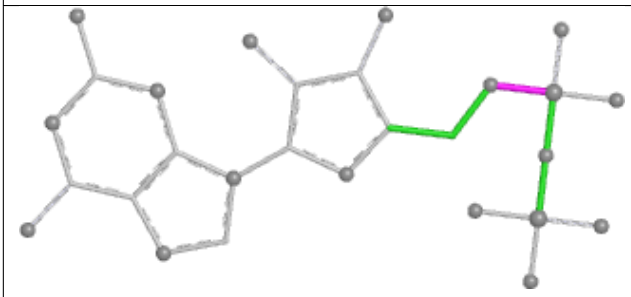
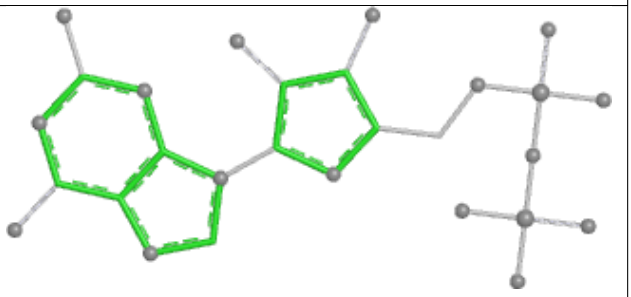


Bond angles

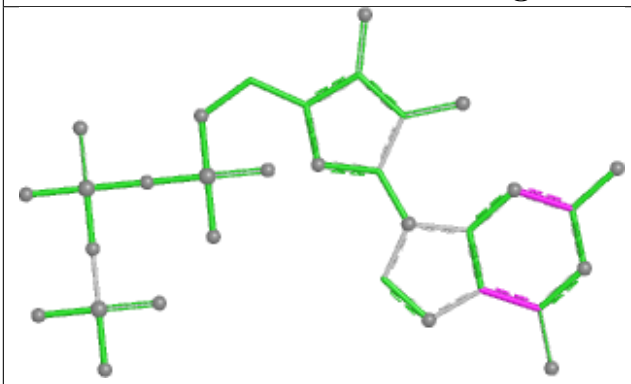


Torsions



Rings

Ligand GTP KJ 602



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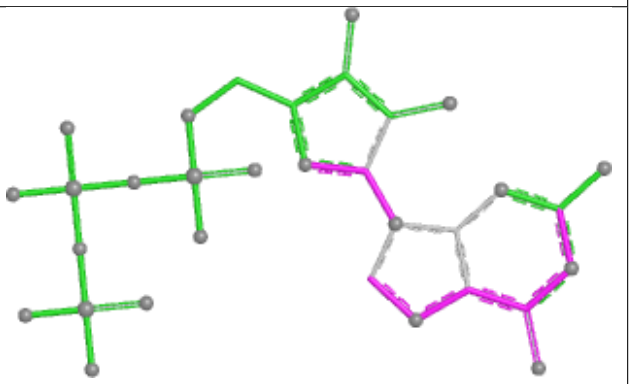

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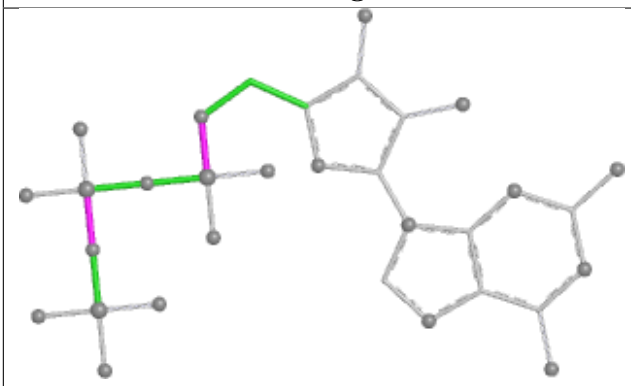
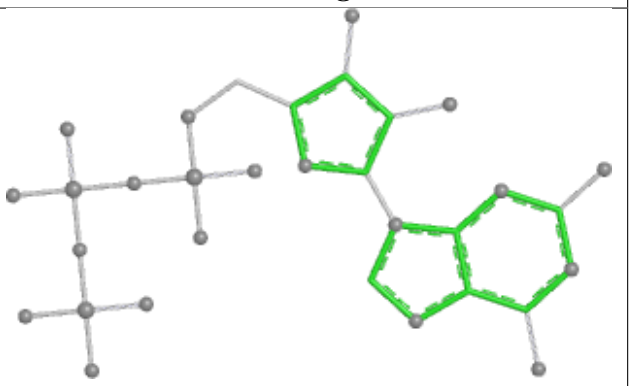


Torsions



Rings

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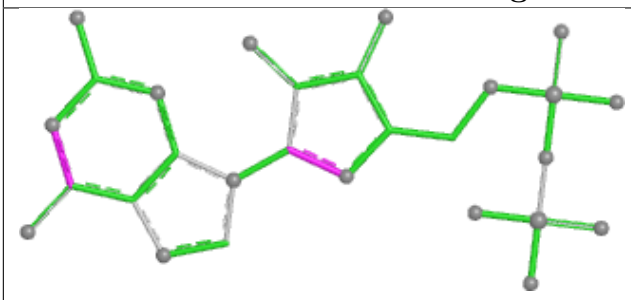

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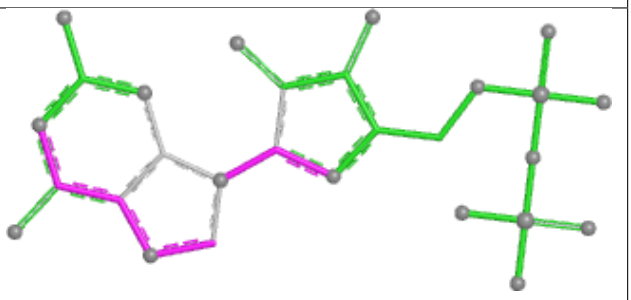
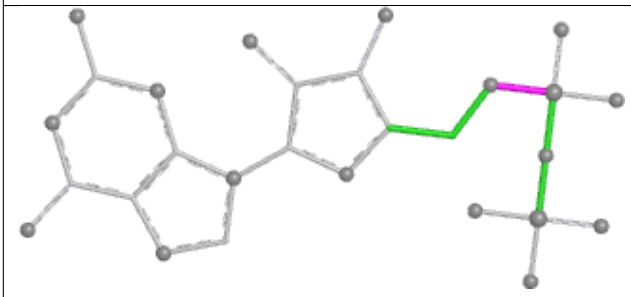


Bond angles



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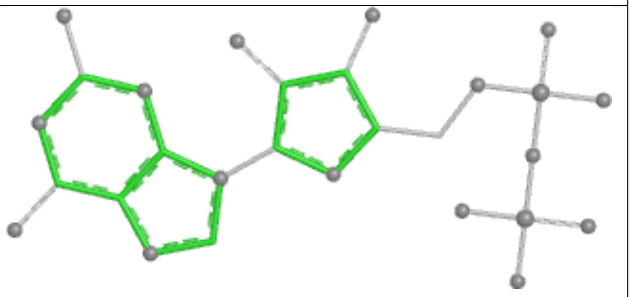
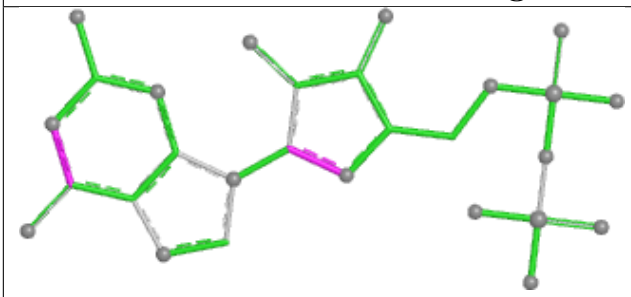


Rings

Ligand GDP BD 501



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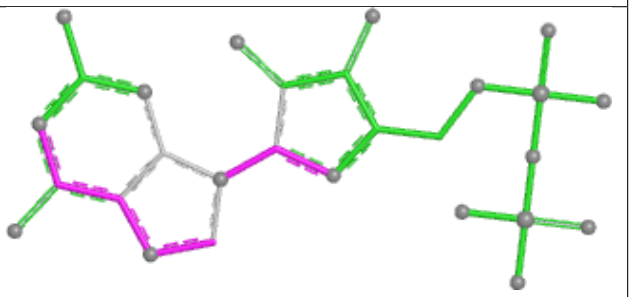

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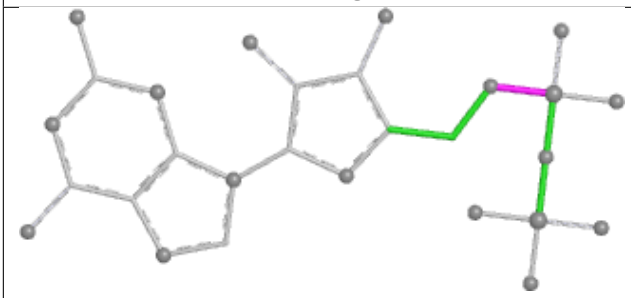
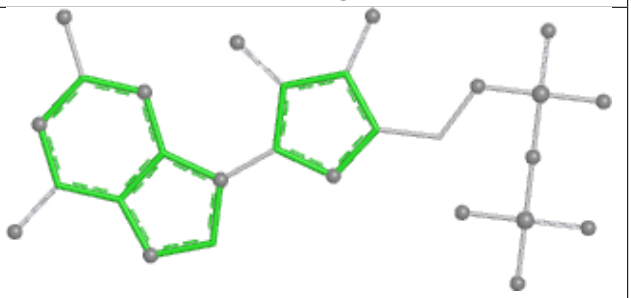
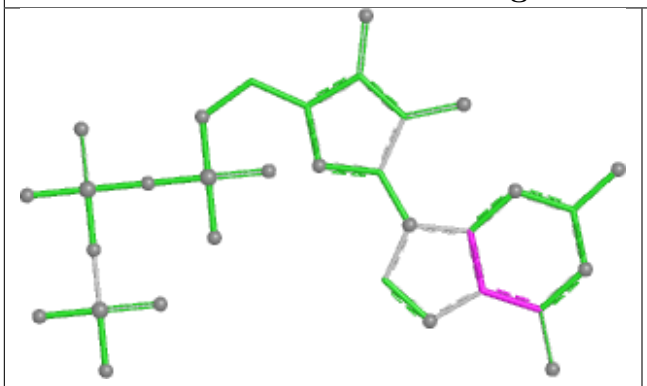


Torsions



Rings

Ligand GTP CQ 602



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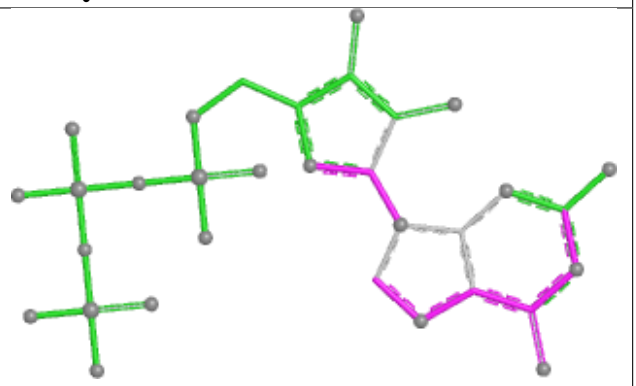
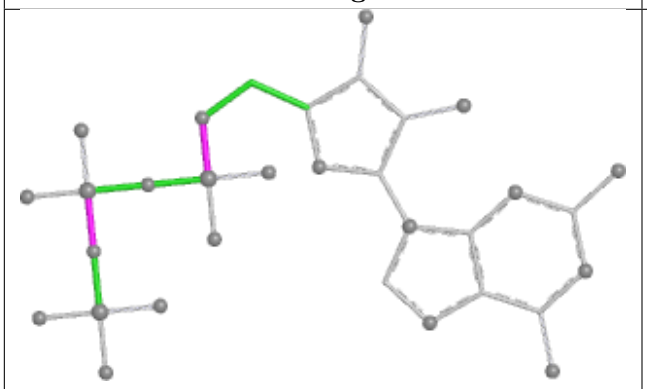


Bond angles



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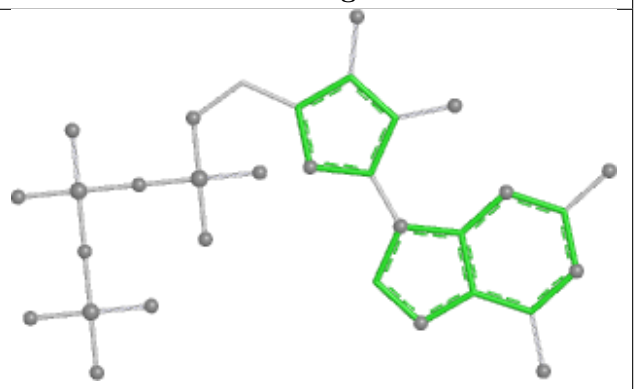
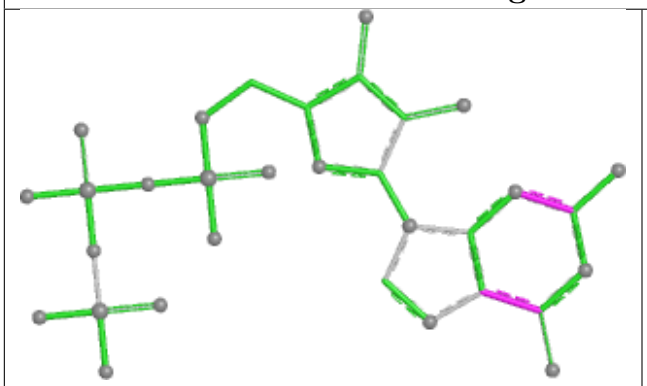


Rings

Ligand GTP DG 602



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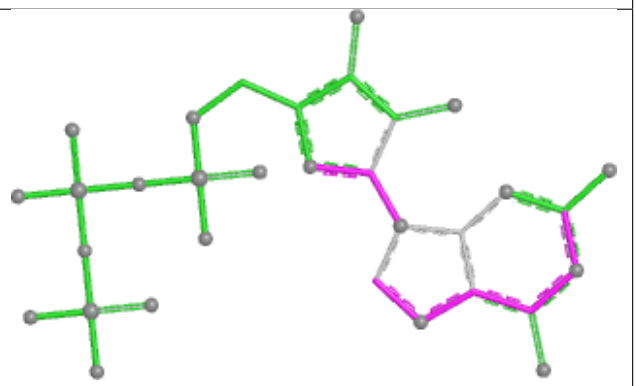

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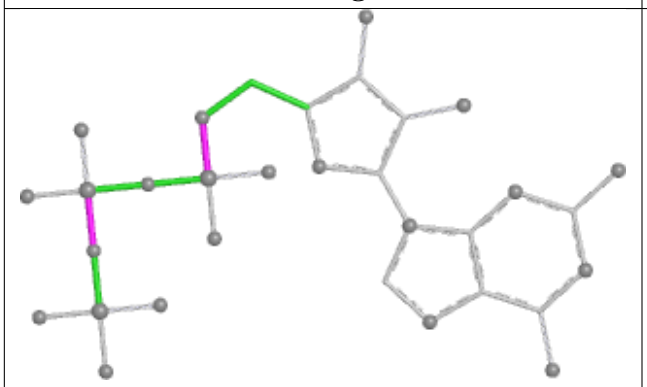

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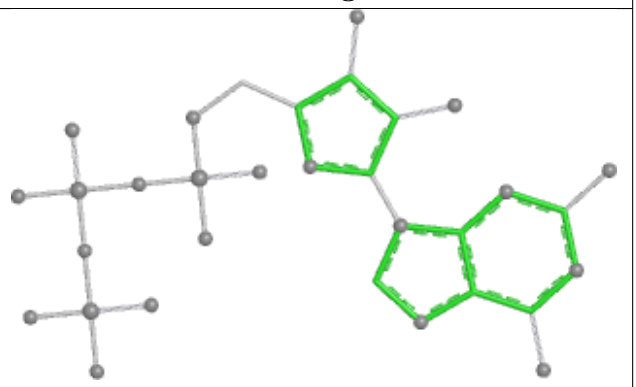
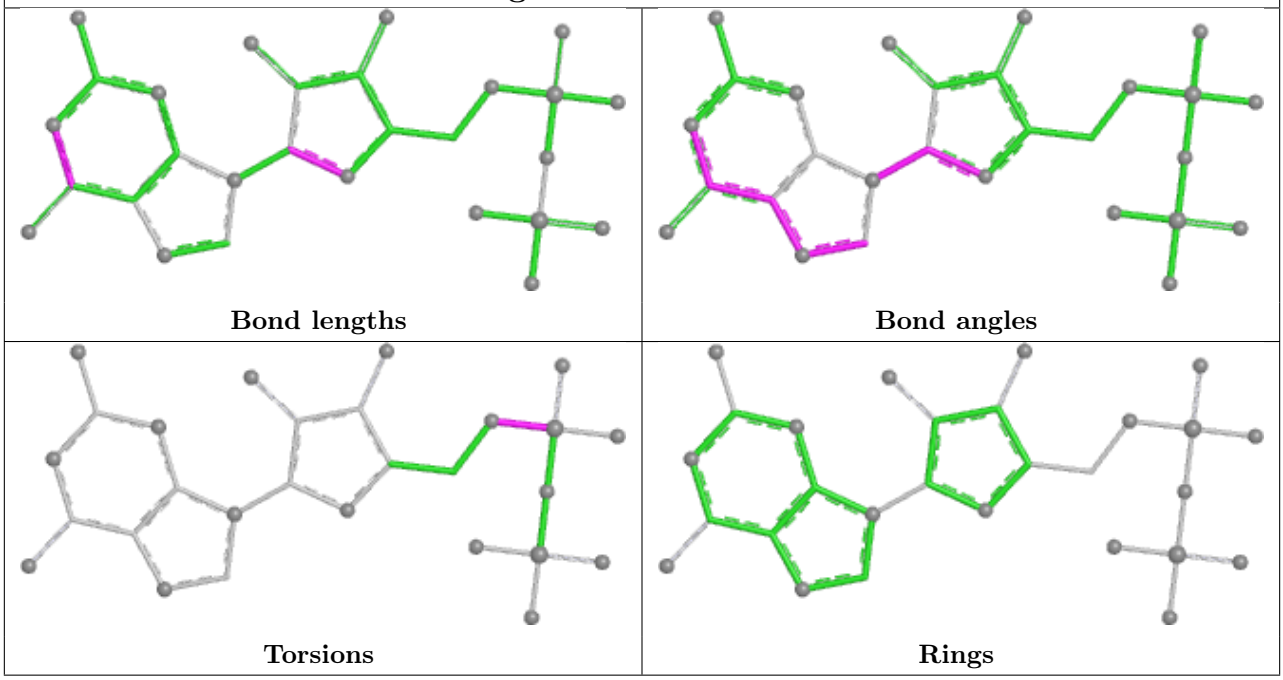
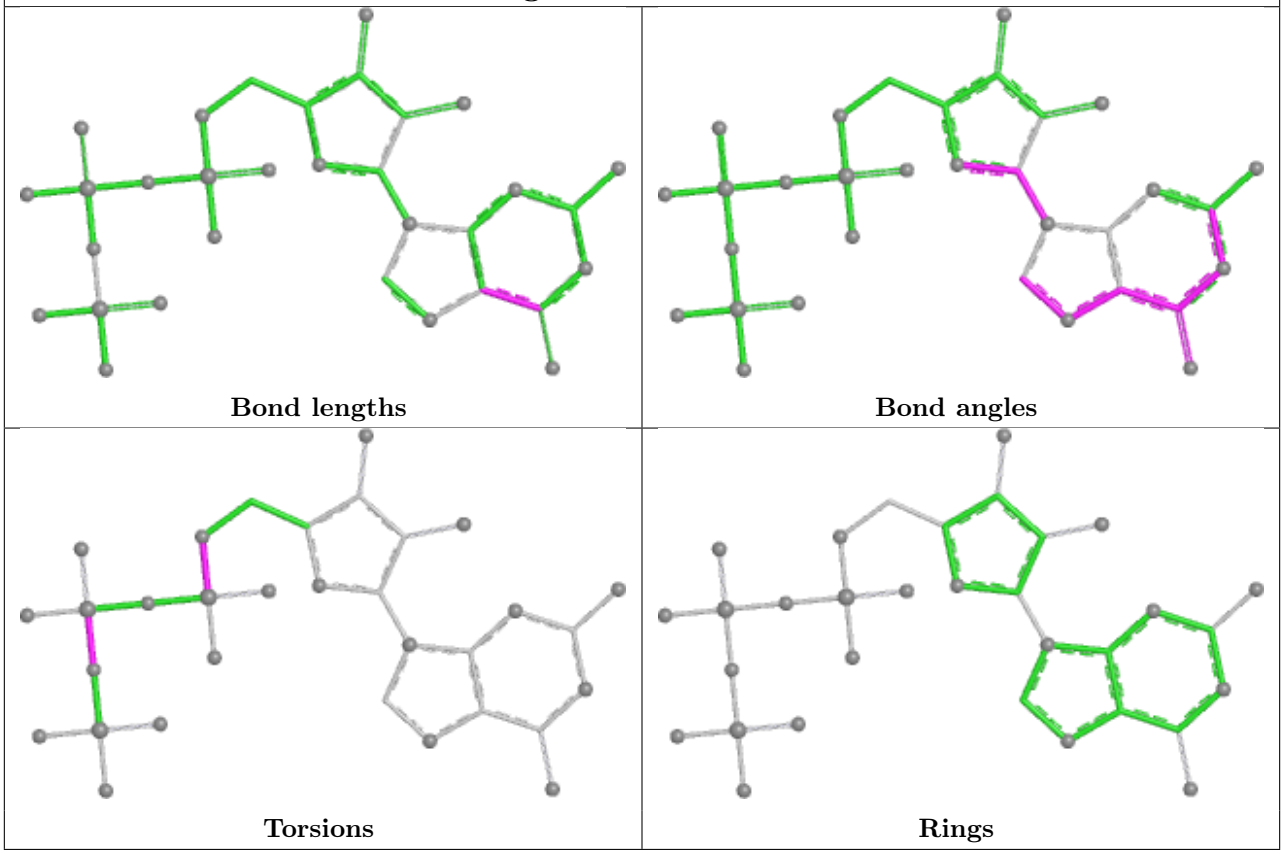


Rings

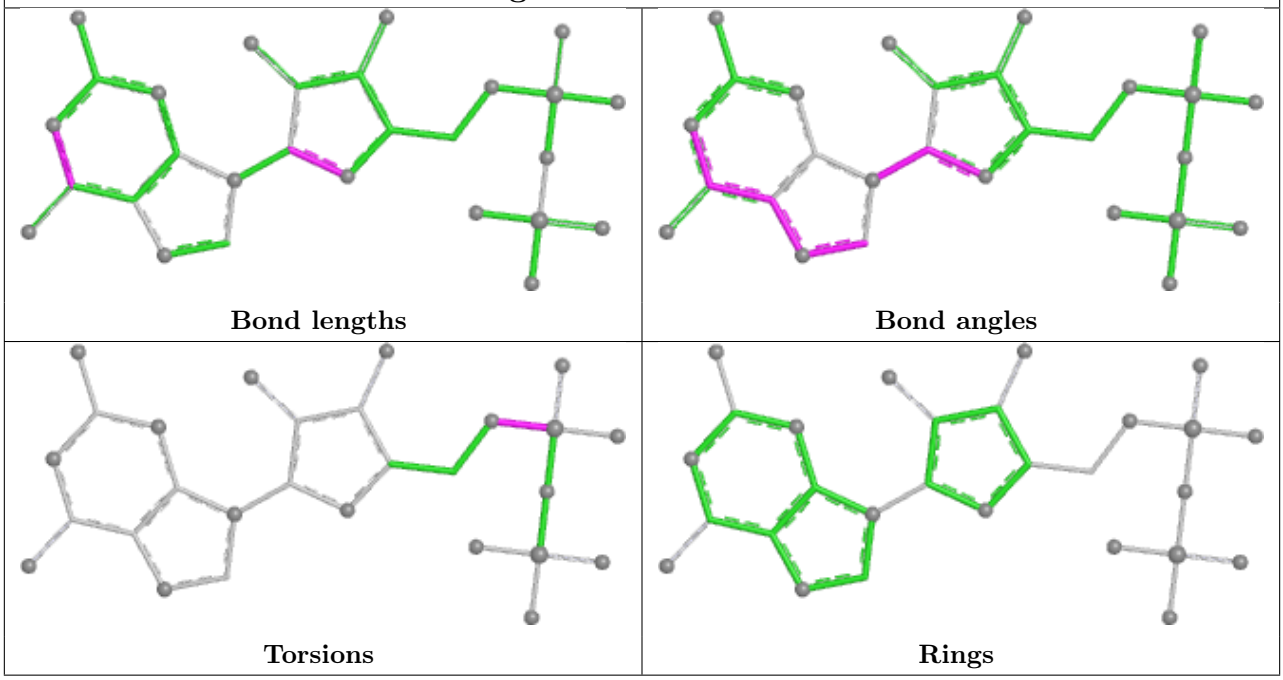
Ligand GDP DY 501



Ligand GTP II 501



Ligand GDP DT 501



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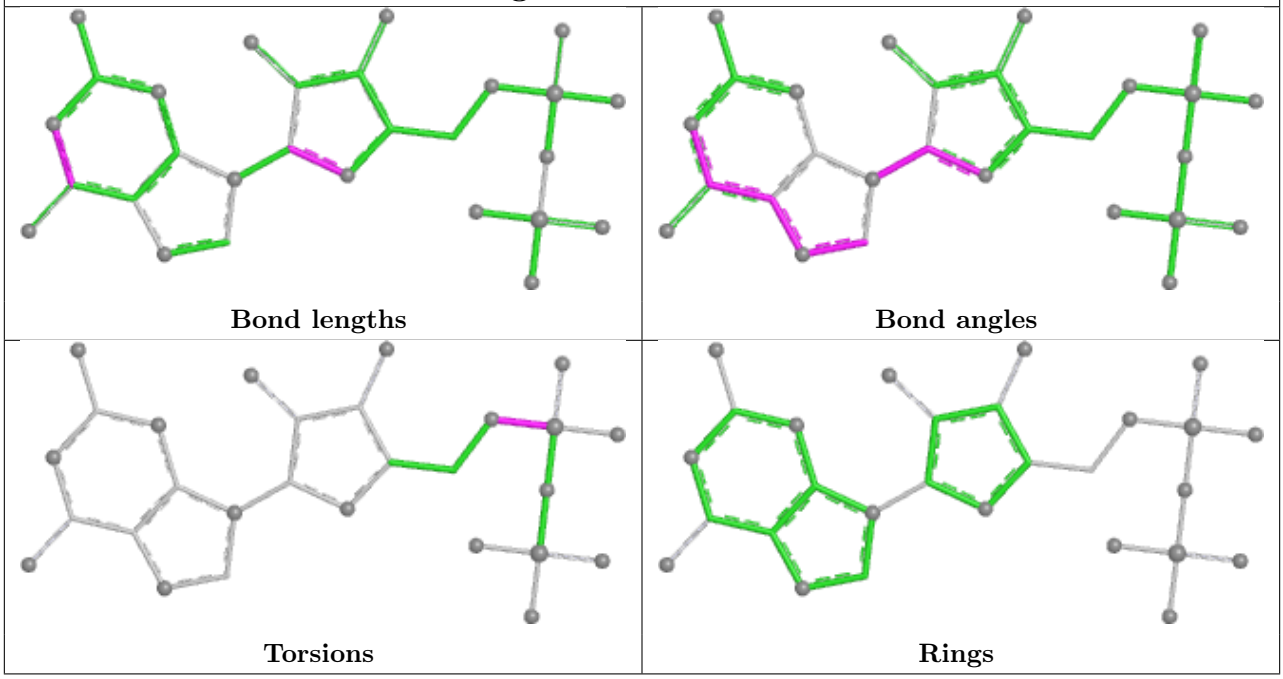
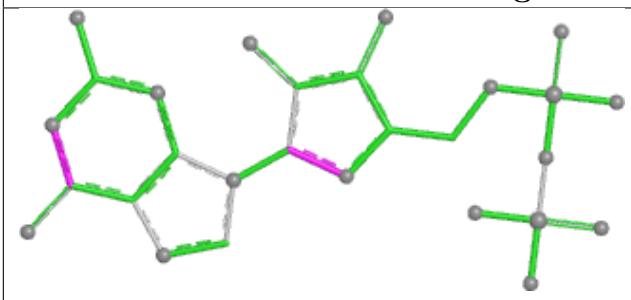


Ligand GDP KI 501



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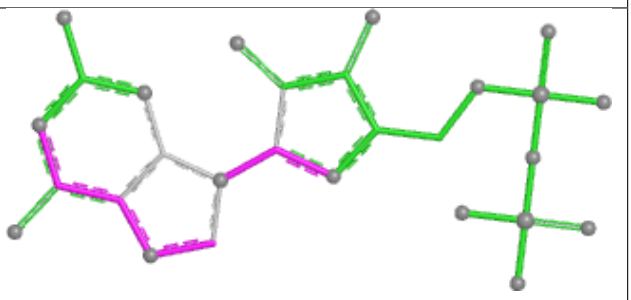
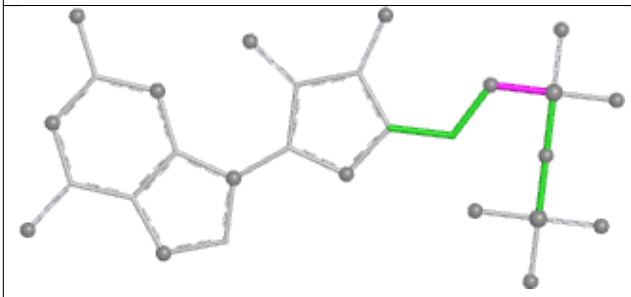


Bond angles



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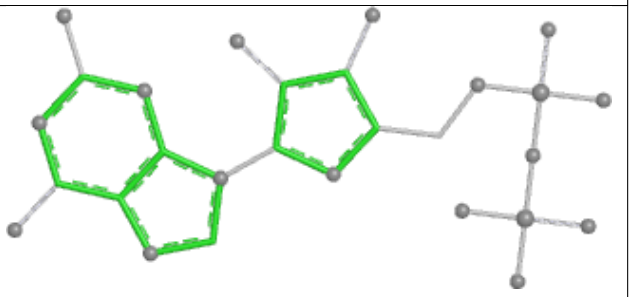
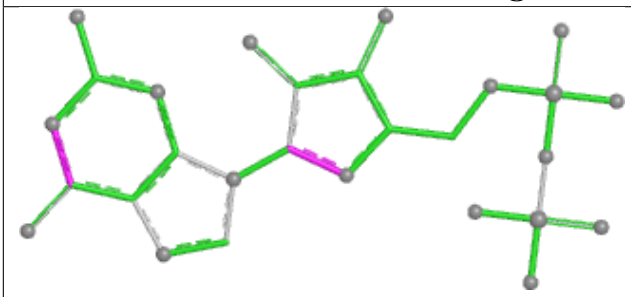


Rings

Ligand GDP CR 501



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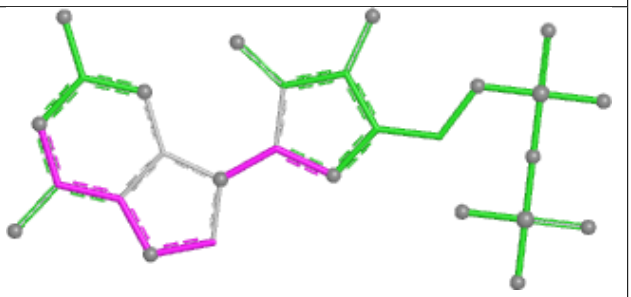

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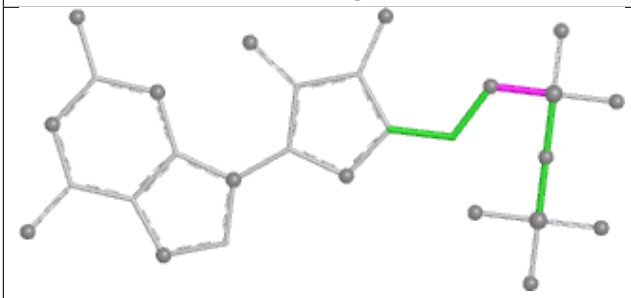

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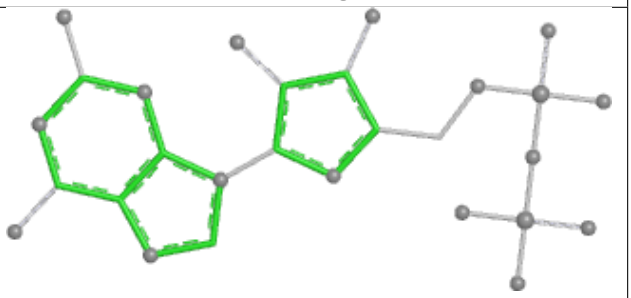
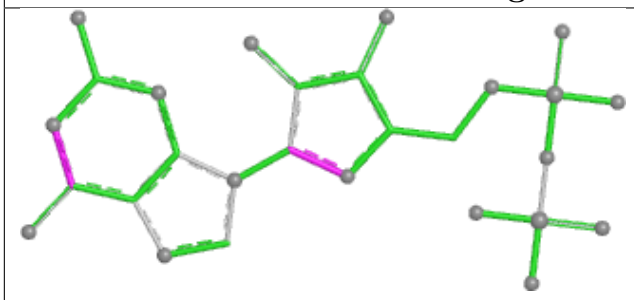


Rings

Ligand GDP DD 501



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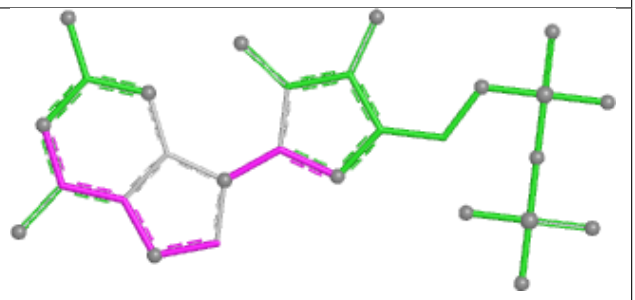

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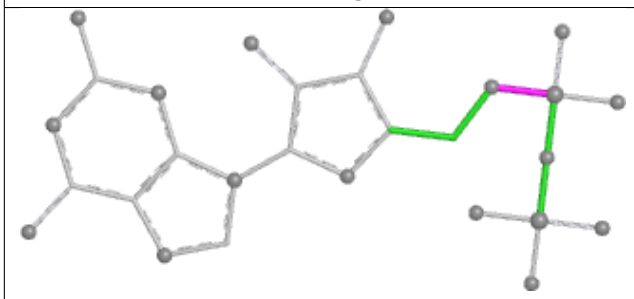

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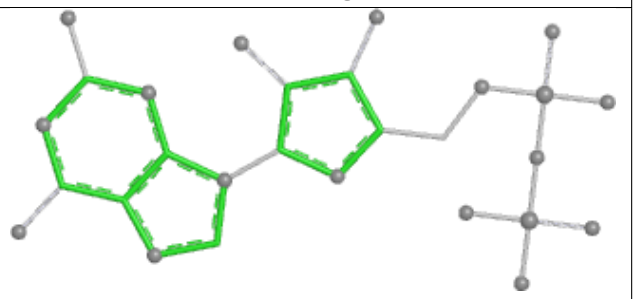
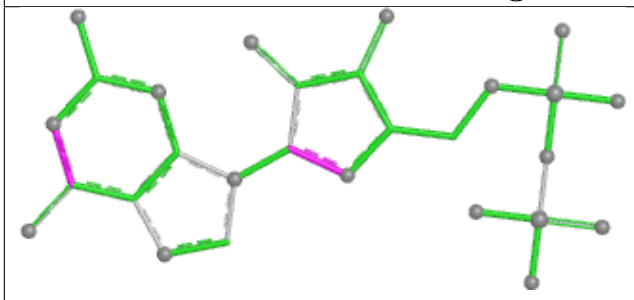


Rings

Ligand GDP KV 501



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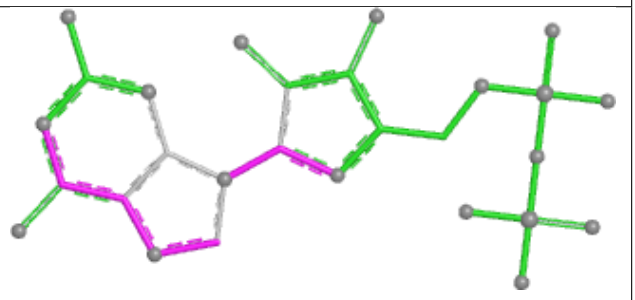

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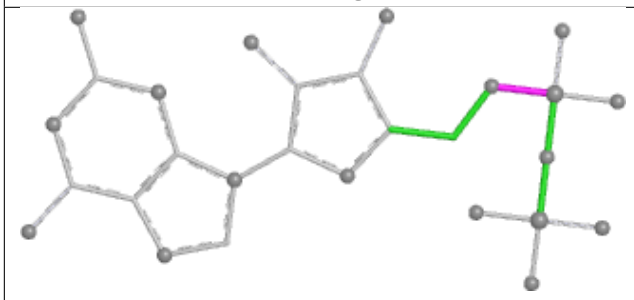

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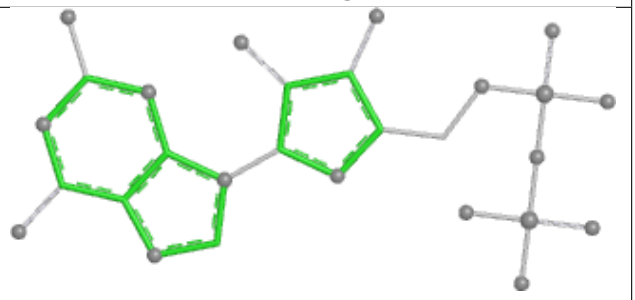
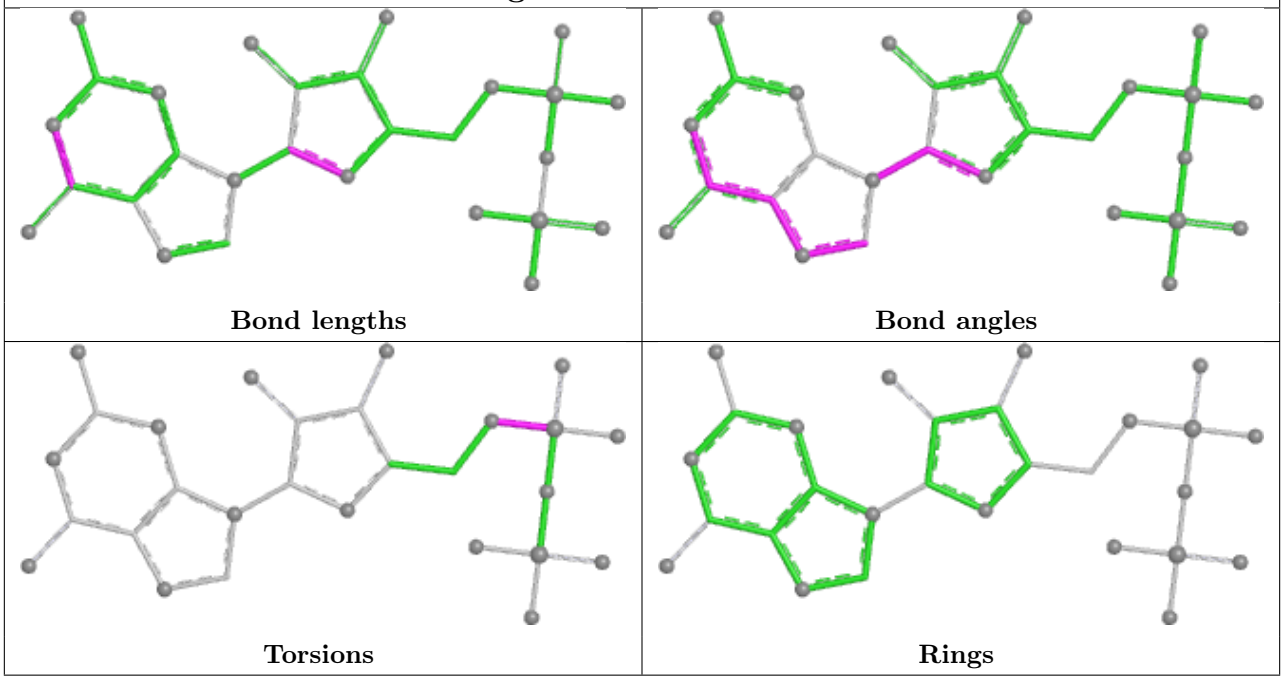
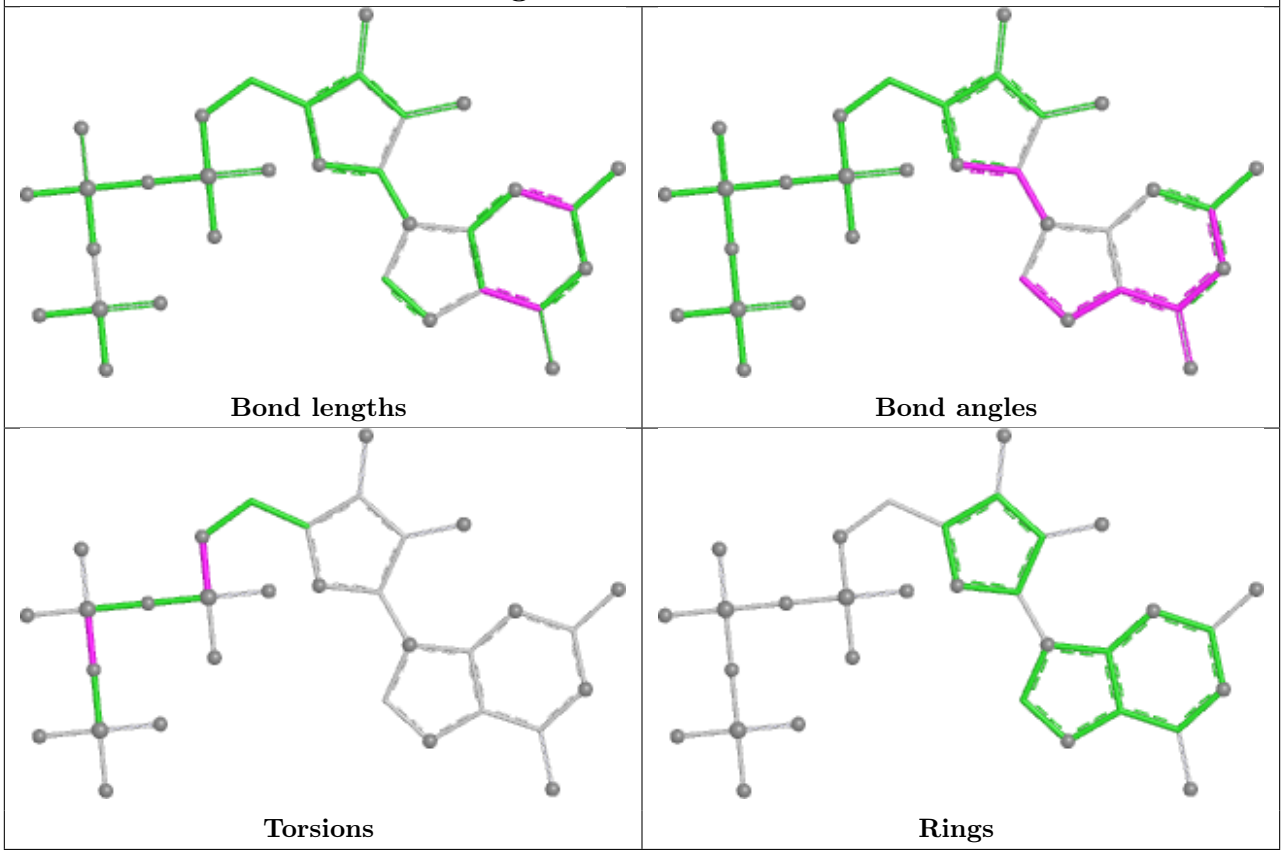


Rings

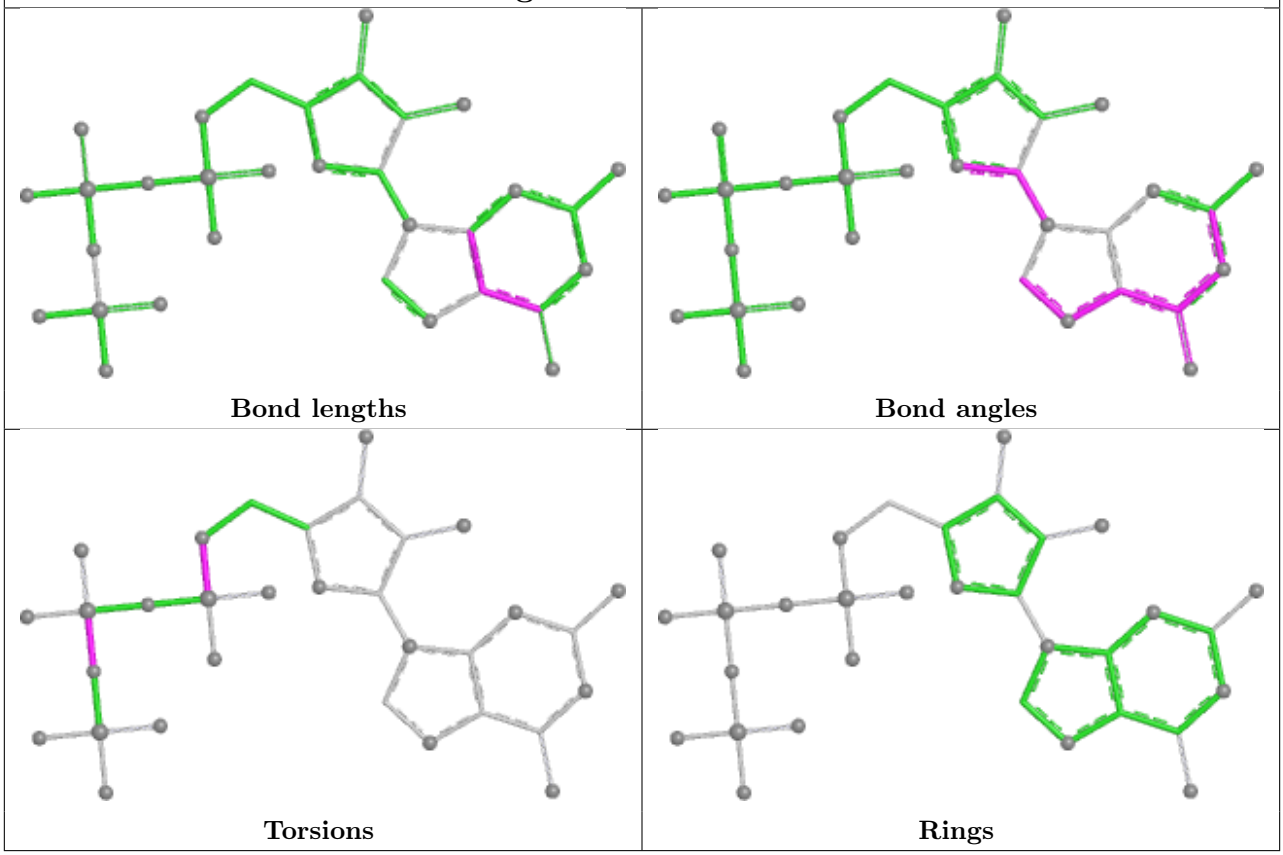
Ligand GDP AH 501



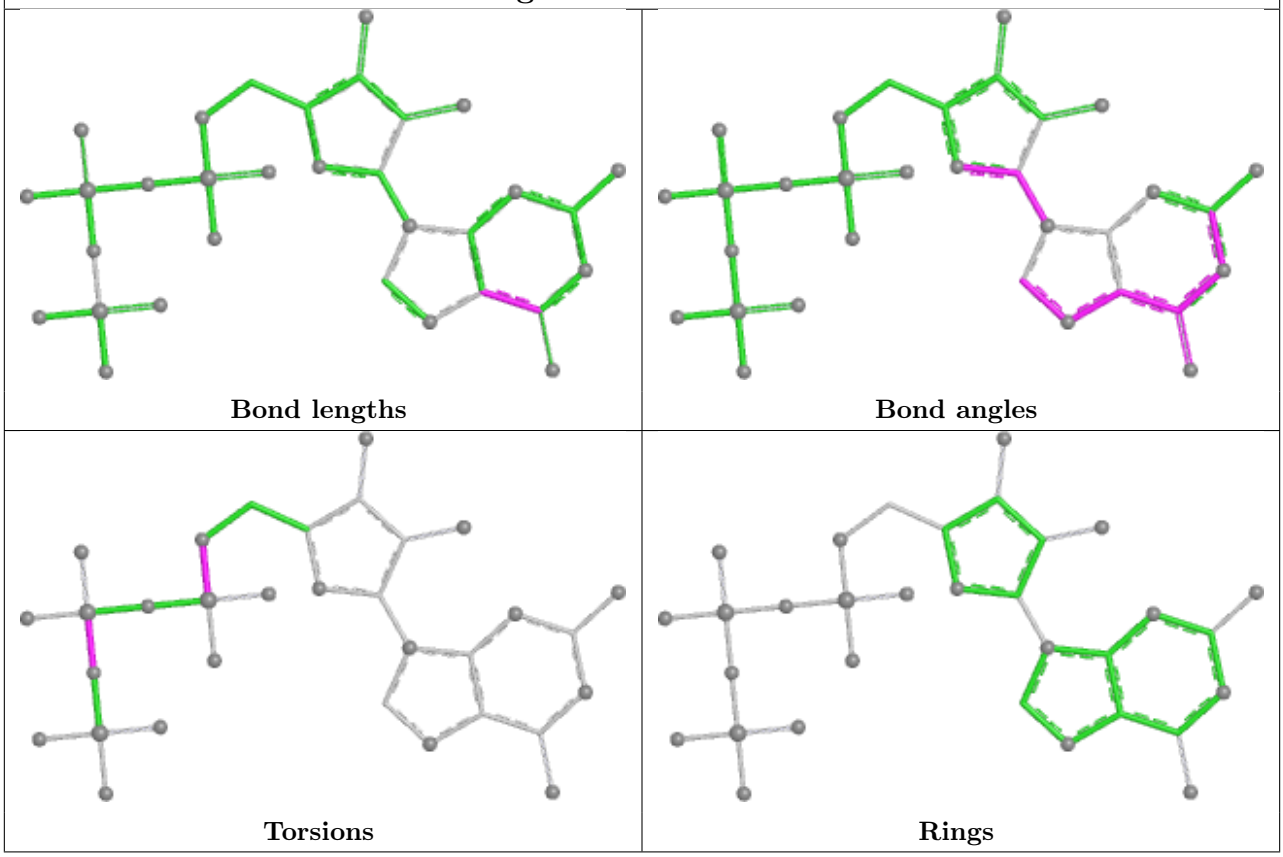
Ligand GTP GP 501



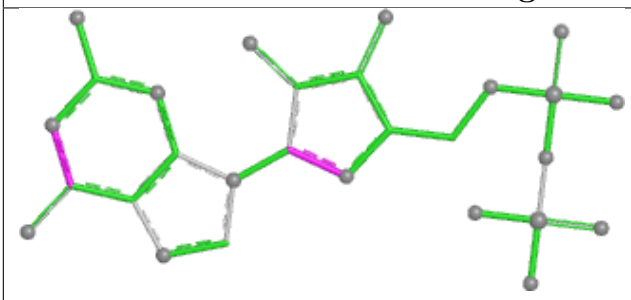
Ligand GTP IK 602



Ligand GTP IO 501



Ligand GDP IJ 501



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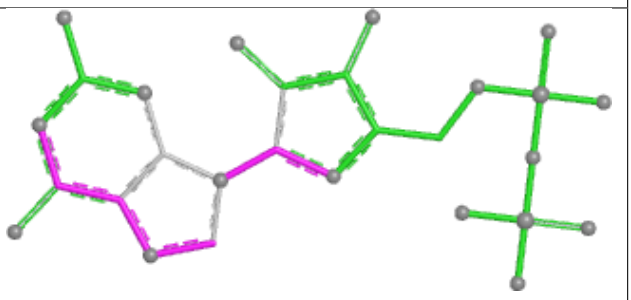
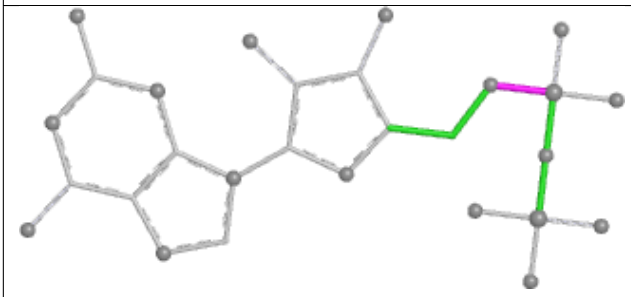
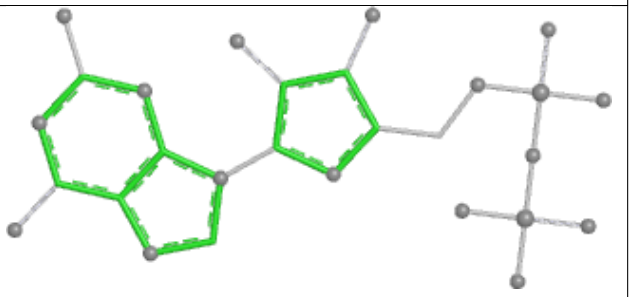


Bond angles

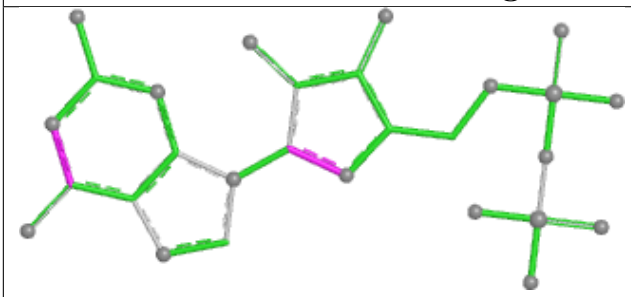


Torsions



Rings

Ligand GDP HW 501



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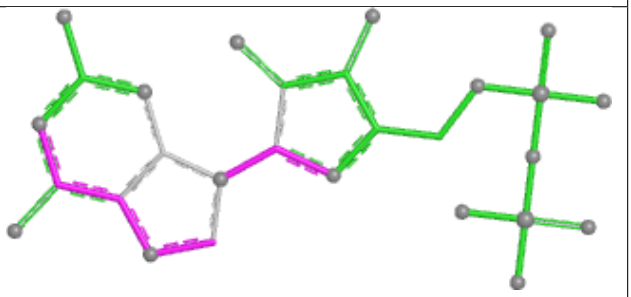

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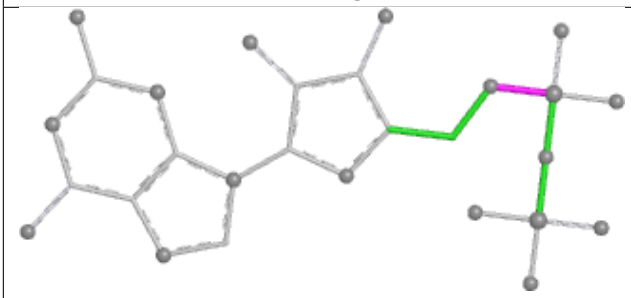

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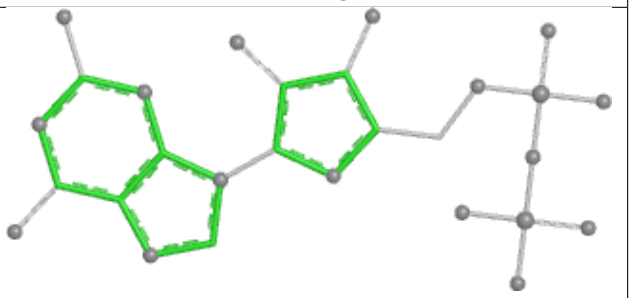
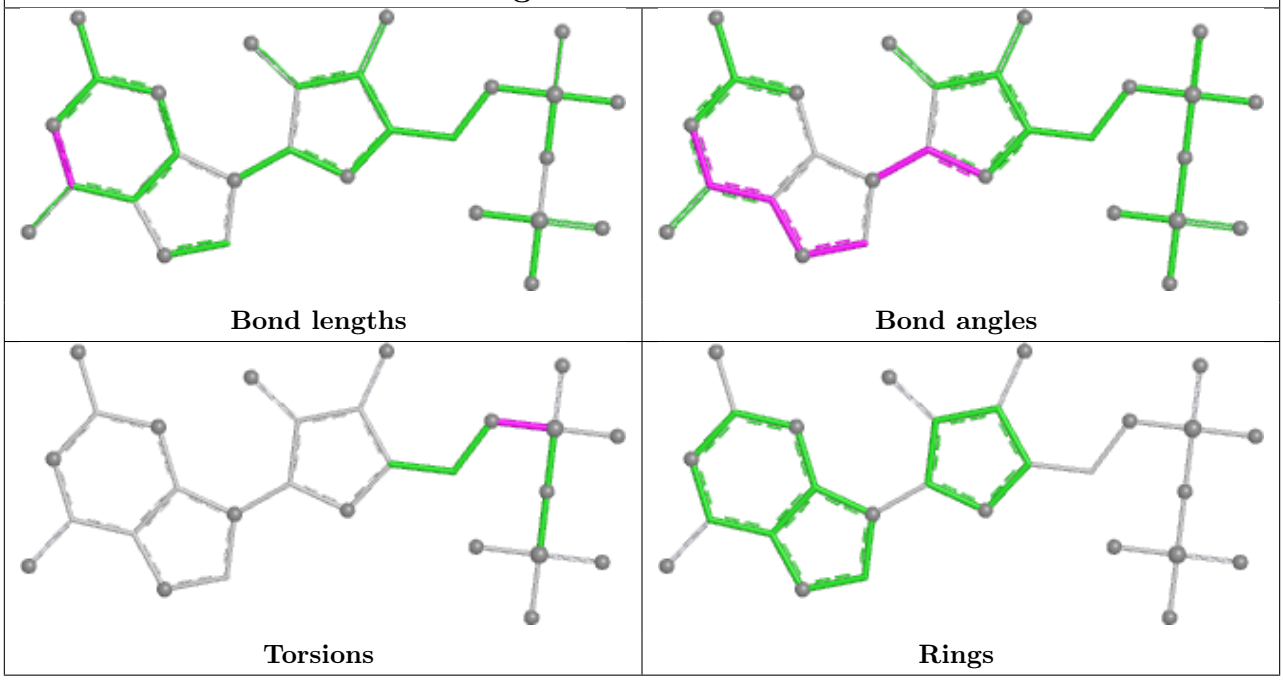


Rings

Ligand GDP JC 501



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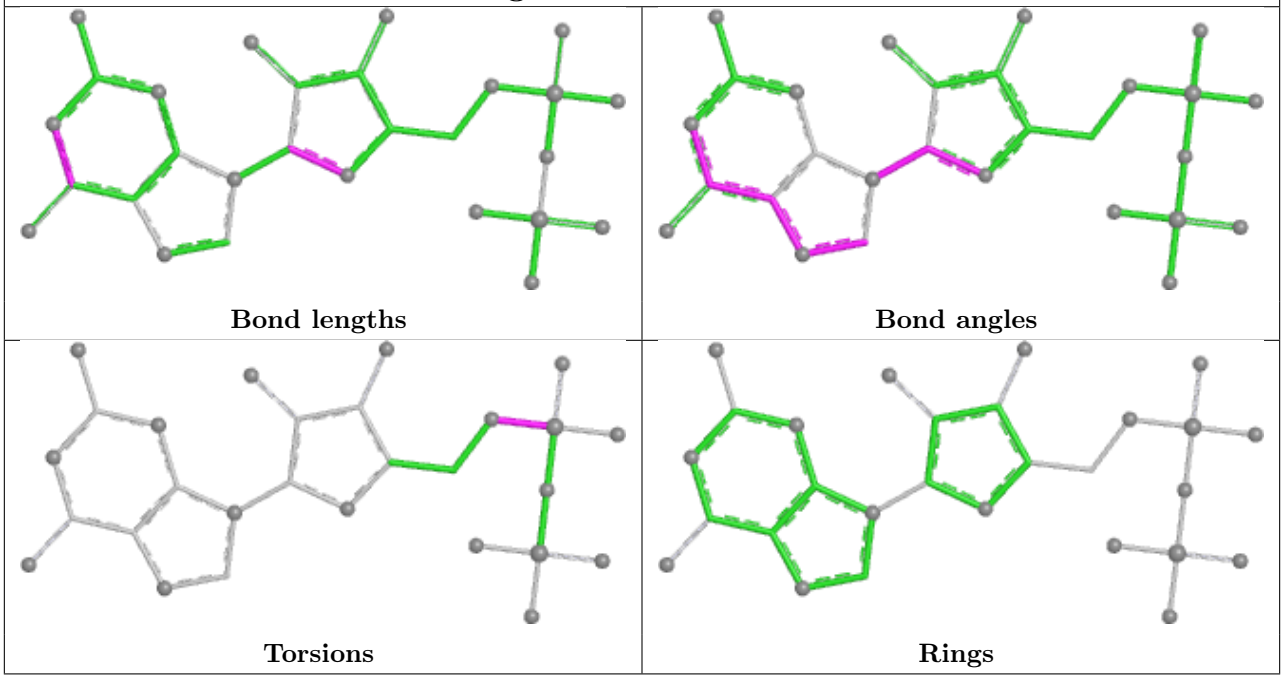

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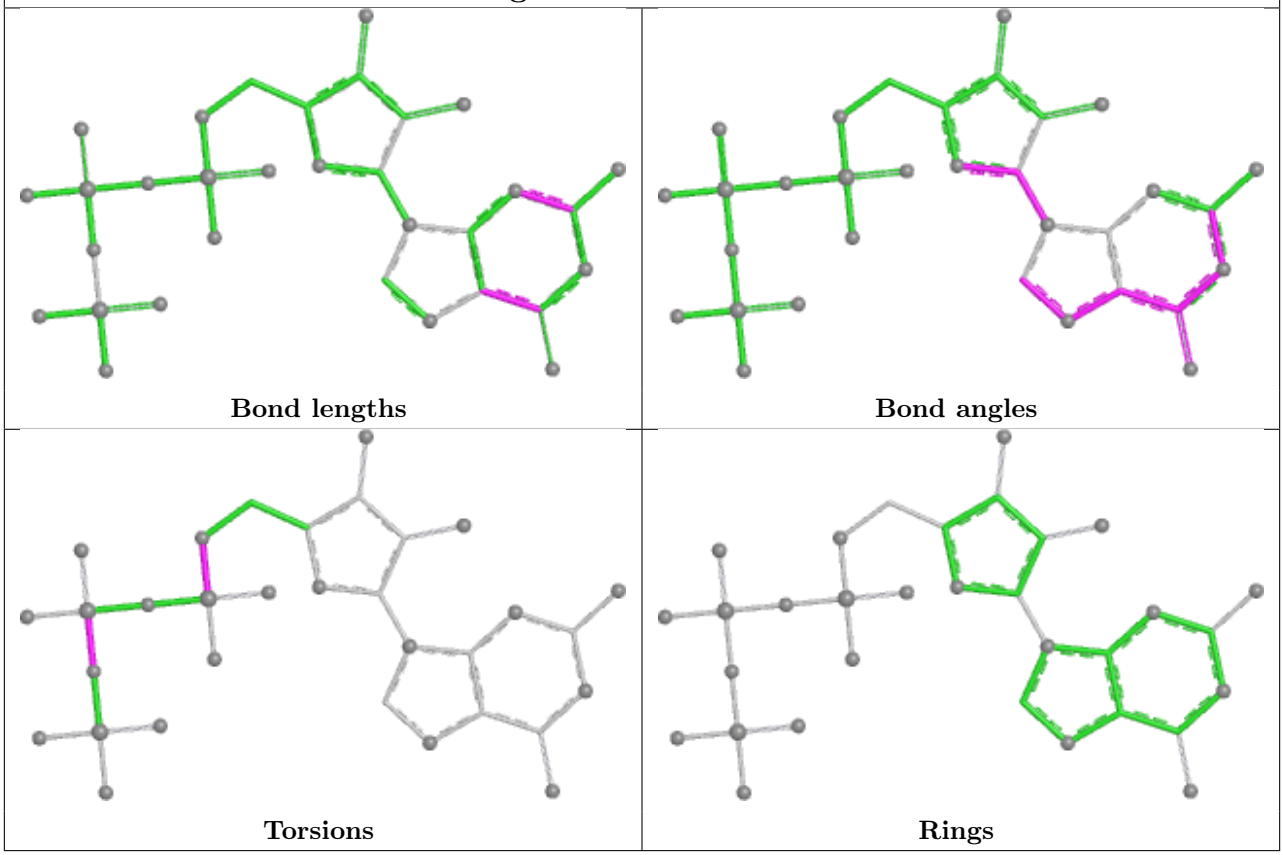

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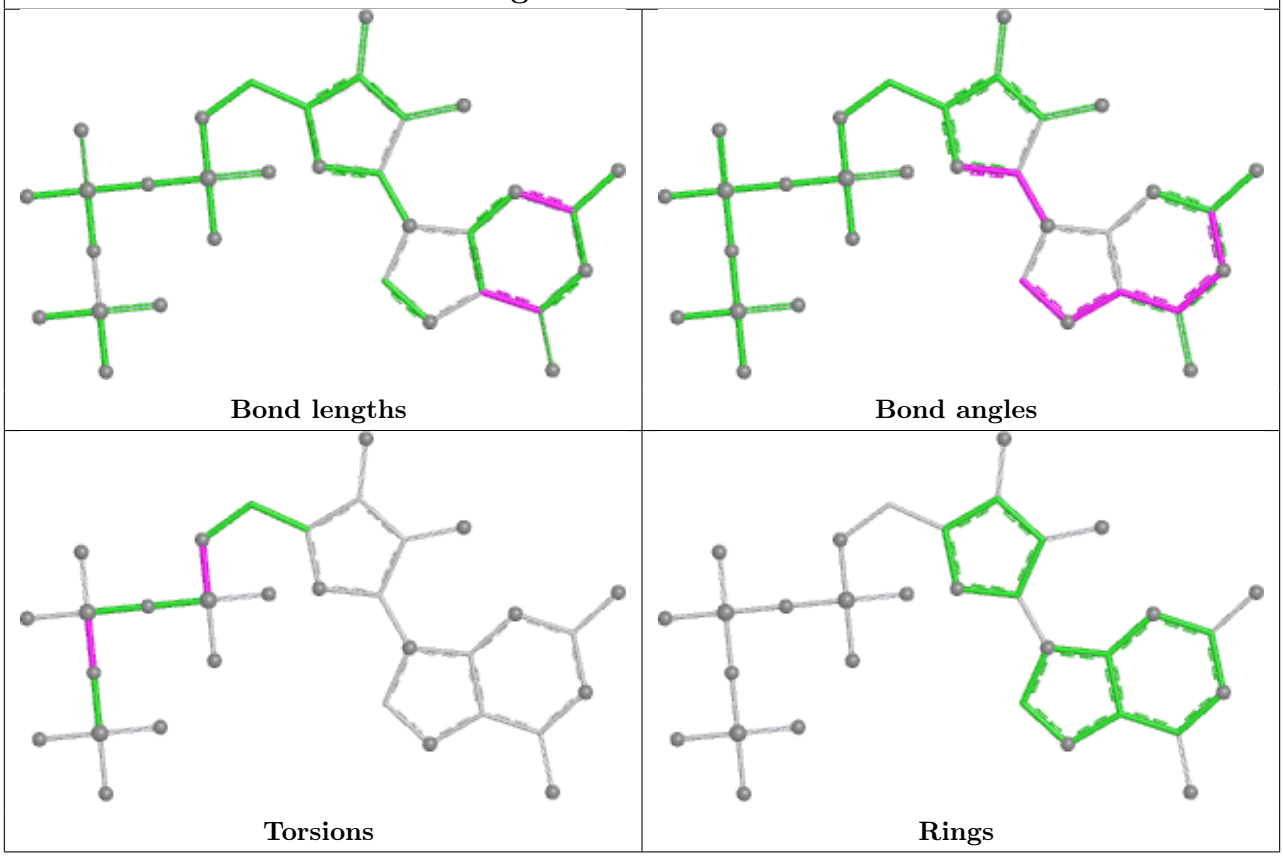

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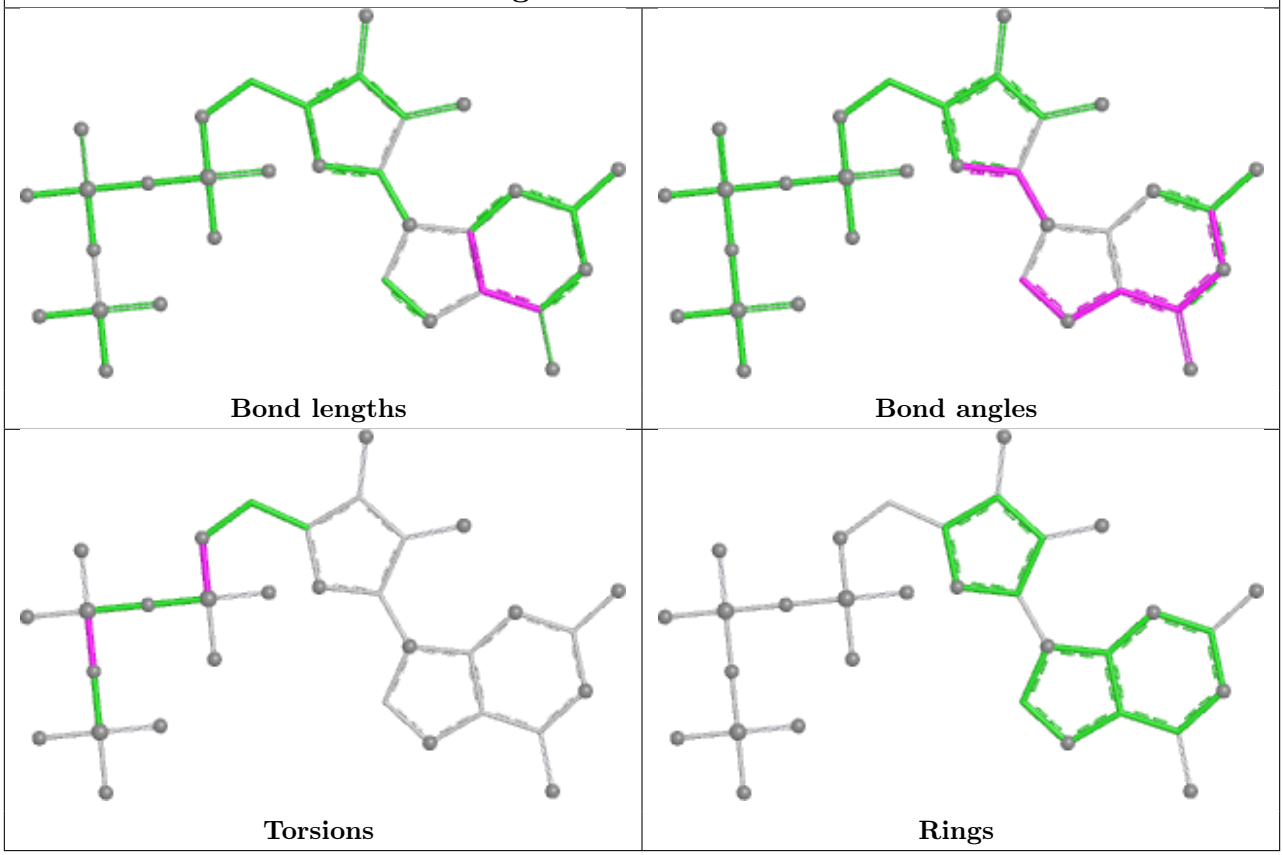

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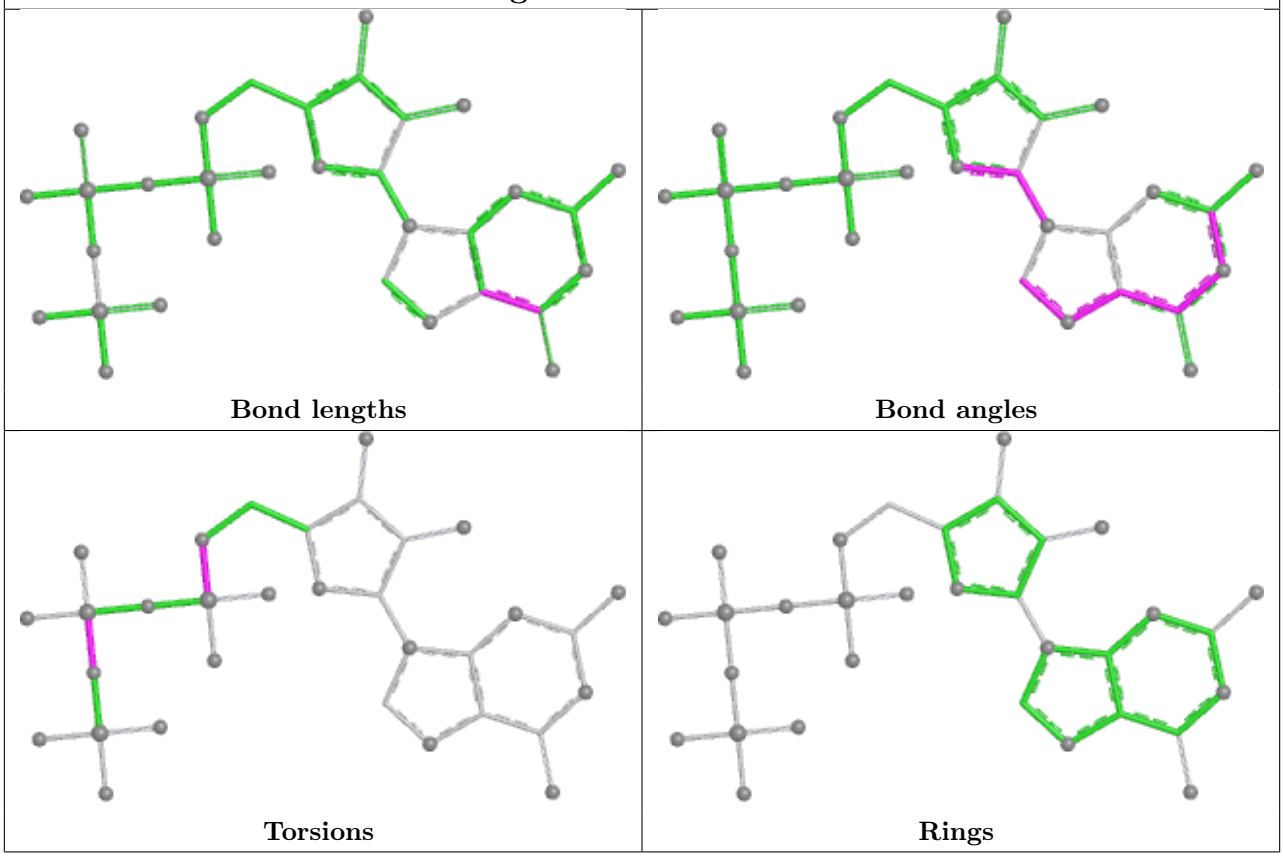

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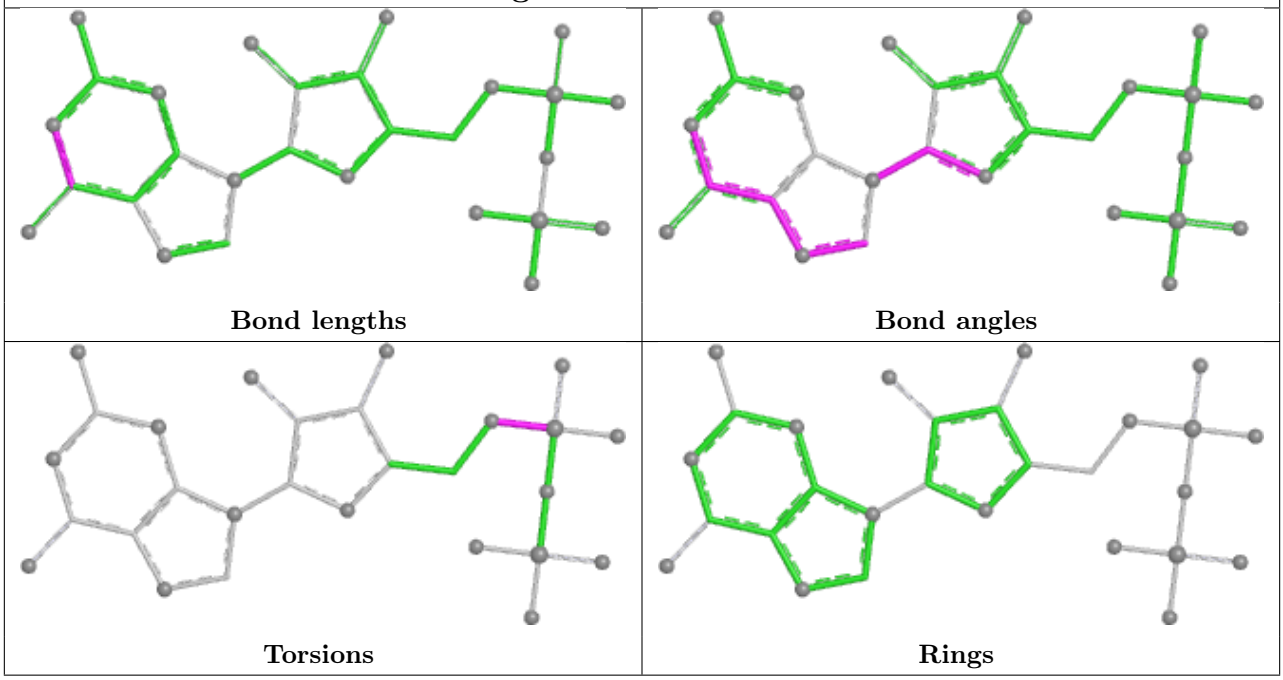

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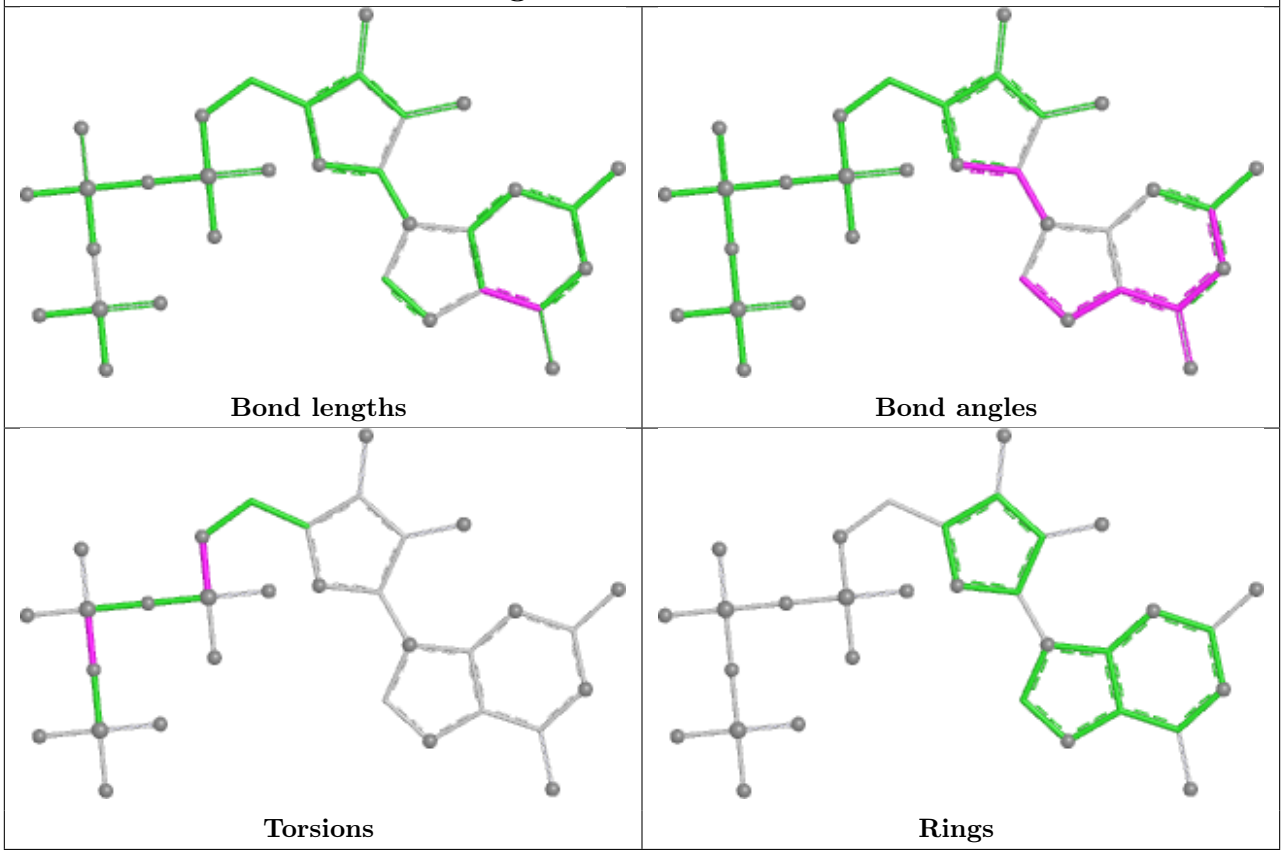

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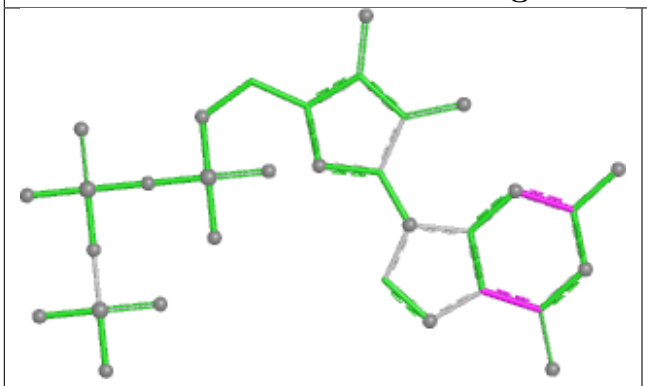
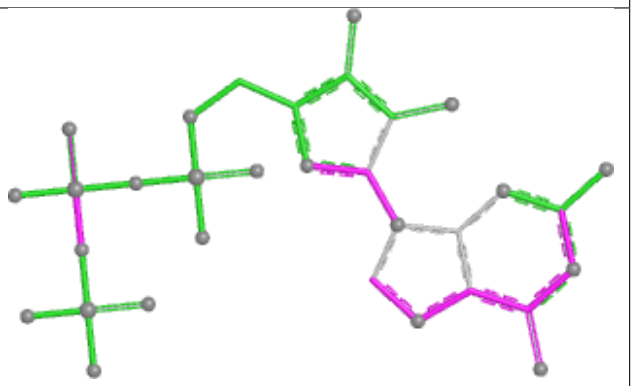
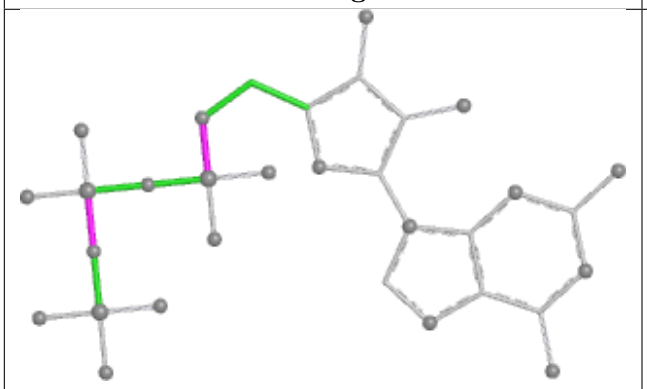


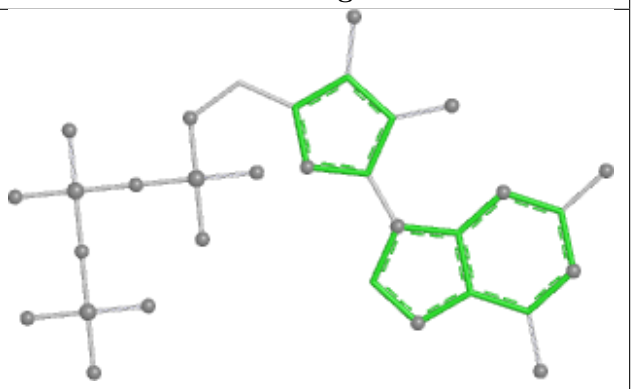
Bond lengths



Bond angles

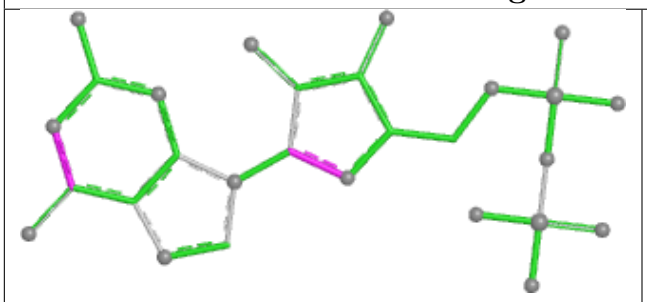


Torsions

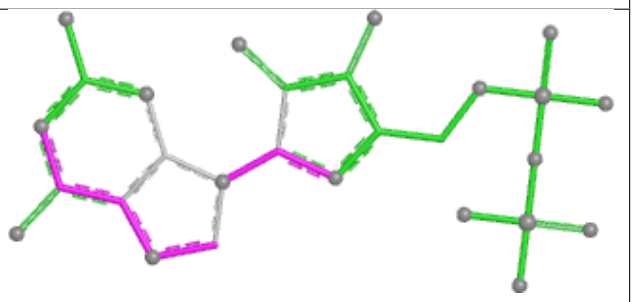


Rings

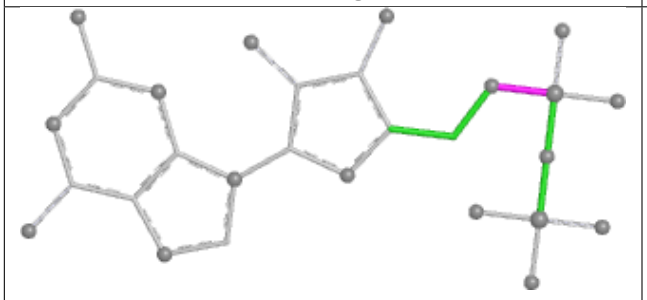
Ligand GDP HB 501



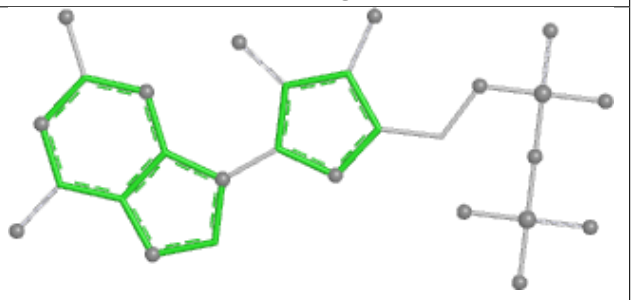
Bond lengths



Bond angles

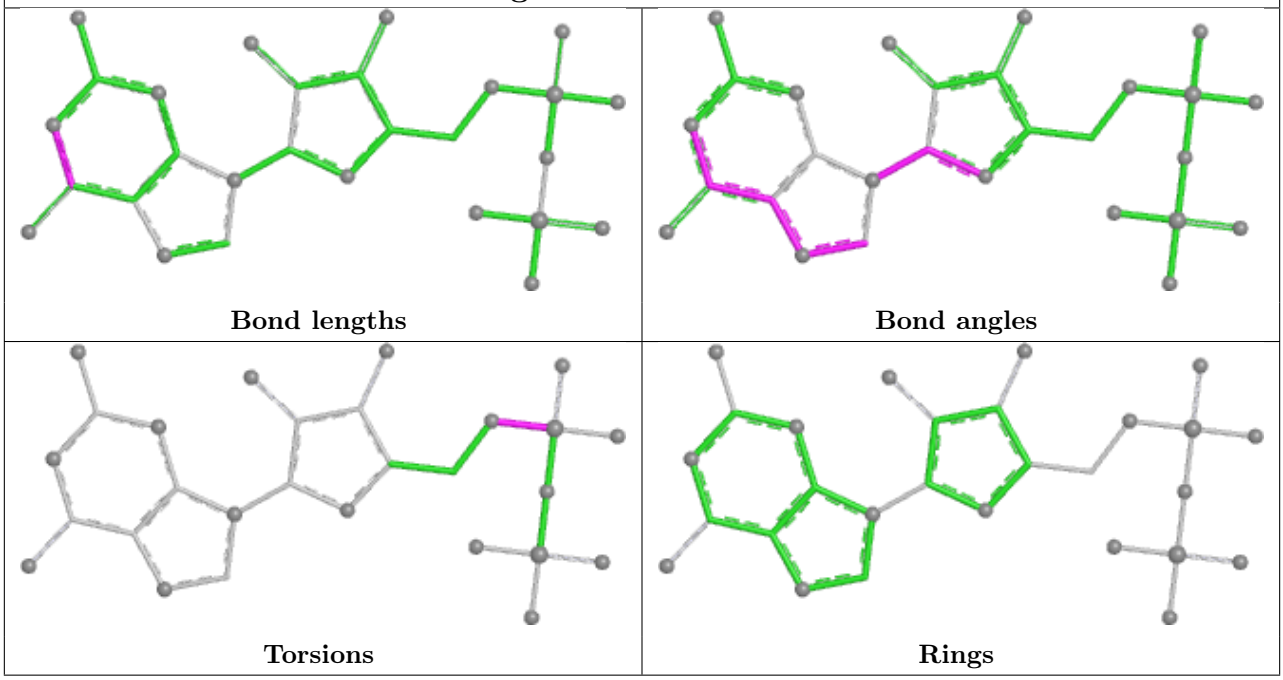


Torsions

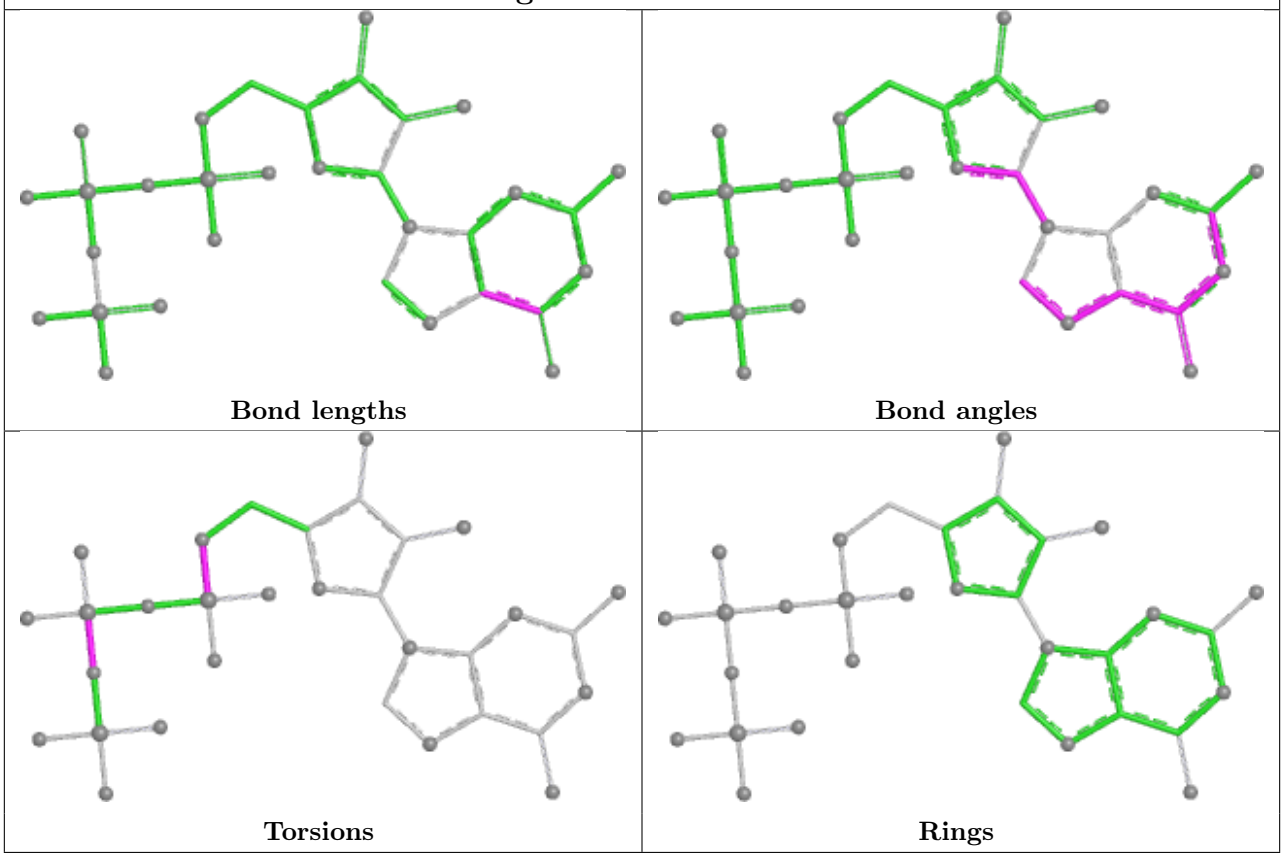


Rings

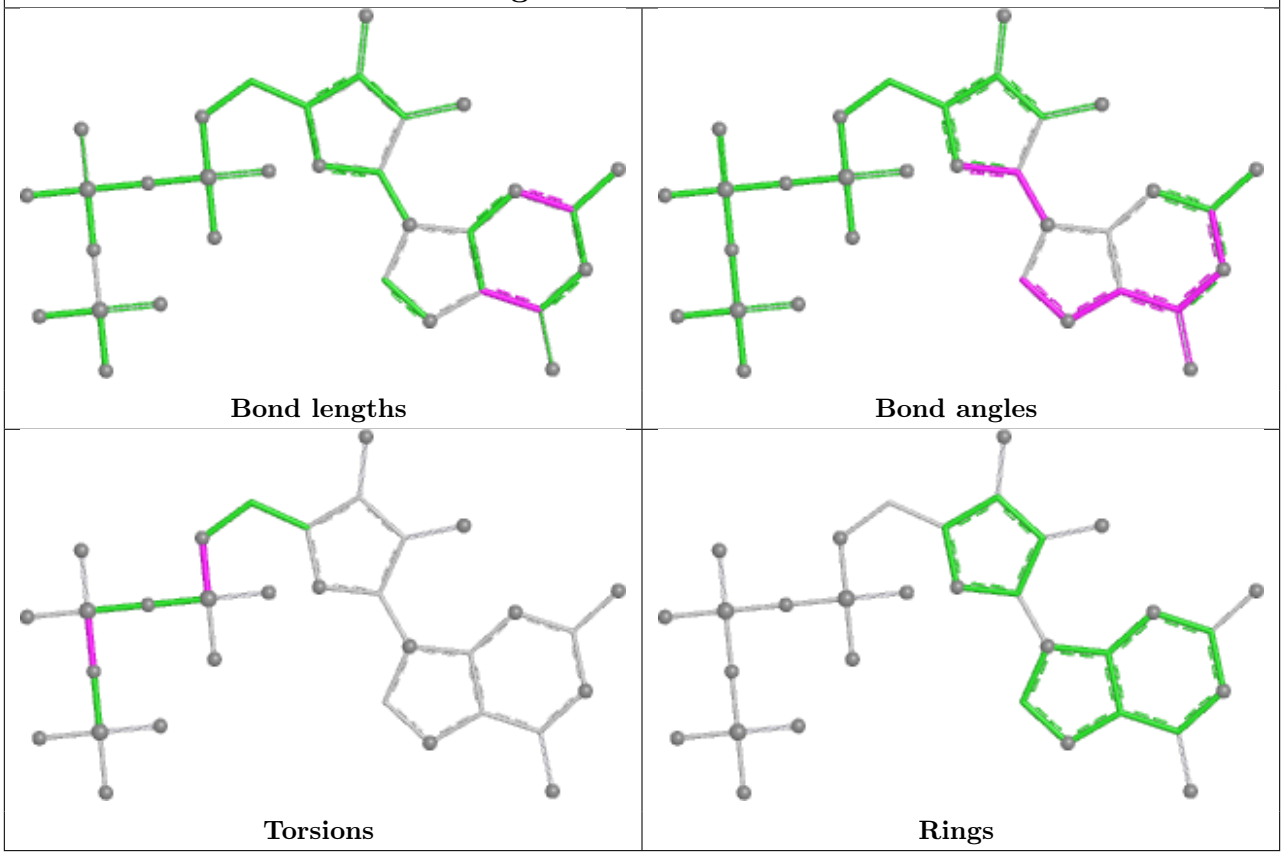
Ligand GDP CE 501



Ligand GTP JF 501



Ligand GTP AY 602



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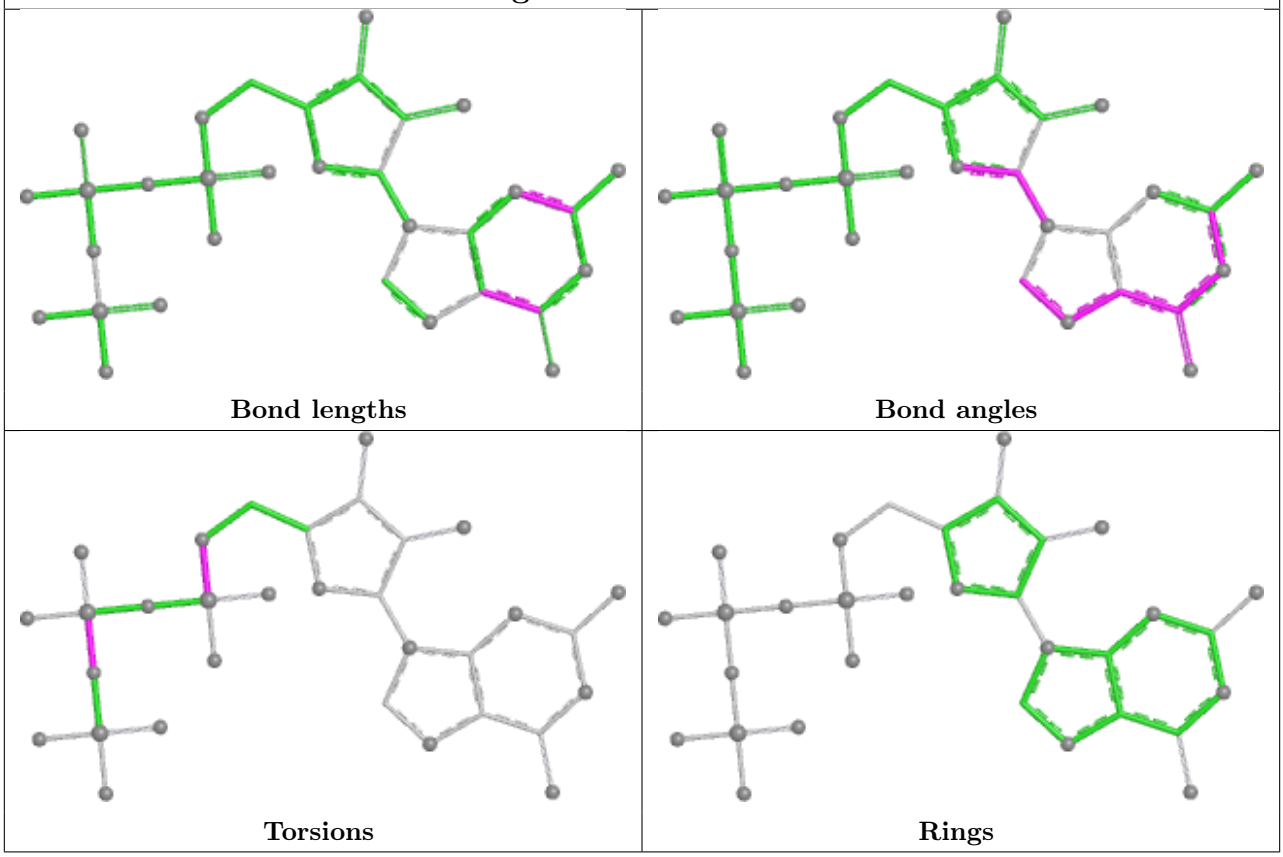

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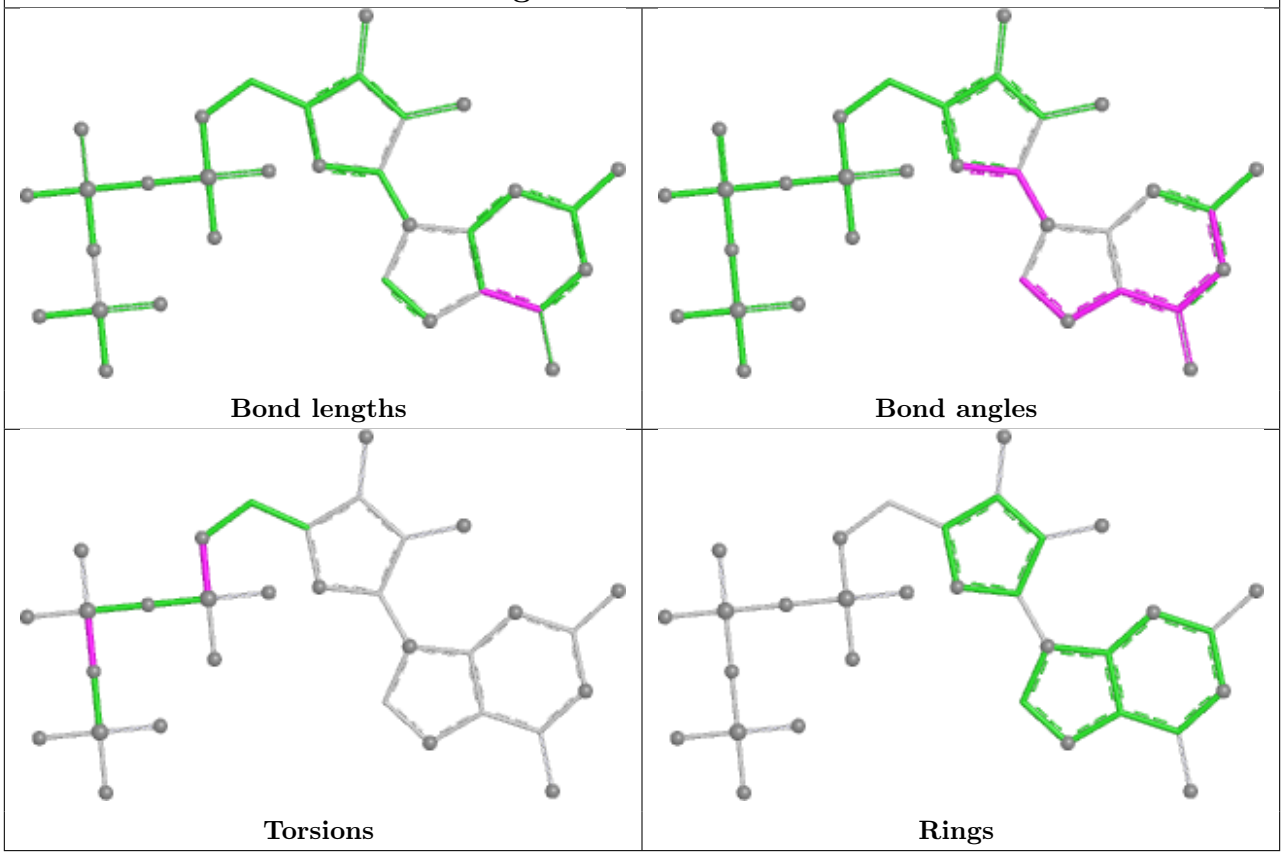

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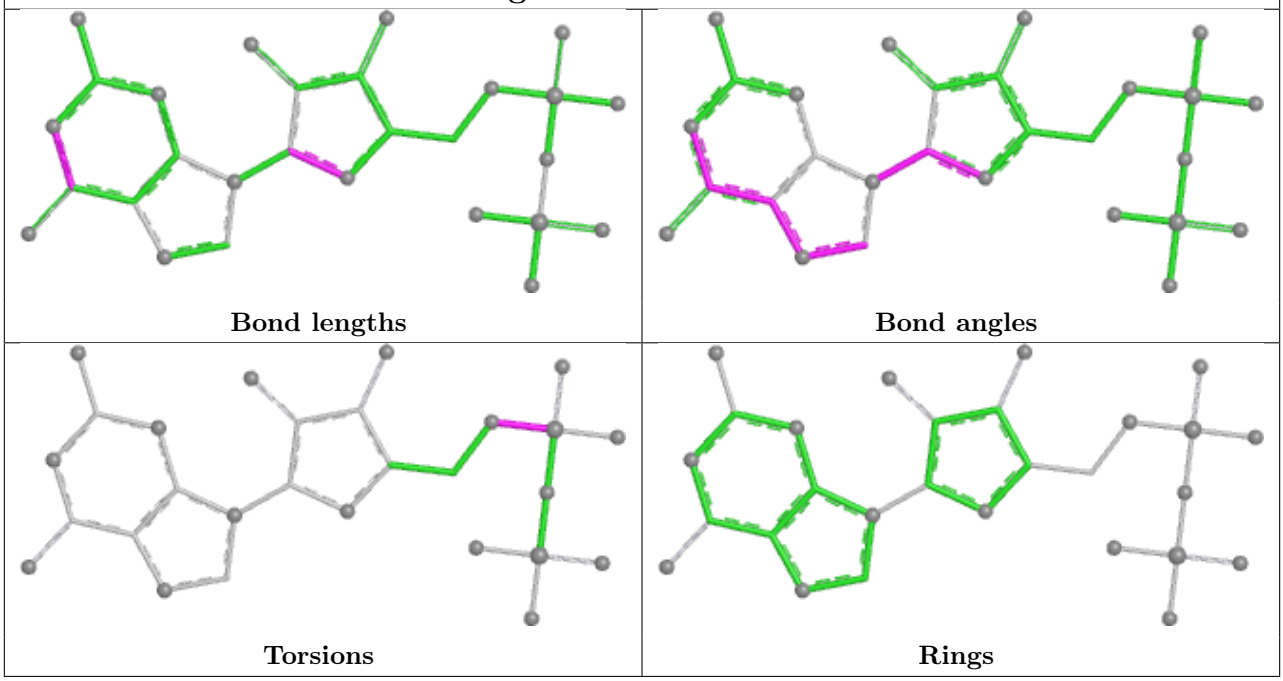

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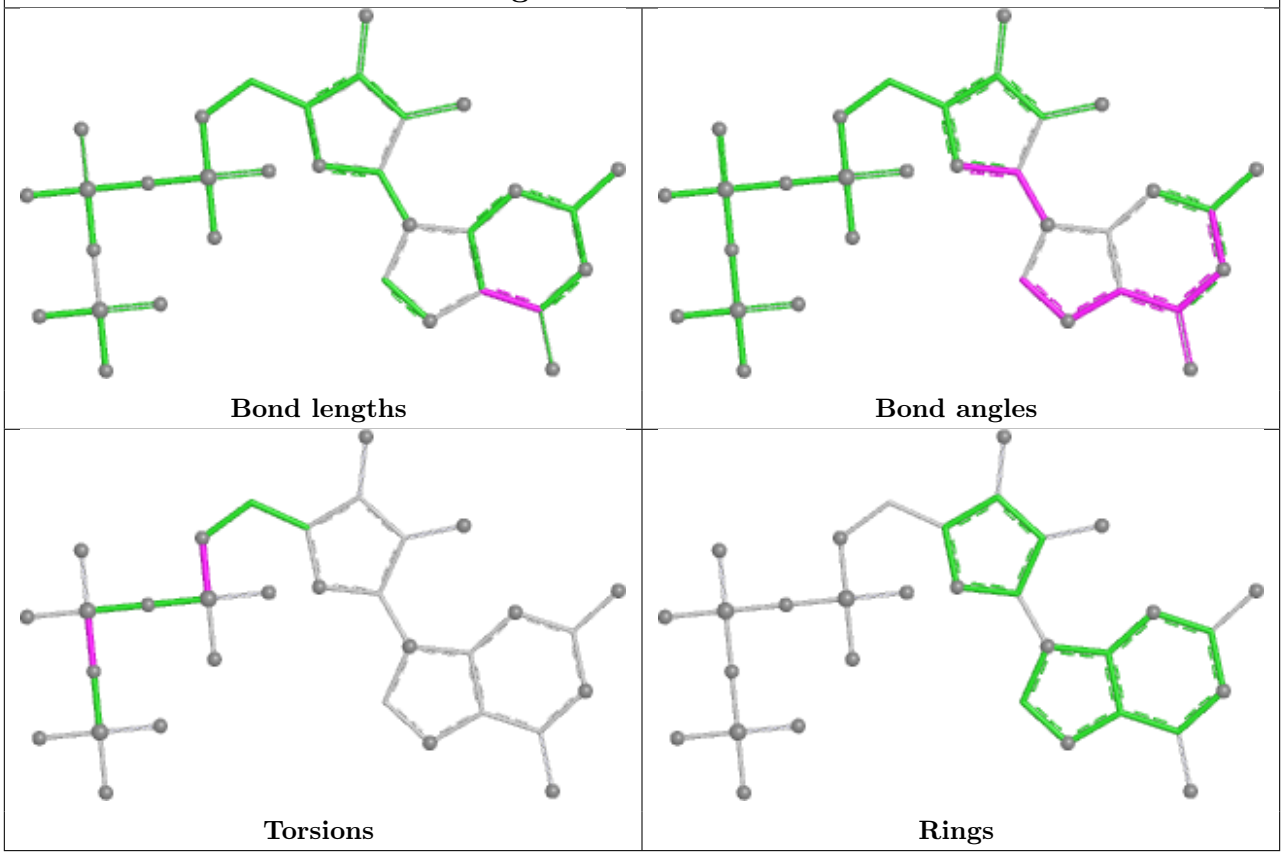

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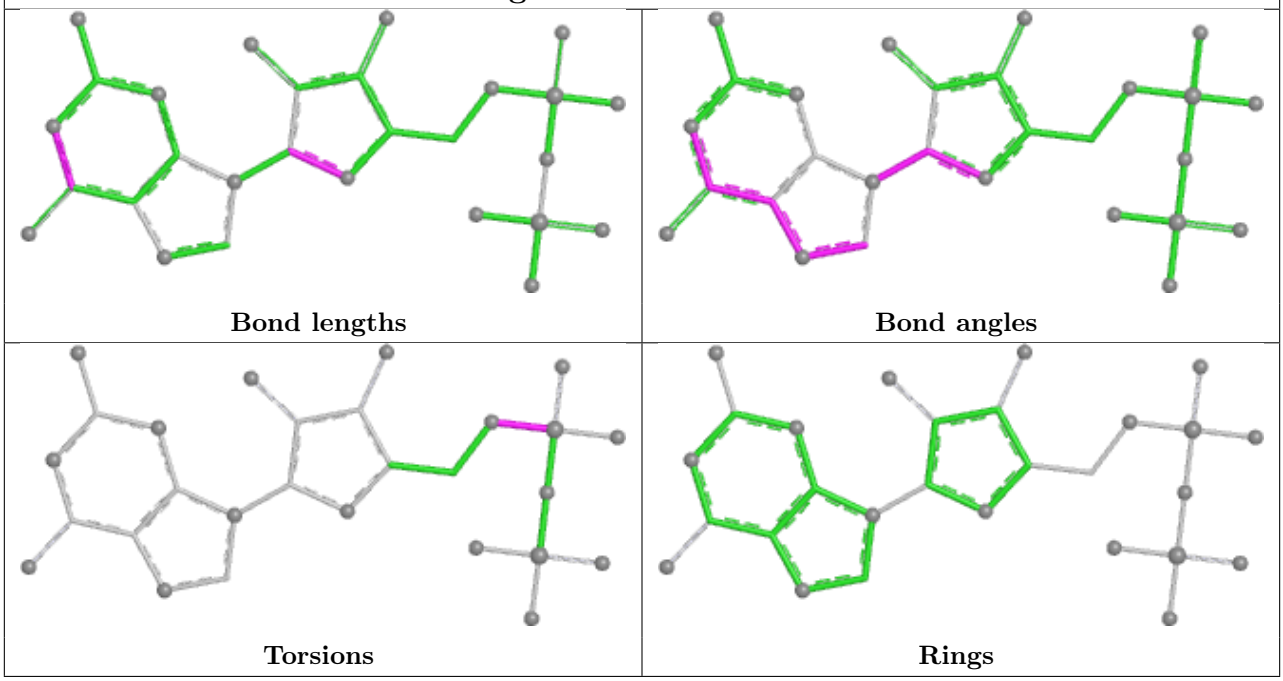

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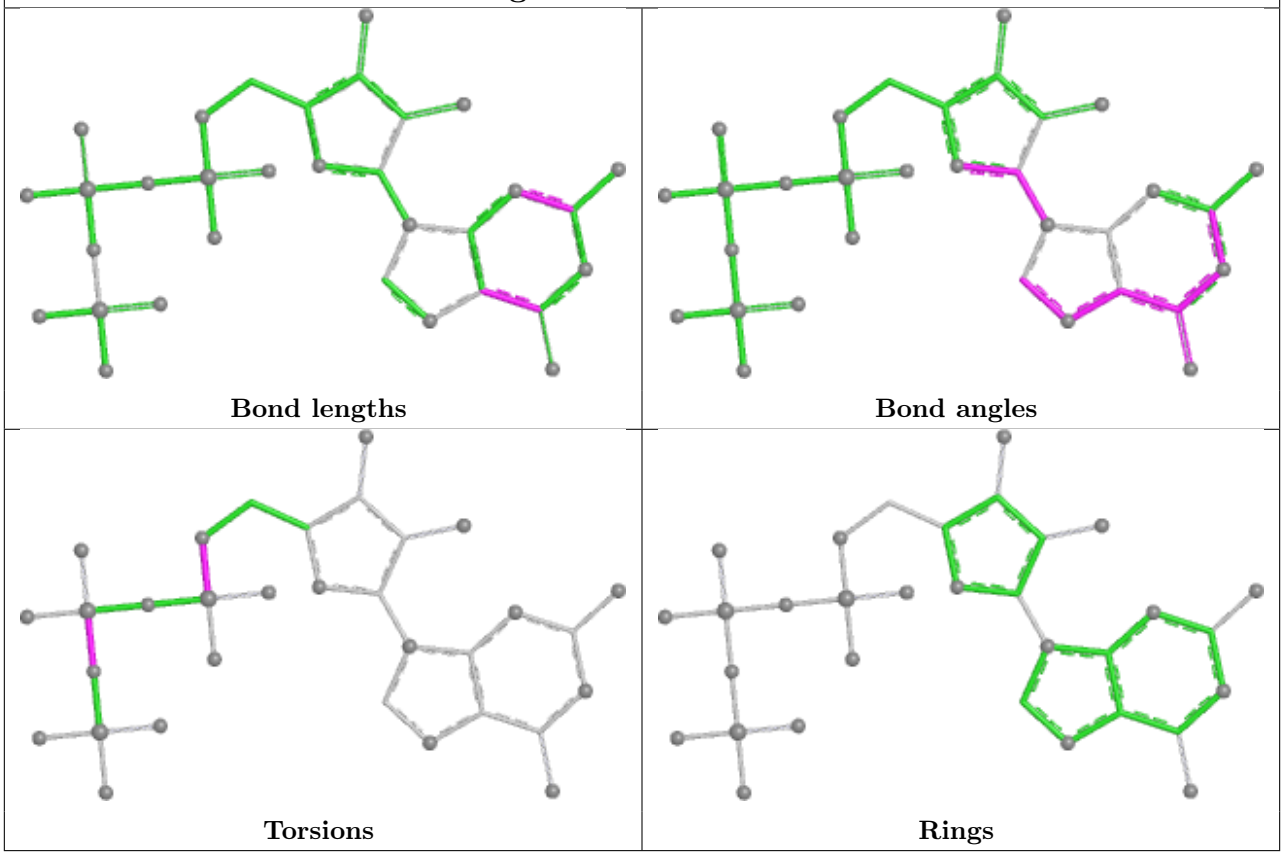

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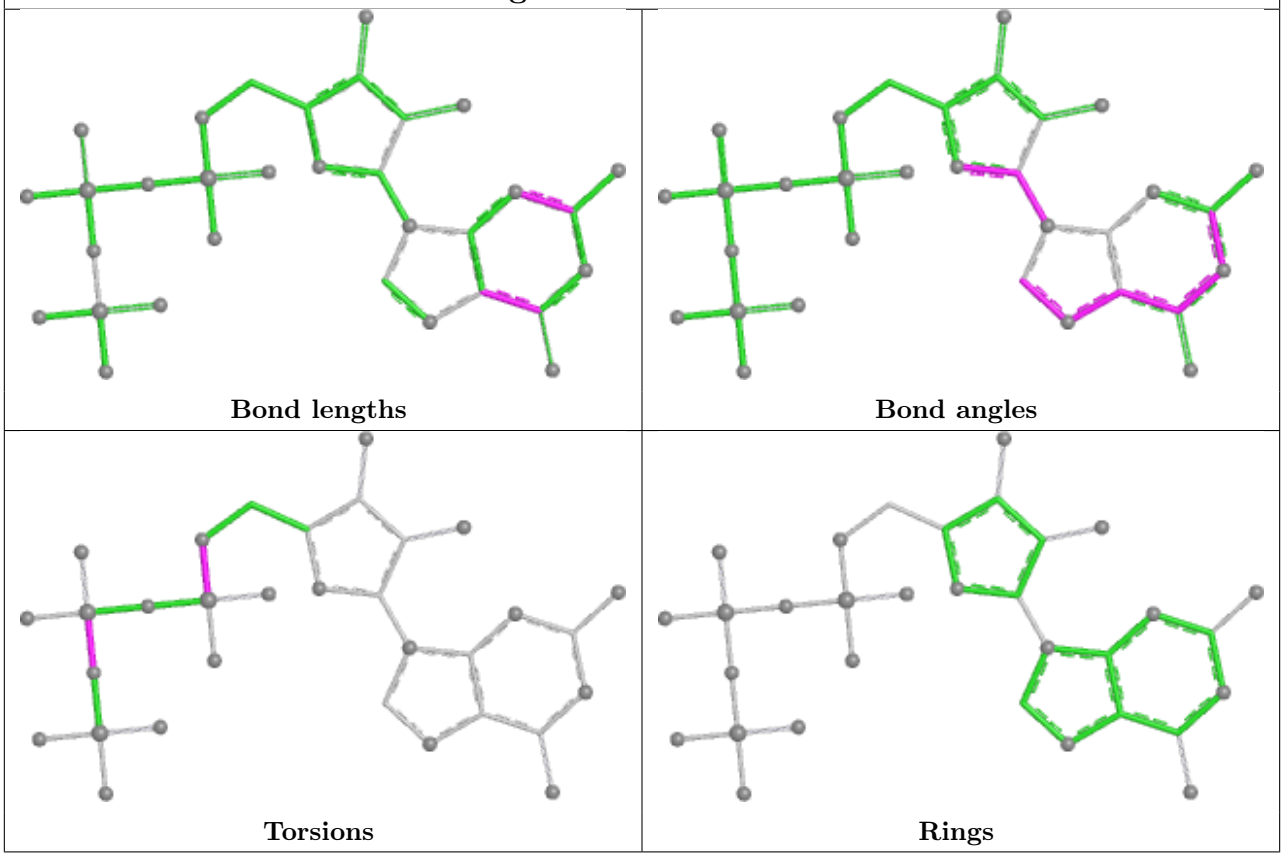

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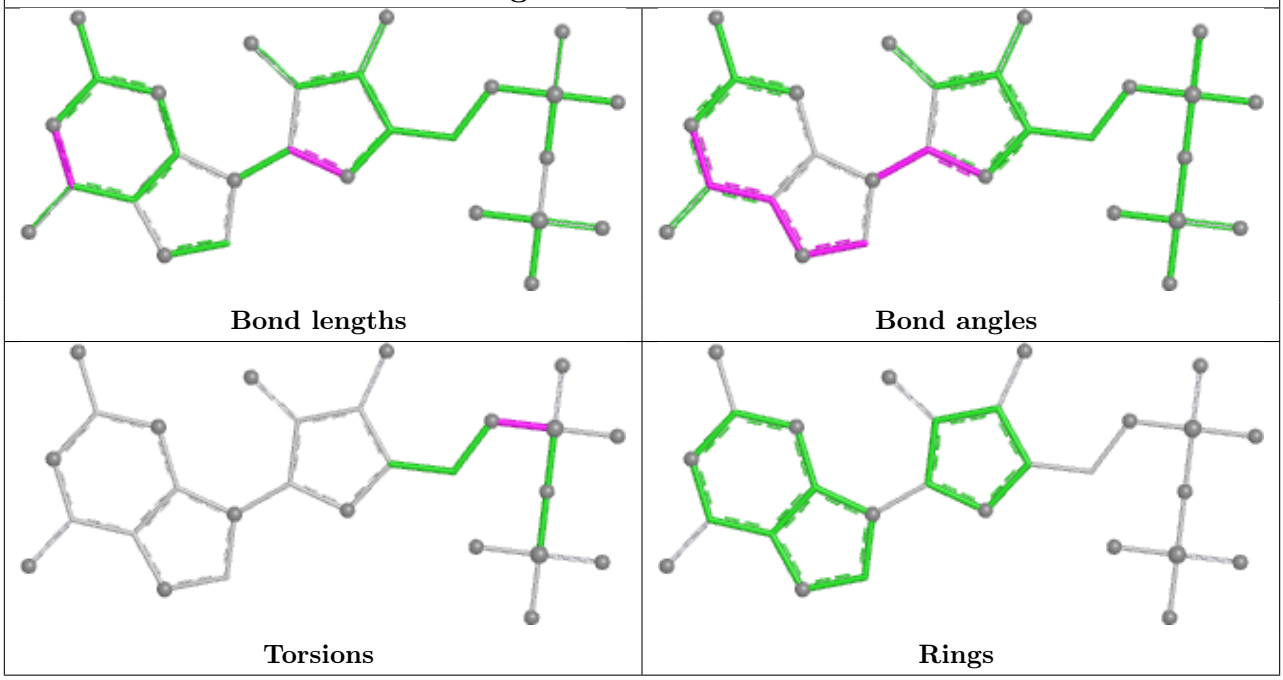

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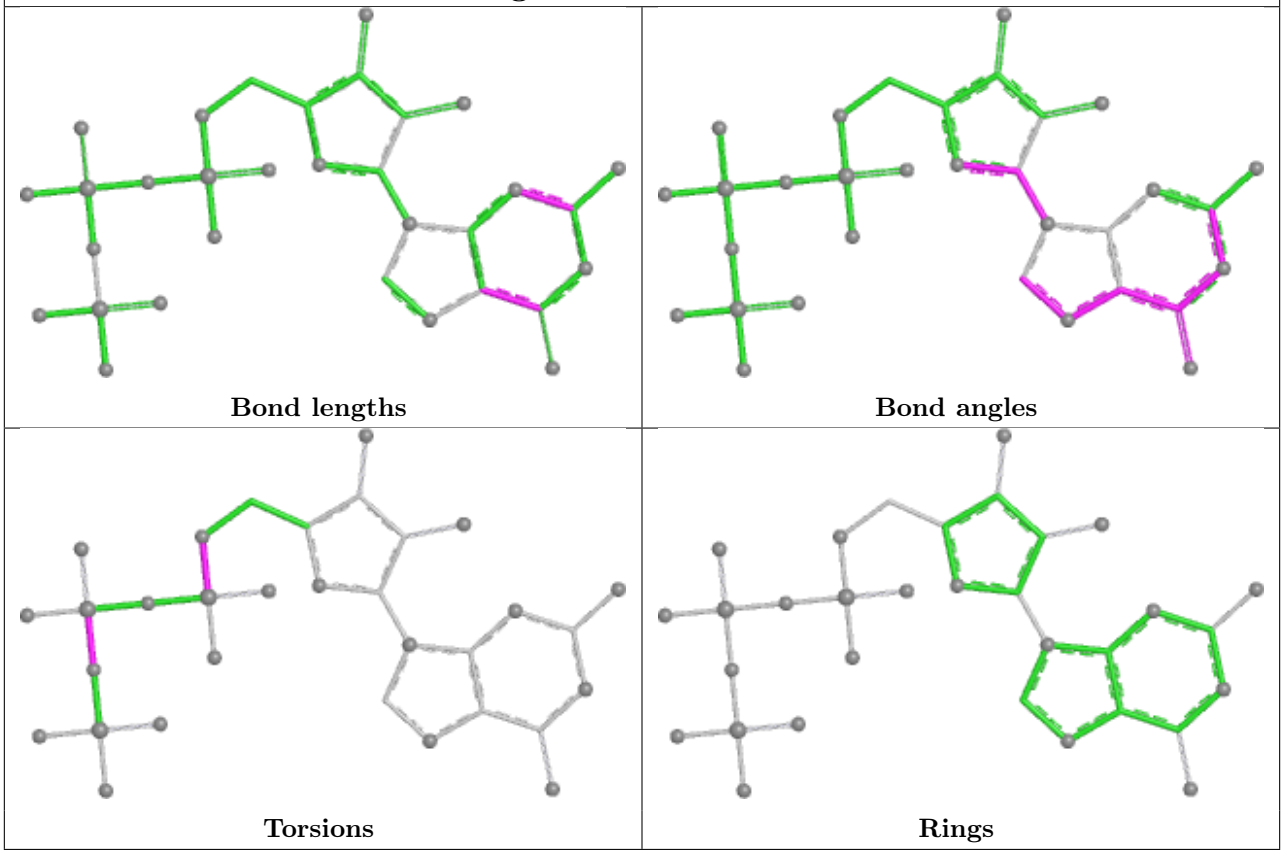

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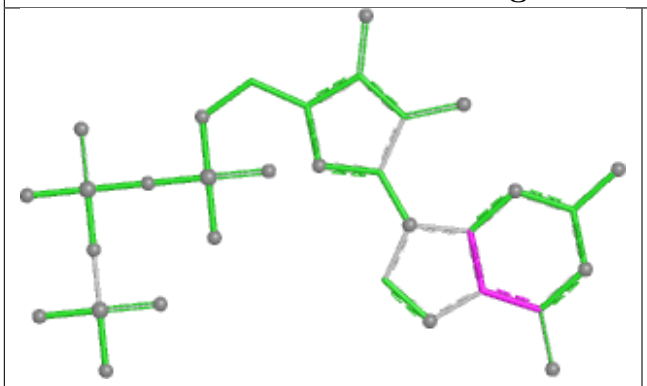
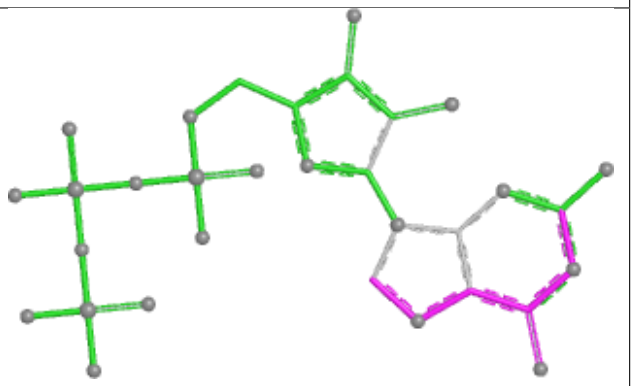
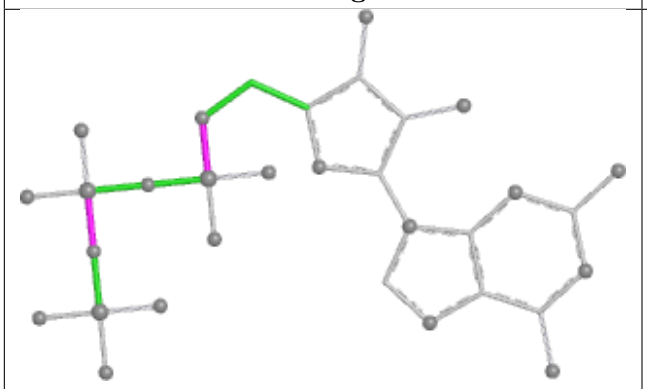


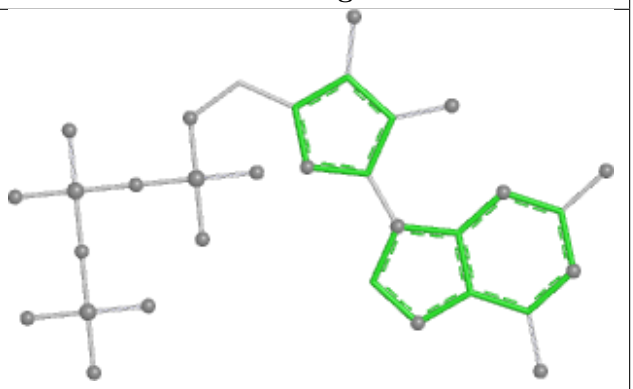
Bond lengths



Bond angles

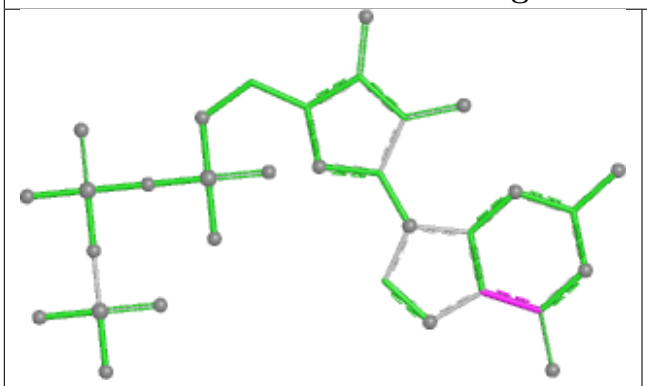


Torsions



Rings

Ligand GTP EX 602



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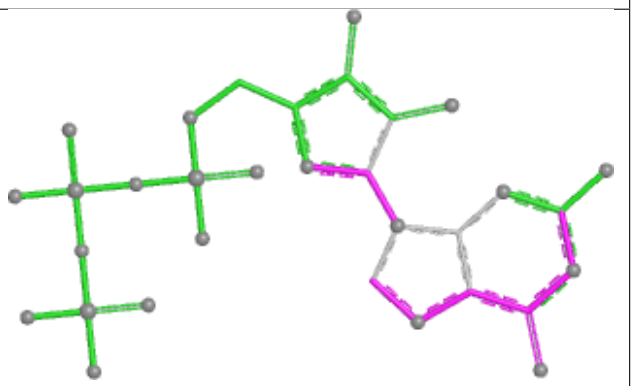

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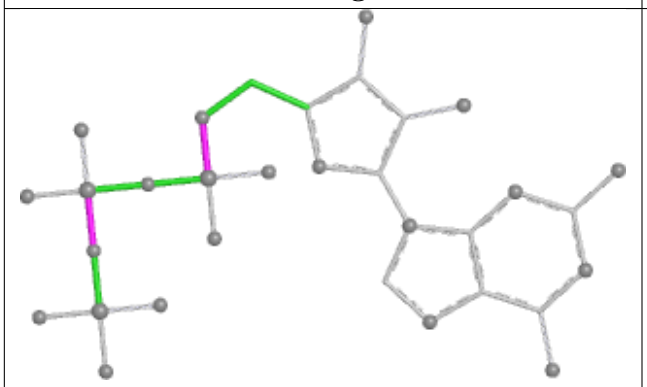

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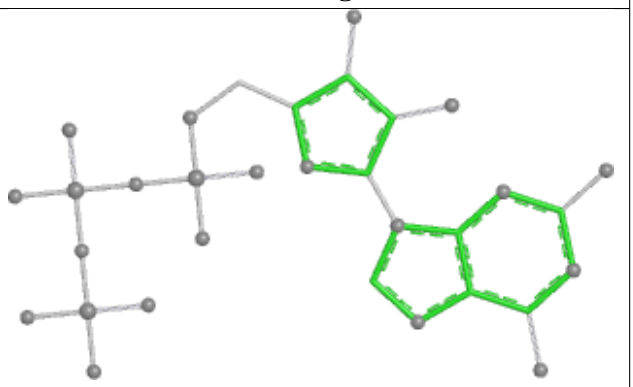
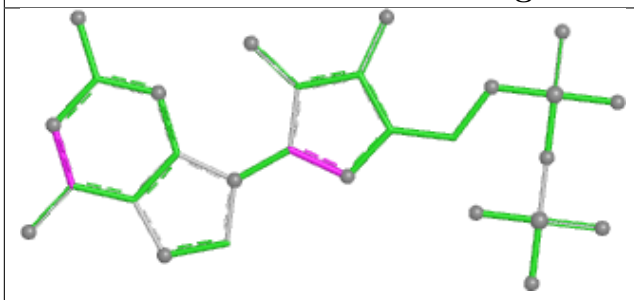


Rings

Ligand GDP JZ 501



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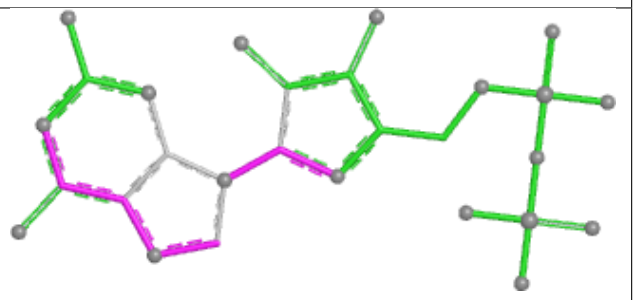
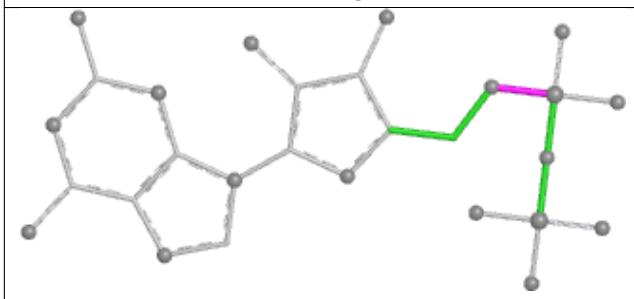


Bond angles



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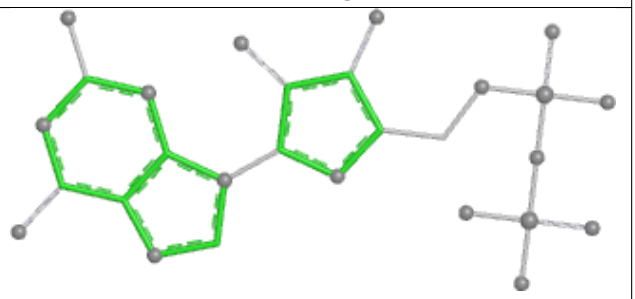

Rings

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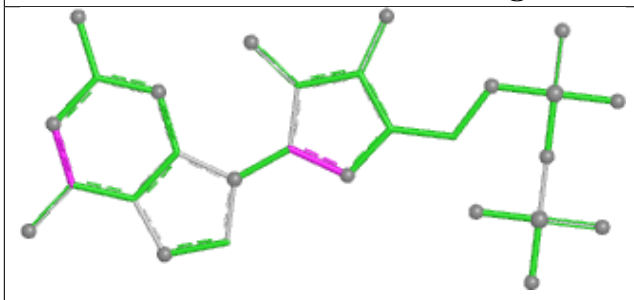

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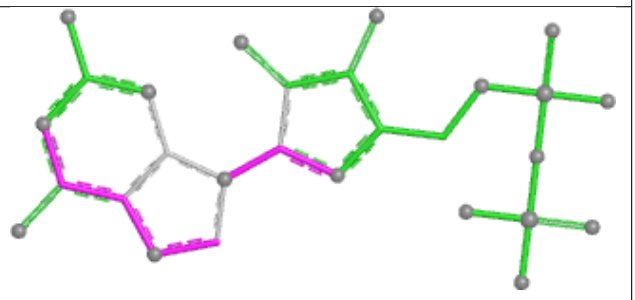
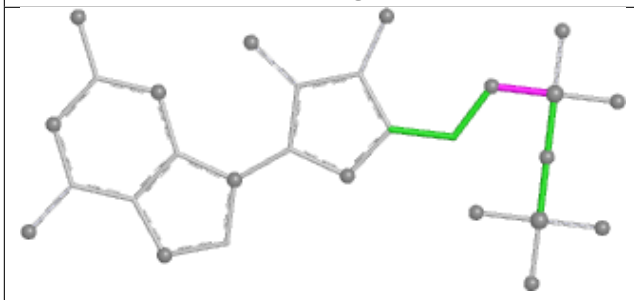


Bond angles



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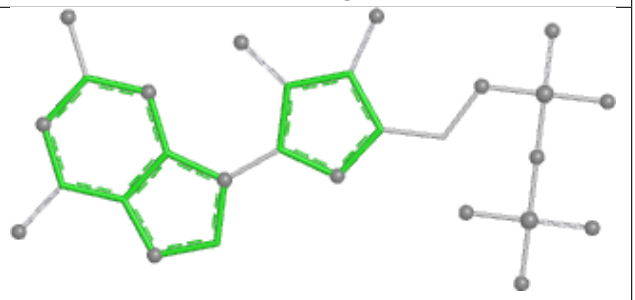
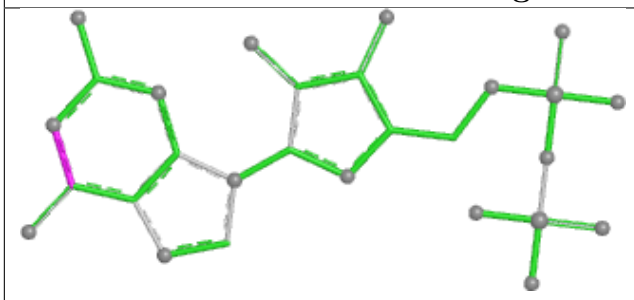


Rings

Ligand GDP JA 501



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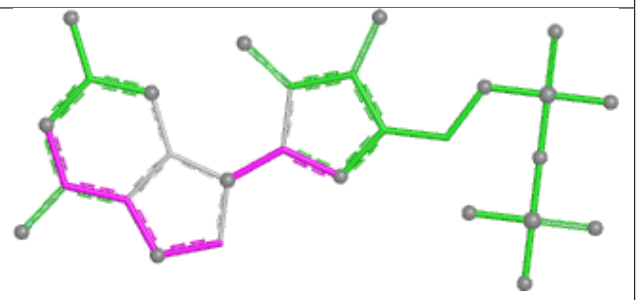

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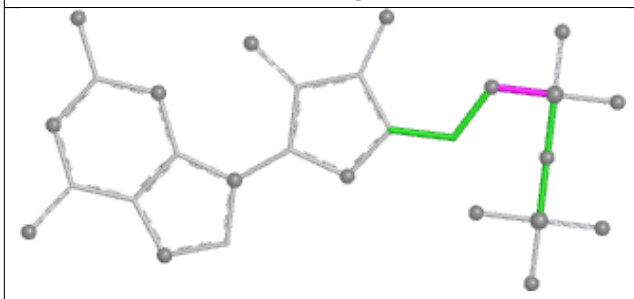

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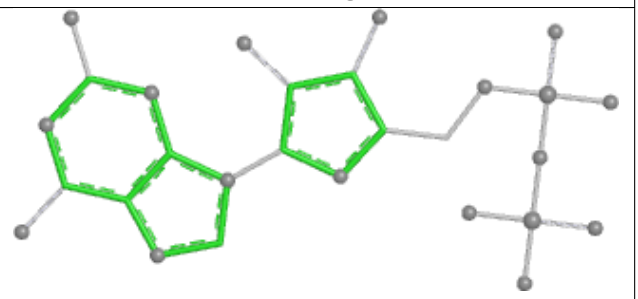

Rings

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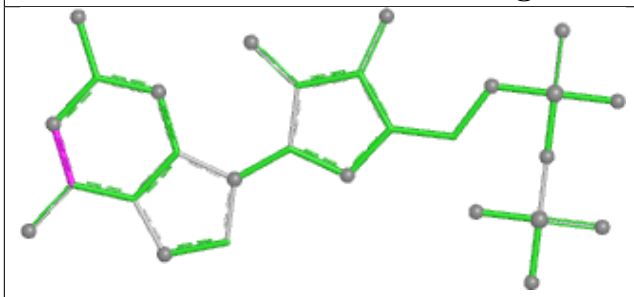

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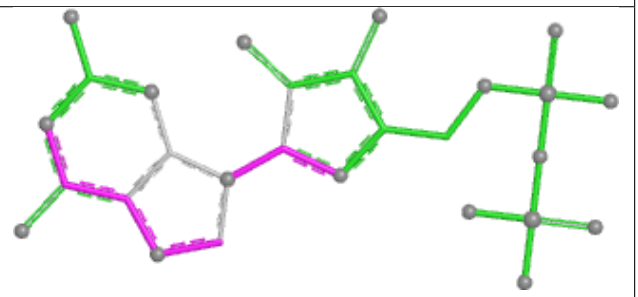

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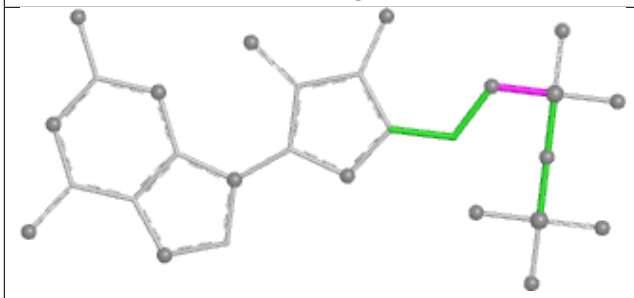

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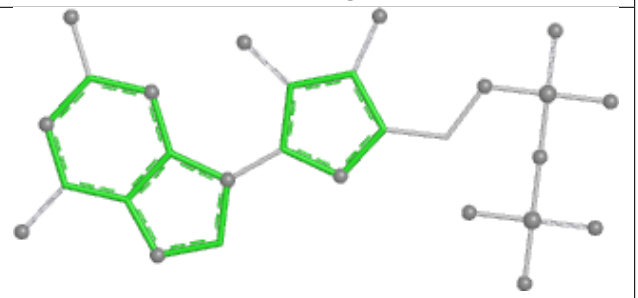
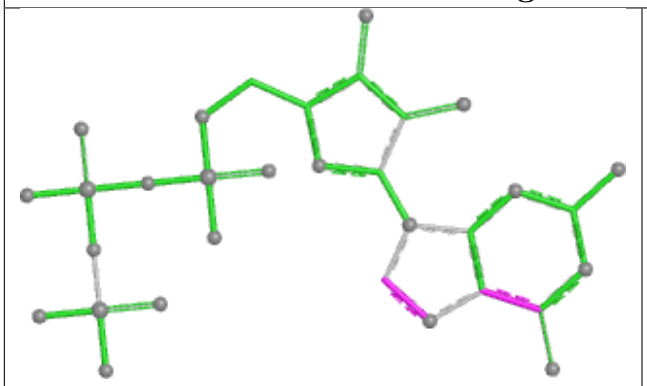


Rings

Ligand GTP JS 602



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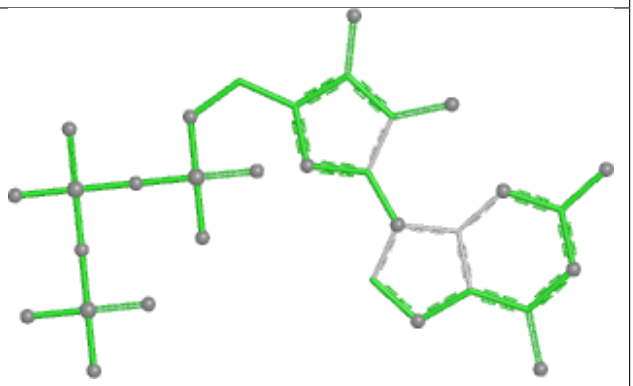

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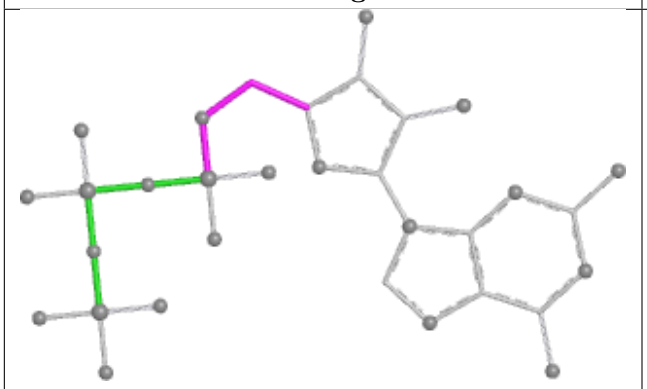

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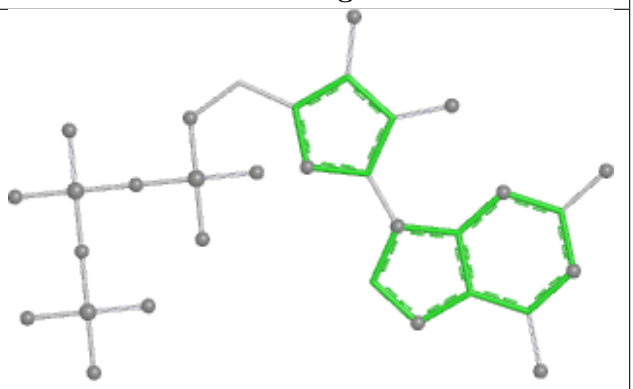

Rings

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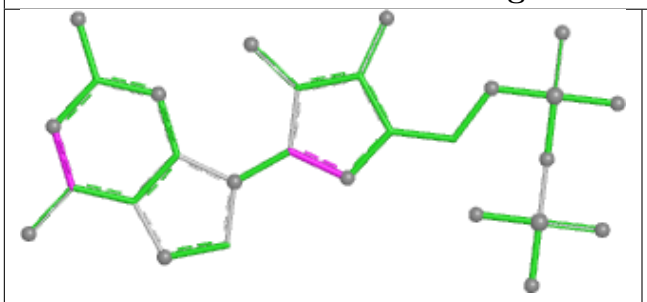

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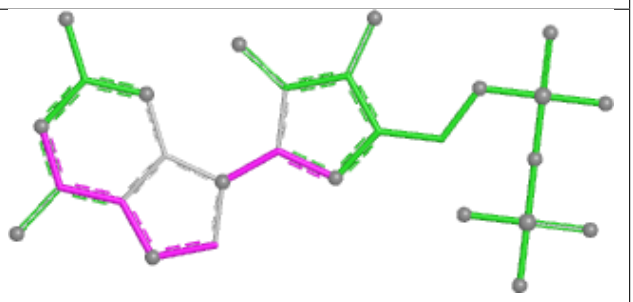
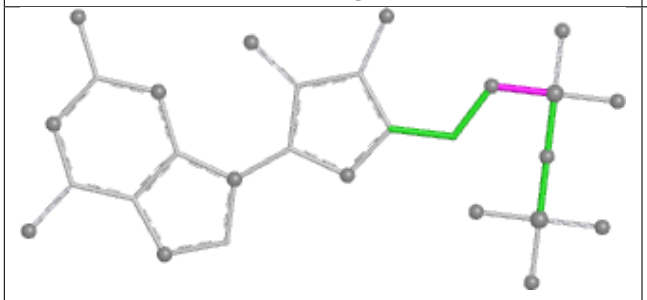


Bond angles



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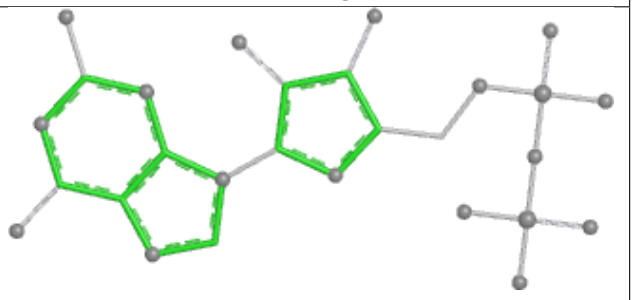
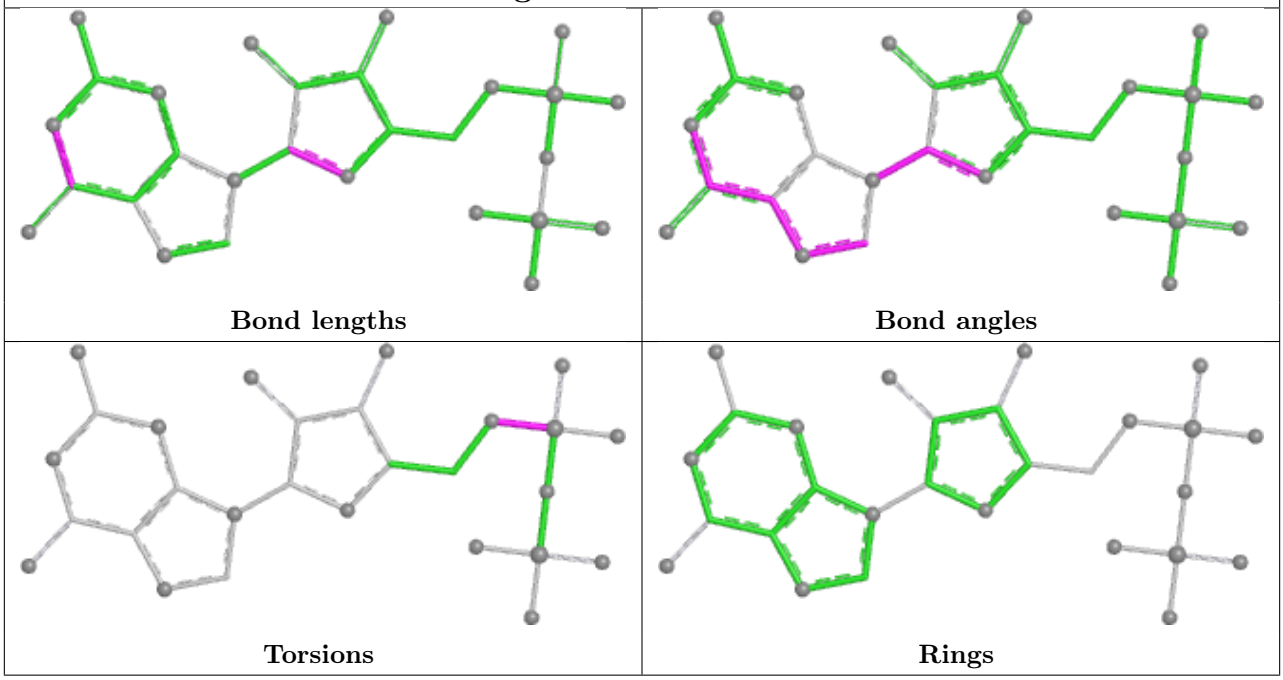
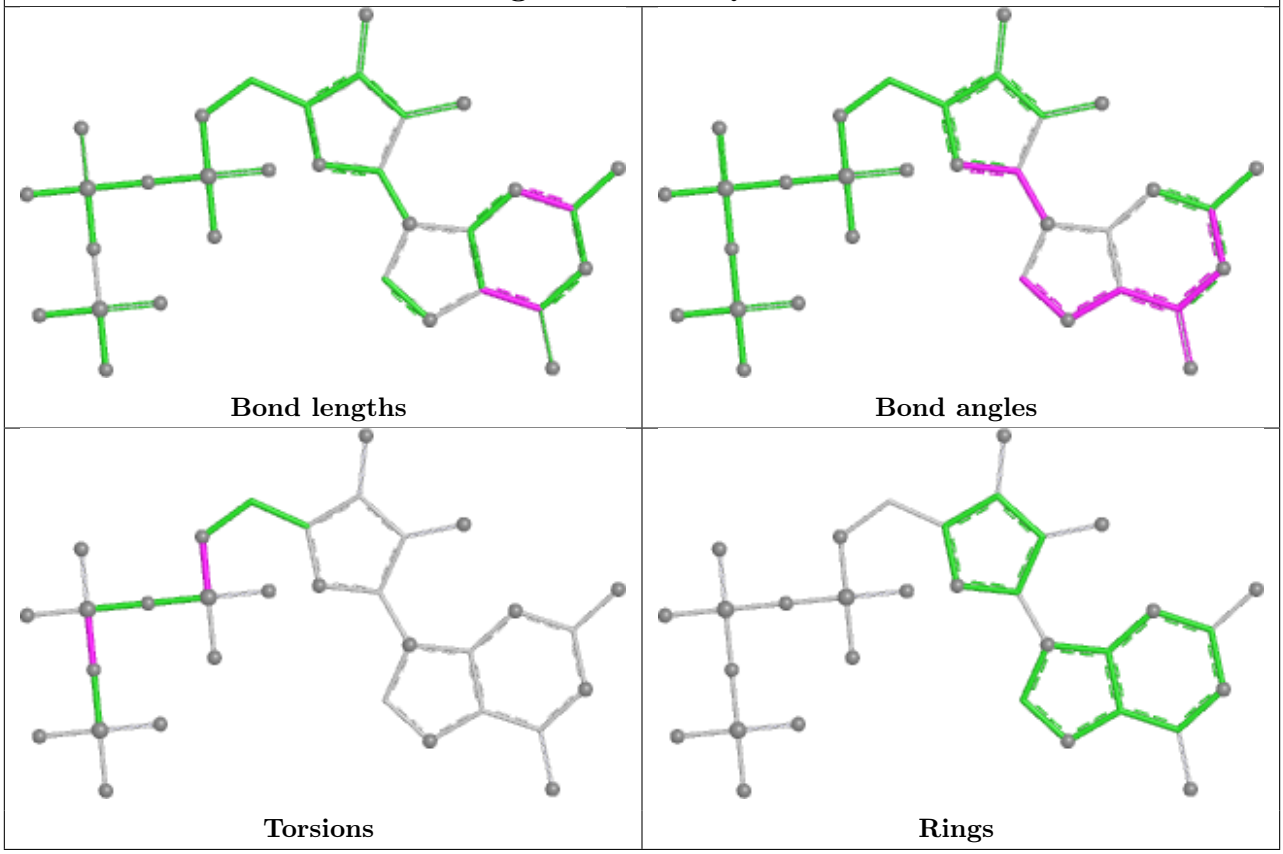


Rings

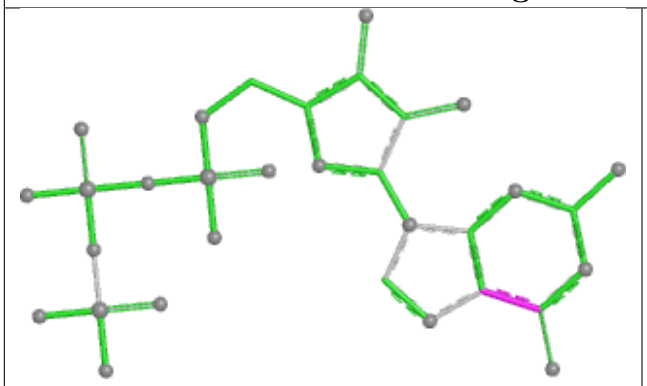
Ligand GDP FS 501



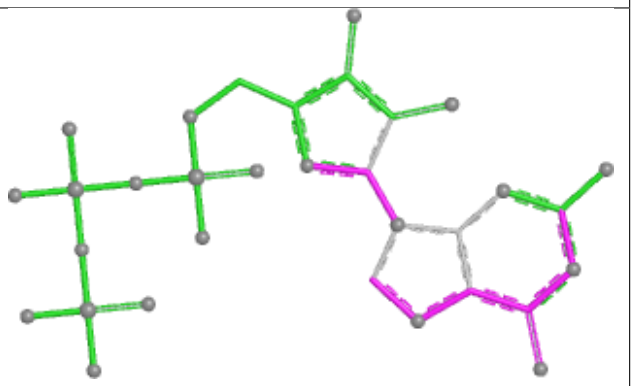
Ligand GTP KQ 602



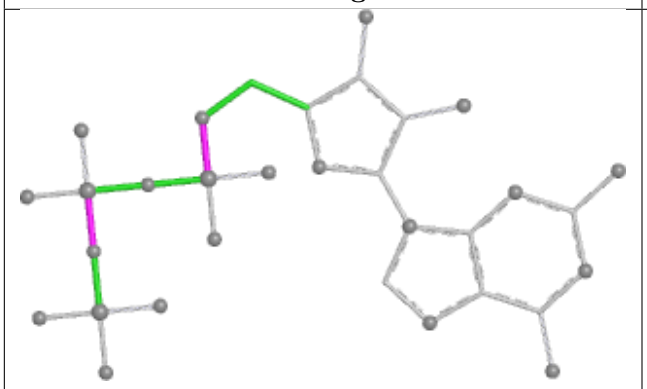
Ligand GTP EB 501



Bond lengths



Bond angles



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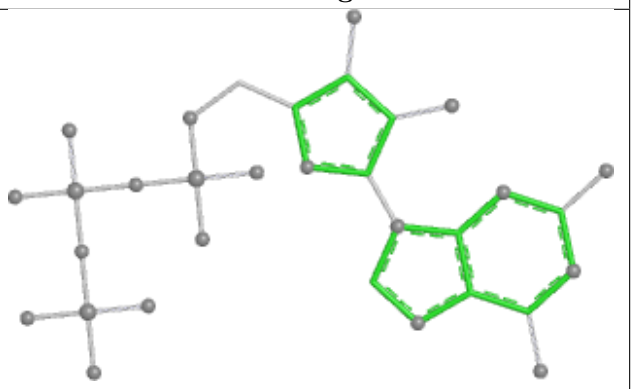
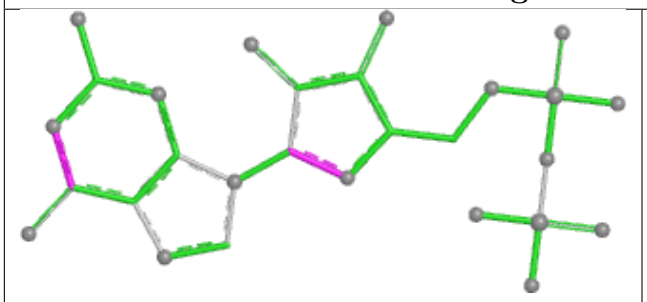
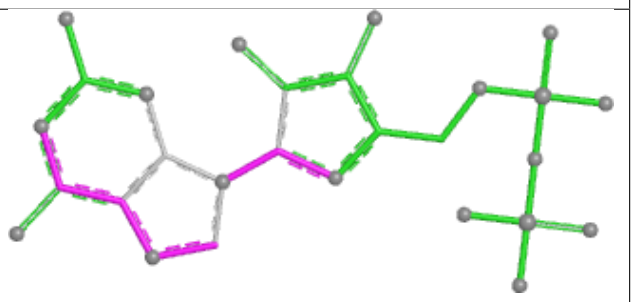


Rings

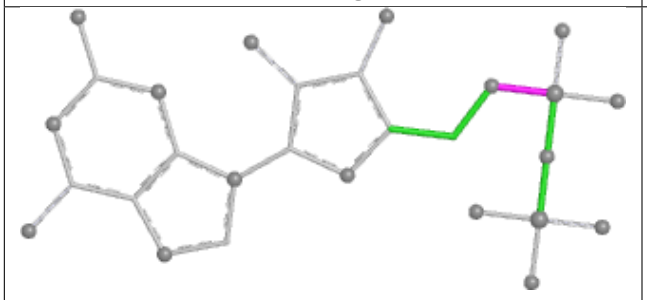
Ligand GDP FG 501



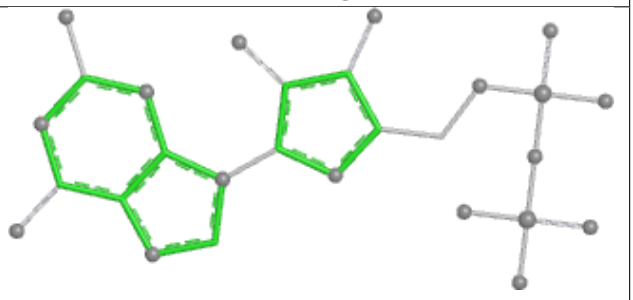
Bond lengths



Bond angles

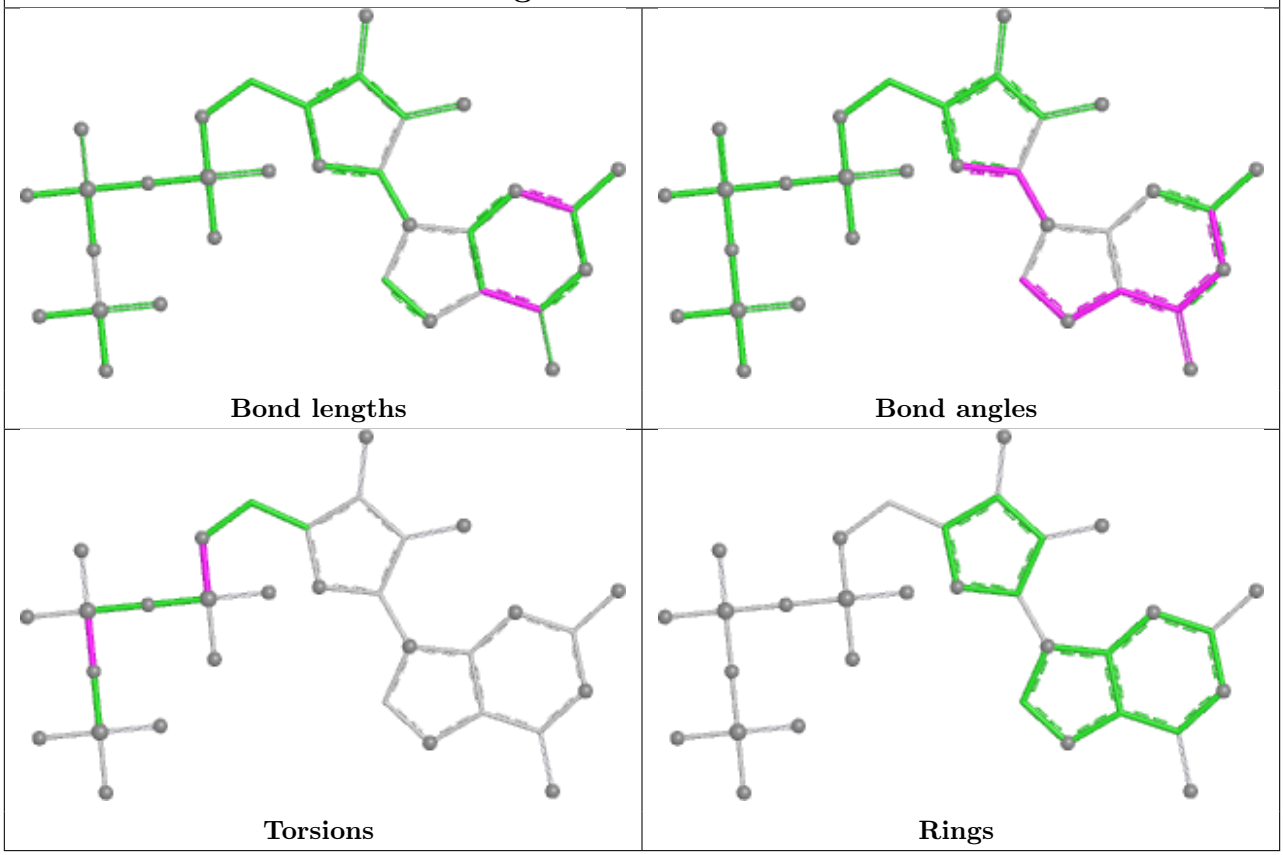


Torsions

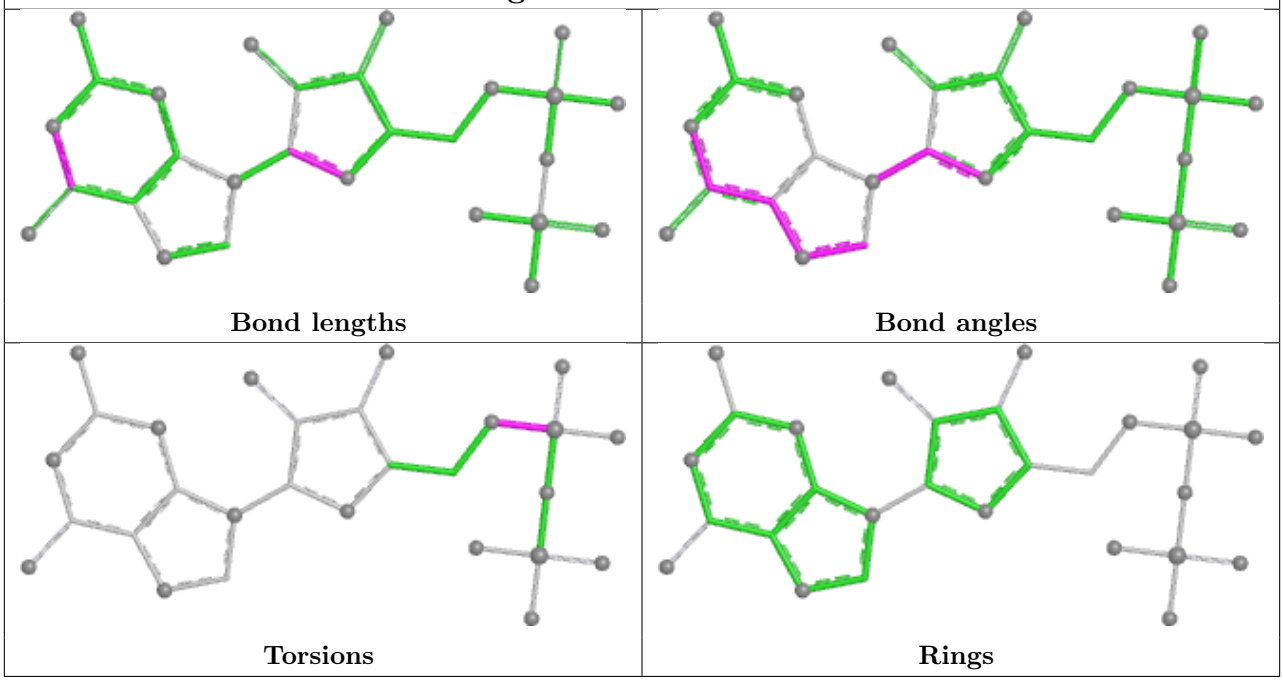


Rings

Ligand GTP JY 602



Ligand GDP GX 501



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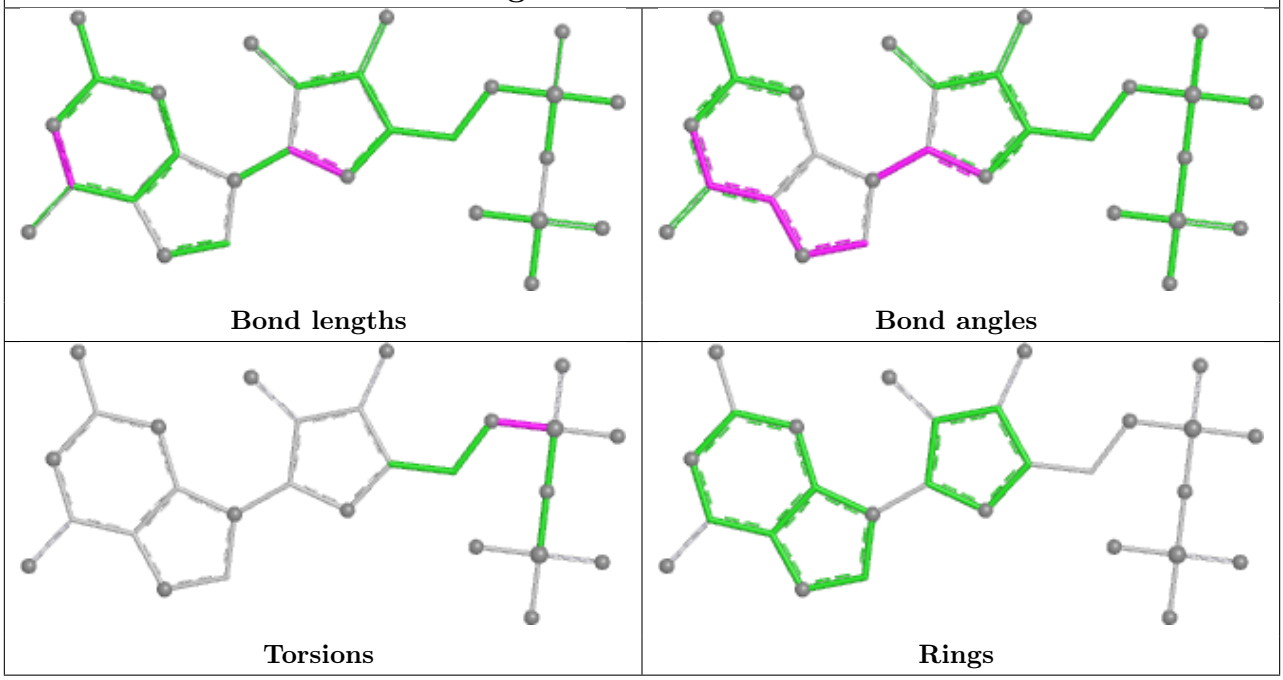

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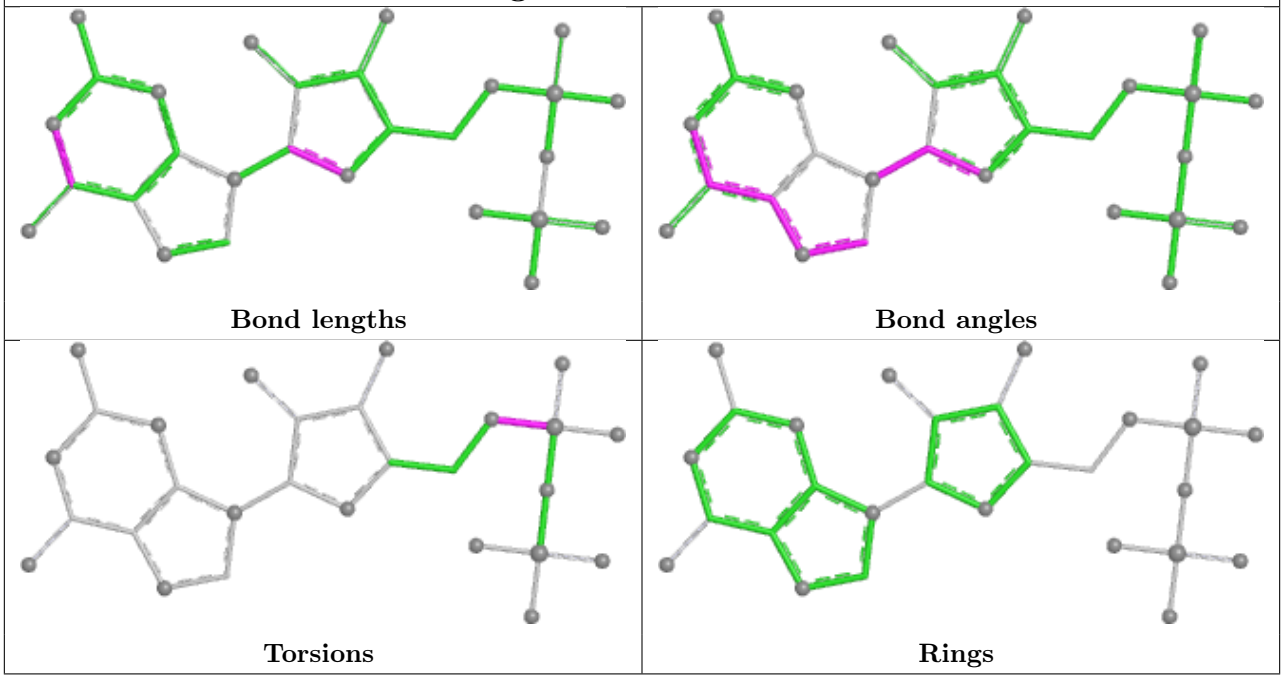
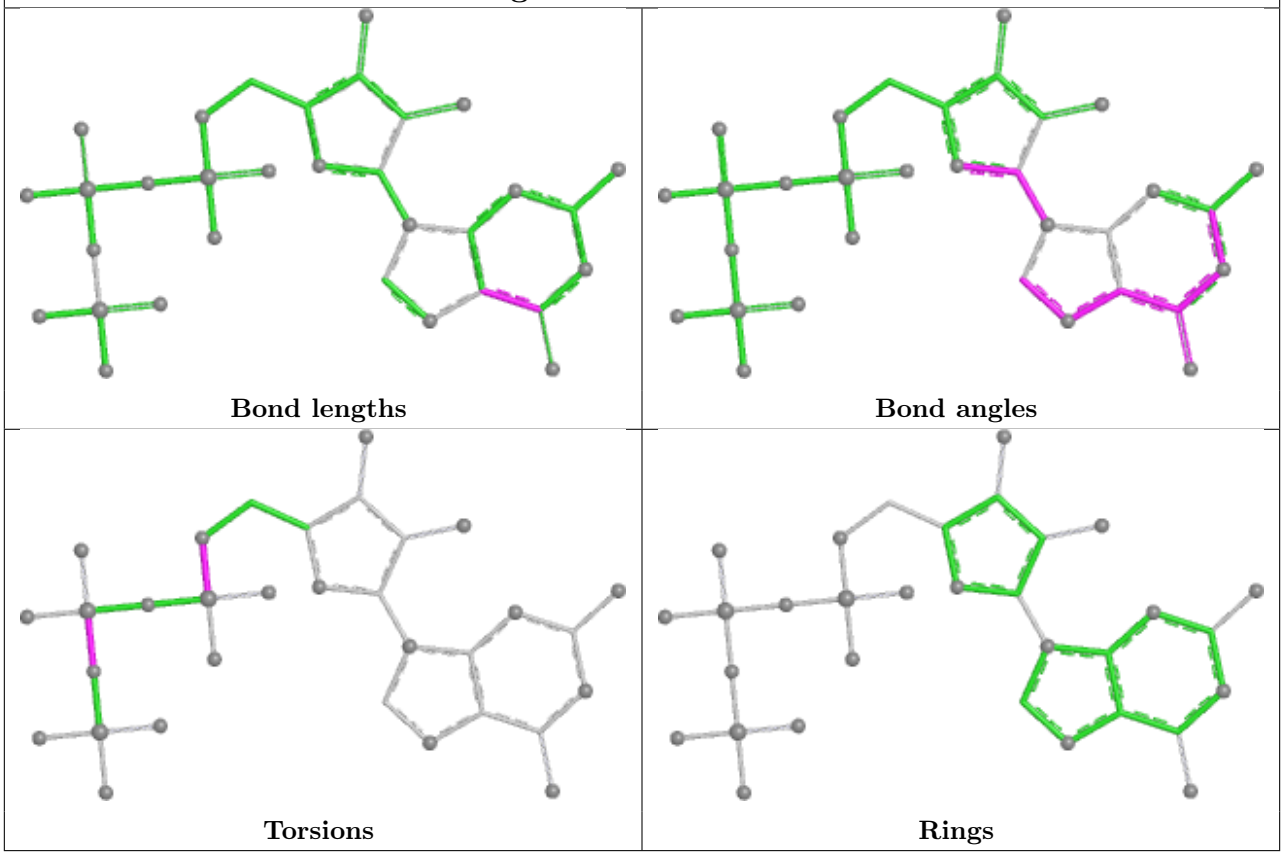


Ligand GTP AC 501



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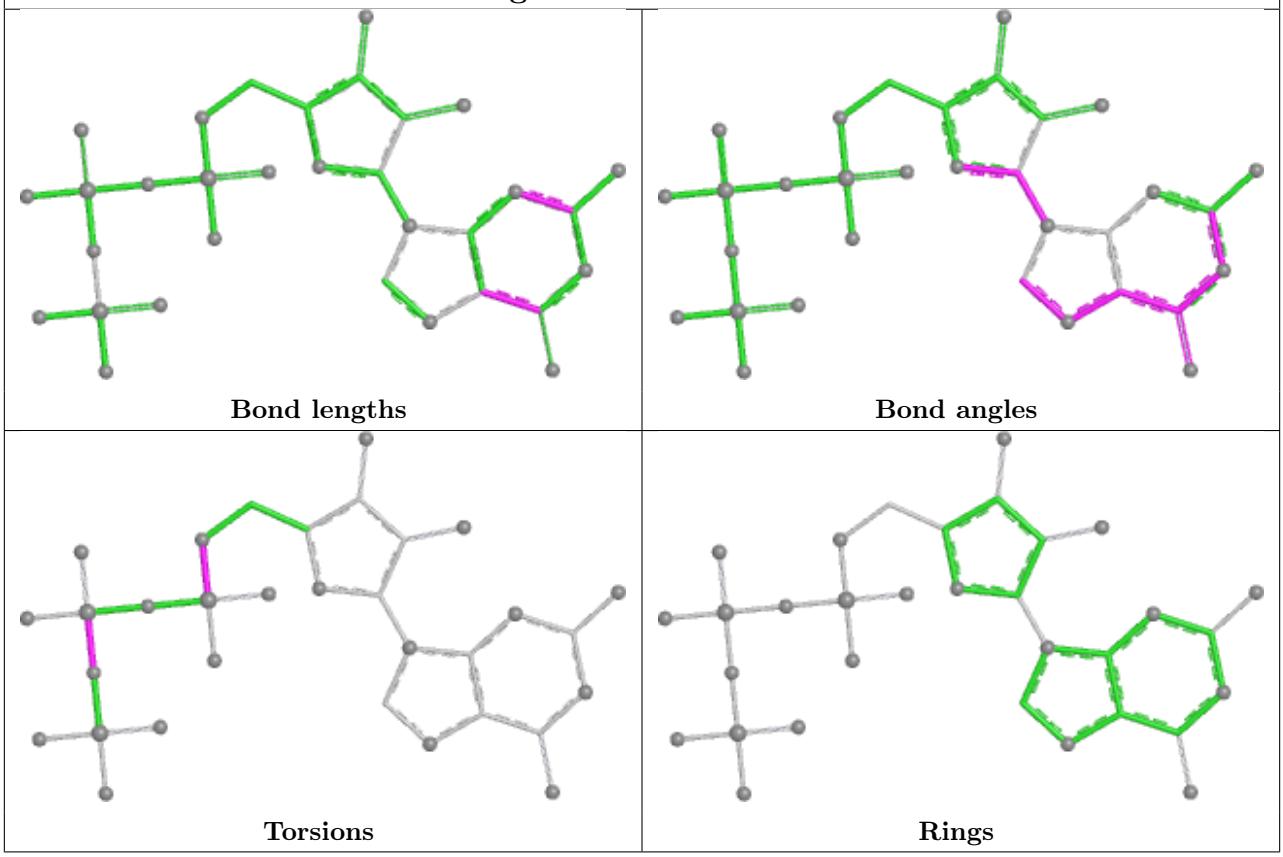

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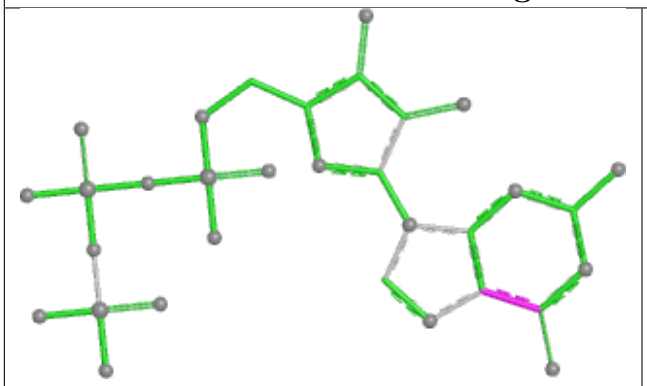
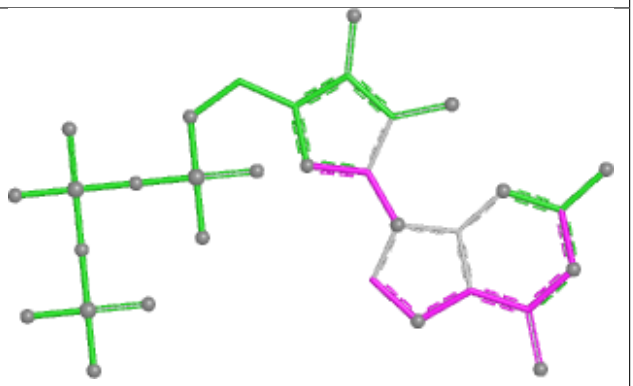
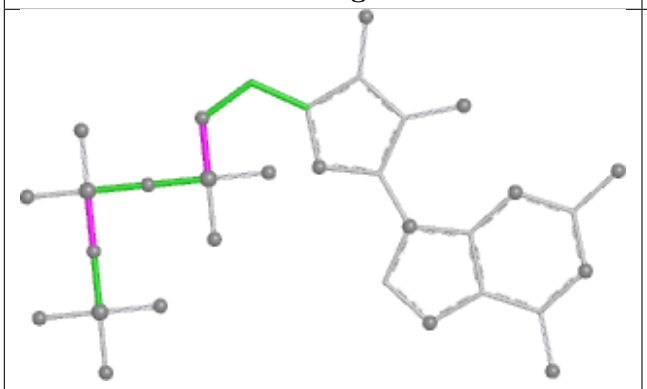


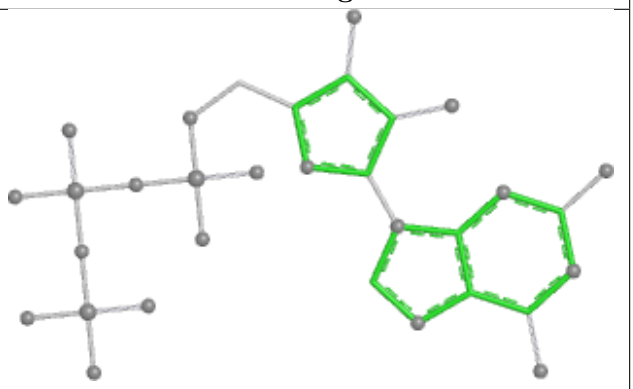
Bond lengths



Bond angles

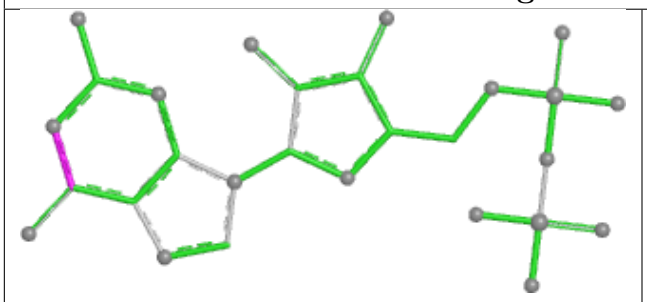


Torsions



Rings

Ligand GDP EI 501



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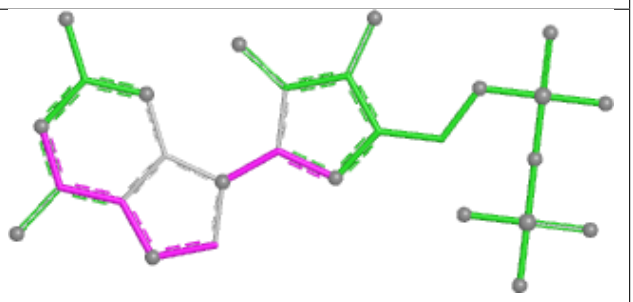

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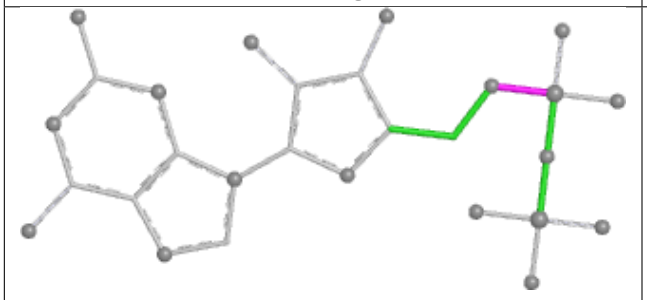

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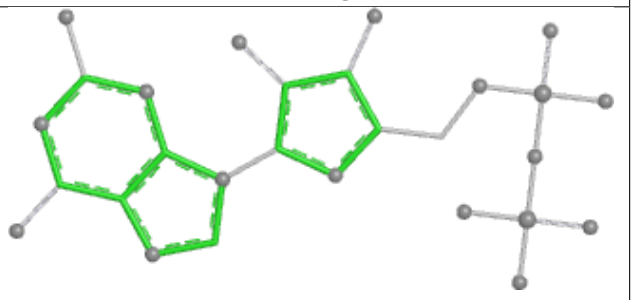
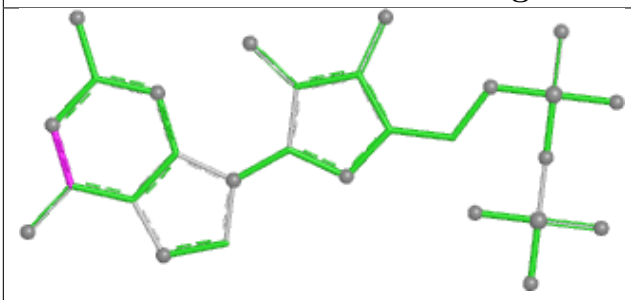


Rings

Ligand GDP FA 501



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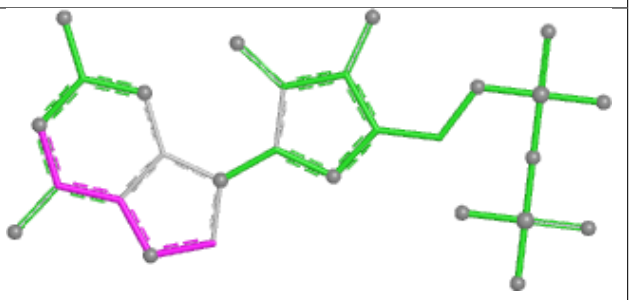

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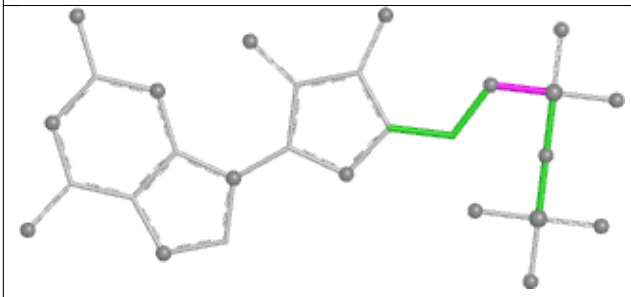

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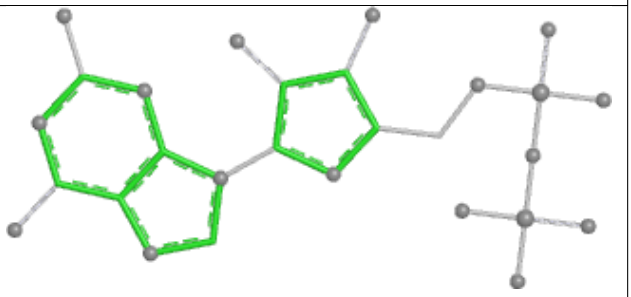

Rings

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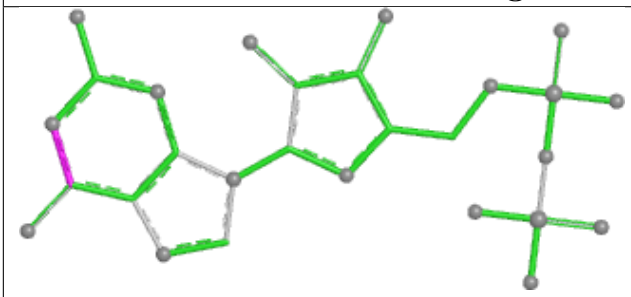

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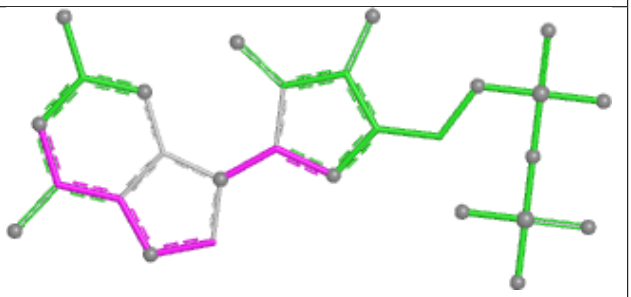

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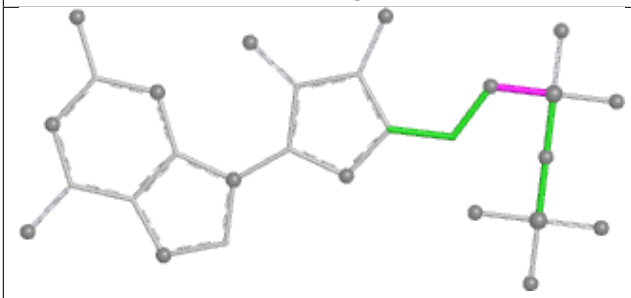

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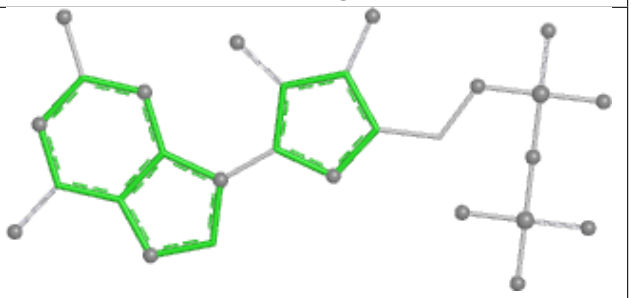
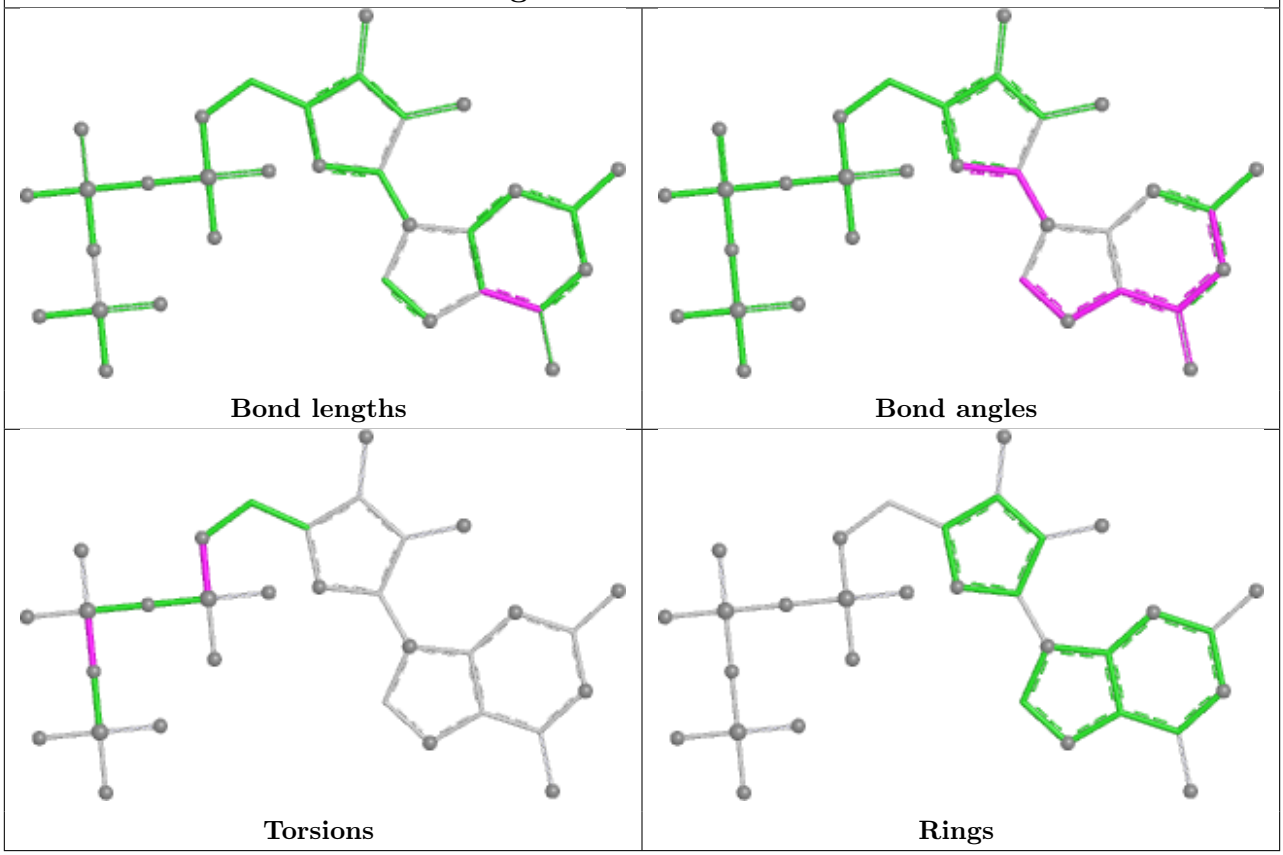
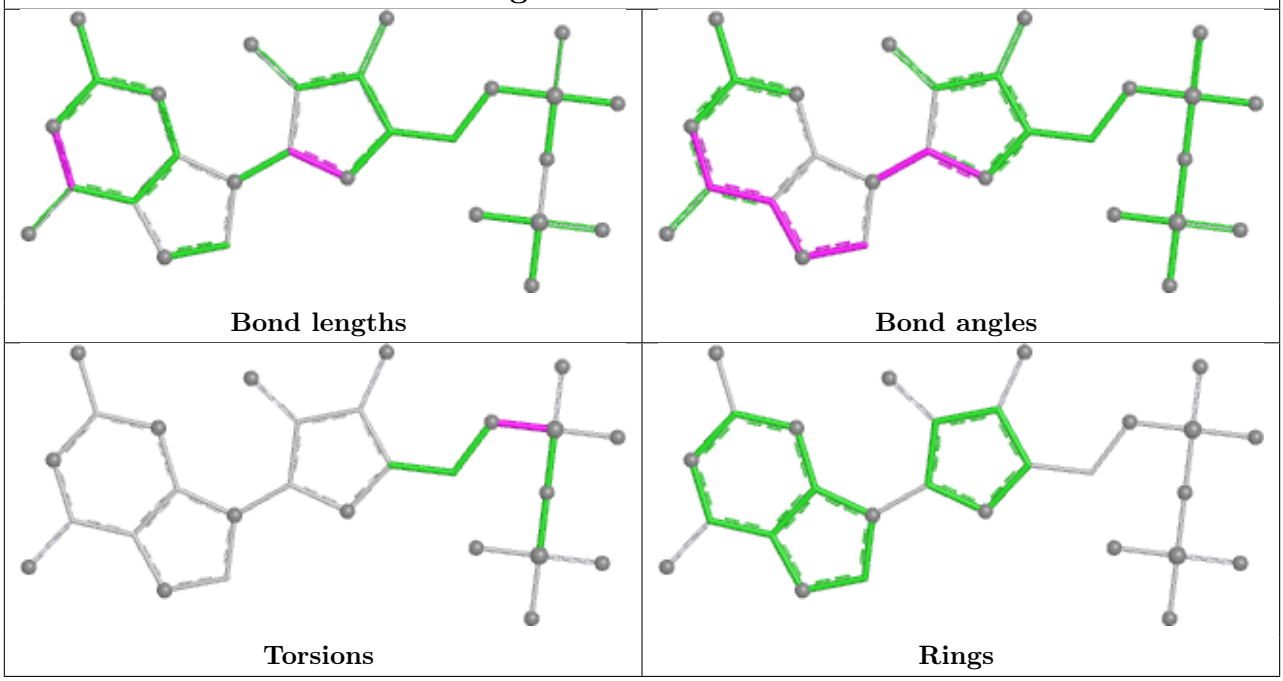


Rings

Ligand GTP DX 501



Ligand GDP HF 501



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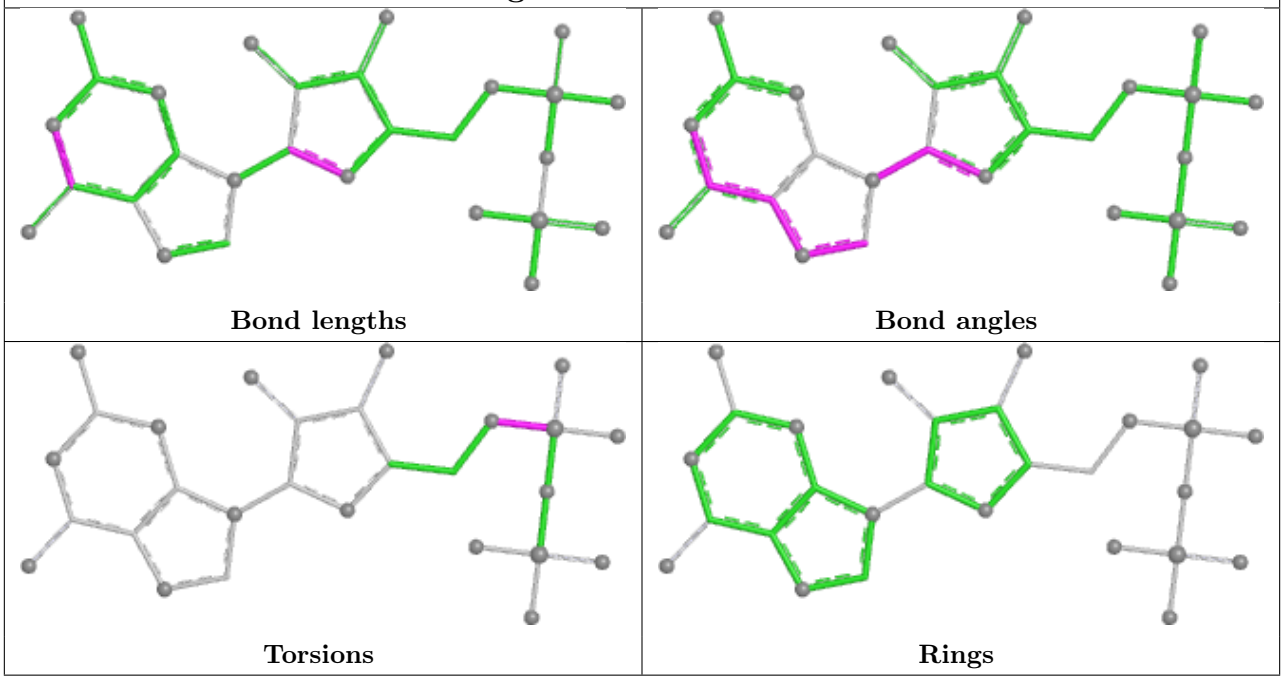
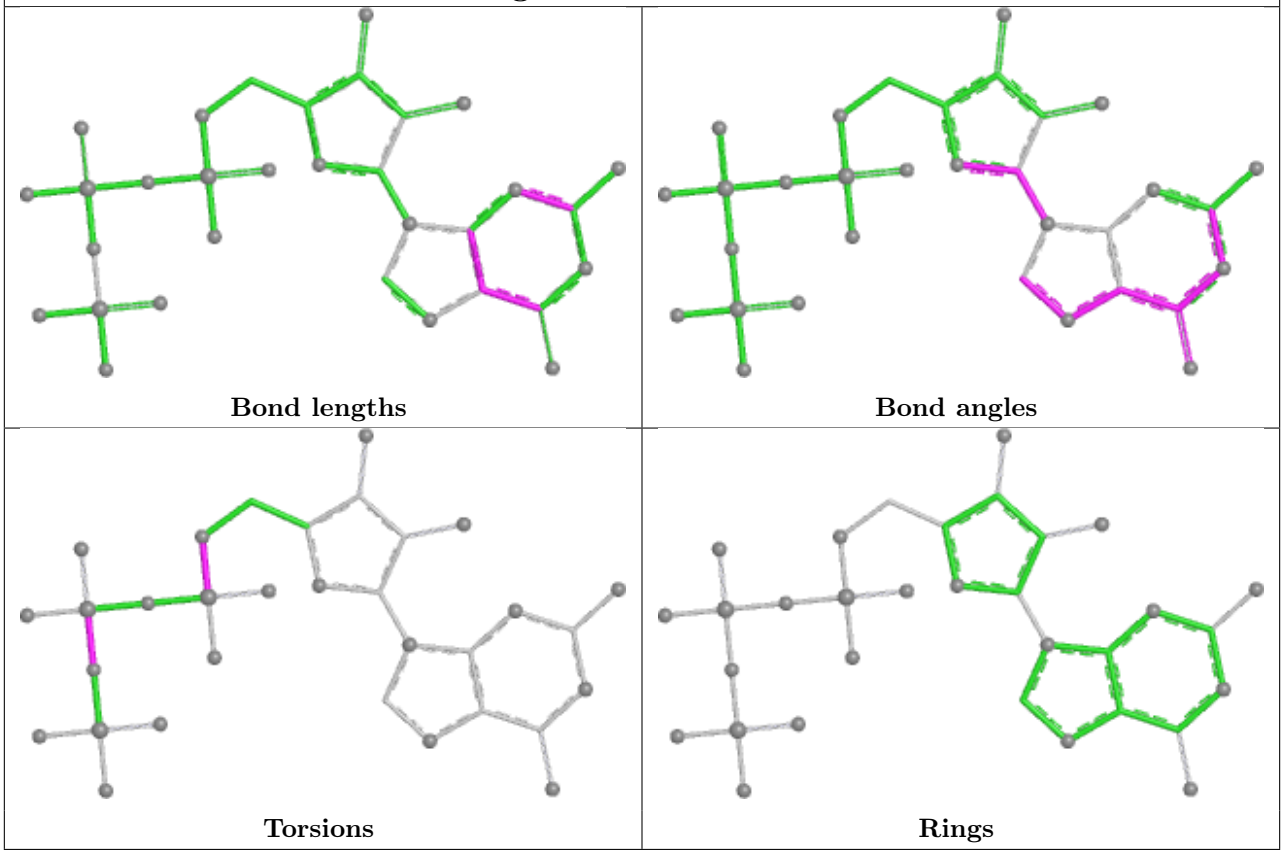


Ligand GTP FU 602



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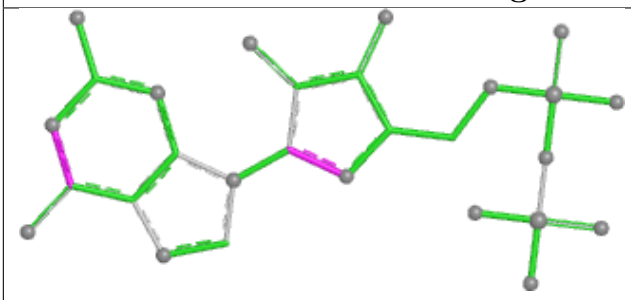

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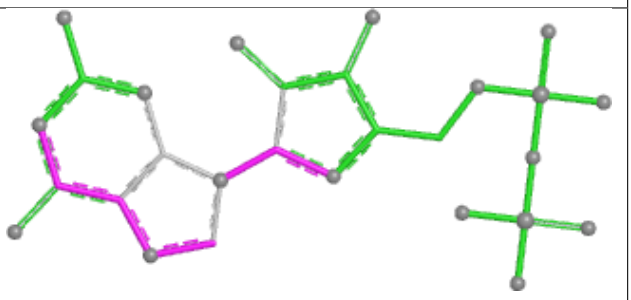
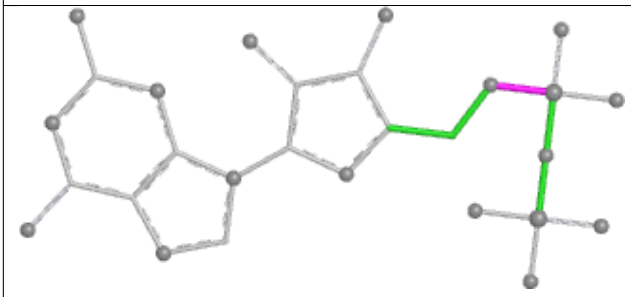


Bond angles



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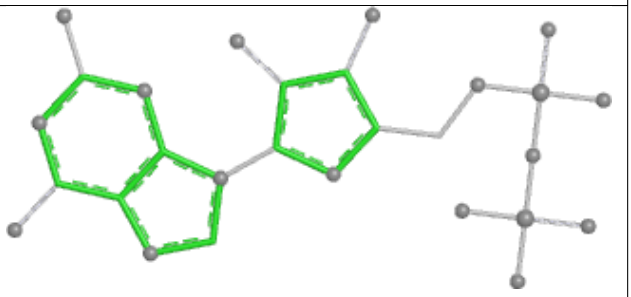
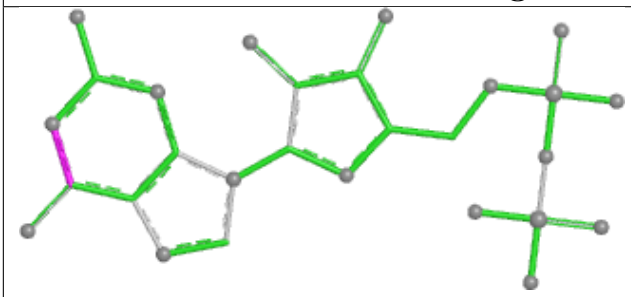


Rings

Ligand GDP EO 501



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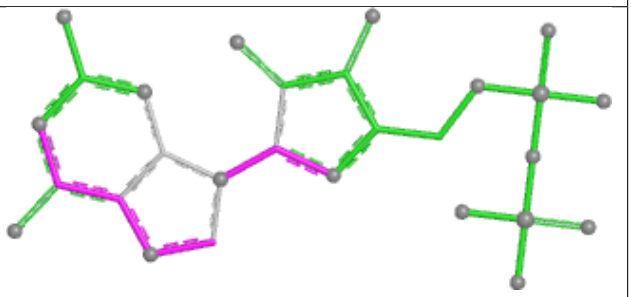

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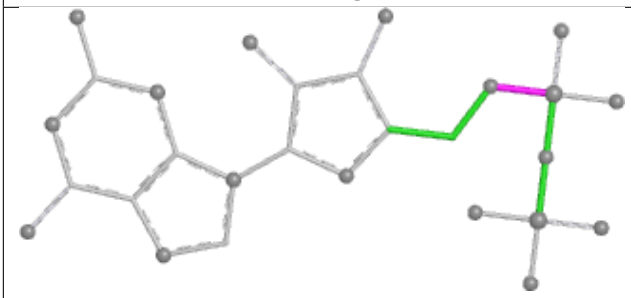

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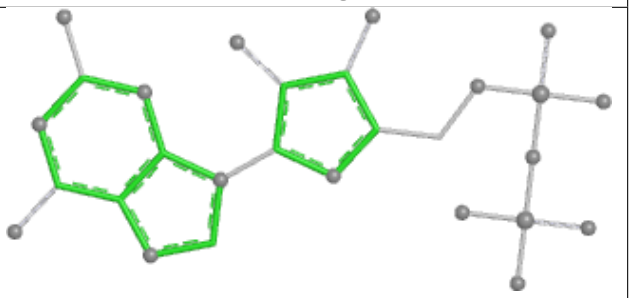

Rings

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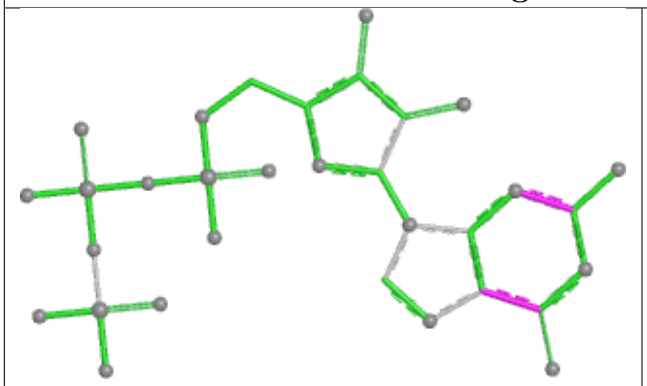

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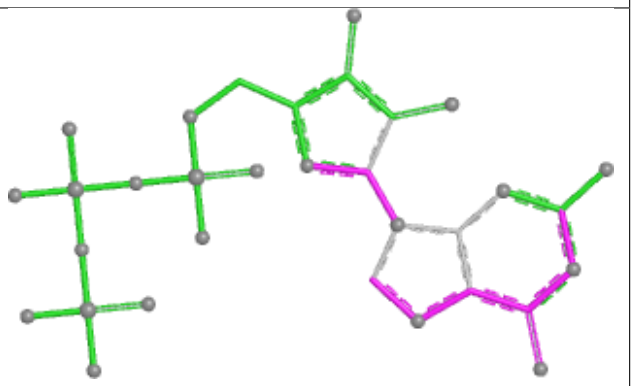

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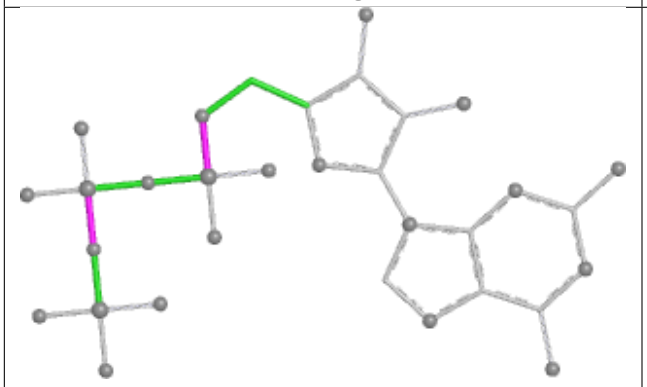

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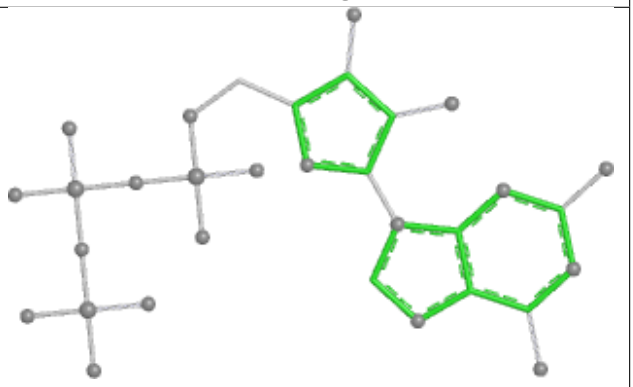
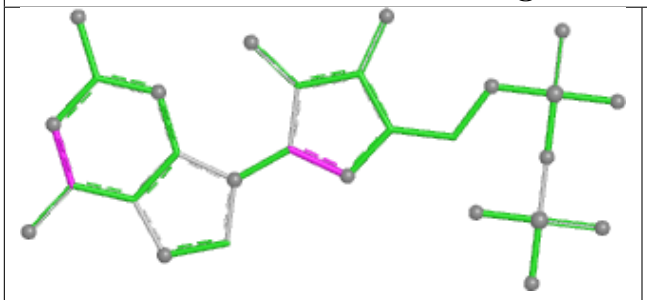


Rings

Ligand GDP IE 501



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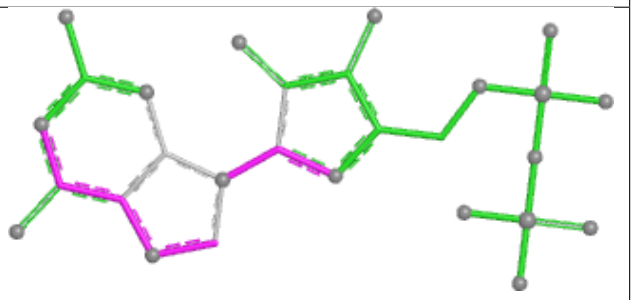
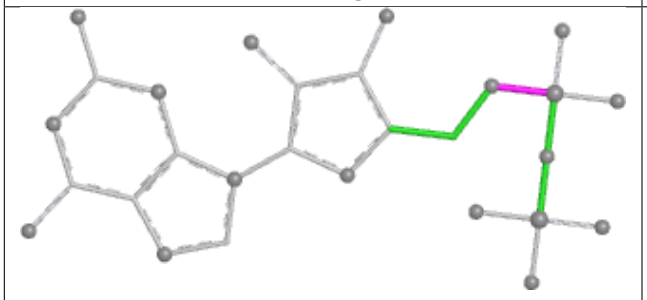


Bond angles



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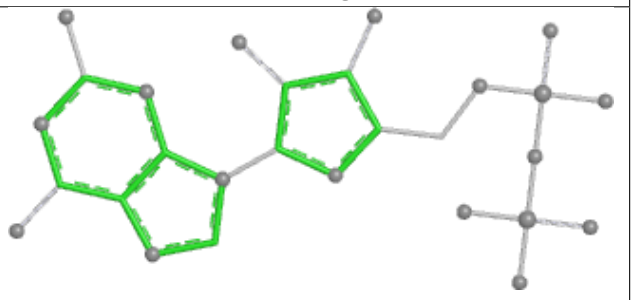
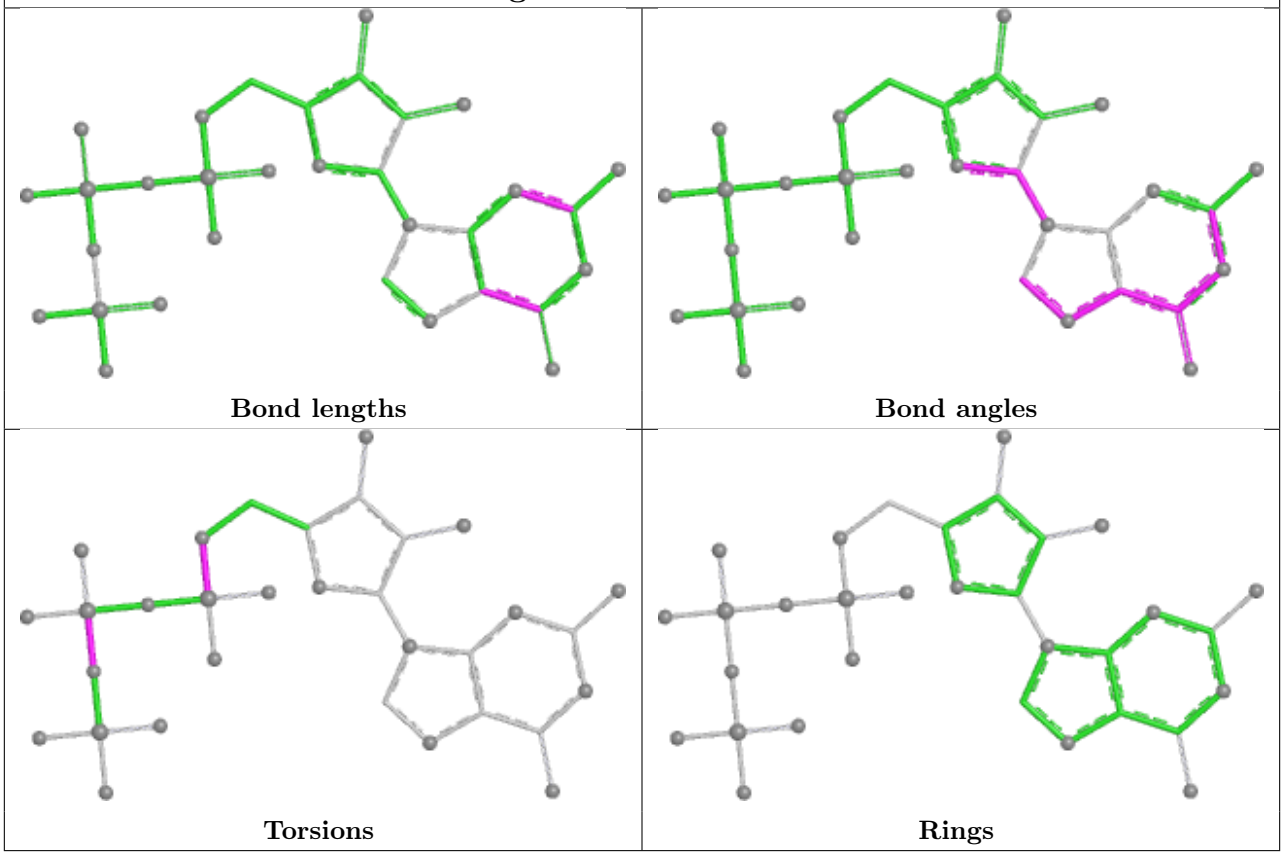
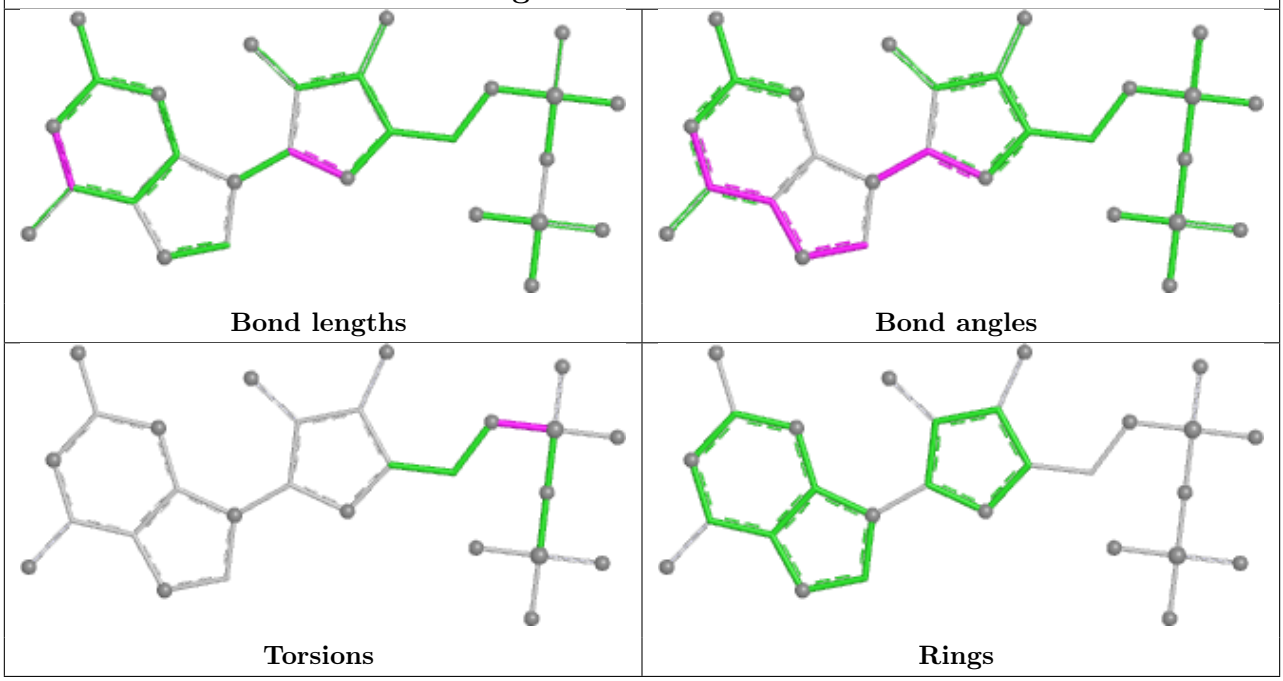


Rings

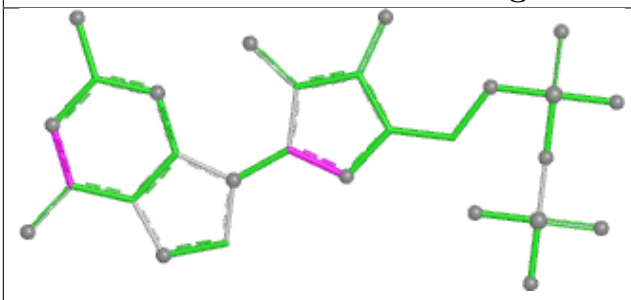
Ligand GTP DU 602



Ligand GDP FE 501



Ligand GDP BP 501



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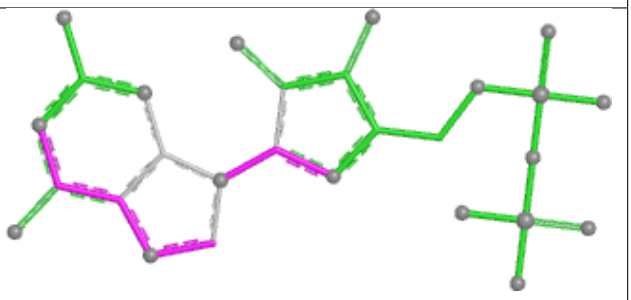
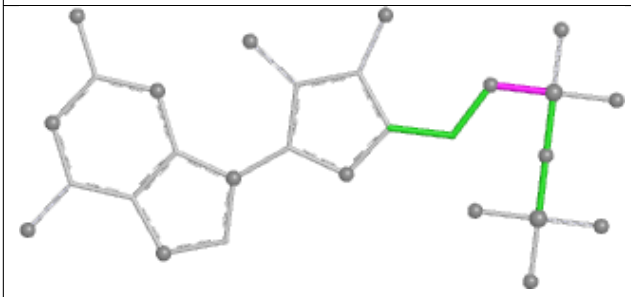


Bond angles



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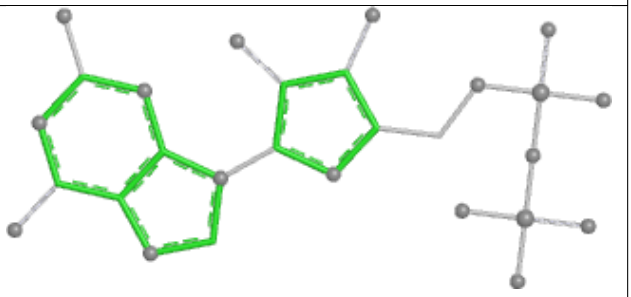
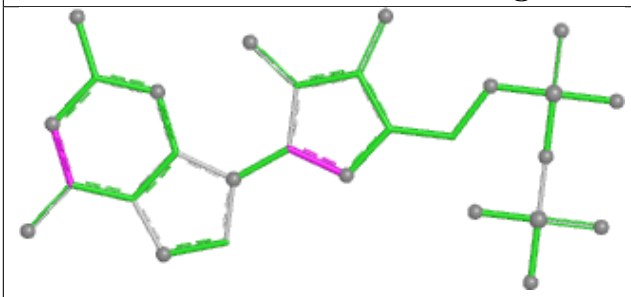


Rings

Ligand GDP JT 501



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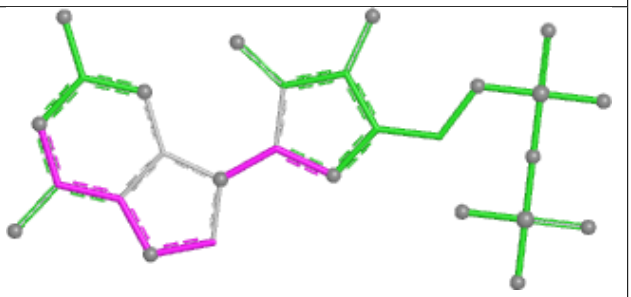

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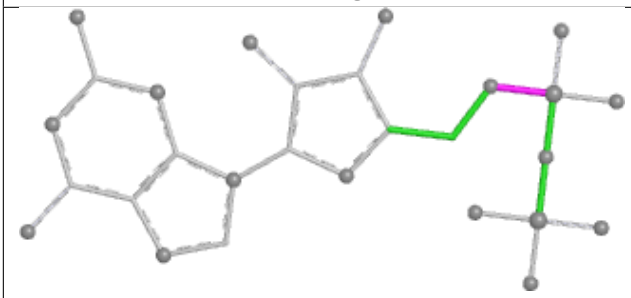
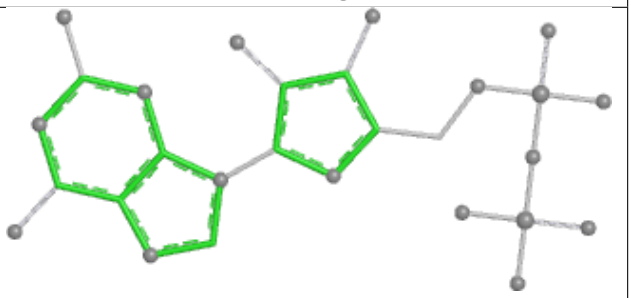
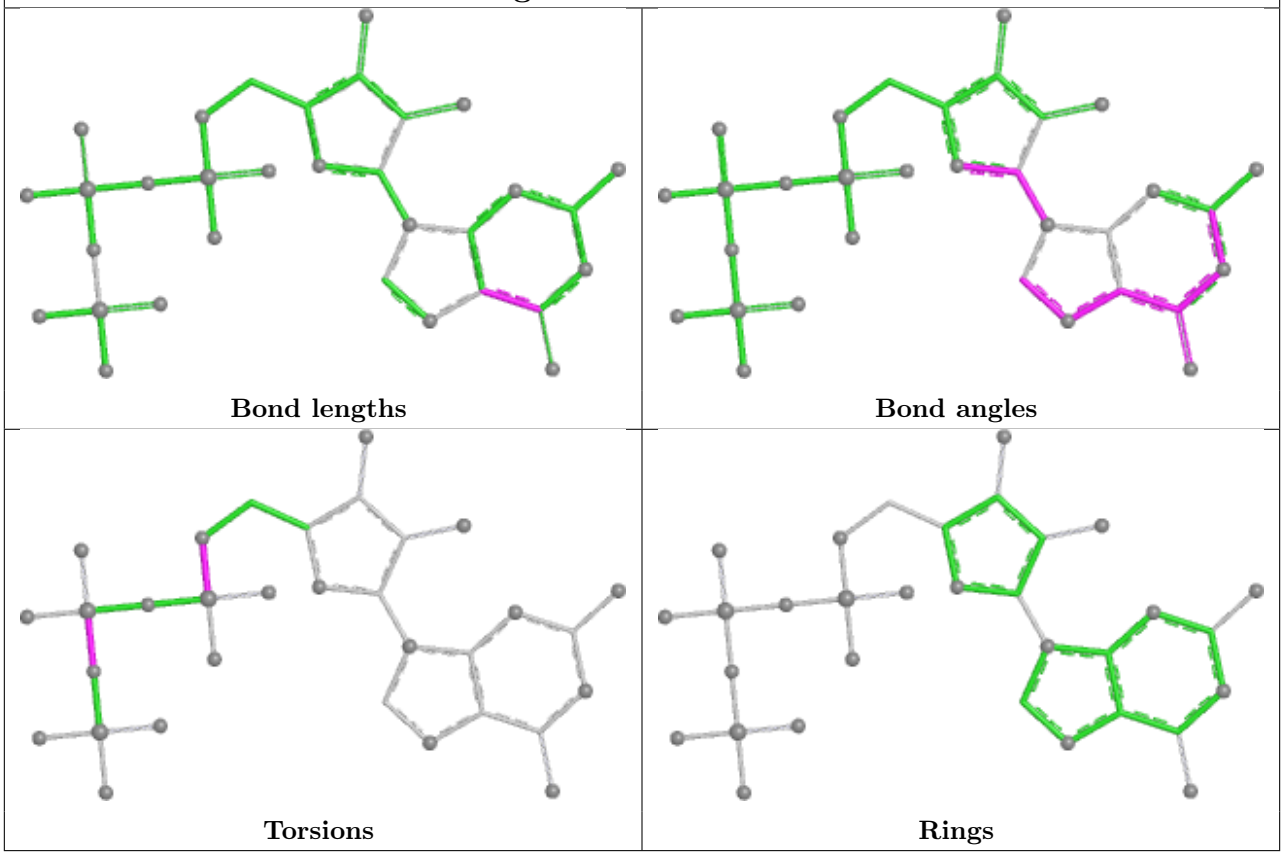


Torsions



Rings

Ligand GTP JD 501



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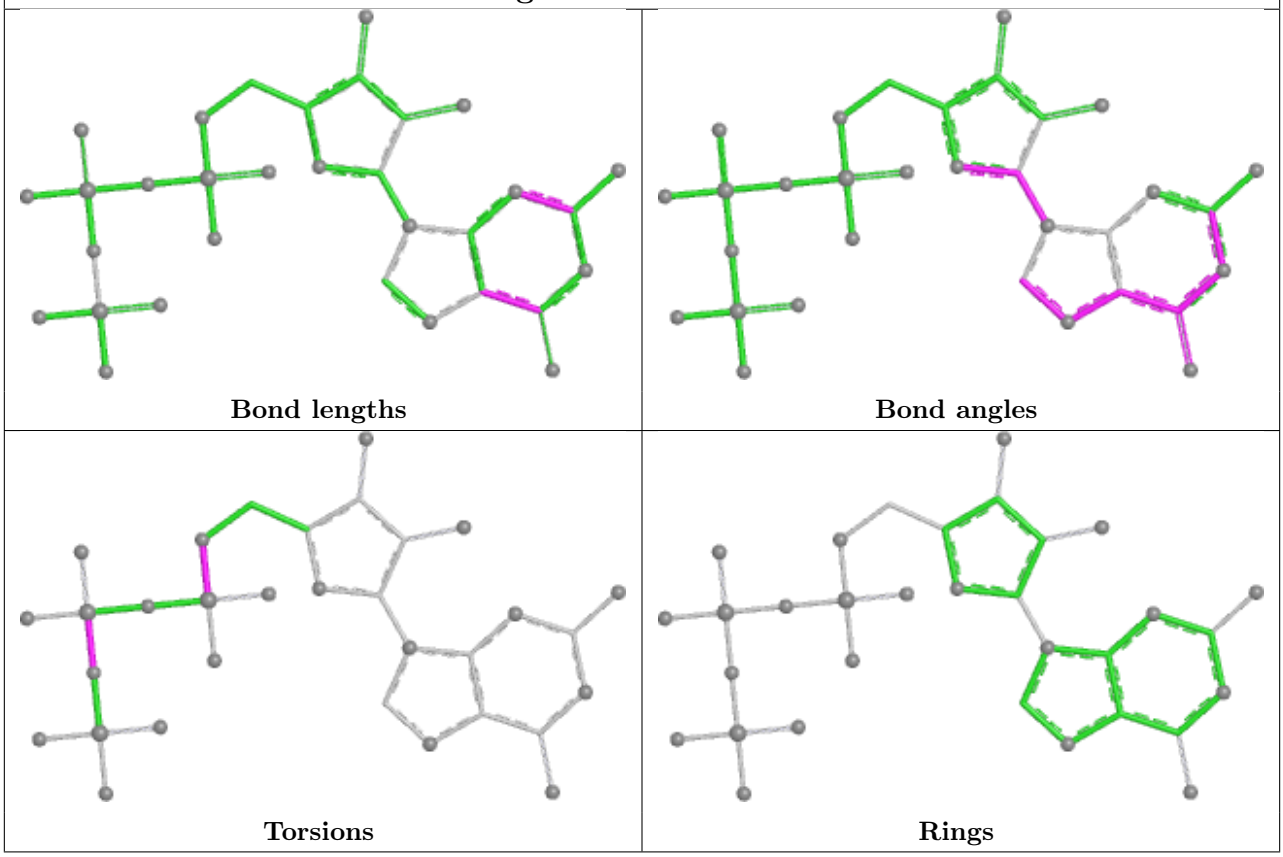

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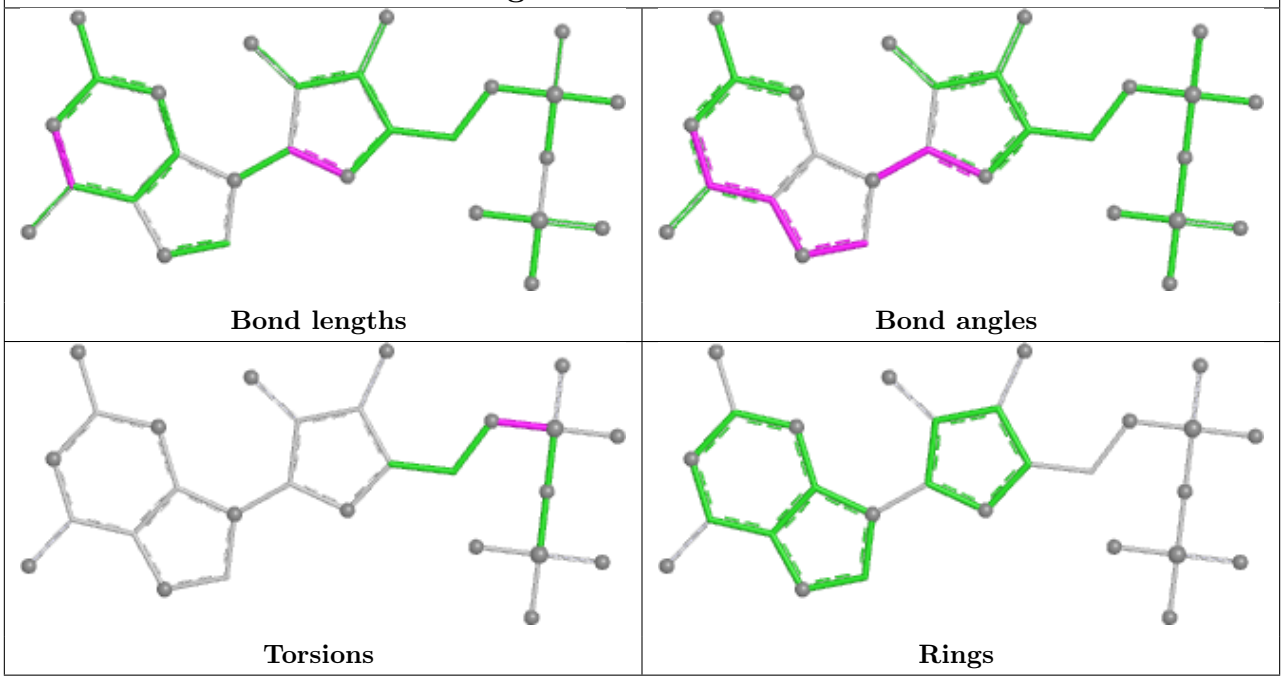

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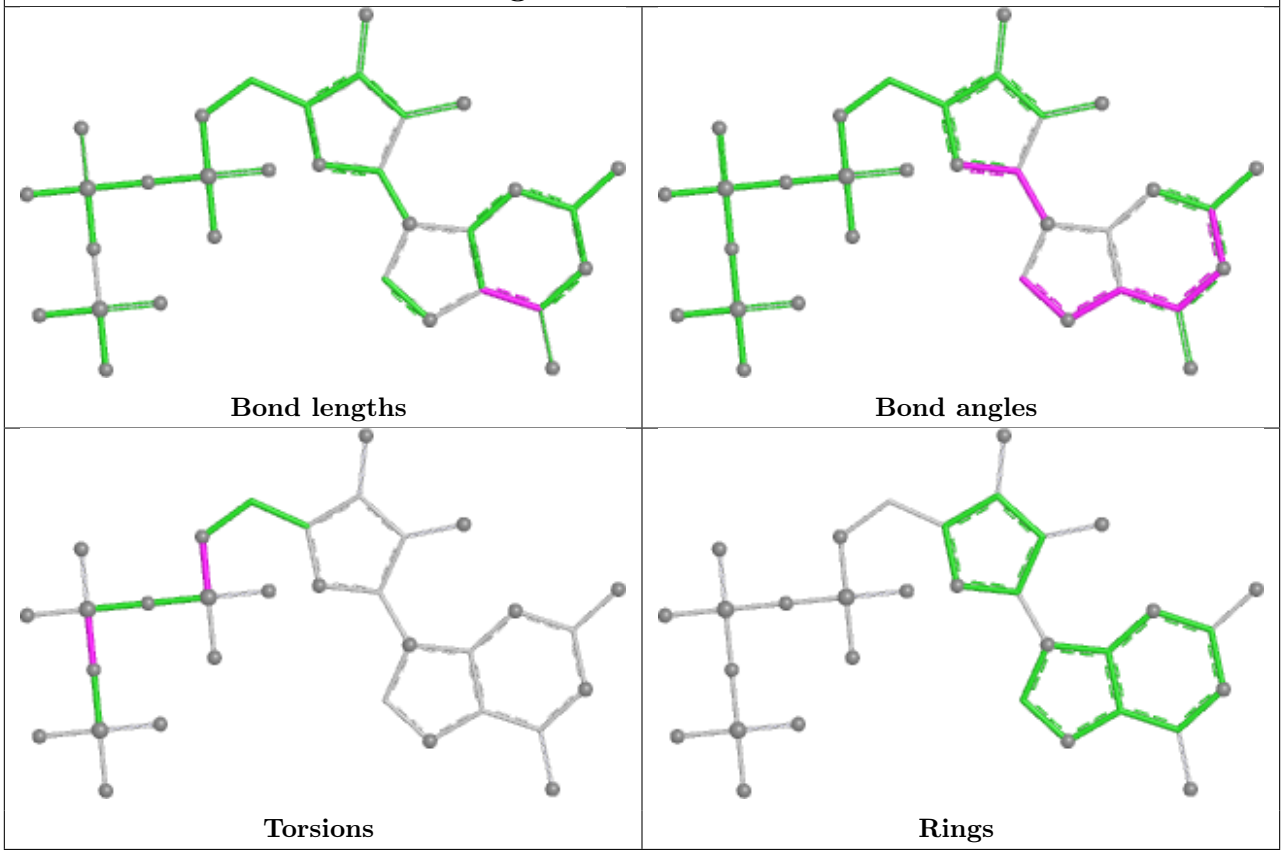

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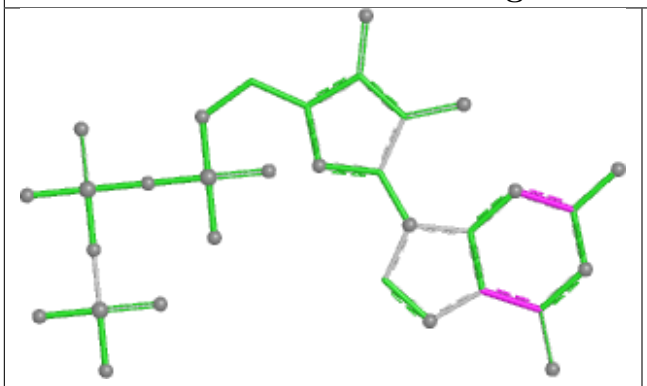

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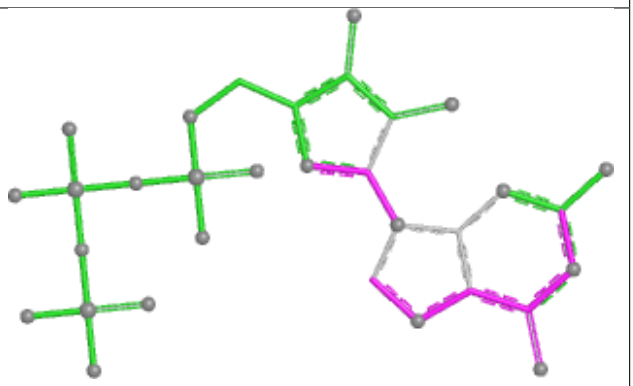

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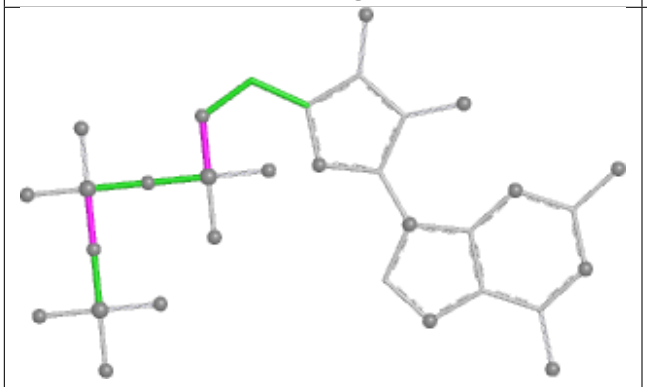

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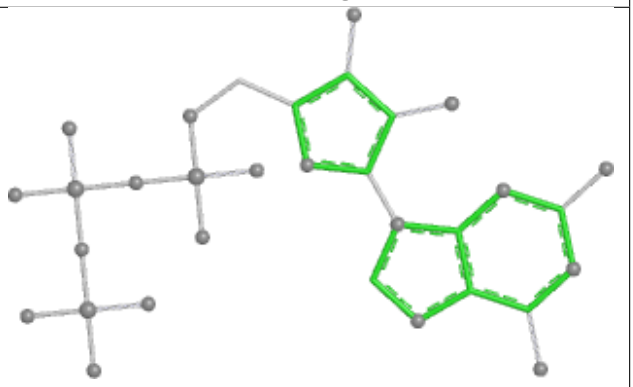

Rings

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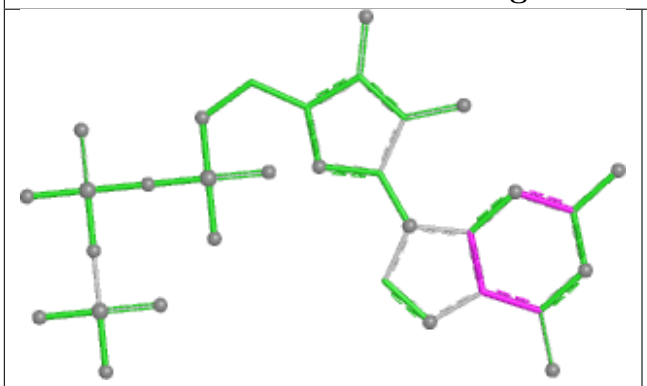

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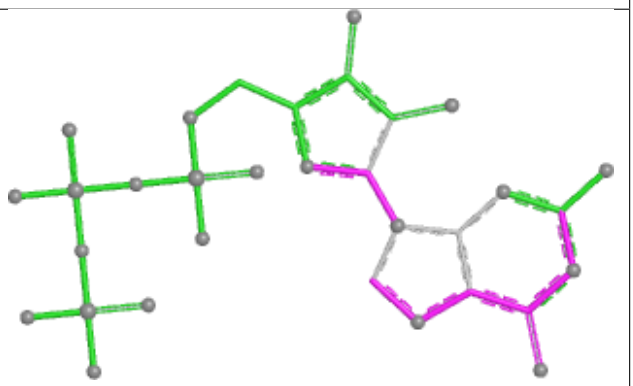

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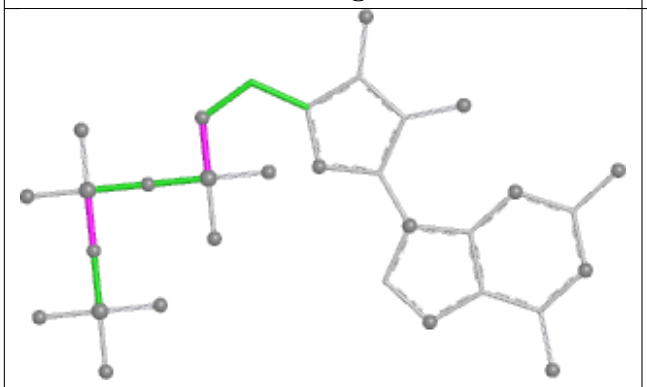

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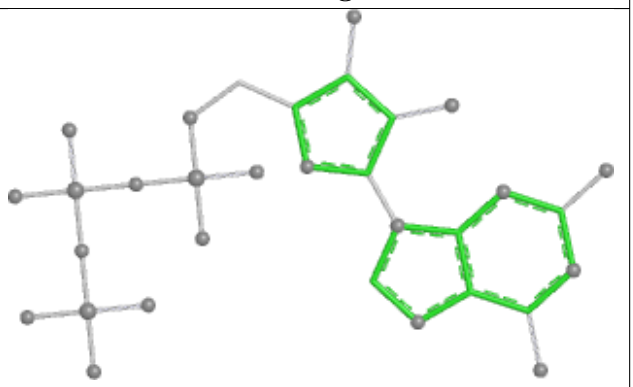
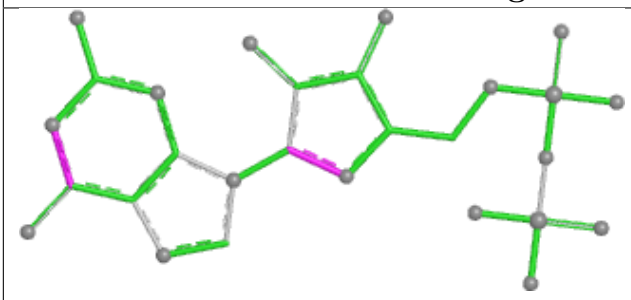


Rings

Ligand GDP AB 501



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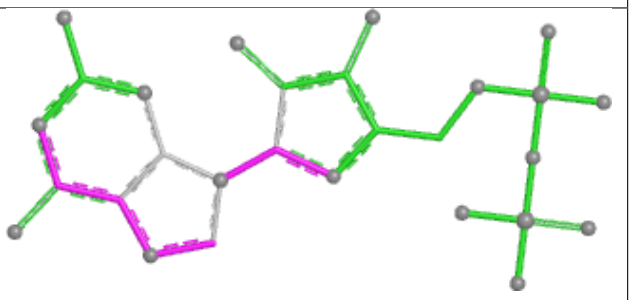

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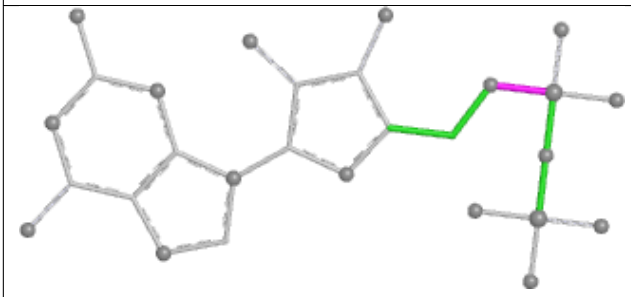

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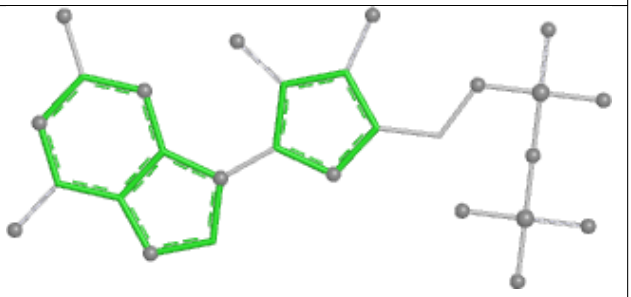

Rings

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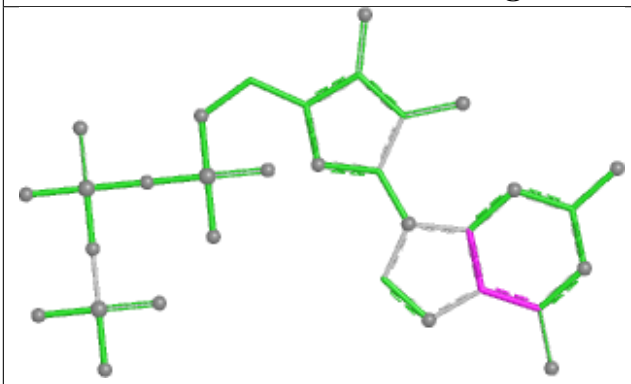

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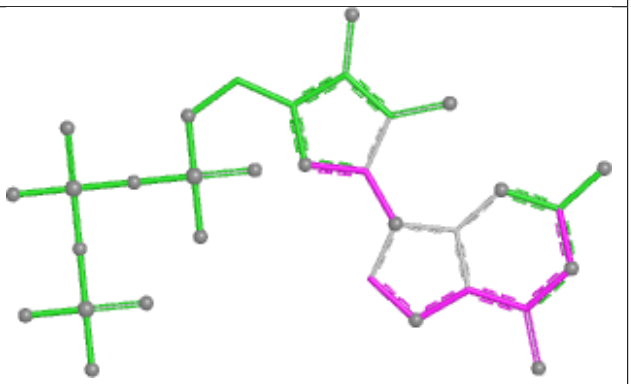

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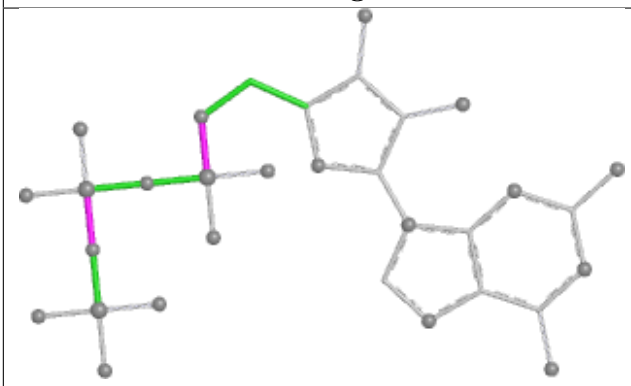

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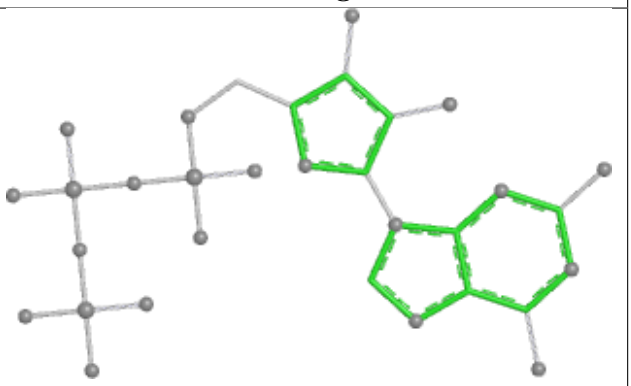

Rings

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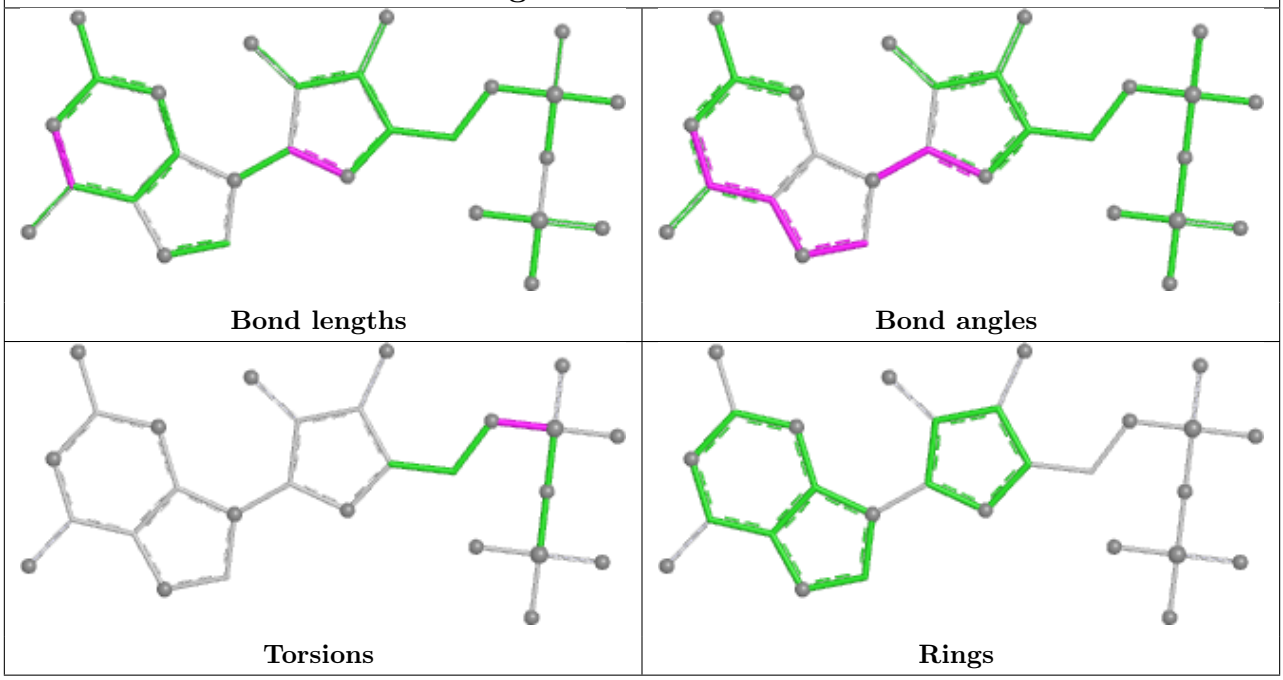

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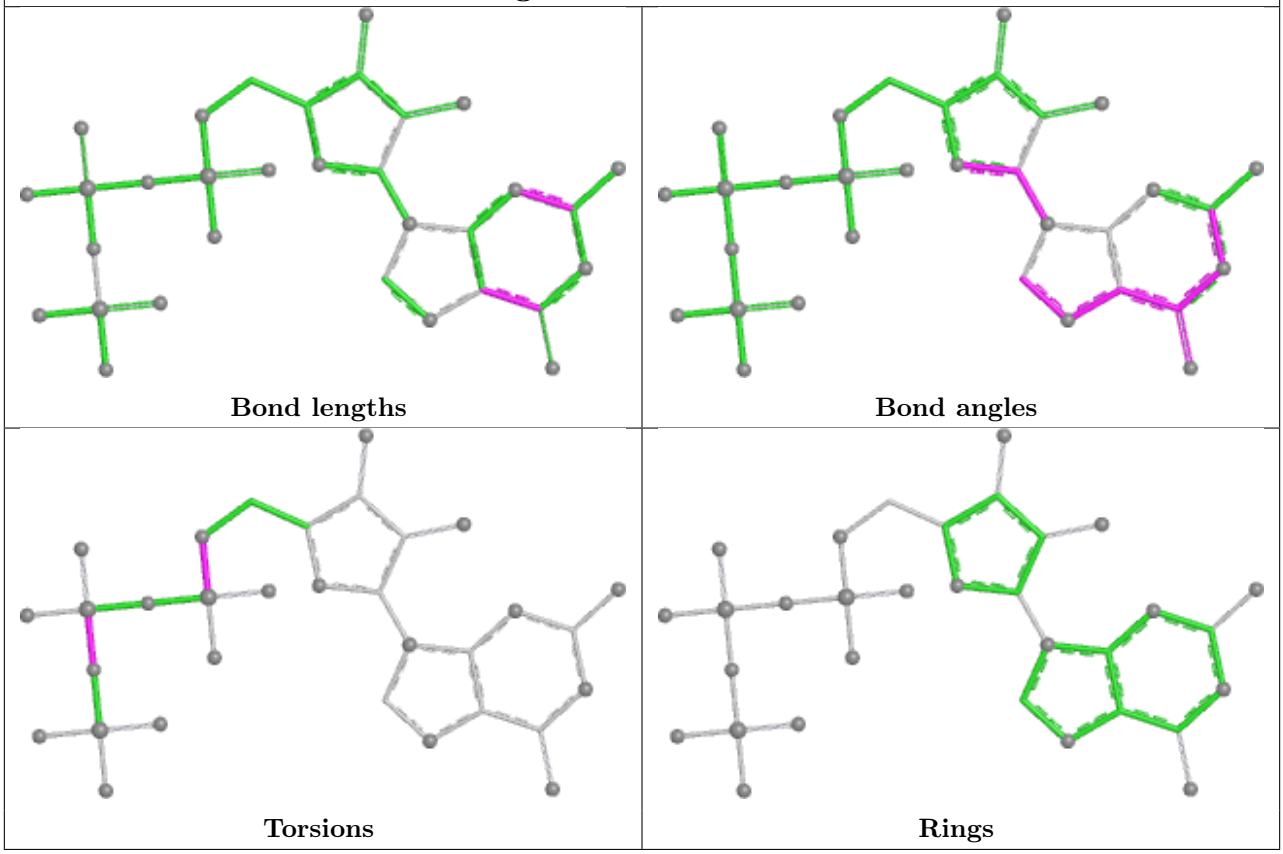

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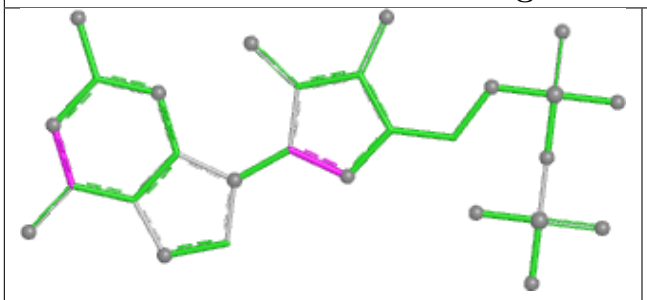

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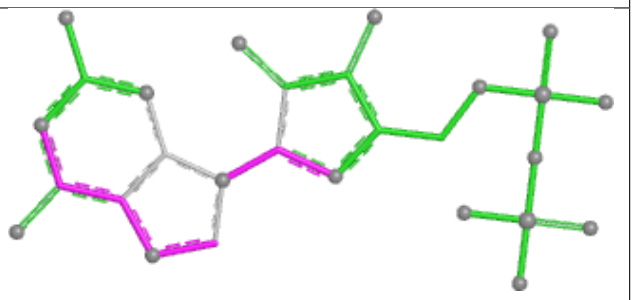

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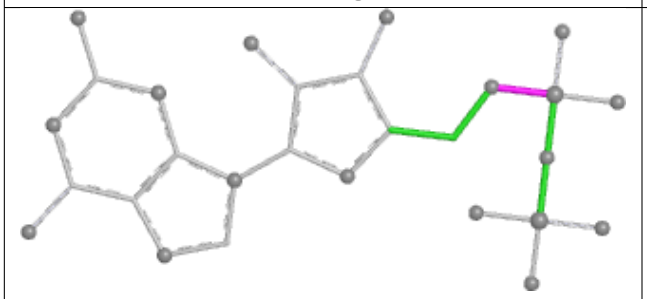

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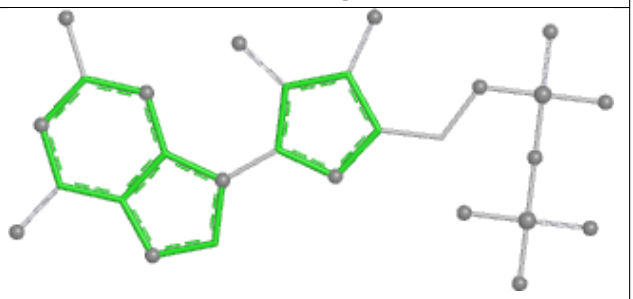

Rings

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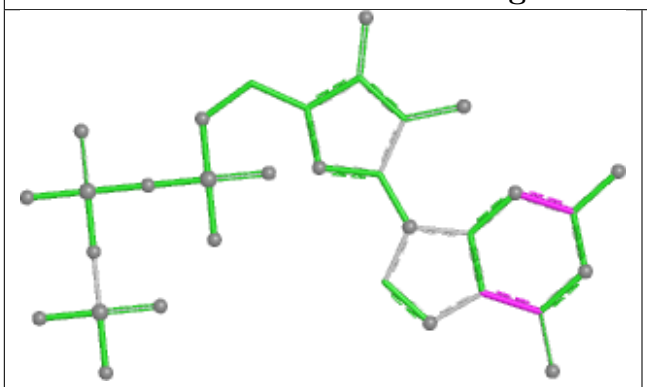

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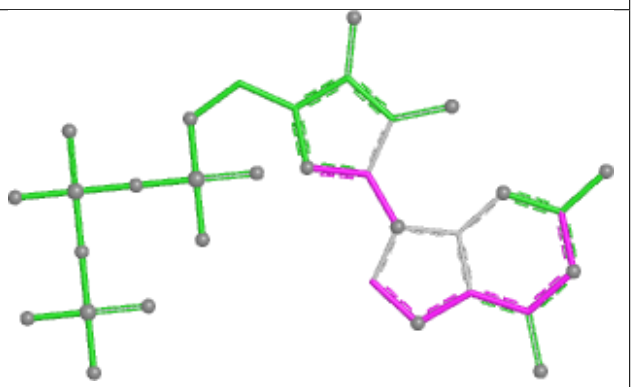

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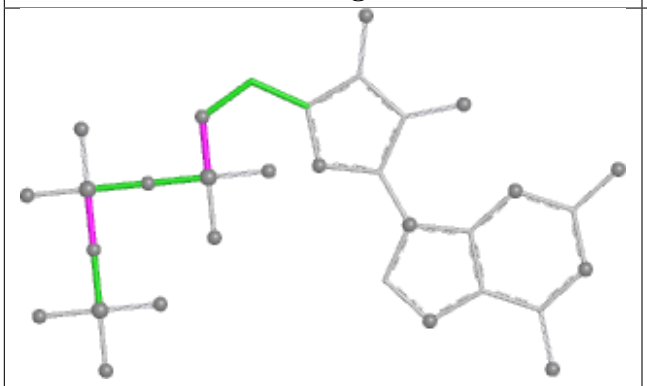

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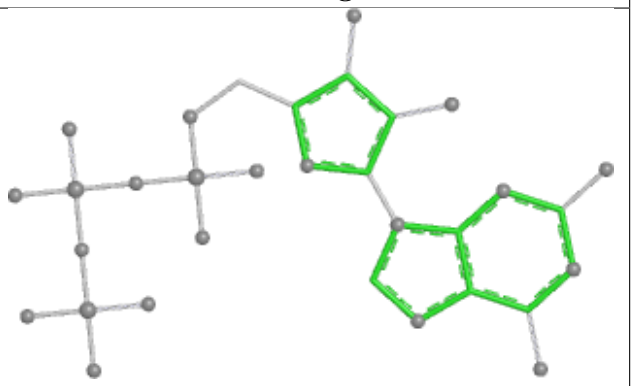

Rings

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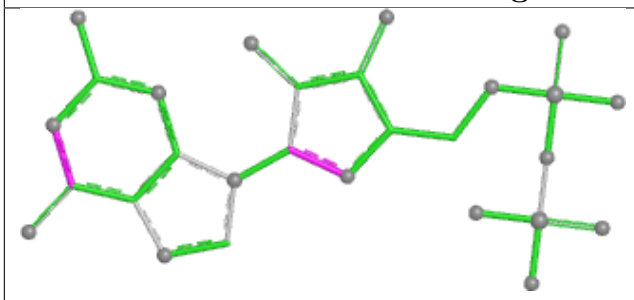

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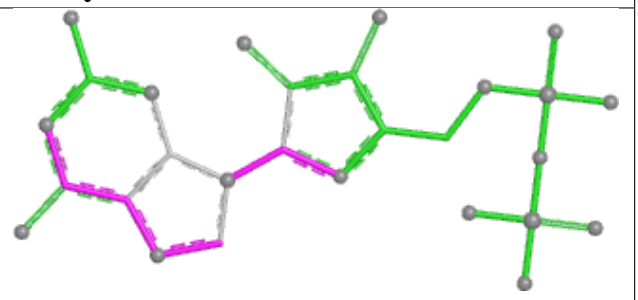

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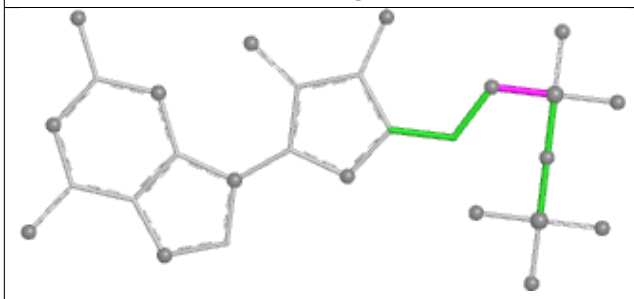

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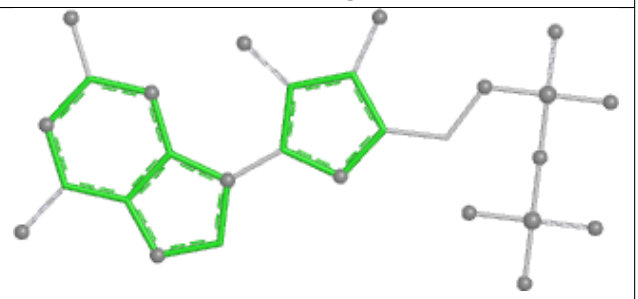

Rings

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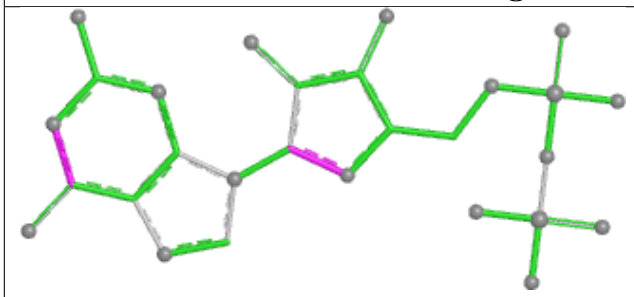

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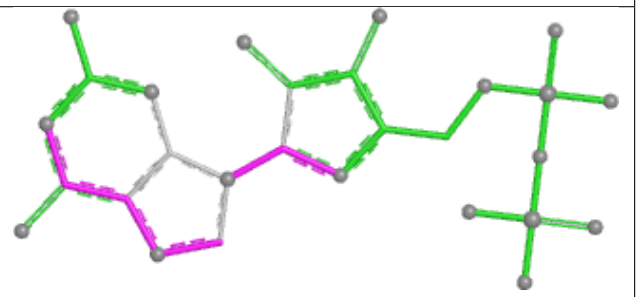

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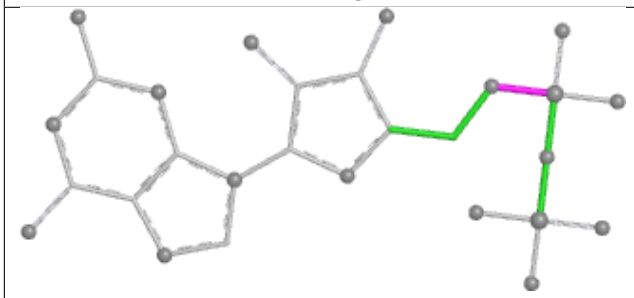

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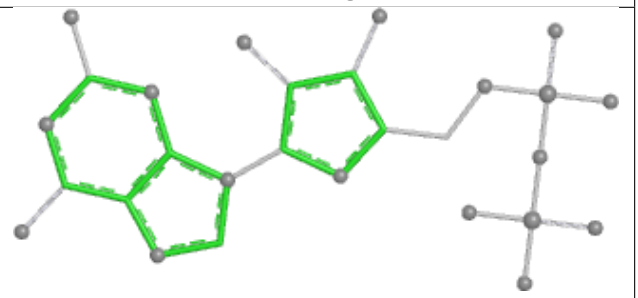

Rings

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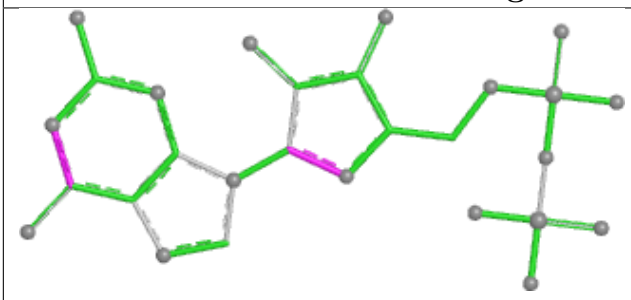

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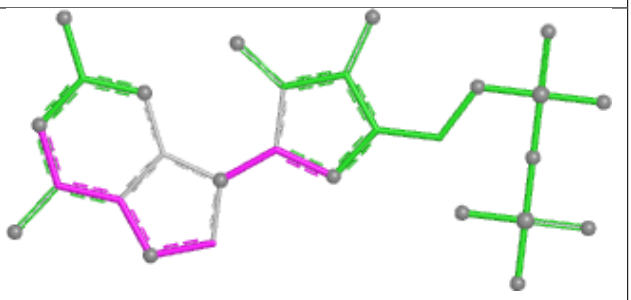

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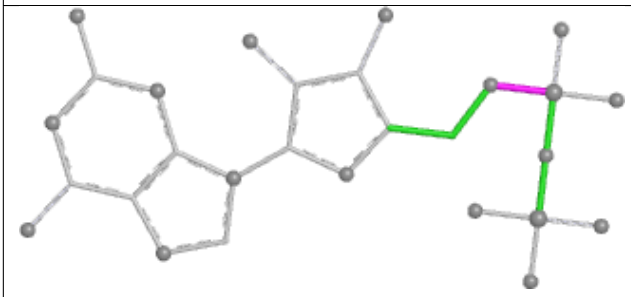

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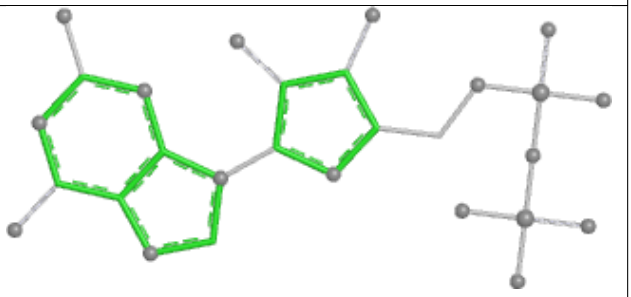

Rings

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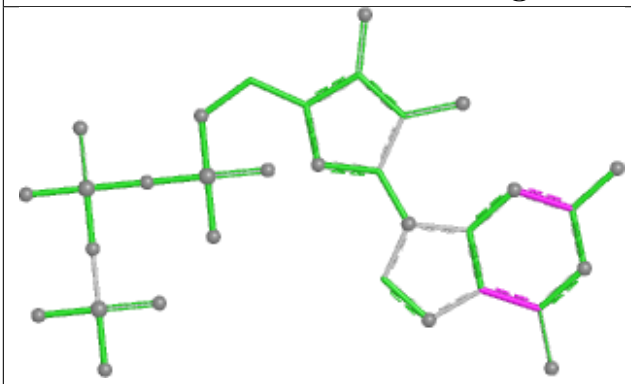

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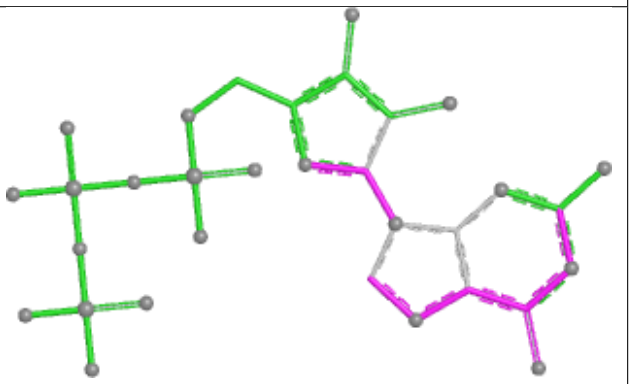

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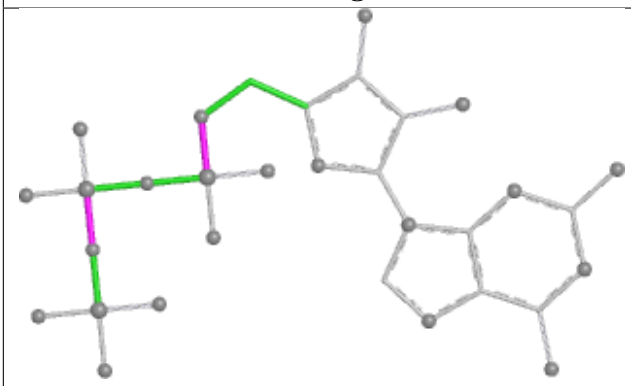

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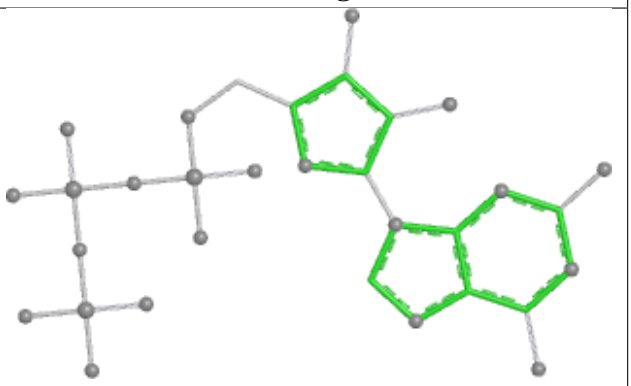
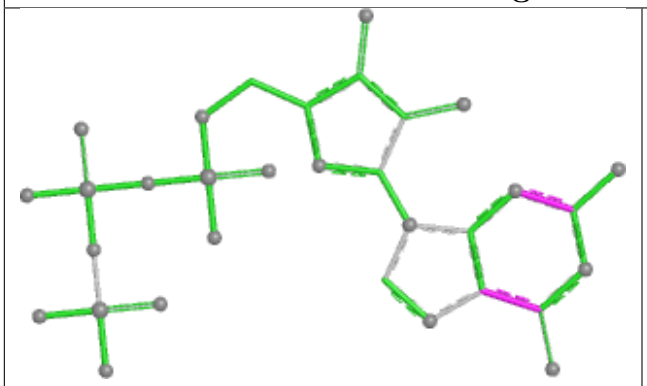


Rings

Ligand GTP KS 602



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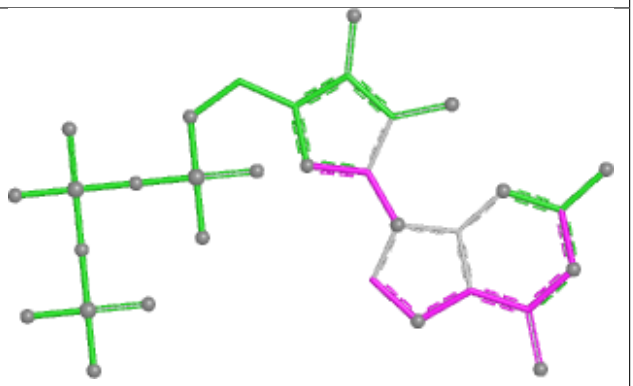
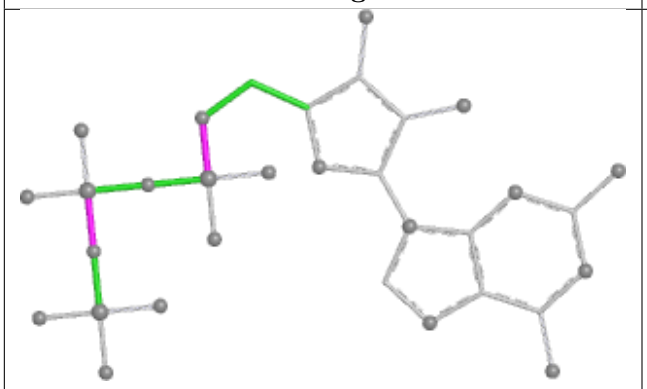


Bond angles



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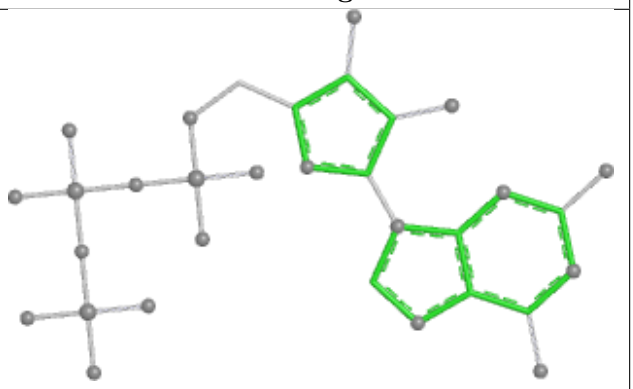

Rings

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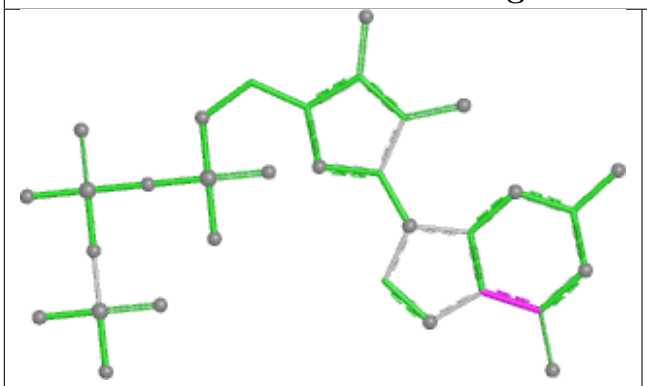

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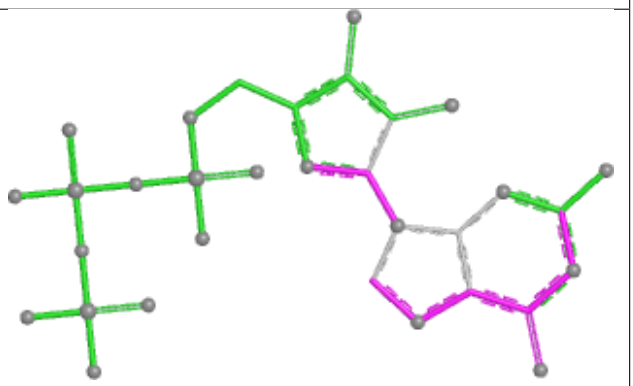

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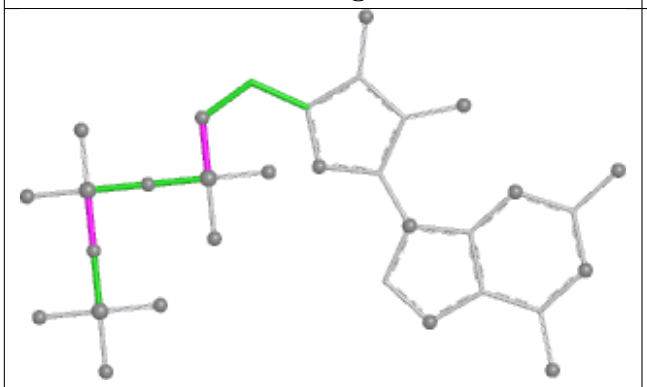
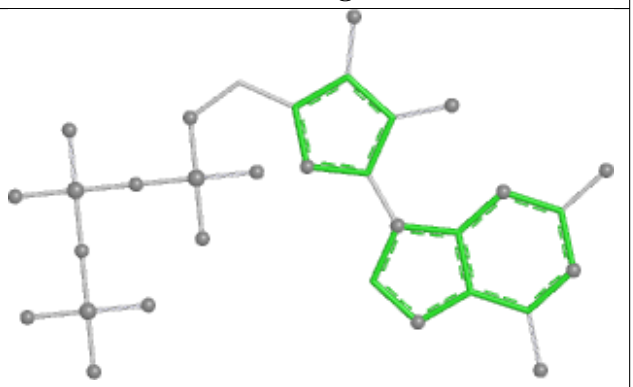
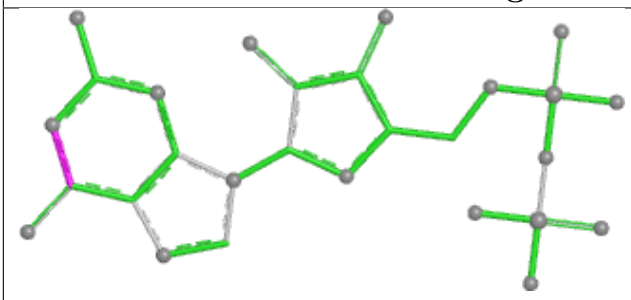


Torsions



Rings

Ligand GDP GD 501



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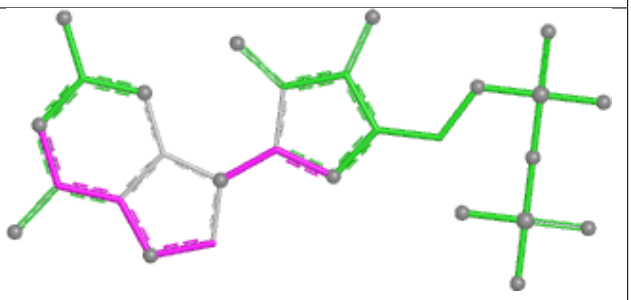

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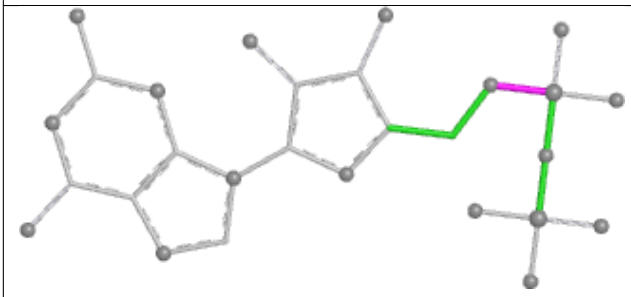

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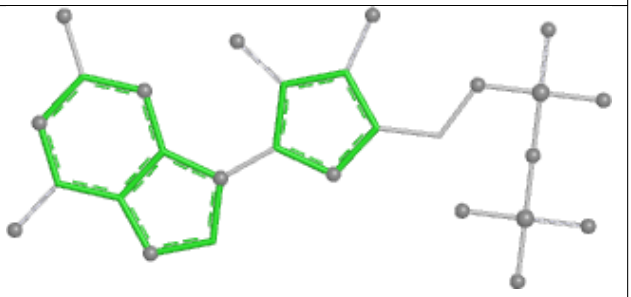
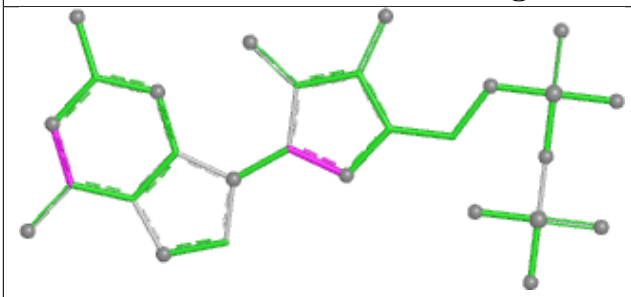


Rings

Ligand GDP GS 501



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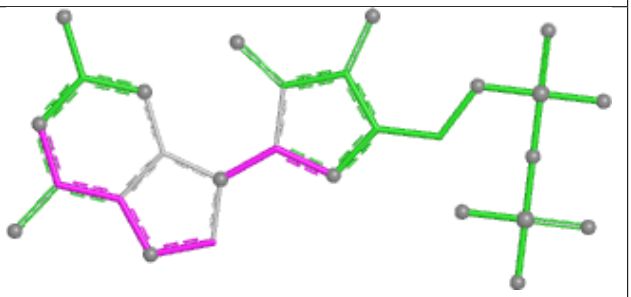

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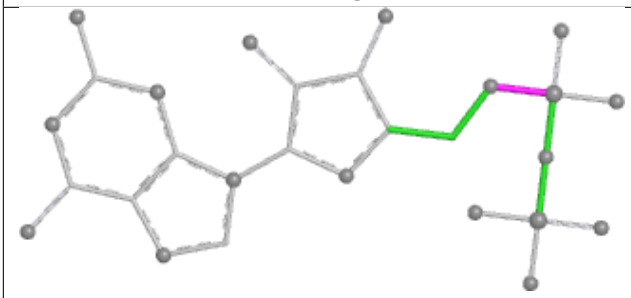

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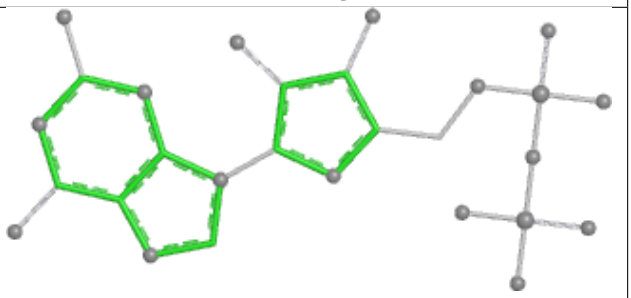

Rings

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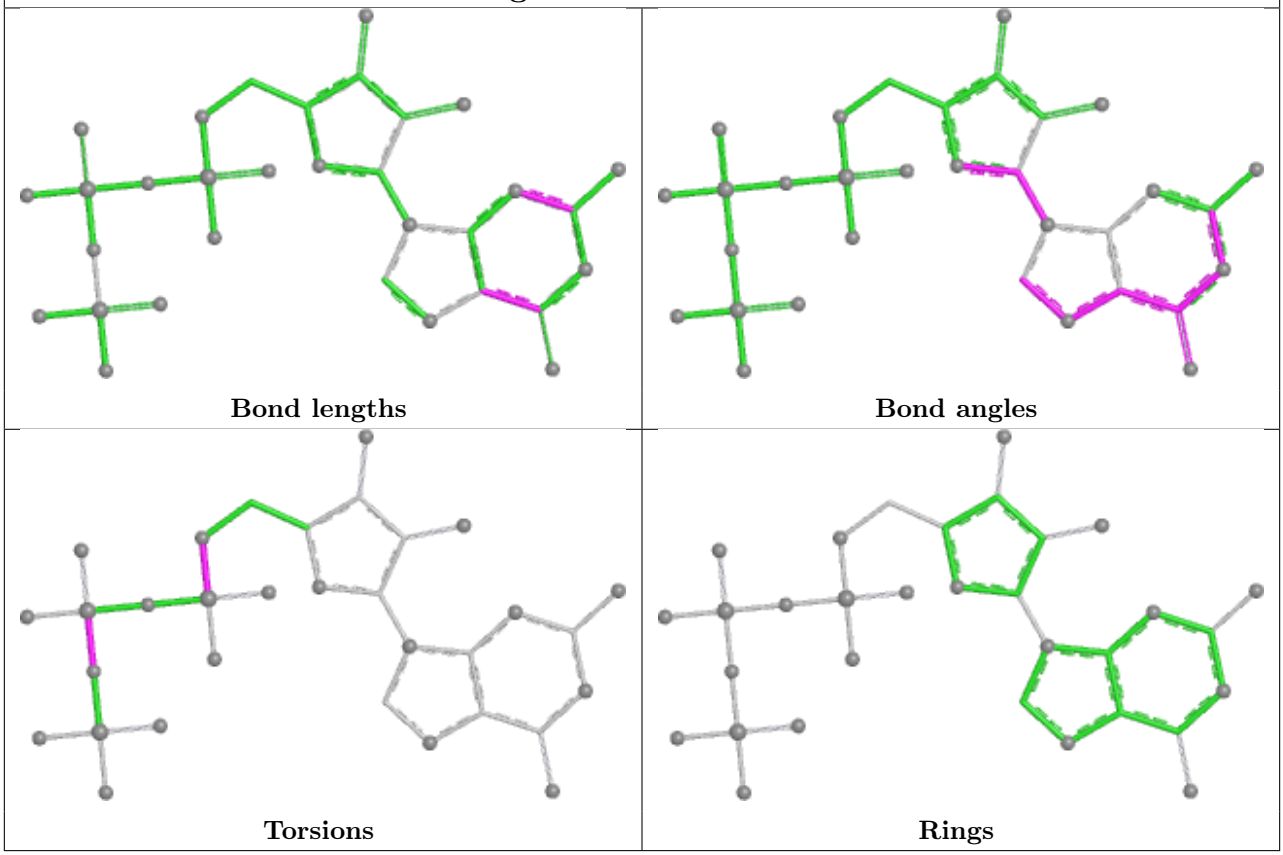

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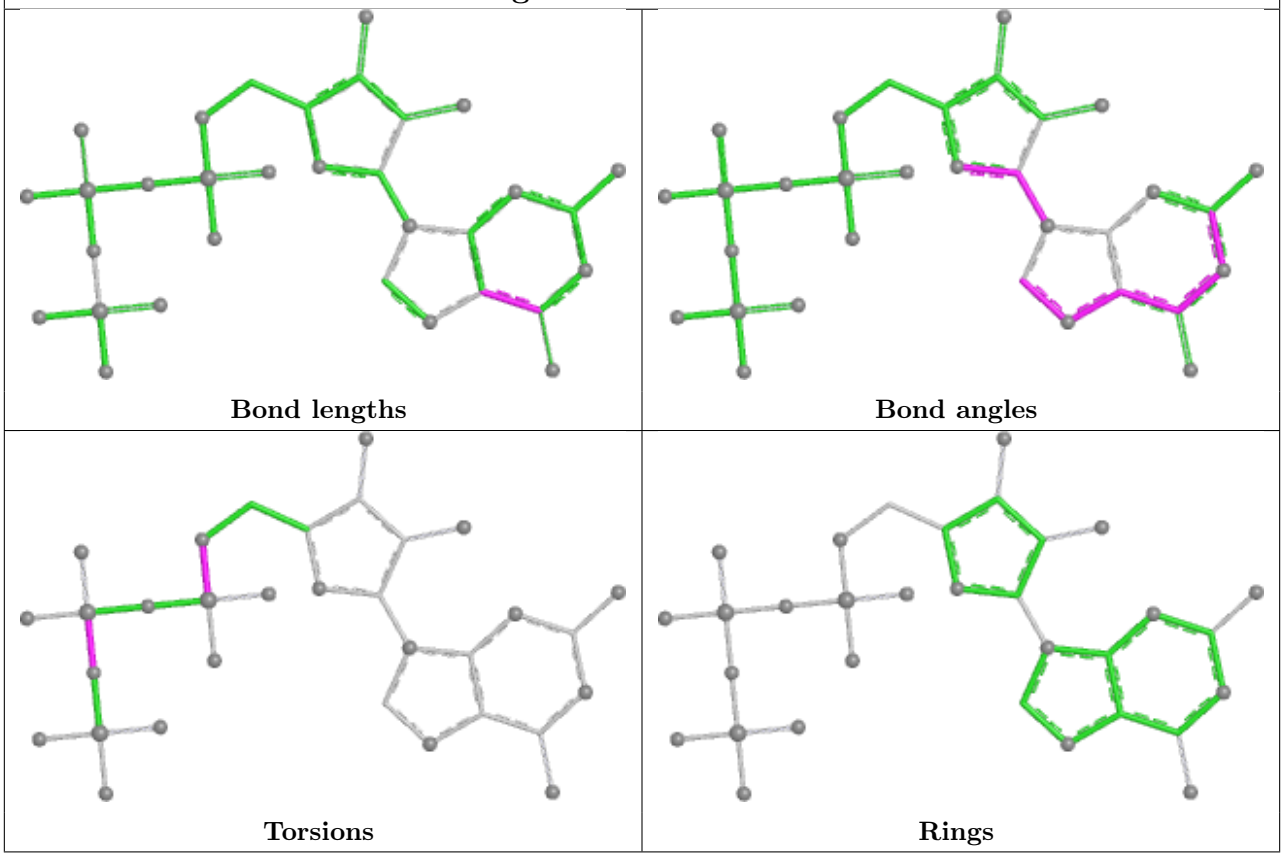

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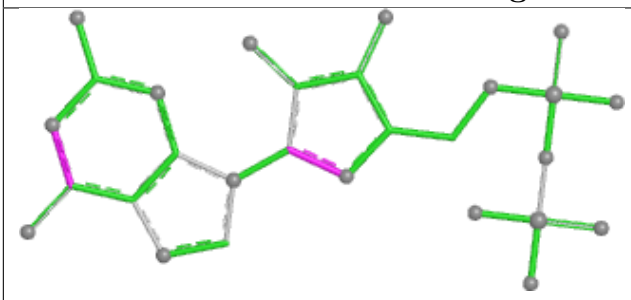

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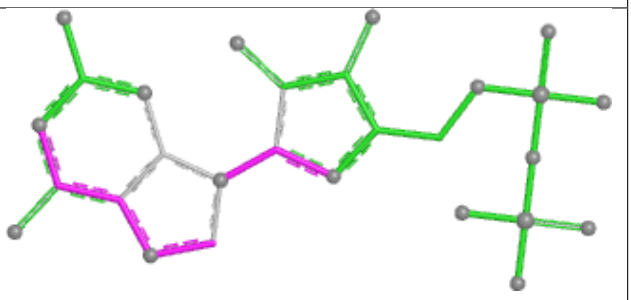

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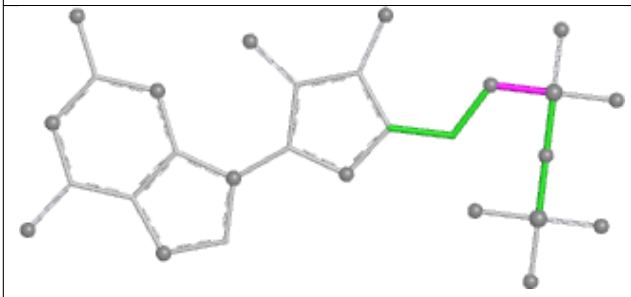

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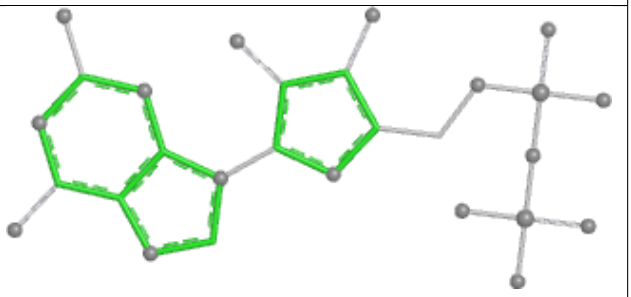
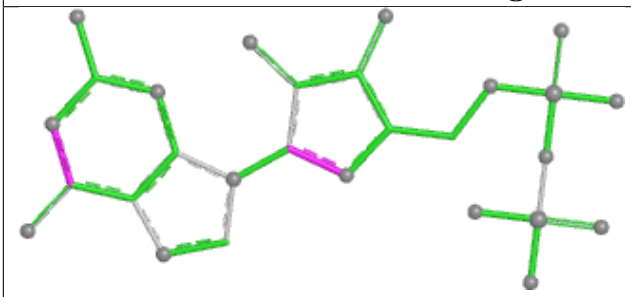


Rings

Ligand GDP CN 501



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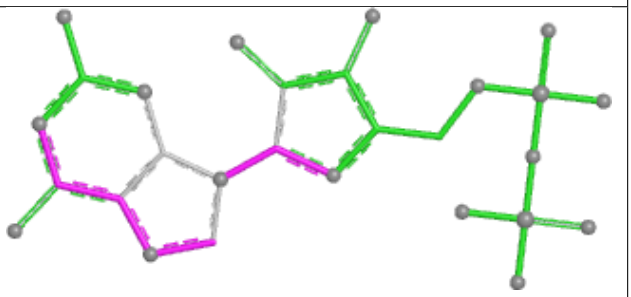

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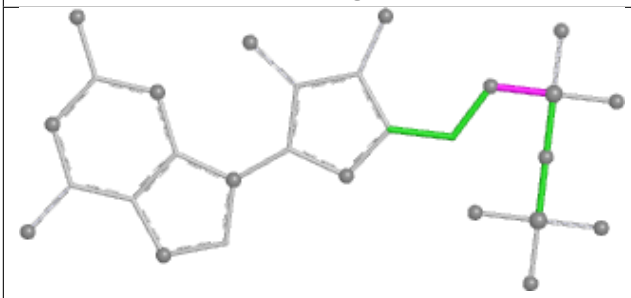

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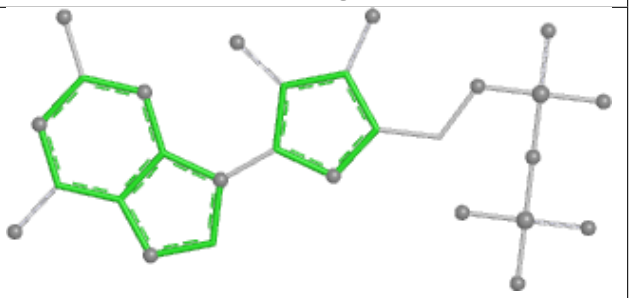

Rings

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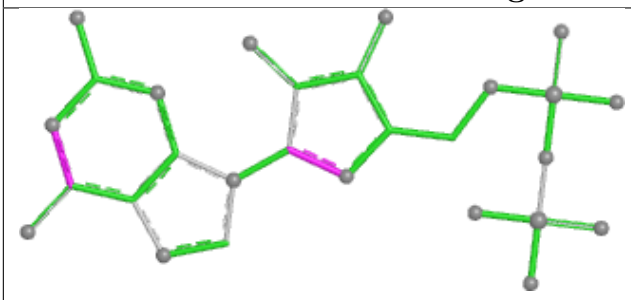

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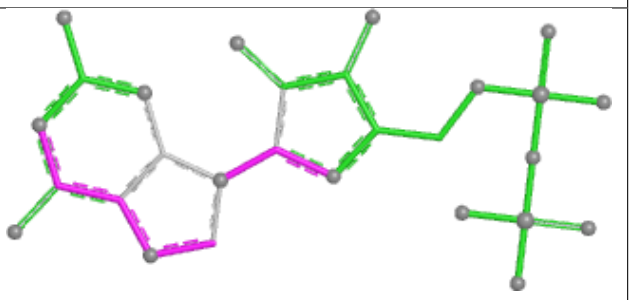

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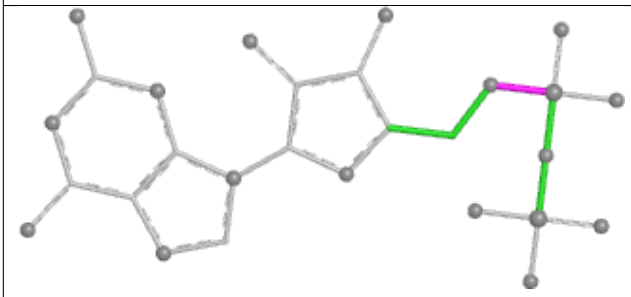

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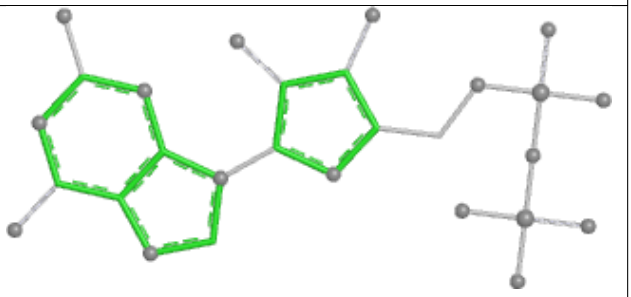

Rings

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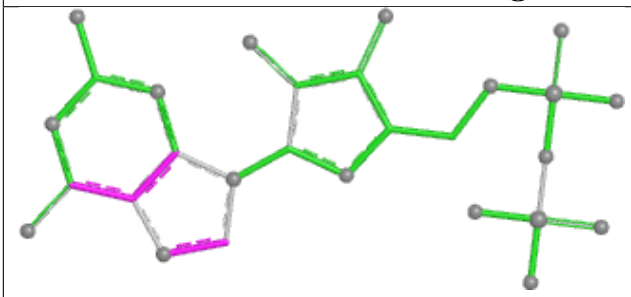

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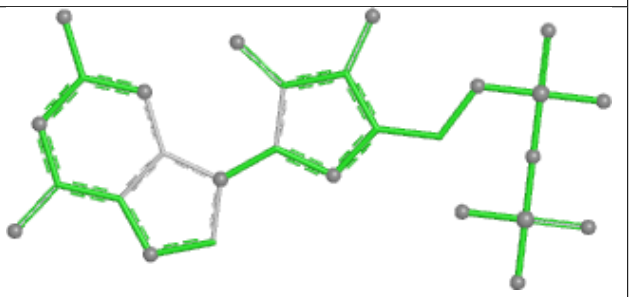

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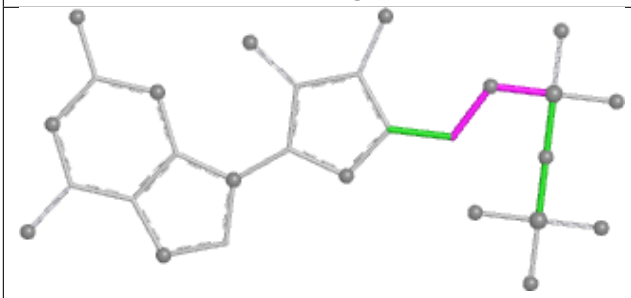

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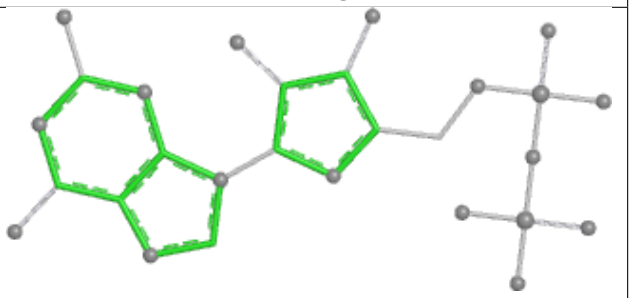

Rings

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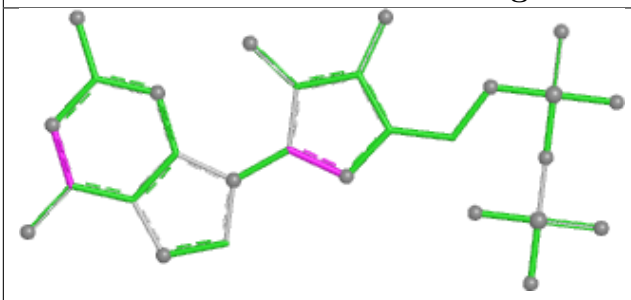

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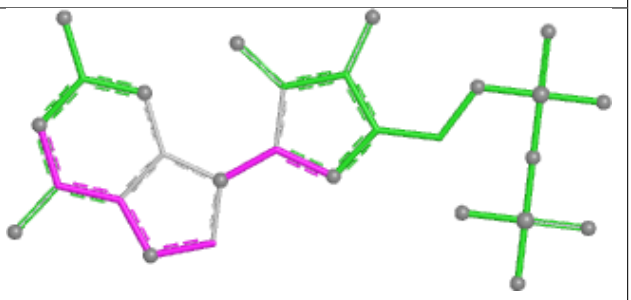

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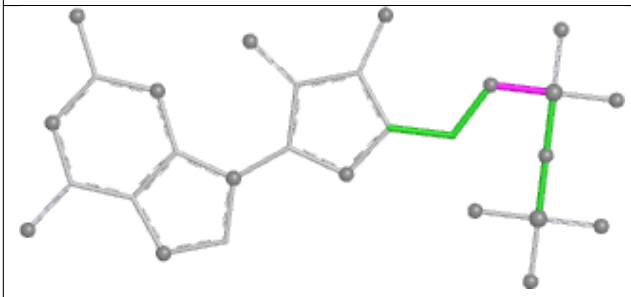

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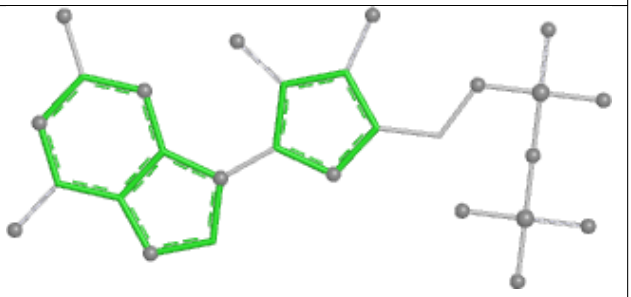
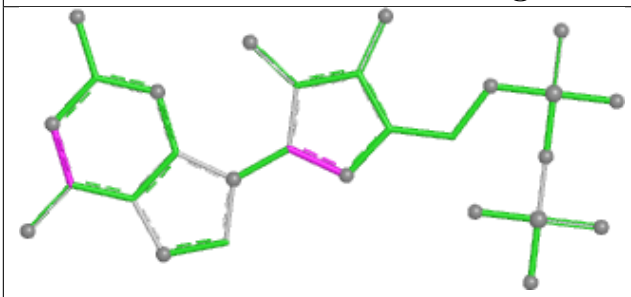


Rings

Ligand GDP JX 501



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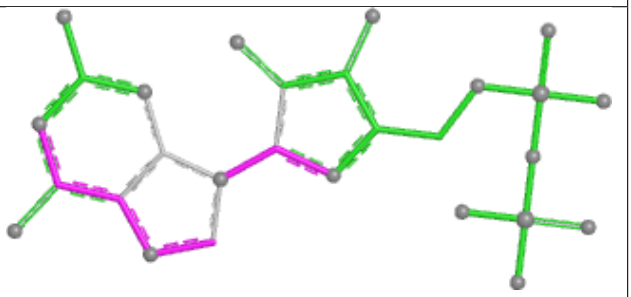

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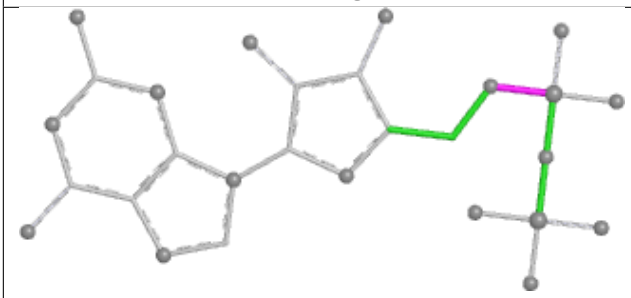

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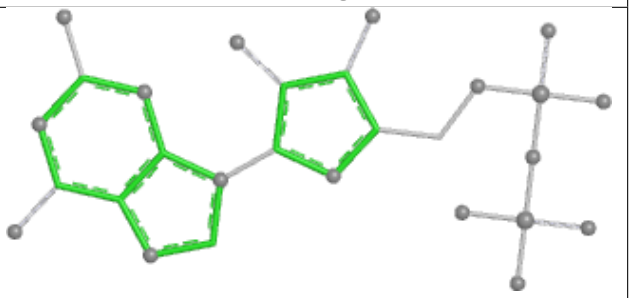

Rings

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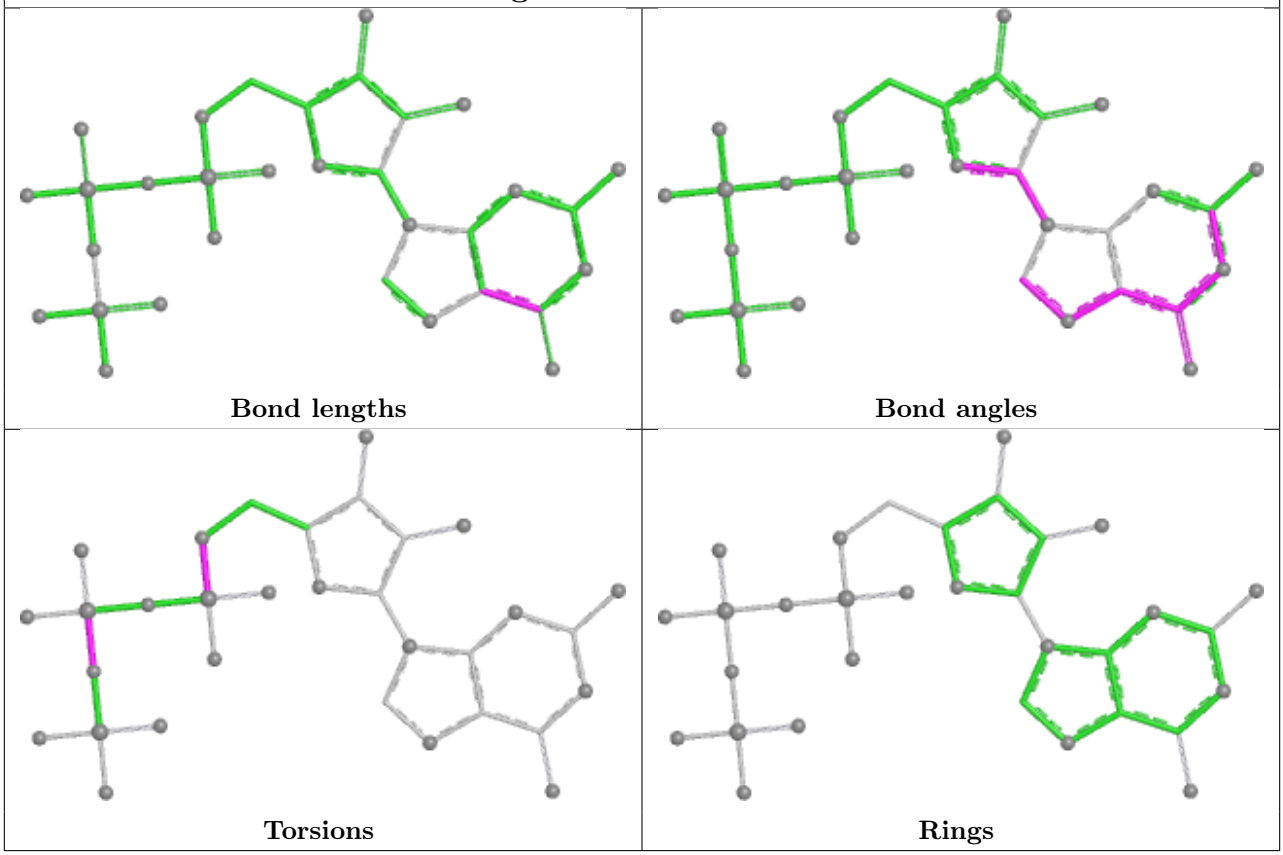

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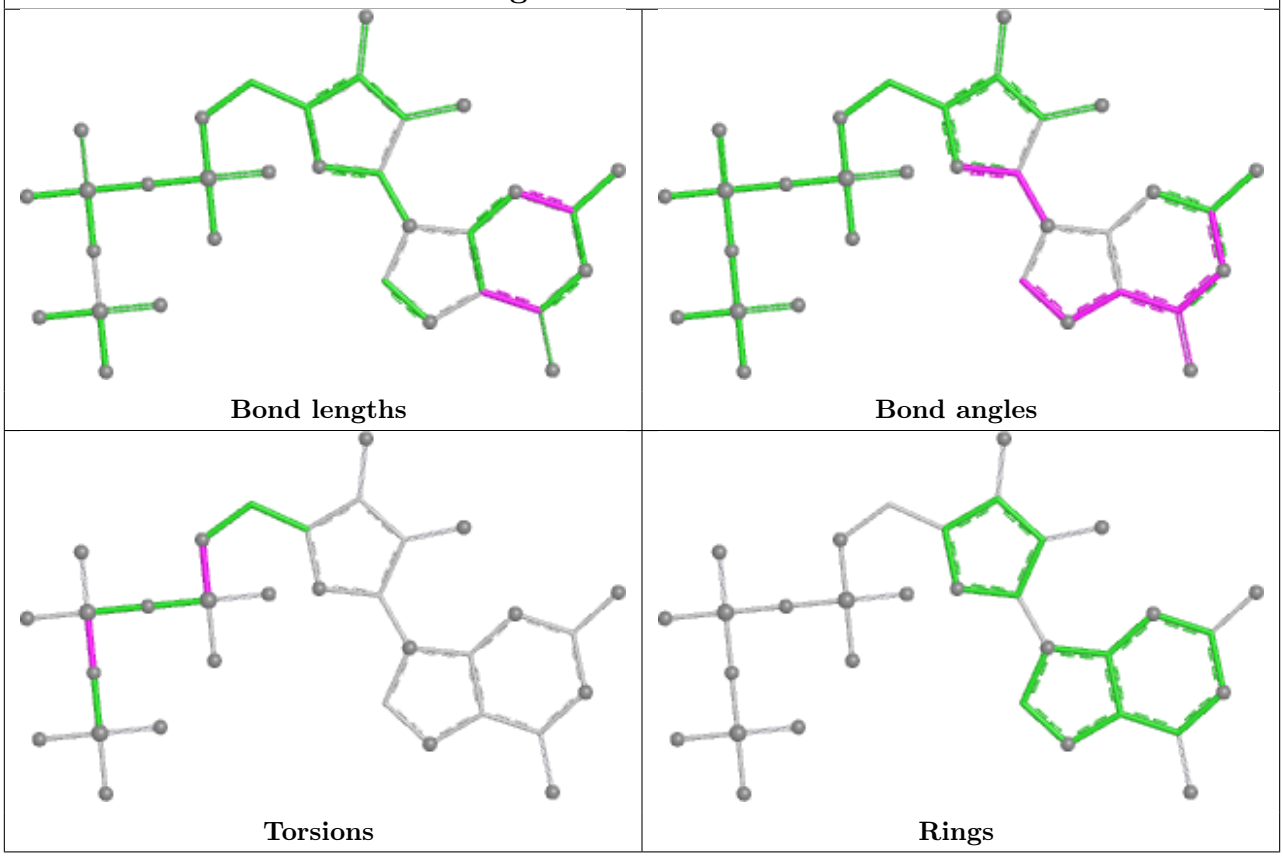

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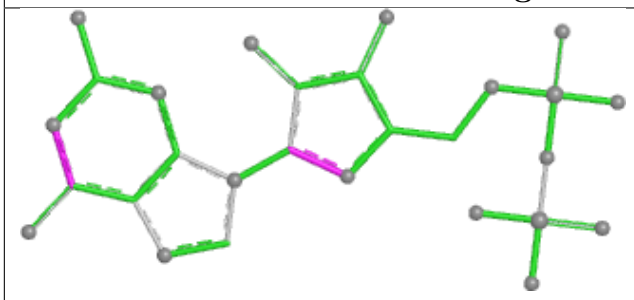

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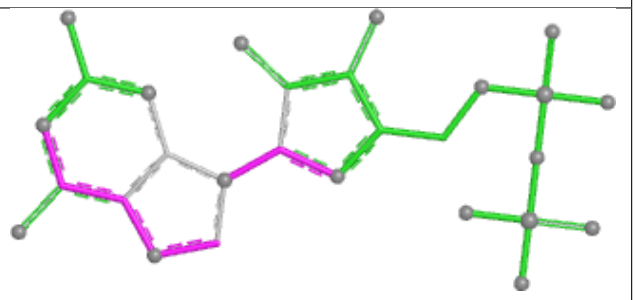

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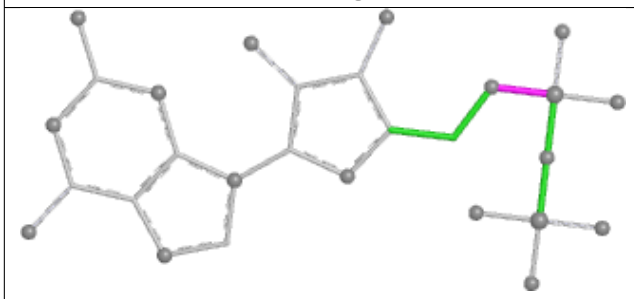

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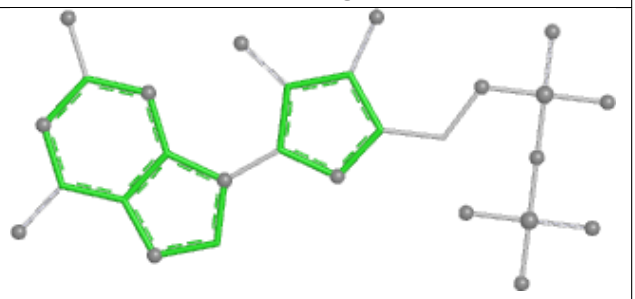
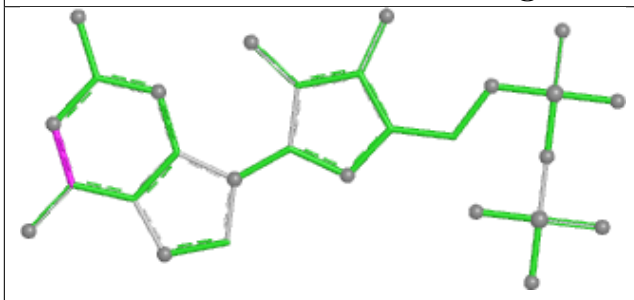


Rings

Ligand GDP IS 501



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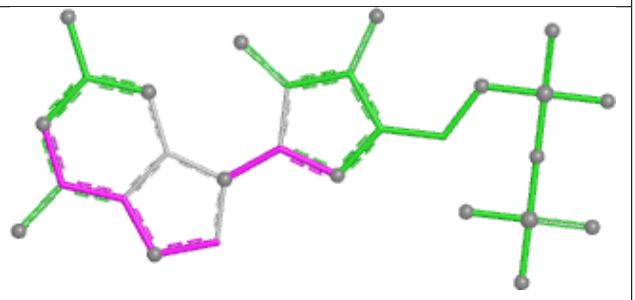

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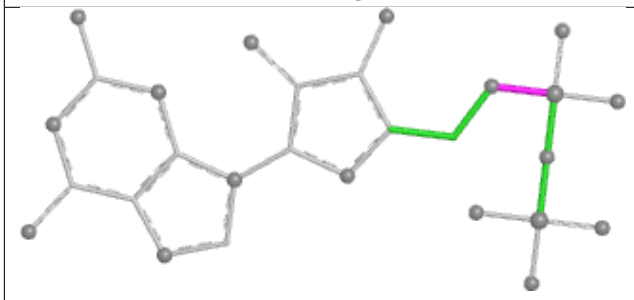

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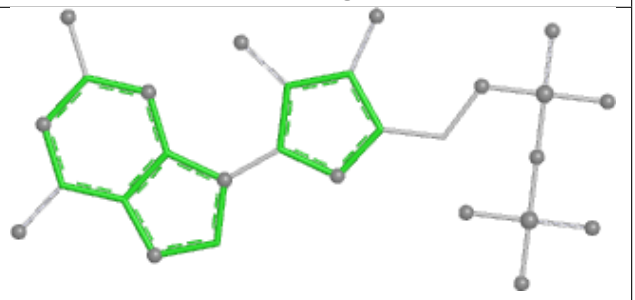
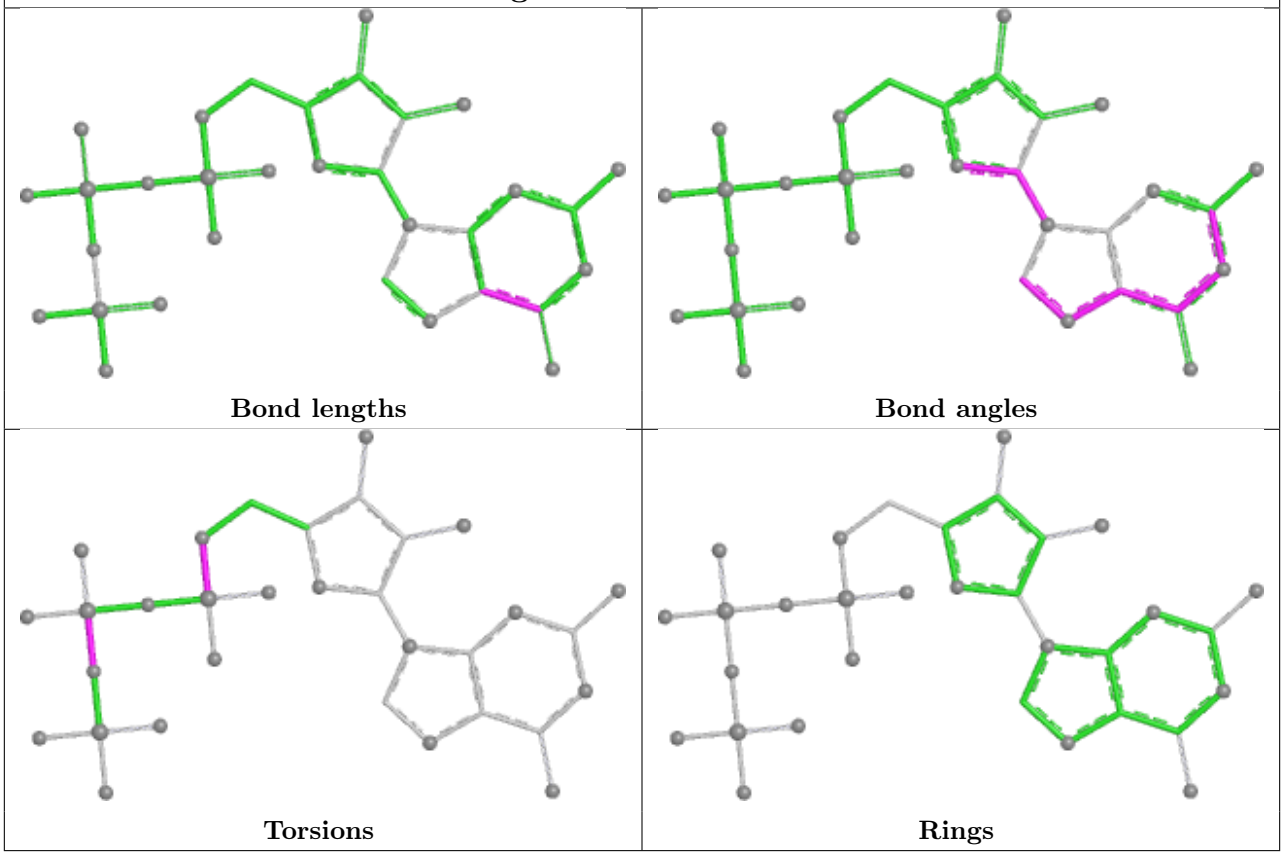


Rings

Ligand GTP GE 501



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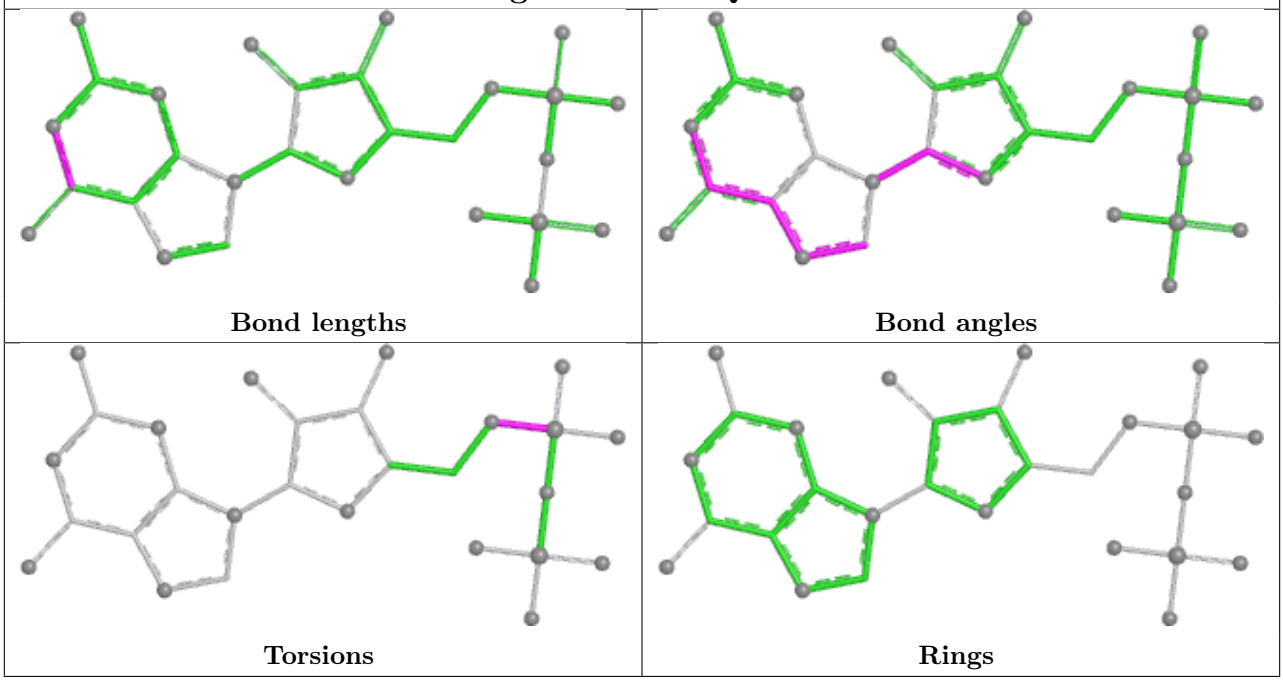

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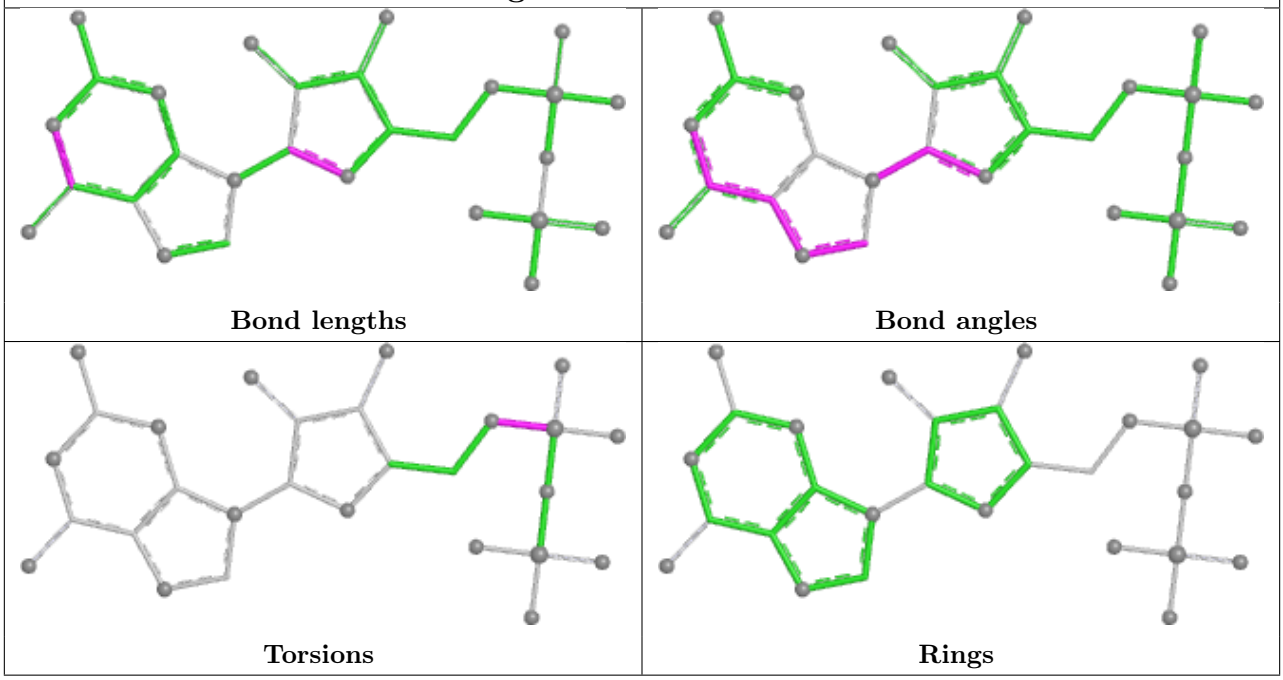

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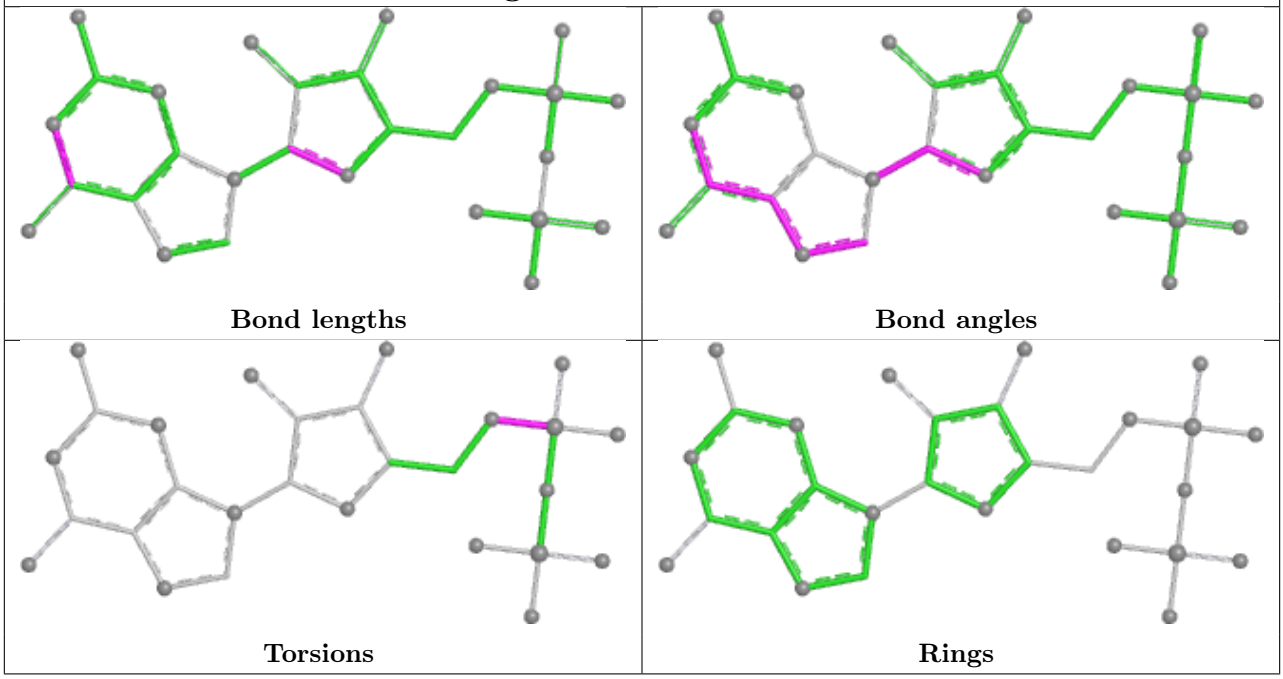

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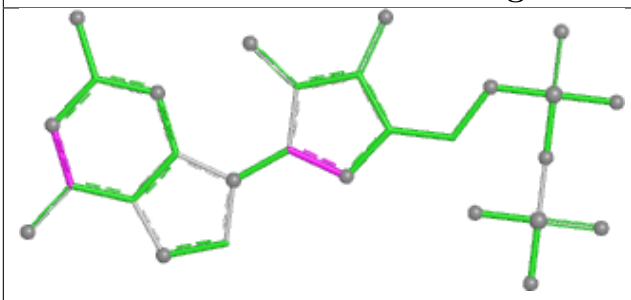

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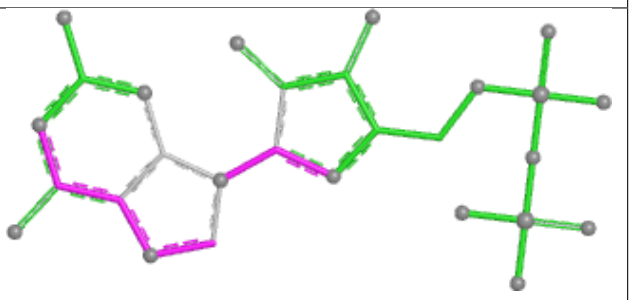
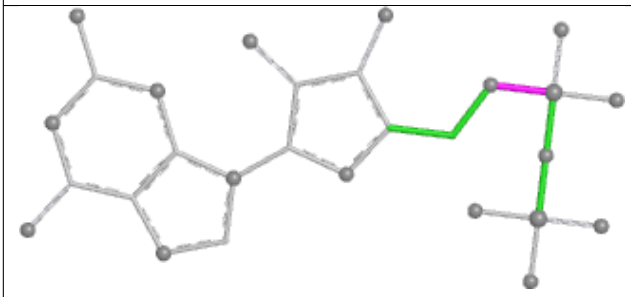
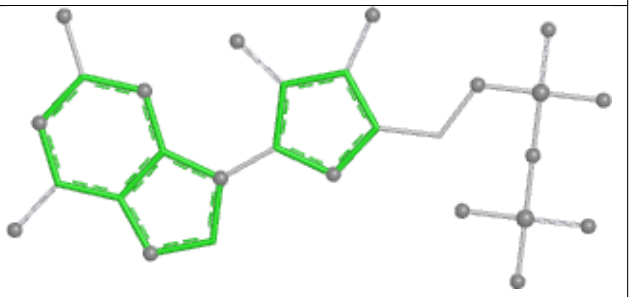


Bond angles

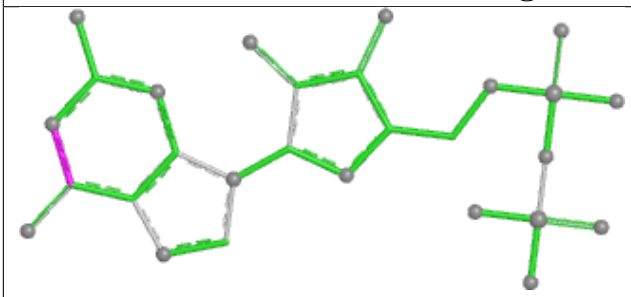


Torsions



Rings

Ligand GDP JI 501



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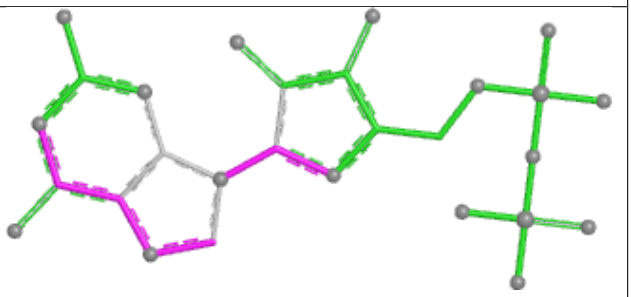

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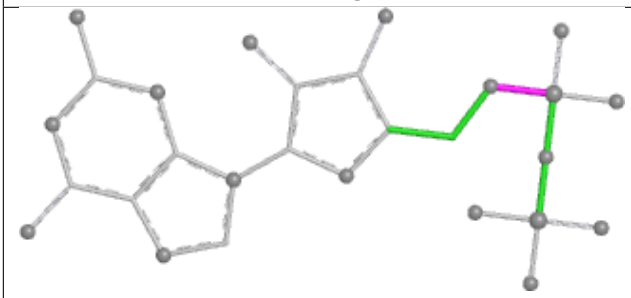
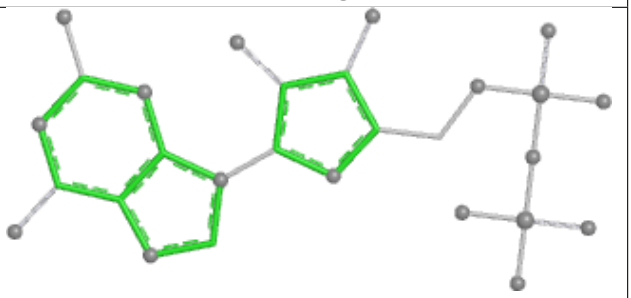
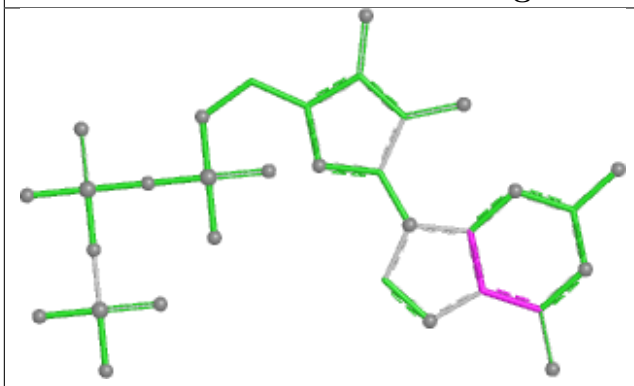


Torsions



Rings

Ligand GTP CS 501



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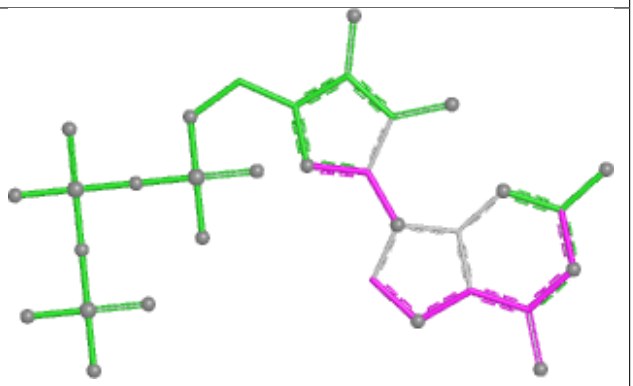

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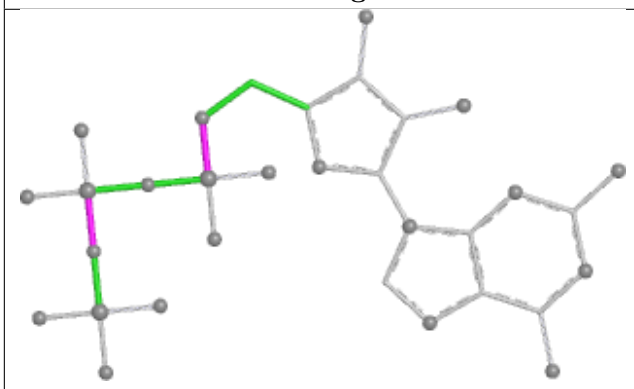

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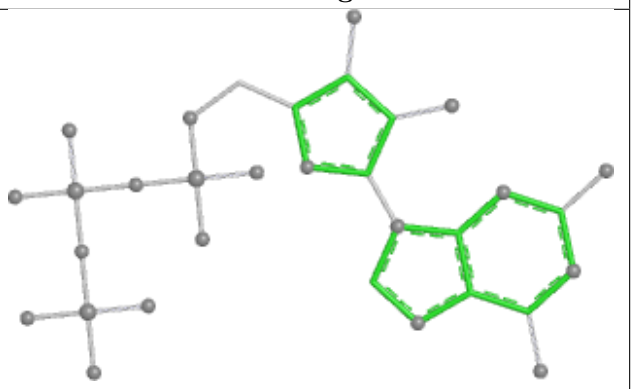

Rings

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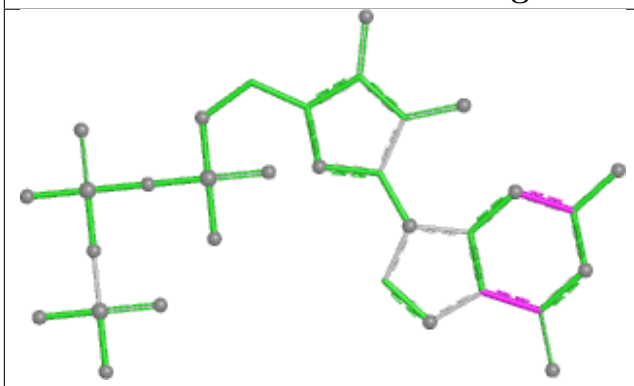

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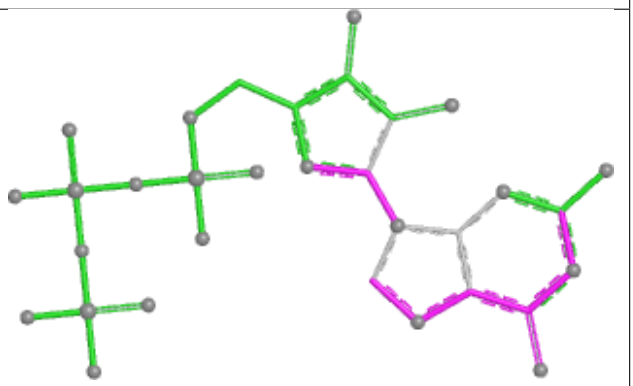

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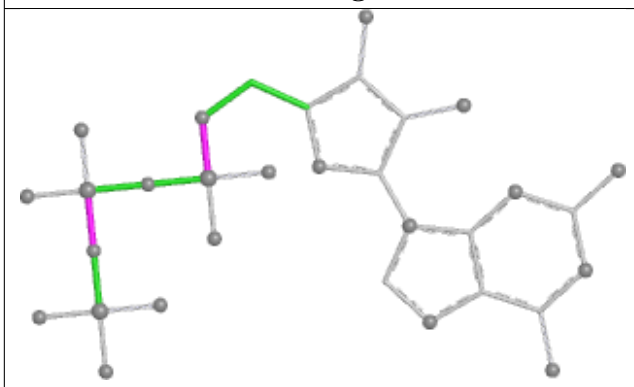

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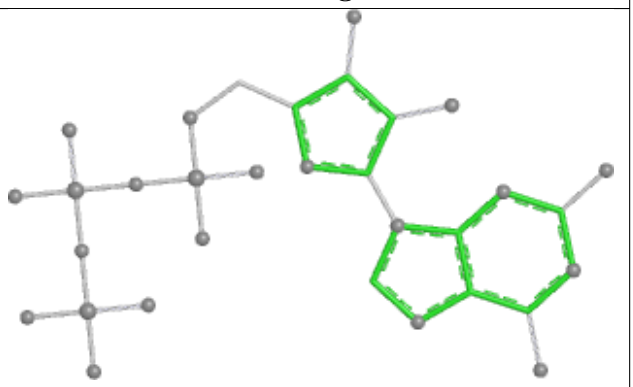

Rings

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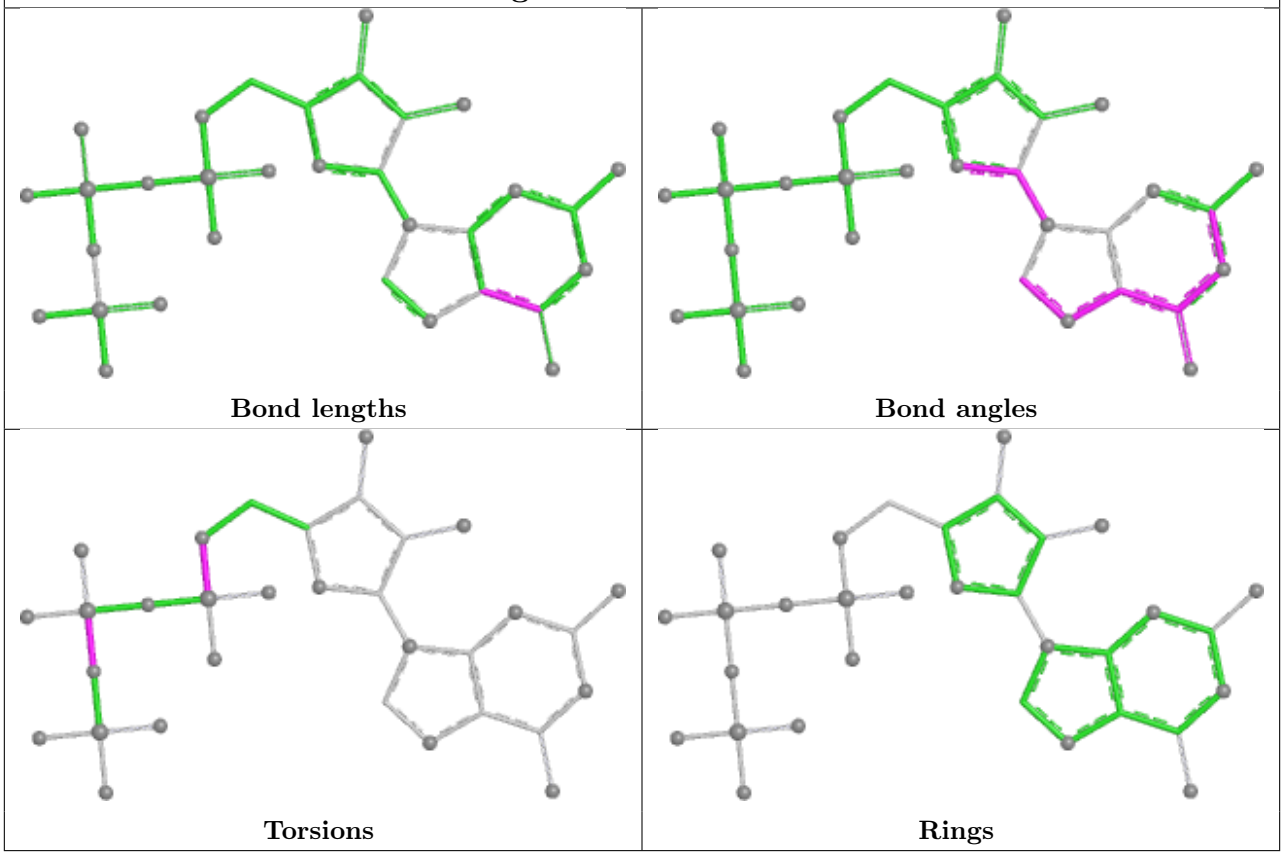

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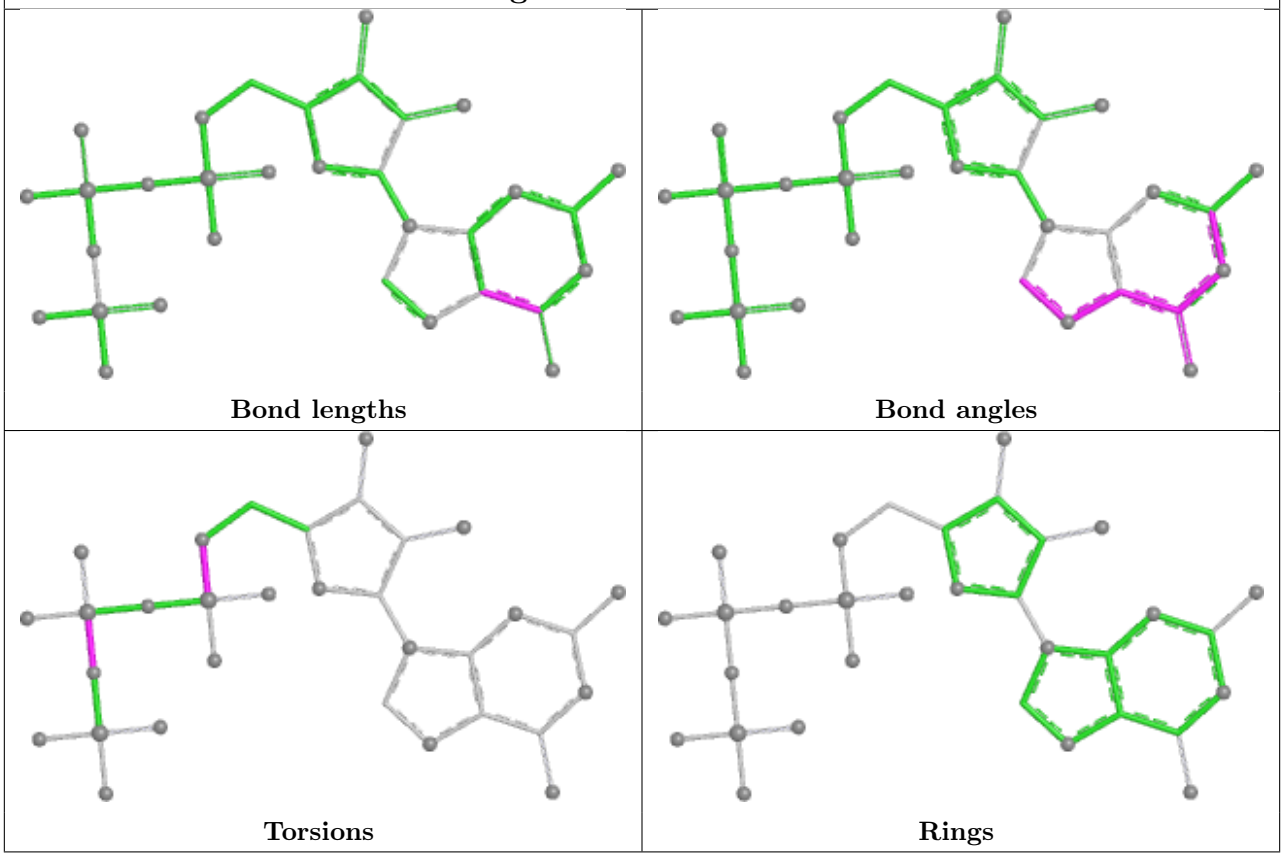

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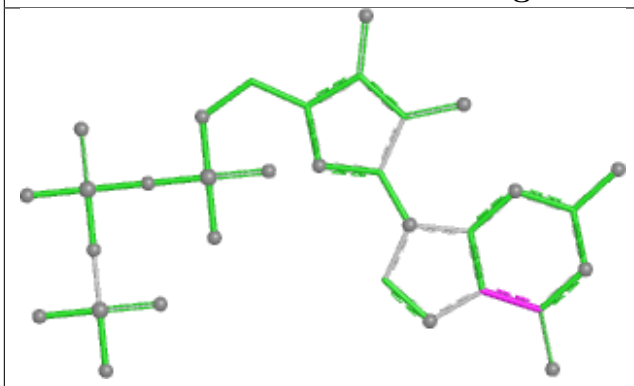

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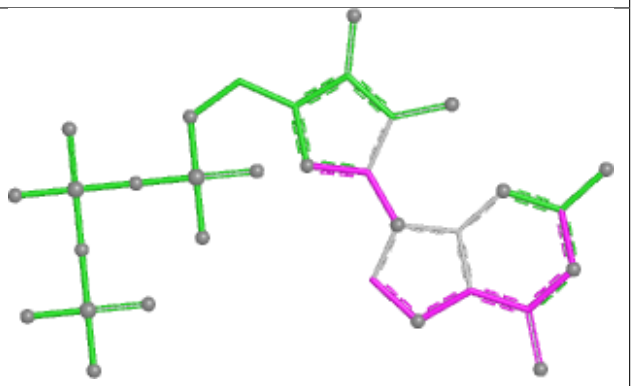

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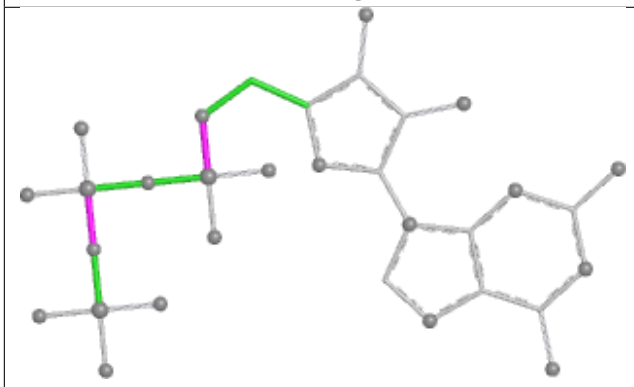

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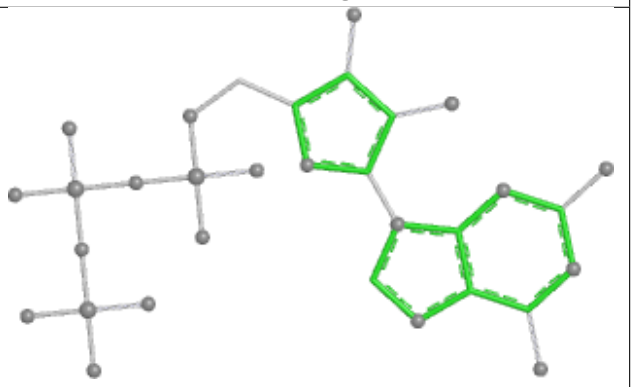

Rings

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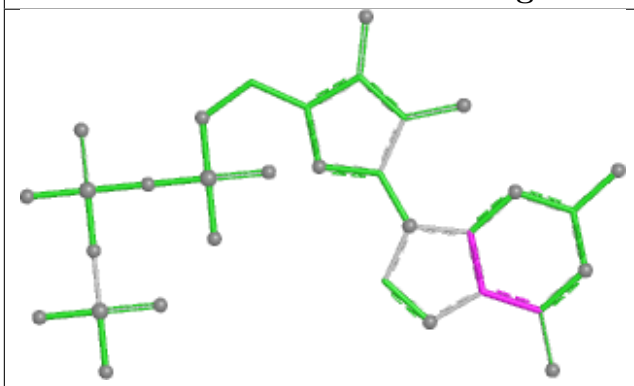

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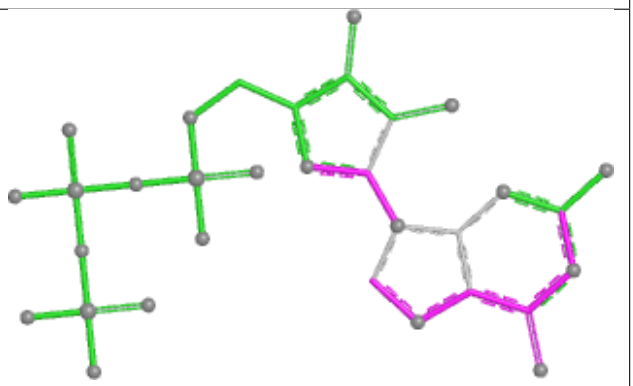

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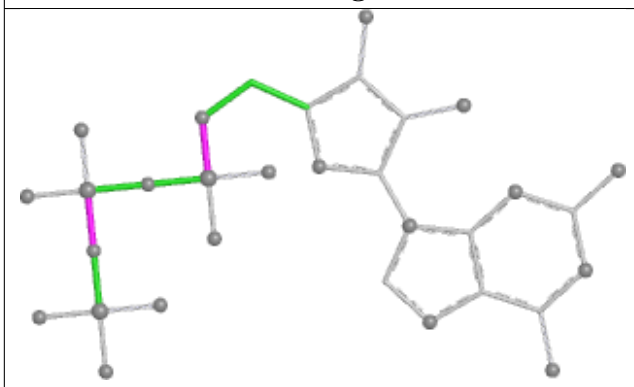

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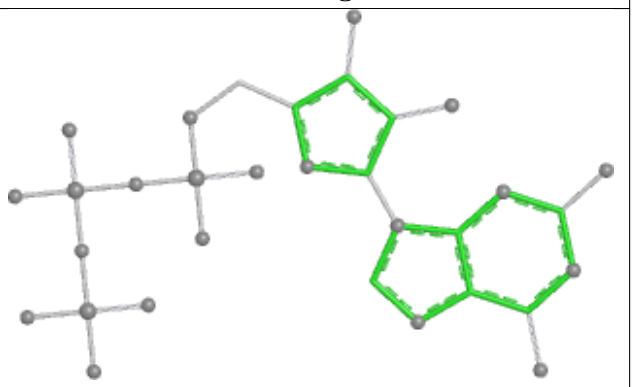

Rings

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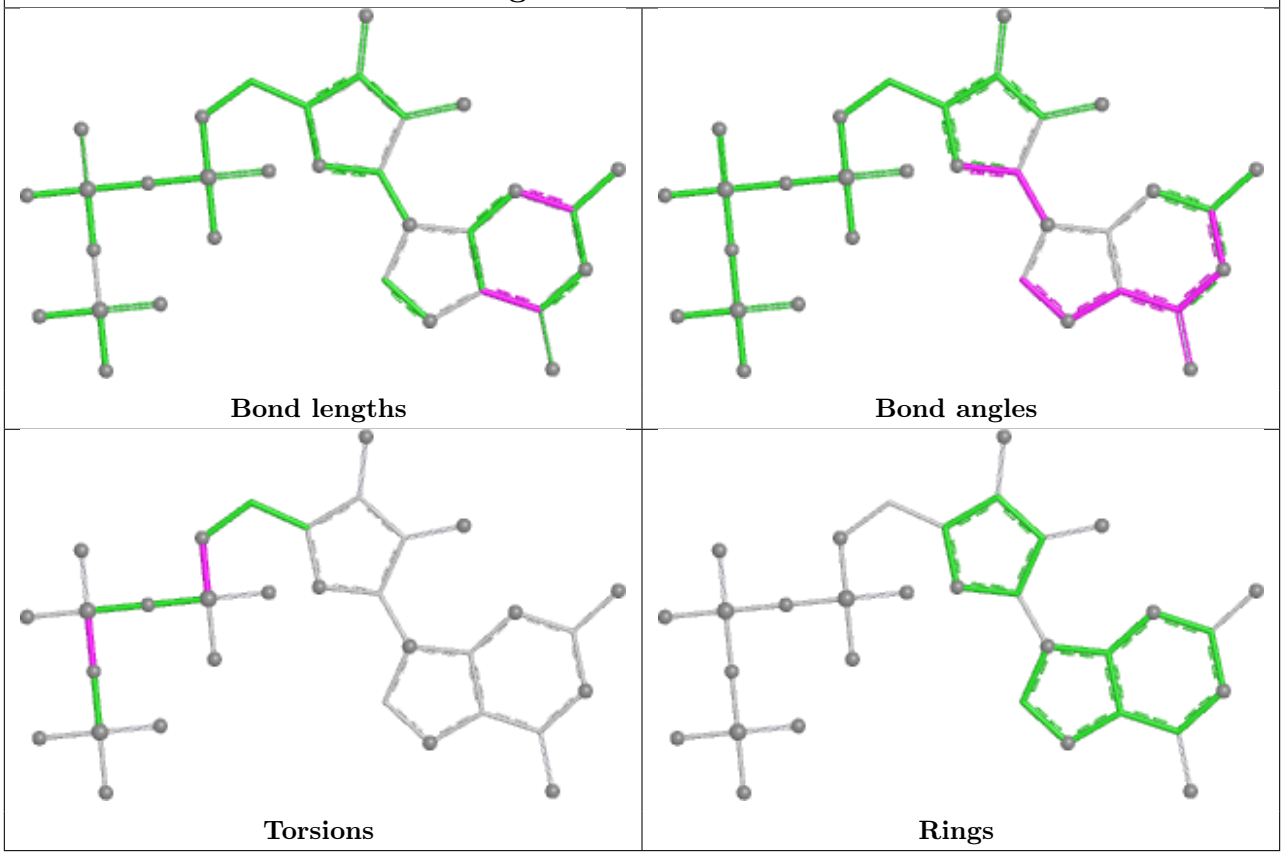

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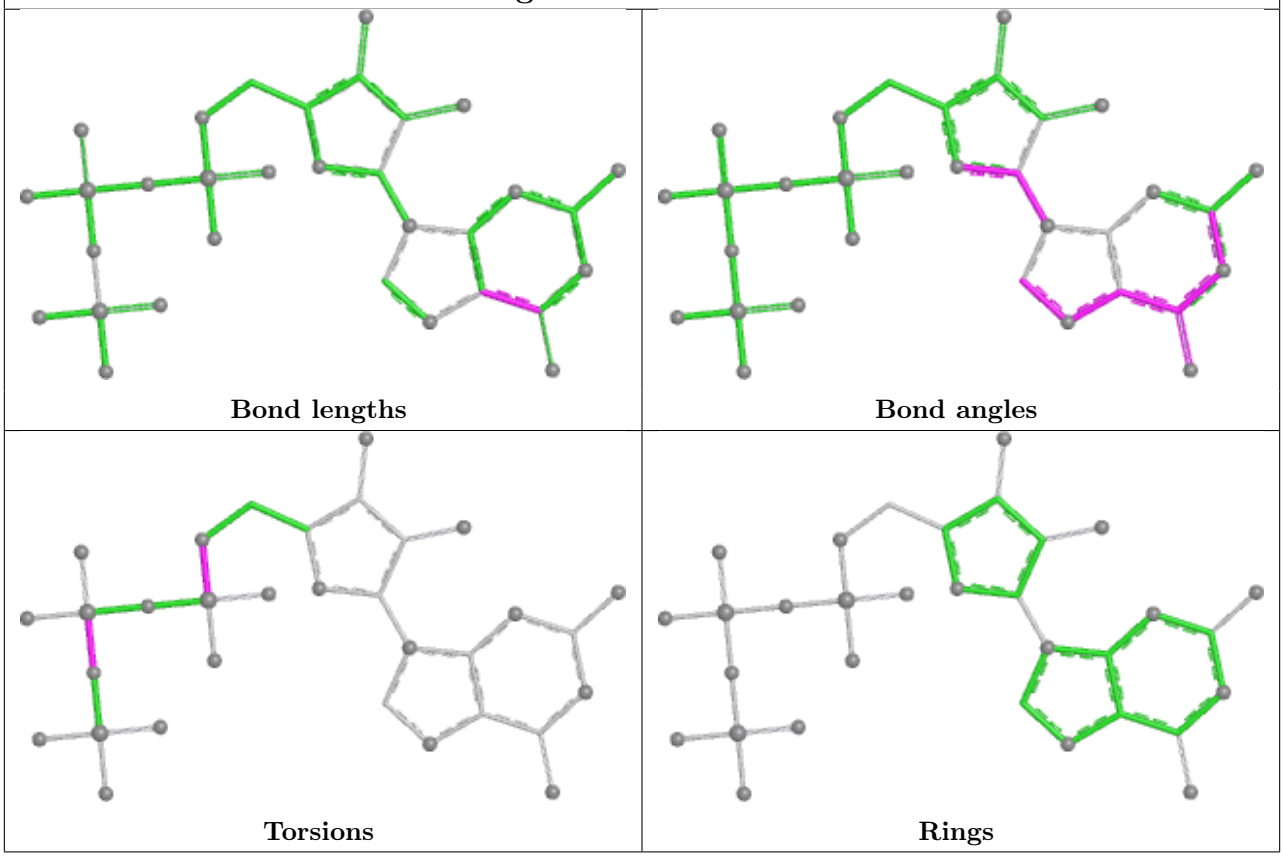

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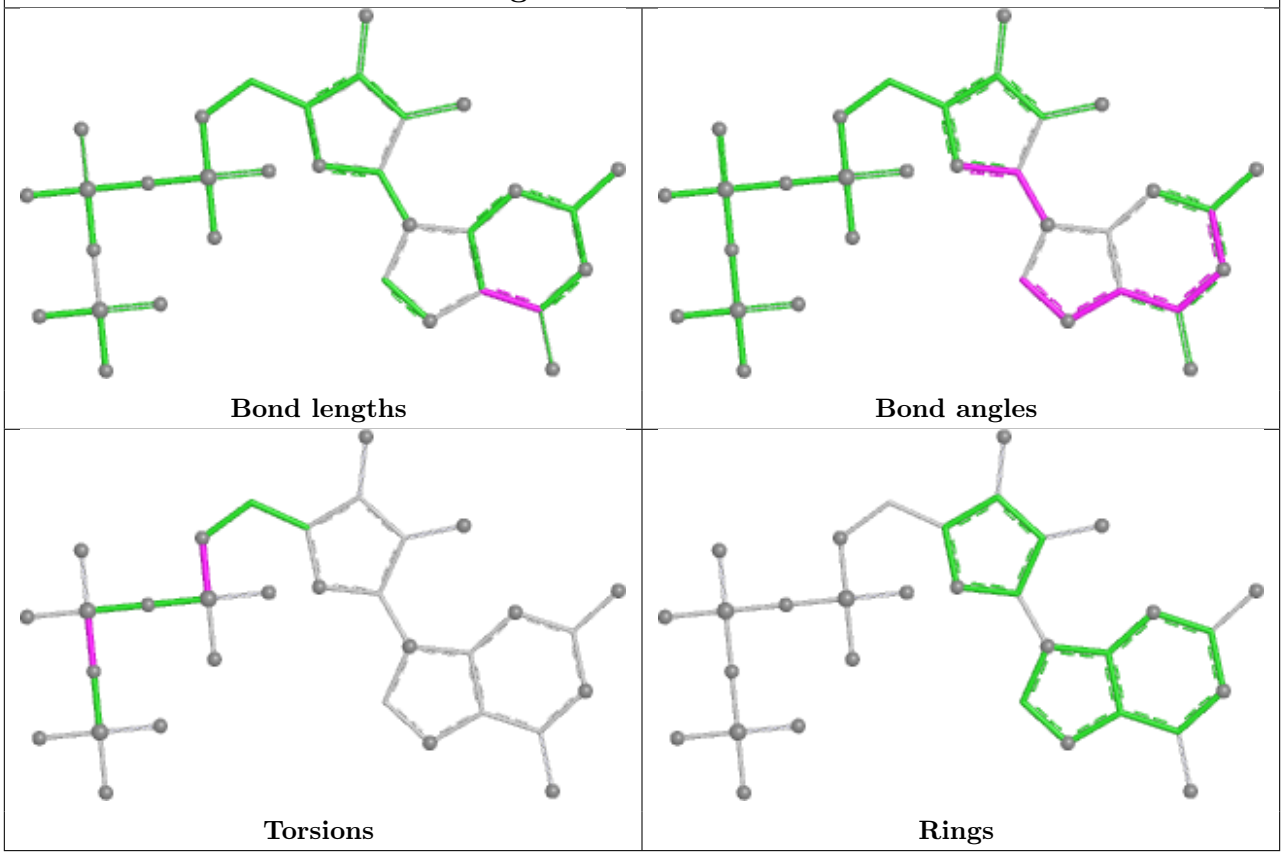

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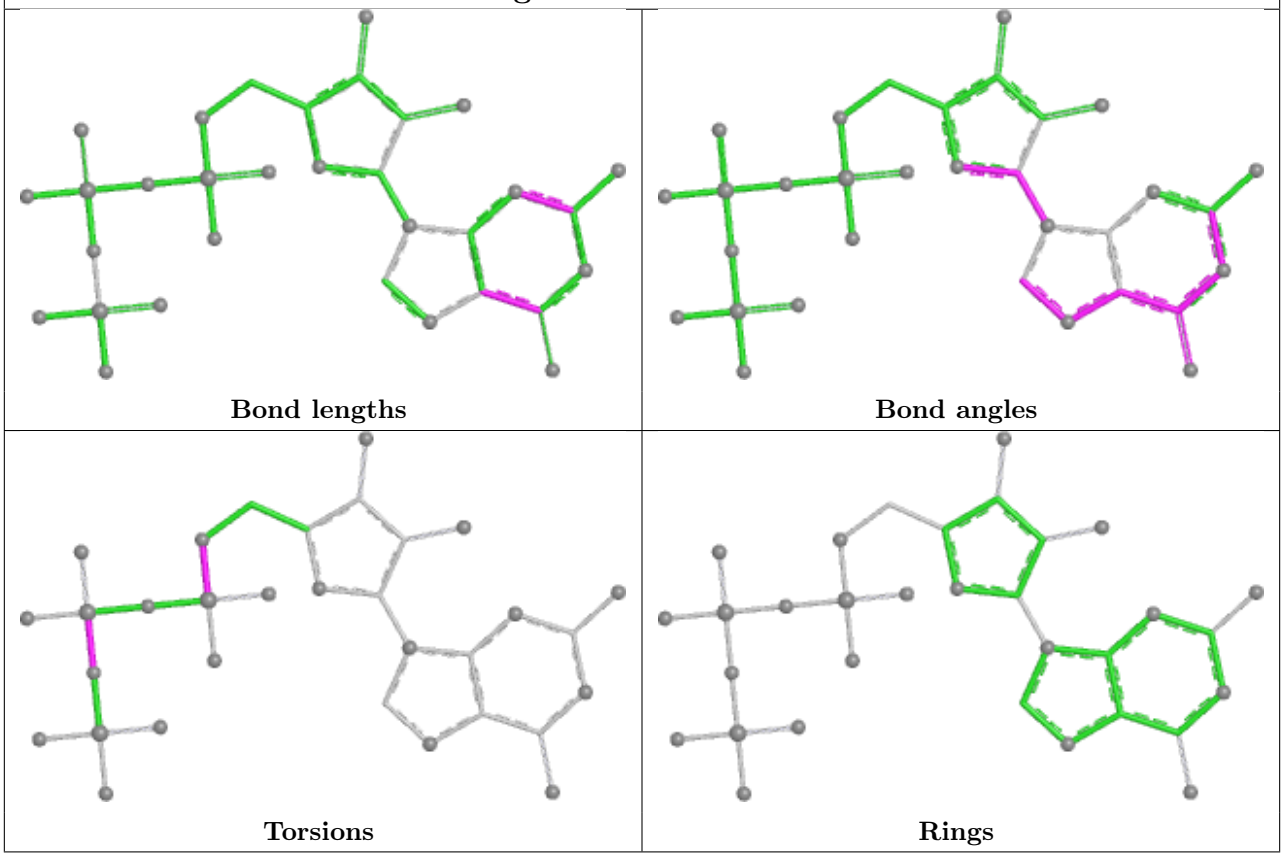

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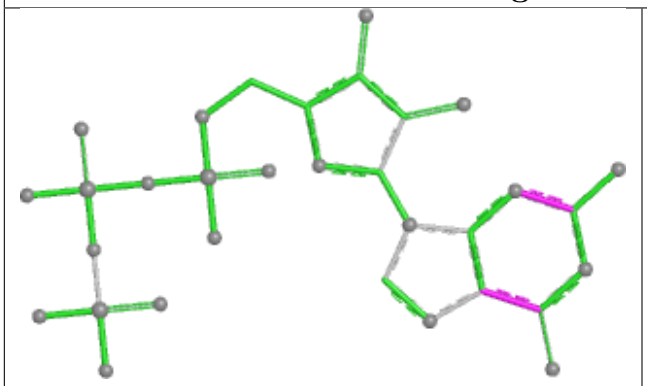

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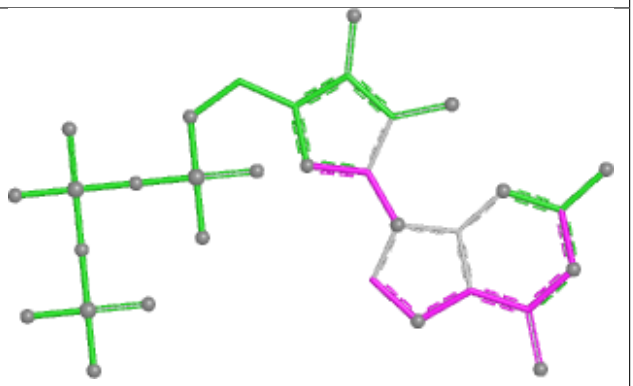
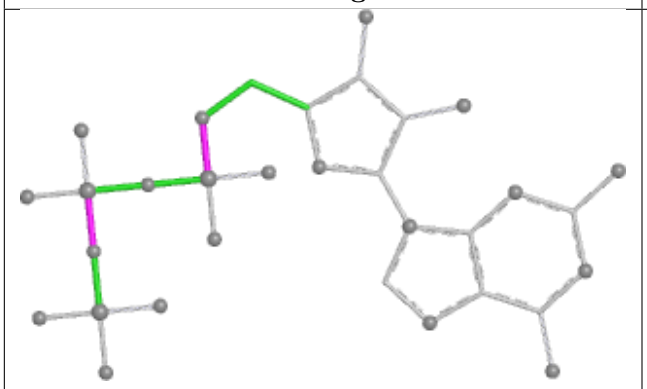
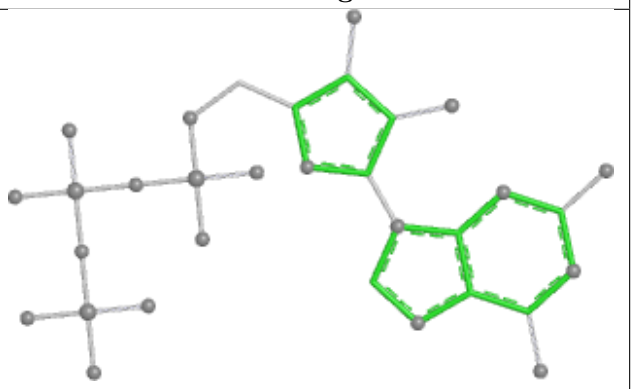


Bond angles



Torsions



Rings

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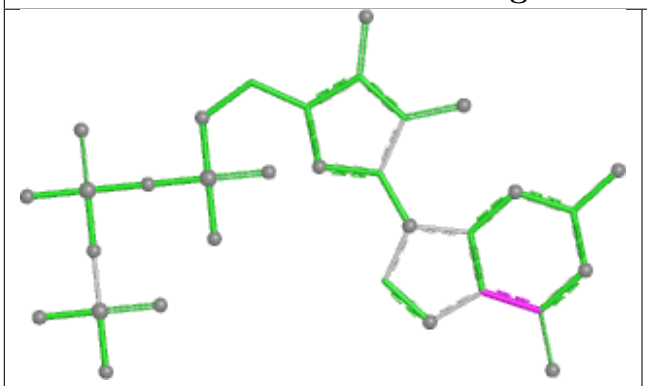

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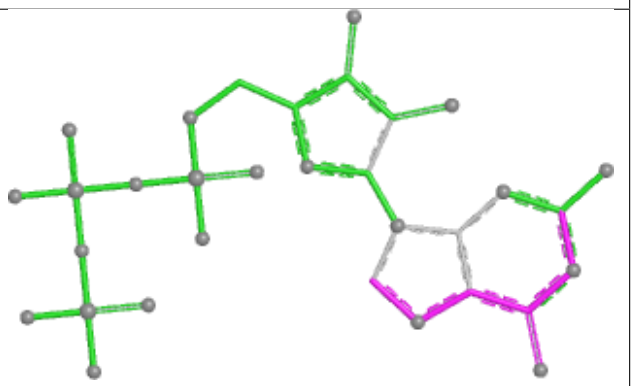

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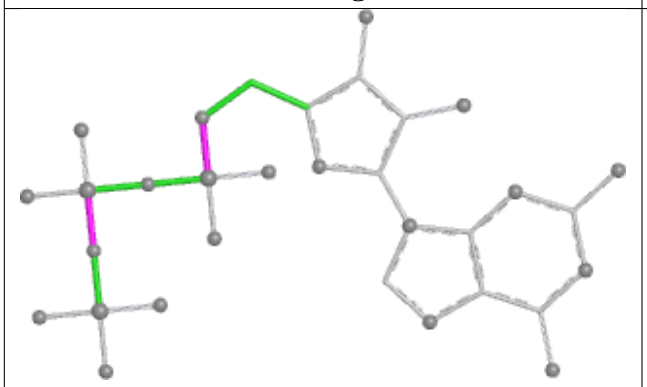

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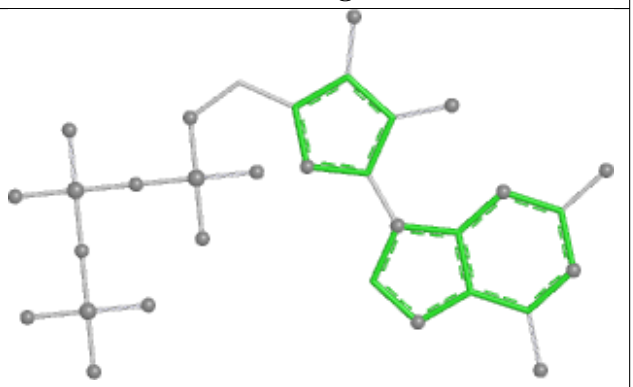

Rings

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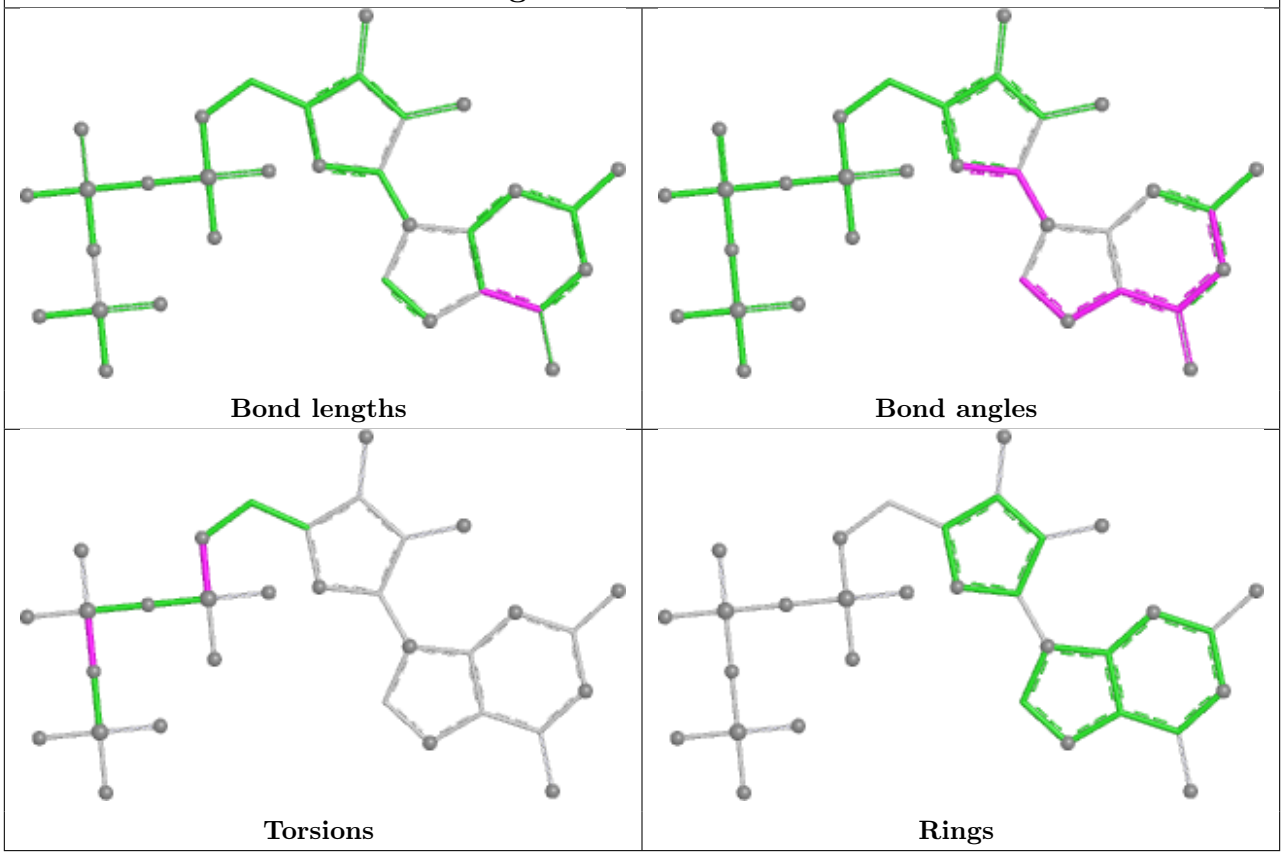

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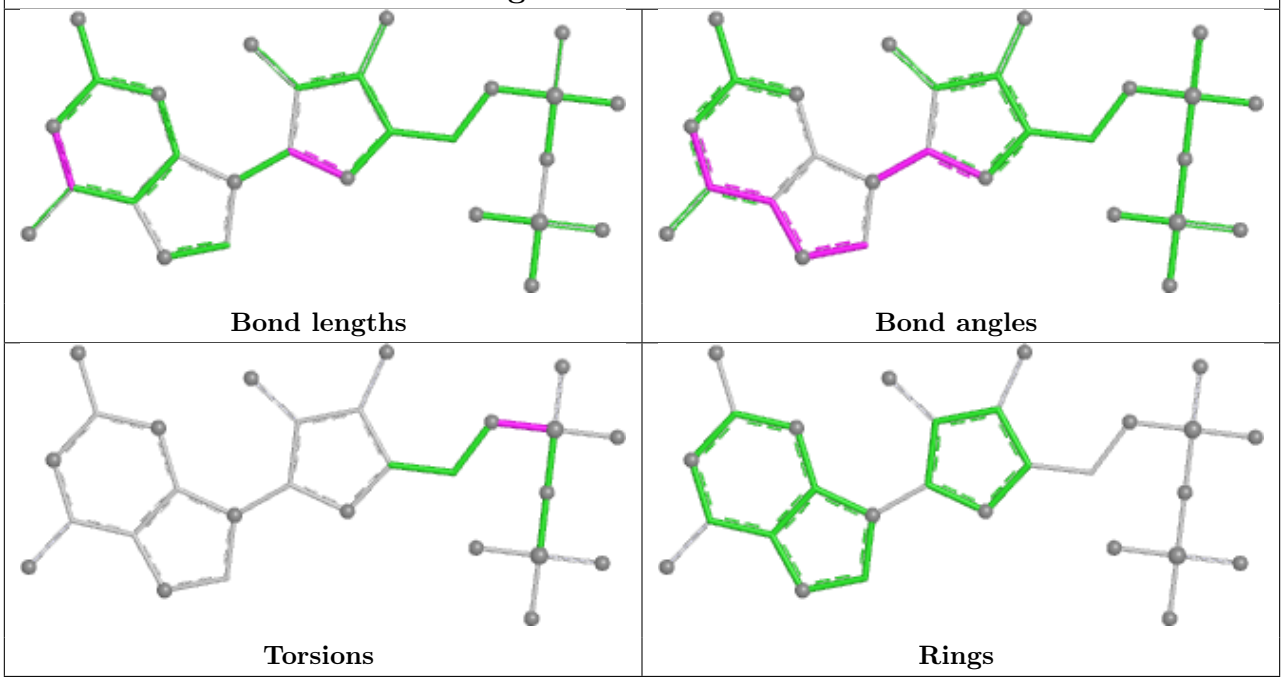

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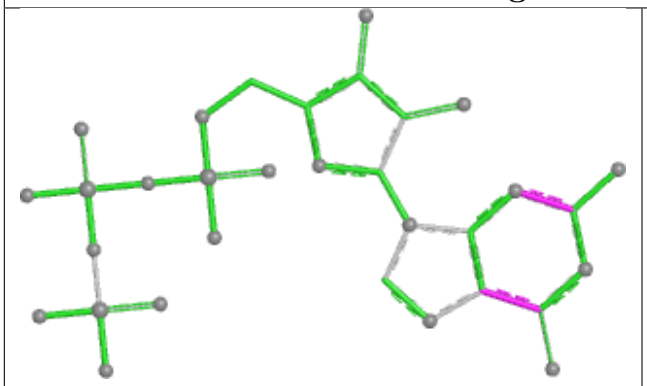

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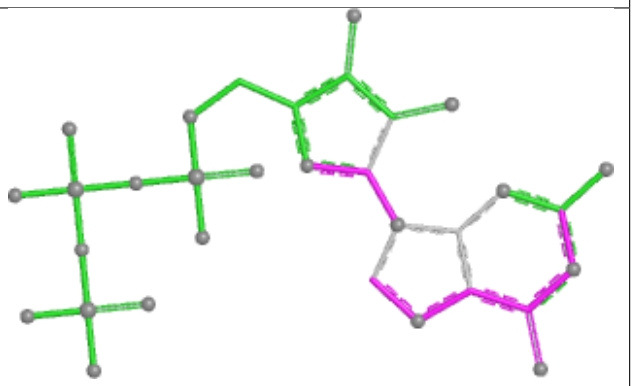

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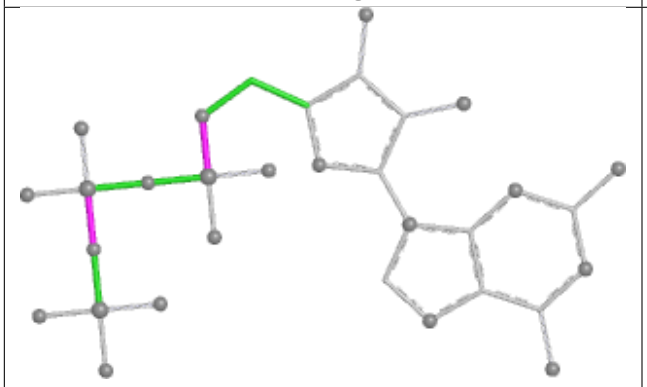

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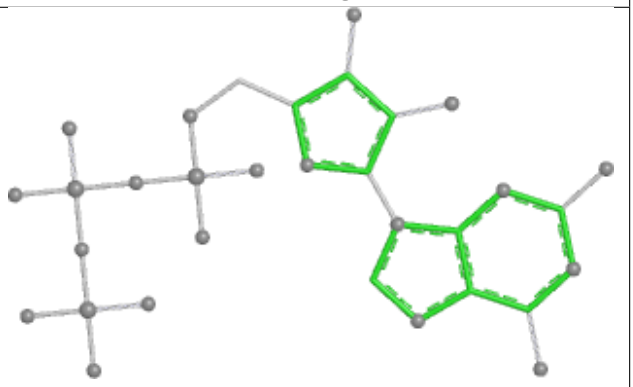

Rings

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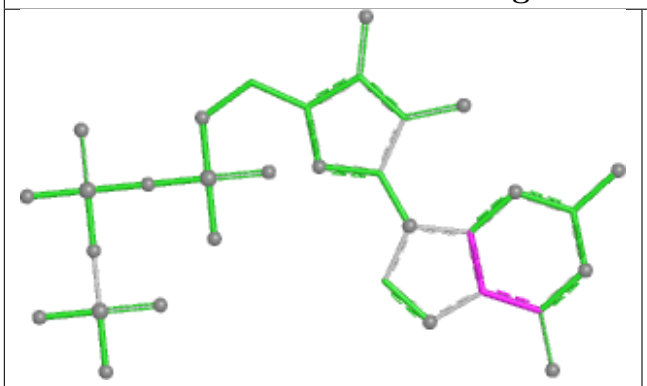

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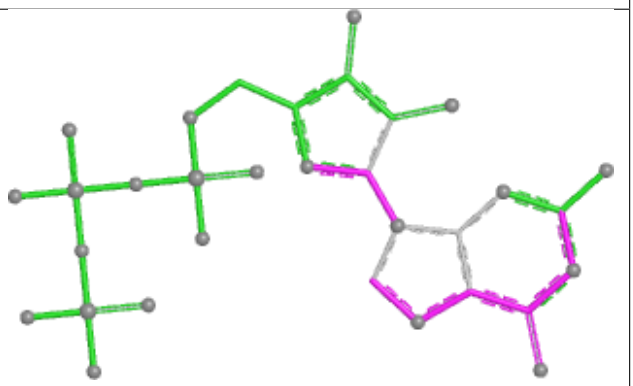

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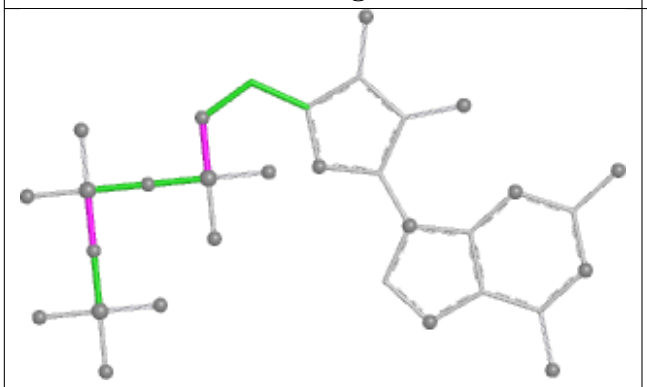

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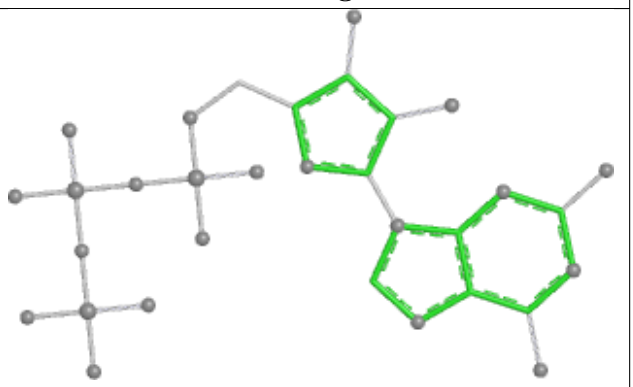

Rings

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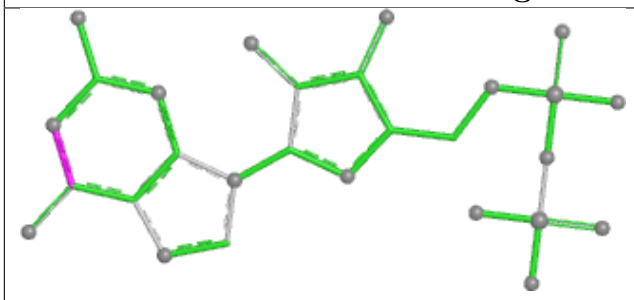

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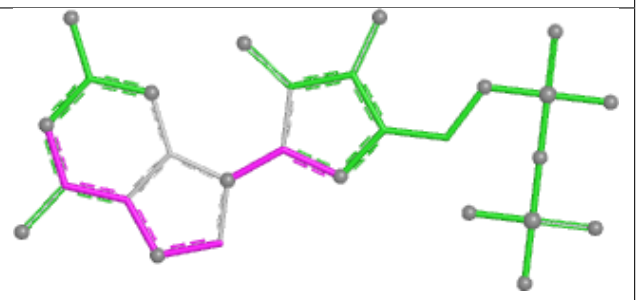

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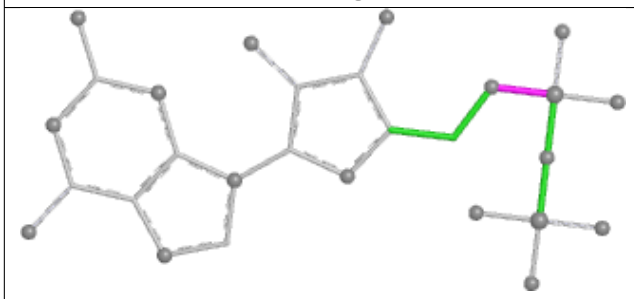

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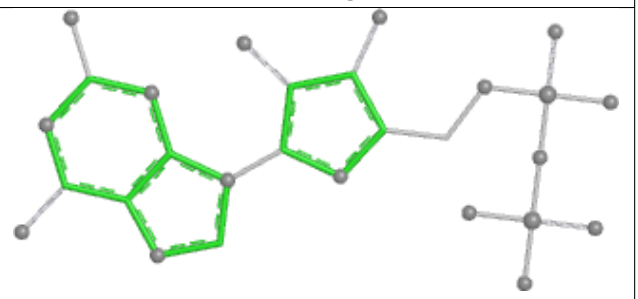

Rings

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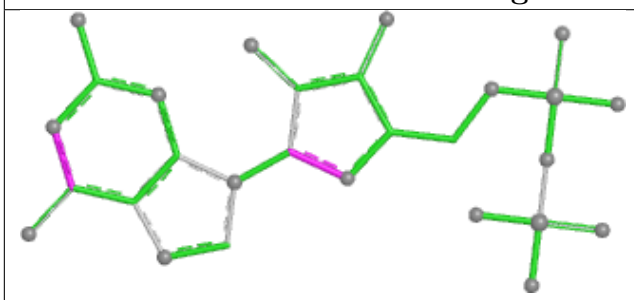

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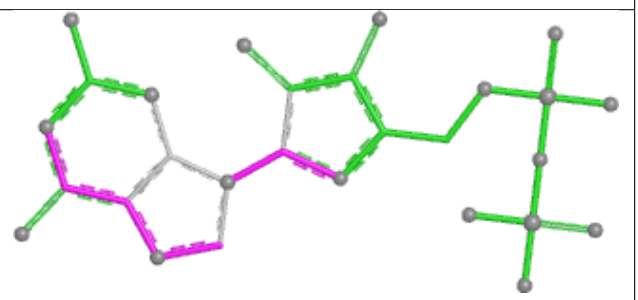
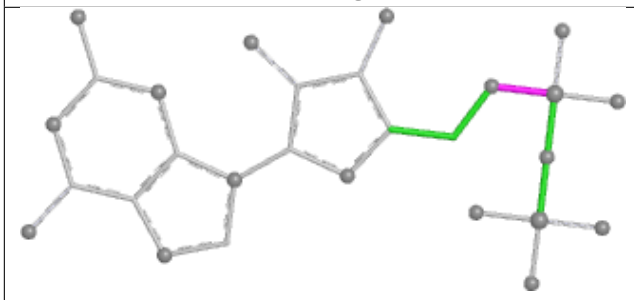


Bond angles



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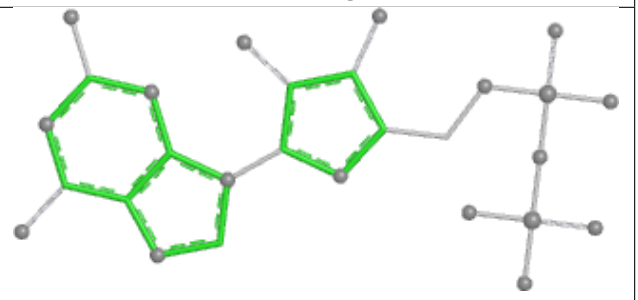
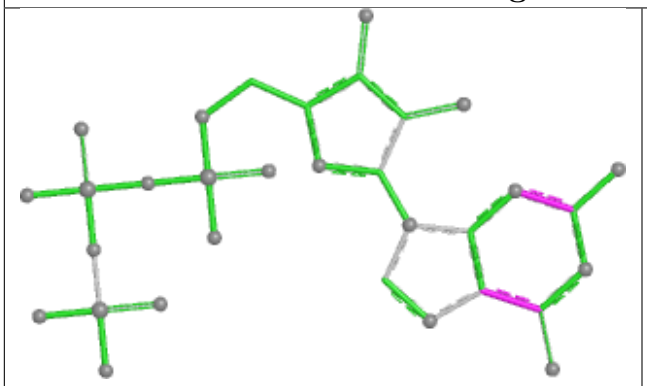


Rings

Ligand GTP AK 602



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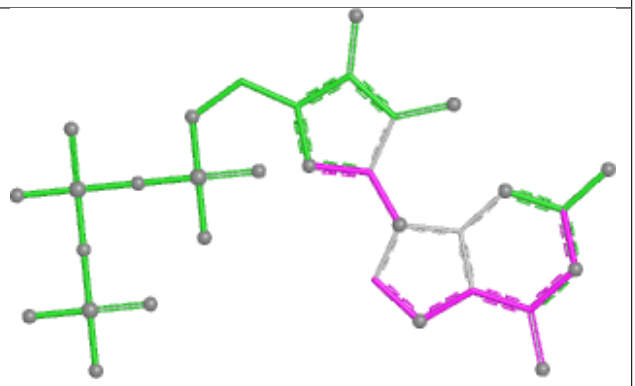

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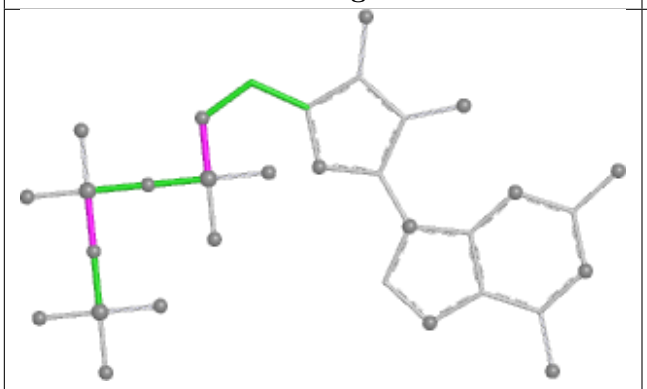
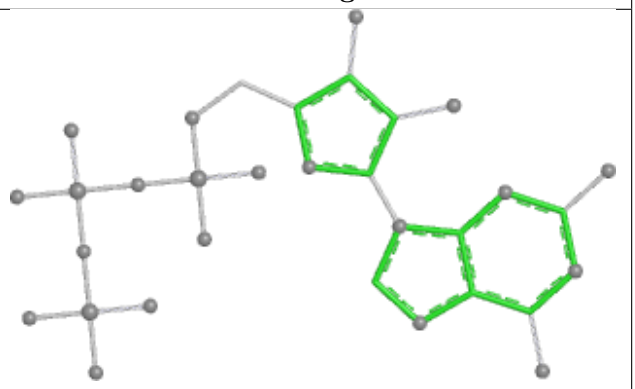
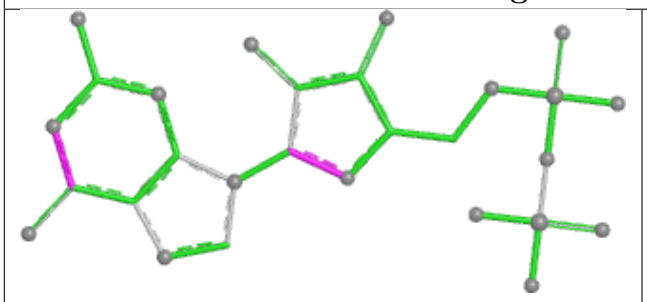


Torsions

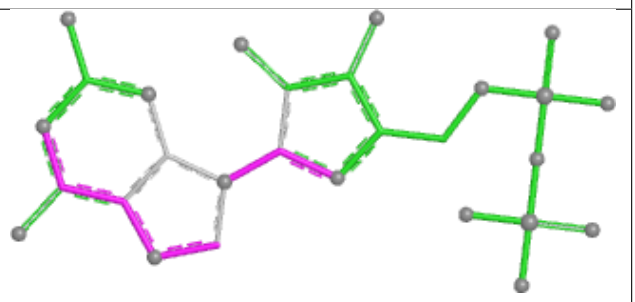


Rings

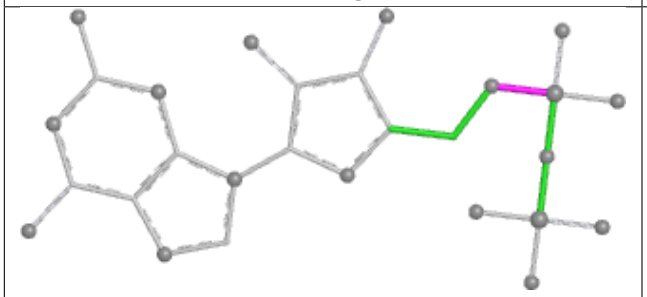
Ligand GDP KZ 501



Bond lengths



Bond angles



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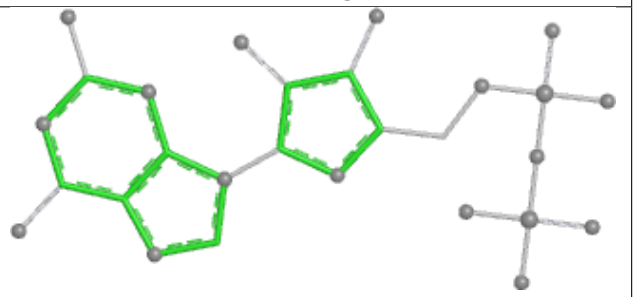
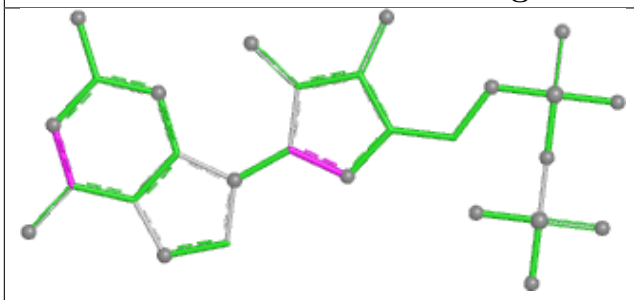


Rings

Ligand GDP HS 501



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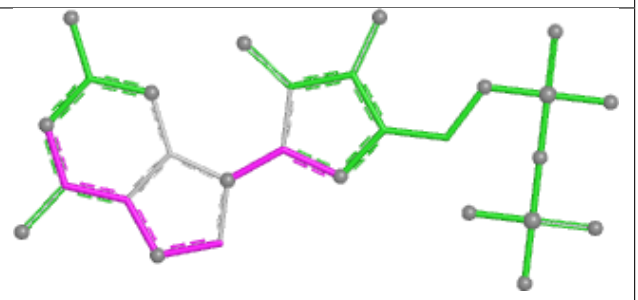

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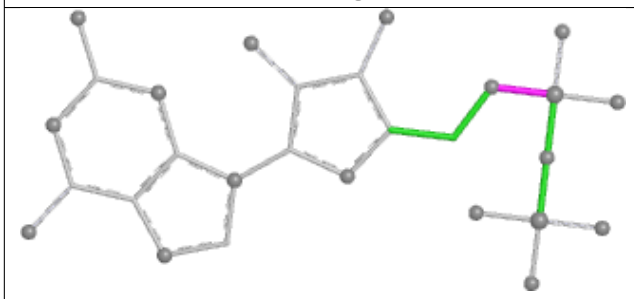

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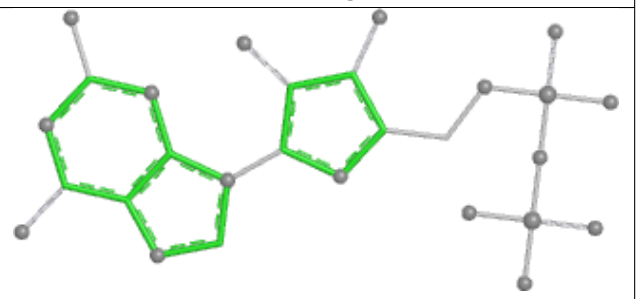

Rings

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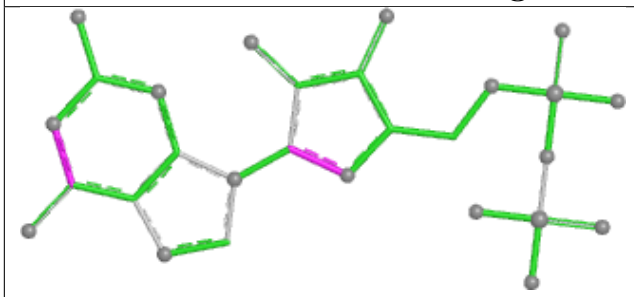

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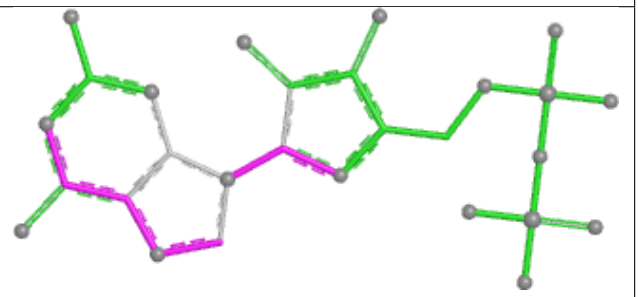
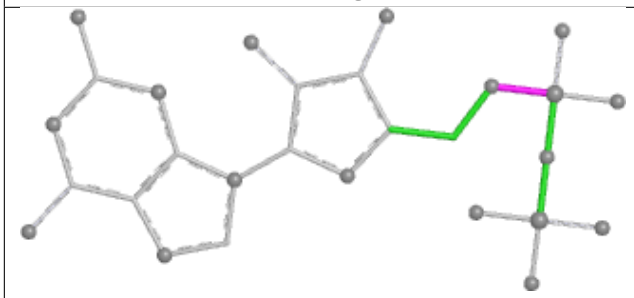


Bond angles



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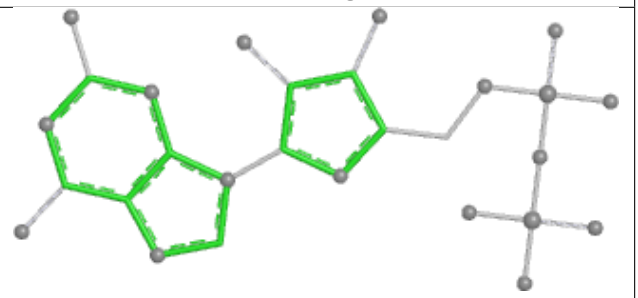
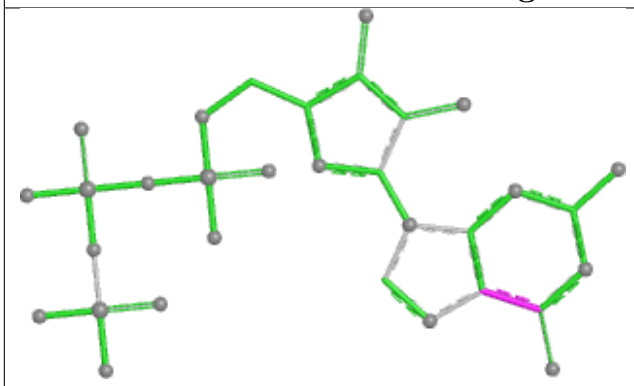


Rings

Ligand GTP JJ 501



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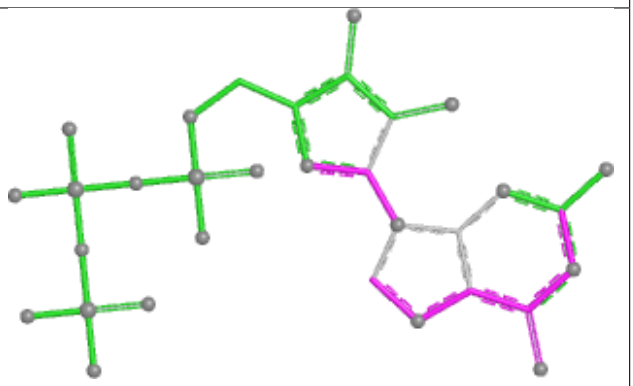

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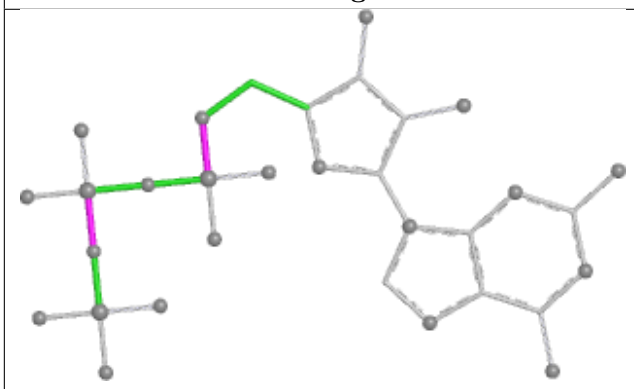

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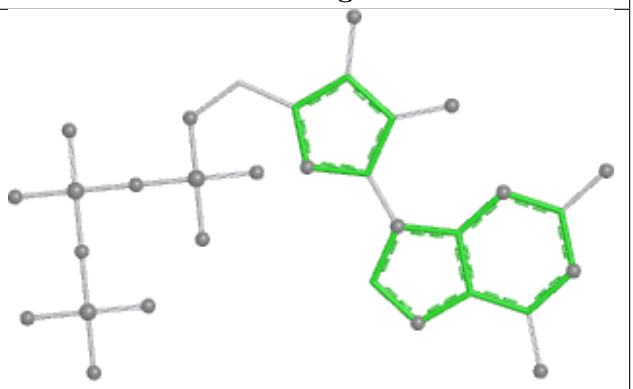
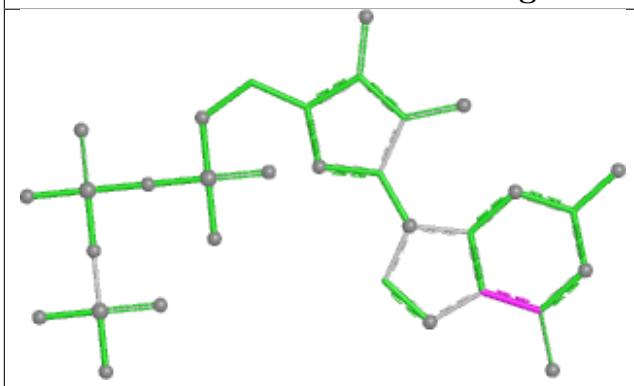


Rings

Ligand GTP IZ 602



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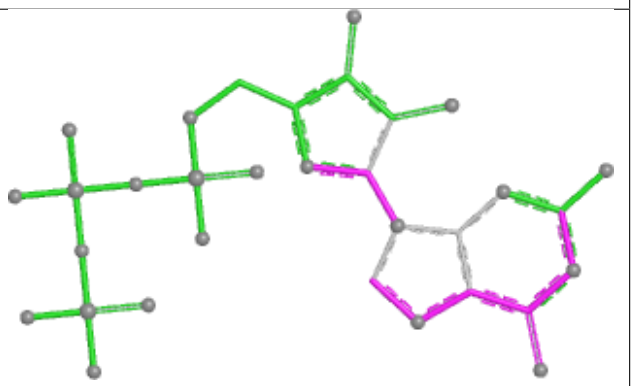

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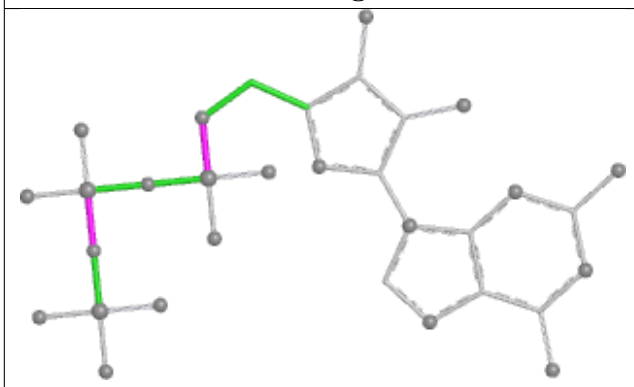

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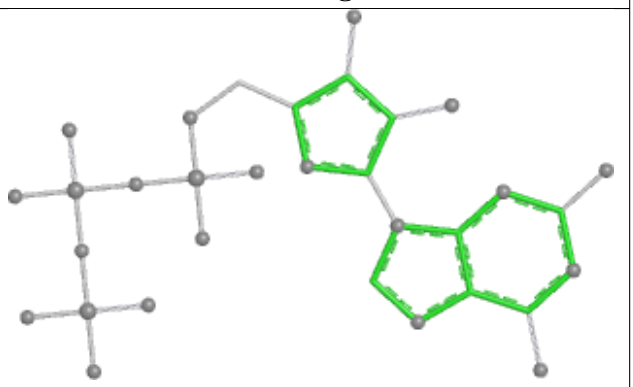

Rings

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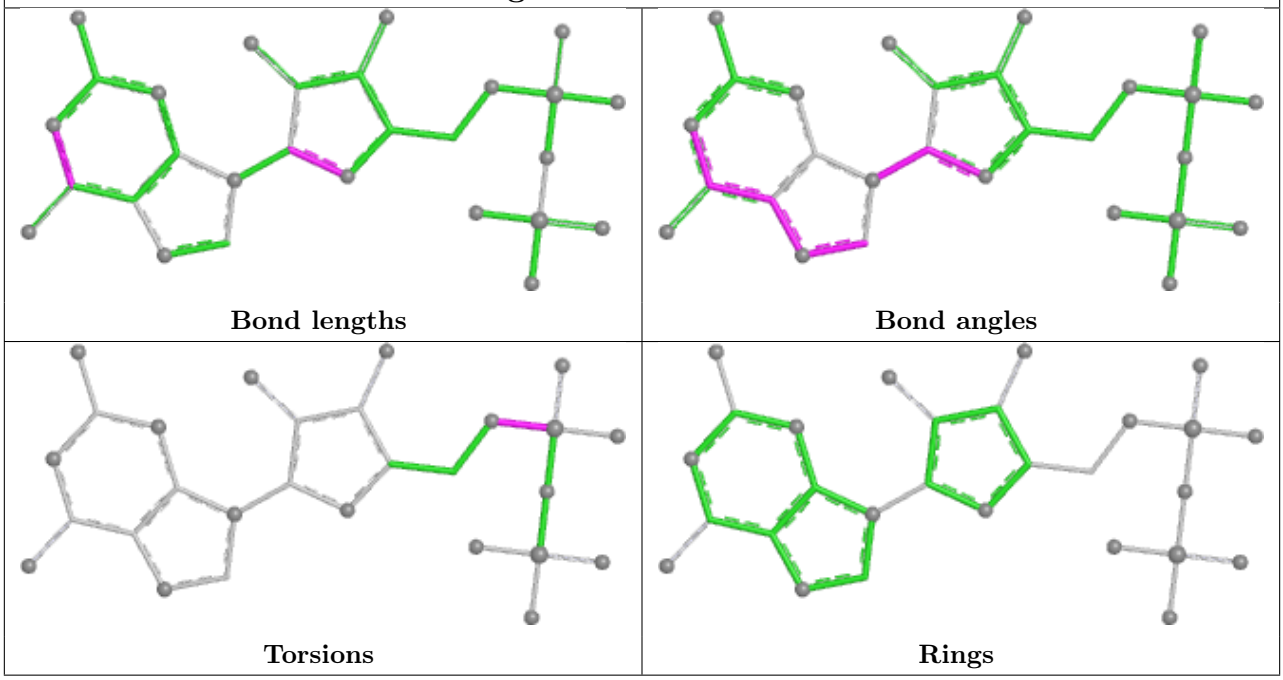

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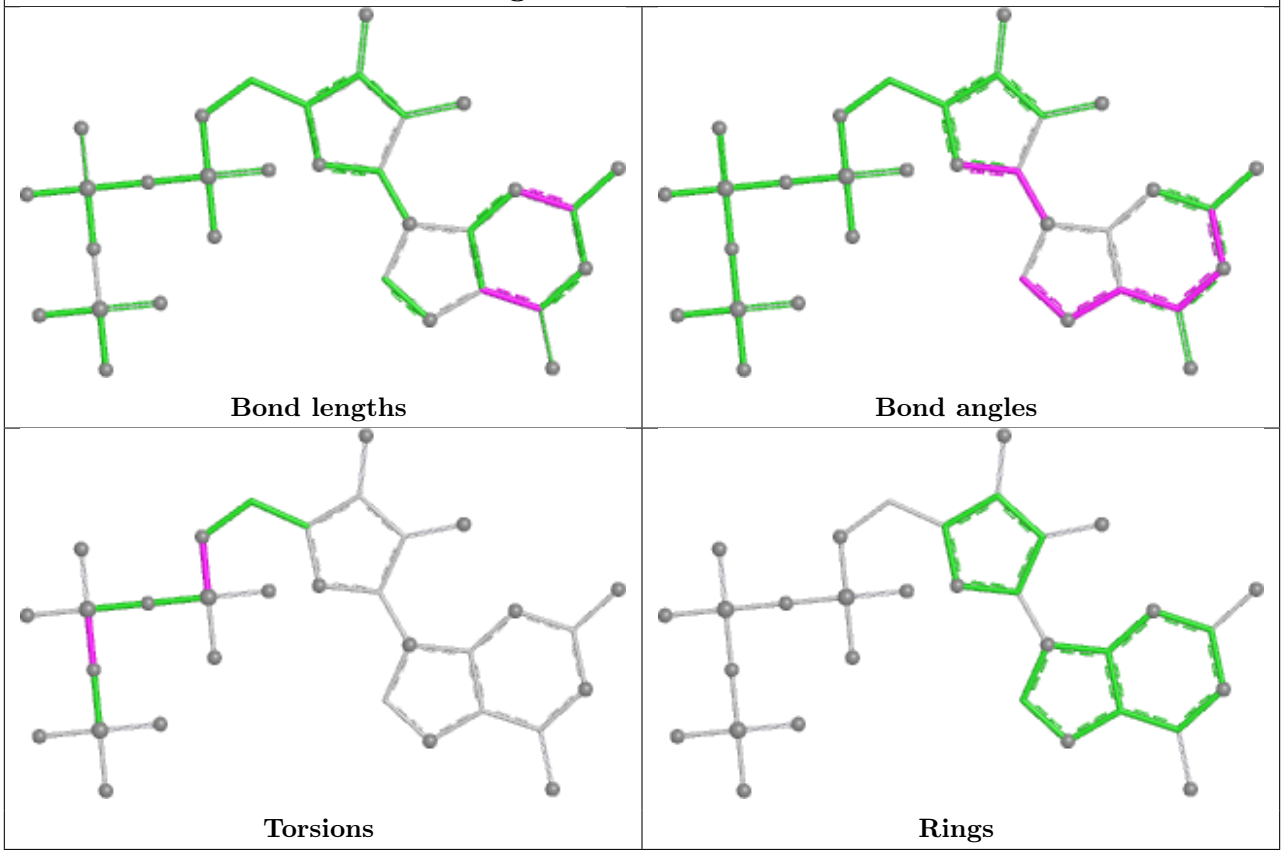

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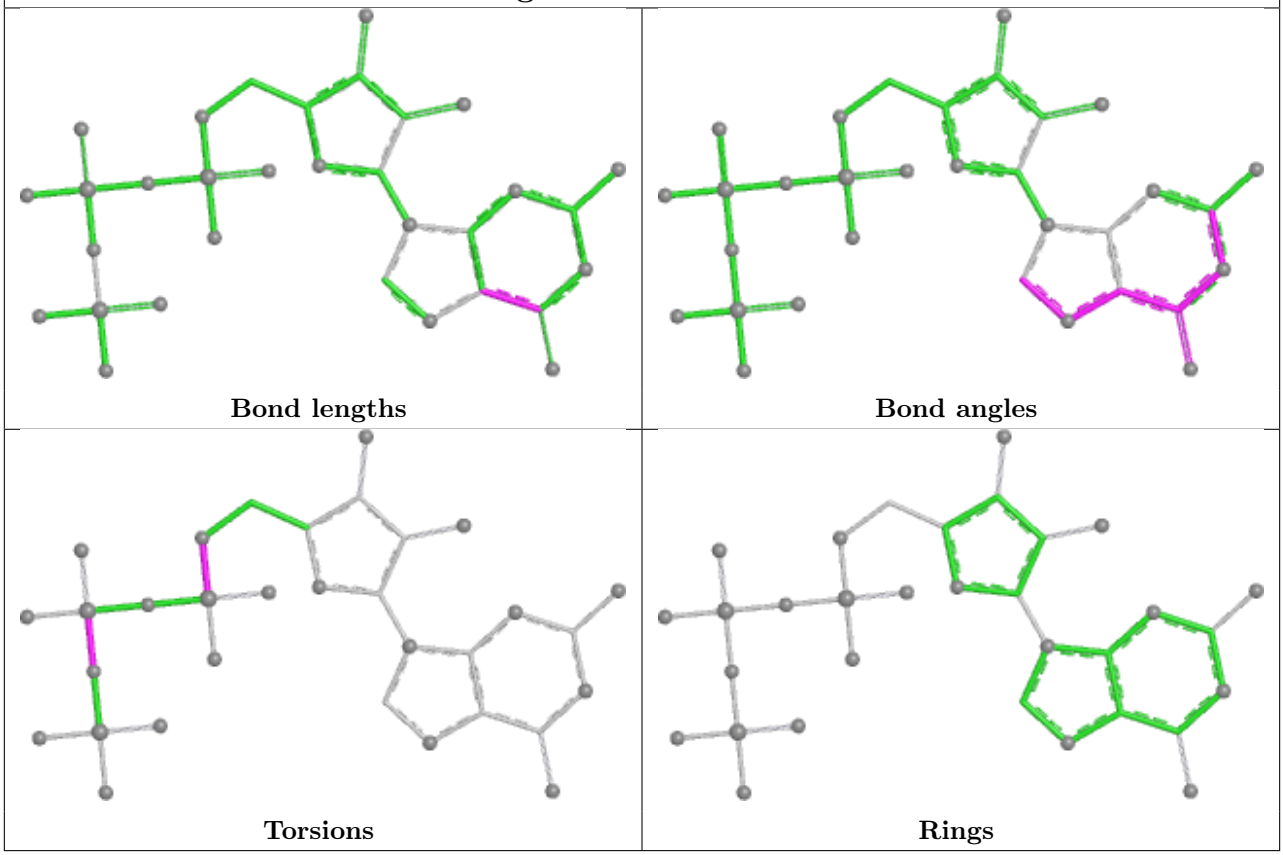

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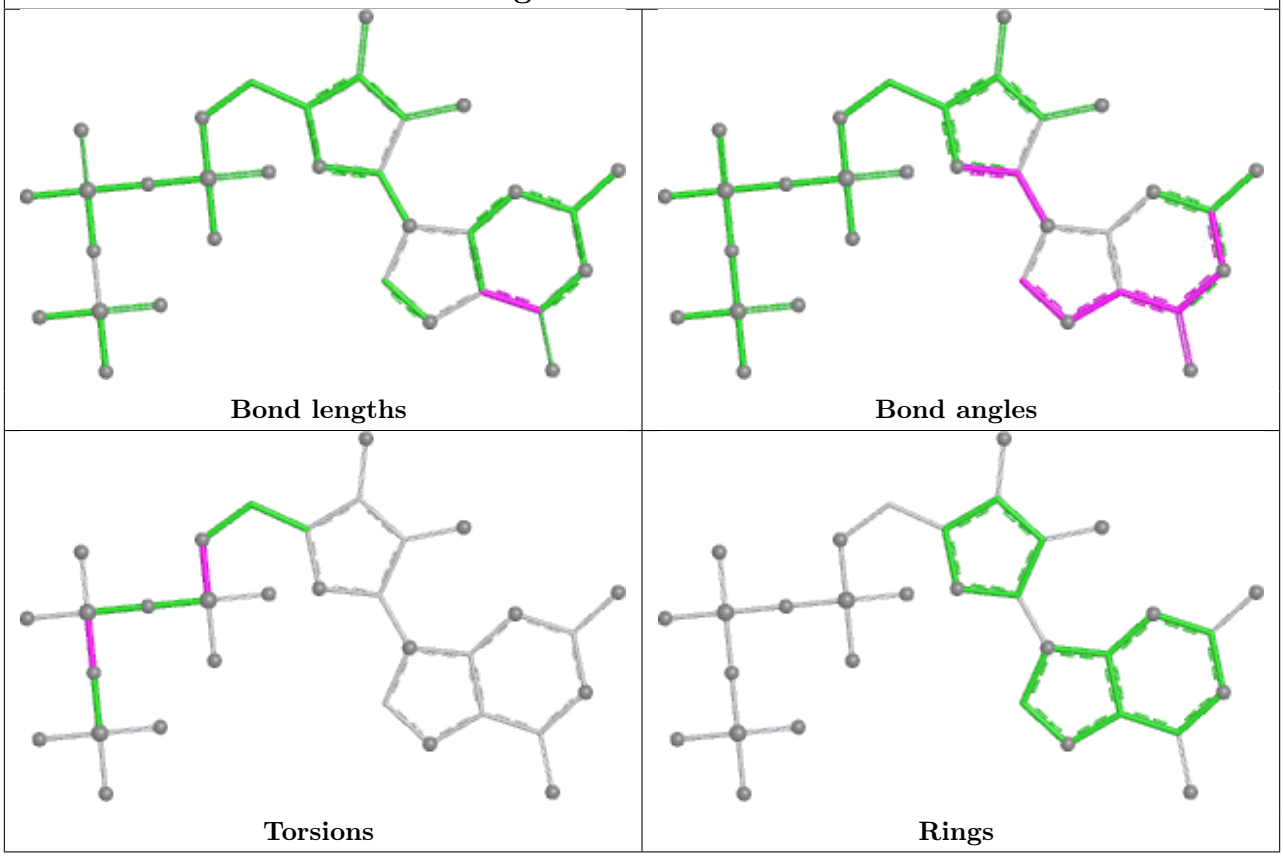

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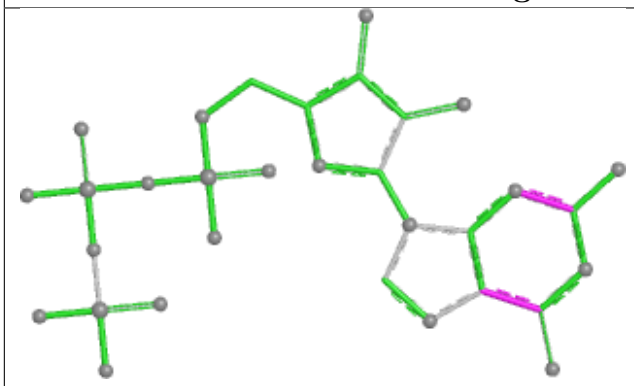

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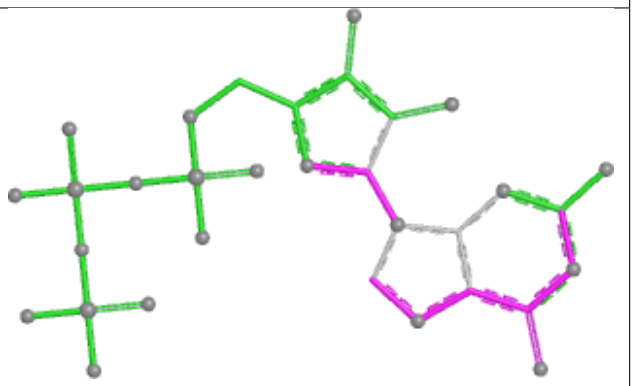
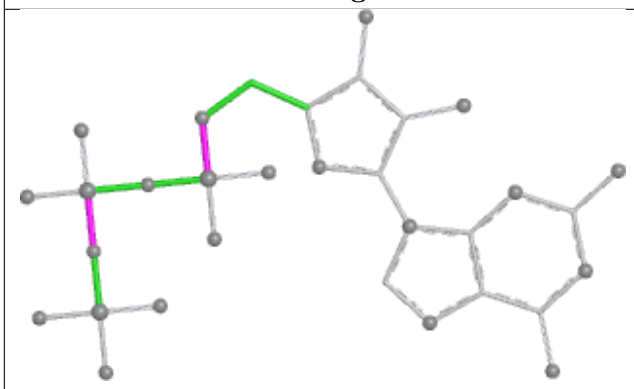
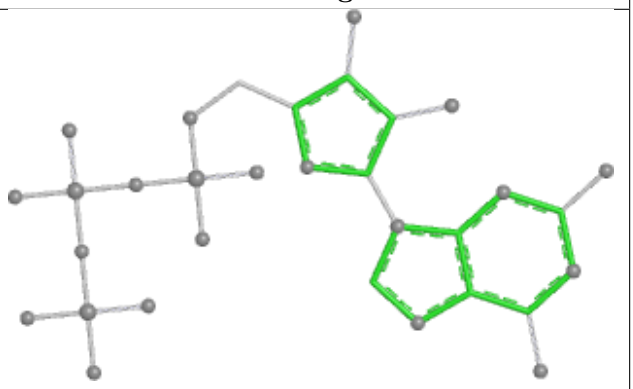


Bond angles

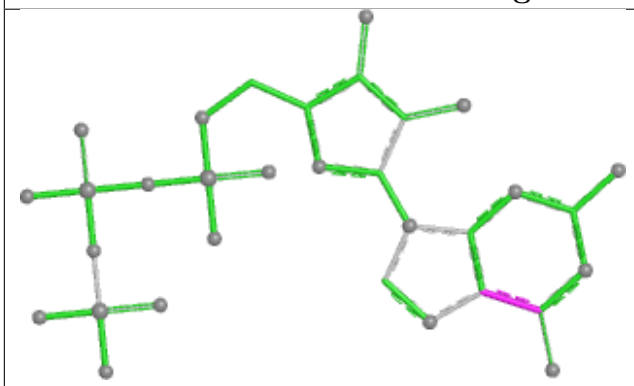


Torsions



Rings

Ligand GTP JH 501



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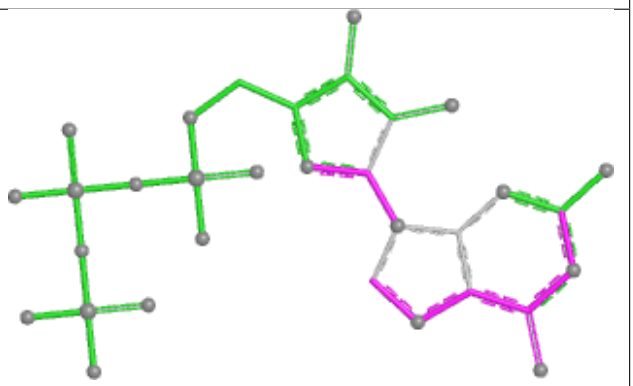

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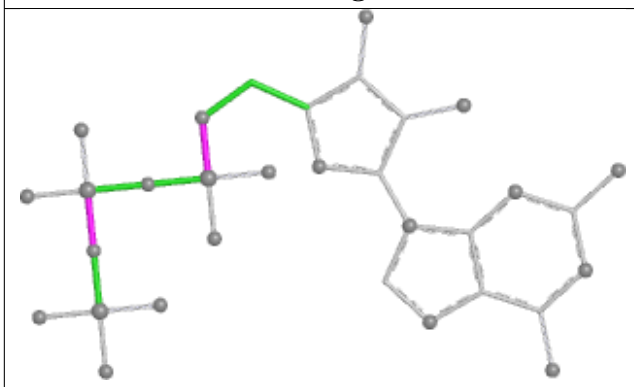

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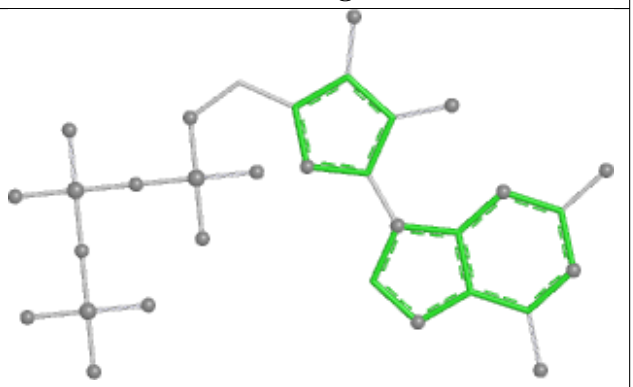

Rings

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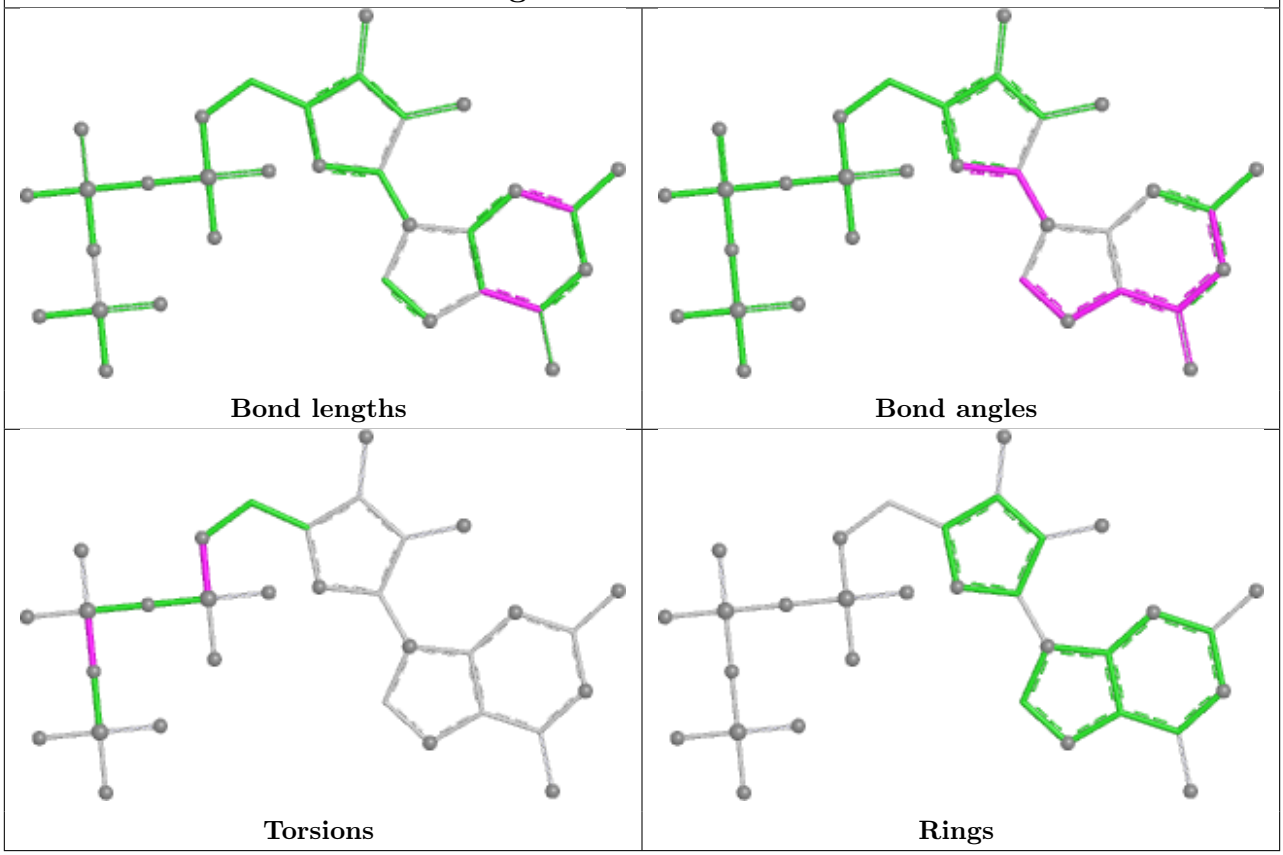
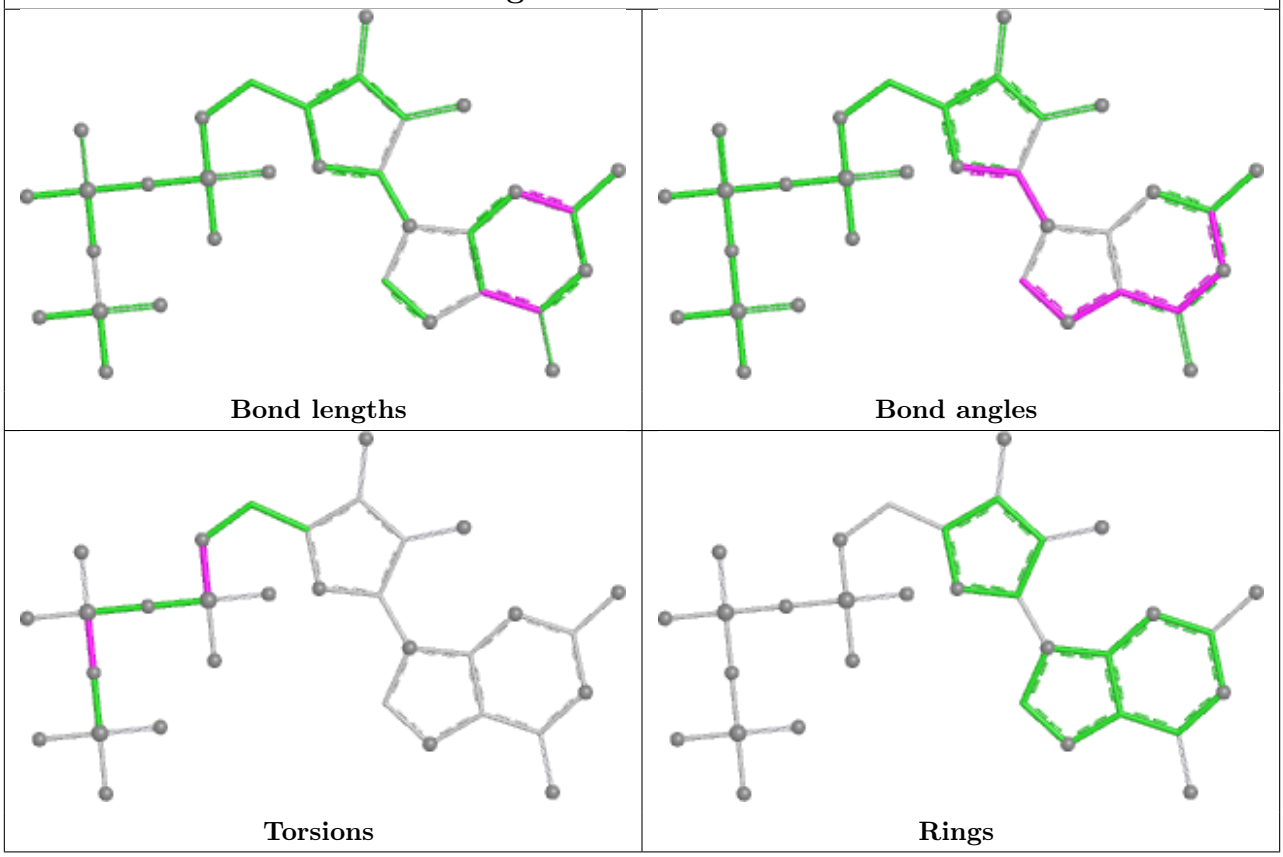


Ligand GTP CM 602



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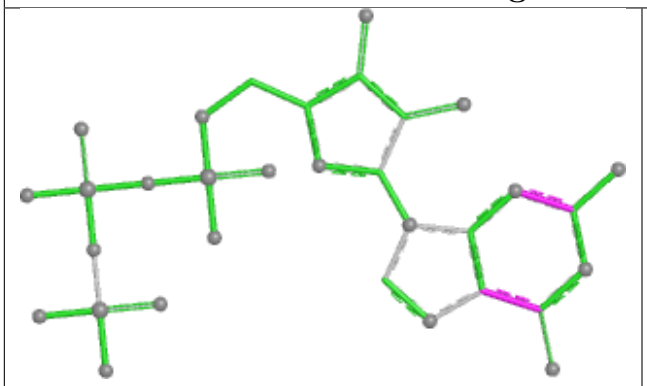

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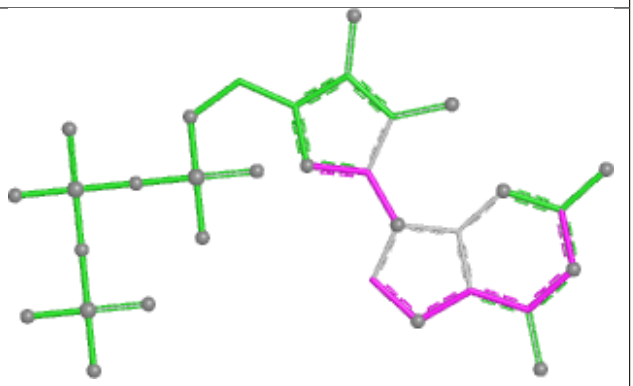
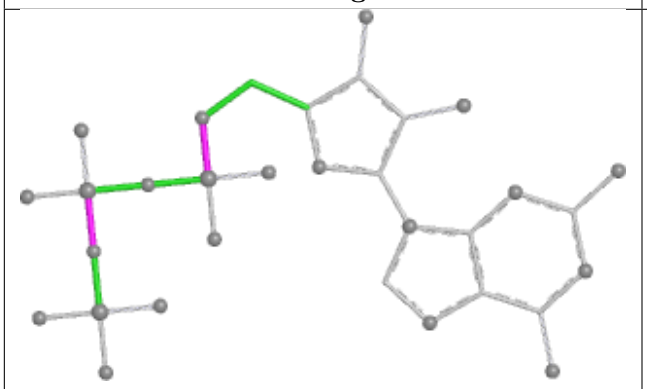


Bond angles



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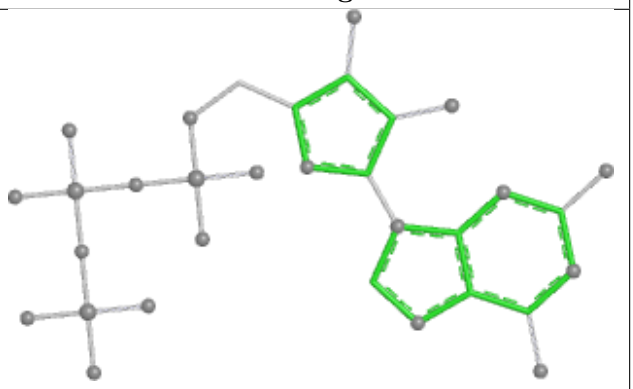
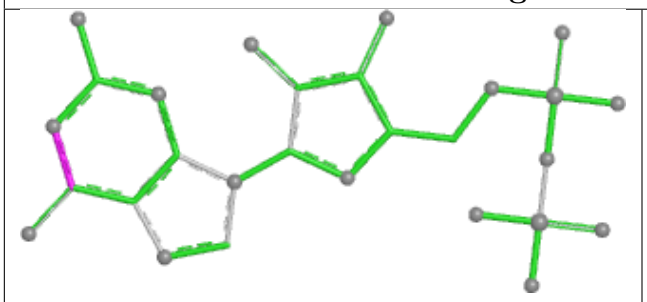


Rings

Ligand GDP BR 501



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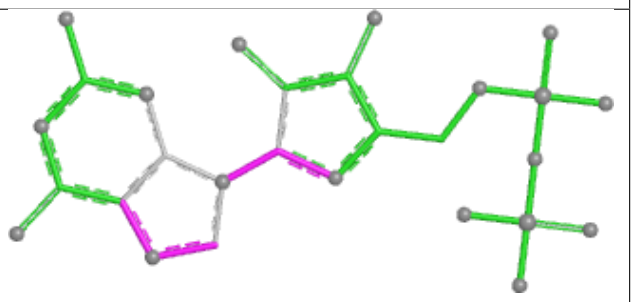

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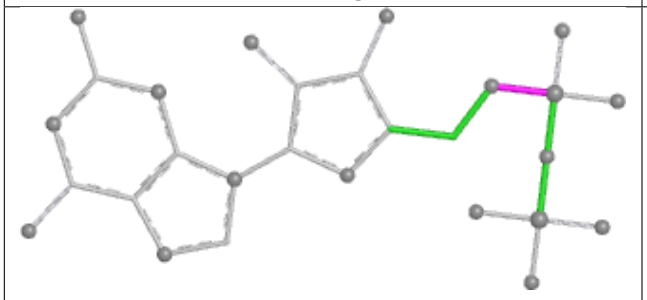

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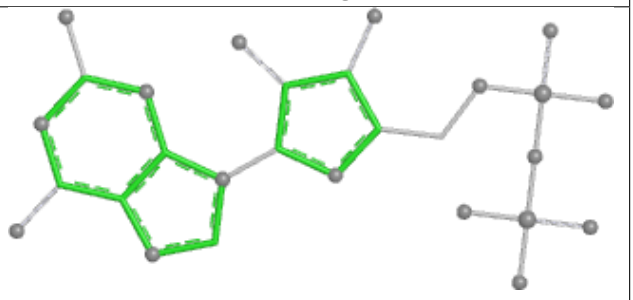

Rings

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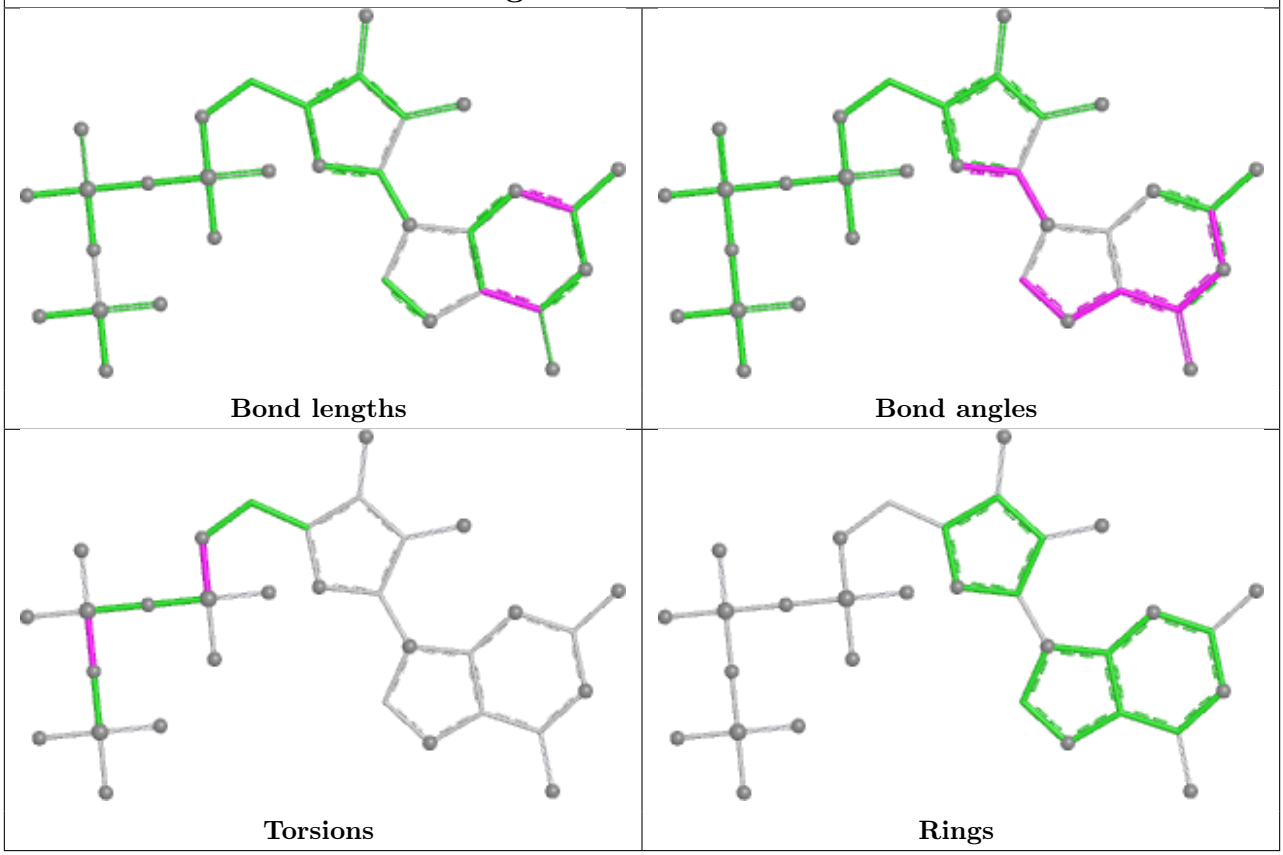

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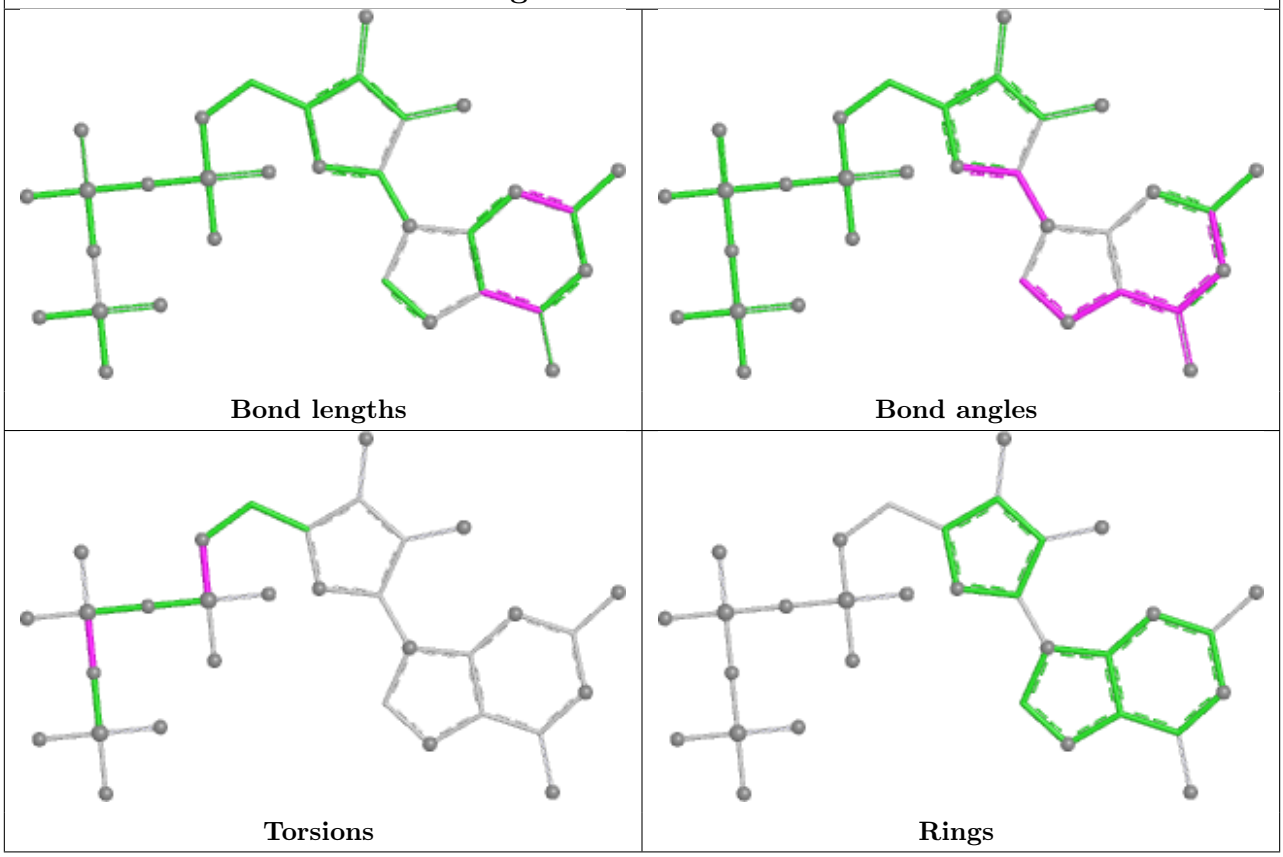

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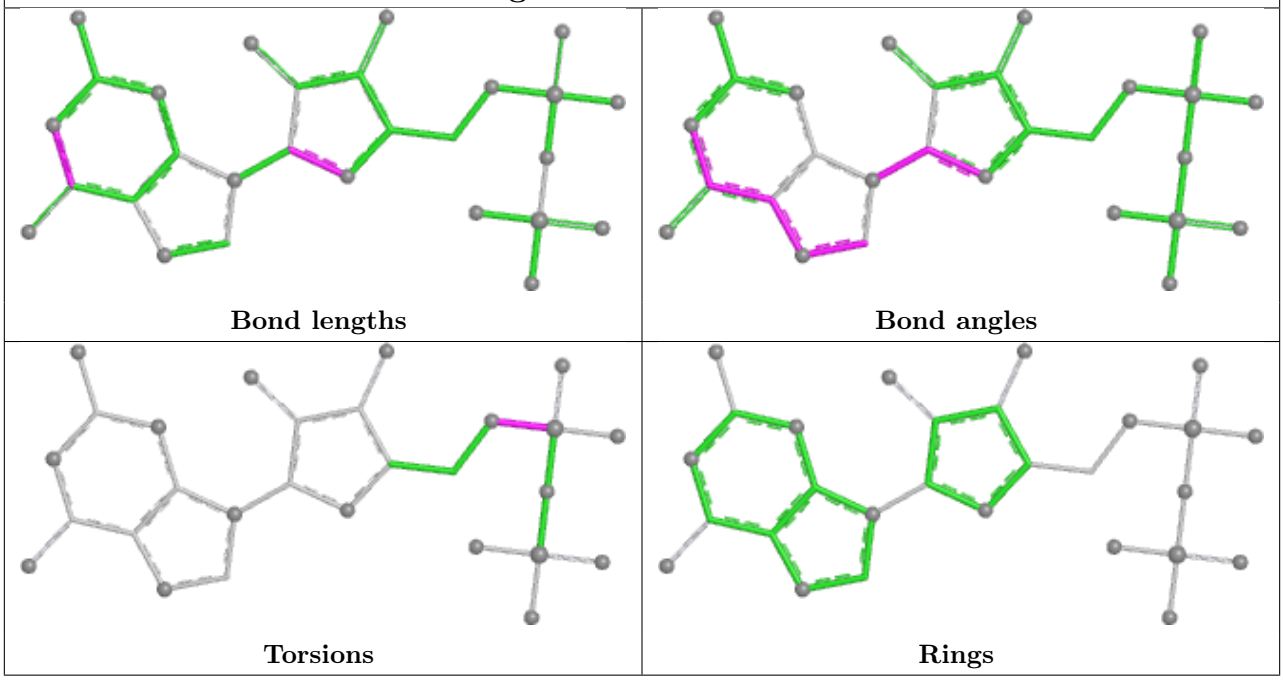

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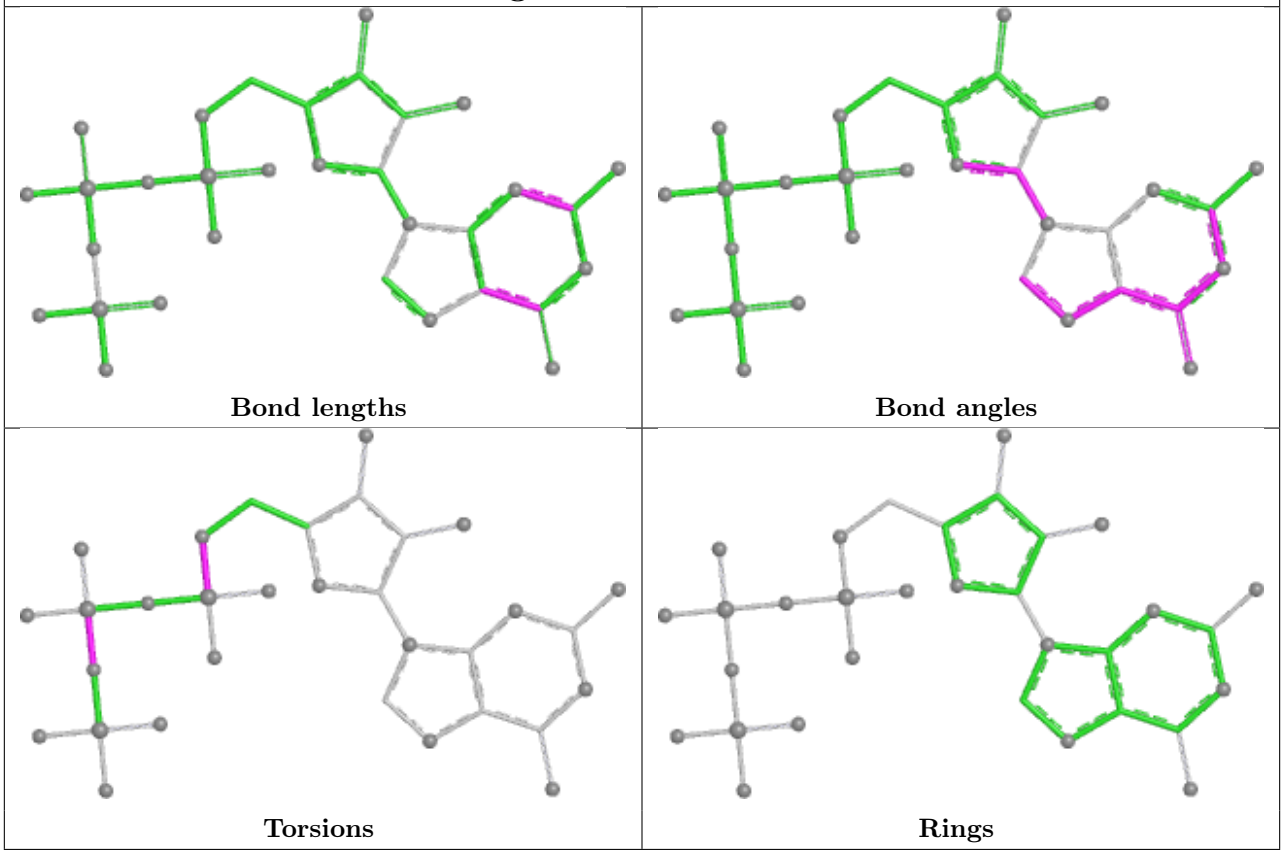

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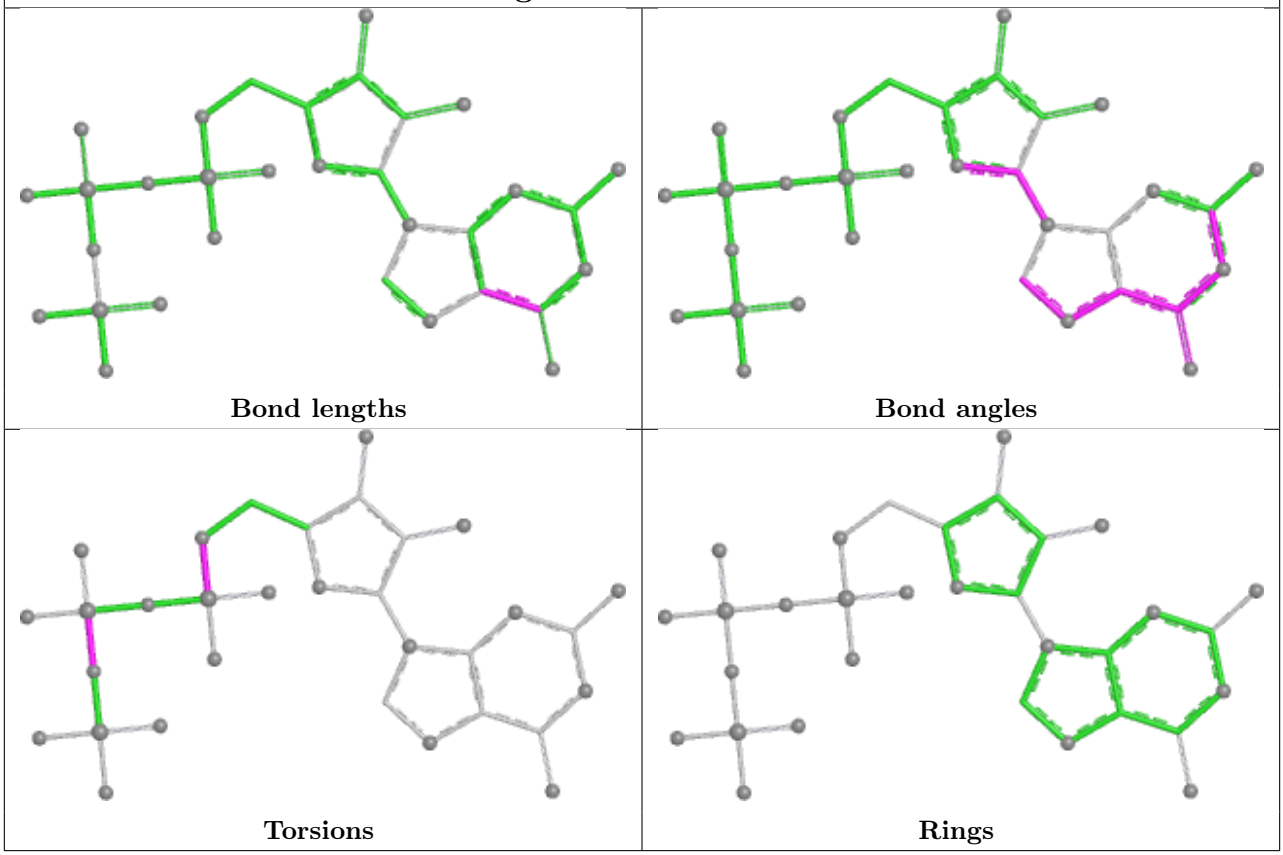

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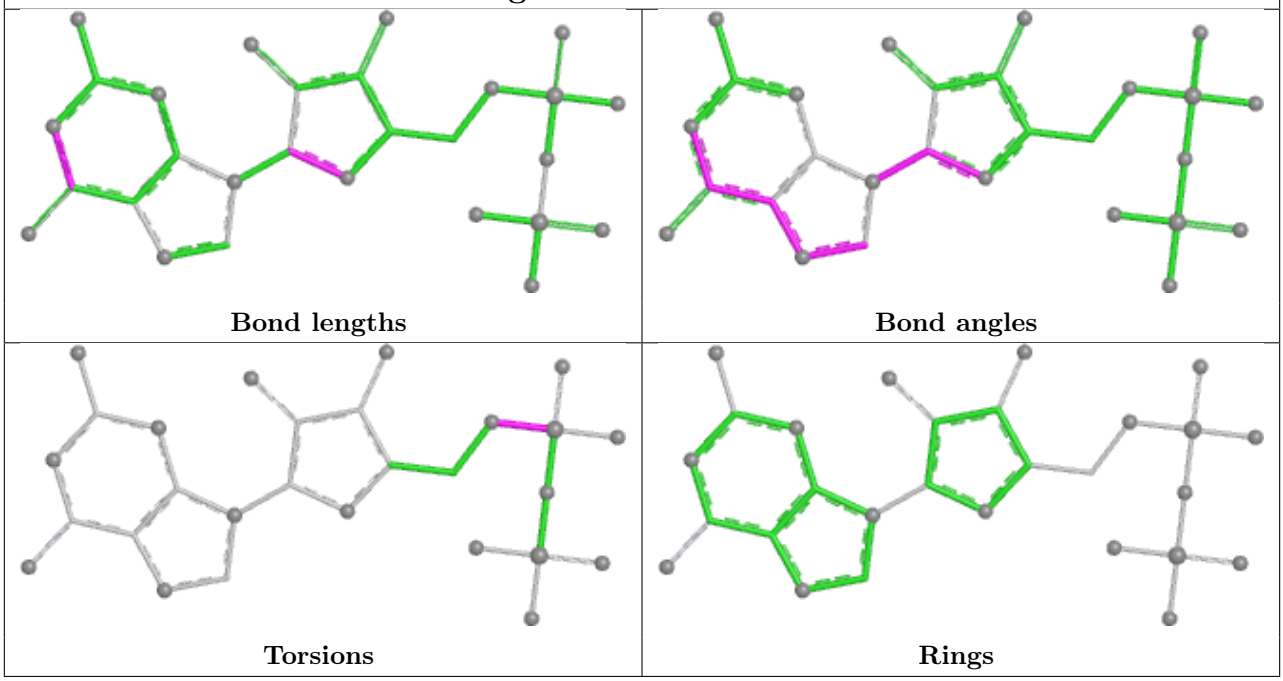

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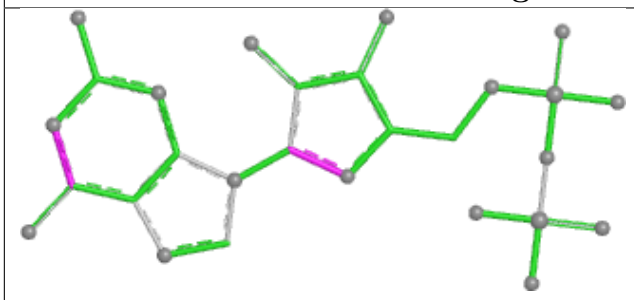
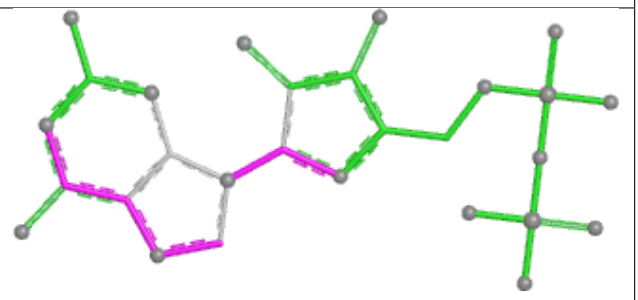
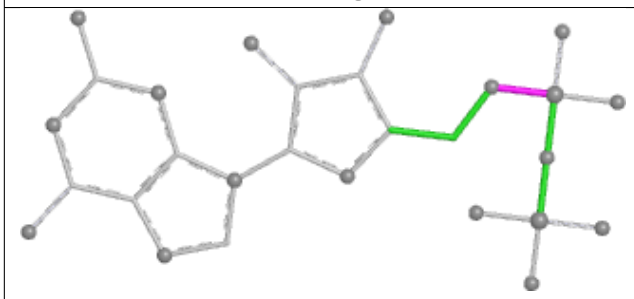


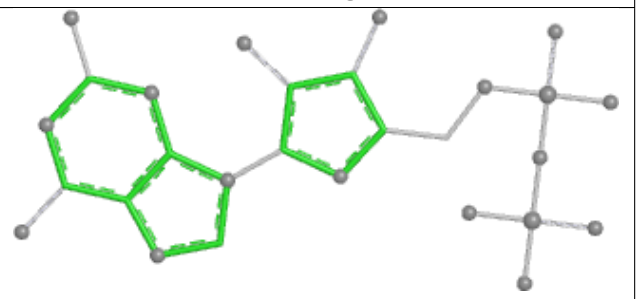
Bond lengths



Bond angles

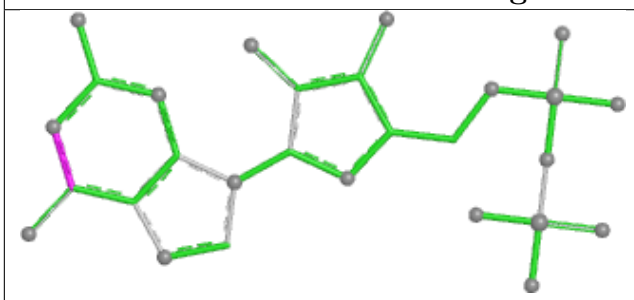


Torsions

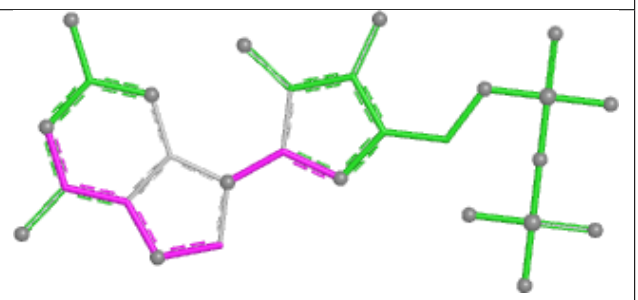


Rings

Ligand GDP EU 501



Bond lengths



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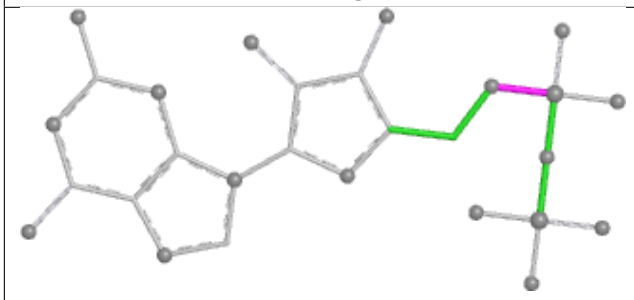
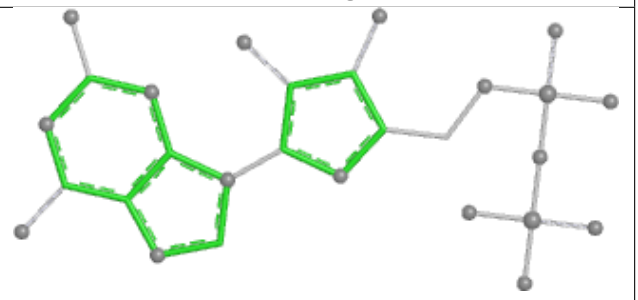
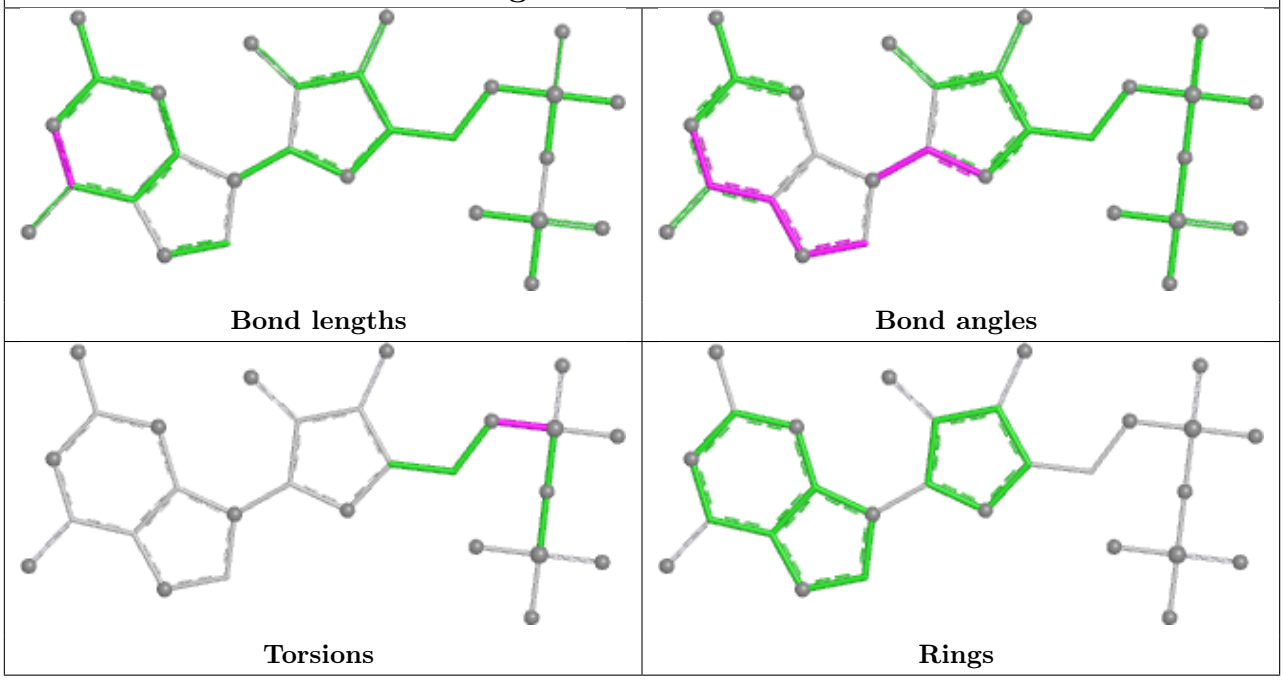


Torsions



Rings

Ligand GDP BV 501



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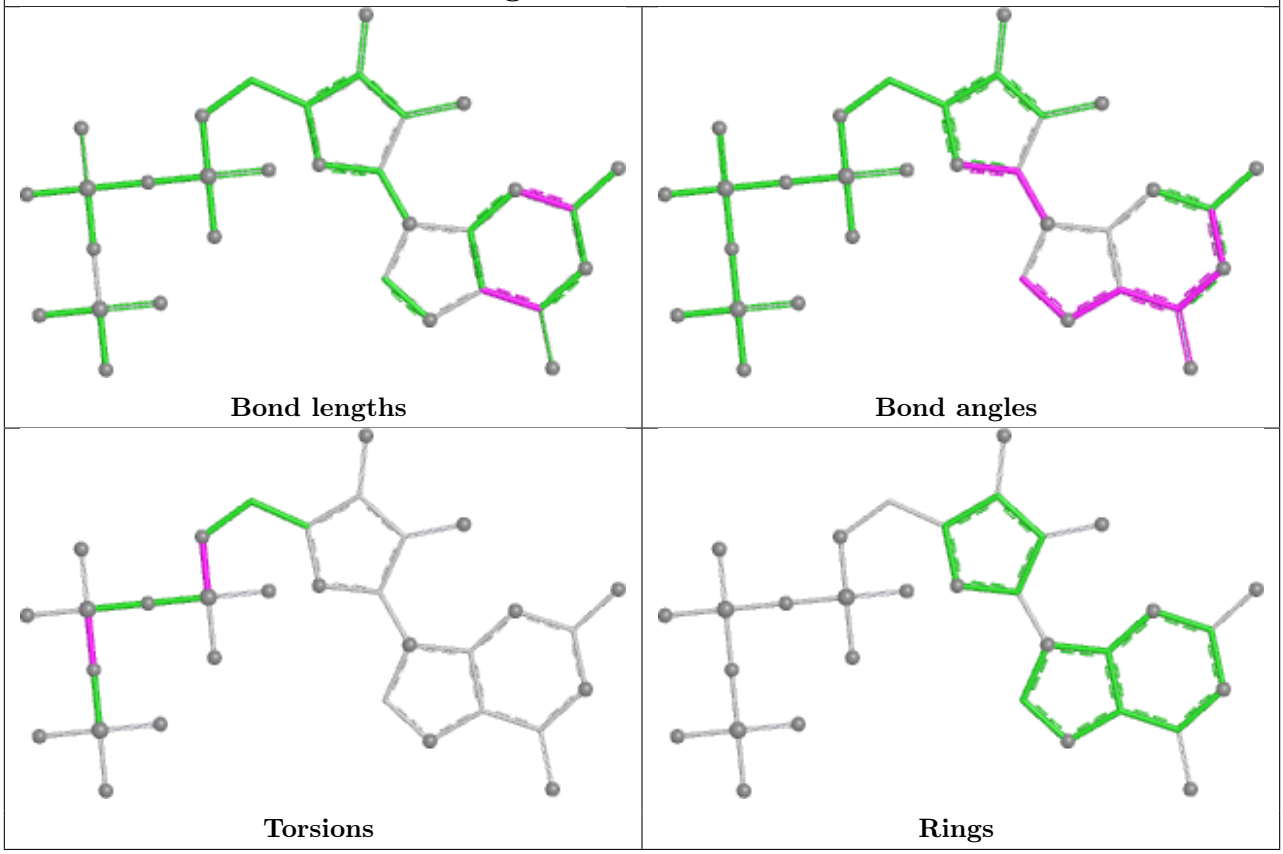

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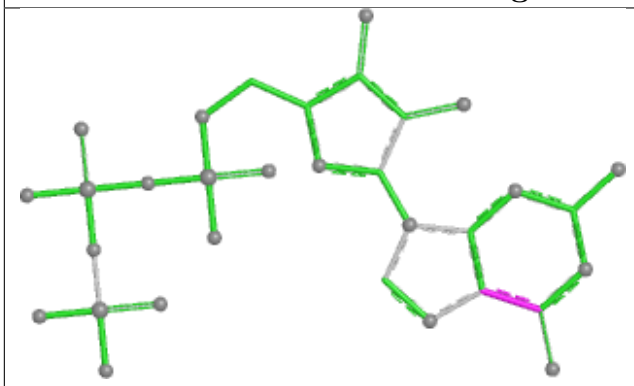

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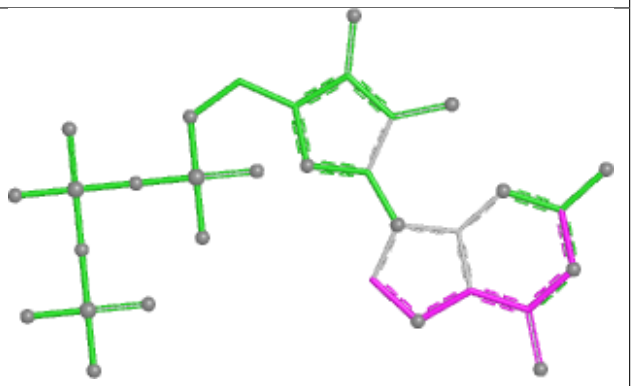

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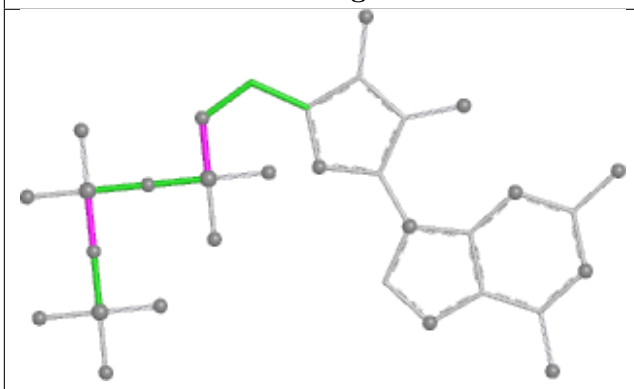

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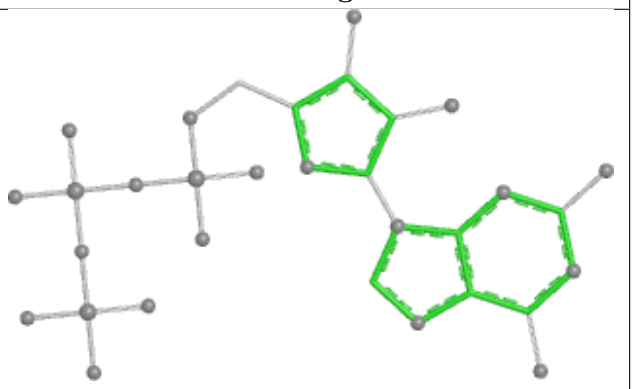

Rings

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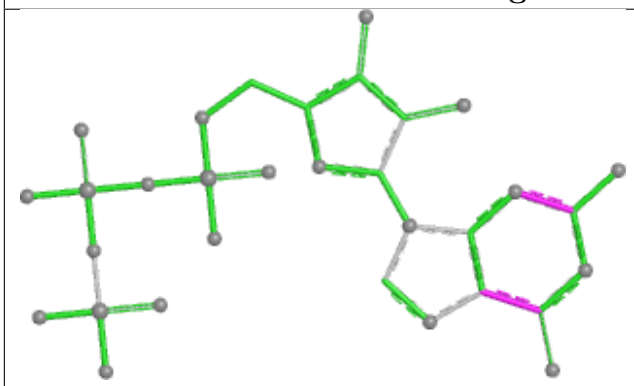

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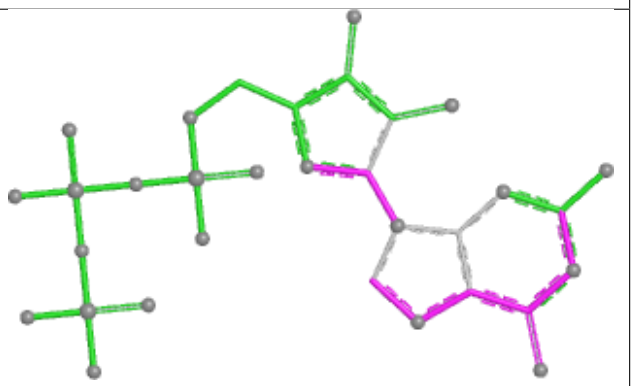

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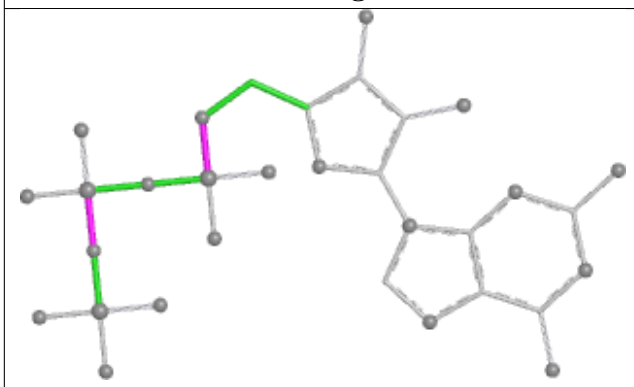

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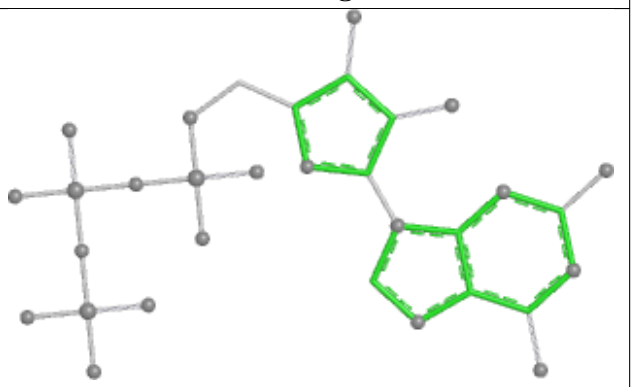

Rings

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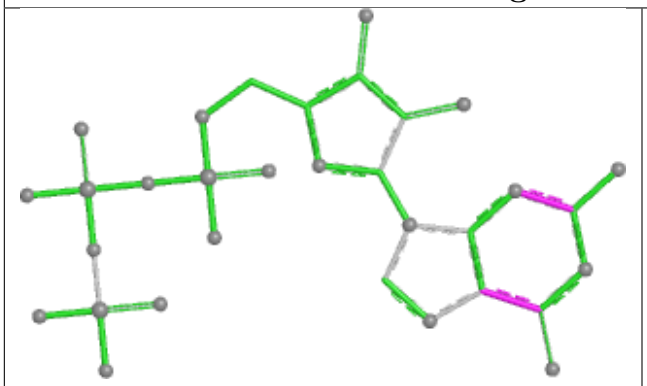

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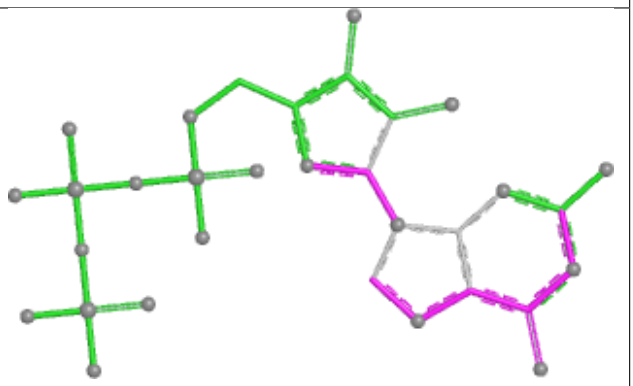

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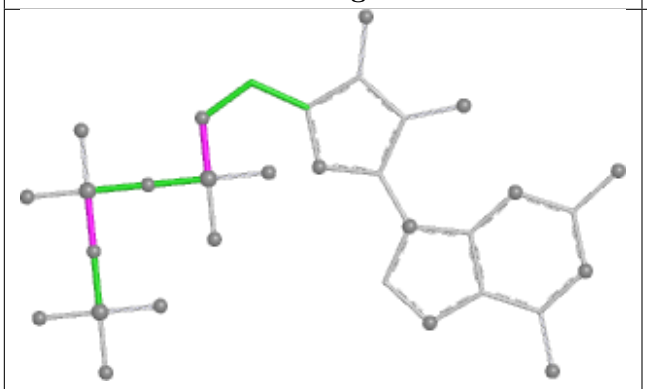

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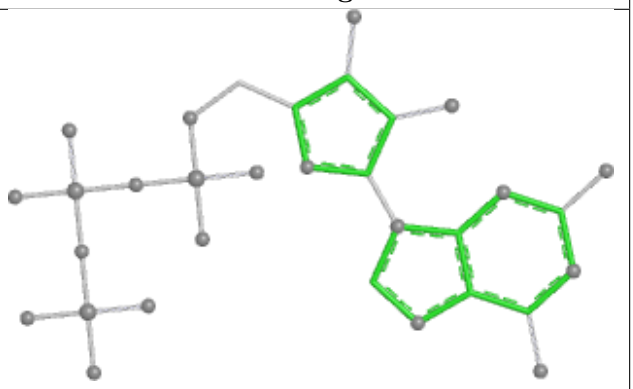

Rings

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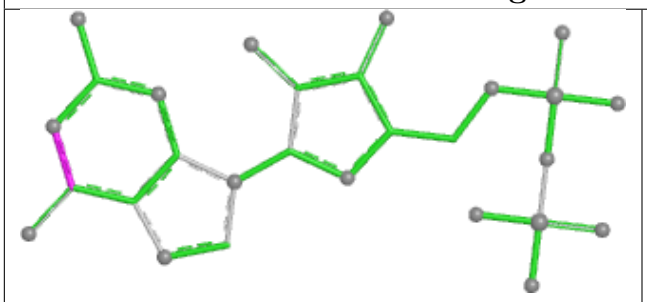

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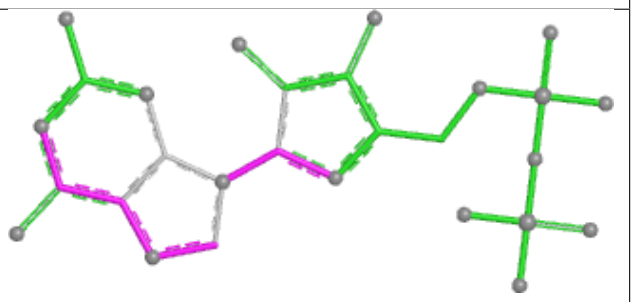

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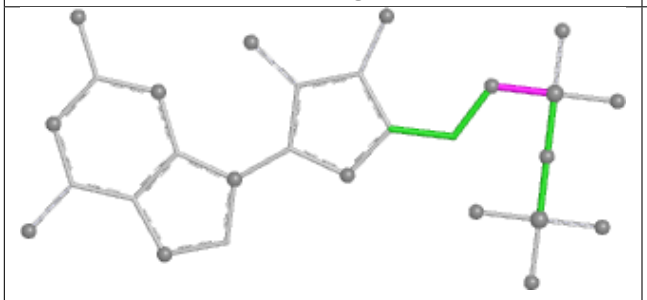

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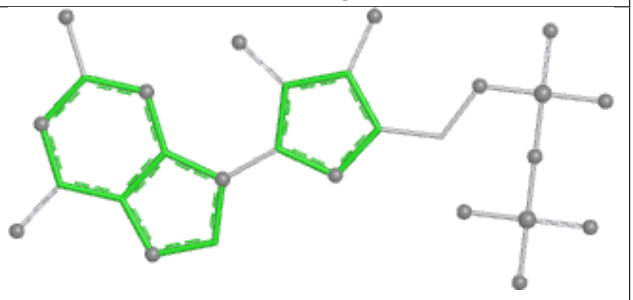

Rings

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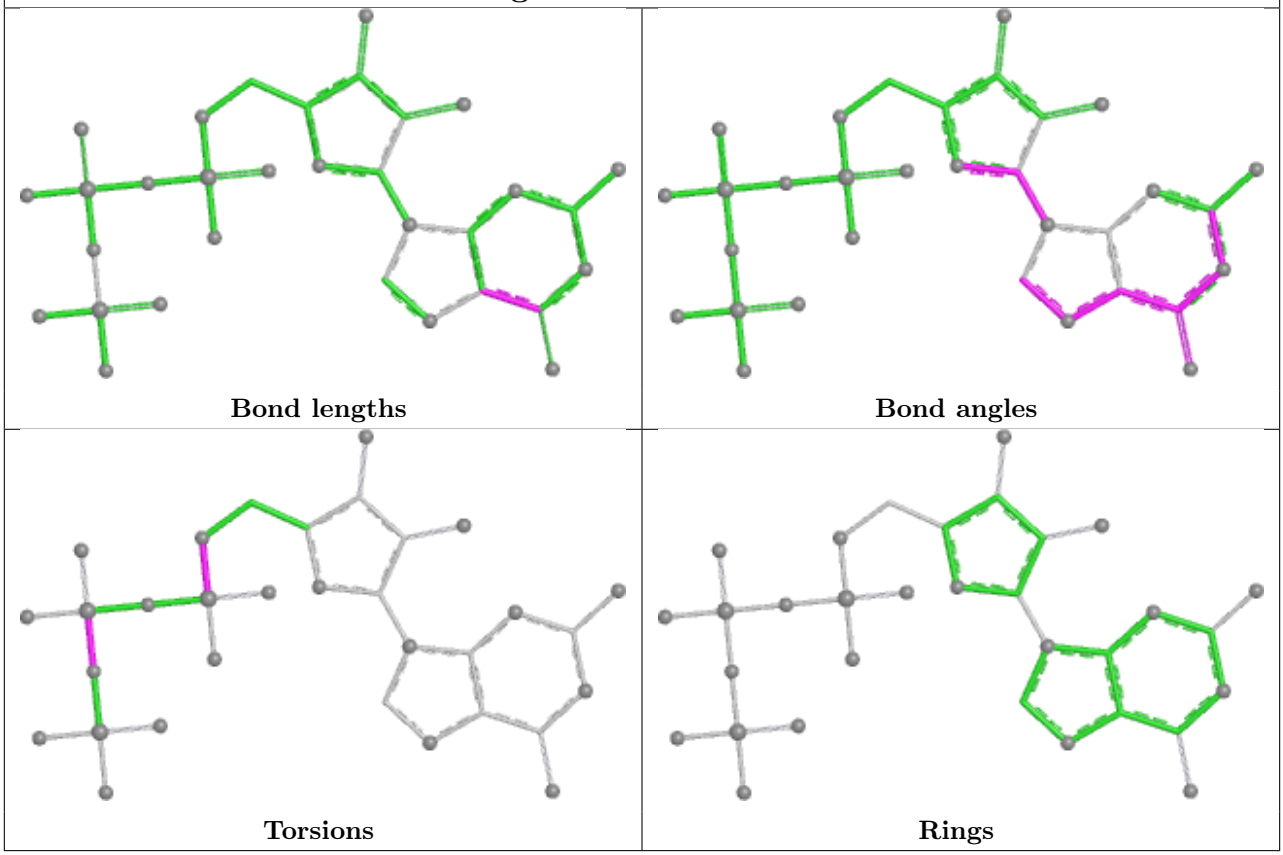

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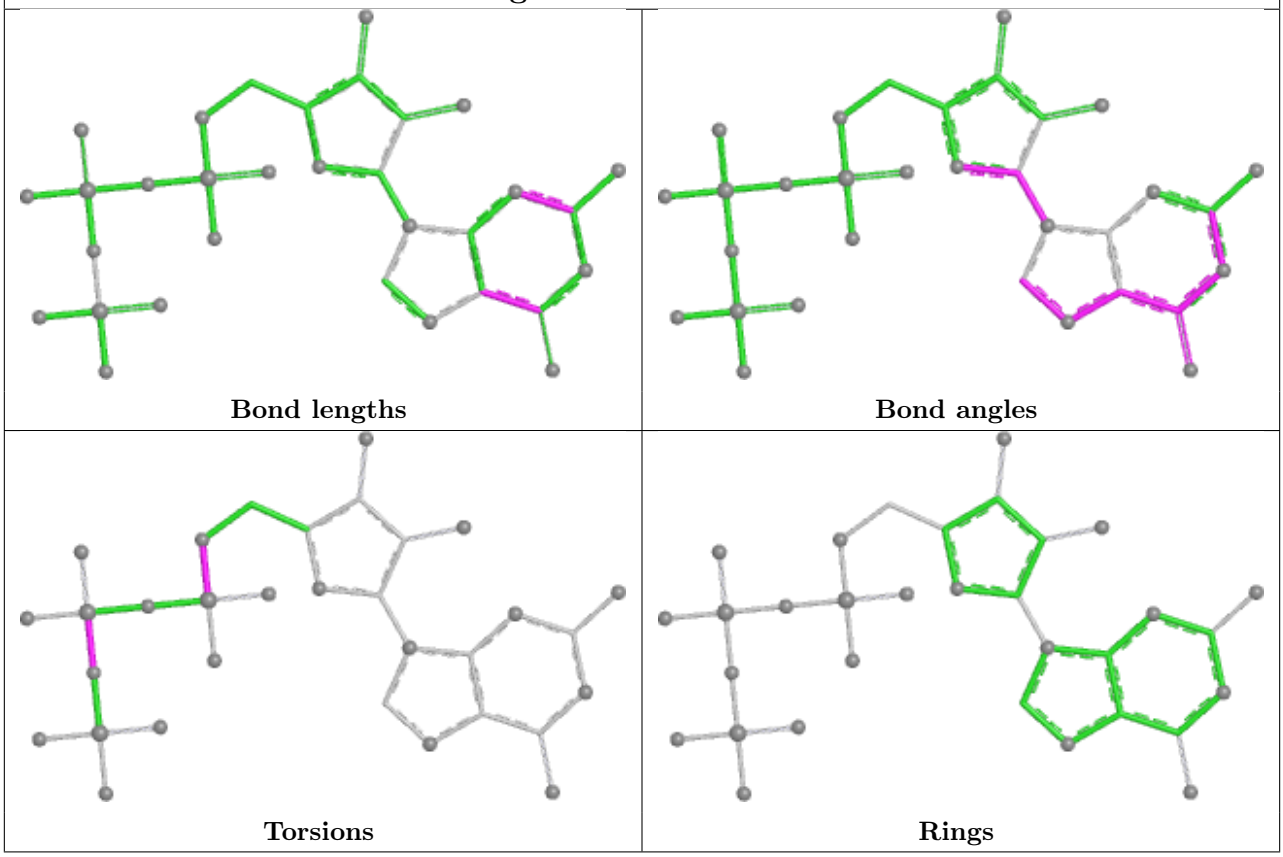

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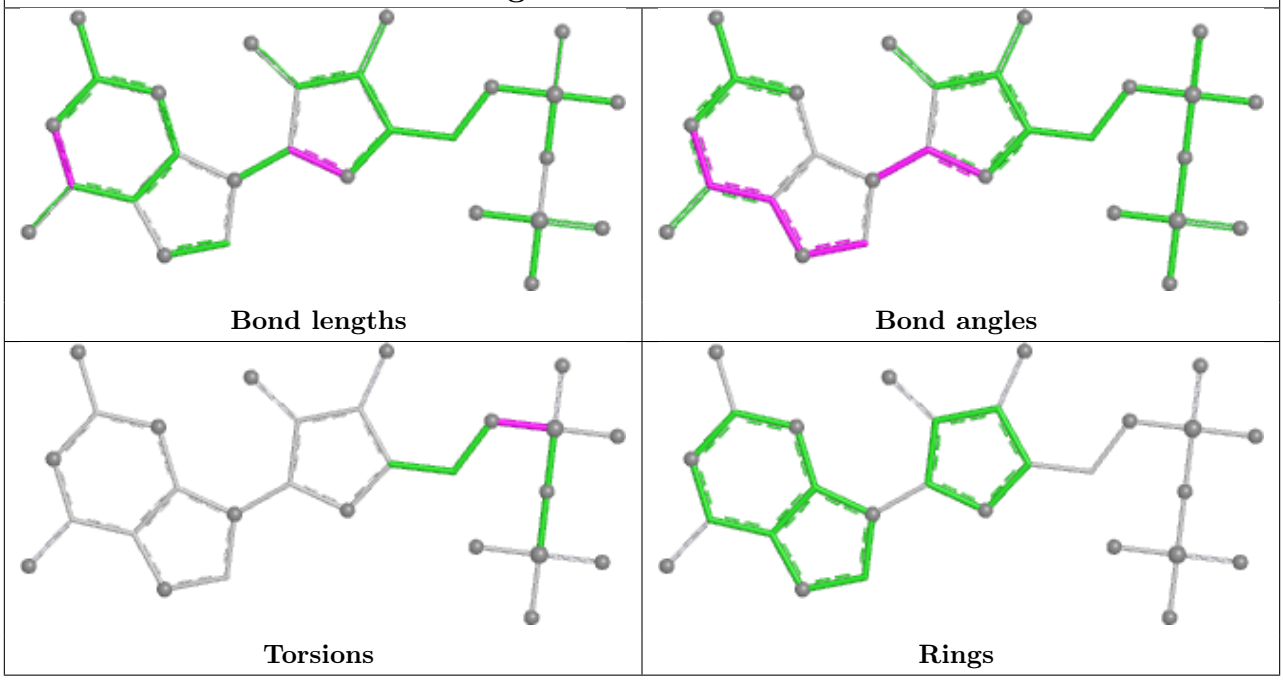

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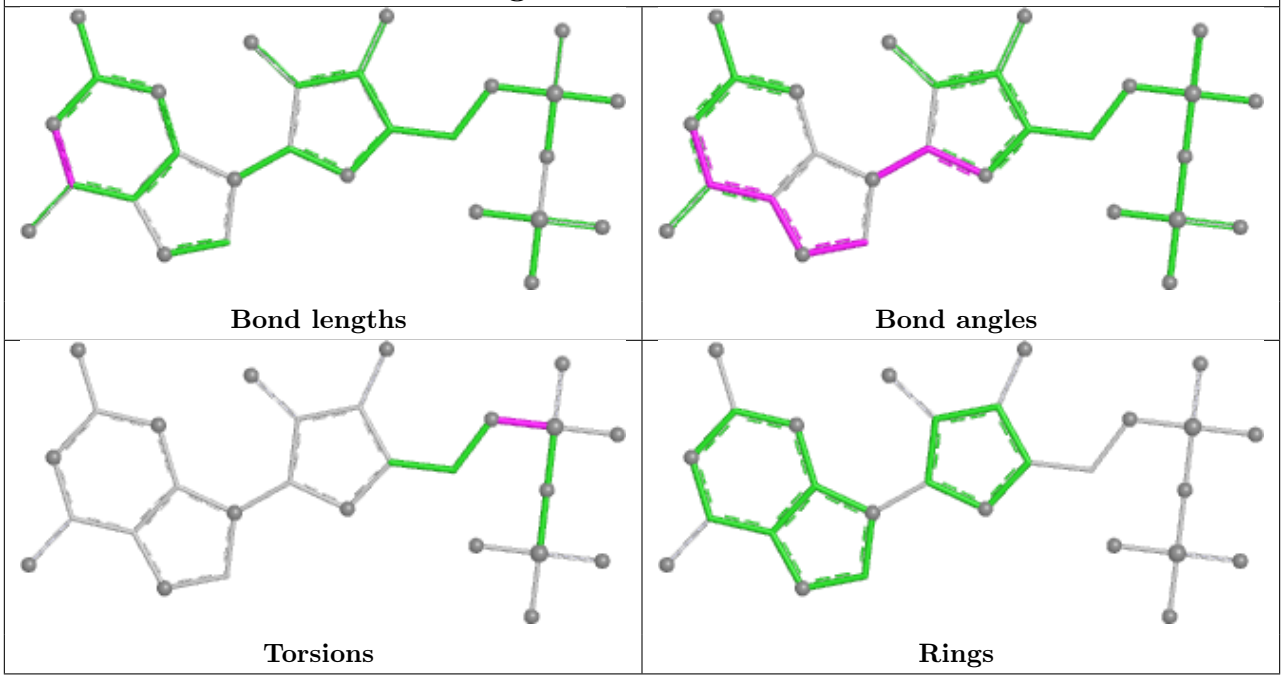

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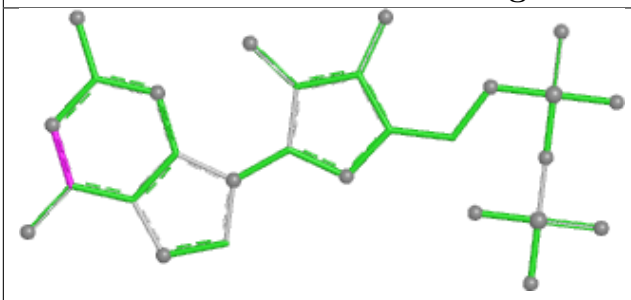

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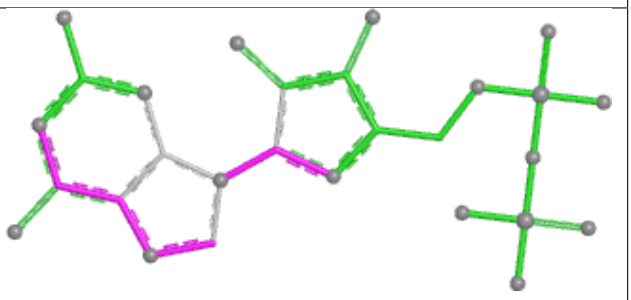

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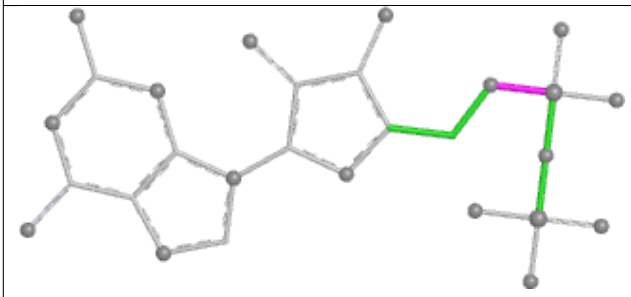
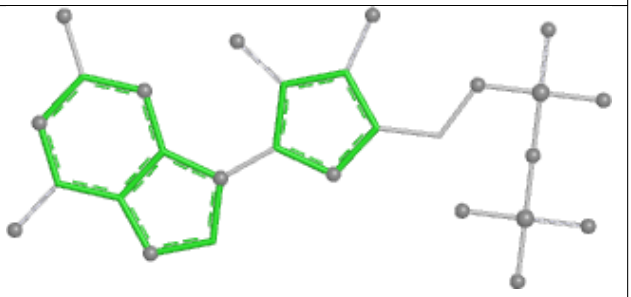


Torsions



Rings

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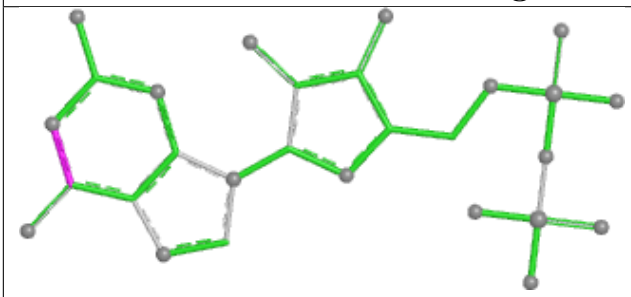

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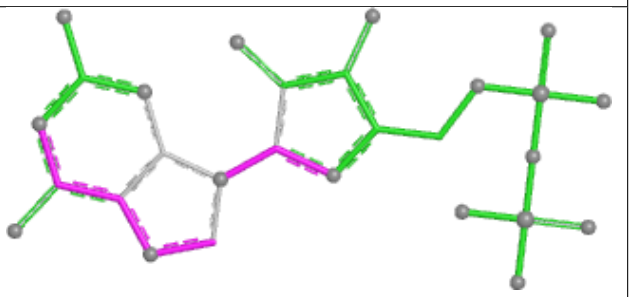

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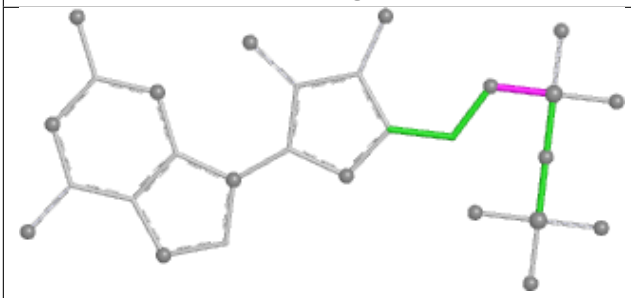

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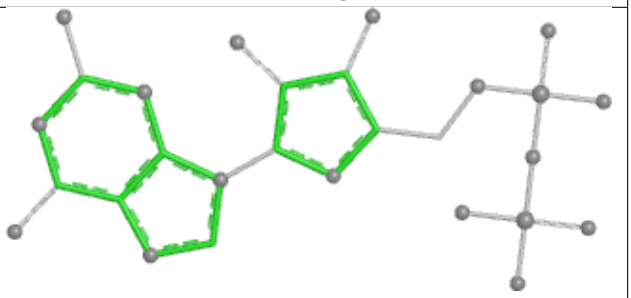
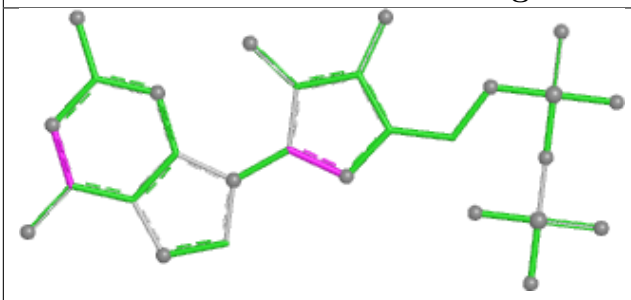


Rings

Ligand GDP JR 501



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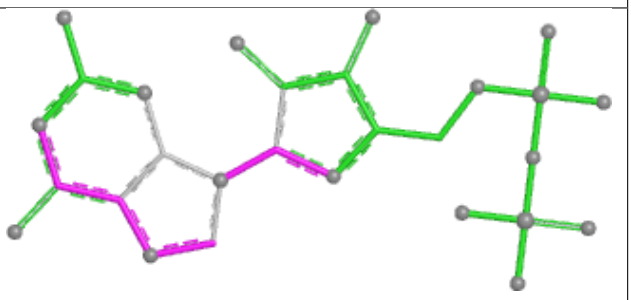

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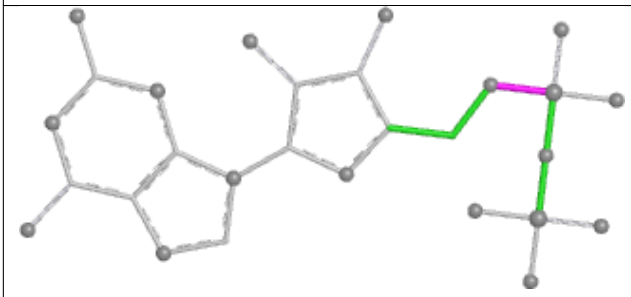

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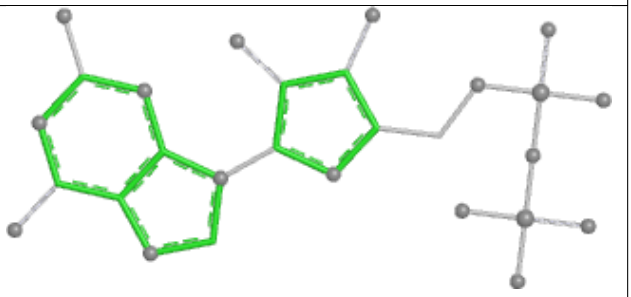
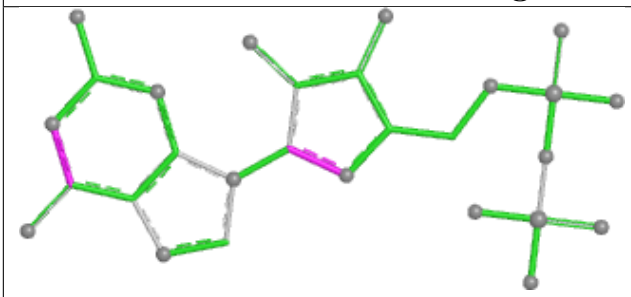


Rings

Ligand GDP DJ 501



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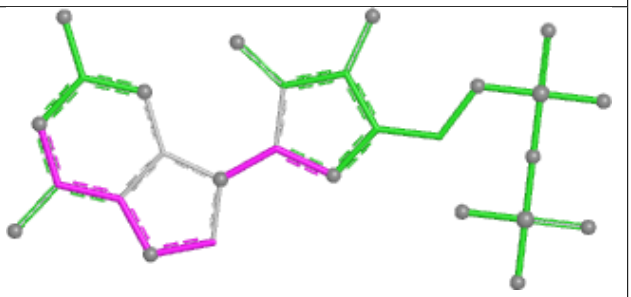

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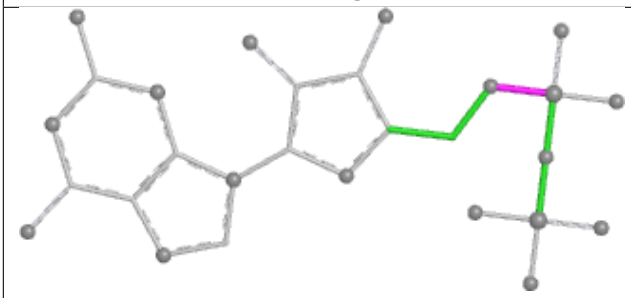

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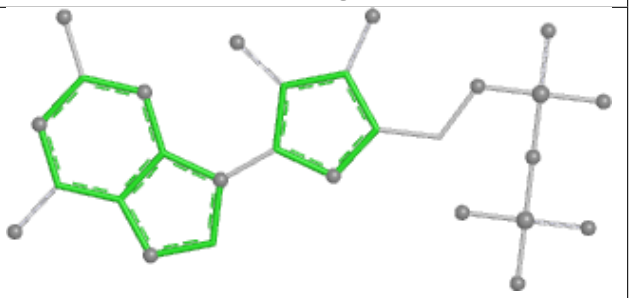

Rings

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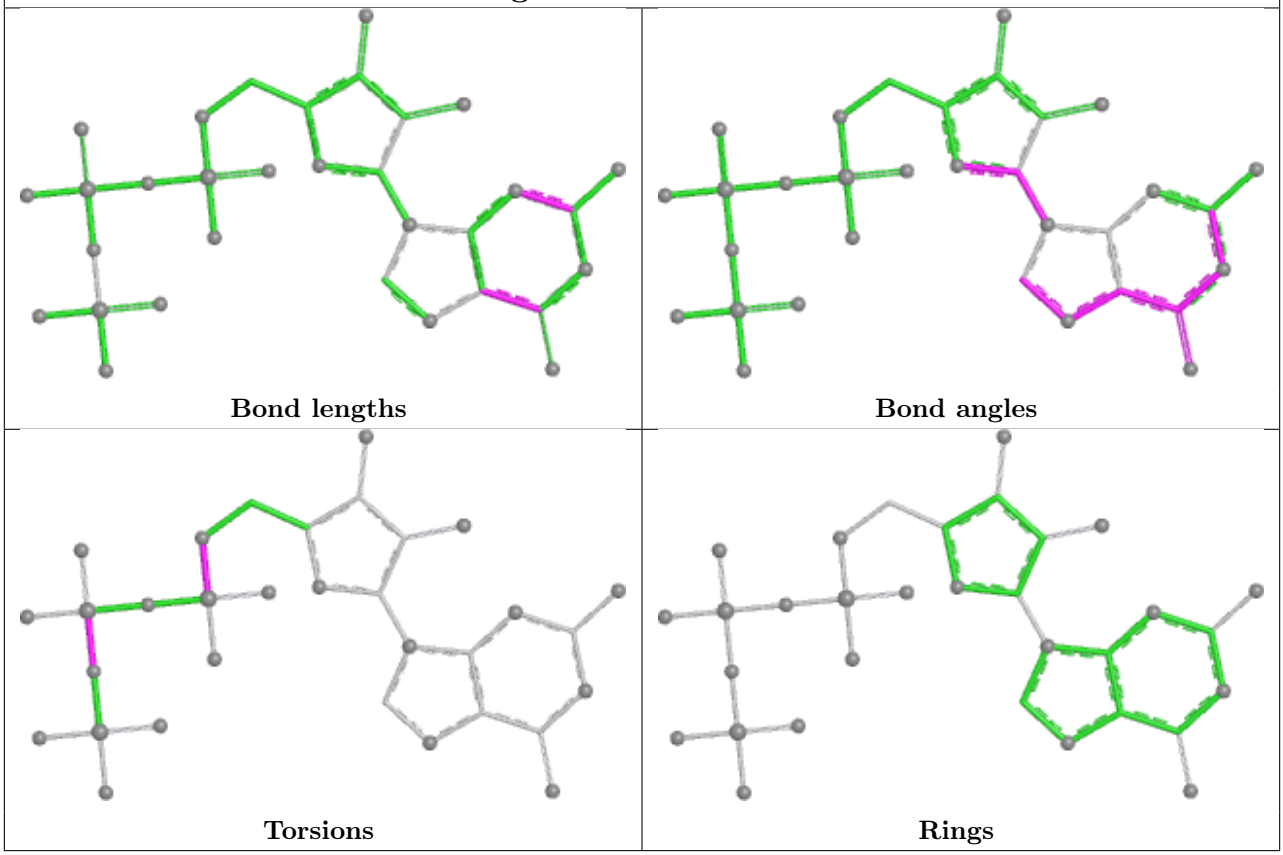

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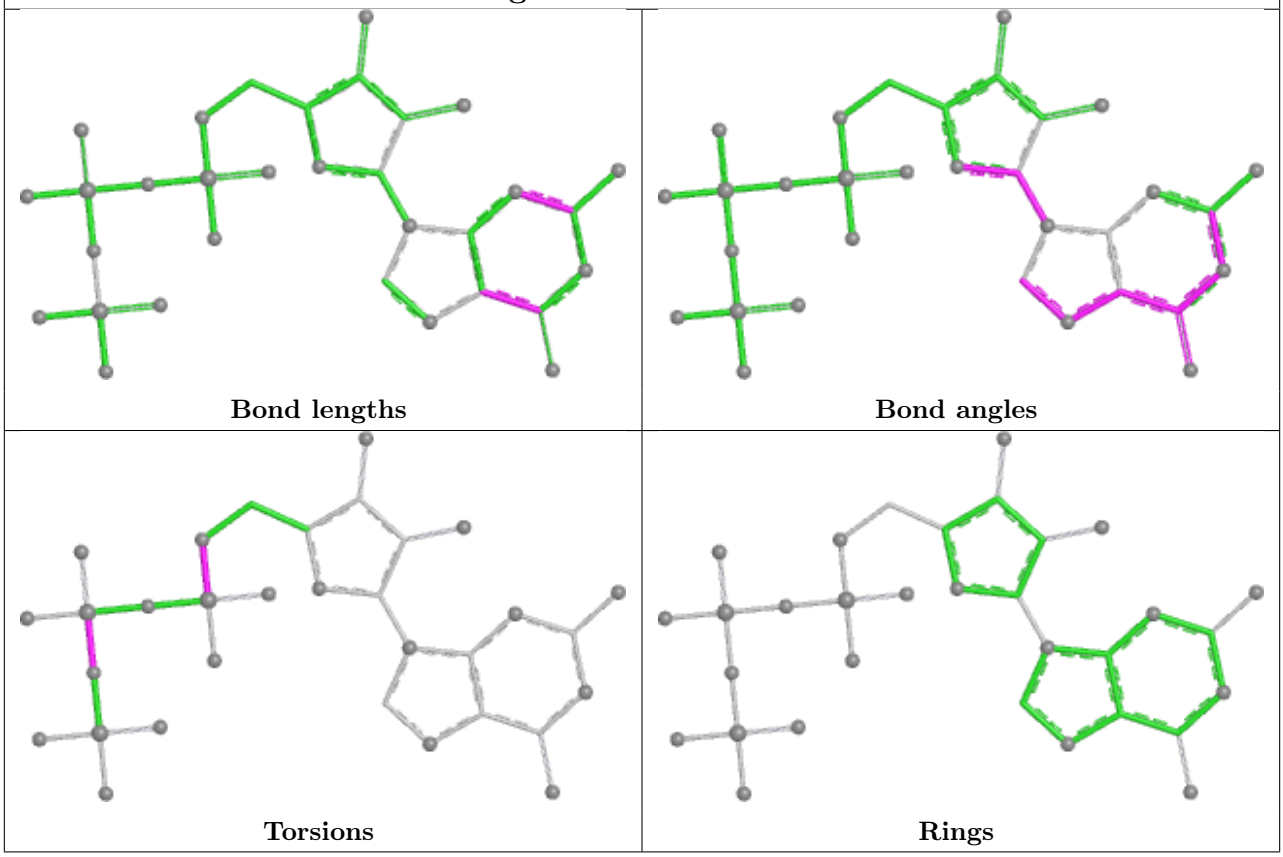

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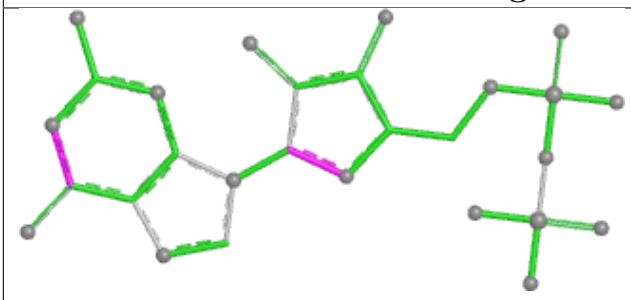

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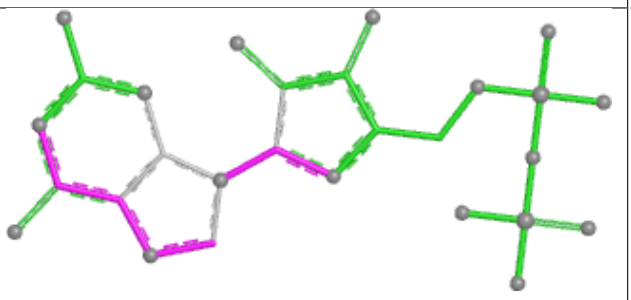

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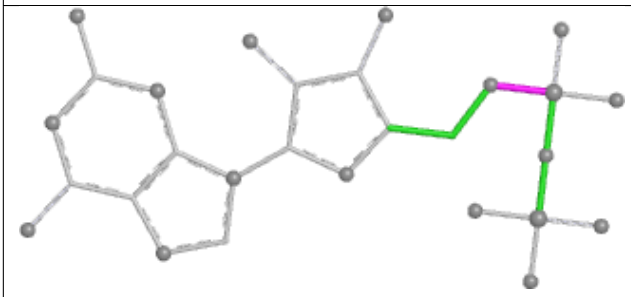

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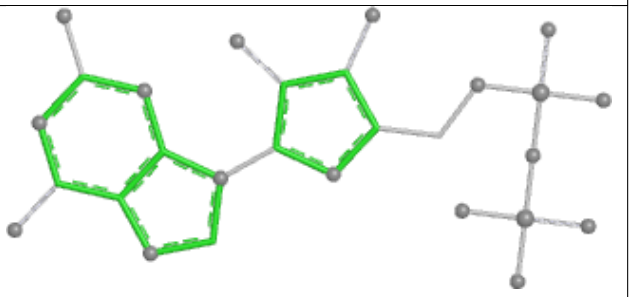

Rings

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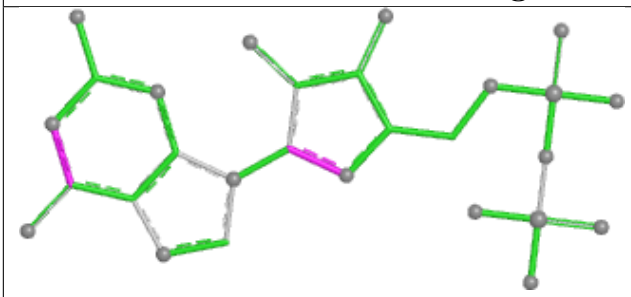

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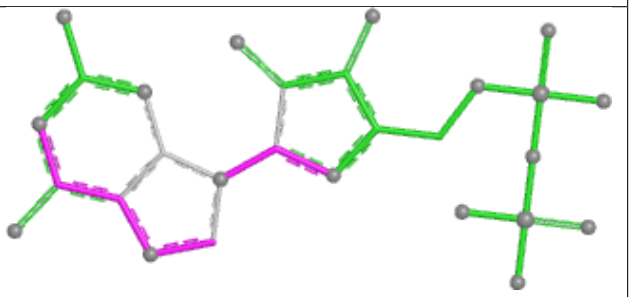

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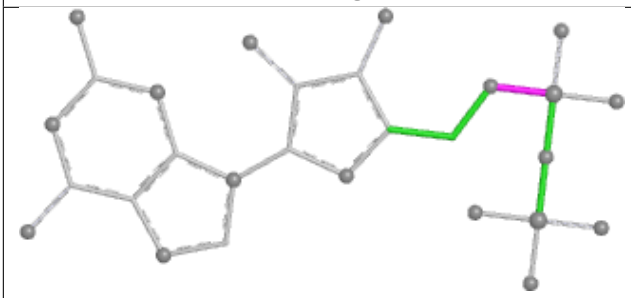

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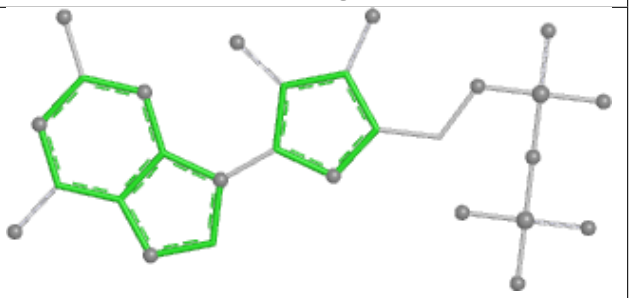
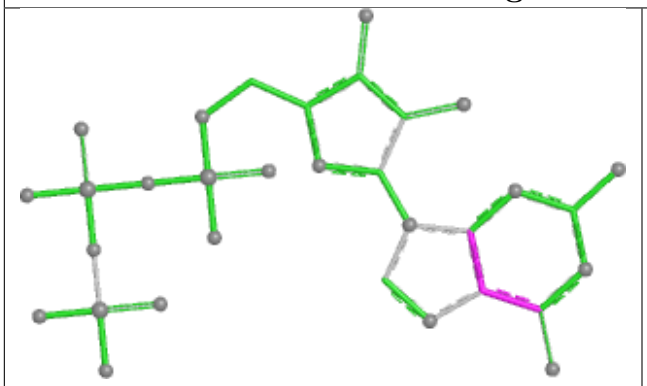


Rings

Ligand GTP HM 501



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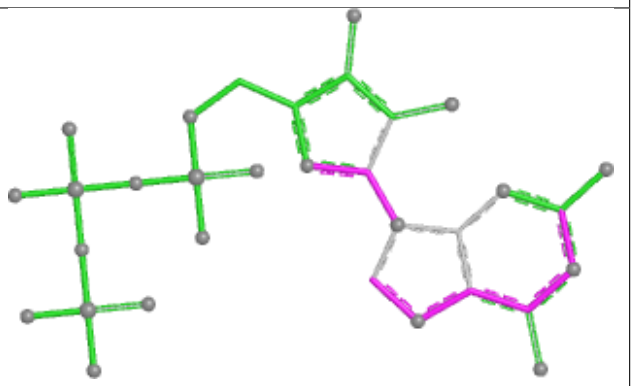

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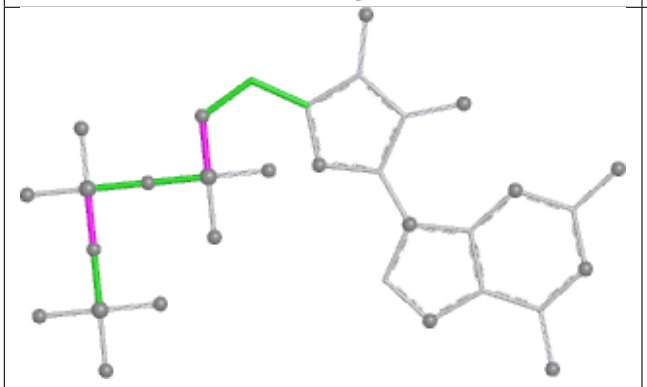
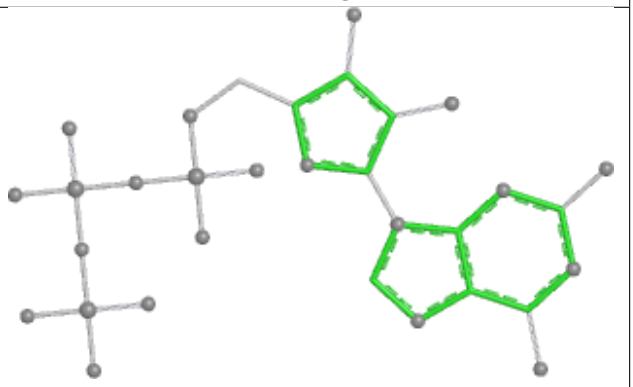
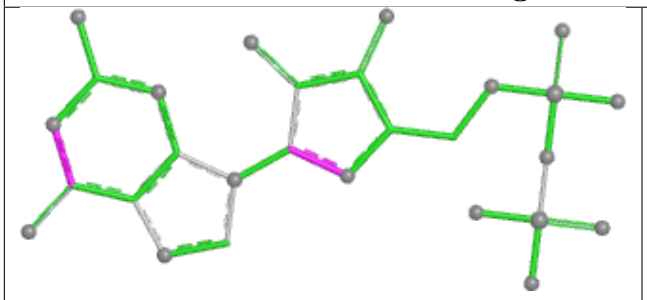


Torsions



Rings

Ligand GDP CL 501



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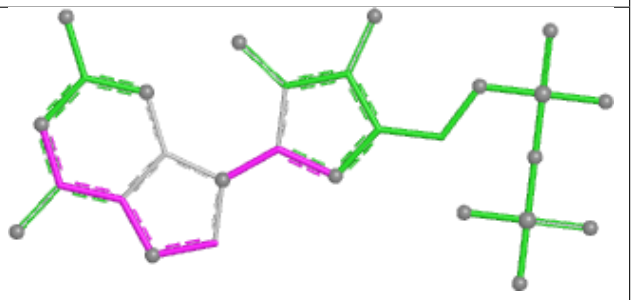
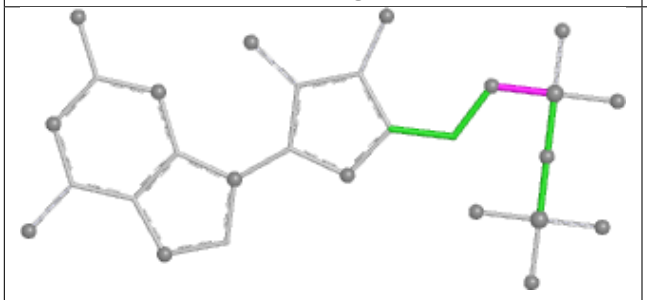


Bond angles



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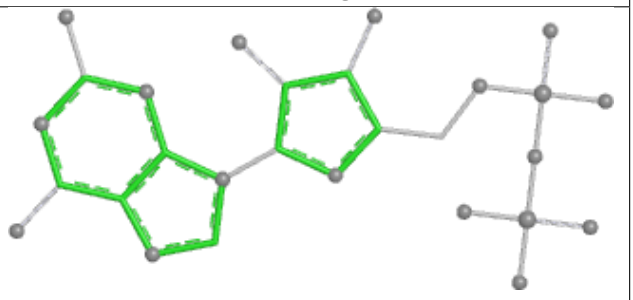
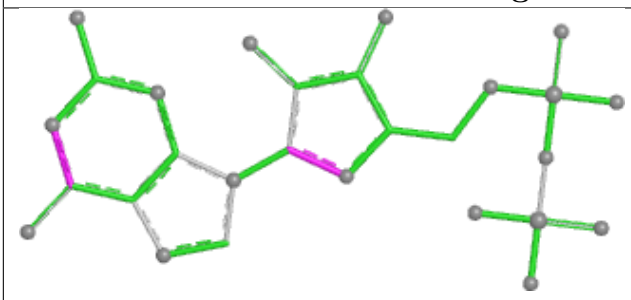


Rings

Ligand GDP AJ 501



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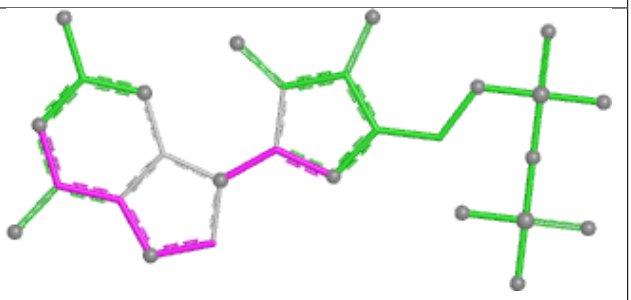

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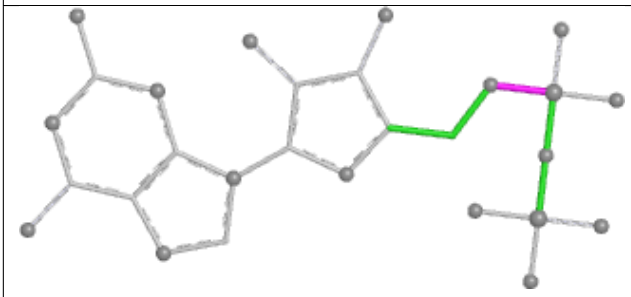

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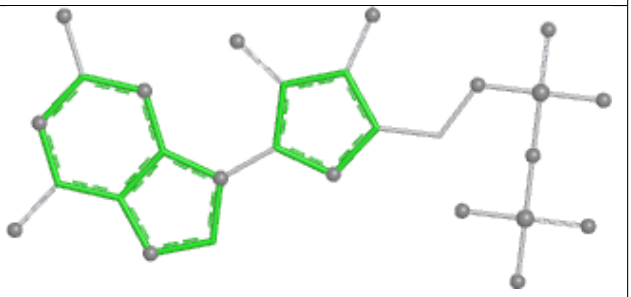
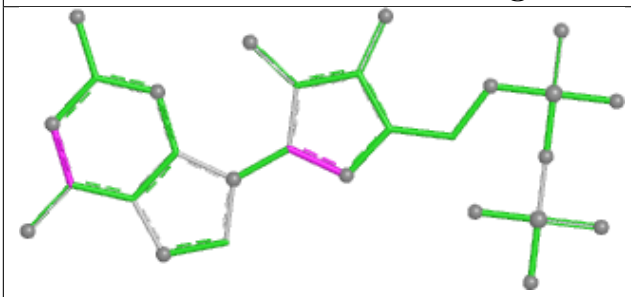


Rings

Ligand GDP EA 501



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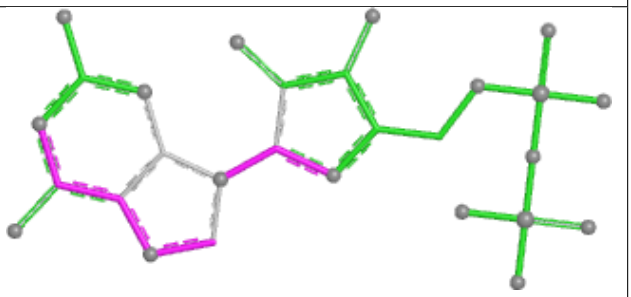

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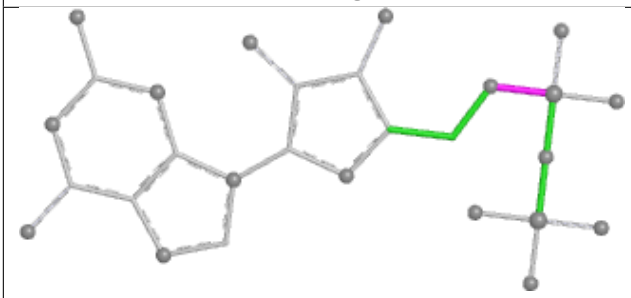

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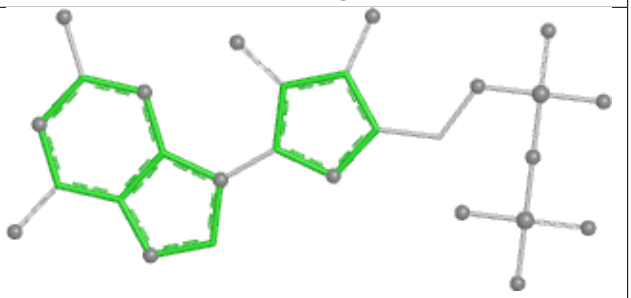
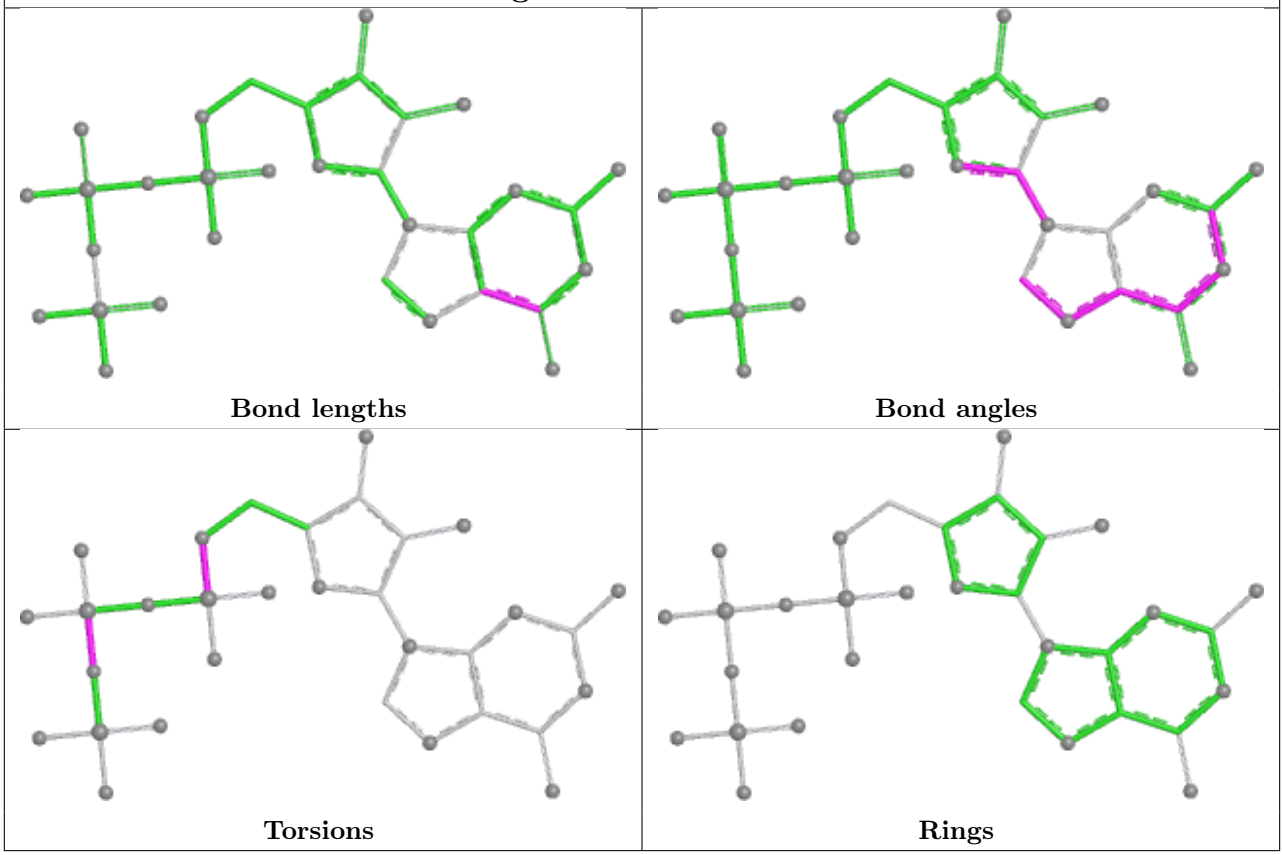


Rings

Ligand GTP HZ 501



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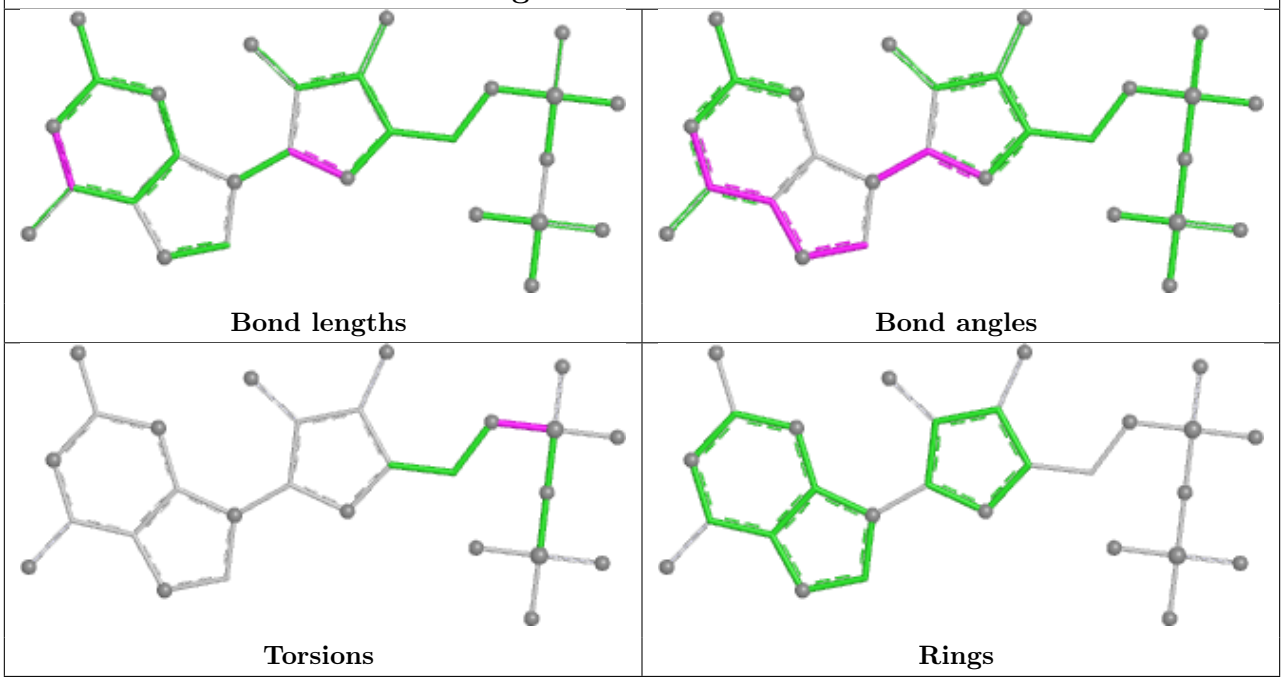
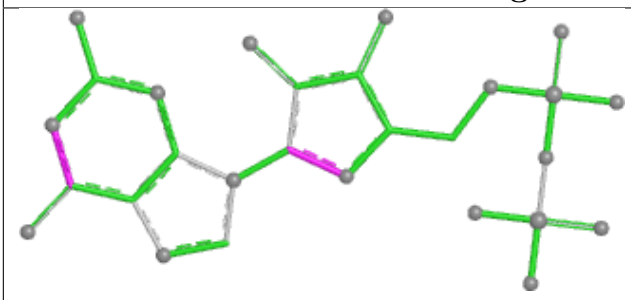


Ligand GDP CZ 501



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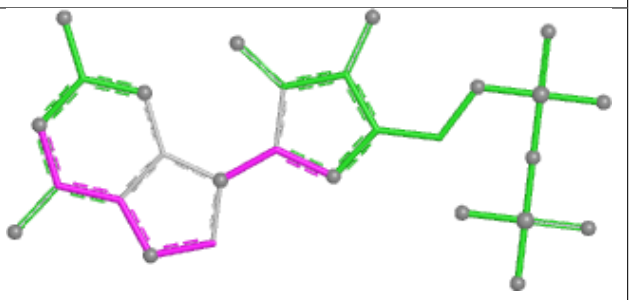
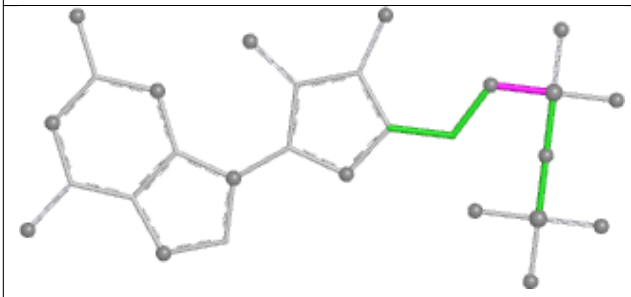


Bond angles



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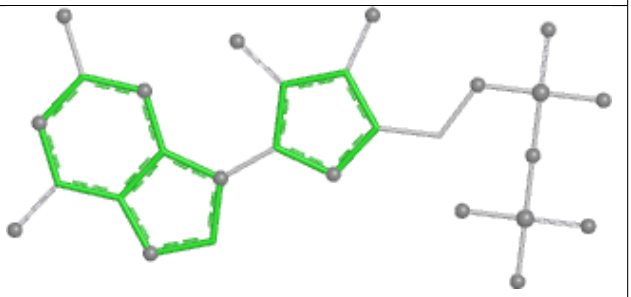
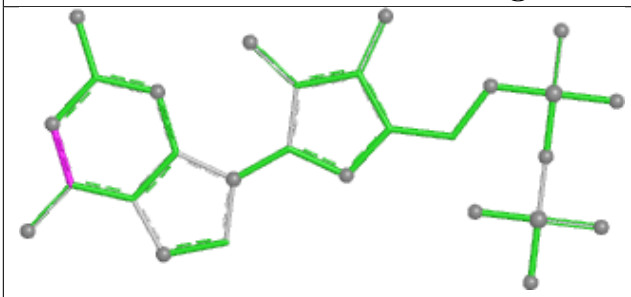


Rings

Ligand GDP IW 501



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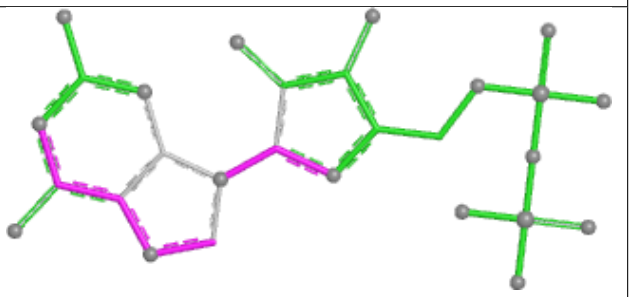
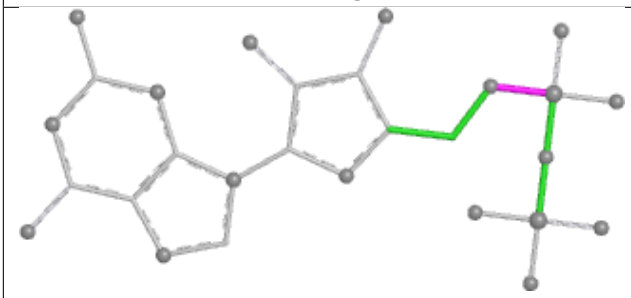


Bond angles



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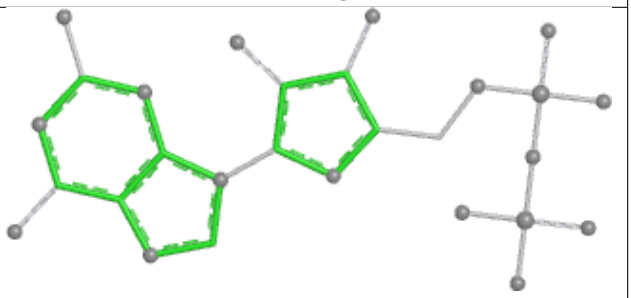
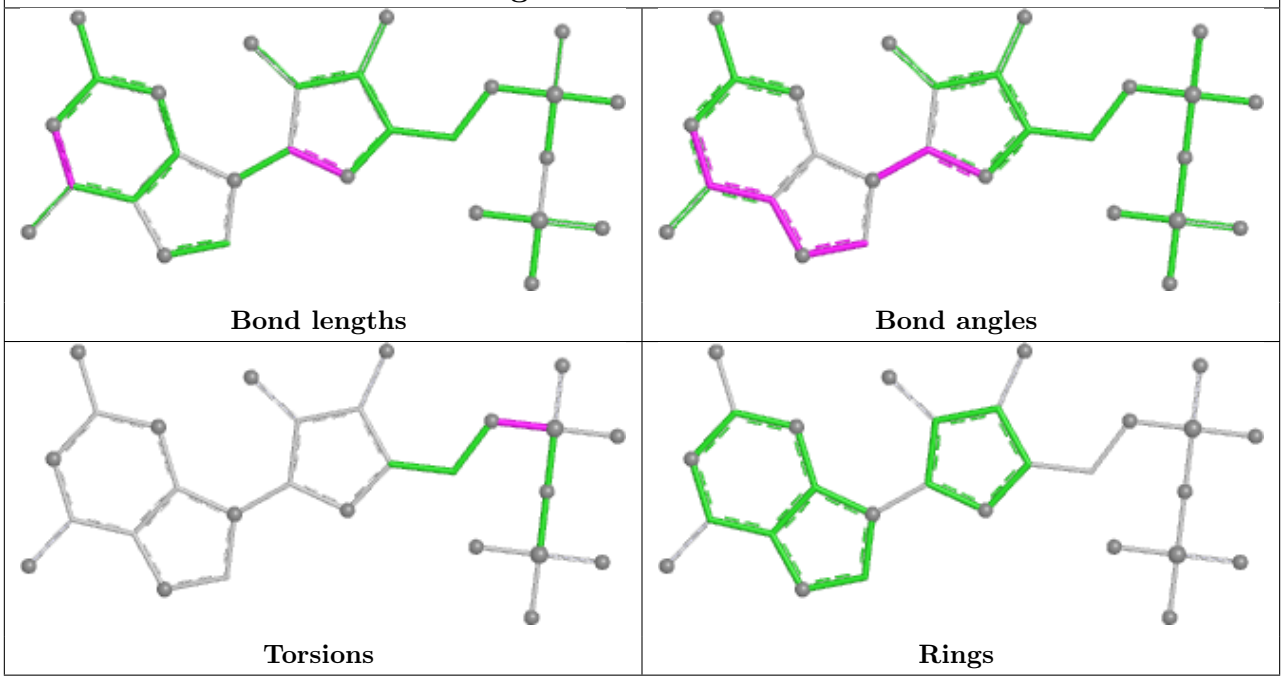
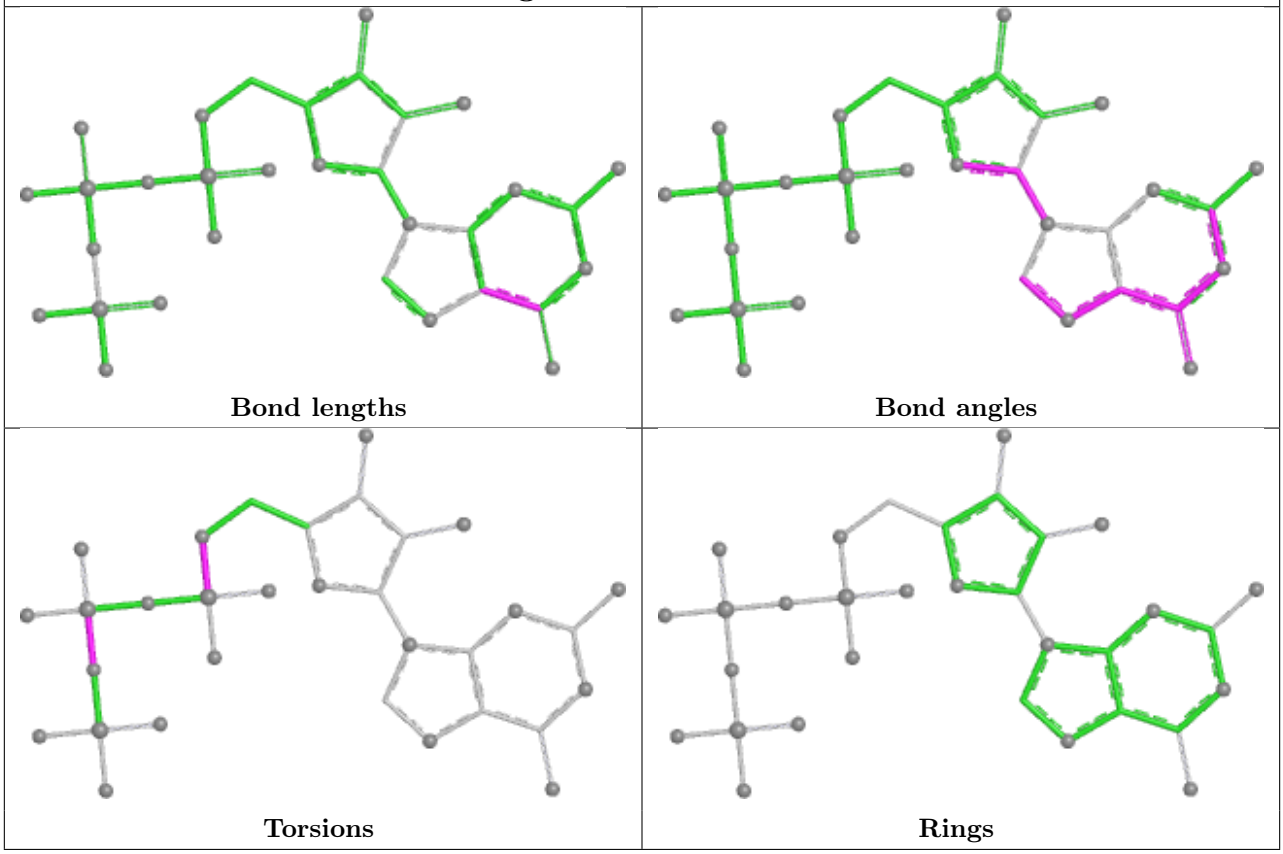


Rings

Ligand GDP AF 501



Ligand GTP IT 602



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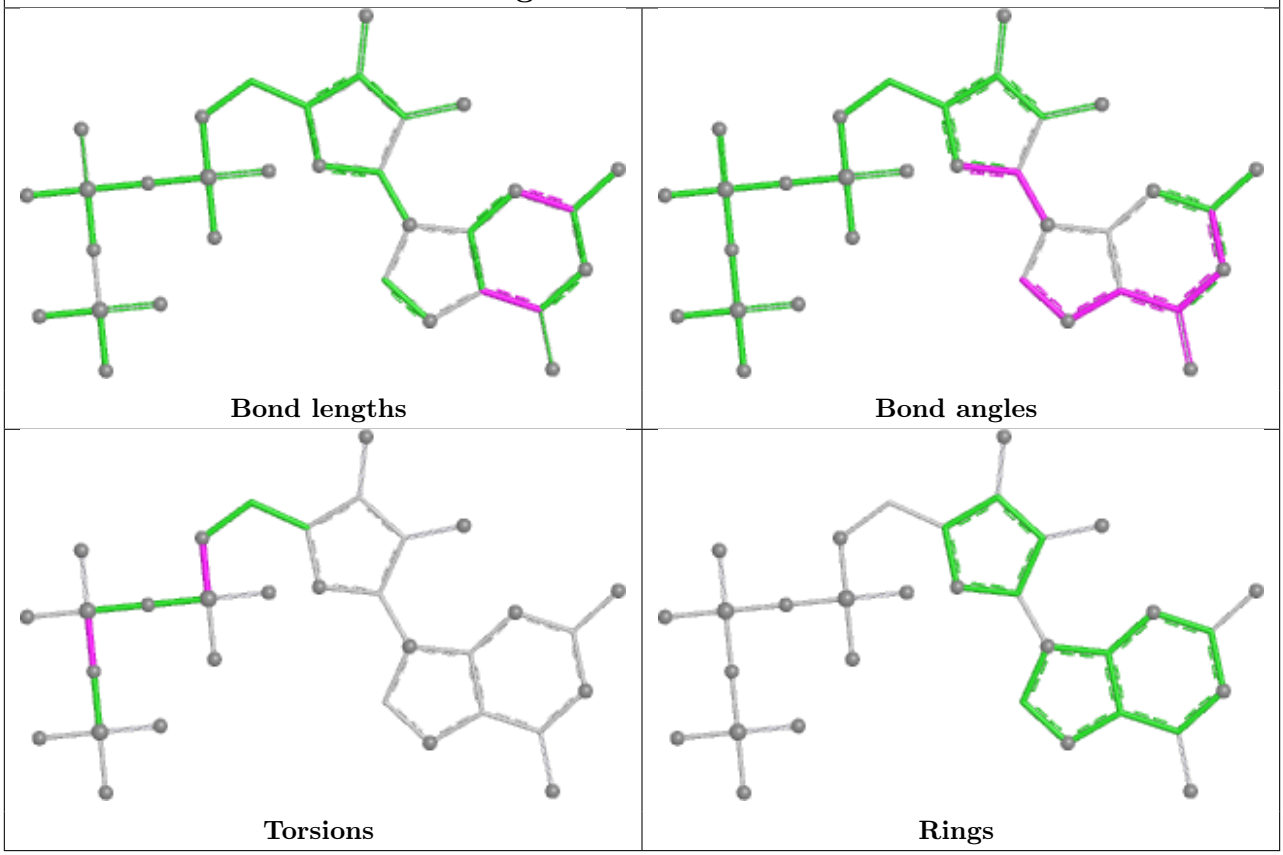

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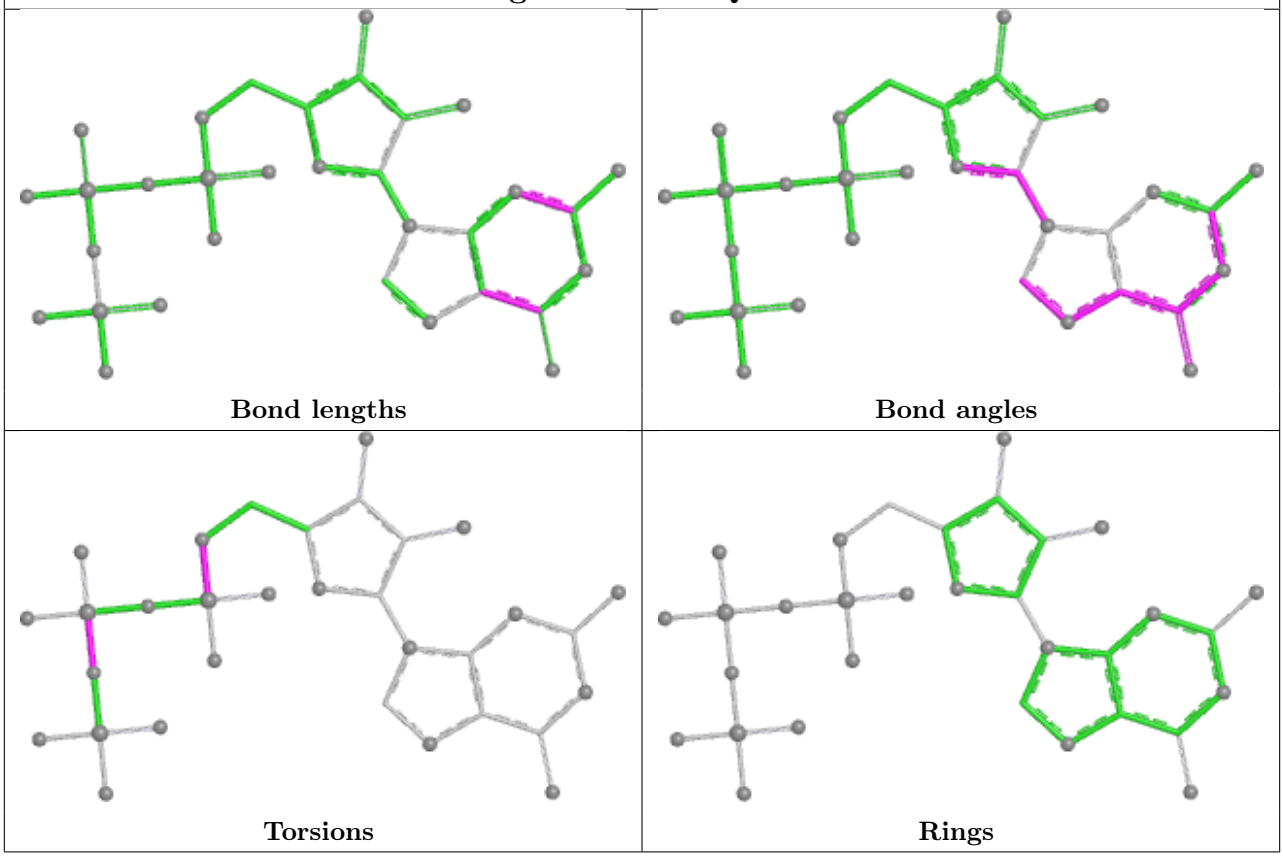

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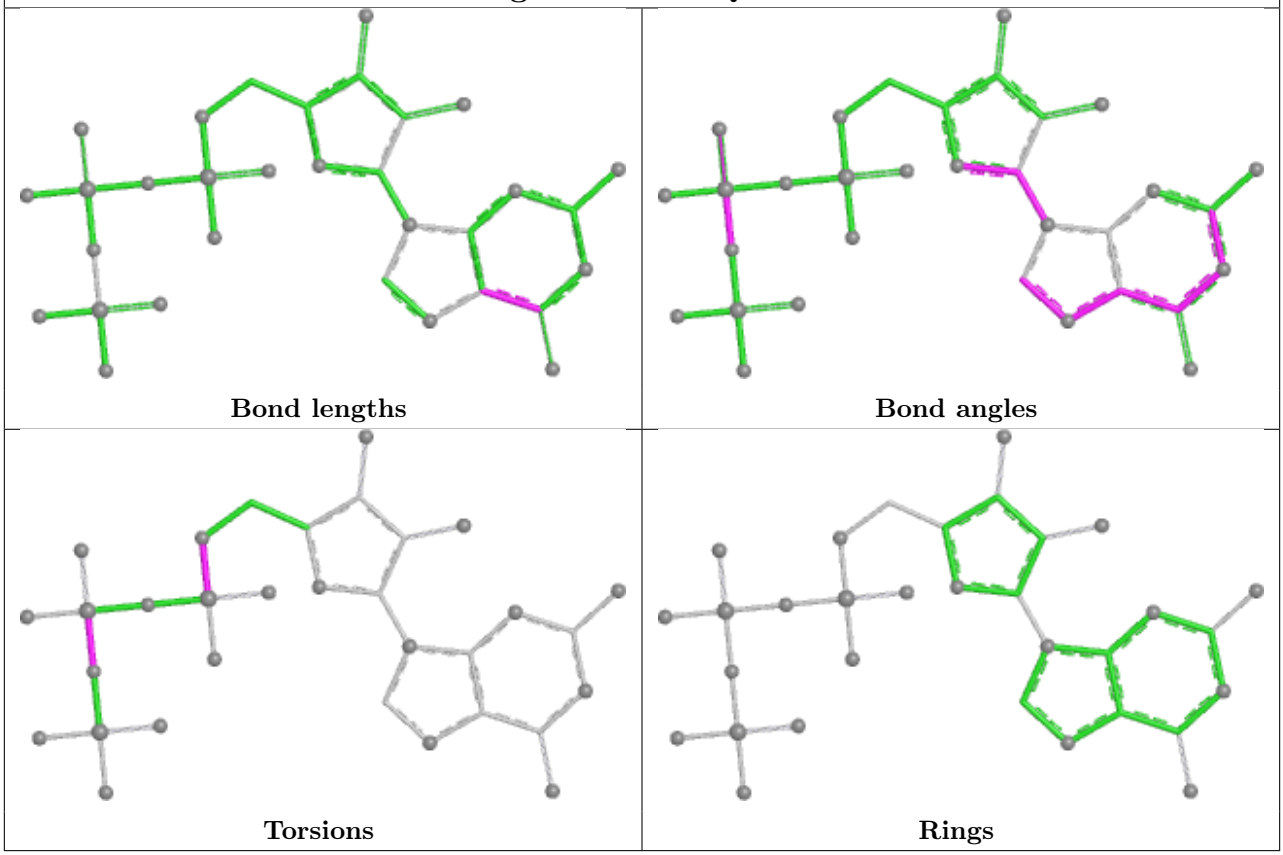

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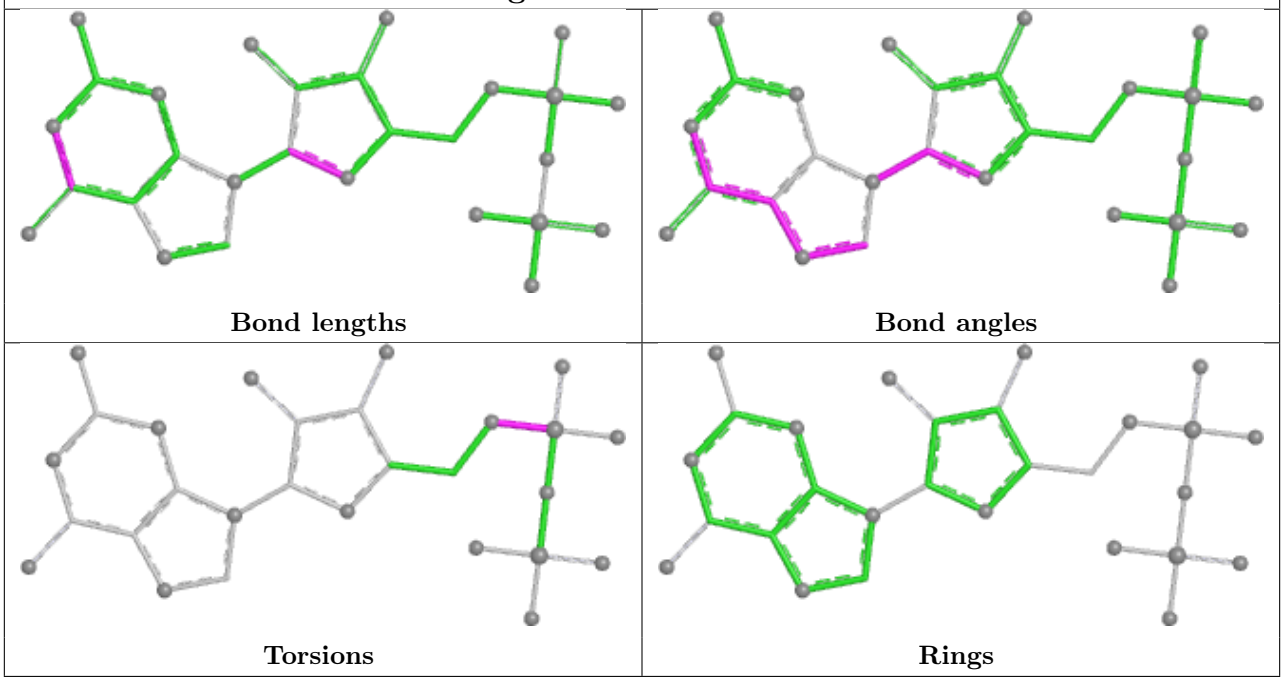

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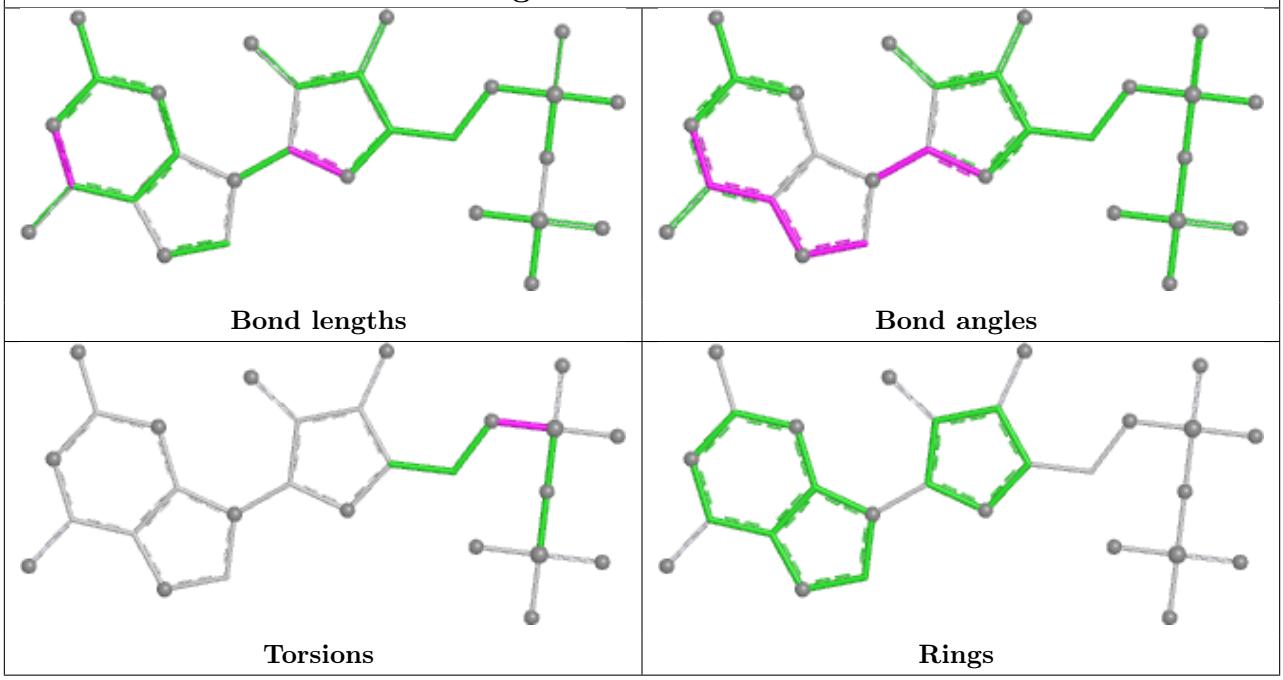

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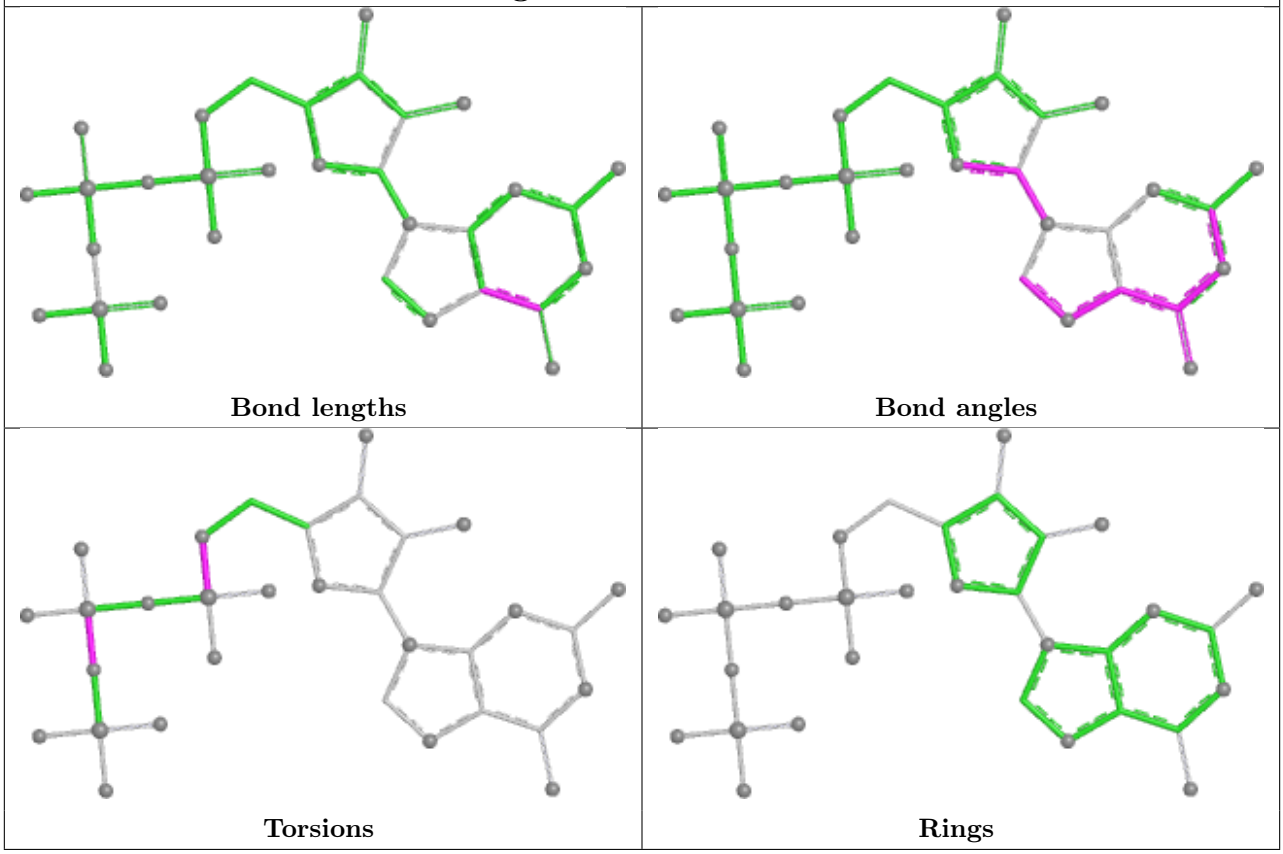
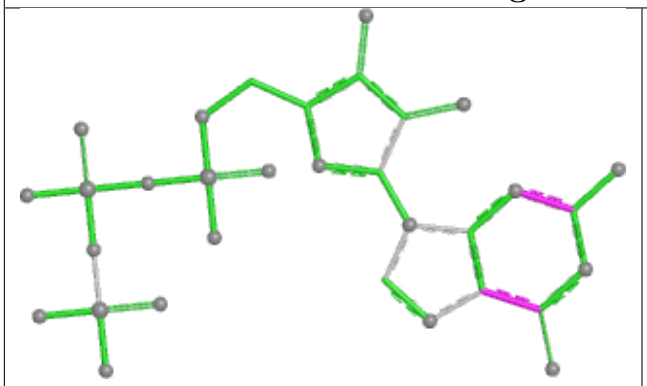
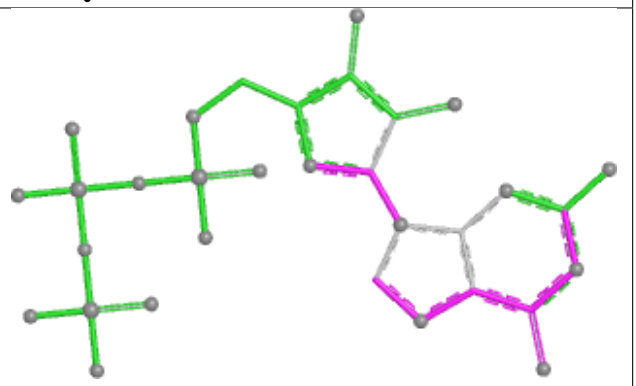


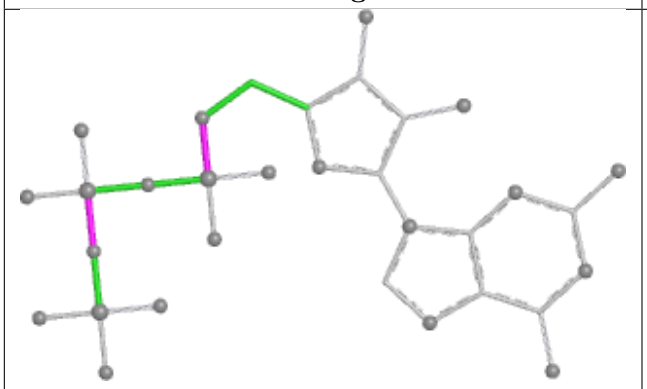
Ligand GTP DQ 501



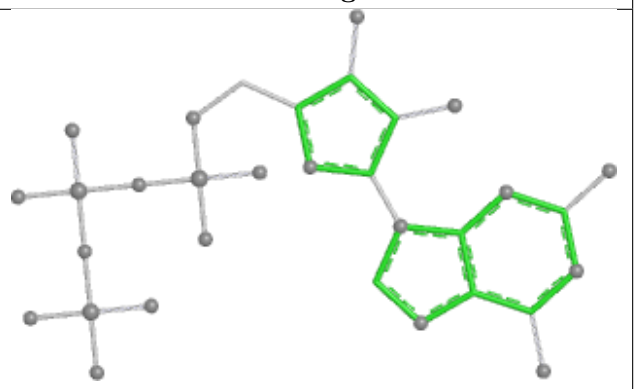
Bond lengths



Bond angles

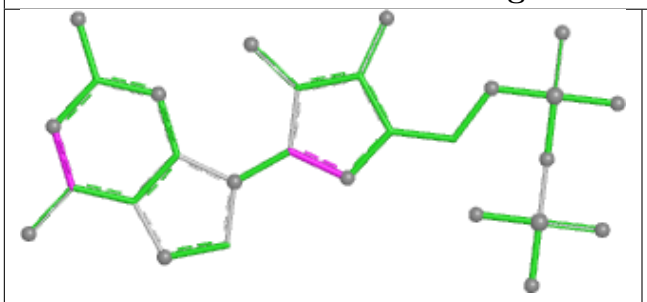


Torsions



Rings

Ligand GDP KX 501



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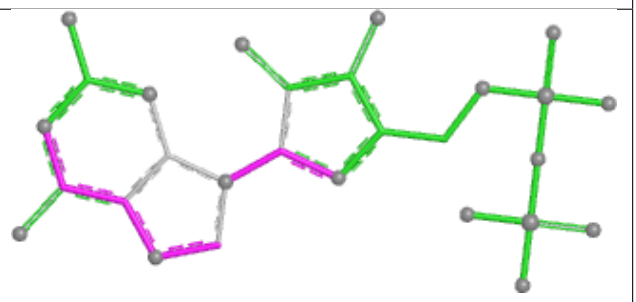
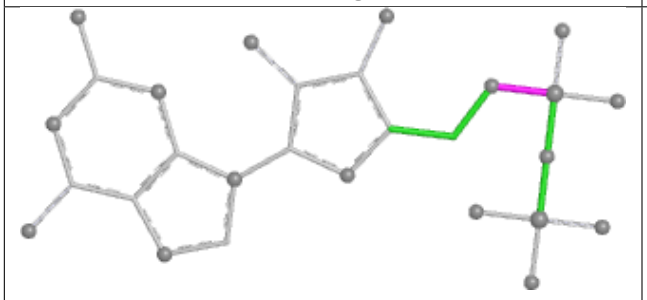
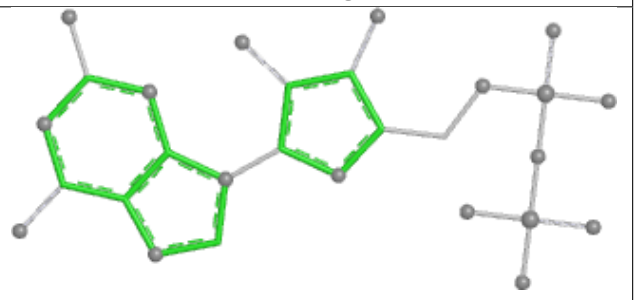


Bond angles

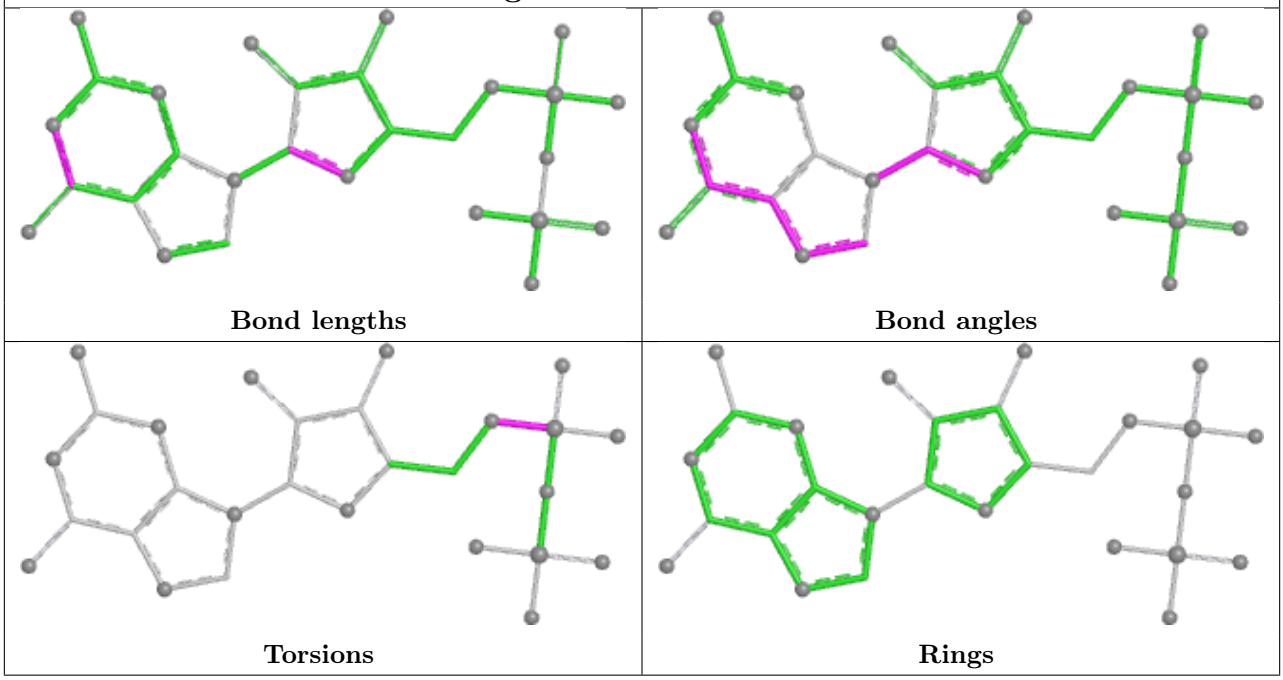


Torsions

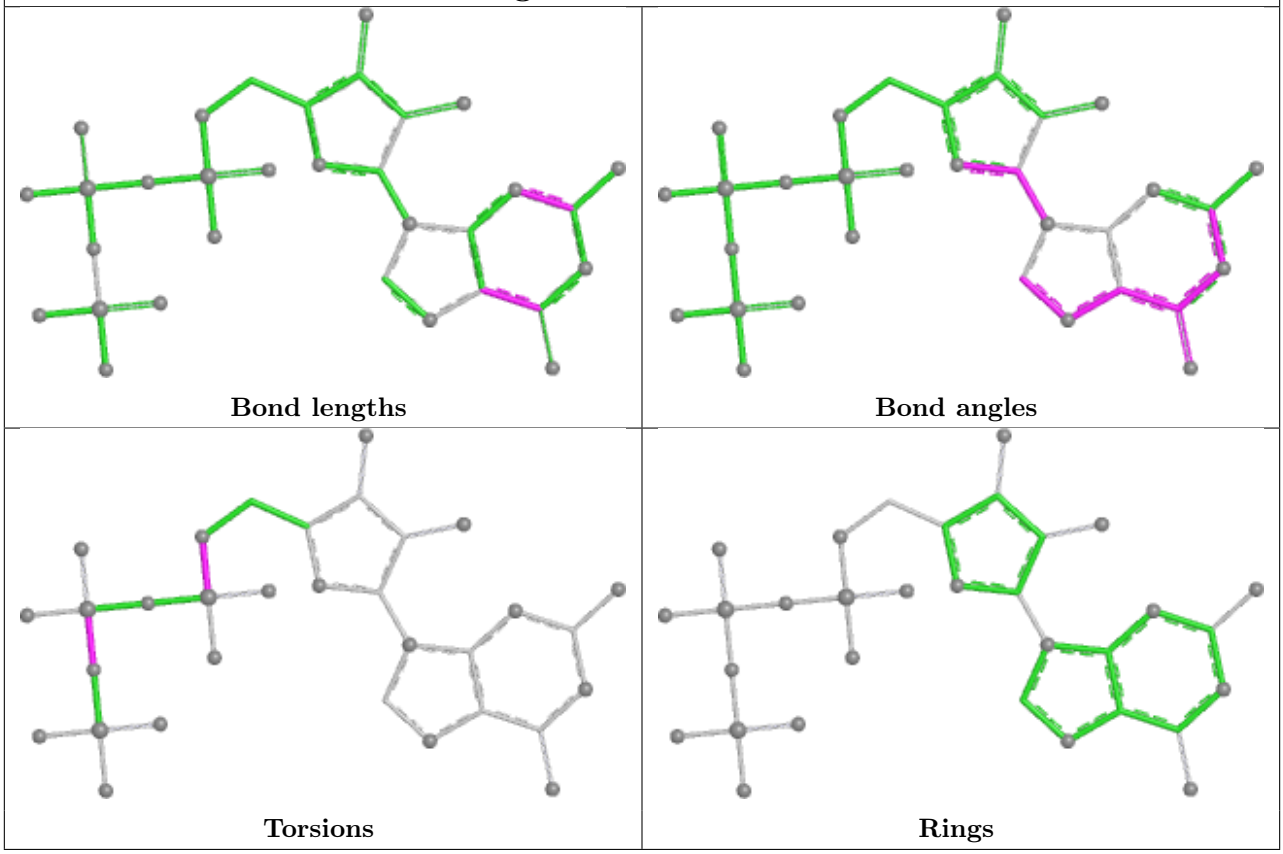


Rings

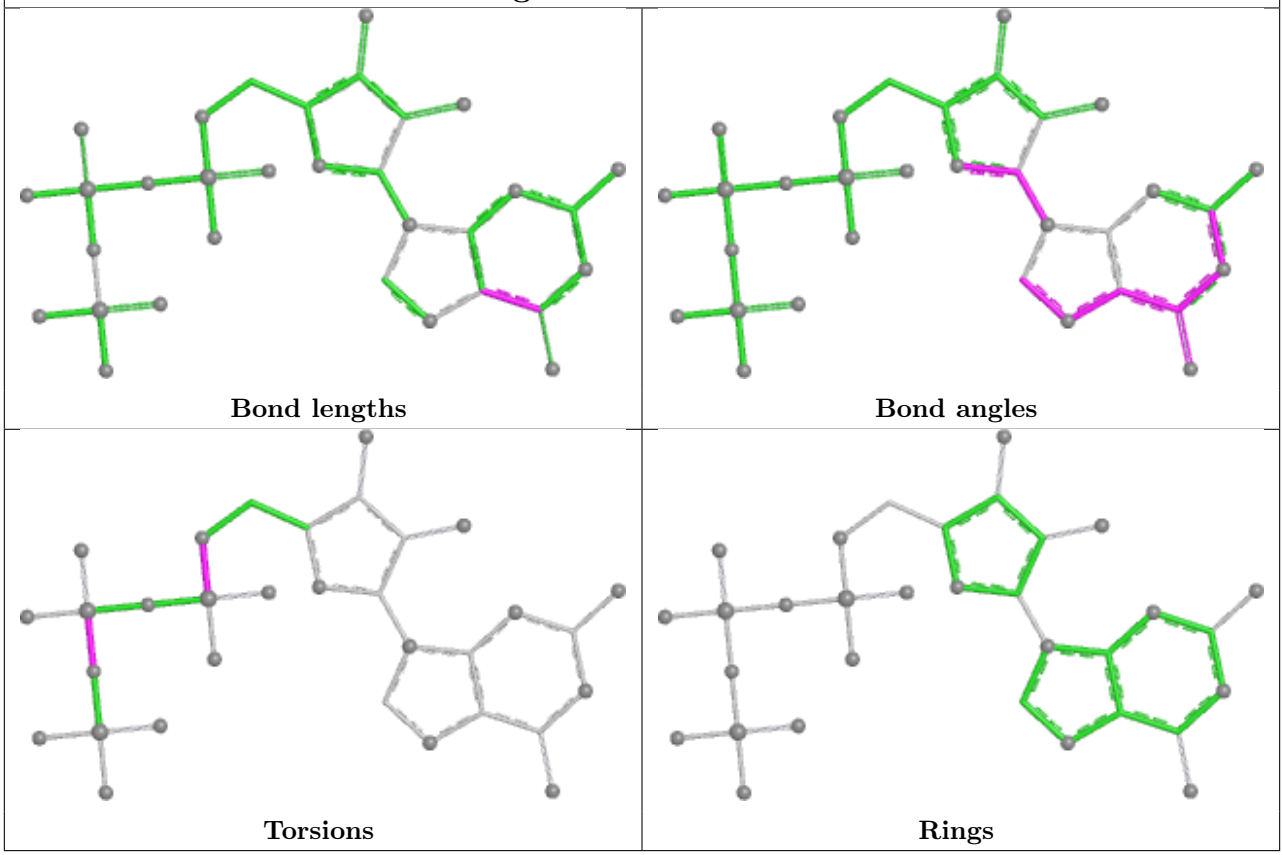
Ligand GDP KM 501



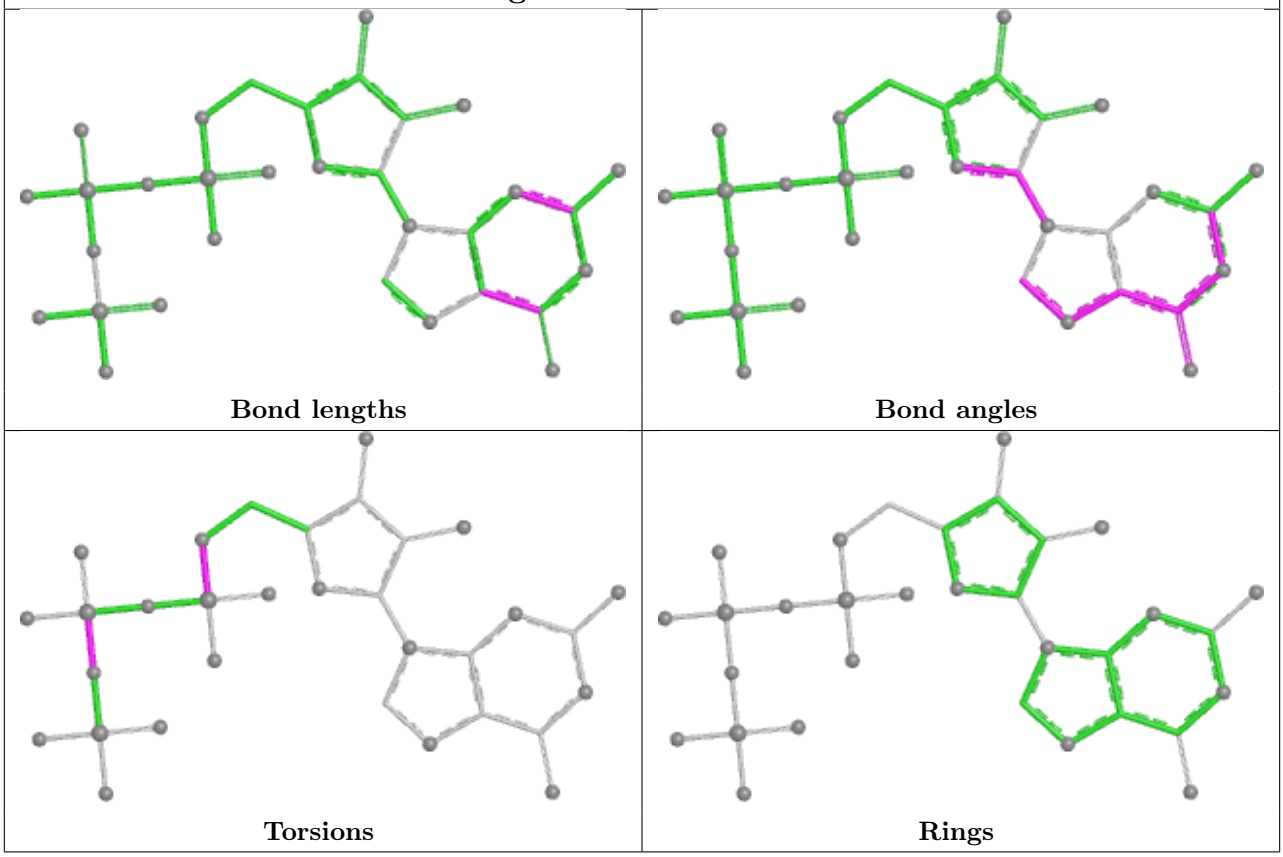
Ligand GTP EZ 501



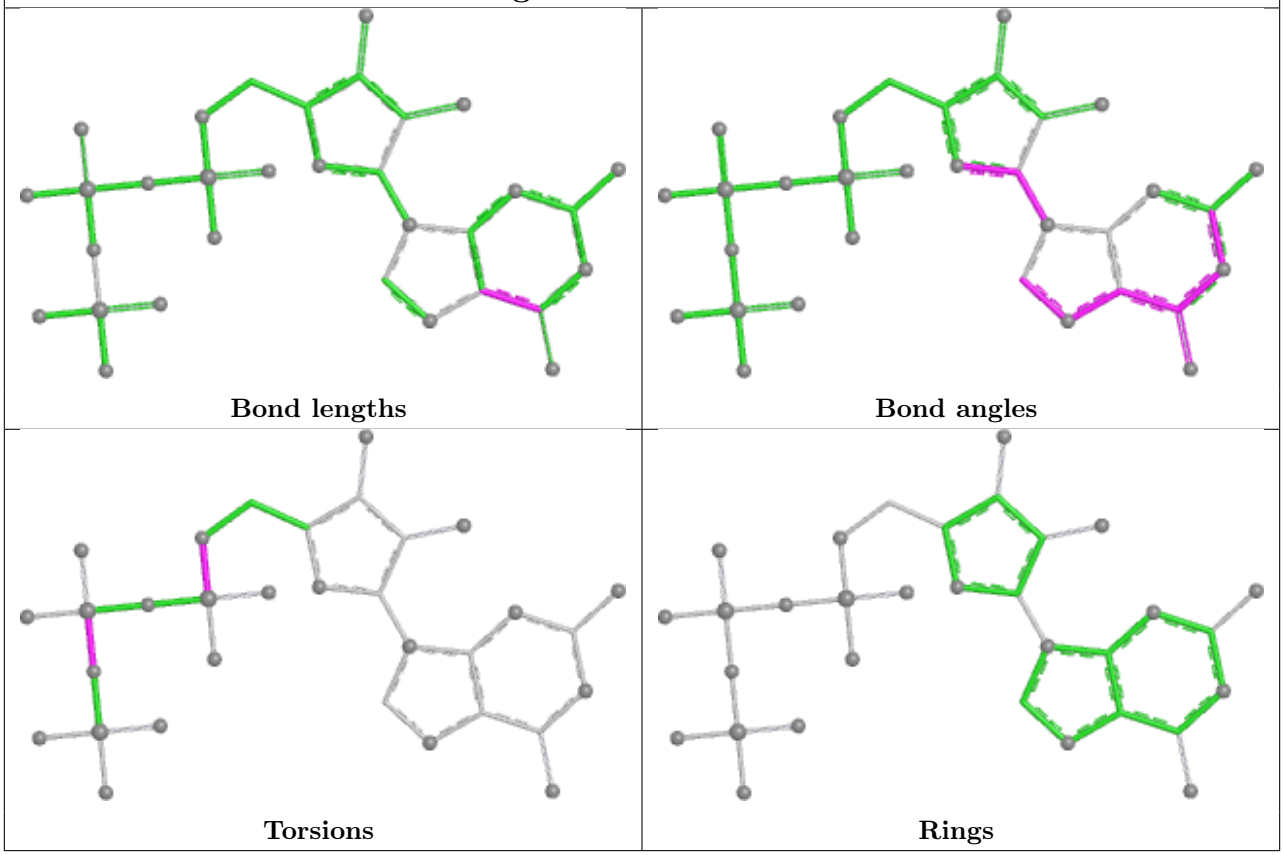
Ligand GTP AS 602



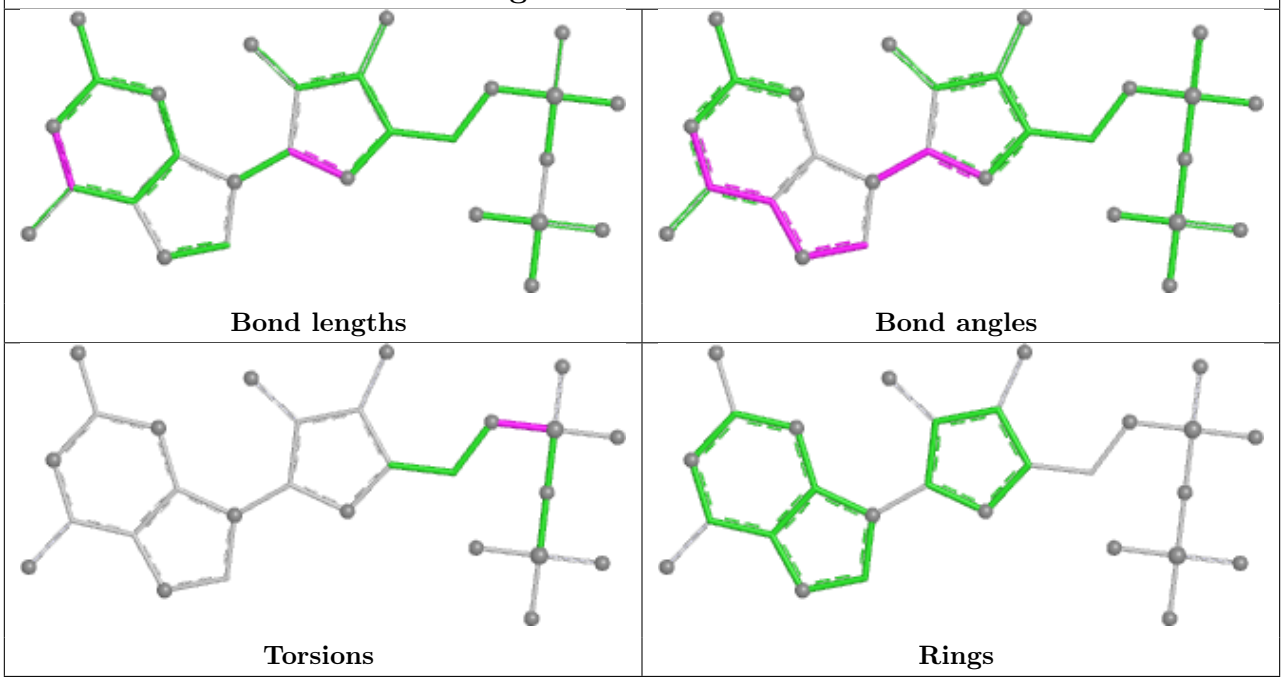
Ligand GTP GU 501



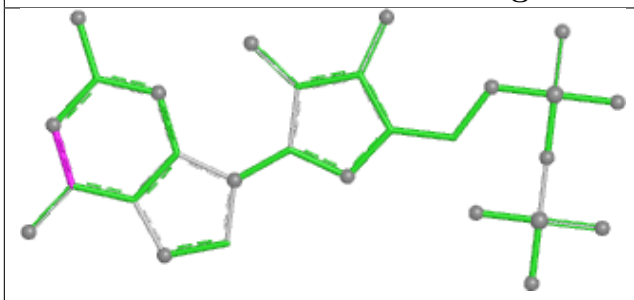
Ligand GTP EP 602



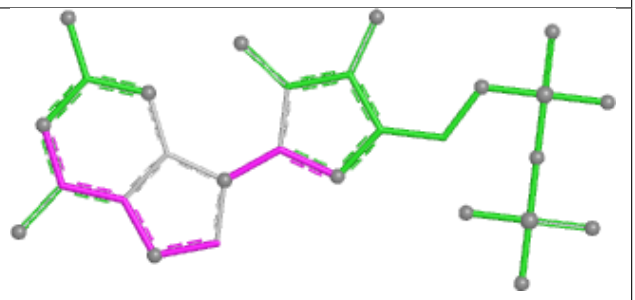
Ligand GDP AP 501



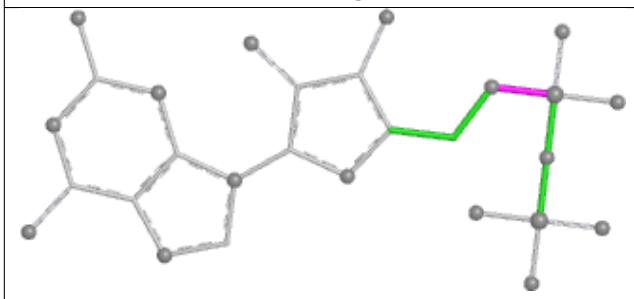
Ligand GDP BF 501



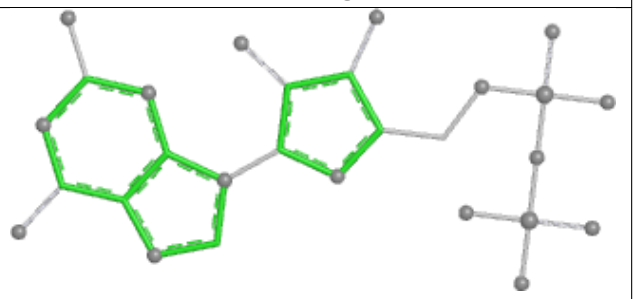
Bond lengths



Bond angles

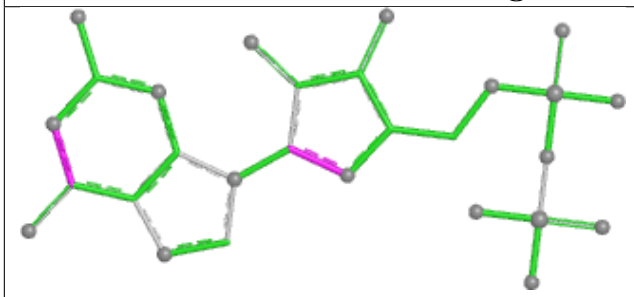


Torsions



Rings

Ligand GDP DH 501



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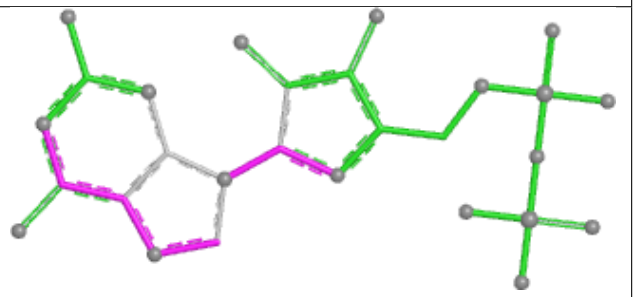
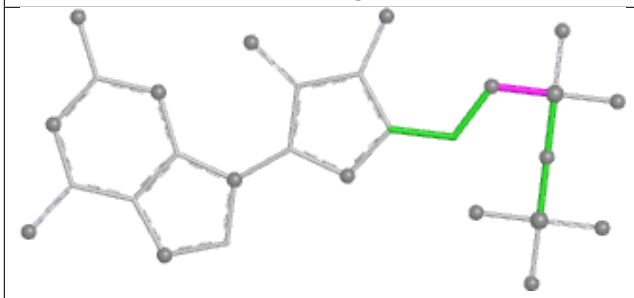


Bond angles



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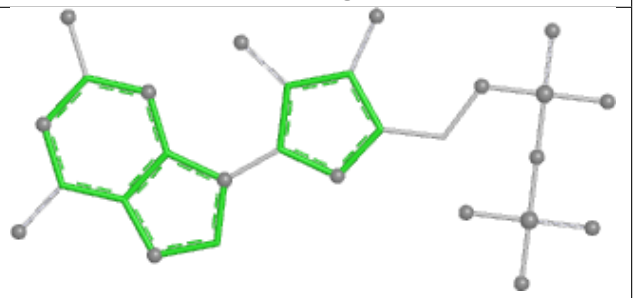
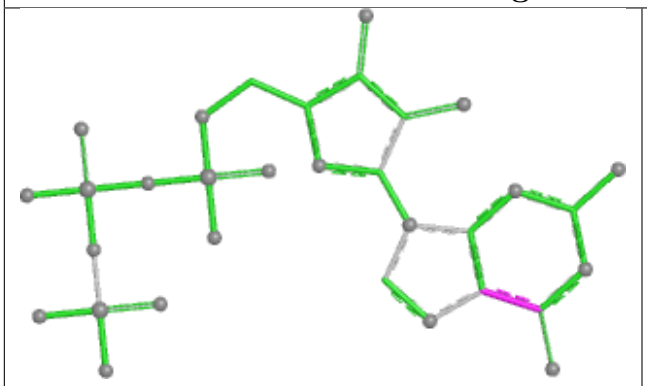
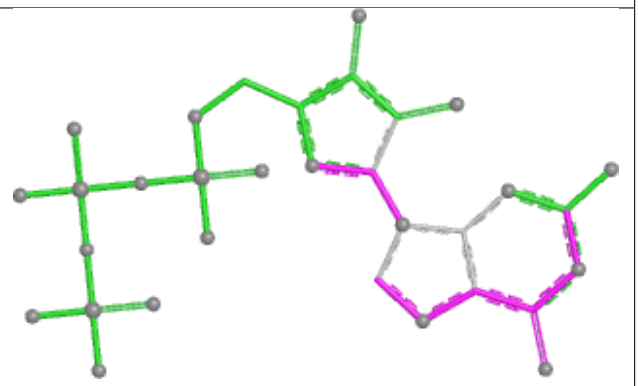


Rings

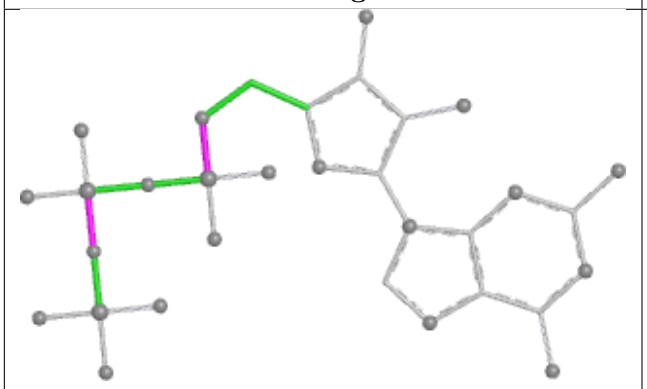
Ligand GTP FD 602



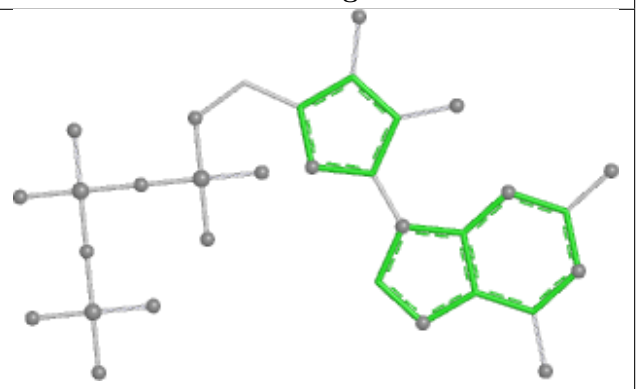
Bond lengths



Bond angles

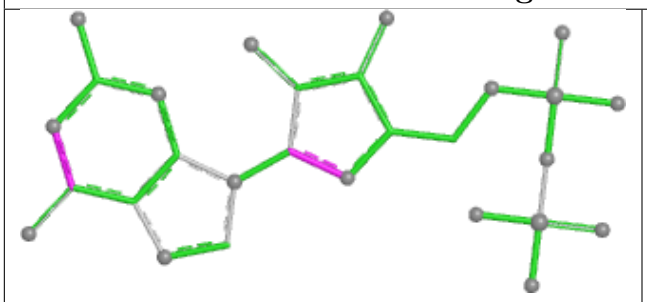


Torsions



Rings

Ligand GDP IC 501



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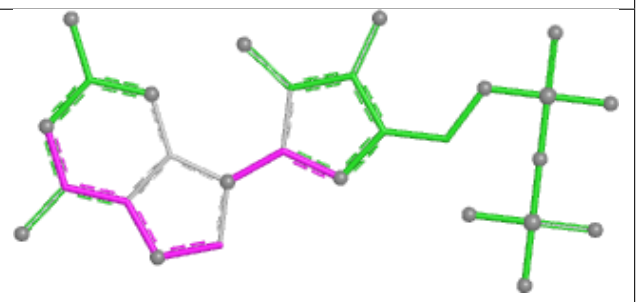

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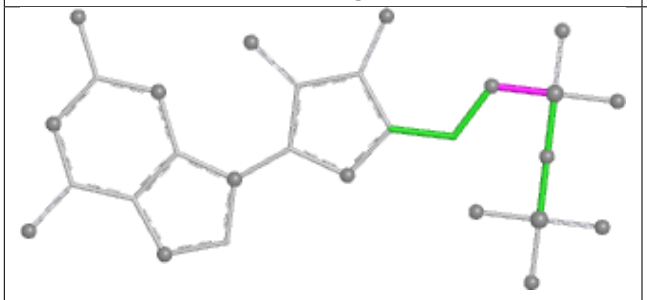

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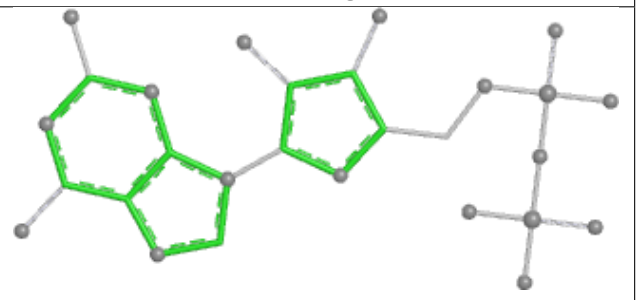
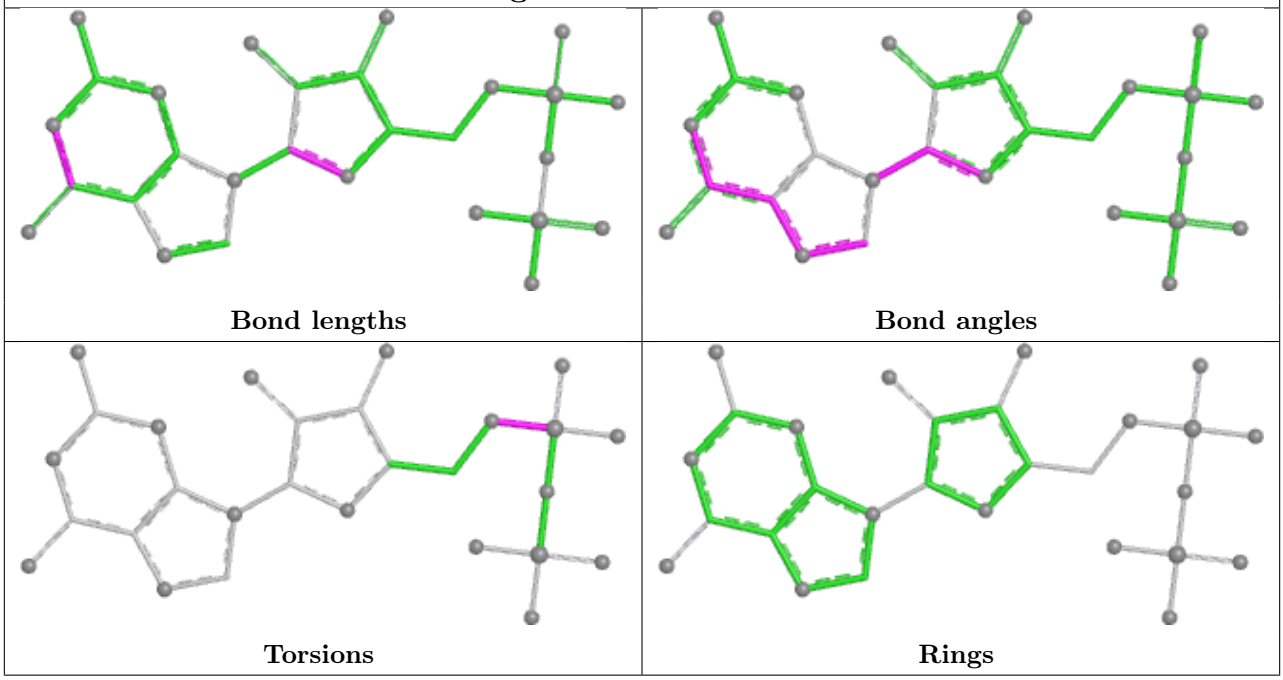


Rings

Ligand GDP FK 501



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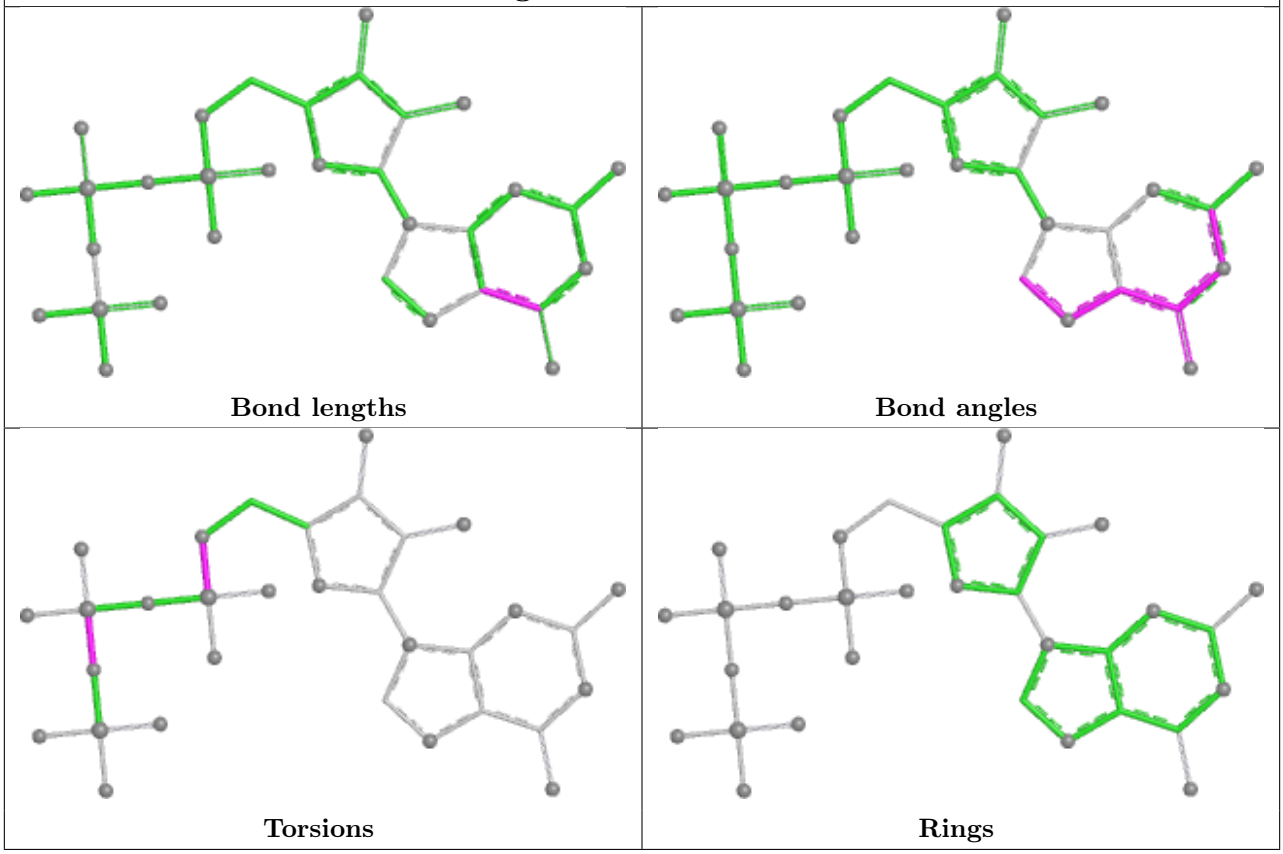

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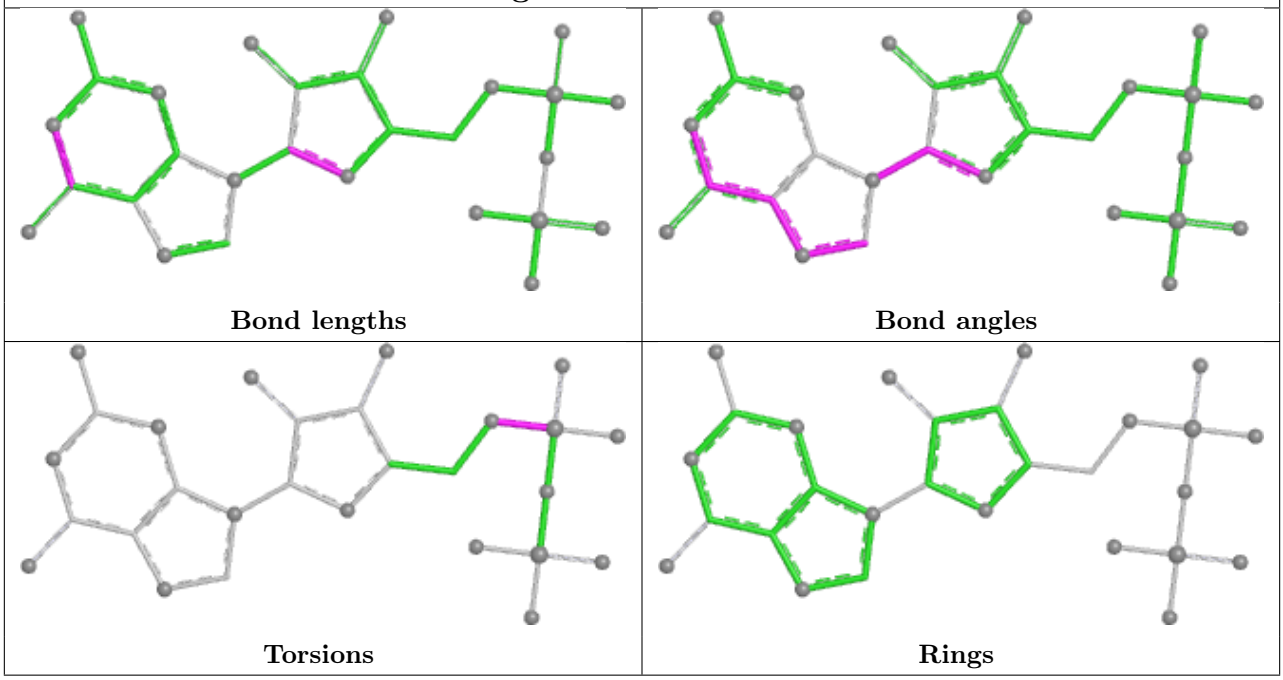

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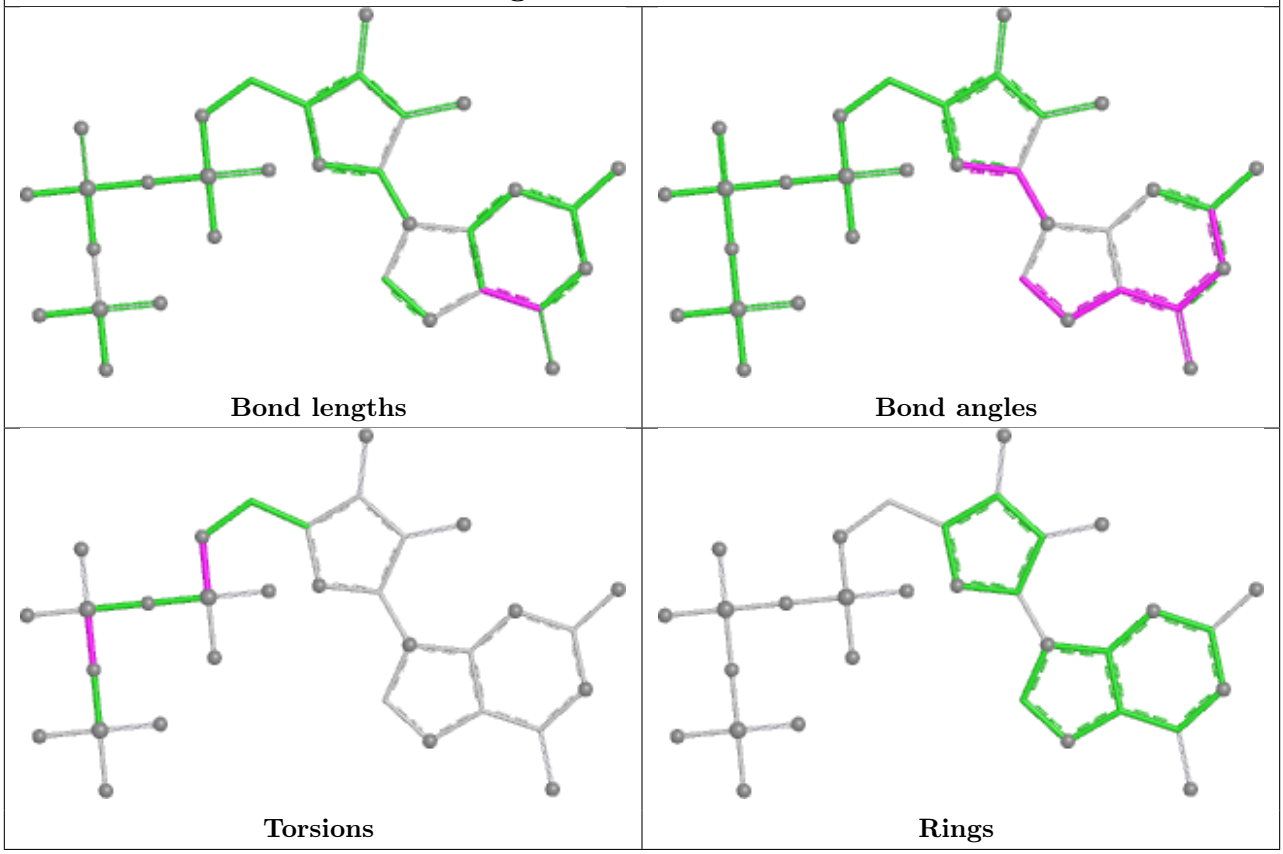

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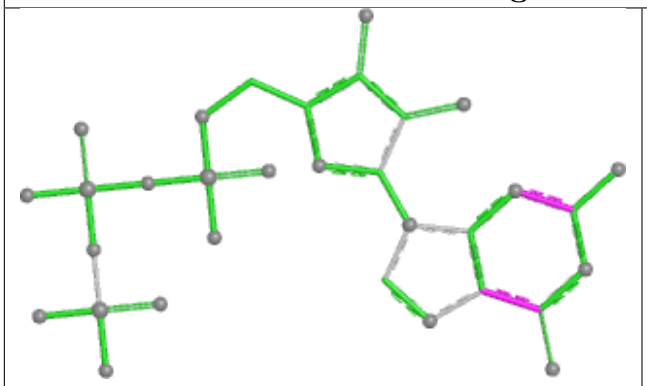

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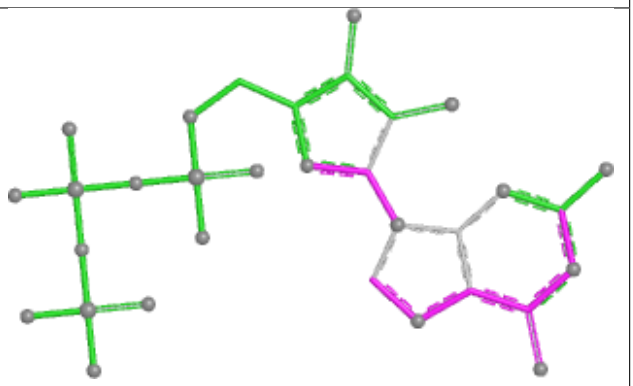
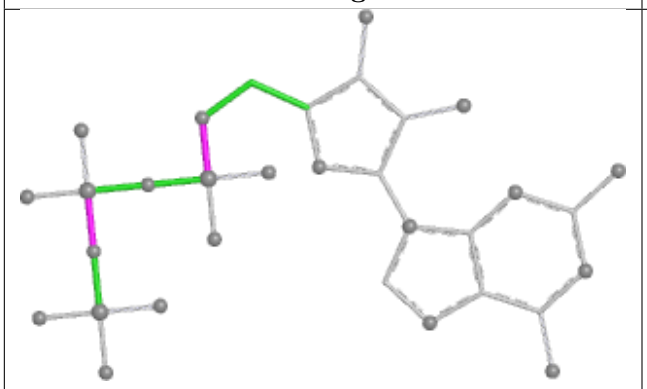


Bond angles



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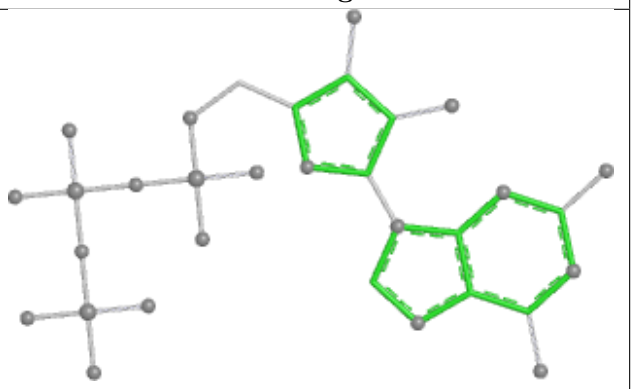
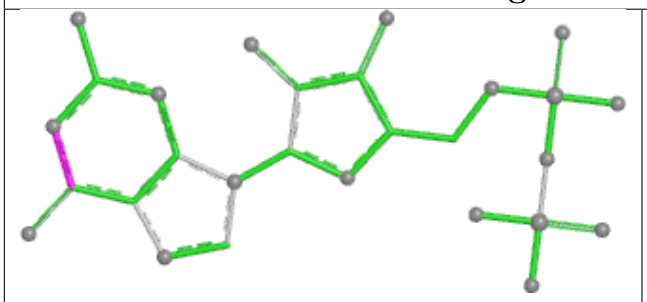


Rings

Ligand GDP BH 501



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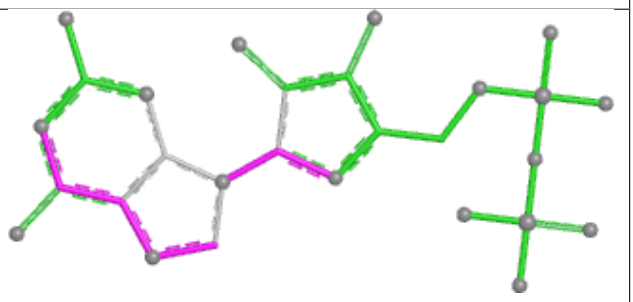

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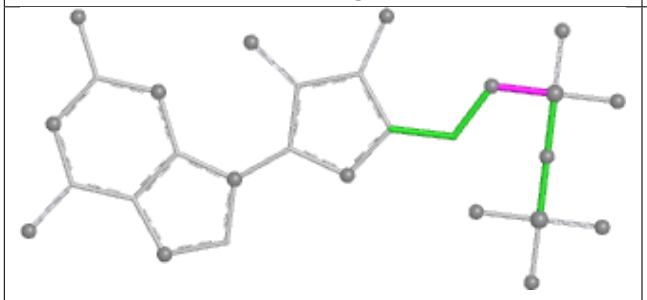

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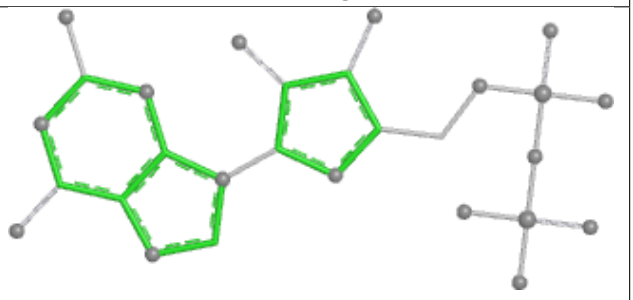
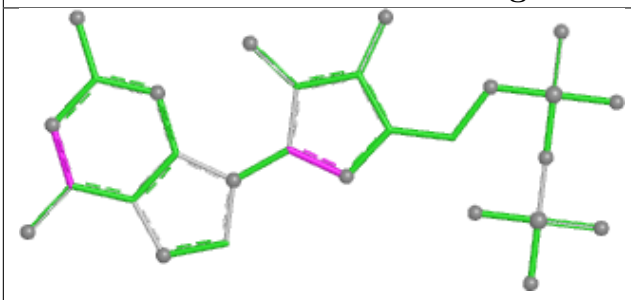


Rings

Ligand GDP GZ 501



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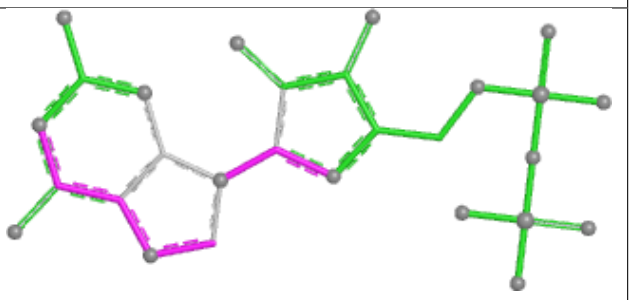

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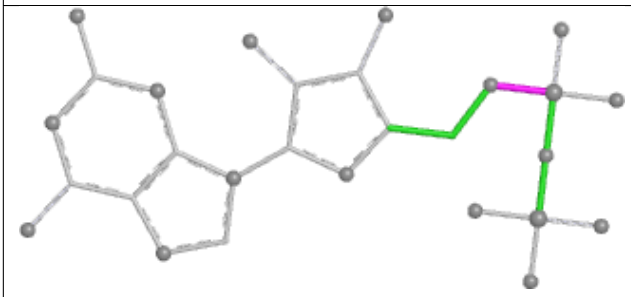

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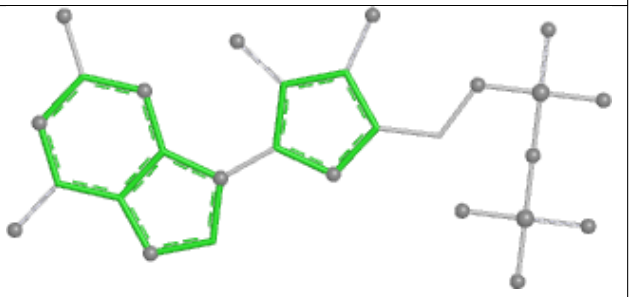
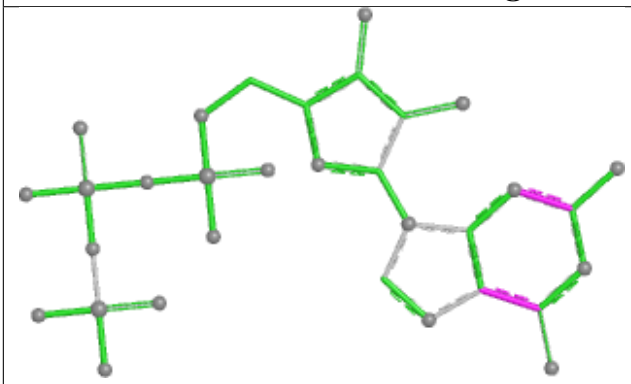


Rings

Ligand GTP CW 602



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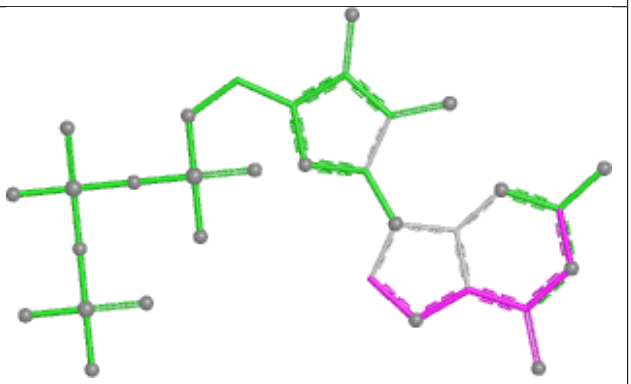

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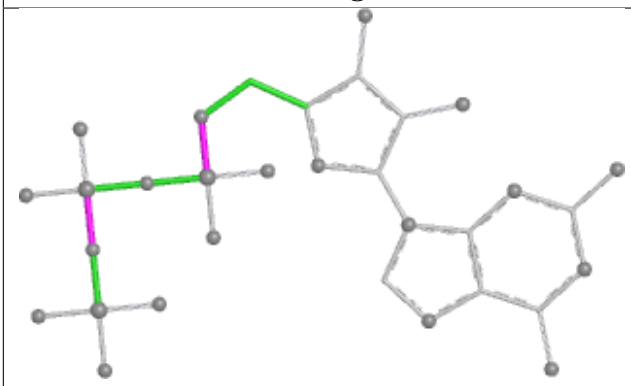

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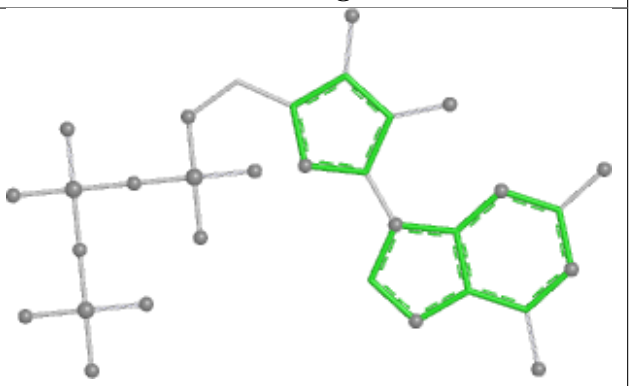
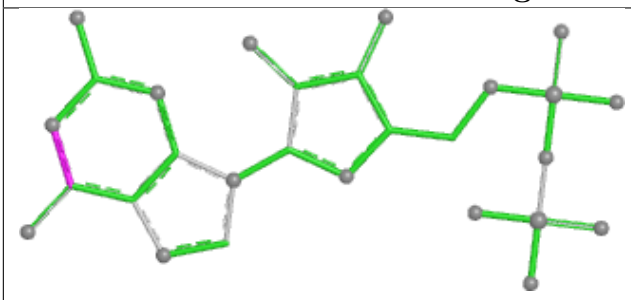


Rings

Ligand GDP IN 501



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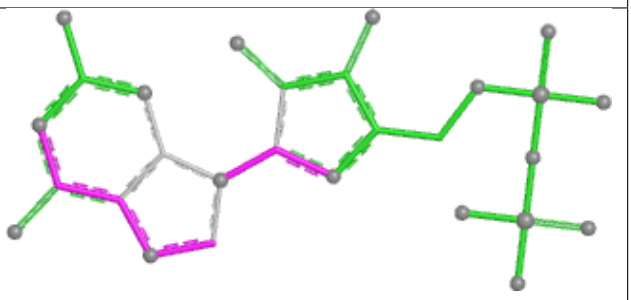

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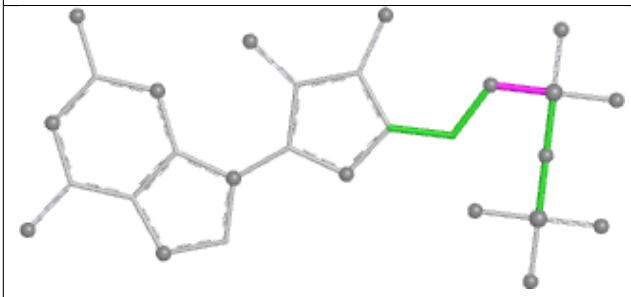

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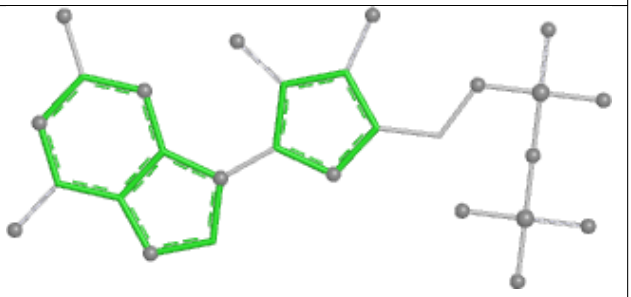
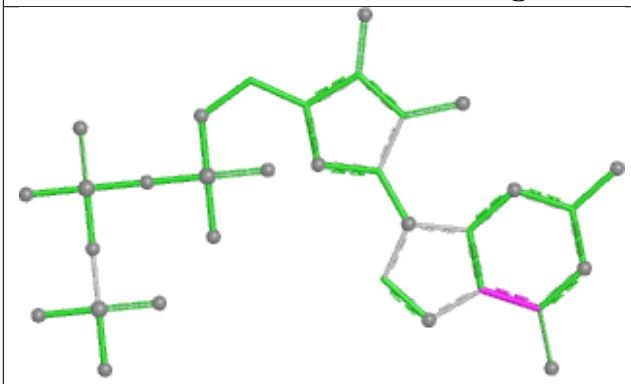


Rings

Ligand GTP EN 602



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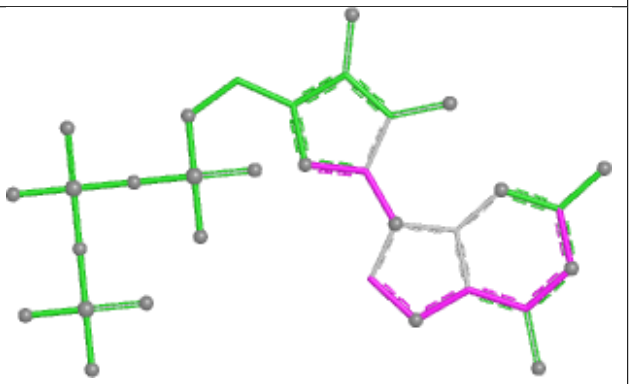

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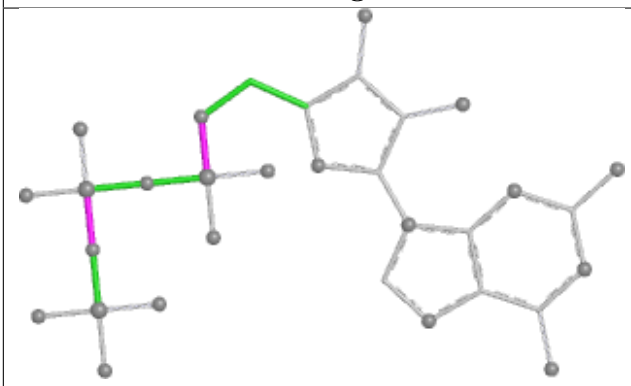

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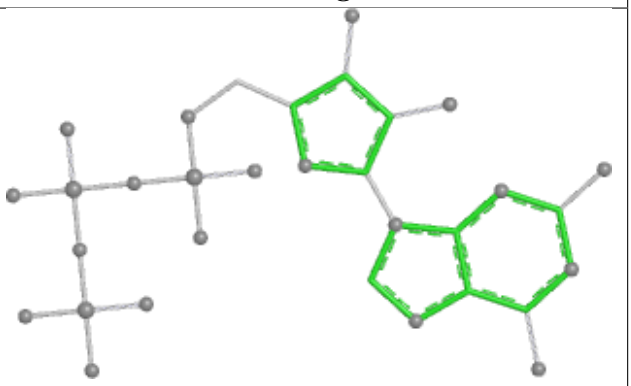
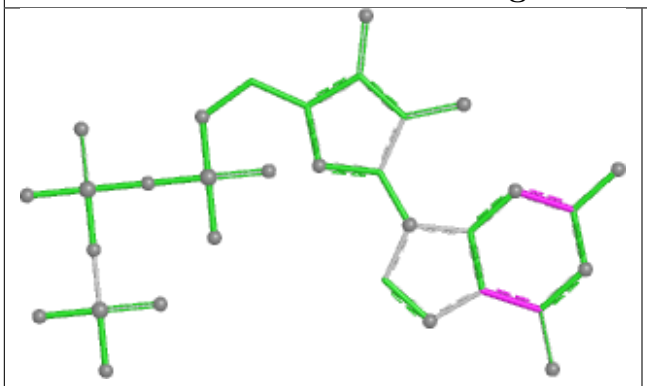


Rings

Ligand GTP KA 602



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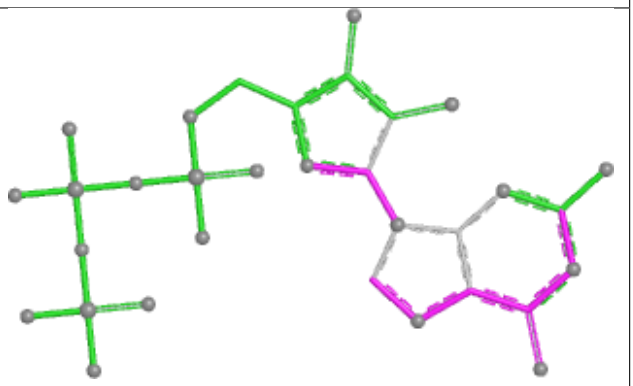

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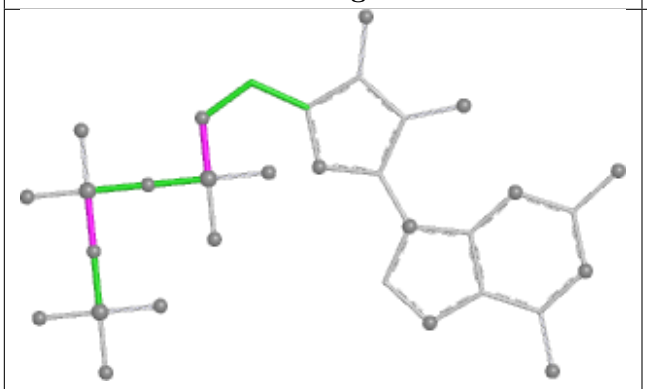

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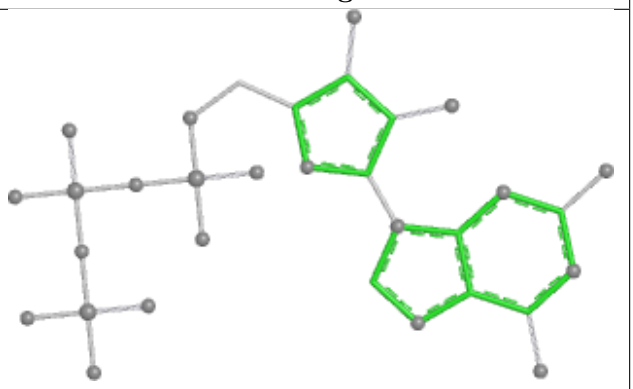
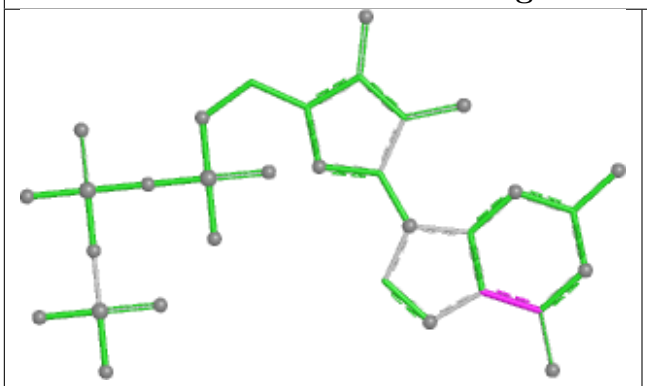


Rings

Ligand GTP EJ 602



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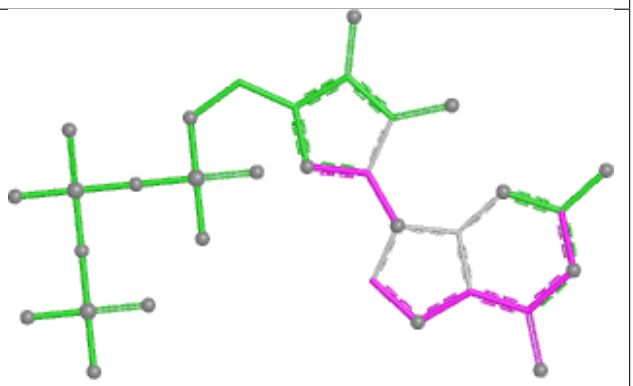

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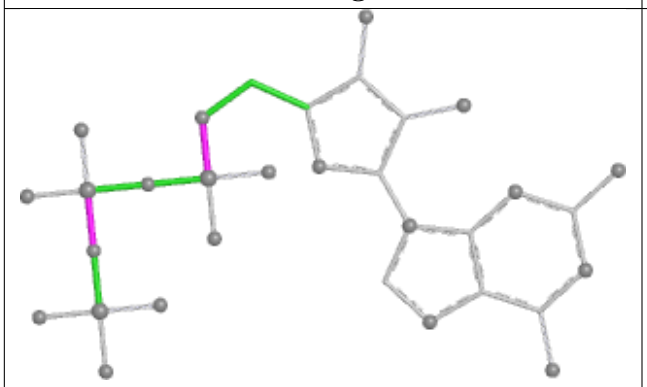

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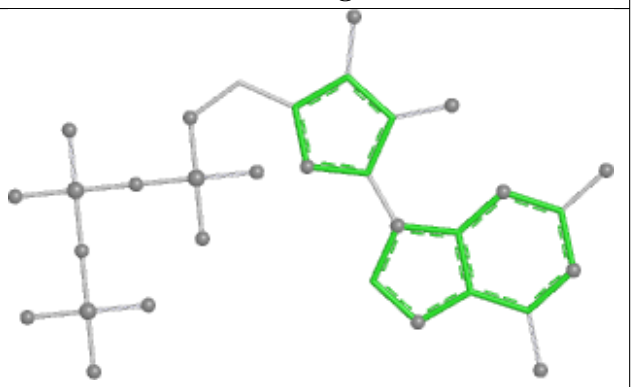

Rings

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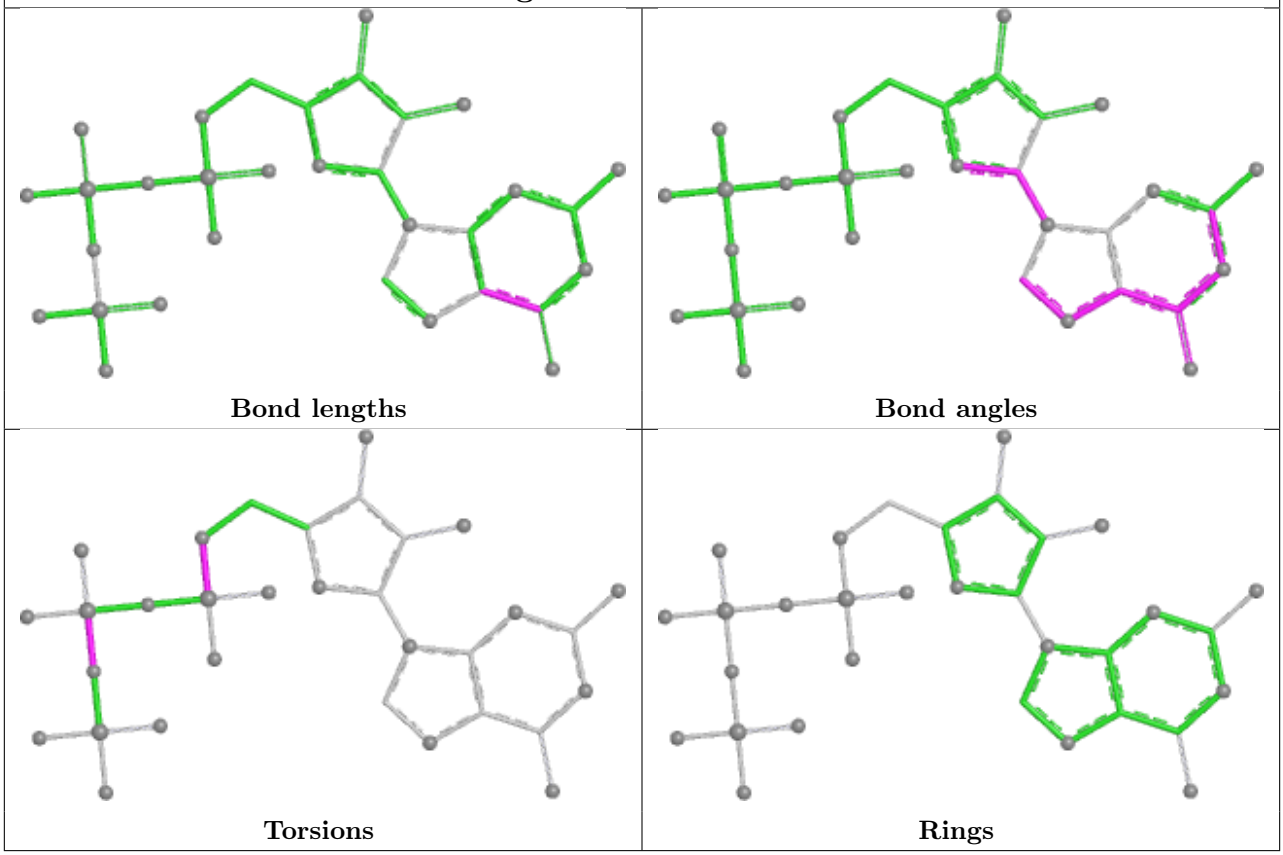
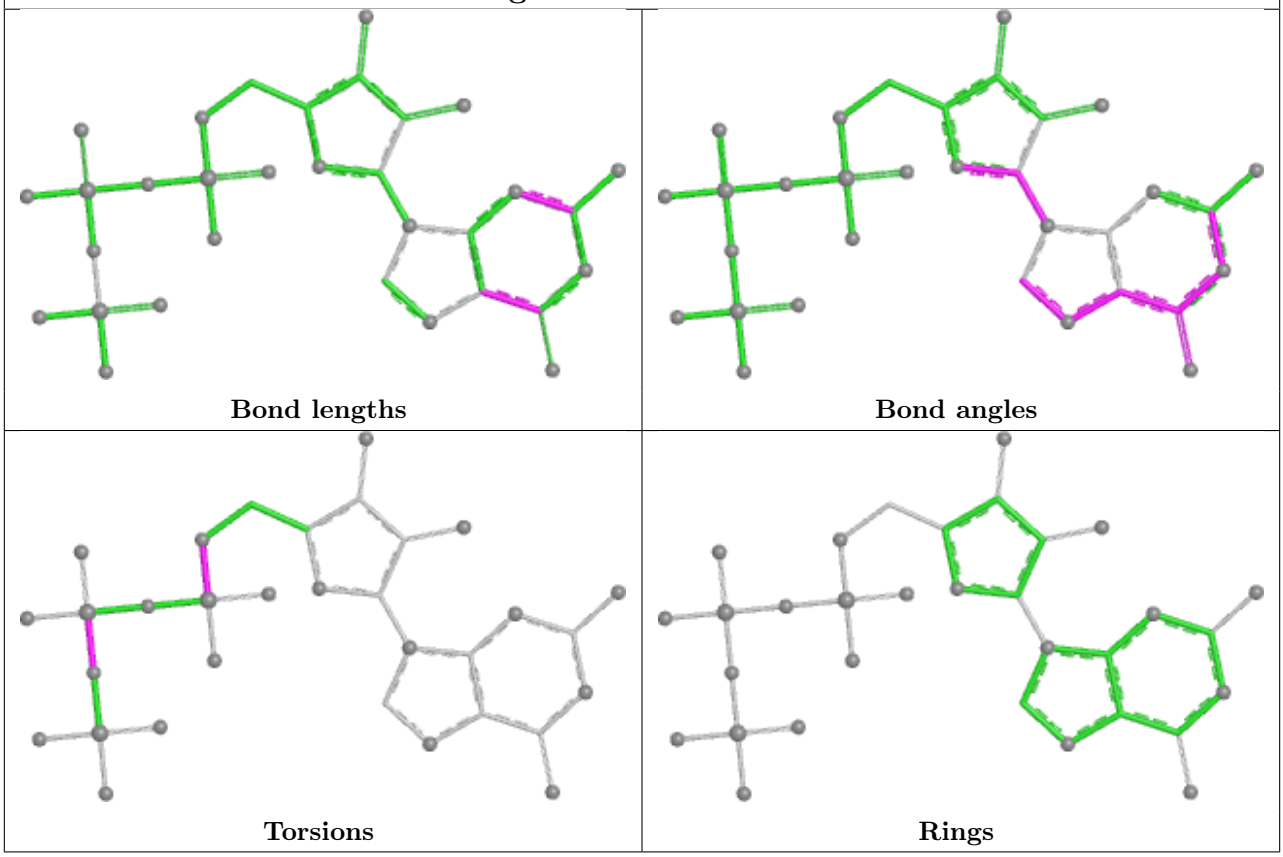


Ligand GTP GY 501



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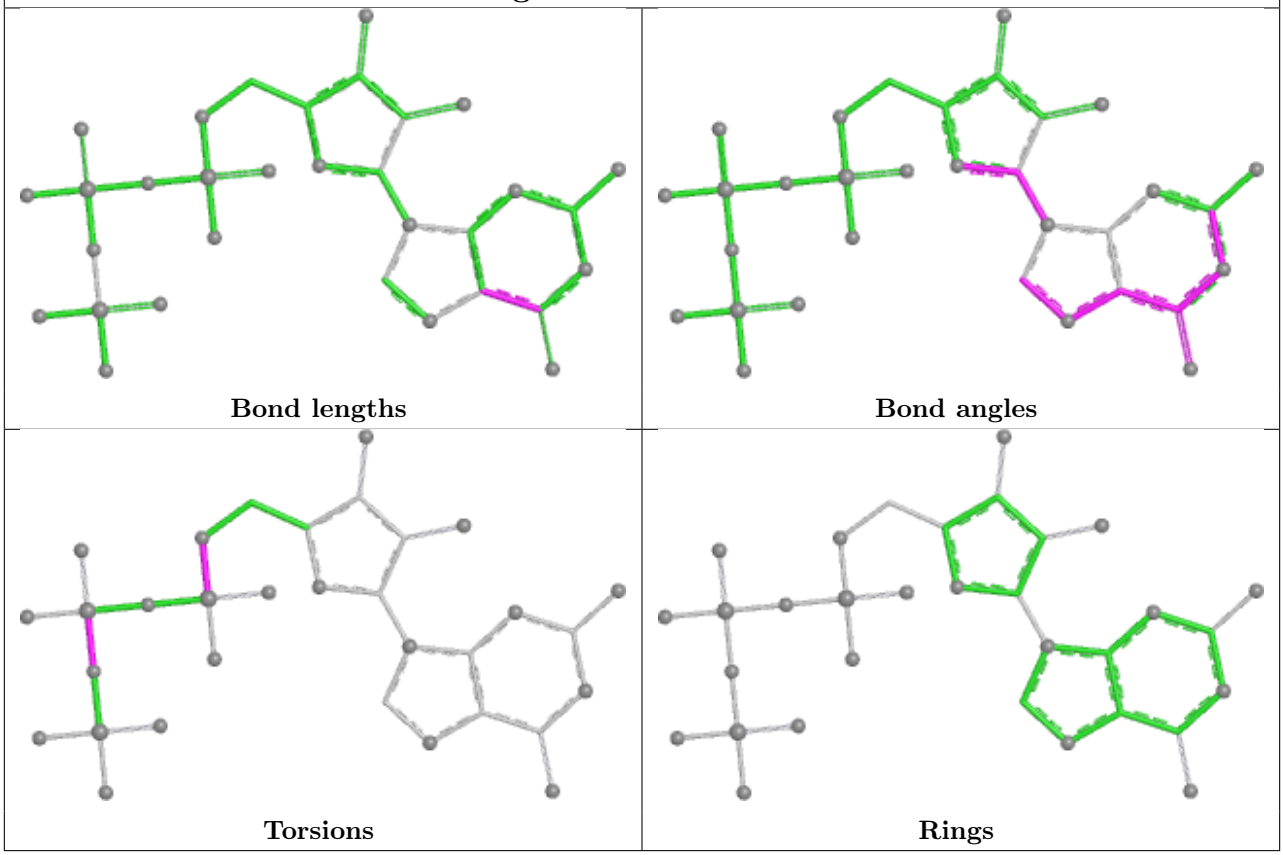

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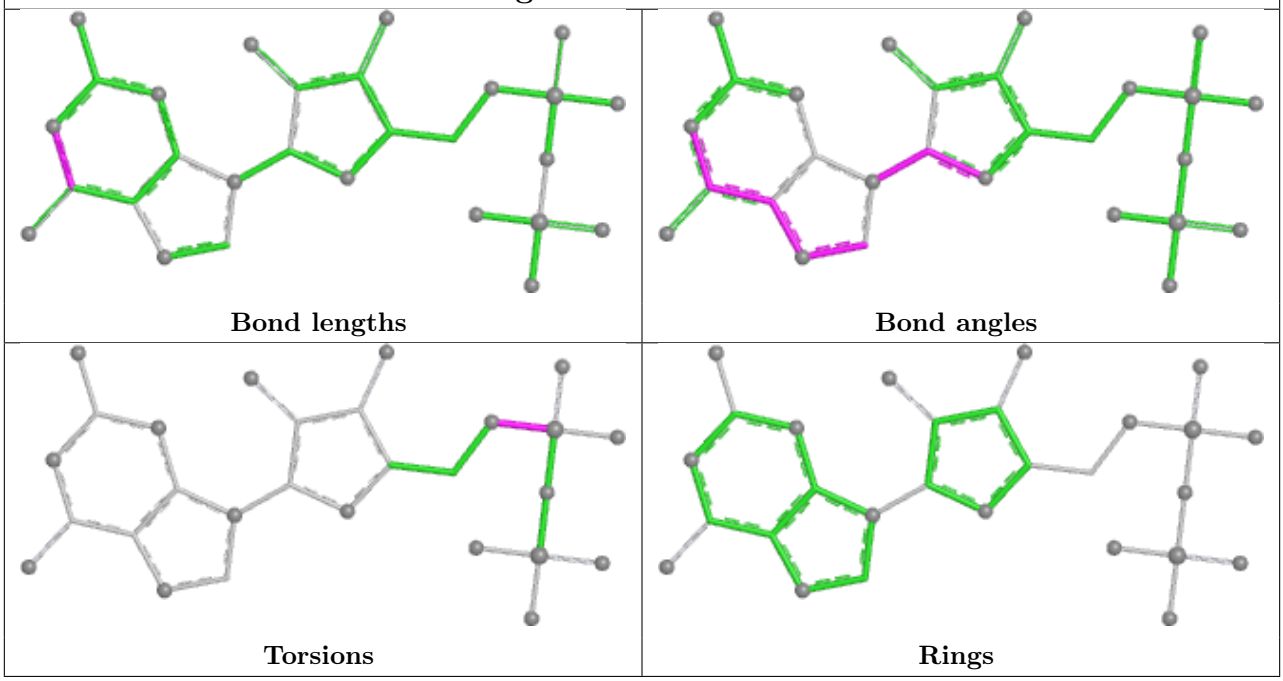

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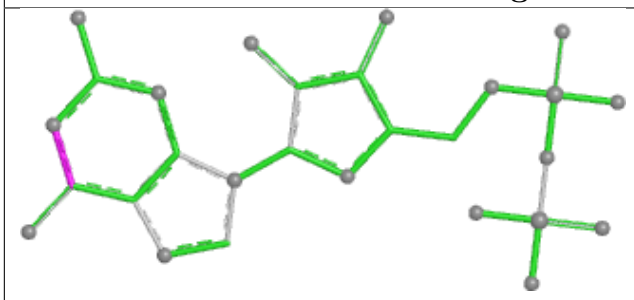

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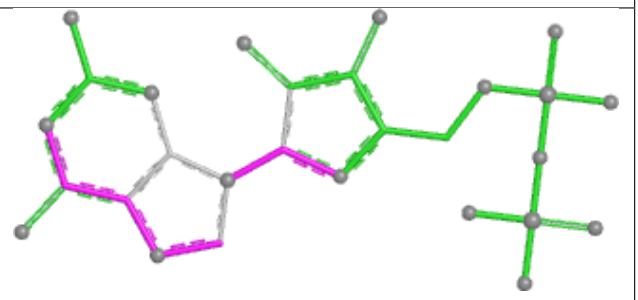
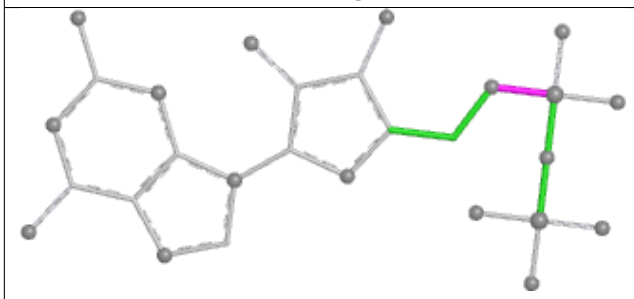
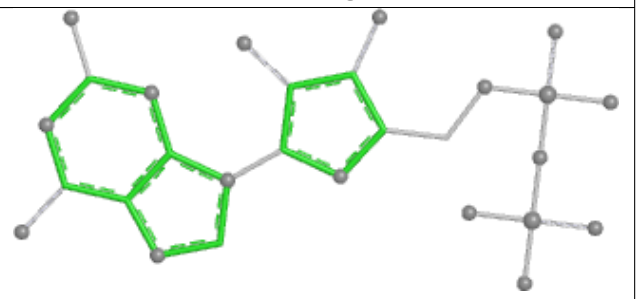


Bond angles

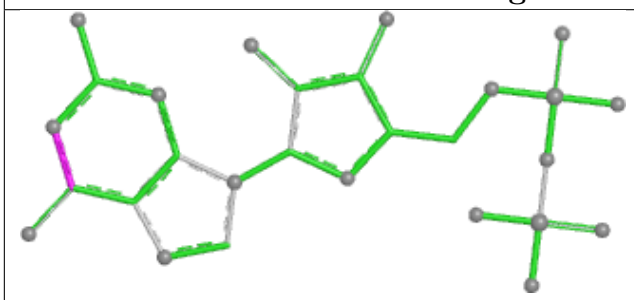


Torsions



Rings

Ligand GDP BN 501



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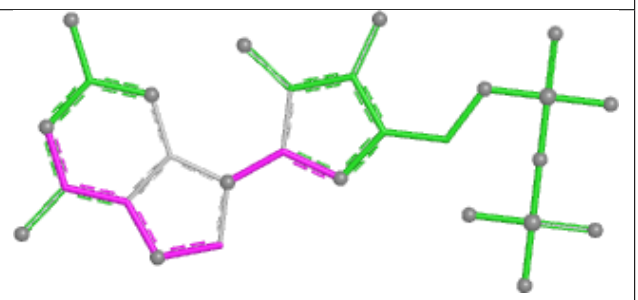

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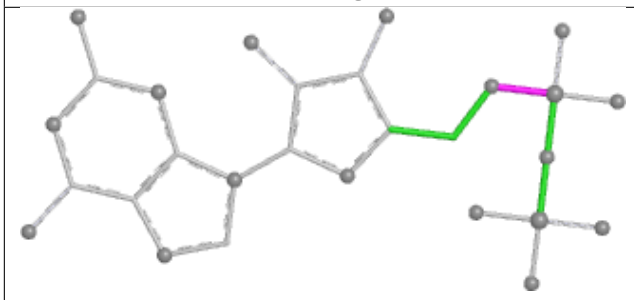
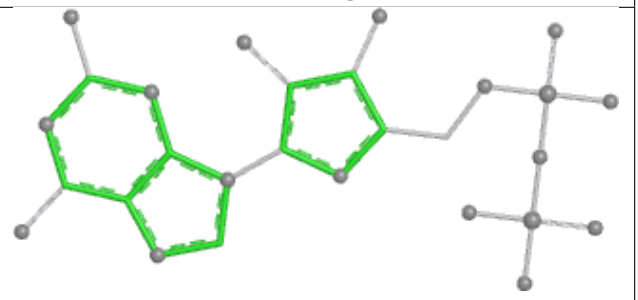
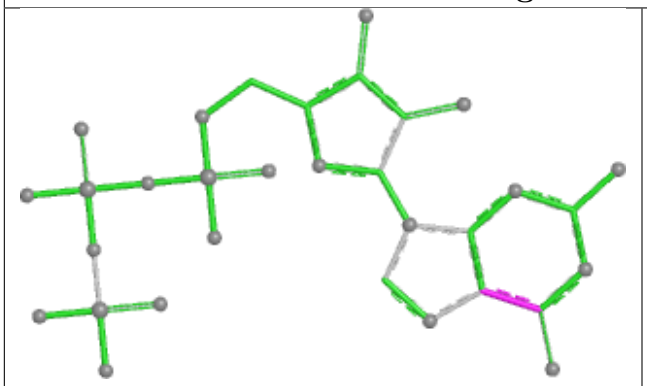


Torsions



Rings

Ligand GTP IX 501



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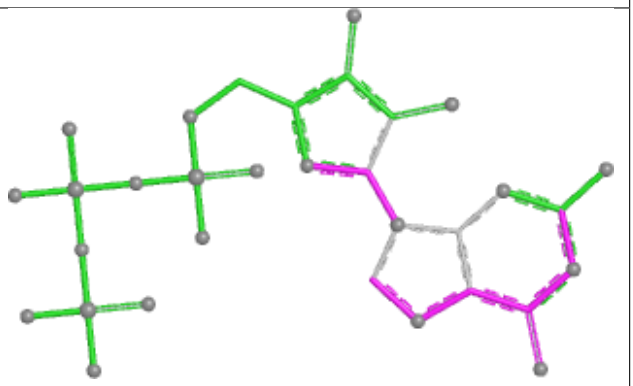

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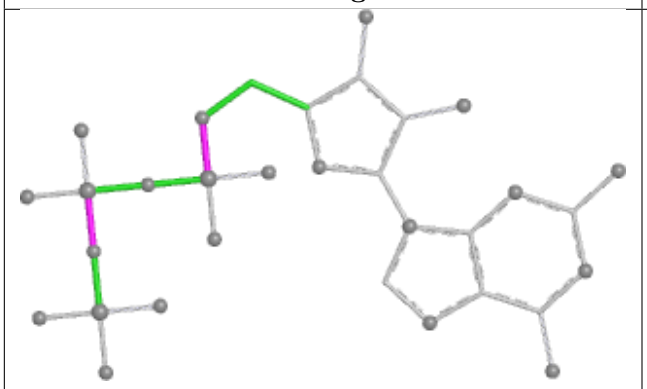

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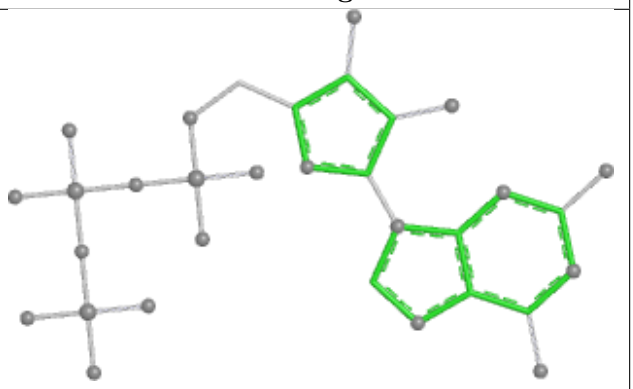
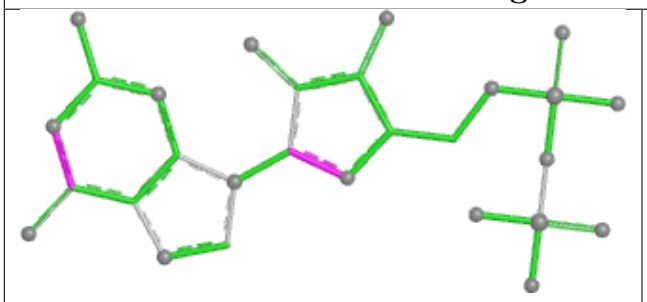


Rings

Ligand GDP BB 501



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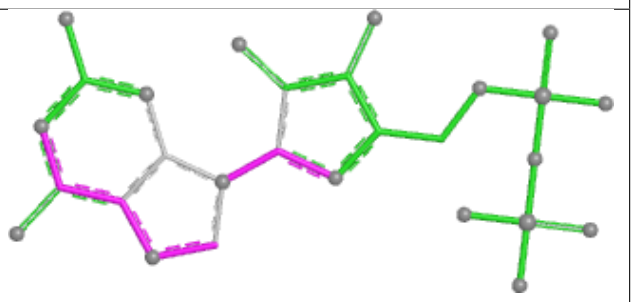

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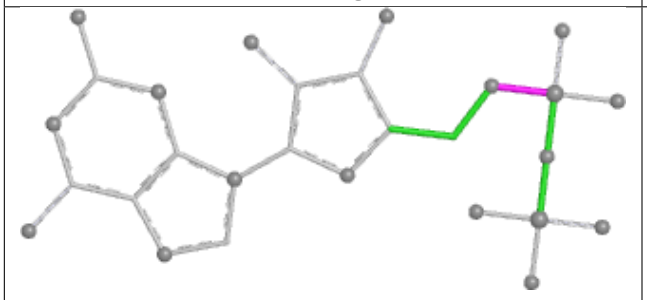

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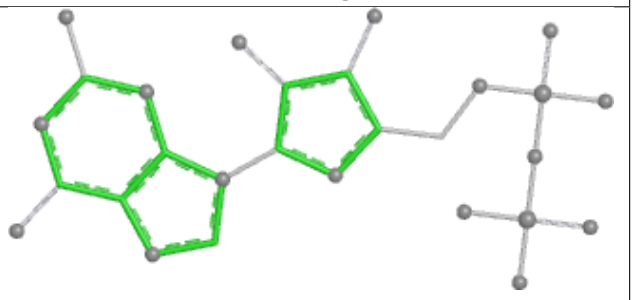

Rings

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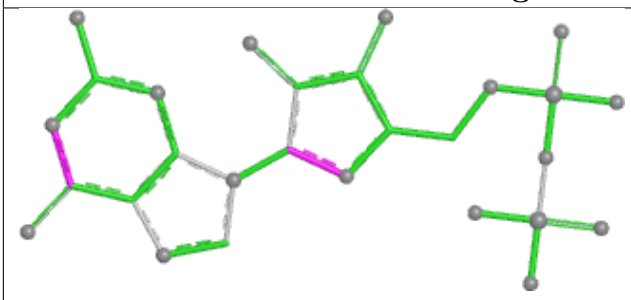

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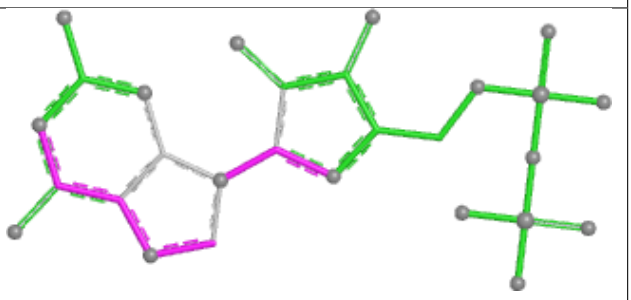

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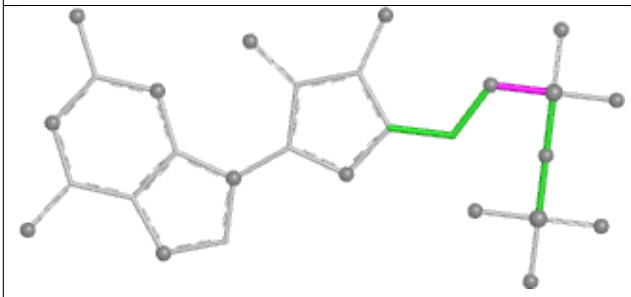

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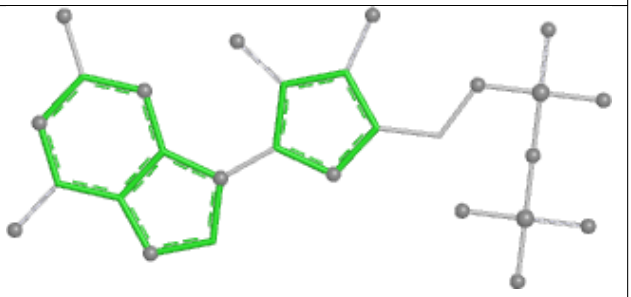
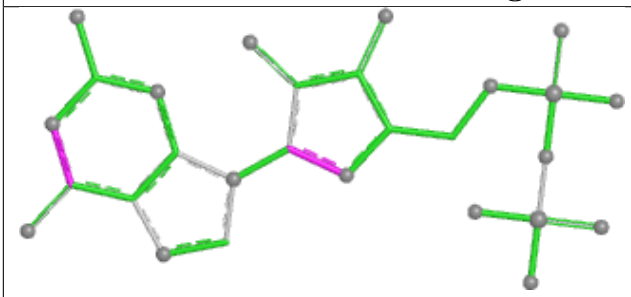


Rings

Ligand GDP GK 501



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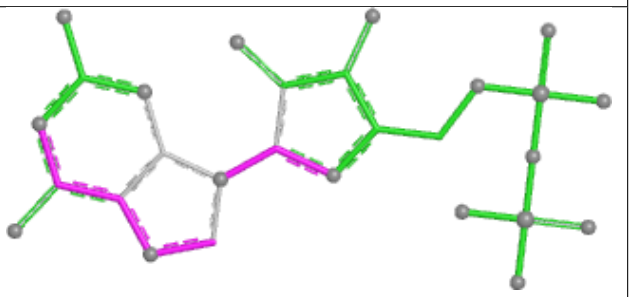

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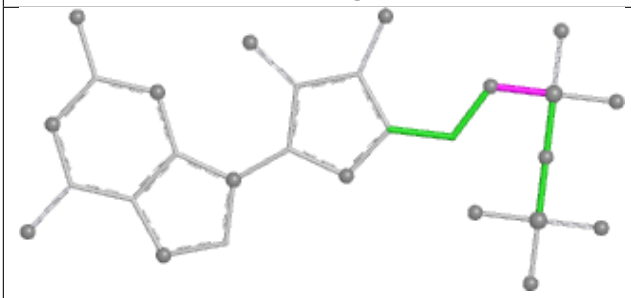

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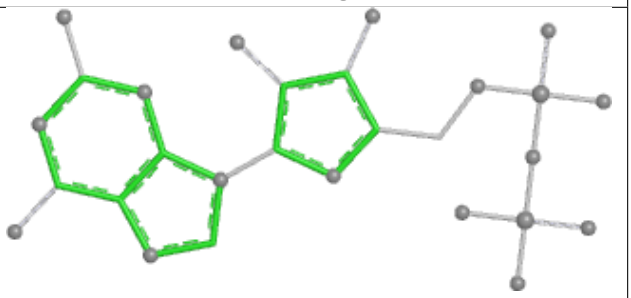
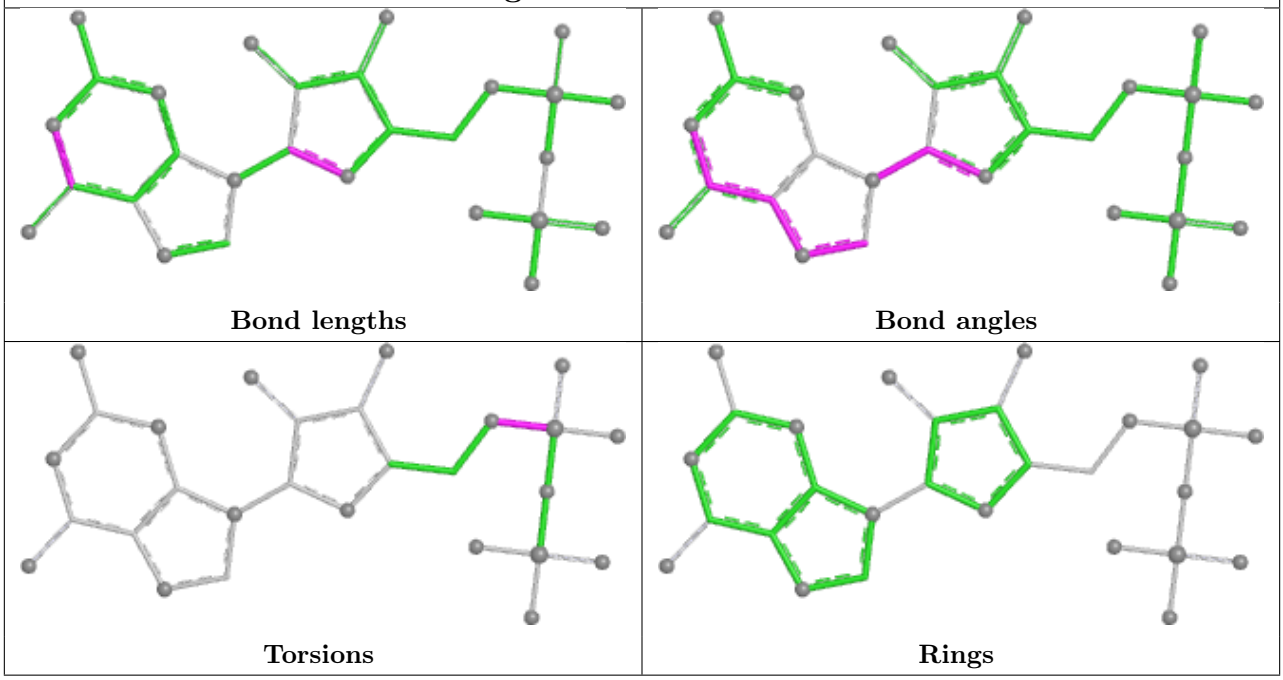


Rings

Ligand GDP GM 501



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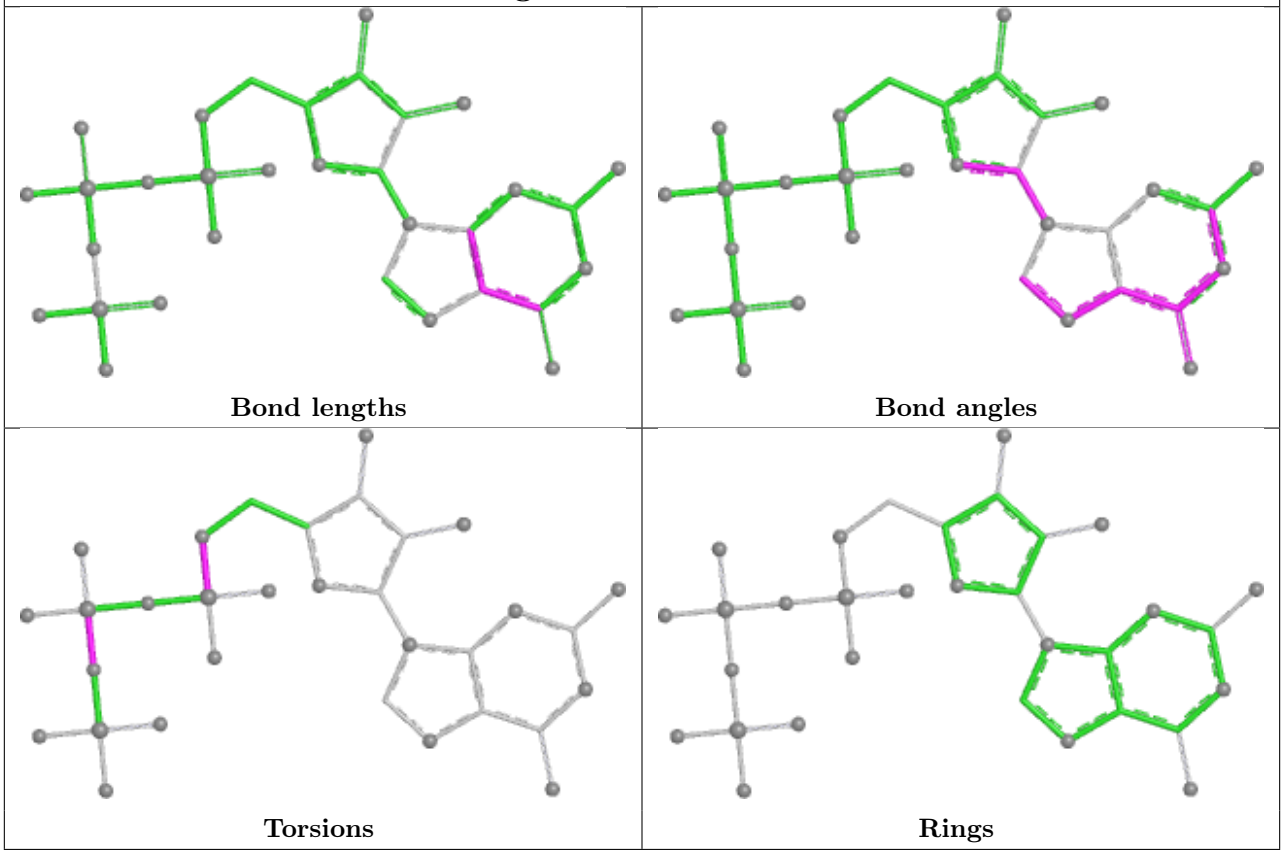

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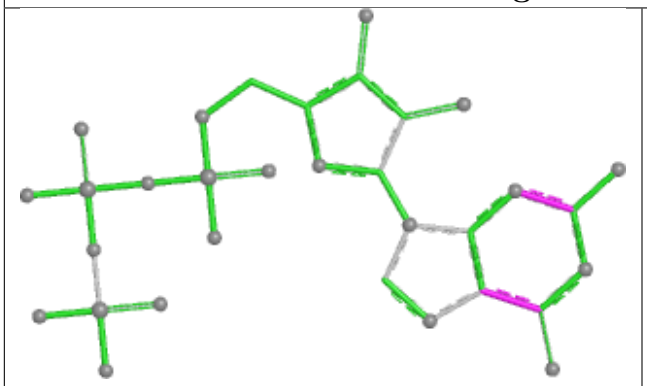

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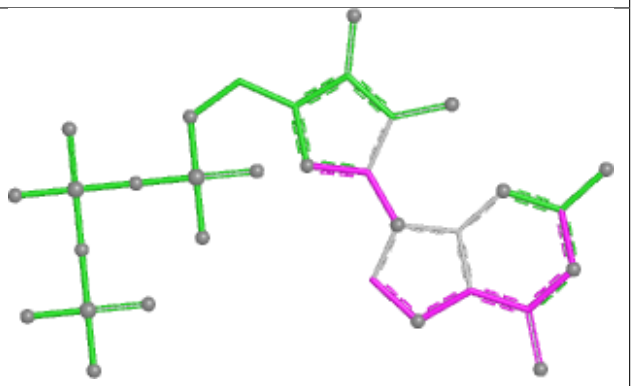

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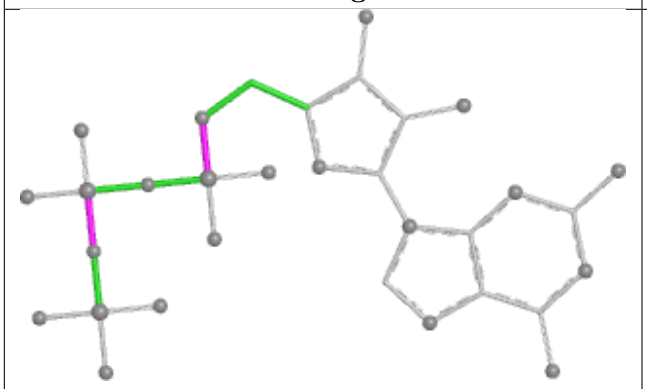

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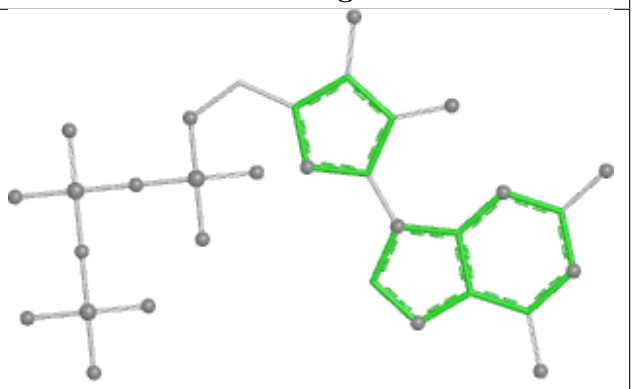
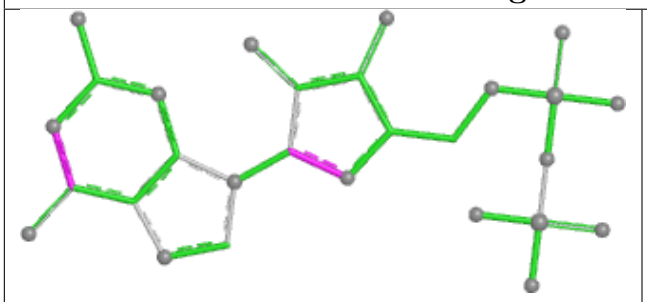


Rings

Ligand GDP CX 501



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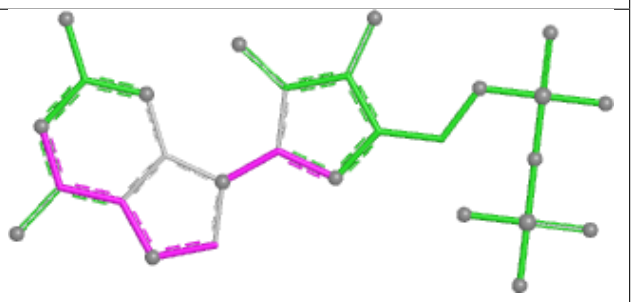

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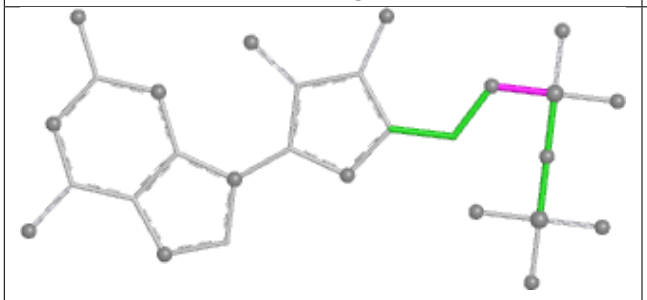

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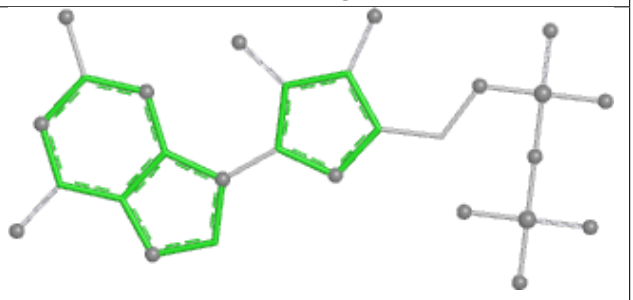

Rings

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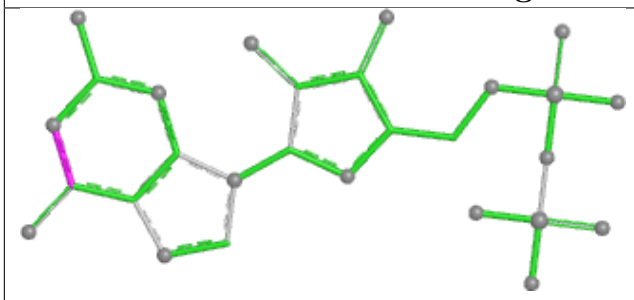

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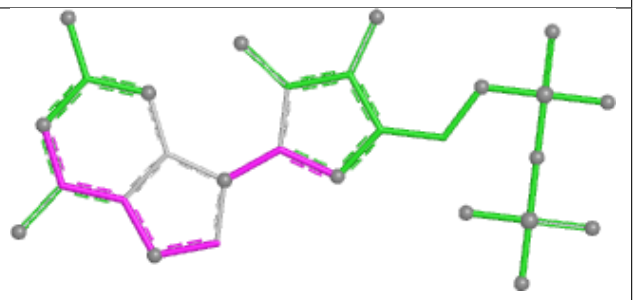

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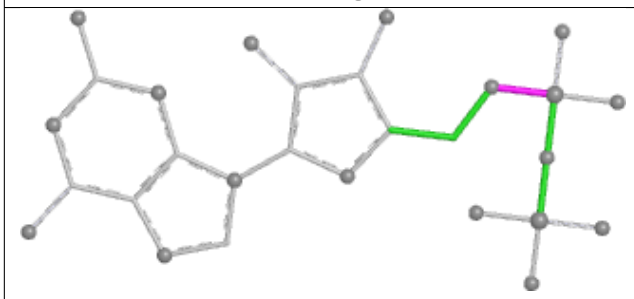

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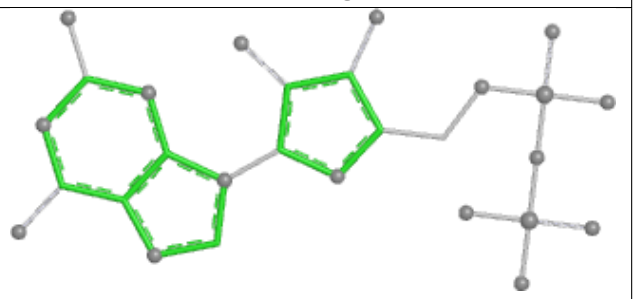
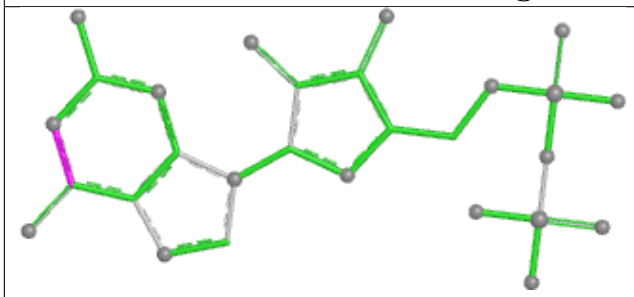


Rings

Ligand GDP IY 501



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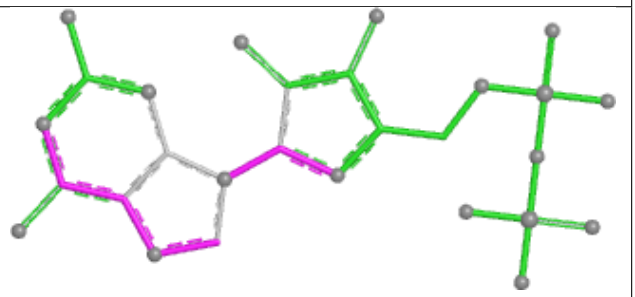

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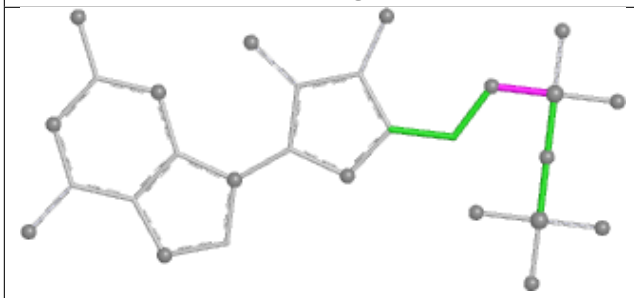

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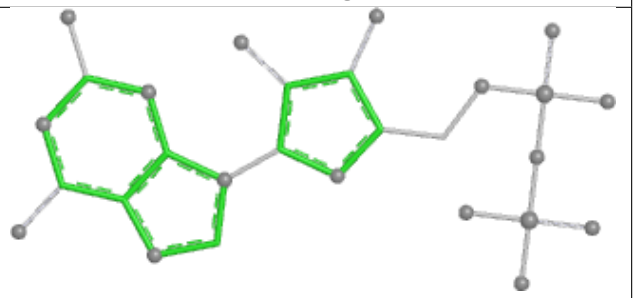

Rings

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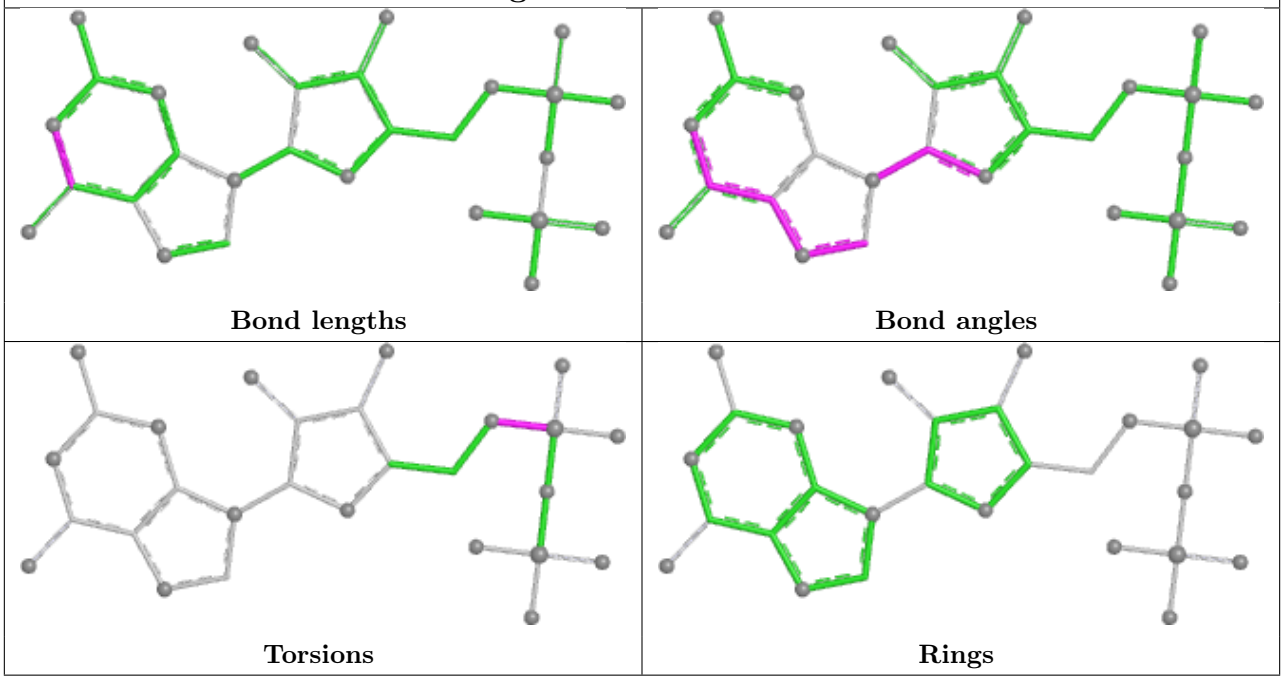

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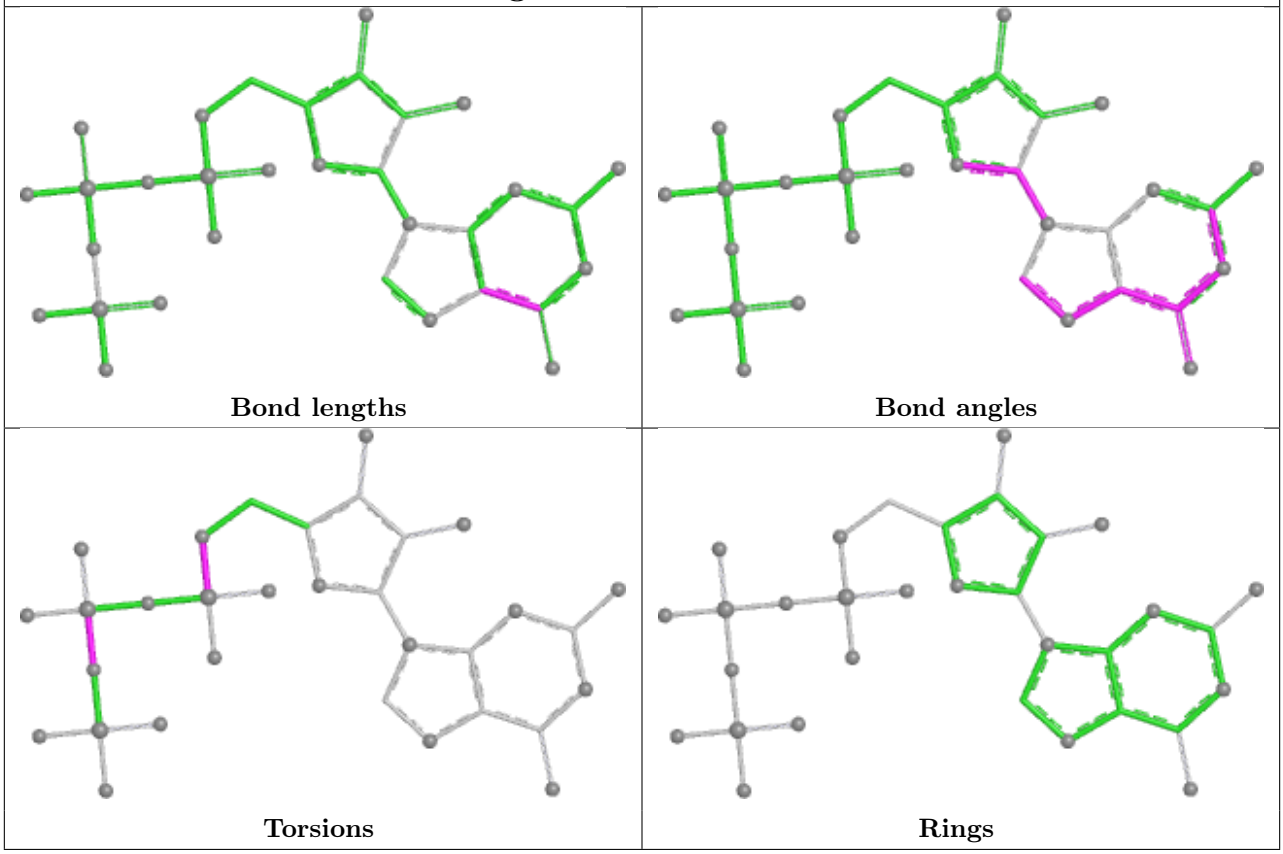

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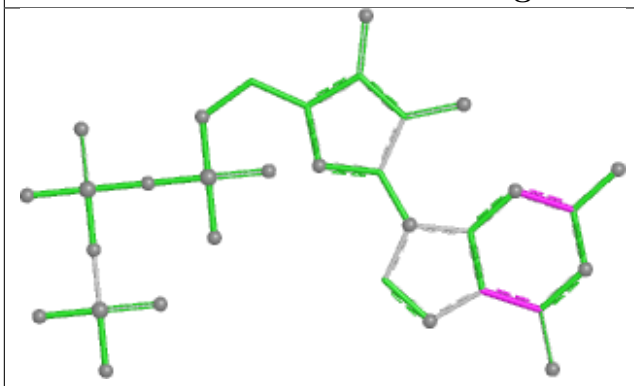

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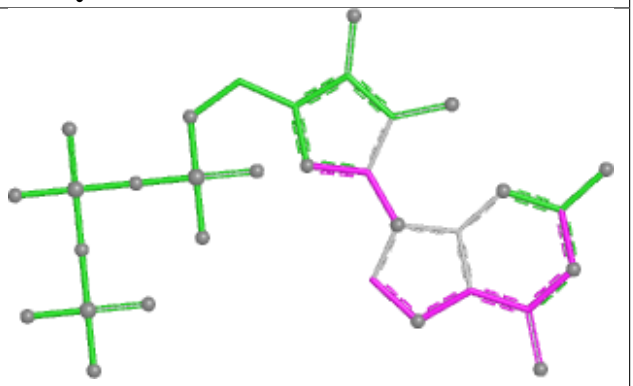

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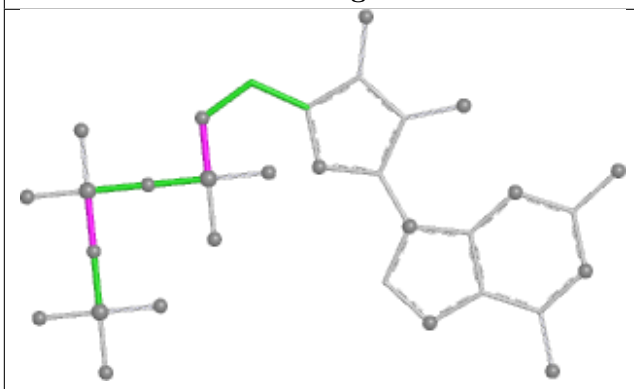

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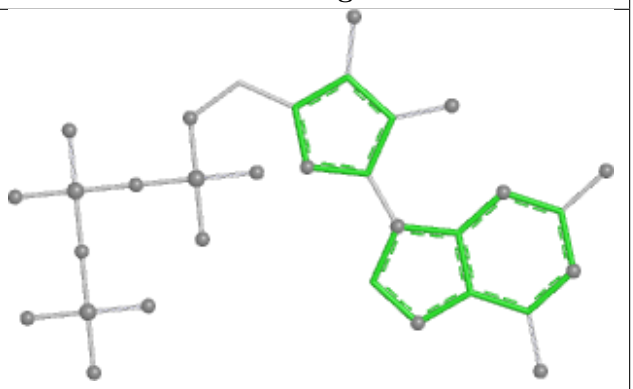
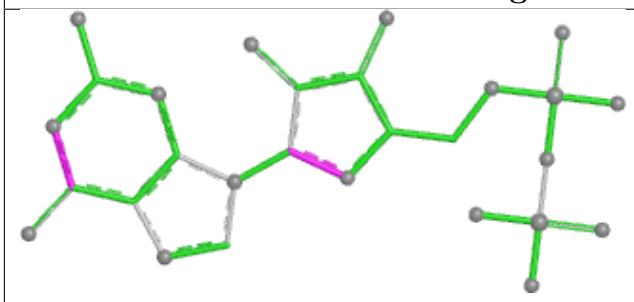


Rings

Ligand GDP KE 501



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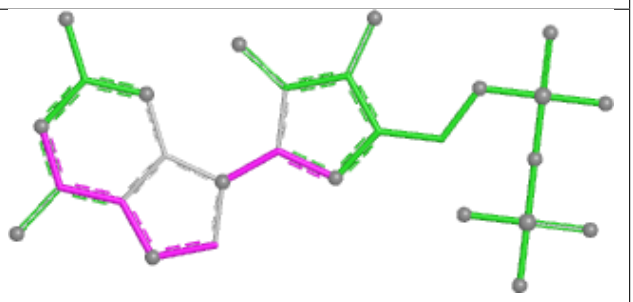

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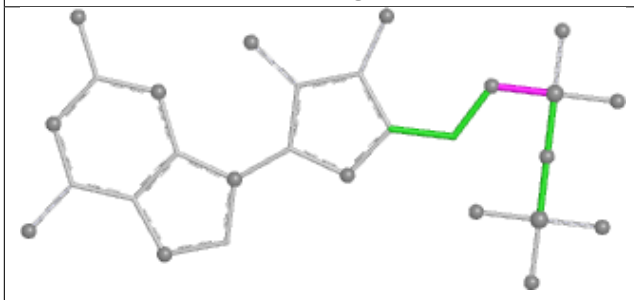

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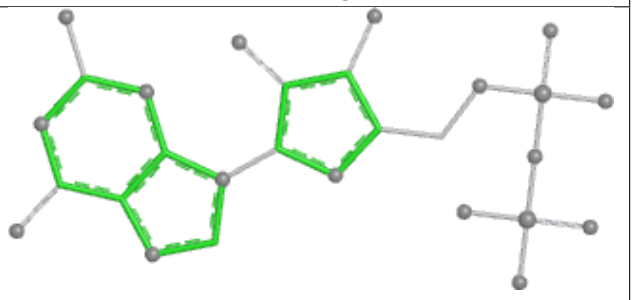
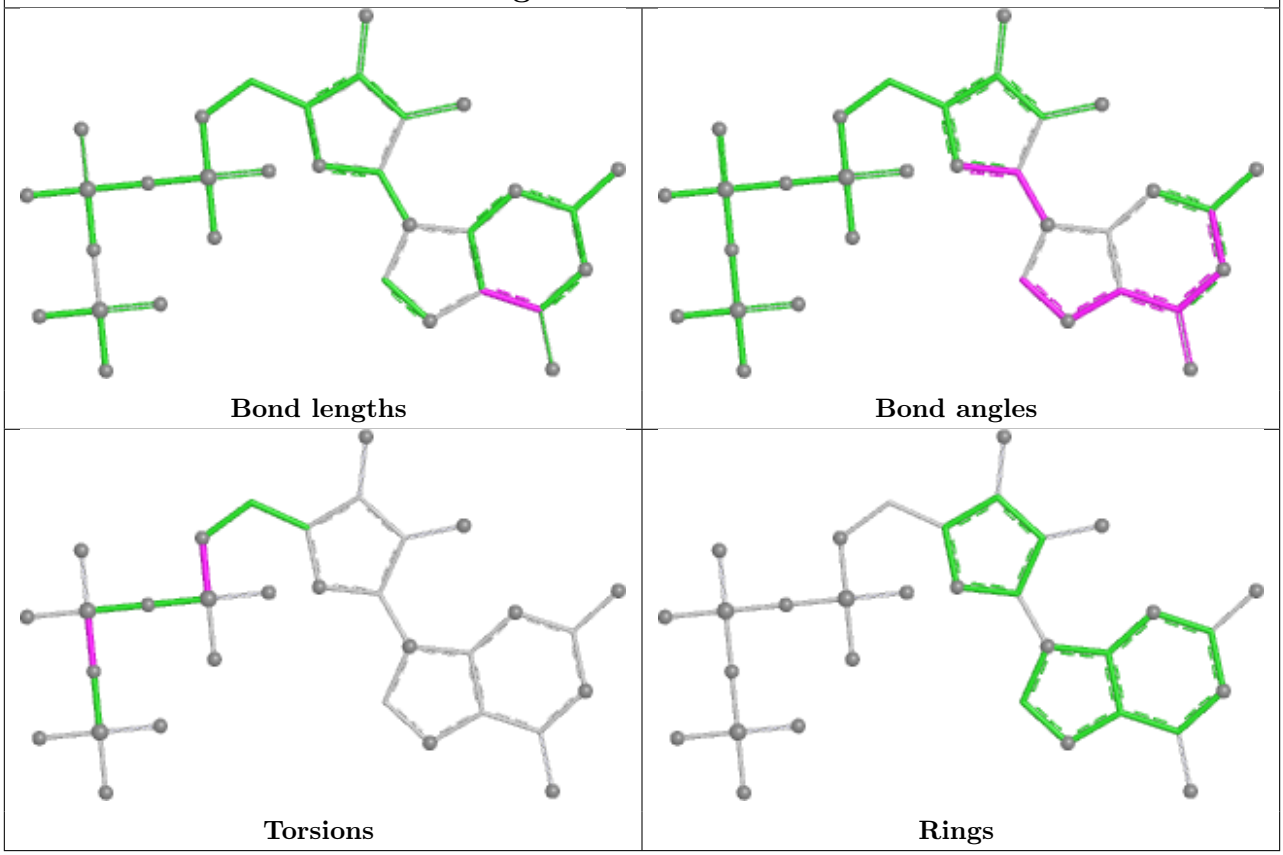


Rings

Ligand GTP DS 501



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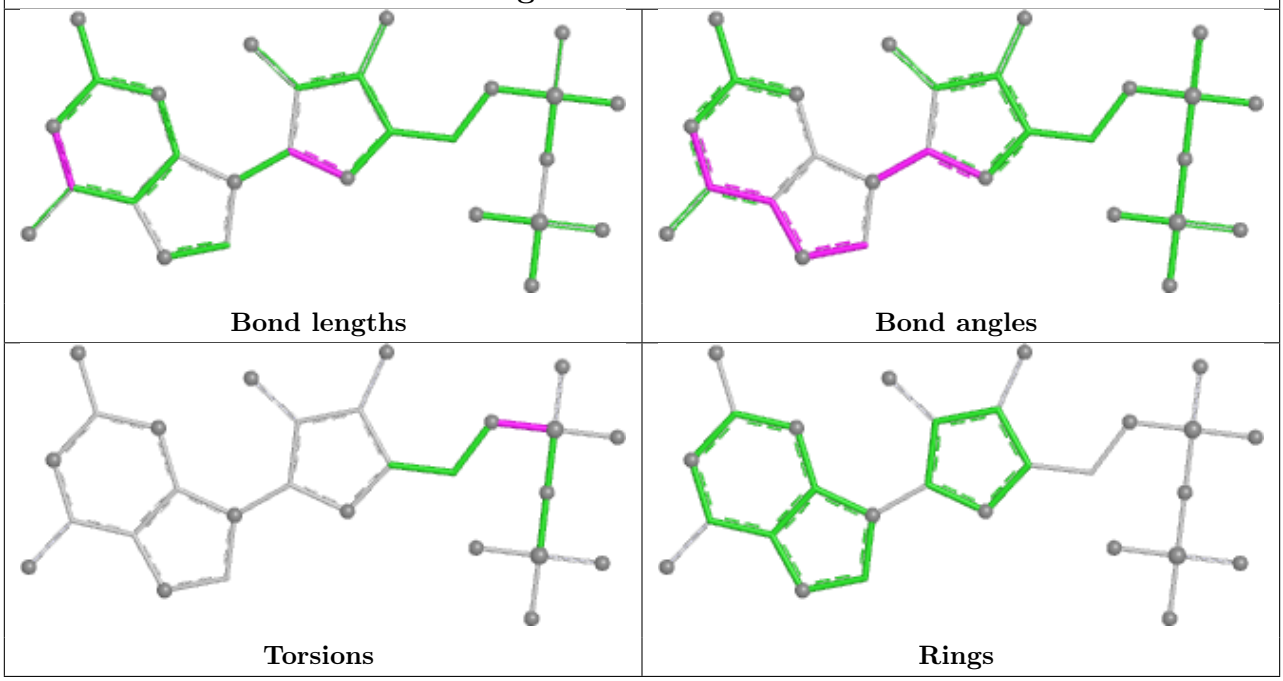

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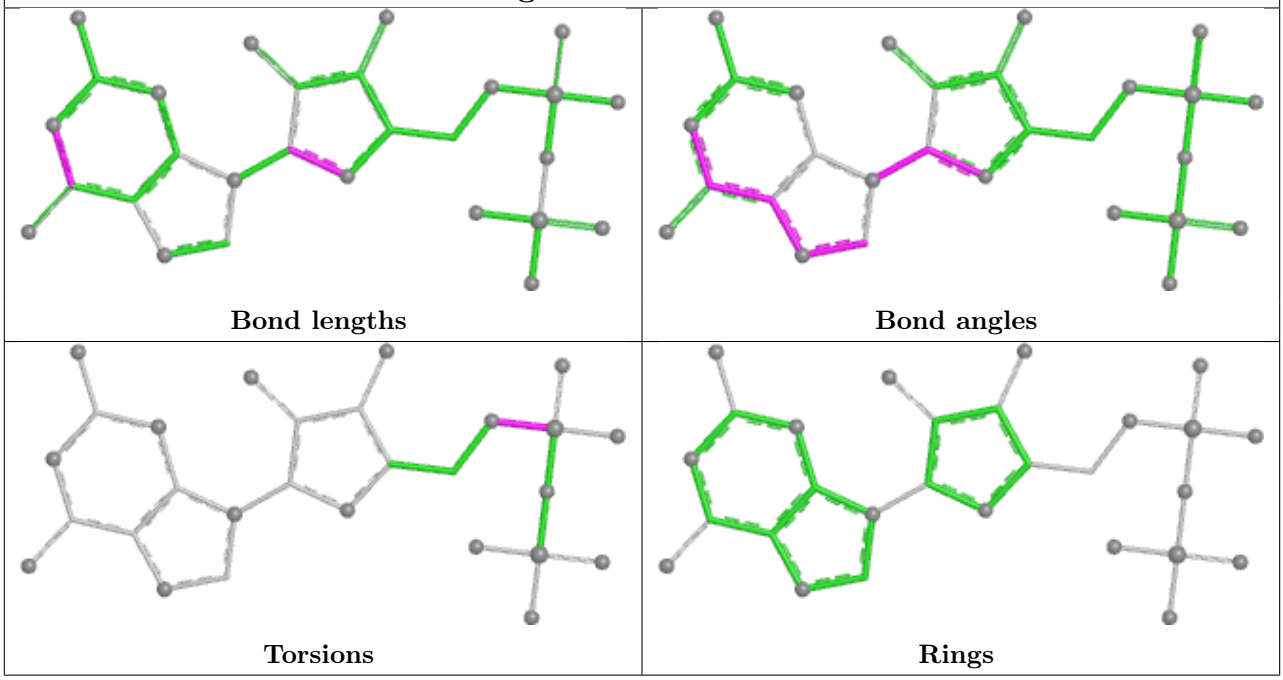

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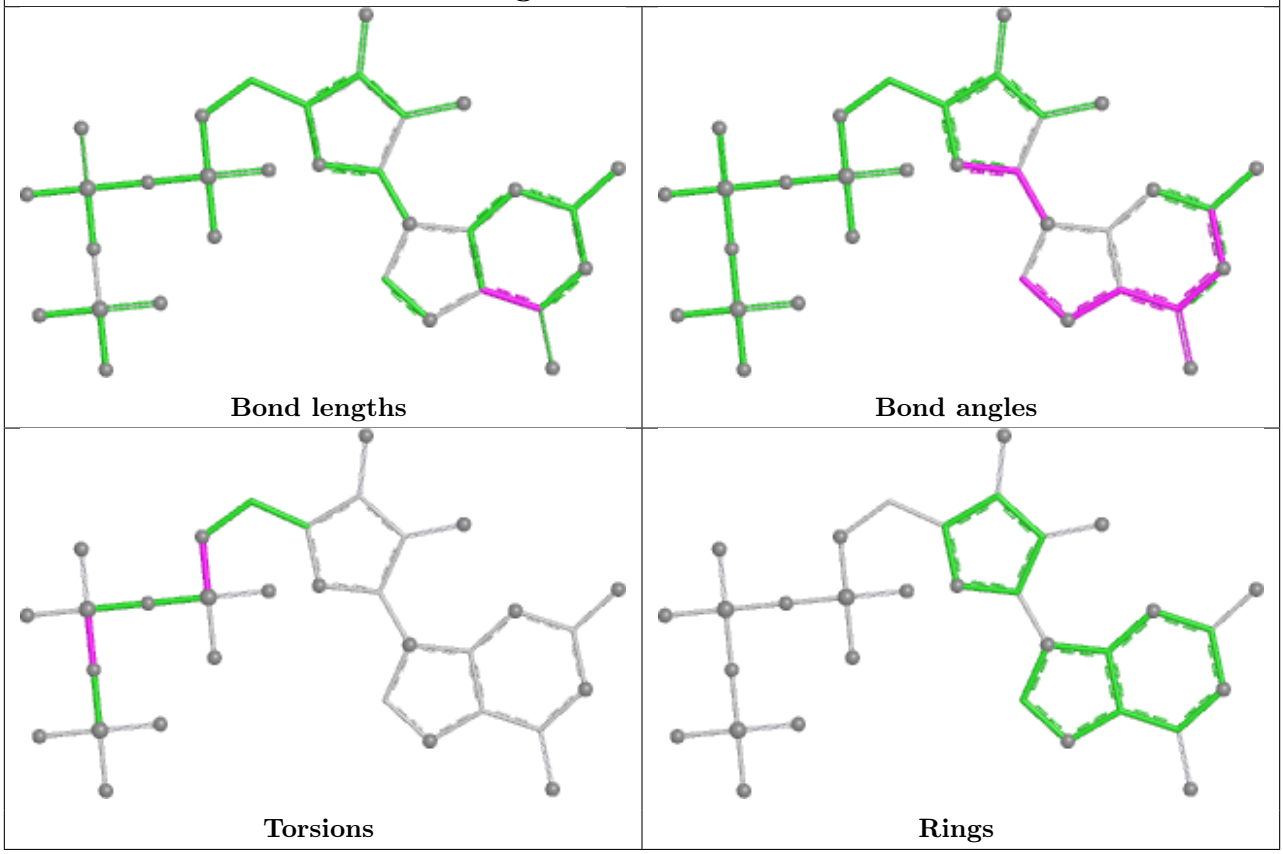

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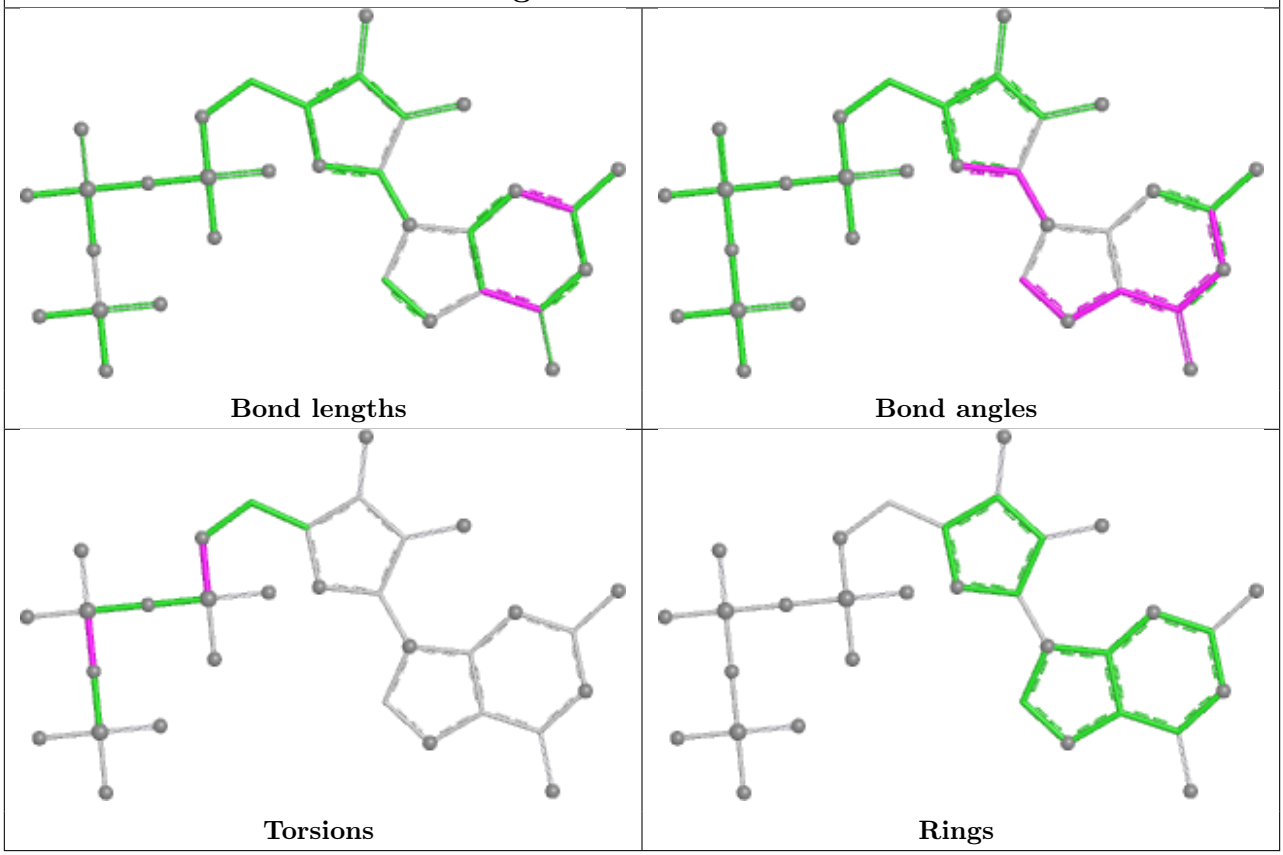

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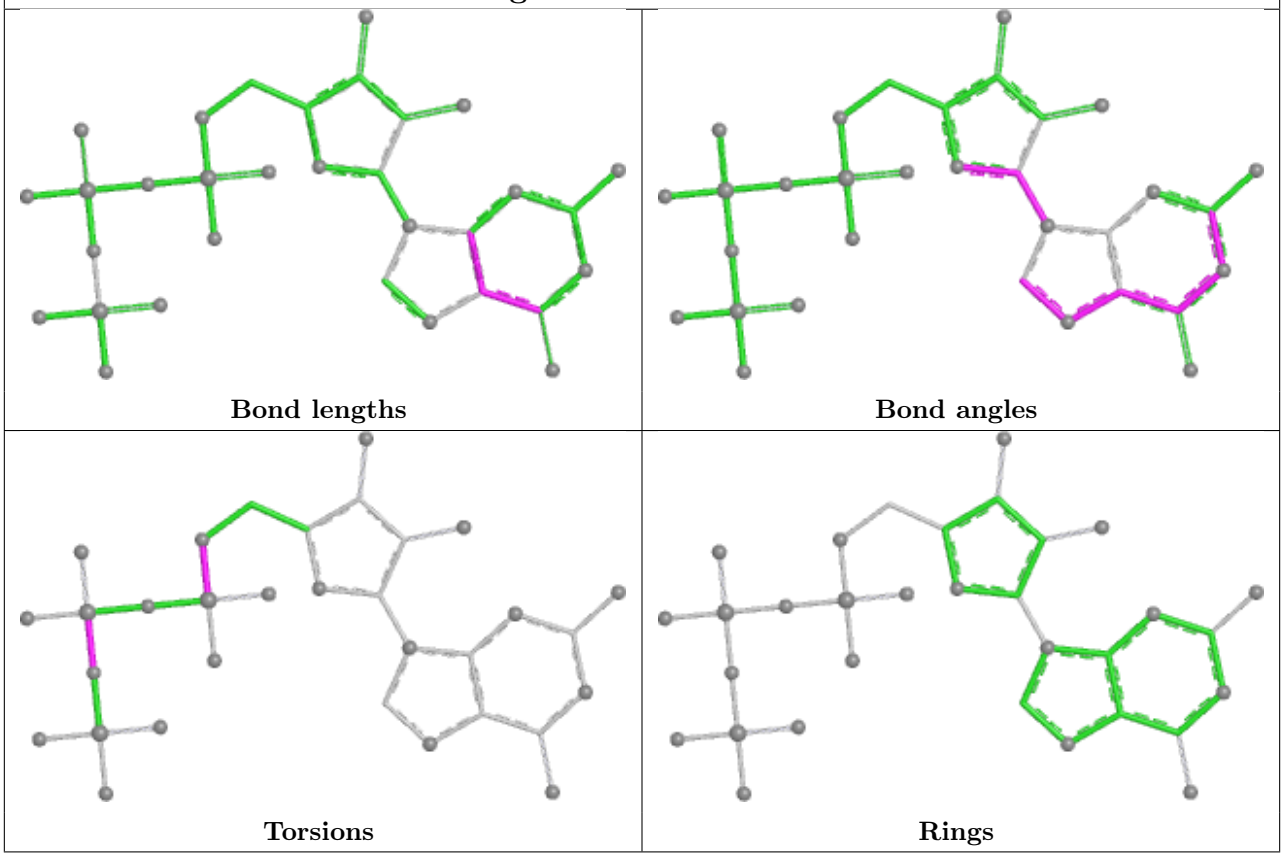

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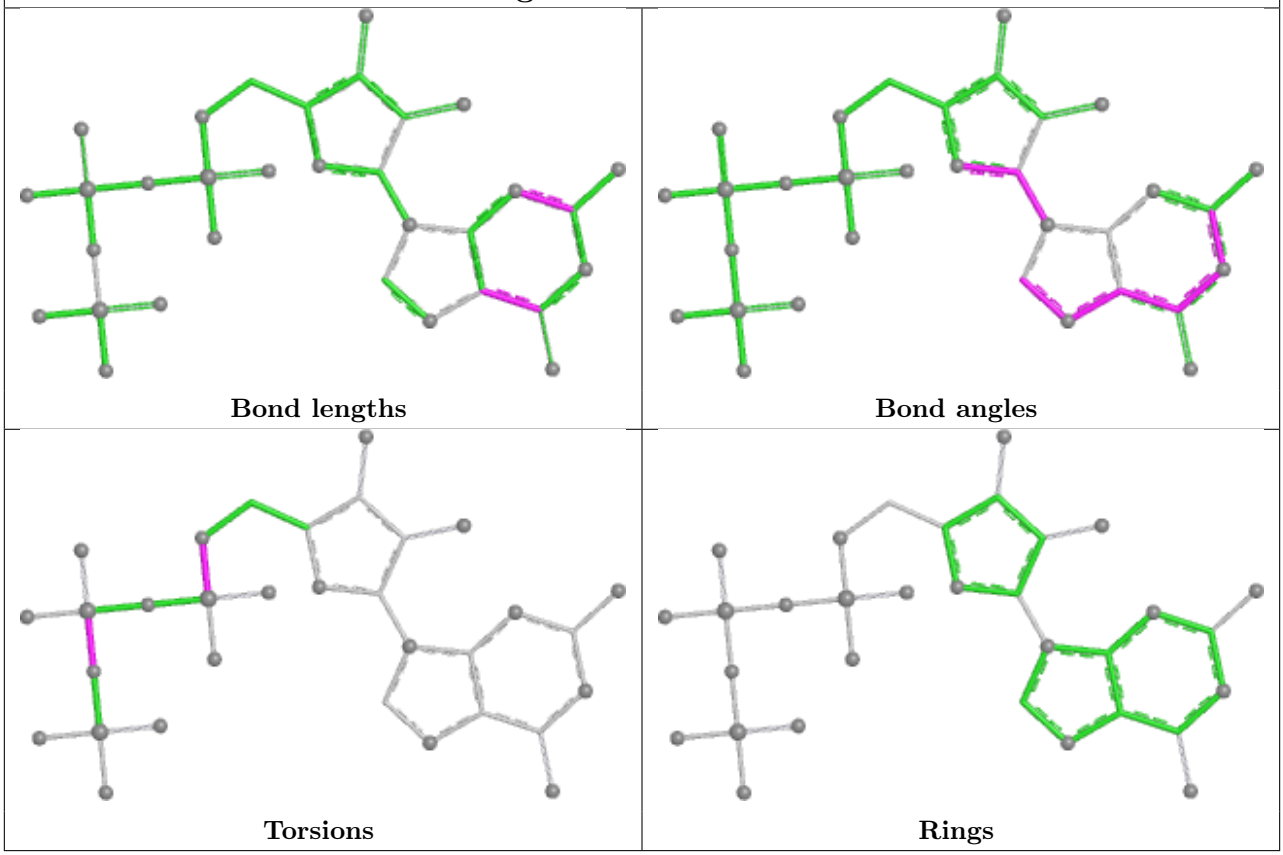

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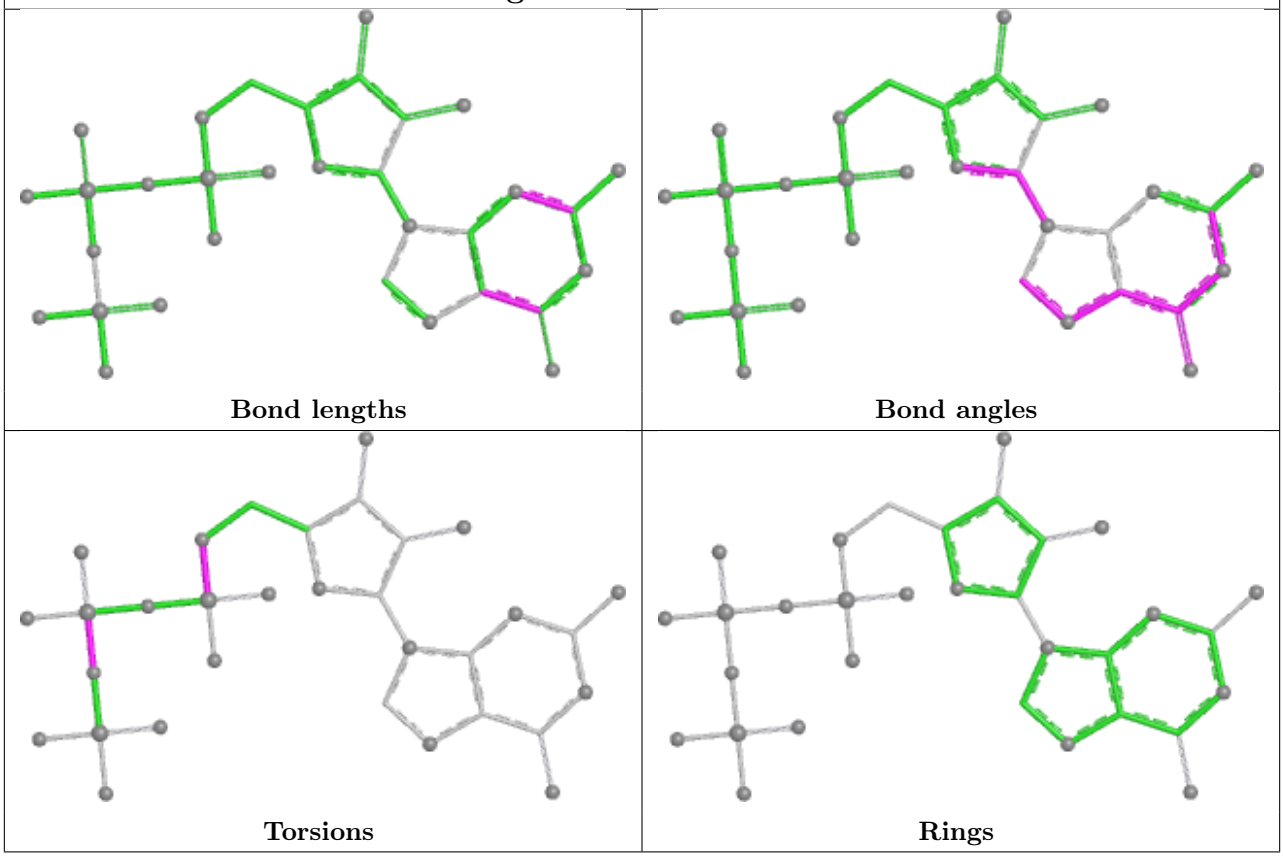

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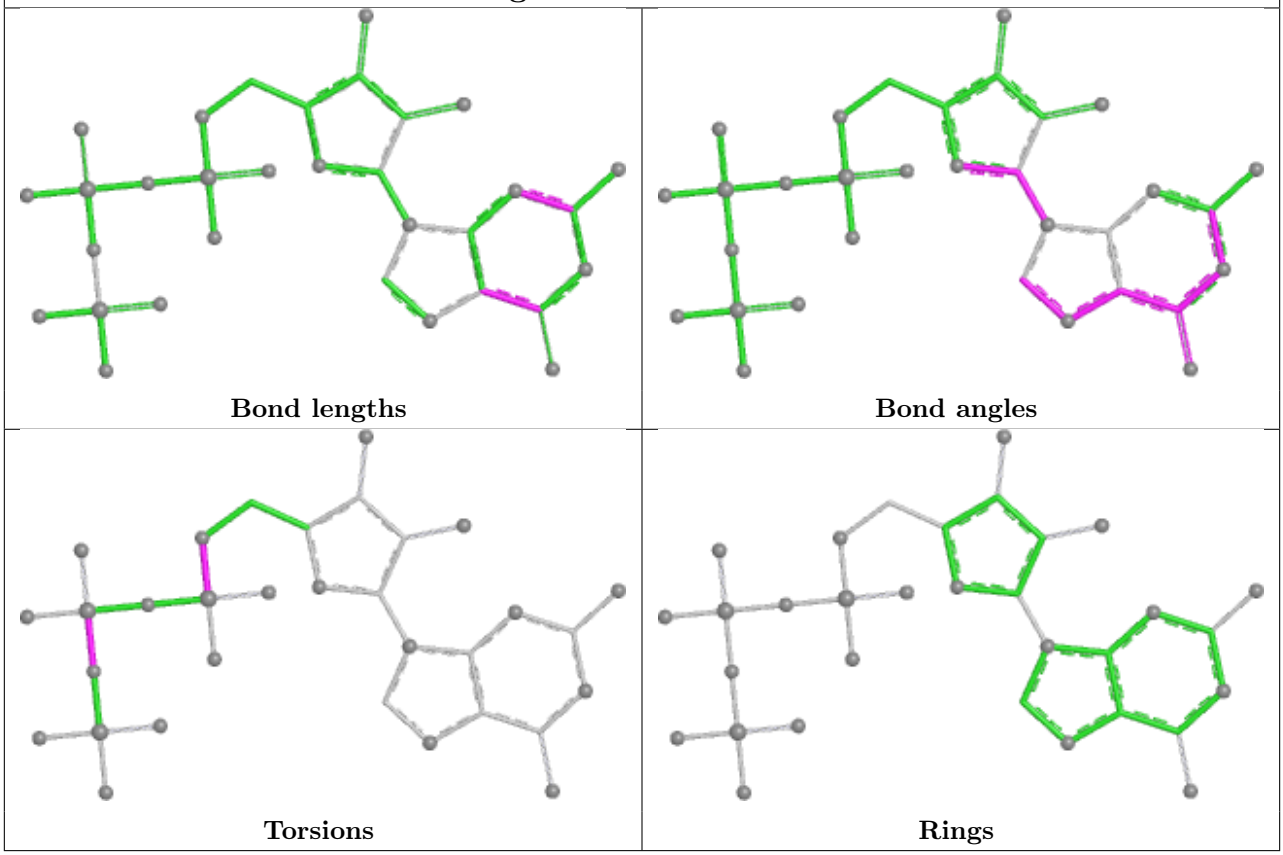
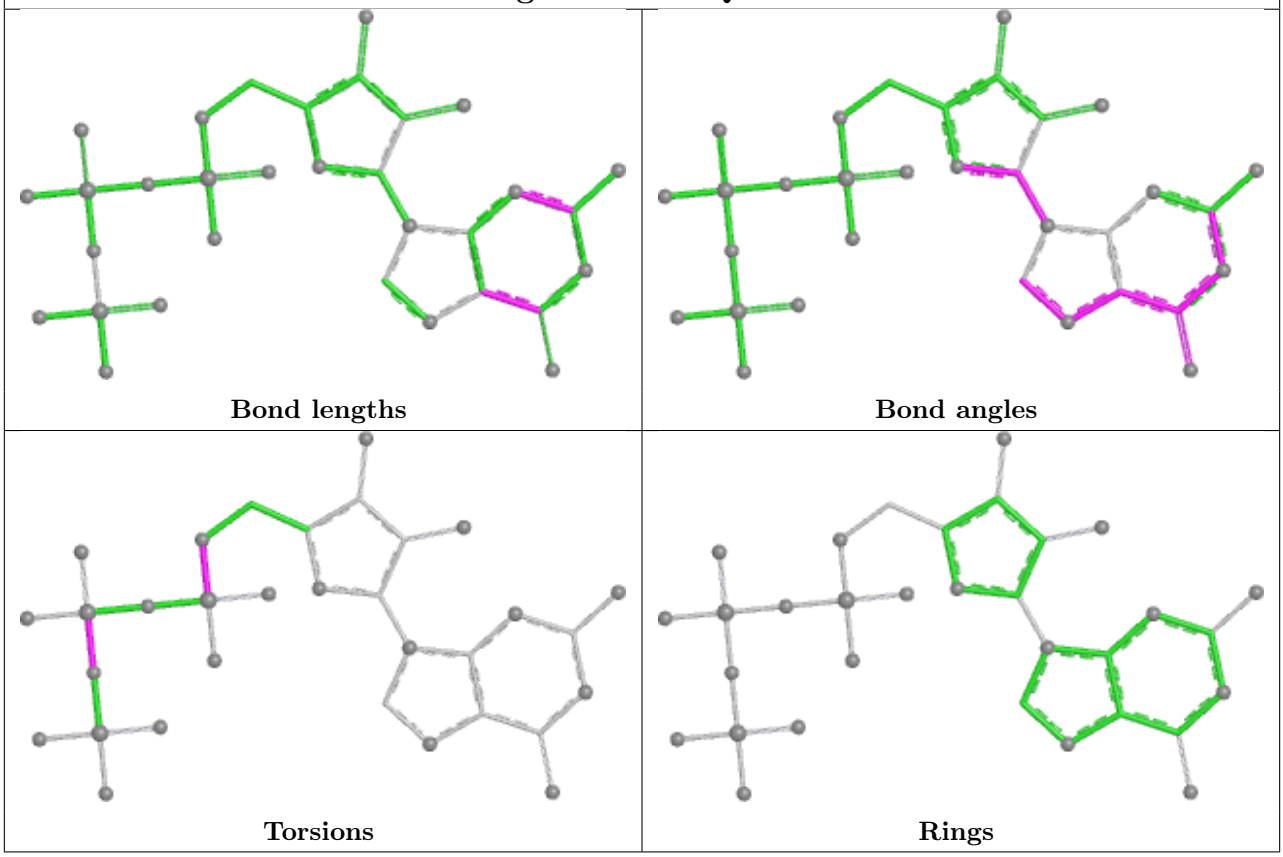


Ligand GTP IQ 501



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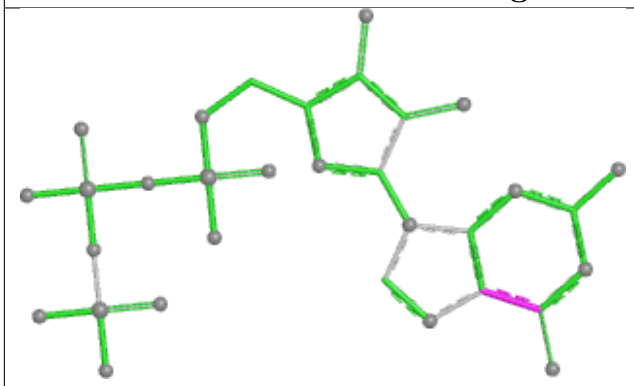

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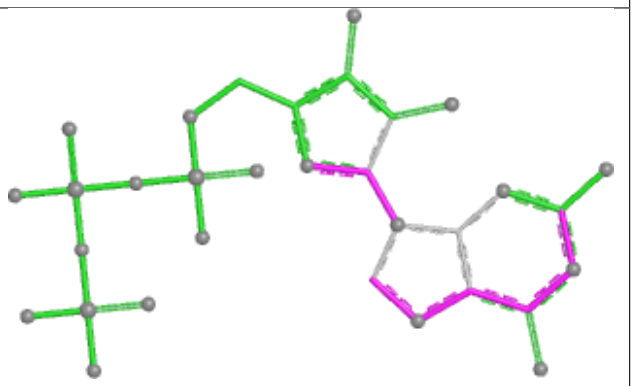

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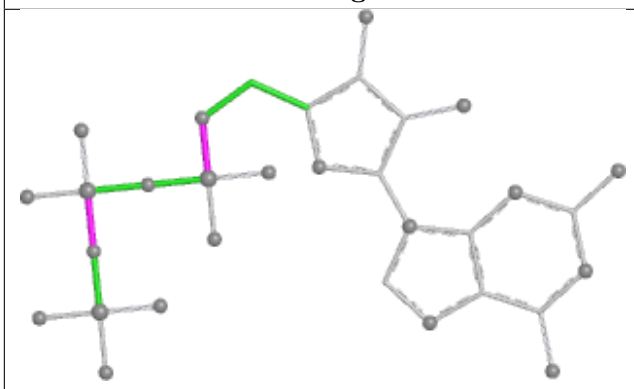
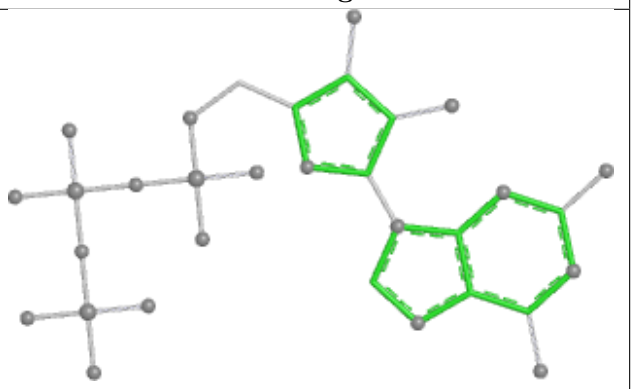


Torsions



Rings

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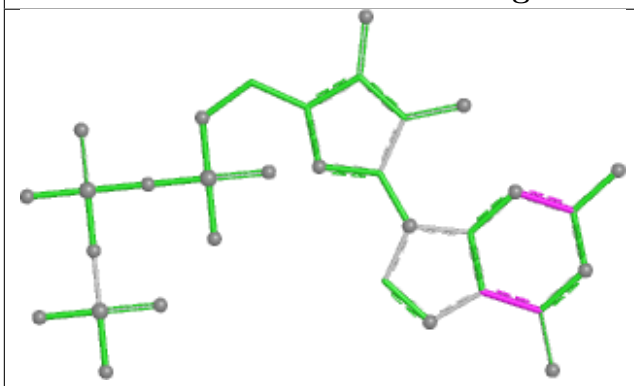

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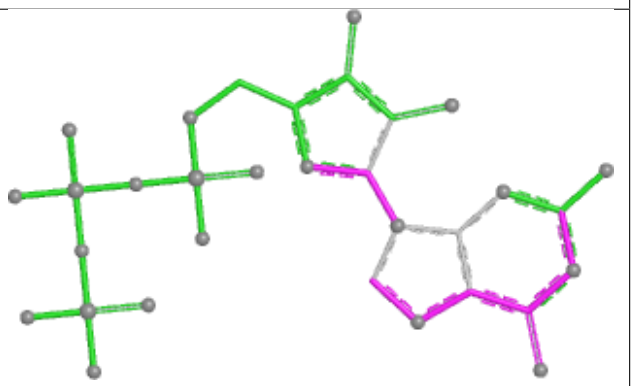

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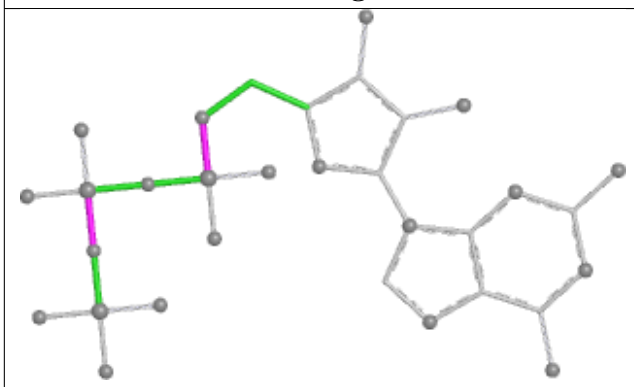

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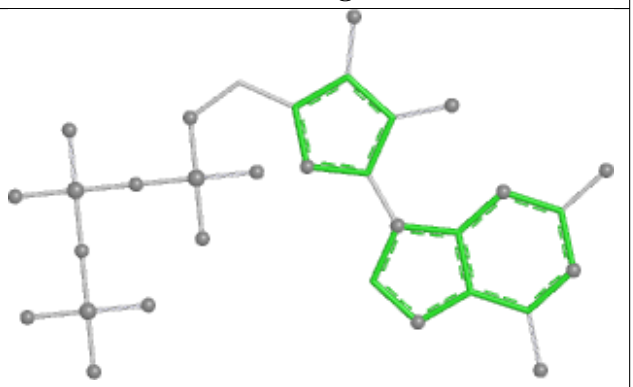

Rings

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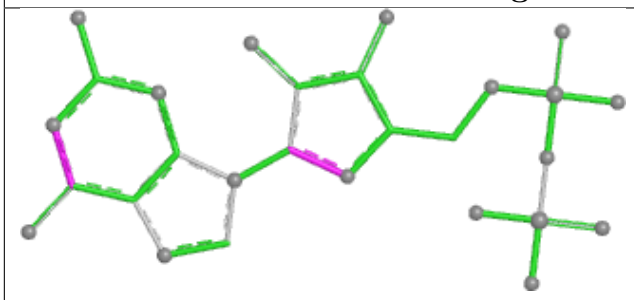

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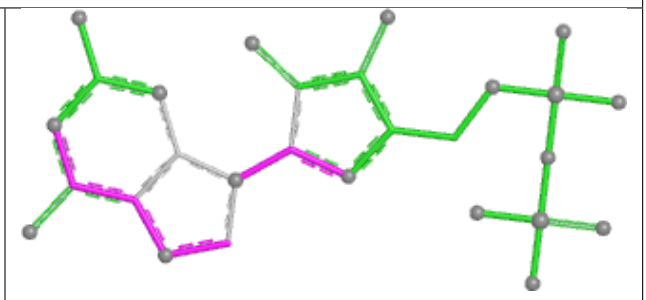

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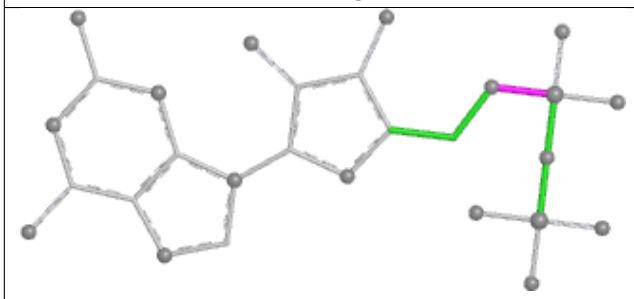

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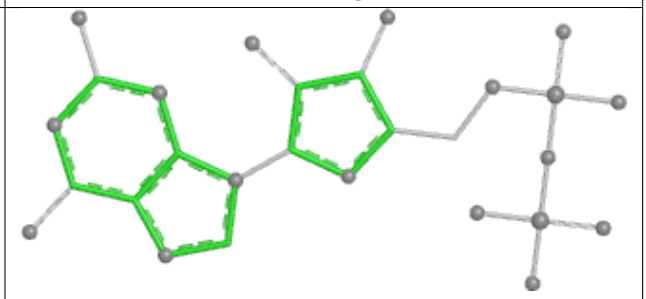

Rings

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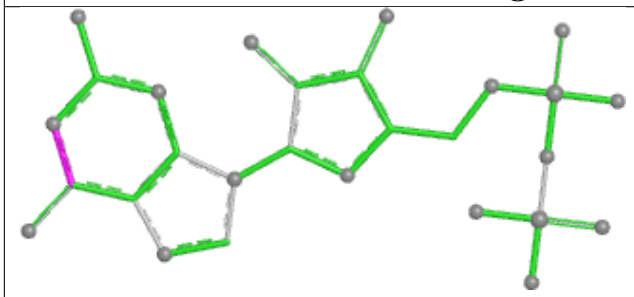

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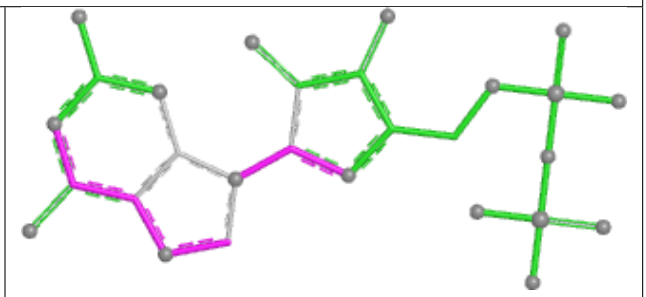

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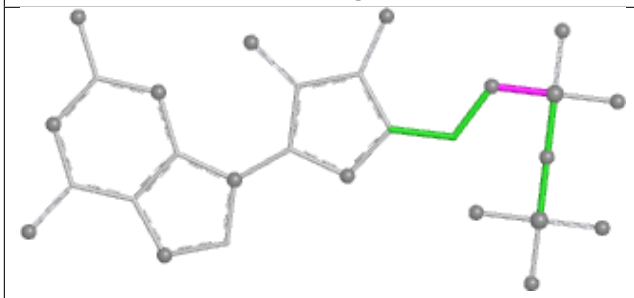

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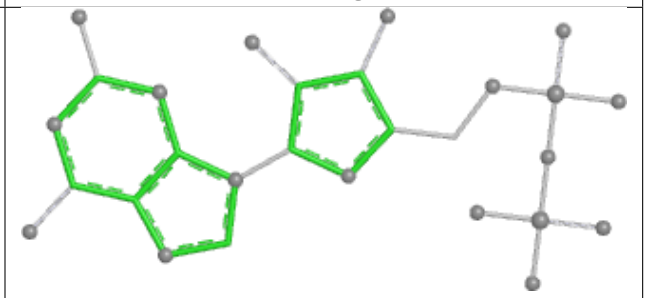

Rings

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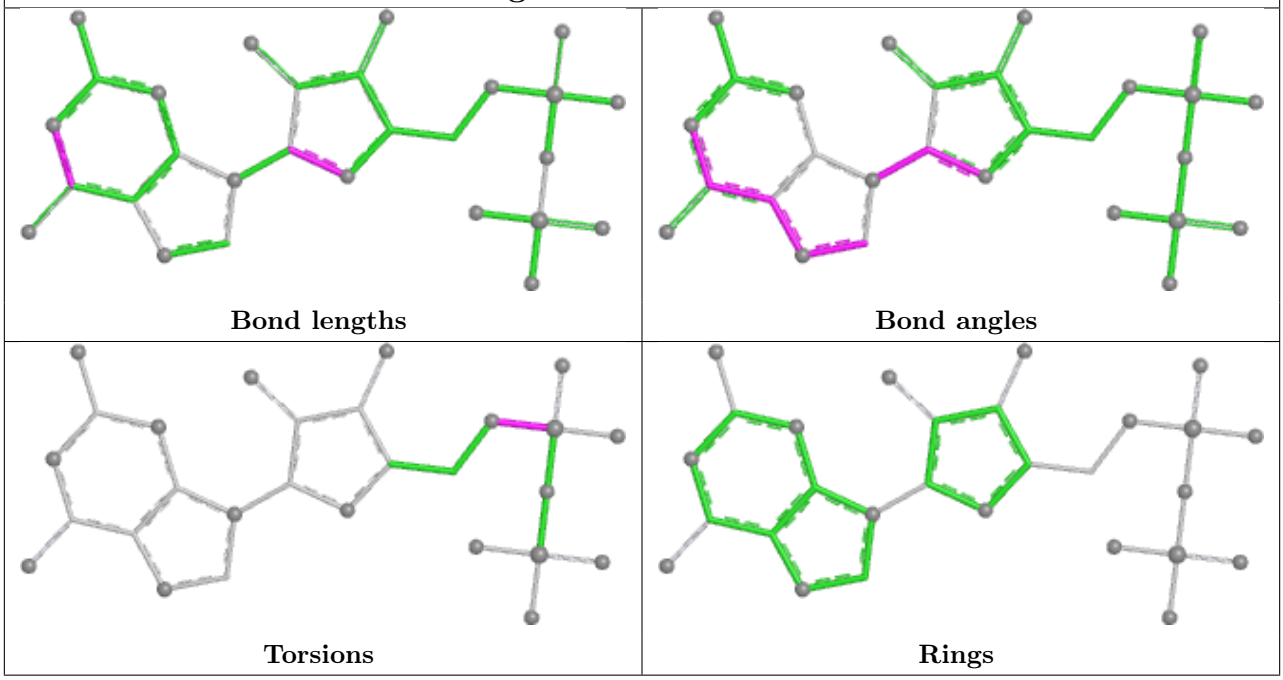

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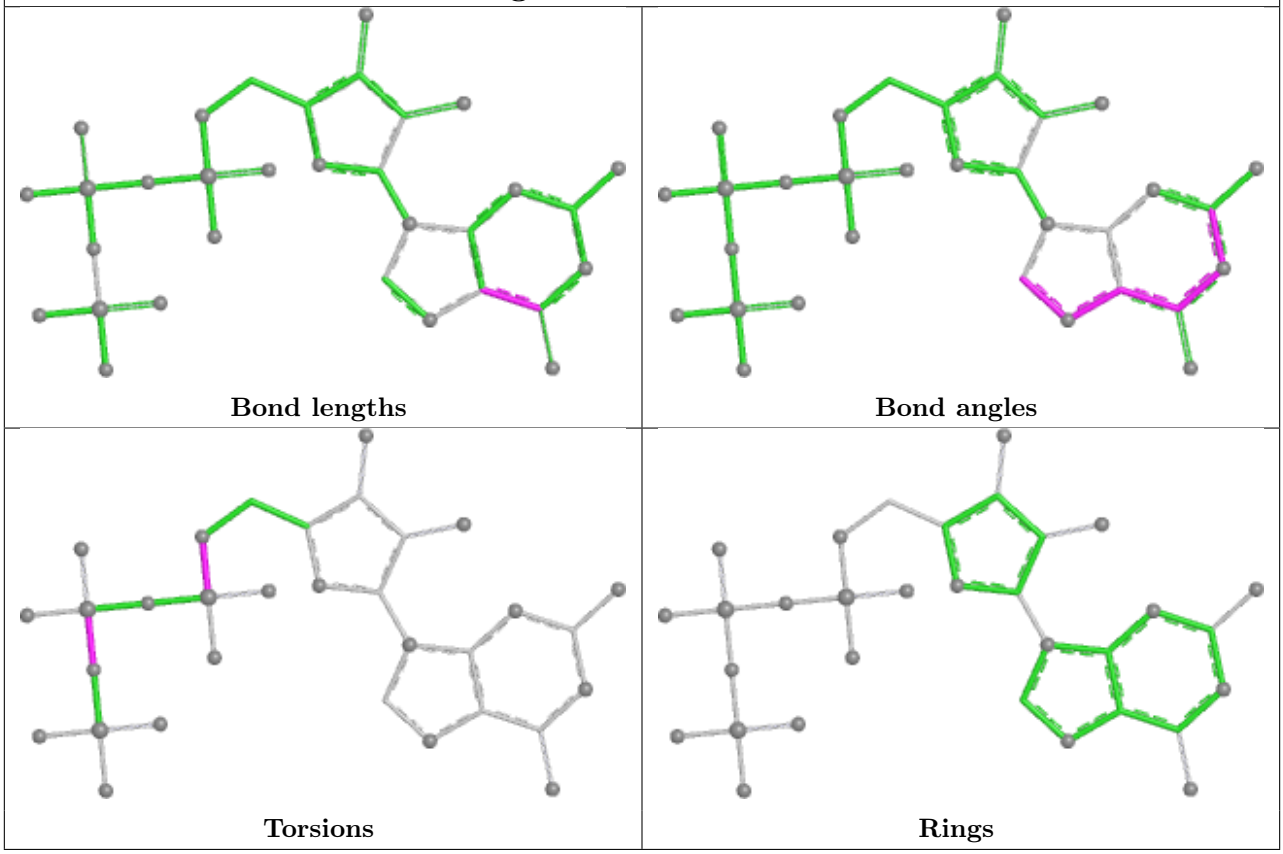

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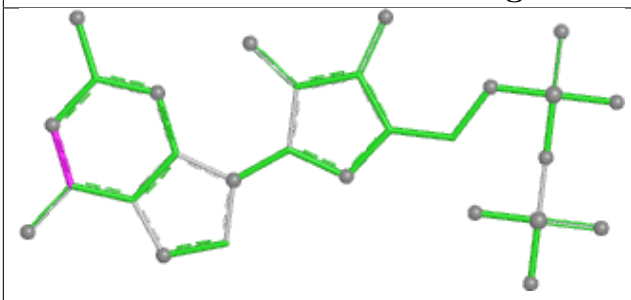

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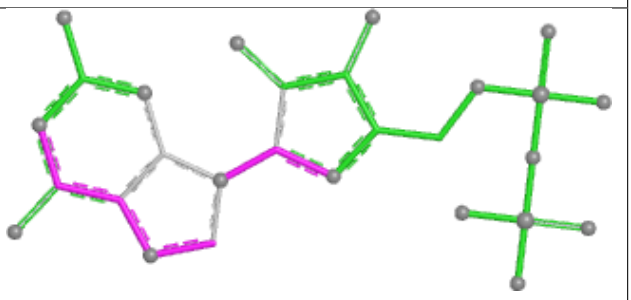

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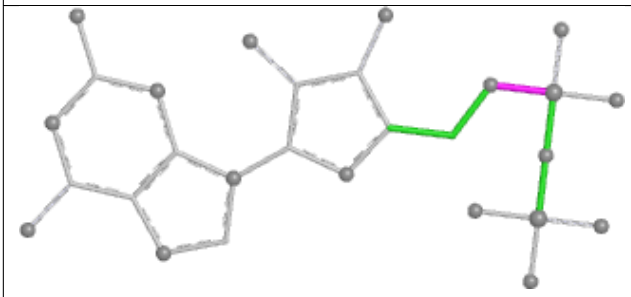

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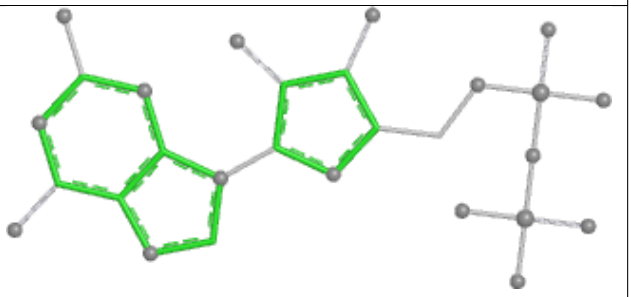

Rings

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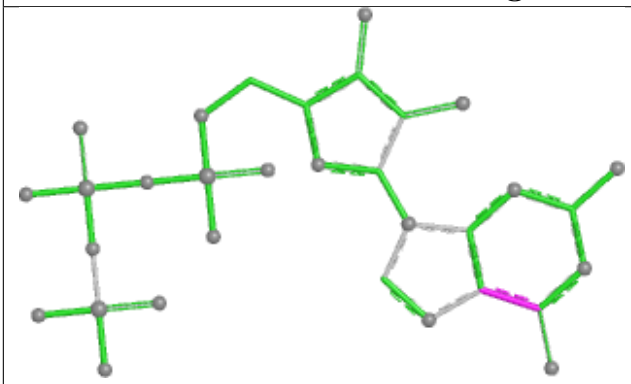

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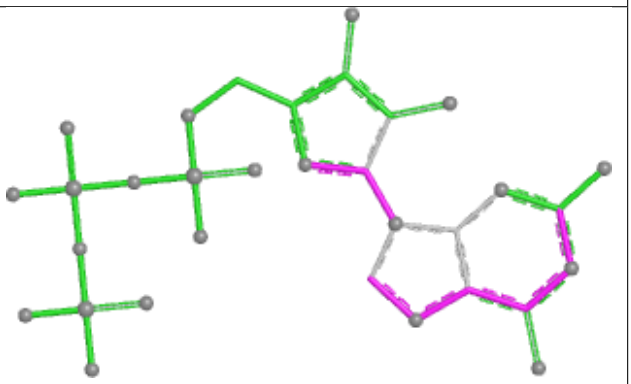

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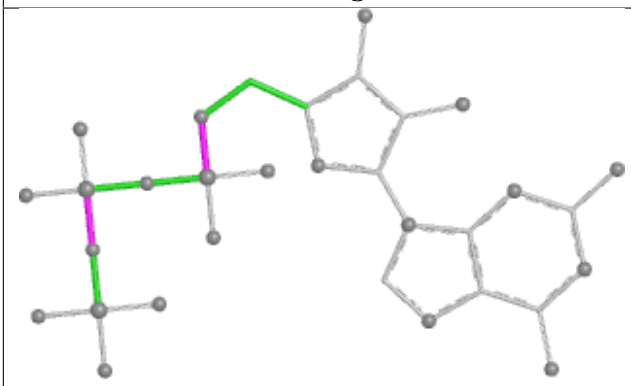

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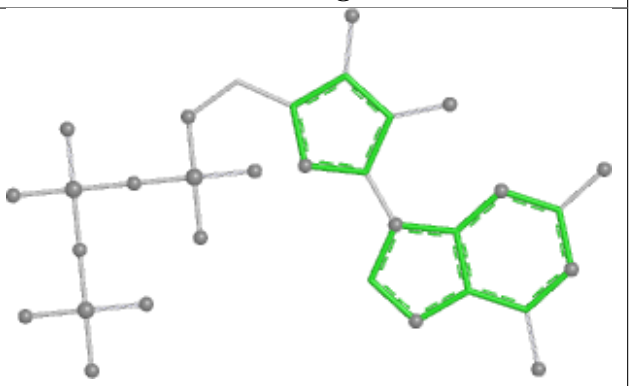

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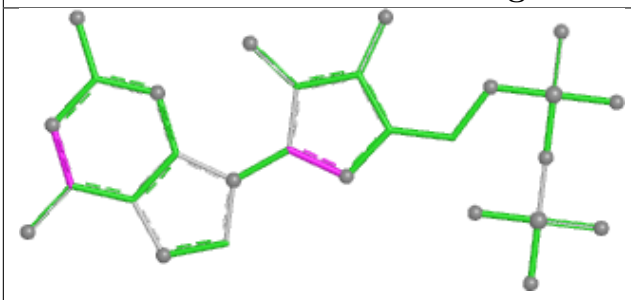

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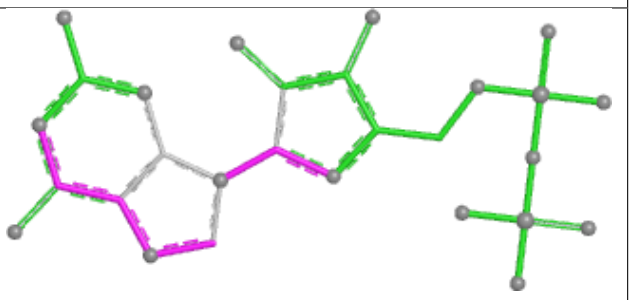

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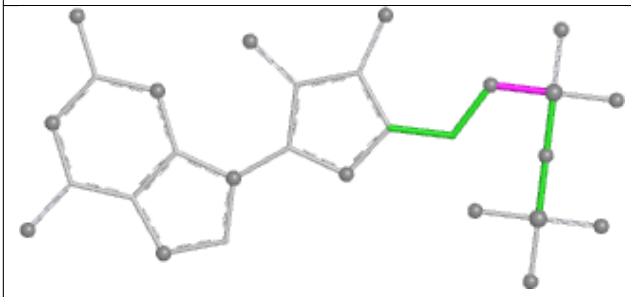

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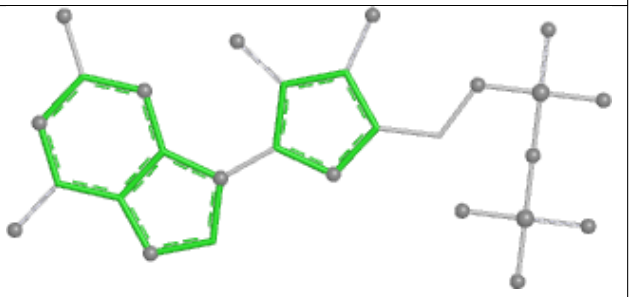

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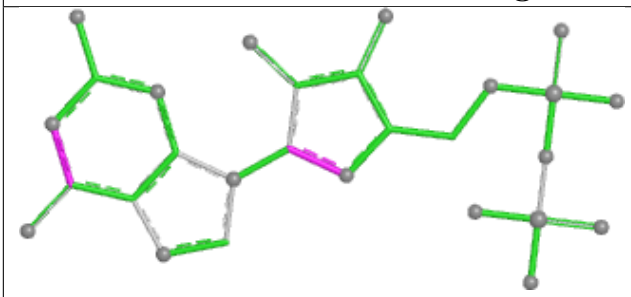

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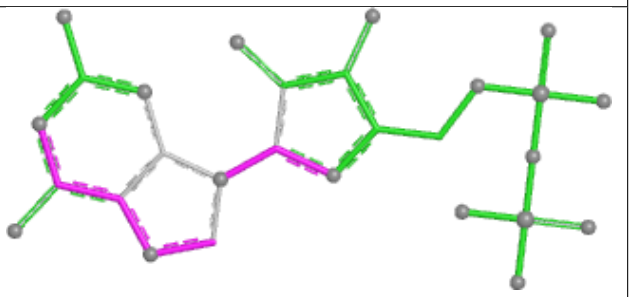

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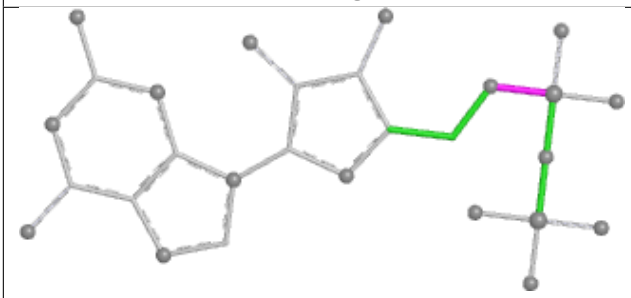

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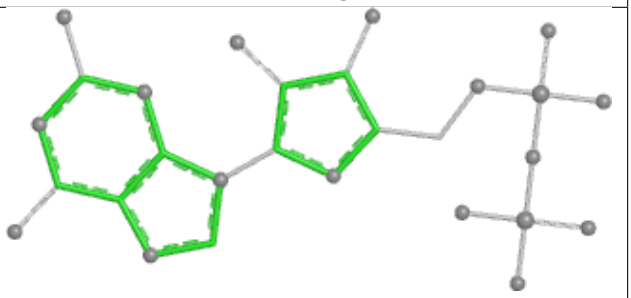
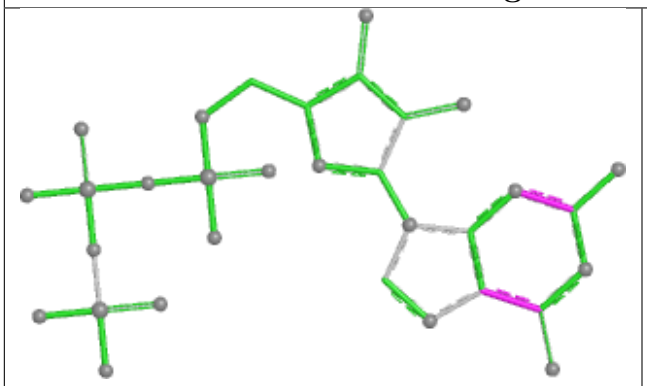


Rings

Ligand GTP KW 602



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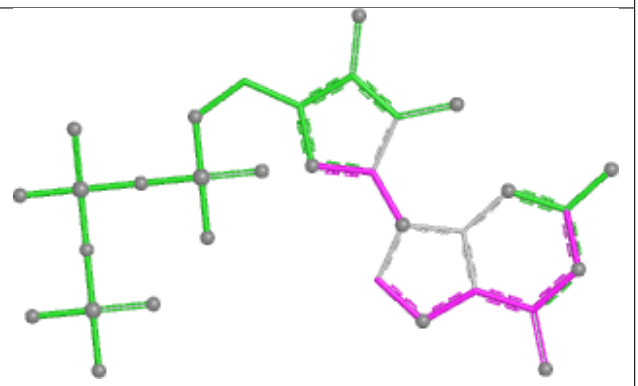

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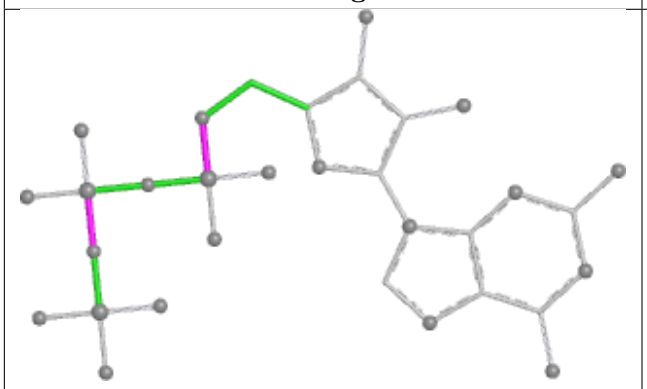

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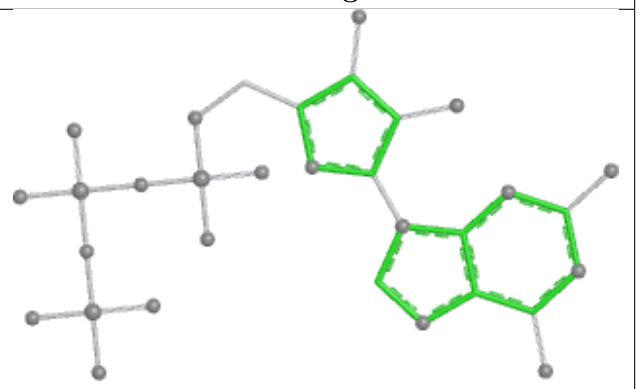

Rings

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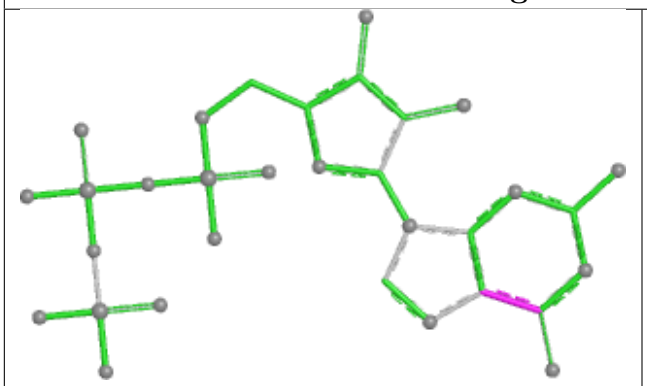

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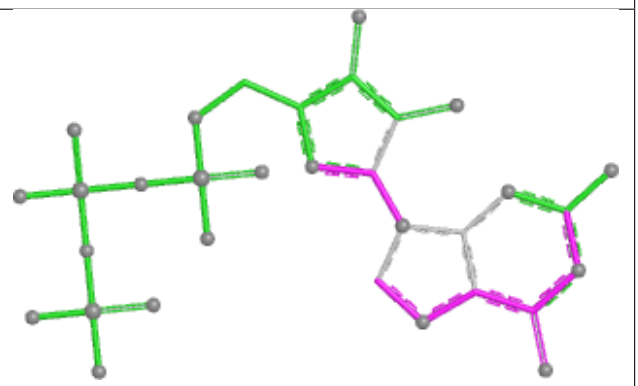

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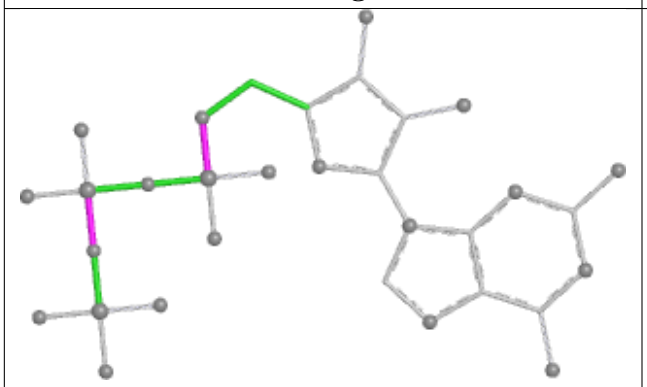

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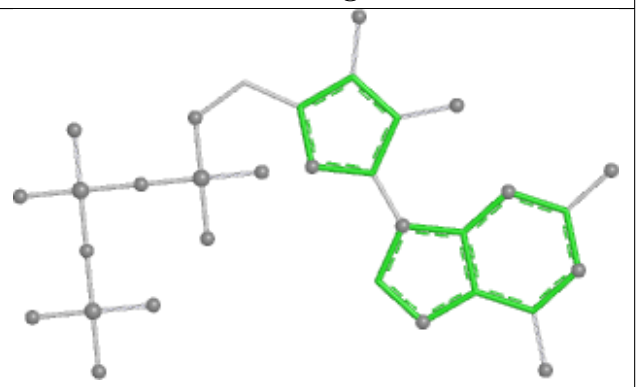

Rings

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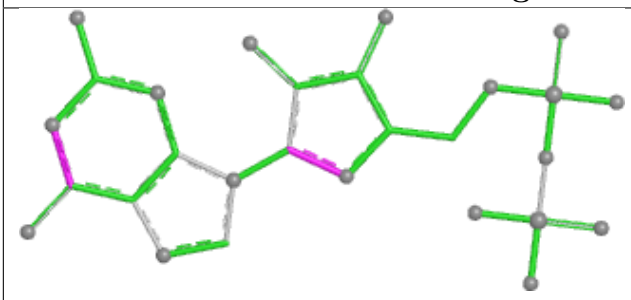

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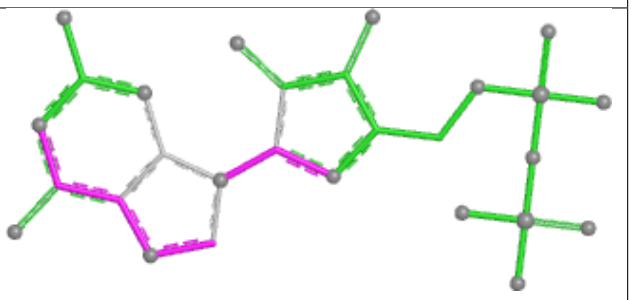

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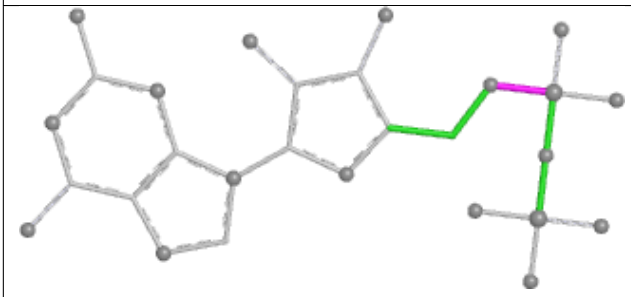

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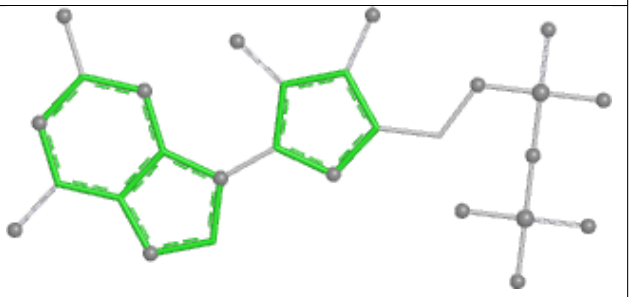

Rings

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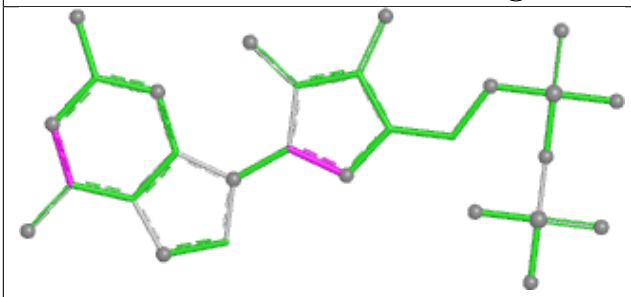

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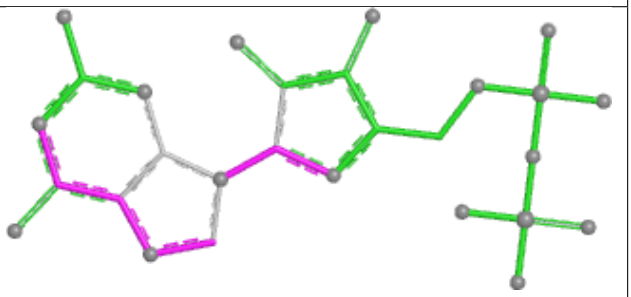

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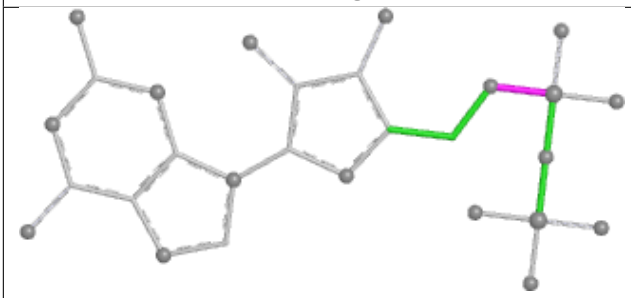

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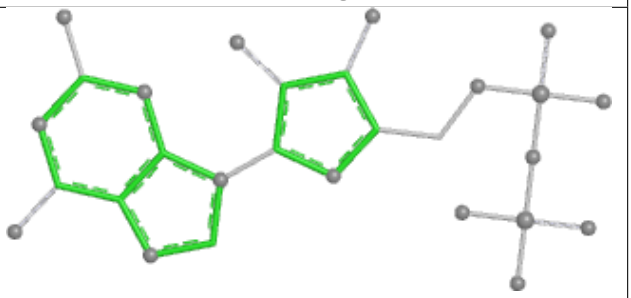
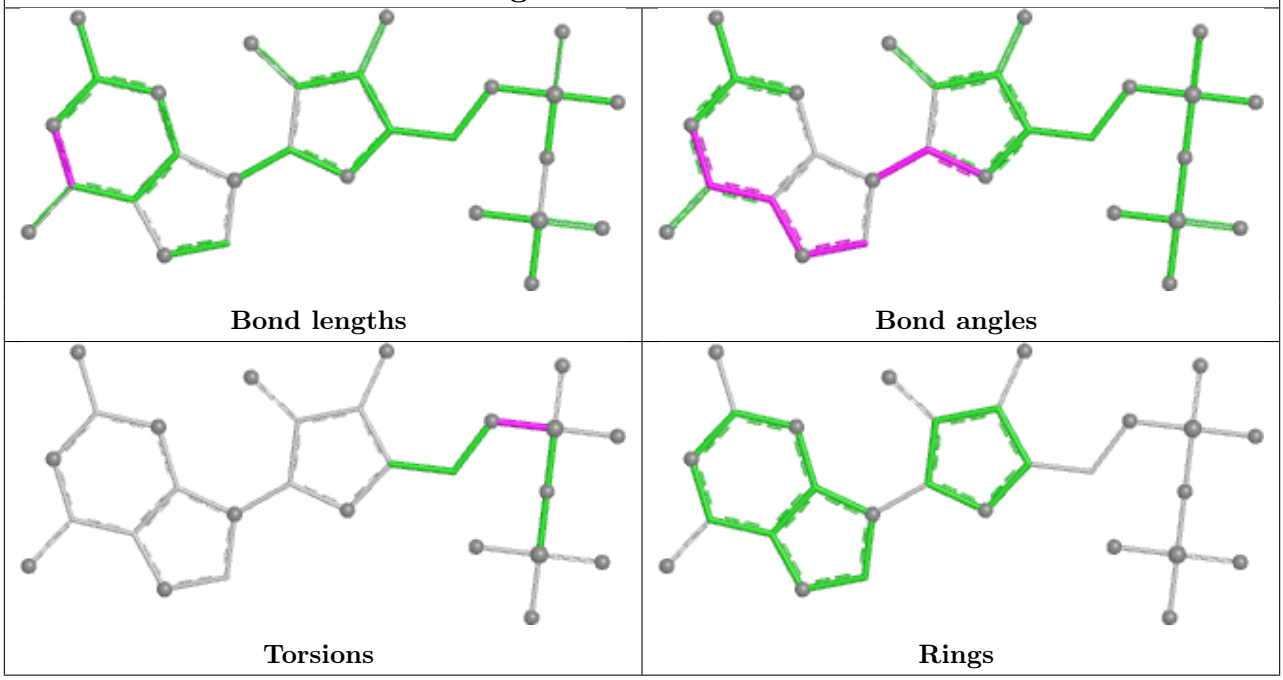
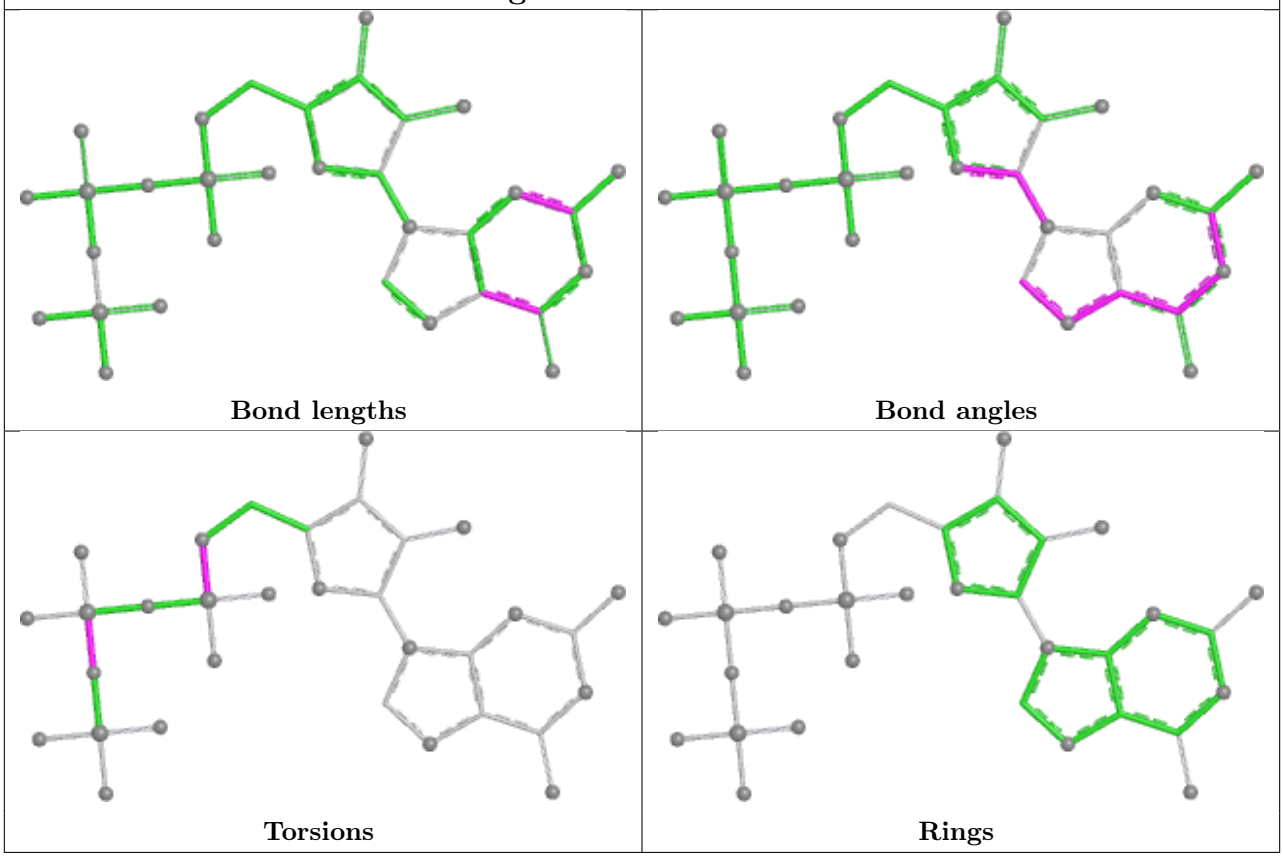


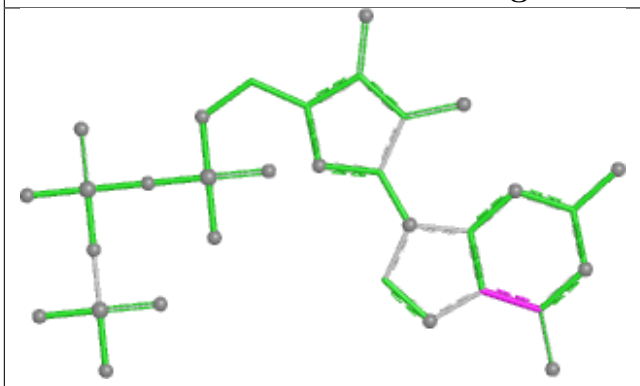
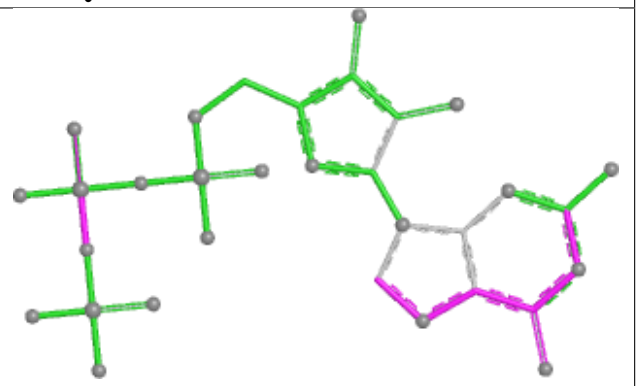
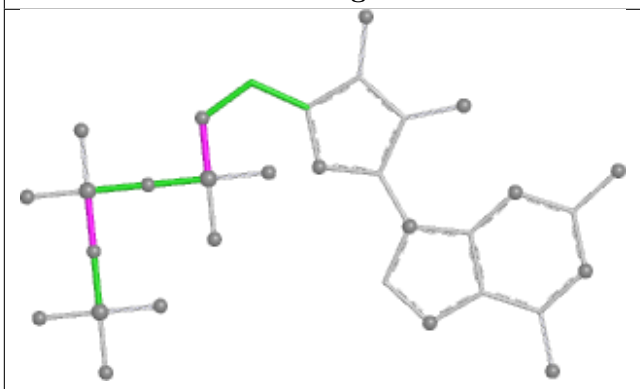
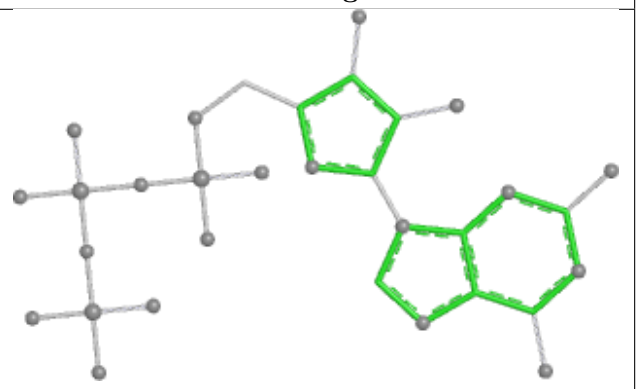
Rings

Ligand GDP EY 501



Ligand GTP GH 602



Ligand GTP BQ 602	
 Bond lengths	 Bond angles
 Torsions	 Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

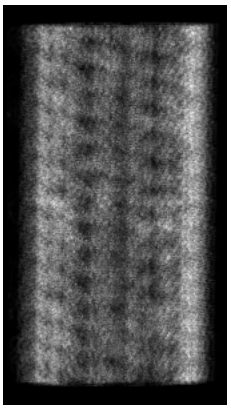
6 Map visualisation (i)

This section contains visualisations of the EMDB entry EMD-47451. These allow visual inspection of the internal detail of the map and identification of artifacts.

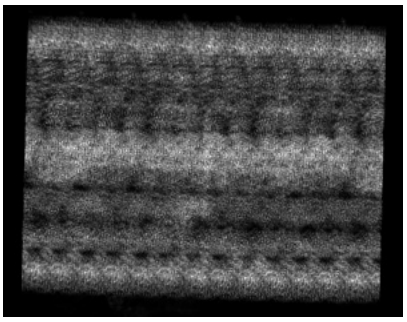
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections (i)

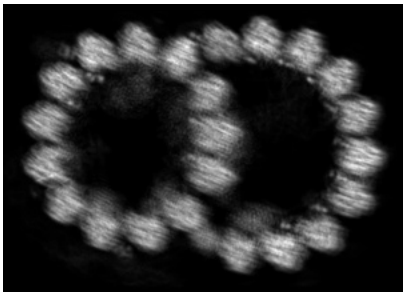
6.1.1 Primary map



X



Y

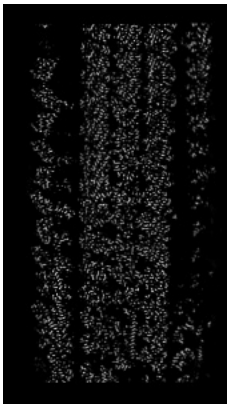


Z

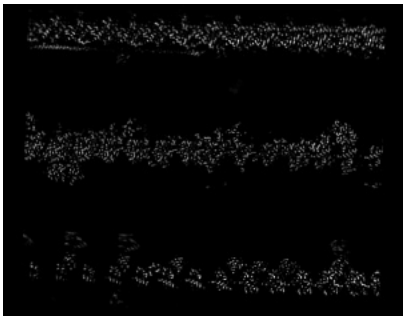
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

6.2.1 Primary map



X Index: 227



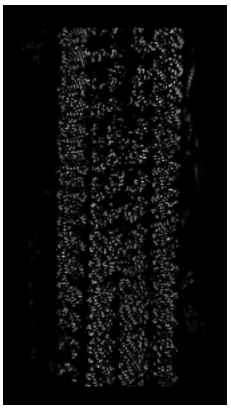
Y Index: 163

Z Index: 291

The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map



X Index: 62

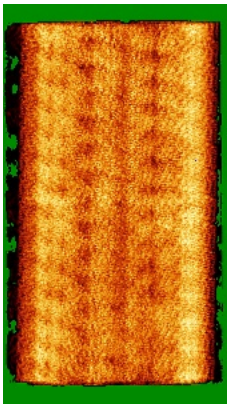
Y Index: 273

Z Index: 295

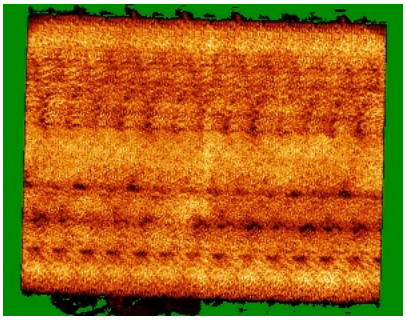
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

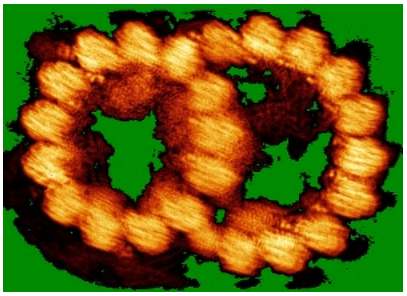
6.4.1 Primary map



X



Y

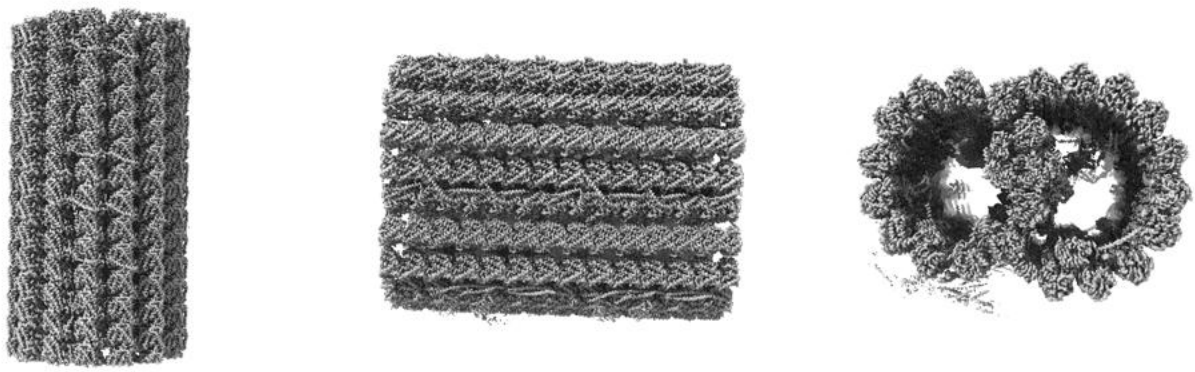


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.17. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

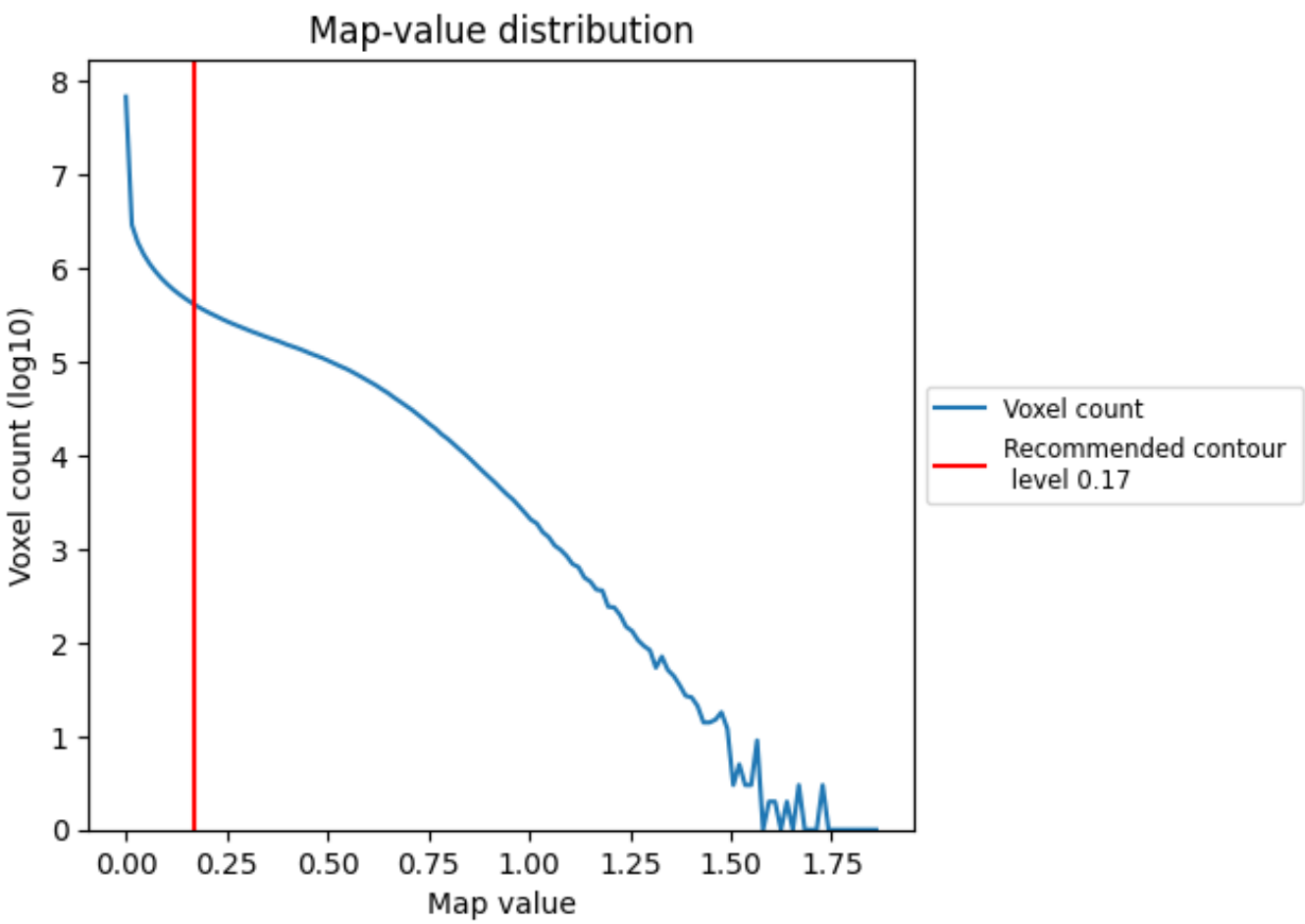
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis (i)

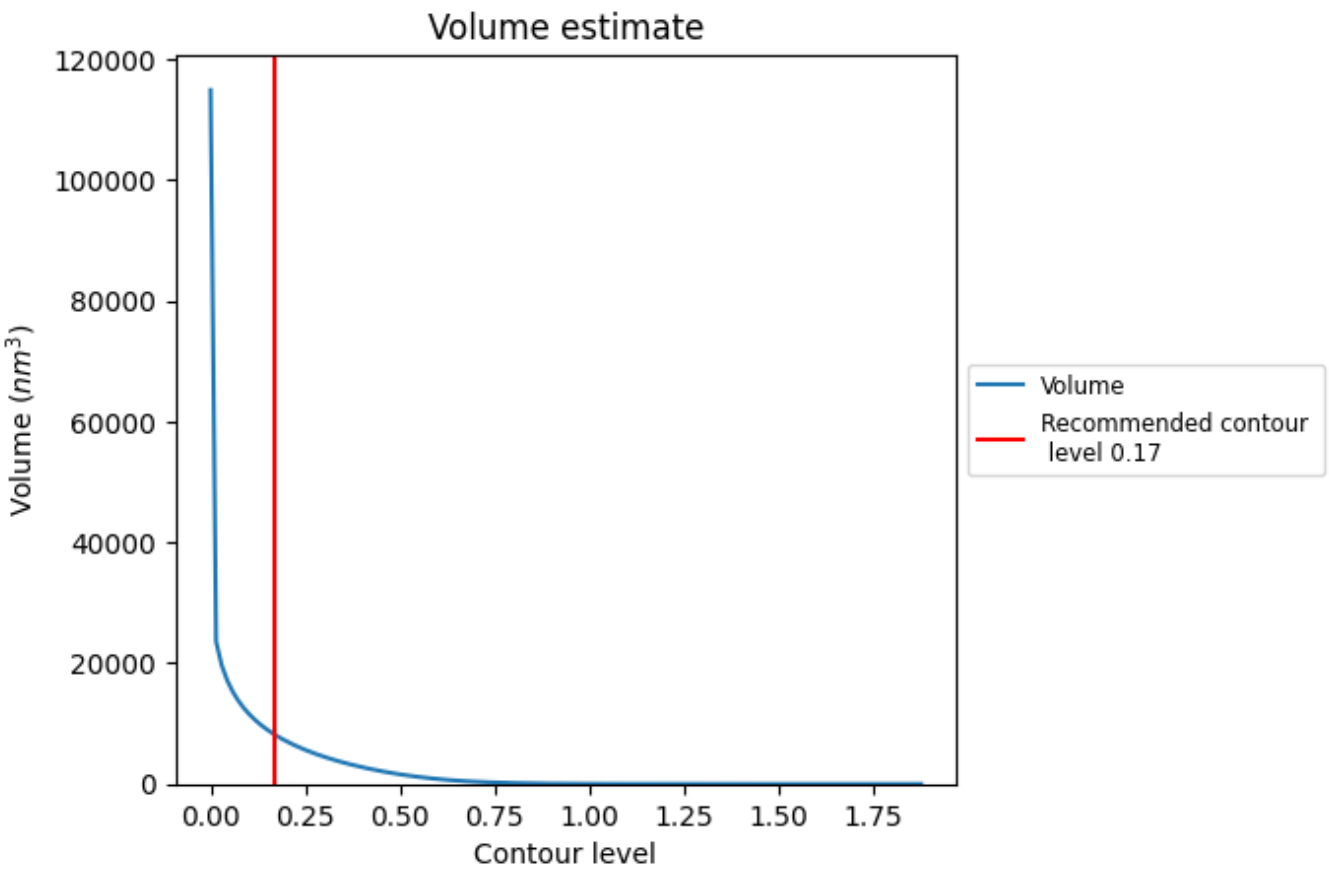
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution (i)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

7.2 Volume estimate (i)



The volume at the recommended contour level is 8147 nm^3; this corresponds to an approximate mass of 7360 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

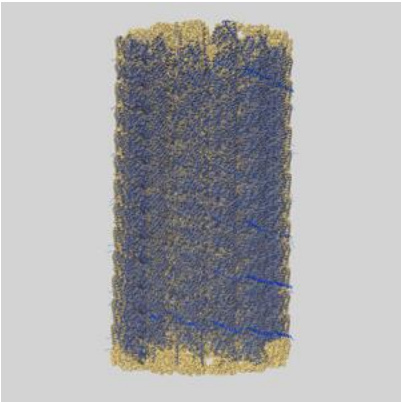
8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

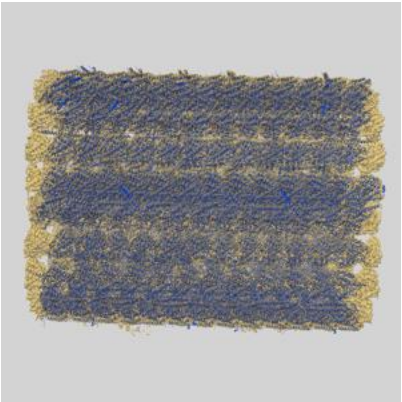
9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-47451 and PDB model 9E2G. Per-residue inclusion information can be found in section 3 on page 69.

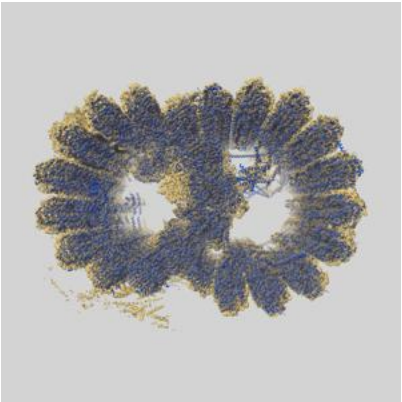
9.1 Map-model overlay (i)



X



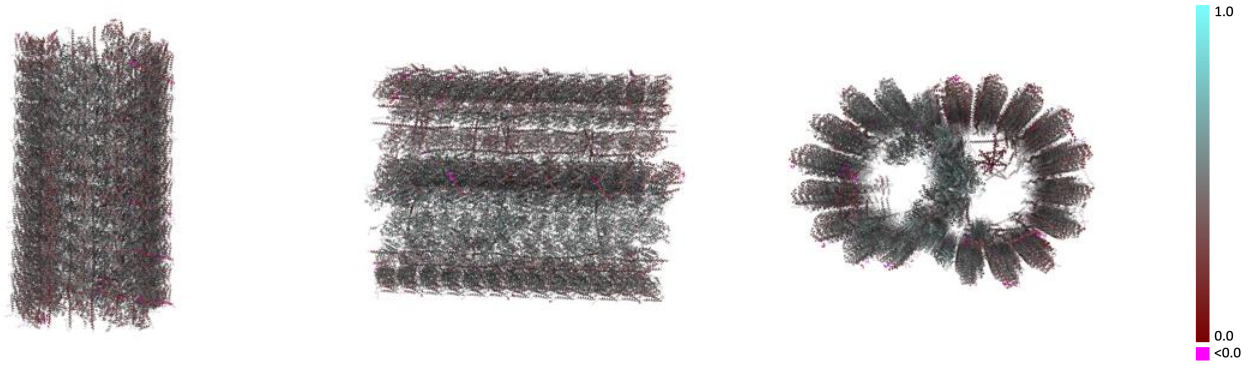
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.17 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

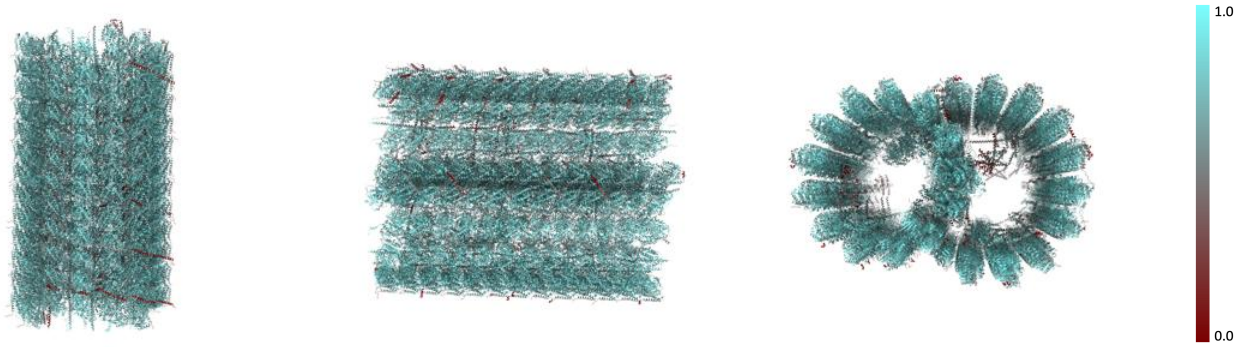
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

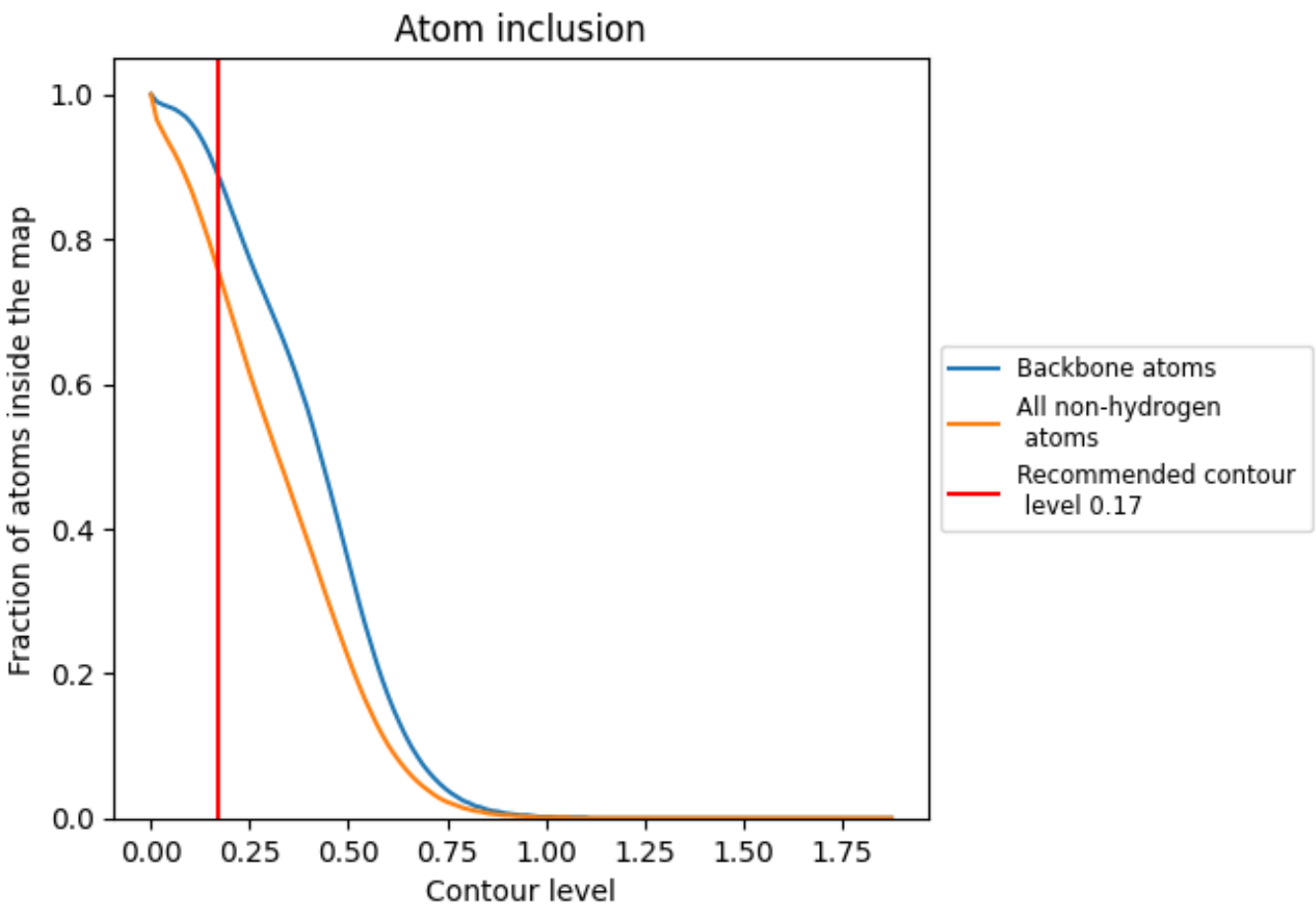
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.17).

9.4 Atom inclusion (i)



At the recommended contour level, 89% of all backbone atoms, 76% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (0.17) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7570	0.4460
0A	0.6420	0.4160
0B	0.6060	0.4160
0C	0.6360	0.4210
0D	0.7970	0.4920
0E	0.6630	0.4650
0F	0.7100	0.4550
0G	0.6220	0.4320
0H	0.7830	0.4950
0I	0.7850	0.4930
0J	0.8180	0.5320
0K	0.8120	0.5220
0M	0.6620	0.3940
0N	0.6230	0.3500
0O	0.6650	0.3370
0P	0.6310	0.3240
0Q	0.8620	0.5220
0R	0.7440	0.4880
0S	0.8490	0.5080
0T	0.7440	0.4860
0U	0.6900	0.4450
0V	0.4830	0.3260
0W	0.6390	0.4210
0X	0.7500	0.4310
0Y	0.7850	0.5150
0Z	0.7210	0.4880
1A	0.8140	0.5240
1B	0.7790	0.4830
1C	0.7630	0.4940
1D	0.7700	0.4620
1E	0.7370	0.4860
1F	0.7030	0.4830
1G	0.6620	0.4670
1H	0.7300	0.4790
1I	0.7800	0.5040

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Chain	Atom inclusion	Q-score
1J	0.6810	0.5000
1K	0.6800	0.4750
1L	0.6740	0.4440
1M	0.6560	0.4570
1N	0.6520	0.4610
1O	0.7970	0.5310
1P	0.7640	0.5120
1Q	0.7380	0.4780
1R	0.7670	0.4900
1S	0.7270	0.4750
1T	0.7080	0.4910
1U	0.7260	0.4950
1V	0.7670	0.4980
1W	0.7750	0.5080
1X	0.8040	0.5110
1Y	0.7750	0.5050
1Z	0.7860	0.5220
2A	0.7500	0.4950
2B	0.7490	0.4780
2C	0.7840	0.4890
2D	0.7340	0.4500
2E	0.7290	0.4420
2F	0.6990	0.4520
2G	0.5850	0.3580
2H	0.5320	0.3120
2I	0.7660	0.4880
2J	0.7490	0.4930
2K	0.7460	0.4960
2L	0.7190	0.4910
2M	0.7010	0.4990
2N	0.8260	0.5140
2O	0.5650	0.3390
2P	0.6100	0.3420
2Q	0.5110	0.3250
2R	0.4520	0.2680
2S	0.5990	0.3030
2T	0.6420	0.3660
2U	0.7190	0.3640
2V	0.5770	0.3560
2W	0.5460	0.3080
2X	0.7140	0.3800
2Y	0.5770	0.3480

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Chain	Atom inclusion	Q-score
2Z	0.5350	0.3150
3A	0.6440	0.3570
3B	0.6340	0.3570
3C	0.5910	0.3190
3D	0.5500	0.3070
3E	0.4160	0.2830
3F	0.5310	0.3650
3G	0.6460	0.4010
3H	0.5480	0.3660
3I	0.5690	0.3940
3J	0.6110	0.3890
3K	0.6060	0.3690
3L	0.6670	0.4010
3M	0.6910	0.4110
3N	0.6180	0.3740
3O	0.6150	0.3750
3P	0.5670	0.3730
3Q	0.5590	0.3490
3R	0.6760	0.4370
3S	0.7590	0.4570
3T	0.7900	0.5230
3U	0.8190	0.5370
3V	0.6530	0.3930
3W	0.5690	0.3960
3X	0.5590	0.3440
3Y	0.6150	0.3750
3Z	0.4020	0.2880
4A	0.3890	0.3010
4B	0.4660	0.3430
4C	0.5120	0.3860
4D	0.4730	0.3400
4E	0.1720	0.1420
4F	0.4990	0.3640
4G	0.2410	0.1250
4H	0.4700	0.3550
4I	0.6920	0.4370
4J	0.7640	0.4900
4K	0.7200	0.4430
4L	0.6370	0.3830
4M	0.3290	0.2340
4N	0.2980	0.2290
4O	0.0670	0.1310

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Chain	Atom inclusion	Q-score
4P	0.4330	0.2620
4Q	0.5880	0.3530
4R	0.6430	0.3570
4S	0.6390	0.4010
4T	0.3660	0.2730
4U	0.5120	0.3430
4V	0.3810	0.2610
4W	0.5780	0.3530
4X	0.7830	0.5370
4Y	0.5520	0.3820
AA	0.7880	0.4830
AB	0.7980	0.4980
AC	0.8020	0.5010
AD	0.8140	0.4980
AE	0.8160	0.5090
AF	0.8310	0.5010
AG	0.7880	0.4860
AH	0.7910	0.4890
AI	0.7870	0.4890
AJ	0.7940	0.4750
AK	0.7700	0.4700
AL	0.7870	0.4700
AM	0.7980	0.4440
AN	0.8140	0.4620
AO	0.8030	0.4590
AP	0.8240	0.4700
AQ	0.8120	0.4700
AR	0.8290	0.4690
AS	0.7940	0.4410
AT	0.7960	0.4520
AU	0.7810	0.4550
AV	0.7880	0.4440
AW	0.7760	0.4400
AX	0.7880	0.4310
AY	0.7630	0.4260
AZ	0.7860	0.4430
BA	0.7690	0.4420
BB	0.7930	0.4570
BC	0.7620	0.4350
BD	0.7760	0.4270
BE	0.8070	0.4490
BF	0.8100	0.4590

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Chain	Atom inclusion	Q-score
BG	0.7930	0.4490
BH	0.8040	0.4520
BI	0.7650	0.4230
BJ	0.7930	0.4260
BK	0.7430	0.4240
BL	0.7690	0.4420
BM	0.7600	0.4560
BN	0.7780	0.4570
BO	0.7600	0.4550
BP	0.7690	0.4490
BQ	0.7790	0.4500
BR	0.7650	0.4510
BS	0.7800	0.4610
BT	0.7690	0.4500
BU	0.7640	0.4450
BV	0.7830	0.4460
BW	0.7450	0.4270
BX	0.7390	0.4050
BY	0.7900	0.4410
BZ	0.7820	0.4470
CA	0.8080	0.4570
CB	0.7810	0.4590
CC	0.7940	0.4520
CD	0.7820	0.4420
CE	0.7740	0.4360
CF	0.7710	0.4380
CG	0.7750	0.4300
CH	0.7750	0.4410
CI	0.7780	0.4350
CJ	0.7500	0.4240
CL	0.7750	0.4420
CM	0.7590	0.4480
CN	0.7810	0.4490
CO	0.7520	0.4450
CP	0.7810	0.4540
CQ	0.7690	0.4450
CR	0.7800	0.4240
CS	0.7530	0.4290
CT	0.7780	0.4390
CU	0.7600	0.4380
CV	0.7920	0.4450
CW	0.7540	0.4210

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Chain	Atom inclusion	Q-score
CX	0.7940	0.4670
CY	0.8010	0.4930
CZ	0.7880	0.4810
DA	0.7840	0.4880
DB	0.7920	0.4790
DC	0.7820	0.4800
DD	0.7860	0.4530
DE	0.7810	0.4780
DF	0.7890	0.4720
DG	0.7890	0.4810
DH	0.7910	0.4660
DI	0.7880	0.4730
DJ	0.8060	0.4590
DK	0.7850	0.4610
DL	0.8010	0.4720
DM	0.7830	0.4640
DN	0.8030	0.4660
DO	0.7940	0.4710
DP	0.8130	0.4690
DQ	0.7870	0.4670
DR	0.8090	0.4780
DS	0.7810	0.4730
DT	0.7970	0.4770
DU	0.7700	0.4670
DV	0.7880	0.4570
DW	0.8000	0.4790
DX	0.8010	0.4960
DY	0.8070	0.4950
DZ	0.8090	0.5040
EA	0.7910	0.4890
EB	0.8020	0.5030
EC	0.8240	0.5000
ED	0.8100	0.4910
EE	0.7850	0.4880
EF	0.7900	0.5000
EG	0.8020	0.4960
EH	0.7930	0.4920
EI	0.7960	0.4870
EJ	0.7970	0.4890
EK	0.8130	0.5030
EL	0.8180	0.5080
EM	0.8150	0.5020

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Chain	Atom inclusion	Q-score
EN	0.8030	0.4920
EO	0.8120	0.4900
EP	0.8070	0.4820
EQ	0.7910	0.4790
ER	0.7840	0.4740
ES	0.7940	0.4860
ET	0.7950	0.4880
EU	0.7960	0.4840
EV	0.8300	0.5180
EW	0.8590	0.5340
EX	0.8390	0.5290
EY	0.8350	0.5210
EZ	0.8300	0.5210
FA	0.8520	0.5410
FB	0.8700	0.5460
FC	0.8350	0.5260
FD	0.8350	0.5120
FE	0.8770	0.5280
FF	0.8660	0.5240
FG	0.8320	0.5150
FH	0.7960	0.4960
FI	0.8120	0.5050
FJ	0.8110	0.5160
FK	0.8040	0.5140
FL	0.7980	0.5010
FM	0.8040	0.5030
FN	0.8170	0.5010
FO	0.7990	0.5030
FP	0.7970	0.4960
FQ	0.8110	0.4980
FR	0.8040	0.4870
FS	0.7790	0.4840
FT	0.7880	0.4830
FU	0.8160	0.4630
FV	0.8280	0.4810
FW	0.8310	0.4970
FX	0.8390	0.4980
FY	0.8160	0.4900
FZ	0.8420	0.4960
GA	0.8350	0.4880
GB	0.8290	0.4830
GC	0.8200	0.4860

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Chain	Atom inclusion	Q-score
GD	0.8330	0.4910
GE	0.8220	0.4780
GF	0.8160	0.4670
GG	0.7930	0.4560
GH	0.6930	0.4200
GI	0.7320	0.4460
GJ	0.7190	0.4470
GK	0.6990	0.4270
GL	0.6330	0.3960
GM	0.6450	0.3740
GN	0.6740	0.3840
GO	0.6750	0.3970
GP	0.6510	0.3990
GQ	0.6670	0.4010
GR	0.6310	0.3840
GS	0.6480	0.3600
GT	0.6190	0.3440
GU	0.7560	0.4160
GV	0.7680	0.4340
GW	0.7560	0.4340
GX	0.7630	0.4340
GY	0.7430	0.4120
GZ	0.7580	0.4080
HA	0.7720	0.4100
HB	0.7630	0.4170
HC	0.7630	0.4180
HD	0.7770	0.4120
HE	0.7530	0.3960
HF	0.7480	0.3800
HG	0.7450	0.4190
HH	0.7770	0.4270
HI	0.7660	0.4340
HJ	0.7720	0.4370
HK	0.7600	0.4310
HL	0.7680	0.4120
HM	0.7630	0.4420
HN	0.7730	0.4490
HO	0.7780	0.4340
HP	0.8020	0.4310
HQ	0.7570	0.4060
HR	0.7430	0.3970
HS	0.7360	0.3900

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Chain	Atom inclusion	Q-score
HT	0.7430	0.4160
HU	0.7830	0.4290
HV	0.7510	0.4380
HW	0.7810	0.4520
HX	0.7500	0.4240
HY	0.7770	0.4140
HZ	0.7450	0.4180
IA	0.7580	0.4390
IB	0.7450	0.4260
IC	0.8020	0.4280
ID	0.7630	0.4150
IE	0.7440	0.4010
IF	0.7510	0.4040
IG	0.7510	0.4270
IH	0.7700	0.4370
II	0.7570	0.4350
IJ	0.7700	0.4410
IK	0.7470	0.4200
IL	0.7750	0.4070
IM	0.7530	0.4170
IN	0.7670	0.4350
IO	0.7450	0.4310
IP	0.7610	0.4280
IQ	0.7510	0.4180
IR	0.7040	0.3930
IS	0.7800	0.3990
IT	0.7910	0.4240
IU	0.7870	0.4230
IV	0.7970	0.4410
IW	0.8090	0.4360
IX	0.7940	0.4100
IY	0.8220	0.4100
IZ	0.8150	0.4340
JA	0.8220	0.4500
JB	0.8120	0.4400
JC	0.8270	0.4400
JD	0.7980	0.4130
JE	0.7180	0.3660
JF	0.7180	0.3890
JG	0.7150	0.3940
JH	0.7060	0.3880
JI	0.7030	0.3840

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Chain	Atom inclusion	Q-score
JJ	0.7210	0.3830
JK	0.7180	0.3900
JL	0.7430	0.4310
JM	0.7640	0.4480
JN	0.7560	0.4480
JO	0.7620	0.4430
JP	0.7510	0.4150
JQ	0.6940	0.3570
JR	0.6960	0.3780
JS	0.7320	0.4090
JT	0.7230	0.4070
JU	0.7390	0.4210
JV	0.7390	0.4100
JW	0.7590	0.4140
JX	0.7450	0.4210
JY	0.7440	0.4350
JZ	0.7420	0.4270
KA	0.7410	0.4260
KB	0.7370	0.4020
KC	0.6720	0.3340
KD	0.7850	0.4130
KE	0.7990	0.4330
KF	0.7970	0.4510
KG	0.8120	0.4600
KH	0.8020	0.4520
KI	0.8050	0.4510
KJ	0.8120	0.4410
KK	0.8160	0.4570
KL	0.7950	0.4540
KM	0.8110	0.4540
KN	0.7970	0.4480
KO	0.7910	0.4280
KP	0.7700	0.3890
KQ	0.7500	0.4390
KR	0.7570	0.4540
KS	0.7860	0.4770
KT	0.7820	0.4790
KU	0.7770	0.4720
KV	0.7700	0.4750
KW	0.7910	0.4770
KX	0.7730	0.4690
KY	0.7710	0.4650

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Chain	Atom inclusion	Q-score
KZ	0.7870	0.4810
LA	0.7850	0.4830
LB	0.7690	0.4540