wwPDB X-ray Structure Validation Summary Report (i)

Jun 18, 2024 – 12:11 AM EDT

PDB ID	:	5W3T
Title	:	Crystal structure of PopP2 in complex with IP6
Authors	:	Song, J.; Zhang, Z.M.
Deposited on	:	2017-06-08
Resolution	:	2.15 Å(reported)

This is a wwPDB X-ray Structure Validation Summary 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/XrayValidationReportHelp
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 (i)) were used in the production of this report:

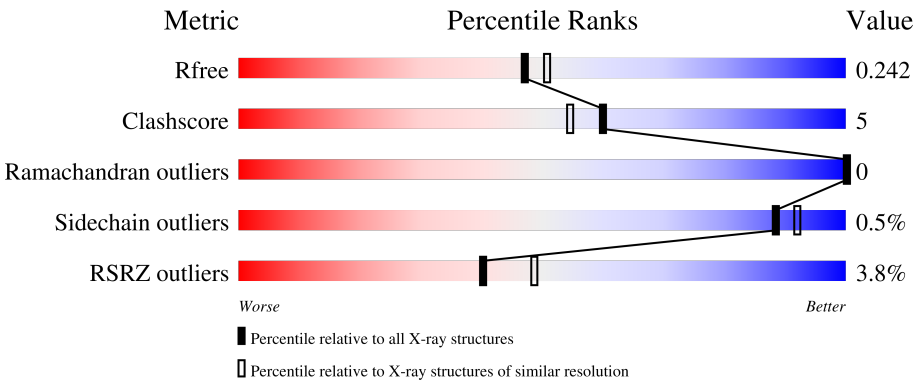
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.37.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.37.1

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 2.15 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)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1479 (2.16-2.16)
Clashscore	141614	1585 (2.16-2.16)
Ramachandran outliers	138981	1560 (2.16-2.16)
Sidechain outliers	138945	1559 (2.16-2.16)
RSRZ outliers	127900	1456 (2.16-2.16)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	352	3% 86% 8% 6%
1	B	352	2% 87% 8% 5%
1	C	352	2% 86% 8% 6%
1	D	352	8% 84% 10% 5%

2 Entry composition (i)

There are 4 unique types of molecules in this entry. The entry contains 10520 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 PopP2 protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	332	2496	1547	463	473	13	0	0	0
1	B	333	2496	1545	466	472	13	0	0	0
1	C	332	2515	1558	468	476	13	0	0	0
1	D	333	2467	1528	457	470	12	0	0	0

There are 48 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	137	SER	-	expression tag	UNP A0A0S4VB05
A	138	GLU	-	expression tag	UNP A0A0S4VB05
A	139	PHE	-	expression tag	UNP A0A0S4VB05
A	140	GLU	-	expression tag	UNP A0A0S4VB05
A	141	LEU	-	expression tag	UNP A0A0S4VB05
A	142	GLY	-	expression tag	UNP A0A0S4VB05
A	143	ALA	-	expression tag	UNP A0A0S4VB05
A	144	PRO	-	expression tag	UNP A0A0S4VB05
A	145	ALA	-	expression tag	UNP A0A0S4VB05
A	146	GLY	-	expression tag	UNP A0A0S4VB05
A	147	ARG	-	expression tag	UNP A0A0S4VB05
A	148	GLN	-	expression tag	UNP A0A0S4VB05
B	137	SER	-	expression tag	UNP A0A0S4VB05
B	138	GLU	-	expression tag	UNP A0A0S4VB05
B	139	PHE	-	expression tag	UNP A0A0S4VB05
B	140	GLU	-	expression tag	UNP A0A0S4VB05
B	141	LEU	-	expression tag	UNP A0A0S4VB05
B	142	GLY	-	expression tag	UNP A0A0S4VB05
B	143	ALA	-	expression tag	UNP A0A0S4VB05
B	144	PRO	-	expression tag	UNP A0A0S4VB05
B	145	ALA	-	expression tag	UNP A0A0S4VB05

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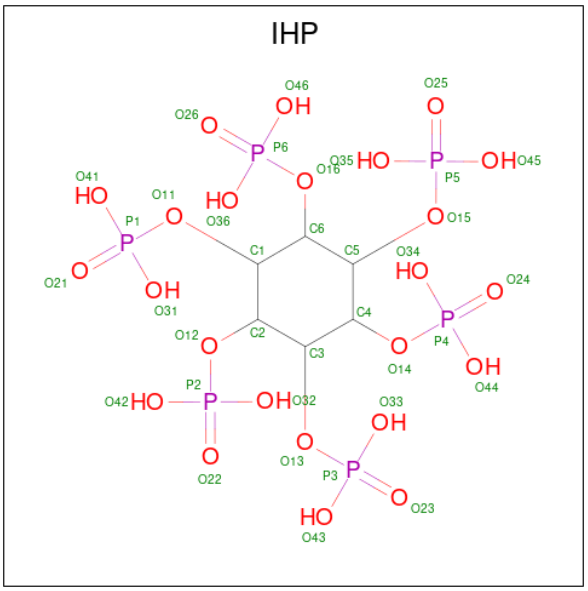
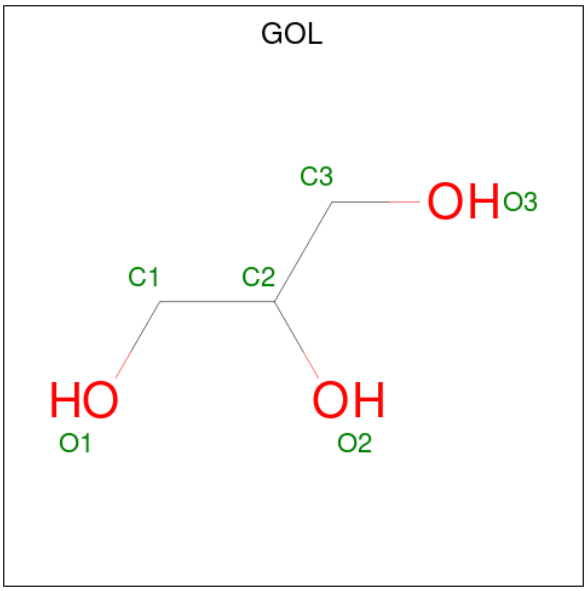
Chain	Residue	Modelled	Actual	Comment	Reference
B	146	GLY	-	expression tag	UNP A0A0S4VB05
B	147	ARG	-	expression tag	UNP A0A0S4VB05
B	148	GLN	-	expression tag	UNP A0A0S4VB05
C	137	SER	-	expression tag	UNP A0A0S4VB05
C	138	GLU	-	expression tag	UNP A0A0S4VB05
C	139	PHE	-	expression tag	UNP A0A0S4VB05
C	140	GLU	-	expression tag	UNP A0A0S4VB05
C	141	LEU	-	expression tag	UNP A0A0S4VB05
C	142	GLY	-	expression tag	UNP A0A0S4VB05
C	143	ALA	-	expression tag	UNP A0A0S4VB05
C	144	PRO	-	expression tag	UNP A0A0S4VB05
C	145	ALA	-	expression tag	UNP A0A0S4VB05
C	146	GLY	-	expression tag	UNP A0A0S4VB05
C	147	ARG	-	expression tag	UNP A0A0S4VB05
C	148	GLN	-	expression tag	UNP A0A0S4VB05
D	137	SER	-	expression tag	UNP A0A0S4VB05
D	138	GLU	-	expression tag	UNP A0A0S4VB05
D	139	PHE	-	expression tag	UNP A0A0S4VB05
D	140	GLU	-	expression tag	UNP A0A0S4VB05
D	141	LEU	-	expression tag	UNP A0A0S4VB05
D	142	GLY	-	expression tag	UNP A0A0S4VB05
D	143	ALA	-	expression tag	UNP A0A0S4VB05
D	144	PRO	-	expression tag	UNP A0A0S4VB05
D	145	ALA	-	expression tag	UNP A0A0S4VB05
D	146	GLY	-	expression tag	UNP A0A0S4VB05
D	147	ARG	-	expression tag	UNP A0A0S4VB05
D	148	GLN	-	expression tag	UNP A0A0S4VB05

- Molecule 2 is INOSITOL HEXAKISPHOSPHATE (three-letter code: IHP) (formula: $C_6H_{18}O_{24}P_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	O	P		
2	A	1	36	6	24	6	0	0
			Total	C	O	P		
2	B	1	36	6	24	6	0	0
			Total	C	O	P		
2	C	1	36	6	24	6	0	0
			Total	C	O	P		
2	D	1	36	6	24	6	0	0

- Molecule 3 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
3	A	1	6	3	3	0	0
			Total	C	O		
3	B	1	6	3	3	0	0

- Molecule 4 is water.

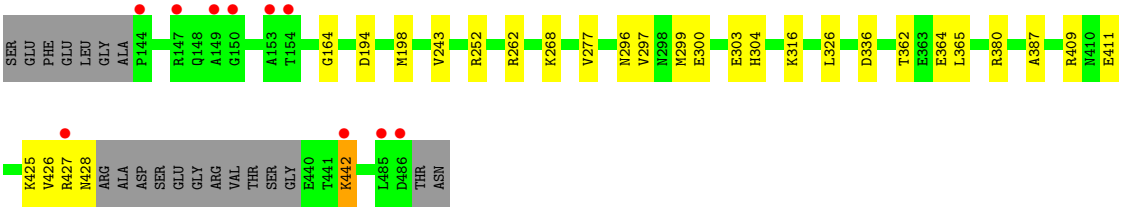
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
4	A	96	96	96	0	0
			Total	O		
4	B	104	104	104	0	0
			Total	O		
4	C	114	114	114	0	0
			Total	O		
4	D	76	76	76	0	0

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 electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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.

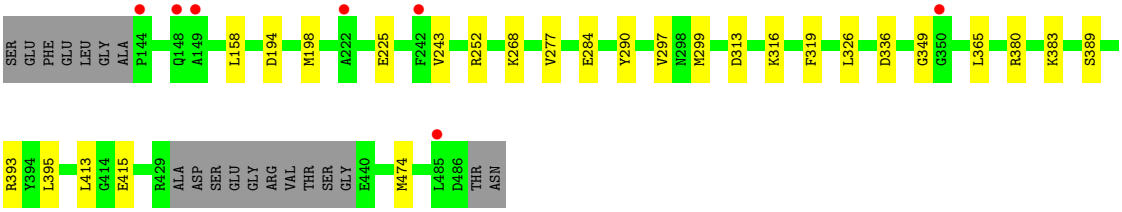
• Molecule 1: PopP2 protein

Chain A:



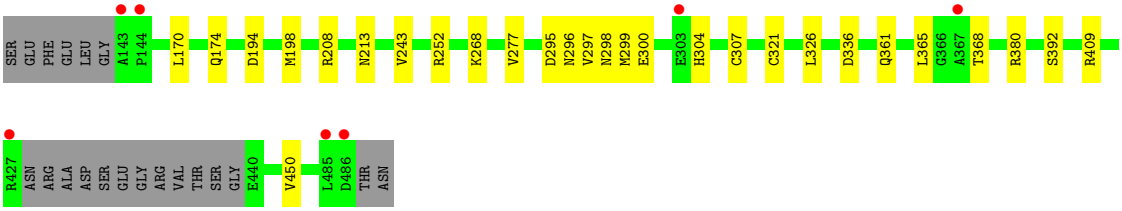
• Molecule 1: PopP2 protein

Chain B:



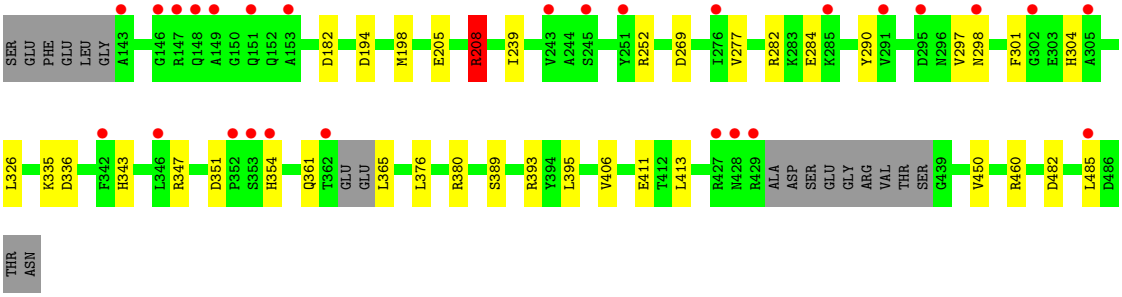
• Molecule 1: PopP2 protein

Chain C:



• Molecule 1: PopP2 protein

Chain D:


SER
GLU
PHE
GLU
LEU
GLY
A143
G146
R147
Q148
A149
G150
Q151
Q152
A153
D182
D194
M198
E205
R208
I239
V243
A244
S245
Y251
R252
D269
I276
V277
R282
K283
E284
K285
Y290
V291
D295
N296
V297
N298
F301
G302
E303
H304
A305
L326
K335
D336
F342
H343
L346
R347
D351
P352
S353
H354
Q361
T362
GLU
GLU
L365
L376
R380
S389
R393
Y394
L395
V406
E411
T412
L413
R427
M428
R429
ALA
ASP
SER
GLU
GLY
ARG
VAL
THR
SER
G439
V450
R460
D482
L485
D486
THR
ASN

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	77.99Å 78.96Å 79.90Å 103.36° 112.12° 111.54°	Depositor
Resolution (Å)	66.35 – 2.15 66.35 – 2.15	Depositor EDS
% Data completeness (in resolution range)	93.5 (66.35-2.15) 93.5 (66.35-2.15)	Depositor EDS
R_{merge}	0.07	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.36 (at 2.14Å)	Xtriage
Refinement program	PHENIX 1.9_1692	Depositor
R, R_{free}	0.189 , 0.243 0.190 , 0.242	Depositor DCC
R_{free} test set	1856 reflections (2.46%)	wwPDB-VP
Wilson B-factor (Å^2)	43.2	Xtriage
Anisotropy	0.280	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.32 , 46.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.207 for -l,-h,h+k+l 0.207 for -k,h+k+l,-h 0.024 for k,h,-h-k-l 0.025 for l,-h-k-l,h 0.136 for -h-k-l,l,k 0.025 for -h,-l,-k 0.018 for h+k+l,-k,-l	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	10520	wwPDB-VP
Average B, all atoms (Å^2)	60.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.87% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.

[2]Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

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: IHP, GOL

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	A	0.31	0/2537	0.49	1/3438 (0.0%)
1	B	0.28	0/2535	0.45	0/3434
1	C	0.28	0/2556	0.47	0/3461
1	D	0.26	0/2505	0.48	1/3399 (0.0%)
All	All	0.28	0/10133	0.47	2/13732 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	D	208	ARG	NE-CZ-NH1	-6.39	117.10	120.30
1	A	442	LYS	CD-CE-NZ	5.32	123.94	111.70

There are no chirality outliers.

There are no planarity outliers.

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	A	2496	0	2447	22	0
1	B	2496	0	2451	20	0
1	C	2515	0	2479	22	0
1	D	2467	0	2393	29	0
2	A	36	0	6	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	B	36	0	6	1	0
2	C	36	0	6	1	0
2	D	36	0	6	0	0
3	A	6	0	8	0	0
3	B	6	0	8	1	0
4	A	96	0	0	5	1
4	B	104	0	0	2	1
4	C	114	0	0	9	0
4	D	76	0	0	11	0
All	All	10520	0	9810	91	1

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 5.

The worst 5 of 91 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)
1:B:319:PHE:O	4:B:601:HOH:O	1.92	0.87
1:D:304:HIS:O	4:D:601:HOH:O	1.96	0.83
1:A:252:ARG:NH2	1:A:336:ASP:OD2	2.15	0.79
1:D:205:GLU:OE1	1:D:208:ARG:NH1	2.18	0.76
2:C:501:IHP:O43	4:C:601:HOH:O	2.03	0.75

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:694:HOH:O	4:B:703:HOH:O[1_666]	2.12	0.08

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 X-ray entries followed by that with respect to entries of similar resolution.

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	A	328/352 (93%)	322 (98%)	6 (2%)	0	100	100
1	B	329/352 (94%)	324 (98%)	5 (2%)	0	100	100
1	C	328/352 (93%)	322 (98%)	6 (2%)	0	100	100
1	D	327/352 (93%)	320 (98%)	7 (2%)	0	100	100
All	All	1312/1408 (93%)	1288 (98%)	24 (2%)	0	100	100

There are no Ramachandran outliers to report.

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 X-ray entries followed by that with respect to entries of similar resolution.

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	A	259/291 (89%)	258 (100%)	1 (0%)	91	93
1	B	257/291 (88%)	256 (100%)	1 (0%)	91	93
1	C	262/291 (90%)	261 (100%)	1 (0%)	91	93
1	D	250/291 (86%)	248 (99%)	2 (1%)	81	86
All	All	1028/1164 (88%)	1023 (100%)	5 (0%)	88	92

All (5) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	428	ASN
1	B	225	GLU
1	C	304	HIS
1	D	208	ARG
1	D	361	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (4) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	179	GLN
1	A	304	HIS

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Mol	Chain	Res	Type
1	C	161	GLN
1	C	481	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 monosaccharides in this entry.

5.6 Ligand geometry (i)

6 ligands are modelled in this entry.

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	$\#\|Z\| > 2$
2	IHP	B	501	-	36,36,36	2.68	14 (38%)	54,60,60	1.47	7 (12%)
2	IHP	A	501	-	36,36,36	2.88	14 (38%)	54,60,60	1.53	9 (16%)
3	GOL	B	502	-	5,5,5	0.37	0	5,5,5	0.52	0
2	IHP	C	501	-	36,36,36	3.34	16 (44%)	54,60,60	1.96	13 (24%)
2	IHP	D	501	-	36,36,36	2.66	14 (38%)	54,60,60	1.47	9 (16%)
3	GOL	A	502	-	5,5,5	0.35	0	5,5,5	0.59	0

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
2	IHP	B	501	-	-	3/30/54/54	0/1/1/1
2	IHP	A	501	-	-	7/30/54/54	0/1/1/1
3	GOL	B	502	-	-	0/4/4/4	-
2	IHP	C	501	-	-	6/30/54/54	0/1/1/1
2	IHP	D	501	-	-	2/30/54/54	0/1/1/1
3	GOL	A	502	-	-	0/4/4/4	-

The worst 5 of 58 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	501	IHP	P4-O14	8.65	1.75	1.59
2	A	501	IHP	P3-O13	7.73	1.73	1.59
2	C	501	IHP	P3-O13	7.40	1.73	1.59
2	D	501	IHP	P1-O11	7.36	1.73	1.59
2	C	501	IHP	P1-O11	7.03	1.72	1.59

The worst 5 of 38 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	501	IHP	C5-C6-C1	5.52	122.50	110.41
2	D	501	IHP	C5-C4-C3	5.43	122.29	110.41
2	B	501	IHP	C5-C4-C3	5.23	121.86	110.41
2	A	501	IHP	C5-C6-C1	5.07	121.51	110.41
2	C	501	IHP	O13-C3-C2	4.97	120.41	108.69

There are no chirality outliers.

5 of 18 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	501	IHP	C3-O13-P3-O23
2	B	501	IHP	C1-O11-P1-O21
2	C	501	IHP	C2-C3-O13-P3
2	C	501	IHP	C4-C3-O13-P3
2	C	501	IHP	C4-O14-P4-O24

There are no ring outliers.

3 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	501	IHP	1	0
3	B	502	GOL	1	0

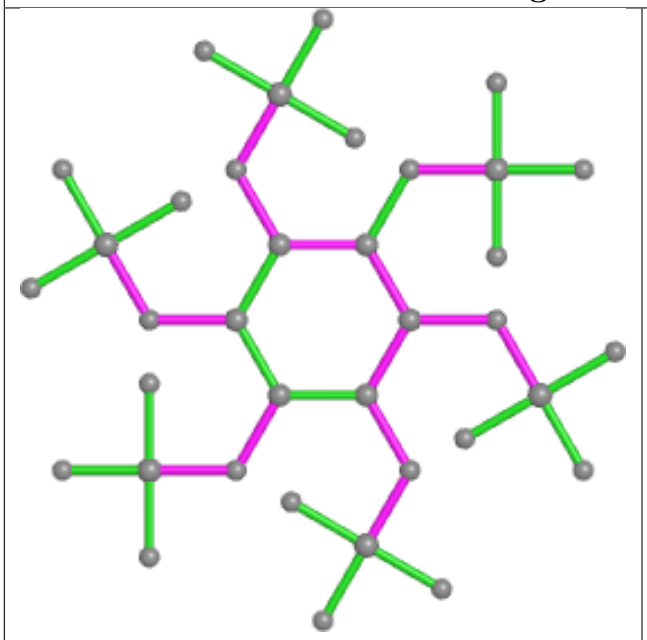
Continued on next page...

Continued from previous page...

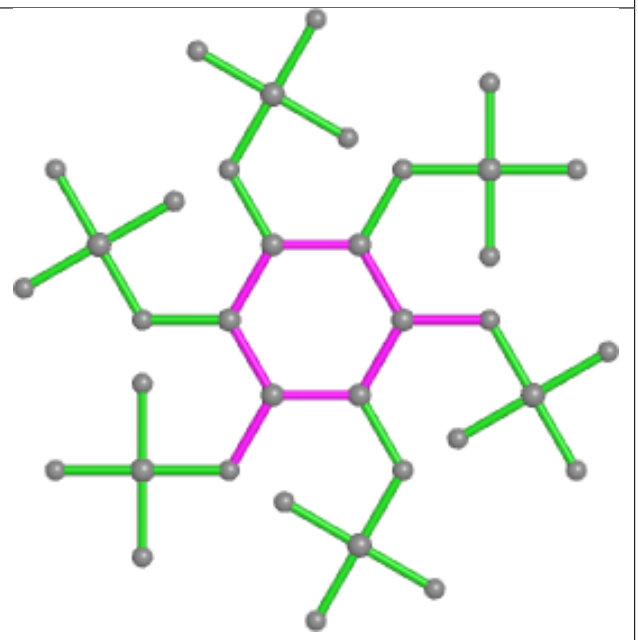
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	C	501	IHP	1	0

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.

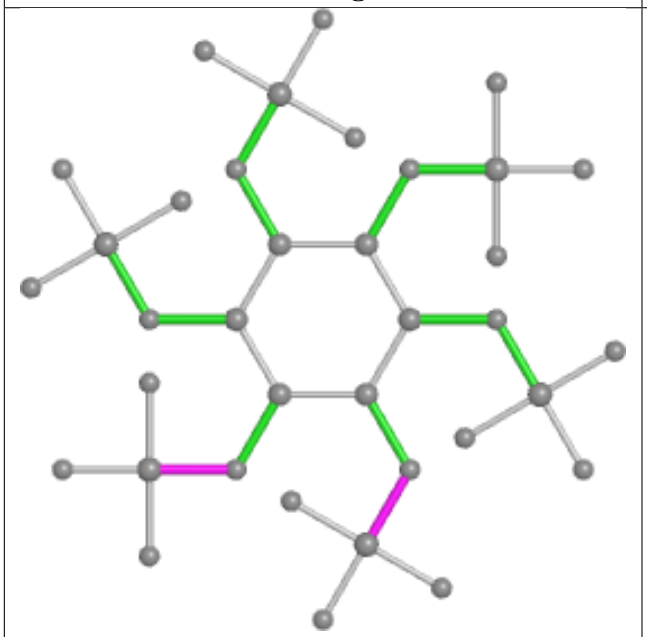
Ligand IHP B 501



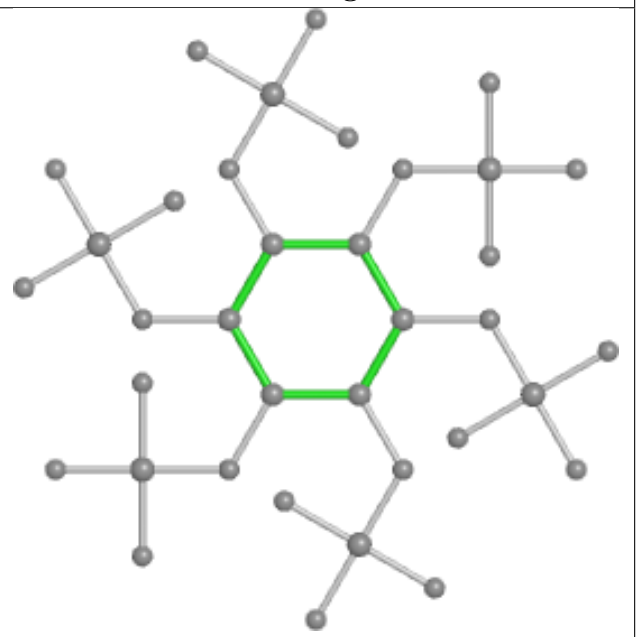
Bond lengths



Bond angles

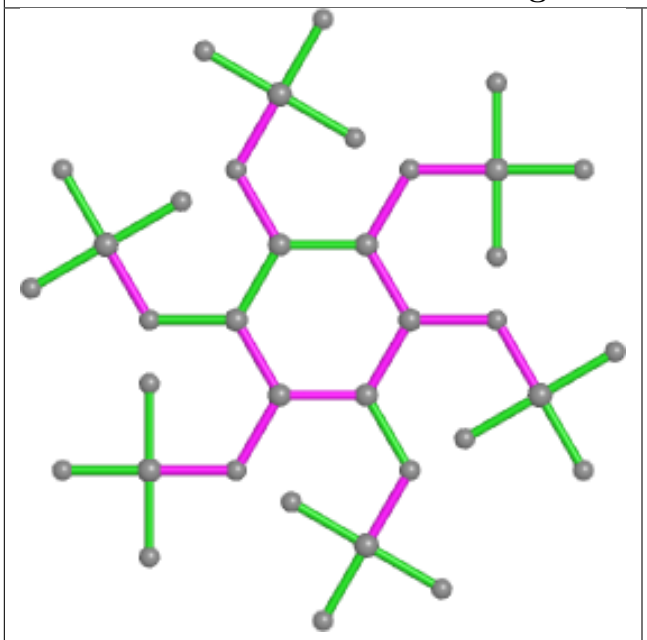


Torsions

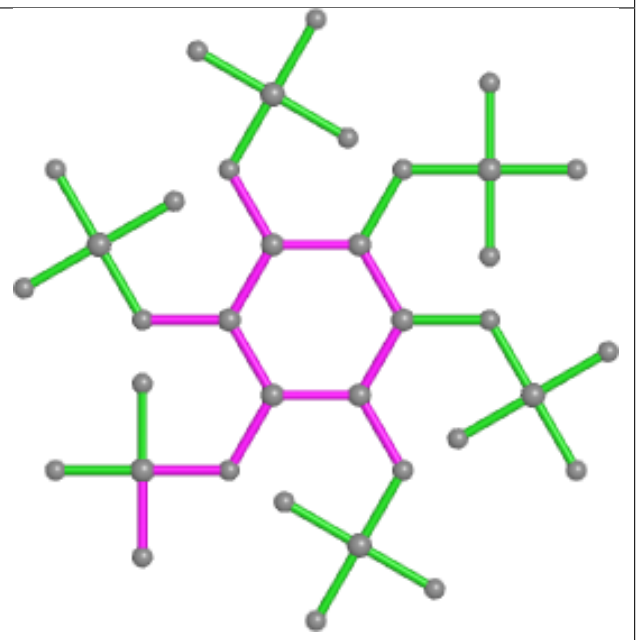


Rings

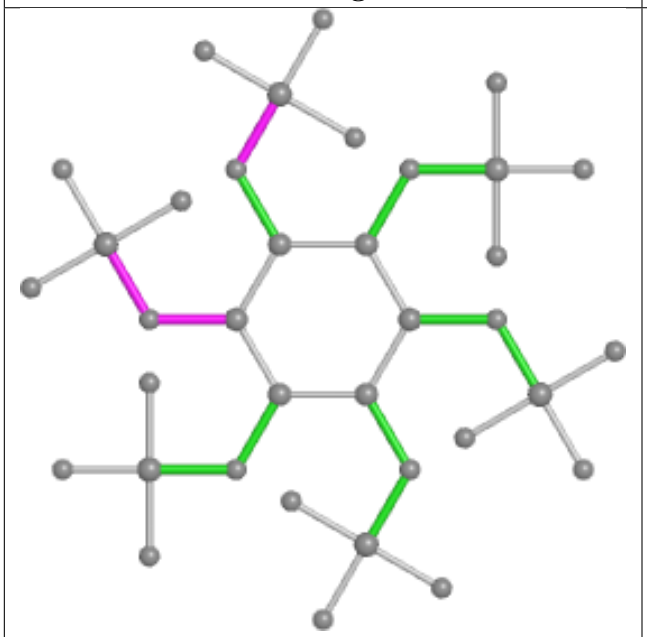
Ligand IHP A 501



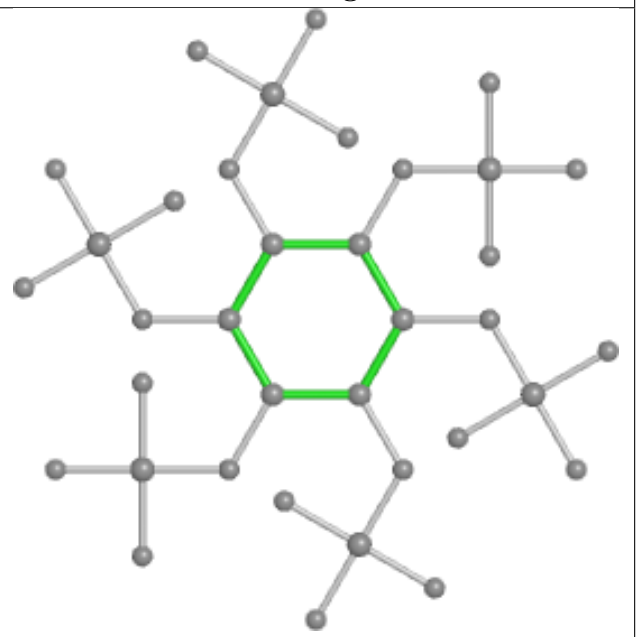
Bond lengths



Bond angles

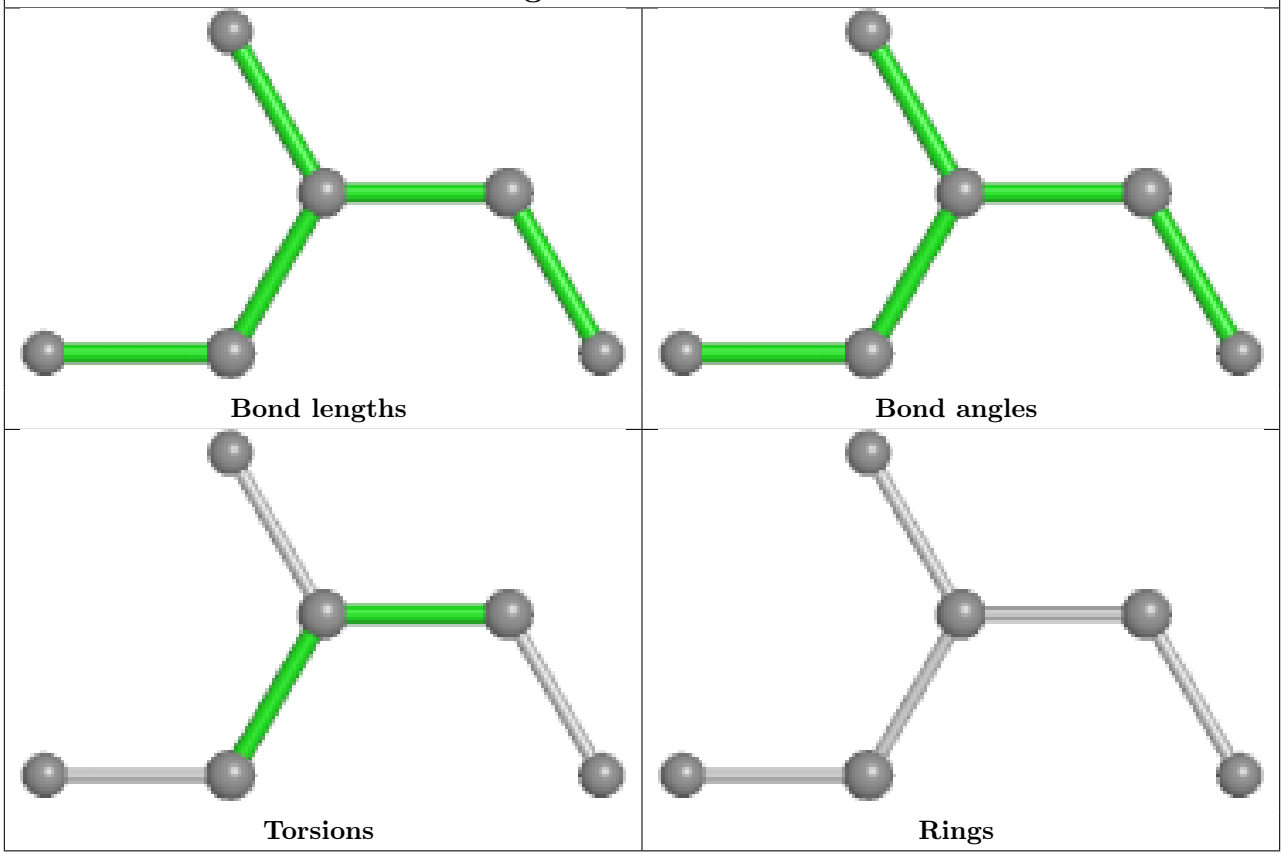


Torsions

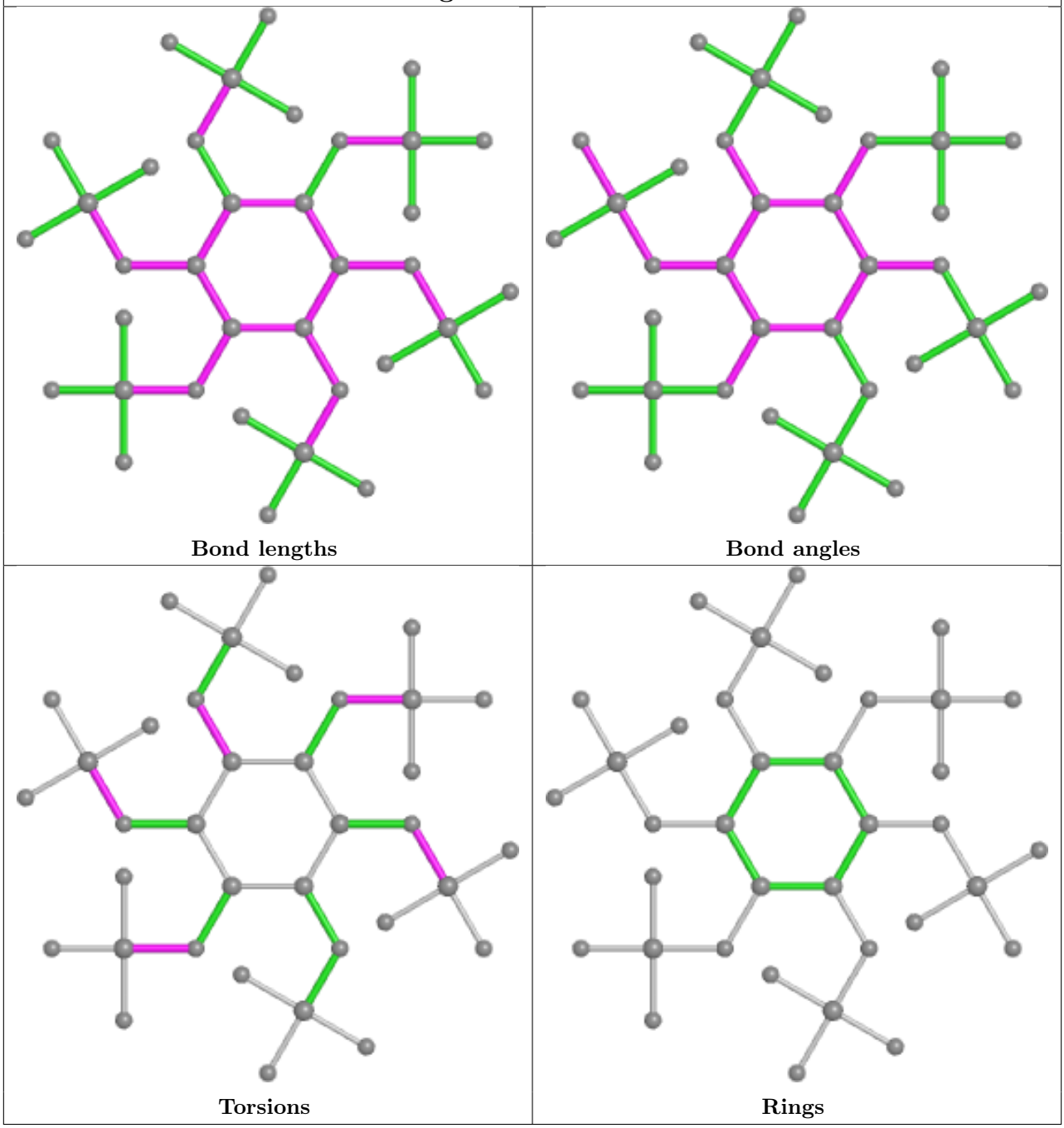


Rings

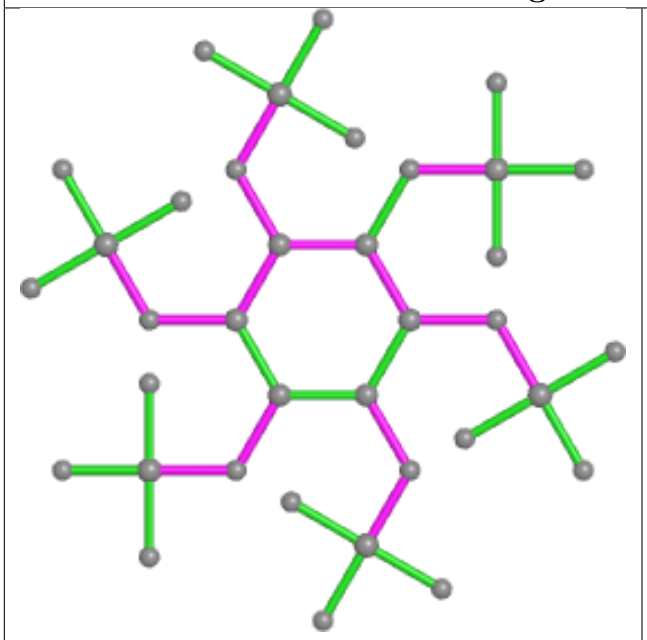
Ligand GOL B 502



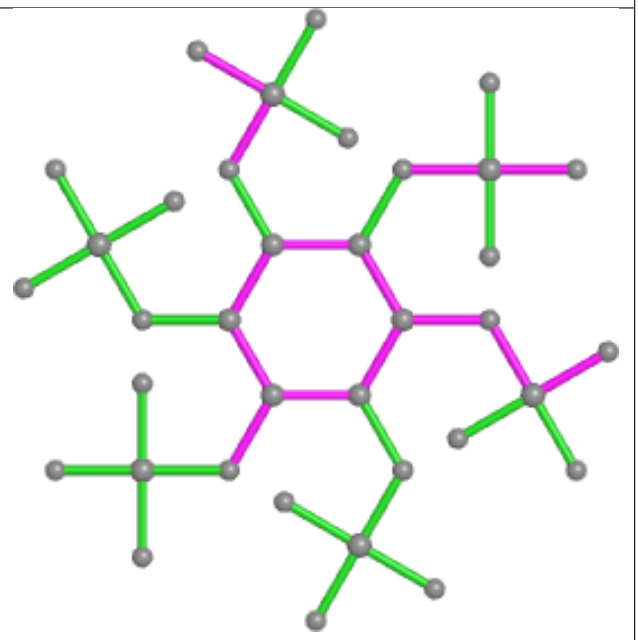
Ligand IHP C 501



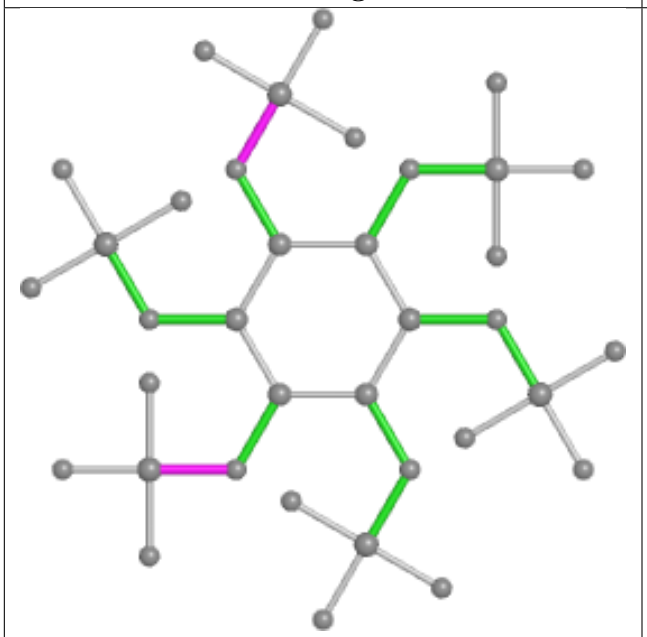
Ligand IHP D 501



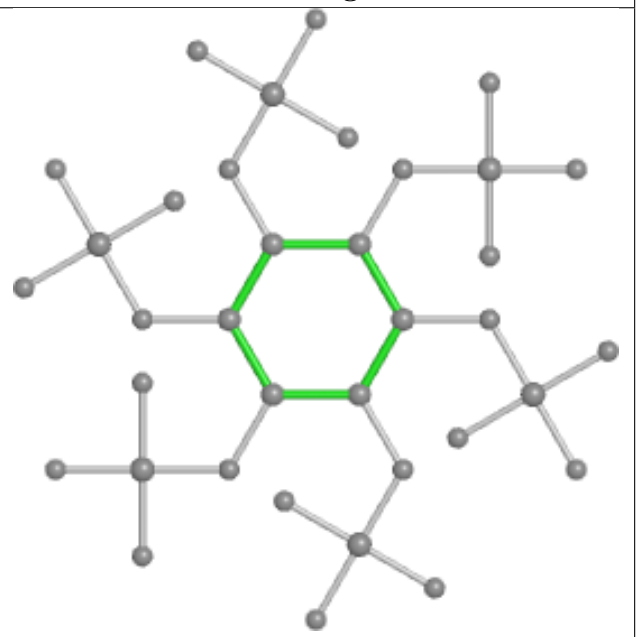
Bond lengths



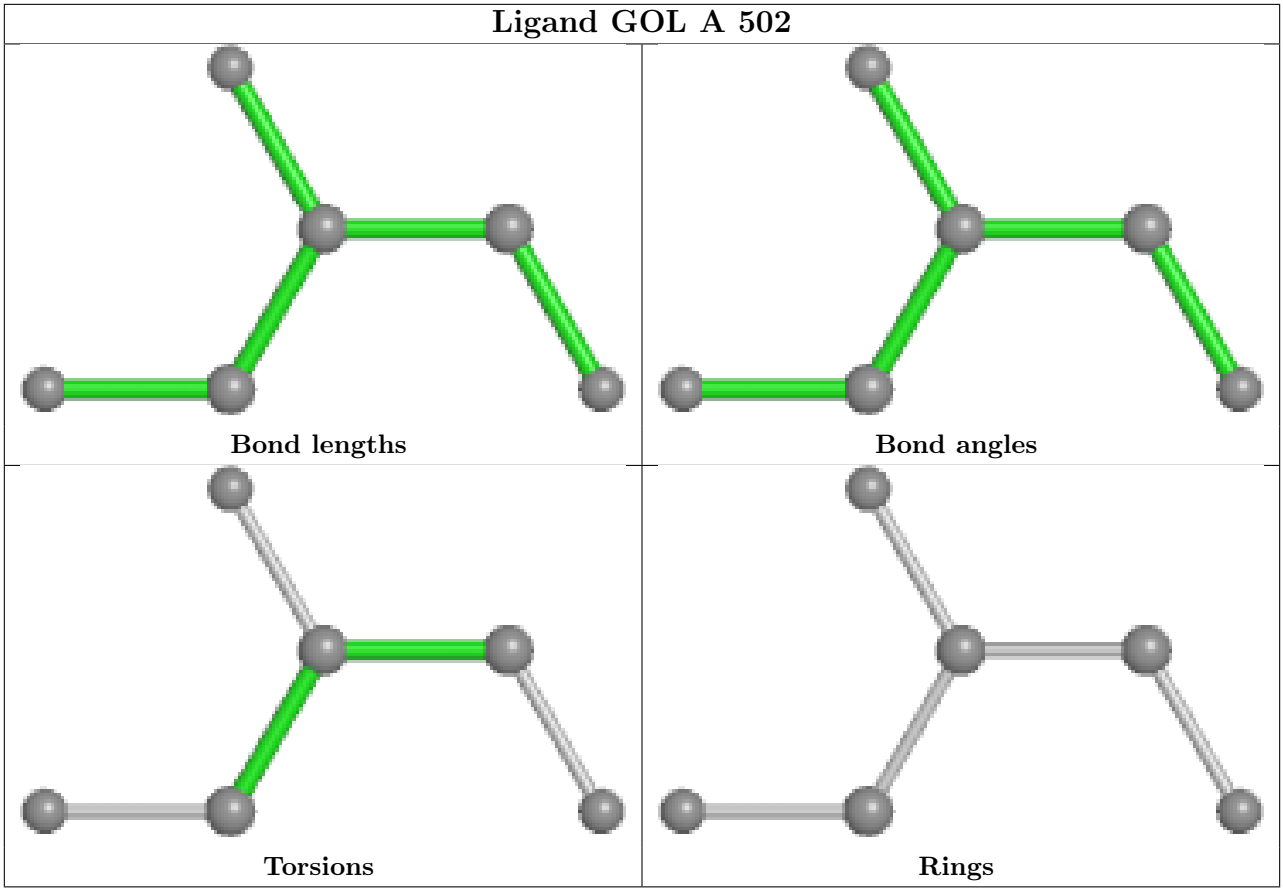
Bond angles



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 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	332/352 (94%)	0.20	10 (3%)	50	59	33, 52, 88, 106	0
1	B	333/352 (94%)	0.20	7 (2%)	63	71	33, 54, 92, 106	0
1	C	332/352 (94%)	0.17	7 (2%)	63	71	31, 51, 88, 115	0
1	D	333/352 (94%)	0.55	27 (8%)	12	16	32, 68, 119, 144	0
All	All	1330/1408 (94%)	0.28	51 (3%)	40	49	31, 56, 101, 144	0

The worst 5 of 51 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	D	143	ALA	5.8
1	A	153	ALA	4.6
1	C	485	LEU	4.6
1	D	352	PRO	4.5
1	A	150	GLY	4.3

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

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

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

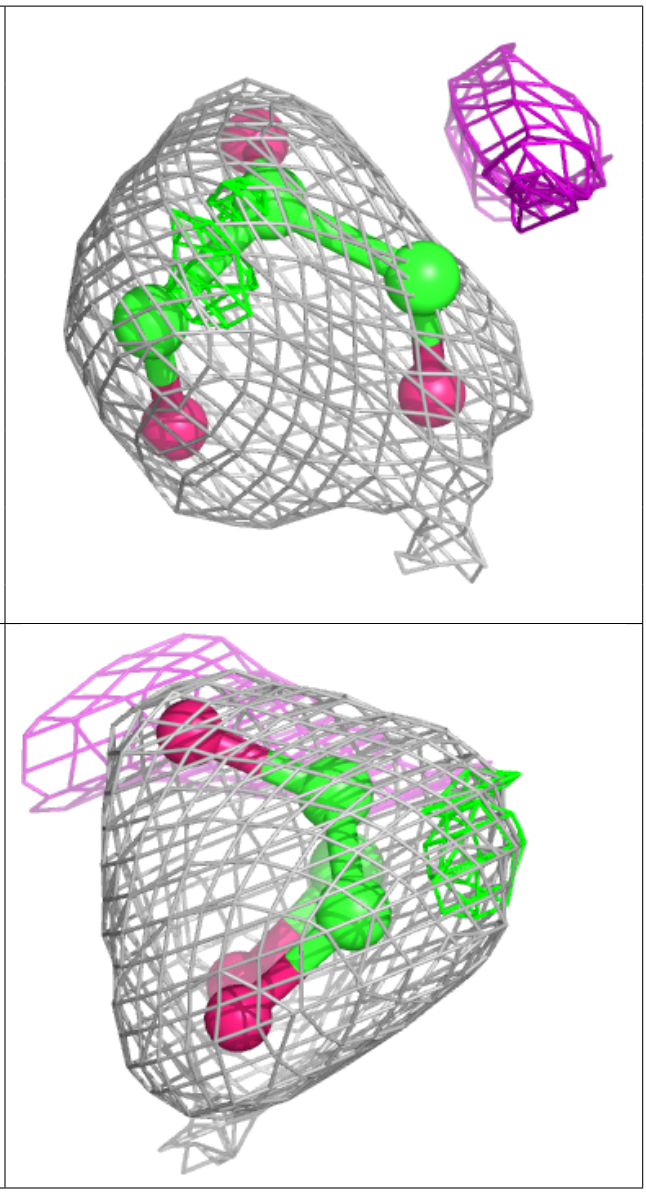
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
3	GOL	A	502	6/6	0.92	0.25	75,85,92,94	0
3	GOL	B	502	6/6	0.92	0.23	78,82,84,89	0
2	IHP	C	501	36/36	0.95	0.17	34,49,123,132	0
2	IHP	D	501	36/36	0.97	0.15	36,50,68,78	0
2	IHP	B	501	36/36	0.97	0.16	33,51,73,75	0
2	IHP	A	501	36/36	0.97	0.16	36,52,74,90	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

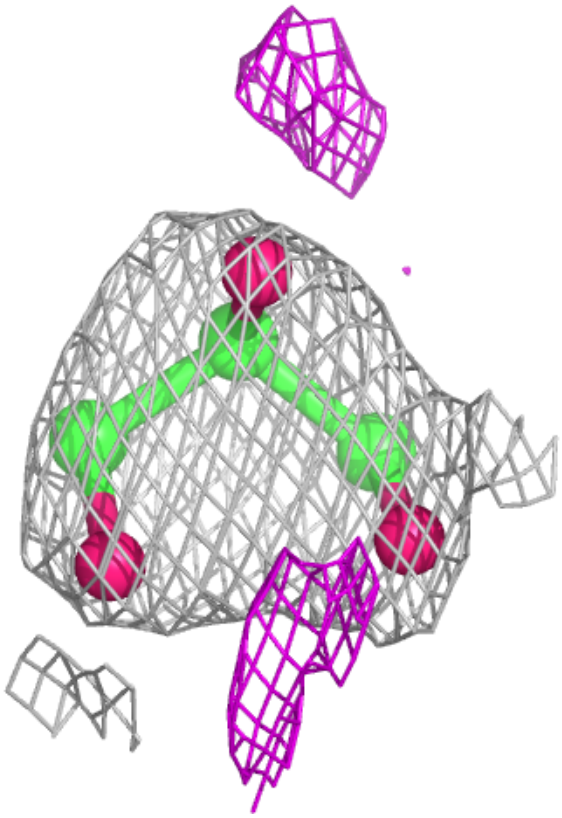
Electron density around GOL A 502:

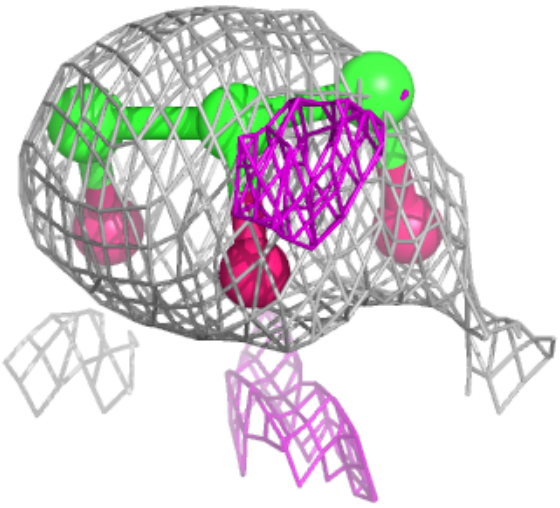
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative) and green (positive)

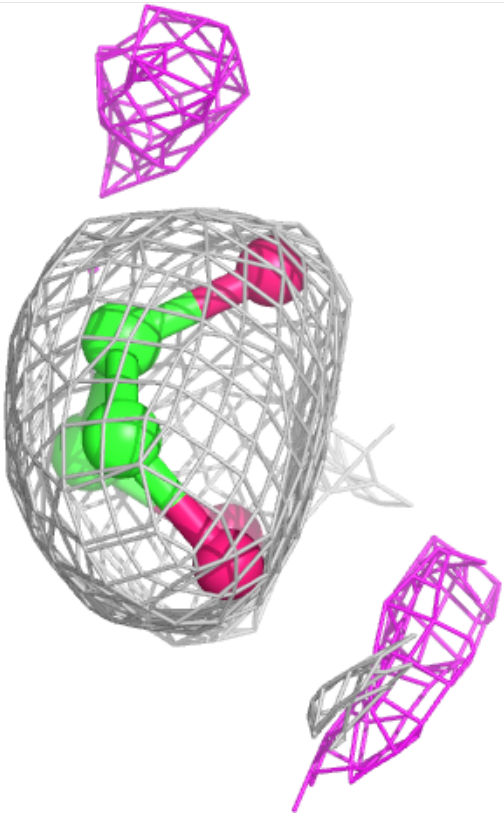


Electron density around GOL B 502:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

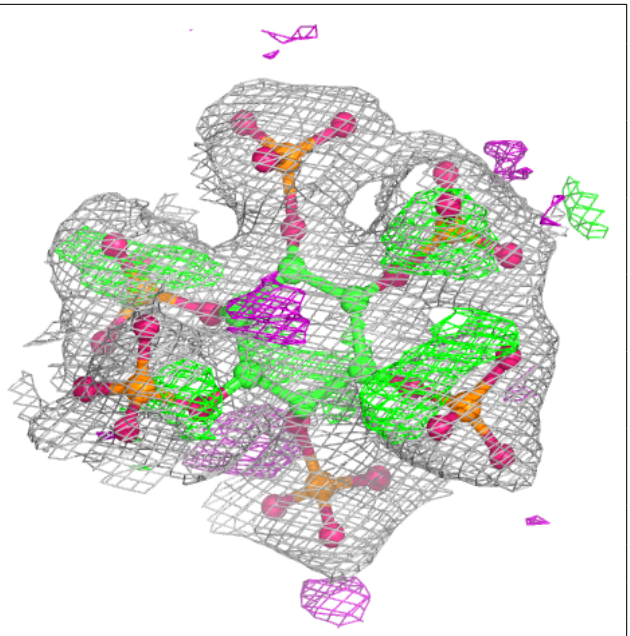


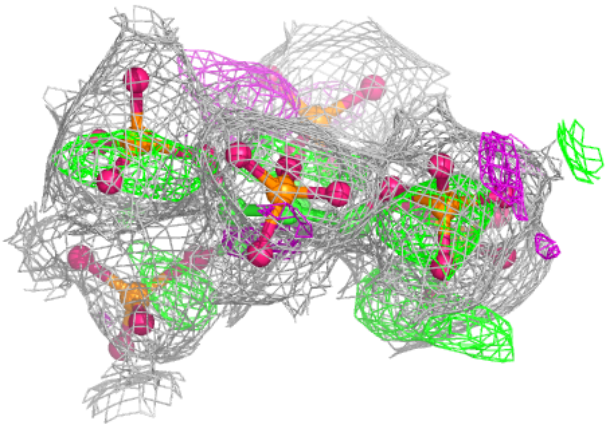


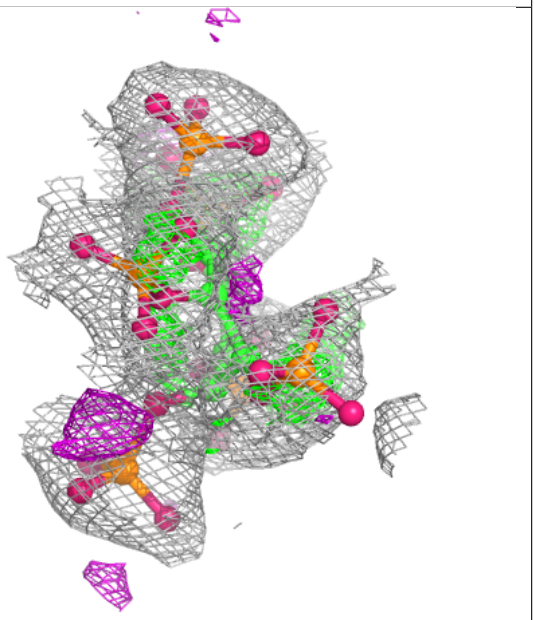


Electron density around IHP C 501:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

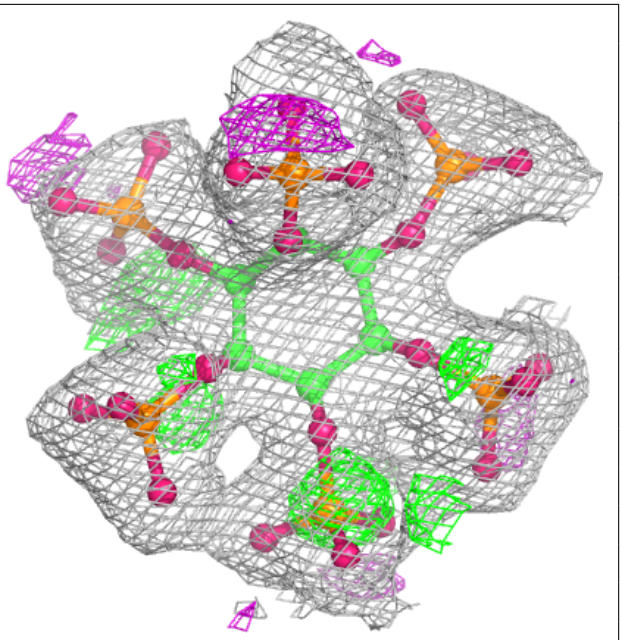


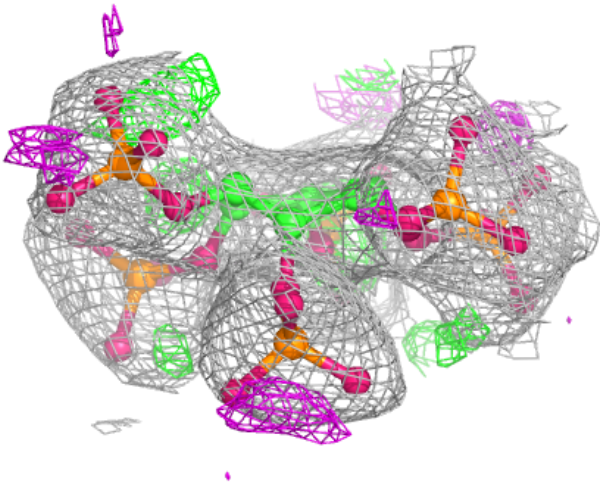


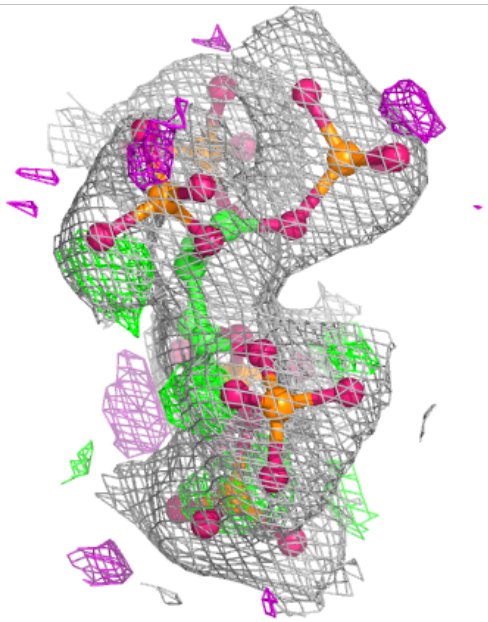


Electron density around IHP D 501:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

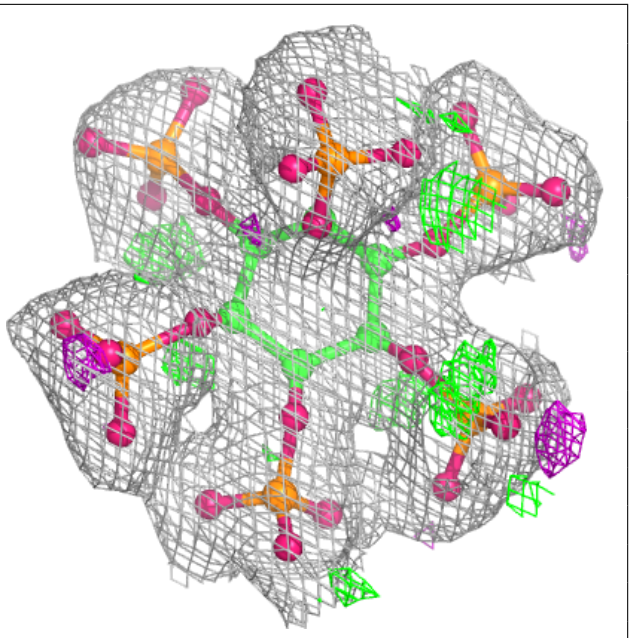


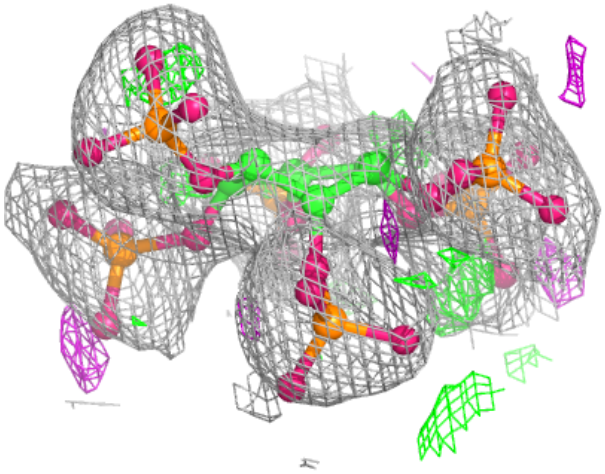


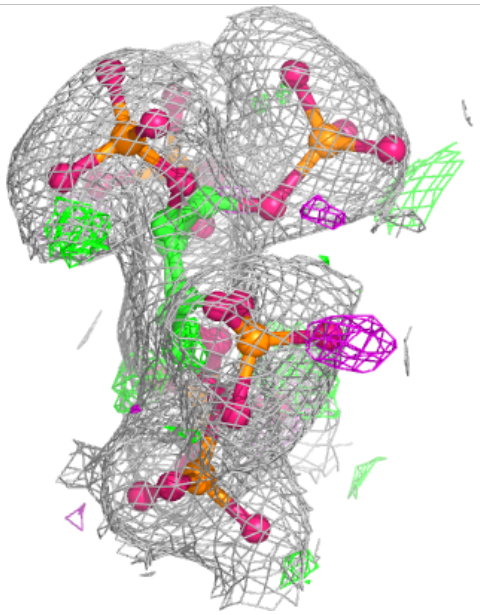


Electron density around IHP B 501:

2mF_o-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

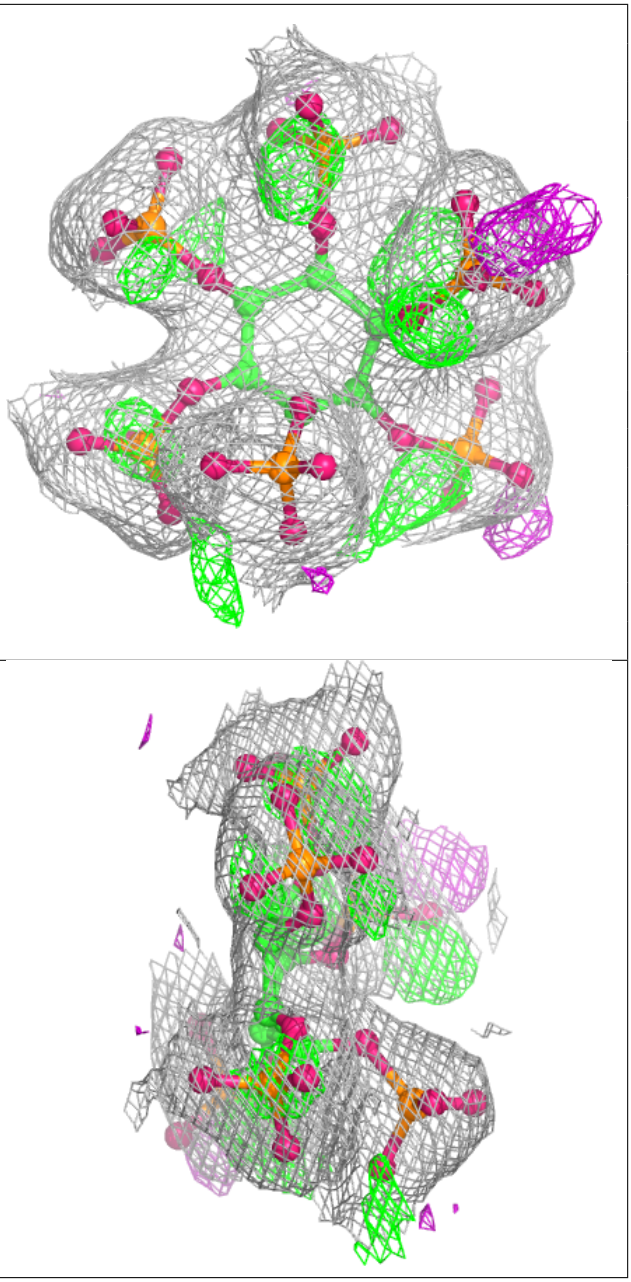






Electron density around IHP A 501:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers (i)

There are no such residues in this entry.