wwPDB X-ray Structure Validation Summary Report (i)

Sep 23, 2023 – 03:14 PM EDT

PDB ID	:	5T1T
Title	:	Irak4 kinase - compound 1 co-structure
Authors	:	Fischmann, T.O.
Deposited on	:	2016-08-22
Resolution	:	2.34 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:

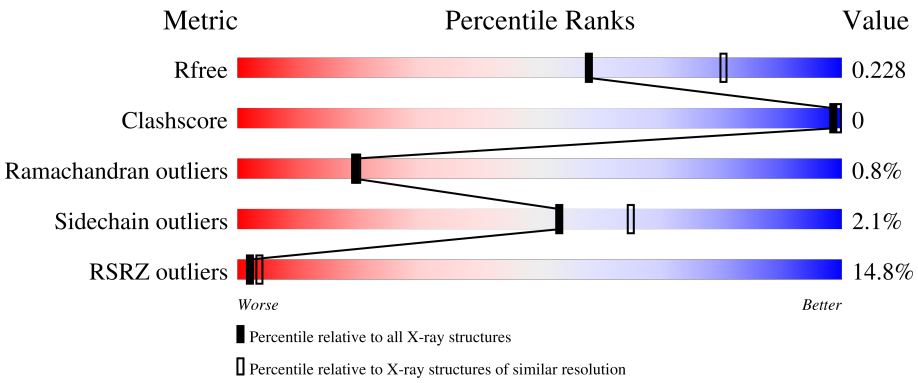
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

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 2.34 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	2096 (2.36-2.32)
Clashscore	141614	2193 (2.36-2.32)
Ramachandran outliers	138981	2159 (2.36-2.32)
Sidechain outliers	138945	2160 (2.36-2.32)
RSRZ outliers	127900	2067 (2.36-2.32)

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	301	13% 92% • 5%
1	B	301	17% 91% • 6%
1	C	301	10% 90% 5% • •
1	D	301	16% 91% • 5%

2 Entry composition (i)

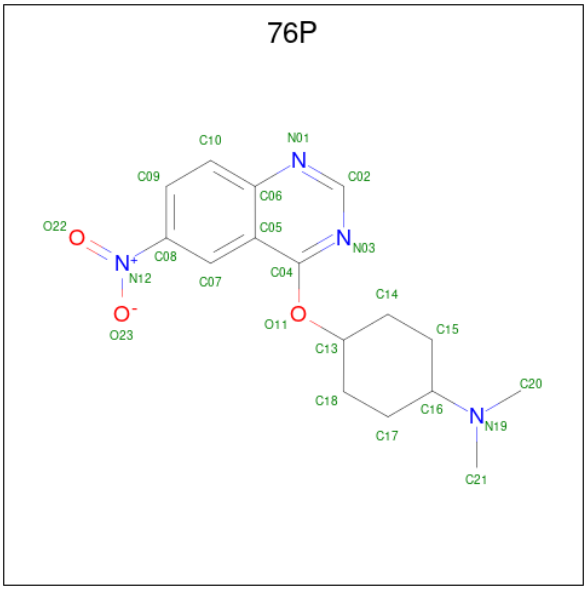
There are 3 unique types of molecules in this entry. The entry contains 9166 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Interleukin-1 receptor-associated kinase 4.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
			Total	C	N	O	P	S			
1	A	286	2253	1411	380	445	3	14	0	0	2
1	B	283	2221	1390	375	439	3	14	0	0	2
1	C	289	2265	1418	382	448	3	14	0	0	2
1	D	286	2254	1412	380	445	3	14	0	0	1

- Molecule 2 is {N}, {N}-dimethyl-4-(6-nitroquinazolin-4-yl)oxy-cyclohexan-1-amine (three-letter code: 76P) (formula: $C_{16}H_{20}N_4O_3$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
2	A	1	23	16	4	3	0	0
2	B	1	23	16	4	3	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
2	C	1	23	16	4	3	0	0
			Total	C	N	O		
2	D	1	23	16	4	3	0	0

- Molecule 3 is water.

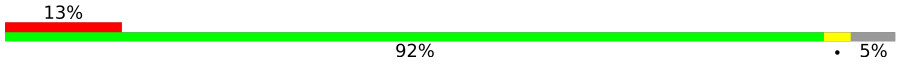
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
3	A	17	17	17	0	0
			Total	O		
3	B	26	26	26	0	0
			Total	O		
3	C	17	17	17	0	0
			Total	O		
3	D	21	21	21	0	0

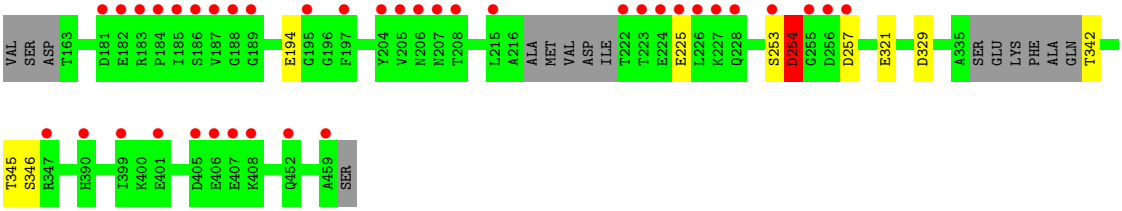
3 Residue-property plots (i)

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: Interleukin-1 receptor-associated kinase 4

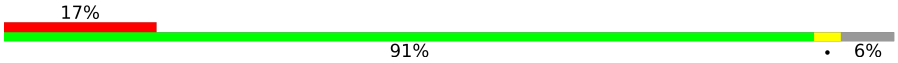
Chain A:

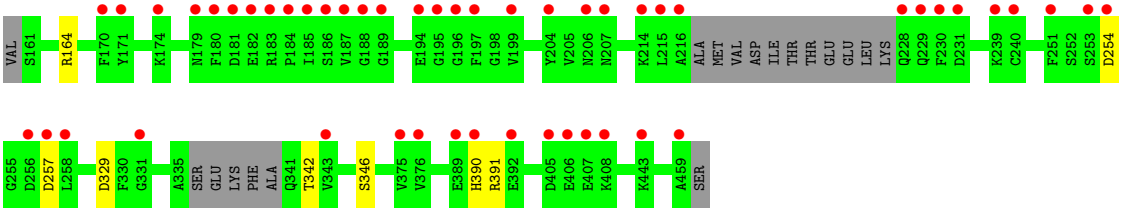




• Molecule 1: Interleukin-1 receptor-associated kinase 4

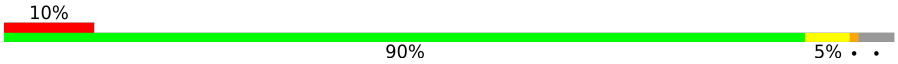
Chain B:

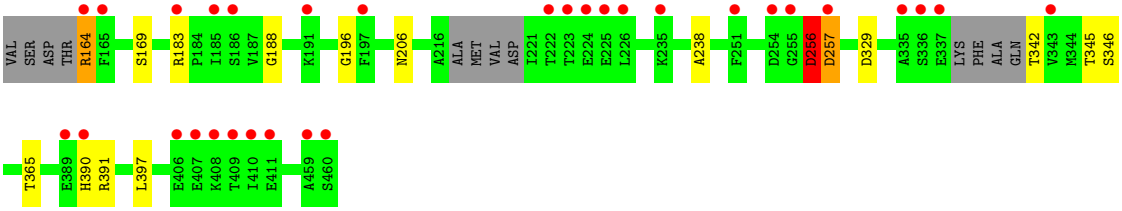




• Molecule 1: Interleukin-1 receptor-associated kinase 4

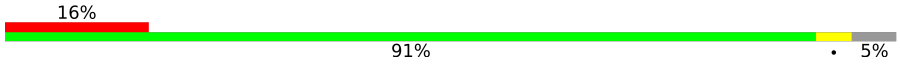
Chain C:

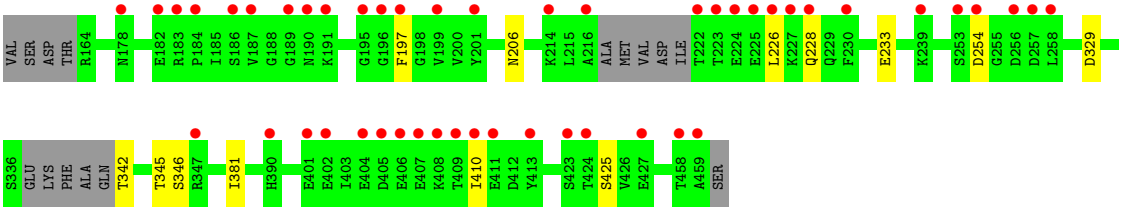




• Molecule 1: Interleukin-1 receptor-associated kinase 4

Chain D:




VAL
SER
ASP
THR
R164
N178
E182
R183
P184
I185
S186
V187
G188
G189
N190
K191
G195
G196
F197
G198
V199
V200
Y201
N206
K214
L215
A216
ALA
MET
VAL
ASP
ILE
T222
T223
E224
E225
L226
K227
Q228
Q229
F230
E233
K239
S253
D254
G255
D256
D257
L258
D329
S336
GLU
LYS
PHE
ALA
GLN
T342
T345
S346
R347
I381
H390
E401
E402
I403
E404
D405
E406
E407
K408
T409
I410
E411
D412
Y413
S423
T424
S425
V426
E427
T458
A459
SER

4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	143.00Å 139.56Å 87.34Å 90.00° 124.45° 90.00°	Depositor
Resolution (Å)	34.26 – 2.34 38.62 – 2.34	Depositor EDS
% Data completeness (in resolution range)	99.6 (34.26-2.34) 99.6 (38.62-2.34)	Depositor EDS
R_{merge}	0.04	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.50 (at 2.34Å)	Xtriage
Refinement program	BUSTER 2.11.2	Depositor
R, R_{free}	0.206 , 0.228 0.208 , 0.228	Depositor DCC
R_{free} test set	3047 reflections (5.11%)	wwPDB-VP
Wilson B-factor (Å^2)	47.8	Xtriage
Anisotropy	0.351	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.39 , 53.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	9166	wwPDB-VP
Average B, all atoms (Å^2)	63.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 18.66% 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: TPO, SEP, 76P

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	0.51	0/2257	0.60	0/3041
1	B	0.51	0/2224	0.62	0/2995
1	C	0.51	0/2269	0.62	0/3057
1	D	0.50	0/2258	0.61	0/3042
All	All	0.51	0/9008	0.61	0/12135

There are no bond length outliers.

There are no bond angle outliers.

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	2253	0	2214	1	0
1	B	2221	0	2172	2	0
1	C	2265	0	2223	4	0
1	D	2254	0	2216	3	0
2	A	23	0	0	0	0
2	B	23	0	0	0	0
2	C	23	0	0	0	0
2	D	23	0	0	0	0
3	A	17	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	26	0	0	0	0
3	C	17	0	0	0	0
3	D	21	0	0	0	0
All	All	9166	0	8825	8	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 0.

The worst 5 of 8 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:D:381:ILE:HG21	1:D:410:ILE:HD11	1.89	0.54
1:C:256:ASP:O	1:C:257:ASP:C	2.46	0.54
1:B:391:ARG:HA	1:C:390:HIS:O	2.14	0.48
1:D:197:PHE:CB	1:D:226:LEU:HD11	2.45	0.46
1:C:164:ARG:NH2	1:C:238:ALA:O	2.50	0.45

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 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	278/301 (92%)	269 (97%)	8 (3%)	1 (0%)	34 38
1	B	274/301 (91%)	263 (96%)	10 (4%)	1 (0%)	34 38
1	C	281/301 (93%)	266 (95%)	10 (4%)	5 (2%)	8 5
1	D	278/301 (92%)	270 (97%)	6 (2%)	2 (1%)	22 22
All	All	1111/1204 (92%)	1068 (96%)	34 (3%)	9 (1%)	19 20

5 of 9 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	254	ASP
1	C	256	ASP
1	C	257	ASP
1	D	254	ASP
1	D	206	ASN

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	246/259 (95%)	239 (97%)	7 (3%)	43	53
1	B	242/259 (93%)	239 (99%)	3 (1%)	71	82
1	C	246/259 (95%)	239 (97%)	7 (3%)	43	53
1	D	246/259 (95%)	242 (98%)	4 (2%)	62	74
All	All	980/1036 (95%)	959 (98%)	21 (2%)	53	65

5 of 21 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	C	329	ASP
1	D	228	GLN
1	D	425	SER
1	D	233	GLU
1	C	397	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

12 non-standard protein/DNA/RNA residues 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	$\#\|Z\| > 2$
1	TPO	D	342	1	8,10,11	0.98	1 (12%)	10,14,16	1.46	1 (10%)
1	TPO	A	342	1	8,10,11	1.02	0	10,14,16	1.43	1 (10%)
1	SEP	C	346	1	8,9,10	0.82	0	8,12,14	1.84	2 (25%)
1	TPO	D	345	1	8,10,11	0.99	0	10,14,16	1.21	1 (10%)
1	TPO	C	342	1	8,10,11	1.11	1 (12%)	10,14,16	1.40	1 (10%)
1	SEP	D	346	1	8,9,10	0.95	0	8,12,14	1.95	2 (25%)
1	TPO	B	345	1	8,10,11	1.08	0	10,14,16	1.20	0
1	TPO	C	345	1	8,10,11	1.19	0	10,14,16	1.13	1 (10%)
1	SEP	B	346	1	8,9,10	0.85	0	8,12,14	1.89	2 (25%)
1	TPO	A	345	1	8,10,11	0.95	0	10,14,16	1.23	1 (10%)
1	TPO	B	342	1	8,10,11	1.01	1 (12%)	10,14,16	1.45	1 (10%)
1	SEP	A	346	1	8,9,10	0.79	0	8,12,14	1.97	2 (25%)

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
1	TPO	D	342	1	-	2/9/11/13	-
1	TPO	A	342	1	-	1/9/11/13	-
1	SEP	C	346	1	-	1/5/8/10	-
1	TPO	D	345	1	-	3/9/11/13	-
1	TPO	C	342	1	-	1/9/11/13	-
1	SEP	D	346	1	-	1/5/8/10	-
1	TPO	B	345	1	-	3/9/11/13	-
1	TPO	C	345	1	-	2/9/11/13	-
1	SEP	B	346	1	-	1/5/8/10	-
1	TPO	A	345	1	-	3/9/11/13	-
1	TPO	B	342	1	-	2/9/11/13	-
1	SEP	A	346	1	-	1/5/8/10	-

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	342	TPO	P-OG1	-2.30	1.55	1.59
1	D	342	TPO	P-OG1	-2.03	1.55	1.59
1	B	342	TPO	P-OG1	-2.01	1.55	1.59

The worst 5 of 15 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	346	SEP	OG-CB-CA	4.17	112.20	108.14
1	D	346	SEP	OG-CB-CA	4.02	112.05	108.14
1	A	346	SEP	OG-CB-CA	3.90	111.94	108.14
1	C	346	SEP	OG-CB-CA	3.74	111.78	108.14
1	A	342	TPO	P-OG1-CB	-3.55	112.47	123.21

There are no chirality outliers.

5 of 21 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	345	TPO	N-CA-CB-OG1
1	B	342	TPO	CB-OG1-P-O1P
1	B	345	TPO	N-CA-CB-OG1
1	B	345	TPO	CB-OG1-P-O1P
1	C	345	TPO	N-CA-CB-OG1

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

4 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	76P	A	9901	-	21,25,25	0.32	0	29,35,35	1.09	3 (10%)
2	76P	D	9901	-	21,25,25	0.35	0	29,35,35	1.04	3 (10%)
2	76P	C	9901	-	21,25,25	0.35	0	29,35,35	1.12	3 (10%)
2	76P	B	9901	-	21,25,25	0.31	0	29,35,35	1.02	3 (10%)

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	76P	A	9901	-	-	2/10/22/22	0/3/3/3
2	76P	D	9901	-	-	0/10/22/22	0/3/3/3
2	76P	C	9901	-	-	1/10/22/22	0/3/3/3
2	76P	B	9901	-	-	3/10/22/22	0/3/3/3

There are no bond length outliers.

The worst 5 of 12 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	C	9901	76P	C05-C04-N03	-3.48	121.44	124.37
2	A	9901	76P	C21-N19-C16	3.36	118.16	112.39
2	D	9901	76P	C05-C04-N03	-3.23	121.65	124.37
2	A	9901	76P	C05-C04-N03	-2.95	121.89	124.37
2	B	9901	76P	C21-N19-C16	2.86	117.31	112.39

There are no chirality outliers.

5 of 6 torsion outliers are listed below:

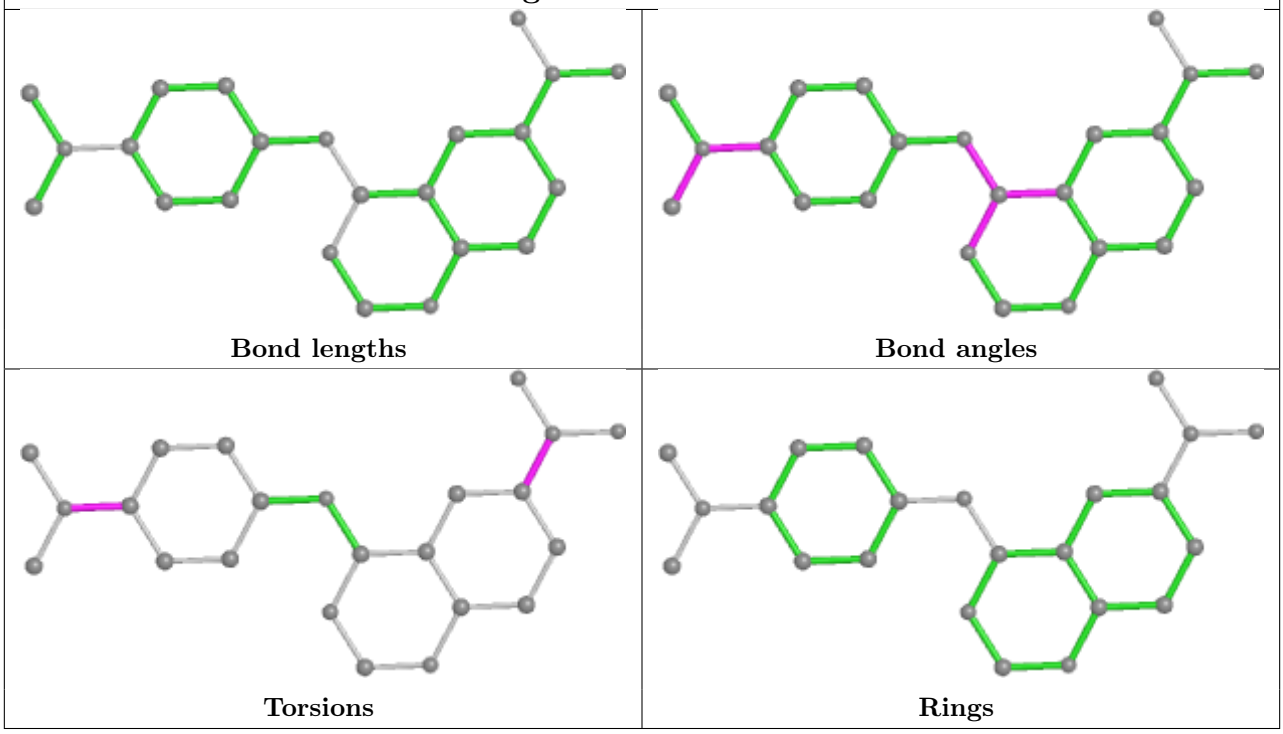
Mol	Chain	Res	Type	Atoms
2	B	9901	76P	C07-C08-N12-O22
2	A	9901	76P	C07-C08-N12-O22
2	A	9901	76P	C15-C16-N19-C20
2	B	9901	76P	C15-C16-N19-C20
2	C	9901	76P	C15-C16-N19-C20

There are no ring outliers.

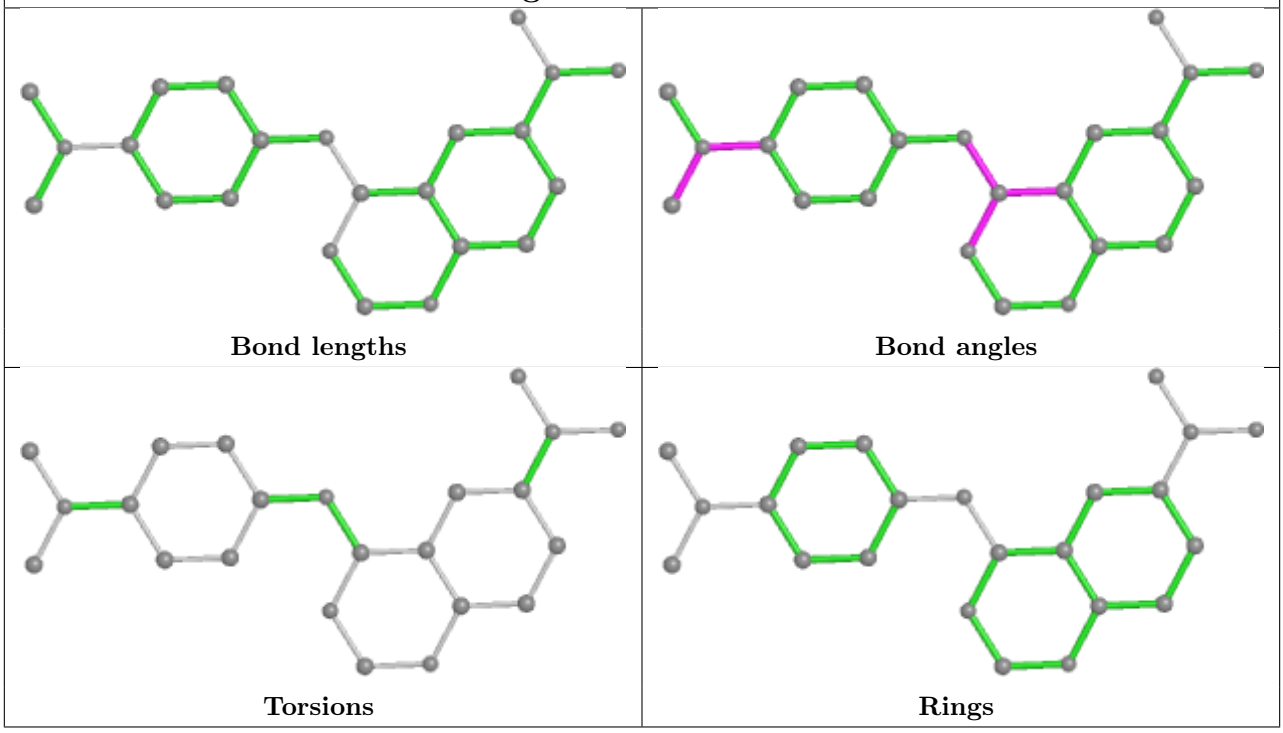
No monomer is involved in short contacts.

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.

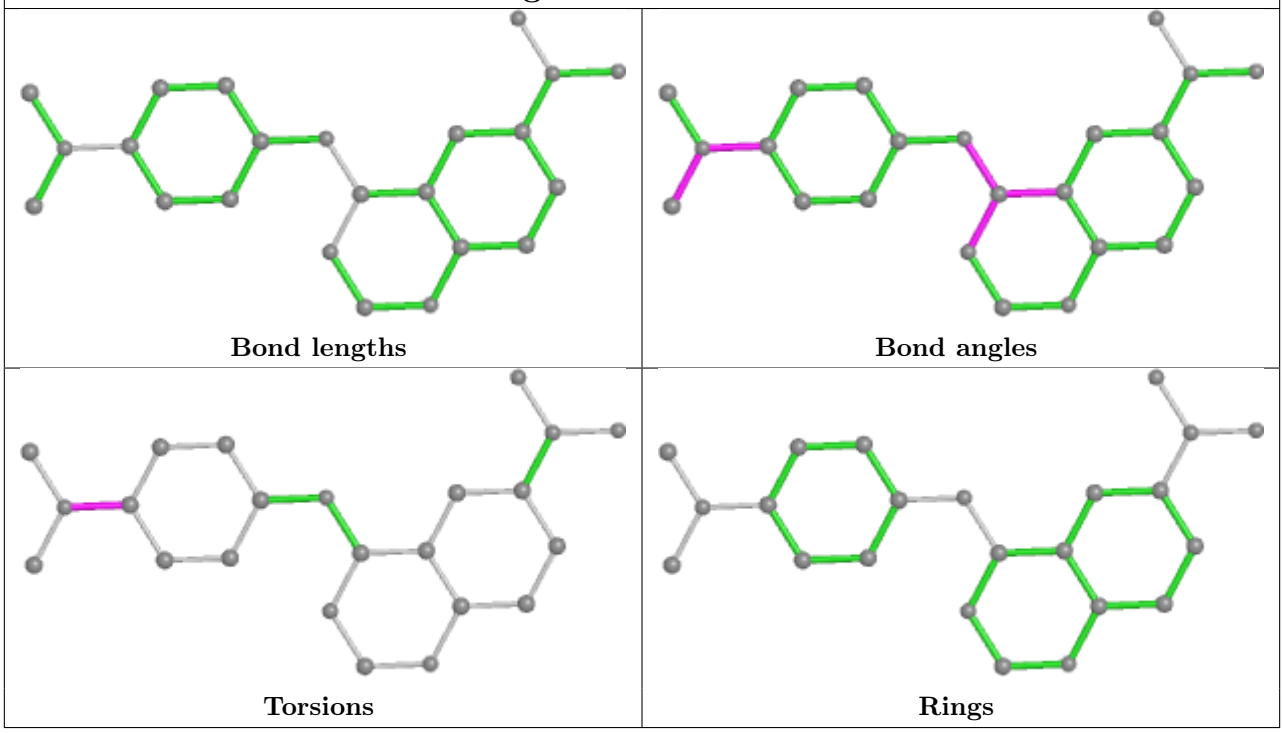
Ligand 76P A 9901



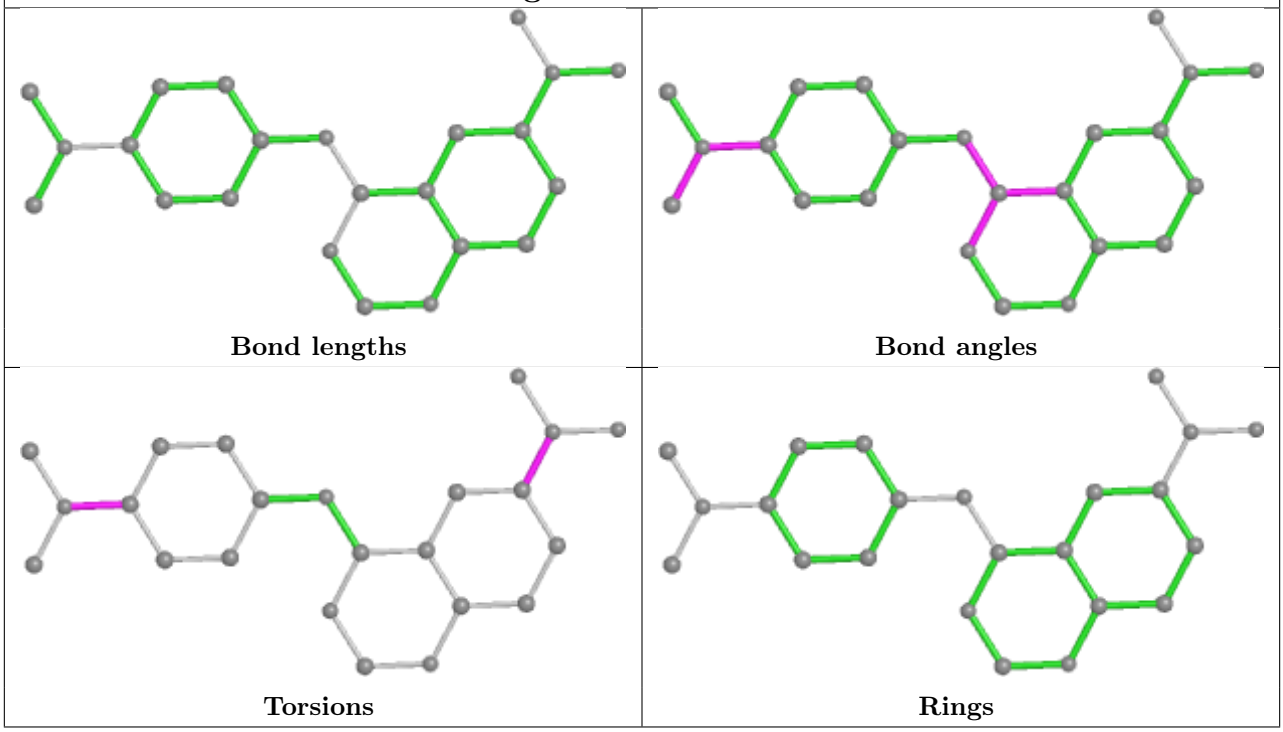
Ligand 76P D 9901



Ligand 76P C 9901



Ligand 76P B 9901



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	283/301 (94%)	0.86	38 (13%)	3	5	36, 58, 103, 122	0
1	B	280/301 (93%)	0.92	50 (17%)	1	2	34, 61, 101, 118	0
1	C	286/301 (95%)	0.62	31 (10%)	5	9	33, 56, 100, 118	0
1	D	283/301 (94%)	0.82	48 (16%)	1	2	36, 59, 108, 147	0
All	All	1132/1204 (94%)	0.80	167 (14%)	2	3	33, 58, 103, 147	0

The worst 5 of 167 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	D	197	PHE	11.7
1	A	188	GLY	11.1
1	A	187	VAL	10.3
1	B	187	VAL	9.7
1	C	460	SER	9.7

6.2 Non-standard residues in protein, DNA, RNA chains (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
1	SEP	B	346	10/11	0.66	0.22	90,96,104,104	0
1	TPO	D	342	11/12	0.74	0.24	94,99,106,106	0
1	SEP	C	346	10/11	0.80	0.17	78,85,95,95	0
1	SEP	D	346	10/11	0.80	0.21	84,90,99,99	0
1	TPO	A	342	11/12	0.82	0.18	88,91,100,101	0
1	TPO	C	342	11/12	0.84	0.19	89,92,100,100	0
1	SEP	A	346	10/11	0.88	0.21	79,84,91,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
1	TPO	B	342	11/12	0.89	0.19	104,105,110,110	0
1	TPO	D	345	11/12	0.92	0.14	77,78,84,84	0
1	TPO	B	345	11/12	0.92	0.14	87,88,90,91	0
1	TPO	A	345	11/12	0.94	0.16	75,77,80,81	0
1	TPO	C	345	11/12	0.96	0.10	73,74,78,79	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

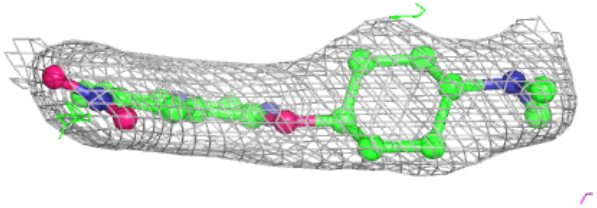
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists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

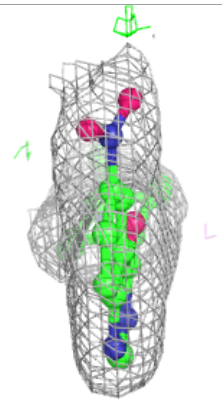
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
2	76P	D	9901	23/23	0.95	0.13	44,51,55,61	0
2	76P	A	9901	23/23	0.96	0.13	39,45,57,59	0
2	76P	B	9901	23/23	0.97	0.12	39,42,53,55	0
2	76P	C	9901	23/23	0.98	0.12	32,41,46,50	0

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 76P D 9901:

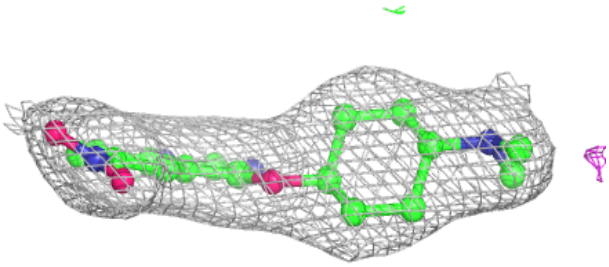
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

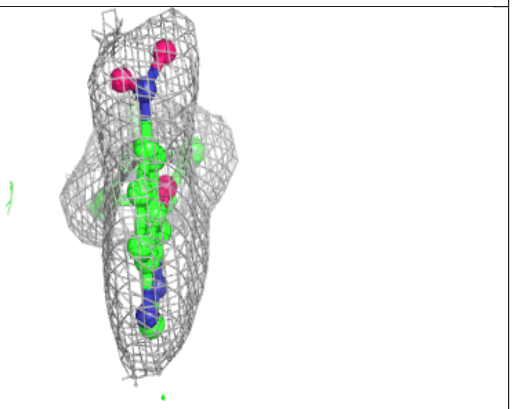




Electron density around 76P A 9901:

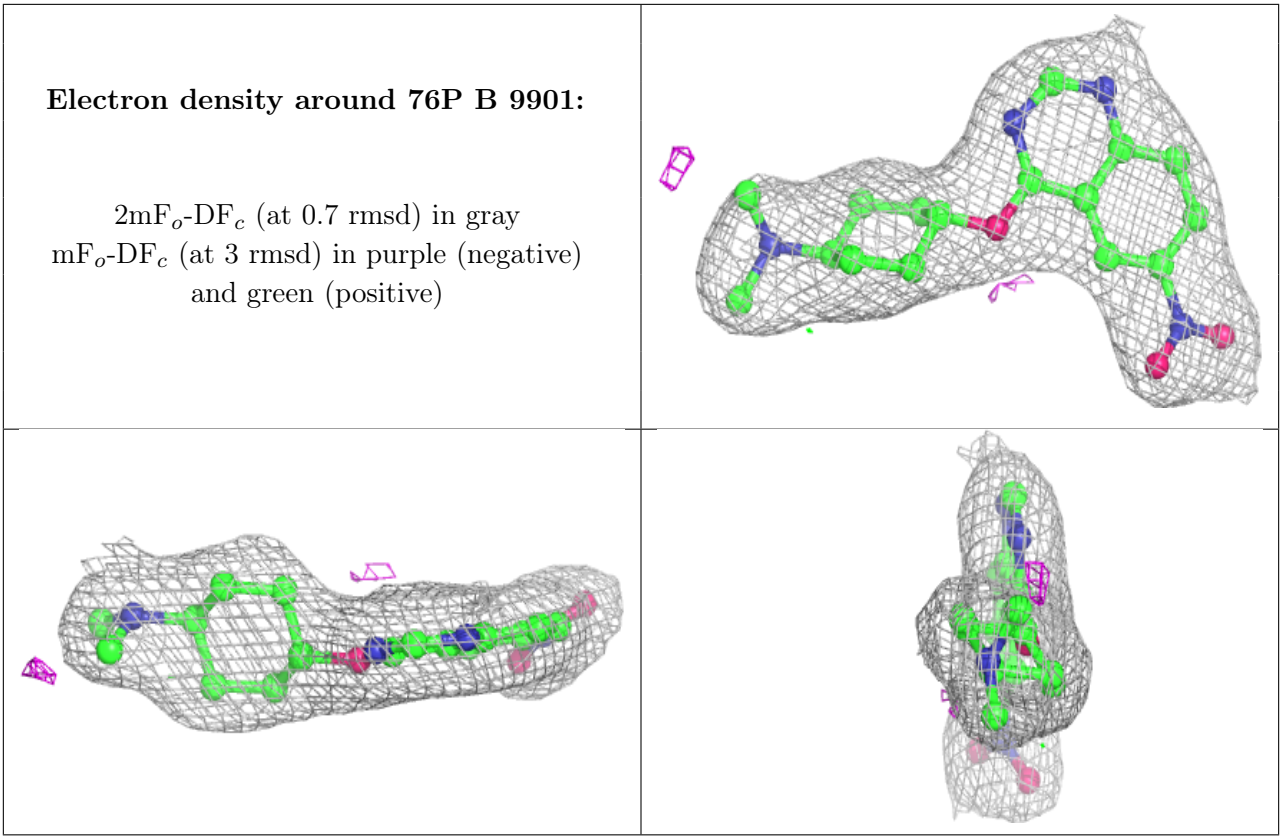
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)





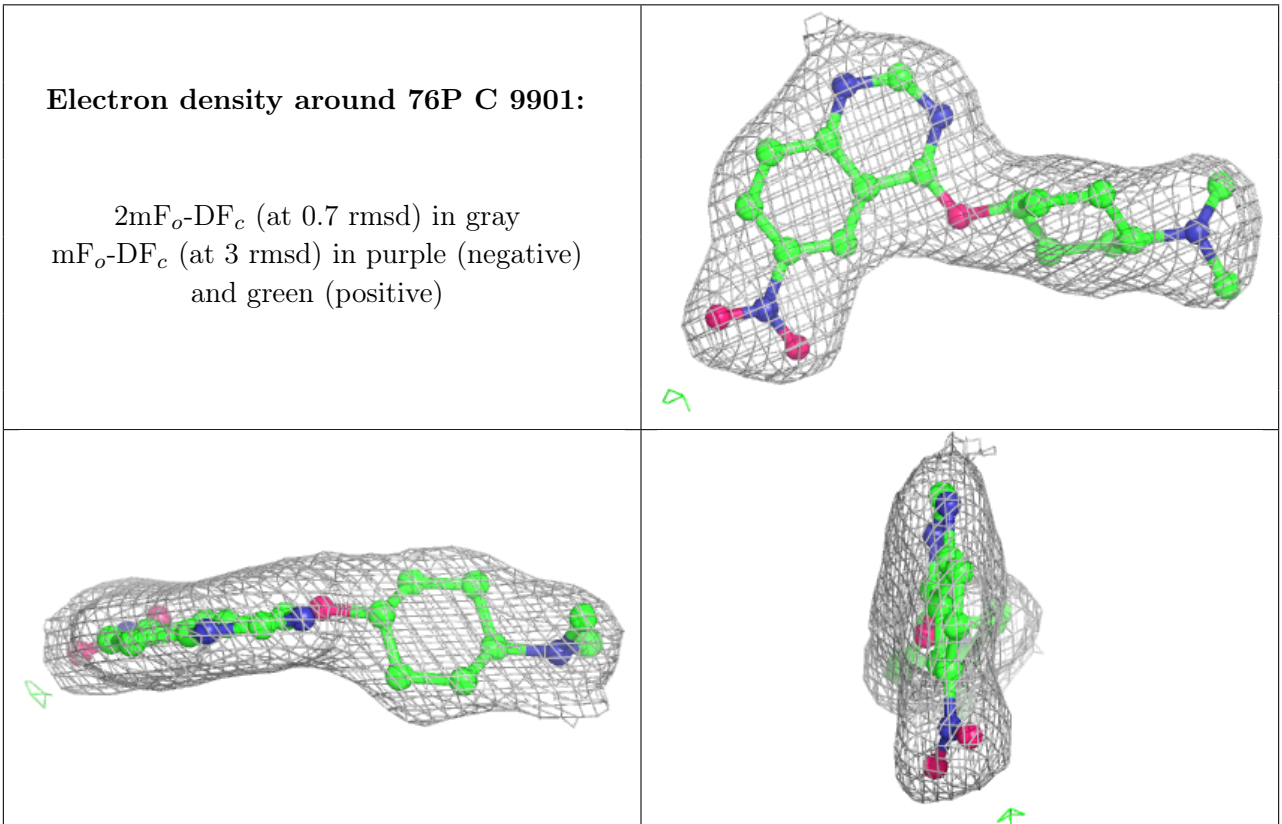
Electron density around 76P B 9901:

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



Electron density around 76P C 9901:

$2mF_o$-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.