Full wwPDB X-ray Structure Validation Report (i)

Mar 3, 2025 – 03:53 PM JST

PDB ID	:	8YG7
Title	:	HSA Copper Indomethacin Complex
Authors	:	Zhang, Z.L.; Yang, F.
Deposited on	:	2024-02-26
Resolution	:	2.09 Å(reported)

This is a Full wwPDB X-ray Structure 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/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:

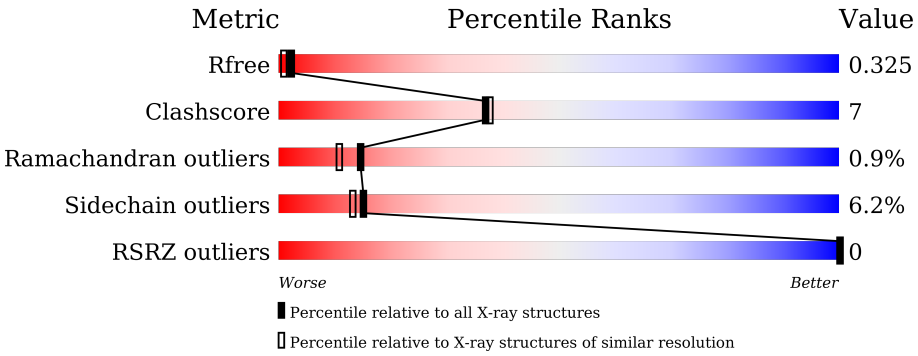
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.21
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.004 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.41.2

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 2.09 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}	164625	6234 (2.10-2.10)
Clashscore	180529	6893 (2.10-2.10)
Ramachandran outliers	177936	6839 (2.10-2.10)
Sidechain outliers	177891	6840 (2.10-2.10)
RSRZ outliers	164620	6234 (2.10-2.10)

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	581	83% 15%
1	I	581	83% 13%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	IMN	A	602	-	-	X	-

2 Entry composition

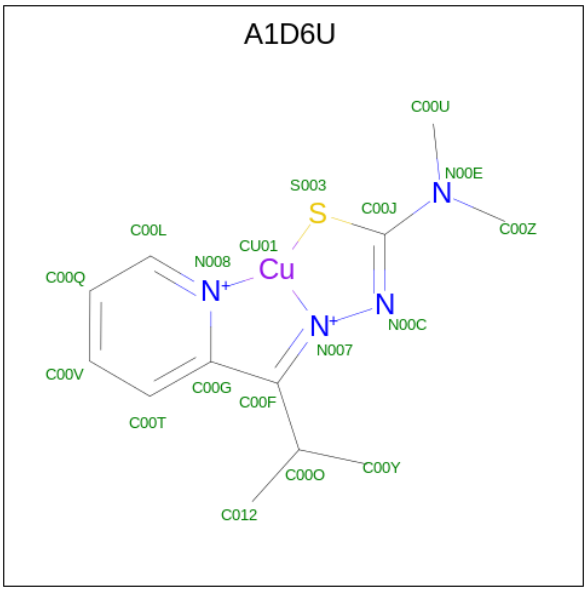
There are 5 unique types of molecules in this entry. The entry contains 9420 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Albumin.

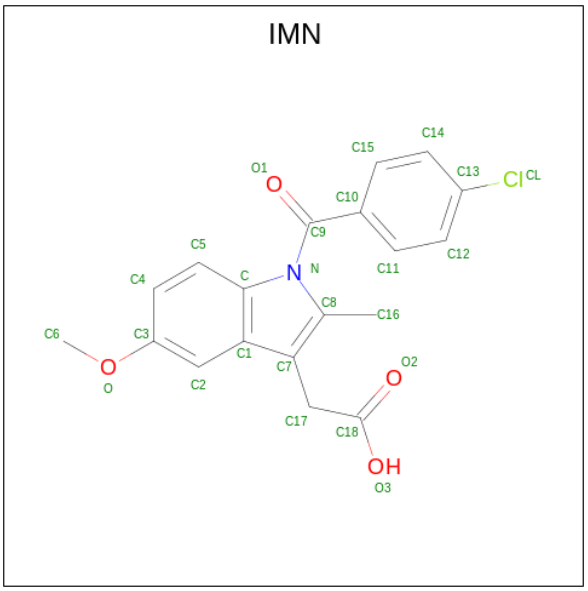
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	581	Total	C	N	O	S	0	0	0
			4443	2819	744	839	41			
1	I	581	Total	C	N	O	S	0	0	0
			4443	2819	744	839	41			

- Molecule 2 is {N}, {N}-dimethyl-7-propan-2-yl-3-thia-5-aza-1,6-diazonia-2$l^{3}-cupratricyclo[6.4.0.0^{2,6}]dodeca-1(12),4,6,8,10-pentaen-4-amine (three-letter code: A1D6U) (formula: $C_{12}H_{17}CuN_4S$) (labeled as "Ligand of Interest" by depositor).



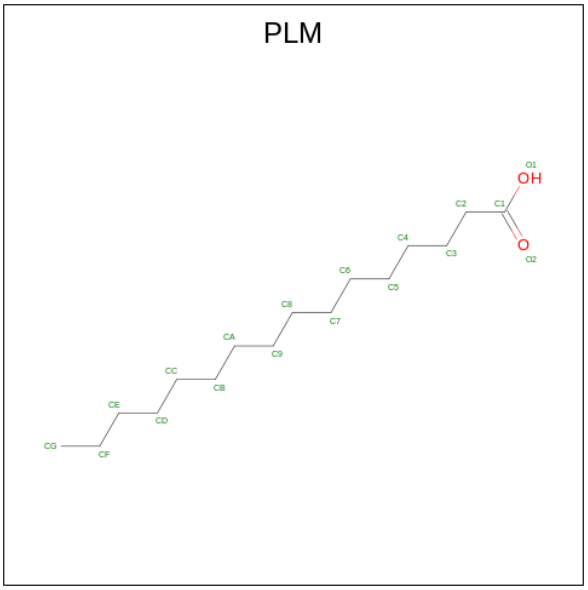
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	Cu	N	S	0	0
			18	12	1	4	1		
2	I	1	Total	C	Cu	N	S	0	0
			18	12	1	4	1		

- Molecule 3 is INDOMETHACIN (three-letter code: IMN) (formula: $C_{19}H_{16}ClNO_4$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total	C	Cl	N	O	0	0
			25	19	1	1	4		
3	I	1	Total	C	Cl	N	O	0	0
			25	19	1	1	4		

- Molecule 4 is PALMITIC ACID (three-letter code: PLM) (formula: $C_{16}H_{32}O_2$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total	C	O	0	0
			13	11	2		
4	A	1	Total	C	O	0	0
			18	16	2		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	A	1	Total C O 17 15 2	0	0
4	A	1	Total C O 18 16 2	0	0
4	A	1	Total C O 17 15 2	0	0
4	A	1	Total C O 18 16 2	0	0
4	I	1	Total C O 13 11 2	0	0
4	I	1	Total C O 18 16 2	0	0
4	I	1	Total C O 17 15 2	0	0
4	I	1	Total C O 18 16 2	0	0
4	I	1	Total C O 17 15 2	0	0
4	I	1	Total C O 18 16 2	0	0

- Molecule 5 is water.

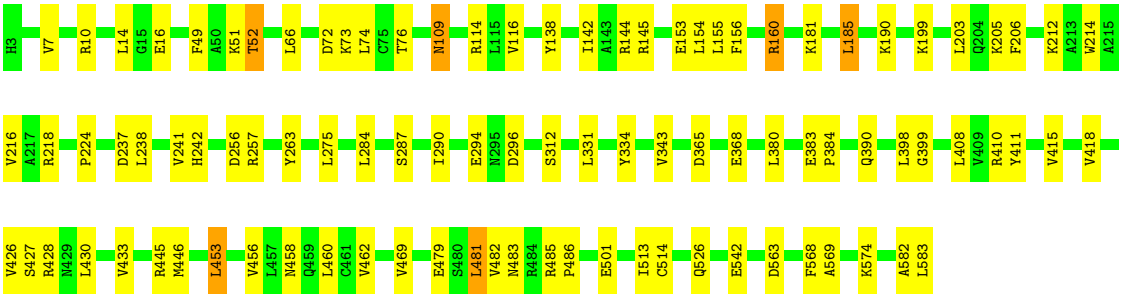
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	129	Total O 129 129	0	0
5	I	117	Total O 117 117	0	0

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.

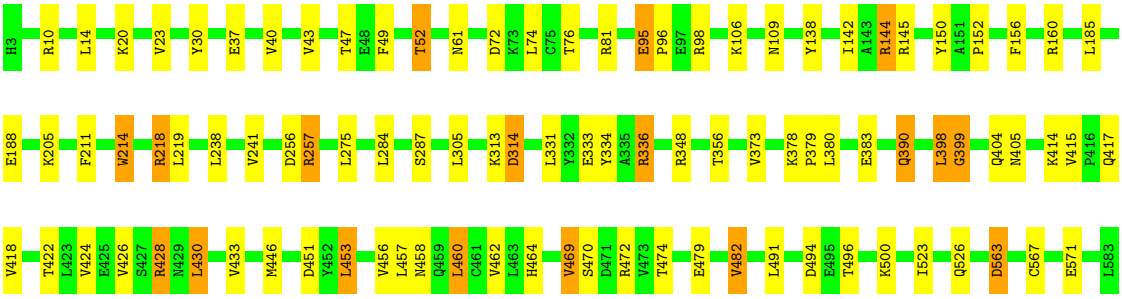
- Molecule 1: Albumin

Chain A:



- Molecule 1: Albumin

Chain I:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	38.35Å 92.61Å 95.22Å 75.02° 89.28° 79.82°	Depositor
Resolution (Å)	91.93 – 2.09 91.93 – 2.09	Depositor EDS
% Data completeness (in resolution range)	97.3 (91.93-2.09) 87.5 (91.93-2.09)	Depositor EDS
R_{merge}	0.05	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.60 (at 2.08Å)	Xtriage
Refinement program	REFMAC 5.8.0158	Depositor
R, R_{free}	0.262 , 0.325 0.265 , 0.325	Depositor DCC
R_{free} test set	3593 reflections (5.01%)	wwPDB-VP
Wilson B-factor (Å^2)	27.5	Xtriage
Anisotropy	0.117	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.34 , 26.5	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	0.198 for h,h-k,-l	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	9420	wwPDB-VP
Average B, all atoms (Å^2)	35.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.12% 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

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: PLM, IMN, A1D6U

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	0.69	0/4532	0.84	8/6148 (0.1%)
1	I	0.68	0/4532	0.83	8/6148 (0.1%)
All	All	0.68	0/9064	0.84	16/12296 (0.1%)

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
1	I	0	1

There are no bond length outliers.

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	144	ARG	NE-CZ-NH2	-6.63	116.99	120.30
1	I	81	ARG	NE-CZ-NH1	6.02	123.31	120.30
1	A	218	ARG	NE-CZ-NH1	6.01	123.31	120.30
1	A	144	ARG	NE-CZ-NH1	5.86	123.23	120.30
1	I	336	ARG	NE-CZ-NH2	-5.68	117.46	120.30
1	A	218	ARG	NE-CZ-NH2	-5.55	117.53	120.30
1	A	410	ARG	NE-CZ-NH1	5.45	123.03	120.30
1	I	144	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	A	160	ARG	NE-CZ-NH2	-5.41	117.60	120.30
1	I	98	ARG	NE-CZ-NH2	-5.32	117.64	120.30
1	I	144	ARG	NE-CZ-NH2	-5.31	117.65	120.30
1	I	336	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	I	145	ARG	NE-CZ-NH1	5.18	122.89	120.30
1	A	145	ARG	NE-CZ-NH1	5.07	122.83	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	I	428	ARG	NE-CZ-NH1	5.07	122.83	120.30
1	A	445	ARG	NE-CZ-NH2	-5.03	117.79	120.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	I	95	GLU	Peptide

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	4443	0	4193	55	0
1	I	4443	0	4193	64	0
2	A	18	0	0	0	0
2	I	18	0	0	0	0
3	A	25	0	15	10	0
3	I	25	0	15	7	0
4	A	101	0	163	5	0
4	I	101	0	163	4	0
5	A	129	0	0	10	0
5	I	117	0	0	17	0
All	All	9420	0	8742	126	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 7.

All (126) 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:A:411:TYR:N	5:A:701:HOH:O	1.97	0.98
1:A:199:LYS:HB3	3:A:602:IMN:CL	2.08	0.91
1:I:40:VAL:N	5:I:702:HOH:O	2.05	0.86
1:I:464:HIS:NE2	5:I:701:HOH:O	1.90	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:404:GLN:HE21	1:I:428:ARG:HA	1.42	0.82
1:I:446:MET:SD	5:I:718:HOH:O	2.38	0.82
1:A:408:LEU:O	5:A:701:HOH:O	2.02	0.77
1:A:214:TRP:CD1	1:A:343:VAL:HG11	2.21	0.76
1:I:356:THR:HG21	1:I:373:VAL:HG23	1.69	0.75
1:I:430:LEU:HD13	1:I:456:VAL:HG11	1.66	0.75
1:A:383:GLU:OE1	5:A:702:HOH:O	2.04	0.74
1:A:16:GLU:OE2	1:A:51:LYS:NZ	2.16	0.74
3:I:602:IMN:H5	3:I:602:IMN:H11	1.70	0.74
1:I:40:VAL:HB	5:I:702:HOH:O	1.88	0.73
1:I:398:LEU:O	1:I:399:GLY:O	2.08	0.72
1:I:37:GLU:C	5:I:702:HOH:O	2.29	0.70
1:I:37:GLU:O	5:I:702:HOH:O	2.09	0.70
1:A:408:LEU:C	5:A:701:HOH:O	2.32	0.68
1:A:241:VAL:HG22	1:A:256:ASP:HB3	1.75	0.68
1:I:470:SER:N	5:I:701:HOH:O	2.23	0.67
1:I:49:PHE:O	1:I:52:THR:HB	1.95	0.66
1:A:433:VAL:HG11	1:A:453:LEU:HD13	1.80	0.64
1:I:20:LYS:CE	1:I:47:THR:HG21	2.28	0.64
1:A:7:VAL:HG12	1:A:66:LEU:HD21	1.79	0.64
1:A:257:ARG:NH1	4:A:604:PLM:O1	2.32	0.62
1:A:426:VAL:HG11	1:A:460:LEU:CD1	2.30	0.61
1:I:138:TYR:O	1:I:142:ILE:HG12	2.01	0.60
1:I:218:ARG:NH1	5:I:704:HOH:O	2.28	0.60
1:I:20:LYS:HE3	1:I:47:THR:HG21	1.84	0.60
1:A:206:PHE:CE2	1:A:481:LEU:HD23	2.37	0.59
1:I:426:VAL:HG21	4:I:606:PLM:HC2	1.85	0.58
1:I:40:VAL:CB	5:I:702:HOH:O	2.49	0.57
1:I:356:THR:HG22	5:I:781:HOH:O	2.05	0.57
1:A:153:GLU:OE2	5:A:703:HOH:O	2.17	0.57
1:A:426:VAL:HG11	1:A:460:LEU:HD12	1.86	0.57
1:I:313:LYS:O	1:I:314:ASP:CB	2.53	0.57
1:A:574:LYS:C	5:A:750:HOH:O	2.43	0.56
3:I:602:IMN:O1	3:I:602:IMN:H161	2.05	0.56
1:I:567:CYS:SG	1:I:571:GLU:HG3	2.47	0.54
1:A:242:HIS:NE2	3:A:602:IMN:CL	2.77	0.54
1:I:433:VAL:HG11	1:I:453:LEU:HD13	1.89	0.54
1:I:20:LYS:HE2	1:I:47:THR:HG21	1.90	0.53
1:I:404:GLN:HE21	1:I:428:ARG:CA	2.17	0.53
1:A:212:LYS:O	1:A:216:VAL:HG23	2.09	0.53
1:I:414:LYS:NZ	1:I:491:LEU:O	2.36	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:430:LEU:CD1	1:A:456:VAL:HG11	2.39	0.52
1:I:464:HIS:HE2	1:I:470:SER:H	1.57	0.52
1:I:458:ASN:O	1:I:462:VAL:HG23	2.10	0.52
1:I:61:ASN:ND2	5:I:716:HOH:O	2.43	0.52
1:I:399:GLY:N	5:I:714:HOH:O	2.42	0.52
1:I:23:VAL:HG12	1:I:43:VAL:HG22	1.92	0.51
1:A:446:MET:SD	5:A:707:HOH:O	2.59	0.51
1:A:205:LYS:NZ	5:A:710:HOH:O	2.37	0.51
1:A:365:ASP:OD2	1:A:368:GLU:HG2	2.11	0.51
1:I:336:ARG:NH2	5:I:717:HOH:O	2.44	0.50
1:I:30:TYR:CZ	1:I:106:LYS:HE3	2.47	0.50
3:A:602:IMN:O2	3:A:602:IMN:H2	2.11	0.50
3:A:602:IMN:H161	3:A:602:IMN:C15	2.42	0.49
1:A:408:LEU:HD13	1:A:427:SER:HB2	1.94	0.49
1:I:156:PHE:CZ	1:I:160:ARG:HD2	2.47	0.49
1:A:242:HIS:CD2	3:A:602:IMN:C13	2.96	0.49
1:A:428:ARG:NH2	5:A:719:HOH:O	2.45	0.49
3:A:602:IMN:H161	3:A:602:IMN:C10	2.43	0.48
1:I:422:THR:O	1:I:426:VAL:HG22	2.13	0.48
1:I:52:THR:HG21	5:I:723:HOH:O	2.14	0.48
1:I:72:ASP:O	1:I:76:THR:HG23	2.15	0.47
1:A:263:TYR:C	1:A:263:TYR:CD1	2.87	0.47
1:A:430:LEU:HD13	1:A:456:VAL:HG11	1.96	0.47
1:I:424:VAL:O	1:I:428:ARG:HG3	2.15	0.47
1:I:405:ASN:OD1	1:I:526:GLN:HG2	2.15	0.47
1:I:390:GLN:HE21	1:I:390:GLN:HA	1.79	0.46
1:I:457:LEU:HD11	4:I:606:PLM:C5	2.45	0.46
1:I:160:ARG:NH2	1:I:188:GLU:OE1	2.30	0.46
1:A:142:ILE:HG21	1:A:154:LEU:HD11	1.98	0.46
1:I:417:GLN:NE2	1:I:494:ASP:OD2	2.43	0.46
1:A:257:ARG:NH1	1:A:287:SER:OG	2.49	0.46
1:I:426:VAL:HG11	1:I:460:LEU:HD12	1.97	0.46
1:I:150:TYR:CD2	1:I:152:PRO:HD2	2.52	0.45
3:I:602:IMN:H5	3:I:602:IMN:C11	2.44	0.45
1:A:411:TYR:CE1	4:A:606:PLM:H62	2.52	0.44
1:A:418:VAL:HG11	4:A:606:PLM:HC1	1.99	0.44
1:I:40:VAL:CA	5:I:702:HOH:O	2.55	0.44
1:I:457:LEU:HD11	4:I:606:PLM:H51	1.99	0.44
1:A:383:GLU:HG3	1:A:384:PRO:HD3	2.00	0.44
1:I:415:VAL:HG12	1:I:418:VAL:HG23	1.98	0.44
1:A:49:PHE:O	1:A:52:THR:HG22	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:181:LYS:O	1:A:185:LEU:HD22	2.17	0.44
1:A:290:ILE:HB	3:A:602:IMN:H62	1.98	0.44
1:A:485:ARG:HB3	1:A:486:PRO:HD3	1.99	0.44
1:I:348:ARG:HG2	1:I:482:VAL:HG13	1.99	0.44
1:I:398:LEU:C	5:I:714:HOH:O	2.57	0.44
1:I:378:LYS:N	1:I:379:PRO:HD2	2.33	0.43
1:A:458:ASN:O	1:A:462:VAL:HG23	2.18	0.43
1:I:305:LEU:HD21	1:I:333:GLU:HB3	2.01	0.43
1:I:428:ARG:HD2	1:I:523:ILE:HD13	2.00	0.43
1:A:199:LYS:CB	3:A:602:IMN:CL	2.94	0.43
1:I:241:VAL:HG22	1:I:256:ASP:HB3	1.99	0.43
1:A:72:ASP:O	1:A:76:THR:HG23	2.19	0.43
1:A:66:LEU:HD23	1:A:66:LEU:HA	1.90	0.43
1:A:582:ALA:O	1:A:583:LEU:HD23	2.19	0.42
1:I:214:TRP:CZ3	3:I:602:IMN:C15	3.02	0.42
1:A:408:LEU:HD21	1:A:526:GLN:HB3	2.01	0.42
1:A:513:ILE:HD11	1:A:568:PHE:CE1	2.54	0.42
1:A:142:ILE:CG2	1:A:154:LEU:HD11	2.49	0.42
1:A:415:VAL:HG12	1:A:418:VAL:HG23	2.01	0.42
1:I:37:GLU:CA	5:I:702:HOH:O	2.67	0.42
1:A:109:ASN:ND2	5:A:735:HOH:O	2.53	0.42
1:A:155:LEU:HD23	1:A:284:LEU:HD21	2.01	0.42
1:A:237:ASP:O	1:A:241:VAL:HG23	2.20	0.42
1:I:214:TRP:CZ3	3:I:602:IMN:C10	3.02	0.42
1:A:460:LEU:HD11	4:A:606:PLM:HC2	2.01	0.42
1:I:284:LEU:HD12	4:I:604:PLM:H31	2.00	0.42
1:I:414:LYS:O	1:I:472:ARG:NH1	2.42	0.42
3:A:602:IMN:O1	3:A:602:IMN:H5	2.20	0.41
1:A:138:TYR:CG	4:A:603:PLM:H62	2.55	0.41
1:I:430:LEU:CD1	1:I:456:VAL:HG11	2.44	0.41
1:A:242:HIS:CD2	3:A:602:IMN:CL	3.11	0.41
1:I:404:GLN:NE2	1:I:428:ARG:HA	2.22	0.41
1:A:156:PHE:CZ	1:A:160:ARG:HD2	2.56	0.40
1:A:224:PRO:HD2	1:A:296:ASP:HB3	2.02	0.40
1:I:257:ARG:NH1	1:I:287:SER:OG	2.54	0.40
1:I:211:PHE:CD2	3:I:602:IMN:C16	3.05	0.40
1:I:305:LEU:CD2	1:I:333:GLU:HB3	2.52	0.40
1:I:214:TRP:HZ3	3:I:602:IMN:C15	2.34	0.40
1:A:7:VAL:CG1	1:A:66:LEU:HD21	2.51	0.40
1:A:479:GLU:HG3	1:A:483:ASN:HB2	2.03	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 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	579/581 (100%)	547 (94%)	27 (5%)	5 (1%)	14 11
1	I	579/581 (100%)	550 (95%)	23 (4%)	6 (1%)	13 9
All	All	1158/1162 (100%)	1097 (95%)	50 (4%)	11 (1%)	14 11

All (11) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	I	399	GLY
1	A	469	VAL
1	A	563	ASP
1	A	569	ALA
1	I	314	ASP
1	I	469	VAL
1	I	95	GLU
1	I	563	ASP
1	A	109	ASN
1	I	96	PRO
1	A	399	GLY

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	455/509 (89%)	430 (94%)	25 (6%)	18 16
1	I	455/509 (89%)	424 (93%)	31 (7%)	13 11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	910/1018 (89%)	854 (94%)	56 (6%)	15 13

All (56) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	10	ARG
1	A	14	LEU
1	A	52	THR
1	A	73	LYS
1	A	74	LEU
1	A	114	ARG
1	A	116	VAL
1	A	185	LEU
1	A	190	LYS
1	A	203	LEU
1	A	238	LEU
1	A	275	LEU
1	A	294	GLU
1	A	312	SER
1	A	331	LEU
1	A	334	TYR
1	A	380	LEU
1	A	390	GLN
1	A	398	LEU
1	A	453	LEU
1	A	481	LEU
1	A	482	VAL
1	A	501	GLU
1	A	514	CYS
1	A	542	GLU
1	I	10	ARG
1	I	14	LEU
1	I	52	THR
1	I	74	LEU
1	I	109	ASN
1	I	144	ARG
1	I	185	LEU
1	I	205	LYS
1	I	214	TRP
1	I	218	ARG
1	I	219	LEU
1	I	238	LEU

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Mol	Chain	Res	Type
1	I	257	ARG
1	I	275	LEU
1	I	331	LEU
1	I	334	TYR
1	I	380	LEU
1	I	383	GLU
1	I	390	GLN
1	I	398	LEU
1	I	430	LEU
1	I	451	ASP
1	I	453	LEU
1	I	460	LEU
1	I	469	VAL
1	I	474	THR
1	I	479	GLU
1	I	482	VAL
1	I	496	THR
1	I	500	LYS
1	I	563	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (5) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	109	ASN
1	A	464	HIS
1	I	61	ASN
1	I	390	GLN
1	I	404	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)

16 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	$\#\|Z\| > 2$
4	PLM	A	603	-	12,12,17	0.82	0	12,12,17	0.52	0
2	A1D6U	A	601	1	15,20,20	3.42	5 (33%)	18,30,30	4.02	5 (27%)
4	PLM	I	608	-	17,17,17	0.59	0	17,17,17	0.69	0
2	A1D6U	I	601	1	15,20,20	3.50	5 (33%)	18,30,30	3.97	5 (27%)
4	PLM	A	604	-	17,17,17	0.55	0	17,17,17	0.81	0
4	PLM	A	606	-	17,17,17	0.61	0	17,17,17	0.73	0
4	PLM	A	607	-	16,16,17	0.68	0	16,16,17	0.80	0
4	PLM	A	608	-	17,17,17	0.56	0	17,17,17	0.73	0
4	PLM	I	605	-	16,16,17	0.51	0	16,16,17	0.99	1 (6%)
3	IMN	A	602	-	24,27,27	1.66	5 (20%)	29,39,39	3.10	11 (37%)
4	PLM	I	607	-	16,16,17	0.78	0	16,16,17	0.71	0
4	PLM	I	604	-	17,17,17	0.65	0	17,17,17	0.57	0
4	PLM	I	603	-	12,12,17	0.75	0	12,12,17	0.88	1 (8%)
3	IMN	I	602	-	24,27,27	1.76	5 (20%)	29,39,39	4.05	13 (44%)
4	PLM	I	606	-	17,17,17	0.45	0	17,17,17	0.93	1 (5%)
4	PLM	A	605	-	16,16,17	0.47	0	16,16,17	1.06	2 (12%)

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
4	PLM	A	603	-	-	7/10/10/15	-
2	A1D6U	A	601	1	-	4/8/32/32	0/3/3/3
4	PLM	I	608	-	-	7/15/15/15	-
2	A1D6U	I	601	1	-	4/8/32/32	0/3/3/3
4	PLM	A	604	-	-	10/15/15/15	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	PLM	A	606	-	-	7/15/15/15	-
4	PLM	A	607	-	-	6/14/14/15	-
4	PLM	A	608	-	-	6/15/15/15	-
4	PLM	I	605	-	-	6/14/14/15	-
3	IMN	A	602	-	-	4/10/14/14	0/3/3/3
4	PLM	I	607	-	-	8/14/14/15	-
4	PLM	I	604	-	-	8/15/15/15	-
4	PLM	I	603	-	-	5/10/10/15	-
3	IMN	I	602	-	-	5/10/14/14	0/3/3/3
4	PLM	I	606	-	-	9/15/15/15	-
4	PLM	A	605	-	-	9/14/14/15	-

All (20) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	I	601	A1D6U	C00J-S003	8.50	1.82	1.73
2	A	601	A1D6U	C00J-N00E	8.07	1.48	1.35
2	I	601	A1D6U	C00J-N00E	8.04	1.48	1.35
2	A	601	A1D6U	C00J-S003	7.98	1.82	1.73
3	I	602	IMN	C10-C9	4.96	1.58	1.50
2	A	601	A1D6U	C00G-C00F	-4.66	1.35	1.47
2	I	601	A1D6U	C00G-C00F	-4.41	1.36	1.47
3	A	602	IMN	C-N	-3.75	1.34	1.39
3	I	602	IMN	C17-C18	3.75	1.59	1.51
2	I	601	A1D6U	N00C-N007	-3.46	1.32	1.39
2	A	601	A1D6U	N00C-N007	-3.36	1.32	1.39
3	A	602	IMN	O1-C9	-3.31	1.18	1.22
2	I	601	A1D6U	C00J-N00C	2.93	1.38	1.32
2	A	601	A1D6U	C00J-N00C	2.88	1.38	1.32
3	I	602	IMN	O1-C9	-2.77	1.18	1.22
3	A	602	IMN	C16-C8	2.62	1.55	1.49
3	I	602	IMN	C17-C7	2.54	1.59	1.51
3	A	602	IMN	C17-C7	2.44	1.59	1.51
3	A	602	IMN	C17-C18	2.40	1.56	1.51
3	I	602	IMN	O-C3	2.01	1.41	1.37

All (39) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	601	A1D6U	S003-C00J-N00C	-15.51	110.22	124.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	I	601	A1D6U	S003-C00J-N00C	-15.19	110.53	124.85
3	I	602	IMN	C7-C17-C18	12.46	129.15	114.18
3	I	602	IMN	C10-C9-N	11.28	131.12	117.95
3	A	602	IMN	C16-C8-N	8.20	132.71	122.37
3	I	602	IMN	C16-C8-N	6.06	130.01	122.37
3	I	602	IMN	C17-C7-C8	5.67	131.41	126.41
3	I	602	IMN	C16-C8-C7	-5.62	117.09	129.24
3	A	602	IMN	C17-C7-C8	-5.50	121.56	126.41
3	A	602	IMN	C15-C10-C9	-5.47	108.45	120.26
3	A	602	IMN	C14-C13-CL	-5.27	111.11	119.35
3	A	602	IMN	C7-C17-C18	4.96	120.13	114.18
3	A	602	IMN	C16-C8-C7	-4.75	118.98	129.24
3	I	602	IMN	O1-C9-C10	-4.63	111.21	120.23
2	I	601	A1D6U	N00E-C00J-N00C	4.47	125.29	116.58
2	A	601	A1D6U	N00E-C00J-N00C	4.46	125.28	116.58
3	A	602	IMN	C12-C13-CL	4.42	126.26	119.35
3	I	602	IMN	C5-C-C1	-4.30	115.09	120.94
3	A	602	IMN	C15-C10-C11	3.81	124.02	118.59
3	A	602	IMN	C12-C11-C10	-3.38	116.84	120.78
3	A	602	IMN	C11-C10-C9	3.36	127.51	120.26
2	I	601	A1D6U	C00L-N008-C00G	3.08	122.13	118.35
2	I	601	A1D6U	C00G-C00F-N007	3.02	119.56	114.15
2	A	601	A1D6U	C00G-C00F-N007	2.86	119.27	114.15
3	I	602	IMN	C2-C1-C7	-2.85	129.25	134.17
2	A	601	A1D6U	C00L-N008-C00G	2.84	121.84	118.35
3	I	602	IMN	O3-C18-O2	-2.80	116.33	123.30
3	I	602	IMN	O3-C18-C17	2.74	124.41	114.02
4	A	605	PLM	O2-C1-C2	-2.70	114.41	123.08
4	I	605	PLM	O1-C1-C2	2.57	122.27	114.03
4	A	605	PLM	O1-C1-C2	2.56	122.25	114.03
3	I	602	IMN	C2-C1-C	2.53	122.68	119.65
3	I	602	IMN	C4-C3-C2	-2.33	117.68	120.81
4	I	606	PLM	C4-C3-C2	-2.30	104.93	113.19
2	I	601	A1D6U	C00F-C00G-N008	-2.21	112.88	114.93
3	I	602	IMN	C11-C10-C9	2.20	125.02	120.26
4	I	603	PLM	O1-C1-C2	2.18	121.04	114.03
3	A	602	IMN	C14-C15-C10	-2.17	118.26	120.78
2	A	601	A1D6U	C00F-C00G-N008	-2.09	112.99	114.93

There are no chirality outliers.

All (105) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	601	A1D6U	S003-C00J-N00E-C00Z
2	I	601	A1D6U	S003-C00J-N00E-C00Z
2	I	601	A1D6U	N00C-C00J-N00E-C00Z
3	I	602	IMN	C2-C3-O-C6
3	I	602	IMN	C4-C3-O-C6
4	I	606	PLM	C3-C4-C5-C6
2	A	601	A1D6U	N00C-C00J-N00E-C00Z
2	I	601	A1D6U	N00C-C00J-N00E-C00U
4	A	605	PLM	C1-C2-C3-C4
4	I	605	PLM	C1-C2-C3-C4
3	A	602	IMN	C18-C17-C7-C1
4	I	604	PLM	CA-CB-CC-CD
4	A	604	PLM	C6-C7-C8-C9
4	A	606	PLM	CA-CB-CC-CD
4	A	608	PLM	C2-C3-C4-C5
4	I	603	PLM	C6-C7-C8-C9
4	I	605	PLM	CA-CB-CC-CD
4	A	605	PLM	C6-C7-C8-C9
4	I	604	PLM	C7-C8-C9-CA
3	A	602	IMN	C18-C17-C7-C8
4	I	604	PLM	C8-C9-CA-CB
4	I	608	PLM	C2-C3-C4-C5
4	A	604	PLM	C2-C3-C4-C5
4	A	607	PLM	C9-CA-CB-CC
4	A	606	PLM	C1-C2-C3-C4
4	A	603	PLM	C4-C5-C6-C7
4	I	603	PLM	C3-C4-C5-C6
4	I	607	PLM	C9-CA-CB-CC
3	A	602	IMN	C4-C3-O-C6
4	A	605	PLM	C4-C5-C6-C7
4	A	605	PLM	CA-CB-CC-CD
4	A	608	PLM	C6-C7-C8-C9
4	I	606	PLM	CA-CB-CC-CD
4	I	608	PLM	C5-C6-C7-C8
3	A	602	IMN	C2-C3-O-C6
4	I	604	PLM	CB-CC-CD-CE
4	I	605	PLM	C6-C7-C8-C9
4	I	607	PLM	C4-C5-C6-C7
4	A	604	PLM	C7-C8-C9-CA
4	I	607	PLM	C3-C4-C5-C6
4	I	604	PLM	C6-C7-C8-C9
4	I	605	PLM	C5-C6-C7-C8
4	I	606	PLM	C7-C8-C9-CA

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Mol	Chain	Res	Type	Atoms
4	A	603	PLM	C2-C3-C4-C5
2	I	601	A1D6U	S003-C00J-N00E-C00U
3	I	602	IMN	C11-C10-C9-N
4	A	607	PLM	CA-CB-CC-CD
4	I	608	PLM	C6-C7-C8-C9
4	A	603	PLM	C6-C7-C8-C9
4	A	604	PLM	C4-C5-C6-C7
4	I	608	PLM	CC-CD-CE-CF
4	A	605	PLM	C2-C3-C4-C5
4	A	606	PLM	CC-CD-CE-CF
4	A	607	PLM	C2-C3-C4-C5
4	A	605	PLM	C5-C6-C7-C8
4	A	603	PLM	C5-C6-C7-C8
2	A	601	A1D6U	S003-C00J-N00E-C00U
4	A	604	PLM	CA-CB-CC-CD
4	I	606	PLM	C4-C5-C6-C7
4	A	607	PLM	C1-C2-C3-C4
4	A	604	PLM	CC-CD-CE-CF
4	A	604	PLM	C5-C6-C7-C8
4	I	606	PLM	C9-CA-CB-CC
4	A	608	PLM	CA-CB-CC-CD
4	A	604	PLM	CB-CC-CD-CE
4	A	606	PLM	C2-C3-C4-C5
4	A	605	PLM	C3-C4-C5-C6
4	I	607	PLM	O2-C1-C2-C3
3	I	602	IMN	C15-C10-C9-N
4	I	603	PLM	O2-C1-C2-C3
4	I	607	PLM	CC-CD-CE-CF
4	I	607	PLM	C5-C6-C7-C8
4	A	606	PLM	O1-C1-C2-C3
4	I	607	PLM	O1-C1-C2-C3
4	A	606	PLM	O2-C1-C2-C3
4	I	606	PLM	C5-C6-C7-C8
4	A	607	PLM	C6-C7-C8-C9
4	I	606	PLM	C8-C9-CA-CB
4	I	608	PLM	CB-CC-CD-CE
4	I	603	PLM	O1-C1-C2-C3
4	I	608	PLM	O2-C1-C2-C3
4	I	604	PLM	CC-CD-CE-CF
4	A	603	PLM	C8-C9-CA-CB
4	I	608	PLM	O1-C1-C2-C3
3	I	602	IMN	C11-C10-C9-O1

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Mol	Chain	Res	Type	Atoms
4	A	603	PLM	O1-C1-C2-C3
4	I	604	PLM	O1-C1-C2-C3
4	I	605	PLM	O1-C1-C2-C3
4	A	608	PLM	O1-C1-C2-C3
2	A	601	A1D6U	N00C-C00J-N00E-C00U
4	I	607	PLM	C1-C2-C3-C4
4	A	607	PLM	C3-C4-C5-C6
4	A	608	PLM	O2-C1-C2-C3
4	A	606	PLM	CD-CE-CF-CG
4	A	605	PLM	O1-C1-C2-C3
4	A	604	PLM	O1-C1-C2-C3
4	A	604	PLM	O2-C1-C2-C3
4	I	604	PLM	O2-C1-C2-C3
4	I	606	PLM	O1-C1-C2-C3
4	I	605	PLM	O2-C1-C2-C3
4	A	605	PLM	O2-C1-C2-C3
4	I	606	PLM	O2-C1-C2-C3
4	A	608	PLM	CC-CD-CE-CF
4	A	603	PLM	O2-C1-C2-C3
4	I	603	PLM	C1-C2-C3-C4

There are no ring outliers.

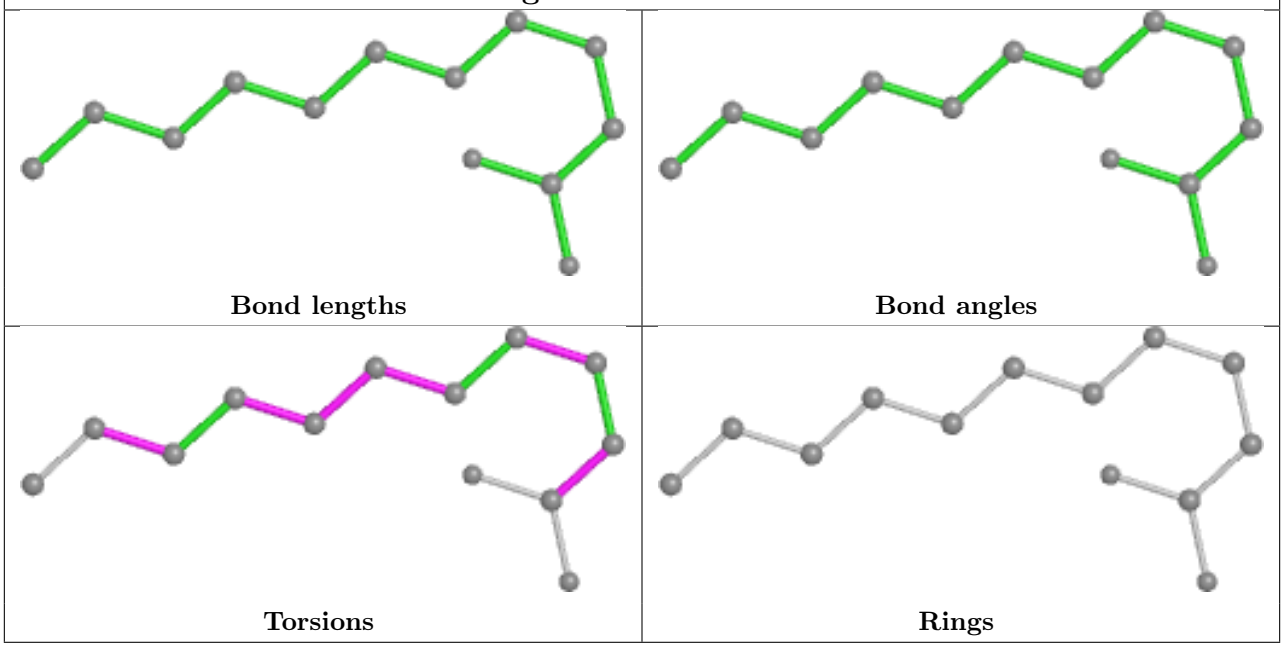
7 monomers are involved in 26 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	A	603	PLM	1	0
4	A	604	PLM	1	0
4	A	606	PLM	3	0
3	A	602	IMN	10	0
4	I	604	PLM	1	0
3	I	602	IMN	7	0
4	I	606	PLM	3	0

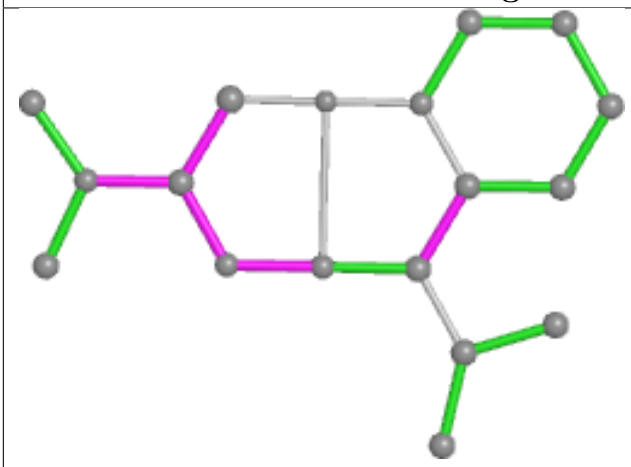
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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.

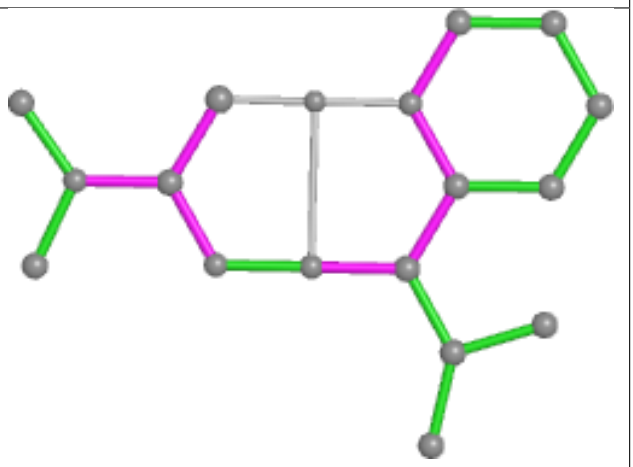
Ligand PLM A 603



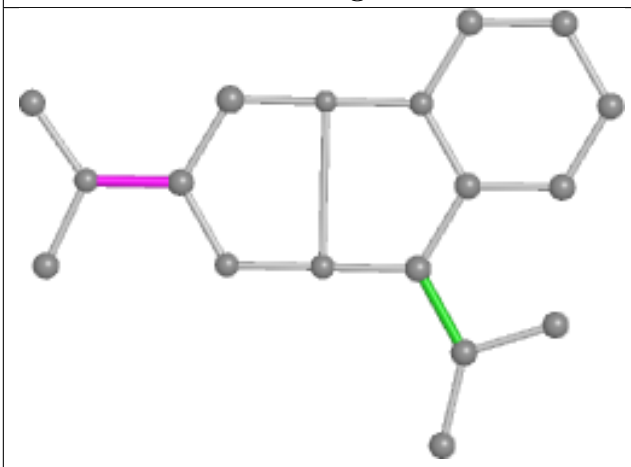
Ligand A1D6U A 601



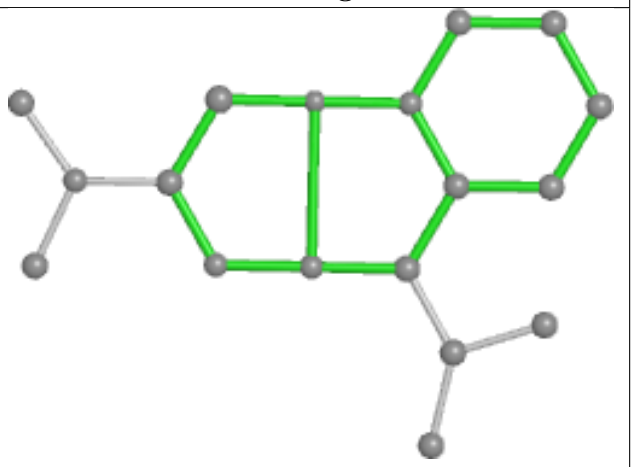
Bond lengths



Bond angles

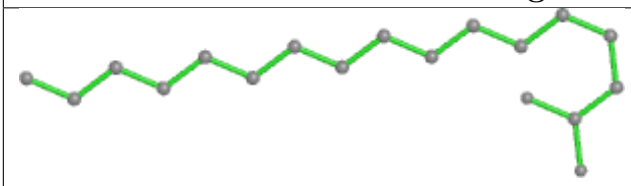


Torsions

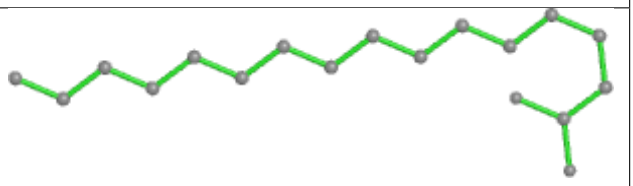


Rings

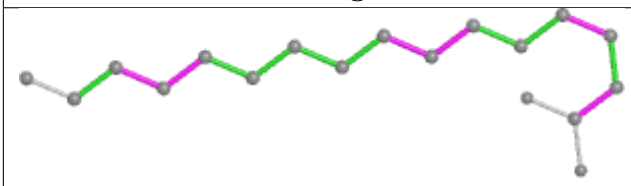
Ligand PLM I 608



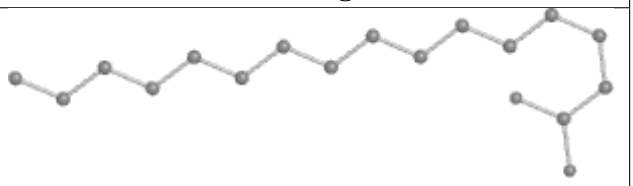
Bond lengths



Bond angles

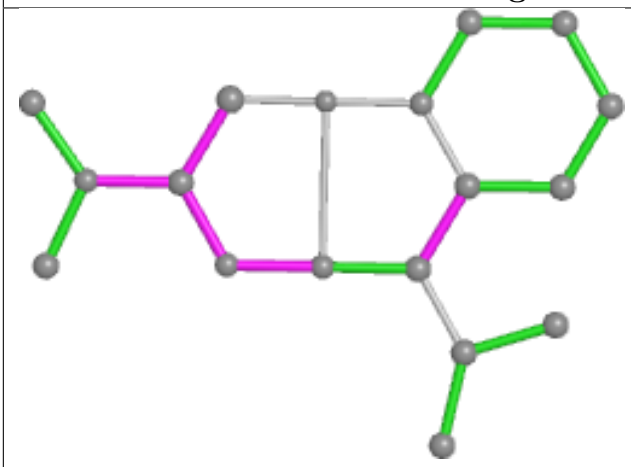


Torsions

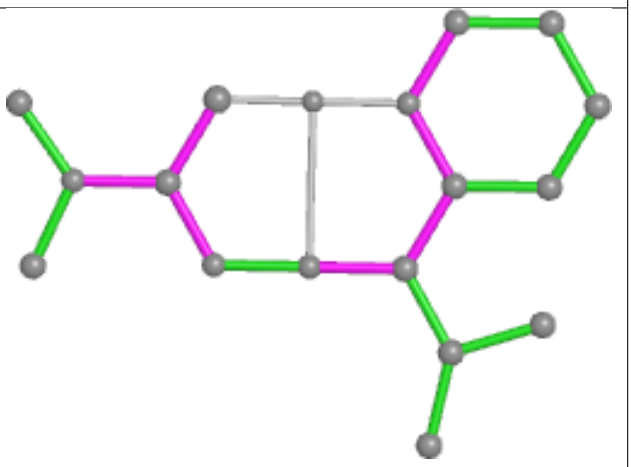


Rings

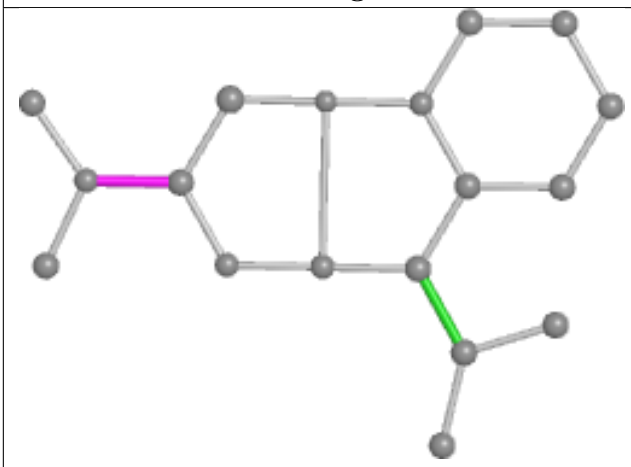
Ligand A1D6U I 601



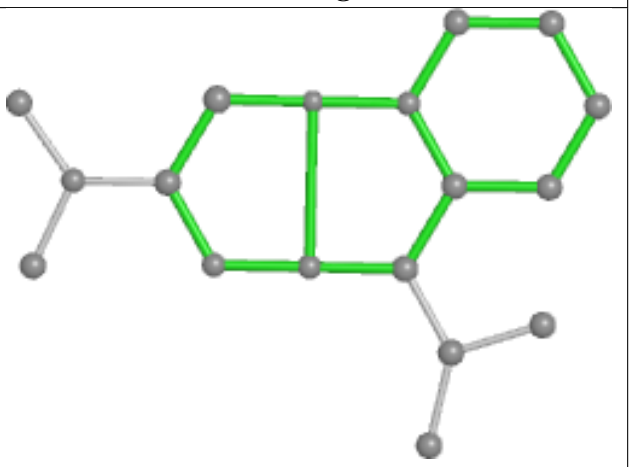
Bond lengths



Bond angles

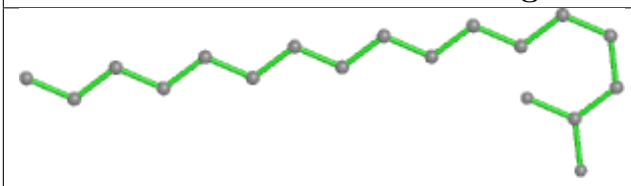


Torsions

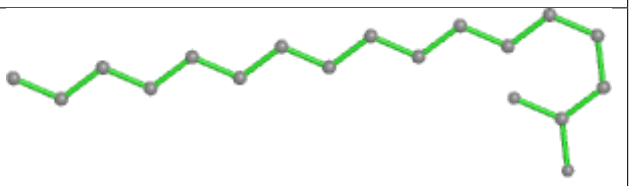


Rings

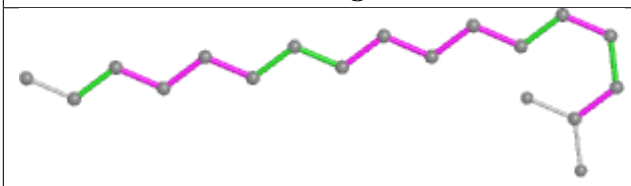
Ligand PLM A 604



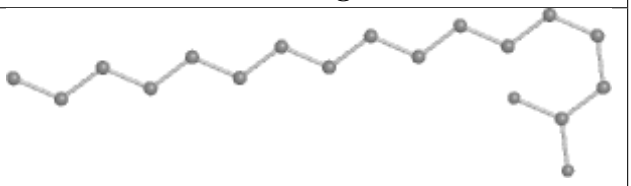
Bond lengths



Bond angles

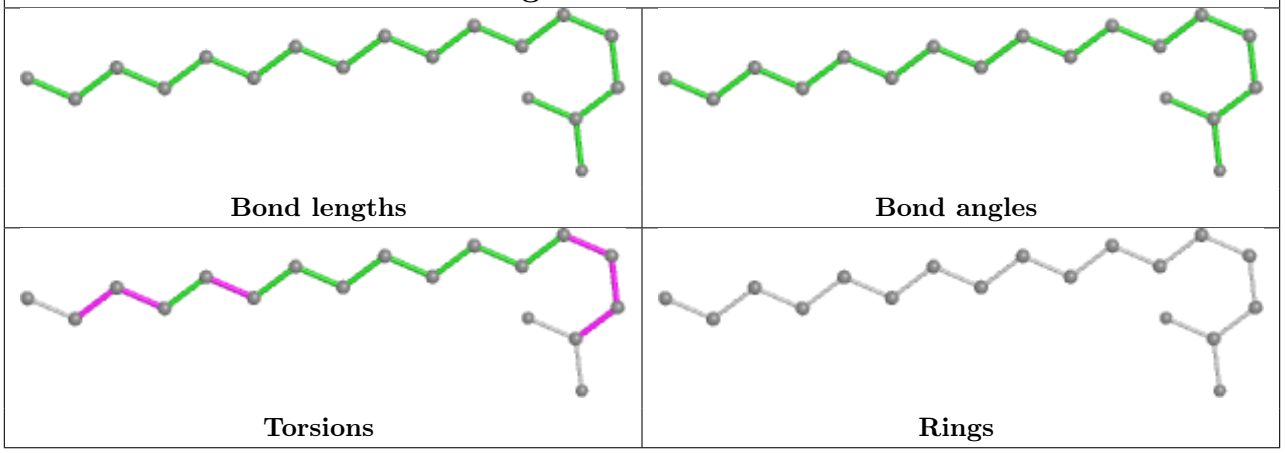


Torsions

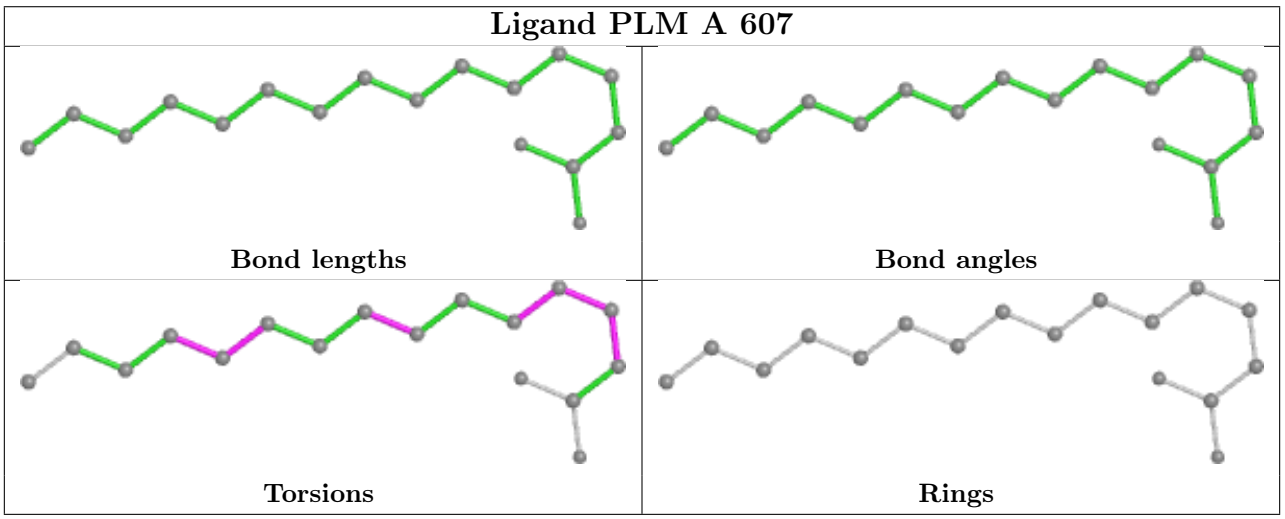


Rings

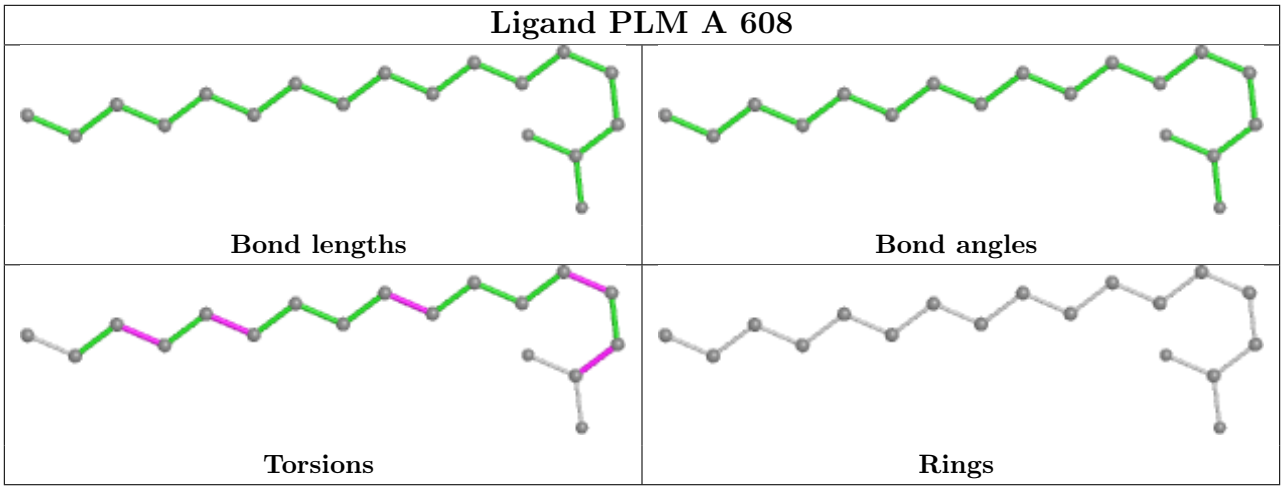
Ligand PLM A 606



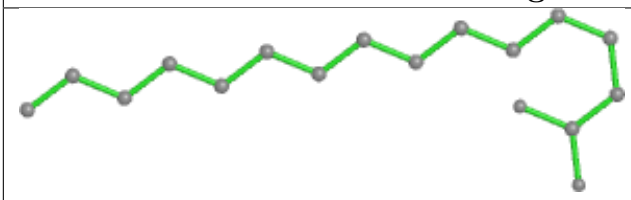
Ligand PLM A 607



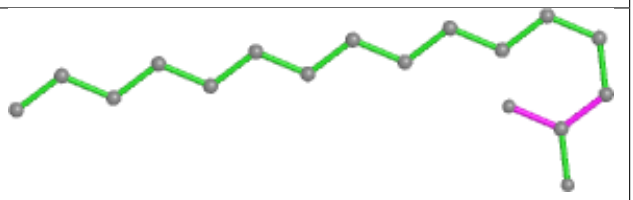
Ligand PLM A 608



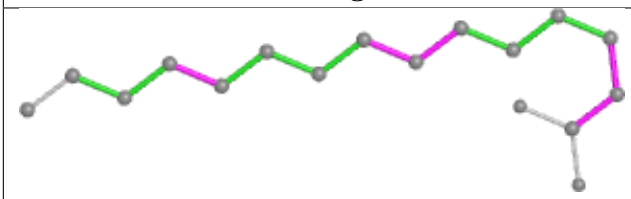
Ligand PLM I 605



Bond lengths



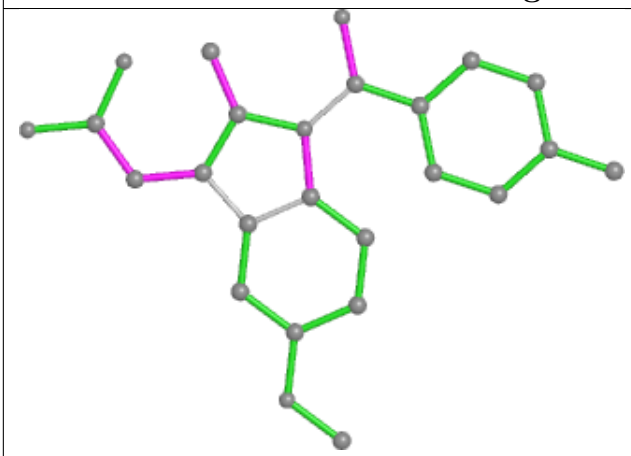
Bond angles



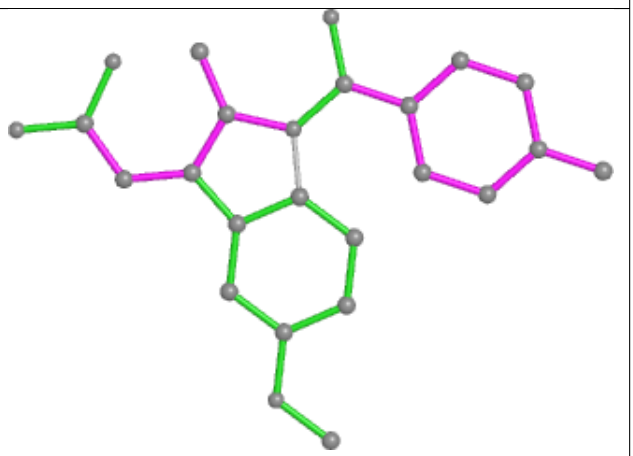
Torsions

Rings

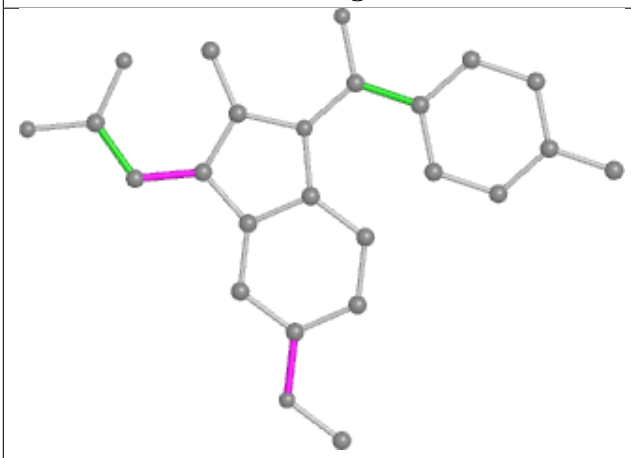
Ligand IMN A 602



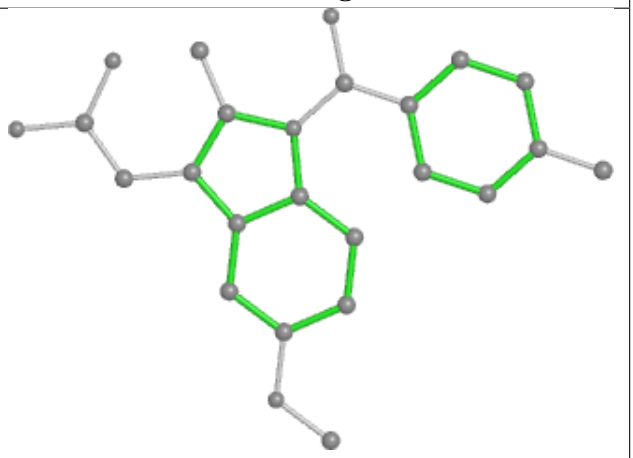
Bond lengths



Bond angles

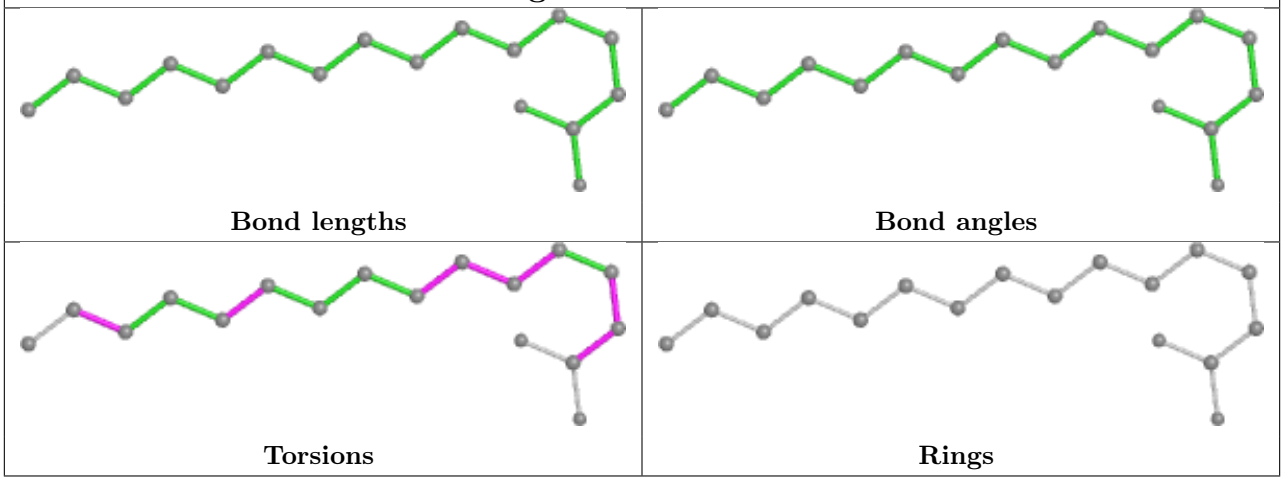


Torsions

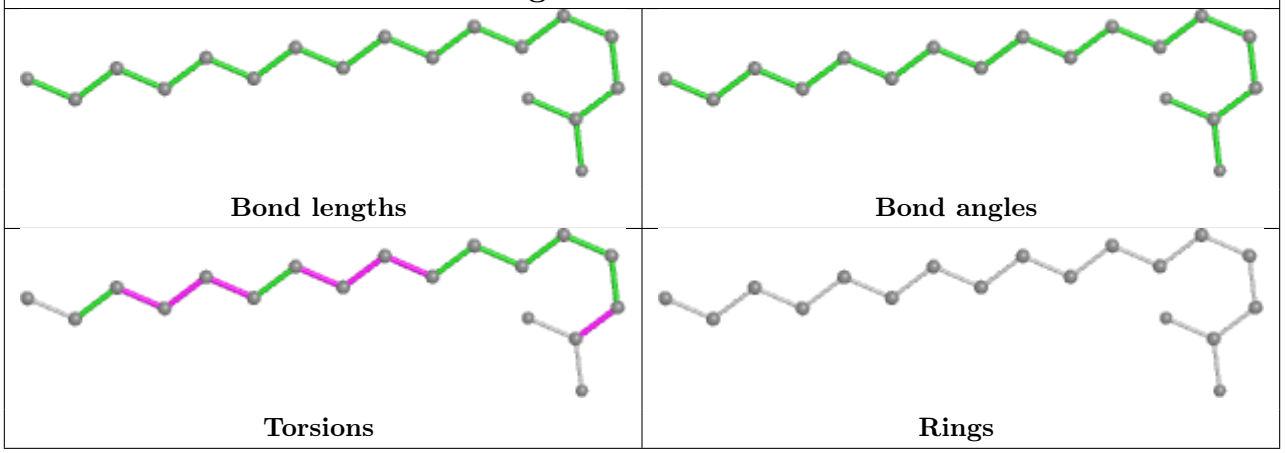


Rings

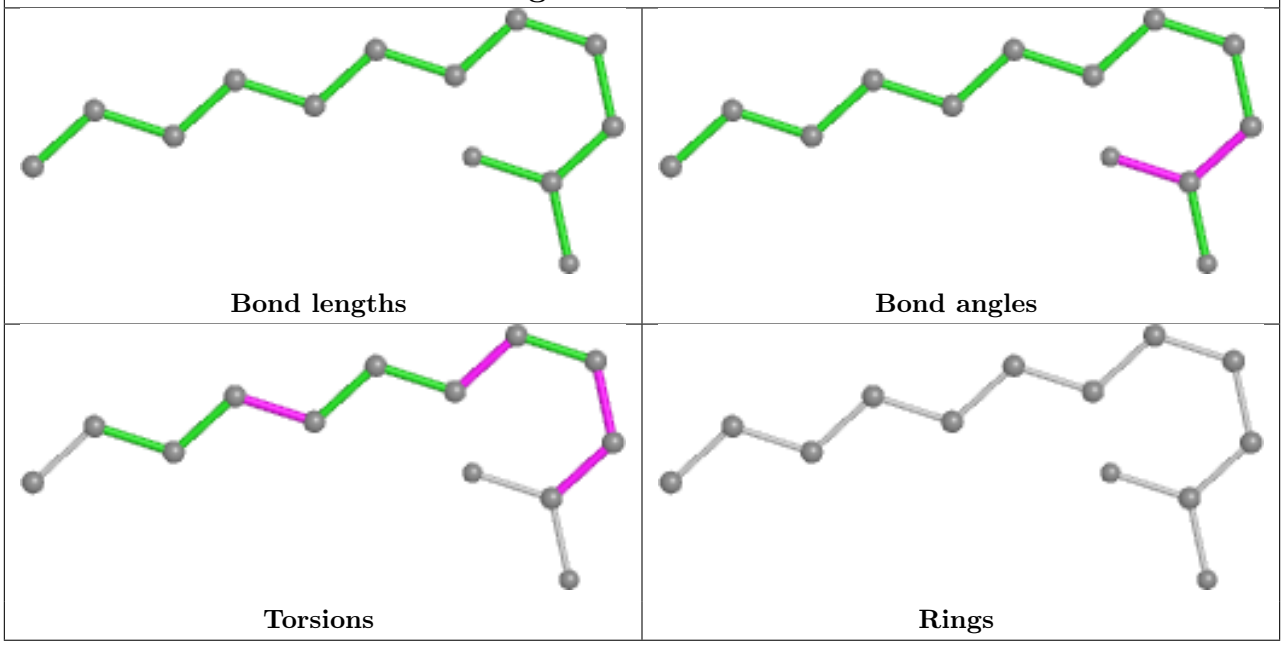
Ligand PLM I 607



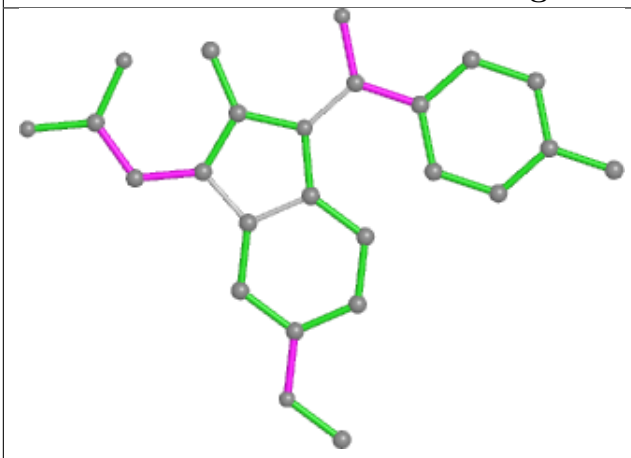
Ligand PLM I 604



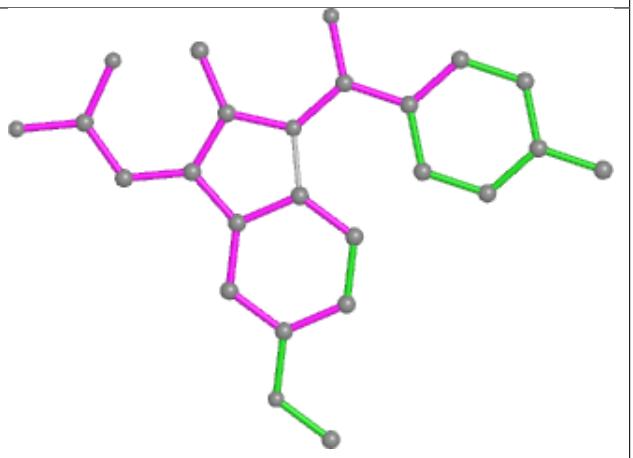
Ligand PLM I 603



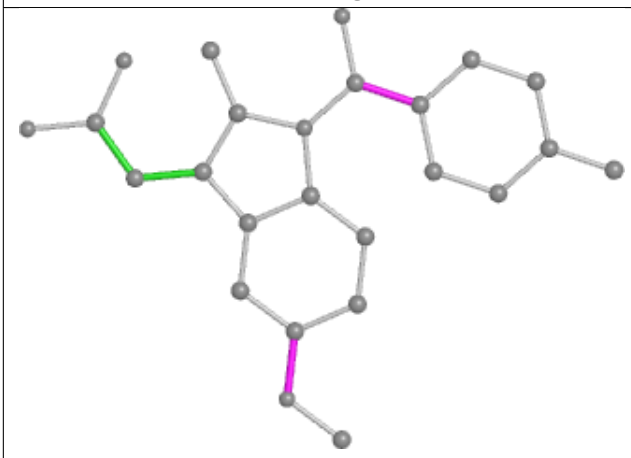
Ligand IMN I 602



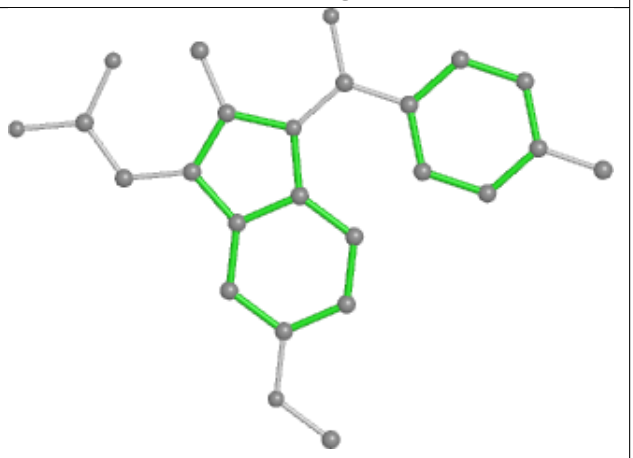
Bond lengths



Bond angles

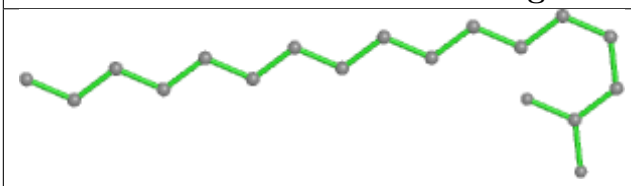


Torsions

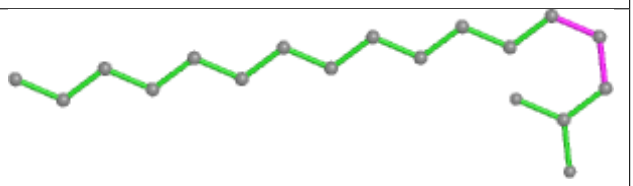


Rings

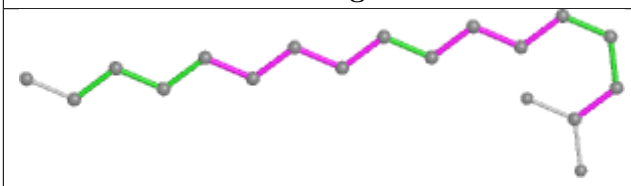
Ligand PLM I 606



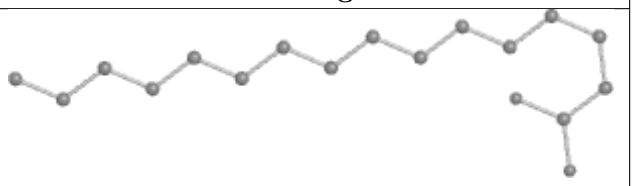
Bond lengths



Bond angles

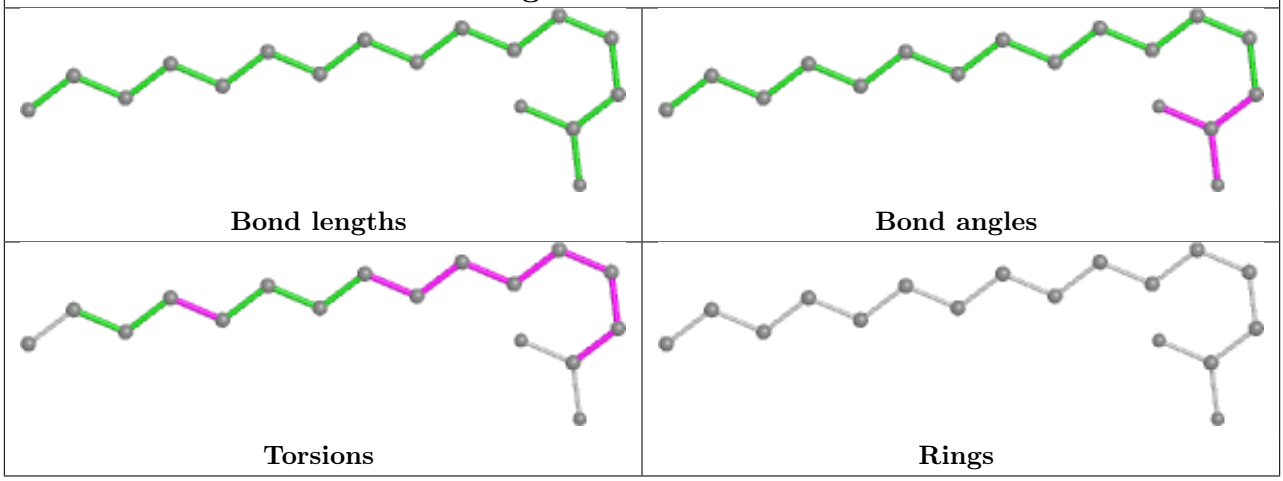


Torsions



Rings

Ligand PLM A 605



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

6.1 Protein, DNA and RNA chains

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, 95^{th} 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	581/581 (100%)	-1.20	0	100	100	11, 32, 56, 73	0
1	I	581/581 (100%)	-1.14	0	100	100	12, 34, 59, 84	0
All	All	1162/1162 (100%)	-1.17	0	100	100	11, 33, 58, 84	0

There are no RSRZ outliers to report.

6.2 Non-standard residues in protein, DNA, RNA chains

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

6.3 Carbohydrates

There are no monosaccharides in this entry.

6.4 Ligands

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, 95^{th} 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	A1D6U	I	601	18/18	0.97	0.09	77,91,104,114	0
3	IMN	A	602	25/25	0.97	0.09	66,73,114,129	0
3	IMN	I	602	25/25	0.97	0.07	39,74,80,91	0
4	PLM	A	603	13/18	0.97	0.06	35,39,43,44	0
4	PLM	I	604	18/18	0.97	0.06	34,39,50,53	0
4	PLM	A	604	18/18	0.98	0.06	34,40,46,46	0
4	PLM	A	605	17/18	0.98	0.06	25,45,49,50	0

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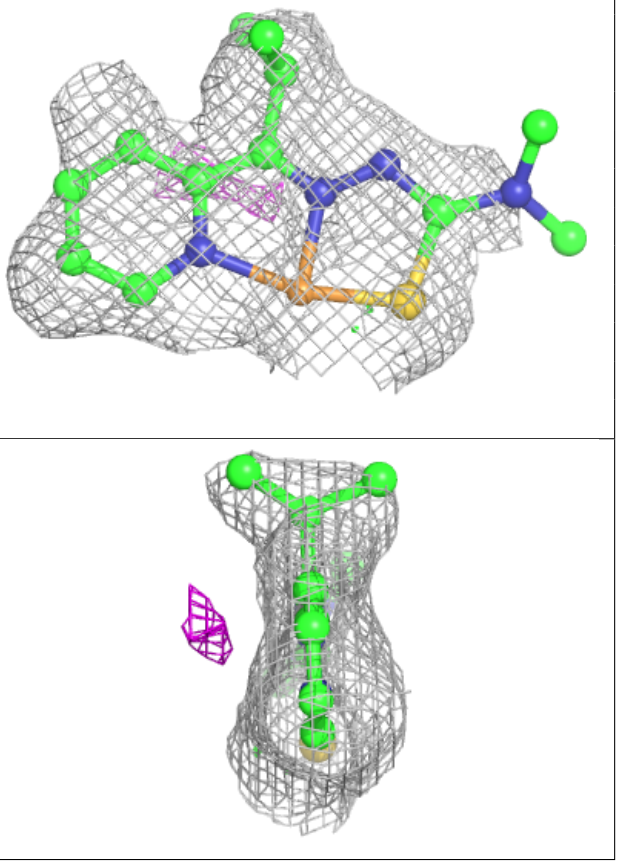
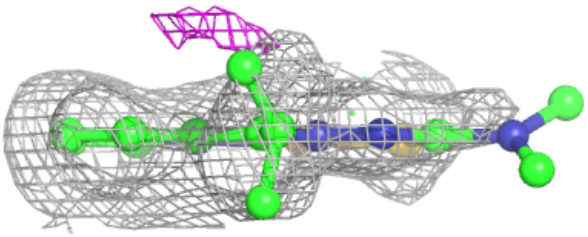
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	PLM	A	606	18/18	0.98	0.08	34,42,58,60	0
4	PLM	A	607	17/18	0.98	0.06	33,35,50,53	0
4	PLM	A	608	18/18	0.98	0.07	38,44,59,60	0
4	PLM	I	603	13/18	0.98	0.06	44,49,53,53	0
2	A1D6U	A	601	18/18	0.98	0.07	74,84,100,105	0
4	PLM	I	605	17/18	0.98	0.07	33,40,46,48	0
4	PLM	I	606	18/18	0.98	0.08	44,51,68,70	0
4	PLM	I	607	17/18	0.98	0.08	40,44,61,61	0
4	PLM	I	608	18/18	0.98	0.09	45,57,74,77	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 A1D6U I 601:

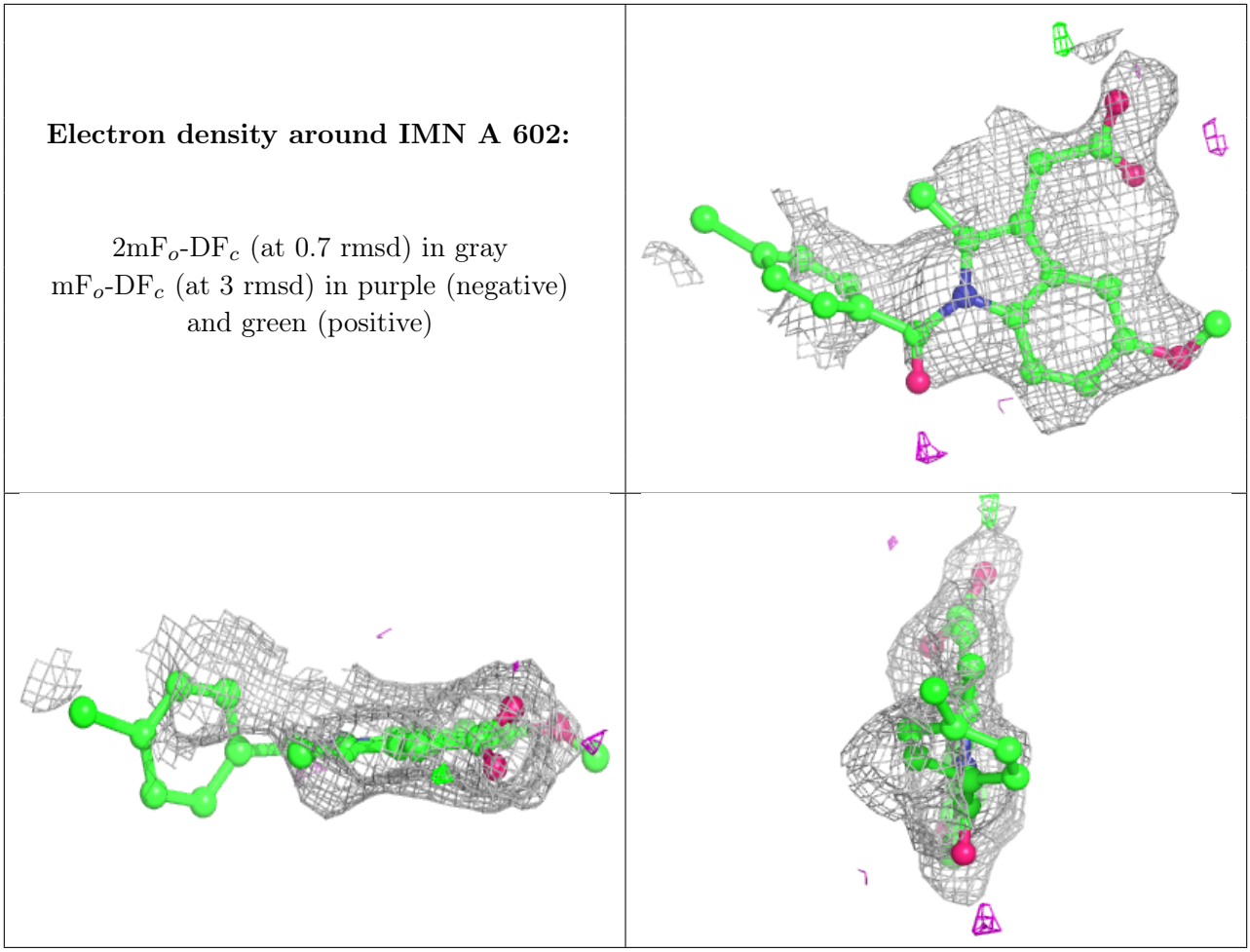
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





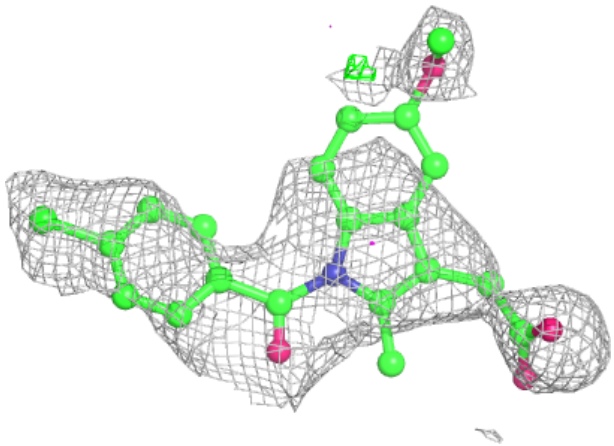
Electron density around IMN A 602:

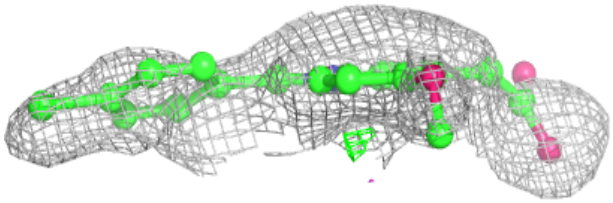
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

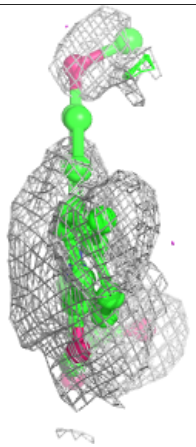


Electron density around IMN I 602:

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

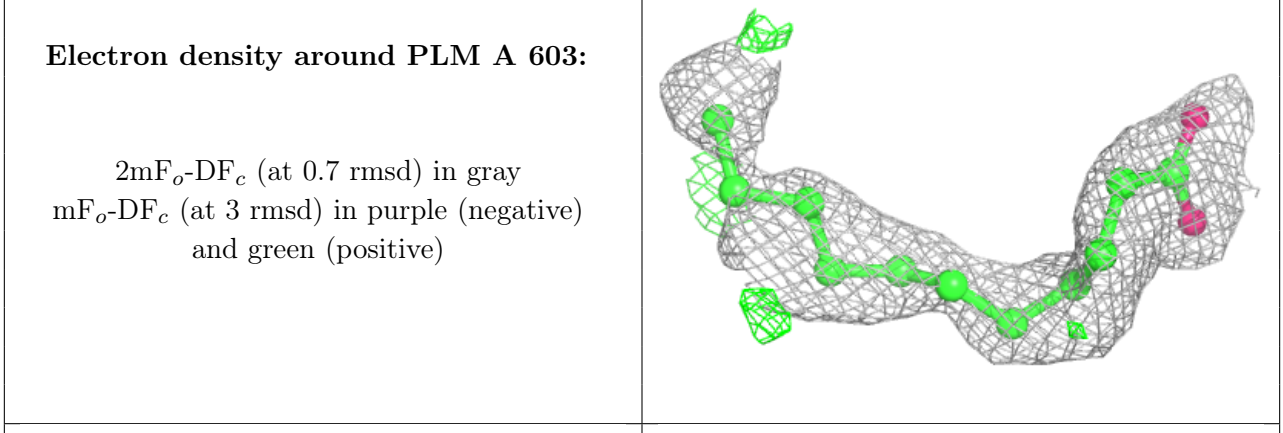






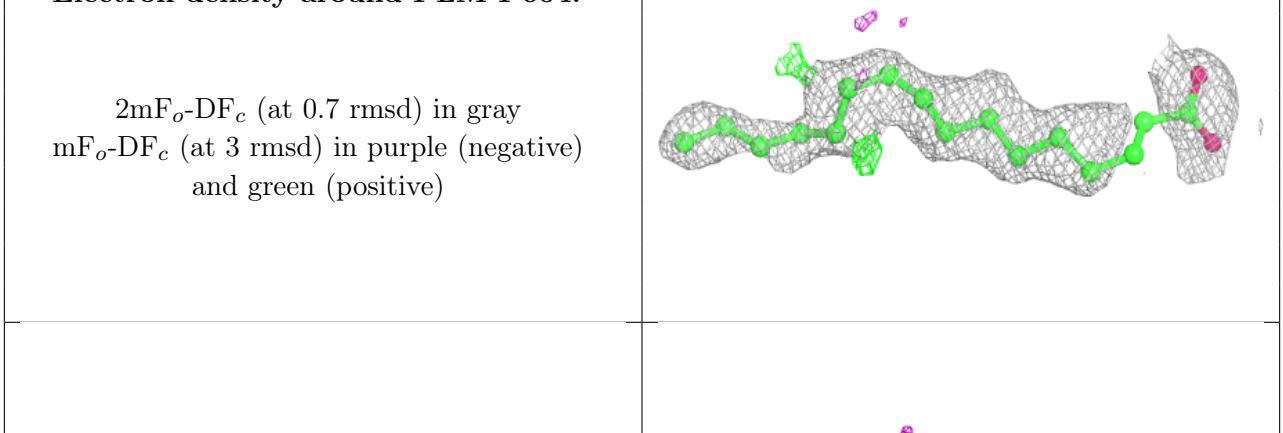
Electron density around PLM A 603:

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



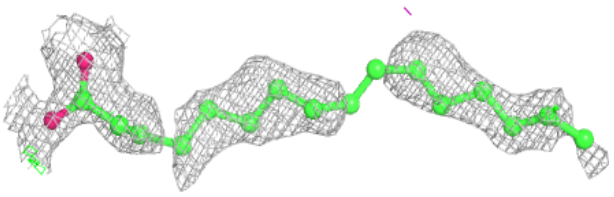
Electron density around PLM I 604:

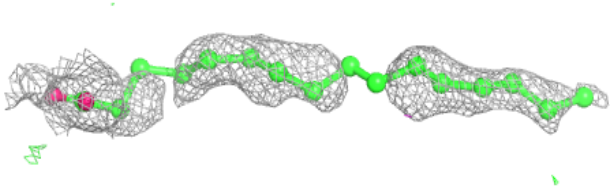
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

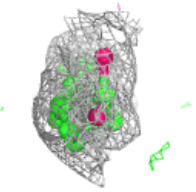


Electron density around PLM A 604:

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

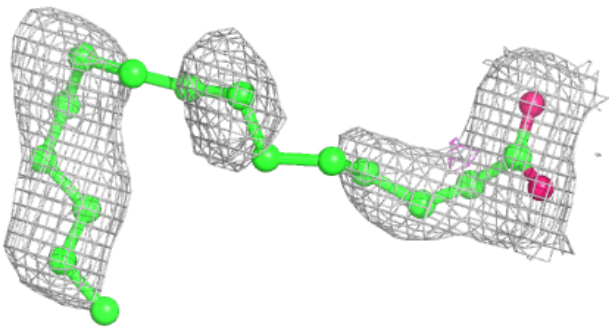


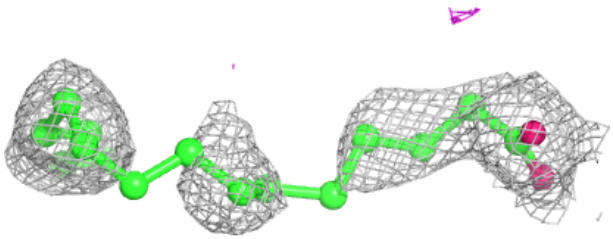


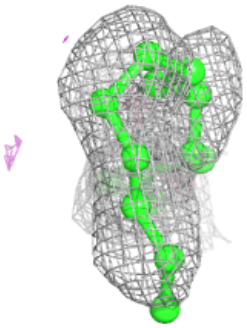


Electron density around PLM A 605:

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

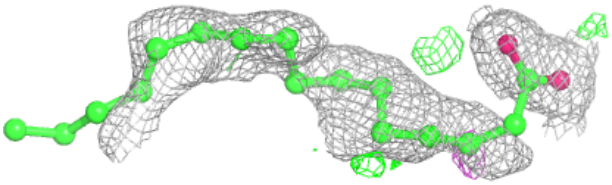


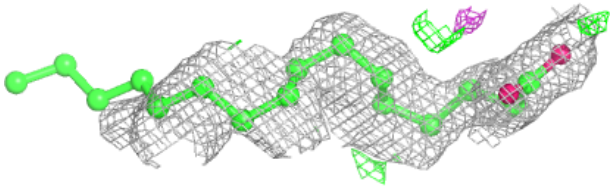


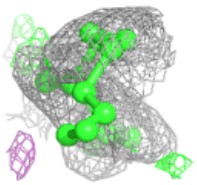


Electron density around PLM A 606:

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

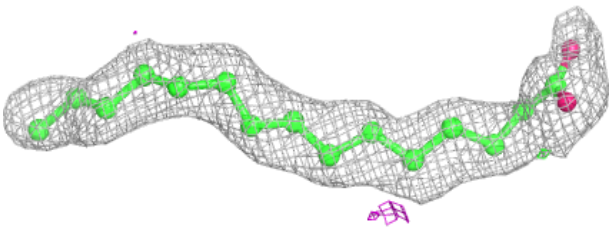


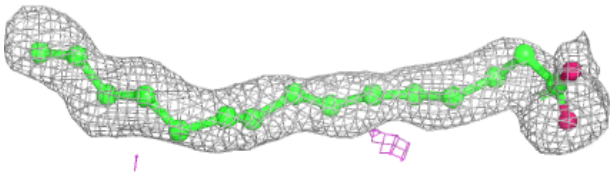


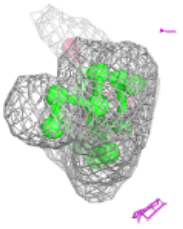


Electron density around PLM A 607:

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

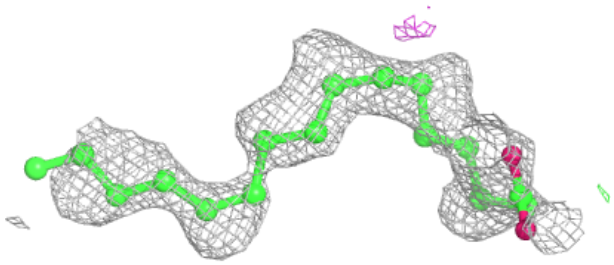


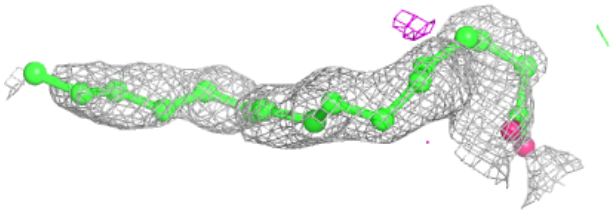


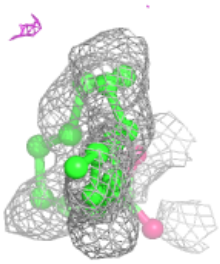


Electron density around PLM A 608:

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

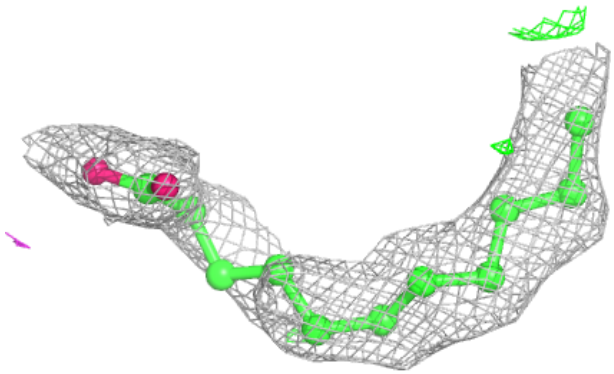


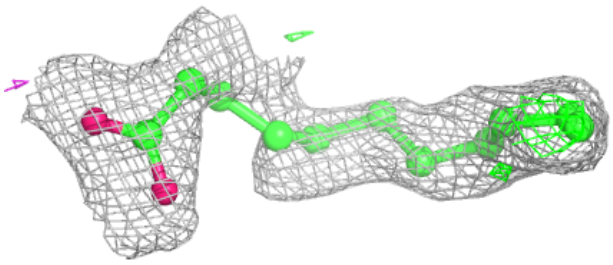


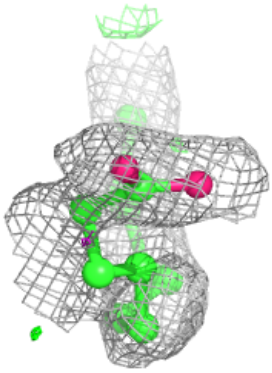


Electron density around PLM I 603:

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

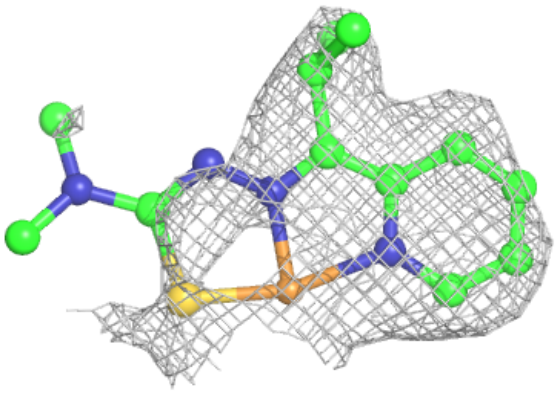


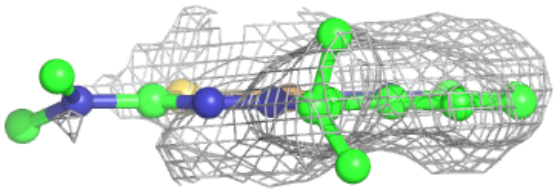


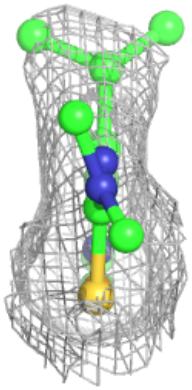


Electron density around A1D6U A 601:

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

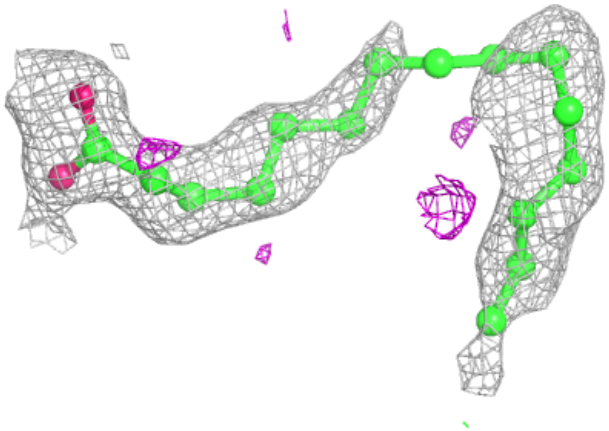


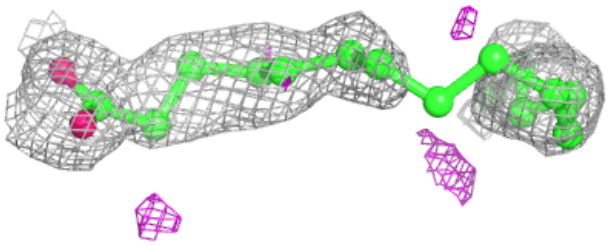


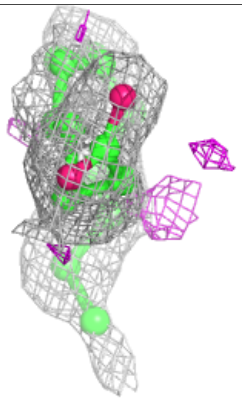


Electron density around PLM I 605:

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

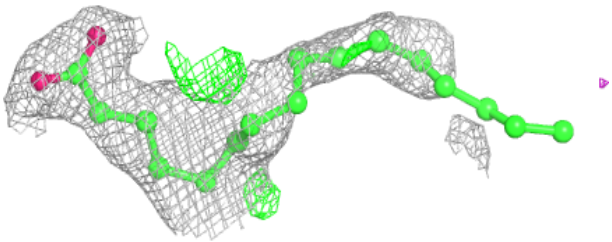


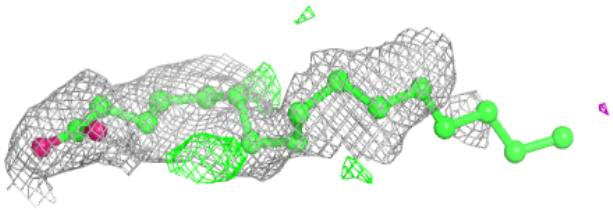


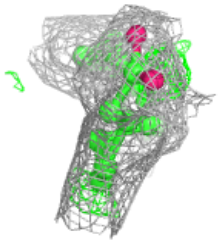


Electron density around PLM I 606:

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

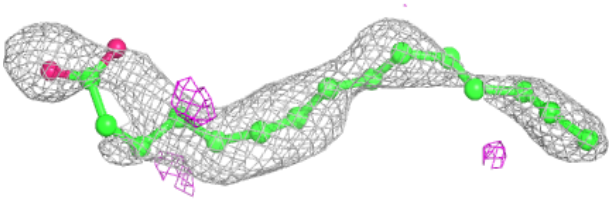


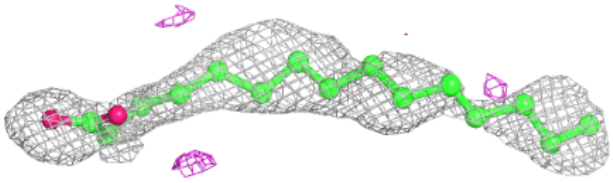


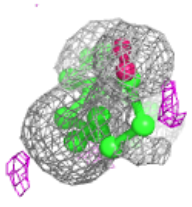


Electron density around PLM I 607:

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

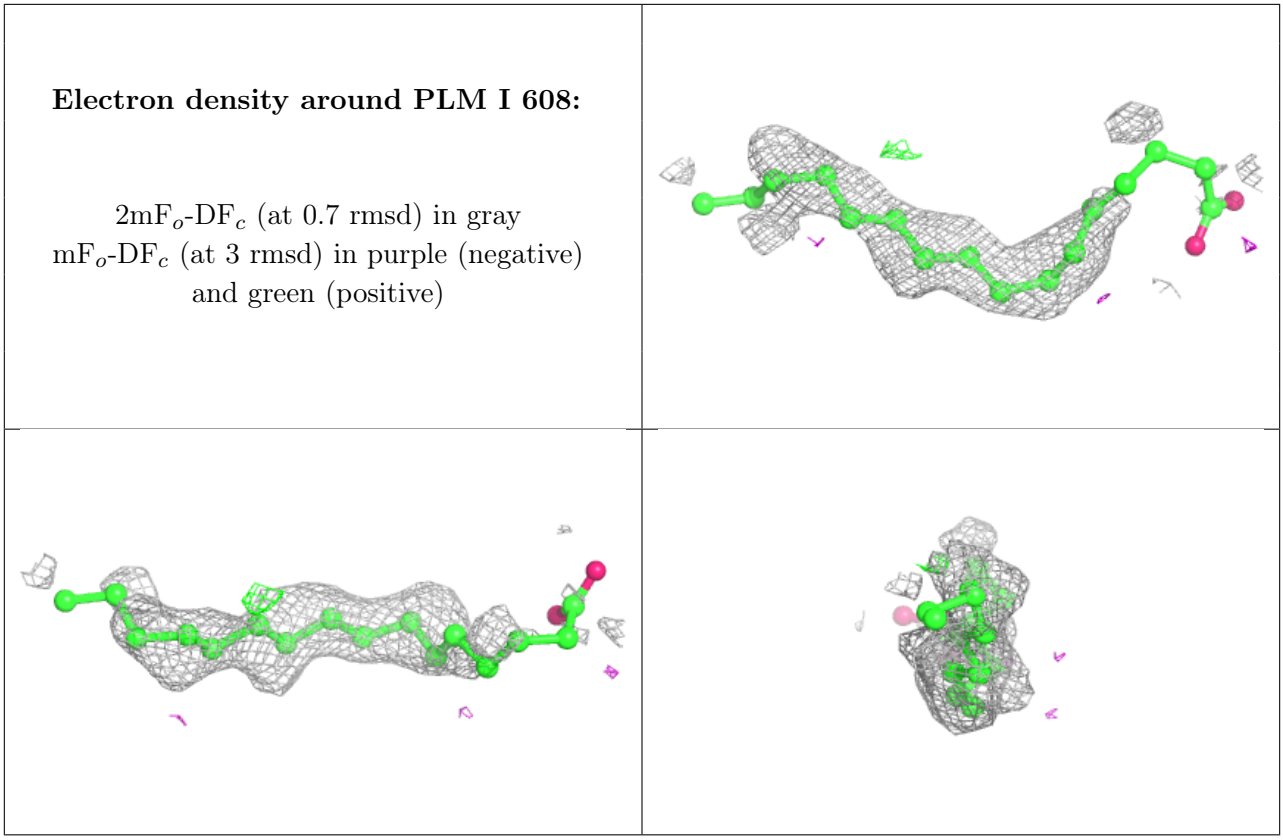






Electron density around PLM I 608:

$2mF_o$-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.