Full wwPDB X-ray Structure Validation Report ⓘ

May 11, 2021 – 10:27 am BST

PDB ID	:	6ZO8
Title	:	Minocycline binding to the deep binding pocket of AcrB-G621P
Authors	:	Tam, H.K.; Foong, W.E.; Pos, K.M.
Deposited on	:	2020-07-07
Resolution	:	2.50 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 ⓘ symbol.

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

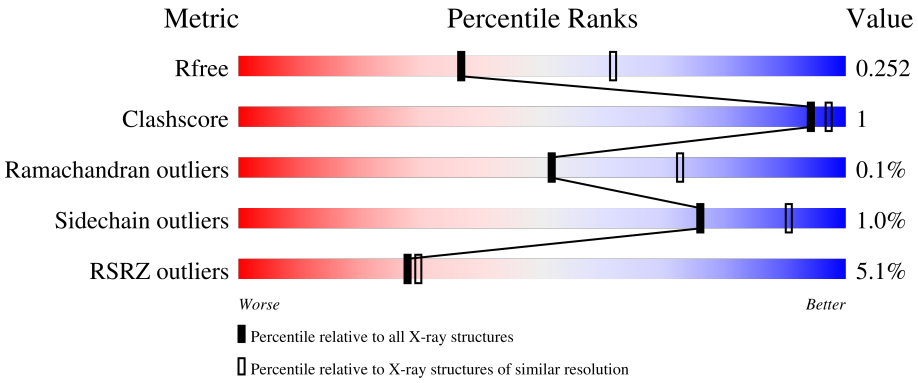
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.18
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.18

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 2.50 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	4661 (2.50-2.50)
Clashscore	141614	5346 (2.50-2.50)
Ramachandran outliers	138981	5231 (2.50-2.50)
Sidechain outliers	138945	5233 (2.50-2.50)
RSRZ outliers	127900	4559 (2.50-2.50)

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	1057	5% 94% 5%
1	B	1057	4% 94%
1	C	1057	3% 93% 5%
2	D	169	7% 92% 8%
2	E	169	22% 91% 9%

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	LMT	C	1103	-	-	-	X
7	EDO	D	201	-	-	-	X

2 Entry composition (i)

There are 20 unique types of molecules in this entry. The entry contains 27356 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 Multidrug efflux pump subunit AcrB.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	1042	Total	C	N	O	S	0	0	0
			7930	5100	1311	1475	44			
1	B	1034	Total	C	N	O	S	0	0	0
			7858	5058	1296	1460	44			
1	C	1035	Total	C	N	O	S	0	3	0
			7885	5075	1302	1463	45			

There are 27 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	621	PRO	GLY	engineered mutation	UNP P31224
A	1050	LEU	-	expression tag	UNP P31224
A	1051	GLU	-	expression tag	UNP P31224
A	1052	HIS	-	expression tag	UNP P31224
A	1053	HIS	-	expression tag	UNP P31224
A	1054	HIS	-	expression tag	UNP P31224
A	1055	HIS	-	expression tag	UNP P31224
A	1056	HIS	-	expression tag	UNP P31224
A	1057	HIS	-	expression tag	UNP P31224
B	621	PRO	GLY	engineered mutation	UNP P31224
B	1050	LEU	-	expression tag	UNP P31224
B	1051	GLU	-	expression tag	UNP P31224
B	1052	HIS	-	expression tag	UNP P31224
B	1053	HIS	-	expression tag	UNP P31224
B	1054	HIS	-	expression tag	UNP P31224
B	1055	HIS	-	expression tag	UNP P31224
B	1056	HIS	-	expression tag	UNP P31224
B	1057	HIS	-	expression tag	UNP P31224
C	621	PRO	GLY	engineered mutation	UNP P31224
C	1050	LEU	-	expression tag	UNP P31224
C	1051	GLU	-	expression tag	UNP P31224
C	1052	HIS	-	expression tag	UNP P31224
C	1053	HIS	-	expression tag	UNP P31224

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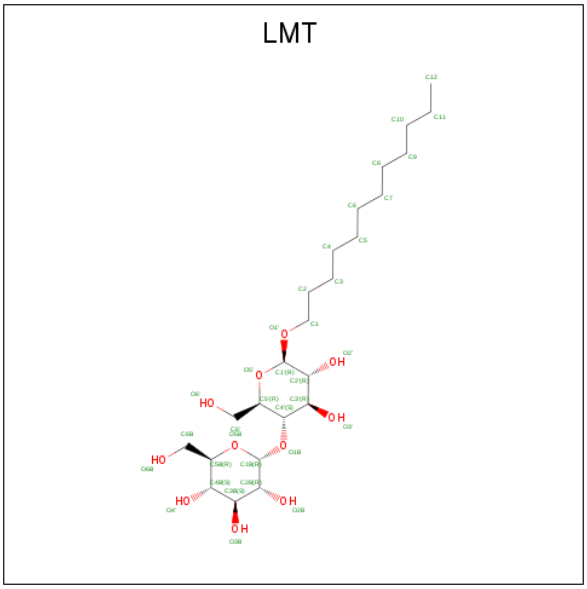
Chain	Residue	Modelled	Actual	Comment	Reference
C	1054	HIS	-	expression tag	UNP P31224
C	1055	HIS	-	expression tag	UNP P31224
C	1056	HIS	-	expression tag	UNP P31224
C	1057	HIS	-	expression tag	UNP P31224

- Molecule 2 is a protein called DARPIN.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	D	156	Total	C	N	O	S	0	0	0
			1177	741	206	229	1			
2	E	154	Total	C	N	O	S	0	0	0
			1167	736	204	226	1			

- Molecule 3 is DODECYL-BETA-D-MALTOSIDE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total	C	O	0	0
			35	24	11		
3	A	1	Total	C	O	0	0
			35	24	11		
3	A	1	Total	C	O	0	0
			35	24	11		
3	A	1	Total	C	O	0	0
			35	24	11		
3	A	1	Total	C	O	0	0
			35	24	11		

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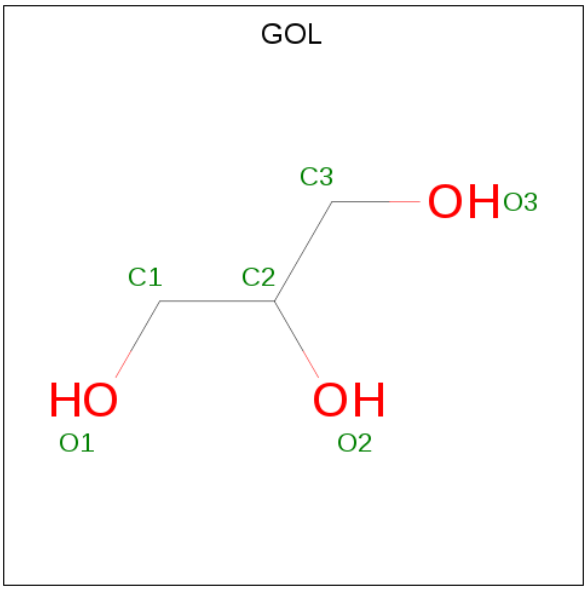
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	B	1	Total C O 35 24 11	0	0
3	C	1	Total C O 35 24 11	0	0
3	C	1	Total C O 35 24 11	0	0
3	C	1	Total C O 35 24 11	0	0

- Molecule 4 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



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

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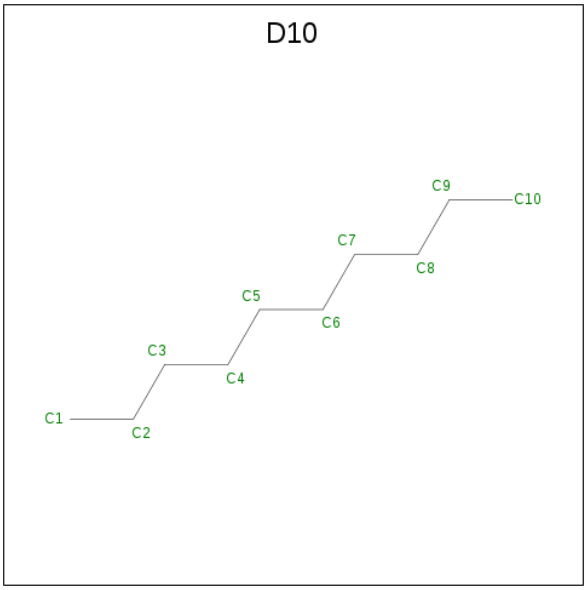
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0
4	C	1	Total C O 6 3 3	0	0

- Molecule 5 is DECANE (three-letter code: D10) (formula: $C_{10}H_{22}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	1	Total C 10 10	0	0
5	A	1	Total C 10 10	0	0

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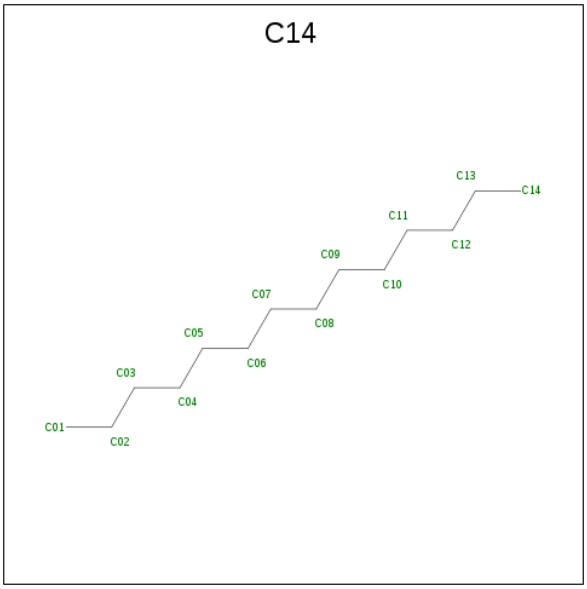
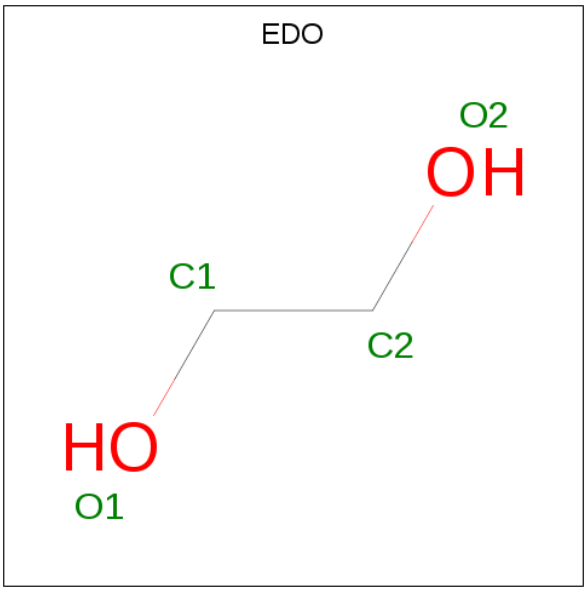
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total C 10 10	0	0
5	B	1	Total C 10 10	0	0
5	C	1	Total C 10 10	0	0
5	C	1	Total C 10 10	0	0
5	C	1	Total C 10 10	0	0

- Molecule 6 is TETRADECANE (three-letter code: C14) (formula: $C_{14}H_{30}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	1	Total C 14 14	0	0
6	C	1	Total C 14 14	0	0

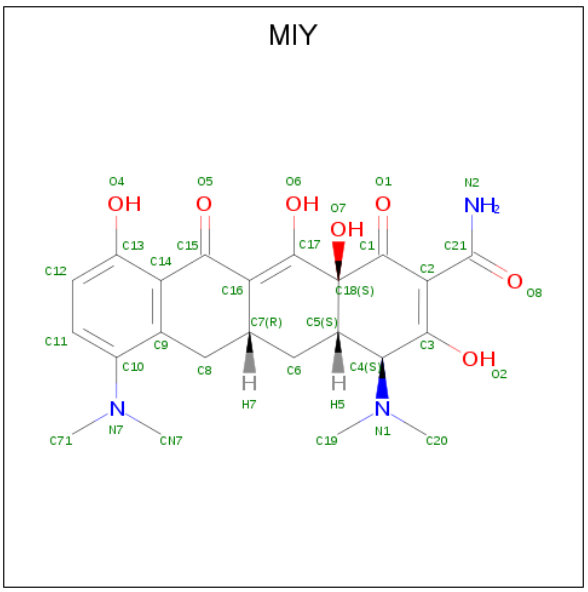
- Molecule 7 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
7	A	1	Total	C	O	0	0
			4	2	2		
7	A	1	Total	C	O	0	0
			4	2	2		
7	B	1	Total	C	O	0	0
			4	2	2		
7	B	1	Total	C	O	0	0
			4	2	2		
7	B	1	Total	C	O	0	0
			4	2	2		
7	B	1	Total	C	O	0	0
			4	2	2		
7	C	1	Total	C	O	0	0
			4	2	2		
7	C	1	Total	C	O	0	0
			4	2	2		
7	D	1	Total	C	O	0	0
			4	2	2		
7	D	1	Total	C	O	0	0
			4	2	2		
7	D	1	Total	C	O	0	0
			4	2	2		
7	E	1	Total	C	O	0	0
			4	2	2		

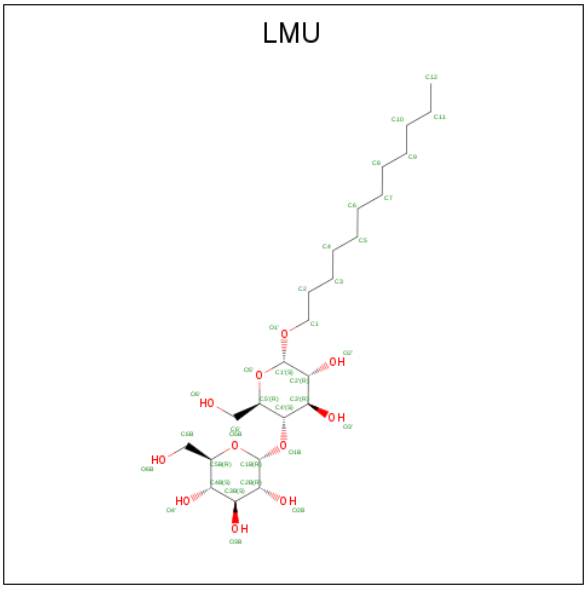
- Molecule 8 is (4S,4AS,5AR,12AS)-4,7-BIS(DIMETHYLAMINO)-3,10,12,12A-TETRAHYDROXY-1,11-DIOXO-1,4,4A,5,5A,6,11,12A-OCTAHYDROTETRACENE-2-CARBOXAMIDE (three-letter code: MIY) (formula: $C_{23}H_{27}N_3O_7$) (labeled as "Ligand of

Interest" by depositor).



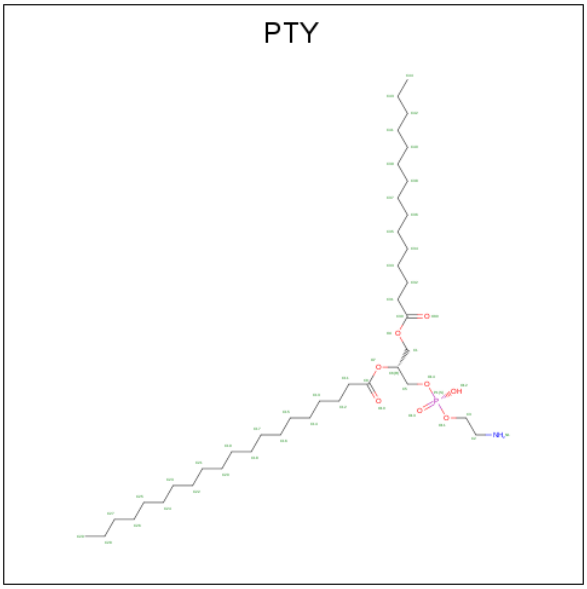
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
8	B	1	Total	C	N	O	0	0
			33	23	3	7		

- Molecule 9 is DODECYL-ALPHA-D-MALTOSIDE (three-letter code: LMU) (formula: $C_{24}H_{46}O_{11}$).



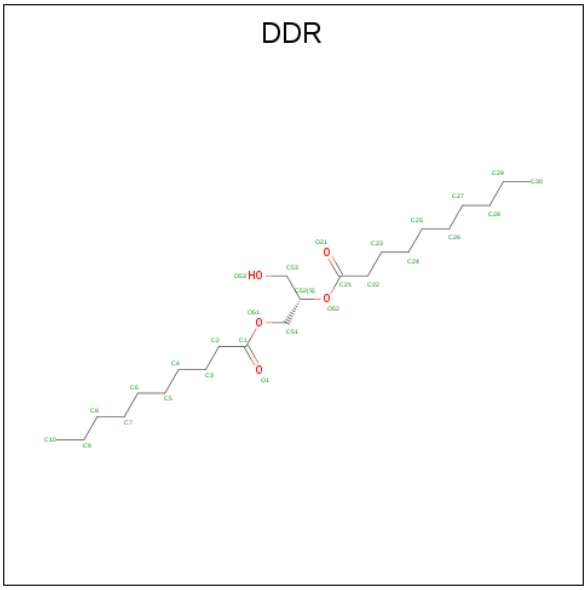
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
9	B	1	Total	C	O	0	0
			35	24	11		

- Molecule 10 is PHOSPHATIDYLETHANOLAMINE (three-letter code: PTY) (formula: $C_{40}H_{80}NO_8P$).



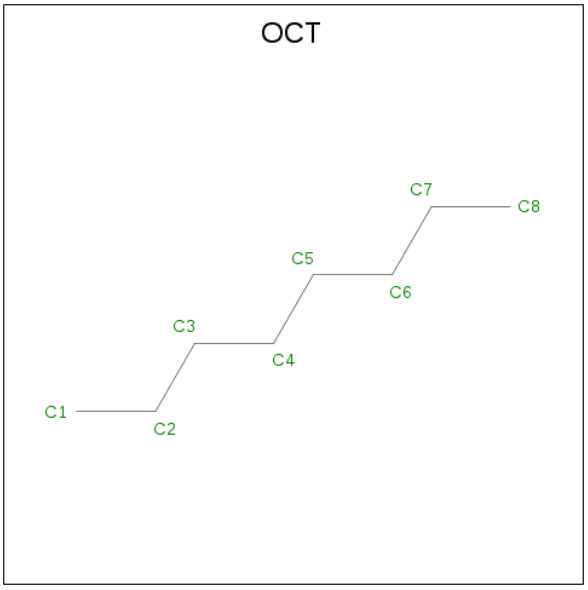
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
10	B	1	Total	C	N	O	P	0	0
			50	40	1	8	1		
10	C	1	Total	C	N	O	P	0	0
			50	40	1	8	1		

- Molecule 11 is (2S)-3-hydroxypropane-1,2-diyl didecanoate (three-letter code: DDR) (formula: $C_{23}H_{44}O_5$).



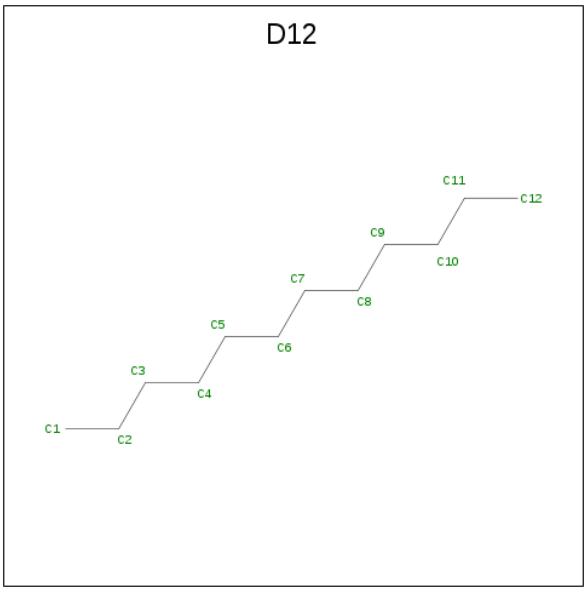
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
11	B	1	Total C O 28 23 5	0	0

- Molecule 12 is N-OCTANE (three-letter code: OCT) (formula: C_8H_{18}).



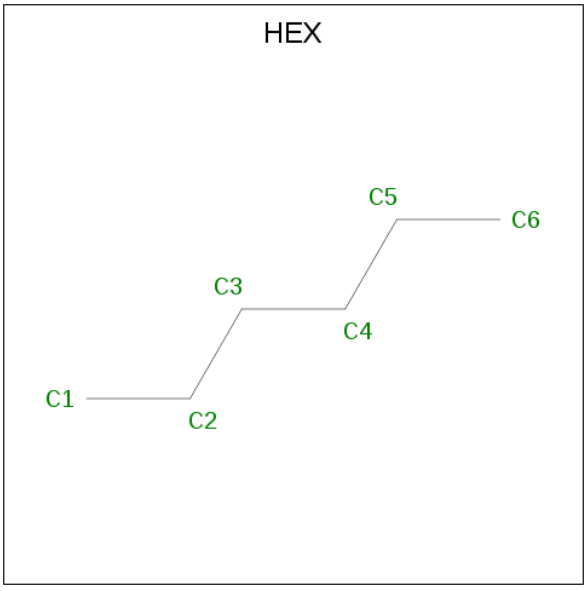
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
12	B	1	Total C 8 8	0	0
12	C	1	Total C 8 8	0	0
12	C	1	Total C 8 8	0	0

- Molecule 13 is DODECANE (three-letter code: D12) (formula: $C_{12}H_{26}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
13	B	1	Total C 12 12	0	0
13	C	1	Total C 12 12	0	0
13	C	1	Total C 12 12	0	0

- Molecule 14 is HEXANE (three-letter code: HEX) (formula: C_6H_{14}).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
14	B	1	Total C 6 6	0	0

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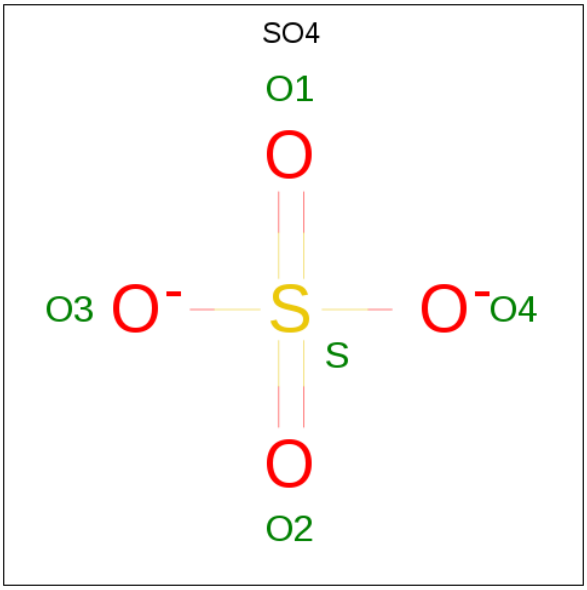
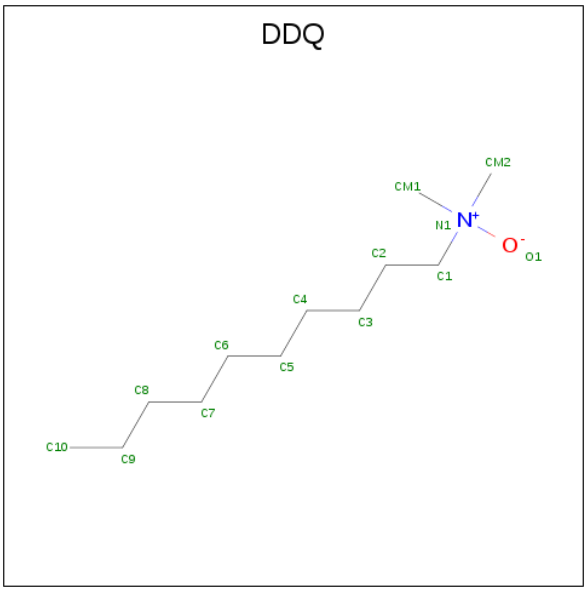
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
14	C	1	Total C 6 6	0	0
14	C	1	Total C 6 6	0	0

- Molecule 15 is SULFATE ION (three-letter code: SO4) (formula: O_4S).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
15	B	1	Total O S 5 4 1	0	0
15	C	1	Total O S 5 4 1	0	0
15	C	1	Total O S 5 4 1	0	0

- Molecule 16 is DECYLAMINE-N,N-DIMETHYL-N-OXIDE (three-letter code: DDQ) (formula: $C_{12}H_{27}NO$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
16	B	1	Total C N O 14 12 1 1	0	0

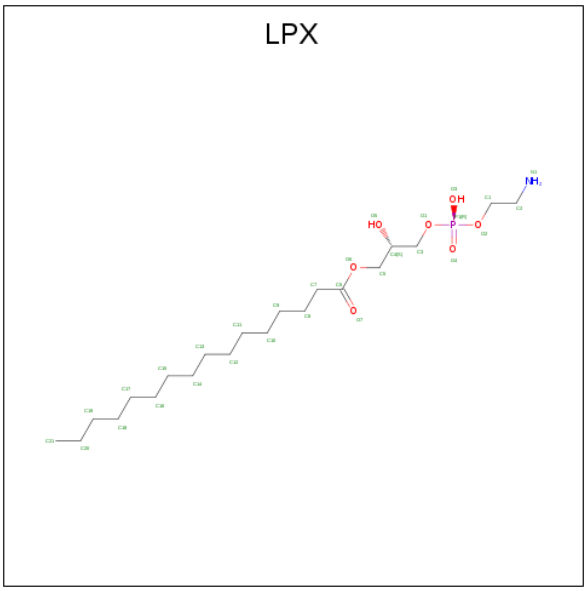
- Molecule 17 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
17	B	1	Total Na 1 1	0	0

- Molecule 18 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	B	1	Total Cl 1 1	0	0

- Molecule 19 is (2S)-3-{[(R)-(2-aminoethoxy)(hydroxy)phosphoryl]oxy}-2-hydroxypropyl hexadecanoate (three-letter code: LPX) (formula: $C_{21}H_{44}NO_7P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
19	C	1	Total	C	N	O	P	0	0
			30	21	1	7	1		
19	C	1	Total	C	N	O	P	0	0
			30	21	1	7	1		

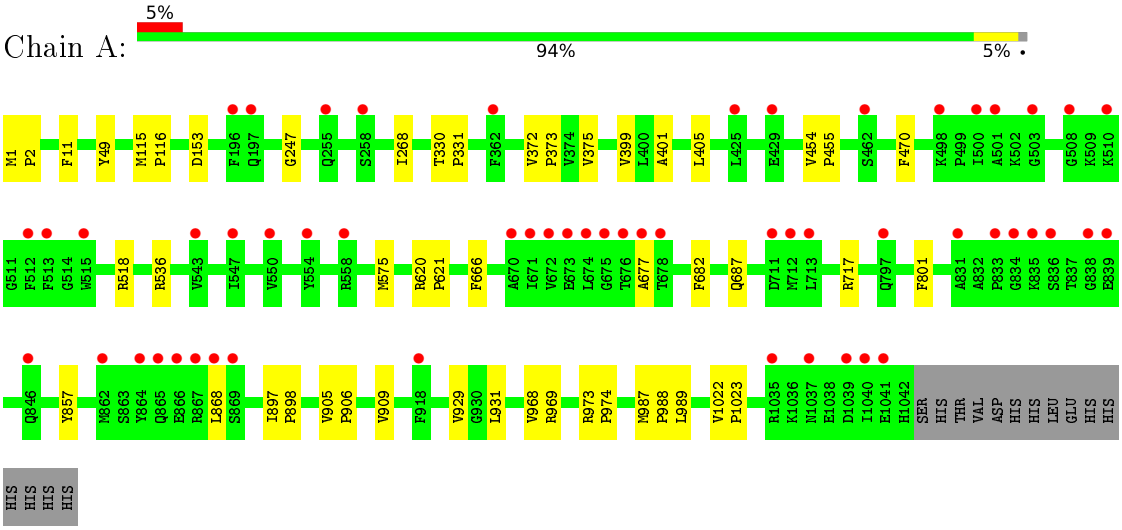
- Molecule 20 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
20	A	105	Total	O	0	2
			107	107		
20	B	137	Total	O	0	2
			139	139		
20	C	140	Total	O	0	1
			141	141		
20	D	28	Total	O	0	0
			28	28		
20	E	2	Total	O	0	0
			2	2		

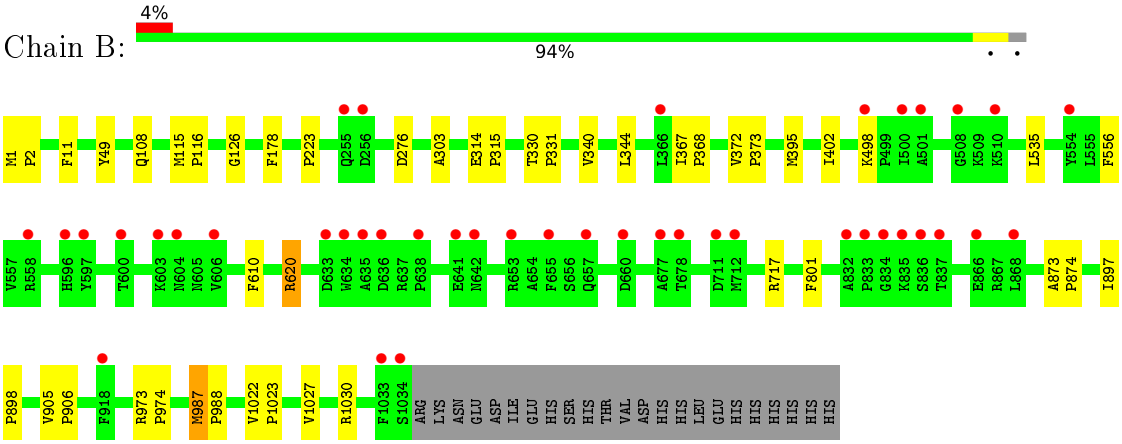
3 Residue-property plots (i)

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.

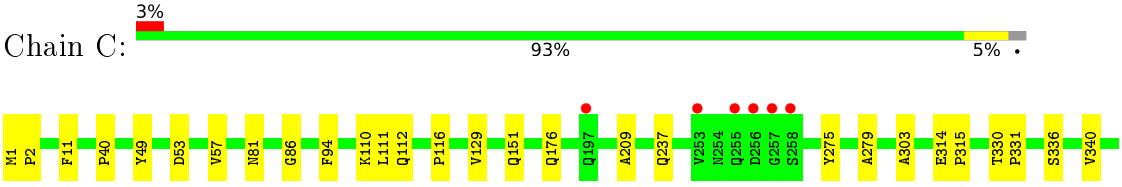
- Molecule 1: Multidrug efflux pump subunit AcrB

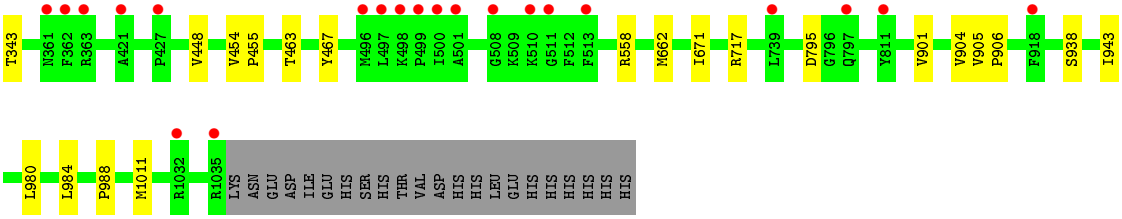


- Molecule 1: Multidrug efflux pump subunit AcrB

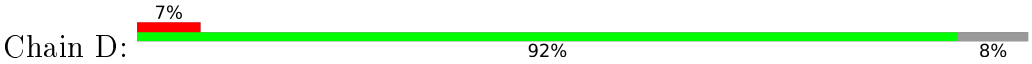


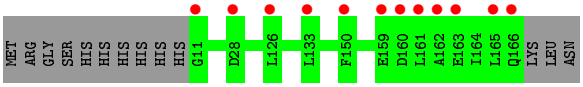
- Molecule 1: Multidrug efflux pump subunit AcrB



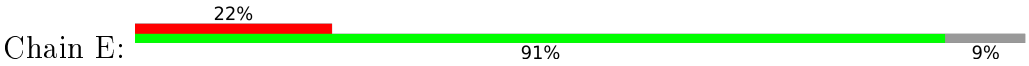


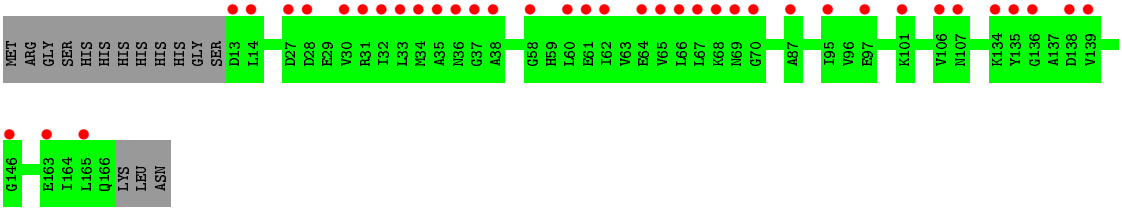
• Molecule 2: DARPIN





• Molecule 2: DARPIN





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	146.41Å 161.62Å 245.04Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	48.87 – 2.50 48.82 – 2.50	Depositor EDS
% Data completeness (in resolution range)	100.0 (48.87-2.50) 100.0 (48.82-2.50)	Depositor EDS
R_{merge}	0.17	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.39 (at 2.51Å)	Xtriage
Refinement program	REFMAC 5.8.0232	Depositor
R, R_{free}	0.219 , 0.249 0.223 , 0.252	Depositor DCC
R_{free} test set	9946 reflections (4.96%)	wwPDB-VP
Wilson B-factor (Å^2)	50.4	Xtriage
Anisotropy	0.290	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 41.1	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	0.93	EDS
Total number of atoms	27356	wwPDB-VP
Average B, all atoms (Å^2)	55.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.01% 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: GOL, LMU, MIY, PTY, OCT, D12, CL, SO4, NA, EDO, LPX, DDR, DDQ, HEX, LMT, C14, D10

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	0.66	0/8082	0.70	0/10975
1	B	0.66	0/8009	0.70	0/10878
1	C	0.66	0/8045	0.70	0/10925
2	D	0.67	0/1196	0.70	0/1626
2	E	0.67	0/1186	0.71	0/1613
All	All	0.66	0/26518	0.70	0/36017

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

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	7930	0	8076	21	0
1	B	7858	0	8010	23	0
1	C	7885	0	8046	24	0
2	D	1177	0	1159	0	0
2	E	1167	0	1151	0	0
3	A	175	0	230	0	0
3	B	35	0	46	0	0
3	C	105	0	138	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	A	12	0	16	0	0
4	B	30	0	40	0	0
4	C	54	0	72	0	0
5	A	20	0	44	0	0
5	B	20	0	44	0	0
5	C	30	0	66	1	0
6	A	14	0	30	0	0
6	C	14	0	30	0	0
7	A	8	0	12	0	0
7	B	16	0	24	0	0
7	C	8	0	12	0	0
7	D	12	0	18	0	0
7	E	4	0	6	0	0
8	B	33	0	24	1	0
9	B	35	0	46	0	0
10	B	50	0	79	0	0
10	C	50	0	79	1	0
11	B	28	0	44	0	0
12	B	8	0	18	0	0
12	C	16	0	36	0	0
13	B	12	0	26	0	0
13	C	24	0	52	0	0
14	B	6	0	14	0	0
14	C	12	0	28	0	0
15	B	5	0	0	0	0
15	C	10	0	0	0	0
16	B	14	0	27	0	0
17	B	1	0	0	0	0
18	B	1	0	0	1	0
19	C	60	0	86	3	0
20	A	107	0	0	0	0
20	B	139	0	0	0	0
20	C	141	0	0	0	0
20	D	28	0	0	0	0
20	E	2	0	0	0	0
All	All	27356	0	27829	69	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 1.

All (69) 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:C:57:VAL:HG21	1:C:86:GLY:HA2	1.69	0.75
1:A:375:VAL:HG11	1:A:405:LEU:HD22	1.79	0.65
1:A:968:VAL:HG11	1:A:1023:PRO:HG3	1.81	0.61
1:B:498:LYS:NZ	18:B:1123:CL:CL	2.74	0.58
1:C:671:ILE:HG13	1:C:671:ILE:O	2.05	0.55
1:B:535:LEU:HD22	1:B:1027:VAL:HG21	1.89	0.55
1:C:111:LEU:HD22	1:C:129:VAL:CG2	2.38	0.53
1:A:247:GLY:HA2	1:A:268:ILE:CD1	2.39	0.52
5:C:1116:D10:H102	19:C:1122:LPX:H7	1.90	0.52
1:A:372:VAL:HB	1:A:373:PRO:HD3	1.92	0.52
1:B:1022:VAL:N	1:B:1023:PRO:HD2	2.26	0.51
1:C:151:GLN:NE2	1:C:279:ALA:O	2.44	0.51
10:C:1104:PTY:H162	10:C:1104:PTY:H331	1.95	0.48
1:C:314:GLU:N	1:C:315:PRO:HD2	2.29	0.48
1:A:575:MET:HG2	1:A:666:PHE:CE1	2.50	0.47
1:B:873:ALA:HB3	1:B:874:PRO:HD3	1.97	0.47
1:C:901:VAL:O	1:C:904:VAL:HG12	2.14	0.47
1:C:53:ASP:O	1:C:57:VAL:HG23	2.14	0.47
1:A:973:ARG:HB3	1:A:974:PRO:HD3	1.98	0.46
1:C:1:MET:HB3	1:C:2:PRO:HD3	1.98	0.46
1:C:336:SER:O	1:C:340:VAL:HG23	2.16	0.46
1:B:108:GLN:OE1	1:C:112[B]:GLN:HG3	2.16	0.46
1:B:897:ILE:N	1:B:898:PRO:CD	2.79	0.46
1:B:897:ILE:N	1:B:898:PRO:HD2	2.32	0.45
1:B:126:GLY:HA3	1:C:116:PRO:CB	2.46	0.45
1:C:463:THR:HG22	1:C:467:TYR:CZ	2.51	0.45
1:C:448:VAL:HG11	1:C:943:ILE:HD11	1.99	0.45
1:B:303:ALA:HB2	1:B:330:THR:HG21	1.99	0.45
1:B:314:GLU:HB2	1:B:315:PRO:HD3	1.99	0.45
1:B:340:VAL:HG21	1:B:395:MET:HB3	1.97	0.45
1:C:303:ALA:HB2	1:C:330:THR:HG21	1.99	0.45
1:A:909:VAL:HA	1:A:931:LEU:HD11	1.99	0.44
1:C:904:VAL:HG13	1:C:938:SER:HB3	1.99	0.44
19:C:1123:LPX:C8	19:C:1123:LPX:H14	2.47	0.44
1:B:223:PRO:HD3	1:C:275:TYR:CD1	2.52	0.44
1:C:330:THR:N	1:C:331:PRO:CD	2.80	0.44
1:B:344:LEU:HD23	1:B:402:ILE:HD11	2.00	0.44
1:A:905:VAL:HB	1:A:906:PRO:HD3	1.99	0.44
1:B:1:MET:HB3	1:B:2:PRO:HD3	1.99	0.43
1:B:367:ILE:HB	1:B:368:PRO:HD3	2.00	0.43
1:C:454:VAL:HB	1:C:455:PRO:HD3	1.99	0.43
1:A:399:VAL:HG11	1:A:989:LEU:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:980:LEU:HG	1:C:984:LEU:HD13	2.00	0.43
1:A:401:ALA:O	1:A:405:LEU:HG	2.19	0.43
1:A:620:ARG:N	1:A:621:PRO:CD	2.82	0.42
1:A:897:ILE:N	1:A:898:PRO:CD	2.82	0.42
19:C:1123:LPX:H14	19:C:1123:LPX:H8	2.01	0.42
1:C:40:PRO:HB2	1:C:94:PHE:O	2.19	0.42
1:B:372:VAL:HB	1:B:373:PRO:HD3	2.00	0.42
1:A:330:THR:N	1:A:331:PRO:CD	2.82	0.42
1:C:905:VAL:HB	1:C:906:PRO:HD3	2.02	0.42
1:A:1022:VAL:N	1:A:1023:PRO:CD	2.83	0.42
1:A:454:VAL:N	1:A:455:PRO:CD	2.83	0.42
1:C:343:THR:HG23	1:C:988:PRO:HB2	2.02	0.42
1:B:973:ARG:N	1:B:974:PRO:HD2	2.35	0.42
1:A:115:MET:HB2	1:A:116:PRO:HD3	2.02	0.41
1:C:209:ALA:O	1:C:237:GLN:NE2	2.53	0.41
1:A:1:MET:HB3	1:A:2:PRO:HD3	2.03	0.41
1:A:987:MET:N	1:A:988:PRO:CD	2.84	0.41
1:A:470:PHE:CD2	1:A:929:VAL:HG11	2.56	0.41
1:A:682:PHE:CZ	1:A:857:TYR:HB2	2.56	0.41
1:B:178:PHE:CE1	8:B:1101:MIY:H713	2.56	0.41
1:B:987:MET:N	1:B:988:PRO:CD	2.84	0.41
1:C:57:VAL:CG2	1:C:86:GLY:HA2	2.47	0.41
1:B:905:VAL:HB	1:B:906:PRO:HD3	2.03	0.41
1:B:276:ASP:OD2	1:B:620:ARG:NH1	2.54	0.40
1:B:330:THR:N	1:B:331:PRO:CD	2.84	0.40
1:B:115:MET:N	1:B:116:PRO:CD	2.84	0.40
1:A:575:MET:HG2	1:A:666:PHE:HE1	1.86	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	1040/1057 (98%)	1013 (97%)	25 (2%)	2 (0%)	47 68
1	B	1032/1057 (98%)	1011 (98%)	21 (2%)	0	100 100
1	C	1036/1057 (98%)	1008 (97%)	28 (3%)	0	100 100
2	D	154/169 (91%)	151 (98%)	3 (2%)	0	100 100
2	E	152/169 (90%)	151 (99%)	1 (1%)	0	100 100
All	All	3414/3509 (97%)	3334 (98%)	78 (2%)	2 (0%)	51 73

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	868	LEU
1	A	677	ALA

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	849/864 (98%)	840 (99%)	9 (1%)	73 89
1	B	841/864 (97%)	832 (99%)	9 (1%)	73 89
1	C	845/864 (98%)	834 (99%)	11 (1%)	69 87
2	D	120/132 (91%)	120 (100%)	0	100 100
2	E	119/132 (90%)	119 (100%)	0	100 100
All	All	2774/2856 (97%)	2745 (99%)	29 (1%)	76 90

All (29) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	11	PHE
1	A	49	TYR
1	A	153	ASP
1	A	518	ARG
1	A	536	ARG
1	A	687	GLN

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Mol	Chain	Res	Type
1	A	717	ARG
1	A	801	PHE
1	A	969	ARG
1	B	11	PHE
1	B	49	TYR
1	B	556	PHE
1	B	610	PHE
1	B	620	ARG
1	B	717	ARG
1	B	801	PHE
1	B	987	MET
1	B	1030	ARG
1	C	11	PHE
1	C	49	TYR
1	C	81	ASN
1	C	110	LYS
1	C	176	GLN
1	C	558	ARG
1	C	662[A]	MET
1	C	662[B]	MET
1	C	717	ARG
1	C	795	ASP
1	C	1011	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	361	ASN
1	A	1042	HIS
1	C	68	ASN

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)

Of 68 ligands modelled in this entry, 2 are monoatomic - leaving 66 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	LMT	A	1101	-	36,36,36	0.47	0	47,47,47	0.72	0
3	LMT	A	1102	-	36,36,36	0.51	0	47,47,47	0.77	2 (4%)
8	MIY	B	1101	-	35,36,36	1.11	2 (5%)	41,58,58	1.05	2 (4%)
7	EDO	B	1117	-	3,3,3	0.05	0	2,2,2	0.16	0
7	EDO	E	201	-	3,3,3	0.06	0	2,2,2	0.17	0
9	LMU	B	1102	-	36,36,36	0.50	0	47,47,47	0.86	1 (2%)
15	SO4	C	1128	-	4,4,4	0.40	0	6,6,6	0.05	0
10	PTY	C	1104	-	49,49,49	0.26	0	52,54,54	0.36	0
15	SO4	B	1120	-	4,4,4	0.39	0	6,6,6	0.05	0
13	D12	C	1121	-	11,11,11	0.28	0	10,10,10	0.46	0
3	LMT	C	1103	-	36,36,36	0.52	1 (2%)	47,47,47	0.88	2 (4%)
4	GOL	B	1106	-	5,5,5	0.08	0	5,5,5	0.21	0
4	GOL	C	1107	-	5,5,5	0.10	0	5,5,5	0.27	0
4	GOL	A	1106	-	5,5,5	0.09	0	5,5,5	0.28	0
13	D12	C	1120	-	11,11,11	0.25	0	10,10,10	0.50	0
4	GOL	B	1108	-	5,5,5	0.09	0	5,5,5	0.26	0
14	HEX	C	1125	-	5,5,5	0.14	0	4,4,4	0.08	0
3	LMT	A	1103	-	36,36,36	0.46	0	47,47,47	0.55	0
4	GOL	A	1107	-	5,5,5	0.09	0	5,5,5	0.26	0
4	GOL	B	1109	-	5,5,5	0.09	0	5,5,5	0.26	0
10	PTY	B	1104	-	49,49,49	0.26	0	52,54,54	0.32	0
11	DDR	B	1105	-	27,27,27	1.23	2 (7%)	29,29,29	1.24	2 (6%)
5	D10	A	1109	-	9,9,9	0.11	0	8,8,8	0.14	0
3	LMT	C	1101	-	36,36,36	0.45	0	47,47,47	0.55	0
4	GOL	C	1113	-	5,5,5	0.09	0	5,5,5	0.28	0
7	EDO	A	1112	-	3,3,3	0.07	0	2,2,2	0.24	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
3	LMT	B	1103	-	36,36,36	0.47	0	47,47,47	0.54	0
7	EDO	A	1111	-	3,3,3	0.07	0	2,2,2	0.16	0
12	OCT	C	1118	-	7,7,7	0.12	0	6,6,6	0.07	0
19	LPX	C	1122	-	29,29,29	0.29	0	31,33,33	0.35	0
6	C14	A	1110	-	13,13,13	0.10	0	12,12,12	0.12	0
12	OCT	C	1117	-	7,7,7	0.12	0	6,6,6	0.07	0
5	D10	B	1112	-	9,9,9	0.09	0	8,8,8	0.07	0
16	DDQ	B	1121	-	10,13,13	2.26	1 (10%)	12,15,15	0.51	0
19	LPX	C	1123	-	29,29,29	0.30	0	31,33,33	0.35	0
7	EDO	B	1116	-	3,3,3	0.07	0	2,2,2	0.15	0
5	D10	C	1115	-	9,9,9	0.10	0	8,8,8	0.05	0
7	EDO	D	202	-	3,3,3	0.07	0	2,2,2	0.18	0
3	LMT	A	1105	-	36,36,36	0.56	1 (2%)	47,47,47	0.70	1 (2%)
5	D10	B	1111	-	9,9,9	0.10	0	8,8,8	0.05	0
4	GOL	C	1110	-	5,5,5	0.10	0	5,5,5	0.30	0
4	GOL	C	1108	-	5,5,5	0.10	0	5,5,5	0.29	0
4	GOL	C	1111	-	5,5,5	0.09	0	5,5,5	0.28	0
5	D10	C	1114	-	9,9,9	0.10	0	8,8,8	0.06	0
14	HEX	B	1115	-	5,5,5	0.14	0	4,4,4	0.09	0
7	EDO	D	201	-	3,3,3	0.08	0	2,2,2	0.15	0
4	GOL	C	1106	-	5,5,5	0.09	0	5,5,5	0.29	0
7	EDO	B	1118	-	3,3,3	0.06	0	2,2,2	0.22	0
5	D10	C	1116	-	9,9,9	0.10	0	8,8,8	0.07	0
7	EDO	B	1119	-	3,3,3	0.07	0	2,2,2	0.20	0
15	SO4	C	1129	-	4,4,4	0.38	0	6,6,6	0.05	0
7	EDO	D	203	-	3,3,3	0.07	0	2,2,2	0.21	0
4	GOL	B	1110	-	5,5,5	0.10	0	5,5,5	0.31	0
4	GOL	C	1109	-	5,5,5	0.10	0	5,5,5	0.27	0
12	OCT	B	1113	-	7,7,7	0.12	0	6,6,6	0.07	0
3	LMT	A	1104	-	36,36,36	0.53	1 (2%)	47,47,47	0.86	2 (4%)
3	LMT	C	1102	-	36,36,36	0.58	1 (2%)	47,47,47	1.08	3 (6%)
5	D10	A	1108	-	9,9,9	0.11	0	8,8,8	0.08	0
7	EDO	C	1127	-	3,3,3	0.05	0	2,2,2	0.17	0
14	HEX	C	1124	-	5,5,5	0.13	0	4,4,4	0.09	0
13	D12	B	1114	-	11,11,11	0.27	0	10,10,10	0.48	0
4	GOL	C	1105	-	5,5,5	0.10	0	5,5,5	0.29	0
4	GOL	B	1107	-	5,5,5	0.11	0	5,5,5	0.28	0
4	GOL	C	1112	-	5,5,5	0.10	0	5,5,5	0.30	0
6	C14	C	1119	-	13,13,13	0.09	0	12,12,12	0.07	0
7	EDO	C	1126	-	3,3,3	0.06	0	2,2,2	0.23	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
3	LMT	A	1101	-	-	11/21/61/61	0/2/2/2
3	LMT	A	1102	-	-	12/21/61/61	0/2/2/2
8	MIY	B	1101	-	-	0/12/70/70	0/4/4/4
7	EDO	B	1117	-	-	1/1/1/1	-
7	EDO	E	201	-	-	1/1/1/1	-
9	LMU	B	1102	-	-	9/21/61/61	0/2/2/2
10	PTY	C	1104	-	-	35/53/53/53	-
13	D12	C	1121	-	-	3/9/9/9	-
3	LMT	C	1103	-	-	12/21/61/61	0/2/2/2
4	GOL	B	1106	-	-	2/4/4/4	-
4	GOL	C	1107	-	-	2/4/4/4	-
4	GOL	A	1106	-	-	2/4/4/4	-
13	D12	C	1120	-	-	2/9/9/9	-
4	GOL	B	1108	-	-	2/4/4/4	-
14	HEX	C	1125	-	-	1/3/3/3	-
3	LMT	A	1103	-	-	11/21/61/61	0/2/2/2
4	GOL	A	1107	-	-	0/4/4/4	-
4	GOL	B	1109	-	-	2/4/4/4	-
10	PTY	B	1104	-	-	21/53/53/53	-
11	DDR	B	1105	-	-	15/29/29/29	-
5	D10	A	1109	-	-	2/7/7/7	-
3	LMT	C	1101	-	-	7/21/61/61	0/2/2/2
4	GOL	C	1113	-	-	0/4/4/4	-
7	EDO	A	1112	-	-	1/1/1/1	-
3	LMT	B	1103	-	-	6/21/61/61	0/2/2/2
7	EDO	A	1111	-	-	1/1/1/1	-
12	OCT	C	1118	-	-	1/5/5/5	-
19	LPX	C	1122	-	-	14/31/31/31	-
6	C14	A	1110	-	-	6/11/11/11	-
12	OCT	C	1117	-	-	0/5/5/5	-
5	D10	B	1112	-	-	2/7/7/7	-
16	DDQ	B	1121	-	-	3/11/11/11	-
19	LPX	C	1123	-	-	19/31/31/31	-
7	EDO	B	1116	-	-	0/1/1/1	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	D10	C	1115	-	-	2/7/7/7	-
7	EDO	D	202	-	-	1/1/1/1	-
3	LMT	A	1105	-	-	14/21/61/61	0/2/2/2
5	D10	B	1111	-	-	3/7/7/7	-
4	GOL	C	1110	-	-	3/4/4/4	-
4	GOL	C	1108	-	-	1/4/4/4	-
4	GOL	C	1111	-	-	4/4/4/4	-
5	D10	C	1114	-	-	2/7/7/7	-
14	HEX	B	1115	-	-	0/3/3/3	-
7	EDO	D	201	-	-	1/1/1/1	-
4	GOL	C	1106	-	-	0/4/4/4	-
7	EDO	B	1118	-	-	0/1/1/1	-
5	D10	C	1116	-	-	4/7/7/7	-
7	EDO	B	1119	-	-	1/1/1/1	-
7	EDO	D	203	-	-	1/1/1/1	-
4	GOL	B	1110	-	-	2/4/4/4	-
4	GOL	C	1109	-	-	2/4/4/4	-
12	OCT	B	1113	-	-	0/5/5/5	-
3	LMT	A	1104	-	-	14/21/61/61	0/2/2/2
3	LMT	C	1102	-	-	15/21/61/61	0/2/2/2
5	D10	A	1108	-	-	4/7/7/7	-
7	EDO	C	1127	-	-	1/1/1/1	-
14	HEX	C	1124	-	-	1/3/3/3	-
13	D12	B	1114	-	-	1/9/9/9	-
4	GOL	C	1105	-	-	2/4/4/4	-
4	GOL	B	1107	-	-	4/4/4/4	-
4	GOL	C	1112	-	-	2/4/4/4	-
6	C14	C	1119	-	-	2/11/11/11	-
7	EDO	C	1126	-	-	1/1/1/1	-

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	B	1121	DDQ	O1-N1	-7.10	1.25	1.42
8	B	1101	MIY	C21-N2	5.41	1.47	1.33
11	B	1105	DDR	O52-C21	4.30	1.46	1.34
11	B	1105	DDR	O51-C1	4.22	1.45	1.33
3	C	1102	LMT	O1'-C1'	2.49	1.44	1.40
3	A	1105	LMT	O1'-C1'	2.25	1.44	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	B	1101	MIY	O5-C15	2.25	1.28	1.23
3	C	1103	LMT	O1'-C1'	2.24	1.44	1.40
3	A	1104	LMT	O1'-C1'	2.13	1.43	1.40

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
11	B	1105	DDR	O52-C21-C22	4.26	120.69	111.50
3	C	1102	LMT	C1-O1'-C1'	2.92	118.68	113.84
3	A	1104	LMT	C2'-C3'-C4'	2.86	116.21	109.68
11	B	1105	DDR	O51-C1-C2	2.73	120.49	111.91
3	C	1102	LMT	O1'-C1'-C2'	2.67	112.47	108.30
3	C	1102	LMT	C1'-O5'-C5'	2.57	118.74	113.69
3	A	1102	LMT	C1B-C2B-C3B	2.49	115.18	110.00
3	C	1103	LMT	O1'-C1'-C2'	2.48	112.18	108.30
3	A	1104	LMT	C1'-C2'-C3'	2.47	115.14	110.00
8	B	1101	MIY	C18-C5-C4	2.43	114.96	111.64
9	B	1102	LMU	C1'-C2'-C3'	2.36	114.90	110.00
3	A	1105	LMT	C1'-O5'-C5'	2.18	117.97	113.69
3	A	1102	LMT	O1B-C4'-C3'	2.15	112.99	107.28
3	C	1103	LMT	C2'-C3'-C4'	2.12	114.53	109.68
8	B	1101	MIY	O7-C18-C17	-2.08	106.82	110.14

There are no chirality outliers.

All (294) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	1101	LMT	C2'-C1'-O1'-C1
3	A	1101	LMT	O5'-C1'-O1'-C1
3	A	1102	LMT	C2'-C1'-O1'-C1
3	A	1102	LMT	O5'-C1'-O1'-C1
3	A	1104	LMT	C2'-C1'-O1'-C1
3	A	1104	LMT	O5'-C1'-O1'-C1
3	A	1105	LMT	C2'-C1'-O1'-C1
3	A	1105	LMT	O5'-C1'-O1'-C1
3	C	1102	LMT	O5'-C1'-O1'-C1
3	C	1103	LMT	O5'-C1'-O1'-C1
3	C	1103	LMT	C2-C1-O1'-C1'
4	A	1106	GOL	C1-C2-C3-O3
4	B	1107	GOL	C1-C2-C3-O3
4	C	1107	GOL	O1-C1-C2-C3
4	C	1110	GOL	C1-C2-C3-O3

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Mol	Chain	Res	Type	Atoms
4	C	1111	GOL	O1-C1-C2-C3
4	C	1112	GOL	O1-C1-C2-C3
10	B	1104	PTY	C11-C8-O7-C6
10	B	1104	PTY	C3-O11-P1-O14
10	B	1104	PTY	C5-O14-P1-O11
10	B	1104	PTY	C5-O14-P1-O13
10	C	1104	PTY	N1-C2-C3-O11
10	C	1104	PTY	O14-C5-C6-O7
10	C	1104	PTY	C11-C8-O7-C6
10	C	1104	PTY	C5-O14-P1-O11
10	C	1104	PTY	C5-O14-P1-O13
19	C	1122	LPX	C3-O1-P1-O4
19	C	1122	LPX	C1-O2-P1-O1
19	C	1122	LPX	C1-O2-P1-O3
19	C	1122	LPX	C1-O2-P1-O4
19	C	1123	LPX	O5-C4-C5-O6
19	C	1123	LPX	C3-O1-P1-O3
19	C	1123	LPX	C1-O2-P1-O3
19	C	1123	LPX	O2-C1-C2-N1
3	A	1104	LMT	O5B-C1B-O1B-C4'
3	A	1105	LMT	O5B-C1B-O1B-C4'
10	C	1104	PTY	O30-C30-O4-C1
19	C	1123	LPX	O7-C6-O6-C5
3	C	1102	LMT	O5B-C1B-O1B-C4'
10	B	1104	PTY	O10-C8-O7-C6
10	C	1104	PTY	O10-C8-O7-C6
10	C	1104	PTY	C31-C30-O4-C1
19	C	1123	LPX	C7-C6-O6-C5
3	A	1102	LMT	C3'-C4'-O1B-C1B
3	B	1103	LMT	O5'-C5'-C6'-O6'
11	B	1105	DDR	C2-C1-O51-C51
3	C	1102	LMT	C3'-C4'-O1B-C1B
11	B	1105	DDR	C22-C21-O52-C52
3	A	1105	LMT	O5'-C5'-C6'-O6'
11	B	1105	DDR	O21-C21-O52-C52
3	A	1104	LMT	C4B-C5B-C6B-O6B
11	B	1105	DDR	O1-C1-O51-C51
3	C	1102	LMT	O5'-C5'-C6'-O6'
3	B	1103	LMT	C4'-C5'-C6'-O6'
3	C	1101	LMT	C4'-C5'-C6'-O6'
9	B	1102	LMU	O5'-C5'-C6'-O6'
3	A	1103	LMT	O5B-C5B-C6B-O6B

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Mol	Chain	Res	Type	Atoms
9	B	1102	LMU	O5B-C5B-C6B-O6B
10	B	1104	PTY	C31-C30-O4-C1
10	C	1104	PTY	C30-C31-C32-C33
3	A	1104	LMT	O5B-C5B-C6B-O6B
3	C	1102	LMT	C4'-C5'-C6'-O6'
3	C	1101	LMT	O5'-C5'-C6'-O6'
9	B	1102	LMU	C4'-C5'-C6'-O6'
4	A	1106	GOL	O2-C2-C3-O3
4	B	1108	GOL	O1-C1-C2-O2
4	B	1109	GOL	O1-C1-C2-O2
4	C	1110	GOL	O2-C2-C3-O3
4	C	1111	GOL	O2-C2-C3-O3
3	A	1103	LMT	O1'-C1-C2-C3
3	C	1103	LMT	O5B-C5B-C6B-O6B
10	C	1104	PTY	C8-C11-C12-C13
10	B	1104	PTY	O30-C30-O4-C1
3	A	1103	LMT	C4B-C5B-C6B-O6B
9	B	1102	LMU	O1'-C1-C2-C3
3	C	1103	LMT	O1'-C1-C2-C3
3	A	1102	LMT	O5'-C5'-C6'-O6'
19	C	1123	LPX	C3-O1-P1-O2
19	C	1123	LPX	C1-O2-P1-O1
19	C	1122	LPX	C7-C6-O6-C5
3	A	1104	LMT	O1'-C1-C2-C3
3	C	1102	LMT	C5'-C4'-O1B-C1B
3	A	1103	LMT	C5-C6-C7-C8
3	A	1104	LMT	C6-C7-C8-C9
3	B	1103	LMT	C5-C6-C7-C8
3	C	1102	LMT	C2-C3-C4-C5
3	C	1103	LMT	C2-C3-C4-C5
3	C	1103	LMT	C11-C10-C9-C8
10	C	1104	PTY	C16-C17-C18-C19
19	C	1123	LPX	C3-C4-C5-O6
19	C	1122	LPX	C12-C13-C14-C15
3	B	1103	LMT	C6-C7-C8-C9
10	C	1104	PTY	C39-C40-C41-C42
10	C	1104	PTY	C31-C32-C33-C34
3	C	1103	LMT	C5-C6-C7-C8
10	B	1104	PTY	C12-C13-C14-C15
10	C	1104	PTY	C40-C41-C42-C43
19	C	1123	LPX	C14-C15-C16-C17
4	B	1106	GOL	O1-C1-C2-C3

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Mol	Chain	Res	Type	Atoms
4	B	1107	GOL	O1-C1-C2-C3
4	B	1108	GOL	O1-C1-C2-C3
4	B	1109	GOL	O1-C1-C2-C3
4	B	1110	GOL	C1-C2-C3-O3
4	C	1105	GOL	O1-C1-C2-C3
4	C	1109	GOL	O1-C1-C2-C3
4	C	1111	GOL	C1-C2-C3-O3
3	A	1105	LMT	C4-C5-C6-C7
3	C	1101	LMT	C5-C6-C7-C8
10	C	1104	PTY	C20-C21-C22-C23
13	C	1120	D12	C7-C8-C9-C10
3	A	1102	LMT	C3-C4-C5-C6
3	A	1103	LMT	C2-C3-C4-C5
3	A	1105	LMT	C5-C6-C7-C8
13	B	1114	D12	C2-C3-C4-C5
5	C	1116	D10	C3-C4-C5-C6
3	A	1101	LMT	C11-C10-C9-C8
10	B	1104	PTY	C32-C33-C34-C35
19	C	1122	LPX	O7-C6-O6-C5
10	C	1104	PTY	C24-C25-C26-C27
3	A	1105	LMT	C2-C3-C4-C5
4	B	1107	GOL	O1-C1-C2-O2
4	B	1110	GOL	O2-C2-C3-O3
4	C	1107	GOL	O1-C1-C2-O2
4	C	1109	GOL	O1-C1-C2-O2
4	C	1111	GOL	O1-C1-C2-O2
3	A	1103	LMT	C7-C8-C9-C10
19	C	1122	LPX	C11-C12-C13-C14
12	C	1118	OCT	C3-C4-C5-C6
10	C	1104	PTY	C32-C33-C34-C35
10	C	1104	PTY	C12-C13-C14-C15
7	B	1119	EDO	O1-C1-C2-O2
7	C	1126	EDO	O1-C1-C2-O2
7	D	201	EDO	O1-C1-C2-O2
7	D	202	EDO	O1-C1-C2-O2
7	E	201	EDO	O1-C1-C2-O2
3	C	1101	LMT	C11-C10-C9-C8
19	C	1123	LPX	C9-C10-C11-C12
10	B	1104	PTY	C34-C35-C36-C37
19	C	1123	LPX	C10-C11-C12-C13
3	A	1105	LMT	C4'-C5'-C6'-O6'
10	B	1104	PTY	C39-C40-C41-C42

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Mol	Chain	Res	Type	Atoms
6	A	1110	C14	C05-C06-C07-C08
3	C	1103	LMT	C2'-C1'-O1'-C1
3	C	1102	LMT	C7-C8-C9-C10
10	B	1104	PTY	C35-C36-C37-C38
9	B	1102	LMU	C4-C5-C6-C7
11	B	1105	DDR	C2-C3-C4-C5
10	C	1104	PTY	C33-C34-C35-C36
10	C	1104	PTY	C37-C38-C39-C40
13	C	1120	D12	C5-C6-C7-C8
3	A	1101	LMT	C1-C2-C3-C4
3	A	1103	LMT	C1-C2-C3-C4
19	C	1122	LPX	C3-O1-P1-O2
3	B	1103	LMT	C7-C8-C9-C10
19	C	1123	LPX	C11-C12-C13-C14
3	A	1105	LMT	C4B-C5B-C6B-O6B
10	C	1104	PTY	C15-C16-C17-C18
11	B	1105	DDR	C4-C5-C6-C7
10	B	1104	PTY	C30-C31-C32-C33
5	A	1109	D10	C6-C7-C8-C9
10	C	1104	PTY	C21-C22-C23-C24
16	B	1121	DDQ	C4-C5-C6-C7
6	A	1110	C14	C03-C04-C05-C06
3	A	1101	LMT	C3-C4-C5-C6
19	C	1122	LPX	C16-C17-C18-C19
10	B	1104	PTY	C16-C17-C18-C19
10	B	1104	PTY	C26-C27-C28-C29
10	C	1104	PTY	C25-C26-C27-C28
6	A	1110	C14	C06-C07-C08-C09
3	A	1102	LMT	C5-C6-C7-C8
3	A	1102	LMT	C9-C10-C11-C12
4	C	1112	GOL	O1-C1-C2-O2
10	C	1104	PTY	C41-C42-C43-C44
3	C	1102	LMT	O5B-C5B-C6B-O6B
3	A	1104	LMT	C3-C4-C5-C6
3	A	1101	LMT	O5B-C5B-C6B-O6B
3	C	1103	LMT	O5'-C5'-C6'-O6'
14	C	1124	HEX	C2-C3-C4-C5
7	D	203	EDO	O1-C1-C2-O2
3	C	1102	LMT	C2'-C1'-O1'-C1
19	C	1122	LPX	C11-C10-C9-C8
11	B	1105	DDR	O51-C51-C52-O52
13	C	1121	D12	C4-C5-C6-C7

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Mol	Chain	Res	Type	Atoms
10	B	1104	PTY	C17-C18-C19-C20
10	C	1104	PTY	C26-C27-C28-C29
3	C	1102	LMT	O1'-C1-C2-C3
3	C	1102	LMT	C11-C10-C9-C8
13	C	1121	D12	C6-C7-C8-C9
3	A	1102	LMT	C7-C8-C9-C10
5	A	1108	D10	C6-C7-C8-C9
10	C	1104	PTY	C14-C15-C16-C17
11	B	1105	DDR	C5-C6-C7-C8
5	C	1114	D10	C4-C5-C6-C7
5	C	1115	D10	C4-C5-C6-C7
16	B	1121	DDQ	C5-C6-C7-C8
3	A	1103	LMT	C2-C1-O1'-C1'
3	A	1104	LMT	C2-C1-O1'-C1'
3	A	1105	LMT	C2-C1-O1'-C1'
3	C	1102	LMT	C2-C1-O1'-C1'
9	B	1102	LMU	C2-C1-O1'-C1'
3	C	1103	LMT	C4-C5-C6-C7
5	B	1111	D10	C4-C5-C6-C7
3	C	1101	LMT	C1-C2-C3-C4
3	A	1103	LMT	C3-C4-C5-C6
4	C	1105	GOL	O1-C1-C2-O2
4	C	1108	GOL	O2-C2-C3-O3
3	C	1102	LMT	C5-C6-C7-C8
9	B	1102	LMU	C4B-C5B-C6B-O6B
7	A	1111	EDO	O1-C1-C2-O2
5	A	1108	D10	C1-C2-C3-C4
6	A	1110	C14	C07-C08-C09-C10
3	A	1102	LMT	C2-C3-C4-C5
3	C	1101	LMT	C9-C10-C11-C12
3	A	1104	LMT	C2B-C1B-O1B-C4'
10	C	1104	PTY	O4-C1-C6-O7
5	C	1116	D10	C2-C3-C4-C5
4	B	1107	GOL	O2-C2-C3-O3
19	C	1123	LPX	C11-C10-C9-C8
3	A	1104	LMT	C3'-C4'-O1B-C1B
3	A	1103	LMT	C9-C10-C11-C12
3	B	1103	LMT	C3-C4-C5-C6
5	C	1116	D10	C1-C2-C3-C4
3	C	1103	LMT	C7-C8-C9-C10
3	A	1105	LMT	C2B-C1B-O1B-C4'
10	B	1104	PTY	C3-O11-P1-O12

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Mol	Chain	Res	Type	Atoms
19	C	1123	LPX	C3-O1-P1-O4
19	C	1123	LPX	C1-O2-P1-O4
10	B	1104	PTY	O14-C5-C6-C1
10	C	1104	PTY	O14-C5-C6-C1
3	A	1102	LMT	C4-C5-C6-C7
3	A	1102	LMT	C4'-C5'-C6'-O6'
5	C	1114	D10	C1-C2-C3-C4
19	C	1122	LPX	C18-C19-C20-C21
11	B	1105	DDR	C25-C26-C27-C28
3	A	1104	LMT	C5'-C4'-O1B-C1B
16	B	1121	DDQ	C1-C2-C3-C4
5	C	1116	D10	C4-C5-C6-C7
19	C	1123	LPX	C17-C18-C19-C20
3	A	1105	LMT	O1'-C1-C2-C3
3	A	1102	LMT	C5'-C4'-O1B-C1B
3	A	1103	LMT	C4-C5-C6-C7
3	A	1105	LMT	C7-C8-C9-C10
10	B	1104	PTY	C19-C20-C21-C22
3	A	1101	LMT	C2-C3-C4-C5
9	B	1102	LMU	C5-C6-C7-C8
3	A	1101	LMT	C5'-C4'-O1B-C1B
10	C	1104	PTY	C3-O11-P1-O14
3	A	1101	LMT	C3'-C4'-O1B-C1B
9	B	1102	LMU	C7-C8-C9-C10
11	B	1105	DDR	O51-C51-C52-C53
3	C	1102	LMT	C4-C5-C6-C7
6	C	1119	C14	C06-C07-C08-C09
10	C	1104	PTY	C22-C23-C24-C25
19	C	1123	LPX	C7-C8-C9-C10
10	C	1104	PTY	C11-C12-C13-C14
3	A	1101	LMT	C4-C5-C6-C7
10	C	1104	PTY	C19-C20-C21-C22
7	B	1117	EDO	O1-C1-C2-O2
6	C	1119	C14	C02-C03-C04-C05
6	A	1110	C14	C02-C03-C04-C05
3	A	1104	LMT	C5-C6-C7-C8
3	A	1105	LMT	C9-C10-C11-C12
5	B	1112	D10	C2-C3-C4-C5
19	C	1123	LPX	C18-C19-C20-C21
11	B	1105	DDR	C24-C25-C26-C27
3	C	1101	LMT	C2-C3-C4-C5
5	C	1115	D10	C3-C4-C5-C6

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Mol	Chain	Res	Type	Atoms
7	A	1112	EDO	O1-C1-C2-O2
7	C	1127	EDO	O1-C1-C2-O2
5	B	1111	D10	C2-C3-C4-C5
6	A	1110	C14	C04-C05-C06-C07
4	B	1106	GOL	O1-C1-C2-O2
3	C	1103	LMT	C6-C7-C8-C9
10	C	1104	PTY	C23-C24-C25-C26
14	C	1125	HEX	C2-C3-C4-C5
19	C	1122	LPX	C15-C16-C17-C18
5	A	1109	D10	C5-C6-C7-C8
10	C	1104	PTY	C18-C19-C20-C21
5	A	1108	D10	C7-C8-C9-C10
5	B	1111	D10	C6-C7-C8-C9
10	B	1104	PTY	C8-C11-C12-C13
4	C	1110	GOL	O1-C1-C2-C3
13	C	1121	D12	C7-C8-C9-C10
5	A	1108	D10	C3-C4-C5-C6
3	A	1104	LMT	C2-C3-C4-C5
10	C	1104	PTY	O4-C1-C6-C5
3	A	1101	LMT	C5-C6-C7-C8
11	B	1105	DDR	O51-C1-C2-C3
19	C	1122	LPX	C3-O1-P1-O3
10	B	1104	PTY	C37-C38-C39-C40
5	B	1112	D10	C3-C4-C5-C6
11	B	1105	DDR	O52-C21-C22-C23
11	B	1105	DDR	O21-C21-C22-C23
11	B	1105	DDR	O1-C1-C2-C3

There are no ring outliers.

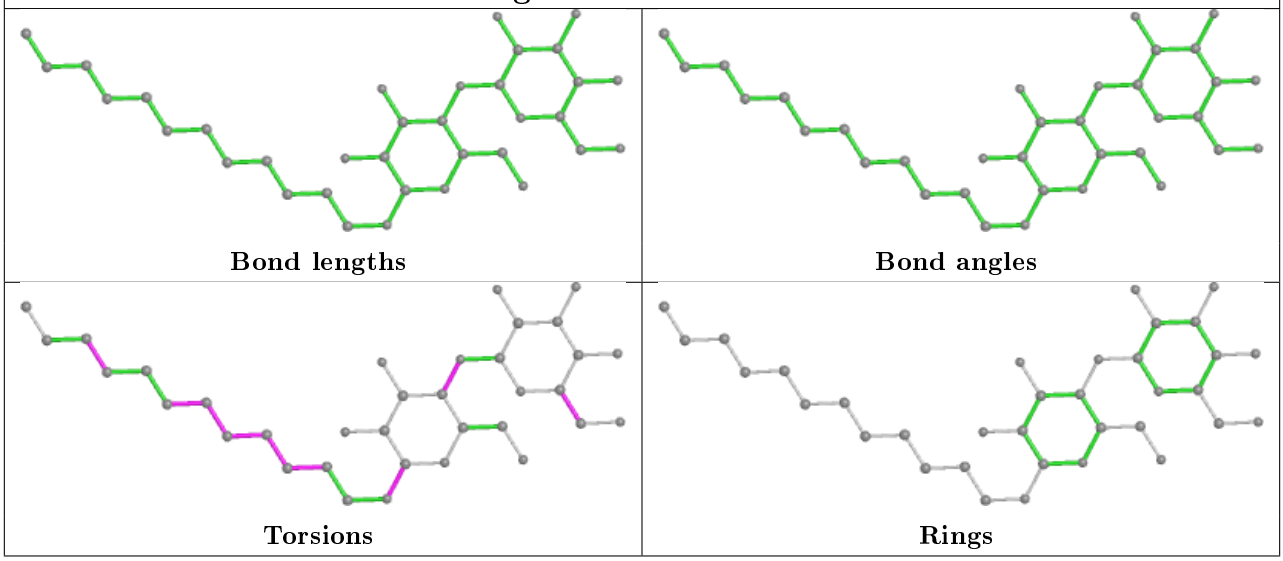
5 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
8	B	1101	MIY	1	0
10	C	1104	PTY	1	0
19	C	1122	LPX	1	0
19	C	1123	LPX	2	0
5	C	1116	D10	1	0

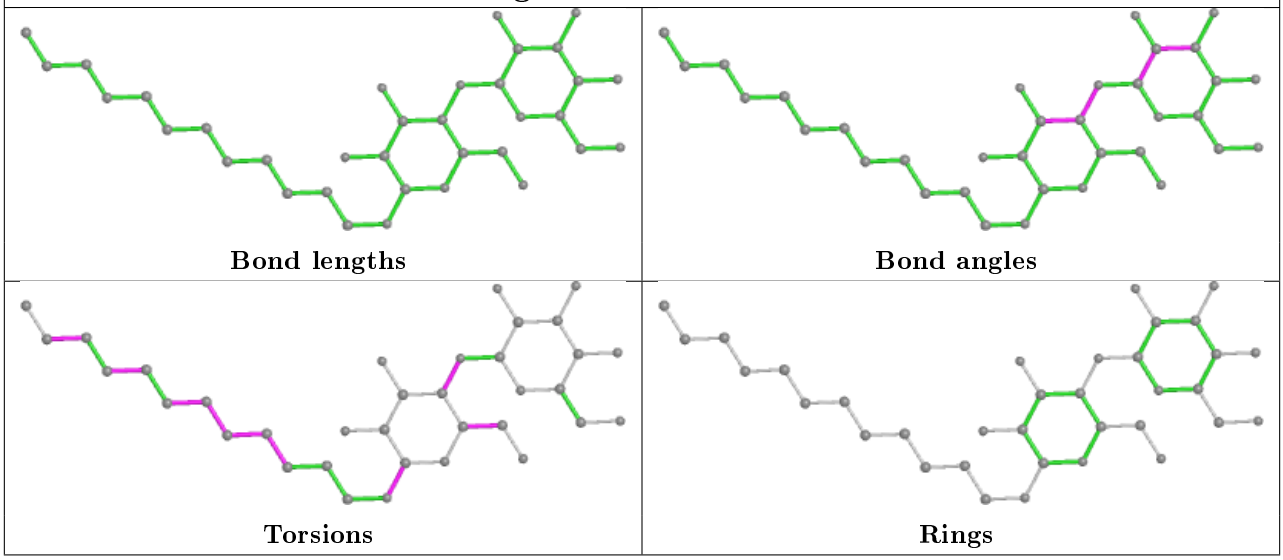
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

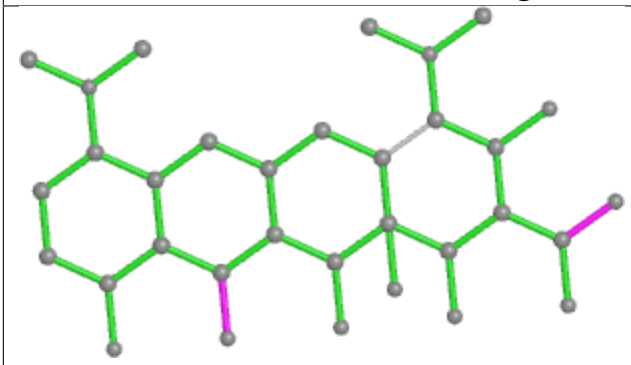
Ligand LMT A 1101



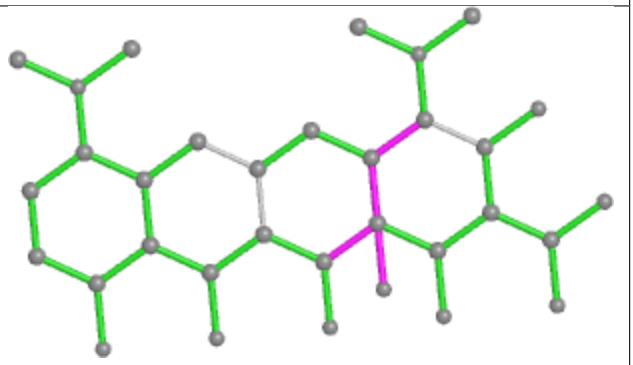
Ligand LMT A 1102



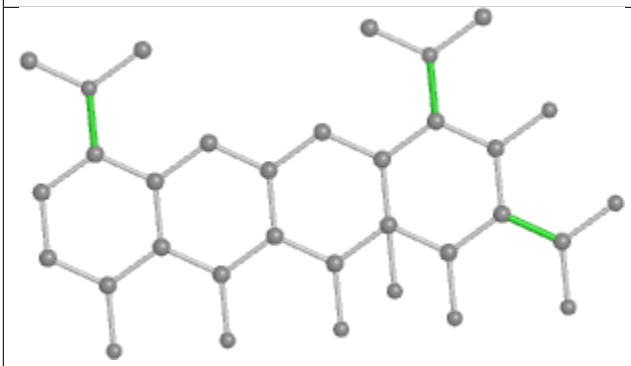
Ligand MIY B 1101



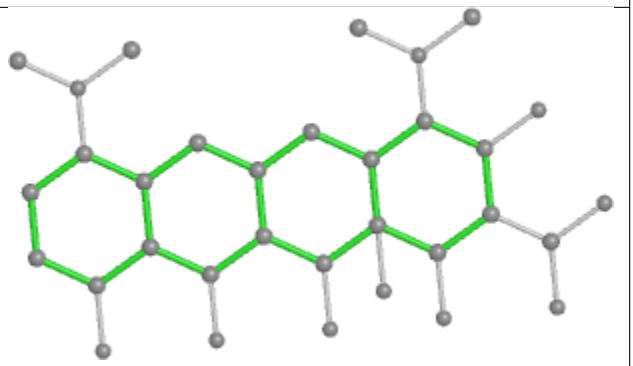
Bond lengths



Bond angles

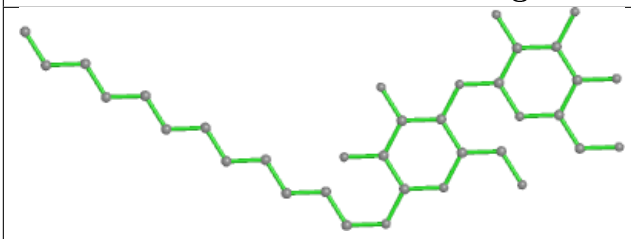


Torsions

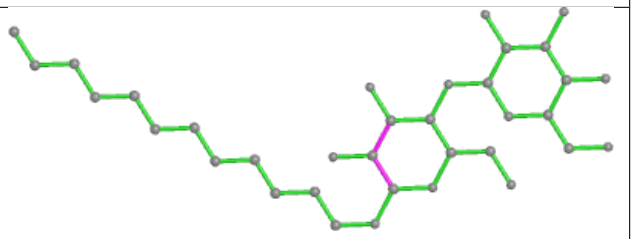


Rings

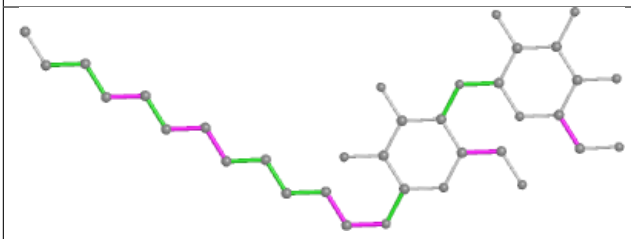
Ligand LMU B 1102



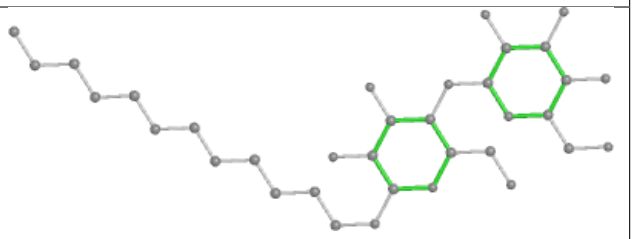
Bond lengths



Bond angles

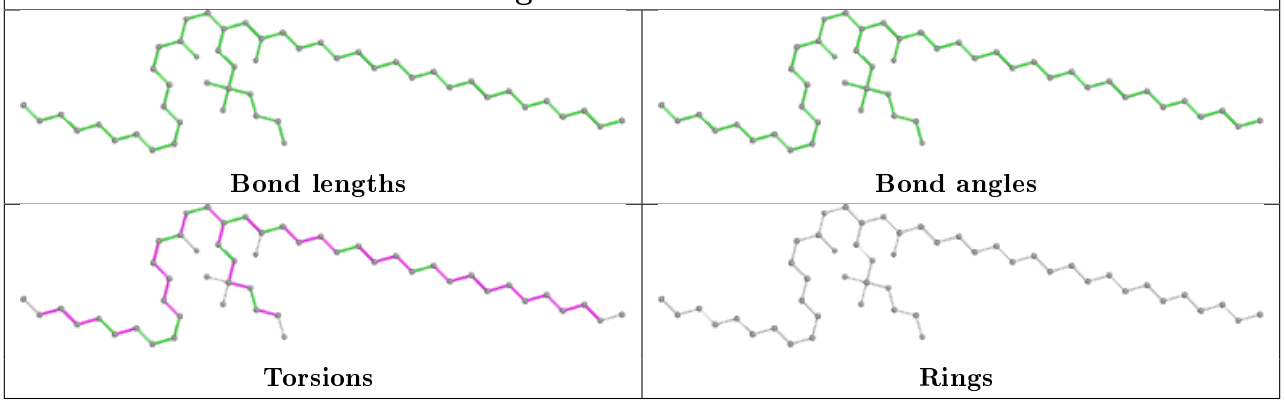


Torsions

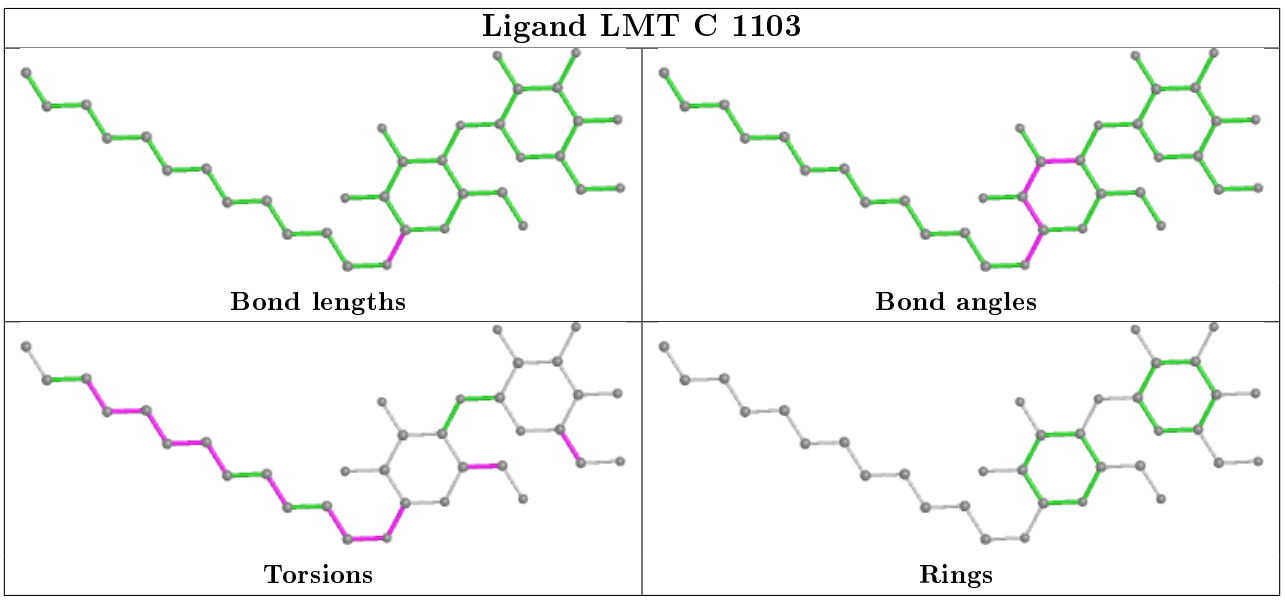


Rings

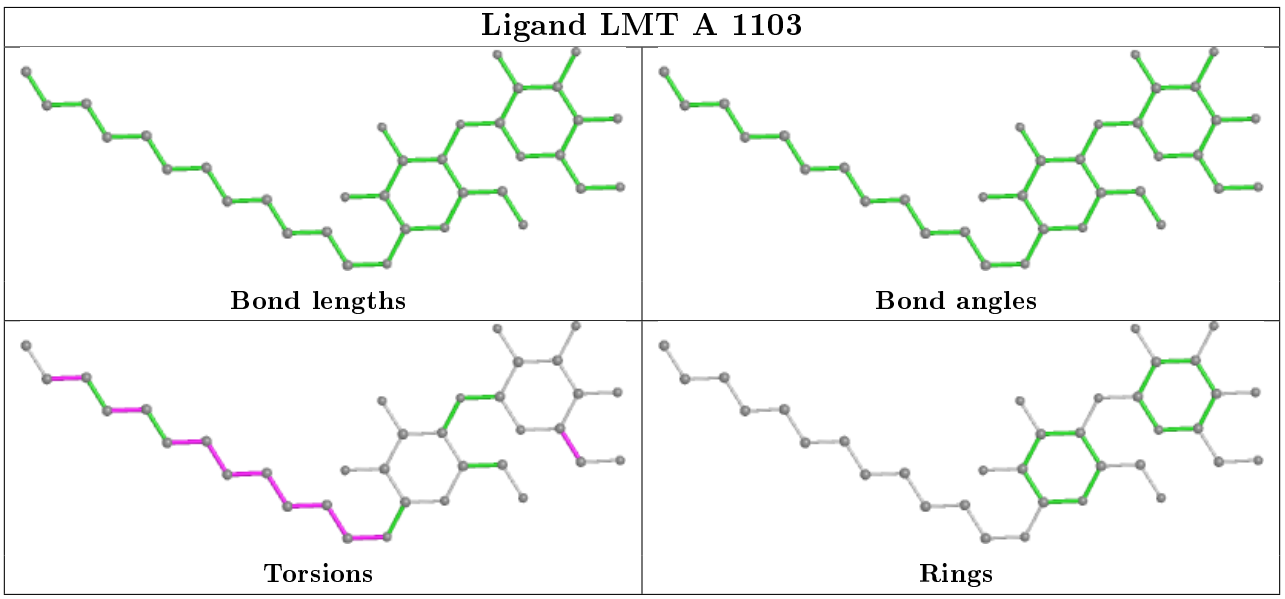
Ligand PTY C 1104



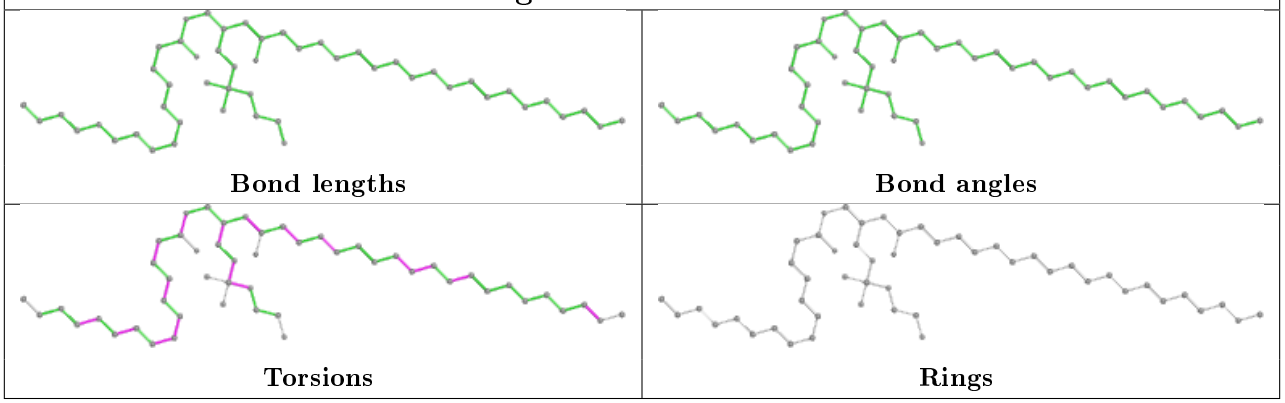
Ligand LMT C 1103



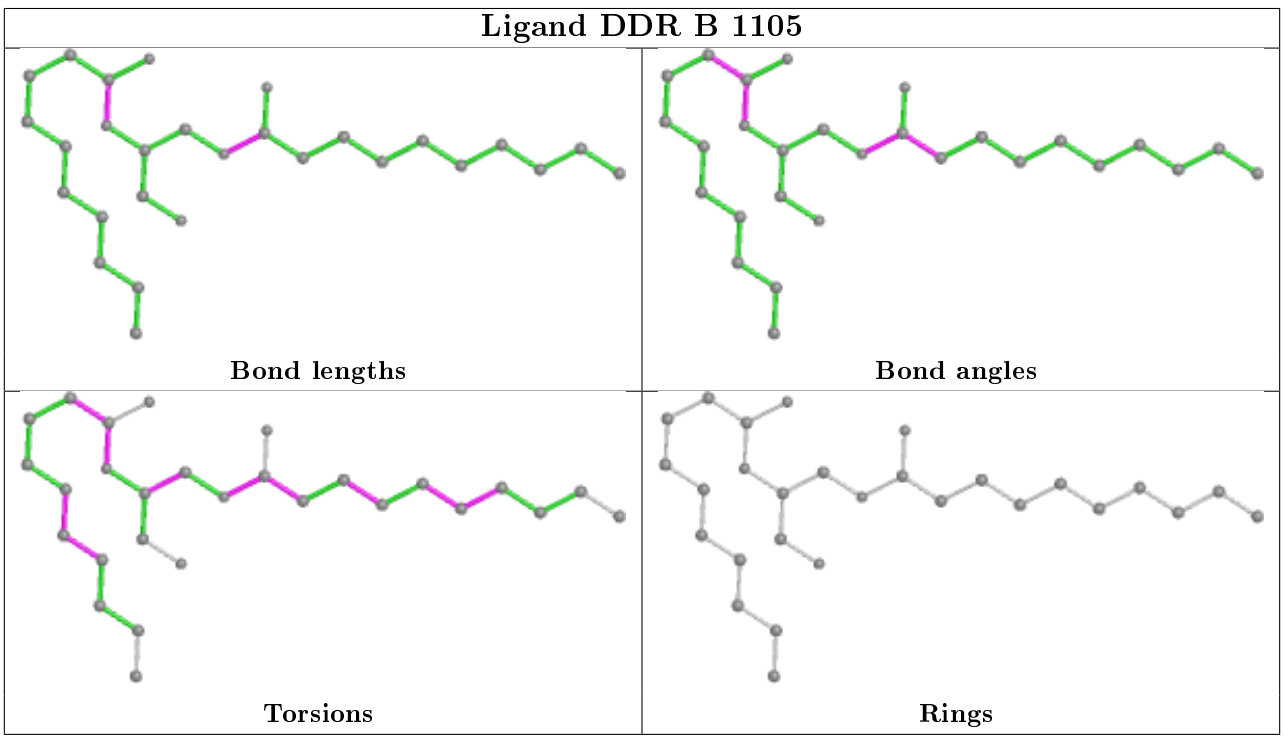
Ligand LMT A 1103



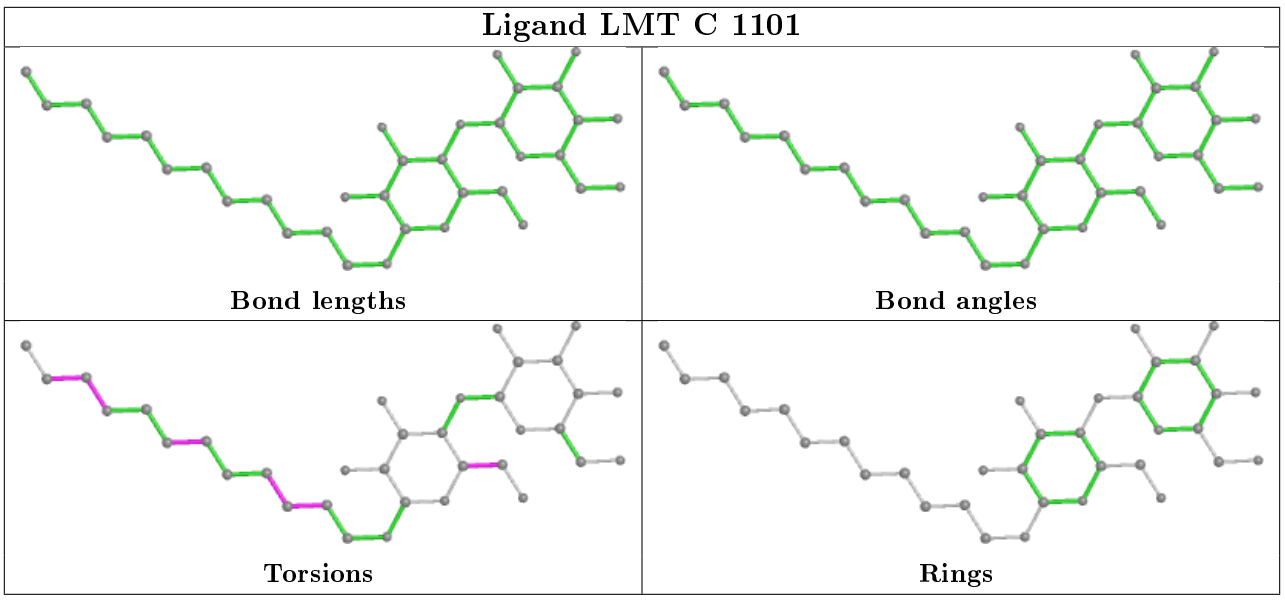
Ligand PTY B 1104



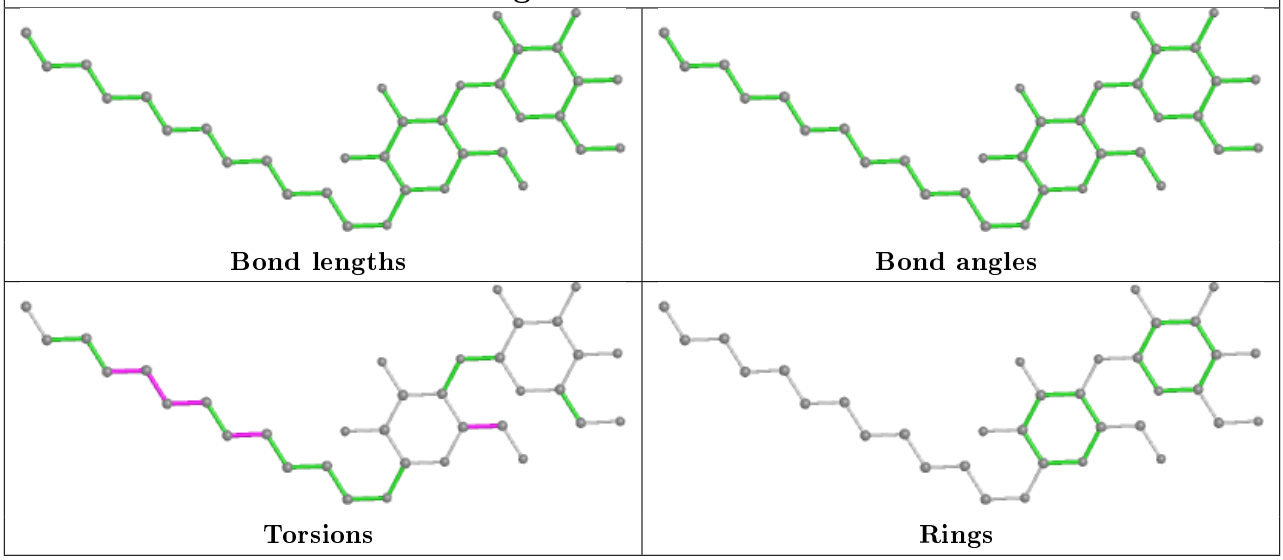
Ligand DDR B 1105



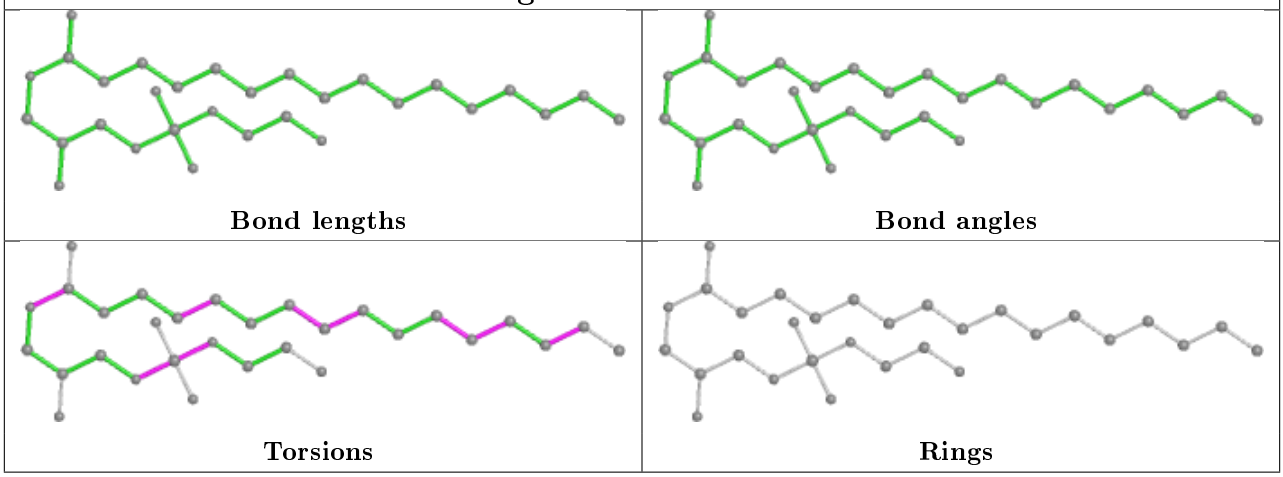
Ligand LMT C 1101



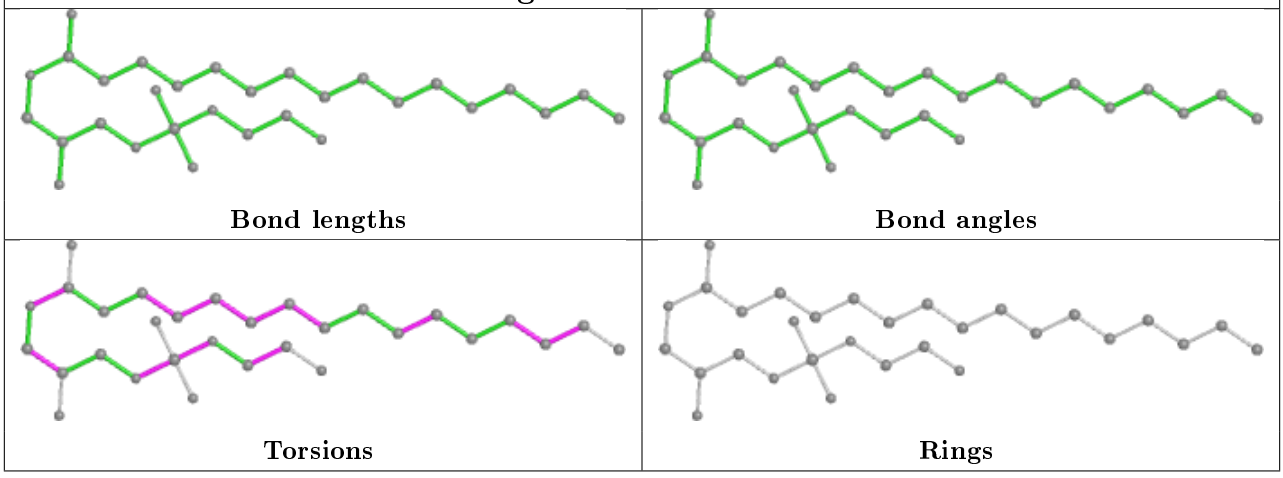
Ligand LMT B 1103



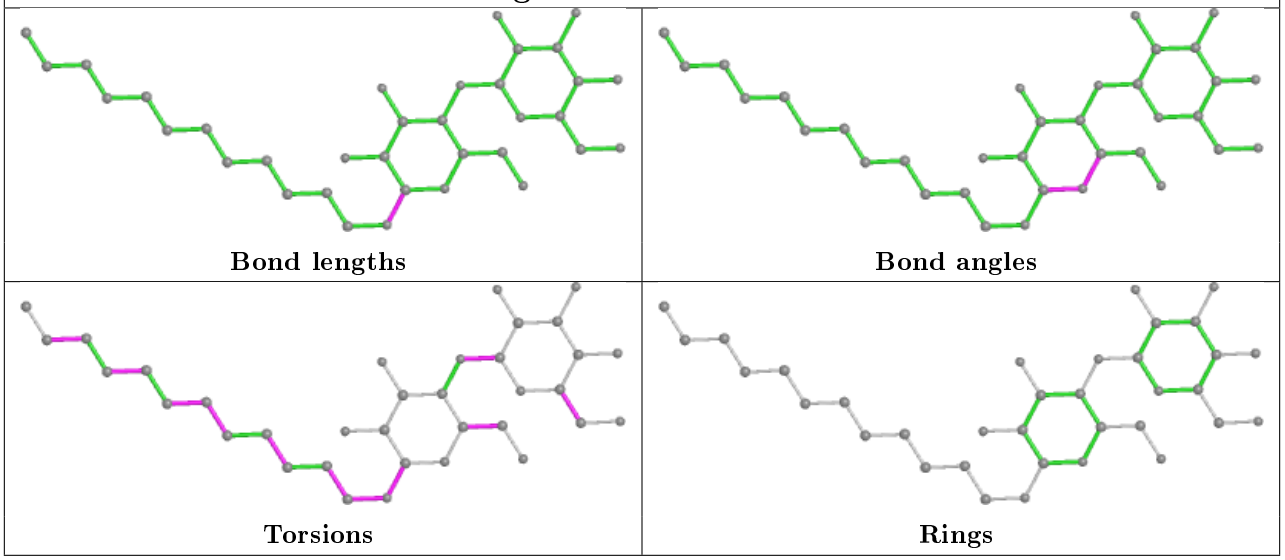
Ligand LPX C 1122



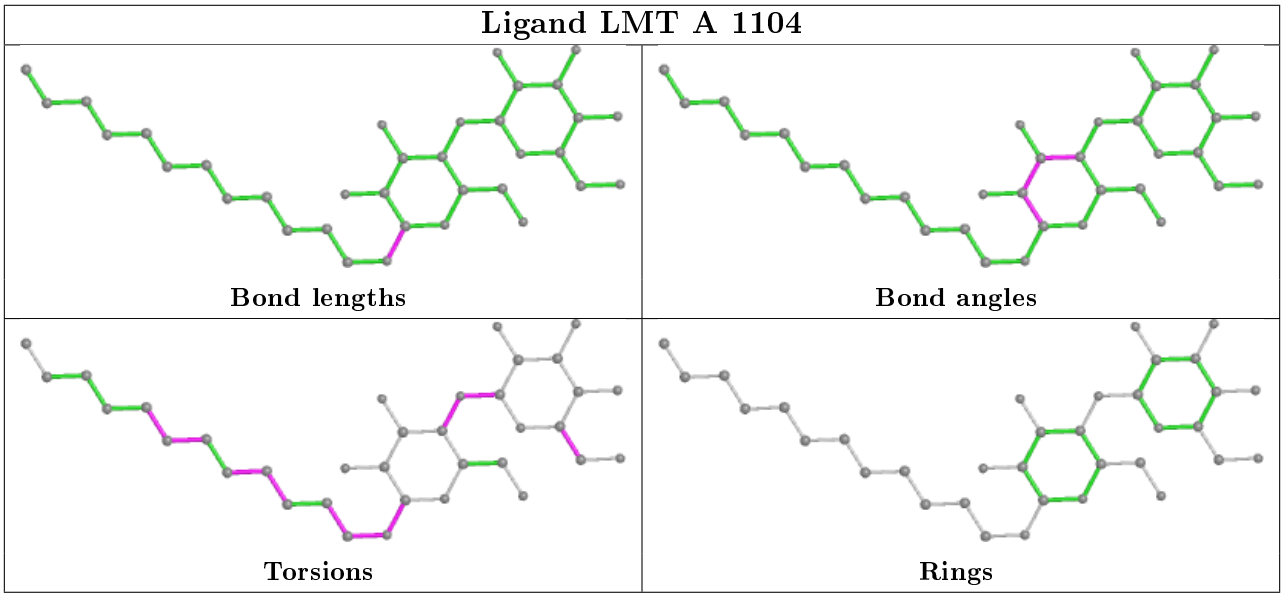
Ligand LPX C 1123



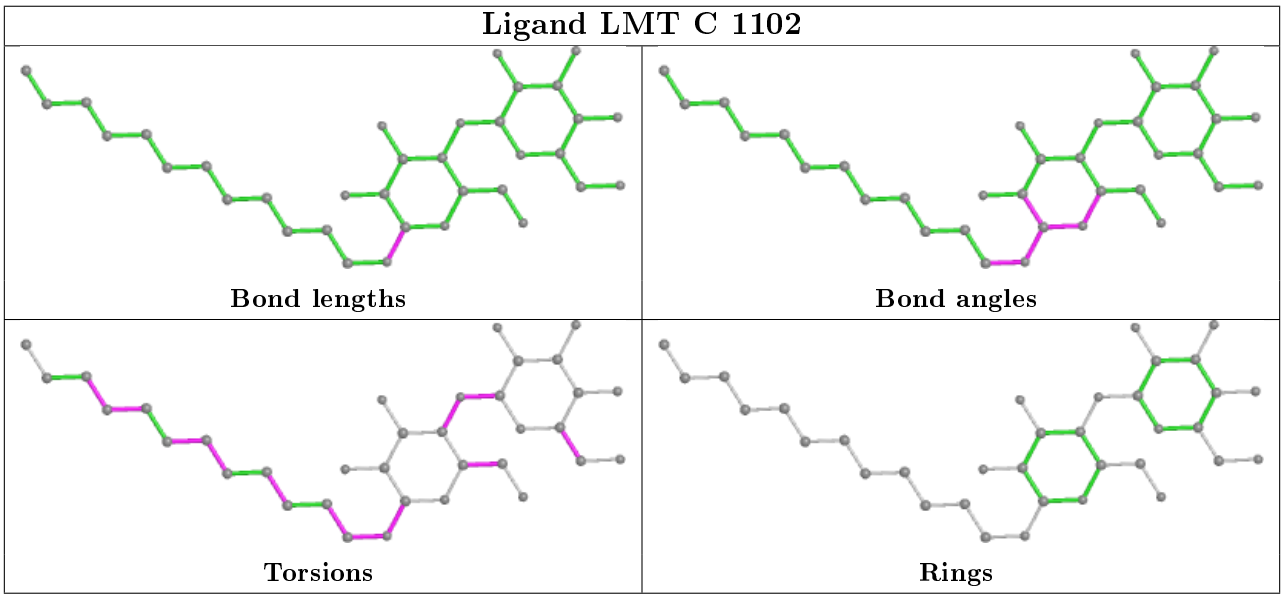
Ligand LMT A 1105



Ligand LMT A 1104



Ligand LMT C 1102



5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

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	1042/1057 (98%)	0.27	56 (5%)	25	27	31, 57, 91, 140	5 (0%)
1	B	1034/1057 (97%)	0.09	42 (4%)	37	40	33, 50, 72, 95	0
1	C	1035/1057 (97%)	0.07	27 (2%)	56	59	35, 46, 66, 100	0
2	D	156/169 (92%)	0.30	12 (7%)	13	13	42, 53, 78, 97	0
2	E	154/169 (91%)	1.24	38 (24%)	0	0	51, 68, 93, 100	0
All	All	3421/3509 (97%)	0.20	175 (5%)	28	29	31, 51, 82, 140	5 (0%)

All (175) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	674	LEU	8.9
1	A	868	LEU	8.9
1	A	867	ARG	8.2
2	E	34	MET	7.0
1	A	678	THR	7.0
1	C	510	LYS	6.9
1	A	866	GLU	6.4
1	A	673	GLU	6.4
1	A	677	ALA	6.3
2	E	32	ILE	6.3
2	E	35	ALA	6.2
2	E	33	LEU	5.8
1	A	865	GLN	5.8
2	E	68	LYS	5.3
2	E	31	ARG	5.1
2	E	165	LEU	4.8
1	A	676	THR	4.7
1	A	675	GLY	4.7
2	E	27	ASP	4.6
1	B	677	ALA	4.5

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Mol	Chain	Res	Type	RSRZ
1	A	835	LYS	4.5
1	A	1040	ILE	4.4
1	A	1035	ARG	4.3
1	B	635	ALA	4.3
1	C	497	LEU	4.2
1	C	362	PHE	4.2
1	B	1034	SER	4.2
1	C	500	ILE	4.1
1	B	603	LYS	4.1
2	E	37	GLY	4.1
2	D	150	PHE	4.1
2	D	163	GLU	4.1
1	B	636	ASP	4.0
1	A	833	PRO	4.0
1	C	498	LYS	3.9
1	A	512	PHE	3.9
2	E	30	VAL	3.8
1	C	918	PHE	3.8
1	B	558	ARG	3.8
2	E	66	LEU	3.8
1	A	869	SER	3.8
1	B	678	THR	3.8
1	A	1037	ASN	3.6
1	A	834	GLY	3.6
1	A	838	GLY	3.5
1	B	641	GLU	3.5
2	E	14	LEU	3.5
1	A	918	PHE	3.5
2	D	166	GLN	3.5
1	A	362	PHE	3.4
2	D	165	LEU	3.4
2	E	163	GLU	3.4
1	B	638	PRO	3.4
1	A	255	GLN	3.3
1	B	255	GLN	3.3
1	C	253	VAL	3.3
2	E	107	ASN	3.3
1	A	501	ALA	3.3
1	A	712	MET	3.3
1	C	811	TYR	3.3
2	E	62	ILE	3.3
1	C	501	ALA	3.3

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Mol	Chain	Res	Type	RSRZ
1	C	511	GLY	3.3
2	E	36	ASN	3.3
1	A	836	SER	3.3
2	E	61	GLU	3.3
2	E	69	ASN	3.3
1	A	831	ALA	3.2
1	A	515	TRP	3.2
2	E	106	VAL	3.2
1	C	255	GLN	3.1
1	A	672	VAL	3.1
1	A	196	PHE	3.1
1	B	866	GLU	3.1
1	B	657	GLN	3.1
1	B	835	LYS	3.1
1	C	258	SER	3.1
2	E	139	VAL	3.0
1	A	1039	ASP	3.0
1	A	711	ASP	3.0
1	A	543	VAL	3.0
1	C	513	PHE	3.0
1	B	597	TYR	3.0
1	A	503	GLY	2.9
1	C	427	PRO	2.9
2	E	28	ASP	2.9
1	B	596	HIS	2.9
1	B	366	LEU	2.9
2	E	38	ALA	2.9
2	E	60	LEU	2.9
1	B	634	TRP	2.9
1	A	513	PHE	2.8
1	A	864	TYR	2.8
2	E	67	LEU	2.8
1	A	846	GLN	2.8
1	A	554	TYR	2.8
1	B	508	GLY	2.8
1	C	508	GLY	2.8
2	D	159	GLU	2.7
1	B	660	ASP	2.7
1	A	558	ARG	2.7
1	B	642	ASN	2.7
1	B	833	PRO	2.6
1	B	501	ALA	2.6

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Mol	Chain	Res	Type	RSRZ
1	A	498	LYS	2.6
1	C	1032	ARG	2.6
2	E	64	GLU	2.6
2	E	70	GLY	2.6
1	C	363	ARG	2.6
1	B	868	LEU	2.6
1	C	256	ASP	2.5
1	B	600	THR	2.5
2	D	161	LEU	2.5
1	B	655	PHE	2.5
1	A	550	VAL	2.5
1	B	604	ASN	2.5
1	C	257	GLY	2.5
2	D	11	GLY	2.5
1	A	547	ILE	2.5
1	A	500	ILE	2.5
1	B	834	GLY	2.5
1	A	839	GLU	2.4
2	D	160	ASP	2.4
1	C	739	LEU	2.4
2	E	97	GLU	2.4
1	B	653	ARG	2.4
2	E	58	GLY	2.4
1	C	1035	ARG	2.4
1	A	862	MET	2.3
1	B	256	ASP	2.3
2	E	13	ASP	2.3
1	B	711	ASP	2.3
1	C	421	ALA	2.3
2	E	138	ASP	2.3
2	E	87	ALA	2.3
2	D	28	ASP	2.3
2	D	126	LEU	2.3
1	A	797	GLN	2.3
2	D	162	ALA	2.3
2	D	133	LEU	2.3
2	E	65	VAL	2.2
1	C	797	GLN	2.2
1	B	500	ILE	2.2
1	A	197	GLN	2.2
1	C	197	GLN	2.2
1	B	633	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
1	A	670	ALA	2.2
1	B	836	SER	2.2
1	A	671	ILE	2.2
1	C	496	MET	2.2
1	A	1041	GLU	2.2
1	B	712	MET	2.2
1	B	510	LYS	2.2
1	B	837	THR	2.2
1	B	918	PHE	2.2
2	E	136	GLY	2.2
2	E	134	LYS	2.1
1	B	498	LYS	2.1
1	A	258	SER	2.1
1	B	832	ALA	2.1
2	E	101	LYS	2.1
2	E	146	GLY	2.1
2	E	95	ILE	2.1
1	A	713	LEU	2.1
1	C	361	ASN	2.1
1	A	429	GLU	2.1
1	A	508	GLY	2.1
1	C	499	PRO	2.1
2	E	135	TYR	2.1
1	A	510	LYS	2.1
1	B	554	TYR	2.1
1	A	425	LEU	2.1
1	B	1033	PHE	2.1
1	B	606	VAL	2.0
1	A	462	SER	2.0

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, 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
3	LMT	C	1102	35/35	0.54	0.30	97,125,136,138	0
16	DDQ	B	1121	14/14	0.55	0.27	86,101,121,121	0
3	LMT	A	1105	35/35	0.62	0.33	112,128,134,134	0
10	PTY	B	1104	50/50	0.63	0.29	73,109,143,147	0
4	GOL	C	1113	6/6	0.63	0.33	78,80,81,81	0
14	HEX	B	1115	6/6	0.65	0.30	70,73,74,75	0
7	EDO	D	201	4/4	0.66	0.42	78,80,80,81	0
3	LMT	A	1104	35/35	0.66	0.28	88,123,129,130	0
4	GOL	C	1107	6/6	0.68	0.33	91,92,93,93	0
12	OCT	C	1117	8/8	0.69	0.34	86,89,90,90	0
5	D10	B	1111	10/10	0.71	0.28	82,85,86,87	0
4	GOL	B	1107	6/6	0.72	0.25	80,83,84,85	0
4	GOL	B	1110	6/6	0.73	0.19	91,92,93,94	0
3	LMT	A	1102	35/35	0.74	0.25	68,91,112,114	0
3	LMT	C	1103	35/35	0.74	0.44	97,117,123,123	0
4	GOL	C	1112	6/6	0.76	0.31	84,85,85,85	0
5	D10	A	1109	10/10	0.76	0.24	79,81,85,85	0
12	OCT	B	1113	8/8	0.77	0.25	72,74,77,78	0
14	HEX	C	1125	6/6	0.77	0.23	72,74,75,75	0
10	PTY	C	1104	50/50	0.77	0.28	85,101,116,118	0
5	D10	C	1116	10/10	0.78	0.32	72,74,79,80	0
14	HEX	C	1124	6/6	0.78	0.23	69,69,70,70	0
4	GOL	B	1109	6/6	0.79	0.31	73,74,76,78	0
4	GOL	C	1109	6/6	0.79	0.21	70,72,73,73	0
5	D10	A	1108	10/10	0.79	0.22	76,76,77,77	0
4	GOL	A	1106	6/6	0.80	0.29	56,60,61,61	0
5	D10	C	1115	10/10	0.80	0.29	63,66,71,72	0
3	LMT	A	1101	35/35	0.81	0.24	66,89,110,111	0
19	LPX	C	1122	30/30	0.81	0.28	79,87,98,103	0
19	LPX	C	1123	30/30	0.81	0.24	72,80,92,93	0
15	SO4	B	1120	5/5	0.82	0.22	118,118,119,120	0
6	C14	A	1110	14/14	0.82	0.17	67,72,77,77	0
4	GOL	C	1108	6/6	0.82	0.34	95,96,97,98	0
13	D12	C	1120	12/12	0.82	0.20	69,72,80,80	0
9	LMU	B	1102	35/35	0.83	0.20	76,89,92,93	0
11	DDR	B	1105	28/28	0.83	0.23	72,86,91,91	0
7	EDO	B	1119	4/4	0.83	0.24	69,69,70,71	0

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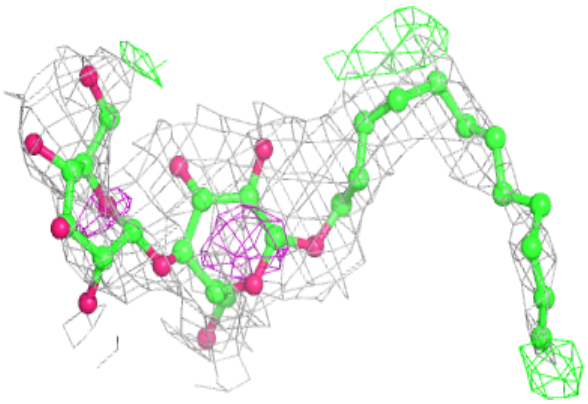
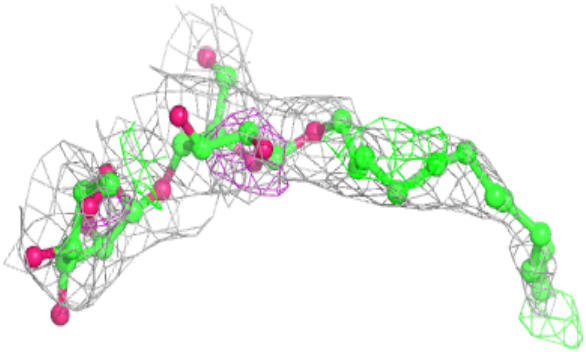
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
5	D10	B	1112	10/10	0.84	0.21	71,72,73,73	0
6	C14	C	1119	14/14	0.84	0.26	69,70,72,72	0
17	NA	B	1122	1/1	0.85	0.56	67,67,67,67	0
4	GOL	C	1111	6/6	0.85	0.38	79,80,81,82	0
5	D10	C	1114	10/10	0.85	0.24	80,81,82,82	0
7	EDO	A	1112	4/4	0.86	0.16	79,80,81,82	0
13	D12	B	1114	12/12	0.87	0.19	69,71,71,72	0
7	EDO	B	1118	4/4	0.87	0.21	62,62,63,63	0
12	OCT	C	1118	8/8	0.88	0.22	63,64,64,65	0
7	EDO	A	1111	4/4	0.89	0.21	64,64,64,65	0
3	LMT	A	1103	35/35	0.89	0.28	89,92,104,106	0
4	GOL	C	1106	6/6	0.90	0.27	61,65,65,66	0
13	D12	C	1121	12/12	0.90	0.24	68,69,71,71	0
3	LMT	B	1103	35/35	0.90	0.24	65,71,101,102	0
7	EDO	C	1126	4/4	0.90	0.35	70,72,72,72	0
4	GOL	B	1108	6/6	0.90	0.28	64,66,68,69	0
7	EDO	B	1117	4/4	0.91	0.39	71,72,72,73	0
4	GOL	A	1107	6/6	0.93	0.25	62,64,66,67	0
8	MIY	B	1101	33/33	0.93	0.14	64,66,67,68	0
7	EDO	D	202	4/4	0.94	0.29	64,65,65,65	0
4	GOL	C	1105	6/6	0.94	0.18	44,46,48,49	0
7	EDO	C	1127	4/4	0.94	0.45	80,80,80,80	0
3	LMT	C	1101	35/35	0.94	0.23	61,65,88,89	0
7	EDO	E	201	4/4	0.95	0.17	68,69,69,70	0
4	GOL	C	1110	6/6	0.95	0.24	63,64,64,65	0
18	CL	B	1123	1/1	0.95	0.09	57,57,57,57	0
4	GOL	B	1106	6/6	0.95	0.20	52,53,54,55	0
7	EDO	D	203	4/4	0.95	0.12	62,63,63,63	0
15	SO4	C	1129	5/5	0.96	0.18	89,91,92,93	0
7	EDO	B	1116	4/4	0.96	0.40	59,59,60,60	0
15	SO4	C	1128	5/5	0.97	0.11	79,80,80,82	0

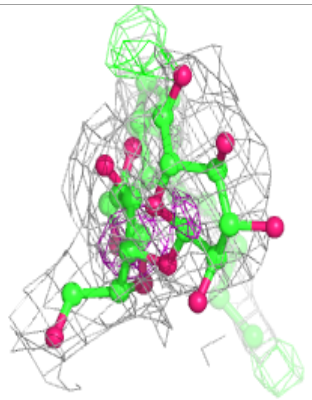
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around LMT C 1102:

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

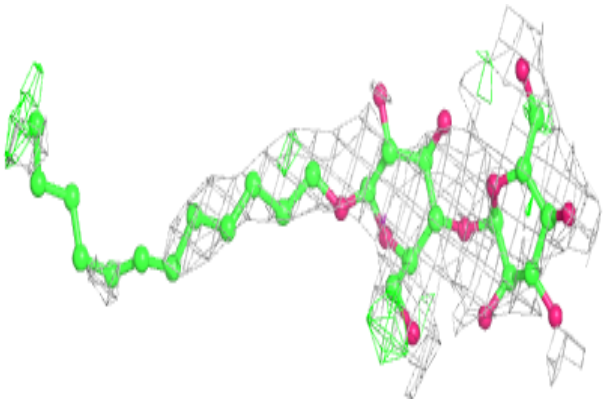


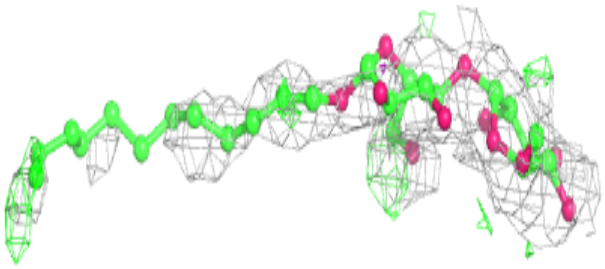


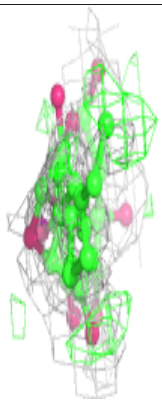


Electron density around LMT A 1105:

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

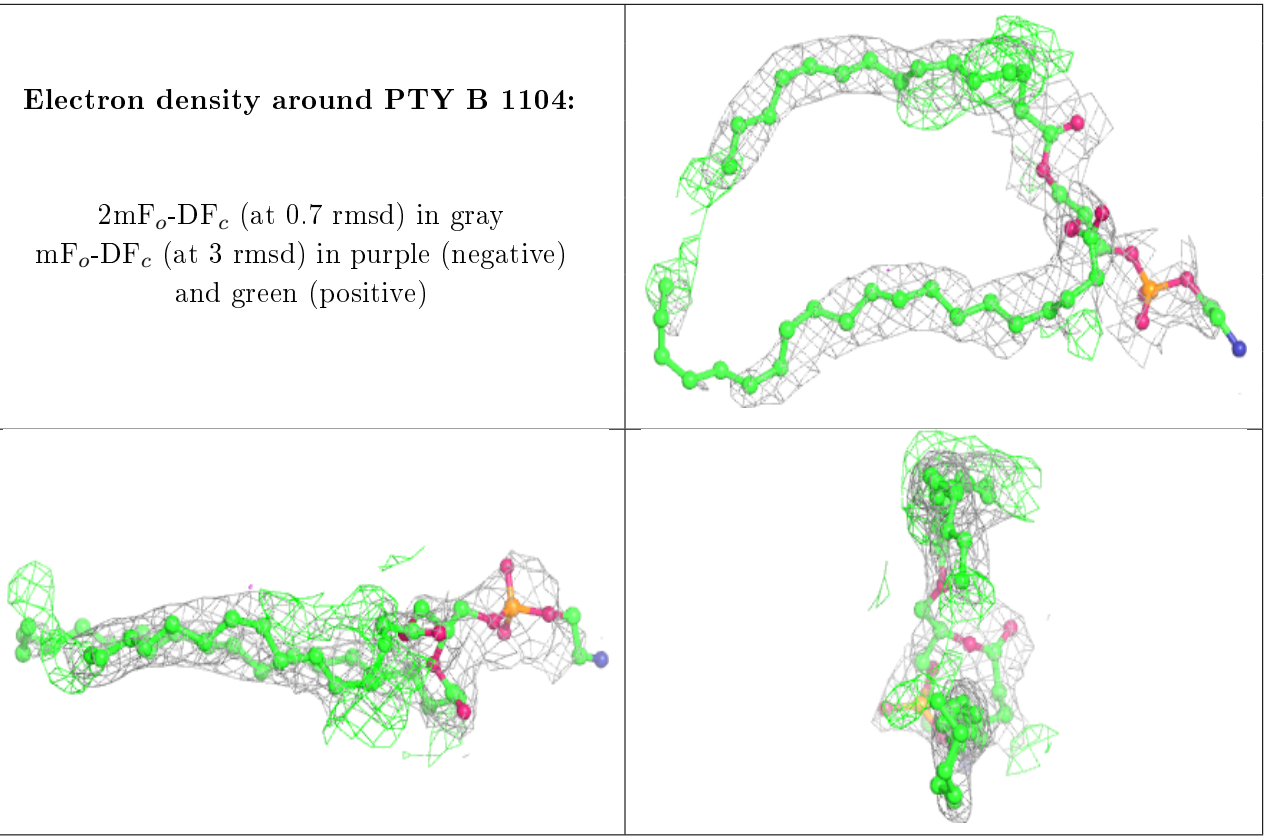






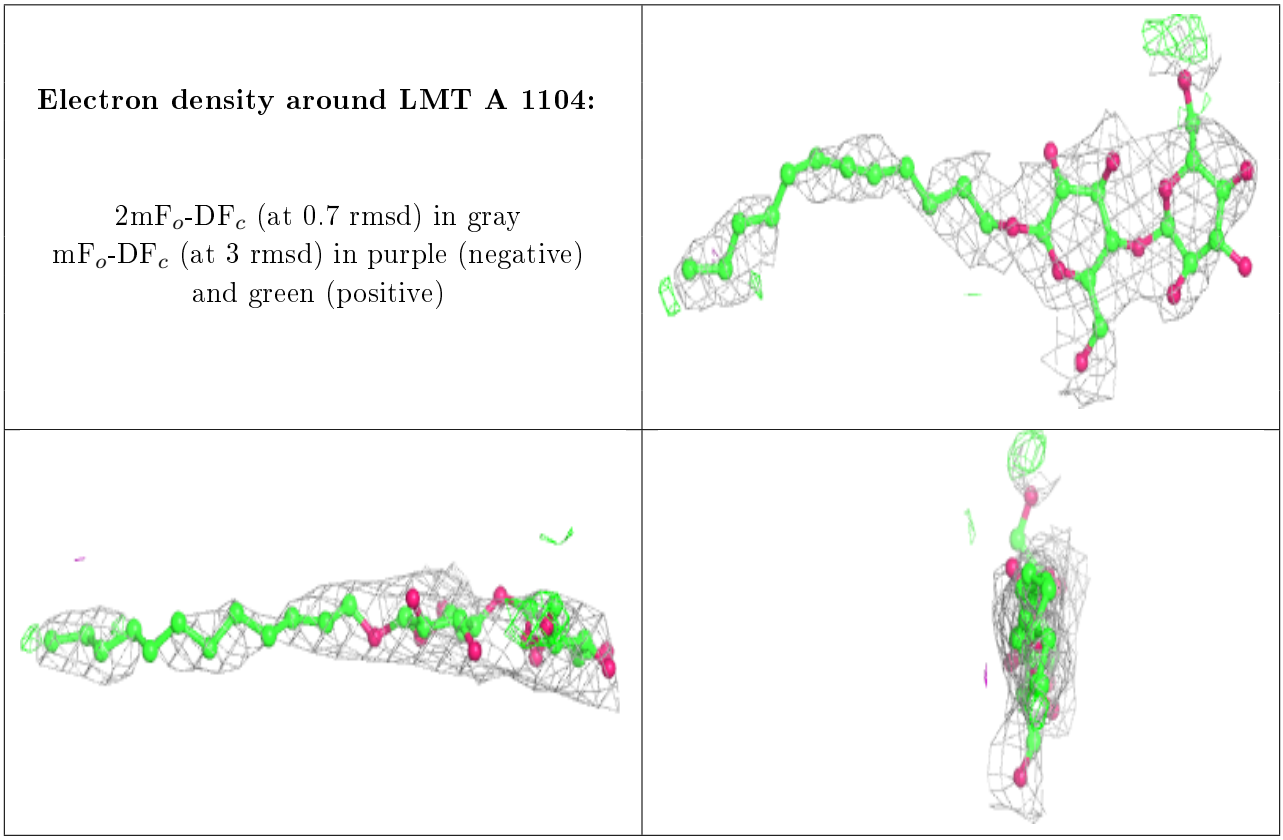
Electron density around PTY B 1104:

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



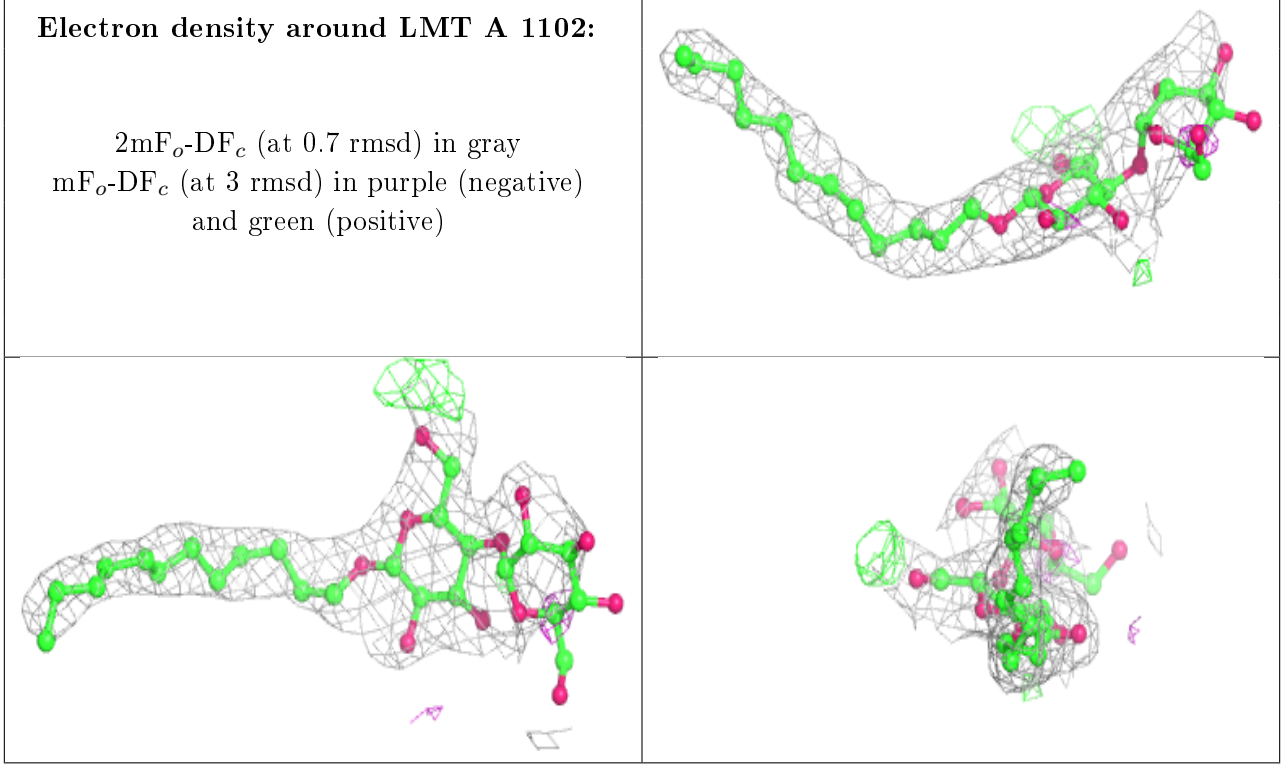
Electron density around LMT A 1104:

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



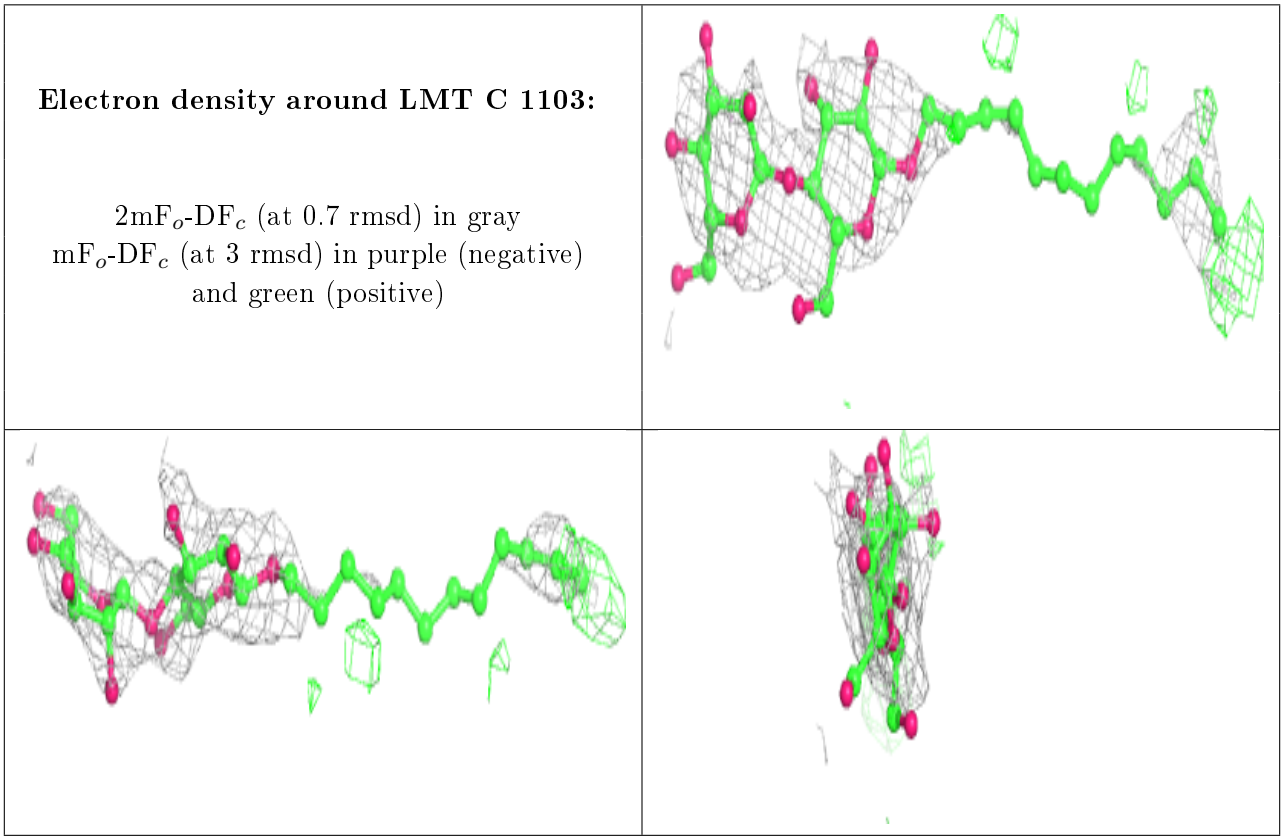
Electron density around LMT A 1102:

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



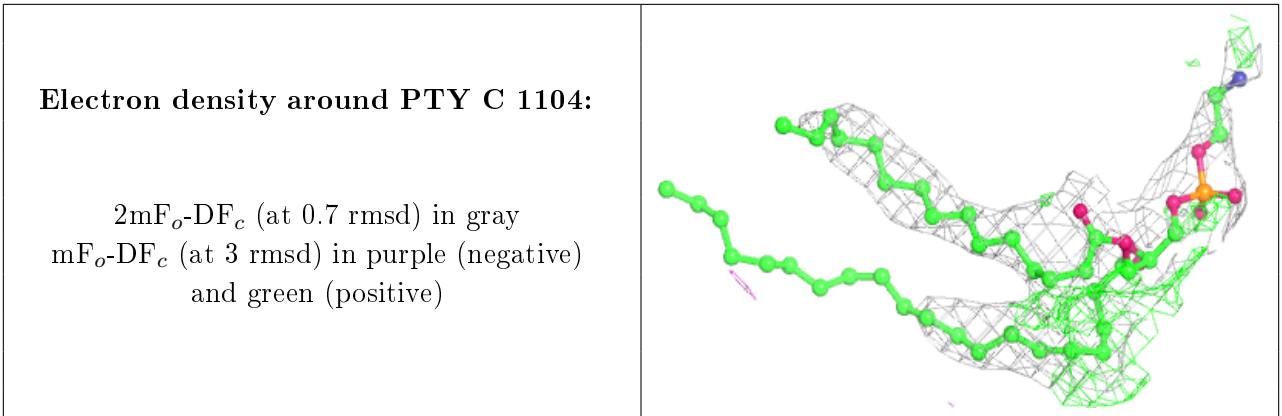
Electron density around LMT C 1103:

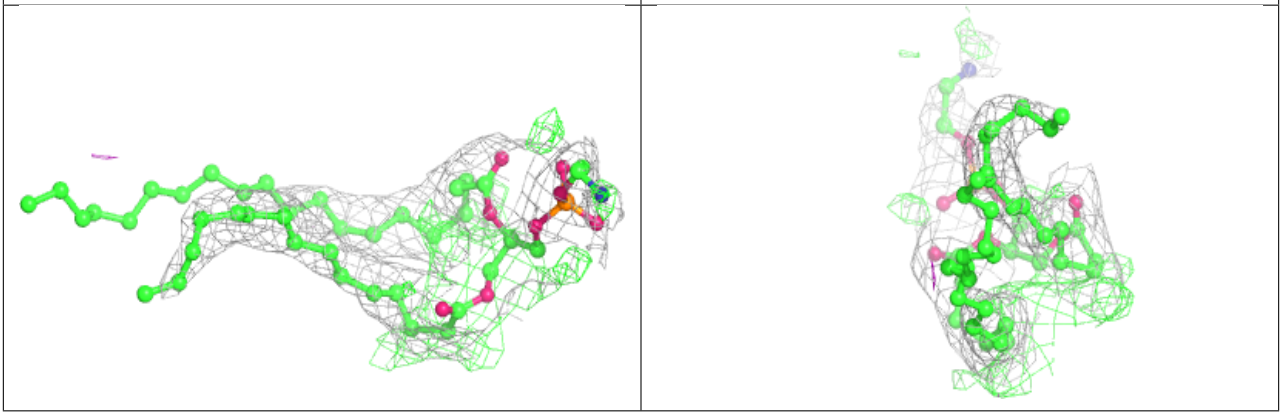
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around PTY C 1104:

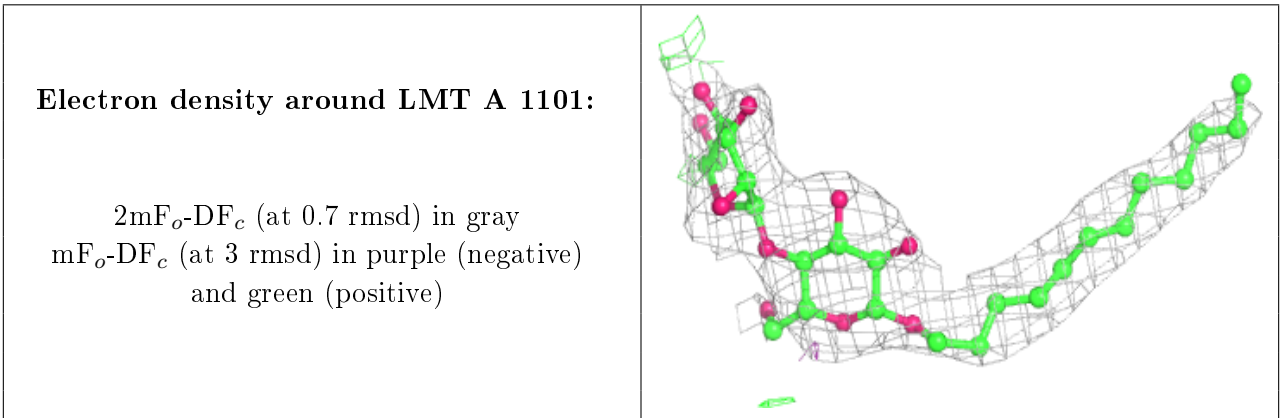
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

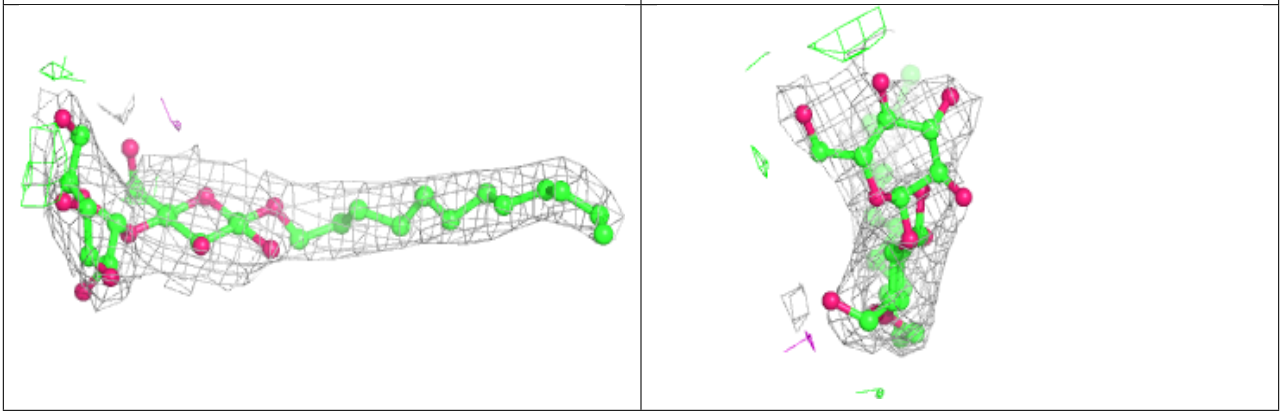




Electron density around LMT A 1101:

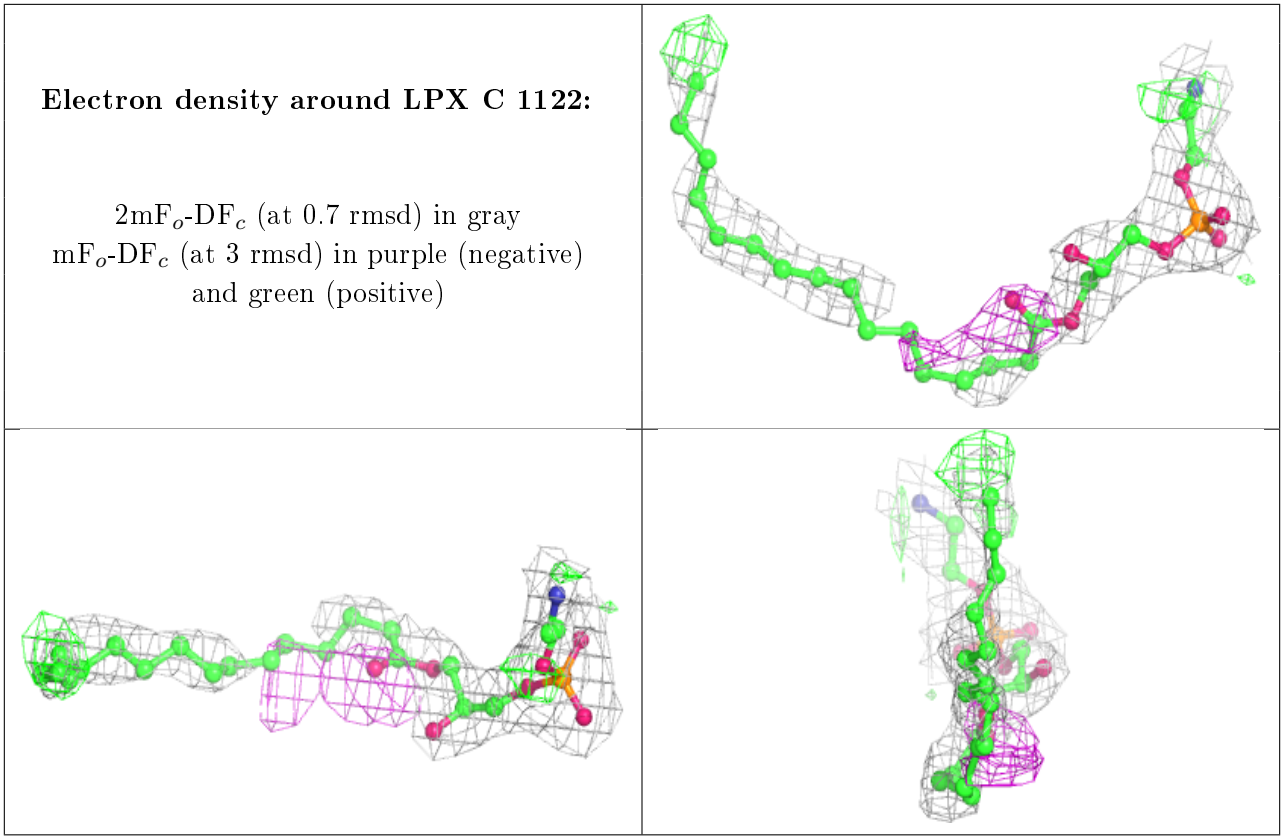
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





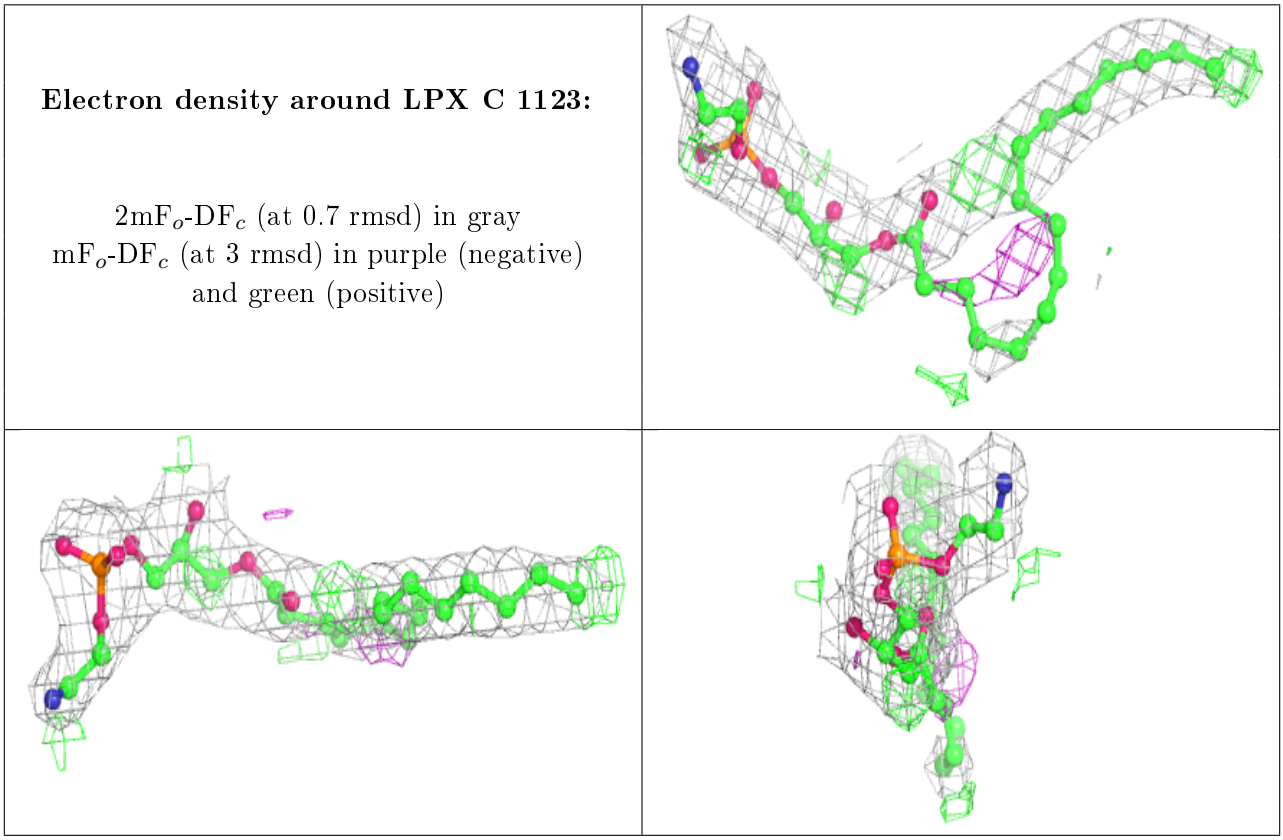
Electron density around LPX C 1122:

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



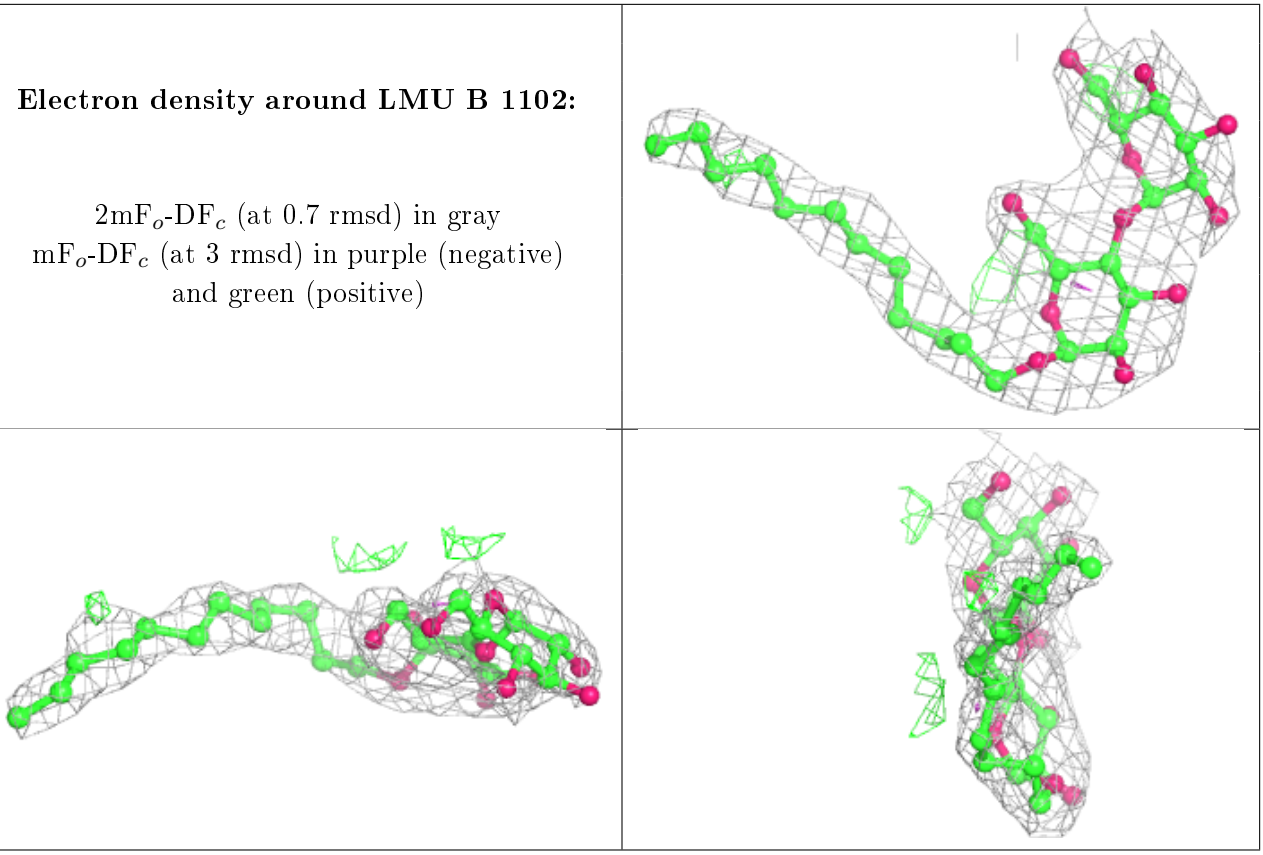
Electron density around LPX C 1123:

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



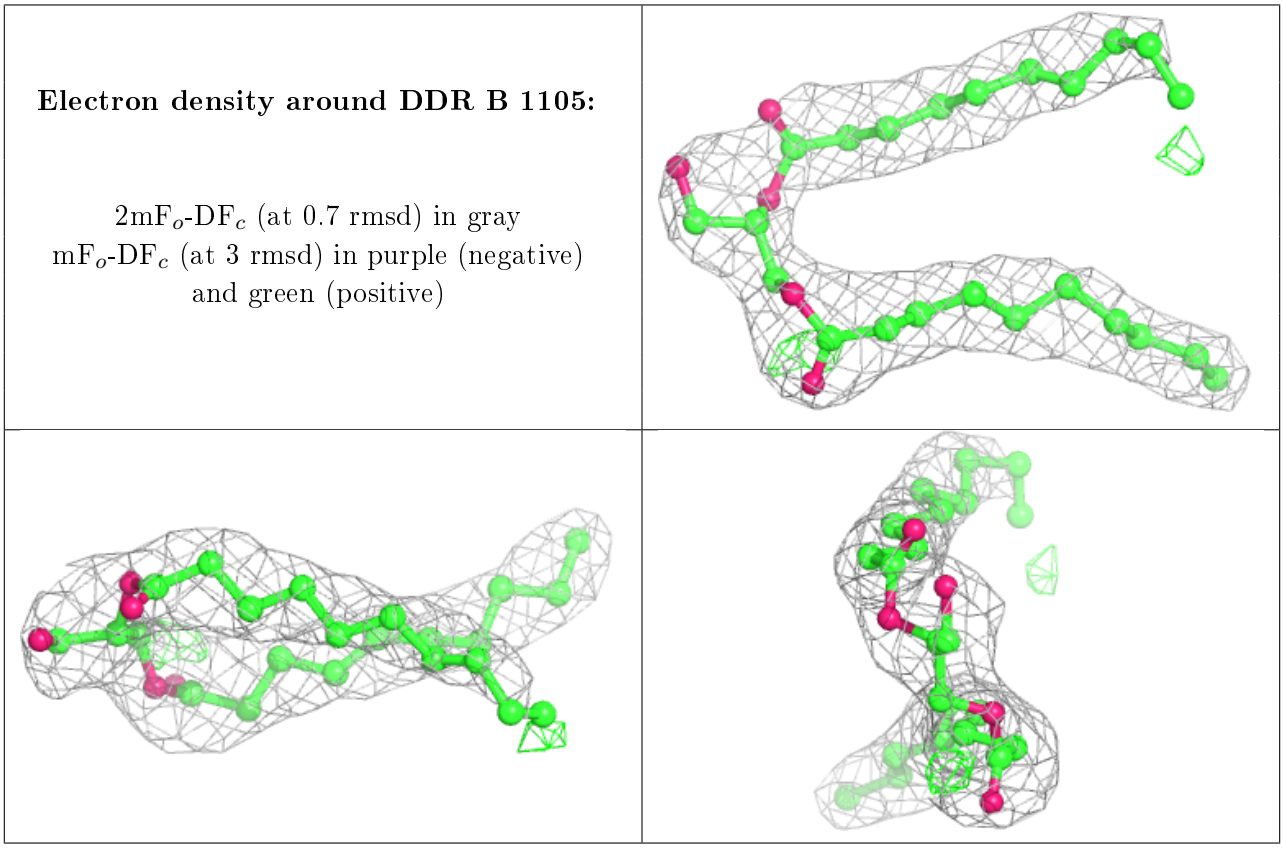
Electron density around LMU B 1102:

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



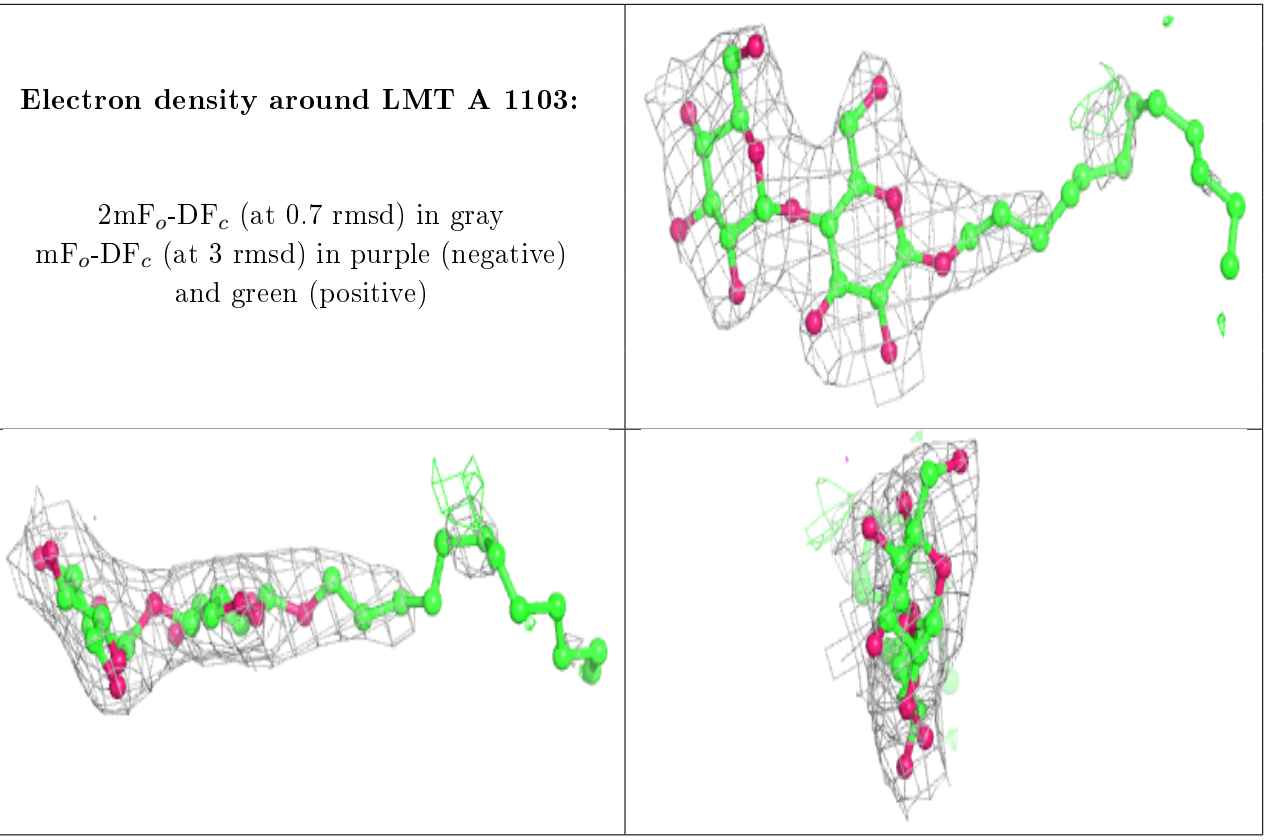
Electron density around DDR B 1105:

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



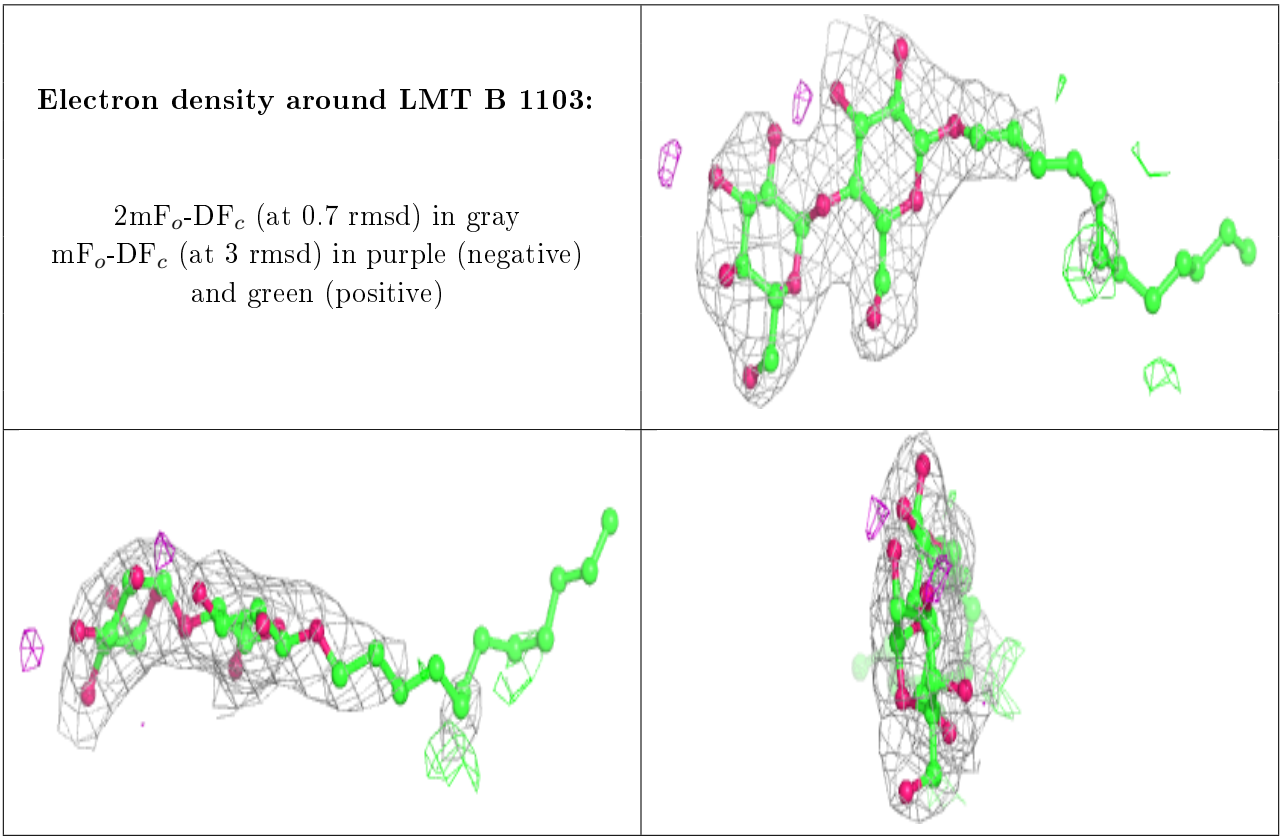
Electron density around LMT A 1103:

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



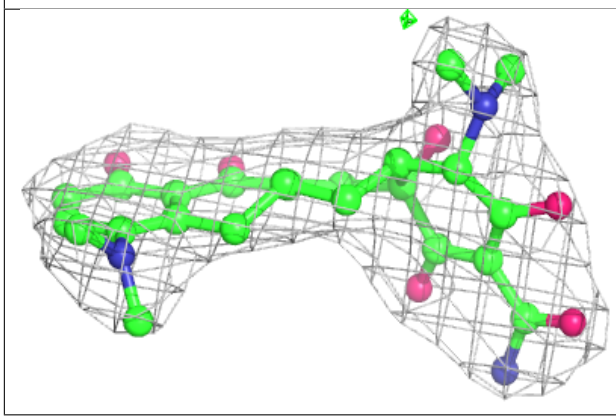
Electron density around LMT B 1103:

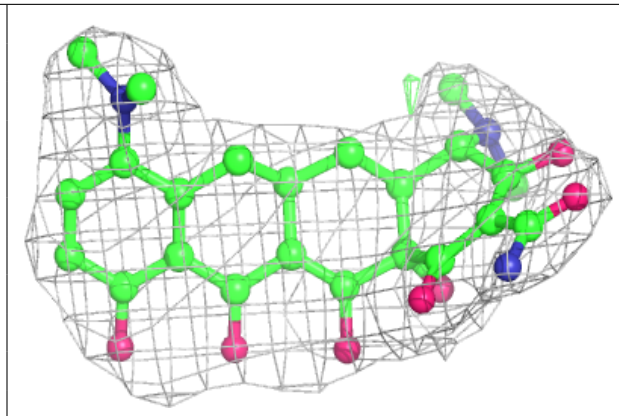
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

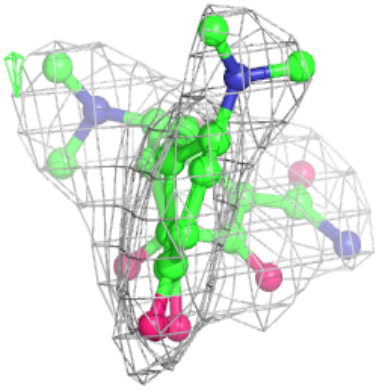


Electron density around MIY B 1101:

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

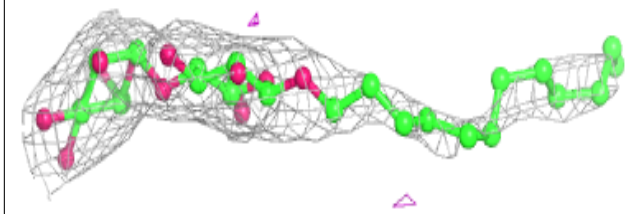


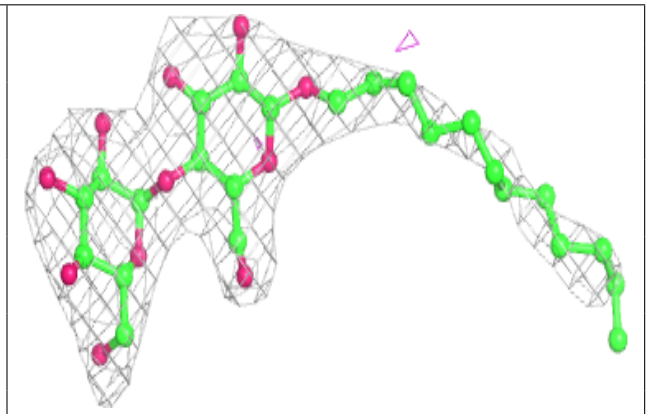


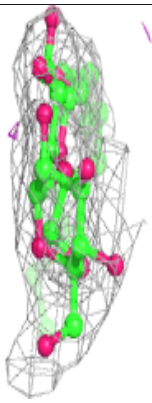


Electron density around LMT C 1101:

$2mF_o$-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.