Full wwPDB X-ray Structure Validation Report ⓘ

Jun 23, 2025 – 02:48 PM JST

PDB ID	:	9IKI / pdb_00009iki
Title	:	Bovine Heart Cytochrome c Oxidase in the Nitrous Oxide-bound Fully Reduced State
Authors	:	Muramoto, K.; Ide, T.; Shinzawa-Itoh, K.
Deposited on	:	2024-06-27
Resolution	:	1.75 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 types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

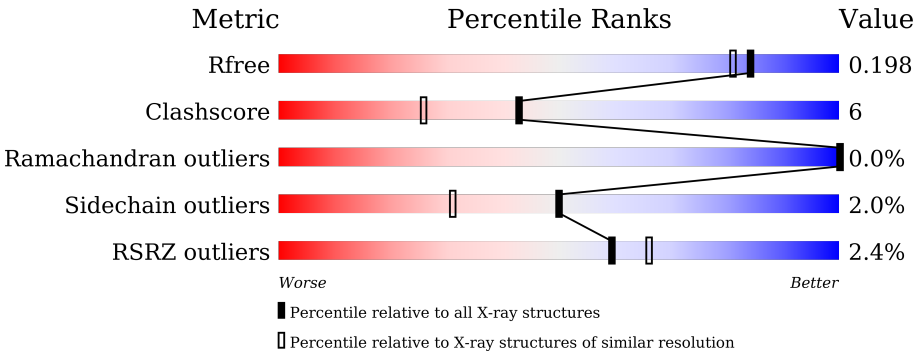
MolProbity	:	4-5-2 with Phenix2.0rc1
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	2.0rc1
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.006 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.44

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 1.75 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	2888 (1.76-1.76)
Clashscore	180529	3097 (1.76-1.76)
Ramachandran outliers	177936	3072 (1.76-1.76)
Sidechain outliers	177891	3072 (1.76-1.76)
RSRZ outliers	164620	2887 (1.76-1.76)

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	514	87% 11%
1	N	514	87% 12%
2	B	227	5% 80% 17%
2	O	227	3% 80% 18%
3	C	261	86% 13%
3	P	261	84% 15%

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Mol	Chain	Length	Quality of chain
4	D	147	2% 90% 7%
4	Q	147	5% 87% 7%
5	E	109	89% 5% 6%
5	R	109	2% 86% 7% 6%
6	F	98	% 76% 15% 7%
6	S	98	2% 78% 12% 7%
7	G	85	5% 75% 7% 15%
7	T	85	2% 76% 7% 15%
8	H	85	5% 79% 7% 12%
8	U	85	7% 78% 8% 12%
9	I	73	11% 86% 7%
9	V	73	5% 81% 14%
10	J	59	3% 85% 8% 5%
10	W	59	3% 83% 8% 5%
11	K	56	5% 79% 7% 12%
11	X	56	5% 88% 12%
12	L	47	81% 11% 6%
12	Y	47	85% 6% 6%
13	M	46	2% 78% 9% 13%
13	Z	46	2% 76% 9% 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
19	LFA	P	310	-	-	-	X
26	CDL	C	304	-	-	X	-

2 Entry composition (i)

There are 29 unique types of molecules in this entry. The entry contains 33027 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 Cytochrome c oxidase subunit 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	513	Total	C	N	O	S	0	15	0
			4130	2757	636	696	41			
1	N	513	Total	C	N	O	S	0	15	0
			4130	2757	636	696	41			

- Molecule 2 is a protein called Cytochrome c oxidase subunit 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	227	Total	C	N	O	S	0	5	0
			1870	1216	288	347	19			
2	O	227	Total	C	N	O	S	0	5	0
			1870	1216	288	347	19			

- Molecule 3 is a protein called Cytochrome c oxidase subunit 3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	258	Total	C	N	O	S	0	9	0
			2171	1449	342	364	16			
3	P	258	Total	C	N	O	S	0	9	0
			2172	1449	343	364	16			

- Molecule 4 is a protein called Cytochrome c oxidase subunit 4 isoform 1, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	143	Total	C	N	O	S	0	1	0
			1192	776	195	217	4			
4	Q	137	Total	C	N	O	S	0	1	0
			1148	749	188	207	4			

- Molecule 5 is a protein called Cytochrome c oxidase subunit 5A.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	102	Total	C	N	O	S	0	0	0
			825	528	139	156	2			
5	R	102	Total	C	N	O	S	0	0	0
			825	528	139	156	2			

- Molecule 6 is a protein called Cytochrome c oxidase subunit 5B, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	91	Total	C	N	O	S	0	2	0
			709	441	124	138	6			
6	S	91	Total	C	N	O	S	0	2	0
			709	441	124	138	6			

- Molecule 7 is a protein called Cytochrome c oxidase subunit 6A2, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	72	Total	C	N	O	S	0	1	0
			606	396	114	95	1			
7	T	72	Total	C	N	O	S	0	1	0
			606	396	114	95	1			

- Molecule 8 is a protein called Cytochrome c oxidase subunit 6B1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	75	Total	C	N	O	S	0	0	0
			628	395	114	114	5			
8	U	75	Total	C	N	O	S	0	0	0
			628	395	114	114	5			

- Molecule 9 is a protein called Cytochrome c oxidase subunit 6C.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	70	Total	C	N	O	S	0	0	0
			575	375	103	93	4			
9	V	70	Total	C	N	O	S	0	0	0
			575	375	103	93	4			

- Molecule 10 is a protein called Cytochrome c oxidase subunit 7A1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	56	Total	C	N	O	S	0	0	0
			441	285	73	80	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	W	56	Total	C	N	O	S	0	0	0
			441	285	73	80	3			

- Molecule 11 is a protein called Cytochrome c oxidase subunit 7B, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	49	Total	C	N	O	S	0	0	0
			384	250	65	67	2			
11	X	49	Total	C	N	O	S	0	0	0
			384	250	65	67	2			

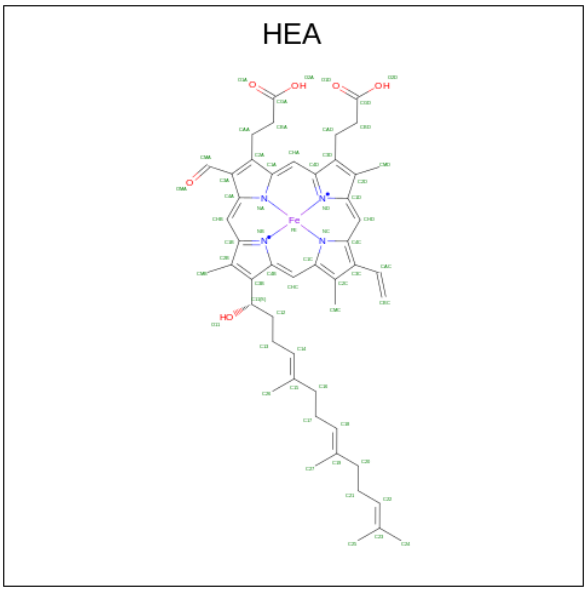
- Molecule 12 is a protein called Cytochrome c oxidase subunit 7C, mitochondrial.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	44	Total	C	N	O	S	0	0	0
			360	242	59	57	2			
12	Y	44	Total	C	N	O	S	0	0	0
			360	242	59	57	2			

- Molecule 13 is a protein called Cytochrome c oxidase subunit 8B, mitochondrial.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	M	40	Total	C	N	O	0	0	0
			311	208	48	55			
13	Z	40	Total	C	N	O	0	0	0
			311	208	48	55			

- Molecule 14 is HEME-A (CCD ID: HEA) (formula: $C_{49}H_{56}FeN_4O_6$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
14	A	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		
14	A	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		
14	N	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		
14	N	1	Total	C	Fe	N	O	0	0
			60	49	1	4	6		

- Molecule 15 is COPPER (II) ION (CCD ID: CU) (formula: Cu).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
15	A	1	Total	Cu	0	0
			1	1		
15	N	1	Total	Cu	0	0
			1	1		

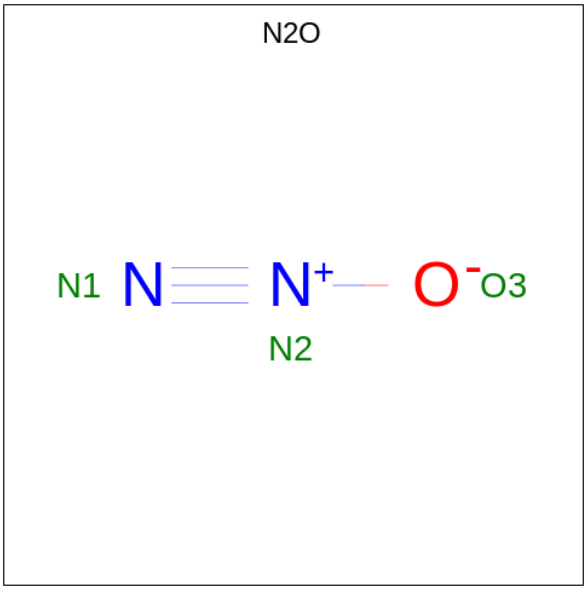
- Molecule 16 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
16	A	1	Total	Mg	0	0
			1	1		
16	N	1	Total	Mg	0	0
			1	1		

- Molecule 17 is SODIUM ION (CCD ID: NA) (formula: Na).

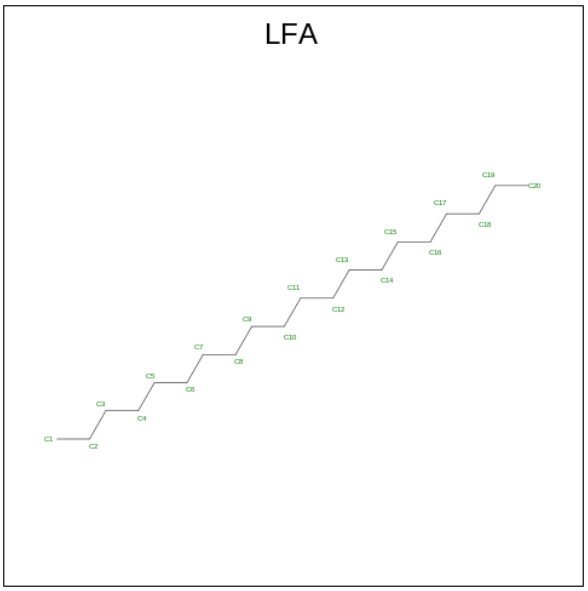
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
17	A	1	Total Na 1 1	0	0
17	N	1	Total Na 1 1	0	0

- Molecule 18 is NITROUS OXIDE (CCD ID: N2O) (formula: N_2O) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	A	1	Total N O 3 2 1	0	0
18	N	1	Total N O 3 2 1	0	0

- Molecule 19 is EICOSANE (CCD ID: LFA) (formula: $C_{20}H_{42}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
19	A	1	Total C 14 14	0	0
19	B	1	Total C 17 17	0	0
19	C	1	Total C 11 11	0	0
19	C	1	Total C 6 6	0	0
19	C	1	Total C 18 18	0	0
19	C	1	Total C 15 15	0	0
19	C	1	Total C 11 11	0	0
19	C	1	Total C 14 14	0	0
19	C	1	Total C 11 11	0	0
19	C	1	Total C 15 15	0	0
19	C	1	Total C 13 13	0	0
19	C	1	Total C 15 15	0	0
19	G	1	Total C 14 14	0	0
19	N	1	Total C 14 14	0	0

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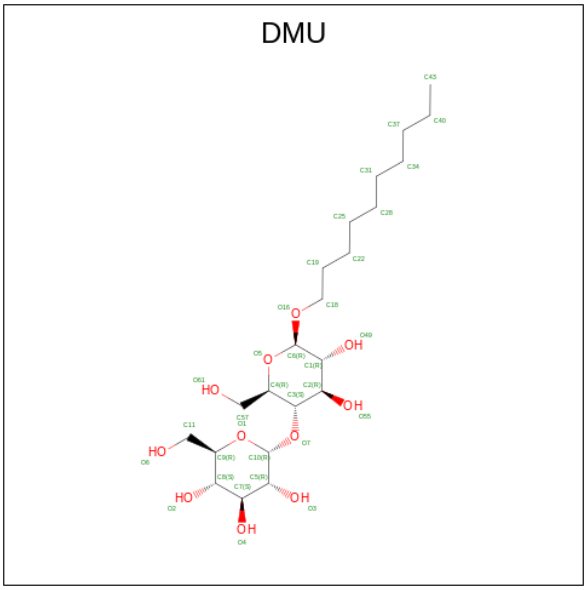
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
19	O	1	Total C 17 17	0	0
19	O	1	Total C 11 11	0	0
19	P	1	Total C 11 11	0	0
19	P	1	Total C 6 6	0	0
19	P	1	Total C 18 18	0	0
19	P	1	Total C 11 11	0	0
19	P	1	Total C 11 11	0	0
19	P	1	Total C 15 15	0	0
19	P	1	Total C 13 13	0	0
19	T	1	Total C 14 14	0	0
19	T	1	Total C 14 14	0	0
19	T	1	Total C 11 11	0	0

- Molecule 20 is DECYL-BETA-D-MALTOPYRANOSIDE (CCD ID: DMU) (formula: $C_{22}H_{42}O_{11}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
20	A	1	Total C 7 7	0	0
20	A	1	Total C O 33 22 11	0	0
20	A	1	Total C O 11 10 1	0	0
20	B	1	Total C O 11 10 1	0	0
20	B	1	Total C O 11 10 1	0	0
20	B	1	Total C O 22 16 6	0	0
20	B	1	Total C O 22 16 6	0	0
20	C	1	Total C O 11 10 1	0	0
20	C	1	Total C O 33 22 11	0	0
20	C	1	Total C 7 7	0	0
20	C	1	Total C O 22 16 6	0	0
20	C	1	Total C O 33 22 11	0	0
20	C	1	Total C O 33 22 11	0	0
20	C	1	Total C O 22 16 6	0	0
20	C	1	Total C O 33 22 11	0	0
20	D	1	Total C O 33 22 11	0	0
20	G	1	Total C O 11 10 1	0	0
20	H	1	Total C O 33 22 11	0	0
20	J	1	Total C O 11 10 1	0	0
20	L	1	Total C O 22 16 6	0	0
20	M	1	Total C O 33 22 11	0	0
20	M	1	Total C 8 8	0	0

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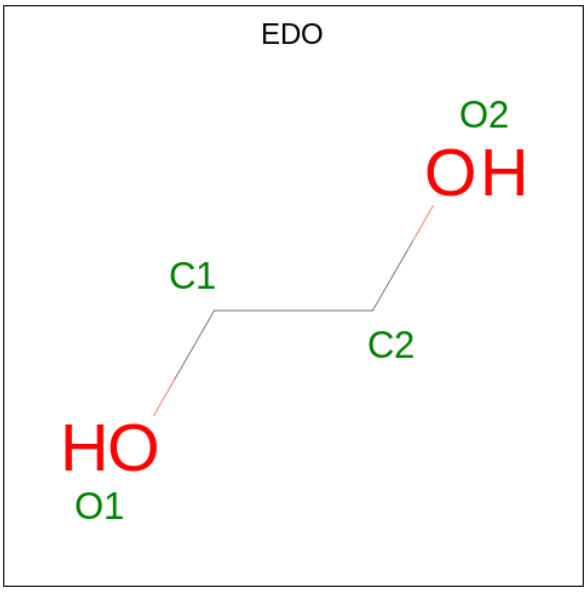
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
20	N	1	Total C 7 7	0	0
20	N	1	Total C O 33 22 11	0	0
20	O	1	Total C O 22 16 6	0	0
20	O	1	Total C O 11 10 1	0	0
20	O	1	Total C O 11 10 1	0	0
20	O	1	Total C O 22 16 6	0	0
20	P	1	Total C O 11 10 1	0	0
20	P	1	Total C O 33 22 11	0	0
20	P	1	Total C 7 7	0	0
20	P	1	Total C O 22 16 6	0	0
20	P	1	Total C O 33 22 11	0	0
20	P	1	Total C O 33 22 11	0	0
20	P	1	Total C O 33 22 11	0	0
20	Q	1	Total C O 33 22 11	0	0
20	T	1	Total C O 22 16 6	0	0
20	U	1	Total C O 33 22 11	0	0
20	W	1	Total C O 11 10 1	0	0
20	Z	1	Total C O 33 22 11	0	0
20	Z	1	Total C O 22 16 6	0	0
20	Z	1	Total C 8 8	0	0

- Molecule 21 is 1,2-ETHANEDIOL (CCD ID: EDO) (formula: $C_2H_6O_2$).



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

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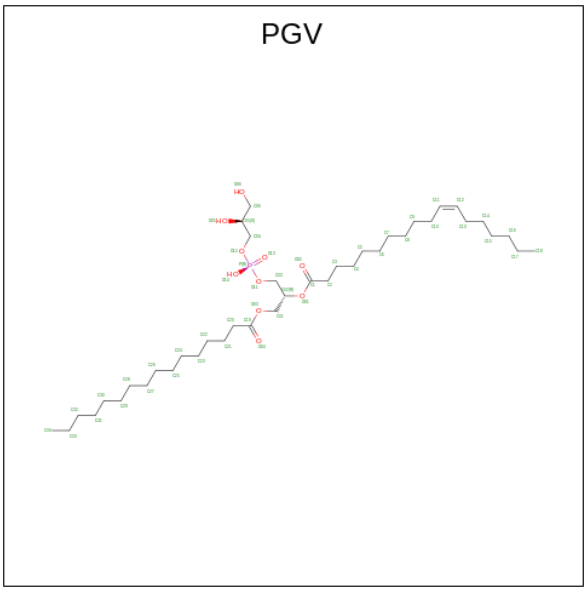
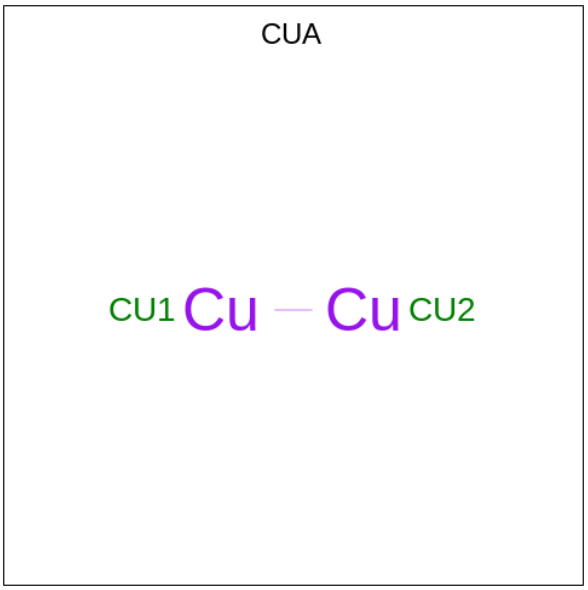
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
21	N	1	Total	C	O	0	0
			4	2	2		
21	N	1	Total	C	O	0	0
			4	2	2		
21	N	1	Total	C	O	0	0
			4	2	2		
21	N	1	Total	C	O	0	0
			4	2	2		
21	N	1	Total	C	O	0	0
			4	2	2		
21	O	1	Total	C	O	0	0
			4	2	2		
21	P	1	Total	C	O	0	0
			4	2	2		
21	P	1	Total	C	O	0	0
			4	2	2		
21	P	1	Total	C	O	0	0
			4	2	2		
21	R	1	Total	C	O	0	0
			4	2	2		
21	R	1	Total	C	O	0	0
			4	2	2		
21	R	1	Total	C	O	0	0
			4	2	2		
21	S	1	Total	C	O	0	0
			4	2	2		
21	S	1	Total	C	O	0	0
			4	2	2		
21	T	1	Total	C	O	0	0
			4	2	2		

- Molecule 22 is (1R)-2-{[{[(2S)-2,3-DIHYDROXYPROPYL]OXY}(HYDROXY)PHOSPHORYL]OXY}-1-[(PALMITOYLOXY)METHYL]ETHYL (11E)-OCTADEC-11-ENOATE (CCD ID: PGV) (formula: $C_{40}H_{77}O_{10}P$).



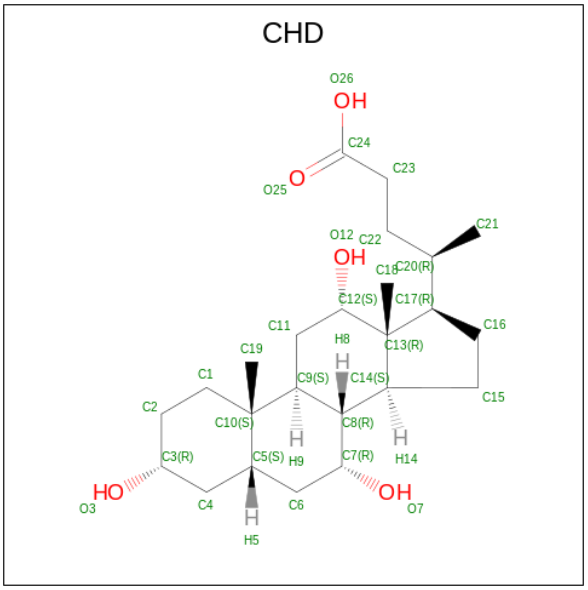
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
22	A	1	Total	C	O	P	0	0
			51	40	10	1		
22	C	1	Total	C	O	P	0	0
			51	40	10	1		
22	N	1	Total	C	O	P	0	0
			51	40	10	1		
22	P	1	Total	C	O	P	0	0
			51	40	10	1		

- Molecule 23 is DINUCLEAR COPPER ION (CCD ID: CUA) (formula: Cu_2).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	B	1	Total Cu 2 2	0	0
23	O	1	Total Cu 2 2	0	0

- Molecule 24 is CHOLIC ACID (CCD ID: CHD) (formula: $C_{24}H_{40}O_5$).

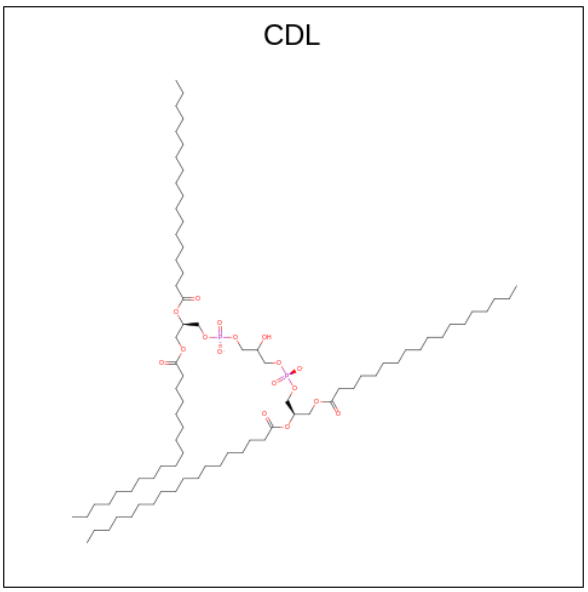


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	B	1	Total C O 29 24 5	0	0
24	C	1	Total C O 29 24 5	0	0
24	C	1	Total C O 29 24 5	0	0
24	O	1	Total C O 29 24 5	0	0
24	P	1	Total C O 29 24 5	0	0
24	P	1	Total C O 29 24 5	0	0

- Molecule 25 is UNKNOWN ATOM OR ION (CCD ID: UNX) (formula: X).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	C	1	Total X 1 1	0	0
25	P	1	Total X 1 1	0	0

- Molecule 26 is CARDIOLIPIN (CCD ID: CDL) (formula: $C_{81}H_{156}O_{17}P_2$).

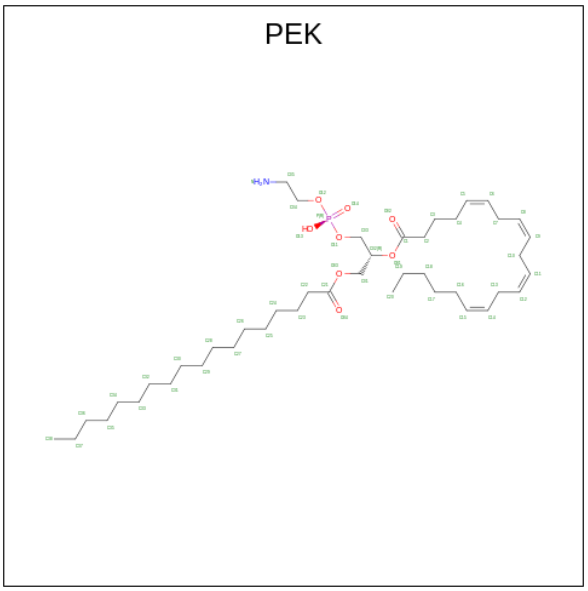


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	C	1	Total C O P 87 68 17 2	0	0
26	I	1	Total C O P 64 45 17 2	0	0
26	L	1	Total C O P 94 75 17 2	0	0
26	N	1	Total C O P 64 45 17 2	0	0
26	P	1	Total C O P 87 68 17 2	0	0
26	Y	1	Total C O P 94 75 17 2	0	0

- Molecule 27 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	F	1	Total Zn 1 1	0	0
27	S	1	Total Zn 1 1	0	0

- Molecule 28 is (1S)-2-{[(2-AMINOETHOXY)(HYDROXY)PHOSPHORYL]OXY}-1-[(STEAROYLOXY)METHYL]ETHYL (5E,8E,11E,14E)-ICOSA-5,8,11,14-TETRAENOATE (CCD ID: PEK) (formula: $C_{43}H_{78}NO_8P$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
28	G	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
28	T	1	Total	C	N	O	P	0	0
			53	43	1	8	1		

- Molecule 29 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
29	A	235	Total	O	0	11
			246	246		
29	B	167	Total	O	0	2
			169	169		
29	C	107	Total	O	0	1
			108	108		
29	D	136	Total	O	0	8
			144	144		
29	E	108	Total	O	0	8
			116	116		
29	F	103	Total	O	0	7
			110	110		
29	G	43	Total	O	0	1
			44	44		
29	H	62	Total	O	0	0
			62	62		
29	I	41	Total	O	0	0
			41	41		
29	J	20	Total	O	0	0
			20	20		

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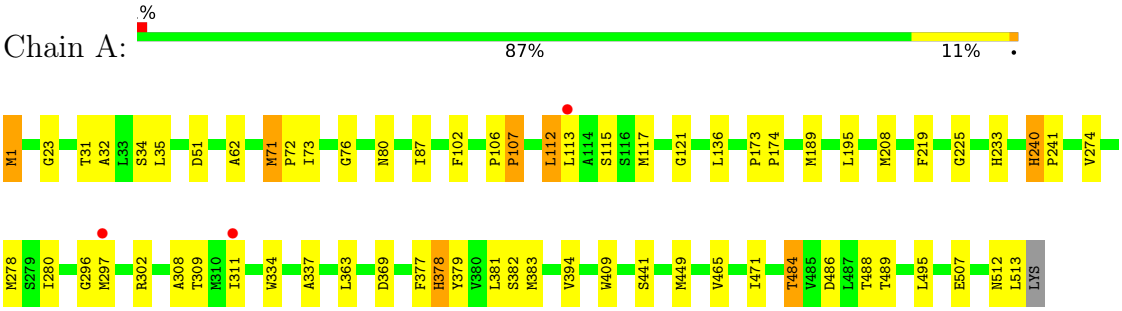
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	K	21	Total O 21 21	0	0
29	L	26	Total O 28 28	0	2
29	M	21	Total O 21 21	0	0
29	N	221	Total O 231 231	0	10
29	O	147	Total O 148 148	0	1
29	P	101	Total O 102 102	0	1
29	Q	78	Total O 83 83	0	5
29	R	87	Total O 93 93	0	6
29	S	91	Total O 98 98	0	7
29	T	40	Total O 41 41	0	1
29	U	51	Total O 51 51	0	0
29	V	22	Total O 22 22	0	0
29	W	15	Total O 15 15	0	0
29	X	17	Total O 17 17	0	0
29	Y	24	Total O 26 26	0	2
29	Z	17	Total O 17 17	0	0

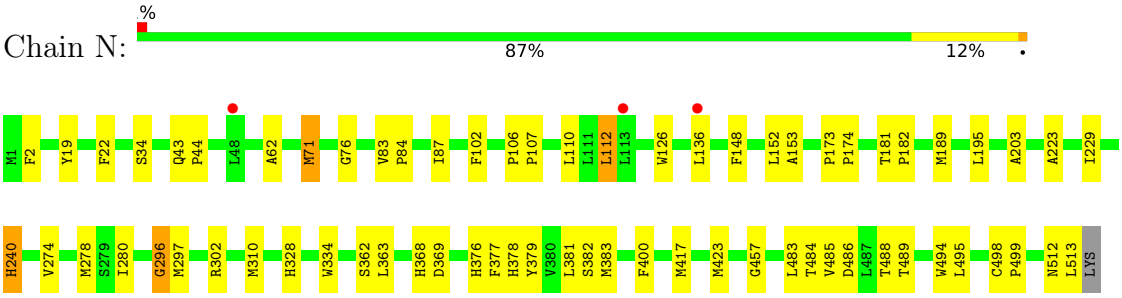
3 Residue-property plots (i)

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.

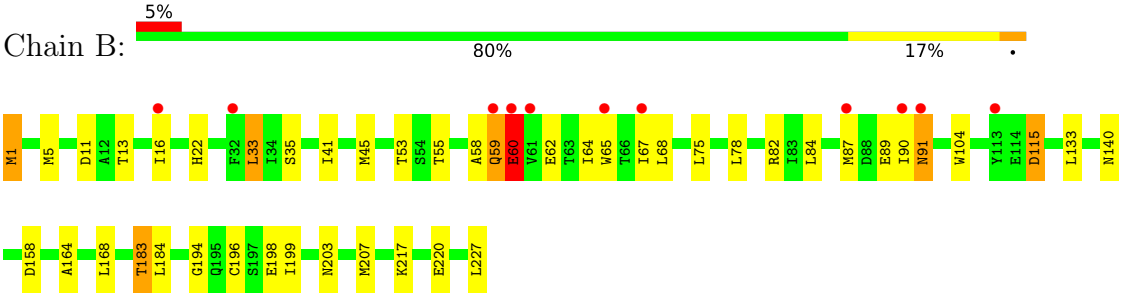
• Molecule 1: Cytochrome c oxidase subunit 1



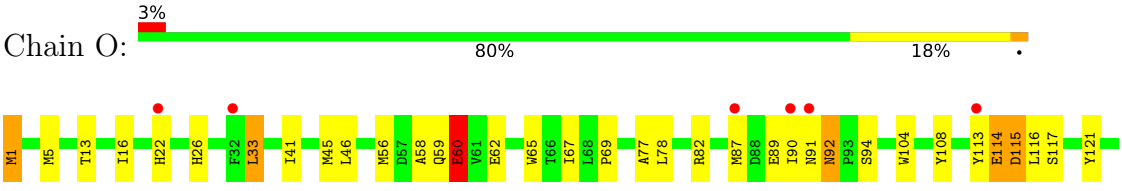
• Molecule 1: Cytochrome c oxidase subunit 1



• Molecule 2: Cytochrome c oxidase subunit 2

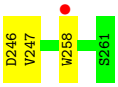


• Molecule 2: Cytochrome c oxidase subunit 2



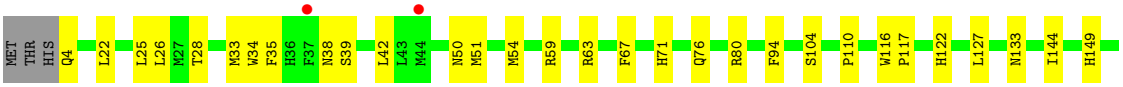
• Molecule 3: Cytochrome c oxidase subunit 3

Chain C:



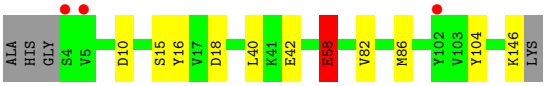
• Molecule 3: Cytochrome c oxidase subunit 3

Chain P:



• Molecule 4: Cytochrome c oxidase subunit 4 isoform 1, mitochondrial

Chain D:

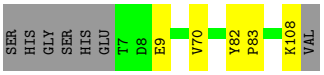


• Molecule 4: Cytochrome c oxidase subunit 4 isoform 1, mitochondrial

Chain Q:

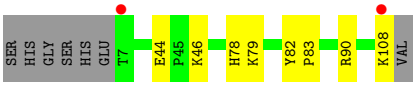
• Molecule 5: Cytochrome c oxidase subunit 5A

Chain E:



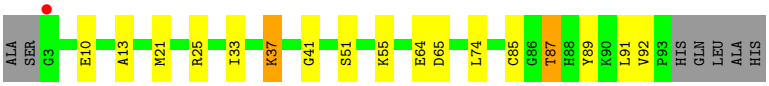
• Molecule 5: Cytochrome c oxidase subunit 5A

Chain R:



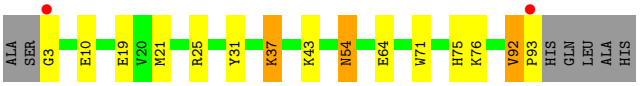
• Molecule 6: Cytochrome c oxidase subunit 5B, mitochondrial

Chain F:



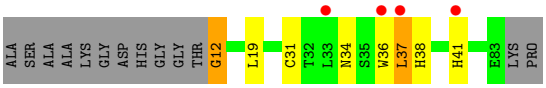
• Molecule 6: Cytochrome c oxidase subunit 5B, mitochondrial

Chain S:



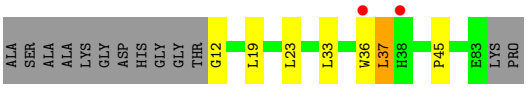
• Molecule 7: Cytochrome c oxidase subunit 6A2, mitochondrial

Chain G:



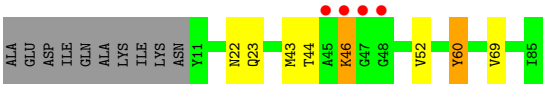
• Molecule 7: Cytochrome c oxidase subunit 6A2, mitochondrial

Chain T:



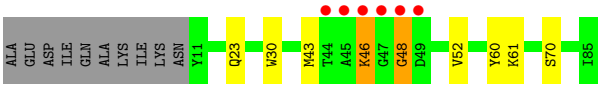
• Molecule 8: Cytochrome c oxidase subunit 6B1

Chain H:



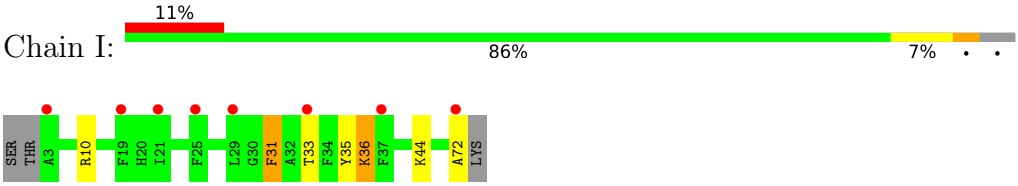
• Molecule 8: Cytochrome c oxidase subunit 6B1

Chain U:



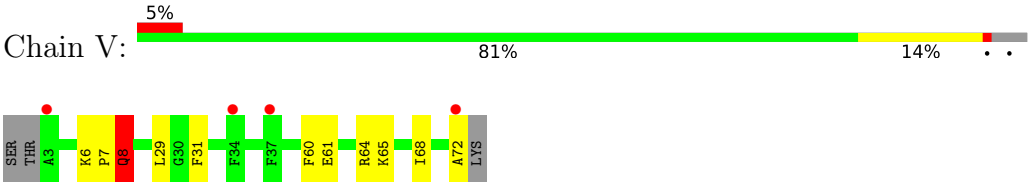
• Molecule 9: Cytochrome c oxidase subunit 6C

Chain I:



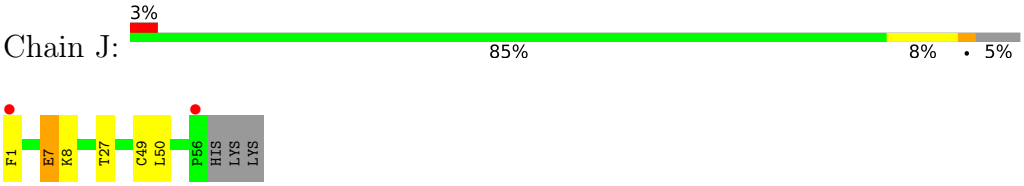
• Molecule 9: Cytochrome c oxidase subunit 6C

Chain V:



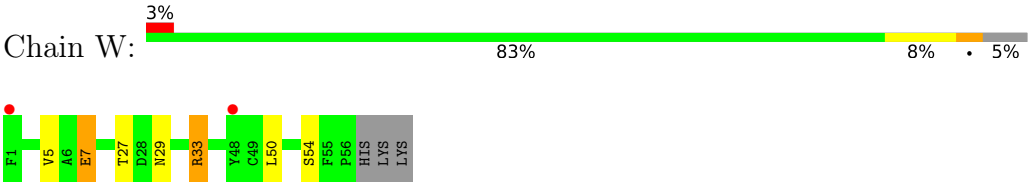
• Molecule 10: Cytochrome c oxidase subunit 7A1

Chain J:



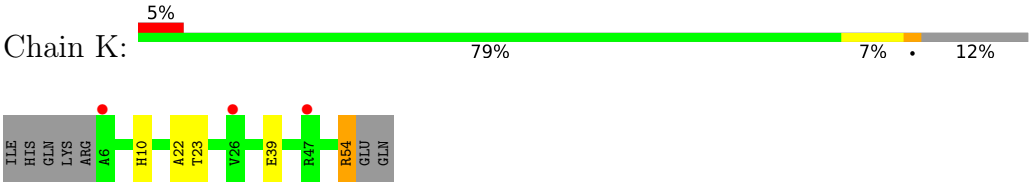
• Molecule 10: Cytochrome c oxidase subunit 7A1

Chain W:



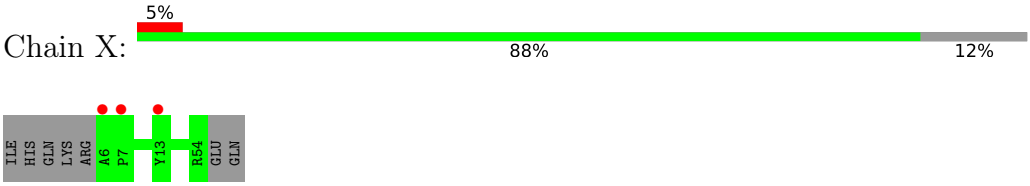
• Molecule 11: Cytochrome c oxidase subunit 7B, mitochondrial

Chain K:



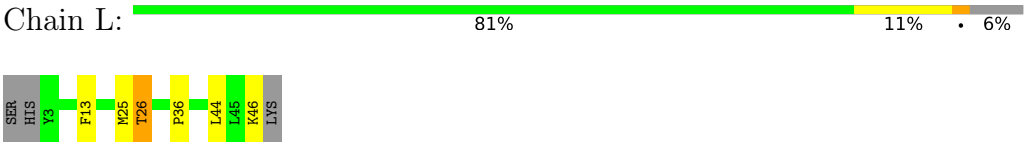
• Molecule 11: Cytochrome c oxidase subunit 7B, mitochondrial

Chain X:



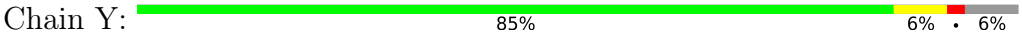
• Molecule 12: Cytochrome c oxidase subunit 7C, mitochondrial

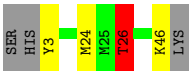
Chain L:



• Molecule 12: Cytochrome c oxidase subunit 7C, mitochondrial

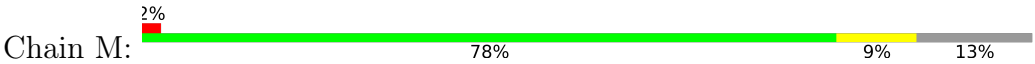
Chain Y:

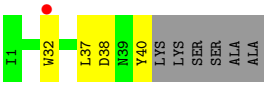




• Molecule 13: Cytochrome c oxidase subunit 8B, mitochondrial

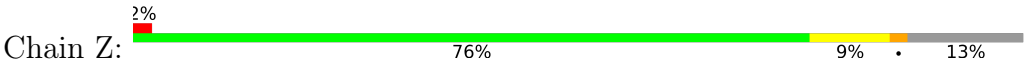
Chain M:

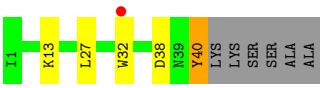




• Molecule 13: Cytochrome c oxidase subunit 8B, mitochondrial

Chain Z:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	181.90Å 204.00Å 177.70Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	40.00 – 1.75 40.00 – 1.75	Depositor EDS
% Data completeness (in resolution range)	100.0 (40.00-1.75) 100.0 (40.00-1.75)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.19 (at 1.75Å)	Xtriage
Refinement program	REFMAC 5.8.0253	Depositor
R, R_{free}	0.153 , 0.189 0.165 , 0.198	Depositor DCC
R_{free} test set	32773 reflections (4.98%)	wwPDB-VP
Wilson B-factor (Å^2)	30.8	Xtriage
Anisotropy	0.779	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 60.7	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	0.000 for l,-k,h	Xtriage
F_o,F_c correlation	0.97	EDS
Total number of atoms	33027	wwPDB-VP
Average B, all atoms (Å^2)	43.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.26% 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: CHD, CUA, HEA, EDO, CDL, FME, NA, N2O, PGV, CU, PEK, DMU, UNX, MG, ZN, LFA

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	1.17	4/4259 (0.1%)	1.30	9/5816 (0.2%)
1	N	1.16	6/4259 (0.1%)	1.31	13/5816 (0.2%)
2	B	1.25	4/1908 (0.2%)	1.40	15/2598 (0.6%)
2	O	1.22	7/1908 (0.4%)	1.35	5/2598 (0.2%)
3	C	1.15	2/2258 (0.1%)	1.26	3/3084 (0.1%)
3	P	1.18	4/2258 (0.2%)	1.27	8/3084 (0.3%)
4	D	1.18	2/1226 (0.2%)	1.36	2/1657 (0.1%)
4	Q	1.16	2/1182 (0.2%)	1.39	3/1598 (0.2%)
5	E	1.16	0/843	1.33	2/1145 (0.2%)
5	R	1.22	0/843	1.37	2/1145 (0.2%)
6	F	1.17	0/724	1.35	0/983
6	S	1.31	4/724 (0.6%)	1.34	3/983 (0.3%)
7	G	1.27	3/633 (0.5%)	1.30	0/864
7	T	1.24	2/633 (0.3%)	1.32	0/864
8	H	1.14	2/648 (0.3%)	1.42	0/877
8	U	1.13	1/648 (0.2%)	1.41	0/877
9	I	1.25	1/588 (0.2%)	1.46	2/781 (0.3%)
9	V	1.19	0/588	1.50	3/781 (0.4%)
10	J	1.15	0/451	1.29	1/610 (0.2%)
10	W	1.21	0/451	1.36	3/610 (0.5%)
11	K	1.20	2/398 (0.5%)	1.45	2/546 (0.4%)
11	X	1.15	0/398	1.32	0/546
12	L	1.12	0/372	1.41	4/500 (0.8%)
12	Y	1.14	1/372 (0.3%)	1.37	1/500 (0.2%)
13	M	1.11	0/321	1.35	0/440
13	Z	1.09	0/321	1.40	0/440
All	All	1.18	47/29214 (0.2%)	1.34	81/39743 (0.2%)

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	A	0	1
1	N	0	1
6	S	0	1
All	All	0	3

All (47) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	O	198	GLU	C-O	9.10	1.34	1.23
2	B	198	GLU	C-O	8.24	1.33	1.23
2	O	60	GLU	CD-OE1	8.13	1.40	1.25
4	D	58	GLU	CD-OE1	7.83	1.40	1.25
2	B	90	ILE	C-O	7.57	1.32	1.24
3	P	38	ASN	C-O	7.56	1.33	1.23
1	A	174	PRO	C-O	-7.46	1.15	1.24
2	O	60	GLU	CD-OE2	7.25	1.39	1.25
6	S	64	GLU	C-O	7.25	1.32	1.23
1	N	203	ALA	C-O	7.21	1.32	1.24
3	P	71	HIS	CE1-NE2	6.88	1.39	1.32
2	O	90	ILE	C-O	6.86	1.32	1.24
1	A	233	HIS	CE1-NE2	6.79	1.39	1.32
7	G	12	GLY	N-CA	-6.68	1.34	1.45
3	C	34	TRP	C-O	-6.67	1.16	1.24
1	N	400	PHE	C-O	6.52	1.31	1.24
2	B	60	GLU	CD-OE1	6.50	1.37	1.25
9	I	31	PHE	C-O	6.34	1.31	1.24
11	K	39	GLU	C-O	-6.33	1.16	1.24
2	O	113	TYR	C-O	-6.32	1.16	1.24
7	G	37	LEU	C-O	-6.11	1.16	1.24
7	T	12	GLY	N-CA	-6.08	1.35	1.45
1	N	240	HIS	N-CA	5.96	1.51	1.46
1	N	174	PRO	C-O	-5.88	1.17	1.24
11	K	10	HIS	CE1-NE2	5.81	1.38	1.32
1	N	223	ALA	C-O	-5.70	1.17	1.24
8	H	69	VAL	C-O	-5.70	1.17	1.24
4	Q	61	ARG	C-O	-5.69	1.16	1.24
6	S	3	GLY	C-O	5.63	1.34	1.23
2	O	56	MET	C-O	5.59	1.30	1.23
8	H	44	THR	C-O	5.54	1.30	1.24
7	T	45	PRO	C-O	-5.53	1.17	1.23
6	S	75	HIS	CE1-NE2	5.46	1.38	1.32
1	A	378	HIS	CD2-NE2	-5.44	1.31	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	115	ASP	CG-OD2	5.37	1.35	1.25
6	S	92	VAL	C-O	-5.36	1.17	1.24
1	A	107	PRO	C-O	-5.36	1.17	1.24
3	P	34	TRP	C-O	-5.34	1.18	1.24
12	Y	3	TYR	N-CA	5.34	1.56	1.46
2	O	26	HIS	CE1-NE2	5.29	1.37	1.32
7	G	41	HIS	CE1-NE2	5.13	1.37	1.32
1	N	376	HIS	CE1-NE2	5.11	1.37	1.32
3	C	70	HIS	CE1-NE2	5.07	1.37	1.32
4	Q	10	ASP	N-CA	5.06	1.55	1.46
3	P	231	HIS	C-O	5.04	1.29	1.24
8	U	70	SER	C-O	5.02	1.29	1.24
4	D	15	SER	CA-CB	-5.01	1.45	1.53

All (81) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	240	HIS	CA-CB-CG	-10.22	103.58	113.80
9	I	72	ALA	CA-C-O	-10.09	103.64	120.80
1	N	240	HIS	CA-CB-CG	-9.68	104.12	113.80
2	B	183	THR	CA-CB-OG1	-9.53	95.31	109.60
4	Q	146	LYS	CA-C-O	-9.29	105.01	120.80
1	A	71	MET	CG-SD-CE	-9.07	80.94	100.90
9	V	72	ALA	CA-C-O	-9.01	105.49	120.80
4	D	146	LYS	CA-C-O	-8.62	106.14	120.80
2	B	115	ASP	CB-CA-C	8.41	125.15	112.03
5	E	108	LYS	CA-C-O	-8.21	106.84	120.80
1	N	71	MET	CG-SD-CE	-8.16	82.94	100.90
3	P	80	ARG	CG-CD-NE	-8.03	94.33	112.00
3	C	80	ARG	CG-CD-NE	-7.92	94.58	112.00
1	A	484	THR	CA-CB-OG1	-7.51	98.34	109.60
2	B	59	GLN	CB-CG-CD	7.48	125.31	112.60
3	C	233	PHE	CA-CB-CG	-7.18	106.62	113.80
4	Q	10	ASP	CA-CB-CG	7.13	119.73	112.60
4	D	58	GLU	CB-CG-CD	7.06	124.61	112.60
11	K	54	ARG	CA-C-O	-6.95	108.98	120.80
12	L	26	THR	CA-CB-OG1	-6.87	99.30	109.60
12	L	25	MET	CA-C-N	6.77	130.19	120.79
12	L	25	MET	C-N-CA	6.77	130.19	120.79
2	O	91	ASN	CA-CB-CG	-6.72	105.88	112.60
3	P	233	PHE	CA-CB-CG	-6.72	107.08	113.80
2	B	65	TRP	CB-CA-C	6.55	122.04	110.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	P	76	GLN	CG-CD-NE2	-6.52	106.62	116.40
9	I	33	THR	CA-CB-OG1	-6.50	99.85	109.60
4	Q	20	ARG	CG-CD-NE	-6.49	97.72	112.00
9	V	8	GLN	N-CA-CB	6.42	119.52	109.69
3	P	122	HIS	CB-CA-C	6.17	117.06	110.65
1	A	102	PHE	CA-CB-CG	-6.14	107.66	113.80
2	B	82	ARG	CG-CD-NE	-6.11	98.57	112.00
1	A	513	LEU	CA-C-O	-5.98	110.63	120.80
2	B	59	GLN	N-CA-CB	5.94	118.95	110.16
1	A	507	GLU	CB-CA-C	5.91	116.59	109.85
2	B	199	ILE	N-CA-CB	5.87	117.24	110.49
2	B	184	LEU	N-CA-CB	-5.86	100.97	110.81
10	W	7	GLU	CB-CA-C	5.77	120.66	110.85
1	N	513	LEU	CA-C-O	-5.76	111.00	120.80
12	Y	26	THR	CA-CB-OG1	-5.75	100.97	109.60
3	C	45	ILE	N-CA-C	-5.72	104.83	110.67
3	P	230	ASN	CA-CB-CG	-5.71	106.89	112.60
2	O	89	GLU	CB-CA-C	-5.69	102.14	110.06
10	W	5	VAL	CA-C-O	-5.66	115.06	120.95
10	J	7	GLU	CB-CA-C	5.62	120.40	110.85
12	L	46	LYS	CA-C-O	-5.57	111.33	120.80
2	B	158	ASP	CA-CB-CG	5.56	118.16	112.60
11	K	23	THR	CA-CB-OG1	-5.56	101.26	109.60
1	N	512	ASN	CB-CA-C	5.53	120.02	110.45
5	R	78	HIS	CA-C-N	5.51	128.43	120.38
5	R	78	HIS	C-N-CA	5.51	128.43	120.38
1	A	280	ILE	N-CA-C	-5.50	105.01	110.62
3	P	35	PHE	CA-CB-CG	5.49	119.29	113.80
10	W	33	ARG	CB-CG-CD	5.47	123.89	111.30
1	A	512	ASN	CB-CA-C	5.47	119.92	110.45
1	A	489	THR	CA-CB-OG1	-5.46	101.41	109.60
6	S	3	GLY	CA-C-N	5.42	132.04	121.41
6	S	3	GLY	C-N-CA	5.42	132.04	121.41
1	N	102	PHE	CA-CB-CG	-5.36	108.44	113.80
1	N	240	HIS	N-CA-CB	5.32	116.69	110.42
2	O	114	GLU	CA-C-O	-5.25	115.25	121.66
2	B	11	ASP	CA-CB-CG	5.24	117.84	112.60
3	P	76	GLN	OE1-CD-NE2	5.23	127.83	122.60
1	N	106	PRO	CB-CA-C	5.19	117.25	110.92
2	O	115	ASP	CB-CA-C	5.16	119.86	112.12
9	V	7	PRO	CA-C-O	-5.14	115.74	122.12
2	B	89	GLU	CA-C-N	5.12	127.94	120.98

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	89	GLU	C-N-CA	5.12	127.94	120.98
5	E	9	GLU	CB-CG-CD	5.12	121.30	112.60
2	O	158	ASP	CA-CB-CG	5.09	117.69	112.60
1	N	126	TRP	CA-C-N	5.09	128.04	120.31
1	N	126	TRP	C-N-CA	5.09	128.04	120.31
2	B	55	THR	CA-CB-OG1	-5.08	101.98	109.60
1	N	280	ILE	N-CA-C	-5.07	105.45	110.62
2	B	89	GLU	CA-C-O	-5.05	116.20	121.55
1	N	153	ALA	CA-C-N	5.05	125.54	119.94
1	N	153	ALA	C-N-CA	5.05	125.54	119.94
6	S	3	GLY	O-C-N	5.05	131.08	123.00
2	B	64	ILE	N-CA-C	-5.05	105.47	110.62
3	P	94	PHE	CA-CB-CG	-5.03	108.77	113.80
1	N	368	HIS	CA-CB-CG	-5.03	108.77	113.80

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	296	GLY	Mainchain
1	N	296	GLY	Mainchain
6	S	92	VAL	Mainchain

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	4130	0	4102	54	0
1	N	4130	0	4102	60	0
2	B	1870	0	1870	35	0
2	O	1870	0	1870	36	0
3	C	2171	0	2080	32	0
3	P	2172	0	2081	26	0
4	D	1192	0	1178	7	0
4	Q	1148	0	1131	5	0
5	E	825	0	823	1	0
5	R	825	0	823	5	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	F	709	0	691	14	0
6	S	709	0	691	9	0
7	G	606	0	577	5	0
7	T	606	0	577	3	0
8	H	628	0	580	12	0
8	U	628	0	580	8	0
9	I	575	0	584	6	0
9	V	575	0	584	5	0
10	J	441	0	439	6	0
10	W	441	0	439	3	0
11	K	384	0	366	1	0
11	X	384	0	366	0	0
12	L	360	0	360	3	0
12	Y	360	0	360	5	0
13	M	311	0	321	2	0
13	Z	311	0	321	2	0
14	A	120	0	108	6	0
14	N	120	0	108	4	0
15	A	1	0	0	0	0
15	N	1	0	0	0	0
16	A	1	0	0	0	0
16	N	1	0	0	0	0
17	A	1	0	0	0	0
17	N	1	0	0	0	0
18	A	3	0	0	0	0
18	N	3	0	0	0	0
19	A	14	0	27	7	0
19	B	17	0	33	4	0
19	C	129	0	234	9	0
19	G	14	0	27	5	0
19	N	14	0	27	5	0
19	O	28	0	54	4	0
19	P	85	0	145	6	0
19	T	39	0	75	6	0
20	A	51	0	75	3	0
20	B	66	0	104	0	0
20	C	194	0	261	5	0
20	D	33	0	41	2	0
20	G	11	0	21	0	0
20	H	33	0	29	1	0
20	J	11	0	21	0	0
20	L	22	0	31	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
20	M	41	0	56	0	0
20	N	40	0	54	0	0
20	O	66	0	104	1	0
20	P	172	0	231	2	0
20	Q	33	0	42	3	0
20	T	22	0	31	1	0
20	U	33	0	26	0	0
20	W	11	0	21	0	0
20	Z	63	0	87	4	0
21	A	16	0	24	1	0
21	B	4	0	6	0	0
21	C	12	0	17	0	0
21	D	4	0	6	0	0
21	E	8	0	12	0	0
21	F	8	0	12	0	0
21	G	4	0	6	0	0
21	N	20	0	29	1	0
21	O	4	0	6	0	0
21	P	12	0	18	0	0
21	R	12	0	18	0	0
21	S	8	0	12	0	0
21	T	4	0	6	0	0
22	A	51	0	76	0	0
22	C	51	0	76	2	0
22	N	51	0	76	2	0
22	P	51	0	76	1	0
23	B	2	0	0	0	0
23	O	2	0	0	0	0
24	B	29	0	39	0	0
24	C	58	0	78	2	0
24	O	29	0	39	1	0
24	P	58	0	78	5	0
25	C	1	0	0	1	0
25	P	1	0	0	1	0
26	C	87	0	124	24	0
26	I	64	0	72	3	0
26	L	94	0	141	4	0
26	N	64	0	72	6	0
26	P	87	0	124	16	0
26	Y	94	0	141	10	0
27	F	1	0	0	0	0
27	S	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	G	53	0	77	0	0
28	T	53	0	77	4	0
29	A	246	0	0	10	0
29	B	169	0	0	6	0
29	C	108	0	0	5	0
29	D	144	0	0	3	0
29	E	116	0	0	0	0
29	F	110	0	0	1	0
29	G	44	0	0	1	0
29	H	62	0	0	6	0
29	I	41	0	0	2	0
29	J	20	0	0	0	0
29	K	21	0	0	0	0
29	L	28	0	0	1	0
29	M	21	0	0	0	0
29	N	231	0	0	7	0
29	O	148	0	0	3	0
29	P	102	0	0	4	0
29	Q	83	0	0	3	0
29	R	93	0	0	2	0
29	S	98	0	0	1	0
29	T	41	0	0	1	0
29	U	51	0	0	2	0
29	V	22	0	0	1	0
29	W	15	0	0	0	0
29	X	17	0	0	0	0
29	Y	26	0	0	2	0
29	Z	17	0	0	0	0
All	All	33027	0	31507	384	0

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

All (384) 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:N:112:LEU:HG	29:N:914:HOH:O	1.15	1.28
1:A:112:LEU:HG	29:A:922:HOH:O	1.13	1.28
2:B:16[A]:ILE:HG21	2:B:87[A]:MET:HE3	1.23	1.11
19:C:309:LFA:H12	29:H:228:HOH:O	1.46	1.11
2:B:16[A]:ILE:CG2	2:B:87[A]:MET:HE3	1.82	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:4:GLN:N	29:P:402:HOH:O	1.88	1.04
26:C:304:CDL:HA62	26:C:304:CDL:H121	1.41	1.03
8:H:52:VAL:HG12	8:U:46:LYS:HG2	1.42	0.98
26:Y:101:CDL:O1	29:Y:218[B]:HOH:O	1.82	0.97
2:B:16[A]:ILE:HG21	2:B:87[A]:MET:CE	1.96	0.95
3:C:245:VAL:C	3:C:246[B]:ASP:CA	2.41	0.93
20:A:609:DMU:O6	29:A:706:HOH:O	1.88	0.91
24:P:305:CHD:H231	24:P:305:CHD:H162	1.51	0.91
1:N:112:LEU:HD23	1:N:112:LEU:C	1.96	0.90
2:B:16[B]:ILE:HG23	29:B:521:HOH:O	1.71	0.89
26:Y:101:CDL:H142	26:Y:101:CDL:OB9	1.72	0.89
26:L:101:CDL:O1	29:L:216[B]:HOH:O	1.91	0.88
1:N:417[B]:MET:CE	29:N:869:HOH:O	2.21	0.87
1:N:417[B]:MET:HE1	29:N:869:HOH:O	1.71	0.87
26:P:304:CDL:HA62	26:P:304:CDL:H121	1.54	0.87
26:C:304:CDL:HB21	26:C:304:CDL:HB32	1.53	0.86
2:B:16[A]:ILE:HD12	2:B:87[A]:MET:HG3	1.57	0.86
7:G:19:LEU:HD23	19:G:104:LFA:H61	1.58	0.85
4:D:42:GLU:OE2	29:D:301:HOH:O	1.95	0.84
1:N:297[B]:MET:SD	1:N:302:ARG:HG2	2.18	0.84
1:A:112:LEU:C	1:A:112:LEU:HD23	2.02	0.84
1:N:274:VAL:HG12	1:N:278[A]:MET:HE2	1.62	0.82
4:Q:112:GLU:OE2	29:Q:301:HOH:O	1.97	0.82
26:C:304:CDL:H121	26:C:304:CDL:CA6	2.11	0.80
1:A:112:LEU:HD23	1:A:112:LEU:O	1.83	0.79
25:C:302:UNX:UNK	29:C:501:HOH:O	1.62	0.79
6:S:76:LYS:CE	6:S:93:PRO:HG2	2.13	0.79
29:A:818:HOH:O	3:C:77:LYS:HE3	1.84	0.78
1:N:112:LEU:HD23	1:N:112:LEU:O	1.84	0.78
1:A:278[A]:MET:HE1	19:T:101:LFA:H51	1.67	0.77
12:Y:24:MET:HG3	29:Y:213:HOH:O	1.85	0.76
26:C:304:CDL:HB21	26:C:304:CDL:CB3	2.16	0.75
6:S:76:LYS:HE3	6:S:93:PRO:HG2	1.69	0.75
8:H:23:GLN:NE2	29:H:201:HOH:O	2.18	0.75
19:P:309:LFA:H41	29:U:214:HOH:O	1.87	0.75
2:O:16[A]:ILE:HD12	2:O:87[A]:MET:CG	2.18	0.74
3:C:33[A]:MET:HE3	3:C:39:SER:OG	1.88	0.73
3:C:258:TRP:CE2	19:C:307:LFA:H32	2.24	0.72
3:P:33[B]:MET:CE	3:P:42:LEU:HD12	2.19	0.72
19:G:104:LFA:H51	1:N:278[A]:MET:HE1	1.72	0.71
19:G:104:LFA:H11	19:N:608:LFA:H12	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:D:201:DMU:H36	20:D:201:DMU:O55	1.90	0.70
26:P:304:CDL:H121	26:P:304:CDL:CA6	2.21	0.70
1:A:274:VAL:HG12	1:A:278[A]:MET:HE2	1.74	0.70
1:A:31:THR:O	1:A:35:LEU:CD2	2.41	0.69
19:C:309:LFA:C1	29:H:228:HOH:O	2.16	0.69
1:N:423[B]:MET:HA	26:N:606:CDL:H782	1.75	0.69
8:H:46:LYS:HE2	8:H:46:LYS:O	1.93	0.68
1:A:136[B]:LEU:HD11	29:A:928:HOH:O	1.93	0.68
2:O:16[A]:ILE:HD12	2:O:87[A]:MET:HG2	1.76	0.67
3:P:50:ASN:HD22	3:P:51[A]:MET:HE2	1.59	0.67
1:N:423[A]:MET:HA	26:N:606:CDL:H782	1.76	0.67
3:C:180[A]:GLU:OE2	29:C:403:HOH:O	2.11	0.67
3:C:33[A]:MET:CE	3:C:42:LEU:H	2.08	0.67
20:Q:201:DMU:O55	20:Q:201:DMU:H36	1.95	0.66
1:N:483:LEU:O	29:N:703:HOH:O	2.11	0.66
1:A:31:THR:O	1:A:35:LEU:HD23	1.95	0.66
2:B:220:GLU:OE1	29:B:402:HOH:O	2.12	0.66
7:G:19:LEU:CD2	19:G:104:LFA:H61	2.26	0.66
6:F:87[A]:THR:HG22	6:F:89:TYR:CE1	2.30	0.66
1:N:112:LEU:C	1:N:112:LEU:CD2	2.68	0.65
2:B:67:ILE:CD1	19:B:307:LFA:H61	2.27	0.65
19:P:309:LFA:C4	29:U:214:HOH:O	2.42	0.65
1:A:113[B]:LEU:HD11	1:A:117[B]:MET:SD	2.37	0.64
6:F:37:LYS:HG2	29:F:297:HOH:O	1.97	0.64
25:P:302:UNX:UNK	29:P:497:HOH:O	1.78	0.64
12:Y:26:THR:CG2	20:Z:102:DMU:H26	2.27	0.64
2:O:60:GLU:CD	2:O:60:GLU:H	2.05	0.64
19:A:607:LFA:H12	19:T:101:LFA:H11	1.78	0.64
26:N:606:CDL:H711	26:N:606:CDL:C52	2.29	0.64
8:H:23:GLN:NE2	29:H:202:HOH:O	2.30	0.63
8:H:22:ASN:ND2	20:H:101:DMU:O3	2.31	0.63
2:B:16[A]:ILE:HG22	2:B:87[A]:MET:HE3	1.76	0.63
3:P:51[B]:MET:HE3	26:P:304:CDL:H873	1.79	0.63
1:N:297[B]:MET:SD	1:N:302:ARG:CG	2.87	0.62
2:B:84:LEU:O	2:B:87[B]:MET:HB2	1.99	0.62
1:N:22:PHE:HA	26:Y:101:CDL:H802	1.81	0.62
2:O:16[A]:ILE:HD12	2:O:87[A]:MET:HG3	1.82	0.62
6:S:76:LYS:HE2	6:S:93:PRO:HG2	1.81	0.62
1:A:297[B]:MET:SD	1:A:302:ARG:HG2	2.39	0.62
1:A:112:LEU:C	1:A:112:LEU:CD2	2.73	0.62
2:B:16[A]:ILE:HD12	2:B:87[A]:MET:CG	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:G:12:GLY:HA3	29:G:238:HOH:O	1.98	0.62
2:B:227:LEU:HD21	29:B:518:HOH:O	1.99	0.61
26:C:304:CDL:HB61	26:C:304:CDL:CB2	2.30	0.61
26:P:304:CDL:HB61	26:P:304:CDL:HB22	1.82	0.61
1:N:423[B]:MET:HE2	1:N:457:GLY:HA2	1.82	0.61
2:O:67:ILE:HD11	19:O:302:LFA:H42	1.83	0.60
3:P:133:ASN:ND2	29:P:404:HOH:O	2.22	0.60
26:P:304:CDL:HA62	26:P:304:CDL:C12	2.27	0.60
3:C:247:VAL:HG11	19:C:314:LFA:H71	1.84	0.60
8:H:23:GLN:HG3	29:H:241:HOH:O	2.02	0.60
26:L:101:CDL:H381	26:L:101:CDL:H722	1.83	0.59
2:B:104:TRP:CG	2:B:203:ASN:HB2	2.37	0.59
2:O:16[A]:ILE:HG21	2:O:87[A]:MET:HG2	1.84	0.59
4:Q:48:TRP:O	4:Q:51:LEU:HB2	2.03	0.59
28:T:102:PEK:H71	28:T:102:PEK:H32	1.83	0.59
26:Y:101:CDL:H362	26:Y:101:CDL:H711	1.84	0.59
26:C:304:CDL:OA3	26:C:304:CDL:H1	2.01	0.59
3:C:104:SER:OG	29:C:404:HOH:O	2.14	0.59
3:P:149:HIS:NE2	19:P:311:LFA:H11	2.18	0.59
26:Y:101:CDL:H711	26:Y:101:CDL:C36	2.33	0.59
26:C:304:CDL:HB21	26:C:304:CDL:HB61	1.84	0.59
7:T:19:LEU:HD23	19:T:101:LFA:H61	1.83	0.59
8:U:43:MET:O	8:U:48:GLY:N	2.36	0.58
2:B:67:ILE:HD11	19:B:307:LFA:H42	1.85	0.58
8:H:43:MET:CE	8:U:52:VAL:HG11	2.34	0.58
12:Y:26:THR:HG21	20:Z:102:DMU:H26	1.85	0.58
4:D:40:LEU:CD2	4:D:58:GLU:HG2	2.34	0.57
13:Z:27:LEU:HD22	20:Z:101:DMU:H14	1.86	0.57
3:C:33[A]:MET:HE1	3:C:41:THR:HB	1.85	0.57
4:D:10:ASP:OD2	29:D:302:HOH:O	2.17	0.57
4:Q:73:ARG:NH1	29:Q:303:HOH:O	2.36	0.57
2:B:13:THR:HB	2:B:168:LEU:HD23	1.87	0.57
1:N:296:GLY:HA2	8:U:23:GLN:OE1	2.05	0.57
1:A:278[B]:MET:SD	19:A:607:LFA:H52	2.45	0.57
1:A:278[B]:MET:HE1	19:A:607:LFA:H52	1.86	0.56
1:A:51:ASP:OD2	1:A:441:SER:OG	2.22	0.56
29:Q:320:HOH:O	5:R:108:LYS:HD3	2.06	0.56
20:C:325:DMU:H20	10:J:50:LEU:HB2	1.87	0.56
8:H:43:MET:HE1	8:U:52:VAL:HG11	1.88	0.56
21:A:611:EDO:H12	2:B:58:ALA:HB3	1.88	0.55
24:C:305:CHD:H162	24:C:305:CHD:H231	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:V:8:GLN:NE2	29:V:101:HOH:O	2.38	0.55
8:H:52:VAL:CG1	8:U:46:LYS:HG2	2.29	0.55
1:N:87:ILE:O	1:N:173:PRO:HD3	2.06	0.55
3:C:33[B]:MET:HE3	3:C:42:LEU:HD12	1.87	0.55
6:S:19:GLU:OE1	6:S:31:TYR:OH	2.12	0.55
29:A:885:HOH:O	6:F:37:LYS:CE	2.55	0.55
2:B:22[B]:HIS:CE1	9:I:44:LYS:HE2	2.42	0.55
1:N:486:ASP:OD2	4:Q:19:ARG:NE	2.40	0.55
26:C:304:CDL:OA5	26:C:304:CDL:OB9	2.24	0.55
1:A:112:LEU:CG	29:A:922:HOH:O	1.99	0.54
5:E:82:TYR:HB3	5:E:83:PRO:HD3	1.88	0.54
1:A:486:ASP:HB3	29:A:913[B]:HOH:O	2.07	0.54
2:B:60:GLU:H	2:B:60:GLU:CD	2.15	0.54
1:N:136[B]:LEU:HD11	29:N:919:HOH:O	2.07	0.54
1:A:309:THR:HG22	14:A:602:HEA:HMB2	1.90	0.54
3:C:59:ARG:HB2	26:C:304:CDL:OA9	2.08	0.54
2:B:67:ILE:HD11	19:B:307:LFA:H61	1.88	0.54
2:B:140:ASN:HB3	29:B:520:HOH:O	2.06	0.54
9:I:10:ARG:CD	29:I:216:HOH:O	2.56	0.54
1:N:310:MET:HE1	2:O:77:ALA:HB2	1.89	0.54
1:A:278[A]:MET:CE	19:T:101:LFA:H51	2.38	0.53
26:C:304:CDL:H752	10:J:27:THR:HG21	1.90	0.53
1:N:34:SER:HB2	14:N:601:HEA:C2B	2.38	0.53
1:N:488:THR:HB	1:N:495:LEU:HD13	1.89	0.53
1:A:484:THR:HG22	29:A:924:HOH:O	2.09	0.53
26:I:101:CDL:OA4	29:I:201:HOH:O	2.18	0.53
26:P:304:CDL:H752	10:W:27:THR:HG21	1.90	0.53
24:P:305:CHD:H231	24:P:305:CHD:C16	2.33	0.53
26:I:101:CDL:C1	26:I:101:CDL:OA3	2.56	0.53
22:N:616:PGV:H183	28:T:102:PEK:H331	1.89	0.53
3:P:104:SER:OG	29:P:403:HOH:O	2.19	0.53
26:N:606:CDL:C52	26:N:606:CDL:H312	2.38	0.53
2:O:16[B]:ILE:HG23	29:O:506:HOH:O	2.09	0.53
29:C:507:HOH:O	6:F:33:ILE:HD13	2.09	0.52
5:R:90:ARG:NH1	29:R:303:HOH:O	2.25	0.52
8:H:52:VAL:HG21	8:U:43:MET:HE1	1.92	0.52
13:M:32:TRP:CZ3	13:M:40:TYR:OH	2.62	0.52
1:N:362[A]:SER:HA	2:O:87[A]:MET:HE1	1.92	0.52
1:A:189:MET:HE3	19:A:607:LFA:H31	1.91	0.52
2:O:82:ARG:HA	20:O:304:DMU:H30	1.92	0.52
29:N:855:HOH:O	4:Q:20:ARG:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:164:PHE:CD1	24:P:305:CHD:H192	2.44	0.52
6:F:41:GLY:HA3	6:F:87[B]:THR:HG22	1.90	0.52
1:N:278[B]:MET:HE1	19:N:608:LFA:H52	1.92	0.52
2:B:22[B]:HIS:CE1	9:I:44:LYS:CE	2.92	0.52
19:C:314:LFA:H21	19:C:315:LFA:H71	1.91	0.52
2:O:58:ALA:O	2:O:62:GLU:HG3	2.10	0.51
6:F:10:GLU:OE2	6:F:25:ARG:NH2	2.41	0.51
1:A:31:THR:O	1:A:35:LEU:HD22	2.09	0.51
8:H:23:GLN:CD	29:H:201:HOH:O	2.52	0.51
26:Y:101:CDL:OB9	26:Y:101:CDL:C14	2.54	0.51
26:Y:101:CDL:HB22	26:Y:101:CDL:HA32	1.91	0.51
3:C:33[A]:MET:HE1	3:C:42:LEU:H	1.74	0.51
3:P:51[B]:MET:CE	26:P:304:CDL:H873	2.40	0.51
1:N:362[A]:SER:OG	2:O:87[A]:MET:CE	2.59	0.51
6:S:37:LYS:HG3	29:S:209:HOH:O	2.11	0.50
2:O:60:GLU:CD	2:O:60:GLU:N	2.68	0.50
3:C:180[B]:GLU:HG2	29:C:424:HOH:O	2.11	0.50
3:C:41:THR:HG23	20:C:320:DMU:H15	1.93	0.50
2:O:67:ILE:HD13	19:O:302:LFA:H62	1.94	0.50
29:A:885:HOH:O	6:F:37:LYS:HE2	2.09	0.50
1:N:334:TRP:HB2	20:Q:201:DMU:H29	1.93	0.50
1:A:87:ILE:O	1:A:173:PRO:HD3	2.11	0.49
3:P:116:TRP:HA	3:P:117:PRO:C	2.37	0.49
1:N:484:THR:OG1	29:N:705[A]:HOH:O	2.20	0.49
26:C:304:CDL:HB22	10:J:8:LYS:HE3	1.93	0.49
2:O:92:ASN:ND2	29:O:406:HOH:O	2.46	0.49
12:Y:26:THR:HG22	20:Z:102:DMU:H26	1.93	0.49
3:C:67:PHE:CE2	26:C:304:CDL:O1	2.65	0.49
26:C:304:CDL:OB9	26:C:304:CDL:CA3	2.61	0.49
26:C:304:CDL:CA5	26:C:304:CDL:OA8	2.61	0.49
26:P:304:CDL:OA8	26:P:304:CDL:CA5	2.60	0.49
6:F:85:CYS:SG	6:F:87[B]:THR:OG1	2.68	0.48
1:A:1:FME:HE2	1:A:1:FME:HA	1.95	0.48
2:O:13:THR:HB	2:O:168:LEU:HD23	1.95	0.48
1:N:494:TRP:O	21:N:615:EDO:H22	2.14	0.48
3:P:67:PHE:CE2	26:P:304:CDL:O1	2.66	0.48
1:N:362[A]:SER:OG	2:O:87[A]:MET:HE2	2.13	0.48
3:C:37:PHE:CE2	20:C:325:DMU:H13	2.49	0.48
20:C:325:DMU:H11	10:J:49:CYS:HB3	1.94	0.48
4:D:86:MET:HE1	11:K:22:ALA:HB2	1.94	0.48
1:A:240:HIS:C	1:A:240:HIS:CD2	2.92	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:59:GLN:NE2	19:O:303:LFA:H31	2.28	0.48
6:F:41:GLY:HA3	6:F:87[B]:THR:CG2	2.43	0.48
2:B:91:ASN:OD1	2:B:183:THR:HG21	2.14	0.48
13:Z:32:TRP:CZ3	13:Z:40:TYR:OH	2.66	0.48
2:O:104:TRP:CG	2:O:203:ASN:HB2	2.48	0.48
1:A:334:TRP:CZ3	20:A:608:DMU:H19	2.49	0.47
26:C:304:CDL:H531	26:C:304:CDL:HB4	1.96	0.47
2:O:121:TYR:O	2:O:138:VAL:HA	2.14	0.47
2:O:67:ILE:CD1	19:O:302:LFA:H62	2.45	0.47
2:B:104:TRP:CD2	2:B:203:ASN:HB2	2.50	0.47
6:F:92:VAL:HG23	6:F:92:VAL:O	2.14	0.47
1:A:76:GLY:O	1:A:80:ASN:HB2	2.15	0.47
1:A:308:ALA:O	1:A:311[B]:ILE:HG12	2.14	0.47
2:B:60:GLU:CD	2:B:60:GLU:N	2.73	0.47
1:A:278[B]:MET:SD	19:A:607:LFA:C5	3.03	0.47
1:N:107:PRO:HB3	3:P:25:LEU:HB2	1.97	0.46
1:N:423[B]:MET:HE3	1:N:457:GLY:N	2.30	0.46
1:A:107:PRO:HB3	3:C:25:LEU:HB2	1.96	0.46
2:B:58:ALA:O	2:B:62:GLU:HG3	2.14	0.46
3:C:33[A]:MET:HE2	3:C:42:LEU:H	1.78	0.46
1:N:334:TRP:HB2	20:Q:201:DMU:C57	2.45	0.46
3:C:16:TRP:N	3:C:17:PRO:CD	2.79	0.46
28:T:102:PEK:H32	28:T:102:PEK:C7	2.45	0.46
9:V:61:GLU:OE1	9:V:64:ARG:NH2	2.39	0.46
1:A:297[B]:MET:SD	1:A:302:ARG:CG	3.04	0.46
29:A:818:HOH:O	3:C:77:LYS:CE	2.55	0.46
22:C:303:PGV:H12	22:C:303:PGV:H161	1.97	0.46
26:P:304:CDL:HB31	26:P:304:CDL:H512	1.98	0.46
4:D:16:TYR:OH	4:D:18:ASP:OD1	2.33	0.46
4:D:82:VAL:HG12	4:D:86:MET:HE2	1.98	0.46
1:A:449:MET:SD	2:B:5:MET:HG2	2.56	0.46
3:C:116:TRP:HA	3:C:117:PRO:C	2.40	0.46
2:O:116:LEU:HD13	2:O:226:MET:HG2	1.97	0.46
19:G:104:LFA:H51	1:N:278[A]:MET:CE	2.43	0.46
3:C:33[A]:MET:HG2	3:C:39:SER:O	2.16	0.45
26:C:304:CDL:HB4	26:C:304:CDL:C52	2.46	0.45
1:A:23:GLY:HA3	1:A:73:ILE:HG13	1.98	0.45
1:N:229:ILE:HD11	2:O:175:ILE:HD13	1.97	0.45
7:G:34:ASN:O	7:G:38:HIS:HD2	2.00	0.45
2:B:67:ILE:HD13	19:B:307:LFA:H61	1.98	0.45
1:N:334:TRP:CH2	2:O:46:LEU:HD13	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:220:GLU:OE1	29:O:402:HOH:O	2.21	0.45
1:N:240:HIS:C	1:N:240:HIS:CD2	2.94	0.45
26:N:606:CDL:C52	26:N:606:CDL:C31	2.95	0.45
24:O:301:CHD:H212	24:O:301:CHD:H12	1.97	0.45
3:P:144[A]:ILE:HD13	3:P:239:ALA:HA	1.99	0.45
26:C:304:CDL:H751	26:C:304:CDL:H711	1.99	0.45
1:N:71:MET:HE1	1:N:195:LEU:HD21	1.98	0.45
3:P:33[B]:MET:HB2	3:P:33[B]:MET:HE2	1.48	0.45
7:T:37:LEU:HD12	7:T:37:LEU:HA	1.87	0.45
3:P:59:ARG:HG3	26:P:304:CDL:HA4	1.99	0.44
1:N:2:PHE:HE2	26:Y:101:CDL:H712	1.81	0.44
6:S:54:ASN:HD22	6:S:54:ASN:C	2.26	0.44
1:A:379:TYR:CZ	1:A:383:MET:HE1	2.52	0.44
2:B:33:LEU:HD13	9:I:31:PHE:CD2	2.51	0.44
5:R:46:LYS:NZ	29:R:305:HOH:O	2.50	0.44
26:Y:101:CDL:HB22	26:Y:101:CDL:CA3	2.47	0.44
1:A:378:HIS:HA	1:A:382:SER:HB2	2.00	0.44
14:A:601:HEA:HMC1	14:A:601:HEA:HBC1	1.99	0.44
2:B:16[A]:ILE:HG21	2:B:87[A]:MET:CG	2.47	0.44
2:B:53:THR:O	29:B:403:HOH:O	2.21	0.44
1:N:328:HIS:HB2	2:O:45:MET:SD	2.58	0.44
26:P:304:CDL:OA3	26:P:304:CDL:H1	2.14	0.44
3:C:59:ARG:HG3	26:C:304:CDL:HA4	2.00	0.44
3:C:258:TRP:CD2	19:C:307:LFA:H32	2.52	0.44
2:O:65:TRP:O	2:O:69:PRO:HG2	2.18	0.44
1:A:106:PRO:HB2	1:A:107:PRO:HD3	1.99	0.44
1:A:278[B]:MET:CE	19:A:607:LFA:H52	2.47	0.44
1:N:278[B]:MET:SD	19:N:608:LFA:H52	2.57	0.44
5:R:82:TYR:HB3	5:R:83:PRO:HD3	1.99	0.44
1:A:308:ALA:HA	20:A:615:DMU:H23	2.00	0.44
6:F:51:SER:HB2	6:F:91:LEU:HD11	2.00	0.44
1:A:337:ALA:HB2	1:A:394[A]:VAL:HG23	2.00	0.44
20:T:105:DMU:O7	29:T:201:HOH:O	2.20	0.44
26:L:101:CDL:OB9	26:L:101:CDL:H122	2.18	0.43
2:B:1:FME:HE1	2:B:133:LEU:HD22	2.01	0.43
22:N:616:PGV:H343	28:T:102:PEK:H382	1.99	0.43
10:W:29:ASN:O	10:W:33:ARG:HG3	2.19	0.43
1:A:71:MET:HB2	1:A:72:PRO:HD3	2.01	0.43
3:C:226:HIS:HE1	26:C:304:CDL:H111	1.82	0.43
2:O:16[A]:ILE:HG21	2:O:87[A]:MET:CG	2.48	0.43
3:P:247:VAL:HG11	19:P:312:LFA:H71	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:309:THR:CG2	14:A:602:HEA:HMB2	2.48	0.43
3:C:144[A]:ILE:HD13	3:C:239:ALA:HA	2.00	0.43
1:N:377:PHE:O	1:N:381:LEU:HB3	2.18	0.43
26:P:304:CDL:CA6	26:P:304:CDL:C12	2.92	0.43
1:A:62:ALA:HB2	14:A:601:HEA:HBD1	2.00	0.43
2:B:164:ALA:O	2:B:194:GLY:HA3	2.19	0.43
26:C:304:CDL:H612	26:C:304:CDL:H831	2.00	0.43
1:N:278[B]:MET:SD	19:N:608:LFA:C5	3.07	0.43
3:C:210:ILE:HD13	22:C:303:PGV:H312	1.99	0.43
19:C:307:LFA:H31	24:P:301:CHD:H61	2.01	0.43
26:I:101:CDL:OA3	26:I:101:CDL:H1	2.18	0.43
1:N:423[B]:MET:CE	1:N:457:GLY:N	2.81	0.43
19:A:607:LFA:H12	19:T:101:LFA:C1	2.46	0.43
2:O:41:ILE:O	2:O:45:MET:HG2	2.19	0.43
6:F:64:GLU:O	6:F:65:ASP:HB2	2.19	0.42
1:N:378:HIS:HA	1:N:382:SER:HB2	2.01	0.42
3:P:33[A]:MET:HG2	3:P:39:SER:O	2.19	0.42
1:A:240:HIS:O	1:A:241:PRO:C	2.60	0.42
1:N:19:TYR:CD1	1:N:76:GLY:HA3	2.54	0.42
1:N:83:VAL:HB	1:N:84:PRO:HD3	2.01	0.42
1:N:189:MET:HE3	19:N:608:LFA:H31	2.02	0.42
3:P:110:PRO:HB3	8:U:30:TRP:CE3	2.54	0.42
1:N:423[B]:MET:HE2	1:N:457:GLY:CA	2.47	0.42
26:P:304:CDL:H151	26:P:304:CDL:H311	2.02	0.42
1:A:334:TRP:HB2	20:D:201:DMU:C57	2.49	0.42
6:F:13:ALA:CB	6:F:21[B]:MET:HE1	2.49	0.42
3:P:50:ASN:ND2	3:P:54[A]:MET:HE2	2.34	0.42
3:P:226:HIS:HE1	26:P:304:CDL:H111	1.85	0.42
7:T:23:LEU:HB2	19:T:101:LFA:H92	2.01	0.42
9:I:36:LYS:HE3	9:I:36:LYS:HA	2.02	0.42
1:N:43:GLN:HB2	1:N:44:PRO:HD2	2.01	0.42
1:N:498:CYS:HA	1:N:499:PRO:HA	1.92	0.42
1:N:379:TYR:CZ	1:N:383:MET:HE1	2.55	0.42
1:A:71:MET:HE1	1:A:195:LEU:HD21	2.02	0.42
2:B:41:ILE:O	2:B:45:MET:HG2	2.19	0.42
26:C:304:CDL:HB61	26:C:304:CDL:HB22	2.01	0.42
12:L:13:PHE:HB3	26:L:101:CDL:H512	2.02	0.42
3:C:33[B]:MET:HG3	3:C:37:PHE:HB2	2.02	0.42
1:N:148:PHE:HB3	3:P:28:THR:HB	2.02	0.42
1:N:181:THR:HA	1:N:182:PRO:HD3	1.93	0.42
1:N:381:LEU:HB2	14:N:602:HEA:CAC	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:P:210:ILE:HD13	22:P:303:PGV:H312	2.00	0.42
1:A:34:SER:HB2	14:A:601:HEA:C2B	2.49	0.41
1:A:297[A]:MET:HE3	1:A:297[A]:MET:HB2	1.85	0.41
1:N:377:PHE:CD2	14:N:602:HEA:HAD1	2.55	0.41
2:O:33:LEU:HD13	9:V:31:PHE:CD2	2.55	0.41
2:O:215:PRO:HD3	9:V:60:PHE:CD1	2.54	0.41
6:S:10:GLU:OE2	6:S:25:ARG:NH1	2.50	0.41
1:A:377:PHE:O	1:A:381:LEU:HB3	2.20	0.41
1:N:423[B]:MET:HA	26:N:606:CDL:C78	2.45	0.41
1:A:488:THR:HB	1:A:495:LEU:HD13	2.02	0.41
3:C:51[B]:MET:HE2	26:C:304:CDL:H872	2.02	0.41
5:R:44:GLU:OE1	9:V:6:LYS:NZ	2.46	0.41
3:C:149:HIS:NE2	19:C:313:LFA:H21	2.36	0.41
1:N:110:LEU:CD2	20:P:322:DMU:H24	2.50	0.41
3:P:244:PHE:HA	19:P:312:LFA:H41	2.02	0.41
26:Y:101:CDL:OA5	26:Y:101:CDL:OA8	2.38	0.41
1:A:115[A]:SER:O	1:A:121:GLY:HA2	2.21	0.41
3:P:127:LEU:HD21	19:P:307:LFA:H31	2.02	0.41
2:B:217:LYS:HD3	29:B:547:HOH:O	2.20	0.41
3:C:247:VAL:CG1	19:C:314:LFA:H71	2.49	0.41
4:D:104:TYR:O	29:D:303:HOH:O	2.22	0.41
2:O:108:TYR:O	2:O:117:SER:HA	2.21	0.41
1:A:409:TRP:HB3	1:A:471:ILE:HG12	2.02	0.41
3:P:22:LEU:O	3:P:26:LEU:HG	2.21	0.41
1:A:208[B]:MET:HG2	1:A:219:PHE:CE2	2.56	0.41
26:C:304:CDL:OA8	26:C:304:CDL:C11	2.68	0.41
9:I:35:TYR:CD1	9:I:35:TYR:C	2.99	0.41
1:N:62:ALA:HB2	14:N:601:HEA:HBD1	2.02	0.41
1:A:32:ALA:HB3	12:L:36:PRO:HG2	2.03	0.41
1:A:465:VAL:HG21	14:A:601:HEA:H261	2.03	0.41
2:B:1:FME:HE2	2:B:1:FME:HB3	1.94	0.41
24:C:305:CHD:O25	10:J:1:PHE:N	2.53	0.41
1:N:363:LEU:HD23	1:N:363:LEU:HA	1.89	0.41
1:N:489:THR:HA	6:S:71:TRP:O	2.21	0.41
2:O:5:MET:HE2	2:O:5:MET:HB3	1.92	0.41
2:O:22[B]:HIS:ND1	2:O:22[B]:HIS:O	2.54	0.41
1:A:225:GLY:HA3	3:C:112:LEU:HD21	2.03	0.40
2:B:196:CYS:HB2	2:B:207:MET:HG3	2.02	0.40
6:F:55:LYS:HA	6:F:74:LEU:O	2.21	0.40
12:L:44:LEU:HD23	12:L:44:LEU:HA	1.94	0.40
2:O:114:GLU:HG3	2:O:227:LEU:CD2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:C:324:DMU:H26	7:G:31:CYS:SG	2.62	0.40
8:H:60:TYR:CD1	8:H:60:TYR:C	2.99	0.40
3:P:63:ARG:HH21	26:P:304:CDL:PA1	2.44	0.40
20:P:322:DMU:O55	20:P:322:DMU:H36	2.21	0.40
2:O:1:FME:HE1	2:O:133:LEU:HD22	2.04	0.40
10:W:54:SER:O	12:Y:46:LYS:HE2	2.21	0.40
13:M:37:LEU:HD23	13:M:37:LEU:HA	1.89	0.40
24:P:301:CHD:H12	24:P:301:CHD:H212	2.03	0.40
26:C:304:CDL:C75	10:J:27:THR:HG21	2.52	0.40
6:S:21[B]:MET:HE2	6:S:21[B]:MET:HB2	1.87	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	526/514 (102%)	512 (97%)	14 (3%)	0	100	100
1	N	526/514 (102%)	511 (97%)	15 (3%)	0	100	100
2	B	230/227 (101%)	223 (97%)	7 (3%)	0	100	100
2	O	230/227 (101%)	223 (97%)	7 (3%)	0	100	100
3	C	265/261 (102%)	261 (98%)	4 (2%)	0	100	100
3	P	265/261 (102%)	261 (98%)	4 (2%)	0	100	100
4	D	142/147 (97%)	139 (98%)	3 (2%)	0	100	100
4	Q	136/147 (92%)	133 (98%)	3 (2%)	0	100	100
5	E	100/109 (92%)	100 (100%)	0	0	100	100
5	R	100/109 (92%)	99 (99%)	1 (1%)	0	100	100
6	F	91/98 (93%)	91 (100%)	0	0	100	100
6	S	91/98 (93%)	88 (97%)	3 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
7	G	71/85 (84%)	67 (94%)	4 (6%)	0	100	100
7	T	71/85 (84%)	69 (97%)	2 (3%)	0	100	100
8	H	73/85 (86%)	71 (97%)	2 (3%)	0	100	100
8	U	73/85 (86%)	71 (97%)	1 (1%)	1 (1%)	9	2
9	I	68/73 (93%)	67 (98%)	1 (2%)	0	100	100
9	V	68/73 (93%)	67 (98%)	1 (2%)	0	100	100
10	J	54/59 (92%)	54 (100%)	0	0	100	100
10	W	54/59 (92%)	54 (100%)	0	0	100	100
11	K	47/56 (84%)	46 (98%)	1 (2%)	0	100	100
11	X	47/56 (84%)	46 (98%)	1 (2%)	0	100	100
12	L	42/47 (89%)	41 (98%)	1 (2%)	0	100	100
12	Y	42/47 (89%)	41 (98%)	1 (2%)	0	100	100
13	M	38/46 (83%)	38 (100%)	0	0	100	100
13	Z	38/46 (83%)	38 (100%)	0	0	100	100
All	All	3488/3614 (96%)	3411 (98%)	76 (2%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
8	U	48	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	440/426 (103%)	437 (99%)	3 (1%)	81	74
1	N	440/426 (103%)	436 (99%)	4 (1%)	75	65
2	B	215/210 (102%)	206 (96%)	9 (4%)	25	8
2	O	215/210 (102%)	209 (97%)	6 (3%)	38	18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	C	232/226 (103%)	230 (99%)	2 (1%)	75 65
3	P	232/226 (103%)	230 (99%)	2 (1%)	75 65
4	D	128/129 (99%)	127 (99%)	1 (1%)	79 71
4	Q	122/129 (95%)	120 (98%)	2 (2%)	58 42
5	E	89/95 (94%)	88 (99%)	1 (1%)	70 58
5	R	89/95 (94%)	88 (99%)	1 (1%)	70 58
6	F	78/81 (96%)	75 (96%)	3 (4%)	28 10
6	S	78/81 (96%)	75 (96%)	3 (4%)	28 10
7	G	63/69 (91%)	61 (97%)	2 (3%)	34 14
7	T	63/69 (91%)	60 (95%)	3 (5%)	21 6
8	H	67/75 (89%)	65 (97%)	2 (3%)	36 15
8	U	67/75 (89%)	64 (96%)	3 (4%)	23 7
9	I	55/58 (95%)	54 (98%)	1 (2%)	54 37
9	V	55/58 (95%)	51 (93%)	4 (7%)	11 2
10	J	47/50 (94%)	46 (98%)	1 (2%)	48 29
10	W	47/50 (94%)	45 (96%)	2 (4%)	25 7
11	K	39/46 (85%)	38 (97%)	1 (3%)	41 21
11	X	39/46 (85%)	39 (100%)	0	100 100
12	L	37/40 (92%)	36 (97%)	1 (3%)	40 19
12	Y	37/40 (92%)	36 (97%)	1 (3%)	40 19
13	M	34/38 (90%)	33 (97%)	1 (3%)	37 17
13	Z	34/38 (90%)	31 (91%)	3 (9%)	8 1
All	All	3042/3086 (99%)	2980 (98%)	62 (2%)	50 31

All (62) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	112	LEU
1	A	363	LEU
1	A	369	ASP
2	B	33	LEU
2	B	35	SER
2	B	59	GLN
2	B	60	GLU

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Mol	Chain	Res	Type
2	B	68	LEU
2	B	75	LEU
2	B	78	LEU
2	B	91	ASN
2	B	115	ASP
3	C	159	MET
3	C	230	ASN
4	D	58	GLU
5	E	70	VAL
6	F	37	LYS
6	F	87[A]	THR
6	F	87[B]	THR
7	G	36	TRP
7	G	37	LEU
8	H	46	LYS
8	H	60	TYR
9	I	36	LYS
10	J	7	GLU
11	K	54	ARG
12	L	26	THR
13	M	38	ASP
1	N	112	LEU
1	N	152	LEU
1	N	369	ASP
1	N	485	VAL
2	O	33	LEU
2	O	60	GLU
2	O	78	LEU
2	O	92	ASN
2	O	94	SER
2	O	115	ASP
3	P	159	MET
3	P	230	ASN
4	Q	10	ASP
4	Q	51	LEU
5	R	79	LYS
6	S	37	LYS
6	S	43	LYS
6	S	54	ASN
7	T	33	LEU
7	T	36	TRP
7	T	37	LEU

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Mol	Chain	Res	Type
8	U	46	LYS
8	U	60	TYR
8	U	61	LYS
9	V	8	GLN
9	V	29	LEU
9	V	65	LYS
9	V	68	ILE
10	W	7	GLU
10	W	50	LEU
12	Y	26	THR
13	Z	13	LYS
13	Z	38	ASP
13	Z	40	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (26) such sidechains are listed below:

Mol	Chain	Res	Type
2	B	52	HIS
2	B	203	ASN
3	C	50	ASN
4	D	29	HIS
4	D	119	GLN
4	D	143	ASN
5	E	78	HIS
5	E	94	ASN
6	F	54	ASN
7	G	34	ASN
7	G	38	HIS
8	H	22	ASN
8	H	37	HIS
11	K	35	GLN
2	O	59	GLN
2	O	92	ASN
3	P	50	ASN
4	Q	76	ASN
4	Q	109	HIS
4	Q	119	GLN
4	Q	143	ASN
5	R	94	ASN
6	S	54	ASN
7	T	34	ASN
8	U	22	ASN

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Mol	Chain	Res	Type
8	U	37	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

4 non-standard protein/DNA/RNA residues are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
1	FME	A	1	1	8,9,10	0.60	0	7,9,11	1.24	1 (14%)
2	FME	B	1	2	8,9,10	1.00	1 (12%)	7,9,11	1.18	1 (14%)
2	FME	O	1	2	8,9,10	0.71	0	7,9,11	1.08	1 (14%)
1	FME	N	1	1	8,9,10	0.82	0	7,9,11	1.07	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
1	FME	A	1	1	-	2/7/9/11	-
2	FME	B	1	2	-	0/7/9/11	-
2	FME	O	1	2	-	0/7/9/11	-
1	FME	N	1	1	-	3/7/9/11	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	1	FME	CG-SD	-2.33	1.69	1.81

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	1	FME	CG-CB-CA	-2.30	106.57	112.95
1	A	1	FME	CE-SD-CG	2.16	107.82	100.40
2	O	1	FME	O-C-CA	-2.09	119.30	124.78

There are no chirality outliers.

All (5) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	1	FME	N-CA-CB-CG
1	N	1	FME	N-CA-CB-CG
1	N	1	FME	C-CA-CB-CG
1	N	1	FME	CA-CB-CG-SD
1	A	1	FME	C-CA-CB-CG

There are no ring outliers.

3 monomers are involved in 4 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	A	1	FME	1	0
2	B	1	FME	2	0
2	O	1	FME	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 133 ligands modelled in this entry, 8 are monoatomic and 2 are unknown - leaving 123 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	$\#\|Z\|>2$
18	N2O	A	606	-	0,2,2	-	-	0,1,1	-	-
21	EDO	N	615	-	3,3,3	0.73	0	2,2,2	0.31	0
20	DMU	O	304	-	22,22,34	0.95	1 (4%)	27,27,45	1.50	4 (14%)
22	PGV	A	614	-	50,50,50	0.93	2 (4%)	53,56,56	1.20	3 (5%)
20	DMU	C	316	-	34,34,34	0.99	3 (8%)	45,45,45	1.57	6 (13%)
20	DMU	U	101	-	34,34,34	1.03	3 (8%)	45,45,45	1.48	5 (11%)
26	CDL	L	101	-	93,93,99	0.65	2 (2%)	99,105,111	0.91	8 (8%)
14	HEA	N	602	1	57,67,67	2.04	13 (22%)	61,103,103	2.41	24 (39%)
20	DMU	Z	103	-	7,7,34	0.33	0	6,6,45	0.64	0
20	DMU	J	101	-	10,10,34	0.27	0	9,9,45	0.71	0
19	LFA	P	308	-	5,5,19	0.21	0	4,4,18	0.17	0
14	HEA	A	602	1	57,67,67	2.05	17 (29%)	61,103,103	2.19	21 (34%)
24	CHD	O	301	-	32,32,32	0.69	0	51,51,51	0.99	2 (3%)
21	EDO	P	319	-	3,3,3	0.33	0	2,2,2	0.19	0
19	LFA	C	315	-	12,12,19	0.21	0	11,11,18	0.14	0
20	DMU	P	315	-	6,6,34	0.29	0	5,5,45	0.52	0
20	DMU	O	308	-	22,22,34	0.87	1 (4%)	27,27,45	1.40	4 (14%)
22	PGV	P	303	-	50,50,50	0.93	2 (4%)	53,56,56	1.04	2 (3%)
26	CDL	Y	101	-	93,93,99	0.56	0	99,105,111	0.83	6 (6%)
14	HEA	A	601	1	57,67,67	2.07	19 (33%)	61,103,103	2.61	22 (36%)
19	LFA	P	311	-	10,10,19	0.24	0	9,9,18	0.28	0
20	DMU	P	316	-	22,22,34	0.88	2 (9%)	27,27,45	1.12	2 (7%)
20	DMU	Z	101	-	34,34,34	1.02	3 (8%)	45,45,45	1.23	5 (11%)
21	EDO	B	305	-	3,3,3	0.17	0	2,2,2	0.39	0
19	LFA	C	309	-	17,17,19	0.32	0	16,16,18	0.19	0
19	LFA	C	313	-	10,10,19	0.33	0	9,9,18	0.23	0
19	LFA	T	104	-	10,10,19	0.34	0	9,9,18	0.31	0
21	EDO	F	103	-	3,3,3	0.39	0	2,2,2	0.57	0
24	CHD	P	301	-	32,32,32	0.91	1 (3%)	51,51,51	0.93	3 (5%)
22	PGV	C	303	-	50,50,50	0.83	3 (6%)	53,56,56	0.94	1 (1%)
22	PGV	N	616	-	50,50,50	0.93	3 (6%)	53,56,56	1.28	4 (7%)
23	CUA	B	301	2	0,1,1	-	-	-		
20	DMU	B	304	-	22,22,34	1.19	2 (9%)	27,27,45	1.18	3 (11%)
21	EDO	S	103	-	3,3,3	0.39	0	2,2,2	0.24	0
21	EDO	N	613	-	3,3,3	0.36	0	2,2,2	0.30	0
20	DMU	C	320	-	34,34,34	0.92	1 (2%)	45,45,45	1.31	5 (11%)
26	CDL	C	304	-	86,86,99	0.81	3 (3%)	92,98,111	1.31	11 (11%)
20	DMU	O	306	-	10,10,34	0.12	0	9,9,45	0.55	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
20	DMU	N	609	-	6,6,34	0.22	0	5,5,45	0.40	0
21	EDO	A	612	-	3,3,3	0.73	0	2,2,2	0.21	0
20	DMU	C	306	-	10,10,34	0.27	0	9,9,45	0.61	0
20	DMU	A	608	-	6,6,34	0.60	0	5,5,45	0.31	0
24	CHD	C	301	-	32,32,32	0.88	2 (6%)	51,51,51	0.87	1 (1%)
20	DMU	A	615	-	10,10,34	0.43	0	9,9,45	0.58	0
21	EDO	N	611	-	3,3,3	0.50	0	2,2,2	0.07	0
19	LFA	P	313	-	12,12,19	0.32	0	11,11,18	0.29	0
20	DMU	P	314	-	34,34,34	0.88	2 (5%)	45,45,45	1.44	6 (13%)
20	DMU	P	317	-	34,34,34	1.11	3 (8%)	45,45,45	1.35	5 (11%)
18	N2O	N	607	-	0,2,2	-	-	0,1,1	-	-
20	DMU	P	322	-	34,34,34	0.94	2 (5%)	45,45,45	1.69	10 (22%)
21	EDO	C	321	-	3,3,3	0.13	0	2,2,2	0.29	0
21	EDO	C	322	-	3,3,3	0.45	0	2,2,2	0.06	0
24	CHD	C	305	-	32,32,32	0.80	1 (3%)	51,51,51	1.66	7 (13%)
24	CHD	B	306	-	32,32,32	0.83	0	51,51,51	0.93	3 (5%)
20	DMU	T	105	-	22,22,34	0.74	0	27,27,45	1.71	4 (14%)
21	EDO	S	102	-	3,3,3	0.41	0	2,2,2	0.54	0
21	EDO	P	320	-	3,3,3	0.46	0	2,2,2	0.22	0
20	DMU	B	303	-	10,10,34	0.29	0	9,9,45	0.72	0
21	EDO	G	103	-	3,3,3	0.16	0	2,2,2	0.05	0
20	DMU	G	102	-	10,10,34	0.40	0	9,9,45	0.50	0
20	DMU	C	319	-	34,34,34	1.00	3 (8%)	45,45,45	1.22	3 (6%)
19	LFA	A	607	-	13,13,19	0.37	0	12,12,18	0.24	0
19	LFA	T	101	-	13,13,19	0.66	0	12,12,18	0.43	0
20	DMU	A	609	-	34,34,34	1.41	5 (14%)	45,45,45	1.20	5 (11%)
19	LFA	G	104	-	13,13,19	0.52	0	12,12,18	0.27	0
19	LFA	O	302	-	16,16,19	0.24	0	15,15,18	0.24	0
20	DMU	B	302	-	10,10,34	0.23	0	9,9,45	0.57	0
21	EDO	C	323	-	3,3,3	0.78	0	2,2,2	0.73	0
21	EDO	A	611	-	3,3,3	0.36	0	2,2,2	0.26	0
21	EDO	A	613	-	3,3,3	0.46	0	2,2,2	0.37	0
20	DMU	C	318	-	22,22,34	0.93	2 (9%)	27,27,45	1.29	4 (14%)
21	EDO	P	321	-	3,3,3	0.42	0	2,2,2	1.01	0
21	EDO	O	309	-	3,3,3	0.27	0	2,2,2	0.18	0
21	EDO	E	202	-	3,3,3	0.29	0	2,2,2	0.01	0
20	DMU	O	307	-	10,10,34	0.26	0	9,9,45	0.62	0
24	CHD	P	305	-	32,32,32	0.85	0	51,51,51	1.73	10 (19%)
26	CDL	P	304	-	86,86,99	0.82	2 (2%)	92,98,111	1.47	14 (15%)
19	LFA	C	307	-	10,10,19	0.19	0	9,9,18	0.21	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
26	CDL	I	101	-	63,63,99	0.73	0	69,75,111	1.38	10 (14%)
20	DMU	H	101	-	34,34,34	1.21	5 (14%)	45,45,45	1.40	6 (13%)
26	CDL	N	606	-	63,63,99	0.72	0	69,75,111	1.22	6 (8%)
21	EDO	D	202	-	3,3,3	0.21	0	2,2,2	0.13	0
20	DMU	C	325	-	34,34,34	0.95	1 (2%)	45,45,45	1.19	4 (8%)
20	DMU	Z	102	-	22,22,34	0.63	0	27,27,45	1.02	1 (3%)
20	DMU	Q	201	-	34,34,34	1.42	7 (20%)	45,45,45	1.64	6 (13%)
21	EDO	E	201	-	3,3,3	0.24	0	2,2,2	0.16	0
28	PEK	G	101	-	52,52,52	0.70	1 (1%)	55,57,57	0.74	2 (3%)
19	LFA	P	312	-	14,14,19	0.61	0	13,13,18	0.28	0
21	EDO	F	102	-	3,3,3	0.36	0	2,2,2	0.22	0
20	DMU	P	318	-	34,34,34	1.11	3 (8%)	45,45,45	1.33	3 (6%)
19	LFA	P	310	-	10,10,19	0.22	0	9,9,18	0.13	0
20	DMU	M	101	-	34,34,34	1.45	4 (11%)	45,45,45	1.01	2 (4%)
28	PEK	T	102	-	52,52,52	0.77	2 (3%)	55,57,57	1.07	4 (7%)
19	LFA	C	314	-	14,14,19	0.29	0	13,13,18	0.44	0
20	DMU	L	102	-	22,22,34	0.72	0	27,27,45	0.99	1 (3%)
20	DMU	D	201	-	34,34,34	1.54	7 (20%)	45,45,45	1.39	5 (11%)
19	LFA	T	103	-	13,13,19	0.20	0	12,12,18	0.16	0
20	DMU	P	306	-	10,10,34	0.29	0	9,9,45	0.66	0
20	DMU	M	102	-	7,7,34	0.31	0	6,6,45	0.38	0
20	DMU	N	610	-	34,34,34	1.63	9 (26%)	45,45,45	1.15	3 (6%)
19	LFA	C	311	-	10,10,19	0.24	0	9,9,18	0.16	0
19	LFA	P	307	-	10,10,19	0.26	0	9,9,18	0.21	0
21	EDO	T	106	-	3,3,3	0.26	0	2,2,2	0.18	0
19	LFA	C	308	-	5,5,19	0.28	0	4,4,18	0.19	0
19	LFA	C	312	-	13,13,19	0.25	0	12,12,18	0.19	0
21	EDO	R	201	-	3,3,3	0.73	0	2,2,2	0.35	0
20	DMU	C	324	-	22,22,34	0.84	1 (4%)	27,27,45	1.04	2 (7%)
21	EDO	R	203	-	3,3,3	0.64	0	2,2,2	0.39	0
19	LFA	P	309	-	17,17,19	0.30	0	16,16,18	0.25	0
23	CUA	O	305	2	0,1,1	-	-	-		
19	LFA	N	608	-	13,13,19	0.29	0	12,12,18	0.29	0
19	LFA	C	310	-	14,14,19	0.26	0	13,13,18	0.10	0
19	LFA	O	303	-	10,10,19	0.30	0	9,9,18	0.19	0
21	EDO	N	614	-	3,3,3	0.24	0	2,2,2	0.16	0
19	LFA	B	307	-	16,16,19	0.43	0	15,15,18	0.26	0
21	EDO	A	610	-	3,3,3	0.32	0	2,2,2	0.21	0
20	DMU	B	308	-	22,22,34	0.73	0	27,27,45	1.55	5 (18%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
14	HEA	N	601	1	57,67,67	1.79	16 (28%)	61,103,103	2.75	28 (45%)
21	EDO	N	612	-	3,3,3	0.23	0	2,2,2	0.22	0
20	DMU	W	101	-	10,10,34	0.24	0	9,9,45	0.57	0
21	EDO	R	202	-	3,3,3	0.19	0	2,2,2	0.09	0
19	LFA	C	326	-	14,14,19	0.27	0	13,13,18	0.18	0
20	DMU	C	317	-	6,6,34	0.36	0	5,5,45	0.44	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
21	EDO	N	615	-	-	0/1/1/1	-
20	DMU	O	304	-	-	6/13/33/59	0/1/1/2
22	PGV	A	614	-	-	7/55/55/55	-
20	DMU	C	316	-	-	12/19/59/59	0/2/2/2
20	DMU	U	101	-	-	7/19/59/59	0/2/2/2
26	CDL	L	101	-	-	49/104/104/110	-
14	HEA	N	602	1	-	6/32/76/76	-
20	DMU	Z	103	-	-	3/5/5/59	-
20	DMU	J	101	-	-	3/8/8/59	-
19	LFA	P	308	-	-	0/3/3/17	-
14	HEA	A	602	1	-	6/32/76/76	-
24	CHD	O	301	-	-	2/9/74/74	0/4/4/4
21	EDO	P	319	-	-	1/1/1/1	-
19	LFA	C	315	-	-	3/10/10/17	-
20	DMU	P	315	-	-	2/4/4/59	-
20	DMU	O	308	-	-	3/13/33/59	0/1/1/2
22	PGV	P	303	-	-	10/55/55/55	-
26	CDL	Y	101	-	-	47/104/104/110	-
21	EDO	B	305	-	-	0/1/1/1	-
14	HEA	A	601	1	-	4/32/76/76	-
19	LFA	P	311	-	-	3/8/8/17	-
20	DMU	P	316	-	-	8/13/33/59	0/1/1/2
20	DMU	Z	101	-	-	6/19/59/59	0/2/2/2
19	LFA	C	309	-	-	10/15/15/17	-
19	LFA	C	313	-	-	4/8/8/17	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	LFA	T	104	-	-	4/8/8/17	-
21	EDO	F	103	-	-	1/1/1/1	-
24	CHD	P	301	-	-	2/9/74/74	0/4/4/4
22	PGV	C	303	-	-	13/55/55/55	-
22	PGV	N	616	-	-	10/55/55/55	-
20	DMU	B	304	-	-	6/13/33/59	0/1/1/2
21	EDO	S	103	-	-	0/1/1/1	-
21	EDO	N	613	-	-	1/1/1/1	-
20	DMU	C	320	-	-	11/19/59/59	0/2/2/2
26	CDL	C	304	-	-	49/97/97/110	-
20	DMU	O	306	-	-	6/8/8/59	-
20	DMU	N	609	-	-	1/4/4/59	-
21	EDO	A	612	-	-	0/1/1/1	-
20	DMU	C	306	-	-	1/8/8/59	-
20	DMU	A	608	-	-	2/4/4/59	-
24	CHD	C	301	-	-	2/9/74/74	0/4/4/4
20	DMU	A	615	-	-	5/8/8/59	-
21	EDO	N	611	-	-	0/1/1/1	-
19	LFA	P	313	-	-	2/10/10/17	-
20	DMU	P	314	-	-	8/19/59/59	0/2/2/2
20	DMU	P	317	-	-	14/19/59/59	0/2/2/2
20	DMU	P	322	-	-	4/19/59/59	0/2/2/2
21	EDO	C	321	-	-	1/1/1/1	-
21	EDO	C	322	-	-	0/1/1/1	-
24	CHD	C	305	-	-	7/9/74/74	0/4/4/4
24	CHD	B	306	-	-	2/9/74/74	0/4/4/4
20	DMU	T	105	-	-	10/13/33/59	0/1/1/2
21	EDO	S	102	-	-	0/1/1/1	-
21	EDO	P	320	-	-	0/1/1/1	-
20	DMU	B	303	-	-	5/8/8/59	-
21	EDO	G	103	-	-	0/1/1/1	-
20	DMU	G	102	-	-	2/8/8/59	-
20	DMU	C	319	-	-	12/19/59/59	0/2/2/2
19	LFA	A	607	-	-	3/11/11/17	-
19	LFA	T	101	-	-	6/11/11/17	-
20	DMU	A	609	-	-	5/19/59/59	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	LFA	O	302	-	-	5/14/14/17	-
19	LFA	G	104	-	-	7/11/11/17	-
20	DMU	B	302	-	-	5/8/8/59	-
21	EDO	C	323	-	-	1/1/1/1	-
21	EDO	A	611	-	-	1/1/1/1	-
21	EDO	A	613	-	-	0/1/1/1	-
20	DMU	C	318	-	-	9/13/33/59	0/1/1/2
21	EDO	P	321	-	-	1/1/1/1	-
21	EDO	O	309	-	-	0/1/1/1	-
21	EDO	E	202	-	-	0/1/1/1	-
20	DMU	O	307	-	-	5/8/8/59	-
24	CHD	P	305	-	-	7/9/74/74	0/4/4/4
26	CDL	P	304	-	-	58/97/97/110	-
19	LFA	C	307	-	-	5/8/8/17	-
26	CDL	I	101	-	-	36/74/74/110	-
20	DMU	H	101	-	-	7/19/59/59	0/2/2/2
26	CDL	N	606	-	-	45/74/74/110	-
21	EDO	D	202	-	-	0/1/1/1	-
20	DMU	C	325	-	-	6/19/59/59	0/2/2/2
20	DMU	Z	102	-	-	11/13/33/59	0/1/1/2
20	DMU	Q	201	-	-	7/19/59/59	0/2/2/2
21	EDO	E	201	-	-	0/1/1/1	-
28	PEK	G	101	-	-	14/56/56/56	-
19	LFA	P	312	-	-	7/12/12/17	-
21	EDO	F	102	-	-	0/1/1/1	-
20	DMU	P	318	-	-	11/19/59/59	0/2/2/2
19	LFA	P	310	-	-	5/8/8/17	-
20	DMU	M	101	-	-	5/19/59/59	0/2/2/2
28	PEK	T	102	-	-	21/56/56/56	-
19	LFA	C	314	-	-	5/12/12/17	-
20	DMU	L	102	-	-	9/13/33/59	0/1/1/2
20	DMU	D	201	-	-	9/19/59/59	0/2/2/2
19	LFA	T	103	-	-	5/11/11/17	-
20	DMU	P	306	-	-	4/8/8/59	-
20	DMU	M	102	-	-	3/5/5/59	-
20	DMU	N	610	-	-	5/19/59/59	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	LFA	C	311	-	-	7/8/8/17	-
19	LFA	P	307	-	-	2/8/8/17	-
21	EDO	T	106	-	-	0/1/1/1	-
19	LFA	C	308	-	-	0/3/3/17	-
19	LFA	C	312	-	-	6/11/11/17	-
21	EDO	R	201	-	-	1/1/1/1	-
20	DMU	C	324	-	-	7/13/33/59	0/1/1/2
21	EDO	R	203	-	-	1/1/1/1	-
19	LFA	P	309	-	-	9/15/15/17	-
19	LFA	N	608	-	-	4/11/11/17	-
19	LFA	C	310	-	-	8/12/12/17	-
19	LFA	O	303	-	-	3/8/8/17	-
21	EDO	N	614	-	-	0/1/1/1	-
19	LFA	B	307	-	-	7/14/14/17	-
21	EDO	A	610	-	-	0/1/1/1	-
20	DMU	B	308	-	-	9/13/33/59	0/1/1/2
14	HEA	N	601	1	-	2/32/76/76	-
21	EDO	N	612	-	-	0/1/1/1	-
20	DMU	W	101	-	-	2/8/8/59	-
21	EDO	R	202	-	-	0/1/1/1	-
19	LFA	C	326	-	-	8/12/12/17	-
20	DMU	C	317	-	-	3/4/4/59	-

All (159) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	N	602	HEA	C1D-ND	-5.92	1.30	1.40
14	A	602	HEA	C1D-ND	-5.75	1.30	1.40
14	A	601	HEA	C3A-C2A	5.54	1.48	1.40
14	N	602	HEA	C3A-C2A	5.10	1.47	1.40
14	A	601	HEA	C1D-ND	-5.08	1.31	1.40
14	A	601	HEA	CHD-C1D	4.80	1.47	1.35
14	N	601	HEA	C3B-C2B	4.74	1.45	1.34
14	A	602	HEA	C4D-ND	-4.69	1.29	1.38
20	N	610	DMU	O16-C6	-4.64	1.32	1.40
14	N	601	HEA	CHC-C4B	4.54	1.46	1.35
14	N	602	HEA	C4D-ND	-4.33	1.29	1.38
14	N	602	HEA	C4B-NB	-4.10	1.33	1.40
14	N	602	HEA	C1B-NB	-3.98	1.30	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	M	101	DMU	C7-C5	-3.96	1.42	1.52
14	A	602	HEA	C1B-NB	-3.93	1.30	1.38
20	M	101	DMU	O3-C5	-3.85	1.33	1.43
20	D	201	DMU	O3-C5	-3.84	1.33	1.43
26	P	304	CDL	C31-CA7	-3.82	1.39	1.50
14	N	602	HEA	C3C-C2C	3.80	1.45	1.40
20	A	609	DMU	O16-C6	-3.77	1.33	1.40
14	A	601	HEA	C3B-C2B	3.74	1.43	1.34
14	A	601	HEA	C3C-C2C	3.74	1.45	1.40
14	A	602	HEA	CHD-C1D	3.70	1.44	1.35
22	N	616	PGV	O03-C19	3.60	1.43	1.33
14	N	602	HEA	C3B-C2B	3.60	1.42	1.34
14	A	602	HEA	C3A-C2A	3.59	1.45	1.40
24	P	301	CHD	C22-C23	-3.54	1.41	1.52
14	A	601	HEA	CHC-C4B	3.51	1.44	1.35
14	N	601	HEA	CHD-C1D	3.48	1.43	1.35
20	D	201	DMU	O16-C6	-3.46	1.34	1.40
22	A	614	PGV	O03-C19	3.42	1.43	1.33
20	B	304	DMU	O16-C6	3.39	1.46	1.40
14	A	602	HEA	C18-C19	3.38	1.41	1.33
20	A	609	DMU	O3-C5	-3.21	1.35	1.43
22	A	614	PGV	O01-C1	3.17	1.43	1.34
20	A	609	DMU	O7-C10	3.12	1.50	1.41
14	A	602	HEA	CHC-C4B	3.12	1.43	1.35
14	N	601	HEA	C1D-ND	-3.09	1.35	1.40
20	P	317	DMU	C7-C5	-3.09	1.44	1.52
14	A	602	HEA	C3C-C2C	3.07	1.44	1.40
20	P	317	DMU	O5-C6	-3.05	1.34	1.41
14	A	601	HEA	C3D-C2D	3.05	1.43	1.36
14	A	602	HEA	C3B-C2B	3.04	1.41	1.34
22	P	303	PGV	O03-C19	3.04	1.42	1.33
14	N	602	HEA	C3D-C2D	3.04	1.43	1.36
14	A	602	HEA	CBD-CAD	-3.04	1.42	1.52
22	P	303	PGV	O03-C01	-3.04	1.38	1.45
14	N	602	HEA	CHC-C4B	3.02	1.42	1.35
14	N	601	HEA	C4B-C3B	2.99	1.49	1.44
26	C	304	CDL	OA7-CA5	2.96	1.31	1.22
14	A	601	HEA	C1B-NB	-2.94	1.32	1.38
14	N	602	HEA	CHD-C1D	2.93	1.42	1.35
28	G	101	PEK	C23-C22	-2.93	1.41	1.52
20	N	610	DMU	O55-C2	-2.92	1.36	1.43
14	A	602	HEA	C4B-NB	-2.91	1.35	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	P	317	DMU	O3-C5	2.89	1.49	1.43
14	N	601	HEA	C1B-NB	-2.87	1.32	1.38
20	H	101	DMU	C7-C5	-2.86	1.45	1.52
14	A	602	HEA	C4D-C3D	2.84	1.49	1.45
20	Q	201	DMU	O55-C2	2.83	1.49	1.43
20	P	318	DMU	O4-C7	2.79	1.49	1.43
20	U	101	DMU	O1-C10	2.79	1.48	1.41
14	N	601	HEA	C4B-NB	-2.78	1.35	1.40
20	C	319	DMU	O5-C6	-2.76	1.34	1.41
20	H	101	DMU	O5-C6	-2.75	1.34	1.41
20	P	318	DMU	C10-C5	-2.71	1.44	1.52
20	D	201	DMU	O5-C6	-2.71	1.35	1.41
14	A	602	HEA	C2A-C1A	2.71	1.48	1.42
20	C	316	DMU	O3-C5	-2.71	1.36	1.43
14	N	601	HEA	C4D-ND	-2.70	1.33	1.38
14	A	601	HEA	CMC-C2C	-2.70	1.46	1.51
14	N	601	HEA	C3D-C2D	2.70	1.42	1.36
20	U	101	DMU	C7-C5	-2.66	1.45	1.52
26	C	304	CDL	PA1-OA3	2.65	1.60	1.50
20	B	304	DMU	O16-C18	2.65	1.50	1.43
20	Z	101	DMU	O3-C5	-2.64	1.36	1.43
20	O	304	DMU	C3-C4	-2.64	1.47	1.53
20	C	318	DMU	C3-C2	-2.63	1.45	1.52
14	N	601	HEA	C16-C17	-2.63	1.44	1.53
24	C	301	CHD	C22-C23	-2.63	1.44	1.52
20	O	308	DMU	C6-C1	-2.60	1.45	1.52
20	P	318	DMU	C7-C5	-2.60	1.45	1.52
14	A	601	HEA	C4B-C3B	2.57	1.48	1.44
20	P	314	DMU	O1-C10	2.57	1.48	1.41
20	Q	201	DMU	C10-C5	-2.57	1.45	1.52
14	N	601	HEA	C3A-C2A	2.56	1.43	1.40
14	A	601	HEA	C26-C15	-2.56	1.44	1.50
14	A	601	HEA	CAA-C2A	-2.55	1.47	1.52
22	N	616	PGV	C01-C02	2.55	1.58	1.50
20	N	610	DMU	C10-C5	-2.54	1.45	1.52
14	N	601	HEA	C3C-C2C	2.53	1.43	1.40
14	N	601	HEA	C26-C15	-2.52	1.44	1.50
28	T	102	PEK	C2-C1	2.51	1.58	1.50
20	N	610	DMU	C7-C5	-2.51	1.45	1.52
20	Q	201	DMU	O5-C6	-2.50	1.35	1.41
20	D	201	DMU	C10-C5	-2.49	1.45	1.52
26	P	304	CDL	OA7-CA5	2.49	1.29	1.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	A	602	HEA	FE-ND	2.49	2.09	1.96
20	M	101	DMU	C6-C1	-2.48	1.45	1.52
20	C	320	DMU	O4-C7	2.48	1.48	1.43
14	A	601	HEA	C4B-NB	-2.46	1.36	1.40
20	D	201	DMU	O2-C8	2.46	1.48	1.43
14	A	602	HEA	C3D-C2D	2.44	1.41	1.36
20	A	609	DMU	C7-C5	-2.44	1.46	1.52
26	C	304	CDL	C11-CA5	2.43	1.57	1.50
20	Q	201	DMU	C7-C5	-2.42	1.46	1.52
14	A	601	HEA	C16-C17	-2.41	1.45	1.53
14	A	601	HEA	CMD-C2D	-2.41	1.45	1.50
20	P	316	DMU	C3-C4	-2.40	1.48	1.53
14	A	601	HEA	C2A-C1A	2.39	1.48	1.42
20	N	610	DMU	O16-C18	-2.38	1.36	1.43
14	N	601	HEA	CAA-C2A	-2.37	1.48	1.52
20	Q	201	DMU	O1-C9	2.36	1.50	1.44
22	C	303	PGV	O03-C19	2.36	1.40	1.33
20	C	316	DMU	C7-C5	-2.34	1.46	1.52
20	D	201	DMU	C2-C1	2.33	1.58	1.52
20	C	318	DMU	O16-C6	2.33	1.44	1.40
20	C	324	DMU	C6-C1	-2.33	1.45	1.52
20	C	325	DMU	C7-C5	-2.32	1.46	1.52
14	A	602	HEA	FE-NB	2.32	2.08	1.96
28	T	102	PEK	C23-C22	-2.31	1.43	1.52
14	N	601	HEA	C2A-C1A	2.31	1.47	1.42
22	C	303	PGV	O01-C02	-2.31	1.40	1.46
20	Q	201	DMU	O3-C5	-2.29	1.37	1.43
20	C	319	DMU	O16-C6	-2.27	1.36	1.40
14	N	602	HEA	C2A-C1A	2.26	1.47	1.42
22	N	616	PGV	O01-C1	2.24	1.40	1.34
20	N	610	DMU	C6-C1	-2.24	1.46	1.52
24	C	305	CHD	C10-C5	2.24	1.59	1.55
14	A	601	HEA	C14-C15	2.23	1.38	1.33
20	H	101	DMU	O1-C10	2.23	1.47	1.41
20	M	101	DMU	O5-C6	-2.22	1.36	1.41
20	P	316	DMU	O16-C6	2.22	1.44	1.40
14	N	602	HEA	C1B-C2B	2.22	1.48	1.44
20	Q	201	DMU	O1-C10	2.21	1.47	1.41
14	A	602	HEA	C1C-CHC	2.21	1.47	1.41
20	A	609	DMU	O7-C3	2.21	1.49	1.43
20	N	610	DMU	O1-C10	2.21	1.47	1.41
20	Z	101	DMU	C6-C1	-2.21	1.46	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	P	314	DMU	O3-C5	-2.20	1.37	1.43
20	C	319	DMU	C7-C5	-2.20	1.46	1.52
20	U	101	DMU	O7-C10	2.20	1.47	1.41
14	N	602	HEA	CMD-C2D	-2.19	1.46	1.50
20	H	101	DMU	O7-C10	2.18	1.47	1.41
20	C	316	DMU	C6-C1	-2.18	1.46	1.52
20	Z	101	DMU	C7-C5	-2.16	1.46	1.52
14	N	601	HEA	C12-C11	2.13	1.56	1.52
20	D	201	DMU	O49-C1	-2.13	1.38	1.43
20	P	322	DMU	C8-C9	-2.13	1.48	1.53
20	H	101	DMU	O16-C6	-2.10	1.36	1.40
20	N	610	DMU	C11-C9	2.10	1.58	1.51
14	A	601	HEA	O1D-CGD	2.10	1.29	1.22
22	C	303	PGV	O01-C1	2.09	1.40	1.34
20	P	322	DMU	C2-C1	-2.09	1.47	1.52
20	N	610	DMU	O5-C6	-2.08	1.36	1.41
26	L	101	CDL	C51-CB5	-2.06	1.44	1.50
26	L	101	CDL	C71-CB7	2.05	1.56	1.50
24	C	301	CHD	O26-C24	-2.02	1.23	1.30
14	A	601	HEA	C1D-C2D	2.01	1.48	1.44

All (301) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	N	601	HEA	C2B-C1B-NB	7.50	118.87	109.88
14	N	602	HEA	C3D-C4D-ND	7.18	117.31	110.36
14	A	601	HEA	C3D-C4D-ND	7.15	117.28	110.36
14	N	601	HEA	C3D-C4D-ND	7.09	117.22	110.36
14	N	601	HEA	C13-C12-C11	-6.37	104.78	114.35
20	T	105	DMU	O16-C6-C1	6.16	117.91	108.30
14	A	601	HEA	C13-C12-C11	-6.13	105.14	114.35
14	A	601	HEA	C2B-C1B-NB	5.80	116.83	109.88
26	P	304	CDL	OA6-CA5-C11	-5.70	99.22	111.50
14	N	602	HEA	CHA-C4D-C3D	-5.63	116.56	124.84
26	N	606	CDL	OA6-CA4-CA3	5.49	128.28	108.40
20	H	101	DMU	O16-C6-C1	5.49	116.88	108.30
26	C	304	CDL	OA6-CA5-C11	-5.27	100.15	111.50
14	N	601	HEA	C27-C19-C20	5.24	124.09	115.27
24	P	305	CHD	C16-C17-C20	5.22	120.22	112.15
20	Q	201	DMU	O16-C6-C1	5.14	116.33	108.30
14	A	602	HEA	CHA-C4D-C3D	-5.13	117.29	124.84
14	A	601	HEA	C2D-C1D-ND	5.13	115.92	109.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	C	305	CHD	C16-C17-C20	5.11	120.05	112.15
20	P	314	DMU	O16-C6-C1	5.03	116.15	108.30
14	N	601	HEA	C3B-C4B-NB	5.00	115.76	109.84
20	P	318	DMU	O16-C6-C1	4.95	116.04	108.30
14	A	602	HEA	C2B-C1B-NB	4.92	115.78	109.88
14	A	601	HEA	CHA-C4D-C3D	-4.92	117.61	124.84
20	C	316	DMU	O16-C6-C1	4.91	115.97	108.30
14	N	601	HEA	C3C-C4C-NC	4.87	115.51	109.21
20	C	316	DMU	C6-O5-C4	4.84	123.19	113.69
20	U	101	DMU	O16-C6-C1	4.83	115.85	108.30
20	P	322	DMU	C10-C5-C7	4.81	120.01	110.00
14	A	601	HEA	C3C-C4C-NC	4.80	115.42	109.21
14	A	602	HEA	C13-C12-C11	-4.75	107.21	114.35
14	N	602	HEA	C4D-C3D-C2D	-4.71	100.04	106.90
24	P	305	CHD	O7-C7-C6	-4.65	98.41	109.94
20	P	317	DMU	O16-C6-C1	4.64	115.55	108.30
14	N	601	HEA	C1B-C2B-C3B	-4.63	101.26	106.80
14	N	602	HEA	C3C-C4C-NC	4.60	115.16	109.21
20	O	304	DMU	O5-C6-C1	4.58	120.05	110.35
14	N	602	HEA	C2B-C1B-NB	4.53	115.30	109.88
26	C	304	CDL	OA4-PA1-OA5	-4.46	87.01	107.75
20	Z	101	DMU	O16-C6-C1	4.45	115.25	108.30
20	B	308	DMU	O16-C6-C1	4.43	115.22	108.30
14	A	601	HEA	CMC-C2C-C3C	4.40	132.90	124.68
20	U	101	DMU	C10-C5-C7	4.38	119.12	110.00
14	A	601	HEA	C3B-C4B-NB	4.38	115.03	109.84
26	P	304	CDL	OA2-PA1-OA3	4.37	126.14	109.07
20	D	201	DMU	O16-C6-C1	4.37	115.12	108.30
26	I	101	CDL	CA4-OA6-CA5	4.36	128.52	117.79
20	P	322	DMU	O16-C6-C1	4.33	115.06	108.30
24	C	305	CHD	C6-C7-C8	4.28	116.05	111.48
14	N	602	HEA	C3B-C4B-NB	4.26	114.89	109.84
26	I	101	CDL	OA2-PA1-OA3	-4.26	92.43	109.07
20	P	322	DMU	C10-O1-C9	-4.26	105.33	113.69
14	A	601	HEA	C4A-CHB-C1B	4.24	128.16	122.56
14	N	601	HEA	C2D-C1D-ND	4.21	114.82	109.84
22	N	616	PGV	O03-C19-C20	4.19	125.05	111.91
14	N	602	HEA	CHB-C1B-C2B	-4.17	118.46	124.98
14	A	601	HEA	C4D-C3D-C2D	-4.15	100.84	106.90
20	C	320	DMU	C10-C5-C7	4.14	118.62	110.00
20	C	319	DMU	C10-C5-C7	4.12	118.57	110.00
20	C	319	DMU	O16-C6-C1	4.08	114.68	108.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	C	304	CDL	OA5-PA1-OA3	4.08	124.99	109.07
14	A	602	HEA	C3C-C4C-NC	4.06	114.46	109.21
26	P	304	CDL	OA4-PA1-OA5	-4.03	89.04	107.75
20	C	320	DMU	O16-C6-C1	4.03	114.59	108.30
14	A	602	HEA	C1B-C2B-C3B	-4.00	102.02	106.80
14	N	601	HEA	CHB-C1B-C2B	-3.99	118.74	124.98
28	T	102	PEK	C2-C3-C4	3.98	120.32	113.23
20	C	325	DMU	O16-C6-C1	3.96	114.49	108.30
20	U	101	DMU	O3-C5-C10	3.95	119.65	110.05
24	C	305	CHD	C14-C13-C12	3.93	111.06	107.40
24	C	305	CHD	C17-C13-C14	-3.85	96.21	100.09
14	A	602	HEA	C3D-C4D-ND	3.84	114.07	110.36
20	M	101	DMU	O16-C6-C1	3.81	114.25	108.30
26	P	304	CDL	OA4-PA1-OA3	3.81	131.06	112.24
14	N	602	HEA	C1B-C2B-C3B	-3.80	102.26	106.80
14	A	602	HEA	C1D-C2D-C3D	-3.79	102.97	106.96
14	A	602	HEA	C2D-C1D-ND	3.72	114.24	109.84
14	N	601	HEA	C4B-NB-C1B	-3.68	101.27	105.07
14	A	602	HEA	C3B-C4B-NB	3.63	114.14	109.84
26	P	304	CDL	OA4-PA1-OA2	-3.61	90.97	107.75
24	C	305	CHD	C22-C23-C24	-3.60	102.95	112.51
26	C	304	CDL	OA4-PA1-OA3	3.60	130.02	112.24
24	P	305	CHD	C22-C23-C24	-3.58	103.00	112.51
24	P	305	CHD	C17-C13-C14	-3.55	96.52	100.09
28	T	102	PEK	O01-C1-O02	-3.52	115.18	123.70
20	B	304	DMU	O16-C6-C1	3.50	113.77	108.30
14	N	601	HEA	C4D-C3D-C2D	-3.43	101.89	106.90
20	L	102	DMU	O5-C6-O16	3.41	118.05	109.97
26	N	606	CDL	OA6-CA4-CA6	-3.41	96.07	108.40
14	N	601	HEA	CHA-C4D-C3D	-3.39	119.85	124.84
14	A	601	HEA	C1D-ND-C4D	-3.38	101.58	105.07
14	A	601	HEA	C1B-C2B-C3B	-3.38	102.76	106.80
14	N	602	HEA	C13-C12-C11	-3.36	109.31	114.35
20	C	324	DMU	O16-C6-C1	3.35	113.54	108.30
14	A	602	HEA	C4D-C3D-C2D	-3.35	102.01	106.90
22	A	614	PGV	O03-C19-O04	-3.34	115.17	123.59
20	Q	201	DMU	C6-O5-C4	-3.33	107.15	113.69
26	Y	101	CDL	OB5-PB2-OB3	-3.32	96.08	109.07
14	N	602	HEA	CBA-CAA-C2A	-3.32	107.00	112.60
20	P	316	DMU	O5-C6-C1	3.31	117.36	110.35
14	A	601	HEA	C26-C15-C16	3.30	120.82	115.27
20	C	316	DMU	O5-C6-O16	-3.29	102.19	109.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	C	304	CDL	OB5-PB2-OB3	3.28	121.89	109.07
20	N	610	DMU	C10-O1-C9	3.26	120.08	113.69
14	N	602	HEA	CAD-C3D-C4D	3.24	130.32	124.66
20	D	201	DMU	C10-C5-C7	3.24	116.75	110.00
14	N	601	HEA	CMC-C2C-C3C	3.23	130.71	124.68
14	N	602	HEA	C2D-C1D-ND	3.22	113.65	109.84
20	Q	201	DMU	C11-C9-C8	-3.22	105.47	113.00
14	N	602	HEA	CAD-CBD-CGD	-3.21	106.69	113.60
14	A	602	HEA	CHB-C1B-C2B	-3.21	119.96	124.98
20	P	314	DMU	C10-C5-C7	3.18	116.62	110.00
20	D	201	DMU	O1-C9-C8	3.18	115.47	109.69
14	N	601	HEA	C26-C15-C16	3.17	120.61	115.27
26	I	101	CDL	OA5-PA1-OA3	3.16	121.40	109.07
20	H	101	DMU	O3-C5-C10	3.13	117.64	110.05
20	P	317	DMU	C10-C5-C7	3.12	116.50	110.00
26	N	606	CDL	OA5-PA1-OA3	3.12	121.25	109.07
26	N	606	CDL	CA4-OA6-CA5	3.12	125.46	117.79
26	I	101	CDL	OB5-PB2-OB3	-3.11	96.90	109.07
20	P	318	DMU	C8-C7-C5	-3.11	105.40	110.82
20	O	304	DMU	O16-C6-C1	3.10	113.14	108.30
20	Z	102	DMU	O5-C6-O16	3.08	117.27	109.97
26	P	304	CDL	CA4-OA6-CA5	-3.07	110.22	117.79
20	P	318	DMU	C10-C5-C7	3.07	116.39	110.00
26	C	304	CDL	OA7-CA5-C11	3.06	135.66	123.73
20	O	308	DMU	O5-C6-O16	3.05	117.20	109.97
20	P	314	DMU	C6-O5-C4	3.03	119.64	113.69
20	B	308	DMU	C3-C2-C1	-3.01	105.57	110.82
26	P	304	CDL	OB4-PB2-OB3	2.99	127.03	112.24
22	A	614	PGV	O03-C19-C20	2.98	121.26	111.91
20	C	316	DMU	C10-C5-C7	2.97	116.18	110.00
20	P	322	DMU	O7-C10-O1	-2.95	102.42	110.67
20	C	316	DMU	O5-C6-C1	2.95	116.58	110.35
20	C	318	DMU	C3-C2-C1	-2.94	105.70	110.82
26	P	304	CDL	OA8-CA6-CA4	-2.93	99.89	108.43
14	N	601	HEA	C1D-ND-C4D	-2.92	102.06	105.07
22	P	303	PGV	C27-C26-C25	-2.91	99.63	114.42
20	O	308	DMU	O16-C6-C1	-2.91	103.76	108.30
14	A	602	HEA	C27-C19-C20	2.90	120.14	115.27
26	I	101	CDL	OA6-CA4-CA6	2.89	118.88	108.40
20	P	314	DMU	O5-C6-C1	2.88	116.45	110.35
14	N	602	HEA	C20-C19-C18	-2.87	115.31	121.12
20	T	105	DMU	C18-O16-C6	-2.85	109.11	113.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	N	601	HEA	C1D-C2D-C3D	-2.85	103.97	106.96
24	P	305	CHD	C6-C7-C8	2.84	114.52	111.48
14	N	602	HEA	CHD-C1D-C2D	-2.84	118.87	126.72
20	A	609	DMU	O3-C5-C7	2.83	116.90	110.35
24	P	305	CHD	O7-C7-C8	2.83	115.75	109.43
26	P	304	CDL	OA7-CA5-C11	2.81	134.70	123.73
20	P	317	DMU	C8-C7-C5	-2.81	105.92	110.82
14	A	601	HEA	CHB-C1B-C2B	-2.81	120.59	124.98
20	M	101	DMU	C10-C5-C7	2.80	115.82	110.00
14	A	601	HEA	O11-C11-C12	2.78	117.19	109.42
28	T	102	PEK	O02-C1-C2	2.77	134.53	123.73
20	Q	201	DMU	O1-C9-C8	2.75	114.69	109.69
14	N	602	HEA	C27-C19-C20	2.75	119.89	115.27
20	C	325	DMU	C10-C5-C7	2.74	115.71	110.00
26	L	101	CDL	OA5-PA1-OA3	2.74	119.76	109.07
20	Q	201	DMU	C2-C3-C4	-2.73	104.67	110.93
14	A	601	HEA	C1D-C2D-C3D	-2.72	104.10	106.96
20	O	304	DMU	C6-C1-C2	2.71	115.64	110.00
20	B	308	DMU	O5-C6-C1	2.69	116.05	110.35
14	A	602	HEA	CHD-C1D-C2D	-2.69	119.27	126.72
14	N	601	HEA	C4B-C3B-C2B	-2.69	102.82	107.41
26	P	304	CDL	OA6-CA4-CA3	2.68	118.11	108.40
20	H	101	DMU	C18-O16-C6	-2.68	109.39	113.84
20	O	308	DMU	O5-C6-C1	2.68	116.02	110.35
14	A	601	HEA	C4B-NB-C1B	-2.66	102.33	105.07
20	Z	101	DMU	C10-C5-C7	2.66	115.53	110.00
22	N	616	PGV	O03-C19-O04	-2.65	116.90	123.59
20	D	201	DMU	C2-C3-C4	-2.65	104.86	110.93
14	N	602	HEA	CHC-C4B-C3B	-2.65	118.99	125.80
14	N	601	HEA	C16-C17-C18	2.64	120.56	111.88
20	P	316	DMU	C18-O16-C6	-2.62	109.49	113.84
26	Y	101	CDL	OA4-PA1-OA5	-2.61	95.62	107.75
20	H	101	DMU	O7-C3-C2	2.61	114.22	107.28
14	A	601	HEA	C4B-C3B-C2B	-2.61	102.95	107.41
22	A	614	PGV	C15-C14-C13	-2.60	102.47	113.79
26	P	304	CDL	CA6-CA4-CA3	2.59	117.91	111.79
14	A	601	HEA	CAD-C3D-C4D	2.58	129.17	124.66
14	N	602	HEA	C1D-C2D-C3D	-2.57	104.25	106.96
24	P	301	CHD	C18-C13-C12	-2.57	106.45	109.07
14	N	602	HEA	C4B-C3B-C2B	-2.56	103.04	107.41
14	N	601	HEA	C26-C15-C14	-2.56	117.12	123.68
26	I	101	CDL	OA6-CA4-CA3	2.55	117.64	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	A	601	HEA	CHD-C1D-C2D	-2.55	119.67	126.72
20	P	317	DMU	C10-O1-C9	-2.55	108.69	113.69
20	T	105	DMU	C57-C4-C3	-2.54	107.04	113.00
26	Y	101	CDL	OB4-PB2-OB2	2.54	119.52	107.75
20	B	308	DMU	C6-O5-C4	2.53	118.66	113.69
26	C	304	CDL	CB6-CB4-CB3	2.53	117.77	111.79
26	P	304	CDL	O1-C1-CA2	2.52	118.40	109.56
26	C	304	CDL	O1-C1-CB2	2.52	118.40	109.56
14	N	602	HEA	CMC-C2C-C3C	2.51	129.38	124.68
14	A	601	HEA	CAD-CBD-CGD	-2.51	108.19	113.60
20	C	318	DMU	C18-O16-C6	-2.51	109.68	113.84
14	N	602	HEA	C4D-CHA-C1A	2.51	125.87	122.56
26	I	101	CDL	OB6-CB4-CB6	2.49	117.43	108.40
20	N	610	DMU	O5-C6-C1	2.49	115.62	110.35
14	A	602	HEA	C26-C15-C16	2.48	119.44	115.27
20	P	322	DMU	O5-C6-C1	2.47	115.59	110.35
14	N	602	HEA	CMD-C2D-C1D	2.46	128.79	125.04
14	N	601	HEA	CHC-C4B-C3B	-2.45	119.48	125.80
26	N	606	CDL	OA2-PA1-OA3	-2.45	99.50	109.07
24	O	301	CHD	C6-C5-C4	-2.45	108.37	111.19
20	N	610	DMU	C7-C8-C9	2.45	114.60	110.24
24	C	305	CHD	C17-C13-C12	-2.44	115.44	117.67
22	N	616	PGV	O01-C1-O02	-2.43	117.82	123.70
20	C	318	DMU	O5-C6-C1	2.43	115.50	110.35
20	H	101	DMU	C10-C5-C7	2.42	115.04	110.00
14	N	601	HEA	C4A-CHB-C1B	2.42	125.75	122.56
14	N	601	HEA	C17-C18-C19	-2.40	121.87	127.66
20	C	325	DMU	O5-C6-C1	2.39	115.41	110.35
26	L	101	CDL	OA6-CA5-C11	2.39	116.65	111.50
20	B	304	DMU	C6-O5-C4	2.39	118.37	113.69
14	A	602	HEA	CAD-CBD-CGD	-2.38	108.47	113.60
20	O	304	DMU	C2-C3-C4	-2.38	105.99	110.24
20	P	322	DMU	O49-C1-C2	-2.38	104.85	110.35
22	C	303	PGV	O03-C19-O04	-2.38	117.59	123.59
20	H	101	DMU	O5-C6-C1	2.37	115.38	110.35
24	P	301	CHD	C11-C12-C13	-2.37	108.81	111.24
26	L	101	CDL	OB6-CB4-CB6	-2.37	99.84	108.40
20	P	322	DMU	O6-C11-C9	-2.36	103.18	111.29
24	P	305	CHD	C14-C13-C12	2.35	109.59	107.40
26	C	304	CDL	OB4-PB2-OB3	2.35	123.85	112.24
24	B	306	CHD	C5-C6-C7	-2.35	111.87	114.46
20	T	105	DMU	C2-C3-C4	2.34	114.42	110.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	Y	101	CDL	OB6-CB5-C51	2.33	116.53	111.50
20	C	324	DMU	O5-C4-C57	2.33	112.23	106.44
20	C	319	DMU	C10-O1-C9	-2.33	109.11	113.69
14	N	601	HEA	O11-C11-C12	2.33	115.93	109.42
26	I	101	CDL	OA6-CA5-OA7	2.32	129.32	123.70
20	C	320	DMU	O5-C6-C1	2.32	115.26	110.35
26	I	101	CDL	OB6-CB5-C51	2.31	117.24	110.80
20	C	318	DMU	C2-C3-C4	-2.30	106.14	110.24
20	P	322	DMU	C7-C8-C9	-2.30	106.14	110.24
20	B	304	DMU	C3-C2-C1	-2.29	106.82	110.82
20	P	322	DMU	O1-C9-C8	-2.28	105.55	109.69
20	Z	101	DMU	O1-C9-C11	2.27	112.08	106.44
20	P	317	DMU	O7-C3-C2	2.27	113.31	107.28
14	N	601	HEA	C27-C19-C18	-2.27	117.86	123.68
20	C	316	DMU	C18-O16-C6	-2.27	110.08	113.84
20	D	201	DMU	O7-C3-C2	2.27	113.31	107.28
14	N	601	HEA	CAD-C3D-C2D	2.26	132.09	127.88
24	C	305	CHD	C4-C5-C10	2.26	115.05	112.66
24	P	301	CHD	C18-C13-C14	2.26	114.74	111.21
20	B	308	DMU	C57-C4-C3	-2.25	107.74	113.00
22	N	616	PGV	C23-C22-C21	-2.24	103.04	114.42
26	P	304	CDL	OB6-CB4-CB3	2.24	116.52	108.40
24	P	305	CHD	C11-C12-C13	-2.23	108.95	111.24
14	A	602	HEA	CAD-C3D-C2D	2.22	132.02	127.88
20	Q	201	DMU	O61-C57-C4	-2.22	103.68	111.29
14	N	602	HEA	CHD-C1D-ND	2.21	127.11	124.38
22	P	303	PGV	C03-C02-C01	-2.20	106.57	111.79
20	C	320	DMU	C11-C9-C8	-2.20	107.85	113.00
20	Z	101	DMU	O3-C5-C7	2.20	115.44	110.35
28	T	102	PEK	O01-C02-C03	-2.20	100.45	108.40
14	N	601	HEA	CMD-C2D-C1D	2.19	128.38	125.04
26	L	101	CDL	OB5-PB2-OB3	-2.18	100.56	109.07
20	U	101	DMU	O5-C6-O16	2.18	115.13	109.97
20	A	609	DMU	C11-C9-C8	-2.18	107.91	113.00
20	P	314	DMU	O5-C6-O16	-2.18	104.82	109.97
14	A	602	HEA	C4B-NB-C1B	-2.17	102.83	105.07
14	N	601	HEA	O2D-CGD-CBD	2.16	120.96	114.03
24	O	301	CHD	O7-C7-C6	2.15	115.27	109.94
14	N	601	HEA	CHD-C1D-ND	-2.14	121.73	124.38
20	A	609	DMU	O7-C10-C5	2.14	113.64	108.10
26	C	304	CDL	OA4-PA1-OA2	-2.14	97.82	107.75
28	G	101	PEK	C14-C13-C12	2.14	122.54	112.02

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	N	602	HEA	O11-C11-C12	2.13	115.38	109.42
20	U	101	DMU	C10-O7-C3	-2.13	112.69	117.96
26	P	304	CDL	CB4-OB6-CB5	2.13	123.03	117.79
20	A	609	DMU	C10-O7-C3	-2.12	112.72	117.96
14	A	602	HEA	O1A-CGA-CBA	-2.11	116.30	123.08
20	C	320	DMU	O3-C5-C10	2.11	115.17	110.05
20	O	308	DMU	C3-C2-C1	-2.11	107.14	110.82
20	Z	101	DMU	C10-O1-C9	-2.10	109.56	113.69
14	A	602	HEA	CHC-C4B-C3B	-2.10	120.40	125.80
26	C	304	CDL	OA8-CA6-CA4	-2.09	102.34	108.43
24	B	306	CHD	C14-C13-C12	-2.09	105.46	107.40
14	A	602	HEA	CHA-C4D-ND	2.08	126.69	124.43
20	P	322	DMU	C11-C9-C8	2.08	117.88	113.00
26	I	101	CDL	OA4-PA1-OA3	2.08	122.52	112.24
24	P	305	CHD	C16-C17-C13	-2.08	101.52	103.55
26	L	101	CDL	OB2-PB2-OB3	-2.07	100.98	109.07
28	G	101	PEK	O03-C21-C22	-2.07	105.42	111.91
24	P	305	CHD	O25-C24-C23	-2.07	116.44	123.08
26	Y	101	CDL	OA4-PA1-OA3	2.05	122.40	112.24
26	N	606	CDL	OB6-CB5-C51	2.05	116.51	110.80
14	A	602	HEA	CMC-C2C-C3C	2.04	128.50	124.68
26	Y	101	CDL	OB4-PB2-OB3	2.04	122.31	112.24
20	P	314	DMU	O1-C9-C11	2.03	111.48	106.44
26	L	101	CDL	OB4-PB2-OB3	2.03	122.27	112.24
20	A	609	DMU	O5-C6-C1	2.02	114.63	110.35
24	C	301	CHD	C22-C20-C17	-2.02	106.11	110.28
26	L	101	CDL	OB6-CB5-C51	2.02	115.85	111.50
20	C	325	DMU	O49-C1-C2	-2.01	105.69	110.35
14	A	601	HEA	CHC-C4B-NB	-2.00	121.91	124.38
24	B	306	CHD	C14-C8-C7	2.00	114.46	111.81
26	L	101	CDL	OA2-PA1-OA3	-2.00	101.25	109.07

There are no chirality outliers.

All (795) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
20	B	304	DMU	C1-C6-O16-C18
20	B	304	DMU	O5-C6-O16-C18
20	B	304	DMU	C19-C18-O16-C6
20	B	308	DMU	O5-C6-O16-C18
20	B	308	DMU	C19-C18-O16-C6
20	C	318	DMU	C19-C18-O16-C6

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Mol	Chain	Res	Type	Atoms
20	C	319	DMU	C19-C18-O16-C6
20	D	201	DMU	C19-C18-O16-C6
20	O	304	DMU	C19-C18-O16-C6
20	O	308	DMU	C19-C18-O16-C6
20	P	316	DMU	C19-C18-O16-C6
20	Q	201	DMU	O5-C6-O16-C18
20	T	105	DMU	C1-C6-O16-C18
20	T	105	DMU	O5-C6-O16-C18
20	U	101	DMU	C1-C6-O16-C18
20	Z	102	DMU	C1-C6-O16-C18
20	Z	102	DMU	C19-C18-O16-C6
24	C	305	CHD	C13-C17-C20-C21
24	C	305	CHD	C13-C17-C20-C22
24	P	305	CHD	C13-C17-C20-C21
24	P	305	CHD	C16-C17-C20-C22
26	C	304	CDL	O1-C1-CB2-OB2
26	C	304	CDL	C1-CA2-OA2-PA1
26	C	304	CDL	C11-CA5-OA6-CA4
26	C	304	CDL	CB3-OB5-PB2-OB4
26	C	304	CDL	OB7-CB5-OB6-CB4
26	C	304	CDL	C51-CB5-OB6-CB4
26	I	101	CDL	CA2-OA2-PA1-OA3
26	I	101	CDL	CB2-OB2-PB2-OB3
26	I	101	CDL	CB3-OB5-PB2-OB3
26	I	101	CDL	CB3-OB5-PB2-OB4
26	I	101	CDL	C51-CB5-OB6-CB4
26	L	101	CDL	CA2-OA2-PA1-OA4
26	L	101	CDL	OA7-CA5-OA6-CA4
26	L	101	CDL	C51-CB5-OB6-CB4
26	N	606	CDL	CA3-OA5-PA1-OA2
26	N	606	CDL	CA3-OA5-PA1-OA3
26	N	606	CDL	CB2-OB2-PB2-OB3
26	N	606	CDL	CB3-OB5-PB2-OB3
26	N	606	CDL	CB3-OB5-PB2-OB4
26	N	606	CDL	C51-CB5-OB6-CB4
26	P	304	CDL	C1-CA2-OA2-PA1
26	P	304	CDL	CA2-OA2-PA1-OA3
26	P	304	CDL	CA3-OA5-PA1-OA2
26	P	304	CDL	CB3-OB5-PB2-OB4
26	P	304	CDL	OB7-CB5-OB6-CB4
26	P	304	CDL	C51-CB5-OB6-CB4
26	Y	101	CDL	C11-CA5-OA6-CA4

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Mol	Chain	Res	Type	Atoms
26	Y	101	CDL	CB2-OB2-PB2-OB3
26	Y	101	CDL	C51-CB5-OB6-CB4
28	G	101	PEK	C11-C12-C13-C14
28	G	101	PEK	C12-C13-C14-C15
28	T	102	PEK	C11-C12-C13-C14
28	T	102	PEK	C12-C13-C14-C15
24	C	305	CHD	C16-C17-C20-C21
24	P	305	CHD	C16-C17-C20-C21
24	P	305	CHD	C13-C17-C20-C22
20	Z	101	DMU	O6-C11-C9-O1
26	C	304	CDL	OA7-CA5-OA6-CA4
26	I	101	CDL	OB7-CB5-OB6-CB4
26	L	101	CDL	OB7-CB5-OB6-CB4
26	N	606	CDL	OB7-CB5-OB6-CB4
26	Y	101	CDL	OA7-CA5-OA6-CA4
26	Y	101	CDL	OB7-CB5-OB6-CB4
20	C	320	DMU	O5-C4-C57-O61
20	O	304	DMU	O5-C4-C57-O61
26	L	101	CDL	C11-CA5-OA6-CA4
24	C	305	CHD	C16-C17-C20-C22
20	C	318	DMU	O5-C4-C57-O61
20	L	102	DMU	C3-C4-C57-O61
14	A	602	HEA	C4D-C3D-CAD-CBD
20	H	101	DMU	C3-C4-C57-O61
19	C	326	LFA	C9-C10-C11-C12
26	P	304	CDL	O1-C1-CA2-OA2
26	P	304	CDL	O1-C1-CB2-OB2
26	C	304	CDL	C31-CA7-OA8-CA6
22	C	303	PGV	C28-C29-C30-C31
20	C	320	DMU	C3-C4-C57-O61
19	C	309	LFA	C11-C10-C9-C8
19	P	307	LFA	C7-C8-C9-C10
20	C	320	DMU	O6-C11-C9-O1
20	C	318	DMU	C3-C4-C57-O61
20	Z	101	DMU	O6-C11-C9-C8
20	C	316	DMU	O5-C4-C57-O61
20	O	304	DMU	C3-C4-C57-O61
26	I	101	CDL	C1-CA2-OA2-PA1
20	C	316	DMU	O6-C11-C9-O1
20	D	201	DMU	O6-C11-C9-O1
20	L	102	DMU	O5-C4-C57-O61
20	A	609	DMU	O6-C11-C9-C8

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Mol	Chain	Res	Type	Atoms
20	C	324	DMU	O5-C4-C57-O61
20	H	101	DMU	O5-C4-C57-O61
20	P	318	DMU	O6-C11-C9-O1
20	Z	102	DMU	O5-C6-O16-C18
26	Y	101	CDL	C31-CA7-OA8-CA6
19	C	309	LFA	C12-C13-C14-C15
20	C	319	DMU	C3-C4-C57-O61
26	Y	101	CDL	CB2-C1-CA2-OA2
20	P	318	DMU	O6-C11-C9-C8
26	Y	101	CDL	OA9-CA7-OA8-CA6
26	N	606	CDL	C31-CA7-OA8-CA6
26	P	304	CDL	C31-CA7-OA8-CA6
20	C	324	DMU	C3-C4-C57-O61
26	L	101	CDL	CB7-C71-C72-C73
20	C	316	DMU	O6-C11-C9-C8
26	Y	101	CDL	O1-C1-CB2-OB2
26	C	304	CDL	CA7-C31-C32-C33
26	Y	101	CDL	OB6-CB4-CB6-OB8
26	C	304	CDL	OA9-CA7-OA8-CA6
20	P	316	DMU	O5-C4-C57-O61
20	N	610	DMU	O6-C11-C9-C8
20	P	317	DMU	C4-C3-O7-C10
26	N	606	CDL	CA5-C11-C12-C13
20	A	609	DMU	O6-C11-C9-O1
20	P	318	DMU	C2-C3-O7-C10
20	C	320	DMU	O6-C11-C9-C8
20	P	317	DMU	O6-C11-C9-O1
20	Q	201	DMU	O5-C4-C57-O61
26	C	304	CDL	CB5-C51-C52-C53
26	I	101	CDL	CA5-C11-C12-C13
26	P	304	CDL	CB5-C51-C52-C53
26	Y	101	CDL	CA5-C11-C12-C13
20	C	318	DMU	O16-C18-C19-C22
20	Z	102	DMU	O16-C18-C19-C22
20	C	324	DMU	O16-C18-C19-C22
20	P	318	DMU	C4-C3-O7-C10
20	Z	102	DMU	O5-C4-C57-O61
26	L	101	CDL	C72-C73-C74-C75
26	C	304	CDL	CB7-C71-C72-C73
26	N	606	CDL	CA7-C31-C32-C33
20	D	201	DMU	O6-C11-C9-C8
20	D	201	DMU	C4-C3-O7-C10

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Mol	Chain	Res	Type	Atoms
20	C	319	DMU	O5-C4-C57-O61
20	C	320	DMU	O16-C18-C19-C22
20	L	102	DMU	O16-C18-C19-C22
20	P	317	DMU	O16-C18-C19-C22
26	P	304	CDL	OA9-CA7-OA8-CA6
20	U	101	DMU	O5-C6-O16-C18
20	P	318	DMU	C19-C22-C25-C28
26	C	304	CDL	O1-C1-CA2-OA2
26	L	101	CDL	O1-C1-CA2-OA2
26	N	606	CDL	O1-C1-CB2-OB2
26	Y	101	CDL	O1-C1-CA2-OA2
26	N	606	CDL	OA9-CA7-OA8-CA6
28	T	102	PEK	C7-C8-C9-C10
26	P	304	CDL	C11-CA5-OA6-CA4
26	C	304	CDL	CA2-OA2-PA1-OA5
26	C	304	CDL	CA3-OA5-PA1-OA2
26	I	101	CDL	CA3-OA5-PA1-OA2
26	I	101	CDL	CB3-OB5-PB2-OB2
26	L	101	CDL	CA2-OA2-PA1-OA5
26	L	101	CDL	CA3-OA5-PA1-OA2
26	L	101	CDL	CB2-OB2-PB2-OB5
26	N	606	CDL	CB2-OB2-PB2-OB5
26	N	606	CDL	CB3-OB5-PB2-OB2
26	P	304	CDL	CA2-OA2-PA1-OA5
26	Y	101	CDL	CB2-OB2-PB2-OB5
26	N	606	CDL	C13-C14-C15-C16
20	H	101	DMU	C25-C28-C31-C34
26	L	101	CDL	CB2-C1-CA2-OA2
26	N	606	CDL	CA2-C1-CB2-OB2
19	P	309	LFA	C11-C10-C9-C8
26	C	304	CDL	C71-CB7-OB8-CB6
19	T	101	LFA	C9-C10-C11-C12
20	Q	201	DMU	C4-C3-O7-C10
19	P	309	LFA	C5-C6-C7-C8
20	C	317	DMU	C28-C31-C34-C37
26	L	101	CDL	C34-C35-C36-C37
19	C	309	LFA	C3-C4-C5-C6
19	O	302	LFA	C13-C14-C15-C16
19	T	103	LFA	C3-C4-C5-C6
19	T	103	LFA	C10-C11-C12-C13
20	N	610	DMU	C31-C34-C37-C40
20	A	608	DMU	C28-C31-C34-C37

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Mol	Chain	Res	Type	Atoms
26	C	304	CDL	C22-C23-C24-C25
28	G	101	PEK	C26-C27-C28-C29
20	B	308	DMU	O5-C4-C57-O61
26	I	101	CDL	OA7-CA5-OA6-CA4
19	C	309	LFA	C5-C6-C7-C8
19	C	310	LFA	C6-C7-C8-C9
19	P	309	LFA	C3-C4-C5-C6
20	H	101	DMU	C19-C22-C25-C28
26	I	101	CDL	C19-C20-C21-C22
26	Y	101	CDL	C71-C72-C73-C74
28	G	101	PEK	C28-C29-C30-C31
28	T	102	PEK	C10-C11-C12-C13
19	C	326	LFA	C6-C7-C8-C9
19	G	104	LFA	C11-C10-C9-C8
20	A	615	DMU	C19-C22-C25-C28
20	P	318	DMU	C22-C25-C28-C31
20	Z	101	DMU	C28-C31-C34-C37
26	P	304	CDL	C11-C12-C13-C14
28	T	102	PEK	C26-C27-C28-C29
19	P	310	LFA	C7-C8-C9-C10
20	C	319	DMU	O16-C18-C19-C22
20	C	324	DMU	C28-C31-C34-C37
22	C	303	PGV	C7-C8-C9-C10
26	L	101	CDL	C13-C14-C15-C16
26	P	304	CDL	C56-C57-C58-C59
28	G	101	PEK	C16-C17-C18-C19
28	G	101	PEK	C34-C35-C36-C37
20	T	105	DMU	O5-C4-C57-O61
20	C	319	DMU	C1-C6-O16-C18
20	C	320	DMU	C1-C6-O16-C18
20	P	317	DMU	C1-C6-O16-C18
20	C	324	DMU	C25-C28-C31-C34
26	N	606	CDL	C31-C32-C33-C34
22	N	616	PGV	C14-C15-C16-C17
28	T	102	PEK	C1-C2-C3-C4
19	C	307	LFA	C4-C5-C6-C7
19	C	312	LFA	C4-C5-C6-C7
19	O	303	LFA	C5-C6-C7-C8
20	P	317	DMU	C28-C31-C34-C37
26	C	304	CDL	C20-C21-C22-C23
26	Y	101	CDL	C63-C64-C65-C66
20	Z	101	DMU	C22-C25-C28-C31

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Mol	Chain	Res	Type	Atoms
26	C	304	CDL	C35-C36-C37-C38
26	N	606	CDL	C17-C18-C19-C20
20	C	319	DMU	O6-C11-C9-O1
22	P	303	PGV	C24-C25-C26-C27
19	G	104	LFA	C5-C6-C7-C8
19	P	309	LFA	C4-C5-C6-C7
19	P	310	LFA	C6-C7-C8-C9
20	C	316	DMU	C19-C22-C25-C28
20	C	316	DMU	C28-C31-C34-C37
22	C	303	PGV	C22-C23-C24-C25
26	C	304	CDL	C75-C76-C77-C78
19	C	310	LFA	C10-C11-C12-C13
19	C	326	LFA	C7-C8-C9-C10
19	P	309	LFA	C13-C14-C15-C16
19	P	310	LFA	C2-C3-C4-C5
20	C	320	DMU	C19-C22-C25-C28
20	O	306	DMU	C19-C22-C25-C28
26	L	101	CDL	C17-C18-C19-C20
26	N	606	CDL	C73-C74-C75-C76
26	Y	101	CDL	C13-C14-C15-C16
26	Y	101	CDL	C79-C80-C81-C82
26	Y	101	CDL	C80-C81-C82-C83
22	C	303	PGV	C30-C31-C32-C33
22	N	616	PGV	C27-C28-C29-C30
19	P	311	LFA	C1-C2-C3-C4
20	B	304	DMU	C31-C34-C37-C40
20	P	314	DMU	C28-C31-C34-C37
20	P	316	DMU	C31-C34-C37-C40
20	Z	102	DMU	C25-C28-C31-C34
26	L	101	CDL	C14-C15-C16-C17
26	L	101	CDL	C31-CA7-OA8-CA6
20	L	102	DMU	C31-C34-C37-C40
20	M	102	DMU	C31-C34-C37-C40
26	I	101	CDL	C78-C79-C80-C81
26	L	101	CDL	C37-C38-C39-C40
20	L	102	DMU	C19-C18-O16-C6
20	P	318	DMU	C19-C18-O16-C6
19	B	307	LFA	C13-C14-C15-C16
19	T	103	LFA	C4-C5-C6-C7
26	P	304	CDL	C75-C76-C77-C78
20	P	316	DMU	C3-C4-C57-O61
26	C	304	CDL	OB9-CB7-OB8-CB6

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Mol	Chain	Res	Type	Atoms
26	L	101	CDL	C58-C59-C60-C61
19	C	310	LFA	C9-C10-C11-C12
20	A	609	DMU	C31-C34-C37-C40
20	L	102	DMU	C25-C28-C31-C34
20	B	303	DMU	C18-C19-C22-C25
19	B	307	LFA	C4-C5-C6-C7
19	O	303	LFA	C2-C3-C4-C5
20	P	317	DMU	C2-C3-O7-C10
22	N	616	PGV	C12-C13-C14-C15
19	C	313	LFA	C1-C2-C3-C4
20	C	319	DMU	C31-C34-C37-C40
28	T	102	PEK	C17-C18-C19-C20
20	O	308	DMU	C34-C37-C40-C43
26	P	304	CDL	C73-C74-C75-C76
20	P	316	DMU	C22-C25-C28-C31
26	P	304	CDL	CB7-C71-C72-C73
19	C	311	LFA	C5-C6-C7-C8
19	B	307	LFA	C7-C8-C9-C10
19	C	309	LFA	C11-C12-C13-C14
19	T	101	LFA	C5-C6-C7-C8
22	N	616	PGV	C29-C30-C31-C32
26	L	101	CDL	C36-C37-C38-C39
26	N	606	CDL	C74-C75-C76-C77
26	L	101	CDL	OA9-CA7-OA8-CA6
26	I	101	CDL	C71-C72-C73-C74
26	L	101	CDL	C21-C22-C23-C24
20	C	318	DMU	C31-C34-C37-C40
20	P	322	DMU	C4-C3-O7-C10
20	Z	102	DMU	C31-C34-C37-C40
26	L	101	CDL	C76-C77-C78-C79
26	N	606	CDL	C76-C77-C78-C79
26	N	606	CDL	C78-C79-C80-C81
20	D	201	DMU	C2-C3-O7-C10
26	I	101	CDL	C17-C18-C19-C20
26	N	606	CDL	C18-C19-C20-C21
20	B	303	DMU	C19-C22-C25-C28
20	D	201	DMU	O16-C18-C19-C22
20	B	302	DMU	C18-C19-C22-C25
19	A	607	LFA	C9-C10-C11-C12
19	P	312	LFA	C9-C10-C11-C12
20	M	101	DMU	C22-C25-C28-C31
26	P	304	CDL	C35-C36-C37-C38

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Mol	Chain	Res	Type	Atoms
26	P	304	CDL	C52-C53-C54-C55
19	C	312	LFA	C3-C4-C5-C6
26	L	101	CDL	C80-C81-C82-C83
20	B	302	DMU	C19-C22-C25-C28
19	C	313	LFA	C5-C6-C7-C8
28	T	102	PEK	C22-C23-C24-C25
22	C	303	PGV	C24-C25-C26-C27
20	P	317	DMU	O5-C6-O16-C18
20	C	317	DMU	C31-C34-C37-C40
20	L	102	DMU	C22-C25-C28-C31
26	I	101	CDL	C11-CA5-OA6-CA4
20	C	319	DMU	C19-C22-C25-C28
26	P	304	CDL	C33-C34-C35-C36
20	Z	102	DMU	C18-C19-C22-C25
19	N	608	LFA	C7-C8-C9-C10
20	P	315	DMU	C28-C31-C34-C37
26	N	606	CDL	OA7-CA5-OA6-CA4
26	P	304	CDL	OA7-CA5-OA6-CA4
20	Z	101	DMU	C25-C28-C31-C34
22	P	303	PGV	C30-C31-C32-C33
26	I	101	CDL	C16-C17-C18-C19
26	I	101	CDL	OA6-CA4-CA6-OA8
19	P	312	LFA	C5-C6-C7-C8
20	C	318	DMU	C22-C25-C28-C31
28	G	101	PEK	C25-C26-C27-C28
19	A	607	LFA	C6-C7-C8-C9
19	P	311	LFA	C3-C4-C5-C6
19	P	312	LFA	C6-C7-C8-C9
26	L	101	CDL	C74-C75-C76-C77
26	Y	101	CDL	C21-C22-C23-C24
22	A	614	PGV	C11-C10-C9-C8
22	P	303	PGV	C12-C13-C14-C15
28	G	101	PEK	C15-C16-C17-C18
26	N	606	CDL	C77-C78-C79-C80
20	J	101	DMU	C25-C28-C31-C34
26	Y	101	CDL	C22-C23-C24-C25
20	O	307	DMU	C18-C19-C22-C25
26	I	101	CDL	C13-C14-C15-C16
22	P	303	PGV	C11-C12-C13-C14
20	P	316	DMU	C18-C19-C22-C25
20	U	101	DMU	C18-C19-C22-C25
26	C	304	CDL	CA4-CA3-OA5-PA1

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Mol	Chain	Res	Type	Atoms
20	P	322	DMU	C2-C3-O7-C10
20	P	322	DMU	O16-C18-C19-C22
20	B	308	DMU	C18-C19-C22-C25
20	P	314	DMU	C18-C19-C22-C25
19	P	312	LFA	C4-C5-C6-C7
20	P	306	DMU	O16-C18-C19-C22
19	B	307	LFA	C9-C10-C11-C12
19	O	302	LFA	C11-C12-C13-C14
20	U	101	DMU	C19-C22-C25-C28
26	P	304	CDL	C57-C58-C59-C60
20	U	101	DMU	O5-C4-C57-O61
19	C	309	LFA	C1-C2-C3-C4
26	I	101	CDL	C75-C76-C77-C78
26	Y	101	CDL	C51-C52-C53-C54
26	Y	101	CDL	C59-C60-C61-C62
20	C	318	DMU	C19-C22-C25-C28
20	B	302	DMU	C31-C34-C37-C40
26	C	304	CDL	CB3-CB4-CB6-OB8
26	N	606	CDL	CA3-CA4-CA6-OA8
26	P	304	CDL	CA3-CA4-CA6-OA8
26	P	304	CDL	CB3-CB4-CB6-OB8
28	T	102	PEK	C4-C5-C6-C7
26	P	304	CDL	C54-C55-C56-C57
20	B	303	DMU	O16-C18-C19-C22
20	O	306	DMU	O16-C18-C19-C22
19	C	310	LFA	C1-C2-C3-C4
20	M	101	DMU	C25-C28-C31-C34
20	O	306	DMU	C18-C19-C22-C25
20	A	608	DMU	C25-C28-C31-C34
20	C	316	DMU	C34-C37-C40-C43
20	L	102	DMU	C34-C37-C40-C43
22	N	616	PGV	C31-C32-C33-C34
19	C	310	LFA	C4-C5-C6-C7
19	P	310	LFA	C11-C10-C9-C8
19	P	312	LFA	C2-C3-C4-C5
26	L	101	CDL	C84-C85-C86-C87
20	P	314	DMU	O6-C11-C9-O1
22	A	614	PGV	C14-C15-C16-C17
26	C	304	CDL	C58-C59-C60-C61
28	T	102	PEK	C2-C3-C4-C5
26	Y	101	CDL	CB5-C51-C52-C53
26	P	304	CDL	C71-C72-C73-C74

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Mol	Chain	Res	Type	Atoms
26	C	304	CDL	C12-C11-CA5-OA6
19	P	307	LFA	C11-C10-C9-C8
20	N	610	DMU	O16-C18-C19-C22
26	Y	101	CDL	C84-C85-C86-C87
19	C	309	LFA	C2-C3-C4-C5
20	P	322	DMU	C25-C28-C31-C34
26	C	304	CDL	C23-C24-C25-C26
20	A	609	DMU	C3-C4-C57-O61
20	M	101	DMU	O6-C11-C9-C8
20	C	319	DMU	C34-C37-C40-C43
20	Q	201	DMU	C2-C3-O7-C10
22	A	614	PGV	C31-C32-C33-C34
26	Y	101	CDL	C64-C65-C66-C67
20	A	615	DMU	O16-C18-C19-C22
20	O	307	DMU	O16-C18-C19-C22
20	W	101	DMU	O16-C18-C19-C22
19	O	302	LFA	C14-C15-C16-C17
28	G	101	PEK	C17-C18-C19-C20
19	T	104	LFA	C3-C4-C5-C6
19	C	326	LFA	C12-C13-C14-C15
19	T	103	LFA	C5-C6-C7-C8
20	B	308	DMU	C34-C37-C40-C43
20	T	105	DMU	C34-C37-C40-C43
26	P	304	CDL	C53-C54-C55-C56
26	Y	101	CDL	C32-C33-C34-C35
26	L	101	CDL	OB5-CB3-CB4-OB6
26	L	101	CDL	CB5-C51-C52-C53
19	C	311	LFA	C7-C8-C9-C10
22	C	303	PGV	C14-C15-C16-C17
26	Y	101	CDL	C31-C32-C33-C34
19	B	307	LFA	C14-C15-C16-C17
20	N	610	DMU	O6-C11-C9-O1
20	C	318	DMU	C25-C28-C31-C34
26	N	606	CDL	C72-C73-C74-C75
26	N	606	CDL	OA6-CA4-CA6-OA8
20	D	201	DMU	C19-C22-C25-C28
22	P	303	PGV	C7-C8-C9-C10
26	L	101	CDL	C75-C76-C77-C78
26	P	304	CDL	C72-C73-C74-C75
20	B	302	DMU	O16-C18-C19-C22
20	G	102	DMU	O16-C18-C19-C22
19	T	104	LFA	C4-C5-C6-C7

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Mol	Chain	Res	Type	Atoms
26	Y	101	CDL	C19-C20-C21-C22
20	P	317	DMU	C25-C28-C31-C34
26	L	101	CDL	C59-C60-C61-C62
20	C	320	DMU	C34-C37-C40-C43
20	O	307	DMU	C19-C22-C25-C28
19	T	104	LFA	C6-C7-C8-C9
20	G	102	DMU	C34-C37-C40-C43
26	C	304	CDL	C12-C13-C14-C15
26	C	304	CDL	C59-C60-C61-C62
20	Q	201	DMU	C3-C4-C57-O61
26	C	304	CDL	C73-C74-C75-C76
20	W	101	DMU	C34-C37-C40-C43
26	L	101	CDL	C72-C71-CB7-OB8
26	I	101	CDL	C73-C74-C75-C76
26	Y	101	CDL	C16-C17-C18-C19
26	Y	101	CDL	C71-CB7-OB8-CB6
19	B	307	LFA	C1-C2-C3-C4
28	G	101	PEK	C29-C30-C31-C32
22	P	303	PGV	C02-C03-O11-P
19	C	310	LFA	C7-C8-C9-C10
20	C	324	DMU	C19-C18-O16-C6
19	P	311	LFA	C4-C5-C6-C7
20	B	304	DMU	C34-C37-C40-C43
26	Y	101	CDL	C61-C62-C63-C64
19	C	311	LFA	C3-C4-C5-C6
20	C	317	DMU	C34-C37-C40-C43
26	L	101	CDL	CB3-CB4-CB6-OB8
26	Y	101	CDL	CB3-CB4-CB6-OB8
22	A	614	PGV	C29-C30-C31-C32
19	C	307	LFA	C3-C4-C5-C6
20	A	615	DMU	C28-C31-C34-C37
20	B	308	DMU	C31-C34-C37-C40
26	Y	101	CDL	C58-C59-C60-C61
20	C	320	DMU	C18-C19-C22-C25
20	H	101	DMU	C28-C31-C34-C37
26	I	101	CDL	C20-C21-C22-C23
26	Y	101	CDL	OB9-CB7-OB8-CB6
28	G	101	PEK	C9-C10-C11-C12
28	T	102	PEK	C11-C10-C9-C8
20	M	101	DMU	O6-C11-C9-O1
19	A	607	LFA	C7-C8-C9-C10
20	C	316	DMU	C3-C4-C57-O61

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Mol	Chain	Res	Type	Atoms
26	N	606	CDL	OA5-CA3-CA4-OA6
19	C	312	LFA	C6-C7-C8-C9
26	C	304	CDL	C71-C72-C73-C74
26	N	606	CDL	C12-C13-C14-C15
19	C	309	LFA	C6-C7-C8-C9
20	M	102	DMU	C34-C37-C40-C43
26	L	101	CDL	C15-C16-C17-C18
19	C	311	LFA	C6-C7-C8-C9
26	L	101	CDL	OB6-CB4-CB6-OB8
28	T	102	PEK	C32-C33-C34-C35
19	N	608	LFA	C6-C7-C8-C9
26	C	304	CDL	CB2-C1-CA2-OA2
26	P	304	CDL	C13-C14-C15-C16
20	O	306	DMU	C22-C25-C28-C31
26	I	101	CDL	C12-C13-C14-C15
20	C	318	DMU	C28-C31-C34-C37
20	P	316	DMU	C19-C22-C25-C28
20	C	325	DMU	O6-C11-C9-O1
19	G	104	LFA	C6-C7-C8-C9
19	G	104	LFA	C9-C10-C11-C12
22	C	303	PGV	C02-C03-O11-P
26	N	606	CDL	C1-CA2-OA2-PA1
22	N	616	PGV	C11-C10-C9-C8
19	C	309	LFA	C13-C14-C15-C16
19	C	326	LFA	C4-C5-C6-C7
20	O	306	DMU	C25-C28-C31-C34
22	C	303	PGV	C25-C26-C27-C28
26	P	304	CDL	C21-C22-C23-C24
26	Y	101	CDL	C57-C58-C59-C60
28	T	102	PEK	C14-C15-C16-C17
20	B	308	DMU	C25-C28-C31-C34
26	P	304	CDL	C22-C23-C24-C25
19	T	103	LFA	C1-C2-C3-C4
20	P	318	DMU	C25-C28-C31-C34
20	C	325	DMU	O16-C18-C19-C22
19	C	313	LFA	C11-C10-C9-C8
19	C	307	LFA	C6-C7-C8-C9
26	C	304	CDL	C52-C53-C54-C55
26	N	606	CDL	C79-C80-C81-C82
26	P	304	CDL	OB5-CB3-CB4-CB6
26	L	101	CDL	C57-C58-C59-C60
26	C	304	CDL	C33-C34-C35-C36

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Mol	Chain	Res	Type	Atoms
19	C	312	LFA	C10-C11-C12-C13
20	B	303	DMU	C28-C31-C34-C37
20	P	317	DMU	C34-C37-C40-C43
19	P	309	LFA	C14-C15-C16-C17
19	P	309	LFA	C7-C8-C9-C10
26	P	304	CDL	OB5-CB3-CB4-OB6
26	Y	101	CDL	OA5-CA3-CA4-OA6
20	A	609	DMU	O5-C4-C57-O61
19	G	104	LFA	C3-C4-C5-C6
19	C	315	LFA	C11-C10-C9-C8
19	T	101	LFA	C3-C4-C5-C6
26	L	101	CDL	O1-C1-CB2-OB2
20	P	315	DMU	C31-C34-C37-C40
26	P	304	CDL	OB6-CB4-CB6-OB8
26	N	606	CDL	C32-C33-C34-C35
19	G	104	LFA	C1-C2-C3-C4
20	O	307	DMU	C28-C31-C34-C37
20	Z	101	DMU	C34-C37-C40-C43
20	Z	102	DMU	C19-C22-C25-C28
19	P	310	LFA	C5-C6-C7-C8
19	C	310	LFA	C2-C3-C4-C5
22	C	303	PGV	C13-C14-C15-C16
24	C	305	CHD	C21-C20-C22-C23
19	C	311	LFA	C11-C10-C9-C8
19	T	101	LFA	C11-C12-C13-C14
14	A	602	HEA	C2D-C3D-CAD-CBD
20	T	105	DMU	C18-C19-C22-C25
26	I	101	CDL	C32-C33-C34-C35
26	L	101	CDL	C51-C52-C53-C54
20	P	314	DMU	C19-C22-C25-C28
20	U	101	DMU	C25-C28-C31-C34
26	Y	101	CDL	C1-CA2-OA2-PA1
19	P	309	LFA	C11-C12-C13-C14
26	C	304	CDL	CA3-OA5-PA1-OA3
26	I	101	CDL	CA3-OA5-PA1-OA3
26	L	101	CDL	CA2-OA2-PA1-OA3
26	L	101	CDL	CA3-OA5-PA1-OA3
26	L	101	CDL	CA3-OA5-PA1-OA4
26	L	101	CDL	CB2-OB2-PB2-OB3
26	N	606	CDL	CB2-OB2-PB2-OB4
26	P	304	CDL	CA3-OA5-PA1-OA3
26	Y	101	CDL	CB2-OB2-PB2-OB4

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Mol	Chain	Res	Type	Atoms
20	C	316	DMU	C18-C19-C22-C25
19	C	307	LFA	C11-C10-C9-C8
20	P	317	DMU	C3-C4-C57-O61
26	P	304	CDL	C71-CB7-OB8-CB6
26	N	606	CDL	OA5-CA3-CA4-CA6
26	Y	101	CDL	OA5-CA3-CA4-CA6
19	C	326	LFA	C3-C4-C5-C6
20	P	306	DMU	C31-C34-C37-C40
26	L	101	CDL	C19-C20-C21-C22
19	C	315	LFA	C1-C2-C3-C4
26	P	304	CDL	CA2-C1-CB2-OB2
20	U	101	DMU	C22-C25-C28-C31
20	C	324	DMU	C18-C19-C22-C25
20	P	317	DMU	O6-C11-C9-C8
28	T	102	PEK	C2-C1-O01-C02
20	J	101	DMU	C31-C34-C37-C40
20	Z	102	DMU	C34-C37-C40-C43
20	Z	103	DMU	C22-C25-C28-C31
26	L	101	CDL	C22-C23-C24-C25
28	T	102	PEK	C30-C31-C32-C33
22	P	303	PGV	C1-C2-C3-C4
26	C	304	CDL	C79-C80-C81-C82
26	C	304	CDL	OB6-CB4-CB6-OB8
26	Y	101	CDL	OA6-CA4-CA6-OA8
20	P	314	DMU	C31-C34-C37-C40
14	N	602	HEA	C4D-C3D-CAD-CBD
22	N	616	PGV	C23-C24-C25-C26
26	Y	101	CDL	C73-C74-C75-C76
20	T	105	DMU	O16-C18-C19-C22
20	M	101	DMU	C19-C22-C25-C28
19	C	312	LFA	C11-C10-C9-C8
20	C	316	DMU	C2-C3-O7-C10
19	C	311	LFA	C4-C5-C6-C7
26	Y	101	CDL	C14-C15-C16-C17
22	P	303	PGV	C22-C23-C24-C25
26	C	304	CDL	C51-C52-C53-C54
20	C	316	DMU	C4-C3-O7-C10
19	T	101	LFA	C6-C7-C8-C9
26	P	304	CDL	C20-C21-C22-C23
20	C	319	DMU	C4-C3-O7-C10
26	N	606	CDL	C52-C51-CB5-OB7
20	Z	103	DMU	C31-C34-C37-C40

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Mol	Chain	Res	Type	Atoms
26	P	304	CDL	CA7-C31-C32-C33
20	P	306	DMU	C18-C19-C22-C25
22	C	303	PGV	C05-C04-O12-P
20	B	304	DMU	O16-C18-C19-C22
20	P	318	DMU	C28-C31-C34-C37
19	C	310	LFA	C11-C12-C13-C14
28	G	101	PEK	C22-C23-C24-C25
20	C	319	DMU	O5-C6-O16-C18
20	N	610	DMU	O5-C6-O16-C18
20	J	101	DMU	C28-C31-C34-C37
20	L	102	DMU	C1-C6-O16-C18
20	P	316	DMU	C28-C31-C34-C37
20	P	318	DMU	C31-C34-C37-C40
19	C	309	LFA	C14-C15-C16-C17
26	L	101	CDL	C73-C74-C75-C76
26	I	101	CDL	CA3-CA4-CA6-OA8
20	C	319	DMU	C2-C3-O7-C10
26	C	304	CDL	C16-C17-C18-C19
24	P	305	CHD	C21-C20-C22-C23
19	O	303	LFA	C1-C2-C3-C4
20	A	615	DMU	C34-C37-C40-C43
20	H	101	DMU	O6-C11-C9-O1
20	M	102	DMU	C22-C25-C28-C31
26	Y	101	CDL	C24-C25-C26-C27
26	I	101	CDL	C77-C78-C79-C80
20	P	317	DMU	O5-C4-C57-O61
14	N	601	HEA	CAD-CBD-CGD-O1D
20	P	314	DMU	O5-C4-C57-O61
26	P	304	CDL	C19-C20-C21-C22
26	P	304	CDL	C80-C81-C82-C83
20	T	105	DMU	C22-C25-C28-C31
14	N	602	HEA	CAA-CBA-CGA-O1A
20	D	201	DMU	C28-C31-C34-C37
20	C	320	DMU	C28-C31-C34-C37
19	C	312	LFA	C5-C6-C7-C8
20	B	308	DMU	O16-C18-C19-C22
26	I	101	CDL	O1-C1-CA2-OA2
19	G	104	LFA	C7-C8-C9-C10
26	P	304	CDL	C17-C18-C19-C20
24	C	305	CHD	C22-C23-C24-O25
19	N	608	LFA	C10-C11-C12-C13
22	P	303	PGV	C05-C04-O12-P

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Mol	Chain	Res	Type	Atoms
26	N	606	CDL	CB4-CB3-OB5-PB2
26	P	304	CDL	CA4-CA3-OA5-PA1
26	P	304	CDL	C23-C24-C25-C26
14	A	601	HEA	CAD-CBD-CGD-O1D
26	C	304	CDL	C72-C71-CB7-OB8
14	N	602	HEA	CAD-CBD-CGD-O1D
24	O	301	CHD	C22-C23-C24-O25
28	T	102	PEK	C15-C16-C17-C18
19	P	309	LFA	C1-C2-C3-C4
19	C	326	LFA	C5-C6-C7-C8
22	C	303	PGV	C29-C30-C31-C32
19	P	312	LFA	C7-C8-C9-C10
24	B	306	CHD	C22-C23-C24-O26
24	P	305	CHD	C22-C23-C24-O26
26	C	304	CDL	C21-C22-C23-C24
26	P	304	CDL	OB9-CB7-OB8-CB6
20	C	306	DMU	C28-C31-C34-C37
22	C	303	PGV	C23-C24-C25-C26
26	P	304	CDL	C74-C75-C76-C77
26	Y	101	CDL	C76-C77-C78-C79
24	O	301	CHD	C22-C23-C24-O26
19	C	311	LFA	C1-C2-C3-C4
20	Q	201	DMU	O16-C18-C19-C22
22	P	303	PGV	C27-C28-C29-C30
20	B	308	DMU	C28-C31-C34-C37
14	A	602	HEA	CAA-CBA-CGA-O1A
24	P	305	CHD	C22-C23-C24-O25
26	N	606	CDL	C52-C51-CB5-OB6
28	G	101	PEK	C5-C6-C7-C8
20	Z	103	DMU	C25-C28-C31-C34
26	C	304	CDL	C74-C75-C76-C77
26	I	101	CDL	CB4-CB3-OB5-PB2
19	N	608	LFA	C9-C10-C11-C12
14	A	601	HEA	CAD-CBD-CGD-O2D
24	B	306	CHD	C22-C23-C24-O25
20	T	105	DMU	C25-C28-C31-C34
20	C	316	DMU	O1-C10-O7-C3
19	P	313	LFA	C6-C7-C8-C9
14	N	602	HEA	CAA-CBA-CGA-O2A
19	C	314	LFA	C6-C7-C8-C9
26	I	101	CDL	C15-C16-C17-C18
20	O	308	DMU	C1-C6-O16-C18

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Mol	Chain	Res	Type	Atoms
20	P	318	DMU	C1-C6-O16-C18
14	N	601	HEA	CAD-CBD-CGD-O2D
24	C	305	CHD	C22-C23-C24-O26
14	A	602	HEA	CAD-CBD-CGD-O1D
28	G	101	PEK	C23-C24-C25-C26
28	T	102	PEK	C25-C26-C27-C28
14	N	602	HEA	CAD-CBD-CGD-O2D
20	O	306	DMU	C31-C34-C37-C40
20	A	615	DMU	C25-C28-C31-C34
20	T	105	DMU	C28-C31-C34-C37
26	C	304	CDL	C13-C14-C15-C16
20	P	314	DMU	O1-C10-O7-C3
22	A	614	PGV	O03-C19-C20-C21
19	C	307	LFA	C1-C2-C3-C4
14	A	602	HEA	CAA-CBA-CGA-O2A
21	P	319	EDO	O1-C1-C2-O2
21	R	201	EDO	O1-C1-C2-O2
28	T	102	PEK	C13-C14-C15-C16
26	Y	101	CDL	C12-C13-C14-C15
26	P	304	CDL	C12-C11-CA5-OA6
14	A	602	HEA	CAD-CBD-CGD-O2D
19	O	302	LFA	C7-C8-C9-C10
19	T	101	LFA	C7-C8-C9-C10
26	P	304	CDL	C12-C13-C14-C15
19	C	315	LFA	C6-C7-C8-C9
20	C	316	DMU	C5-C10-O7-C3
26	P	304	CDL	OA5-CA3-CA4-OA6
20	C	325	DMU	C18-C19-C22-C25
20	O	304	DMU	C34-C37-C40-C43
22	N	616	PGV	O03-C19-C20-C21
20	Q	201	DMU	C25-C28-C31-C34
26	N	606	CDL	C16-C17-C18-C19
26	C	304	CDL	C11-C12-C13-C14
26	I	101	CDL	C31-CA7-OA8-CA6
22	C	303	PGV	C11-C12-C13-C14
26	P	304	CDL	C14-C15-C16-C17
20	T	105	DMU	C31-C34-C37-C40
26	C	304	CDL	C72-C73-C74-C75
19	C	314	LFA	C4-C5-C6-C7
28	T	102	PEK	O02-C1-O01-C02
24	C	301	CHD	C22-C23-C24-O26
20	P	306	DMU	C22-C25-C28-C31

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Mol	Chain	Res	Type	Atoms
26	C	304	CDL	C52-C51-CB5-OB6
26	I	101	CDL	C32-C31-CA7-OA8
26	I	101	CDL	C72-C71-CB7-OB8
26	N	606	CDL	C72-C71-CB7-OB8
20	P	317	DMU	C19-C22-C25-C28
26	P	304	CDL	C52-C51-CB5-OB6
19	C	326	LFA	C10-C11-C12-C13
20	Z	102	DMU	C22-C25-C28-C31
21	A	611	EDO	O1-C1-C2-O2
21	C	321	EDO	O1-C1-C2-O2
21	F	103	EDO	O1-C1-C2-O2
21	P	321	EDO	O1-C1-C2-O2
24	C	301	CHD	C22-C23-C24-O25
20	O	304	DMU	C22-C25-C28-C31
19	B	307	LFA	C10-C11-C12-C13
22	N	616	PGV	C15-C16-C17-C18
22	N	616	PGV	C30-C31-C32-C33
20	O	304	DMU	C18-C19-C22-C25
20	N	609	DMU	C34-C37-C40-C43
26	N	606	CDL	C11-CA5-OA6-CA4
20	D	201	DMU	C31-C34-C37-C40
19	C	313	LFA	C6-C7-C8-C9
19	C	314	LFA	C11-C10-C9-C8
20	C	325	DMU	C31-C34-C37-C40
20	B	302	DMU	C25-C28-C31-C34
20	P	317	DMU	C22-C25-C28-C31
19	C	314	LFA	C12-C13-C14-C15
19	T	104	LFA	C7-C8-C9-C10
26	C	304	CDL	C53-C54-C55-C56
26	P	304	CDL	C72-C71-CB7-OB8
19	P	313	LFA	C1-C2-C3-C4
22	A	614	PGV	C11-C12-C13-C14
28	T	102	PEK	C3-C4-C5-C6
26	I	101	CDL	C72-C71-CB7-OB9
26	P	304	CDL	C52-C51-CB5-OB7
26	L	101	CDL	C82-C83-C84-C85
26	C	304	CDL	C36-C37-C38-C39
20	P	314	DMU	C5-C10-O7-C3
26	P	304	CDL	C31-C32-C33-C34
26	L	101	CDL	C72-C71-CB7-OB9
26	N	606	CDL	C72-C71-CB7-OB9
20	O	307	DMU	C22-C25-C28-C31

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Mol	Chain	Res	Type	Atoms
20	C	325	DMU	O1-C10-O7-C3
14	A	601	HEA	CAA-CBA-CGA-O2A
24	P	301	CHD	C22-C23-C24-O25
20	C	325	DMU	C1-C6-O16-C18
26	N	606	CDL	CA2-OA2-PA1-OA3
26	Y	101	CDL	CB3-OB5-PB2-OB3
26	Y	101	CDL	C74-C75-C76-C77
24	P	301	CHD	C22-C23-C24-O26
26	C	304	CDL	C52-C51-CB5-OB7
21	C	323	EDO	O1-C1-C2-O2
21	N	613	EDO	O1-C1-C2-O2
21	R	203	EDO	O1-C1-C2-O2
19	P	312	LFA	C11-C10-C9-C8
26	C	304	CDL	C12-C11-CA5-OA7
26	I	101	CDL	C79-C80-C81-C82
26	N	606	CDL	C20-C21-C22-C23
26	I	101	CDL	C32-C31-CA7-OA9
26	N	606	CDL	CA3-CA4-OA6-CA5
26	L	101	CDL	C32-C31-CA7-OA8
19	O	302	LFA	C11-C10-C9-C8
20	B	303	DMU	C22-C25-C28-C31
14	A	601	HEA	CAA-CBA-CGA-O1A
19	C	314	LFA	C7-C8-C9-C10
22	A	614	PGV	C28-C29-C30-C31
26	P	304	CDL	C55-C56-C57-C58
14	N	602	HEA	C26-C15-C16-C17
28	T	102	PEK	O01-C1-C2-C3
26	L	101	CDL	C64-C65-C66-C67
26	L	101	CDL	C32-C31-CA7-OA9
20	C	320	DMU	C19-C18-O16-C6
20	H	101	DMU	C19-C18-O16-C6
26	P	304	CDL	C51-C52-C53-C54
26	P	304	CDL	C72-C71-CB7-OB9

There are no ring outliers.

50 monomers are involved in 154 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	N	615	EDO	1	0
20	O	304	DMU	1	0
26	L	101	CDL	4	0
14	N	602	HEA	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
14	A	602	HEA	2	0
24	O	301	CHD	1	0
19	C	315	LFA	1	0
22	P	303	PGV	1	0
26	Y	101	CDL	10	0
14	A	601	HEA	4	0
19	P	311	LFA	1	0
20	Z	101	DMU	1	0
19	C	309	LFA	2	0
19	C	313	LFA	1	0
24	P	301	CHD	2	0
22	C	303	PGV	2	0
22	N	616	PGV	2	0
20	C	320	DMU	1	0
26	C	304	CDL	24	0
20	A	608	DMU	1	0
20	A	615	DMU	1	0
20	P	322	DMU	2	0
24	C	305	CHD	2	0
20	T	105	DMU	1	0
19	A	607	LFA	7	0
19	T	101	LFA	6	0
20	A	609	DMU	1	0
19	G	104	LFA	5	0
19	O	302	LFA	3	0
21	A	611	EDO	1	0
24	P	305	CHD	3	0
26	P	304	CDL	16	0
19	C	307	LFA	3	0
26	I	101	CDL	3	0
20	H	101	DMU	1	0
26	N	606	CDL	6	0
20	C	325	DMU	3	0
20	Z	102	DMU	3	0
20	Q	201	DMU	3	0
19	P	312	LFA	2	0
28	T	102	PEK	4	0
19	C	314	LFA	3	0
20	D	201	DMU	2	0
19	P	307	LFA	1	0
20	C	324	DMU	1	0
19	P	309	LFA	2	0

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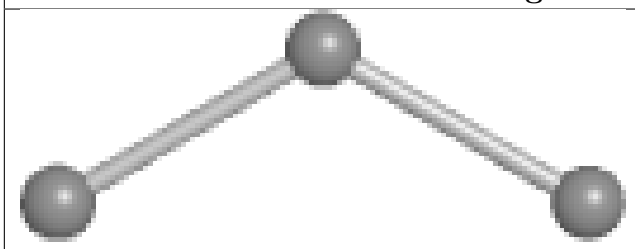
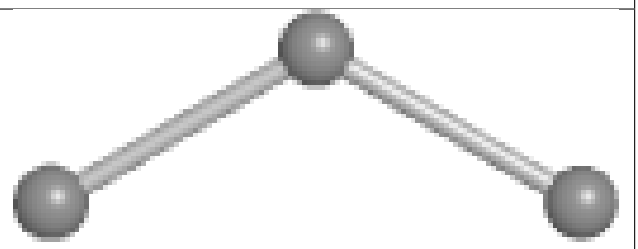
Mol	Chain	Res	Type	Clashes	Symm-Clashes
19	N	608	LFA	5	0
19	O	303	LFA	1	0
19	B	307	LFA	4	0
14	N	601	HEA	2	0

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.

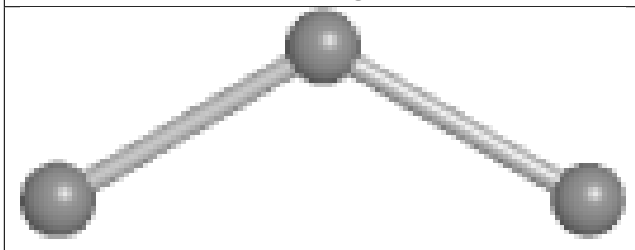
Ligand N2O A 606



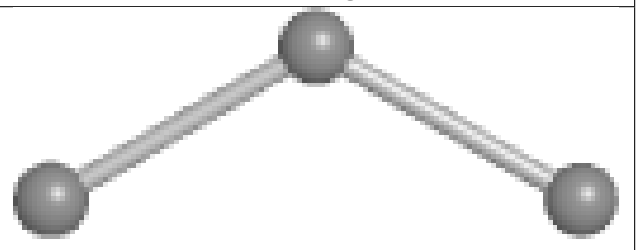
Bond lengths



Bond angles

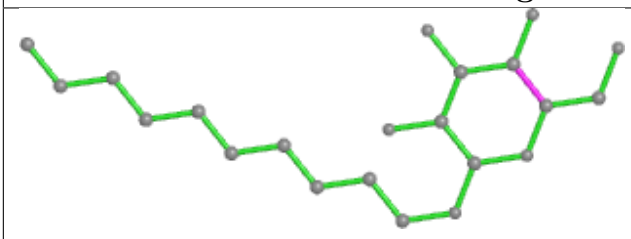


Torsions

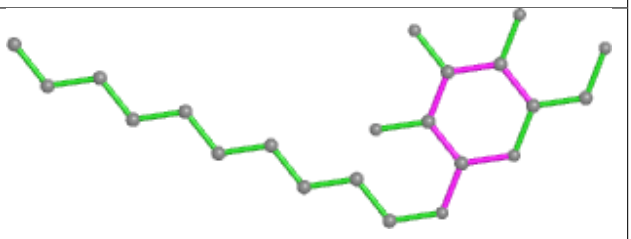


Rings

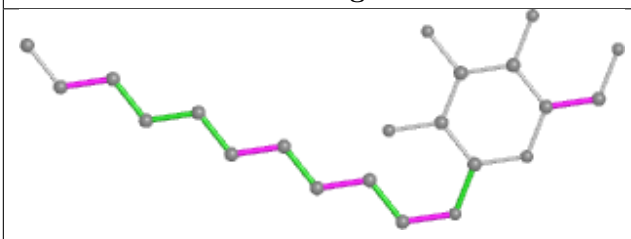
Ligand DMU O 304



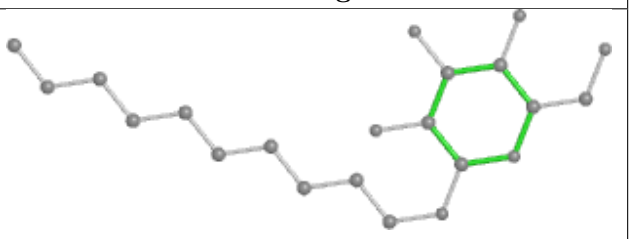
Bond lengths



Bond angles

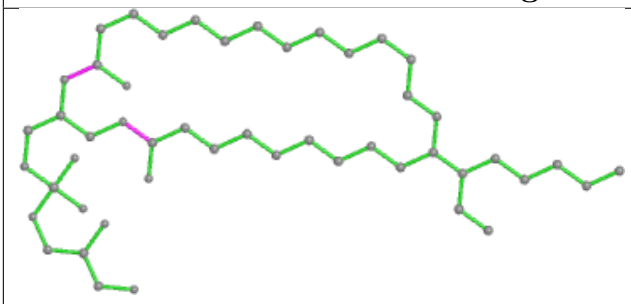


Torsions

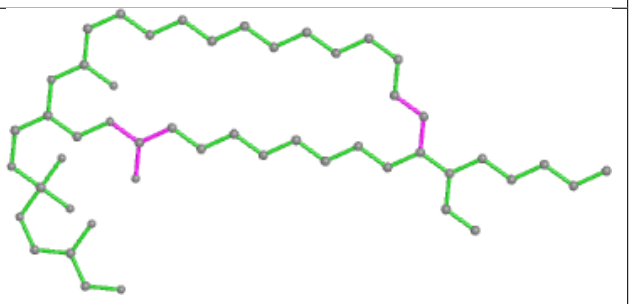


Rings

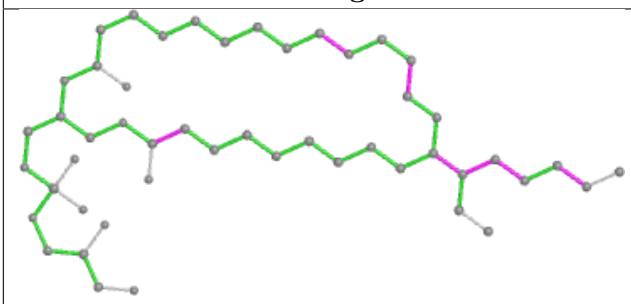
Ligand PGV A 614



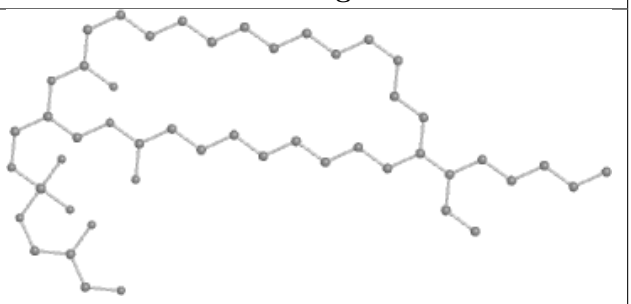
Bond lengths



Bond angles

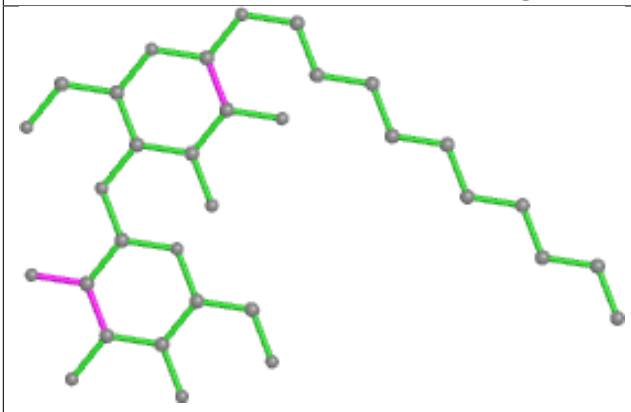


Torsions

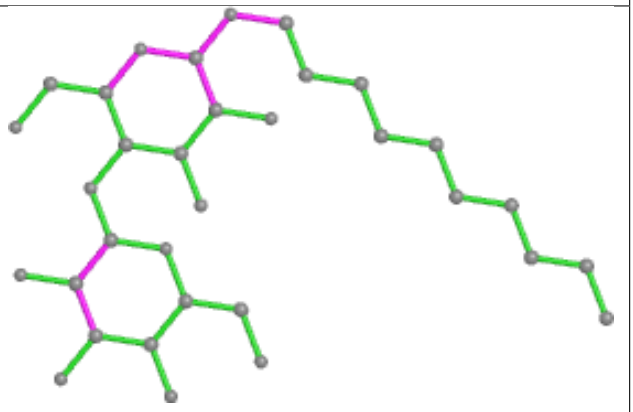


Rings

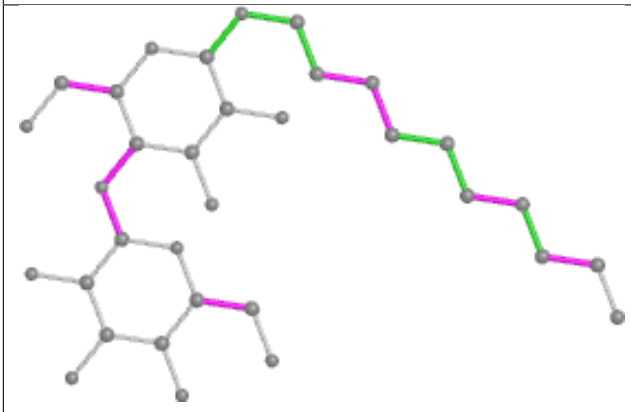
Ligand DMU C 316



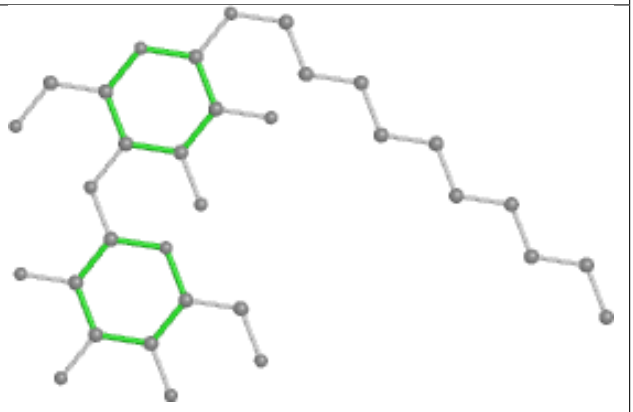
Bond lengths



Bond angles

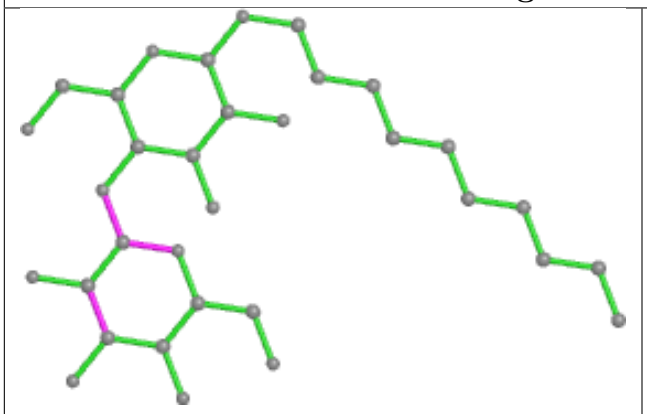


Torsions



Rings

Ligand DMU U 101



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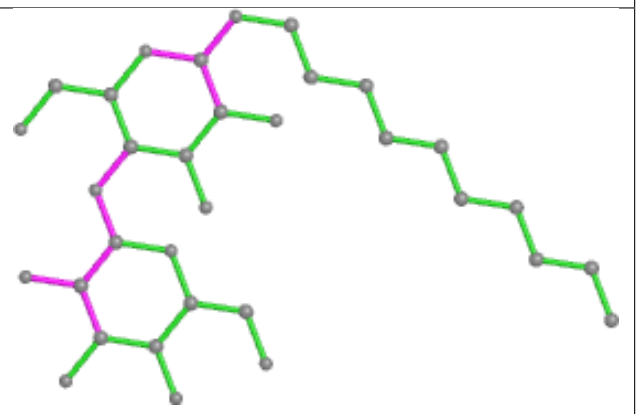
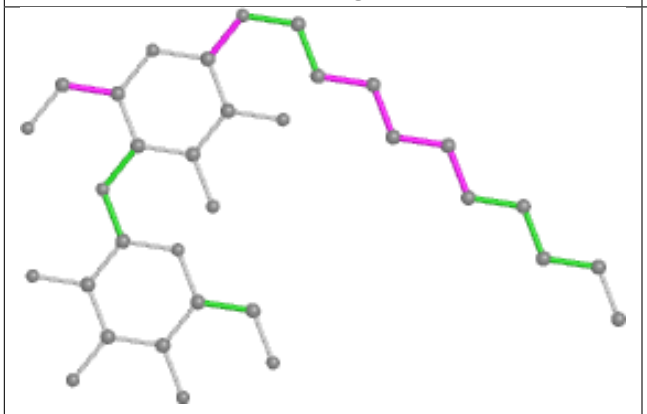
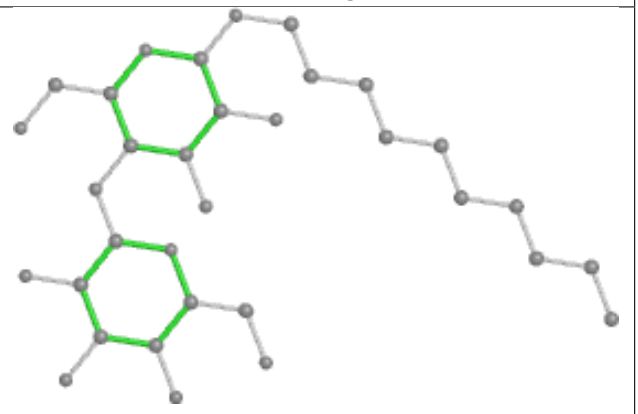


Bond angles

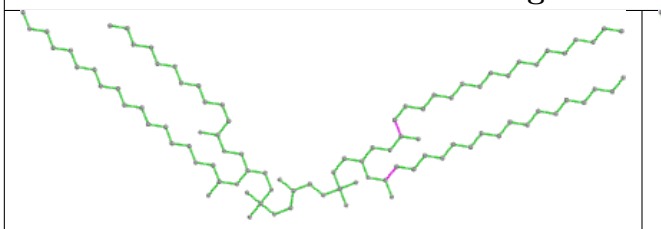


Torsions



Rings

Ligand CDL L 101



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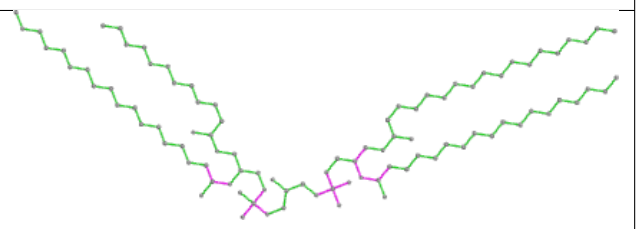
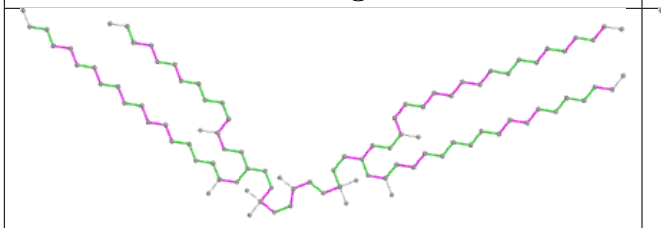
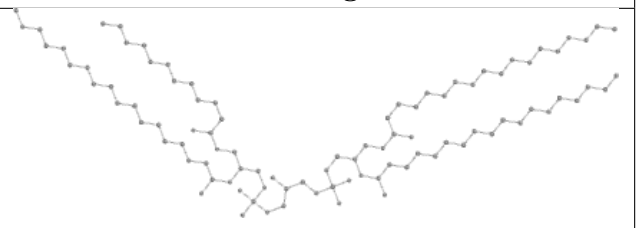


Bond angles

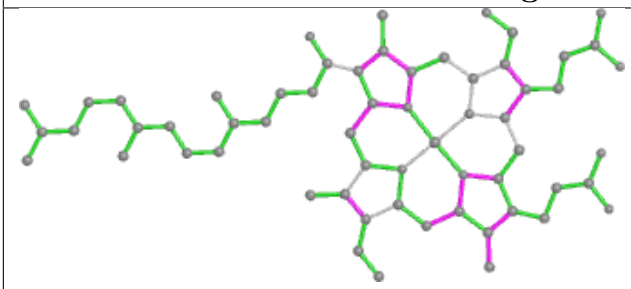


Torsions



Rings

Ligand HEA N 602



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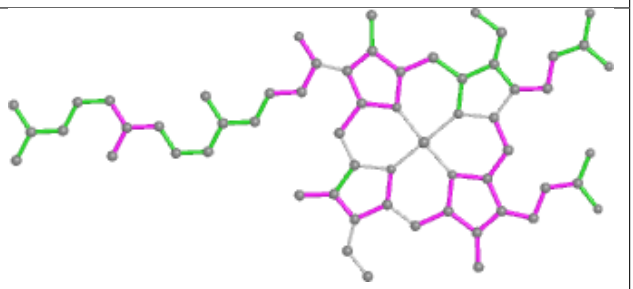
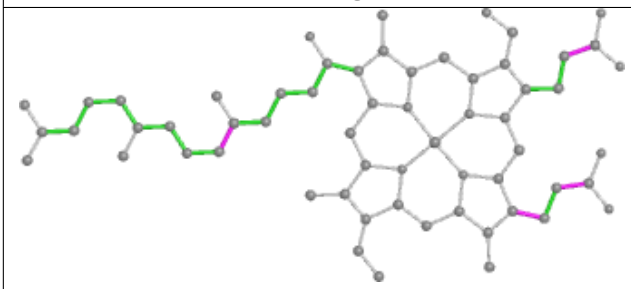


Bond angles



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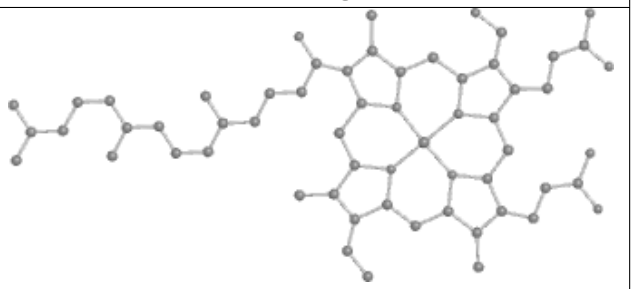
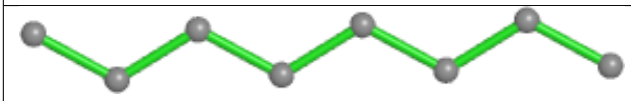


Rings

Ligand DMU Z 103



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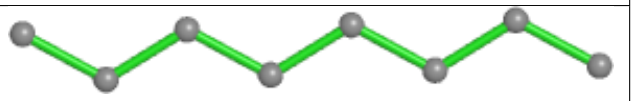
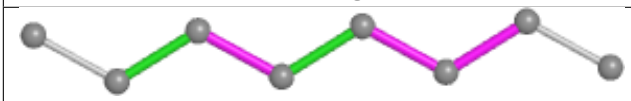


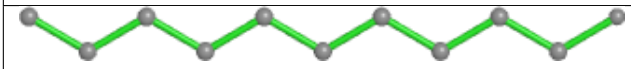
Bond angles



Torsions

Rings

Ligand DMU J 101



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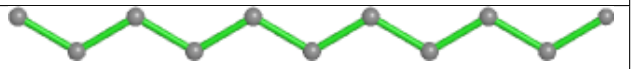

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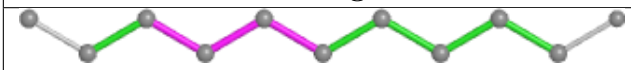
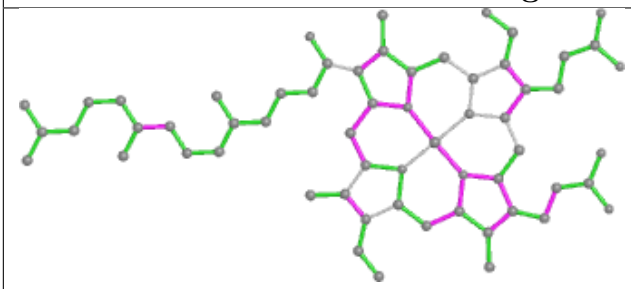


Torsions

Rings

Ligand HEA A 602



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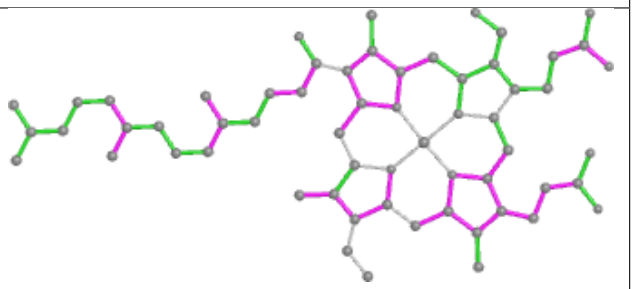
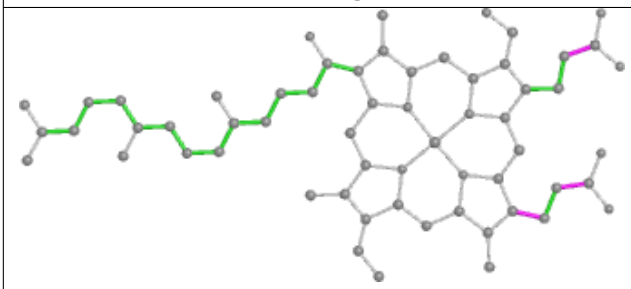


Bond angles



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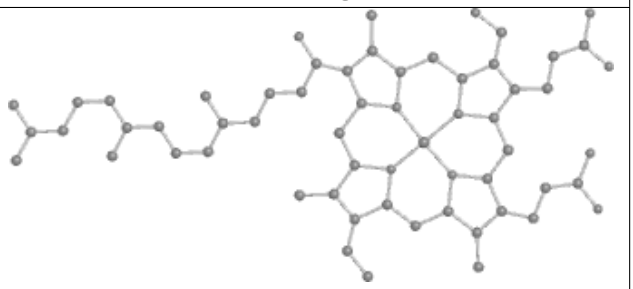
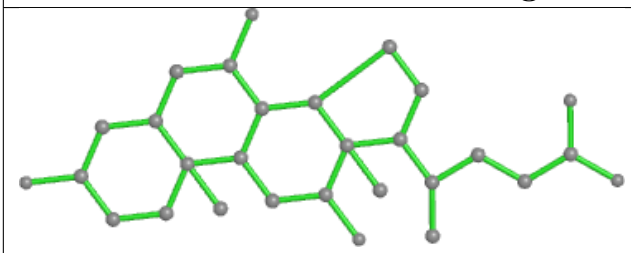


Rings

Ligand CHD O 301



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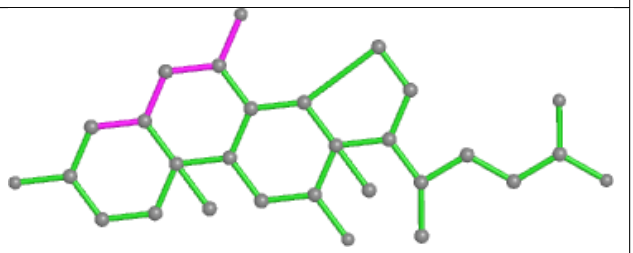
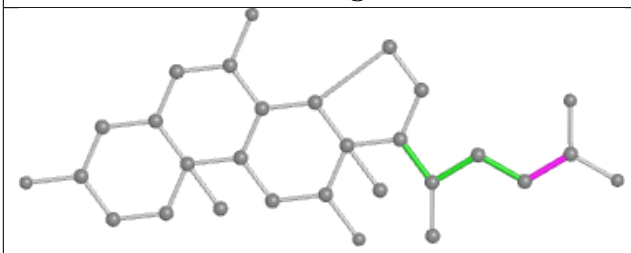


Bond angles



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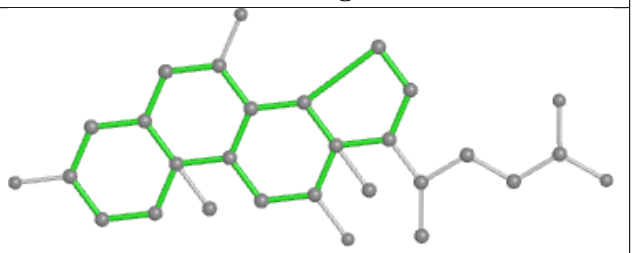
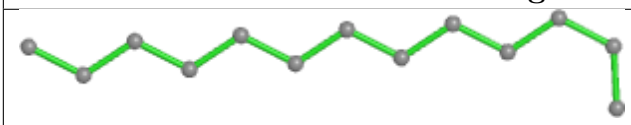


Rings

Ligand LFA C 315



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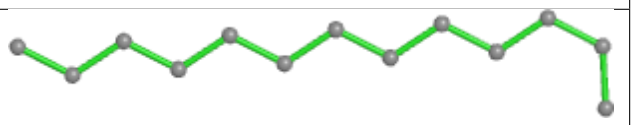
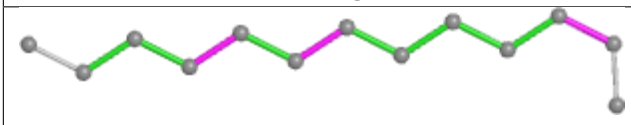
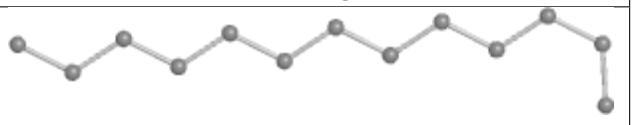


Bond angles

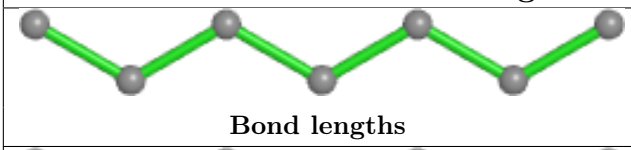


Torsions

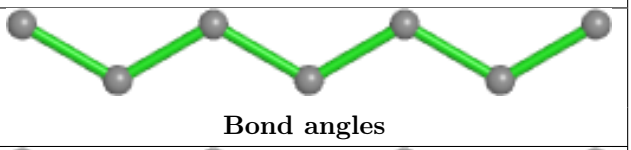


Rings

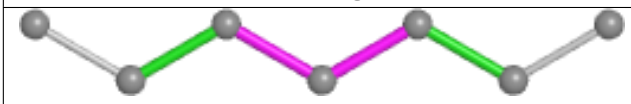
Ligand DMU P 315



Bond lengths



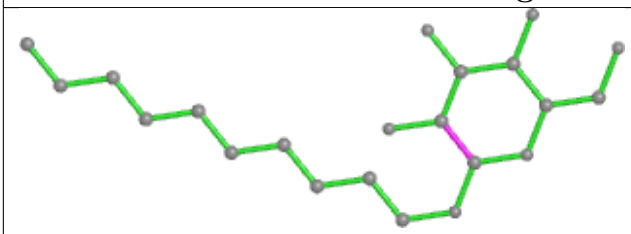
Bond angles



Torsions

Rings

Ligand DMU O 308



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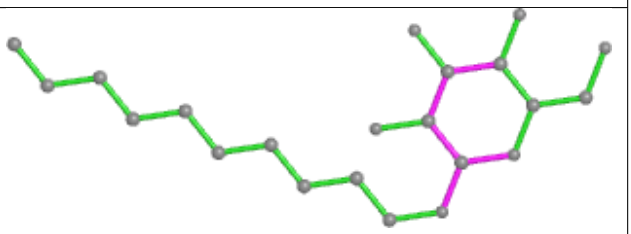
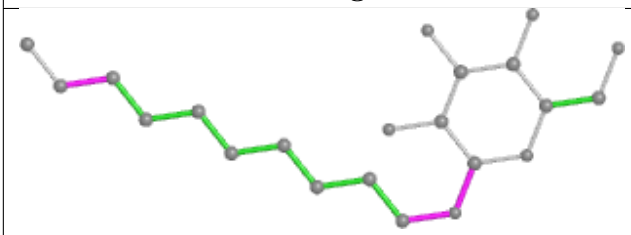
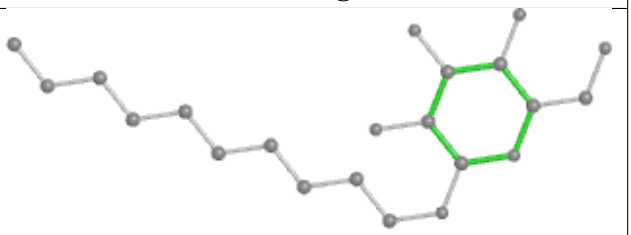


Bond angles

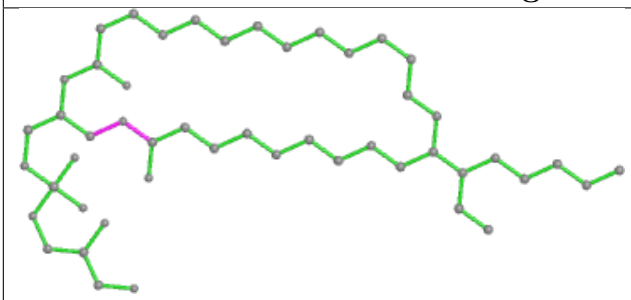


Torsions



Rings

Ligand PGV P 303



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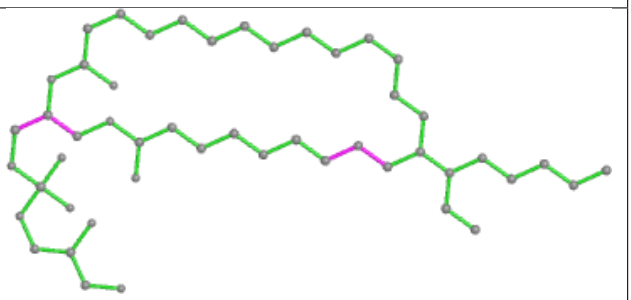
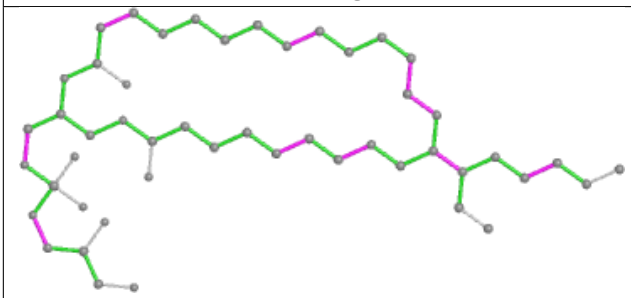


Bond angles



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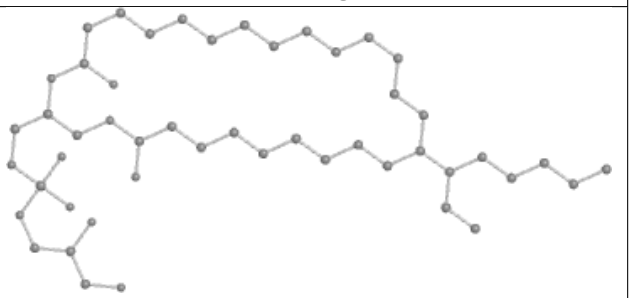
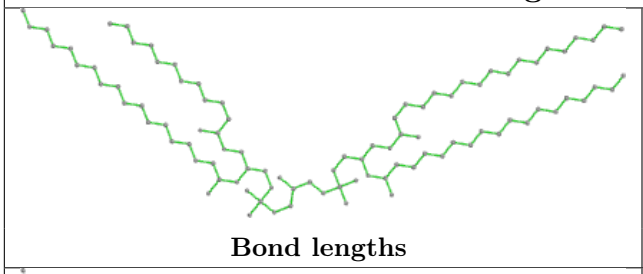
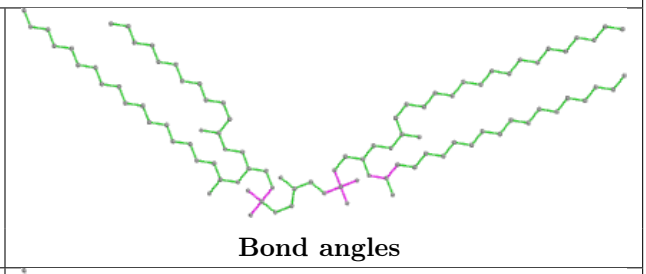
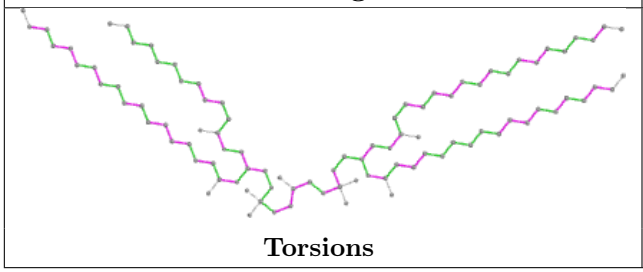


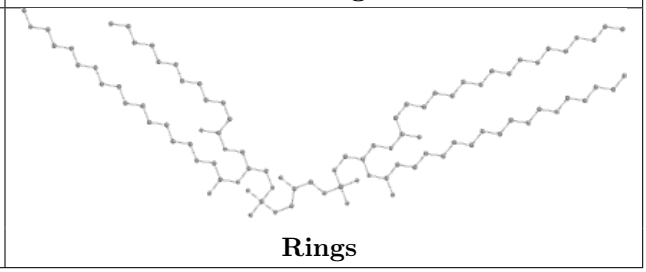
Rings

Ligand CDL Y 101

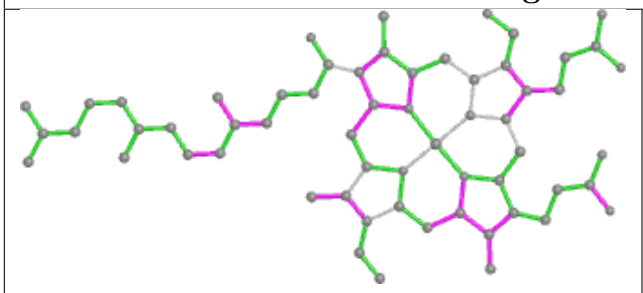

Bond lengths

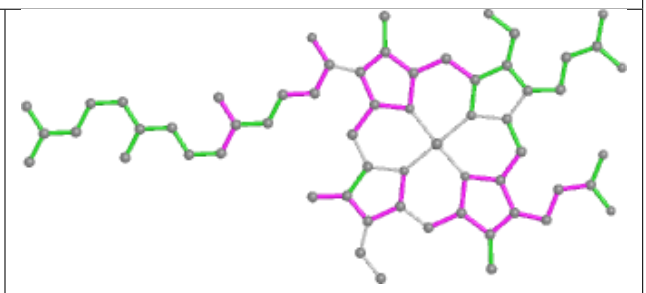

Bond angles

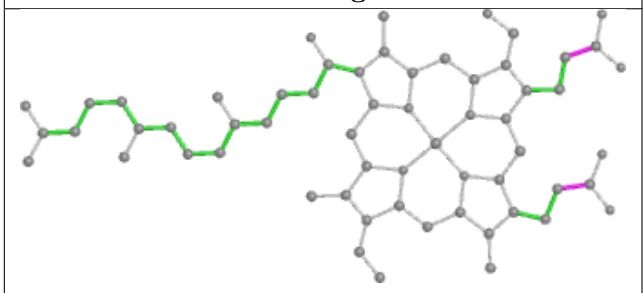

Torsions

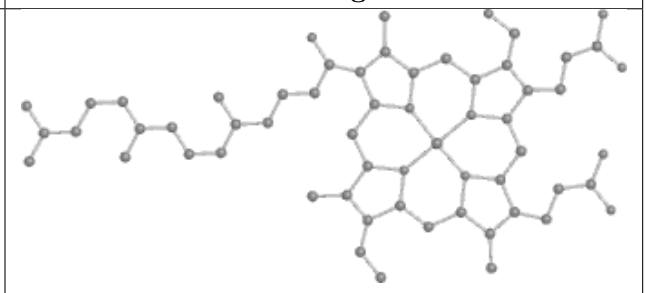

Rings

Ligand HEA A 601

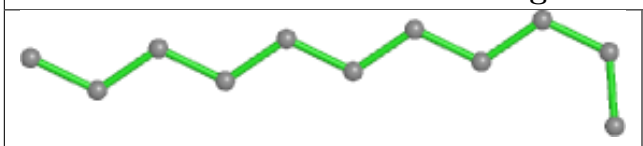

Bond lengths

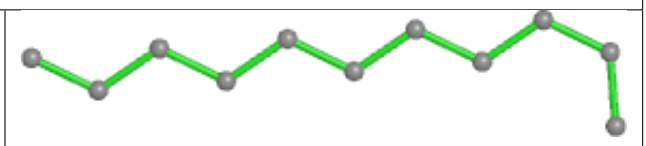

Bond angles

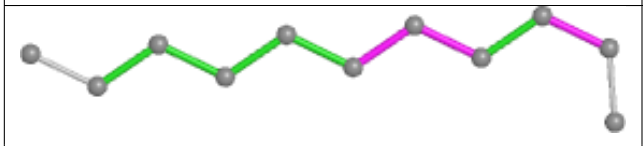

Torsions


Rings

Ligand LFA P 311


Bond lengths


Bond angles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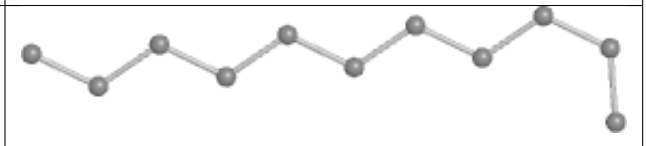
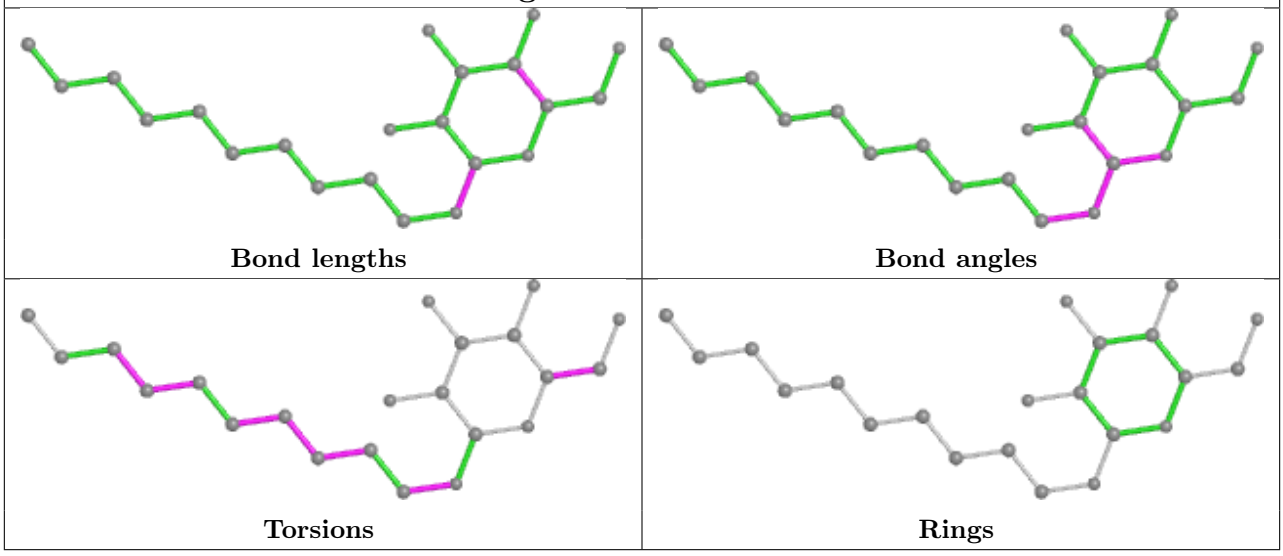
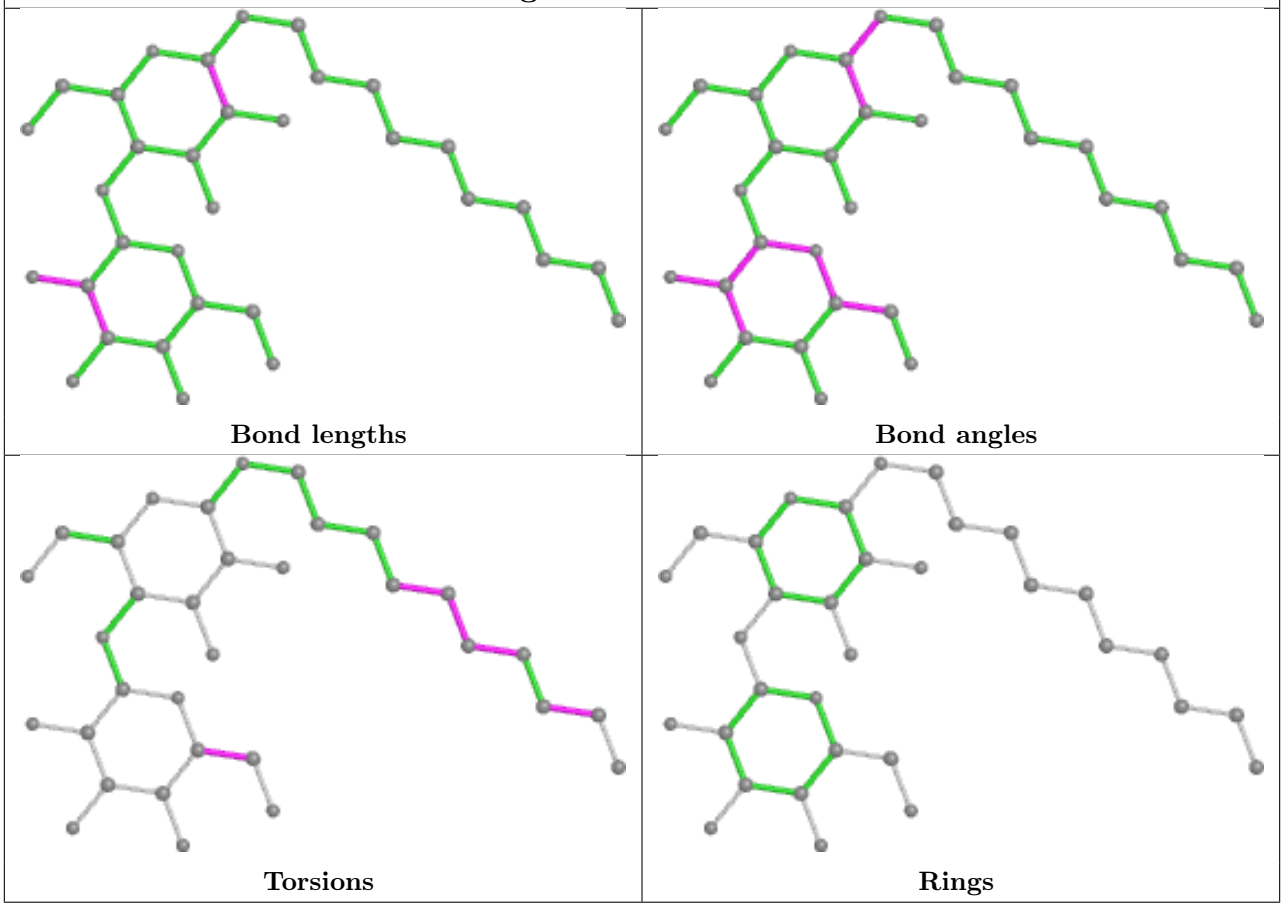

Rings

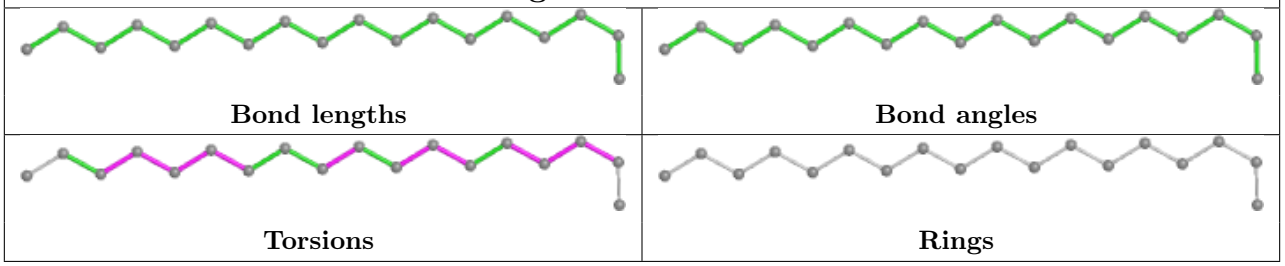
Ligand DMU P 316



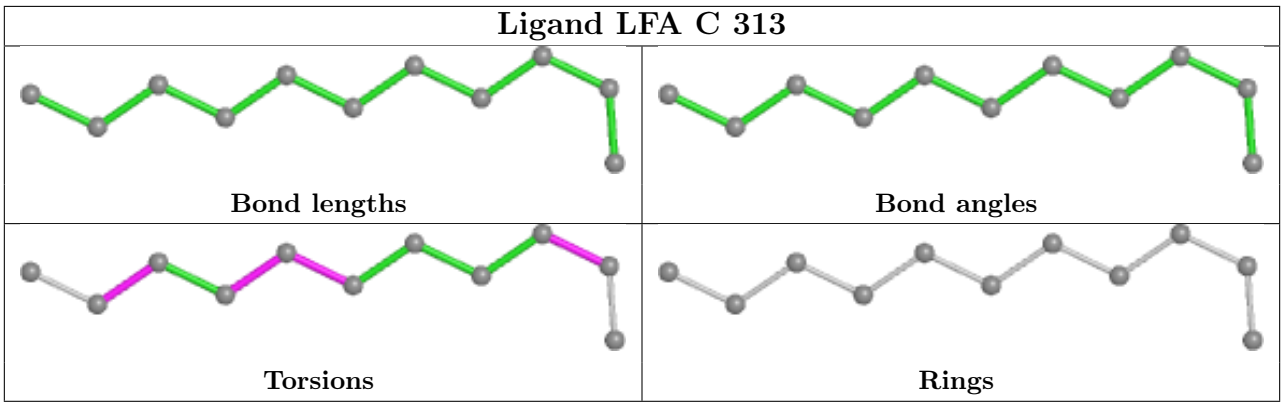
Ligand DMU Z 101



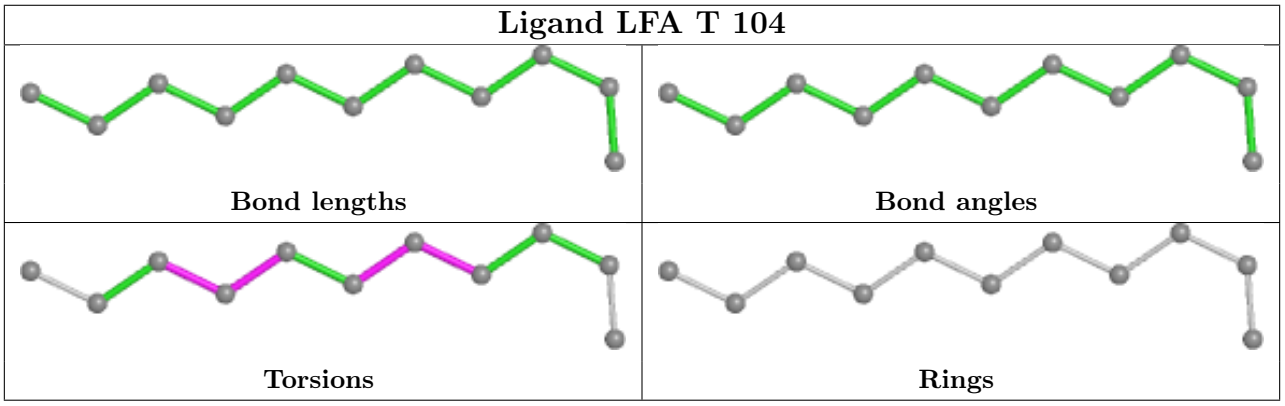
Ligand LFA C 309



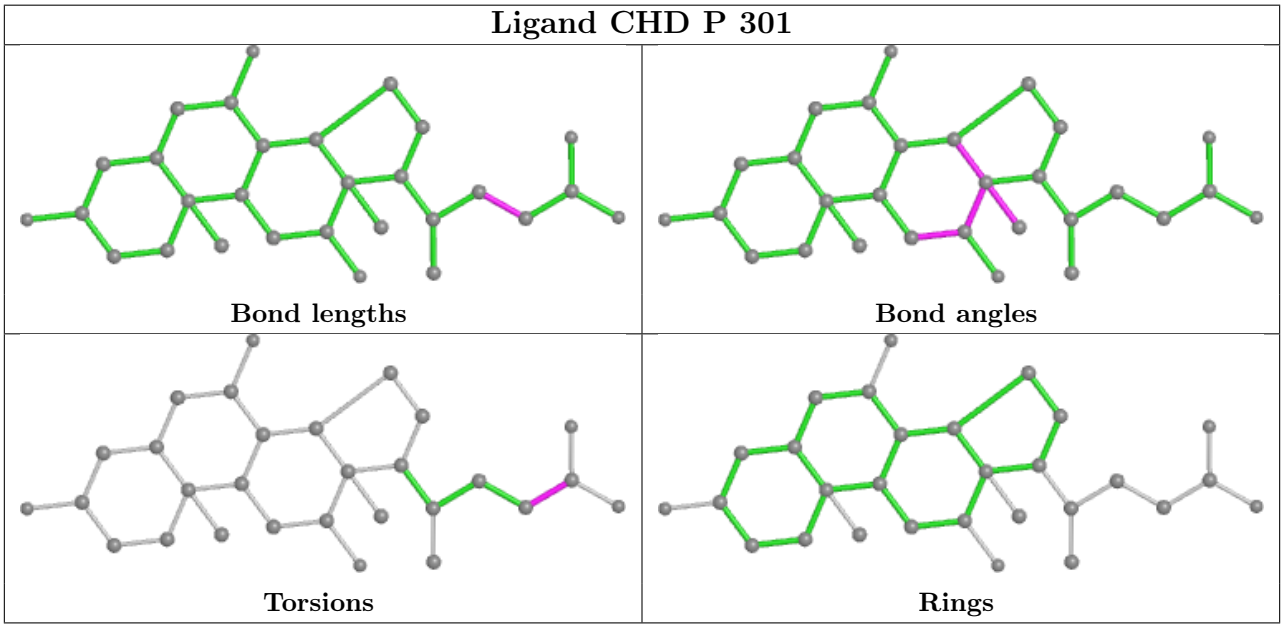
Ligand LFA C 313

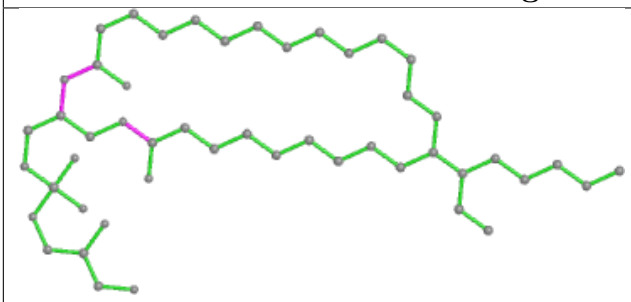
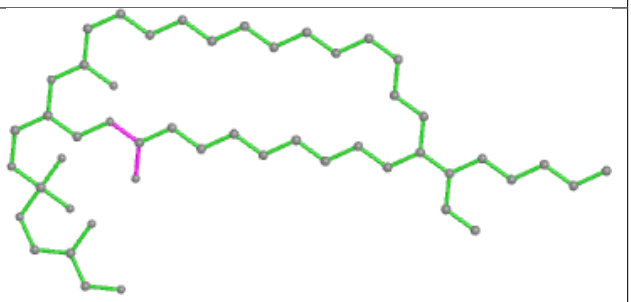
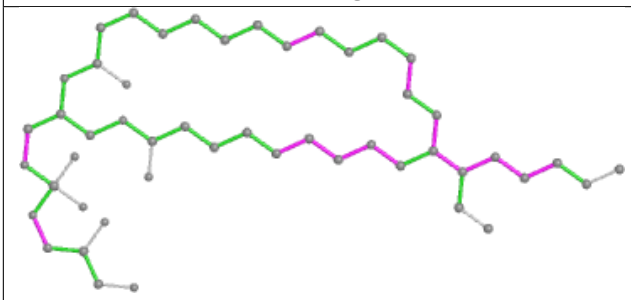
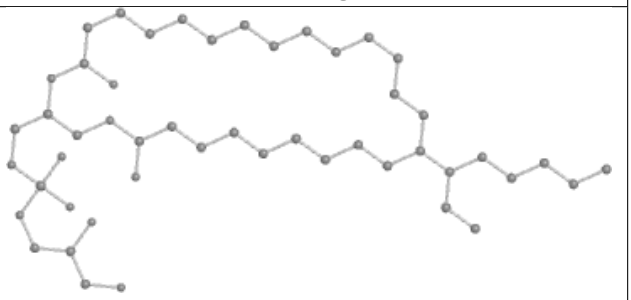


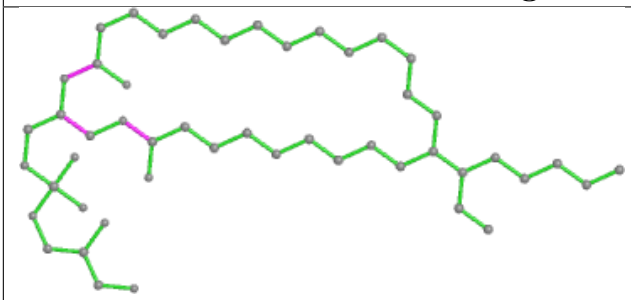
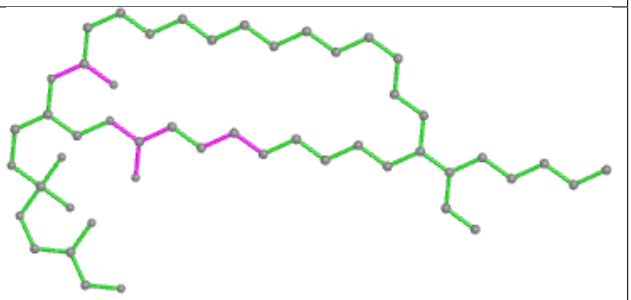
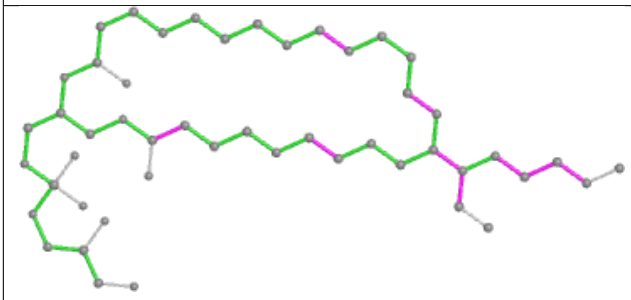
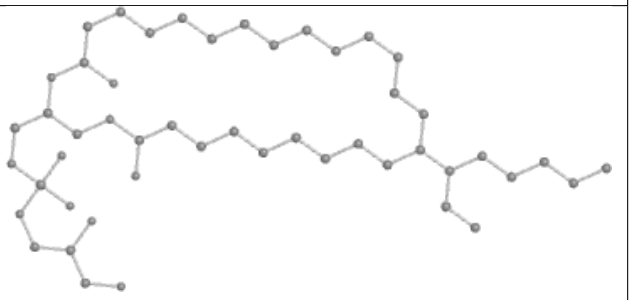
Ligand LFA T 104



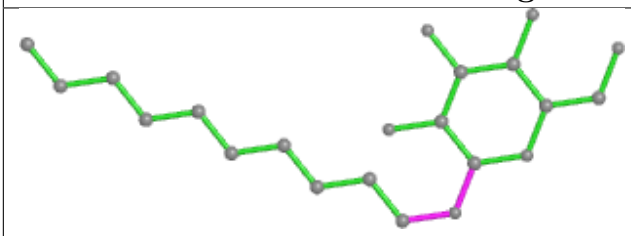
Ligand CHD P 301



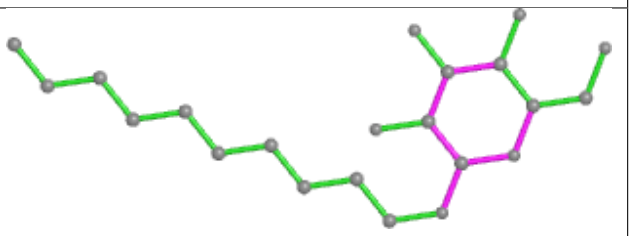
Ligand PGV C 303	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand PGV N 616	
 Bond lengths	 Bond angles
 Torsions	 Rings

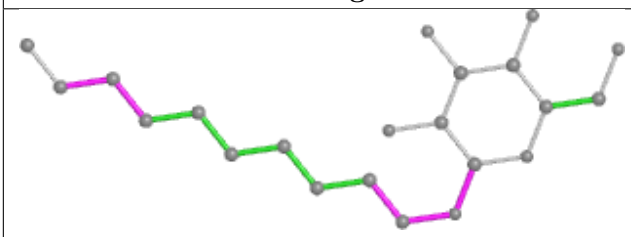
Ligand DMU B 304



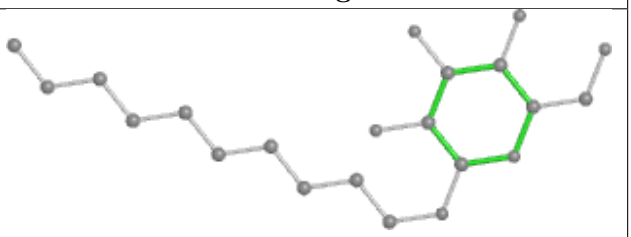
Bond lengths



Bond angles

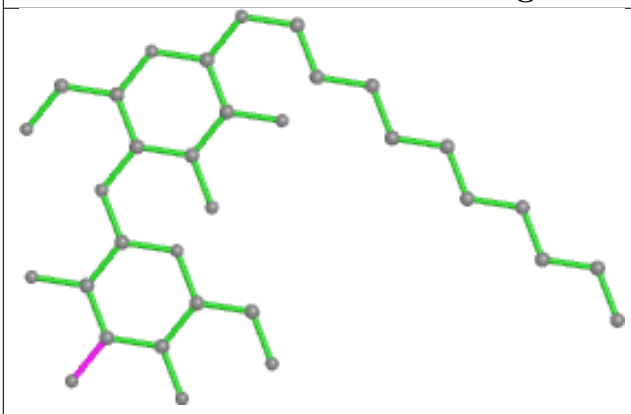


Torsions

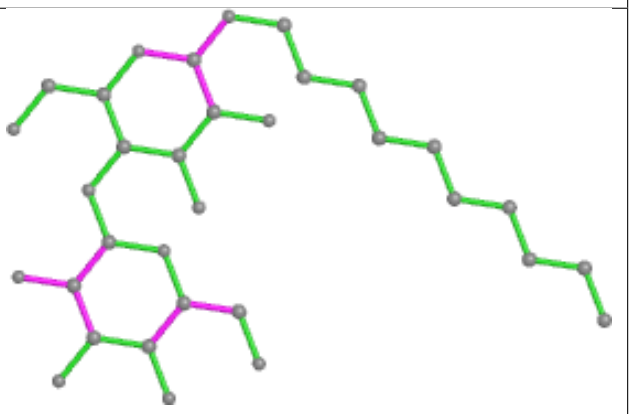


Rings

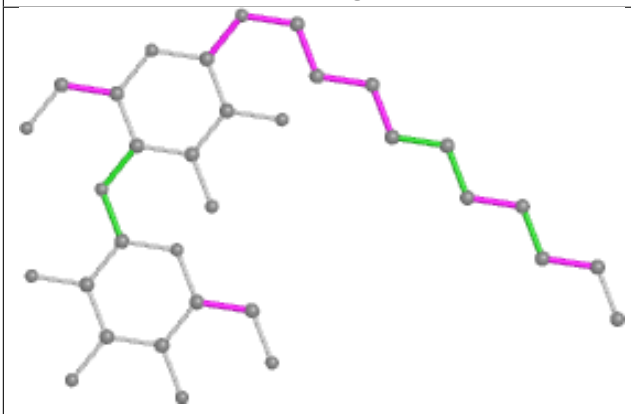
Ligand DMU C 320



Bond lengths



Bond angles



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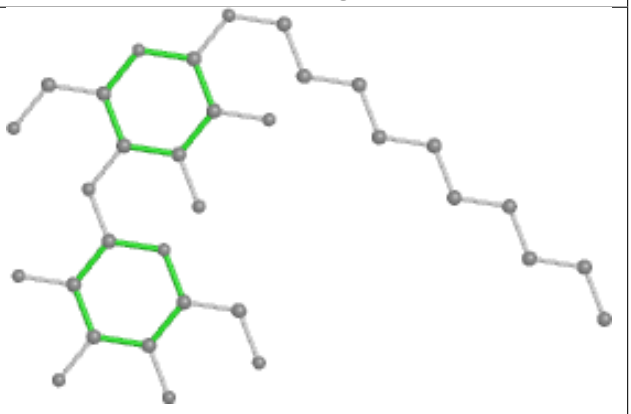
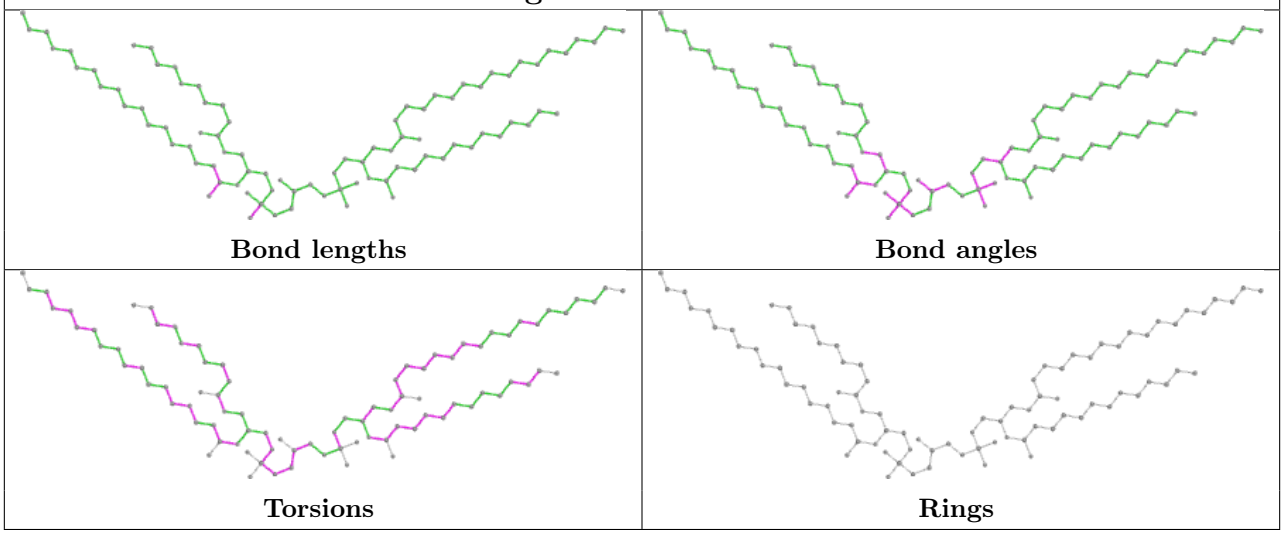
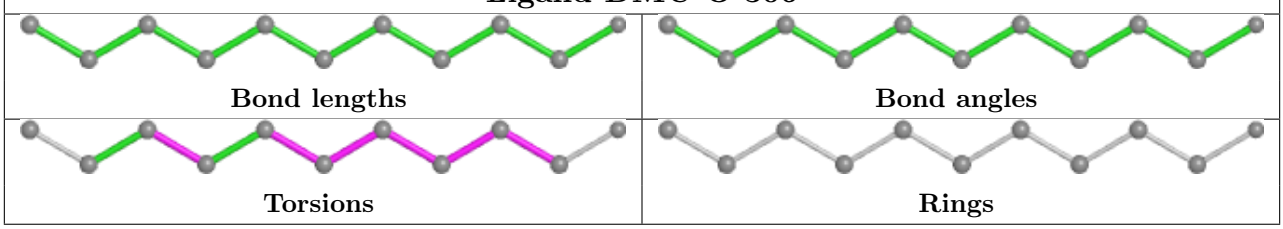


Rings

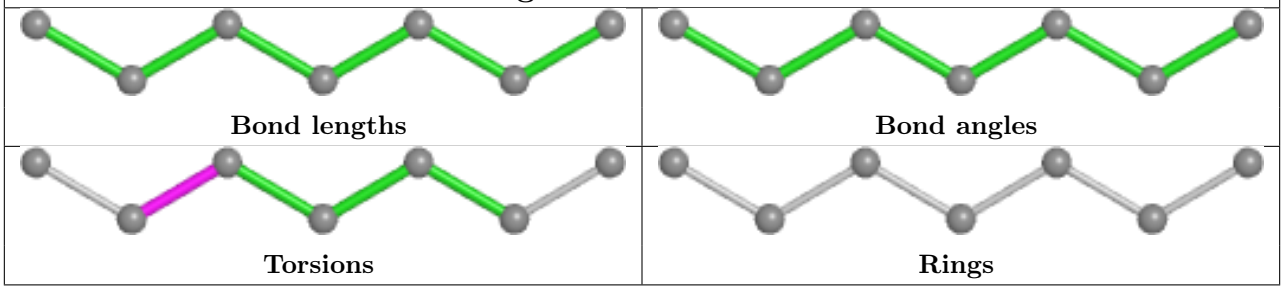
Ligand CDL C 304



Ligand DMU O 306



Ligand DMU N 609



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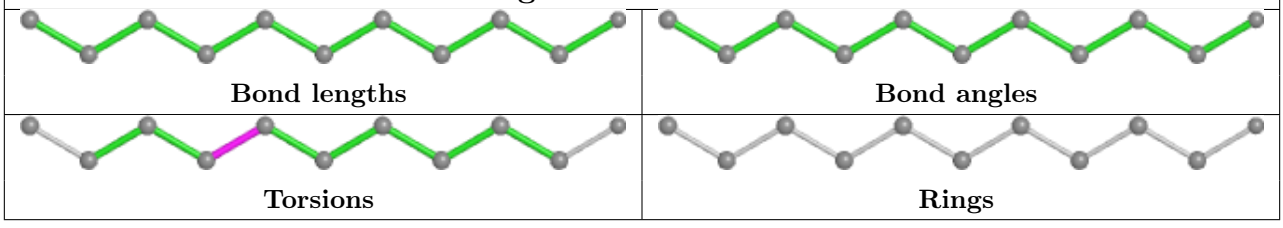
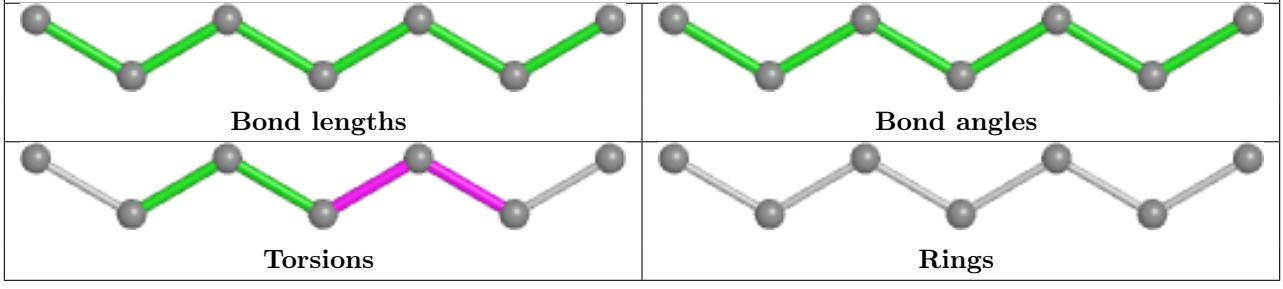
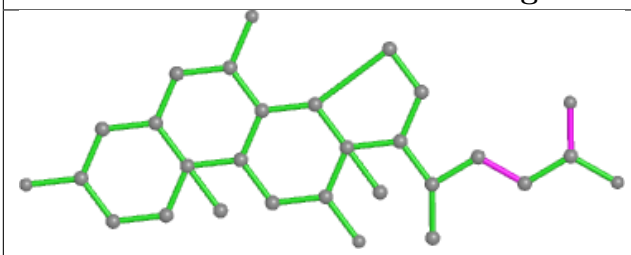


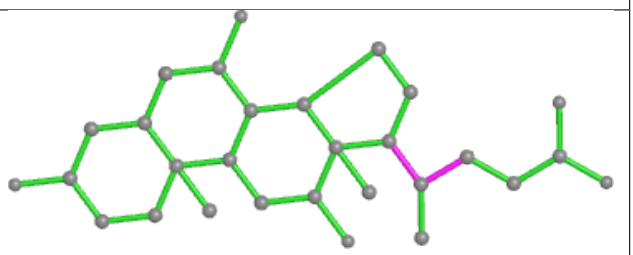
Ligand DMU A 608



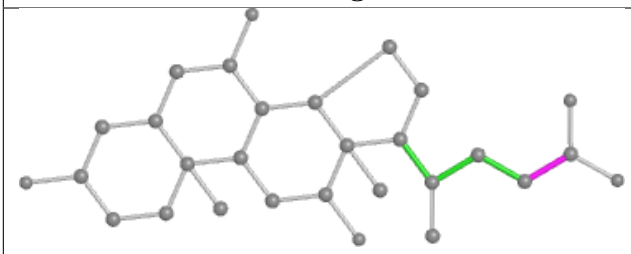
Ligand CHD C 301



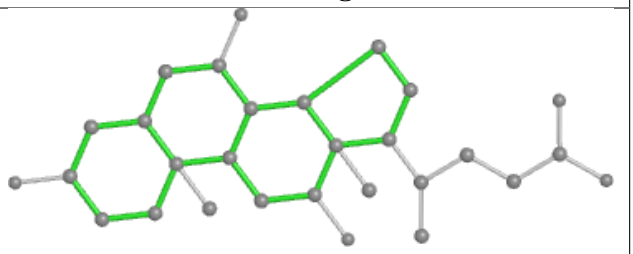
Bond lengths



Bond angles

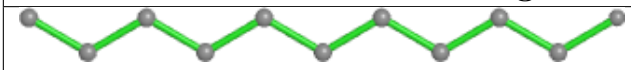


Torsions



Rings

Ligand DMU A 615



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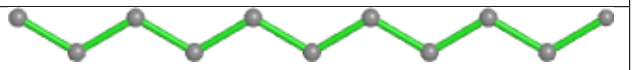
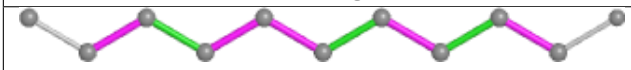


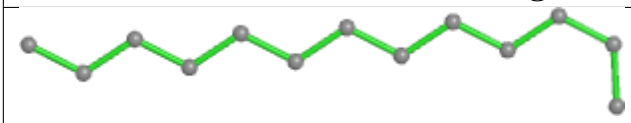
Bond angles



Torsions

Rings

Ligand LFA P 313



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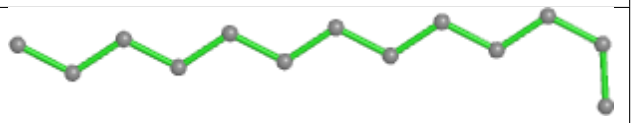
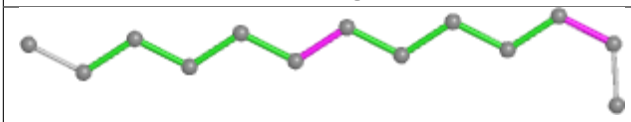
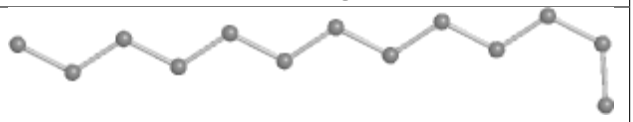


Bond angles

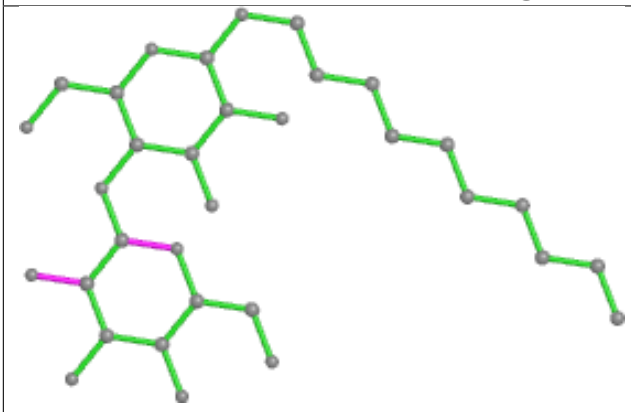


Torsions

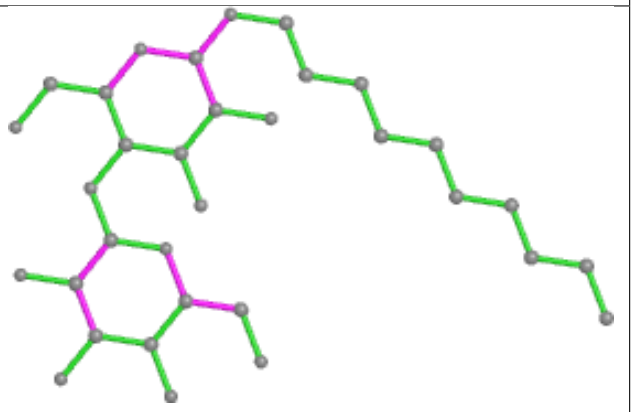


Rings

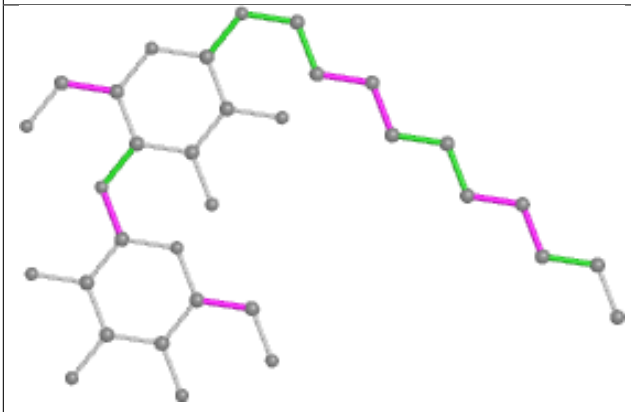
Ligand DMU P 314



Bond lengths



Bond angles



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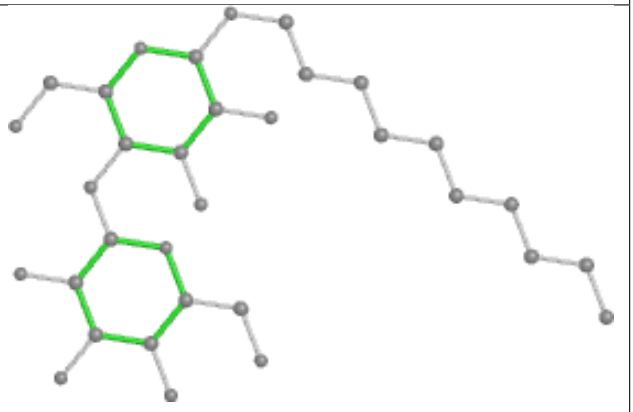
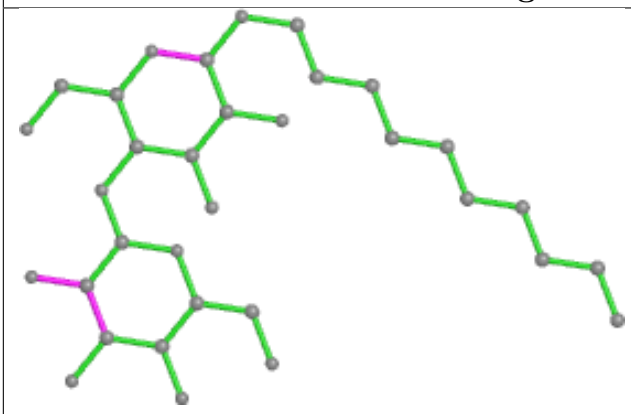


Rings

Ligand DMU P 317



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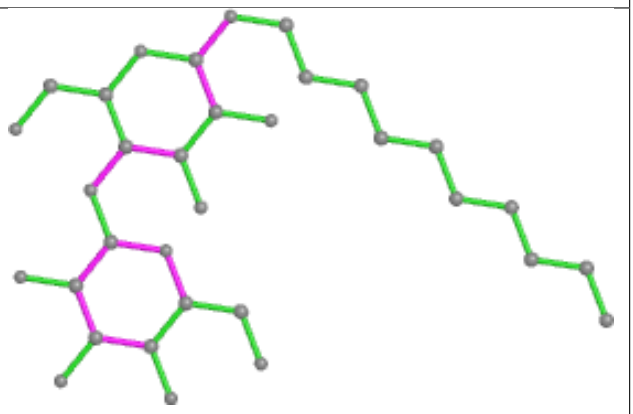
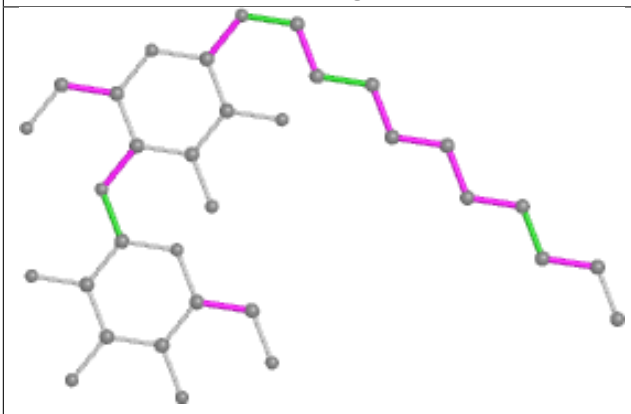


Bond angles



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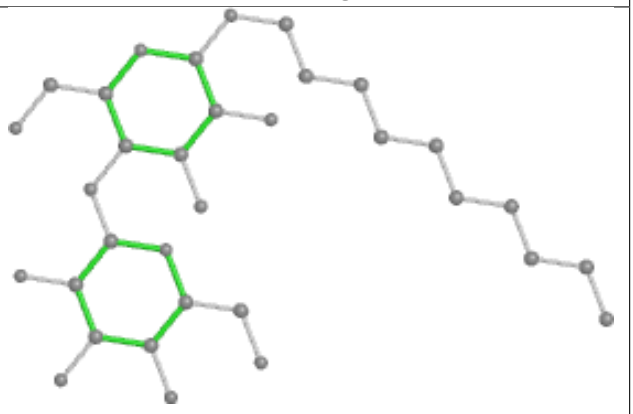
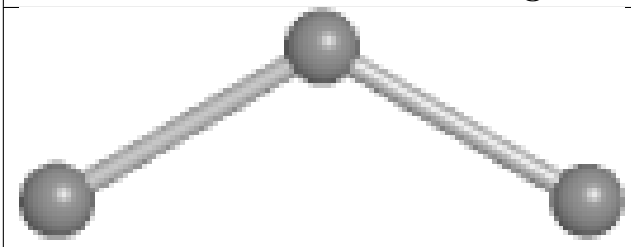
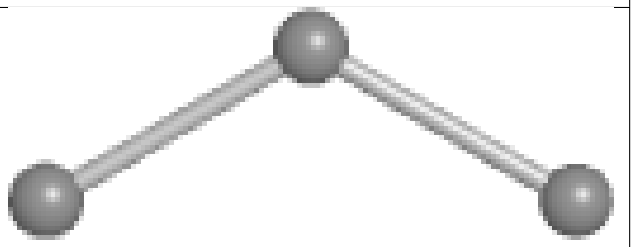


Rings

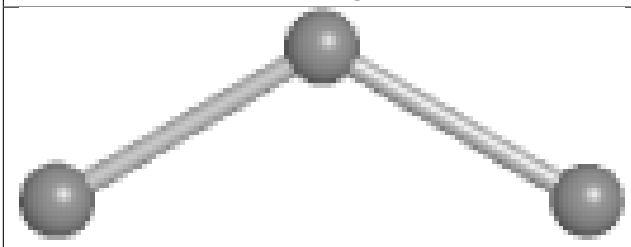
Ligand N2O N 607



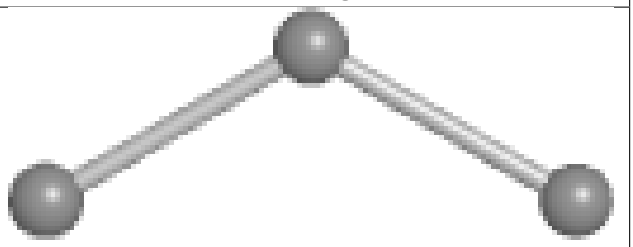
Bond lengths



Bond angles

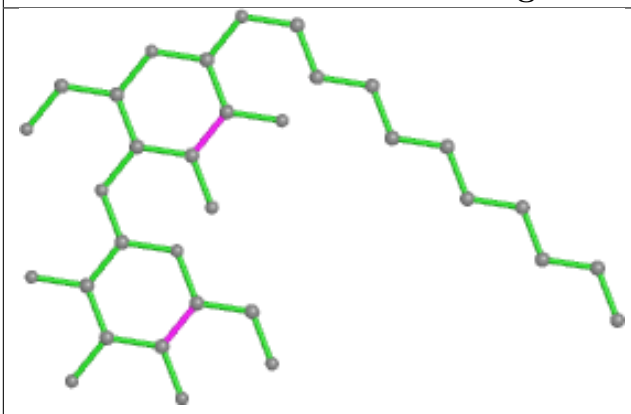


Torsions

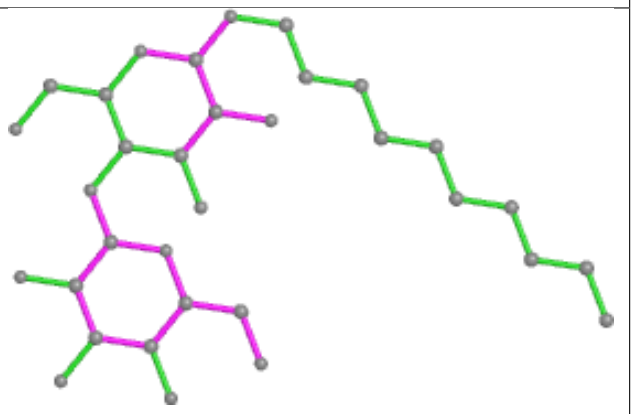


Rings

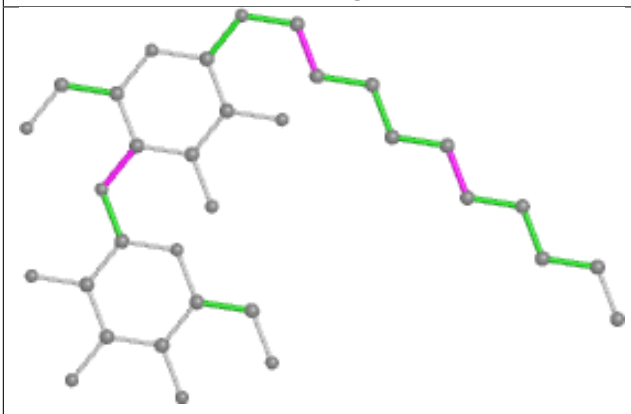
Ligand DMU P 322



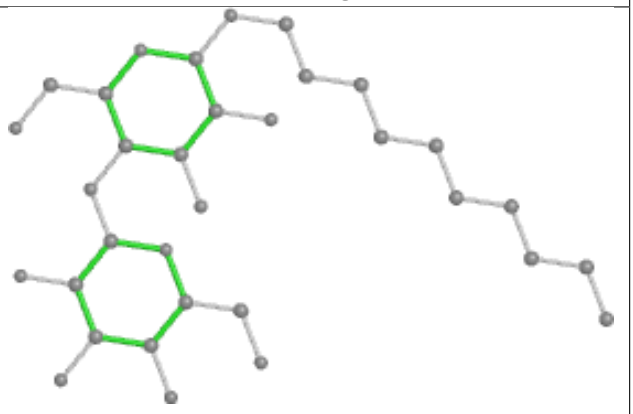
Bond lengths



Bond angles

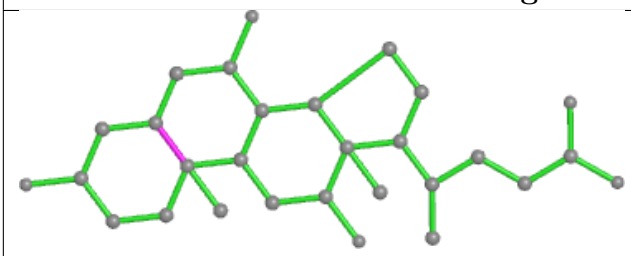


Torsions

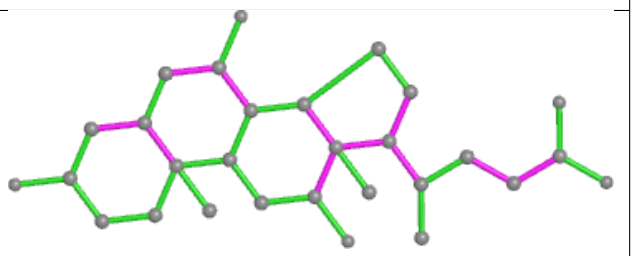


Rings

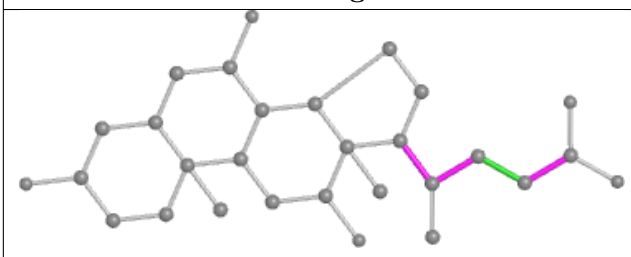
Ligand CHD C 305



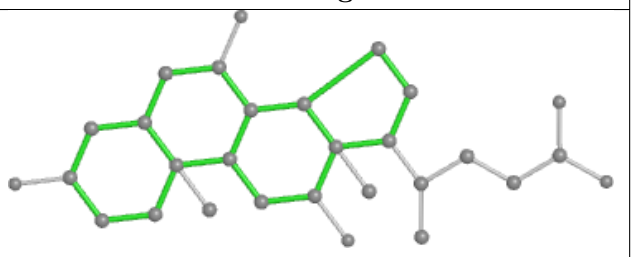
Bond lengths



Bond angles

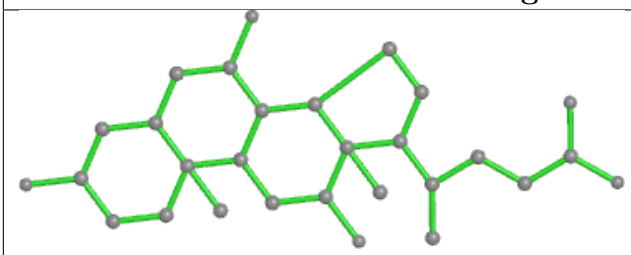


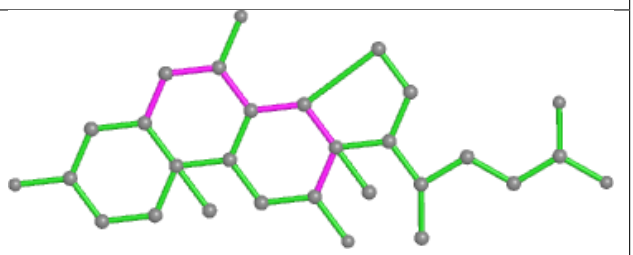
Torsions

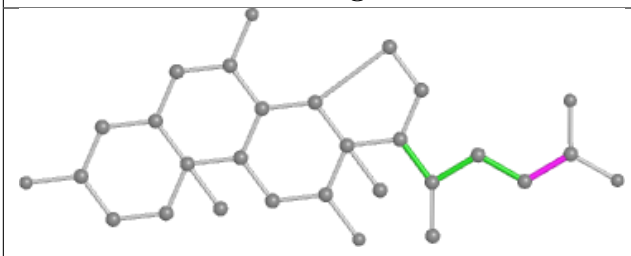


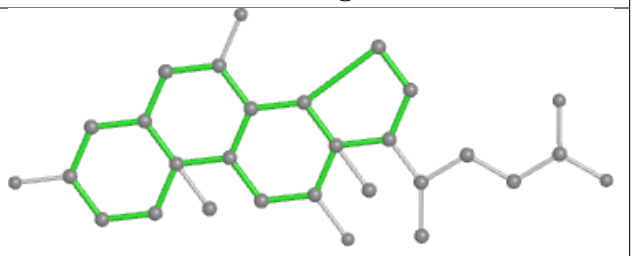
Rings

Ligand CHD B 306

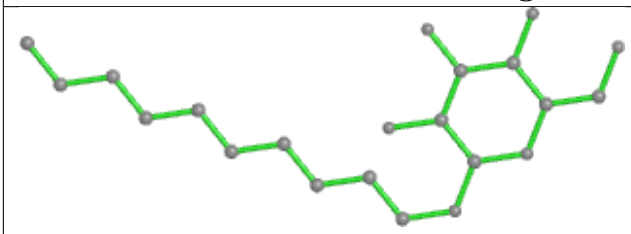

Bond lengths

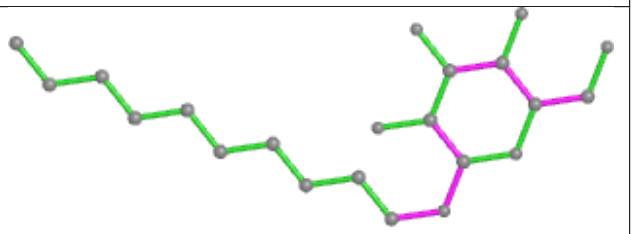

Bond angles

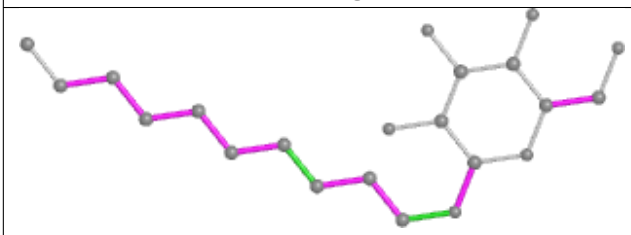

Torsions

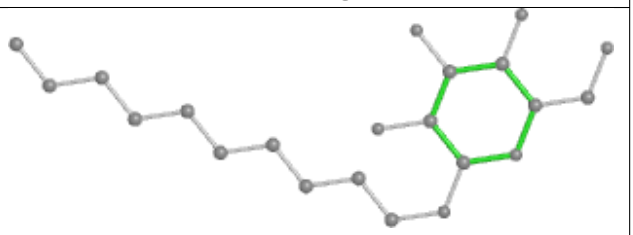

Rings

Ligand DMU T 105

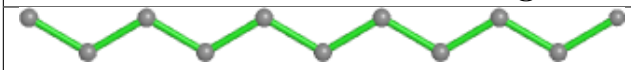

Bond lengths

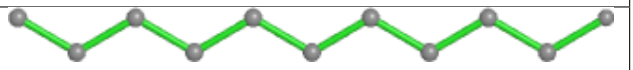

Bond angles


Torsions


Rings

Ligand DMU B 303

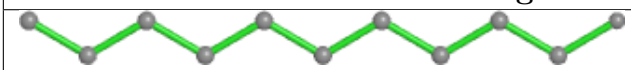

Bond lengths

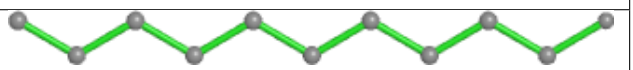

Bond angles

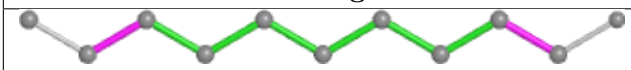

Torsions


Rings

Ligand DMU G 102

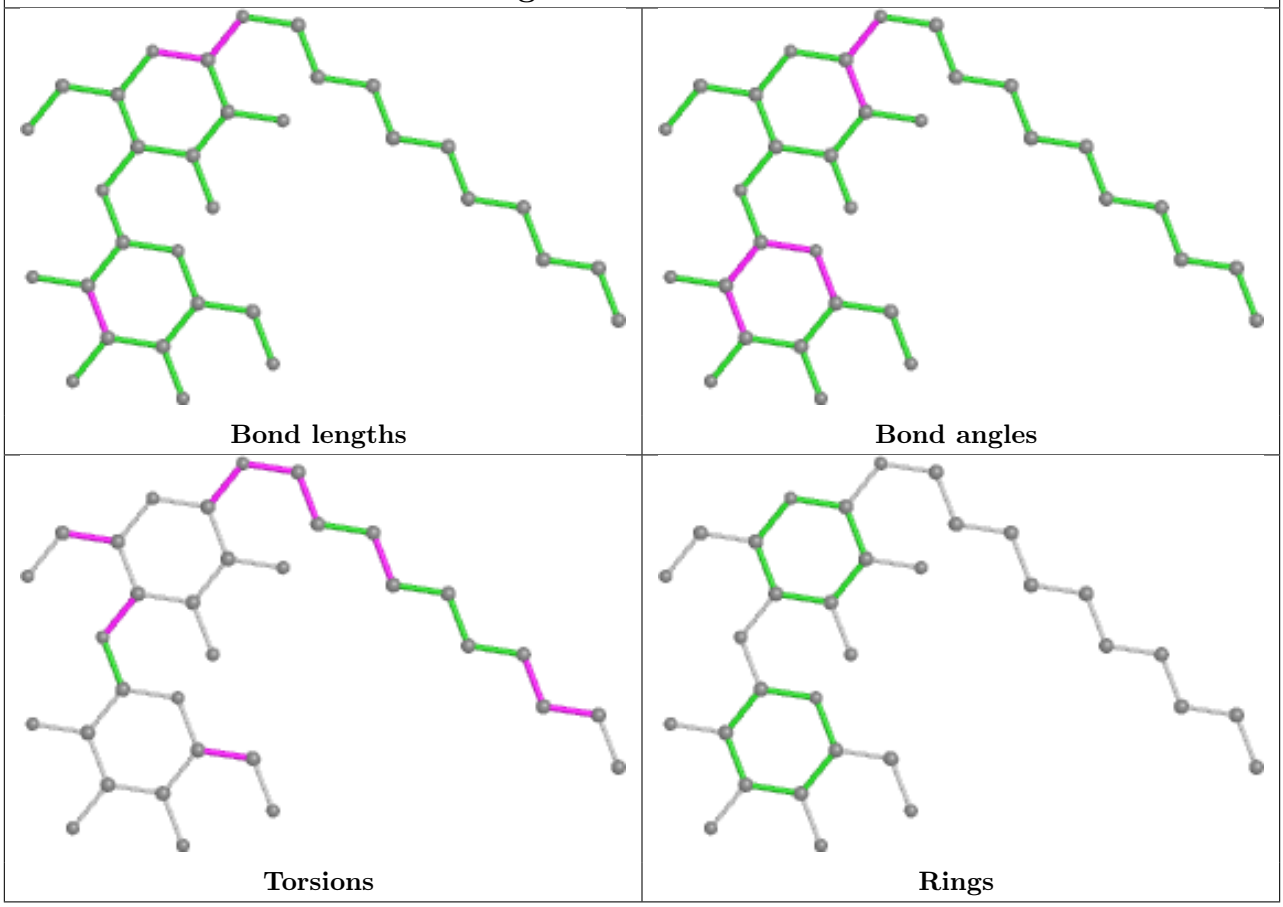

Bond lengths


Bond angles

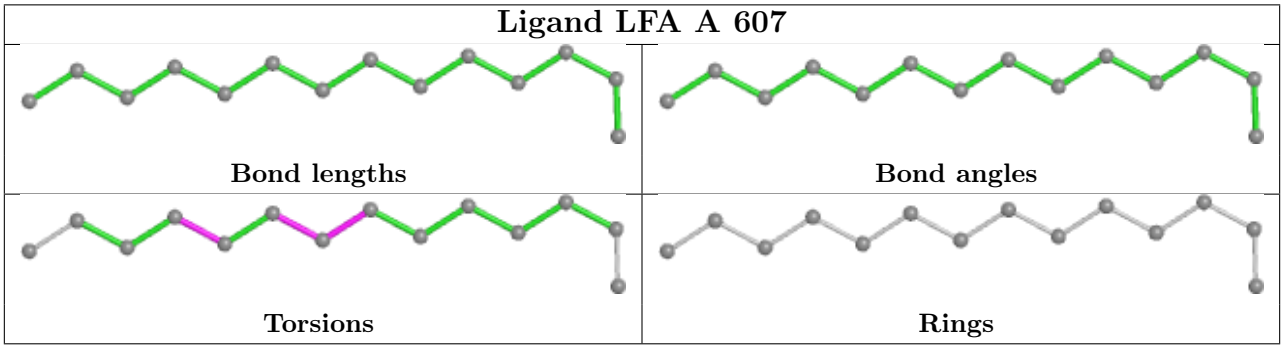

Torsions


Rings

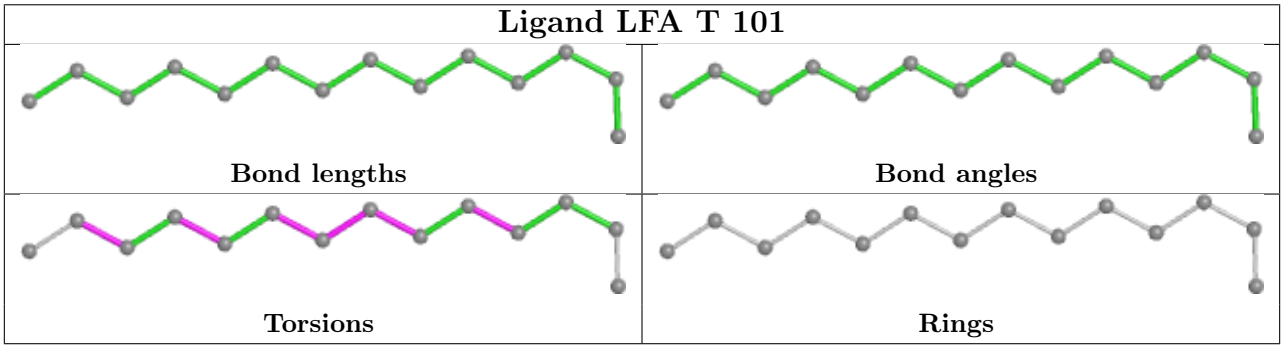
Ligand DMU C 319



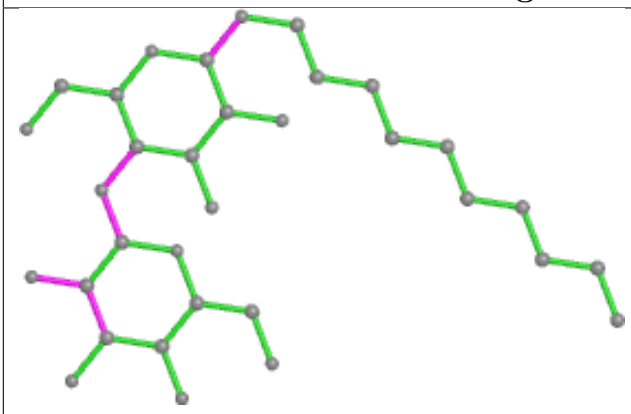
Ligand LFA A 607



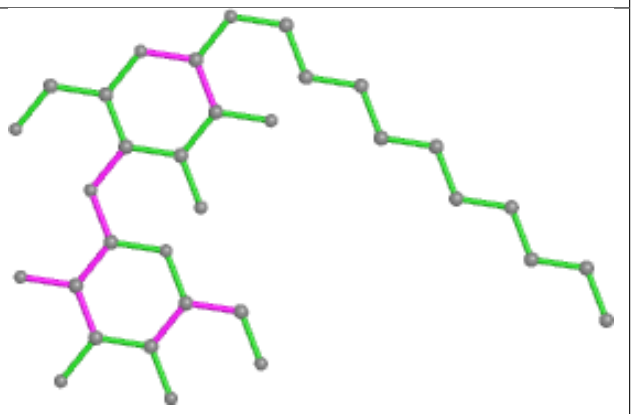
Ligand LFA T 101



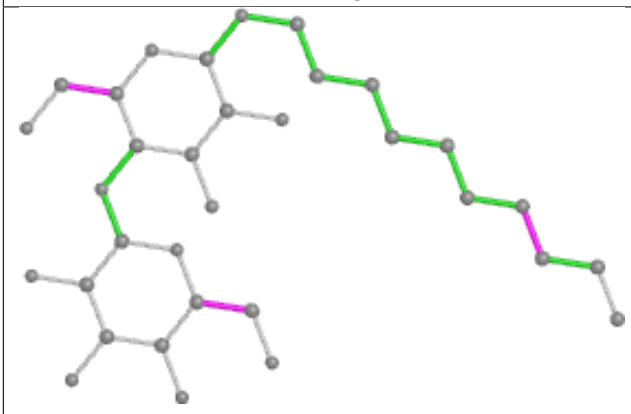
Ligand DMU A 609



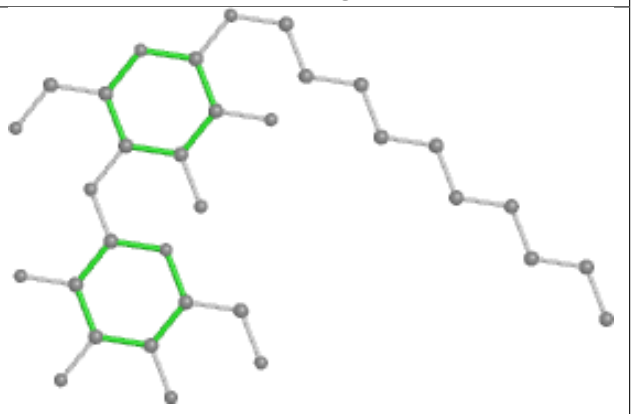
Bond lengths



Bond angles

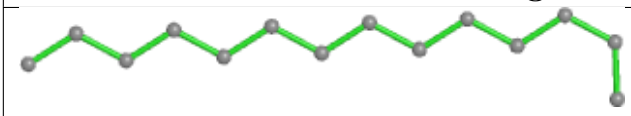


Torsions

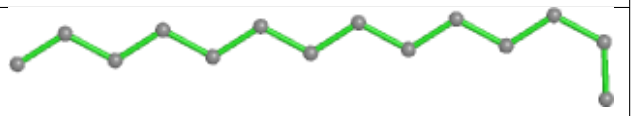


Rings

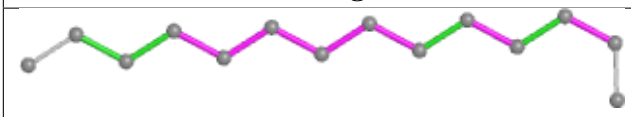
Ligand LFA G 104



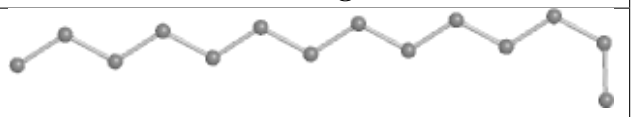
Bond lengths



Bond angles



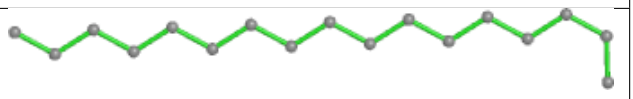
Torsions



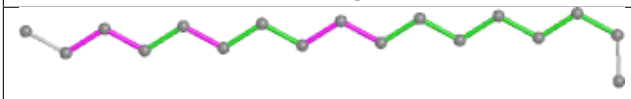
Rings

Ligand LFA O 302

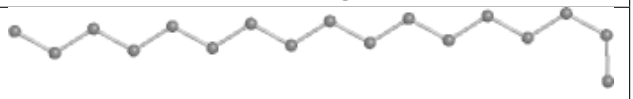
Bond lengths



Bond angles

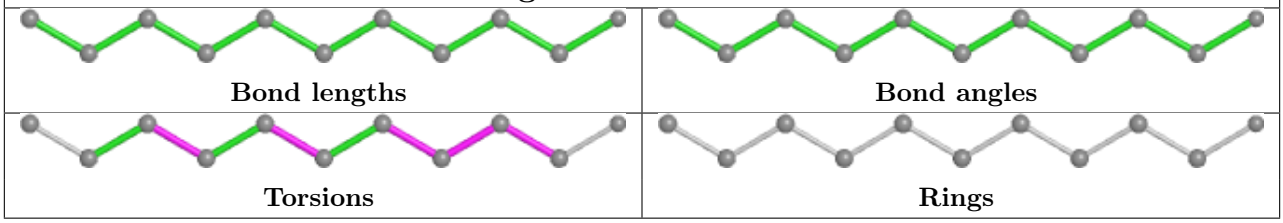


Torsions

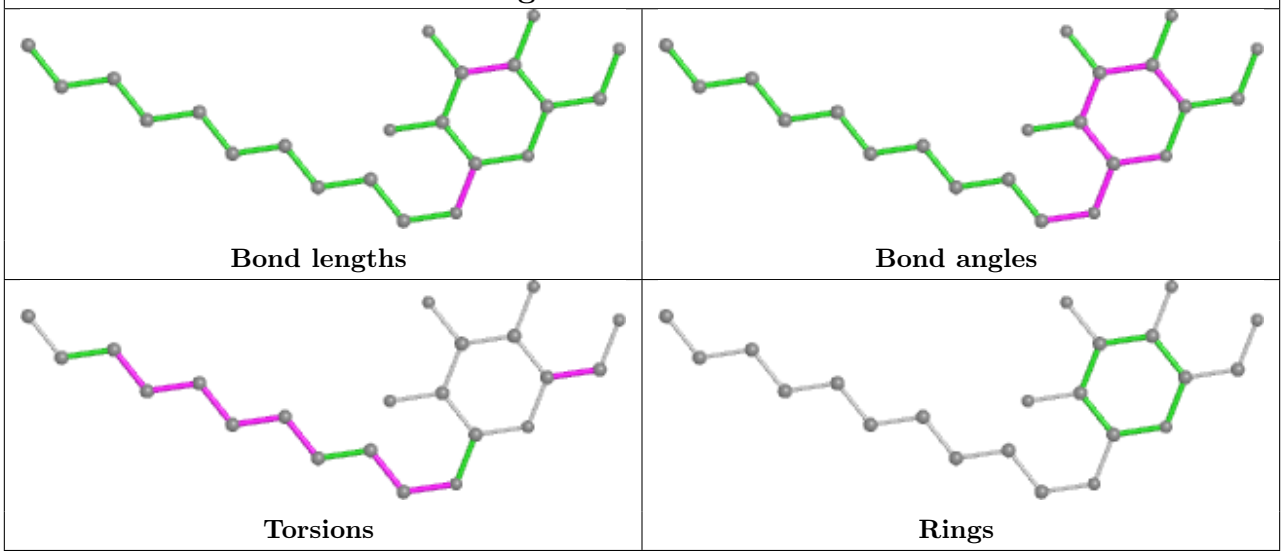


Rings

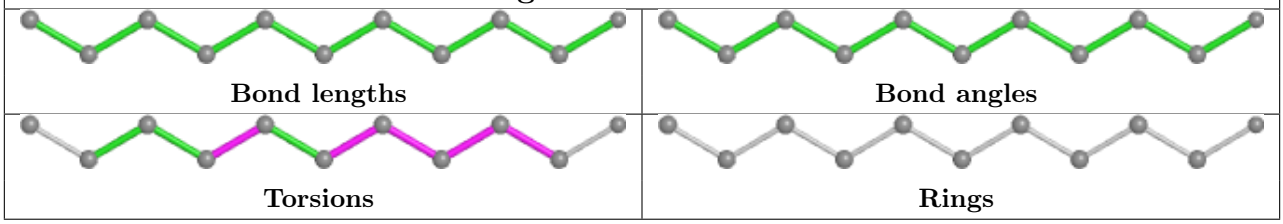
Ligand DMU B 302



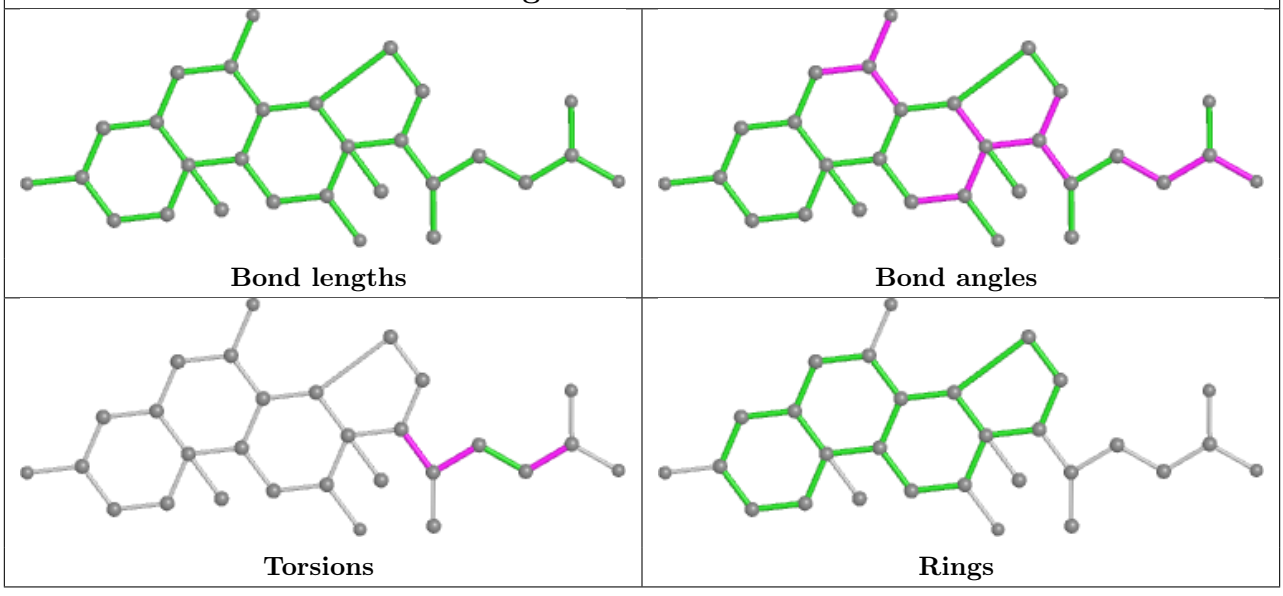
Ligand DMU C 318



Ligand DMU O 307



Ligand CHD P 305



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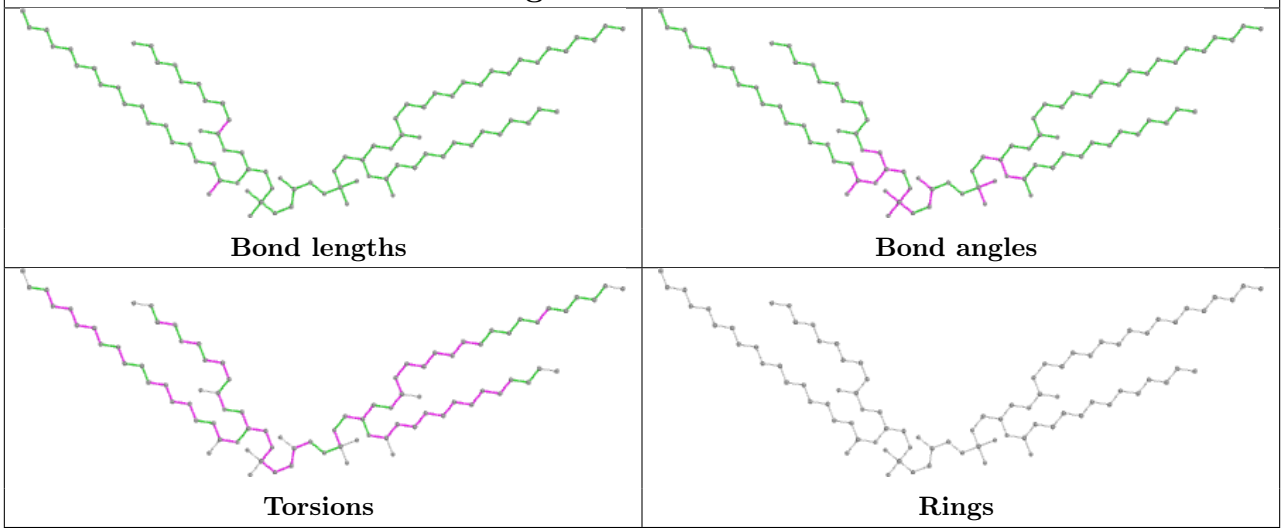
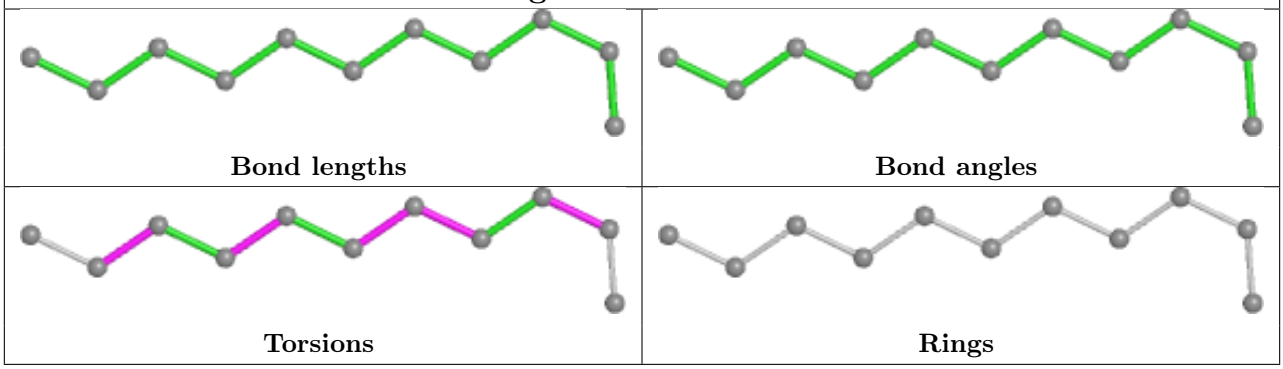
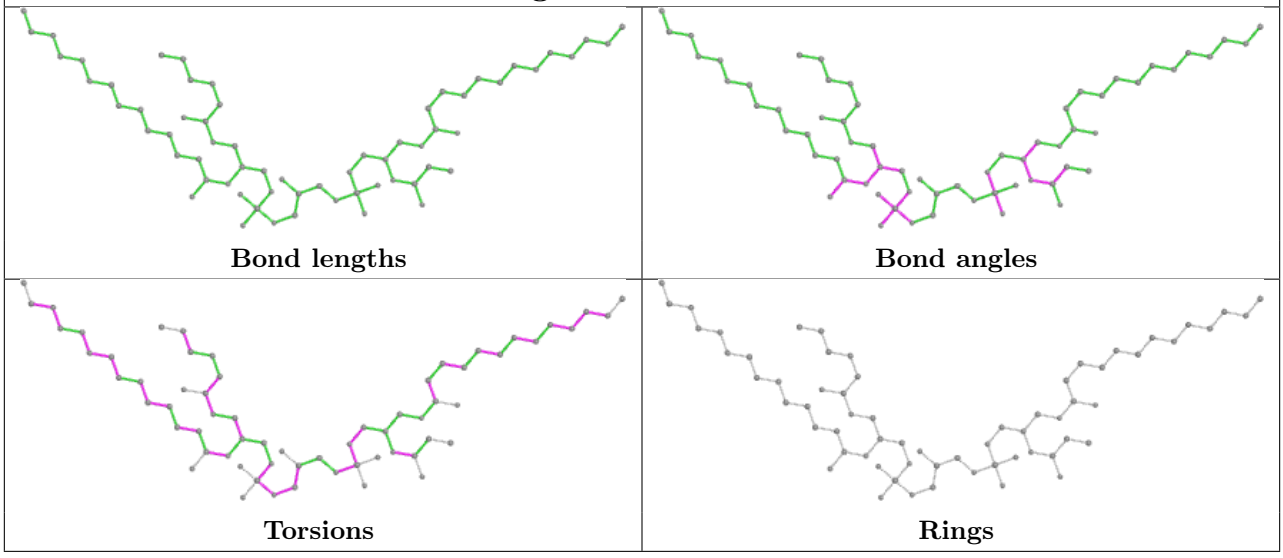


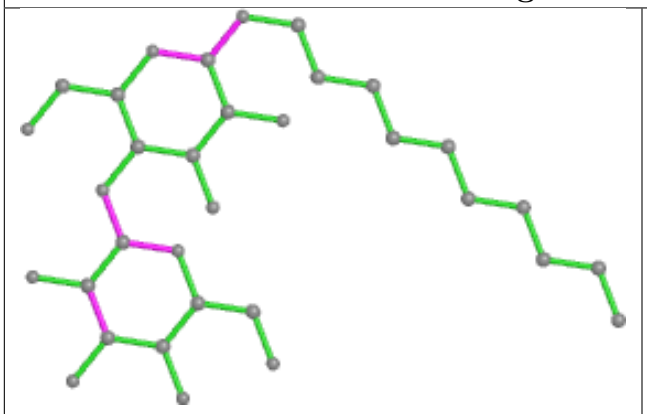
Ligand LFA C 307



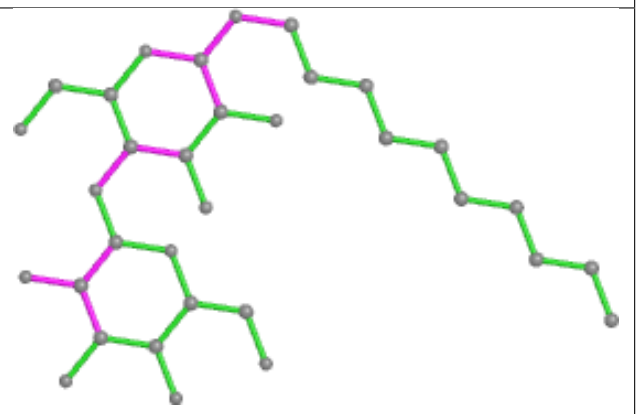
Ligand CDL I 101



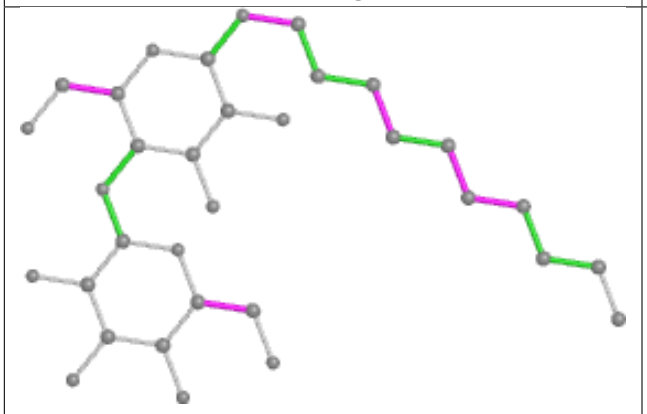
Ligand DMU H 101



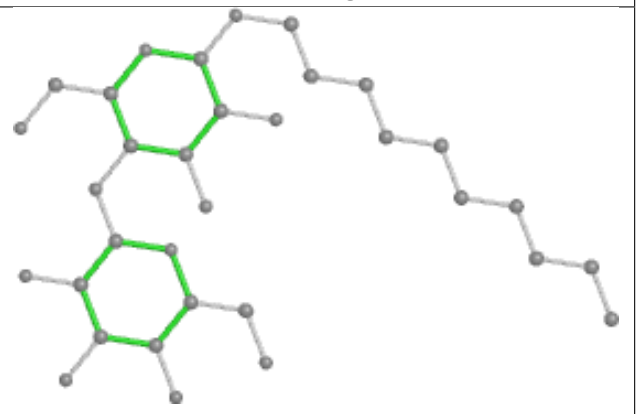
Bond lengths



Bond angles

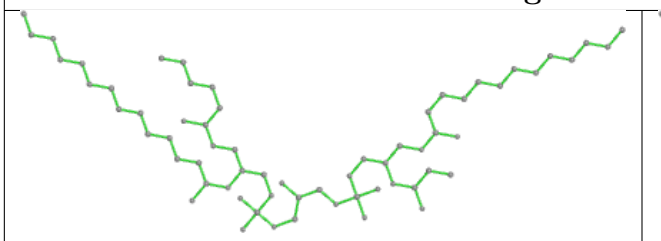


Torsions

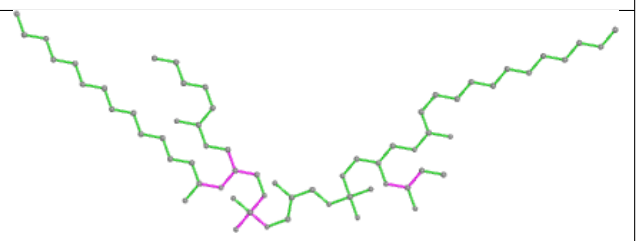


Rings

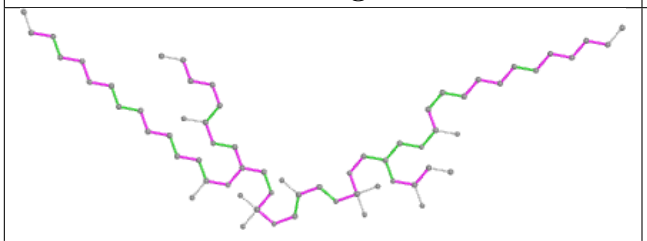
Ligand CDL N 606



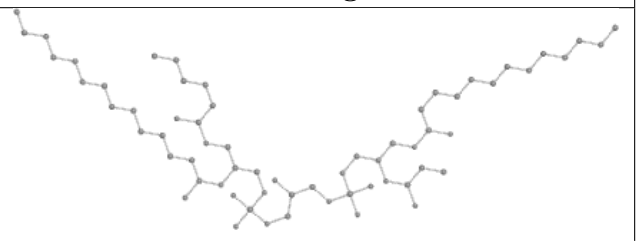
Bond lengths



Bond angles

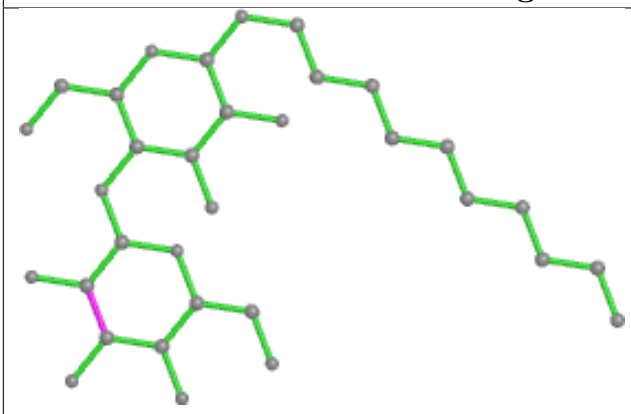


Torsions

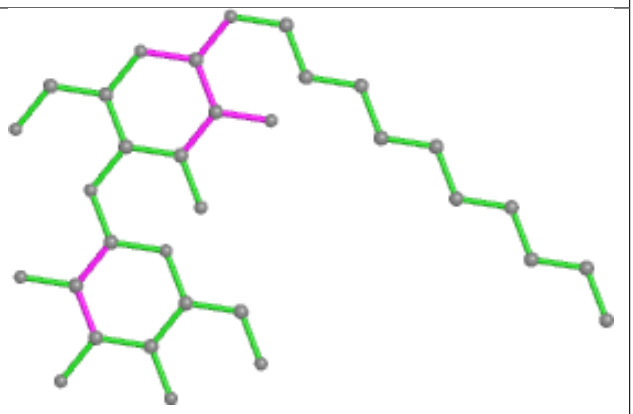


Rings

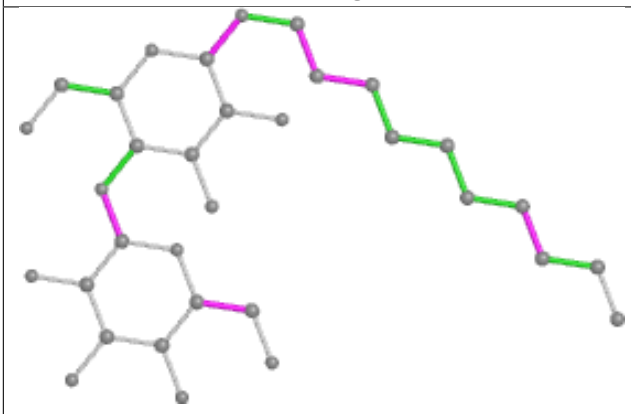
Ligand DMU C 325



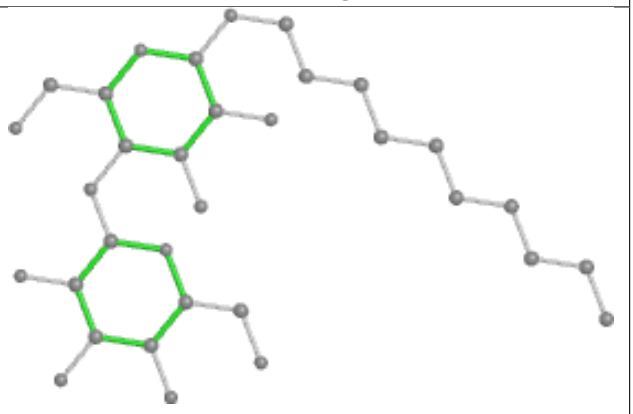
Bond lengths



Bond angles

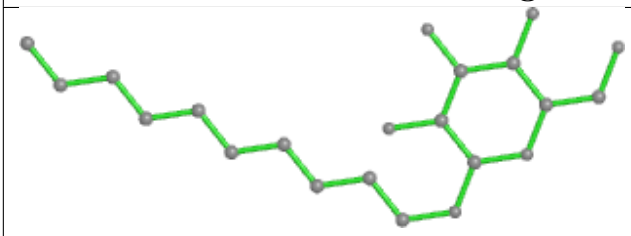


Torsions

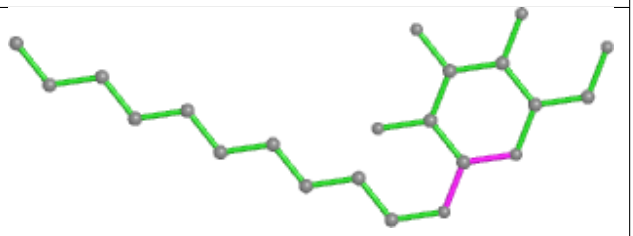


Rings

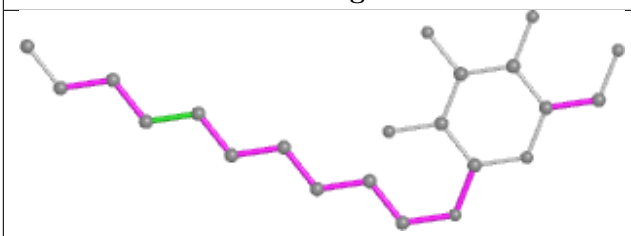
Ligand DMU Z 102



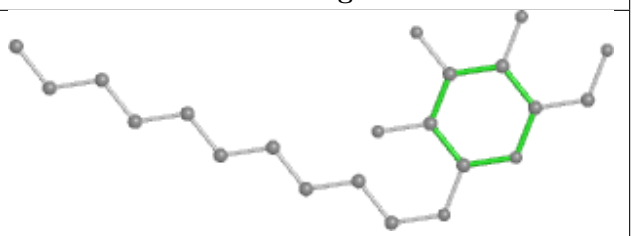
Bond lengths



Bond angles

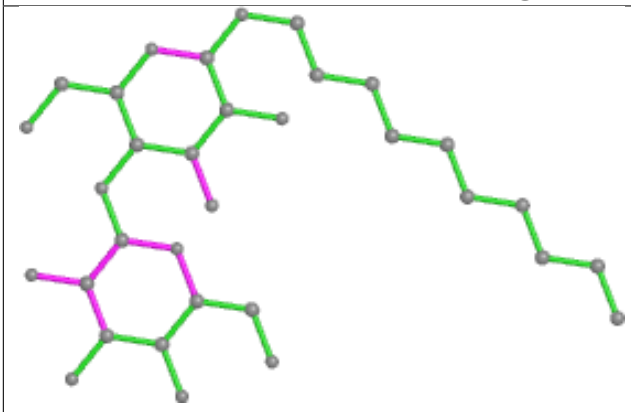


Torsions

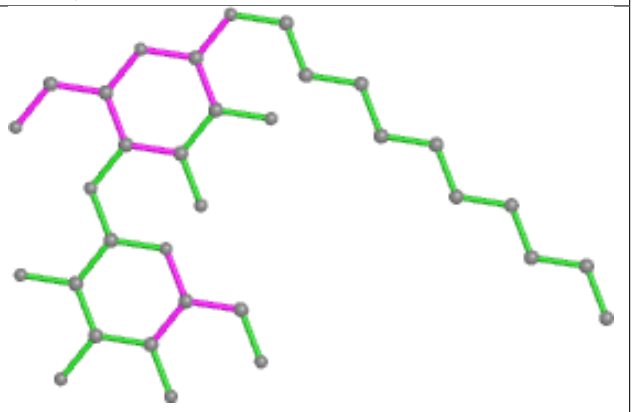


Rings

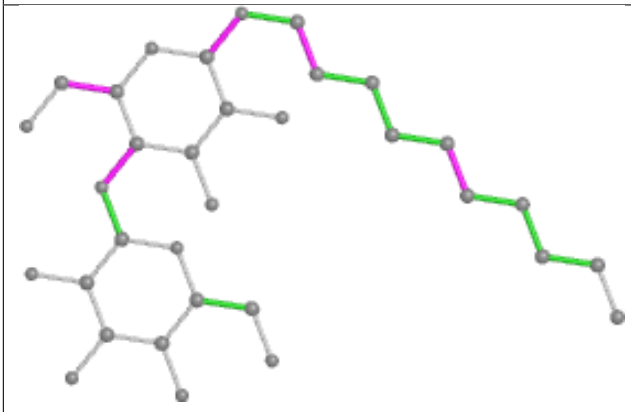
Ligand DMU Q 201



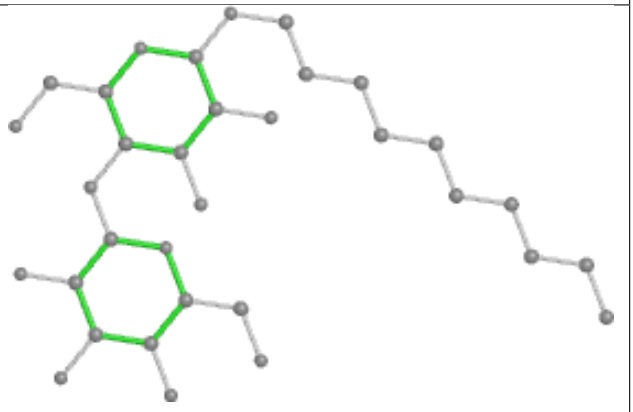
Bond lengths



Bond angles

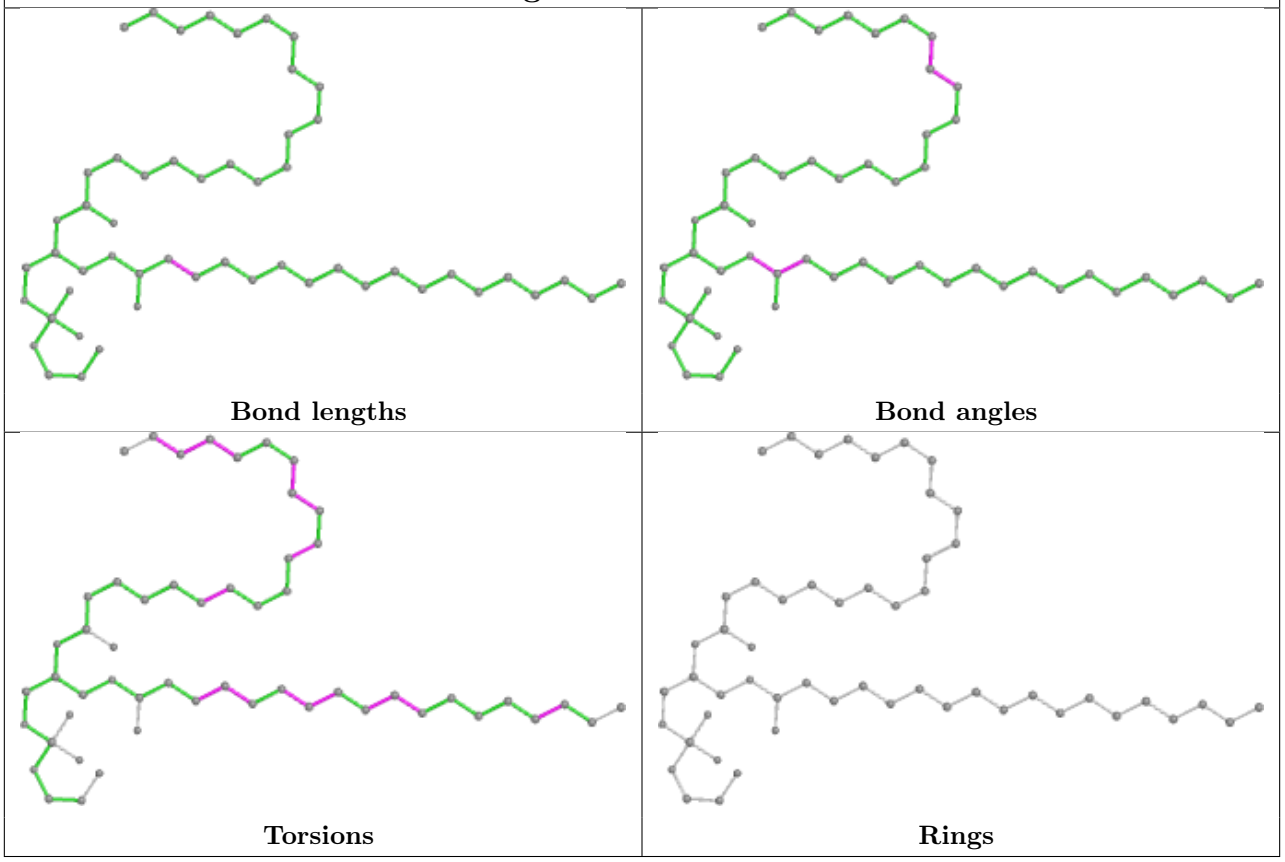


Torsions

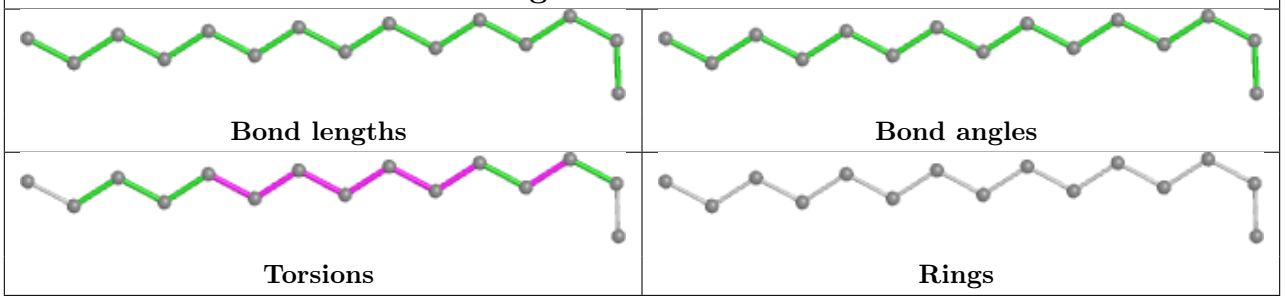


Rings

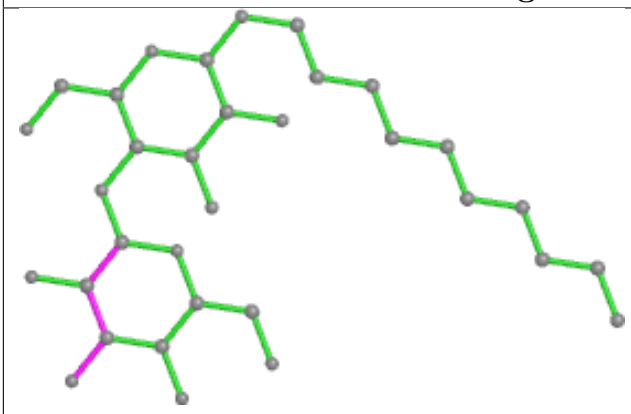
Ligand PEK G 101



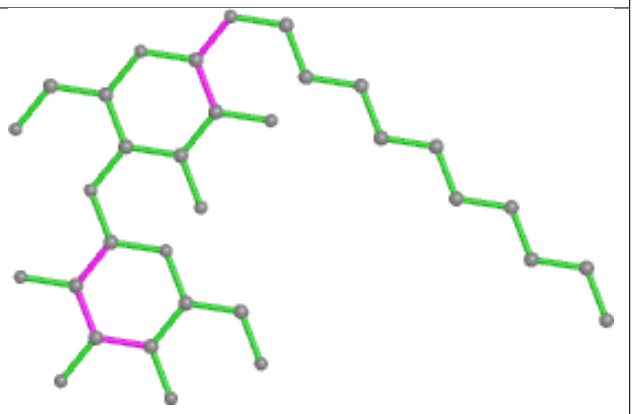
Ligand LFA P 312



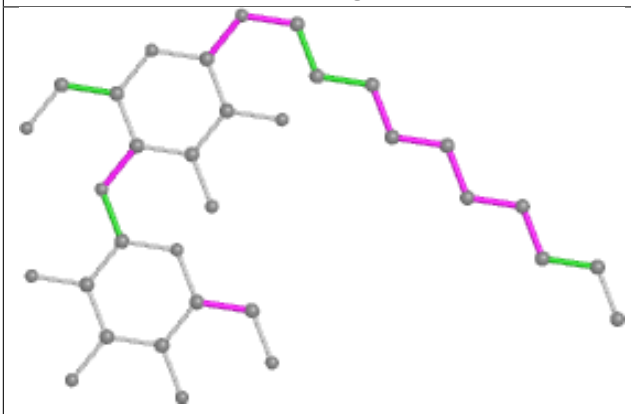
Ligand DMU P 318



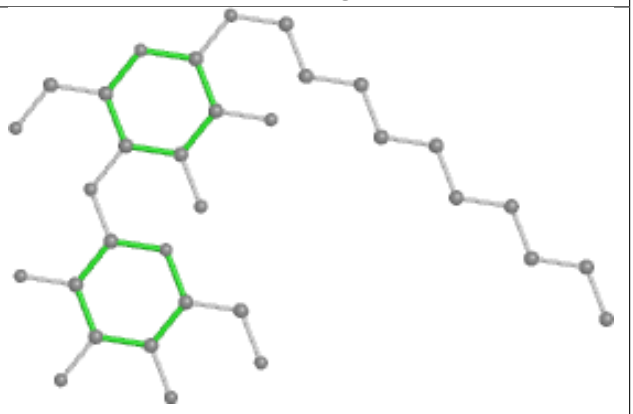
Bond lengths



Bond angles

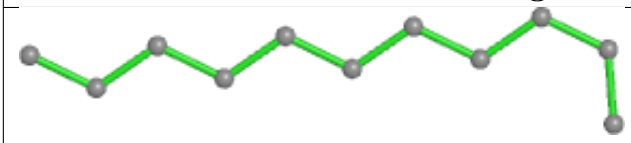


Torsions

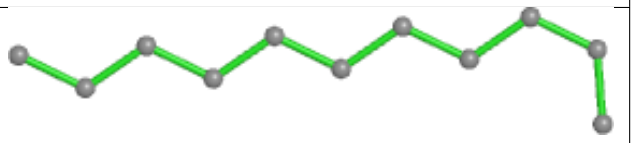


Rings

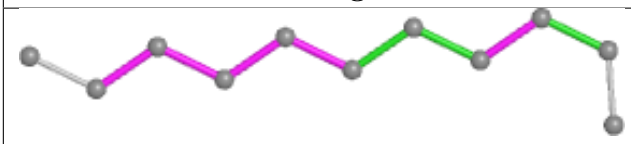
Ligand LFA P 310



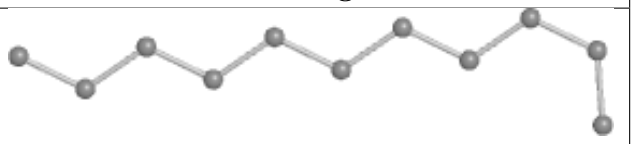
Bond lengths



Bond angles

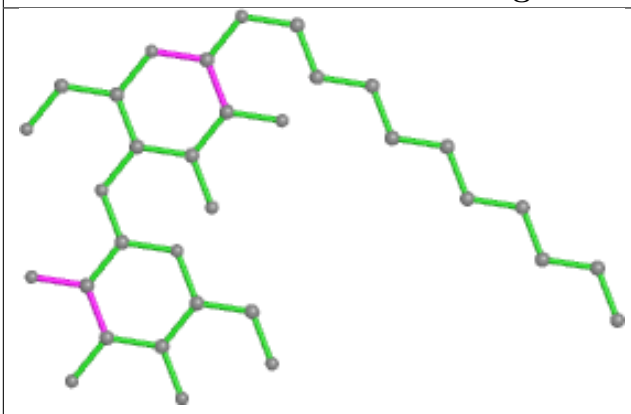


Torsions

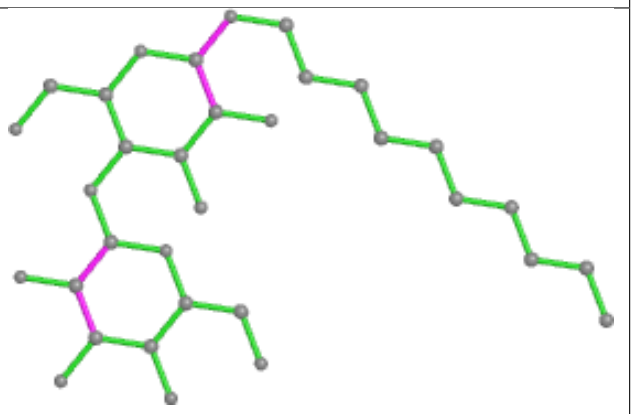


Rings

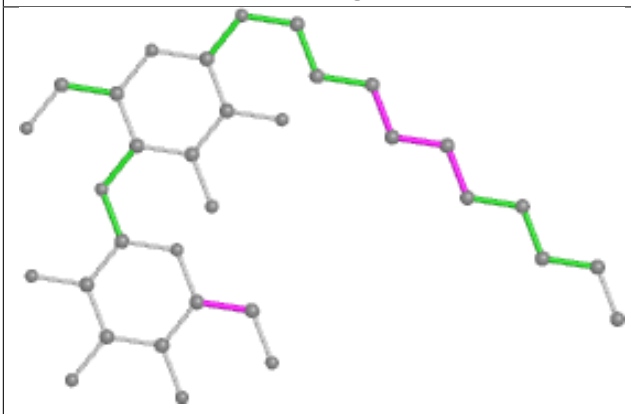
Ligand DMU M 101



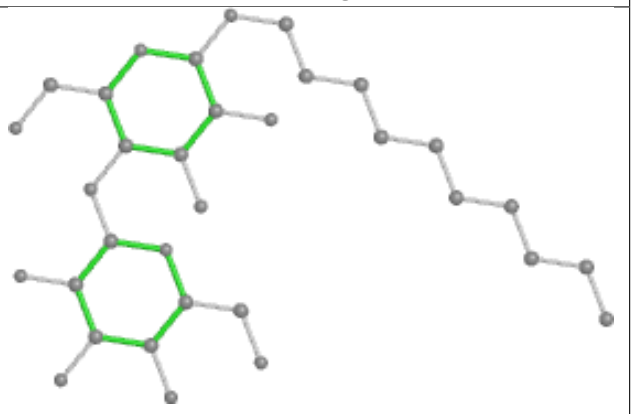
Bond lengths



Bond angles

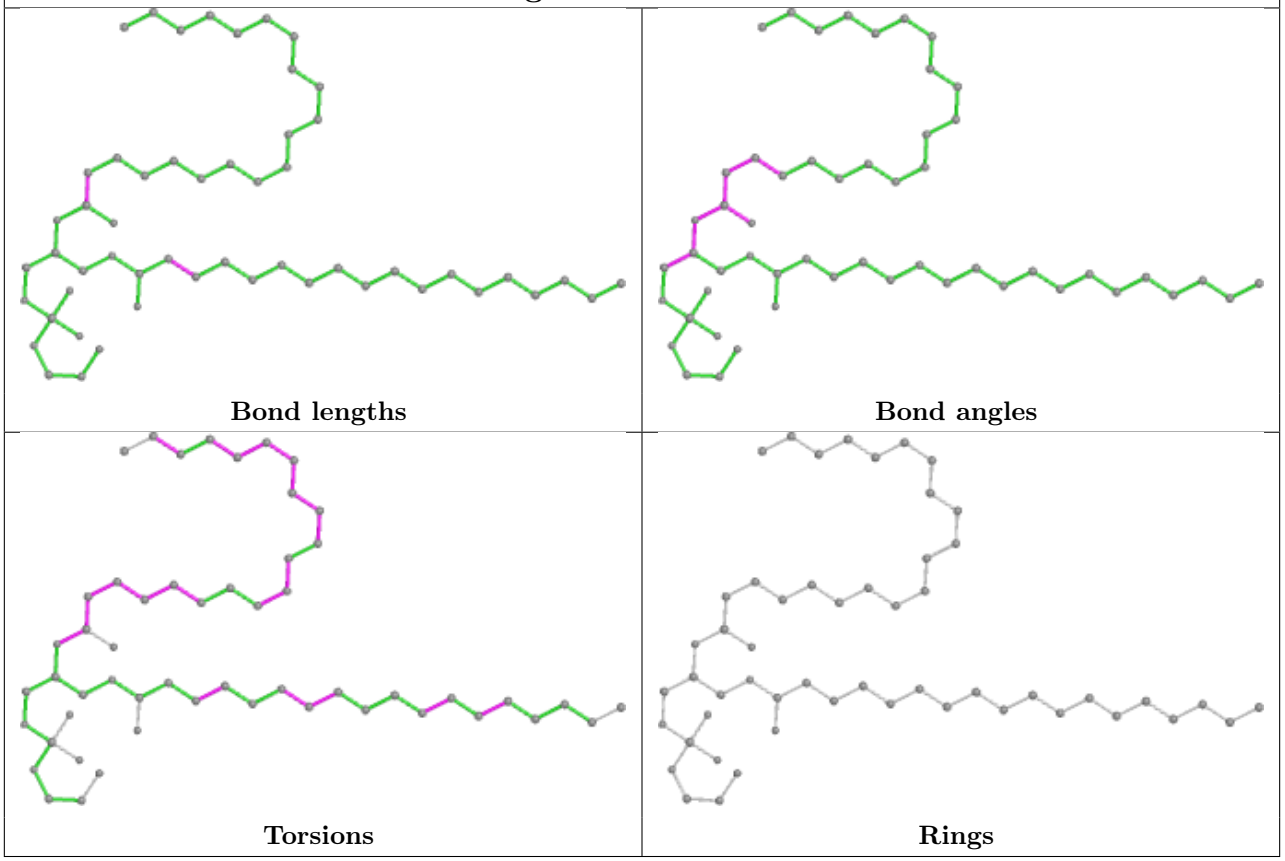


Torsions

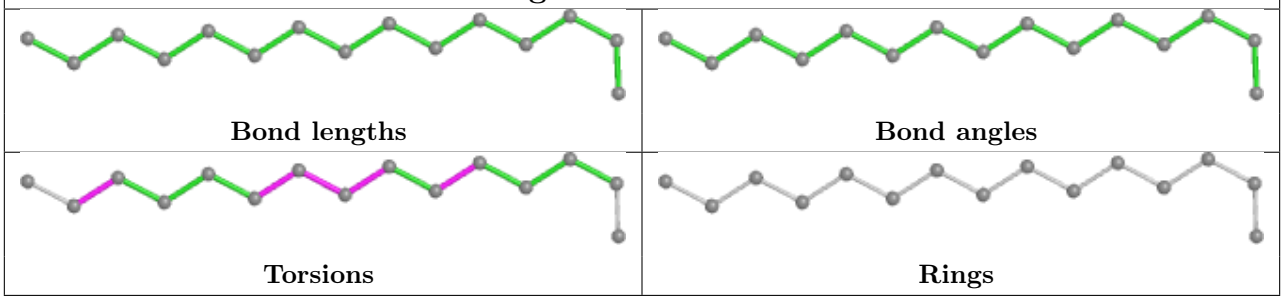


Rings

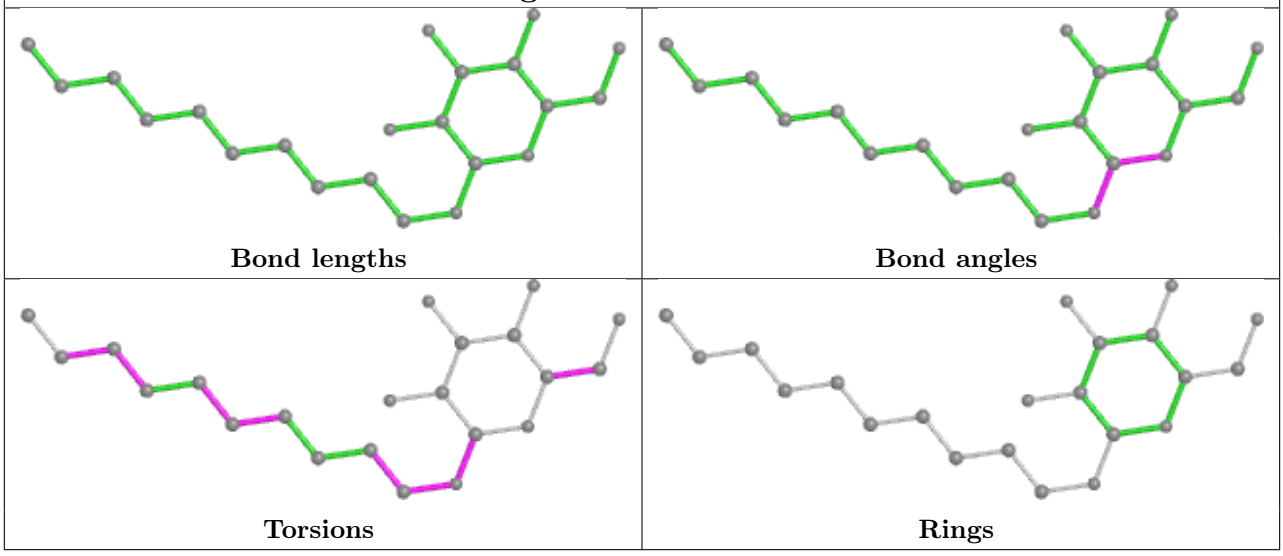
Ligand PEK T 102



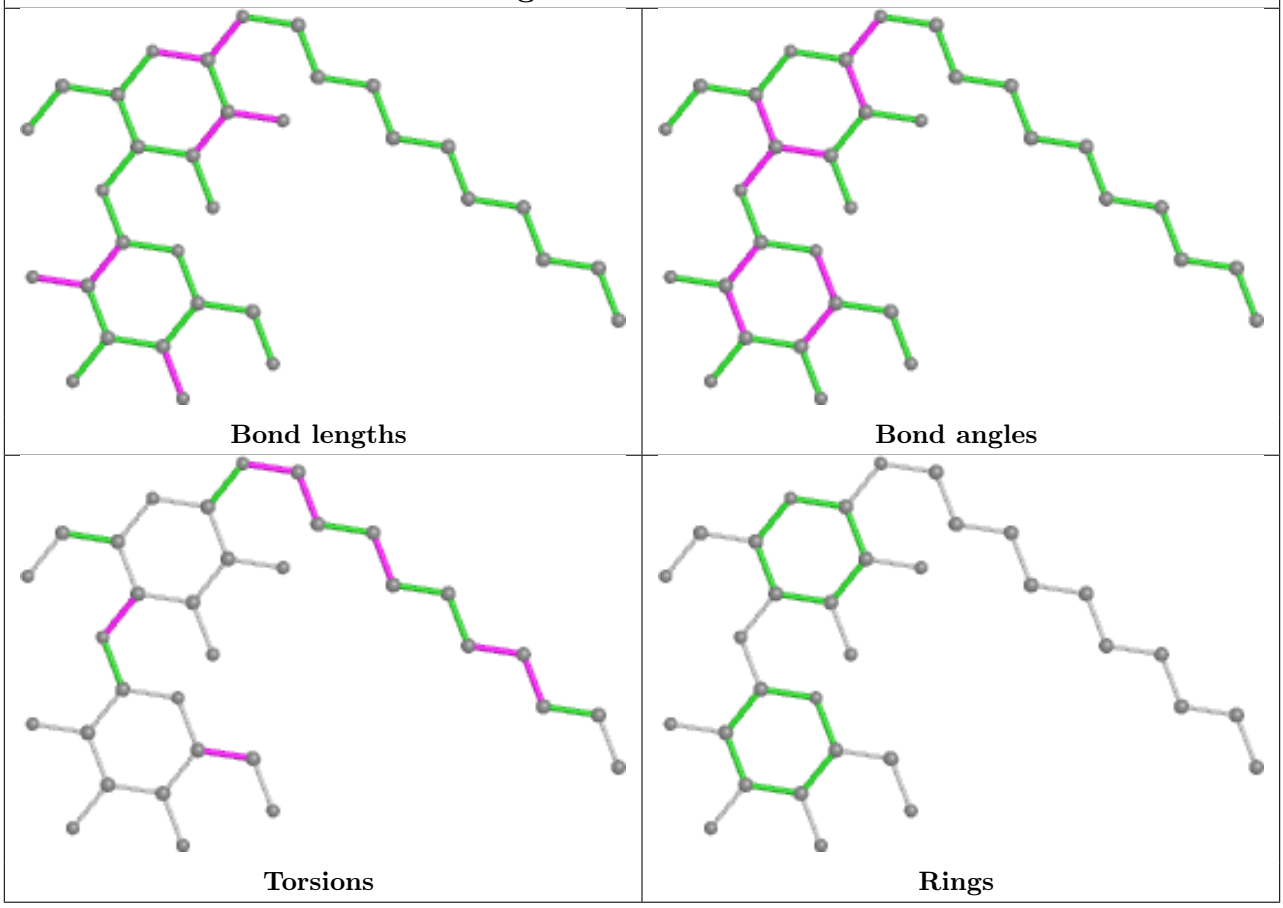
Ligand LFA C 314



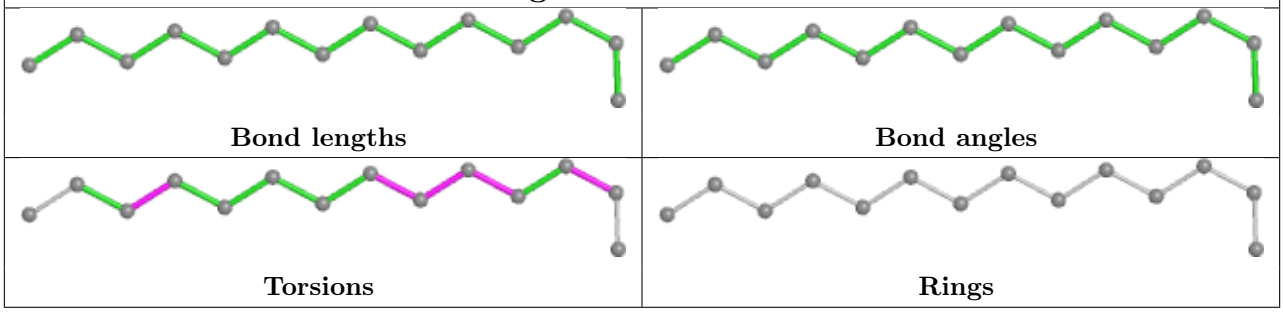
Ligand DMU L 102



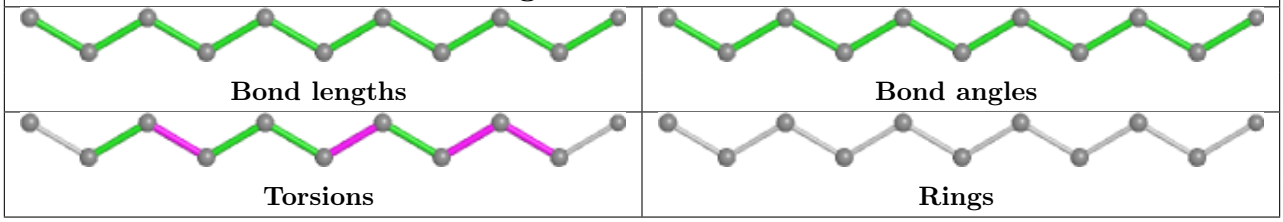
Ligand DMU D 201



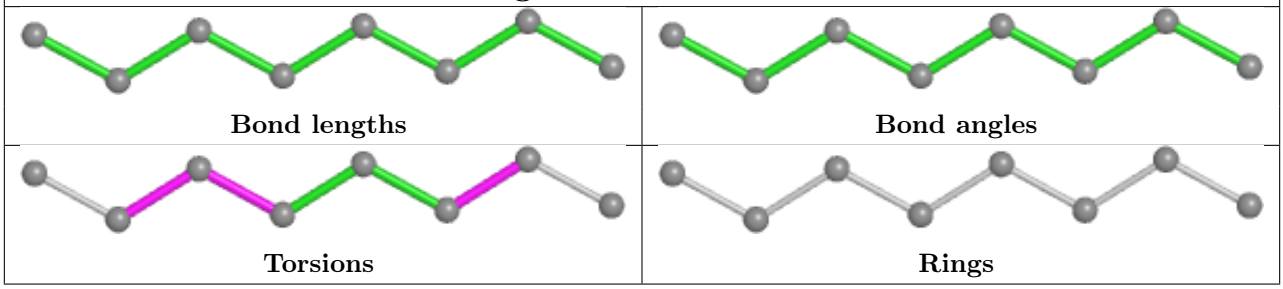
Ligand LFA T 103



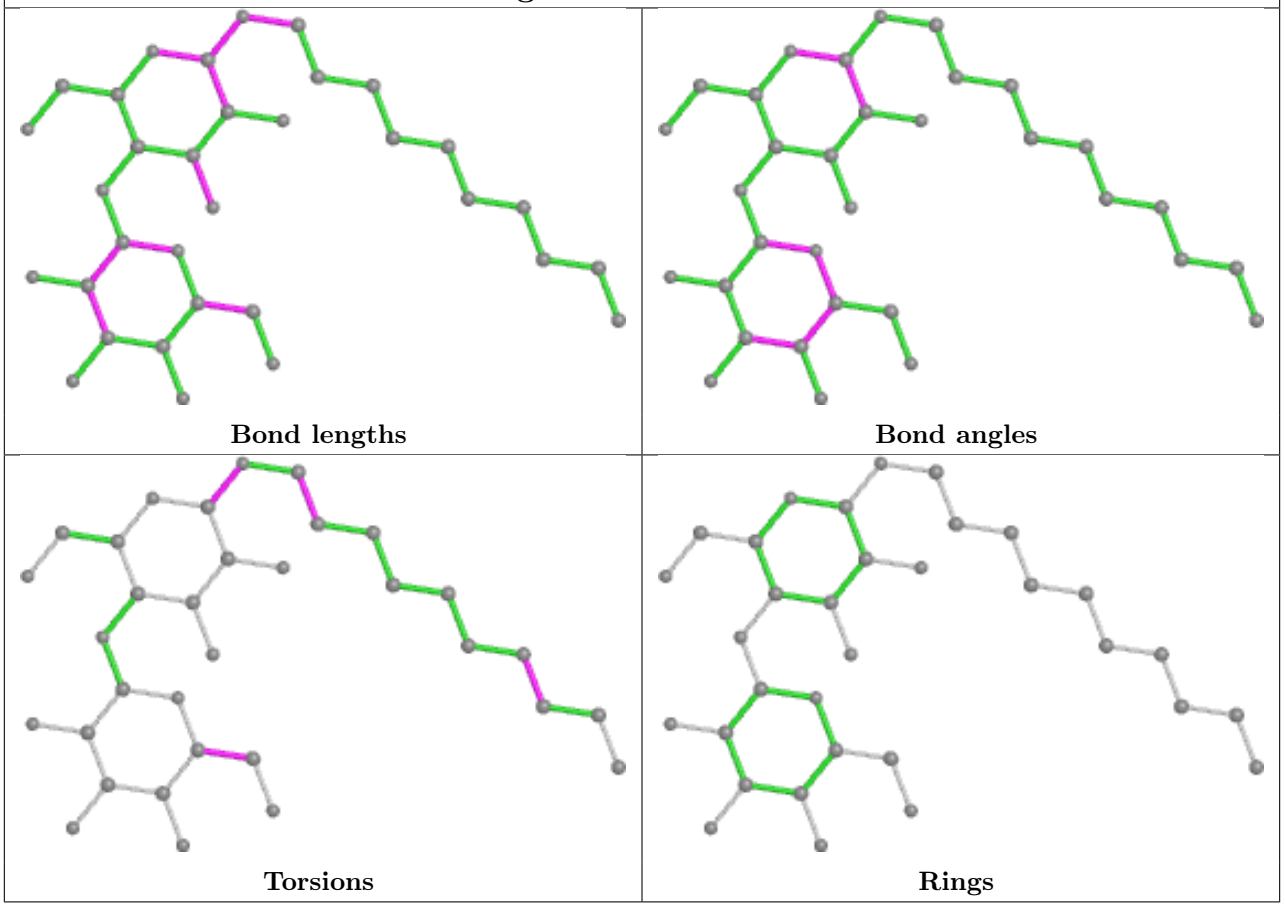
Ligand DMU P 306



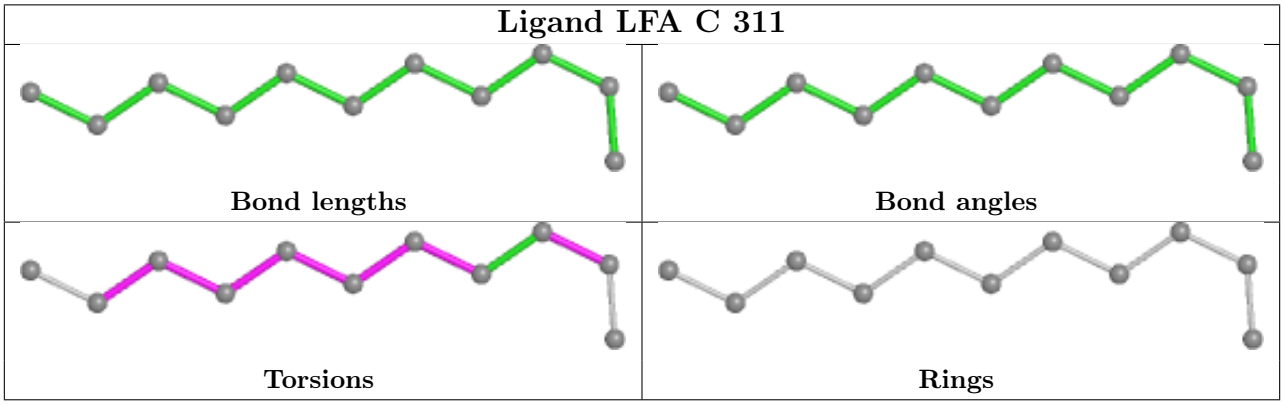
Ligand DMU M 102



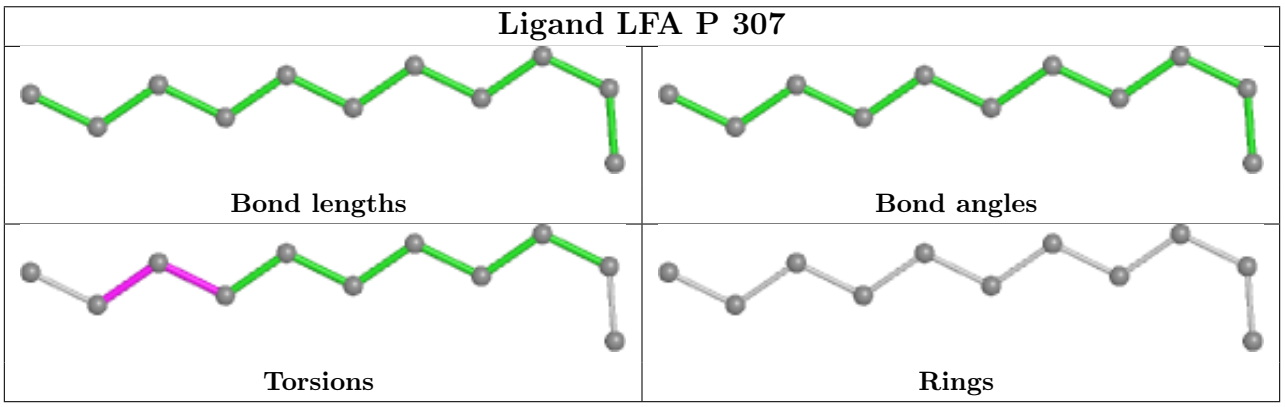
Ligand DMU N 610



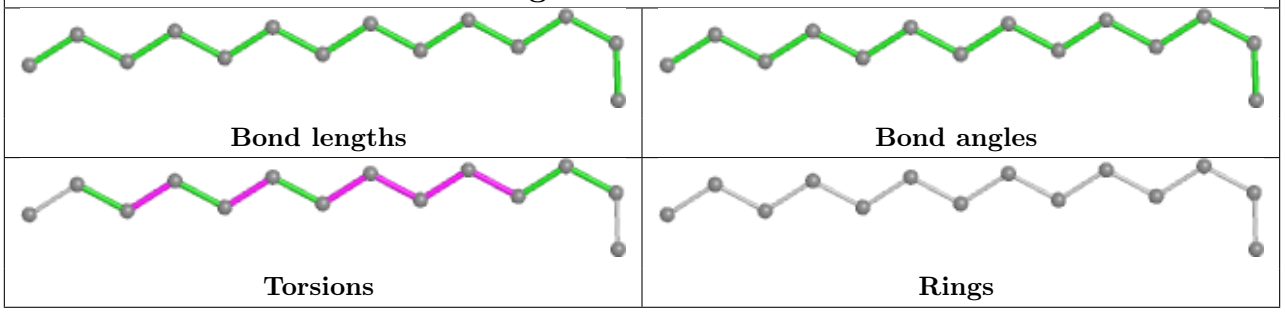
Ligand LFA C 311



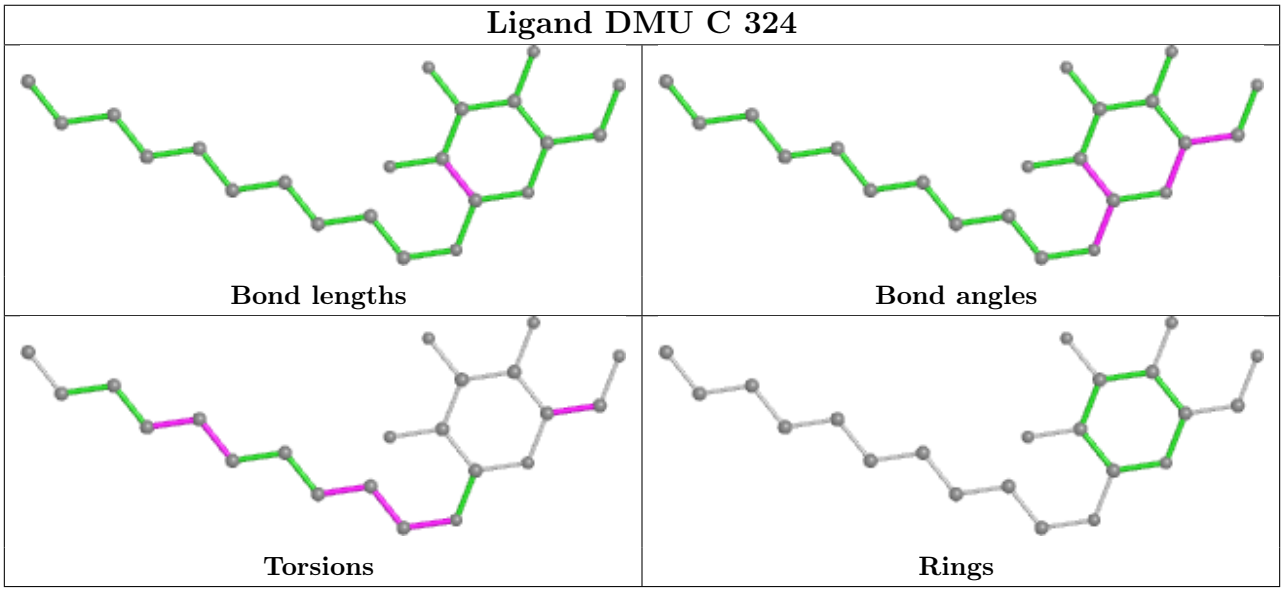
Ligand LFA P 307



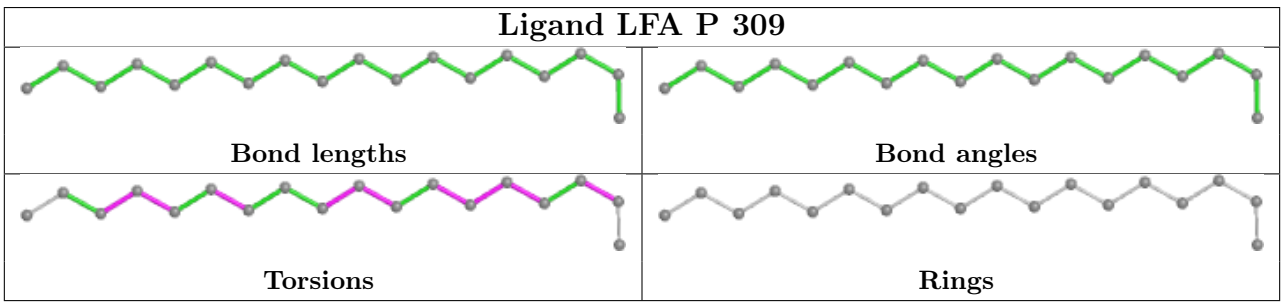
Ligand LFA C 312



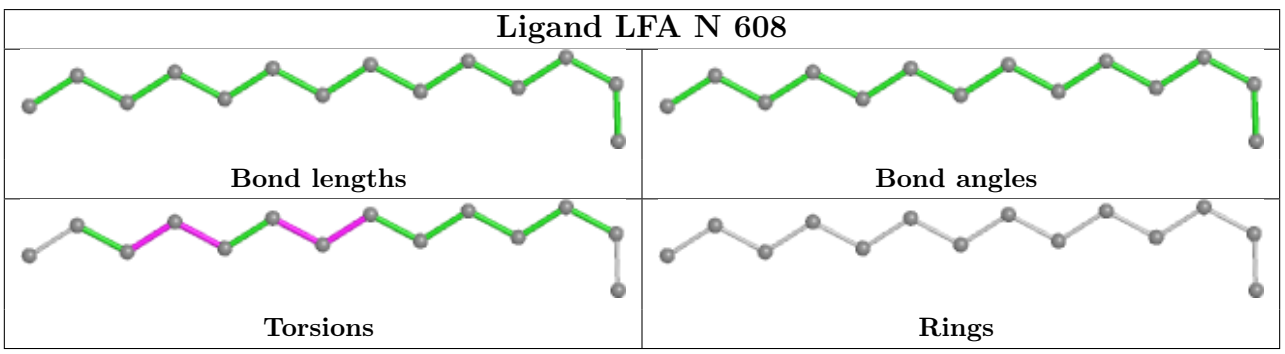
Ligand DMU C 324



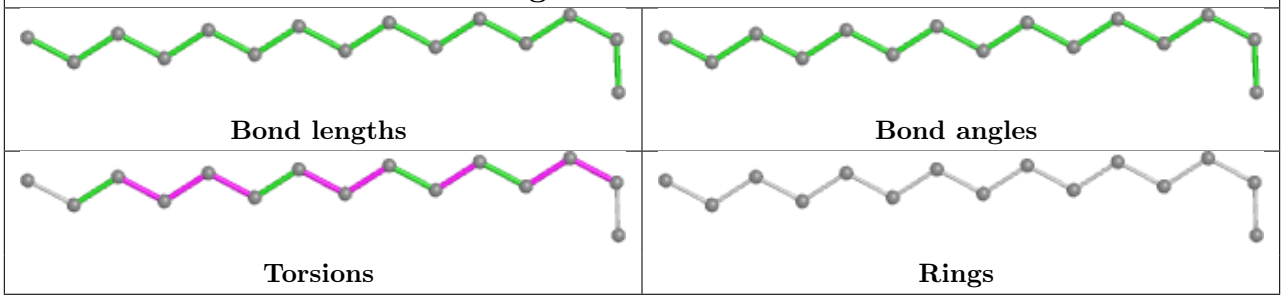
Ligand LFA P 309



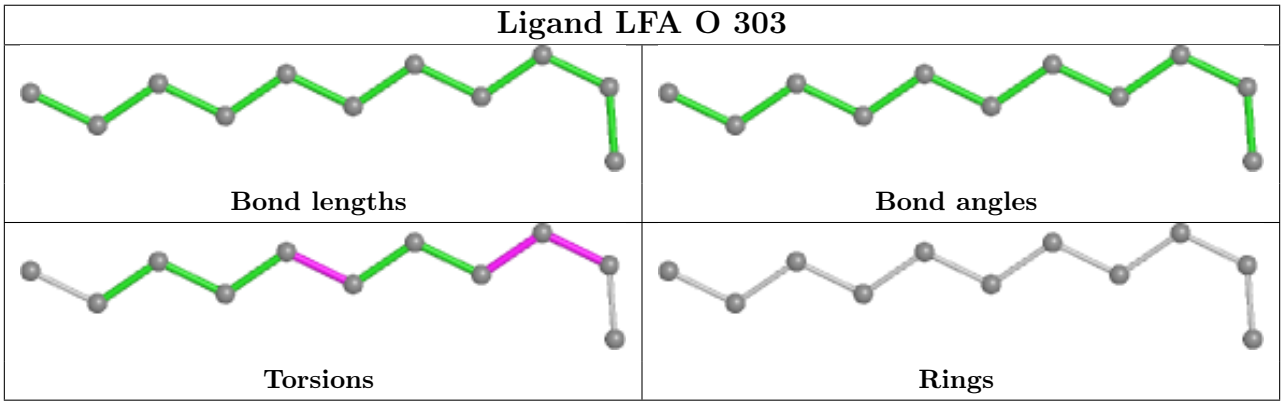
Ligand LFA N 608



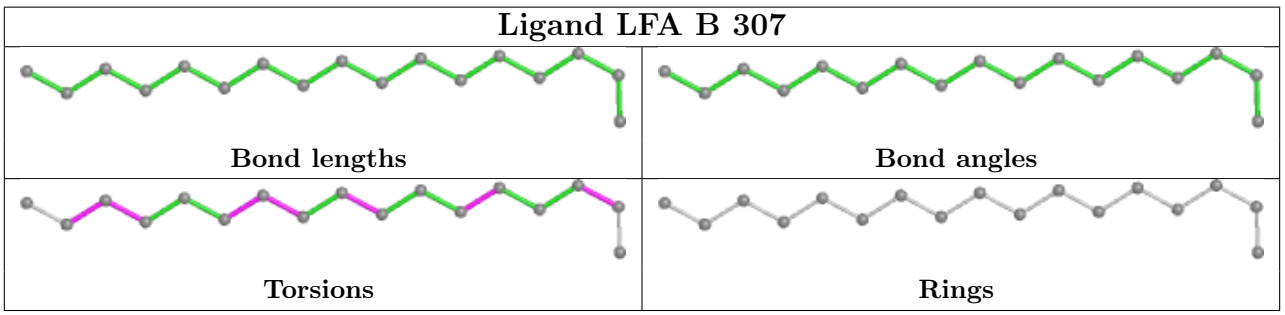
Ligand LFA C 310



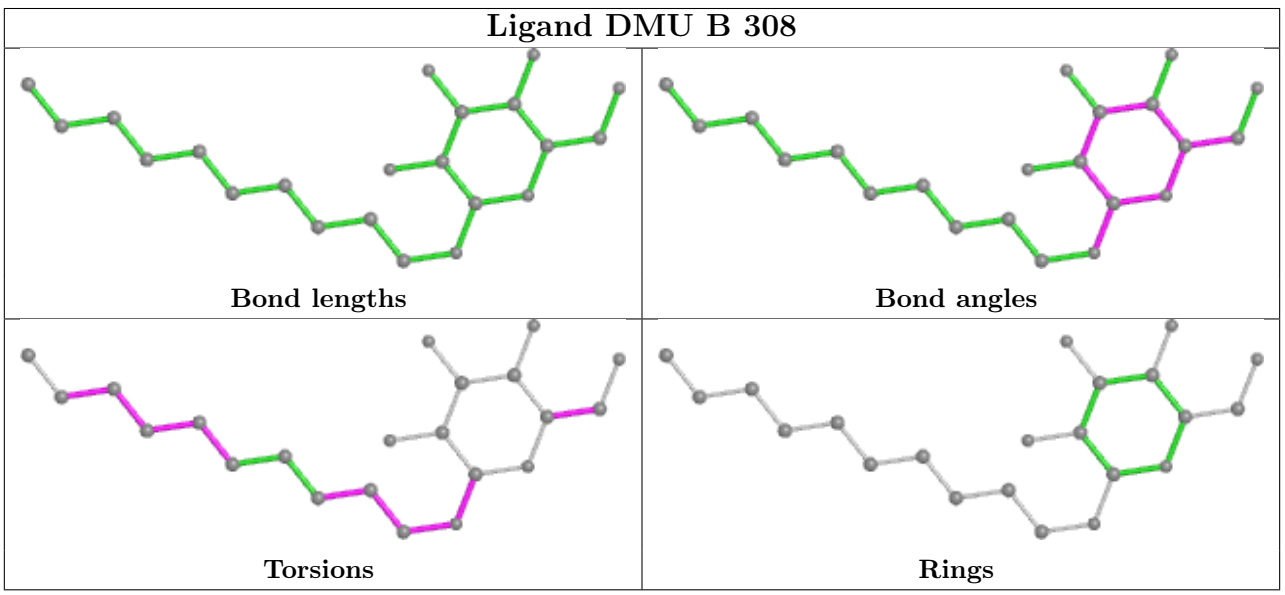
Ligand LFA O 303



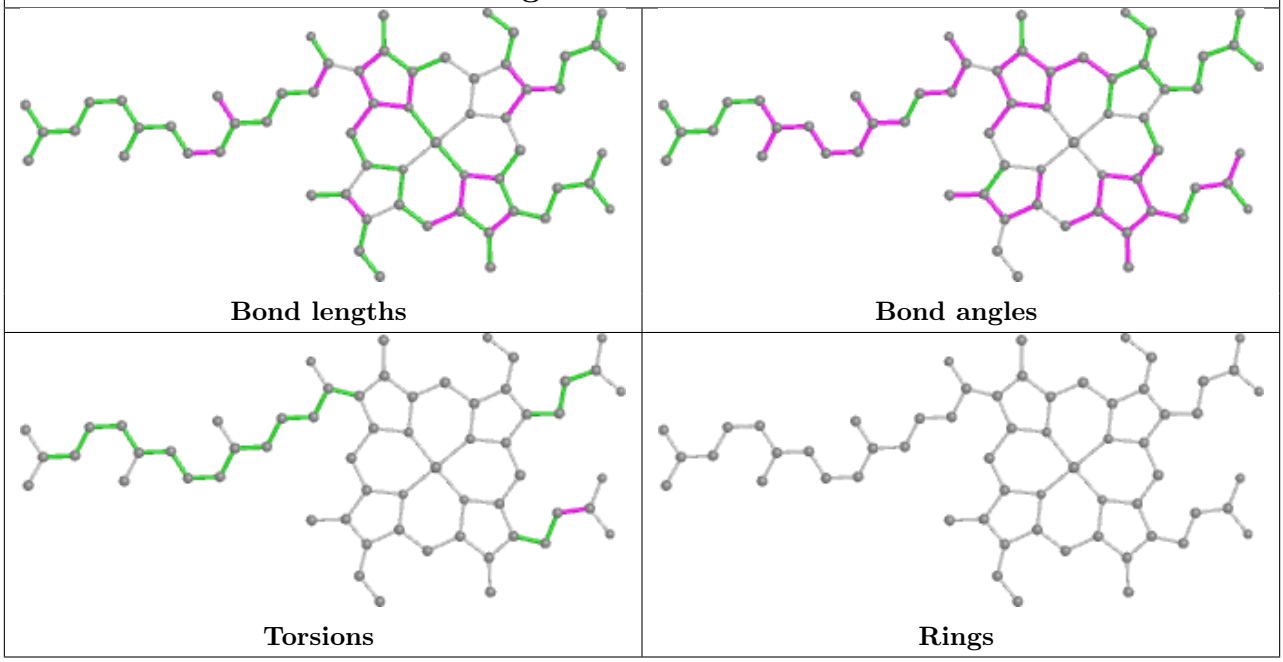
Ligand LFA B 307



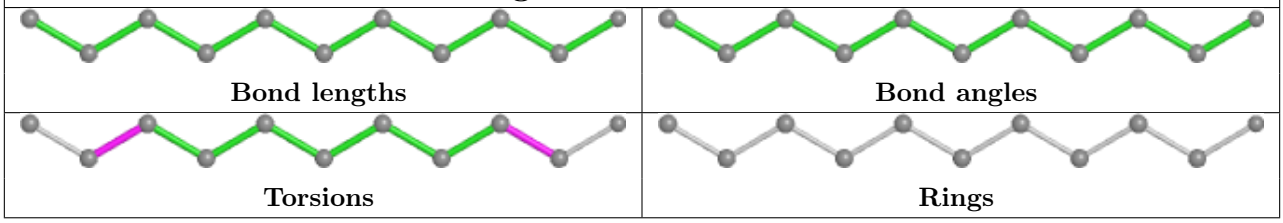
Ligand DMU B 308



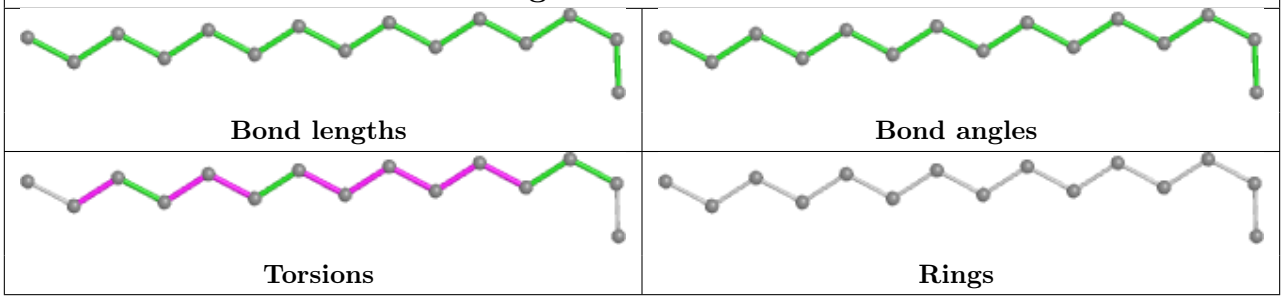
Ligand HEA N 601



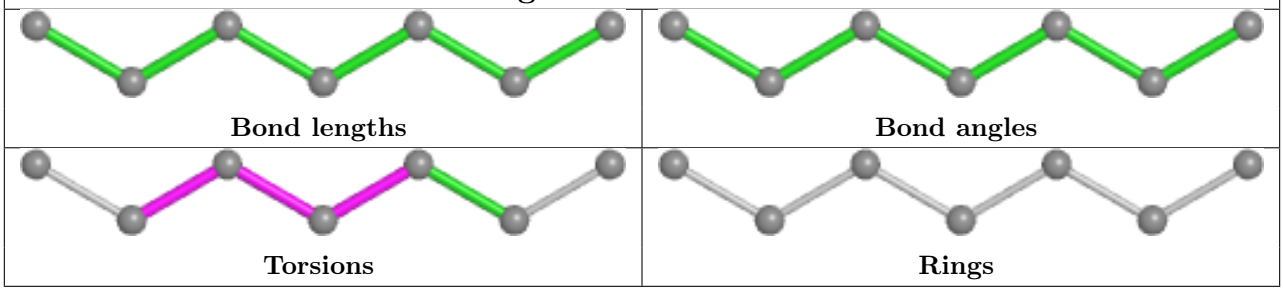
Ligand DMU W 101



Ligand LFA C 326



Ligand DMU C 317



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	512/514 (99%)	-0.10	3 (0%)	85	89	16, 34, 40, 50	15 (2%)
1	N	512/514 (99%)	-0.05	3 (0%)	85	89	17, 36, 43, 54	15 (2%)
2	B	226/227 (99%)	0.25	11 (4%)	36	39	21, 41, 53, 64	5 (2%)
2	O	226/227 (99%)	0.24	7 (3%)	51	59	22, 44, 62, 73	5 (2%)
3	C	258/261 (98%)	-0.06	2 (0%)	82	86	16, 37, 44, 53	9 (3%)
3	P	258/261 (98%)	-0.09	2 (0%)	82	86	16, 37, 45, 57	9 (3%)
4	D	143/147 (97%)	0.09	3 (2%)	63	69	20, 42, 52, 64	1 (0%)
4	Q	137/147 (93%)	0.39	8 (5%)	30	33	23, 51, 67, 74	1 (0%)
5	E	102/109 (93%)	-0.02	0	100	100	37, 43, 51, 60	0
5	R	102/109 (93%)	0.04	2 (1%)	64	71	38, 48, 59, 68	0
6	F	91/98 (92%)	0.01	1 (1%)	77	83	20, 41, 53, 65	2 (2%)
6	S	91/98 (92%)	0.13	2 (2%)	62	68	19, 40, 53, 59	2 (2%)
7	G	72/85 (84%)	0.38	4 (5%)	31	35	21, 42, 65, 72	1 (1%)
7	T	72/85 (84%)	0.42	2 (2%)	55	61	22, 44, 66, 78	1 (1%)
8	H	75/85 (88%)	0.37	4 (5%)	33	36	38, 45, 70, 79	0
8	U	75/85 (88%)	0.55	6 (8%)	20	22	42, 48, 75, 87	0
9	I	70/73 (95%)	0.62	8 (11%)	11	13	38, 49, 60, 69	0
9	V	70/73 (95%)	0.47	4 (5%)	30	34	38, 55, 65, 76	0
10	J	56/59 (94%)	0.24	2 (3%)	46	53	37, 45, 57, 64	0
10	W	56/59 (94%)	0.24	2 (3%)	46	53	38, 45, 58, 64	0
11	K	49/56 (87%)	0.38	3 (6%)	28	32	41, 46, 57, 64	0
11	X	49/56 (87%)	0.76	3 (6%)	28	32	46, 53, 66, 74	0
12	L	44/47 (93%)	-0.04	0	100	100	35, 38, 46, 51	0
12	Y	44/47 (93%)	0.15	0	100	100	38, 43, 52, 56	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	M	40/46 (86%)	0.21	1 (2%) 58 65	37, 40, 51, 57	0
13	Z	40/46 (86%)	0.39	1 (2%) 58 65	43, 47, 62, 64	0
All	All	3470/3614 (96%)	0.11	84 (2%) 59 66	16, 40, 58, 87	66 (1%)

All (84) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
8	U	48	GLY	6.8
7	T	36	TRP	6.7
11	X	6	ALA	5.2
2	O	113	TYR	5.2
2	O	90	ILE	5.0
6	F	3	GLY	5.0
6	S	3	GLY	4.7
1	N	113[A]	LEU	4.7
10	J	1	PHE	4.3
8	U	47	GLY	4.3
8	H	45	ALA	4.2
2	B	59	GLN	4.1
2	B	91	ASN	4.0
2	B	87[A]	MET	3.9
8	H	48	GLY	3.9
7	G	36	TRP	3.9
9	V	72	ALA	3.9
6	S	93	PRO	3.8
2	B	90	ILE	3.6
1	A	113[A]	LEU	3.5
4	D	4	SER	3.4
3	C	38	ASN	3.4
8	U	45	ALA	3.4
9	I	3	ALA	3.4
4	D	5	VAL	3.3
9	I	37	PHE	3.3
9	V	37	PHE	3.2
11	K	6	ALA	3.1
2	B	65	TRP	3.0
13	M	32	TRP	3.0
7	G	41	HIS	3.0
9	I	72	ALA	3.0
2	O	32[A]	PHE	3.0
2	B	60	GLU	3.0

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Mol	Chain	Res	Type	RSRZ
2	O	91	ASN	3.0
9	I	25	PHE	2.9
1	N	136[A]	LEU	2.9
11	K	26	VAL	2.9
2	B	32[A]	PHE	2.9
9	V	3	ALA	2.8
8	U	49	ASP	2.8
2	O	22[A]	HIS	2.8
4	Q	35	ALA	2.8
8	U	46	LYS	2.8
9	I	21	ILE	2.7
10	W	1	PHE	2.7
9	I	29	LEU	2.7
2	B	16[A]	ILE	2.7
7	T	38	HIS	2.7
1	A	311[A]	ILE	2.6
8	H	47	GLY	2.6
11	X	13	TYR	2.6
3	P	37	PHE	2.5
11	X	7	PRO	2.5
3	P	44[A]	MET	2.5
5	R	7	THR	2.5
4	Q	73	ARG	2.5
8	H	46	LYS	2.4
1	A	297[A]	MET	2.4
2	O	227	LEU	2.4
9	I	33	THR	2.4
8	U	44	THR	2.4
2	B	113	TYR	2.4
4	Q	93	ALA	2.3
10	W	48	TYR	2.3
7	G	33	LEU	2.3
5	R	108	LYS	2.3
4	Q	39	ALA	2.2
2	O	87[A]	MET	2.2
7	G	37	LEU	2.2
13	Z	32	TRP	2.2
11	K	47	ARG	2.2
4	Q	117	ALA	2.2
4	Q	131	ILE	2.2
2	B	61	VAL	2.2
4	Q	72	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
9	V	34	PHE	2.1
3	C	258	TRP	2.1
4	Q	87	PHE	2.1
4	D	102	TYR	2.1
2	B	67	ILE	2.0
9	I	19	PHE	2.0
1	N	48	LEU	2.0
10	J	56	PRO	2.0

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

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
1	FME	A	1	10/11	0.91	0.14	41,47,64,69	0
1	FME	N	1	10/11	0.92	0.14	44,49,65,75	0
2	FME	B	1	10/11	0.97	0.08	38,41,48,68	0
2	FME	O	1	10/11	0.97	0.10	43,46,54,63	0

6.3 Carbohydrates (i)

There are no oligosaccharides 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
20	DMU	C	318	22/33	0.68	0.29	39,46,54,64	22
20	DMU	P	316	22/33	0.68	0.33	36,50,58,64	22
19	LFA	P	310	11/20	0.74	0.40	42,50,57,64	11
19	LFA	C	312	14/20	0.75	0.39	38,49,56,56	14
20	DMU	A	608	7/33	0.76	0.35	40,44,47,47	7
21	EDO	P	321	4/4	0.78	0.37	35,36,37,42	4

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
19	LFA	P	311	11/20	0.79	0.30	38,43,51,51	11
20	DMU	C	319	33/33	0.79	0.32	36,48,58,66	33
20	DMU	C	316	33/33	0.80	0.33	40,46,56,57	33
24	CHD	C	305	29/29	0.80	0.17	54,62,74,90	0
24	CHD	P	305	29/29	0.80	0.17	54,62,74,103	0
26	CDL	N	606	64/100	0.80	0.19	48,66,80,96	0
19	LFA	P	308	6/20	0.81	0.35	38,41,43,44	6
26	CDL	I	101	64/100	0.81	0.19	41,63,73,83	0
19	LFA	C	326	15/20	0.81	0.38	40,47,55,57	15
19	LFA	C	308	6/20	0.82	0.42	40,45,46,48	6
19	LFA	T	101	14/20	0.82	0.26	36,41,49,51	14
19	LFA	G	104	14/20	0.82	0.27	34,42,51,51	14
20	DMU	O	304	22/33	0.83	0.27	46,59,68,69	22
20	DMU	P	314	33/33	0.83	0.28	39,48,56,66	33
19	LFA	O	303	11/20	0.83	0.33	43,50,58,59	11
20	DMU	P	317	33/33	0.83	0.29	39,50,56,61	33
20	DMU	Q	201	33/33	0.83	0.23	40,50,59,62	33
20	DMU	Z	102	22/33	0.83	0.38	46,57,63,72	22
19	LFA	C	313	11/20	0.83	0.28	37,41,51,54	11
19	LFA	C	315	13/20	0.83	0.26	41,46,54,59	13
20	DMU	C	320	33/33	0.83	0.23	40,55,60,62	33
26	CDL	C	304	87/100	0.83	0.20	43,61,77,82	0
20	DMU	G	102	11/33	0.83	0.38	43,51,56,58	11
20	DMU	M	102	8/33	0.83	0.26	39,43,45,51	8
26	CDL	P	304	87/100	0.83	0.20	42,63,83,88	0
26	CDL	Y	101	94/100	0.83	0.18	46,63,81,92	0
19	LFA	P	307	11/20	0.84	0.33	41,45,48,51	11
19	LFA	P	313	13/20	0.84	0.27	39,45,53,58	13
21	EDO	A	611	4/4	0.84	0.31	35,41,42,45	4
21	EDO	D	202	4/4	0.84	0.36	40,40,42,43	4
20	DMU	C	324	22/33	0.84	0.28	41,51,59,60	22
20	DMU	P	318	33/33	0.84	0.24	47,57,67,74	33
19	LFA	C	314	15/20	0.85	0.23	38,42,53,54	15
21	EDO	C	323	4/4	0.85	0.32	35,38,38,42	4
20	DMU	C	317	7/33	0.85	0.26	41,43,47,49	7
21	EDO	N	612	4/4	0.85	0.29	39,40,42,44	4
19	LFA	C	307	11/20	0.85	0.30	42,46,51,51	11
21	EDO	R	203	4/4	0.85	0.28	39,40,45,50	4
19	LFA	T	103	14/20	0.85	0.31	41,50,54,58	14
19	LFA	T	104	11/20	0.85	0.30	45,47,61,63	11
19	LFA	C	311	11/20	0.85	0.28	42,52,56,57	11
20	DMU	B	308	22/33	0.85	0.30	48,64,72,73	22

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
20	DMU	Z	101	33/33	0.85	0.14	48,58,70,73	0
20	DMU	H	101	33/33	0.85	0.25	36,45,51,60	33
21	EDO	A	610	4/4	0.85	0.24	31,33,34,34	4
20	DMU	N	609	7/33	0.86	0.34	47,48,50,53	7
20	DMU	N	610	33/33	0.86	0.21	38,52,65,67	33
19	LFA	P	309	18/20	0.86	0.24	36,44,48,48	18
21	EDO	C	321	4/4	0.86	0.29	46,47,48,57	4
20	DMU	A	615	11/33	0.86	0.35	43,51,57,57	11
20	DMU	U	101	33/33	0.86	0.26	36,46,57,65	33
20	DMU	W	101	11/33	0.86	0.32	50,56,61,66	11
20	DMU	P	315	7/33	0.86	0.29	44,46,53,61	7
20	DMU	T	105	22/33	0.87	0.24	44,50,56,65	22
19	LFA	C	309	18/20	0.87	0.23	35,41,47,49	18
26	CDL	L	101	94/100	0.87	0.16	40,59,75,80	0
19	LFA	O	302	17/20	0.87	0.28	43,54,60,68	17
19	LFA	C	310	15/20	0.87	0.32	38,50,54,54	15
20	DMU	C	325	33/33	0.87	0.16	39,47,63,68	33
20	DMU	A	609	33/33	0.88	0.19	33,44,52,57	33
20	DMU	P	322	33/33	0.88	0.16	38,52,69,74	33
19	LFA	P	312	15/20	0.89	0.17	36,41,46,51	15
19	LFA	B	307	17/20	0.89	0.28	42,53,63,63	17
20	DMU	L	102	22/33	0.89	0.30	40,48,54,59	22
20	DMU	B	302	11/33	0.89	0.27	39,43,51,58	11
20	DMU	B	304	22/33	0.89	0.20	36,52,58,70	22
20	DMU	M	101	33/33	0.90	0.11	46,52,64,74	0
21	EDO	E	202	4/4	0.90	0.24	36,37,41,44	4
20	DMU	J	101	11/33	0.90	0.29	48,52,55,68	11
21	EDO	N	613	4/4	0.90	0.18	31,31,32,33	4
20	DMU	O	306	11/33	0.90	0.27	38,41,49,53	11
20	DMU	O	308	22/33	0.90	0.20	33,47,51,52	22
20	DMU	D	201	33/33	0.90	0.16	29,42,50,55	33
20	DMU	P	306	11/33	0.91	0.27	40,46,49,56	11
21	EDO	P	319	4/4	0.91	0.22	46,48,55,63	4
21	EDO	N	611	4/4	0.91	0.16	30,31,32,34	4
20	DMU	B	303	11/33	0.91	0.22	38,45,55,56	11
21	EDO	C	322	4/4	0.92	0.24	35,37,38,39	4
21	EDO	R	202	4/4	0.92	0.20	34,35,39,42	4
19	LFA	A	607	14/20	0.92	0.21	34,40,57,57	14
20	DMU	C	306	11/33	0.92	0.22	43,49,53,57	11
20	DMU	Z	103	8/33	0.92	0.20	42,45,47,49	8
25	UNX	P	302	1/1	0.92	0.28	44,44,44,44	0
21	EDO	A	613	4/4	0.93	0.19	39,40,41,45	4

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
21	EDO	N	615	4/4	0.93	0.22	32,32,32,34	4
21	EDO	A	612	4/4	0.93	0.20	30,30,30,31	4
21	EDO	N	614	4/4	0.94	0.19	34,34,35,39	4
21	EDO	G	103	4/4	0.94	0.16	38,38,39,41	4
19	LFA	N	608	14/20	0.94	0.17	34,40,52,53	14
21	EDO	E	201	4/4	0.94	0.21	34,34,34,37	4
20	DMU	O	307	11/33	0.94	0.21	38,44,50,56	11
28	PEK	T	102	53/53	0.94	0.12	38,48,67,69	0
21	EDO	F	103	4/4	0.95	0.11	31,34,35,36	4
21	EDO	R	201	4/4	0.95	0.25	54,59,60,62	4
21	EDO	F	102	4/4	0.95	0.12	27,27,31,32	4
21	EDO	P	320	4/4	0.95	0.23	33,35,36,38	4
28	PEK	G	101	53/53	0.95	0.11	36,46,68,76	0
21	EDO	T	106	4/4	0.95	0.12	40,40,40,43	4
25	UNX	C	302	1/1	0.96	0.15	45,45,45,45	0
24	CHD	C	301	29/29	0.96	0.07	34,37,39,42	0
22	PGV	N	616	51/51	0.97	0.08	33,38,55,62	0
22	PGV	P	303	51/51	0.97	0.08	33,39,63,67	0
24	CHD	B	306	29/29	0.97	0.07	35,39,41,47	0
21	EDO	S	103	4/4	0.97	0.09	31,37,37,38	4
21	EDO	O	309	4/4	0.97	0.12	35,37,37,40	4
24	CHD	O	301	29/29	0.97	0.07	35,39,41,47	0
24	CHD	P	301	29/29	0.97	0.07	34,38,41,44	0
22	PGV	A	614	51/51	0.97	0.09	32,38,55,59	0
22	PGV	C	303	51/51	0.97	0.09	33,40,64,68	0
14	HEA	N	602	60/60	0.98	0.06	32,34,38,43	0
21	EDO	B	305	4/4	0.98	0.08	32,33,35,36	4
17	NA	A	605	1/1	0.98	0.07	36,36,36,36	0
18	N2O	A	606	3/3	0.98	0.10	33,33,35,38	0
18	N2O	N	607	3/3	0.98	0.13	36,36,41,41	0
21	EDO	S	102	4/4	0.98	0.07	26,28,29,29	4
14	HEA	A	602	60/60	0.98	0.06	29,32,37,42	0
14	HEA	A	601	60/60	0.99	0.06	28,32,41,47	0
15	CU	A	603	1/1	0.99	0.02	31,31,31,31	0
16	MG	A	604	1/1	0.99	0.04	31,31,31,31	0
23	CUA	B	301	2/2	0.99	0.03	33,33,33,34	0
23	CUA	O	305	2/2	0.99	0.03	37,37,37,38	0
27	ZN	F	101	1/1	0.99	0.02	37,37,37,37	0
27	ZN	S	101	1/1	0.99	0.03	37,37,37,37	0
14	HEA	N	601	60/60	0.99	0.06	31,35,44,52	0
17	NA	N	605	1/1	0.99	0.04	41,41,41,41	0
16	MG	N	604	1/1	1.00	0.04	36,36,36,36	0

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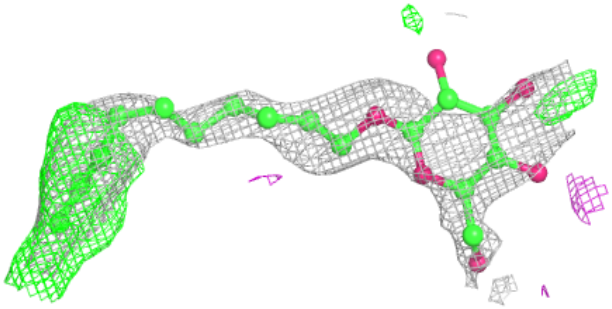
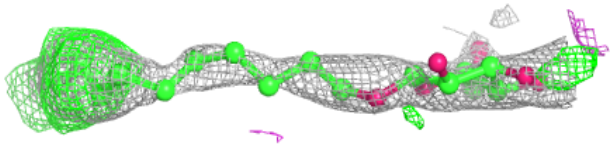
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
15	CU	N	603	1/1	1.00	0.02	33,33,33,33	0

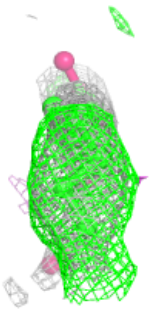
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation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

Electron density around DMU C 318:

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

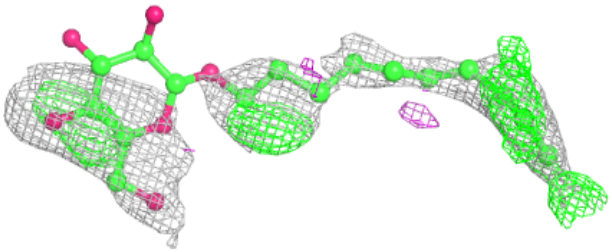


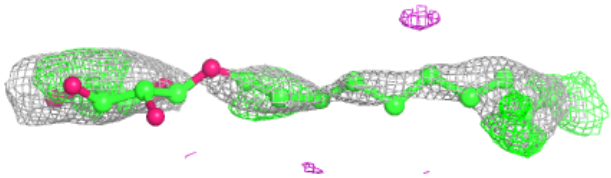


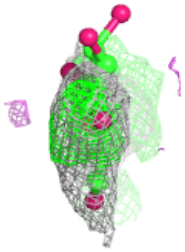


Electron density around DMU P 316:

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

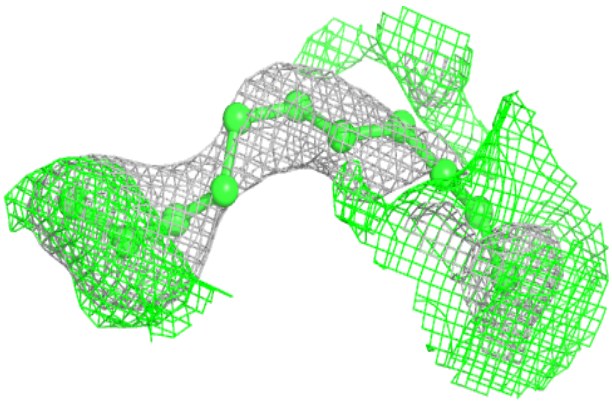


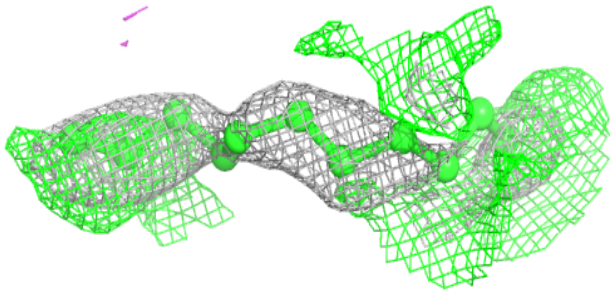


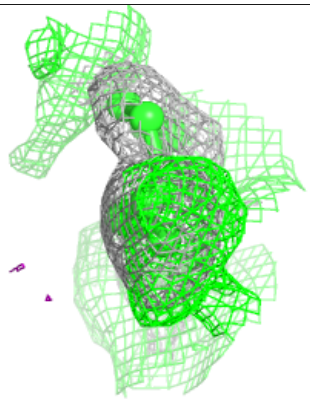


Electron density around LFA P 310:

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

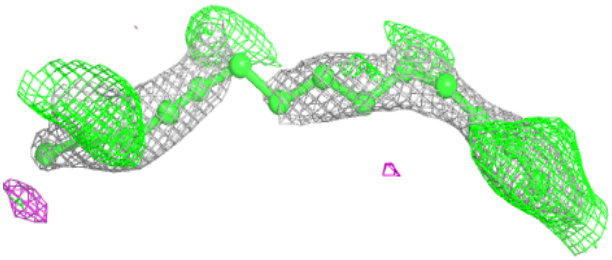


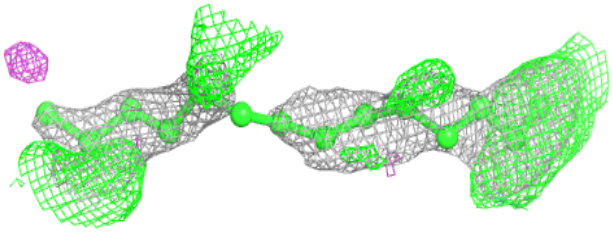


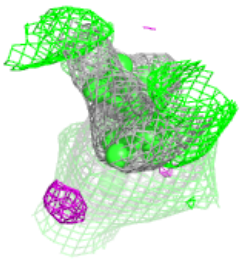


Electron density around LFA C 312:

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

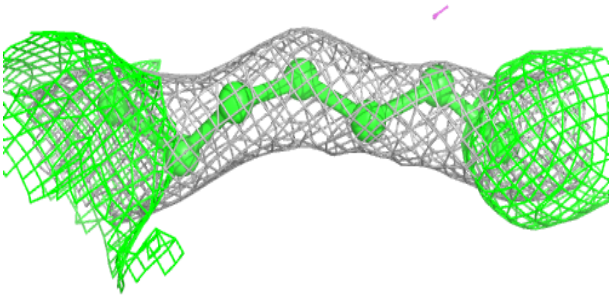


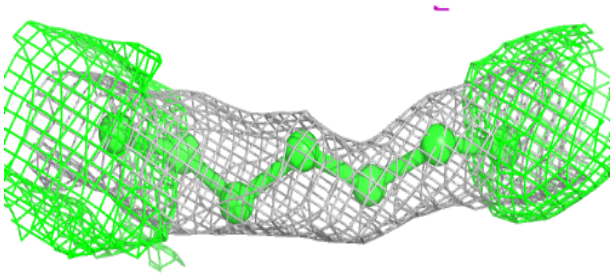


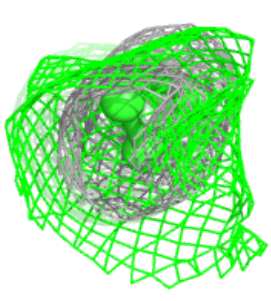


Electron density around DMU A 608:

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

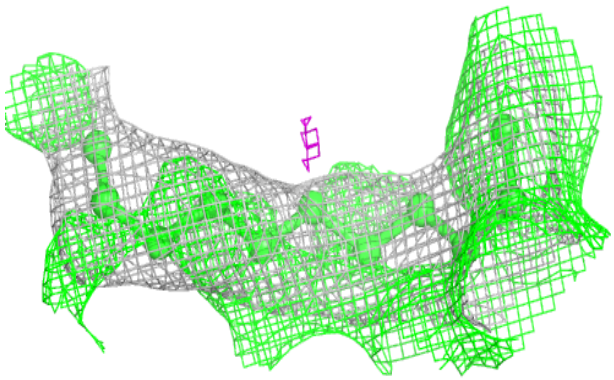


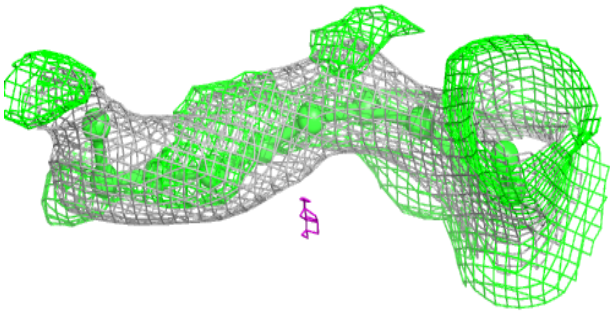


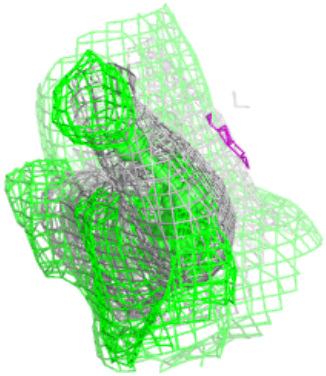


Electron density around LFA P 311:

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

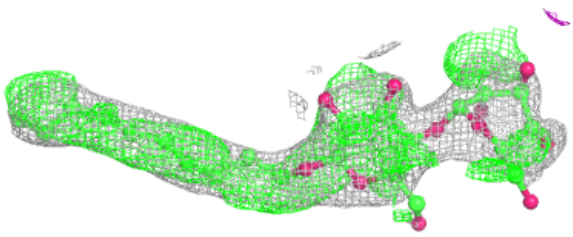


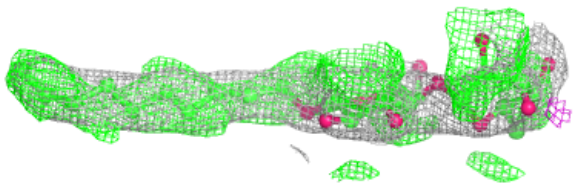


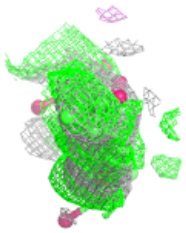


Electron density around DMU C 319:

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

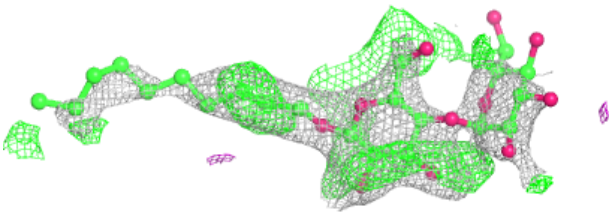


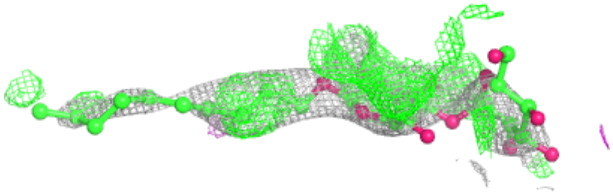


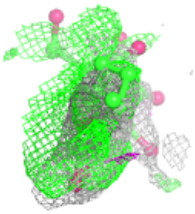


Electron density around DMU C 316:

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

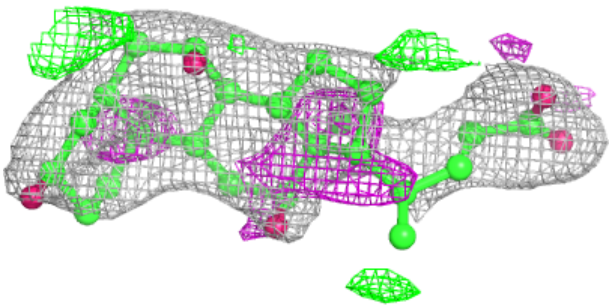


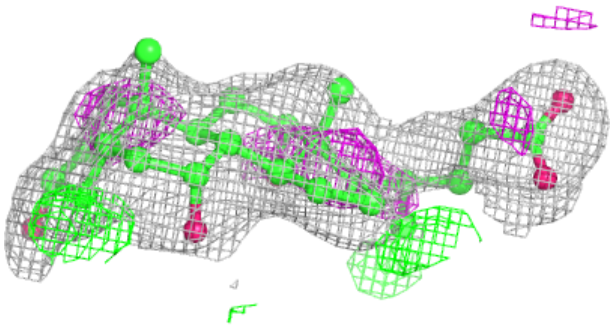


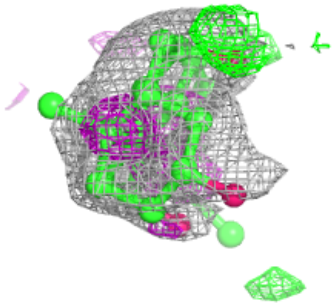


Electron density around CHD C 305:

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

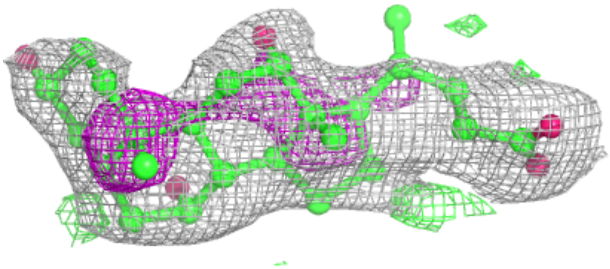


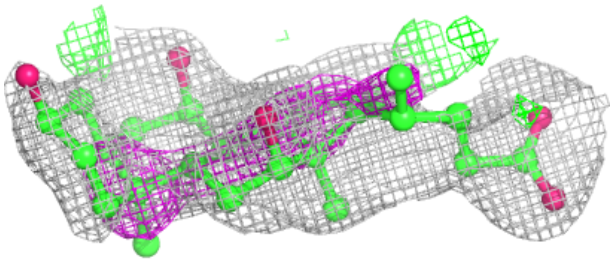


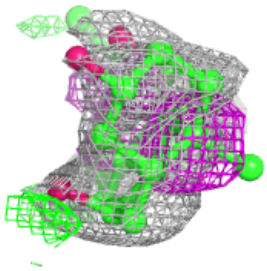


Electron density around CHD P 305:

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

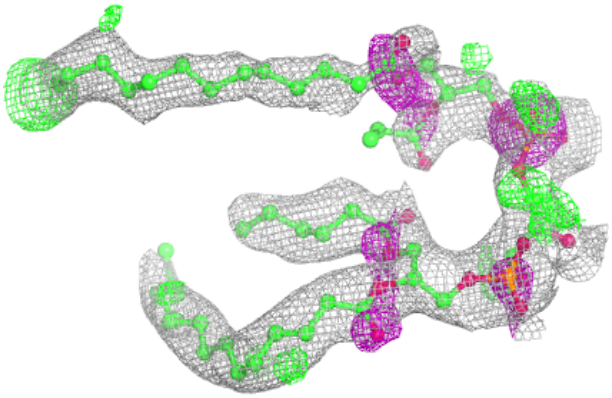


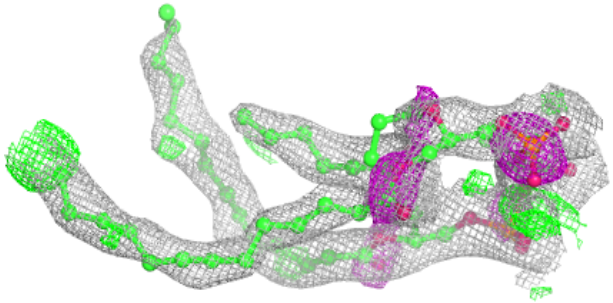


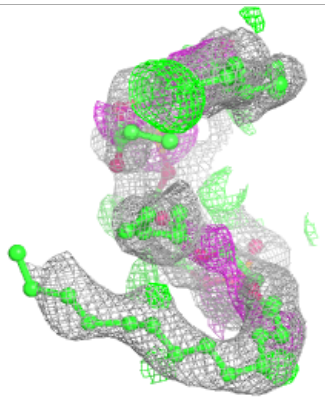


Electron density around CDL N 606:

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

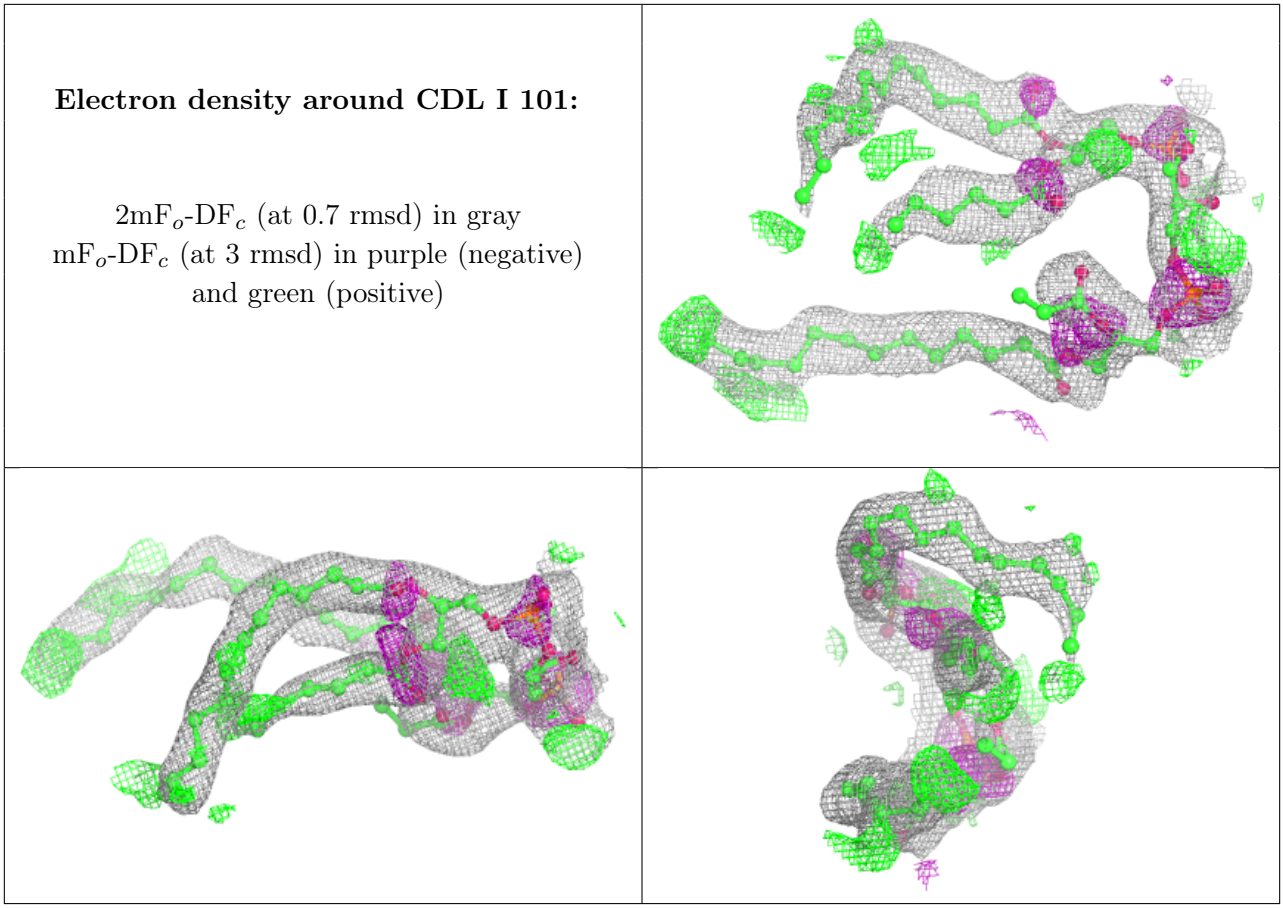






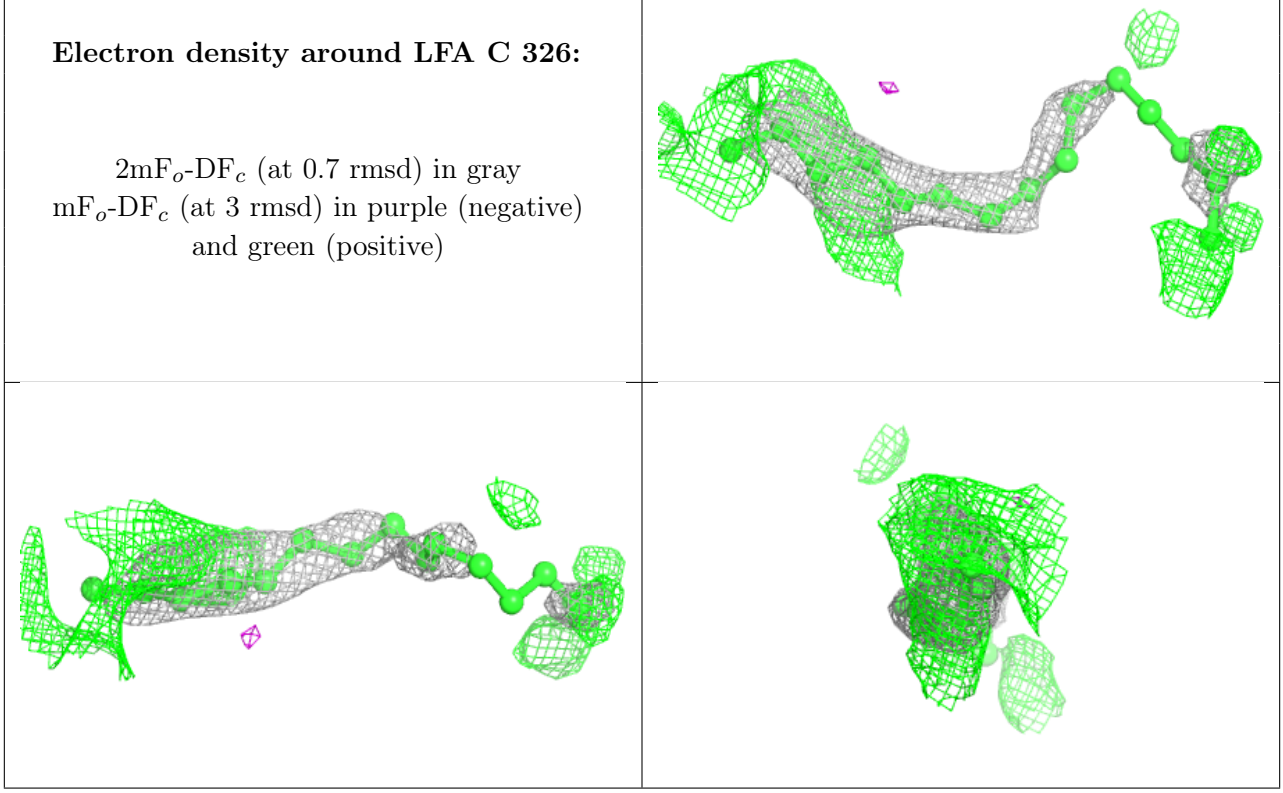
Electron density around CDL I 101:

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



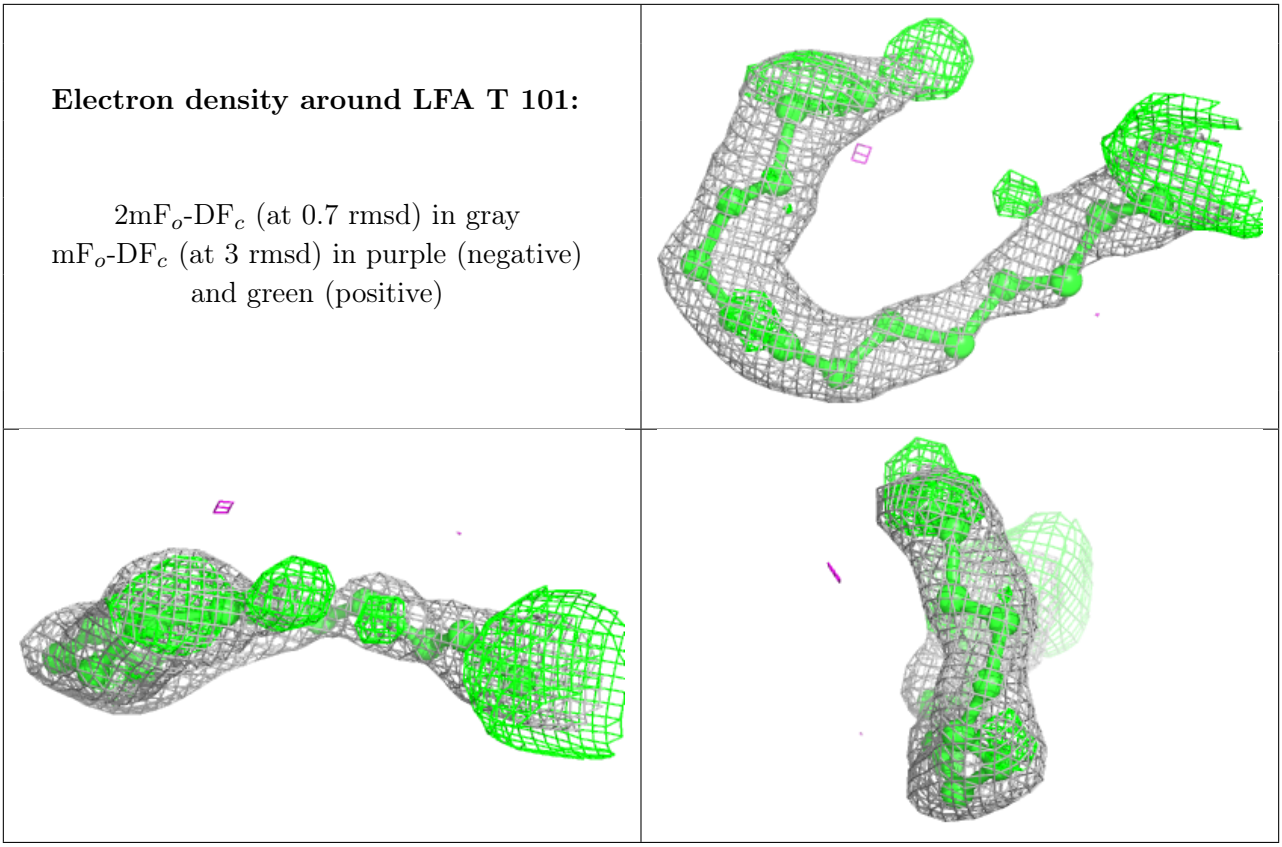
Electron density around LFA C 326:

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



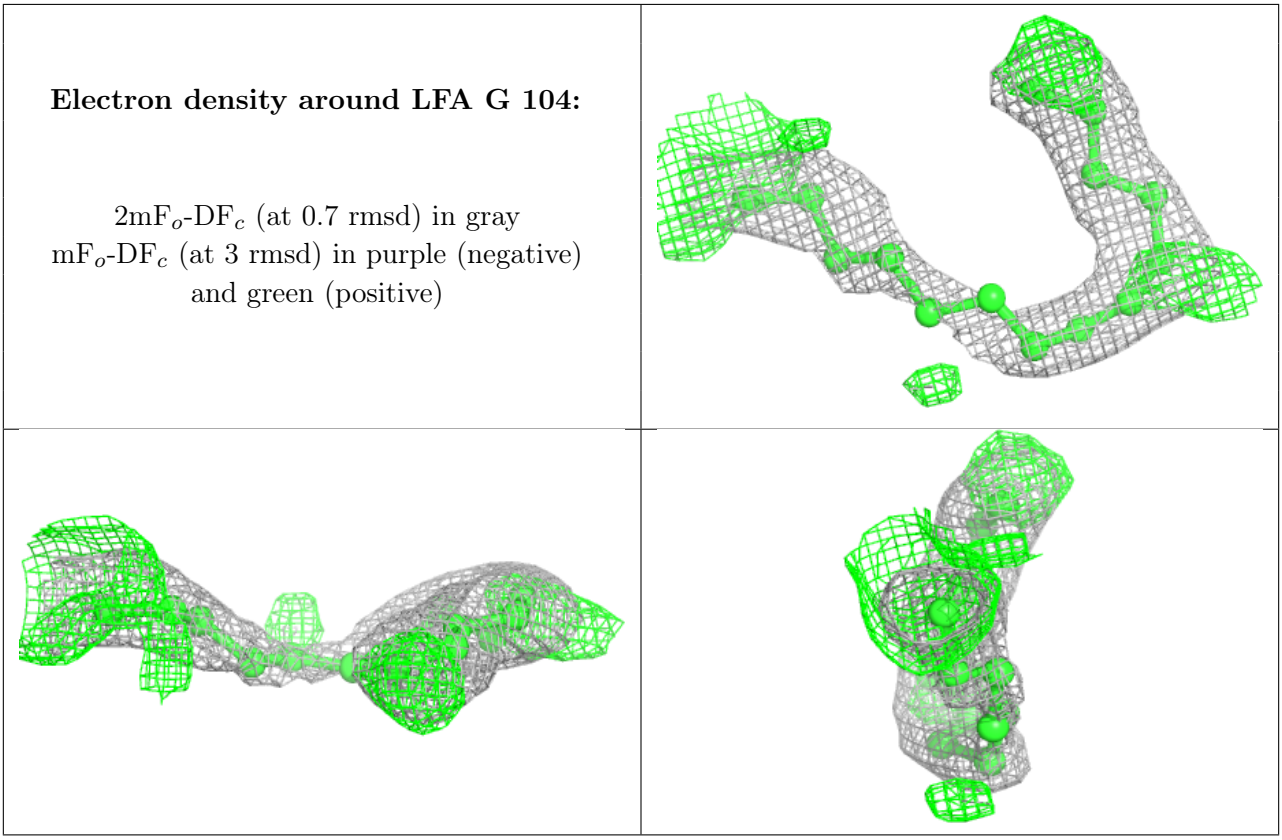
Electron density around LFA T 101:

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



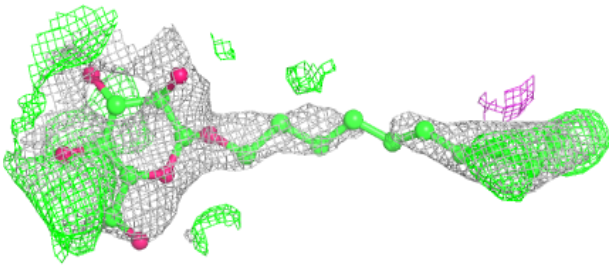
Electron density around LFA G 104:

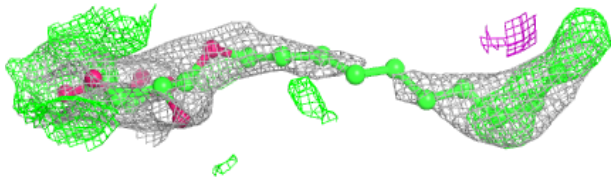
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

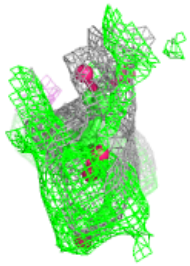


Electron density around DMU O 304:

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

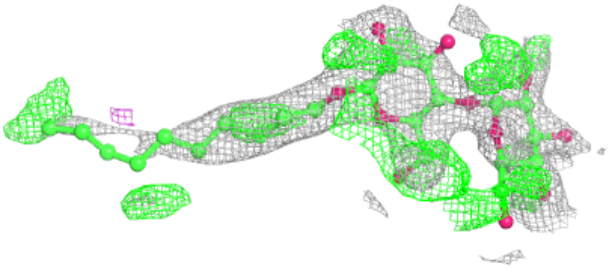


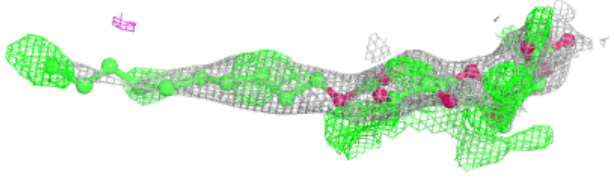


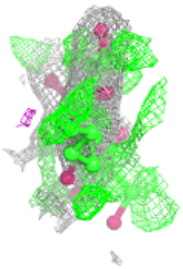


Electron density around DMU P 314:

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

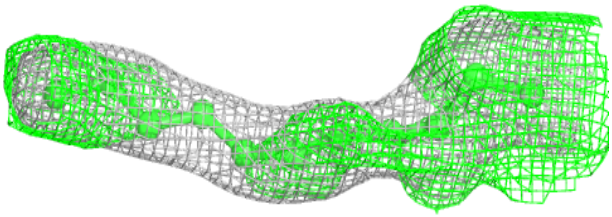


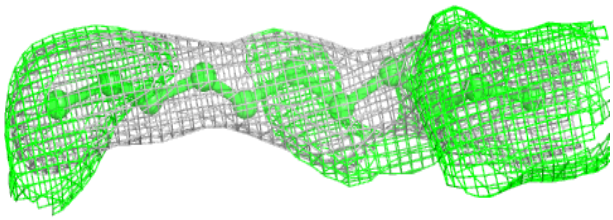


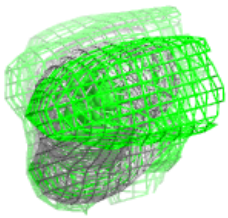


Electron density around LFA O 303:

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

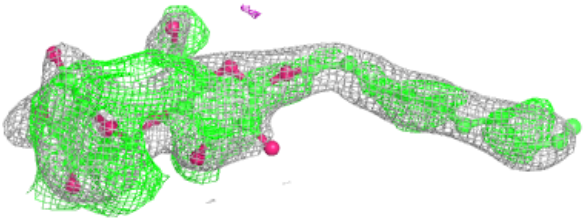


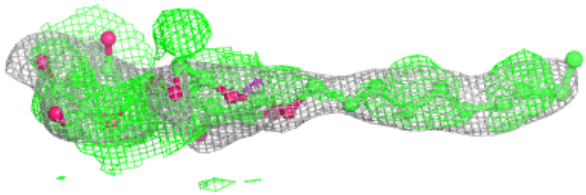


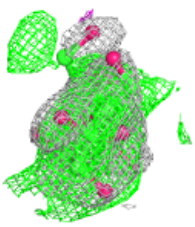


Electron density around DMU P 317:

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

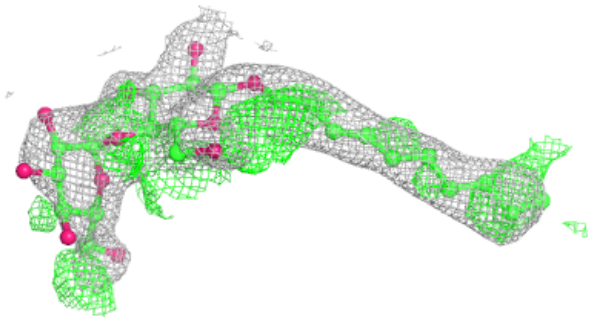


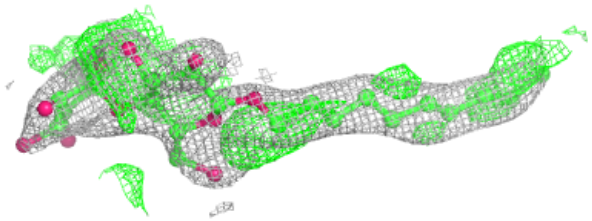


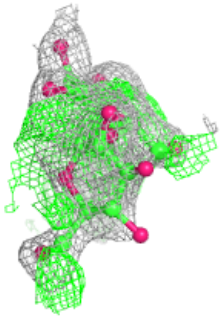


Electron density around DMU Q 201:

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

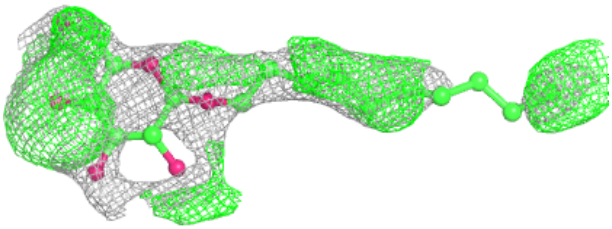


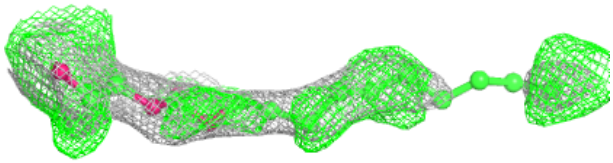


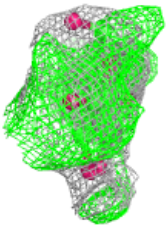


Electron density around DMU Z 102:

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

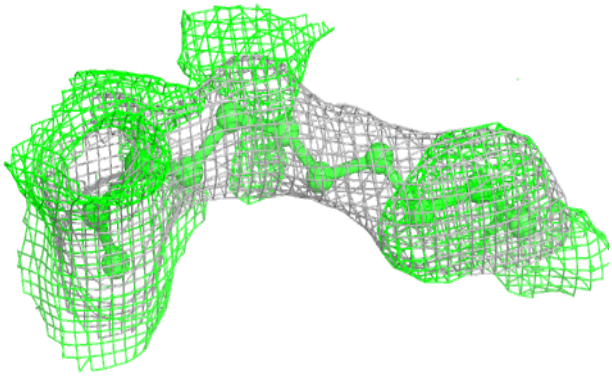


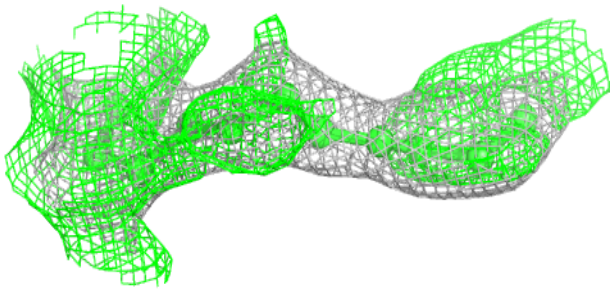


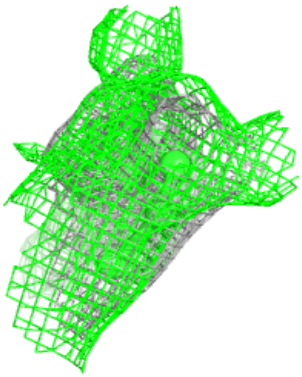


Electron density around LFA C 313:

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

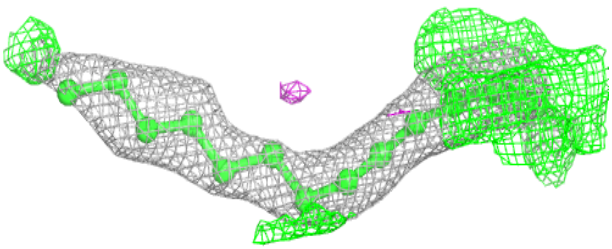


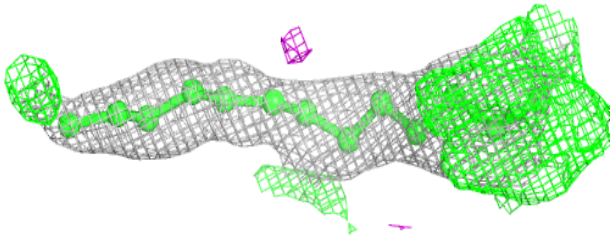


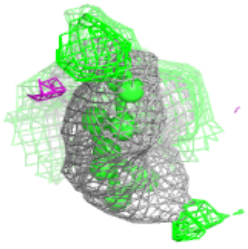


Electron density around LFA C 315:

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

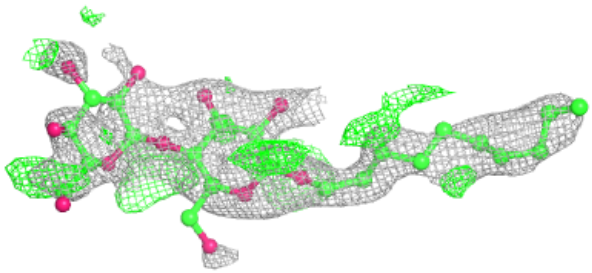


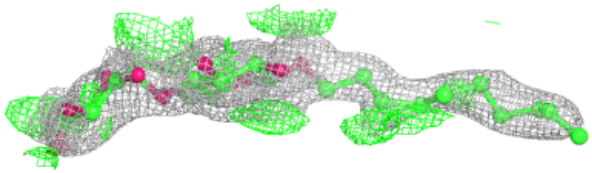


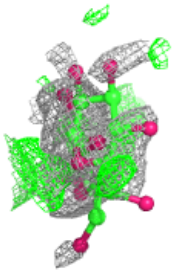


Electron density around DMU C 320:

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

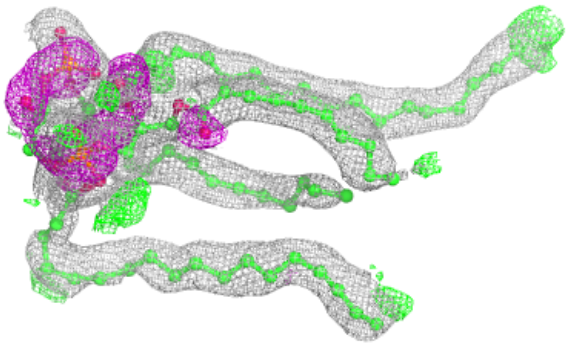


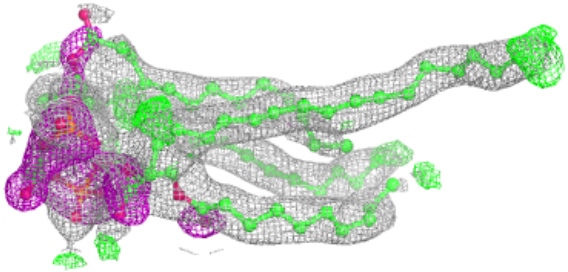


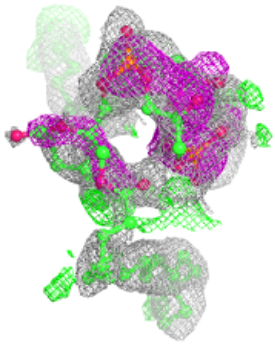


Electron density around CDL C 304:

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

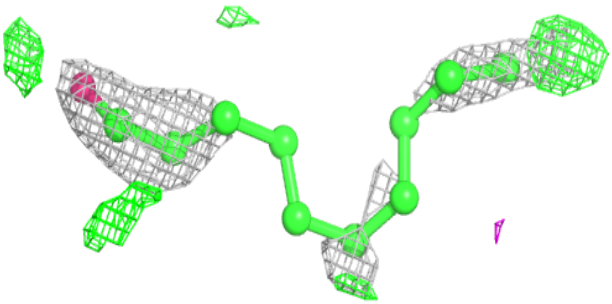


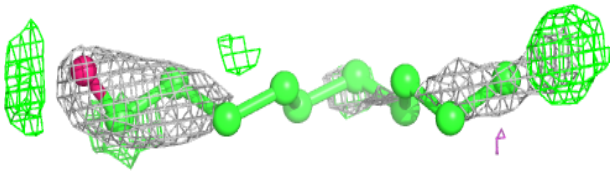


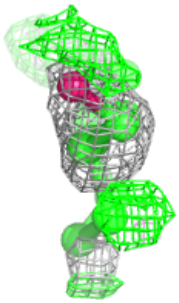


Electron density around DMU G 102:

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

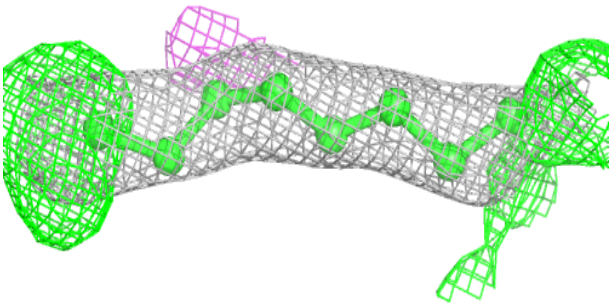


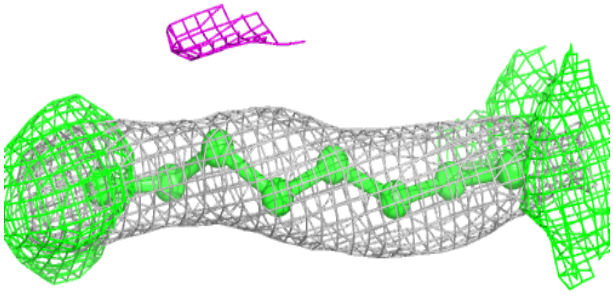


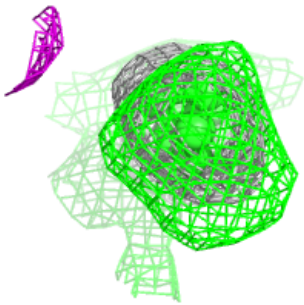


Electron density around DMU M 102:

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

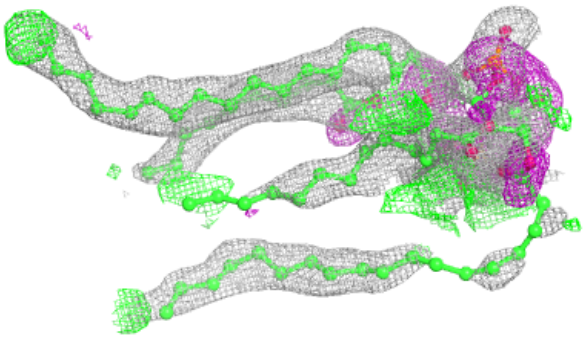


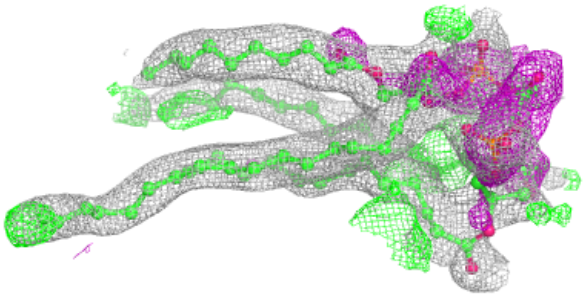


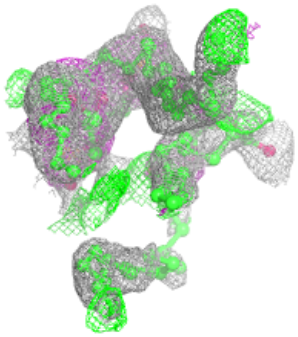


Electron density around CDL P 304:

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

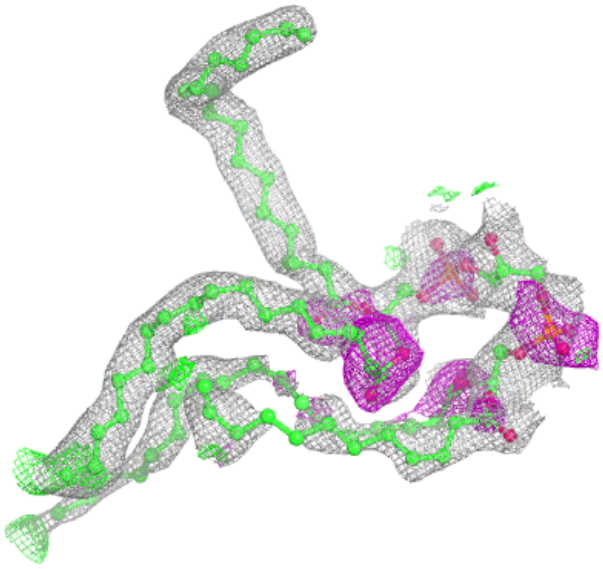


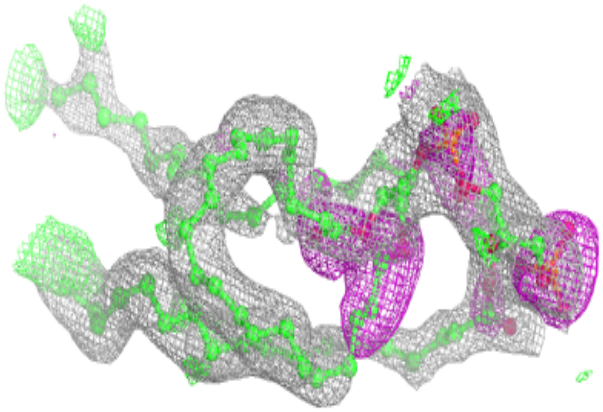


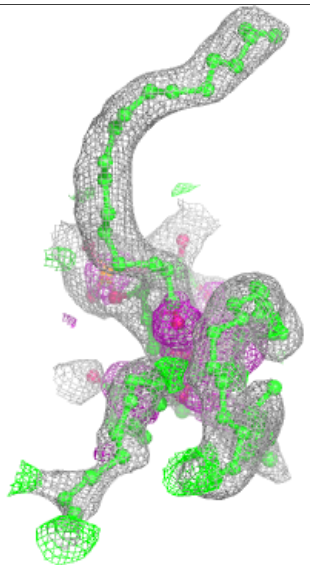


Electron density around CDL Y 101:

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

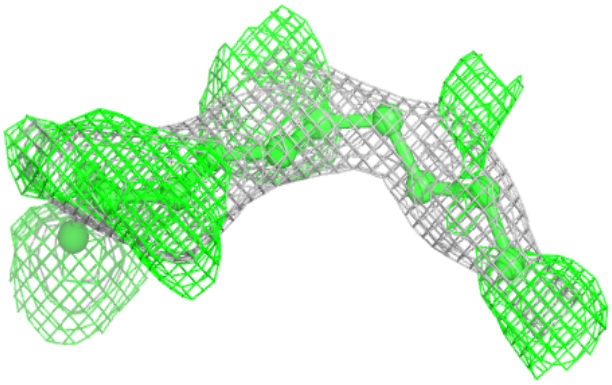


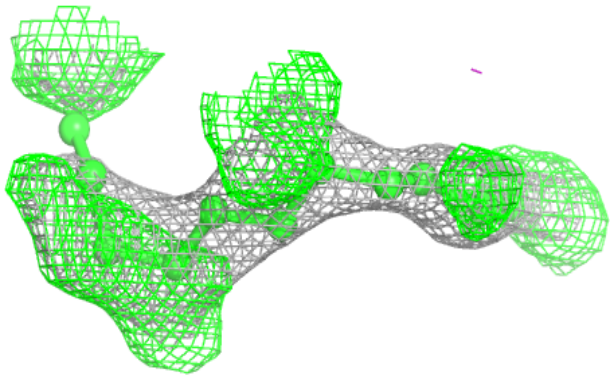


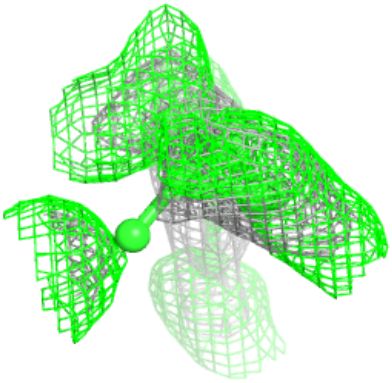


Electron density around LFA P 307:

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

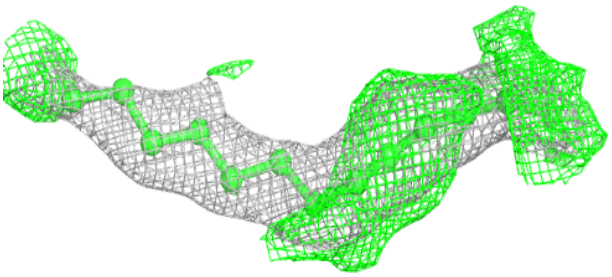


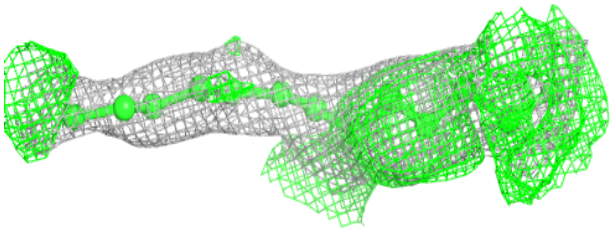


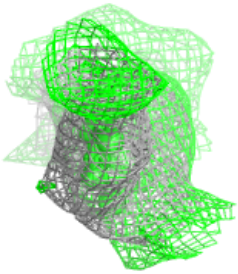


Electron density around LFA P 313:

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

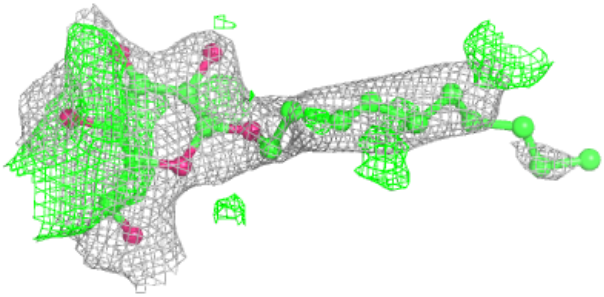


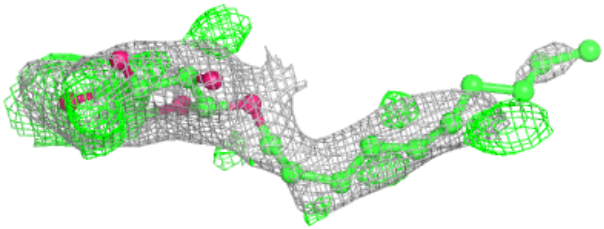


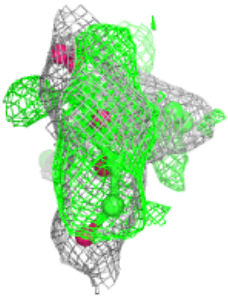


Electron density around DMU C 324:

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

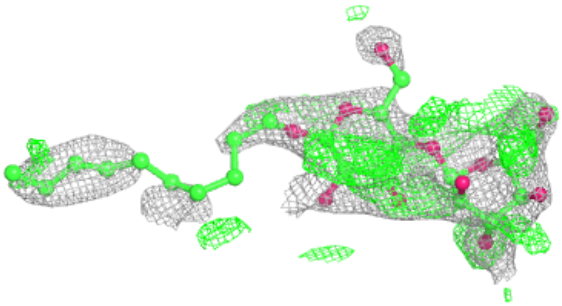


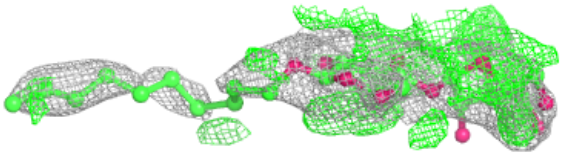


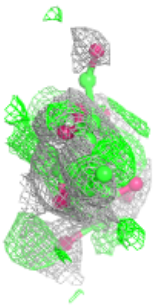


Electron density around DMU P 318:

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

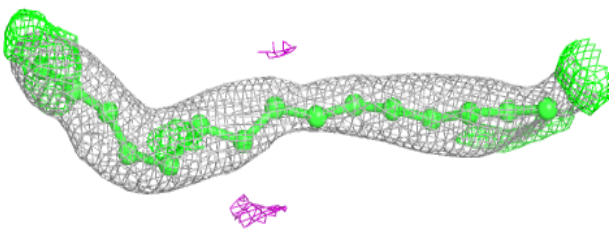


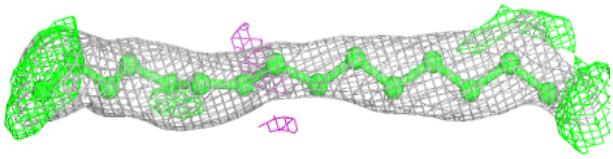


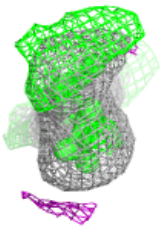


Electron density around LFA C 314:

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

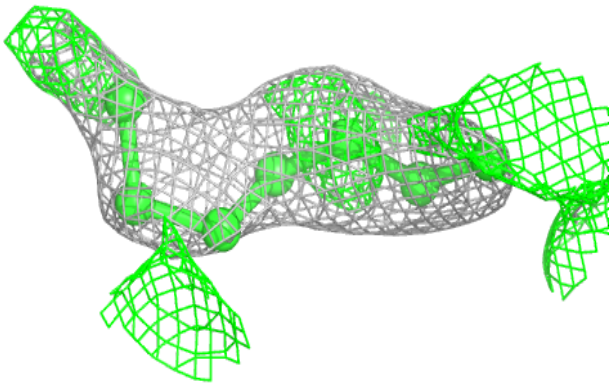


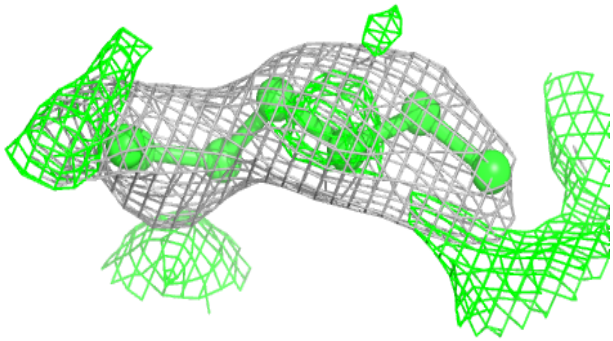


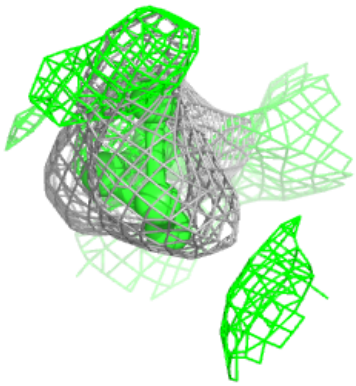


Electron density around DMU C 317:

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

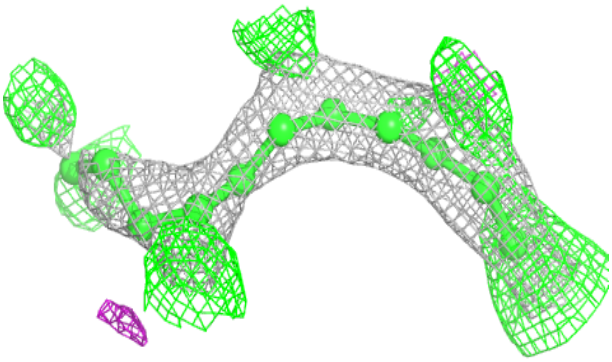


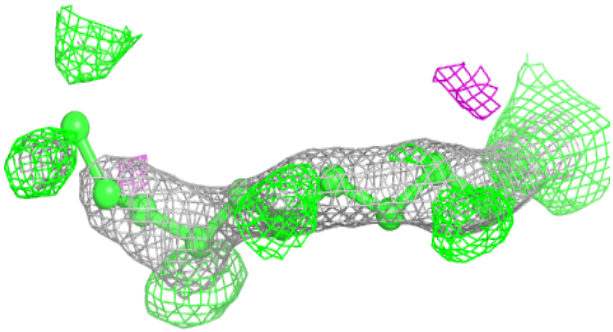


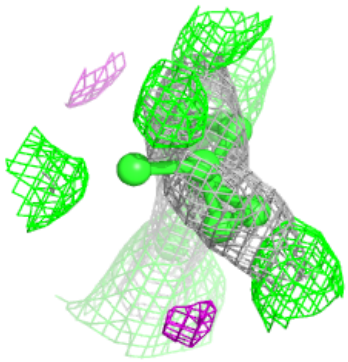


Electron density around LFA C 307:

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

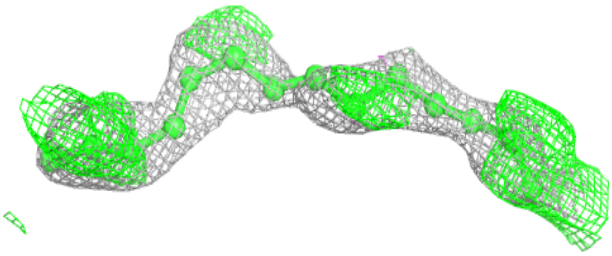


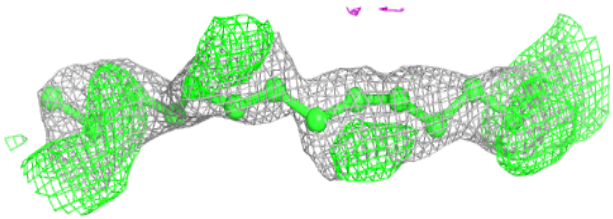


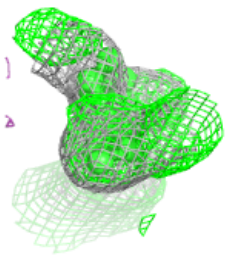


Electron density around LFA T 103:

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

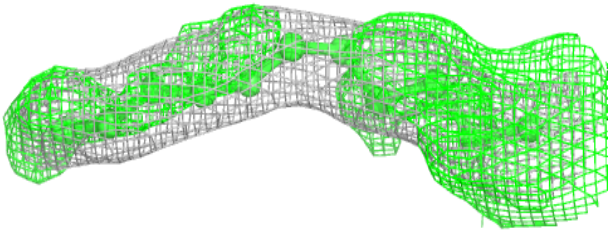


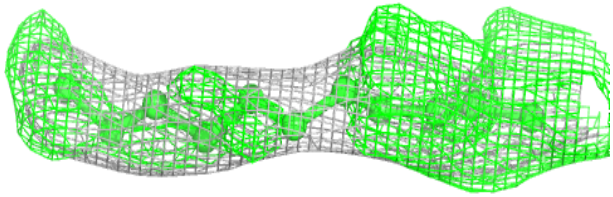


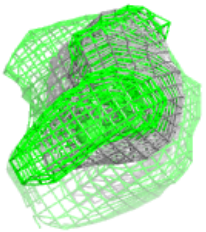


Electron density around LFA T 104:

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

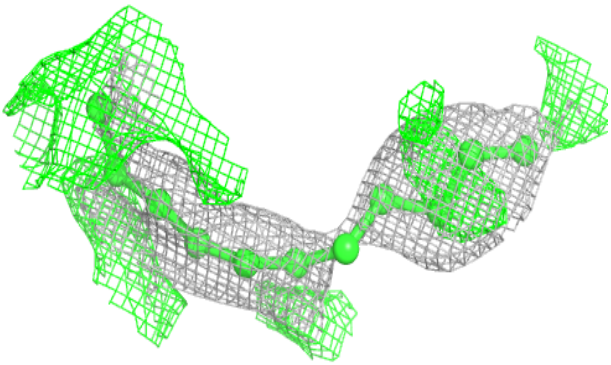


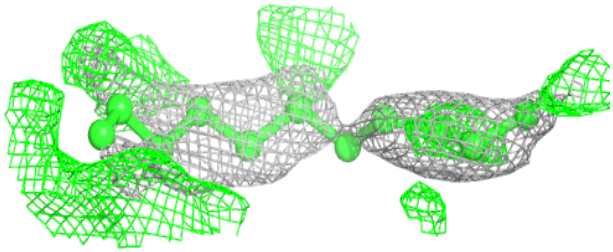


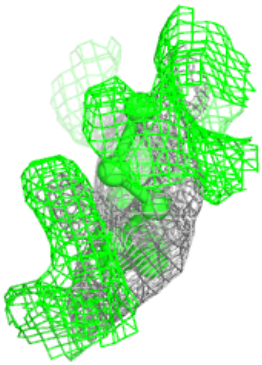


Electron density around LFA C 311:

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

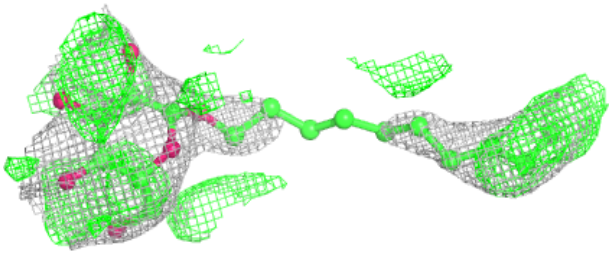


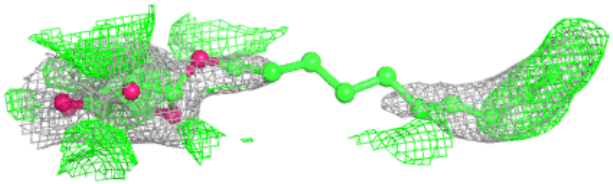


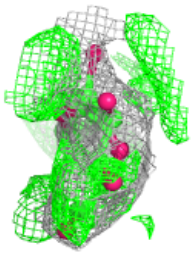


Electron density around DMU B 308:

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

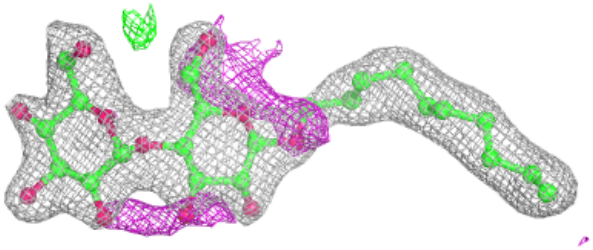


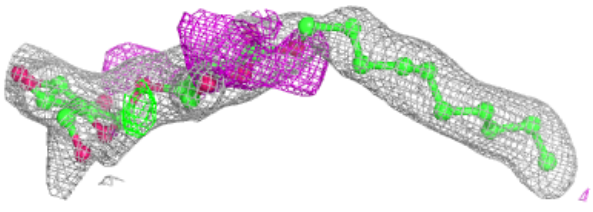


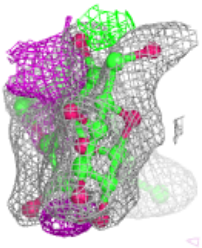


Electron density around DMU Z 101:

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

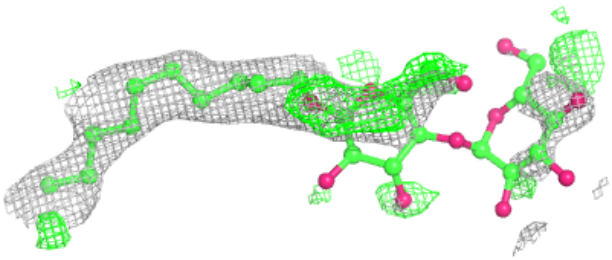


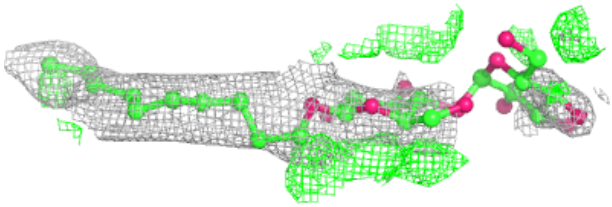


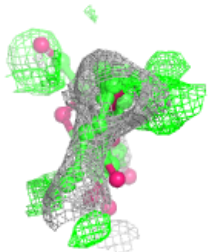


Electron density around DMU H 101:

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

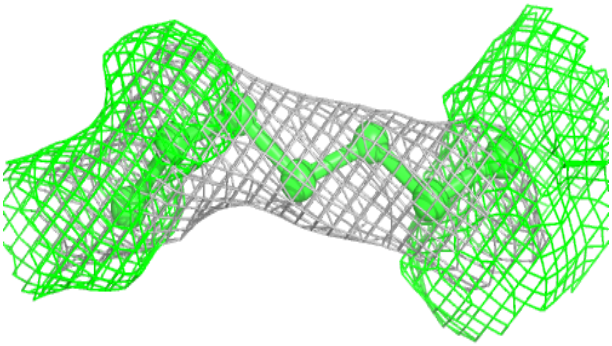


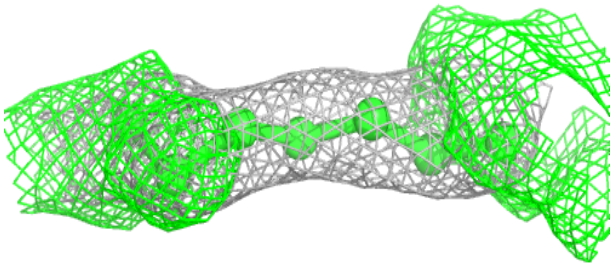


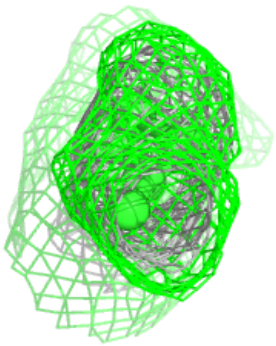


Electron density around DMU N 609:

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

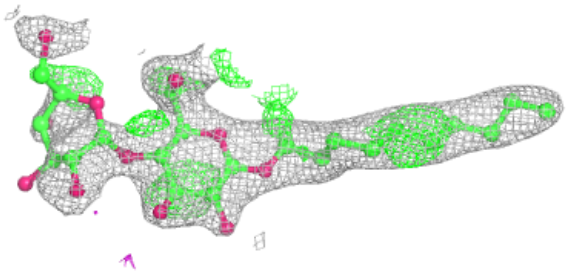


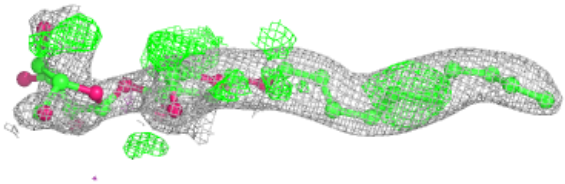


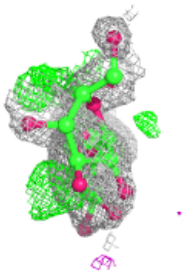


Electron density around DMU N 610:

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

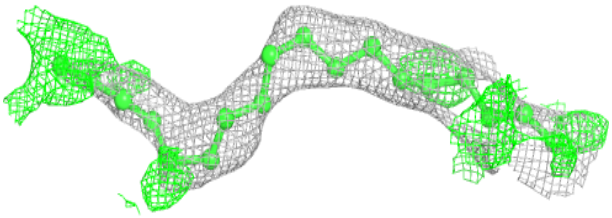


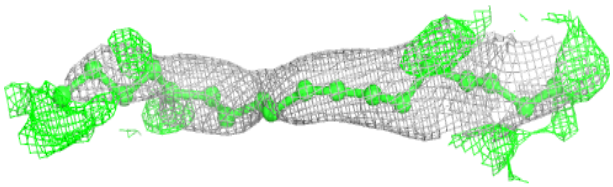


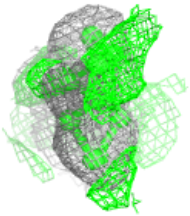


Electron density around LFA P 309:

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

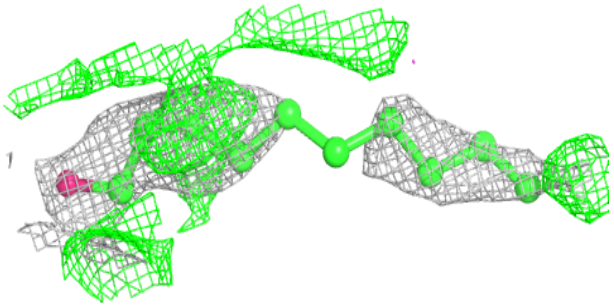


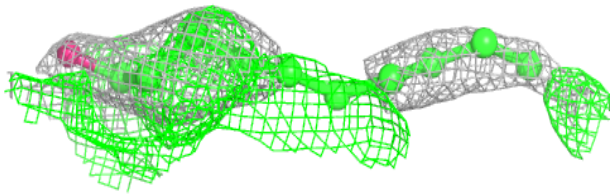


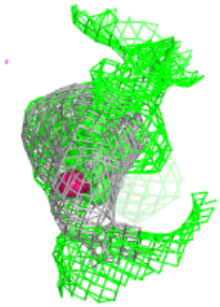


Electron density around DMU A 615:

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

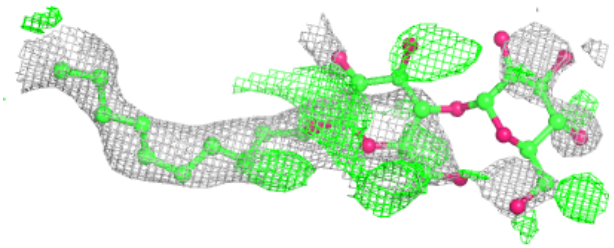


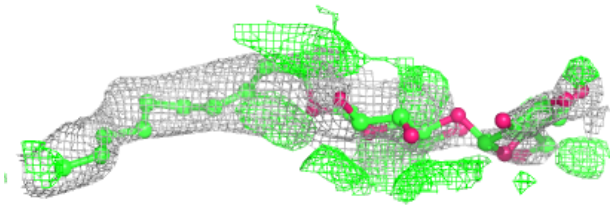


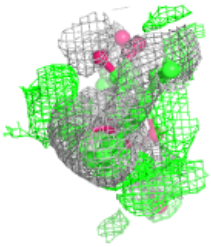


Electron density around DMU U 101:

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

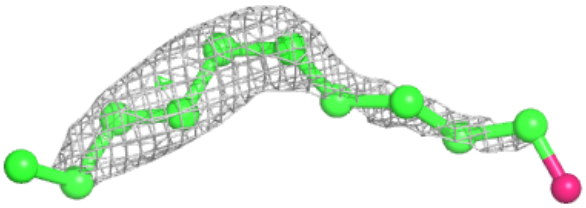


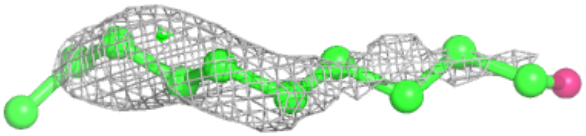


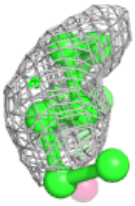


Electron density around DMU W 101:

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

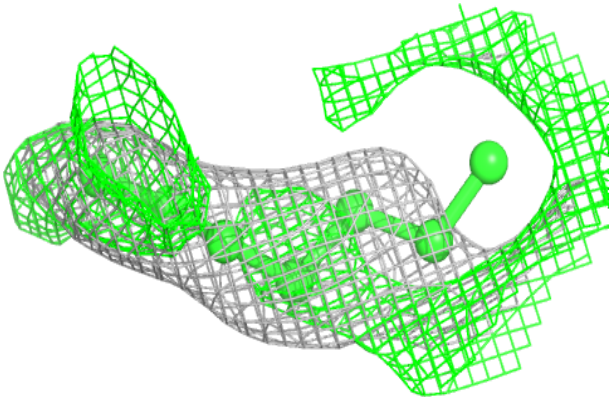


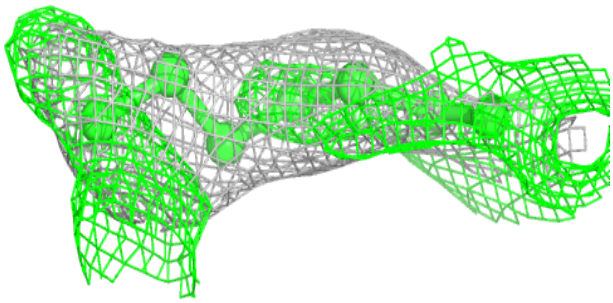


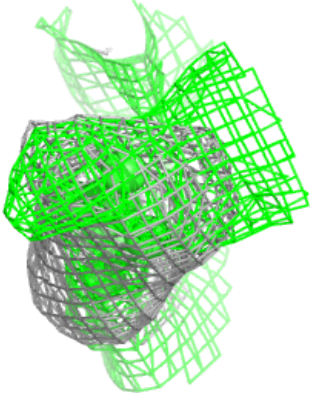


Electron density around DMU P 315:

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

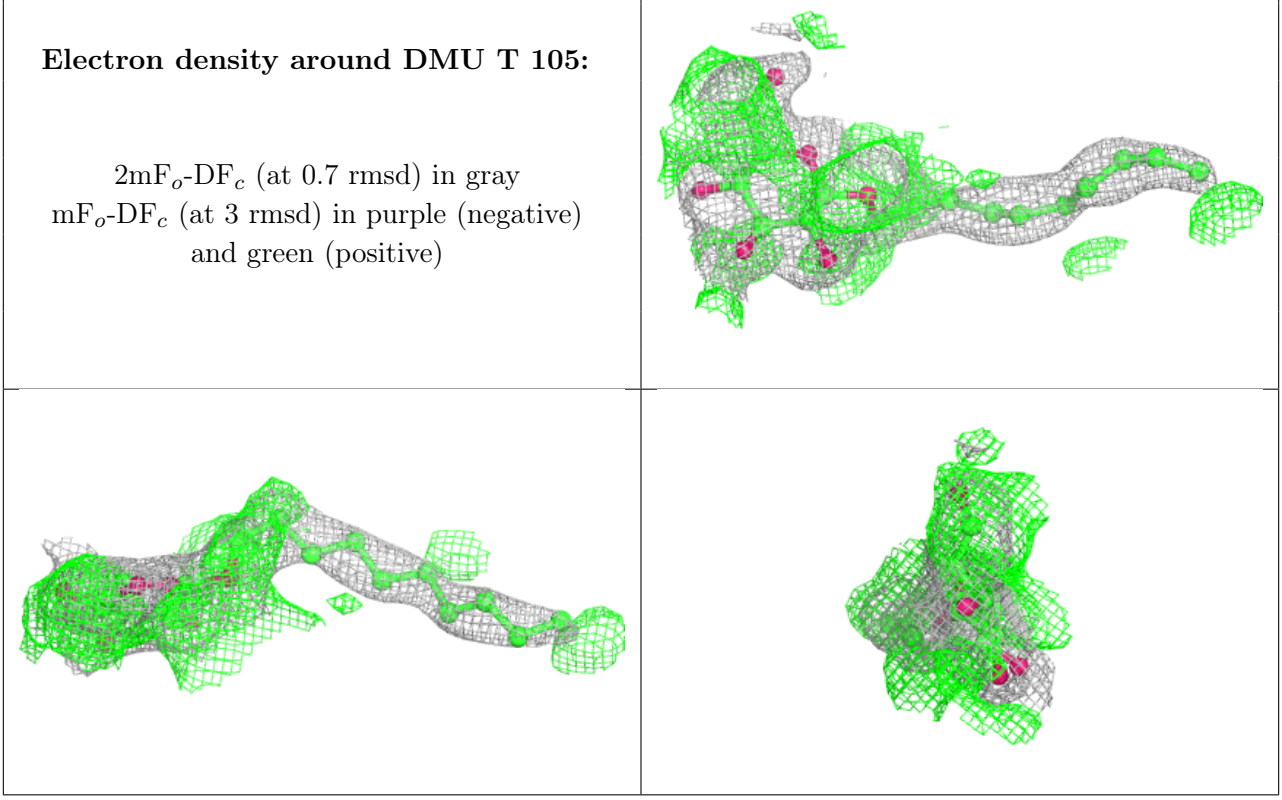






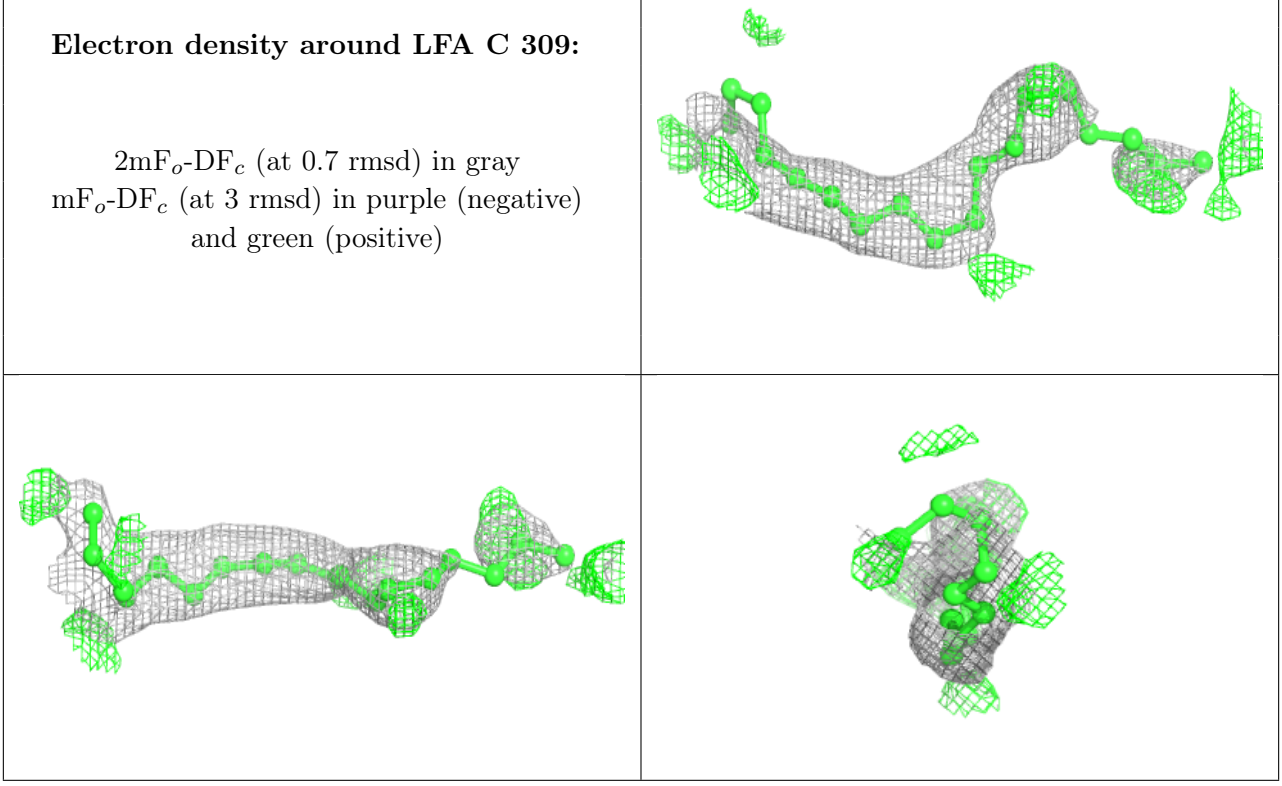
Electron density around DMU T 105:

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



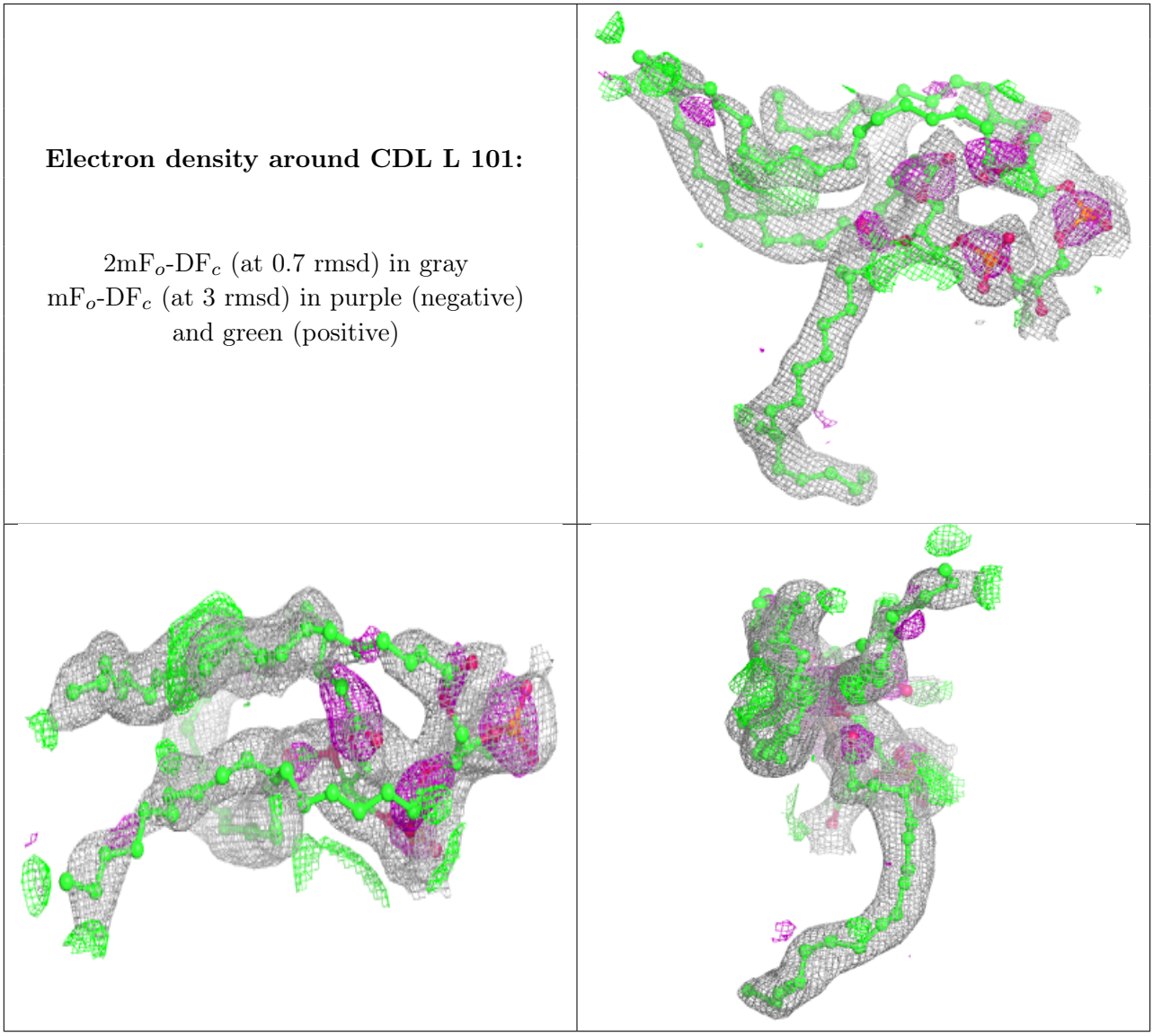
Electron density around LFA C 309:

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



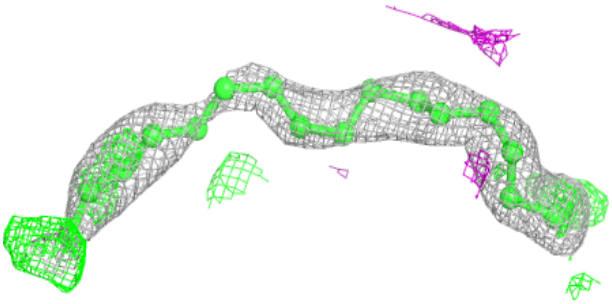
Electron density around CDL L 101:

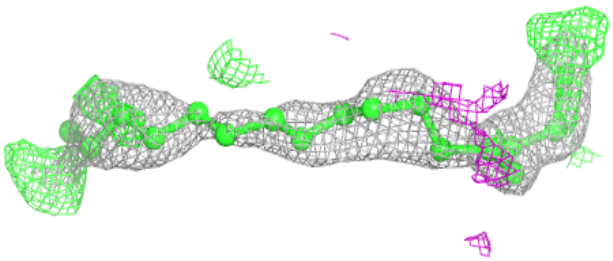
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

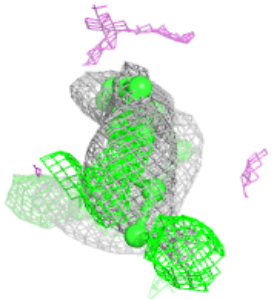


Electron density around LFA O 302:

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

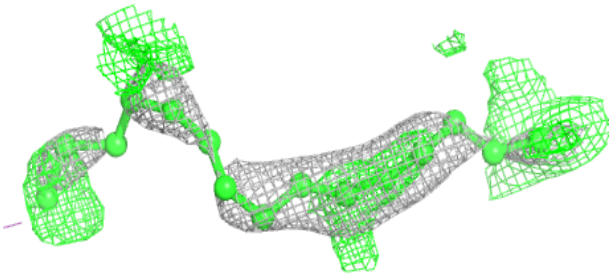


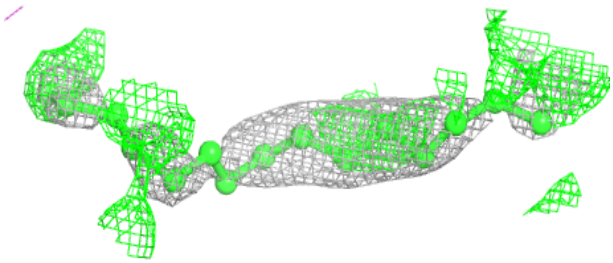


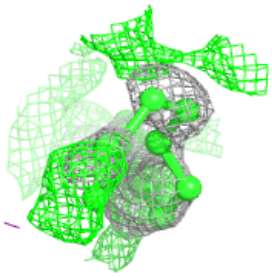


Electron density around LFA C 310:

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

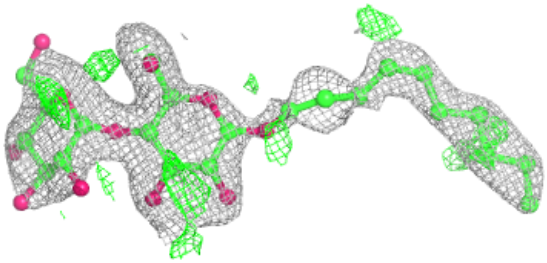


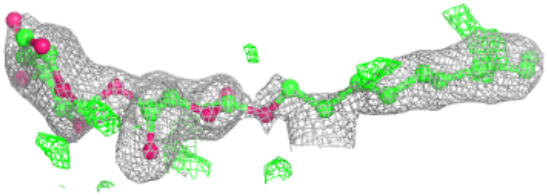


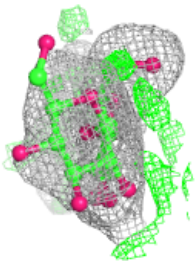


Electron density around DMU C 325:

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

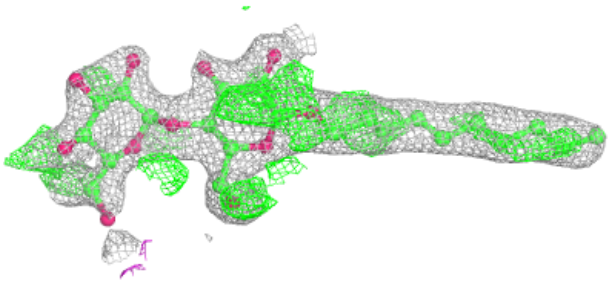


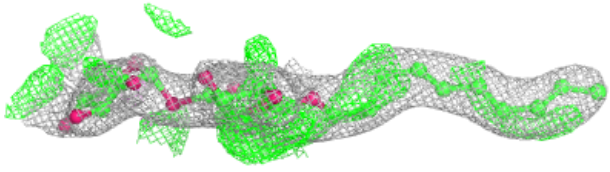


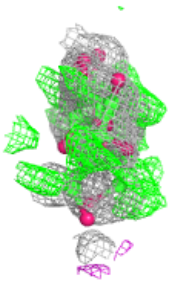


Electron density around DMU A 609:

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

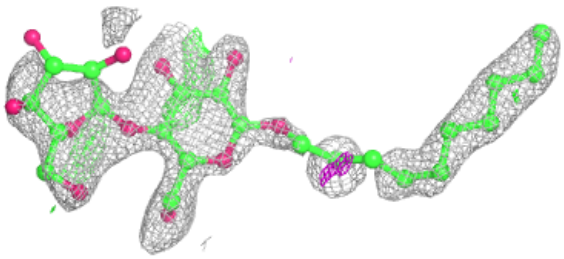


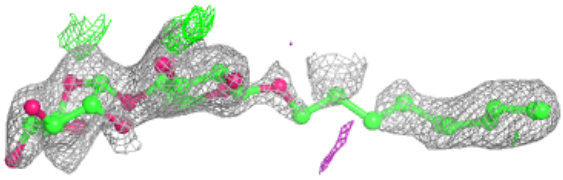


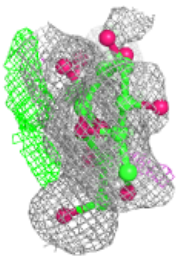


Electron density around DMU P 322:

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

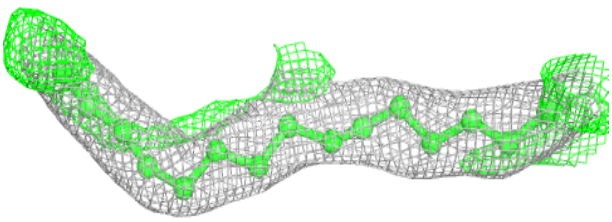


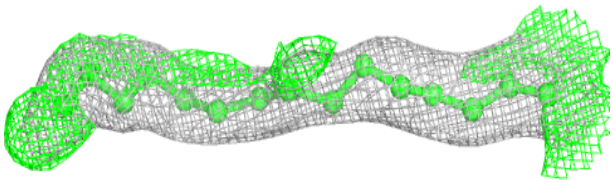


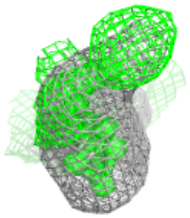


Electron density around LFA P 312:

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

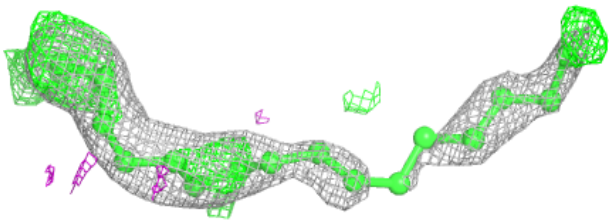


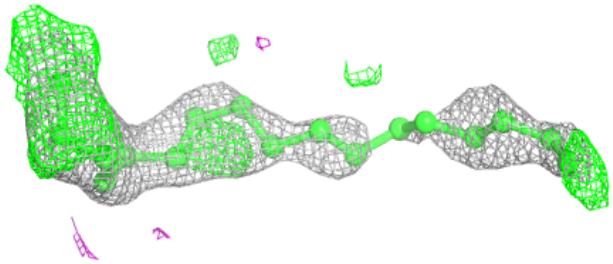


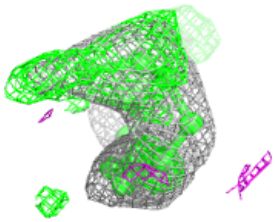


Electron density around LFA B 307:

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

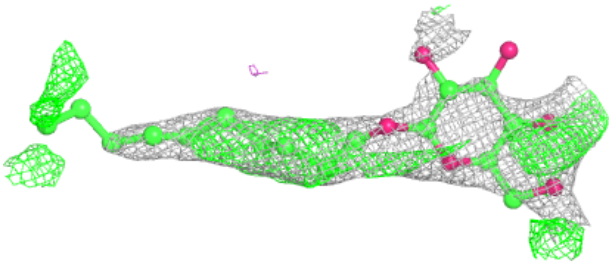


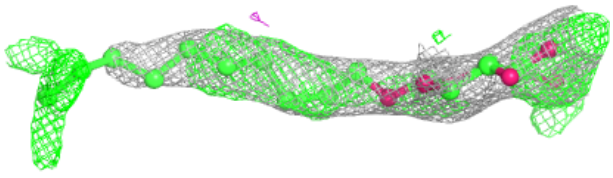


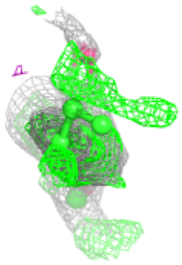


Electron density around DMU L 102:

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

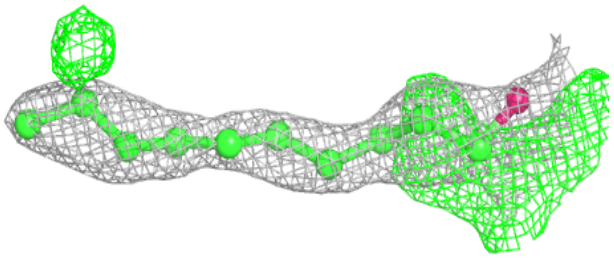


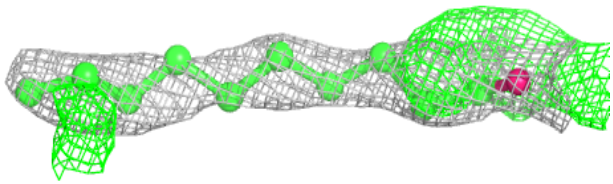


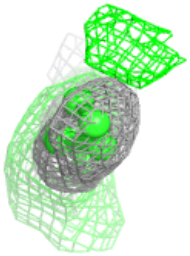


Electron density around DMU B 302:

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

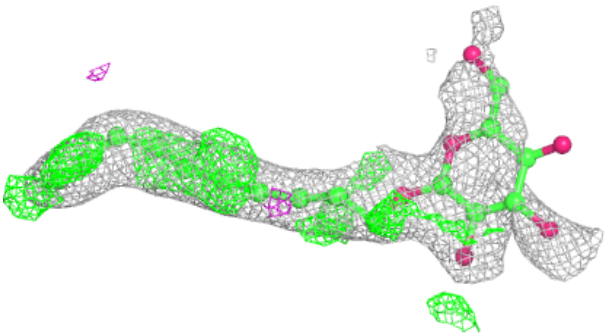


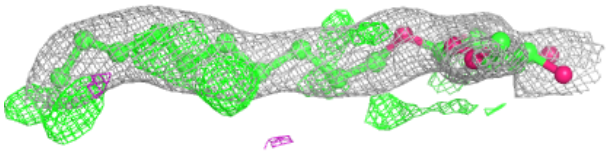


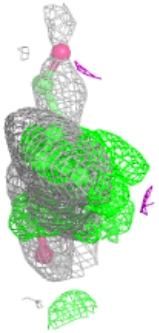


Electron density around DMU B 304:

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

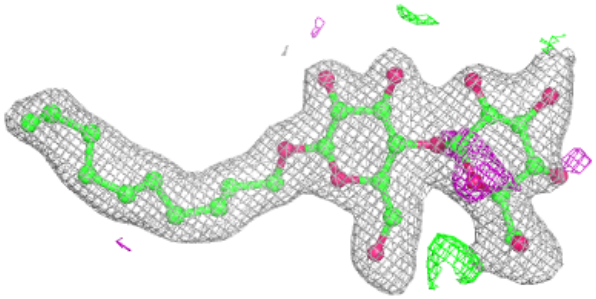


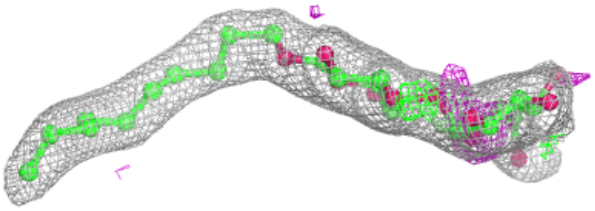


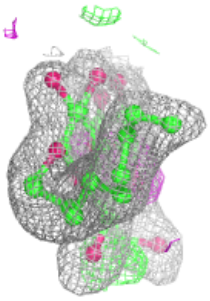


Electron density around DMU M 101:

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

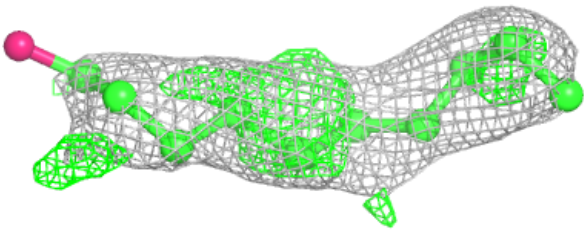


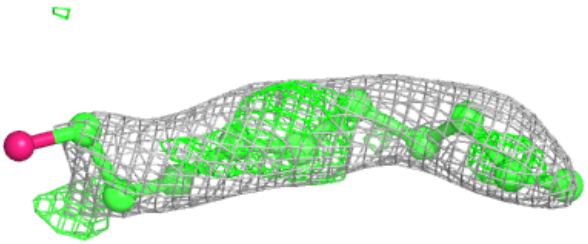


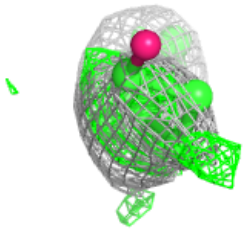


Electron density around DMU J 101:

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

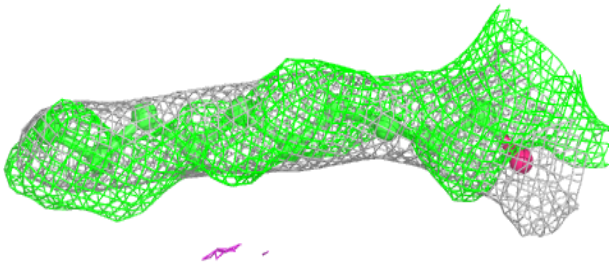


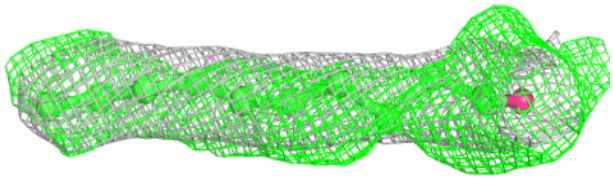


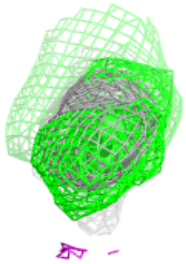


Electron density around DMU O 306:

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

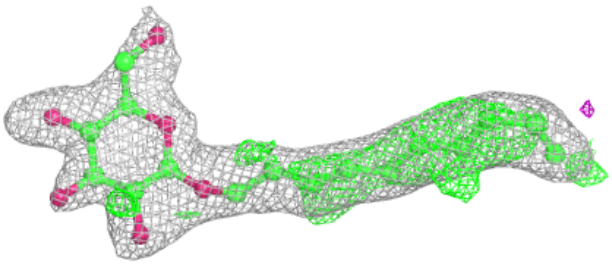


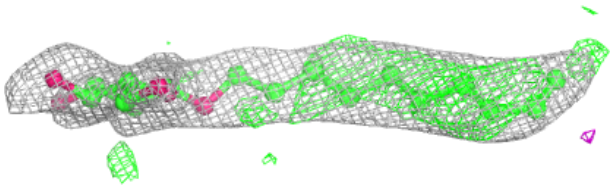


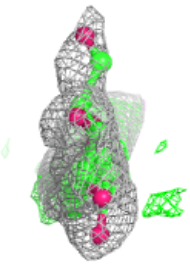


Electron density around DMU O 308:

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

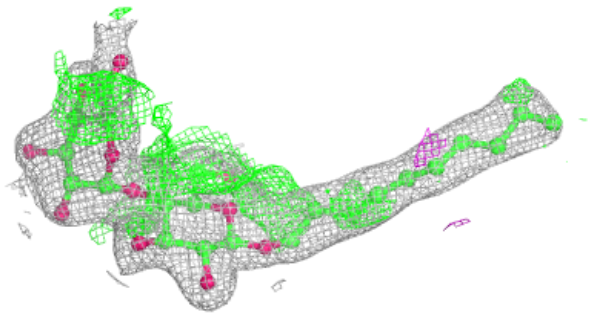


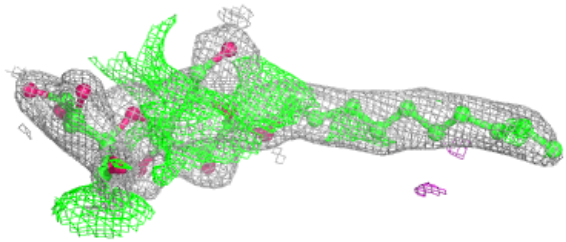


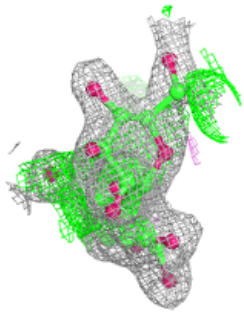


Electron density around DMU D 201:

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

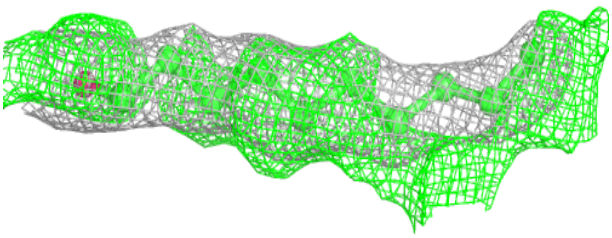


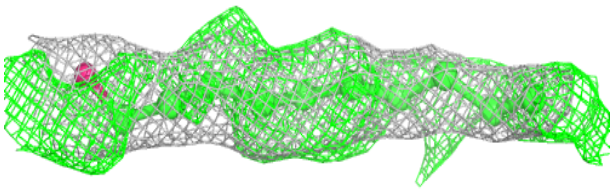


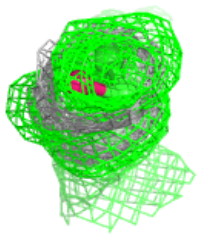


Electron density around DMU P 306:

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

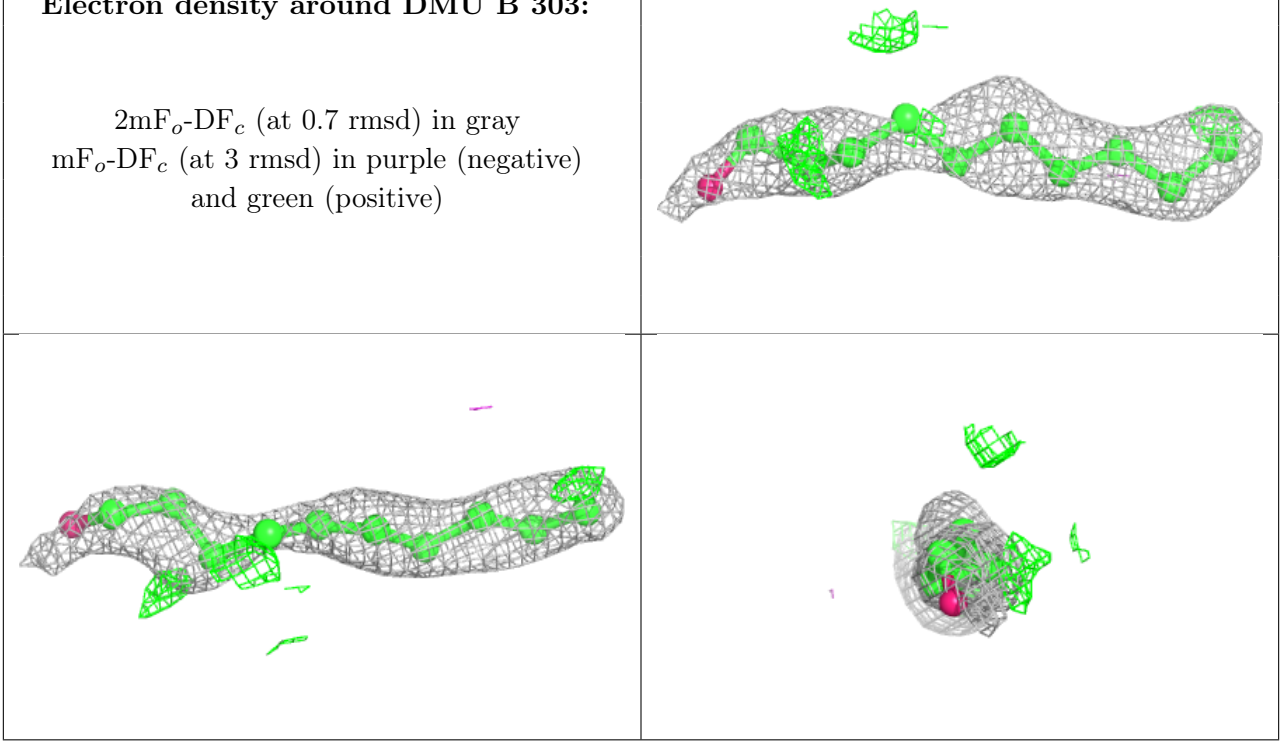






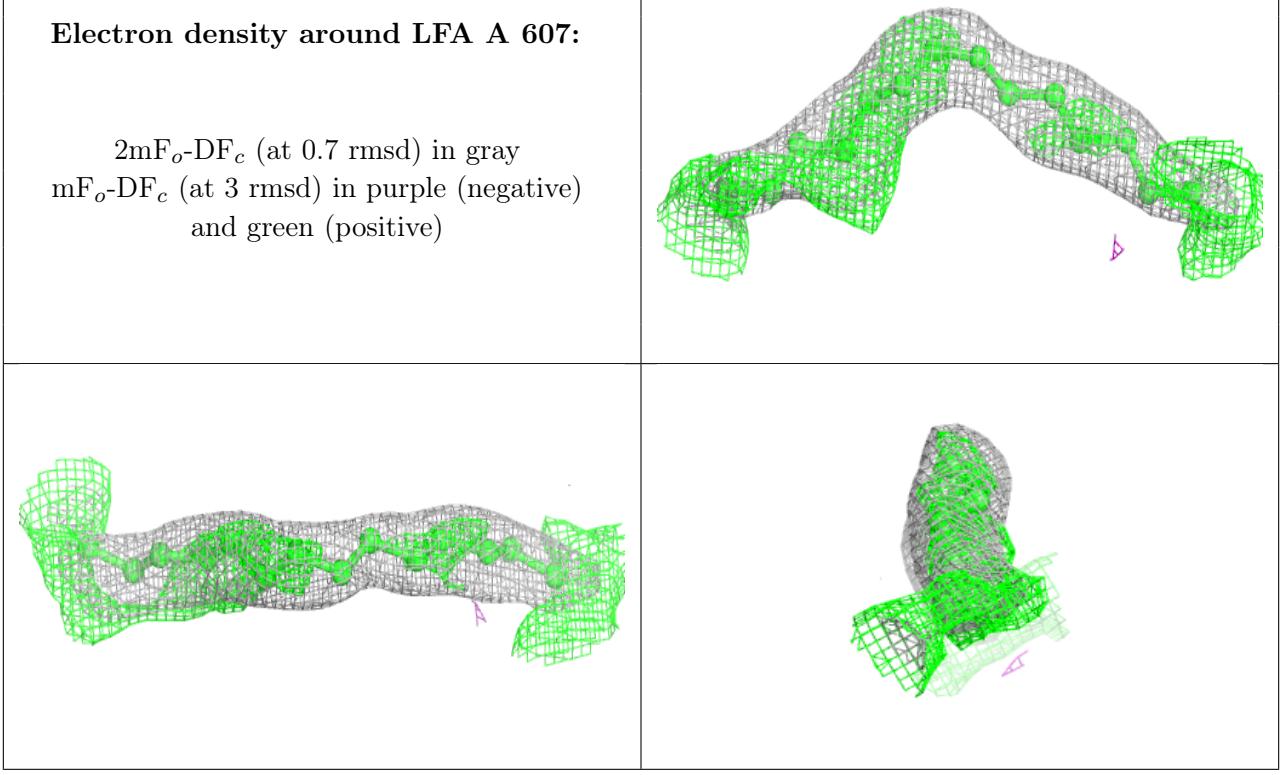
Electron density around DMU B 303:

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



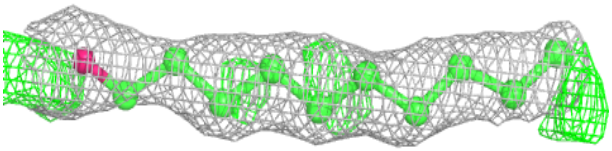
Electron density around LFA A 607:

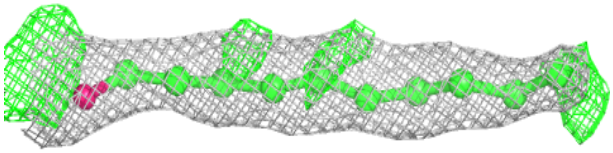
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

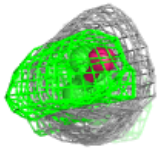


Electron density around DMU C 306:

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

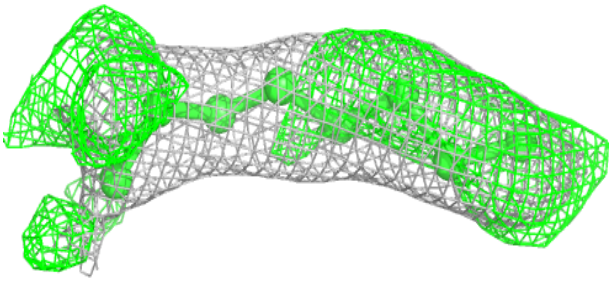


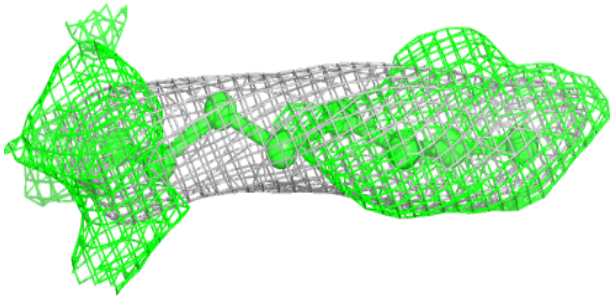


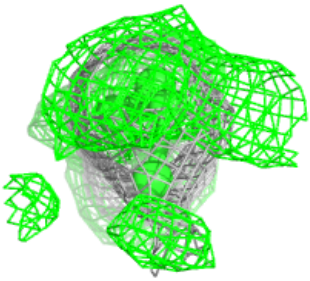


Electron density around DMU Z 103:

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

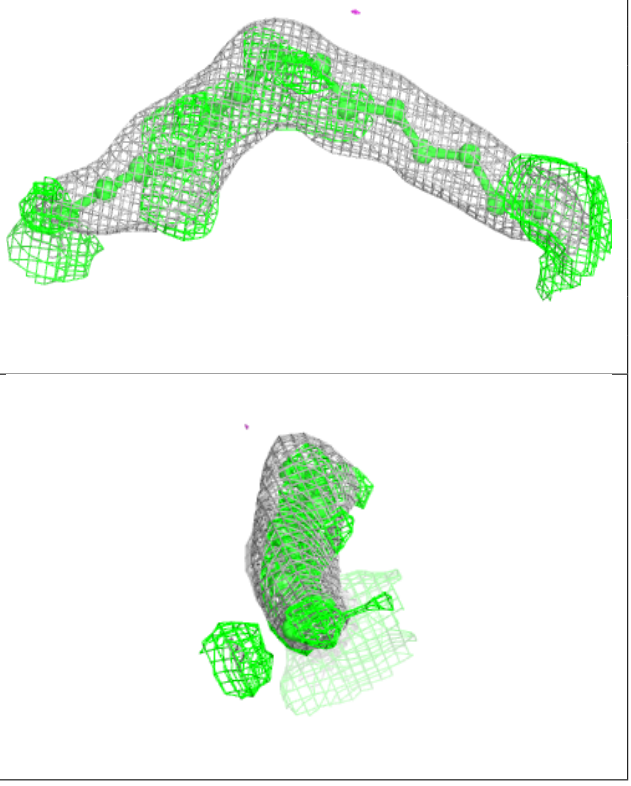






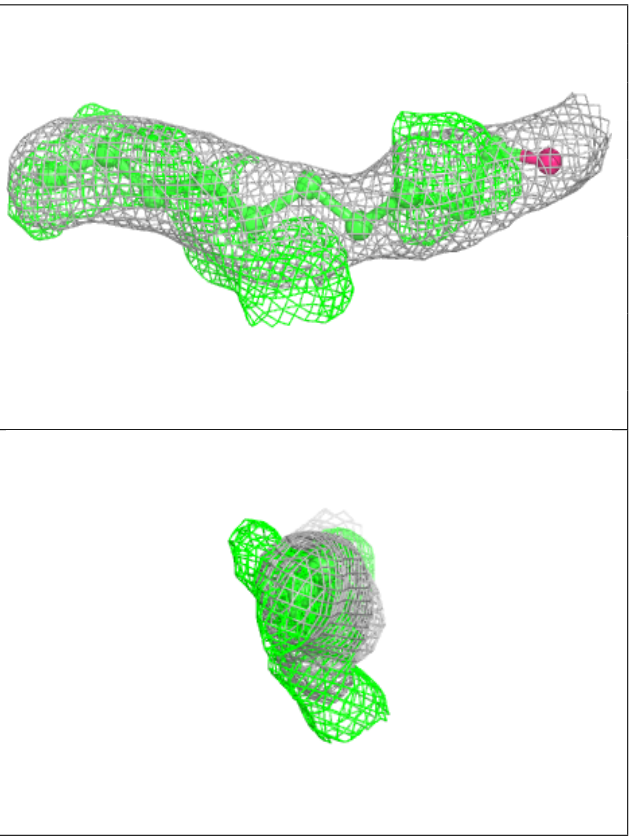
Electron density around LFA N 608:

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



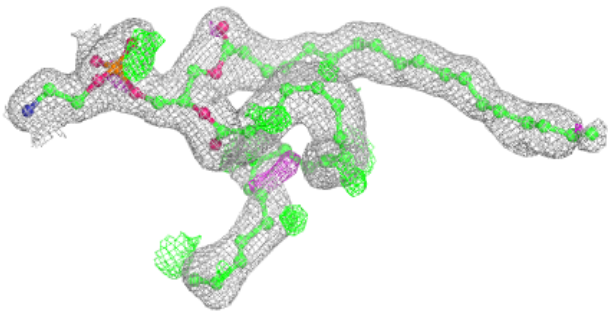
Electron density around DMU O 307:

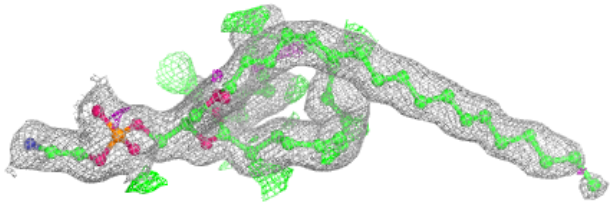
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

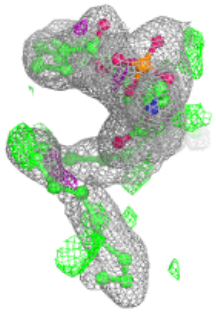


Electron density around PEK T 102:

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

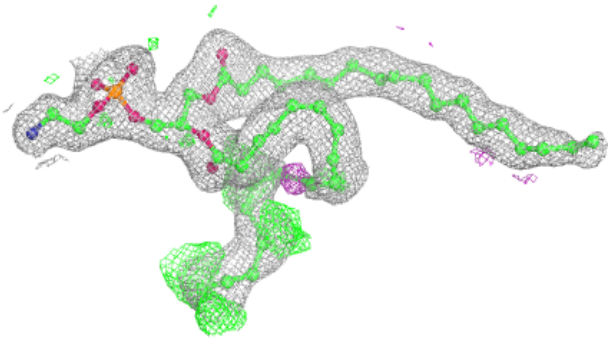


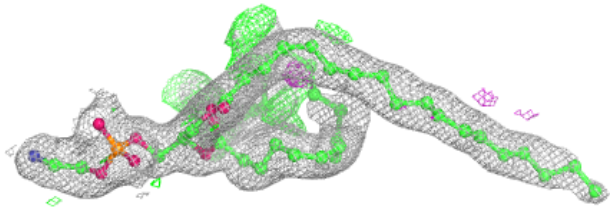


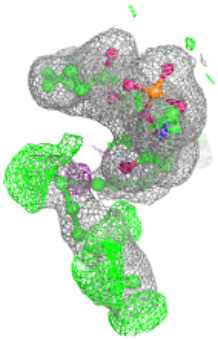


Electron density around PEK G 101:

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

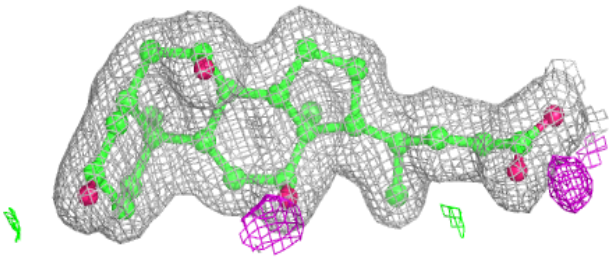


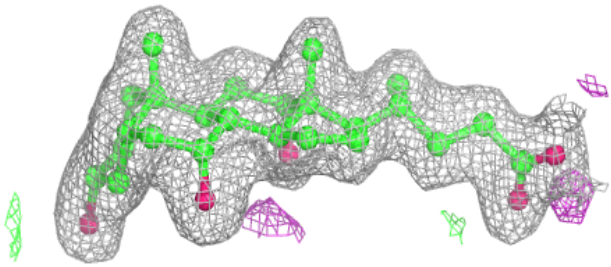


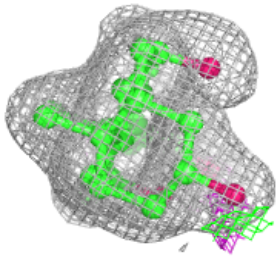


Electron density around CHD C 301:

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

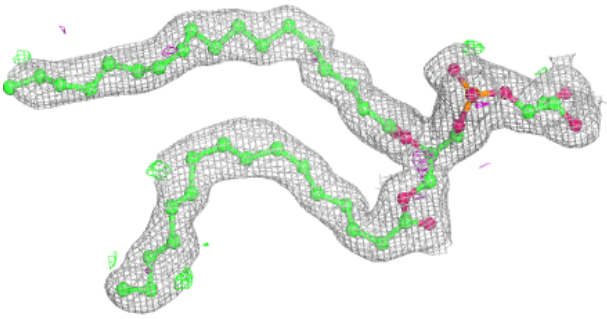


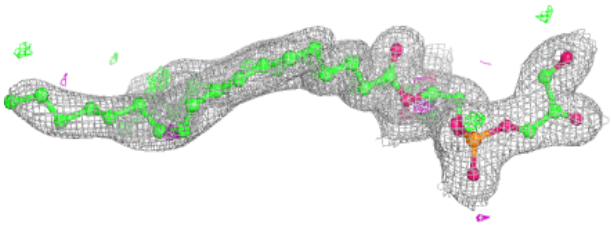


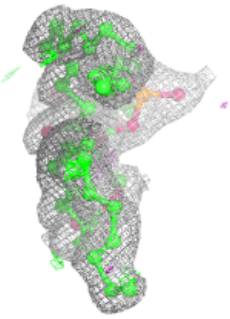


Electron density around PGV N 616:

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

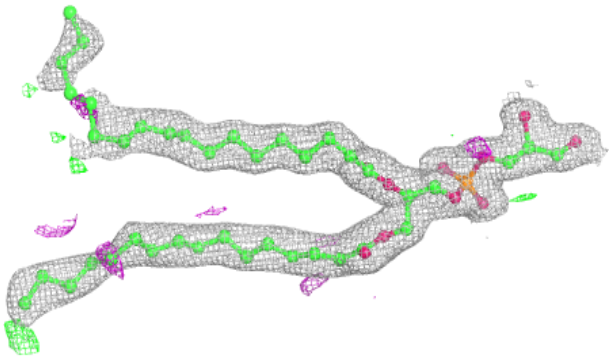


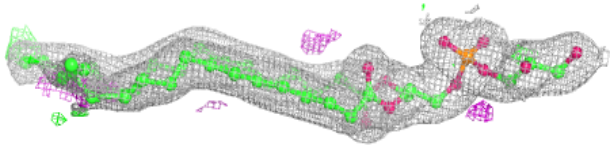


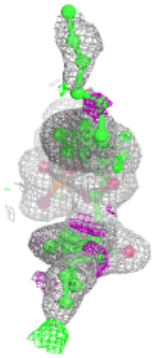


Electron density around PGV P 303:

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

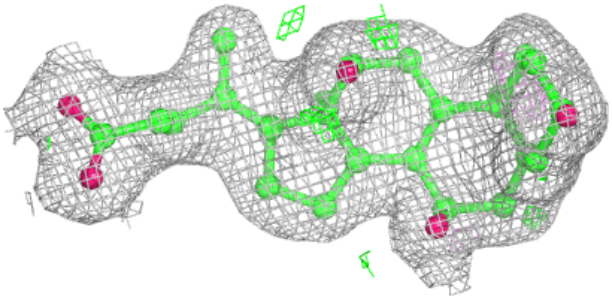


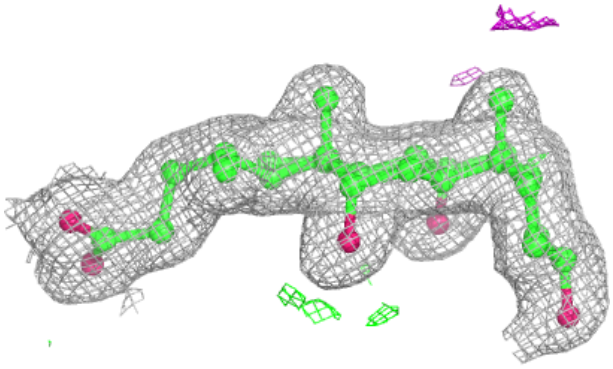


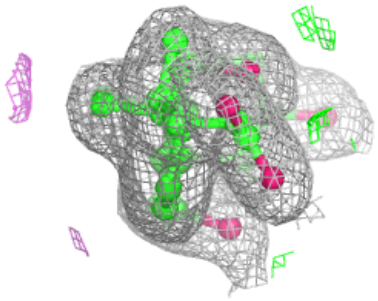


Electron density around CHD B 306:

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

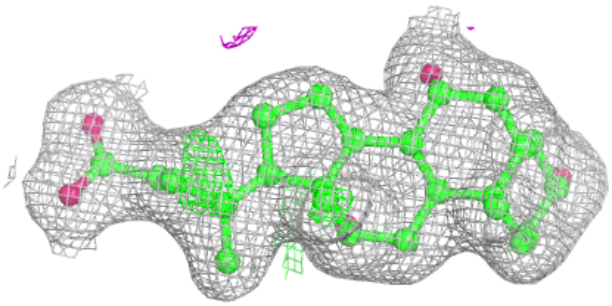


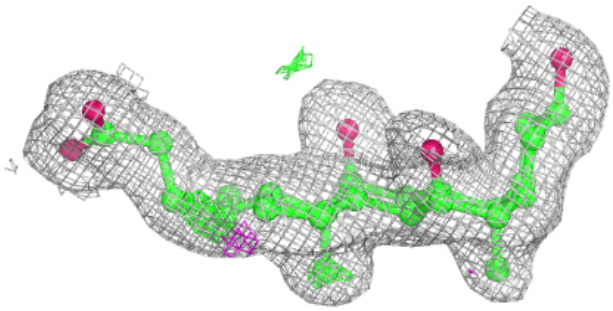


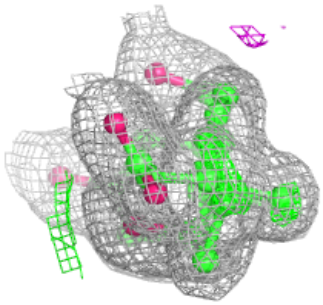


Electron density around CHD O 301:

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

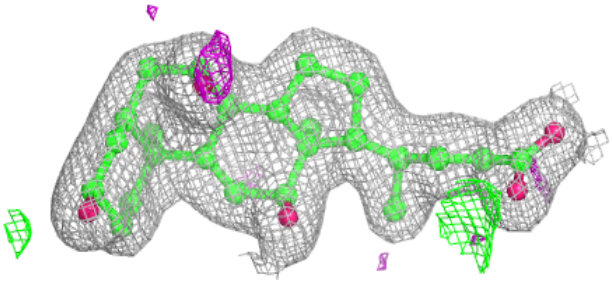


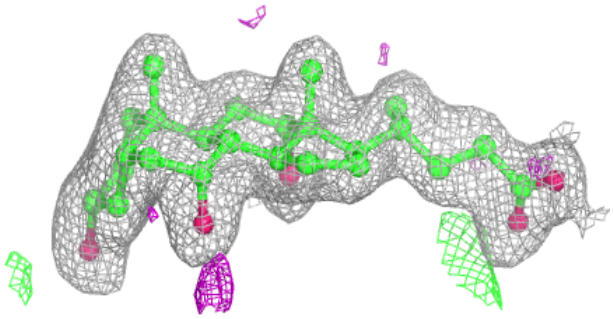


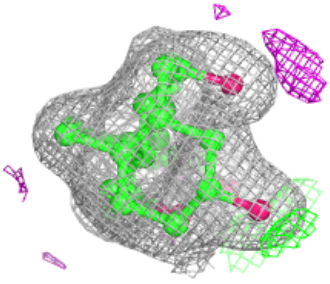


Electron density around CHD P 301:

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

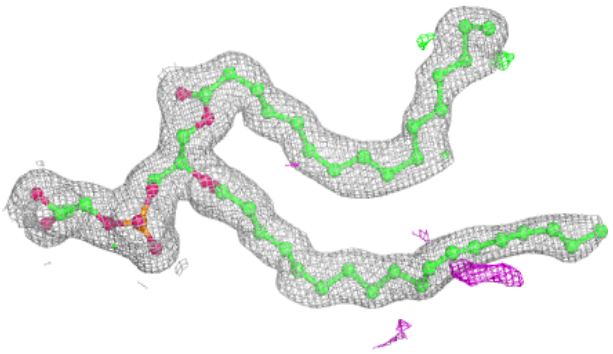


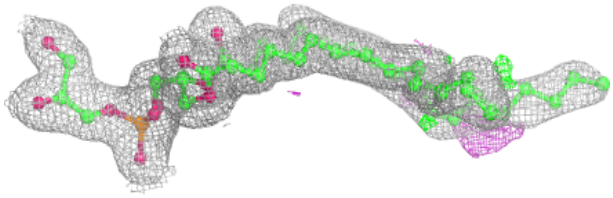


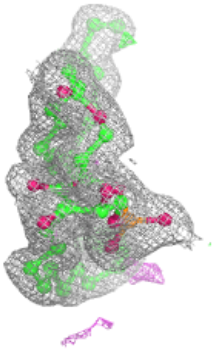


Electron density around PGV A 614:

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

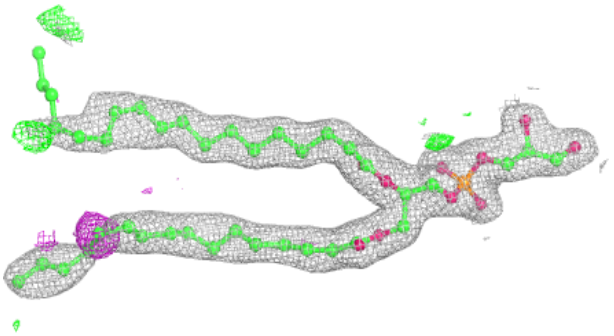


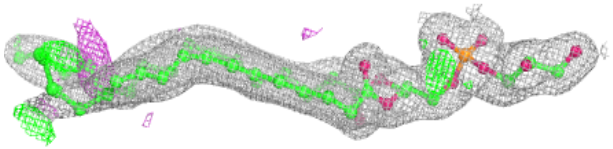


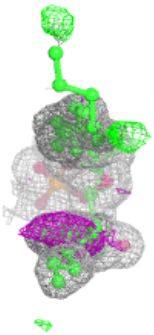


Electron density around PGV C 303:

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

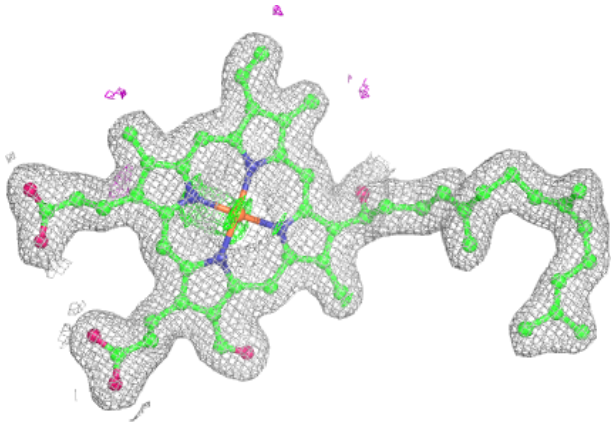


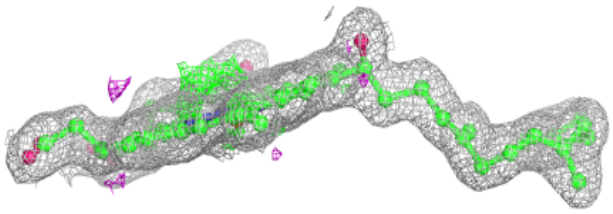


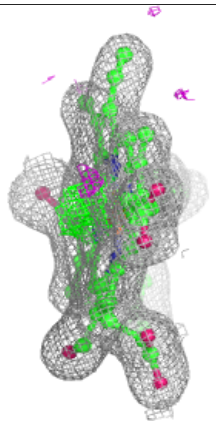


Electron density around HEA N 602:

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

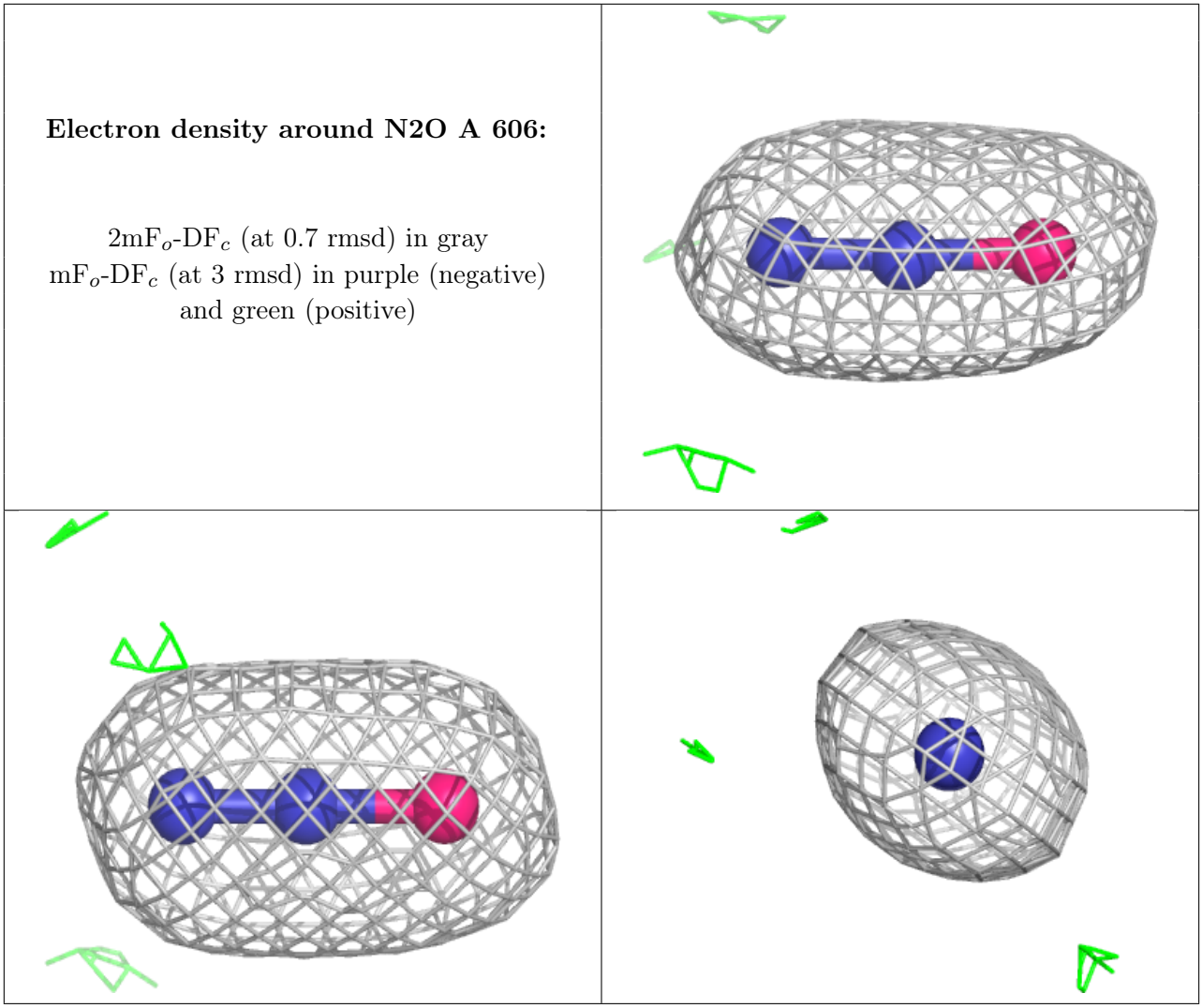






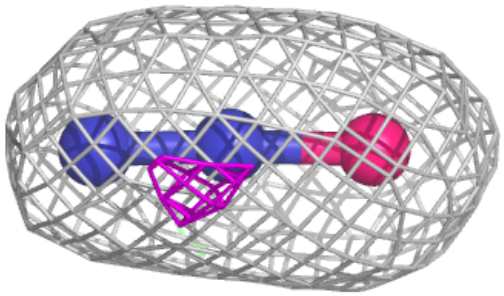
Electron density around N2O A 606:

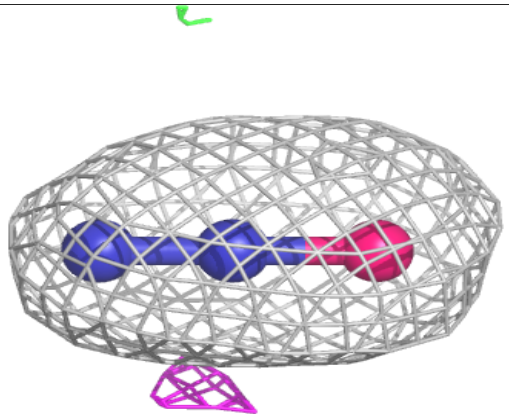
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

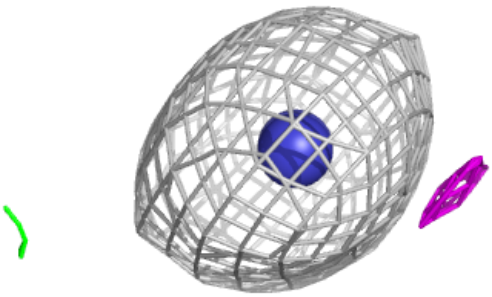


Electron density around N2O N 607:

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

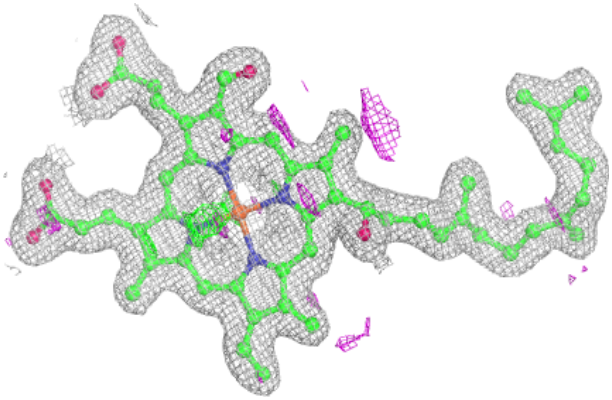


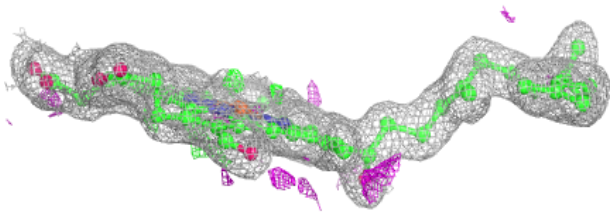


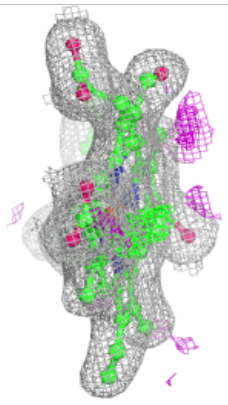


Electron density around HEA A 602:

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

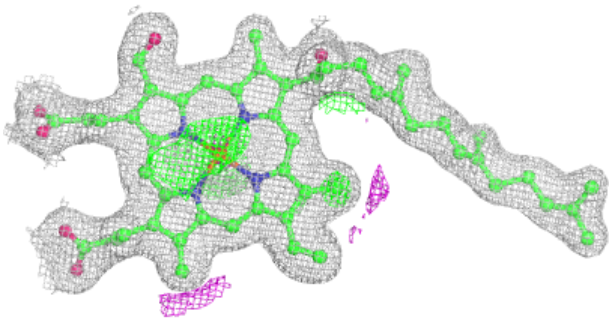


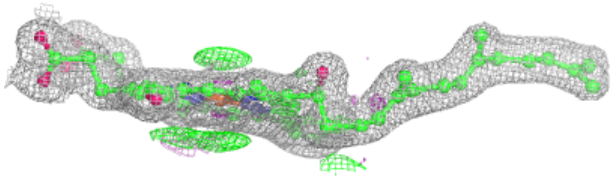


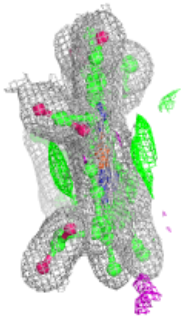


Electron density around HEA A 601:

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

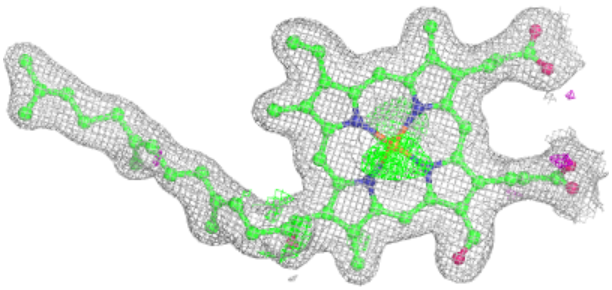


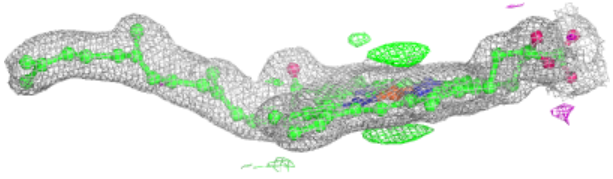


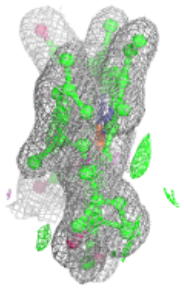


Electron density around HEA N 601:

$2mF_o$-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.