wwPDB X-ray Structure Validation Summary Report (i)

Oct 31, 2023 – 09:19 PM JST

PDB ID	:	5H2F
Title	:	Crystal structure of the PsbM-deletion mutant of photosystem II
Authors	:	Uto, S.; Kawakami, K.; Umena, Y.; Iwai, M.; Ikeuchi, M.; Shen, J.R.; Kamiya, N.
Deposited on	:	2016-10-15
Resolution	:	2.20 Å(reported)

This is a wwPDB X-ray Structure Validation Summary Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

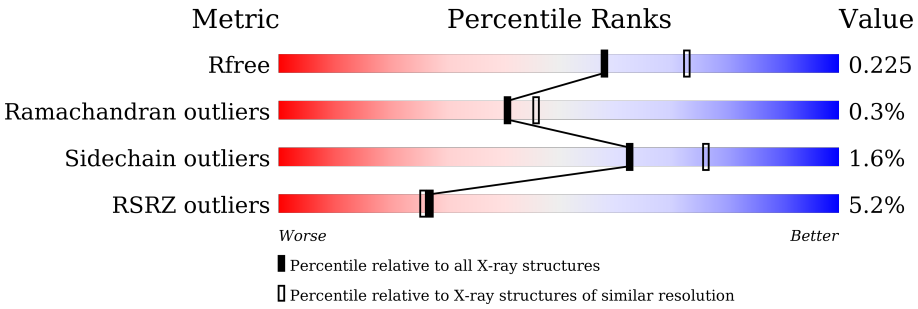
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.20 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	4898 (2.20-2.20)
Ramachandran outliers	138981	5503 (2.20-2.20)
Sidechain outliers	138945	5504 (2.20-2.20)
RSRZ outliers	127900	4800 (2.20-2.20)

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	334	4% 98%
1	a	334	10% 98%
2	B	505	7% 96%
2	b	505	4% 94%
3	C	455	3% 96%
3	c	455	96%
4	D	342	% 98%

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Mol	Chain	Length	Quality of chain
4	d	342	4% 97%
5	E	80	12% 96%
5	e	80	15% 94% 5%
6	F	33	12% 97%
6	f	33	3% 88% 6% 6%
7	H	63	2% 94% 6%
7	h	63	13% 94% 5%
8	I	36	3% 92% 6%
8	i	36	97%
9	J	40	5% 85% 5% 10%
9	j	40	15% 98%
10	K	37	92% 8%
10	k	37	3% 95% 5%
11	L	35	20% 97%
11	l	35	11% 97%
12	O	243	3% 97%
12	o	243	6% 98%
13	T	30	93% 7%
13	t	30	7% 90% 10%
14	U	97	100%
14	u	97	99%
15	V	137	98%
15	v	137	2% 97%
16	Y	29	14% 90% 10%
16	y	29	14% 100%

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Mol	Chain	Length	Quality of chain
17	X	37	11% 95%
17	x	37	22% 89% 8%
18	Z	62	21% 94% 6%
18	z	62	21% 95%

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
22	CLA	A	405	X	-	-	-
22	CLA	A	408	X	-	-	-
22	CLA	B	602	X	-	-	-
22	CLA	B	603	X	-	-	-
22	CLA	B	604	X	-	-	-
22	CLA	B	605	X	-	-	-
22	CLA	B	607	X	-	-	-
22	CLA	B	608	X	-	-	-
22	CLA	B	610	X	-	-	-
22	CLA	B	611	X	-	-	-
22	CLA	B	612	X	-	-	-
22	CLA	B	613	X	-	-	-
22	CLA	B	614	X	-	-	-
22	CLA	B	615	X	-	-	-
22	CLA	B	616	X	-	-	-
22	CLA	B	617	X	-	-	-
22	CLA	C	502	X	-	-	-
22	CLA	C	503	X	-	-	-
22	CLA	C	506	X	-	-	-
22	CLA	C	507	X	-	-	-
22	CLA	C	508	X	-	-	-
22	CLA	C	509	X	-	-	-
22	CLA	C	510	X	-	-	-
22	CLA	C	511	X	-	-	-
22	CLA	C	513	X	-	-	-
22	CLA	D	403	X	-	-	-
22	CLA	D	404	X	-	-	-
22	CLA	a	407	X	-	-	-
22	CLA	a	408	X	-	-	-
22	CLA	b	602	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
22	CLA	b	603	X	-	-	-
22	CLA	b	604	X	-	-	-
22	CLA	b	605	X	-	-	-
22	CLA	b	606	X	-	-	-
22	CLA	b	607	X	-	-	-
22	CLA	b	608	X	-	-	-
22	CLA	b	611	X	-	-	-
22	CLA	b	613	X	-	-	-
22	CLA	b	614	X	-	-	-
22	CLA	b	615	X	-	-	-
22	CLA	b	616	X	-	-	-
22	CLA	b	617	X	-	-	-
22	CLA	c	902	X	-	-	-
22	CLA	c	903	X	-	-	-
22	CLA	c	906	X	-	-	-
22	CLA	c	907	X	-	-	-
22	CLA	c	908	X	-	-	-
22	CLA	c	910	X	-	-	-
22	CLA	c	911	X	-	-	-
22	CLA	c	913	X	-	-	-
22	CLA	d	402	X	-	-	-
29	LMT	f	102	-	-	-	X
30	UNL	a	417	-	-	-	X
31	DMS	B	639	-	-	-	X

2 Entry composition (i)

There are 40 unique types of molecules in this entry. The entry contains 51892 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 Photosystem II protein D1 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	334	Total	C	N	O	S	0	1	0
			2598	1706	428	449	15			
1	a	334	Total	C	N	O	S	0	1	0
			2555	1675	427	438	15			

- Molecule 2 is a protein called Photosystem II CP47 reaction center protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	505	Total	C	N	O	S	0	3	0
			3950	2596	661	680	13			
2	b	483	Total	C	N	O	S	0	1	0
			3780	2484	631	652	13			

- Molecule 3 is a protein called Photosystem II CP43 reaction center protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	451	Total	C	N	O	S	0	0	0
			3470	2274	580	603	13			
3	c	455	Total	C	N	O	S	0	1	0
			3521	2305	589	614	13			

- Molecule 4 is a protein called Photosystem II D2 protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	342	Total	C	N	O	S	0	3	0
			2732	1814	442	464	12			
4	d	341	Total	C	N	O	S	0	2	0
			2717	1805	441	459	12			

- Molecule 5 is a protein called Cytochrome b559 subunit alpha.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	79	Total 635	C 417	N 101	O 117	0	0	0
5	e	79	Total 636	C 418	N 101	O 117	0	0	0

- Molecule 6 is a protein called Cytochrome b559 subunit beta.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	33	Total 269	C 184	N 44	O 40	S 1	0	0	0
6	f	31	Total 250	C 170	N 42	O 37	S 1	0	0	0

- Molecule 7 is a protein called Photosystem II reaction center protein H.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	H	63	Total 522	C 347	N 87	O 86	S 2	0	3	0
7	h	62	Total 501	C 335	N 82	O 82	S 2	0	1	0

- Molecule 8 is a protein called Photosystem II reaction center protein I.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	I	35	Total 288	C 196	N 45	O 46	S 1	0	0	0
8	i	36	Total 293	C 199	N 46	O 47	S 1	0	0	0

- Molecule 9 is a protein called Photosystem II reaction center protein J.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	J	36	Total 251	C 171	N 37	O 42	S 1	0	0	0
9	j	40	Total 277	C 186	N 41	O 49	S 1	0	0	0

- Molecule 10 is a protein called Photosystem II reaction center protein K.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	K	37	Total 293	C 204	N 43	O 46	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
10	k	37	Total 286	C 198	N 42	O 46	0	0	0

- Molecule 11 is a protein called Photosystem II reaction center protein L.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
11	L	35	Total 287	C 192	N 46	O 49	0	0	0
11	l	35	Total 287	C 192	N 46	O 49	0	0	0

- Molecule 12 is a protein called Photosystem II manganese-stabilizing polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	O	243	Total 1853	C 1160	N 311	O 378	S 4	0	1	0
12	o	243	Total 1833	C 1149	N 305	O 375	S 4	0	0	0

- Molecule 13 is a protein called Photosystem II reaction center protein T.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	T	30	Total 253	C 177	N 36	O 38	S 2	0	0	0
13	t	30	Total 253	C 177	N 36	O 38	S 2	0	0	0

- Molecule 14 is a protein called Photosystem II 12 kDa extrinsic protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	U	97	Total 782	C 496	N 132	O 154	0	1	0
14	u	97	Total 766	C 487	N 129	O 150	0	0	0

- Molecule 15 is a protein called Cytochrome c-550.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	V	137	Total 1066	C 677	N 177	O 208	S 4	0	1	0
15	v	137	Total 1058	C 671	N 175	O 208	S 4	0	1	0

- Molecule 16 is a protein called Photosystem II reaction center protein Ycf12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	Y	29	Total	C	N	O	S	0	0	0
			215	142	37	33	3			
16	y	29	Total	C	N	O	S	0	0	0
			207	134	37	33	3			

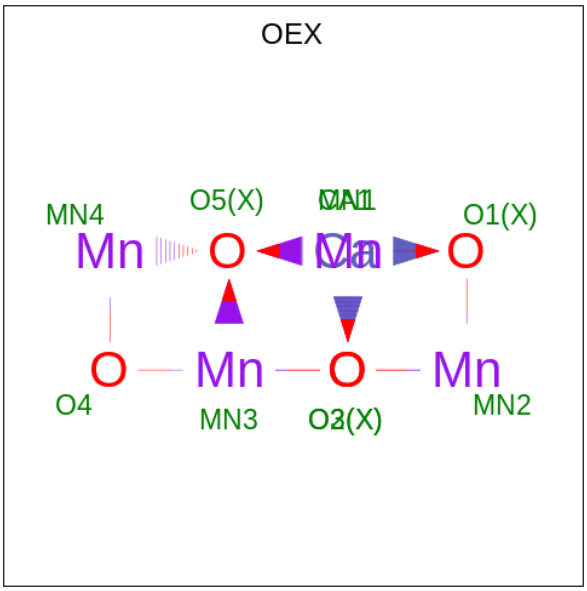
- Molecule 17 is a protein called Photosystem II reaction center X protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	X	37	Total	C	N	O	0	1	0
			269	183	40	46			
17	x	36	Total	C	N	O	0	0	0
			253	172	37	44			

- Molecule 18 is a protein called Photosystem II reaction center protein Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	Z	62	Total	C	N	O	S	0	0	0
			453	311	68	72	2			
18	z	61	Total	C	N	O	S	0	0	0
			436	299	67	69	1			

- Molecule 19 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: $CaMn_4O_5$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
19	A	1	Total Ca Mn O 10 1 4 5	0	0
19	a	1	Total Ca Mn O 10 1 4 5	0	0

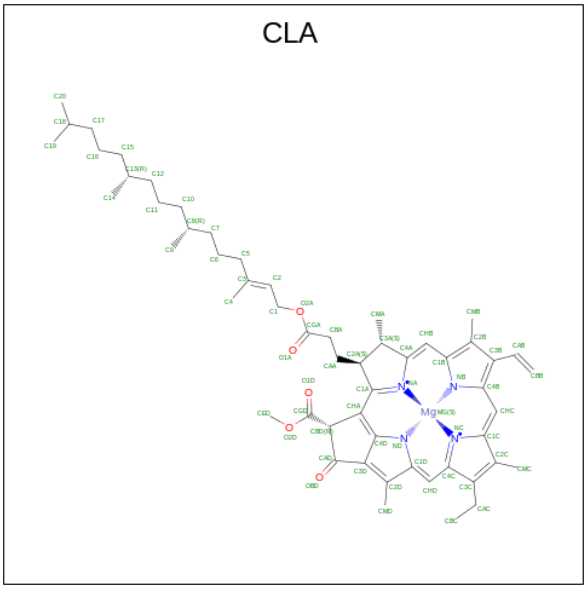
- Molecule 20 is FE (II) ION (three-letter code: FE2) (formula: Fe).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
20	A	1	Total Fe 1 1	0	0
20	a	1	Total Fe 1 1	0	0

- Molecule 21 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
21	A	2	Total Cl 2 2	0	0
21	a	2	Total Cl 2 2	0	0

- Molecule 22 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	A	1	Total C Mg N O 65 55 1 4 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	A	1	Total C Mg N O 55 45 1 4 5	0	0
22	A	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 61 51 1 4 5	0	0
22	B	1	Total C Mg N O 53 43 1 4 5	0	0
22	B	1	Total C Mg N O 65 55 1 4 5	0	0
22	B	1	Total C Mg N O 55 45 1 4 5	0	0
22	C	1	Total C Mg N O 65 55 1 4 5	0	0
22	C	1	Total C Mg N O 65 55 1 4 5	0	0
22	C	1	Total C Mg N O 65 55 1 4 5	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	C	1	Total 56	C 46	Mg 1	N 4	O 5	0	0
22	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	a	1	Total 61	C 51	Mg 1	N 4	O 5	0	0
22	a	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 59	C 49	Mg 1	N 4	O 5	0	0
22	b	1	Total 52	C 42	Mg 1	N 4	O 5	0	0
22	b	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	b	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
22	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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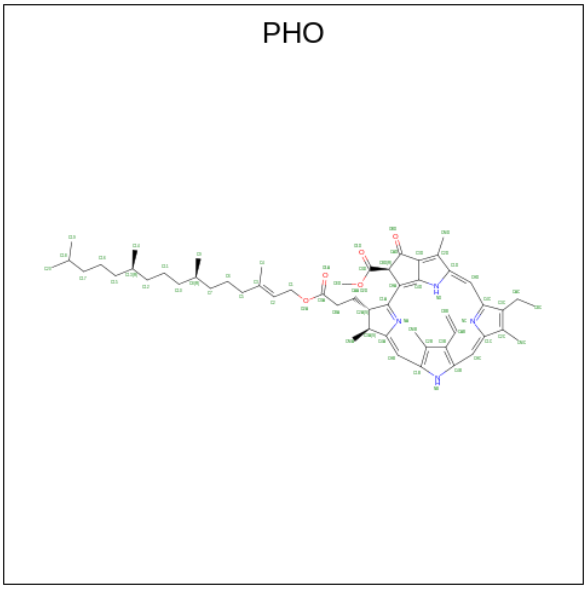
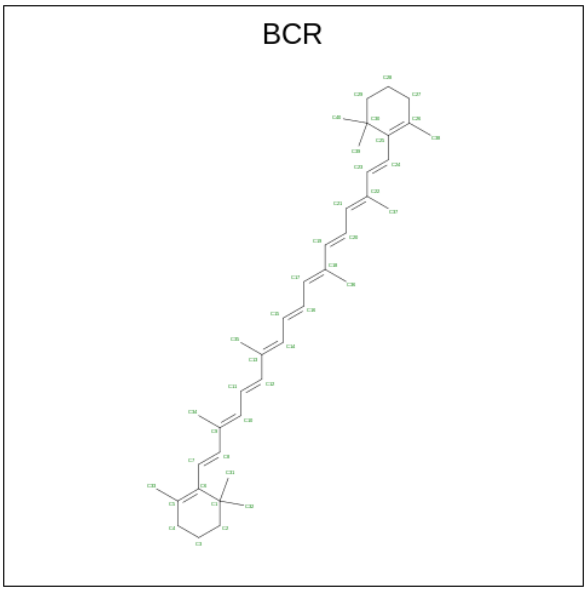
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
22	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
22	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
22	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
22	c	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
22	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		
22	d	1	Total	C	Mg	N	O	0	0
			65	55	1	4	5		

- Molecule 23 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
23	A	1	Total	C	N	O	0	0
			64	55	4	5		
23	D	1	Total	C	N	O	0	0
			64	55	4	5		
23	a	1	Total	C	N	O	0	0
			64	55	4	5		
23	a	1	Total	C	N	O	0	0
			64	55	4	5		

- Molecule 24 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	A	1	Total C 40 40	0	0
24	B	1	Total C 19 19	0	0
24	B	1	Total C 30 30	0	0
24	B	1	Total C 40 40	0	0
24	C	1	Total C 40 40	0	0
24	C	1	Total C 40 40	0	0
24	D	1	Total C 40 40	0	0
24	K	1	Total C 40 40	0	0
24	Y	1	Total C 39 39	0	0
24	a	1	Total C 40 40	0	0
24	b	1	Total C 20 20	0	0
24	b	1	Total C 31 31	0	0
24	b	1	Total C 40 40	0	0
24	c	1	Total C 40 40	0	0

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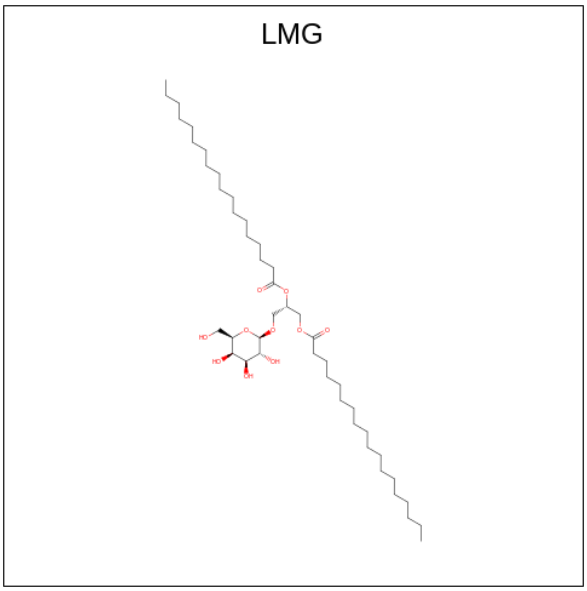
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	c	1	Total C 40 40	0	0
24	d	1	Total C 40 40	0	0
24	k	1	Total C 40 40	0	0
24	y	1	Total C 40 40	0	0

- Molecule 25 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	A	1	Total C O 51 41 10	0	0
25	B	1	Total C O 40 30 10	0	0
25	C	1	Total C O 51 41 10	0	0
25	C	1	Total C O 40 30 10	0	0
25	D	1	Total C O 46 36 10	0	0
25	J	1	Total C O 45 35 10	0	0
25	b	1	Total C O 43 33 10	0	0

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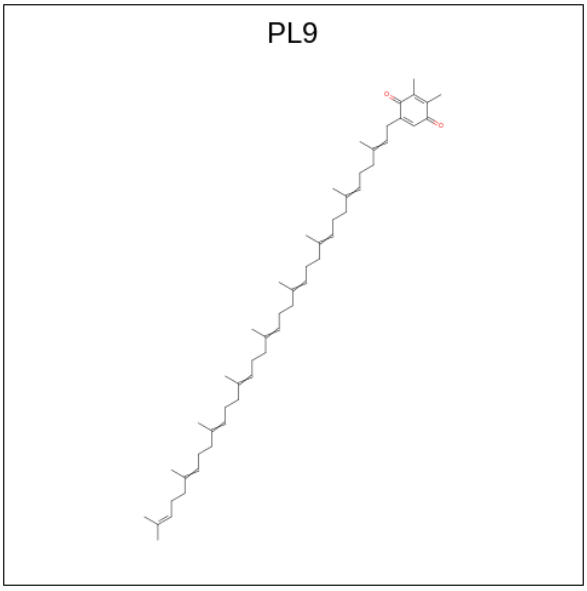
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	c	1	Total C O 51 41 10	0	0
25	c	1	Total C O 49 39 10	0	0
25	d	1	Total C O 47 37 10	0	0
25	i	1	Total C O 51 41 10	0	0
25	j	1	Total C O 47 37 10	0	0

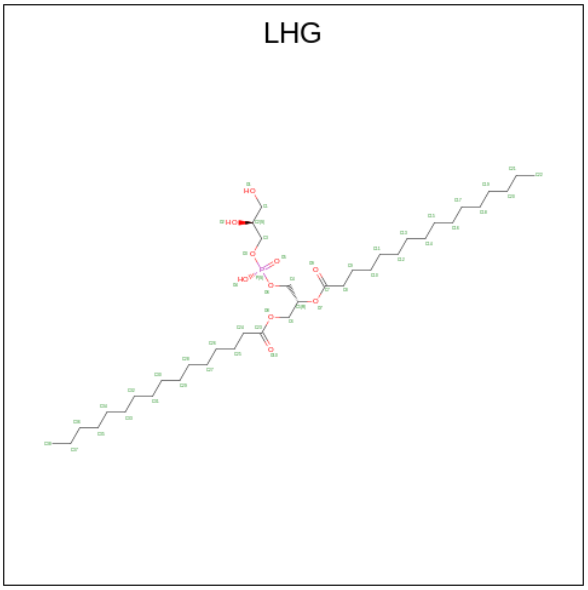
- Molecule 26 is 2,3-DIMETHYL-5-(3,7,11,15,19,23,27,31,35-NONAMETHYL-2,6,10,14,18,22,26,30,34-HEXATRIACONTANONAENYL-2,5-CYCLOHEXADIENE-1,4-DIONE-2,3-DIMETHYL-5-SOLANESYL-1,4-BENZOQUINONE (three-letter code: PL9) (formula: $C_{53}H_{80}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	A	1	Total C O 55 53 2	0	0
26	D	1	Total C O 55 53 2	0	0
26	a	1	Total C O 55 53 2	0	0
26	d	1	Total C O 55 53 2	0	0

- Molecule 27 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code:

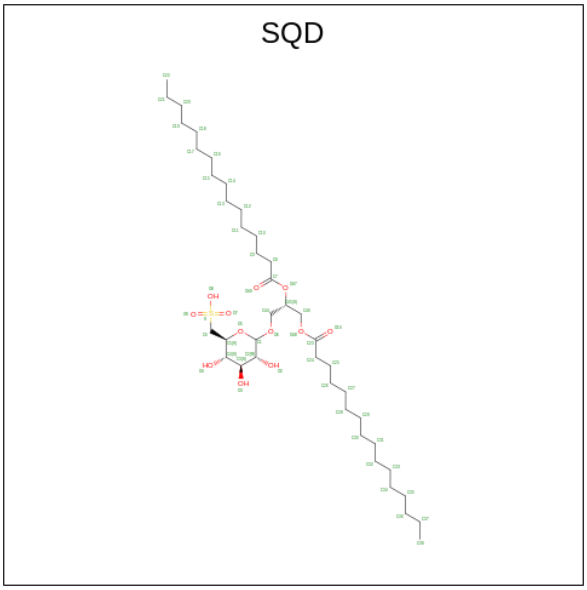
LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
27	A	1	Total	C	O	P	0	0
			31	22	8	1		
27	C	1	Total	C	O	P	0	0
			30	21	8	1		
27	D	1	Total	C	O	P	0	0
			49	38	10	1		
27	D	1	Total	C	O	P	0	0
			49	38	10	1		
27	D	1	Total	C	O	P	0	0
			45	34	10	1		
27	L	1	Total	C	O	P	0	0
			40	29	10	1		
27	a	1	Total	C	O	P	0	0
			49	38	10	1		
27	a	1	Total	C	O	P	0	0
			45	34	10	1		
27	d	1	Total	C	O	P	0	0
			33	24	8	1		
27	d	1	Total	C	O	P	0	0
			49	38	10	1		
27	d	1	Total	C	O	P	0	0
			46	35	10	1		
27	l	1	Total	C	O	P	0	0
			49	38	10	1		

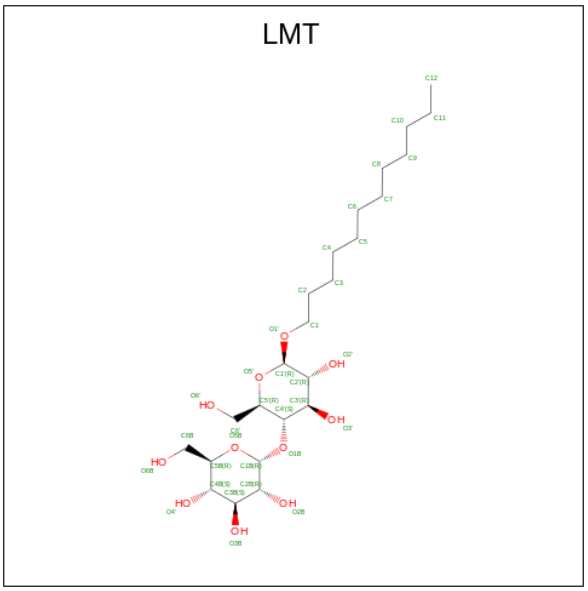
- Molecule 28 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSY

L]-SN-GLYCEROL (three-letter code: SQD) (formula: $C_{41}H_{78}O_{12}S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	A	1	Total C O S 49 36 12 1	0	0
28	C	1	Total C O S 54 41 12 1	0	0
28	D	1	Total C O S 20 9 10 1	0	0
28	a	1	Total C O S 54 41 12 1	0	0
28	a	1	Total C O S 51 38 12 1	0	0
28	b	1	Total C O S 38 26 11 1	0	0
28	f	1	Total C O S 14 6 7 1	0	0
28	l	1	Total C O S 54 41 12 1	0	0

- Molecule 29 is DODECYL-BETA-D-MALTOSIDE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	A	1	Total C O 35 24 11	0	0
29	B	1	Total C O 24 18 6	0	0
29	E	1	Total C O 24 18 6	0	0
29	I	1	Total C O 35 24 11	0	0
29	T	1	Total C O 24 18 6	0	0
29	Z	1	Total C O 35 24 11	0	0
29	a	1	Total C O 35 24 11	0	0
29	c	1	Total C O 35 24 11	0	0
29	c	1	Total C O 24 18 6	0	0
29	f	1	Total C O 25 19 6	0	0
29	t	1	Total C O 24 18 6	0	0

- Molecule 30 is UNKNOWN LIGAND (three-letter code: UNL) (formula:).

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

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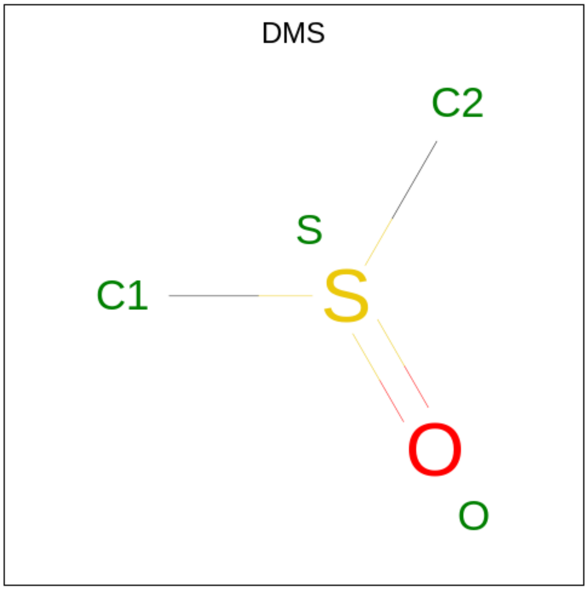
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	B	2	Total C 23 23	0	0
30	D	1	Total C 16 16	0	0
30	I	3	Total C 45 45	0	0
30	J	1	Total C 16 16	0	0
30	O	1	Total C 16 16	0	0
30	T	1	Total C 13 13	0	0
30	U	1	Total C 14 14	0	0
30	X	1	Total C 16 16	0	0
30	Z	1	Total C 9 9	0	0
30	a	2	Total C 16 16	0	0
30	b	2	Total C 27 27	0	0
30	c	1	Total C 10 10	0	0
30	d	1	Total C 16 16	0	0
30	i	4	Total C 58 58	0	0
30	j	1	Total C 16 16	0	0
30	t	1	Total C 16 16	0	0
30	u	1	Total C 11 11	0	0
30	x	1	Total C 15 15	0	0

- Molecule 31 is DIMETHYL SULFOXIDE (three-letter code: DMS) (formula: C_2H_6OS).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	A	1	Total C O S 4 2 1 1	0	0
31	A	1	Total C O S 4 2 1 1	0	0
31	A	1	Total C O S 4 2 1 1	0	0
31	A	1	Total C O S 4 2 1 1	0	0
31	A	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	B	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0
31	C	1	Total C O S 4 2 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	D	1	Total C O S 4 2 1 1	0	0
31	D	1	Total C O S 4 2 1 1	0	0
31	D	1	Total C O S 4 2 1 1	0	0
31	F	1	Total C O S 4 2 1 1	0	0
31	H	1	Total C O S 4 2 1 1	0	0
31	I	1	Total C O S 4 2 1 1	0	0
31	I	1	Total C O S 4 2 1 1	0	0
31	L	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	O	1	Total C O S 4 2 1 1	0	0
31	U	1	Total C O S 4 2 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	U	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	V	1	Total C O S 4 2 1 1	0	0
31	a	1	Total C O S 4 2 1 1	0	0
31	a	1	Total C O S 4 2 1 1	0	0
31	a	1	Total C O S 4 2 1 1	0	0
31	a	1	Total C O S 4 2 1 1	0	0
31	a	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	b	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0
31	b	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	c	1	Total C O S 4 2 1 1	0	0
31	c	1	Total C O S 4 2 1 1	0	0
31	d	1	Total C O S 4 2 1 1	0	0
31	d	1	Total C O S 4 2 1 1	0	0
31	d	1	Total C O S 4 2 1 1	0	0
31	d	1	Total C O S 4 2 1 1	0	0
31	d	1	Total C O S 4 2 1 1	0	0
31	f	1	Total C O S 4 2 1 1	0	0
31	i	1	Total C O S 4 2 1 1	0	0
31	l	1	Total C O S 4 2 1 1	0	0
31	l	1	Total C O S 4 2 1 1	0	0
31	l	1	Total C O S 4 2 1 1	0	0
31	o	1	Total C O S 4 2 1 1	0	0
31	o	1	Total C O S 4 2 1 1	0	0
31	o	1	Total C O S 4 2 1 1	0	0
31	o	1	Total C O S 4 2 1 1	0	0
31	o	1	Total C O S 4 2 1 1	0	0
31	o	1	Total C O S 4 2 1 1	0	0
31	o	1	Total C O S 4 2 1 1	0	0
31	t	1	Total C O S 4 2 1 1	0	0
31	t	1	Total C O S 4 2 1 1	0	0

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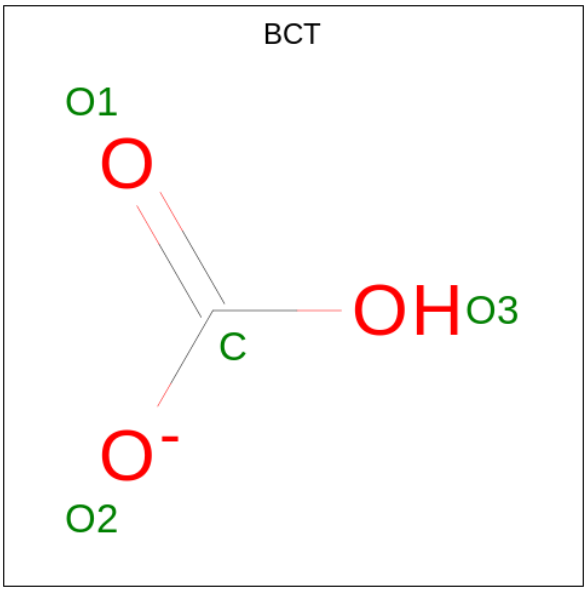
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	t	1	Total C O S 4 2 1 1	0	0
31	u	1	Total C O S 4 2 1 1	0	0
31	u	1	Total C O S 4 2 1 1	0	0
31	u	1	Total C O S 4 2 1 1	0	0
31	u	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0
31	v	1	Total C O S 4 2 1 1	0	0

- Molecule 32 is BICARBONATE ION (three-letter code: BCT) (formula: CHO_3).

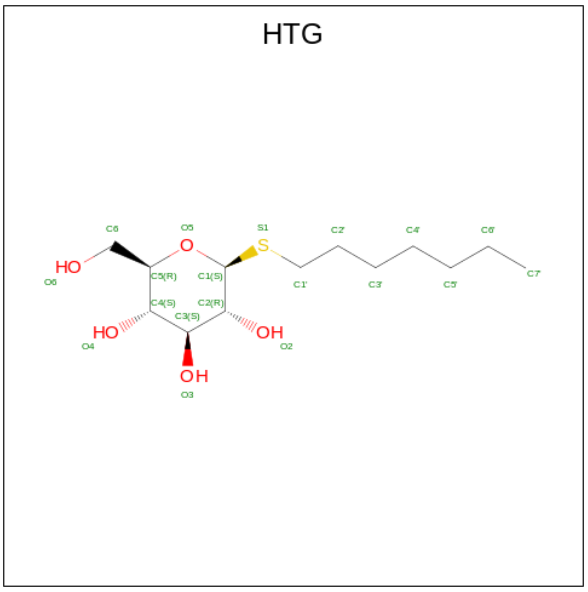


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
32	A	1	Total C O 8 2 6	0	1
32	a	1	Total C O 4 1 3	0	0

- Molecule 33 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	B	1	Total Ca 1 1	0	0
33	O	1	Total Ca 1 1	0	0
33	b	1	Total Ca 1 1	0	0
33	c	1	Total Ca 1 1	0	0
33	o	1	Total Ca 1 1	0	0

- Molecule 34 is heptyl 1-thio-beta-D-glucopyranoside (three-letter code: HTG) (formula: $C_{13}H_{26}O_5S$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	B	1	Total C O S 19 13 5 1	0	0
34	B	1	Total C O S 19 13 5 1	0	0
34	B	1	Total C O S 19 13 5 1	0	0
34	C	1	Total C O S 19 13 5 1	0	0
34	C	1	Total C S 9 8 1	0	0
34	C	1	Total C O S 19 13 5 1	0	0
34	D	1	Total C O S 19 13 5 1	0	0
34	D	1	Total C O S 19 13 5 1	0	0
34	V	1	Total C O S 14 8 5 1	0	0
34	b	1	Total C O S 19 13 5 1	0	0
34	b	1	Total C O S 19 13 5 1	0	0
34	b	1	Total C O S 19 13 5 1	0	0
34	b	1	Total C O S 19 13 5 1	0	0
34	b	1	Total C O S 19 13 5 1	0	0

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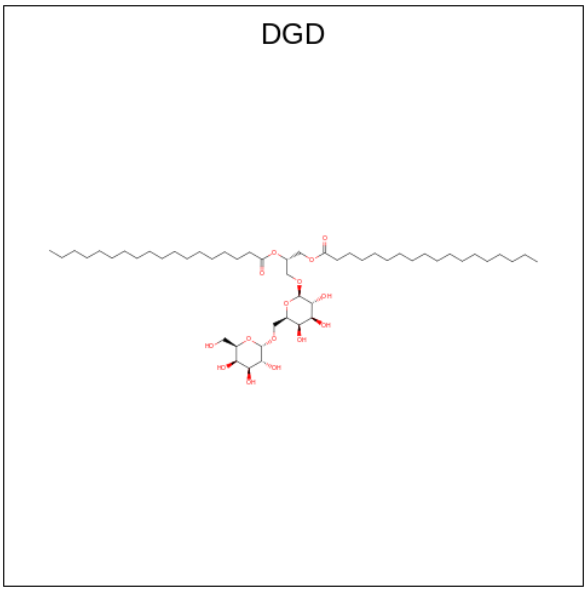
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	c	1	Total C O S 19 13 5 1	0	0
34	l	1	Total C O S 19 13 5 1	0	0
34	v	1	Total C O S 16 10 5 1	0	0

- Molecule 35 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	C	1	Total C O 62 47 15	0	0
35	C	1	Total C O 62 47 15	0	0
35	C	1	Total C O 62 47 15	0	0
35	D	1	Total C O 50 41 9	0	0
35	H	1	Total C O 62 47 15	0	0
35	c	1	Total C O 62 47 15	0	0
35	c	1	Total C O 62 47 15	0	0
35	c	1	Total C O 62 47 15	0	0

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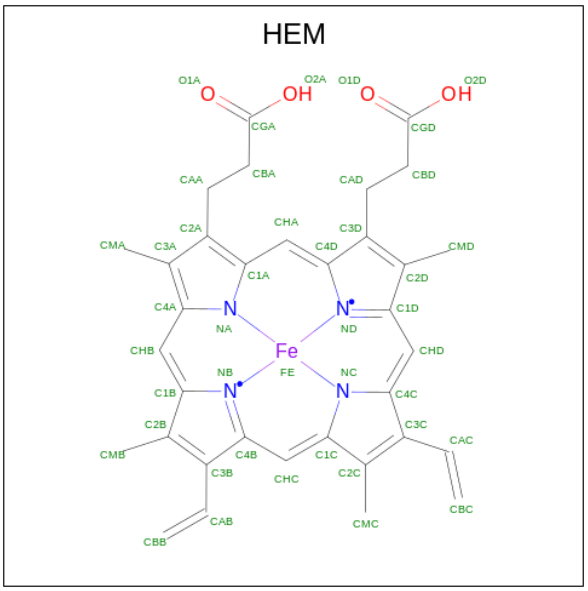
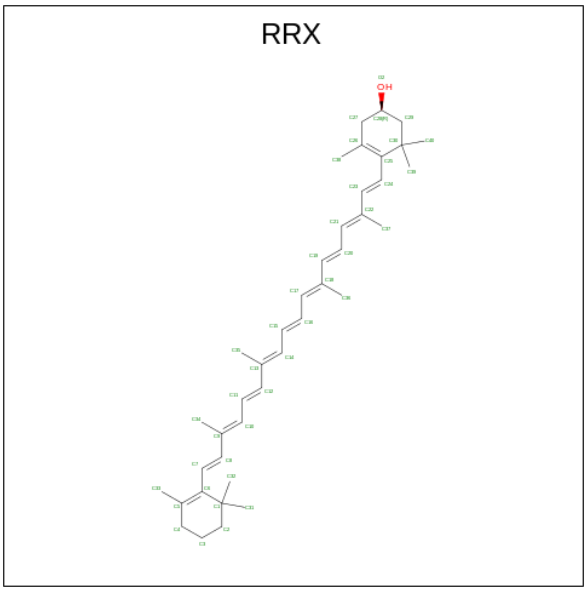
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	d	1	Total C O 43 37 6	0	0
35	h	1	Total C O 62 47 15	0	0

- Molecule 36 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	E	1	Total C Fe N O 43 34 1 4 4	0	0
36	e	1	Total C Fe N O 43 34 1 4 4	0	0

- Molecule 37 is (3R)-beta,beta-caroten-3-ol (three-letter code: RRX) (formula: $C_{40}H_{56}O$).

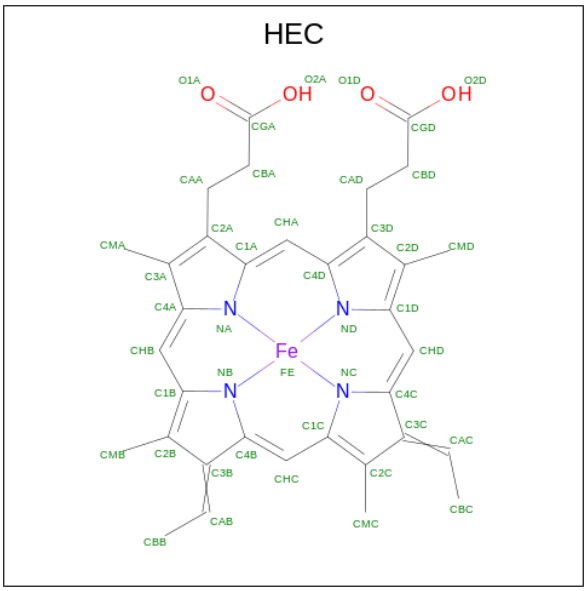


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	H	1	Total C O 41 40 1	0	0
37	h	1	Total C O 41 40 1	0	0

- Molecule 38 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
38	J	1	Total Mg 1 1	0	0
38	K	1	Total Mg 1 1	0	0
38	j	1	Total Mg 1 1	0	0
38	k	1	Total Mg 1 1	0	0

- Molecule 39 is HEME C (three-letter code: HEC) (formula: $C_{34}H_{34}FeN_4O_4$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
39	V	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		
39	v	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

- Molecule 40 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
40	A	132	Total	O	0	0
			132	132		
40	B	256	Total	O	0	6
			262	262		
40	C	174	Total	O	0	4
			178	178		
40	D	130	Total	O	0	1
			131	131		
40	E	33	Total	O	0	2
			35	35		
40	F	4	Total	O	0	0
			4	4		
40	H	39	Total	O	0	0
			39	39		
40	I	5	Total	O	0	0
			5	5		
40	J	15	Total	O	0	1
			16	16		
40	K	7	Total	O	0	0
			7	7		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
40	L	18	Total O 19 19	0	1
40	O	161	Total O 166 166	0	5
40	T	12	Total O 12 12	0	0
40	U	72	Total O 74 74	0	2
40	V	110	Total O 113 113	0	3
40	Y	7	Total O 8 8	0	1
40	X	15	Total O 16 16	0	1
40	Z	5	Total O 5 5	0	0
40	a	122	Total O 123 123	0	1
40	b	251	Total O 261 261	0	10
40	c	216	Total O 220 220	0	4
40	d	115	Total O 115 115	0	0
40	e	16	Total O 17 17	0	1
40	f	4	Total O 4 4	0	0
40	h	31	Total O 31 31	0	0
40	i	5	Total O 5 5	0	0
40	j	10	Total O 10 10	0	0
40	k	9	Total O 10 10	0	1
40	l	14	Total O 15 15	0	1
40	o	153	Total O 156 156	0	3
40	t	10	Total O 10 10	0	0

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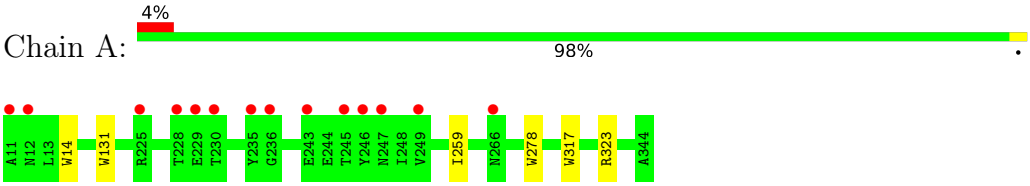
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
40	u	75	Total O 75 75	0	0
40	v	77	Total O 82 82	0	5
40	y	1	Total O 1 1	0	0
40	x	5	Total O 5 5	0	0
40	z	8	Total O 8 8	0	0

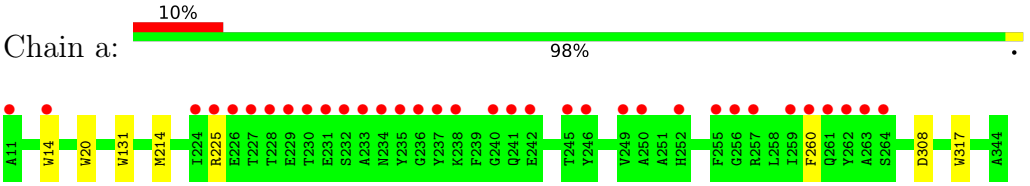
3 Residue-property plots (i)

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.

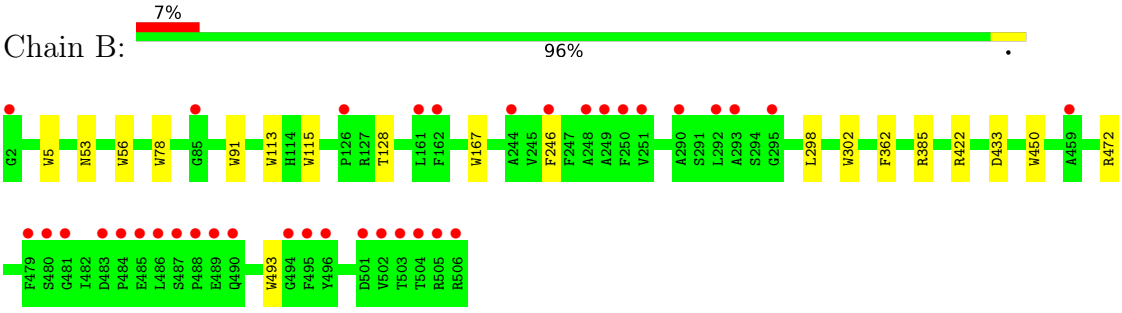
• Molecule 1: Photosystem II protein D1 1



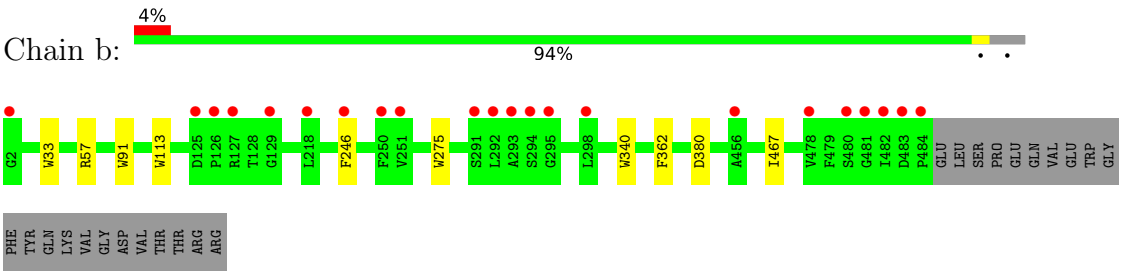
• Molecule 1: Photosystem II protein D1 1



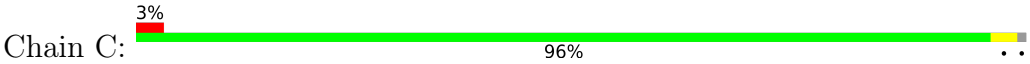
• Molecule 2: Photosystem II CP47 reaction center protein

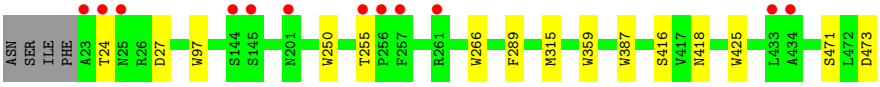


• Molecule 2: Photosystem II CP47 reaction center protein

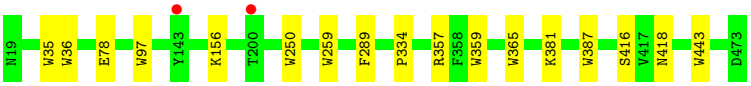


• Molecule 3: Photosystem II CP43 reaction center protein

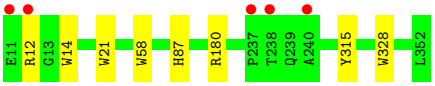




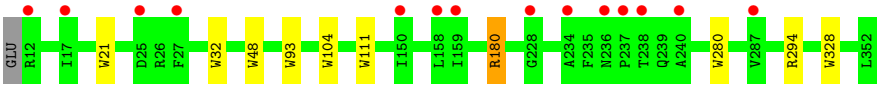
• Molecule 3: Photosystem II CP43 reaction center protein



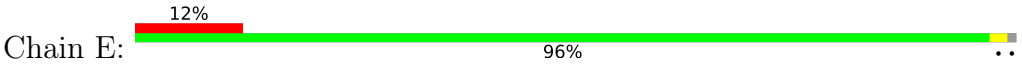
• Molecule 4: Photosystem II D2 protein

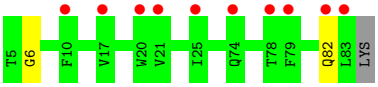


• Molecule 4: Photosystem II D2 protein

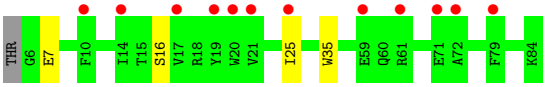


• Molecule 5: Cytochrome b559 subunit alpha

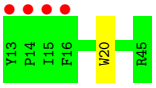




• Molecule 5: Cytochrome b559 subunit alpha

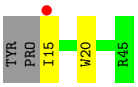


• Molecule 6: Cytochrome b559 subunit beta



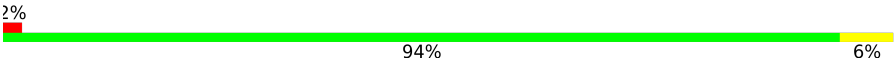
• Molecule 6: Cytochrome b559 subunit beta

Chain f:



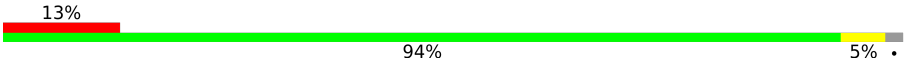
• Molecule 7: Photosystem II reaction center protein H

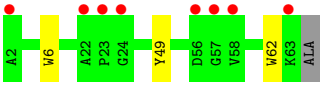
Chain H:



• Molecule 7: Photosystem II reaction center protein H

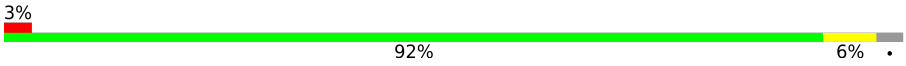
Chain h:

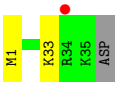




• Molecule 8: Photosystem II reaction center protein I

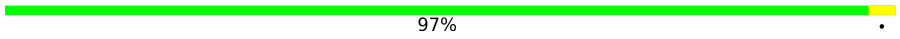
Chain I:





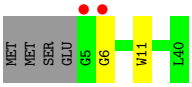
• Molecule 8: Photosystem II reaction center protein I

Chain i:



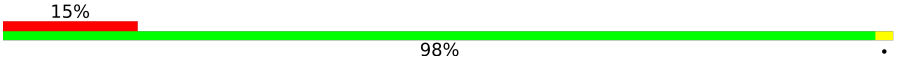
• Molecule 9: Photosystem II reaction center protein J

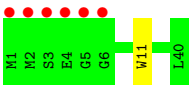
Chain J:



• Molecule 9: Photosystem II reaction center protein J

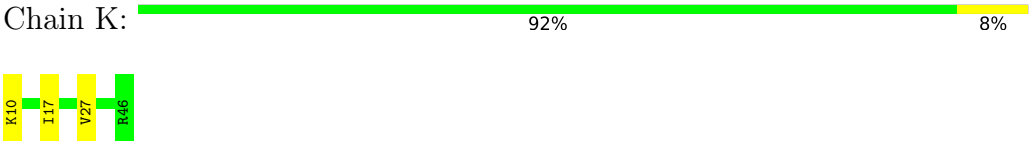
Chain j:





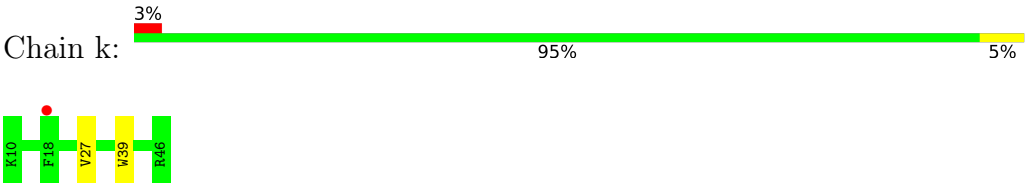
• Molecule 10: Photosystem II reaction center protein K

Chain K:



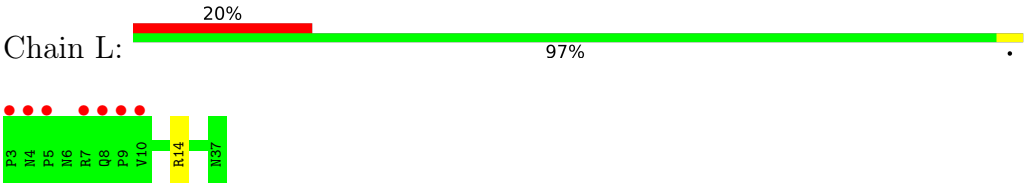
• Molecule 10: Photosystem II reaction center protein K

Chain k:



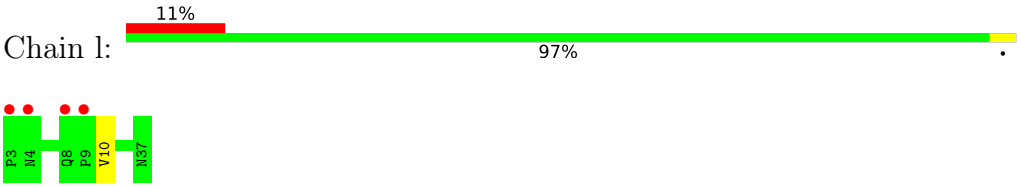
• Molecule 11: Photosystem II reaction center protein L

Chain L:



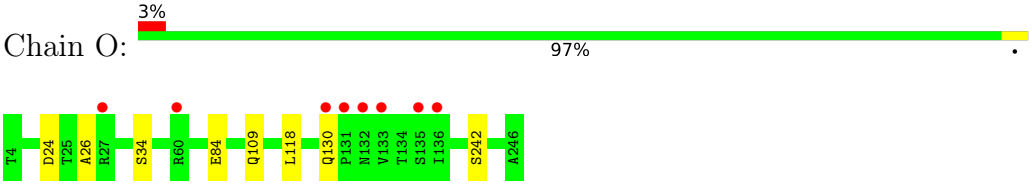
• Molecule 11: Photosystem II reaction center protein L

Chain l:



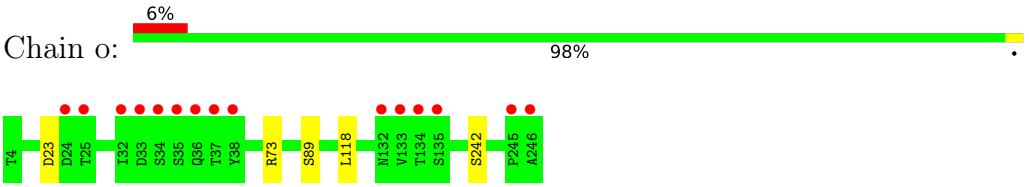
• Molecule 12: Photosystem II manganese-stabilizing polypeptide

Chain O:



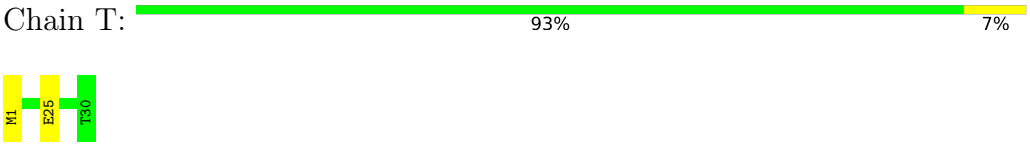
• Molecule 12: Photosystem II manganese-stabilizing polypeptide

Chain o:



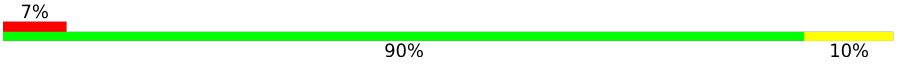
• Molecule 13: Photosystem II reaction center protein T

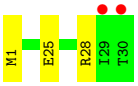
Chain T:



• Molecule 13: Photosystem II reaction center protein T

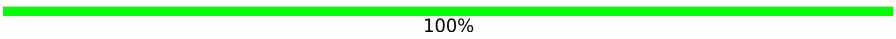
Chain t:





• Molecule 14: Photosystem II 12 kDa extrinsic protein

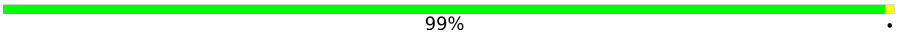
Chain U:



There are no outlier residues recorded for this chain.

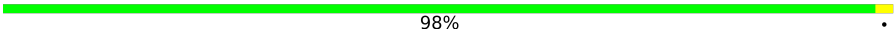
• Molecule 14: Photosystem II 12 kDa extrinsic protein

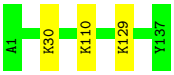
Chain u:



• Molecule 15: Cytochrome c-550

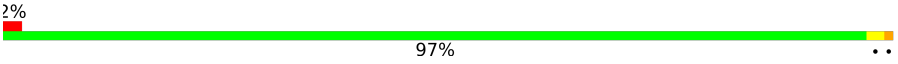
Chain V:

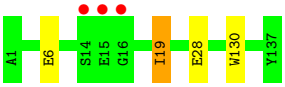




• Molecule 15: Cytochrome c-550

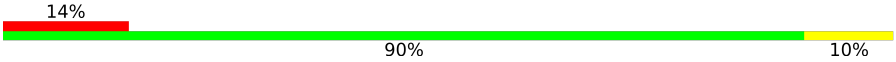
Chain v:

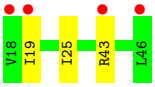




• Molecule 16: Photosystem II reaction center protein Ycf12

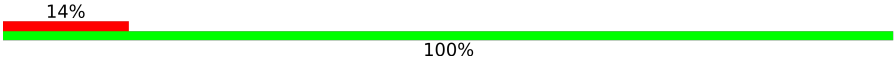
Chain Y:

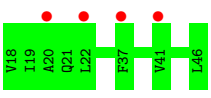




• Molecule 16: Photosystem II reaction center protein Ycf12

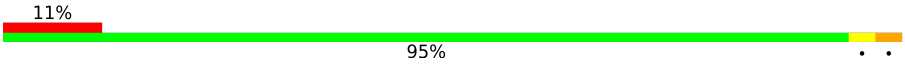
Chain y:

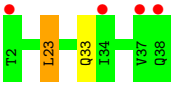




• Molecule 17: Photosystem II reaction center X protein

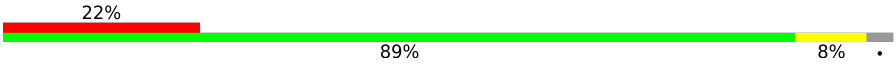
Chain X:

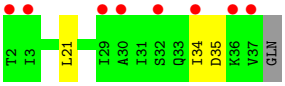




• Molecule 17: Photosystem II reaction center X protein

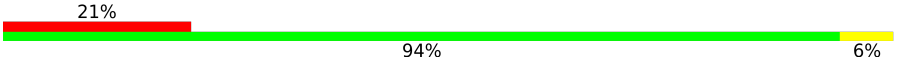
Chain x:

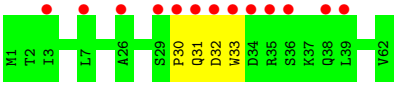




• Molecule 18: Photosystem II reaction center protein Z

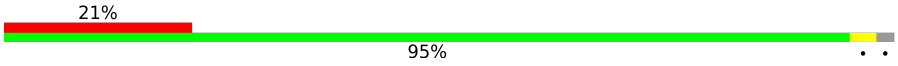
Chain Z:

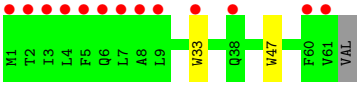




• Molecule 18: Photosystem II reaction center protein Z

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	121.95Å 226.99Å 285.89Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	50.00 – 2.20 46.79 – 2.20	Depositor EDS
% Data completeness (in resolution range)	96.2 (50.00-2.20) 96.3 (46.79-2.20)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.08	Depositor
$< I/\sigma(I) >$ [1]	2.24 (at 2.20Å)	Xtriage
Refinement program	REFMAC 5.6.0117	Depositor
R, R_{free}	0.174 , 0.226 0.174 , 0.225	Depositor DCC
R_{free} test set	19307 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å^2)	35.7	Xtriage
Anisotropy	0.519	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.34 , 60.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.34$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	51892	wwPDB-VP
Average B, all atoms (Å^2)	42.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.17% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: UNL, PHO, HTG, BCR, LMG, HEM, CA, FME, LMT, CL, OEX, FE2, DMS, RRX, SQD, CLA, LHG, DGD, MG, BCT, HEC, PL9

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	A	0.86	3/2686 (0.1%)	0.76	2/3666 (0.1%)
1	a	0.87	4/2640 (0.2%)	0.77	1/3604 (0.0%)
2	B	0.87	10/4099 (0.2%)	0.77	5/5591 (0.1%)
2	b	0.85	5/3917 (0.1%)	0.78	3/5342 (0.1%)
3	C	0.85	6/3583 (0.2%)	0.76	1/4880 (0.0%)
3	c	0.83	9/3638 (0.2%)	0.76	1/4953 (0.0%)
4	D	0.91	5/2836 (0.2%)	0.77	0/3866
4	d	0.88	8/2818 (0.3%)	0.75	2/3842 (0.1%)
5	E	0.73	0/654	0.73	0/895
5	e	0.71	1/655 (0.2%)	0.72	0/896
6	F	0.83	1/278 (0.4%)	0.62	0/379
6	f	0.78	1/257 (0.4%)	0.66	0/349
7	H	0.83	3/541 (0.6%)	0.74	0/737
7	h	0.80	2/517 (0.4%)	0.68	0/704
8	I	0.67	0/285	0.67	0/385
8	i	0.63	0/290	0.64	0/392
9	J	0.80	1/257 (0.4%)	0.72	0/349
9	j	0.79	1/283 (0.4%)	0.67	0/384
10	K	0.71	0/303	0.73	0/416
10	k	0.74	1/296 (0.3%)	0.70	0/408
11	L	0.74	0/294	0.73	0/399
11	l	0.72	0/294	0.71	0/399
12	O	0.69	0/1887	0.80	0/2561
12	o	0.63	0/1864	0.78	1/2535 (0.0%)
13	T	0.79	0/252	0.72	0/342
13	t	0.74	0/252	0.69	0/342
14	U	0.76	0/796	0.82	0/1078
14	u	0.71	0/777	0.79	0/1054
15	V	0.78	0/1090	0.78	0/1480
15	v	0.69	1/1082 (0.1%)	0.75	0/1472
16	Y	0.54	0/216	0.72	0/289

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	y	0.48	0/208	0.67	0/278
17	X	0.55	0/275	0.68	1/373 (0.3%)
17	x	0.56	0/256	0.65	0/349
18	Z	0.69	1/463 (0.2%)	0.67	0/636
18	z	0.65	2/447 (0.4%)	0.62	0/614
All	All	0.81	65/41286 (0.2%)	0.76	17/56239 (0.0%)

The worst 5 of 65 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	387	TRP	CD2-CE2	7.25	1.50	1.41
2	B	78	TRP	CD2-CE2	6.94	1.49	1.41
1	A	317	TRP	CD2-CE2	6.86	1.49	1.41
3	c	365	TRP	CD2-CE2	6.65	1.49	1.41
1	A	278	TRP	CD2-CE2	6.57	1.49	1.41

The worst 5 of 17 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	b	57	ARG	NE-CZ-NH2	-7.02	116.79	120.30
2	b	57	ARG	NE-CZ-NH1	6.84	123.72	120.30
3	C	473	ASP	CB-CG-OD1	6.78	124.40	118.30
4	d	180	ARG	NE-CZ-NH1	-5.99	117.31	120.30
2	B	433	ASP	CB-CG-OD1	5.78	123.50	118.30

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles

5.3.1 Protein backbone

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	333/334 (100%)	326 (98%)	6 (2%)	1 (0%)	41	46
1	a	333/334 (100%)	321 (96%)	11 (3%)	1 (0%)	41	46
2	B	506/505 (100%)	495 (98%)	11 (2%)	0	100	100
2	b	482/505 (95%)	465 (96%)	17 (4%)	0	100	100
3	C	449/455 (99%)	434 (97%)	13 (3%)	2 (0%)	34	37
3	c	454/455 (100%)	435 (96%)	18 (4%)	1 (0%)	47	55
4	D	343/342 (100%)	336 (98%)	6 (2%)	1 (0%)	41	46
4	d	341/342 (100%)	333 (98%)	8 (2%)	0	100	100
5	E	77/80 (96%)	75 (97%)	1 (1%)	1 (1%)	12	9
5	e	77/80 (96%)	75 (97%)	2 (3%)	0	100	100
6	F	31/33 (94%)	31 (100%)	0	0	100	100
6	f	29/33 (88%)	29 (100%)	0	0	100	100
7	H	64/63 (102%)	60 (94%)	4 (6%)	0	100	100
7	h	61/63 (97%)	58 (95%)	3 (5%)	0	100	100
8	I	33/36 (92%)	31 (94%)	2 (6%)	0	100	100
8	i	34/36 (94%)	30 (88%)	4 (12%)	0	100	100
9	J	34/40 (85%)	33 (97%)	0	1 (3%)	4	2
9	j	38/40 (95%)	37 (97%)	1 (3%)	0	100	100
10	K	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
10	k	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
11	L	33/35 (94%)	33 (100%)	0	0	100	100
11	l	33/35 (94%)	33 (100%)	0	0	100	100
12	O	242/243 (100%)	228 (94%)	12 (5%)	2 (1%)	19	19
12	o	241/243 (99%)	231 (96%)	10 (4%)	0	100	100
13	T	28/30 (93%)	28 (100%)	0	0	100	100
13	t	28/30 (93%)	27 (96%)	1 (4%)	0	100	100
14	U	96/97 (99%)	92 (96%)	4 (4%)	0	100	100
14	u	95/97 (98%)	91 (96%)	4 (4%)	0	100	100
15	V	136/137 (99%)	131 (96%)	5 (4%)	0	100	100
15	v	136/137 (99%)	126 (93%)	9 (7%)	1 (1%)	22	22

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
16	Y	27/29 (93%)	26 (96%)	1 (4%)	0	100	100
16	y	27/29 (93%)	26 (96%)	1 (4%)	0	100	100
17	X	36/37 (97%)	35 (97%)	1 (3%)	0	100	100
17	x	34/37 (92%)	31 (91%)	1 (3%)	2 (6%)	1	0
18	Z	60/62 (97%)	56 (93%)	1 (2%)	3 (5%)	2	0
18	z	59/62 (95%)	55 (93%)	4 (7%)	0	100	100
All	All	5100/5190 (98%)	4921 (96%)	163 (3%)	16 (0%)	41	46

5 of 16 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	D	12	ARG
3	C	24	THR
3	C	416	SER
5	E	6	GLY
18	Z	31	GLN

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	263/270 (97%)	263 (100%)	0	100	100
1	a	252/270 (93%)	250 (99%)	2 (1%)	81	90
2	B	391/403 (97%)	386 (99%)	5 (1%)	69	81
2	b	378/403 (94%)	375 (99%)	3 (1%)	81	90
3	C	347/356 (98%)	341 (98%)	6 (2%)	60	74
3	c	356/356 (100%)	350 (98%)	6 (2%)	60	74
4	D	278/277 (100%)	276 (99%)	2 (1%)	84	91
4	d	276/277 (100%)	275 (100%)	1 (0%)	91	96
5	E	68/71 (96%)	67 (98%)	1 (2%)	65	78
5	e	67/71 (94%)	64 (96%)	3 (4%)	27	34

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
6	F	27/27 (100%)	27 (100%)	0	100 100
6	f	25/27 (93%)	24 (96%)	1 (4%)	31 40
7	H	56/53 (106%)	55 (98%)	1 (2%)	59 72
7	h	54/53 (102%)	53 (98%)	1 (2%)	57 71
8	I	31/32 (97%)	30 (97%)	1 (3%)	39 50
8	i	31/32 (97%)	31 (100%)	0	100 100
9	J	23/28 (82%)	23 (100%)	0	100 100
9	j	25/28 (89%)	25 (100%)	0	100 100
10	K	30/30 (100%)	27 (90%)	3 (10%)	7 7
10	k	28/30 (93%)	27 (96%)	1 (4%)	35 45
11	L	33/33 (100%)	32 (97%)	1 (3%)	41 53
11	l	33/33 (100%)	32 (97%)	1 (3%)	41 53
12	O	203/206 (98%)	197 (97%)	6 (3%)	41 53
12	o	199/206 (97%)	195 (98%)	4 (2%)	55 69
13	T	24/26 (92%)	23 (96%)	1 (4%)	30 38
13	t	24/26 (92%)	22 (92%)	2 (8%)	11 11
14	U	85/84 (101%)	85 (100%)	0	100 100
14	u	82/84 (98%)	81 (99%)	1 (1%)	71 83
15	V	117/117 (100%)	113 (97%)	4 (3%)	37 47
15	v	115/117 (98%)	112 (97%)	3 (3%)	46 58
16	Y	22/22 (100%)	19 (86%)	3 (14%)	3 3
16	y	19/22 (86%)	19 (100%)	0	100 100
17	X	29/30 (97%)	27 (93%)	2 (7%)	15 16
17	x	27/30 (90%)	26 (96%)	1 (4%)	34 43
18	Z	45/52 (86%)	45 (100%)	0	100 100
18	z	40/52 (77%)	40 (100%)	0	100 100
All	All	4103/4234 (97%)	4037 (98%)	66 (2%)	62 76

5 of 66 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
12	o	118	LEU
13	t	25	GLU

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Mol	Chain	Res	Type
17	x	21	LEU
12	O	130	GLN
12	O	118	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 23 such sidechains are listed below:

Mol	Chain	Res	Type
2	b	331	ASN
12	o	82	GLN
12	o	58	ASN
12	o	104	GLN
12	O	130	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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	$\#\|Z\| > 2$
13	FME	T	1	13	8,9,10	0.63	0	7,9,11	1.38	2 (28%)
8	FME	i	1	8	8,9,10	0.53	0	7,9,11	1.35	1 (14%)
8	FME	I	1	8	8,9,10	0.99	0	7,9,11	1.42	1 (14%)
13	FME	t	1	13	8,9,10	0.61	0	7,9,11	1.72	1 (14%)

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
13	FME	T	1	13	-	2/7/9/11	-
8	FME	i	1	8	-	2/7/9/11	-
8	FME	I	1	8	-	1/7/9/11	-
13	FME	t	1	13	-	2/7/9/11	-

There are no bond length outliers.

All (5) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	t	1	FME	CE-SD-CG	3.92	113.85	100.40
8	i	1	FME	O-C-CA	-2.32	118.69	124.78
8	I	1	FME	CE-SD-CG	2.26	108.15	100.40
13	T	1	FME	CE-SD-CG	2.24	108.08	100.40
13	T	1	FME	C-CA-N	2.05	113.42	109.73

There are no chirality outliers.

5 of 7 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	I	1	FME	O1-CN-N-CA
13	T	1	FME	O1-CN-N-CA
13	T	1	FME	CA-CB-CG-SD
13	t	1	FME	O1-CN-N-CA
13	t	1	FME	CA-CB-CG-SD

There are no ring outliers.

No monomer is involved in short contacts.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 352 ligands modelled in this entry, 15 are monoatomic and 27 are unknown - leaving 310 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	$\#\|Z\| > 2$
22	CLA	C	509	-	65,73,73	2.43	18 (27%)	76,113,113	2.11	19 (25%)
25	LMG	J	101	38	45,45,55	0.99	2 (4%)	53,53,63	1.04	6 (11%)
34	HTG	c	922	-	19,19,19	0.84	1 (5%)	23,24,24	1.70	2 (8%)
31	DMS	C	534	-	3,3,3	2.69	1 (33%)	3,3,3	0.55	0
27	LHG	d	401	-	32,32,48	1.24	2 (6%)	36,37,54	1.18	4 (11%)
39	HEC	v	202	15	32,50,50	2.29	8 (25%)	24,82,82	1.90	5 (20%)
22	CLA	b	607	-	65,73,73	2.20	19 (29%)	76,113,113	2.54	25 (32%)
22	CLA	c	907	-	65,73,73	2.23	17 (26%)	76,113,113	2.15	22 (28%)
26	PL9	d	405	-	55,55,55	1.03	5 (9%)	68,69,69	1.48	9 (13%)
22	CLA	B	604	-	65,73,73	2.26	17 (26%)	76,113,113	2.26	29 (38%)
24	BCR	D	405	-	41,41,41	1.00	1 (2%)	56,56,56	1.97	15 (26%)
31	DMS	o	307	-	3,3,3	2.60	1 (33%)	3,3,3	0.58	0
31	DMS	H	103	-	3,3,3	2.91	1 (33%)	3,3,3	1.19	0
35	DGD	C	518	-	63,63,67	0.96	3 (4%)	77,77,81	1.28	10 (12%)
31	DMS	B	628	-	3,3,3	2.80	1 (33%)	3,3,3	0.77	0
22	CLA	B	606	-	65,73,73	2.74	17 (26%)	76,113,113	2.38	26 (34%)
34	HTG	b	623	-	19,19,19	1.10	1 (5%)	23,24,24	1.32	4 (17%)
35	DGD	c	918	-	63,63,67	0.94	4 (6%)	77,77,81	1.03	4 (5%)
31	DMS	C	539	-	3,3,3	2.69	1 (33%)	3,3,3	0.61	0
27	LHG	A	412	-	30,30,48	1.38	2 (6%)	33,35,54	1.44	4 (12%)
22	CLA	c	904	-	65,73,73	2.62	19 (29%)	76,113,113	2.36	27 (35%)
31	DMS	u	203	-	3,3,3	2.72	1 (33%)	3,3,3	0.76	0
25	LMG	j	101	38	47,47,55	1.01	2 (4%)	55,55,63	1.18	9 (16%)
31	DMS	I	101	-	3,3,3	2.71	1 (33%)	3,3,3	0.69	0
31	DMS	C	535	-	3,3,3	2.73	1 (33%)	3,3,3	0.78	0
22	CLA	b	615	-	52,60,73	2.83	21 (40%)	60,97,113	2.45	27 (45%)
22	CLA	b	613	-	65,73,73	2.57	18 (27%)	76,113,113	2.26	25 (32%)
19	OEX	A	401	3,40,1	0,15,15	-	-	-		
29	LMT	c	931	-	24,24,36	0.79	1 (4%)	29,29,47	0.86	2 (6%)
31	DMS	B	630	-	3,3,3	2.81	1 (33%)	3,3,3	0.91	0
31	DMS	c	925	-	3,3,3	2.65	1 (33%)	3,3,3	1.11	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
36	HEM	e	101	5,6	41,50,50	1.96	9 (21%)	45,82,82	1.70	9 (20%)
31	DMS	c	934	-	3,3,3	2.66	1 (33%)	3,3,3	0.67	0
37	RRX	H	101	-	42,42,42	0.82	0	57,58,58	1.47	8 (14%)
22	CLA	C	514	-	65,73,73	2.66	18 (27%)	76,113,113	2.23	23 (30%)
31	DMS	O	310	-	3,3,3	2.62	1 (33%)	3,3,3	0.86	0
29	LMT	B	622	-	24,24,36	0.63	1 (4%)	29,29,47	0.84	1 (3%)
31	DMS	O	309	-	3,3,3	2.54	1 (33%)	3,3,3	0.59	0
22	CLA	B	616	-	65,73,73	2.43	18 (27%)	76,113,113	2.25	21 (27%)
31	DMS	t	104	-	3,3,3	2.71	1 (33%)	3,3,3	0.59	0
22	CLA	b	617	-	60,68,73	2.96	18 (30%)	70,107,113	2.54	26 (37%)
39	HEC	V	202	15	32,50,50	2.08	8 (25%)	24,82,82	1.86	6 (25%)
22	CLA	B	611	40	65,73,73	2.56	16 (24%)	76,113,113	2.42	22 (28%)
27	LHG	D	409	-	48,48,48	1.02	2 (4%)	51,54,54	1.37	5 (9%)
25	LMG	A	410	-	51,51,55	0.95	2 (3%)	59,59,63	1.09	5 (8%)
23	PHO	A	407	-	51,69,69	1.63	8 (15%)	47,99,99	1.66	10 (21%)
22	CLA	B	609	-	65,73,73	2.59	19 (29%)	76,113,113	2.36	25 (32%)
23	PHO	D	402	-	51,69,69	1.76	6 (11%)	47,99,99	1.67	9 (19%)
22	CLA	c	905	40	65,73,73	2.64	19 (29%)	76,113,113	2.22	21 (27%)
31	DMS	A	418	-	3,3,3	2.41	1 (33%)	3,3,3	1.25	0
31	DMS	b	630	-	3,3,3	2.66	1 (33%)	3,3,3	0.29	0
31	DMS	A	416	-	3,3,3	2.66	1 (33%)	3,3,3	1.06	0
31	DMS	C	537	-	3,3,3	2.75	1 (33%)	3,3,3	0.70	0
27	LHG	d	407	-	48,48,48	0.75	2 (4%)	51,54,54	1.06	3 (5%)
22	CLA	B	612	-	65,73,73	2.14	13 (20%)	76,113,113	2.23	25 (32%)
31	DMS	O	311	-	3,3,3	2.97	1 (33%)	3,3,3	0.91	0
22	CLA	c	912	3	65,73,73	2.94	18 (27%)	76,113,113	2.07	23 (30%)
31	DMS	f	103	-	3,3,3	2.70	1 (33%)	3,3,3	0.91	0
31	DMS	C	524	-	3,3,3	2.48	1 (33%)	3,3,3	0.86	0
31	DMS	V	206	-	3,3,3	2.70	1 (33%)	3,3,3	0.55	0
28	SQD	f	101	-	12,13,54	2.23	1 (8%)	15,16,65	1.26	2 (13%)
37	RRX	h	101	-	42,42,42	0.97	0	57,58,58	1.19	5 (8%)
31	DMS	O	305	-	3,3,3	2.90	1 (33%)	3,3,3	0.84	0
22	CLA	C	511	-	65,73,73	2.39	19 (29%)	76,113,113	2.06	25 (32%)
22	CLA	b	603	-	65,73,73	2.78	17 (26%)	76,113,113	2.37	29 (38%)
35	DGD	D	407	-	50,50,67	1.18	3 (6%)	58,58,81	1.31	6 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
31	DMS	A	417	-	3,3,3	2.67	1 (33%)	3,3,3	0.48	0
24	BCR	b	620	-	41,41,41	0.85	0	56,56,56	1.34	8 (14%)
27	LHG	a	423	-	44,44,48	1.02	2 (4%)	47,50,54	1.08	4 (8%)
24	BCR	b	619	-	31,31,41	1.10	2 (6%)	40,40,56	1.34	8 (20%)
31	DMS	U	202	-	3,3,3	2.77	1 (33%)	3,3,3	1.29	0
31	DMS	c	942	-	3,3,3	2.73	1 (33%)	3,3,3	0.72	0
22	CLA	b	608	40	65,73,73	2.41	18 (27%)	76,113,113	2.19	21 (27%)
31	DMS	b	634	-	3,3,3	2.71	1 (33%)	3,3,3	0.59	0
31	DMS	a	421	-	3,3,3	2.66	1 (33%)	3,3,3	0.60	0
34	HTG	l	106	-	19,19,19	1.01	2 (10%)	23,24,24	2.09	3 (13%)
31	DMS	c	923	-	3,3,3	2.50	1 (33%)	3,3,3	0.40	0
31	DMS	c	937	-	3,3,3	2.88	1 (33%)	3,3,3	0.82	0
31	DMS	V	208	-	3,3,3	2.60	1 (33%)	3,3,3	0.40	0
22	CLA	a	412	-	65,73,73	2.24	17 (26%)	76,113,113	2.19	26 (34%)
26	PL9	a	415	-	55,55,55	0.96	3 (5%)	68,69,69	1.49	12 (17%)
34	HTG	B	623	-	19,19,19	1.16	1 (5%)	23,24,24	1.78	3 (13%)
22	CLA	c	910	-	65,73,73	2.22	16 (24%)	76,113,113	2.18	28 (36%)
31	DMS	V	211	-	3,3,3	2.81	1 (33%)	3,3,3	0.77	0
31	DMS	O	306	-	3,3,3	2.70	1 (33%)	3,3,3	0.75	0
29	LMT	A	414	-	36,36,36	0.80	0	47,47,47	1.14	4 (8%)
26	PL9	A	411	-	55,55,55	0.97	3 (5%)	68,69,69	1.72	14 (20%)
31	DMS	B	639	-	3,3,3	2.76	1 (33%)	3,3,3	0.71	0
31	DMS	C	526	-	3,3,3	2.59	1 (33%)	3,3,3	0.56	0
31	DMS	o	302	-	3,3,3	2.68	1 (33%)	3,3,3	0.95	0
31	DMS	v	208	-	3,3,3	2.63	1 (33%)	3,3,3	0.53	0
31	DMS	l	104	-	3,3,3	2.77	1 (33%)	3,3,3	0.57	0
31	DMS	u	202	-	3,3,3	2.62	1 (33%)	3,3,3	1.05	0
22	CLA	A	408	-	65,73,73	2.10	15 (23%)	76,113,113	2.25	25 (32%)
31	DMS	c	935	-	3,3,3	2.66	1 (33%)	3,3,3	0.89	0
34	HTG	b	632	-	19,19,19	1.08	2 (10%)	23,24,24	2.54	7 (30%)
22	CLA	c	914	-	65,73,73	2.38	18 (27%)	76,113,113	2.25	25 (32%)
29	LMT	a	419	-	36,36,36	0.78	0	47,47,47	1.36	5 (10%)
31	DMS	B	634	-	3,3,3	2.80	1 (33%)	3,3,3	0.65	0
31	DMS	c	943	-	3,3,3	2.69	1 (33%)	3,3,3	0.81	0
22	CLA	C	513	-	56,64,73	2.67	19 (33%)	65,102,113	2.41	21 (32%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
35	DGD	c	919	-	63,63,67	0.98	4 (6%)	77,77,81	1.15	6 (7%)
32	BCT	A	421[A]	20	2,3,3	0.79	0	2,3,3	0.11	0
26	PL9	D	406	-	55,55,55	0.94	3 (5%)	68,69,69	1.56	14 (20%)
31	DMS	B	629	-	3,3,3	2.54	1 (33%)	3,3,3	1.19	0
28	SQD	l	101	-	53,54,54	1.12	4 (7%)	62,65,65	1.47	8 (12%)
31	DMS	u	204	-	3,3,3	2.80	1 (33%)	3,3,3	0.81	0
31	DMS	D	418	-	3,3,3	2.40	1 (33%)	3,3,3	0.67	0
31	DMS	C	538	-	3,3,3	2.67	1 (33%)	3,3,3	0.58	0
23	PHO	a	410	-	51,69,69	1.58	7 (13%)	47,99,99	1.60	5 (10%)
31	DMS	t	105	-	3,3,3	2.71	1 (33%)	3,3,3	0.61	0
31	DMS	B	638	-	3,3,3	2.64	1 (33%)	3,3,3	0.40	0
22	CLA	c	913	-	65,73,73	2.42	19 (29%)	76,113,113	2.13	23 (30%)
31	DMS	a	425	-	3,3,3	3.01	1 (33%)	3,3,3	0.88	0
31	DMS	B	642	-	3,3,3	2.66	1 (33%)	3,3,3	1.04	0
31	DMS	I	106	-	3,3,3	2.68	1 (33%)	3,3,3	0.75	0
31	DMS	v	205	-	3,3,3	2.65	1 (33%)	3,3,3	0.83	0
31	DMS	U	203	-	3,3,3	2.78	1 (33%)	3,3,3	1.24	0
36	HEM	E	102	5,6	41,50,50	1.91	7 (17%)	45,82,82	1.97	13 (28%)
28	SQD	D	408	-	19,20,54	0.97	2 (10%)	26,29,65	1.93	7 (26%)
32	BCT	A	421[B]	20	2,3,3	0.95	0	2,3,3	0.41	0
22	CLA	c	902	-	65,73,73	2.43	18 (27%)	76,113,113	2.47	20 (26%)
35	DGD	d	406	-	42,42,67	1.24	3 (7%)	44,45,81	1.09	3 (6%)
27	LHG	C	522	-	29,29,48	1.31	2 (6%)	33,34,54	1.38	4 (12%)
22	CLA	d	402	-	65,73,73	2.07	17 (26%)	76,113,113	2.30	23 (30%)
22	CLA	C	508	40	65,73,73	2.34	18 (27%)	76,113,113	2.34	23 (30%)
22	CLA	D	401	40	65,73,73	1.81	13 (20%)	76,113,113	2.26	26 (34%)
22	CLA	c	908	40	65,73,73	2.79	18 (27%)	76,113,113	2.48	20 (26%)
31	DMS	b	638	-	3,3,3	2.98	1 (33%)	3,3,3	0.69	0
22	CLA	B	602	40	65,73,73	2.80	19 (29%)	76,113,113	2.38	22 (28%)
31	DMS	v	210	-	3,3,3	2.84	1 (33%)	3,3,3	0.78	0
22	CLA	C	512	3	65,73,73	2.49	19 (29%)	76,113,113	2.21	23 (30%)
31	DMS	V	204	-	3,3,3	2.73	1 (33%)	3,3,3	0.82	0
31	DMS	O	304	-	3,3,3	2.57	1 (33%)	3,3,3	0.42	0
31	DMS	C	536	-	3,3,3	2.68	1 (33%)	3,3,3	0.45	0
29	LMT	t	101	-	24,24,36	0.45	0	29,29,47	1.34	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	LMG	C	531	-	40,40,55	1.19	3 (7%)	48,48,63	1.13	3 (6%)
27	LHG	L	101	-	39,39,48	1.05	2 (5%)	42,45,54	1.19	4 (9%)
22	CLA	b	609	-	65,73,73	2.23	19 (29%)	76,113,113	2.03	25 (32%)
31	DMS	O	313	-	3,3,3	2.63	1 (33%)	3,3,3	0.48	0
31	DMS	V	205	-	3,3,3	2.62	1 (33%)	3,3,3	0.64	0
27	LHG	D	410	-	48,48,48	0.79	2 (4%)	51,54,54	1.08	4 (7%)
31	DMS	V	210	-	3,3,3	2.77	1 (33%)	3,3,3	0.89	0
31	DMS	C	530	-	3,3,3	2.68	1 (33%)	3,3,3	0.85	0
22	CLA	a	408	40	65,73,73	2.34	19 (29%)	76,113,113	2.41	27 (35%)
34	HTG	C	532	-	19,19,19	1.15	2 (10%)	23,24,24	1.90	1 (4%)
31	DMS	o	303	-	3,3,3	2.70	1 (33%)	3,3,3	0.81	0
29	LMT	f	102	-	25,25,36	1.01	1 (4%)	30,30,47	1.22	5 (16%)
22	CLA	B	608	40	65,73,73	2.16	15 (23%)	76,113,113	2.17	27 (35%)
25	LMG	c	930	-	49,49,55	1.10	3 (6%)	57,57,63	1.06	4 (7%)
34	HTG	D	414	-	19,19,19	0.86	1 (5%)	23,24,24	1.84	1 (4%)
24	BCR	C	515	-	41,41,41	0.81	1 (2%)	56,56,56	1.48	9 (16%)
24	BCR	d	404	-	41,41,41	1.05	3 (7%)	56,56,56	1.77	13 (23%)
22	CLA	c	909	-	65,73,73	2.86	20 (30%)	76,113,113	2.21	23 (30%)
31	DMS	B	637	-	3,3,3	2.78	1 (33%)	3,3,3	0.71	0
22	CLA	A	405	-	65,73,73	2.43	17 (26%)	76,113,113	2.05	24 (31%)
24	BCR	C	516	-	41,41,41	0.91	0	56,56,56	1.36	7 (12%)
31	DMS	b	633	-	3,3,3	2.67	1 (33%)	3,3,3	0.55	0
25	LMG	c	920	-	51,51,55	0.99	2 (3%)	59,59,63	1.09	5 (8%)
31	DMS	a	401	-	3,3,3	2.74	1 (33%)	3,3,3	0.81	0
31	DMS	O	303	-	3,3,3	2.74	1 (33%)	3,3,3	0.77	0
34	HTG	b	627	-	19,19,19	1.03	2 (10%)	23,24,24	1.84	3 (13%)
31	DMS	c	940	-	3,3,3	2.72	1 (33%)	3,3,3	0.57	0
29	LMT	c	921	-	36,36,36	0.67	1 (2%)	47,47,47	1.03	4 (8%)
23	PHO	a	411	-	51,69,69	1.66	7 (13%)	47,99,99	2.23	9 (19%)
29	LMT	E	101	-	24,24,36	0.64	0	29,29,47	0.99	1 (3%)
28	SQD	a	418	-	50,51,54	1.16	3 (6%)	59,62,65	1.47	8 (13%)
22	CLA	B	603	-	65,73,73	2.59	21 (32%)	76,113,113	2.32	32 (42%)
34	HTG	D	415	-	19,19,19	1.16	1 (5%)	23,24,24	2.71	7 (30%)
25	LMG	B	621	-	40,40,55	1.26	3 (7%)	48,48,63	1.39	8 (16%)
31	DMS	C	529	-	3,3,3	2.68	1 (33%)	3,3,3	0.54	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
31	DMS	d	415	-	3,3,3	2.62	1 (33%)	3,3,3	0.61	0
22	CLA	b	612	-	65,73,73	2.10	16 (24%)	76,113,113	2.29	23 (30%)
31	DMS	t	103	-	3,3,3	2.70	1 (33%)	3,3,3	0.64	0
22	CLA	b	616	-	65,73,73	2.43	17 (26%)	76,113,113	2.15	24 (31%)
31	DMS	B	641	-	3,3,3	2.75	1 (33%)	3,3,3	0.84	0
31	DMS	v	204	-	3,3,3	2.66	1 (33%)	3,3,3	0.69	0
31	DMS	C	528	-	3,3,3	2.63	1 (33%)	3,3,3	0.58	0
31	DMS	C	525	-	3,3,3	2.45	1 (33%)	3,3,3	0.62	0
31	DMS	V	212	-	3,3,3	2.78	1 (33%)	3,3,3	1.18	0
22	CLA	b	606	-	65,73,73	2.03	15 (23%)	76,113,113	2.38	22 (28%)
31	DMS	o	305	-	3,3,3	2.60	1 (33%)	3,3,3	0.66	0
31	DMS	C	527	-	3,3,3	2.66	1 (33%)	3,3,3	0.56	0
31	DMS	d	414	-	3,3,3	2.69	1 (33%)	3,3,3	0.58	0
31	DMS	B	631	-	3,3,3	2.56	1 (33%)	3,3,3	0.62	0
31	DMS	c	936	-	3,3,3	2.69	1 (33%)	3,3,3	0.58	0
22	CLA	C	507	-	65,73,73	2.25	18 (27%)	76,113,113	2.18	20 (26%)
31	DMS	V	209	-	3,3,3	2.65	1 (33%)	3,3,3	0.49	0
31	DMS	a	402	-	3,3,3	2.38	1 (33%)	3,3,3	0.73	0
22	CLA	b	604	-	65,73,73	2.60	17 (26%)	76,113,113	2.30	25 (32%)
19	OEX	a	403	3,40,1	0,15,15	-	-	-		
24	BCR	y	101	-	41,41,41	0.89	0	56,56,56	1.59	14 (25%)
25	LMG	D	412	-	46,46,55	1.14	3 (6%)	54,54,63	1.12	2 (3%)
31	DMS	v	201	-	3,3,3	2.59	1 (33%)	3,3,3	0.85	0
27	LHG	d	408	-	45,45,48	1.04	2 (4%)	48,51,54	0.73	0
31	DMS	o	308	-	3,3,3	2.78	1 (33%)	3,3,3	0.83	0
31	DMS	o	306	-	3,3,3	2.65	1 (33%)	3,3,3	0.60	0
34	HTG	V	203	-	14,14,19	0.69	0	18,19,24	3.11	7 (38%)
25	LMG	i	101	-	51,51,55	0.99	2 (3%)	59,59,63	1.18	7 (11%)
31	DMS	u	205	-	3,3,3	3.07	1 (33%)	3,3,3	1.19	0
28	SQD	a	414	-	53,54,54	1.09	3 (5%)	62,65,65	2.00	12 (19%)
31	DMS	L	102	-	3,3,3	2.75	1 (33%)	3,3,3	0.95	0
31	DMS	l	103	-	3,3,3	2.71	1 (33%)	3,3,3	0.66	0
31	DMS	B	632	-	3,3,3	2.65	1 (33%)	3,3,3	0.60	0
35	DGD	h	102	-	63,63,67	0.97	3 (4%)	77,77,81	1.14	5 (6%)
32	BCT	a	422	20	2,3,3	0.87	0	2,3,3	1.11	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
31	DMS	V	201	-	3,3,3	2.64	1 (33%)	3,3,3	0.90	0
31	DMS	b	629	-	3,3,3	2.28	1 (33%)	3,3,3	1.10	0
22	CLA	c	903	-	65,73,73	2.03	17 (26%)	76,113,113	2.29	25 (32%)
31	DMS	b	636	-	3,3,3	2.67	1 (33%)	3,3,3	0.70	0
35	DGD	C	519	-	63,63,67	0.82	2 (3%)	77,77,81	1.20	9 (11%)
25	LMG	b	622	-	43,43,55	1.35	4 (9%)	51,51,63	1.90	12 (23%)
22	CLA	B	615	-	53,61,73	2.69	19 (35%)	61,98,113	2.95	26 (42%)
29	LMT	Z	101	-	36,36,36	0.67	1 (2%)	47,47,47	1.15	3 (6%)
31	DMS	c	938	-	3,3,3	2.76	1 (33%)	3,3,3	0.83	0
31	DMS	O	307	-	3,3,3	2.79	1 (33%)	3,3,3	0.91	0
22	CLA	D	403	-	65,73,73	1.99	19 (29%)	76,113,113	2.48	25 (32%)
22	CLA	a	409	40	61,69,73	2.04	16 (26%)	71,108,113	2.63	29 (40%)
31	DMS	c	944	-	3,3,3	2.72	1 (33%)	3,3,3	0.78	0
34	HTG	v	203	-	16,16,19	1.05	1 (6%)	20,21,24	3.06	7 (35%)
31	DMS	c	928	-	3,3,3	2.70	1 (33%)	3,3,3	0.77	0
31	DMS	d	411	-	3,3,3	2.71	1 (33%)	3,3,3	0.94	0
35	DGD	H	102	-	63,63,67	1.02	3 (4%)	77,77,81	1.16	6 (7%)
34	HTG	B	627	-	19,19,19	1.01	1 (5%)	23,24,24	2.02	4 (17%)
22	CLA	B	617	-	55,63,73	2.24	15 (27%)	64,101,113	2.68	27 (42%)
31	DMS	B	633	-	3,3,3	2.66	1 (33%)	3,3,3	0.46	0
34	HTG	b	626	-	19,19,19	0.84	1 (5%)	23,24,24	1.61	5 (21%)
31	DMS	B	635	-	3,3,3	2.78	1 (33%)	3,3,3	0.69	0
22	CLA	B	607	-	65,73,73	2.44	19 (29%)	76,113,113	2.34	28 (36%)
31	DMS	v	211	-	3,3,3	2.76	1 (33%)	3,3,3	0.76	0
31	DMS	v	206	-	3,3,3	2.68	1 (33%)	3,3,3	0.73	0
27	LHG	D	411	-	44,44,48	0.98	2 (4%)	47,50,54	1.03	3 (6%)
22	CLA	B	614	-	61,69,73	2.36	16 (26%)	71,108,113	2.03	24 (33%)
27	LHG	a	416	-	48,48,48	1.13	2 (4%)	51,54,54	1.18	4 (7%)
29	LMT	T	102	-	24,24,36	0.73	1 (4%)	29,29,47	1.27	3 (10%)
28	SQD	b	621	-	37,38,54	1.04	2 (5%)	45,48,65	1.50	8 (17%)
31	DMS	D	416	-	3,3,3	2.50	1 (33%)	3,3,3	0.63	0
31	DMS	A	419	-	3,3,3	2.66	1 (33%)	3,3,3	0.82	0
31	DMS	i	106	-	3,3,3	2.62	1 (33%)	3,3,3	0.55	0
34	HTG	C	523	-	8,8,19	0.38	0	7,7,24	1.42	1 (14%)
22	CLA	C	510	-	65,73,73	2.14	15 (23%)	76,113,113	2.23	24 (31%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
31	DMS	v	207	-	3,3,3	2.72	1 (33%)	3,3,3	0.65	0
22	CLA	d	403	-	65,73,73	2.83	20 (30%)	76,113,113	2.05	21 (27%)
24	BCR	B	619	-	30,30,41	0.92	0	39,39,56	1.32	7 (17%)
24	BCR	c	915	-	41,41,41	0.84	1 (2%)	56,56,56	1.39	8 (14%)
31	DMS	D	417	-	3,3,3	2.75	1 (33%)	3,3,3	0.60	0
31	DMS	c	929	-	3,3,3	2.80	1 (33%)	3,3,3	0.84	0
31	DMS	c	927	-	3,3,3	2.64	1 (33%)	3,3,3	0.42	0
28	SQD	C	501	-	53,54,54	1.04	3 (5%)	62,65,65	1.95	14 (22%)
31	DMS	b	635	-	3,3,3	2.76	1 (33%)	3,3,3	0.55	0
34	HTG	B	626	-	19,19,19	0.73	0	23,24,24	1.83	5 (21%)
31	DMS	b	637	-	3,3,3	2.72	1 (33%)	3,3,3	0.61	0
24	BCR	a	413	-	41,41,41	1.14	2 (4%)	56,56,56	1.16	8 (14%)
22	CLA	b	614	-	59,67,73	2.39	19 (32%)	68,105,113	2.41	21 (30%)
31	DMS	c	924	-	3,3,3	2.82	1 (33%)	3,3,3	1.32	1 (33%)
31	DMS	c	941	-	3,3,3	2.60	1 (33%)	3,3,3	0.52	0
22	CLA	b	602	40	65,73,73	3.39	17 (26%)	76,113,113	2.43	21 (27%)
22	CLA	b	610	-	65,73,73	2.60	19 (29%)	76,113,113	2.06	22 (28%)
31	DMS	d	412	-	3,3,3	2.56	1 (33%)	3,3,3	0.83	0
22	CLA	C	504	-	65,73,73	2.71	20 (30%)	76,113,113	2.28	27 (35%)
24	BCR	B	620	-	41,41,41	0.97	2 (4%)	56,56,56	1.48	11 (19%)
27	LHG	l	102	-	48,48,48	0.93	2 (4%)	51,54,54	1.08	2 (3%)
22	CLA	C	502	-	65,73,73	2.04	17 (26%)	76,113,113	2.35	22 (28%)
22	CLA	C	505	40	65,73,73	3.03	18 (27%)	76,113,113	2.16	20 (26%)
22	CLA	B	613	-	65,73,73	2.53	19 (29%)	76,113,113	2.08	28 (36%)
22	CLA	C	506	-	65,73,73	2.58	16 (24%)	76,113,113	2.13	21 (27%)
24	BCR	K	101	-	41,41,41	0.86	0	56,56,56	1.19	4 (7%)
31	DMS	O	312	-	3,3,3	2.63	1 (33%)	3,3,3	0.96	0
31	DMS	A	420	-	3,3,3	2.74	1 (33%)	3,3,3	1.35	0
35	DGD	c	917	-	63,63,67	0.97	3 (4%)	77,77,81	1.00	3 (3%)
31	DMS	V	207	-	3,3,3	2.75	1 (33%)	3,3,3	0.89	0
22	CLA	D	404	-	65,73,73	2.43	16 (24%)	76,113,113	1.98	21 (27%)
31	DMS	l	105	-	3,3,3	2.74	1 (33%)	3,3,3	0.72	0
31	DMS	c	939	-	3,3,3	2.76	1 (33%)	3,3,3	0.65	0
22	CLA	B	605	-	65,73,73	2.05	16 (24%)	76,113,113	2.41	28 (36%)
22	CLA	c	911	-	65,73,73	2.19	17 (26%)	76,113,113	2.11	23 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
31	DMS	o	304	-	3,3,3	2.81	1 (33%)	3,3,3	1.15	0
22	CLA	B	610	-	65,73,73	2.12	18 (27%)	76,113,113	2.20	20 (26%)
24	BCR	A	409	-	41,41,41	1.08	2 (4%)	56,56,56	1.27	5 (8%)
31	DMS	O	314	-	3,3,3	2.73	1 (33%)	3,3,3	0.76	0
31	DMS	C	533	-	3,3,3	2.73	1 (33%)	3,3,3	0.75	0
34	HTG	b	624	-	19,19,19	1.06	1 (5%)	23,24,24	2.19	6 (26%)
31	DMS	B	636	-	3,3,3	2.60	1 (33%)	3,3,3	0.63	0
31	DMS	C	540	-	3,3,3	2.78	1 (33%)	3,3,3	0.89	0
31	DMS	v	209	-	3,3,3	2.63	1 (33%)	3,3,3	0.63	0
24	BCR	B	618	-	19,19,41	0.91	1 (5%)	26,26,56	1.42	5 (19%)
31	DMS	B	640	-	3,3,3	2.63	1 (33%)	3,3,3	0.61	0
25	LMG	C	520	-	51,51,55	1.08	2 (3%)	59,59,63	1.23	5 (8%)
31	DMS	O	308	-	3,3,3	2.79	1 (33%)	3,3,3	0.62	0
22	CLA	b	611	40	65,73,73	2.42	18 (27%)	76,113,113	2.30	24 (31%)
31	DMS	d	413	-	3,3,3	2.54	1 (33%)	3,3,3	0.39	0
28	SQD	A	413	-	48,49,54	1.08	3 (6%)	57,60,65	1.74	9 (15%)
22	CLA	a	407	-	65,73,73	2.32	19 (29%)	76,113,113	2.17	27 (35%)
24	BCR	c	916	-	41,41,41	0.86	0	56,56,56	1.55	10 (17%)
24	BCR	k	101	-	41,41,41	0.91	0	56,56,56	1.23	6 (10%)
34	HTG	C	521	-	19,19,19	0.94	2 (10%)	23,24,24	1.64	2 (8%)
22	CLA	C	503	-	65,73,73	2.40	19 (29%)	76,113,113	2.09	19 (25%)
29	LMT	I	102	-	36,36,36	0.68	1 (2%)	47,47,47	1.36	4 (8%)
31	DMS	F	101	-	3,3,3	2.66	1 (33%)	3,3,3	0.60	0
31	DMS	b	631	-	3,3,3	2.68	1 (33%)	3,3,3	0.54	0
31	DMS	c	926	-	3,3,3	2.60	1 (33%)	3,3,3	0.78	0
22	CLA	A	406	40	55,63,73	2.20	17 (30%)	64,101,113	2.56	29 (45%)
31	DMS	c	933	-	3,3,3	2.84	1 (33%)	3,3,3	0.92	0
22	CLA	b	605	-	65,73,73	2.34	19 (29%)	76,113,113	2.21	19 (25%)
22	CLA	c	906	-	65,73,73	2.36	17 (26%)	76,113,113	2.05	20 (26%)
24	BCR	Y	101	-	40,40,41	0.93	2 (5%)	52,54,56	1.70	15 (28%)
31	DMS	a	424	-	3,3,3	2.71	1 (33%)	3,3,3	1.02	0
35	DGD	C	517	-	63,63,67	0.85	3 (4%)	77,77,81	1.33	12 (15%)
24	BCR	b	618	-	20,20,41	0.89	1 (5%)	27,27,56	1.73	5 (18%)
25	LMG	d	409	-	47,47,55	1.09	3 (6%)	55,55,63	1.46	8 (14%)

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
22	CLA	C	509	-	1/1/15/20	11/37/115/115	-
29	LMT	T	102	-	-	10/15/35/61	0/1/1/2
22	CLA	B	603	-	1/1/15/20	8/37/115/115	-
28	SQD	b	621	-	-	16/32/52/69	0/1/1/1
34	HTG	D	415	-	-	8/10/30/30	0/1/1/1
25	LMG	J	101	38	-	9/40/60/70	0/1/1/1
25	LMG	B	621	-	-	23/35/55/70	0/1/1/1
34	HTG	c	922	-	-	6/10/30/30	0/1/1/1
22	CLA	b	612	-	-	10/37/115/115	-
22	CLA	b	616	-	1/1/15/20	9/37/115/115	-
34	HTG	C	523	-	-	1/6/6/30	-
27	LHG	d	401	-	-	15/34/34/53	-
22	CLA	A	408	-	1/1/15/20	13/37/115/115	-
22	CLA	C	510	-	1/1/15/20	13/37/115/115	-
22	CLA	d	403	-	-	10/37/115/115	-
34	HTG	b	632	-	-	6/10/30/30	0/1/1/1
22	CLA	c	914	-	-	16/37/115/115	-
29	LMT	a	419	-	-	14/21/61/61	0/2/2/2
39	HEC	v	202	15	-	2/10/54/54	-
22	CLA	b	607	-	1/1/15/20	7/37/115/115	-
22	CLA	c	907	-	1/1/15/20	11/37/115/115	-
26	PL9	d	405	-	-	6/53/73/73	0/1/1/1
22	CLA	b	606	-	1/1/15/20	3/37/115/115	-
22	CLA	C	513	-	1/1/13/20	9/27/105/115	-
24	BCR	B	619	-	-	1/24/41/63	0/1/1/2
24	BCR	c	915	-	-	3/29/63/63	0/2/2/2
22	CLA	B	604	-	1/1/15/20	7/37/115/115	-
35	DGD	c	919	-	-	20/51/91/95	0/2/2/2
24	BCR	D	405	-	-	4/29/63/63	0/2/2/2
35	DGD	C	518	-	-	23/51/91/95	0/2/2/2
28	SQD	C	501	-	-	27/49/69/69	0/1/1/1
26	PL9	D	406	-	-	8/53/73/73	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	CLA	B	606	-	-	9/37/115/115	-
34	HTG	B	626	-	-	2/10/30/30	0/1/1/1
34	HTG	b	623	-	-	6/10/30/30	0/1/1/1
35	DGD	c	918	-	-	22/51/91/95	0/2/2/2
27	LHG	A	412	-	-	14/33/33/53	-
22	CLA	C	507	-	1/1/15/20	11/37/115/115	-
24	BCR	a	413	-	-	2/29/63/63	0/2/2/2
22	CLA	c	904	-	-	7/37/115/115	-
28	SQD	l	101	-	-	32/49/69/69	0/1/1/1
22	CLA	b	614	-	1/1/13/20	6/30/108/115	-
22	CLA	b	604	-	1/1/15/20	10/37/115/115	-
22	CLA	b	602	40	1/1/15/20	21/37/115/115	-
22	CLA	b	610	-	-	1/37/115/115	-
25	LMG	j	101	38	-	13/42/62/70	0/1/1/1
22	CLA	b	615	-	1/1/12/20	6/22/100/115	-
22	CLA	b	613	-	1/1/15/20	6/37/115/115	-
24	BCR	y	101	-	-	5/29/63/63	0/2/2/2
25	LMG	D	412	-	-	14/41/61/70	0/1/1/1
22	CLA	C	504	-	-	3/37/115/115	-
23	PHO	a	410	-	-	1/37/103/103	0/5/6/6
29	LMT	c	931	-	-	11/15/35/61	0/1/1/2
22	CLA	c	913	-	1/1/15/20	19/37/115/115	-
24	BCR	B	620	-	-	0/29/63/63	0/2/2/2
27	LHG	l	102	-	-	26/53/53/53	-
22	CLA	C	502	-	1/1/15/20	5/37/115/115	-
22	CLA	C	505	40	-	6/37/115/115	-
27	LHG	d	408	-	-	17/50/50/53	-
36	HEM	e	101	5,6	-	4/12/54/54	-
34	HTG	V	203	-	-	0/5/25/30	0/1/1/1
37	RRX	H	101	-	-	1/29/65/65	0/2/2/2
22	CLA	C	514	-	-	18/37/115/115	-
22	CLA	B	613	-	1/1/15/20	4/37/115/115	-
22	CLA	C	506	-	1/1/15/20	5/37/115/115	-
25	LMG	i	101	-	-	26/46/66/70	0/1/1/1
29	LMT	B	622	-	-	8/15/35/61	0/1/1/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	HEM	E	102	5,6	-	1/12/54/54	-
22	CLA	B	616	-	1/1/15/20	12/37/115/115	-
24	BCR	K	101	-	-	3/29/63/63	0/2/2/2
28	SQD	a	414	-	-	27/49/69/69	0/1/1/1
35	DGD	c	917	-	-	21/51/91/95	0/2/2/2
28	SQD	D	408	-	-	3/12/32/69	0/1/1/1
22	CLA	c	902	-	1/1/15/20	3/37/115/115	-
22	CLA	b	617	-	1/1/14/20	7/31/109/115	-
35	DGD	d	406	-	-	30/44/44/95	-
39	HEC	V	202	15	-	2/10/54/54	-
22	CLA	D	404	-	1/1/15/20	13/37/115/115	-
22	CLA	B	611	40	1/1/15/20	9/37/115/115	-
27	LHG	D	409	-	-	15/53/53/53	-
27	LHG	C	522	-	-	15/31/31/53	-
22	CLA	d	402	-	1/1/15/20	8/37/115/115	-
25	LMG	A	410	-	-	28/46/66/70	0/1/1/1
22	CLA	C	508	40	1/1/15/20	11/37/115/115	-
23	PHO	A	407	-	-	2/37/103/103	0/5/6/6
22	CLA	B	609	-	-	2/37/115/115	-
22	CLA	B	605	-	1/1/15/20	9/37/115/115	-
23	PHO	D	402	-	-	6/37/103/103	0/5/6/6
22	CLA	D	401	40	-	6/37/115/115	-
22	CLA	c	911	-	1/1/15/20	7/37/115/115	-
22	CLA	c	905	40	-	15/37/115/115	-
22	CLA	c	908	40	1/1/15/20	11/37/115/115	-
35	DGD	h	102	-	-	18/51/91/95	0/2/2/2
22	CLA	B	610	-	1/1/15/20	2/37/115/115	-
24	BCR	A	409	-	-	2/29/63/63	0/2/2/2
34	HTG	b	624	-	-	4/10/30/30	0/1/1/1
27	LHG	d	407	-	-	20/53/53/53	-
22	CLA	B	602	40	1/1/15/20	23/37/115/115	-
22	CLA	B	612	-	1/1/15/20	11/37/115/115	-
22	CLA	c	912	3	-	4/37/115/115	-
22	CLA	c	903	-	1/1/15/20	10/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	CLA	C	512	3	-	1/37/115/115	-
35	DGD	C	519	-	-	29/51/91/95	0/2/2/2
28	SQD	f	101	-	-	4/12/12/69	-
24	BCR	B	618	-	-	0/11/28/63	0/1/1/2
25	LMG	b	622	-	-	20/38/58/70	0/1/1/1
25	LMG	C	520	-	-	19/46/66/70	0/1/1/1
37	RRX	h	101	-	-	8/29/65/65	0/2/2/2
22	CLA	b	611	40	1/1/15/20	6/37/115/115	-
22	CLA	C	511	-	1/1/15/20	14/37/115/115	-
29	LMT	t	101	-	-	10/15/35/61	0/1/1/2
22	CLA	b	603	-	1/1/15/20	3/37/115/115	-
35	DGD	D	407	-	-	29/44/64/95	0/1/1/2
25	LMG	C	531	-	-	14/35/55/70	0/1/1/1
22	CLA	B	615	-	1/1/12/20	11/23/101/115	-
27	LHG	L	101	-	-	20/44/44/53	-
22	CLA	b	609	-	-	7/37/115/115	-
29	LMT	Z	101	-	-	8/21/61/61	0/2/2/2
28	SQD	A	413	-	-	26/44/64/69	0/1/1/1
27	LHG	D	410	-	-	12/53/53/53	-
22	CLA	D	403	-	1/1/15/20	0/37/115/115	-
24	BCR	b	620	-	-	0/29/63/63	0/2/2/2
27	LHG	a	423	-	-	22/49/49/53	-
22	CLA	a	407	-	1/1/15/20	7/37/115/115	-
24	BCR	b	619	-	-	4/26/43/63	0/1/1/2
22	CLA	a	409	40	-	10/33/111/115	-
24	BCR	c	916	-	-	4/29/63/63	0/2/2/2
22	CLA	a	408	40	1/1/15/20	6/37/115/115	-
24	BCR	k	101	-	-	4/29/63/63	0/2/2/2
34	HTG	C	521	-	-	4/10/30/30	0/1/1/1
22	CLA	b	608	40	1/1/15/20	15/37/115/115	-
34	HTG	C	532	-	-	7/10/30/30	0/1/1/1
34	HTG	l	106	-	-	6/10/30/30	0/1/1/1
22	CLA	C	503	-	1/1/15/20	7/37/115/115	-
34	HTG	v	203	-	-	5/7/27/30	0/1/1/1
29	LMT	f	102	-	-	10/17/37/61	0/1/1/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
22	CLA	B	608	40	1/1/15/20	7/37/115/115	-
35	DGD	H	102	-	-	17/51/91/95	0/2/2/2
29	LMT	I	102	-	-	11/21/61/61	0/2/2/2
34	HTG	B	627	-	-	7/10/30/30	0/1/1/1
25	LMG	c	930	-	-	12/44/64/70	0/1/1/1
34	HTG	D	414	-	-	3/10/30/30	0/1/1/1
22	CLA	A	406	40	-	5/25/103/115	-
24	BCR	C	515	-	-	4/29/63/63	0/2/2/2
24	BCR	d	404	-	-	4/29/63/63	0/2/2/2
22	CLA	B	617	-	1/1/13/20	5/25/103/115	-
22	CLA	c	909	-	-	12/37/115/115	-
22	CLA	A	405	-	1/1/15/20	7/37/115/115	-
22	CLA	b	605	-	1/1/15/20	11/37/115/115	-
22	CLA	c	906	-	1/1/15/20	10/37/115/115	-
24	BCR	C	516	-	-	0/29/63/63	0/2/2/2
24	BCR	Y	101	-	-	6/29/60/63	0/2/2/2
34	HTG	b	626	-	-	6/10/30/30	0/1/1/1
22	CLA	a	412	-	-	12/37/115/115	-
26	PL9	a	415	-	-	15/53/73/73	0/1/1/1
25	LMG	c	920	-	-	21/46/66/70	0/1/1/1
22	CLA	B	607	-	1/1/15/20	14/37/115/115	-
34	HTG	B	623	-	-	3/10/30/30	0/1/1/1
22	CLA	c	910	-	1/1/15/20	15/37/115/115	-
34	HTG	b	627	-	-	3/10/30/30	0/1/1/1
29	LMT	c	921	-	-	11/21/61/61	0/2/2/2
27	LHG	D	411	-	-	12/49/49/53	-
22	CLA	B	614	-	1/1/14/20	6/33/111/115	-
29	LMT	A	414	-	-	14/21/61/61	0/2/2/2
27	LHG	a	416	-	-	28/53/53/53	-
35	DGD	C	517	-	-	19/51/91/95	0/2/2/2
23	PHO	a	411	-	-	6/37/103/103	0/5/6/6
26	PL9	A	411	-	-	12/53/73/73	0/1/1/1
29	LMT	E	101	-	-	9/15/35/61	0/1/1/2
24	BCR	b	618	-	-	7/13/30/63	0/1/1/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	SQD	a	418	-	-	24/46/66/69	0/1/1/1
25	LMG	d	409	-	-	28/42/62/70	0/1/1/1

The worst 5 of 1594 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
22	b	602	CLA	MG-NA	19.40	2.52	2.06
22	B	606	CLA	MG-NA	15.87	2.44	2.06
22	b	617	CLA	MG-NA	15.18	2.42	2.06
22	c	912	CLA	MG-NA	14.71	2.41	2.06
22	B	602	CLA	MG-NA	14.39	2.40	2.06

The worst 5 of 2317 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	b	602	CLA	C4A-NA-C1A	11.72	111.97	106.71
22	C	506	CLA	C4A-NA-C1A	11.20	111.74	106.71
22	B	602	CLA	C4A-NA-C1A	10.95	111.63	106.71
22	c	912	CLA	C4A-NA-C1A	10.35	111.36	106.71
22	c	909	CLA	C4A-NA-C1A	9.96	111.19	106.71

5 of 51 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
22	A	405	CLA	ND
22	A	408	CLA	ND
22	B	602	CLA	ND
22	B	603	CLA	ND
22	B	604	CLA	ND

5 of 1768 torsion outliers are listed below:

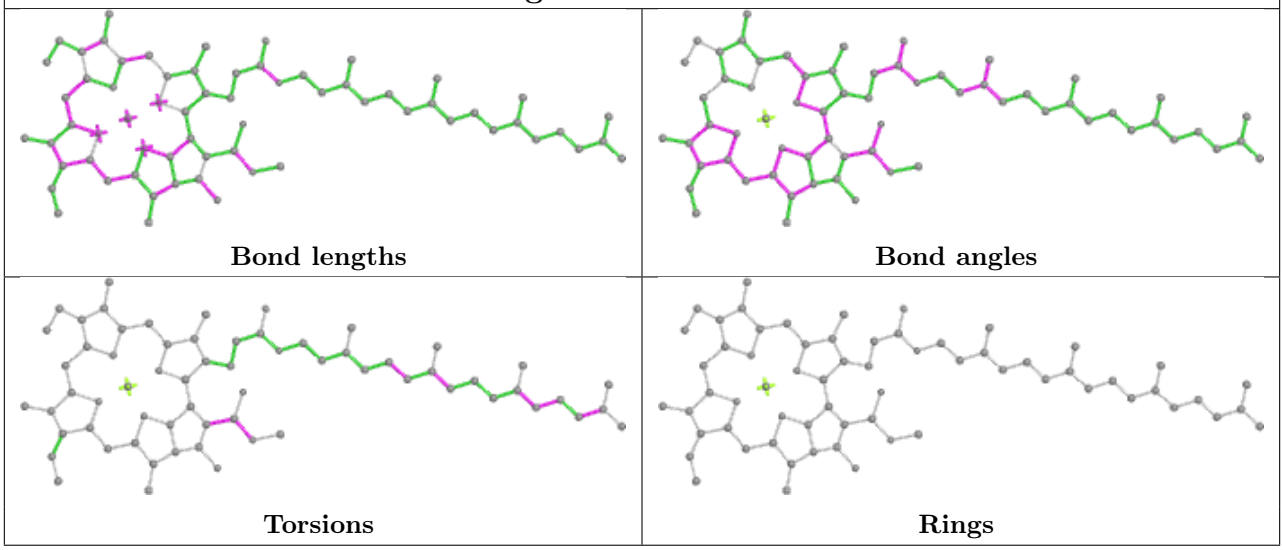
Mol	Chain	Res	Type	Atoms
22	A	408	CLA	C4-C3-C5-C6
22	B	602	CLA	CAD-CBD-CGD-O2D
22	B	602	CLA	O2A-C1-C2-C3
22	B	602	CLA	C11-C10-C8-C9
22	B	606	CLA	C2-C3-C5-C6

There are no ring outliers.

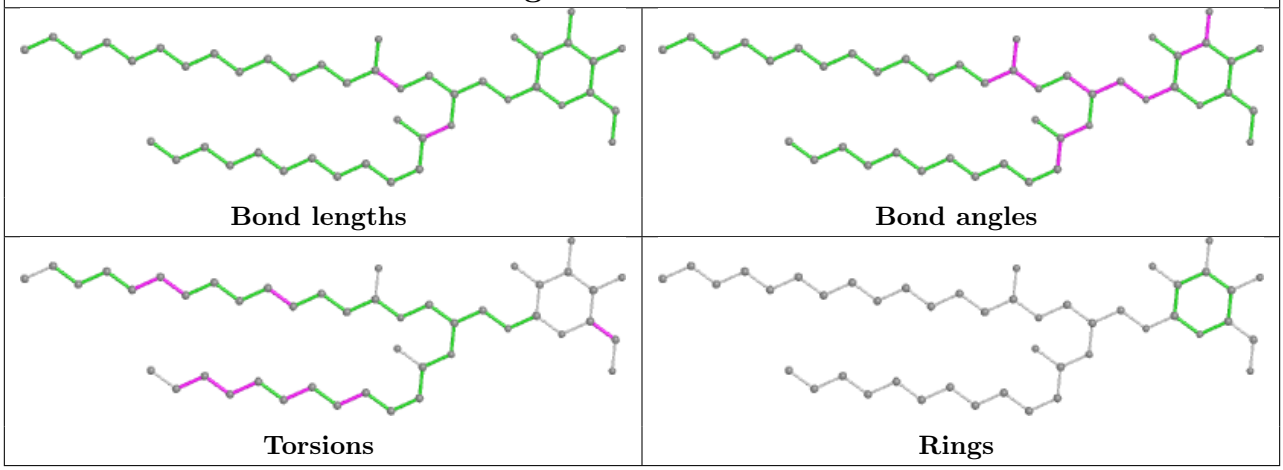
No monomer is involved in short contacts.

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

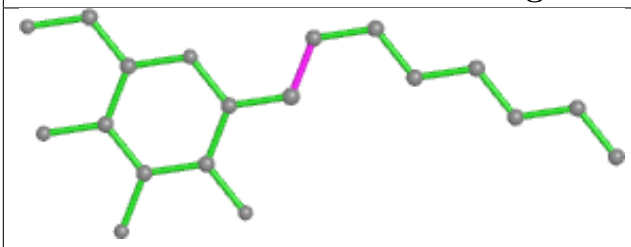
Ligand CLA C 509



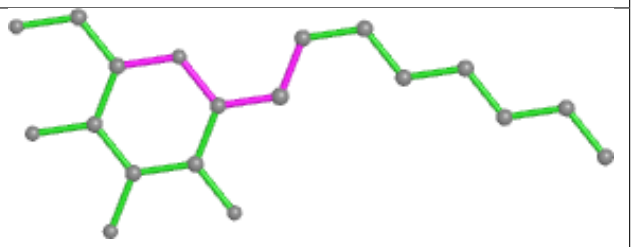
Ligand LMG J 101



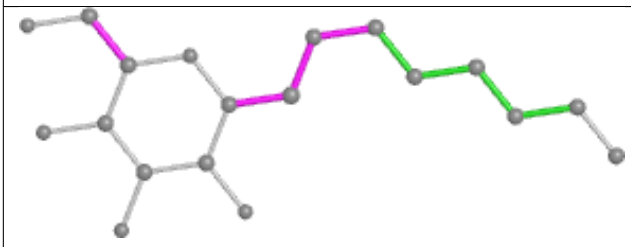
Ligand HTG c 922



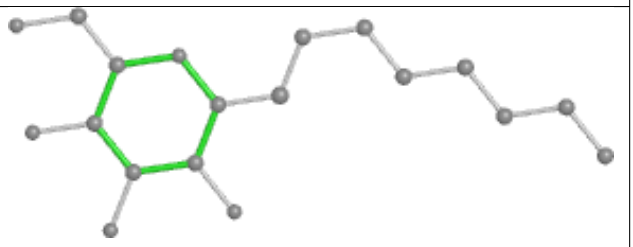
Bond lengths



Bond angles

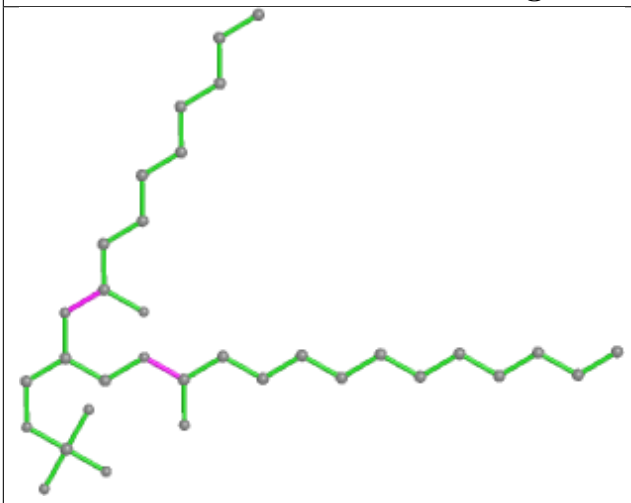


Torsions

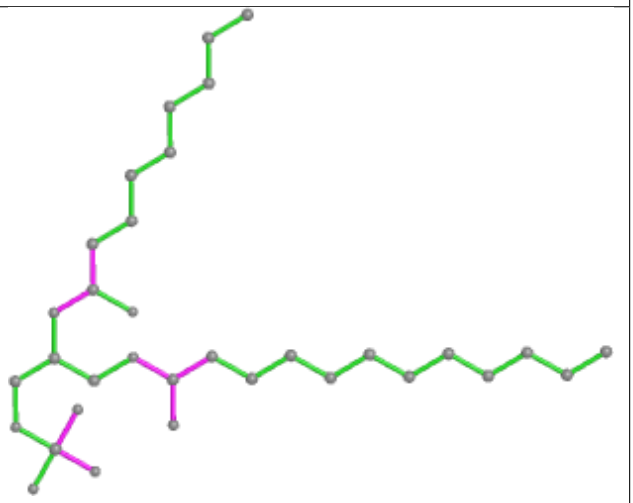


Rings

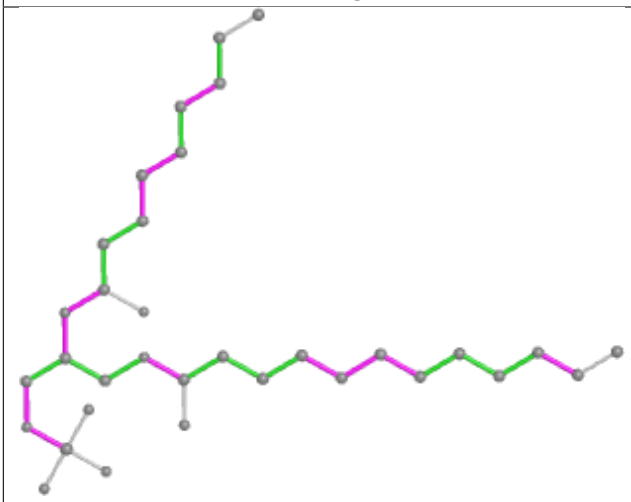
Ligand LHG d 401



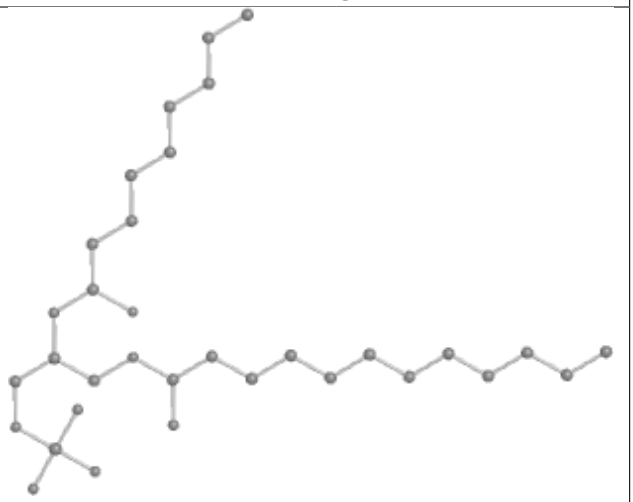
Bond lengths



Bond angles

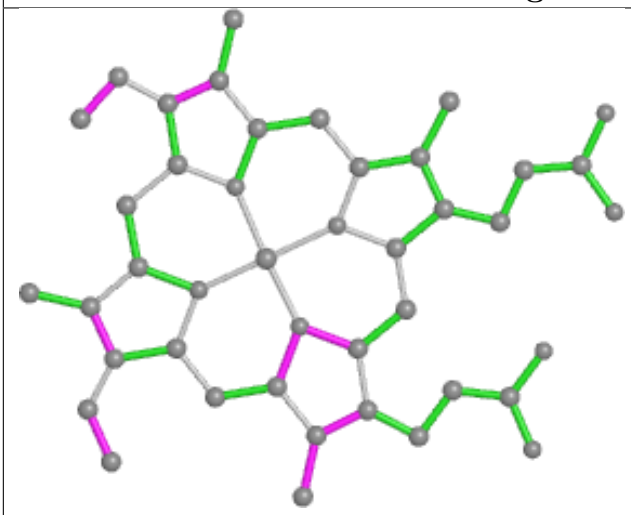


Torsions

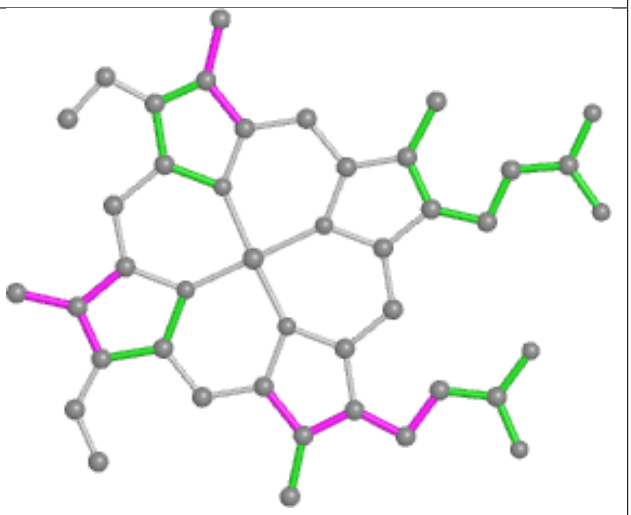


Rings

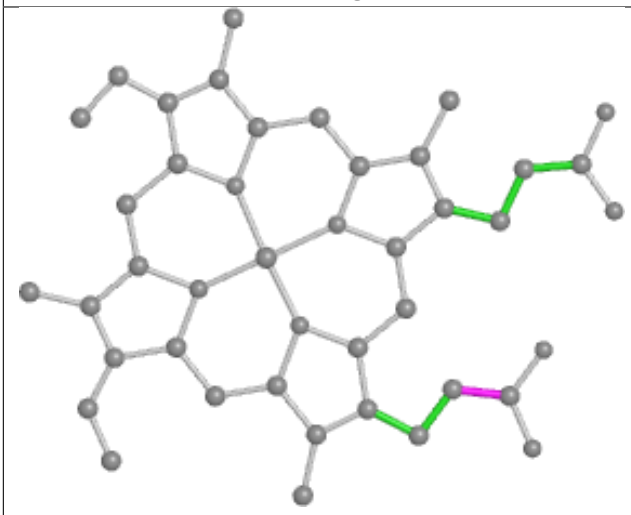
Ligand HEC v 202



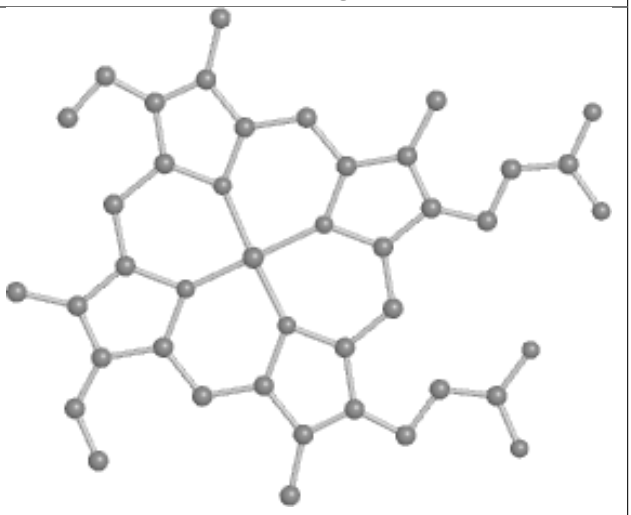
Bond lengths



Bond angles

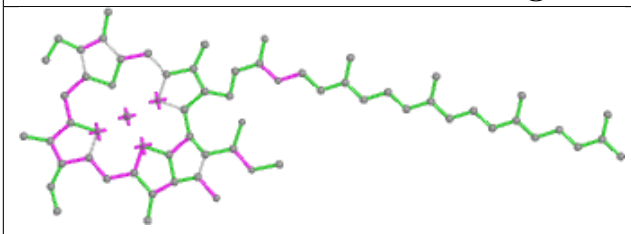


Torsions

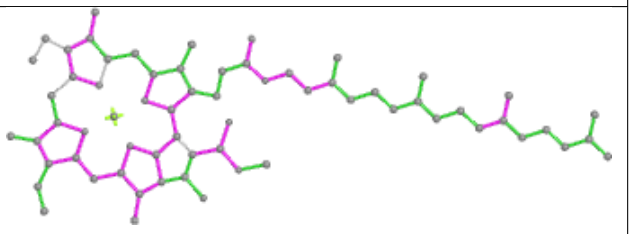


Rings

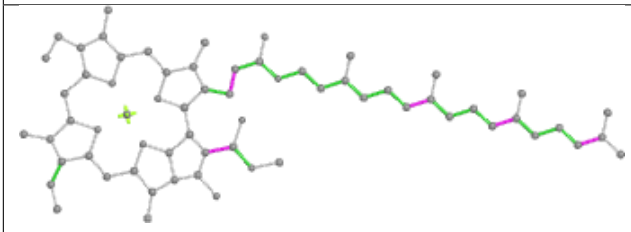
Ligand CLA b 607



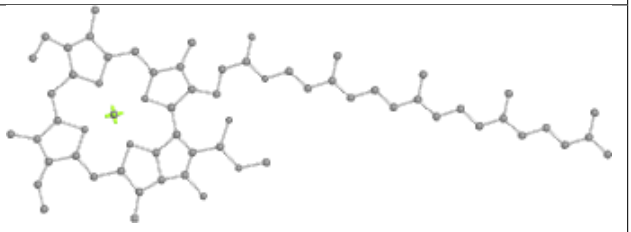
Bond lengths



Bond angles

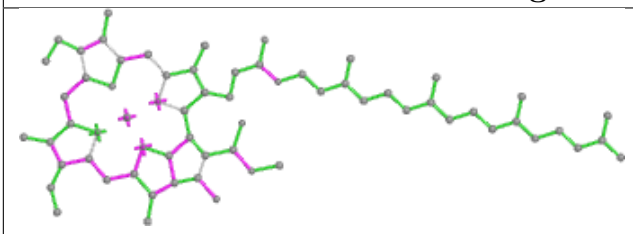


Torsions

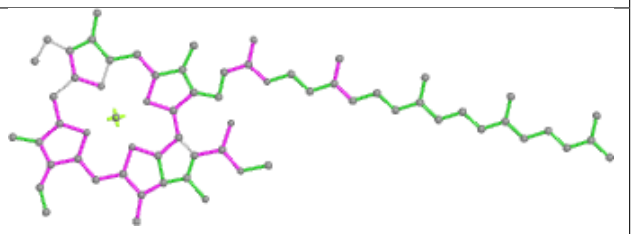


Rings

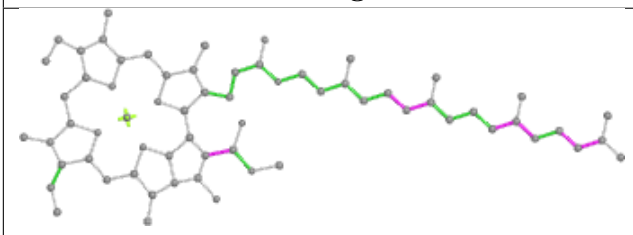
Ligand CLA c 907



Bond lengths



Bond angles



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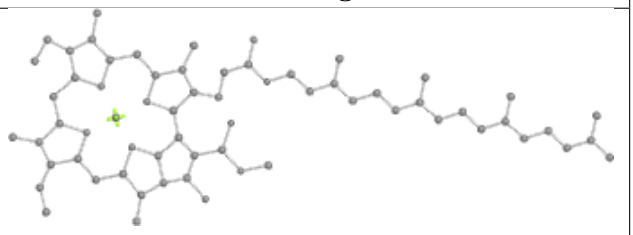
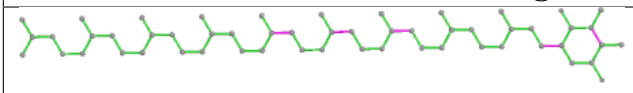


Rings

Ligand PL9 d 405



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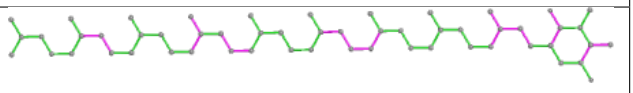
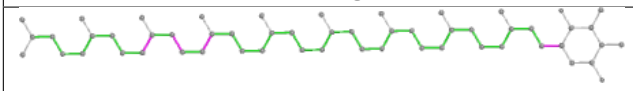
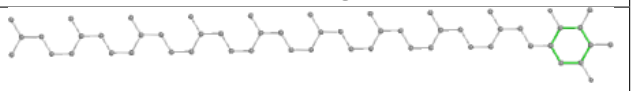


Bond angles

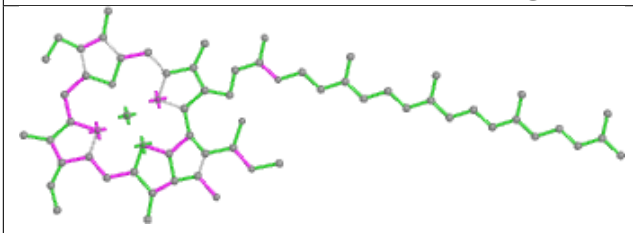


Torsions



Rings

Ligand CLA B 604



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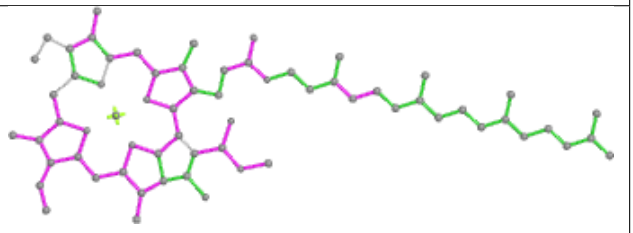
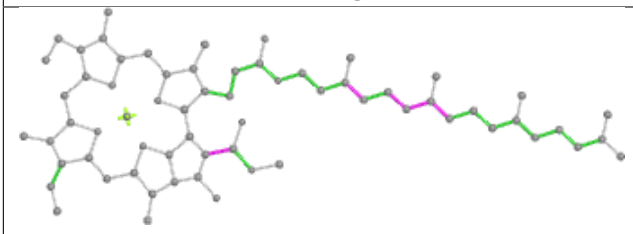


Bond angles



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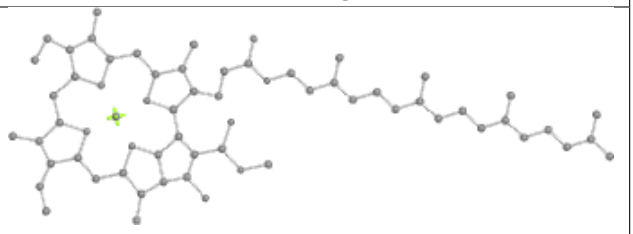
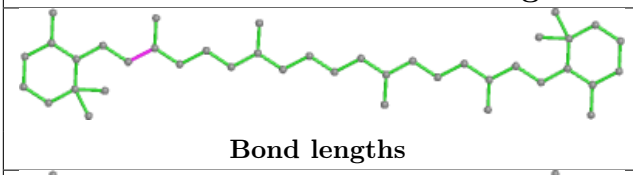
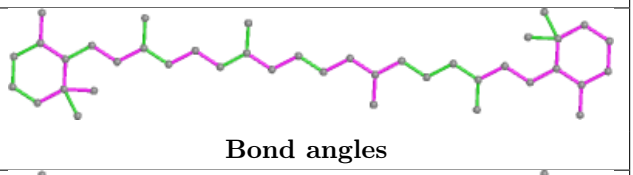


Rings

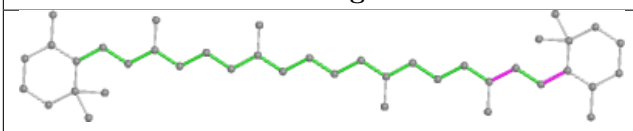
Ligand BCR D 405



Bond lengths



Bond angles



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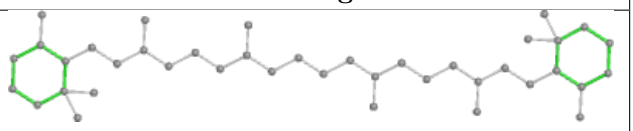
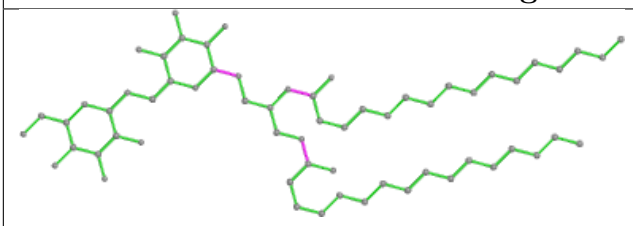


Rings

Ligand DGD C 518



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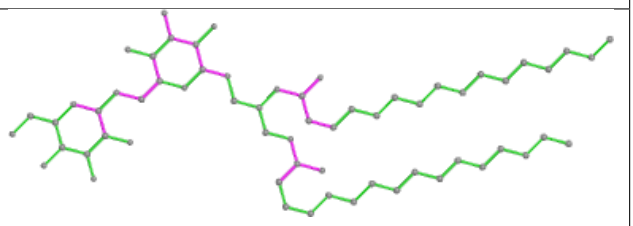
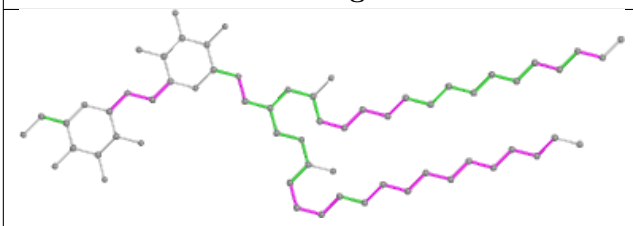
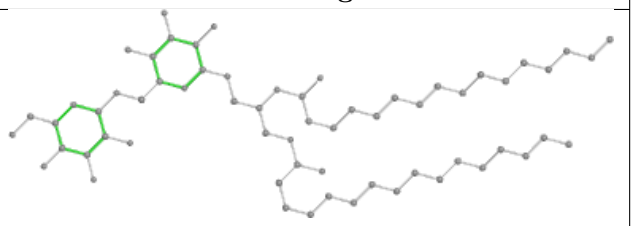


Bond angles

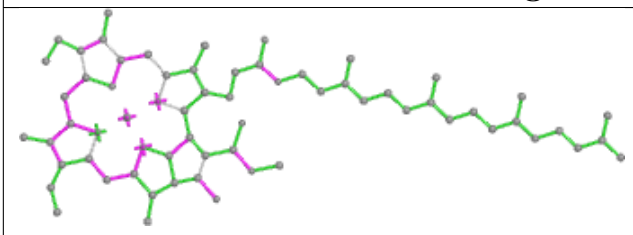


Torsions



Rings

Ligand CLA B 606



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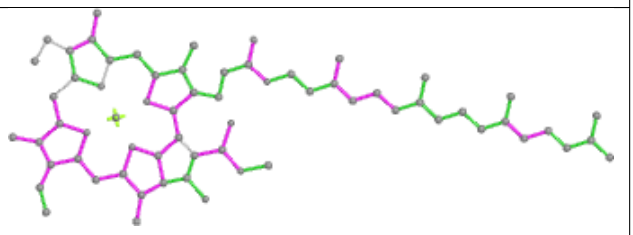
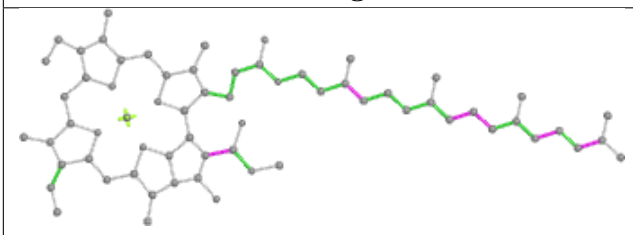


Bond angles



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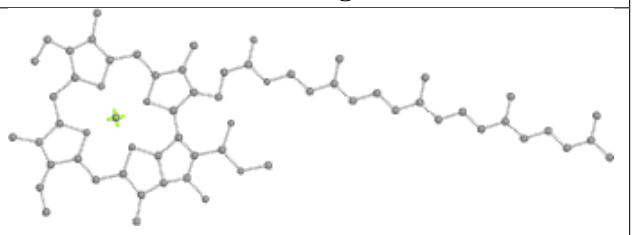
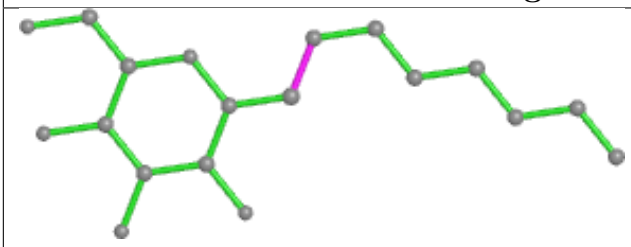


Rings

Ligand HTG b 623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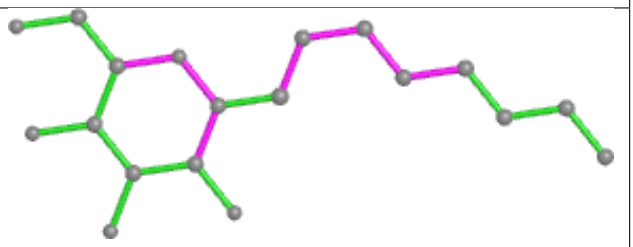
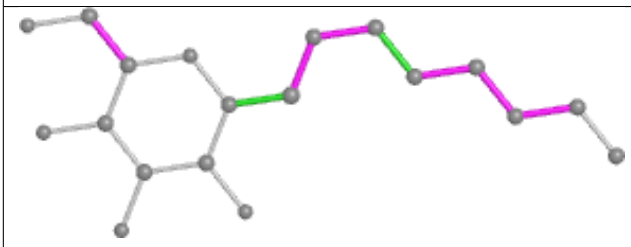

Bond angles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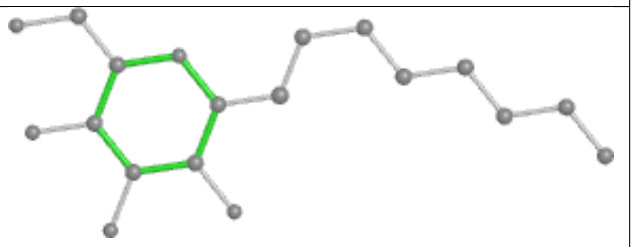
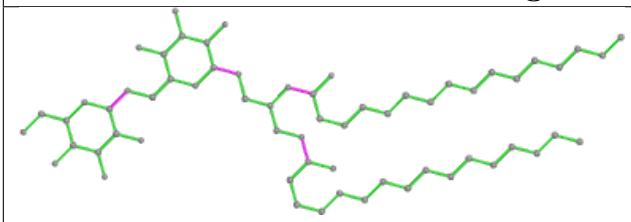
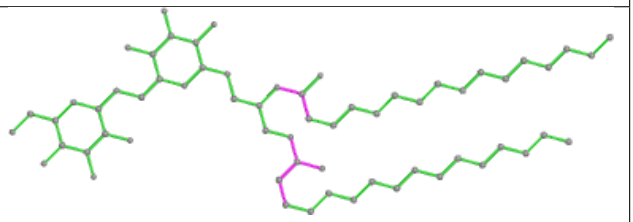
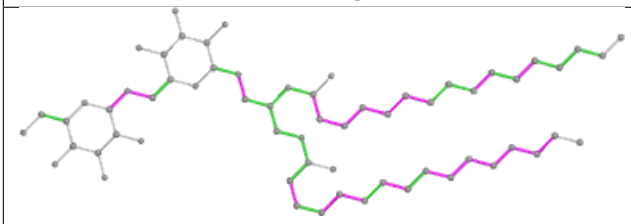

Rings

Ligand DGD c 918


Bond lengths


Bond angles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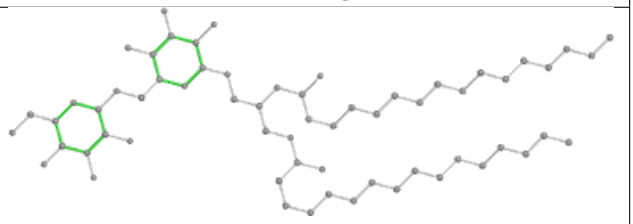
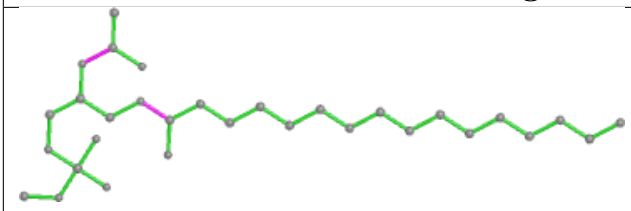
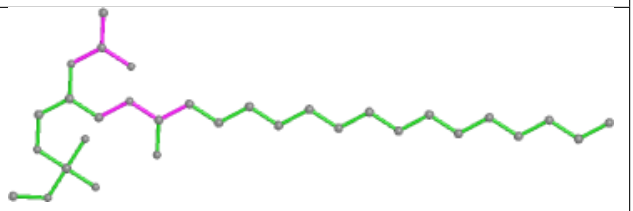
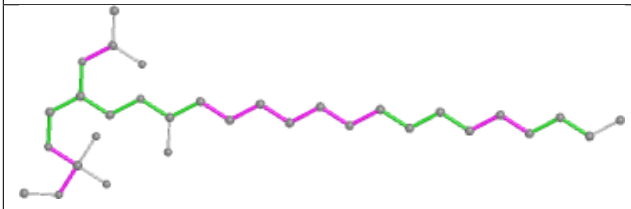

Rings

Ligand LHG A 412


Bond lengths


Bond angles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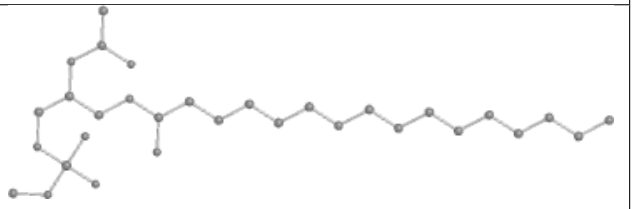
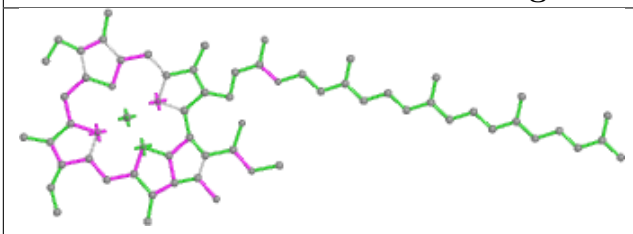
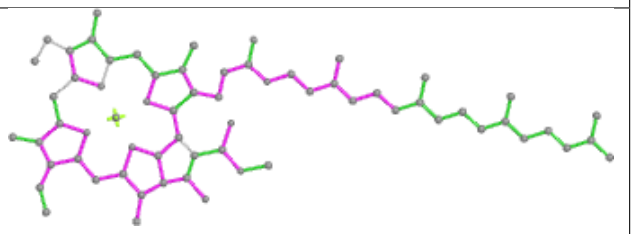

Rings

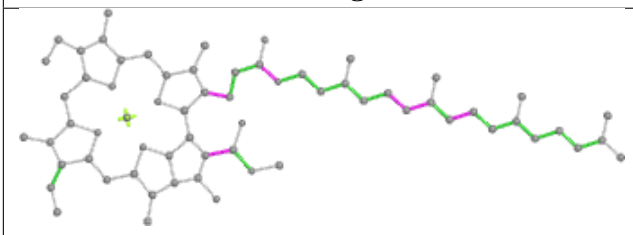
Ligand CLA c 904



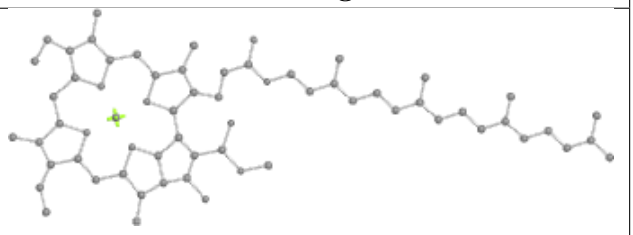
Bond lengths



Bond angles

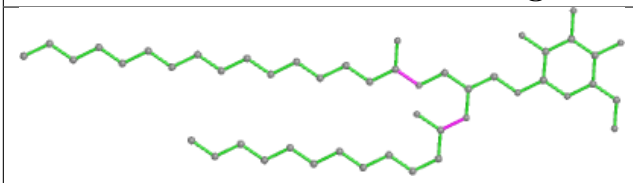


Torsions

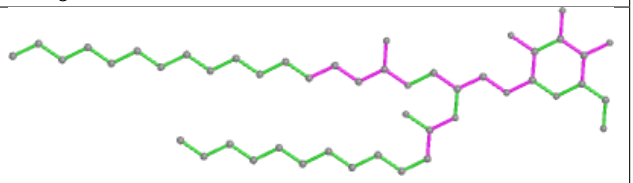


Rings

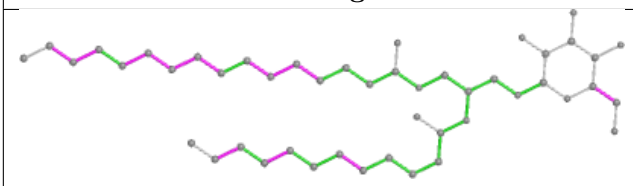
Ligand LMG j 101



Bond lengths



Bond angles



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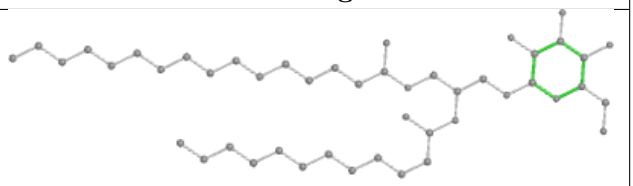
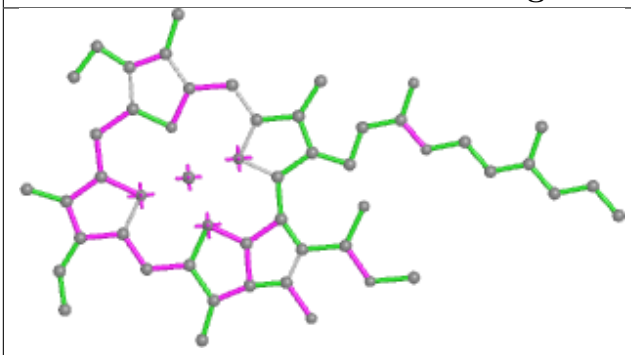


Rings

Ligand CLA b 615



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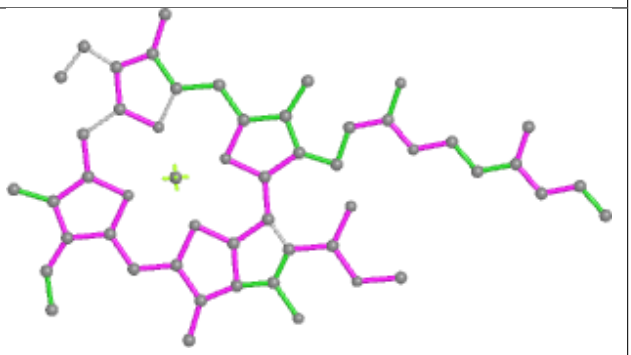
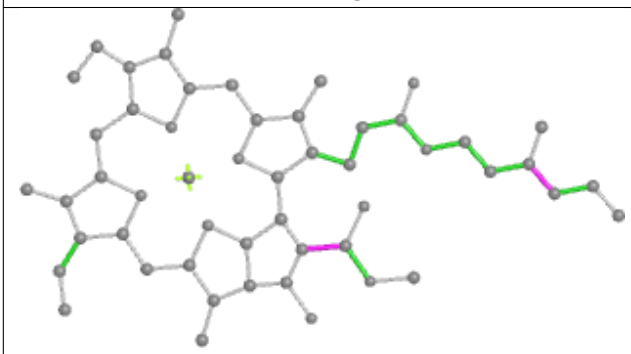


Bond angles



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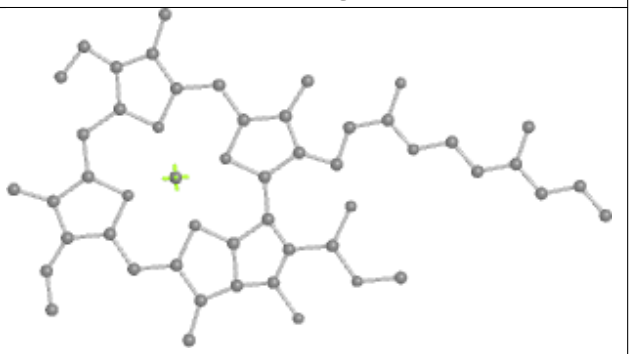
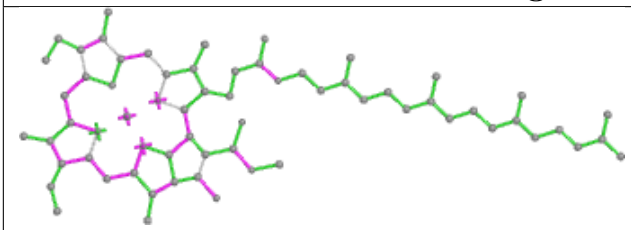


Rings

Ligand CLA b 613



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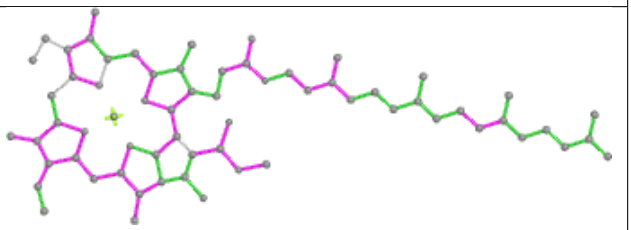

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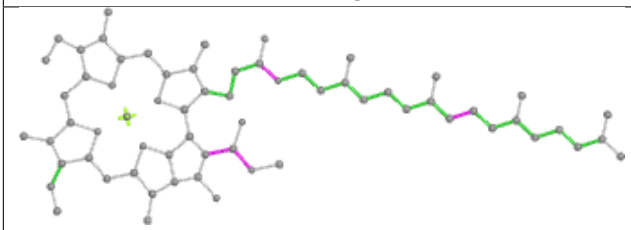

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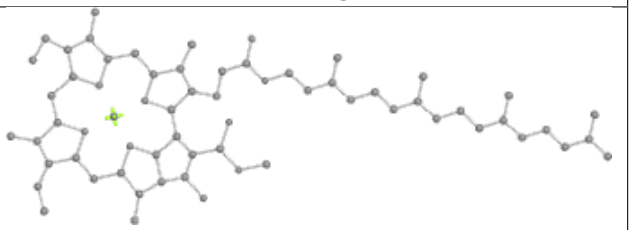
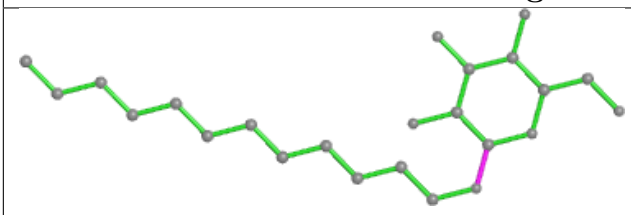


Rings

Ligand LMT c 931



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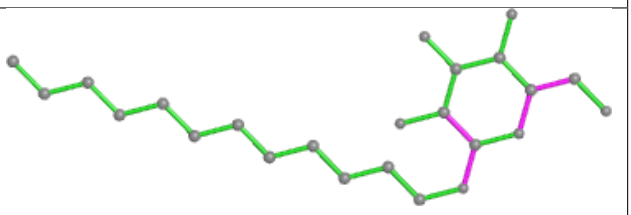

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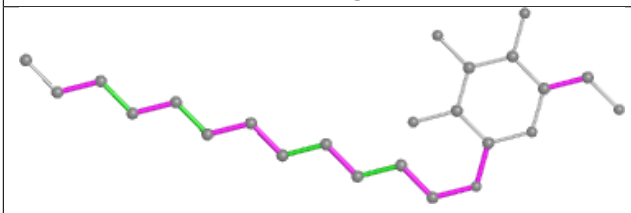

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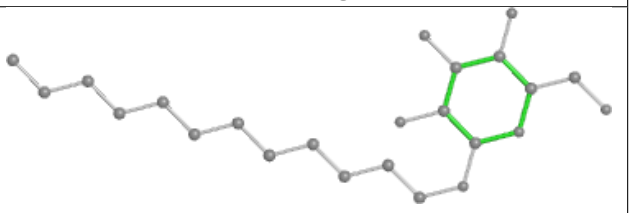
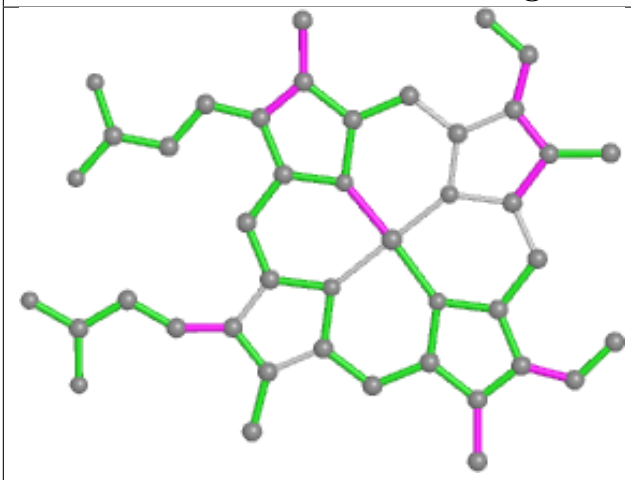


Rings

Ligand HEM e 101



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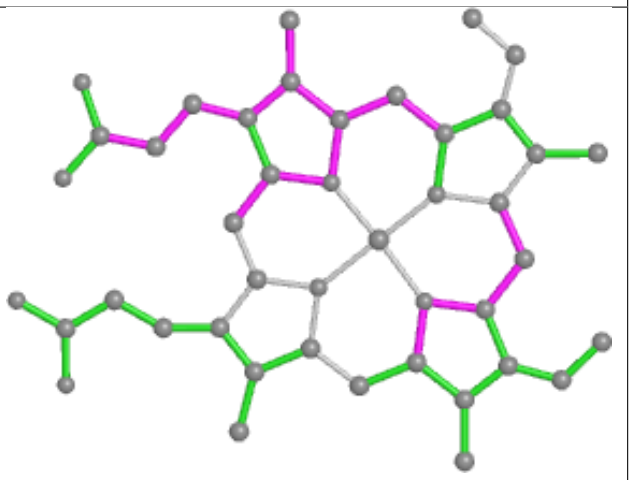
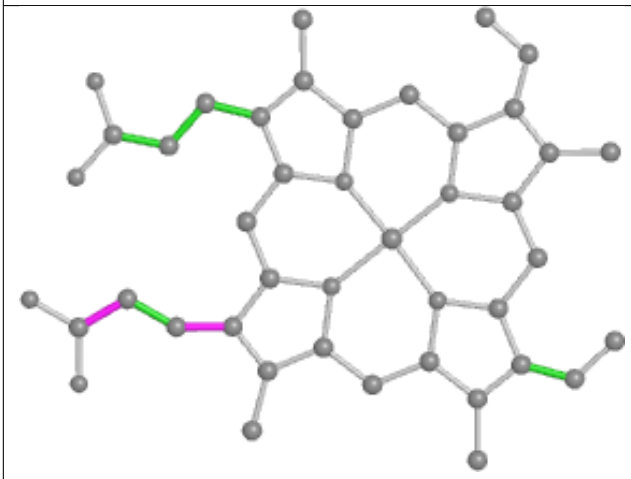


Bond angles



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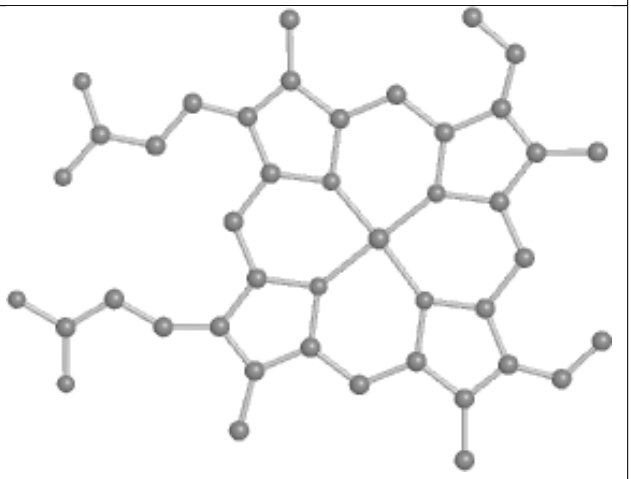
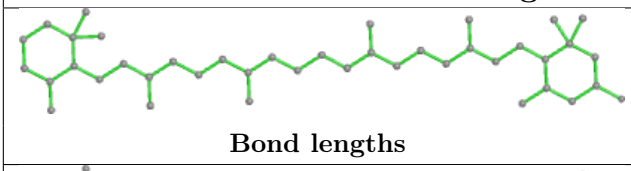


Rings

Ligand RRX H 101



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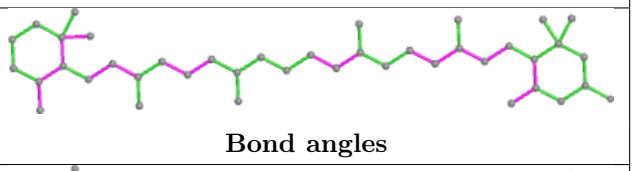
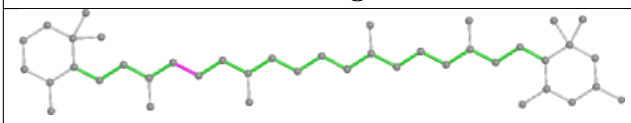


Bond angles



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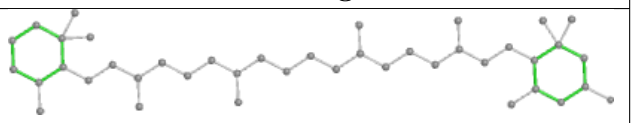
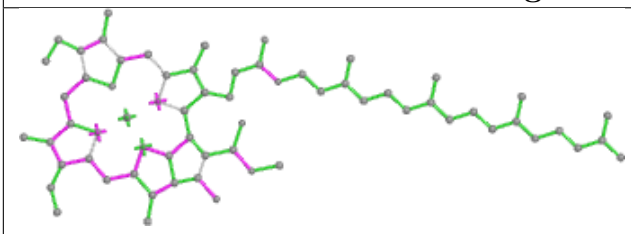
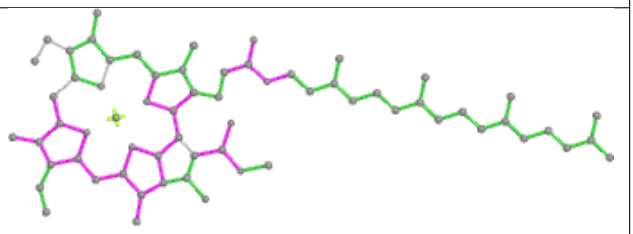


Rings

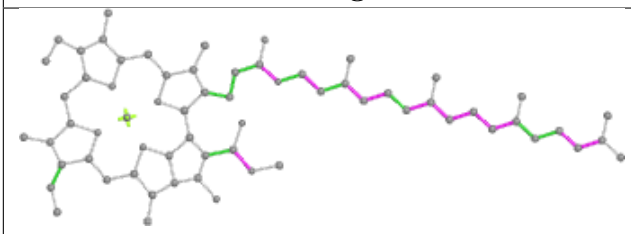
Ligand CLA C 514



Bond lengths



Bond angles



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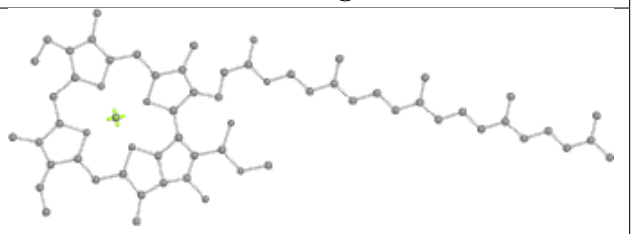
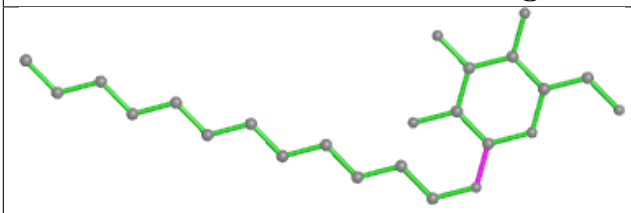
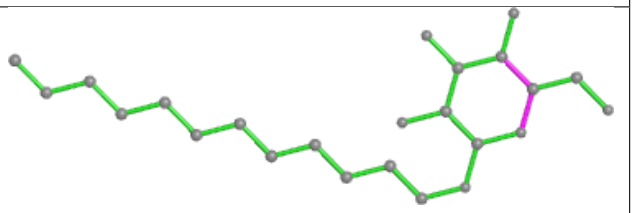


Rings

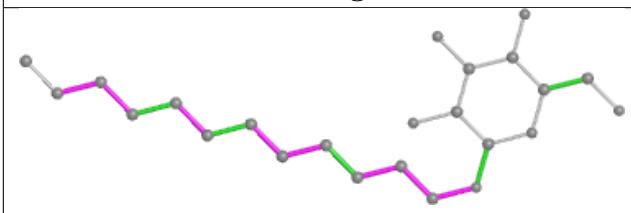
Ligand LMT B 622



Bond lengths



Bond angles



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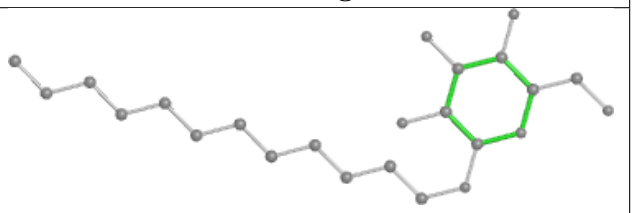
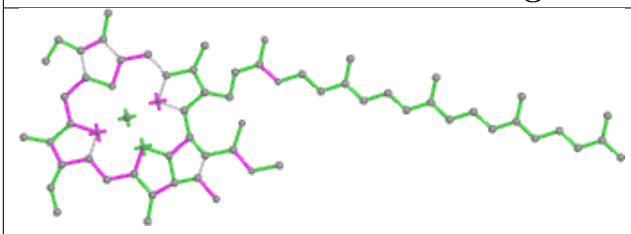
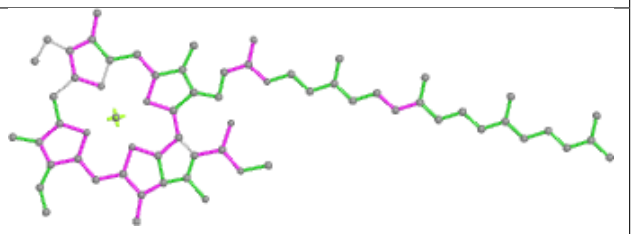
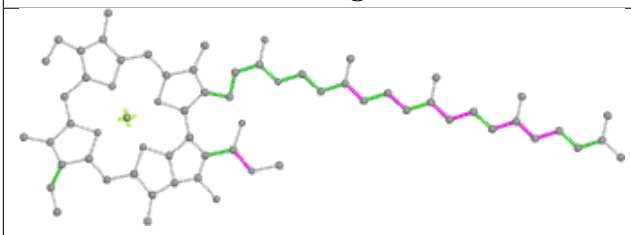
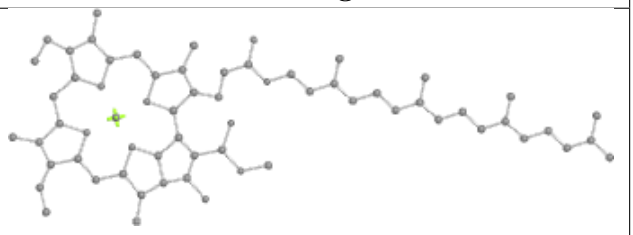
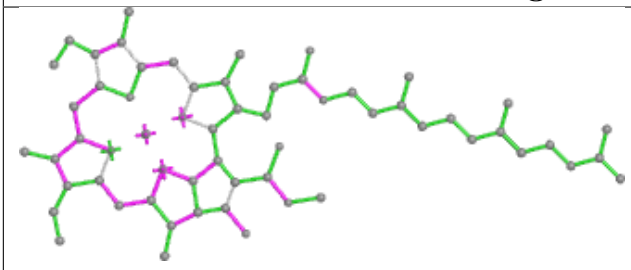
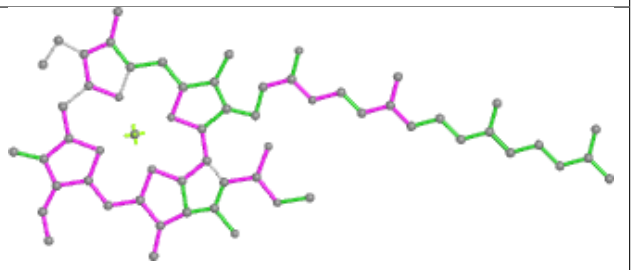
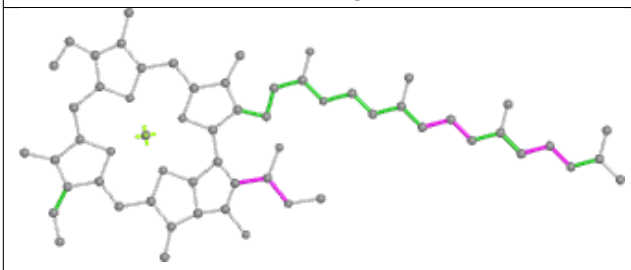
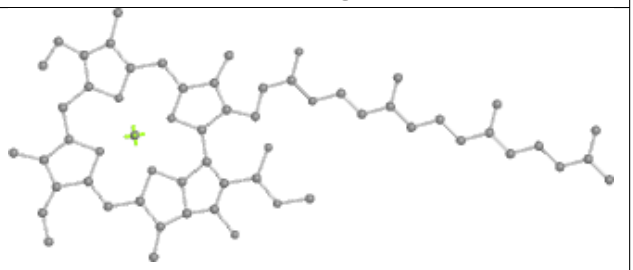
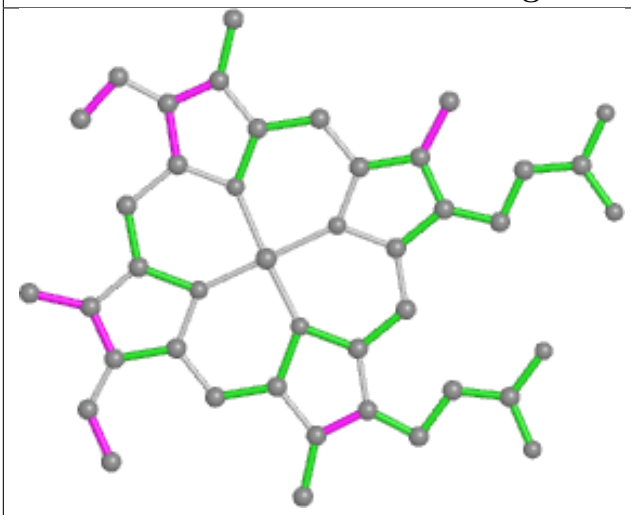


Rings

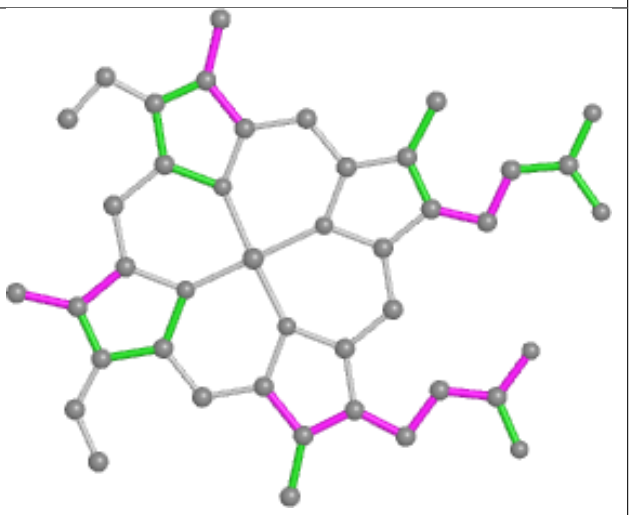
Ligand CLA B 616	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA b 617	
 Bond lengths	 Bond angles
 Torsions	 Rings

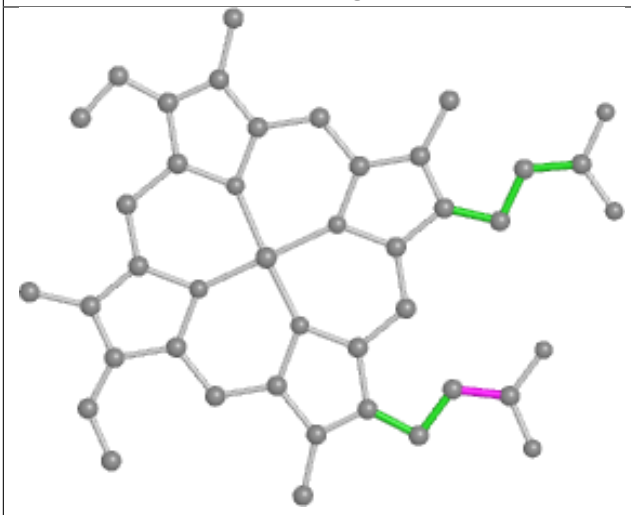
Ligand HEC V 202



Bond lengths



Bond angles



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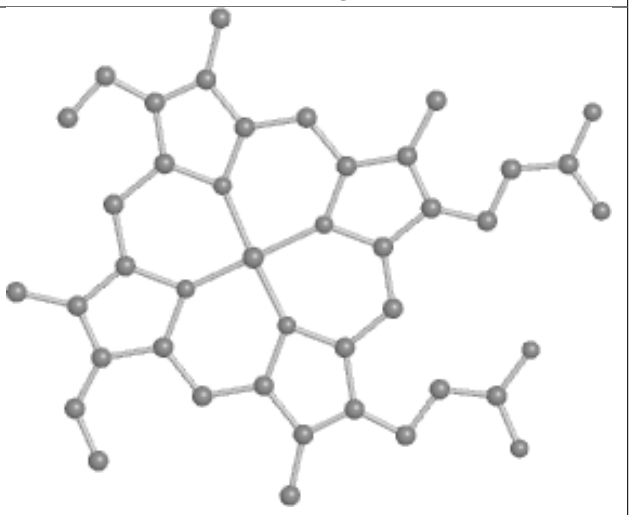
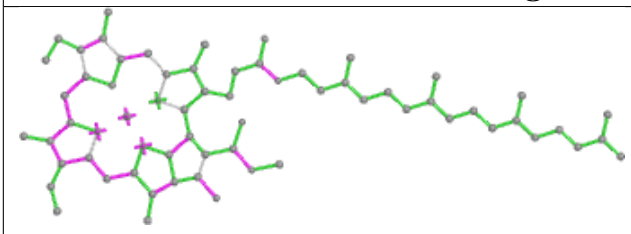


Rings

Ligand CLA B 611



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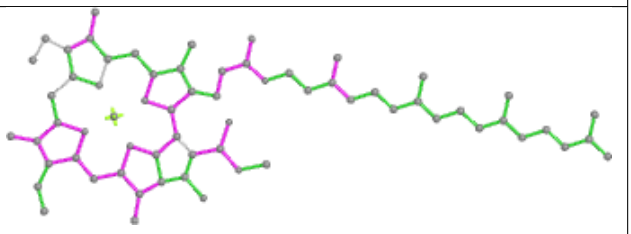
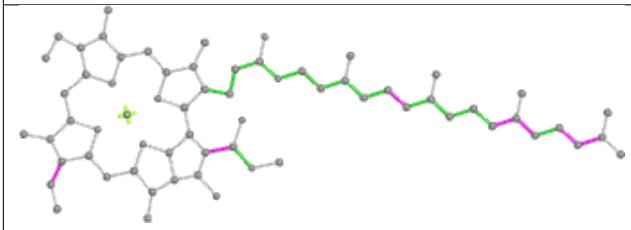


Bond angles



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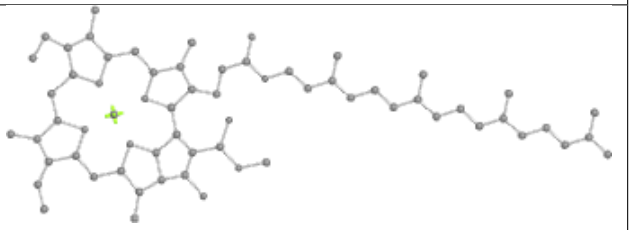
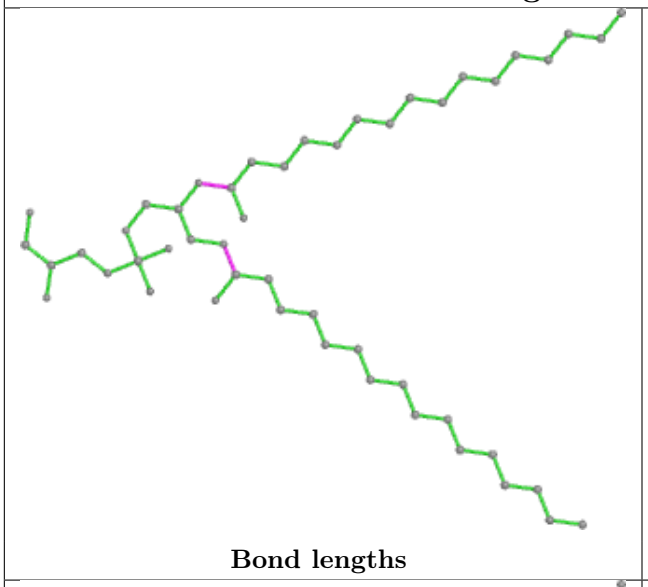
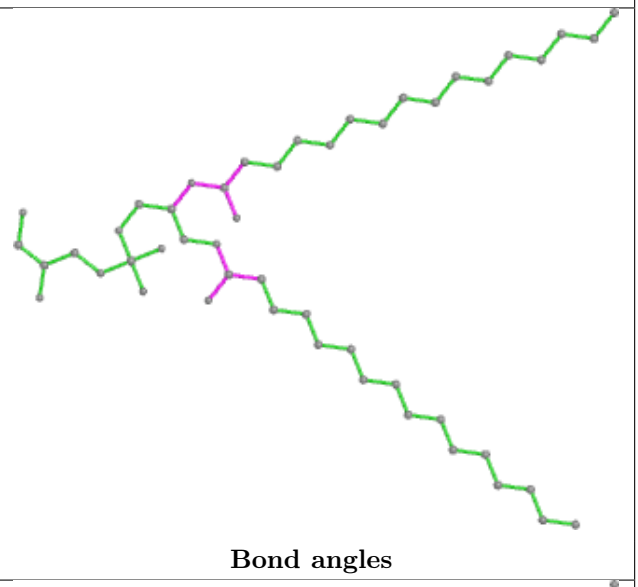


Rings

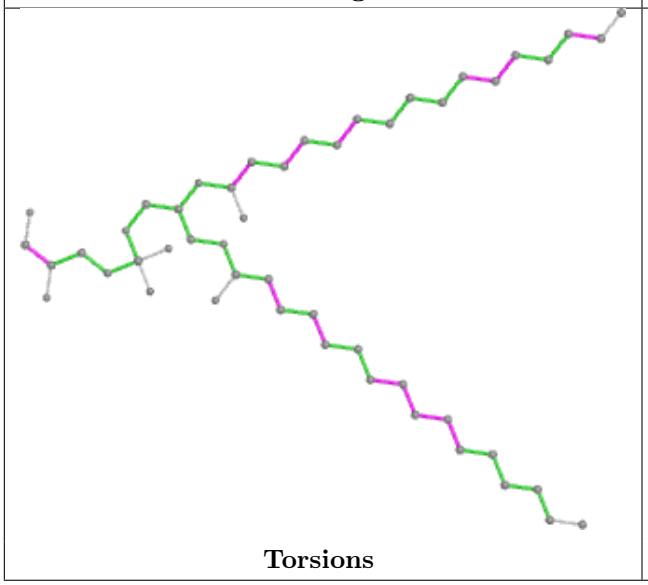
Ligand LHG D 409



Bond lengths



Bond angles



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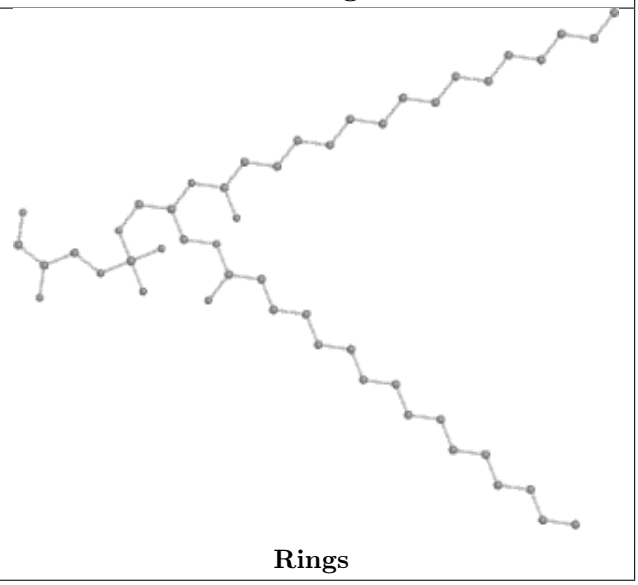
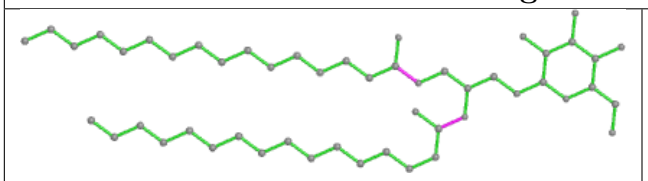
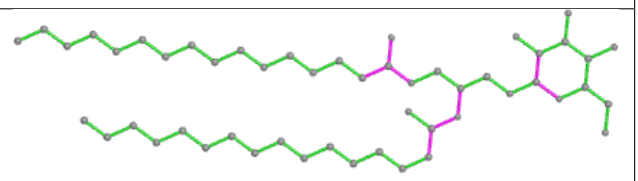


Rings

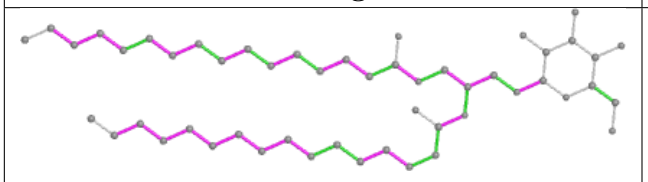
Ligand LMG A 410



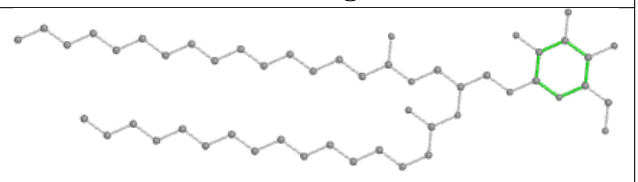
Bond lengths



Bond angles

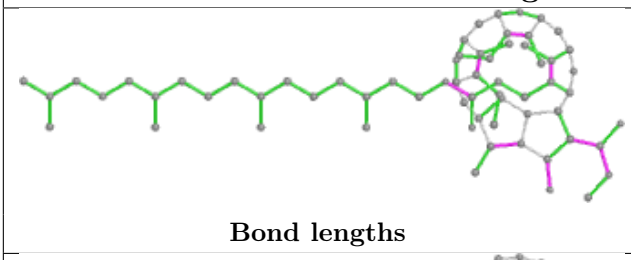


Torsions

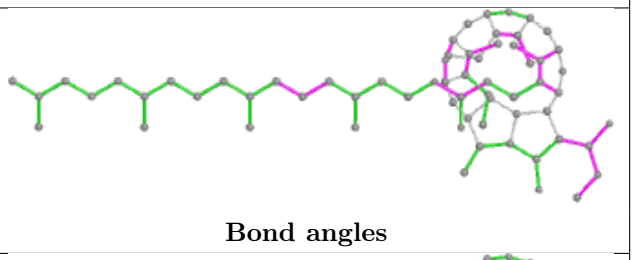


Rings

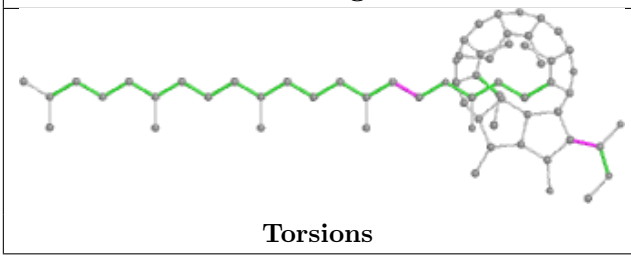
Ligand PHO A 407



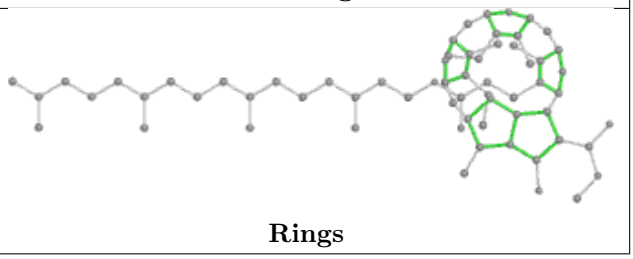
Bond lengths



Bond angles

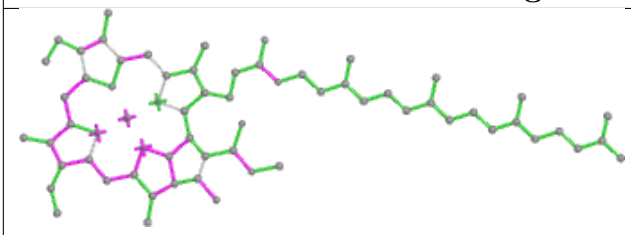


Torsions



Rings

Ligand CLA B 609



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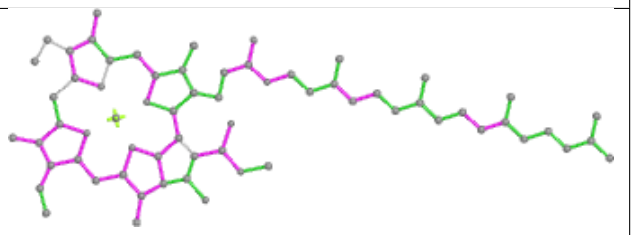
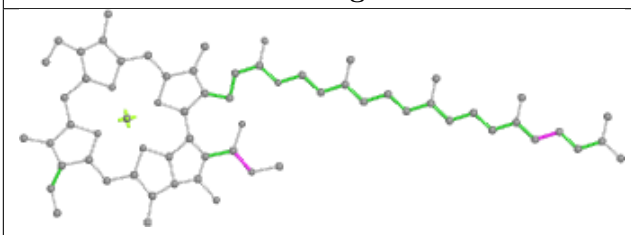
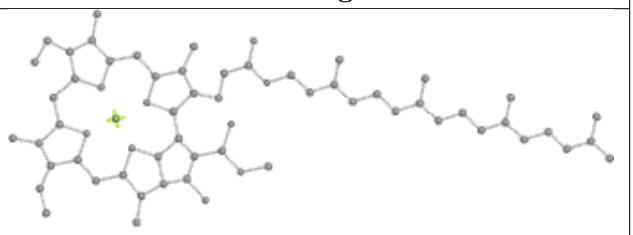


Bond angles

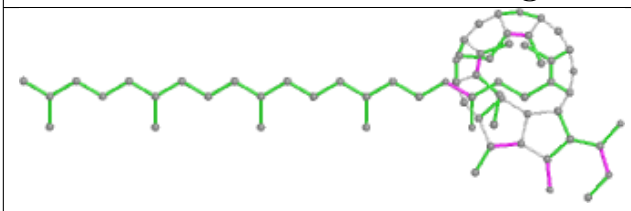


Torsions

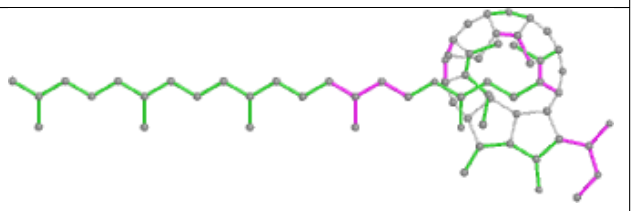


Rings

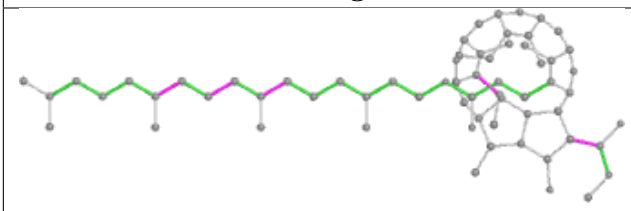
Ligand PHO D 402



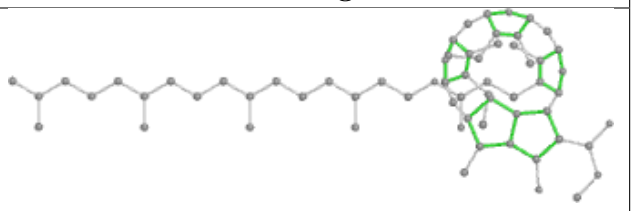
Bond lengths



Bond angles

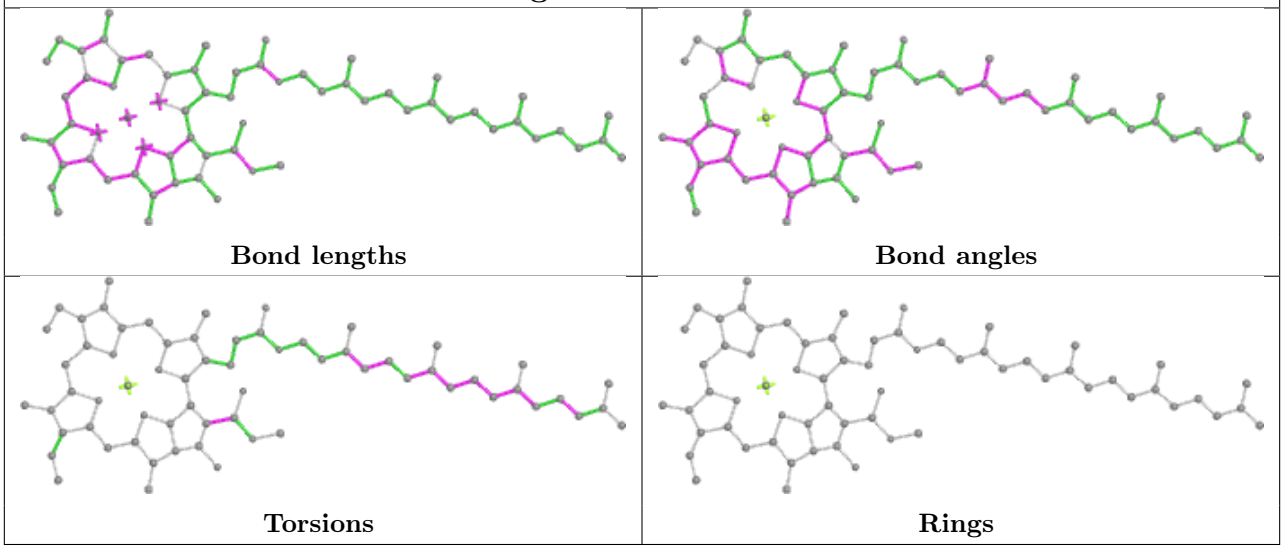


Torsions

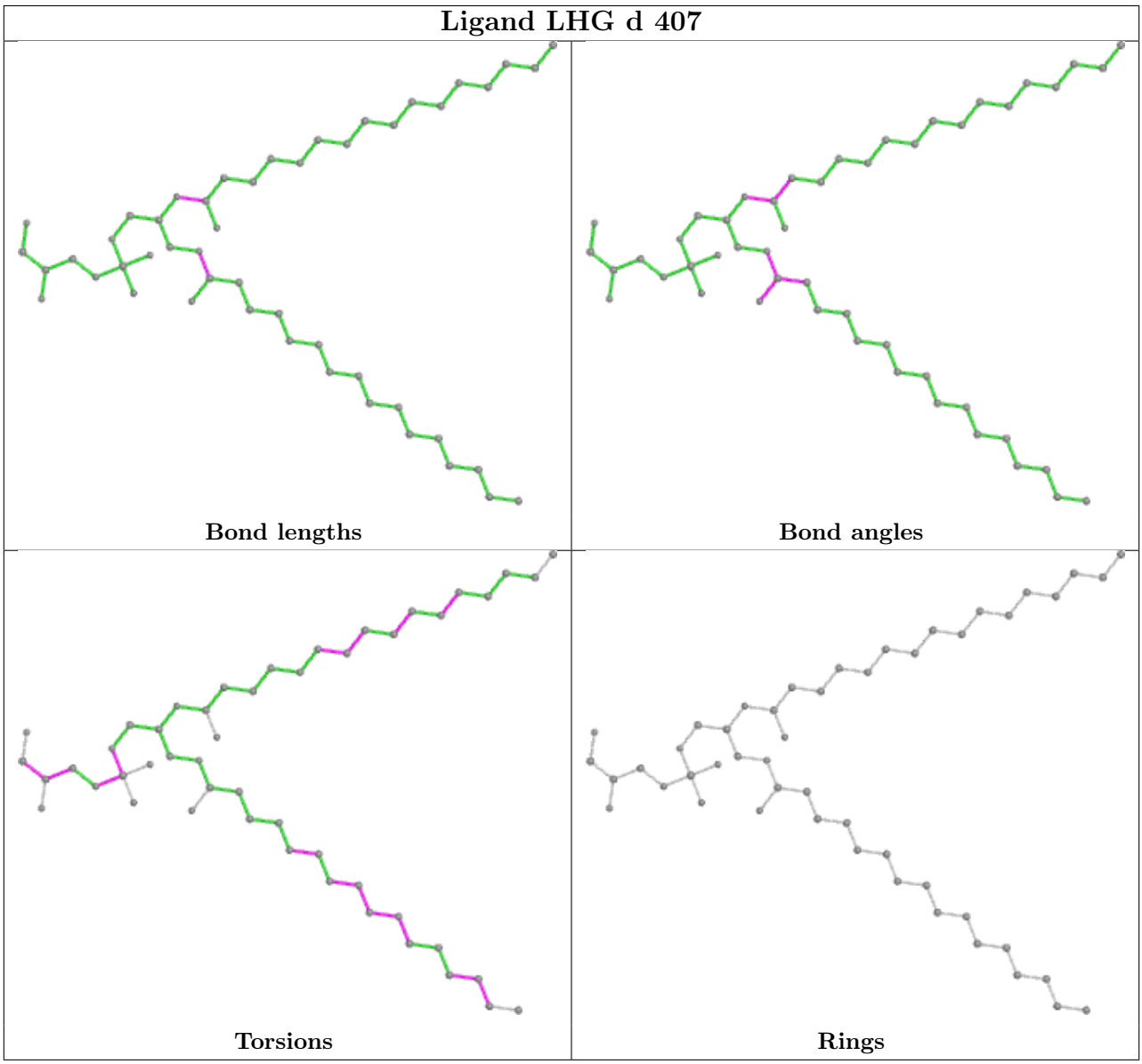


Rings

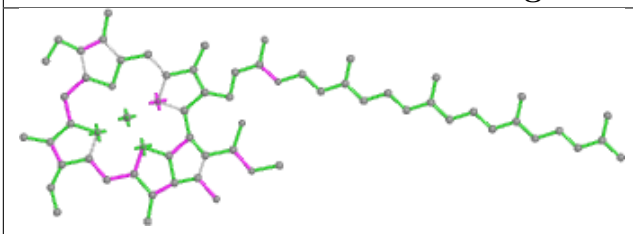
Ligand CLA c 905



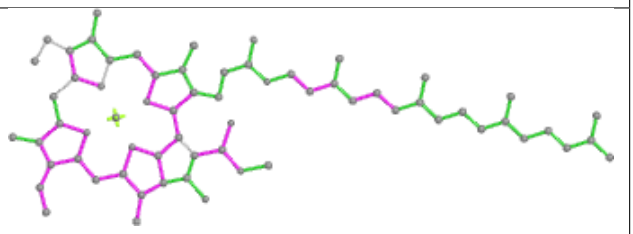
Ligand LHG d 407



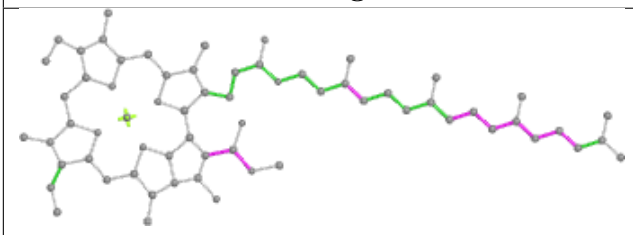
Ligand CLA B 612



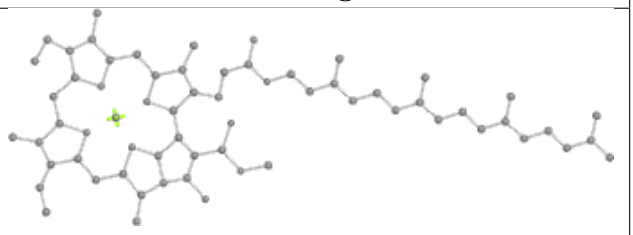
Bond lengths



Bond angles

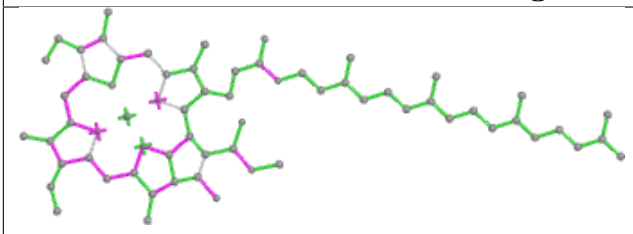


Torsions

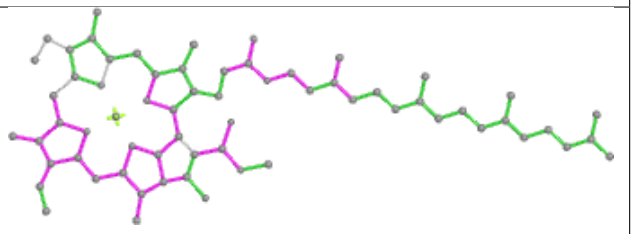


Rings

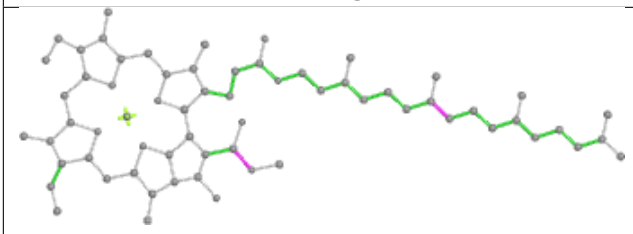
Ligand CLA c 912



Bond lengths



Bond angles



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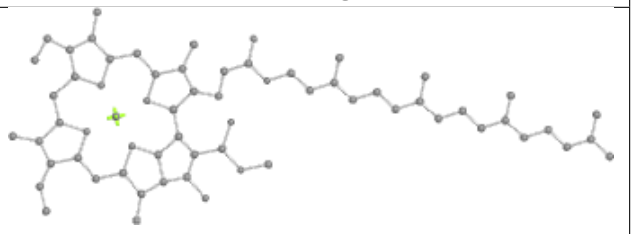
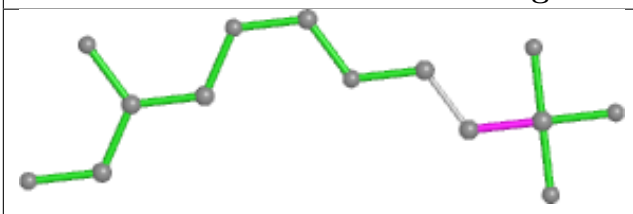


Rings

Ligand SQD f 101



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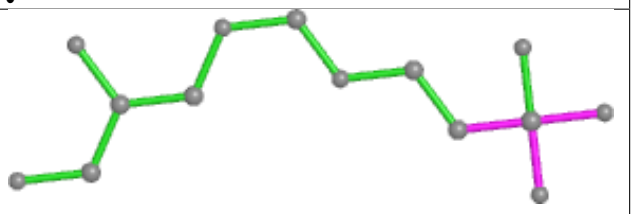
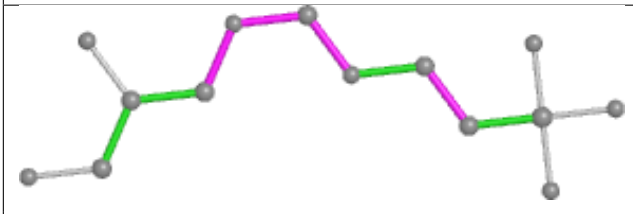
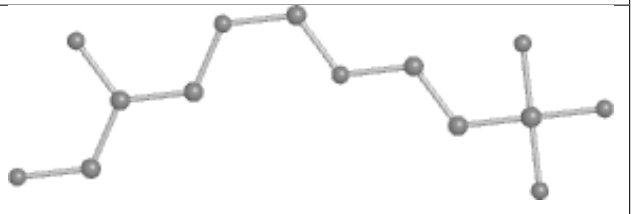


Bond angles

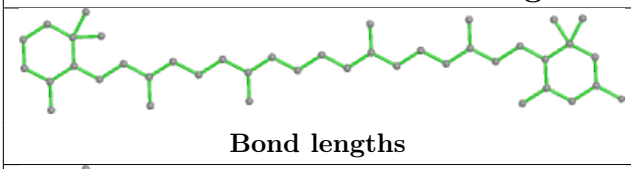


Torsions

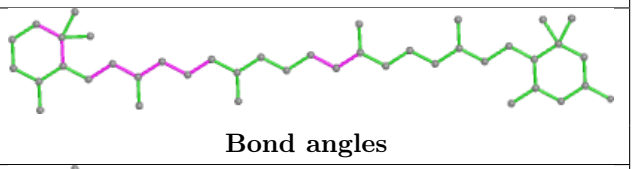


Rings

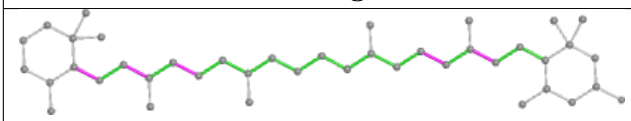
Ligand RRX h 101



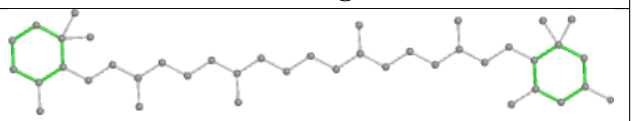
Bond lengths



Bond angles

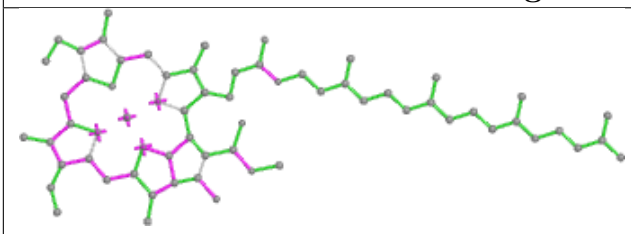


Torsions



Rings

Ligand CLA C 511



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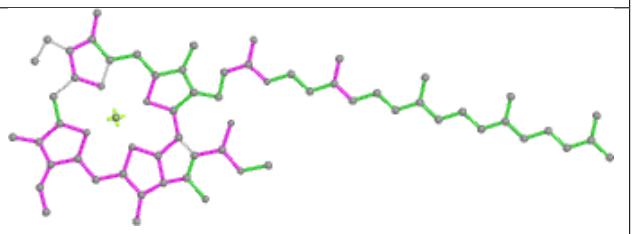
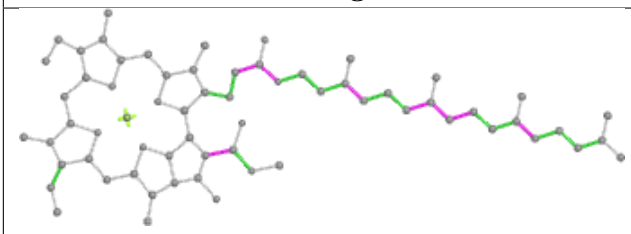
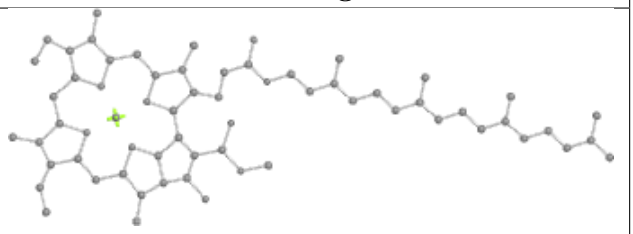


Bond angles

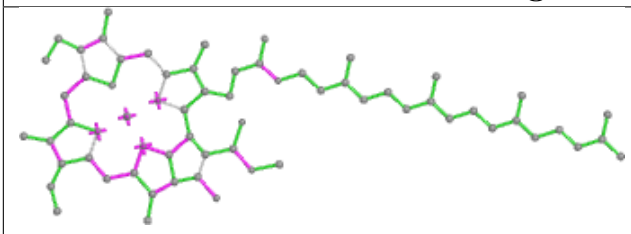


Torsions

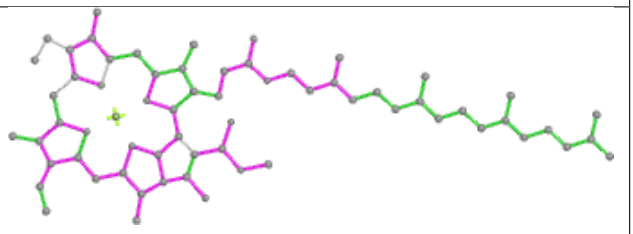


Rings

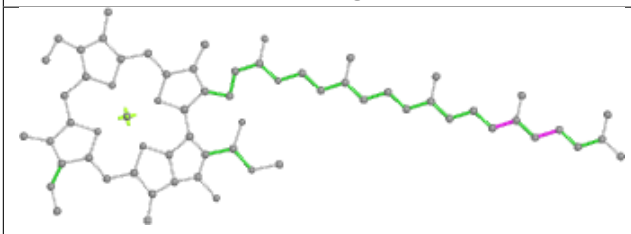
Ligand CLA b 603



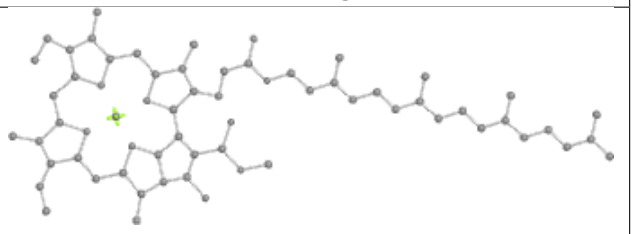
Bond lengths



Bond angles

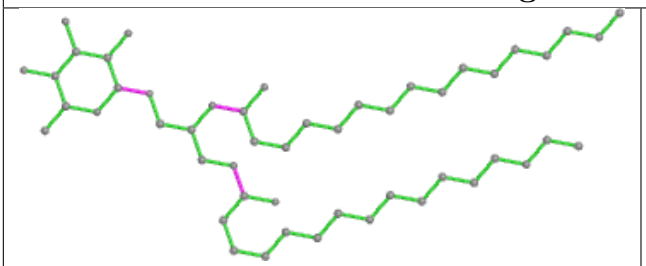


Torsions

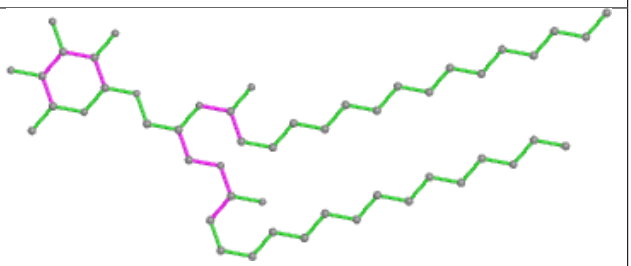


Rings

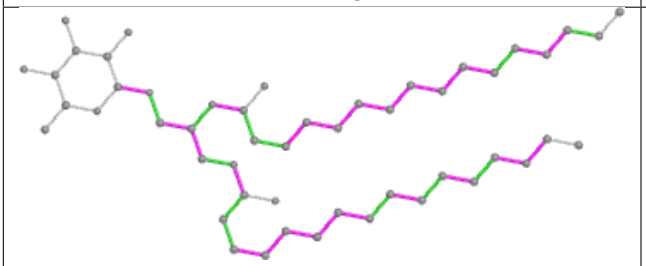
Ligand DGD D 407



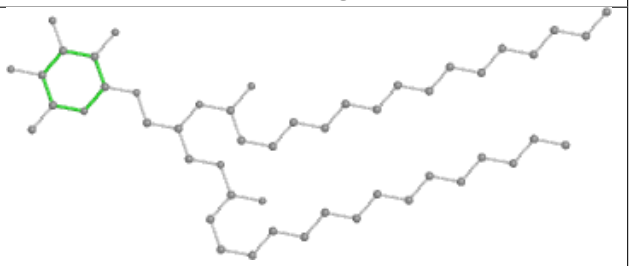
Bond lengths



Bond angles

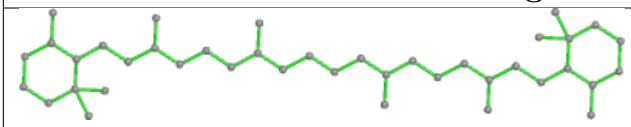


Torsions



Rings

Ligand BCR b 620



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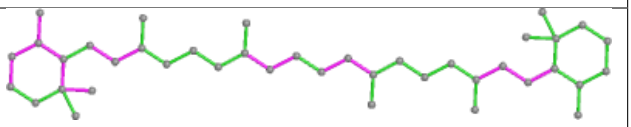
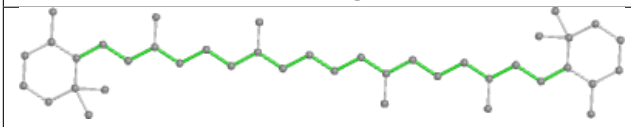


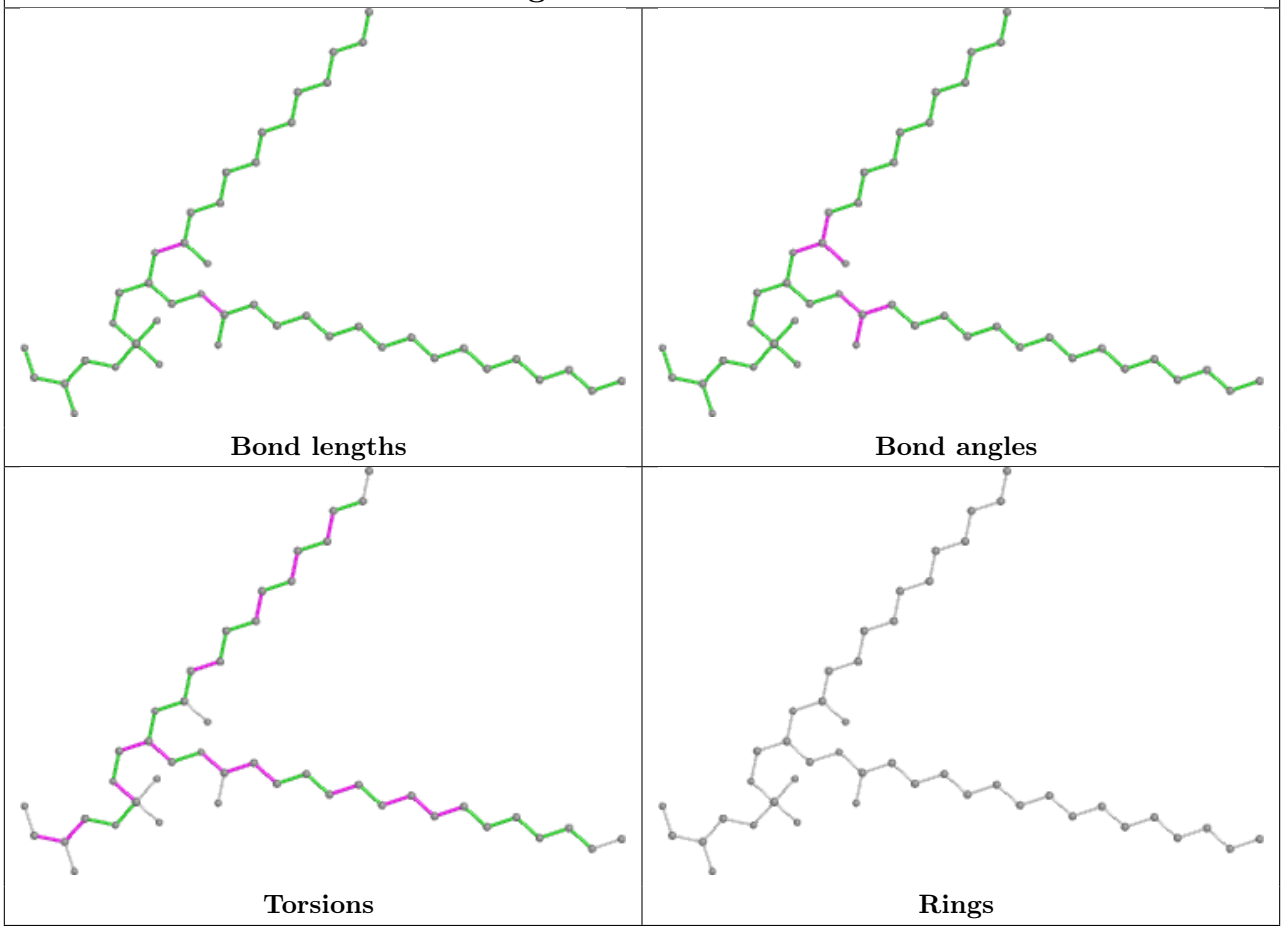
Bond angles



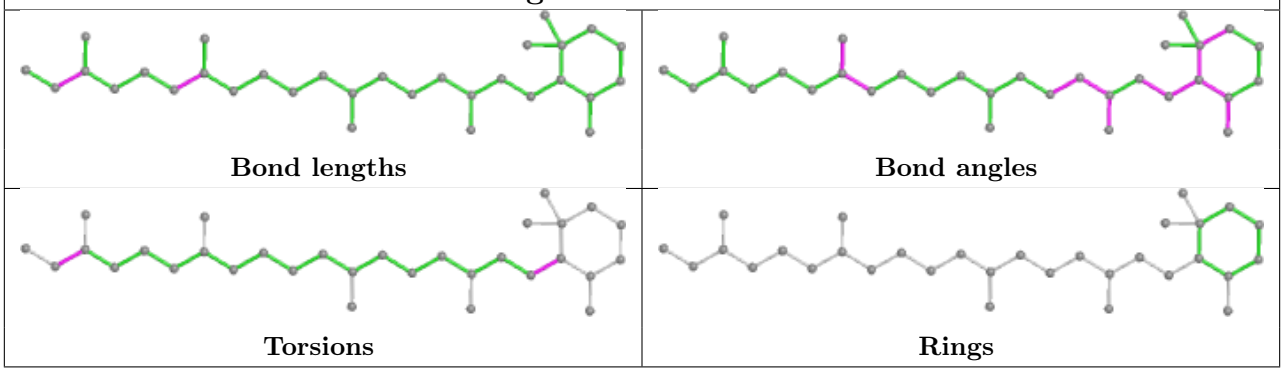
Torsions

Rings

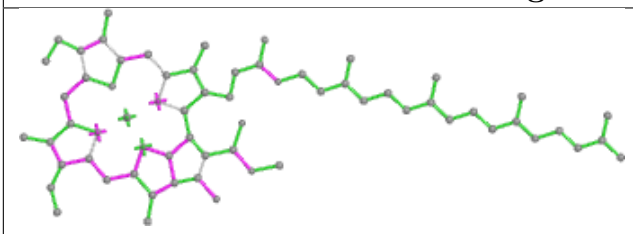
Ligand LHG a 423



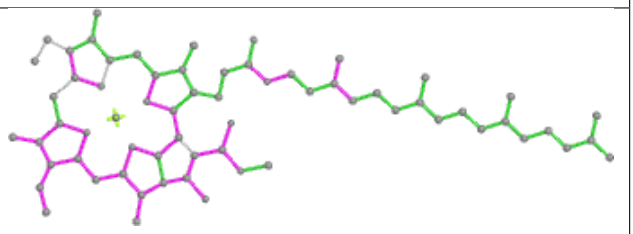
Ligand BCR b 619



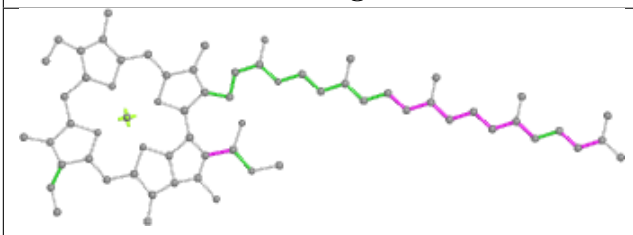
Ligand CLA b 608



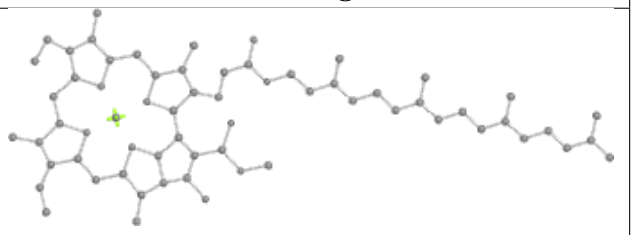
Bond lengths



Bond angles

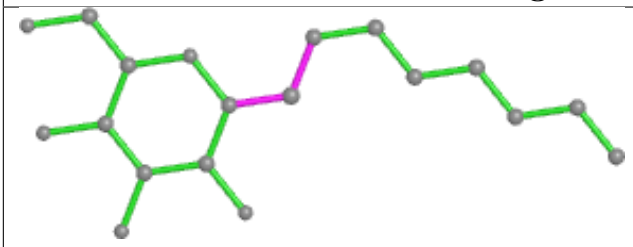


Torsions

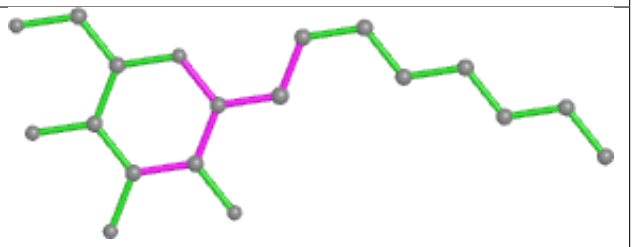


Rings

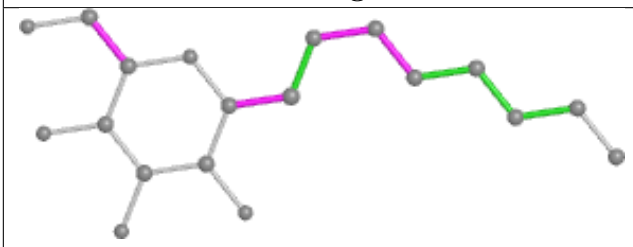
Ligand HTG l 106



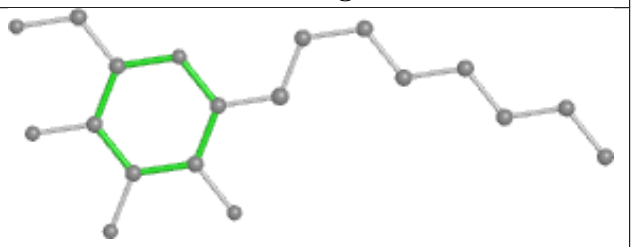
Bond lengths



Bond angles

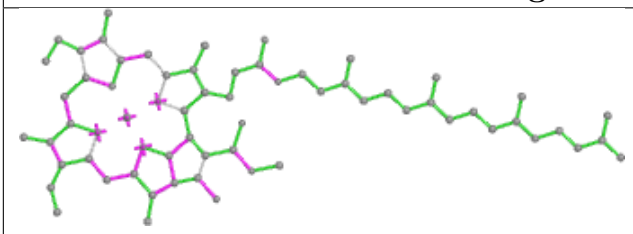


Torsions

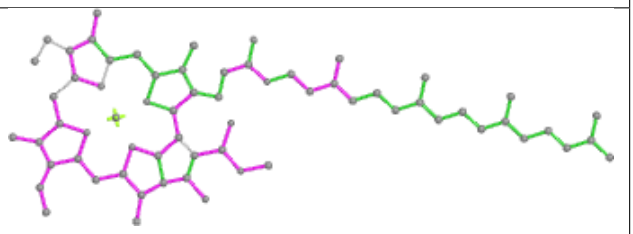


Rings

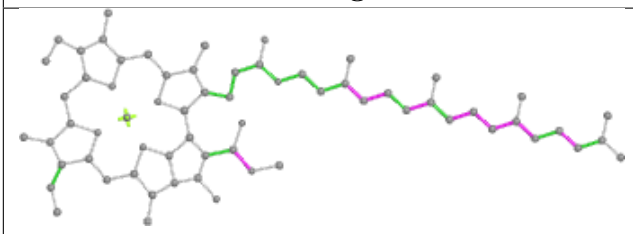
Ligand CLA a 412



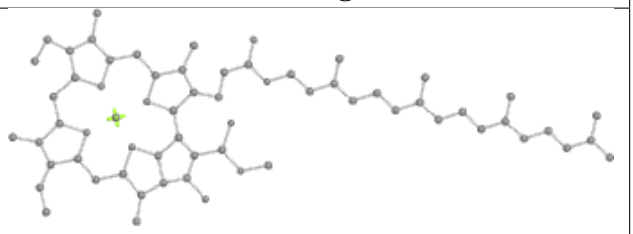
Bond lengths



Bond angles

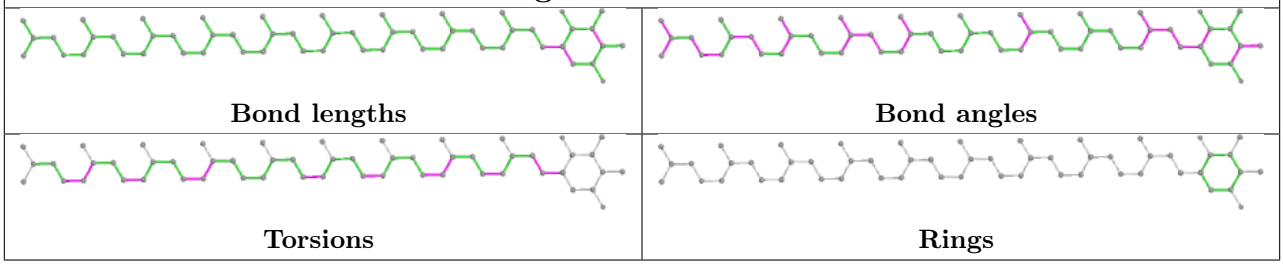


Torsions

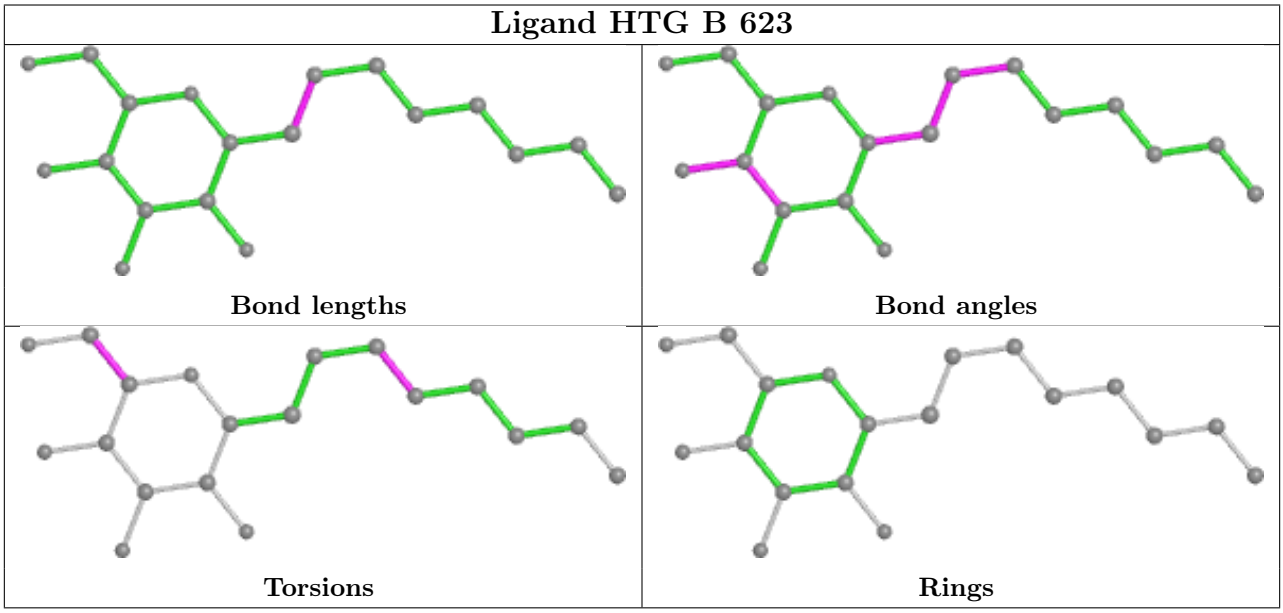


Rings

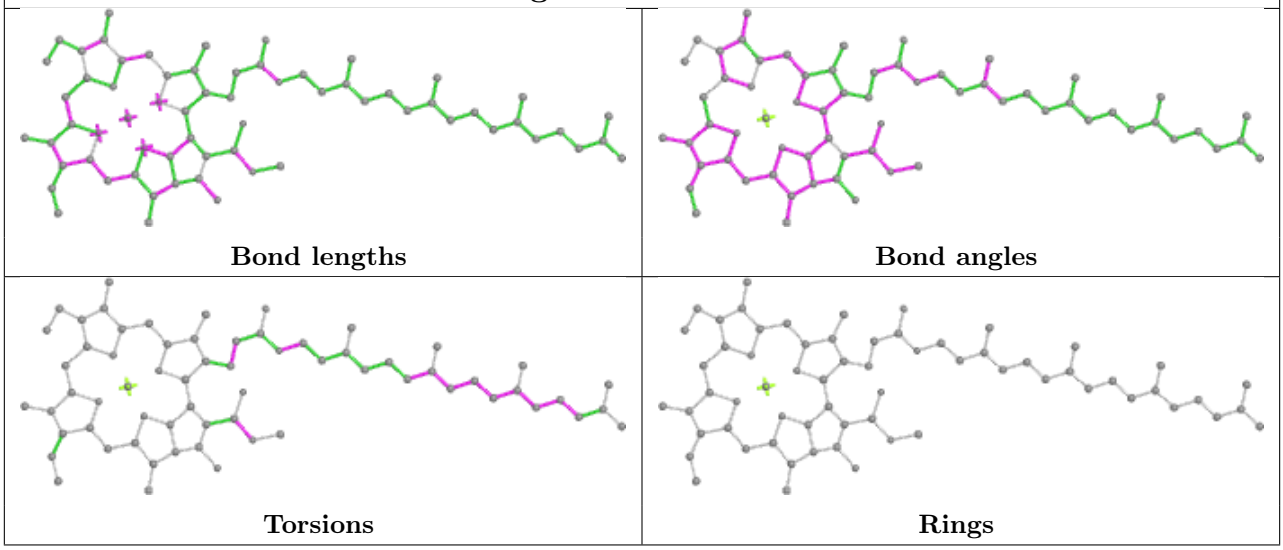
Ligand PL9 a 415



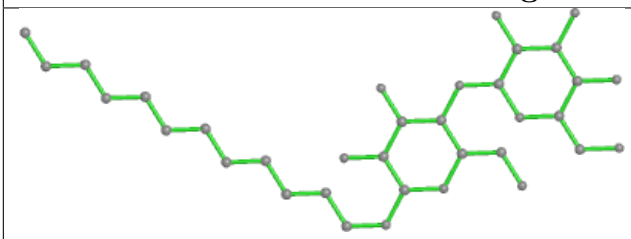
Ligand HTG B 623



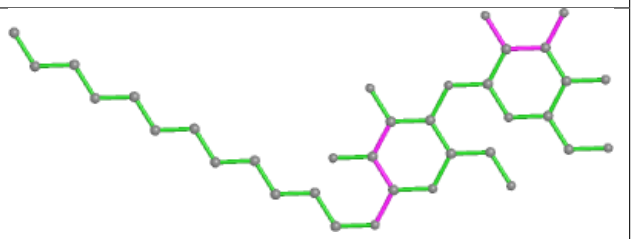
Ligand CLA c 910



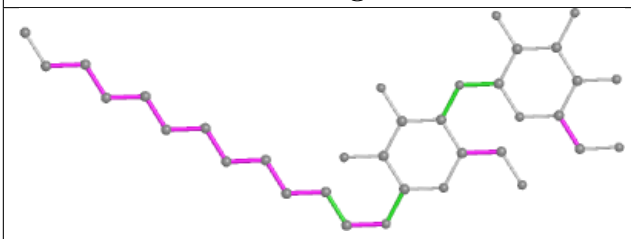
Ligand LMT A 414



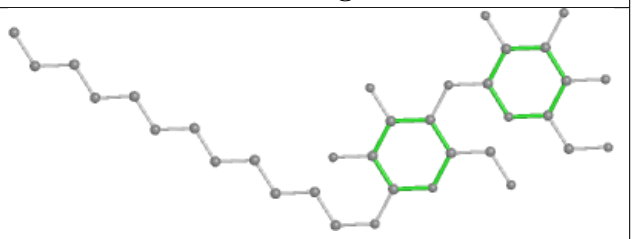
Bond lengths



Bond angles

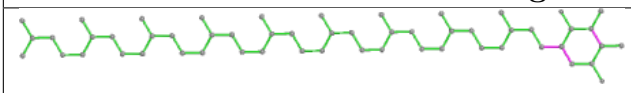


Torsions



Rings

Ligand PL9 A 411



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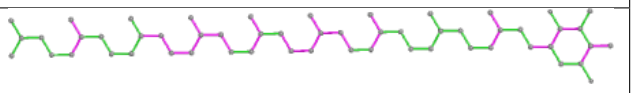
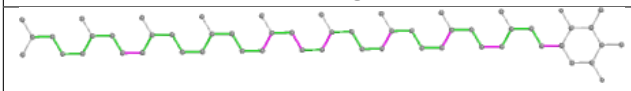


Bond angles



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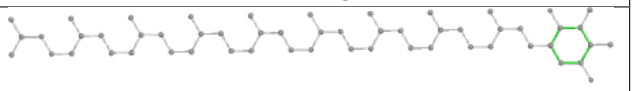
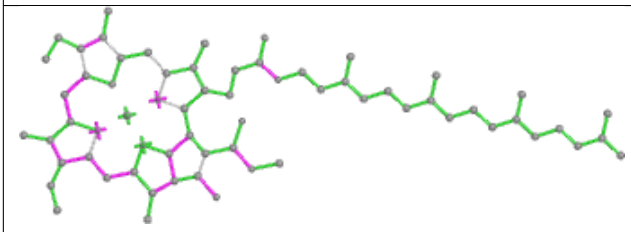


Rings

Ligand CLA A 408



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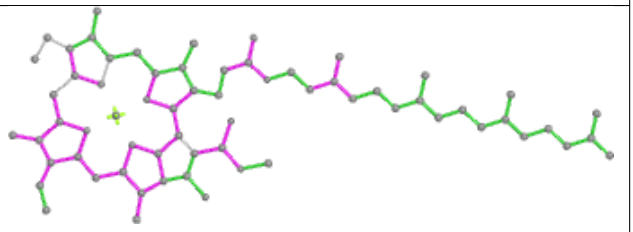
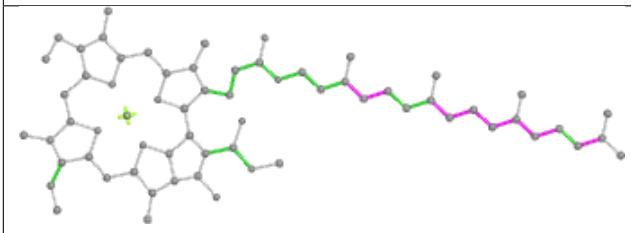
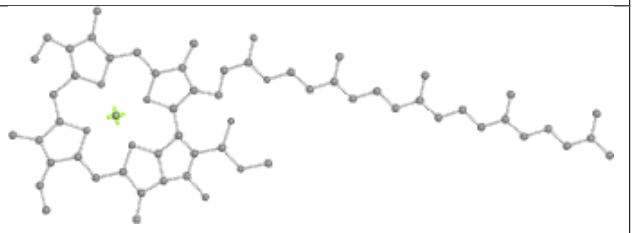


Bond angles

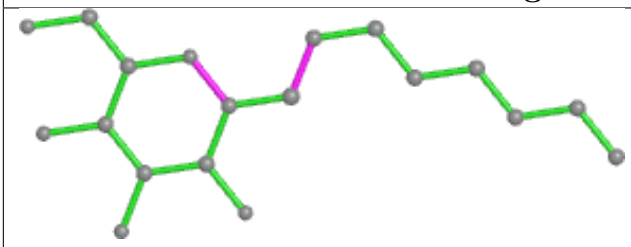


Torsions



Rings

Ligand HTG b 632



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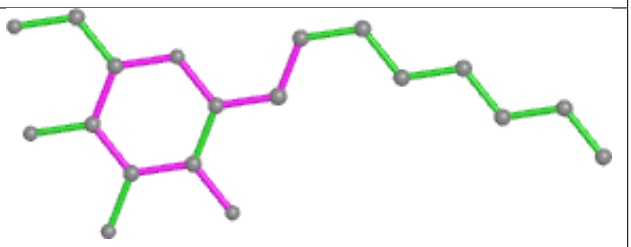
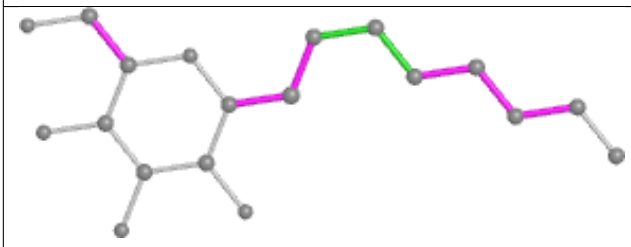


Bond angles



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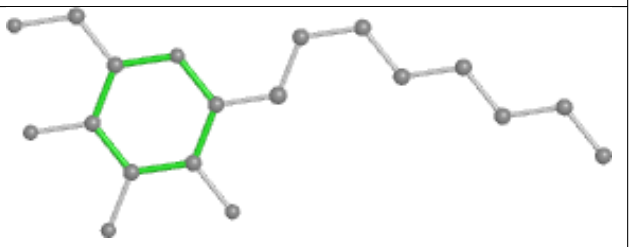
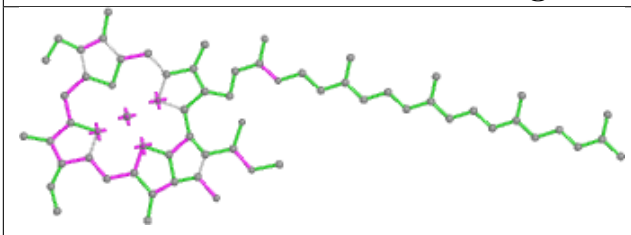


Rings

Ligand CLA c 914



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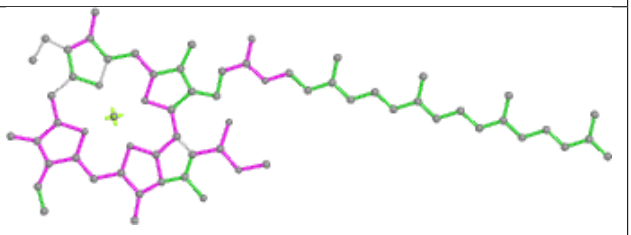
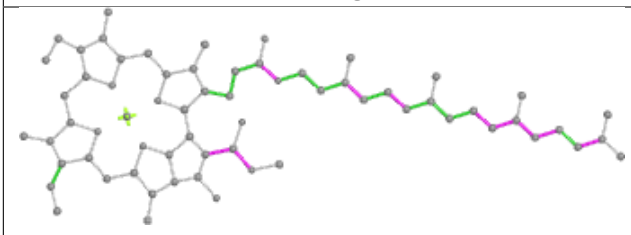


Bond angles



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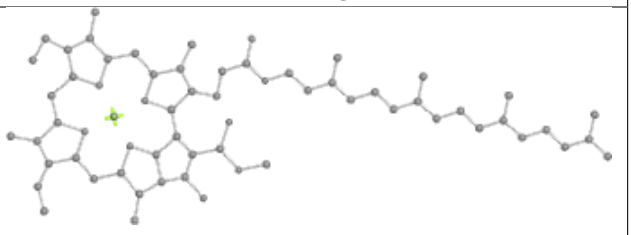
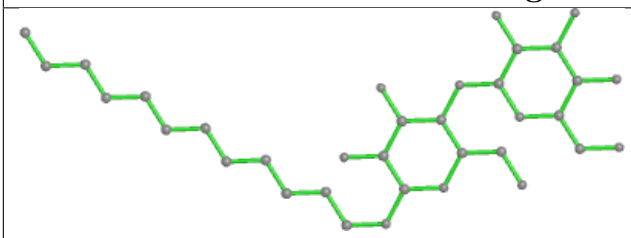


Rings

Ligand LMT a 419



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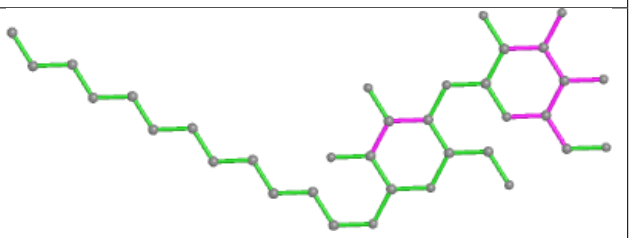
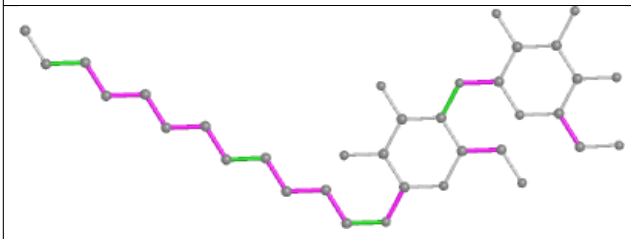


Bond angles



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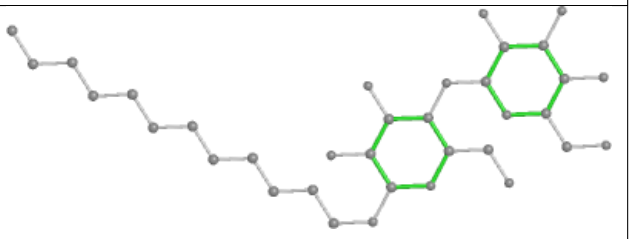
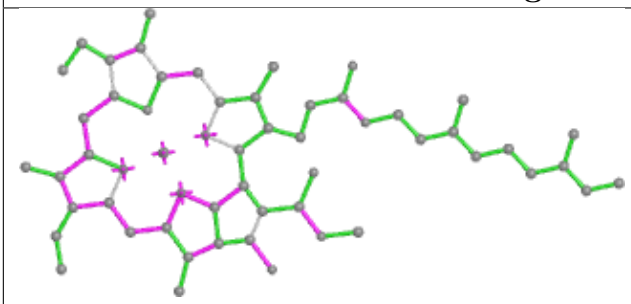


Rings

Ligand CLA C 513



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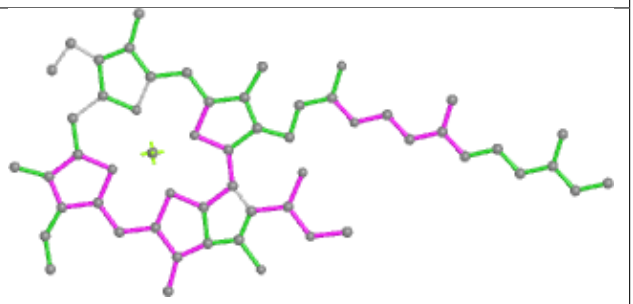
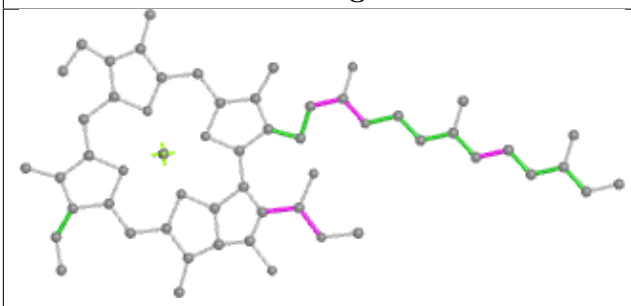


Bond angles



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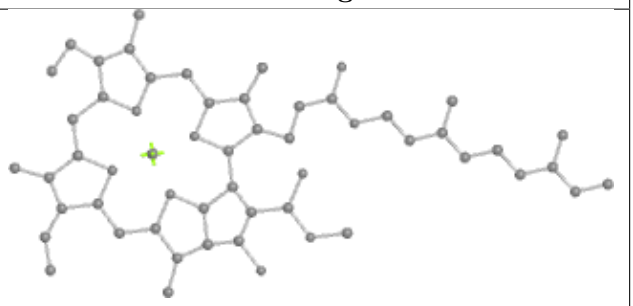
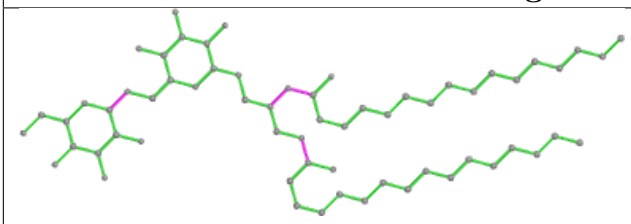
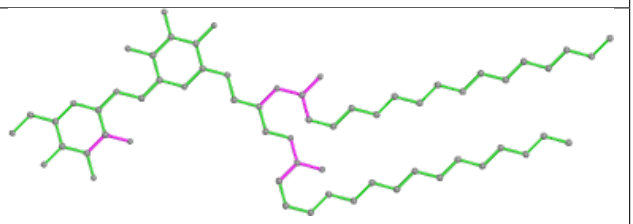


Rings

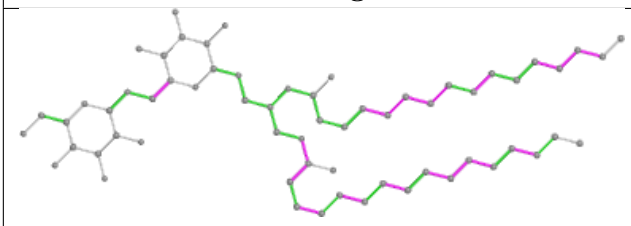
Ligand DGD c 919



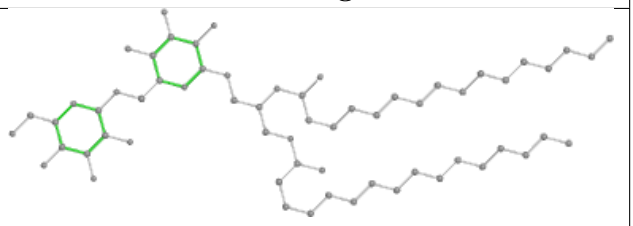
Bond lengths



Bond angles

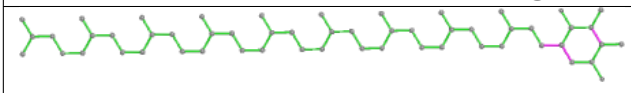


Torsions

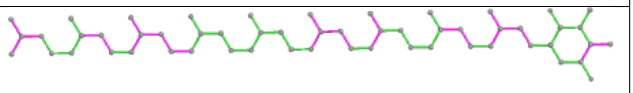


Rings

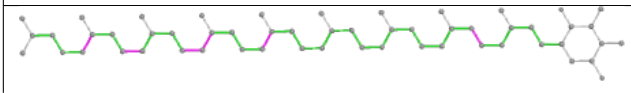
Ligand PL9 D 406



Bond lengths



Bond angles



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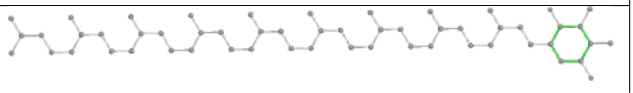
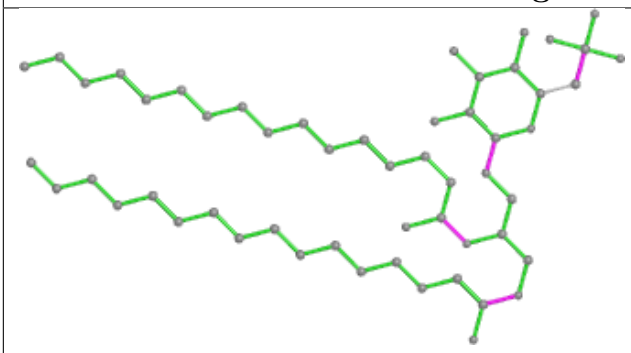
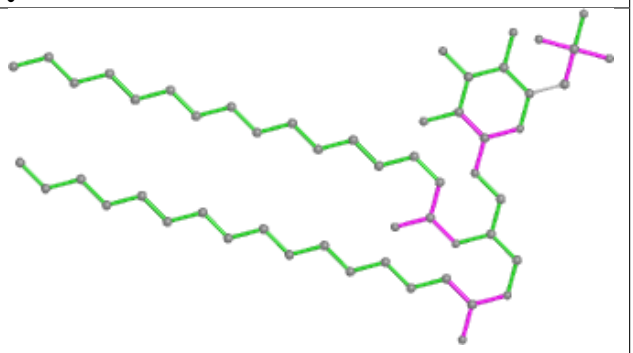


Rings

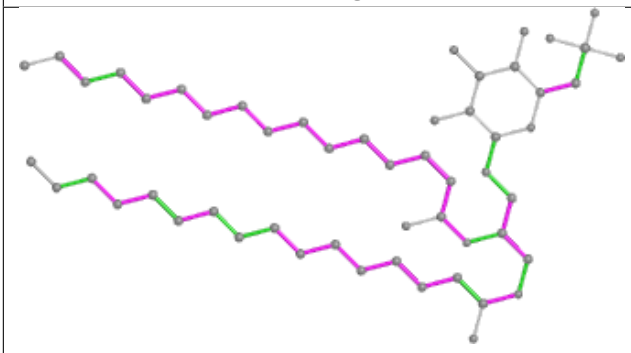
Ligand SQD l 101



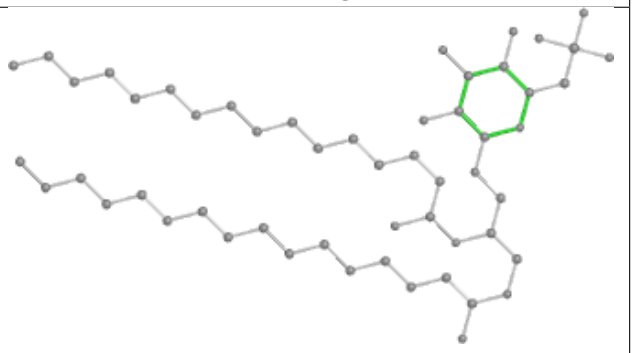
Bond lengths



Bond angles

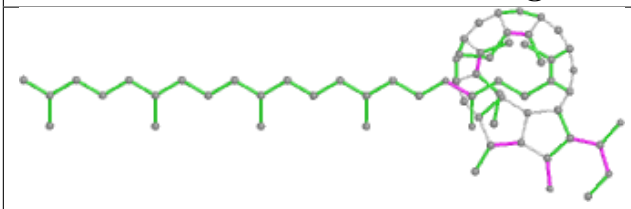


Torsions



Rings

Ligand PHO a 410



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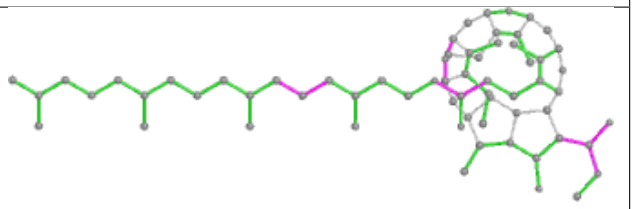
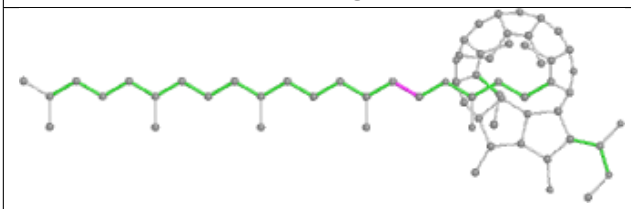


Bond angles



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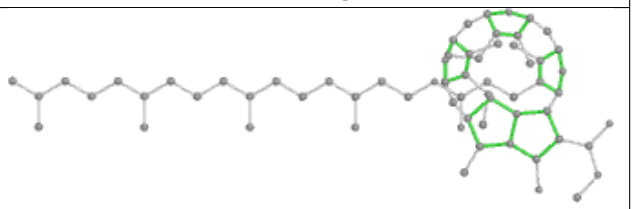
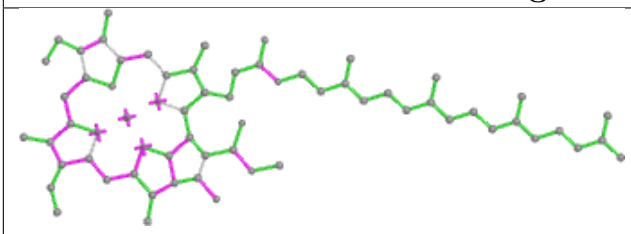


Rings

Ligand CLA c 913



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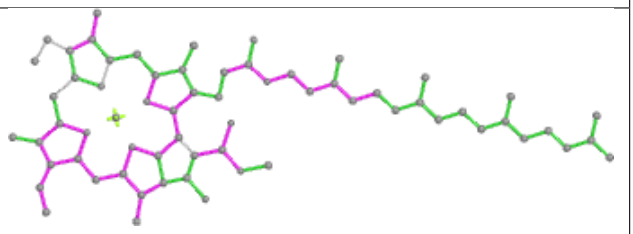
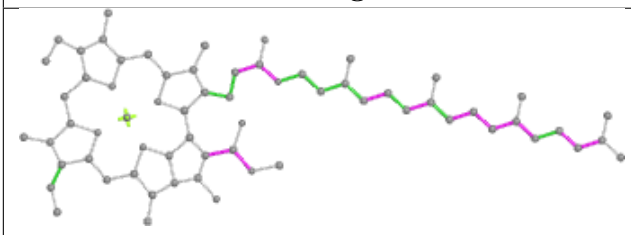
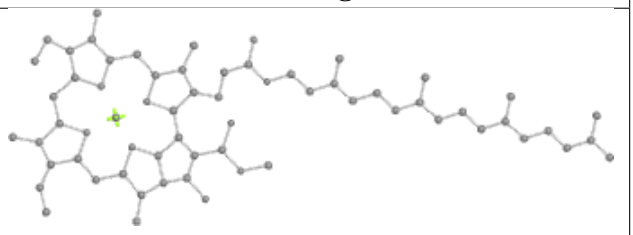


Bond angles

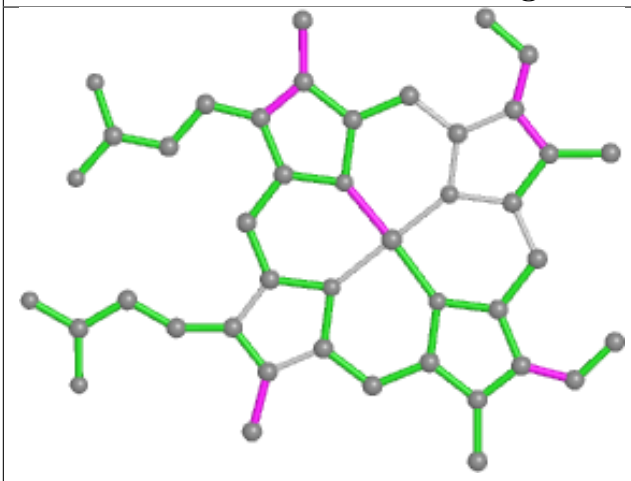


Torsions

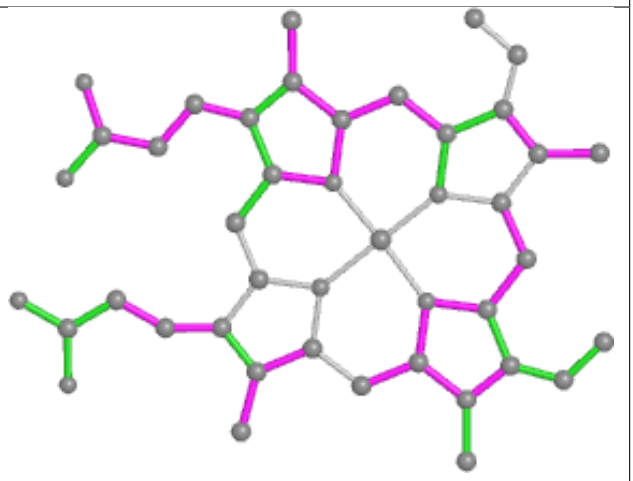


Rings

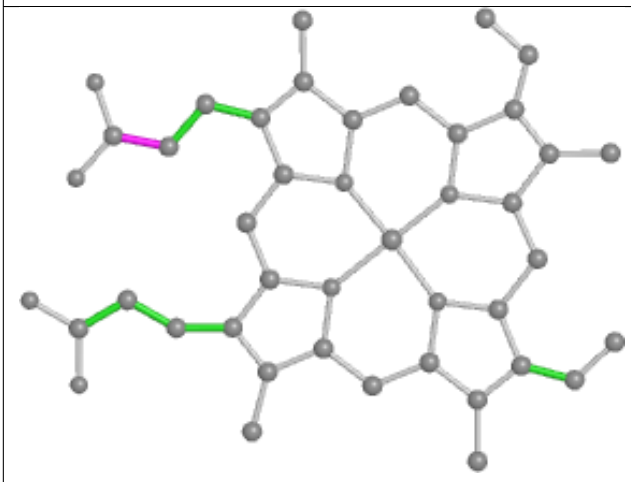
Ligand HEM E 102



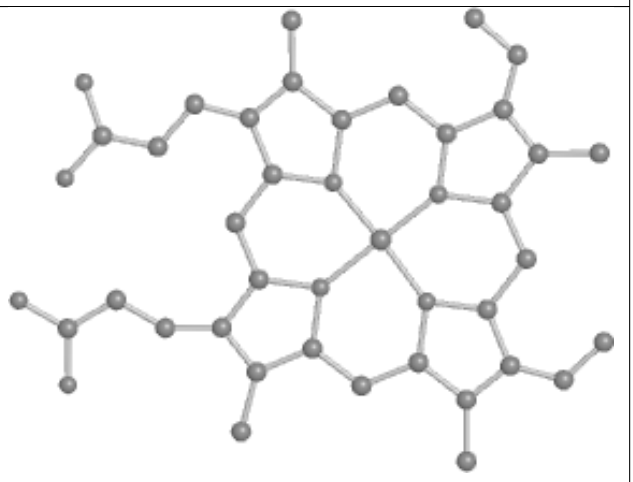
Bond lengths



Bond angles

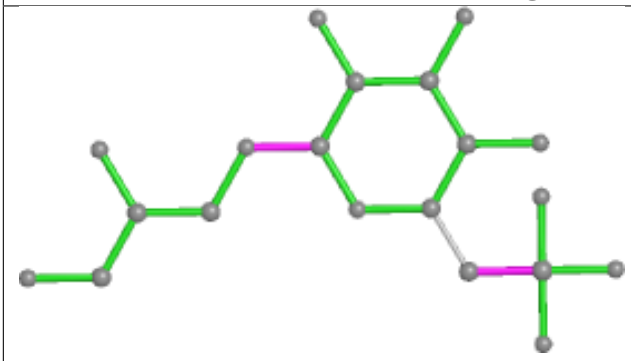


Torsions



Rings

Ligand SQD D 408



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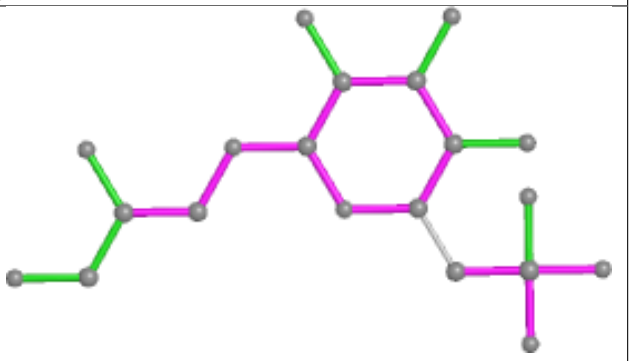
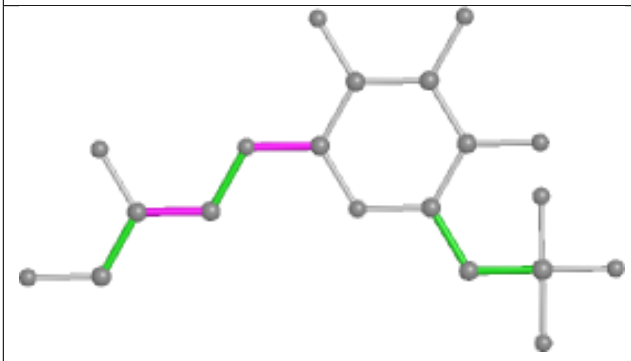
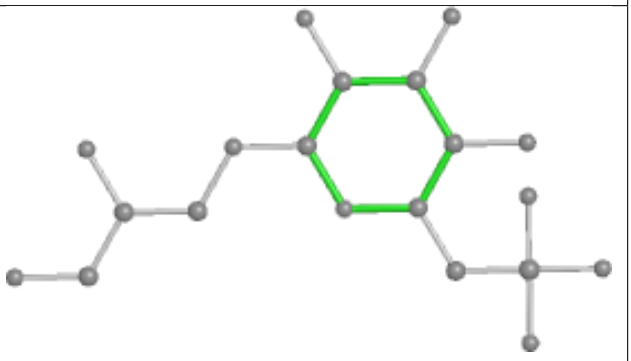


Bond angles

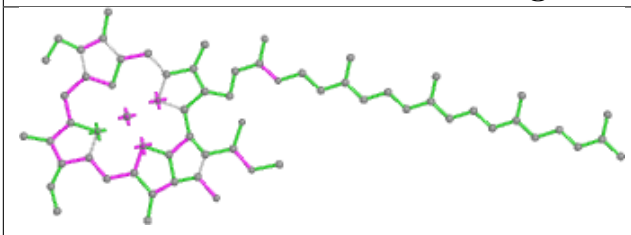


Torsions

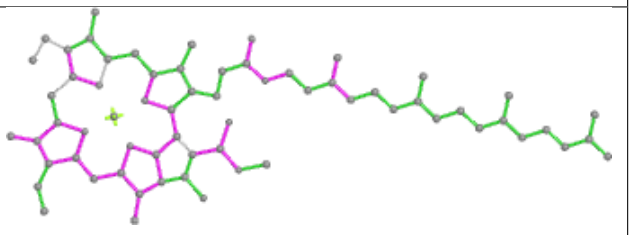


Rings

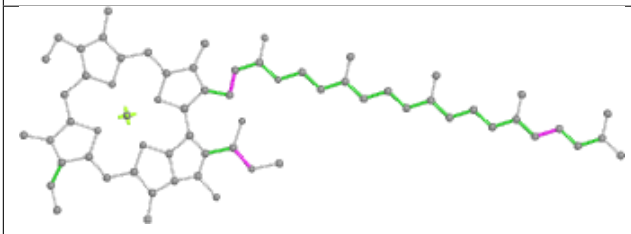
Ligand CLA c 902



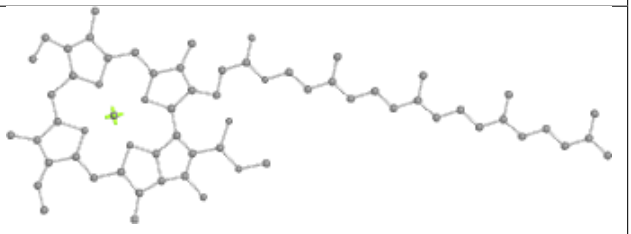
Bond lengths



Bond angles

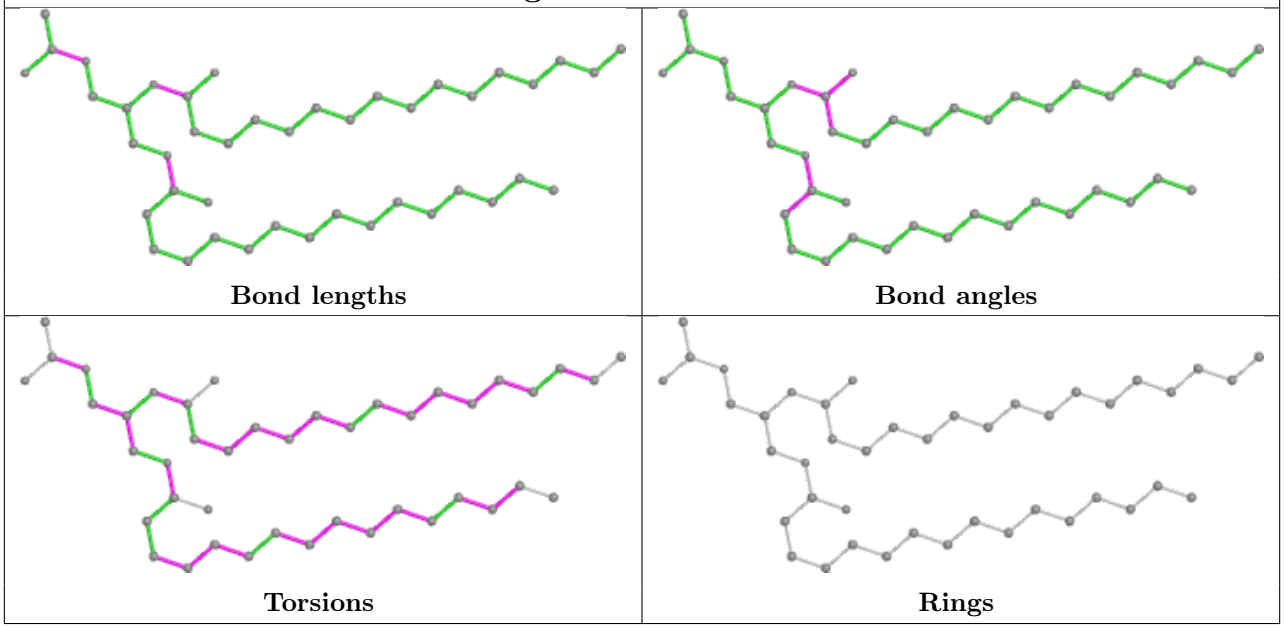


Torsions

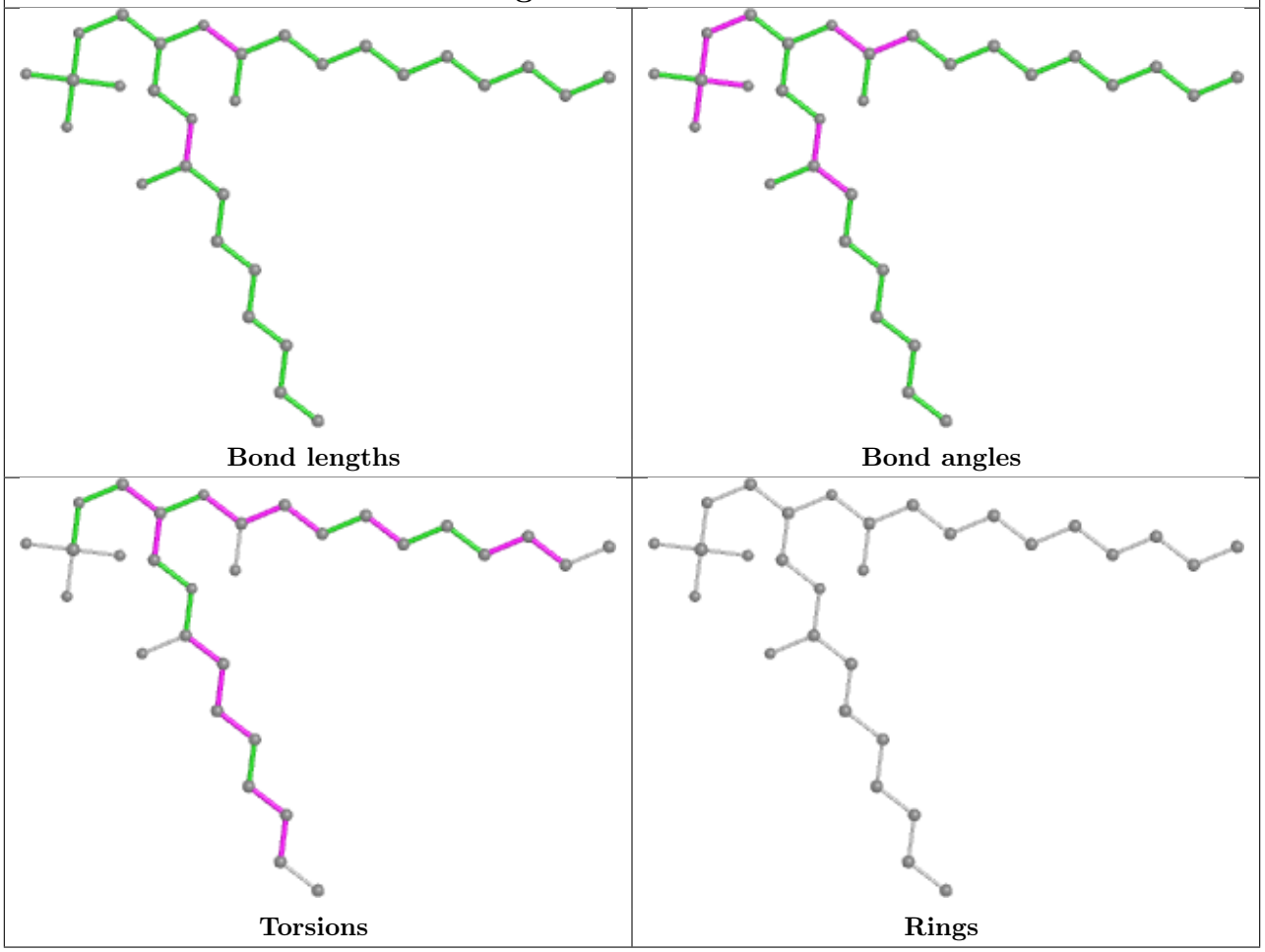


Rings

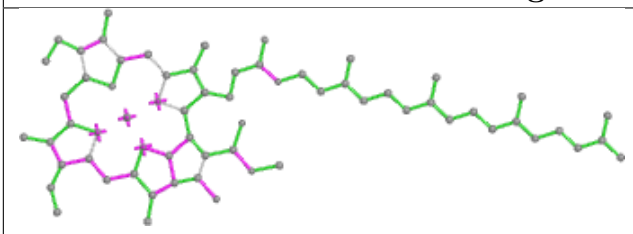
Ligand DGD d 406



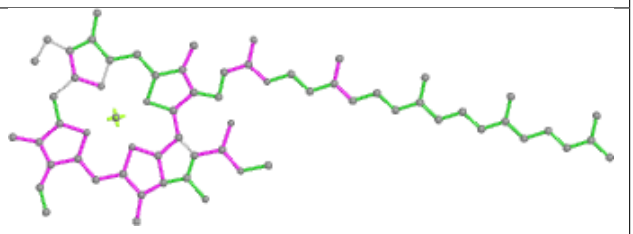
Ligand LHG C 522



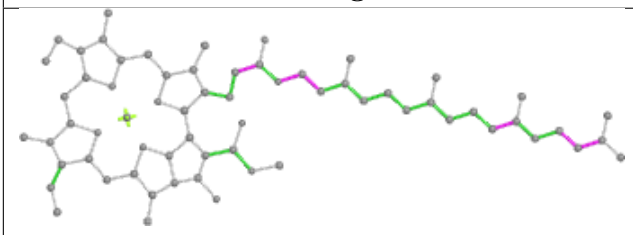
Ligand CLA d 402



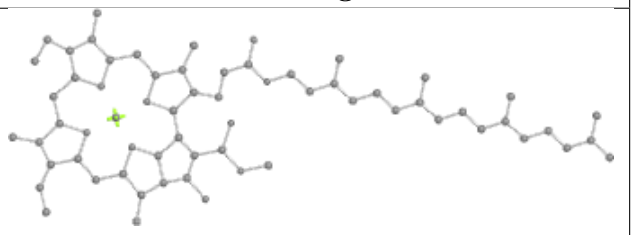
Bond lengths



Bond angles

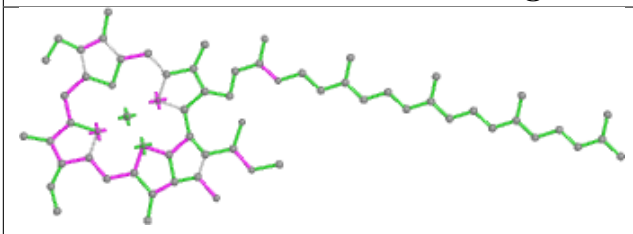


Torsions

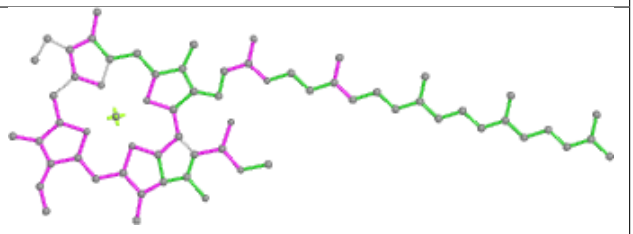


Rings

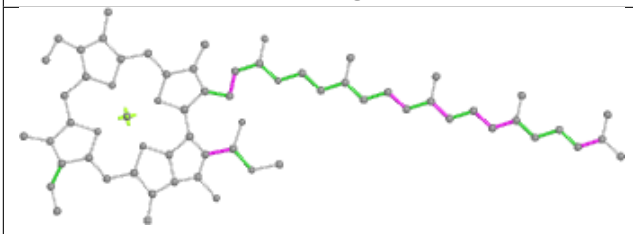
Ligand CLA C 508



Bond lengths



Bond angles



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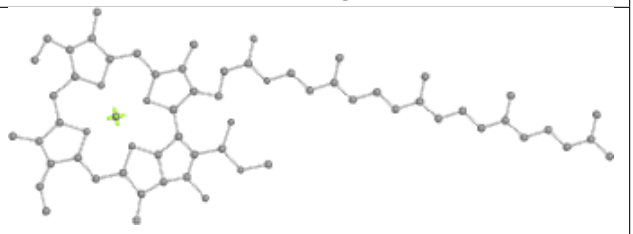
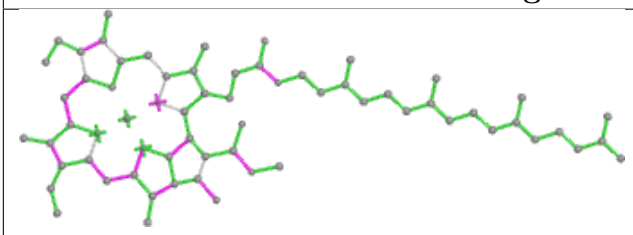
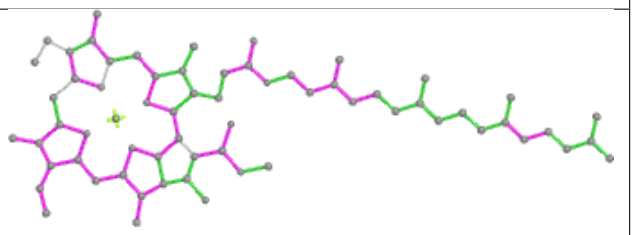


Rings

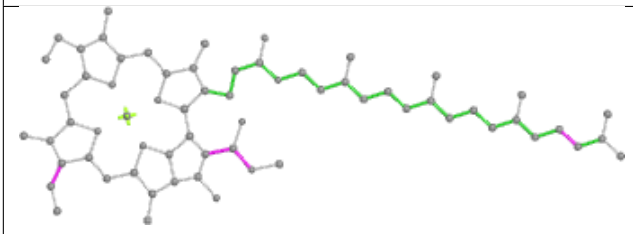
Ligand CLA D 401



Bond lengths



Bond angles



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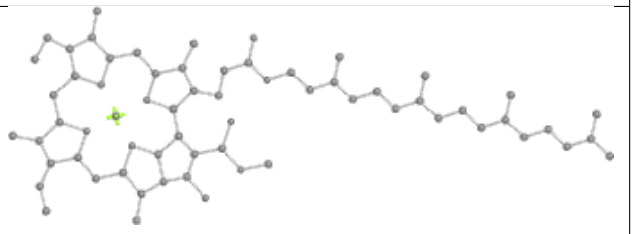
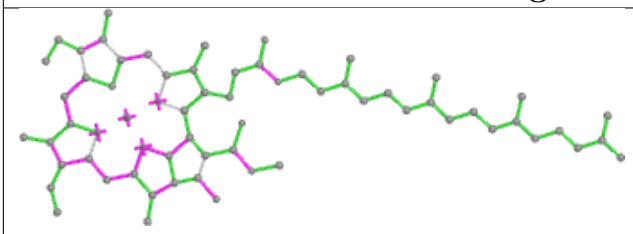
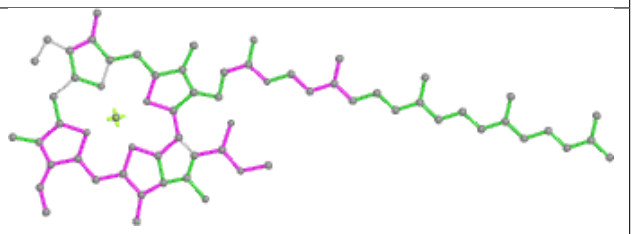


Rings

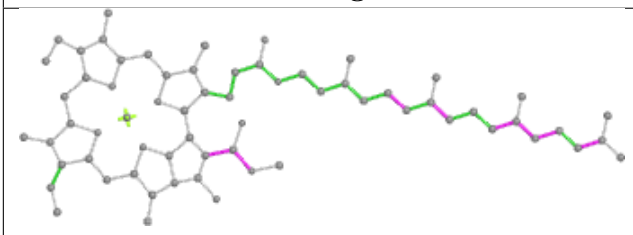
Ligand CLA c 908



Bond lengths



Bond angles



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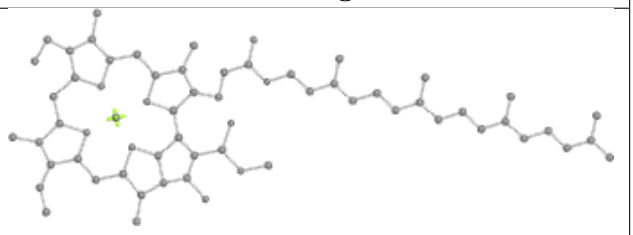
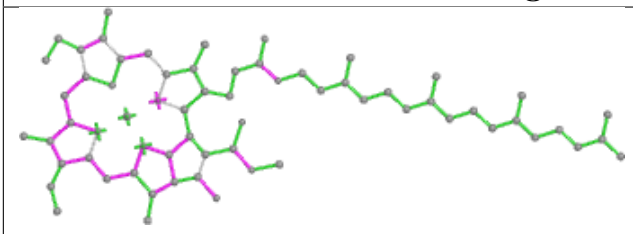
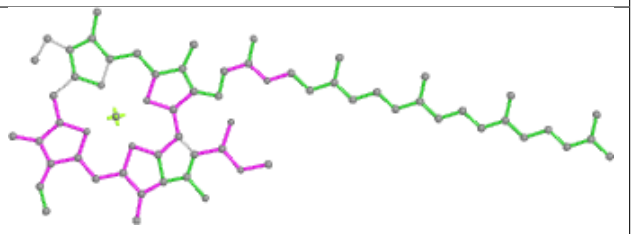


Rings

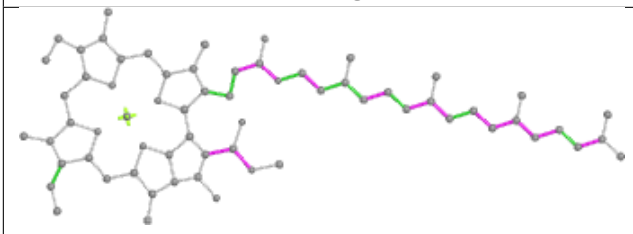
Ligand CLA B 602



Bond lengths



Bond angles



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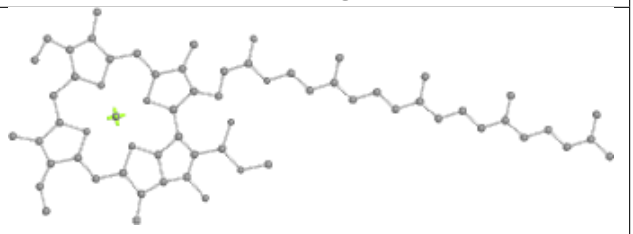
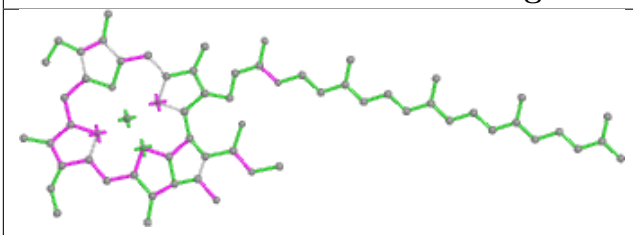
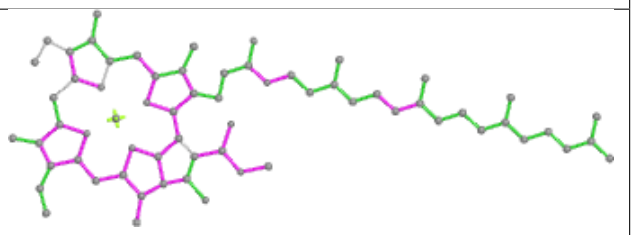


Rings

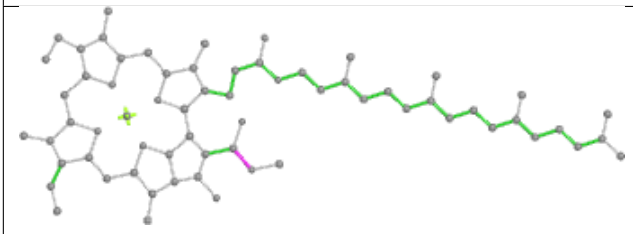
Ligand CLA C 512



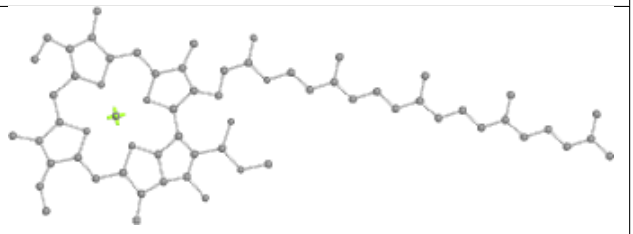
Bond lengths



Bond angles

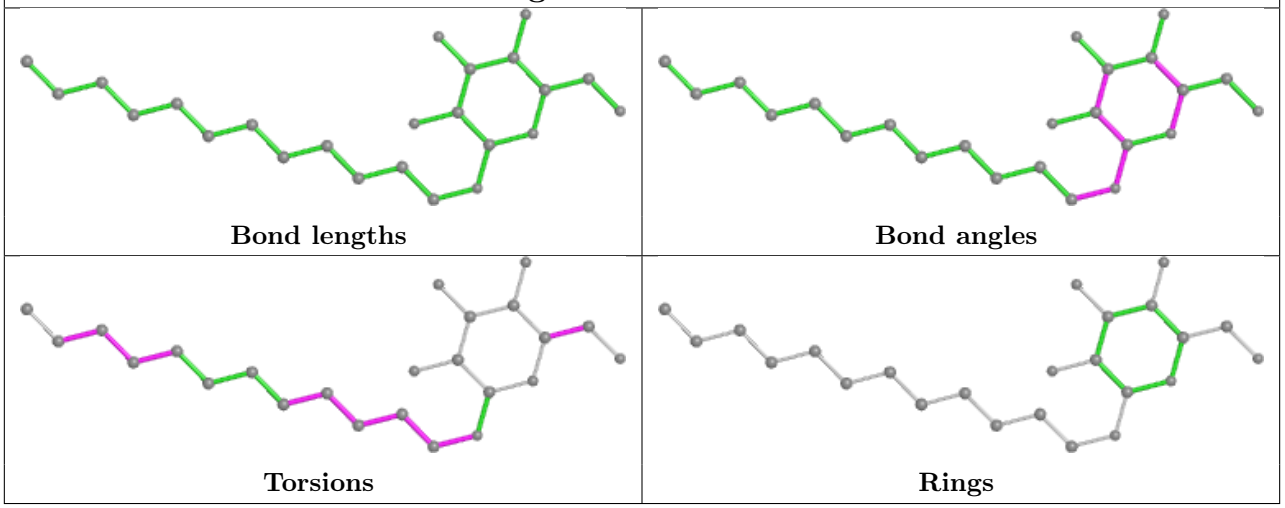


Torsions

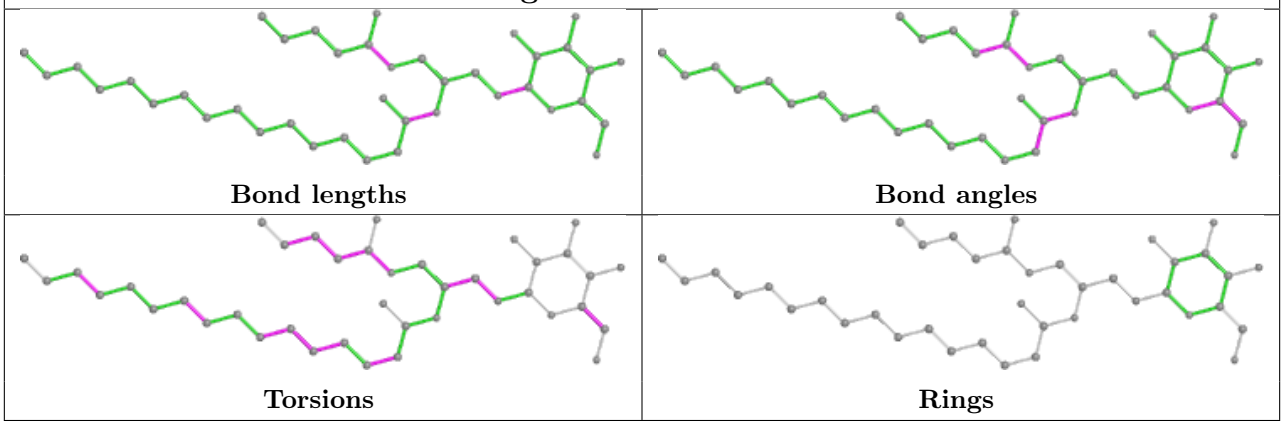


Rings

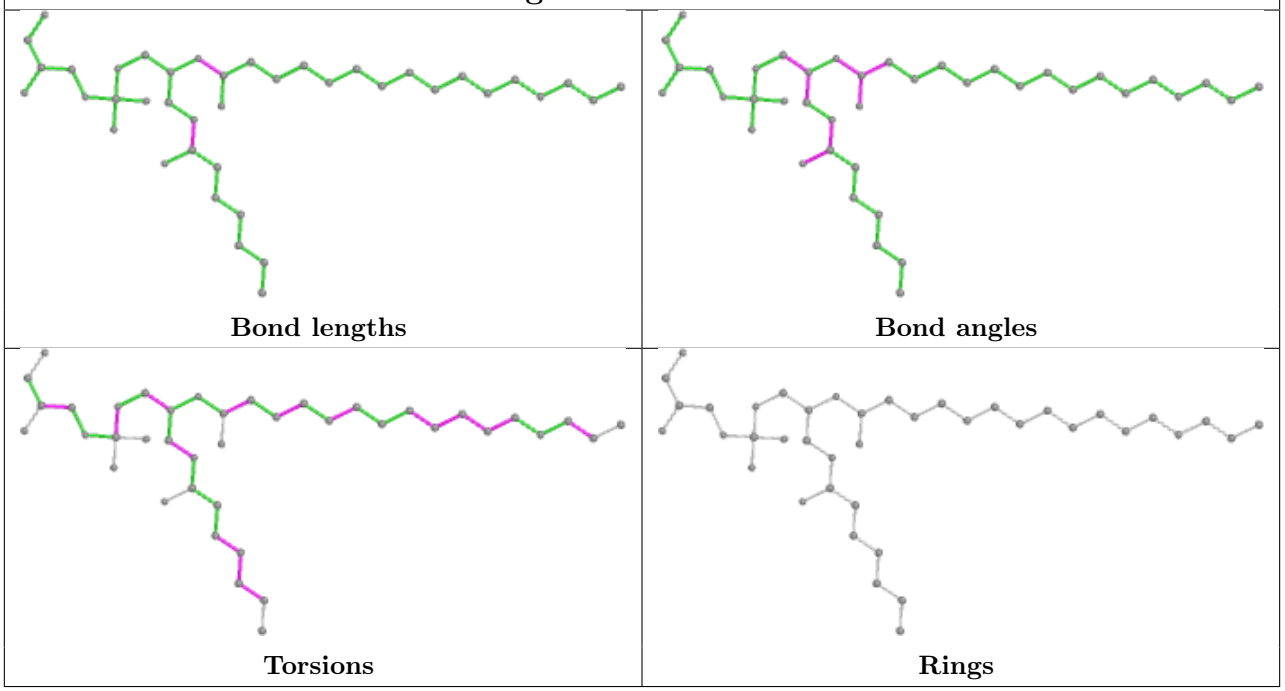
Ligand LMT t 101



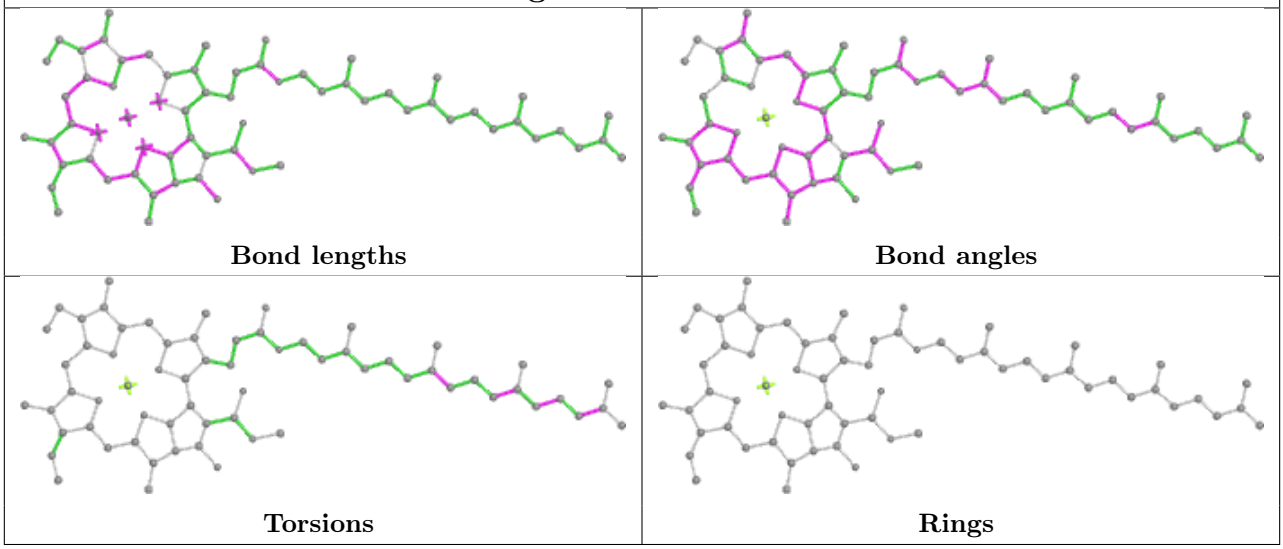
Ligand LMG C 531



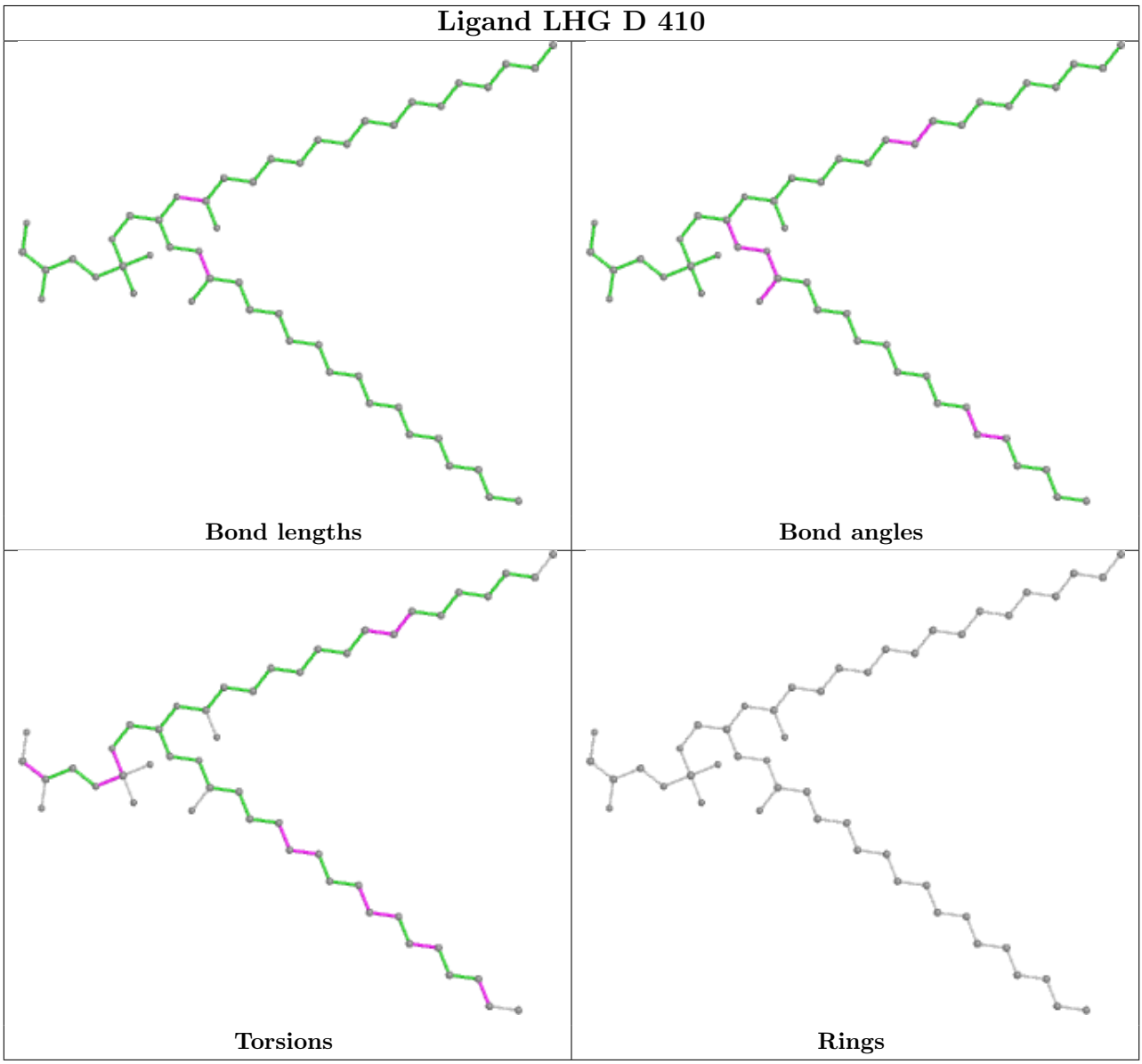
Ligand LHG L 101



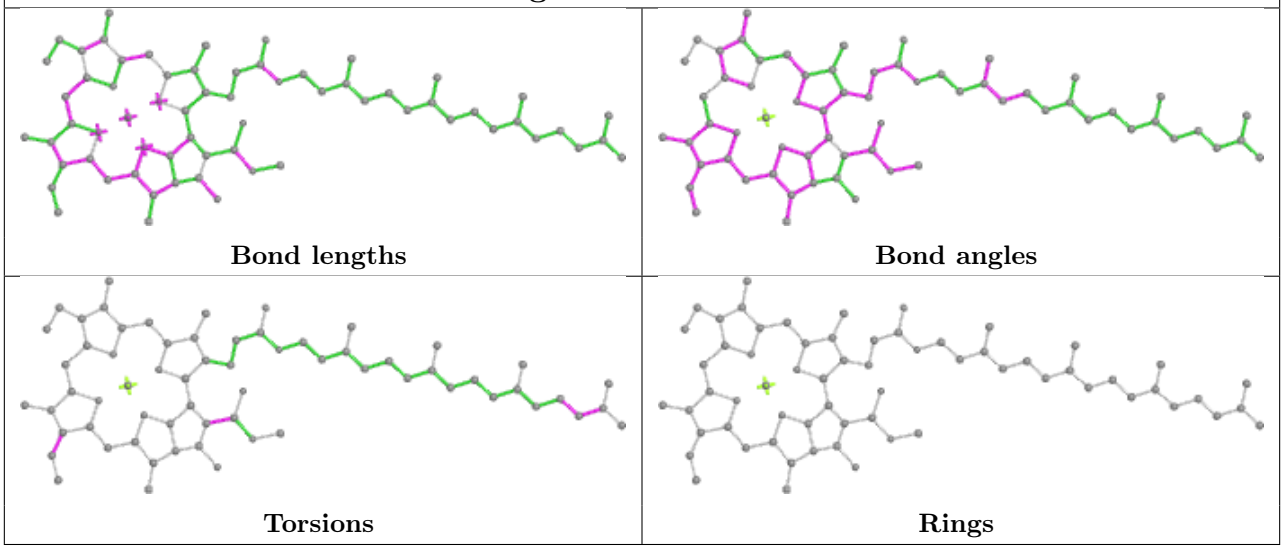
Ligand CLA b 609



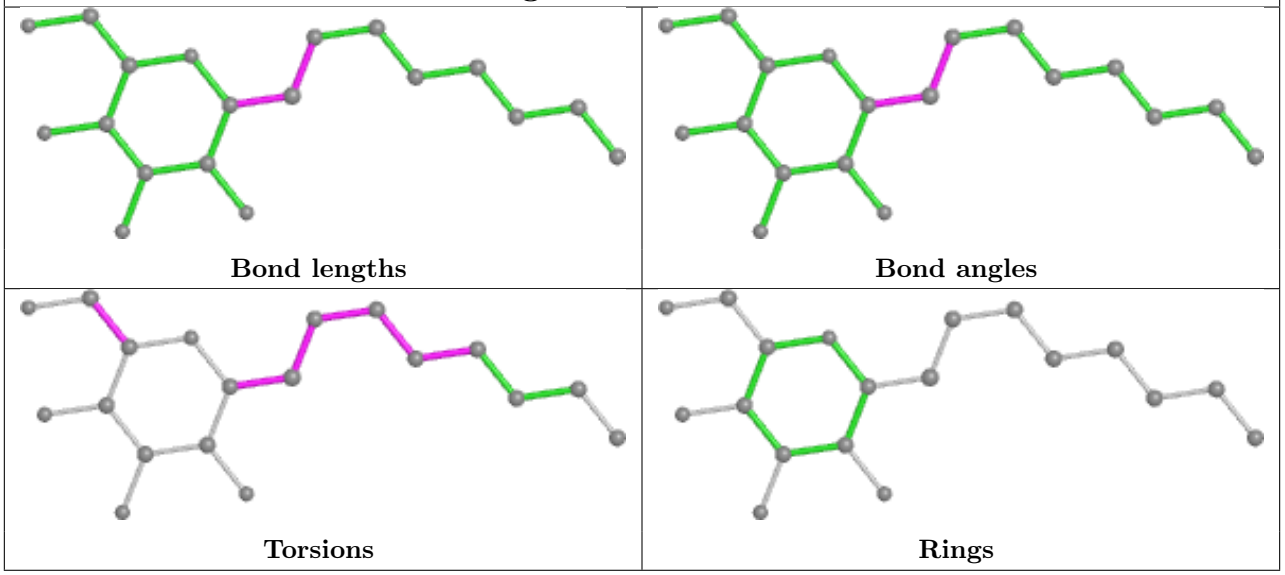
Ligand LHG D 410



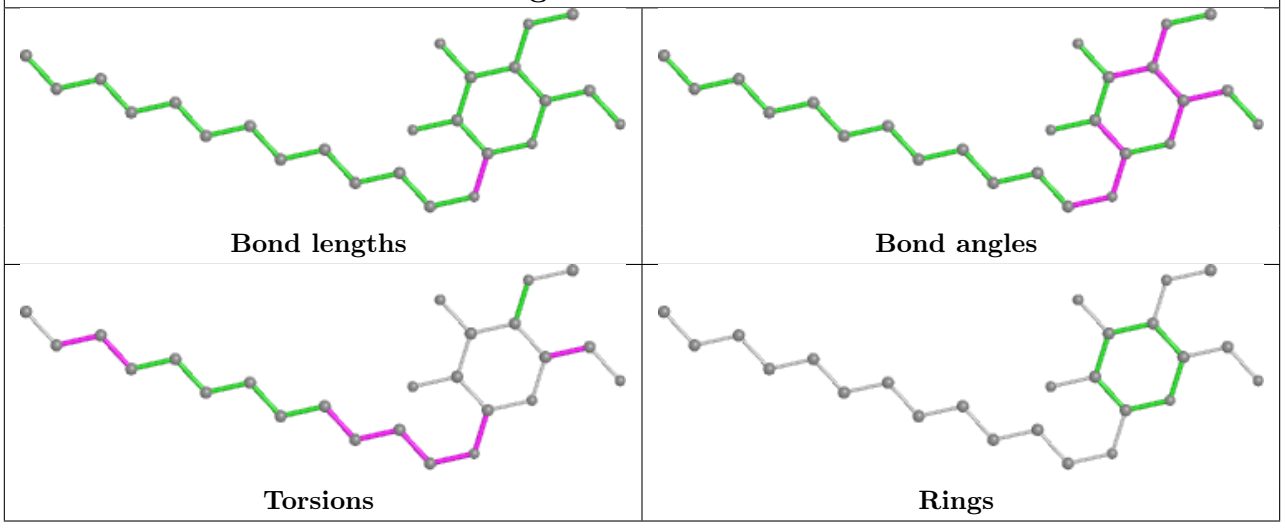
Ligand CLA a 408



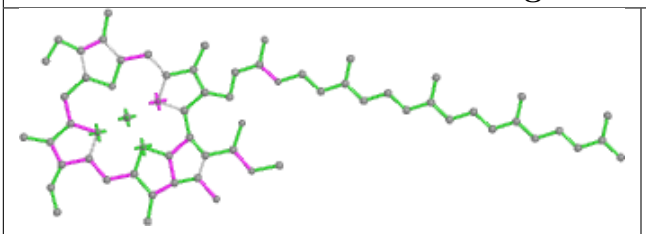
Ligand HTG C 532



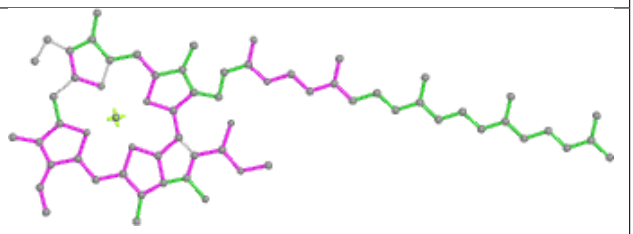
Ligand LMT f 102



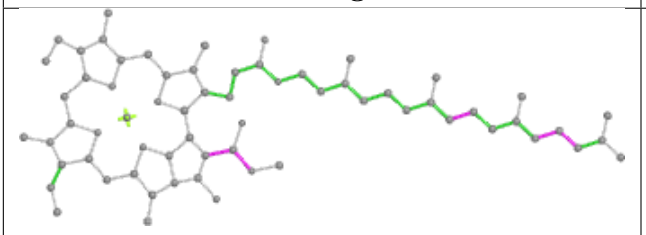
Ligand CLA B 608



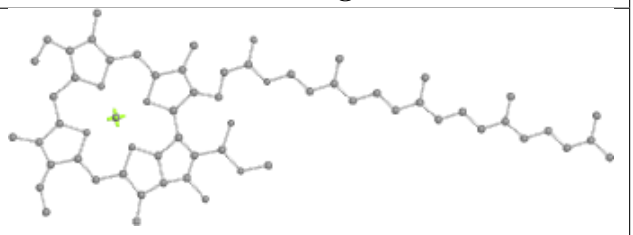
Bond lengths



Bond angles

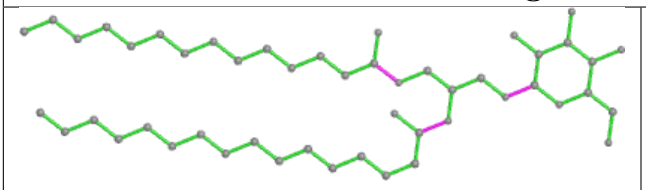


Torsions

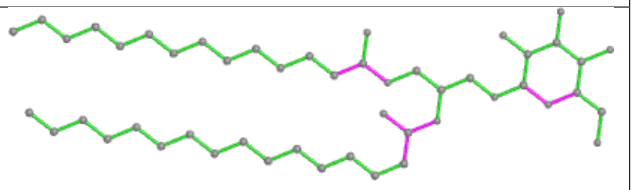


Rings

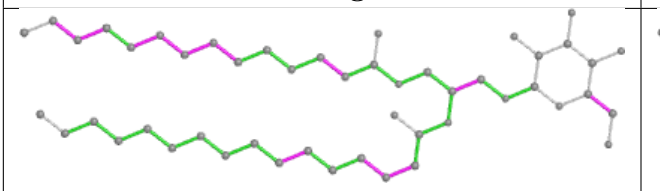
Ligand LMG c 930



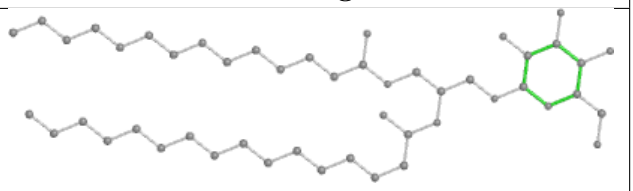
Bond lengths



Bond angles

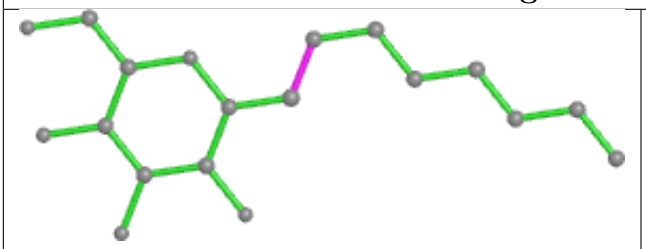


Torsions

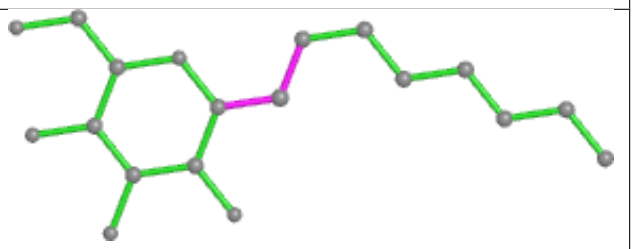


Rings

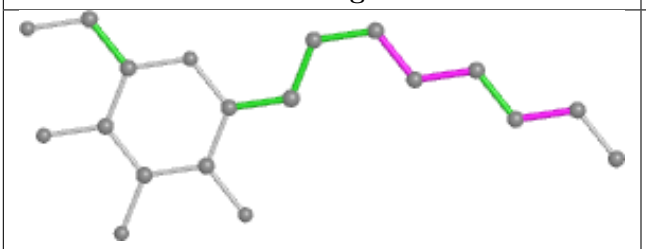
Ligand HTG D 414



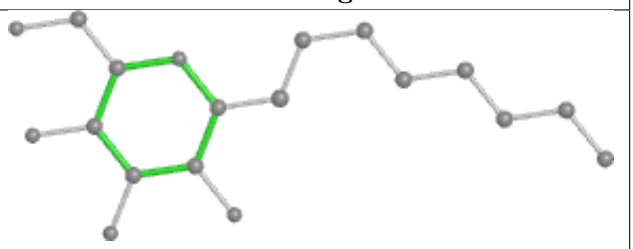
Bond lengths



Bond angles

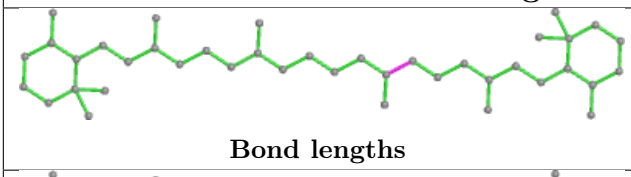


Torsions

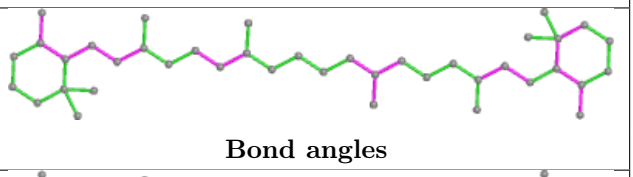


Rings

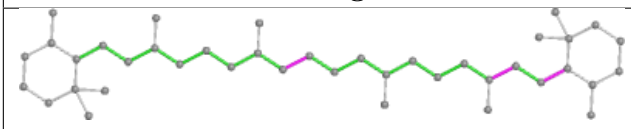
Ligand BCR C 515



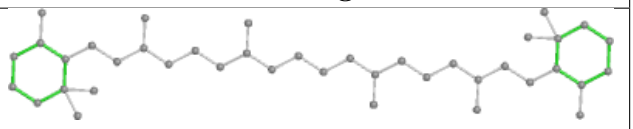
Bond lengths



Bond angles

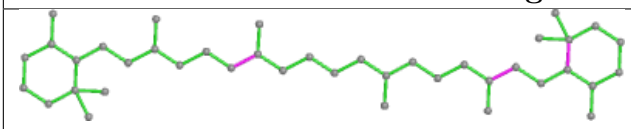


Torsions

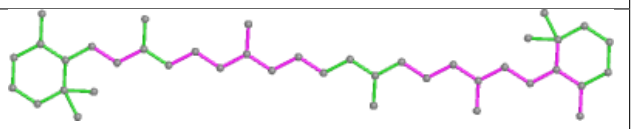


Rings

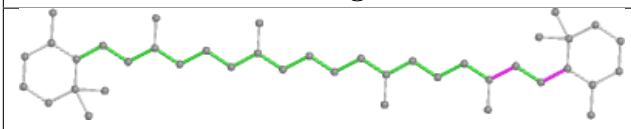
Ligand BCR d 404



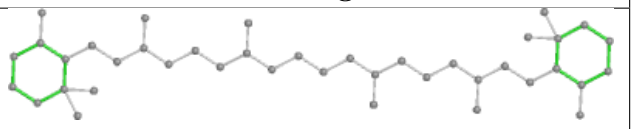
Bond lengths



Bond angles

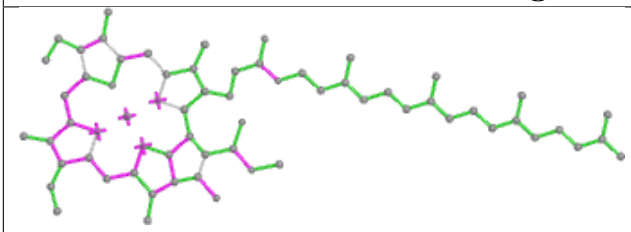


Torsions

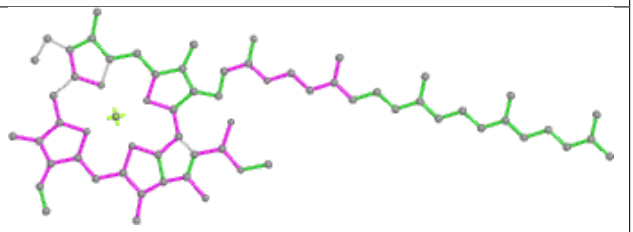


Rings

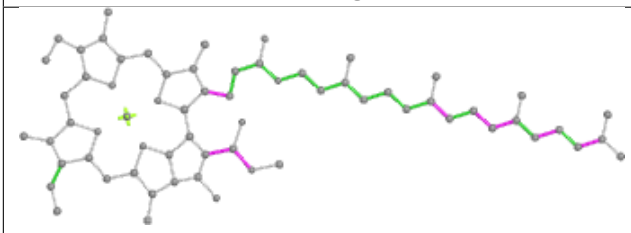
Ligand CLA c 909



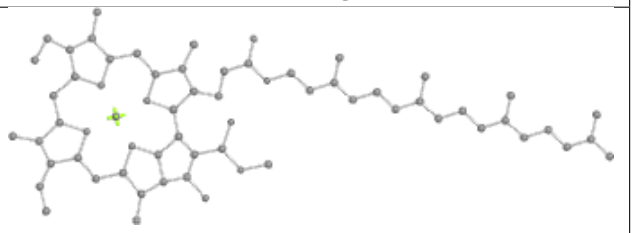
Bond lengths



Bond angles

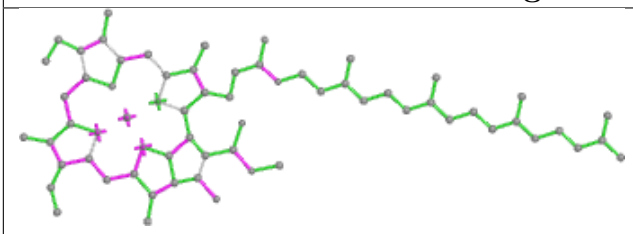


Torsions

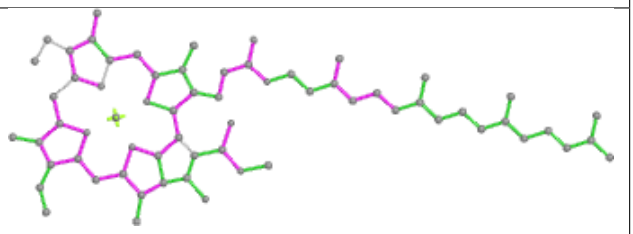


Rings

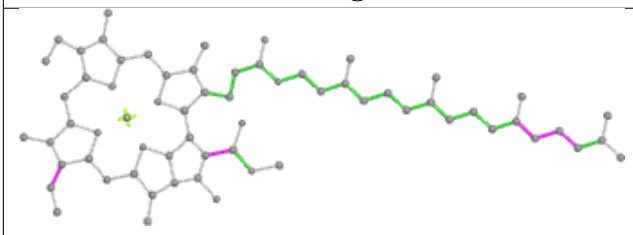
Ligand CLA A 405



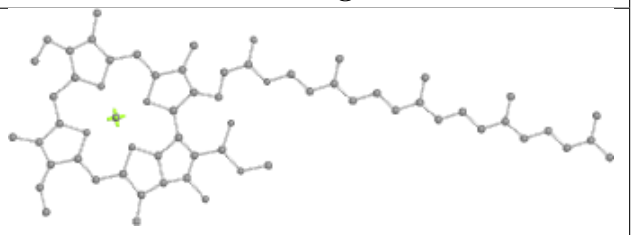
Bond lengths



Bond angles

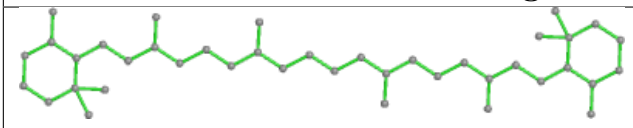


Torsions

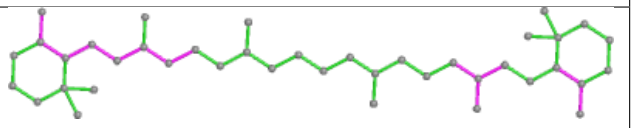


Rings

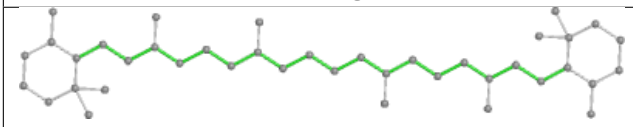
Ligand BCR C 516



Bond lengths



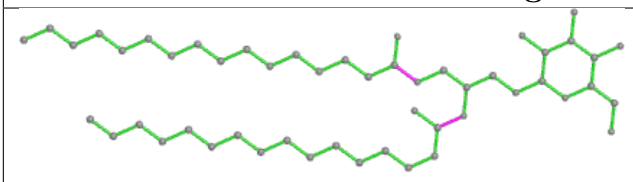
Bond angles



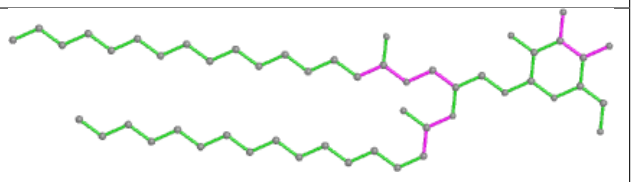
Torsions

Rings

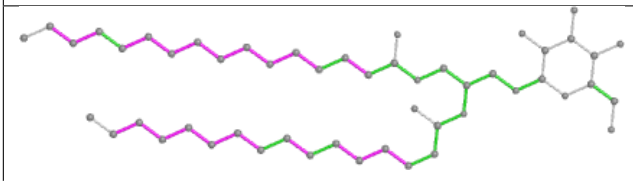
Ligand LMG c 920



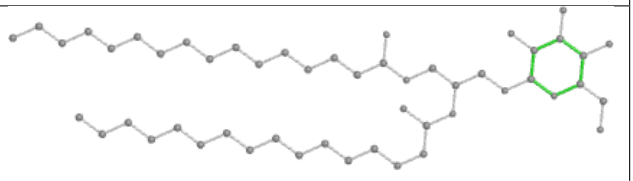
Bond lengths



Bond angles

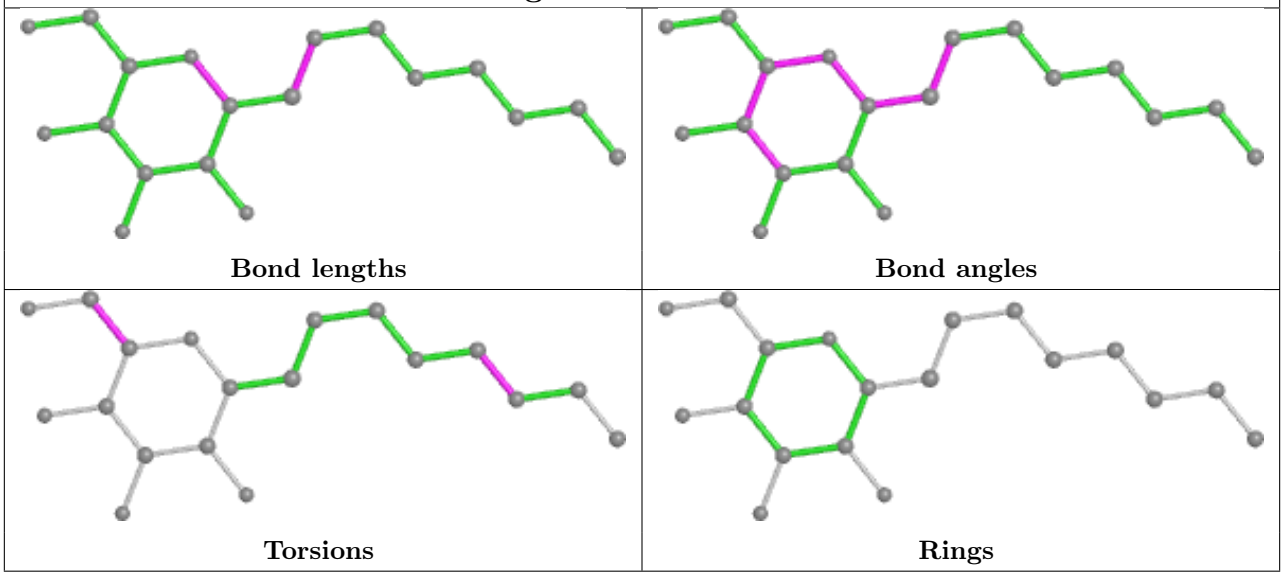


Torsions

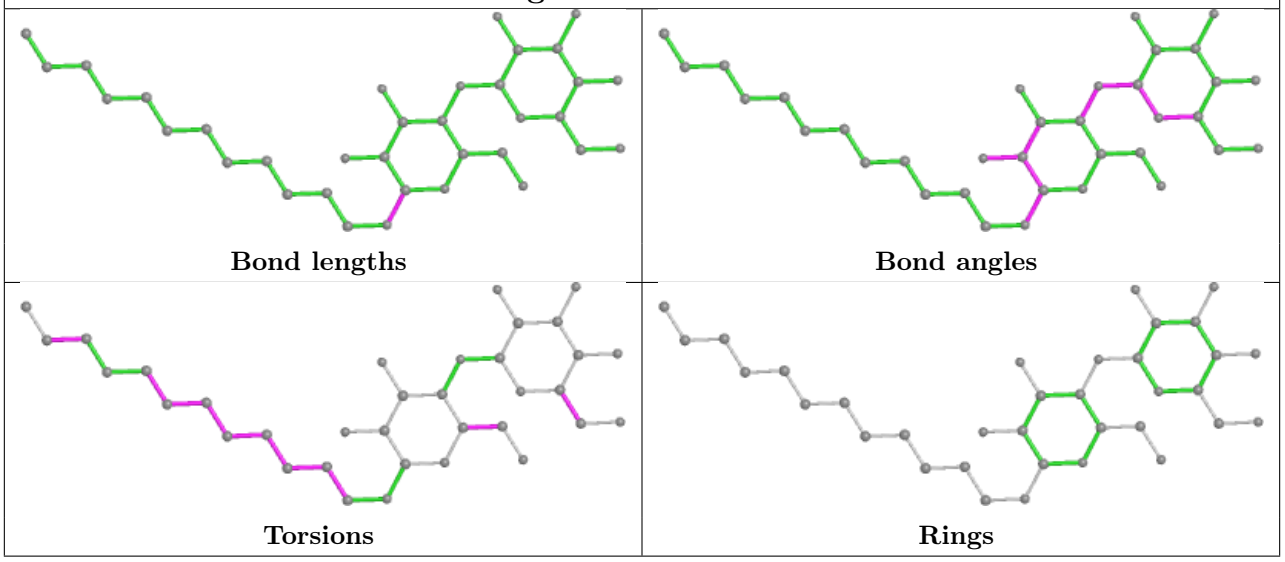


Rings

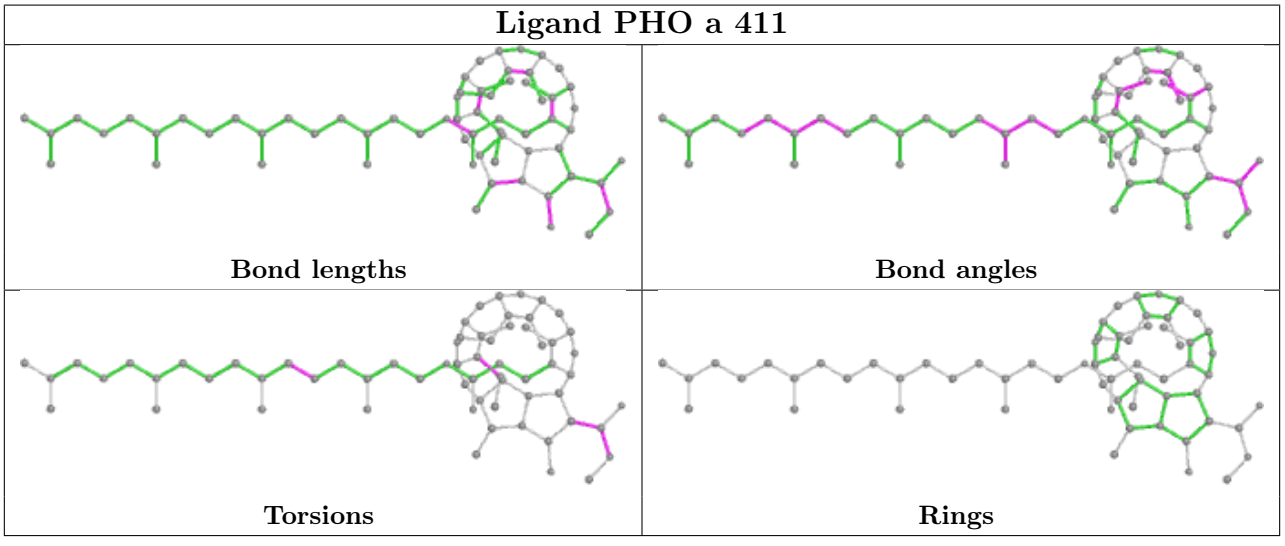
Ligand HTG b 627



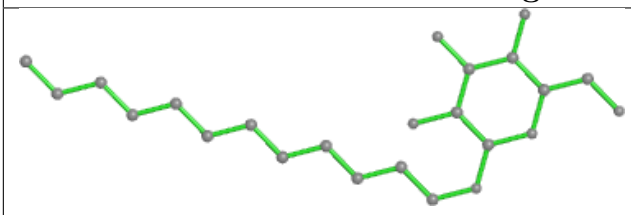
Ligand LMT c 921



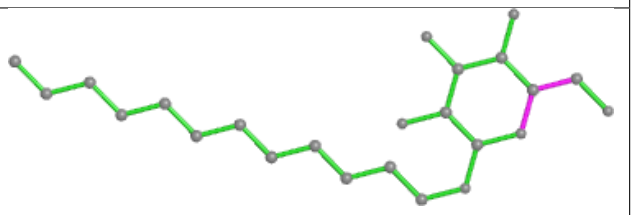
Ligand PHO a 411



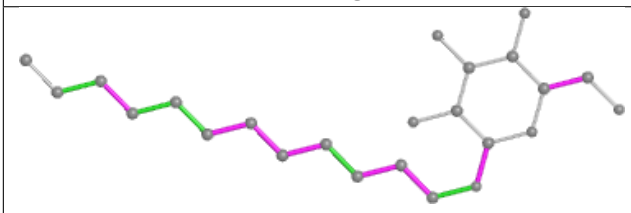
Ligand LMT E 101



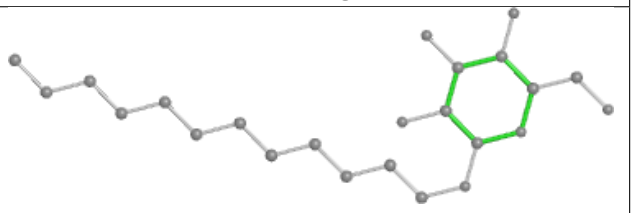
Bond lengths



Bond angles

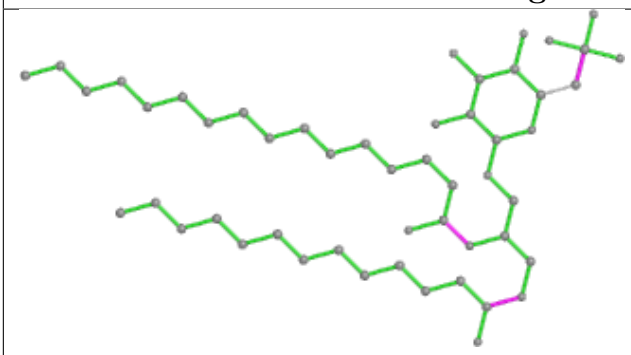


Torsions

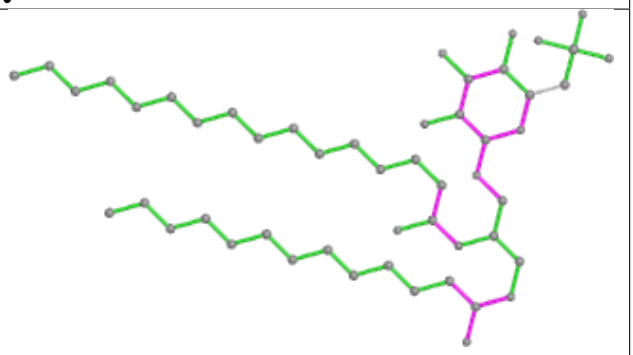


Rings

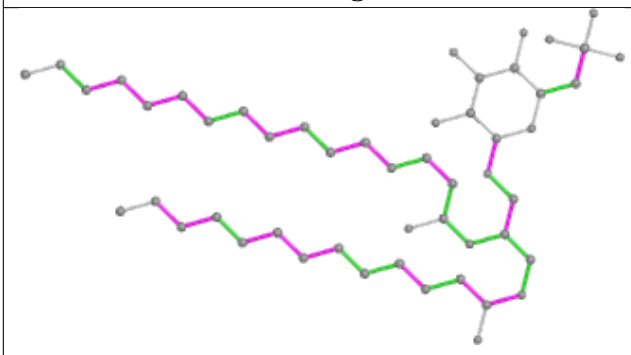
Ligand SQD a 418



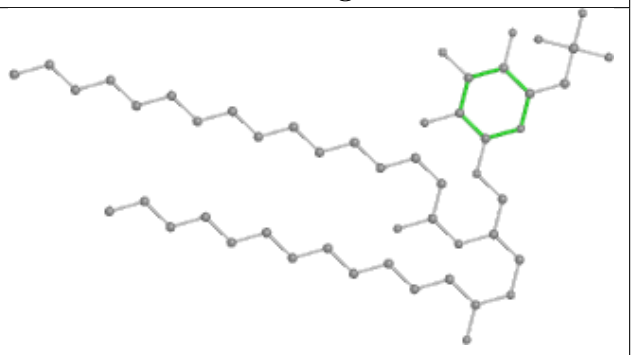
Bond lengths



Bond angles

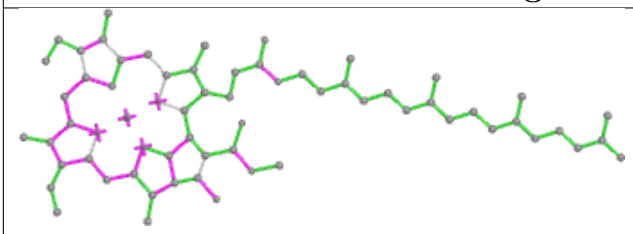


Torsions

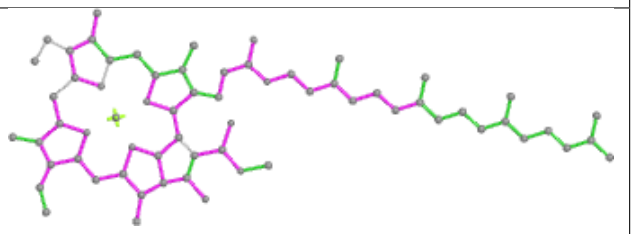


Rings

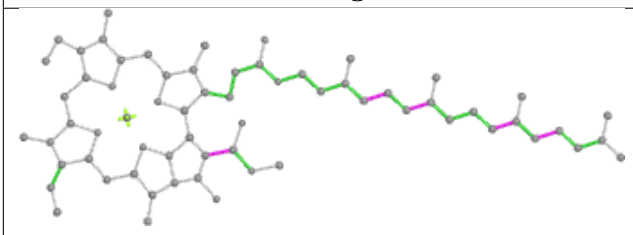
Ligand CLA B 603



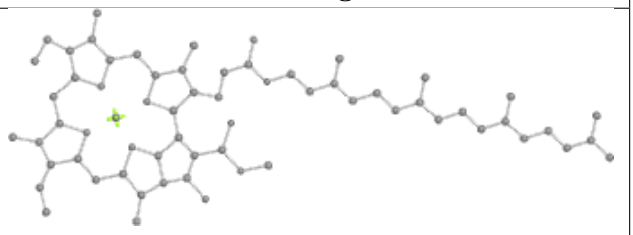
Bond lengths



Bond angles

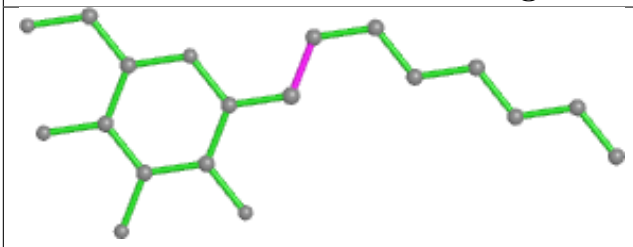


Torsions

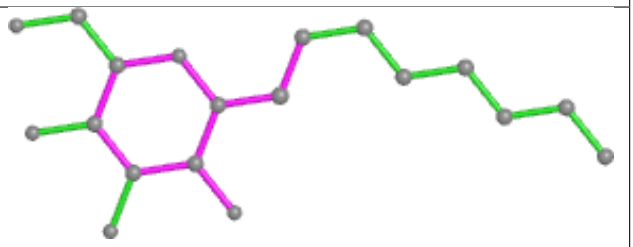


Rings

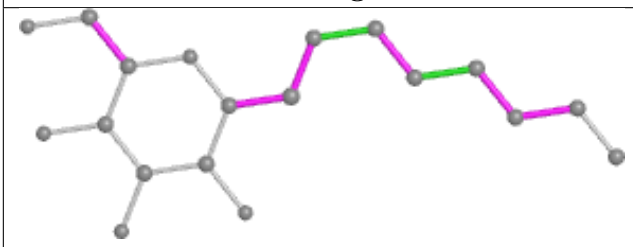
Ligand HTG D 415



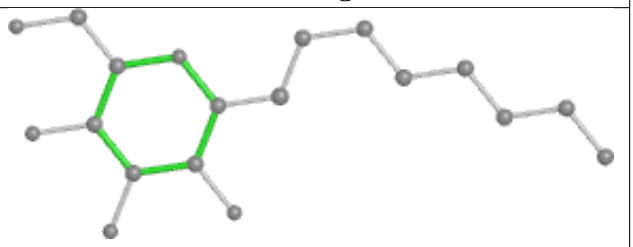
Bond lengths



Bond angles

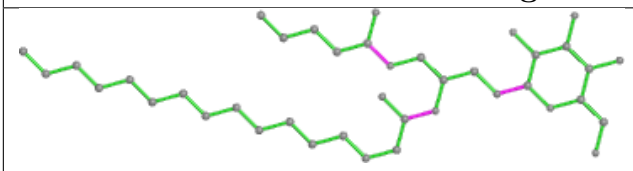


Torsions

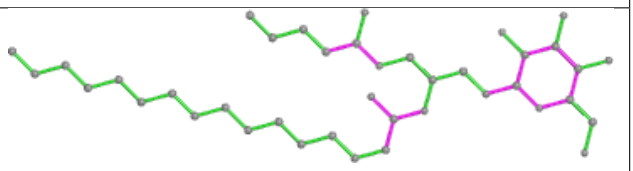


Rings

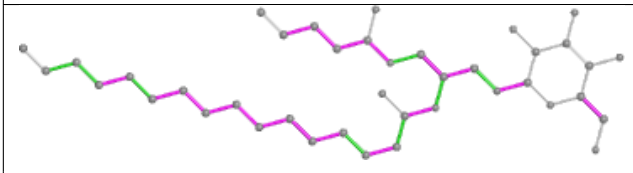
Ligand LMG B 621



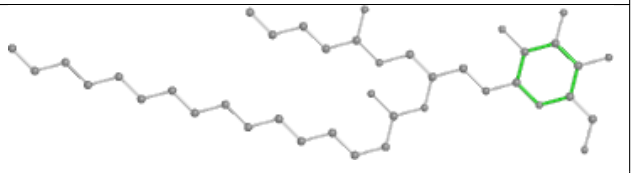
Bond lengths



Bond angles

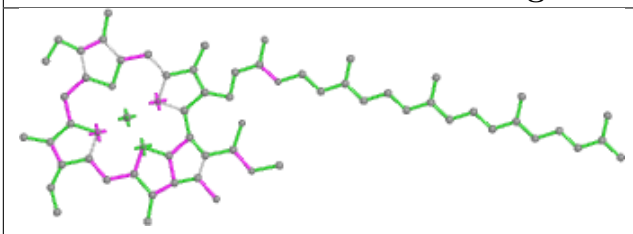


Torsions

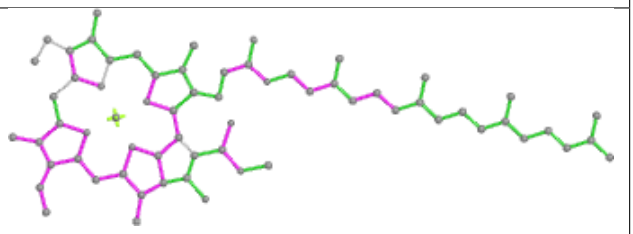


Rings

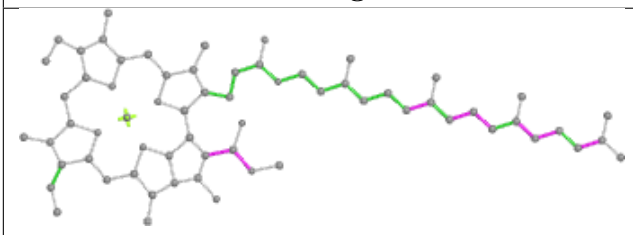
Ligand CLA b 612



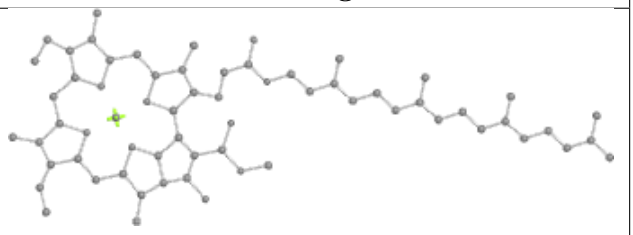
Bond lengths



Bond angles

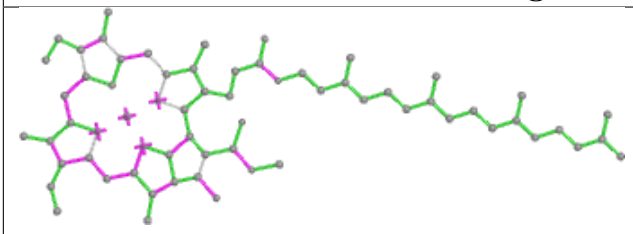


Torsions

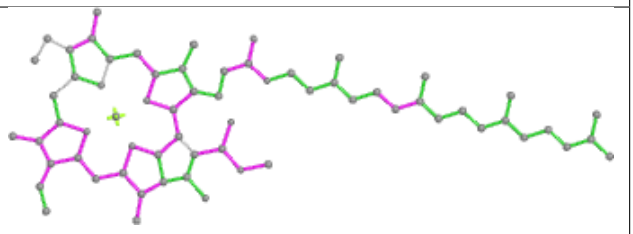


Rings

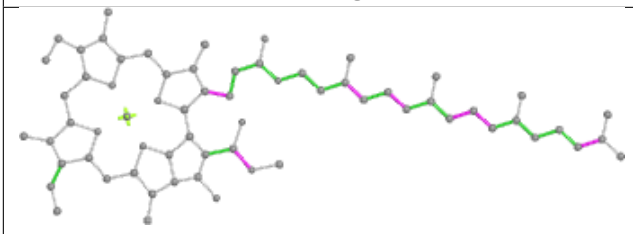
Ligand CLA b 616



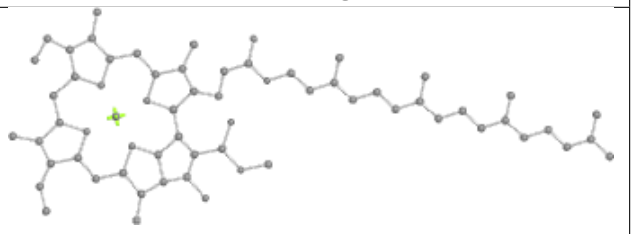
Bond lengths



Bond angles

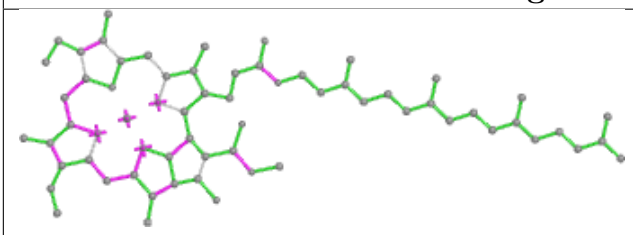


Torsions

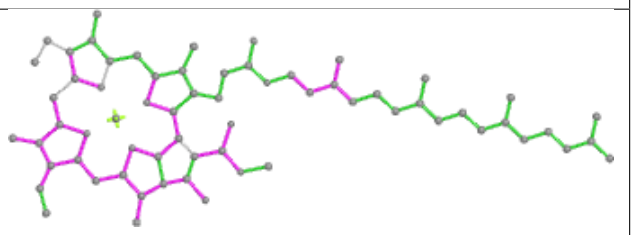


Rings

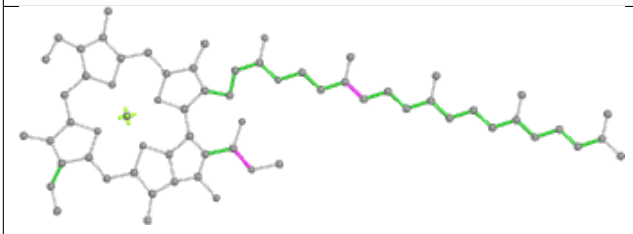
Ligand CLA b 606



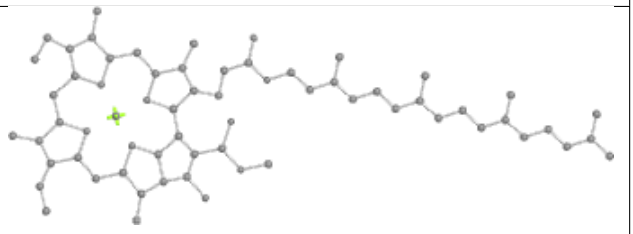
Bond lengths



Bond angles

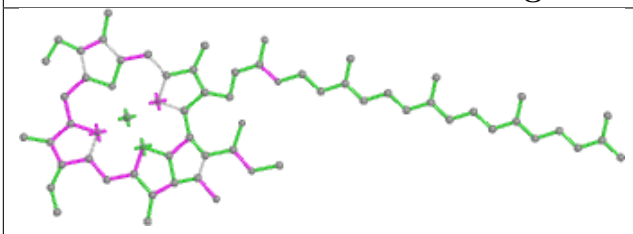


Torsions

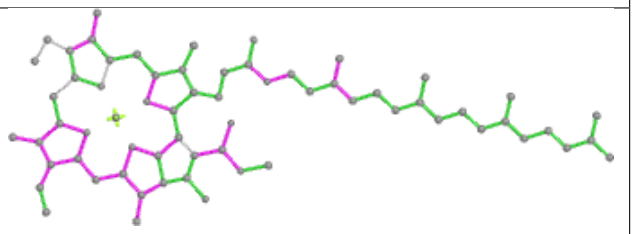


Rings

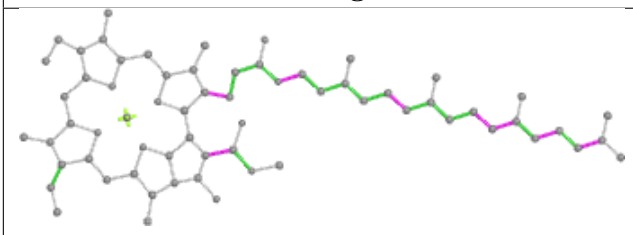
Ligand CLA C 507



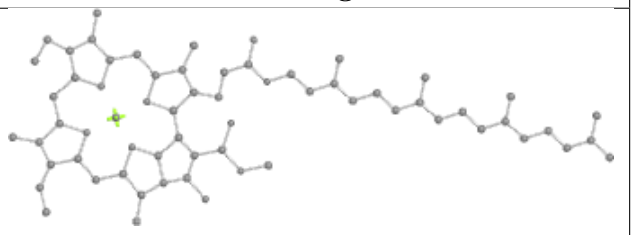
Bond lengths



Bond angles

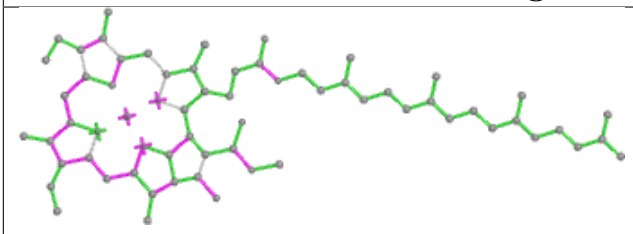


Torsions

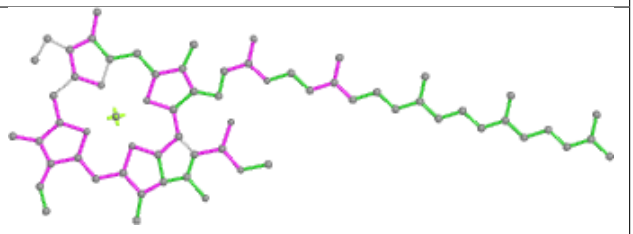


Rings

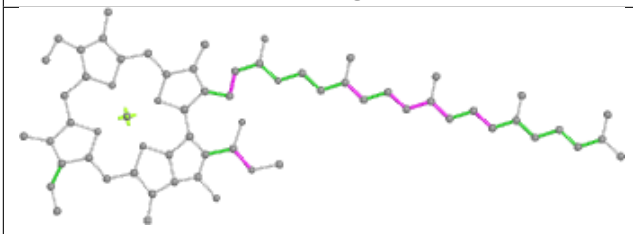
Ligand CLA b 604



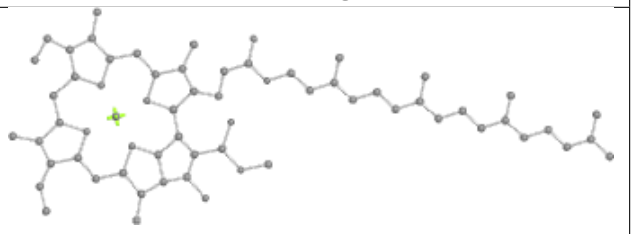
Bond lengths



Bond angles

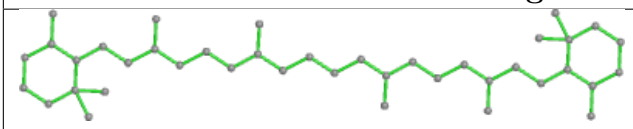


Torsions

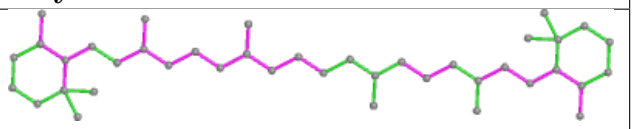


Rings

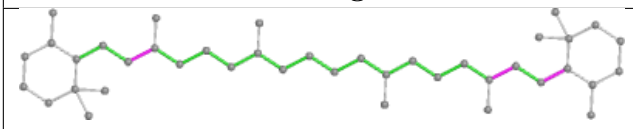
Ligand BCR y 101



Bond lengths



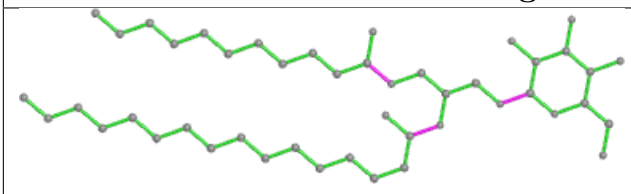
Bond angles



Torsions

Rings

Ligand LMG D 412



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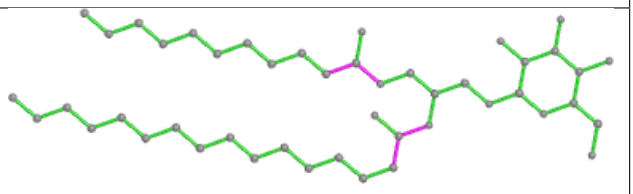
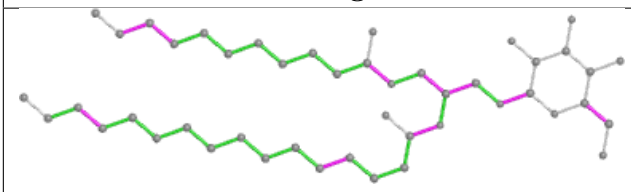


Bond angles



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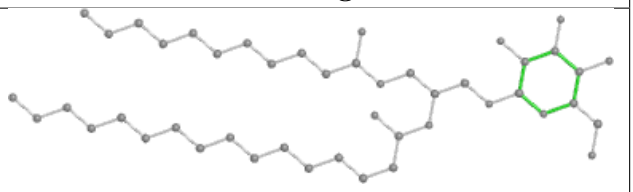
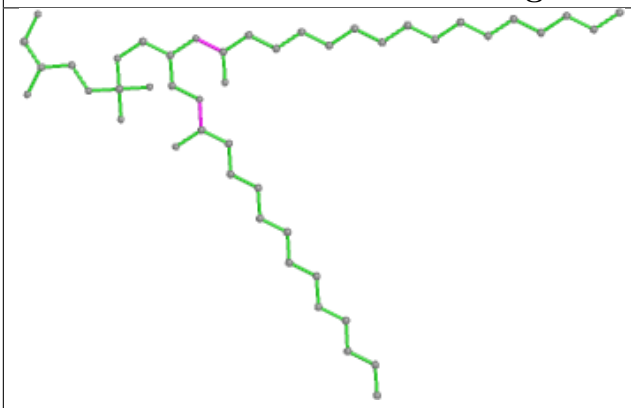


Rings

Ligand LHG d 408



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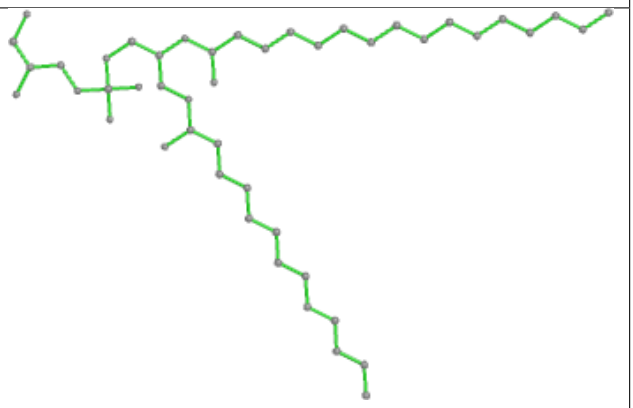
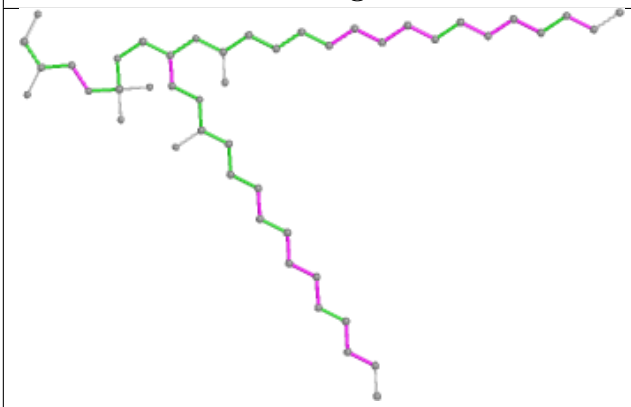


Bond angles



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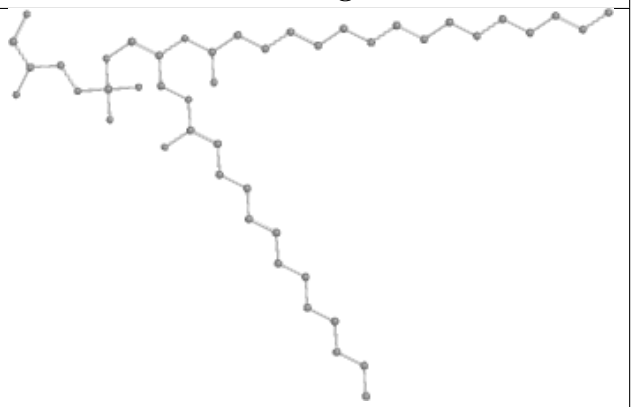
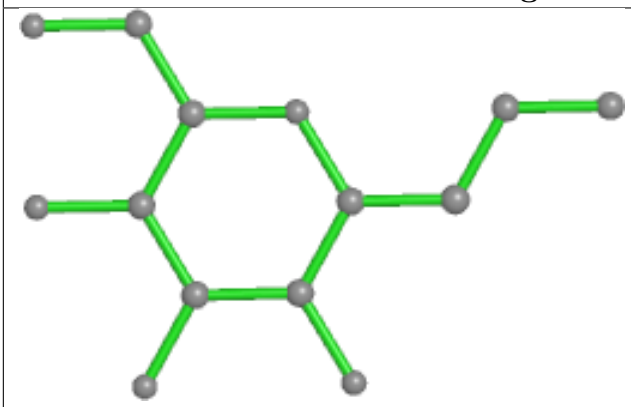


Rings

Ligand HTG V 203



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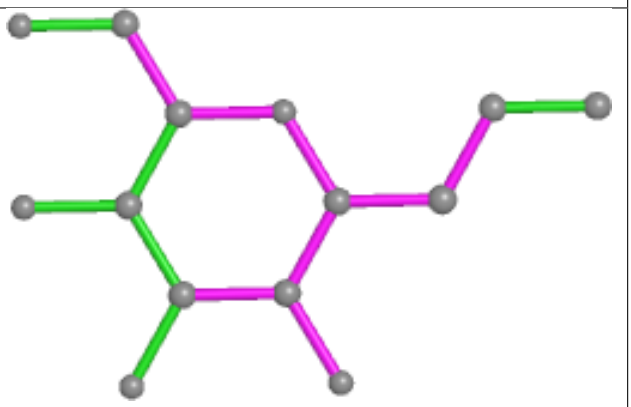
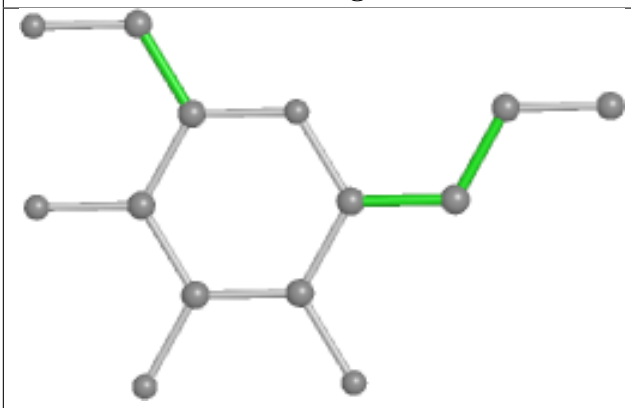


Bond angles



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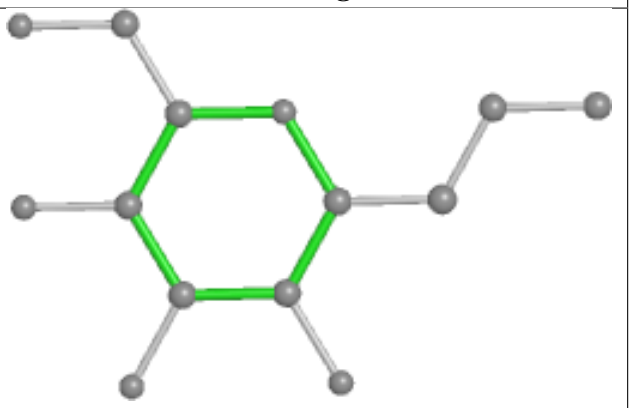
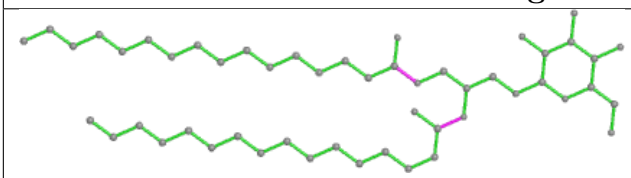


Rings

Ligand LMG i 101



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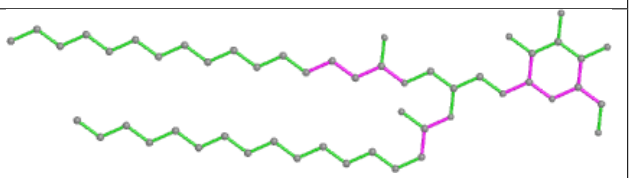
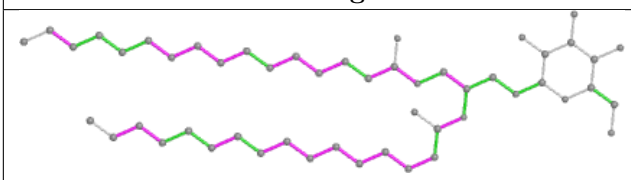


Bond angles



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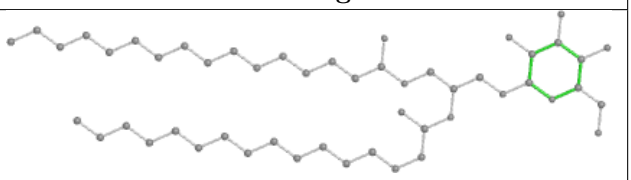
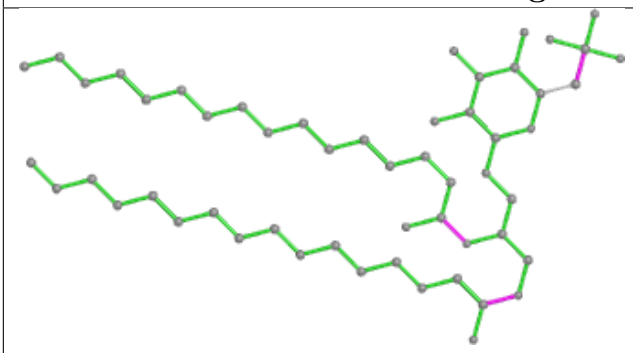


Rings

Ligand SQD a 414



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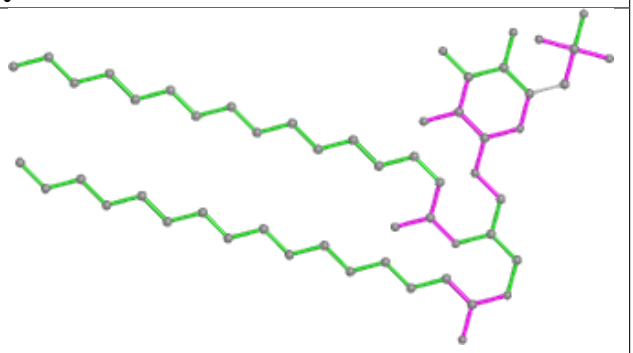

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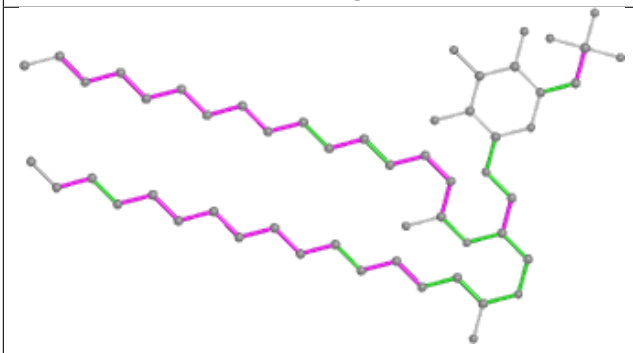

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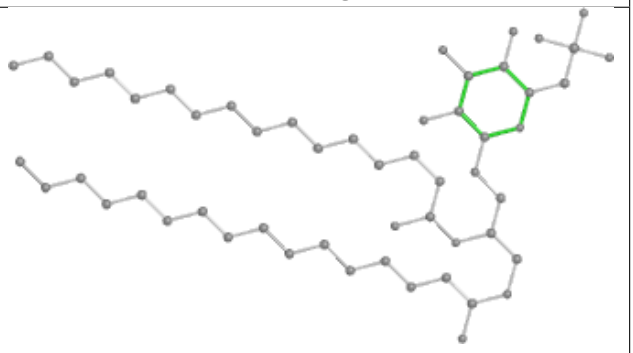
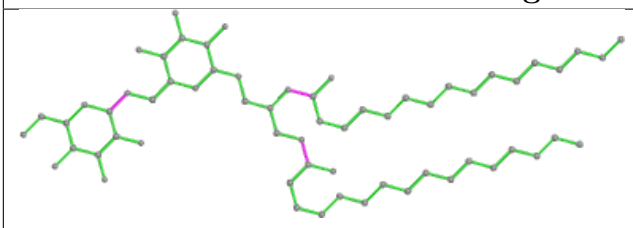


Rings

Ligand DGD h 102



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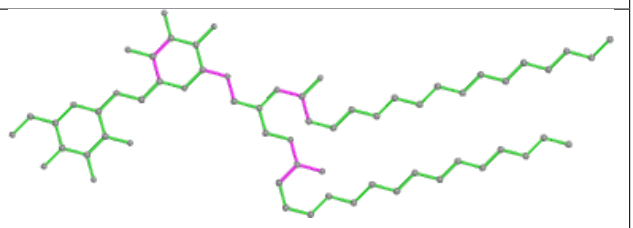
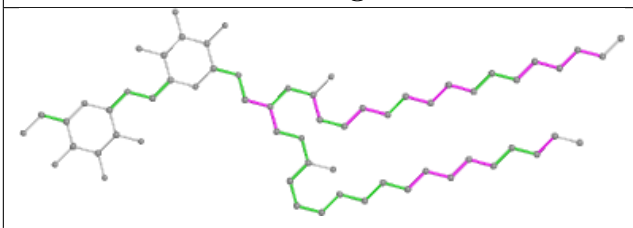


Bond angles



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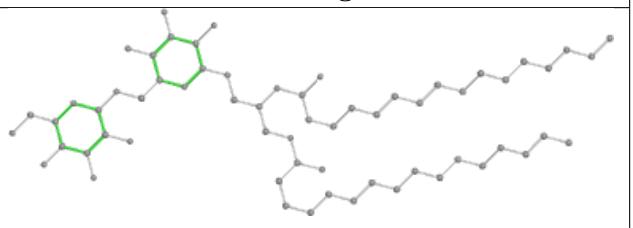
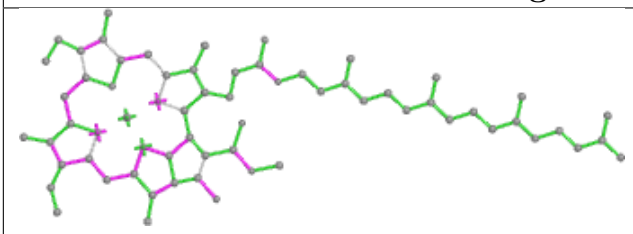


Rings

Ligand CLA c 903



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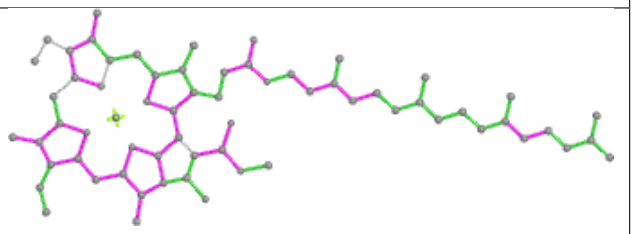
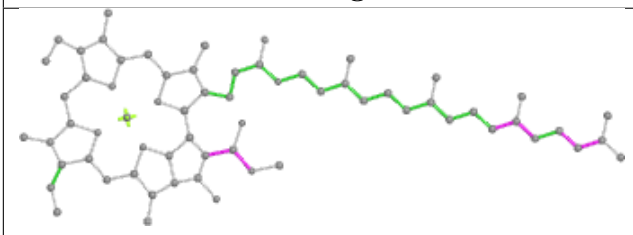


Bond angles



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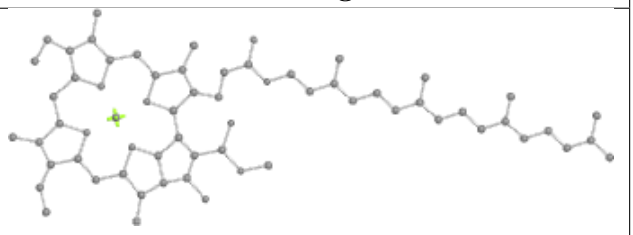
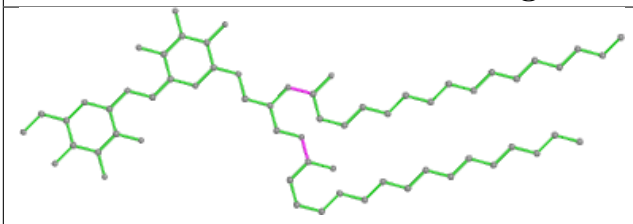


Rings

Ligand DGD C 519



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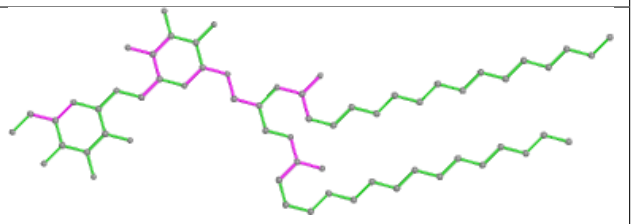
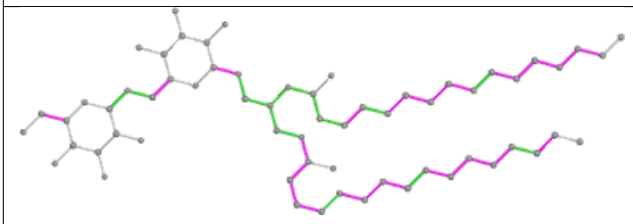


Bond angles



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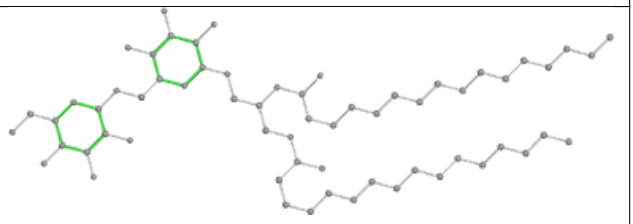
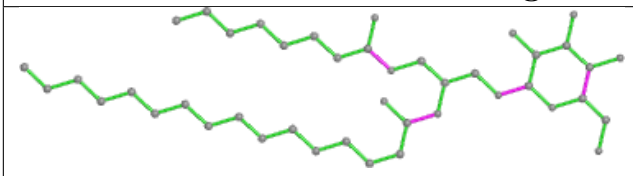


Rings

Ligand LMG b 622



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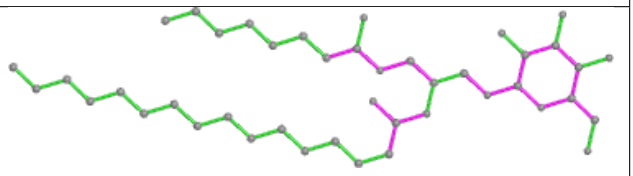
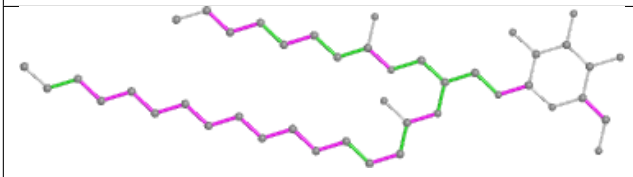


Bond angles



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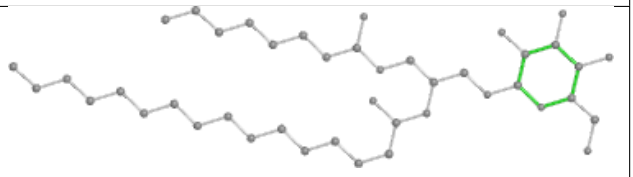
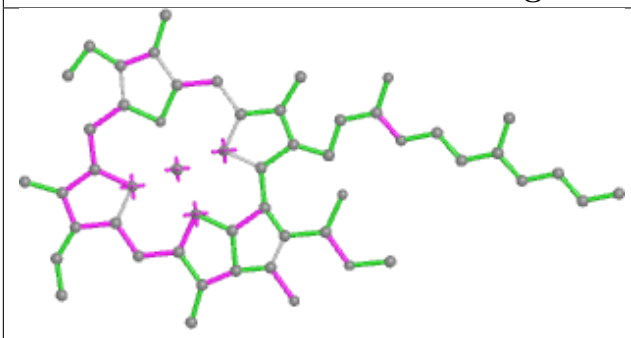


Rings

Ligand CLA B 615



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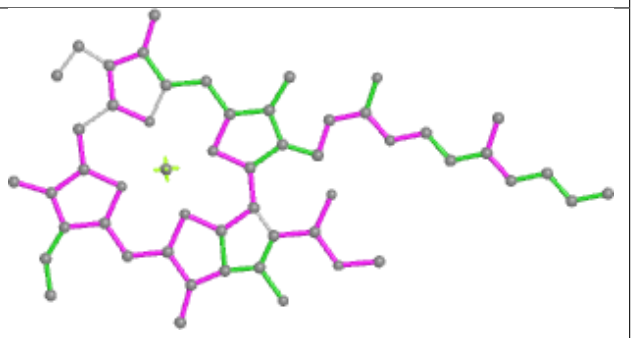
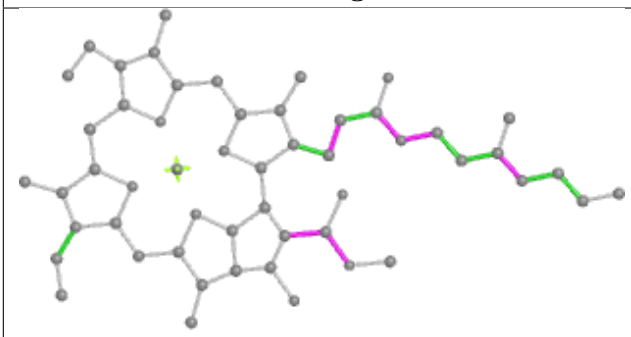


Bond angles



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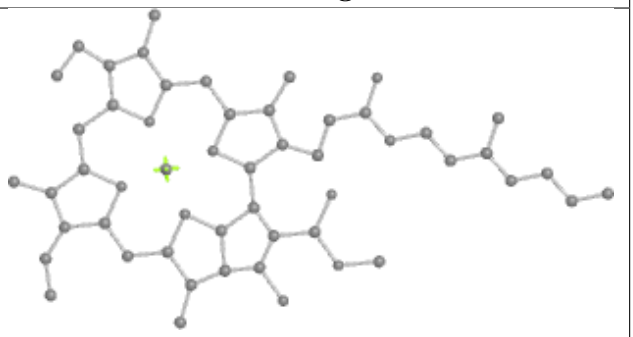
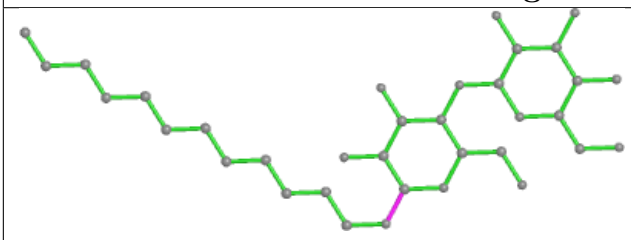


Rings

Ligand LMT Z 101



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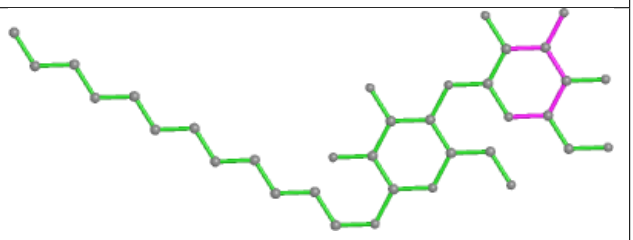
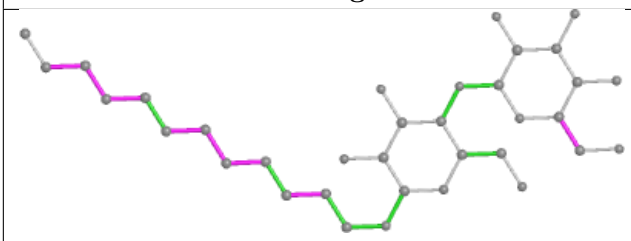
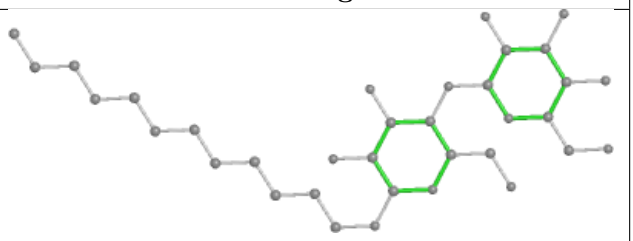


Bond angles

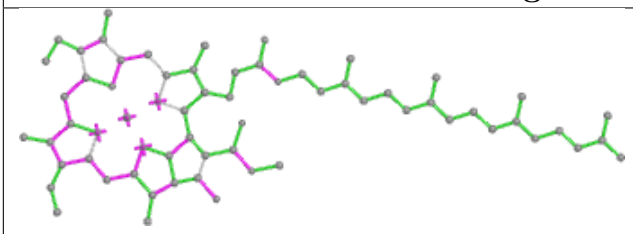


Torsions



Rings

Ligand CLA D 403



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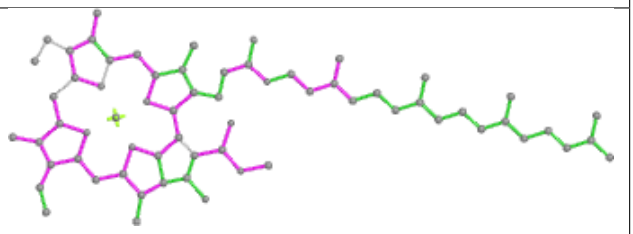
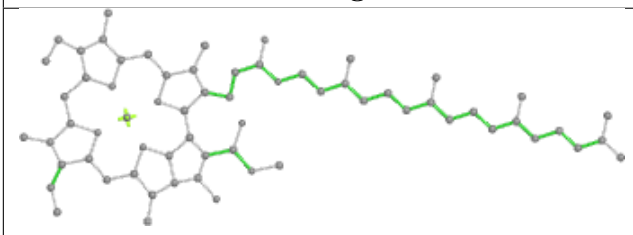
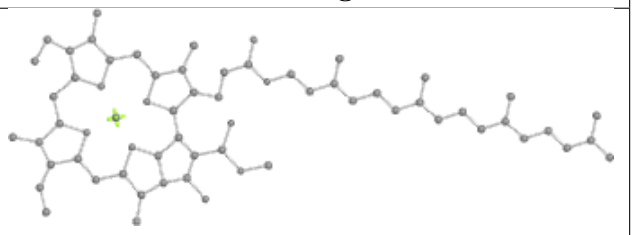


Bond angles

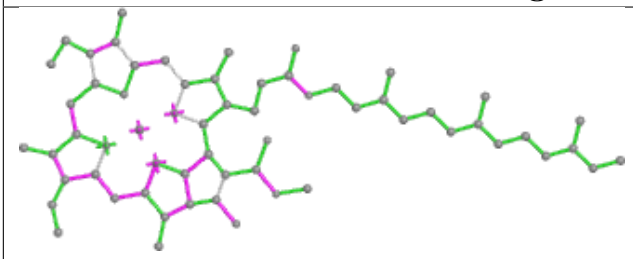


Torsions

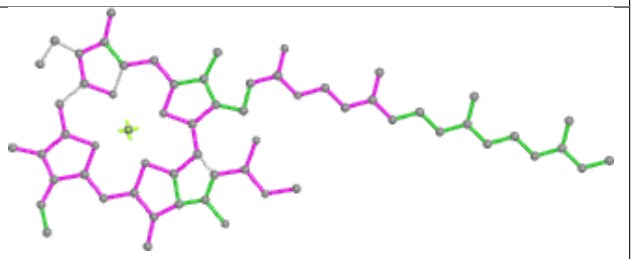


Rings

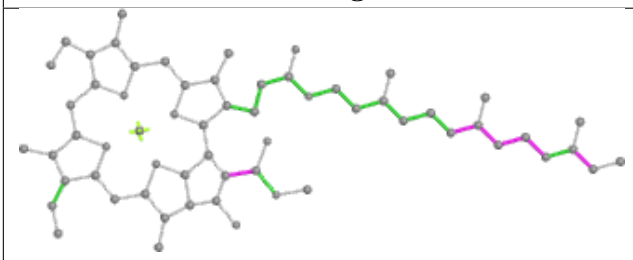
Ligand CLA a 409



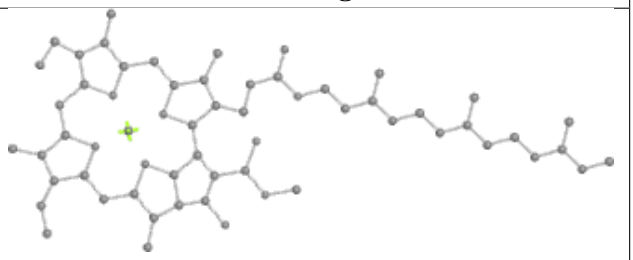
Bond lengths



Bond angles

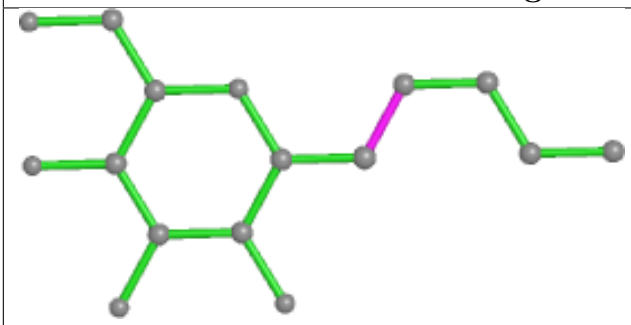


Torsions

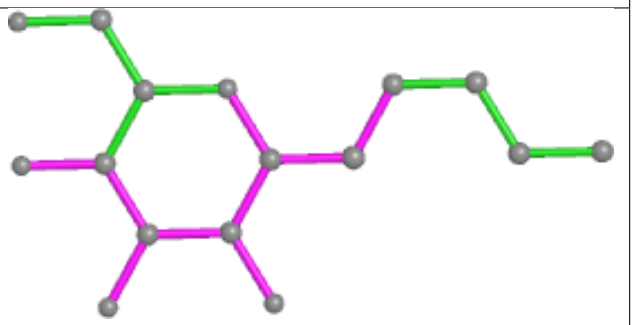


Rings

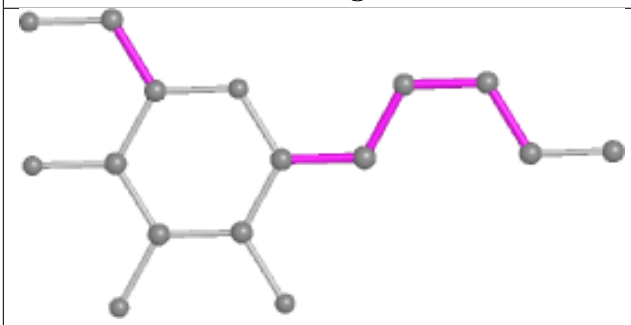
Ligand HTG v 203



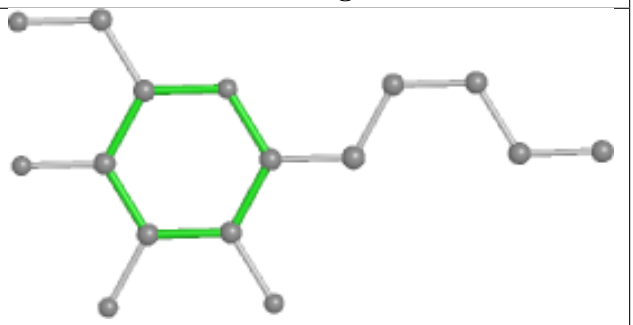
Bond lengths



Bond angles

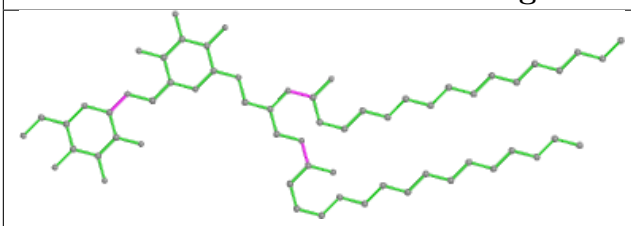


Torsions



Rings

Ligand DGD H 102



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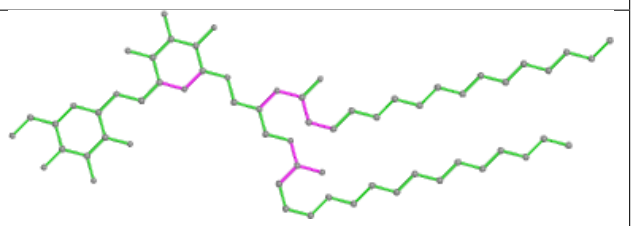
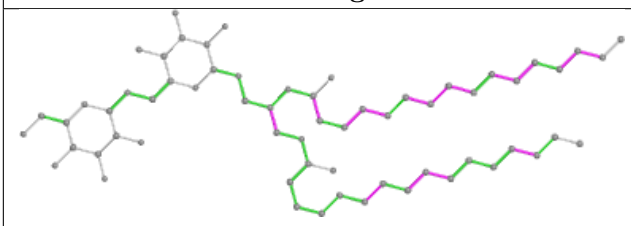
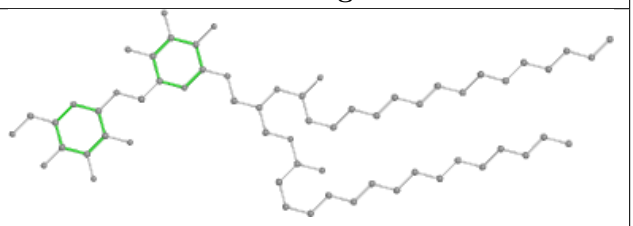


Bond angles

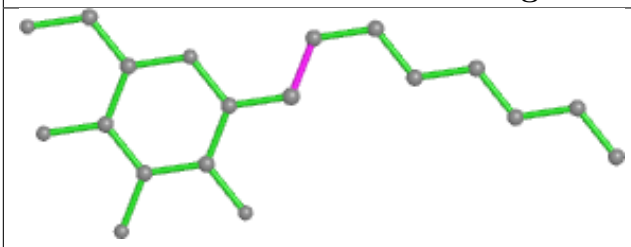


Torsions



Rings

Ligand HTG B 627



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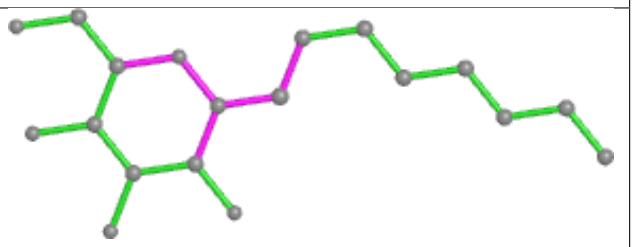
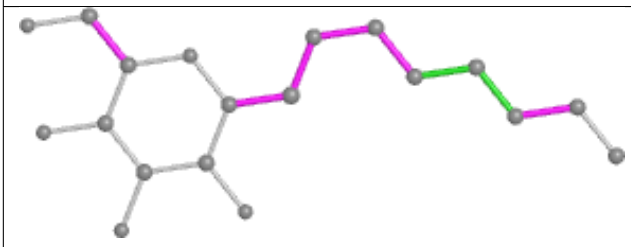
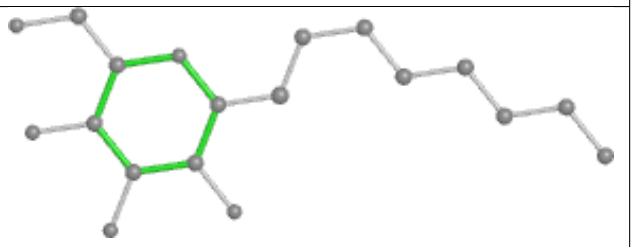


Bond angles

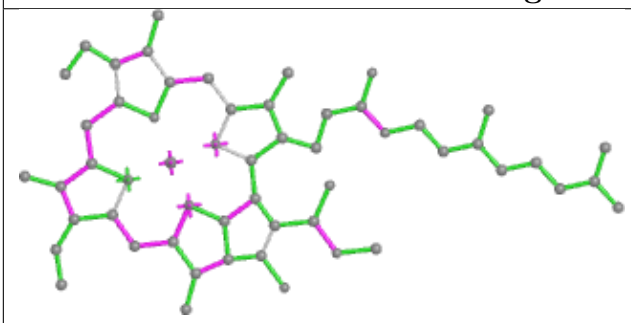


Torsions

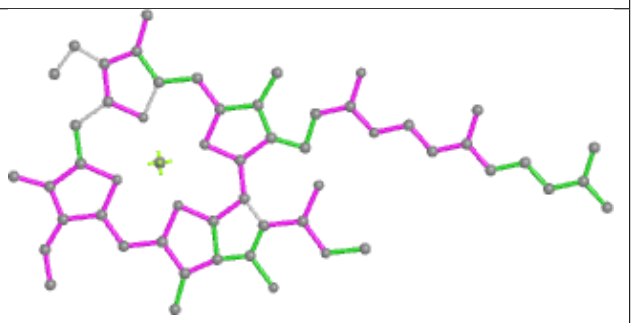


Rings

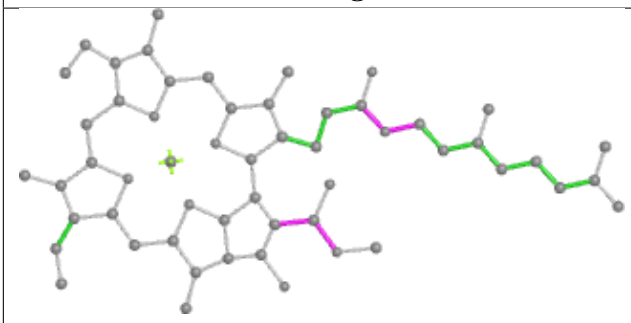
Ligand CLA B 617



Bond lengths



Bond angles



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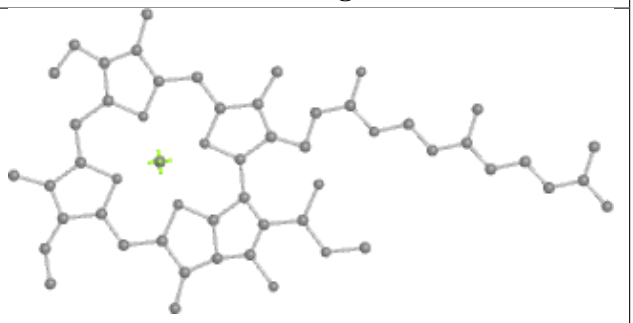
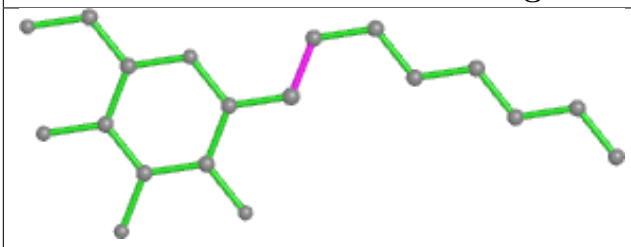
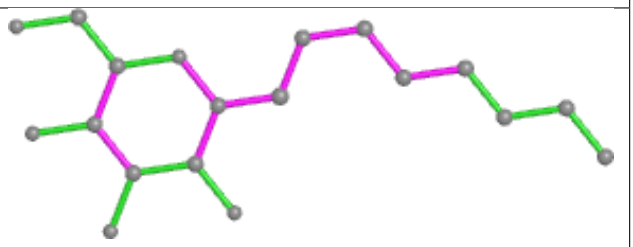


Rings

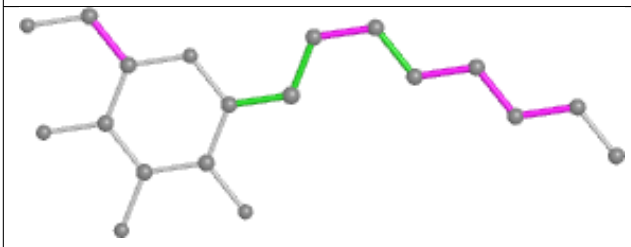
Ligand HTG b 626



Bond lengths



Bond angles



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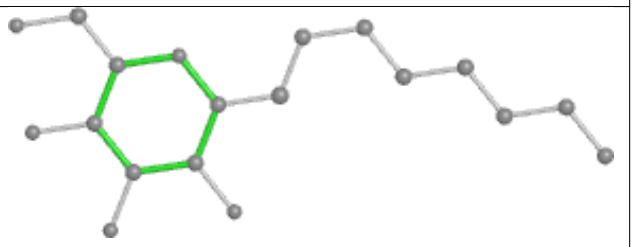
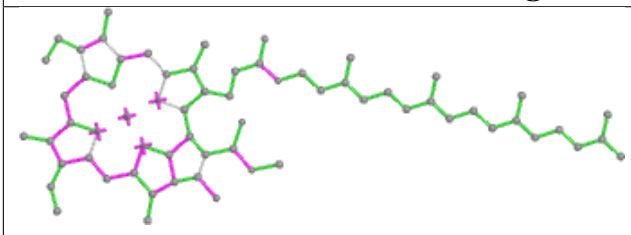


Rings

Ligand CLA B 607



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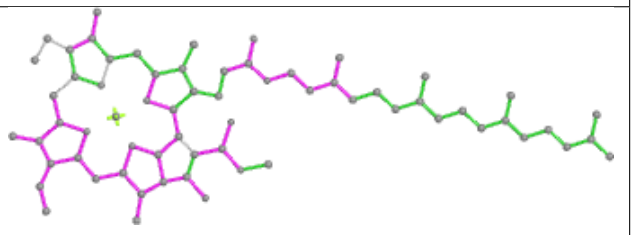
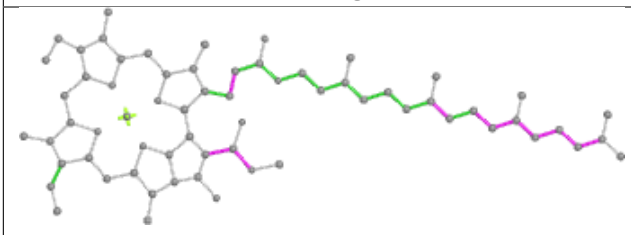


Bond angles



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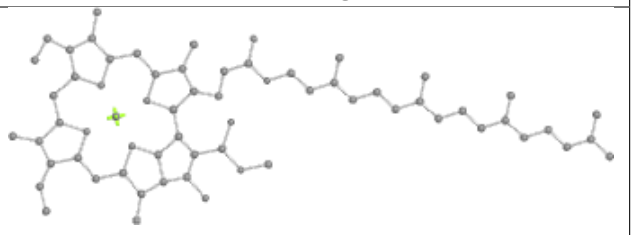
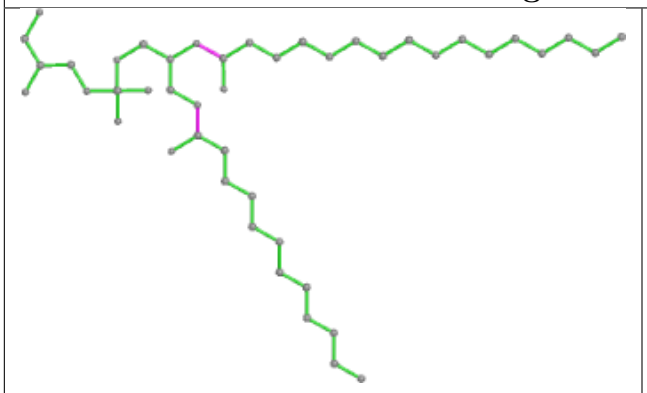


Rings

Ligand LHG D 411



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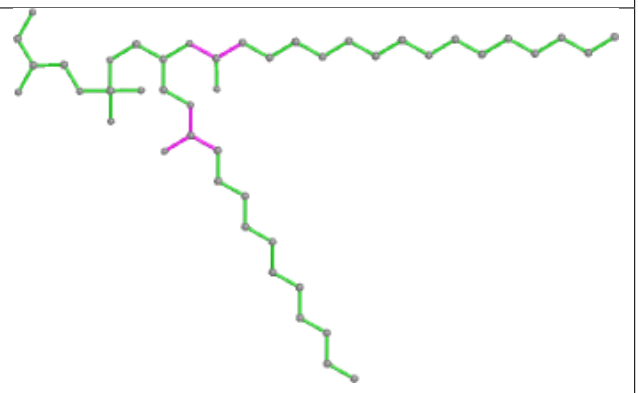
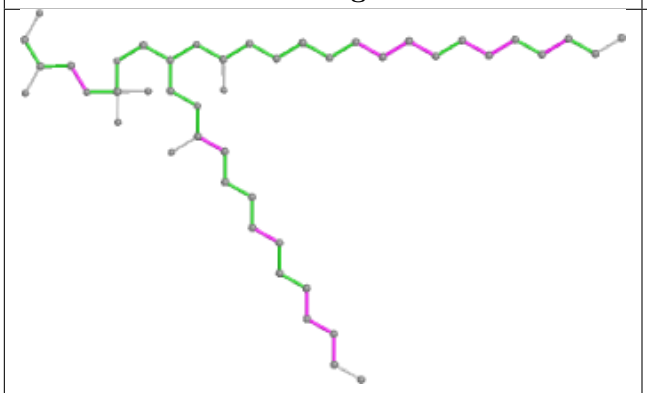
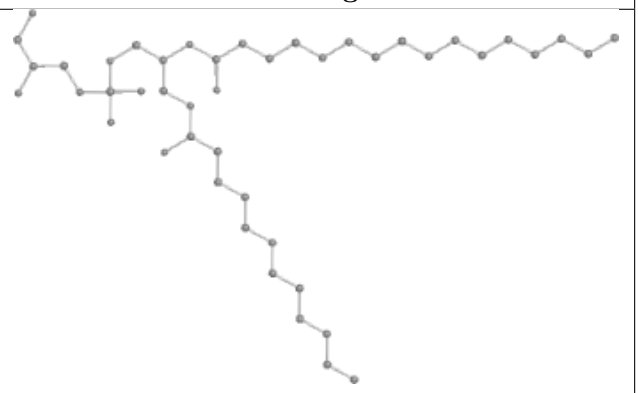


Bond angles

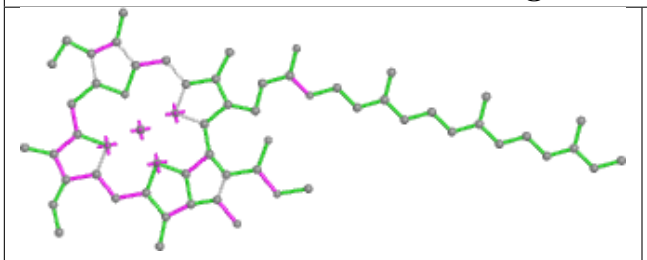


Torsions

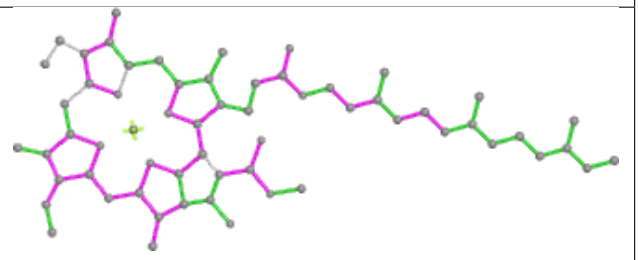


Rings

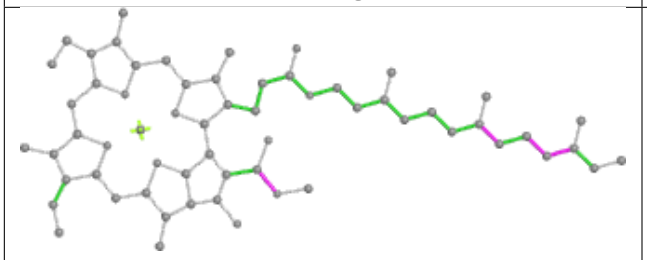
Ligand CLA B 614



Bond lengths



Bond angles



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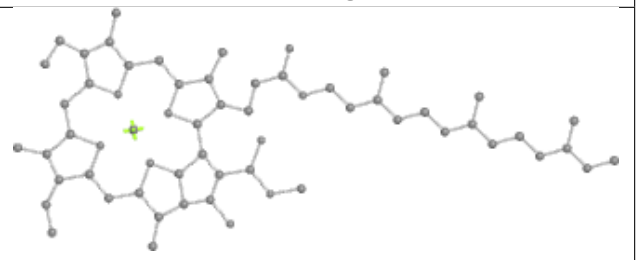
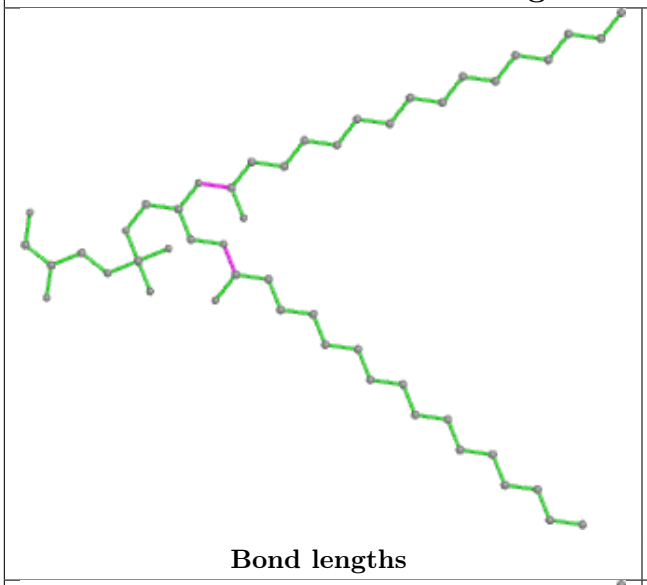


Rings

Ligand LHG a 416



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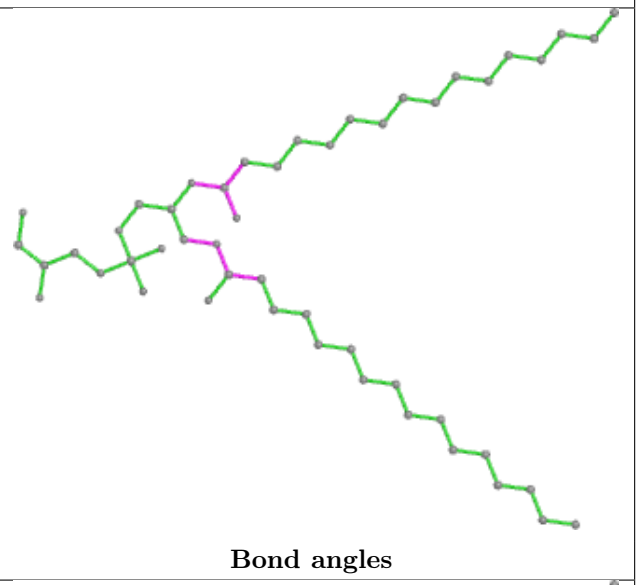
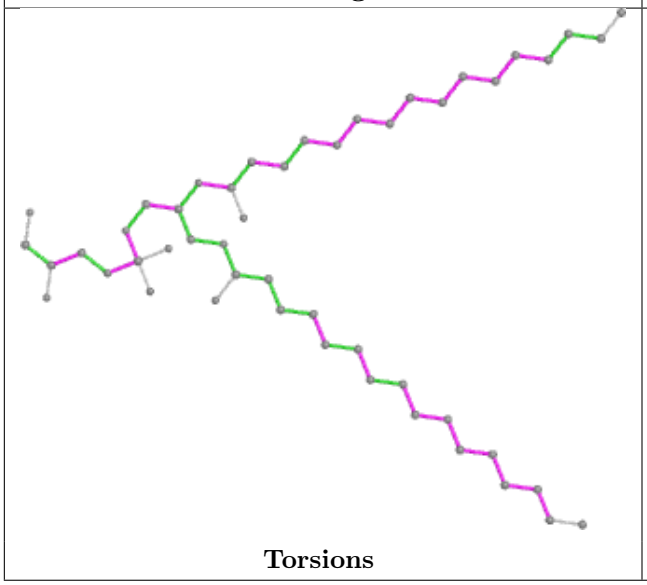
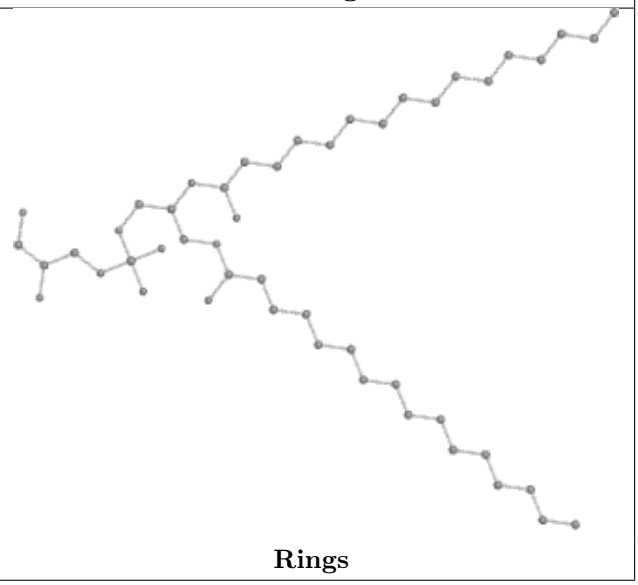


Bond angles

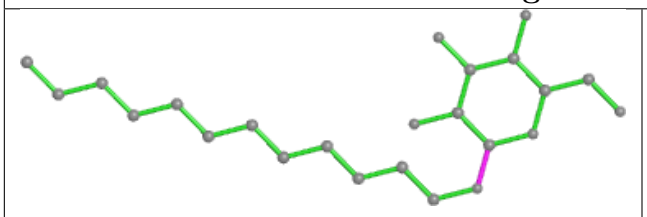


Torsions

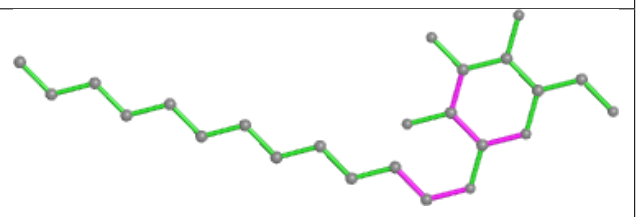


Rings

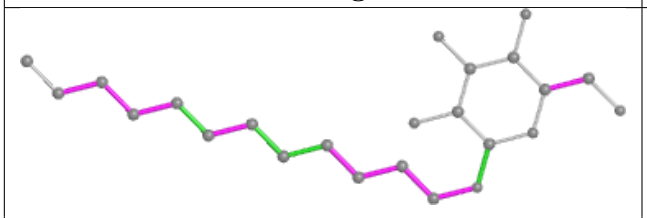
Ligand LMT T 102



Bond lengths



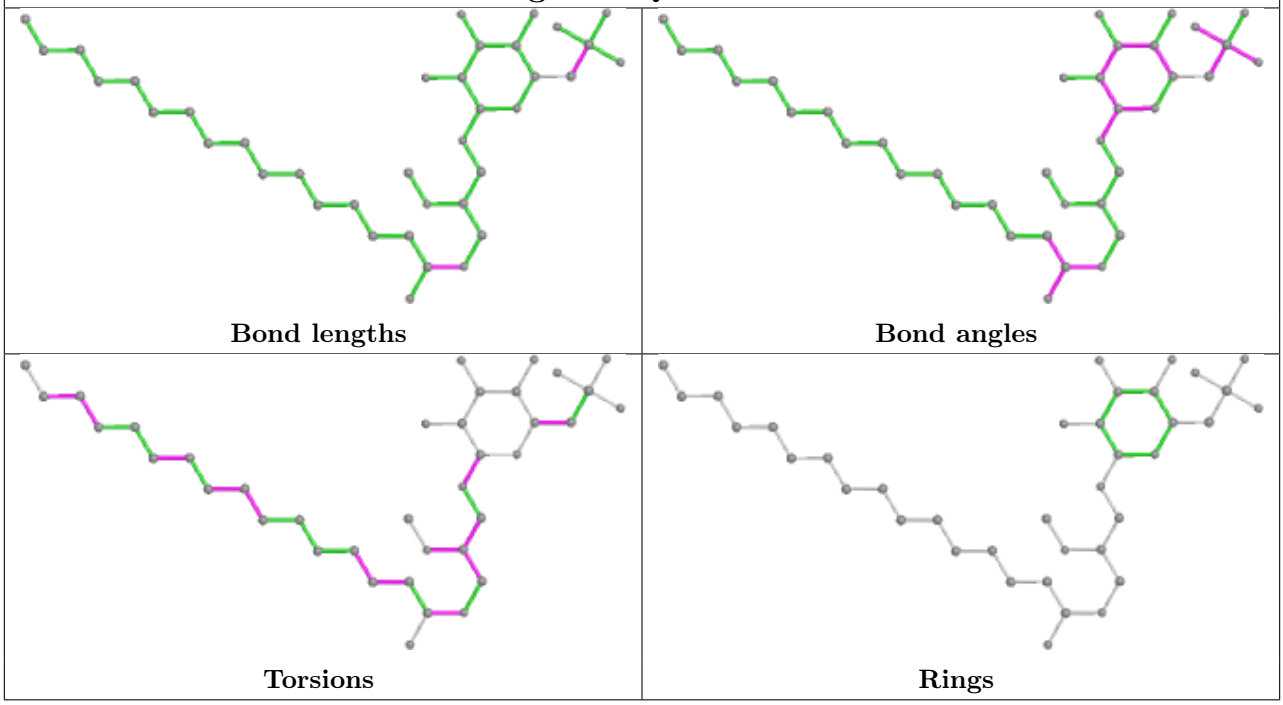
Bond angles



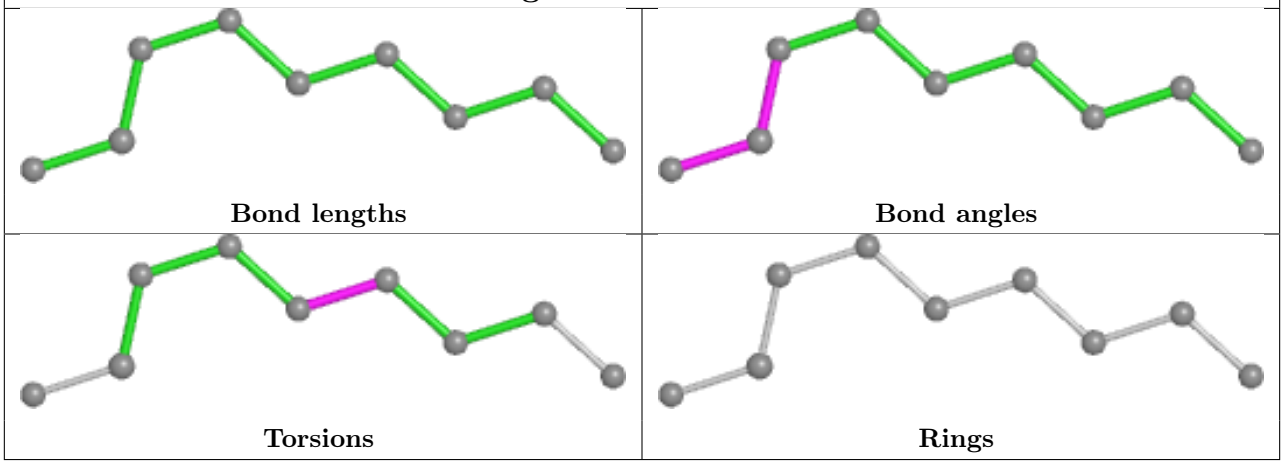
Torsions

Rings

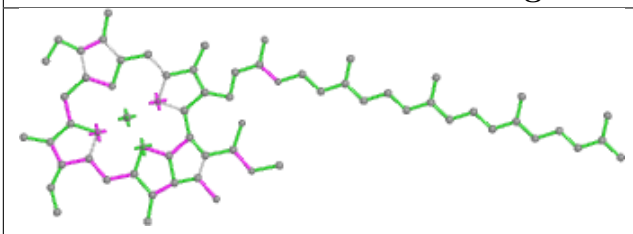
Ligand SQD b 621



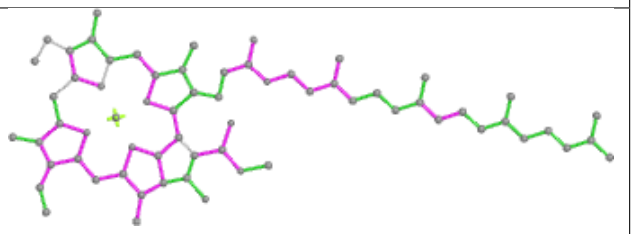
Ligand HTG C 523



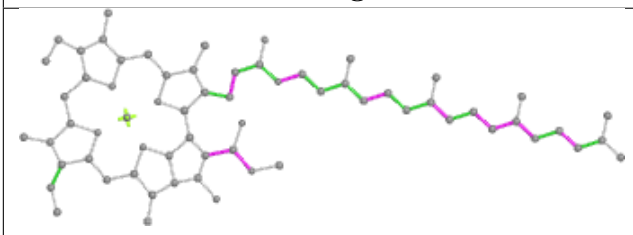
Ligand CLA C 510



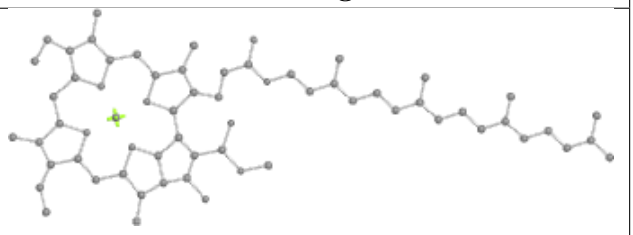
Bond lengths



Bond angles

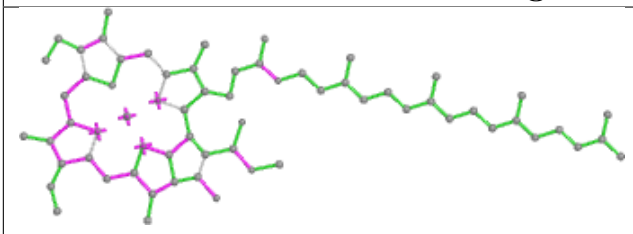


Torsions

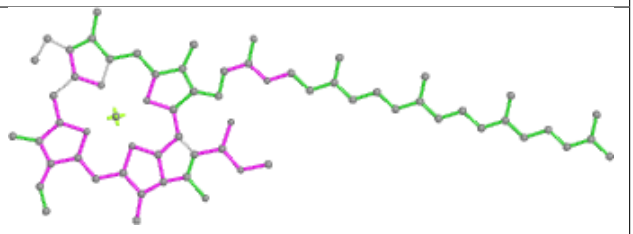


Rings

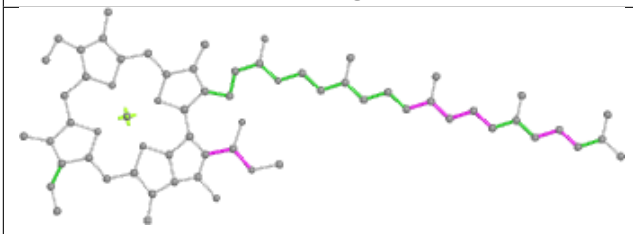
Ligand CLA d 403



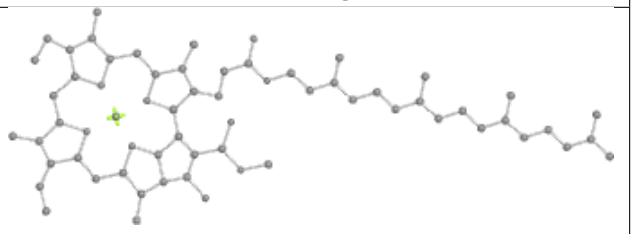
Bond lengths



Bond angles

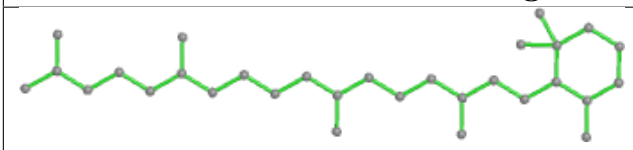


Torsions

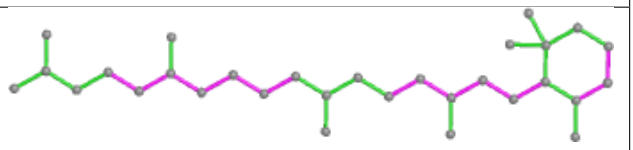


Rings

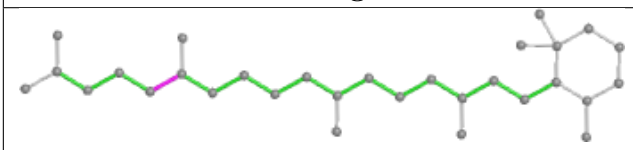
Ligand BCR B 619



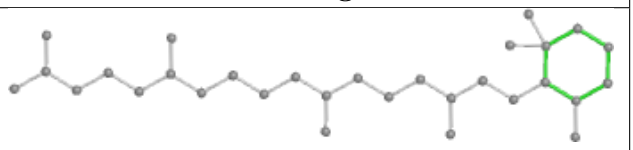
Bond lengths



Bond angles

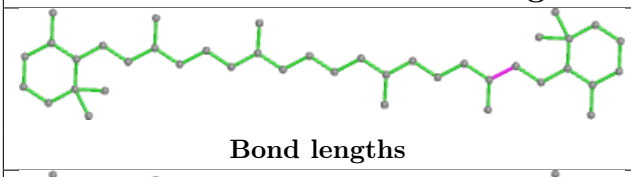


Torsions

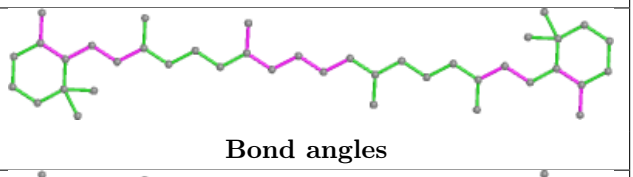


Rings

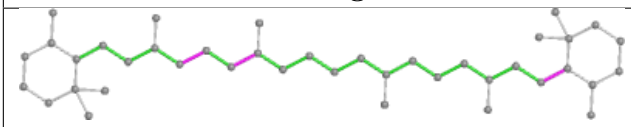
Ligand BCR c 915



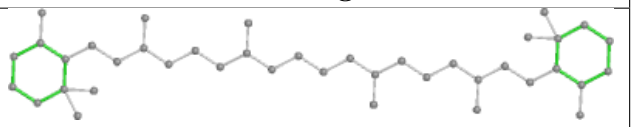
Bond lengths



Bond angles

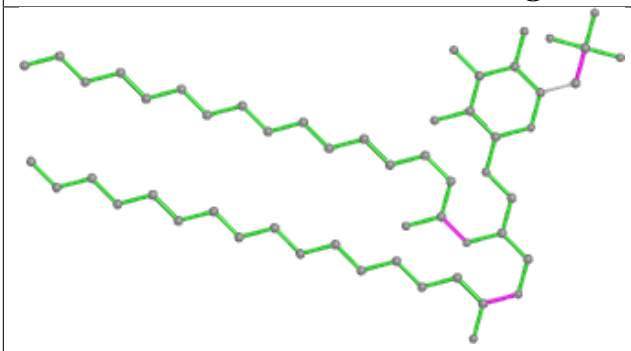


Torsions

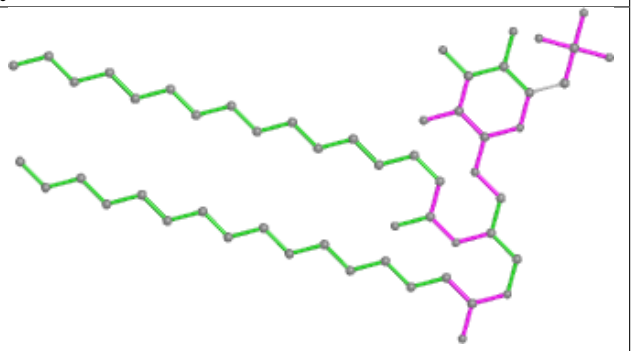


Rings

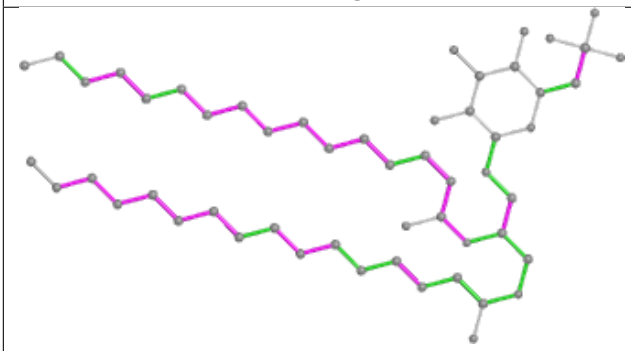
Ligand SQD C 501



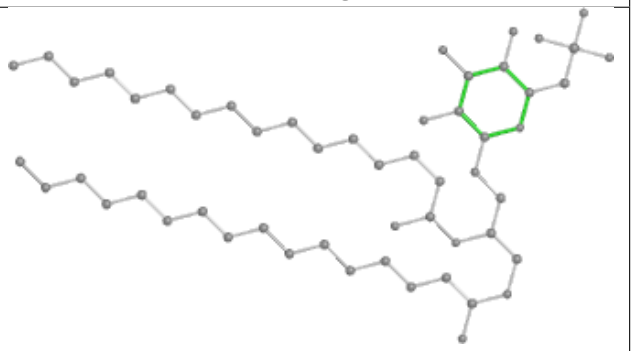
Bond lengths



Bond angles

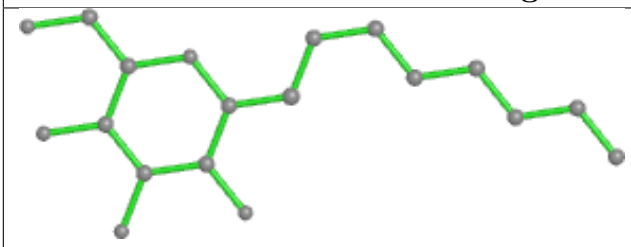


Torsions



Rings

Ligand HTG B 626



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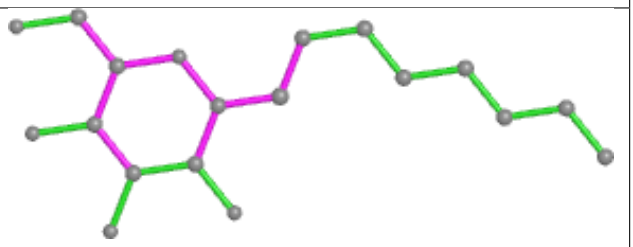
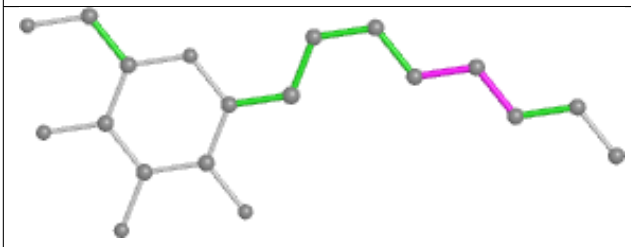
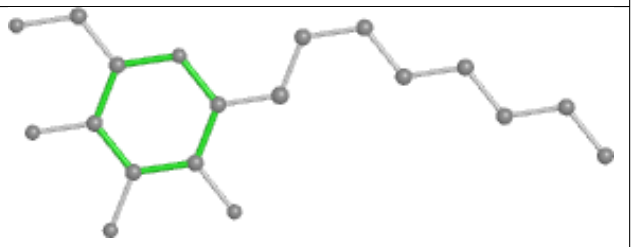


Bond angles

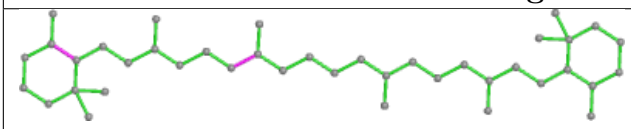


Torsions



Rings

Ligand BCR a 413



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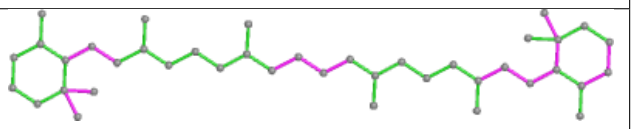
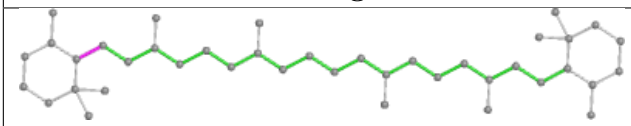


Bond angles



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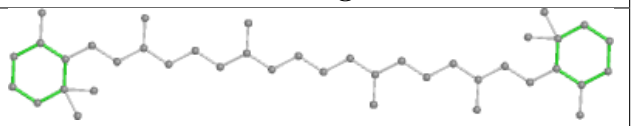
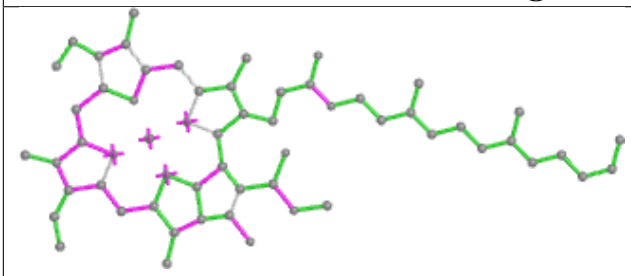


Rings

Ligand CLA b 614



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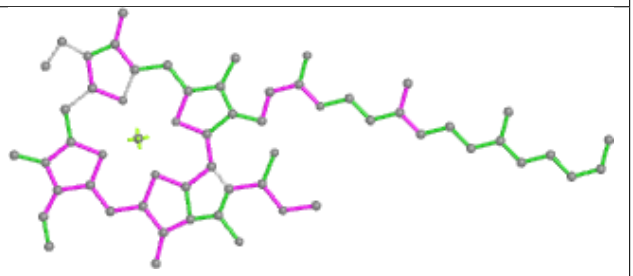
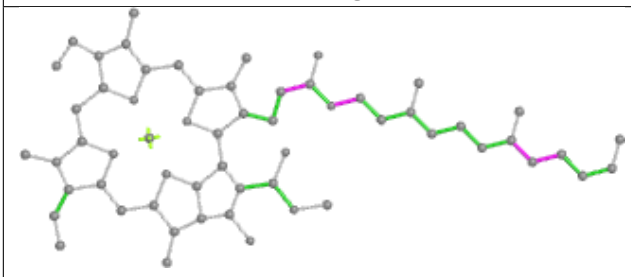


Bond angles



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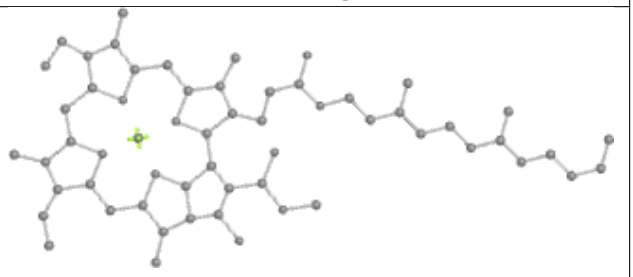
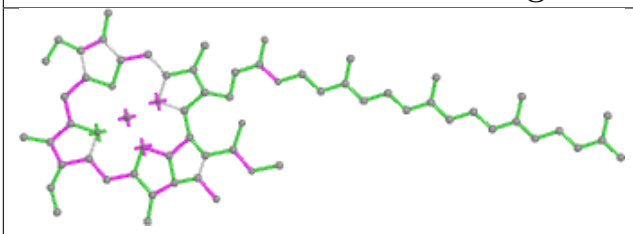


Rings

Ligand CLA b 602



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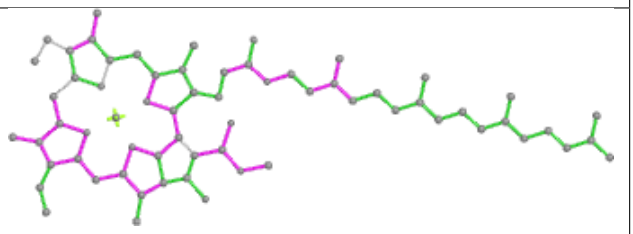
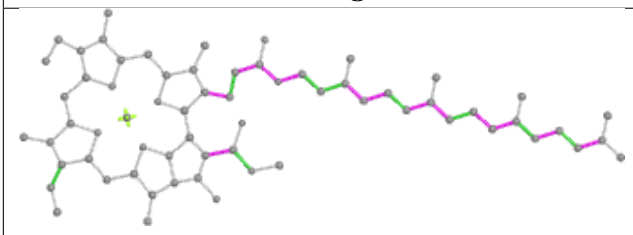


Bond angles



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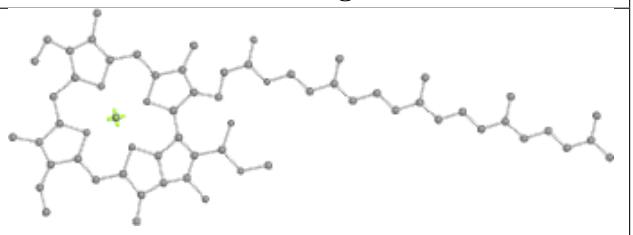
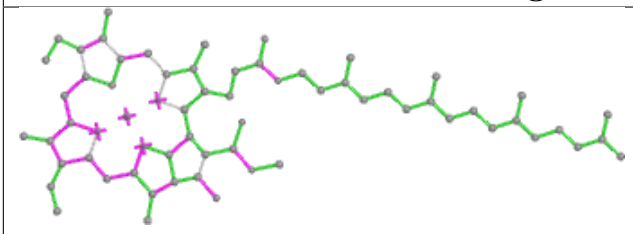


Rings

Ligand CLA b 610



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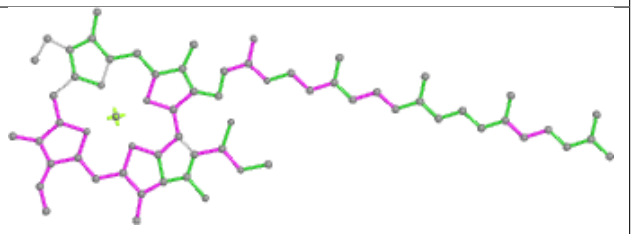
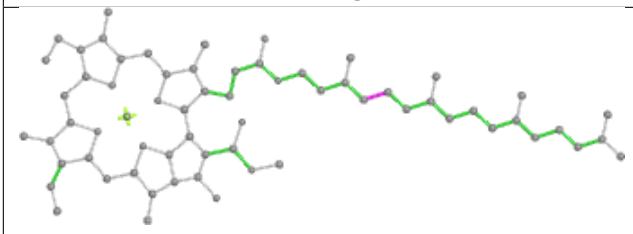


Bond angles



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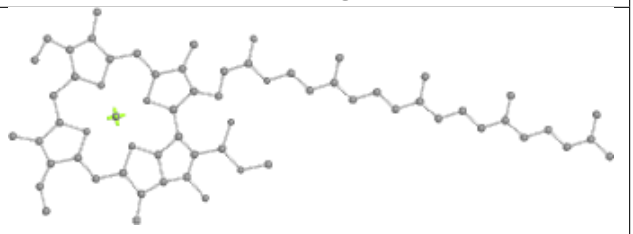
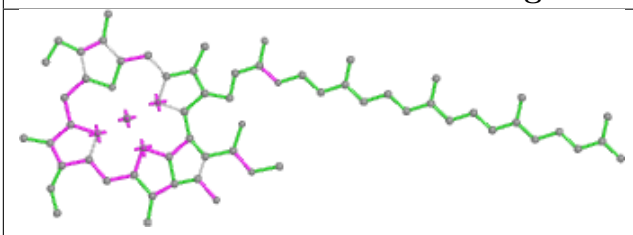


Rings

Ligand CLA C 504



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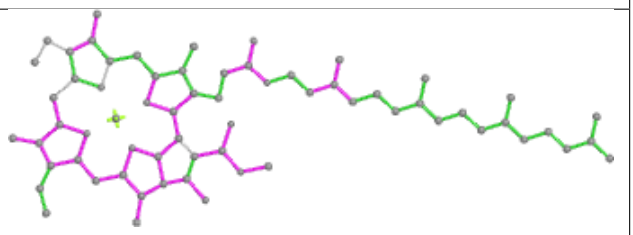
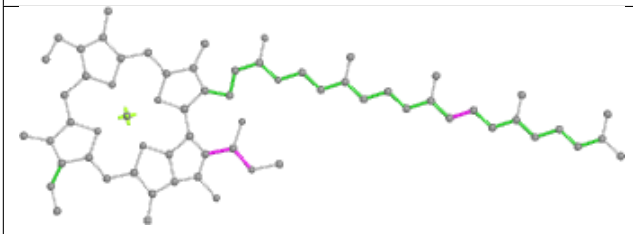


Bond angles



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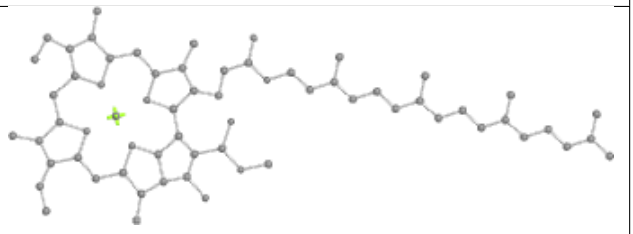
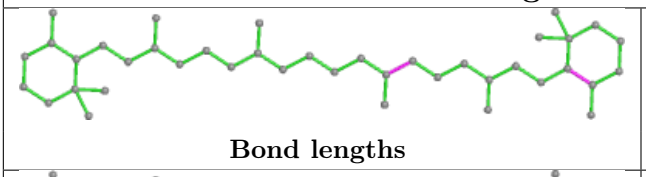


Rings

Ligand BCR B 620



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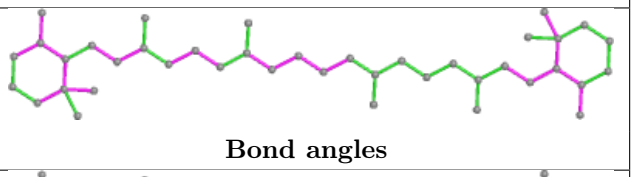
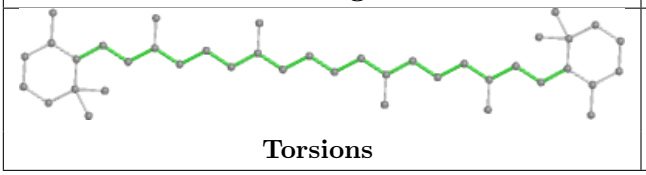


Bond angles



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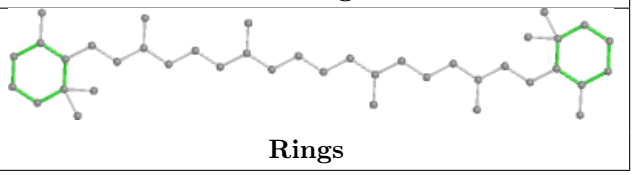
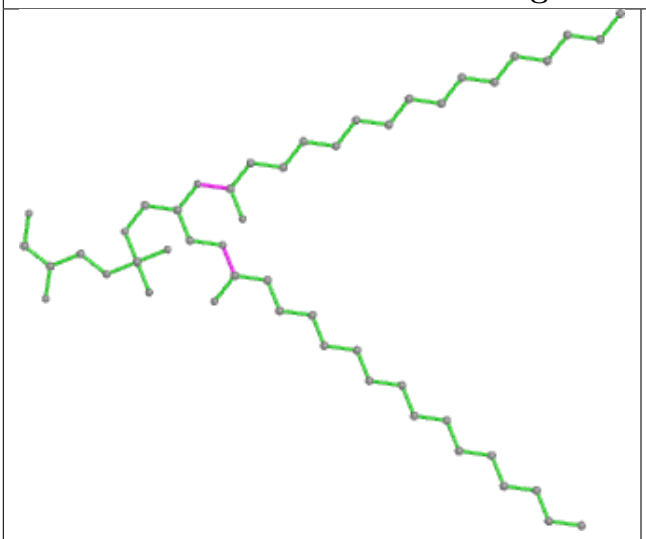


Rings

Ligand LHG l 102



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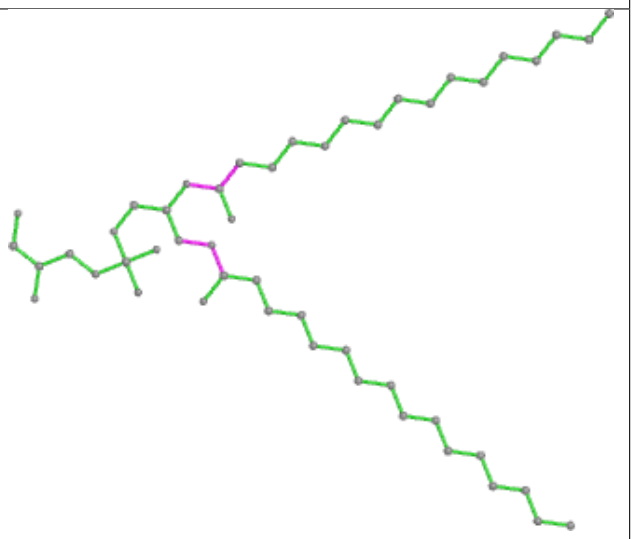
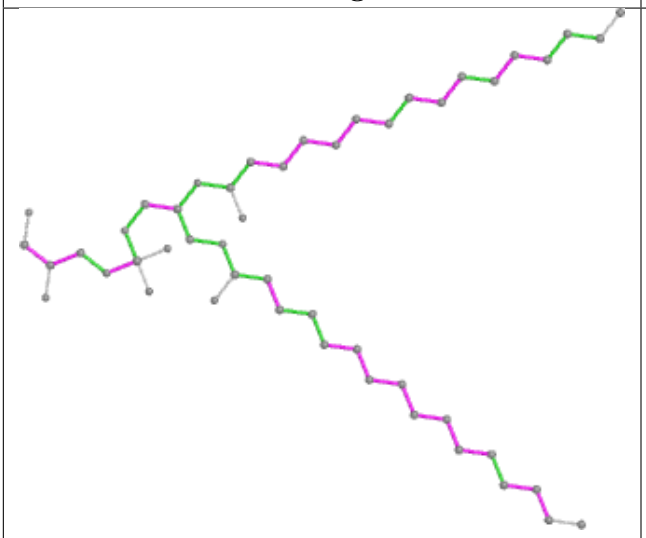


Bond angles



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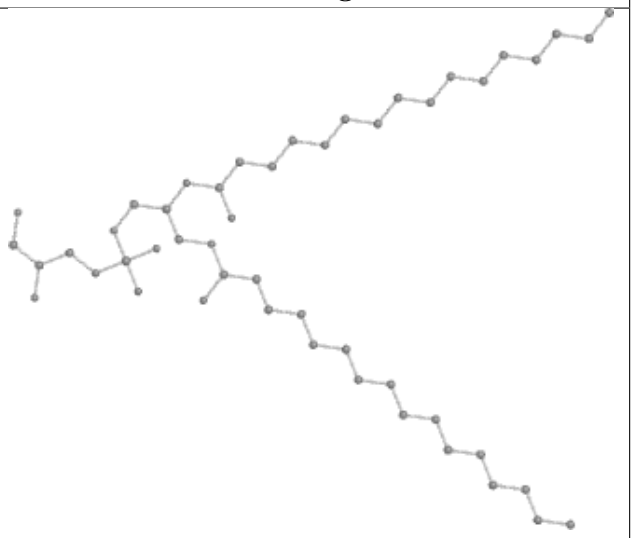
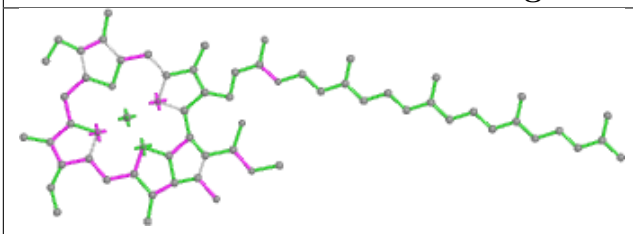
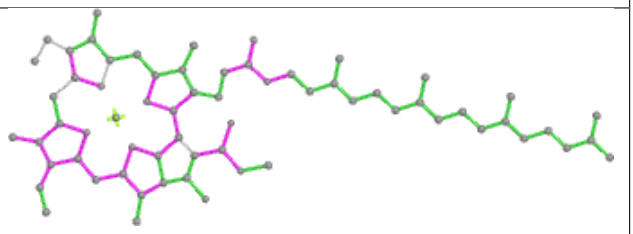


Rings

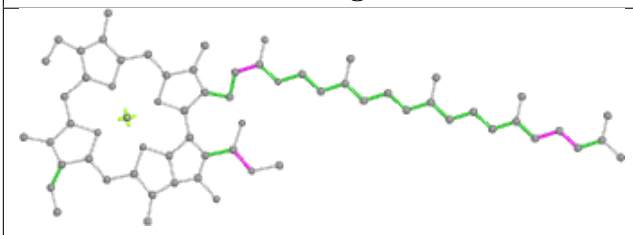
Ligand CLA C 502



Bond lengths



Bond angles



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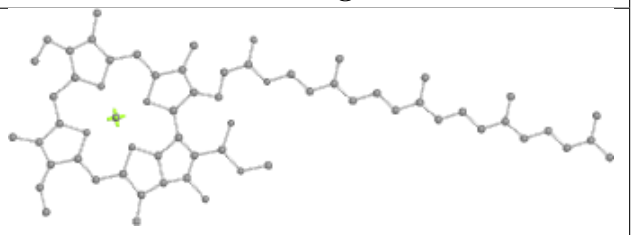
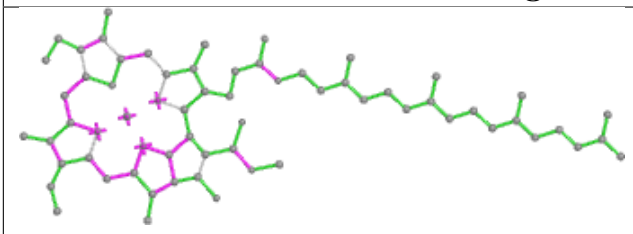


Rings

Ligand CLA C 505



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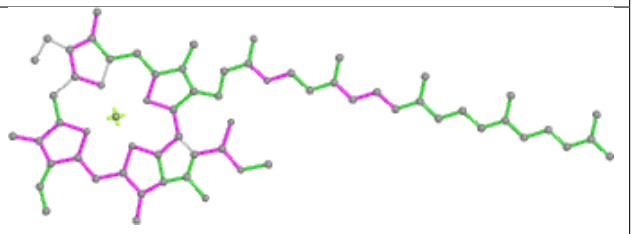
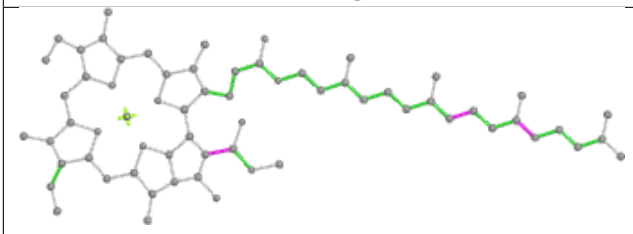


Bond angles



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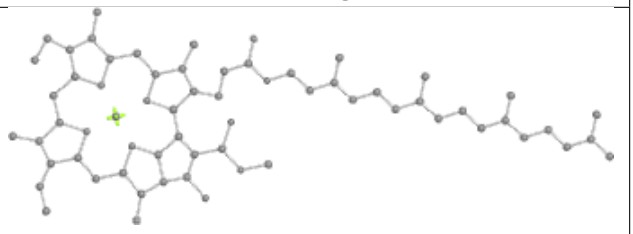
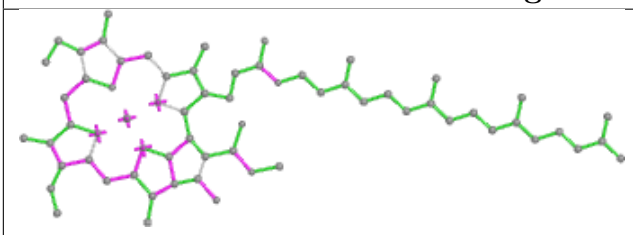


Rings

Ligand CLA B 613



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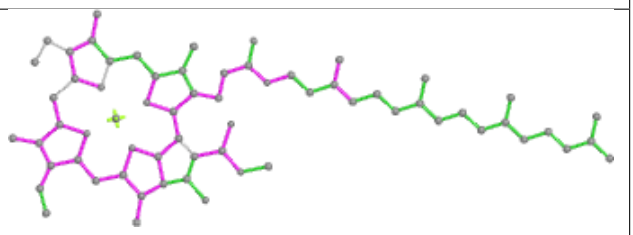
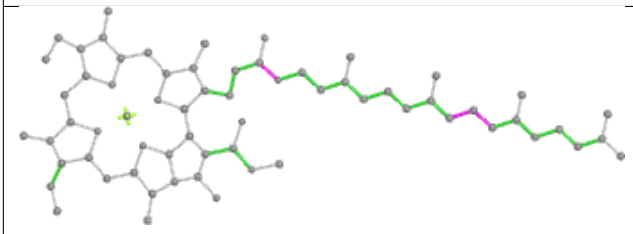


Bond angles



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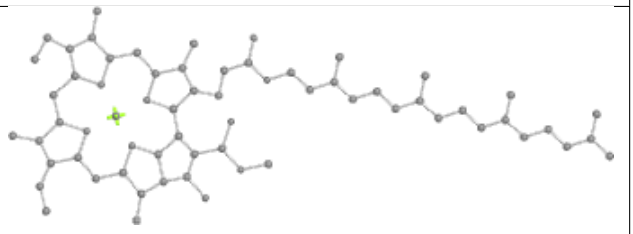
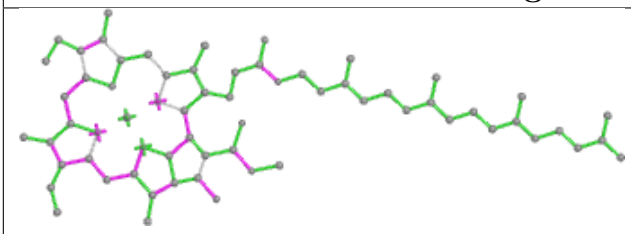
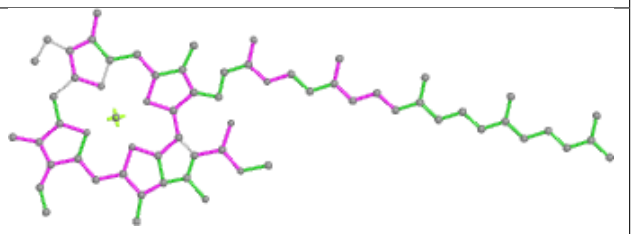


Rings

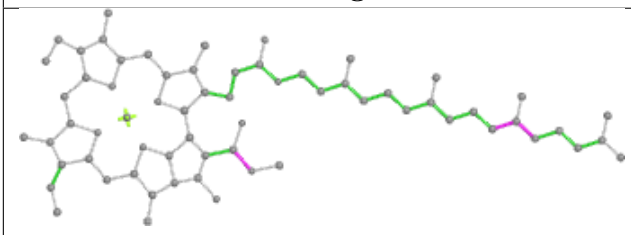
Ligand CLA C 506



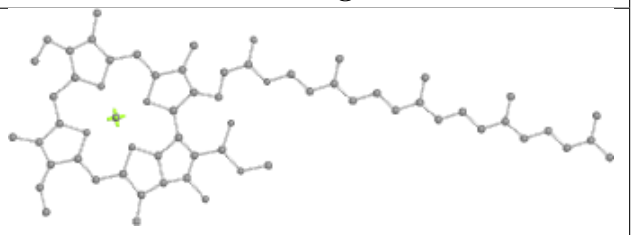
Bond lengths



Bond angles

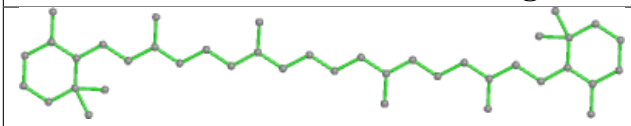


Torsions

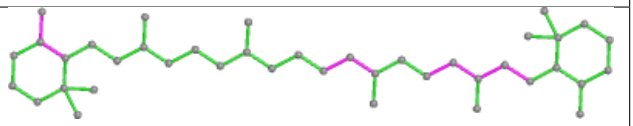


Rings

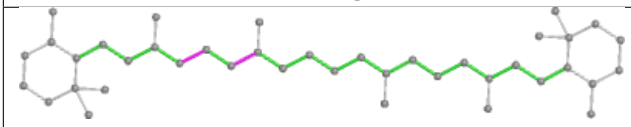
Ligand BCR K 101



Bond lengths



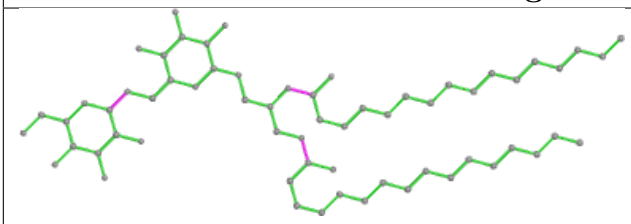
Bond angles



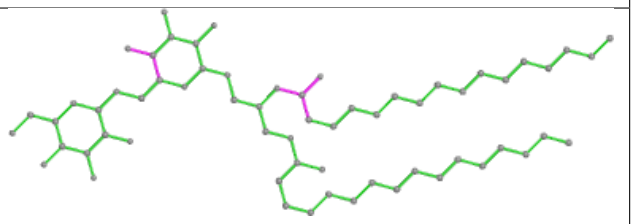
Torsions

Rings

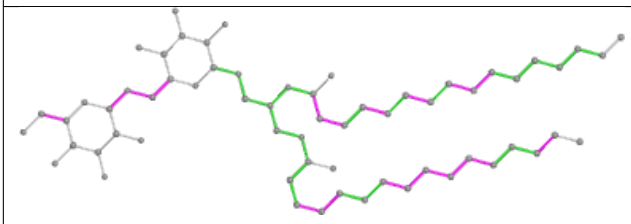
Ligand DGD c 917



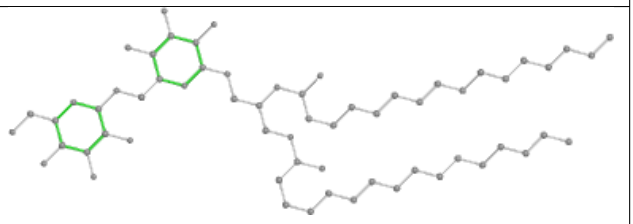
Bond lengths



Bond angles

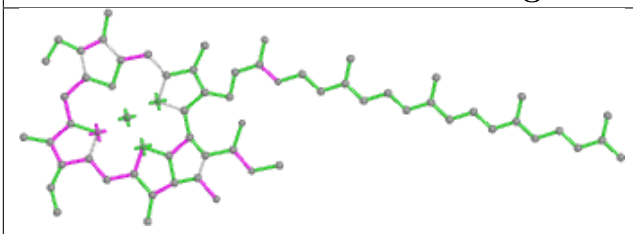


Torsions

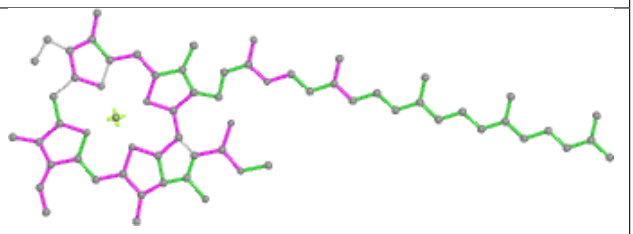


Rings

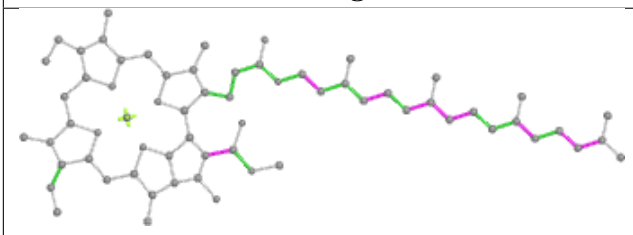
Ligand CLA D 404



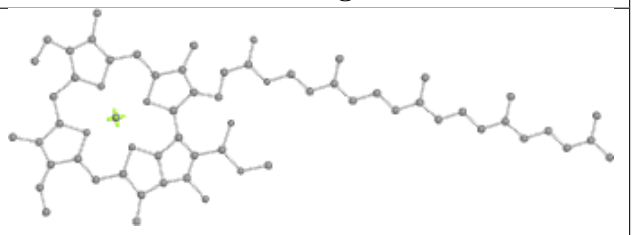
Bond lengths



Bond angles

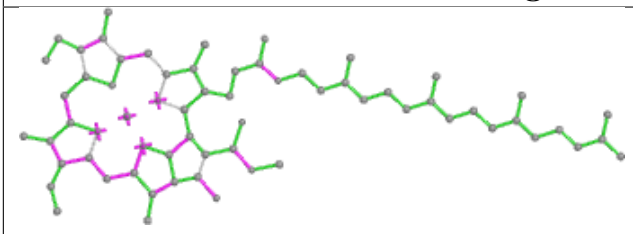


Torsions

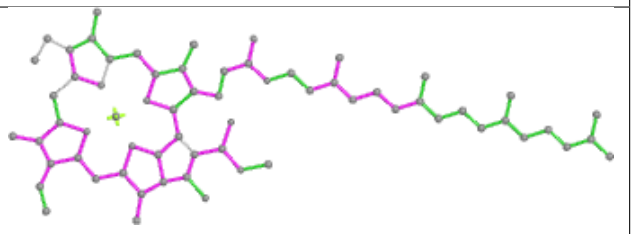


Rings

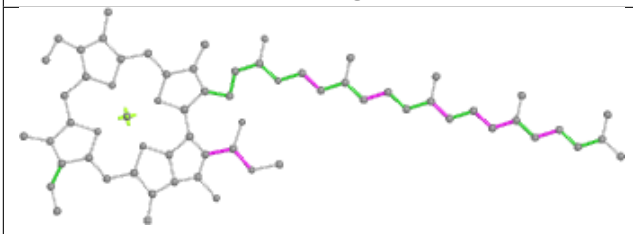
Ligand CLA B 605



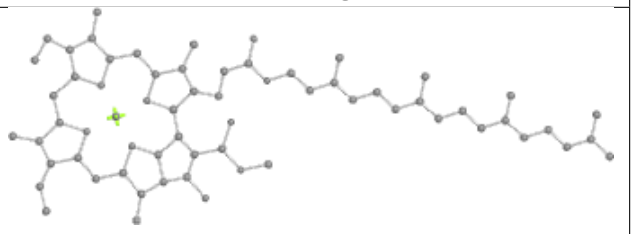
Bond lengths



Bond angles

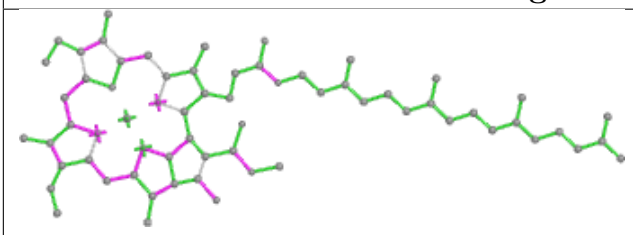


Torsions



Rings

Ligand CLA c 911



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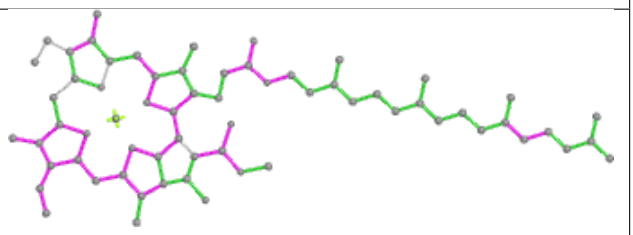
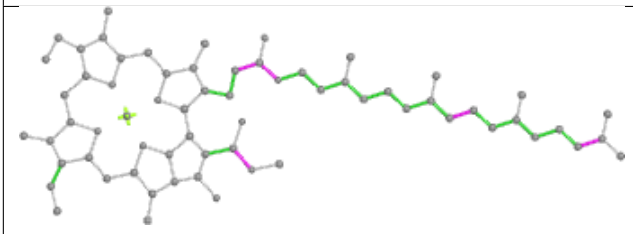


Bond angles



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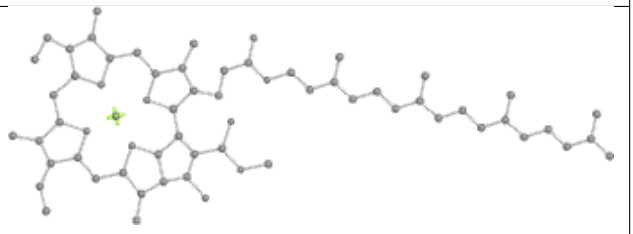
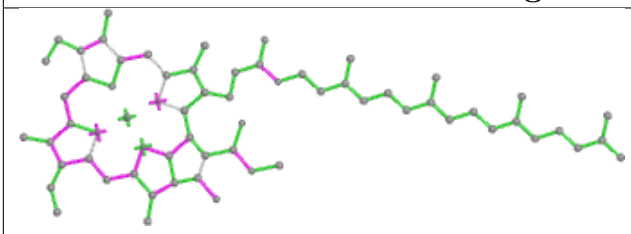
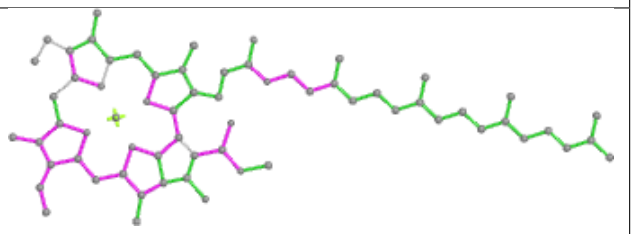


Rings

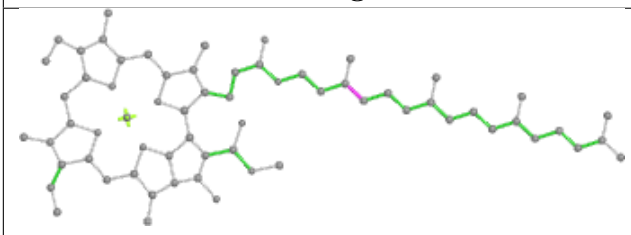
Ligand CLA B 610



Bond lengths



Bond angles



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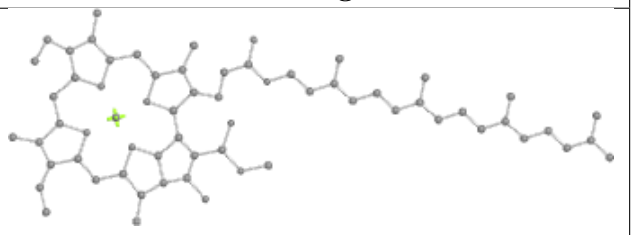
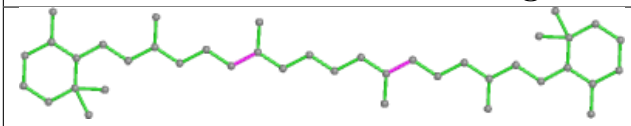
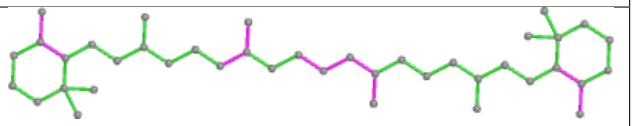


Rings

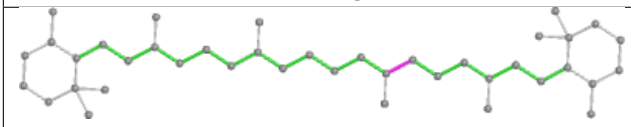
Ligand BCR A 409



Bond lengths



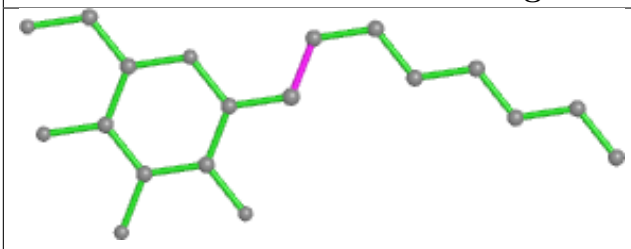
Bond angles



Torsions

Rings

Ligand HTG b 624



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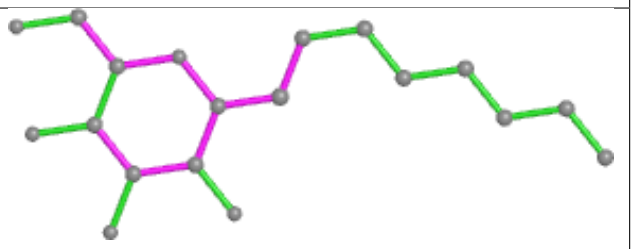
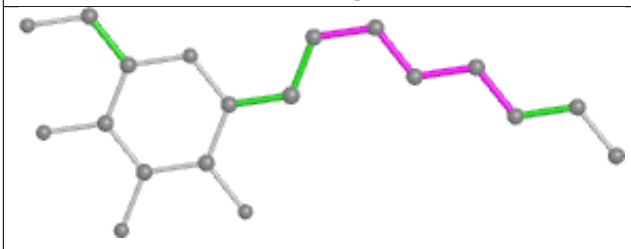


Bond angles



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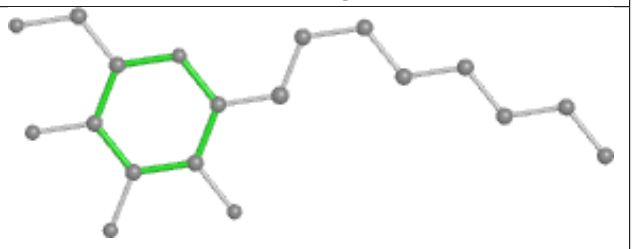
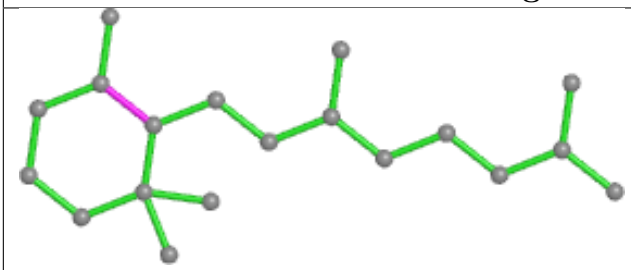


Rings

Ligand BCR B 618



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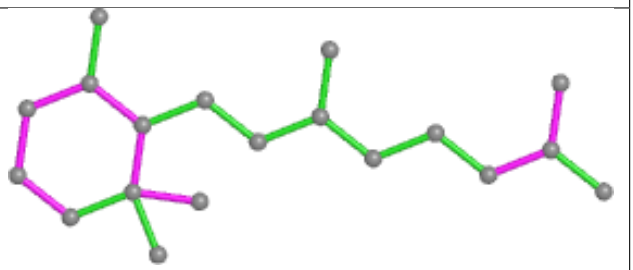
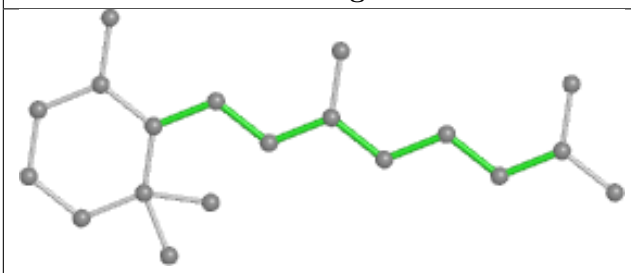


Bond angles



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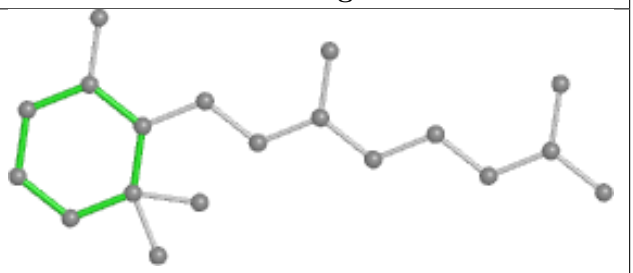
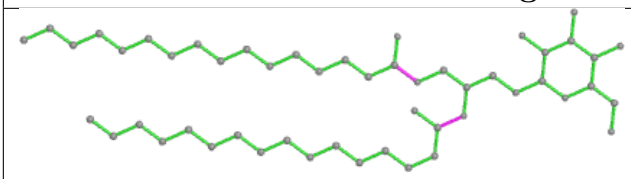
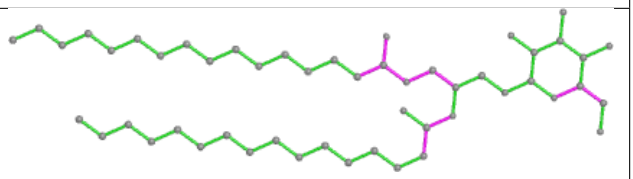


Rings

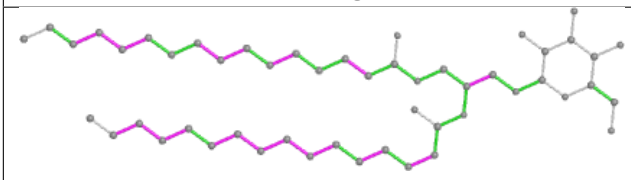
Ligand LMG C 520



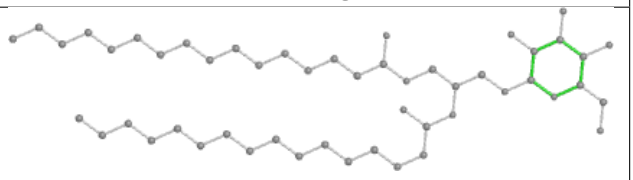
Bond lengths



Bond angles

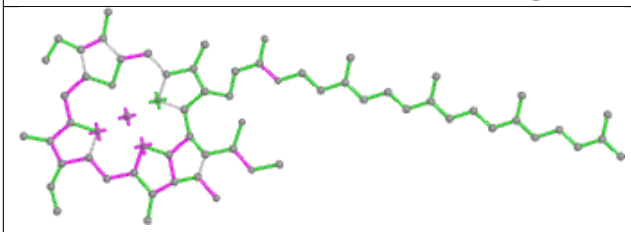


Torsions

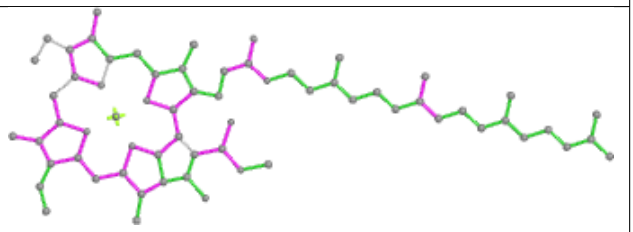


Rings

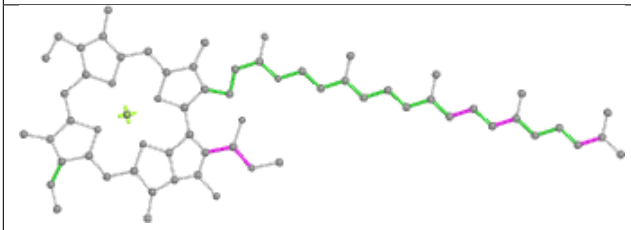
Ligand CLA b 611



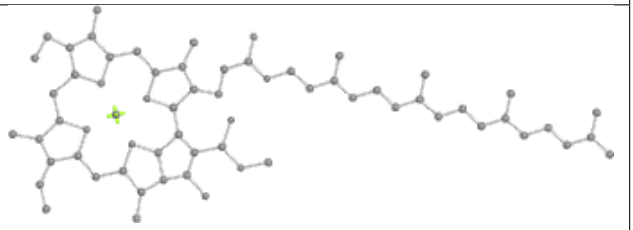
Bond lengths



Bond angles

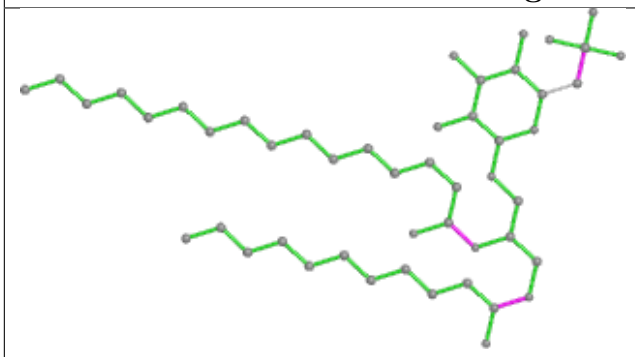


Torsions

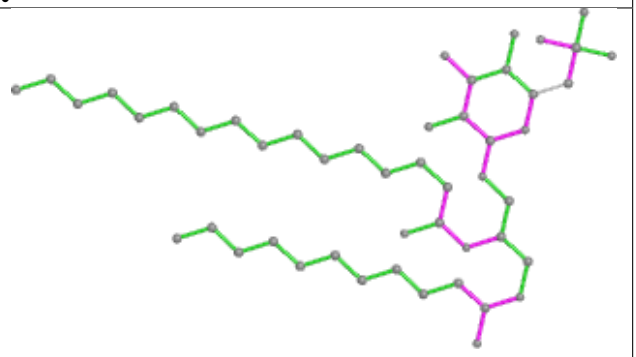


Rings

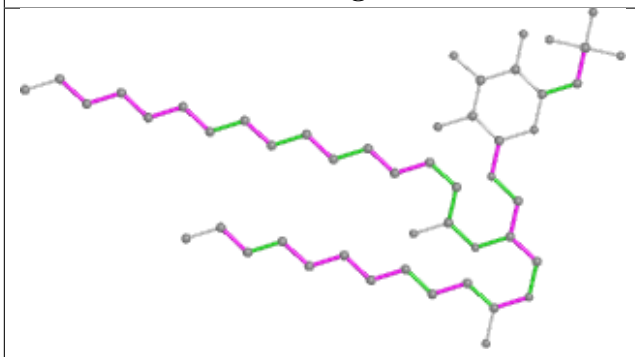
Ligand SQD A 413



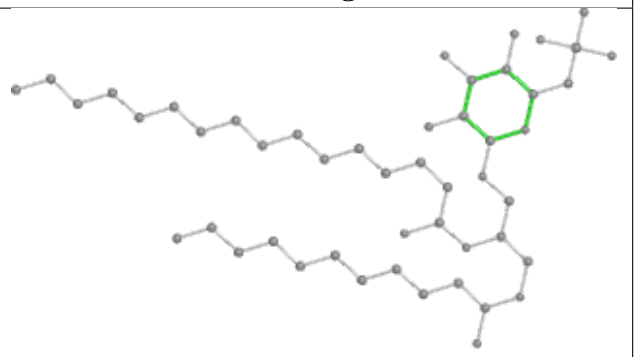
Bond lengths



Bond angles

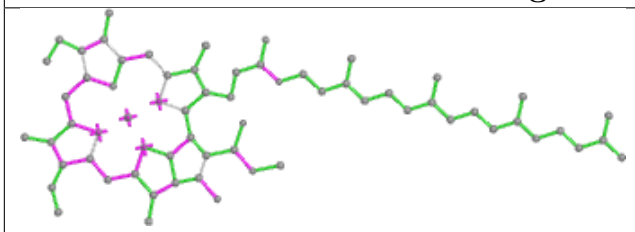


Torsions



Rings

Ligand CLA a 407



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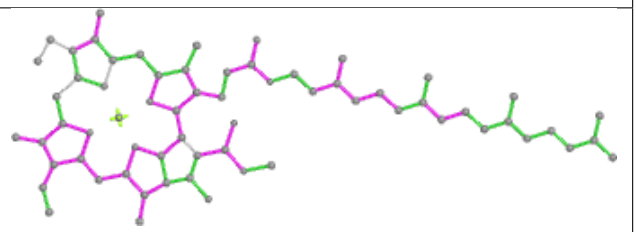
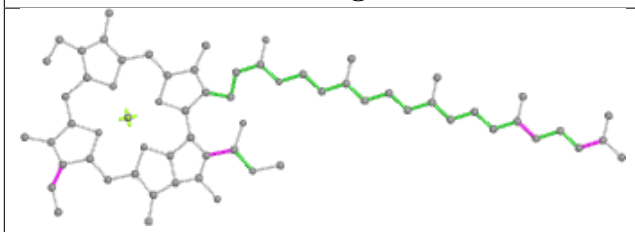


Bond angles



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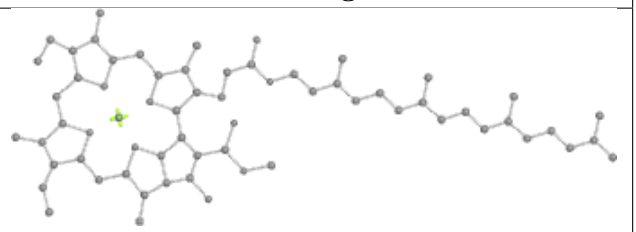
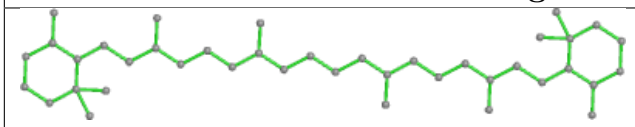
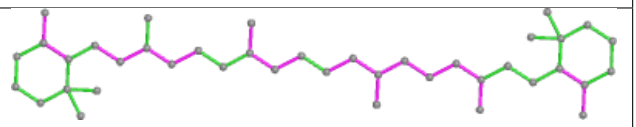


Rings

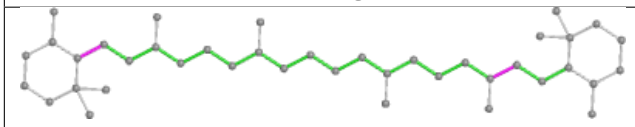
Ligand BCR c 916



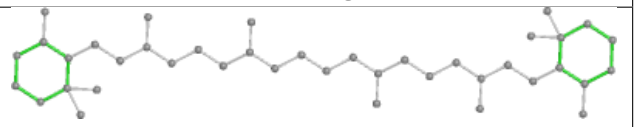
Bond lengths



Bond angles

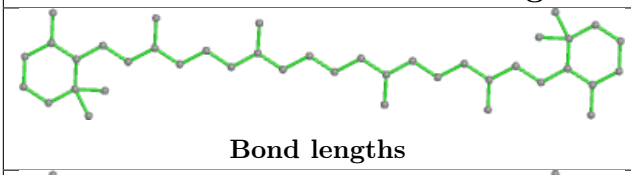


Torsions

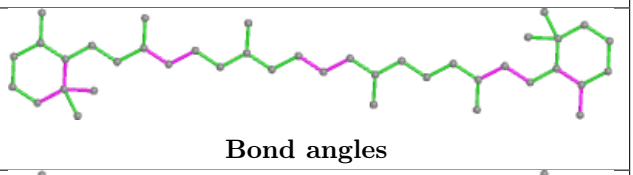


Rings

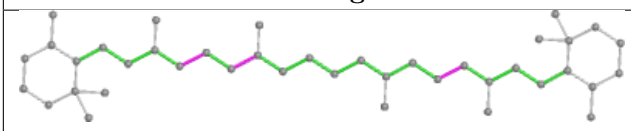
Ligand BCR k 101



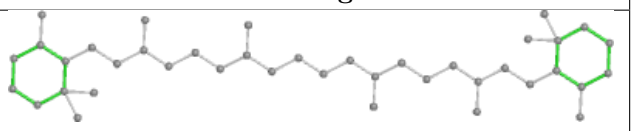
Bond lengths



Bond angles

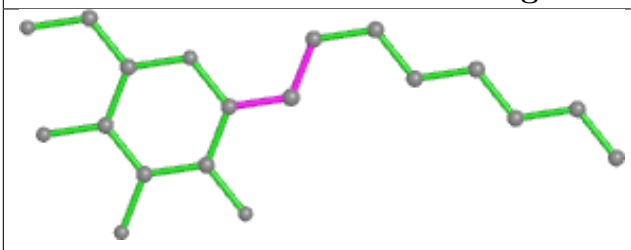


Torsions

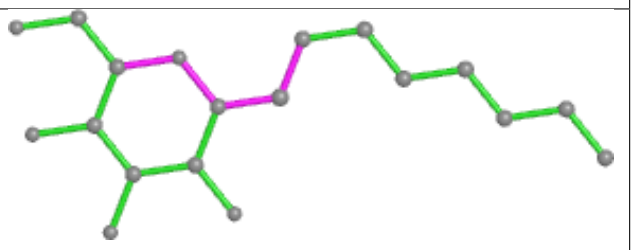


Rings

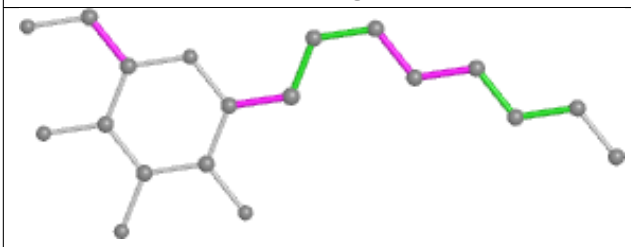
Ligand HTG C 521



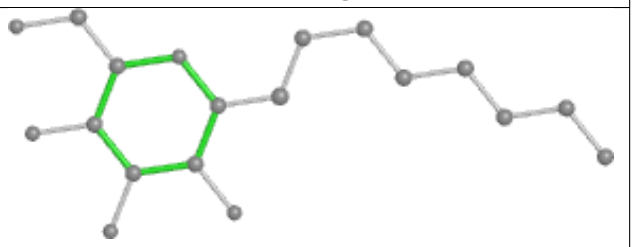
Bond lengths



Bond angles

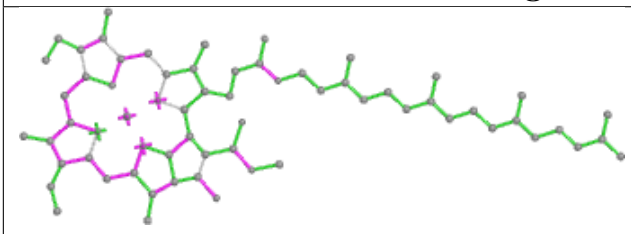


Torsions

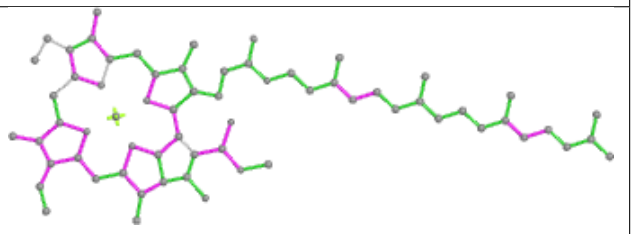


Rings

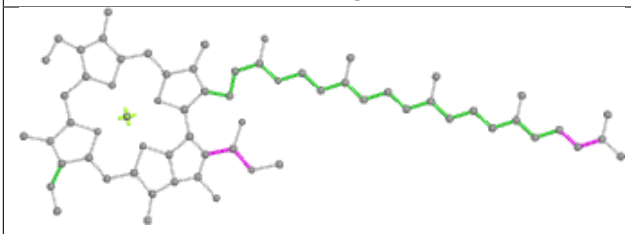
Ligand CLA C 503



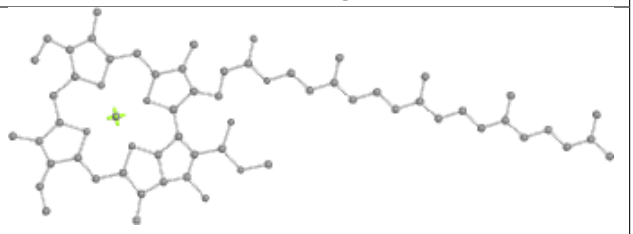
Bond lengths



Bond angles

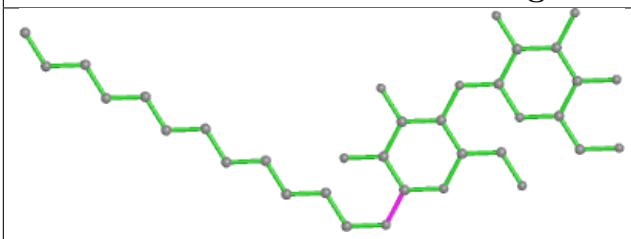


Torsions

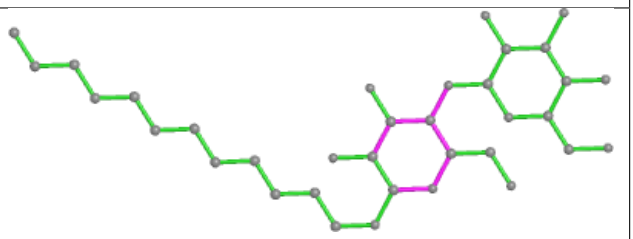


Rings

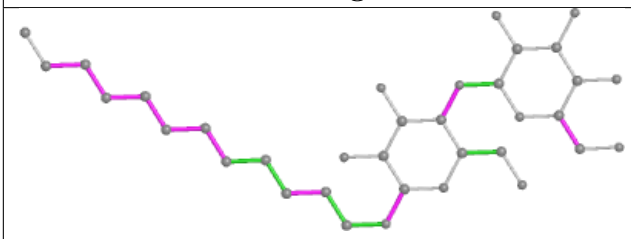
Ligand LMT I 102



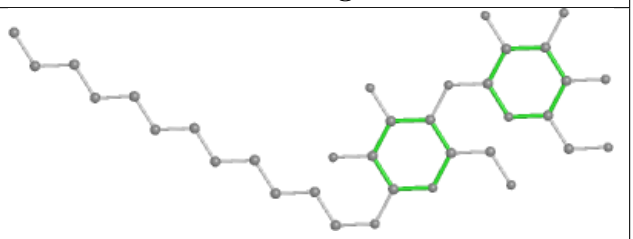
Bond lengths



Bond angles

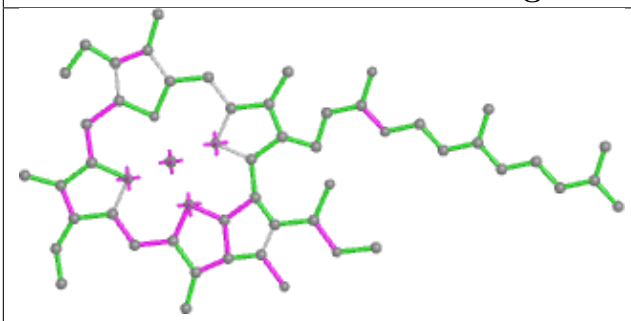


Torsions

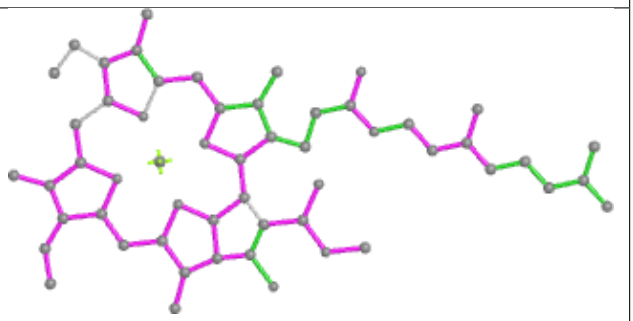


Rings

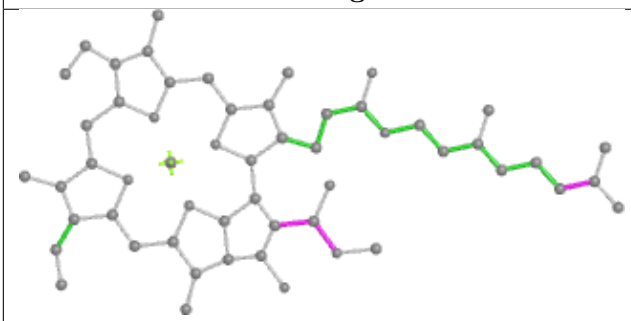
Ligand CLA A 406



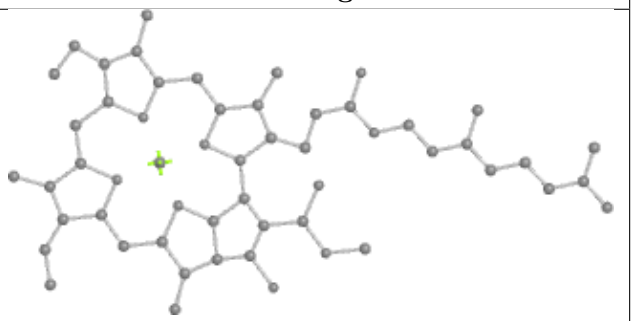
Bond lengths



Bond angles

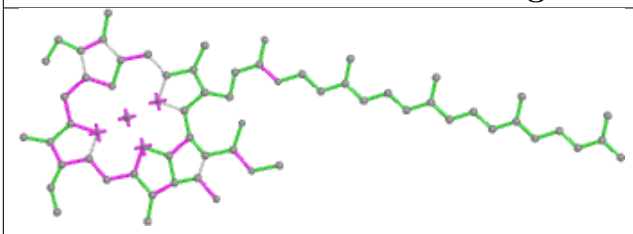


Torsions

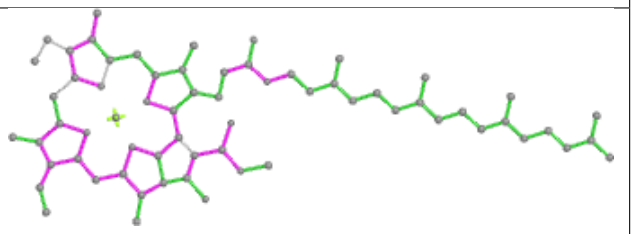


Rings

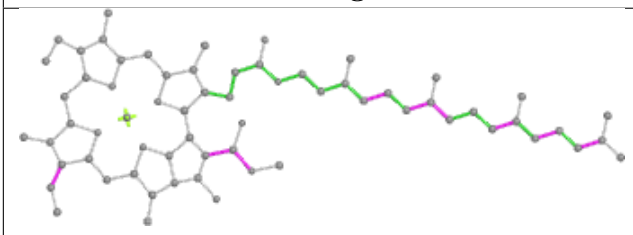
Ligand CLA b 605



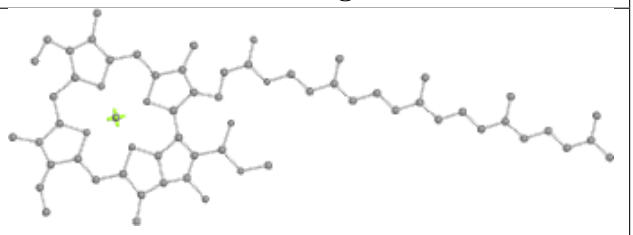
Bond lengths



Bond angles

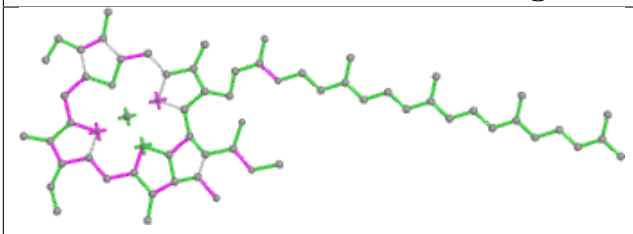


Torsions

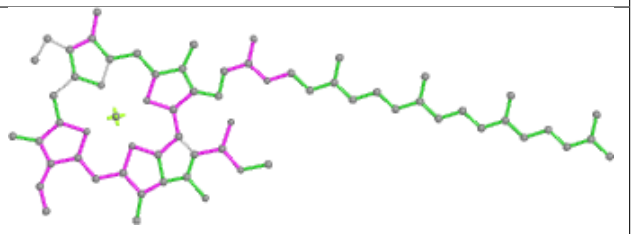


Rings

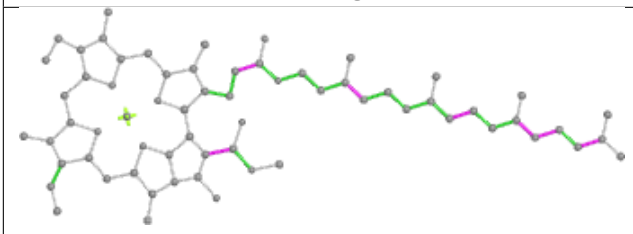
Ligand CLA c 906



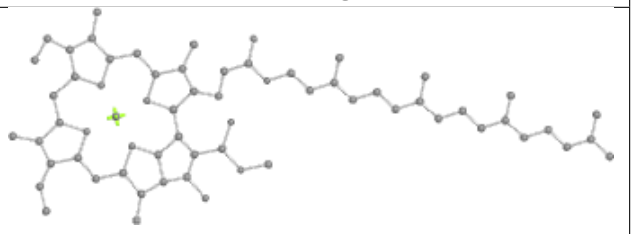
Bond lengths



Bond angles

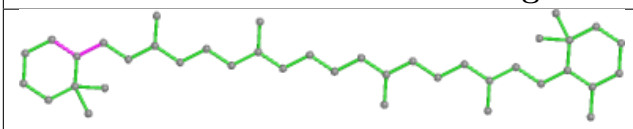


Torsions

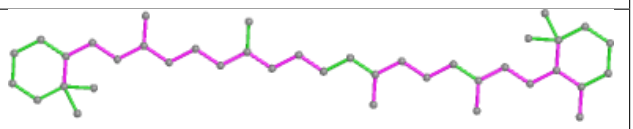


Rings

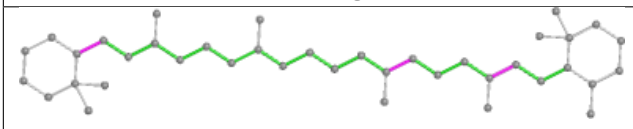
Ligand BCR Y 101



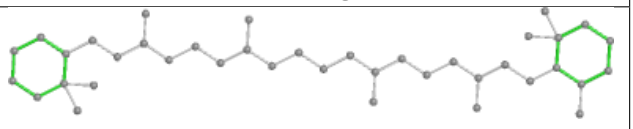
Bond lengths



Bond angles

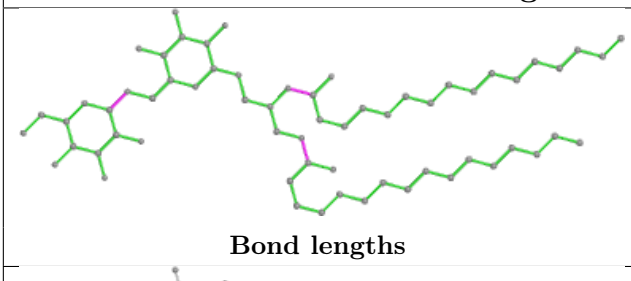


Torsions

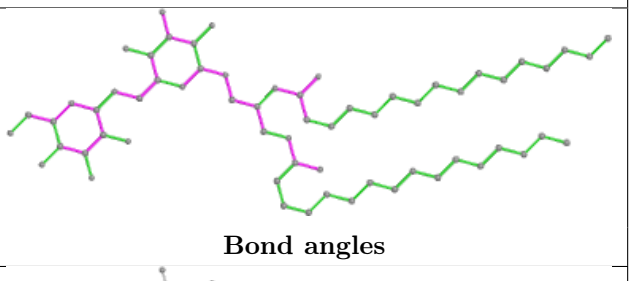


Rings

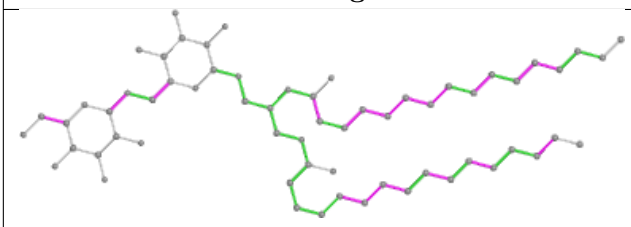
Ligand DGD C 517



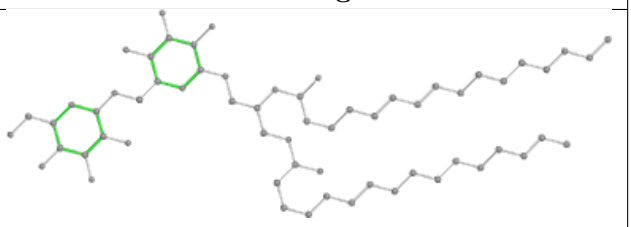
Bond lengths



Bond angles

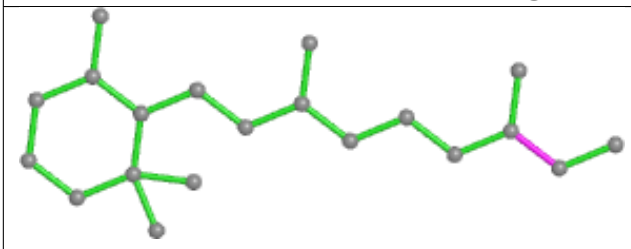


Torsions

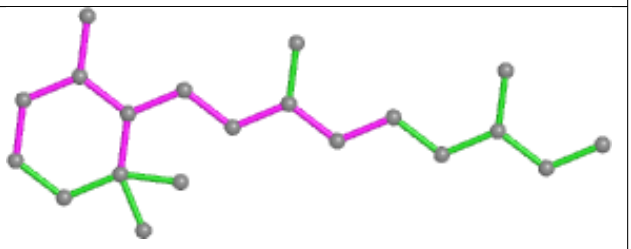


Rings

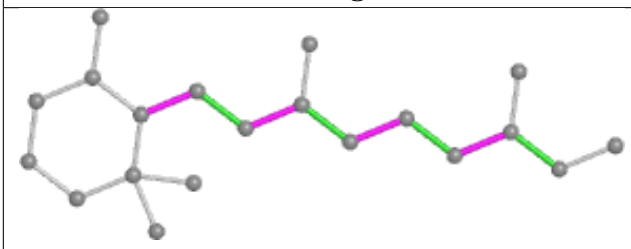
Ligand BCR b 618



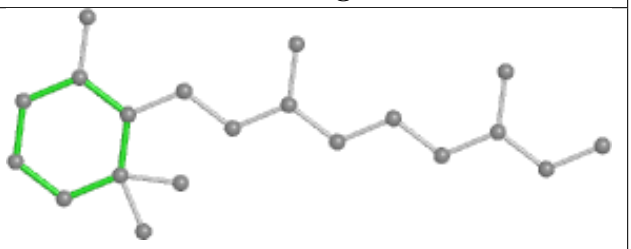
Bond lengths



Bond angles

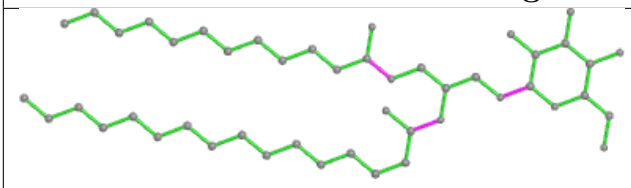


Torsions

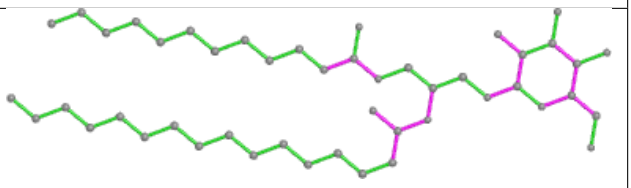


Rings

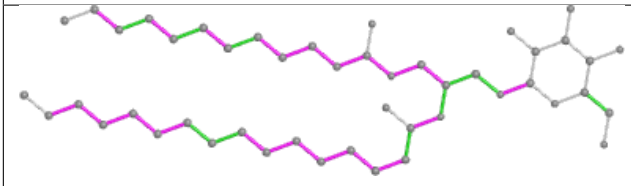
Ligand LMG d 409



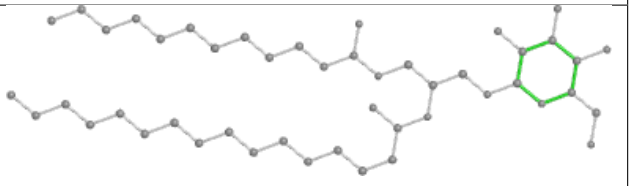
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

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	334/334 (100%)	-0.34	14 (4%) 36 34	21, 28, 66, 87	0
1	a	334/334 (100%)	-0.01	34 (10%) 6 6	22, 30, 96, 135	0
2	B	505/505 (100%)	-0.21	36 (7%) 16 14	22, 33, 67, 109	0
2	b	483/505 (95%)	-0.35	22 (4%) 32 31	24, 35, 57, 124	0
3	C	451/455 (99%)	-0.32	12 (2%) 54 52	24, 37, 55, 106	0
3	c	455/455 (100%)	-0.34	2 (0%) 92 91	27, 41, 57, 89	0
4	D	342/342 (100%)	-0.52	5 (1%) 73 72	21, 29, 51, 86	0
4	d	341/342 (99%)	-0.25	14 (4%) 37 35	22, 32, 59, 85	0
5	E	79/80 (98%)	0.53	10 (12%) 3 3	30, 53, 77, 89	0
5	e	79/80 (98%)	0.80	12 (15%) 2 2	35, 54, 91, 96	0
6	F	33/33 (100%)	-0.39	4 (12%) 4 3	32, 38, 68, 87	0
6	f	31/33 (93%)	-0.18	1 (3%) 47 45	34, 42, 62, 95	0
7	H	63/63 (100%)	-0.33	1 (1%) 72 70	32, 42, 52, 104	0
7	h	62/63 (98%)	0.27	8 (12%) 3 3	34, 48, 62, 74	0
8	I	34/36 (94%)	-0.50	1 (2%) 51 49	33, 42, 60, 78	0
8	i	35/36 (97%)	-0.64	0 100 100	34, 43, 71, 95	0
9	J	36/40 (90%)	-0.52	2 (5%) 24 23	29, 46, 73, 82	0
9	j	40/40 (100%)	0.08	6 (15%) 2 2	34, 47, 81, 92	0
10	K	37/37 (100%)	-0.43	0 100 100	36, 44, 55, 70	0
10	k	37/37 (100%)	-0.19	1 (2%) 54 52	39, 47, 68, 81	0
11	L	35/35 (100%)	-0.14	7 (20%) 1 1	23, 32, 66, 78	0
11	l	35/35 (100%)	-0.15	4 (11%) 5 4	25, 35, 75, 92	0
12	O	243/243 (100%)	-0.27	8 (3%) 46 44	23, 39, 69, 104	0
12	o	243/243 (100%)	-0.29	15 (6%) 20 19	24, 42, 71, 102	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	T	29/30 (96%)	-0.60	0 100 100	26, 32, 59, 89	0
13	t	29/30 (96%)	-0.51	2 (6%) 16 15	27, 34, 66, 98	0
14	U	97/97 (100%)	-0.19	0 100 100	26, 36, 58, 89	0
14	u	97/97 (100%)	-0.66	0 100 100	28, 37, 51, 76	0
15	V	137/137 (100%)	-0.63	0 100 100	25, 34, 50, 70	0
15	v	137/137 (100%)	-0.22	3 (2%) 62 59	29, 44, 61, 84	0
16	Y	29/29 (100%)	0.45	4 (13%) 2 2	40, 54, 69, 81	0
16	y	29/29 (100%)	0.52	4 (13%) 2 2	51, 62, 70, 74	0
17	X	37/37 (100%)	0.21	4 (10%) 5 5	41, 50, 72, 83	0
17	x	36/37 (97%)	0.94	8 (22%) 0 0	41, 54, 88, 89	0
18	Z	62/62 (100%)	0.41	13 (20%) 1 1	42, 54, 88, 106	0
18	z	61/62 (98%)	0.90	13 (21%) 0 0	49, 64, 98, 102	0
All	All	5147/5190 (99%)	-0.23	270 (5%) 27 26	21, 37, 70, 135	0

The worst 5 of 270 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
18	z	3	ILE	7.2
2	B	486	LEU	6.5
1	a	235	TYR	6.4
1	a	228	THR	6.3
2	B	488	PRO	6.2

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
8	FME	I	1	10/11	0.95	0.14	33,37,40,41	0
13	FME	T	1	10/11	0.95	0.19	38,42,72,75	0
8	FME	i	1	10/11	0.97	0.11	36,41,45,48	0
13	FME	t	1	10/11	0.97	0.09	33,38,80,91	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
31	DMS	O	305	4/4	0.54	0.23	68,70,79,99	0
31	DMS	c	942	4/4	0.55	0.23	101,103,111,117	0
30	UNL	I	105	16/-	0.56	0.36	70,82,88,90	0
29	LMT	f	102	25/35	0.57	0.45	61,93,105,108	0
30	UNL	i	105	10/-	0.58	0.33	67,78,86,87	0
34	HTG	B	627	19/19	0.59	0.32	51,104,113,116	0
34	HTG	b	627	19/19	0.60	0.25	50,92,108,109	0
34	HTG	b	632	19/19	0.61	0.27	56,74,91,92	0
25	LMG	b	622	43/55	0.63	0.28	48,78,88,98	0
31	DMS	d	414	4/4	0.64	0.37	102,112,113,120	0
30	UNL	u	201	11/-	0.65	0.27	47,53,69,69	0
34	HTG	D	414	19/19	0.66	0.31	63,103,114,115	0
31	DMS	a	401	4/4	0.66	0.29	75,84,85,104	0
30	UNL	a	417	10/-	0.66	0.41	75,80,84,87	0
35	DGD	d	406	43/66	0.66	0.32	58,85,139,146	0
25	LMG	B	621	40/55	0.67	0.24	47,82,108,112	0
30	UNL	t	102	16/-	0.68	0.32	59,71,78,80	0
31	DMS	C	537	4/4	0.68	0.37	88,103,104,113	0
34	HTG	D	415	19/19	0.68	0.28	39,69,80,87	0
25	LMG	D	412	46/55	0.69	0.25	41,68,138,142	0
30	UNL	i	104	16/-	0.69	0.34	67,76,87,89	0
34	HTG	C	532	19/19	0.69	0.27	69,98,111,112	0
29	LMT	c	931	24/35	0.69	0.26	50,84,95,98	0
29	LMT	T	102	24/35	0.70	0.23	42,80,98,101	0
28	SQD	l	101	54/54	0.70	0.25	53,82,119,123	0
31	DMS	c	936	4/4	0.70	0.26	106,116,116,124	0
29	LMT	A	414	35/35	0.71	0.35	59,86,109,114	0
27	LHG	a	416	49/49	0.71	0.28	60,84,100,108	0
35	DGD	D	407	50/66	0.71	0.29	60,87,120,123	0
29	LMT	Z	101	35/35	0.71	0.36	40,105,123,128	0
25	LMG	C	531	40/55	0.72	0.24	37,81,103,107	0
31	DMS	c	937	4/4	0.72	0.17	80,90,91,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
30	UNL	a	420	6/-	0.73	0.35	56,59,60,60	0
30	UNL	I	103	13/-	0.73	0.23	53,57,77,82	0
25	LMG	c	930	49/55	0.73	0.20	44,78,96,106	0
29	LMT	a	419	35/35	0.73	0.27	46,69,93,100	0
31	DMS	B	639	4/4	0.74	0.41	72,87,90,102	0
27	LHG	A	412	31/49	0.74	0.27	66,83,107,117	0
30	UNL	T	101	13/-	0.74	0.34	63,71,77,79	0
31	DMS	B	634	4/4	0.74	0.25	57,68,73,95	0
30	UNL	Z	102	9/-	0.75	0.30	57,71,79,81	0
26	PL9	a	415	55/55	0.76	0.28	64,84,106,111	0
34	HTG	c	922	19/19	0.76	0.29	70,93,109,112	0
29	LMT	t	101	24/35	0.76	0.19	50,71,109,119	0
31	DMS	C	534	4/4	0.76	0.33	105,111,112,121	0
34	HTG	b	624	19/19	0.78	0.28	69,97,109,110	0
26	PL9	A	411	55/55	0.78	0.23	61,73,87,92	0
37	RRX	h	101	41/41	0.78	0.21	40,49,75,82	0
31	DMS	b	636	4/4	0.79	0.25	88,95,109,113	0
30	UNL	c	932	10/-	0.79	0.23	56,74,80,83	0
31	DMS	l	105	4/4	0.80	0.19	100,103,110,115	0
29	LMT	E	101	24/35	0.80	0.27	61,82,97,113	0
31	DMS	b	637	4/4	0.80	0.18	90,97,101,112	0
31	DMS	L	102	4/4	0.80	0.22	79,80,91,100	0
30	UNL	j	103	16/-	0.81	0.17	59,67,71,74	0
27	LHG	d	401	33/49	0.81	0.16	62,94,138,142	0
22	CLA	b	602	65/65	0.81	0.31	49,67,89,98	0
29	LMT	I	102	35/35	0.81	0.30	76,88,100,102	0
24	BCR	B	618	19/40	0.82	0.18	50,59,74,77	0
30	UNL	U	201	14/-	0.82	0.25	44,57,65,66	0
27	LHG	C	522	30/49	0.82	0.16	55,79,127,134	0
31	DMS	v	207	4/4	0.83	0.17	84,93,97,117	0
31	DMS	C	536	4/4	0.83	0.22	77,80,94,95	0
31	DMS	V	211	4/4	0.83	0.23	77,84,85,85	0
34	HTG	l	106	19/19	0.83	0.18	63,97,108,109	0
25	LMG	A	410	51/55	0.83	0.19	47,62,83,91	0
31	DMS	H	103	4/4	0.83	0.25	63,67,69,74	0
30	UNL	i	103	16/-	0.83	0.20	53,64,79,82	0
28	SQD	b	621	38/54	0.84	0.17	58,90,110,112	0
29	LMT	c	921	35/35	0.84	0.36	74,90,99,103	0
29	LMT	B	622	24/35	0.84	0.16	57,67,73,78	0
34	HTG	v	203	16/19	0.84	0.16	52,69,81,97	0
28	SQD	A	413	49/54	0.84	0.20	46,65,91,95	0
30	UNL	b	628	11/-	0.84	0.32	58,63,78,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
34	HTG	B	626	19/19	0.84	0.20	42,69,81,87	0
25	LMG	c	920	51/55	0.85	0.18	37,61,87,91	0
25	LMG	d	409	47/55	0.85	0.18	49,76,113,114	0
37	RRX	H	101	41/41	0.85	0.16	32,42,58,62	0
31	DMS	C	540	4/4	0.85	0.33	82,83,91,97	0
30	UNL	I	104	16/-	0.86	0.27	60,71,84,86	0
31	DMS	t	105	4/4	0.86	0.18	89,93,101,108	0
31	DMS	O	307	4/4	0.86	0.26	84,97,98,104	0
30	UNL	B	624	7/-	0.86	0.17	30,45,51,56	0
35	DGD	h	102	62/66	0.86	0.20	28,42,53,58	0
24	BCR	b	618	20/40	0.86	0.25	57,65,70,71	0
31	DMS	B	632	4/4	0.86	0.20	49,57,67,69	0
31	DMS	U	203	4/4	0.87	0.24	62,73,74,76	0
31	DMS	t	104	4/4	0.87	0.15	101,101,104,111	0
31	DMS	c	938	4/4	0.87	0.31	86,91,98,103	0
28	SQD	a	418	51/54	0.87	0.15	47,70,91,97	0
31	DMS	v	210	4/4	0.87	0.24	63,71,80,91	0
25	LMG	C	520	51/55	0.87	0.19	34,60,90,92	0
31	DMS	l	103	4/4	0.87	0.20	91,95,97,99	0
30	UNL	D	413	16/-	0.88	0.23	38,46,52,58	0
31	DMS	b	638	4/4	0.88	0.24	49,52,54,70	0
30	UNL	b	625	16/-	0.88	0.13	43,52,64,67	0
31	DMS	u	204	4/4	0.88	0.33	50,68,69,75	0
31	DMS	u	205	4/4	0.88	0.33	64,67,73,83	0
31	DMS	V	204	4/4	0.88	0.24	66,73,76,76	0
28	SQD	f	101	14/54	0.88	0.22	77,89,96,96	0
30	UNL	A	415	5/-	0.88	0.35	68,72,73,75	0
31	DMS	a	425	4/4	0.88	0.15	39,47,51,62	0
34	HTG	C	521	19/19	0.88	0.22	55,80,93,96	0
31	DMS	f	103	4/4	0.88	0.28	87,89,90,100	0
25	LMG	i	101	51/55	0.88	0.16	45,57,80,81	0
31	DMS	u	203	4/4	0.89	0.17	56,68,72,84	0
27	LHG	l	102	49/49	0.89	0.18	38,61,91,95	0
31	DMS	C	529	4/4	0.89	0.32	72,78,78,86	0
30	UNL	X	101	16/-	0.89	0.13	35,53,62,64	0
30	UNL	x	101	15/-	0.89	0.13	43,50,56,58	0
31	DMS	O	314	4/4	0.89	0.26	78,80,86,91	0
30	UNL	J	103	16/-	0.89	0.20	44,57,77,77	0
31	DMS	l	104	4/4	0.89	0.16	79,80,86,87	0
31	DMS	c	927	4/4	0.89	0.23	87,89,91,97	0
31	DMS	c	929	4/4	0.89	0.32	69,73,76,78	0
28	SQD	D	408	20/54	0.89	0.30	65,97,105,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
31	DMS	D	417	4/4	0.90	0.19	72,72,77,86	0
34	HTG	b	626	19/19	0.90	0.13	47,69,86,90	0
27	LHG	a	423	45/49	0.90	0.15	39,58,72,74	0
31	DMS	v	205	4/4	0.90	0.26	70,72,78,80	0
31	DMS	V	210	4/4	0.90	0.13	70,73,78,88	0
31	DMS	O	308	4/4	0.90	0.19	64,72,73,80	0
31	DMS	O	313	4/4	0.90	0.25	89,100,100,107	0
31	DMS	c	935	4/4	0.90	0.33	71,78,81,84	0
31	DMS	o	303	4/4	0.90	0.21	60,77,80,83	0
31	DMS	a	421	4/4	0.90	0.26	85,87,87,94	0
31	DMS	B	631	4/4	0.90	0.27	78,80,84,87	0
31	DMS	b	635	4/4	0.90	0.17	62,69,76,86	0
31	DMS	V	207	4/4	0.91	0.15	64,71,71,76	0
27	LHG	D	409	49/49	0.91	0.19	38,56,85,97	0
31	DMS	C	535	4/4	0.91	0.38	70,79,83,86	0
31	DMS	V	212	4/4	0.91	0.18	51,54,55,72	0
31	DMS	c	943	4/4	0.91	0.16	77,82,87,92	0
34	HTG	C	523	9/19	0.91	0.22	63,69,81,86	0
28	SQD	a	414	54/54	0.91	0.14	36,69,81,87	0
35	DGD	H	102	62/66	0.91	0.19	28,37,46,50	0
31	DMS	d	415	4/4	0.91	0.15	60,63,67,79	0
24	BCR	y	101	40/40	0.91	0.12	32,41,51,53	0
34	HTG	V	203	14/19	0.91	0.23	48,52,79,84	0
31	DMS	C	533	4/4	0.91	0.22	79,84,85,89	0
31	DMS	v	211	4/4	0.92	0.18	65,77,82,90	0
31	DMS	o	305	4/4	0.92	0.36	78,82,86,87	0
31	DMS	o	308	4/4	0.92	0.26	76,77,82,91	0
31	DMS	c	944	4/4	0.92	0.20	79,82,89,92	0
24	BCR	b	619	31/40	0.92	0.15	47,54,63,67	0
35	DGD	C	518	62/66	0.92	0.17	29,40,89,109	0
31	DMS	A	420	4/4	0.92	0.15	37,39,39,57	0
22	CLA	c	913	65/65	0.92	0.14	42,54,96,98	0
22	CLA	C	514	65/65	0.92	0.15	44,55,83,86	0
24	BCR	B	619	30/40	0.92	0.14	44,51,61,63	0
22	CLA	B	602	65/65	0.92	0.17	39,56,101,107	0
30	UNL	i	102	16/-	0.92	0.13	41,51,80,81	0
24	BCR	c	915	40/40	0.93	0.12	43,59,68,69	0
24	BCR	k	101	40/40	0.93	0.11	36,45,51,52	0
31	DMS	F	101	4/4	0.93	0.20	69,70,74,77	0
31	DMS	B	637	4/4	0.93	0.30	69,76,80,88	0
31	DMS	c	940	4/4	0.93	0.30	74,74,75,80	0
31	DMS	I	101	4/4	0.93	0.23	64,69,74,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	CLA	B	615	53/65	0.93	0.11	31,36,71,84	0
31	DMS	O	303	4/4	0.93	0.17	68,71,78,79	0
22	CLA	c	914	65/65	0.93	0.16	47,60,95,108	0
31	DMS	b	634	4/4	0.93	0.25	68,76,79,86	0
22	CLA	B	603	65/65	0.93	0.14	27,36,43,47	0
22	CLA	B	610	65/65	0.93	0.12	30,37,42,46	0
22	CLA	b	607	65/65	0.93	0.11	29,37,58,65	0
30	UNL	O	301	16/-	0.93	0.13	39,47,73,74	0
31	DMS	U	202	4/4	0.93	0.15	42,49,58,67	0
22	CLA	c	912	65/65	0.93	0.10	35,45,50,53	0
31	DMS	v	204	4/4	0.94	0.13	87,88,90,91	0
31	DMS	c	928	4/4	0.94	0.17	73,74,74,80	0
31	DMS	O	304	4/4	0.94	0.38	74,80,84,88	0
31	DMS	v	208	4/4	0.94	0.13	88,90,91,94	0
24	BCR	C	515	40/40	0.94	0.10	37,50,58,59	0
31	DMS	B	636	4/4	0.94	0.23	60,62,67,69	0
22	CLA	b	617	60/65	0.94	0.11	32,41,75,80	0
31	DMS	B	638	4/4	0.94	0.16	81,82,86,93	0
22	CLA	c	903	65/65	0.94	0.21	27,34,54,65	0
31	DMS	B	642	4/4	0.94	0.20	65,66,75,82	0
30	UNL	d	410	16/-	0.94	0.16	40,49,57,60	0
27	LHG	L	101	40/49	0.94	0.12	37,53,63,66	0
31	DMS	d	412	4/4	0.94	0.18	58,59,66,66	0
22	CLA	c	904	65/65	0.94	0.21	32,44,50,54	0
22	CLA	C	507	65/65	0.94	0.12	37,45,85,88	0
22	CLA	b	603	65/65	0.94	0.14	29,36,46,49	0
27	LHG	d	408	46/49	0.94	0.15	29,41,93,97	0
31	DMS	C	538	4/4	0.94	0.36	79,86,86,87	0
31	DMS	C	539	4/4	0.94	0.24	88,90,93,95	0
22	CLA	B	607	65/65	0.94	0.10	28,34,56,65	0
31	DMS	o	304	4/4	0.94	0.17	70,70,70,74	0
31	DMS	b	631	4/4	0.94	0.17	68,72,79,80	0
25	LMG	j	101	47/55	0.94	0.11	33,43,69,74	0
28	SQD	C	501	54/54	0.94	0.13	32,64,83,89	0
22	CLA	b	610	65/65	0.94	0.10	32,41,45,54	0
31	DMS	B	630	4/4	0.94	0.15	63,67,68,75	0
26	PL9	D	406	55/55	0.94	0.12	21,30,37,51	0
22	CLA	b	616	65/65	0.94	0.10	30,37,53,57	0
31	DMS	t	103	4/4	0.95	0.13	89,102,103,103	0
22	CLA	C	512	65/65	0.95	0.09	31,39,48,51	0
30	UNL	B	625	16/-	0.95	0.09	40,47,59,59	0
22	CLA	b	615	52/65	0.95	0.10	36,42,71,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
24	BCR	B	620	40/40	0.95	0.10	30,37,49,50	0
22	CLA	C	513	56/65	0.95	0.10	37,48,62,65	0
24	BCR	C	516	40/40	0.95	0.10	32,39,47,54	0
31	DMS	A	416	4/4	0.95	0.12	60,67,69,72	0
24	BCR	D	405	40/40	0.95	0.12	26,35,62,66	0
22	CLA	B	608	65/65	0.95	0.12	24,29,64,79	0
31	DMS	I	106	4/4	0.95	0.29	64,74,78,80	0
22	CLA	D	404	65/65	0.95	0.11	30,37,94,104	0
33	CA	B	601	1/1	0.95	0.04	64,64,64,64	0
34	HTG	B	623	19/19	0.95	0.10	41,47,64,66	0
24	BCR	b	620	40/40	0.95	0.12	33,39,48,49	0
22	CLA	C	502	65/65	0.95	0.13	33,39,52,62	0
31	DMS	B	635	4/4	0.95	0.18	61,63,66,73	0
24	BCR	d	404	40/40	0.95	0.10	27,38,63,66	0
31	DMS	c	939	4/4	0.95	0.31	88,92,95,102	0
22	CLA	c	906	65/65	0.95	0.10	30,40,50,54	0
31	DMS	O	309	4/4	0.95	0.25	61,70,70,74	0
31	DMS	O	311	4/4	0.95	0.13	48,56,59,61	0
34	HTG	b	623	19/19	0.95	0.10	42,46,54,63	0
22	CLA	c	907	65/65	0.95	0.12	39,47,102,108	0
22	CLA	c	908	65/65	0.95	0.10	34,39,53,61	0
31	DMS	B	641	4/4	0.95	0.10	46,49,61,66	0
22	CLA	B	604	65/65	0.95	0.15	26,30,40,47	0
31	DMS	C	528	4/4	0.95	0.28	88,89,90,90	0
31	DMS	i	106	4/4	0.95	0.22	72,76,79,89	0
31	DMS	V	205	4/4	0.95	0.16	64,66,67,71	0
35	DGD	C	517	62/66	0.95	0.13	24,35,80,88	0
22	CLA	C	510	65/65	0.95	0.16	31,36,59,64	0
35	DGD	C	519	62/66	0.95	0.15	23,36,76,85	0
31	DMS	V	209	4/4	0.95	0.32	76,87,89,93	0
31	DMS	o	302	4/4	0.95	0.17	59,64,71,75	0
35	DGD	c	918	62/66	0.95	0.15	34,42,98,113	0
31	DMS	C	530	4/4	0.95	0.32	71,79,82,83	0
22	CLA	b	608	65/65	0.95	0.10	27,31,73,74	0
22	CLA	d	403	65/65	0.95	0.11	35,40,85,90	0
25	LMG	J	101	45/55	0.95	0.13	28,36,71,79	0
22	CLA	B	617	55/65	0.96	0.08	28,35,72,76	0
31	DMS	u	202	4/4	0.96	0.15	47,53,55,68	0
31	DMS	b	630	4/4	0.96	0.15	56,63,63,64	0
22	CLA	B	612	65/65	0.96	0.13	23,29,55,60	0
24	BCR	K	101	40/40	0.96	0.10	31,39,43,43	0
24	BCR	Y	101	39/40	0.96	0.09	34,40,48,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
26	PL9	d	405	55/55	0.96	0.11	23,32,39,43	0
24	BCR	a	413	40/40	0.96	0.09	26,31,38,39	0
22	CLA	c	902	65/65	0.96	0.11	34,39,50,51	0
22	CLA	C	503	65/65	0.96	0.17	28,32,47,56	0
27	LHG	D	411	45/49	0.96	0.13	31,39,90,94	0
32	BCT	a	422	4/4	0.96	0.07	51,52,56,57	0
31	DMS	A	417	4/4	0.96	0.15	76,82,83,85	0
33	CA	O	302	1/1	0.96	0.04	59,59,59,59	0
31	DMS	c	933	4/4	0.96	0.10	57,64,66,70	0
22	CLA	C	504	65/65	0.96	0.13	29,37,42,51	0
31	DMS	B	629	4/4	0.96	0.16	48,52,58,65	0
22	CLA	c	905	65/65	0.96	0.18	30,35,62,66	0
24	BCR	c	916	40/40	0.96	0.10	33,42,48,49	0
22	CLA	a	412	65/65	0.96	0.11	27,32,102,116	0
27	LHG	d	407	49/49	0.96	0.11	28,36,56,63	0
31	DMS	c	941	4/4	0.96	0.24	73,79,87,88	0
22	CLA	C	505	65/65	0.96	0.17	28,34,58,60	0
22	CLA	C	506	65/65	0.96	0.14	30,37,50,54	0
22	CLA	c	909	65/65	0.96	0.14	31,37,80,97	0
22	CLA	c	910	65/65	0.96	0.15	28,38,58,64	0
22	CLA	B	613	65/65	0.96	0.15	24,30,37,40	0
31	DMS	B	640	4/4	0.96	0.30	47,53,57,63	0
31	DMS	V	201	4/4	0.96	0.19	46,48,54,58	0
22	CLA	C	508	65/65	0.96	0.10	32,42,55,59	0
22	CLA	b	609	65/65	0.96	0.14	27,34,42,45	0
31	DMS	V	206	4/4	0.96	0.09	45,48,51,62	0
31	DMS	C	527	4/4	0.96	0.17	74,80,80,81	0
22	CLA	C	509	65/65	0.96	0.14	29,35,81,102	0
23	PHO	a	411	64/64	0.96	0.14	26,33,40,48	0
22	CLA	b	611	65/65	0.96	0.11	28,35,40,43	0
35	DGD	c	917	62/66	0.96	0.14	26,42,81,94	0
22	CLA	b	612	65/65	0.96	0.12	27,31,72,83	0
35	DGD	c	919	62/66	0.96	0.12	29,40,73,79	0
31	DMS	o	306	4/4	0.96	0.21	66,71,74,83	0
22	CLA	b	613	65/65	0.96	0.14	26,32,37,40	0
36	HEM	E	102	43/43	0.96	0.15	48,56,62,65	0
22	CLA	B	611	65/65	0.96	0.17	26,33,41,46	0
31	DMS	a	424	4/4	0.96	0.15	38,47,50,65	0
22	CLA	B	609	65/65	0.97	0.17	25,30,38,39	0
22	CLA	D	403	65/65	0.97	0.12	18,24,45,52	0
31	DMS	b	629	4/4	0.97	0.14	29,31,36,45	0
22	CLA	B	616	65/65	0.97	0.11	30,36,50,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
22	CLA	c	911	65/65	0.97	0.20	29,38,46,52	0
31	DMS	b	633	4/4	0.97	0.09	68,68,70,78	0
22	CLA	a	409	61/65	0.97	0.15	25,29,80,87	0
31	DMS	O	310	4/4	0.97	0.14	66,68,68,73	0
22	CLA	b	614	59/65	0.97	0.14	26,32,76,82	0
31	DMS	O	312	4/4	0.97	0.18	37,51,56,59	0
22	CLA	B	605	65/65	0.97	0.18	24,28,60,66	0
31	DMS	c	925	4/4	0.97	0.13	51,58,60,61	0
31	DMS	c	926	4/4	0.97	0.17	63,64,67,68	0
22	CLA	B	606	65/65	0.97	0.14	24,30,42,46	0
31	DMS	A	419	4/4	0.97	0.21	58,60,70,72	0
23	PHO	A	407	64/64	0.97	0.13	20,25,30,32	0
23	PHO	D	402	64/64	0.97	0.14	25,29,35,39	0
23	PHO	a	410	64/64	0.97	0.13	21,28,32,36	0
27	LHG	D	410	49/49	0.97	0.12	29,36,51,61	0
22	CLA	A	408	65/65	0.97	0.11	19,29,99,110	0
31	DMS	v	201	4/4	0.97	0.13	42,48,50,51	0
24	BCR	A	409	40/40	0.97	0.12	25,30,37,38	0
31	DMS	V	208	4/4	0.97	0.10	73,74,77,78	0
31	DMS	v	206	4/4	0.97	0.21	69,72,72,77	0
22	CLA	b	604	65/65	0.97	0.16	26,32,45,50	0
22	CLA	b	605	65/65	0.97	0.17	23,29,63,65	0
31	DMS	v	209	4/4	0.97	0.25	72,74,76,81	0
22	CLA	b	606	65/65	0.97	0.14	24,28,40,40	0
22	CLA	C	511	65/65	0.97	0.20	31,36,41,46	0
22	CLA	A	405	65/65	0.97	0.11	18,23,36,54	0
22	CLA	B	614	61/65	0.97	0.14	25,31,70,83	0
38	MG	K	102	1/1	0.97	0.06	51,51,51,51	0
38	MG	k	102	1/1	0.97	0.05	48,48,48,48	0
31	DMS	B	633	4/4	0.98	0.16	65,71,71,73	0
31	DMS	c	924	4/4	0.98	0.14	37,42,47,49	0
22	CLA	a	408	65/65	0.98	0.10	20,26,35,41	0
22	CLA	A	406	55/65	0.98	0.12	21,27,49,60	0
22	CLA	D	401	65/65	0.98	0.09	19,23,31,36	0
32	BCT	A	421[A]	4/4	0.98	0.08	34,36,39,39	4
32	BCT	A	421[B]	4/4	0.98	0.08	27,29,30,34	4
31	DMS	D	416	4/4	0.98	0.18	55,59,60,69	0
22	CLA	a	407	65/65	0.98	0.13	23,26,45,61	0
22	CLA	d	402	65/65	0.98	0.13	21,27,42,50	0
36	HEM	e	101	43/43	0.98	0.17	43,55,85,93	0
31	DMS	c	934	4/4	0.98	0.24	64,73,74,77	0
31	DMS	d	411	4/4	0.98	0.13	60,62,64,64	0

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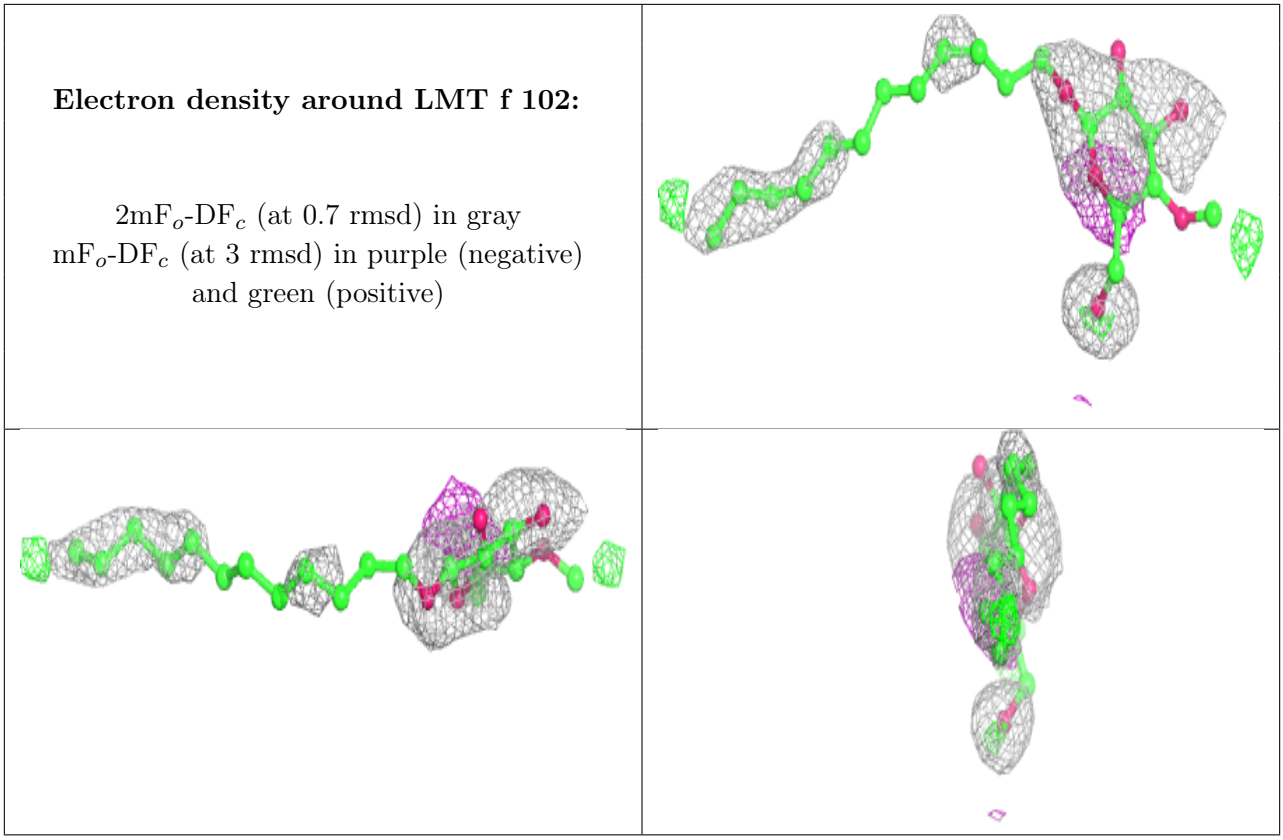
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
31	DMS	O	306	4/4	0.98	0.19	69,69,70,81	0
31	DMS	d	413	4/4	0.98	0.19	67,69,73,80	0
39	HEC	V	202	43/43	0.98	0.09	23,29,36,40	0
39	HEC	v	202	43/43	0.98	0.08	33,37,42,46	0
33	CA	o	301	1/1	0.99	0.02	55,55,55,55	0
31	DMS	C	524	4/4	0.99	0.07	38,42,43,43	0
31	DMS	c	923	4/4	0.99	0.15	37,40,42,43	0
31	DMS	a	402	4/4	0.99	0.10	30,32,34,34	0
31	DMS	C	525	4/4	0.99	0.06	34,35,38,40	0
31	DMS	C	526	4/4	0.99	0.08	48,48,50,51	0
20	FE2	a	404	1/1	0.99	0.07	42,42,42,42	0
31	DMS	B	628	4/4	0.99	0.14	27,29,32,38	0
31	DMS	o	307	4/4	0.99	0.30	48,56,62,64	0
21	CL	A	403	1/1	0.99	0.09	29,29,29,29	0
31	DMS	D	418	4/4	0.99	0.11	35,39,42,43	0
21	CL	A	404	1/1	0.99	0.12	28,28,28,28	0
21	CL	a	405	1/1	0.99	0.07	31,31,31,31	0
21	CL	a	406	1/1	0.99	0.13	32,32,32,32	0
38	MG	J	102	1/1	0.99	0.07	30,30,30,30	0
31	DMS	A	418	4/4	0.99	0.10	29,30,31,31	0
38	MG	j	102	1/1	0.99	0.11	40,40,40,40	0
19	OEX	A	401	10/10	0.99	0.12	25,27,31,32	0
33	CA	b	601	1/1	0.99	0.03	59,59,59,59	0
33	CA	c	901	1/1	0.99	0.03	48,48,48,48	0
20	FE2	A	402	1/1	1.00	0.07	39,39,39,39	0
19	OEX	a	403	10/10	1.00	0.09	29,31,32,33	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.

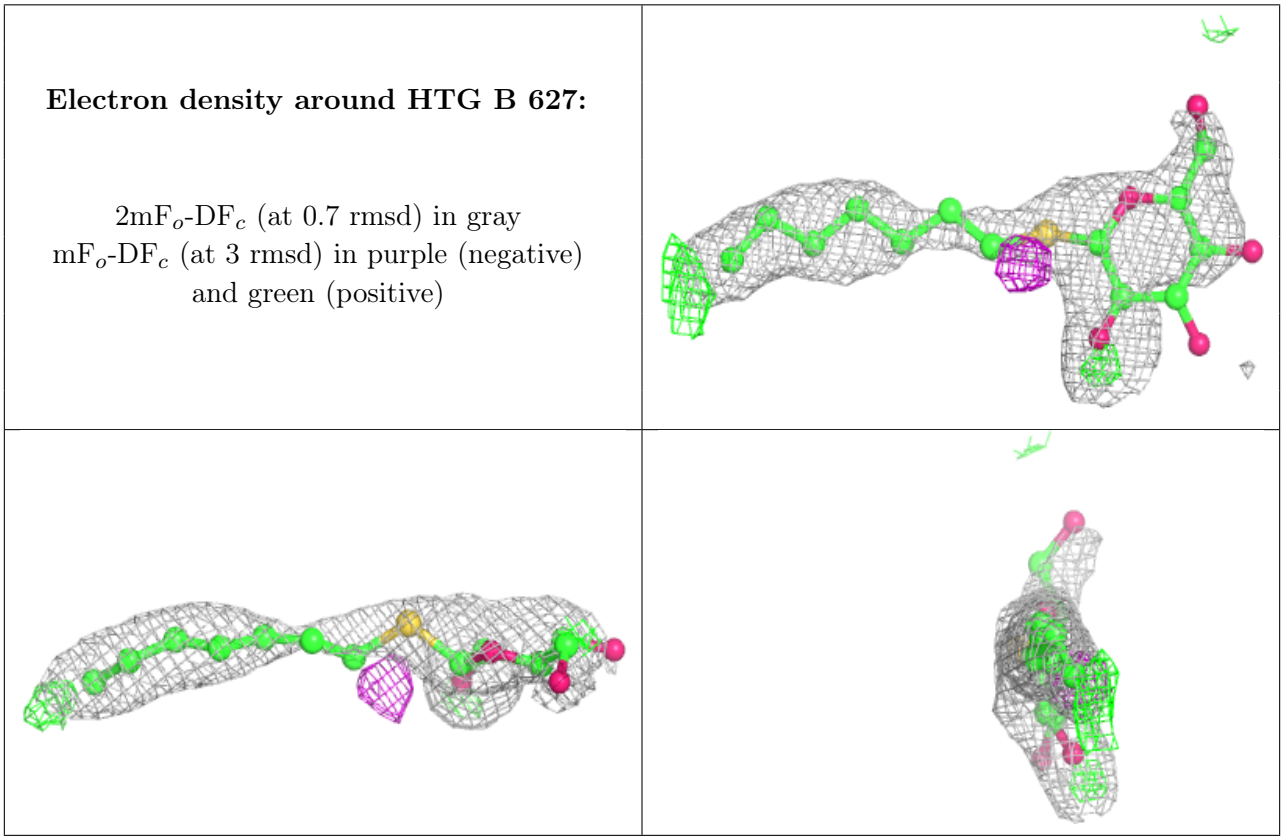
Electron density around LMT f 102:

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



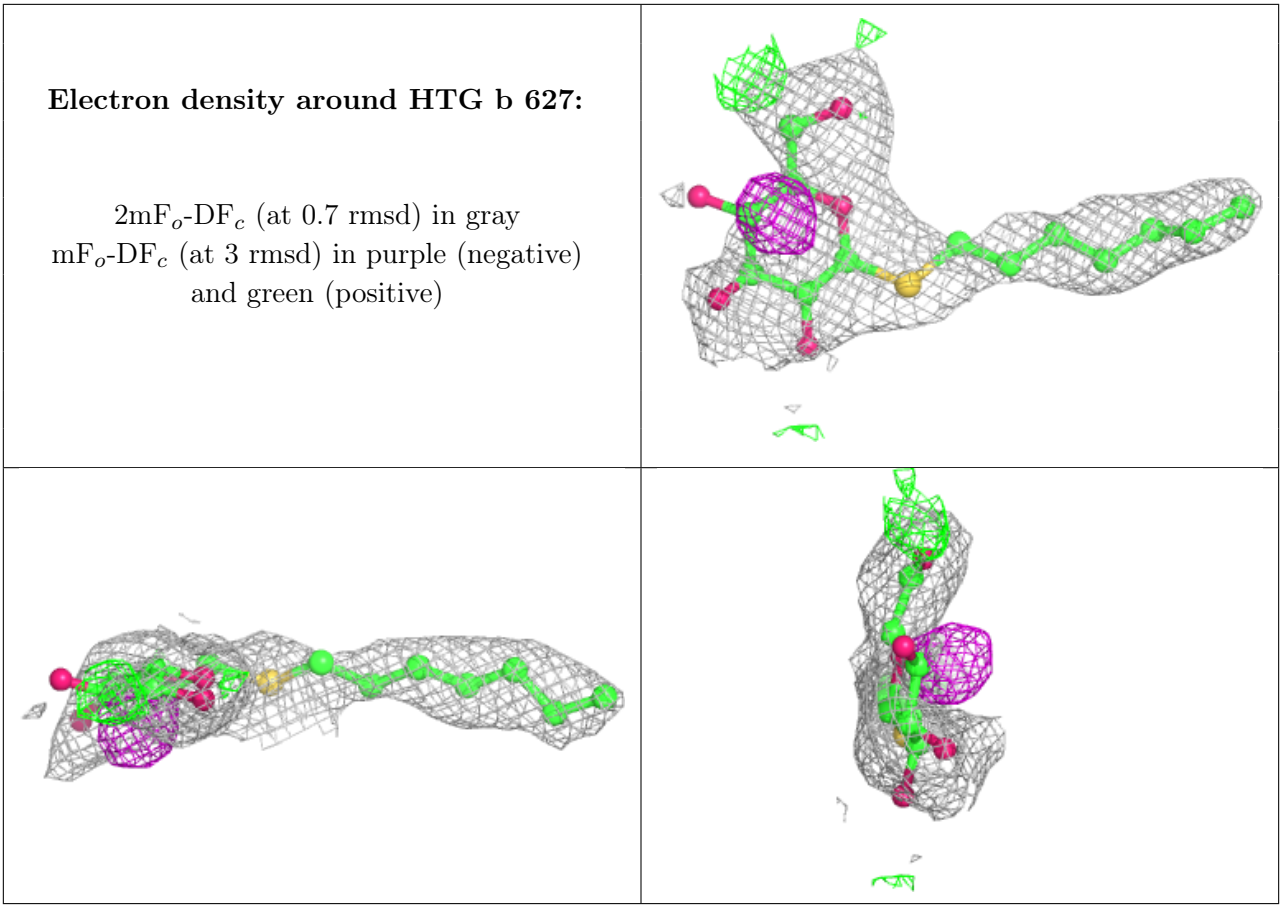
Electron density around HTG B 627:

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



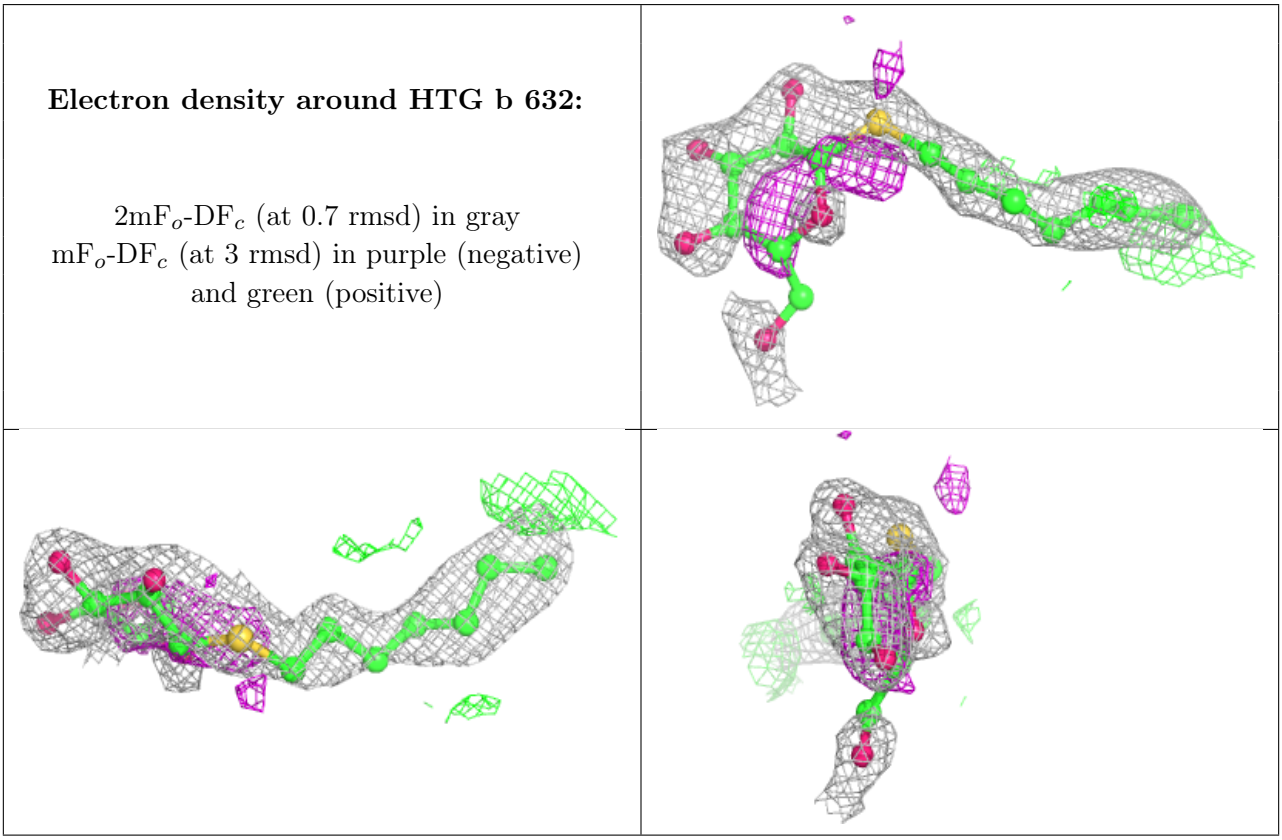
Electron density around HTG b 627:

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



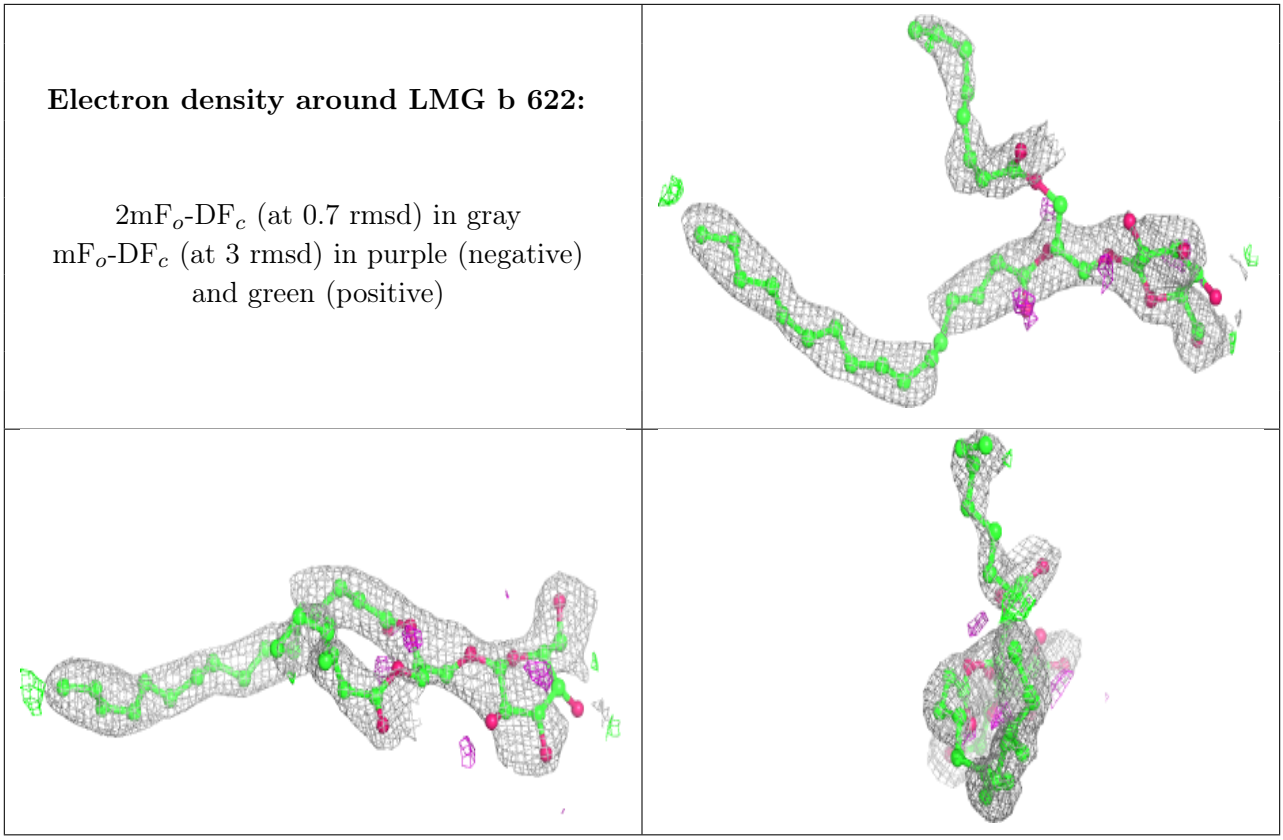
Electron density around HTG b 632:

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



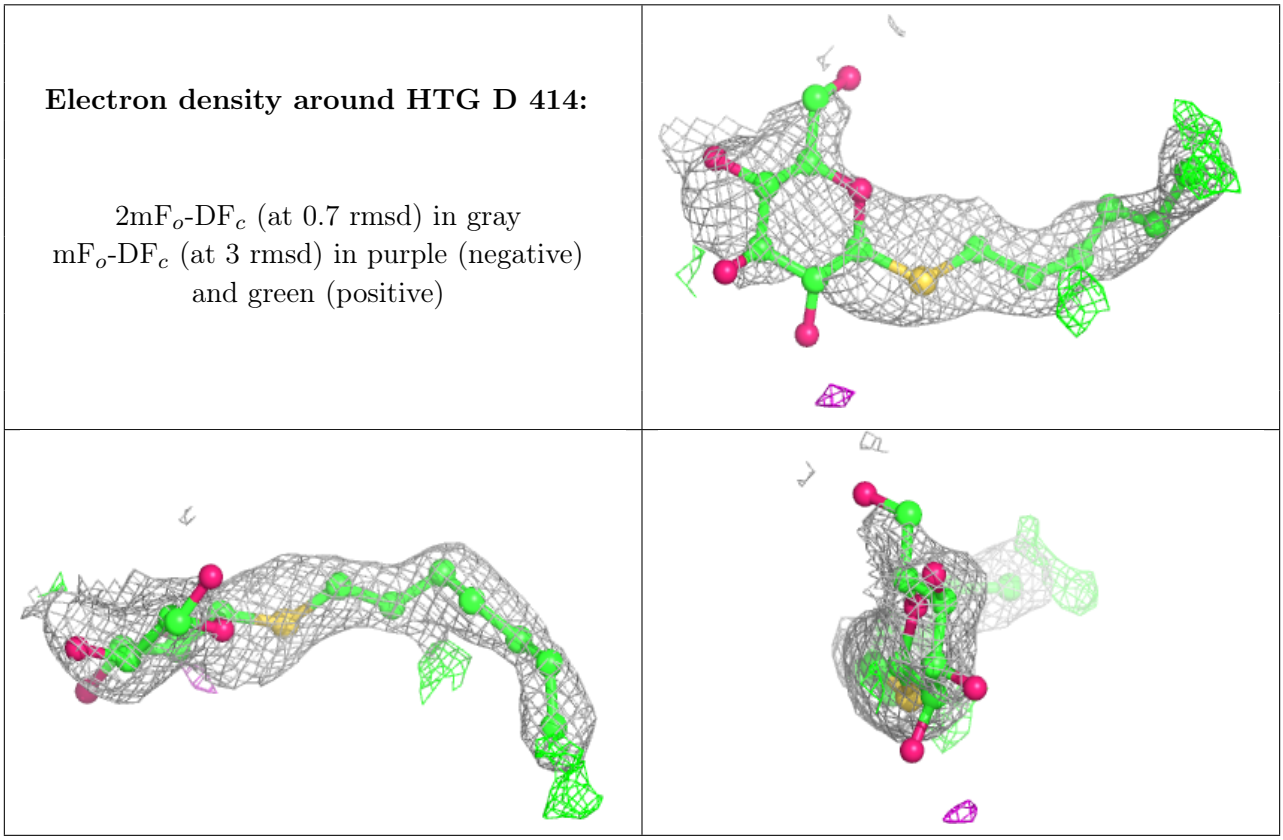
Electron density around LMG b 622:

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



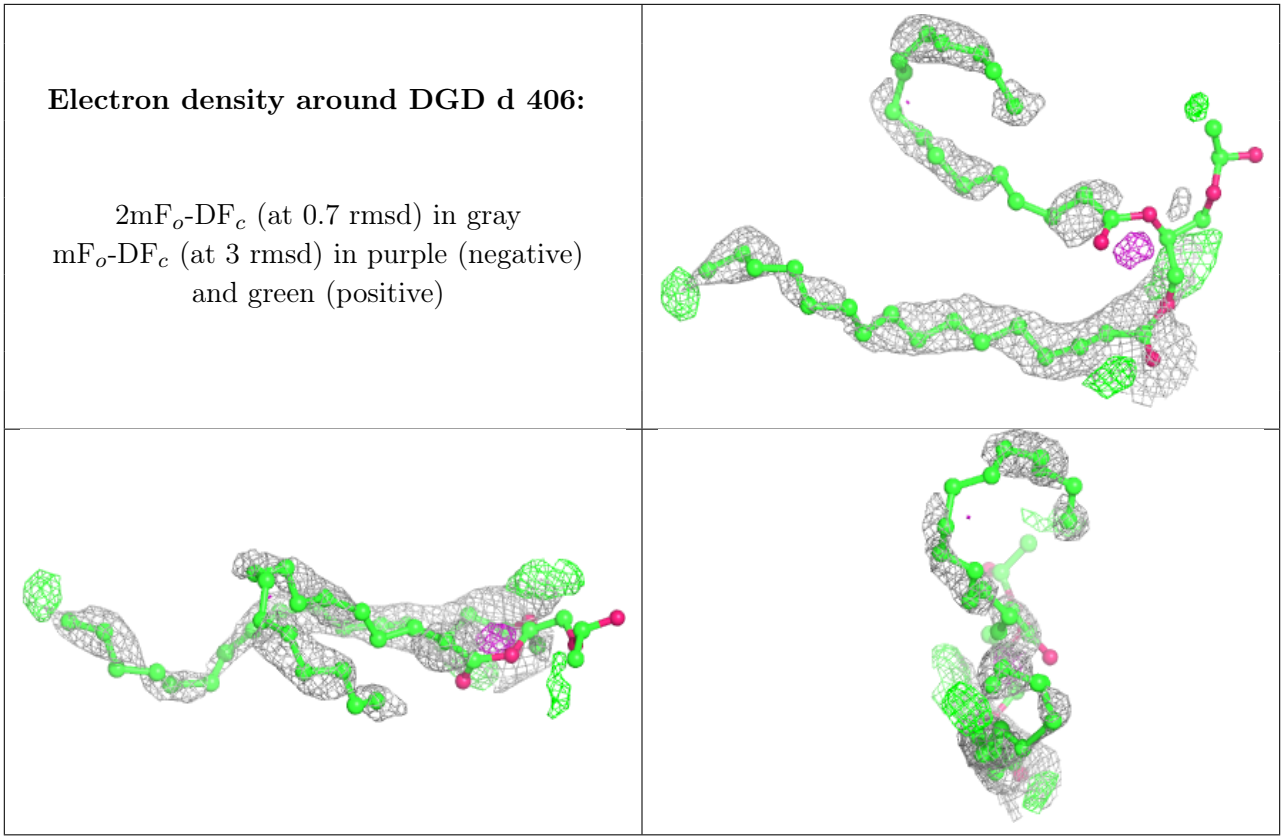
Electron density around HTG D 414:

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



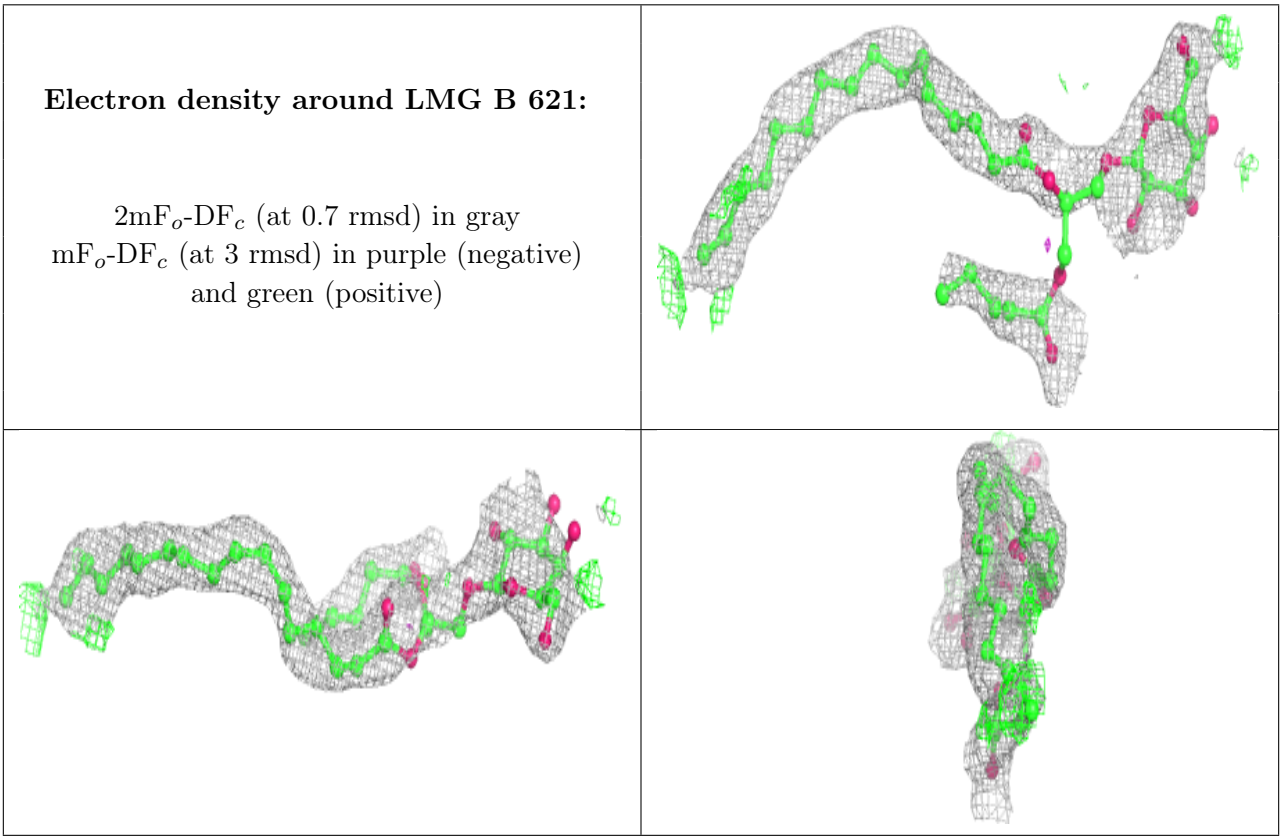
Electron density around DGD d 406:

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



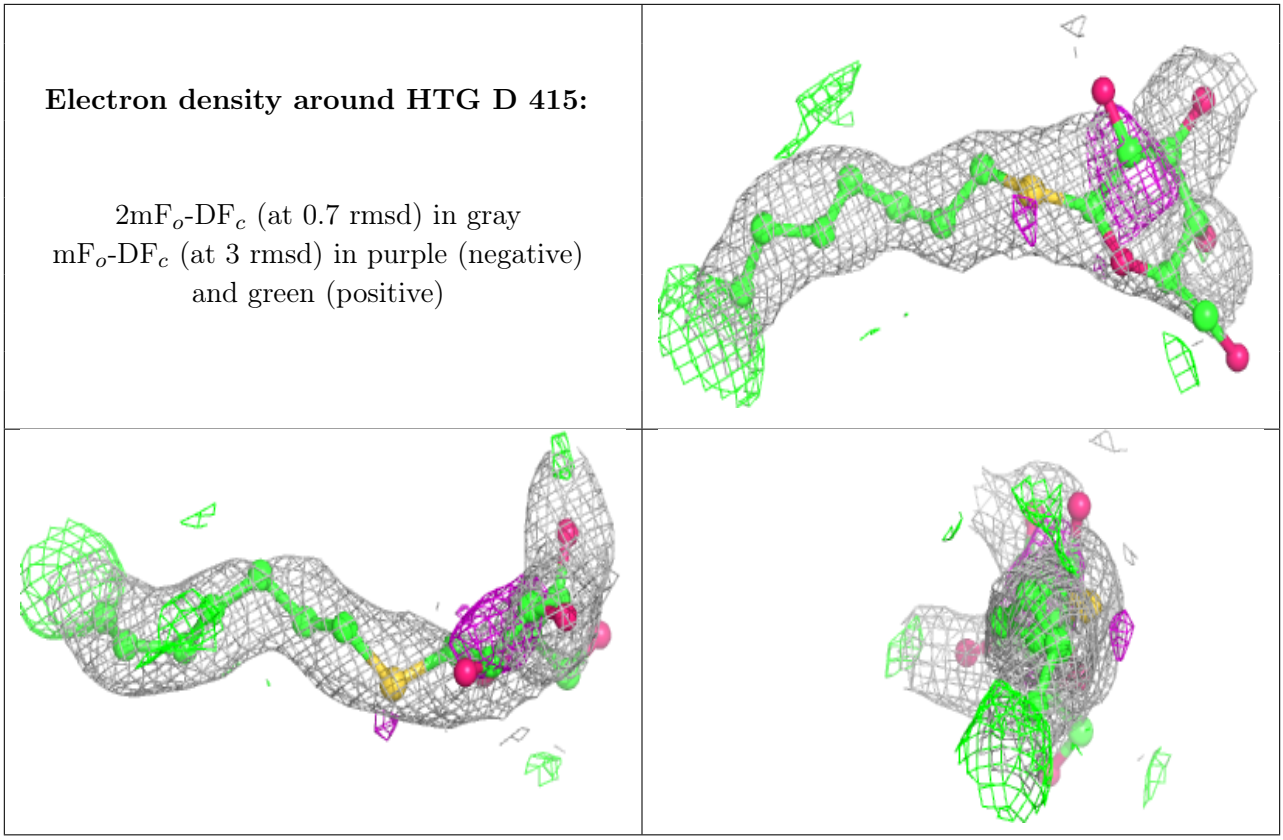
Electron density around LMG B 621:

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



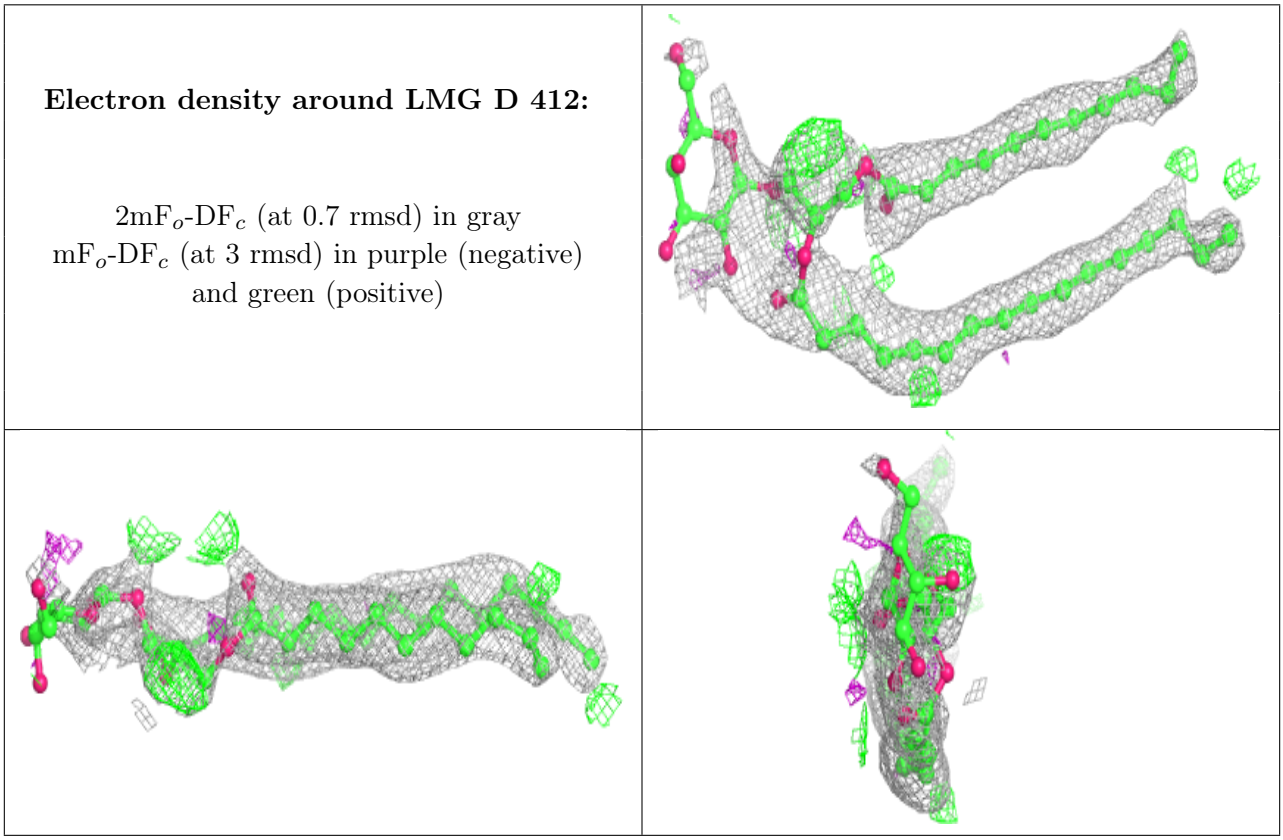
Electron density around HTG D 415:

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



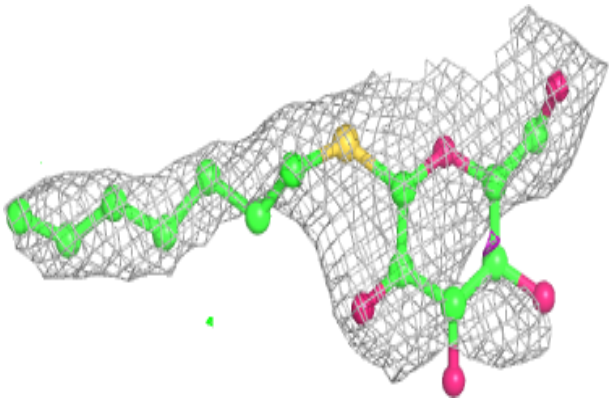
Electron density around LMG D 412:

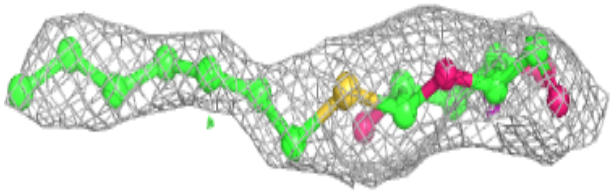
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

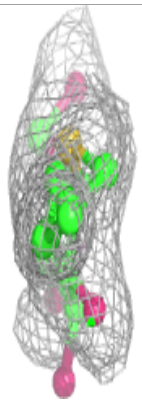


Electron density around HTG C 532:

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

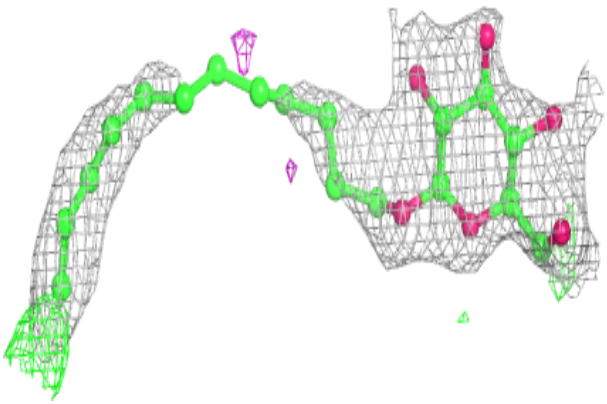


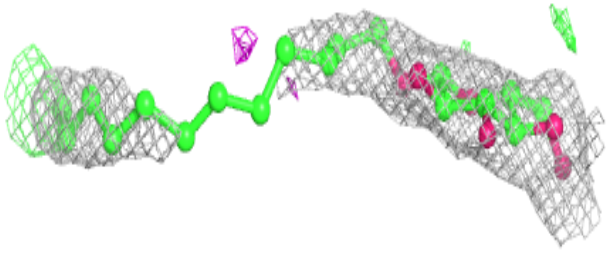


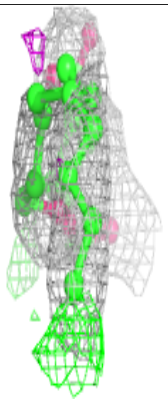


Electron density around LMT c 931:

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

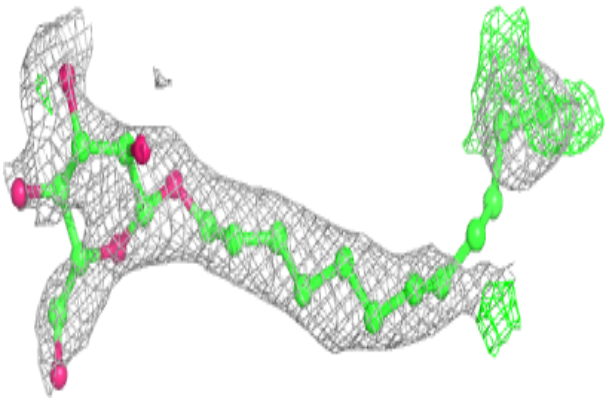


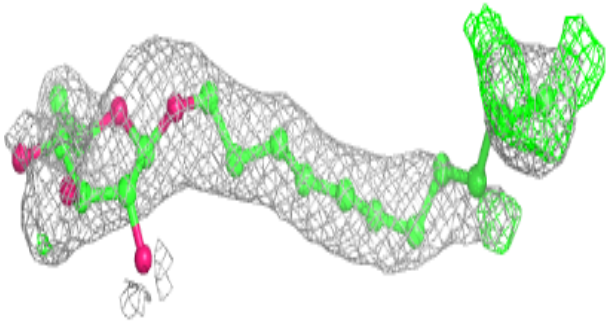


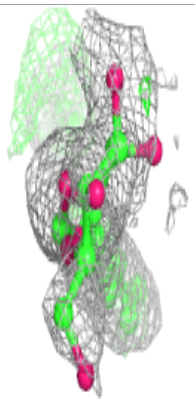


Electron density around LMT T 102:

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

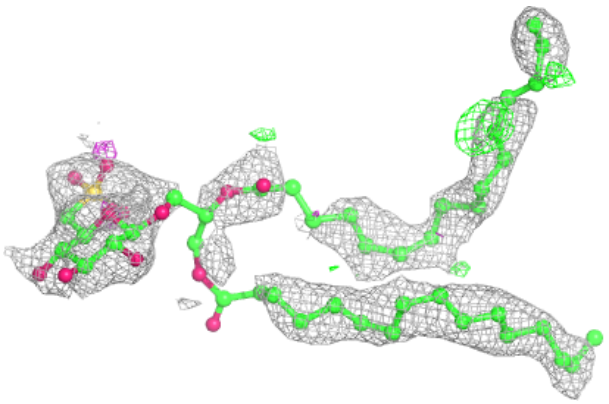


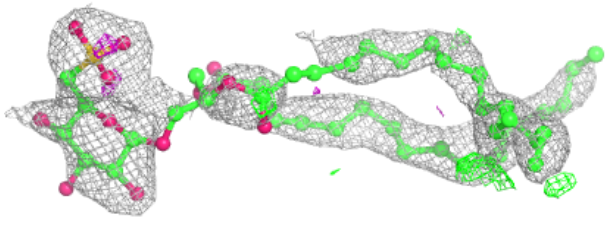


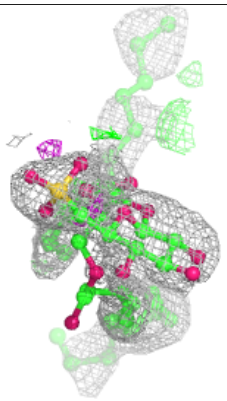


Electron density around SQD l 101:

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

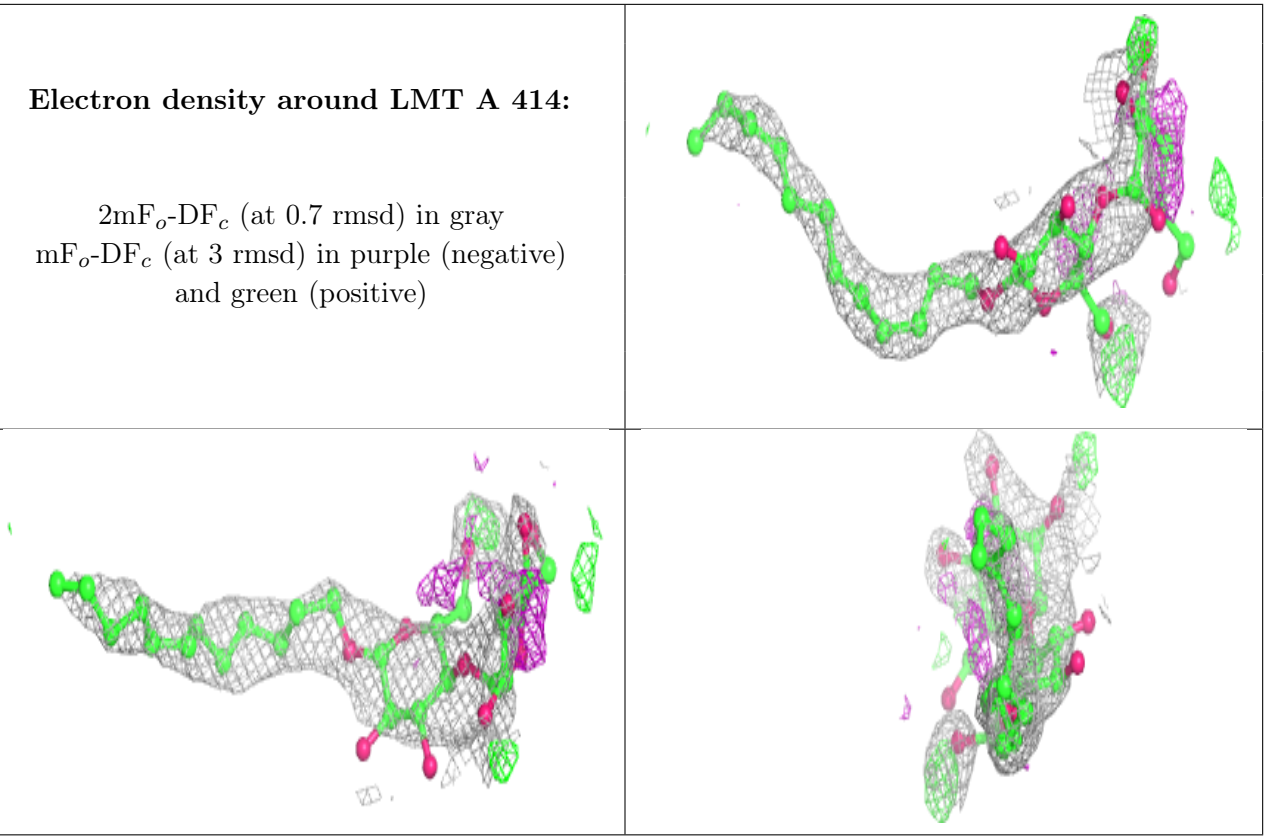






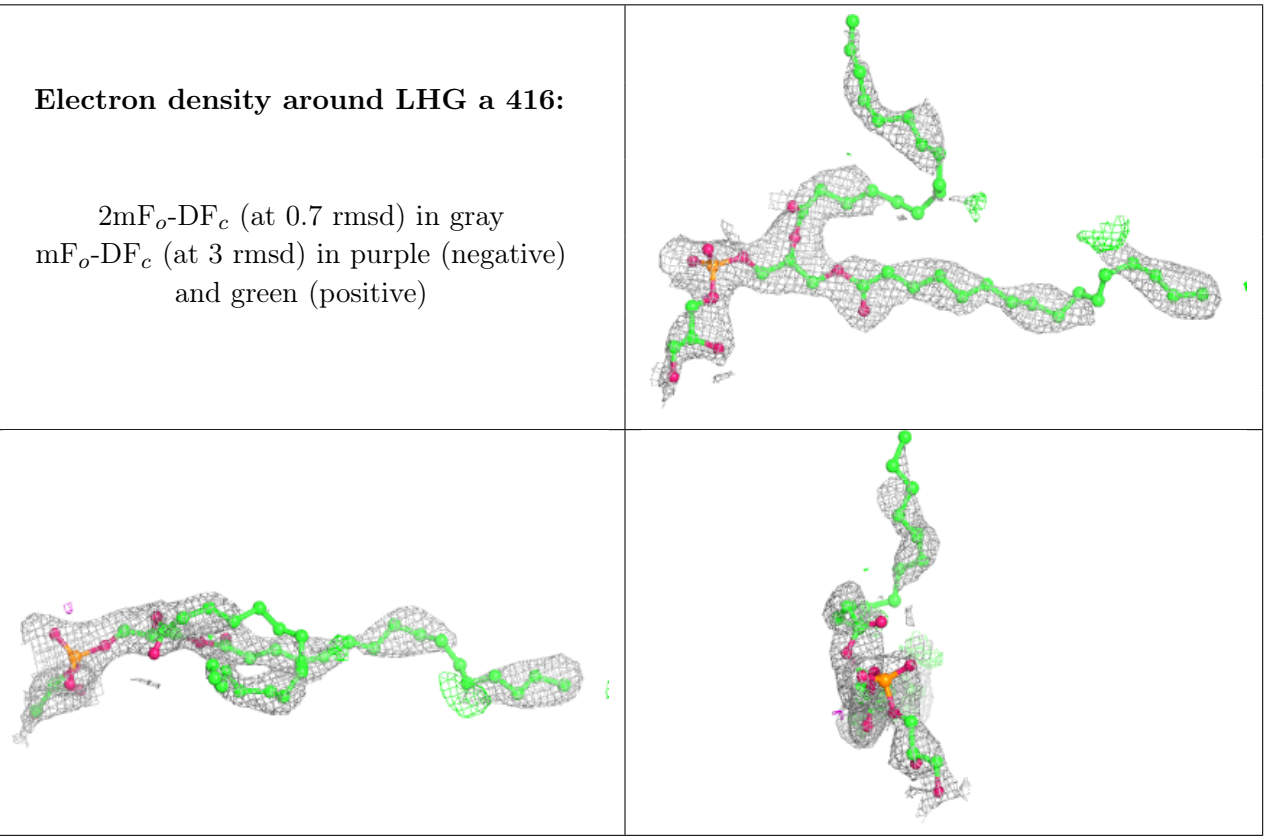
Electron density around LMT A 414:

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



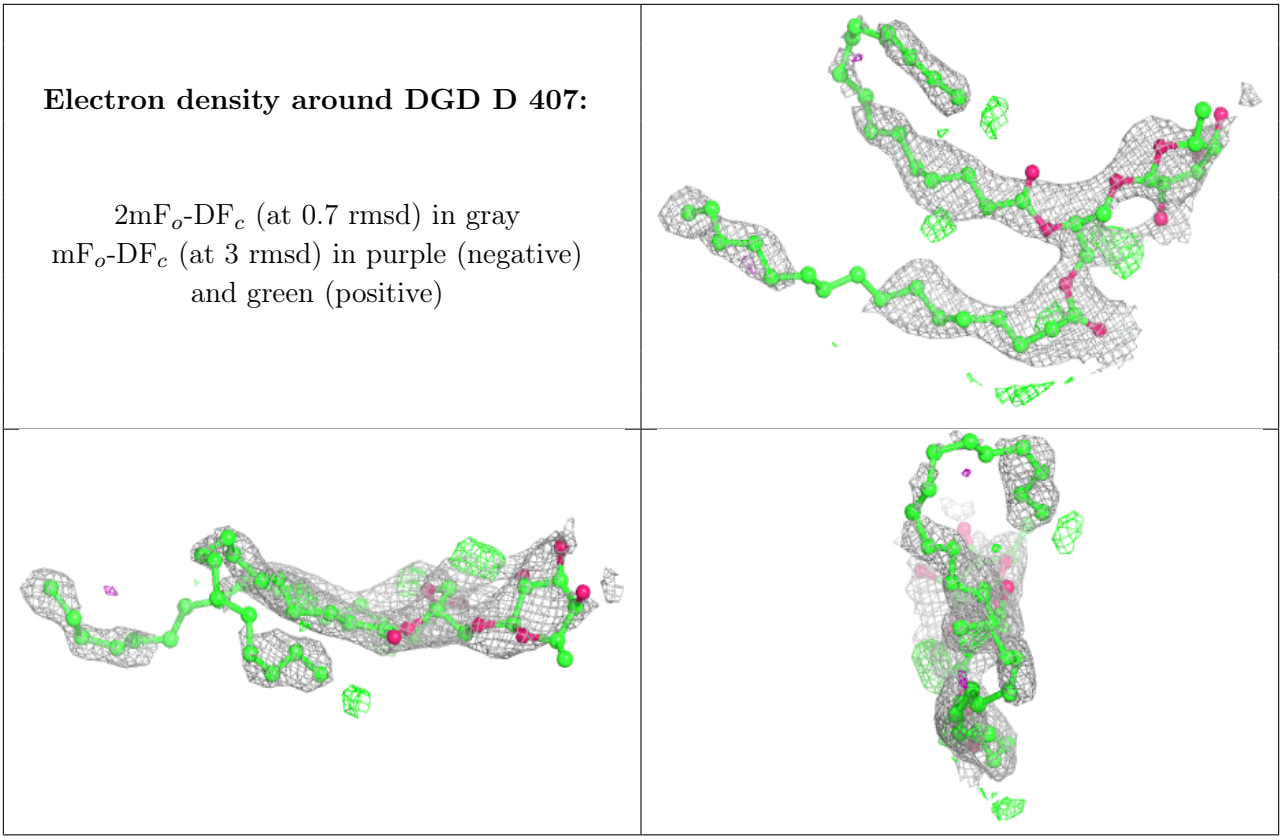
Electron density around LHG a 416:

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



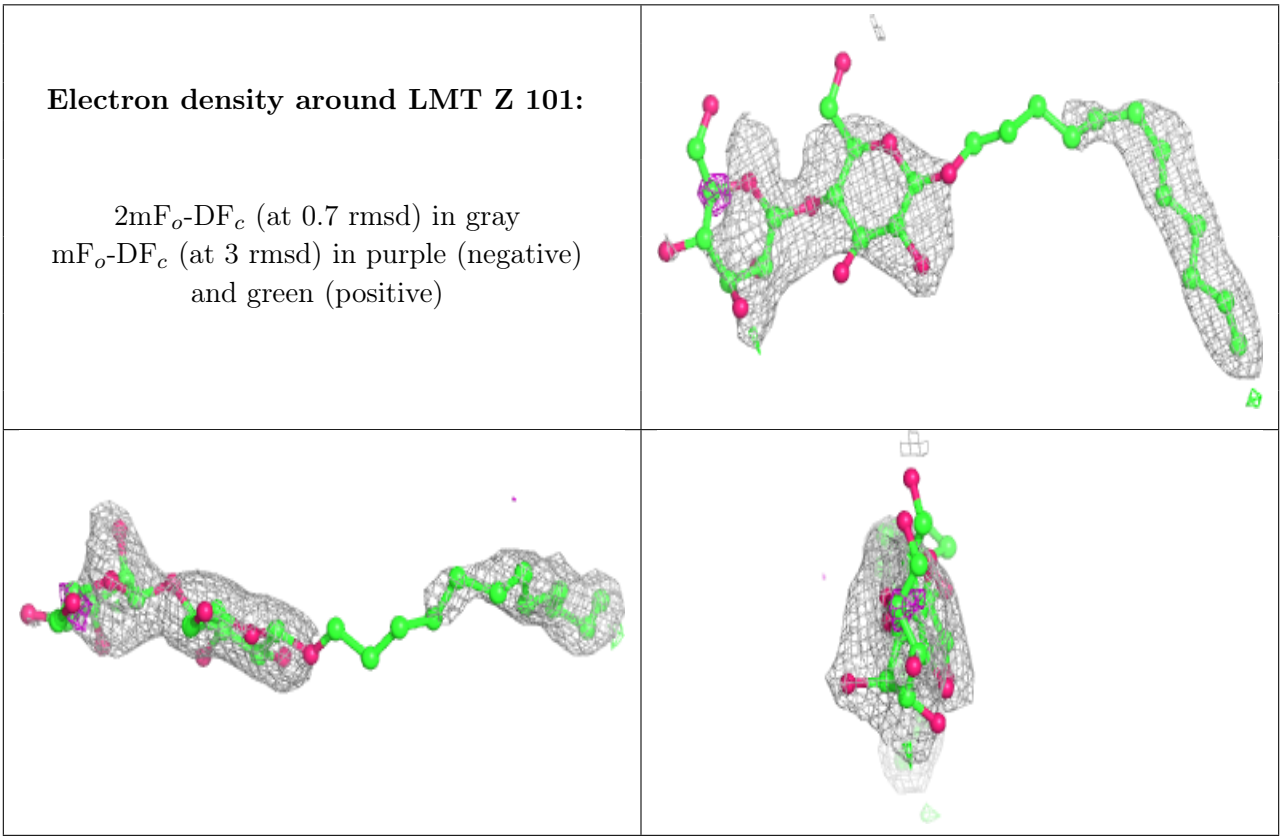
Electron density around DGD D 407:

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



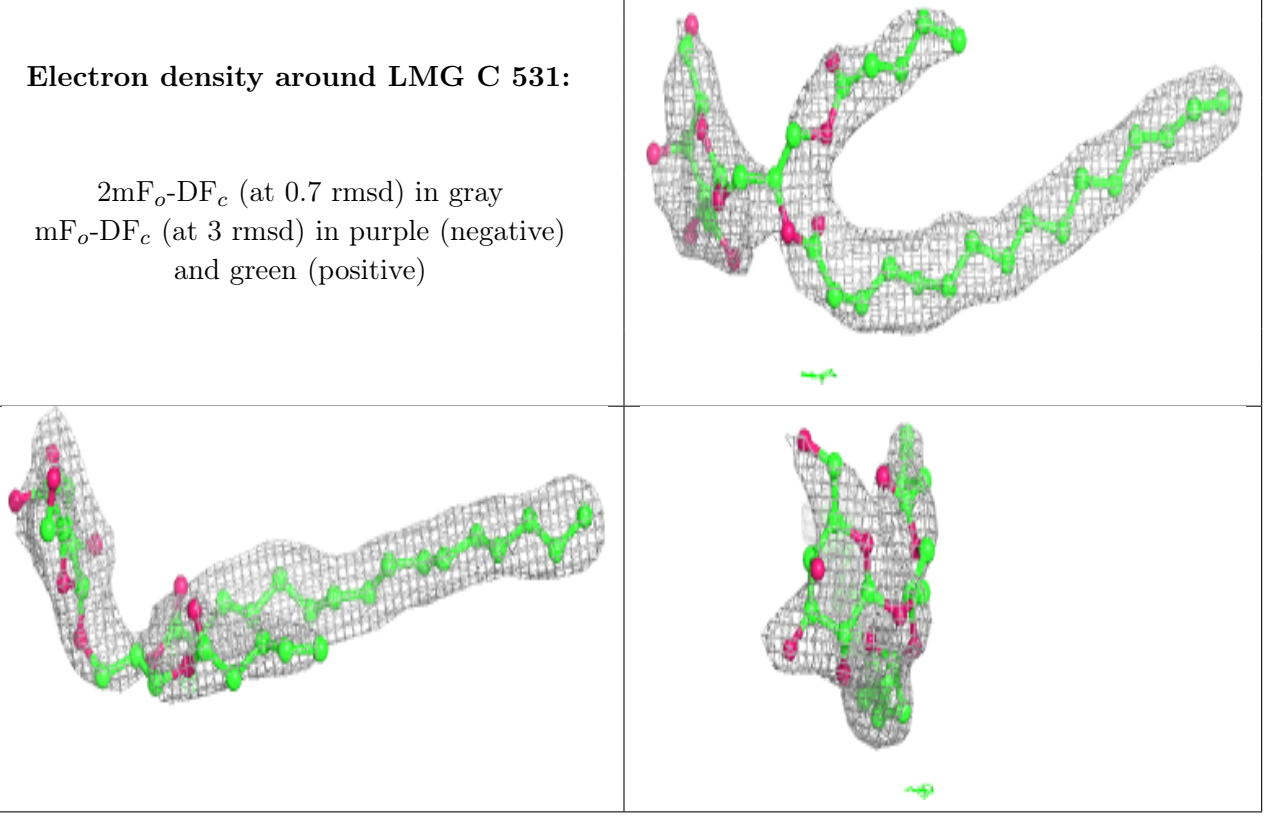
Electron density around LMT Z 101:

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



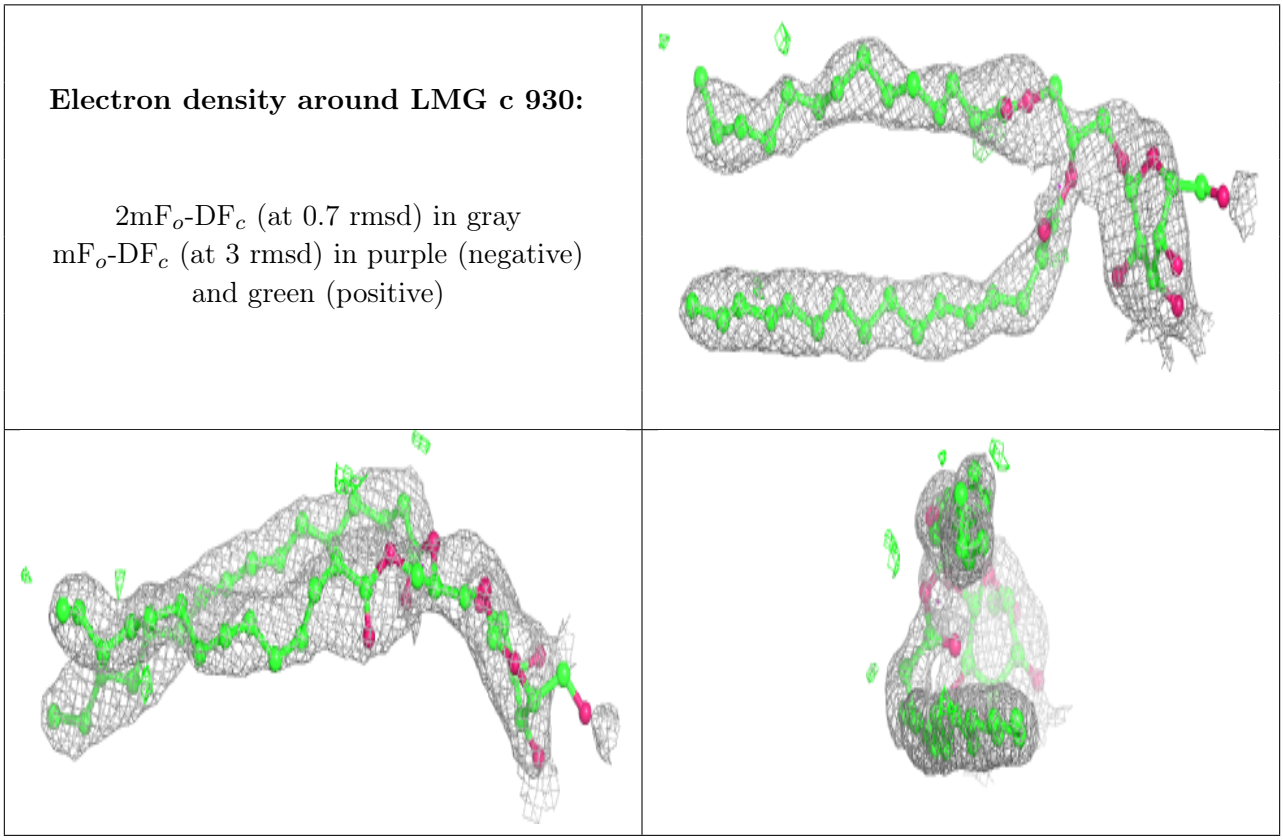
Electron density around LMG C 531:

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



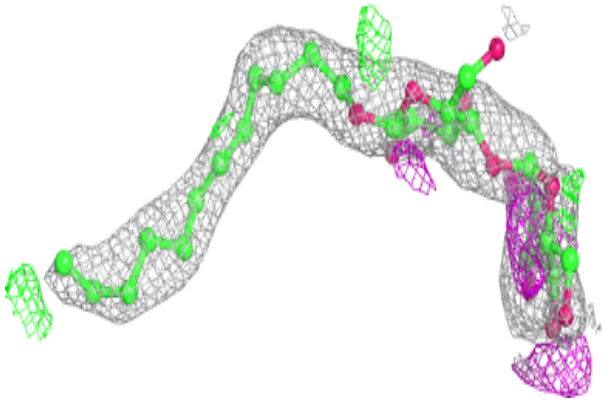
Electron density around LMG c 930:

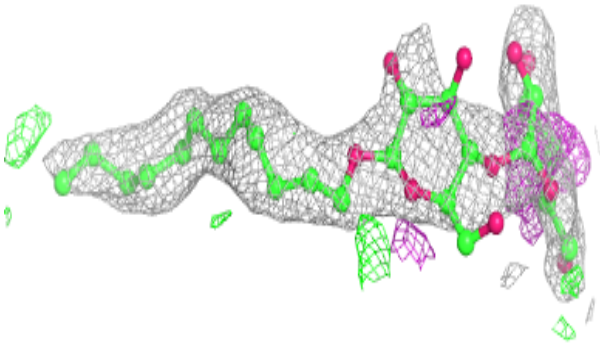
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

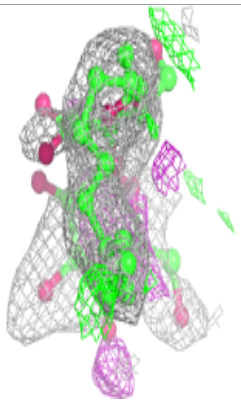


Electron density around LMT a 419:

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

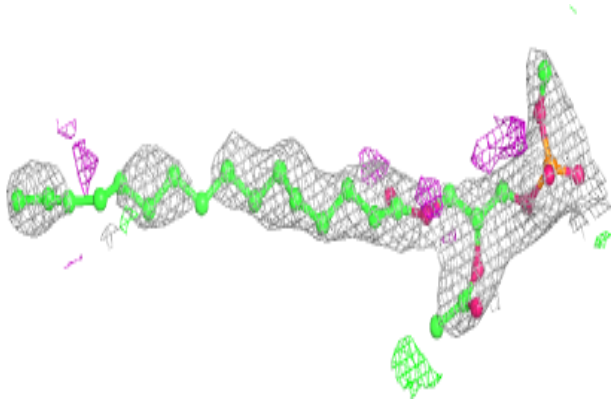


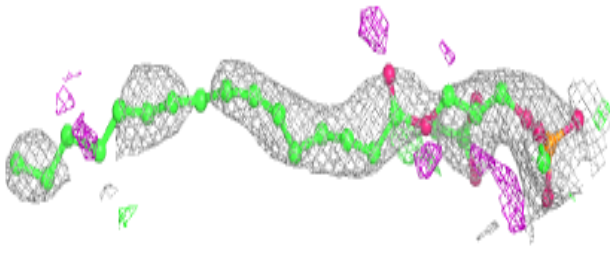


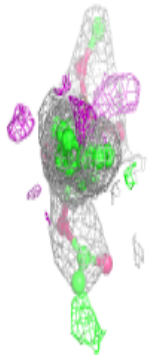


Electron density around LHG A 412:

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

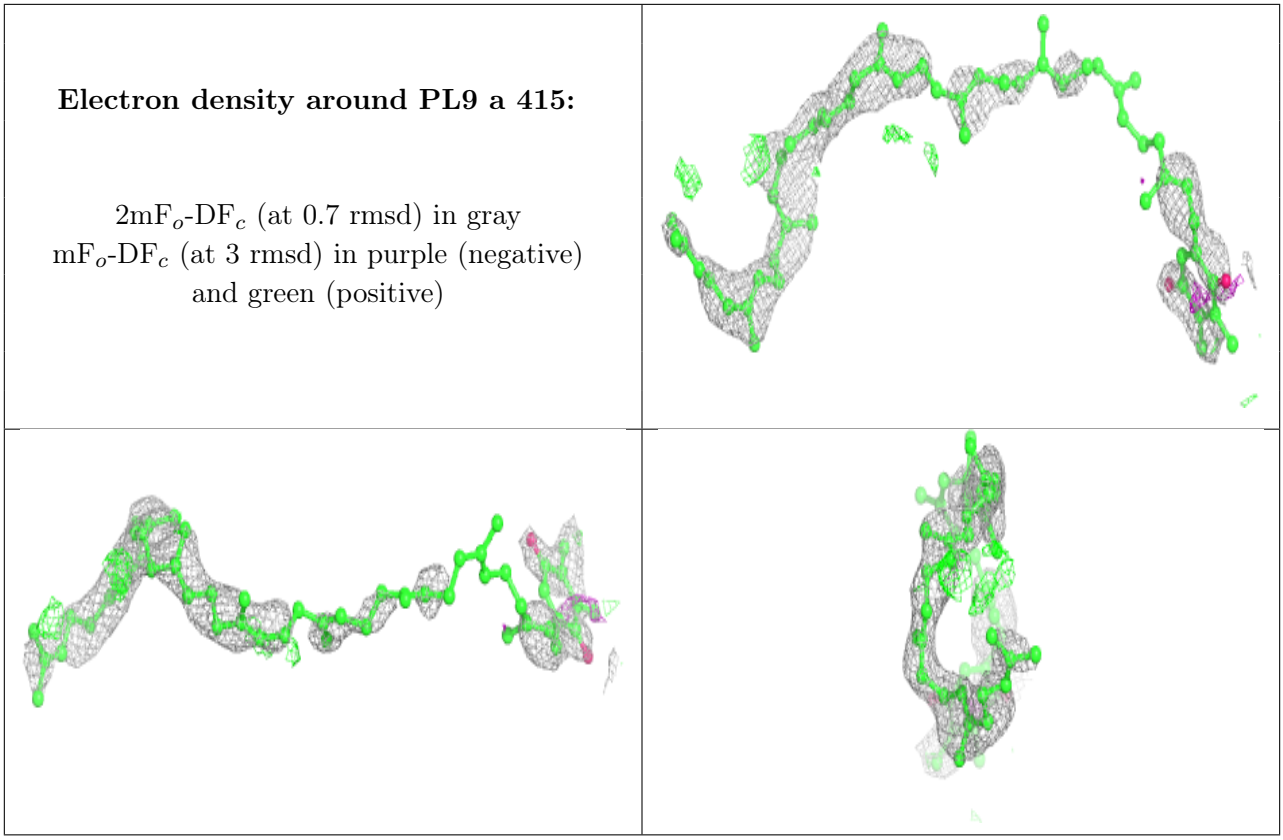






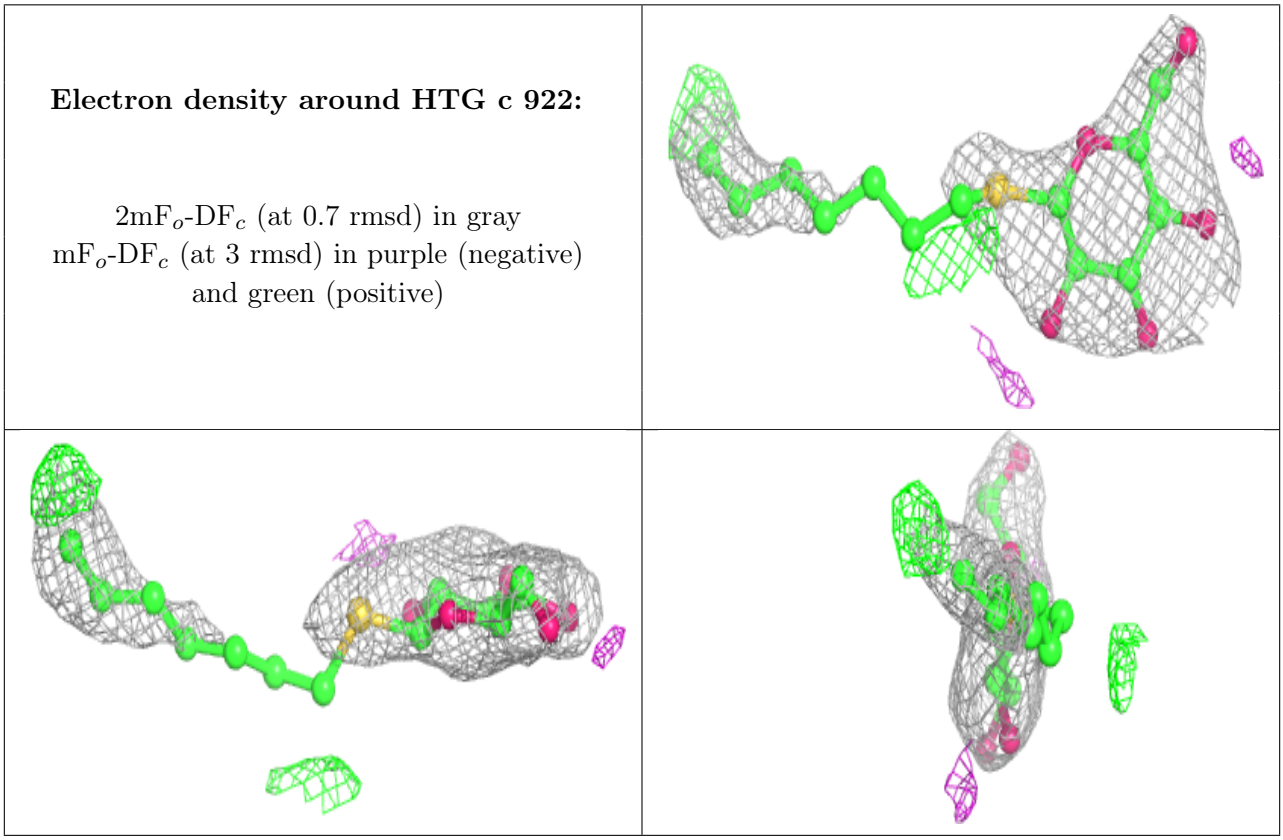
Electron density around PL9 a 415:

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



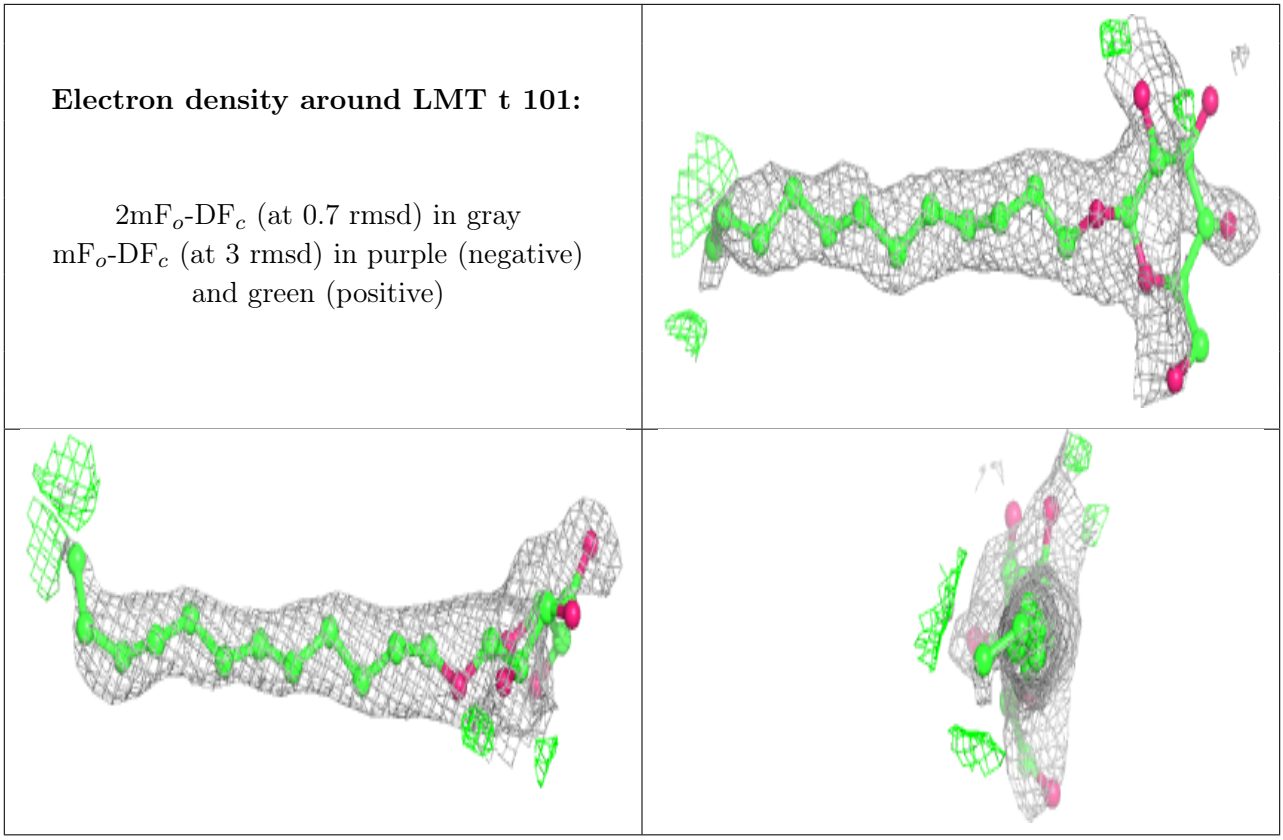
Electron density around HTG c 922:

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



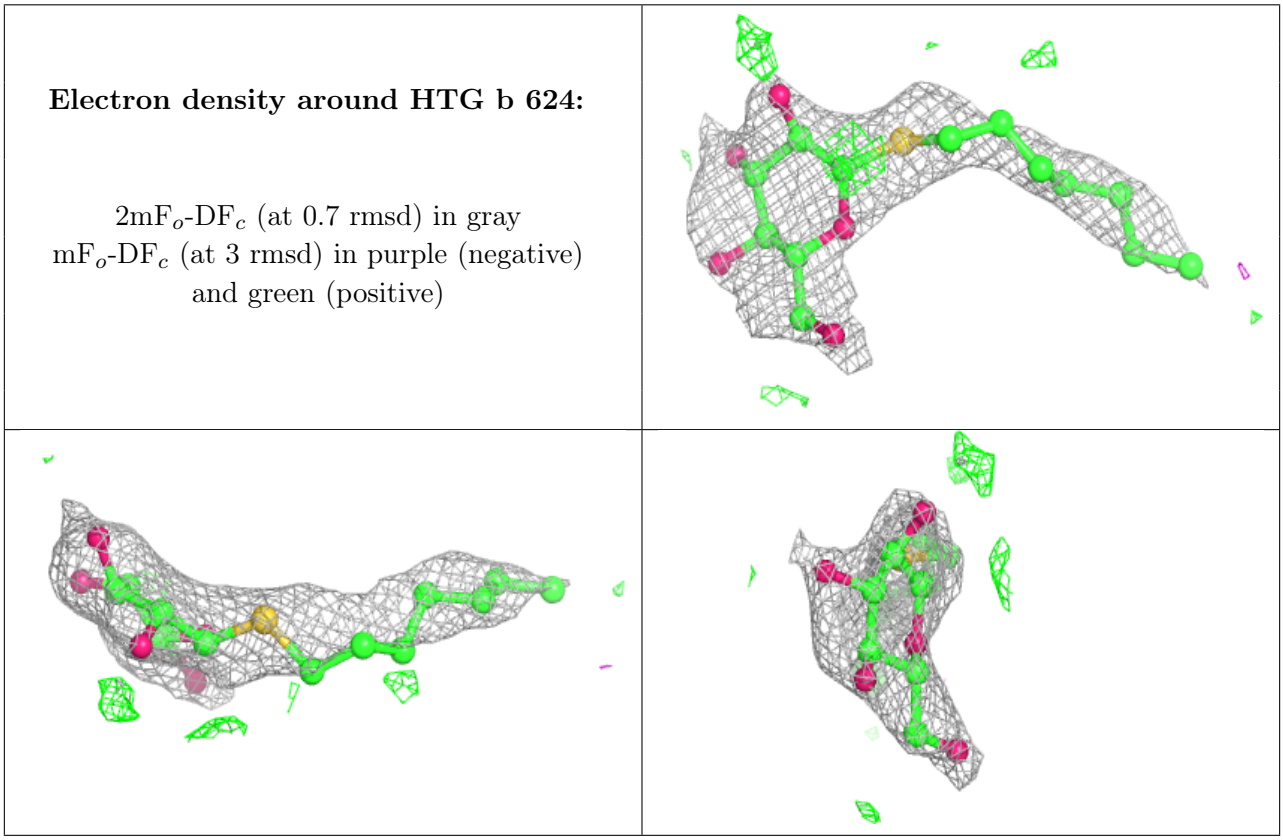
Electron density around LMT t 101:

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



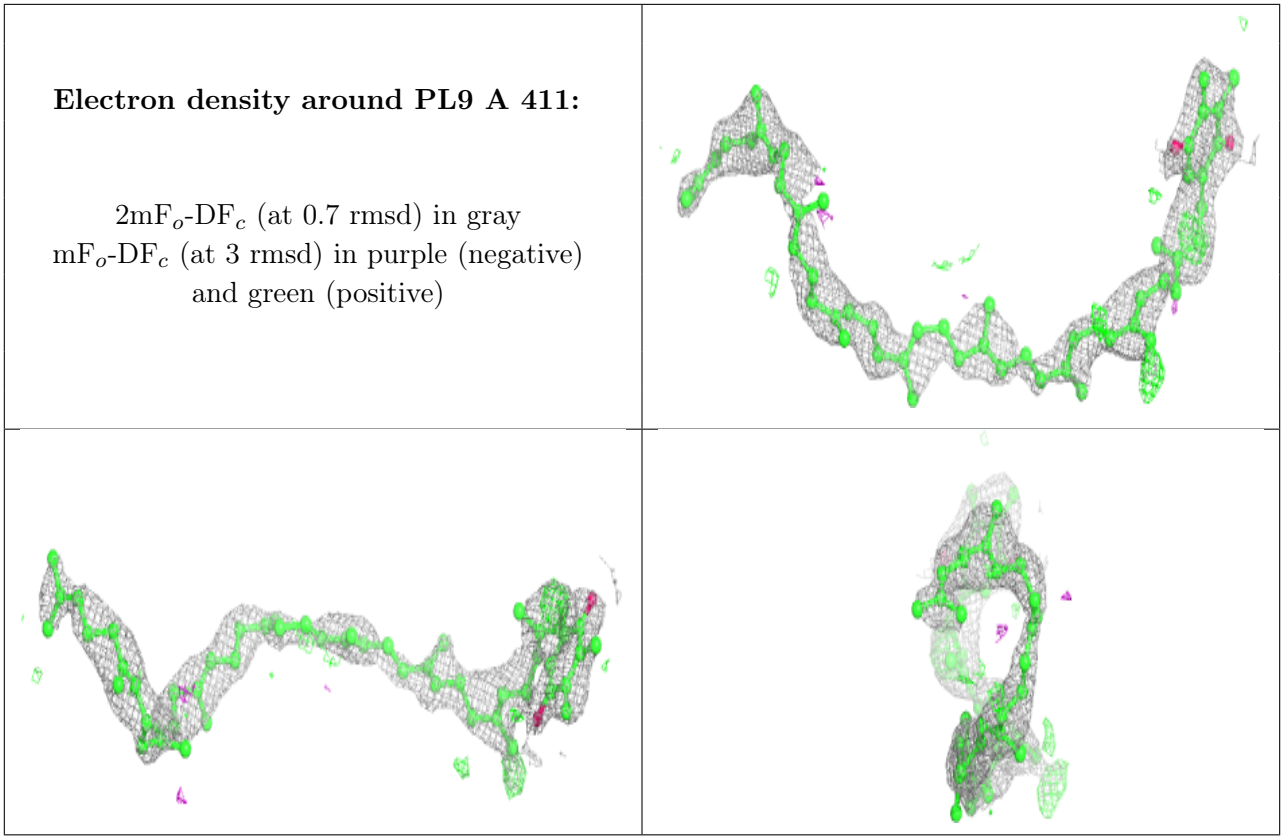
Electron density around HTG b 624:

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



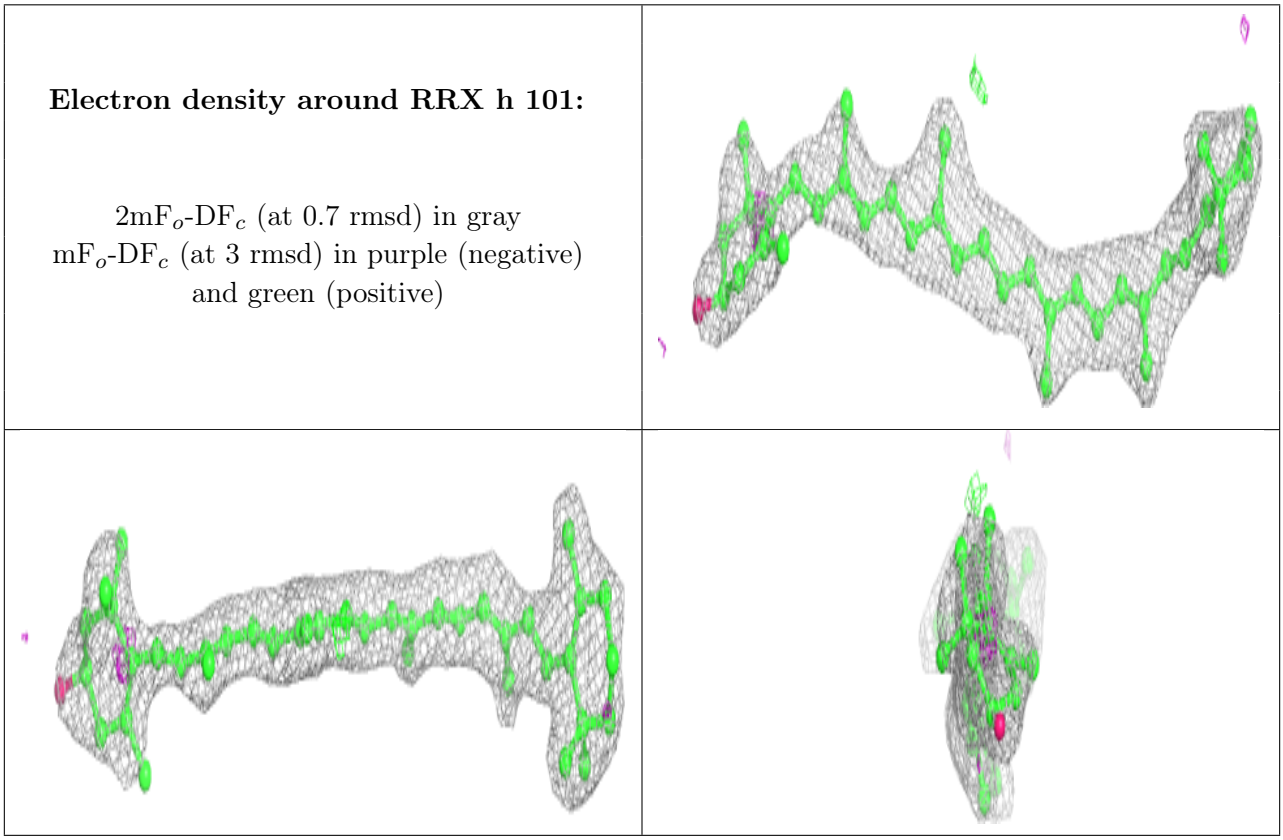
Electron density around PL9 A 411:

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



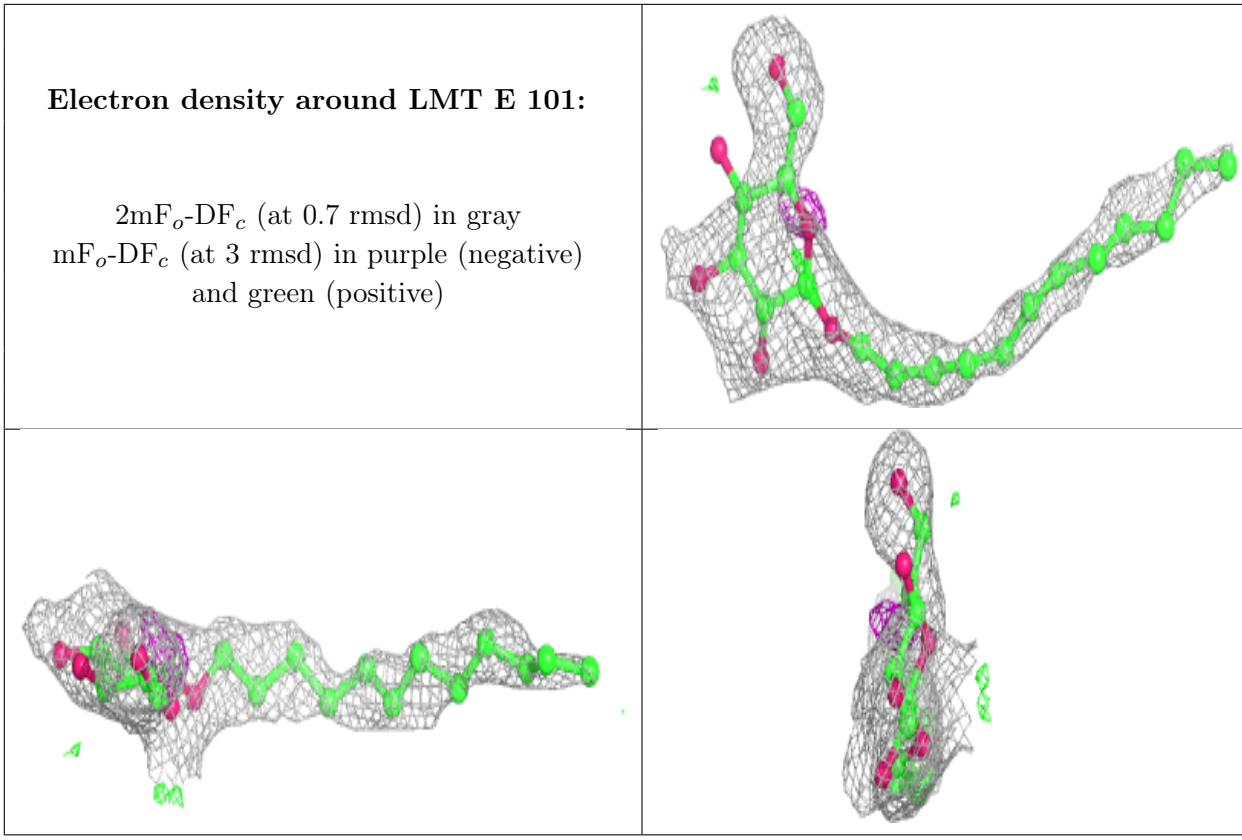
Electron density around RRX h 101:

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



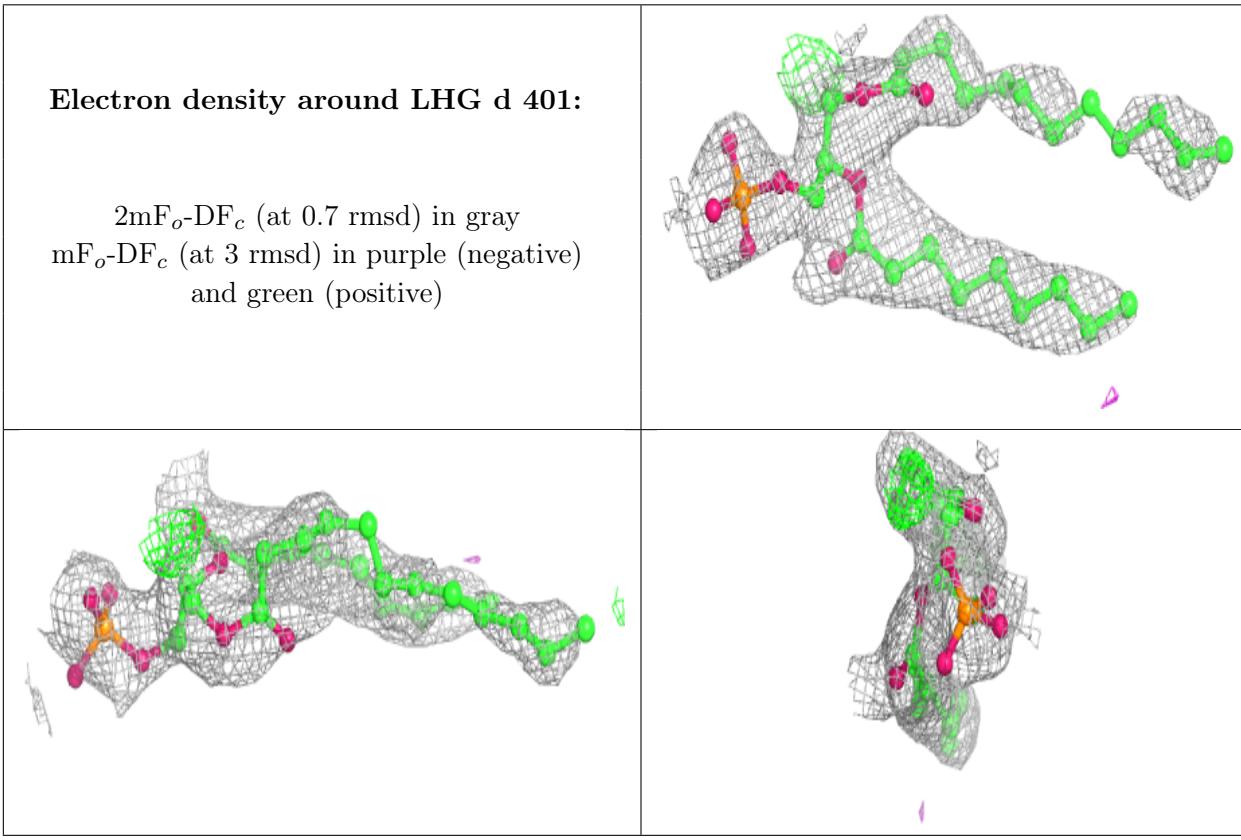
Electron density around LMT E 101:

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



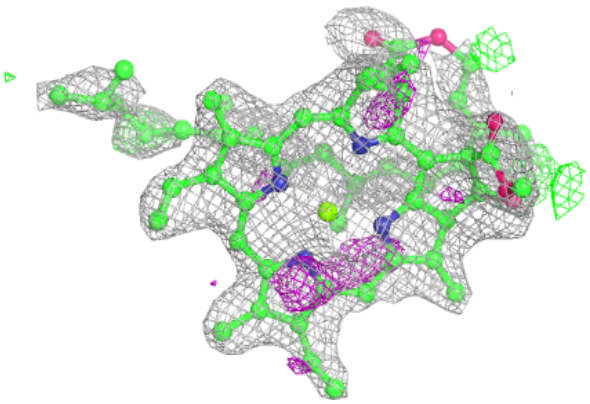
Electron density around LHG d 401:

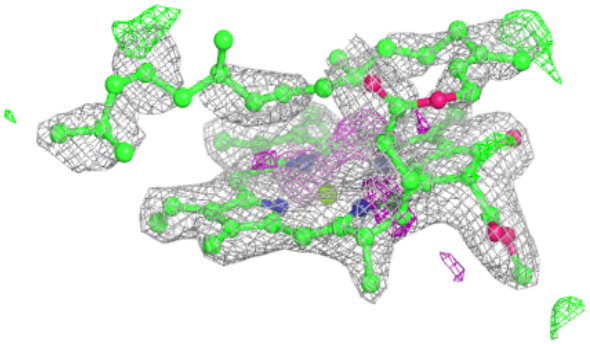
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

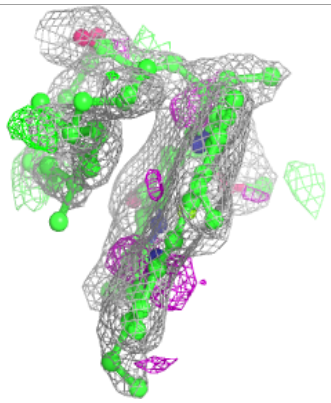


Electron density around CLA b 602:

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

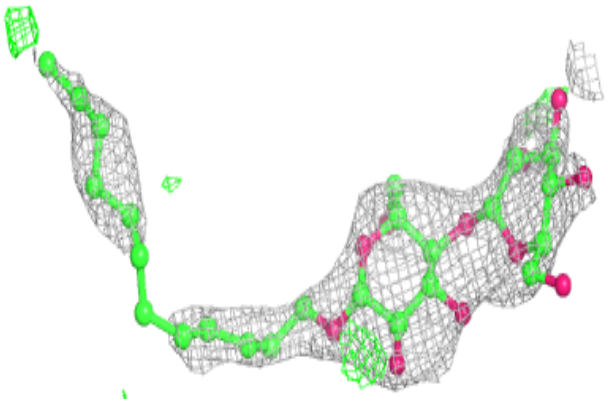


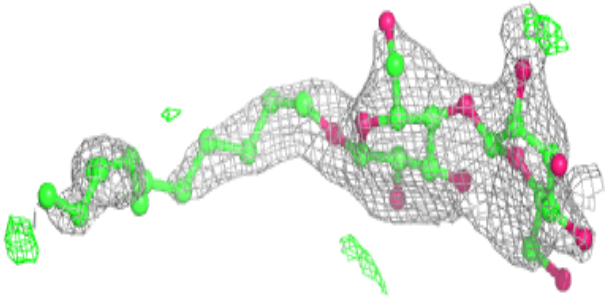


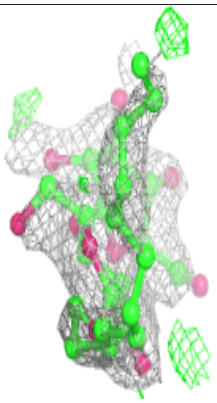


Electron density around LMT I 102:

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

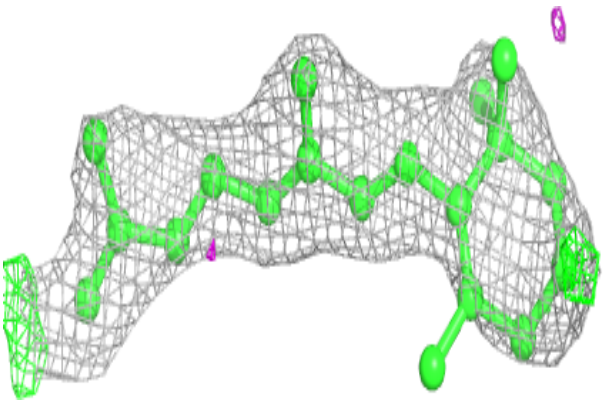


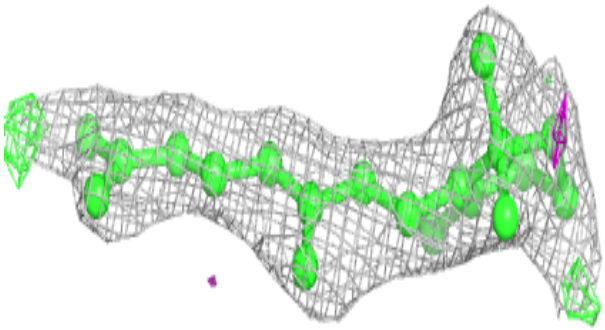


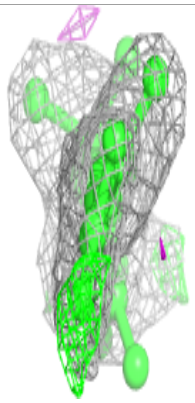


Electron density around BCR B 618:

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

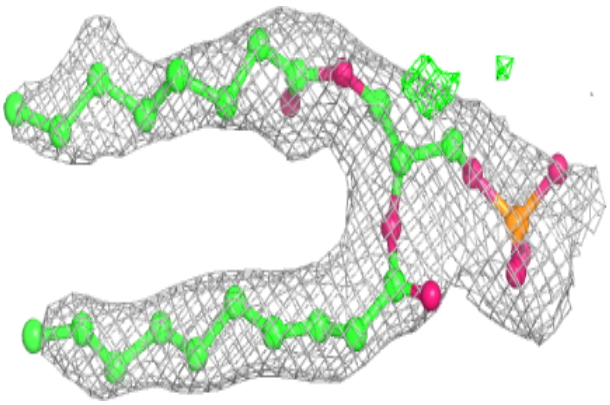


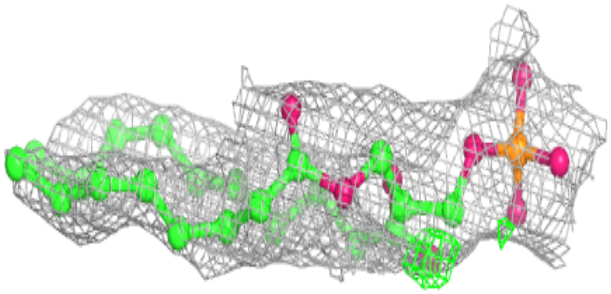


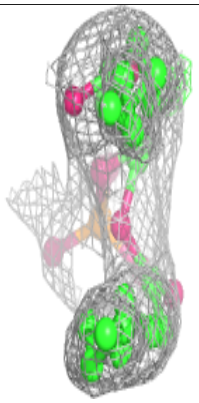


Electron density around LHG C 522:

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

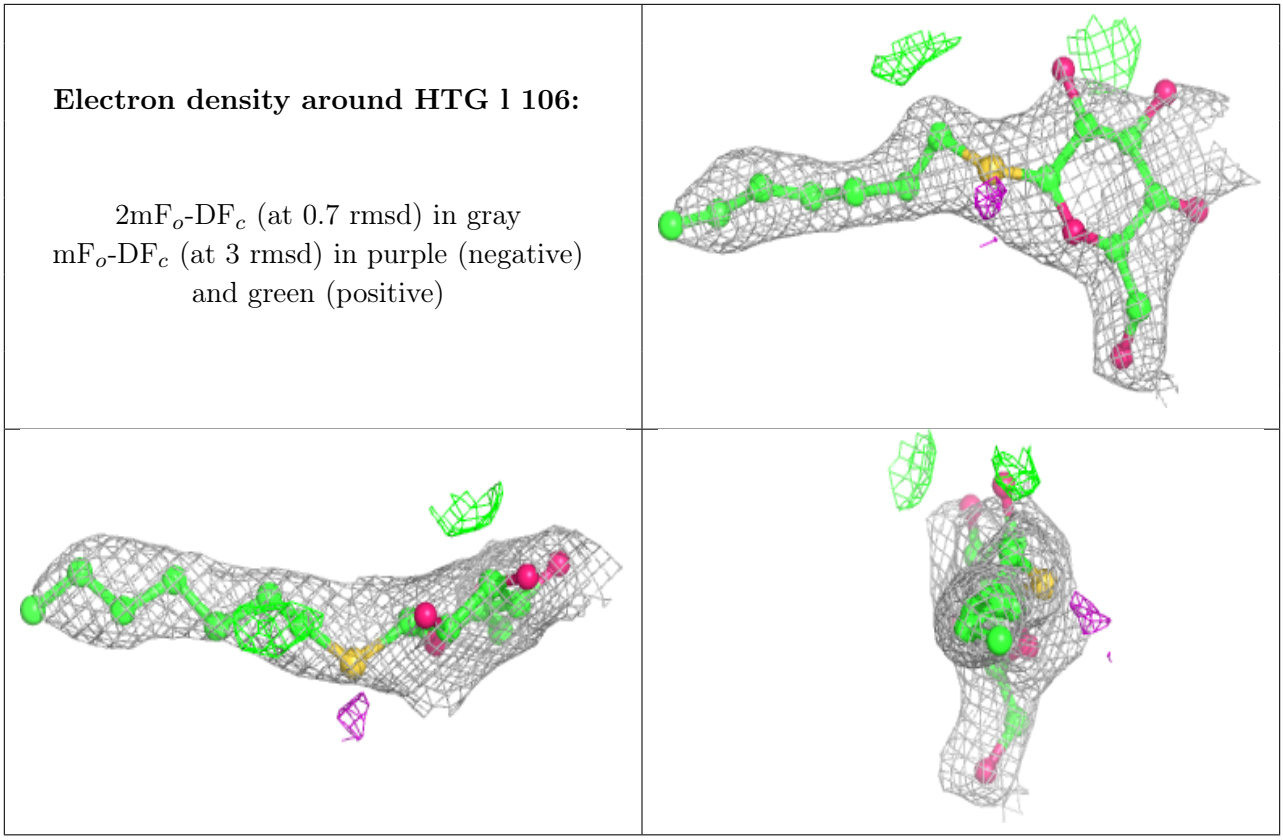






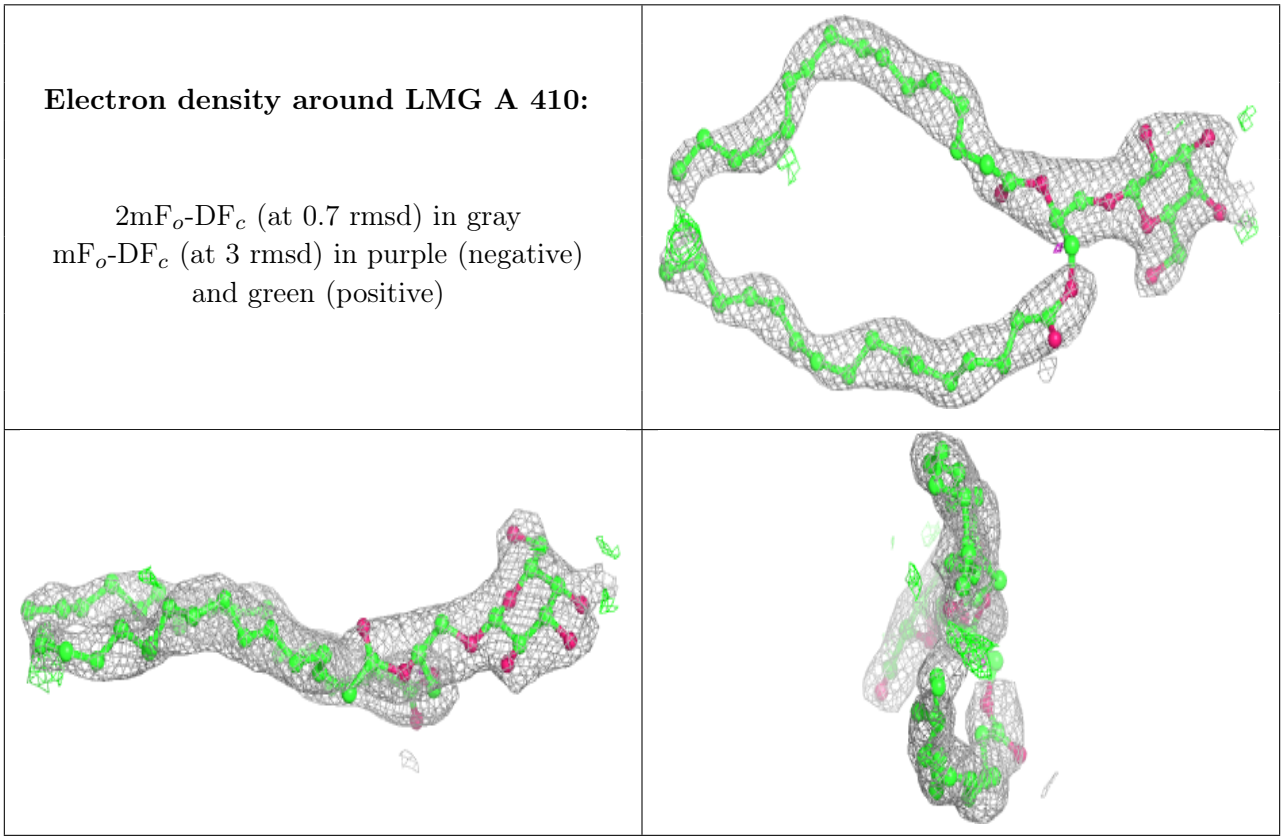
Electron density around HTG l 106:

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



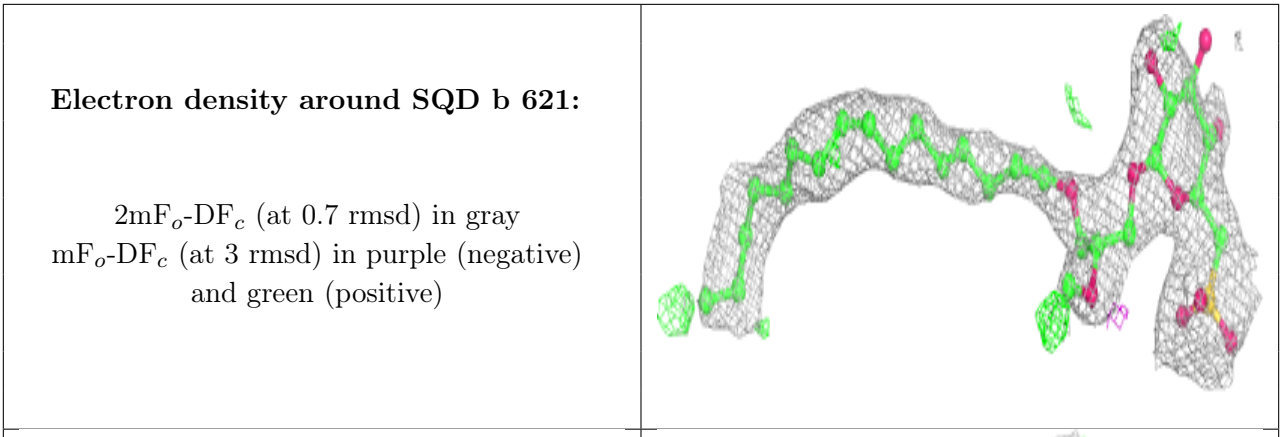
Electron density around LMG A 410:

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



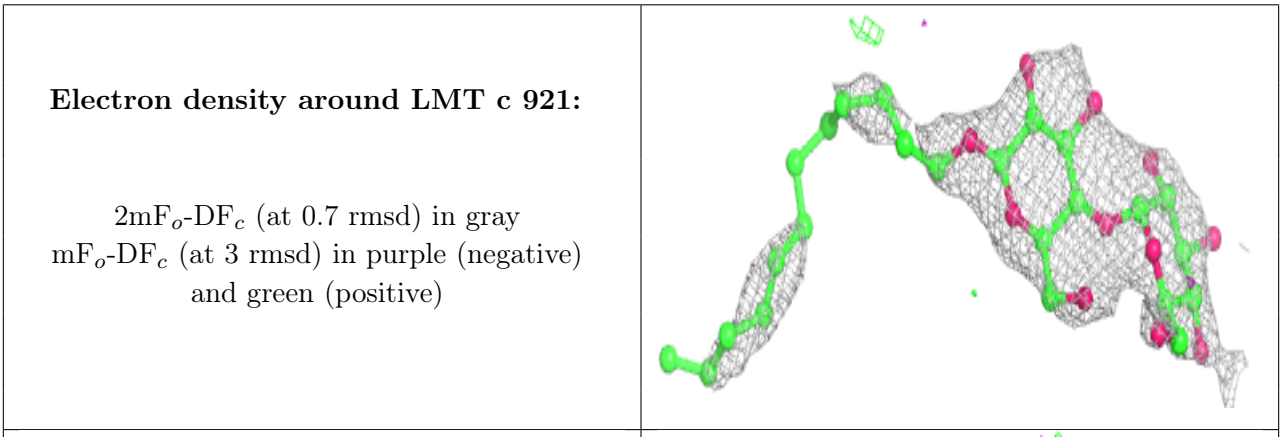
Electron density around SQD b 621:

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



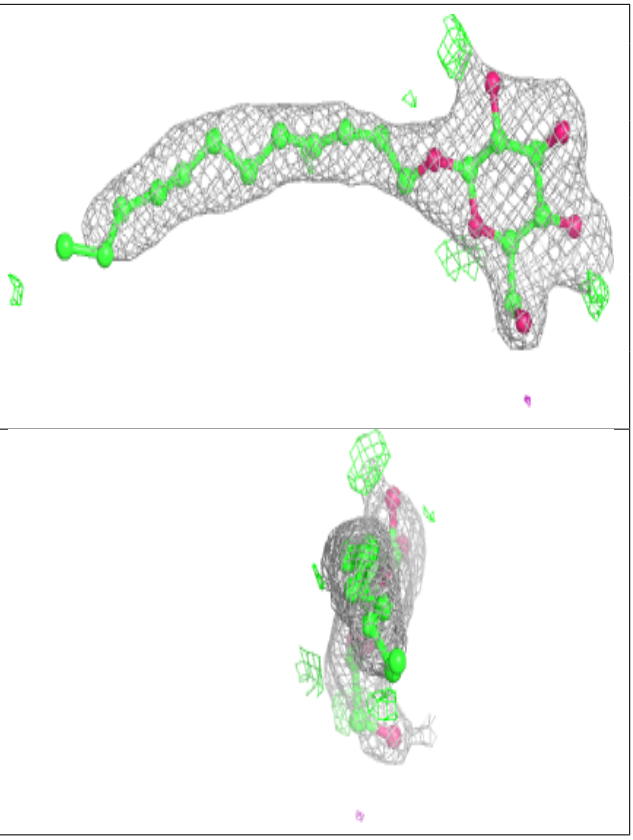
Electron density around LMT c 921:

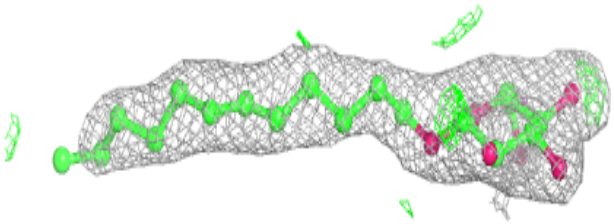
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around LMT B 622:

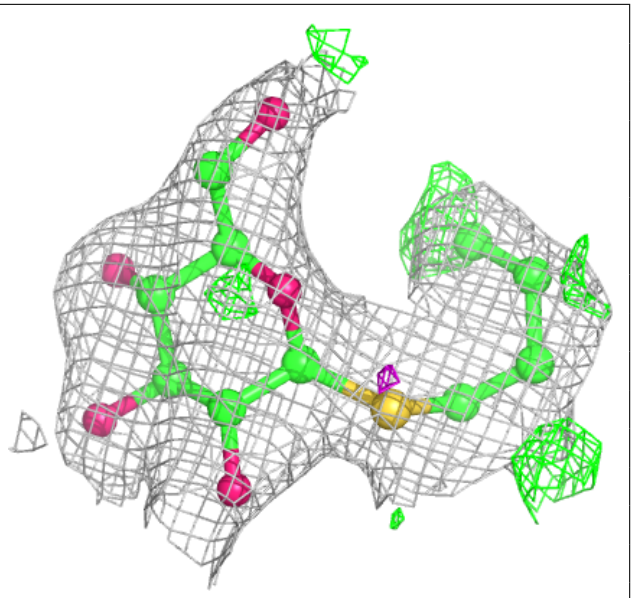
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

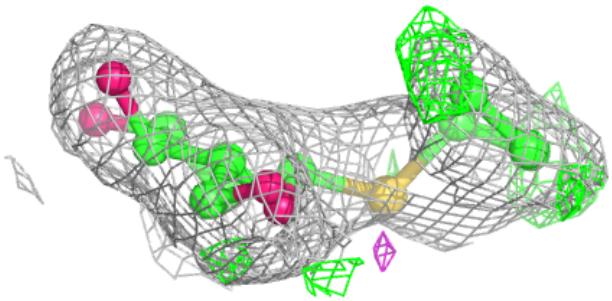


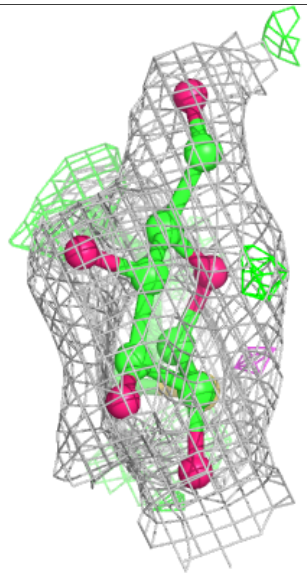


Electron density around HTG v 203:

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

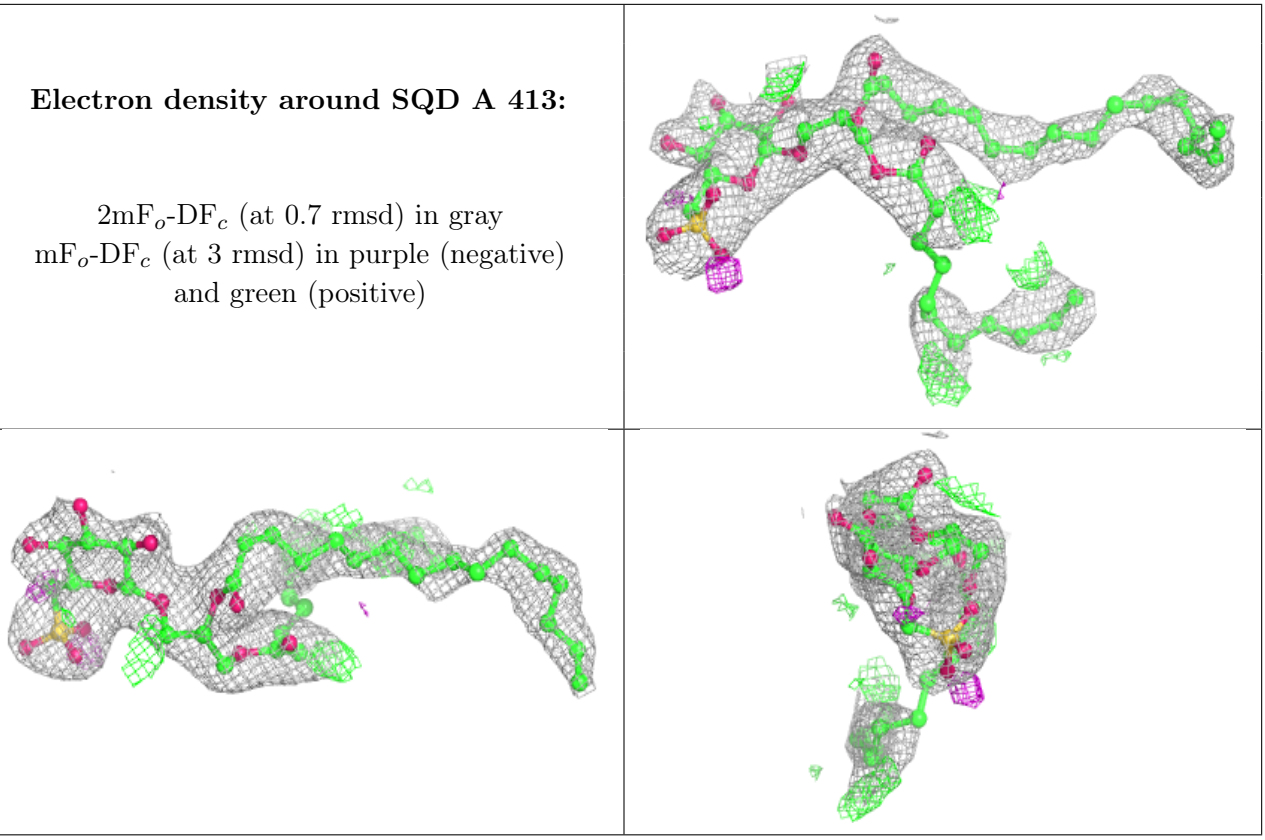






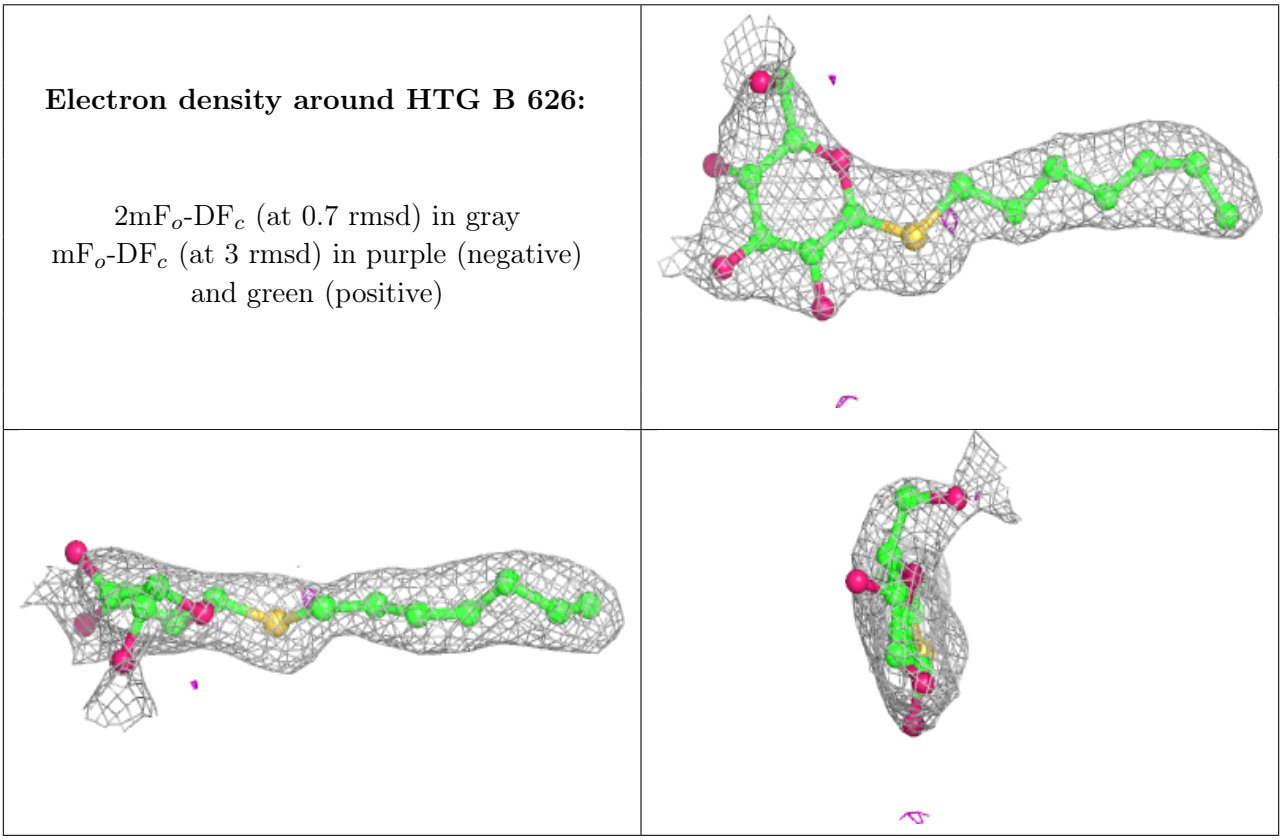
Electron density around SQD A 413:

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



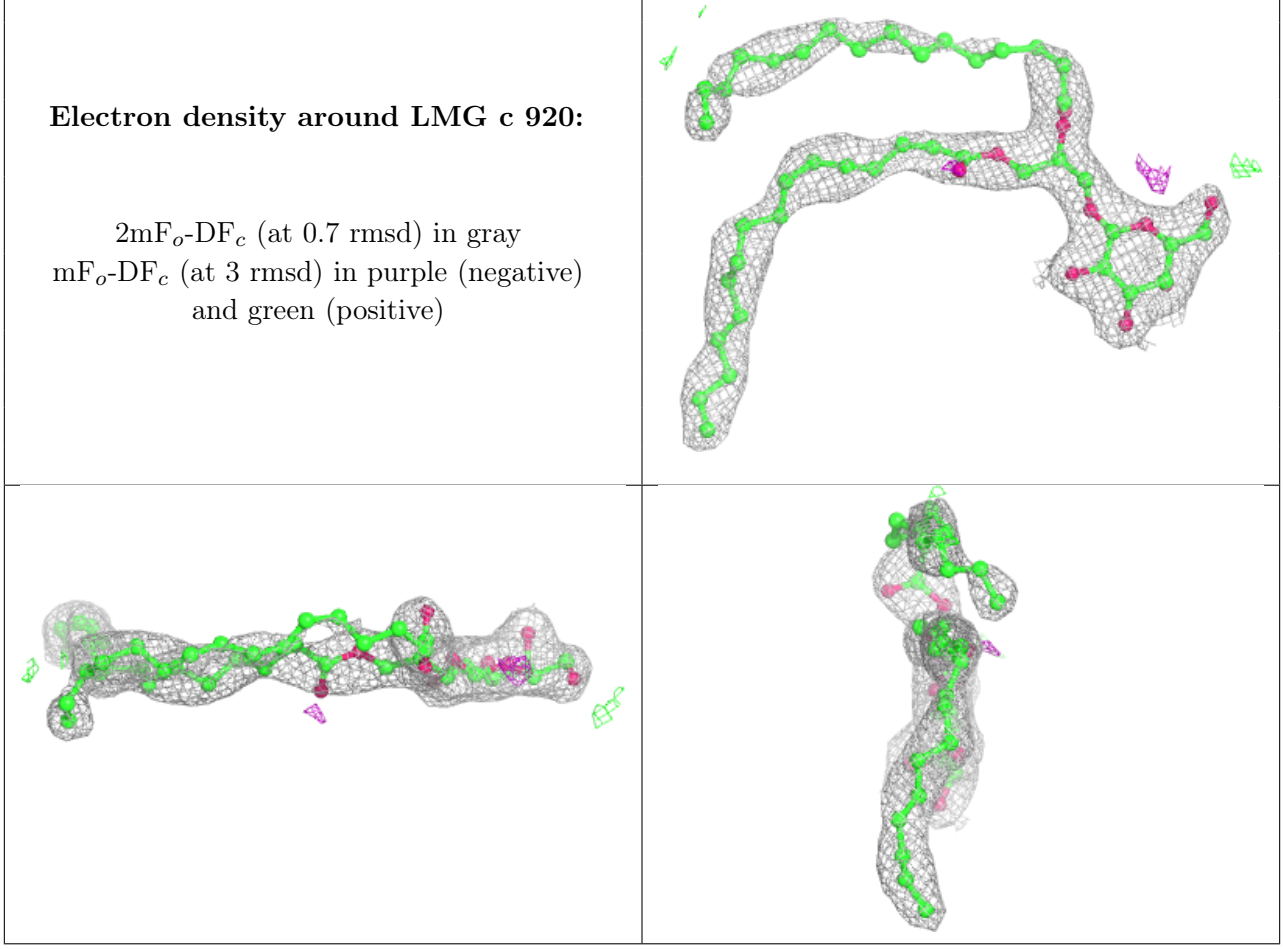
Electron density around HTG B 626:

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



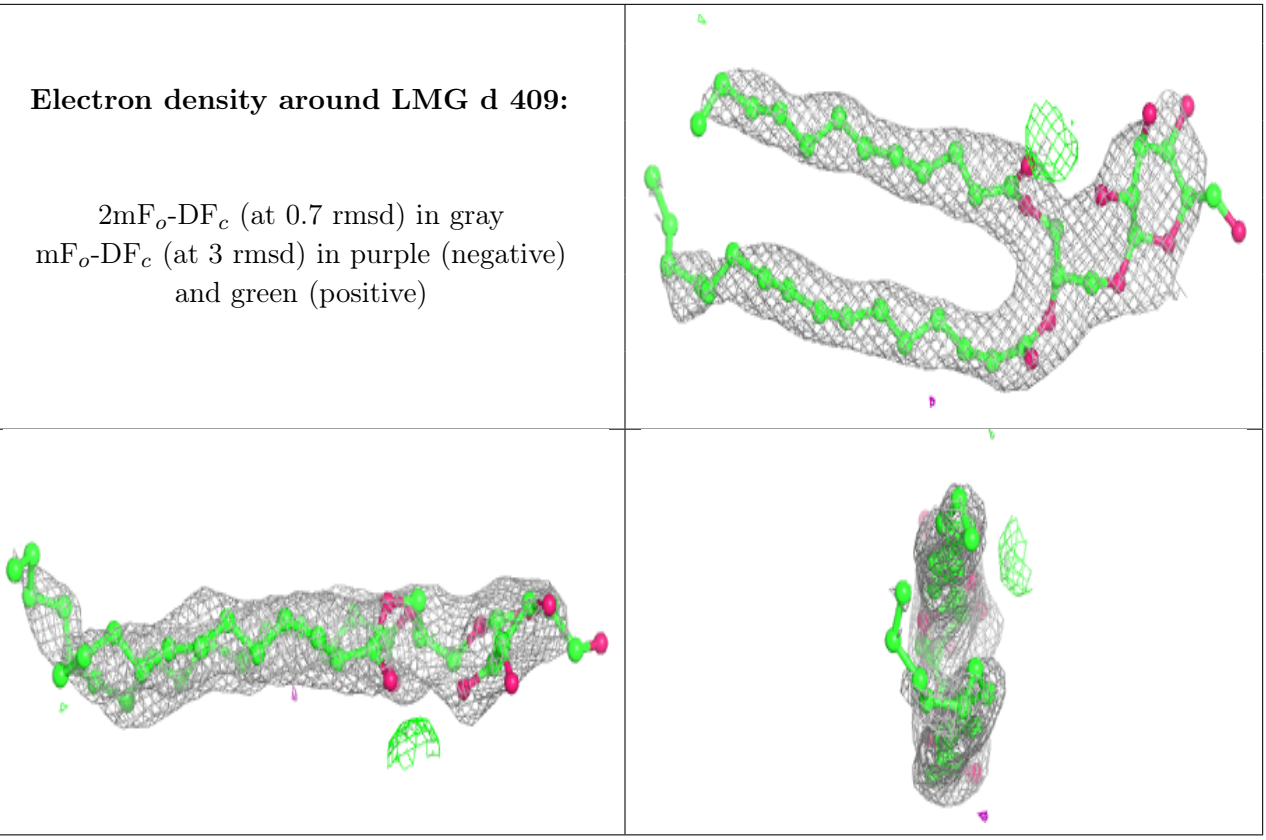
Electron density around LMG c 920:

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



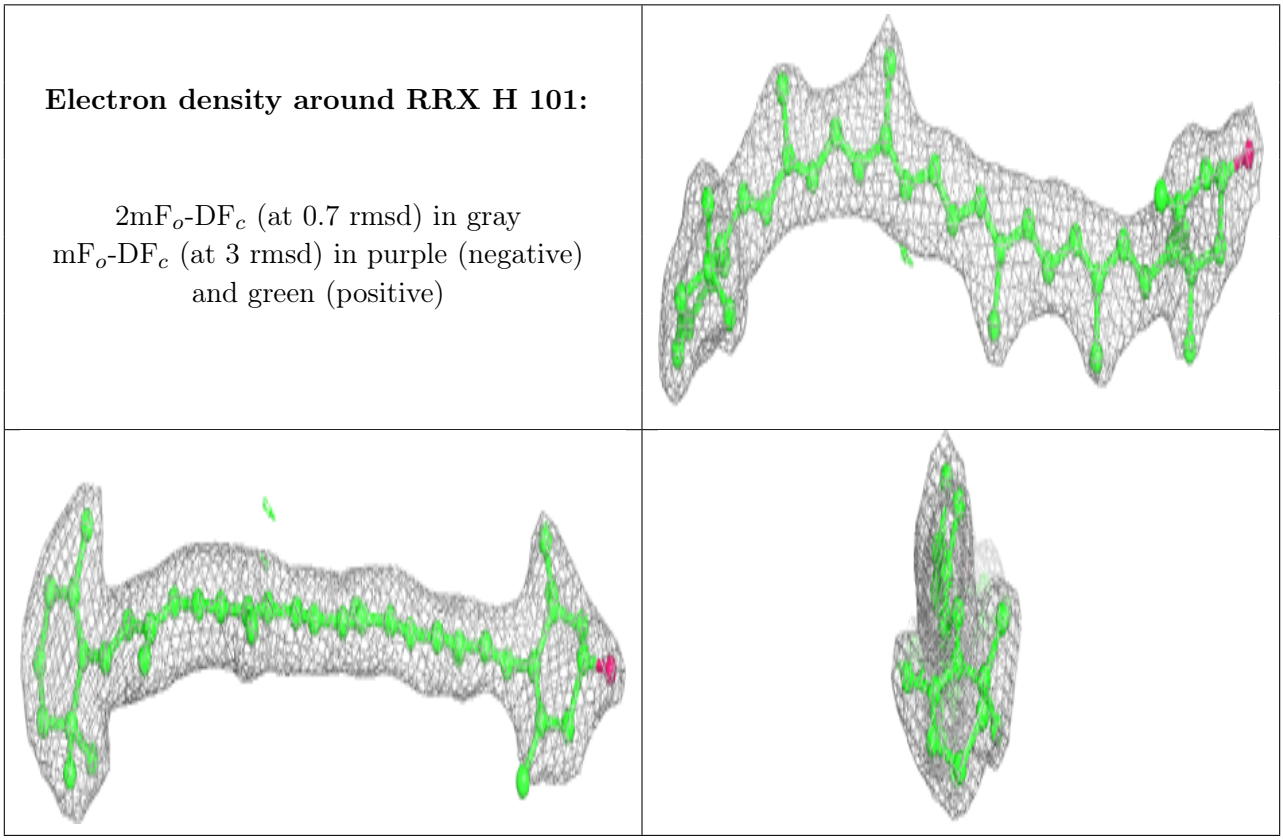
Electron density around LMG d 409:

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



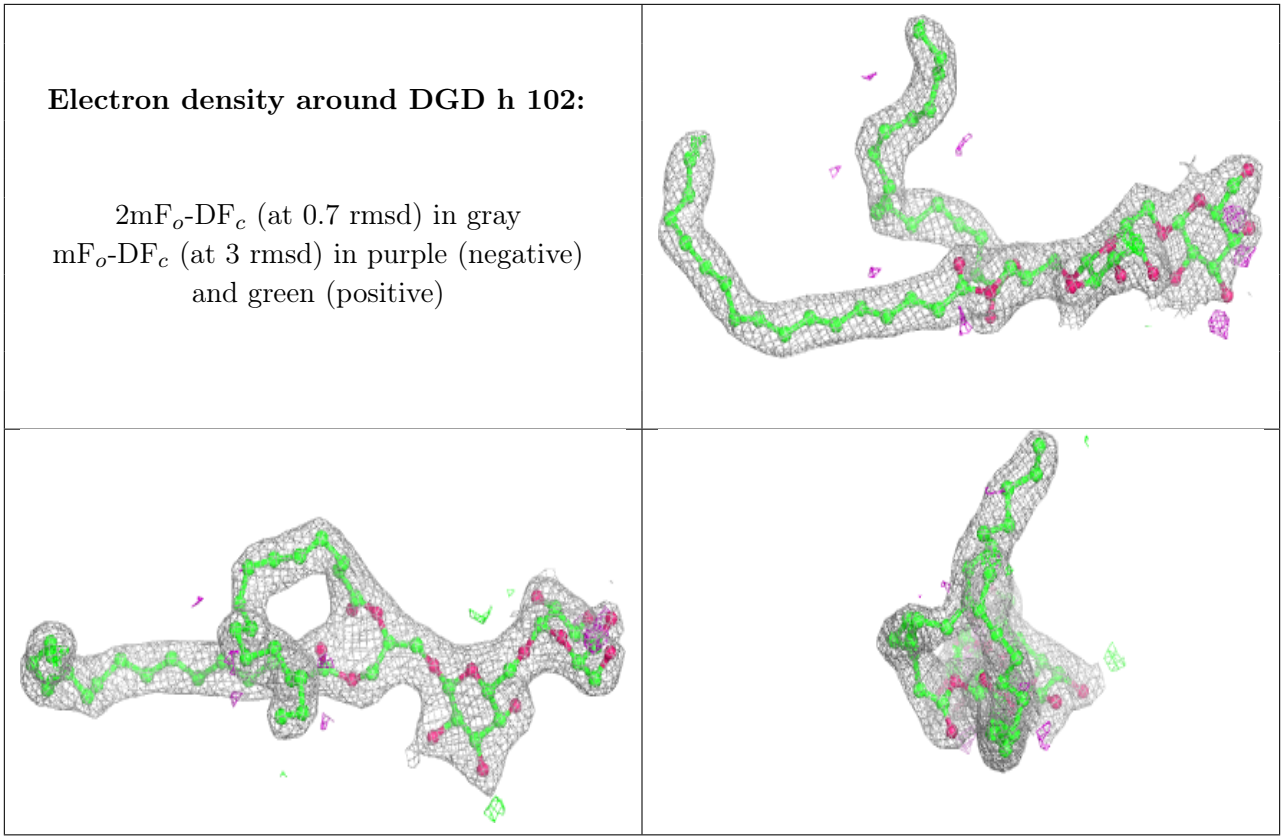
Electron density around RRX H 101:

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



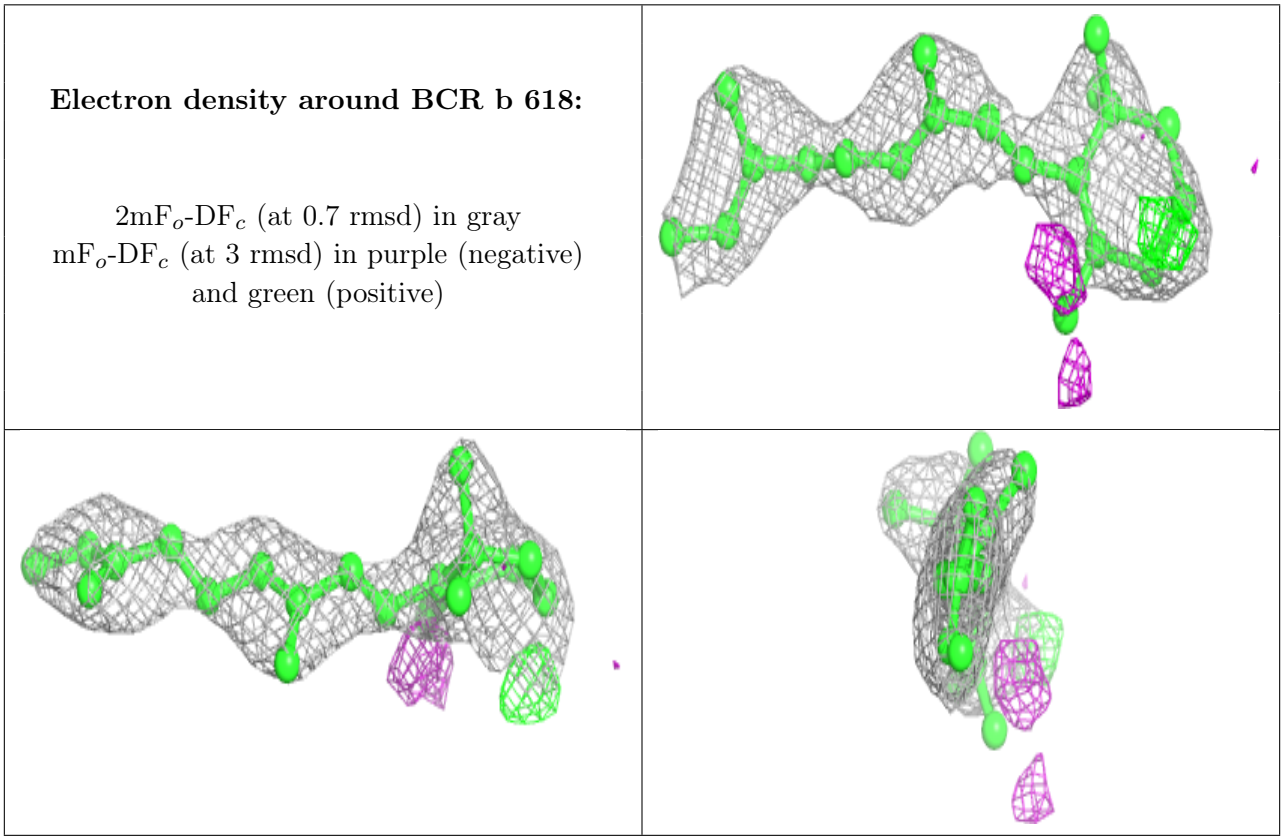
Electron density around DGD h 102:

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



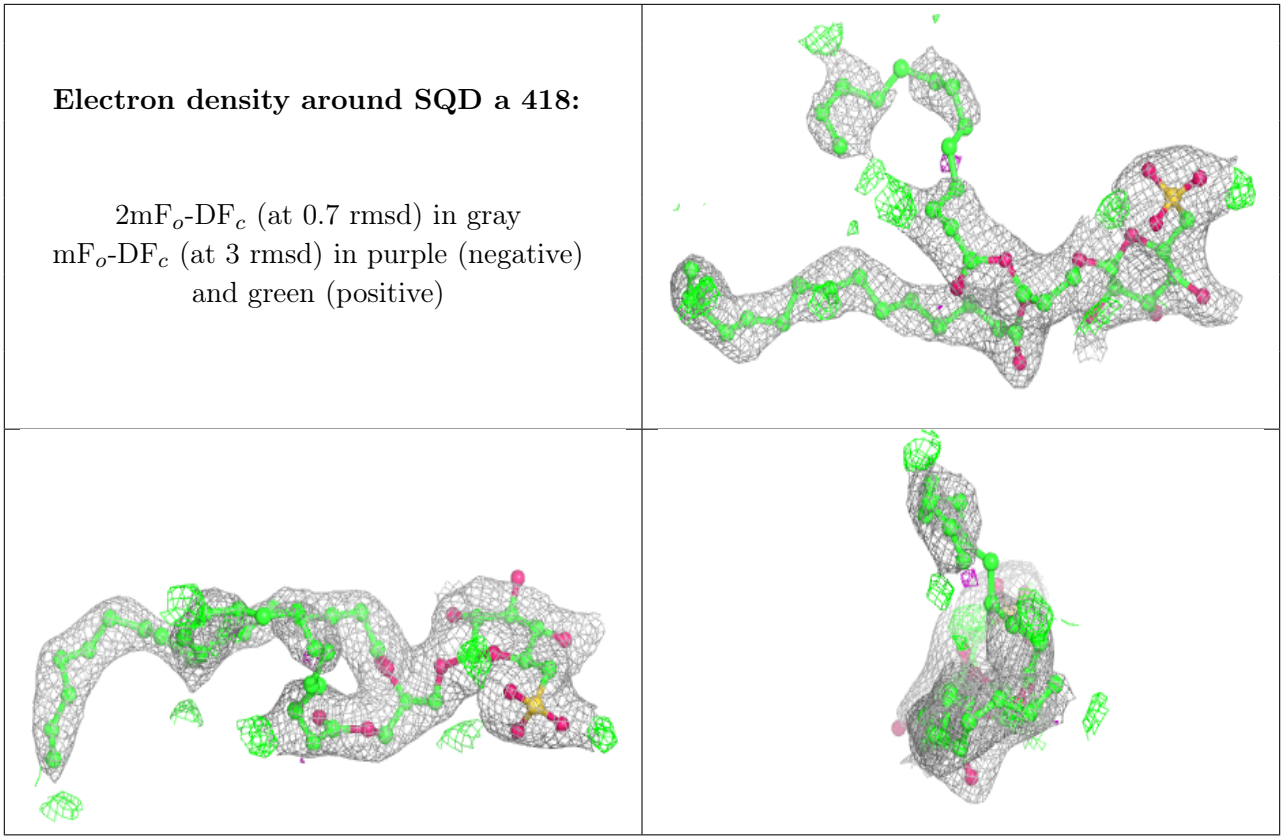
Electron density around BCR b 618:

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



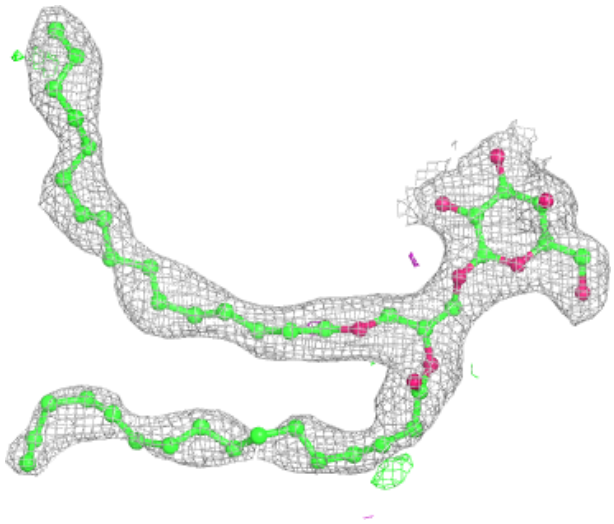
Electron density around SQD a 418:

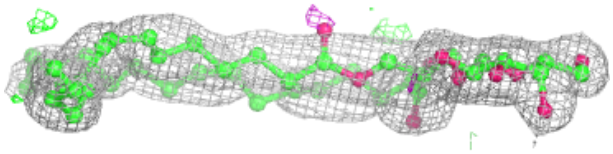
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

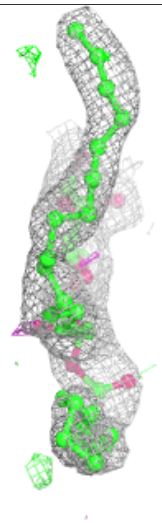


Electron density around LMG C 520:

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

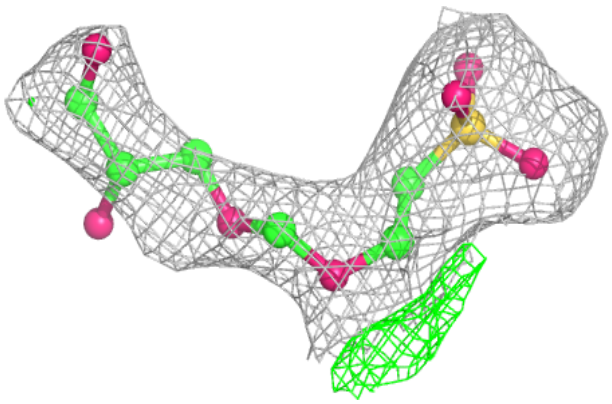


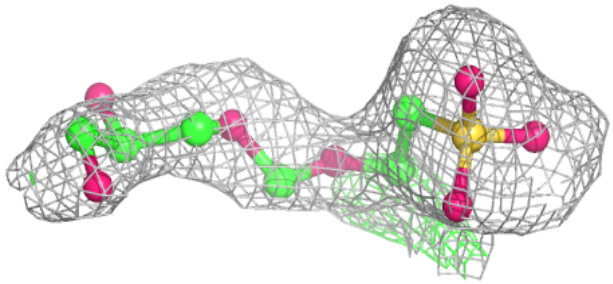


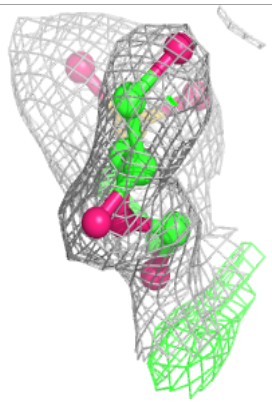


Electron density around SQD f 101:

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

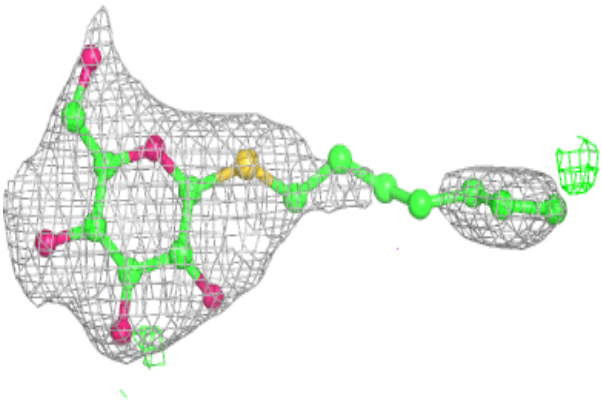


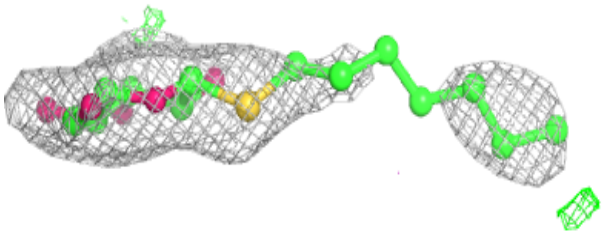


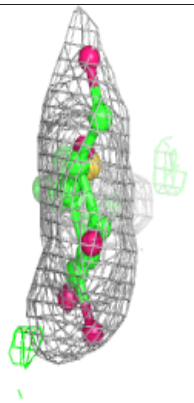


Electron density around HTG C 521:

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

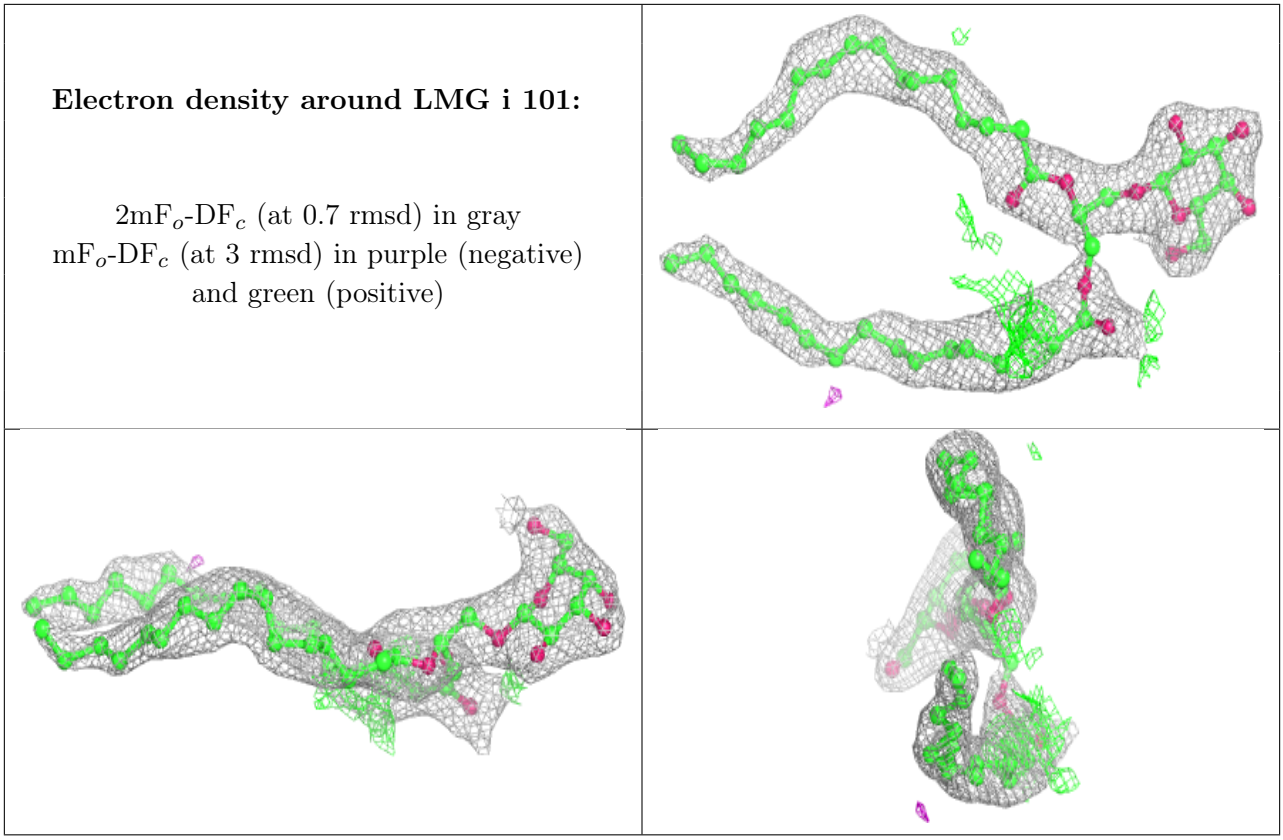






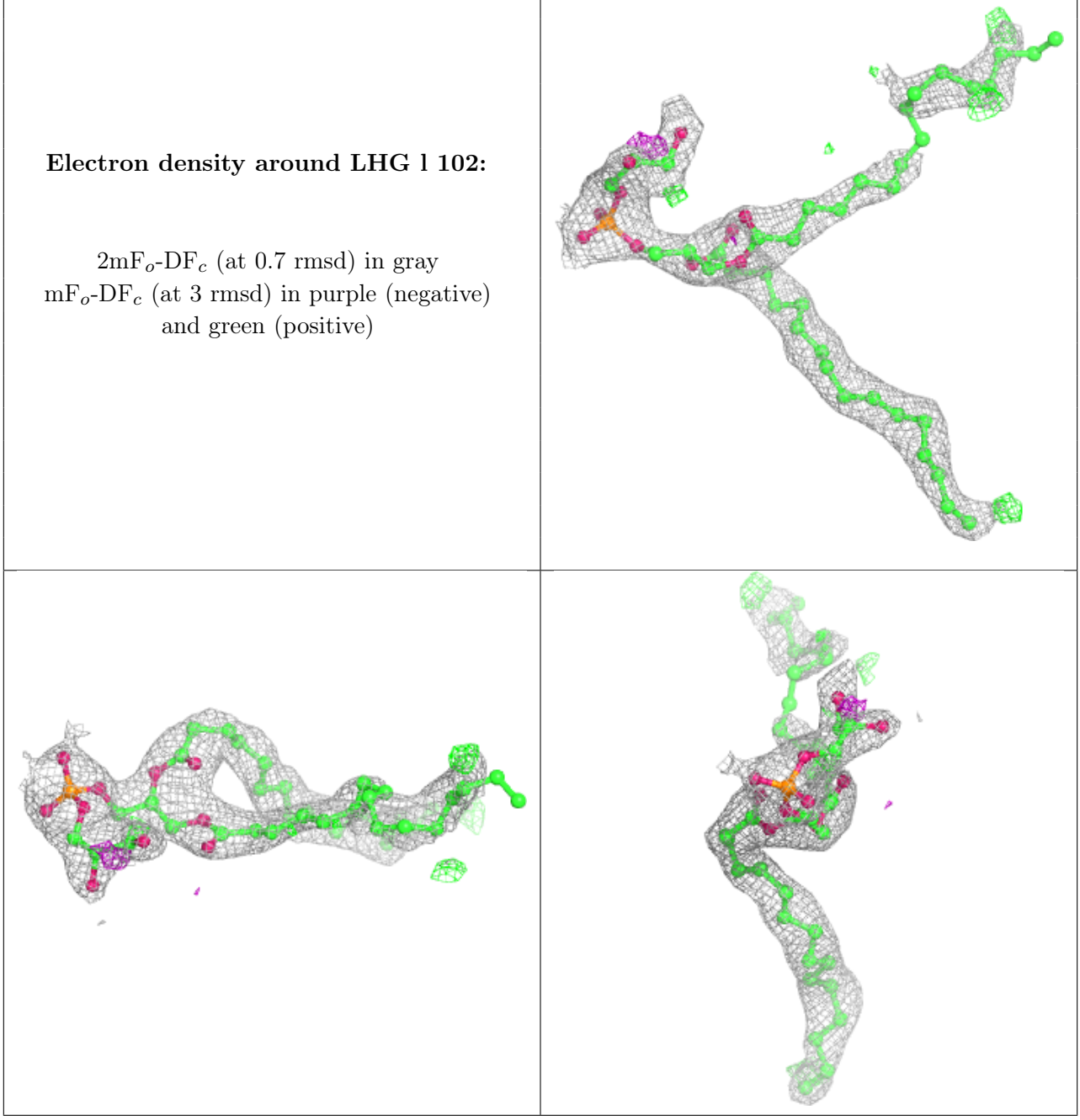
Electron density around LMG i 101:

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



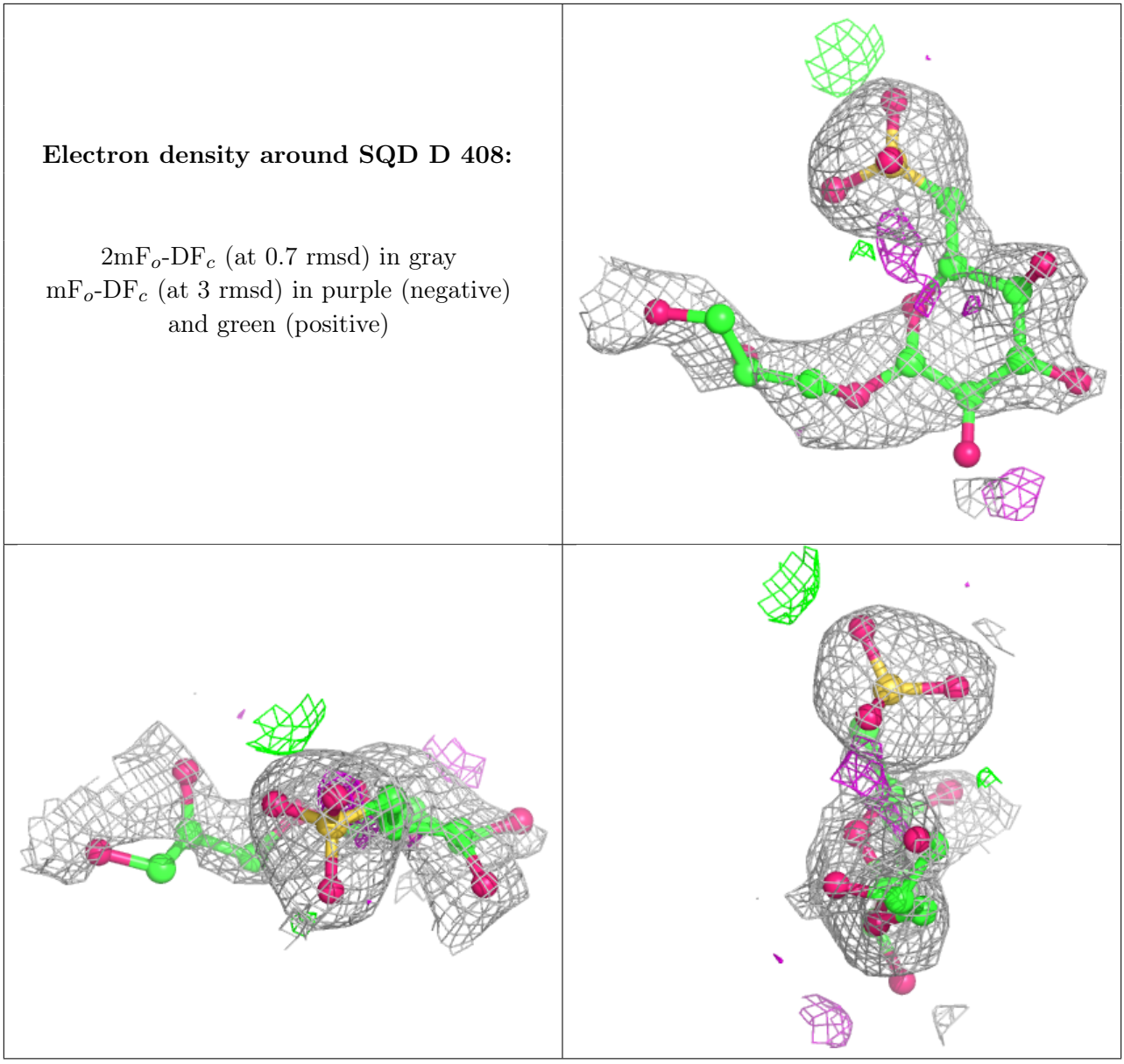
Electron density around LHG l 102:

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



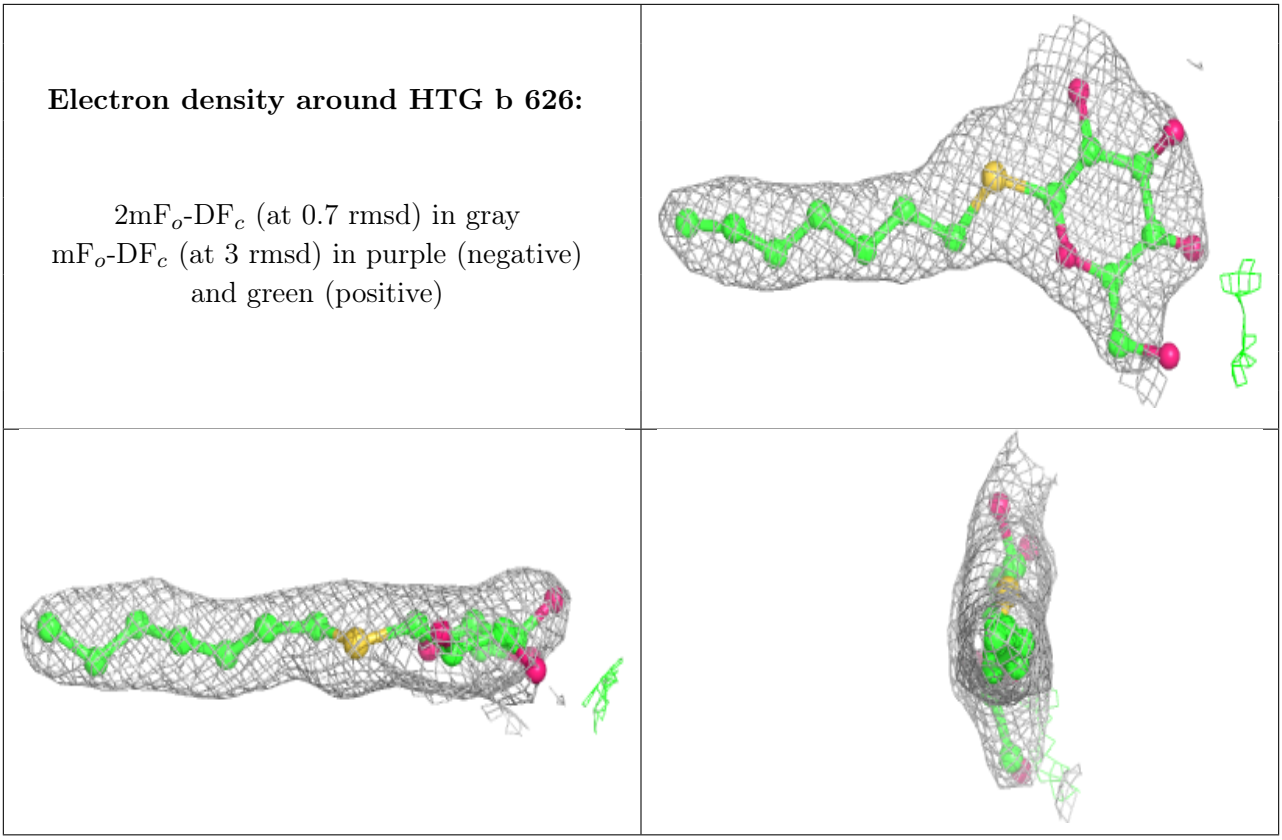
Electron density around SQD D 408:

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



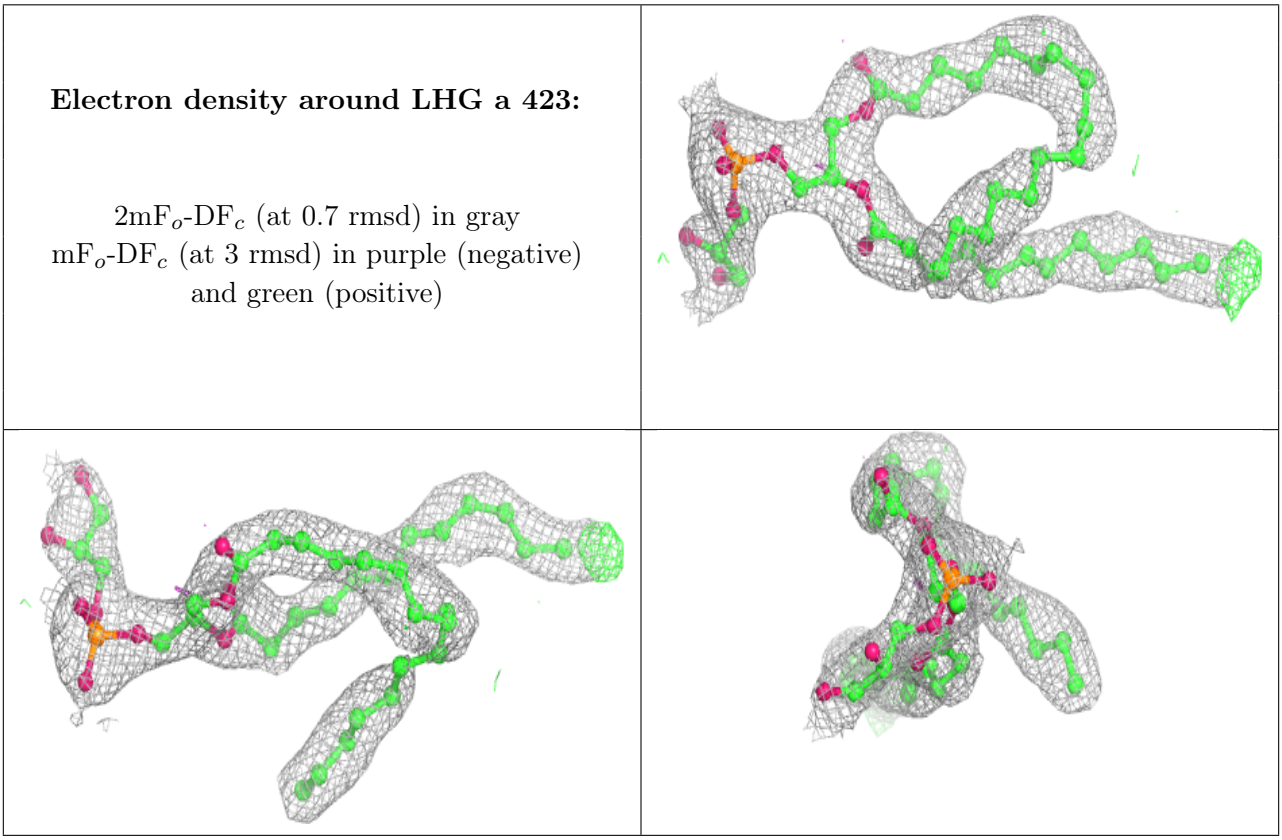
Electron density around HTG b 626:

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



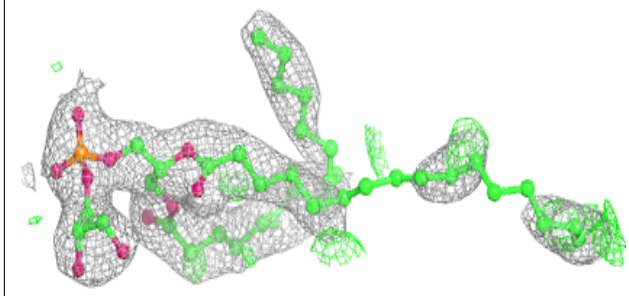
Electron density around LHG a 423:

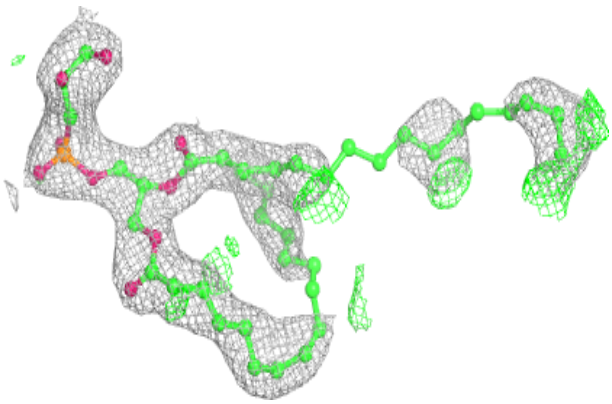
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

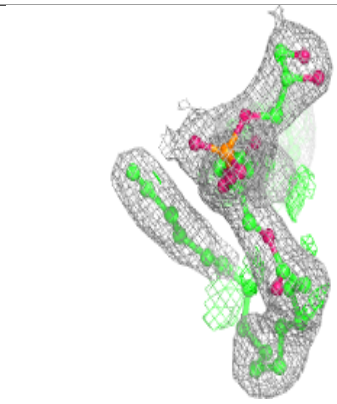


Electron density around LHG D 409:

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

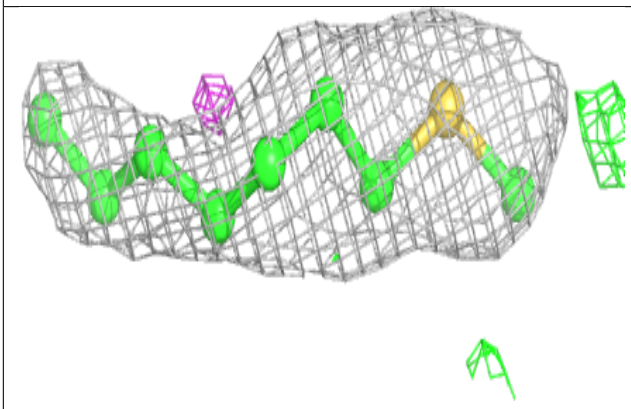


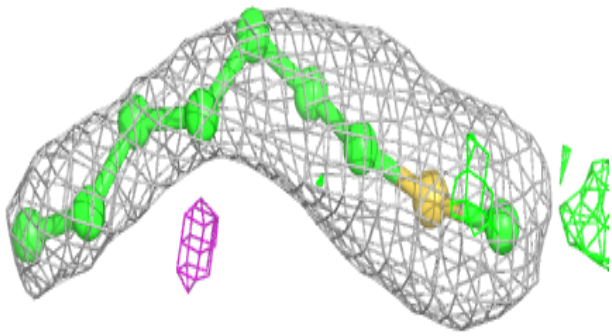


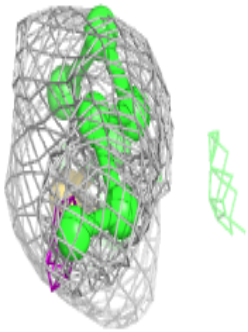


Electron density around HTG C 523:

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

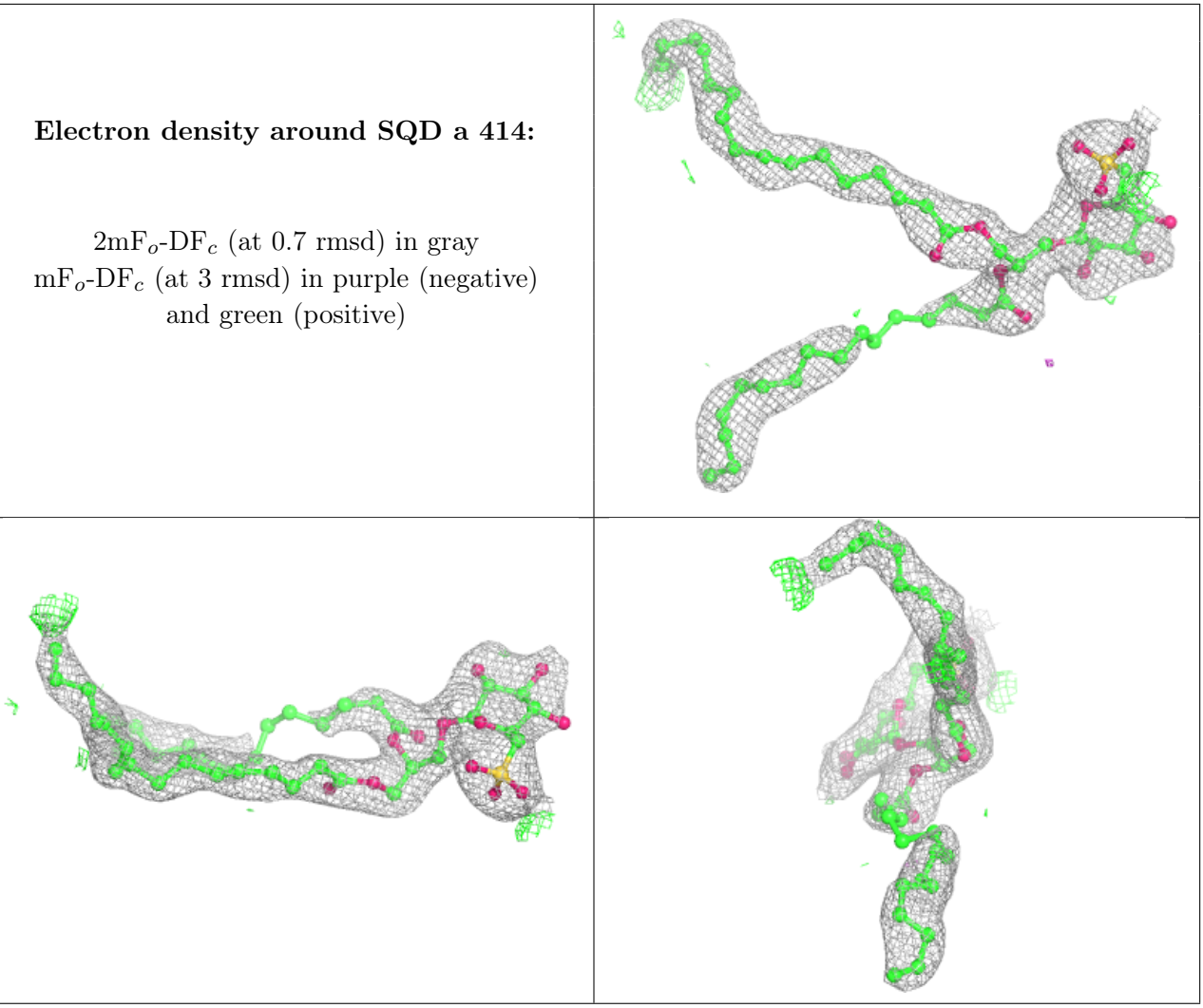






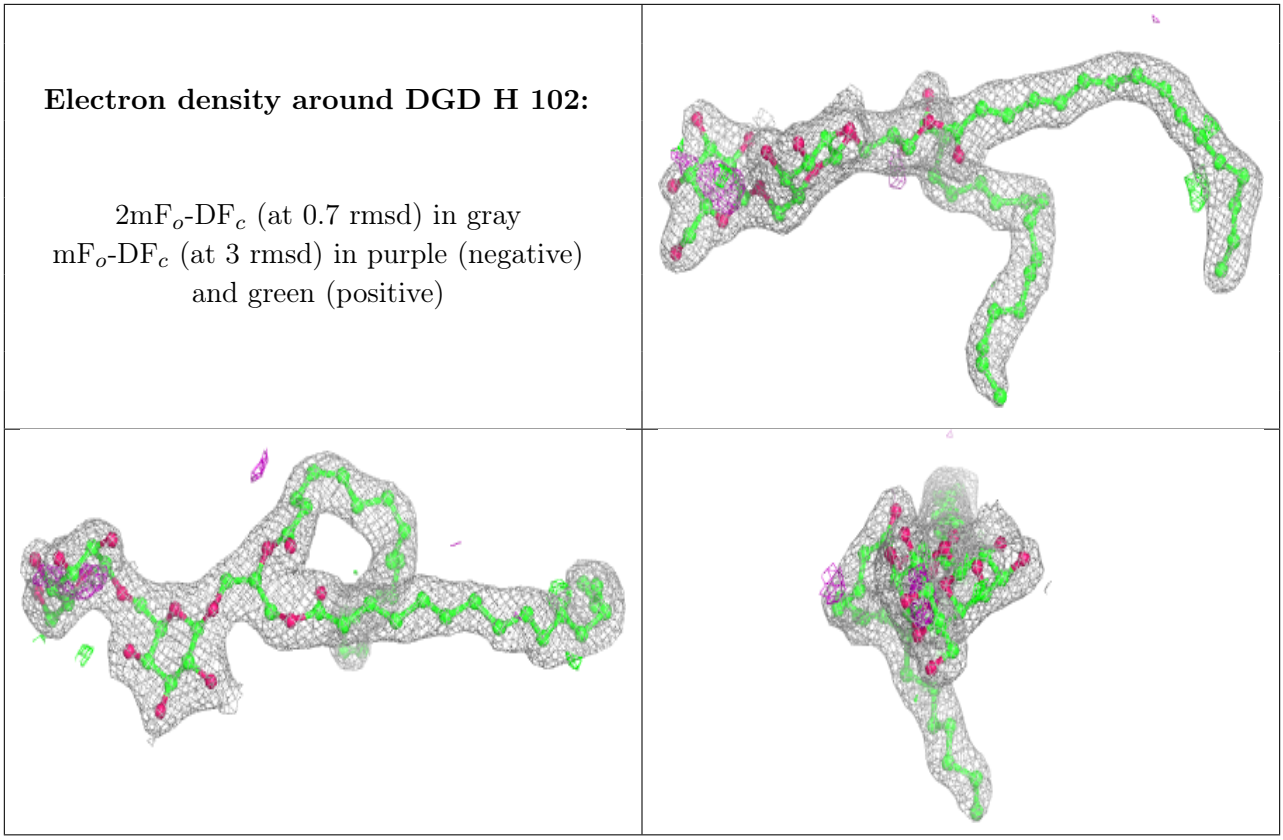
Electron density around SQD a 414:

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



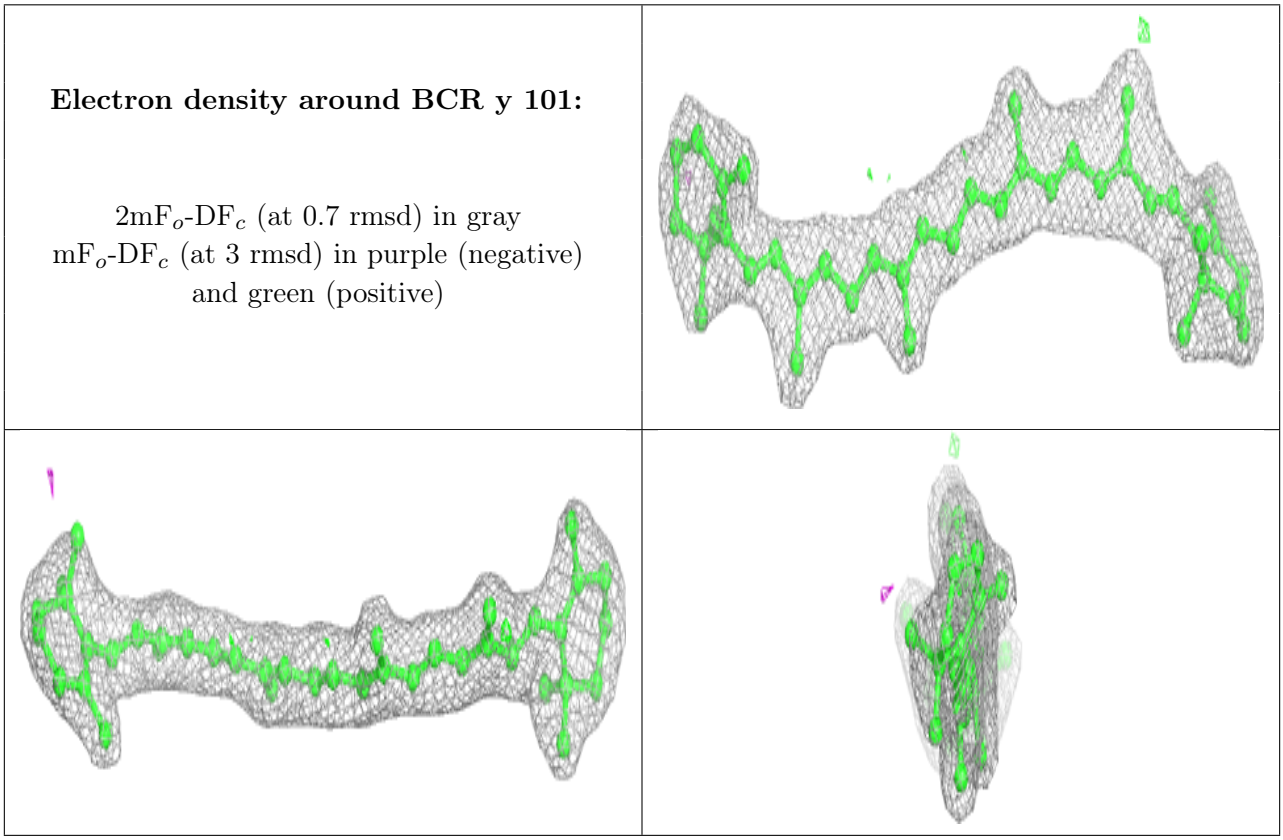
Electron density around DGD H 102:

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



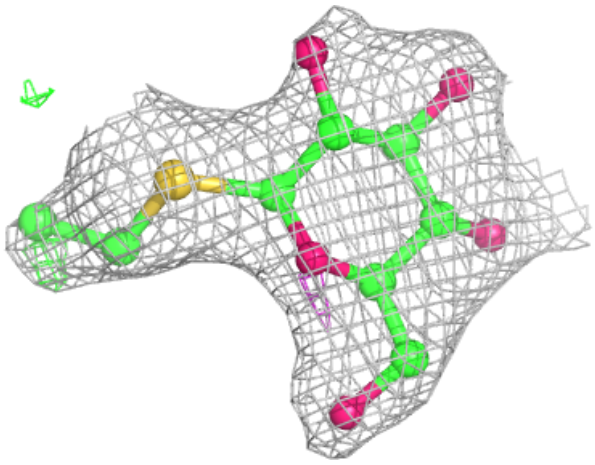
Electron density around BCR y 101:

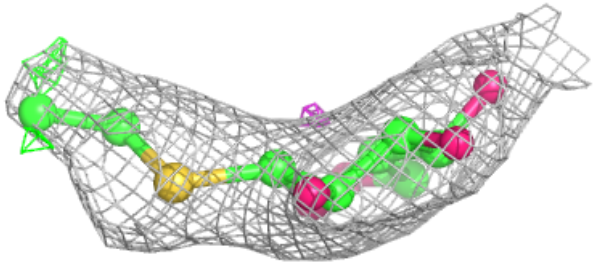
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

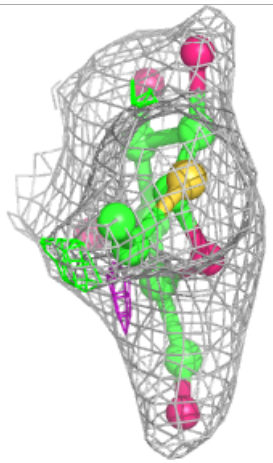


Electron density around HTG V 203:

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

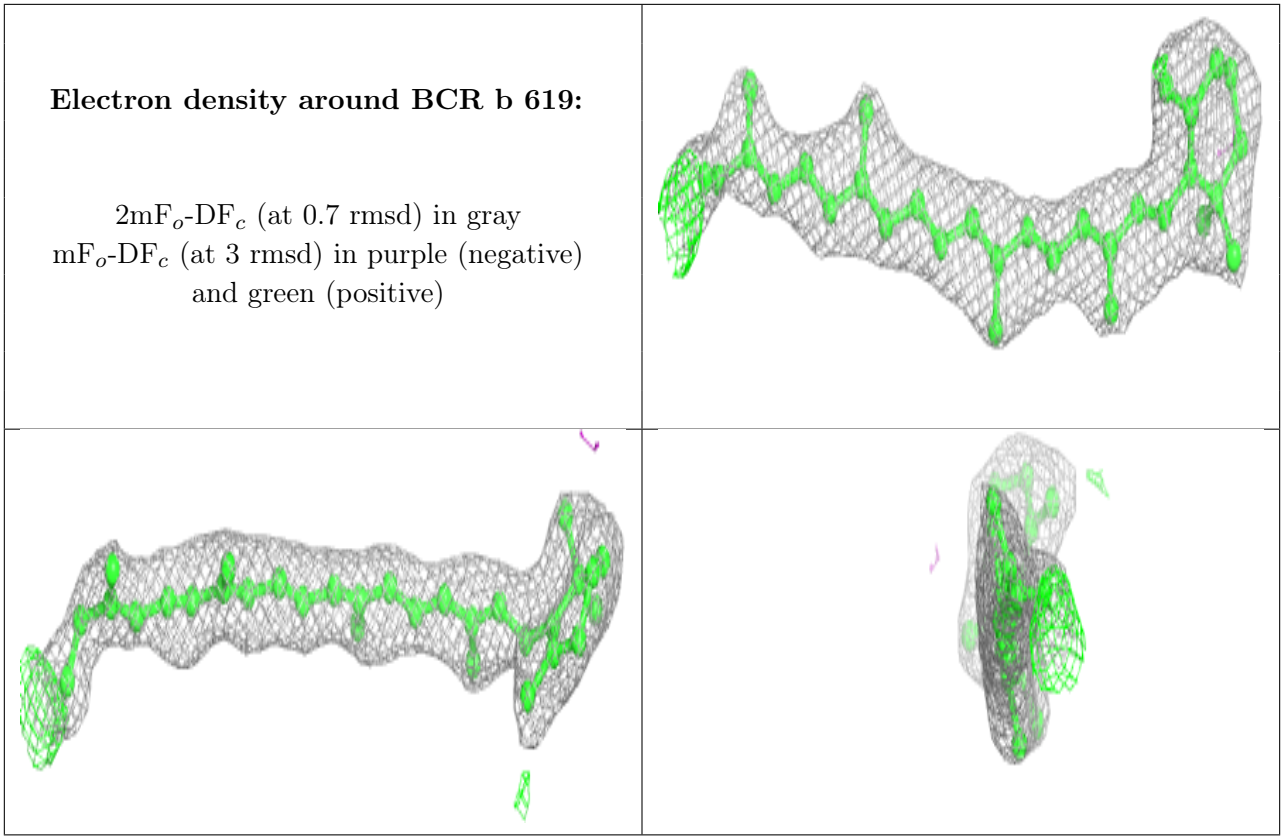






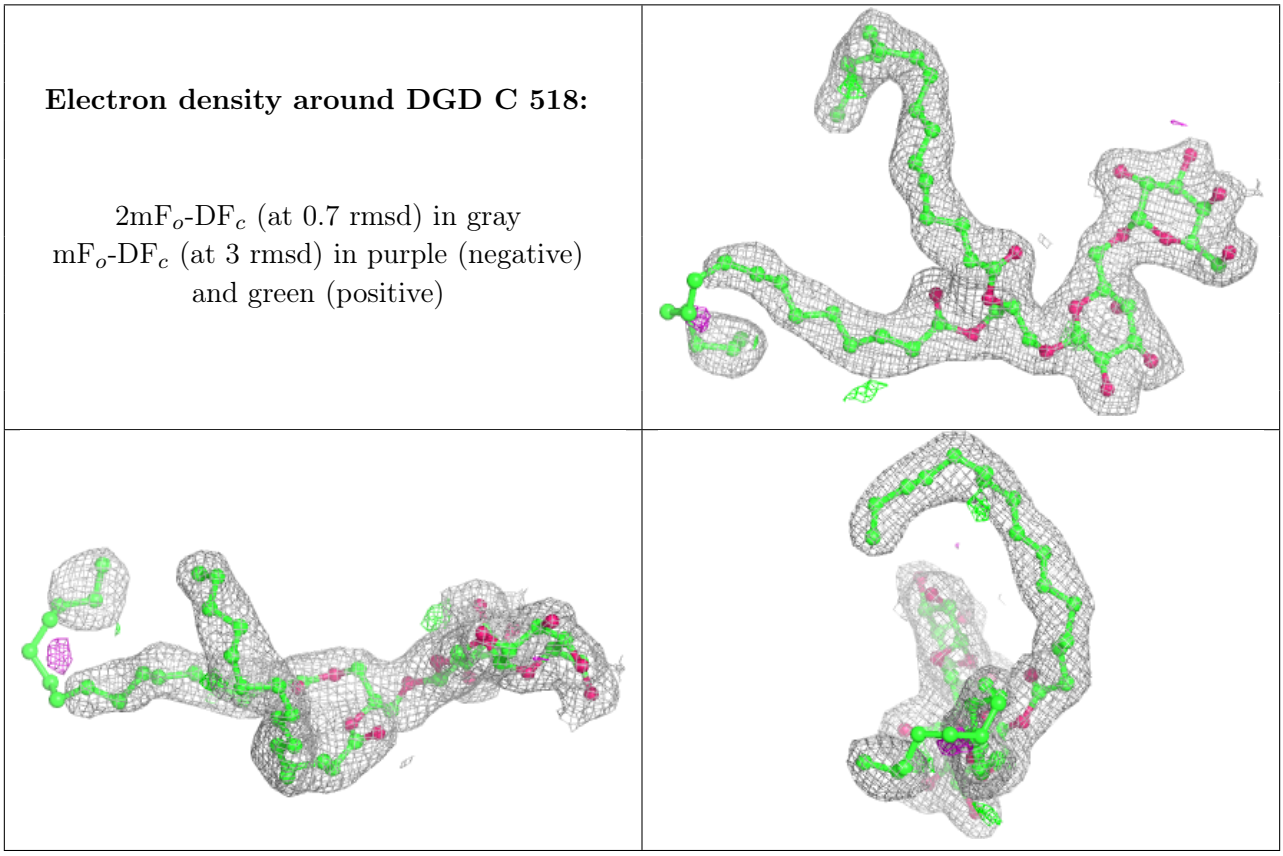
Electron density around BCR b 619:

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



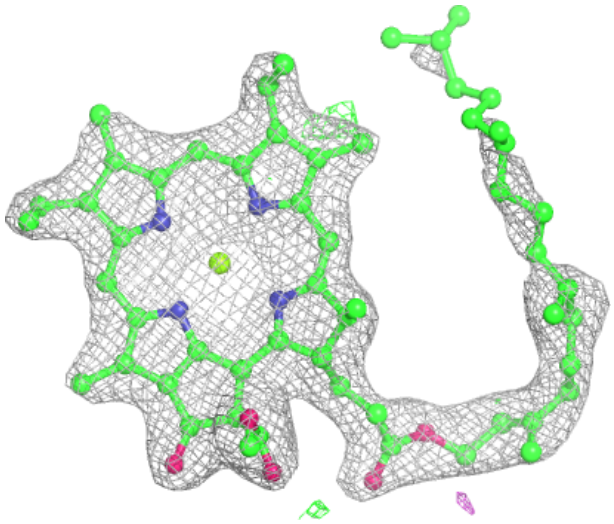
Electron density around DGD C 518:

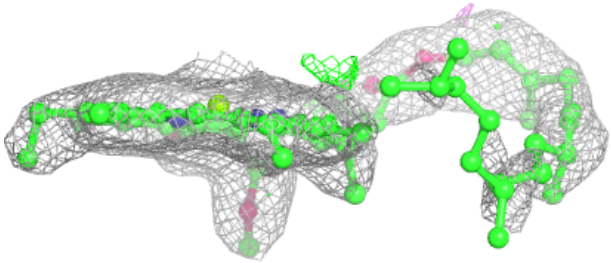
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

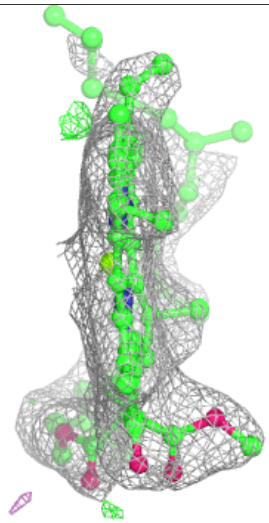


Electron density around CLA c 913:

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

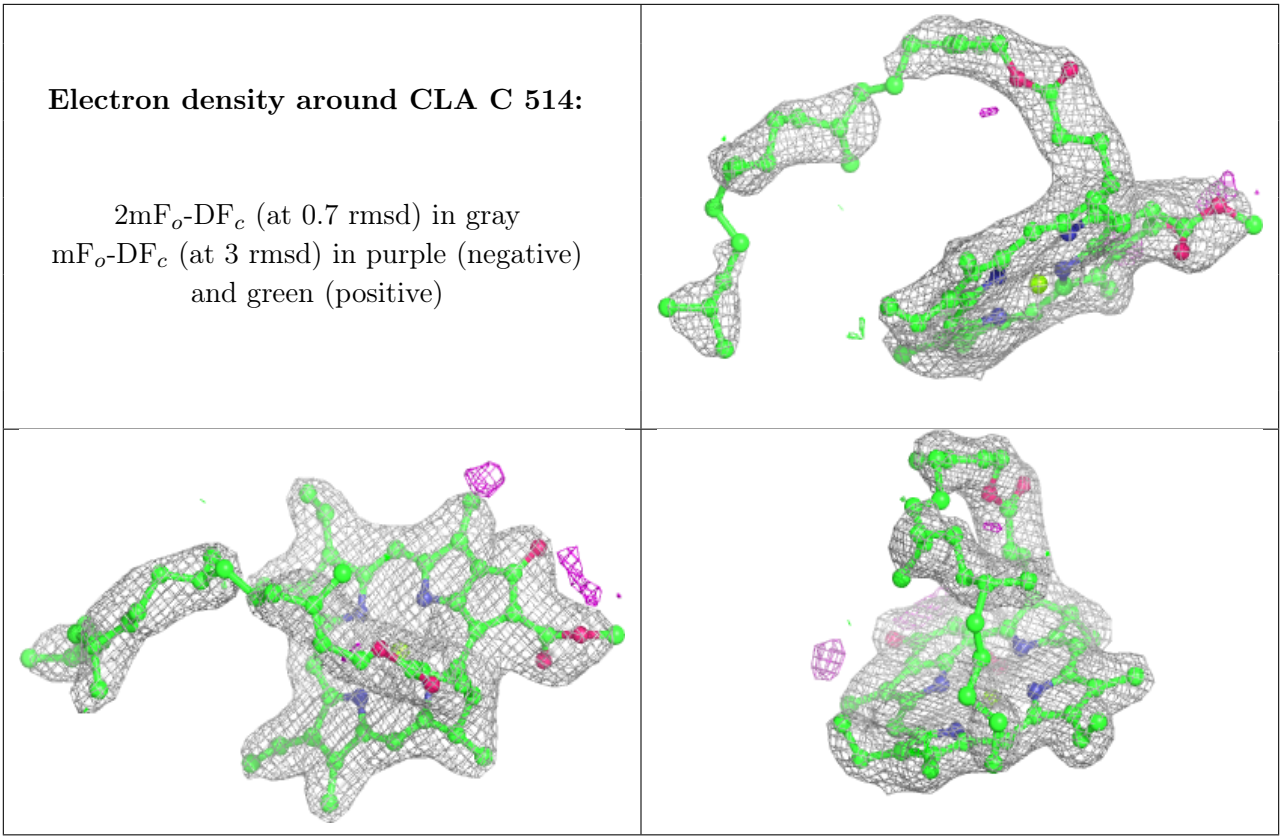






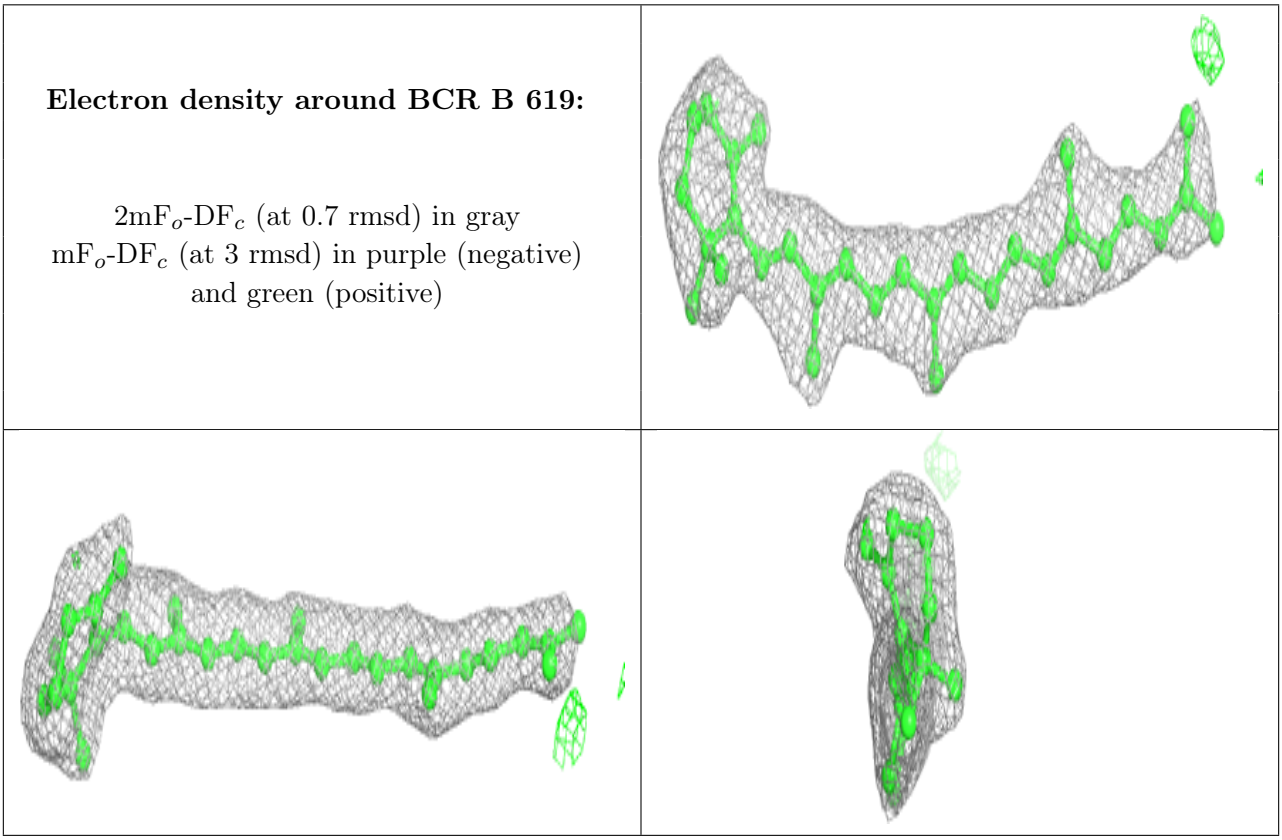
Electron density around CLA C 514:

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



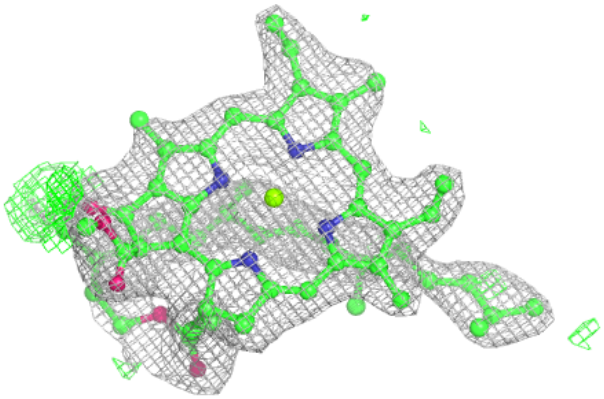
Electron density around BCR B 619:

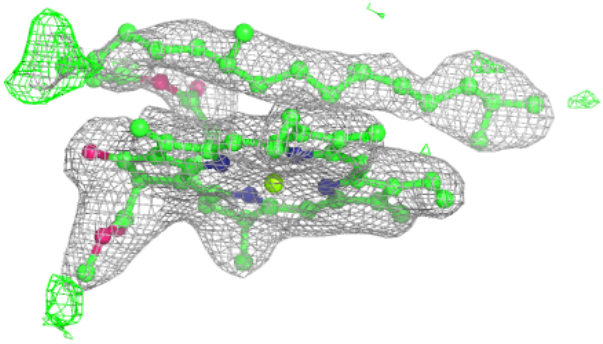
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

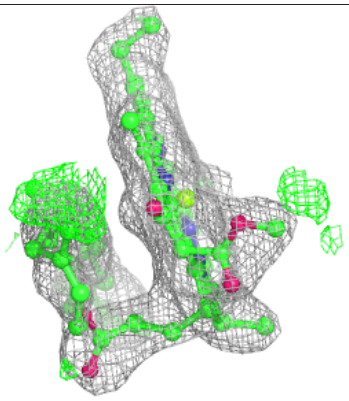


Electron density around CLA B 602:

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

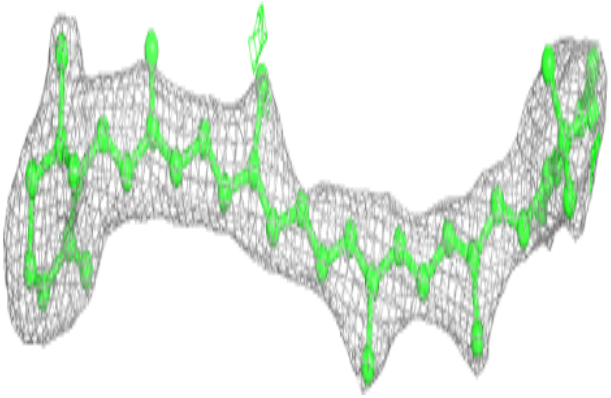


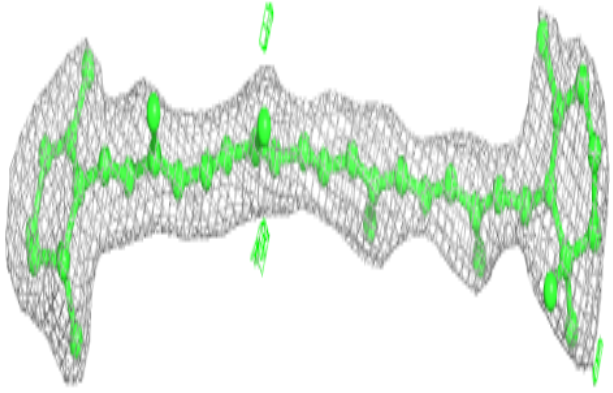


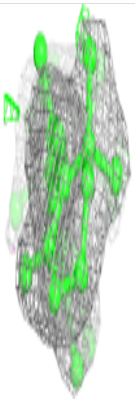


Electron density around BCR c 915:

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

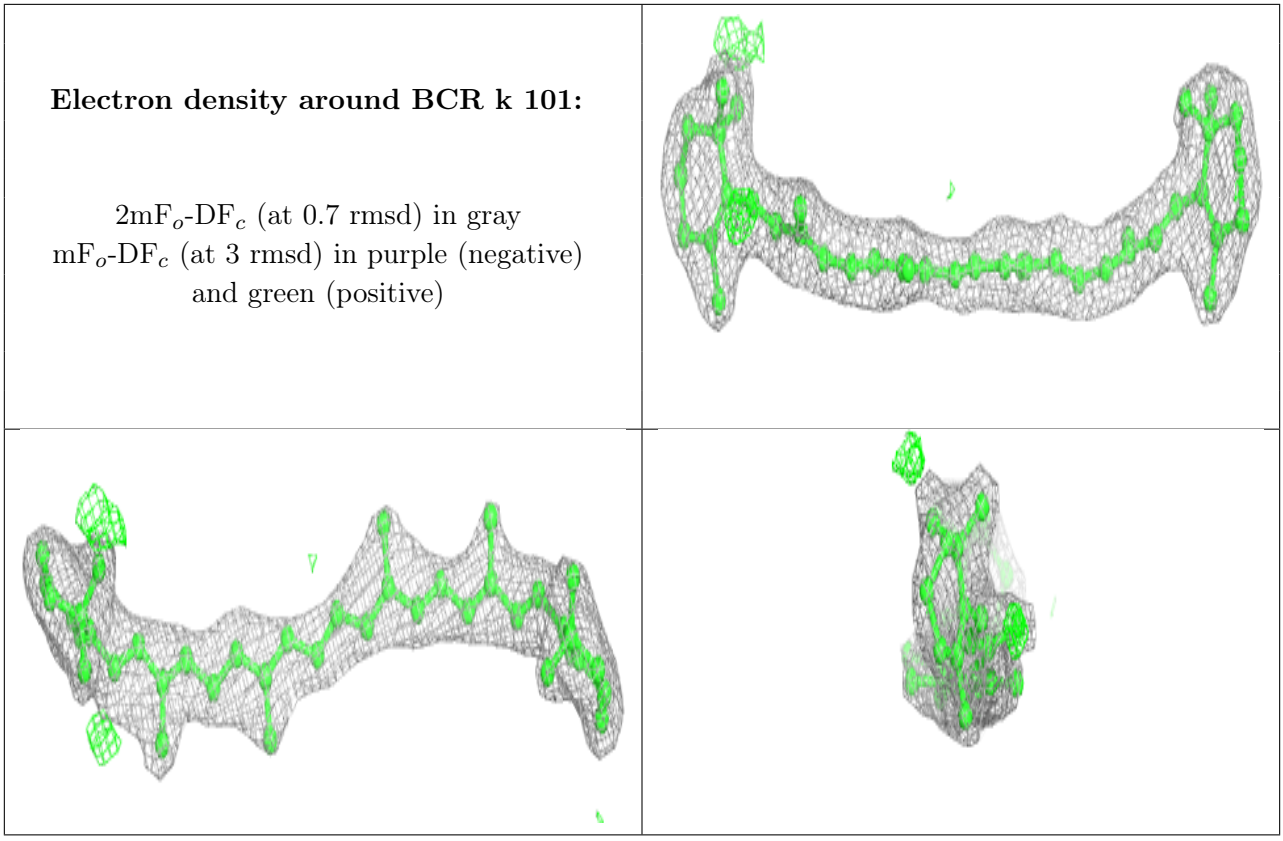






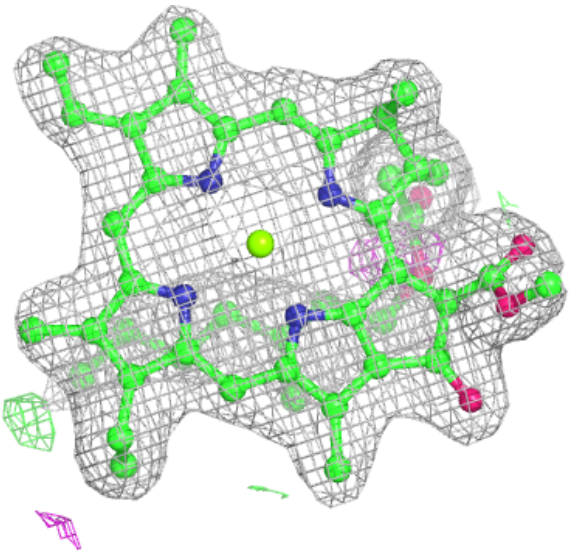
Electron density around BCR k 101:

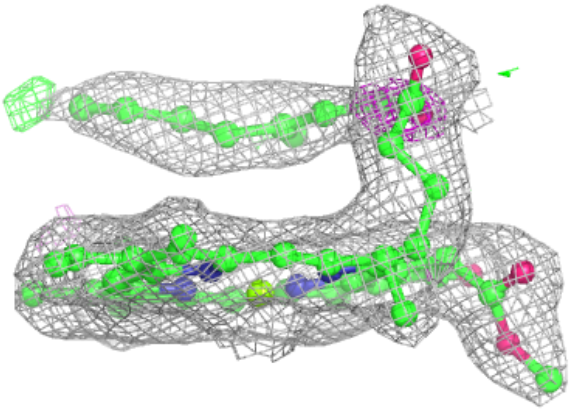
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

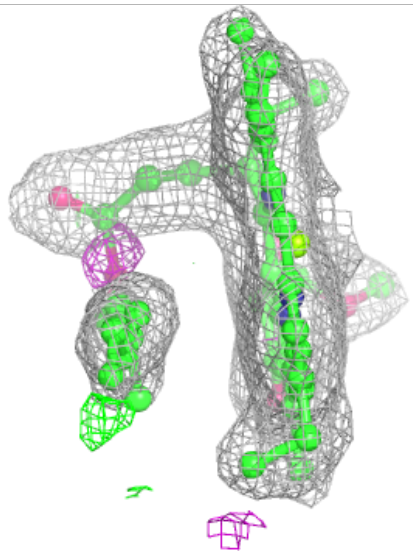


Electron density around CLA B 615:

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

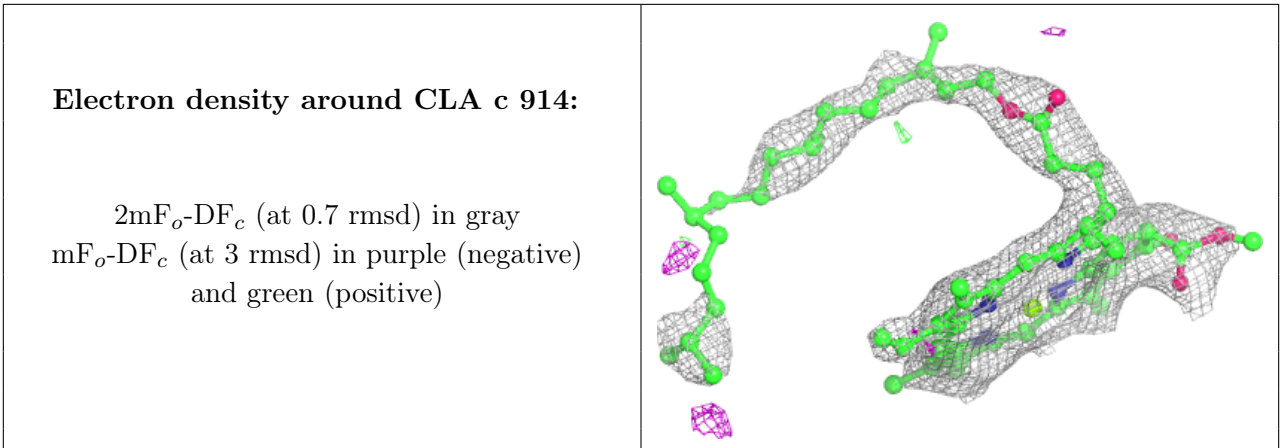


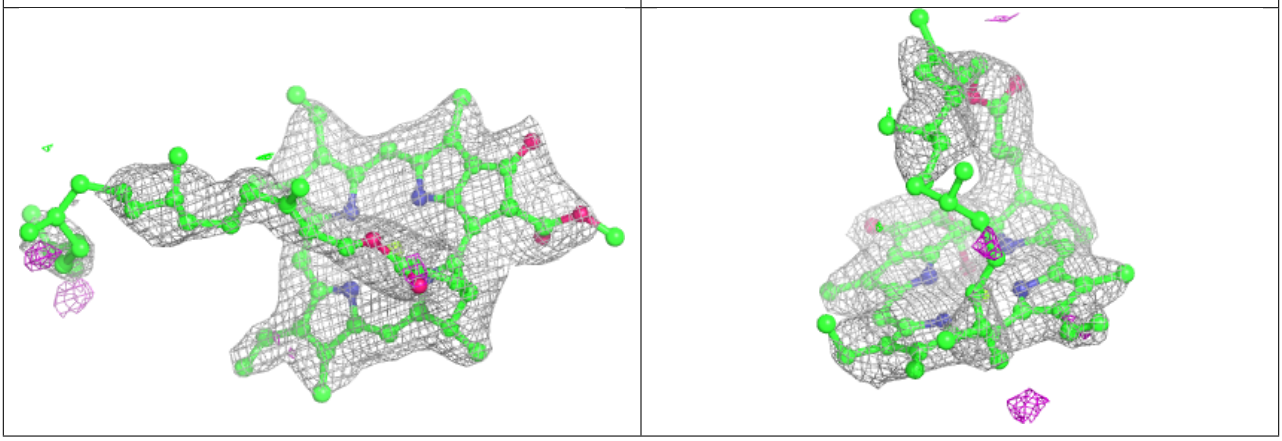




Electron density around CLA c 914:

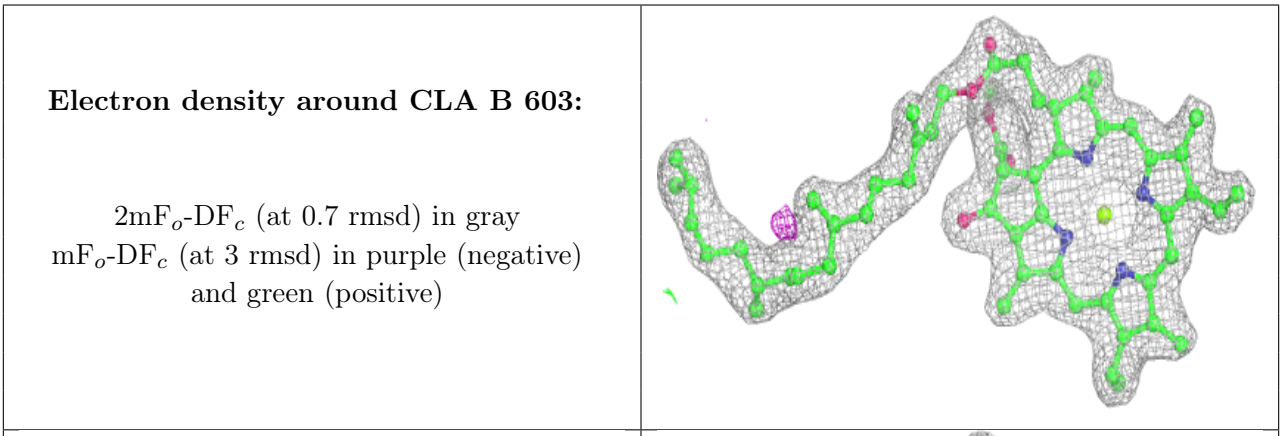
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

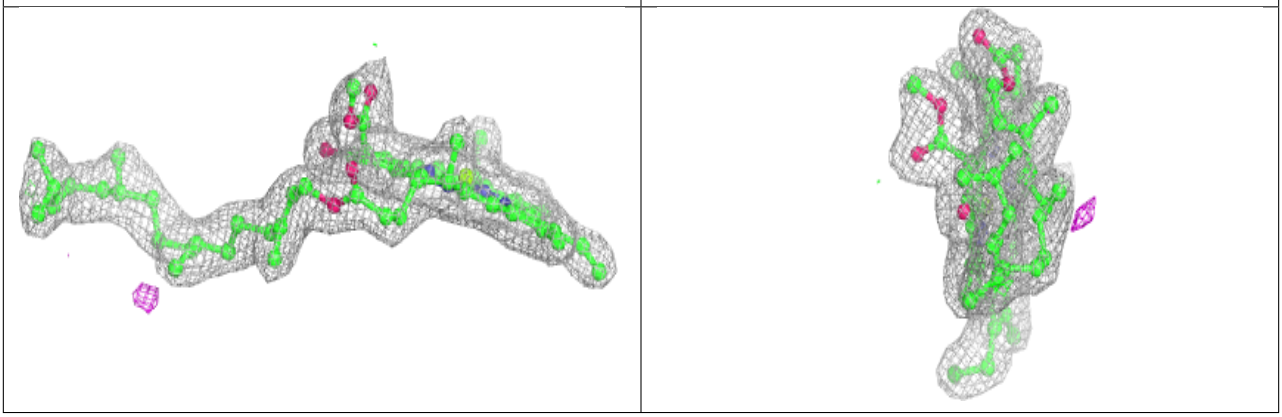




Electron density around CLA B 603:

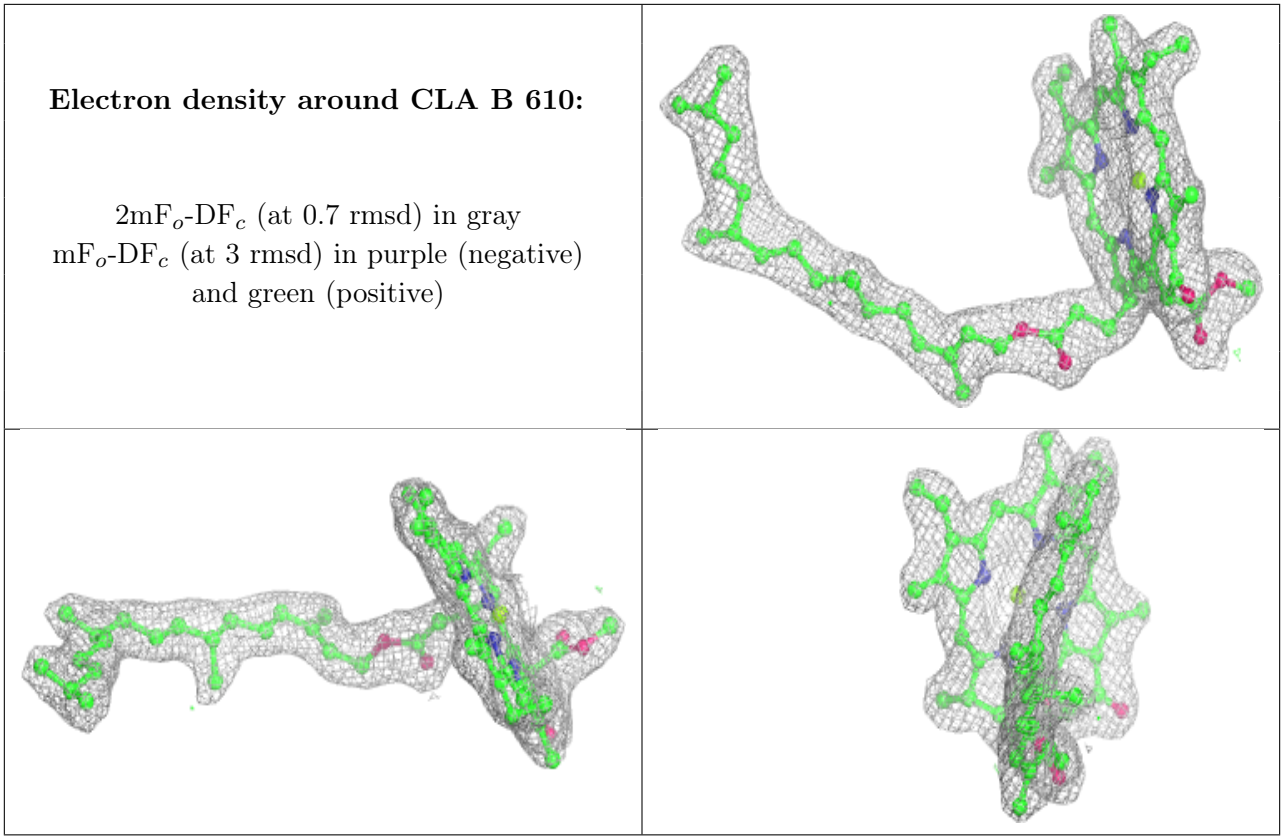
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





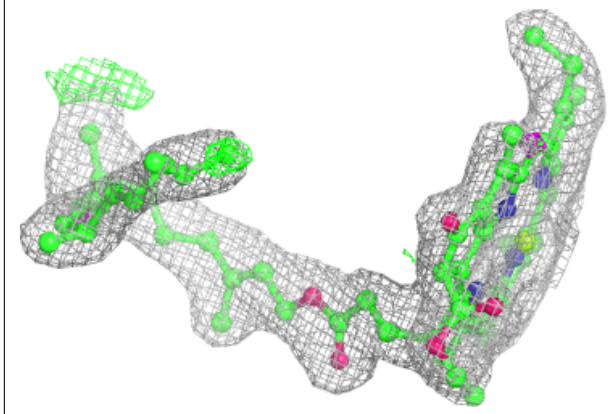
Electron density around CLA B 610:

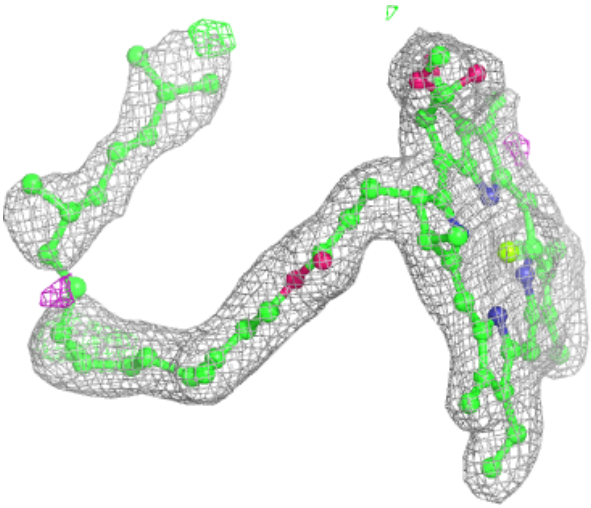
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

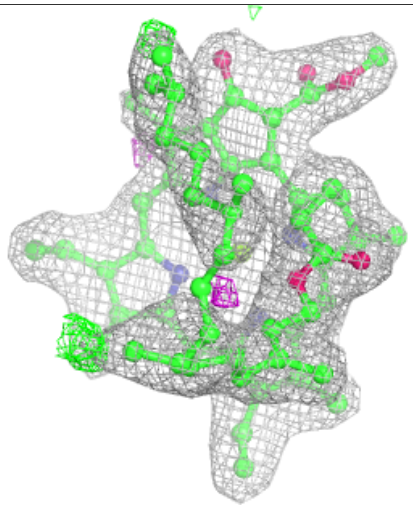


Electron density around CLA b 607:

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

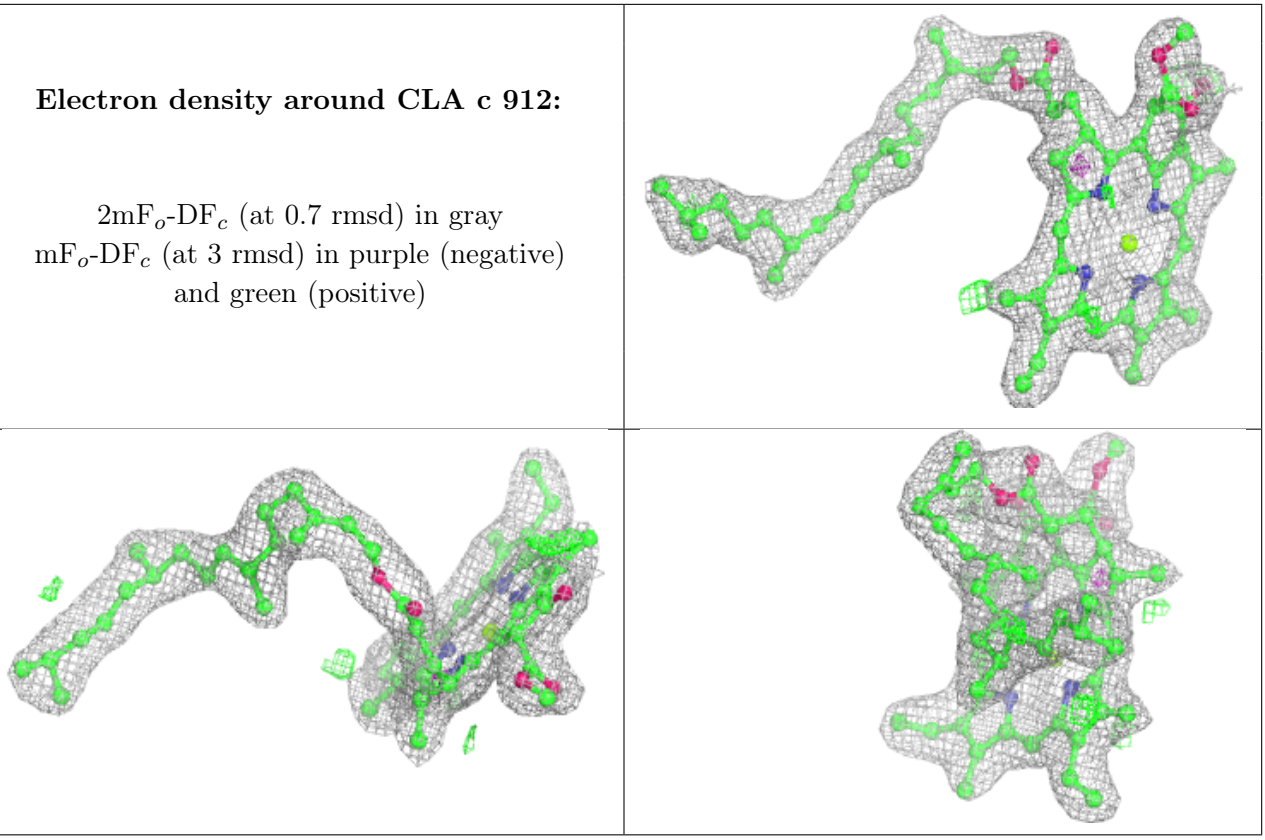






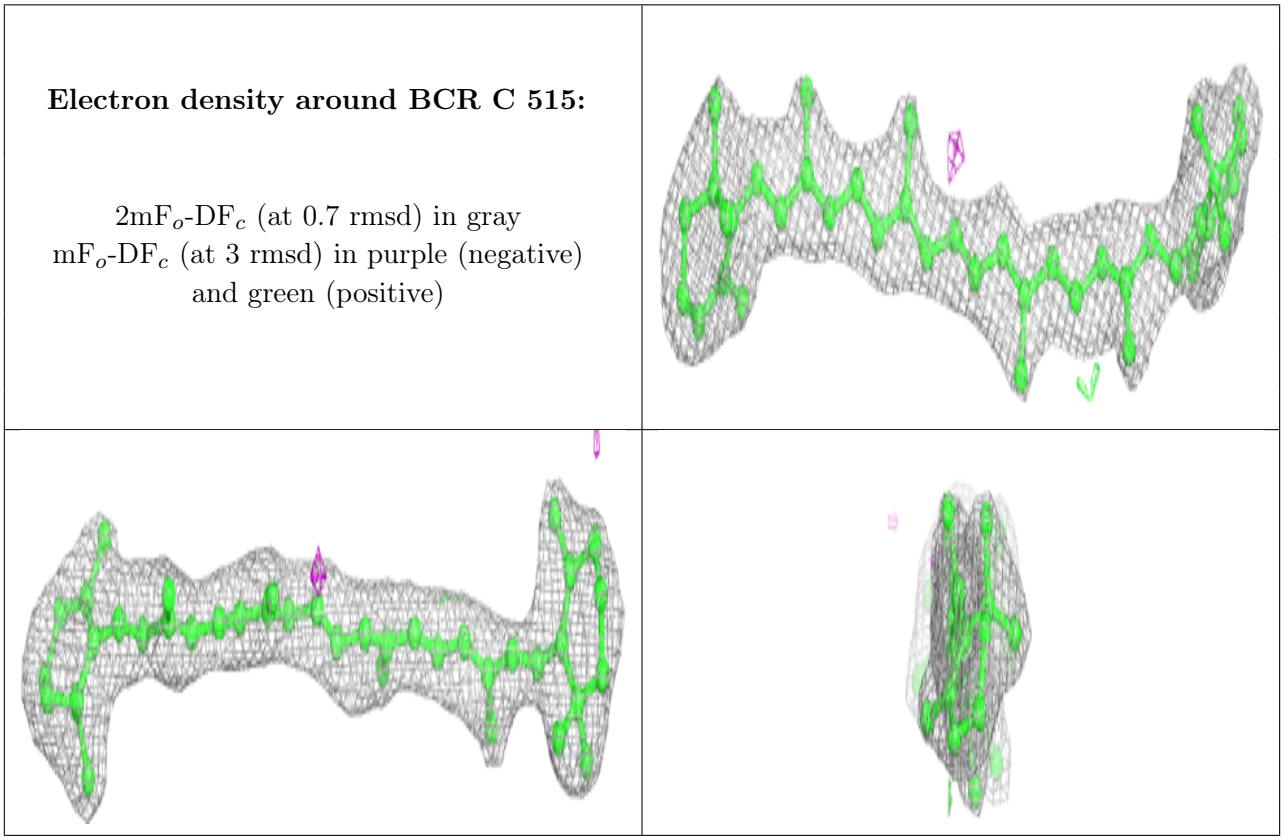
Electron density around CLA c 912:

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



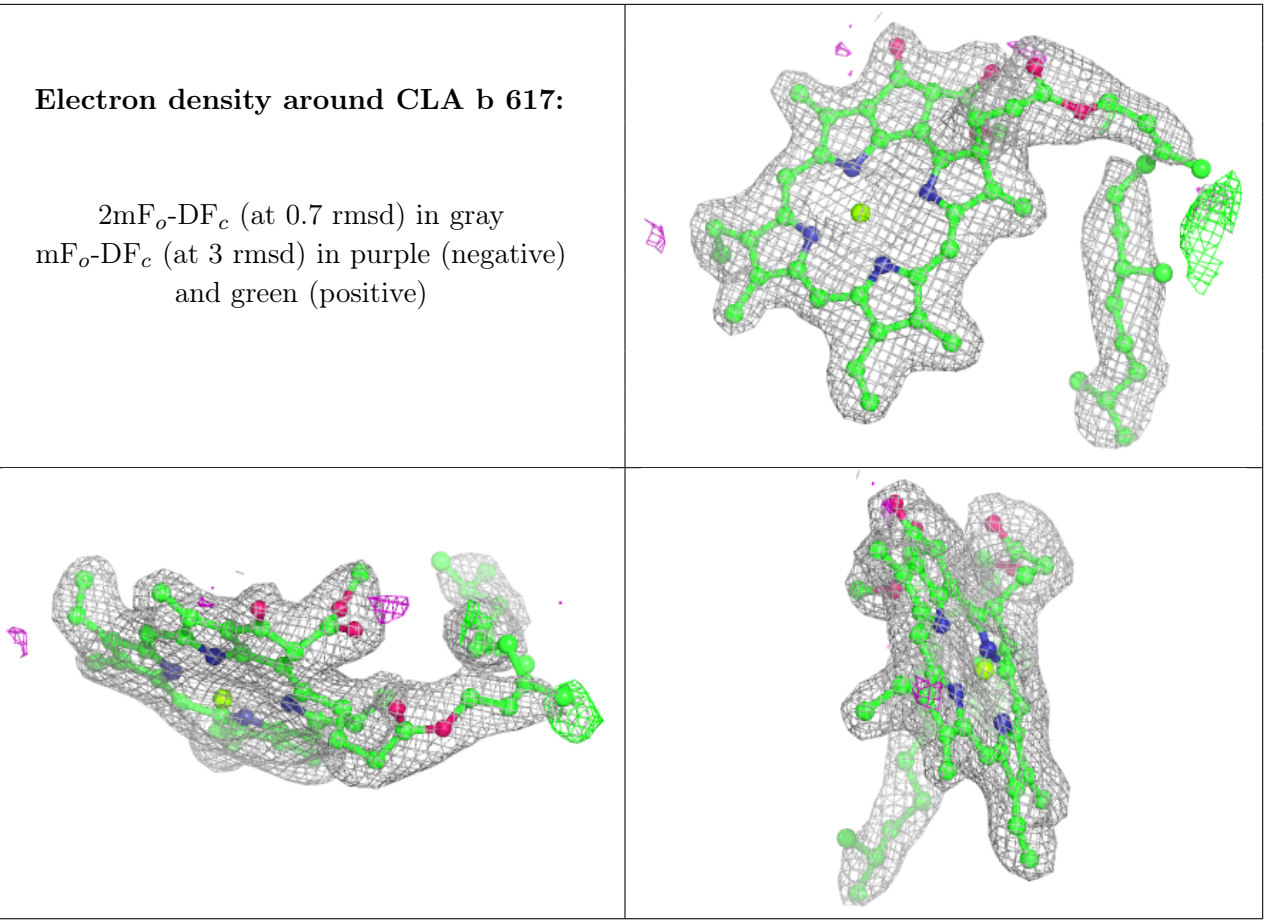
Electron density around BCR C 515:

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



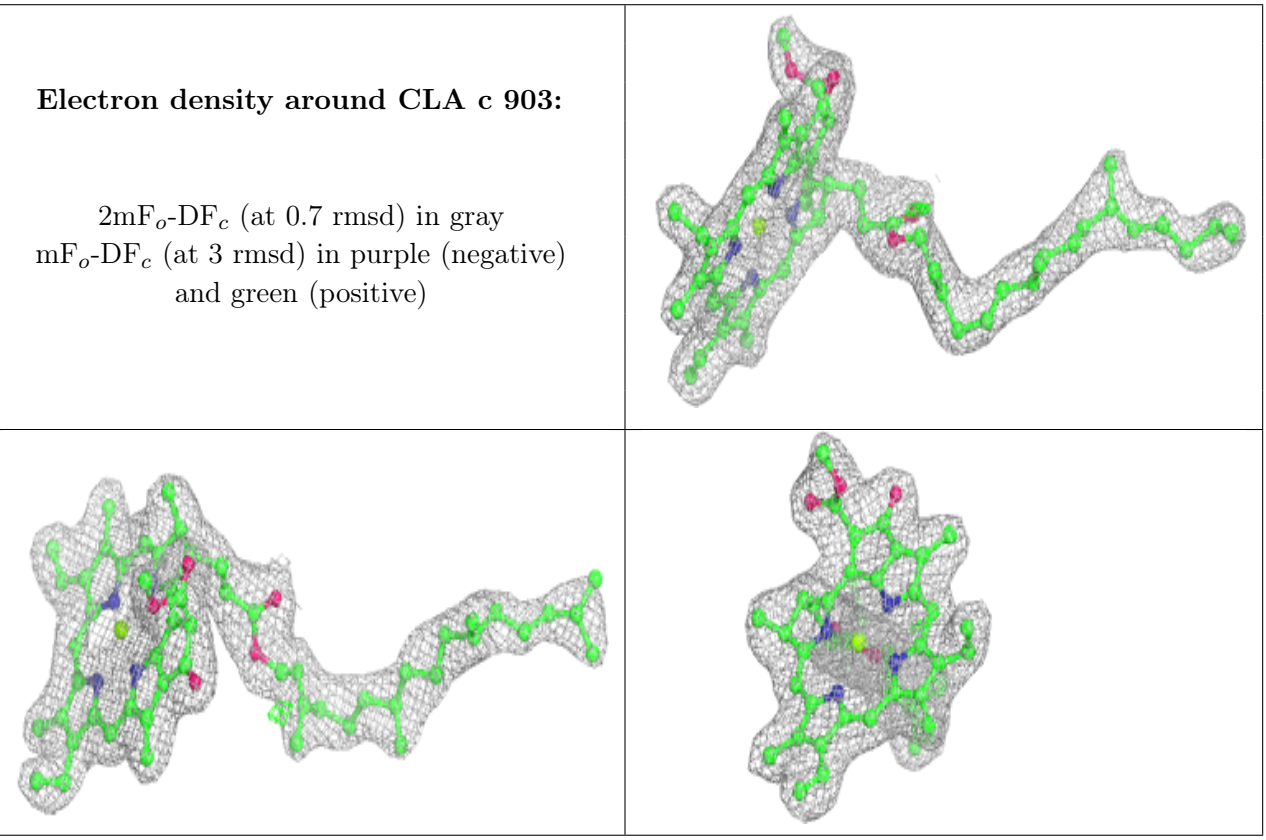
Electron density around CLA b 617:

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



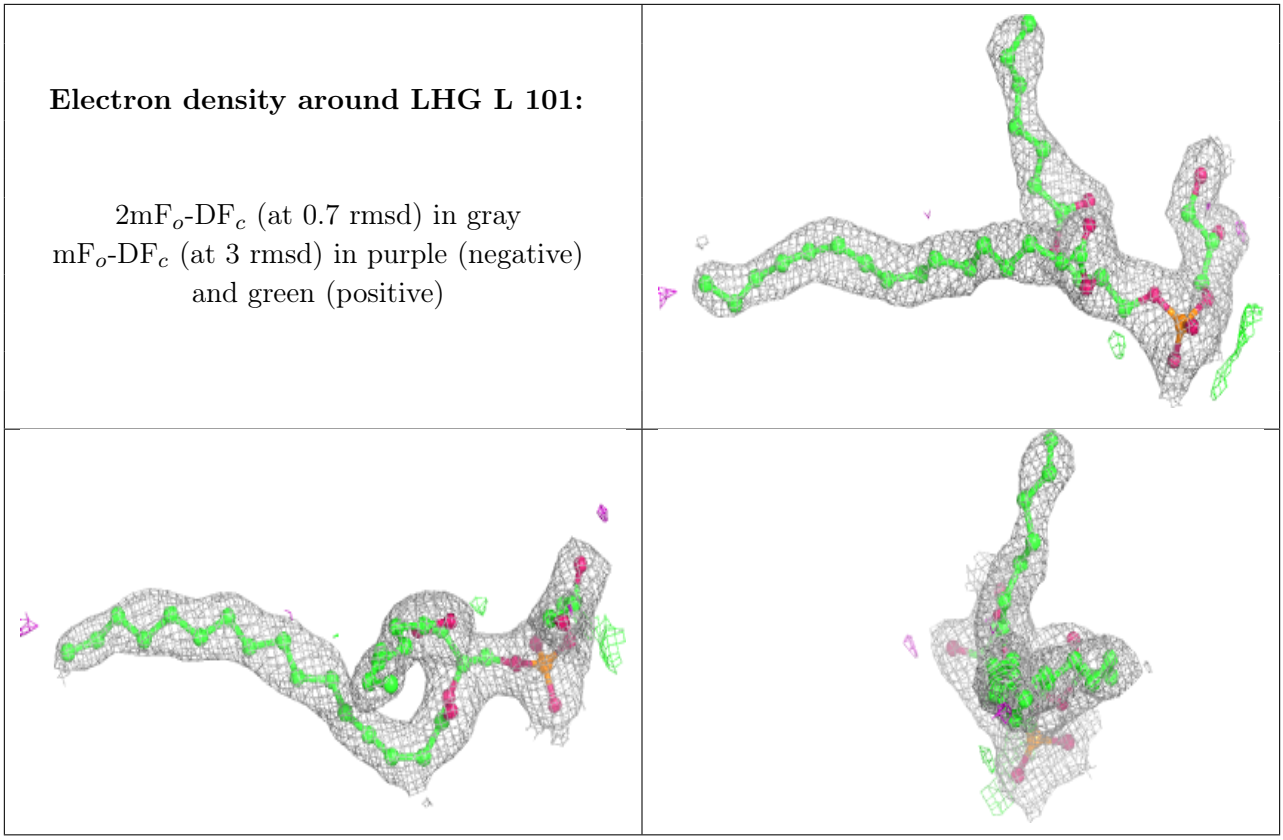
Electron density around CLA c 903:

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



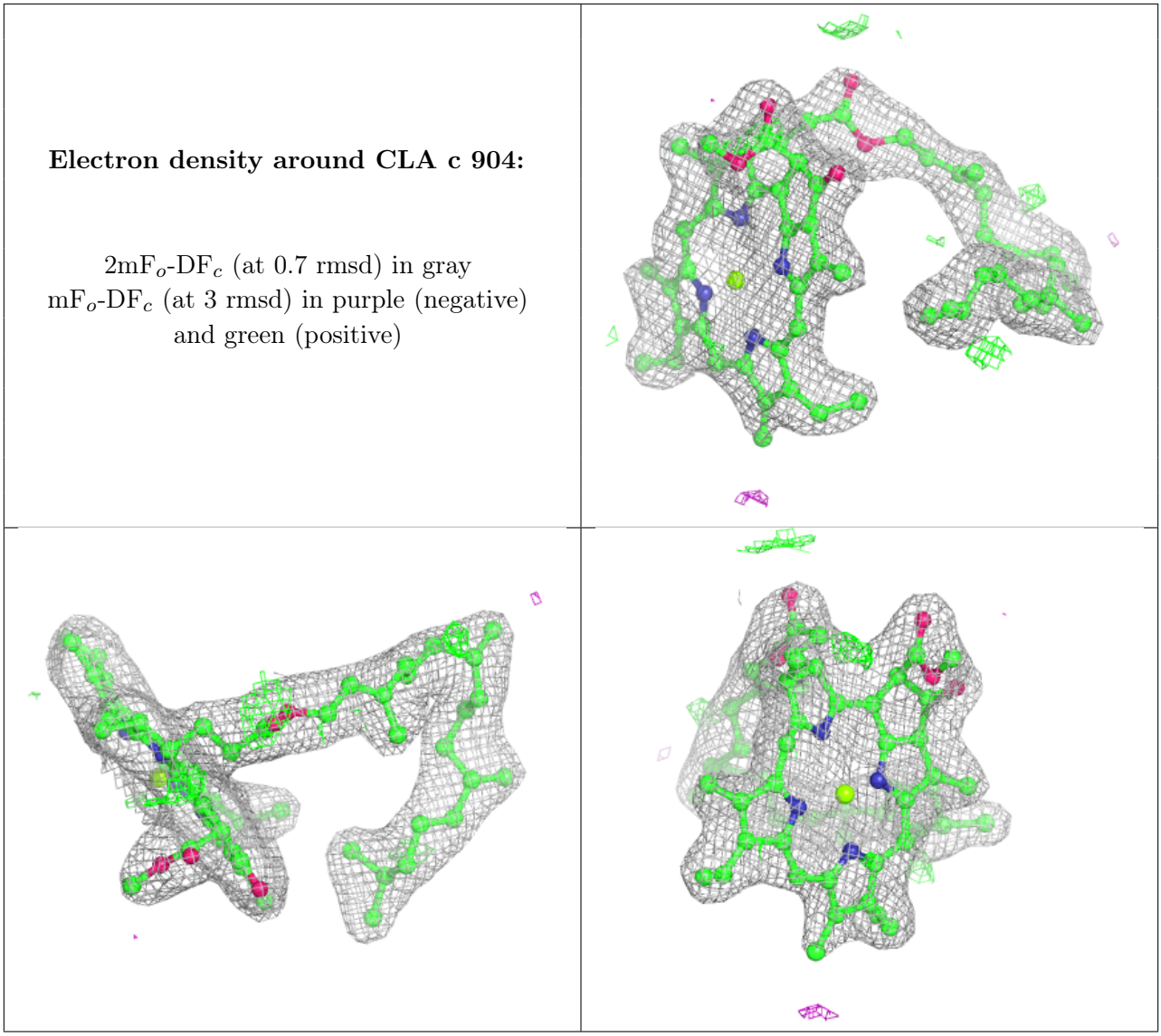
Electron density around LHG L 101:

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



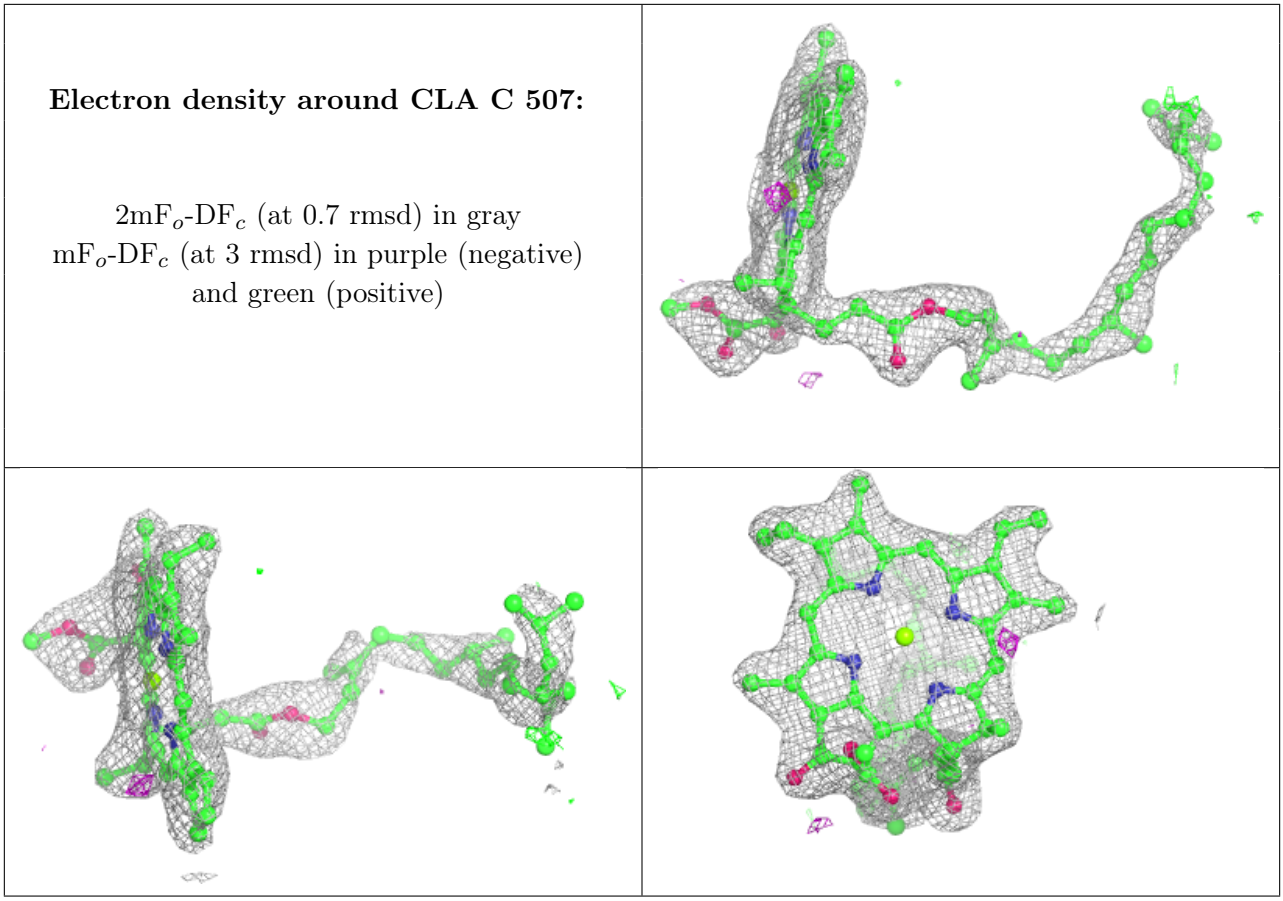
Electron density around CLA c 904:

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



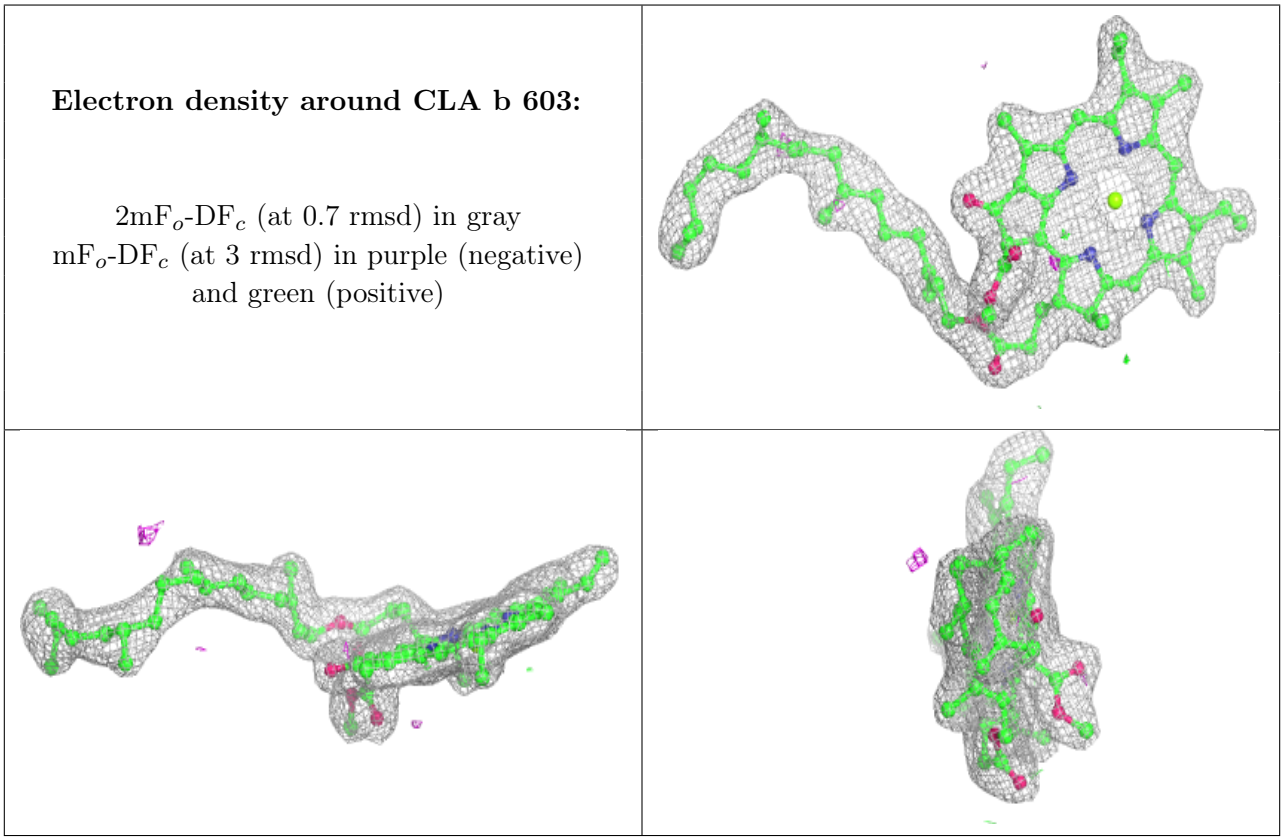
Electron density around CLA C 507:

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



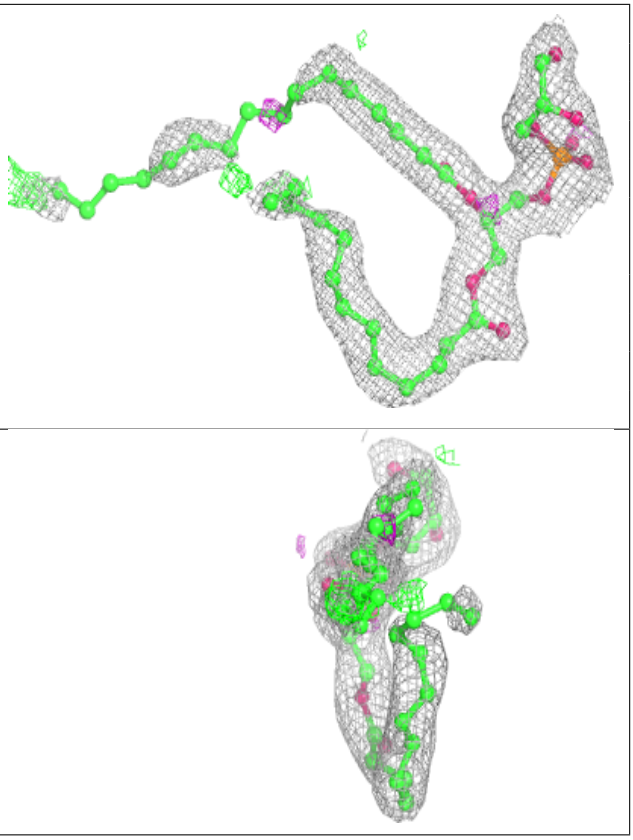
Electron density around CLA b 603:

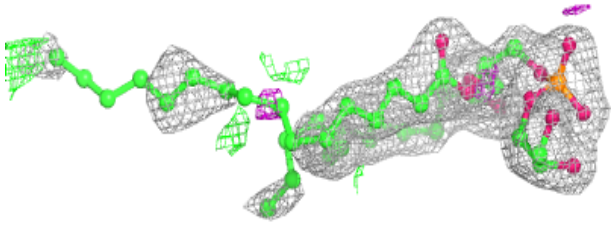
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around LHG d 408:

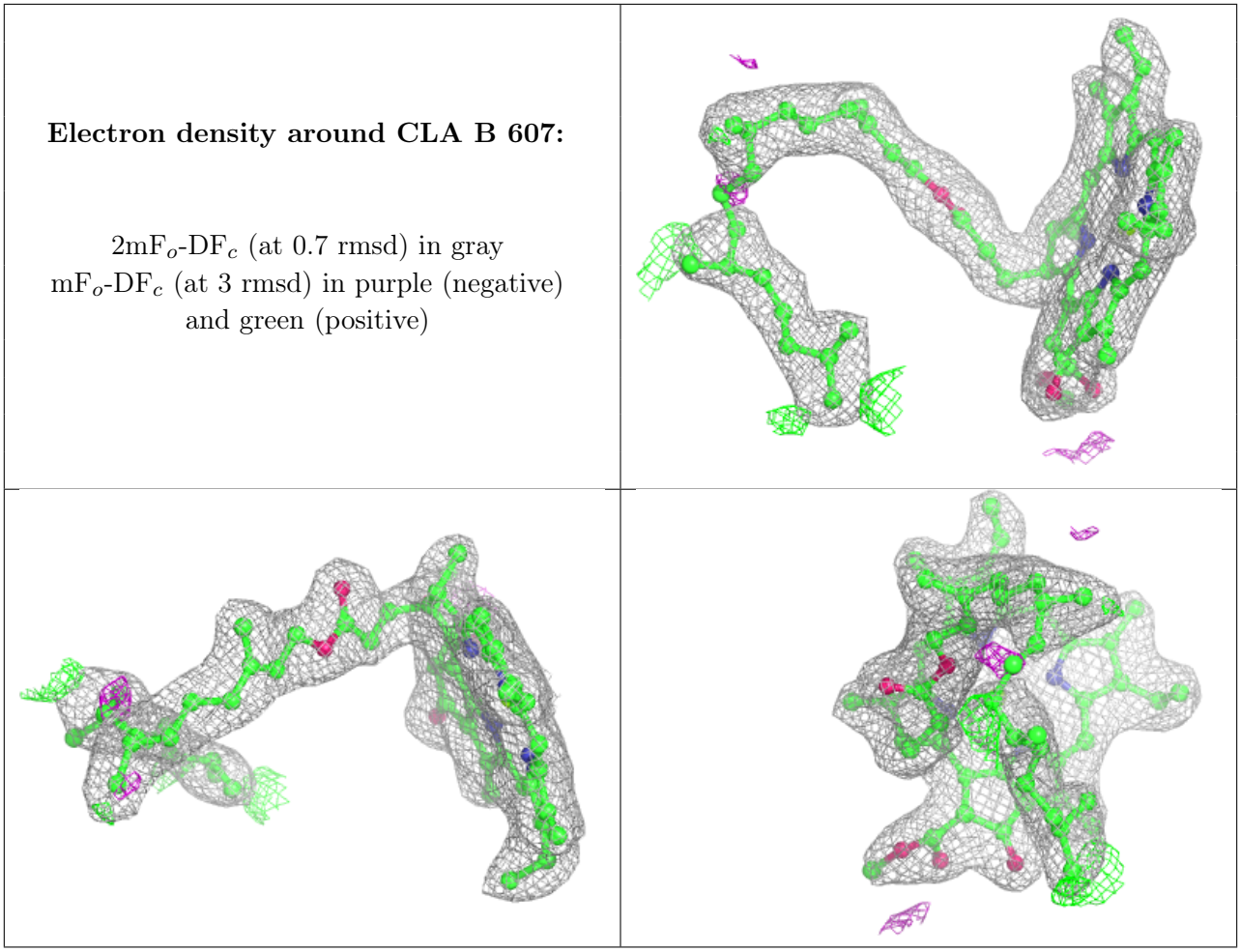
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





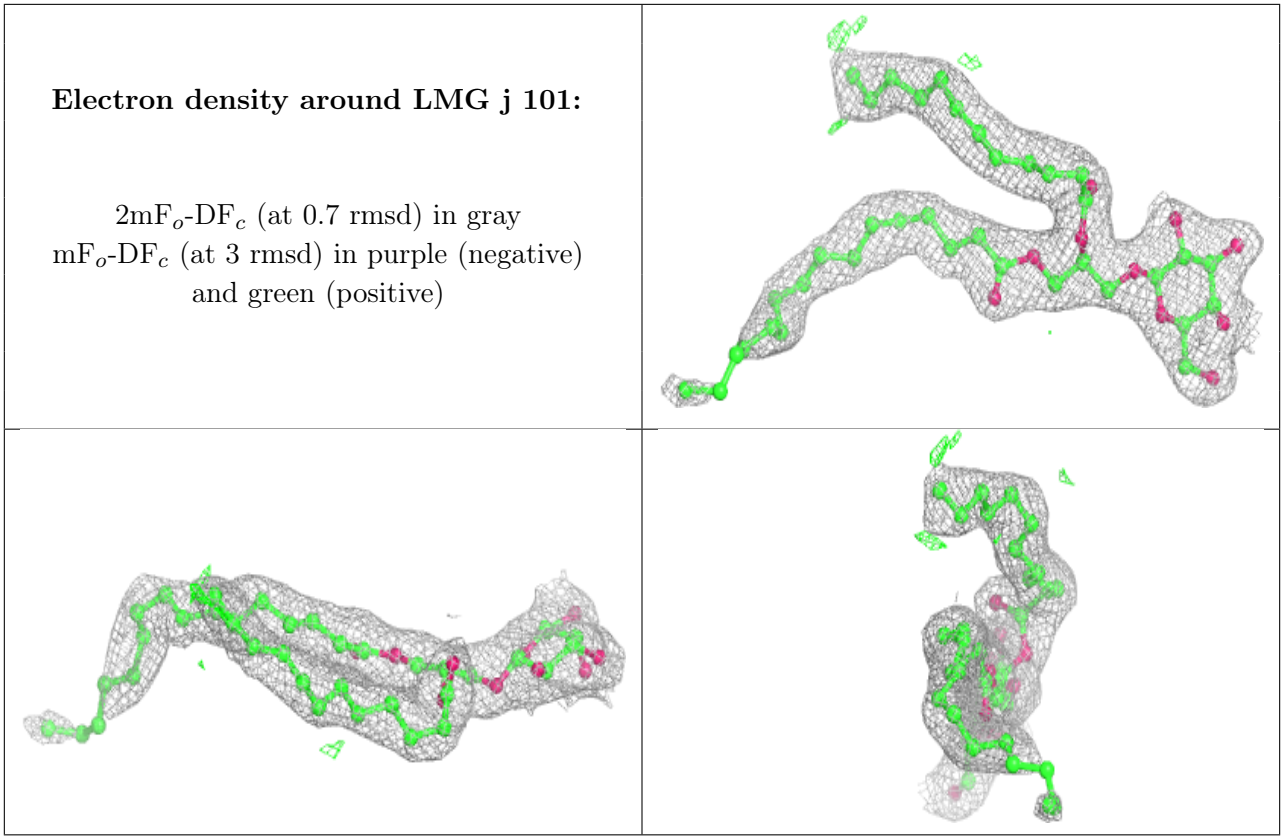
Electron density around CLA B 607:

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



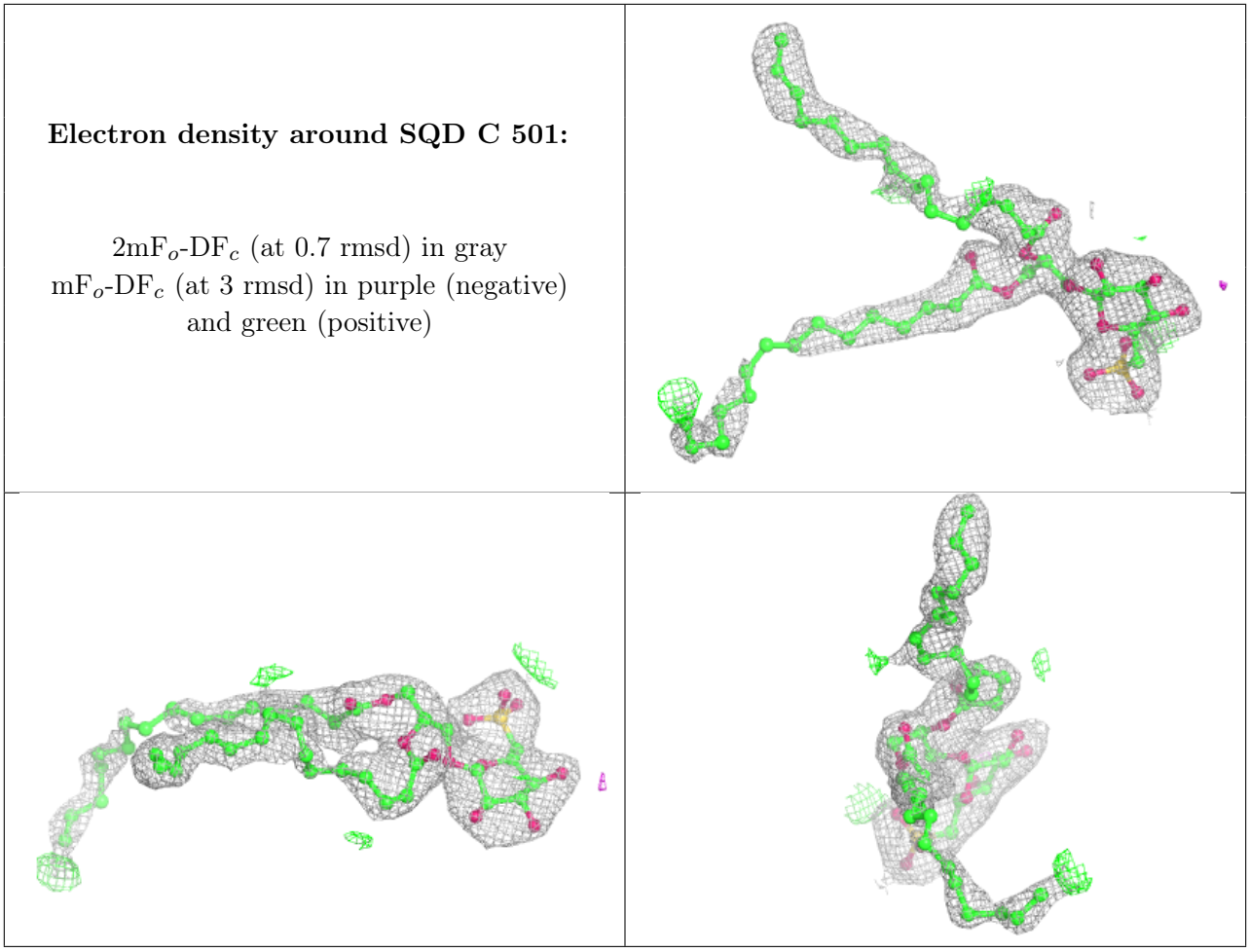
Electron density around LMG j 101:

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



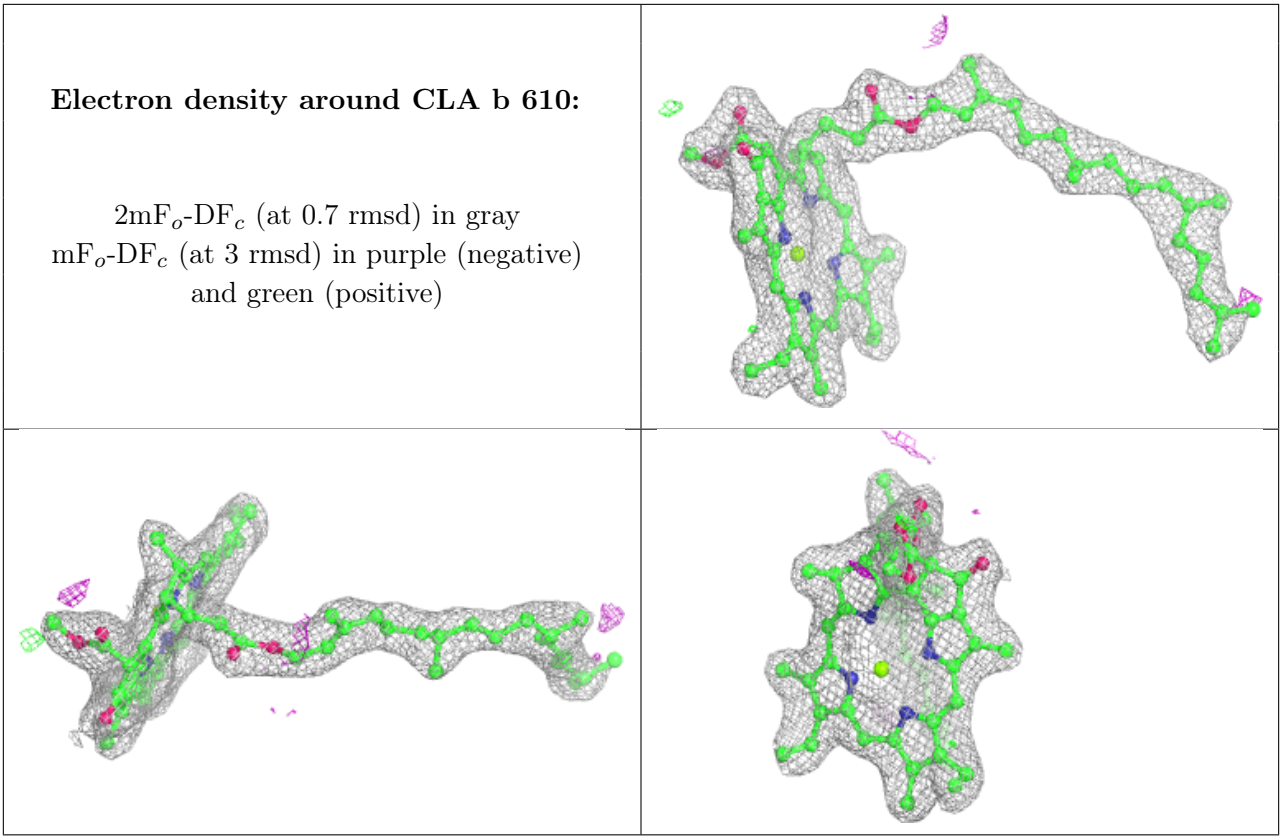
Electron density around SQD C 501:

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



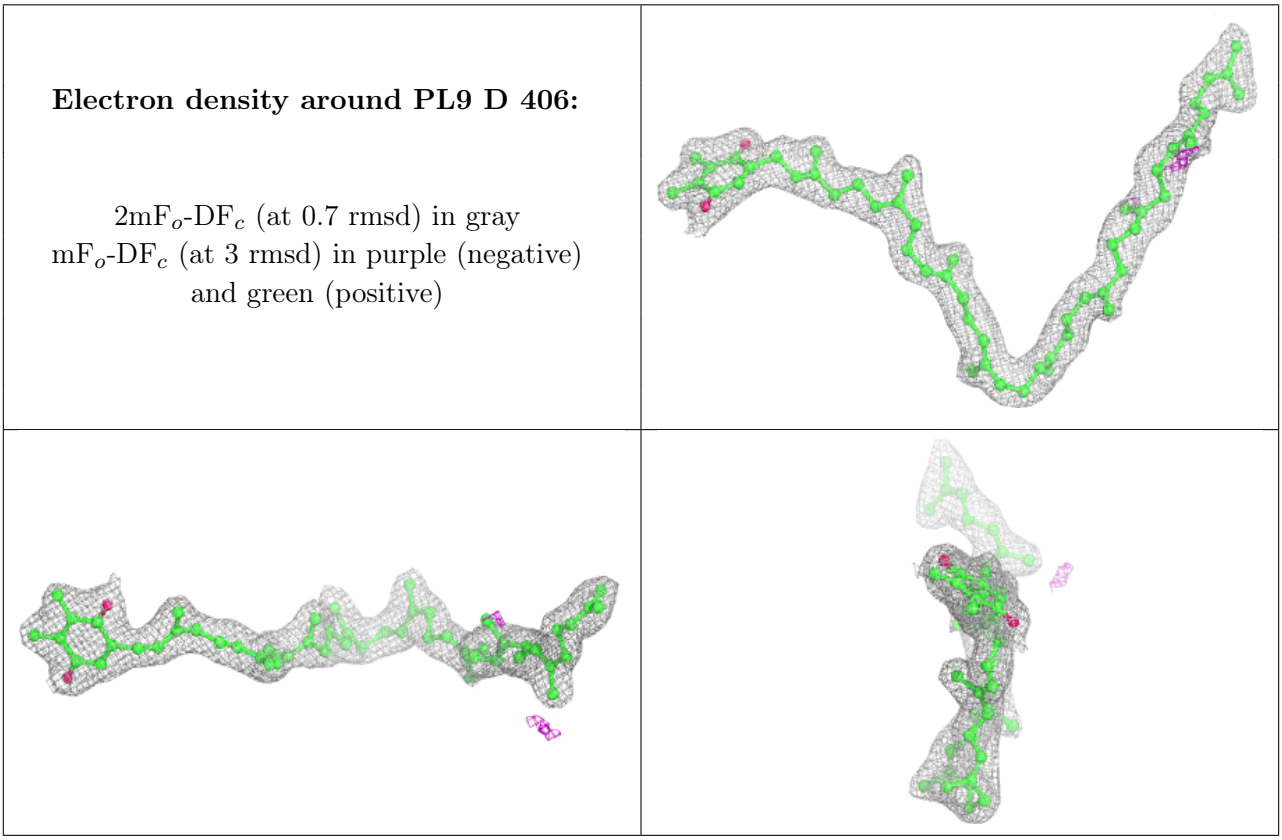
Electron density around CLA b 610:

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



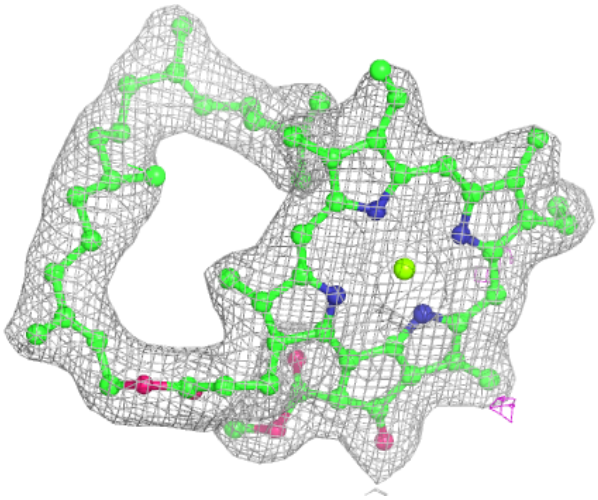
Electron density around PL9 D 406:

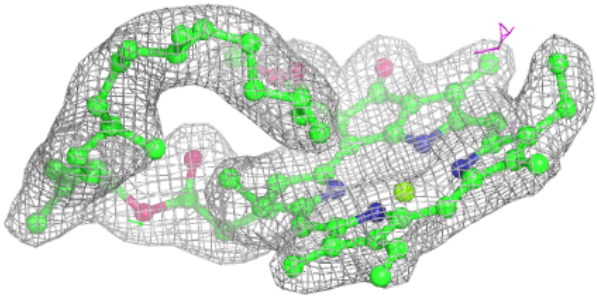
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

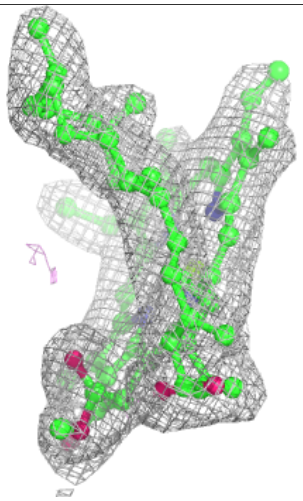


Electron density around CLA b 616:

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

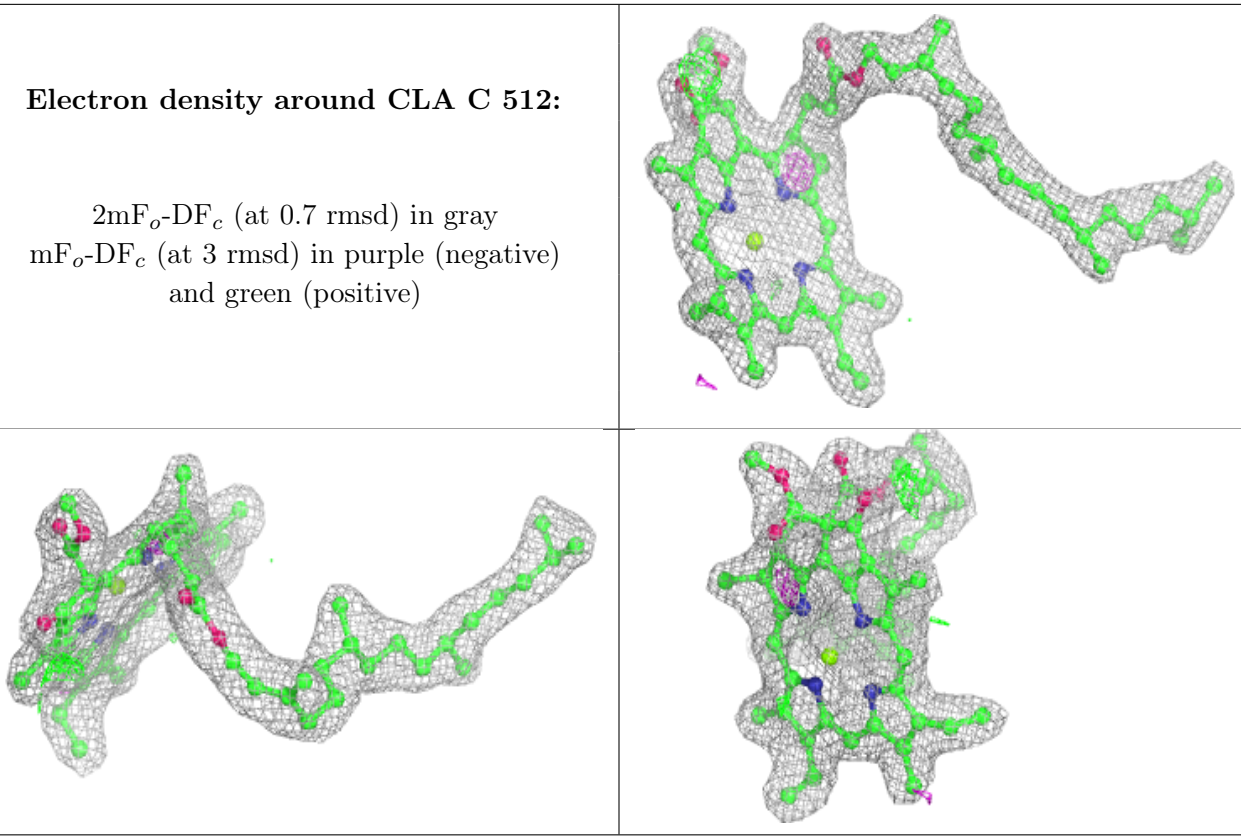






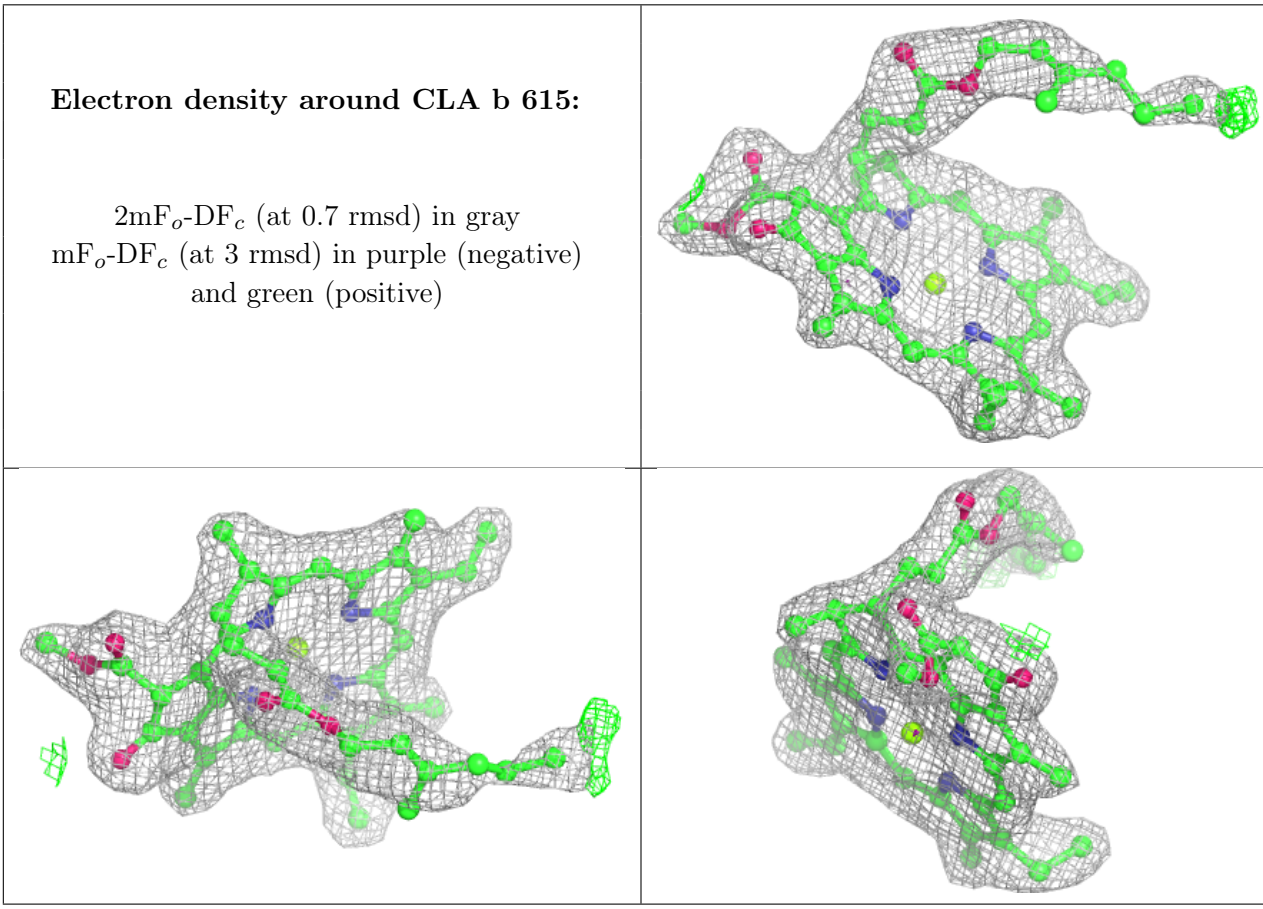
Electron density around CLA C 512:

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



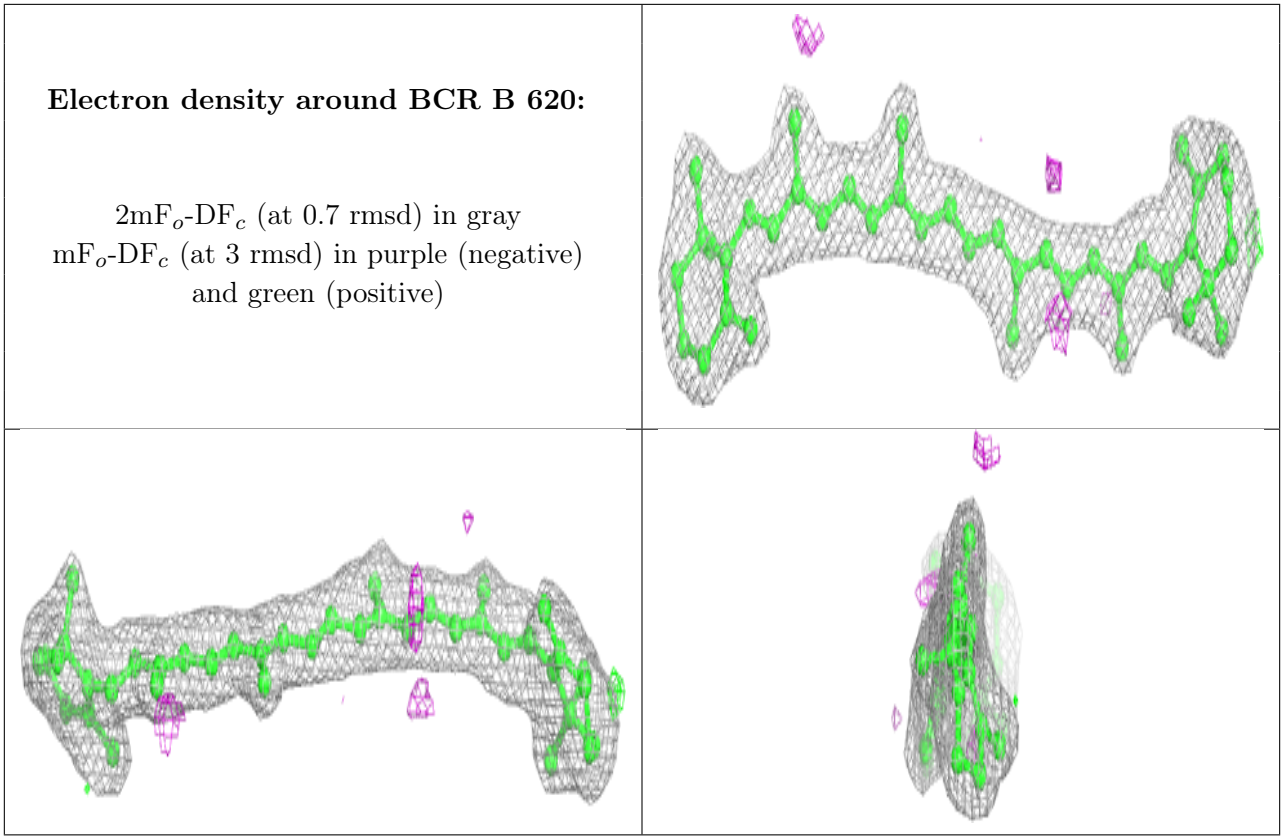
Electron density around CLA b 615:

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



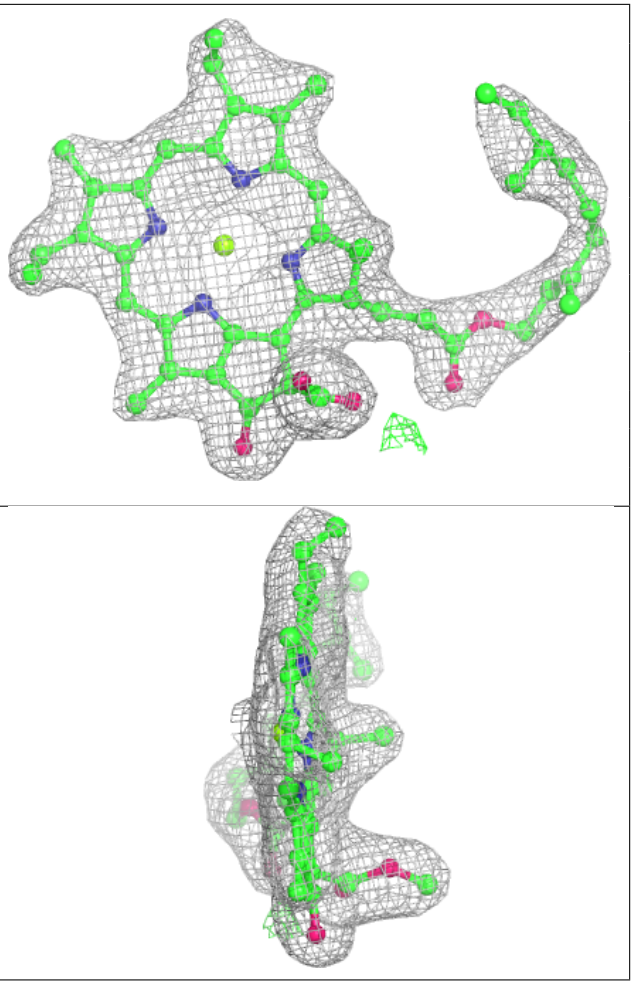
Electron density around BCR B 620:

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



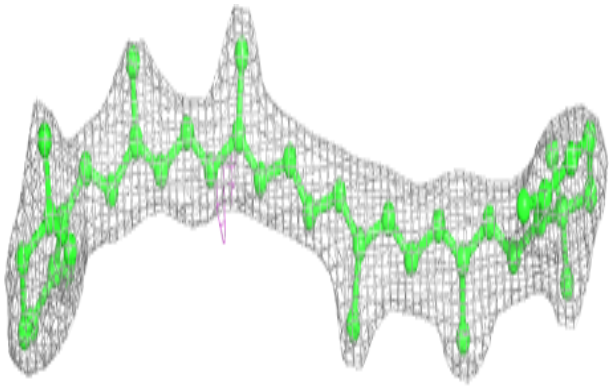
Electron density around CLA C 513:

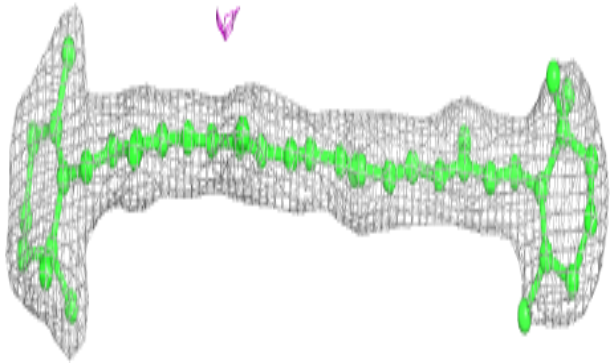
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

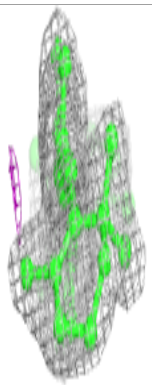


Electron density around BCR C 516:

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

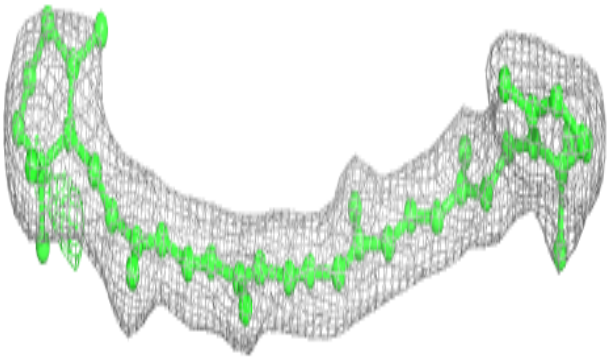


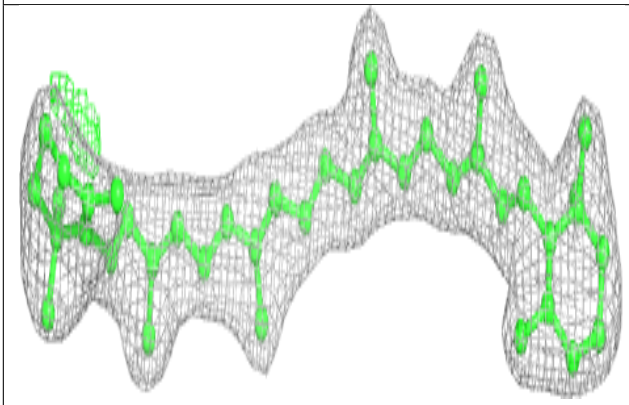


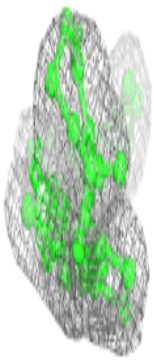


Electron density around BCR D 405:

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

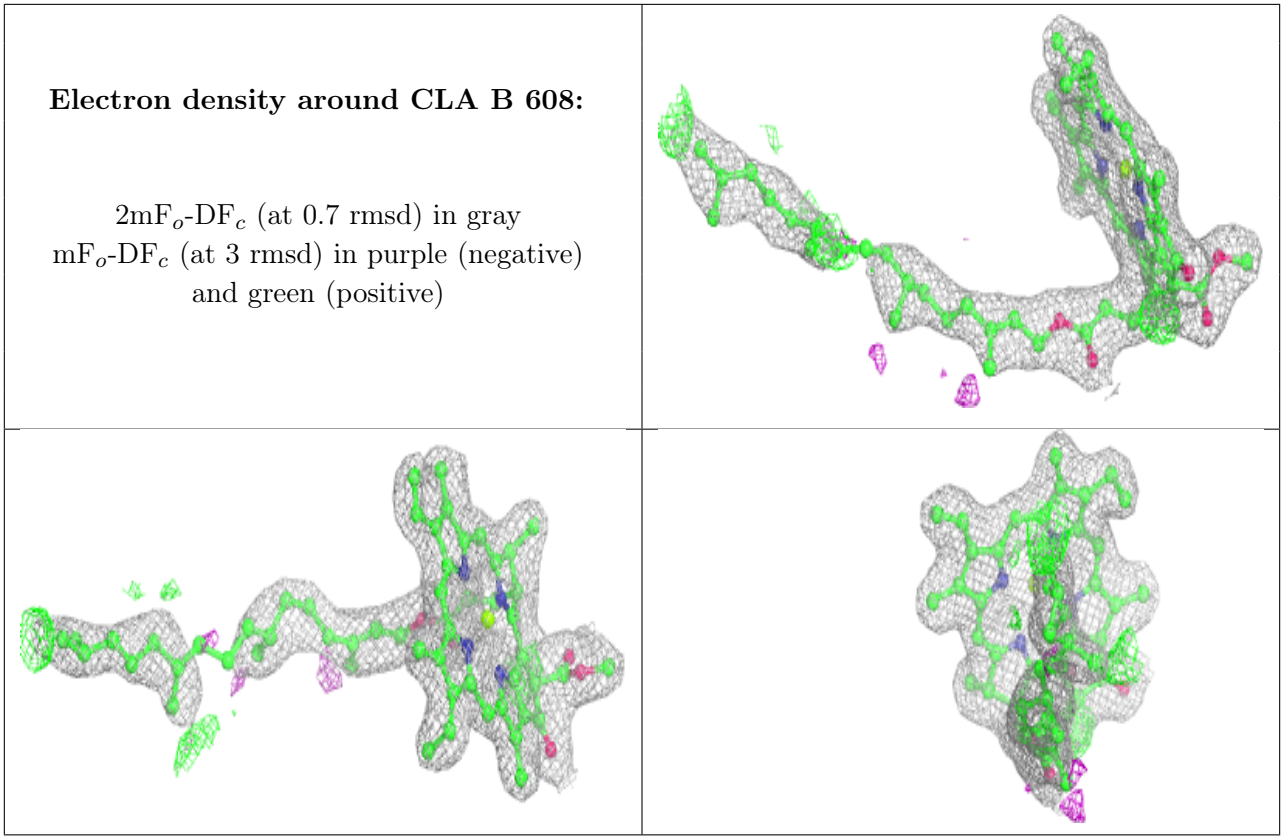






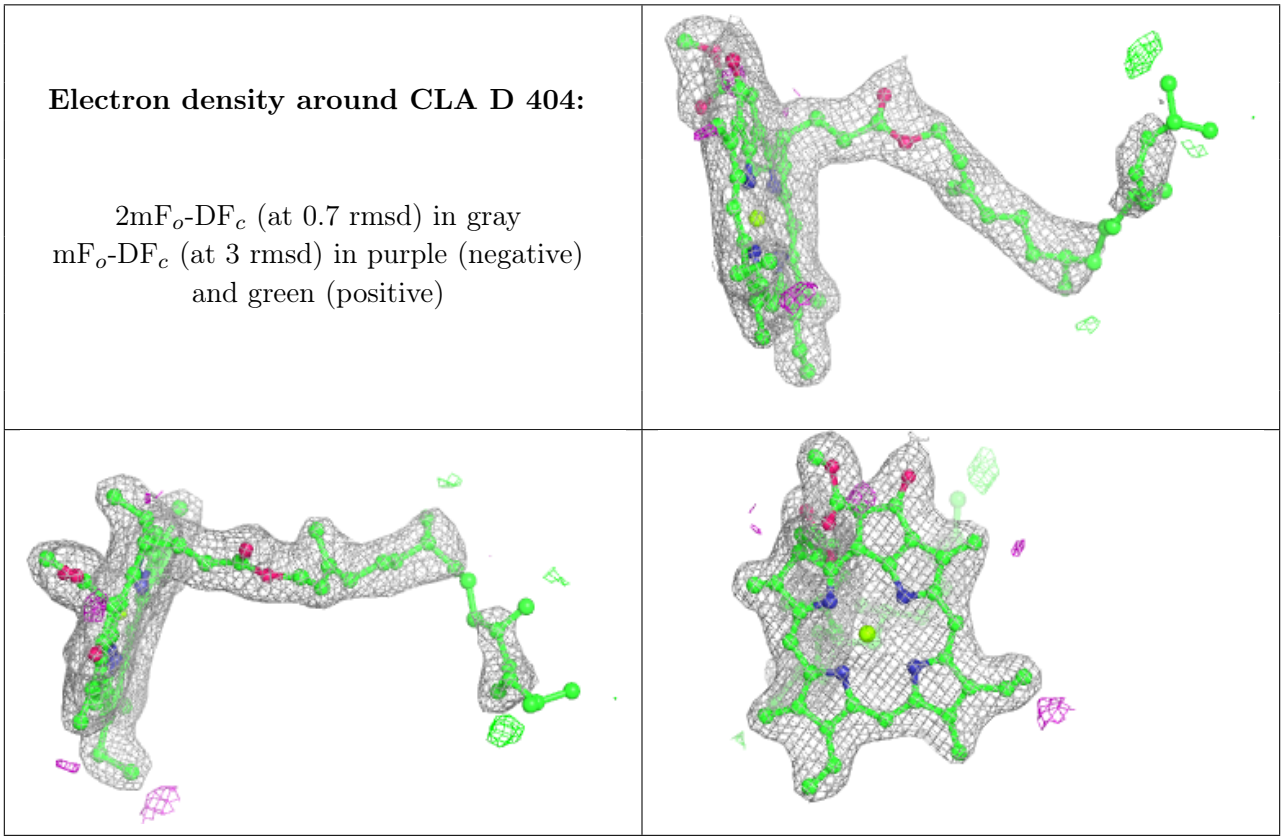
Electron density around CLA B 608:

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



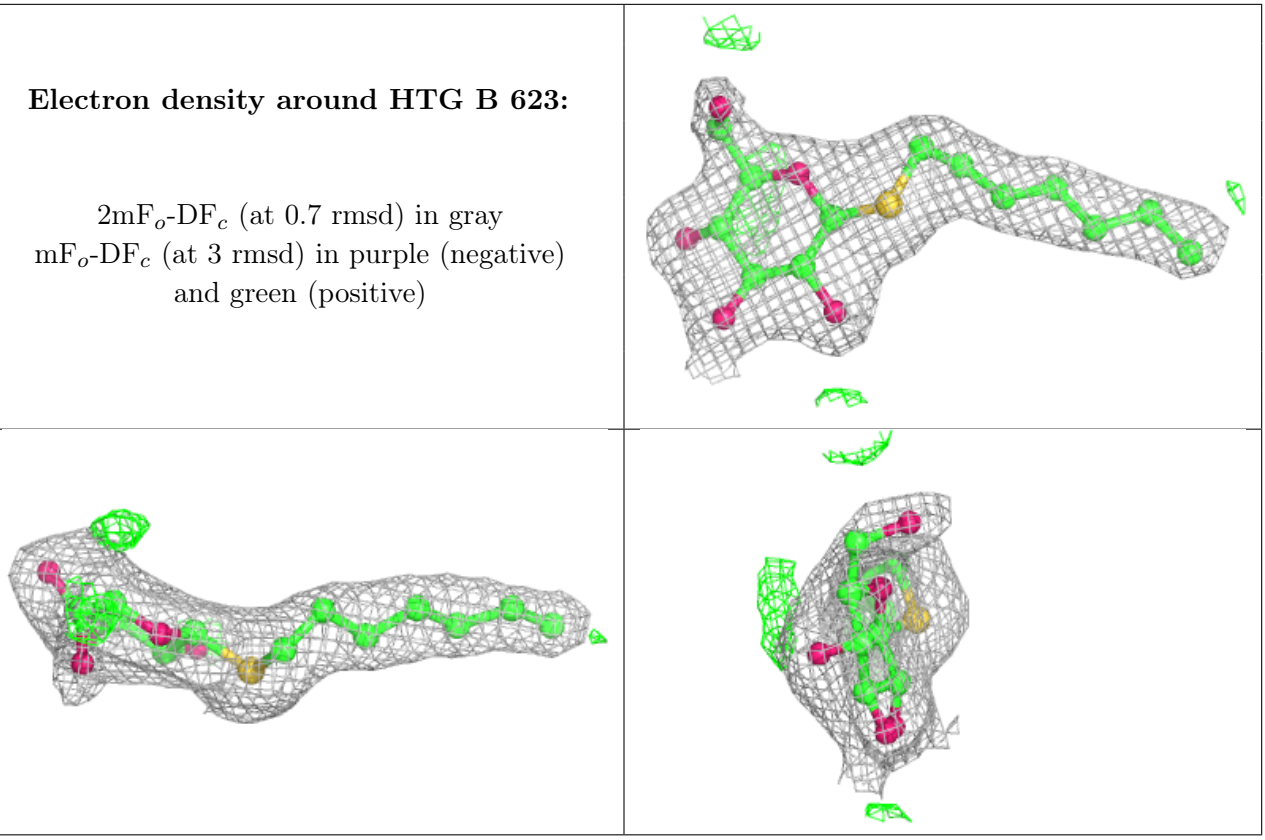
Electron density around CLA D 404:

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



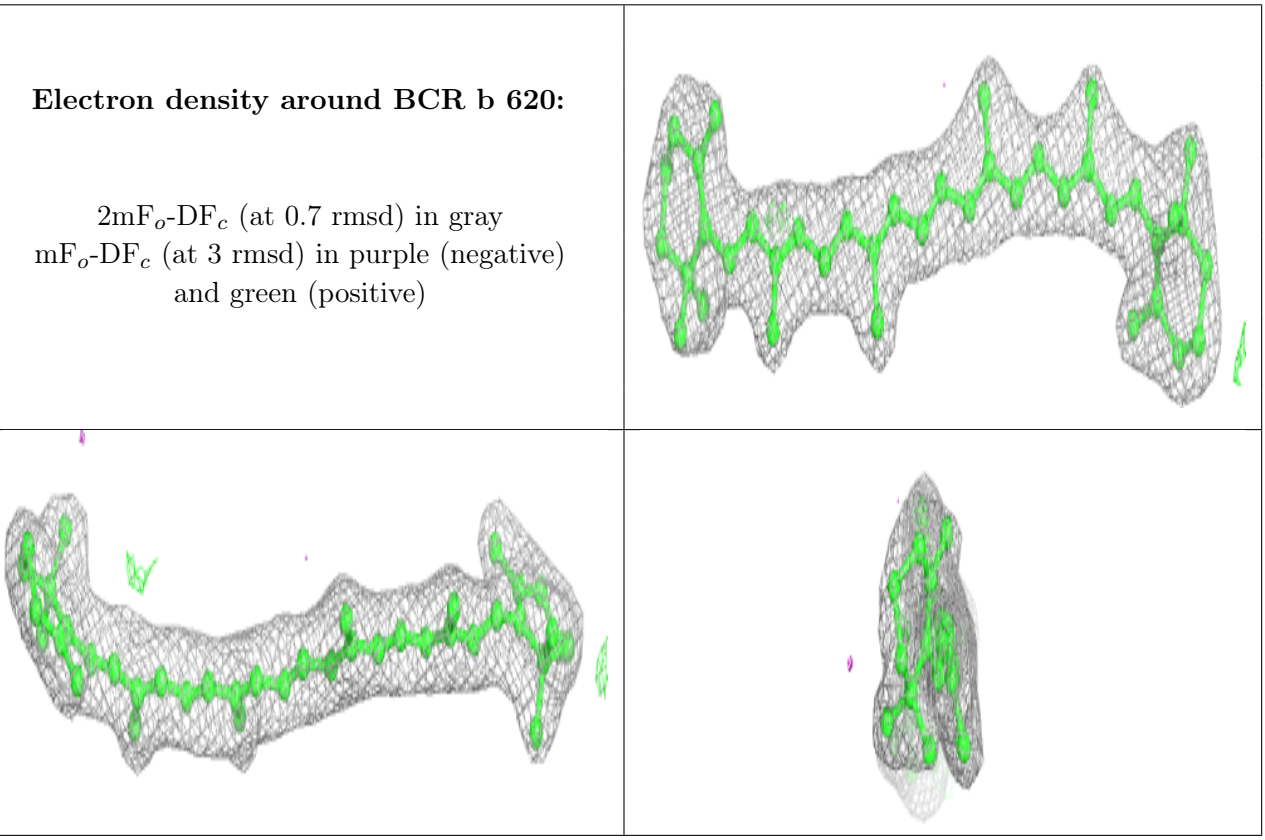
Electron density around HTG B 623:

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



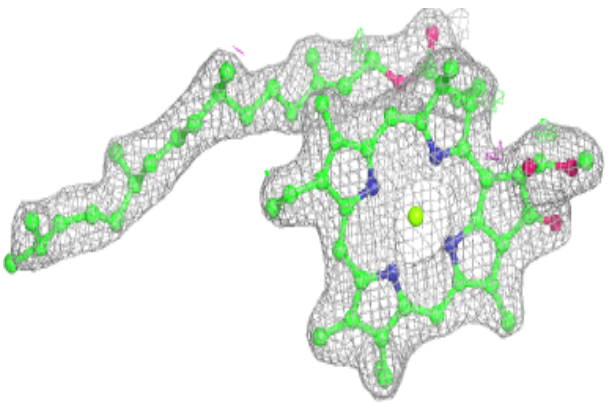
Electron density around BCR b 620:

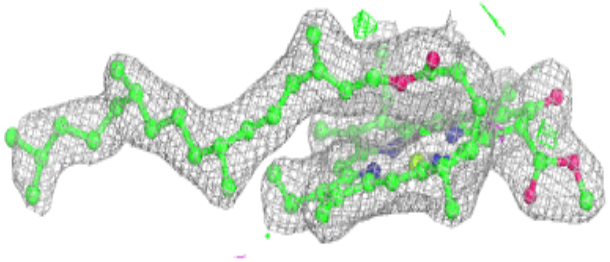
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

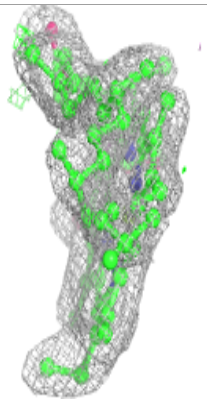


Electron density around CLA C 502:

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

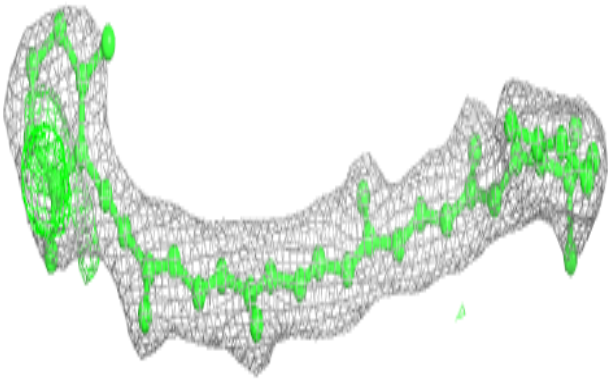


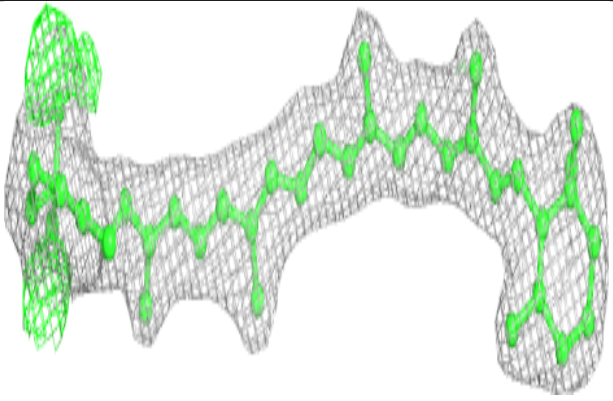


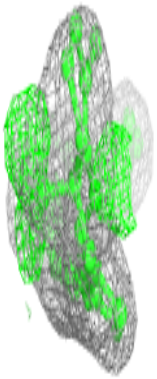


Electron density around BCR d 404:

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

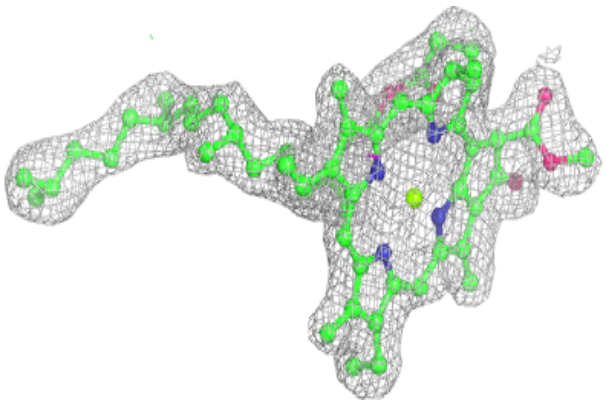


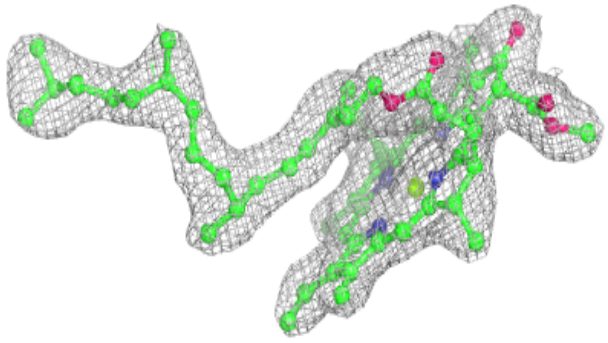


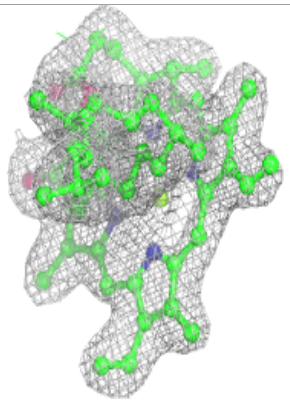


Electron density around CLA c 906:

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

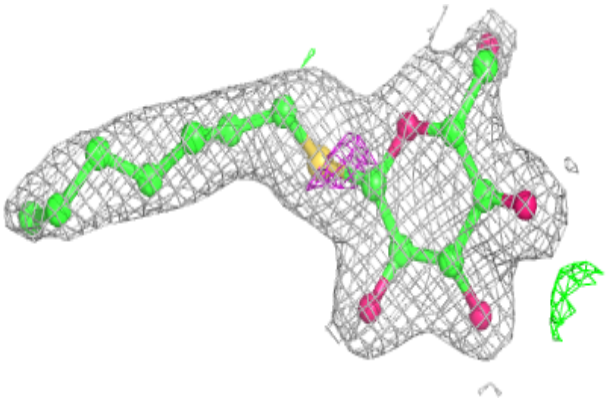


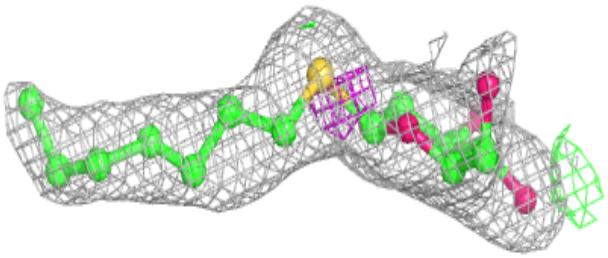


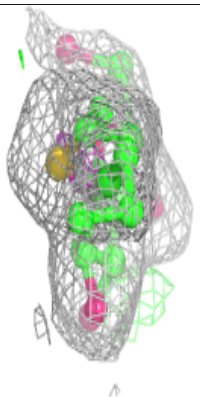


Electron density around HTG b 623:

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

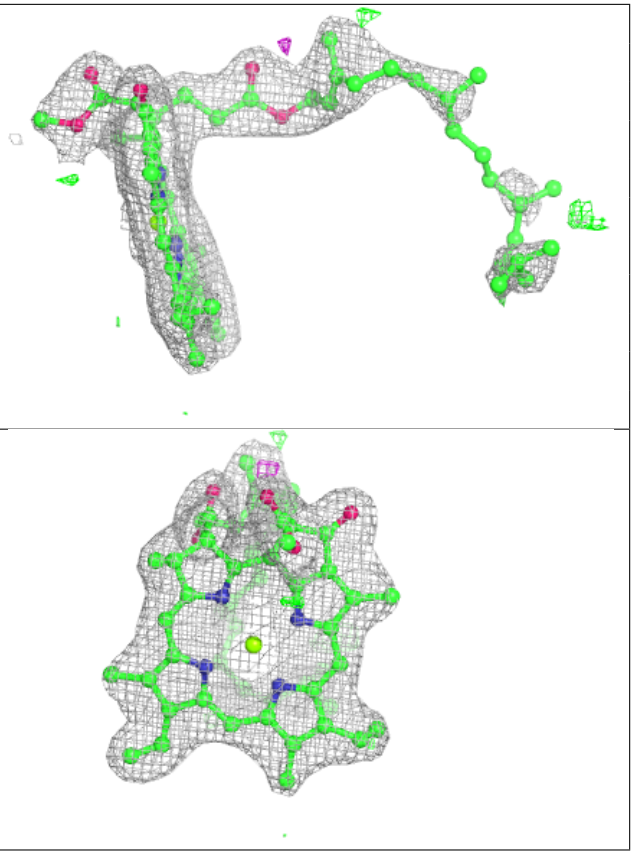


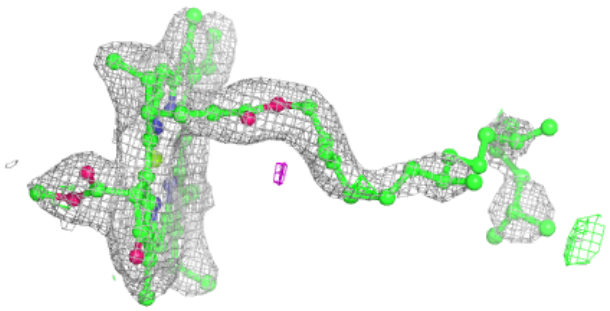




Electron density around CLA c 907:

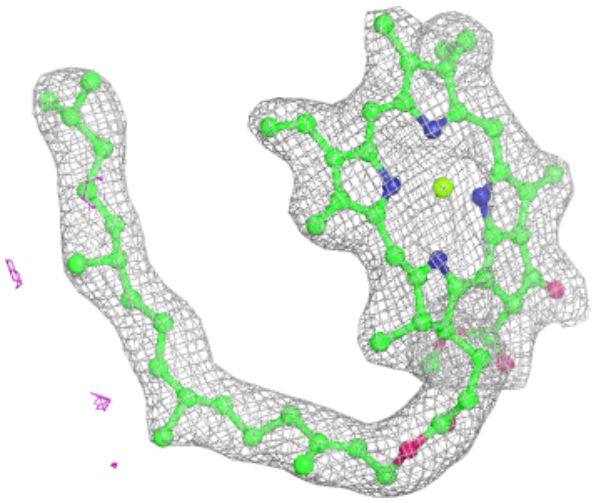
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

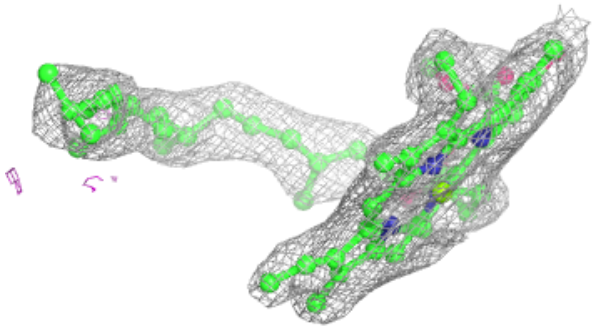


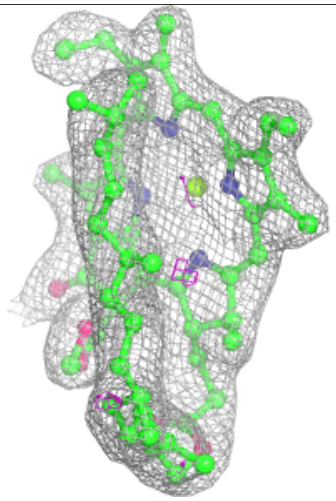


Electron density around CLA c 908:

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

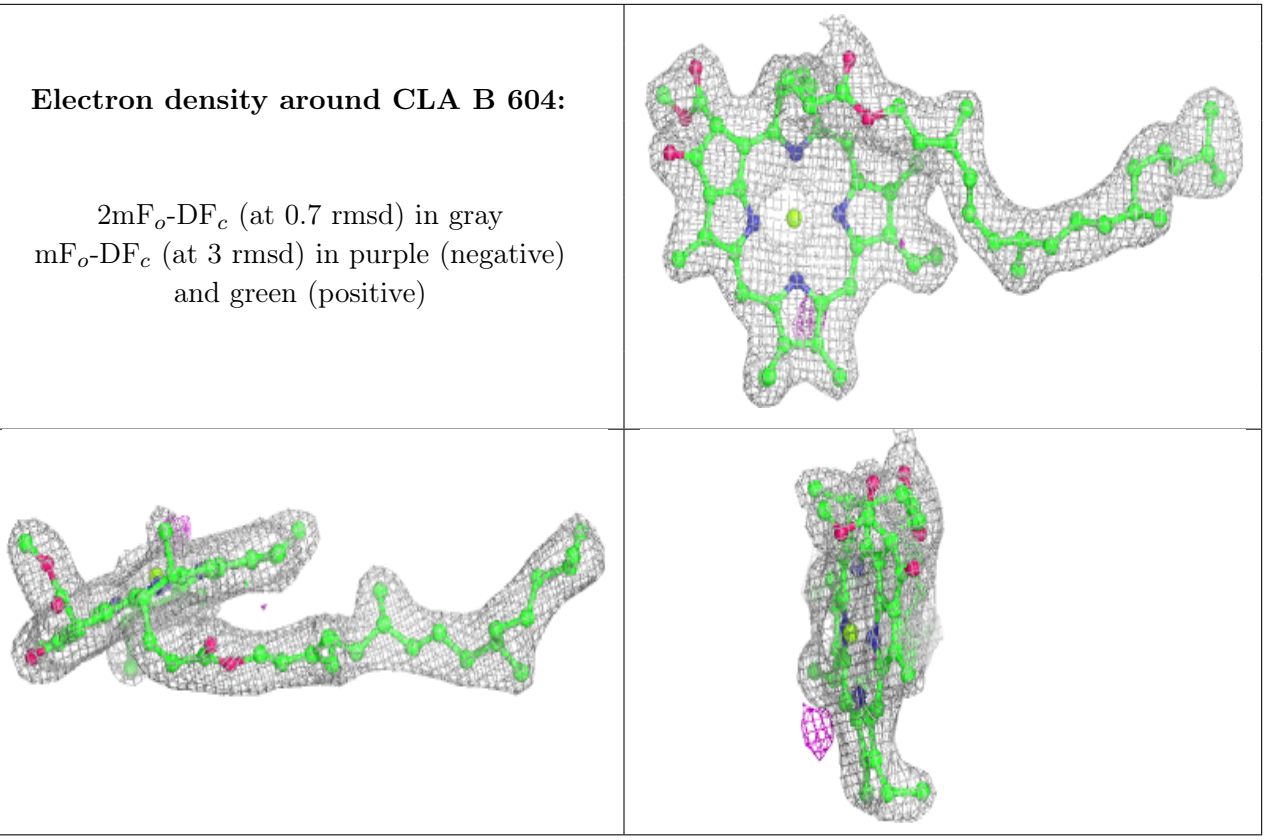






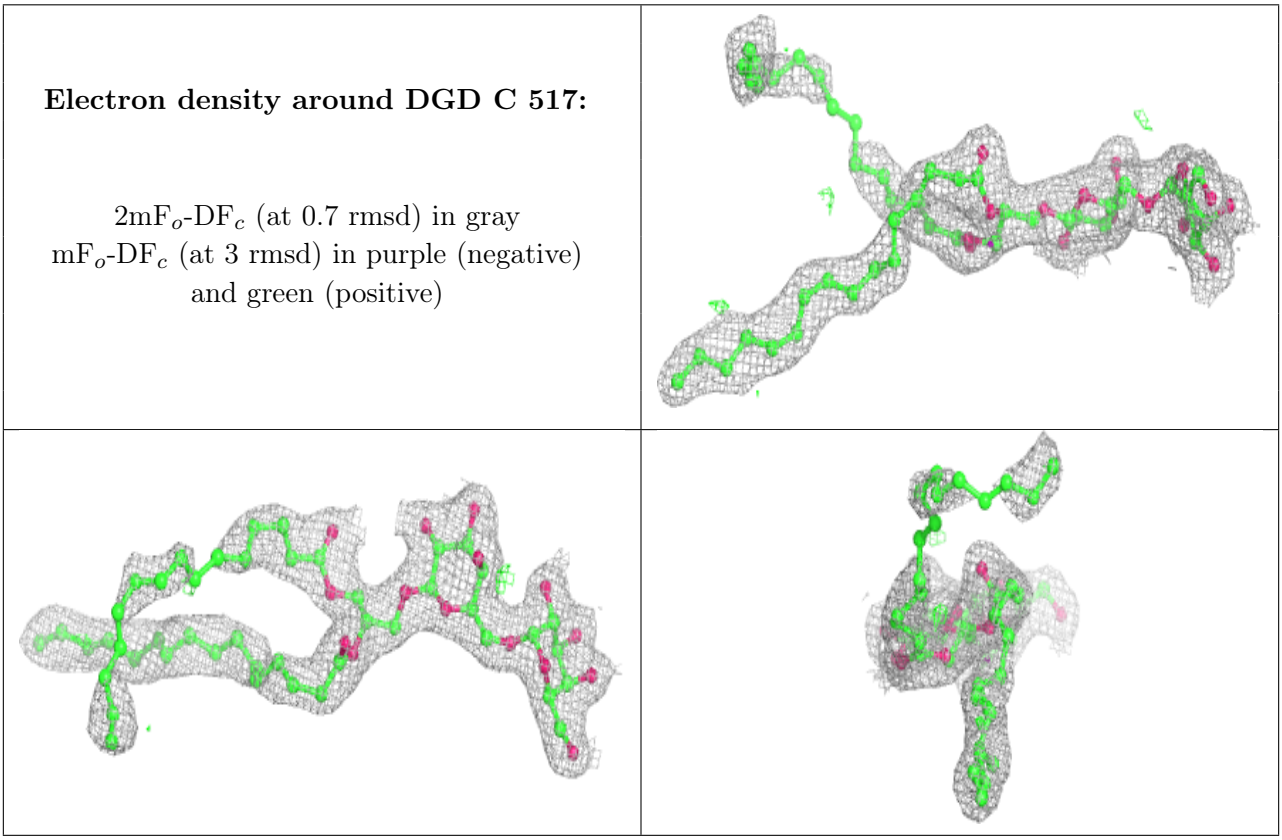
Electron density around CLA B 604:

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



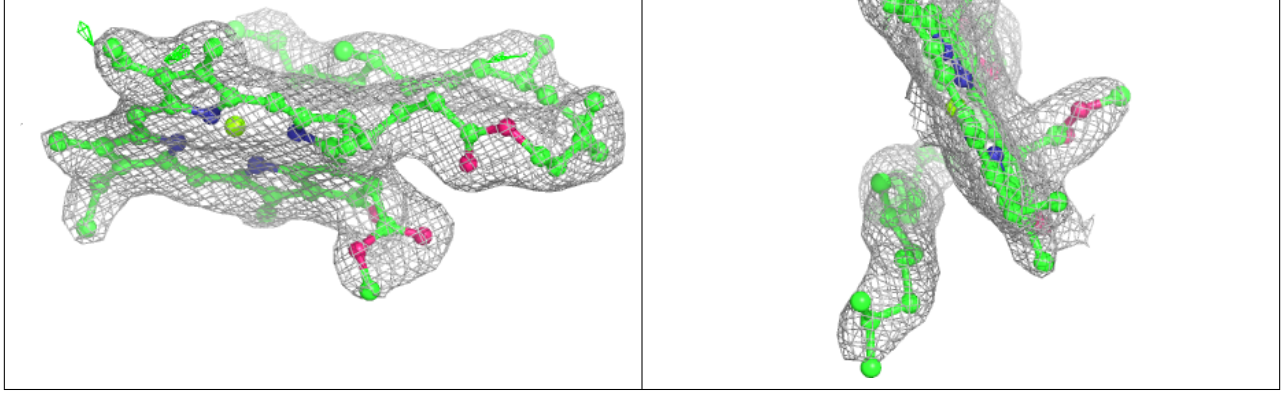
Electron density around DGD C 517:

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



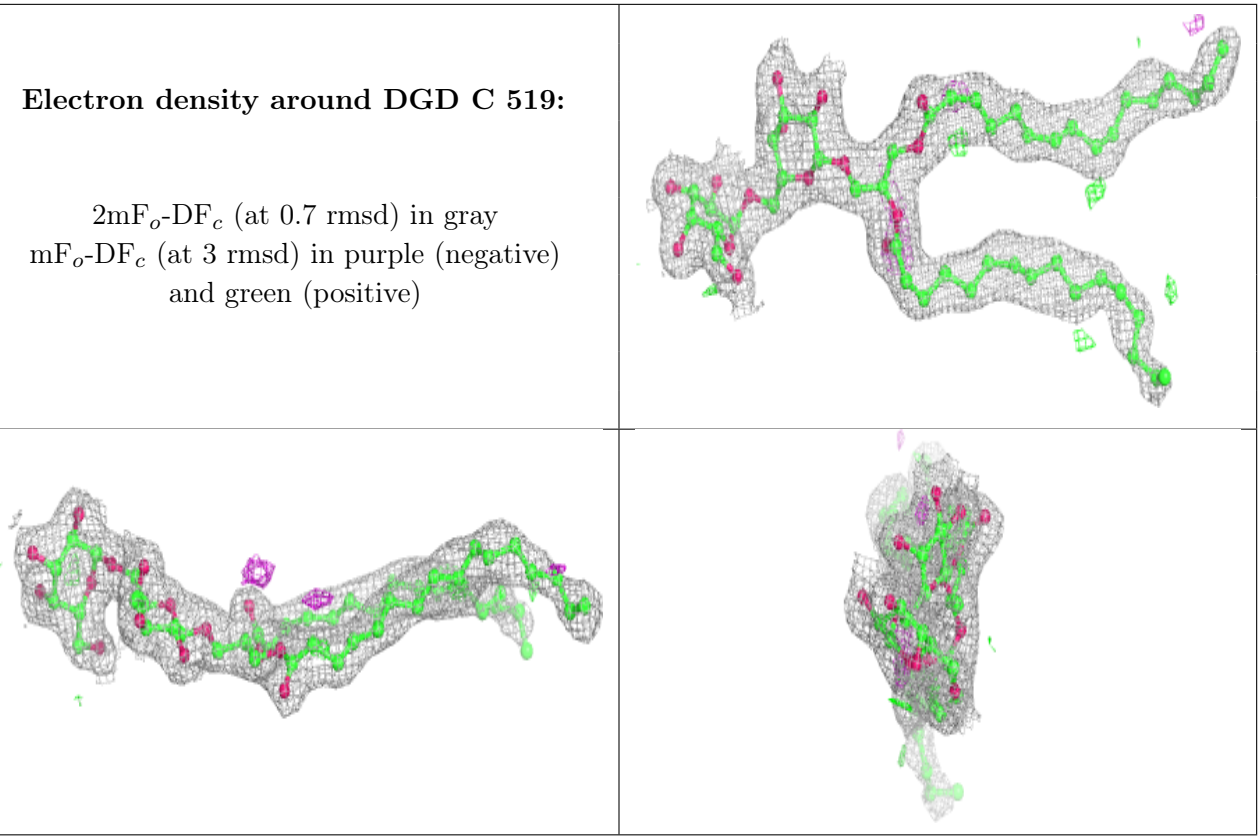
Electron density around CLA C 510:

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



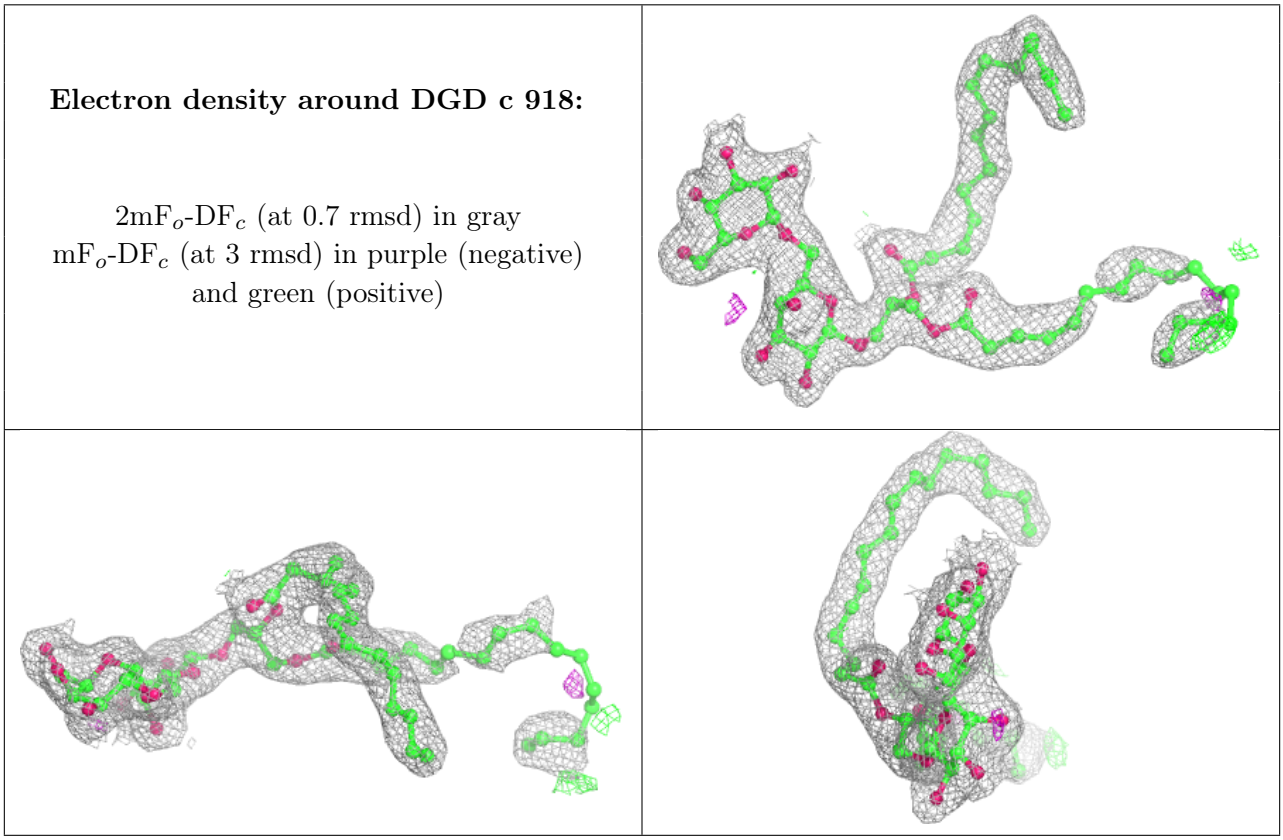
Electron density around DGD C 519:

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



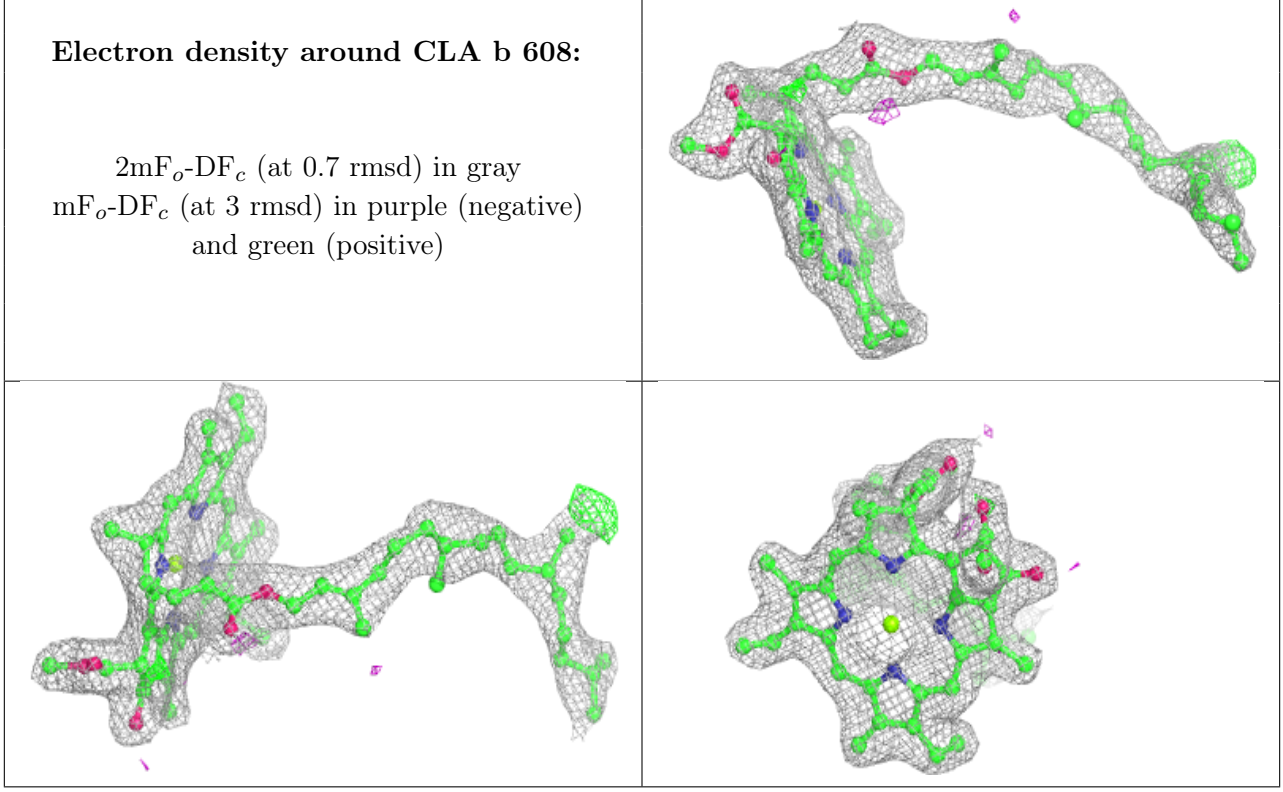
Electron density around DGD c 918:

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



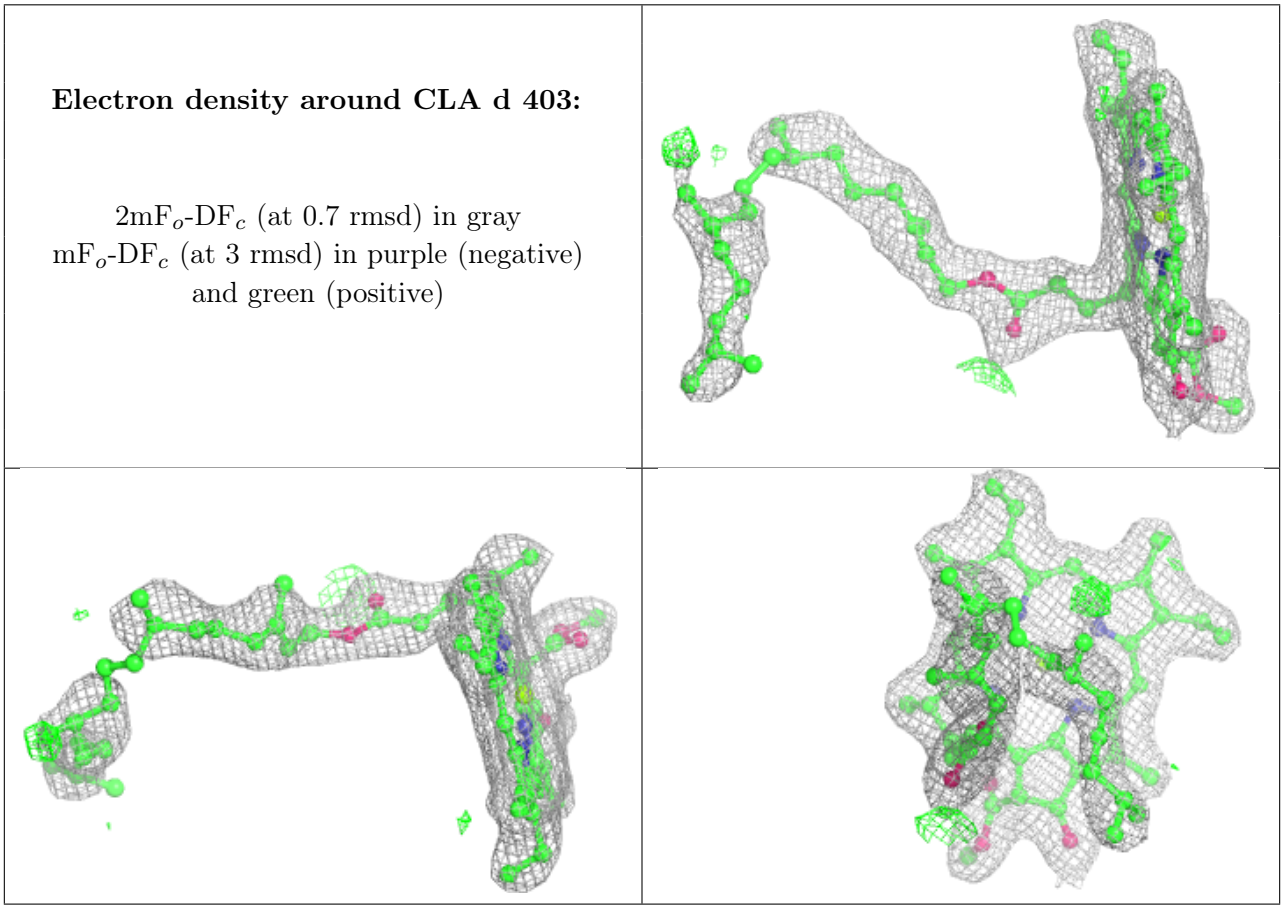
Electron density around CLA b 608:

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



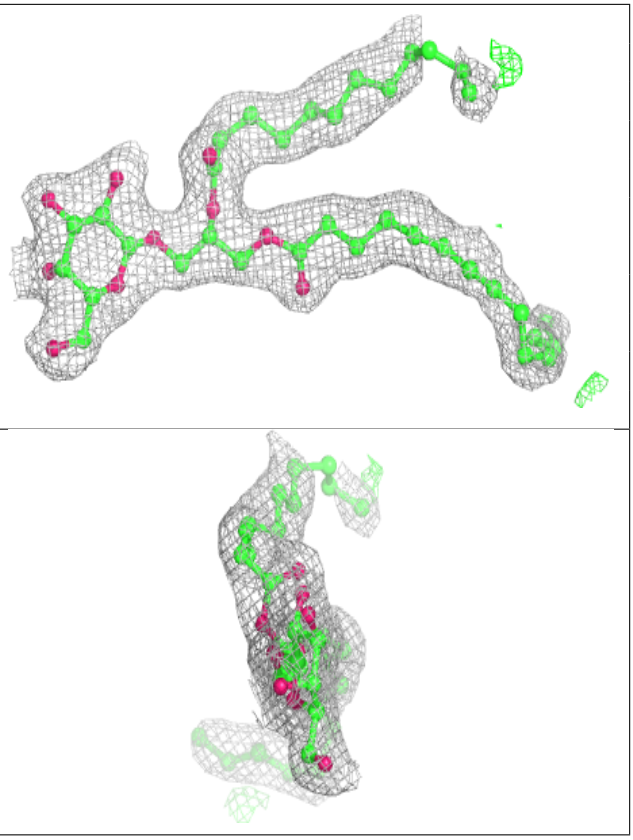
Electron density around CLA d 403:

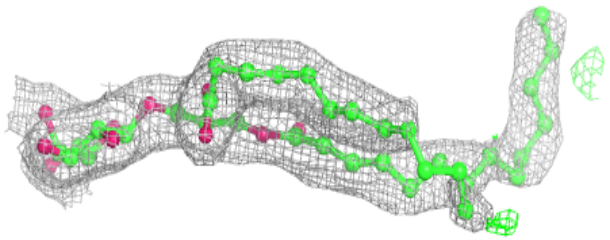
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around LMG J 101:

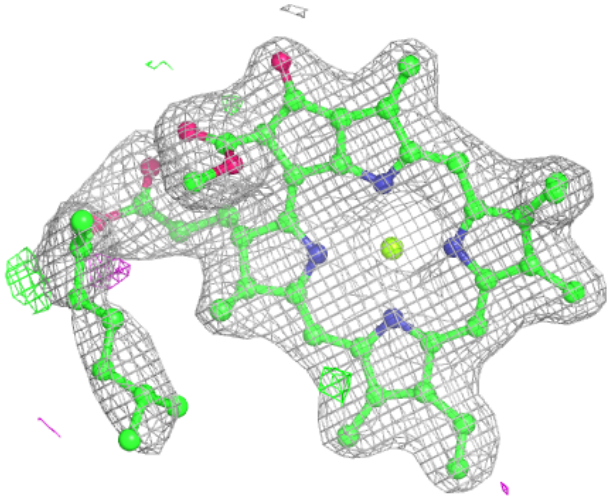
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

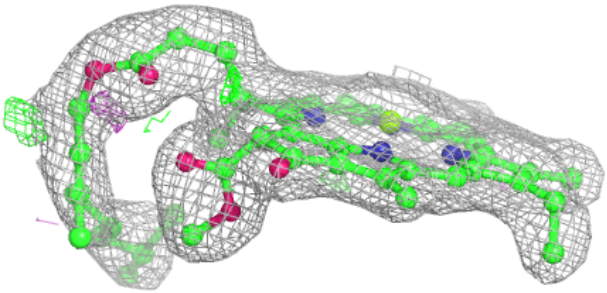


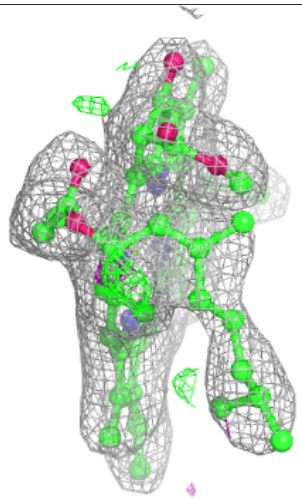


Electron density around CLA B 617:

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

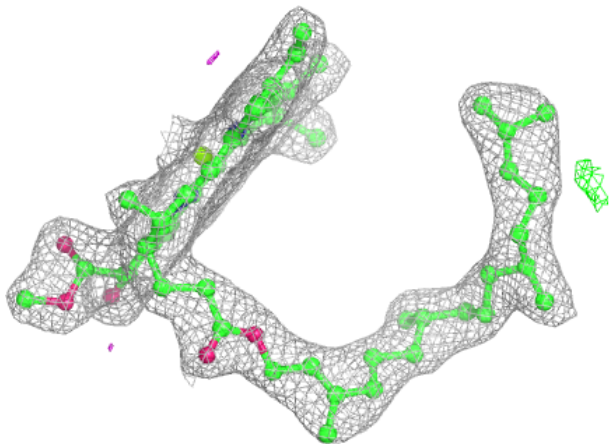


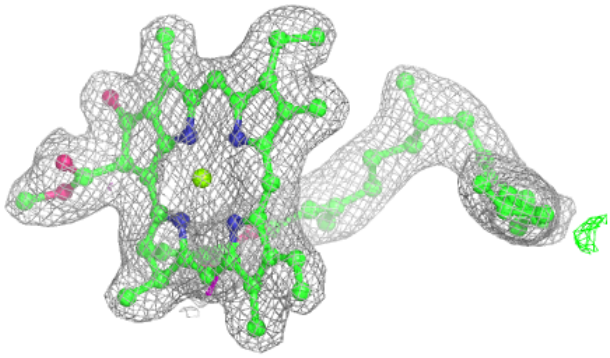


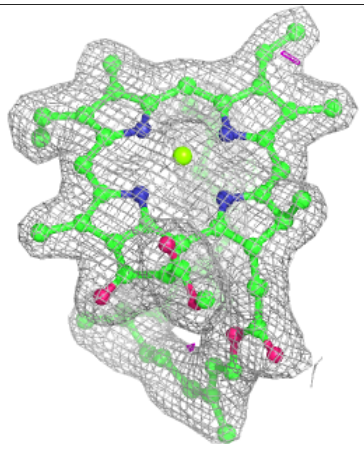


Electron density around CLA B 612:

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

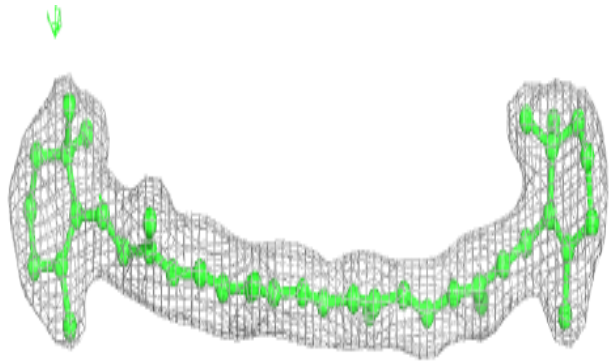


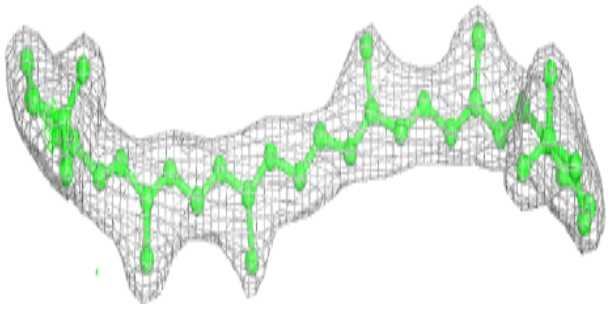


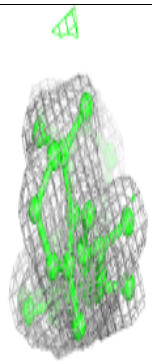


Electron density around BCR K 101:

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

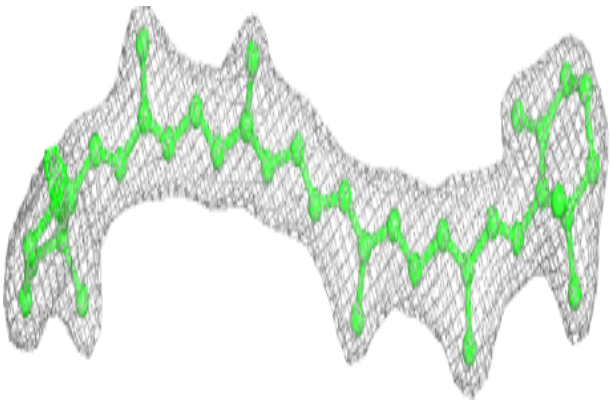


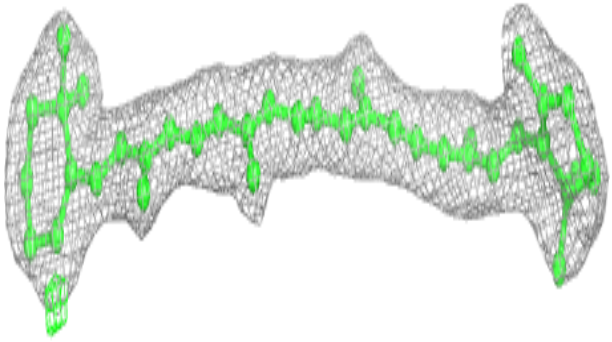


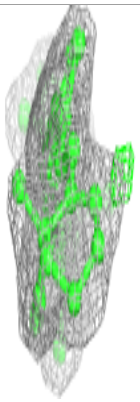


Electron density around BCR Y 101:

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

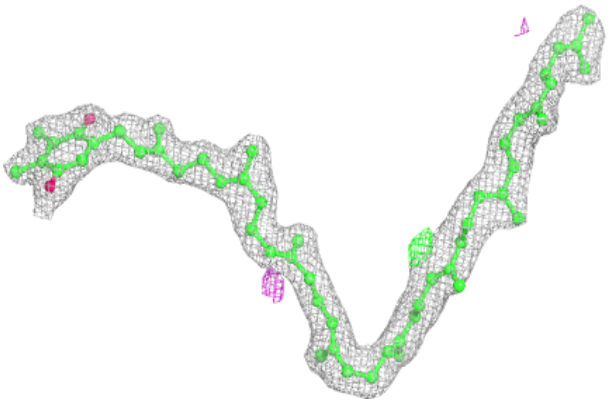


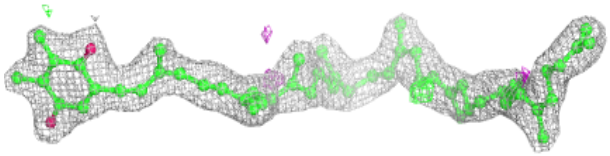




Electron density around PL9 d 405:

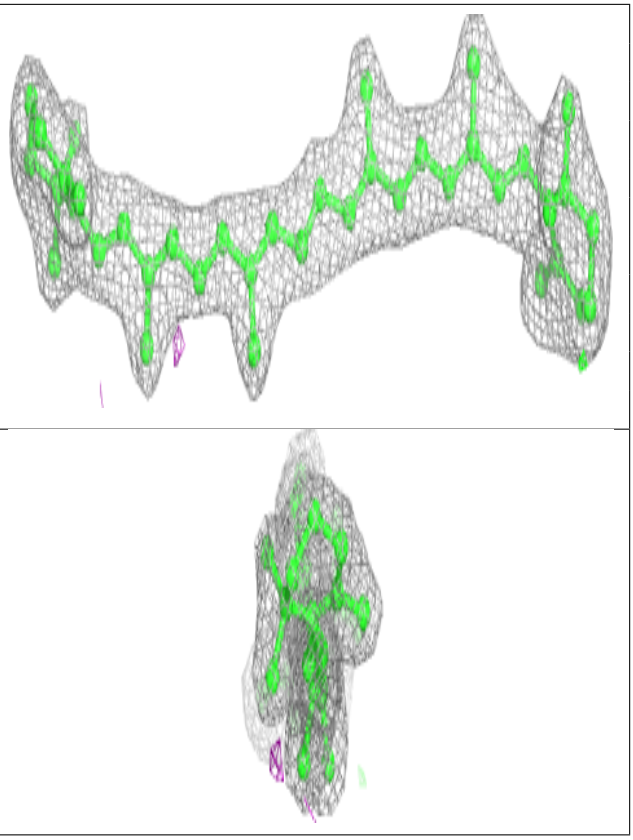
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





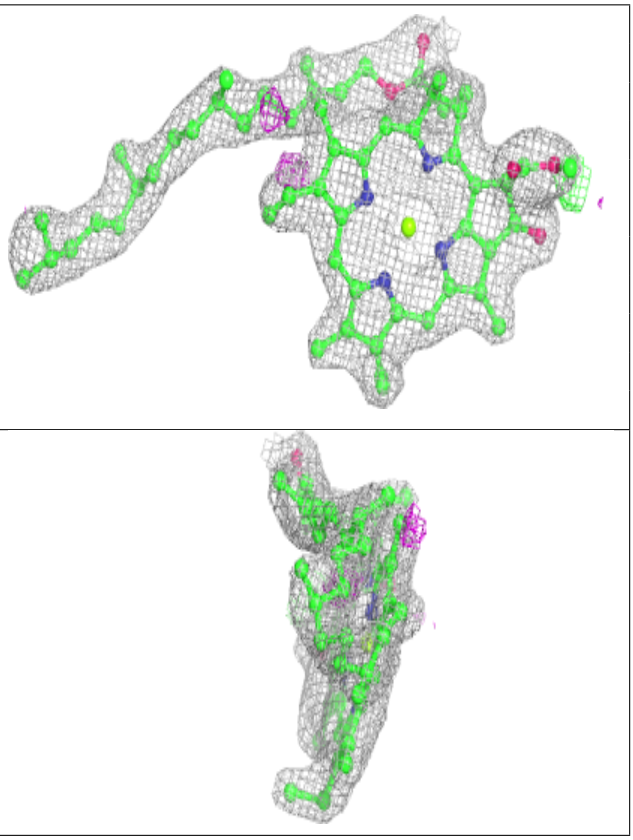
Electron density around BCR a 413:

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



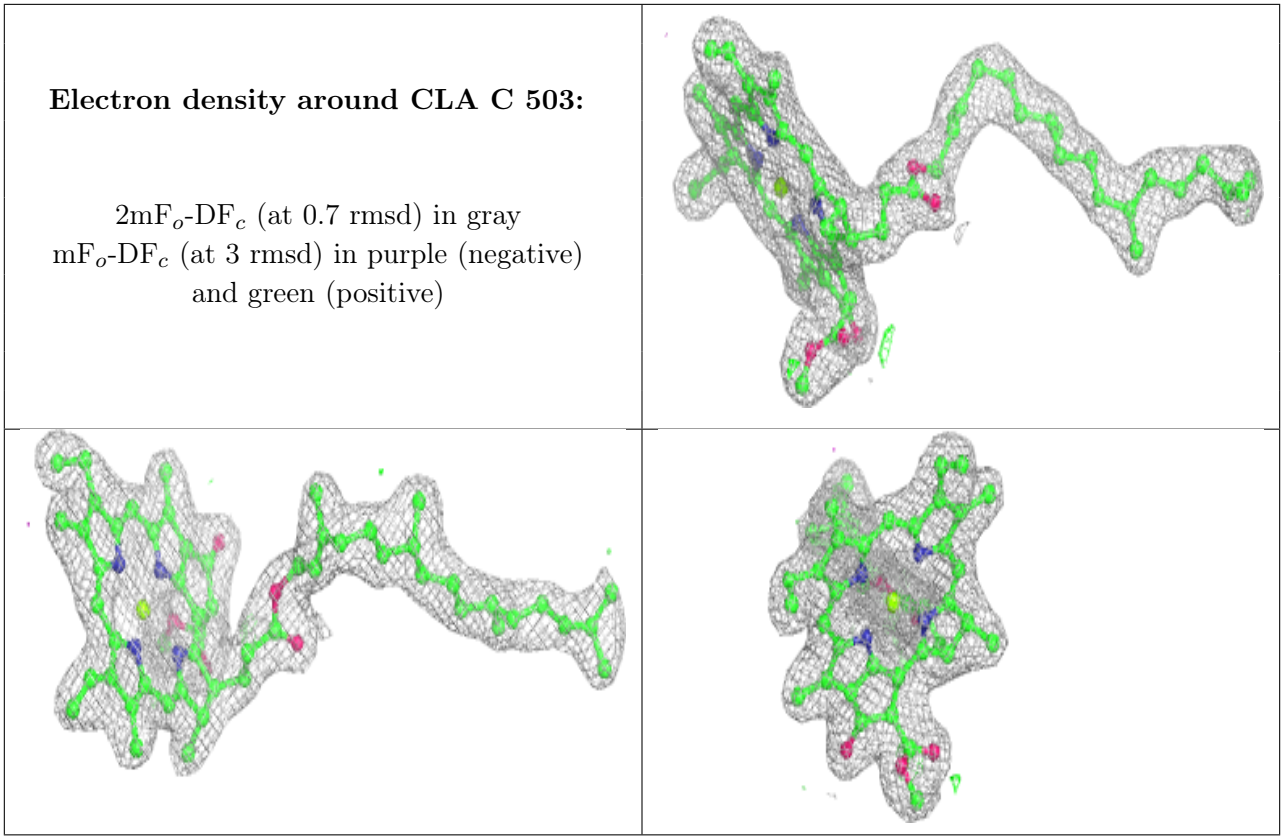
Electron density around CLA c 902:

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



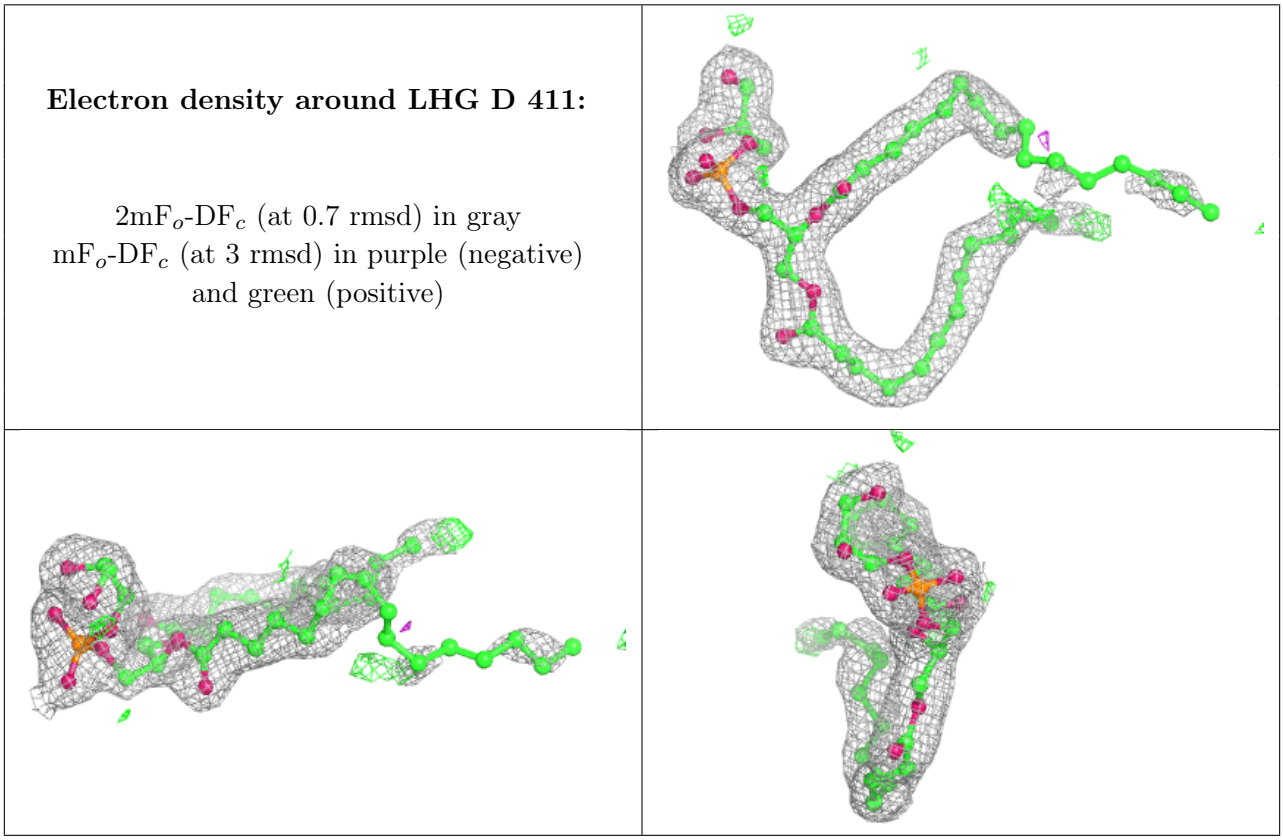
Electron density around CLA C 503:

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



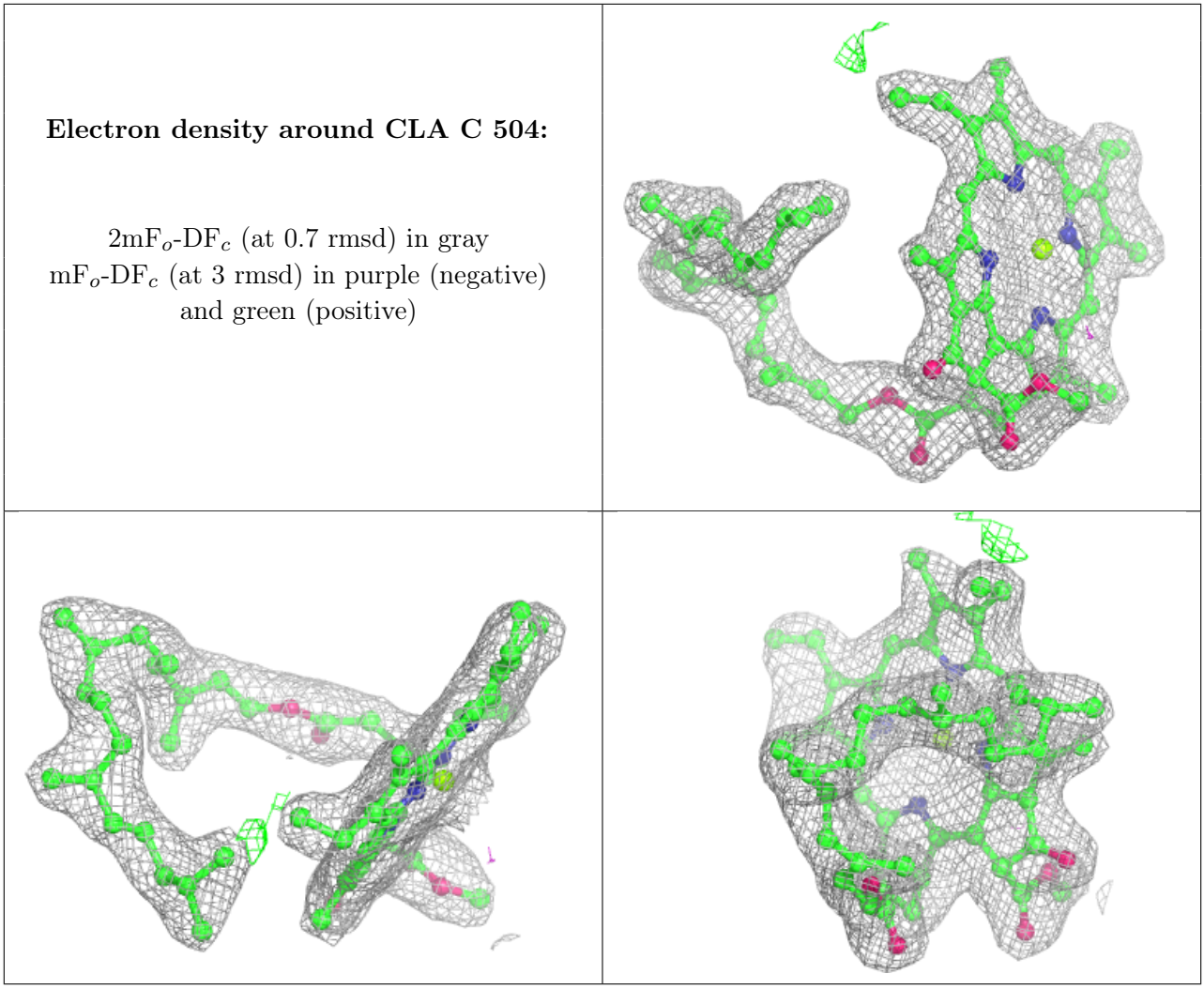
Electron density around LHG D 411:

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



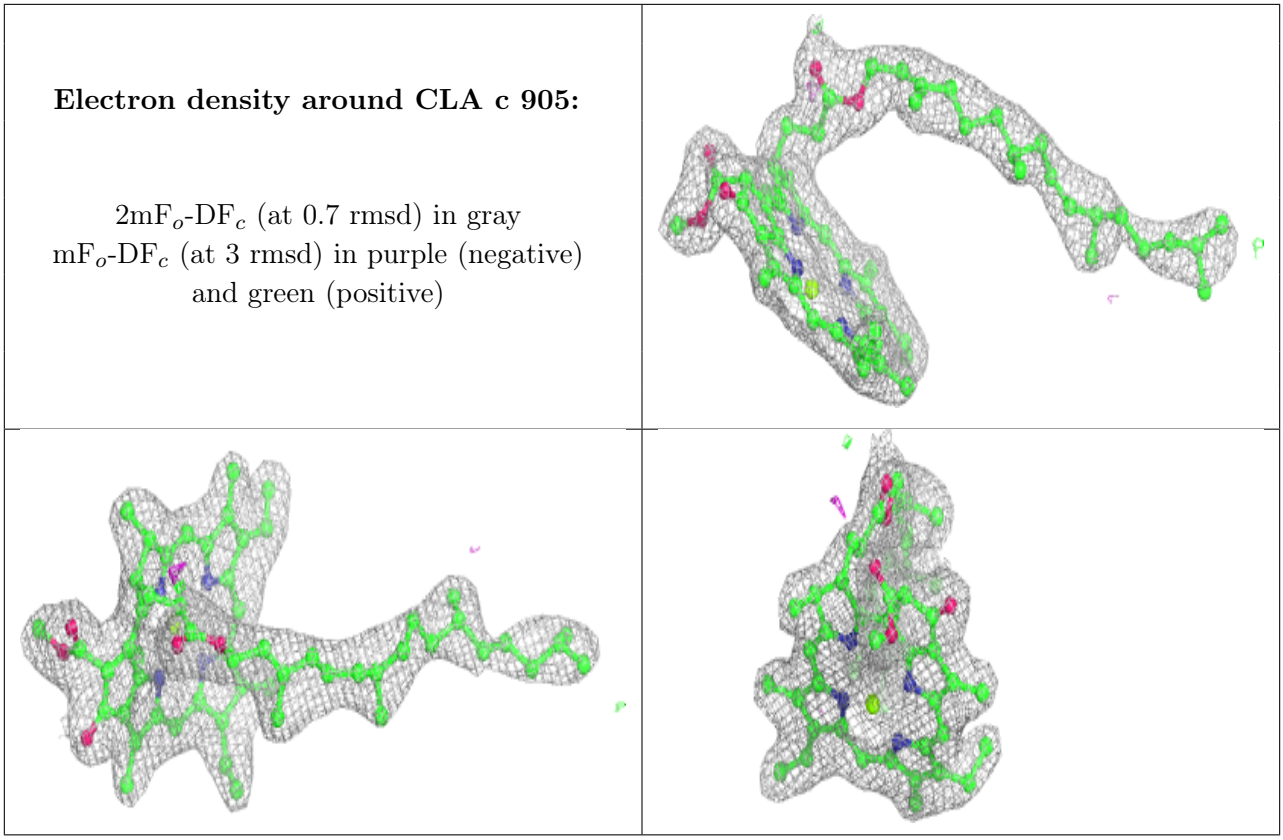
Electron density around CLA C 504:

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



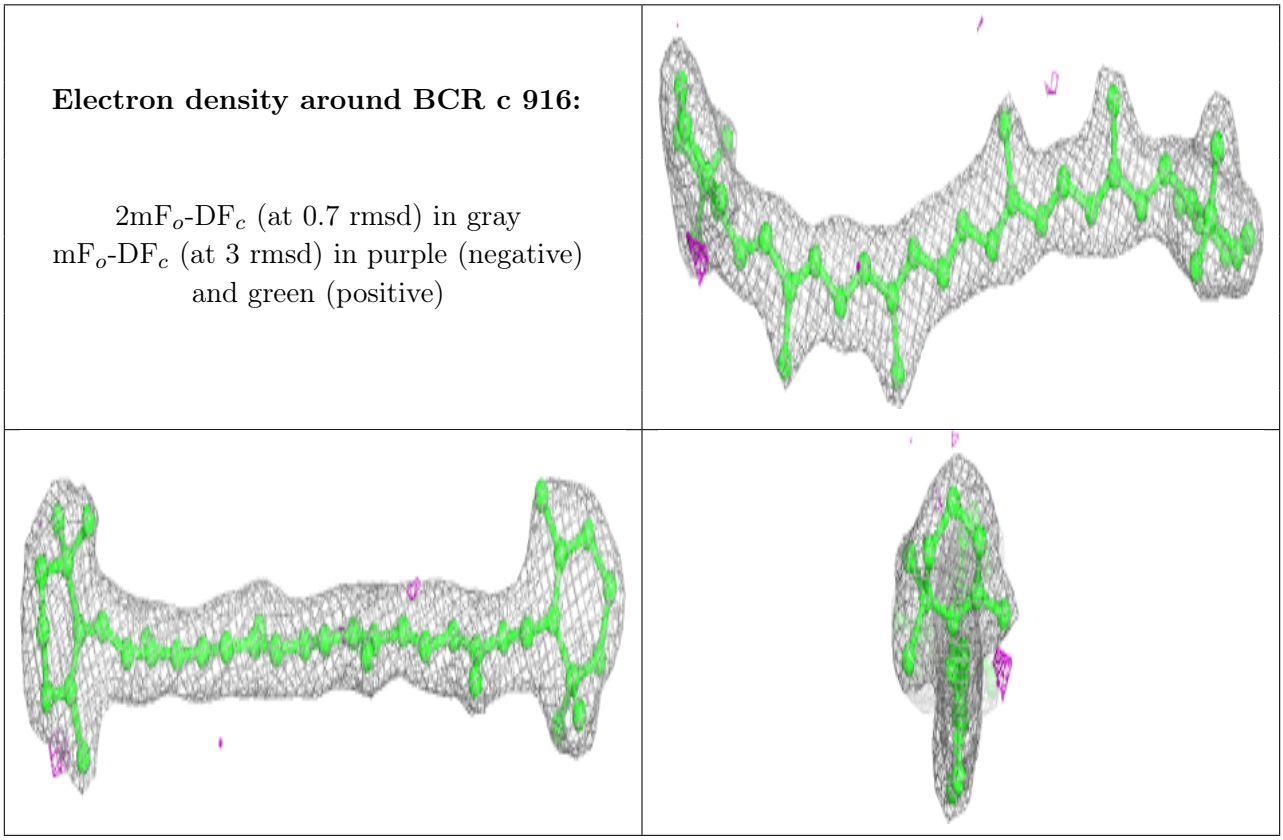
Electron density around CLA c 905:

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



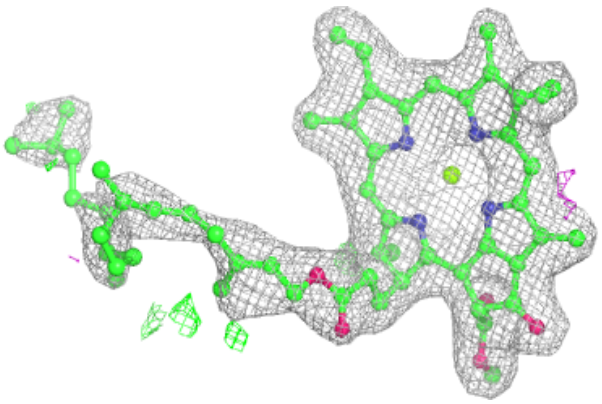
Electron density around BCR c 916:

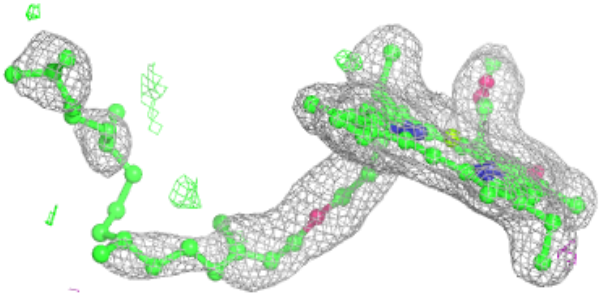
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

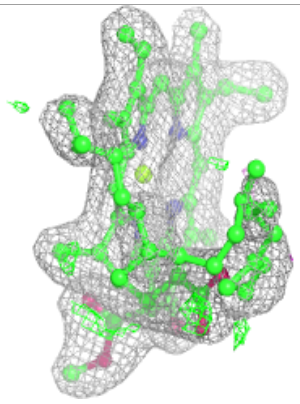


Electron density around CLA a 412:

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

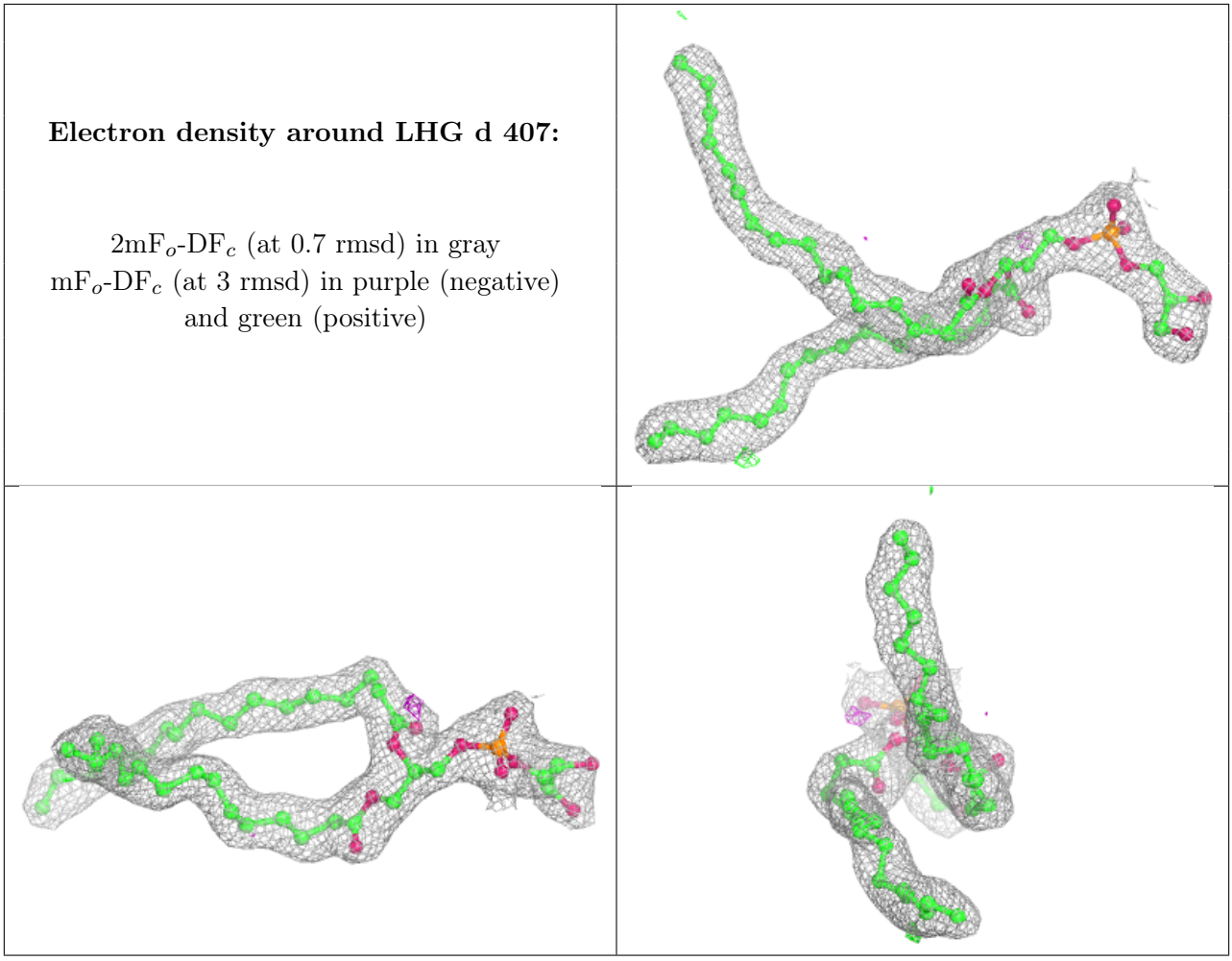






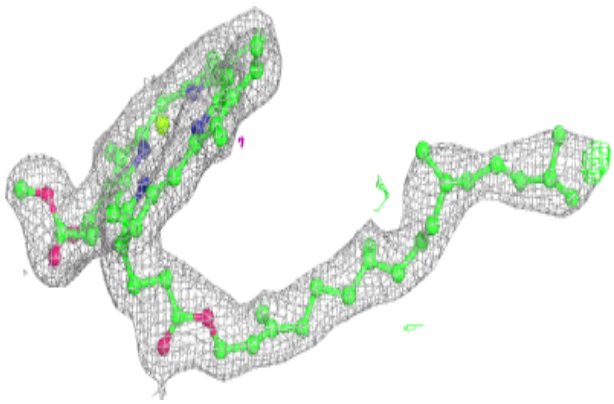
Electron density around LHG d 407:

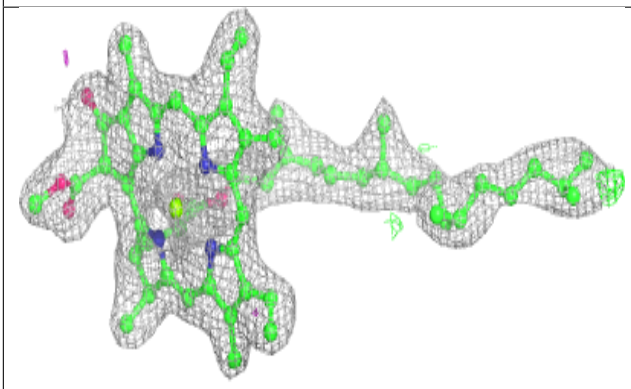
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

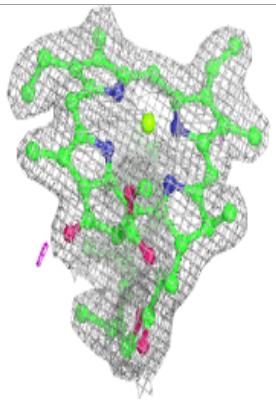


Electron density around CLA C 505:

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

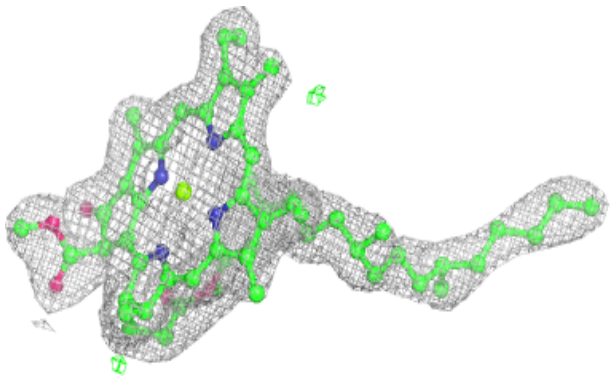


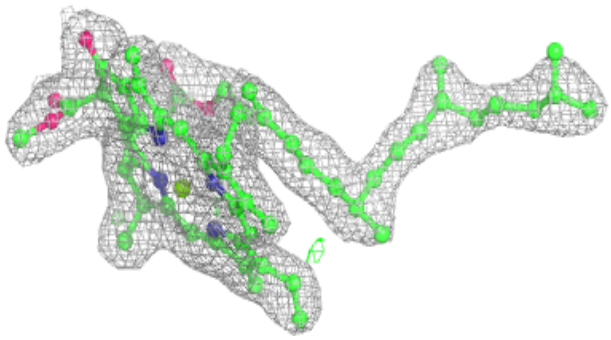


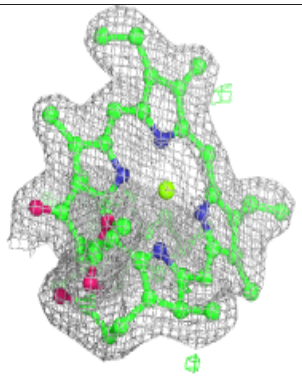


Electron density around CLA C 506:

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

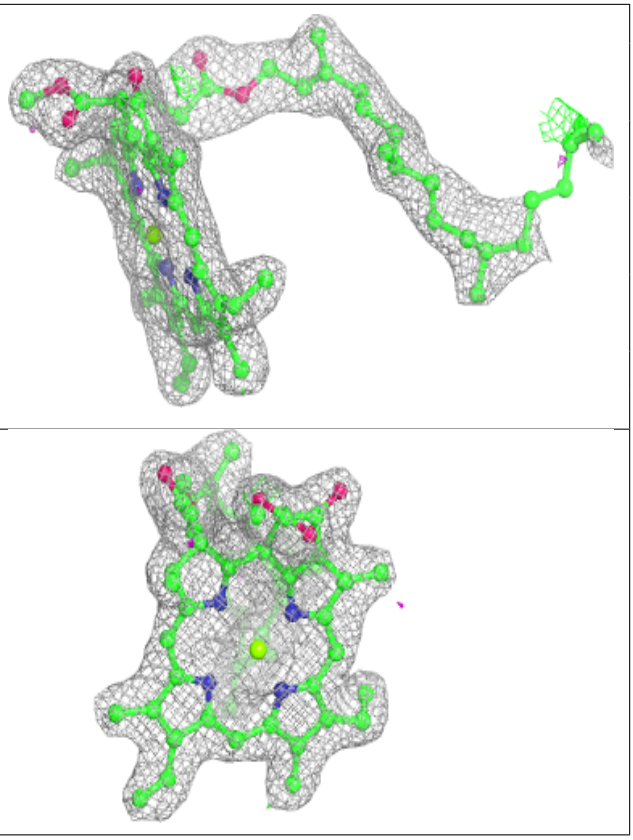


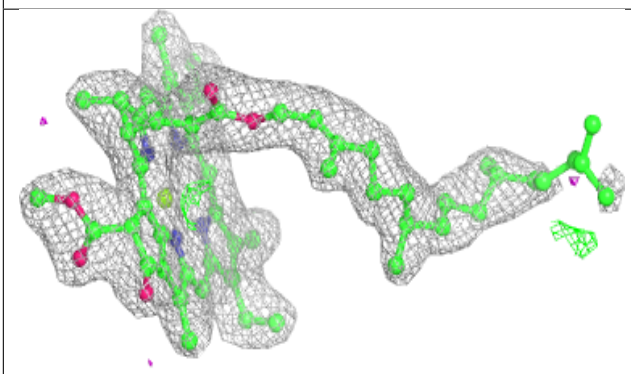




Electron density around CLA c 909:

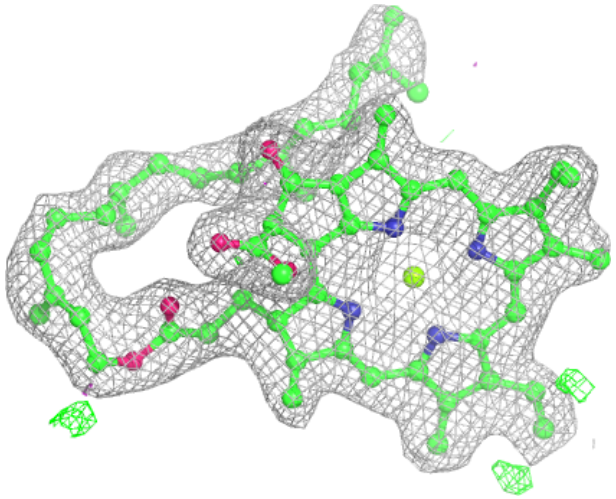
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

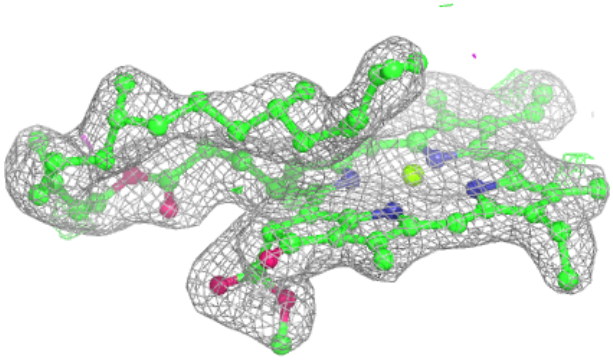


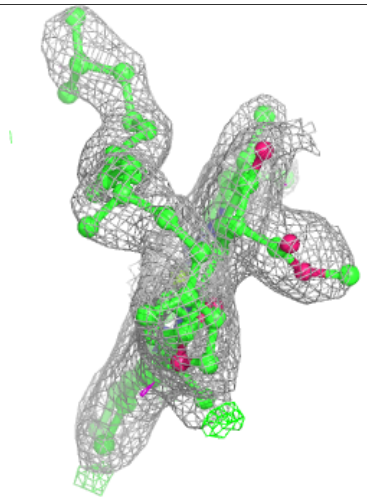


Electron density around CLA c 910:

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

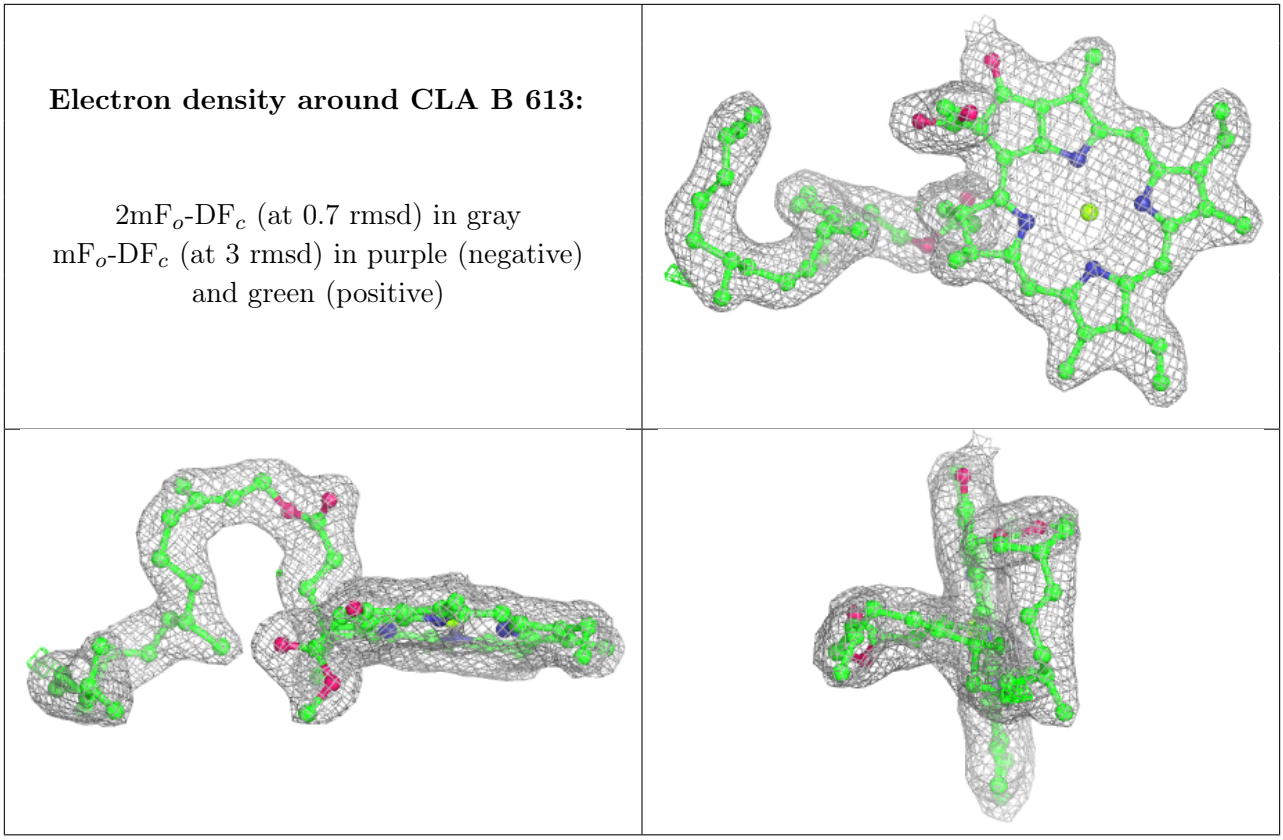






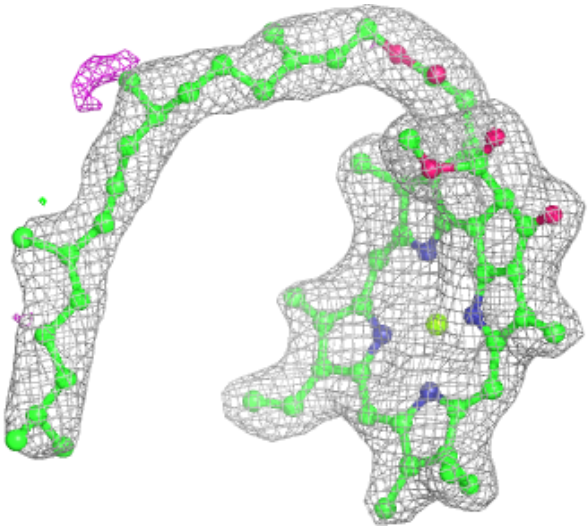
Electron density around CLA B 613:

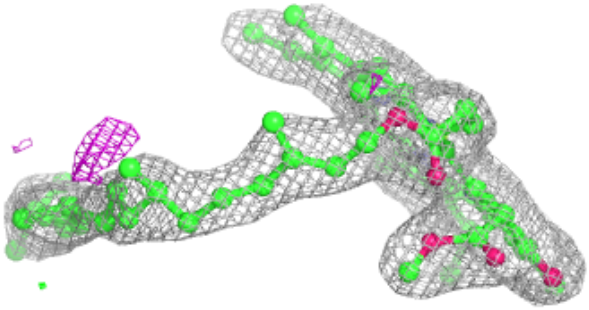
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

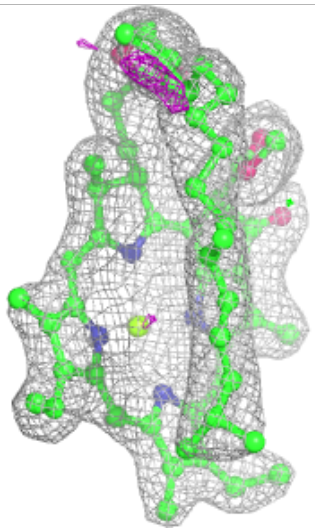


Electron density around CLA C 508:

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

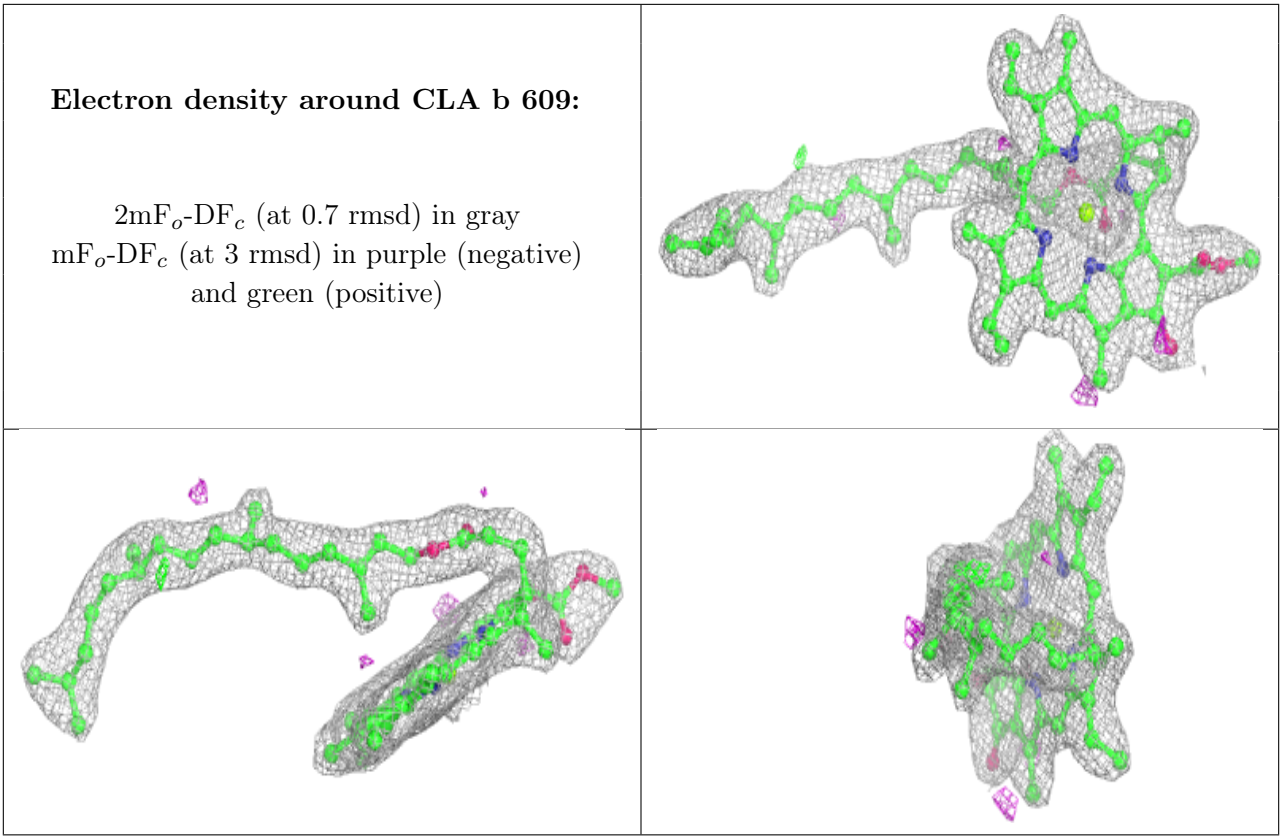






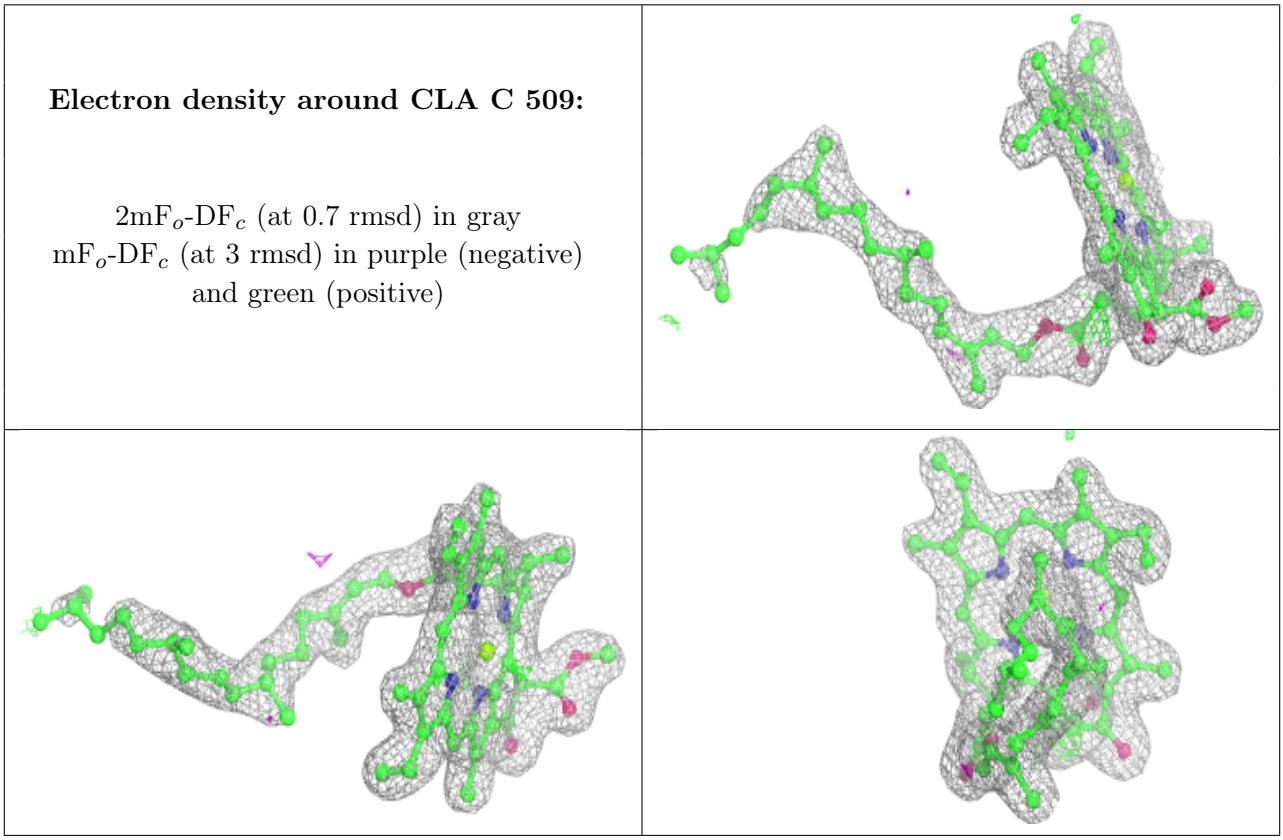
Electron density around CLA b 609:

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



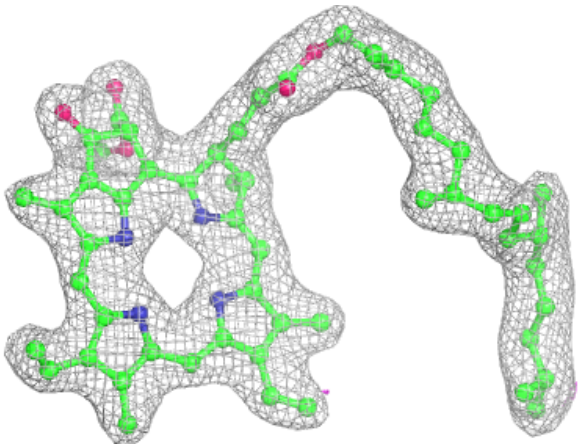
Electron density around CLA C 509:

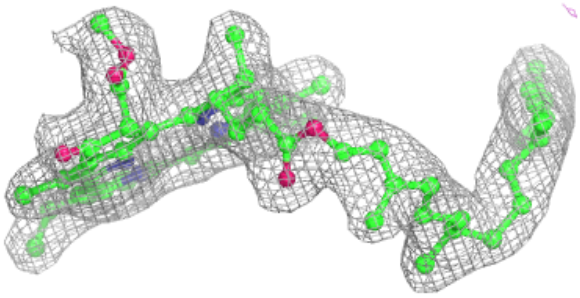
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

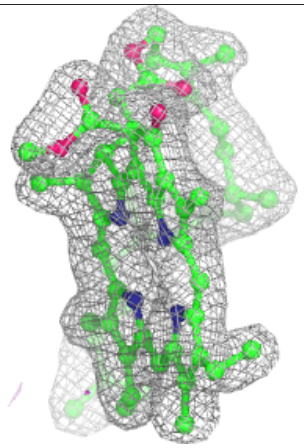


Electron density around PHO a 411:

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

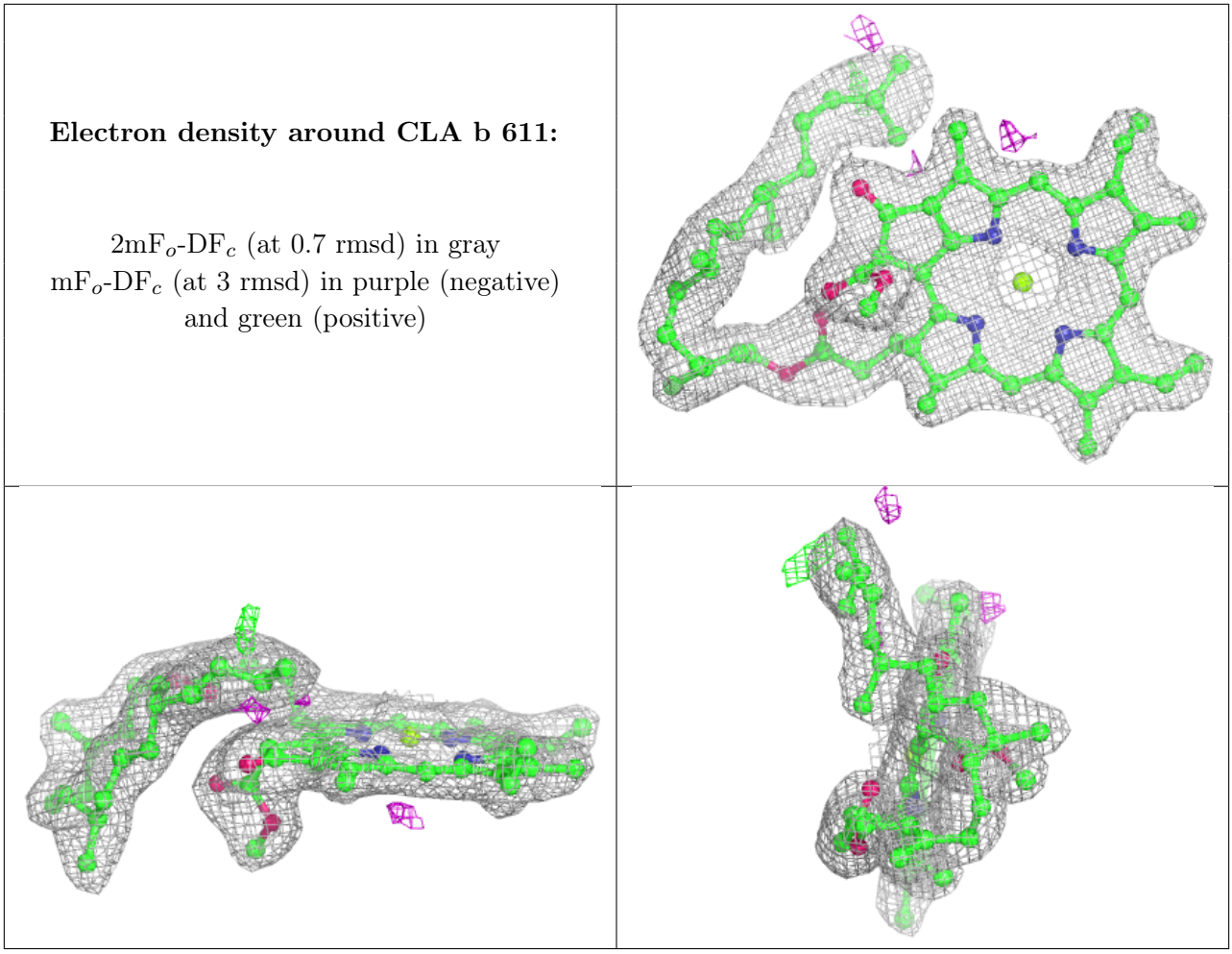






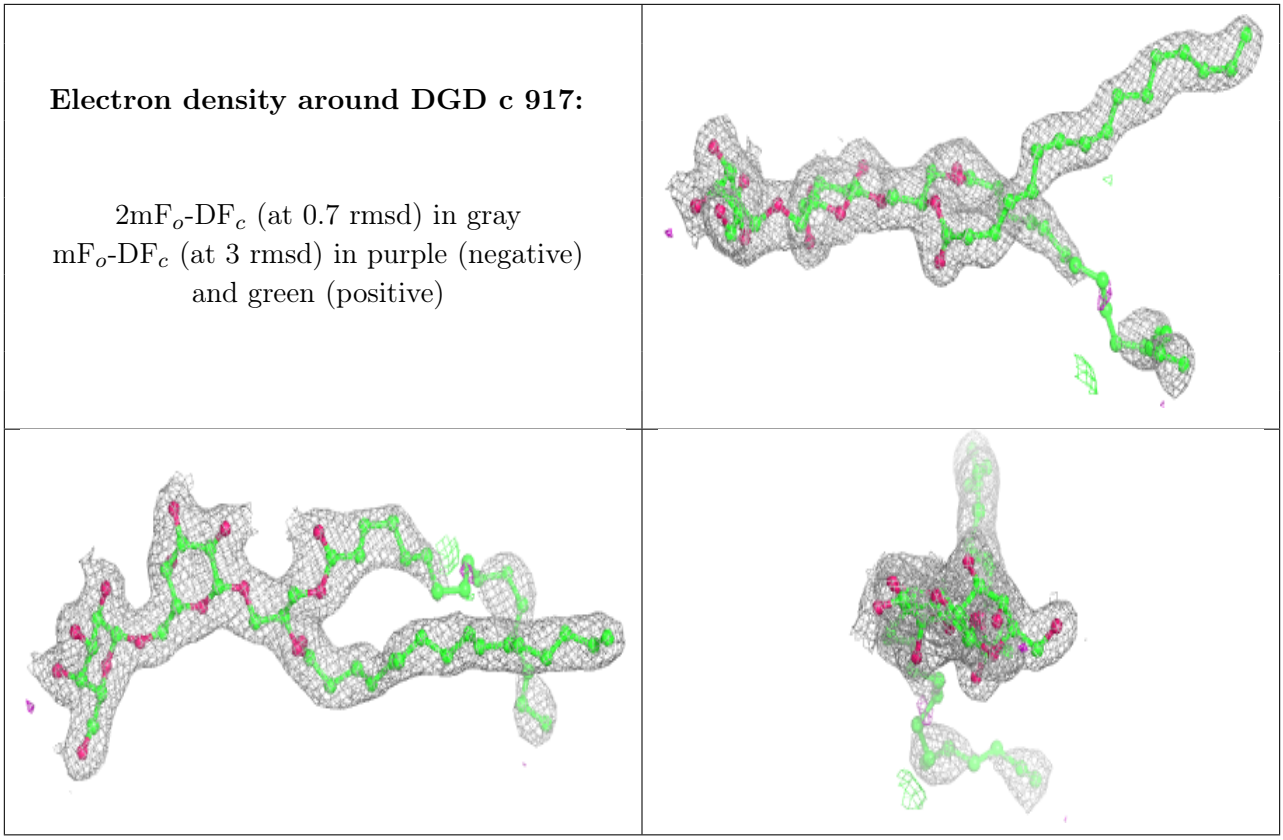
Electron density around CLA b 611:

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



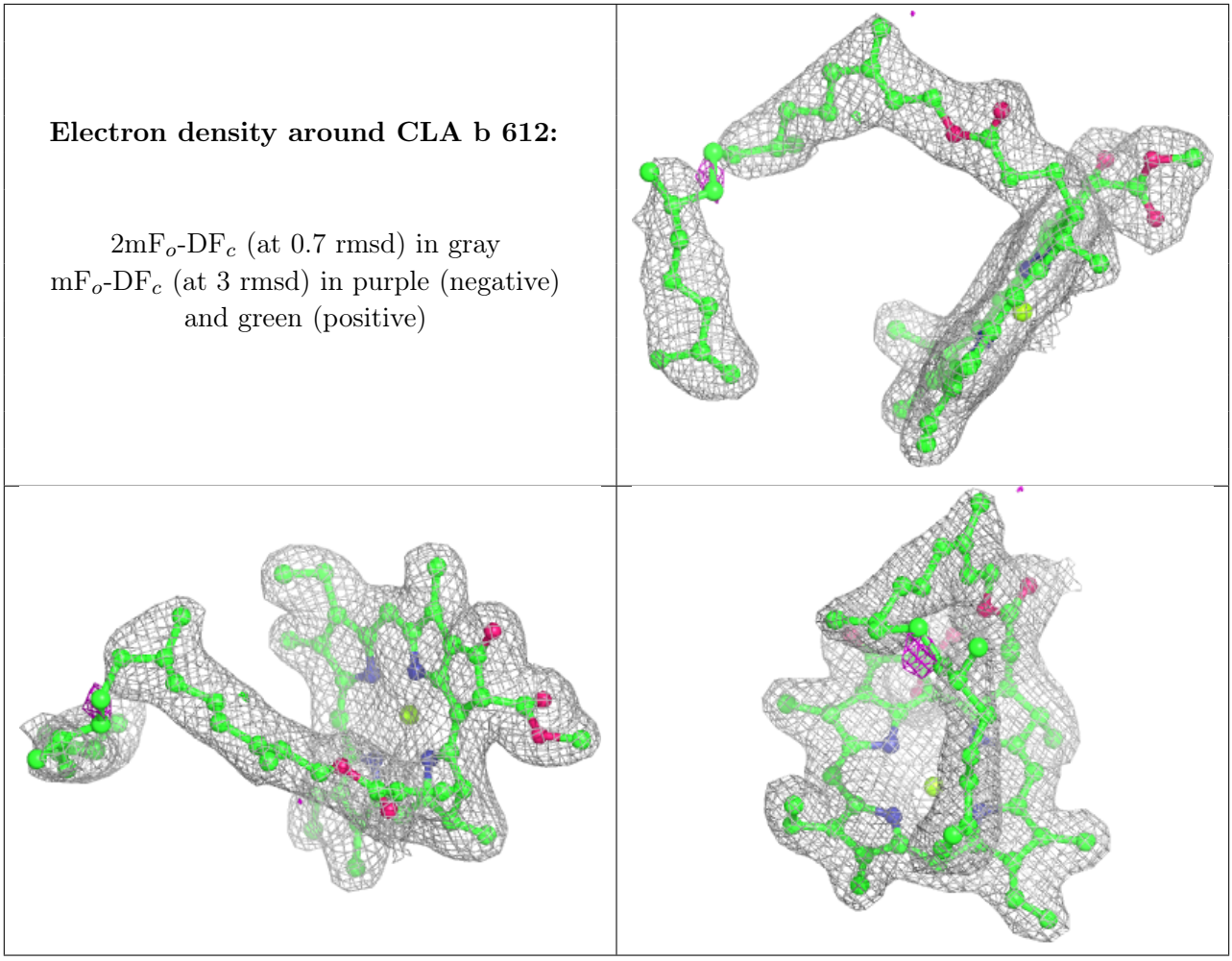
Electron density around DGD c 917:

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



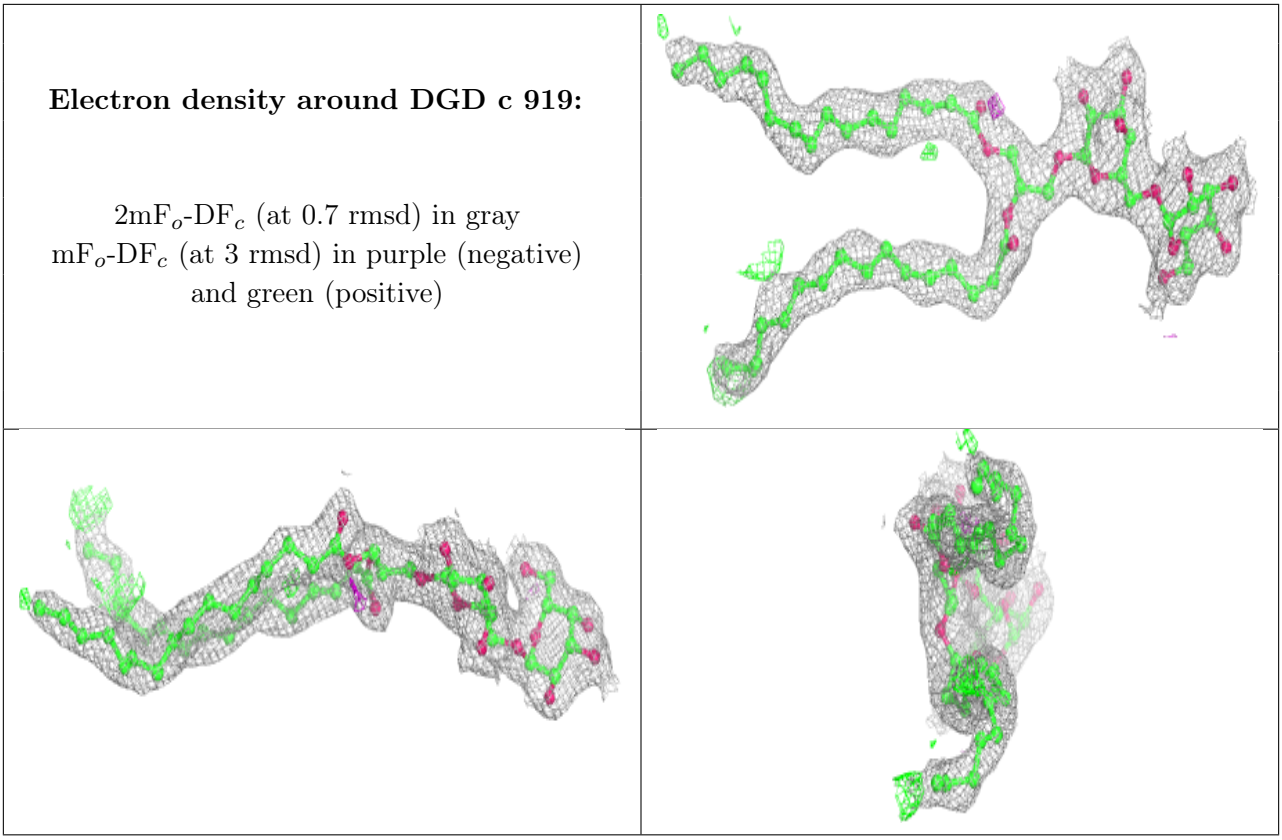
Electron density around CLA b 612:

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



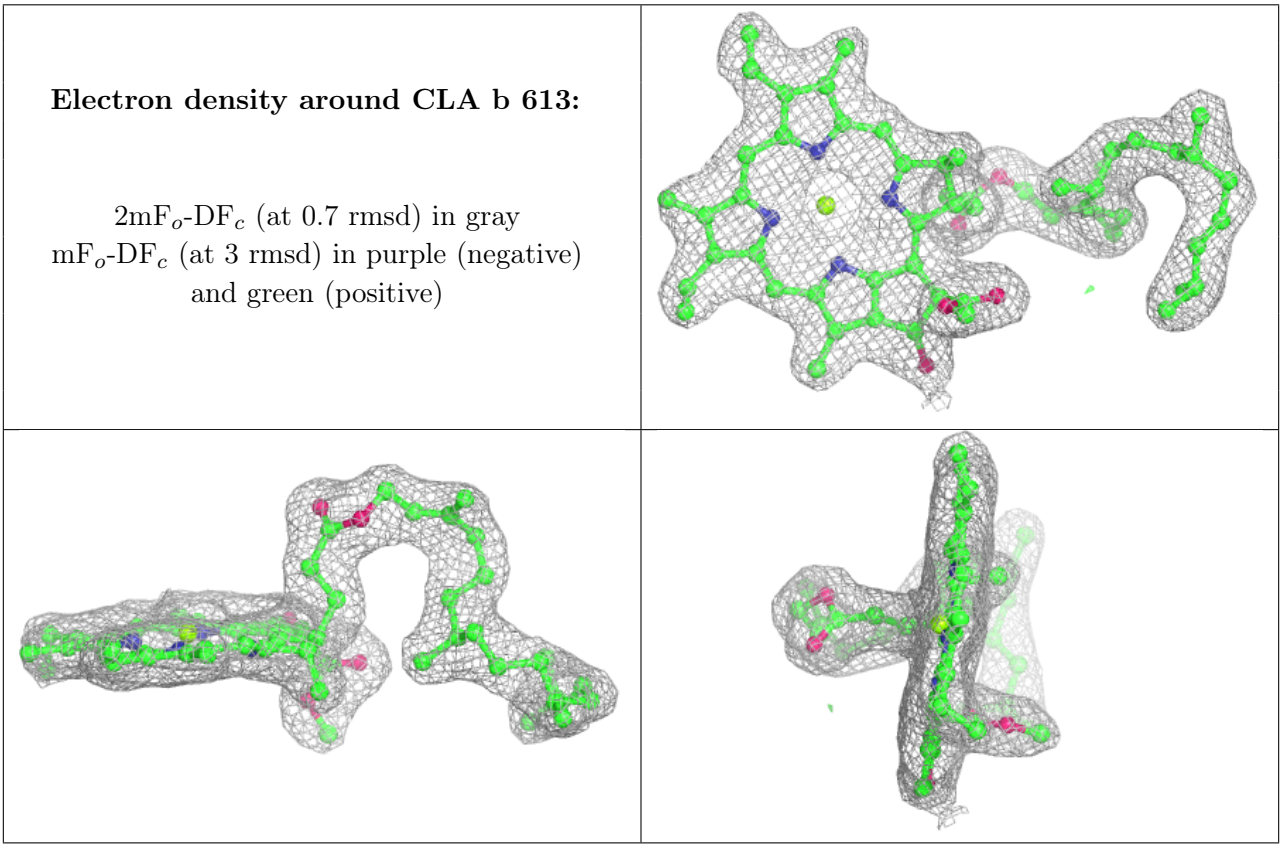
Electron density around DGD c 919:

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



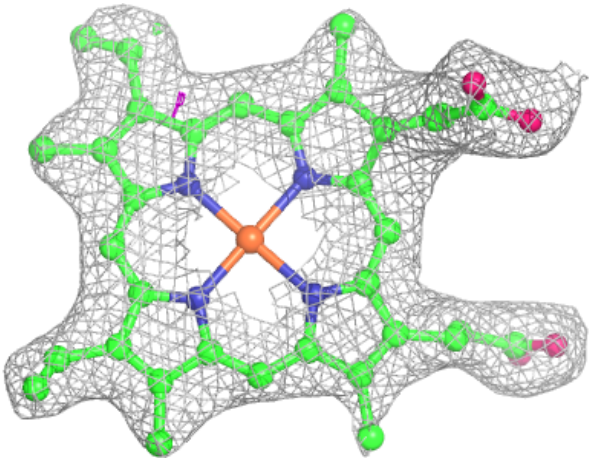
Electron density around CLA b 613:

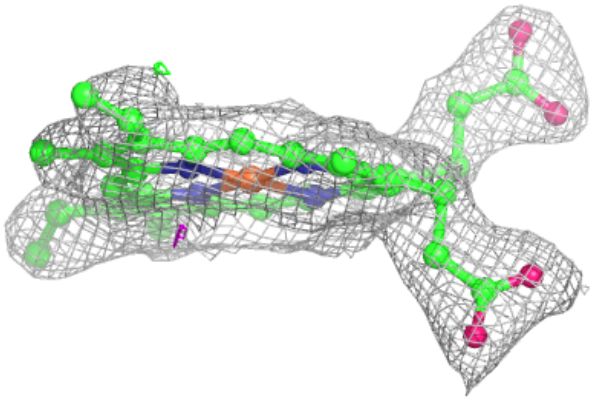
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

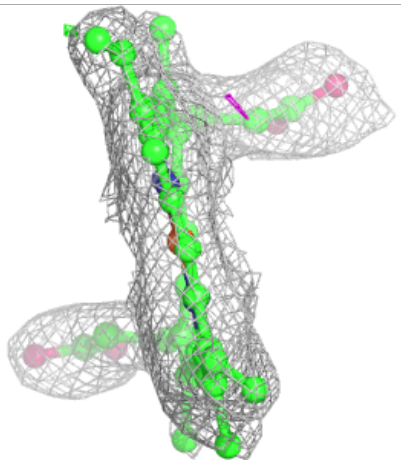


Electron density around HEM E 102:

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

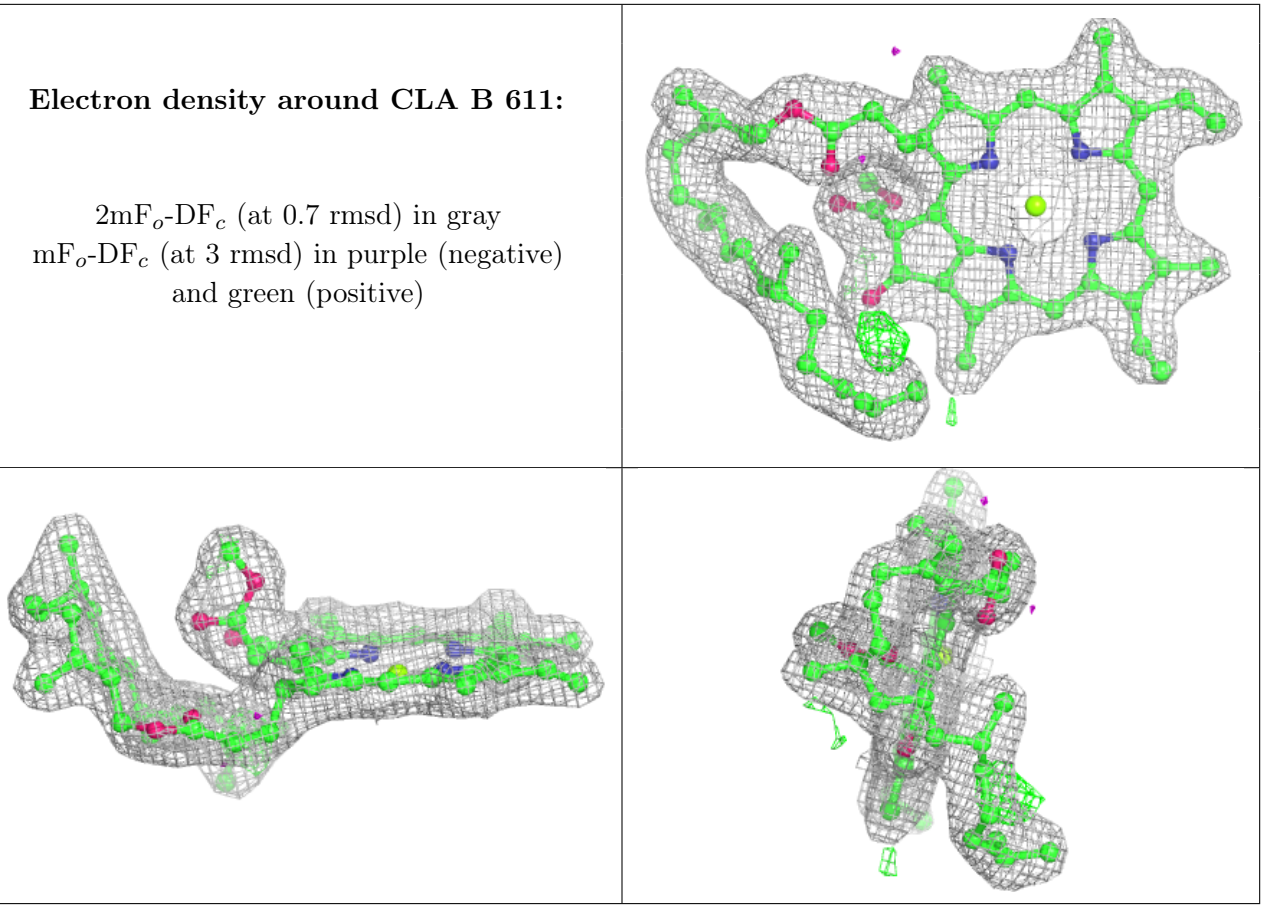






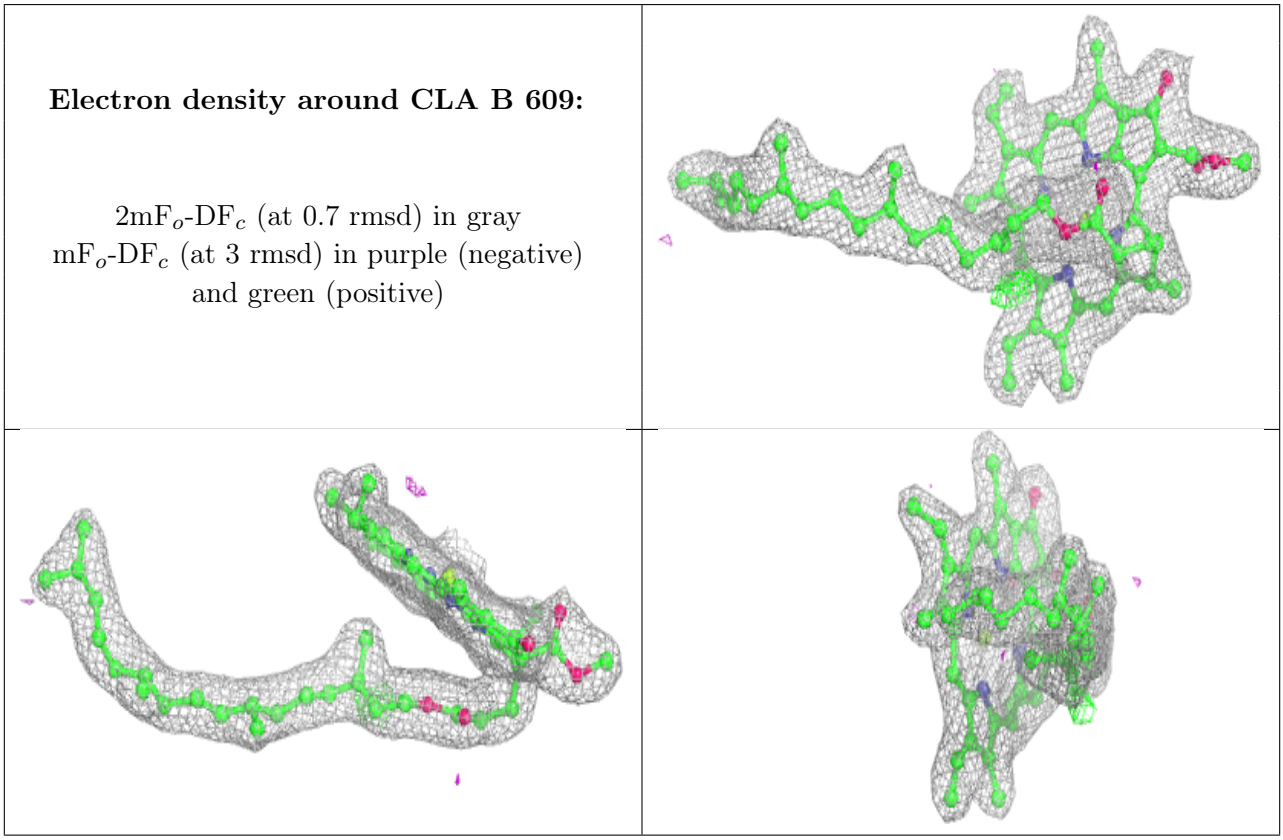
Electron density around CLA B 611:

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



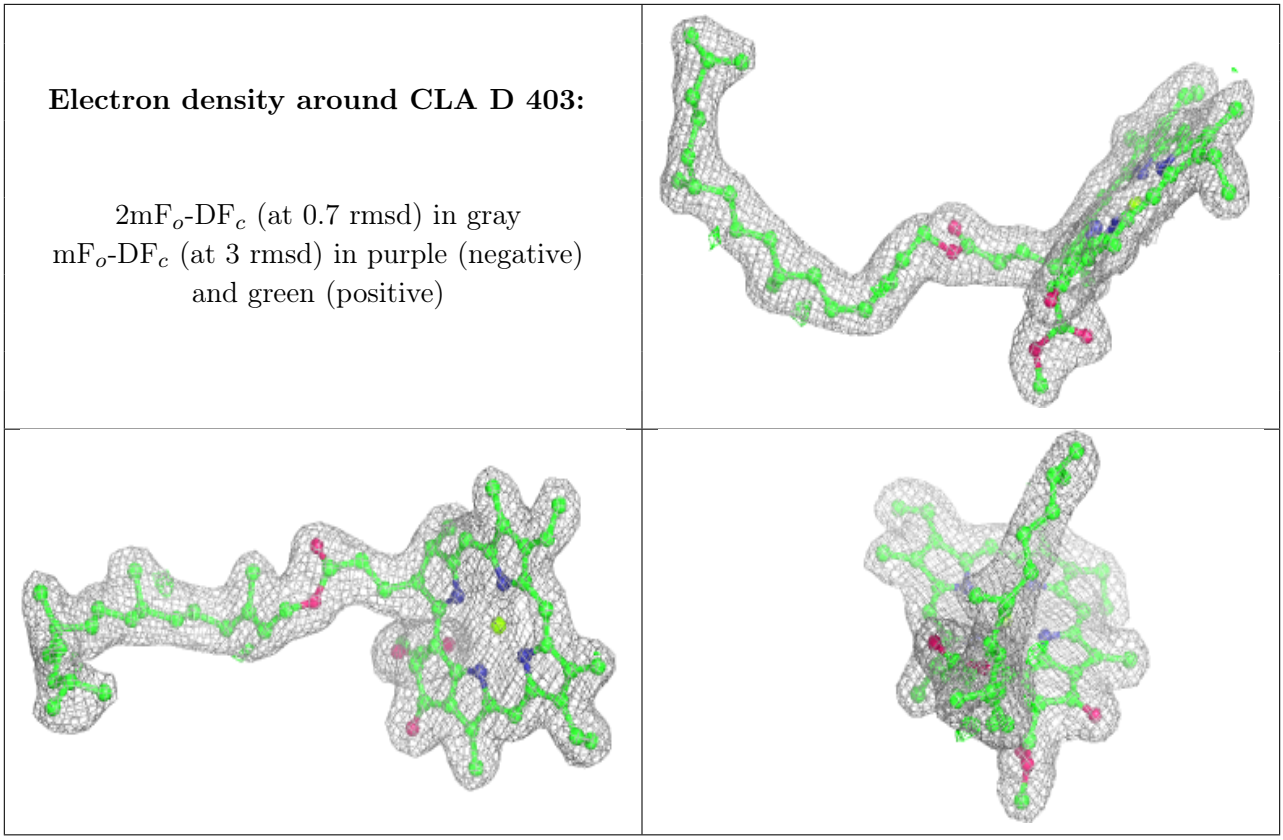
Electron density around CLA B 609:

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



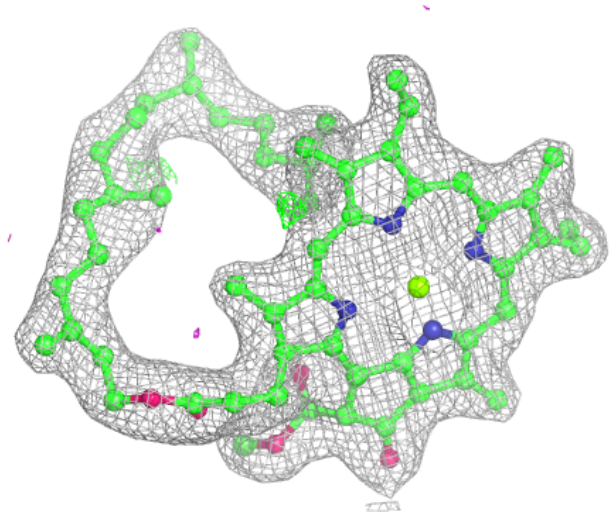
Electron density around CLA D 403:

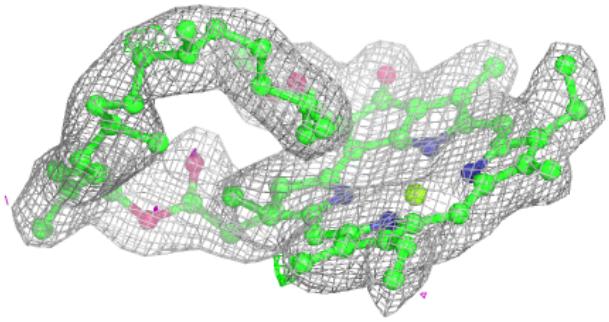
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

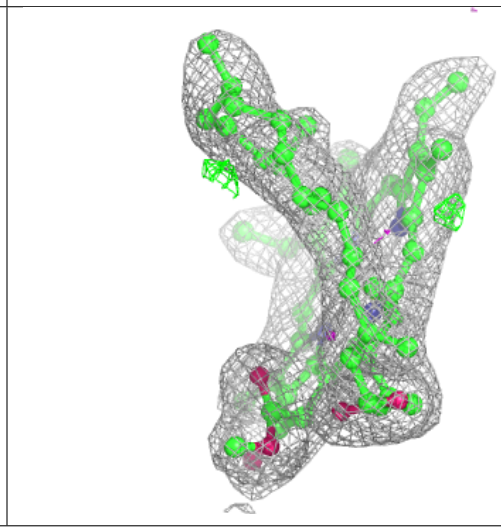


Electron density around CLA B 616:

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

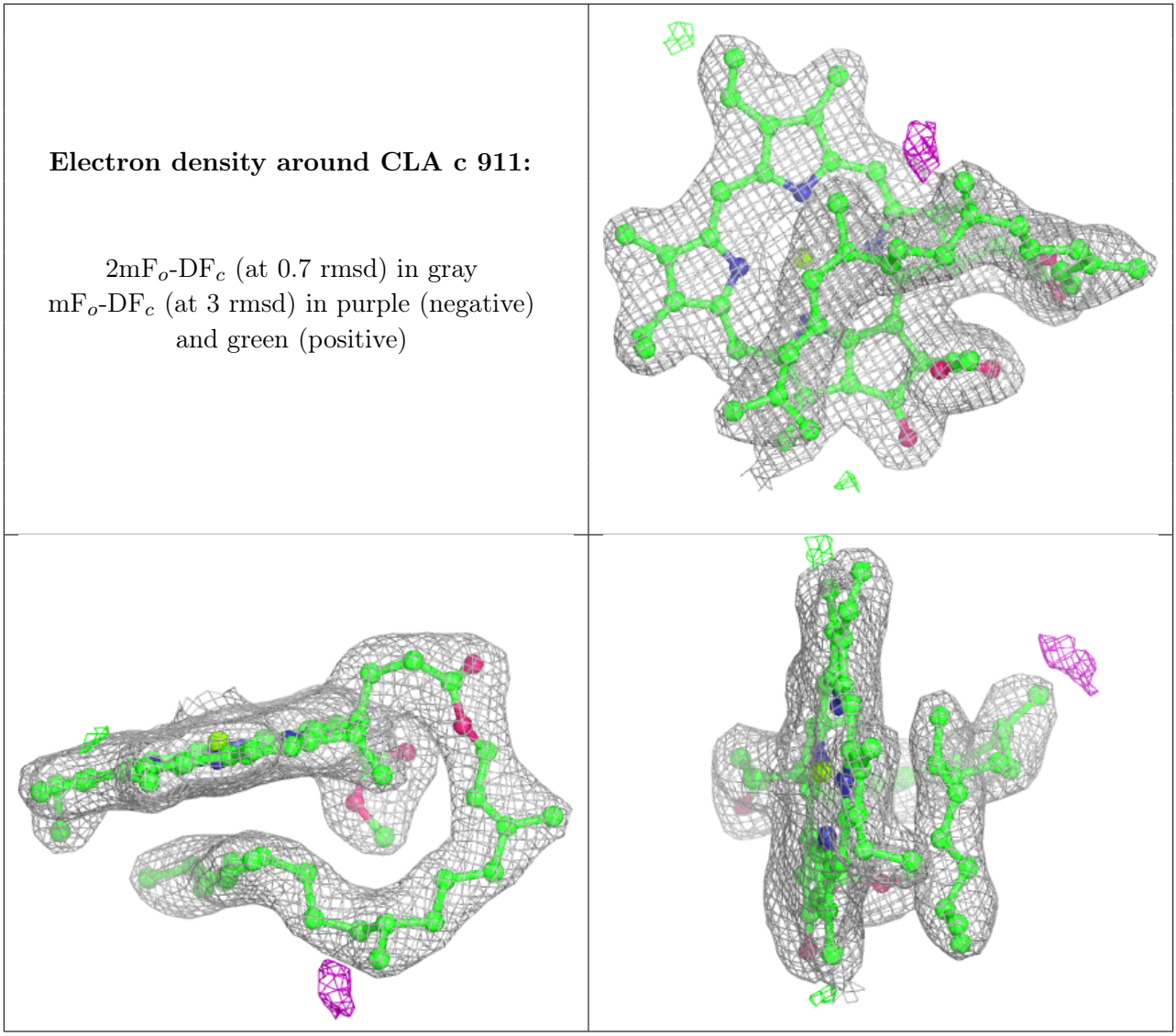






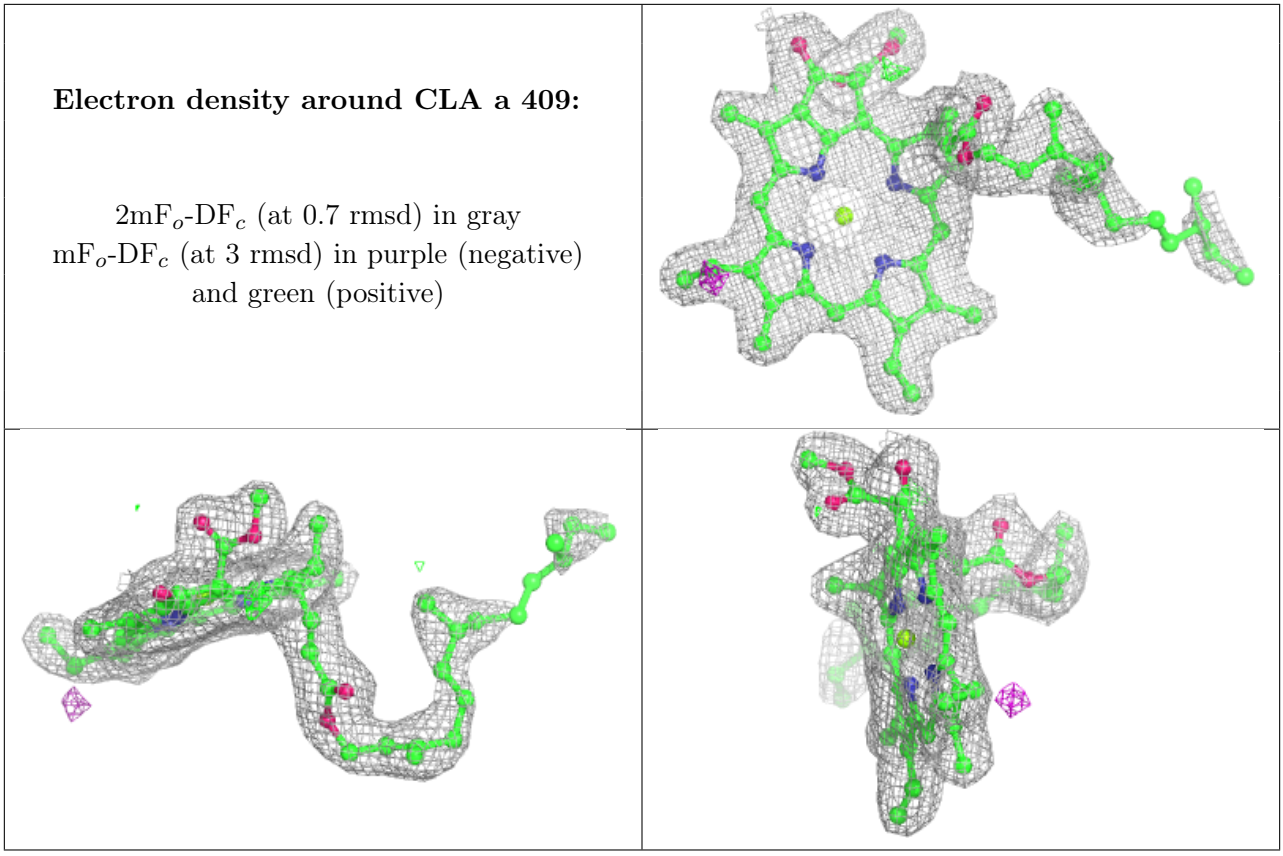
Electron density around CLA c 911:

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



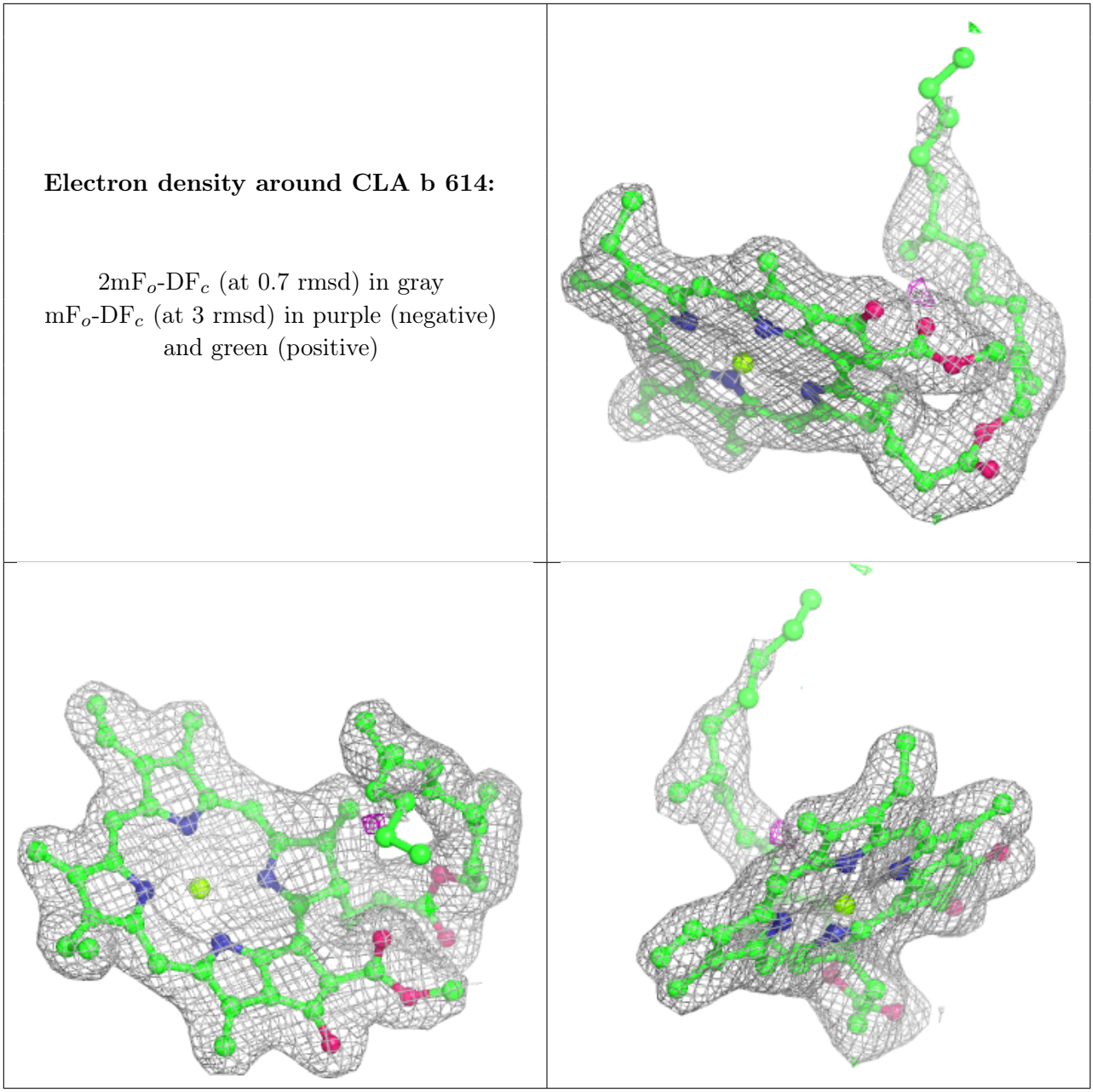
Electron density around CLA a 409:

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



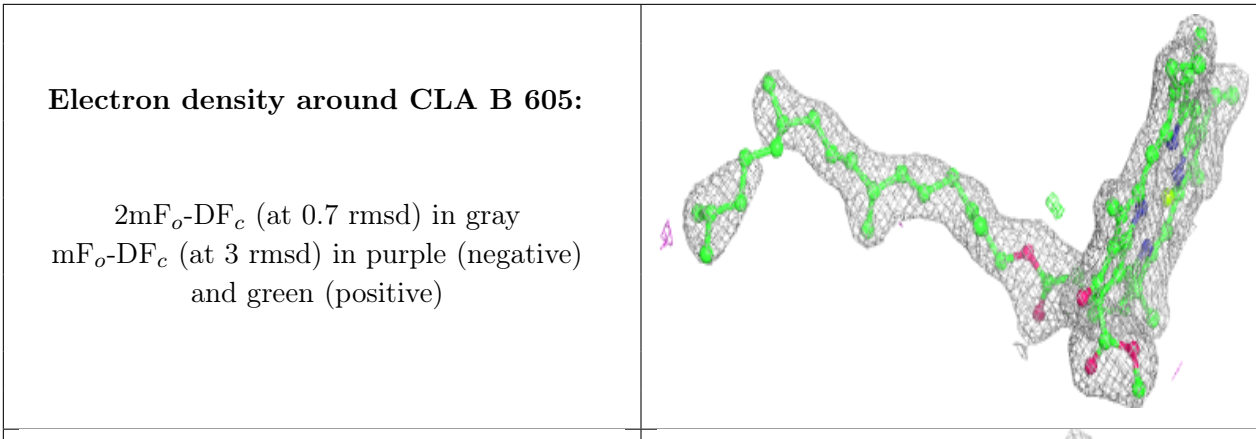
Electron density around CLA b 614:

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



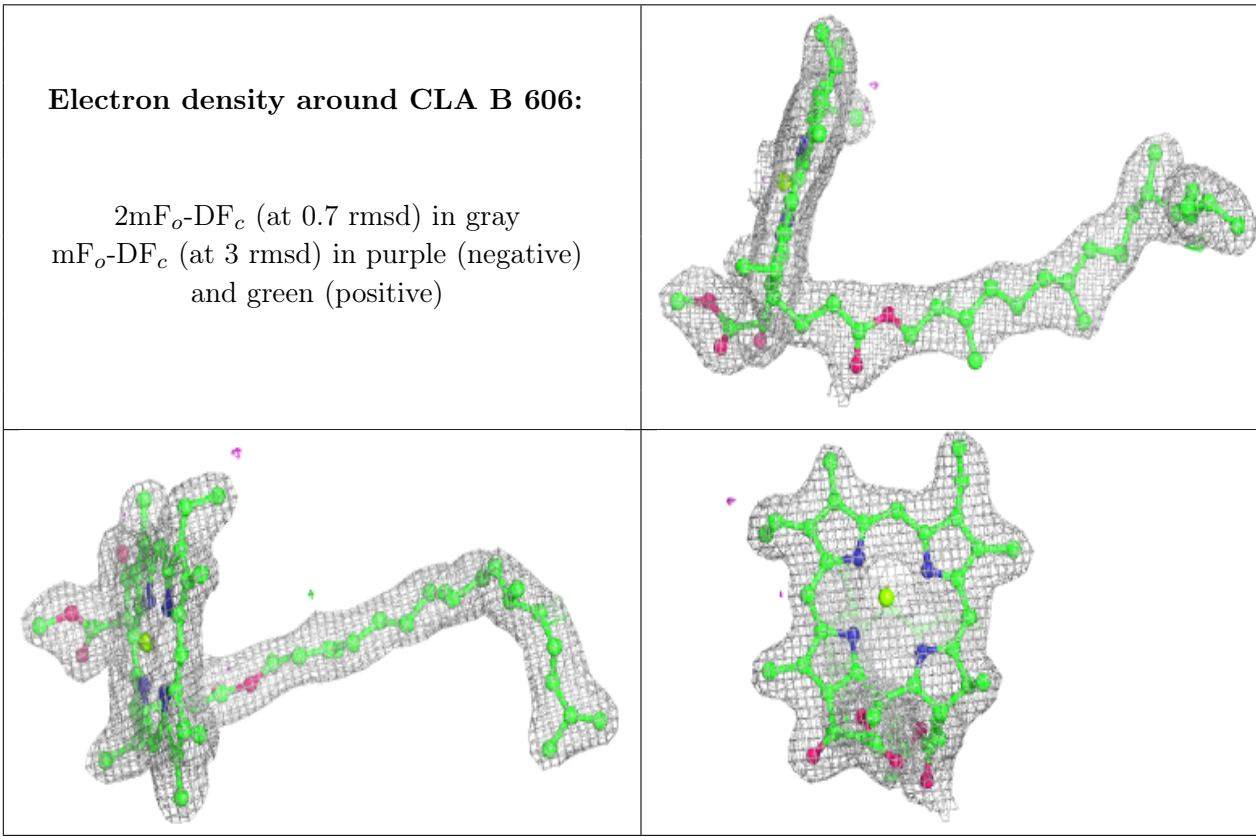
Electron density around CLA B 605:

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



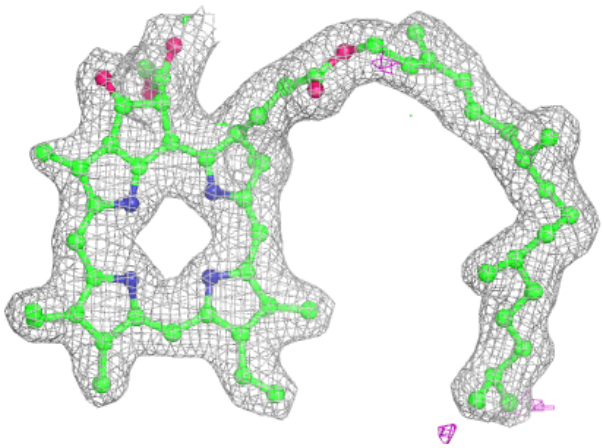
Electron density around CLA B 606:

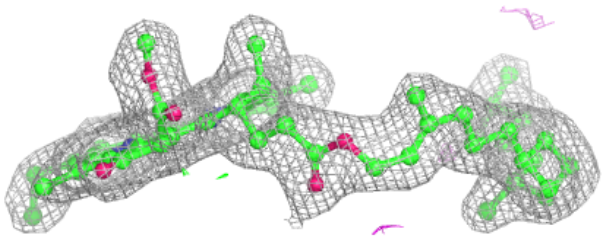
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

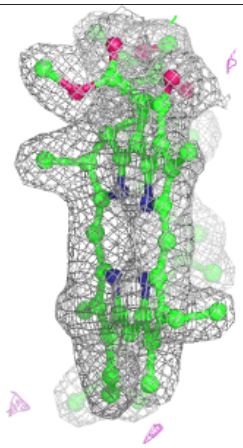


Electron density around PHO A 407:

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

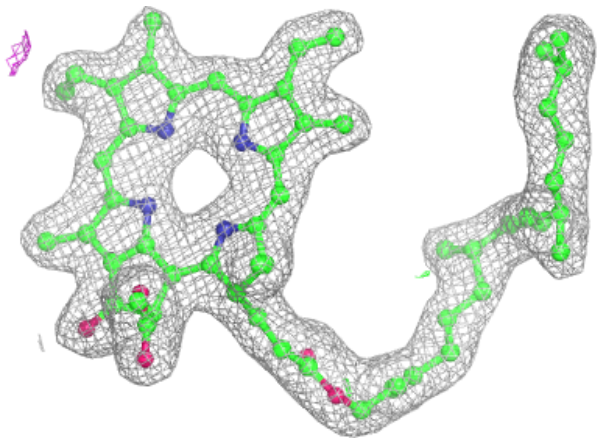


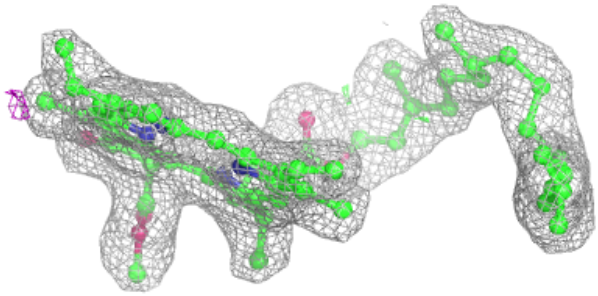


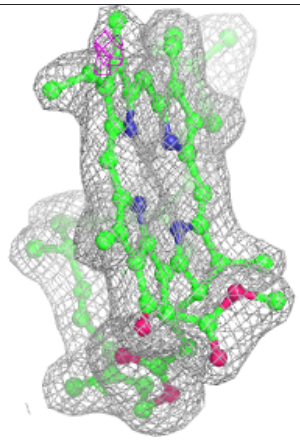


Electron density around PHO D 402:

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

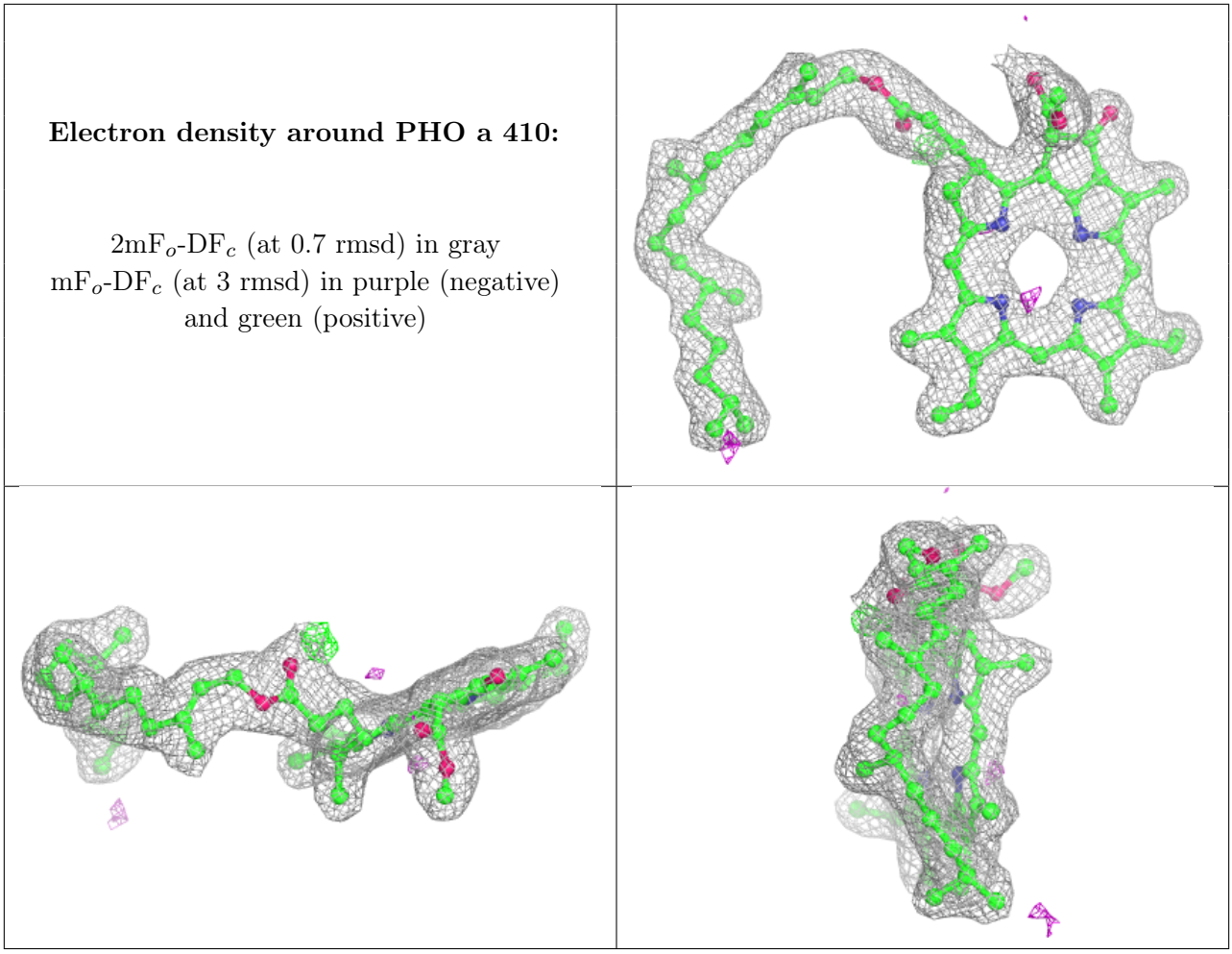






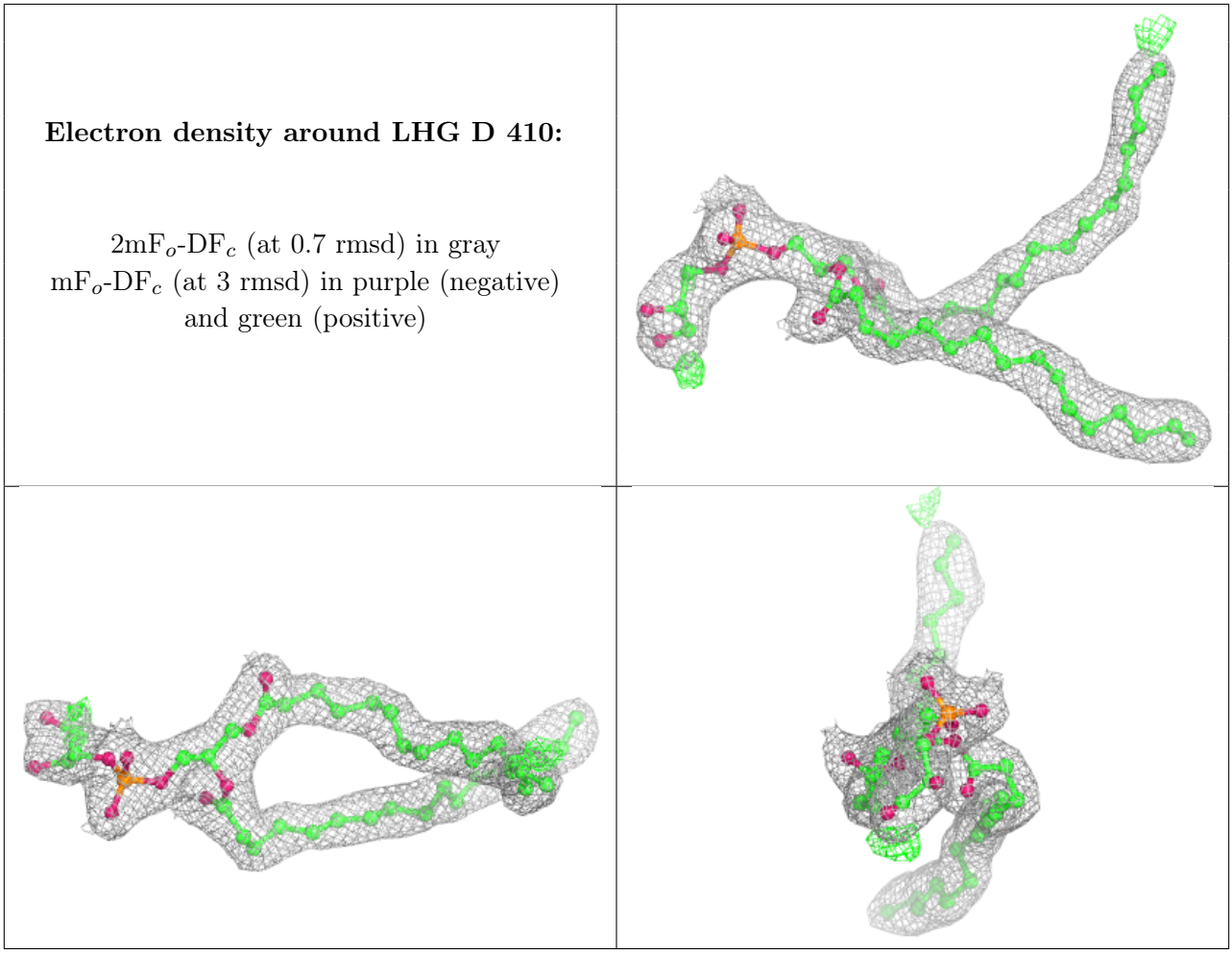
Electron density around PHO a 410:

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



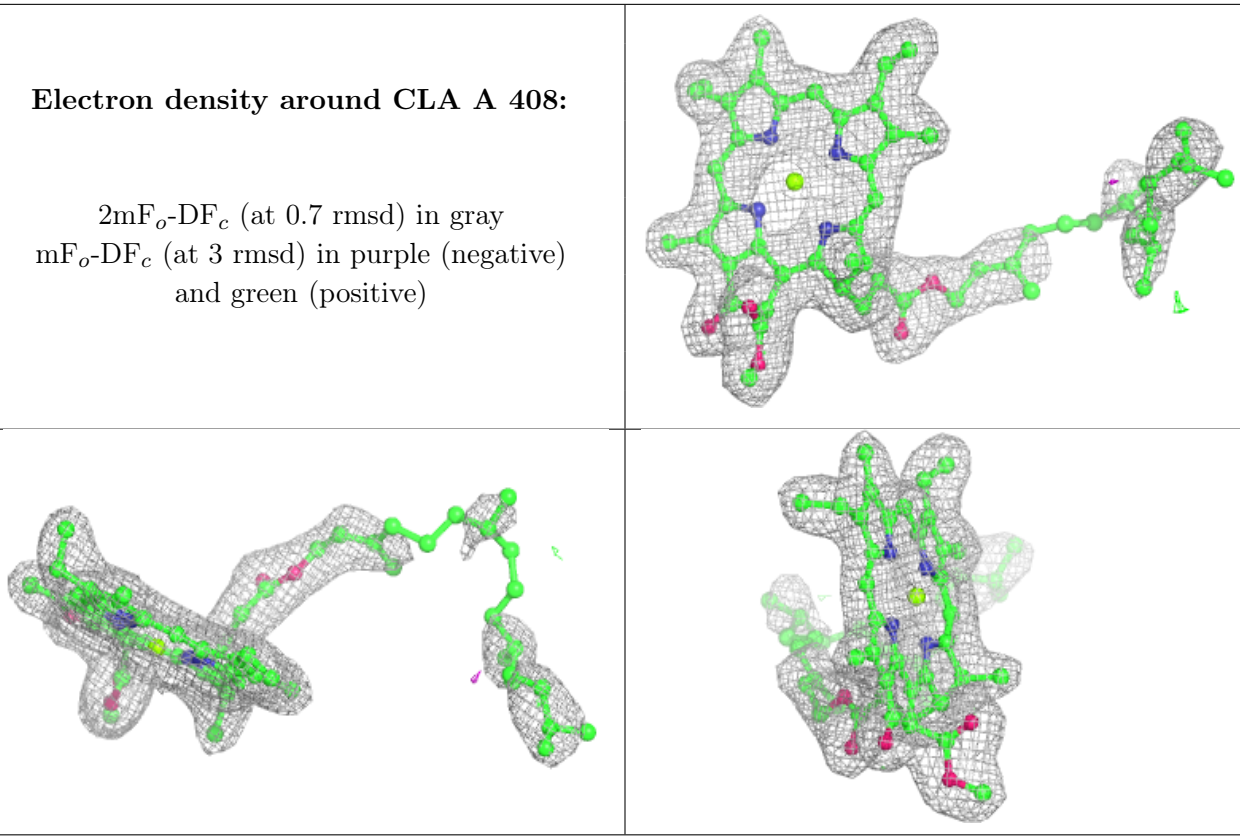
Electron density around LHG D 410:

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



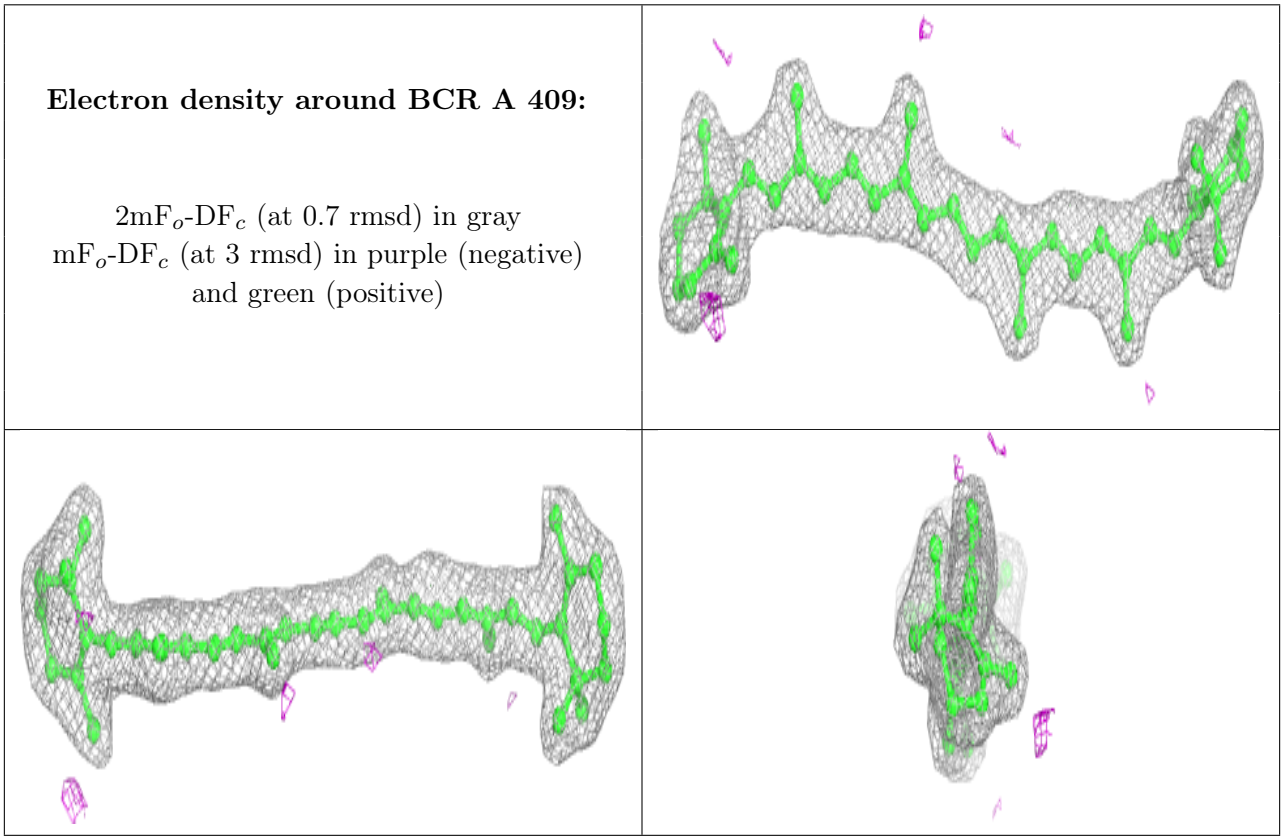
Electron density around CLA A 408:

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



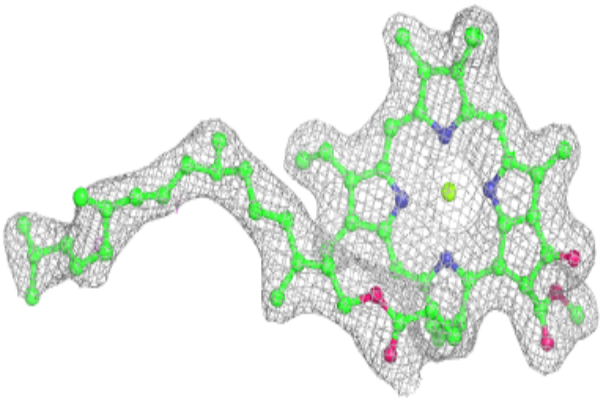
Electron density around BCR A 409:

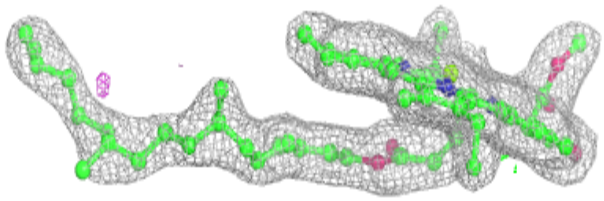
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

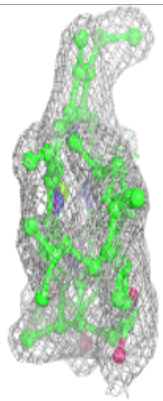


Electron density around CLA b 604:

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

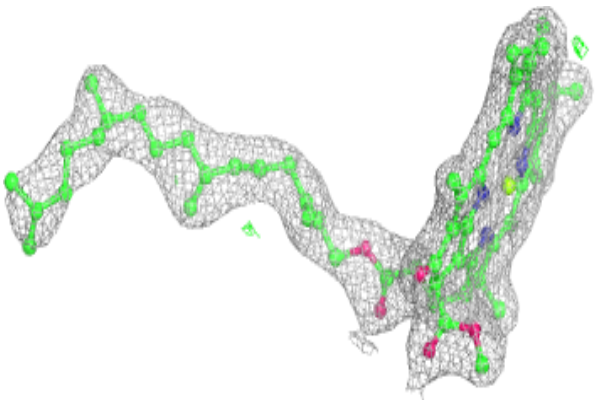


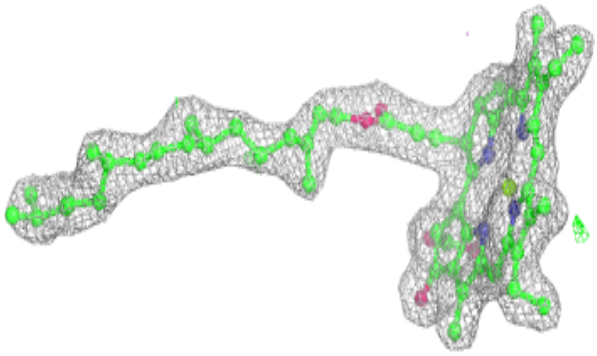


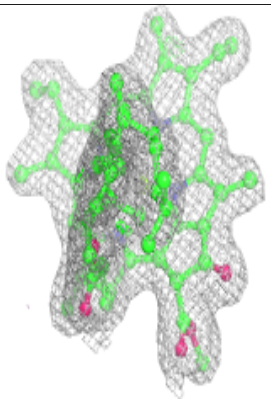


Electron density around CLA b 605:

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

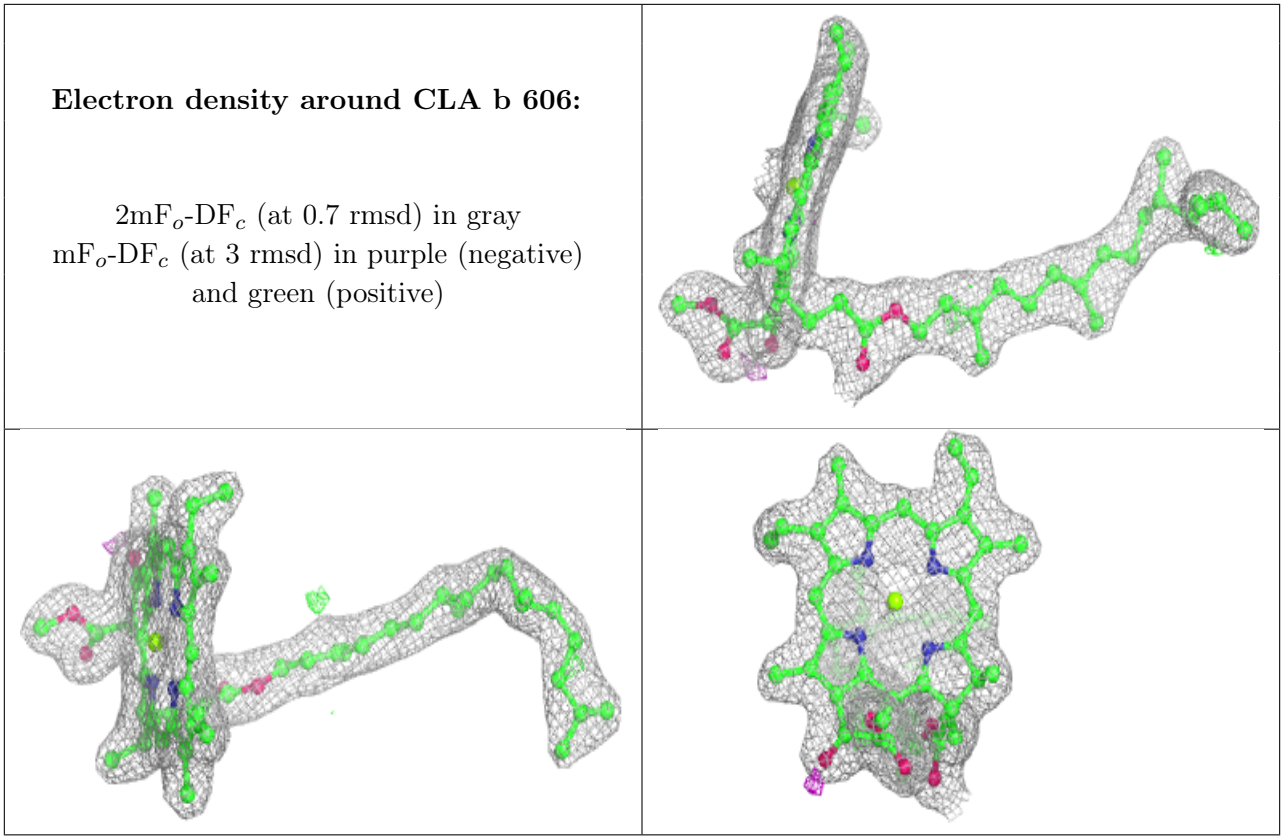






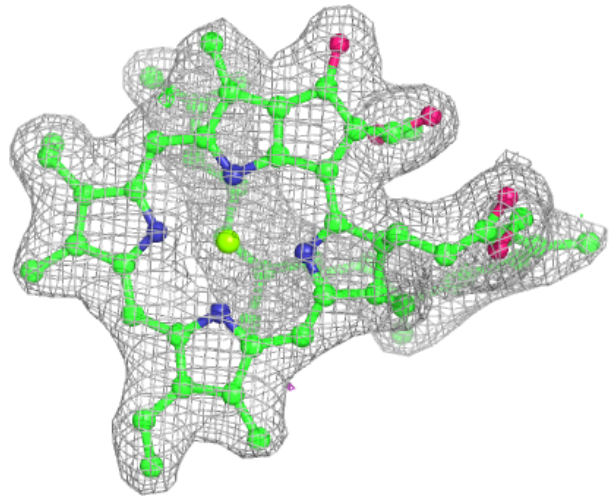
Electron density around CLA b 606:

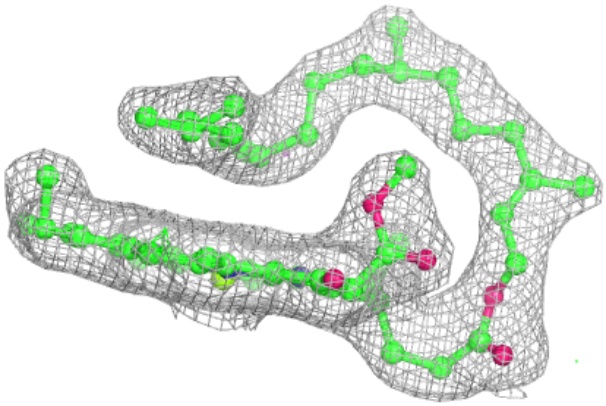
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

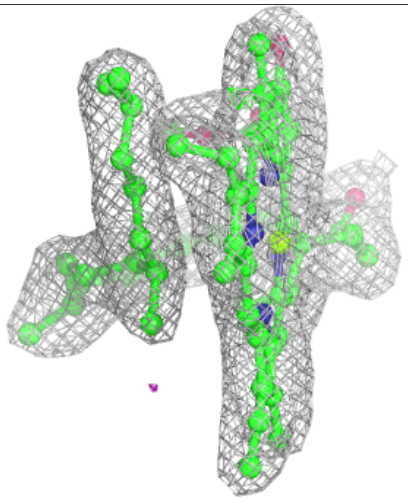


Electron density around CLA C 511:

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

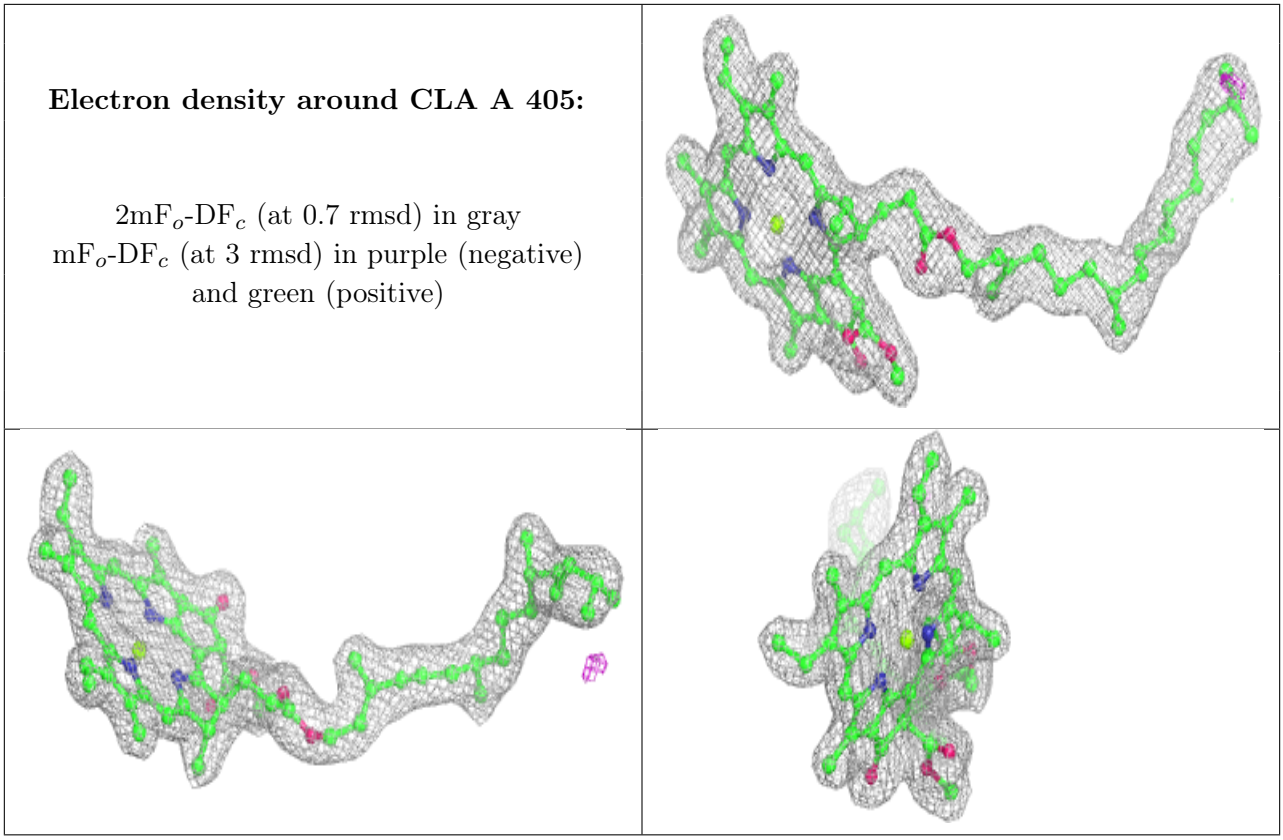






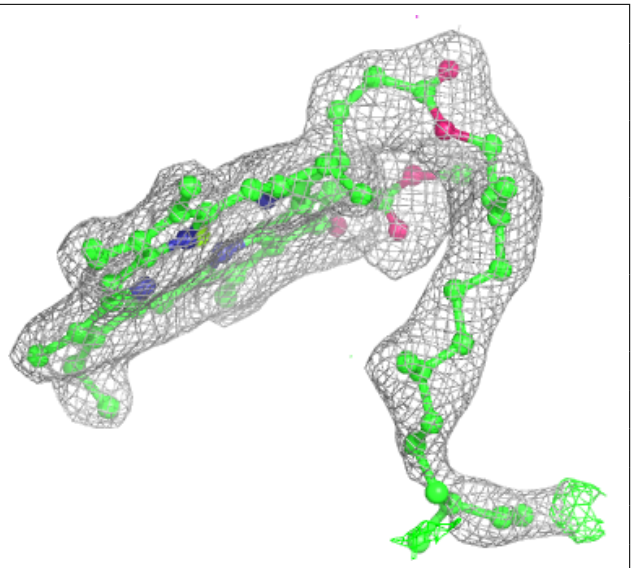
Electron density around CLA A 405:

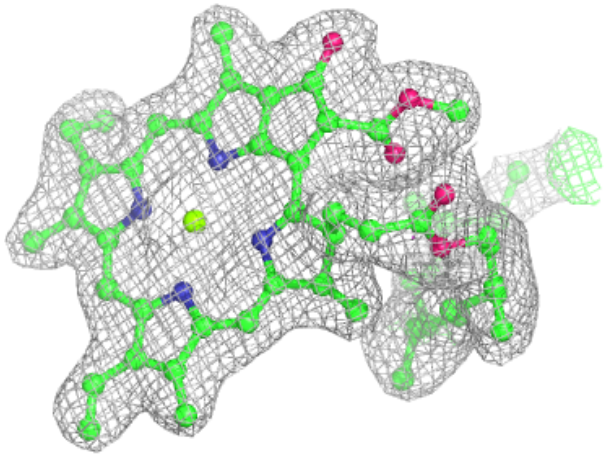
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

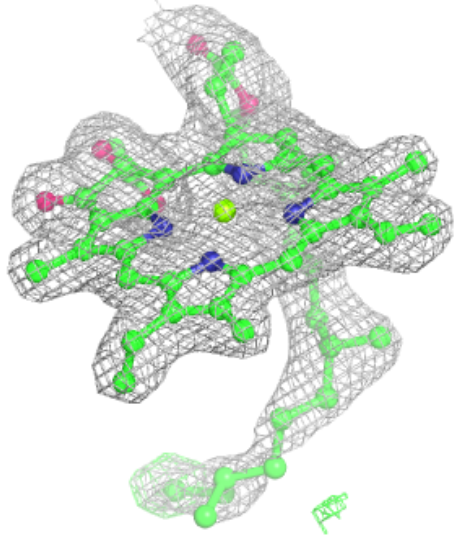


Electron density around CLA B 614:

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

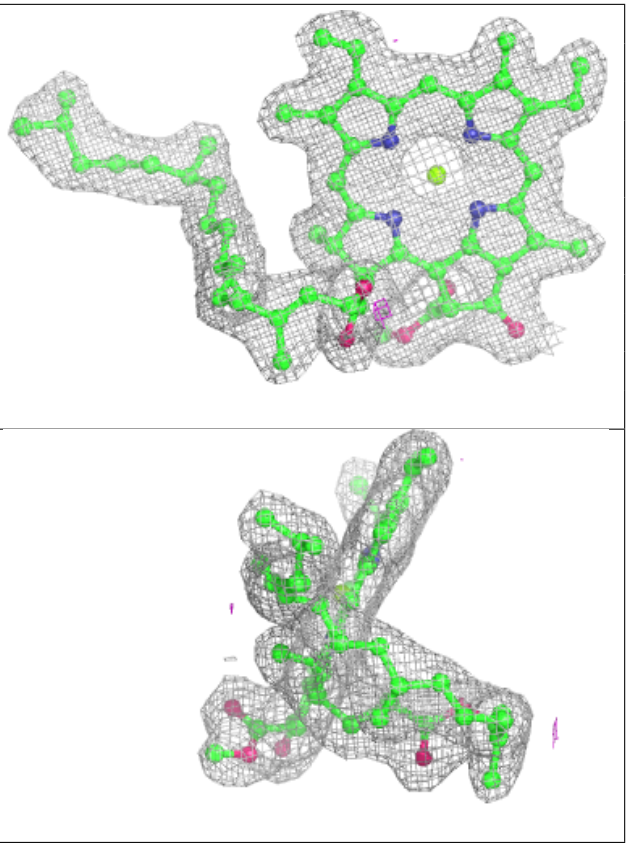






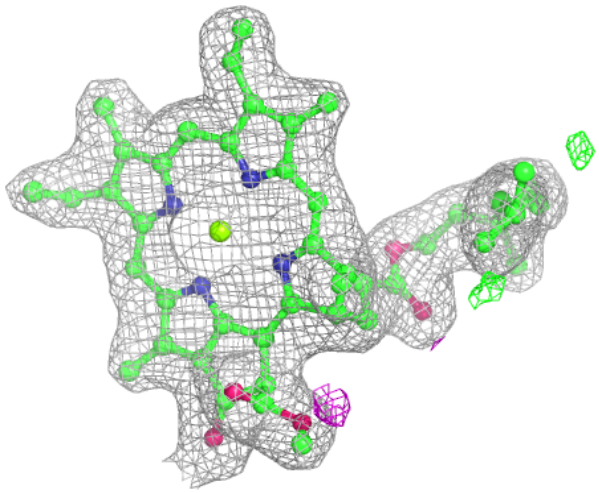
Electron density around CLA a 408:

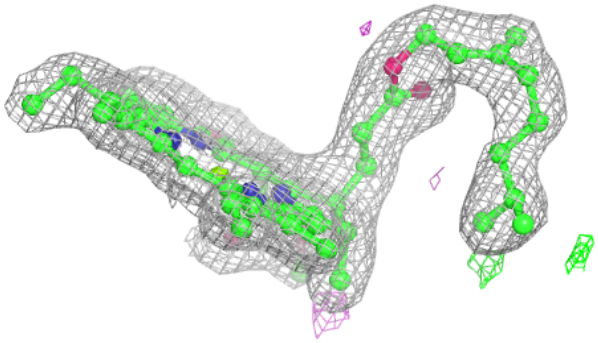
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

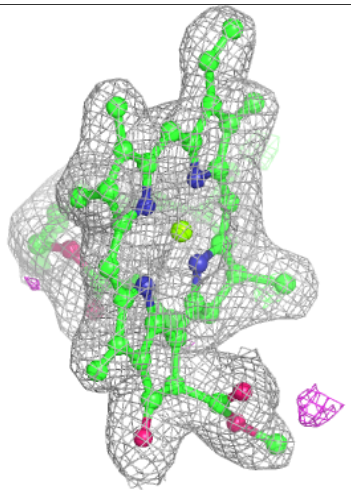


Electron density around CLA A 406:

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

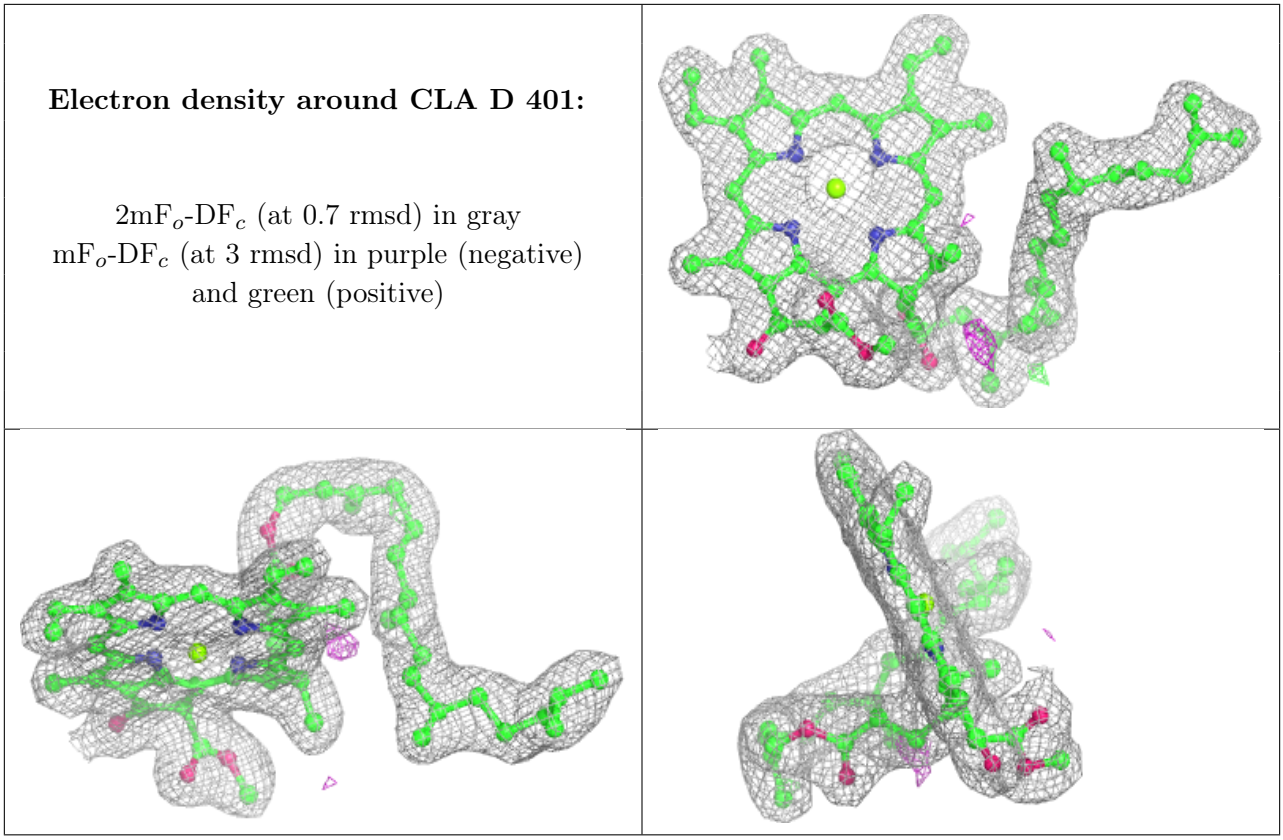






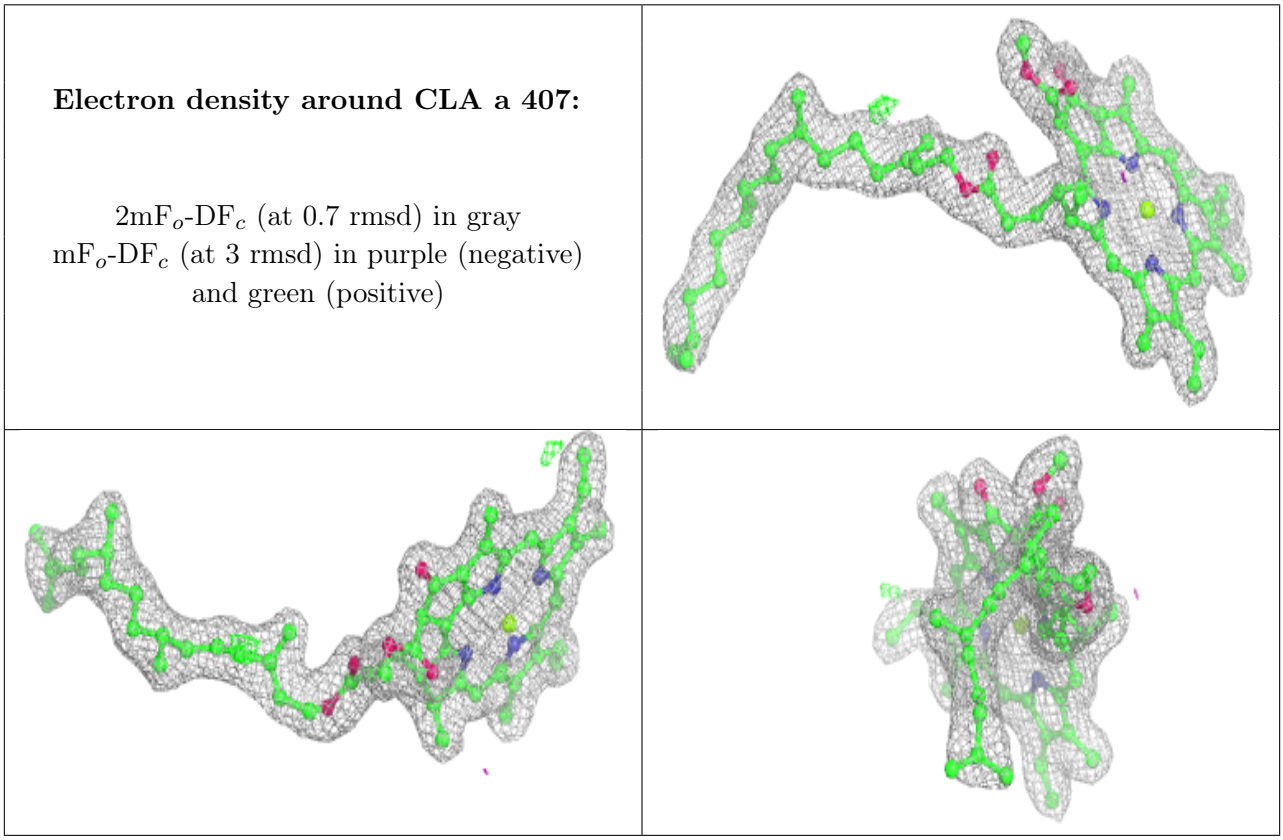
Electron density around CLA D 401:

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



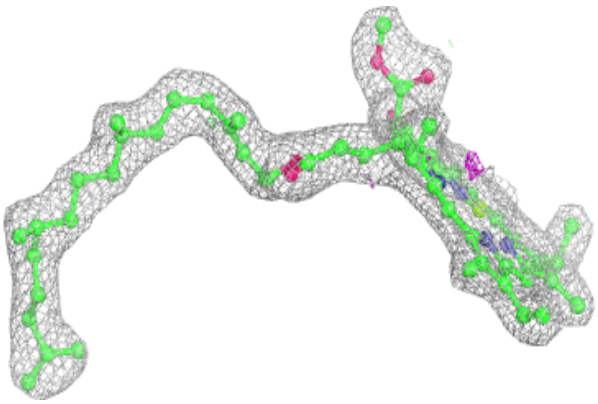
Electron density around CLA a 407:

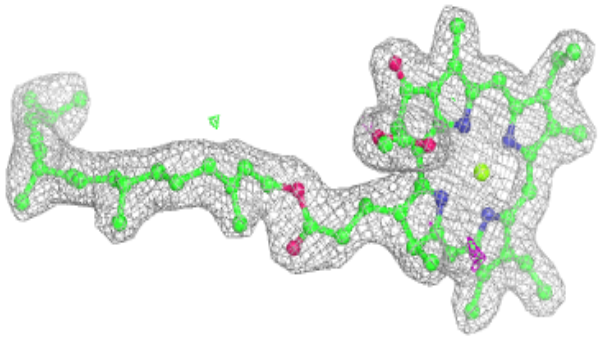
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

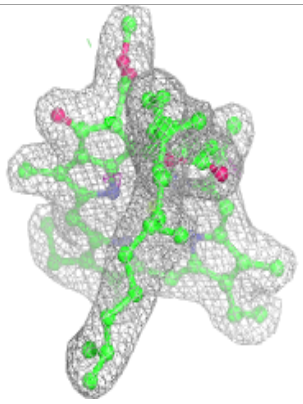


Electron density around CLA d 402:

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

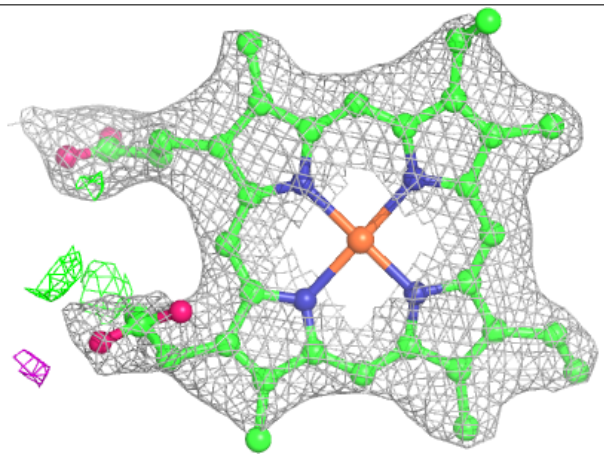


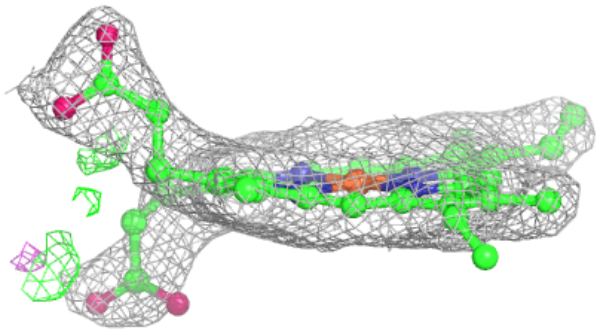


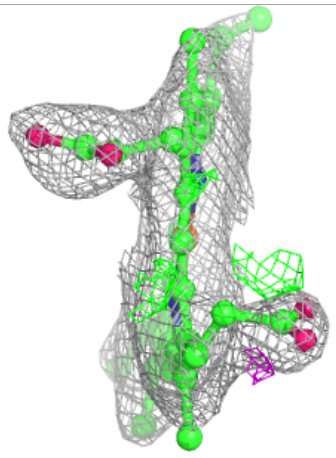


Electron density around HEM e 101:

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

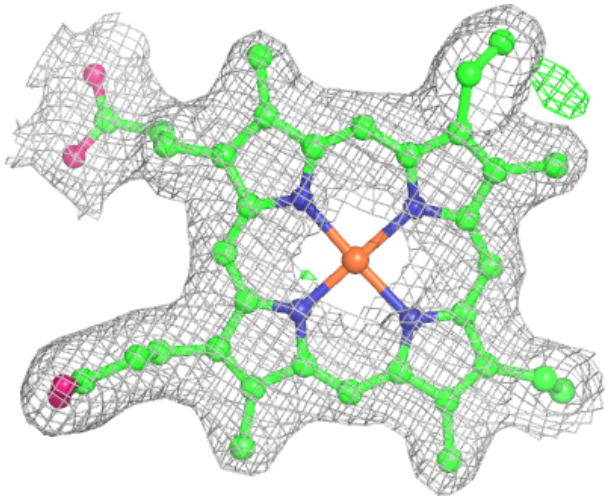


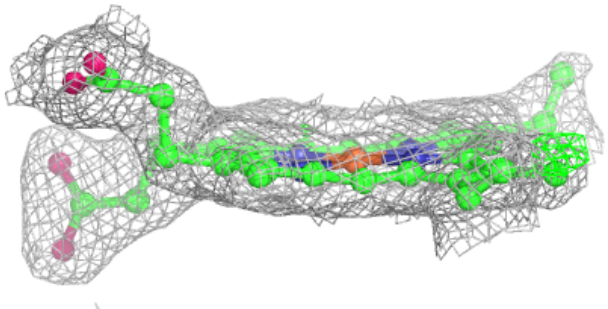


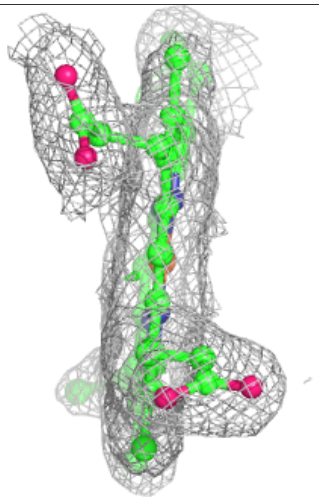


Electron density around HEC V 202:

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

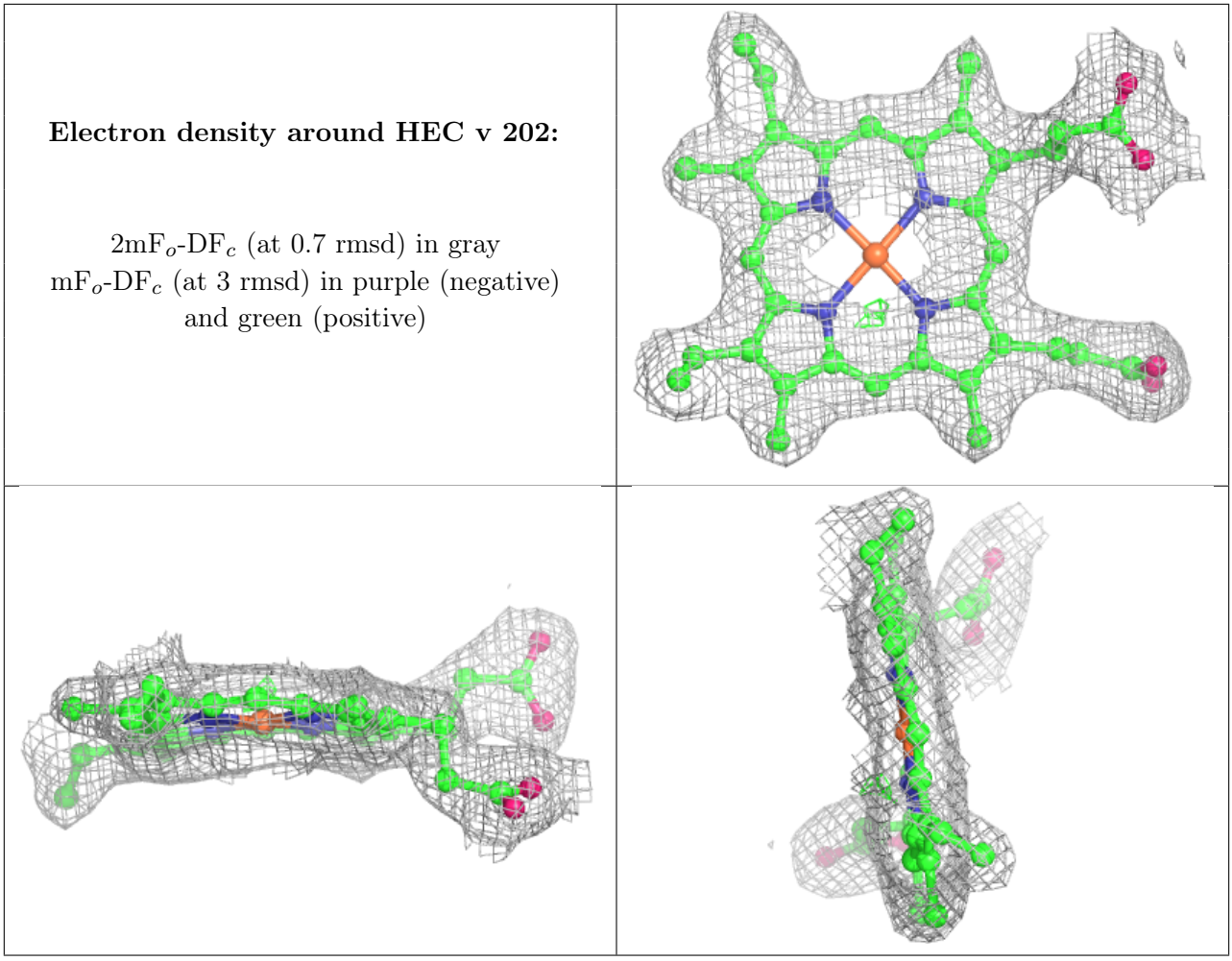






Electron density around HEC v 202:

$2mF_o$-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

There are no such residues in this entry.