wwPDB X-ray Structure Validation Summary Report (i)

Aug 7, 2020 – 02:59 PM BST

PDB ID	:	4IL6
Title	:	Structure of Sr-substituted photosystem II
Authors	:	Koua, F.H.M.; Umena, Y.; Kawakami, K.; Kamiya, N.; Shen, J.R.
Deposited on	:	2012-12-29
Resolution	:	2.10 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 following versions of software and data (see references (1)) were used in the production of this report:

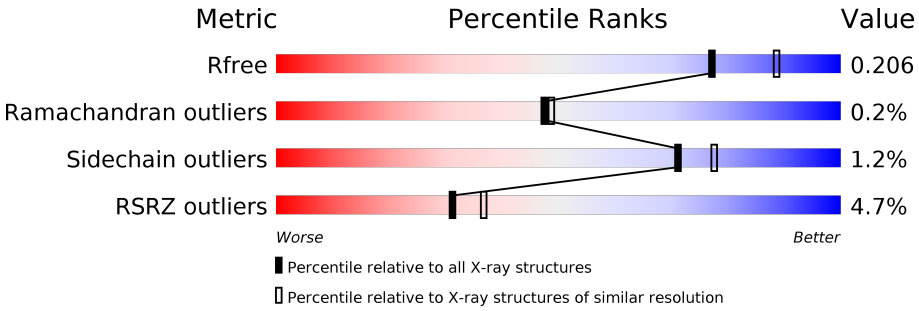
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.13.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.13.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.10 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	5197 (2.10-2.10)
Ramachandran outliers	138981	5647 (2.10-2.10)
Sidechain outliers	138945	5648 (2.10-2.10)
RSRZ outliers	127900	5083 (2.10-2.10)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on 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	99%
1	a	334	99%
2	B	505	99%
2	b	505	98%
3	C	451	98%
3	c	451	97%
4	D	342	98%

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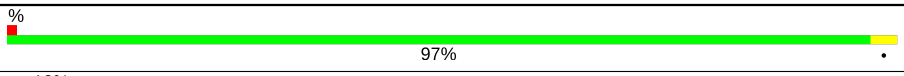
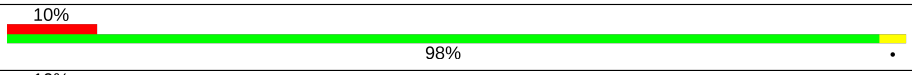
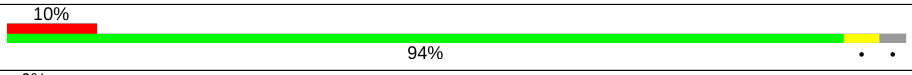
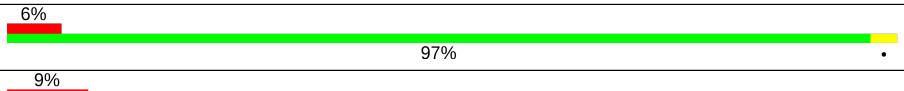
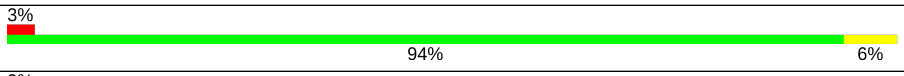
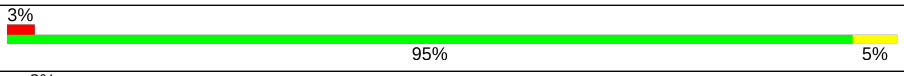
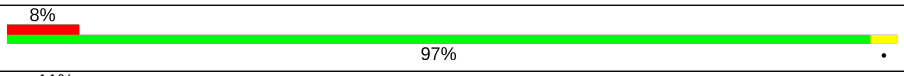
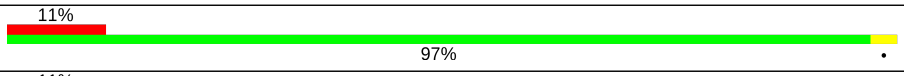
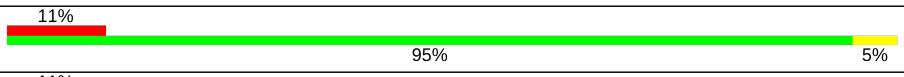
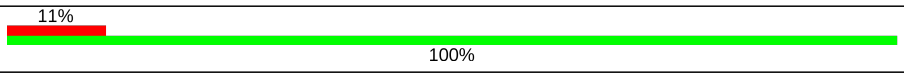
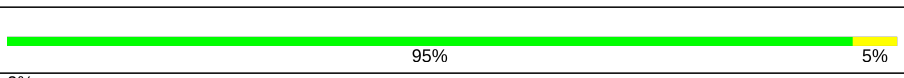
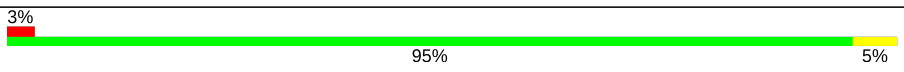
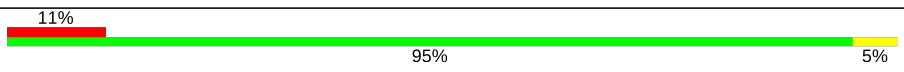
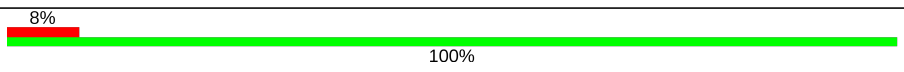
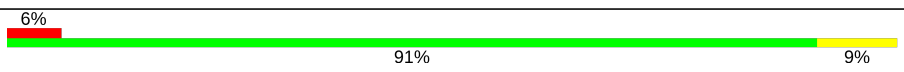
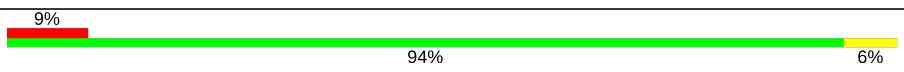
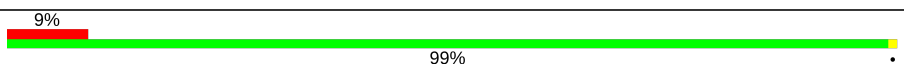
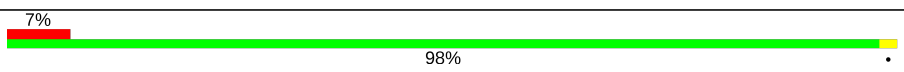
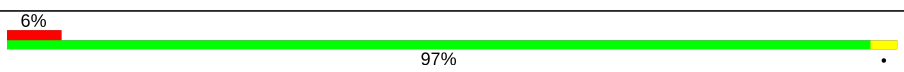
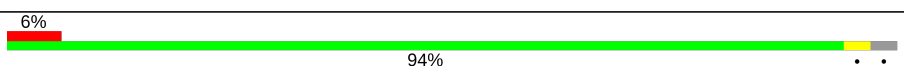
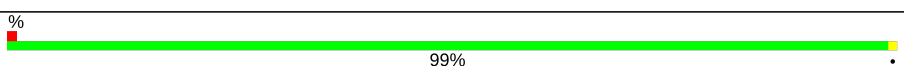
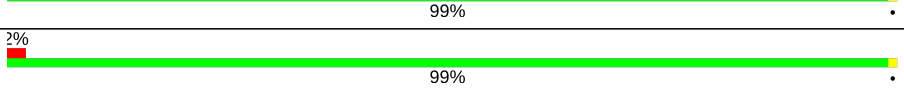
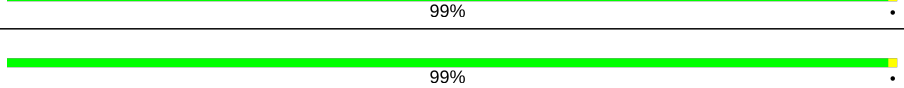
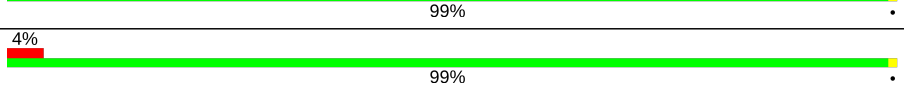
Mol	Chain	Length	Quality of chain
4	d	342	
5	E	80	
5	e	80	
6	F	34	
6	f	34	
7	H	63	
7	h	63	
8	I	36	
8	i	36	
9	J	37	
9	j	37	
10	K	37	
10	k	37	
11	L	37	
11	l	37	
12	M	34	
12	m	34	
13	O	244	
13	o	244	
14	T	31	
14	t	31	
15	U	97	
15	u	97	
16	V	137	
16	v	137	

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Mol	Chain	Length	Quality of chain
17	Y	30	10% 97%
17	y	30	20% 90% 10%
18	X	40	13% 100%
18	x	40	15% 98%
19	Z	62	19% 89% 11%
19	z	62	23% 90% 10%
20	R	34	88% 94% 6%

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
24	CLA	A	1005	X	-	-	-
24	CLA	A	1006	X	-	-	-
24	CLA	A	1008	X	-	-	-
24	CLA	B	601	X	-	-	-
24	CLA	B	602	X	-	-	-
24	CLA	B	603	X	-	-	-
24	CLA	B	604	X	-	-	-
24	CLA	B	605	X	-	-	-
24	CLA	B	606	X	-	-	-
24	CLA	B	607	X	-	-	-
24	CLA	B	608	X	-	-	-
24	CLA	B	609	X	-	-	-
24	CLA	B	610	X	-	-	-
24	CLA	B	611	X	-	-	-
24	CLA	B	612	X	-	-	-
24	CLA	B	613	X	-	-	-
24	CLA	B	614	X	-	-	-
24	CLA	B	615	X	-	-	-
24	CLA	B	616	X	-	-	-
24	CLA	C	501	X	-	-	-
24	CLA	C	502	X	-	-	-
24	CLA	C	503	X	-	-	-
24	CLA	C	504	X	-	-	-
24	CLA	C	505	X	-	-	-
24	CLA	C	506	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
24	CLA	C	507	X	-	-	-
24	CLA	C	508	X	-	-	-
24	CLA	C	509	X	-	-	-
24	CLA	C	510	X	-	-	-
24	CLA	C	511	X	-	-	-
24	CLA	C	512	X	-	-	-
24	CLA	C	513	X	-	-	-
24	CLA	D	402	X	-	-	-
24	CLA	D	403	X	-	-	-
24	CLA	D	405	X	-	-	-
24	CLA	a	407	X	-	-	-
24	CLA	a	408	X	-	-	-
24	CLA	a	409	X	-	-	-
24	CLA	a	412	X	-	-	-
24	CLA	b	604	X	-	-	-
24	CLA	b	605	X	-	-	-
24	CLA	b	606	X	-	-	-
24	CLA	b	607	X	-	-	-
24	CLA	b	608	X	-	-	-
24	CLA	b	609	X	-	-	-
24	CLA	b	610	X	-	-	-
24	CLA	b	611	X	-	-	-
24	CLA	b	613	X	-	-	-
24	CLA	b	614	X	-	-	-
24	CLA	b	615	X	-	-	-
24	CLA	b	616	X	-	-	-
24	CLA	b	617	X	-	-	-
24	CLA	b	618	X	-	-	-
24	CLA	b	619	X	-	-	-
24	CLA	c	501	X	-	-	-
24	CLA	c	502	X	-	-	-
24	CLA	c	503	X	-	-	-
24	CLA	c	504	X	-	-	-
24	CLA	c	505	X	-	-	-
24	CLA	c	506	X	-	-	-
24	CLA	c	507	X	-	-	-
24	CLA	c	508	X	-	-	-
24	CLA	c	509	X	-	-	-
24	CLA	c	510	X	-	-	-
24	CLA	c	511	X	-	-	-
24	CLA	c	512	X	-	-	-
24	CLA	c	513	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
24	CLA	d	402	X	-	-	-
24	CLA	d	403	X	-	-	-
26	BCR	D	406	-	X	-	-
26	BCR	H	101	-	X	-	-
26	BCR	J	101	-	X	-	-
26	BCR	K	101	-	X	-	-
26	BCR	d	404	-	X	-	-
26	BCR	k	101	-	X	-	-
26	BCR	y	101	-	X	-	-
32	LMT	A	1018	-	-	-	X
32	LMT	i	102	-	-	-	X
35	HTG	B	624	-	-	-	X

2 Entry composition

There are 40 unique types of molecules in this entry. The entry contains 53568 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 Q(B) protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	334	Total	C	N	O	S	0	5	0
			2643	1733	431	464	15			
1	a	334	Total	C	N	O	S	0	4	0
			2637	1729	431	462	15			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	279	PRO	ARG	SEE REMARK 999	UNP P51765
a	279	PRO	ARG	SEE REMARK 999	UNP P51765

- Molecule 2 is a protein called Photosystem II core light harvesting protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	505	Total	C	N	O	S	0	10	0
			4040	2652	674	701	13			
2	b	505	Total	C	N	O	S	0	9	0
			4033	2646	676	698	13			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	451	Total	C	N	O	S	0	3	0
			3500	2292	584	611	13			
3	c	450	Total	C	N	O	S	0	2	0
			3492	2287	583	609	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	0	0
			2726	1805	445	464	12			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	d	342	Total	C	N	O	S	0	0	0
			2726	1805	445	464	12			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	80	Total	C	N	O	0	2	0
			660	431	105	124			
5	e	78	Total	C	N	O	0	0	0
			638	418	103	117			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	34	Total	C	N	O	S	0	0	0
			275	187	45	42	1			
6	f	32	Total	C	N	O	S	0	0	0
			257	175	43	38	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	H	63	Total	C	N	O	S	0	1	0
			506	338	83	83	2			
7	h	63	Total	C	N	O	S	0	0	0
			498	333	80	83	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	I	36	Total	C	N	O	S	0	0	0
			296	200	46	49	1			
8	i	36	Total	C	N	O	S	0	0	0
			296	200	46	49	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	J	37	Total	C	N	O	S	0	0	0
			266	179	41	45	1			
9	j	37	Total	C	N	O	S	0	0	0
			266	179	41	45	1			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	L	37	Total	C	N	O	S	0	0	0
			304	202	48	53	1			
11	l	37	Total	C	N	O	S	0	0	0
			304	202	48	53	1			

- Molecule 12 is a protein called Photosystem II reaction center protein M.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	M	34	Total	C	N	O	S	0	1	0
			274	184	40	49	1			
12	m	34	Total	C	N	O	S	0	1	0
			274	184	40	49	1			

- Molecule 13 is a protein called Photosystem II manganese-stabilizing polypeptide.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	O	244	Total	C	N	O	S	0	2	0
			1883	1176	317	386	4			
13	o	243	Total	C	N	O	S	0	1	0
			1868	1167	315	382	4			

- Molecule 14 is a protein called Photosystem II reaction center protein T.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	T	31	Total	C	N	O	S	0	0	0
			267	187	38	40	2			
14	t	30	Total	C	N	O	S	0	0	0
			258	181	36	39	2			

- Molecule 15 is a protein called Photosystem II 12 kDa extrinsic protein.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	U	97	Total 780	C 495	N 129	O 156	0	1	0
15	u	97	Total 780	C 495	N 129	O 156	0	1	0

- Molecule 16 is a protein called Cytochrome c-550.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	V	137	Total 1081	C 687	N 179	O 211	S 4	0	3	0
16	v	137	Total 1076	C 683	N 177	O 212	S 4	0	2	0

- Molecule 17 is a protein called Photosystem II reaction center protein ycf12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Y	30	Total 224	C 147	N 38	O 36	S 3	0	0	0
17	y	30	Total 224	C 147	N 38	O 36	S 3	0	0	0

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
18	X	40	Total 296	C 197	N 47	O 52	0	0	0
18	x	39	Total 287	C 191	N 46	O 50	0	0	0

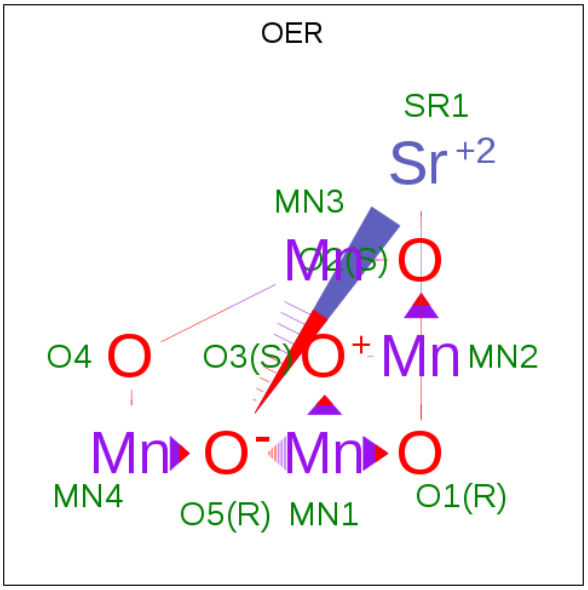
- Molecule 19 is a protein called Photosystem II reaction center protein Z.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	Z	62	Total 481	C 329	N 72	O 78	S 2	0	0	0
19	z	62	Total 481	C 329	N 72	O 78	S 2	0	0	0

- Molecule 20 is a protein called Photosystem II protein Y.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	R	34	Total 273	C 186	N 47	O 40	0	0	0

- Molecule 21 is SR-MN4-O5 CLUSTER (three-letter code: OER) (formula: Mn_4O_5Sr).



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

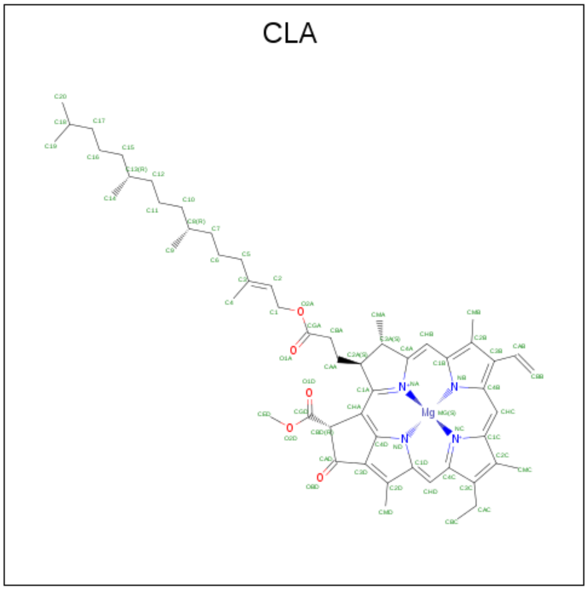
- Molecule 22 is FE (II) ION (three-letter code: FE2) (formula: Fe).

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

- Molecule 23 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

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

- Molecule 24 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



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

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	B	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	C	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	D	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	a	1	Total C Mg N O 65 55 1 4 5	0	0
24	a	1	Total C Mg N O 65 55 1 4 5	0	0
24	a	1	Total C Mg N O 65 55 1 4 5	0	0
24	a	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	b	1	Total C Mg N O 65 55 1 4 5	0	0
24	c	1	Total C Mg N O 65 55 1 4 5	0	0

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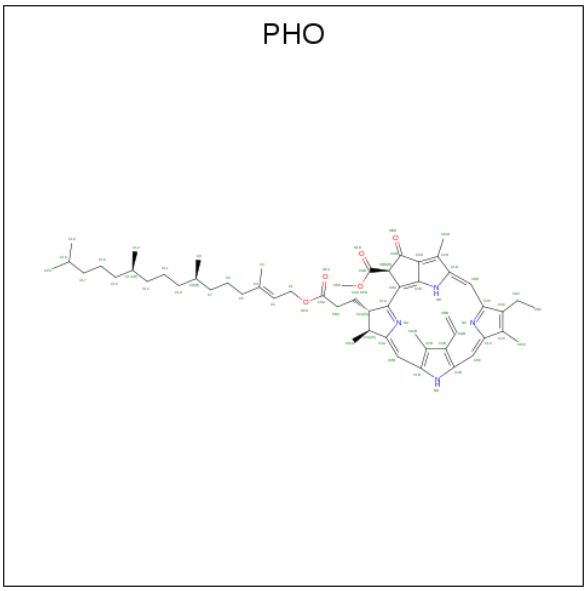
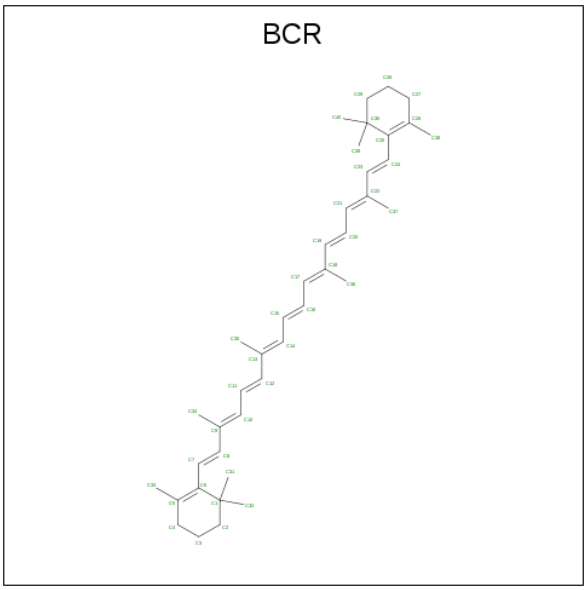
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	c	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
24	c	1	Total 65	C 55	Mg 1	N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

- Molecule 25 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



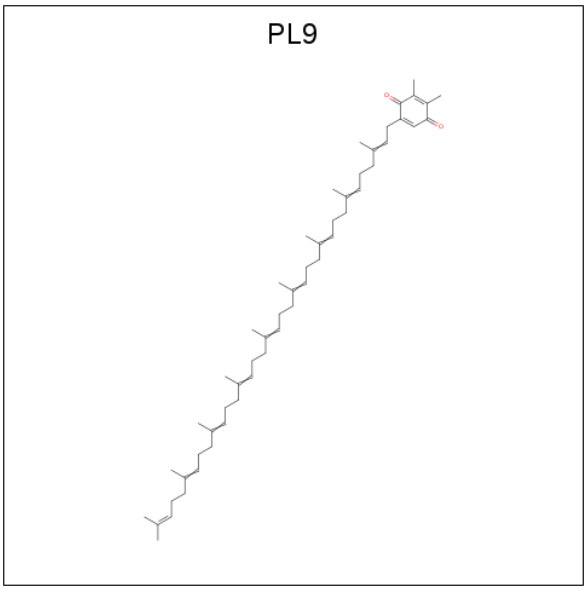
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
25	A	1	Total	C	N	O	0	0
			64	55	4	5		
25	D	1	Total	C	N	O	0	0
			64	55	4	5		
25	a	1	Total	C	N	O	0	0
			64	55	4	5		
25	a	1	Total	C	N	O	0	0
			64	55	4	5		

- Molecule 26 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



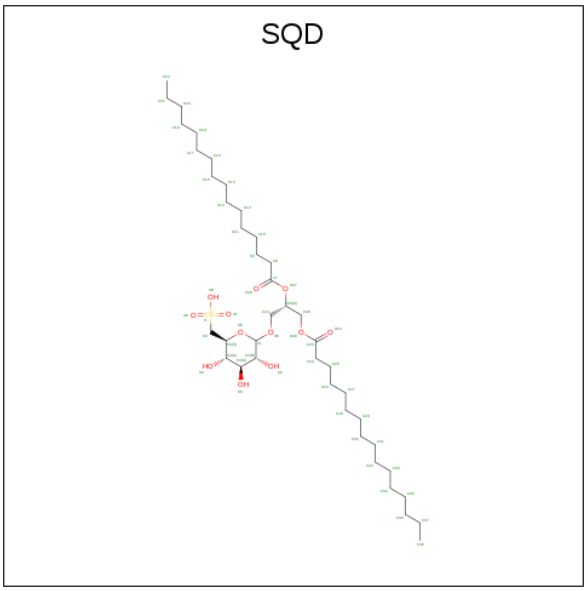
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	A	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	B	1	Total C 40 40	0	0
26	C	1	Total C 40 40	0	0
26	D	1	Total C 40 40	0	0
26	H	1	Total C 40 40	0	0
26	J	1	Total C 40 40	0	0
26	K	1	Total C 40 40	0	0
26	K	1	Total C 40 40	0	0
26	T	1	Total C 40 40	0	0
26	a	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0
26	b	1	Total C 40 40	0	0
26	c	1	Total C 40 40	0	0
26	d	1	Total C 40 40	0	0
26	h	1	Total C 40 40	0	0
26	k	1	Total C 40 40	0	0
26	k	1	Total C 40 40	0	0
26	t	1	Total C 40 40	0	0
26	y	1	Total C 40 40	0	0

- Molecule 27 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: $C_{53}H_{80}O_2$).



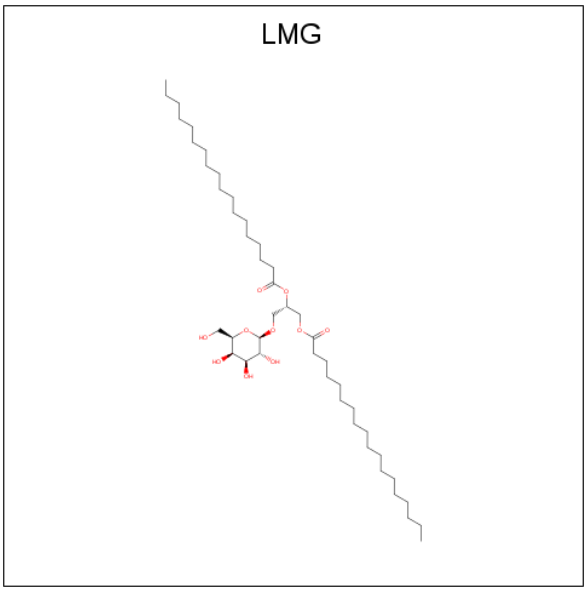
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	A	1	Total C O 55 53 2	0	0
27	D	1	Total C O 55 53 2	0	0
27	a	1	Total C O 55 53 2	0	0
27	d	1	Total C O 55 53 2	0	0

- Molecule 28 is 1,2-DI-O-ACYL-3-O-[6-DEOXY-6-SULFO-ALPHA-D-GLUCOPYRANOSYL]-SN-GLYCEROL (three-letter code: SQD) (formula: $C_{41}H_{78}O_{12}S$).



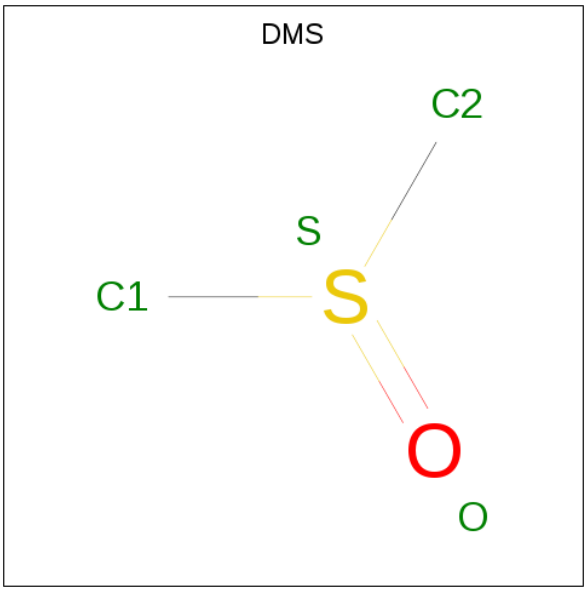
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
28	A	1	Total	C	O	S	0	0
			54	41	12	1		
28	A	1	Total	C	O	S	0	0
			54	41	12	1		
28	B	1	Total	C	O	S	0	1
			108	82	24	2		
28	D	1	Total	C	O	S	0	0
			43	30	12	1		
28	a	1	Total	C	O	S	0	0
			54	41	12	1		
28	b	1	Total	C	O	S	0	1
			108	82	24	2		
28	c	1	Total	C	O	S	0	0
			54	41	12	1		
28	f	1	Total	C	O	S	0	0
			43	30	12	1		

- Molecule 29 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	A	1	Total C O 51 41 10	0	0
29	B	1	Total C O 51 41 10	0	0
29	C	1	Total C O 51 41 10	0	0
29	C	1	Total C O 51 41 10	0	0
29	D	1	Total C O 51 41 10	0	0
29	Z	1	Total C O 51 41 10	0	0
29	a	1	Total C O 51 41 10	0	0
29	c	1	Total C O 51 41 10	0	0
29	c	1	Total C O 51 41 10	0	0
29	c	1	Total C O 51 41 10	0	0
29	d	1	Total C O 51 41 10	0	0
29	m	1	Total C O 51 41 10	0	0

- Molecule 30 is DIMETHYL SULFOXIDE (three-letter code: DMS) (formula: C_2H_6OS).



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

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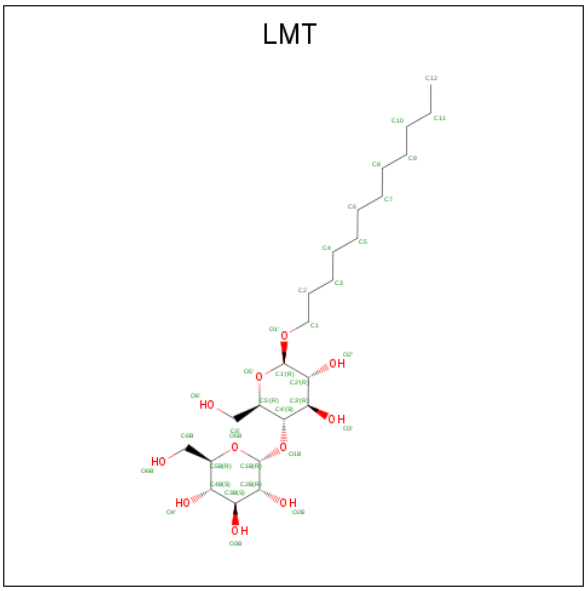
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
30	O	1	Total	C	O	S	0	0
			4	2	1	1		
30	O	1	Total	C	O	S	0	0
			4	2	1	1		
30	U	1	Total	C	O	S	0	0
			4	2	1	1		
30	V	1	Total	C	O	S	0	0
			4	2	1	1		
30	V	1	Total	C	O	S	0	0
			4	2	1	1		
30	a	1	Total	C	O	S	0	0
			4	2	1	1		
30	a	1	Total	C	O	S	0	0
			4	2	1	1		
30	b	1	Total	C	O	S	0	0
			4	2	1	1		
30	b	1	Total	C	O	S	0	0
			4	2	1	1		
30	b	1	Total	C	O	S	0	0
			4	2	1	1		
30	b	1	Total	C	O	S	0	0
			4	2	1	1		
30	b	1	Total	C	O	S	0	0
			4	2	1	1		
30	c	1	Total	C	O	S	0	0
			4	2	1	1		
30	c	1	Total	C	O	S	0	0
			4	2	1	1		
30	c	1	Total	C	O	S	0	0
			4	2	1	1		
30	c	1	Total	C	O	S	0	0
			4	2	1	1		
30	c	1	Total	C	O	S	0	0
			4	2	1	1		
30	d	1	Total	C	O	S	0	0
			4	2	1	1		
30	d	1	Total	C	O	S	0	0
			4	2	1	1		
30	u	1	Total	C	O	S	0	0
			4	2	1	1		
30	v	1	Total	C	O	S	0	0
			4	2	1	1		

- Molecule 31 is UNKNOWN LIGAND (three-letter code: UNL) (formula:).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	J	1	Total C 16 16	0	0
31	i	1	Total C 16 16	0	0
31	D	2	Total C O 56 51 5	0	0
31	K	1	Total C O 34 29 5	0	0
31	y	1	Total C 16 16	0	0
31	l	1	Total C 16 16	0	0
31	B	2	Total C 32 32	0	0
31	I	2	Total C 26 26	0	0
31	c	1	Total C O 32 27 5	0	0
31	a	1	Total C O 30 25 5	0	0
31	x	1	Total C 16 16	0	0
31	A	1	Total C O 28 23 5	0	0
31	j	1	Total C 16 16	0	0
31	X	1	Total C 16 16	0	0
31	d	2	Total C O 52 47 5	0	0
31	t	1	Total C 16 16	0	0
31	Y	1	Total C 16 16	0	0
31	L	1	Total C 16 16	0	0
31	b	2	Total C 32 32	0	0

- Molecule 32 is DODECYL-BETA-D-MALTOSIDE (three-letter code: LMT) (formula: $C_{24}H_{46}O_{11}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
32	A	1	Total C O 35 24 11	0	0
32	A	1	Total C O 35 24 11	0	0
32	B	1	Total C O 35 24 11	0	0
32	C	1	Total C O 35 24 11	0	0
32	M	1	Total C O 35 24 11	0	0
32	M	1	Total C O 35 24 11	0	0
32	a	1	Total C O 35 24 11	0	0
32	a	1	Total C O 35 24 11	0	0
32	b	1	Total C O 35 24 11	0	0
32	b	1	Total C O 35 24 11	0	0
32	f	1	Total C O 35 24 11	0	0
32	i	1	Total C O 35 24 11	0	0
32	m	1	Total C O 35 24 11	0	0
32	m	1	Total C O 35 24 11	0	0

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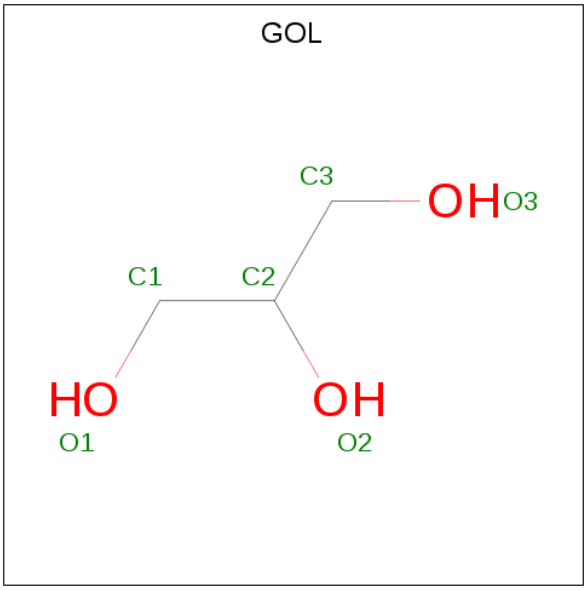
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
32	t	1	Total C O 35 24 11	0	0

- Molecule 33 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	A	1	Total C O 6 3 3	0	0
33	B	1	Total C O 6 3 3	0	0
33	D	1	Total C O 6 3 3	0	0
33	V	1	Total C O 6 3 3	0	0
33	V	1	Total C O 6 3 3	0	0
33	V	1	Total C O 6 3 3	0	0
33	a	1	Total C O 6 3 3	0	0
33	b	1	Total C O 6 3 3	0	0
33	d	1	Total C O 6 3 3	0	0
33	d	1	Total C O 6 3 3	0	0

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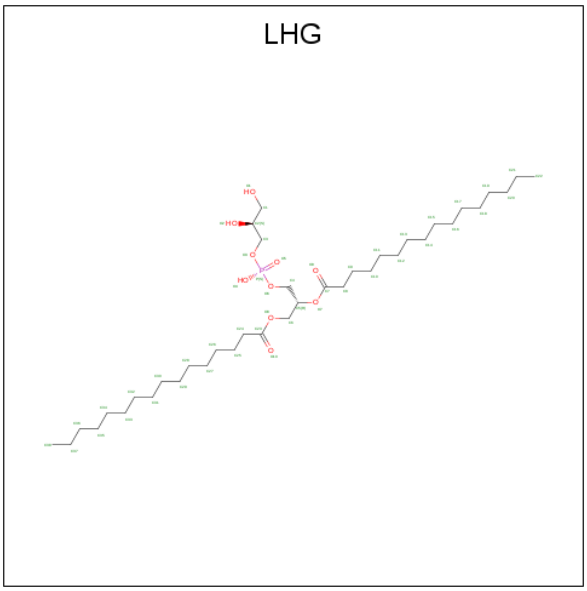
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	v	1	Total C O 6 3 3	0	0
33	v	1	Total C O 6 3 3	0	0

- Molecule 34 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	B	1	Total C O P 49 38 10 1	0	0
34	D	1	Total C O P 49 38 10 1	0	0
34	D	1	Total C O P 49 38 10 1	0	0
34	D	1	Total C O P 49 38 10 1	0	0
34	E	1	Total C O P 49 38 10 1	0	0
34	b	1	Total C O P 49 38 10 1	0	0
34	d	1	Total C O P 49 38 10 1	0	0
34	d	1	Total C O P 49 38 10 1	0	0
34	d	1	Total C O P 49 38 10 1	0	0

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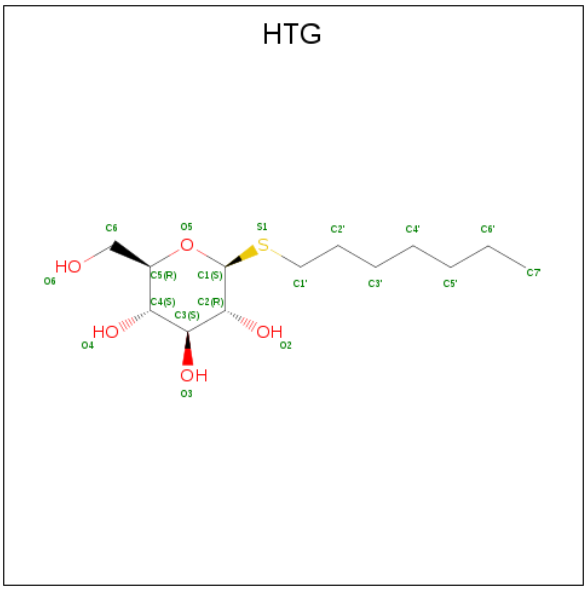
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
34	e	1	Total	C	O	P	0	0
			49	38	10	1		

- Molecule 35 is heptyl 1-thio-beta-D-glucopyranoside (three-letter code: HTG) (formula: $C_{13}H_{26}O_5S$).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
35	B	1	Total	C	O	S	0	0
			19	13	5	1		
35	B	1	Total	C	O	S	0	0
			19	13	5	1		
35	B	1	Total	C	O	S	0	0
			19	13	5	1		
35	C	1	Total	C	O	S	0	0
			19	13	5	1		
35	C	1	Total	C	O	S	0	0
			19	13	5	1		
35	D	1	Total	C	O	S	0	0
			19	13	5	1		
35	D	1	Total	C	O	S	0	0
			19	13	5	1		
35	V	1	Total	C	O	S	0	0
			19	13	5	1		
35	b	1	Total	C	O	S	0	0
			19	13	5	1		
35	b	1	Total	C	O	S	0	0
			19	13	5	1		

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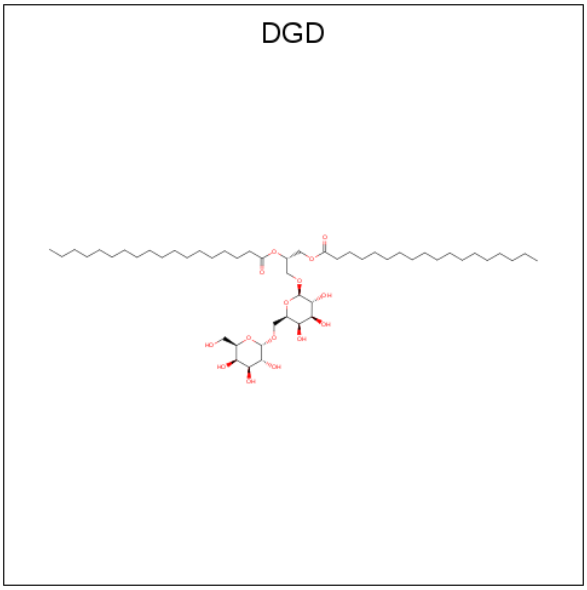
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
35	b	1	Total	C	O	S	0	0
			19	13	5	1		
35	b	1	Total	C	O	S	0	0
			19	13	5	1		
35	c	1	Total	C	O	S	0	0
			19	13	5	1		
35	c	1	Total	C	O	S	0	0
			19	13	5	1		
35	d	1	Total	C	O	S	0	0
			19	13	5	1		
35	d	1	Total	C	O	S	0	0
			19	13	5	1		
35	o	1	Total	C	O	S	0	0
			19	13	5	1		

- Molecule 36 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
36	C	1	Total	C	O	0	0
			62	47	15		
36	C	1	Total	C	O	0	0
			62	47	15		
36	C	1	Total	C	O	0	0
			62	47	15		
36	H	1	Total	C	O	0	0
			62	47	15		

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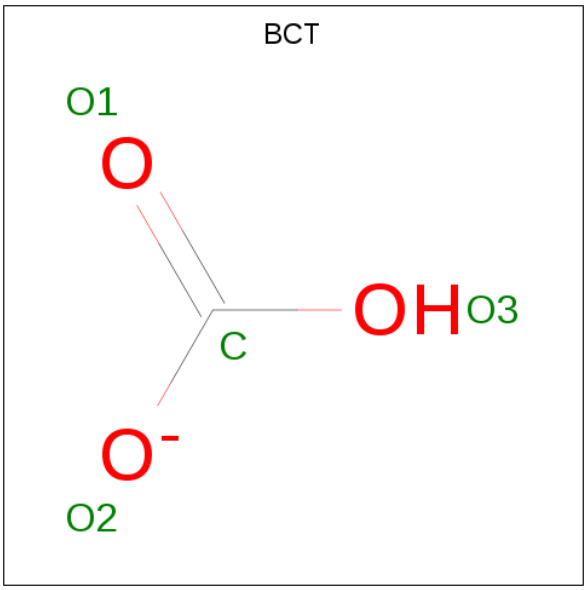
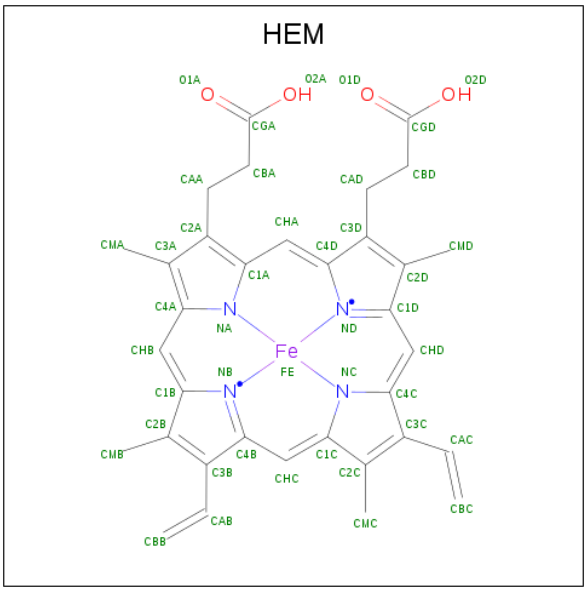
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	c	1	Total C O 62 47 15	0	0
36	c	1	Total C O 62 47 15	0	0
36	c	1	Total C O 62 47 15	0	0
36	h	1	Total C O 62 47 15	0	0

- Molecule 37 is BICARBONATE ION (three-letter code: BCT) (formula: CHO_3).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	D	1	Total C O 4 1 3	0	0
37	d	1	Total C O 4 1 3	0	0

- Molecule 38 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: $C_{34}H_{32}FeN_4O_4$).



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

- Molecule 39 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

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

- Molecule 40 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
40	A	134	Total	O	0	0
			134	134		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
40	B	252	Total O 253 253	0	1
40	C	168	Total O 168 168	0	0
40	D	132	Total O 132 132	0	0
40	E	22	Total O 22 22	0	0
40	F	6	Total O 6 6	0	0
40	H	31	Total O 31 31	0	0
40	I	4	Total O 4 4	0	0
40	J	7	Total O 7 7	0	0
40	K	7	Total O 7 7	0	0
40	L	11	Total O 11 11	0	0
40	M	6	Total O 6 6	0	0
40	O	119	Total O 119 119	0	0
40	T	10	Total O 10 10	0	0
40	U	63	Total O 63 63	0	0
40	V	96	Total O 96 96	0	0
40	Y	1	Total O 1 1	0	0
40	X	8	Total O 8 8	0	0
40	Z	1	Total O 1 1	0	0
40	R	1	Total O 1 1	0	0
40	a	118	Total O 118 118	0	0
40	b	209	Total O 209 209	0	0

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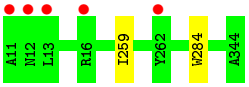
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
40	c	169	Total O 169 169	0	0
40	d	121	Total O 121 121	0	0
40	e	9	Total O 9 9	0	0
40	f	5	Total O 5 5	0	0
40	h	23	Total O 23 23	0	0
40	i	4	Total O 4 4	0	0
40	j	5	Total O 5 5	0	0
40	k	3	Total O 3 3	0	0
40	l	8	Total O 8 8	0	0
40	m	10	Total O 10 10	0	0
40	o	112	Total O 112 112	0	0
40	t	13	Total O 13 13	0	0
40	u	74	Total O 74 74	0	0
40	v	65	Total O 65 65	0	0
40	y	1	Total O 1 1	0	0
40	x	9	Total O 9 9	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.

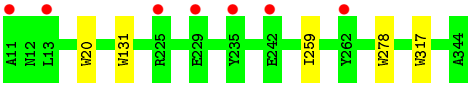
- Molecule 1: Photosystem Q(B) protein

Chain A:



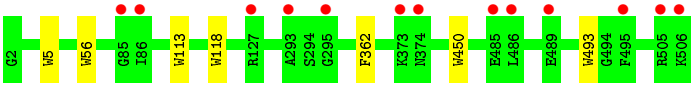
- Molecule 1: Photosystem Q(B) protein

Chain a:



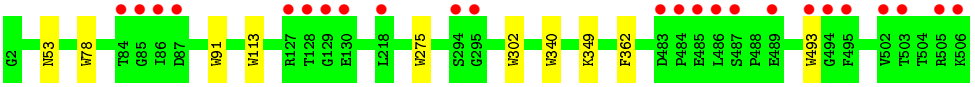
- Molecule 2: Photosystem II core light harvesting protein

Chain B:



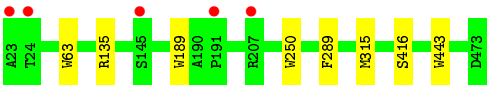
- Molecule 2: Photosystem II core light harvesting protein

Chain b:



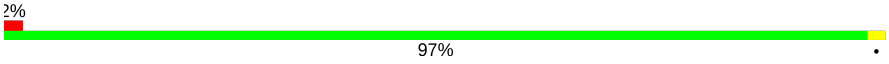
- Molecule 3: Photosystem II CP43 protein

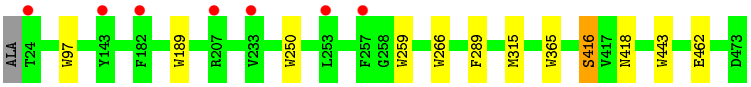
Chain C:



- Molecule 3: Photosystem II CP43 protein

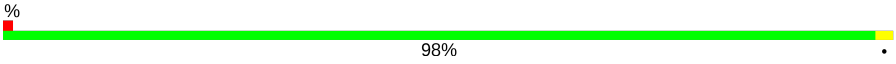
Chain c:

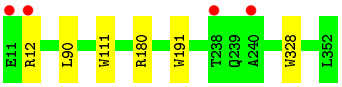




• Molecule 4: Photosystem II D2 protein

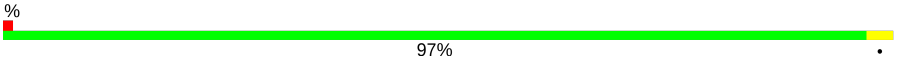
Chain D:

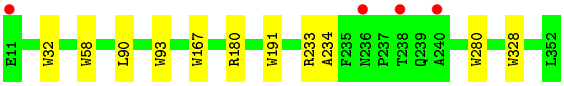




• Molecule 4: Photosystem II D2 protein

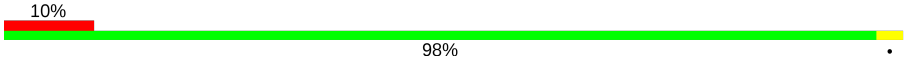
Chain d:

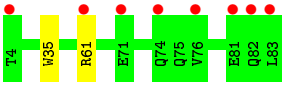




• Molecule 5: Cytochrome b559 subunit alpha

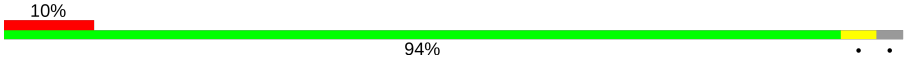
Chain E:

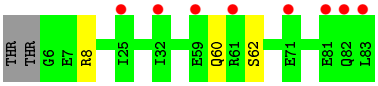




• Molecule 5: Cytochrome b559 subunit alpha

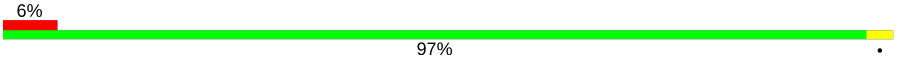
Chain e:

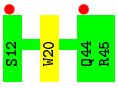




• Molecule 6: Cytochrome b559 subunit beta

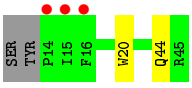
Chain F:





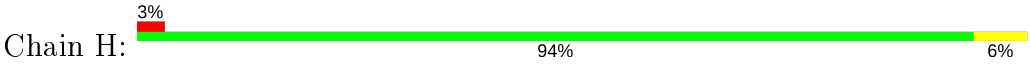
• Molecule 6: Cytochrome b559 subunit beta

Chain f:



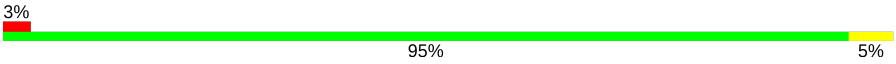
• Molecule 7: Photosystem II reaction center protein H

Chain H:



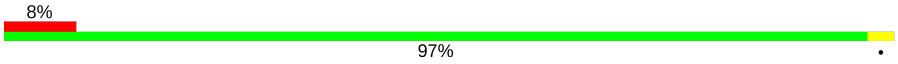
• Molecule 7: Photosystem II reaction center protein H

Chain h:



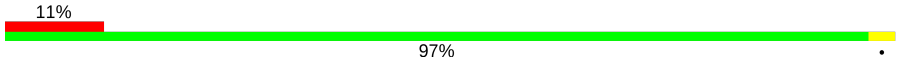
• Molecule 8: Photosystem II reaction center protein I

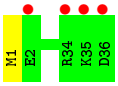
Chain I:



• Molecule 8: Photosystem II reaction center protein I

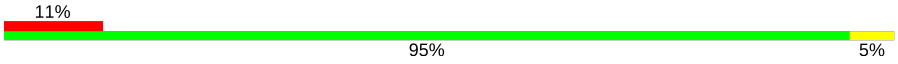
Chain i:

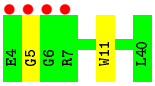




• Molecule 9: Photosystem II reaction center protein J

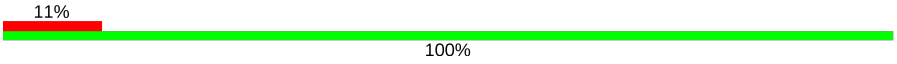
Chain J:

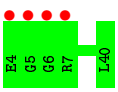




• Molecule 9: Photosystem II reaction center protein J

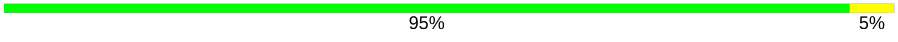
Chain j:





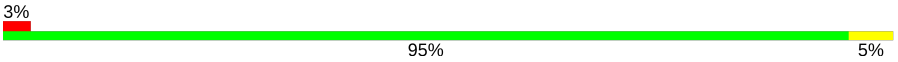
• Molecule 10: Photosystem II reaction center protein K

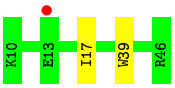
Chain K:



• Molecule 10: Photosystem II reaction center protein K

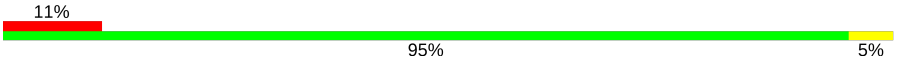
Chain k:

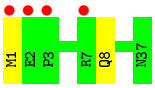




• Molecule 11: Photosystem II reaction center protein L

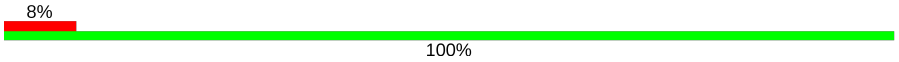
Chain L:





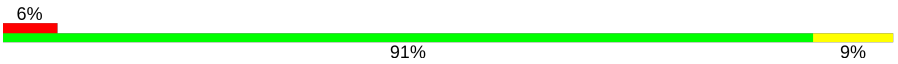
• Molecule 11: Photosystem II reaction center protein L

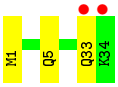
Chain l:



• Molecule 12: Photosystem II reaction center protein M

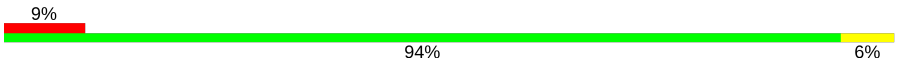
Chain M:

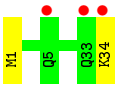




• Molecule 12: Photosystem II reaction center protein M

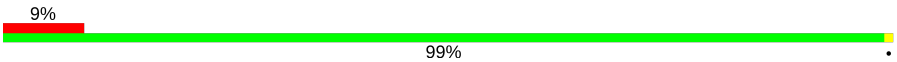
Chain m:

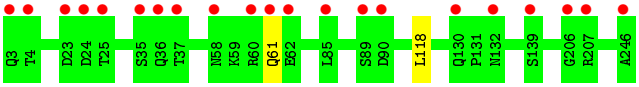




• Molecule 13: Photosystem II manganese-stabilizing polypeptide

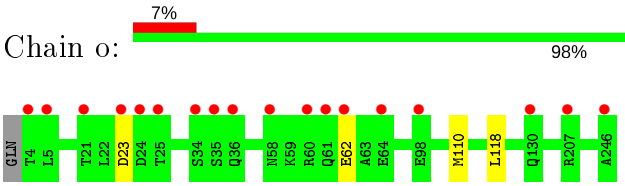
Chain O:





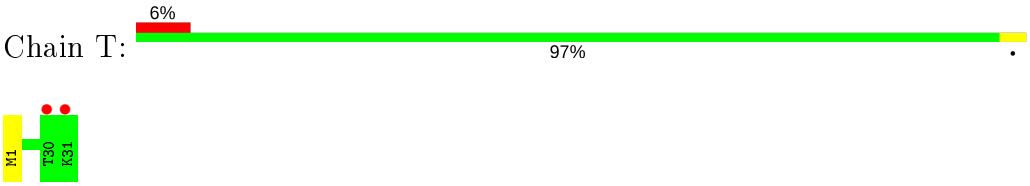
• Molecule 13: Photosystem II manganese-stabilizing polypeptide

Chain o:



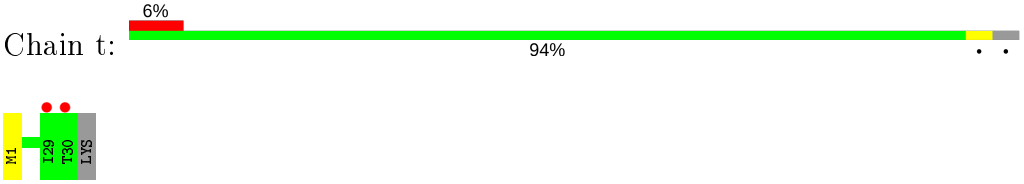
• Molecule 14: Photosystem II reaction center protein T

Chain T:



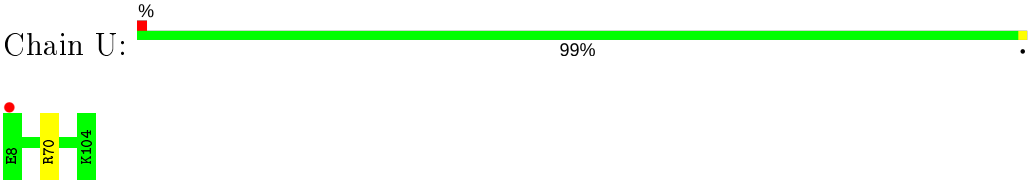
• Molecule 14: Photosystem II reaction center protein T

Chain t:



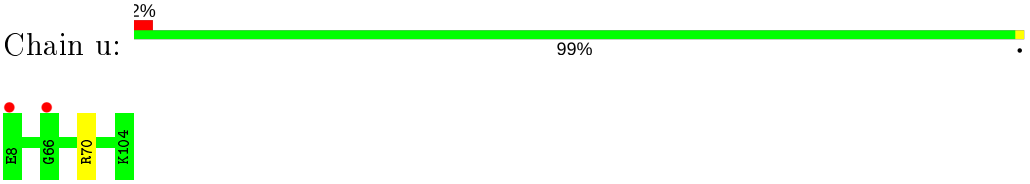
• Molecule 15: Photosystem II 12 kDa extrinsic protein

Chain U:



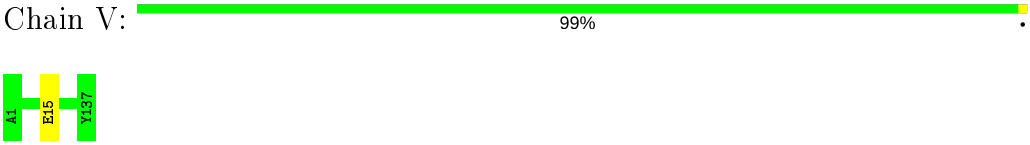
• Molecule 15: Photosystem II 12 kDa extrinsic protein

Chain u:



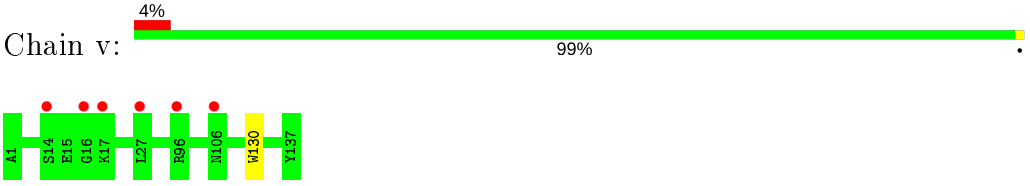
• Molecule 16: Cytochrome c-550

Chain V:



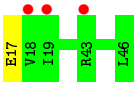
• Molecule 16: Cytochrome c-550

Chain v:



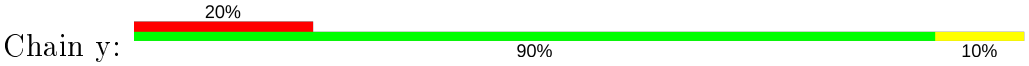
• Molecule 17: Photosystem II reaction center protein ycf12

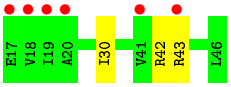
Chain Y:



• Molecule 17: Photosystem II reaction center protein ycf12

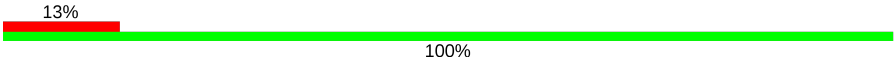
Chain y:

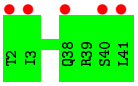




• Molecule 18: Photosystem II reaction center protein X

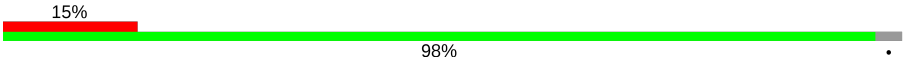
Chain X:

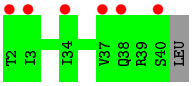




• Molecule 18: Photosystem II reaction center protein X

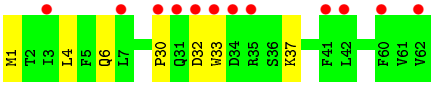
Chain x:





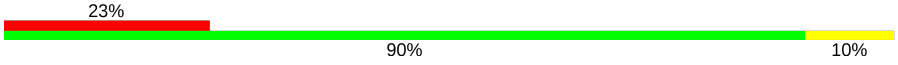
• Molecule 19: Photosystem II reaction center protein Z

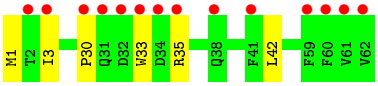
Chain Z:



• Molecule 19: Photosystem II reaction center protein Z

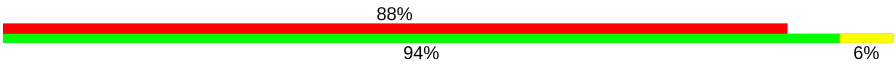
Chain z:

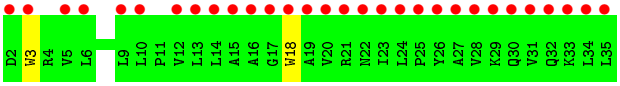




• Molecule 20: Photosystem II protein Y

Chain R:




D2
W3
R4
V5
L6
L9
L10
P11
V12
L13
L14
A15
A16
G17
W18
A19
V20
R21
N22
I23
L24
P25
Y26
A27
V28
K29
Q30
V31
Q32
K33
L34
L35

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	121.86Å 228.79Å 285.76Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.96 – 2.10 19.96 – 2.10	Depositor EDS
% Data completeness (in resolution range)	99.8 (19.96-2.10) 99.9 (19.96-2.10)	Depositor EDS
R_{merge}	0.08	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	3.14 (at 2.09Å)	Xtriage
Refinement program	REFMAC 5.6.0117	Depositor
R, R_{free}	0.176 , 0.205 0.177 , 0.206	Depositor DCC
R_{free} test set	23034 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å^2)	31.9	Xtriage
Anisotropy	0.137	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.37 , 53.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	53568	wwPDB-VP
Average B, all atoms (Å^2)	37.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.77% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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	0.57	1/2743 (0.0%)	0.52	0/3740
1	a	0.56	4/2734 (0.1%)	0.52	0/3728
2	B	0.58	6/4210 (0.1%)	0.53	0/5731
2	b	0.58	7/4200 (0.2%)	0.52	0/5719
3	C	0.58	4/3622 (0.1%)	0.52	0/4931
3	c	0.58	7/3611 (0.2%)	0.51	0/4916
4	D	0.62	3/2821 (0.1%)	0.54	0/3844
4	d	0.60	7/2821 (0.2%)	0.53	0/3844
5	E	0.51	1/685 (0.1%)	0.51	0/936
5	e	0.49	0/657	0.49	0/897
6	F	0.57	1/284 (0.4%)	0.46	0/387
6	f	0.56	1/265 (0.4%)	0.47	0/360
7	H	0.60	2/522 (0.4%)	0.52	0/712
7	h	0.60	2/511 (0.4%)	0.53	0/697
8	I	0.34	0/293	0.42	0/396
8	i	0.35	0/293	0.44	0/396
9	J	0.54	1/272 (0.4%)	0.49	0/368
9	j	0.51	0/272	0.49	0/368
10	K	0.52	1/303 (0.3%)	0.49	0/416
10	k	0.51	1/303 (0.3%)	0.52	0/416
11	L	0.38	0/311	0.46	0/422
11	l	0.36	0/311	0.47	0/422
12	M	0.30	0/270	0.48	0/368
12	m	0.33	0/270	0.47	0/368
13	O	0.34	0/1920	0.53	0/2603
13	o	0.33	0/1902	0.52	0/2579
14	T	0.40	0/266	0.45	0/360
14	t	0.38	0/257	0.45	0/349
15	U	0.36	0/794	0.51	0/1076
15	u	0.34	0/794	0.51	0/1076
16	V	0.40	0/1111	0.49	0/1507

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
16	v	0.40	1/1103 (0.1%)	0.48	0/1497
17	Y	0.33	0/225	0.49	0/301
17	y	0.30	0/225	0.48	0/301
18	X	0.32	0/299	0.43	0/403
18	x	0.33	0/290	0.42	0/392
19	Z	0.52	1/482 (0.2%)	0.46	0/659
19	z	0.51	1/482 (0.2%)	0.46	0/659
20	R	0.65	2/279 (0.7%)	0.52	0/383
All	All	0.53	54/43013 (0.1%)	0.51	0/58527

The worst 5 of 54 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	a	317	TRP	CD2-CE2	5.39	1.47	1.41
4	d	167	TRP	CD2-CE2	5.37	1.47	1.41
4	d	191	TRP	CD2-CE2	5.34	1.47	1.41
2	b	91	TRP	CD2-CE2	5.32	1.47	1.41
2	B	56	TRP	CD2-CE2	5.26	1.47	1.41

There are no bond angle outliers.

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	337/334 (101%)	333 (99%)	3 (1%)	1 (0%)	41 41

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	a	336/334 (101%)	331 (98%)	4 (1%)	1 (0%)	41	41
2	B	513/505 (102%)	505 (98%)	8 (2%)	0	100	100
2	b	512/505 (101%)	506 (99%)	6 (1%)	0	100	100
3	C	452/451 (100%)	442 (98%)	9 (2%)	1 (0%)	47	49
3	c	450/451 (100%)	441 (98%)	8 (2%)	1 (0%)	47	49
4	D	340/342 (99%)	331 (97%)	9 (3%)	0	100	100
4	d	340/342 (99%)	333 (98%)	6 (2%)	1 (0%)	41	41
5	E	80/80 (100%)	79 (99%)	1 (1%)	0	100	100
5	e	76/80 (95%)	74 (97%)	2 (3%)	0	100	100
6	F	32/34 (94%)	32 (100%)	0	0	100	100
6	f	30/34 (88%)	30 (100%)	0	0	100	100
7	H	62/63 (98%)	59 (95%)	3 (5%)	0	100	100
7	h	61/63 (97%)	58 (95%)	3 (5%)	0	100	100
8	I	34/36 (94%)	33 (97%)	1 (3%)	0	100	100
8	i	34/36 (94%)	31 (91%)	3 (9%)	0	100	100
9	J	35/37 (95%)	32 (91%)	2 (6%)	1 (3%)	4	1
9	j	35/37 (95%)	35 (100%)	0	0	100	100
10	K	35/37 (95%)	35 (100%)	0	0	100	100
10	k	35/37 (95%)	35 (100%)	0	0	100	100
11	L	35/37 (95%)	35 (100%)	0	0	100	100
11	l	35/37 (95%)	35 (100%)	0	0	100	100
12	M	33/34 (97%)	33 (100%)	0	0	100	100
12	m	33/34 (97%)	33 (100%)	0	0	100	100
13	O	244/244 (100%)	240 (98%)	4 (2%)	0	100	100
13	o	242/244 (99%)	234 (97%)	8 (3%)	0	100	100
14	T	29/31 (94%)	29 (100%)	0	0	100	100
14	t	28/31 (90%)	28 (100%)	0	0	100	100
15	U	96/97 (99%)	93 (97%)	3 (3%)	0	100	100
15	u	96/97 (99%)	94 (98%)	2 (2%)	0	100	100
16	V	138/137 (101%)	134 (97%)	4 (3%)	0	100	100
16	v	137/137 (100%)	134 (98%)	3 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	Y	28/30 (93%)	28 (100%)	0	0	100	100
17	y	28/30 (93%)	26 (93%)	2 (7%)	0	100	100
18	X	38/40 (95%)	37 (97%)	1 (3%)	0	100	100
18	x	37/40 (92%)	37 (100%)	0	0	100	100
19	Z	60/62 (97%)	58 (97%)	1 (2%)	1 (2%)	9	4
19	z	60/62 (97%)	57 (95%)	2 (3%)	1 (2%)	9	4
20	R	32/34 (94%)	31 (97%)	1 (3%)	0	100	100
All	All	5258/5296 (99%)	5151 (98%)	99 (2%)	8 (0%)	47	49

5 of 8 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	416	SER
3	c	416	SER
9	J	5	GLY
4	d	234	ALA
19	z	30	PRO

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	274/269 (102%)	274 (100%)	0	100	100
1	a	273/269 (102%)	273 (100%)	0	100	100
2	B	413/403 (102%)	412 (100%)	1 (0%)	93	96
2	b	412/403 (102%)	409 (99%)	3 (1%)	84	88
3	C	355/352 (101%)	352 (99%)	3 (1%)	81	86
3	c	354/352 (101%)	349 (99%)	5 (1%)	67	73
4	D	277/277 (100%)	274 (99%)	3 (1%)	73	79
4	d	277/277 (100%)	274 (99%)	3 (1%)	73	79
5	E	73/71 (103%)	72 (99%)	1 (1%)	67	73

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
5	e	69/71 (97%)	66 (96%)	3 (4%)	29 29
6	F	28/28 (100%)	28 (100%)	0	100 100
6	f	26/28 (93%)	25 (96%)	1 (4%)	33 34
7	H	54/53 (102%)	51 (94%)	3 (6%)	21 18
7	h	53/53 (100%)	52 (98%)	1 (2%)	57 63
8	I	32/32 (100%)	32 (100%)	0	100 100
8	i	32/32 (100%)	32 (100%)	0	100 100
9	J	25/25 (100%)	25 (100%)	0	100 100
9	j	25/25 (100%)	25 (100%)	0	100 100
10	K	30/30 (100%)	29 (97%)	1 (3%)	38 40
10	k	30/30 (100%)	29 (97%)	1 (3%)	38 40
11	L	35/35 (100%)	33 (94%)	2 (6%)	20 18
11	l	35/35 (100%)	35 (100%)	0	100 100
12	M	31/30 (103%)	29 (94%)	2 (6%)	17 14
12	m	31/30 (103%)	30 (97%)	1 (3%)	39 41
13	O	209/207 (101%)	207 (99%)	2 (1%)	76 82
13	o	207/207 (100%)	203 (98%)	4 (2%)	57 63
14	T	27/27 (100%)	27 (100%)	0	100 100
14	t	26/27 (96%)	26 (100%)	0	100 100
15	U	85/84 (101%)	84 (99%)	1 (1%)	71 77
15	u	85/84 (101%)	84 (99%)	1 (1%)	71 77
16	V	120/117 (103%)	119 (99%)	1 (1%)	81 86
16	v	119/117 (102%)	119 (100%)	0	100 100
17	Y	23/23 (100%)	22 (96%)	1 (4%)	29 29
17	y	23/23 (100%)	20 (87%)	3 (13%)	4 2
18	X	33/33 (100%)	33 (100%)	0	100 100
18	x	32/33 (97%)	32 (100%)	0	100 100
19	Z	51/51 (100%)	47 (92%)	4 (8%)	12 9
19	z	51/51 (100%)	48 (94%)	3 (6%)	19 17
20	R	29/29 (100%)	29 (100%)	0	100 100
All	All	4364/4323 (101%)	4310 (99%)	54 (1%)	71 77

5 of 54 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
19	Z	37	LYS
3	c	416	SER
17	y	42	ARG
2	b	53	ASN
2	b	362	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 27 such sidechains are listed below:

Mol	Chain	Res	Type
13	O	147	ASN
19	Z	58	ASN
16	v	34	GLN
16	V	34	GLN
2	B	331	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

8 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	$\#\|Z\| > 2$
19	FME	Z	1	19	8,9,10	0.60	0	7,9,11	1.97	4 (57%)
8	FME	I	1	8	8,9,10	0.54	0	7,9,11	1.30	1 (14%)
12	FME	m	1	12	8,9,10	0.50	0	7,9,11	1.58	2 (28%)
14	FME	T	1	14	8,9,10	0.55	0	7,9,11	1.84	3 (42%)
8	FME	i	1	8	8,9,10	0.51	0	7,9,11	1.35	1 (14%)
19	FME	z	1	19	8,9,10	0.48	0	7,9,11	1.73	1 (14%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
12	FME	M	1	12	8,9,10	0.49	0	7,9,11	1.53	2 (28%)
14	FME	t	1	14	8,9,10	0.50	0	7,9,11	1.60	2 (28%)

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
19	FME	Z	1	19	-	4/7/9/11	-
8	FME	I	1	8	-	2/7/9/11	-
12	FME	m	1	12	-	2/7/9/11	-
14	FME	T	1	14	-	2/7/9/11	-
8	FME	i	1	8	-	2/7/9/11	-
19	FME	z	1	19	-	5/7/9/11	-
12	FME	M	1	12	-	1/7/9/11	-
14	FME	t	1	14	-	3/7/9/11	-

There are no bond length outliers.

The worst 5 of 16 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	Z	1	FME	CE-SD-CG	3.06	110.90	100.40
14	T	1	FME	C-CA-N	2.88	114.93	109.73
14	T	1	FME	CE-SD-CG	2.85	110.19	100.40
19	Z	1	FME	C-CA-N	2.77	114.73	109.73
19	z	1	FME	CE-SD-CG	2.74	109.81	100.40

There are no chirality outliers.

5 of 21 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
19	Z	1	FME	O1-CN-N-CA
19	Z	1	FME	N-CA-CB-CG
8	I	1	FME	O1-CN-N-CA
12	m	1	FME	O1-CN-N-CA
12	m	1	FME	CB-CA-N-CN

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 261 ligands modelled in this entry, 24 are unknown and 10 are monoatomic - leaving 227 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	$\#\|Z\| > 2$
26	BCR	b	622	-	41,41,41	3.90	15 (36%)	56,56,56	8.19	36 (64%)
36	DGD	c	515	-	63,63,67	0.89	3 (4%)	77,77,81	0.89	2 (2%)
30	DMS	O	301	-	3,3,3	2.68	1 (33%)	3,3,3	0.53	0
34	LHG	D	410	-	48,48,48	0.87	2 (4%)	51,54,54	0.95	4 (7%)
24	CLA	C	503	-	59,73,73	2.57	14 (23%)	67,113,113	2.09	14 (20%)
30	DMS	B	634	-	3,3,3	2.68	1 (33%)	3,3,3	0.48	0
24	CLA	B	612	-	59,73,73	2.40	14 (23%)	67,113,113	1.95	15 (22%)
32	LMT	C	520	-	36,36,36	0.52	0	47,47,47	1.01	1 (2%)
34	LHG	E	101	-	48,48,48	0.96	2 (4%)	51,54,54	0.96	3 (5%)
26	BCR	D	406	-	41,41,41	3.87	14 (34%)	56,56,56	8.13	45 (80%)
28	SQD	a	401	-	53,54,54	1.04	3 (5%)	62,65,65	1.16	5 (8%)
24	CLA	c	502	-	59,73,73	2.41	15 (25%)	67,113,113	2.05	16 (23%)
24	CLA	b	618	-	59,73,73	2.44	14 (23%)	67,113,113	2.13	15 (22%)
24	CLA	b	617	-	59,73,73	2.60	15 (25%)	67,113,113	2.16	20 (29%)
33	GOL	b	632	-	5,5,5	0.22	0	5,5,5	0.28	0
24	CLA	A	1005	-	59,73,73	2.29	14 (23%)	67,113,113	1.94	13 (19%)
24	CLA	C	504	40	59,73,73	2.51	15 (25%)	67,113,113	2.10	17 (25%)
24	CLA	b	607	-	59,73,73	2.47	14 (23%)	67,113,113	2.33	13 (19%)
26	BCR	b	620	-	41,41,41	3.82	14 (34%)	56,56,56	8.09	40 (71%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
26	BCR	a	413	-	41,41,41	3.75	14 (34%)	56,56,56	8.51	40 (71%)
24	CLA	a	408	40	59,73,73	2.21	13 (22%)	67,113,113	1.95	16 (23%)
30	DMS	u	201	-	3,3,3	2.63	1 (33%)	3,3,3	0.51	0
35	HTG	C	521	-	19,19,19	1.05	2 (10%)	23,24,24	1.23	1 (4%)
26	BCR	K	101	-	41,41,41	3.85	15 (36%)	56,56,56	8.01	41 (73%)
32	LMT	a	402	-	36,36,36	0.58	1 (2%)	47,47,47	0.86	3 (6%)
30	DMS	c	528	-	3,3,3	2.66	1 (33%)	3,3,3	0.54	0
32	LMT	m	101	-	36,36,36	0.47	0	47,47,47	0.69	0
24	CLA	B	601	40	59,73,73	2.43	16 (27%)	67,113,113	2.14	17 (25%)
36	DGD	C	517	-	63,63,67	0.85	2 (3%)	77,77,81	0.87	2 (2%)
30	DMS	O	302	-	3,3,3	2.67	1 (33%)	3,3,3	0.58	0
26	BCR	B	619	-	41,41,41	3.87	15 (36%)	56,56,56	7.98	35 (62%)
24	CLA	B	611	-	59,73,73	2.52	14 (23%)	67,113,113	2.04	14 (20%)
33	GOL	v	204	-	5,5,5	0.25	0	5,5,5	0.31	0
28	SQD	c	518	-	53,54,54	1.04	3 (5%)	62,65,65	1.30	7 (11%)
35	HTG	D	413	-	19,19,19	1.05	2 (10%)	23,24,24	1.29	1 (4%)
34	LHG	d	406	-	48,48,48	0.94	2 (4%)	51,54,54	0.92	3 (5%)
28	SQD	f	102	-	42,43,54	1.20	4 (9%)	51,54,65	1.37	7 (13%)
26	BCR	T	101	-	41,41,41	3.90	15 (36%)	56,56,56	8.04	38 (67%)
35	HTG	d	416	-	19,19,19	1.01	2 (10%)	23,24,24	1.59	1 (4%)
24	CLA	b	608	-	59,73,73	2.14	14 (23%)	67,113,113	1.94	15 (22%)
33	GOL	A	1019	-	5,5,5	0.26	0	5,5,5	0.30	0
30	DMS	c	529	-	3,3,3	2.60	1 (33%)	3,3,3	0.48	0
30	DMS	c	526	-	3,3,3	2.65	1 (33%)	3,3,3	0.46	0
36	DGD	h	102	-	63,63,67	0.91	3 (4%)	77,77,81	0.84	3 (3%)
26	BCR	y	101	-	41,41,41	3.91	15 (36%)	56,56,56	8.83	44 (78%)
24	CLA	b	604	40	59,73,73	2.79	15 (25%)	67,113,113	2.12	17 (25%)
32	LMT	a	416	-	36,36,36	0.50	0	47,47,47	0.76	1 (2%)
24	CLA	c	508	-	59,73,73	2.63	16 (27%)	67,113,113	2.05	16 (23%)
27	PL9	D	407	-	55,55,55	0.73	2 (3%)	68,69,69	1.43	13 (19%)
32	LMT	i	102	-	36,36,36	0.51	0	47,47,47	1.02	2 (4%)
26	BCR	t	101	-	41,41,41	3.89	15 (36%)	56,56,56	8.09	40 (71%)
33	GOL	d	417	-	5,5,5	0.32	0	5,5,5	0.17	0
36	DGD	c	516	-	63,63,67	0.92	3 (4%)	77,77,81	0.91	3 (3%)
38	HEM	V	201	16	27,50,50	2.14	6 (22%)	17,82,82	2.01	4 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
30	DMS	A	1014	-	3,3,3	2.68	1 (33%)	3,3,3	0.54	0
30	DMS	C	525	-	3,3,3	2.67	1 (33%)	3,3,3	0.54	0
24	CLA	C	512	-	59,73,73	3.02	14 (23%)	67,113,113	2.08	17 (25%)
29	LMG	A	1012	-	51,51,55	0.95	2 (3%)	59,59,63	0.92	2 (3%)
24	CLA	c	501	-	59,73,73	2.49	15 (25%)	67,113,113	2.14	16 (23%)
34	LHG	D	409	-	48,48,48	0.91	2 (4%)	51,54,54	0.96	3 (5%)
35	HTG	b	626	-	19,19,19	1.00	1 (5%)	23,24,24	1.18	2 (8%)
24	CLA	B	615	-	59,73,73	2.58	16 (27%)	67,113,113	2.20	16 (23%)
24	CLA	C	506	-	59,73,73	2.41	15 (25%)	67,113,113	2.07	14 (20%)
24	CLA	B	606	-	59,73,73	2.63	16 (27%)	67,113,113	2.20	17 (25%)
30	DMS	c	524	-	3,3,3	2.58	1 (33%)	3,3,3	0.34	0
21	OER	a	403	1,3,40	0,15,15	0.00	-	-		
30	DMS	d	413	-	3,3,3	2.68	1 (33%)	3,3,3	0.60	0
29	LMG	a	415	-	51,51,55	0.96	2 (3%)	59,59,63	0.97	2 (3%)
29	LMG	d	409	39	51,51,55	0.94	2 (3%)	59,59,63	0.87	2 (3%)
35	HTG	b	601	-	19,19,19	1.01	2 (10%)	23,24,24	1.36	1 (4%)
24	CLA	c	512	-	59,73,73	2.55	15 (25%)	67,113,113	2.15	17 (25%)
24	CLA	C	507	40	59,73,73	2.73	14 (23%)	67,113,113	2.29	15 (22%)
34	LHG	e	101	-	48,48,48	0.97	2 (4%)	51,54,54	0.99	2 (3%)
24	CLA	b	614	-	59,73,73	2.35	14 (23%)	67,113,113	1.94	15 (22%)
26	BCR	k	102	-	41,41,41	3.81	15 (36%)	56,56,56	8.37	37 (66%)
26	BCR	c	514	-	41,41,41	3.91	15 (36%)	56,56,56	8.73	41 (73%)
30	DMS	B	632	-	3,3,3	2.66	1 (33%)	3,3,3	0.49	0
24	CLA	B	608	-	59,73,73	2.42	15 (25%)	67,113,113	2.01	15 (22%)
33	GOL	V	206	-	5,5,5	0.28	0	5,5,5	0.24	0
24	CLA	c	513	-	59,73,73	2.53	15 (25%)	67,113,113	2.00	16 (23%)
24	CLA	d	403	-	59,73,73	2.54	15 (25%)	67,113,113	1.92	16 (23%)
24	CLA	b	615	-	59,73,73	2.36	14 (23%)	67,113,113	2.10	15 (22%)
35	HTG	c	522	-	19,19,19	1.00	2 (10%)	23,24,24	1.19	1 (4%)
30	DMS	a	417	-	3,3,3	2.55	1 (33%)	3,3,3	0.38	0
35	HTG	D	419	-	19,19,19	1.01	1 (5%)	23,24,24	1.55	1 (4%)
24	CLA	A	1006	40	59,73,73	2.16	14 (23%)	67,113,113	1.94	17 (25%)
36	DGD	C	515	-	63,63,67	0.87	2 (3%)	77,77,81	0.87	3 (3%)
24	CLA	b	613	40	59,73,73	2.36	14 (23%)	67,113,113	2.00	13 (19%)
32	LMT	M	101	-	36,36,36	0.48	0	47,47,47	0.89	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
24	CLA	c	503	-	59,73,73	2.71	15 (25%)	67,113,113	2.07	15 (22%)
34	LHG	b	624	-	48,48,48	0.91	2 (4%)	51,54,54	0.95	2 (3%)
30	DMS	B	626	-	3,3,3	2.54	1 (33%)	3,3,3	0.35	0
24	CLA	a	409	40	59,73,73	2.28	13 (22%)	67,113,113	1.95	15 (22%)
24	CLA	B	602	-	59,73,73	2.35	15 (25%)	67,113,113	1.99	16 (23%)
30	DMS	V	203	-	3,3,3	2.68	1 (33%)	3,3,3	0.51	0
24	CLA	c	507	40	59,73,73	2.51	15 (25%)	67,113,113	2.33	17 (25%)
30	DMS	b	633	-	3,3,3	2.66	1 (33%)	3,3,3	0.65	0
27	PL9	A	1010	-	55,55,55	0.68	2 (3%)	68,69,69	1.63	17 (25%)
24	CLA	c	509	-	59,73,73	2.47	15 (25%)	67,113,113	2.14	17 (25%)
35	HTG	o	301	-	19,19,19	1.04	1 (5%)	23,24,24	1.30	1 (4%)
34	LHG	d	408	-	48,48,48	0.95	2 (4%)	51,54,54	0.94	2 (3%)
24	CLA	A	1008	-	59,73,73	2.40	15 (25%)	67,113,113	2.04	16 (23%)
38	HEM	f	101	5,6	27,50,50	2.14	6 (22%)	17,82,82	1.90	3 (17%)
24	CLA	C	510	-	59,73,73	2.29	15 (25%)	67,113,113	2.10	15 (22%)
35	HTG	b	630	-	19,19,19	1.08	2 (10%)	23,24,24	1.69	2 (8%)
29	LMG	Z	101	-	51,51,55	0.98	2 (3%)	59,59,63	0.99	2 (3%)
28	SQD	A	1016	-	53,54,54	1.04	3 (5%)	62,65,65	1.16	5 (8%)
30	DMS	C	526	-	3,3,3	2.65	1 (33%)	3,3,3	0.50	0
29	LMG	c	521	-	51,51,55	1.00	3 (5%)	59,59,63	1.06	3 (5%)
36	DGD	H	102	-	63,63,67	0.88	3 (4%)	77,77,81	0.82	3 (3%)
33	GOL	a	420	-	5,5,5	0.28	0	5,5,5	0.27	0
33	GOL	d	415	-	5,5,5	0.28	0	5,5,5	0.33	0
24	CLA	C	508	-	59,73,73	2.46	16 (27%)	67,113,113	1.99	15 (22%)
24	CLA	B	614	-	59,73,73	2.46	15 (25%)	67,113,113	2.22	19 (28%)
29	LMG	B	622	-	51,51,55	0.98	2 (3%)	59,59,63	0.90	2 (3%)
35	HTG	b	602	-	19,19,19	1.02	2 (10%)	23,24,24	1.38	1 (4%)
24	CLA	B	607	40	59,73,73	2.44	15 (25%)	67,113,113	2.10	17 (25%)
29	LMG	D	412	39	51,51,55	0.90	2 (3%)	59,59,63	0.79	1 (1%)
28	SQD	D	408	-	42,43,54	1.17	3 (7%)	51,54,65	1.61	9 (17%)
24	CLA	b	605	-	59,73,73	2.46	15 (25%)	67,113,113	2.00	16 (23%)
34	LHG	D	411	-	48,48,48	0.94	2 (4%)	51,54,54	0.93	2 (3%)
26	BCR	d	404	-	41,41,41	3.92	15 (36%)	56,56,56	8.26	40 (71%)
24	CLA	b	612	-	59,73,73	2.69	15 (25%)	67,113,113	2.12	13 (19%)
24	CLA	c	505	-	59,73,73	2.39	15 (25%)	67,113,113	2.10	15 (22%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
24	CLA	B	604	-	59,73,73	2.41	13 (22%)	67,113,113	2.22	18 (26%)
38	HEM	F	101	5,6	27,50,50	2.17	5 (18%)	17,82,82	1.83	3 (17%)
33	GOL	V	204	-	5,5,5	0.29	0	5,5,5	0.22	0
24	CLA	B	605	-	59,73,73	2.31	14 (23%)	67,113,113	2.00	16 (23%)
33	GOL	B	631	-	5,5,5	0.24	0	5,5,5	0.25	0
24	CLA	c	511	3	59,73,73	2.76	14 (23%)	67,113,113	2.11	15 (22%)
35	HTG	B	624	-	19,19,19	1.03	2 (10%)	23,24,24	1.52	1 (4%)
24	CLA	C	502	-	59,73,73	2.34	14 (23%)	67,113,113	2.04	15 (22%)
26	BCR	A	1009	-	41,41,41	3.83	14 (34%)	56,56,56	8.21	41 (73%)
24	CLA	B	613	-	59,73,73	2.27	14 (23%)	67,113,113	2.07	18 (26%)
26	BCR	J	101	-	41,41,41	3.89	14 (34%)	56,56,56	8.75	39 (69%)
24	CLA	a	407	-	59,73,73	2.23	14 (23%)	67,113,113	1.83	11 (16%)
24	CLA	C	501	-	59,73,73	2.38	15 (25%)	67,113,113	2.09	16 (23%)
21	OER	A	1001	1,3,40	0,15,15	0.00	-	-		
30	DMS	B	627	-	3,3,3	2.57	1 (33%)	3,3,3	0.45	0
24	CLA	D	402	-	59,73,73	2.17	14 (23%)	67,113,113	2.14	19 (28%)
24	CLA	C	505	-	59,73,73	2.58	15 (25%)	67,113,113	2.13	13 (19%)
37	BCT	d	401	22	0,3,3	0.00	-	0,3,3	0.00	-
24	CLA	b	616	-	59,73,73	2.54	14 (23%)	67,113,113	2.10	16 (23%)
35	HTG	B	629	-	19,19,19	1.02	2 (10%)	23,24,24	1.34	1 (4%)
32	LMT	t	103	-	36,36,36	0.45	0	47,47,47	1.03	2 (4%)
30	DMS	B	633	-	3,3,3	2.69	1 (33%)	3,3,3	0.57	0
24	CLA	B	610	40	59,73,73	2.22	15 (25%)	67,113,113	1.99	13 (19%)
27	PL9	a	414	-	55,55,55	0.70	2 (3%)	68,69,69	1.49	14 (20%)
32	LMT	A	1017	-	36,36,36	0.53	1 (2%)	47,47,47	0.86	1 (2%)
32	LMT	f	103	-	36,36,36	0.52	0	47,47,47	0.66	0
26	BCR	k	101	-	41,41,41	3.87	15 (36%)	56,56,56	8.62	40 (71%)
30	DMS	U	201	-	3,3,3	2.64	1 (33%)	3,3,3	0.48	0
36	DGD	C	516	-	63,63,67	0.91	3 (4%)	77,77,81	0.93	4 (5%)
24	CLA	c	510	-	59,73,73	2.35	15 (25%)	67,113,113	2.03	16 (23%)
29	LMG	C	518	-	51,51,55	0.98	2 (3%)	59,59,63	0.87	2 (3%)
24	CLA	C	513	-	59,73,73	2.59	16 (27%)	67,113,113	2.04	17 (25%)
30	DMS	b	628	-	3,3,3	2.51	1 (33%)	3,3,3	0.50	0
36	DGD	c	517	-	63,63,67	0.89	2 (3%)	77,77,81	0.82	3 (3%)
24	CLA	B	609	-	59,73,73	2.45	14 (23%)	67,113,113	2.02	14 (20%)
24	CLA	B	603	-	59,73,73	2.22	14 (23%)	67,113,113	2.15	16 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
24	CLA	b	611	-	59,73,73	2.38	14 (23%)	67,113,113	2.03	16 (23%)
24	CLA	b	610	40	59,73,73	2.43	15 (25%)	67,113,113	2.15	16 (23%)
24	CLA	C	511	3	59,73,73	2.64	15 (25%)	67,113,113	2.22	15 (22%)
35	HTG	B	628	-	19,19,19	1.05	2 (10%)	23,24,24	1.26	1 (4%)
33	GOL	D	418	-	5,5,5	0.29	0	5,5,5	0.31	0
32	LMT	B	623	-	36,36,36	0.48	0	47,47,47	1.00	2 (4%)
30	DMS	b	635	-	3,3,3	2.67	1 (33%)	3,3,3	0.45	0
32	LMT	b	631	-	36,36,36	0.50	0	47,47,47	0.84	2 (4%)
29	LMG	C	519	-	51,51,55	0.99	2 (3%)	59,59,63	1.06	4 (6%)
28	SQD	A	1011	-	53,54,54	1.02	3 (5%)	62,65,65	1.32	9 (14%)
24	CLA	c	504	40	59,73,73	2.53	15 (25%)	67,113,113	2.06	16 (23%)
25	PHO	A	1007	-	67,69,69	2.04	14 (20%)	85,99,99	1.86	15 (17%)
28	SQD	B	620[B]	-	53,54,54	1.02	3 (5%)	62,65,65	1.17	6 (9%)
24	CLA	b	609	-	59,73,73	2.71	16 (27%)	67,113,113	2.22	17 (25%)
33	GOL	V	207	-	5,5,5	0.24	0	5,5,5	0.35	0
28	SQD	B	620[A]	-	53,54,54	1.04	3 (5%)	62,65,65	1.10	7 (11%)
35	HTG	d	410	-	19,19,19	1.05	2 (10%)	23,24,24	1.29	1 (4%)
24	CLA	C	509	-	59,73,73	2.31	15 (25%)	67,113,113	2.14	17 (25%)
26	BCR	K	102	-	41,41,41	3.94	15 (36%)	56,56,56	8.47	39 (69%)
24	CLA	b	606	-	59,73,73	2.35	14 (23%)	67,113,113	2.07	17 (25%)
30	DMS	d	414	-	3,3,3	2.65	1 (33%)	3,3,3	0.41	0
35	HTG	V	202	-	19,19,19	0.99	2 (10%)	23,24,24	1.61	3 (13%)
29	LMG	c	519	-	51,51,55	0.98	2 (3%)	59,59,63	0.88	2 (3%)
38	HEM	v	201	16	27,50,50	2.17	6 (22%)	17,82,82	1.69	3 (17%)
28	SQD	b	623[B]	-	53,54,54	1.02	3 (5%)	62,65,65	1.12	7 (11%)
26	BCR	b	621	-	41,41,41	3.84	14 (34%)	56,56,56	8.44	42 (75%)
25	PHO	a	410	-	67,69,69	2.08	15 (22%)	85,99,99	1.84	16 (18%)
24	CLA	d	402	-	59,73,73	2.30	14 (23%)	67,113,113	1.98	15 (22%)
33	GOL	v	203	-	5,5,5	0.33	0	5,5,5	0.32	0
24	CLA	B	616	-	59,73,73	2.27	14 (23%)	67,113,113	2.09	19 (28%)
32	LMT	m	103	-	36,36,36	0.53	1 (2%)	47,47,47	0.78	1 (2%)
35	HTG	C	522	-	19,19,19	1.02	2 (10%)	23,24,24	1.91	5 (21%)
34	LHG	d	407	-	48,48,48	0.88	2 (4%)	51,54,54	0.91	3 (5%)
34	LHG	B	621	-	48,48,48	0.93	2 (4%)	51,54,54	0.92	2 (3%)
30	DMS	b	634	-	3,3,3	2.71	1 (33%)	3,3,3	0.63	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
30	DMS	C	527	-	3,3,3	2.66	1 (33%)	3,3,3	0.55	0
30	DMS	C	524	-	3,3,3	2.59	1 (33%)	3,3,3	0.45	0
37	BCT	D	401	22	0,3,3	0.00	-	0,3,3	0.00	-
30	DMS	v	202	-	3,3,3	2.62	1 (33%)	3,3,3	0.50	0
30	DMS	b	629	-	3,3,3	2.66	1 (33%)	3,3,3	0.44	0
30	DMS	D	417	-	3,3,3	2.68	1 (33%)	3,3,3	0.44	0
26	BCR	H	101	-	41,41,41	3.84	14 (34%)	56,56,56	8.40	42 (75%)
25	PHO	D	404	-	67,69,69	2.11	15 (22%)	85,99,99	1.90	19 (22%)
26	BCR	B	618	-	41,41,41	3.81	14 (34%)	56,56,56	8.43	41 (73%)
28	SQD	b	623[A]	-	53,54,54	1.02	3 (5%)	62,65,65	1.14	7 (11%)
32	LMT	b	625	-	36,36,36	0.51	0	47,47,47	1.20	6 (12%)
26	BCR	B	617	-	41,41,41	3.82	15 (36%)	56,56,56	8.16	37 (66%)
35	HTG	c	525	-	19,19,19	1.05	2 (10%)	23,24,24	1.18	1 (4%)
29	LMG	m	102	-	51,51,55	0.99	2 (3%)	59,59,63	1.10	4 (6%)
30	DMS	V	205	-	3,3,3	2.67	1 (33%)	3,3,3	0.50	0
25	PHO	a	411	-	67,69,69	2.11	15 (22%)	85,99,99	1.93	19 (22%)
24	CLA	b	619	-	59,73,73	2.43	14 (23%)	67,113,113	2.06	15 (22%)
26	BCR	C	514	-	41,41,41	3.93	15 (36%)	56,56,56	8.28	38 (67%)
32	LMT	M	102	-	36,36,36	0.50	0	47,47,47	0.73	0
30	DMS	a	418	-	3,3,3	2.68	1 (33%)	3,3,3	0.59	0
26	BCR	h	101	-	41,41,41	3.87	14 (34%)	56,56,56	8.48	42 (75%)
24	CLA	D	405	-	59,73,73	2.55	15 (25%)	67,113,113	1.96	15 (22%)
29	LMG	c	520	-	51,51,55	0.99	3 (5%)	59,59,63	1.02	3 (5%)
30	DMS	D	416	-	3,3,3	2.70	1 (33%)	3,3,3	0.75	0
27	PL9	d	405	-	55,55,55	0.73	2 (3%)	68,69,69	1.38	10 (14%)
24	CLA	D	403	40	59,73,73	2.05	13 (22%)	67,113,113	2.11	15 (22%)
32	LMT	A	1018	-	36,36,36	0.53	0	47,47,47	1.00	5 (10%)
30	DMS	c	527	-	3,3,3	2.68	1 (33%)	3,3,3	0.59	0
24	CLA	a	412	-	59,73,73	2.19	14 (23%)	67,113,113	2.05	16 (23%)
30	DMS	A	1013	-	3,3,3	2.53	1 (33%)	3,3,3	0.57	0
30	DMS	C	523	-	3,3,3	2.54	1 (33%)	3,3,3	0.38	0
24	CLA	c	506	-	59,73,73	2.58	14 (23%)	67,113,113	2.09	14 (20%)

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
26	BCR	b	622	-	-	6/29/63/63	0/2/2/2
36	DGD	c	515	-	-	22/51/91/95	0/2/2/2
33	GOL	b	632	-	-	2/4/4/4	-
34	LHG	D	410	-	-	15/53/53/53	-
24	CLA	C	503	-	2/2/20/25	4/37/135/135	-
28	SQD	c	518	-	-	22/49/69/69	0/1/1/1
24	CLA	B	612	-	3/3/20/25	4/37/135/135	-
32	LMT	C	520	-	-	9/21/61/61	0/2/2/2
34	LHG	E	101	-	-	32/53/53/53	-
26	BCR	D	406	-	-	6/29/63/63	0/2/2/2
28	SQD	a	401	-	-	25/49/69/69	0/1/1/1
24	CLA	c	502	-	1/1/20/25	7/37/135/135	-
24	CLA	b	617	-	3/3/20/25	21/37/135/135	-
34	LHG	d	408	-	-	14/53/53/53	-
24	CLA	A	1005	-	3/3/20/25	1/37/135/135	-
24	CLA	C	504	40	3/3/20/25	10/37/135/135	-
24	CLA	b	607	-	3/3/20/25	5/37/135/135	-
26	BCR	b	620	-	-	5/29/63/63	0/2/2/2
26	BCR	a	413	-	-	5/29/63/63	0/2/2/2
24	CLA	a	408	40	1/1/20/25	3/37/135/135	-
35	HTG	C	521	-	-	5/10/30/30	0/1/1/1
26	BCR	K	101	-	-	9/29/63/63	0/2/2/2
32	LMT	a	402	-	-	7/21/61/61	0/2/2/2
32	LMT	m	101	-	-	0/21/61/61	0/2/2/2
24	CLA	B	601	40	3/3/20/25	14/37/135/135	-
36	DGD	C	517	-	-	10/51/91/95	0/2/2/2
26	BCR	B	619	-	-	2/29/63/63	0/2/2/2
38	HEM	f	101	5,6	-	1/6/54/54	-
33	GOL	v	204	-	-	3/4/4/4	-
35	HTG	D	413	-	-	5/10/30/30	0/1/1/1
34	LHG	d	406	-	-	16/53/53/53	-
28	SQD	f	102	-	-	23/38/58/69	0/1/1/1
26	BCR	T	101	-	-	6/29/63/63	0/2/2/2
35	HTG	d	416	-	-	4/10/30/30	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	CLA	b	608	-	3/3/20/25	7/37/135/135	-
33	GOL	A	1019	-	-	2/4/4/4	-
25	PHO	a	411	-	-	5/53/103/103	0/5/6/6
36	DGD	h	102	-	-	18/51/91/95	0/2/2/2
26	BCR	y	101	-	-	11/29/63/63	0/2/2/2
24	CLA	c	510	-	3/3/20/25	11/37/135/135	-
32	LMT	a	416	-	-	8/21/61/61	0/2/2/2
24	CLA	c	508	-	2/2/20/25	14/37/135/135	-
27	PL9	D	407	-	-	1/53/73/73	0/1/1/1
32	LMT	i	102	-	-	12/21/61/61	0/2/2/2
26	BCR	t	101	-	-	5/29/63/63	0/2/2/2
33	GOL	d	417	-	-	2/4/4/4	-
36	DGD	c	516	-	-	27/51/91/95	0/2/2/2
38	HEM	V	201	16	-	0/6/54/54	-
33	GOL	B	631	-	-	0/4/4/4	-
24	CLA	B	607	40	3/3/20/25	3/37/135/135	-
29	LMG	A	1012	-	-	27/46/66/70	0/1/1/1
24	CLA	c	501	-	3/3/20/25	3/37/135/135	-
24	CLA	B	611	-	3/3/20/25	7/37/135/135	-
35	HTG	b	626	-	-	5/10/30/30	0/1/1/1
24	CLA	B	615	-	3/3/20/25	7/37/135/135	-
24	CLA	C	506	-	3/3/20/25	12/37/135/135	-
24	CLA	C	513	-	2/2/20/25	10/37/135/135	-
35	HTG	c	525	-	-	5/10/30/30	0/1/1/1
29	LMG	a	415	-	-	23/46/66/70	0/1/1/1
29	LMG	d	409	39	-	17/46/66/70	0/1/1/1
24	CLA	c	512	-	3/3/20/25	16/37/135/135	-
36	DGD	c	517	-	-	19/51/91/95	0/2/2/2
26	BCR	H	101	-	-	9/29/63/63	0/2/2/2
34	LHG	e	101	-	-	28/53/53/53	-
24	CLA	b	614	-	1/1/20/25	3/37/135/135	-
26	BCR	k	102	-	-	9/29/63/63	0/2/2/2
26	BCR	c	514	-	-	7/29/63/63	0/2/2/2
24	CLA	B	608	-	1/1/20/25	1/37/135/135	-
33	GOL	V	206	-	-	3/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	CLA	c	513	-	1/1/20/25	20/37/135/135	-
24	CLA	d	403	-	2/2/20/25	15/37/135/135	-
35	HTG	c	522	-	-	5/10/30/30	0/1/1/1
35	HTG	D	419	-	-	7/10/30/30	0/1/1/1
24	CLA	A	1006	40	2/2/20/25	11/37/135/135	-
36	DGD	C	515	-	-	26/51/91/95	0/2/2/2
24	CLA	b	613	40	3/3/20/25	5/37/135/135	-
32	LMT	M	101	-	-	9/21/61/61	0/2/2/2
24	CLA	c	503	-	1/1/20/25	3/37/135/135	-
34	LHG	b	624	-	-	20/53/53/53	-
35	HTG	V	202	-	-	6/10/30/30	0/1/1/1
24	CLA	a	409	40	2/2/20/25	8/37/135/135	-
24	CLA	B	602	-	3/3/20/25	4/37/135/135	-
24	CLA	b	605	-	3/3/20/25	5/37/135/135	-
27	PL9	A	1010	-	-	6/53/73/73	0/1/1/1
24	CLA	c	509	-	3/3/20/25	11/37/135/135	-
35	HTG	o	301	-	-	4/10/30/30	0/1/1/1
24	CLA	A	1008	-	1/1/20/25	8/37/135/135	-
24	CLA	C	510	-	3/3/20/25	6/37/135/135	-
35	HTG	b	630	-	-	7/10/30/30	0/1/1/1
29	LMG	Z	101	-	-	27/46/66/70	0/1/1/1
28	SQD	A	1016	-	-	23/49/69/69	0/1/1/1
29	LMG	c	521	-	-	25/46/66/70	0/1/1/1
36	DGD	H	102	-	-	16/51/91/95	0/2/2/2
33	GOL	a	420	-	-	2/4/4/4	-
33	GOL	d	415	-	-	2/4/4/4	-
24	CLA	C	508	-	3/3/20/25	13/37/135/135	-
24	CLA	B	614	-	3/3/20/25	11/37/135/135	-
29	LMG	B	622	-	-	22/46/66/70	0/1/1/1
35	HTG	b	602	-	-	2/10/30/30	0/1/1/1
29	LMG	D	412	39	-	15/46/66/70	0/1/1/1
28	SQD	D	408	-	-	22/38/58/69	0/1/1/1
24	CLA	c	507	40	3/3/20/25	9/37/135/135	-
34	LHG	D	411	-	-	16/53/53/53	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
26	BCR	d	404	-	-	10/29/63/63	0/2/2/2
24	CLA	b	612	-	-	2/37/135/135	-
24	CLA	c	505	-	2/2/20/25	9/37/135/135	-
24	CLA	B	604	-	3/3/20/25	11/37/135/135	-
38	HEM	F	101	5,6	-	0/6/54/54	-
33	GOL	V	204	-	-	2/4/4/4	-
24	CLA	B	605	-	3/3/20/25	3/37/135/135	-
24	CLA	c	511	3	2/2/20/25	2/37/135/135	-
35	HTG	B	624	-	-	7/10/30/30	0/1/1/1
24	CLA	C	502	-	1/1/20/25	10/37/135/135	-
26	BCR	A	1009	-	-	6/29/63/63	0/2/2/2
24	CLA	B	613	-	3/3/20/25	4/37/135/135	-
26	BCR	J	101	-	-	12/29/63/63	0/2/2/2
24	CLA	a	407	-	3/3/20/25	1/37/135/135	-
24	CLA	C	501	-	3/3/20/25	6/37/135/135	-
24	CLA	b	619	-	3/3/20/25	11/37/135/135	-
24	CLA	C	505	-	1/1/20/25	8/37/135/135	-
24	CLA	b	616	-	3/3/20/25	9/37/135/135	-
35	HTG	B	629	-	-	2/10/30/30	0/1/1/1
32	LMT	t	103	-	-	16/21/61/61	0/2/2/2
24	CLA	B	610	40	3/3/20/25	9/37/135/135	-
27	PL9	a	414	-	-	5/53/73/73	0/1/1/1
24	CLA	b	606	-	3/3/20/25	8/37/135/135	-
32	LMT	f	103	-	-	15/21/61/61	0/2/2/2
26	BCR	k	101	-	-	14/29/63/63	0/2/2/2
36	DGD	C	516	-	-	23/51/91/95	0/2/2/2
24	CLA	b	615	-	3/3/20/25	9/37/135/135	-
29	LMG	C	518	-	-	20/46/66/70	0/1/1/1
24	CLA	B	606	-	3/3/20/25	10/37/135/135	-
24	CLA	C	512	-	3/3/20/25	16/37/135/135	-
24	CLA	B	609	-	2/2/20/25	1/37/135/135	-
24	CLA	B	603	-	3/3/20/25	7/37/135/135	-
24	CLA	b	611	-	1/1/20/25	1/37/135/135	-
24	CLA	b	610	40	3/3/20/25	4/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
35	HTG	B	628	-	-	3/10/30/30	0/1/1/1
33	GOL	D	418	-	-	4/4/4/4	-
32	LMT	B	623	-	-	14/21/61/61	0/2/2/2
32	LMT	b	631	-	-	10/21/61/61	0/2/2/2
29	LMG	C	519	-	-	22/46/66/70	0/1/1/1
28	SQD	A	1011	-	-	20/49/69/69	0/1/1/1
33	GOL	v	203	-	-	2/4/4/4	-
24	CLA	c	504	40	2/2/20/25	12/37/135/135	-
25	PHO	A	1007	-	-	1/53/103/103	0/5/6/6
28	SQD	B	620[B]	-	-	24/49/69/69	0/1/1/1
24	CLA	b	609	-	3/3/20/25	9/37/135/135	-
33	GOL	V	207	-	-	2/4/4/4	-
28	SQD	B	620[A]	-	-	29/49/69/69	0/1/1/1
35	HTG	d	410	-	-	4/10/30/30	0/1/1/1
24	CLA	C	509	-	3/3/20/25	7/37/135/135	-
32	LMT	A	1017	-	-	10/21/61/61	0/2/2/2
26	BCR	K	102	-	-	8/29/63/63	0/2/2/2
28	SQD	b	623[A]	-	-	22/49/69/69	0/1/1/1
29	LMG	c	519	-	-	25/46/66/70	0/1/1/1
38	HEM	v	201	16	-	0/6/54/54	-
28	SQD	b	623[B]	-	-	29/49/69/69	0/1/1/1
26	BCR	b	621	-	-	5/29/63/63	0/2/2/2
24	CLA	D	405	-	2/2/20/25	14/37/135/135	-
24	CLA	d	402	-	1/1/20/25	6/37/135/135	-
24	CLA	b	618	-	3/3/20/25	5/37/135/135	-
24	CLA	B	616	-	3/3/20/25	14/37/135/135	-
32	LMT	m	103	-	-	7/21/61/61	0/2/2/2
35	HTG	C	522	-	-	6/10/30/30	0/1/1/1
34	LHG	d	407	-	-	15/53/53/53	-
34	LHG	B	621	-	-	19/53/53/53	-
32	LMT	A	1018	-	-	13/21/61/61	0/2/2/2
34	LHG	D	409	-	-	16/53/53/53	-
35	HTG	b	601	-	-	3/10/30/30	0/1/1/1
24	CLA	C	507	40	3/3/20/25	17/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	PHO	D	404	-	-	6/53/103/103	0/5/6/6
26	BCR	B	618	-	-	5/29/63/63	0/2/2/2
32	LMT	b	625	-	-	11/21/61/61	0/2/2/2
26	BCR	B	617	-	-	4/29/63/63	0/2/2/2
29	LMG	m	102	-	-	22/46/66/70	0/1/1/1
24	CLA	C	511	3	2/2/20/25	7/37/135/135	-
24	CLA	D	402	-	2/2/20/25	4/37/135/135	-
26	BCR	C	514	-	-	6/29/63/63	0/2/2/2
32	LMT	M	102	-	-	6/21/61/61	0/2/2/2
26	BCR	h	101	-	-	8/29/63/63	0/2/2/2
29	LMG	c	520	-	-	17/46/66/70	0/1/1/1
27	PL9	d	405	-	-	2/53/73/73	0/1/1/1
24	CLA	D	403	40	1/1/20/25	3/37/135/135	-
24	CLA	c	506	-	3/3/20/25	13/37/135/135	-
25	PHO	a	410	-	-	4/53/103/103	0/5/6/6
24	CLA	a	412	-	1/1/20/25	14/37/135/135	-
24	CLA	b	604	40	1/1/20/25	19/37/135/135	-

The worst 5 of 1598 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	C	512	CLA	MG-NA	17.54	2.47	2.06
24	b	604	CLA	MG-NC	13.70	2.38	2.06
24	b	617	CLA	MG-NA	13.60	2.38	2.06
24	C	505	CLA	MG-NA	13.03	2.37	2.06
24	C	507	CLA	MG-NA	12.84	2.36	2.06

The worst 5 of 2311 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	A	1009	BCR	C20-C21-C22	28.08	167.39	127.31
26	J	101	BCR	C16-C17-C18	28.03	167.31	127.31
26	y	101	BCR	C20-C21-C22	27.20	166.12	127.31
26	k	101	BCR	C15-C16-C17	27.02	178.83	123.47
26	c	514	BCR	C16-C17-C18	26.99	165.84	127.31

5 of 166 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
24	C	503	CLA	NC
24	C	503	CLA	NA
24	B	612	CLA	NA
24	B	612	CLA	NC
24	B	612	CLA	ND

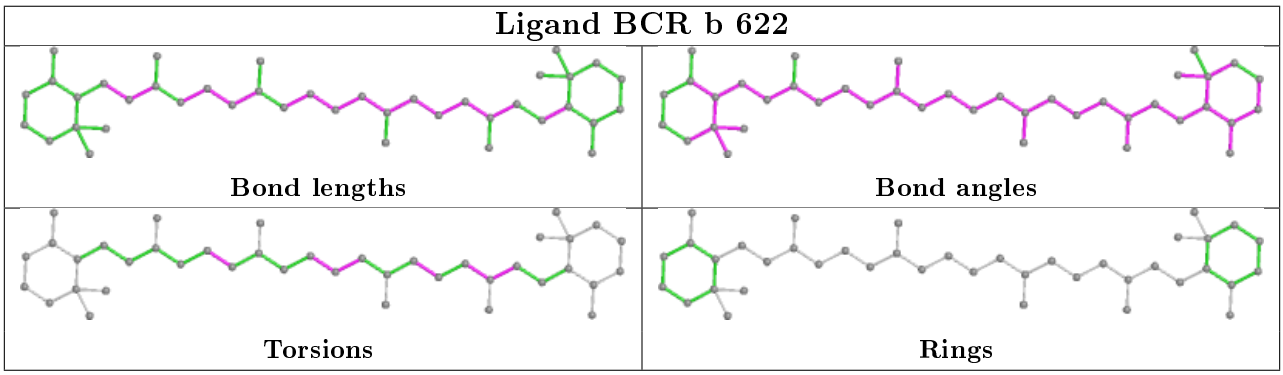
5 of 1872 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
26	b	622	BCR	C14-C15-C16-C17
26	b	622	BCR	C15-C16-C17-C18
34	D	410	LHG	C4-O6-P-O4
26	D	406	BCR	C37-C22-C23-C24
26	D	406	BCR	C22-C23-C24-C25

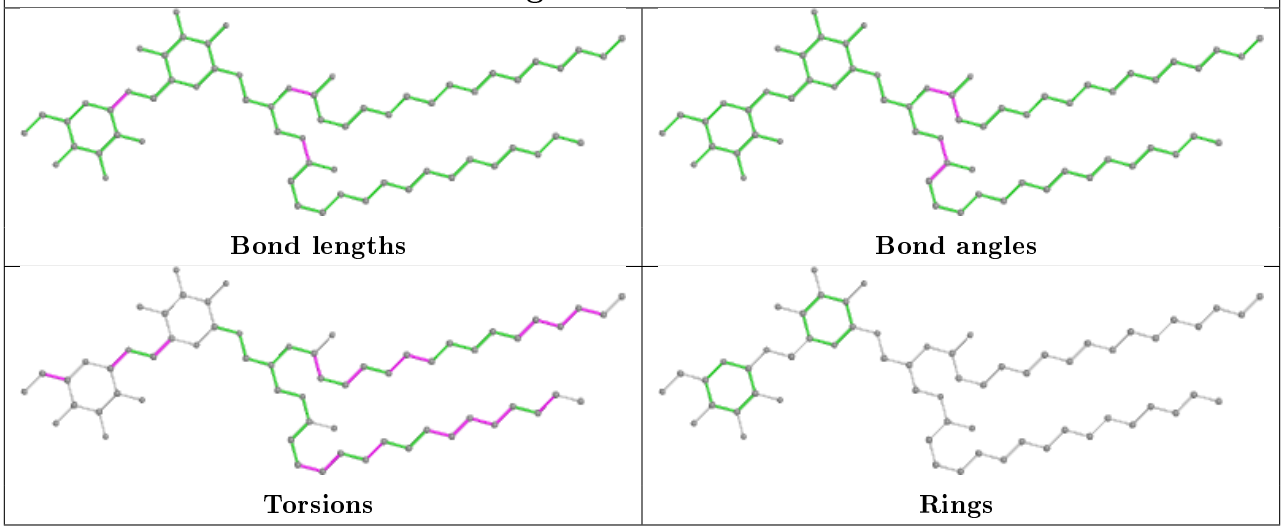
There are no ring outliers.

No monomer is involved in short contacts.

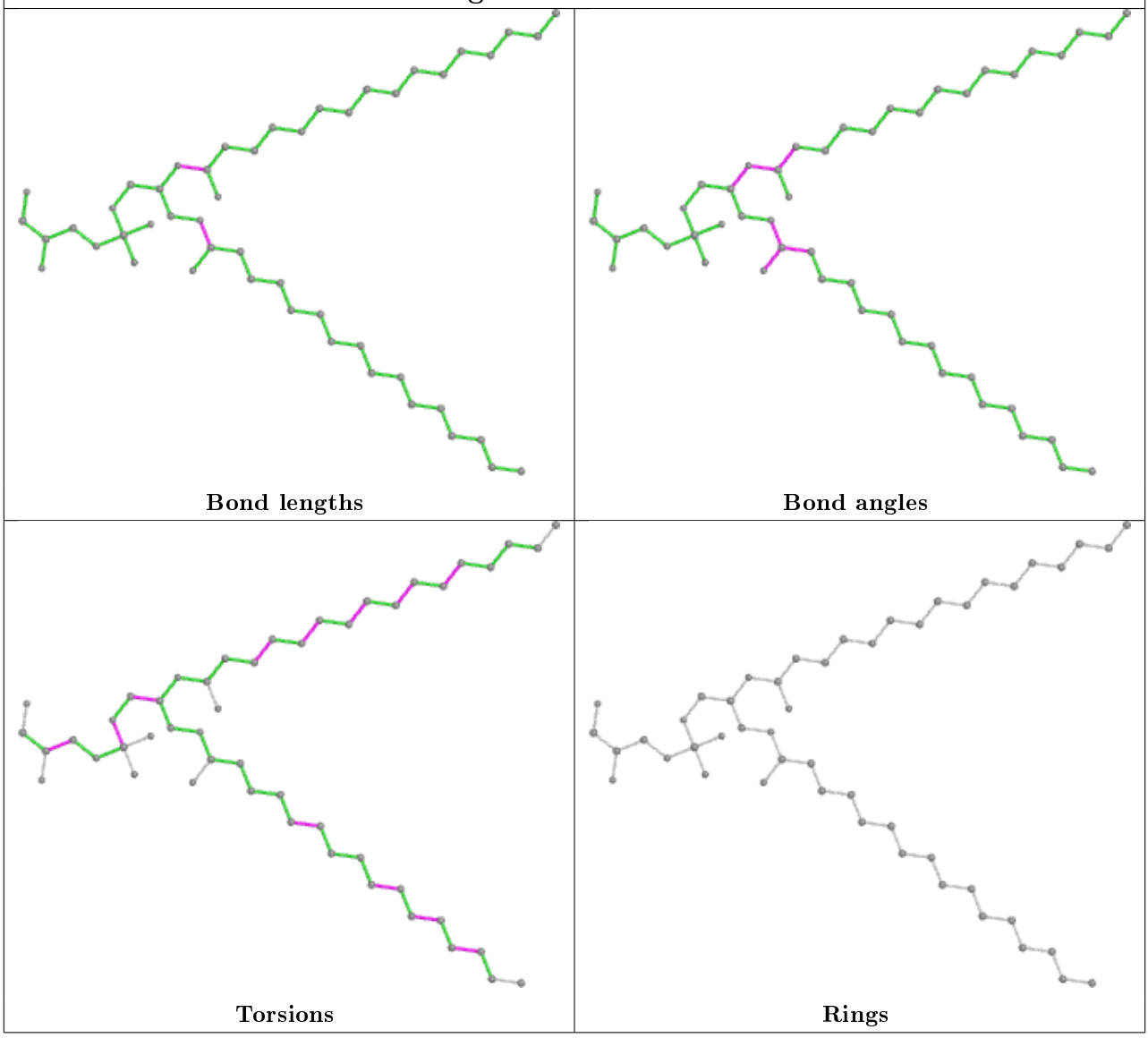
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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



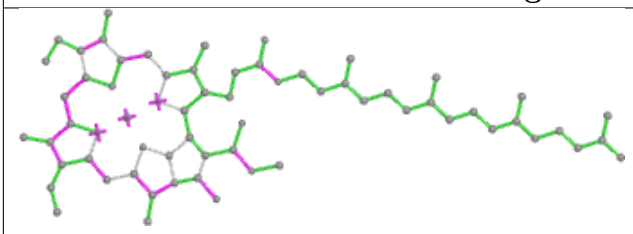
Ligand DGD c 515



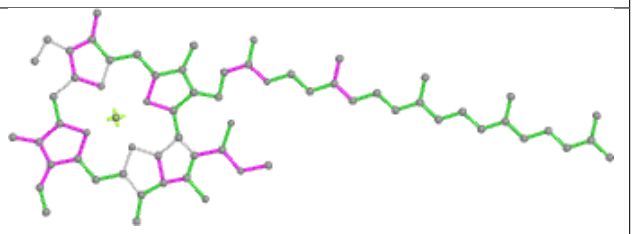
Ligand LHG D 410



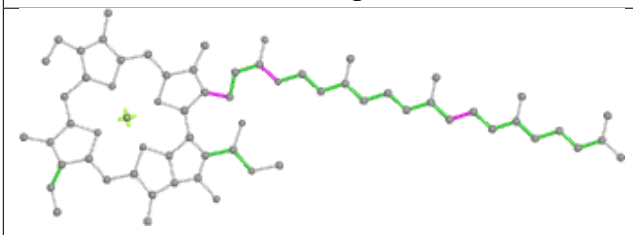
Ligand CLA C 503



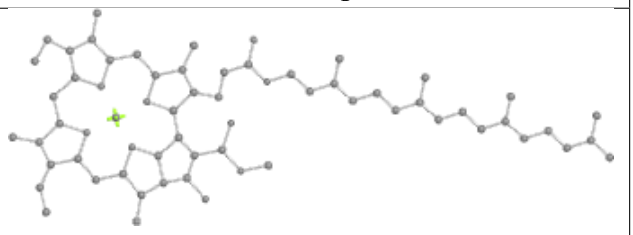
Bond lengths



Bond angles

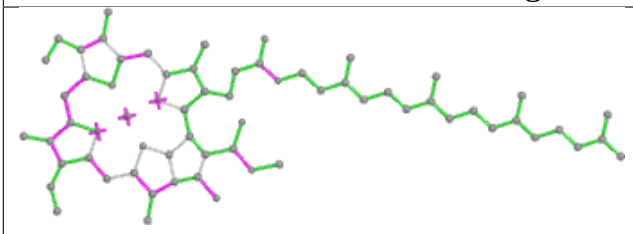


Torsions

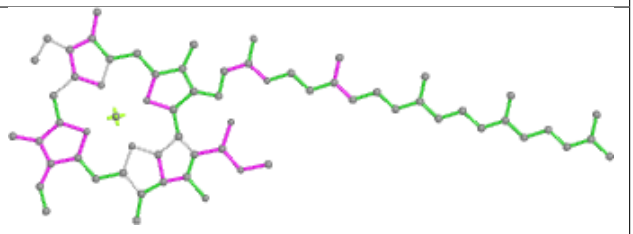


Rings

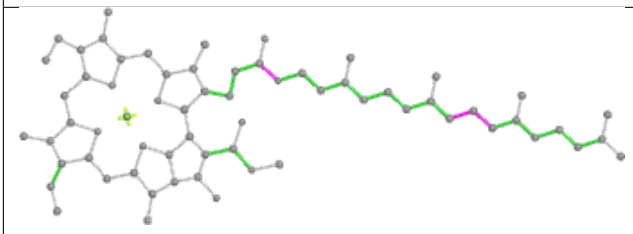
Ligand CLA B 612



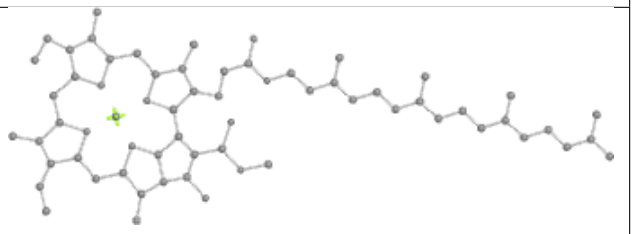
Bond lengths



Bond angles

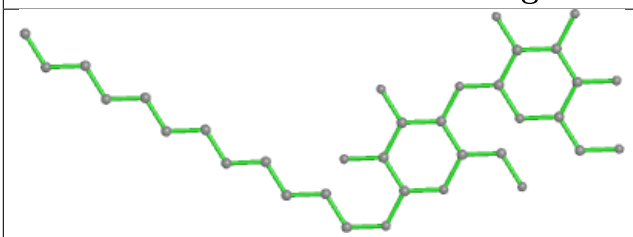


Torsions

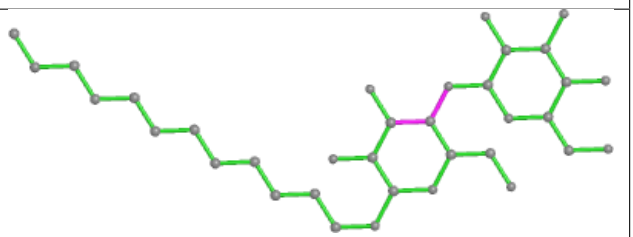


Rings

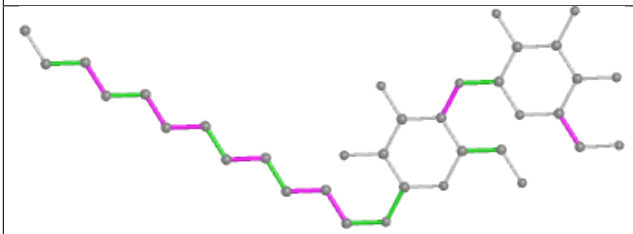
Ligand LMT C 520



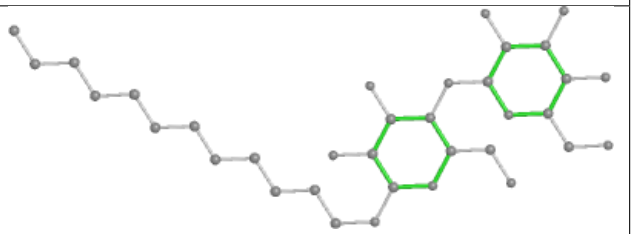
Bond lengths



Bond angles

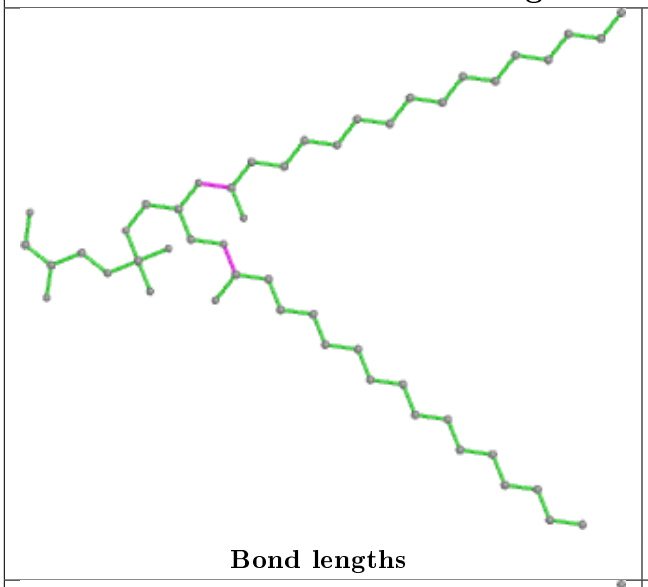


Torsions

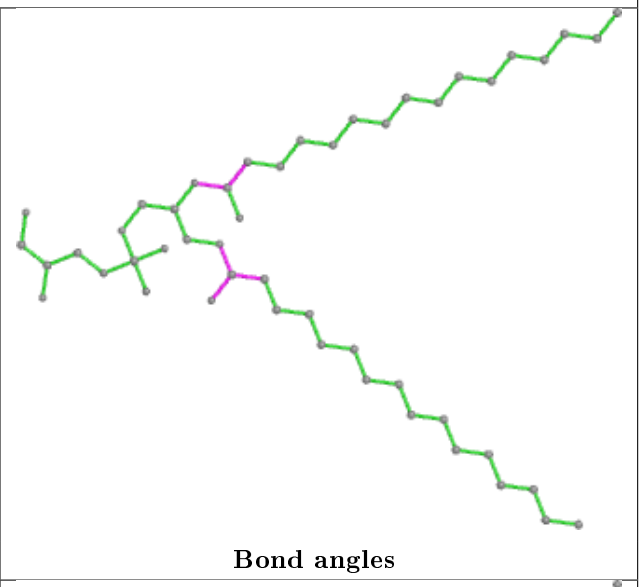


Rings

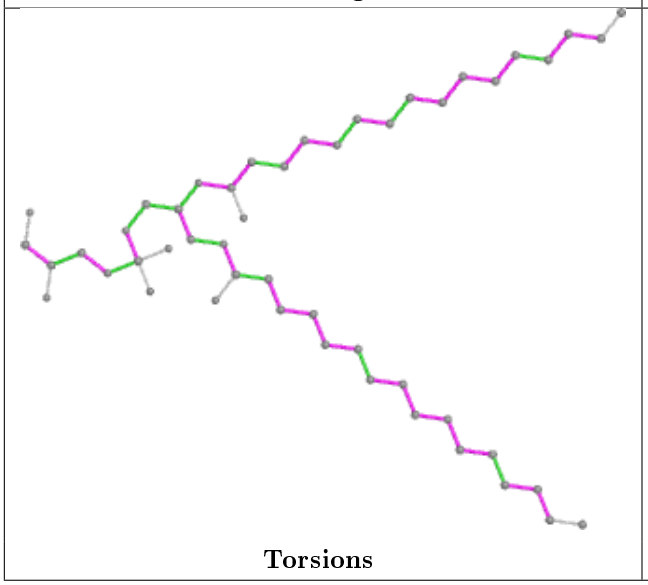
Ligand LHG E 101



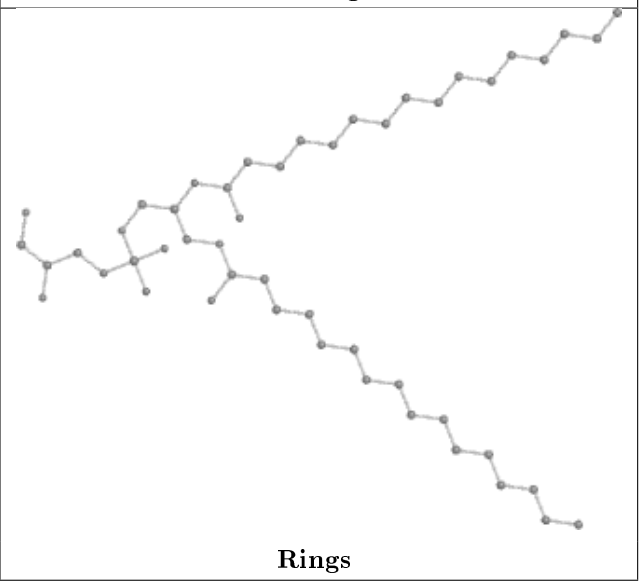
Bond lengths



Bond angles

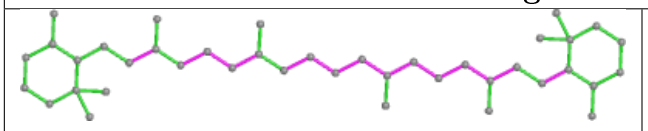


Torsions



Rings

Ligand BCR D 406



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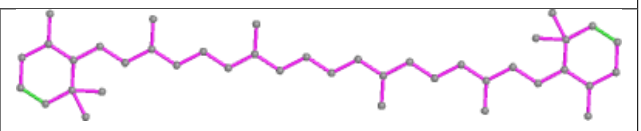
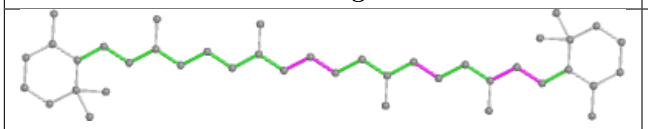


Bond angles



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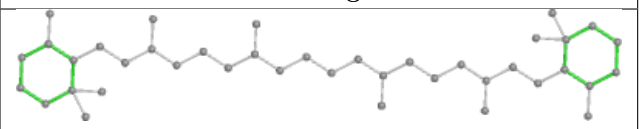
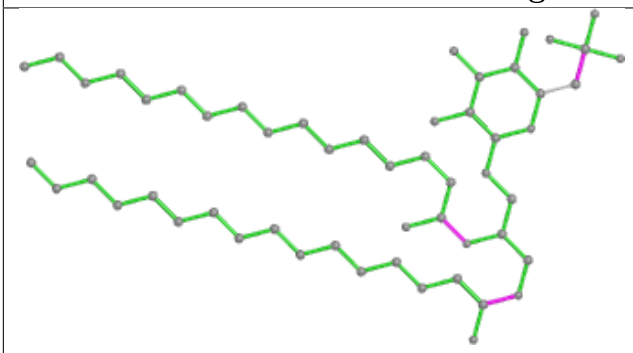
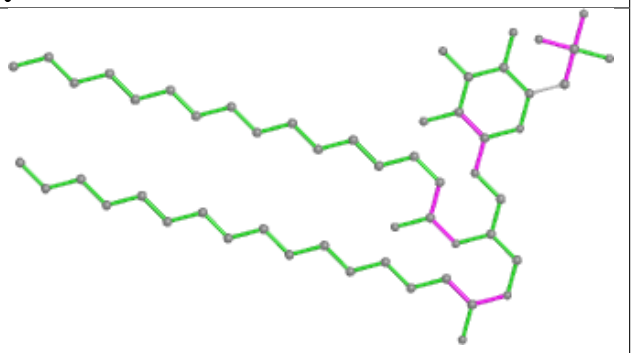


Rings

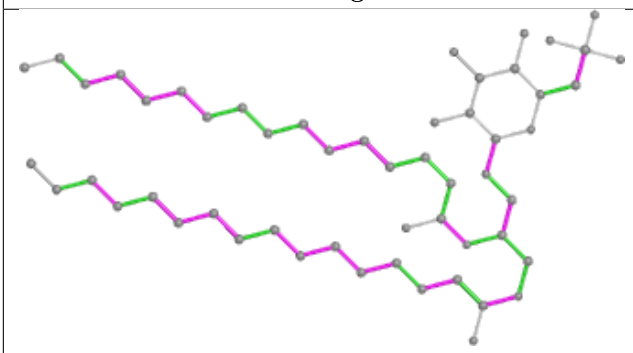
Ligand SQD a 401



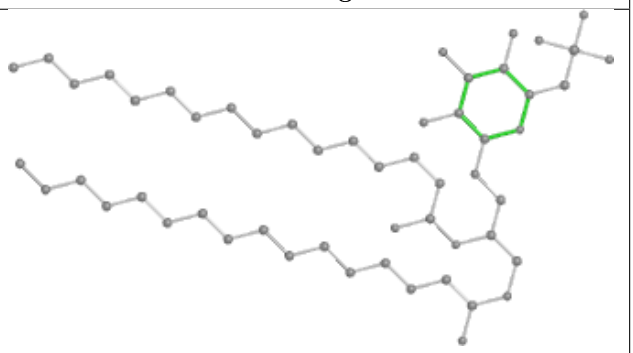
Bond lengths



Bond angles

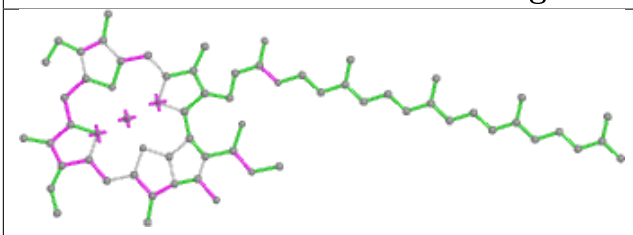


Torsions



Rings

Ligand CLA c 502



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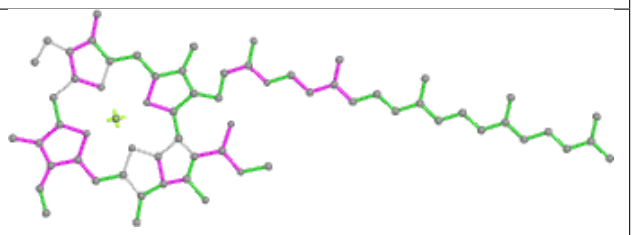
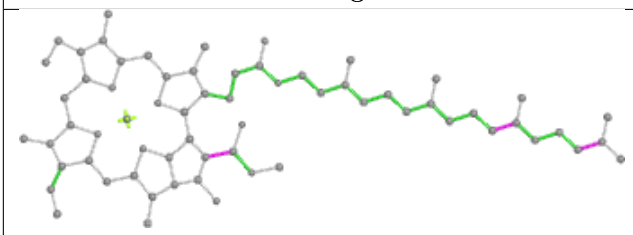
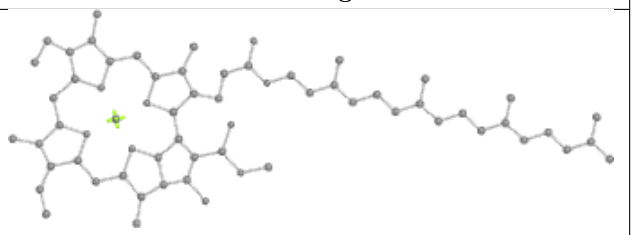


Bond angles

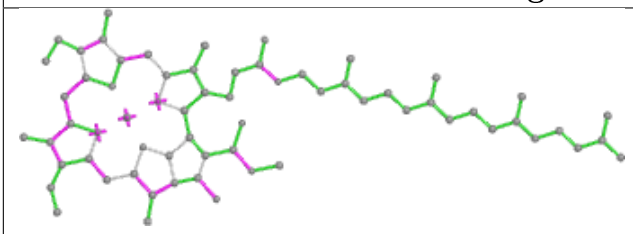


Torsions



Rings

Ligand CLA b 618



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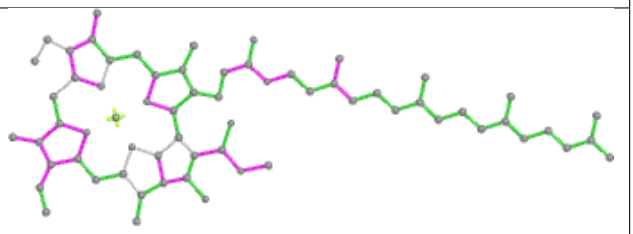
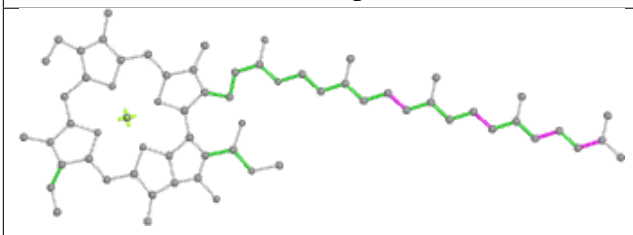
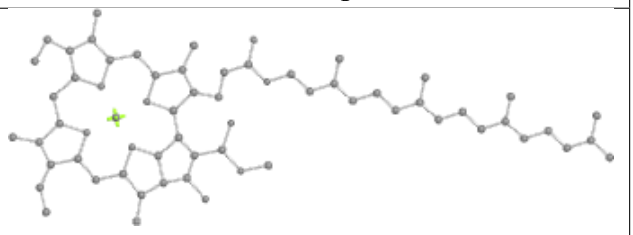


Bond angles

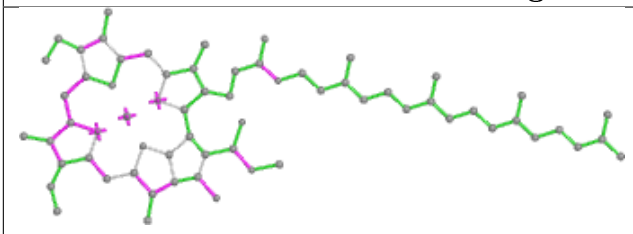


Torsions

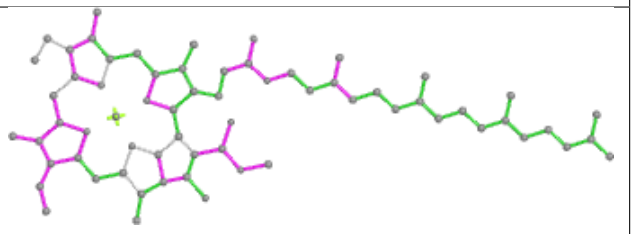


Rings

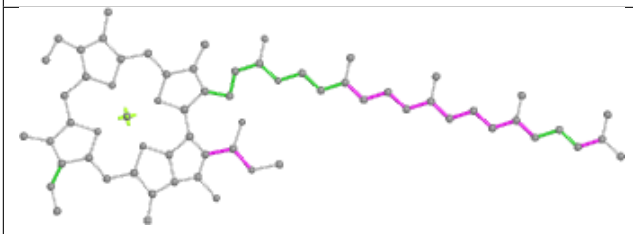
Ligand CLA b 617



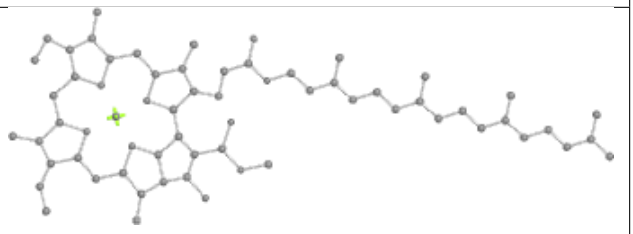
Bond lengths



Bond angles

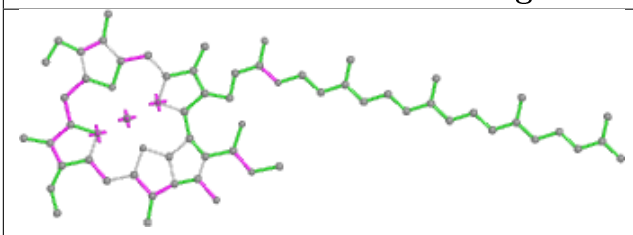


Torsions



Rings

Ligand CLA A 1005



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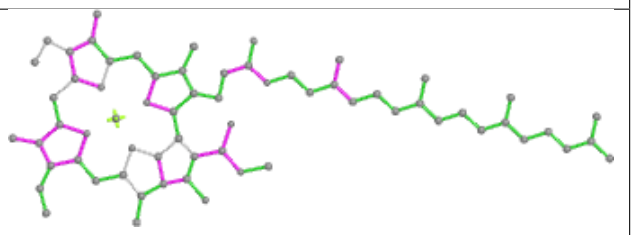
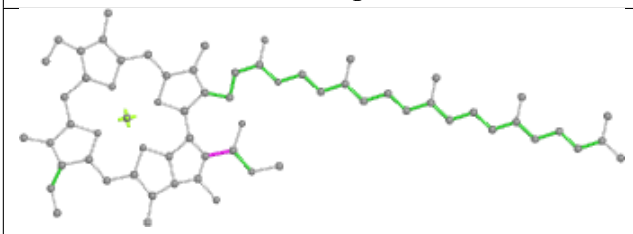
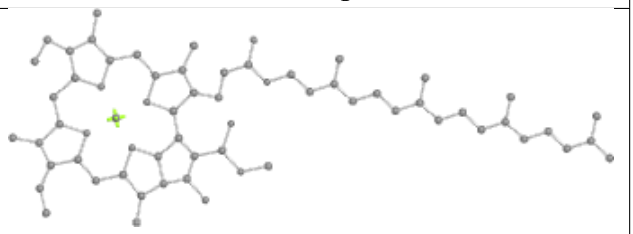


Bond angles

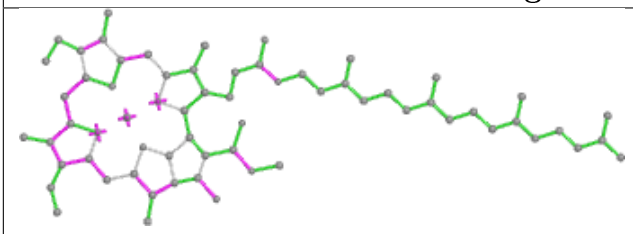


Torsions

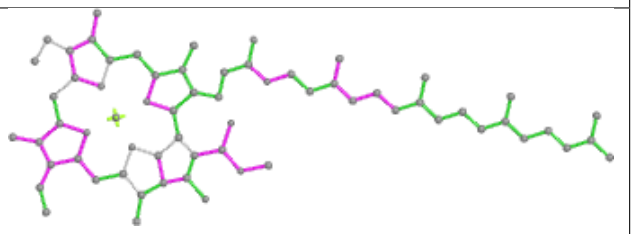


Rings

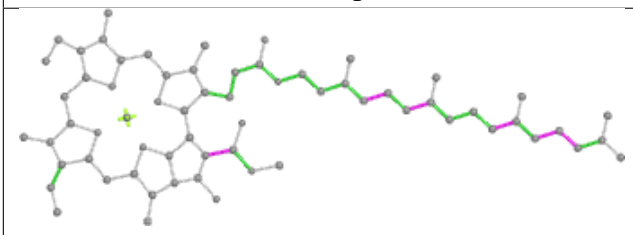
Ligand CLA C 504



Bond lengths



Bond angles



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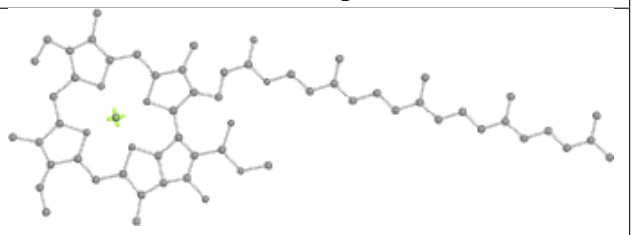
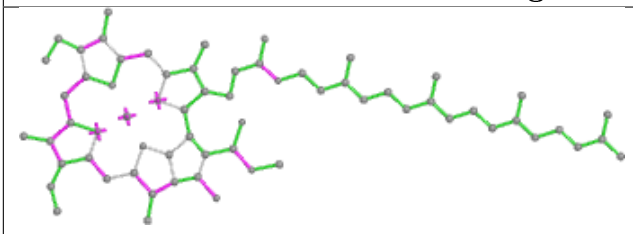
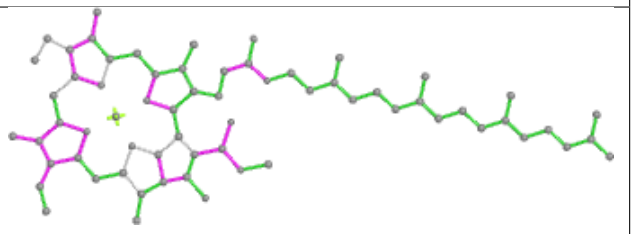


Rings

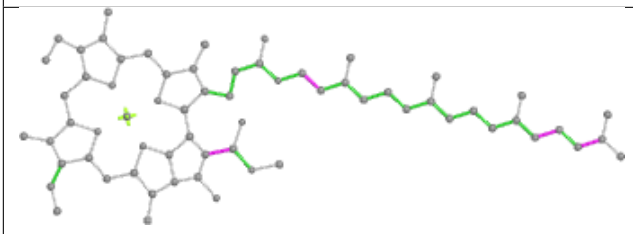
Ligand CLA b 607



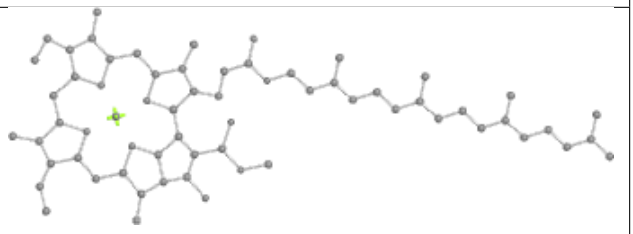
Bond lengths



Bond angles

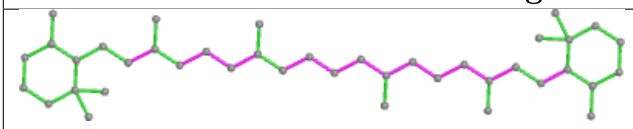


Torsions

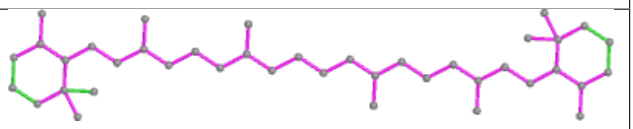


Rings

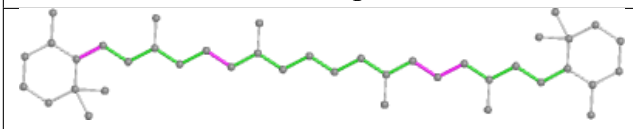
Ligand BCR b 620



Bond lengths



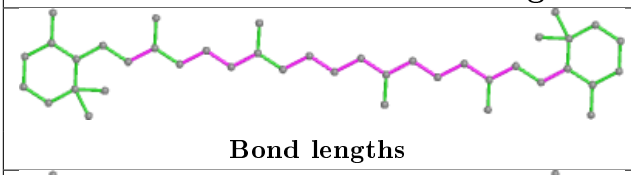
Bond angles



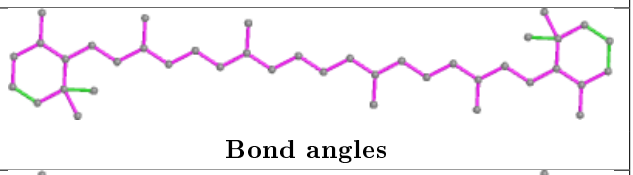
Torsions

Rings

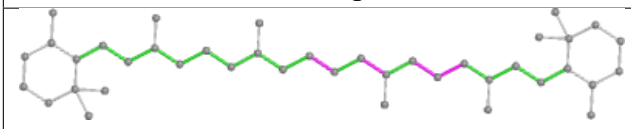
Ligand BCR a 413



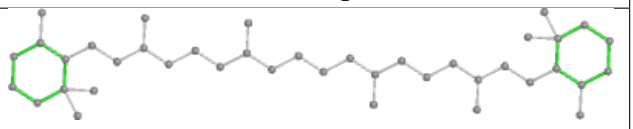
Bond lengths



Bond angles

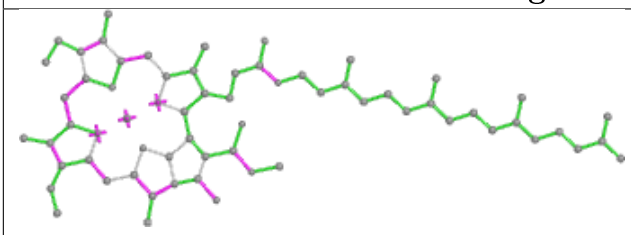


Torsions

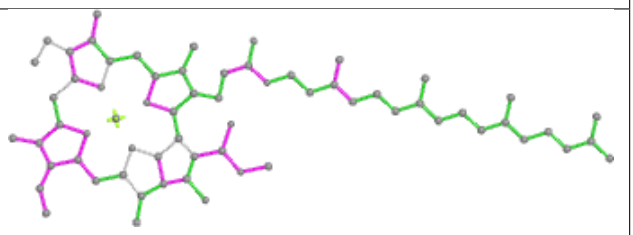


Rings

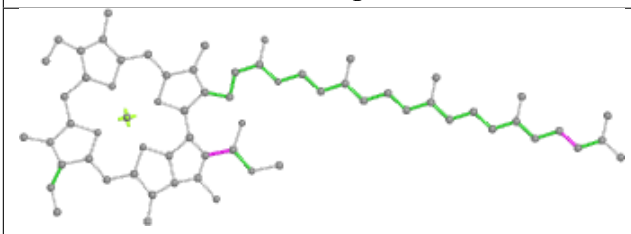
Ligand CLA a 408



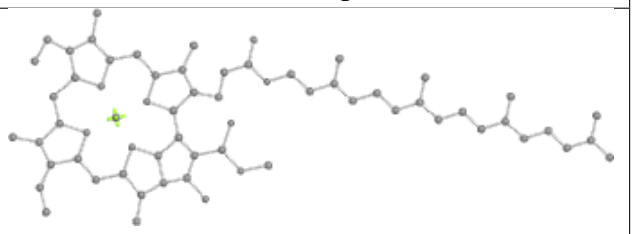
Bond lengths



Bond angles

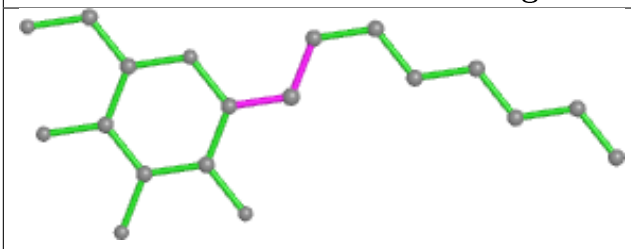


Torsions

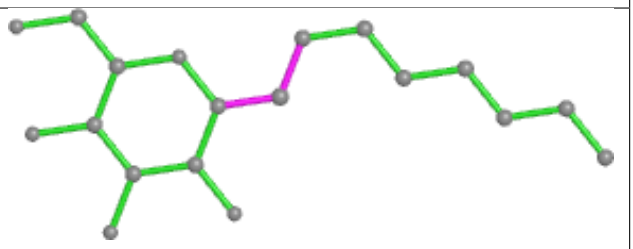


Rings

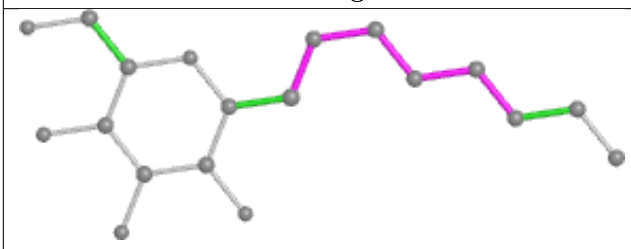
Ligand HTG C 521



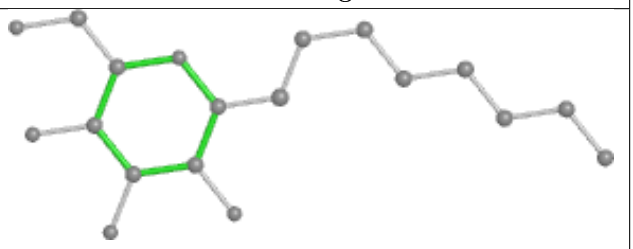
Bond lengths



Bond angles

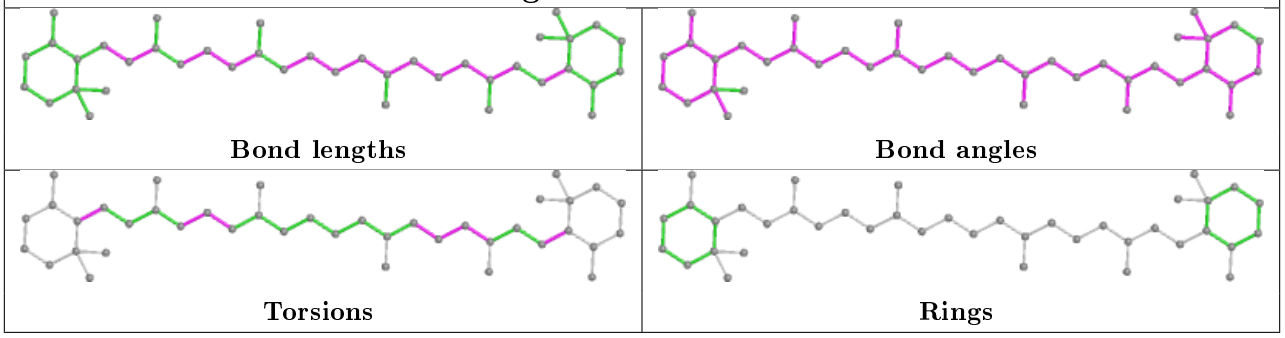


Torsions

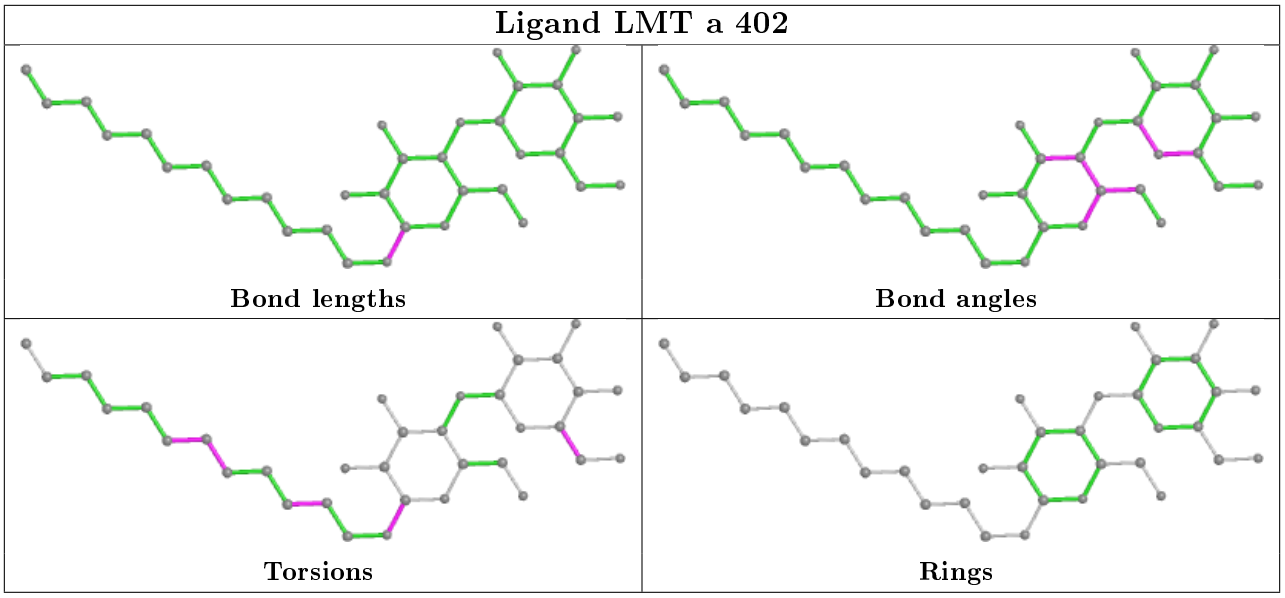


Rings

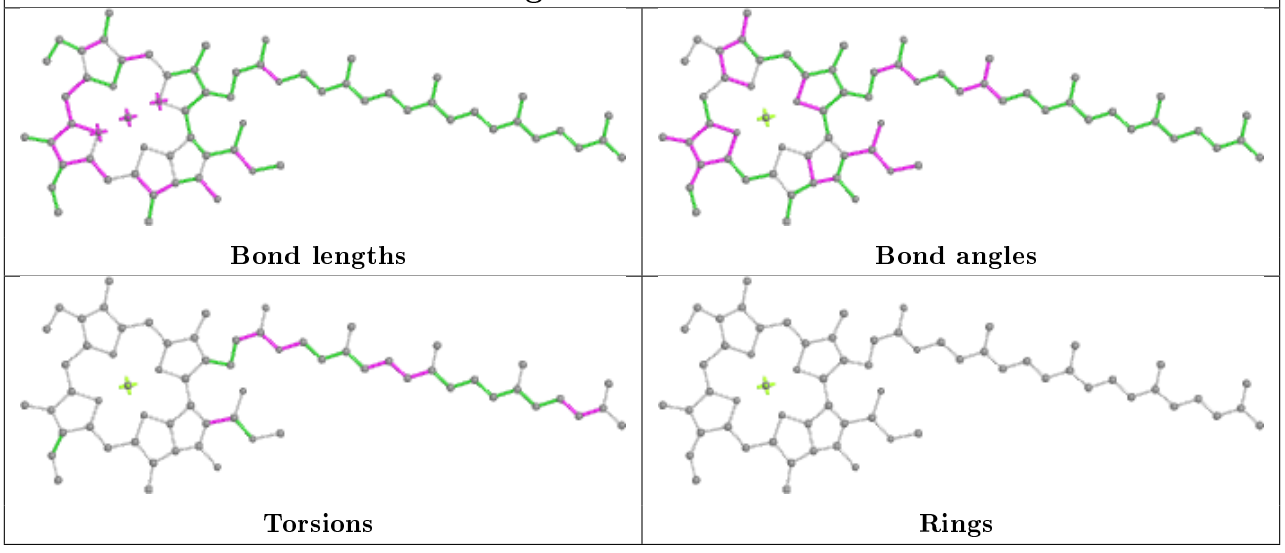
Ligand BCR K 101



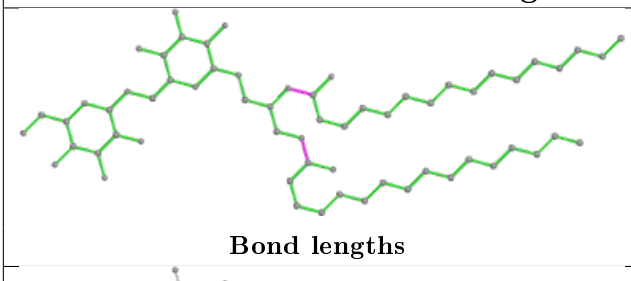
Ligand LMT a 402



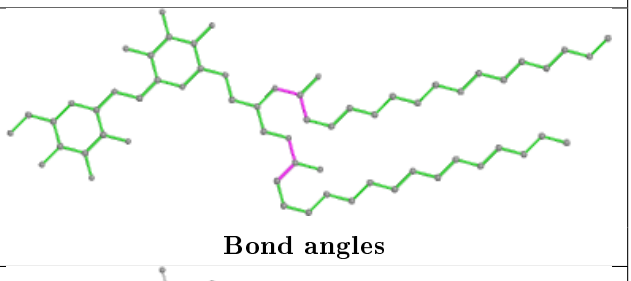
Ligand CLA B 601



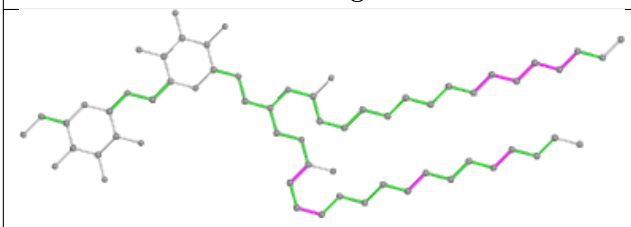
Ligand DGD C 517



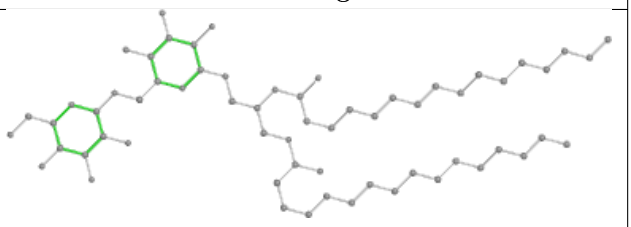
Bond lengths



Bond angles

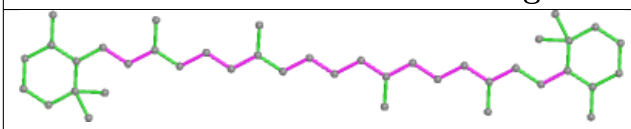


Torsions

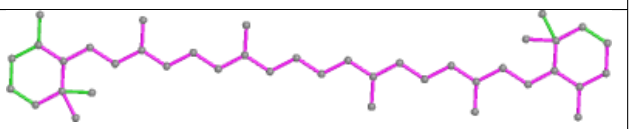


Rings

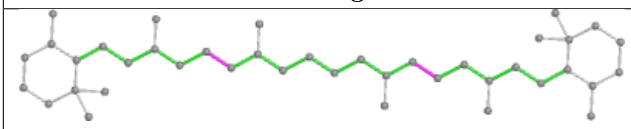
Ligand BCR B 619



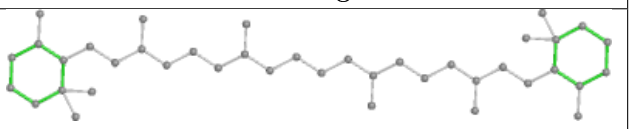
Bond lengths



Bond angles

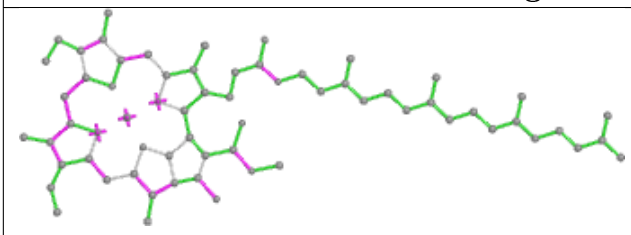


Torsions

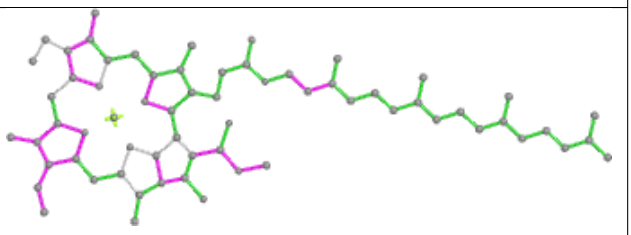


Rings

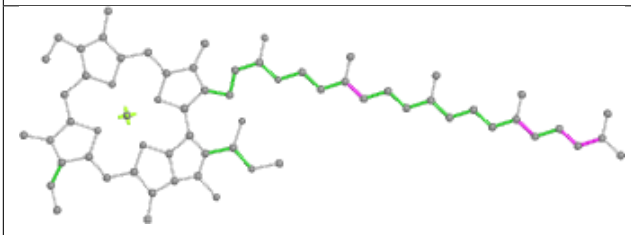
Ligand CLA B 611



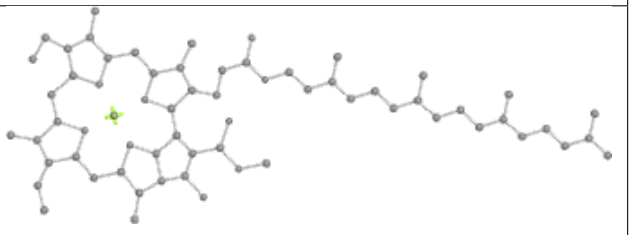
Bond lengths



Bond angles

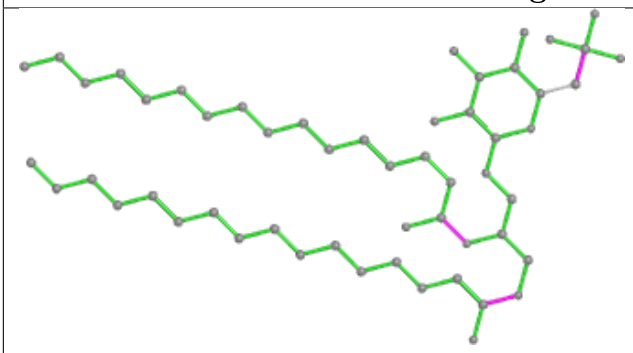


Torsions

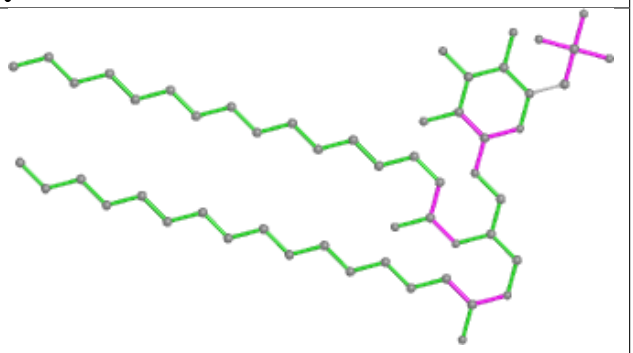


Rings

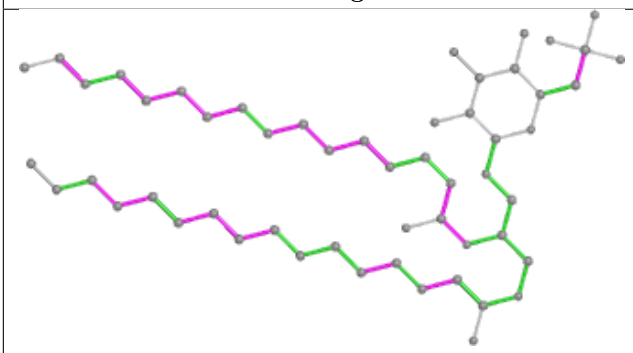
Ligand SQD c 518



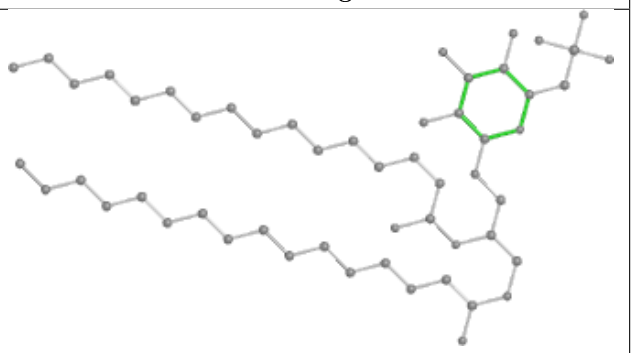
Bond lengths



Bond angles

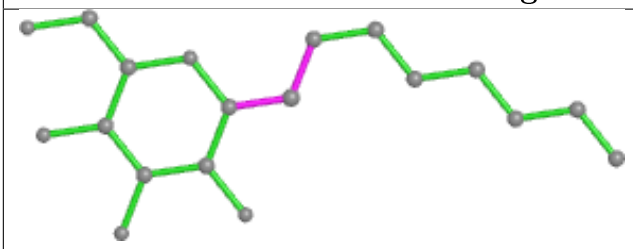


Torsions

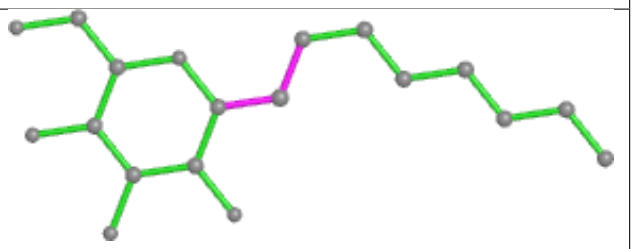


Rings

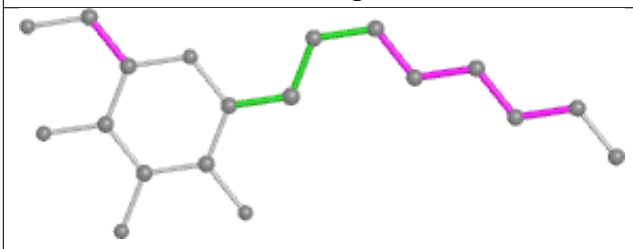
Ligand HTG D 413



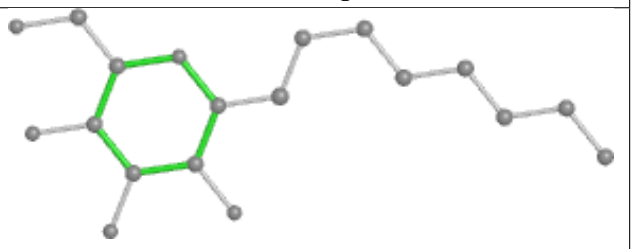
Bond lengths



Bond angles

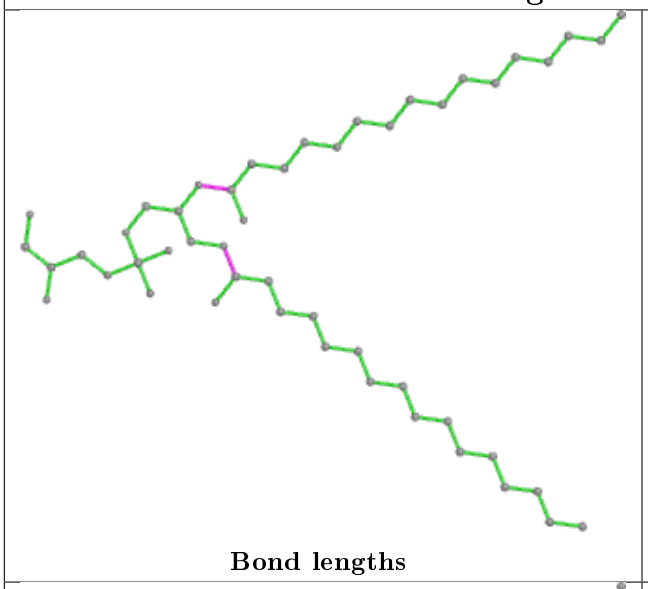


Torsions

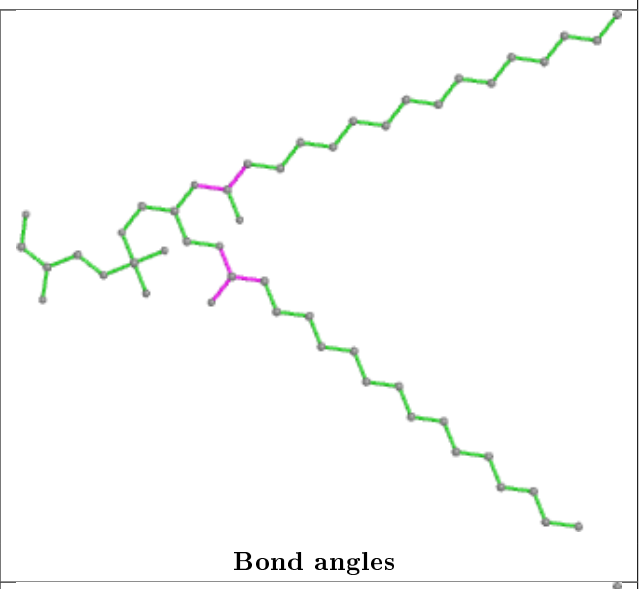


Rings

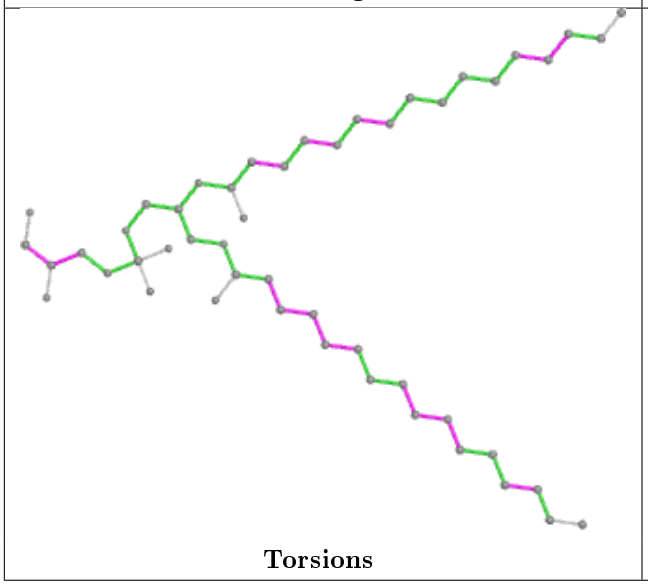
Ligand LHG d 406



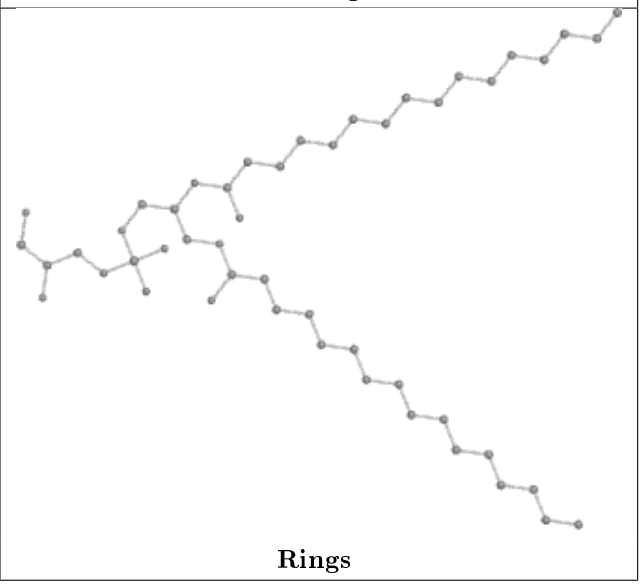
Bond lengths



Bond angles

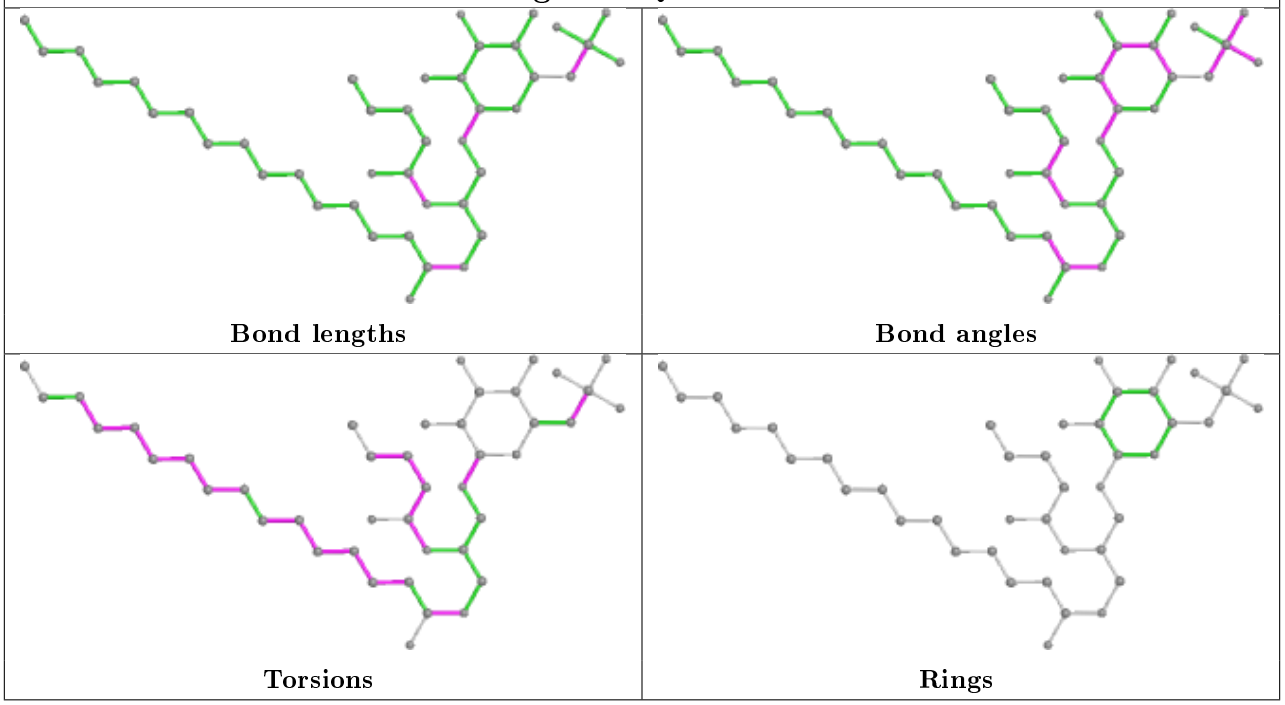


Torsions

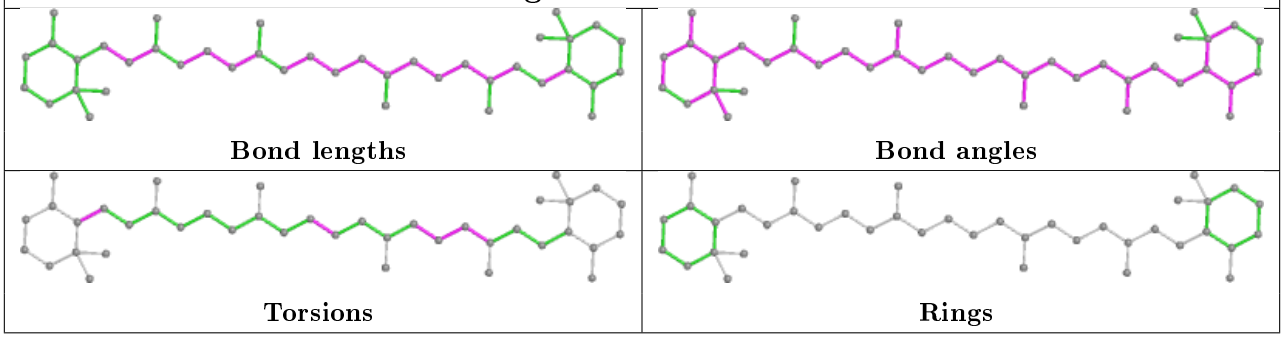


Rings

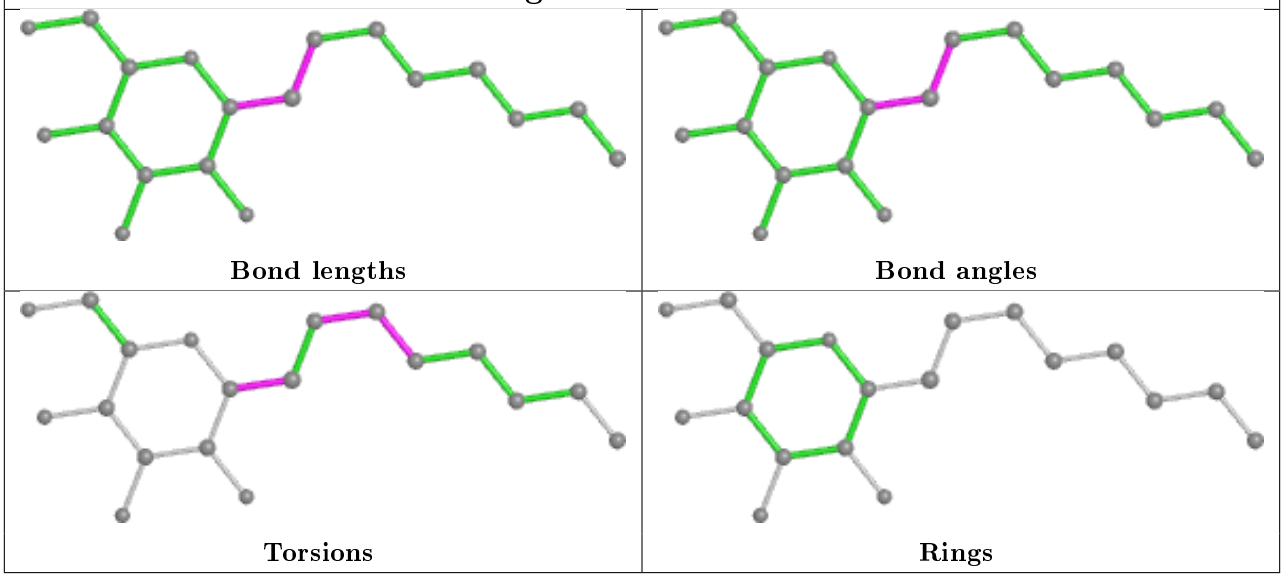
Ligand SQD f 102



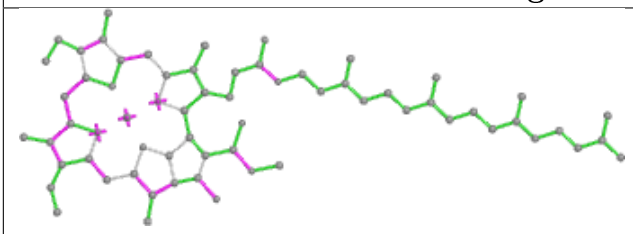
Ligand BCR T 101



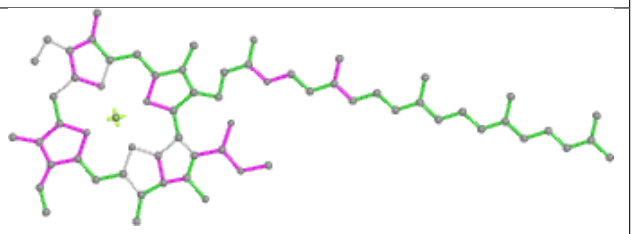
Ligand HTG d 416



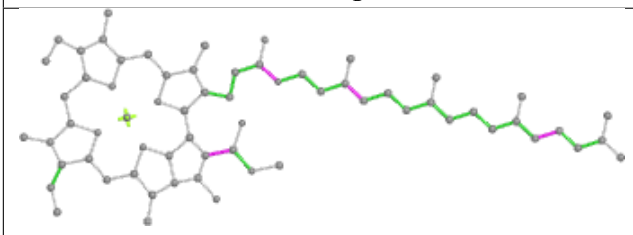
Ligand CLA b 608



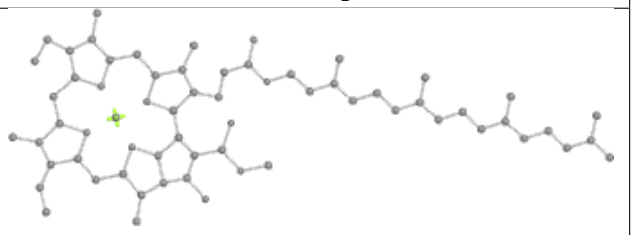
Bond lengths



Bond angles

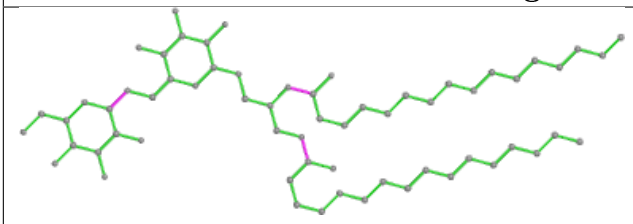


Torsions

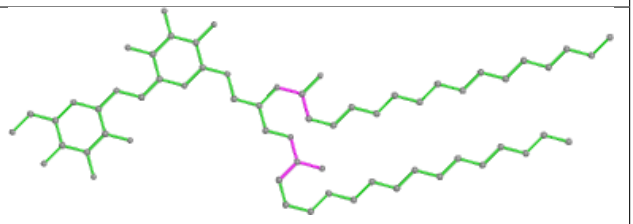


Rings

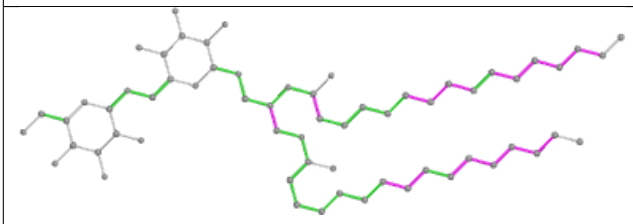
Ligand DGD h 102



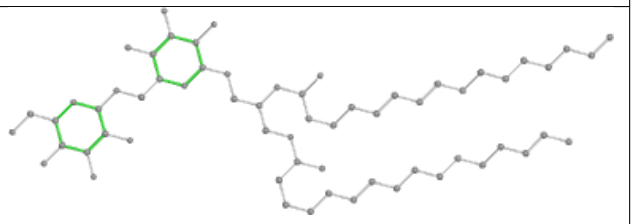
Bond lengths



Bond angles

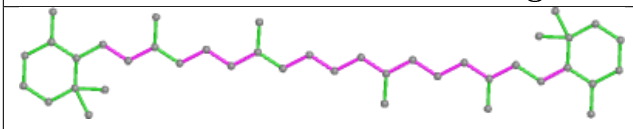


Torsions

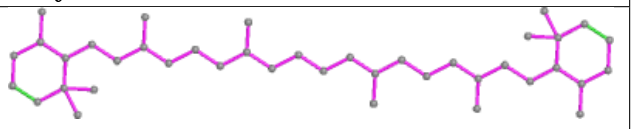


Rings

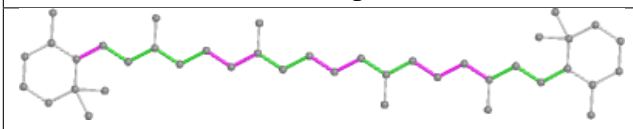
Ligand BCR y 101



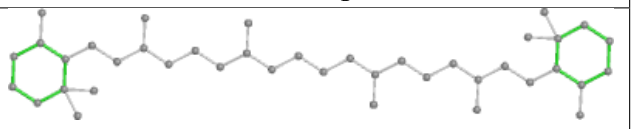
Bond lengths



Bond angles

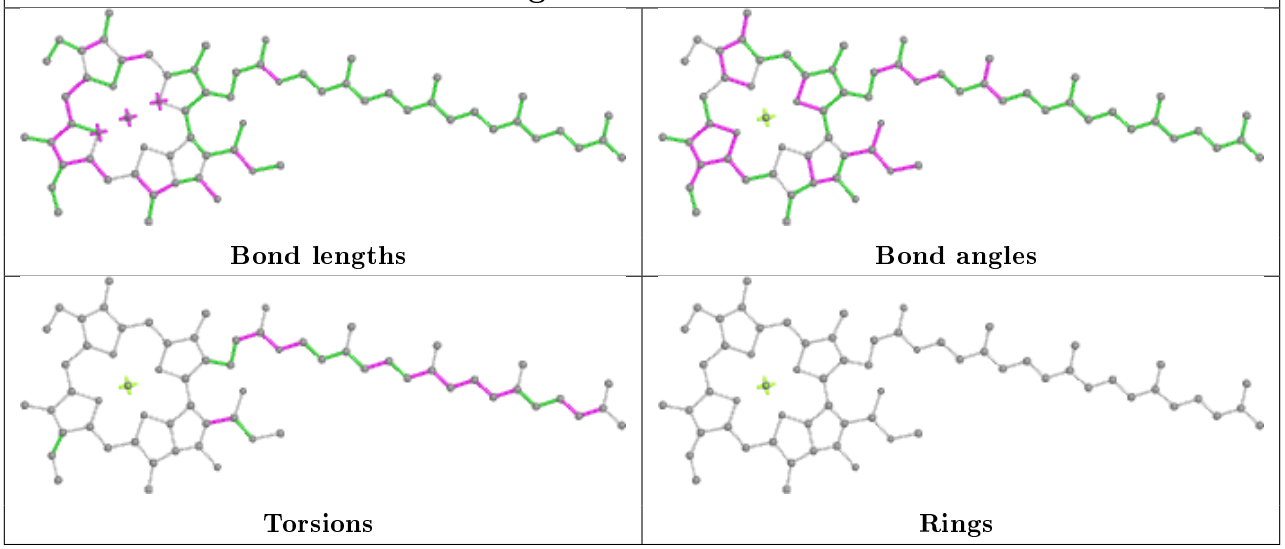


Torsions

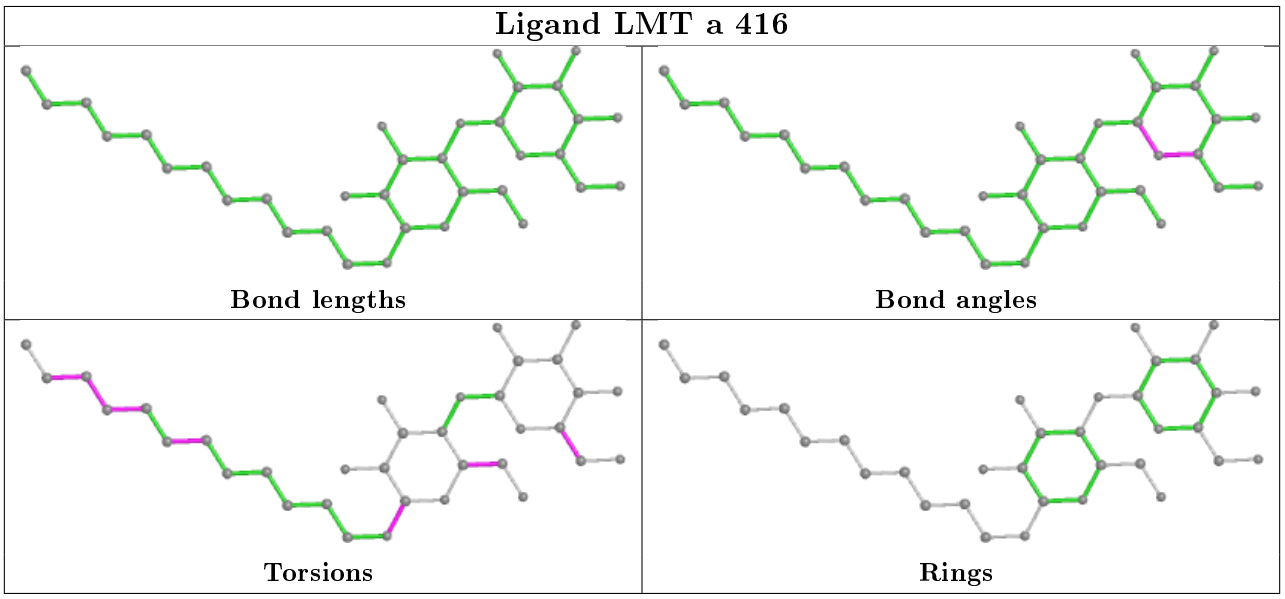


Rings

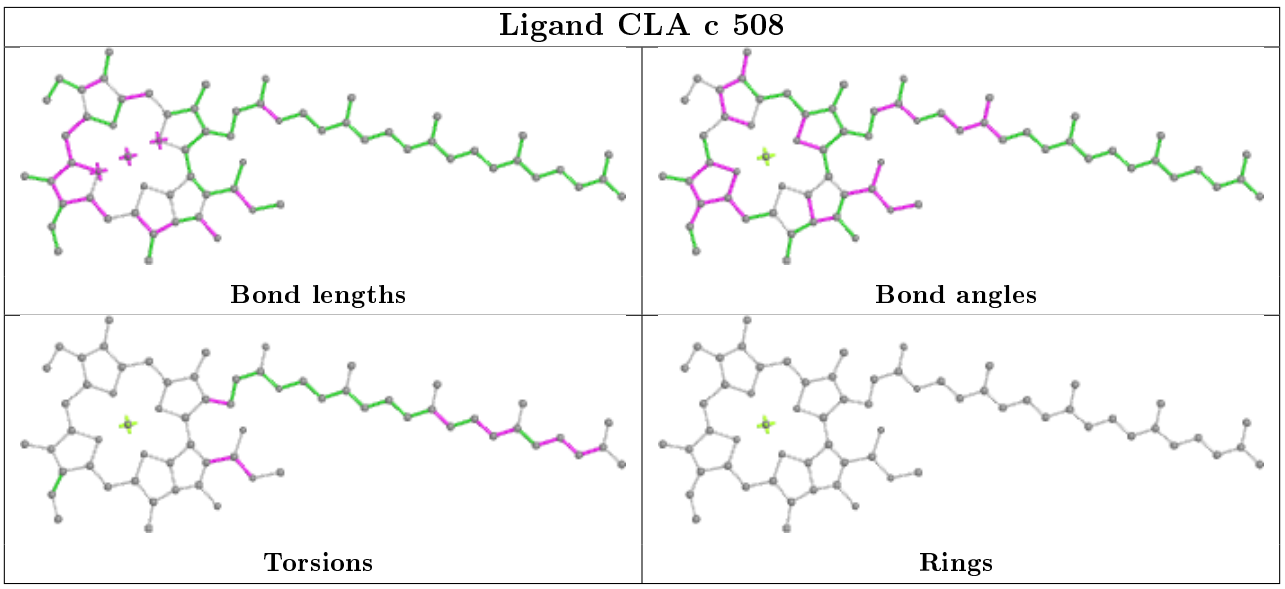
Ligand CLA b 604



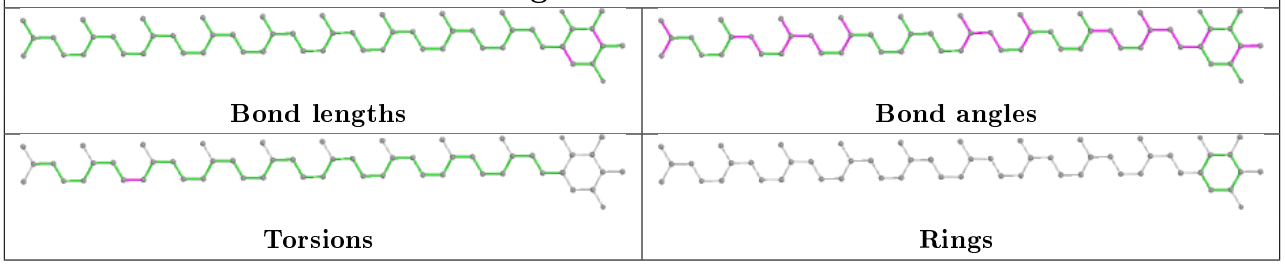
Ligand LMT a 416



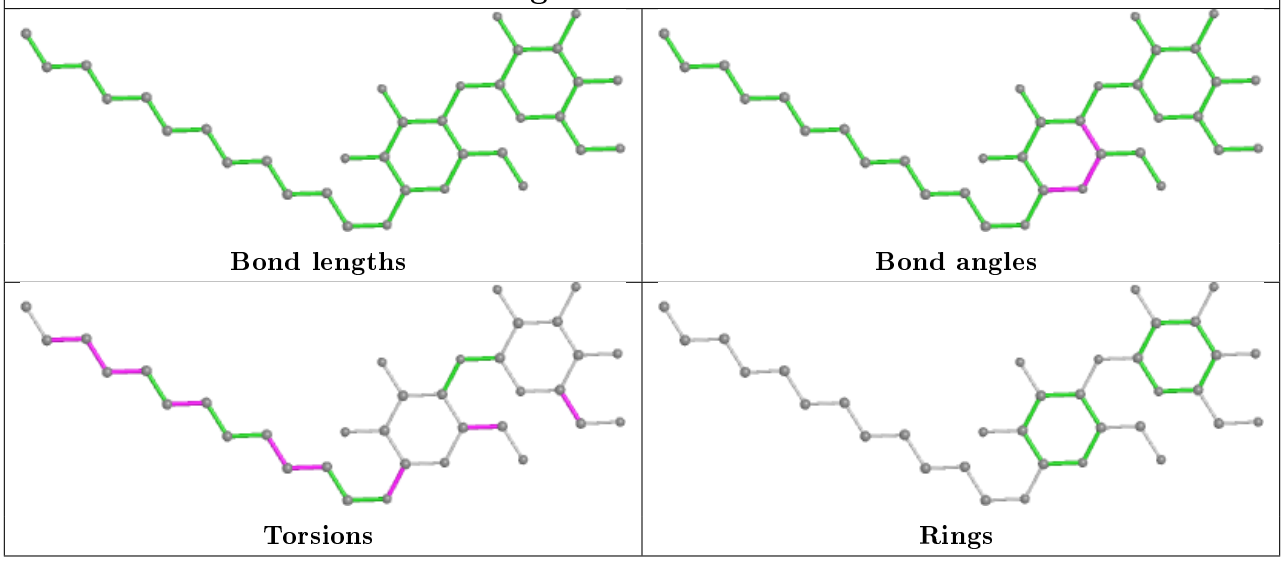
Ligand CLA c 508



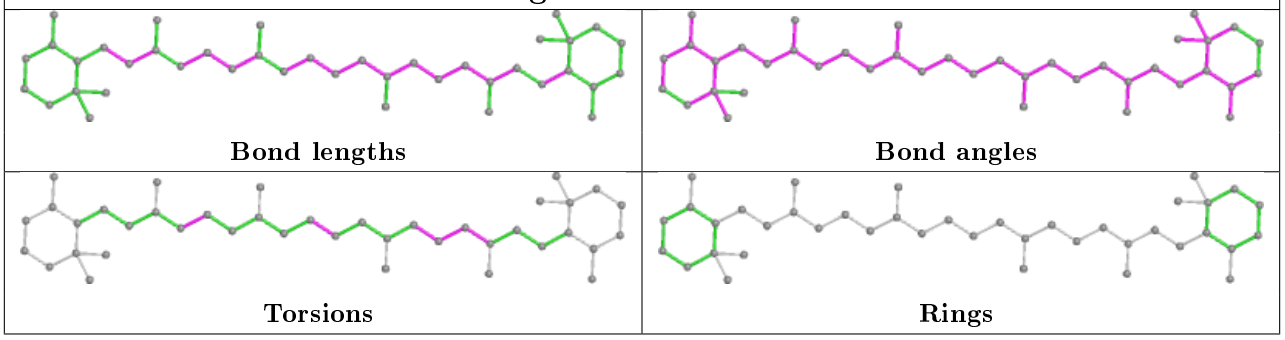
Ligand PL9 D 407



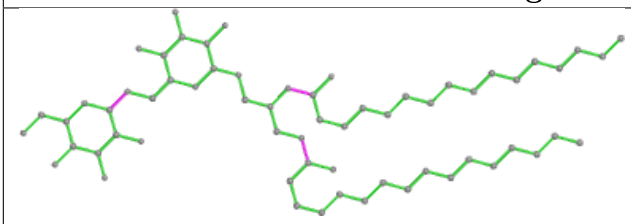
Ligand LMT i 102



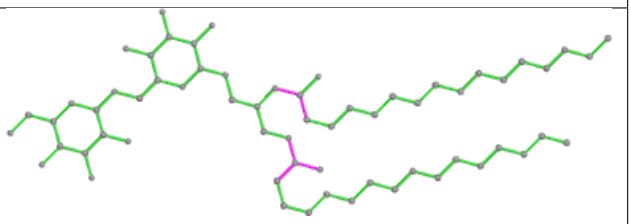
Ligand BCR t 101



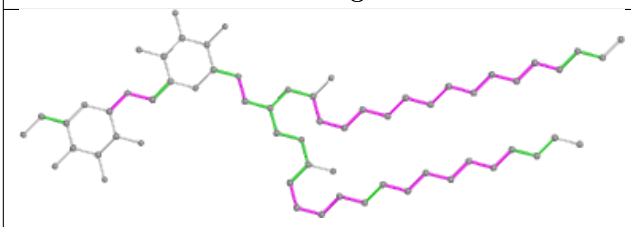
Ligand DGD c 516



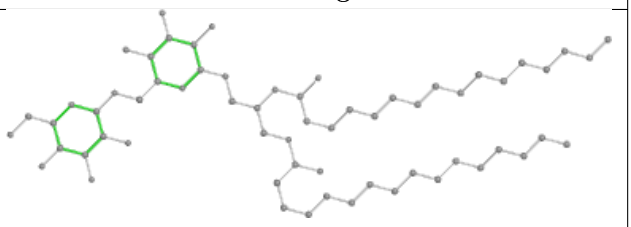
Bond lengths



Bond angles

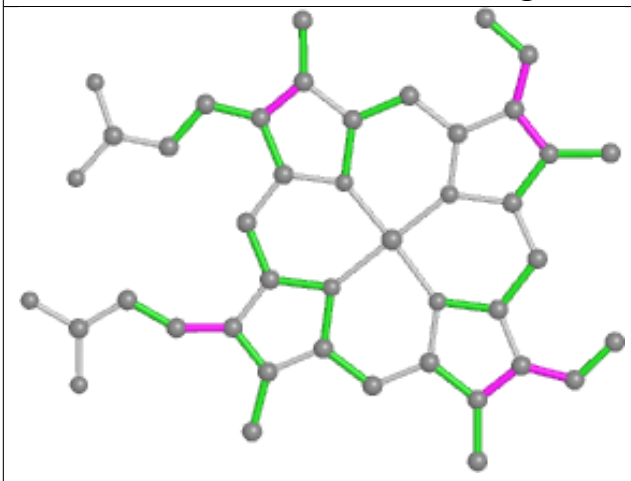


Torsions

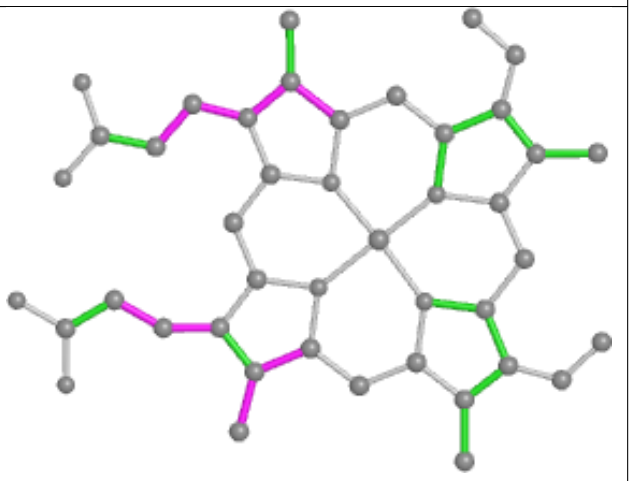


Rings

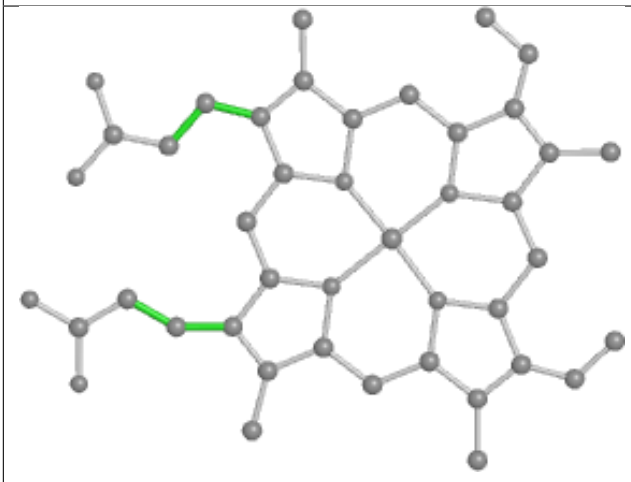
Ligand HEM V 201



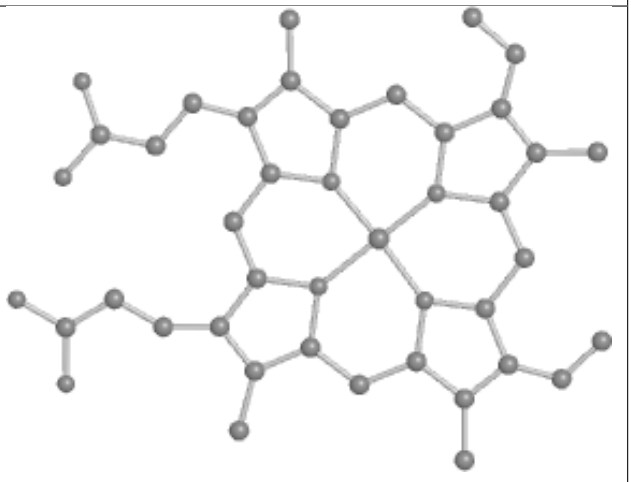
Bond lengths



Bond angles

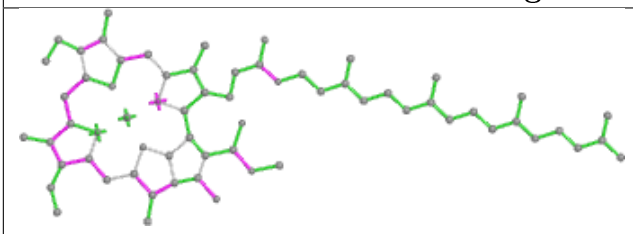


Torsions

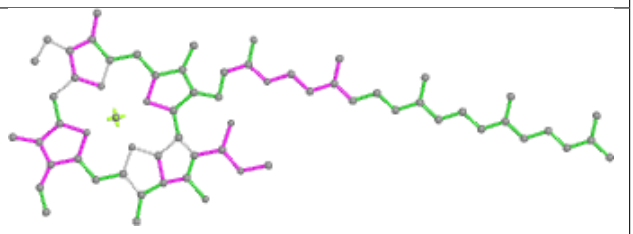


Rings

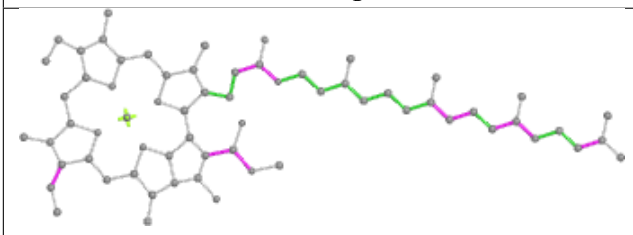
Ligand CLA C 512



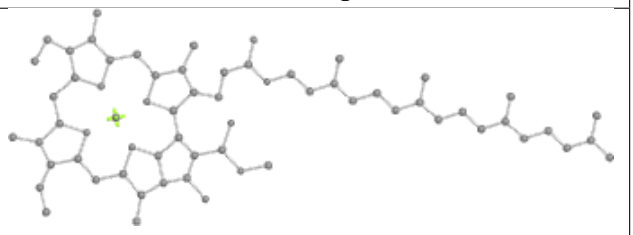
Bond lengths



Bond angles

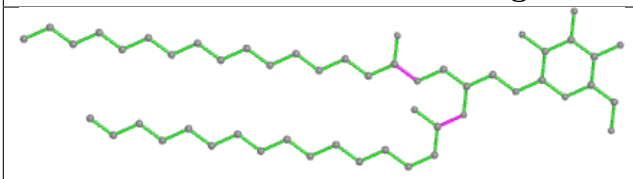


Torsions

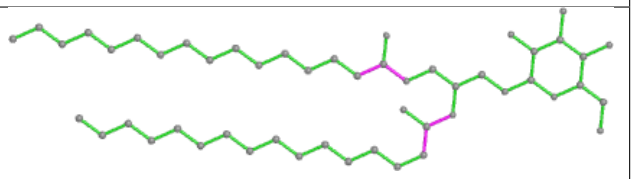


Rings

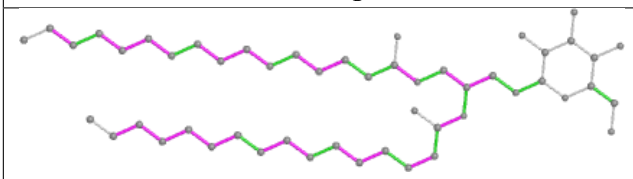
Ligand LMG A 1012



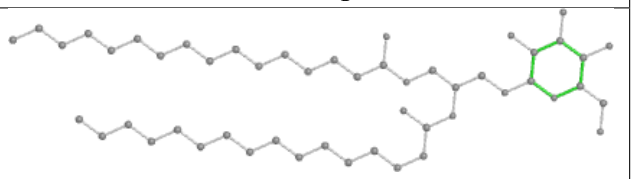
Bond lengths



Bond angles

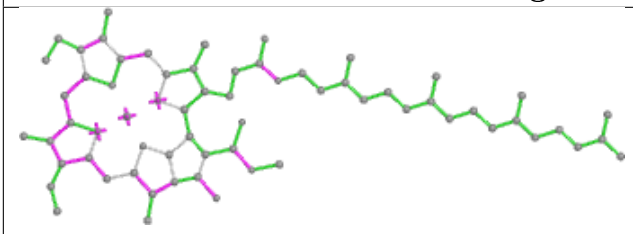


Torsions

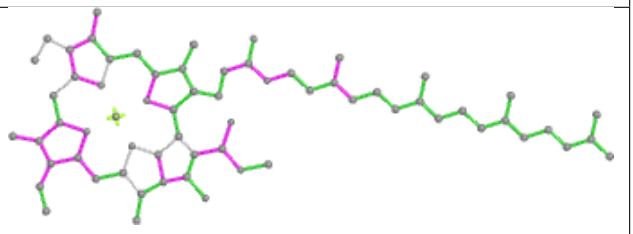


Rings

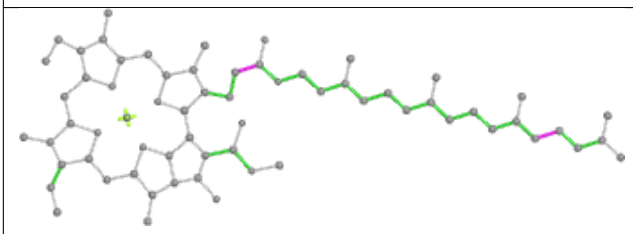
Ligand CLA c 501



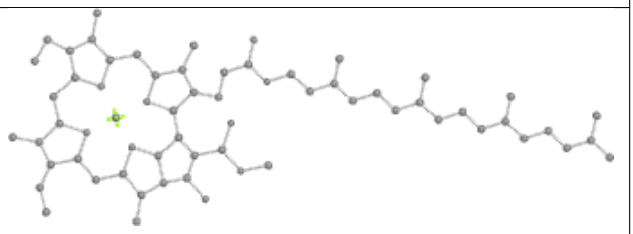
Bond lengths



Bond angles

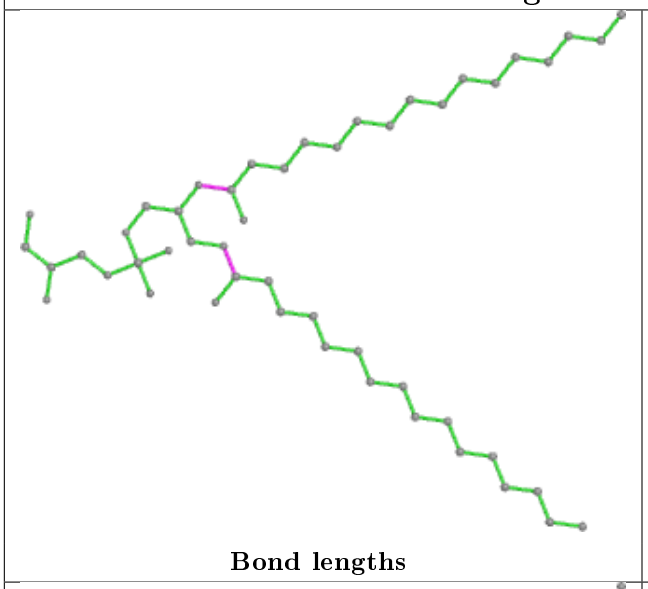


Torsions

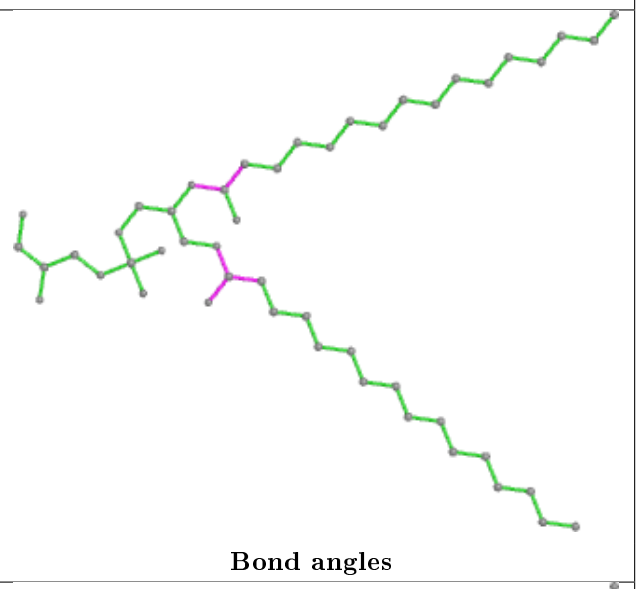


Rings

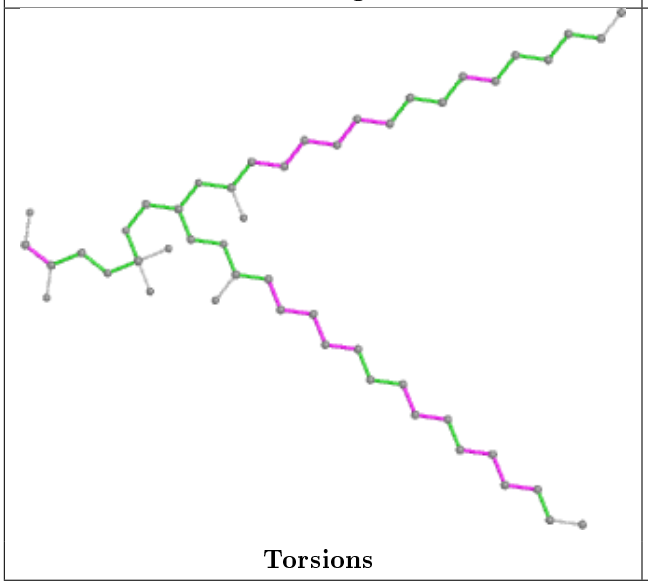
Ligand LHG D 409



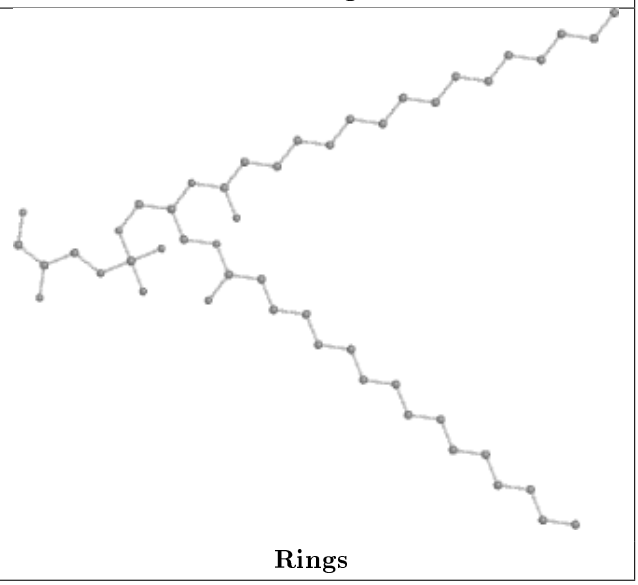
Bond lengths



Bond angles

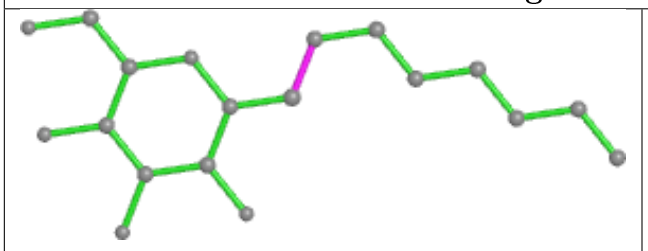


Torsions

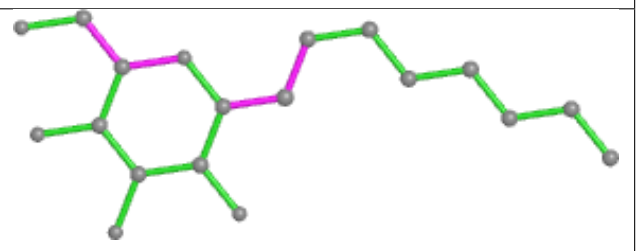


Rings

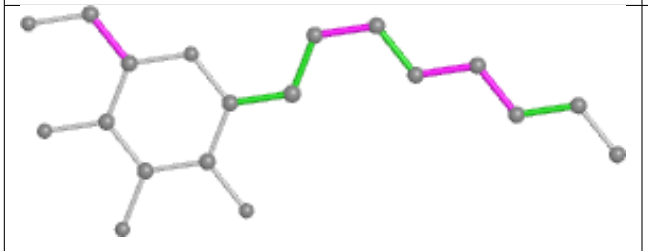
Ligand HTG b 626



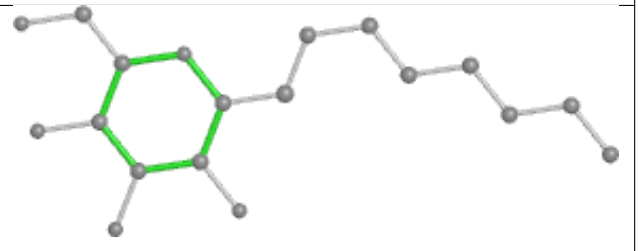
Bond lengths



Bond angles

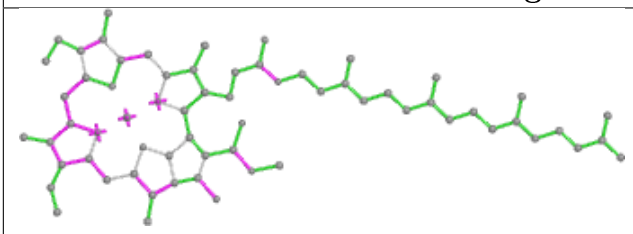


Torsions

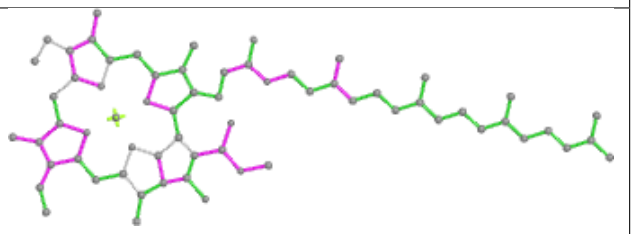


Rings

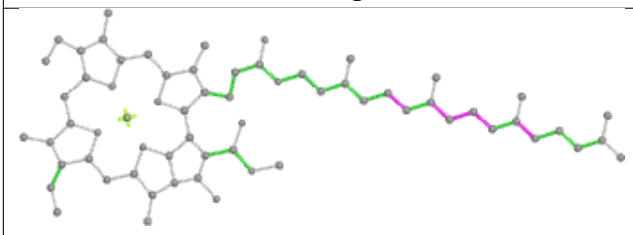
Ligand CLA B 615



Bond lengths



Bond angles



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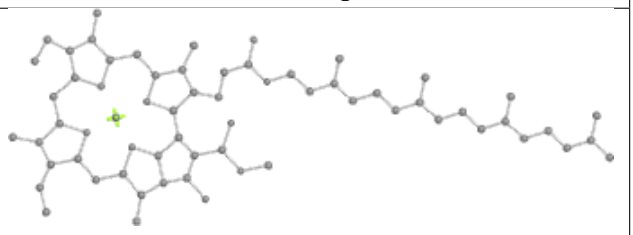
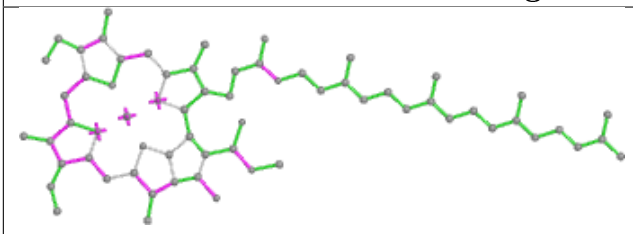
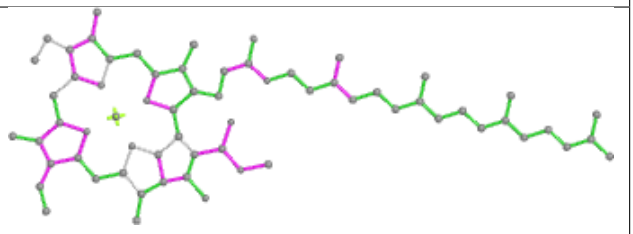


Rings

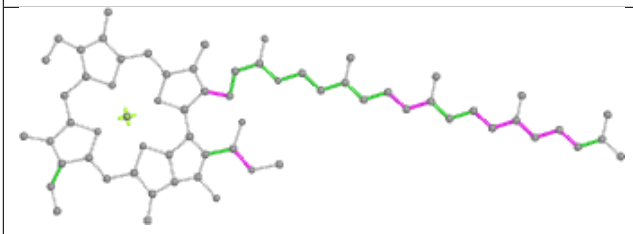
Ligand CLA C 506



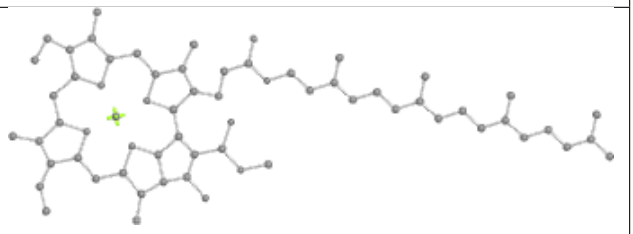
Bond lengths



Bond angles

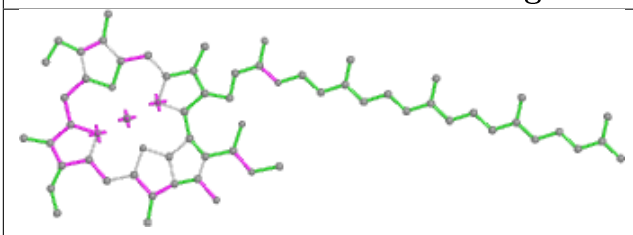


Torsions

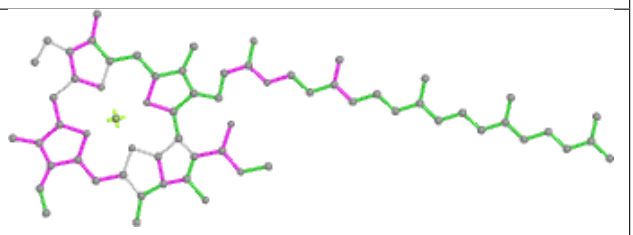


Rings

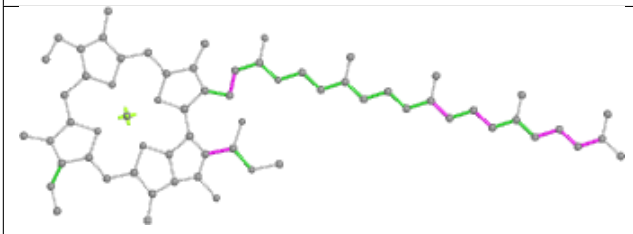
Ligand CLA B 606



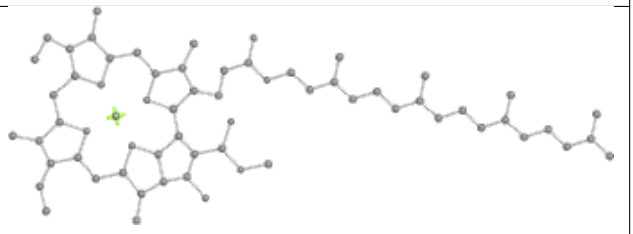
Bond lengths



Bond angles

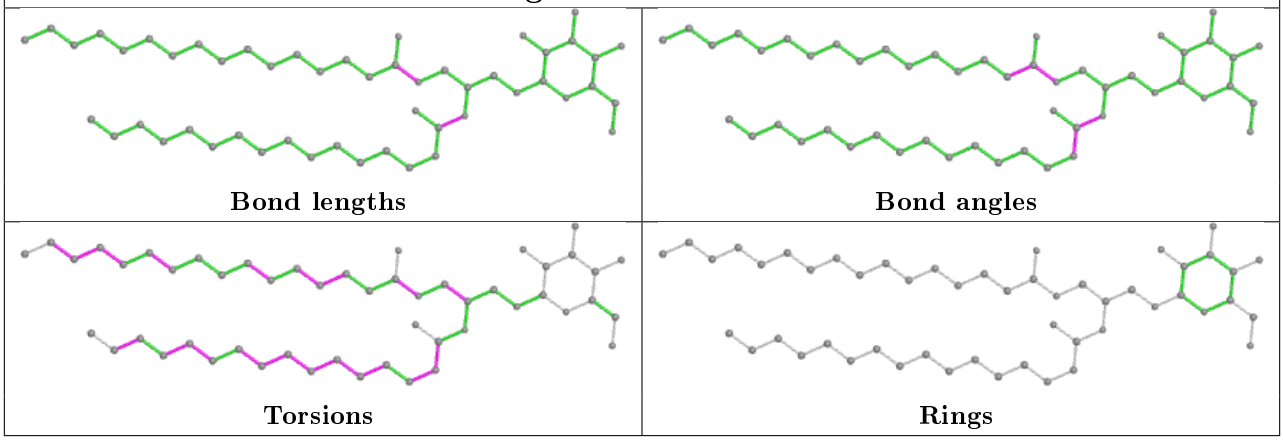


Torsions

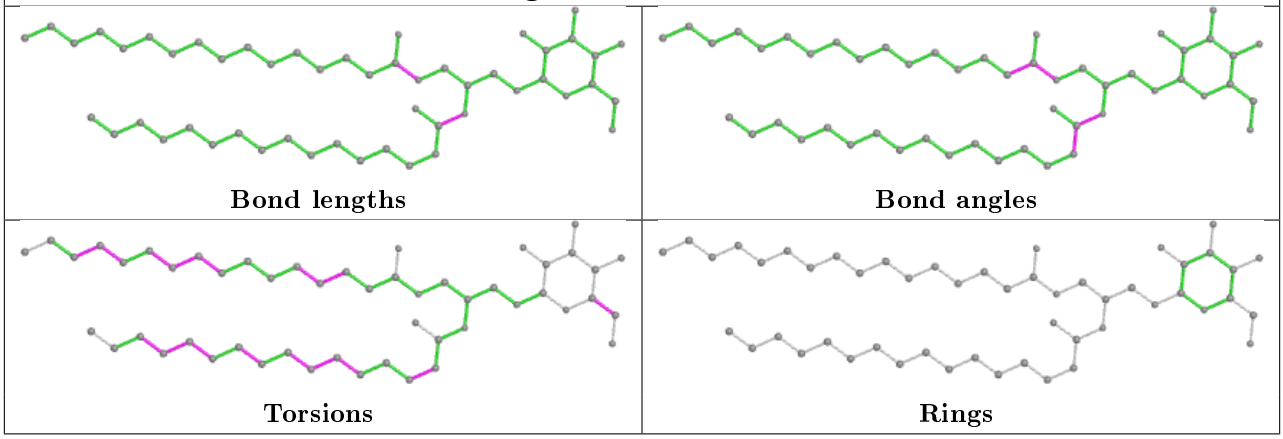


Rings

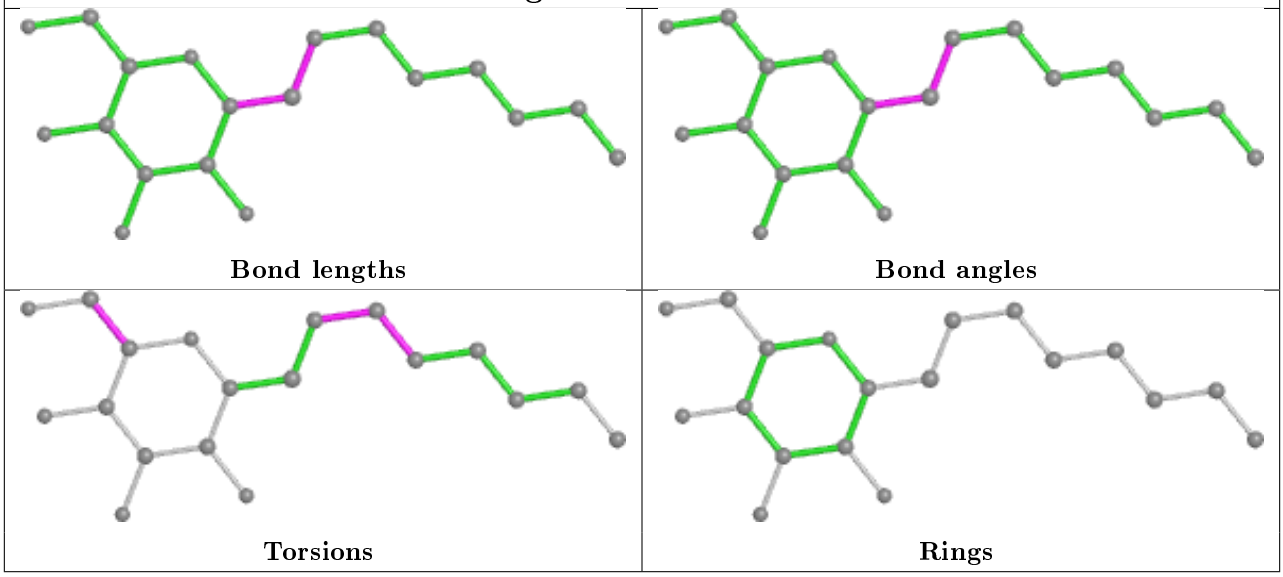
Ligand LMG a 415



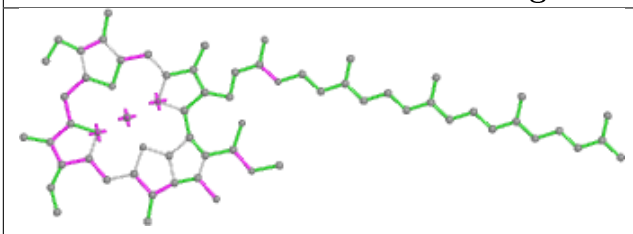
Ligand LMG d 409



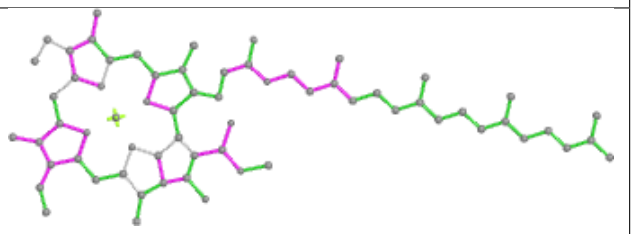
Ligand HTG b 601



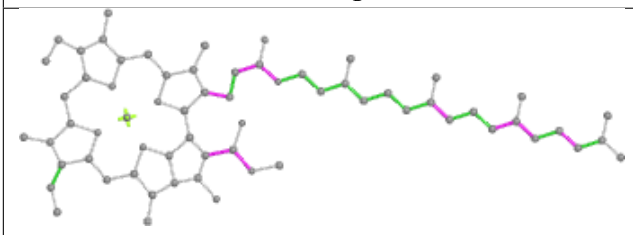
Ligand CLA c 512



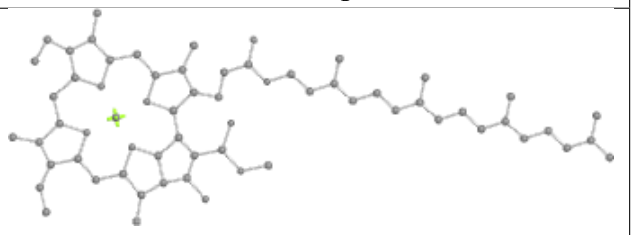
Bond lengths



Bond angles

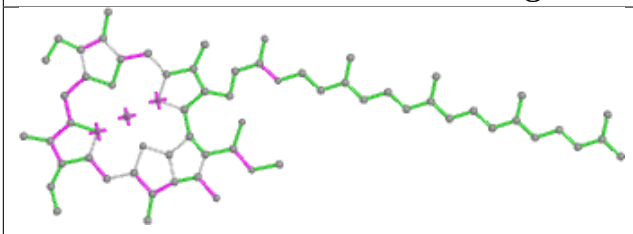


Torsions

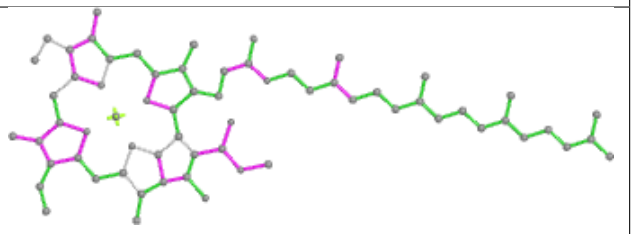


Rings

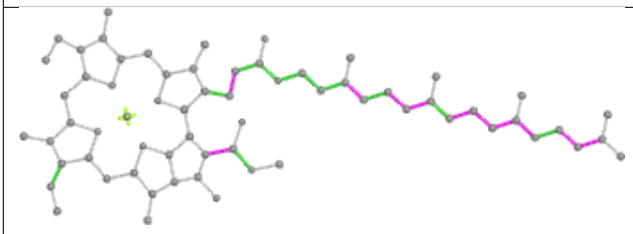
Ligand CLA C 507



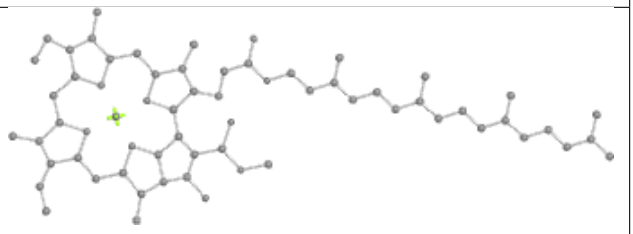
Bond lengths



Bond angles

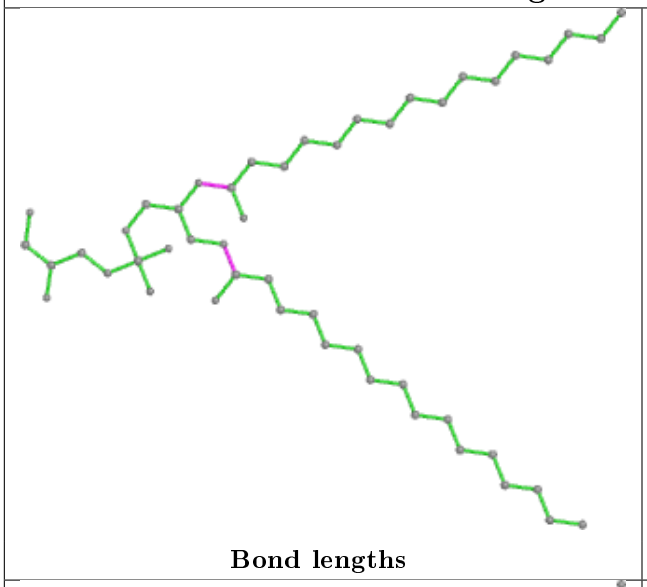


Torsions

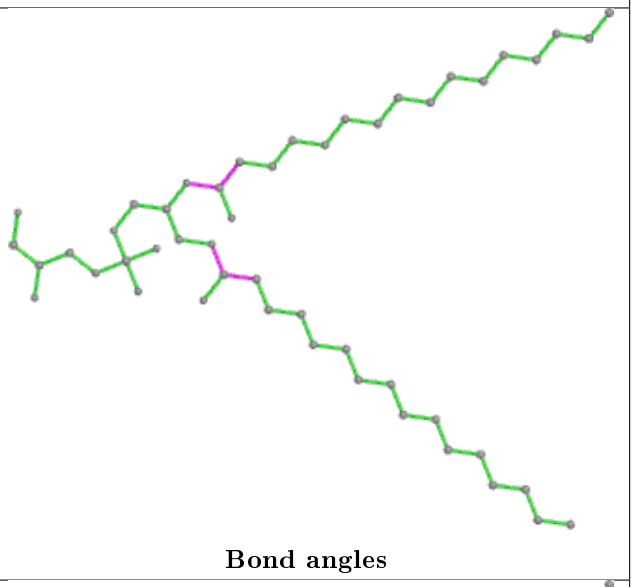


Rings

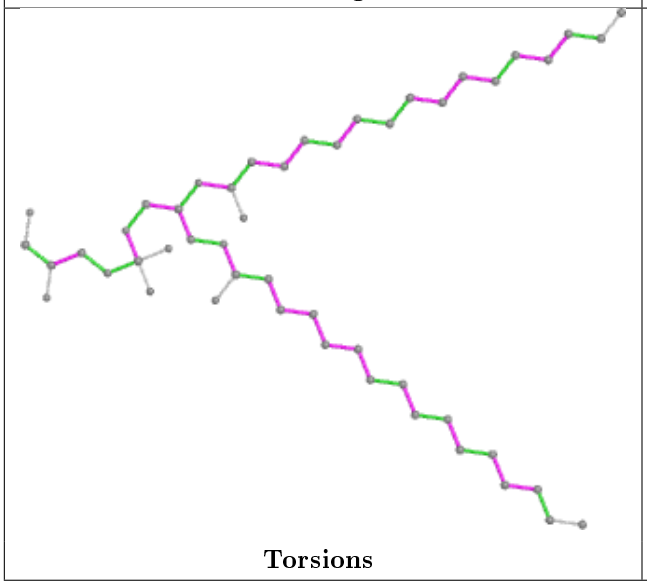
Ligand LHG e 101



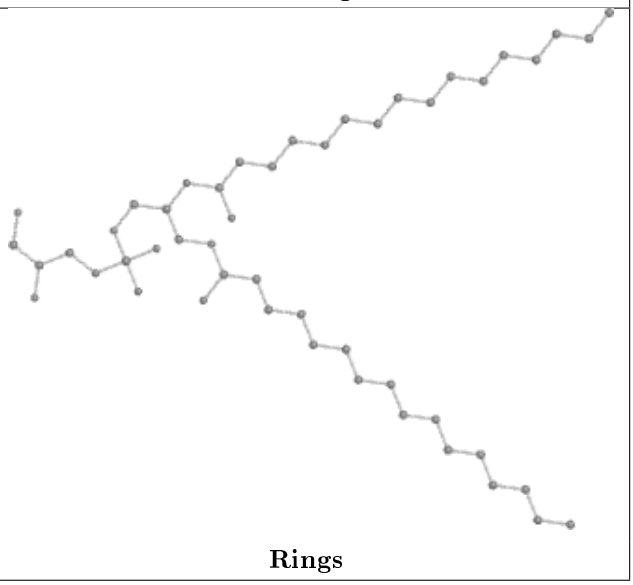
Bond lengths



Bond angles

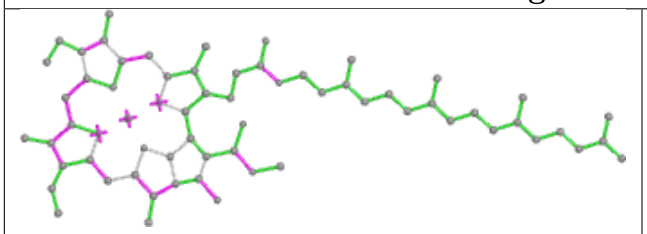


Torsions

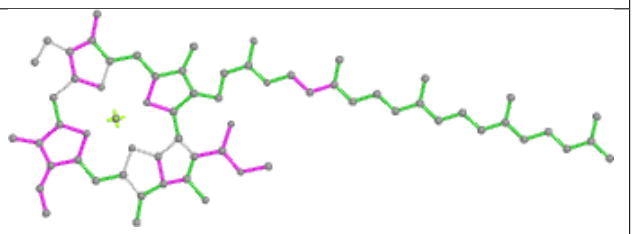


Rings

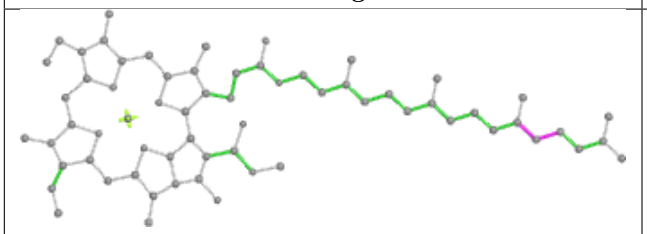
Ligand CLA b 614



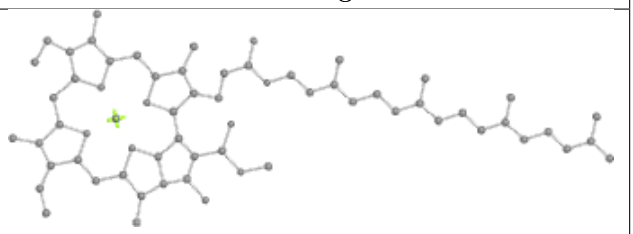
Bond lengths



Bond angles

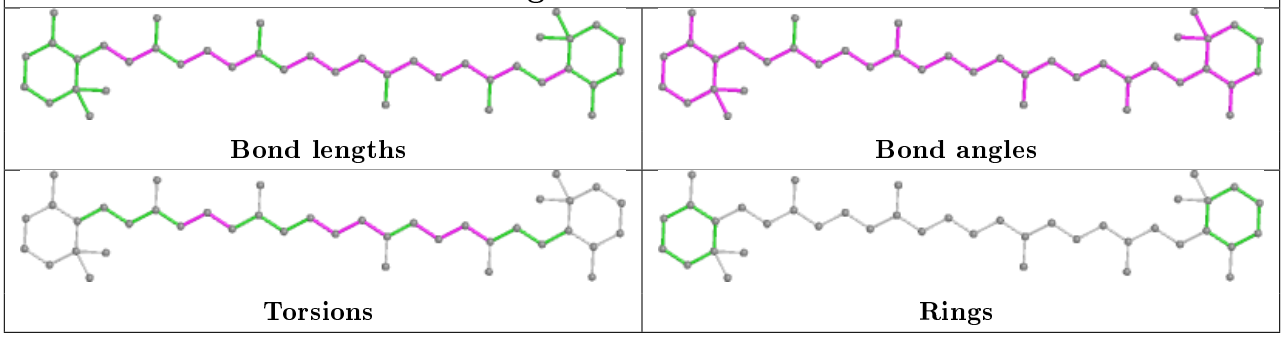


Torsions

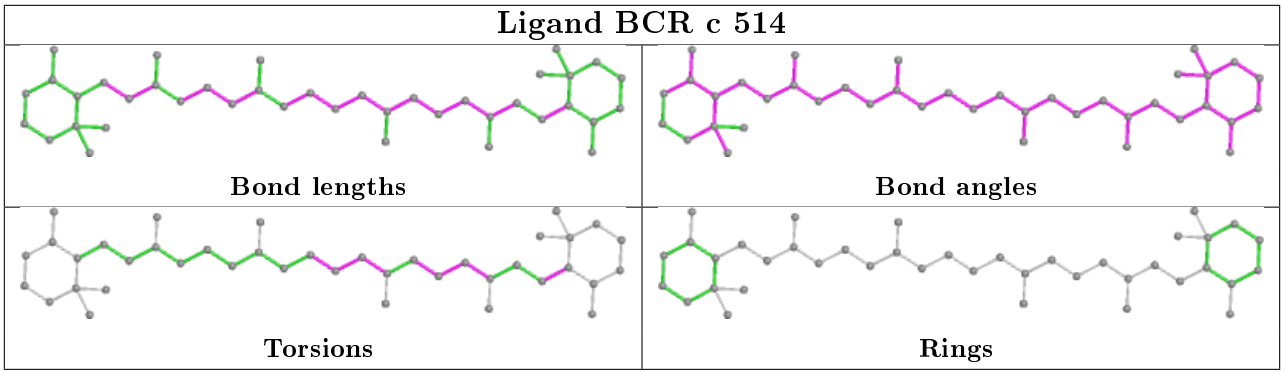


Rings

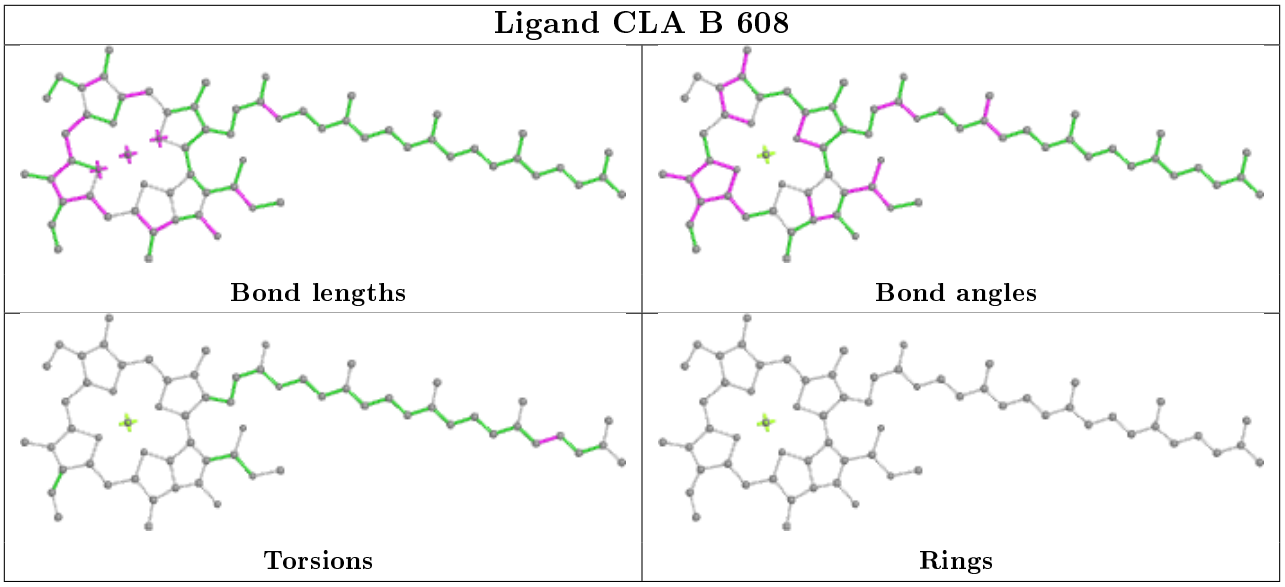
Ligand BCR k 102



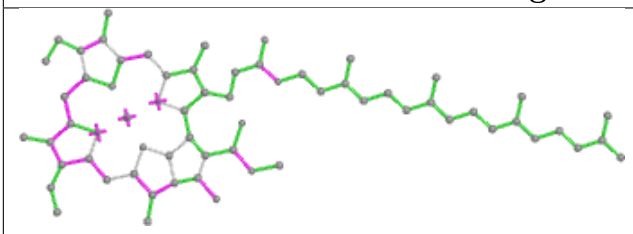
Ligand BCR c 514



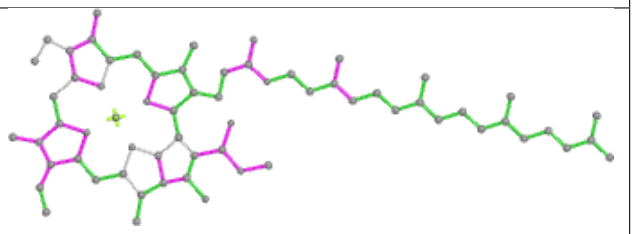
Ligand CLA B 608



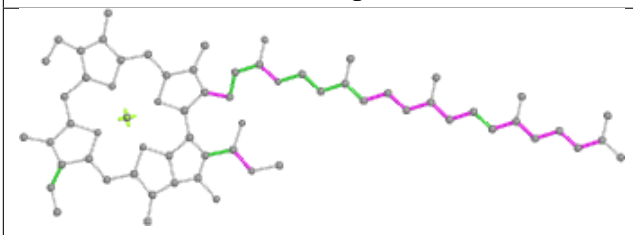
Ligand CLA c 513



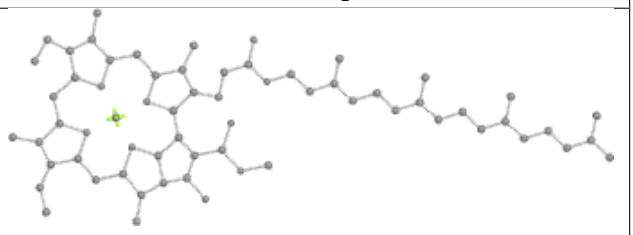
Bond lengths



Bond angles

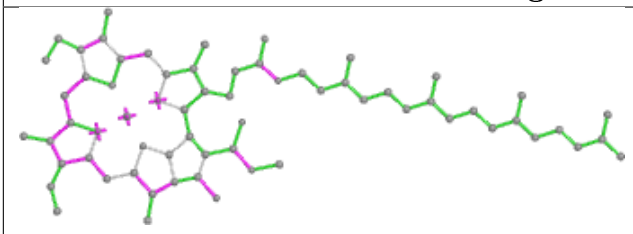


Torsions



Rings

Ligand CLA d 403



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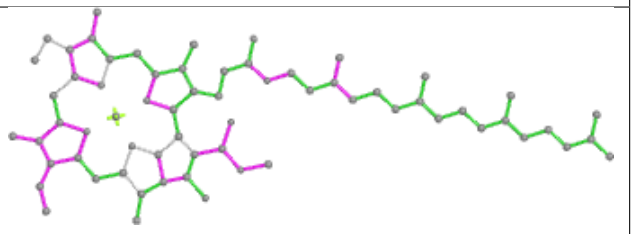
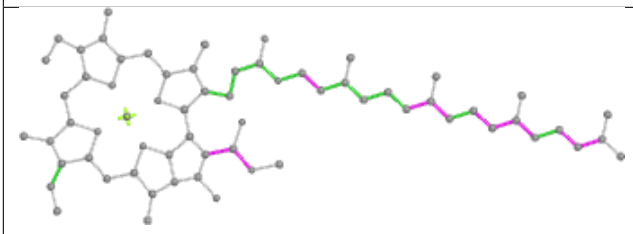
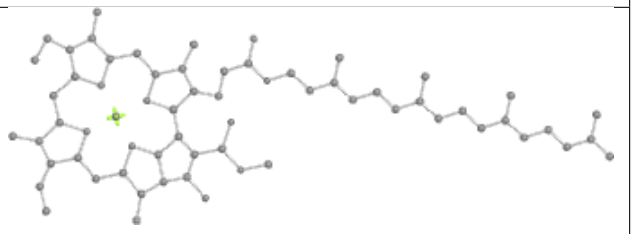


Bond angles

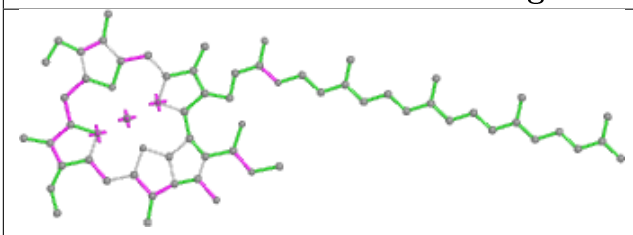


Torsions

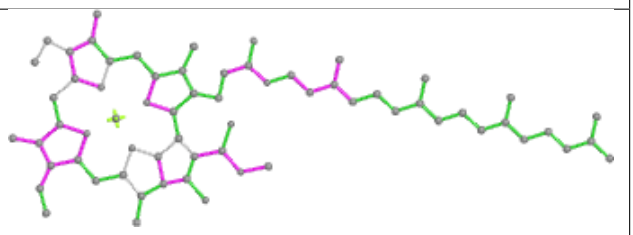


Rings

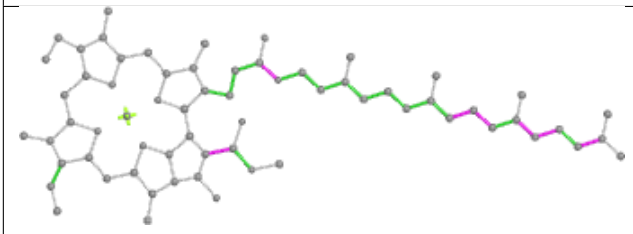
Ligand CLA b 615



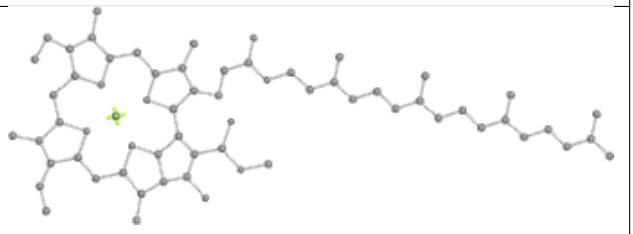
Bond lengths



Bond angles

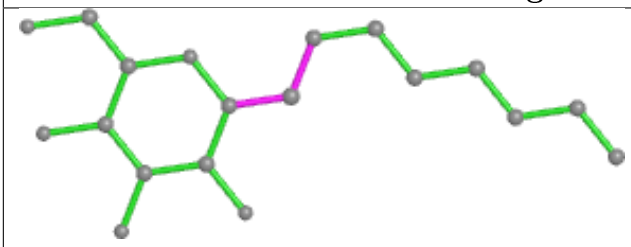


Torsions

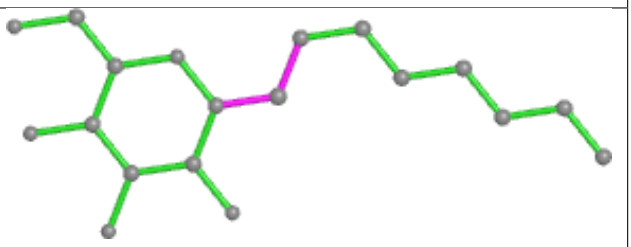


Rings

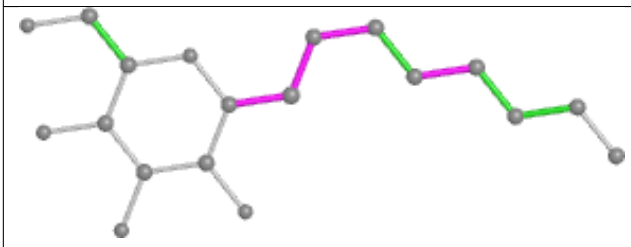
Ligand HTG c 522



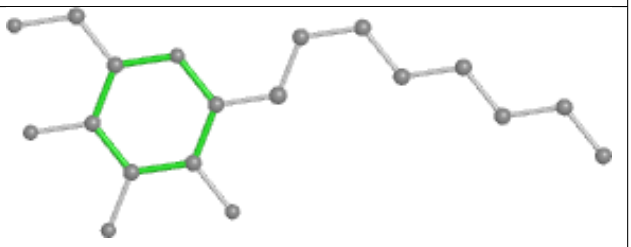
Bond lengths



Bond angles

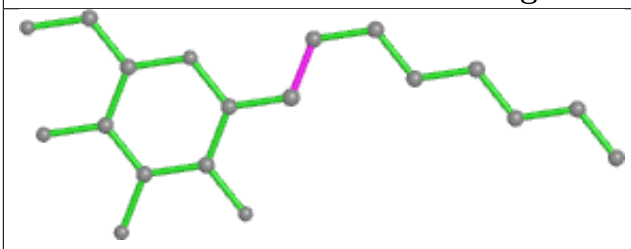


Torsions

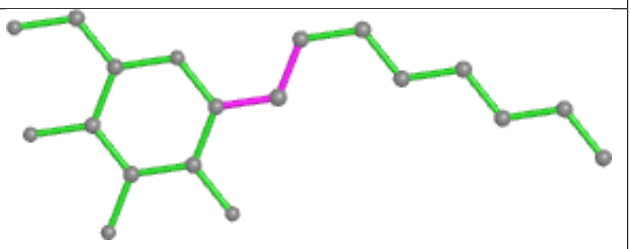


Rings

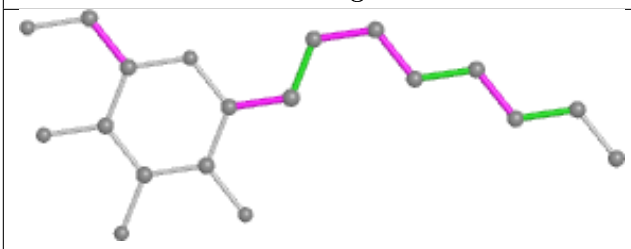
Ligand HTG D 419



Bond lengths



Bond angles



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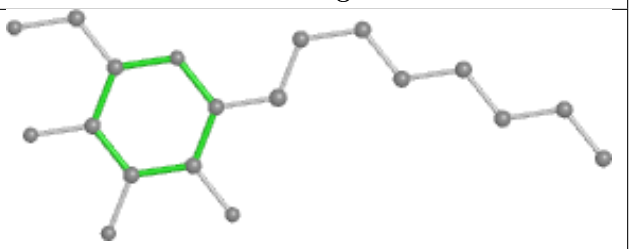
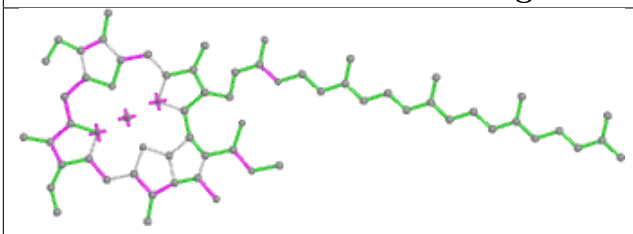
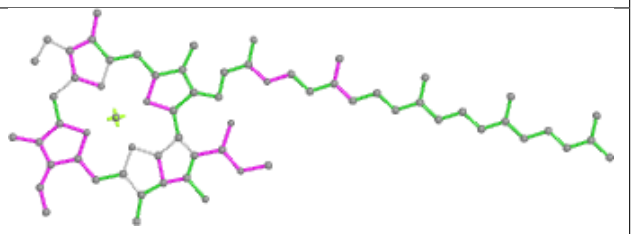


Rings

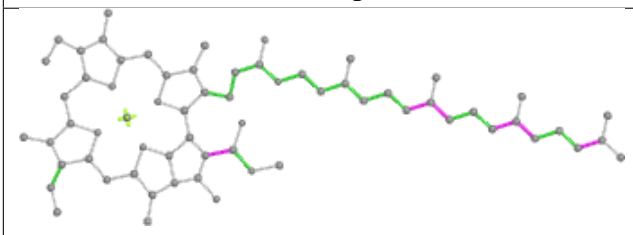
Ligand CLA A 1006



Bond lengths



Bond angles



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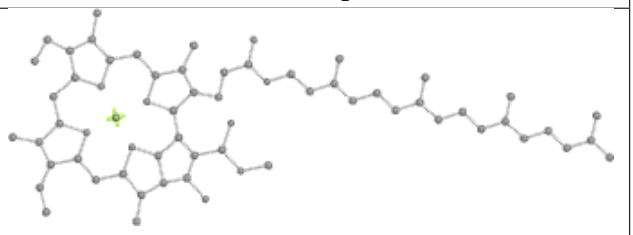
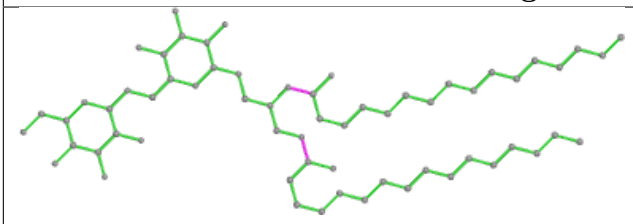
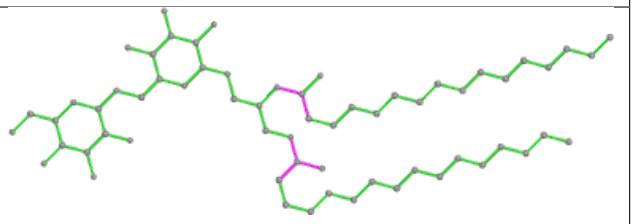


Rings

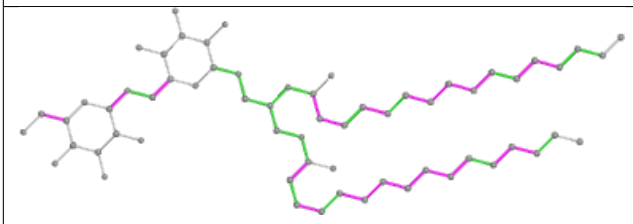
Ligand DGD C 515



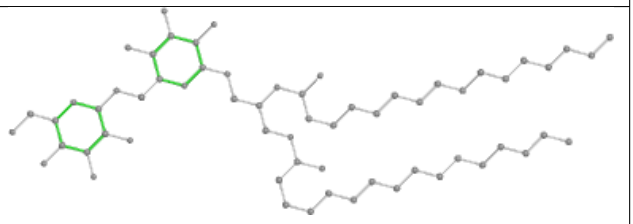
Bond lengths



Bond angles

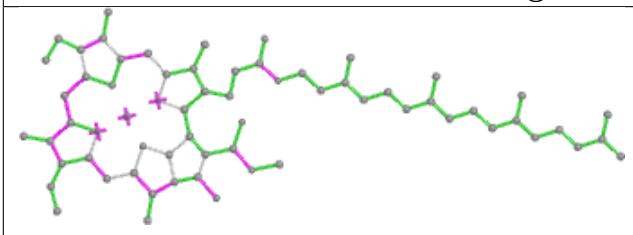


Torsions

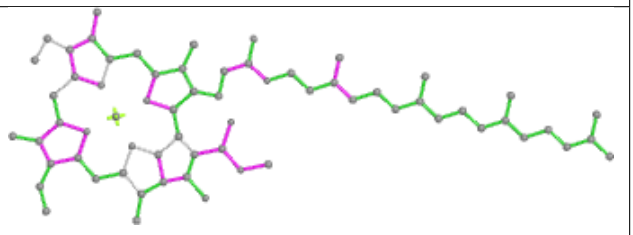


Rings

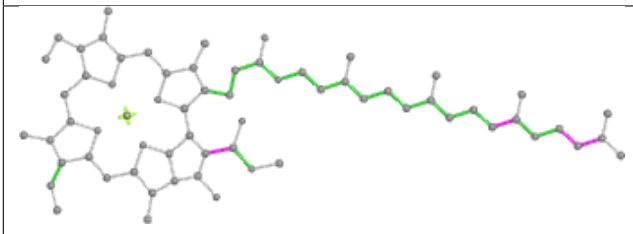
Ligand CLA b 613



Bond lengths



Bond angles



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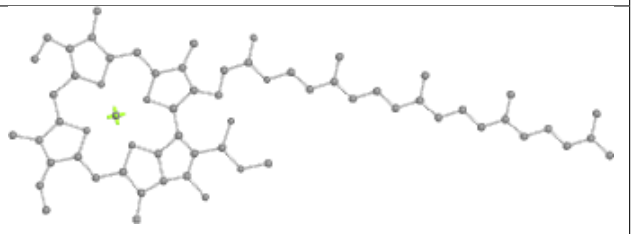
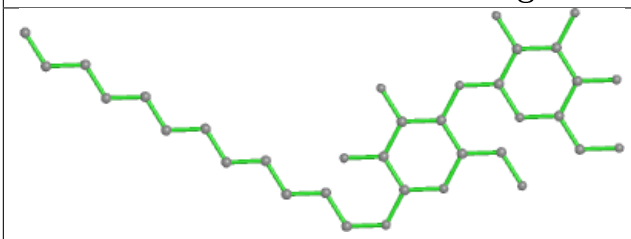
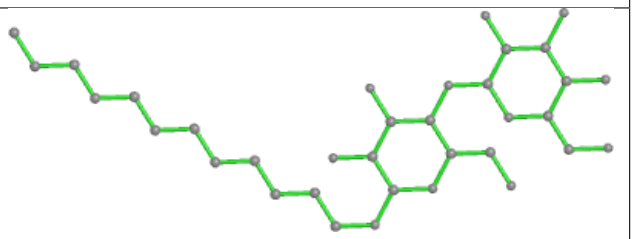


Rings

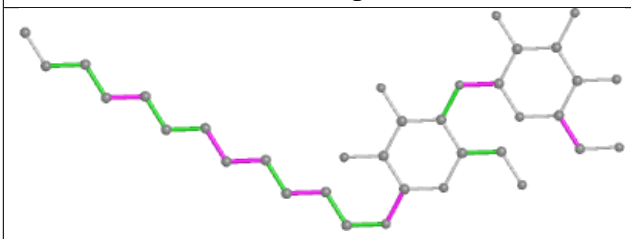
Ligand LMT M 101



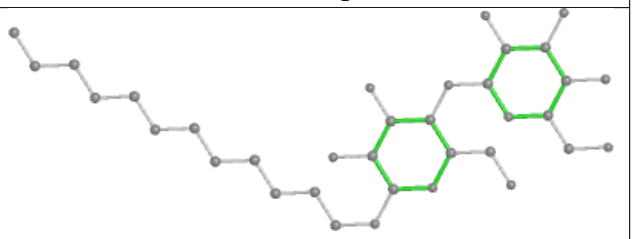
Bond lengths



Bond angles

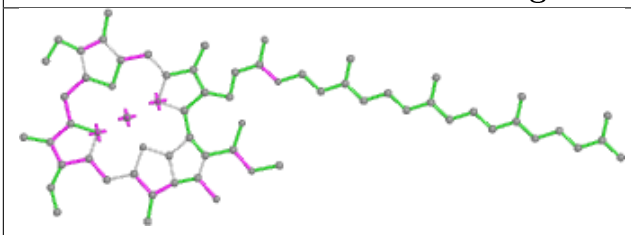


Torsions

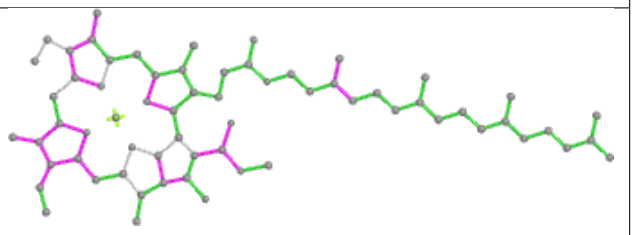


Rings

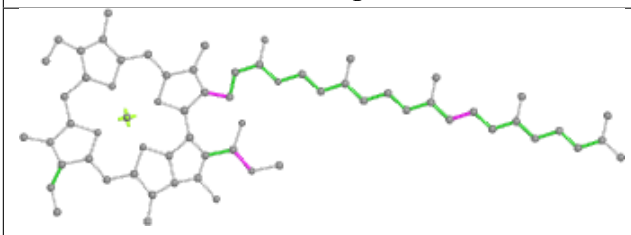
Ligand CLA c 503



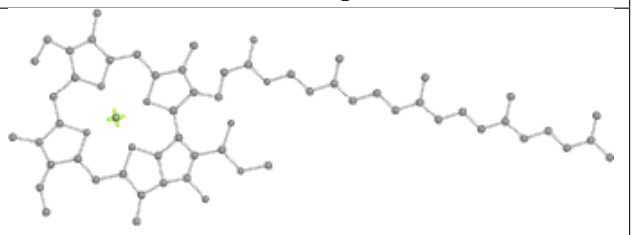
Bond lengths



Bond angles

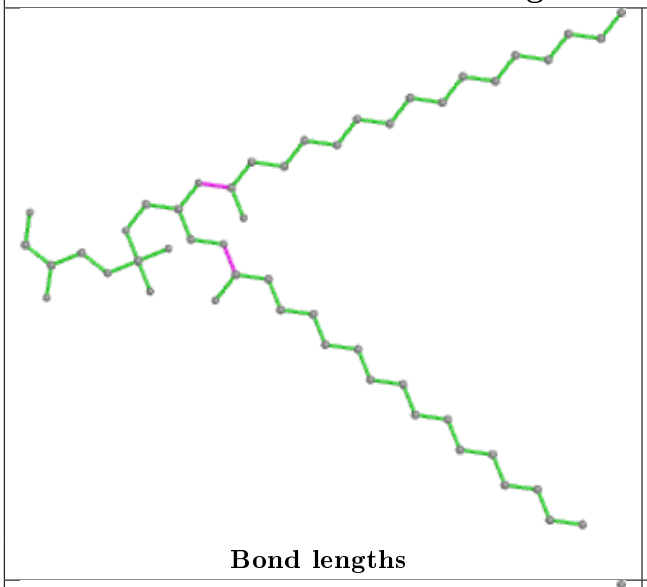


Torsions

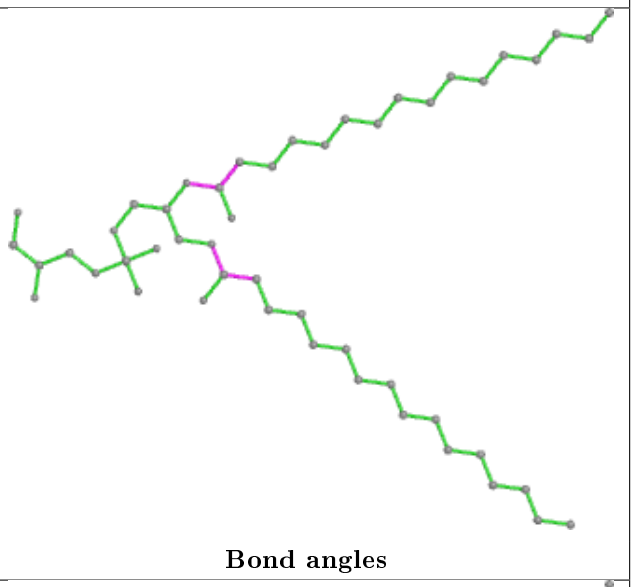


Rings

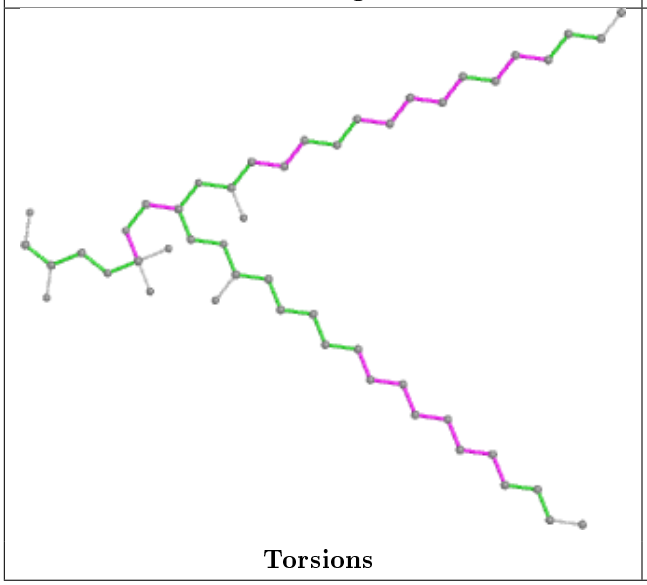
Ligand LHG b 624



Bond lengths



Bond angles



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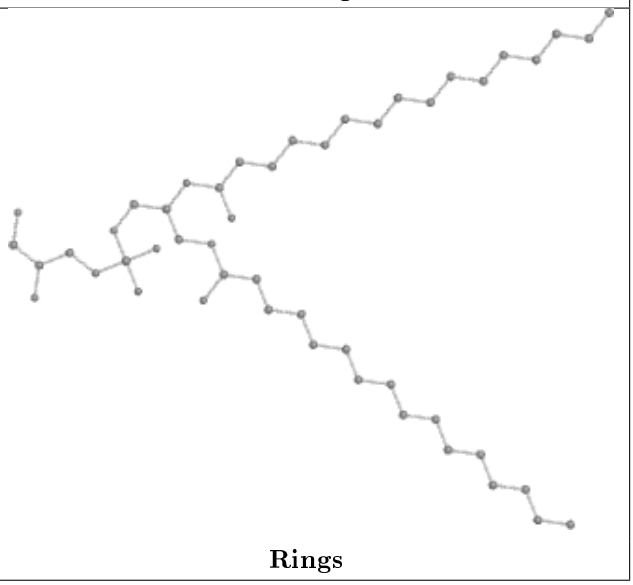
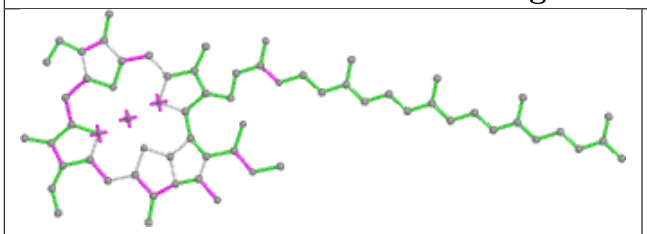
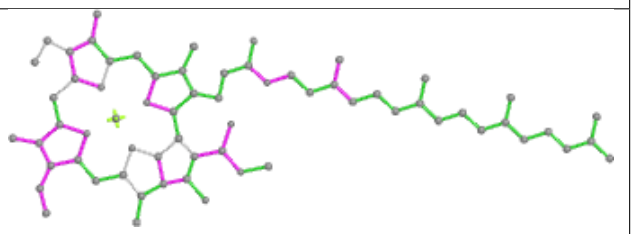


Rings

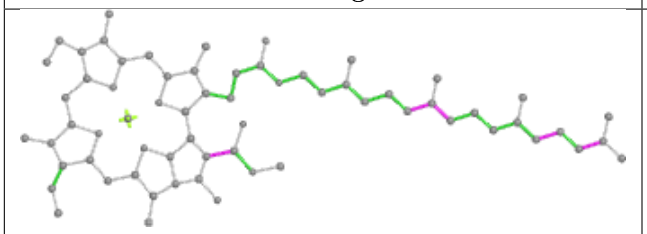
Ligand CLA a 409



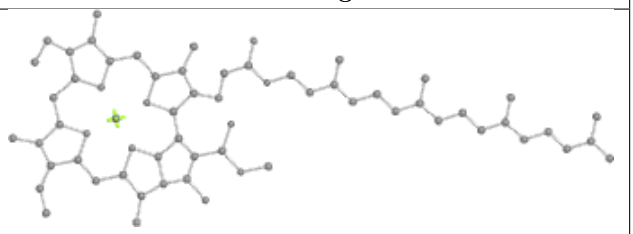
Bond lengths



Bond angles

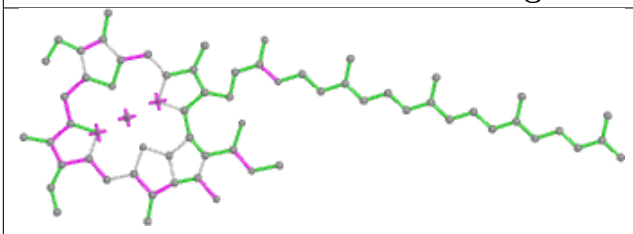


Torsions

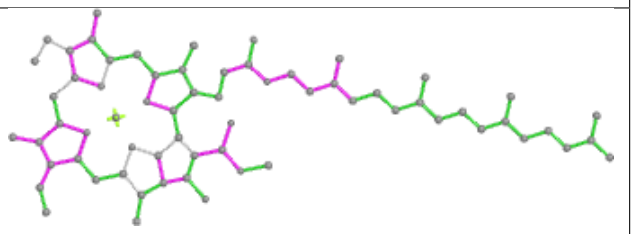


Rings

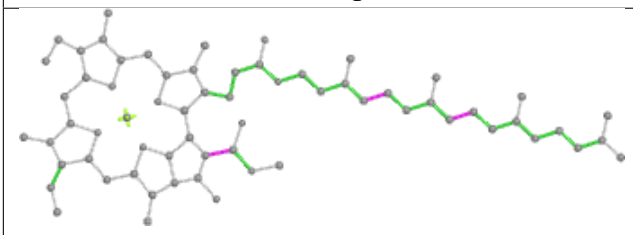
Ligand CLA B 602



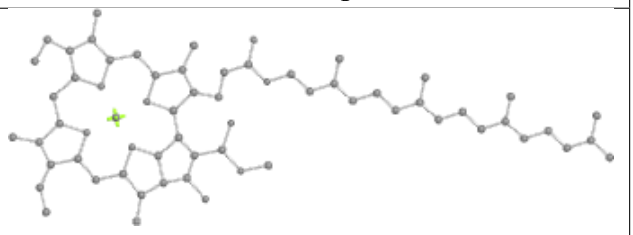
Bond lengths



Bond angles

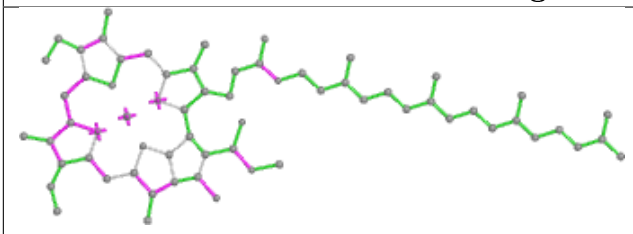


Torsions

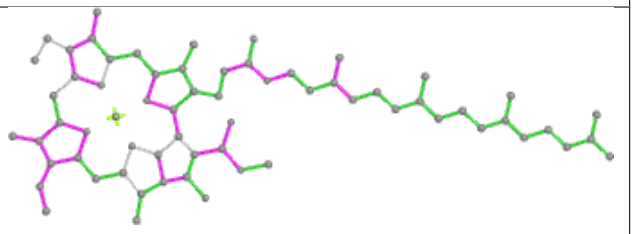


Rings

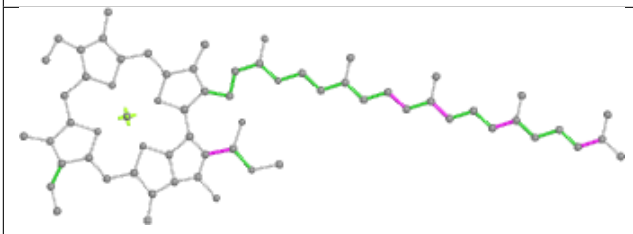
Ligand CLA c 507



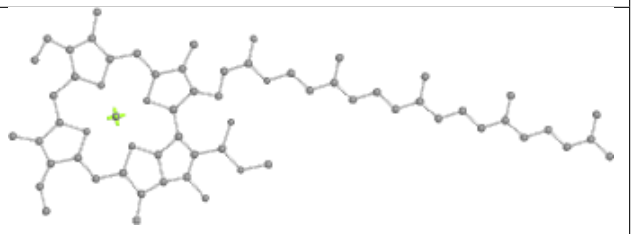
Bond lengths



Bond angles

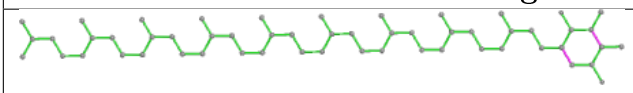


Torsions

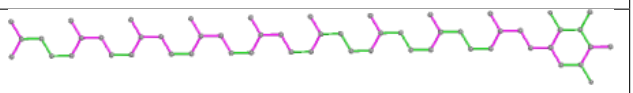


Rings

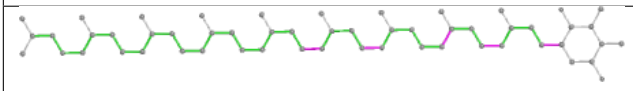
Ligand PL9 A 1010



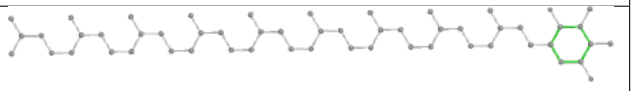
Bond lengths



Bond angles

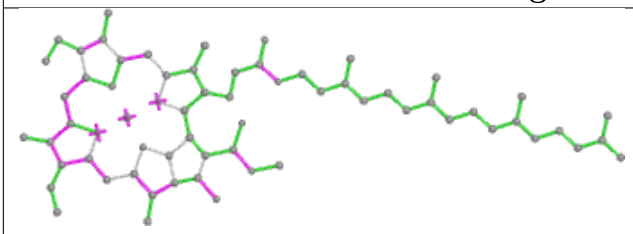


Torsions

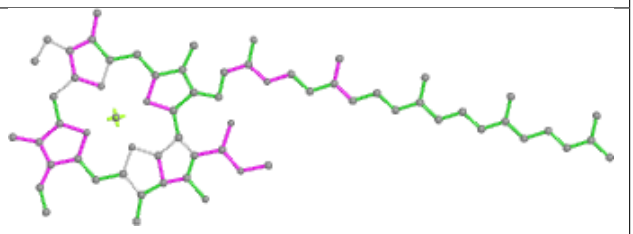


Rings

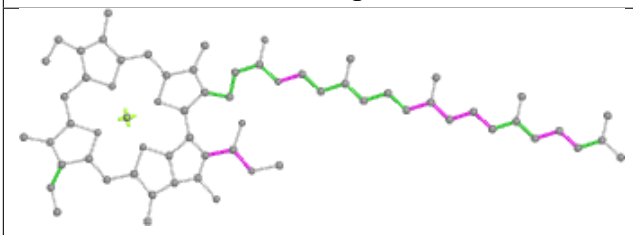
Ligand CLA c 509



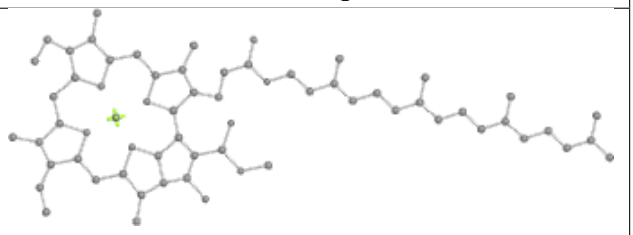
Bond lengths



Bond angles

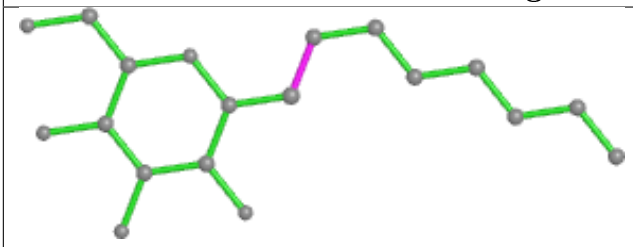


Torsions

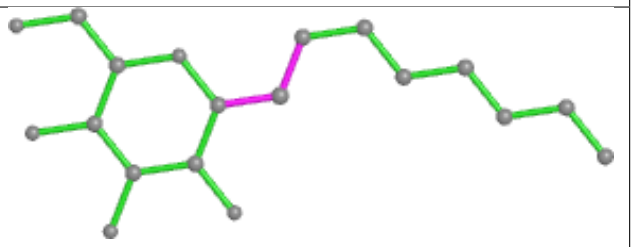


Rings

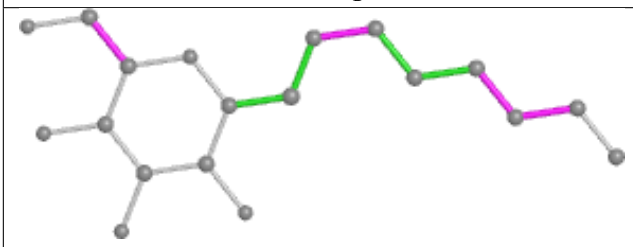
Ligand HTG o 301



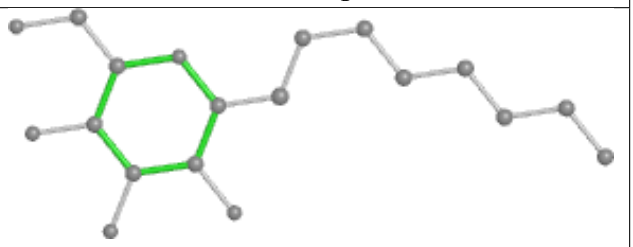
Bond lengths



Bond angles

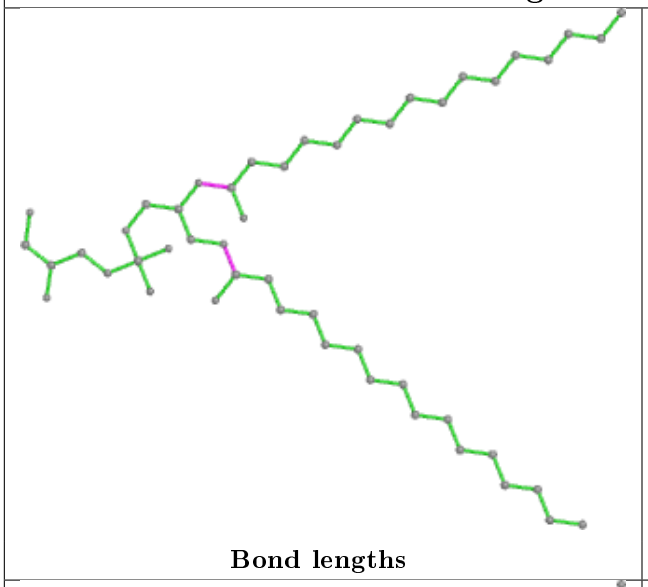


Torsions

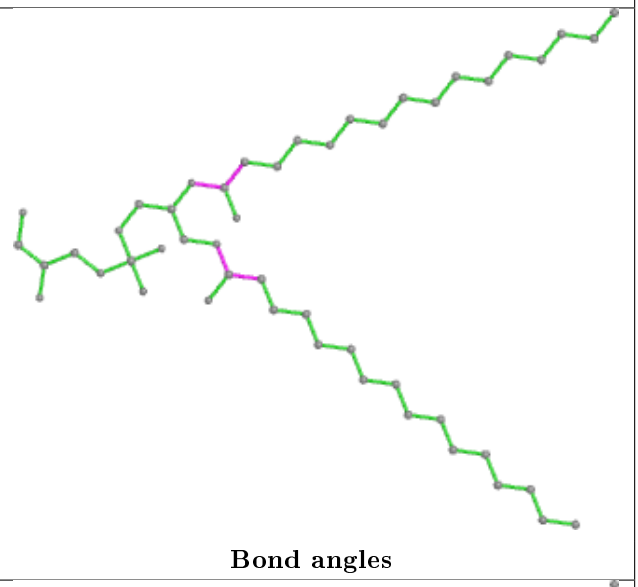


Rings

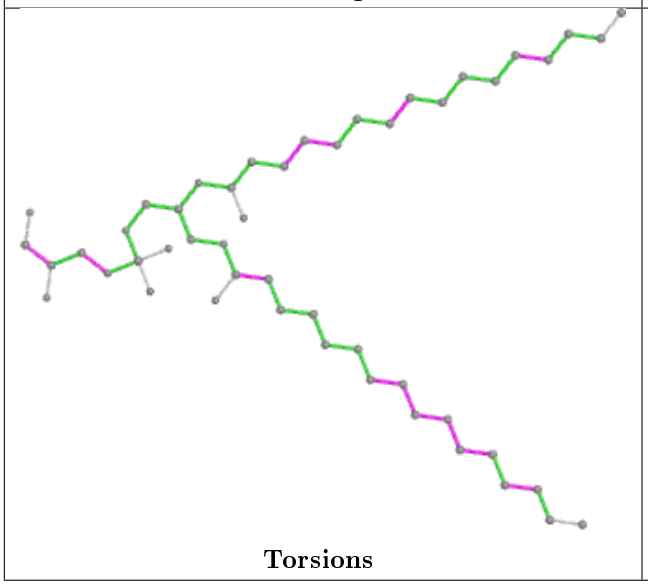
Ligand LHG d 408



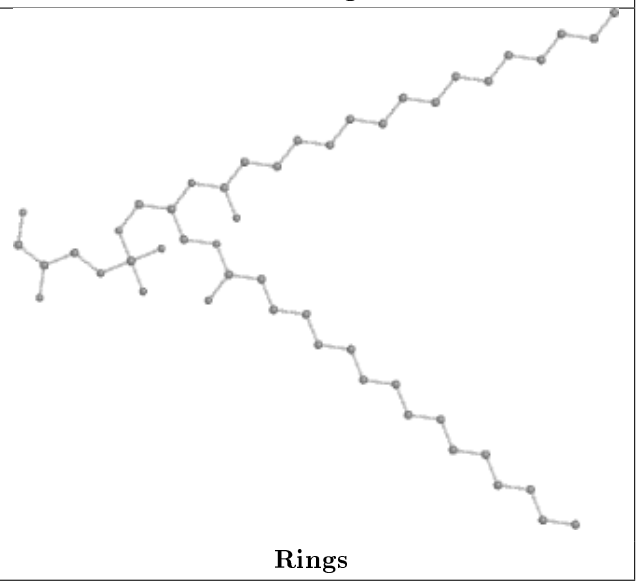
Bond lengths



Bond angles

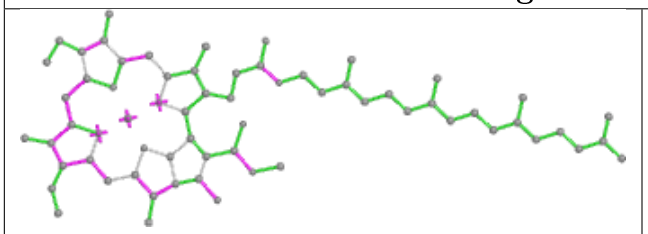


Torsions

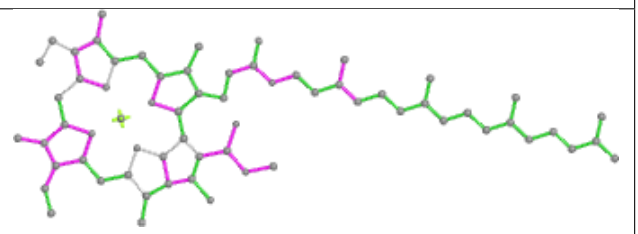


Rings

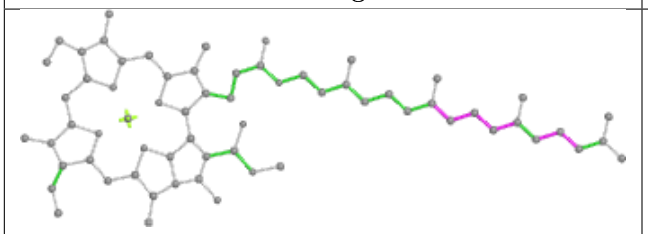
Ligand CLA A 1008



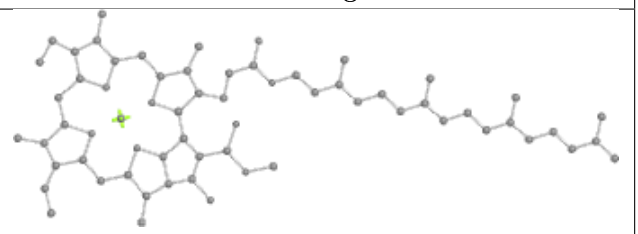
Bond lengths



Bond angles

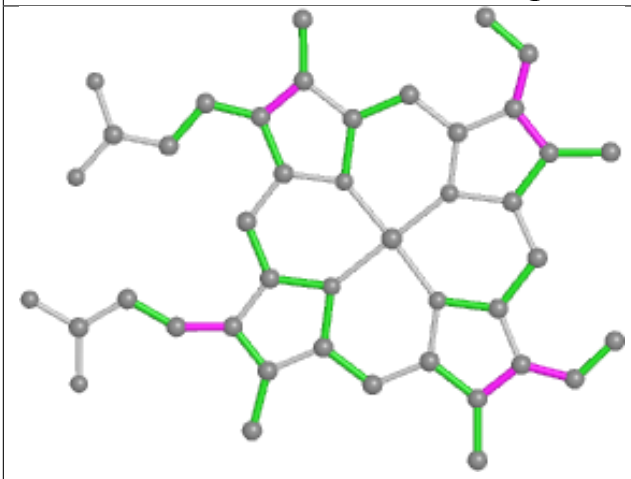


Torsions

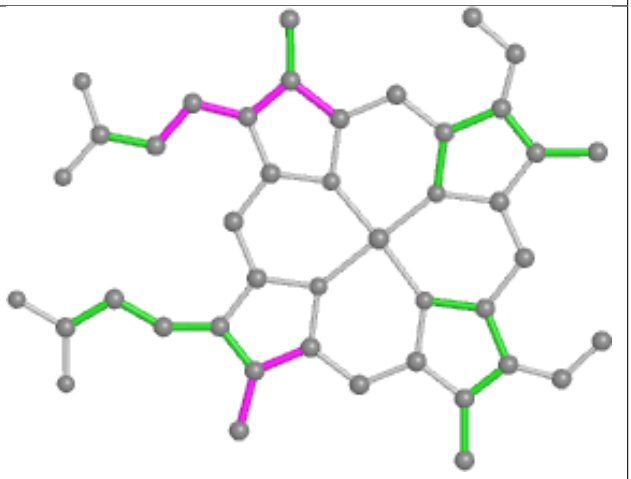


Rings

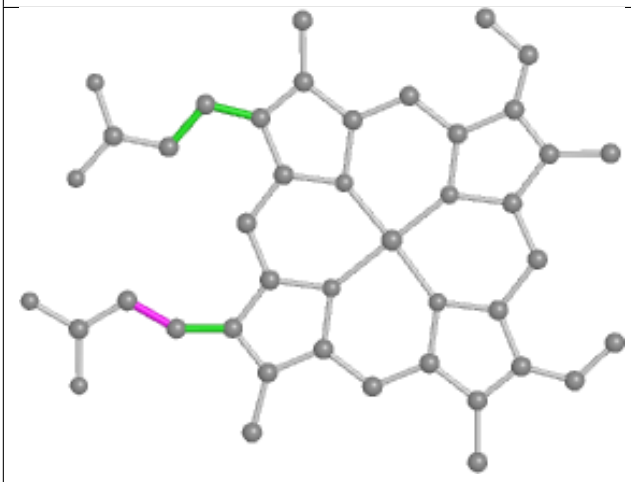
Ligand HEM f 101



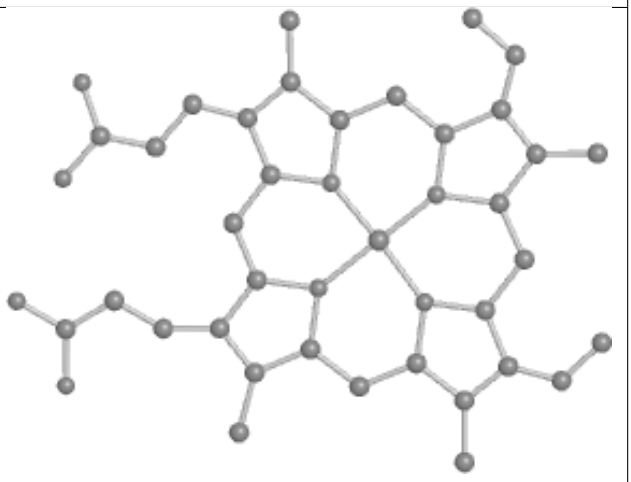
Bond lengths



Bond angles

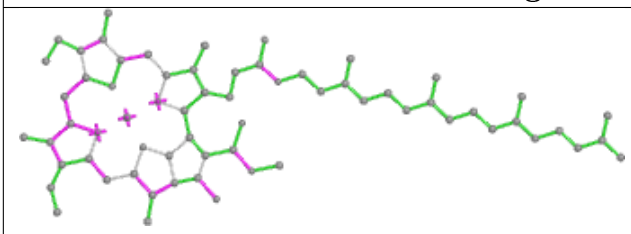


Torsions

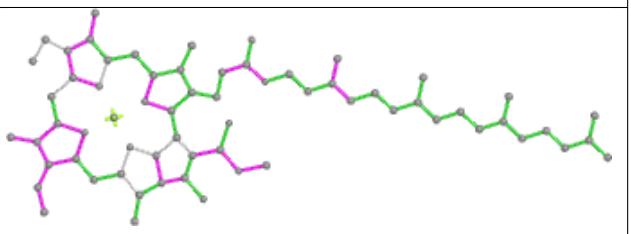


Rings

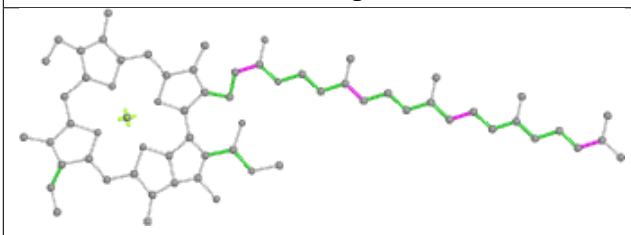
Ligand CLA C 510



Bond lengths



Bond angles



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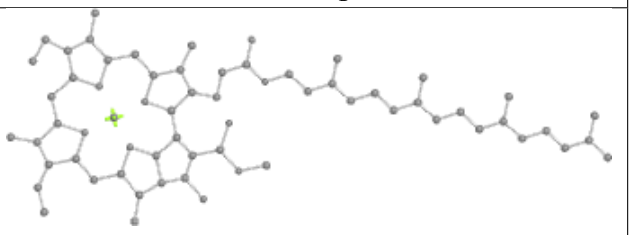
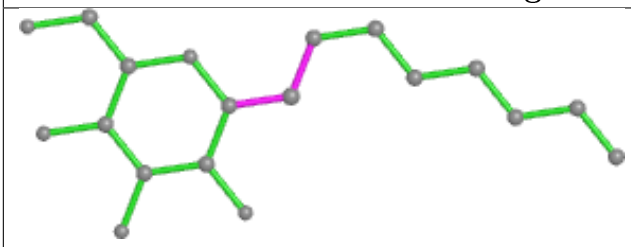
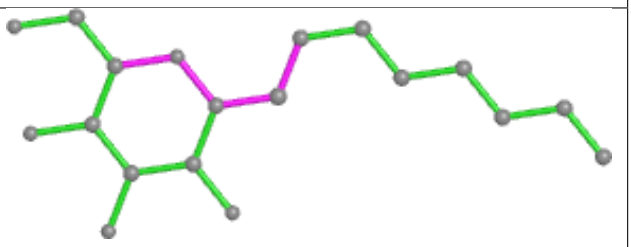


Rings

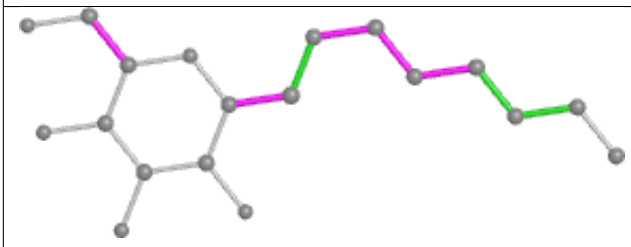
Ligand HTG b 630



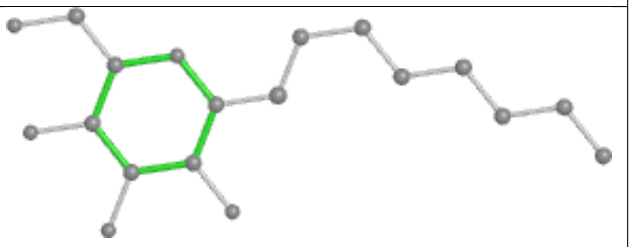
Bond lengths



Bond angles

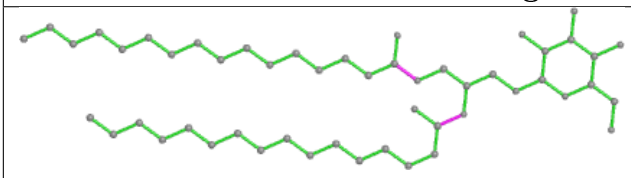


Torsions

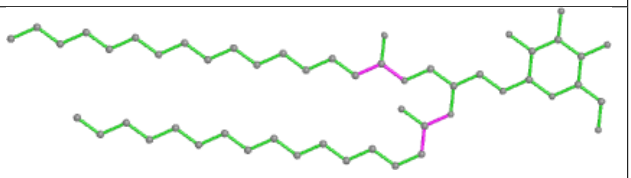


Rings

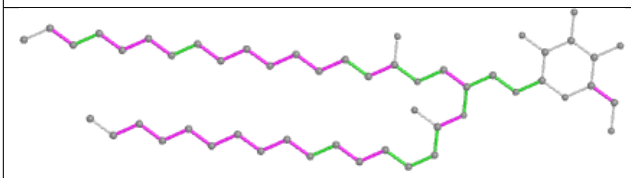
Ligand LMG Z 101



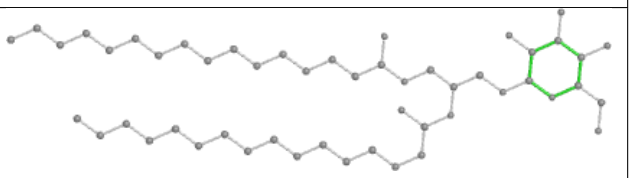
Bond lengths



Bond angles

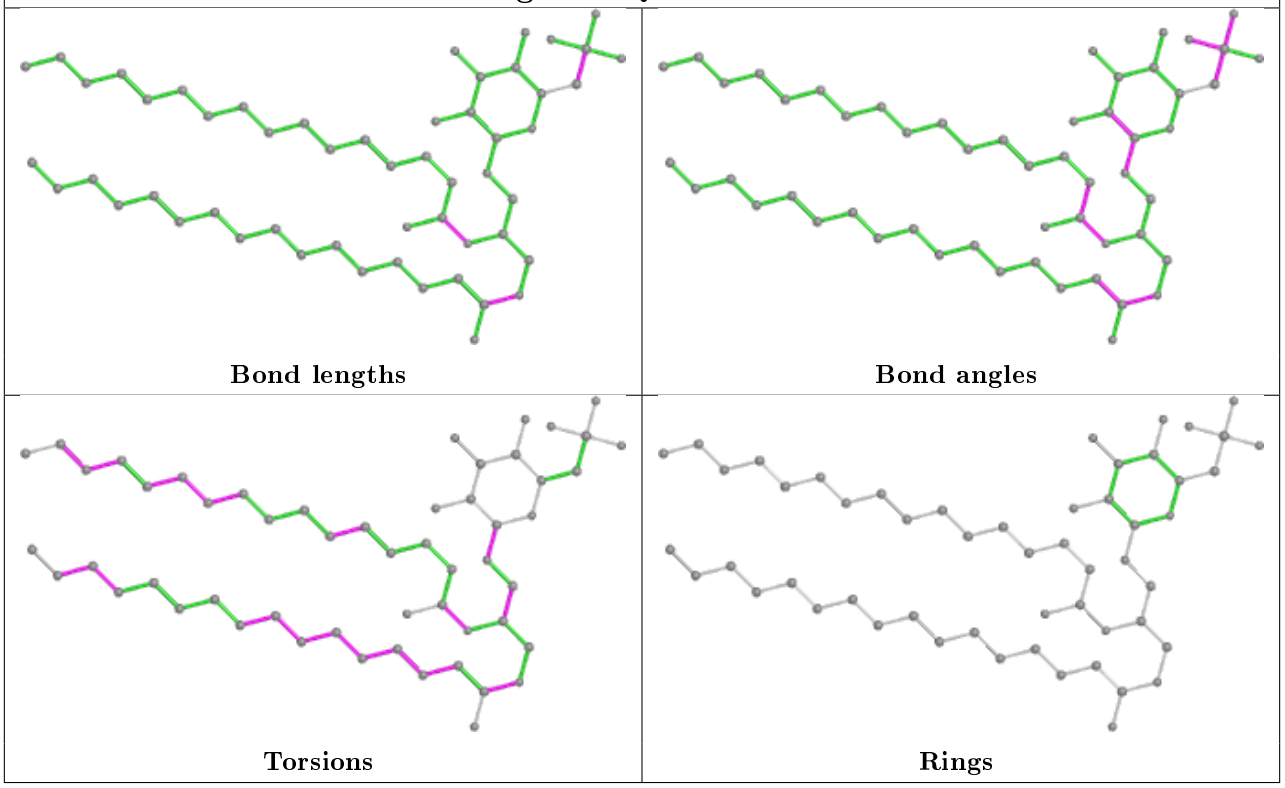


Torsions

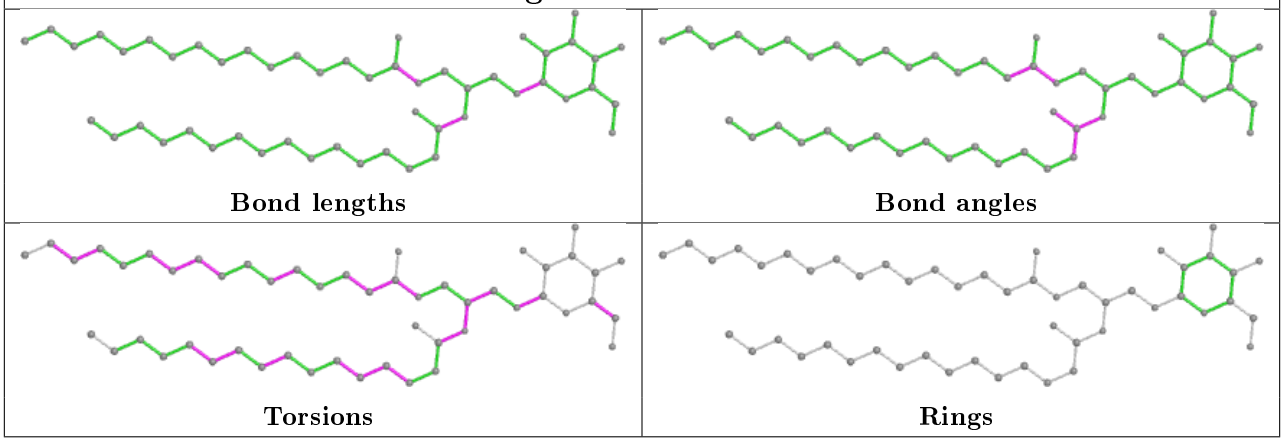


Rings

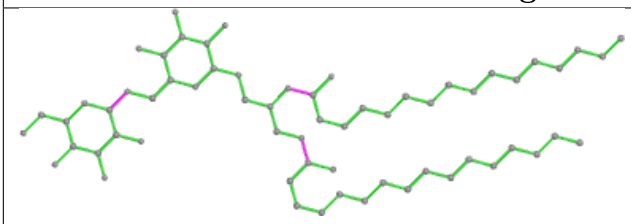
Ligand SQD A 1016



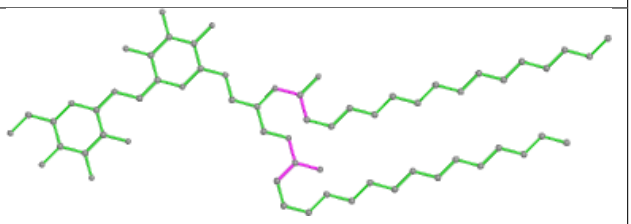
Ligand LMG c 521



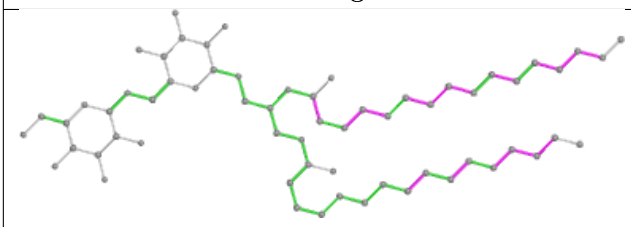
Ligand DGD H 102



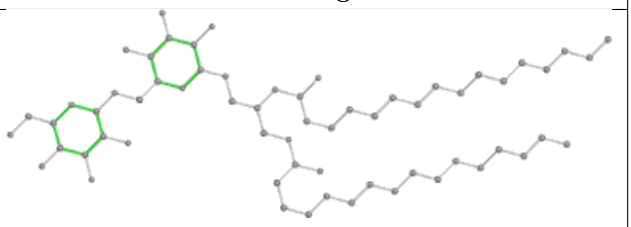
Bond lengths



Bond angles

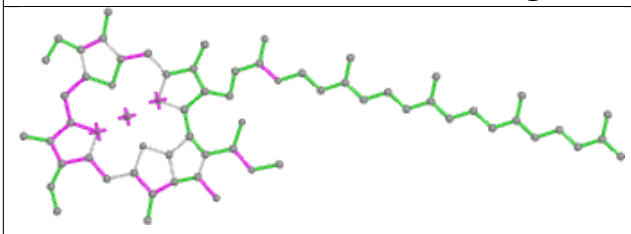


Torsions

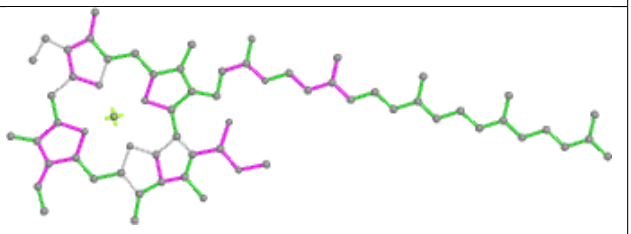


Rings

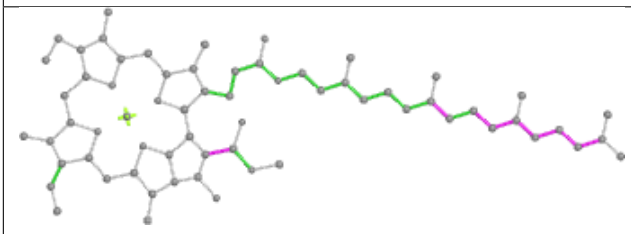
Ligand CLA C 508



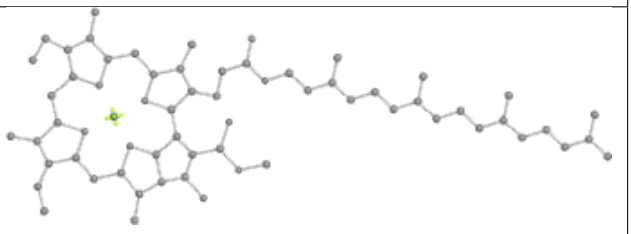
Bond lengths



Bond angles

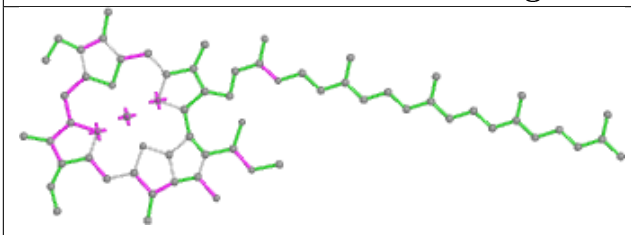


Torsions

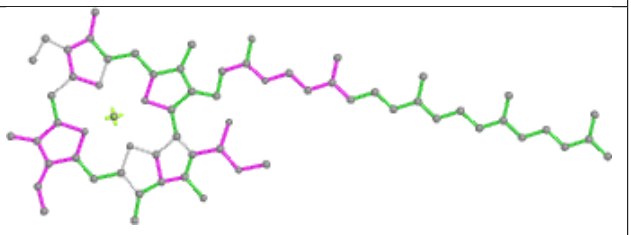


Rings

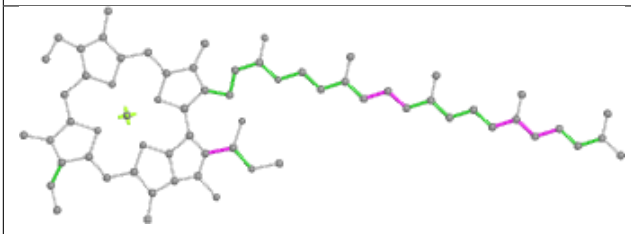
Ligand CLA B 614



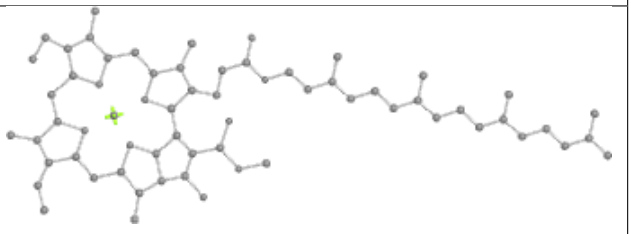
Bond lengths



Bond angles

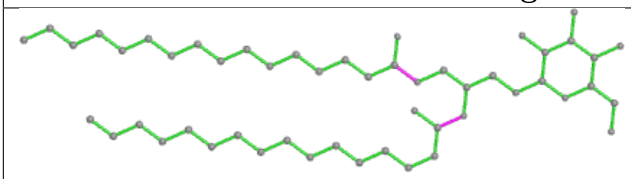


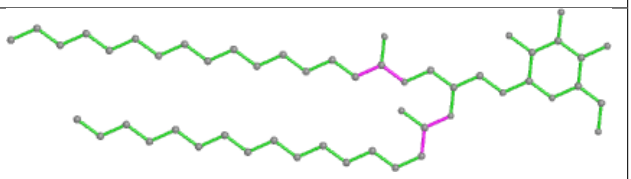
Torsions

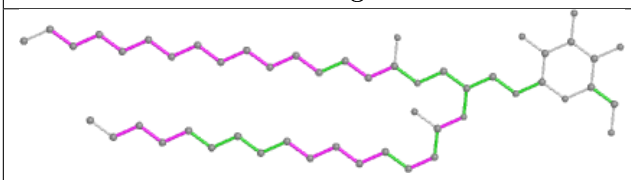


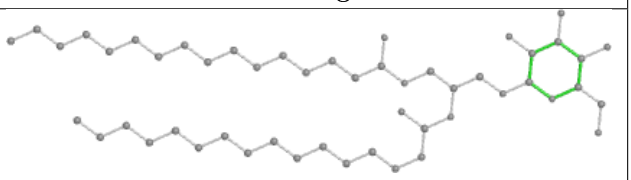
Rings

Ligand LMG B 622

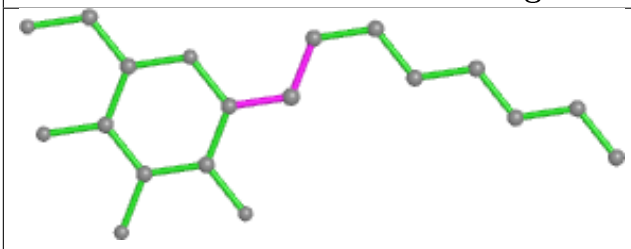

Bond lengths

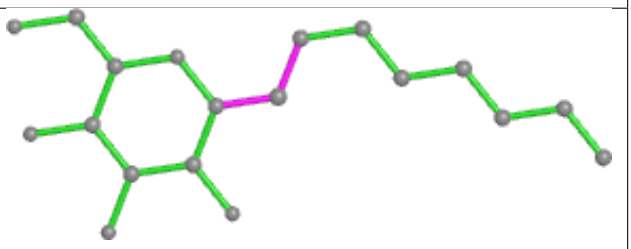

Bond angles

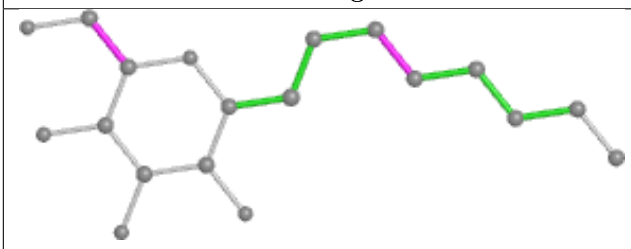

Torsions

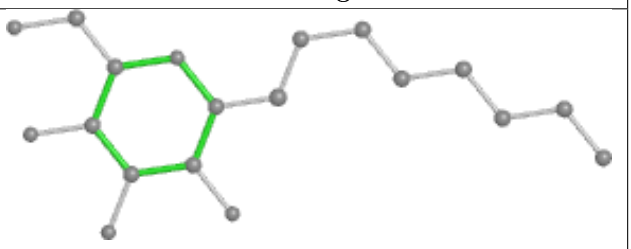

Rings

Ligand HTG b 602

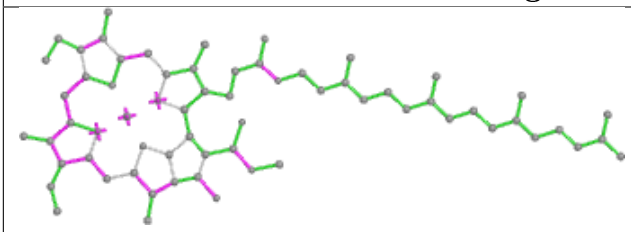

Bond lengths

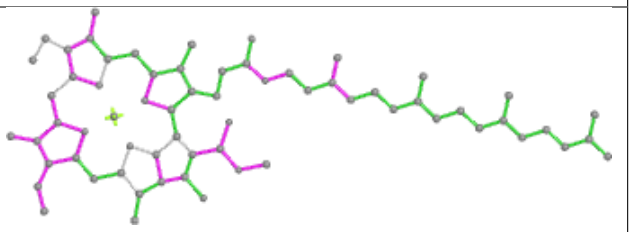

Bond angles

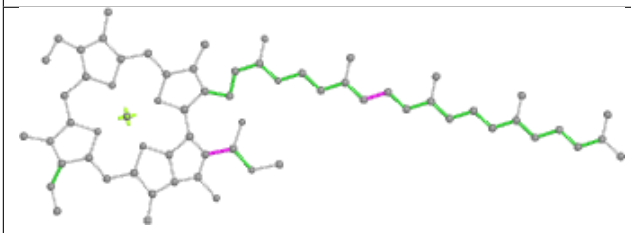

Torsions

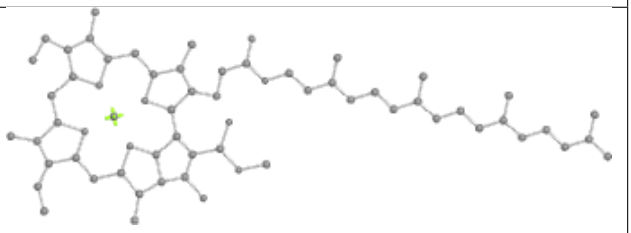

Rings

Ligand CLA B 607

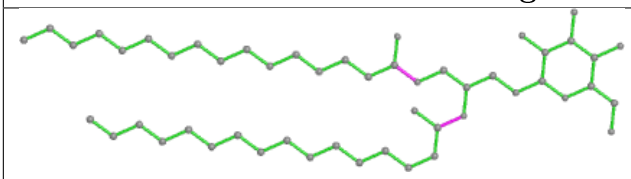

Bond lengths


Bond angles

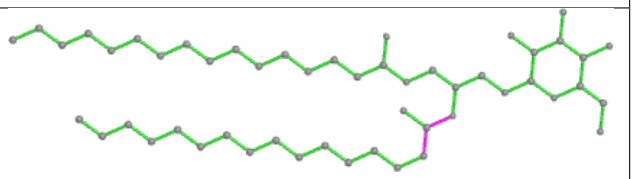

Torsions


Rings

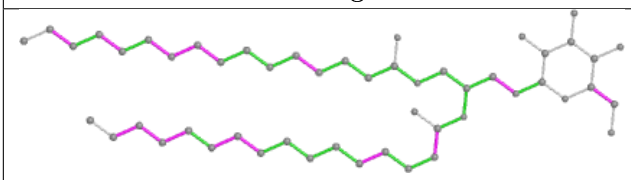
Ligand LMG D 412



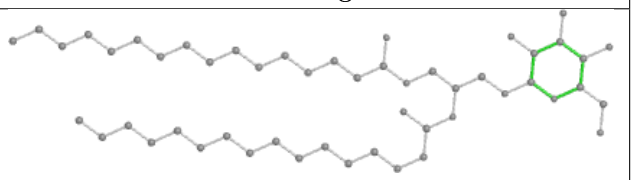
Bond lengths



Bond angles

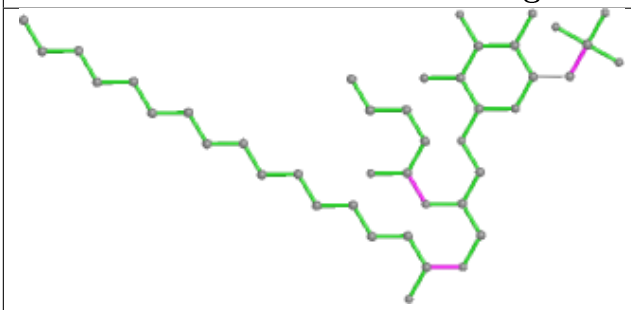


Torsions



Rings

Ligand SQD D 408



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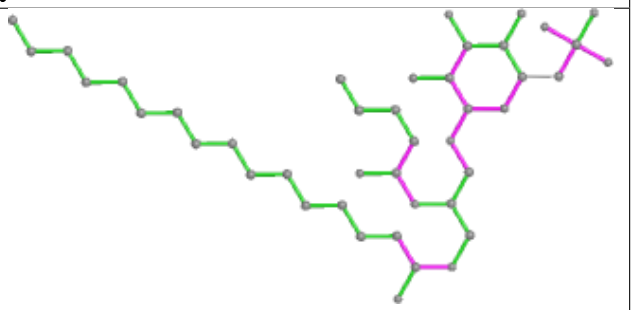
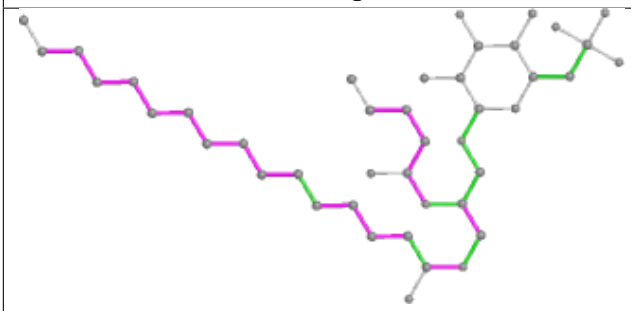
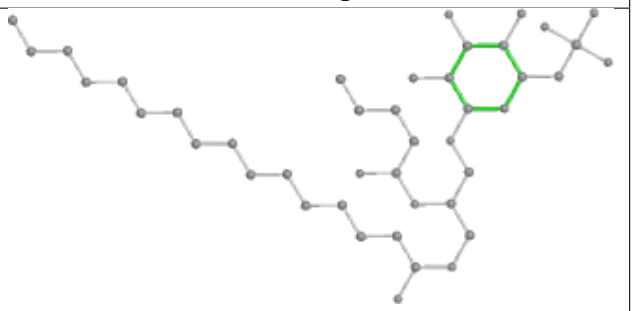


Bond angles

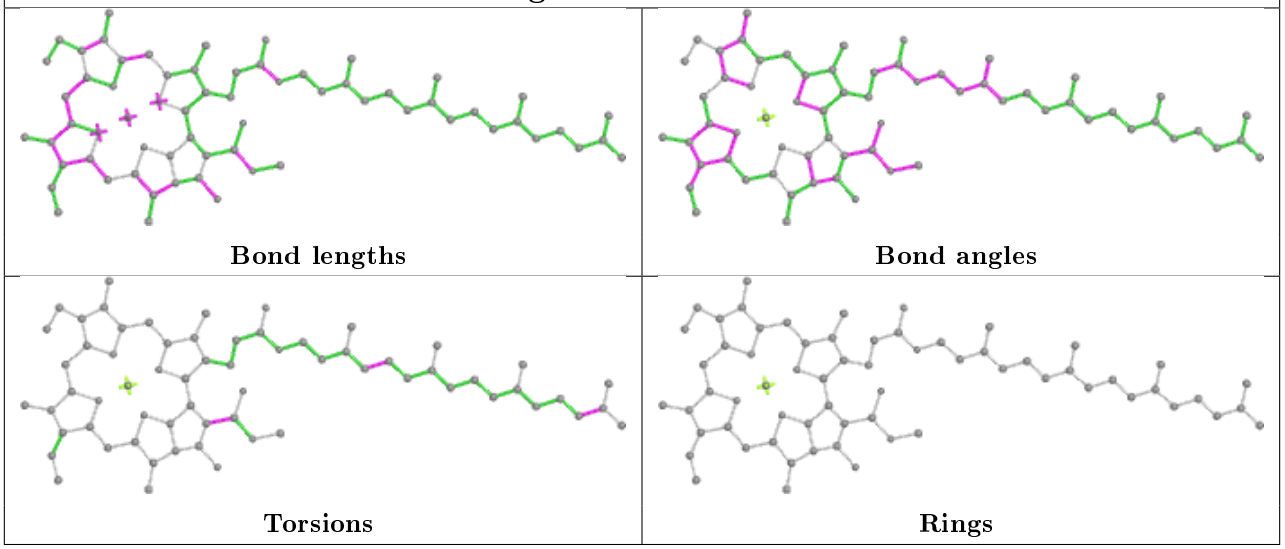


Torsions

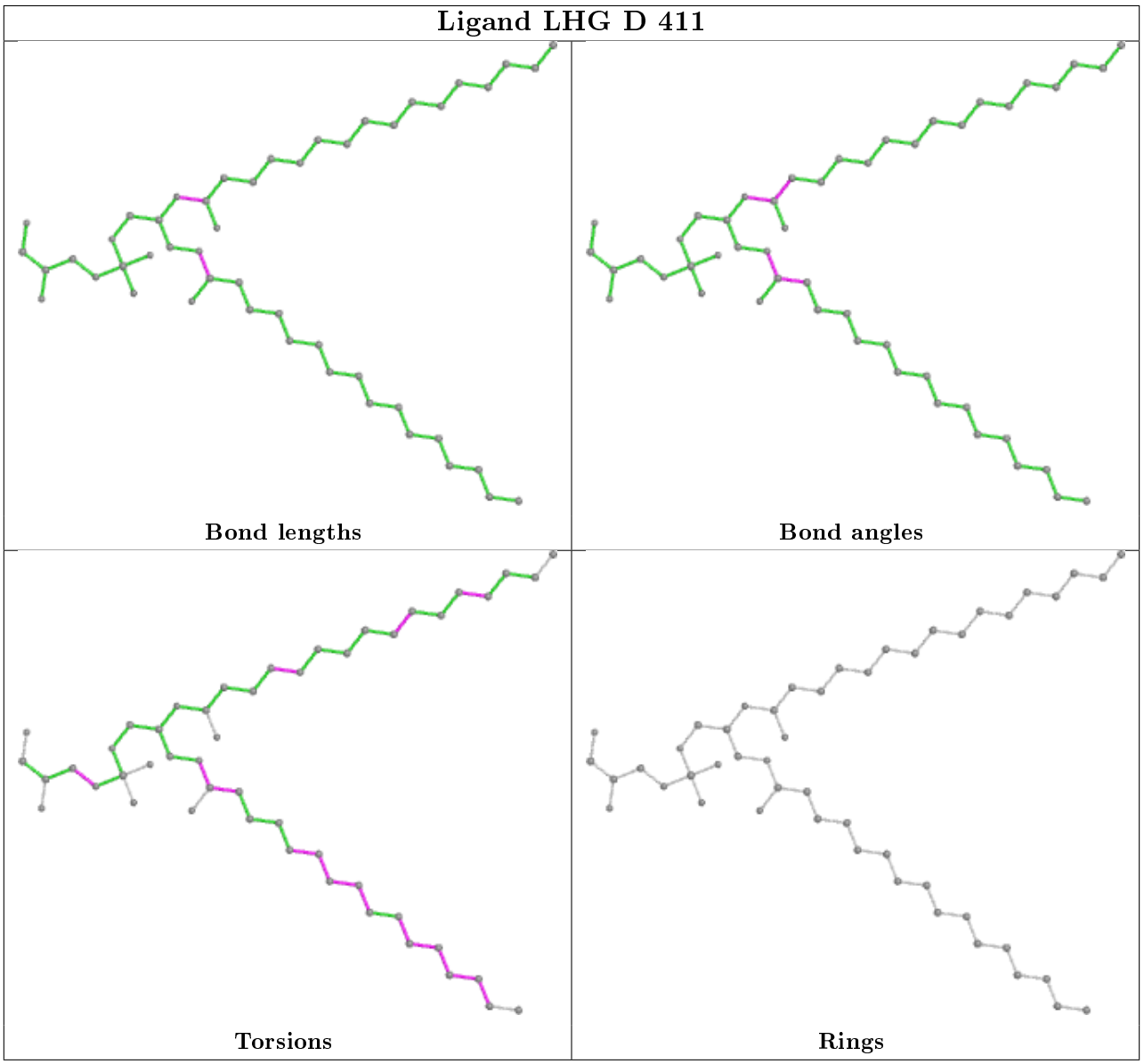


Rings

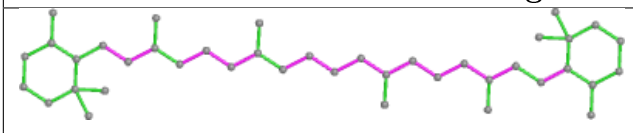
Ligand CLA b 605

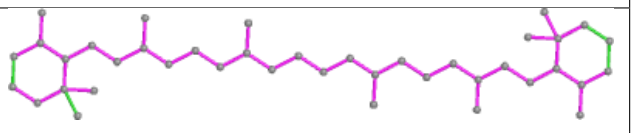


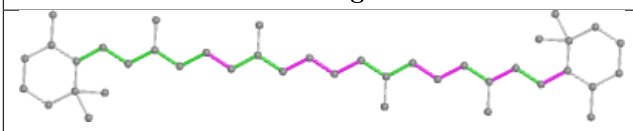
Ligand LHG D 411

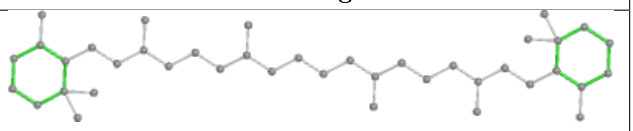


Ligand BCR d 404

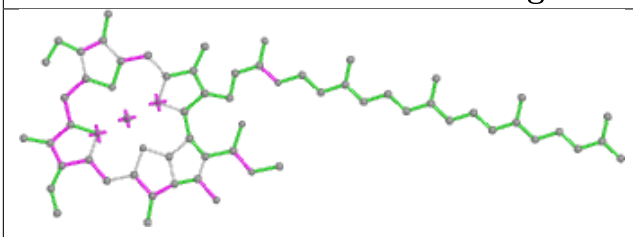

Bond lengths

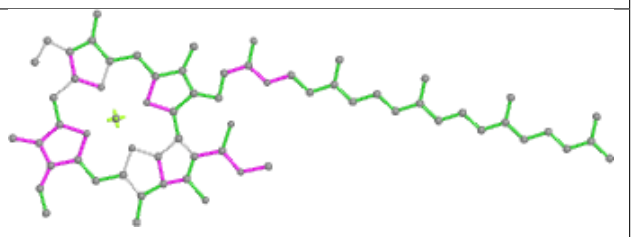

Bond angles

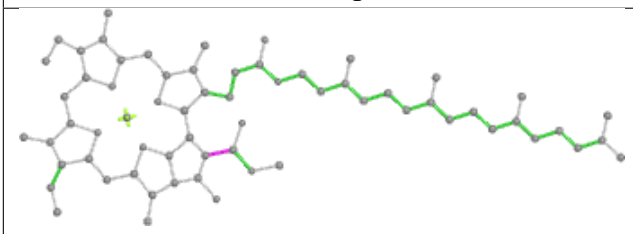

Torsions

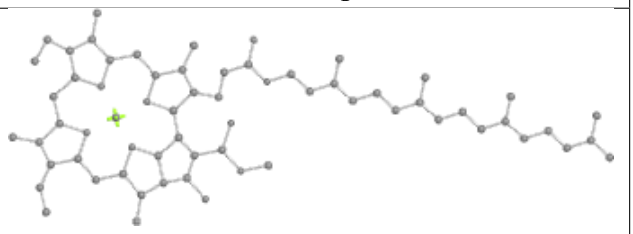

Rings

Ligand CLA b 612

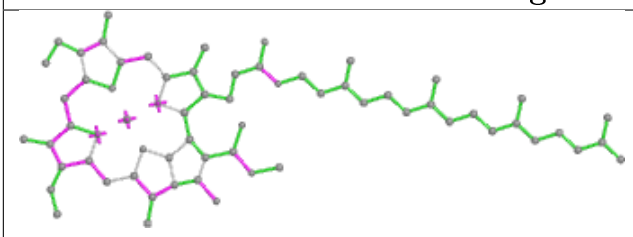

Bond lengths

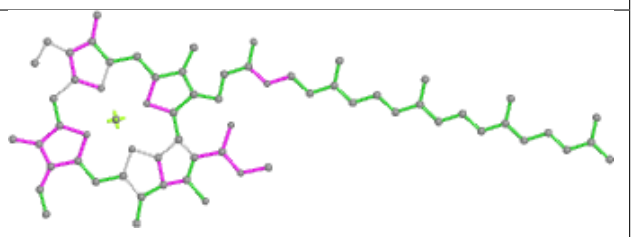

Bond angles

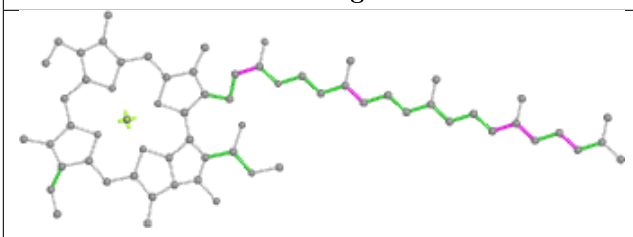

Torsions

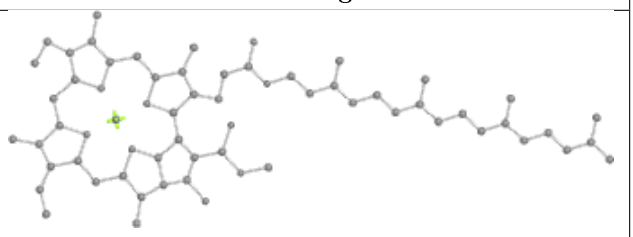

Rings

Ligand CLA c 505

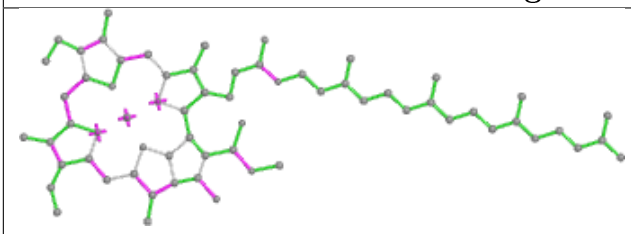

Bond lengths


Bond angles

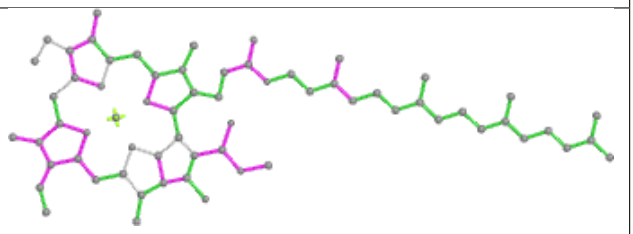

Torsions


Rings

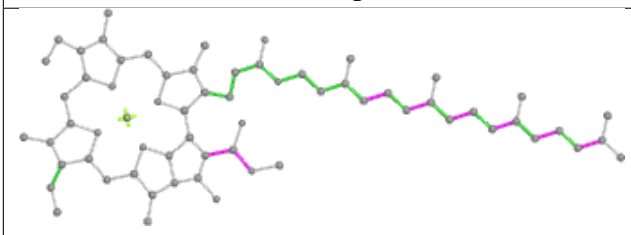
Ligand CLA B 604



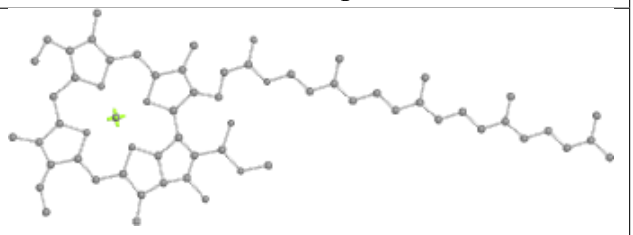
Bond lengths



Bond angles

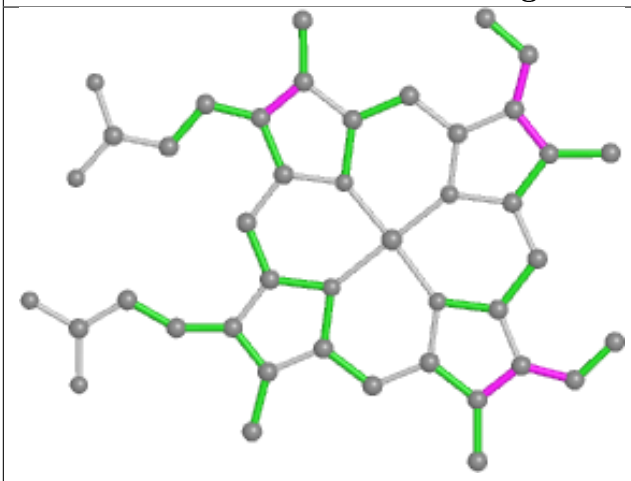


Torsions



Rings

Ligand HEM F 101



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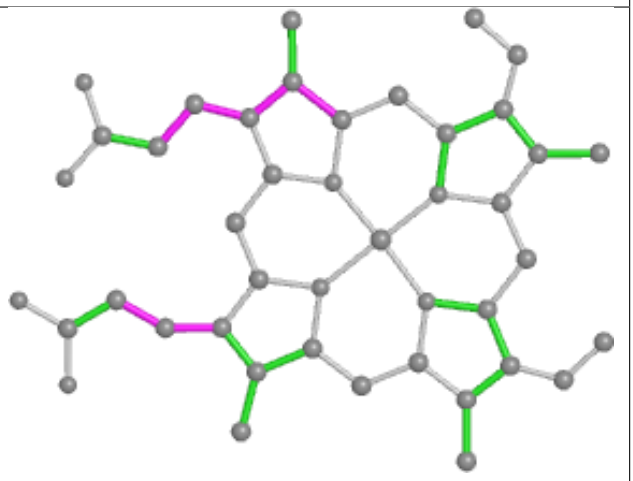
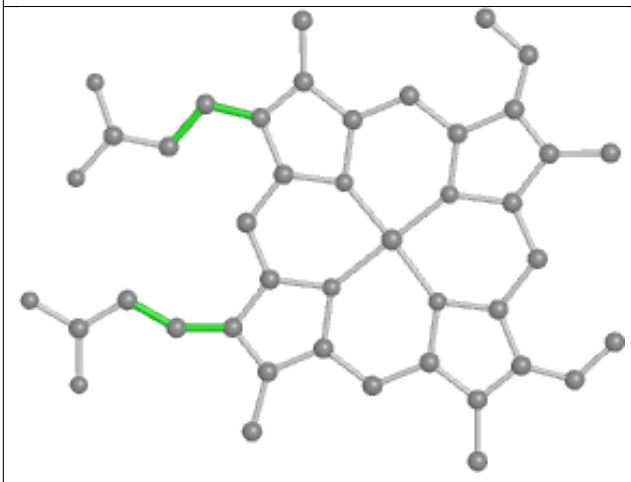
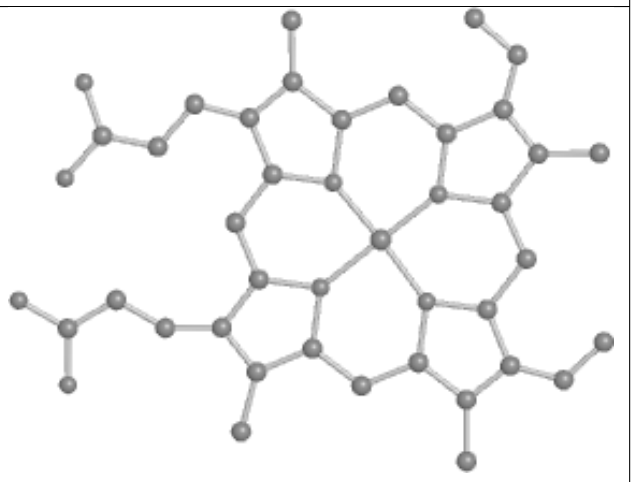


Bond angles

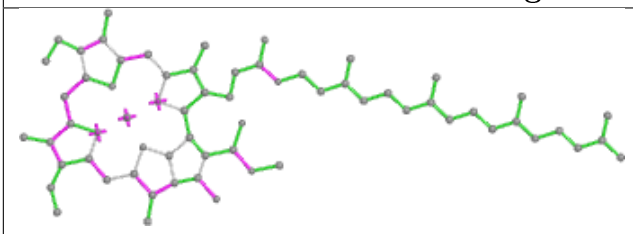


Torsions

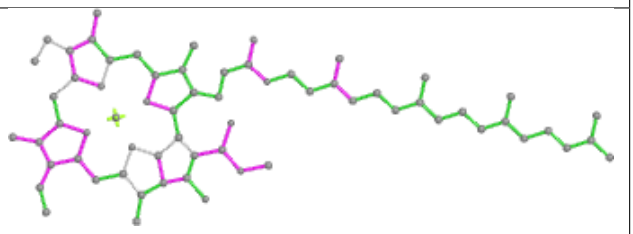


Rings

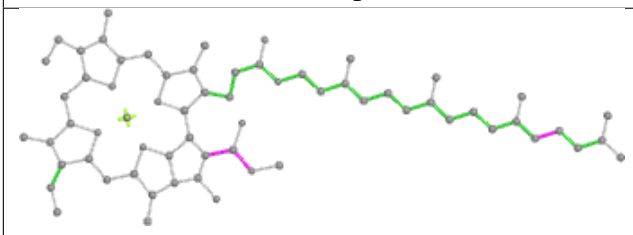
Ligand CLA B 605



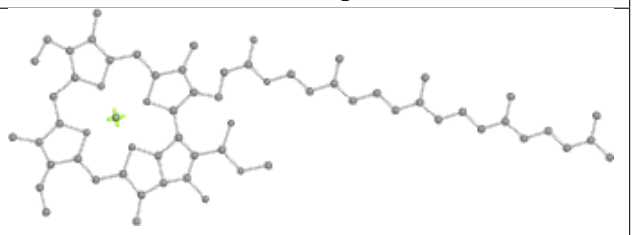
Bond lengths



Bond angles

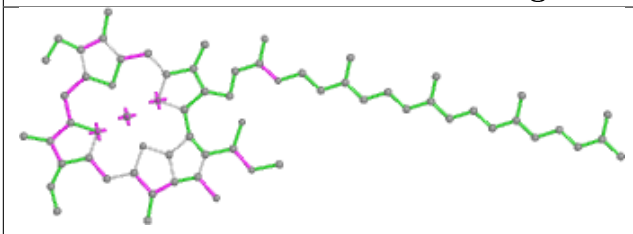


Torsions

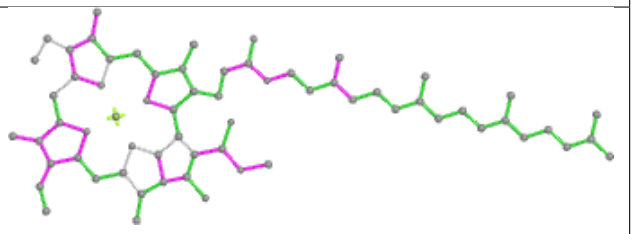


Rings

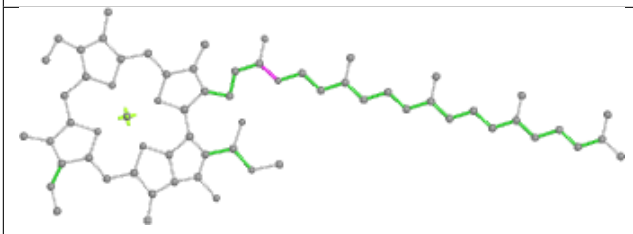
Ligand CLA c 511



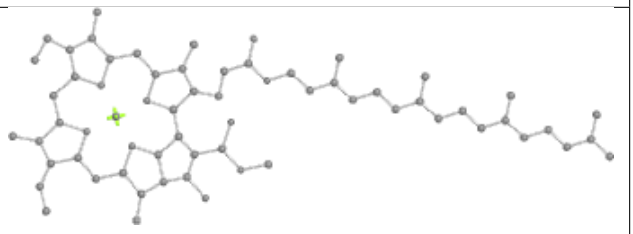
Bond lengths



Bond angles

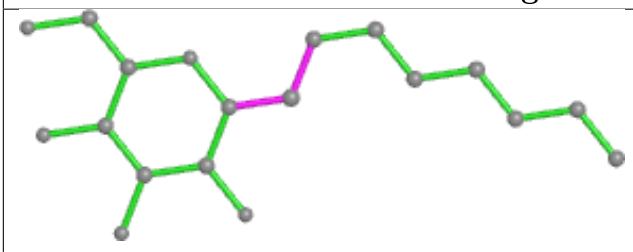


Torsions

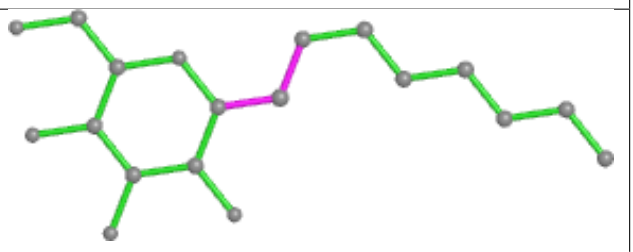


Rings

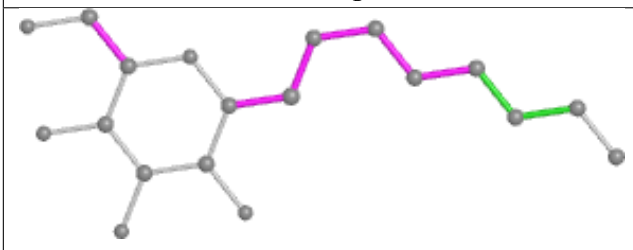
Ligand HTG B 624



Bond lengths



Bond angles



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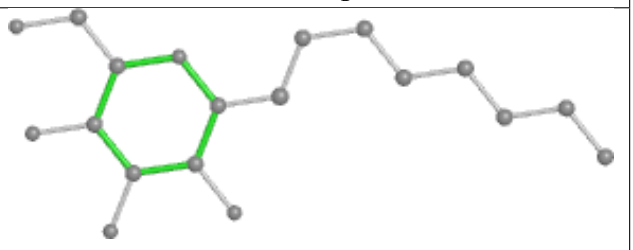
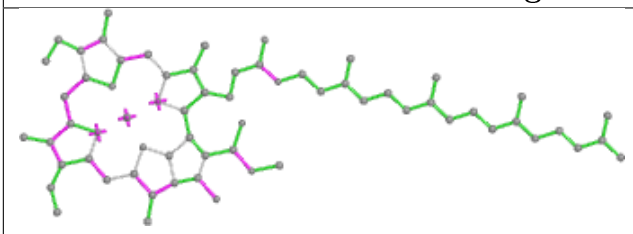
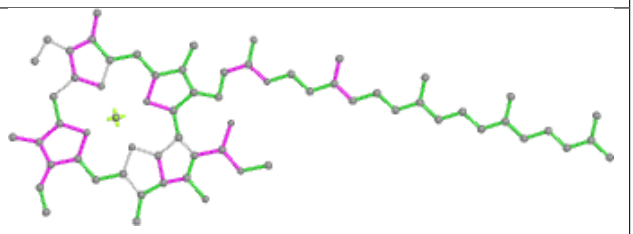


Rings

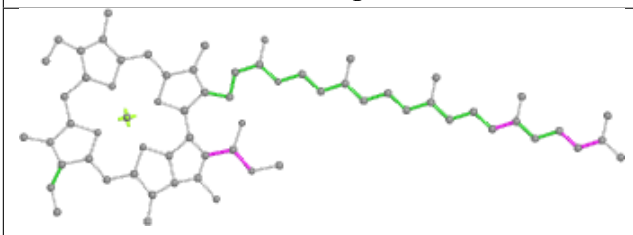
Ligand CLA C 502



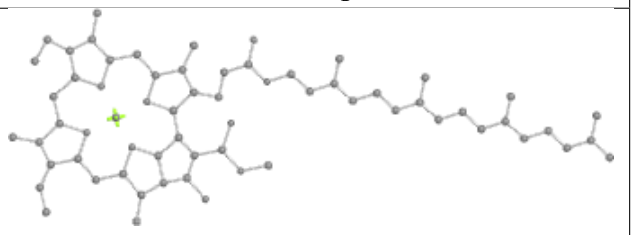
Bond lengths



Bond angles

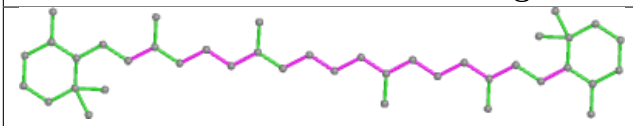


Torsions



Rings

Ligand BCR A 1009



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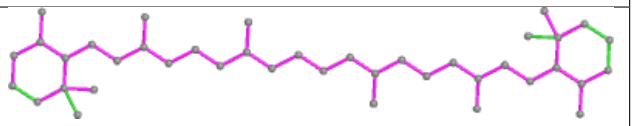
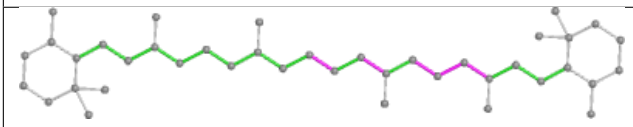


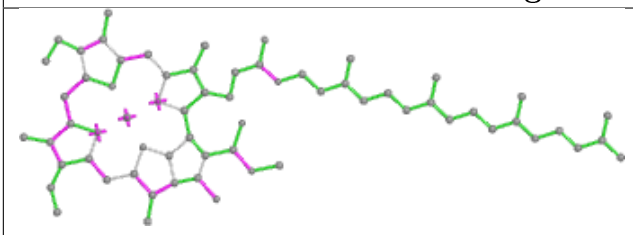
Bond angles



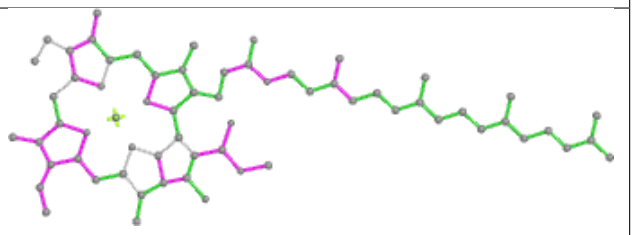
Torsions

Rings

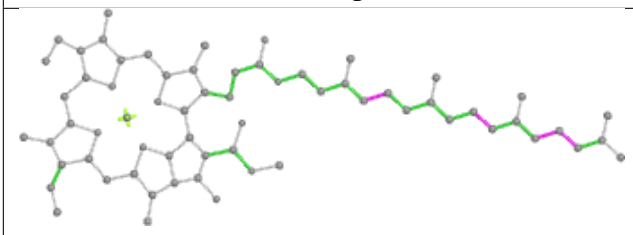
Ligand CLA B 613



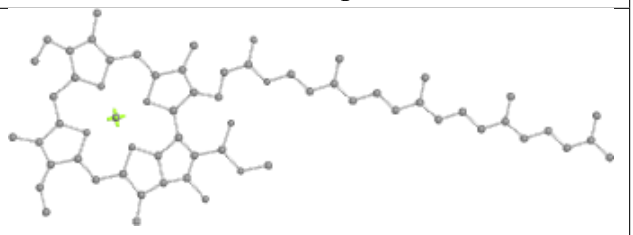
Bond lengths



Bond angles

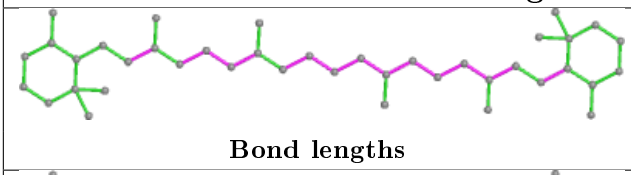


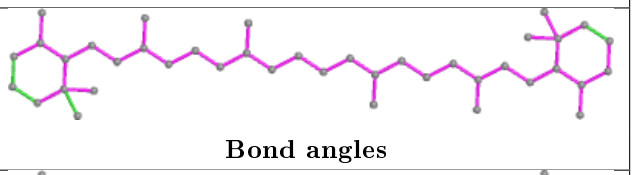
Torsions

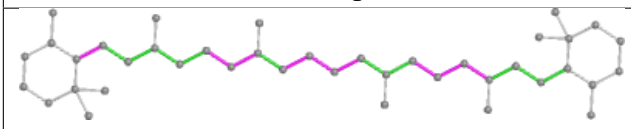


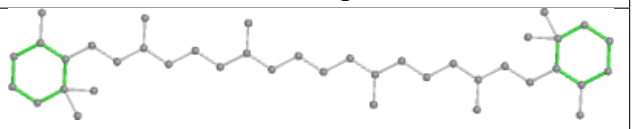
Rings

Ligand BCR J 101

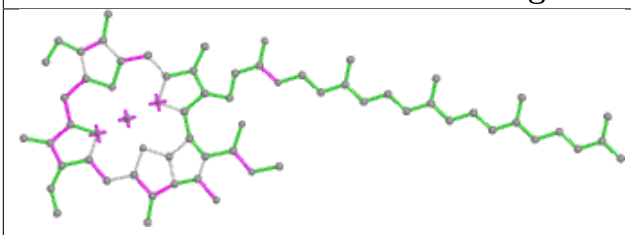

Bond lengths

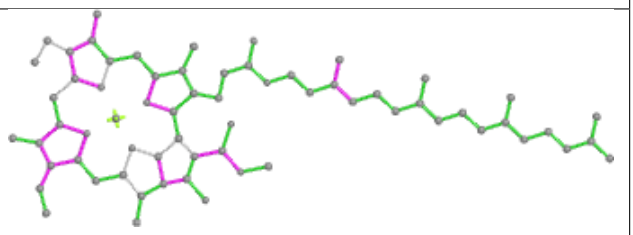

Bond angles

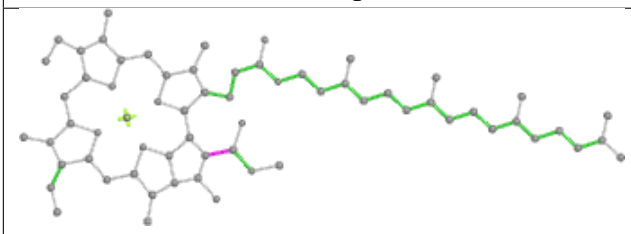

Torsions

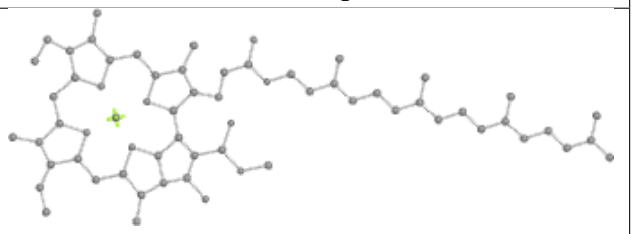

Rings

Ligand CLA a 407

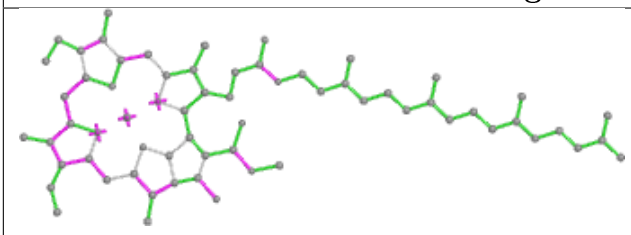

Bond lengths


Bond angles


Torsions


Rings

Ligand CLA C 501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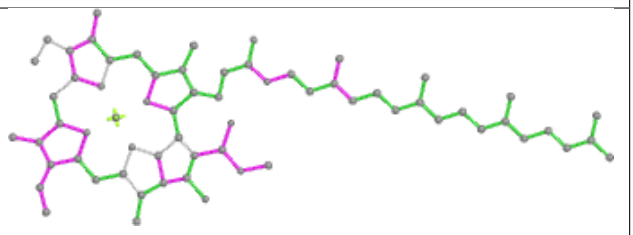
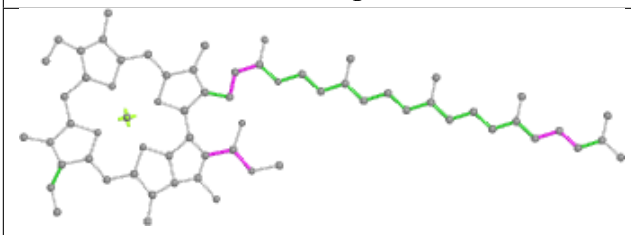

Bond angles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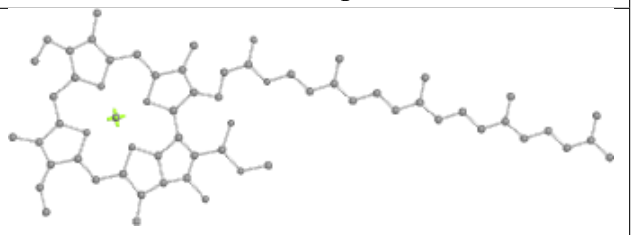
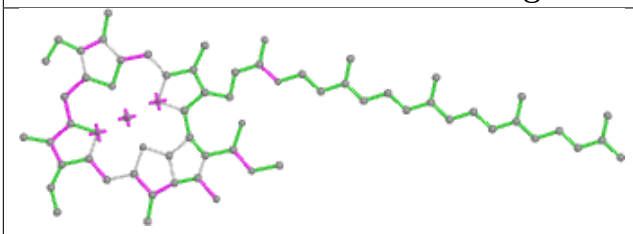

Rings

Ligand CLA D 402



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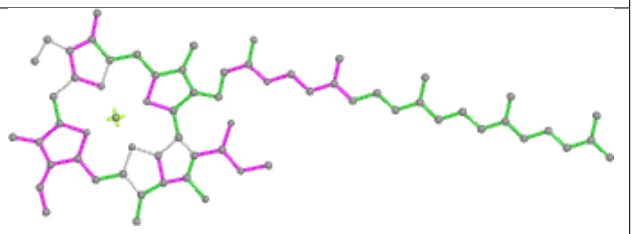

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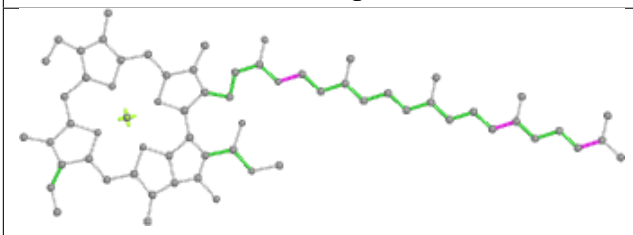

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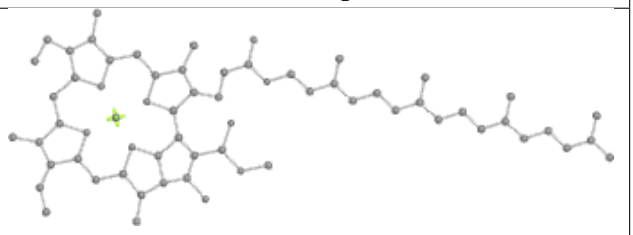
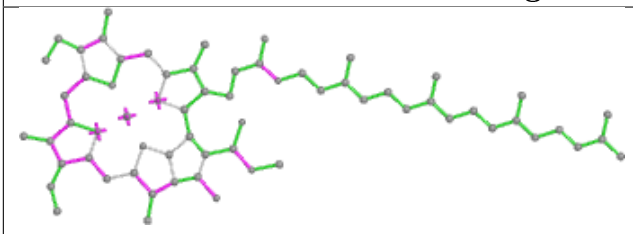
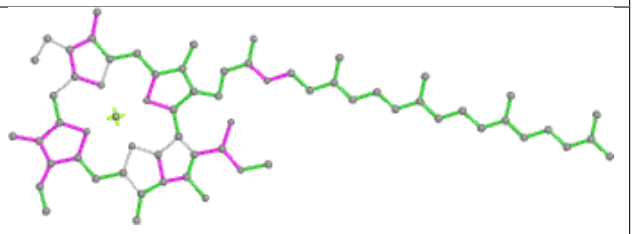


Rings

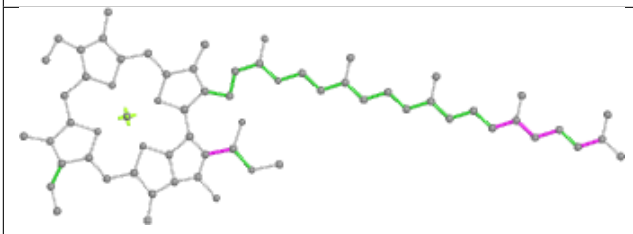
Ligand CLA C 505



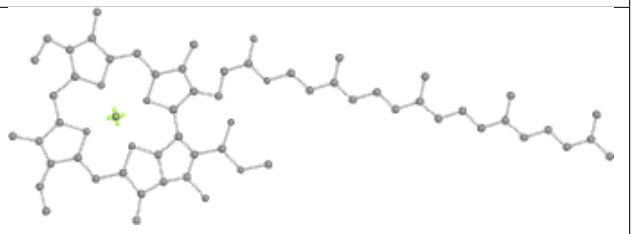
Bond lengths



Bond angles

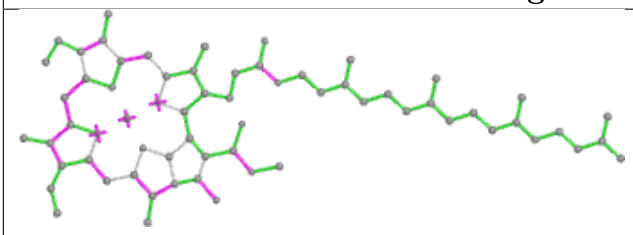


Torsions

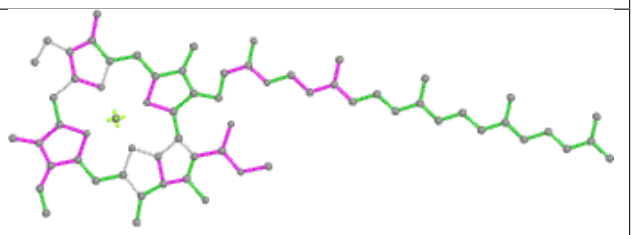


Rings

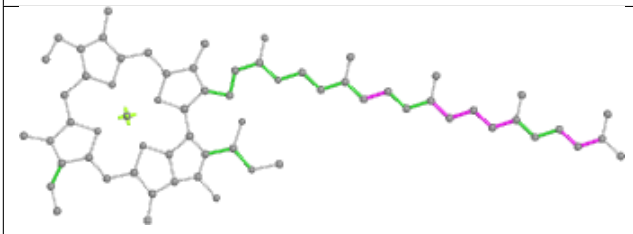
Ligand CLA b 616



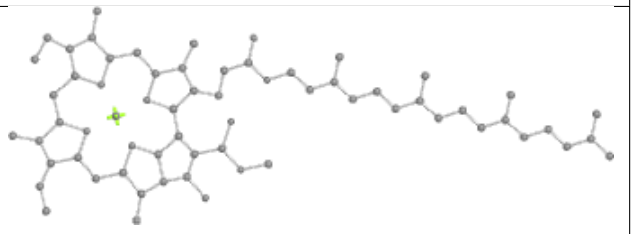
Bond lengths



Bond angles

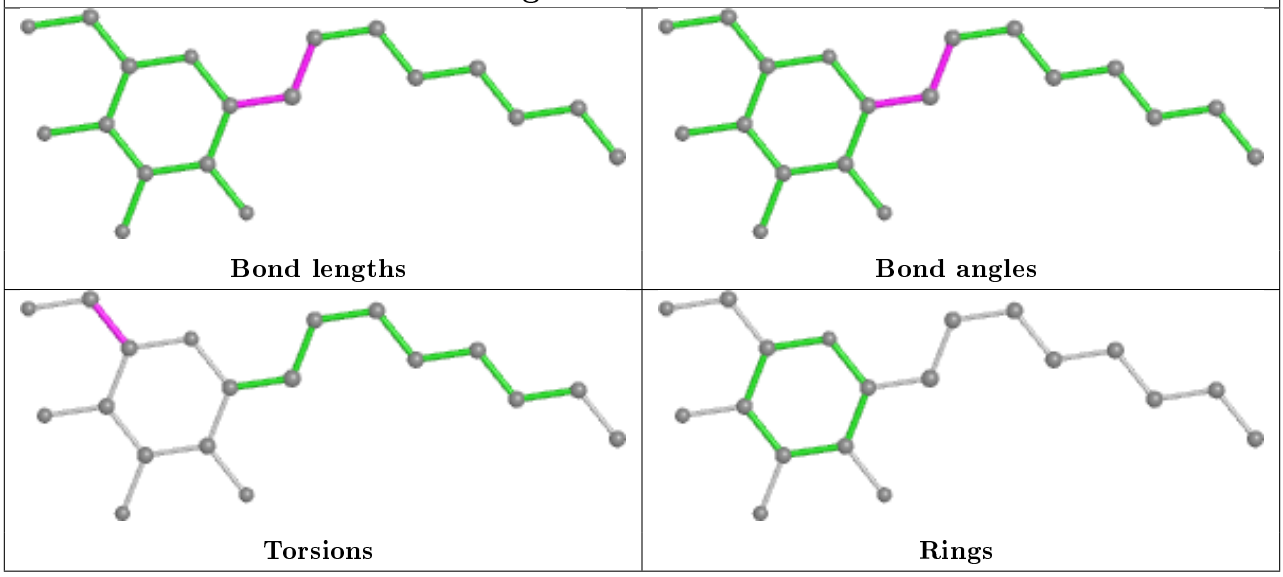


Torsions

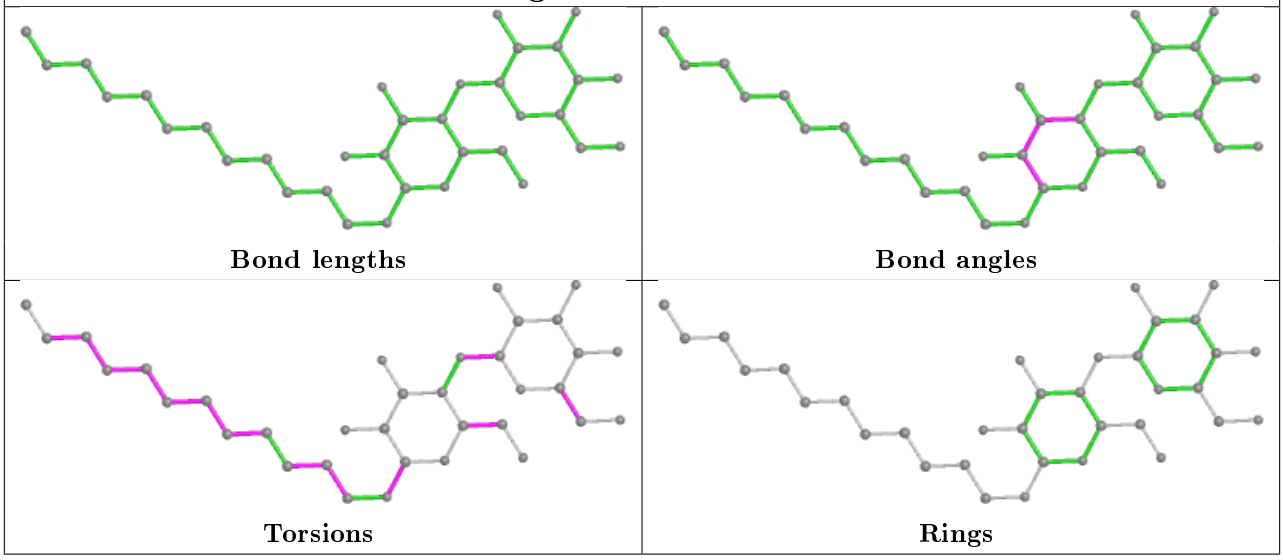


Rings

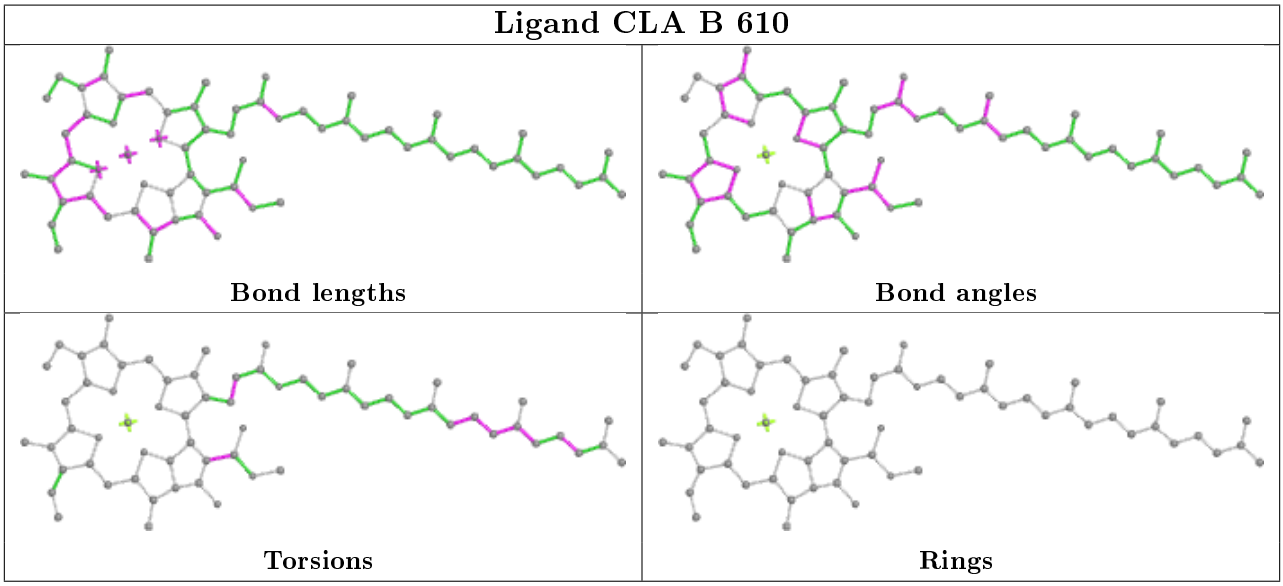
Ligand HTG B 629



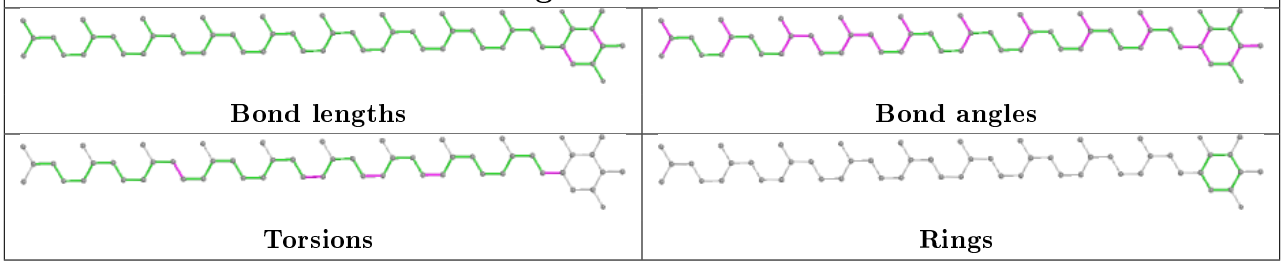
Ligand LMT t 103



Ligand CLA B 610



Ligand PL9 a 414



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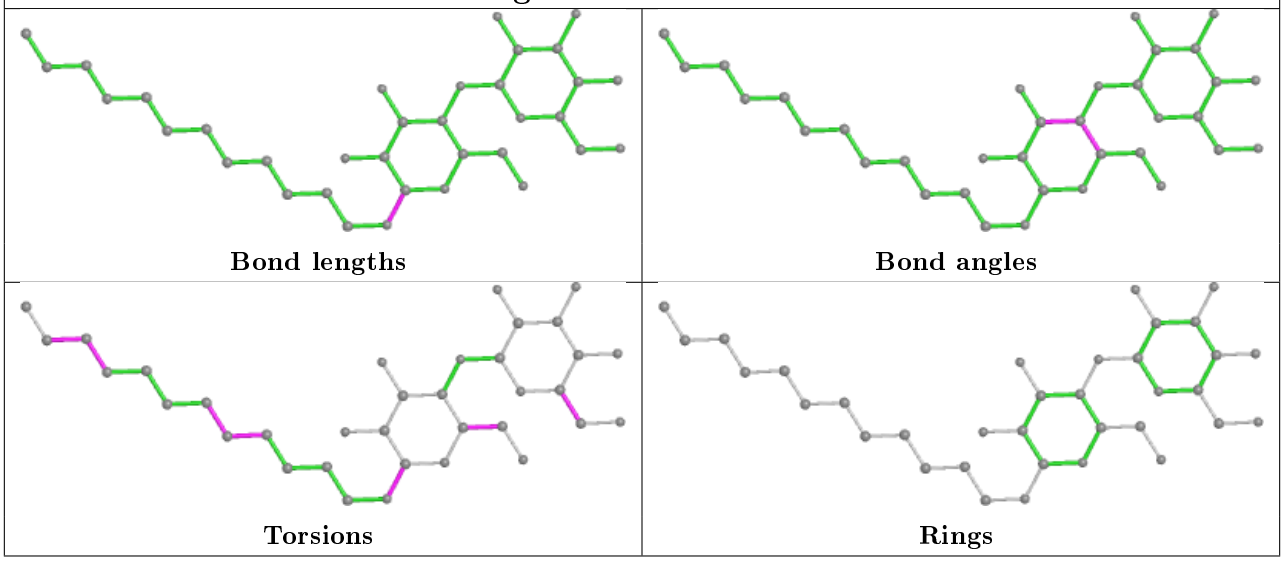
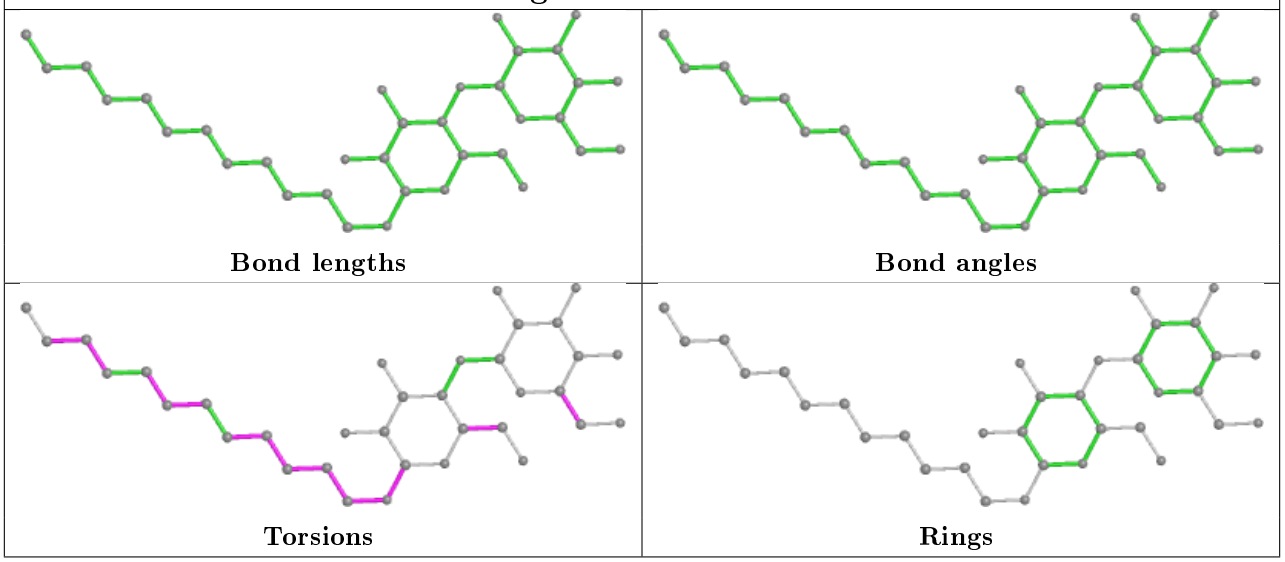
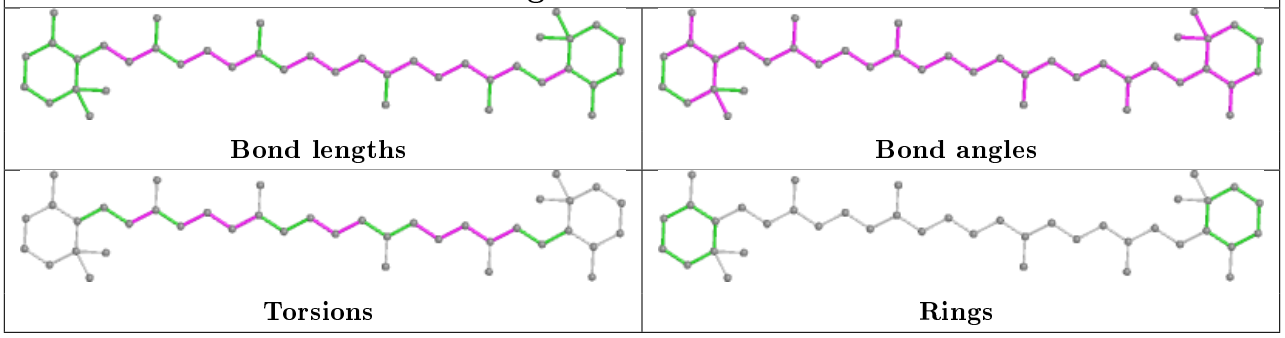


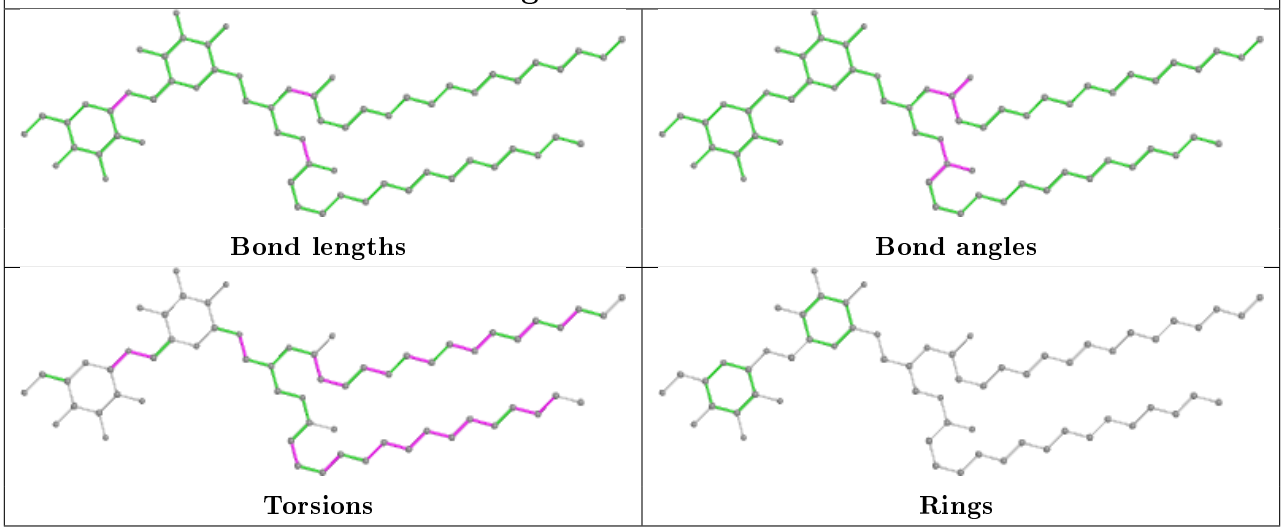
Ligand LMT f 103



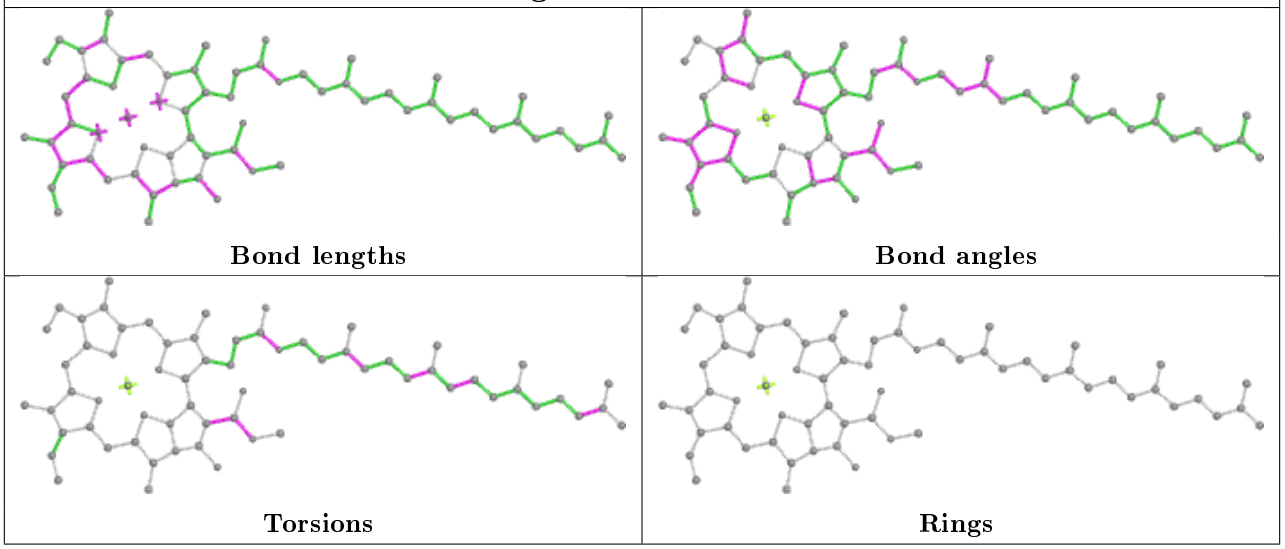
Ligand BCR k 101



Ligand DGD C 516



Ligand CLA c 510



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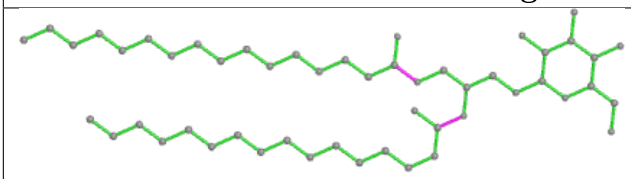
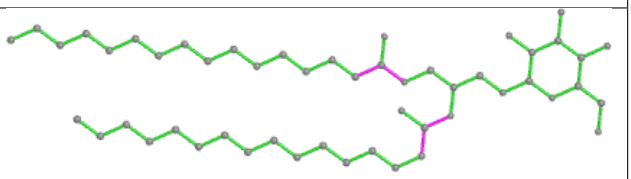
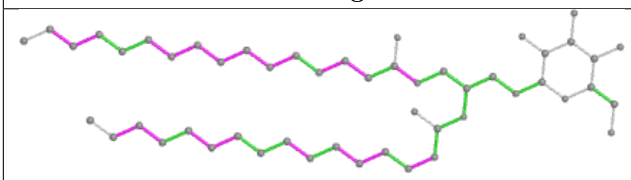
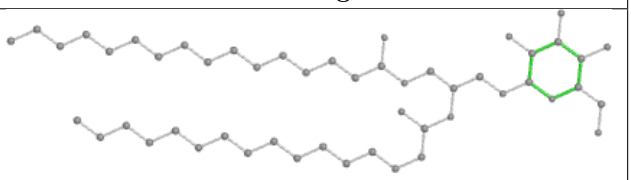
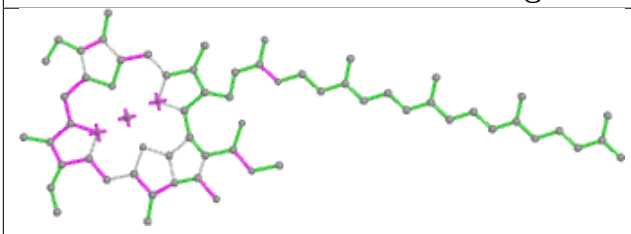

Bond lengths


Bond angles


Torsions


Rings

Ligand CLA C 513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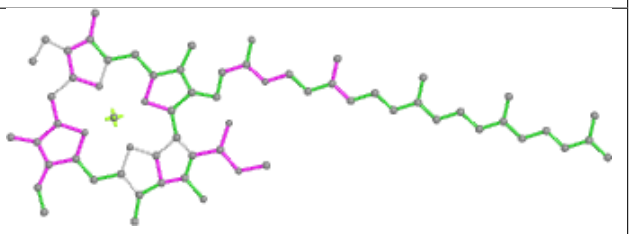
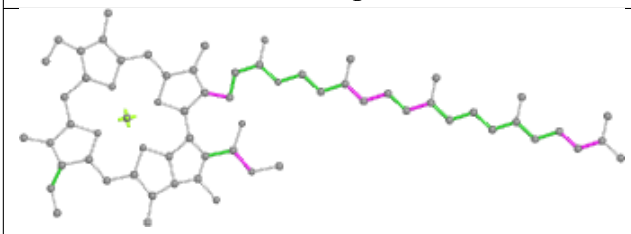
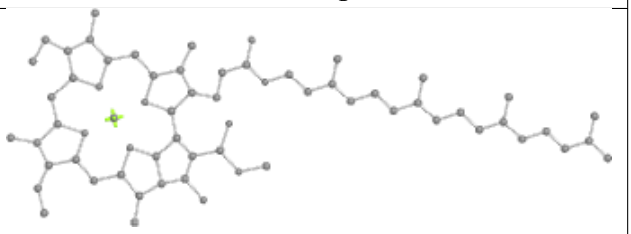
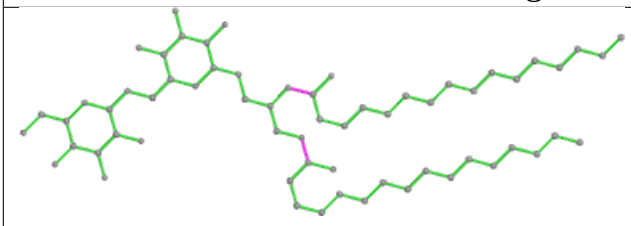
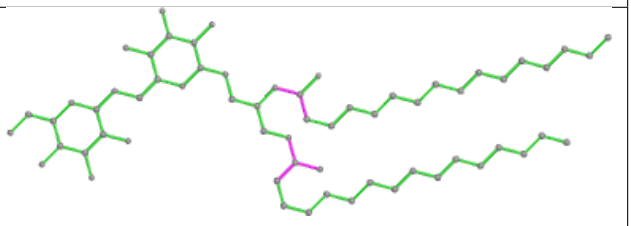

Bond angles

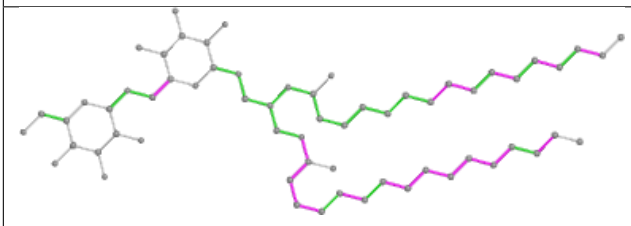

Torsions

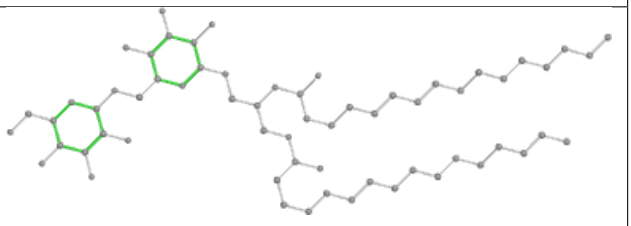

Rings

Ligand DGD c 517

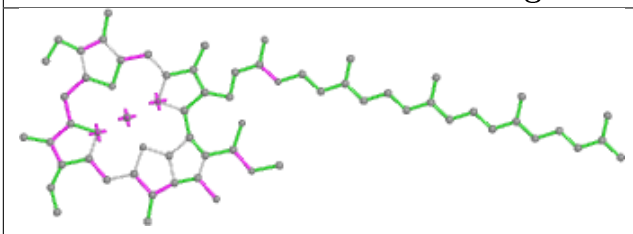

Bond lengths


Bond angles

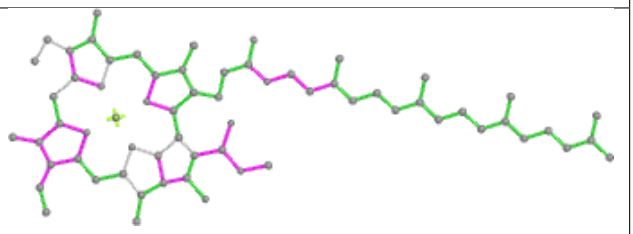

Torsions


Rings

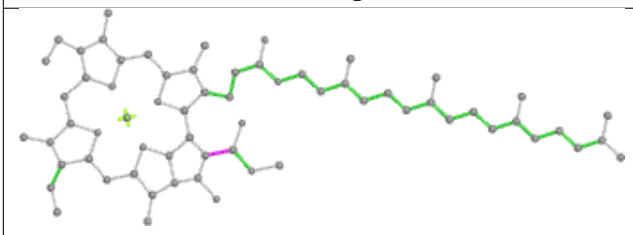
Ligand CLA B 609



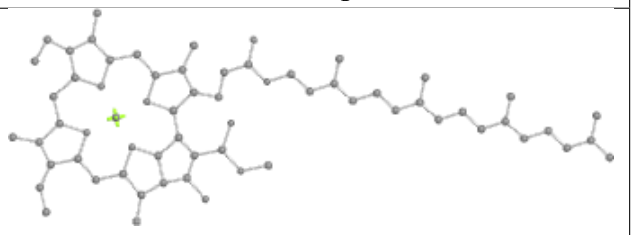
Bond lengths



Bond angles

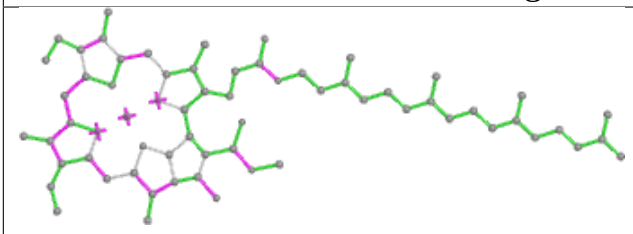


Torsions

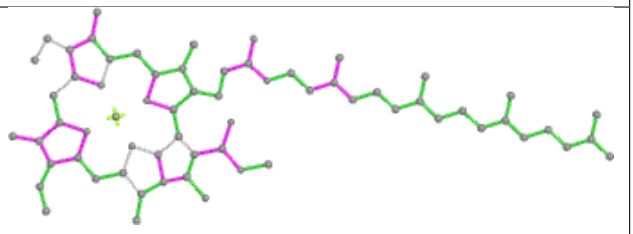


Rings

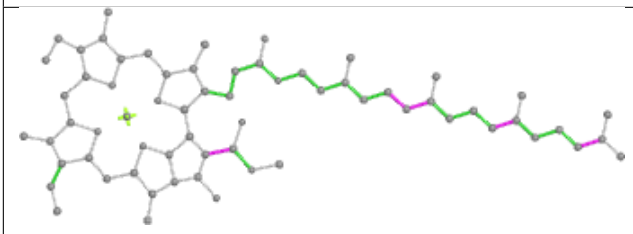
Ligand CLA B 603



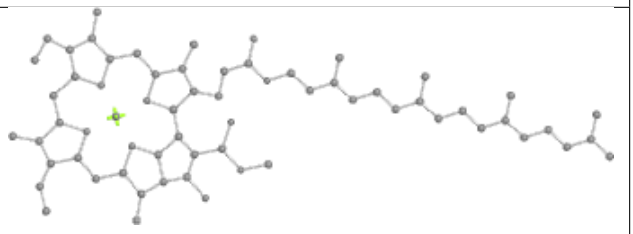
Bond lengths



Bond angles

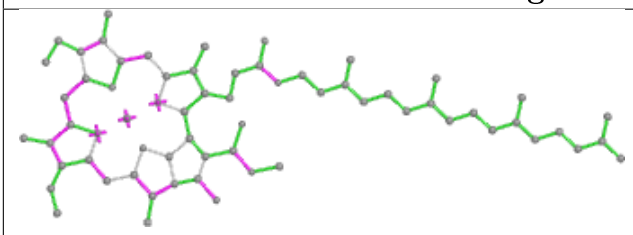


Torsions

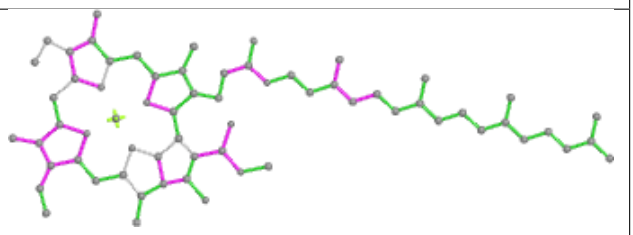


Rings

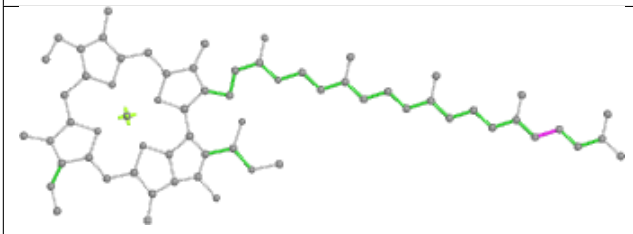
Ligand CLA b 611



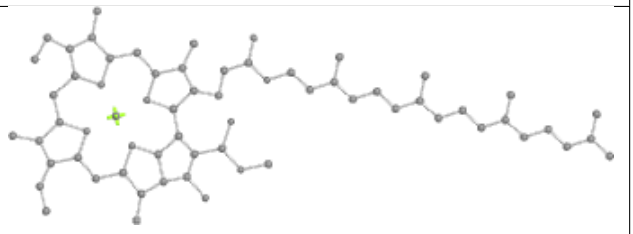
Bond lengths



Bond angles

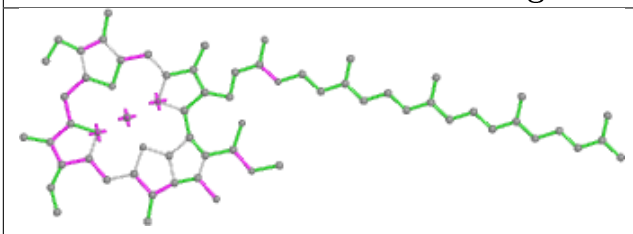


Torsions

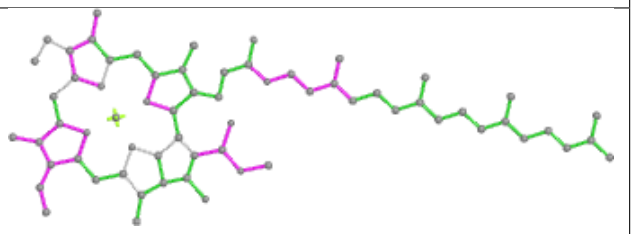


Rings

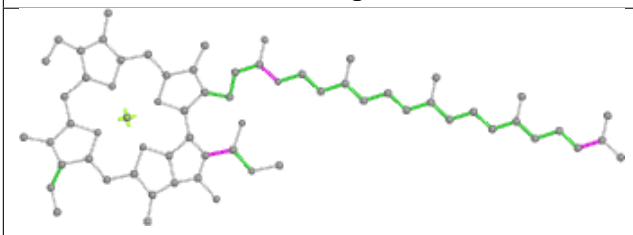
Ligand CLA b 610



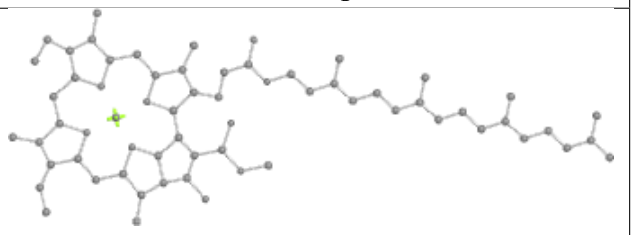
Bond lengths



Bond angles

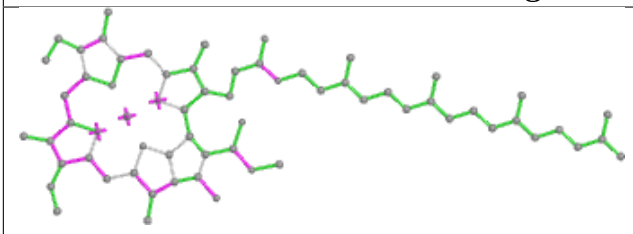


Torsions

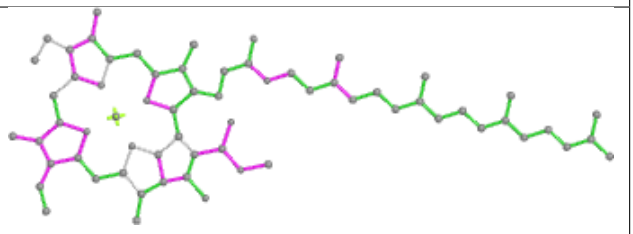


Rings

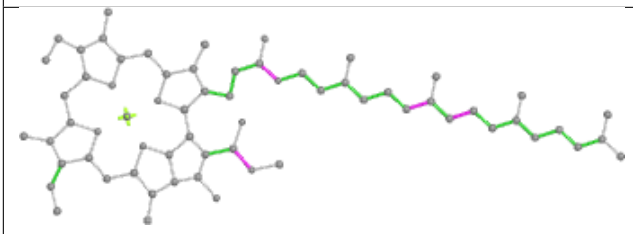
Ligand CLA C 511



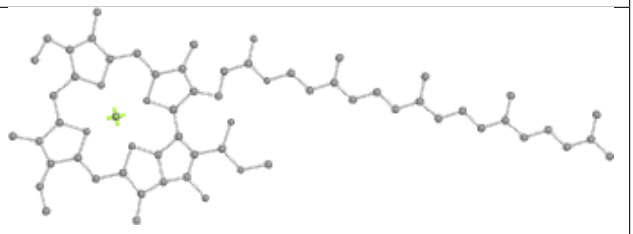
Bond lengths



Bond angles

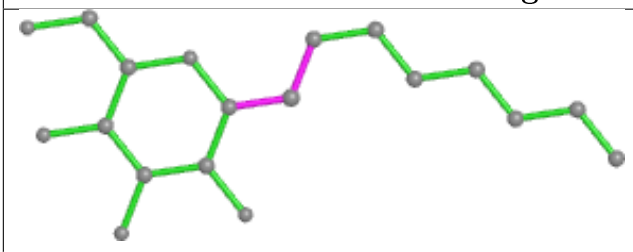


Torsions

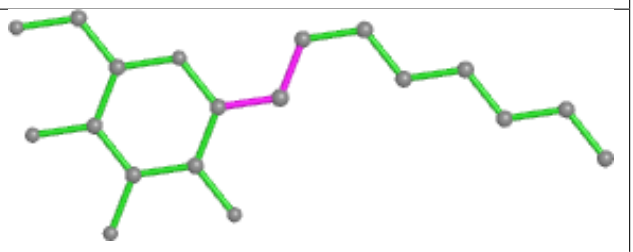


Rings

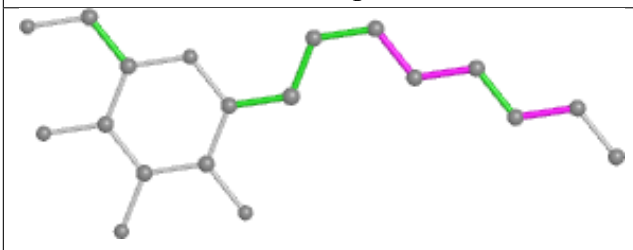
Ligand HTG B 628



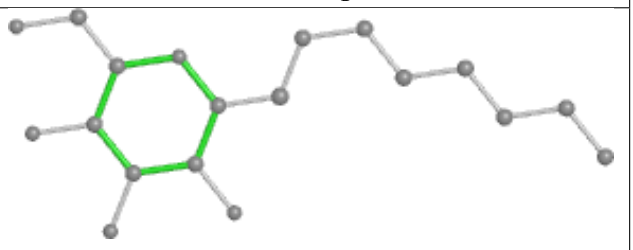
Bond lengths



Bond angles

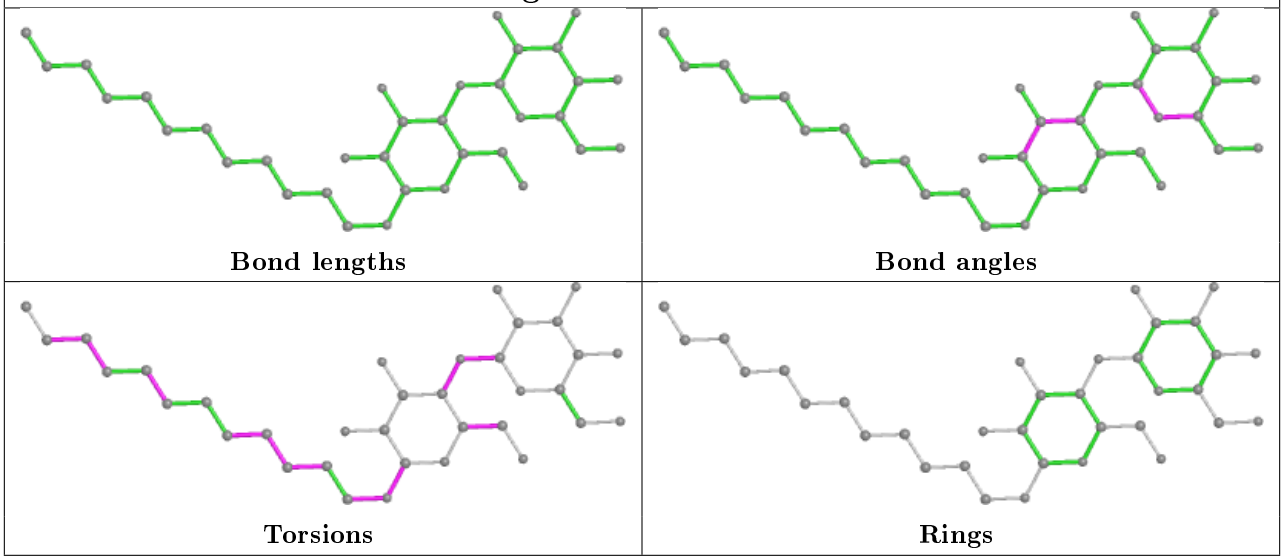


Torsions

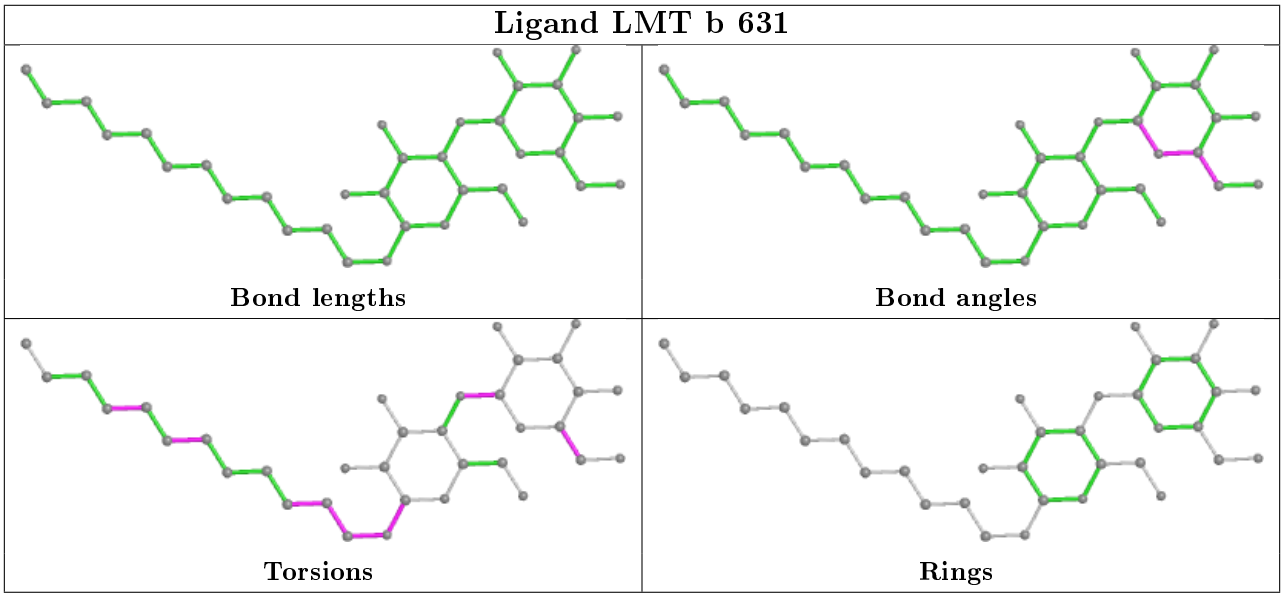


Rings

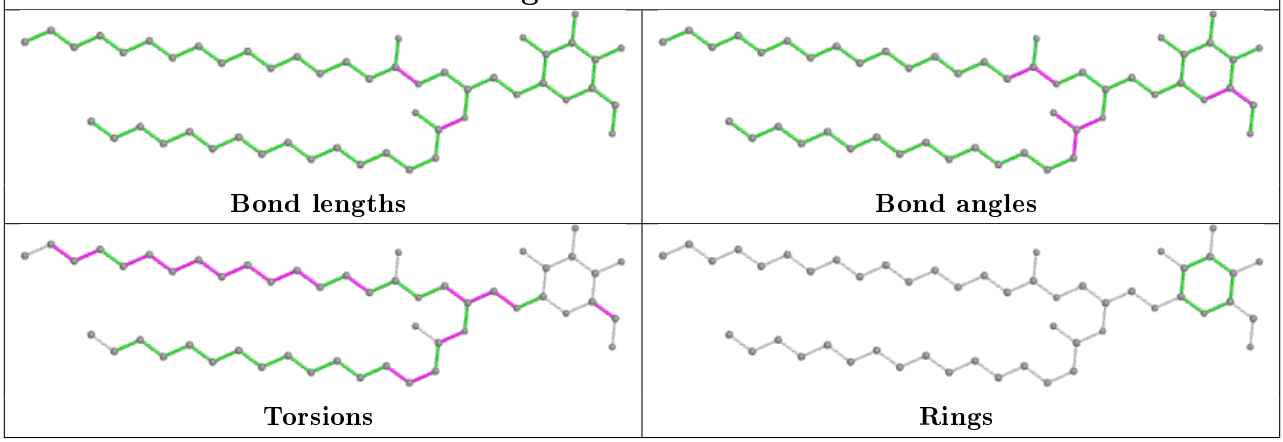
Ligand LMT B 623



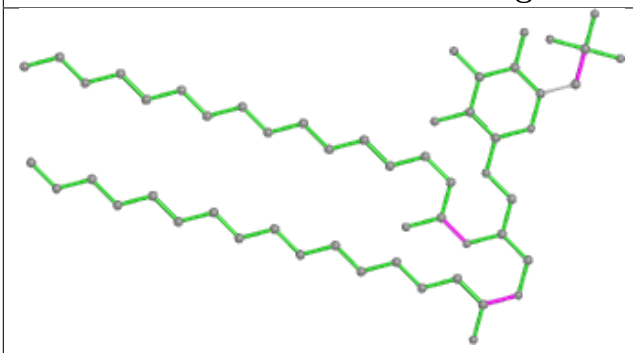
Ligand LMT b 631



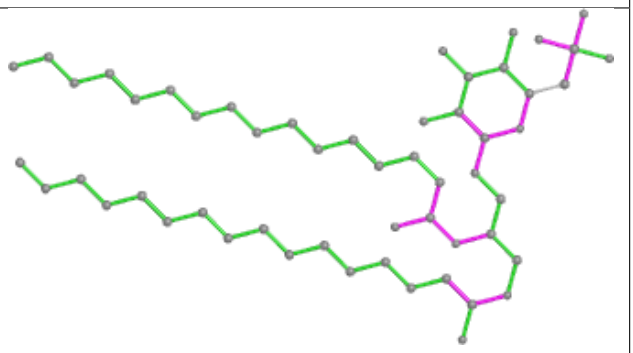
Ligand LMG C 519



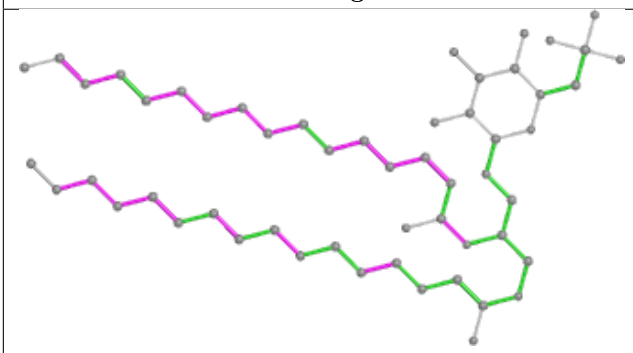
Ligand SQD A 1011



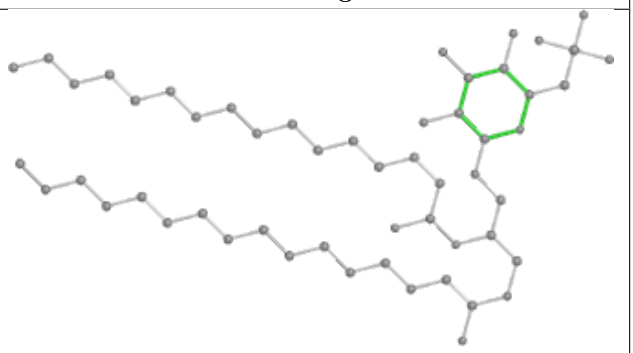
Bond lengths



Bond angles

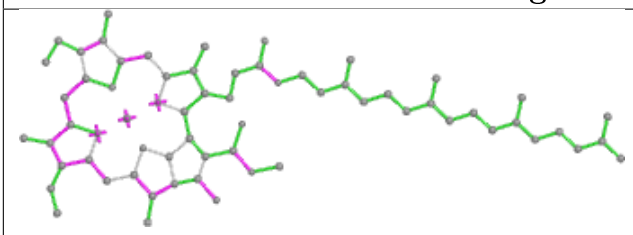


Torsions

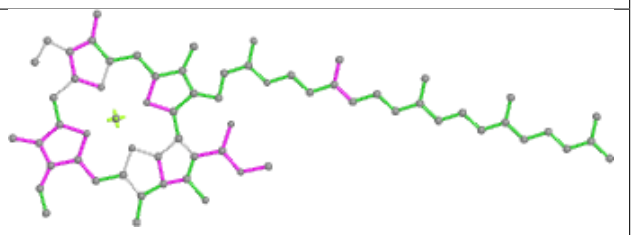


Rings

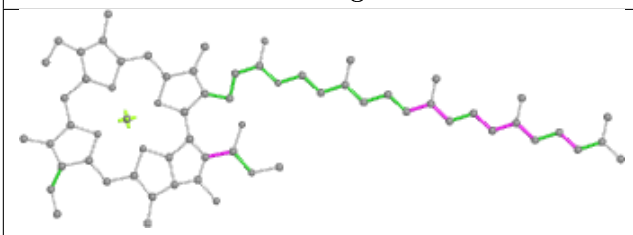
Ligand CLA c 504



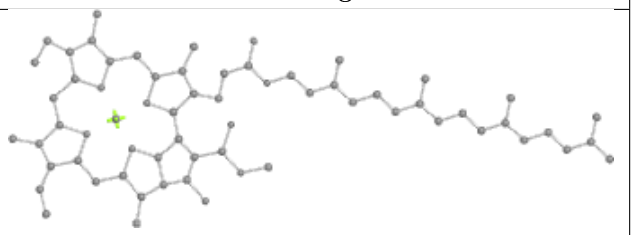
Bond lengths



Bond angles

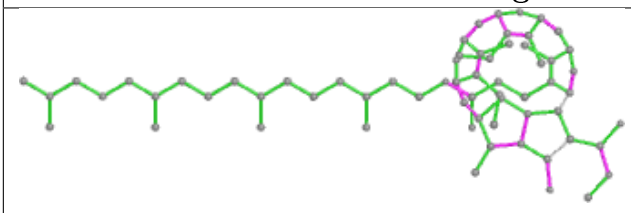


Torsions

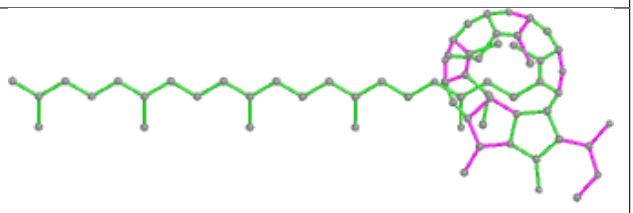


Rings

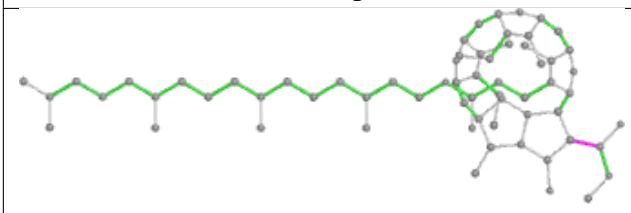
Ligand PHO A 1007



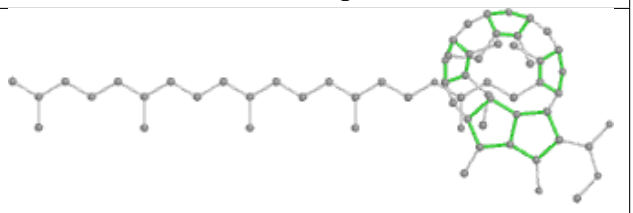
Bond lengths



Bond angles

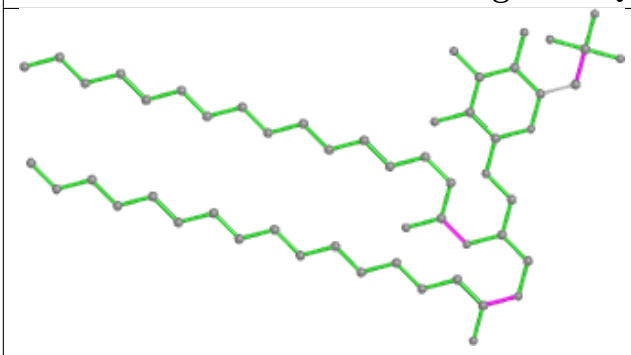


Torsions

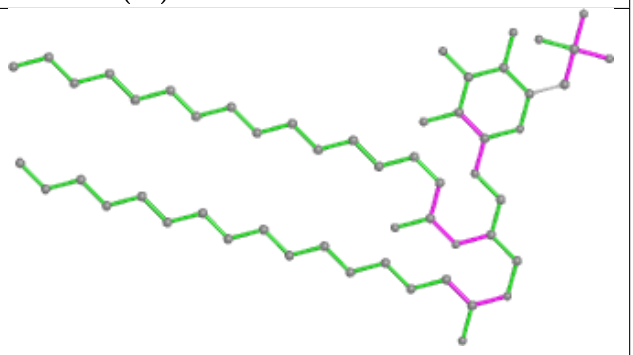


Rings

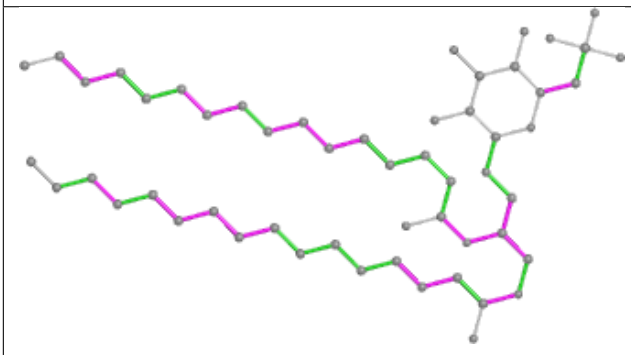
Ligand SQD B 620 (B)



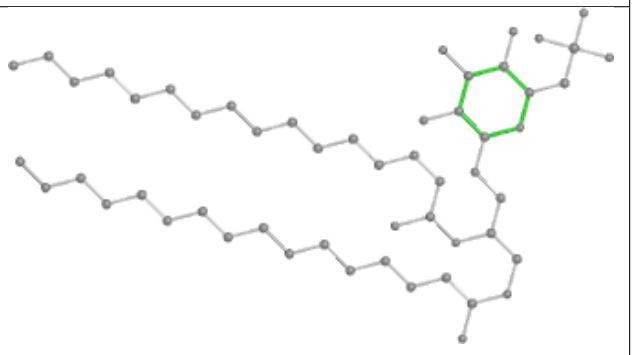
Bond lengths



Bond angles

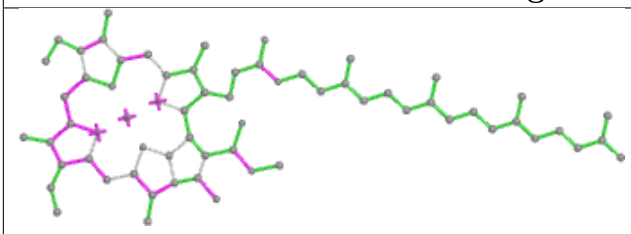


Torsions

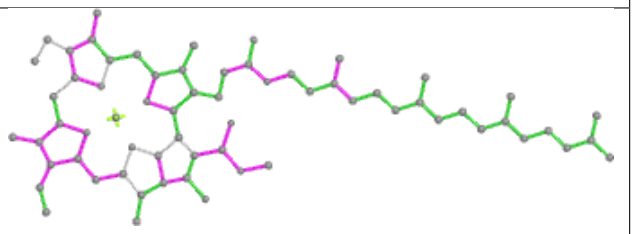


Rings

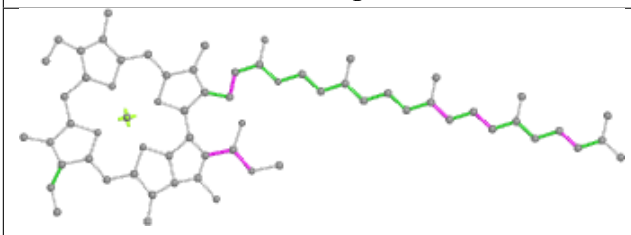
Ligand CLA b 609



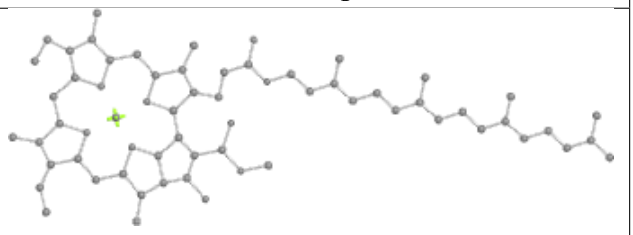
Bond lengths



Bond angles

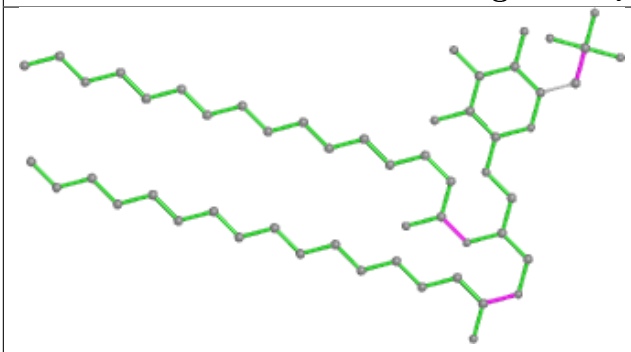


Torsions

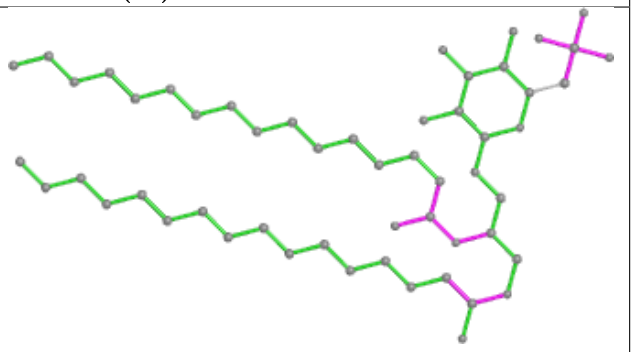


Rings

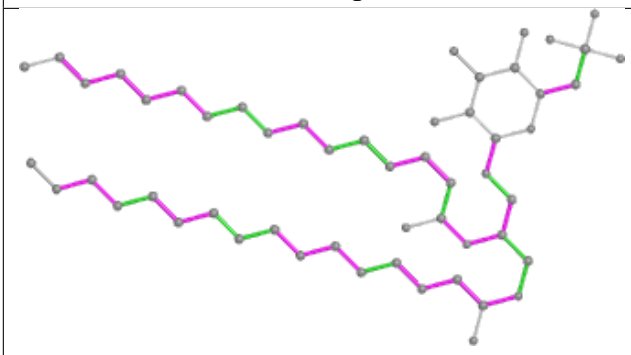
Ligand SQD B 620 (A)



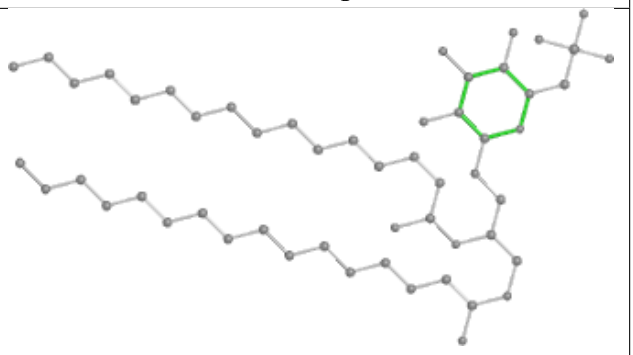
Bond lengths



Bond angles

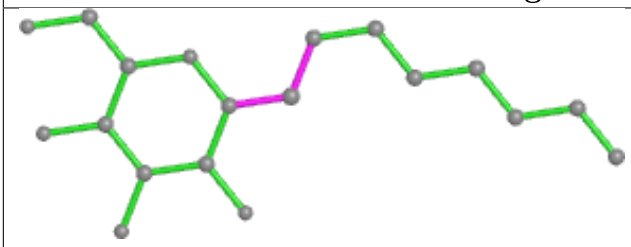


Torsions

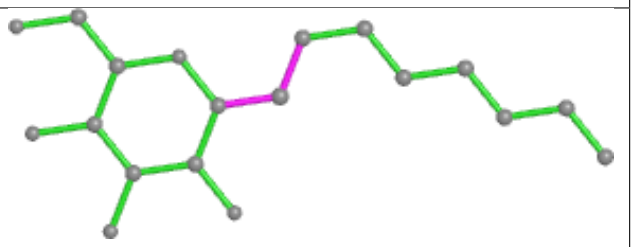


Rings

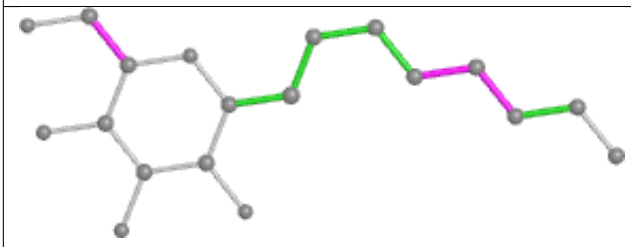
Ligand HTG d 410



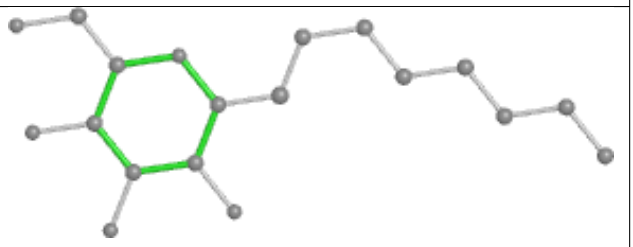
Bond lengths



Bond angles

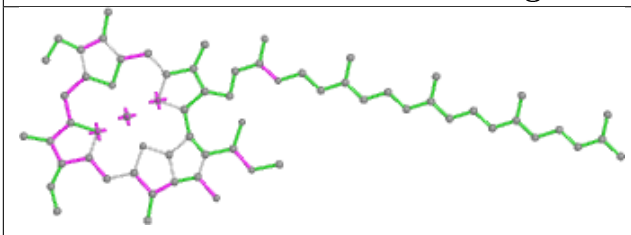


Torsions

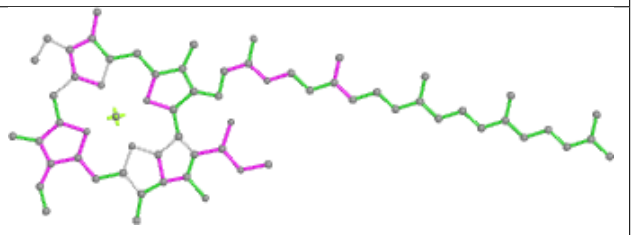


Rings

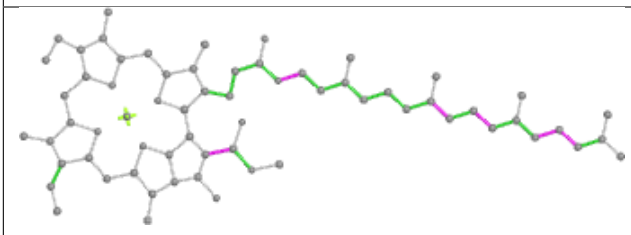
Ligand CLA C 509



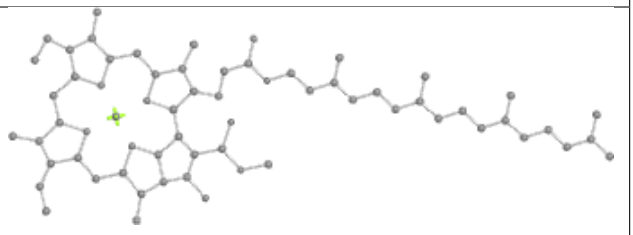
Bond lengths



Bond angles

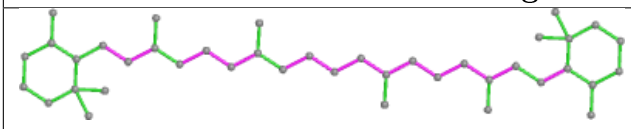


Torsions

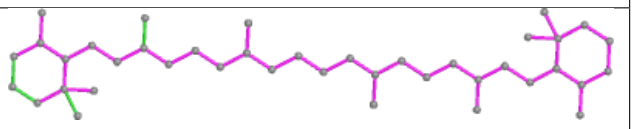


Rings

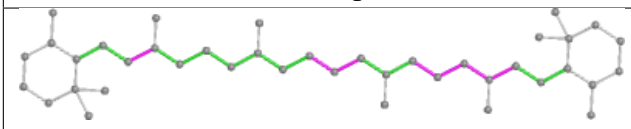
Ligand BCR K 102



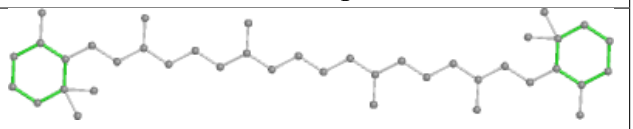
Bond lengths



Bond angles

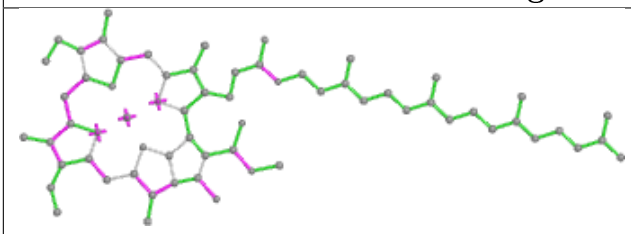


Torsions

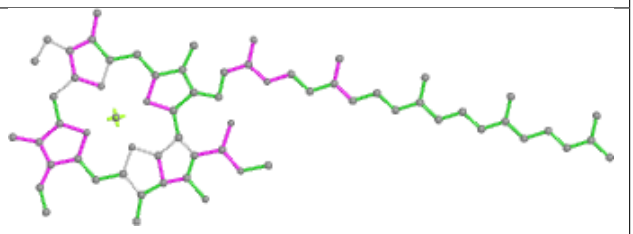


Rings

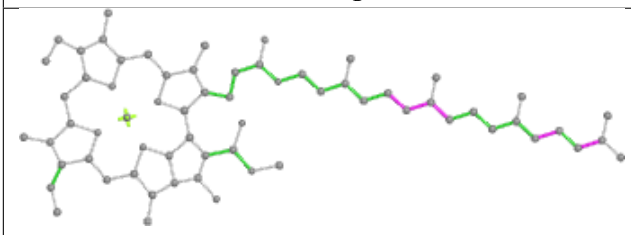
Ligand CLA b 606



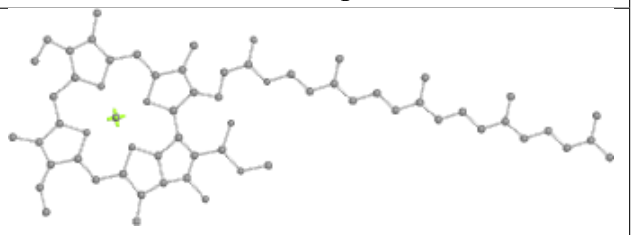
Bond lengths



Bond angles

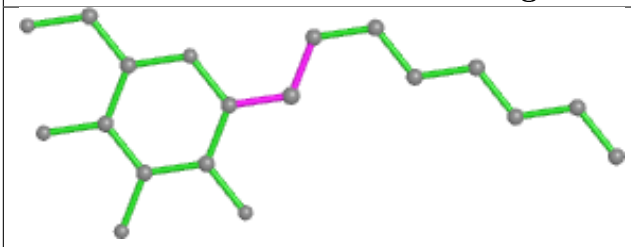


Torsions

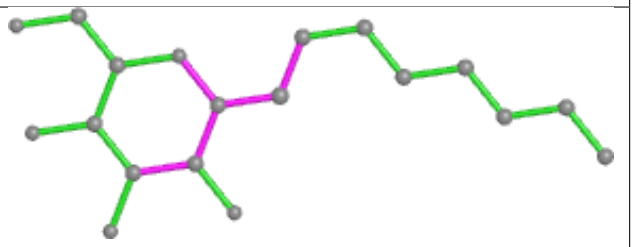


Rings

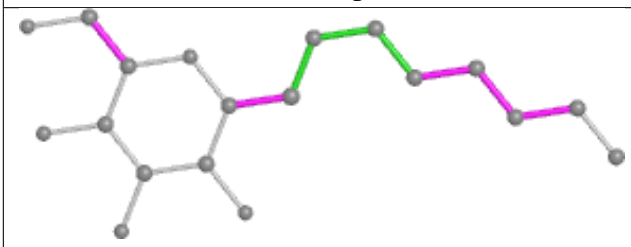
Ligand HTG V 202



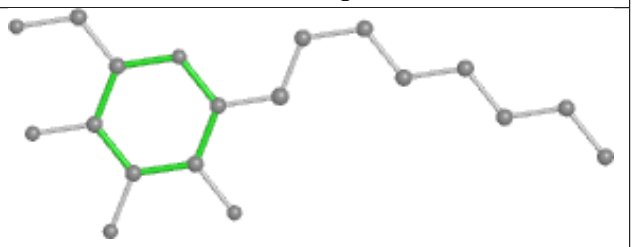
Bond lengths



Bond angles

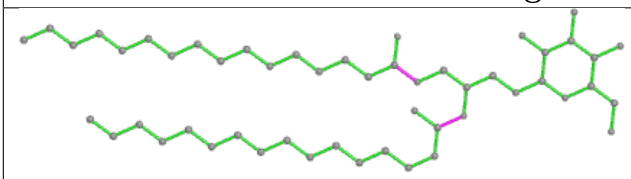


Torsions

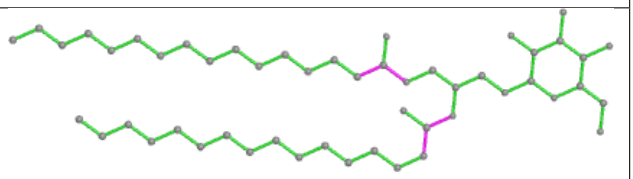


Rings

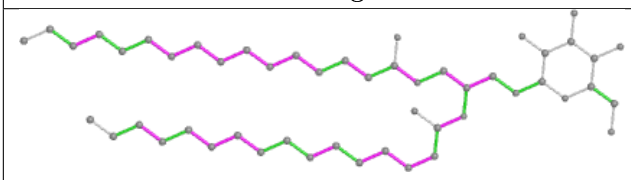
Ligand LMG c 519



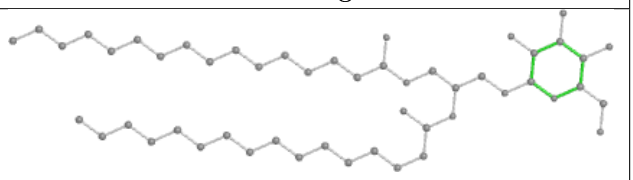
Bond lengths



Bond angles

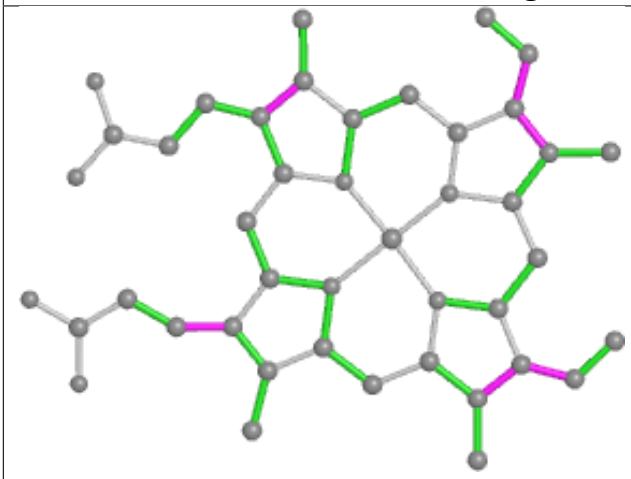


Torsions

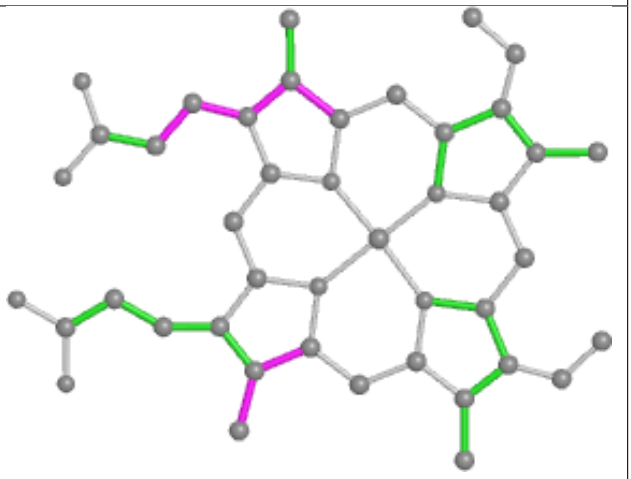


Rings

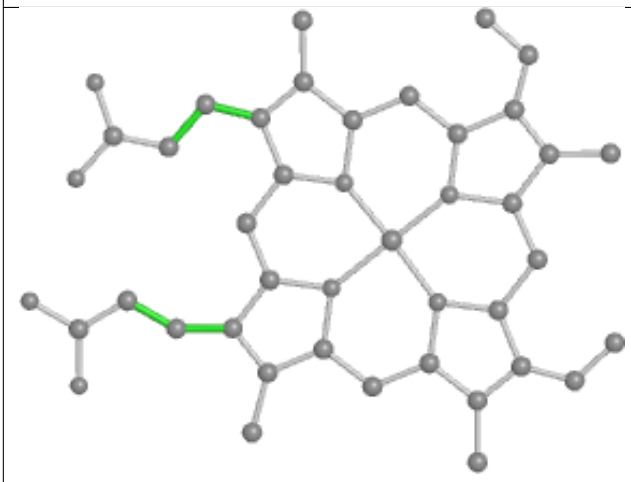
Ligand HEM v 201



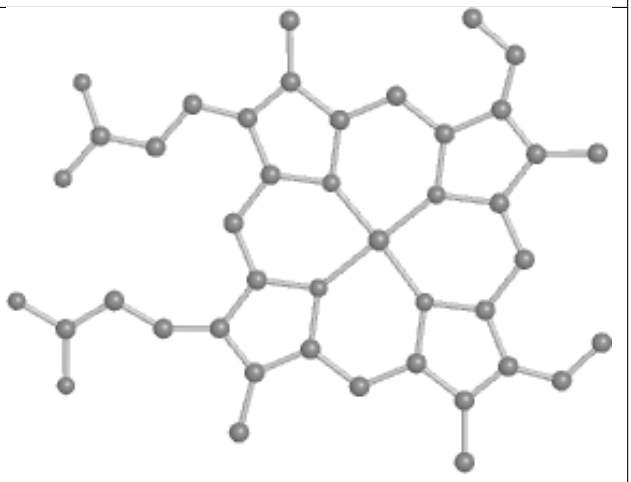
Bond lengths



Bond angles

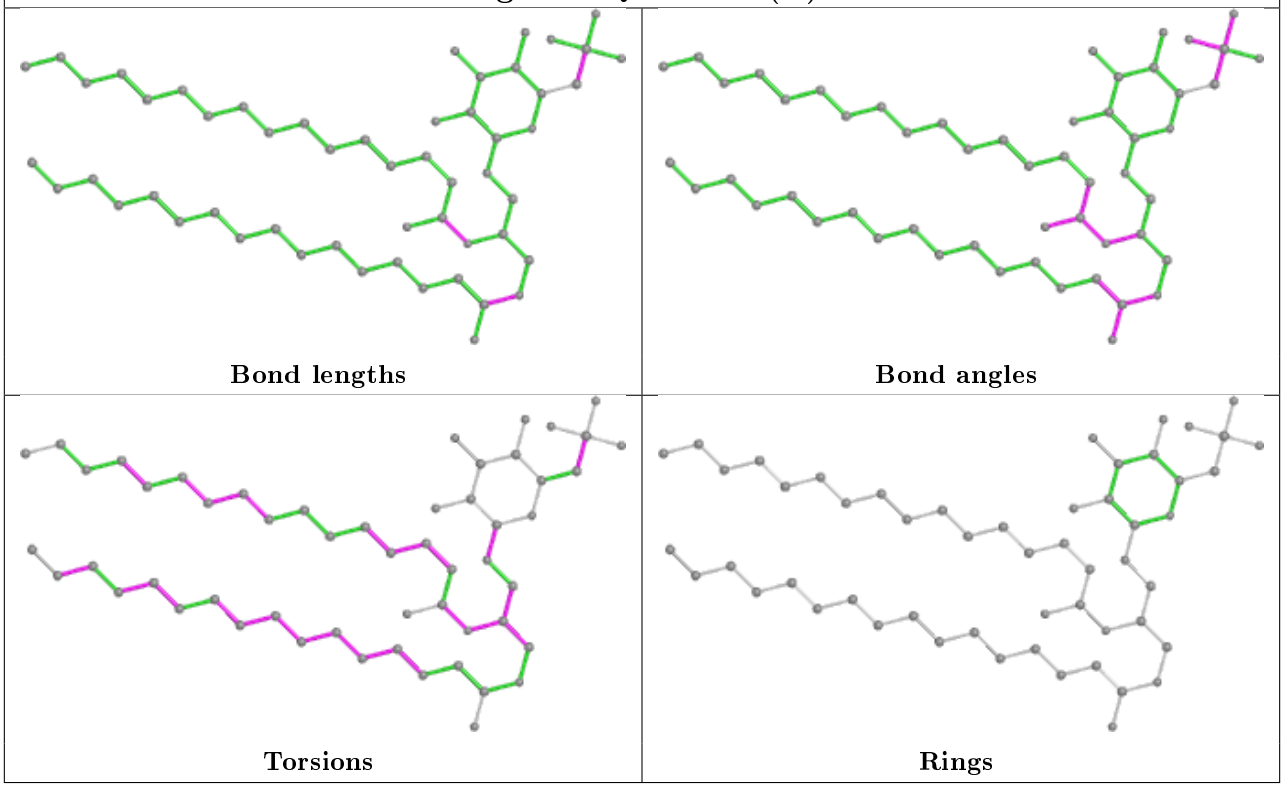


Torsions

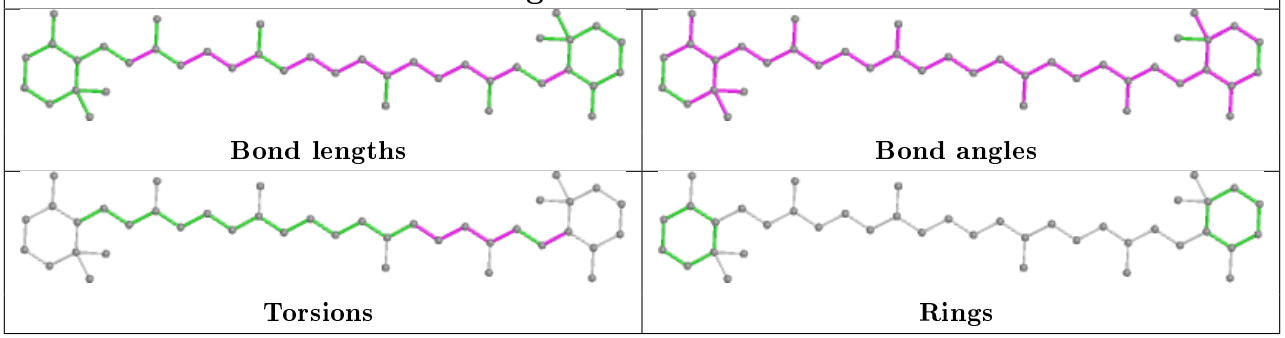


Rings

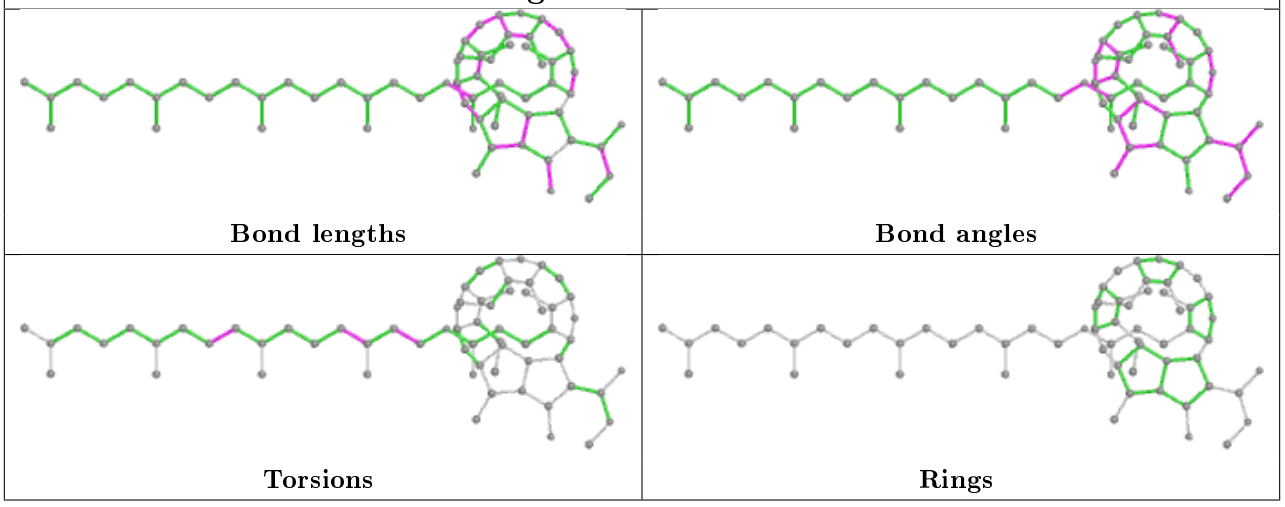
Ligand SQD b 623 (B)



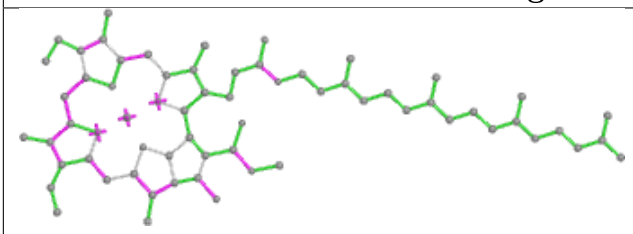
Ligand BCR b 621



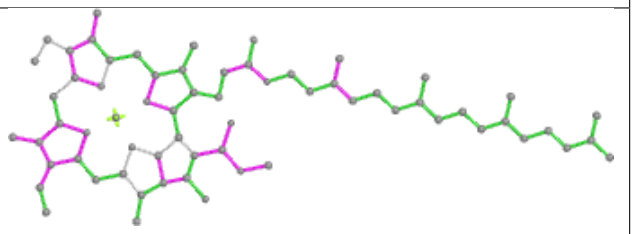
Ligand PHO a 410



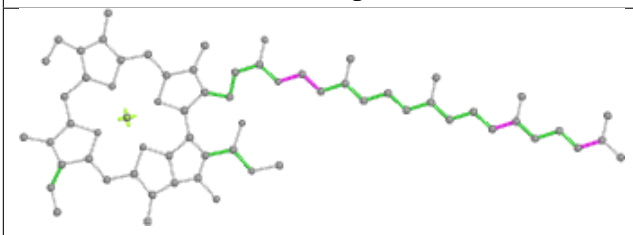
Ligand CLA d 402



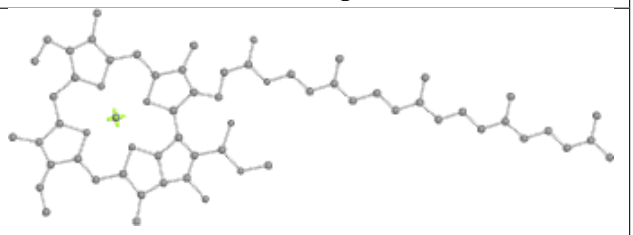
Bond lengths



Bond angles

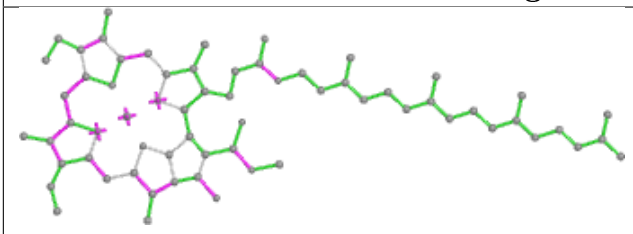


Torsions

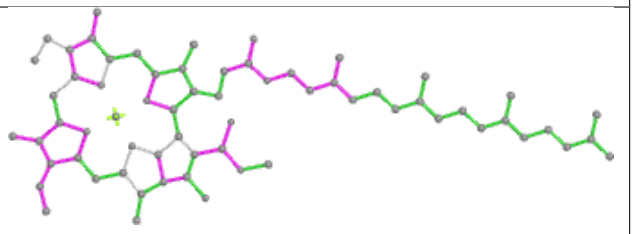


Rings

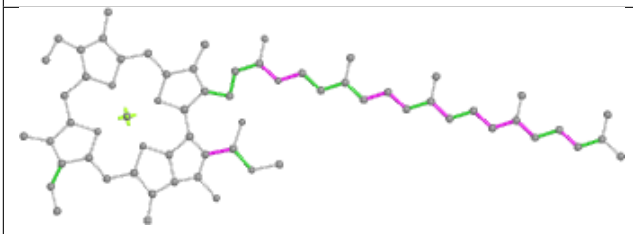
Ligand CLA B 616



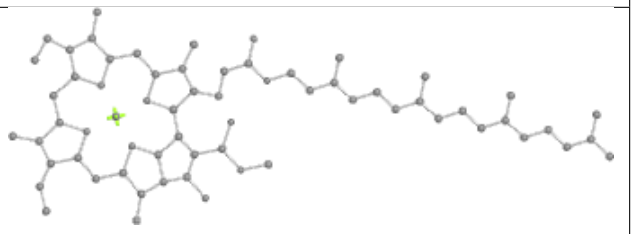
Bond lengths



Bond angles

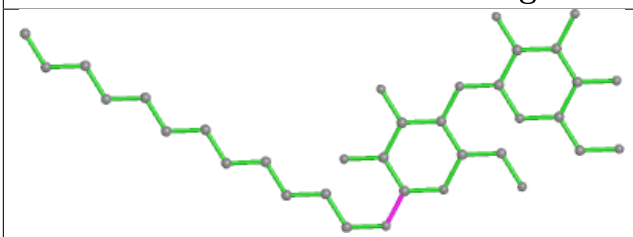


Torsions

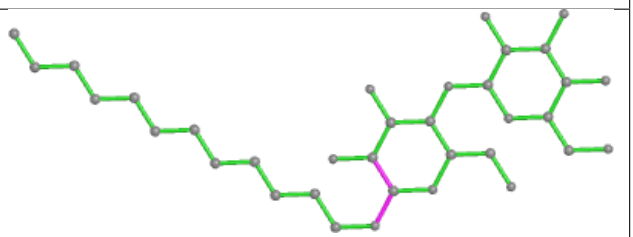


Rings

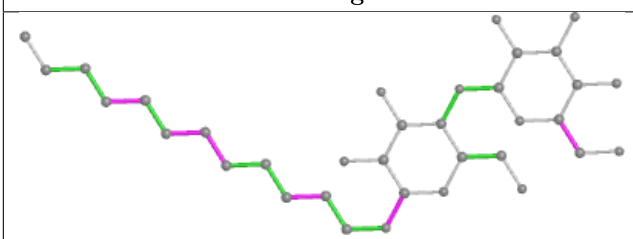
Ligand LMT m 103



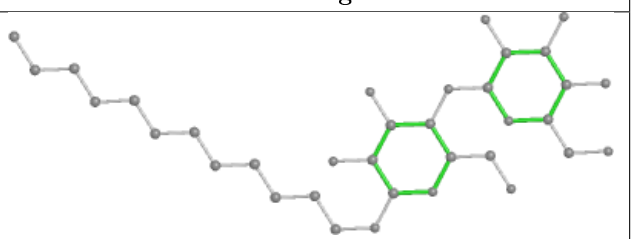
Bond lengths



Bond angles

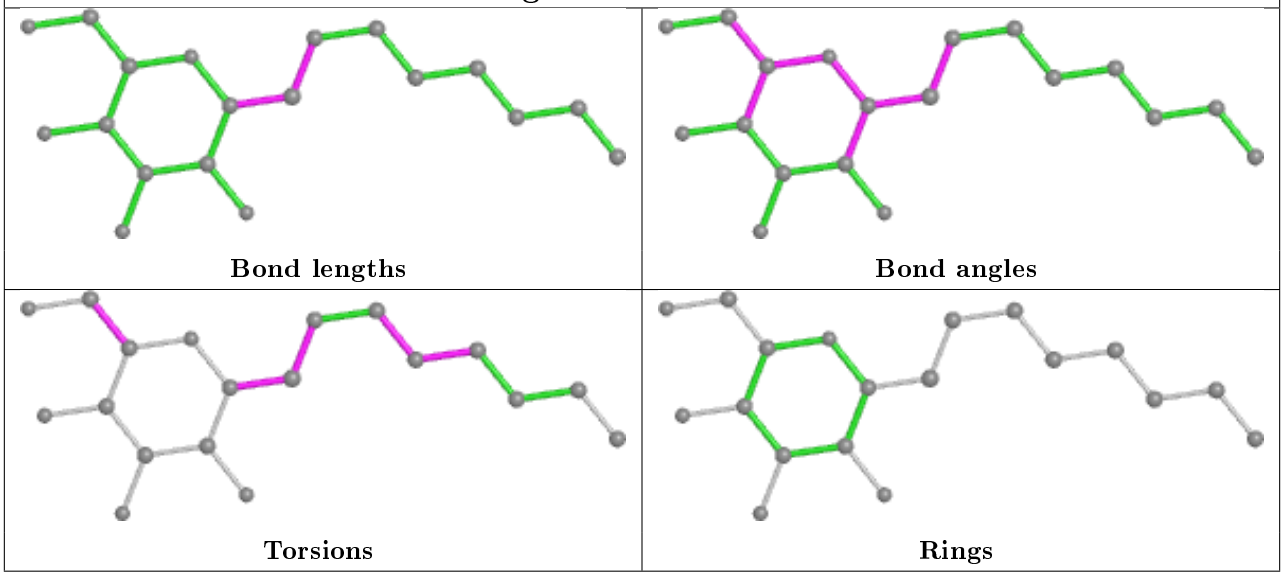


Torsions

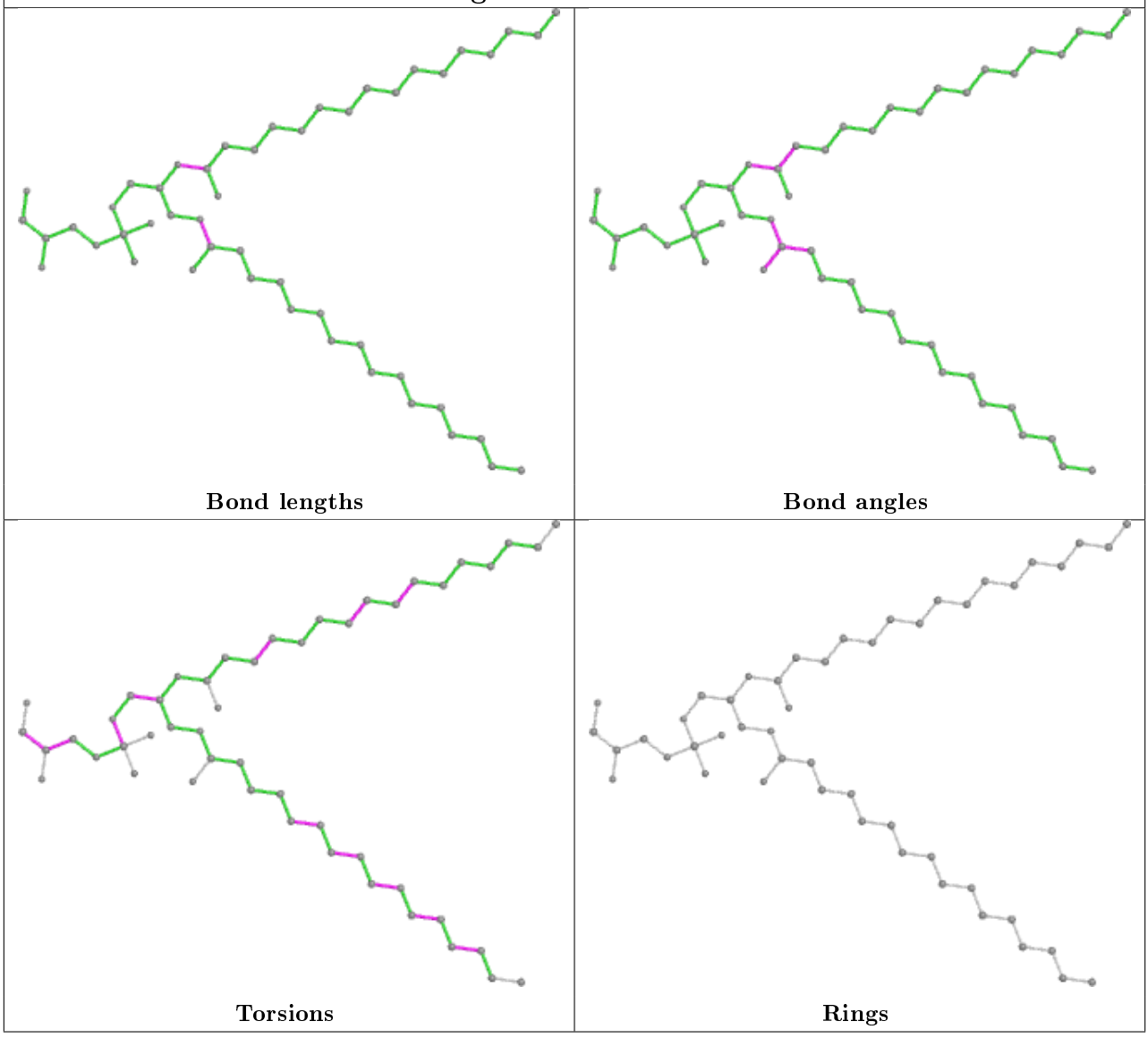


Rings

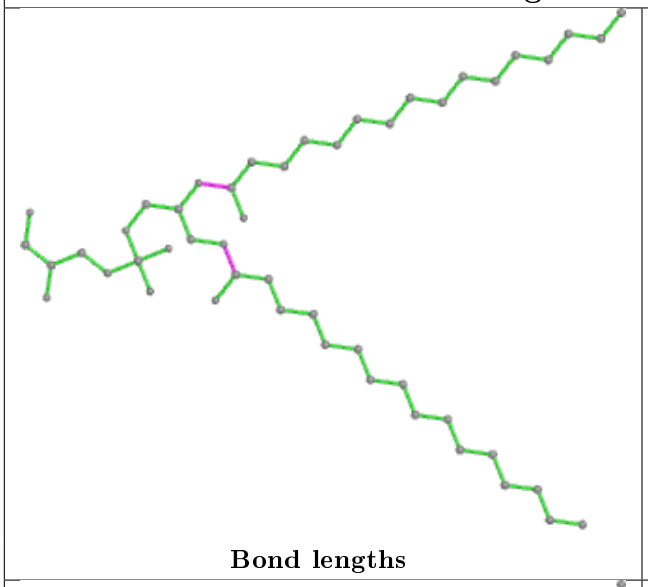
Ligand HTG C 522



Ligand LHG d 407



Ligand LHG B 621



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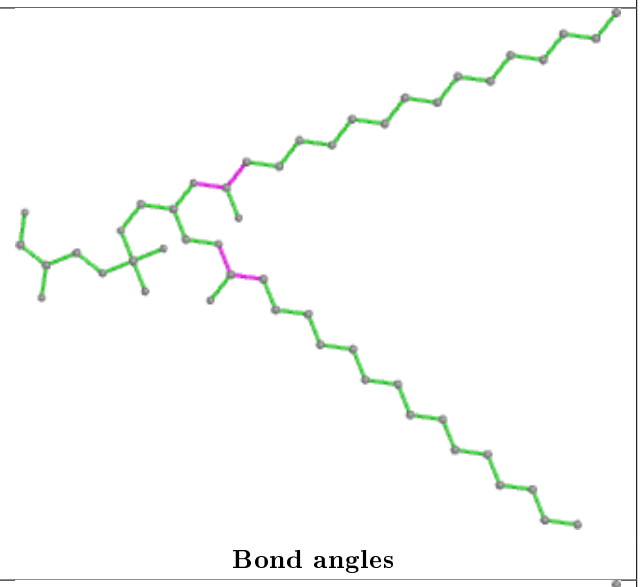
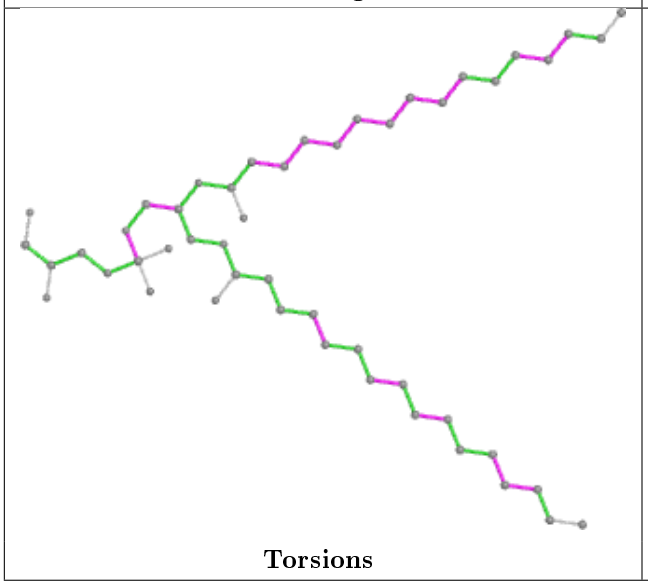
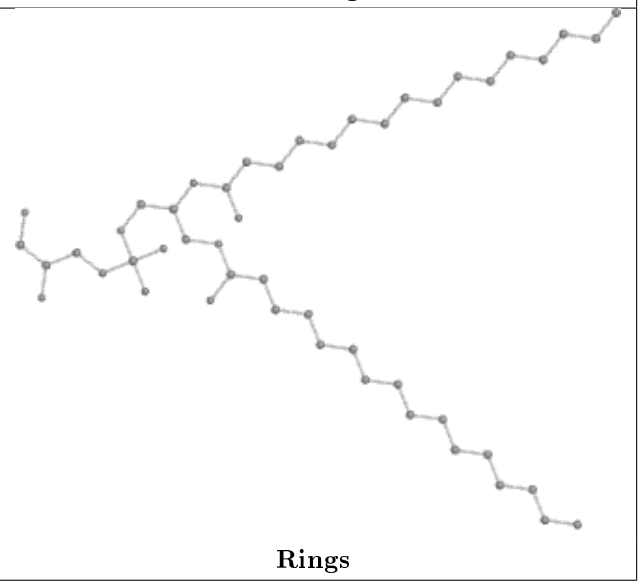


Bond angles

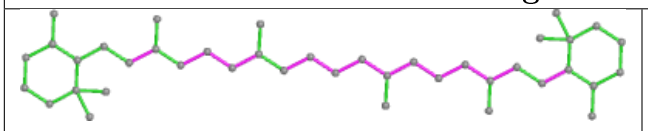


Torsions



Rings

Ligand BCR H 101



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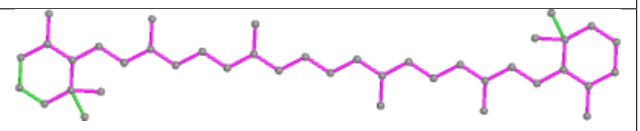
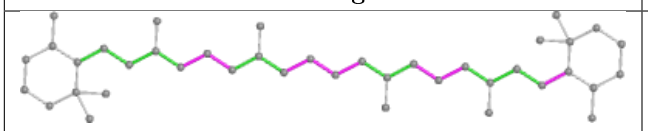
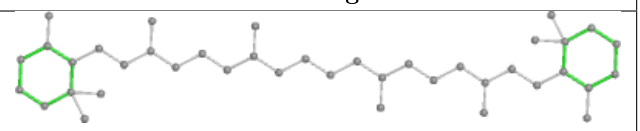


Bond angles

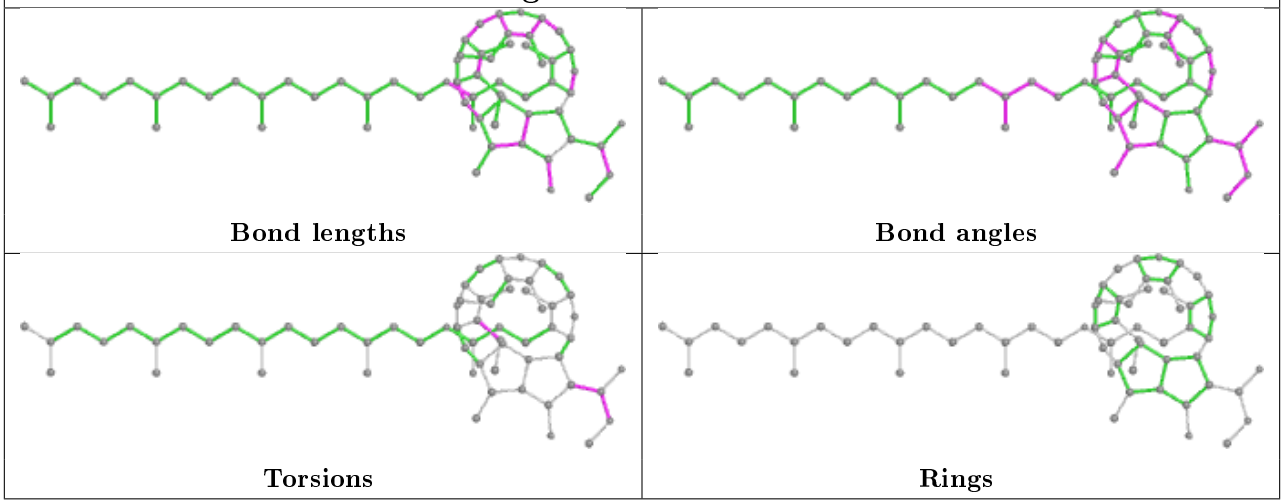


Torsions

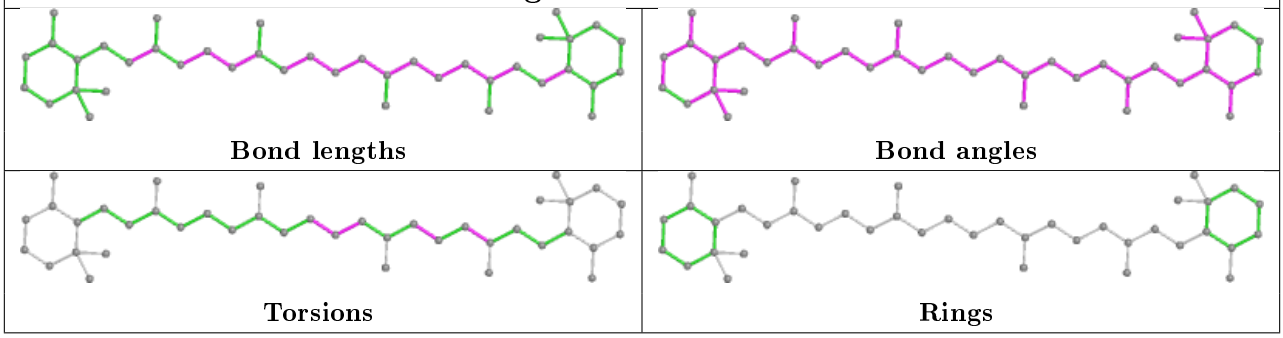


Rings

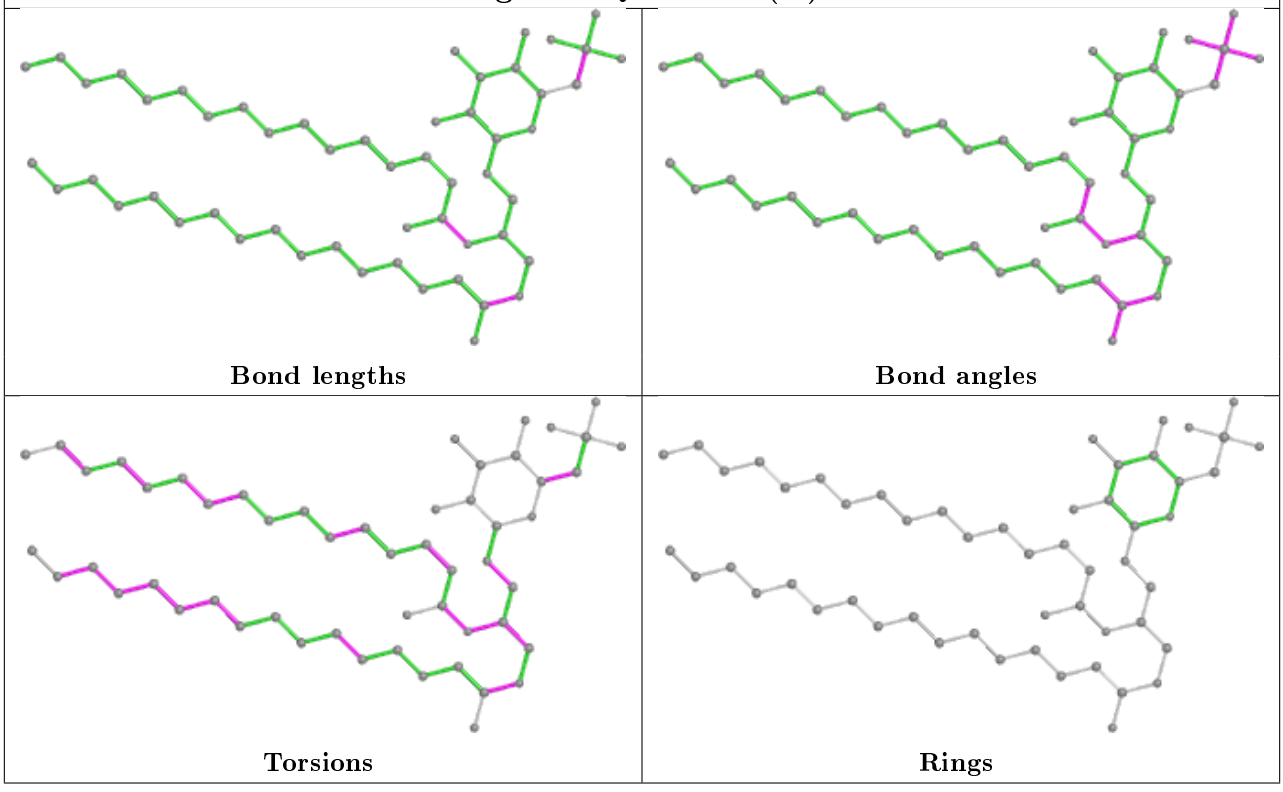
Ligand PHO D 404



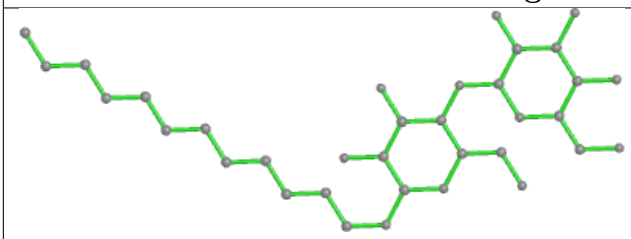
Ligand BCR B 618

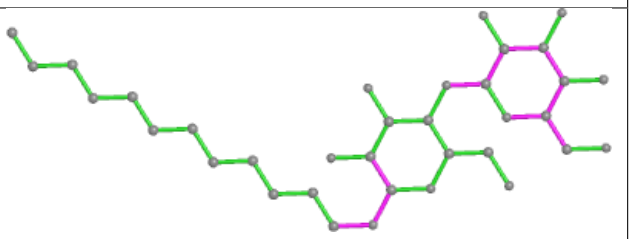


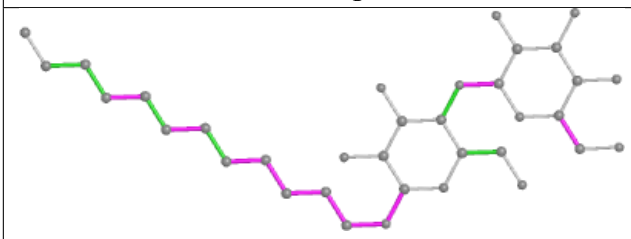
Ligand SQD b 623 (A)

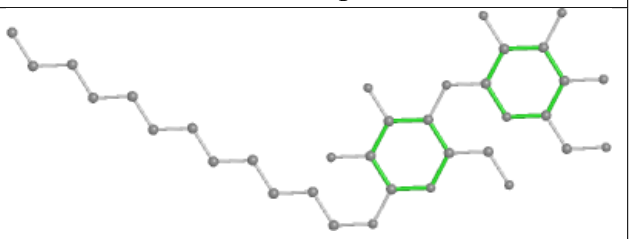


Ligand LMT b 625

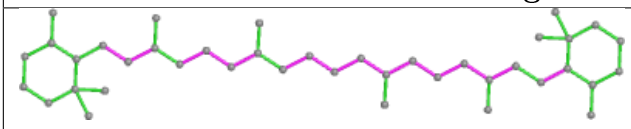

Bond lengths

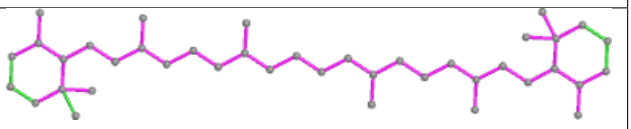

Bond angles

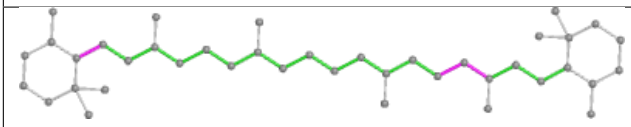

Torsions

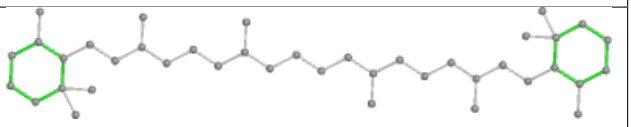

Rings

Ligand BCR B 617

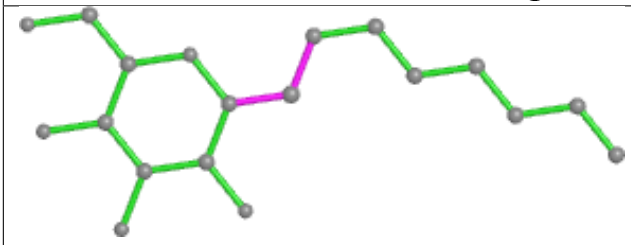

Bond lengths

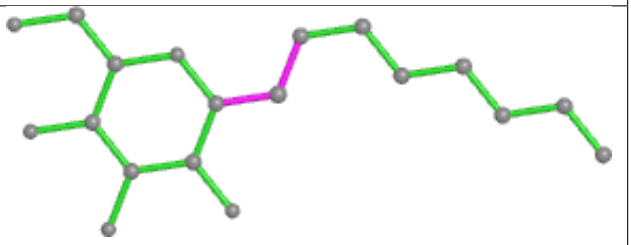

Bond angles

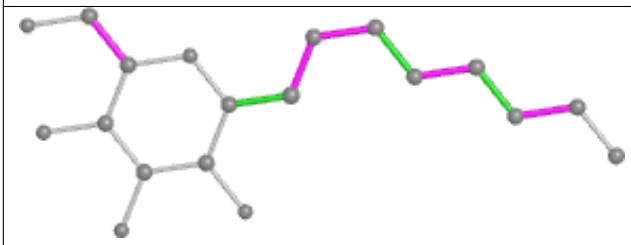

Torsions

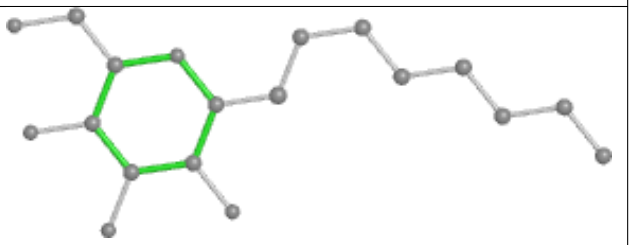

Rings

Ligand HTG c 525

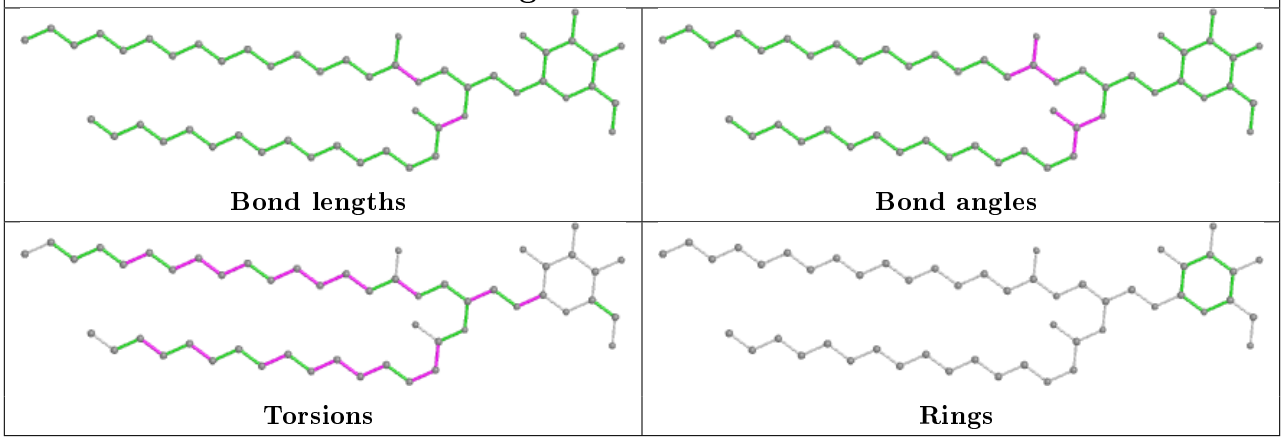

Bond lengths


Bond angles

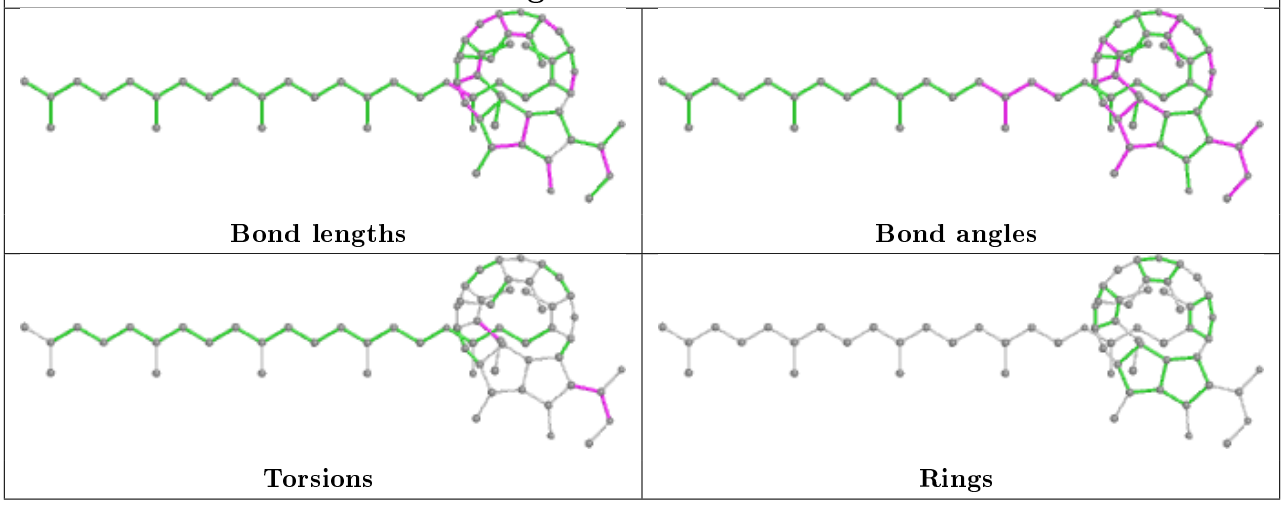

Torsions


Rings

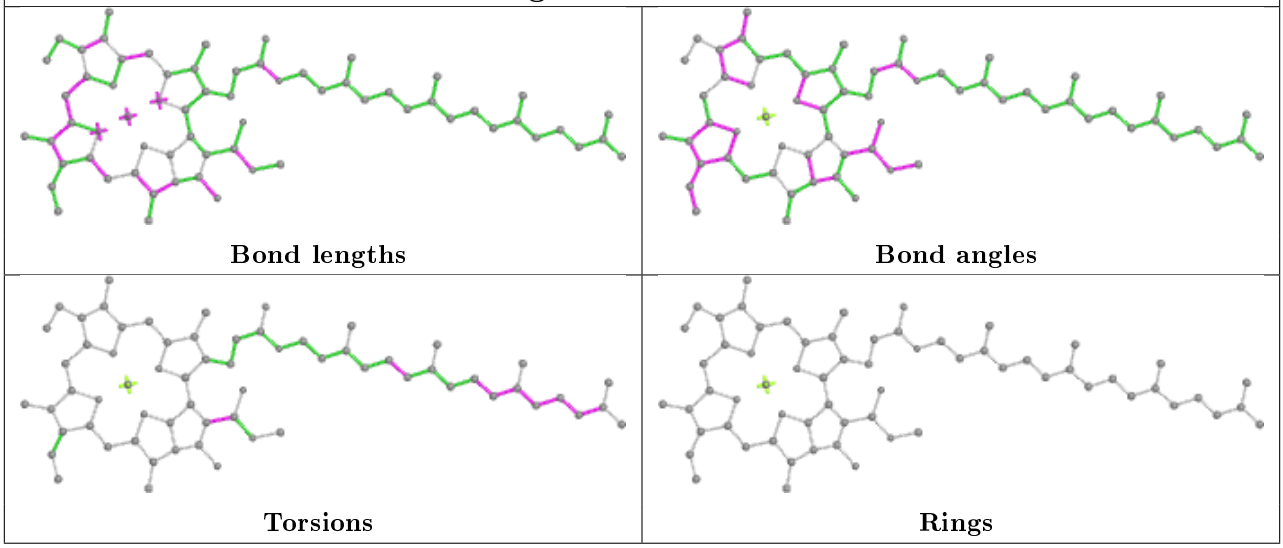
Ligand LMG m 102



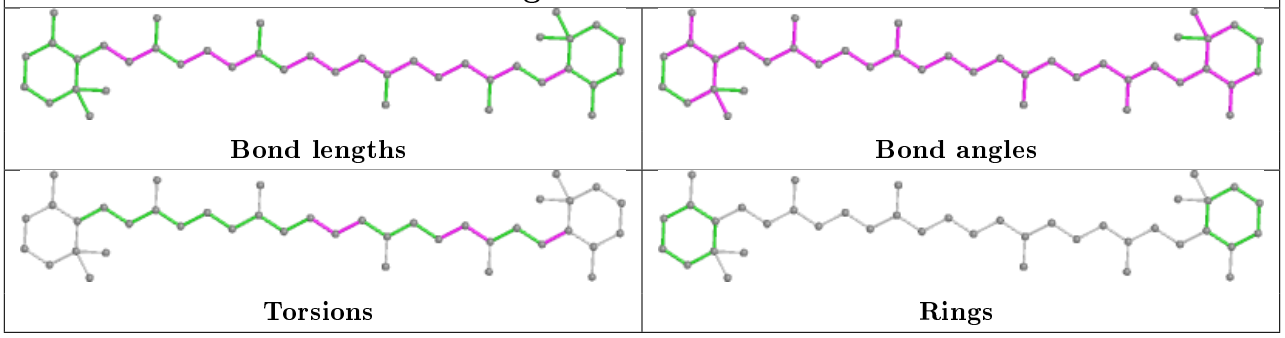
Ligand PHO a 411



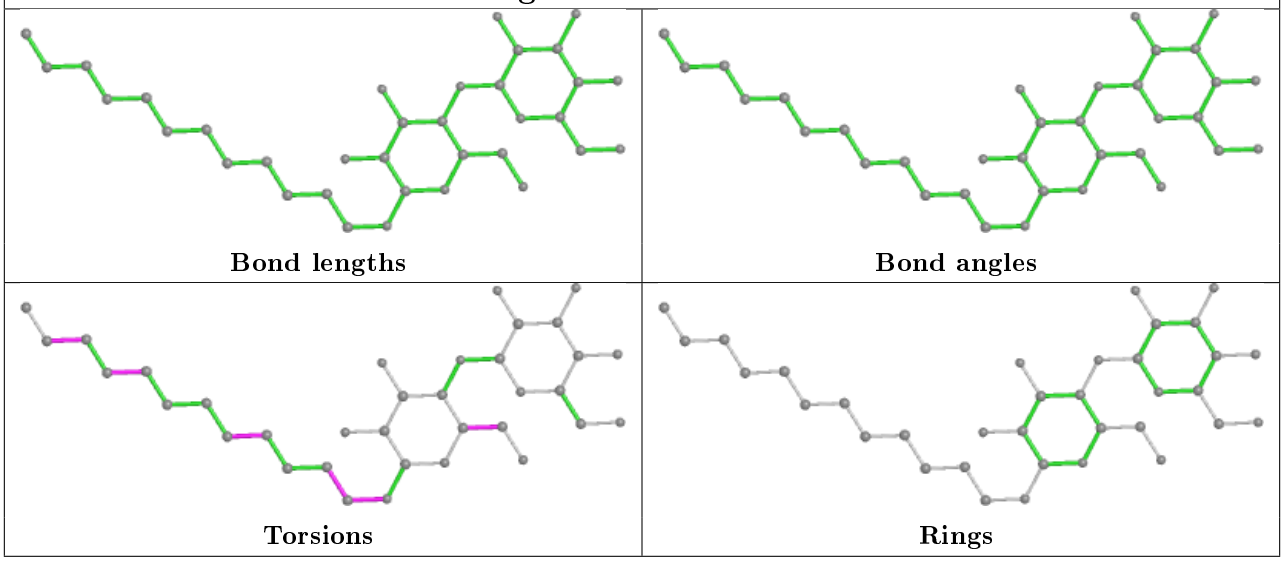
Ligand CLA b 619



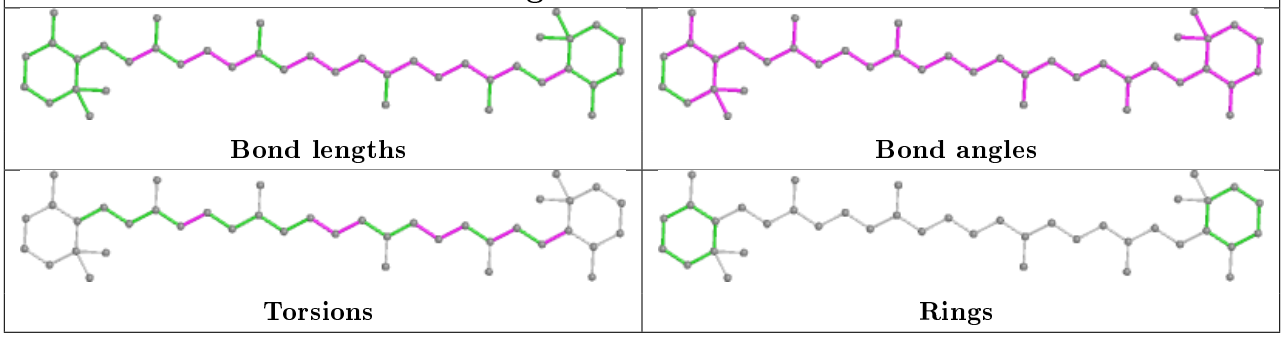
Ligand BCR C 514



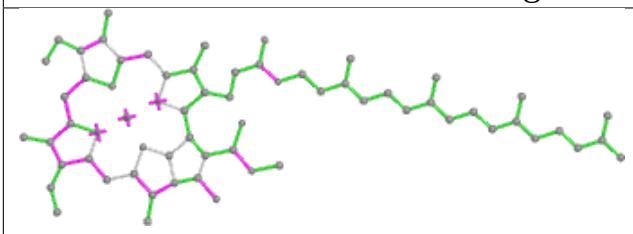
Ligand LMT M 102



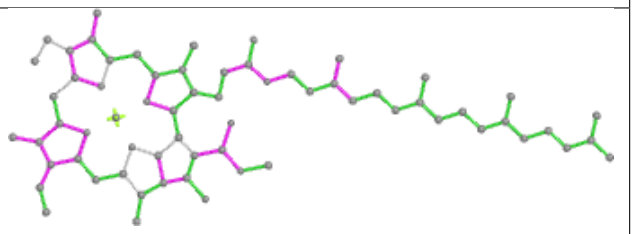
Ligand BCR h 101



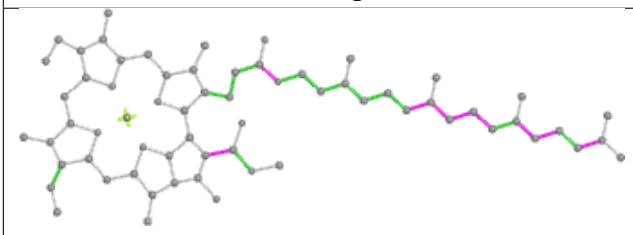
Ligand CLA D 405



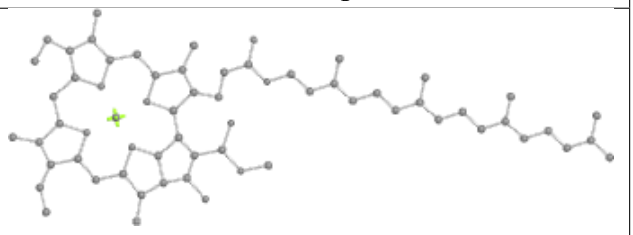
Bond lengths



Bond angles

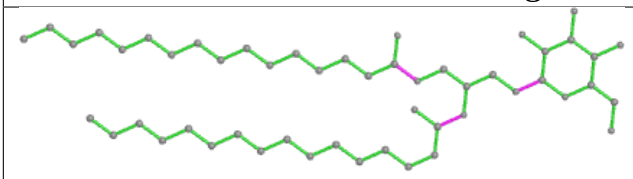


Torsions

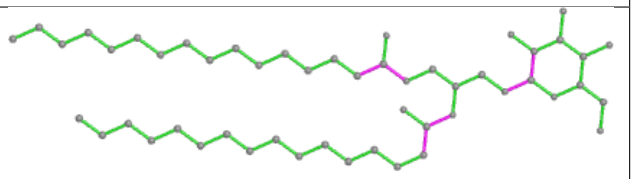


Rings

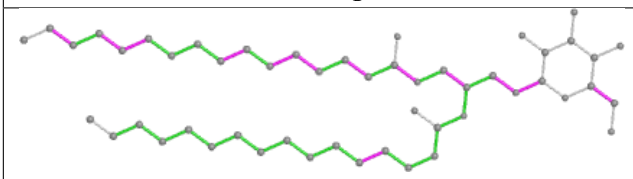
Ligand LMG c 520



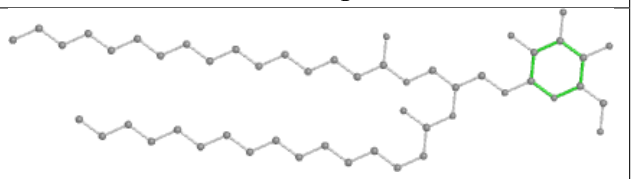
Bond lengths



Bond angles

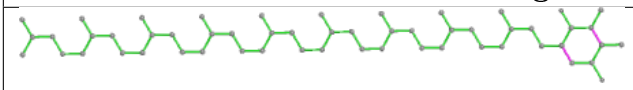


Torsions

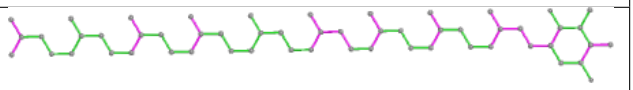


Rings

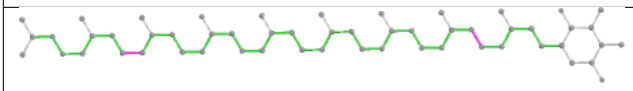
Ligand PL9 d 405



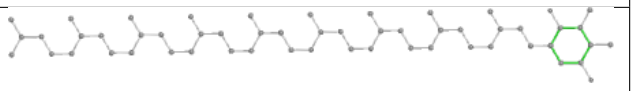
Bond lengths



Bond angles

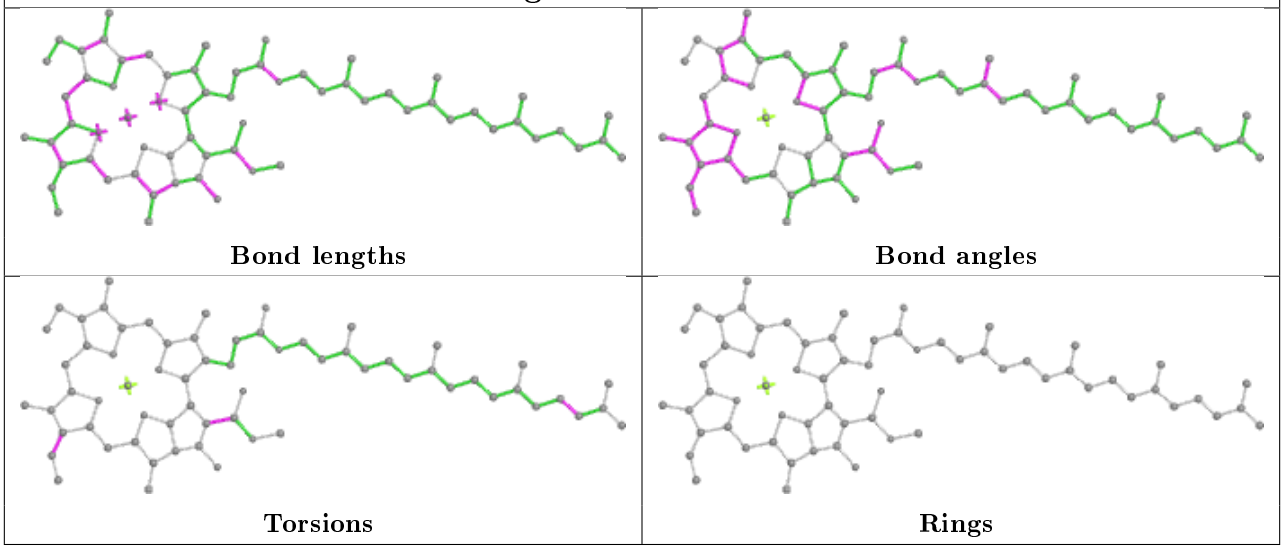


Torsions

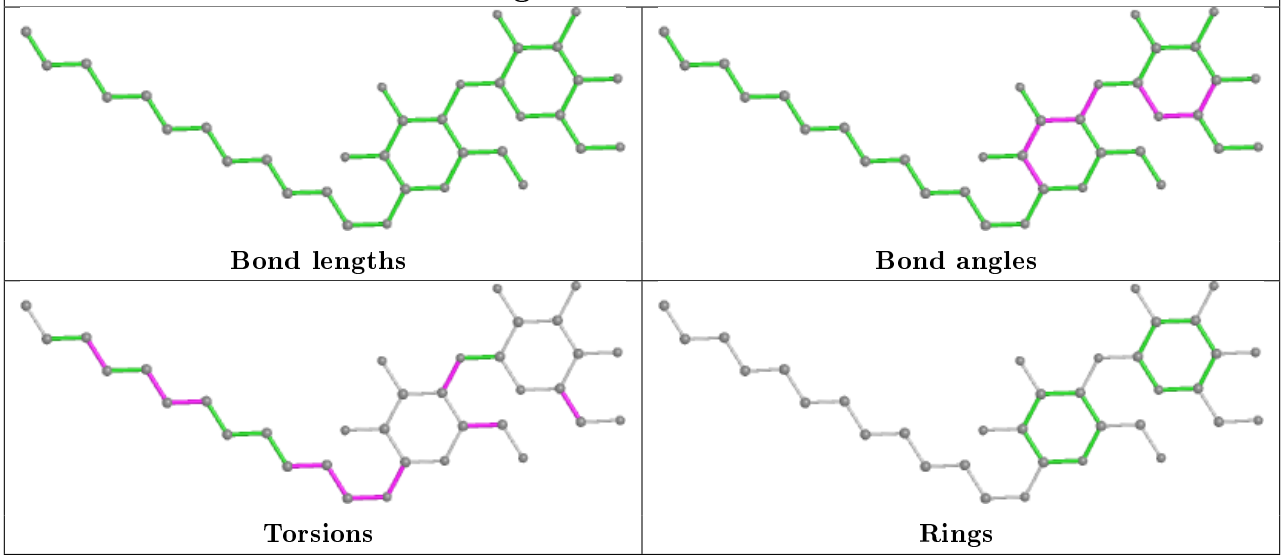


Rings

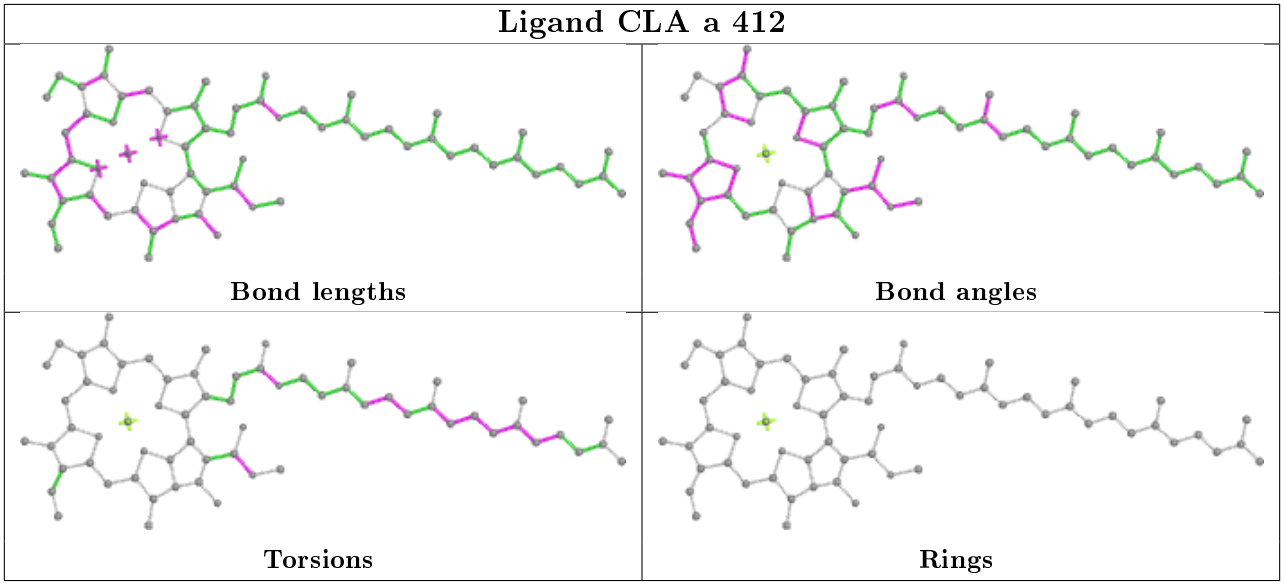
Ligand CLA D 403



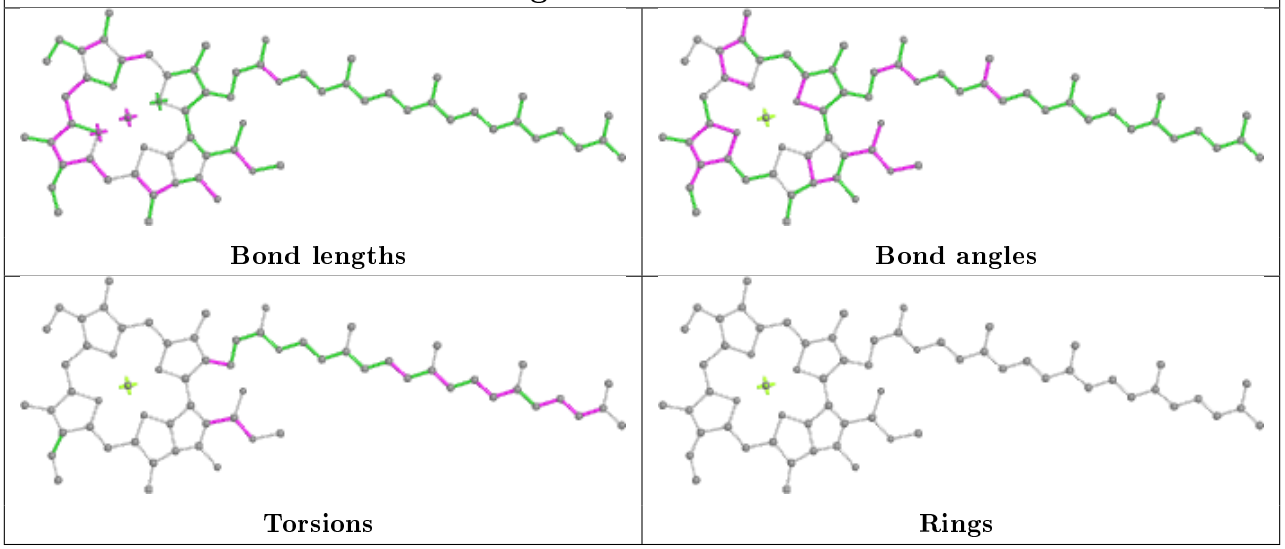
Ligand LMT A 1018



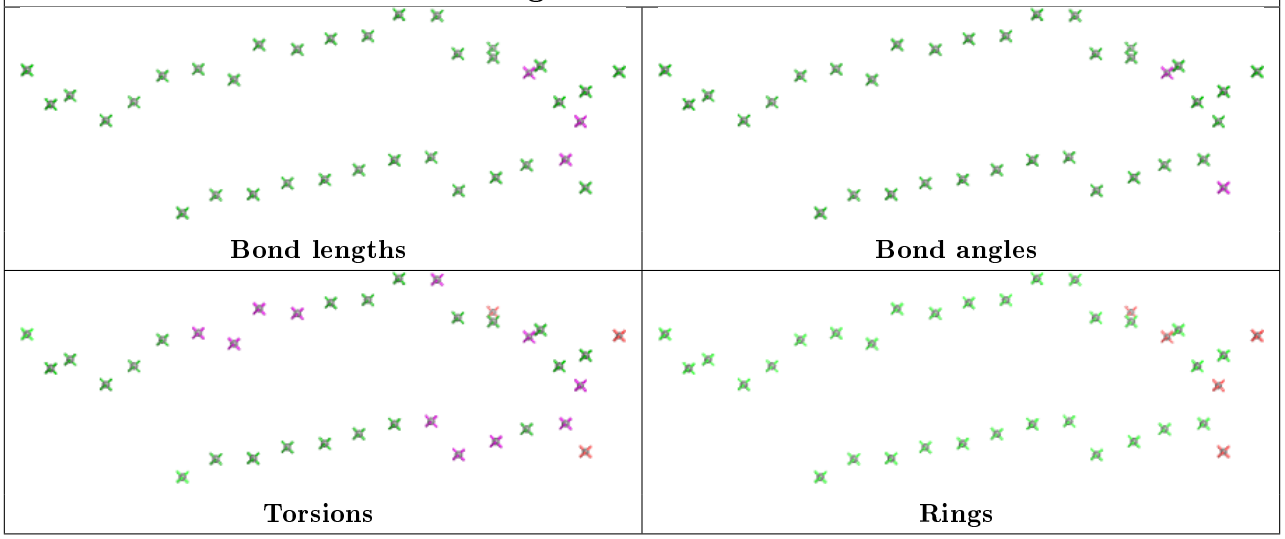
Ligand CLA a 412



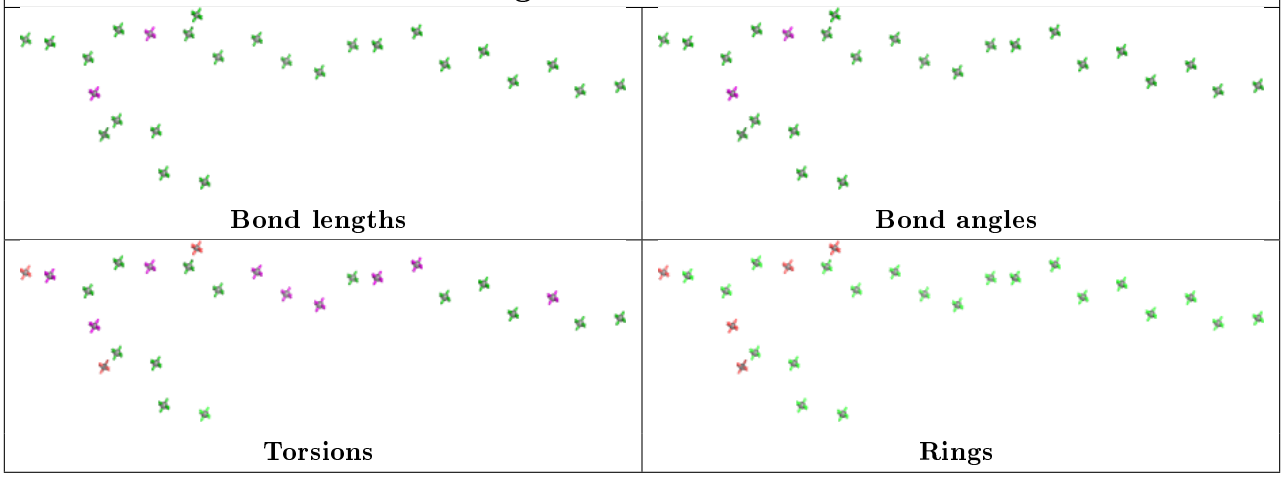
Ligand CLA c 506

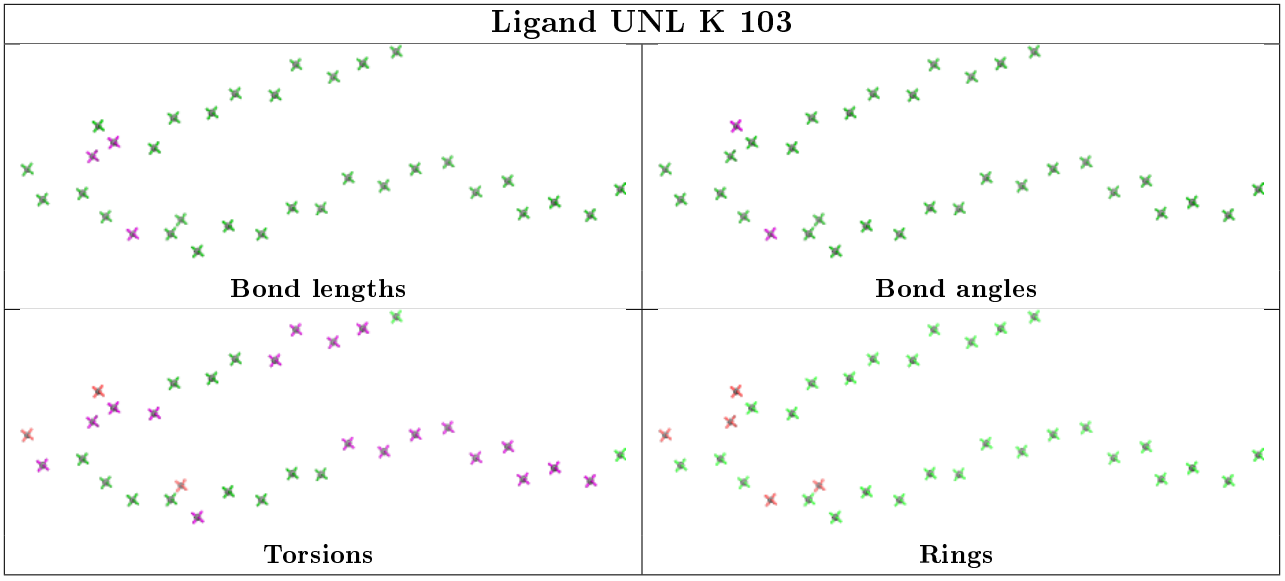


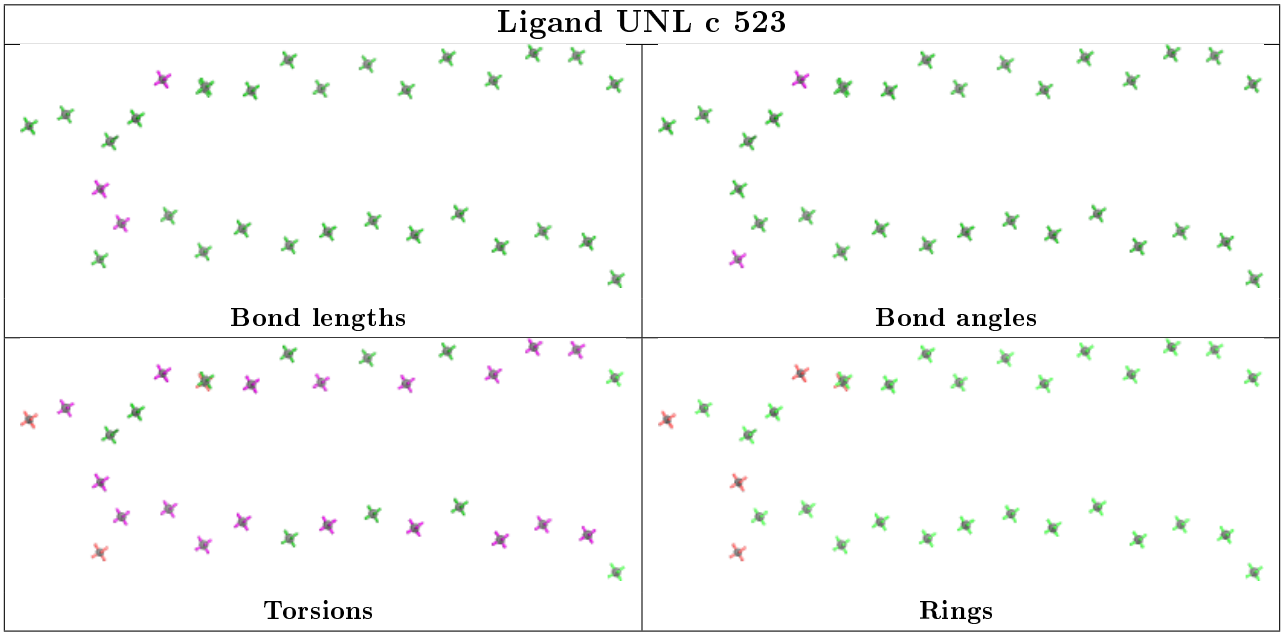
Ligand UNL d 411

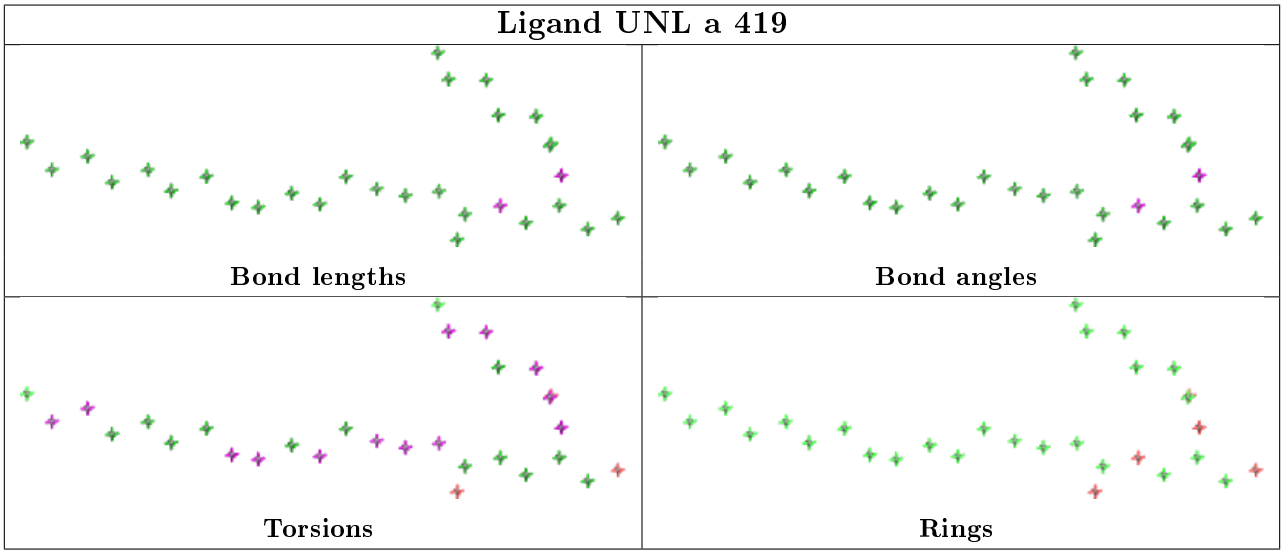


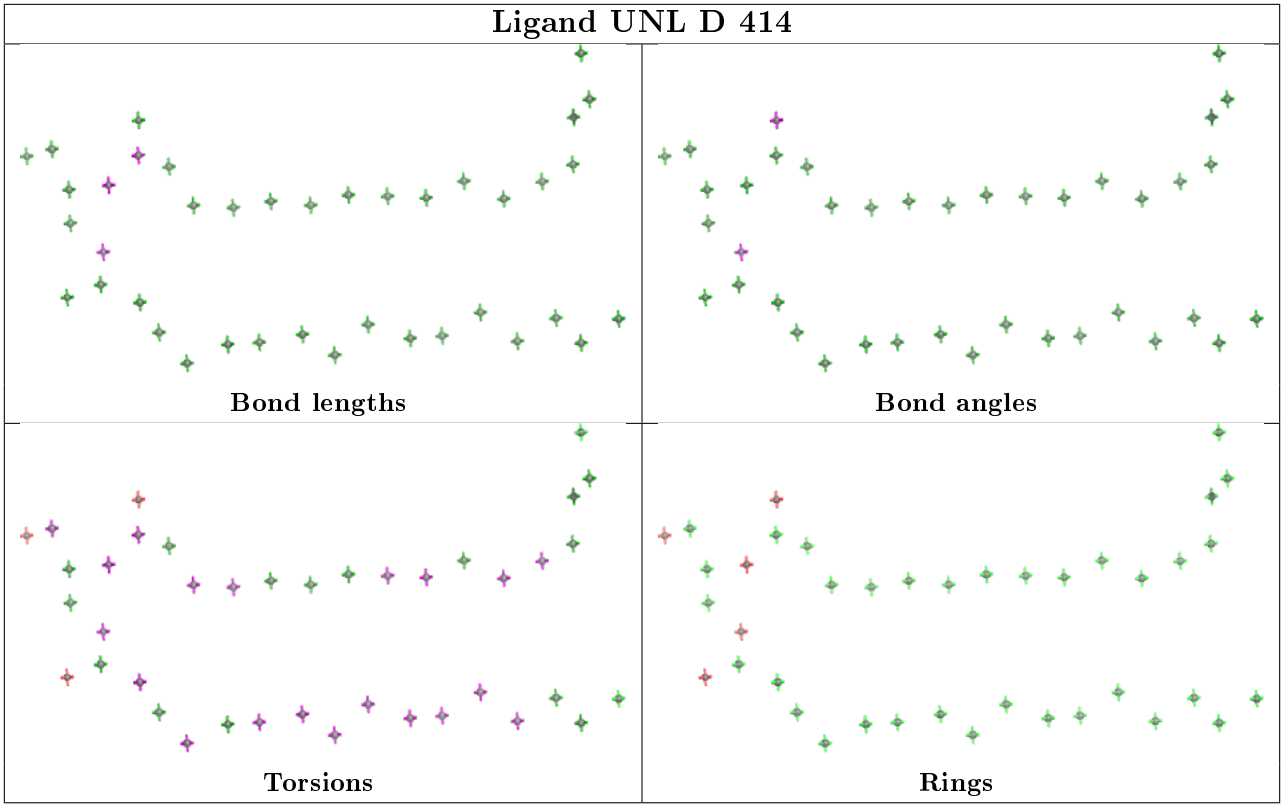
Ligand UNL A 1015




Ligand UNL K 103
Bond lengths
Bond angles
Torsions
Rings


Ligand UNL c 523
Bond lengths
Bond angles
Torsions
Rings


Ligand UNL a 419
Bond lengths
Bond angles
Torsions
Rings



5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	334/334 (100%)	-0.72	5 (1%) 73 77	19, 25, 44, 64	0
1	a	334/334 (100%)	-0.59	7 (2%) 63 68	21, 28, 51, 72	0
2	B	505/505 (100%)	-0.52	13 (2%) 56 61	20, 29, 50, 69	0
2	b	505/505 (100%)	-0.34	24 (4%) 30 36	21, 31, 59, 88	0
3	C	451/451 (100%)	-0.54	5 (1%) 80 84	22, 33, 47, 72	0
3	c	450/451 (99%)	-0.38	7 (1%) 72 75	26, 38, 51, 68	0
4	D	342/342 (100%)	-0.70	4 (1%) 79 82	18, 26, 39, 88	0
4	d	342/342 (100%)	-0.66	4 (1%) 79 82	21, 29, 46, 80	0
5	E	80/80 (100%)	0.22	8 (10%) 7 9	29, 43, 65, 74	0
5	e	78/80 (97%)	0.51	8 (10%) 6 8	35, 47, 68, 75	0
6	F	34/34 (100%)	-0.36	2 (5%) 22 27	29, 34, 55, 67	0
6	f	32/34 (94%)	-0.04	3 (9%) 8 11	33, 40, 69, 78	0
7	H	63/63 (100%)	-0.21	2 (3%) 47 54	27, 36, 45, 54	0
7	h	63/63 (100%)	-0.14	2 (3%) 47 54	30, 39, 49, 56	0
8	I	35/36 (97%)	-0.04	3 (8%) 10 13	32, 37, 71, 87	0
8	i	35/36 (97%)	0.01	4 (11%) 5 6	32, 37, 71, 92	0
9	J	37/37 (100%)	-0.12	4 (10%) 5 7	28, 37, 84, 92	0
9	j	37/37 (100%)	0.15	4 (10%) 5 7	33, 44, 68, 75	0
10	K	37/37 (100%)	-0.54	0 100 100	33, 38, 50, 52	0
10	k	37/37 (100%)	-0.05	1 (2%) 54 60	38, 44, 61, 71	0
11	L	37/37 (100%)	-0.34	4 (10%) 5 7	21, 24, 57, 73	0
11	l	37/37 (100%)	-0.25	3 (8%) 12 15	22, 25, 63, 88	0
12	M	33/34 (97%)	-0.29	2 (6%) 21 26	24, 27, 51, 76	0
12	m	33/34 (97%)	-0.35	3 (9%) 9 12	25, 29, 52, 65	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	O	244/244 (100%)	0.07	21 (8%) 10 13	20, 37, 68, 88	0
13	o	243/244 (99%)	0.02	18 (7%) 14 18	24, 38, 68, 78	0
14	T	30/31 (96%)	-0.26	2 (6%) 17 22	22, 27, 56, 84	0
14	t	29/31 (93%)	-0.33	2 (6%) 16 21	23, 27, 53, 66	0
15	U	97/97 (100%)	-0.33	1 (1%) 82 85	25, 31, 48, 66	0
15	u	97/97 (100%)	-0.37	2 (2%) 63 68	28, 32, 42, 71	0
16	V	137/137 (100%)	-0.57	0 100 100	24, 30, 43, 62	0
16	v	137/137 (100%)	-0.12	6 (4%) 34 40	30, 40, 57, 66	0
17	Y	30/30 (100%)	0.45	3 (10%) 7 9	40, 47, 58, 63	0
17	y	30/30 (100%)	0.63	6 (20%) 1 1	45, 56, 69, 75	0
18	X	40/40 (100%)	0.20	5 (12%) 3 5	33, 40, 65, 80	0
18	x	39/40 (97%)	0.37	6 (15%) 2 2	38, 47, 76, 83	0
19	Z	61/62 (98%)	0.52	12 (19%) 1 1	37, 45, 77, 86	0
19	z	61/62 (98%)	1.01	14 (22%) 0 0	49, 59, 90, 96	0
20	R	34/34 (100%)	3.95	30 (88%) 0 0	71, 86, 100, 101	0
All	All	5280/5296 (99%)	-0.32	250 (4%) 31 37	18, 33, 61, 101	0

The worst 5 of 250 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	b	494	GLY	8.7
19	z	62	VAL	8.1
18	x	2	THR	7.5
3	C	23	ALA	7.4
20	R	18	TRP	7.2

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
19	FME	z	1	10/11	0.71	0.34	87,91,94,95	0
19	FME	Z	1	10/11	0.75	0.23	69,71,74,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
14	FME	t	1	10/11	0.89	0.14	28,30,46,49	0
12	FME	M	1	10/11	0.91	0.12	33,36,43,49	0
12	FME	m	1	10/11	0.92	0.12	35,38,49,54	0
14	FME	T	1	10/11	0.95	0.09	27,29,44,46	0
8	FME	i	1	10/11	0.96	0.08	36,38,40,40	0
8	FME	I	1	10/11	0.97	0.07	34,39,40,40	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
32	LMT	i	102	35/35	0.22	0.41	52,88,111,111	0
32	LMT	A	1018	35/35	0.24	0.44	51,93,113,116	0
31	UNL	b	603	16/-	0.45	0.36	64,67,71,71	0
33	GOL	D	418	6/6	0.46	0.31	70,72,73,74	0
29	LMG	Z	101	51/55	0.48	0.35	47,77,104,110	0
32	LMT	a	402	35/35	0.50	0.32	52,65,69,70	0
32	LMT	m	103	35/35	0.52	0.29	55,90,100,101	0
32	LMT	t	103	35/35	0.53	0.30	46,75,96,99	0
35	HTG	B	624	19/19	0.53	0.41	58,86,92,92	0
32	LMT	b	625	35/35	0.53	0.29	52,82,103,104	0
35	HTG	B	629	19/19	0.53	0.28	52,86,90,90	0
35	HTG	D	413	19/19	0.54	0.31	69,80,85,86	0
35	HTG	c	525	19/19	0.55	0.36	76,90,95,96	0
29	LMG	c	521	51/55	0.56	0.30	53,81,93,97	0
32	LMT	M	101	35/35	0.56	0.29	52,85,95,97	0
35	HTG	d	410	19/19	0.57	0.32	74,84,91,91	0
32	LMT	f	103	35/35	0.58	0.35	71,92,104,104	0
31	UNL	K	103	34/-	0.58	0.23	57,76,82,83	0
31	UNL	Y	101	16/-	0.58	0.28	66,68,70,70	0
35	HTG	b	602	19/19	0.58	0.26	60,89,94,94	0
32	LMT	b	631	35/35	0.59	0.28	40,74,94,96	0
35	HTG	b	630	19/19	0.59	0.35	66,83,88,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
33	GOL	d	417	6/6	0.60	0.26	58,61,62,62	0
31	UNL	A	1015	28/-	0.61	0.27	62,73,78,78	0
30	DMS	b	635	4/4	0.61	0.29	66,70,72,74	0
34	LHG	e	101	49/49	0.61	0.31	66,97,101,102	0
35	HTG	D	419	19/19	0.62	0.27	59,79,83,84	0
31	UNL	a	419	30/-	0.62	0.29	62,74,87,89	0
32	LMT	A	1017	35/35	0.62	0.31	54,72,75,80	0
31	UNL	c	523	32/-	0.64	0.30	63,75,84,87	0
31	UNL	D	414	40/-	0.64	0.24	48,58,72,73	0
31	UNL	d	411	36/-	0.65	0.21	46,56,78,79	0
34	LHG	E	101	49/49	0.67	0.26	51,77,83,85	0
35	HTG	d	416	19/19	0.68	0.33	70,92,94,96	0
31	UNL	j	101	16/-	0.68	0.16	58,60,62,63	0
33	GOL	d	415	6/6	0.69	0.20	63,66,66,67	0
32	LMT	B	623	35/35	0.69	0.24	48,65,71,72	0
31	UNL	i	101	16/-	0.69	0.22	55,57,62,62	0
29	LMG	c	520	51/55	0.69	0.26	42,74,84,89	0
33	GOL	V	204	6/6	0.70	0.34	57,58,59,60	0
30	DMS	b	634	4/4	0.70	0.24	61,63,65,68	0
33	GOL	b	632	6/6	0.70	0.26	51,56,61,63	0
31	UNL	y	102	16/-	0.72	0.20	63,65,67,67	0
32	LMT	m	101	35/35	0.73	0.20	38,51,56,57	0
32	LMT	M	102	35/35	0.73	0.20	39,58,64,66	0
29	LMG	C	519	51/55	0.73	0.28	38,74,84,85	0
30	DMS	O	301	4/4	0.73	0.30	72,73,75,76	0
31	UNL	t	102	16/-	0.74	0.18	68,72,74,74	0
28	SQD	b	623[B]	54/54	0.75	0.25	49,57,77,80	54
33	GOL	v	204	6/6	0.75	0.24	74,75,76,76	0
28	SQD	b	623[A]	54/54	0.75	0.25	41,53,70,71	54
33	GOL	V	207	6/6	0.76	0.19	60,63,64,64	0
32	LMT	C	520	35/35	0.77	0.27	68,75,79,79	0
35	HTG	B	628	19/19	0.77	0.20	45,68,72,74	0
31	UNL	J	102	16/-	0.78	0.16	50,52,58,59	0
31	UNL	x	101	16/-	0.78	0.17	41,45,59,60	0
28	SQD	B	620[A]	54/54	0.79	0.24	42,56,75,76	54
30	DMS	B	633	4/4	0.79	0.24	67,69,70,75	0
28	SQD	B	620[B]	54/54	0.79	0.24	40,54,66,66	54
28	SQD	f	102	43/54	0.79	0.28	61,80,89,91	0
29	LMG	c	519	51/55	0.80	0.18	45,62,77,80	0
27	PL9	a	414	55/55	0.80	0.21	53,63,77,78	0
32	LMT	a	416	35/35	0.80	0.32	73,75,79,79	0
35	HTG	C	522	19/19	0.80	0.26	65,75,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
31	UNL	l	101	16/-	0.80	0.21	49,58,68,69	0
33	GOL	v	203	6/6	0.80	0.20	48,52,53,53	0
31	UNL	b	627	16/-	0.80	0.12	47,48,50,50	0
31	UNL	B	630	16/-	0.81	0.24	53,56,60,60	0
35	HTG	o	301	19/19	0.81	0.18	47,49,53,53	0
31	UNL	I	101	13/-	0.81	0.27	54,56,56,57	0
29	LMG	a	415	51/55	0.81	0.17	50,60,70,71	0
35	HTG	V	202	19/19	0.81	0.30	56,63,77,77	0
35	HTG	c	522	19/19	0.81	0.28	82,85,89,90	0
35	HTG	b	626	19/19	0.82	0.17	43,48,51,51	0
28	SQD	A	1016	54/54	0.82	0.17	46,60,72,73	0
27	PL9	A	1010	55/55	0.83	0.19	43,55,72,72	0
30	DMS	c	528	4/4	0.83	0.21	83,85,86,88	0
29	LMG	A	1012	51/55	0.83	0.17	49,56,67,71	0
31	UNL	L	101	16/-	0.83	0.21	53,56,63,63	0
29	LMG	C	518	51/55	0.83	0.18	36,62,70,70	0
30	DMS	a	418	4/4	0.84	0.20	62,63,66,69	0
28	SQD	a	401	54/54	0.84	0.16	42,60,74,76	0
24	CLA	B	601	65/65	0.84	0.16	34,42,66,69	0
35	HTG	C	521	19/19	0.84	0.22	69,71,74,75	0
33	GOL	V	206	6/6	0.84	0.30	53,56,57,58	0
24	CLA	b	604	65/65	0.84	0.17	40,48,69,70	0
31	UNL	B	625	16/-	0.85	0.13	44,46,52,54	0
31	UNL	X	101	16/-	0.85	0.14	39,43,51,51	0
26	BCR	K	102	40/40	0.85	0.12	39,49,52,52	0
31	UNL	I	102	13/-	0.85	0.14	55,57,60,60	0
24	CLA	c	513	65/65	0.86	0.16	45,54,69,70	0
24	CLA	C	513	65/65	0.86	0.15	41,48,66,68	0
29	LMG	B	622	51/55	0.86	0.14	38,47,58,64	0
29	LMG	m	102	51/55	0.87	0.13	35,49,57,59	0
33	GOL	A	1019	6/6	0.87	0.20	60,61,62,62	0
26	BCR	k	102	40/40	0.87	0.14	48,54,64,66	0
30	DMS	C	525	4/4	0.87	0.24	71,73,73,74	0
29	LMG	d	409	51/55	0.87	0.16	33,42,72,76	0
30	DMS	b	633	4/4	0.87	0.15	55,55,56,62	0
24	CLA	b	619	65/65	0.88	0.15	31,35,80,81	0
30	DMS	C	527	4/4	0.88	0.26	75,75,77,80	0
24	CLA	C	512	65/65	0.88	0.13	39,42,71,72	0
30	DMS	d	413	4/4	0.88	0.21	57,62,62,63	0
30	DMS	c	527	4/4	0.88	0.25	65,65,66,66	0
24	CLA	c	506	65/65	0.88	0.15	38,40,78,81	0
30	DMS	V	205	4/4	0.89	0.17	61,62,64,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
33	GOL	B	631	6/6	0.89	0.24	56,57,60,62	0
35	HTG	b	601	19/19	0.89	0.14	44,60,67,67	0
31	UNL	d	412	16/-	0.89	0.18	48,53,62,63	0
26	BCR	d	404	40/40	0.89	0.11	31,36,59,59	0
31	UNL	D	415	16/-	0.89	0.13	39,42,48,49	0
24	CLA	B	616	65/65	0.89	0.16	27,31,79,80	0
24	CLA	d	403	65/65	0.89	0.14	31,34,76,77	0
36	DGD	c	516	62/66	0.90	0.12	36,42,75,79	0
29	LMG	D	412	51/55	0.90	0.15	27,38,77,78	0
26	BCR	D	406	40/40	0.90	0.11	28,32,50,51	0
28	SQD	c	518	54/54	0.90	0.14	41,59,74,76	0
26	BCR	h	101	40/40	0.90	0.12	32,39,47,48	0
30	DMS	D	417	4/4	0.91	0.19	57,58,62,64	0
33	GOL	a	420	6/6	0.91	0.15	53,56,57,59	0
30	DMS	U	201	4/4	0.91	0.19	56,56,58,58	0
30	DMS	A	1014	4/4	0.91	0.20	54,54,55,61	0
24	CLA	c	512	65/65	0.91	0.12	42,46,65,67	0
26	BCR	K	101	40/40	0.91	0.13	32,35,37,38	0
30	DMS	B	634	4/4	0.91	0.27	54,57,59,59	0
30	DMS	C	526	4/4	0.91	0.18	71,71,72,72	0
28	SQD	D	408	43/54	0.91	0.18	41,67,74,76	0
28	SQD	A	1011	54/54	0.91	0.15	43,57,69,69	0
26	BCR	c	514	40/40	0.91	0.11	34,41,43,44	0
36	DGD	h	102	62/66	0.91	0.11	32,38,46,48	0
24	CLA	b	609	65/65	0.91	0.12	29,32,65,68	0
30	DMS	D	416	4/4	0.91	0.26	55,55,56,59	0
26	BCR	B	618	40/40	0.92	0.09	27,32,41,41	0
24	CLA	C	506	65/65	0.92	0.11	36,43,73,76	0
26	BCR	J	101	40/40	0.92	0.10	35,37,41,41	0
36	DGD	c	517	62/66	0.92	0.12	29,38,64,73	0
24	CLA	B	606	65/65	0.92	0.12	27,30,51,53	0
24	CLA	D	405	65/65	0.92	0.12	28,30,70,71	0
36	DGD	C	516	62/66	0.92	0.10	28,36,70,72	0
26	BCR	a	413	40/40	0.93	0.09	24,30,34,34	0
26	BCR	y	101	40/40	0.93	0.09	40,44,46,47	0
26	BCR	H	101	40/40	0.93	0.09	27,36,42,42	0
26	BCR	t	101	40/40	0.93	0.09	26,39,46,47	0
26	BCR	A	1009	40/40	0.93	0.10	25,29,32,32	0
34	LHG	d	408	49/49	0.93	0.15	32,41,72,74	0
24	CLA	A	1008	65/65	0.93	0.13	25,27,79,81	0
39	MG	K	104	1/1	0.93	0.07	48,48,48,48	0
36	DGD	H	102	62/66	0.93	0.11	27,34,38,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
36	DGD	c	515	62/66	0.93	0.12	28,38,69,71	0
24	CLA	c	508	65/65	0.93	0.10	32,35,65,72	0
26	BCR	k	101	40/40	0.93	0.12	36,45,47,48	0
30	DMS	u	201	4/4	0.93	0.24	56,57,57,59	0
24	CLA	a	412	65/65	0.93	0.15	26,28,90,92	0
24	CLA	b	612	65/65	0.93	0.13	30,34,37,38	0
24	CLA	C	507	65/65	0.94	0.11	34,37,51,53	0
34	LHG	d	406	49/49	0.94	0.13	38,41,46,46	0
24	CLA	C	508	65/65	0.94	0.10	28,31,65,70	0
36	DGD	C	517	62/66	0.94	0.10	24,33,62,69	0
24	CLA	a	409	65/65	0.94	0.12	24,26,85,90	0
26	BCR	C	514	40/40	0.94	0.11	31,38,41,41	0
24	CLA	C	505	65/65	0.94	0.10	32,35,44,48	0
24	CLA	c	507	65/65	0.94	0.12	33,34,50,51	0
26	BCR	b	621	40/40	0.94	0.08	28,31,41,42	0
30	DMS	O	302	4/4	0.94	0.27	58,59,62,62	0
26	BCR	B	619	40/40	0.94	0.08	31,34,42,43	0
39	MG	j	102	1/1	0.94	0.06	37,37,37,37	0
24	CLA	c	504	65/65	0.94	0.10	32,35,57,59	0
24	CLA	C	504	65/65	0.94	0.10	27,30,55,57	0
26	BCR	b	622	40/40	0.94	0.09	33,36,40,41	0
36	DGD	C	515	62/66	0.94	0.11	27,36,63,64	0
34	LHG	D	409	49/49	0.94	0.11	35,38,43,45	0
24	CLA	b	605	65/65	0.95	0.10	29,32,37,37	0
30	DMS	v	202	4/4	0.95	0.14	55,56,58,58	0
34	LHG	D	411	49/49	0.95	0.14	29,38,73,76	0
24	CLA	B	615	65/65	0.95	0.10	27,28,44,46	0
30	DMS	c	529	4/4	0.95	0.21	51,51,53,54	0
24	CLA	c	505	65/65	0.95	0.10	34,36,48,48	0
26	BCR	B	617	40/40	0.95	0.08	28,30,33,33	0
25	PHO	a	411	64/64	0.95	0.11	24,30,35,36	0
24	CLA	C	511	65/65	0.95	0.10	29,35,40,42	0
24	CLA	c	503	65/65	0.95	0.09	33,39,42,44	0
27	PL9	D	407	55/55	0.95	0.09	21,25,32,33	0
38	HEM	f	101	43/43	0.95	0.12	42,44,57,63	0
24	CLA	b	615	65/65	0.95	0.08	25,28,32,35	0
24	CLA	B	609	65/65	0.95	0.11	28,31,33,35	0
26	BCR	T	101	40/40	0.95	0.08	27,37,42,43	0
24	CLA	c	511	65/65	0.95	0.10	36,39,43,46	0
24	CLA	B	614	65/65	0.95	0.10	24,27,67,68	0
27	PL9	d	405	55/55	0.95	0.09	21,27,32,33	0
24	CLA	c	501	65/65	0.95	0.10	35,36,43,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
24	CLA	A	1006	65/65	0.95	0.10	22,23,66,69	0
34	LHG	d	407	49/49	0.95	0.11	26,31,40,45	0
30	DMS	c	526	4/4	0.95	0.19	73,74,74,75	0
24	CLA	b	613	65/65	0.95	0.10	28,31,38,40	0
24	CLA	b	611	65/65	0.96	0.08	26,28,38,39	0
24	CLA	b	610	65/65	0.96	0.08	23,25,34,35	0
30	DMS	V	203	4/4	0.96	0.15	50,51,51,52	0
24	CLA	c	502	65/65	0.96	0.09	28,31,50,51	0
24	CLA	C	501	65/65	0.96	0.08	31,35,41,42	0
30	DMS	C	524	4/4	0.96	0.17	40,41,41,42	0
38	HEM	F	101	43/43	0.96	0.11	39,41,44,46	0
30	DMS	b	629	4/4	0.96	0.11	48,49,52,53	0
24	CLA	C	503	65/65	0.96	0.08	28,33,36,38	0
37	BCT	d	401	4/4	0.96	0.09	40,40,41,42	0
26	BCR	b	620	40/40	0.96	0.09	28,34,35,35	0
24	CLA	b	607	65/65	0.96	0.09	24,26,50,51	0
24	CLA	B	604	65/65	0.96	0.10	22,24,53,55	0
24	CLA	c	509	65/65	0.96	0.11	33,35,50,51	0
24	CLA	B	610	65/65	0.96	0.09	24,26,34,36	0
24	CLA	b	608	65/65	0.96	0.10	24,26,35,35	0
34	LHG	D	410	49/49	0.96	0.11	26,30,38,41	0
24	CLA	C	509	65/65	0.96	0.10	28,31,52,53	0
24	CLA	b	617	65/65	0.96	0.10	24,28,67,68	0
24	CLA	B	607	65/65	0.96	0.09	20,22,36,37	0
30	DMS	d	414	4/4	0.96	0.11	58,59,59,60	0
34	LHG	b	624	49/49	0.96	0.09	27,32,48,53	0
24	CLA	c	510	65/65	0.96	0.09	33,35,41,43	0
24	CLA	b	614	65/65	0.96	0.09	24,26,40,41	0
24	CLA	B	605	65/65	0.96	0.10	23,26,31,32	0
24	CLA	B	602	65/65	0.96	0.09	25,27,34,35	0
24	CLA	b	618	65/65	0.96	0.08	30,32,44,46	0
25	PHO	D	404	64/64	0.96	0.09	22,25,29,30	0
24	CLA	C	502	65/65	0.96	0.09	26,28,42,44	0
25	PHO	a	410	64/64	0.97	0.08	22,24,29,31	0
24	CLA	B	611	65/65	0.97	0.09	22,24,36,37	0
24	CLA	a	408	65/65	0.97	0.08	20,23,31,34	0
39	MG	k	103	1/1	0.97	0.05	45,45,45,45	0
24	CLA	B	613	65/65	0.97	0.08	23,25,49,53	0
38	HEM	v	201	43/43	0.97	0.10	31,32,36,37	0
24	CLA	A	1005	65/65	0.97	0.10	17,20,29,33	0
24	CLA	a	407	65/65	0.97	0.10	21,23,30,35	0
30	DMS	a	417	4/4	0.97	0.09	31,32,33,33	0

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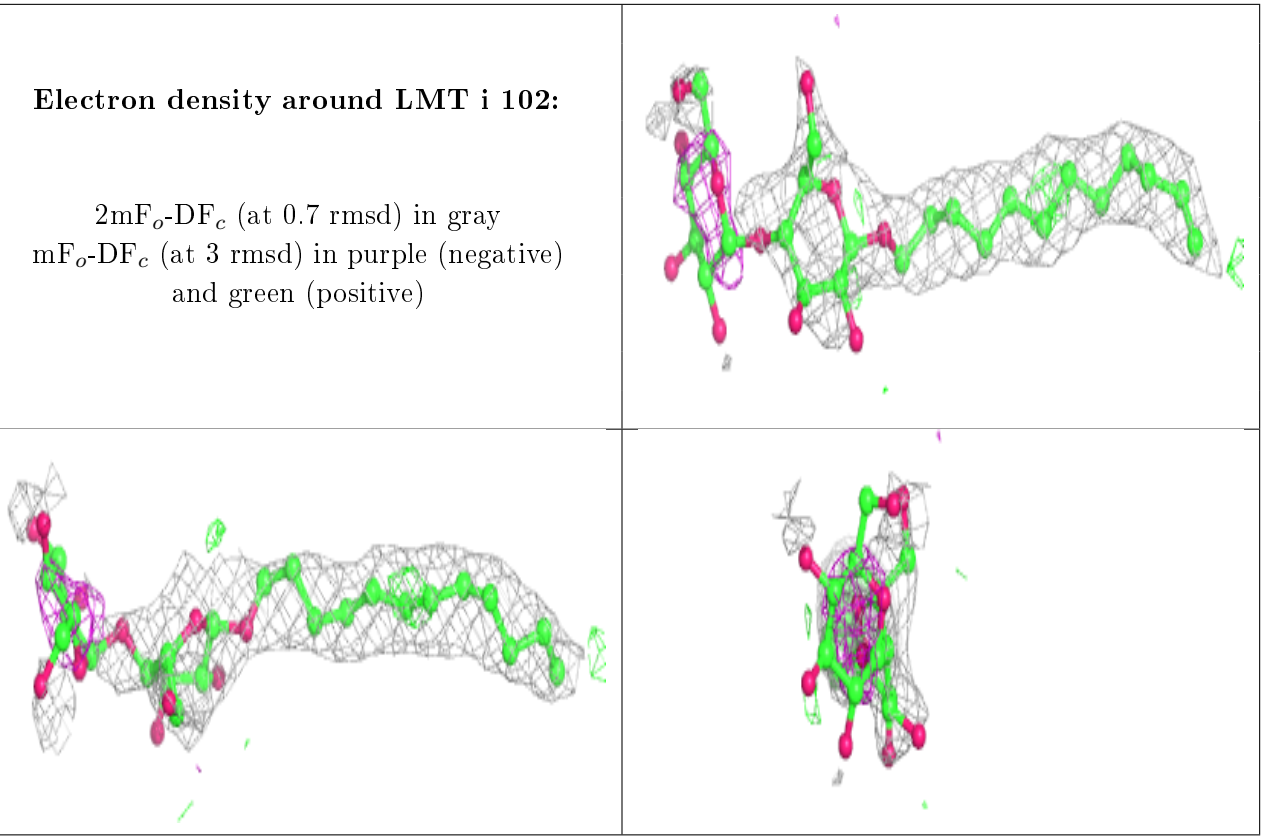
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
24	CLA	d	402	65/65	0.97	0.10	21,23,39,43	0
30	DMS	B	627	4/4	0.97	0.10	41,41,42,44	0
24	CLA	D	402	65/65	0.97	0.09	17,20,35,37	0
24	CLA	b	606	65/65	0.97	0.09	26,29,35,39	0
25	PHO	A	1007	64/64	0.97	0.08	21,24,26,28	0
30	DMS	B	632	4/4	0.97	0.18	57,58,60,61	0
34	LHG	B	621	49/49	0.97	0.09	26,32,45,49	0
24	CLA	B	608	65/65	0.97	0.08	25,27,31,31	0
24	CLA	D	403	65/65	0.97	0.07	18,20,29,33	0
24	CLA	C	510	65/65	0.97	0.09	27,31,38,39	0
24	CLA	b	616	65/65	0.97	0.09	25,25,50,52	0
24	CLA	B	612	65/65	0.97	0.09	24,26,30,31	0
37	BCT	D	401	4/4	0.97	0.16	37,38,38,41	0
24	CLA	B	603	65/65	0.97	0.08	25,26,32,34	0
38	HEM	V	201	43/43	0.98	0.12	25,26,28,29	0
39	MG	J	103	1/1	0.98	0.04	32,32,32,32	0
30	DMS	c	524	4/4	0.98	0.18	43,43,43,43	0
30	DMS	b	628	4/4	0.98	0.07	30,31,31,32	0
30	DMS	A	1013	4/4	0.98	0.09	29,29,30,31	0
30	DMS	B	626	4/4	0.98	0.07	25,26,26,27	0
23	CL	A	1003	1/1	0.99	0.03	25,25,25,25	0
30	DMS	C	523	4/4	0.99	0.10	36,37,38,38	0
23	CL	a	405	1/1	0.99	0.03	26,26,26,26	0
21	OER	A	1001	10/10	1.00	0.06	24,25,28,28	1
21	OER	a	403	10/10	1.00	0.05	27,28,29,31	1
23	CL	A	1004	1/1	1.00	0.02	22,22,22,22	0
22	FE2	a	404	1/1	1.00	0.05	29,29,29,29	0
22	FE2	A	1002	1/1	1.00	0.03	29,29,29,29	0
23	CL	a	406	1/1	1.00	0.05	27,27,27,27	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.

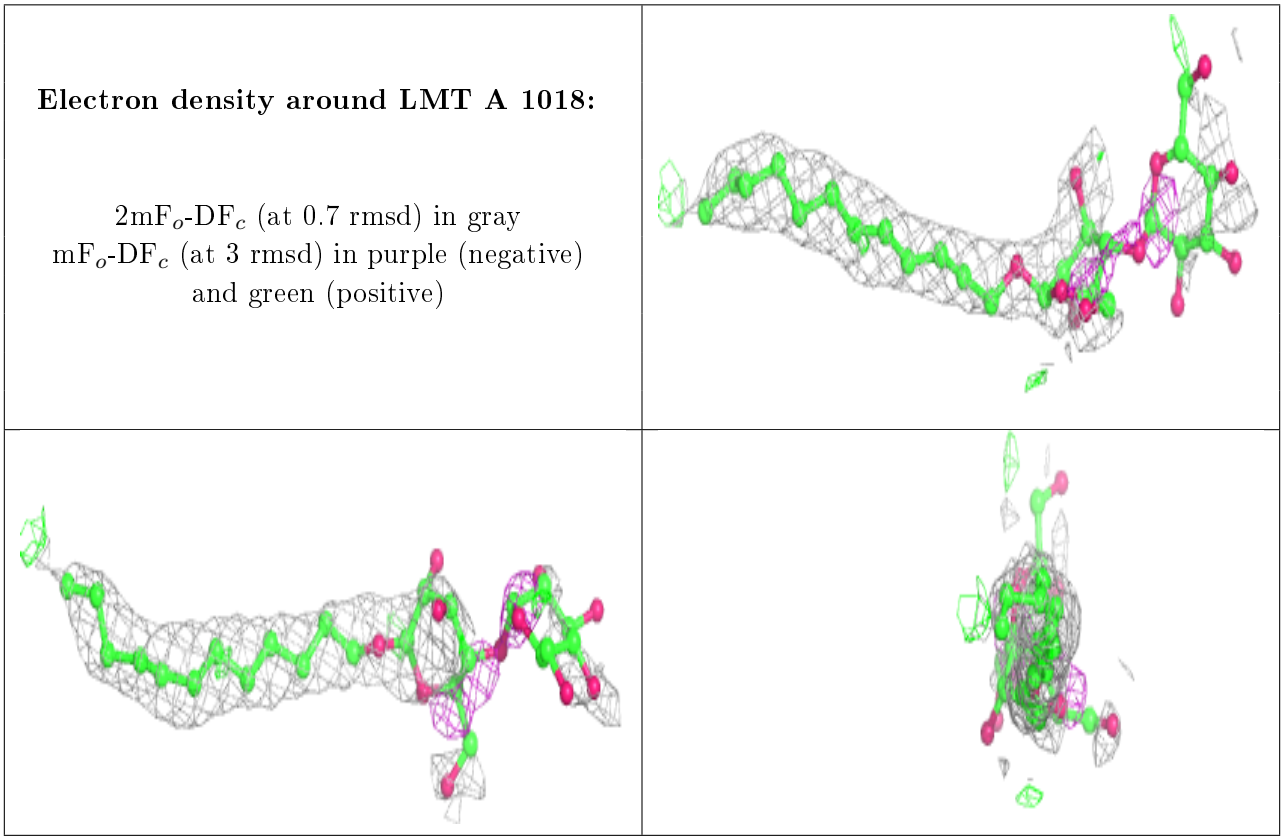
Electron density around LMT i 102:

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



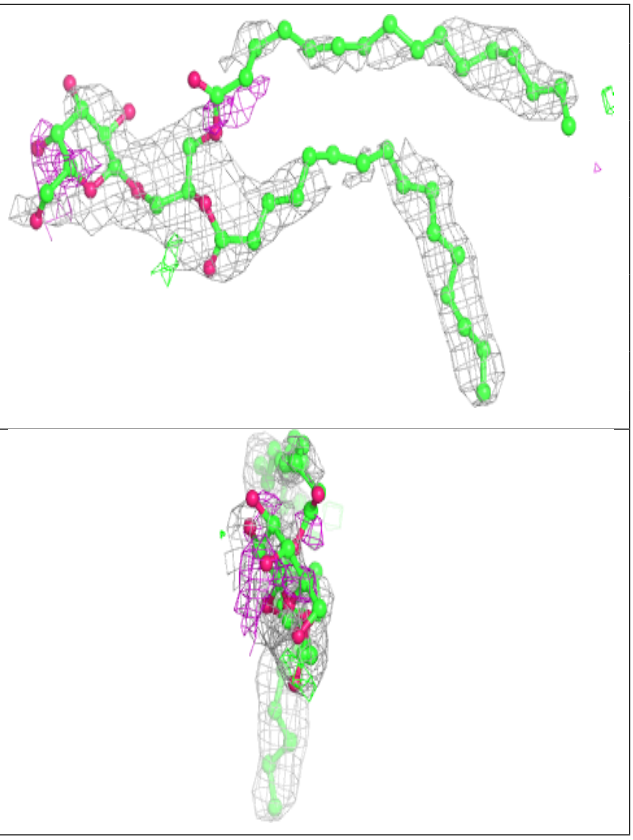
Electron density around LMT A 1018:

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



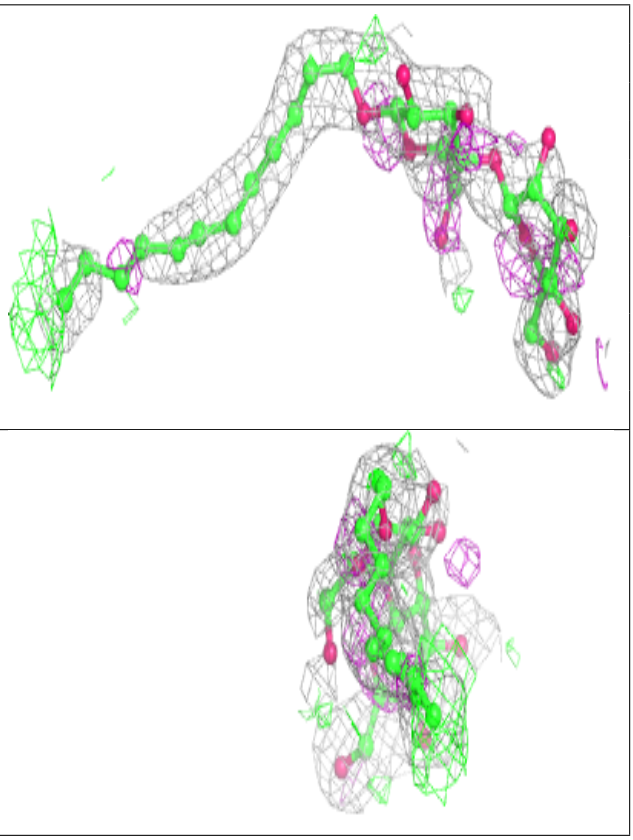
Electron density around LMG Z 101:

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



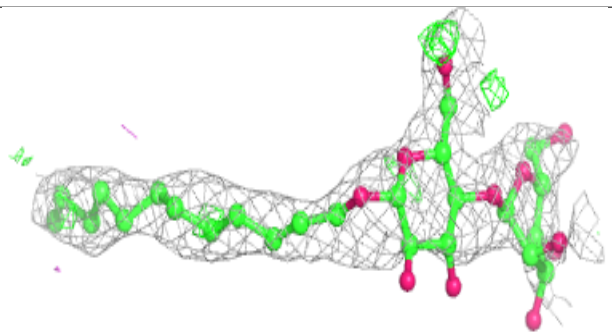
Electron density around LMT a 402:

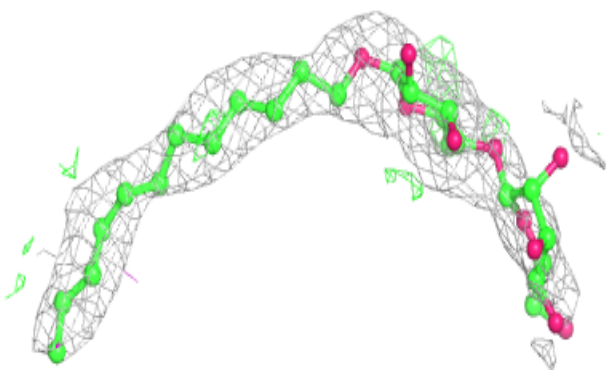
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

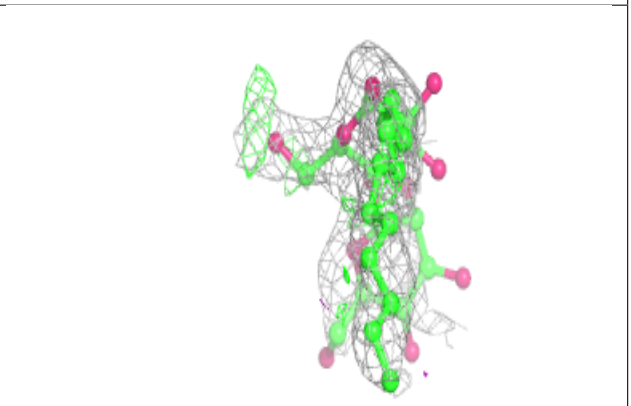


Electron density around LMT m 103:

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

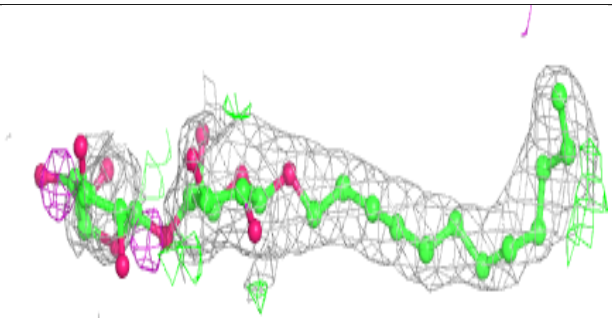


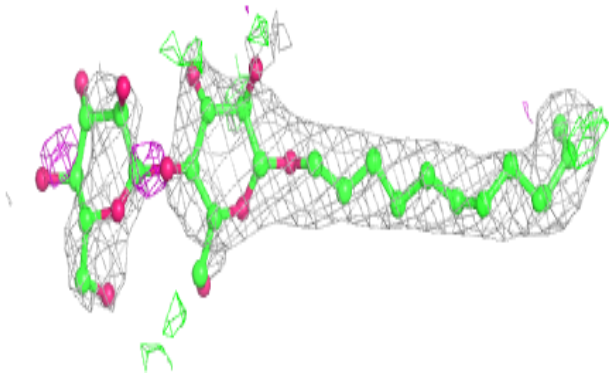


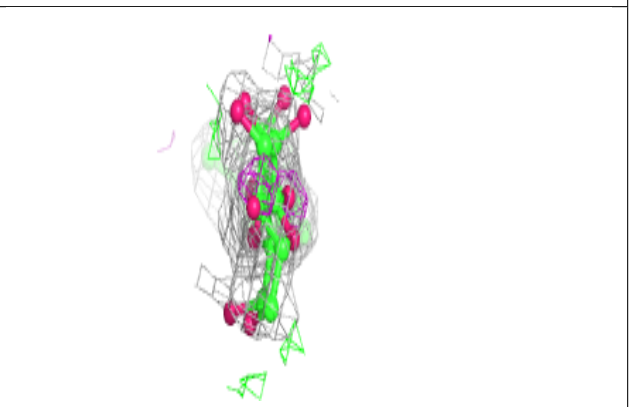


Electron density around LMT t 103:

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

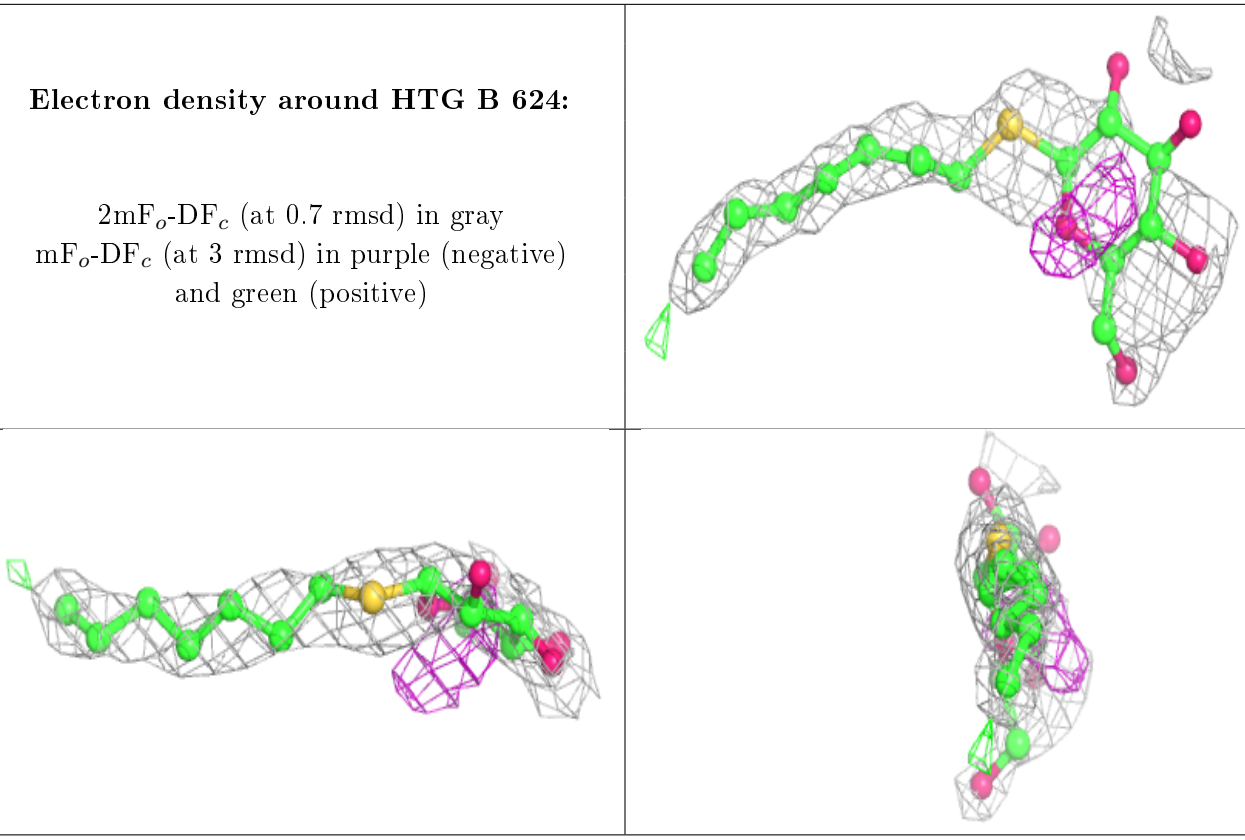






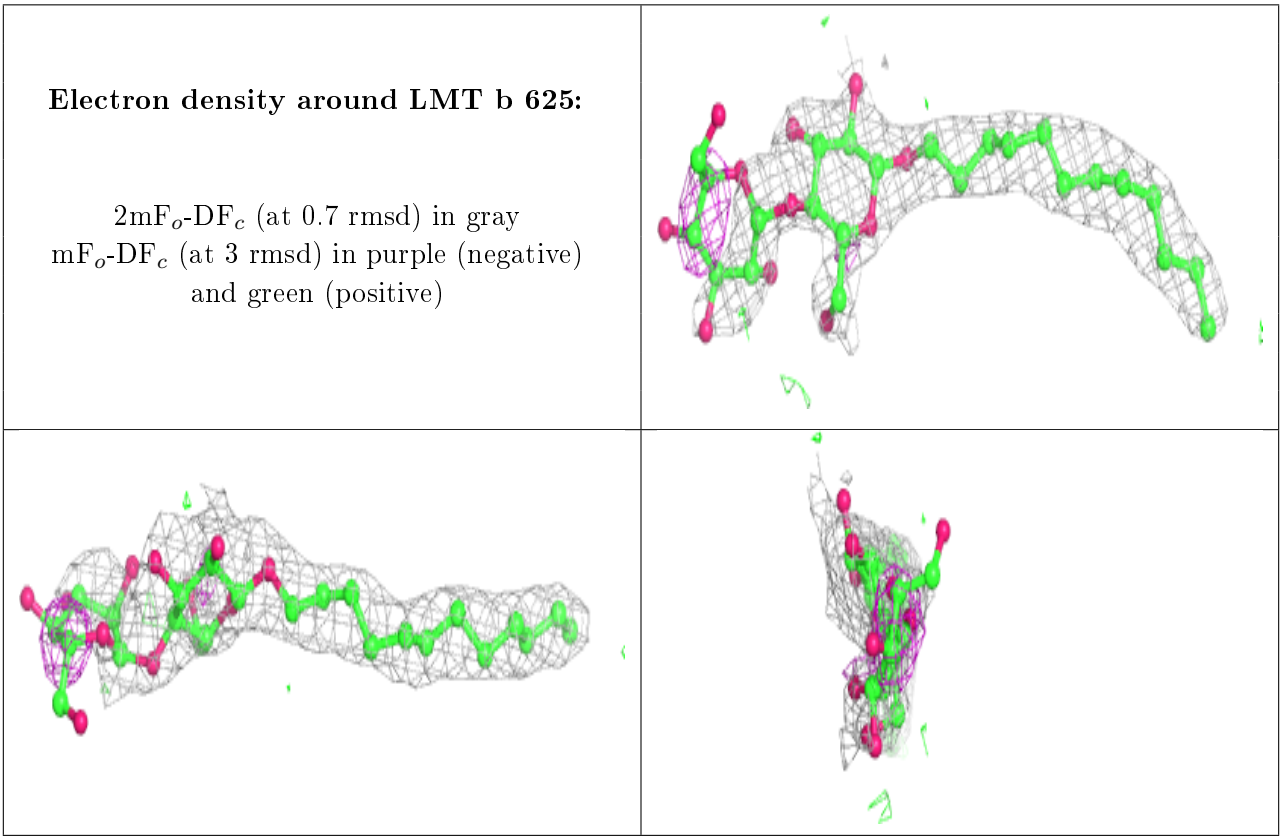
Electron density around HTG B 624:

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



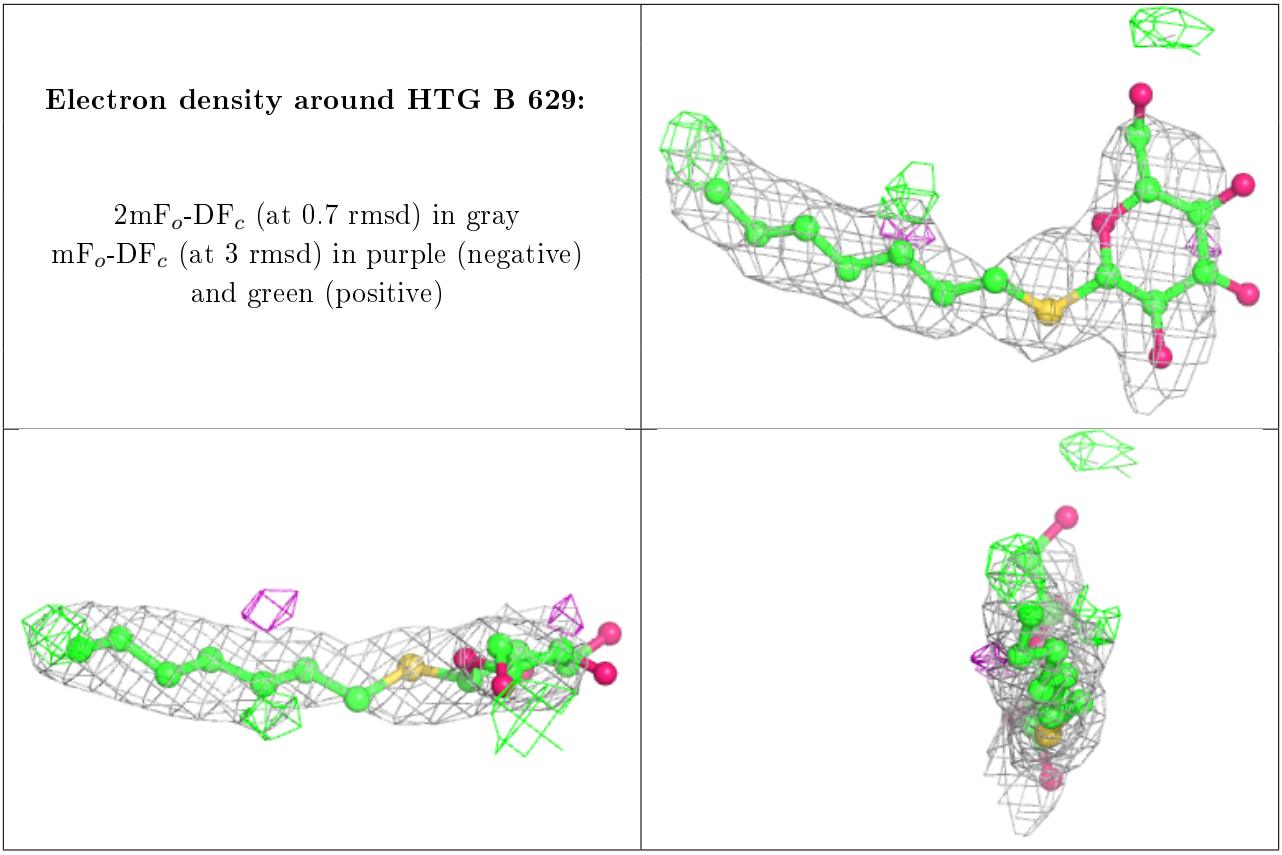
Electron density around LMT b 625:

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



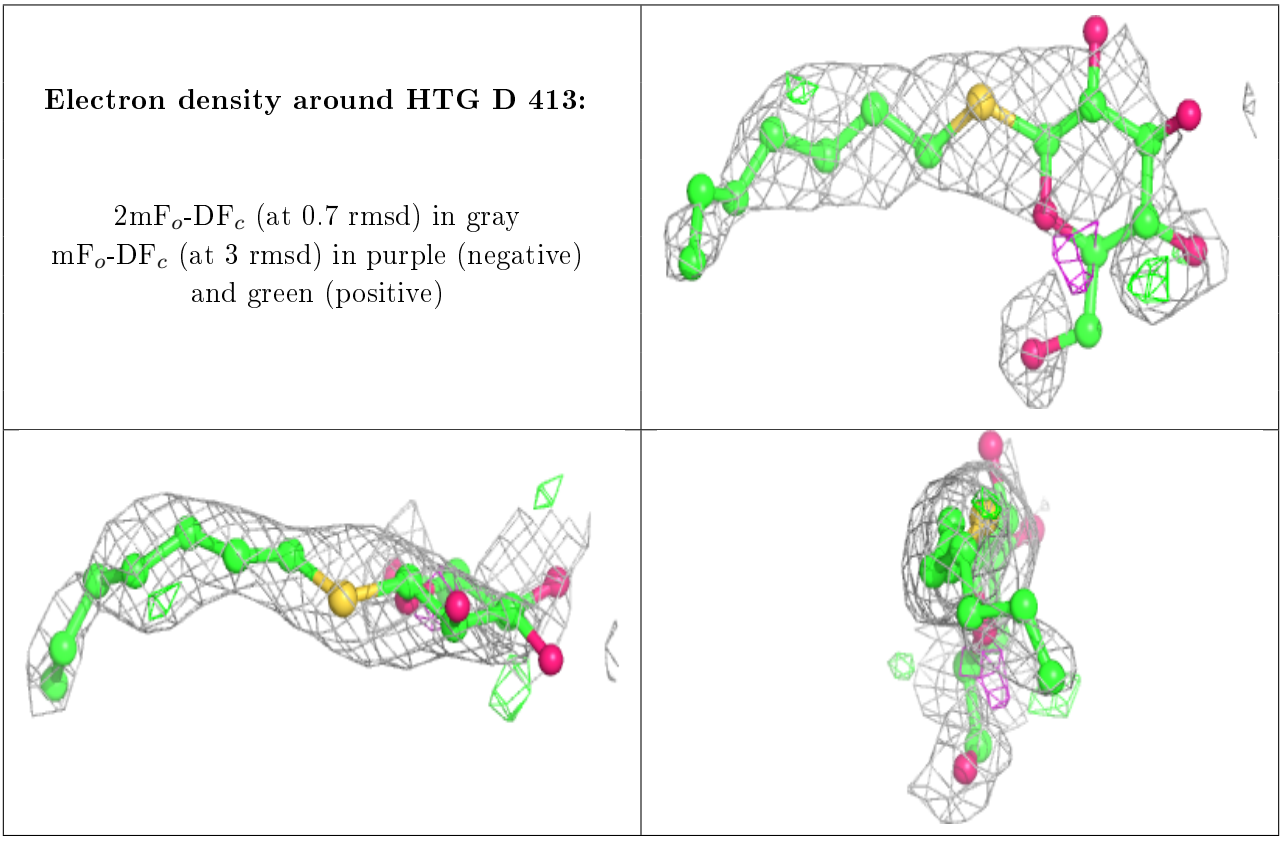
Electron density around HTG B 629:

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



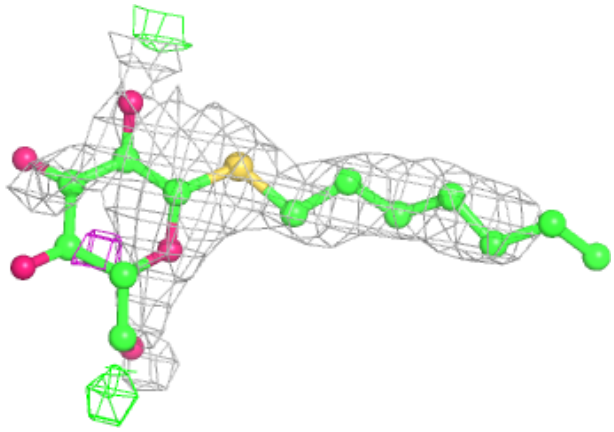
Electron density around HTG D 413:

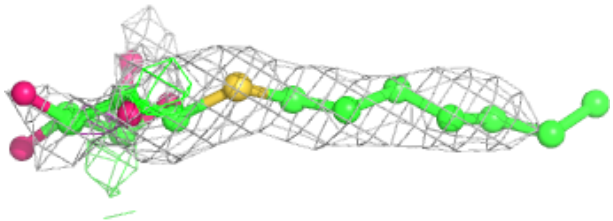
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

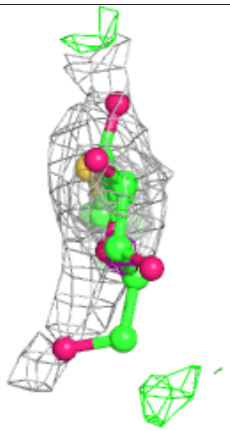


Electron density around HTG c 525:

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

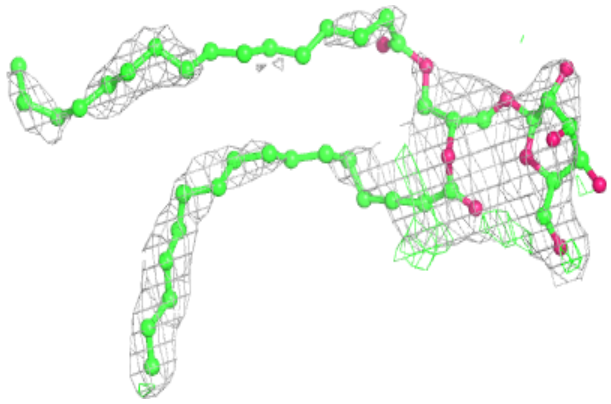


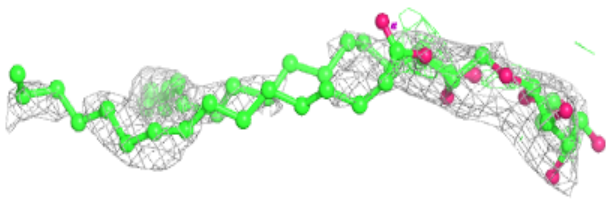




Electron density around LMG c 521:

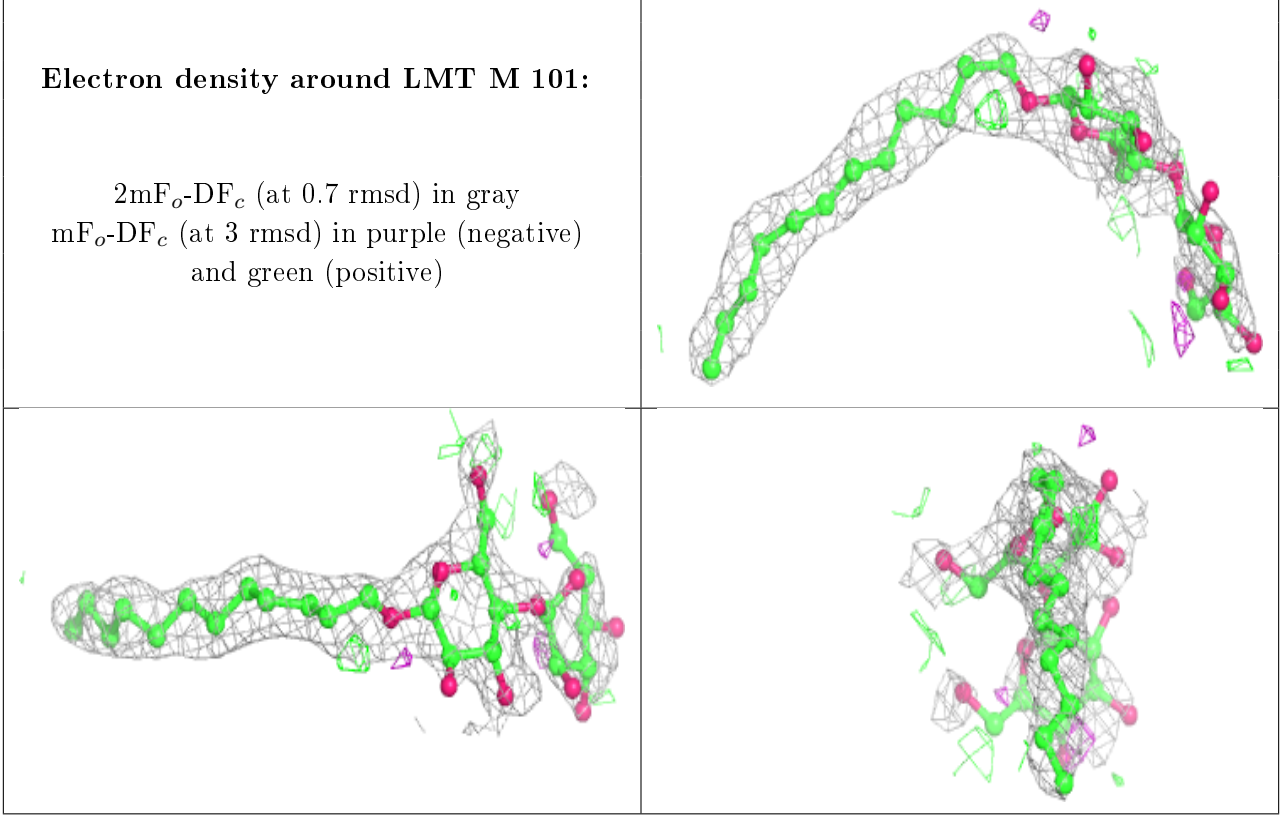
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





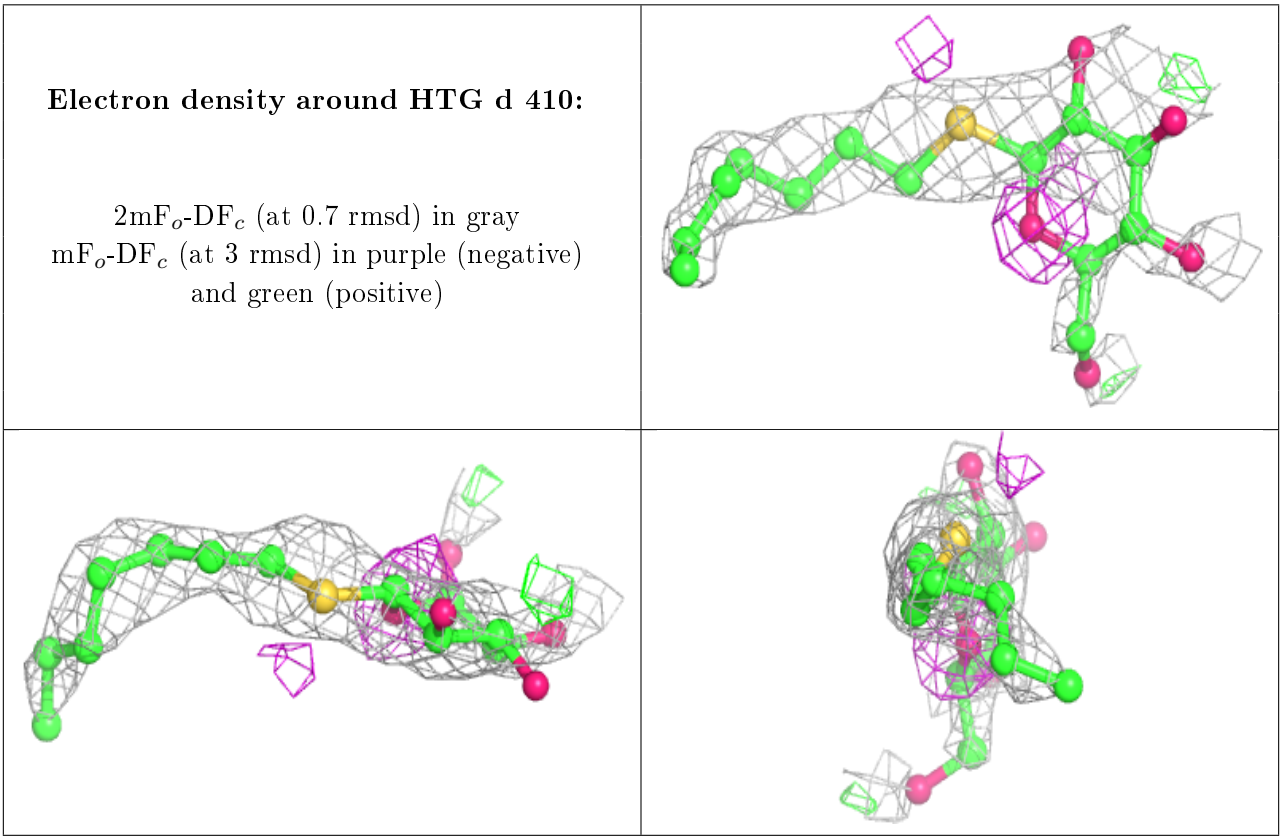
Electron density around LMT M 101:

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



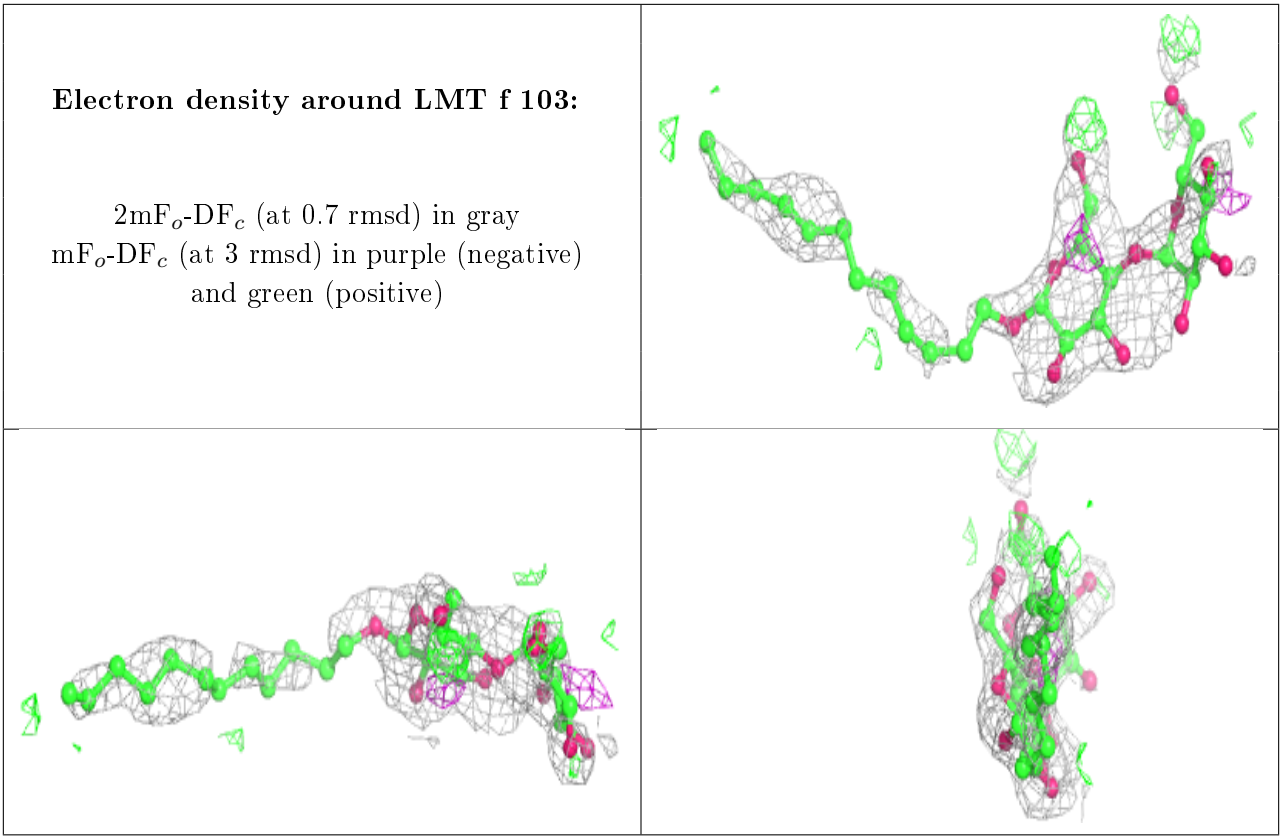
Electron density around HTG d 410:

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



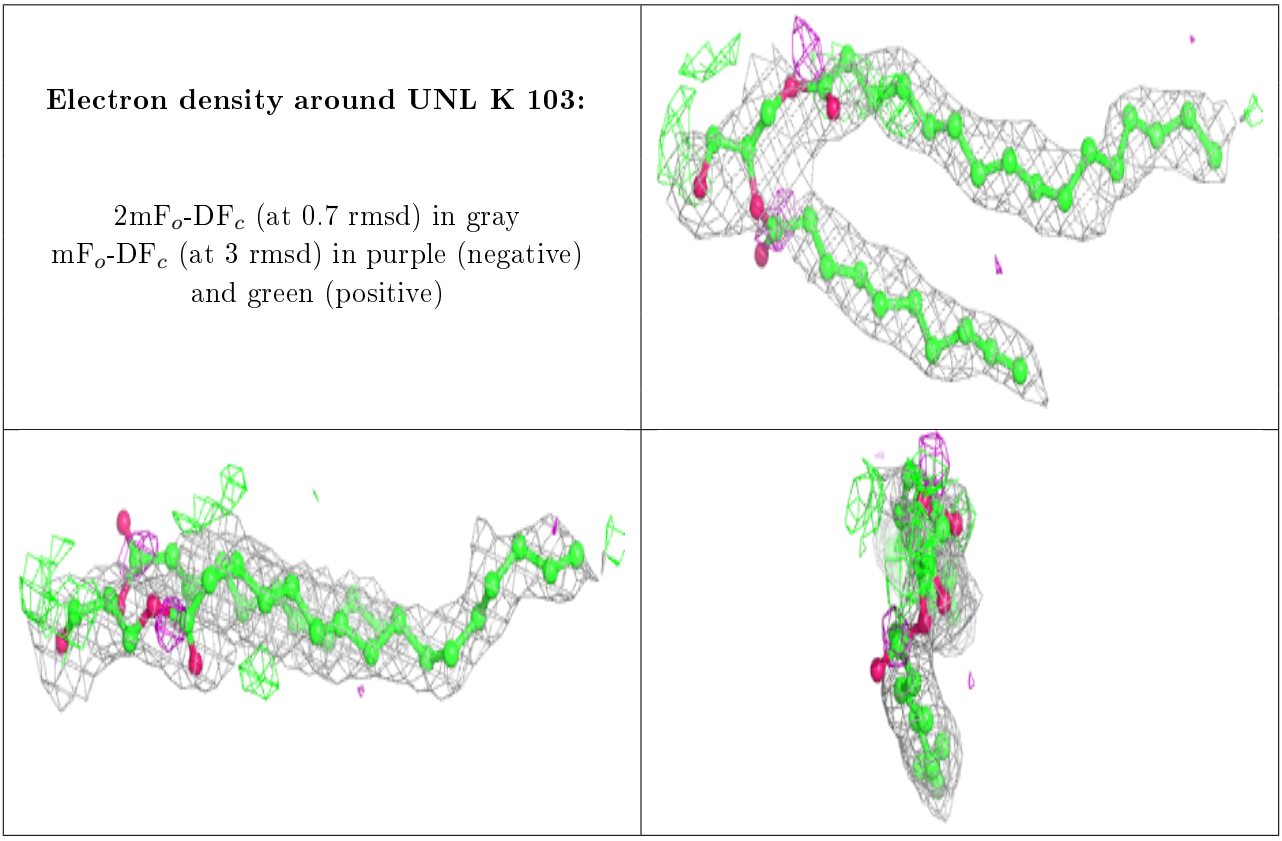
Electron density around LMT f 103:

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



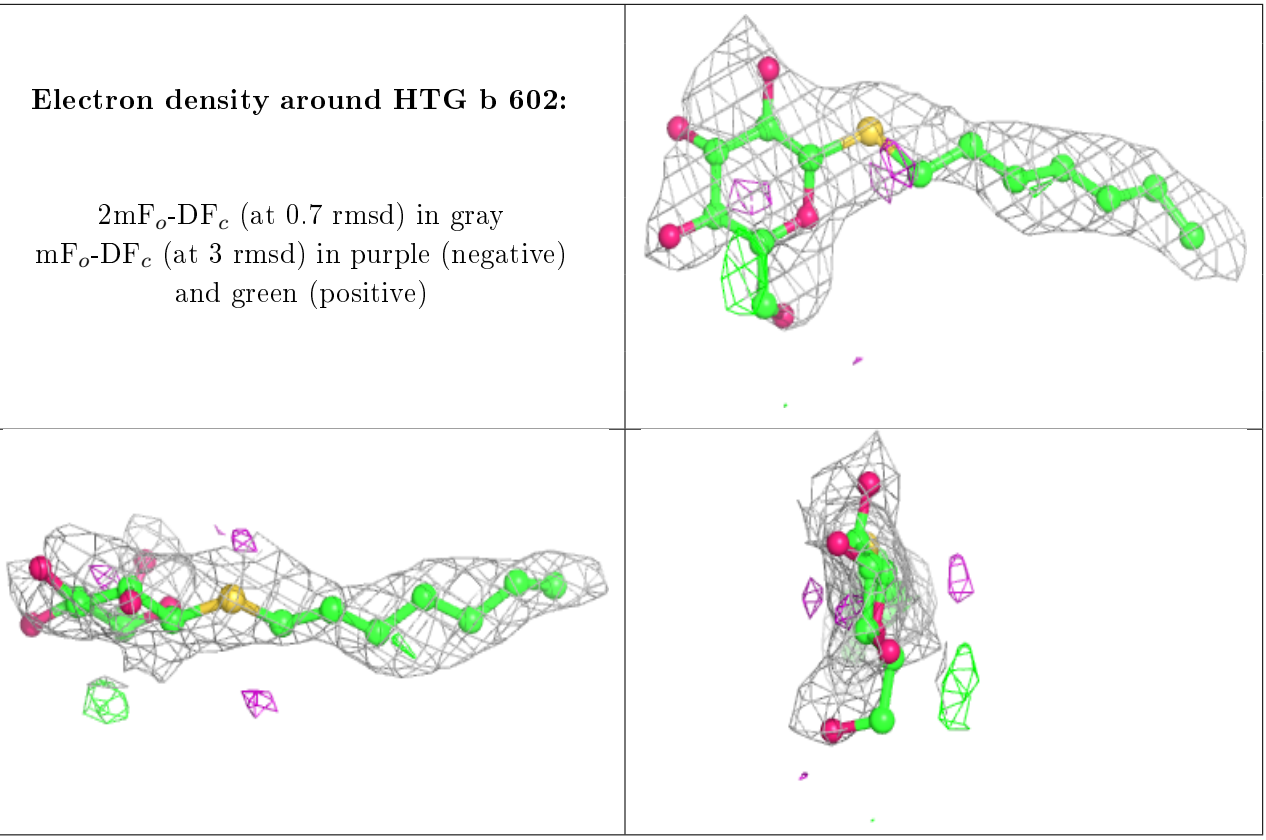
Electron density around UNL K 103:

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



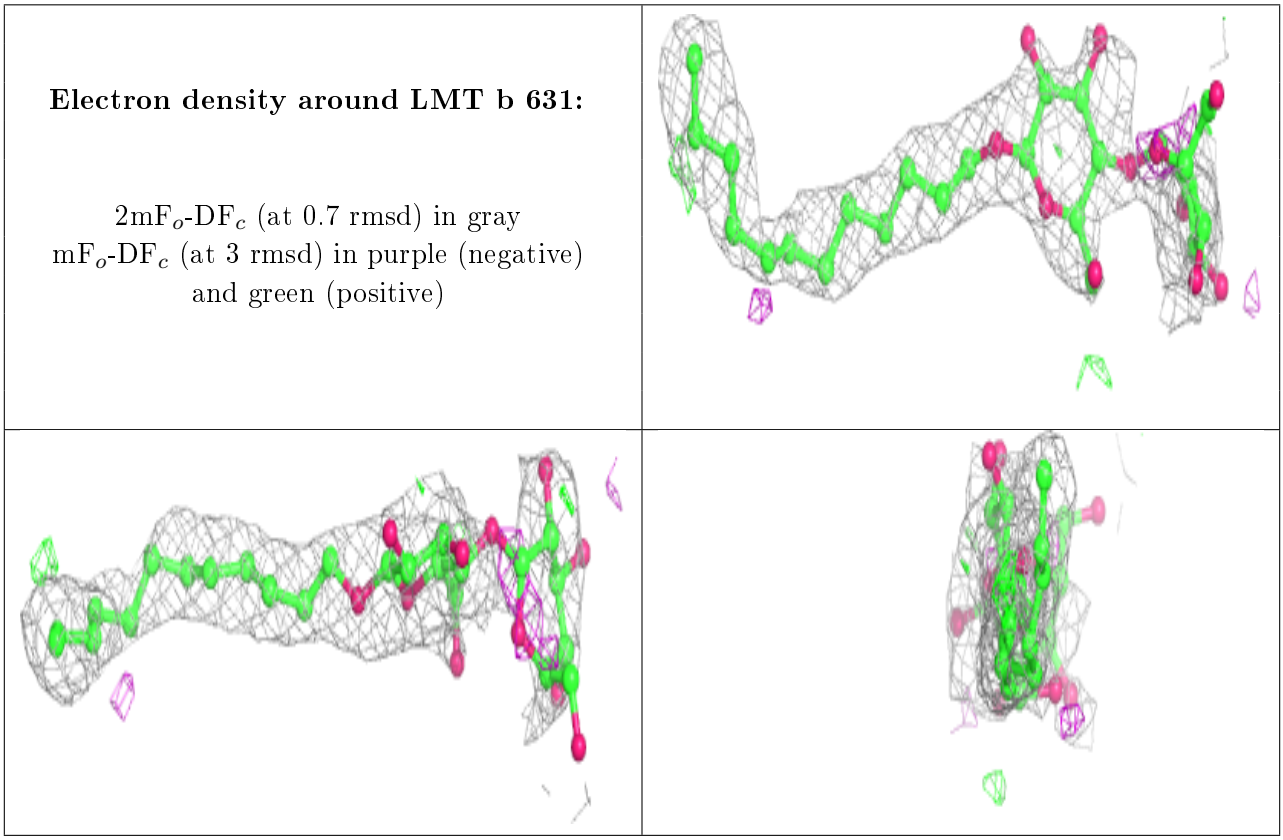
Electron density around HTG b 602:

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



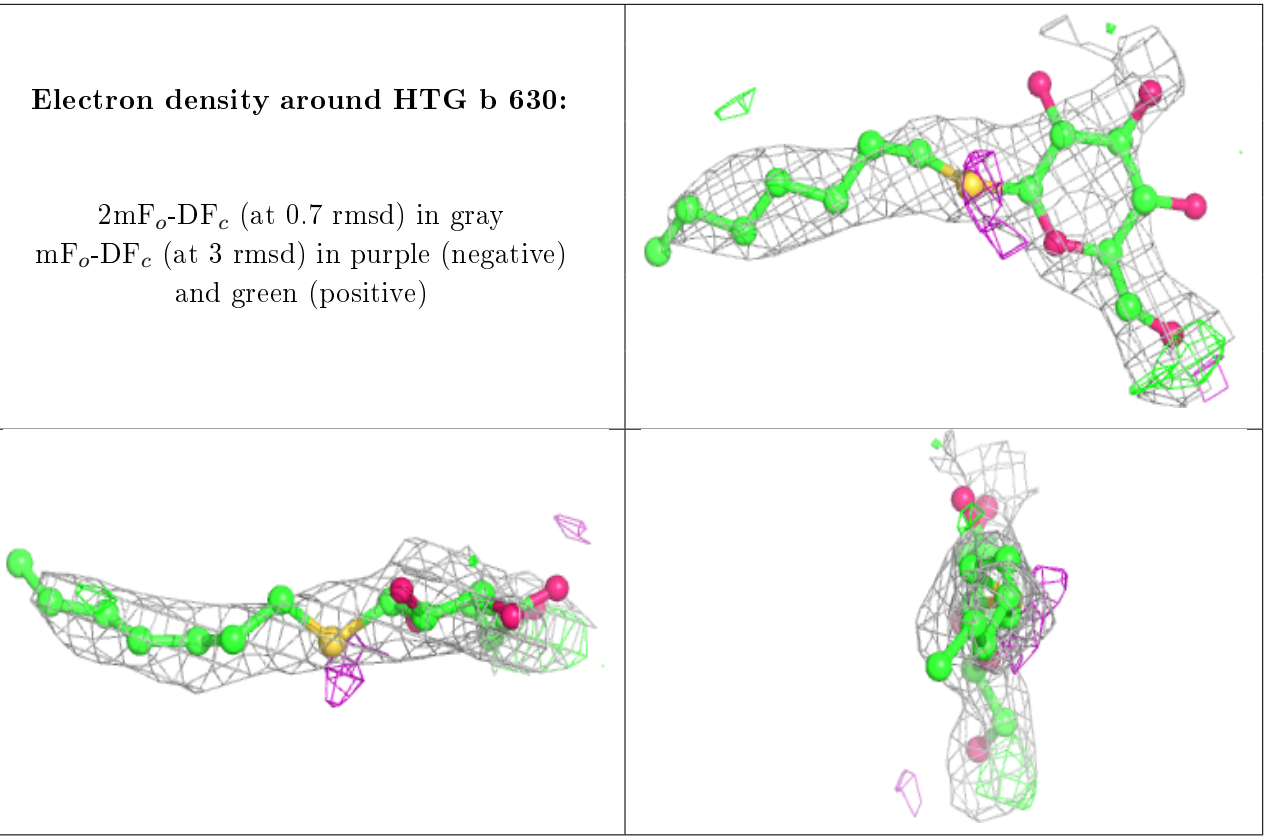
Electron density around LMT b 631:

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



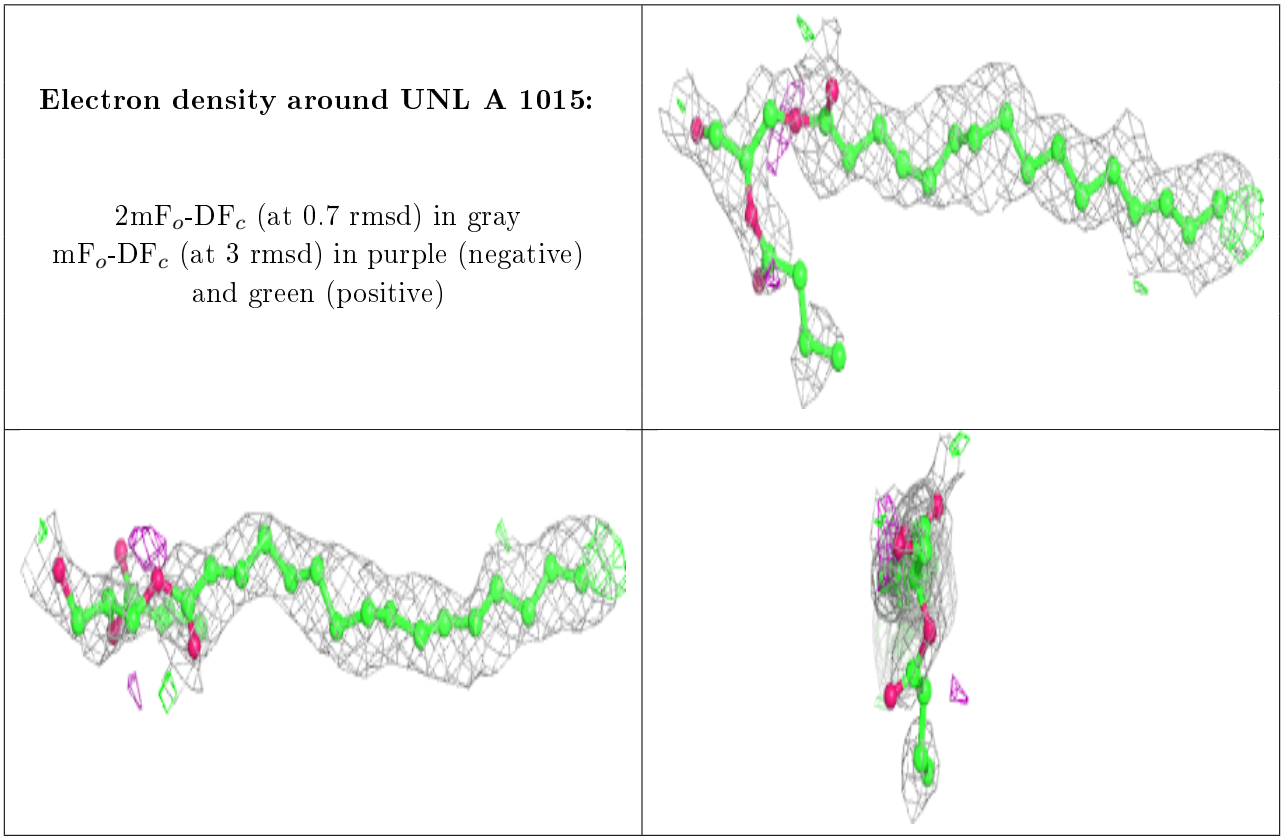
Electron density around HTG b 630:

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



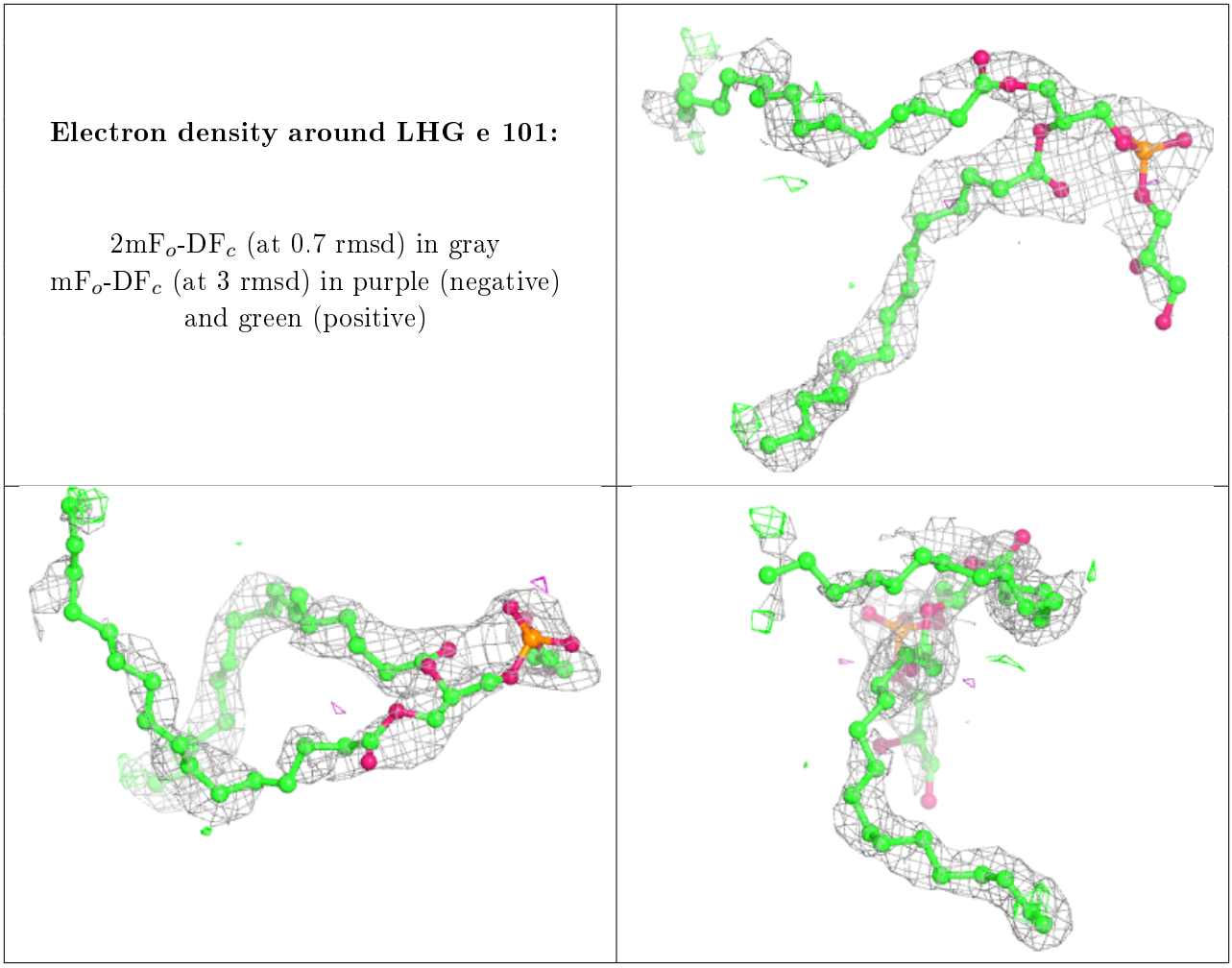
Electron density around UNL A 1015:

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



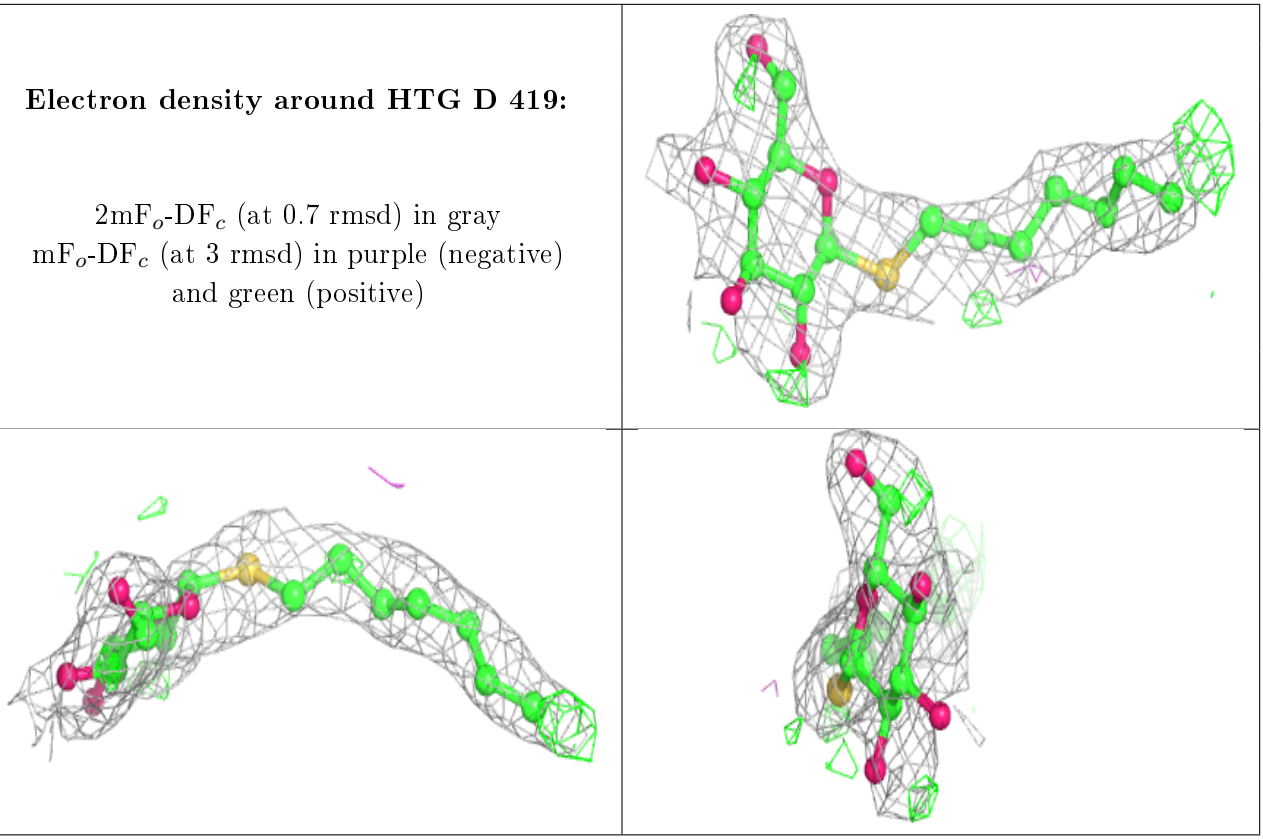
Electron density around LHG e 101:

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



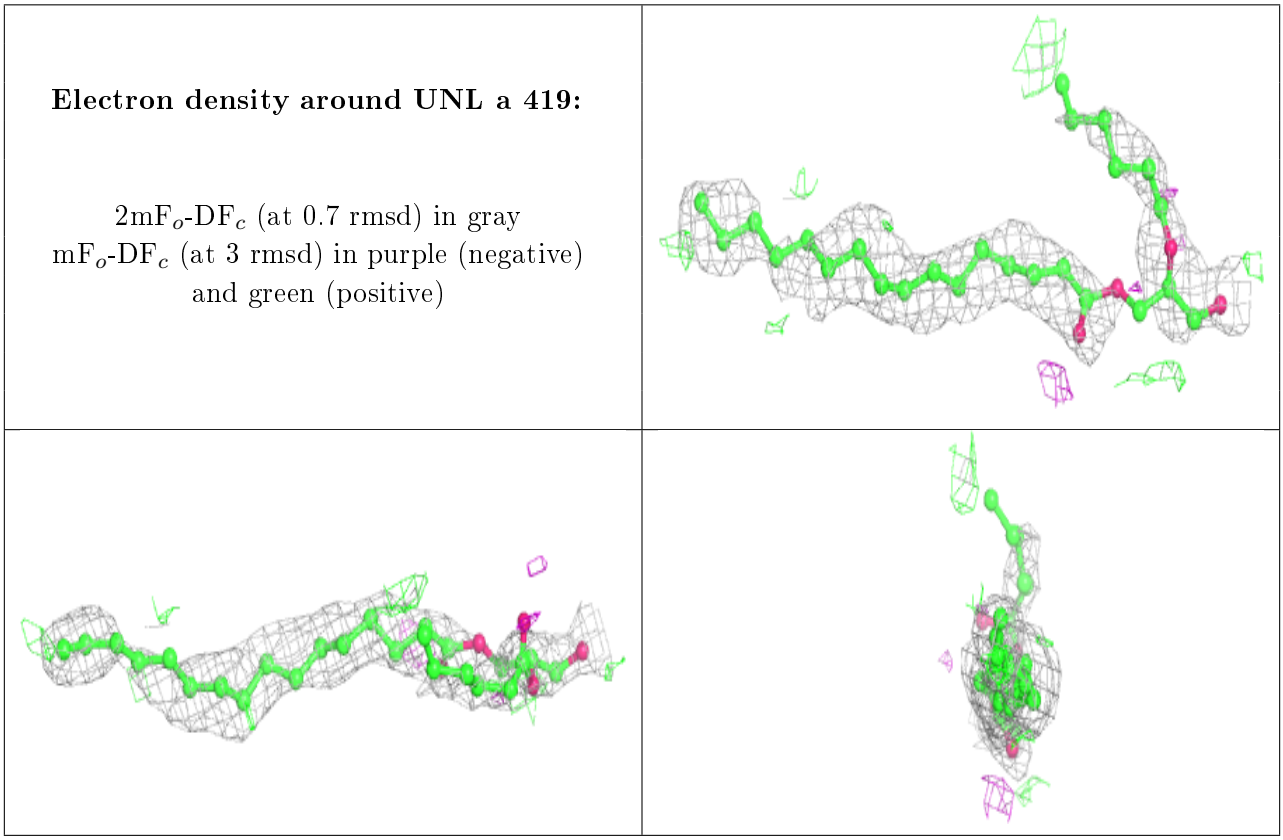
Electron density around HTG D 419:

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



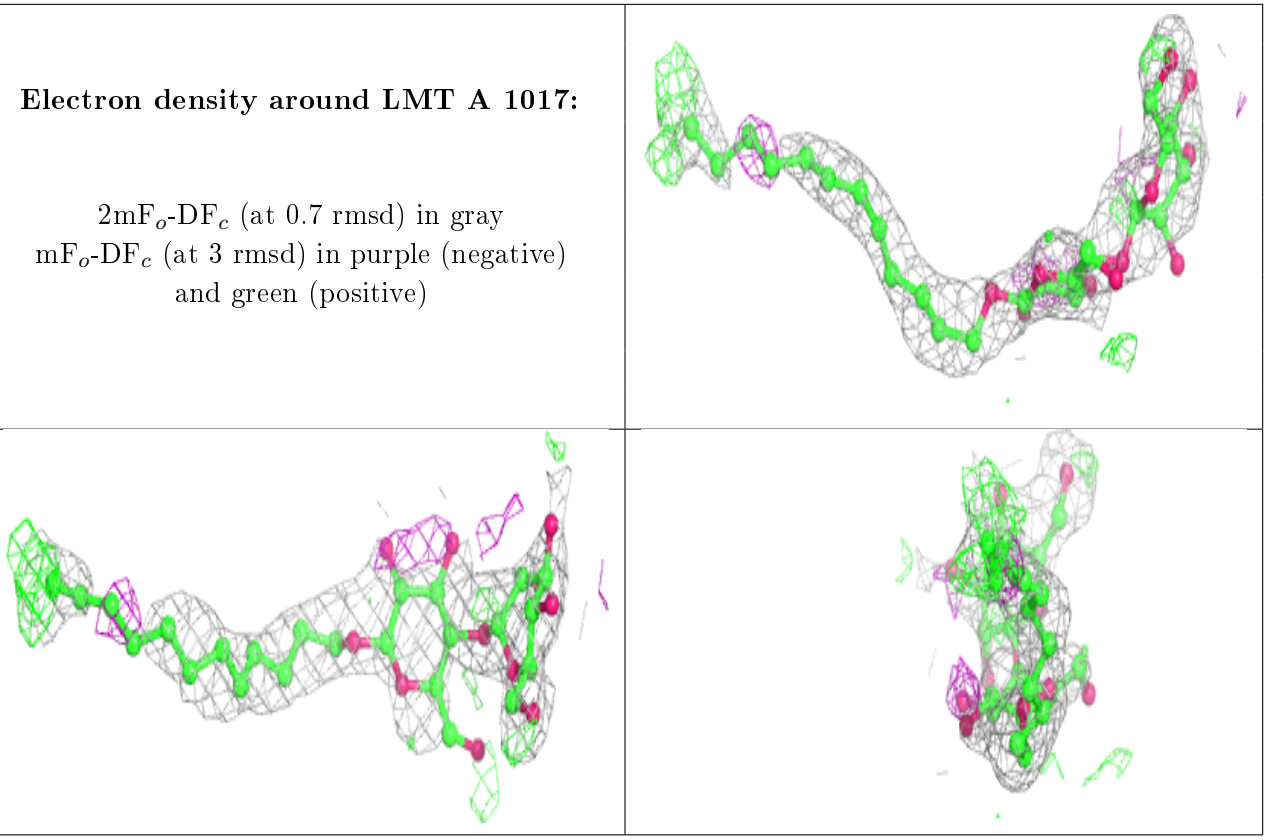
Electron density around UNL a 419:

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



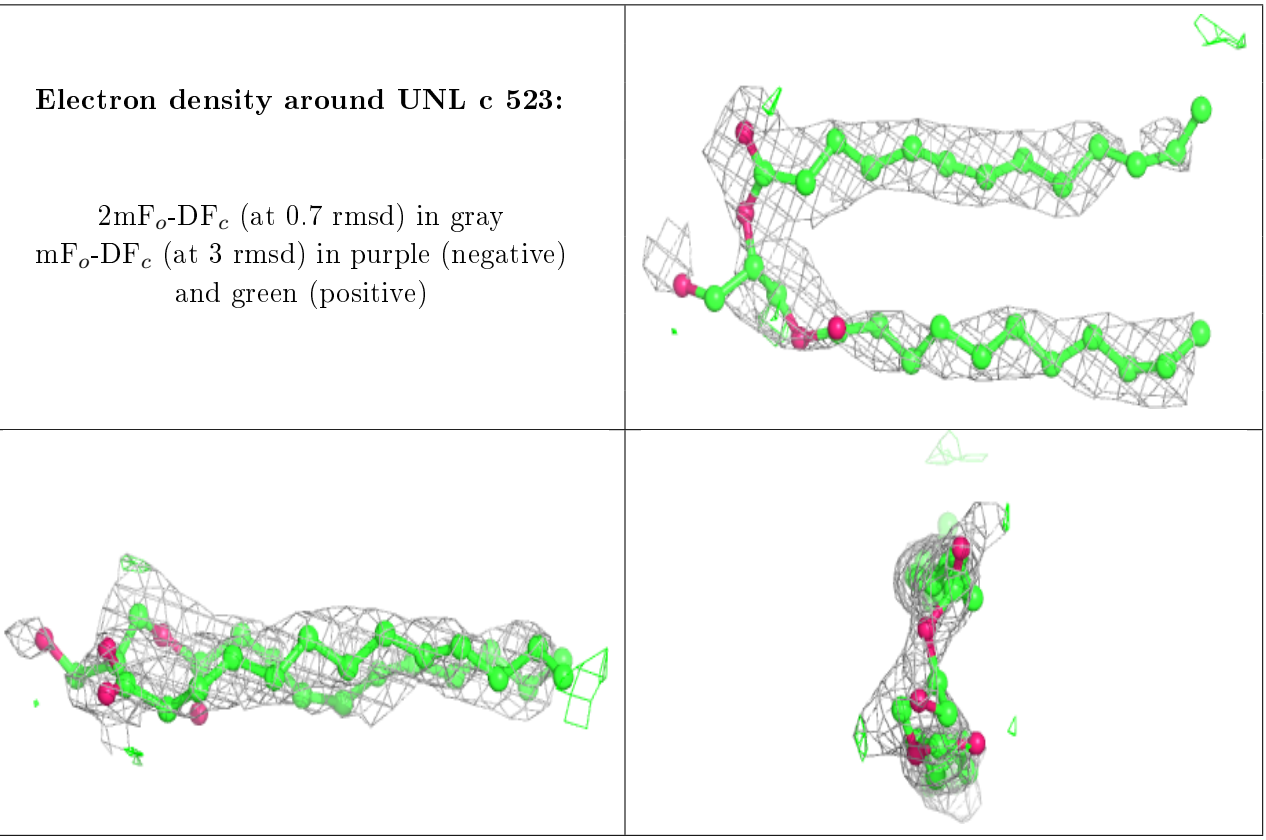
Electron density around LMT A 1017:

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



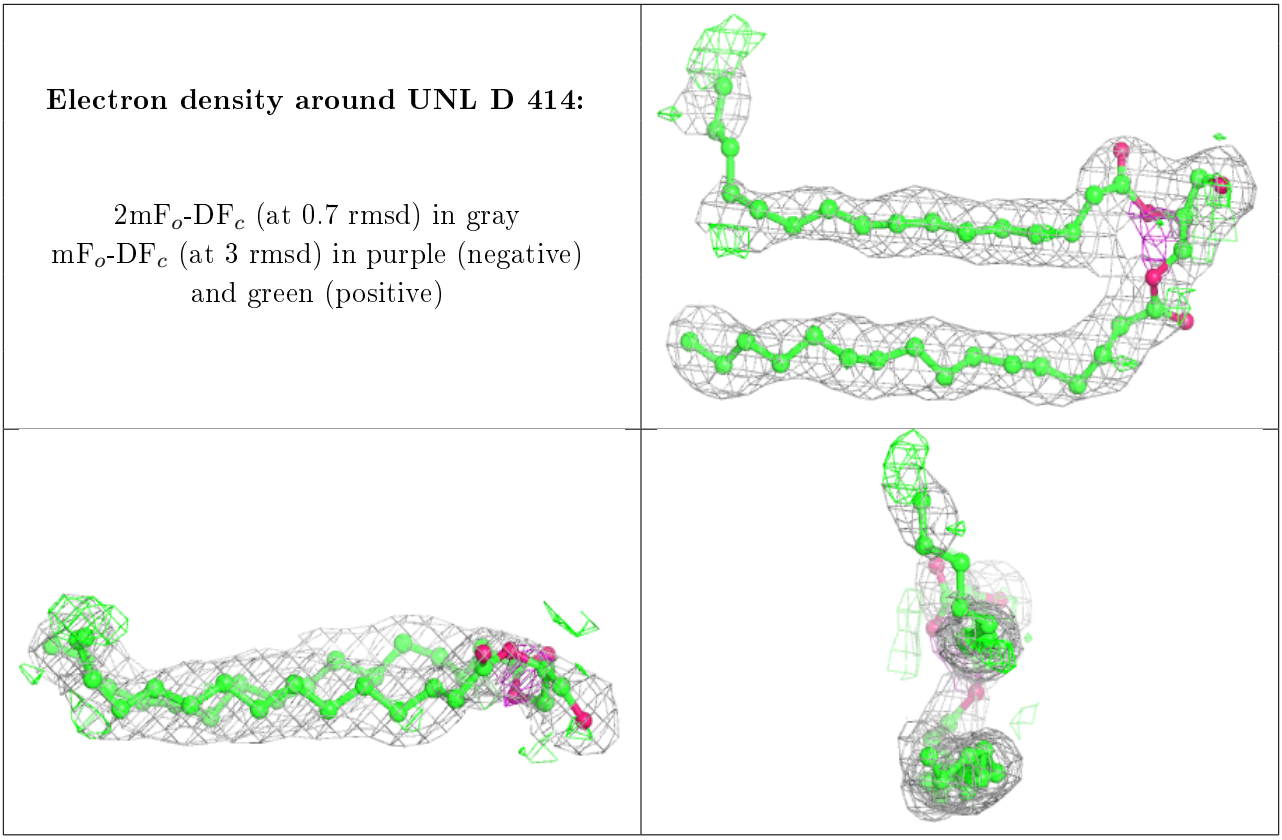
Electron density around UNL c 523:

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



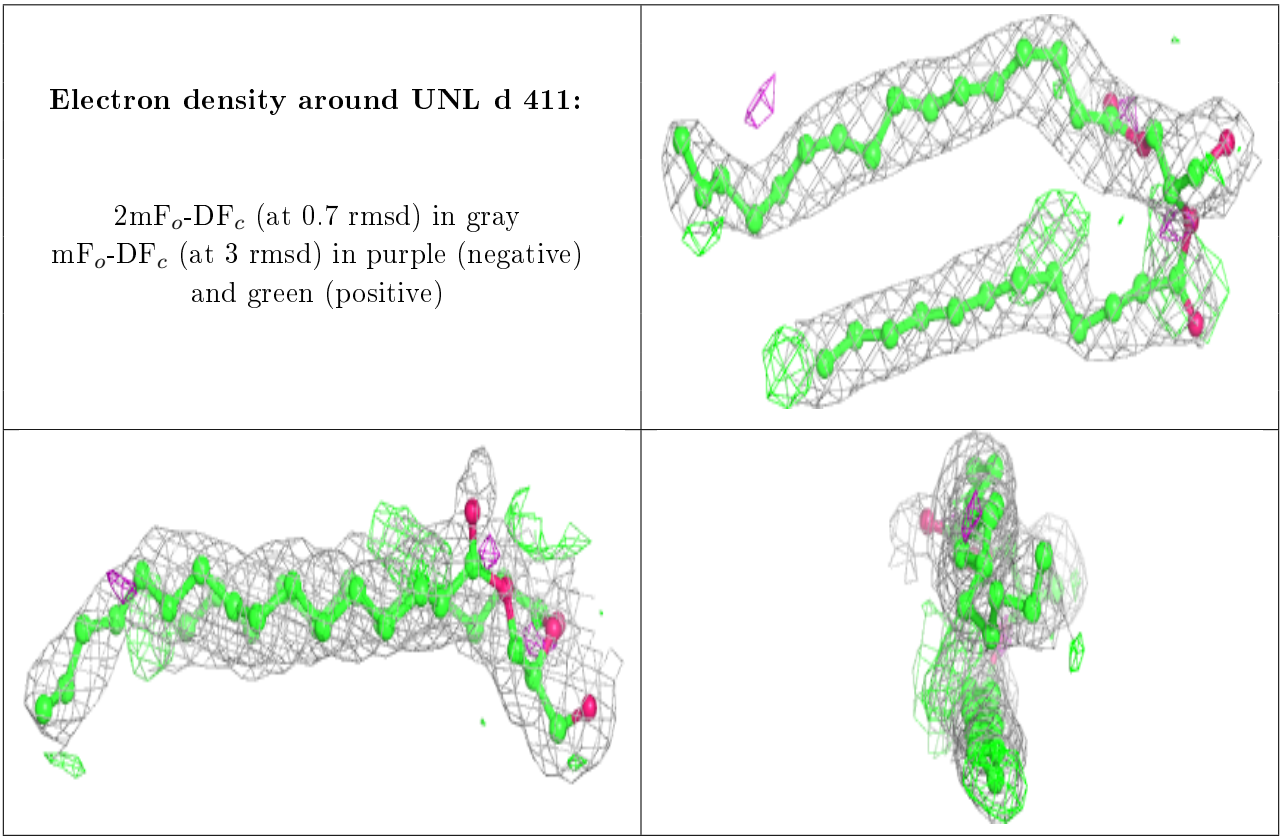
Electron density around UNL D 414:

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



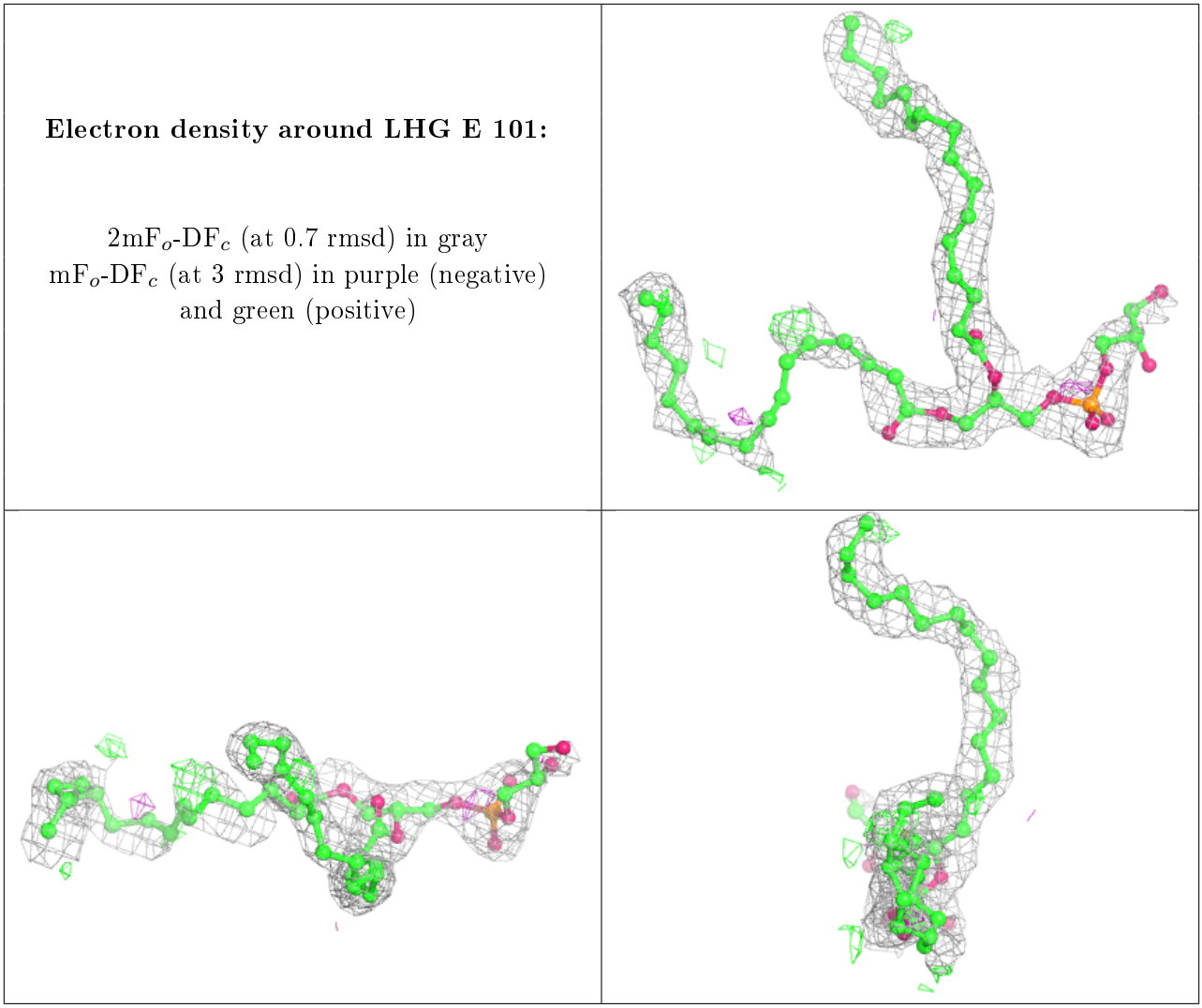
Electron density around UNL d 411:

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



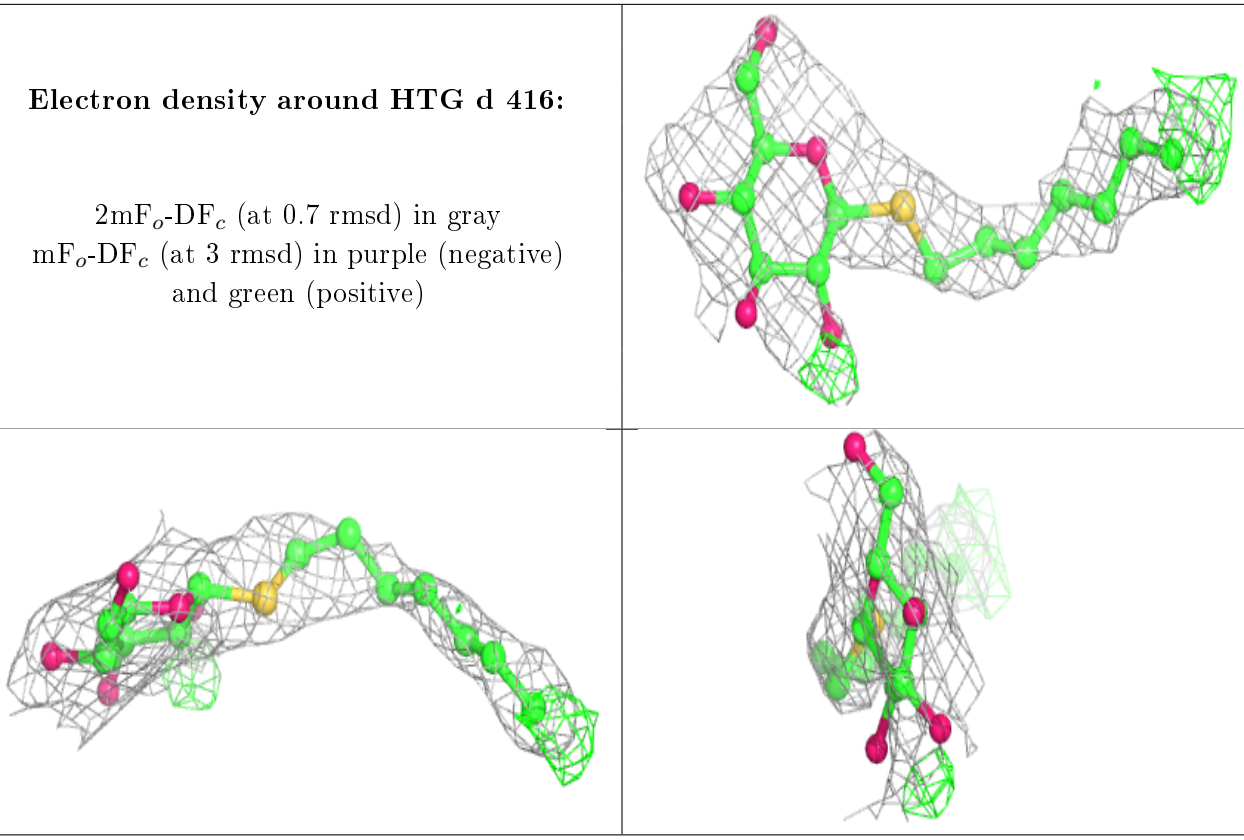
Electron density around LHG E 101:

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



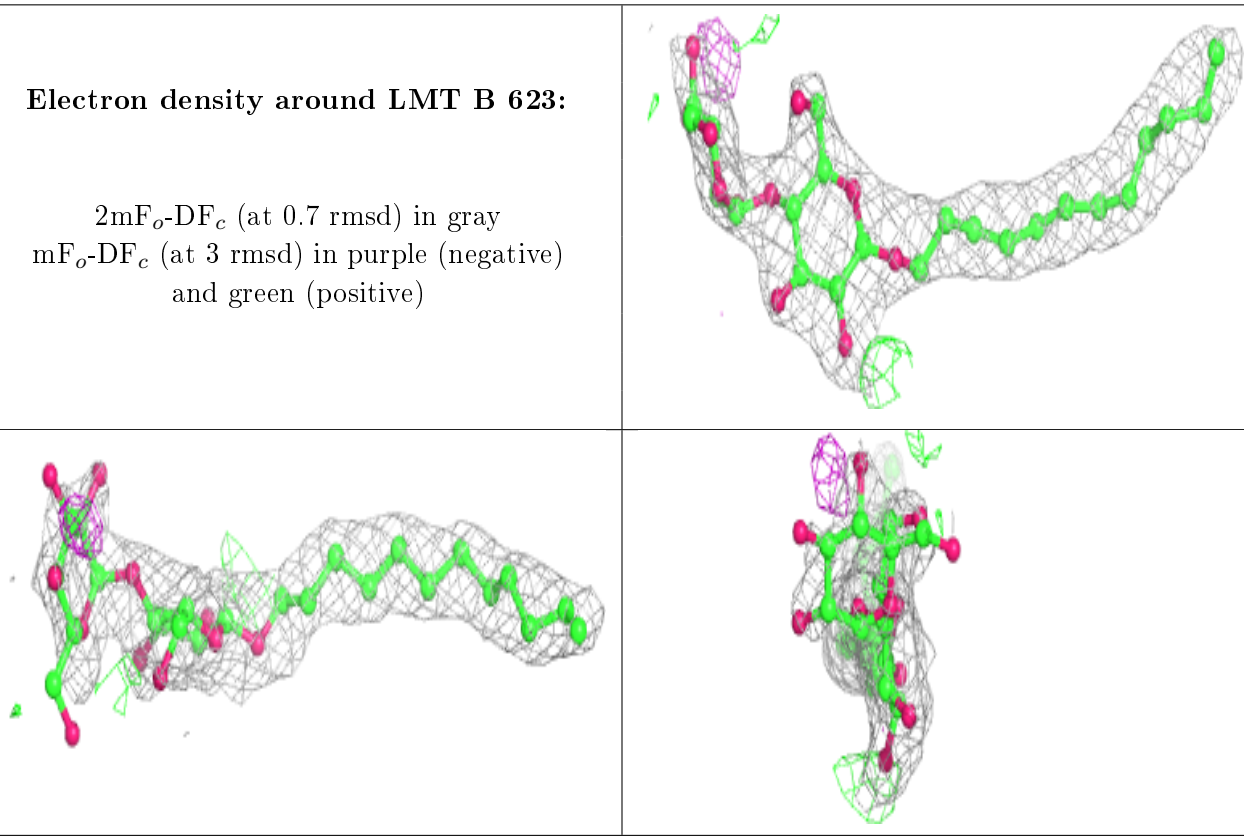
Electron density around HTG d 416:

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



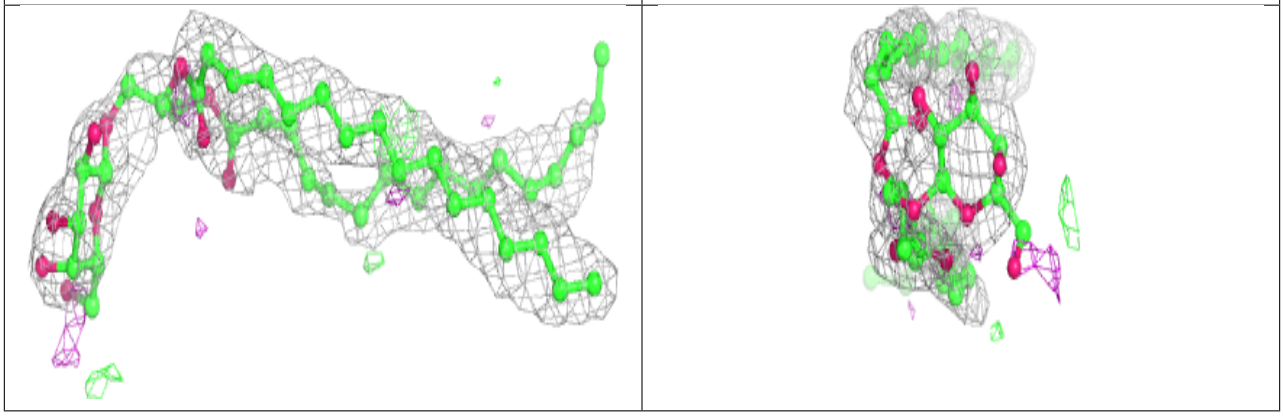
Electron density around LMT B 623:

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



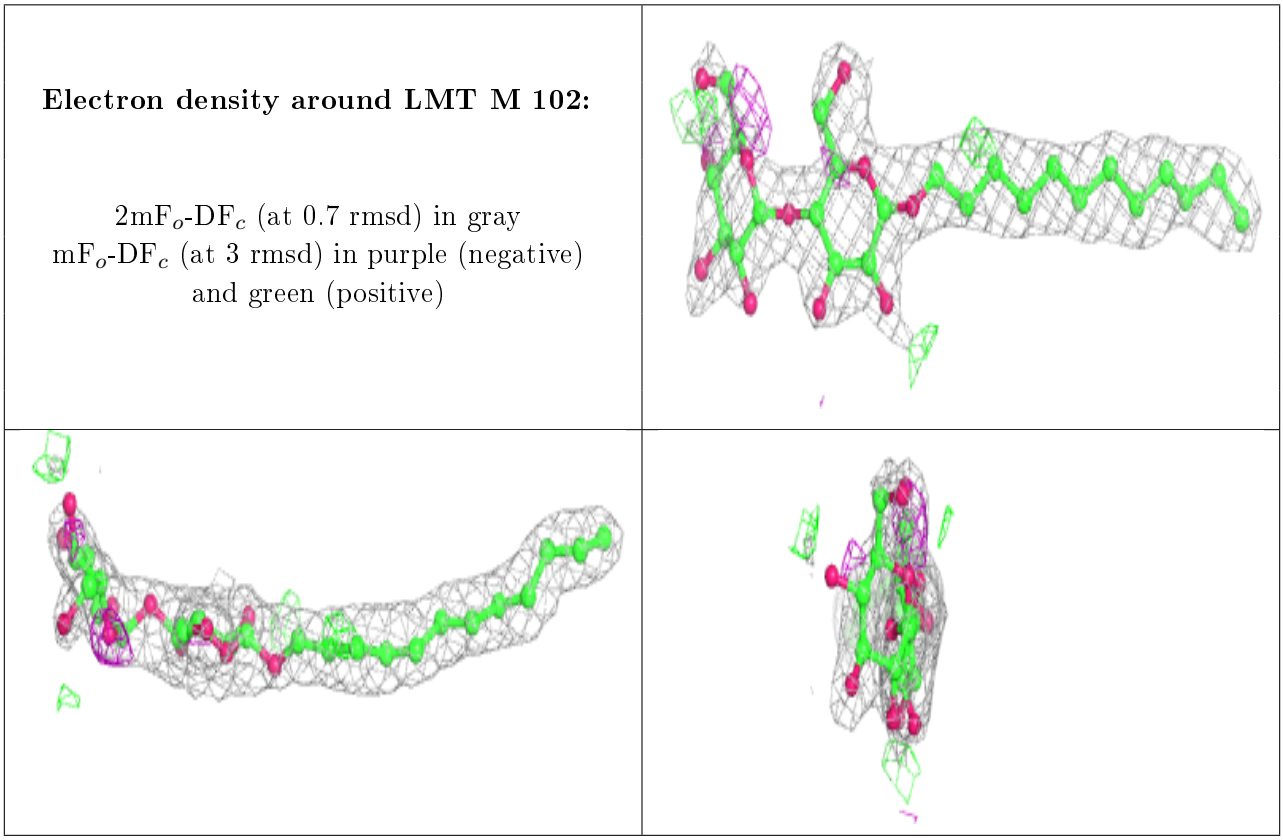
Electron density around LMG c 520:

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



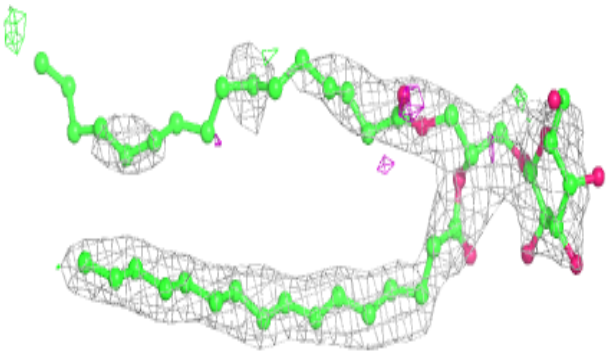
Electron density around LMT M 102:

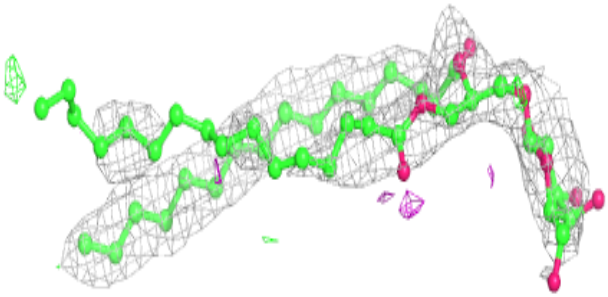
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

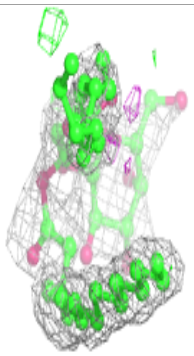


Electron density around LMG C 519:

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

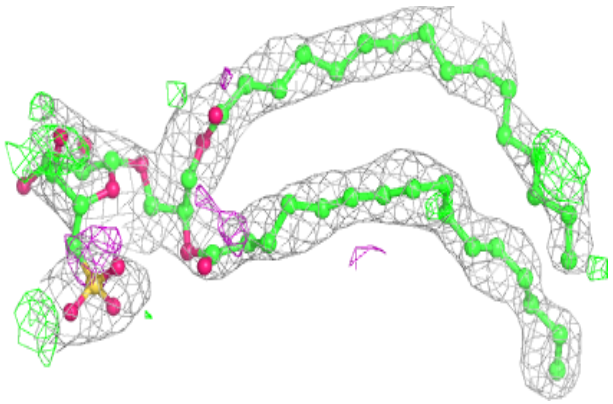


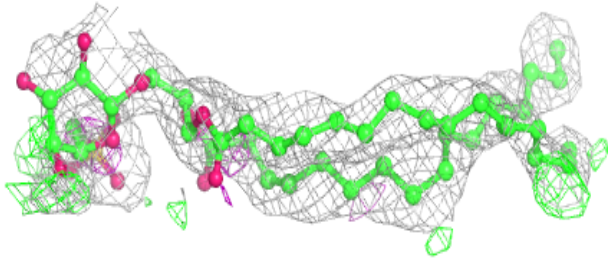




Electron density around SQD b 623 (B):

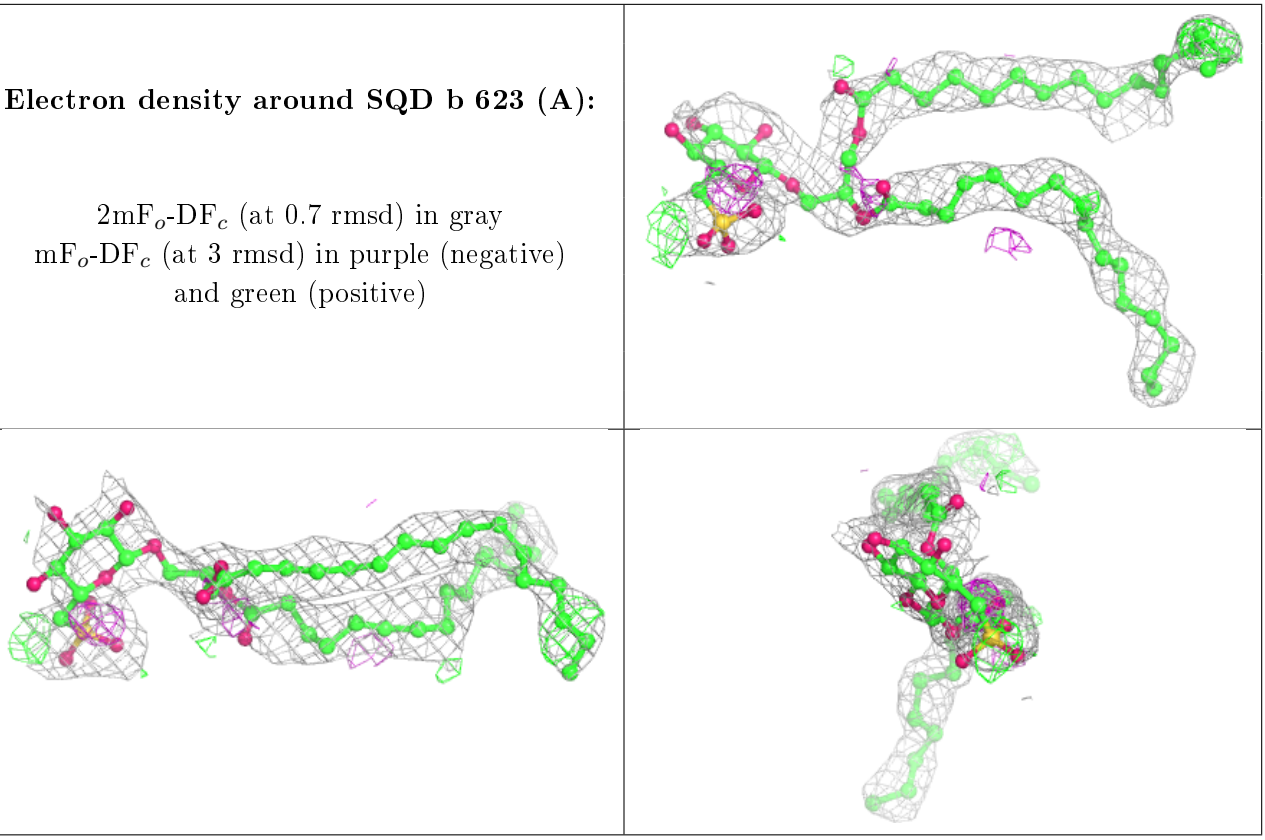
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





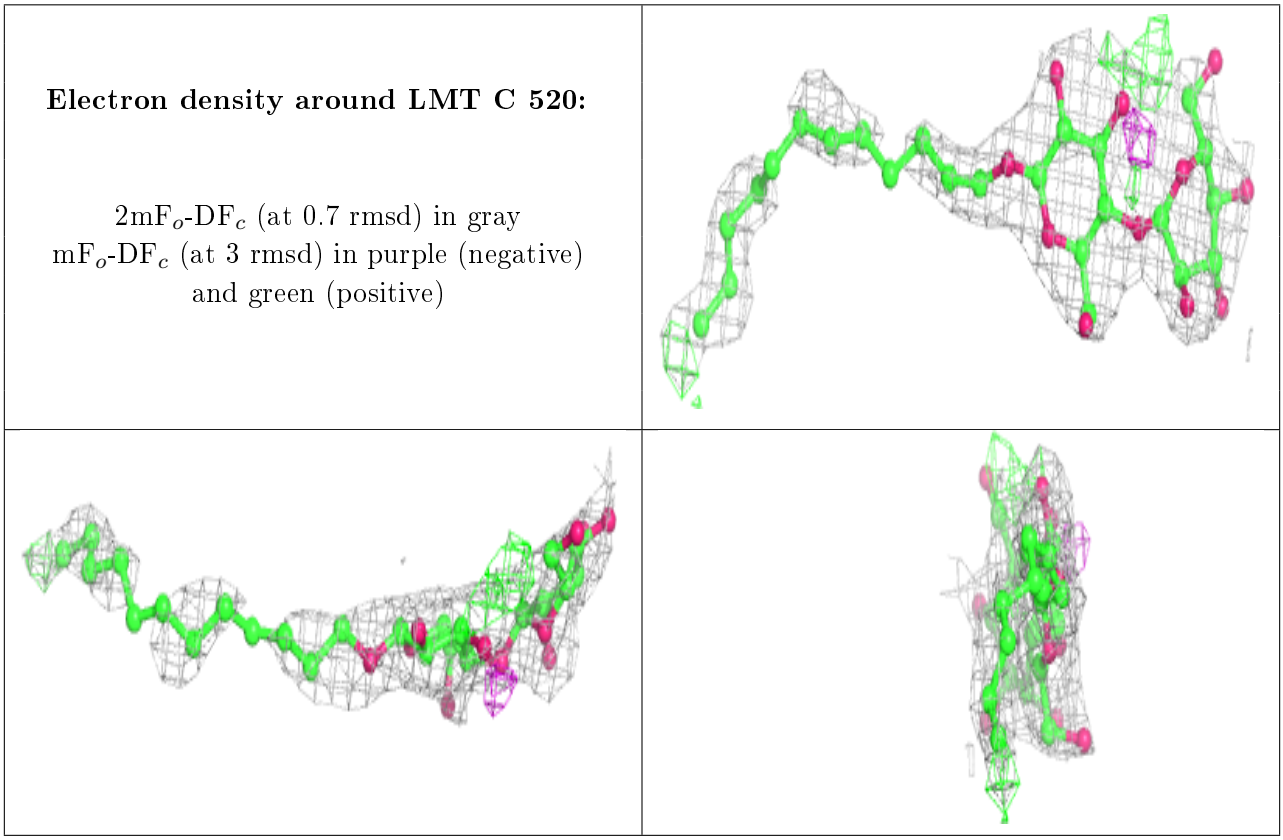
Electron density around SQD b 623 (A):

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



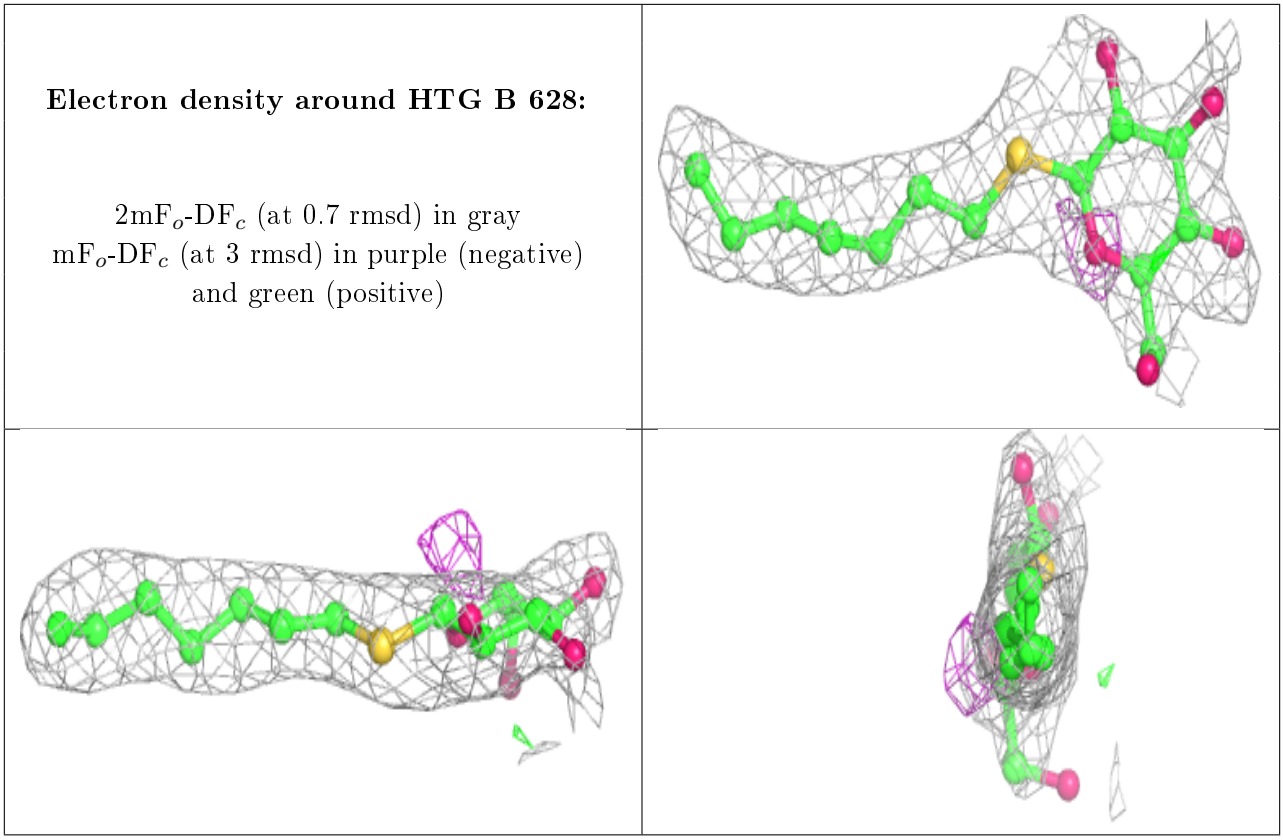
Electron density around LMT C 520:

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



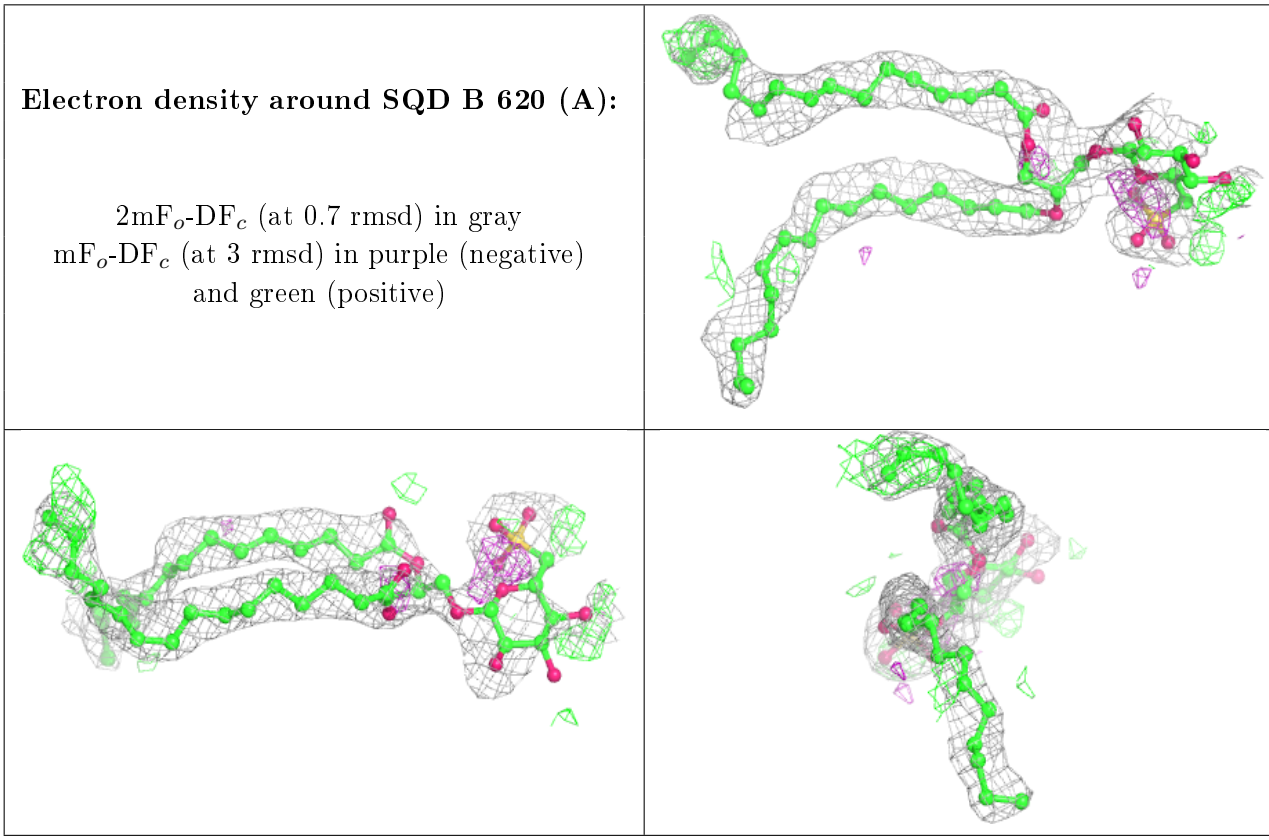
Electron density around HTG B 628:

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



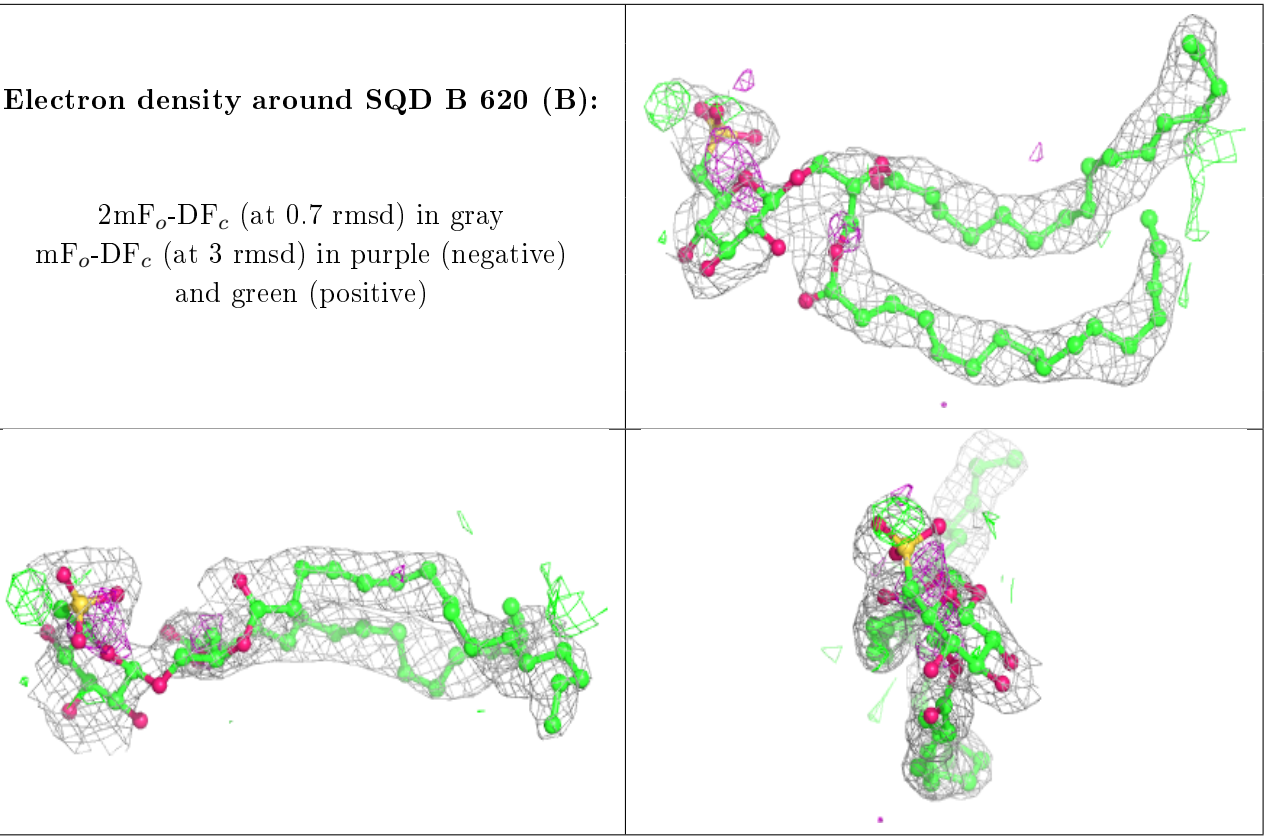
Electron density around SQD B 620 (A):

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



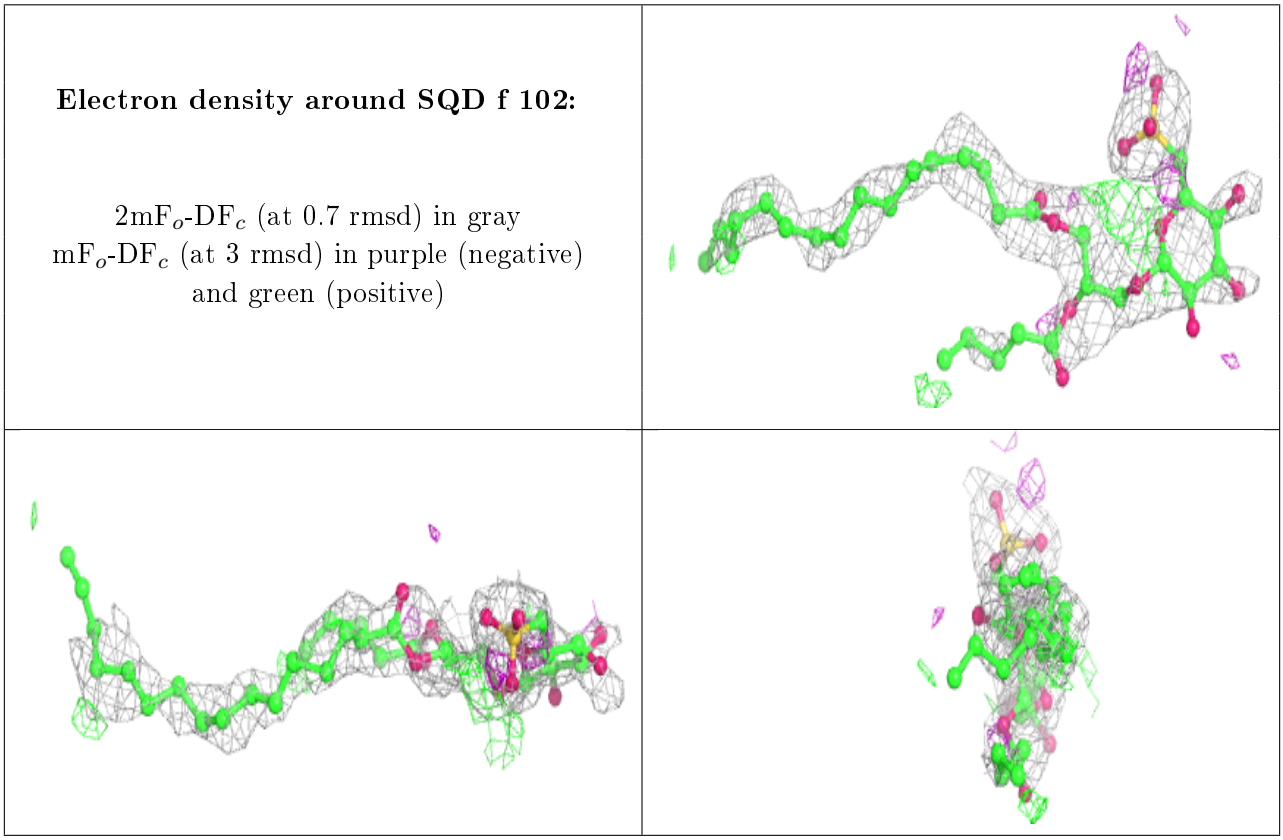
Electron density around SQD B 620 (B):

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



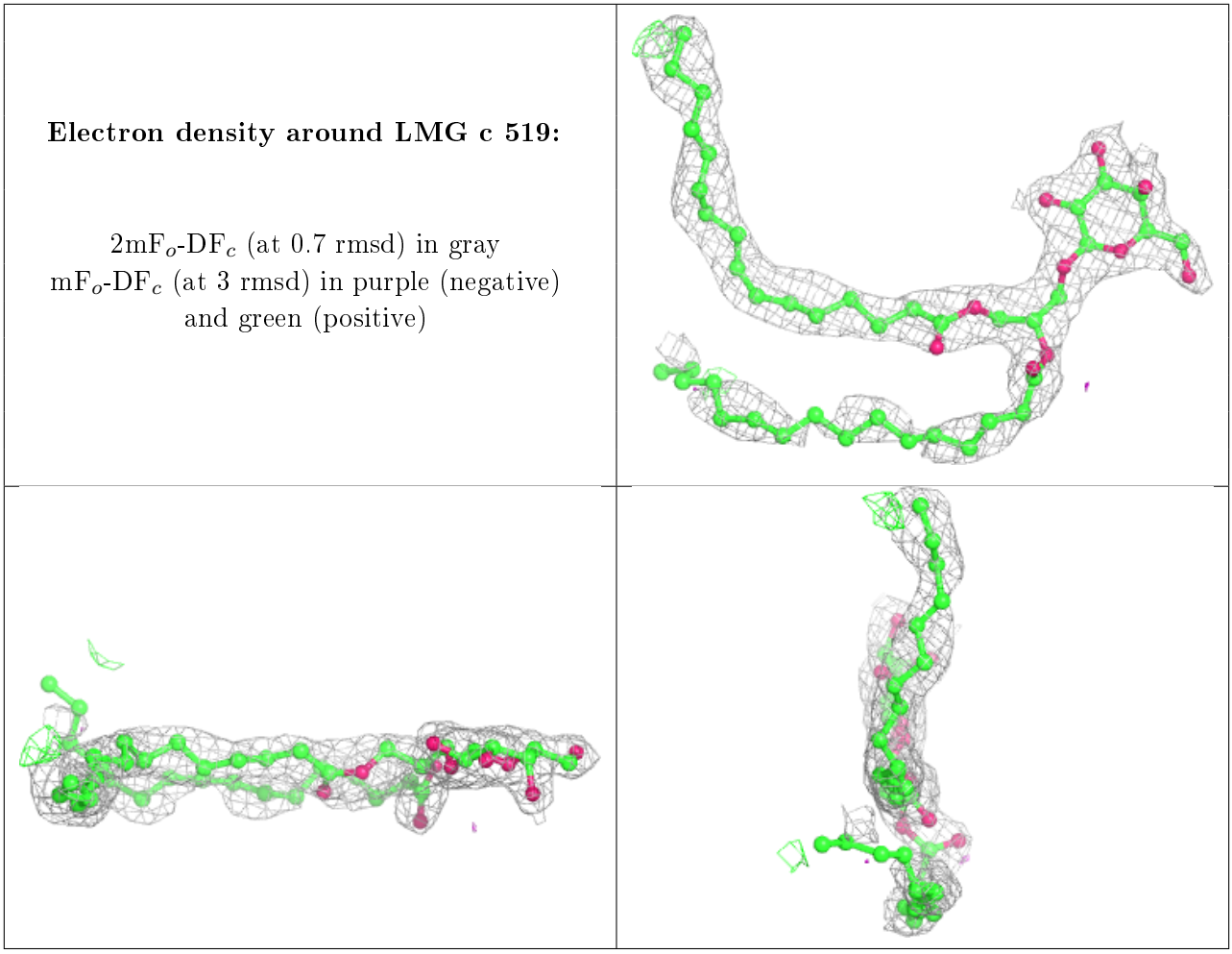
Electron density around SQD f 102:

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



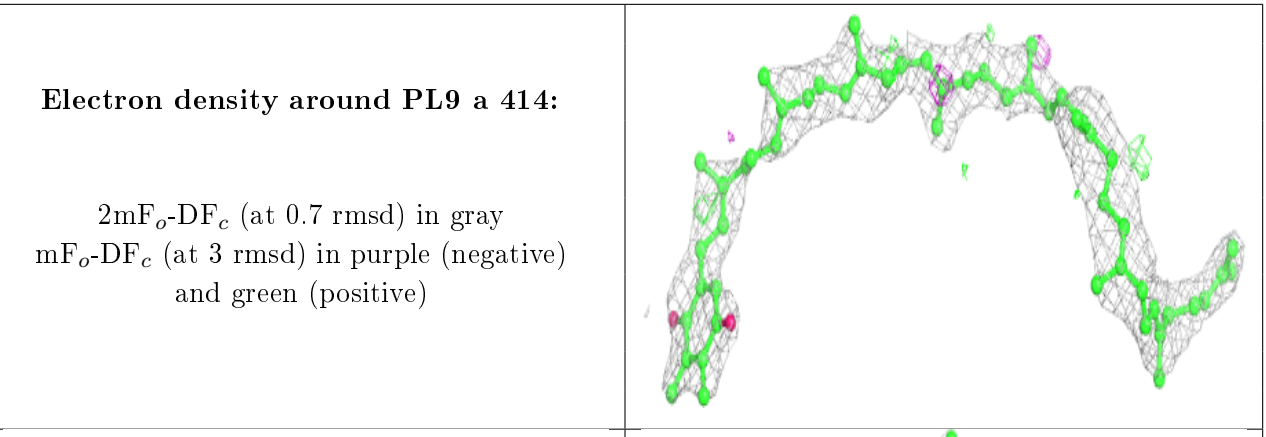
Electron density around LMG c 519:

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



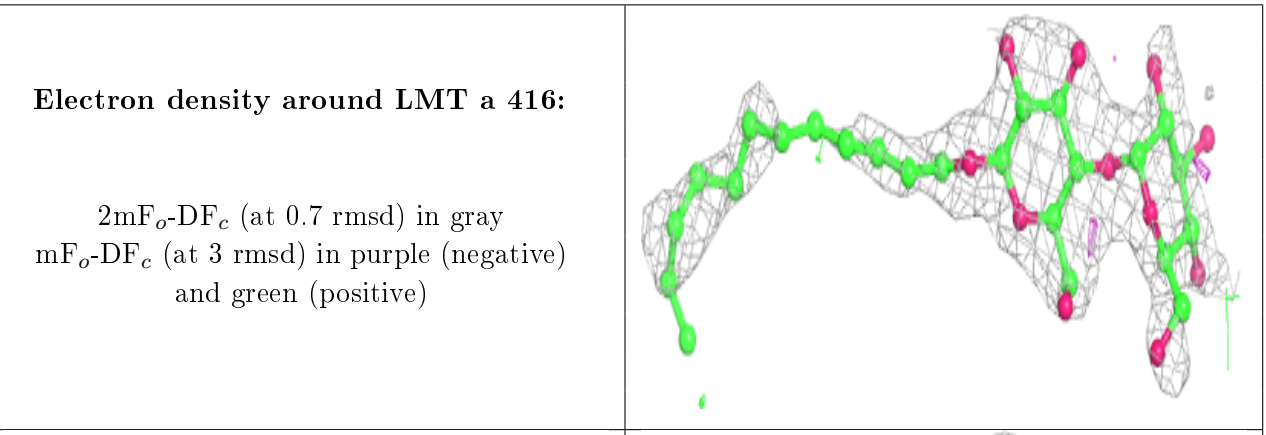
Electron density around PL9 a 414:

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



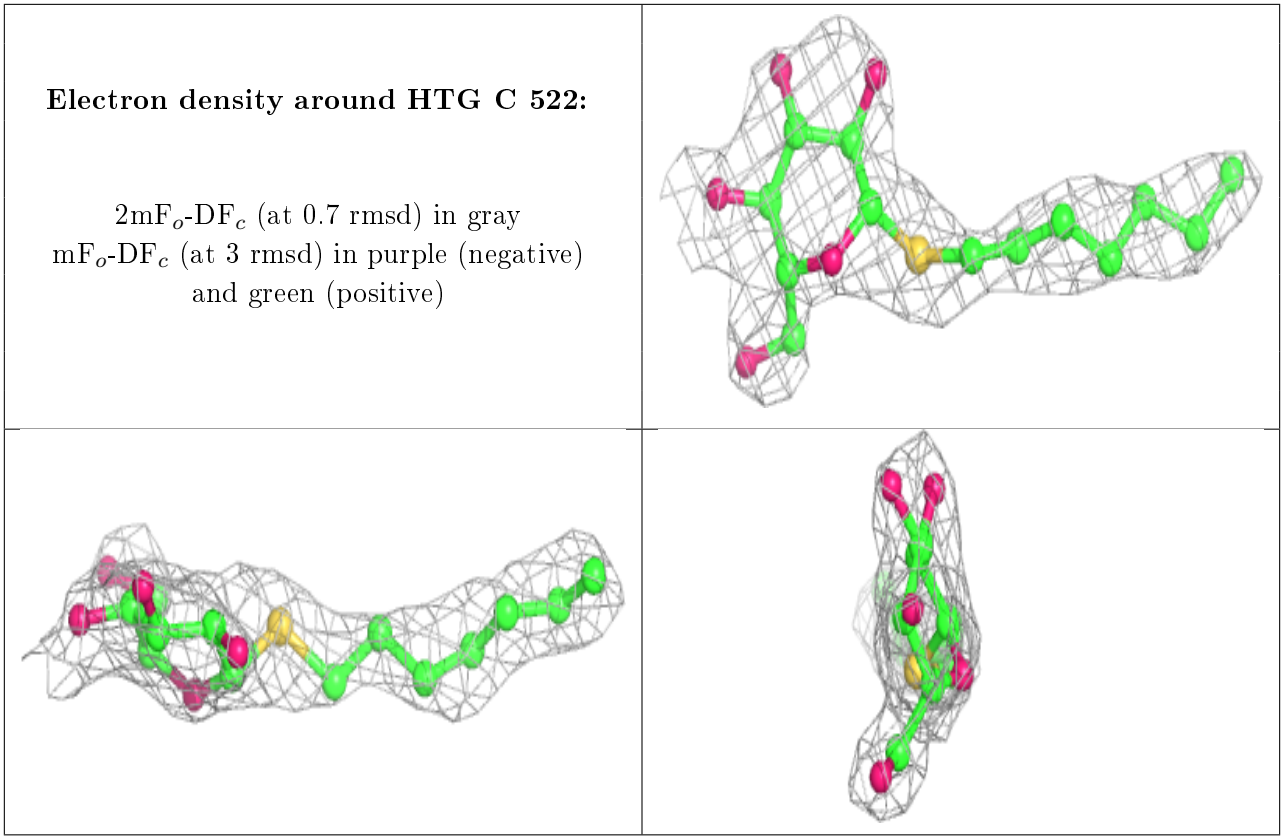
Electron density around LMT a 416:

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



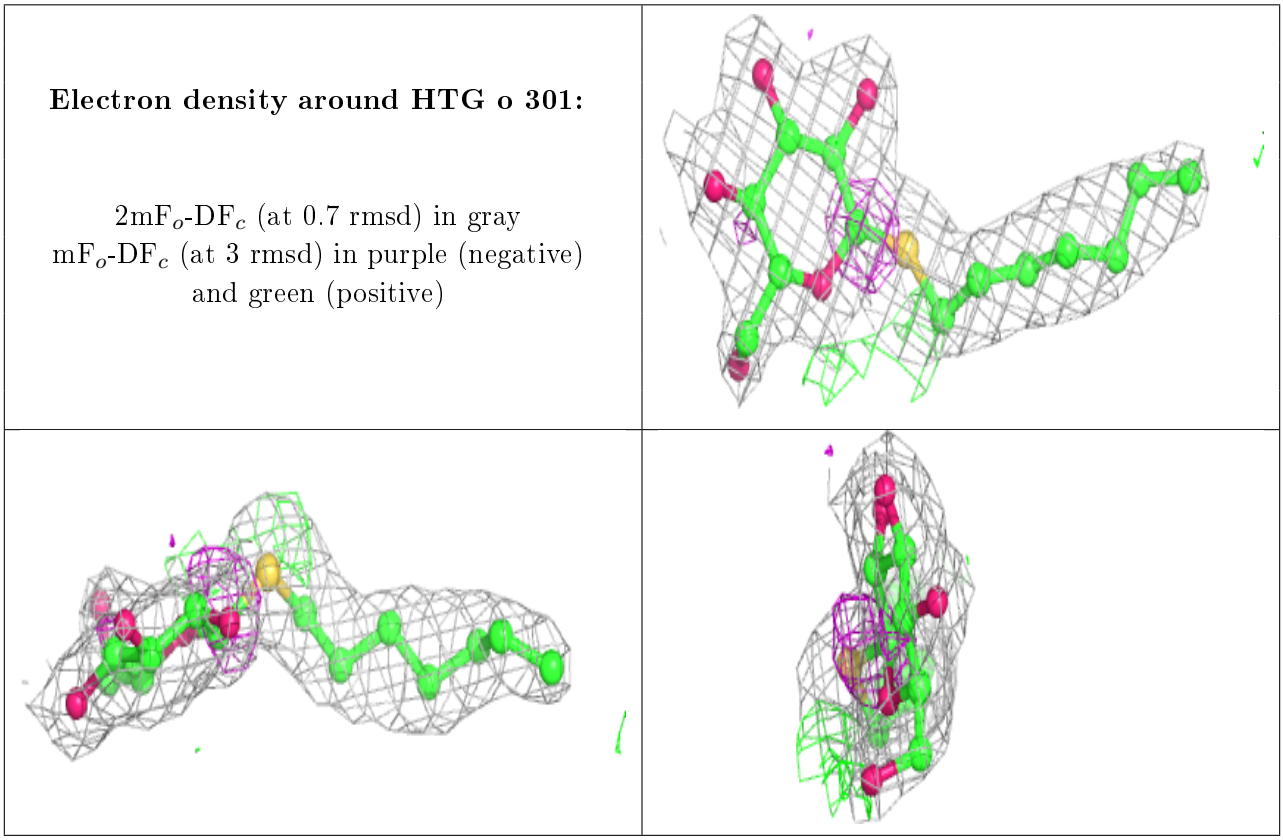
Electron density around HTG C 522:

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



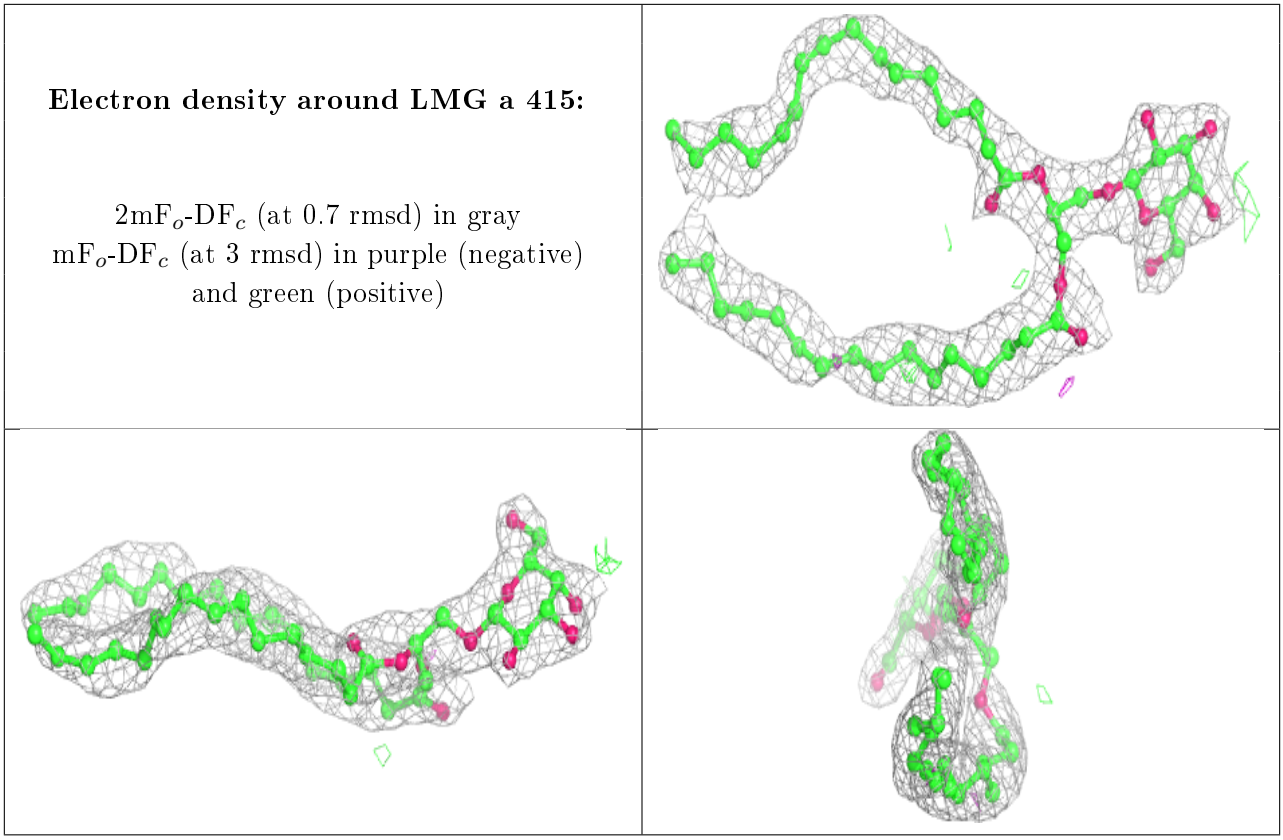
Electron density around HTG o 301:

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



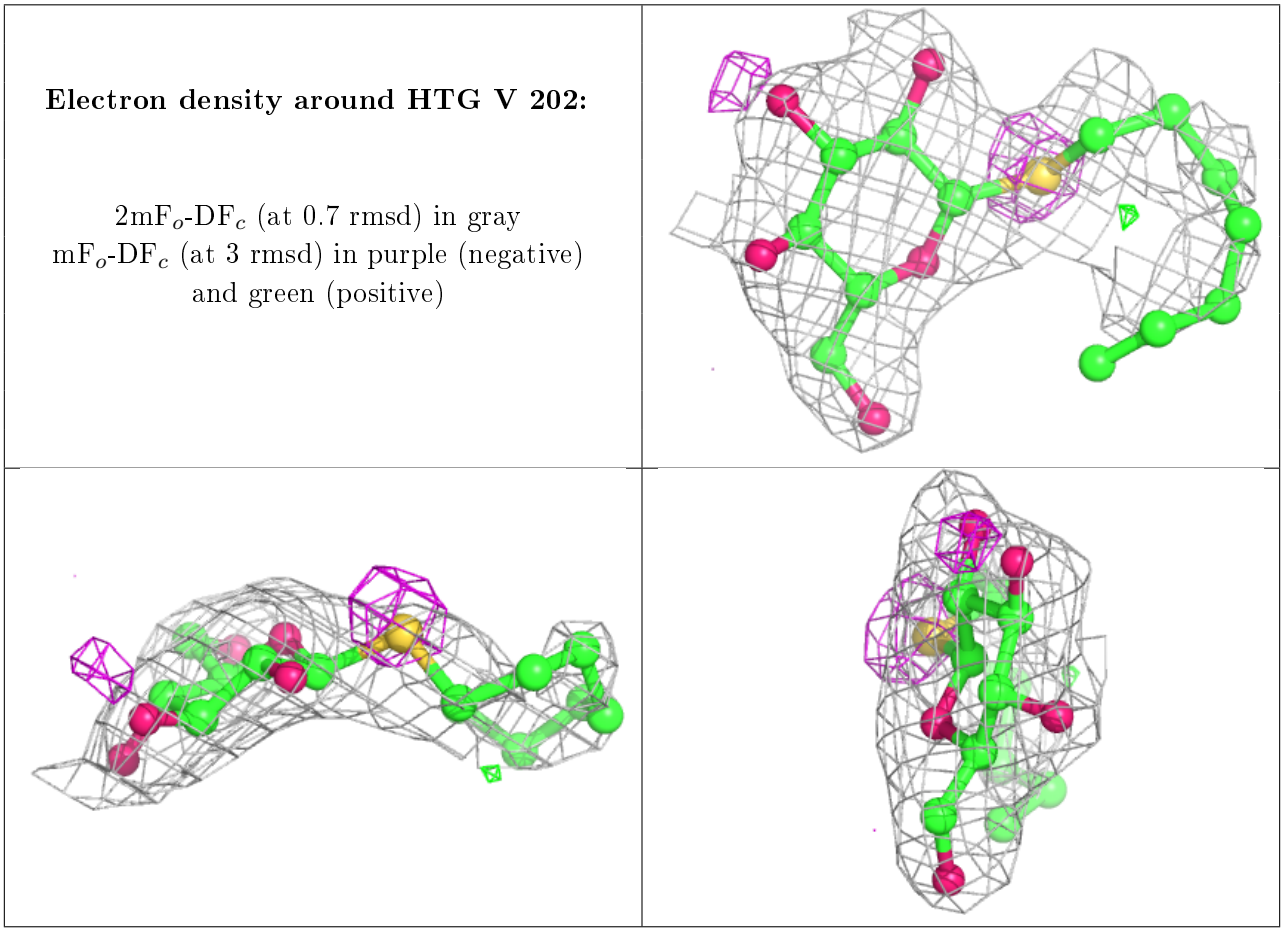
Electron density around LMG a 415:

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



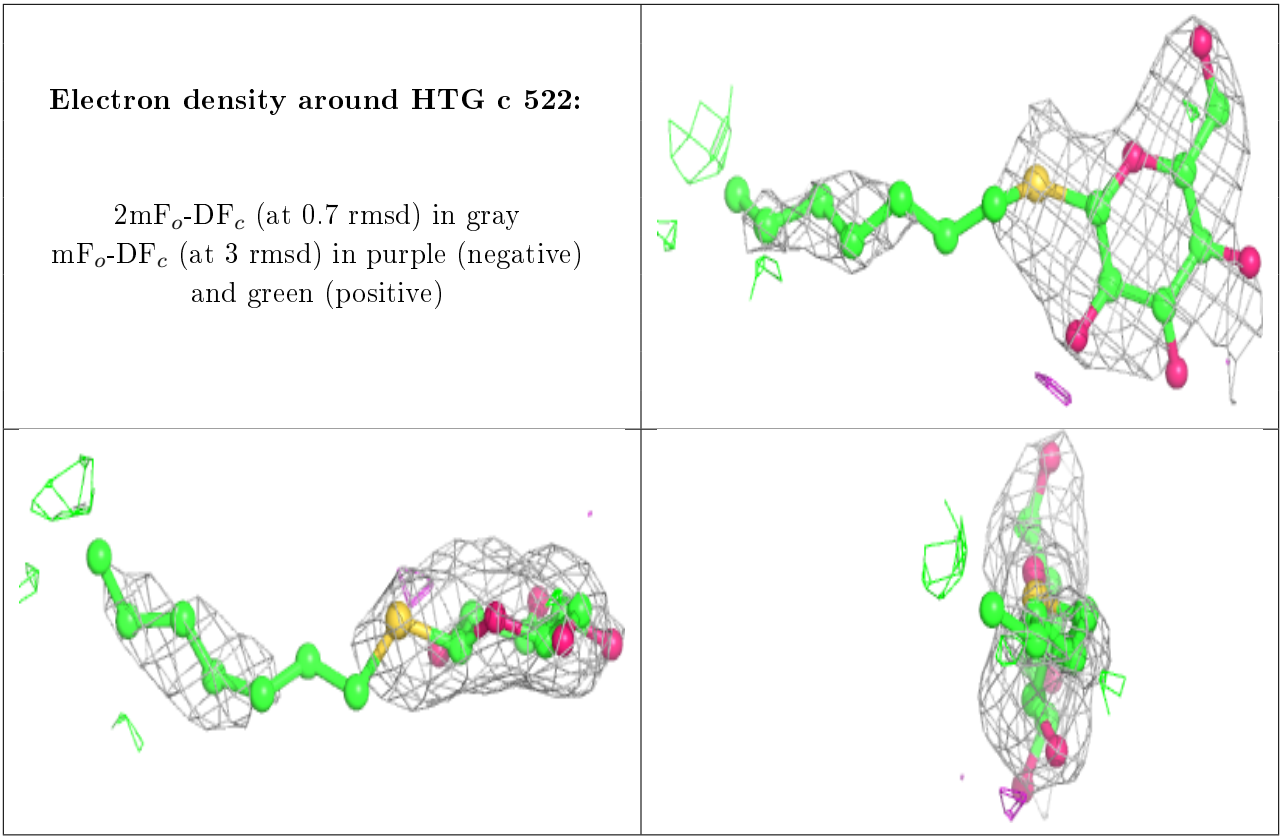
Electron density around HTG V 202:

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



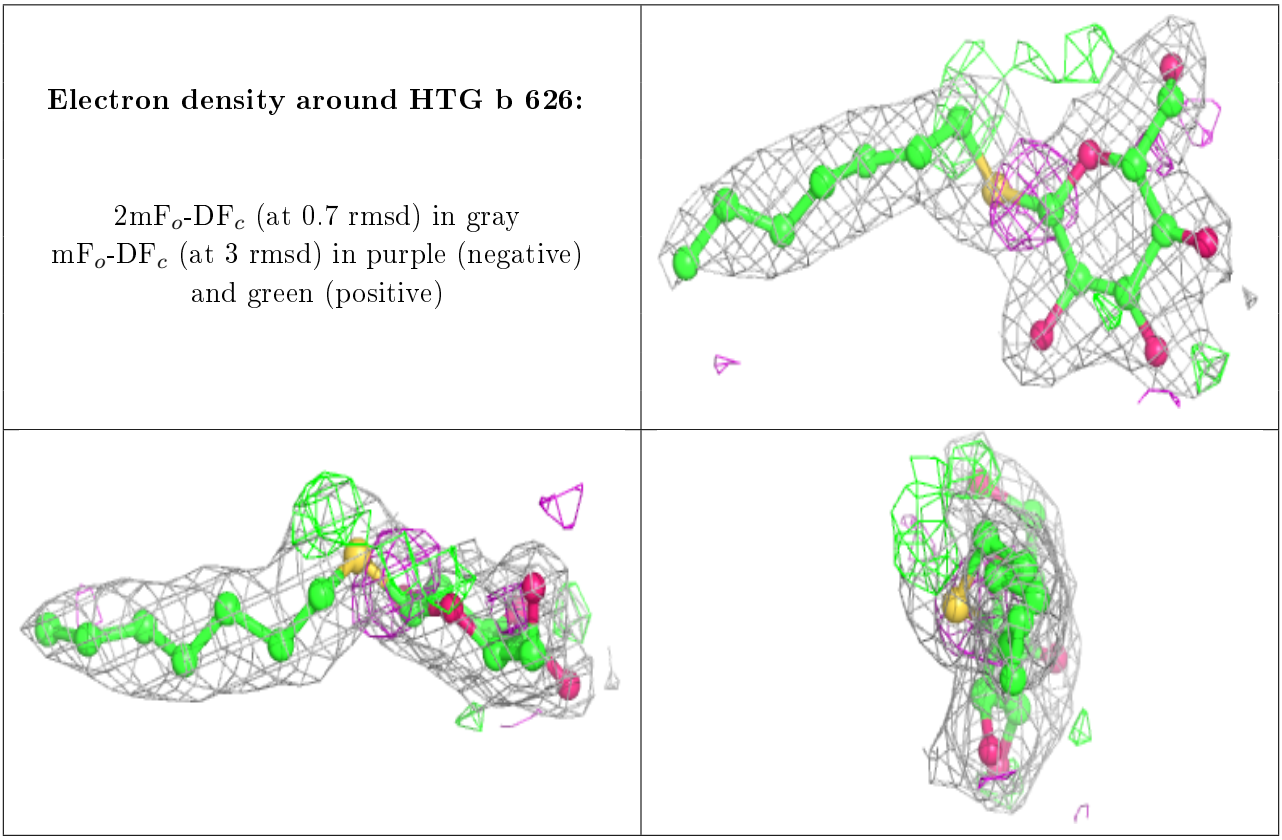
Electron density around HTG c 522:

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



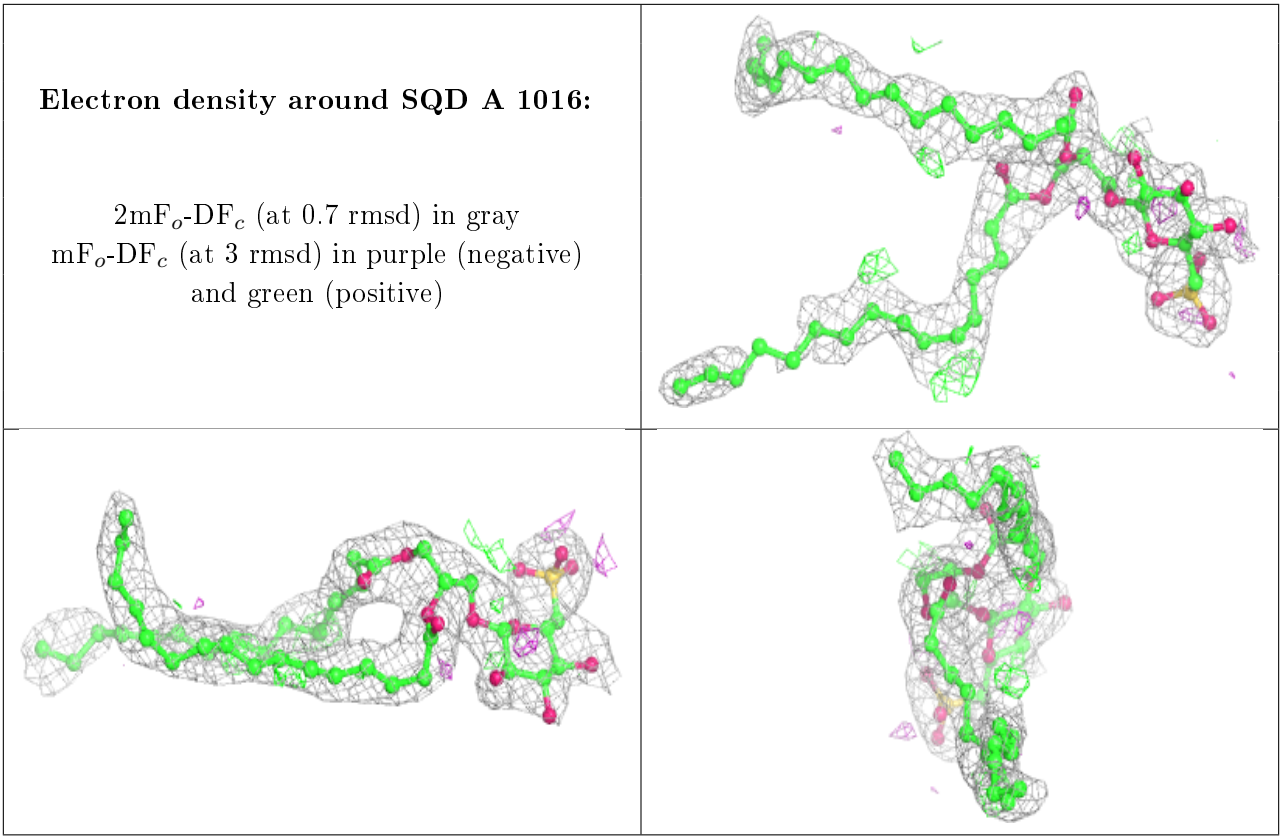
Electron density around HTG b 626:

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



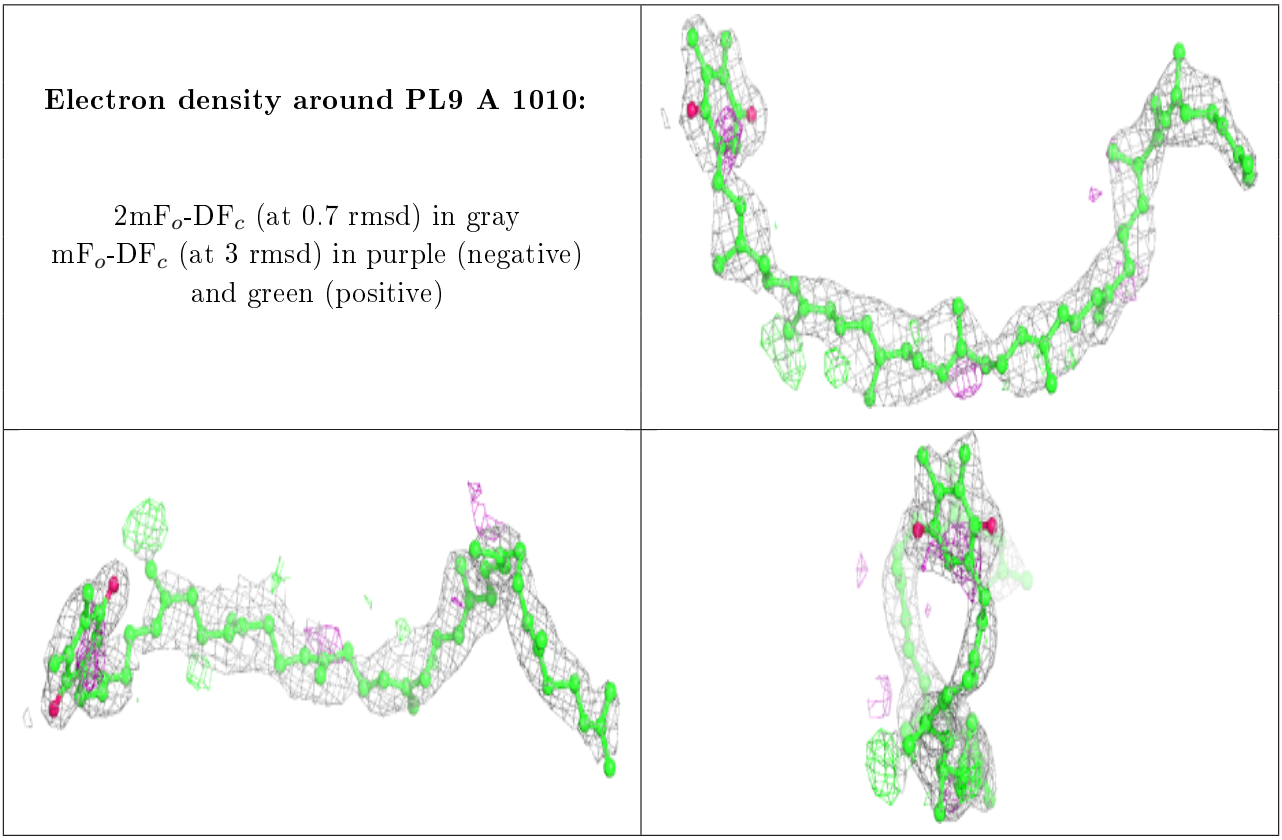
Electron density around SQD A 1016:

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



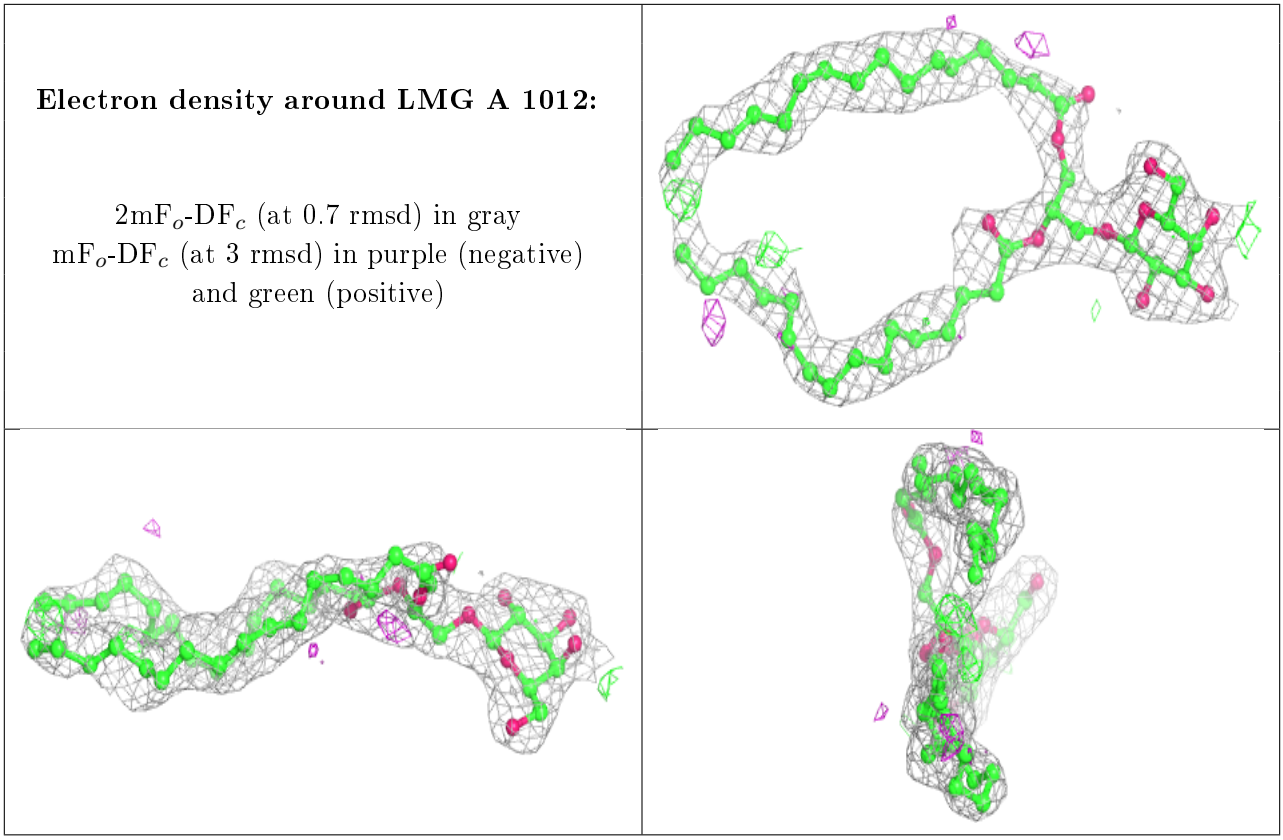
Electron density around PL9 A 1010:

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



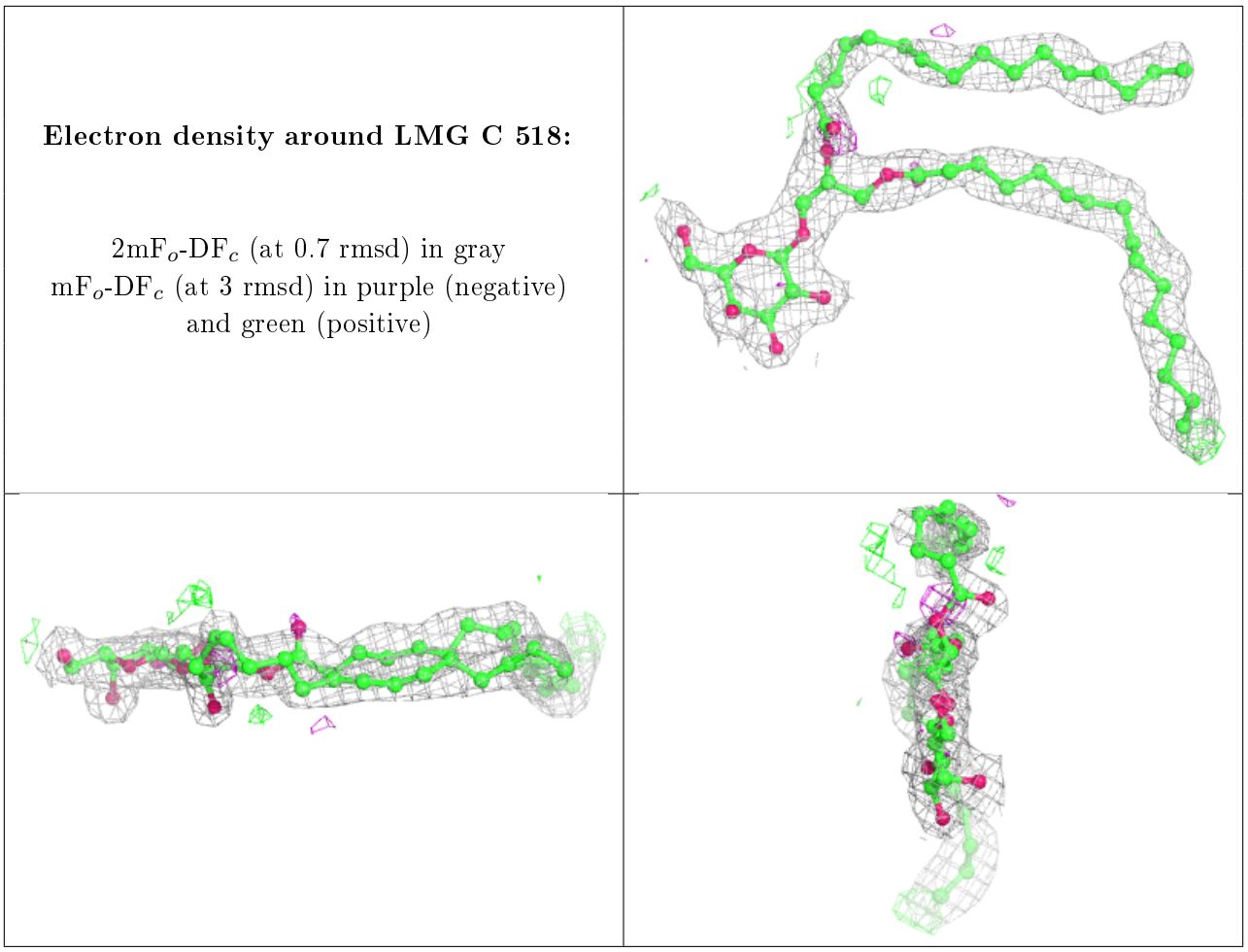
Electron density around LMG A 1012:

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



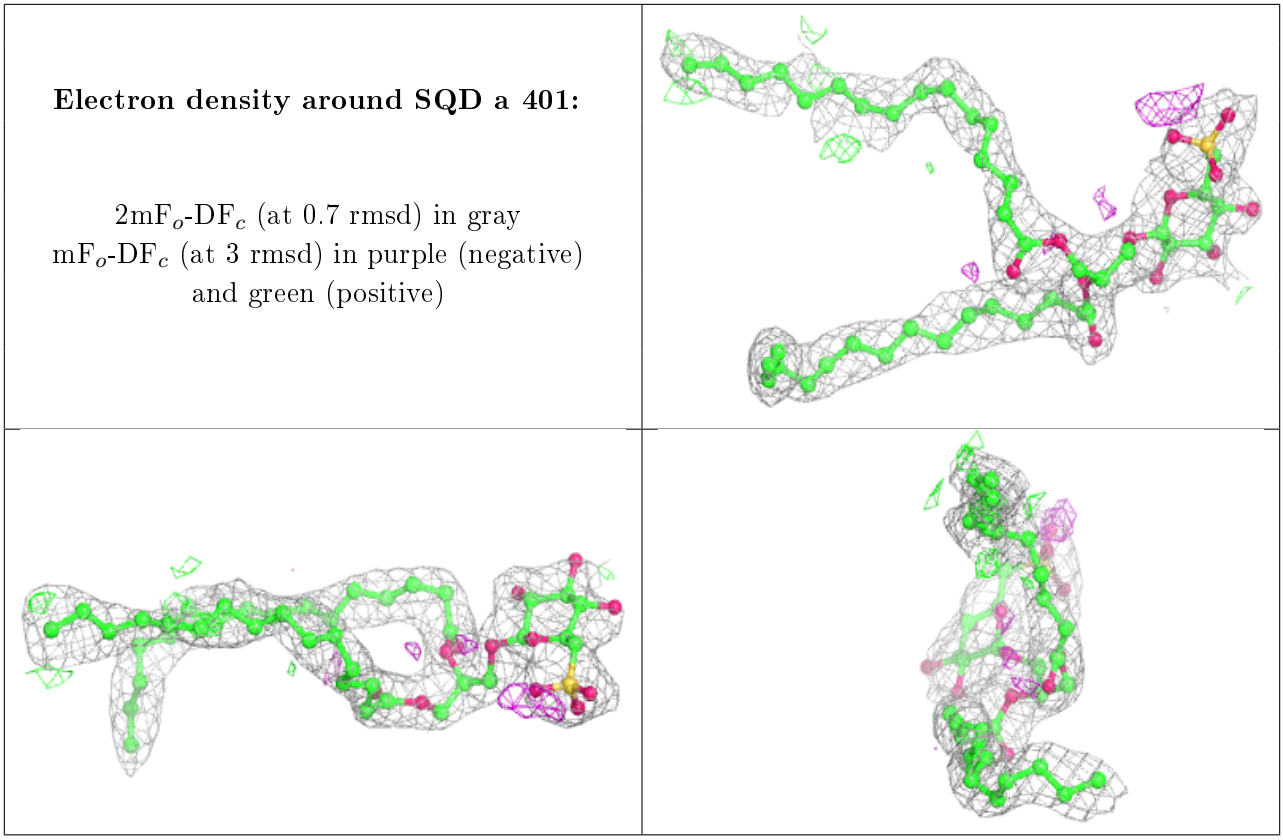
Electron density around LMG C 518:

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



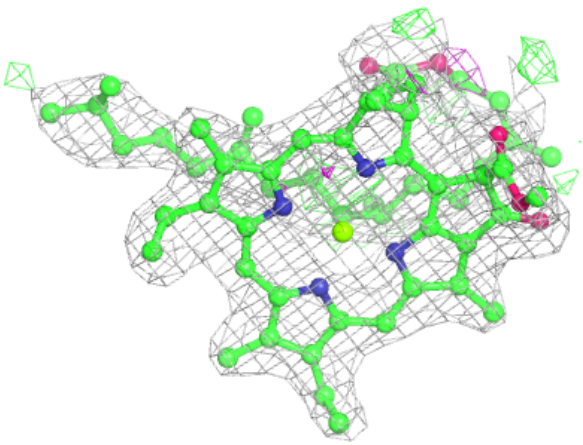
Electron density around SQD a 401:

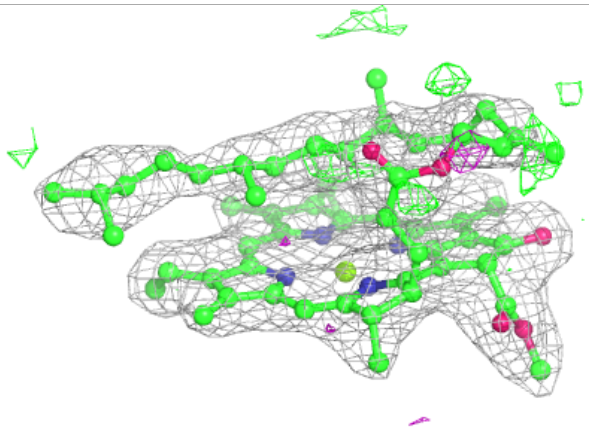
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

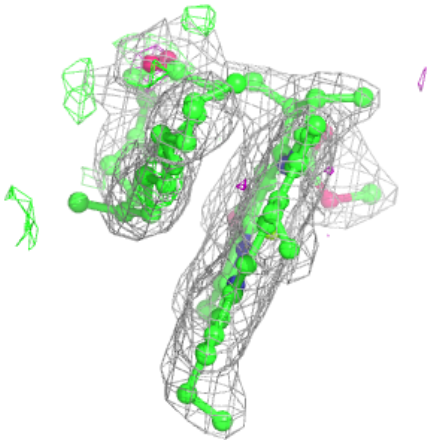


Electron density around CLA B 601:

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

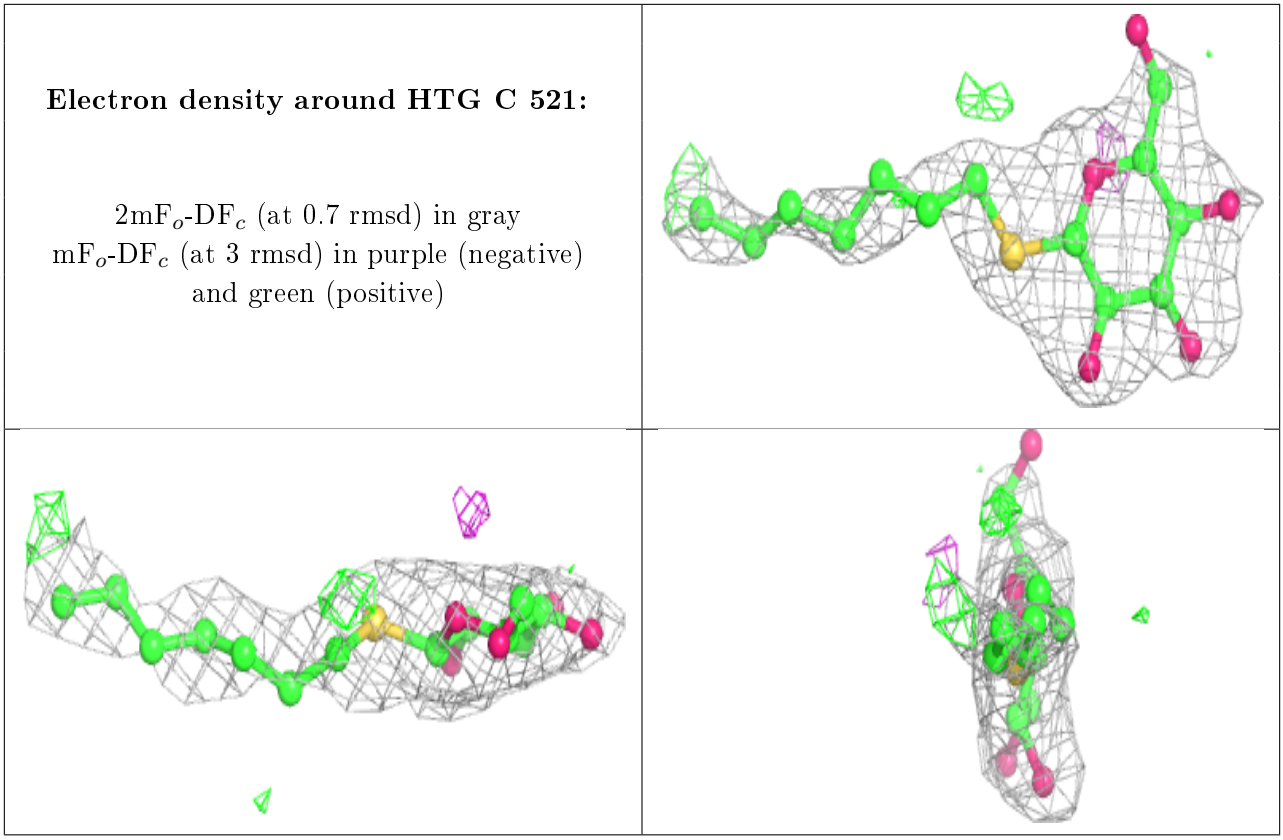






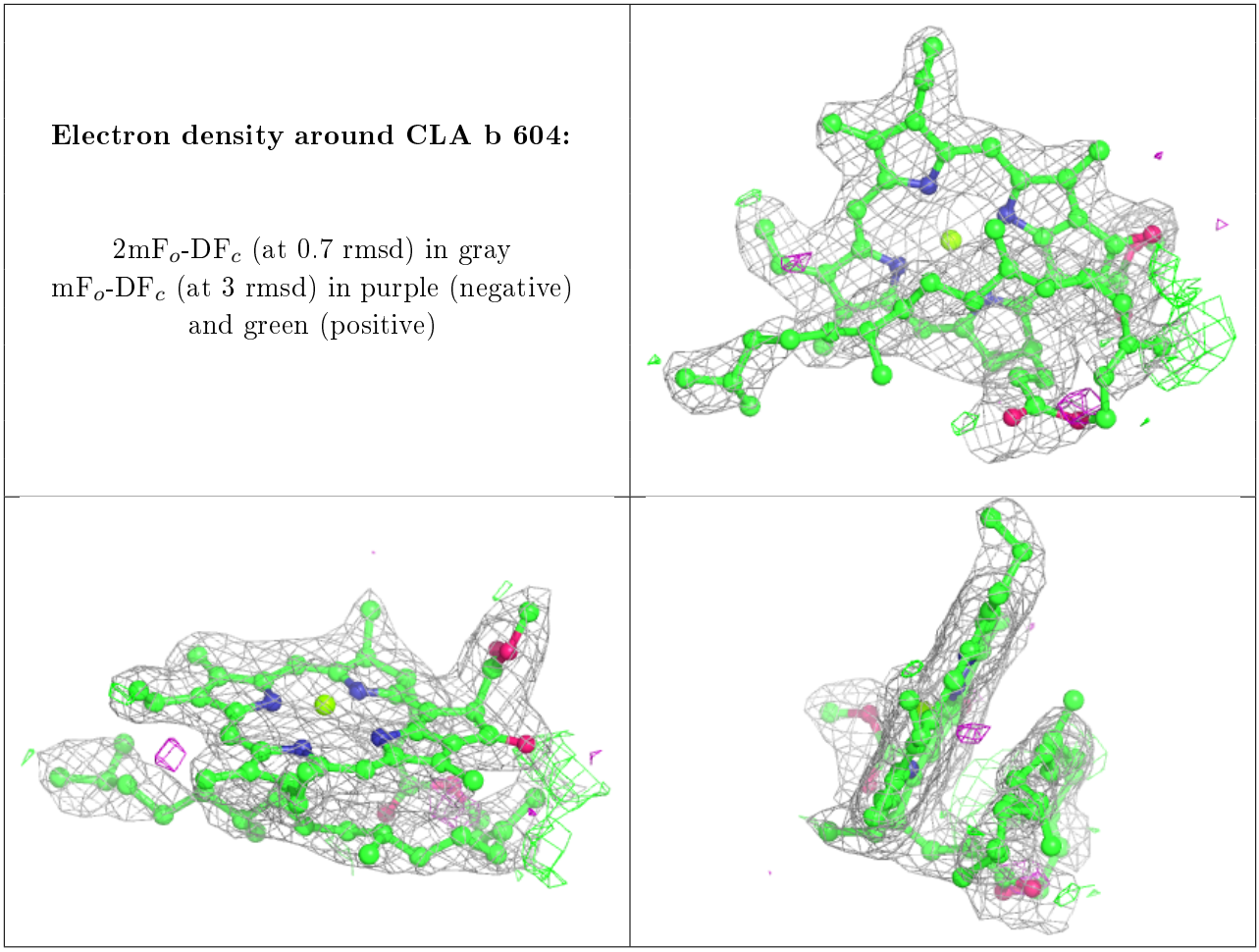
Electron density around HTG C 521:

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



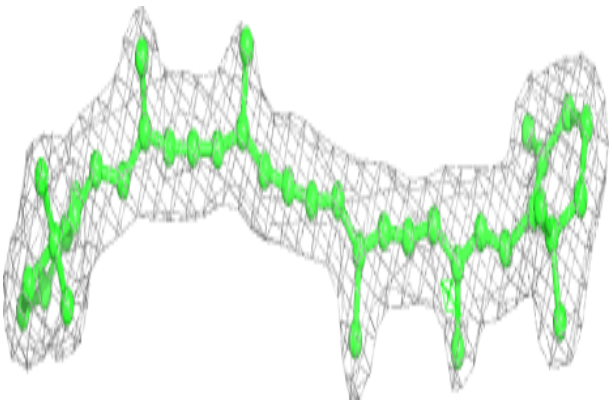
Electron density around CLA b 604:

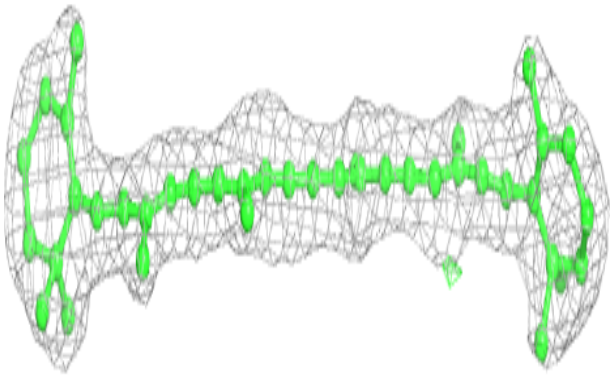
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

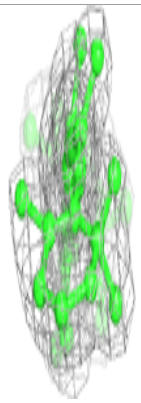


Electron density around BCR K 102:

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

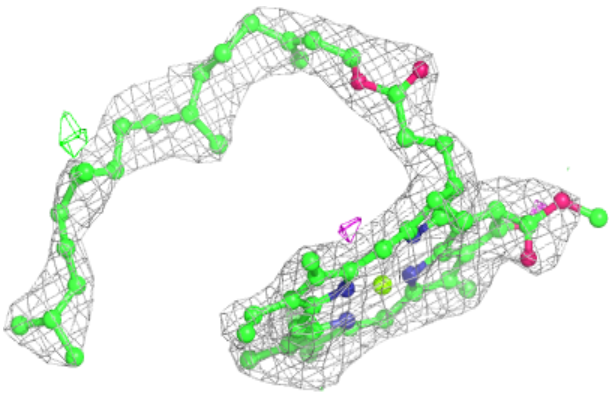


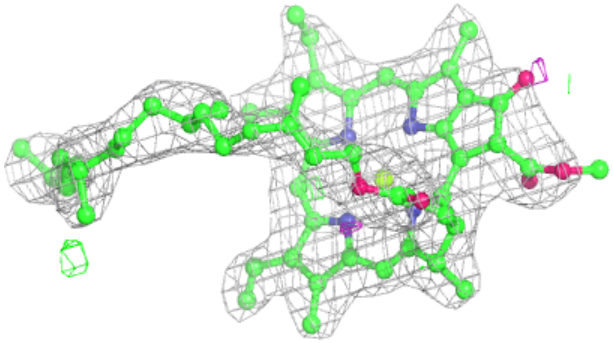


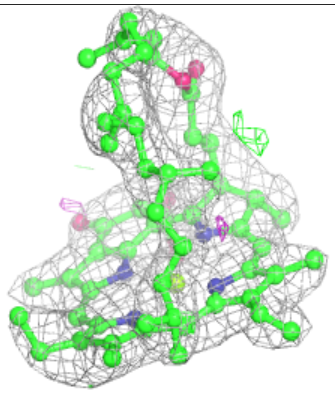


Electron density around CLA c 513:

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

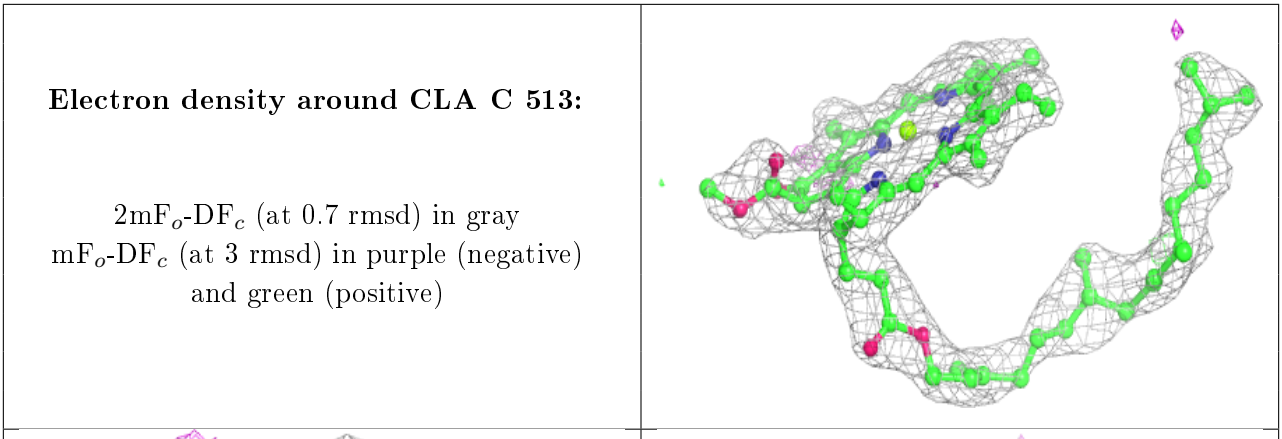






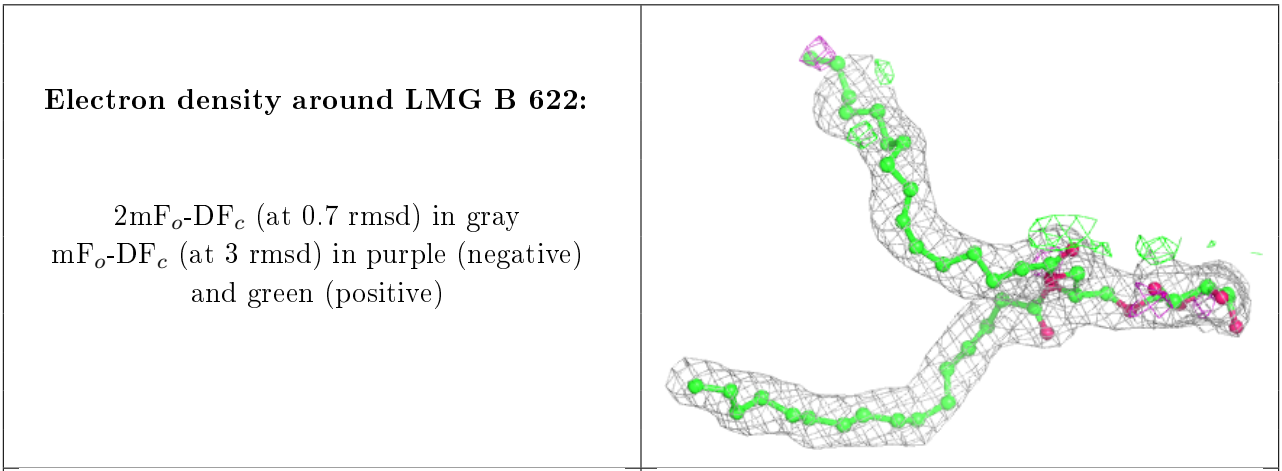
Electron density around CLA C 513:

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



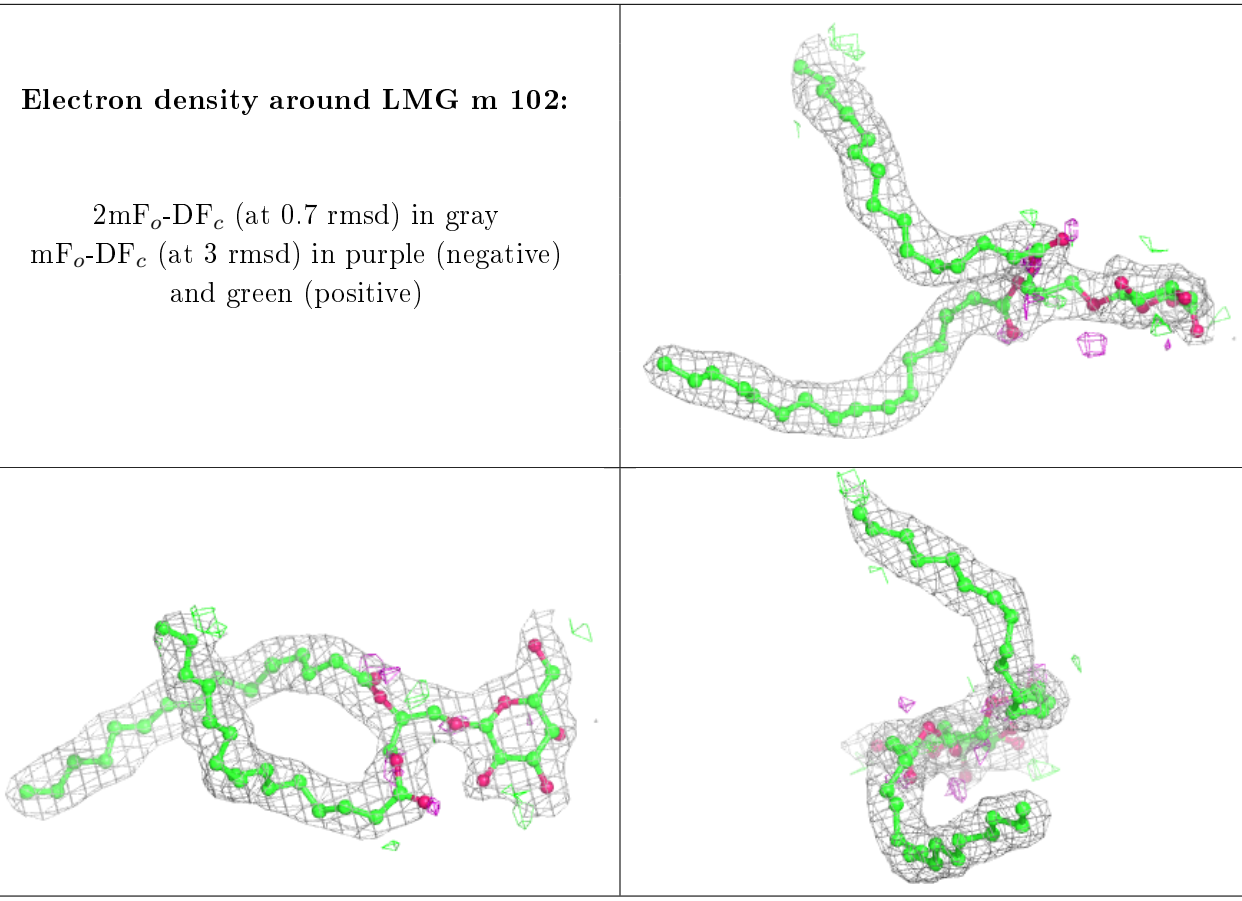
Electron density around LMG B 622:

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



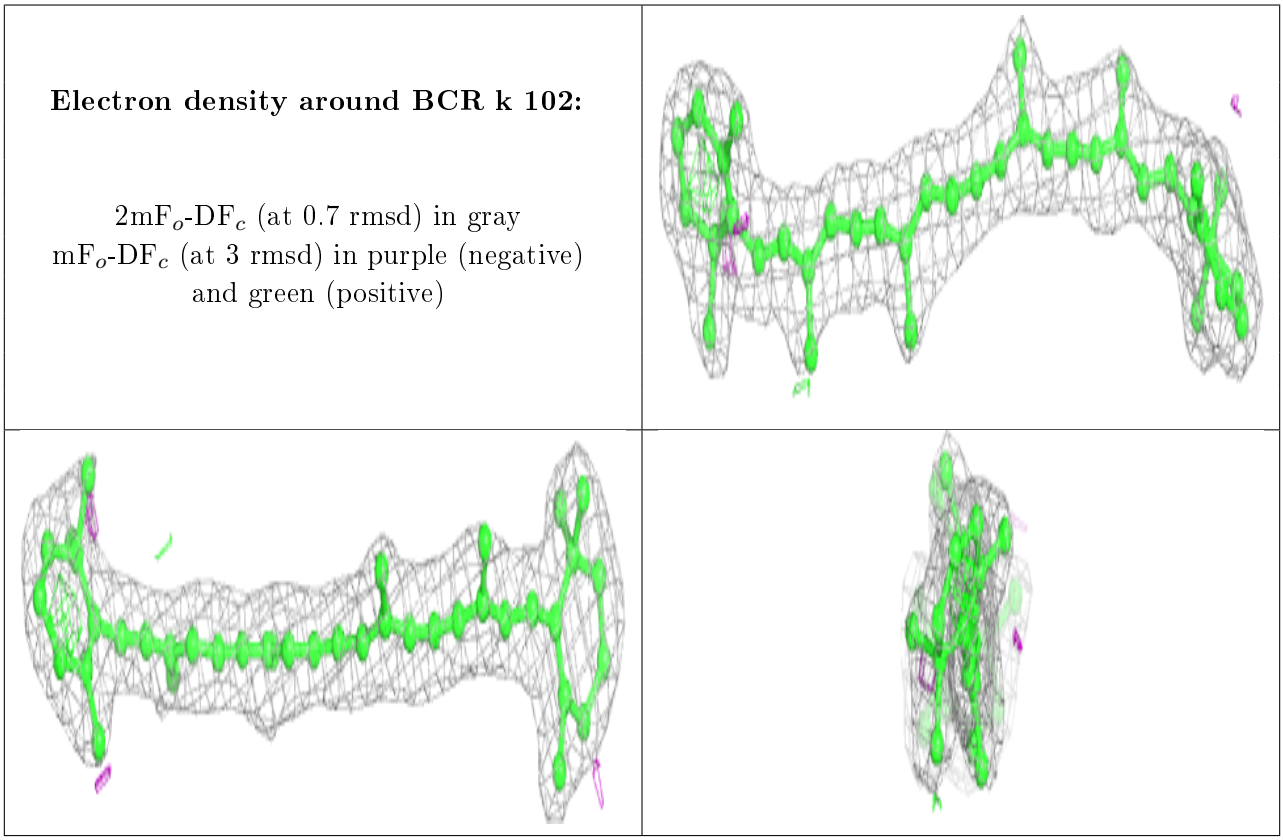
Electron density around LMG m 102:

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



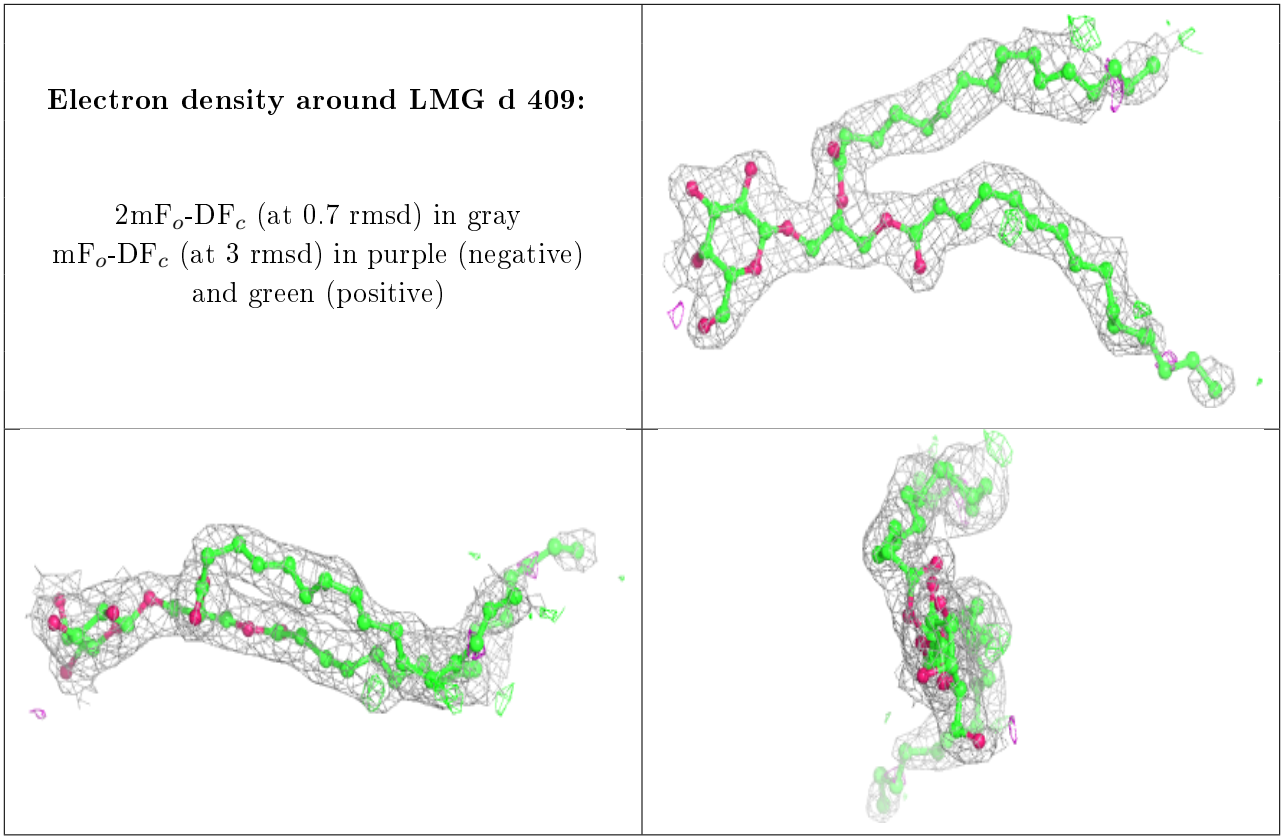
Electron density around BCR k 102:

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



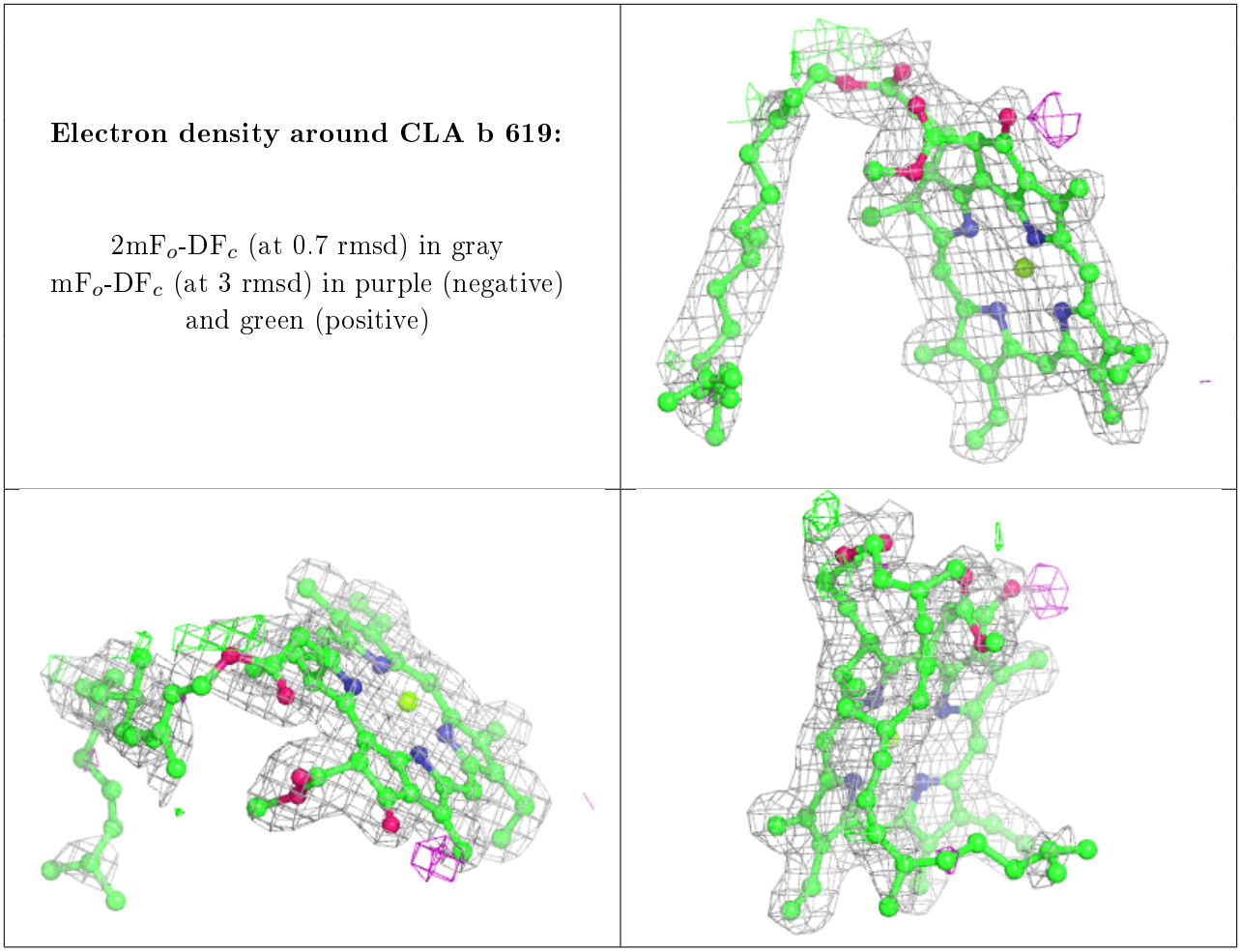
Electron density around LMG d 409:

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



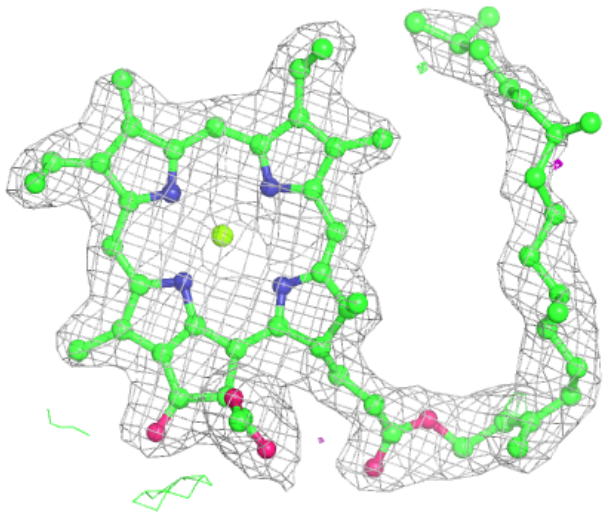
Electron density around CLA b 619:

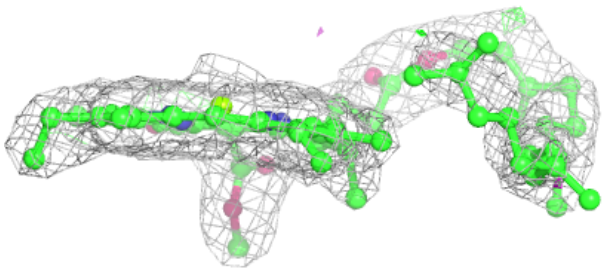
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

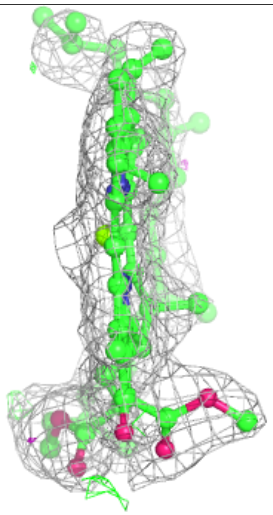


Electron density around CLA C 512:

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

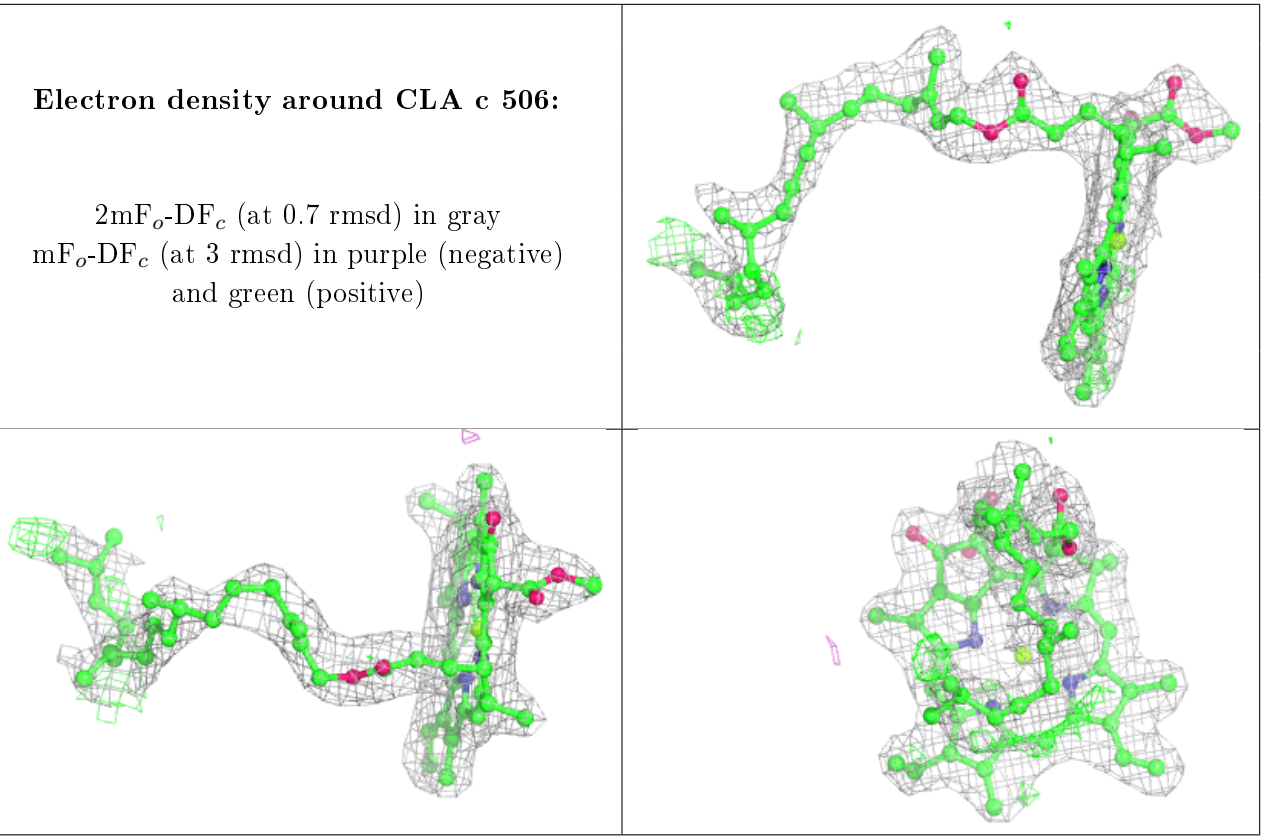






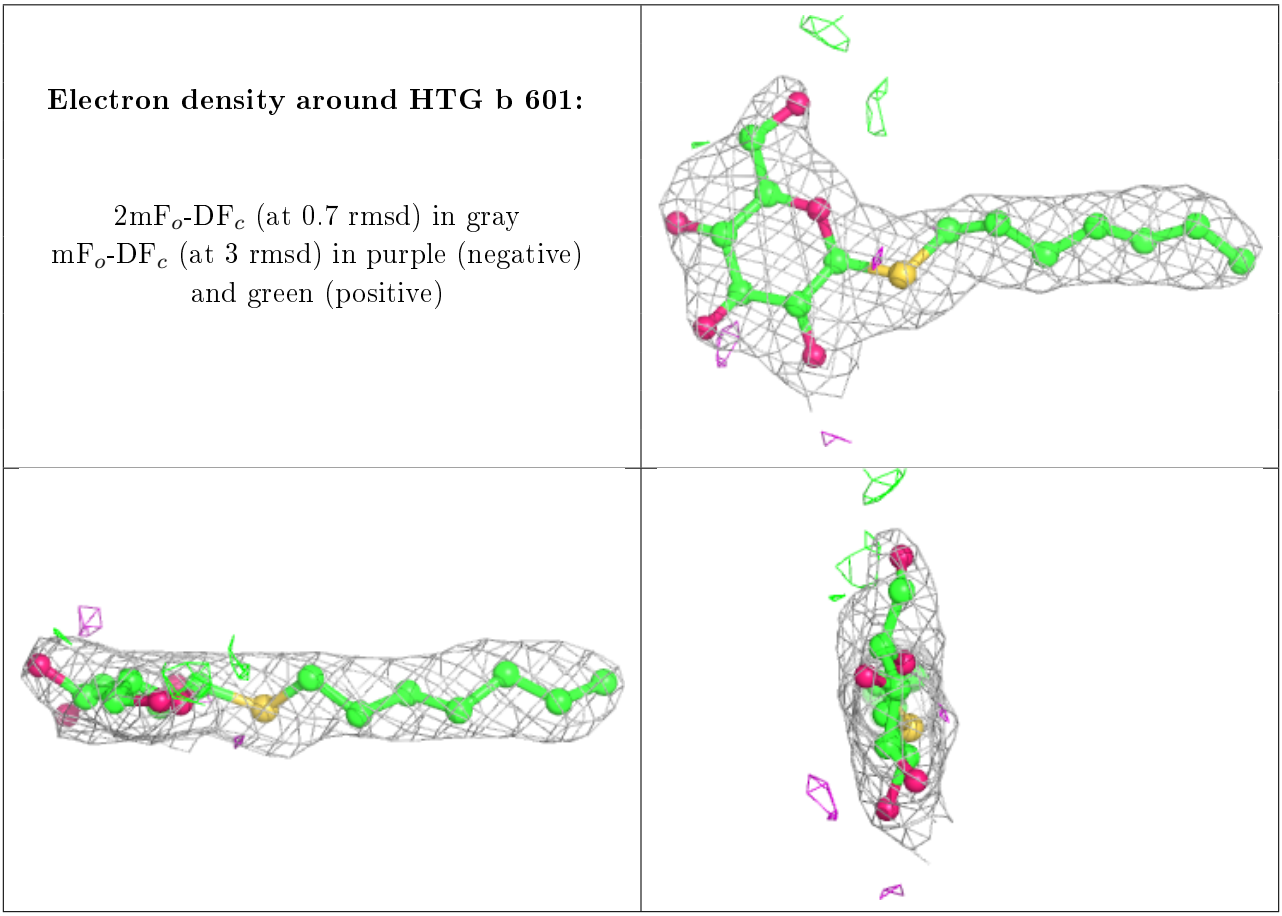
Electron density around CLA c 506:

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



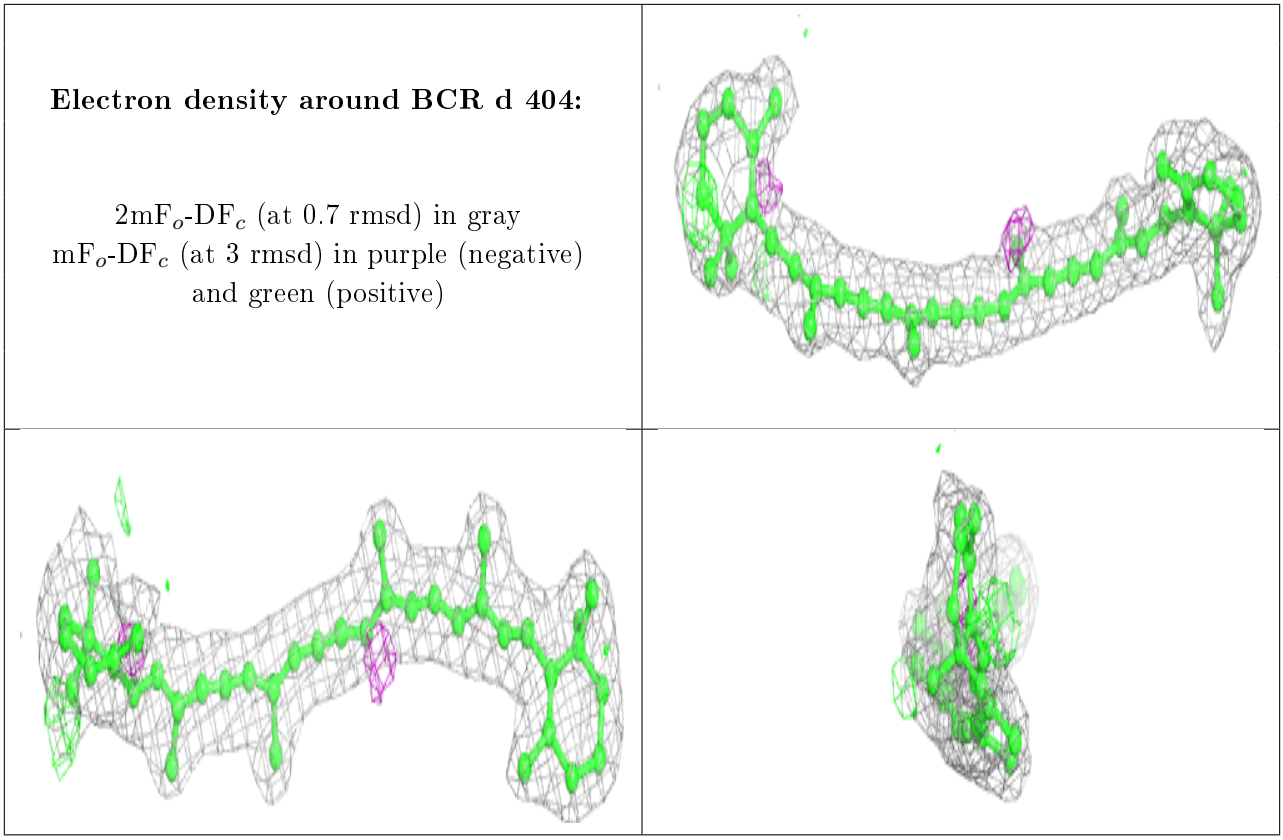
Electron density around HTG b 601:

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



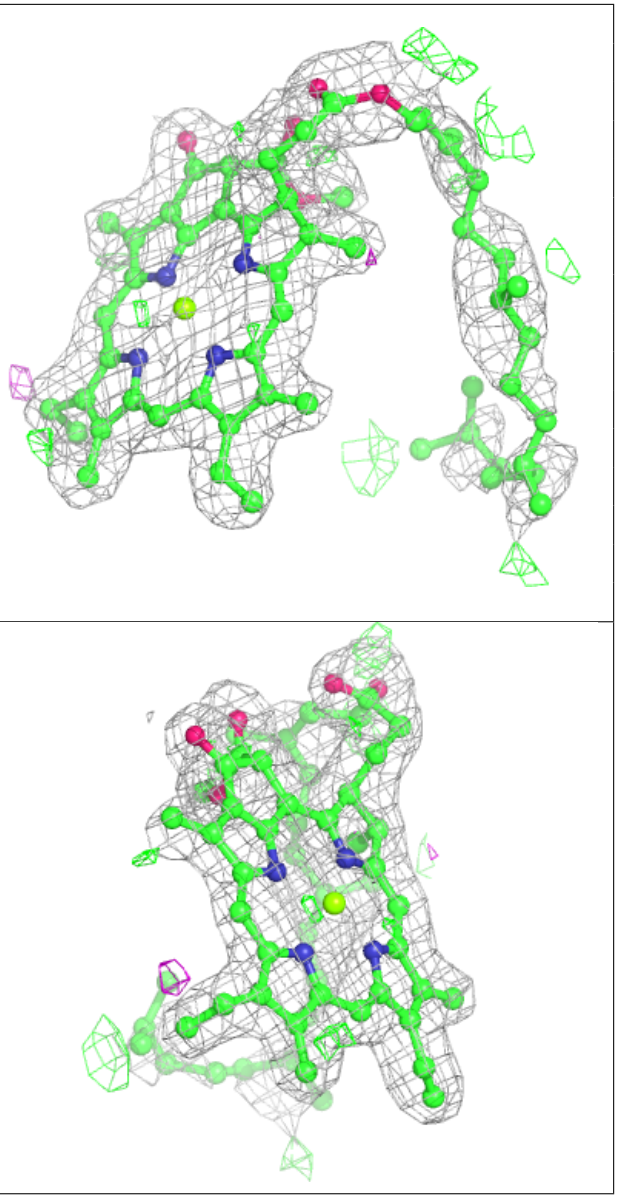
Electron density around BCR d 404:

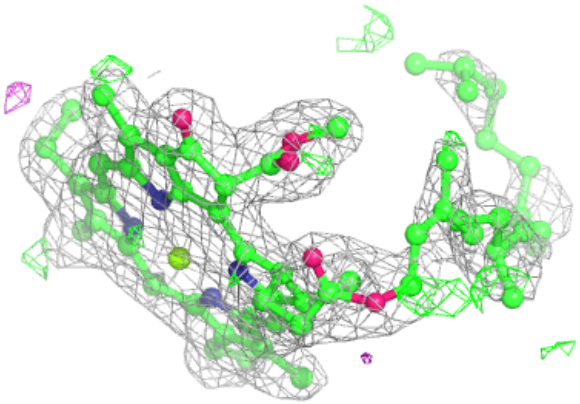
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around CLA B 616:

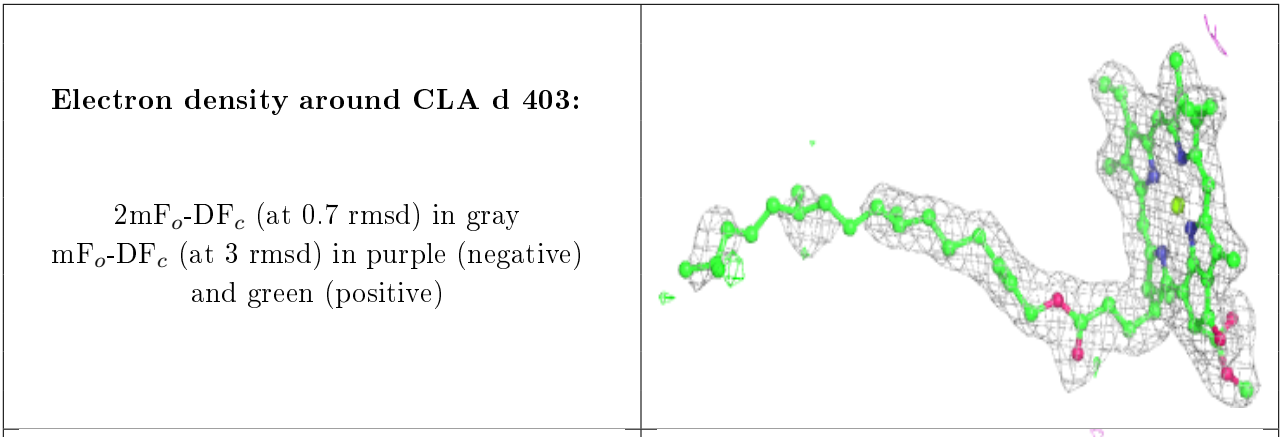
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





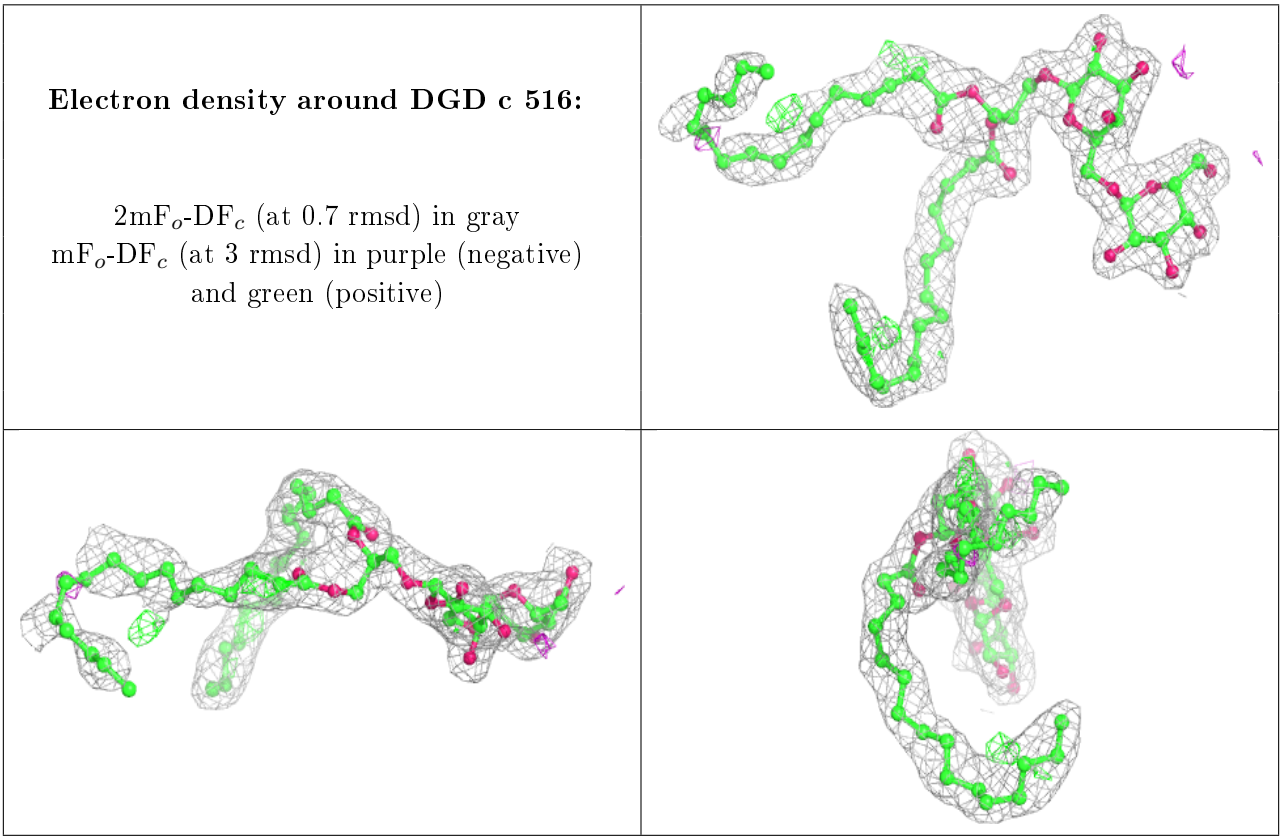
Electron density around CLA d 403:

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



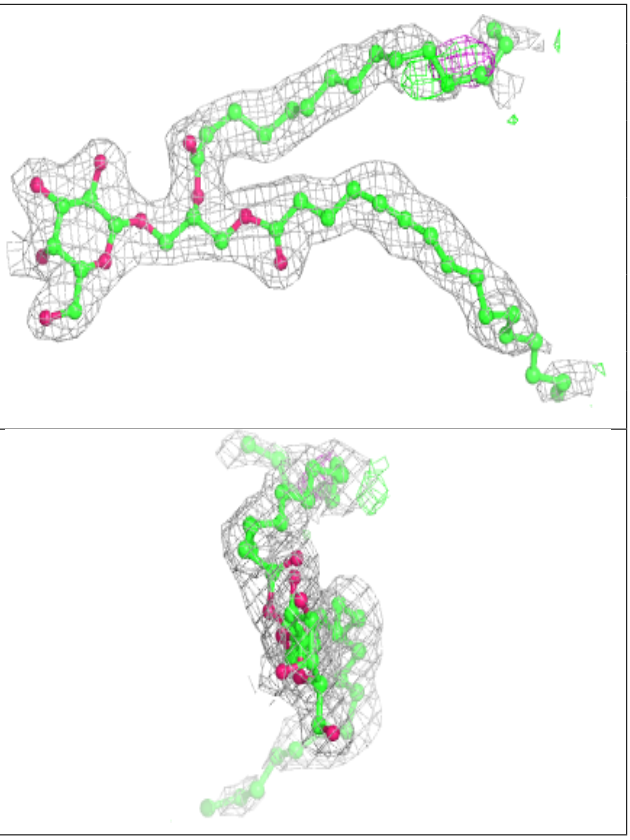
Electron density around DGD c 516:

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



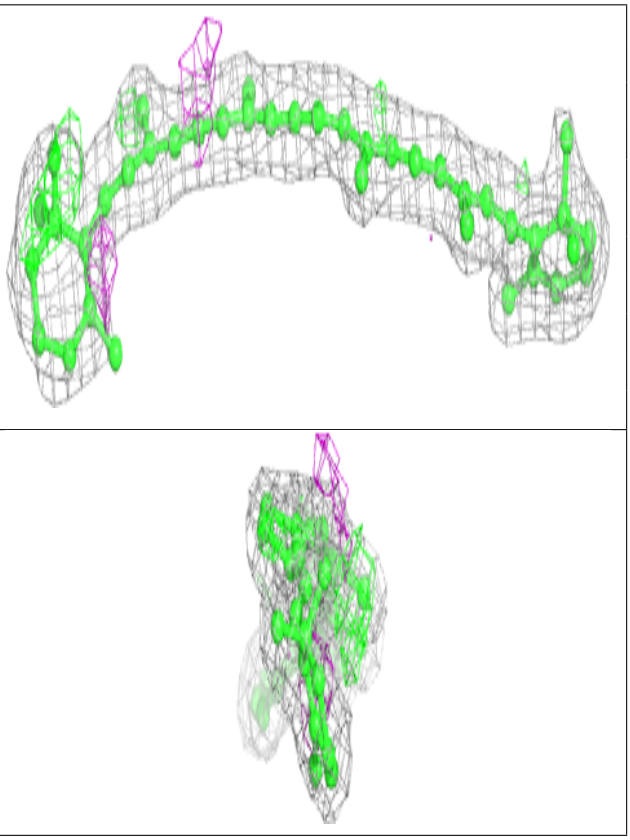
Electron density around LMG D 412:

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



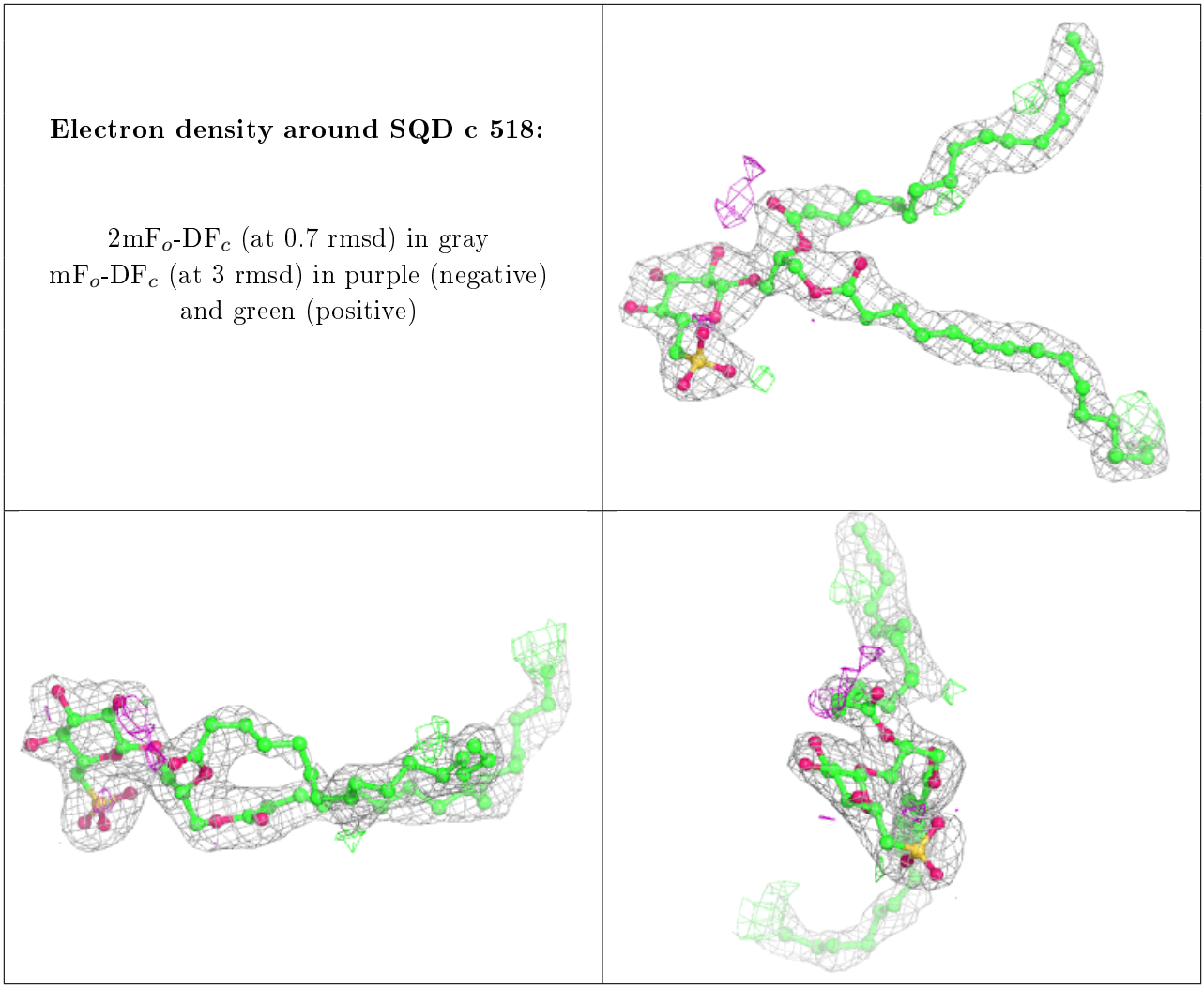
Electron density around BCR D 406:

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



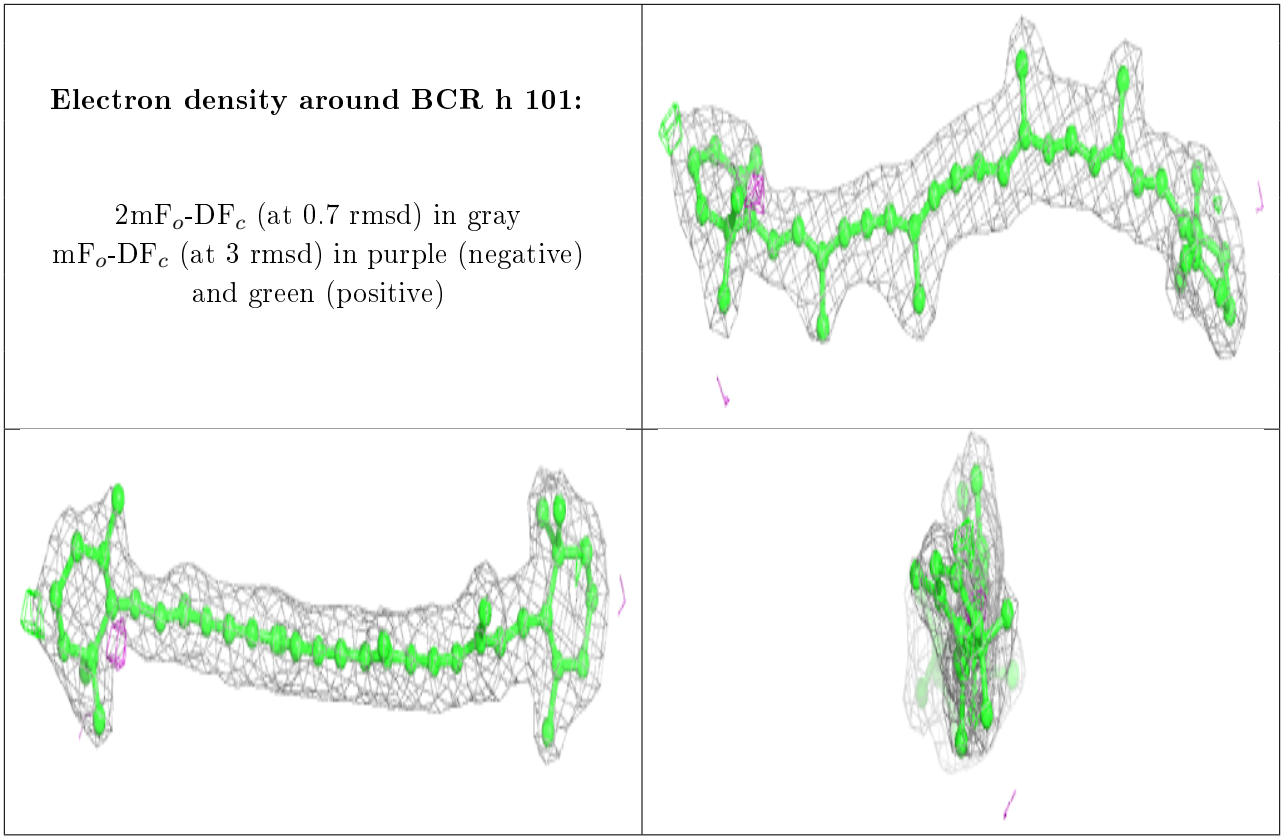
Electron density around SQD c 518:

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



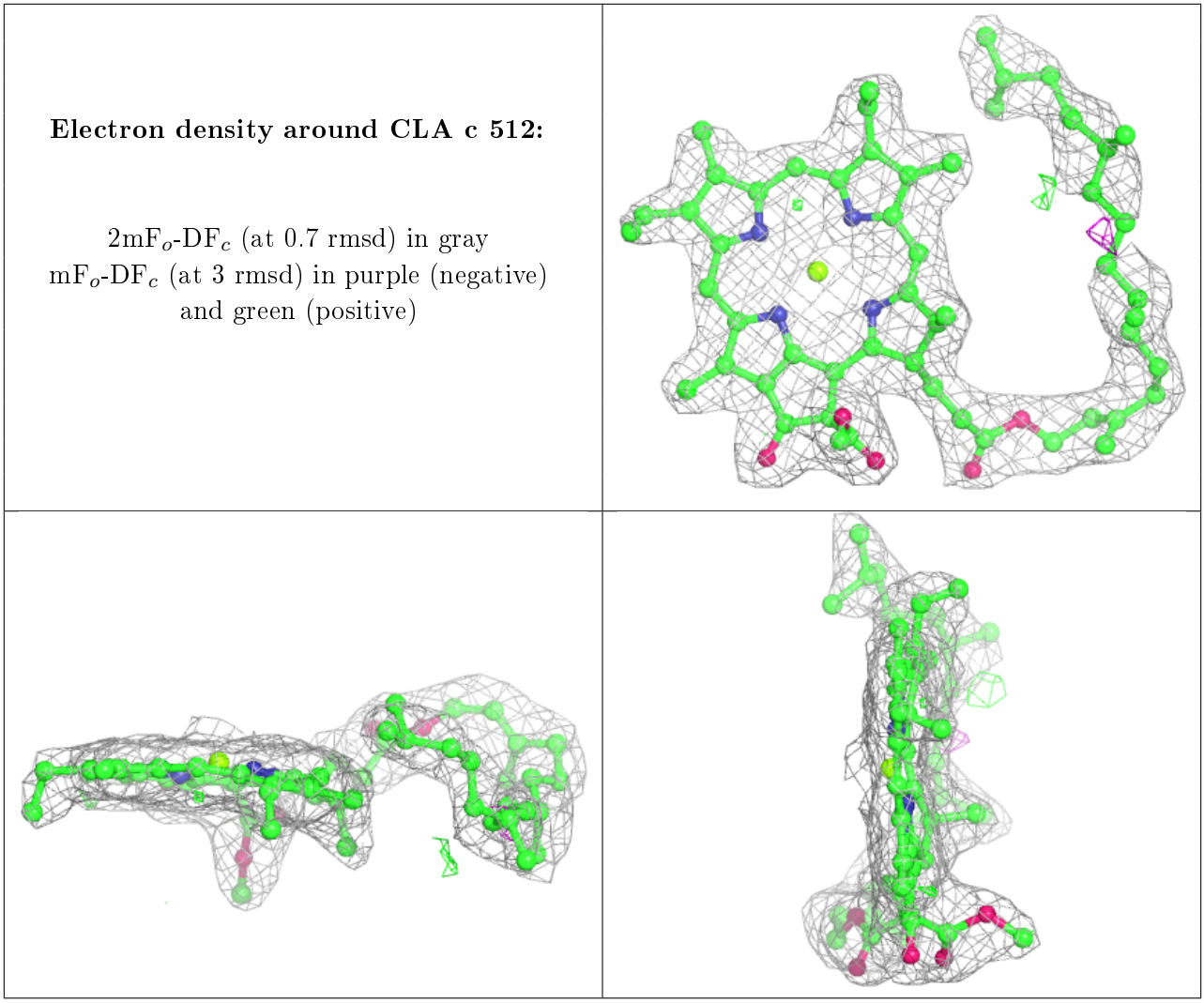
Electron density around BCR h 101:

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



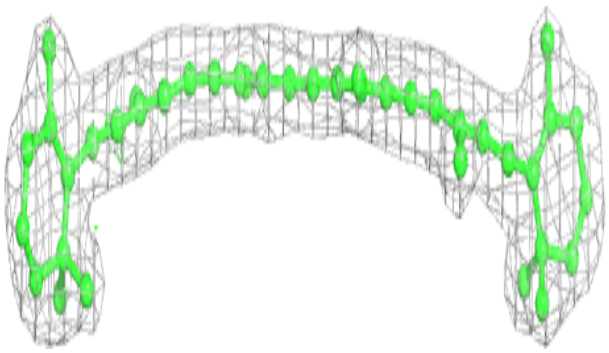
Electron density around CLA c 512:

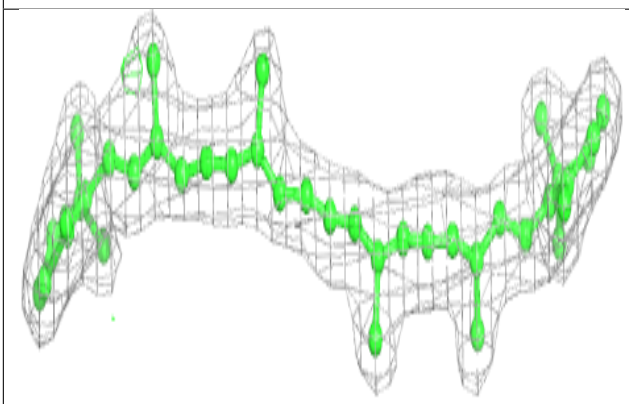
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

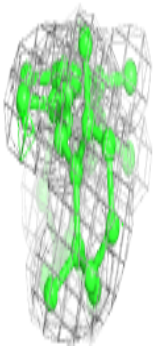


Electron density around BCR K 101:

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

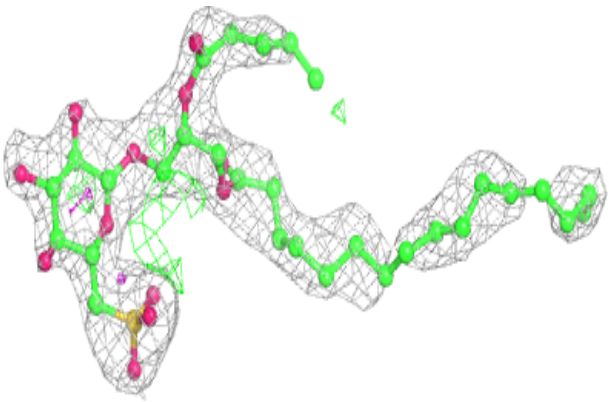


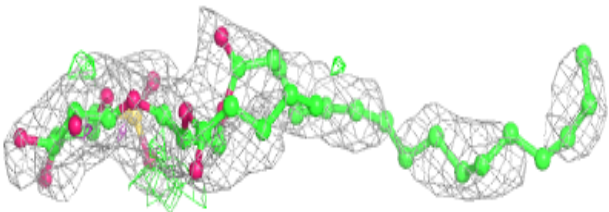




Electron density around SQD D 408:

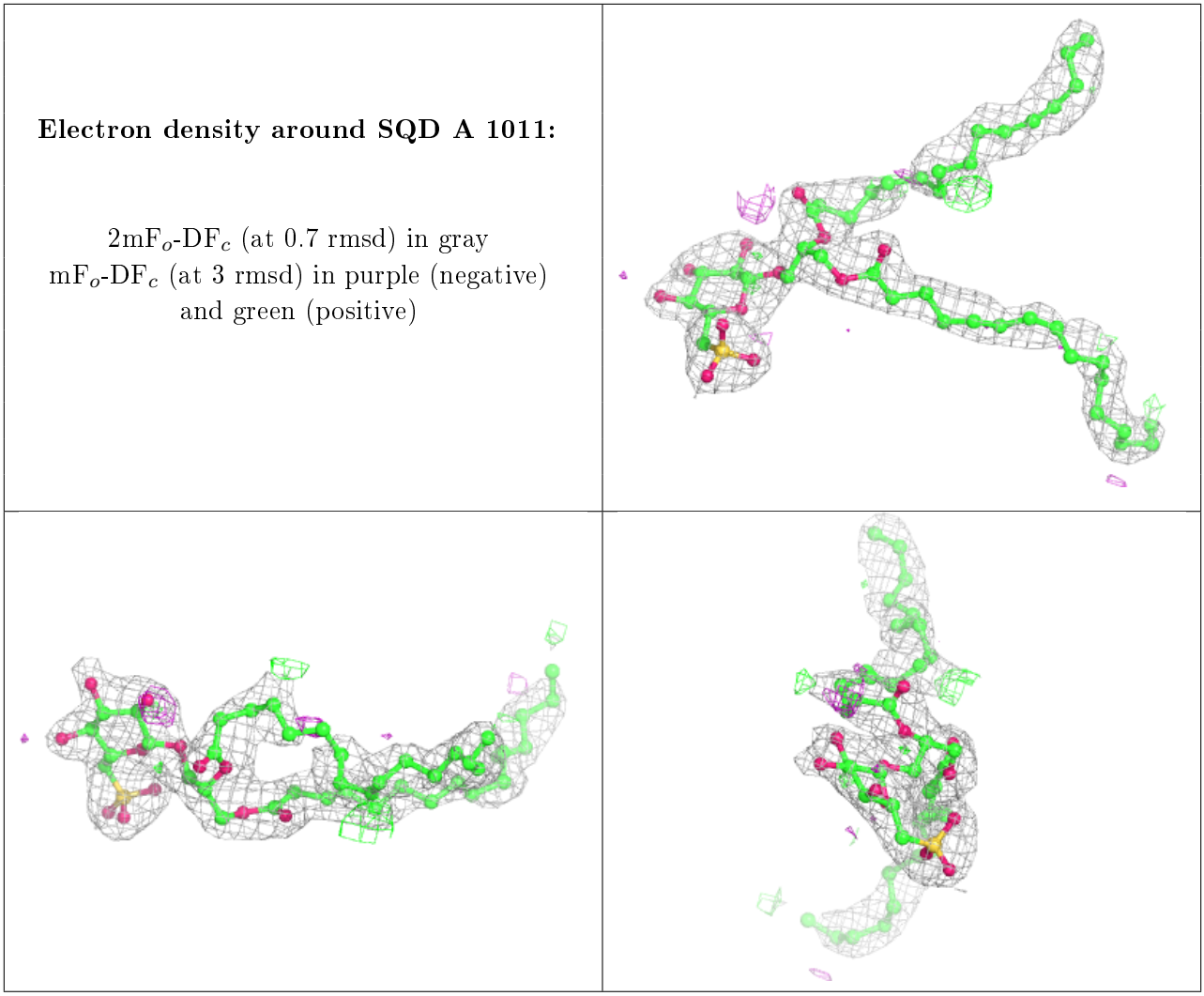
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





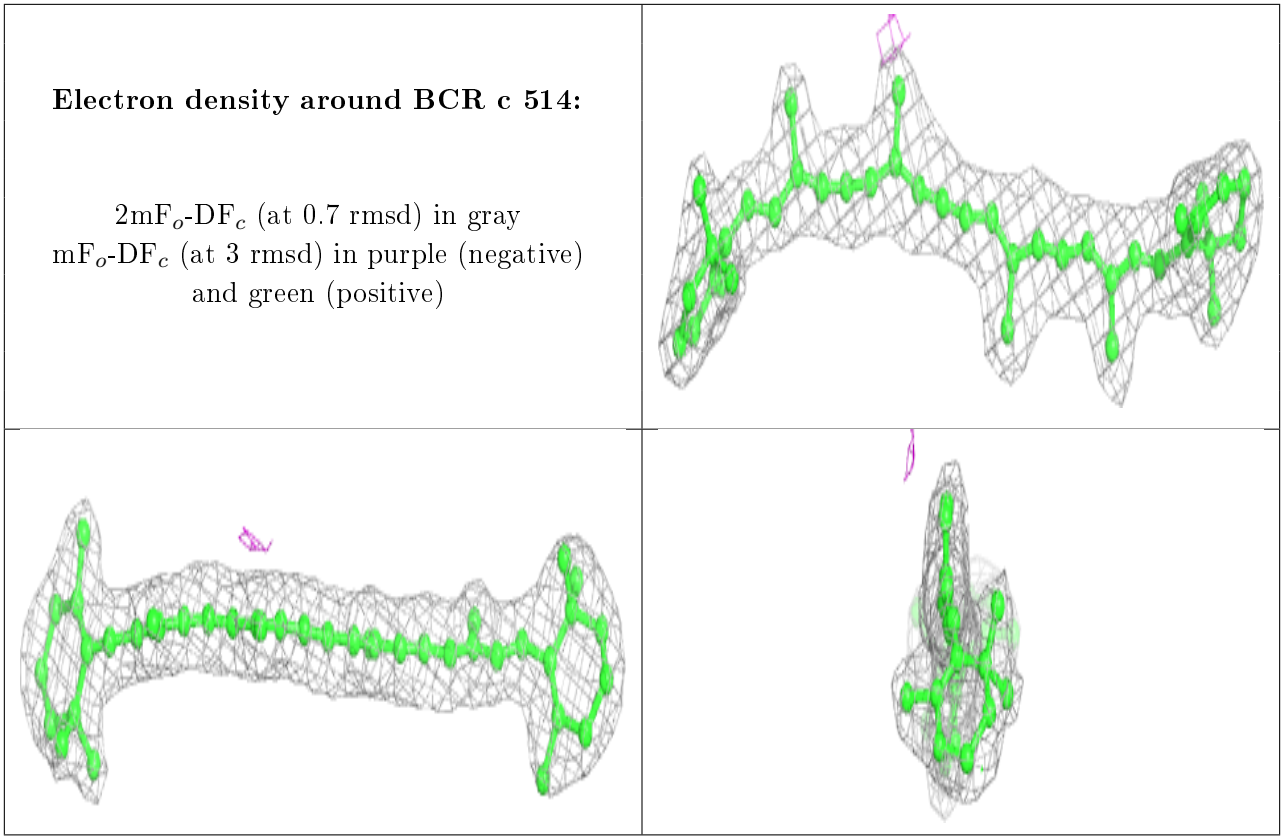
Electron density around SQD A 1011:

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



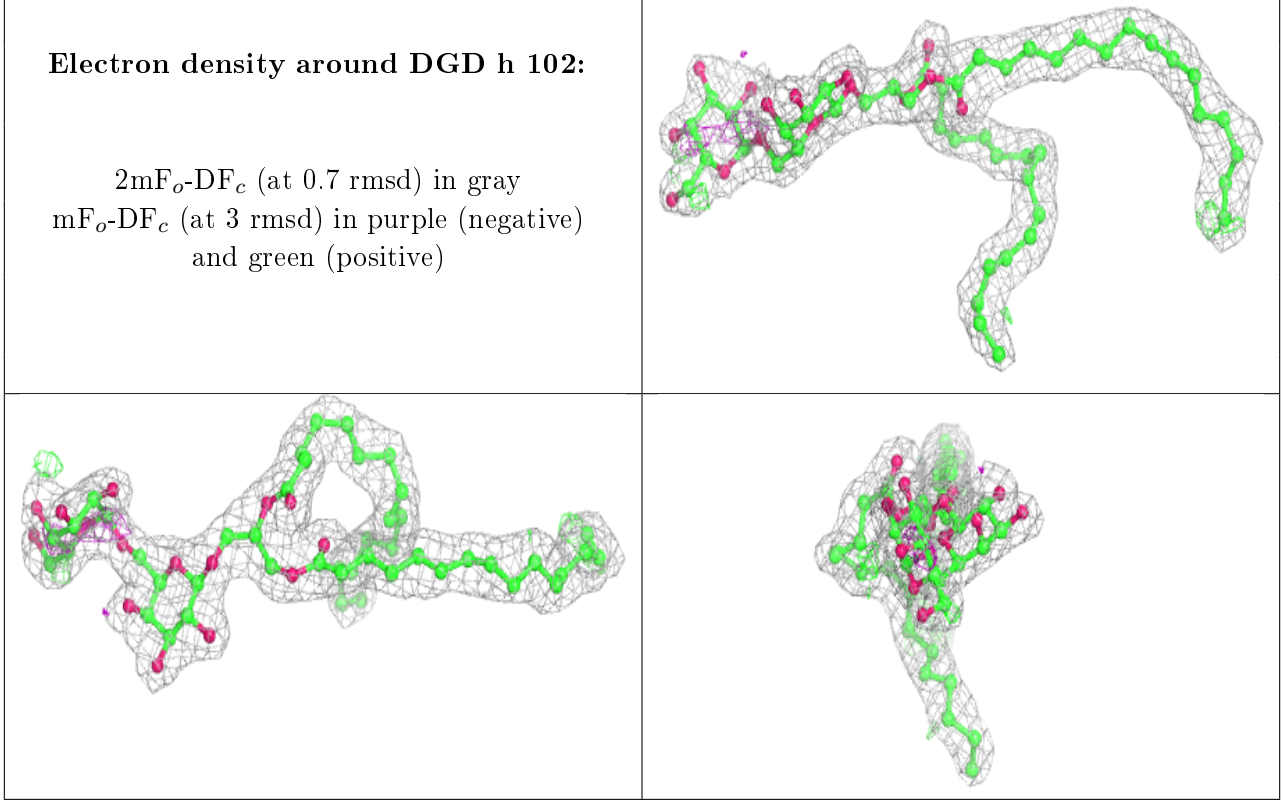
Electron density around BCR c 514:

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



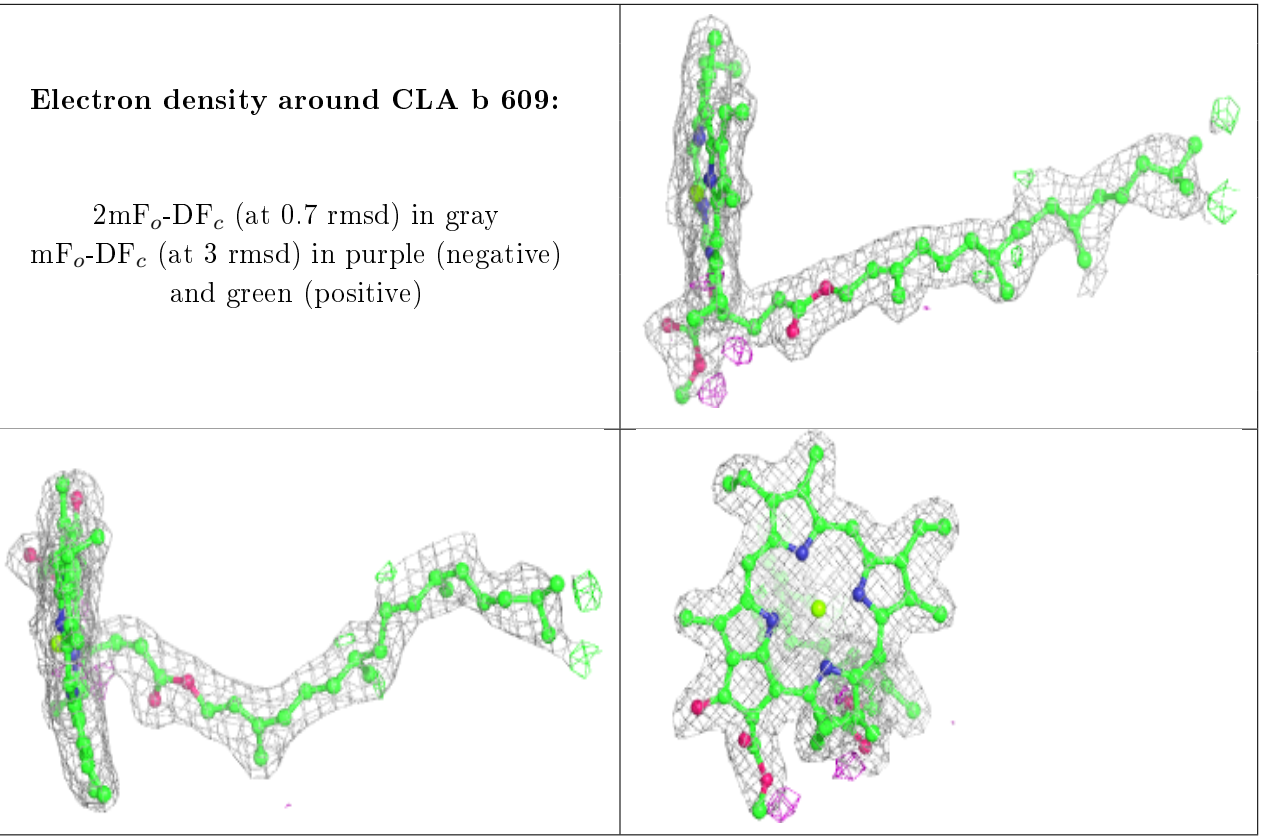
Electron density around DGD h 102:

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



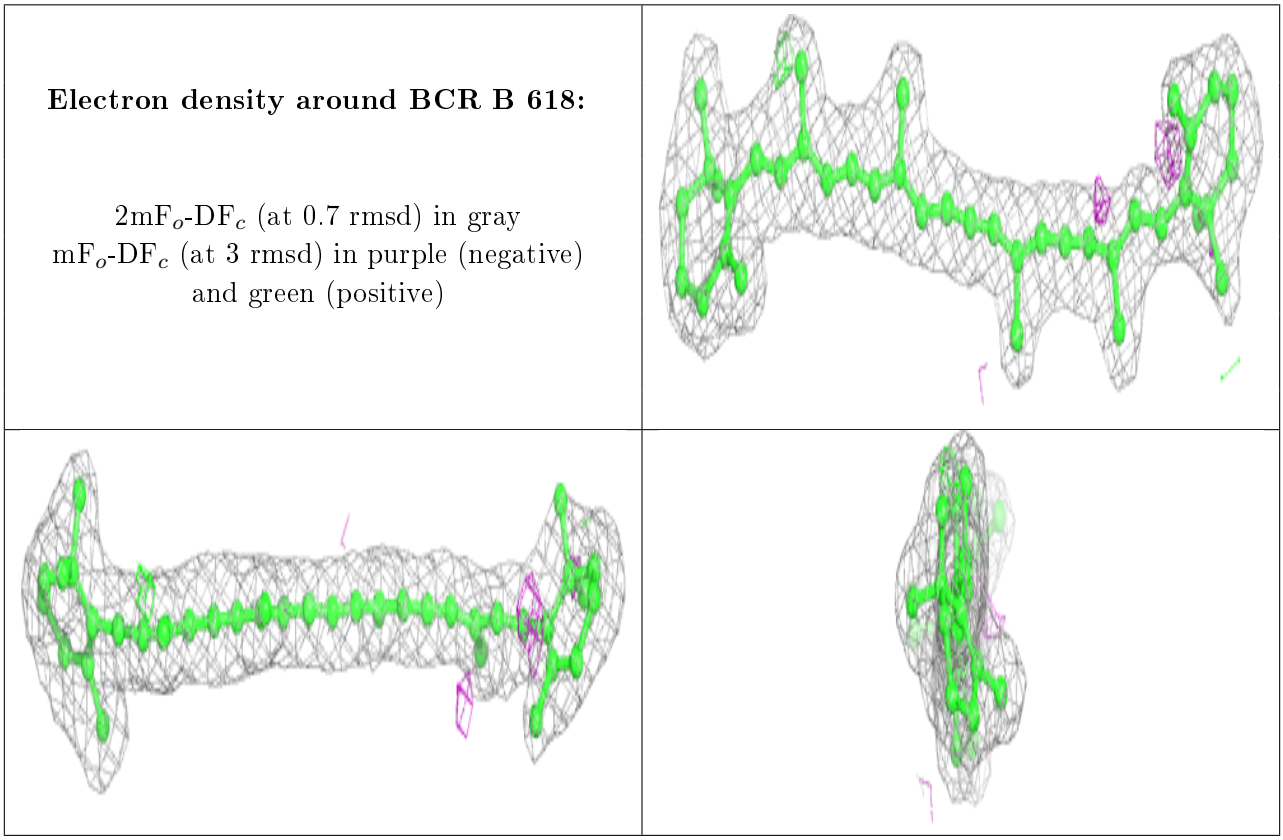
Electron density around CLA b 609:

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



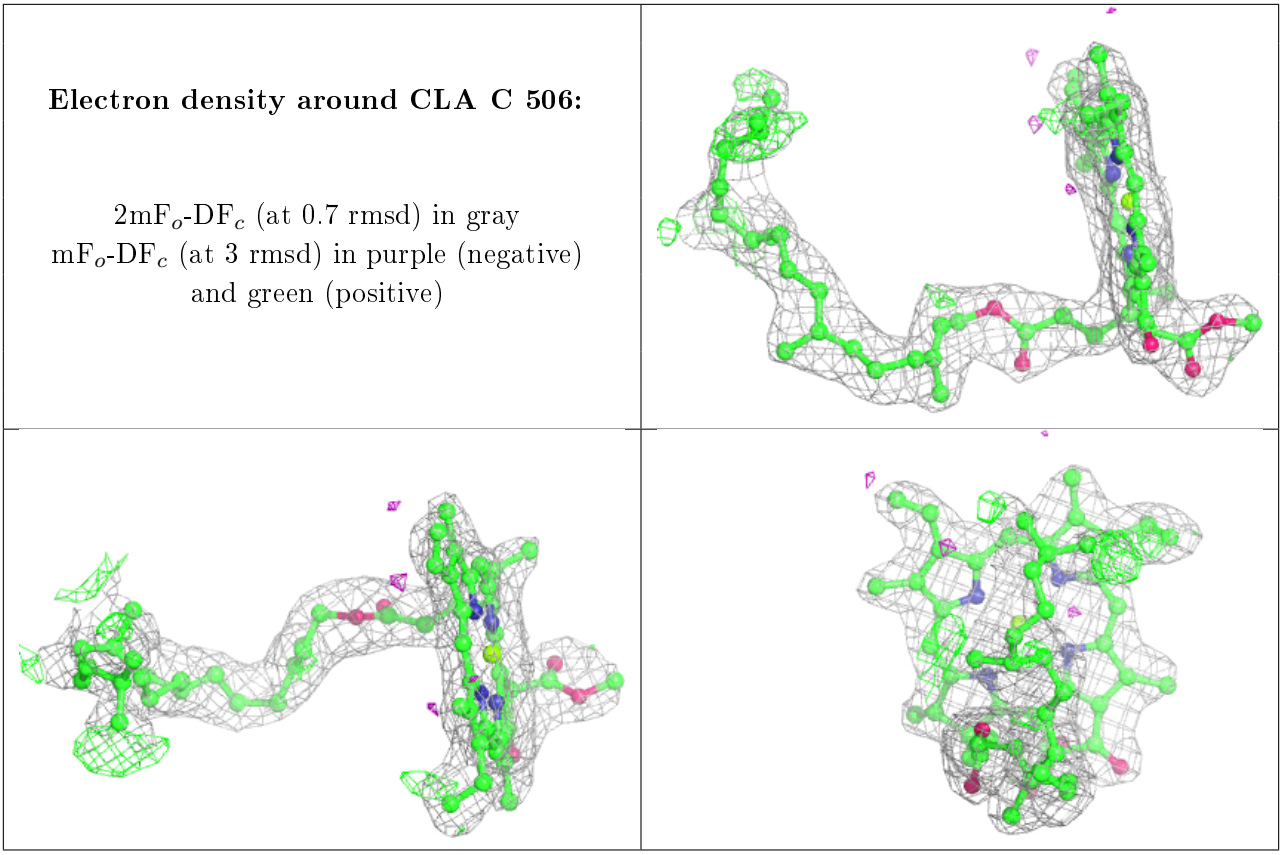
Electron density around BCR B 618:

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



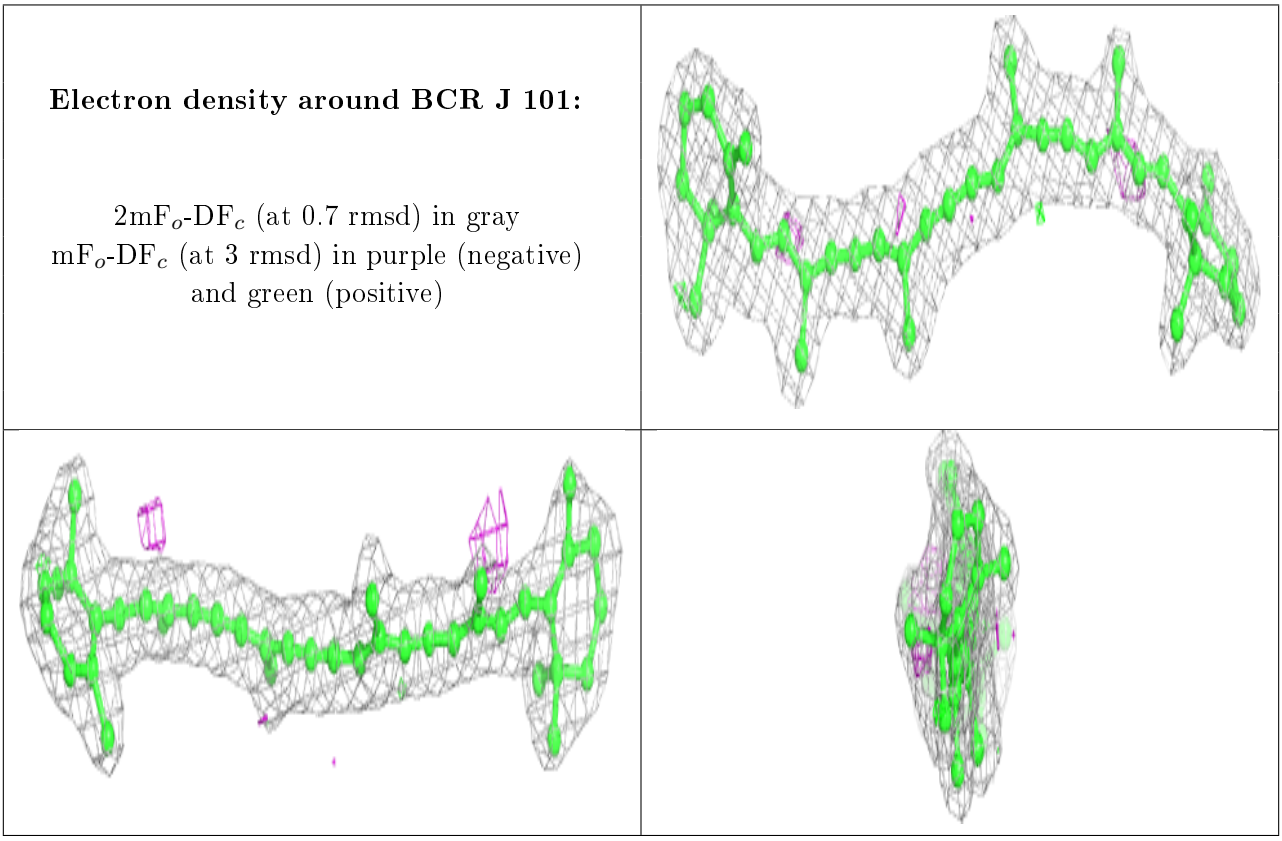
Electron density around CLA C 506:

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



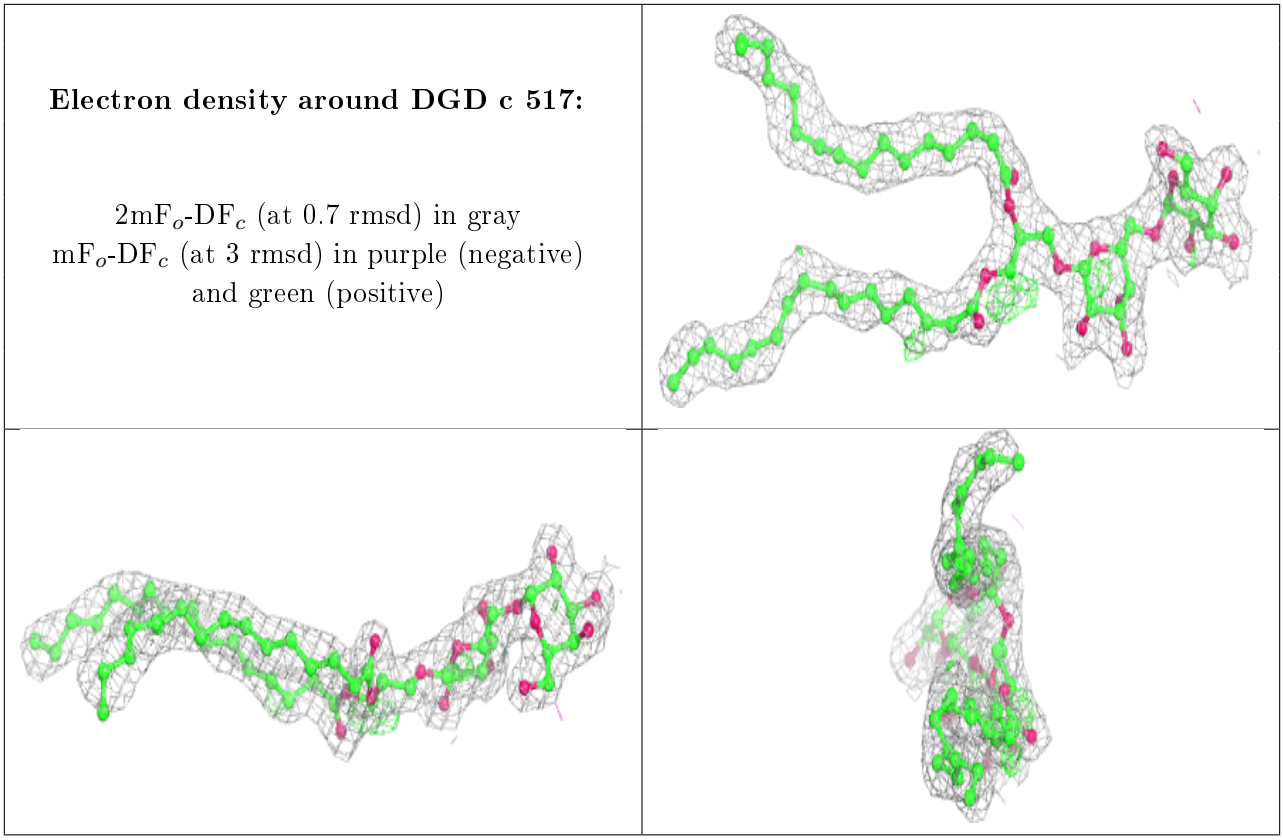
Electron density around BCR J 101:

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



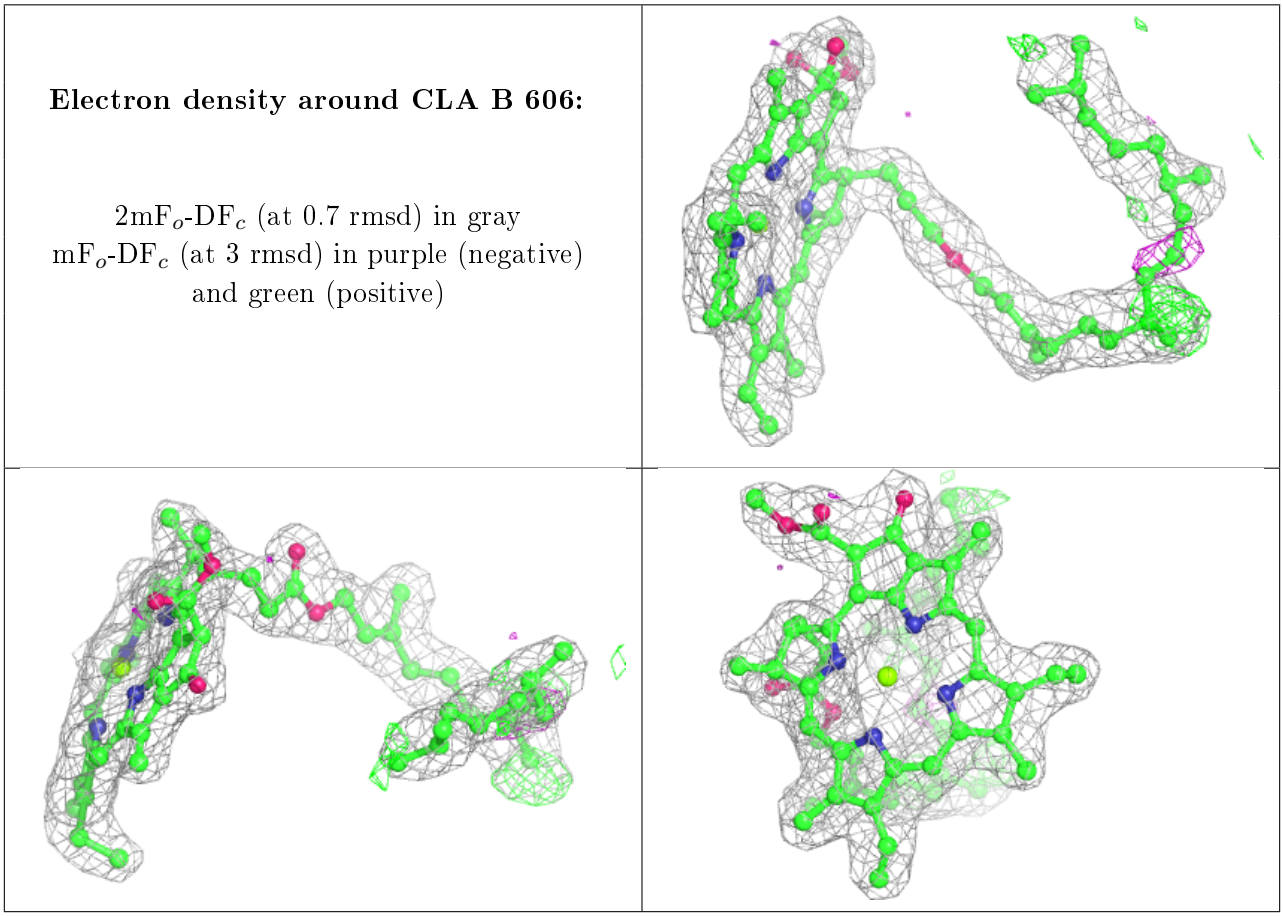
Electron density around DGD c 517:

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



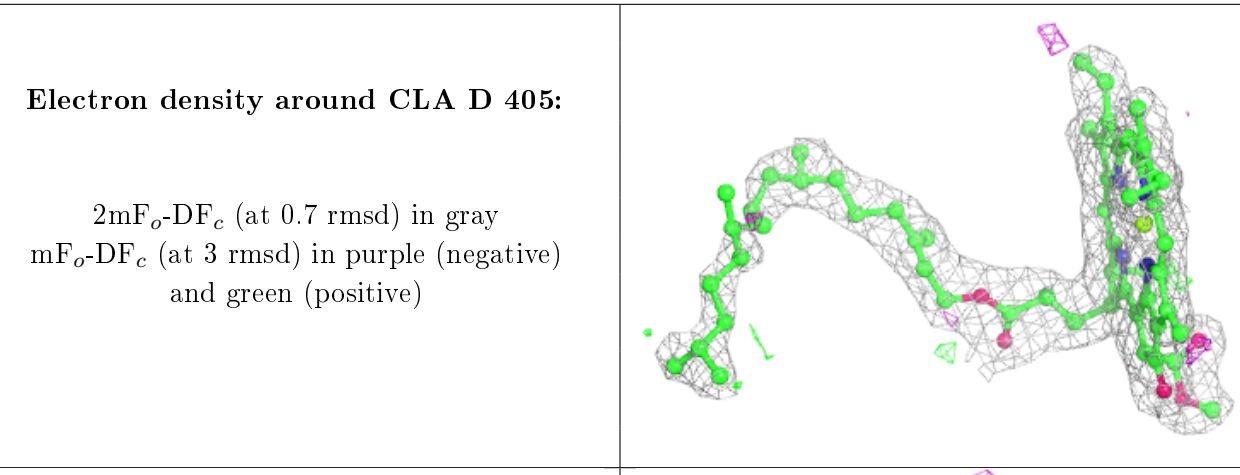
Electron density around CLA B 606:

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



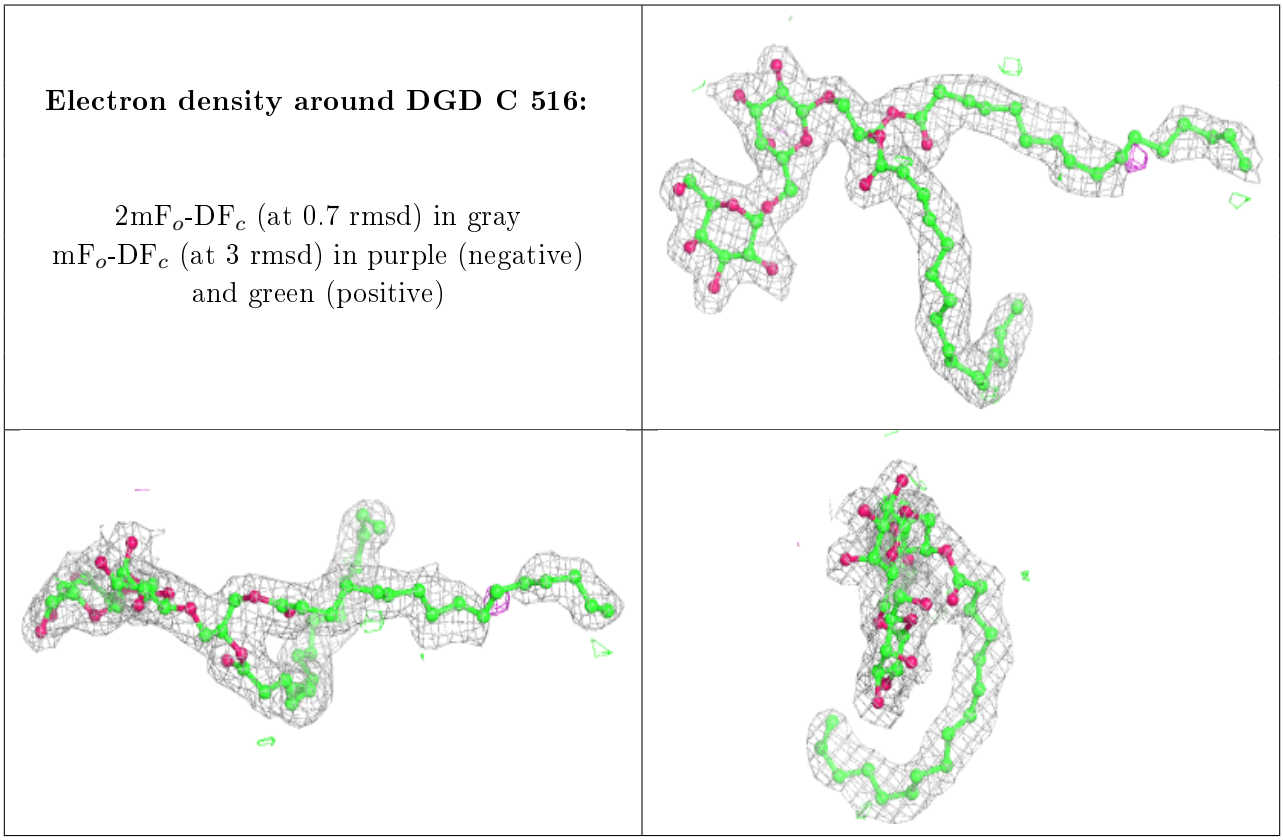
Electron density around CLA D 405:

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



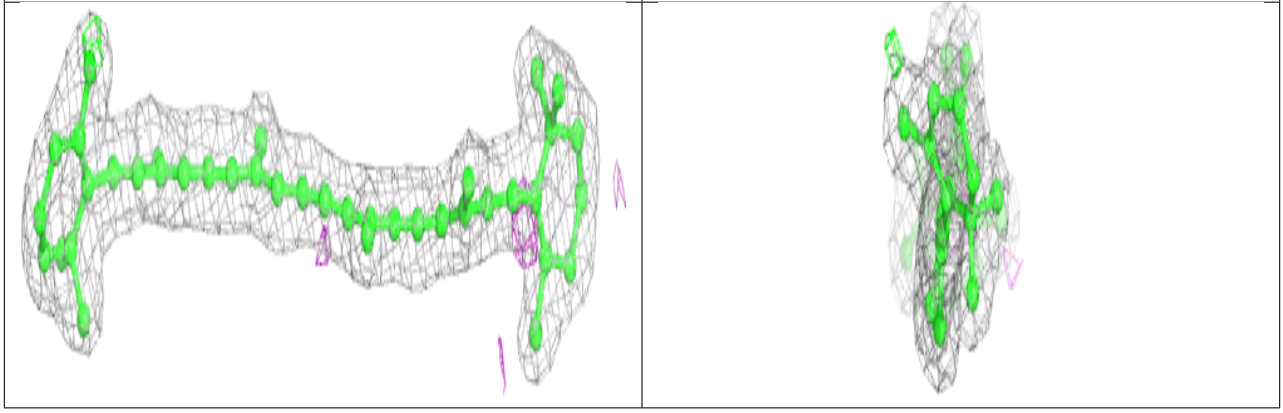
Electron density around DGD C 516:

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



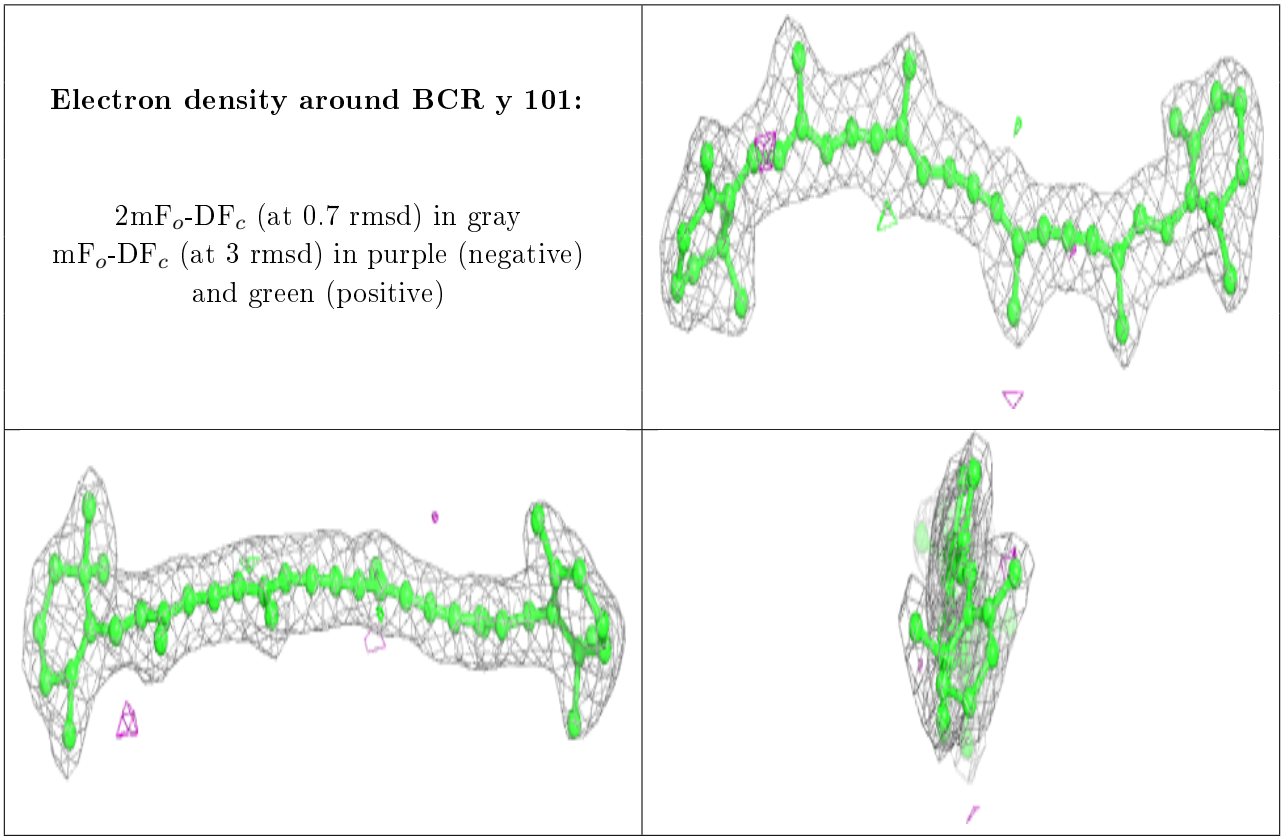
Electron density around BCR a 413:

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



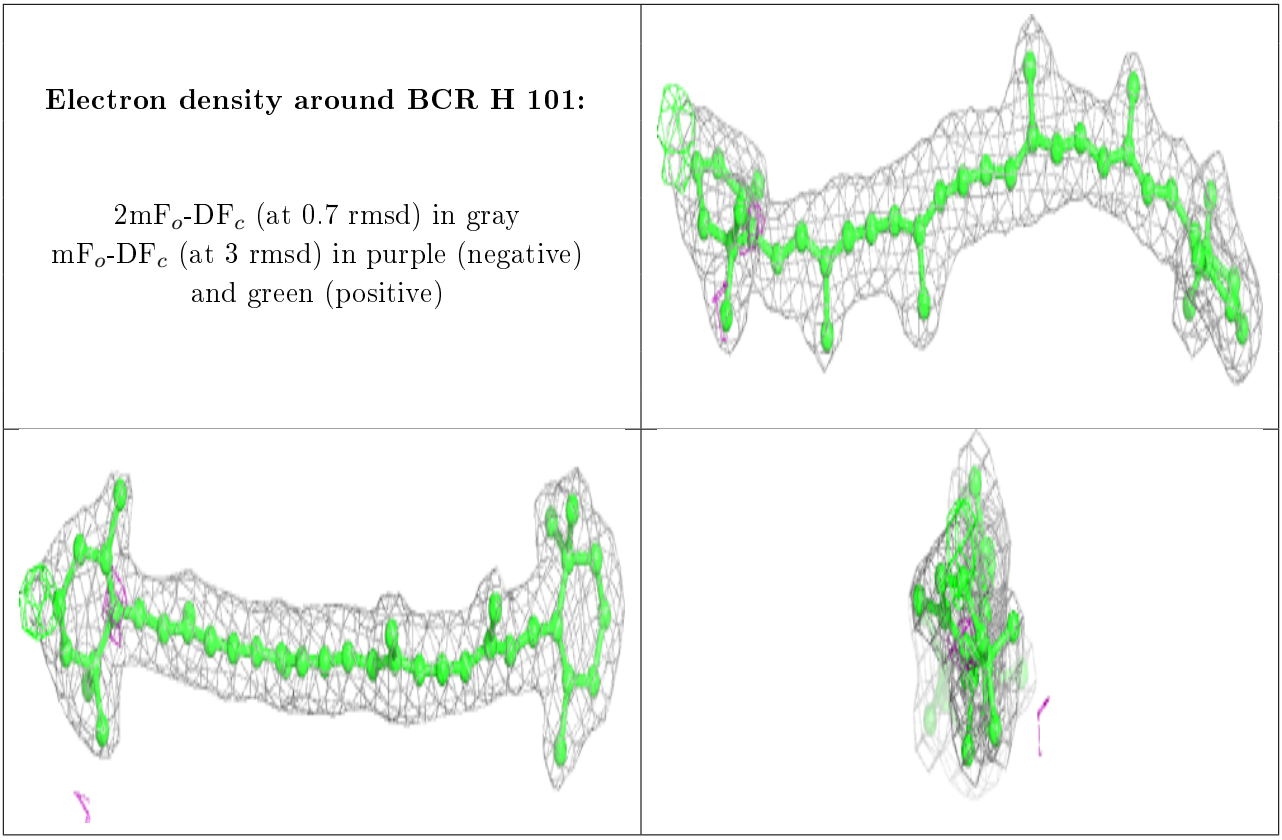
Electron density around BCR y 101:

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



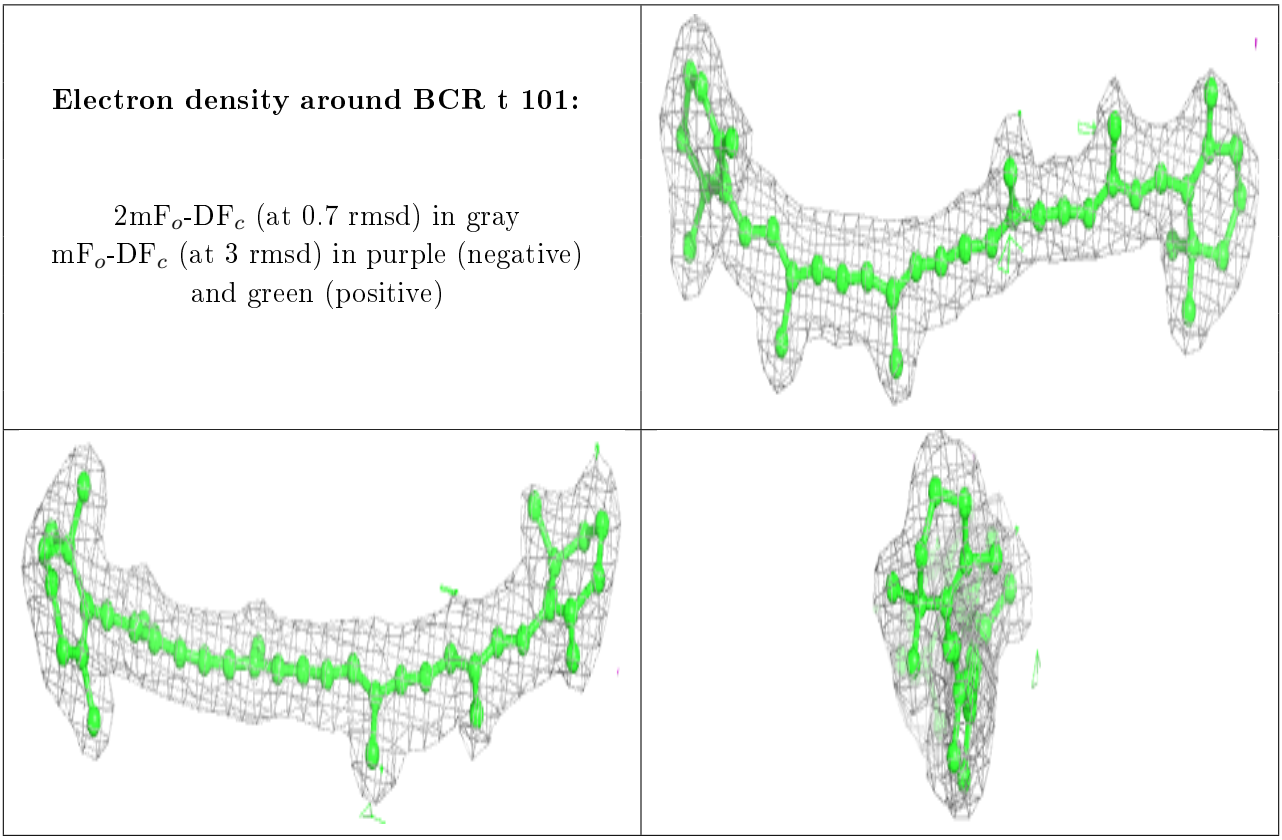
Electron density around BCR H 101:

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



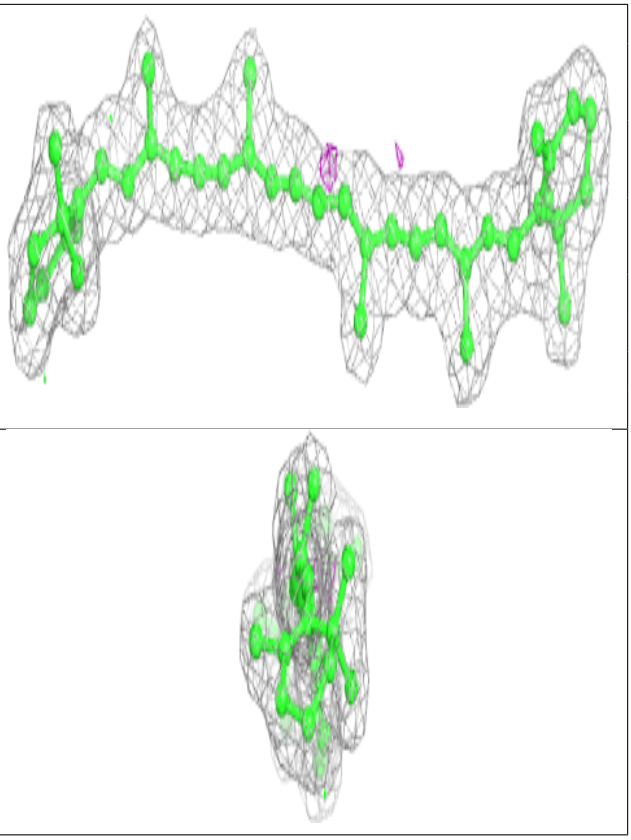
Electron density around BCR t 101:

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



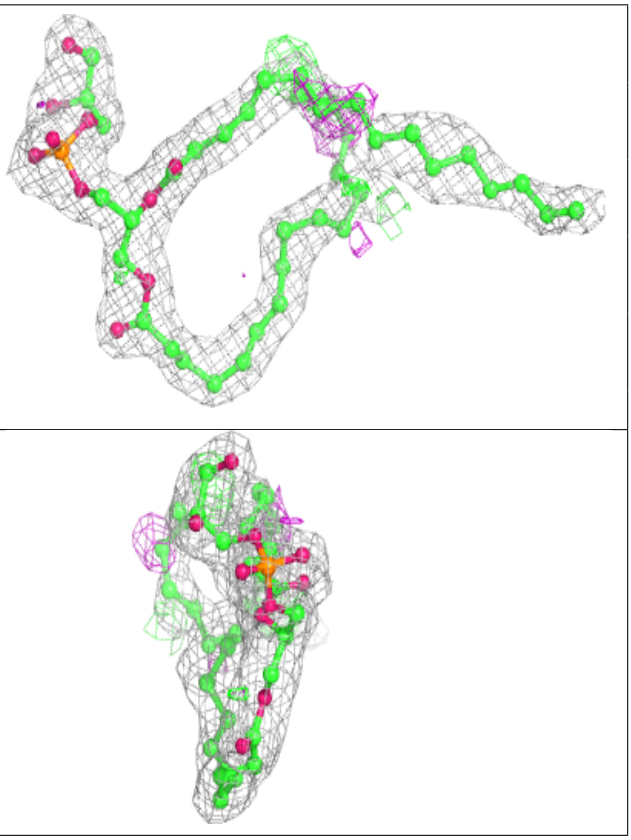
Electron density around BCR A 1009:

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



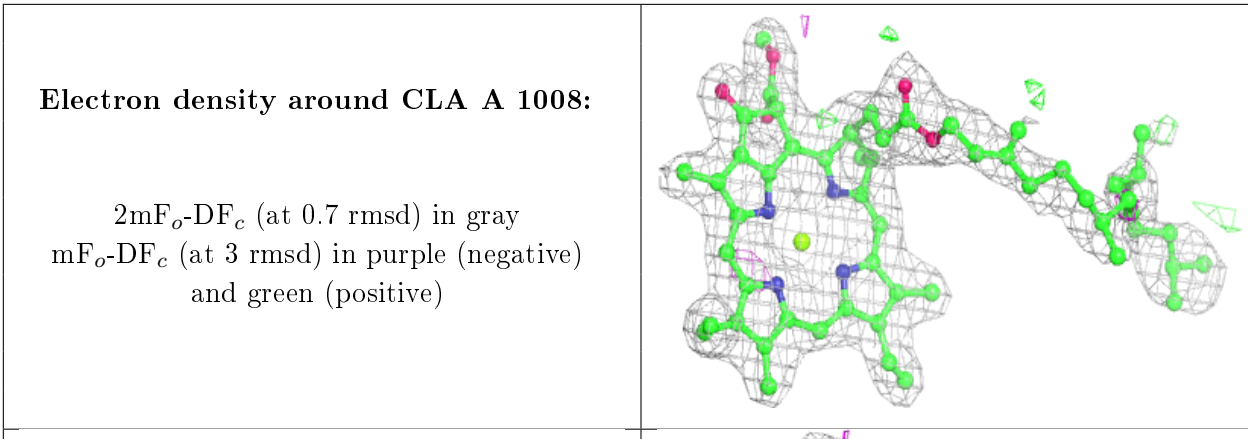
Electron density around LHG d 408:

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



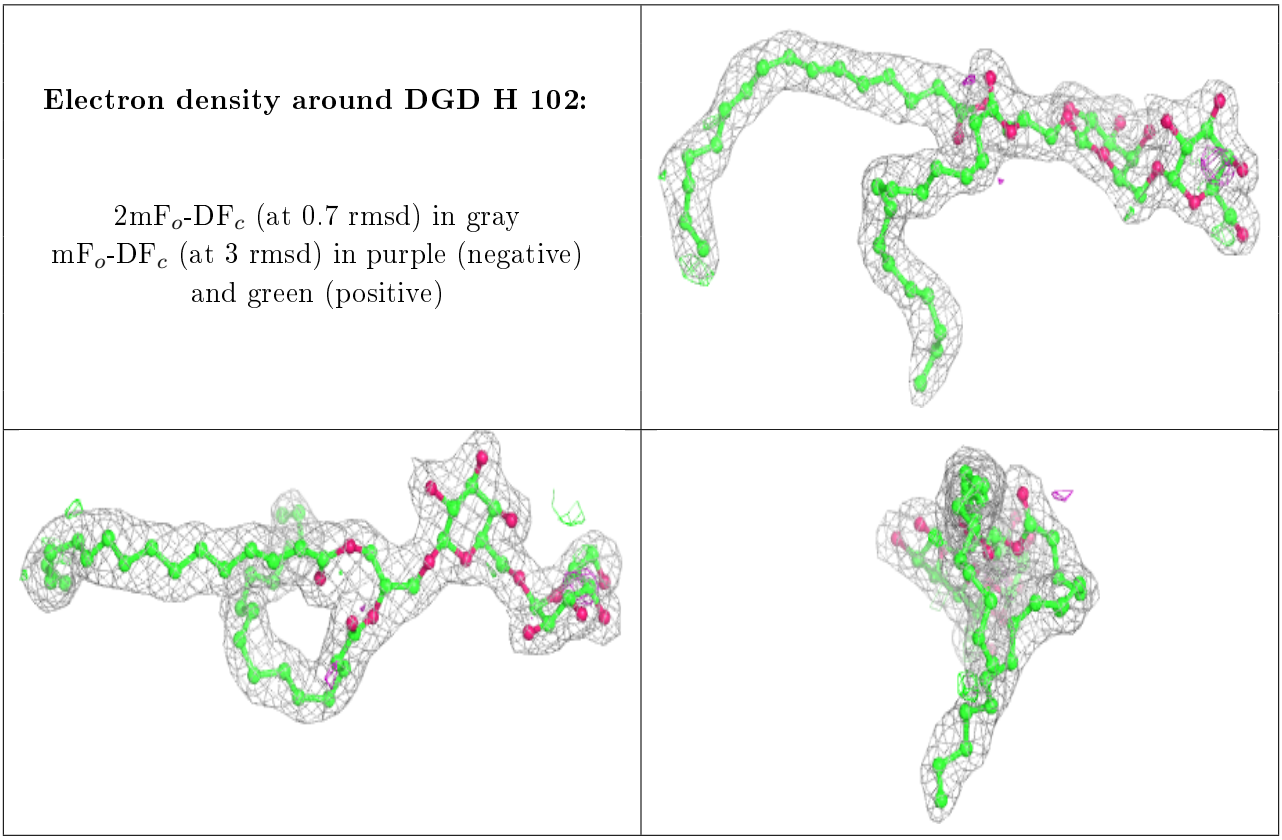
Electron density around CLA A 1008:

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



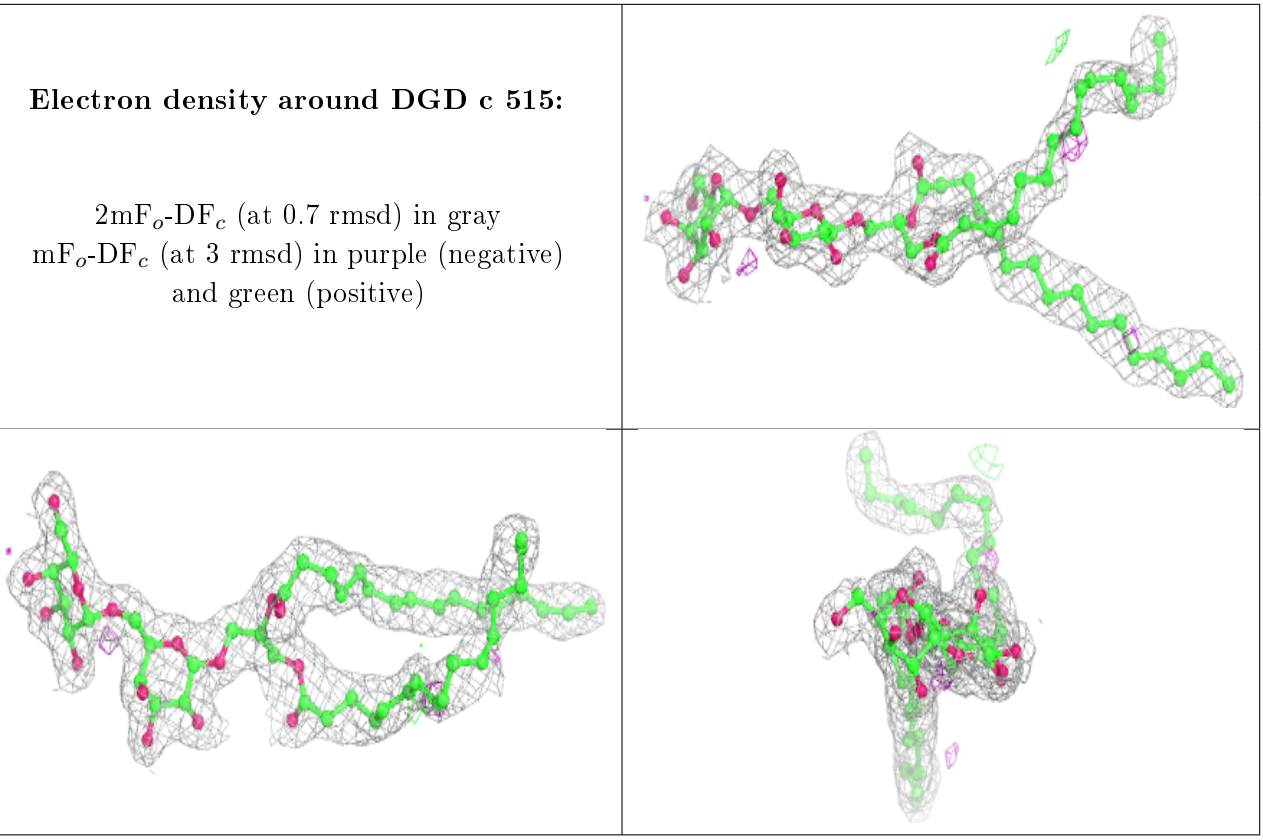
Electron density around DGD H 102:

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



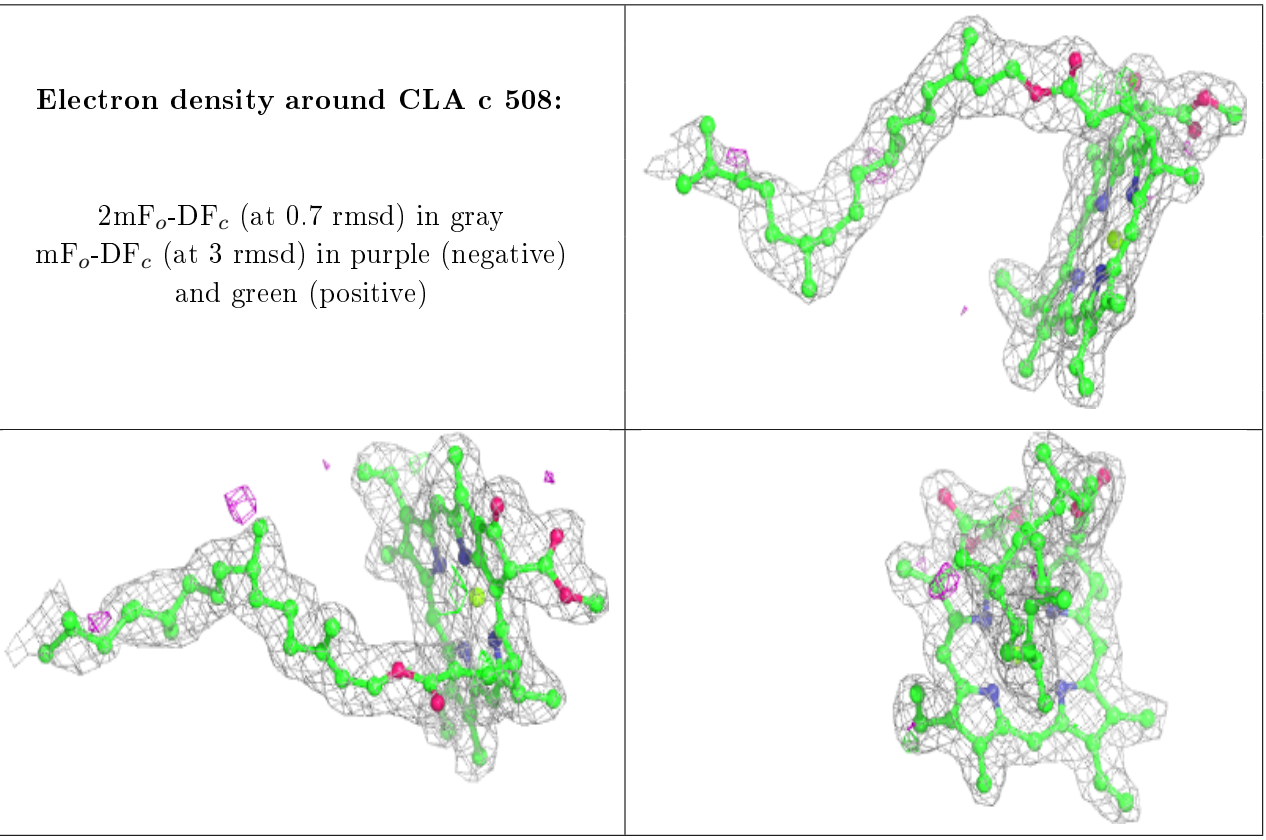
Electron density around DGD c 515:

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



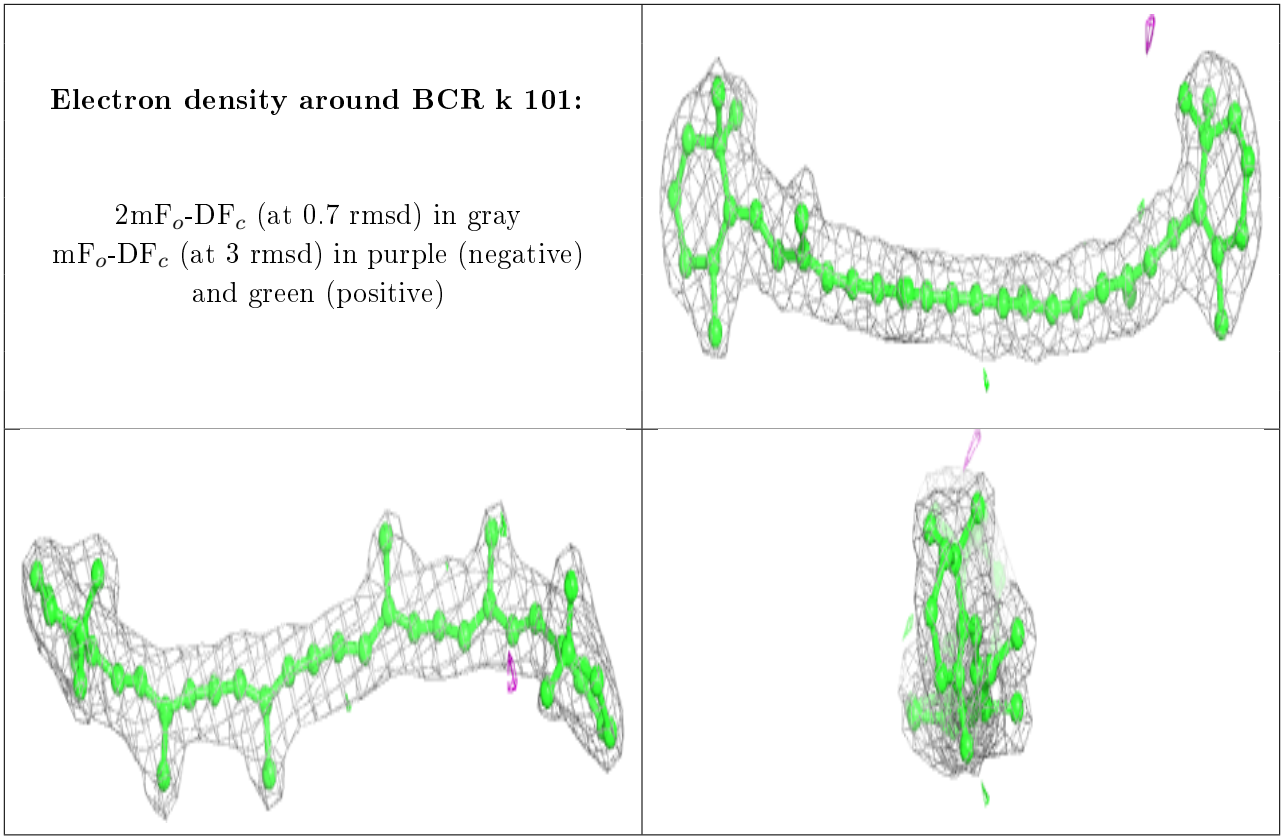
Electron density around CLA c 508:

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



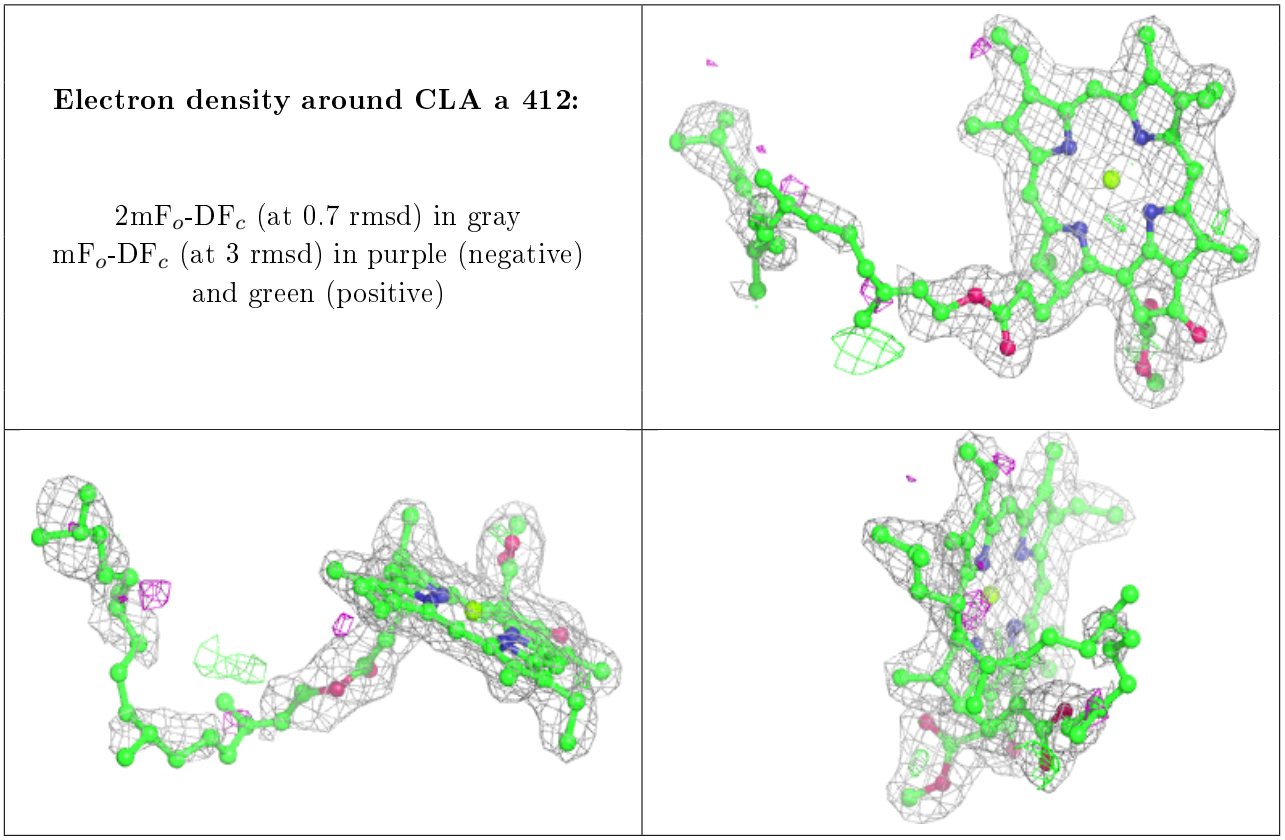
Electron density around BCR k 101:

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



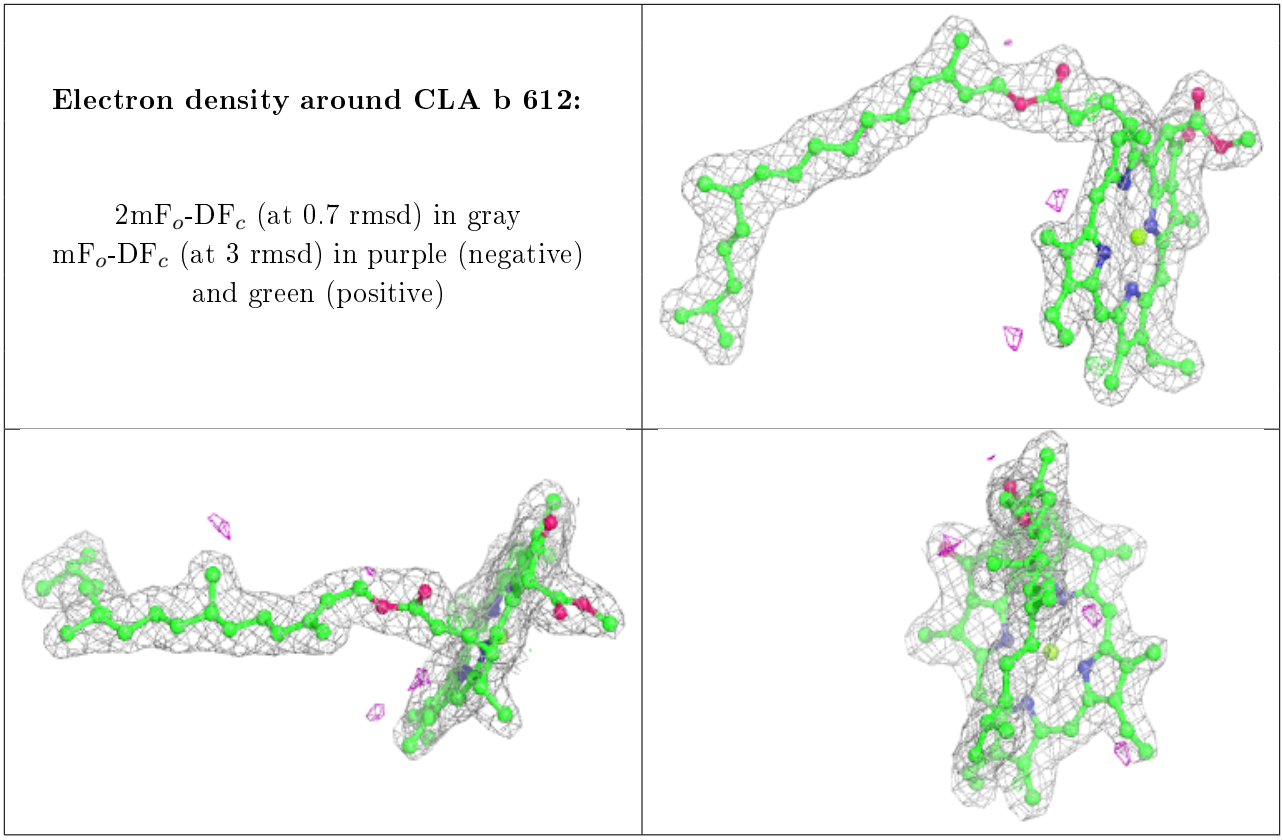
Electron density around CLA a 412:

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



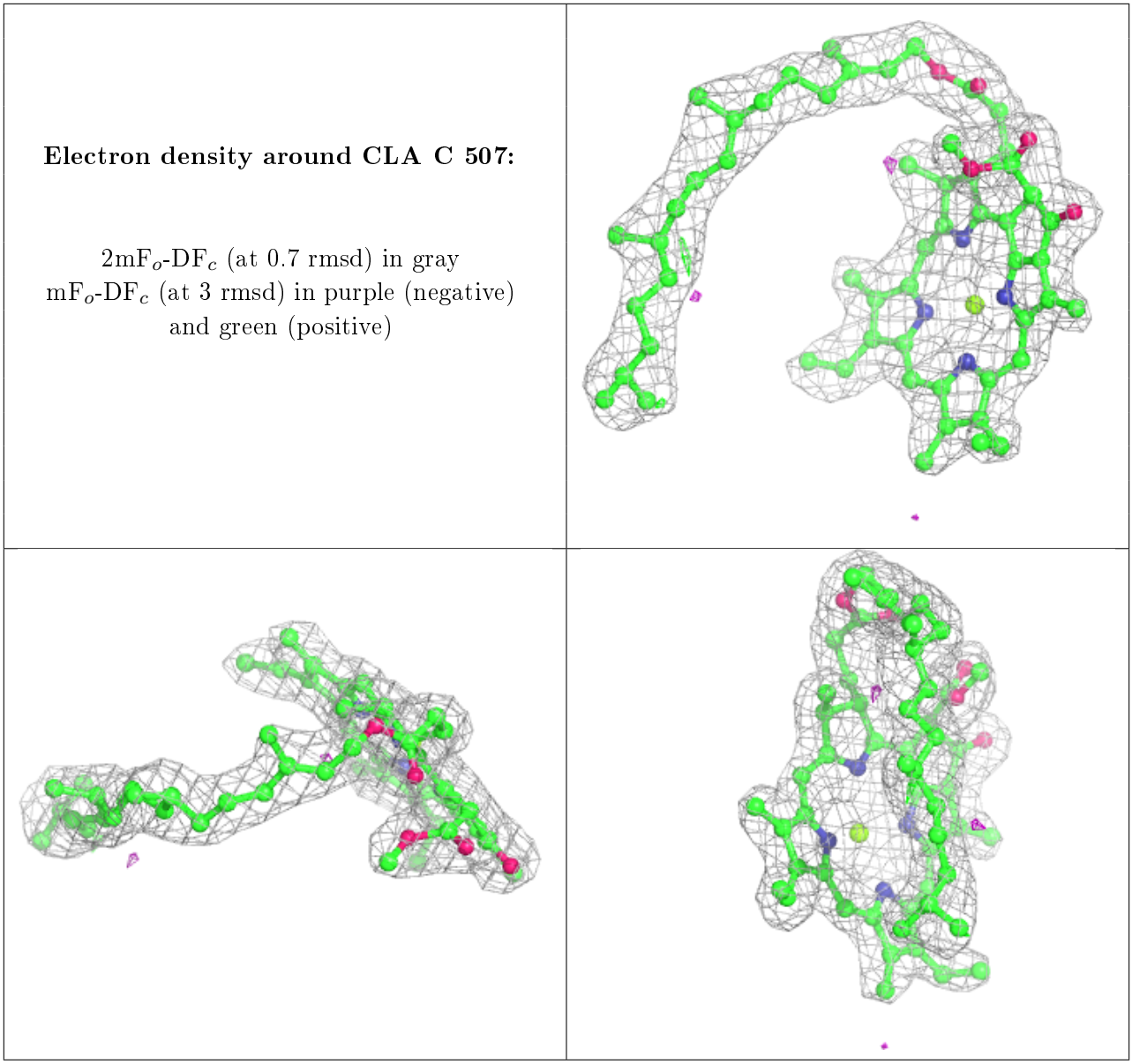
Electron density around CLA b 612:

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



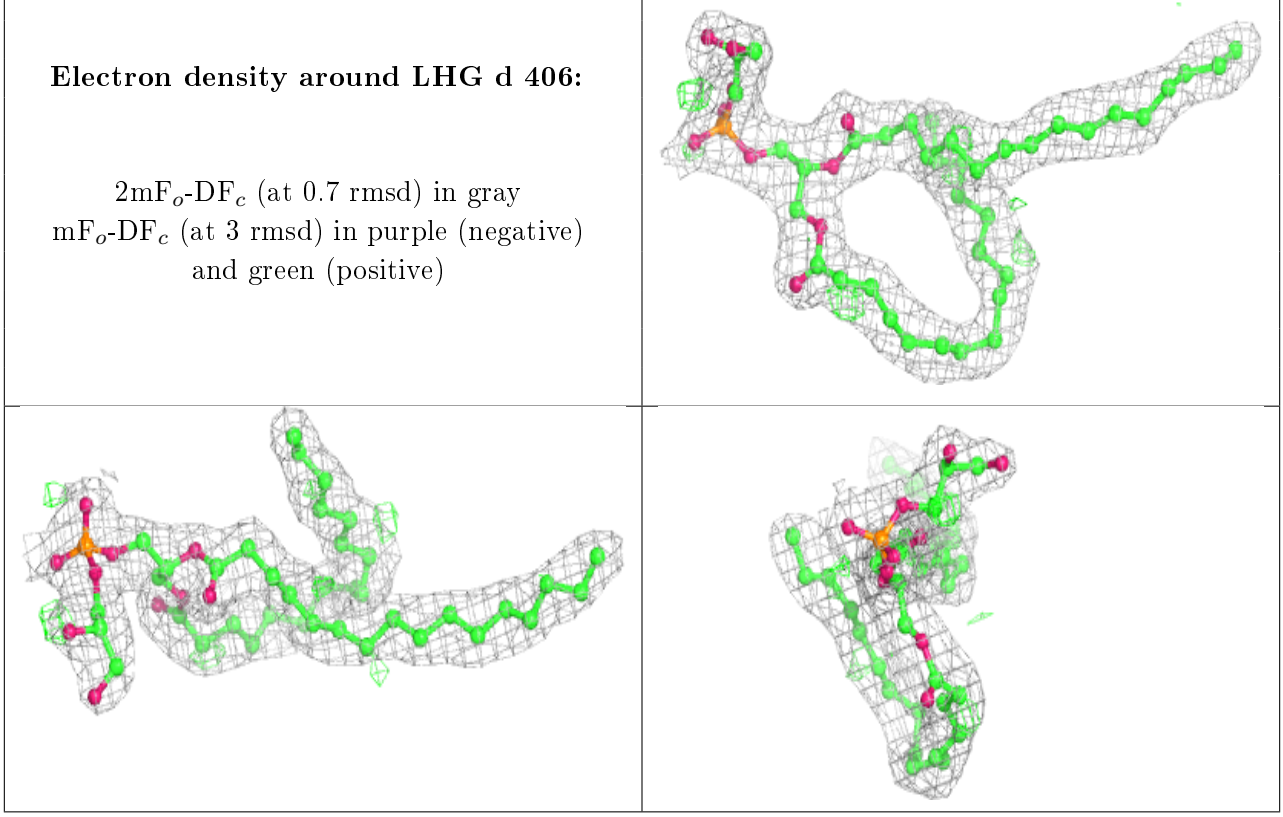
Electron density around CLA C 507:

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



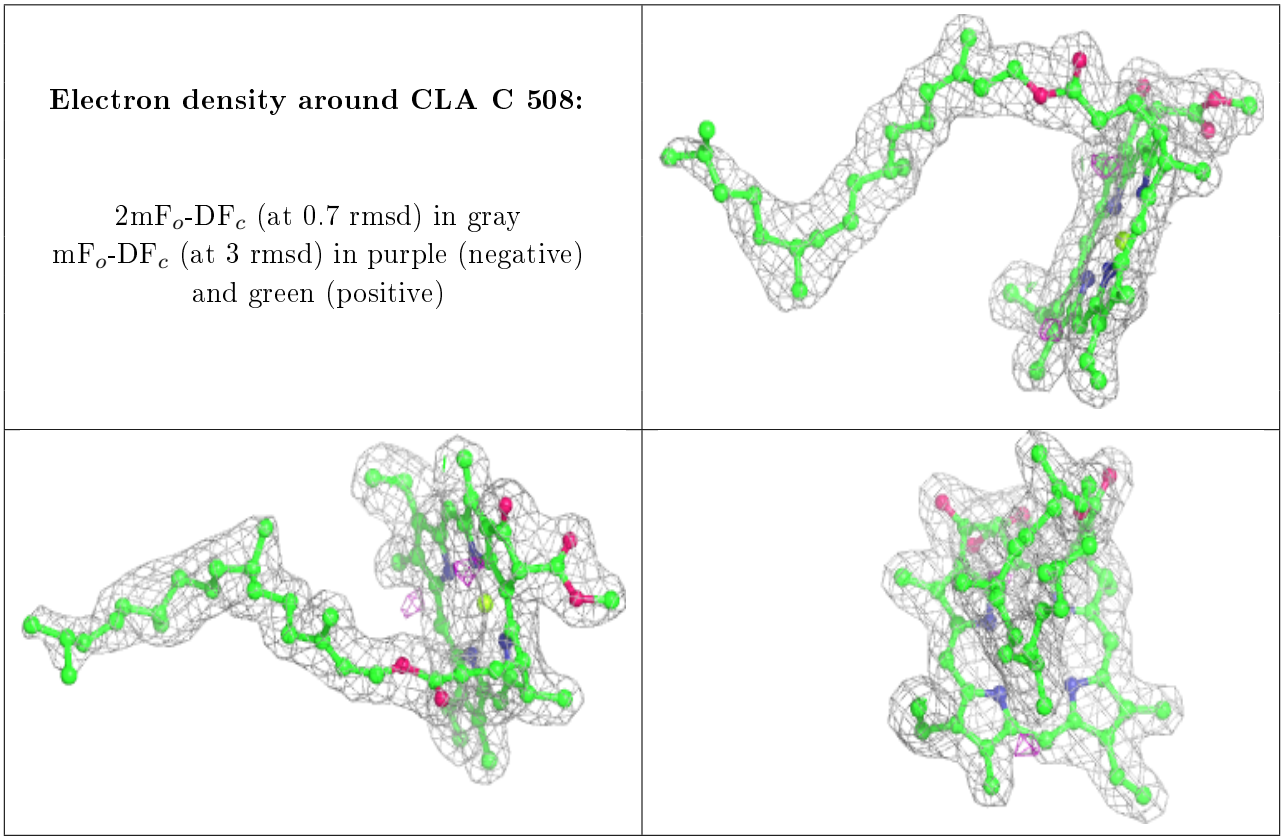
Electron density around LHG d 406:

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



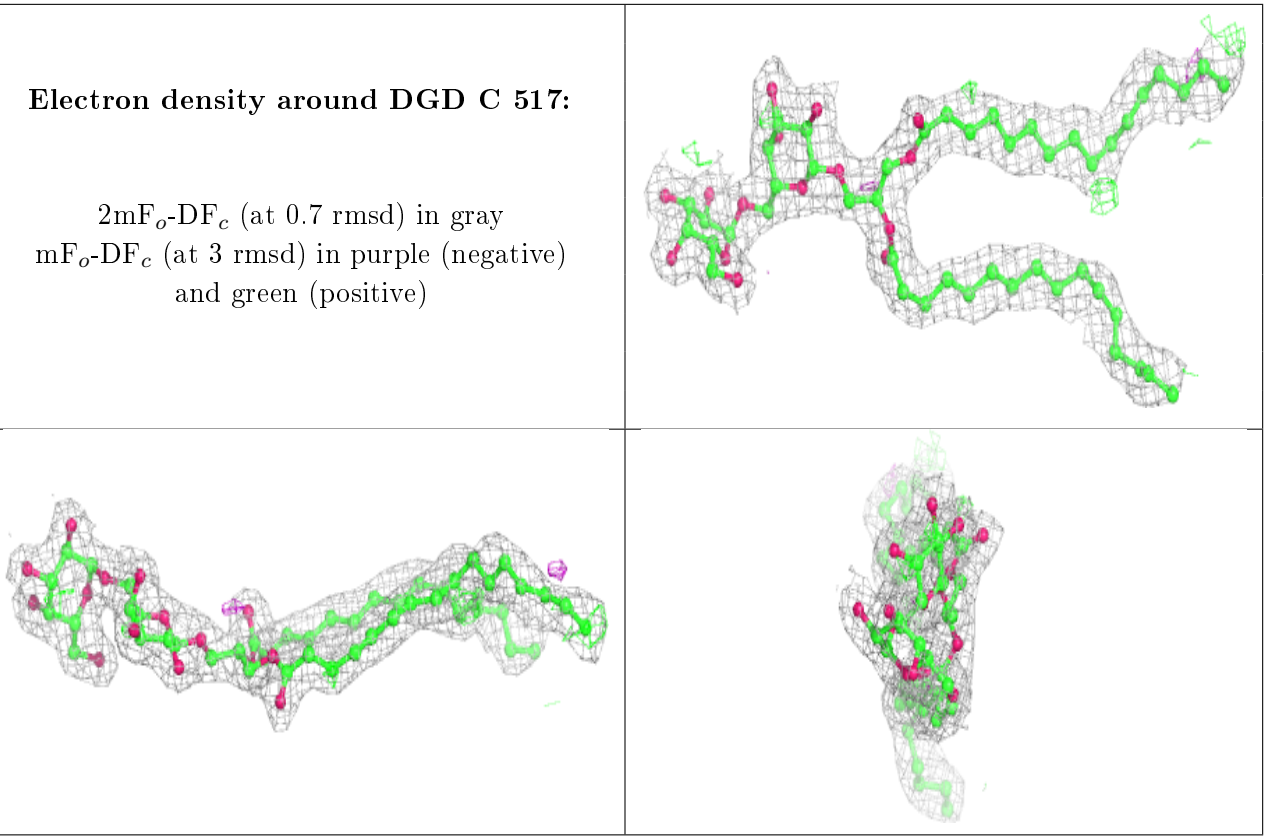
Electron density around CLA C 508:

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



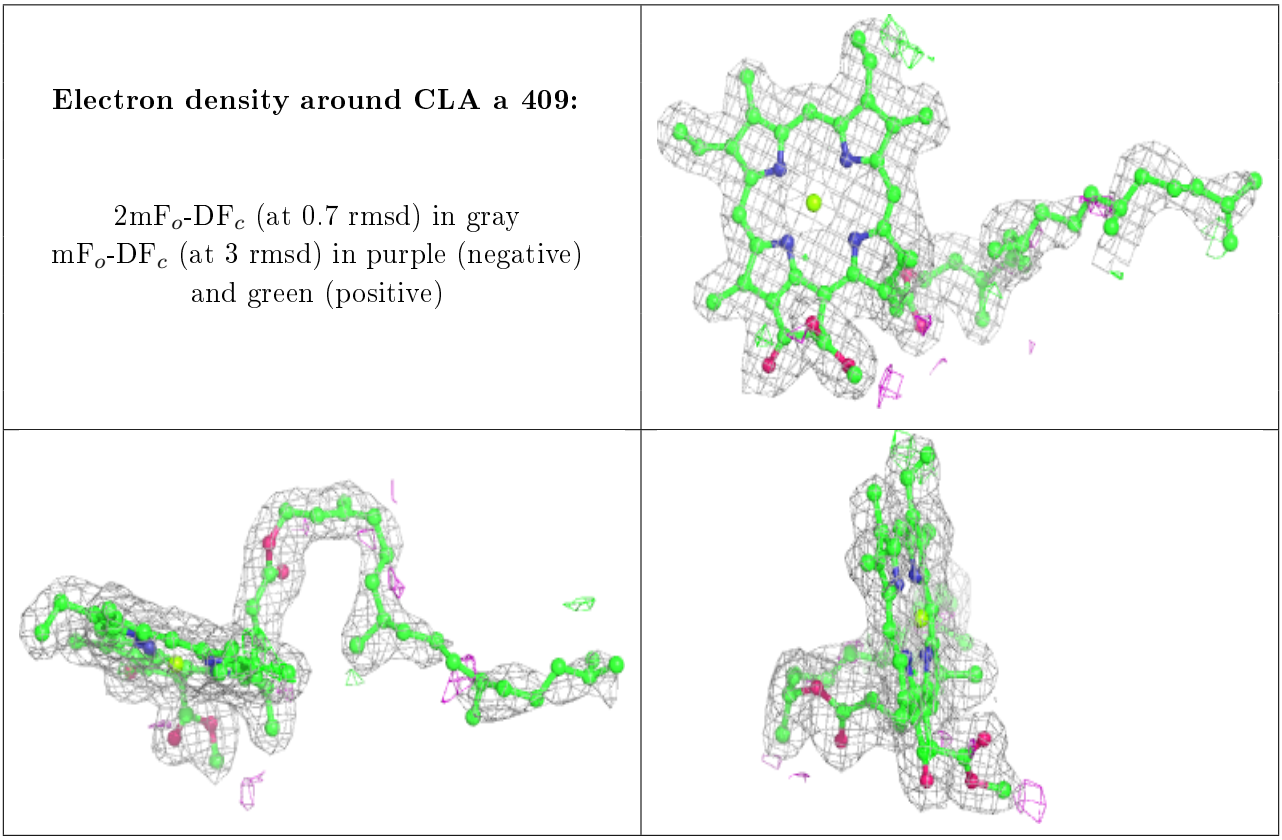
Electron density around DGD C 517:

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



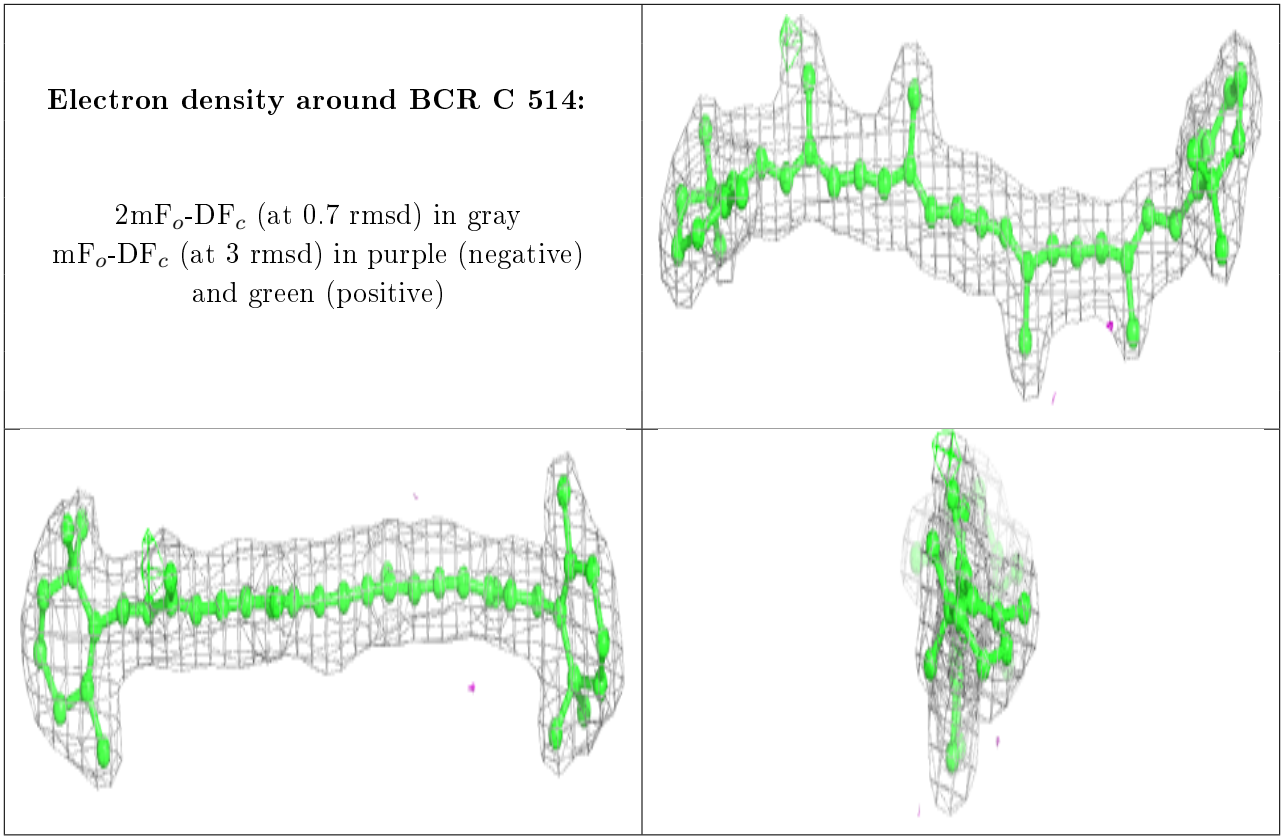
Electron density around CLA a 409:

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



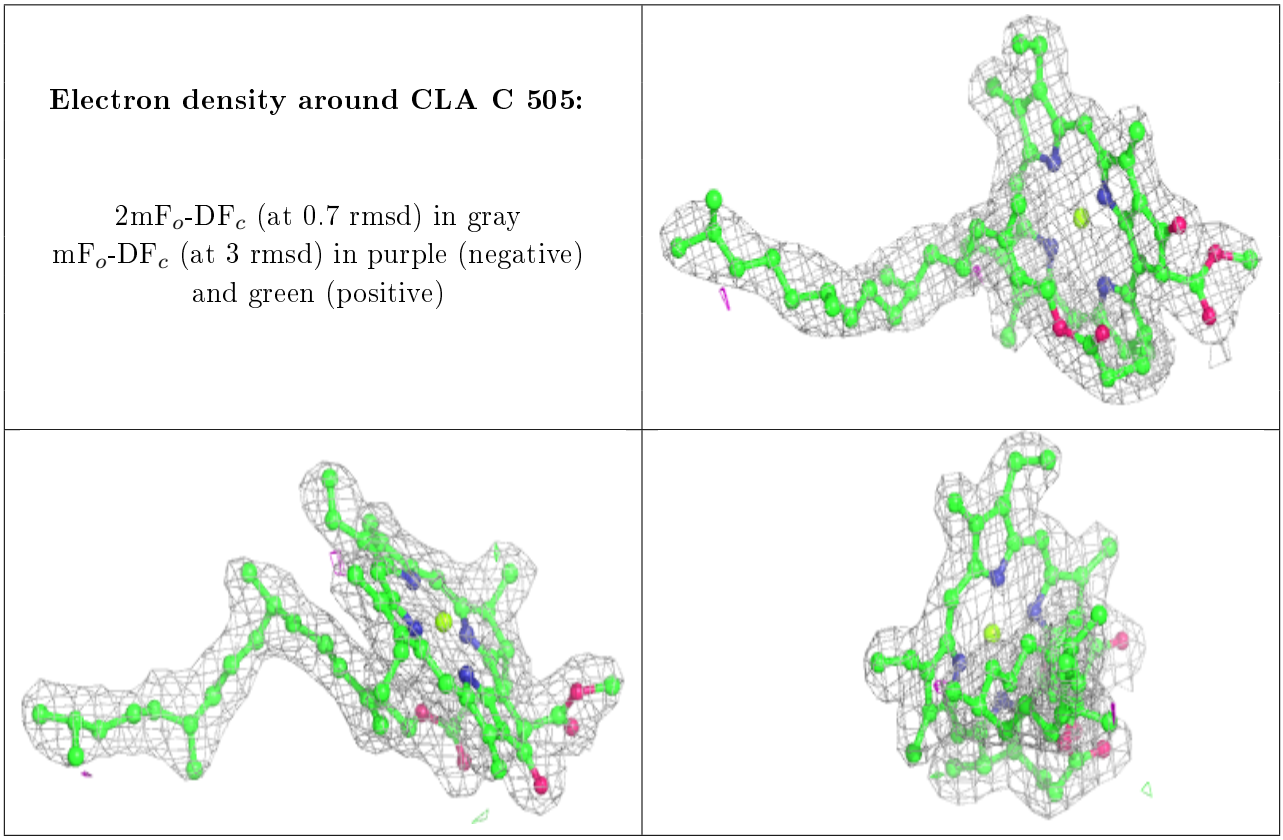
Electron density around BCR C 514:

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



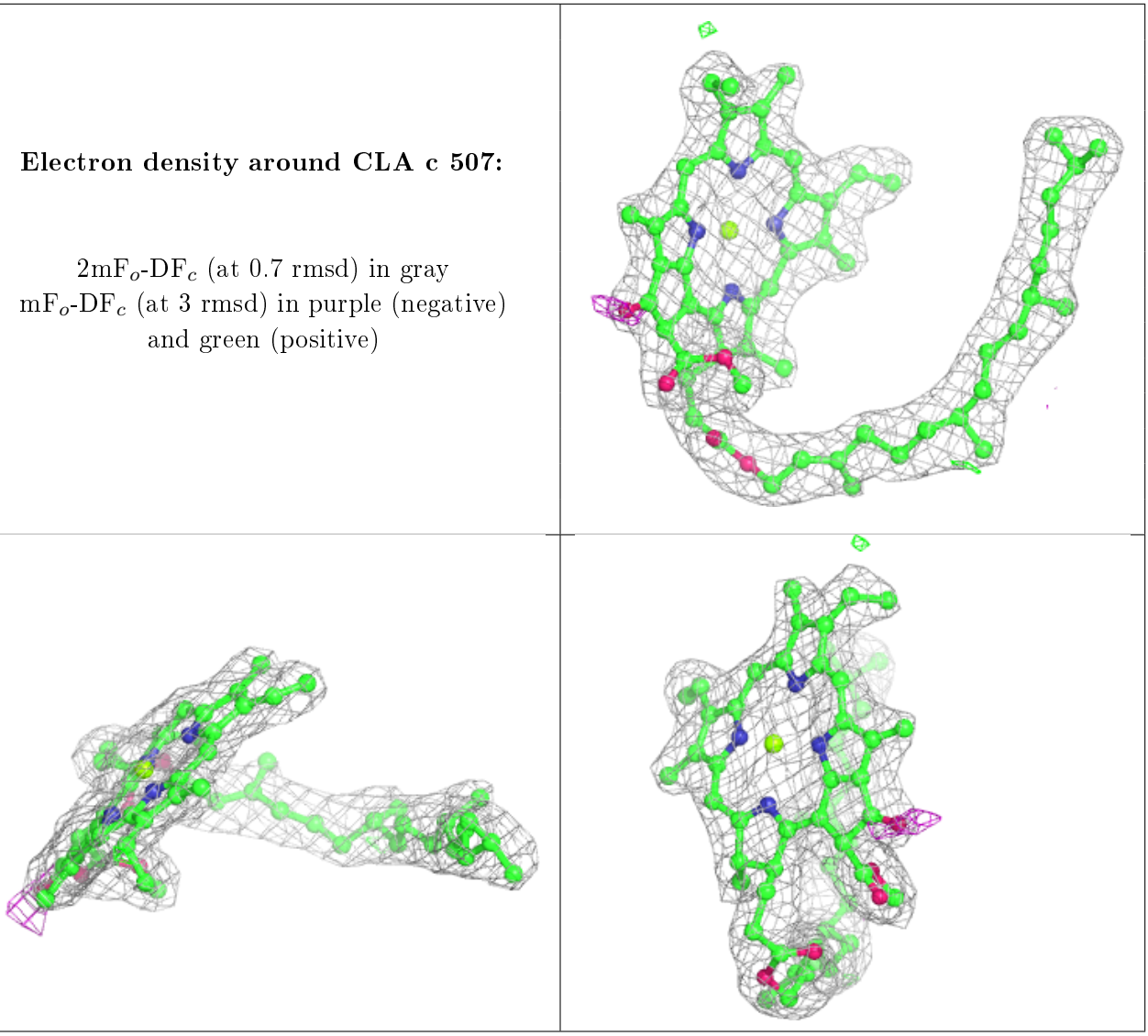
Electron density around CLA C 505:

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



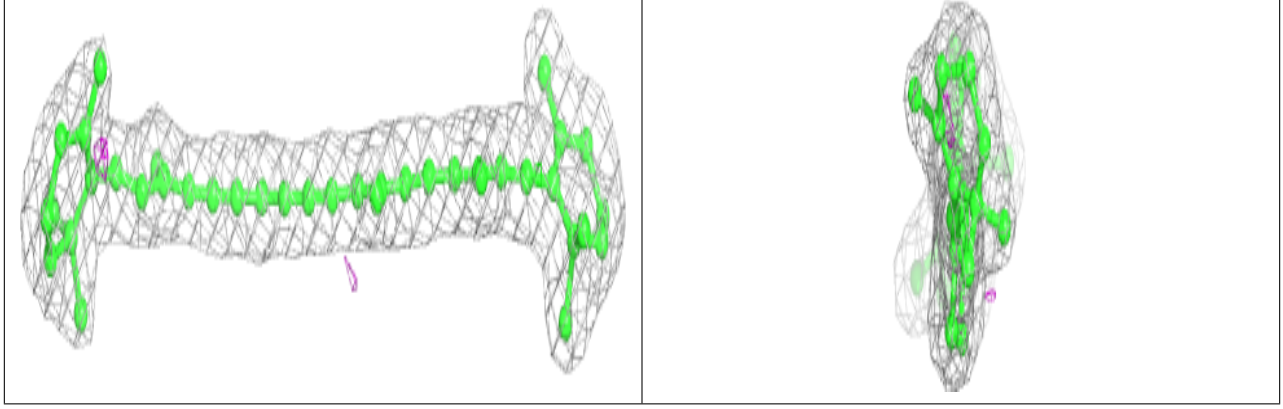
Electron density around CLA c 507:

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



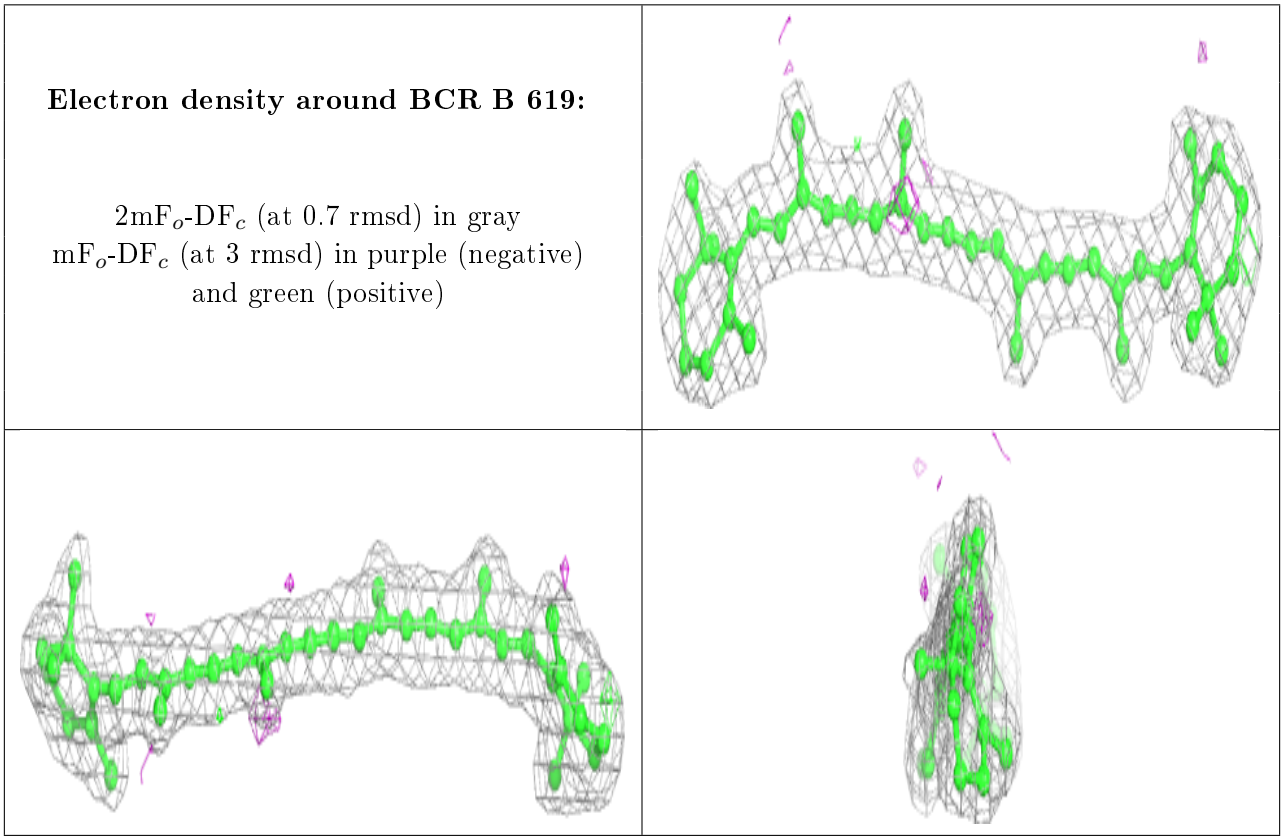
Electron density around BCR b 621:

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



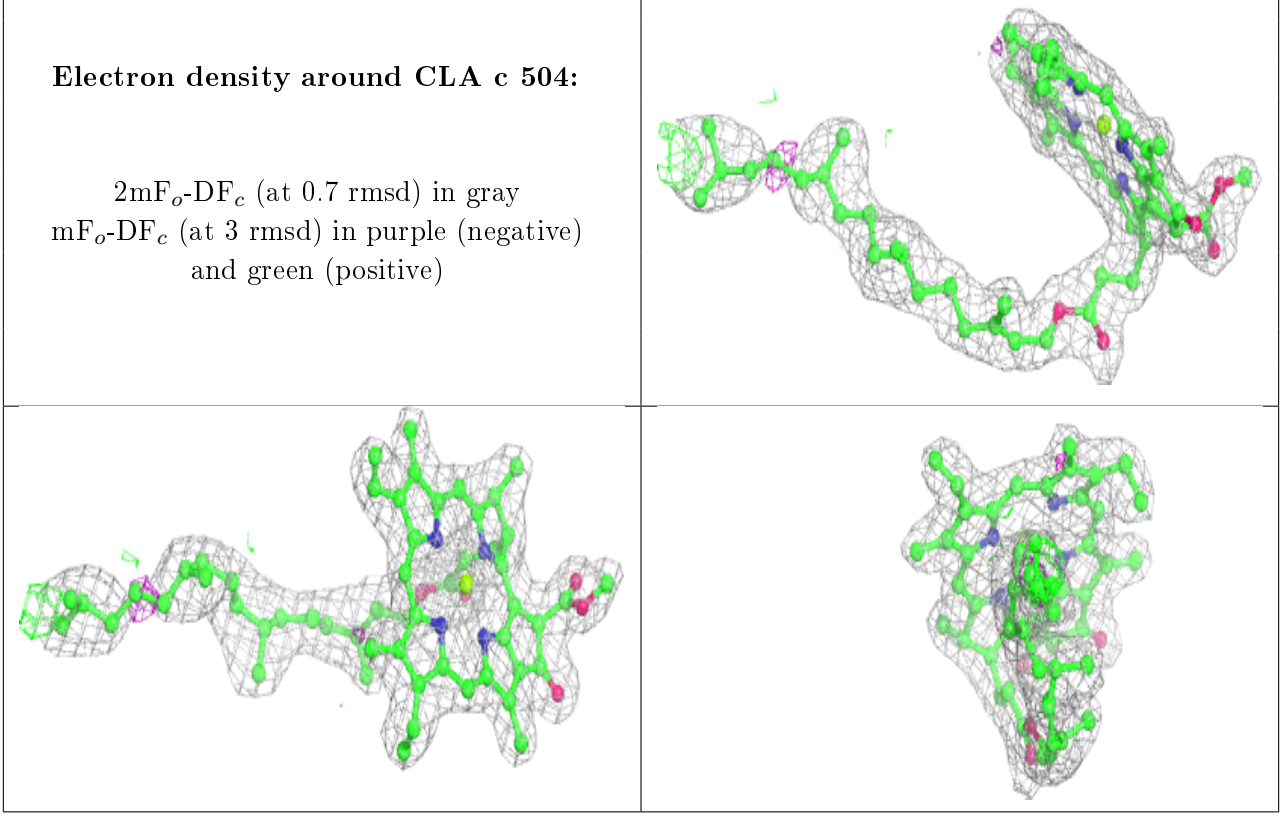
Electron density around BCR B 619:

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



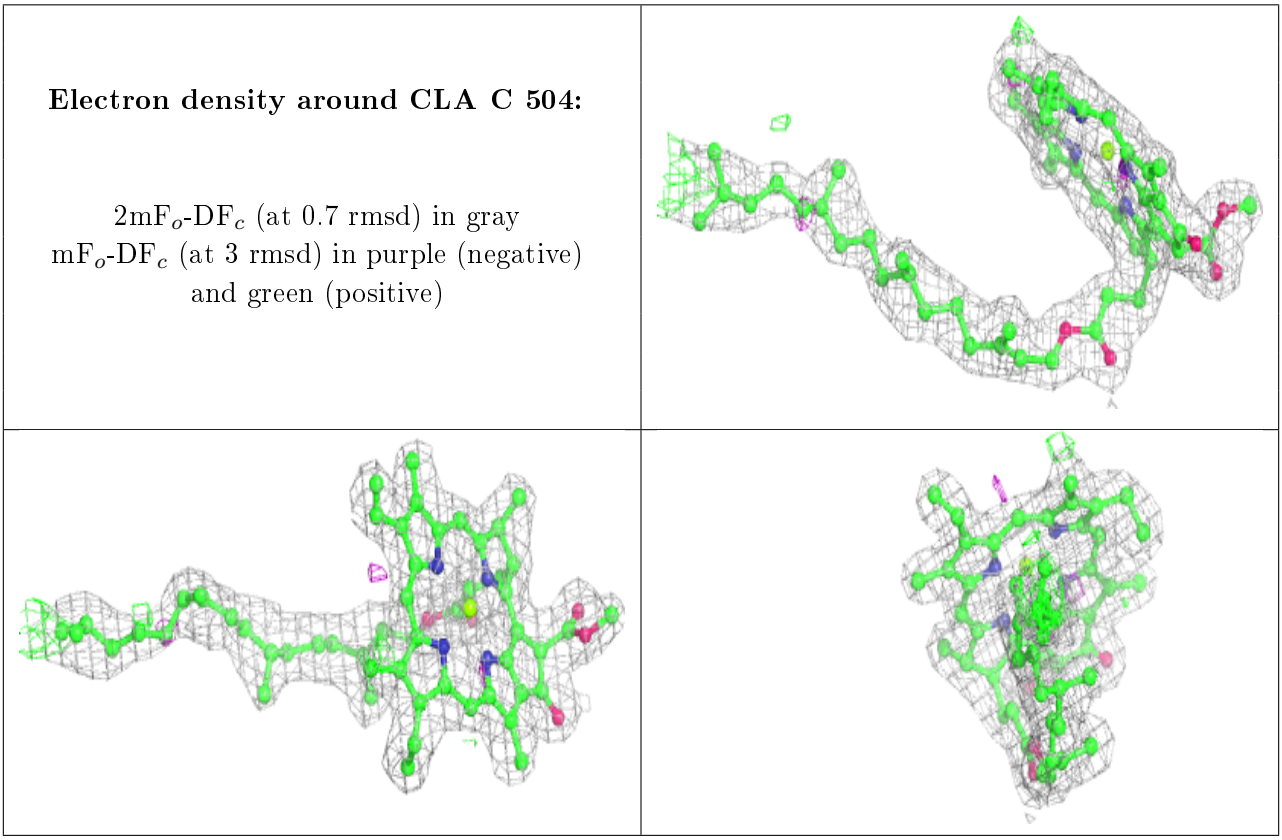
Electron density around CLA c 504:

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



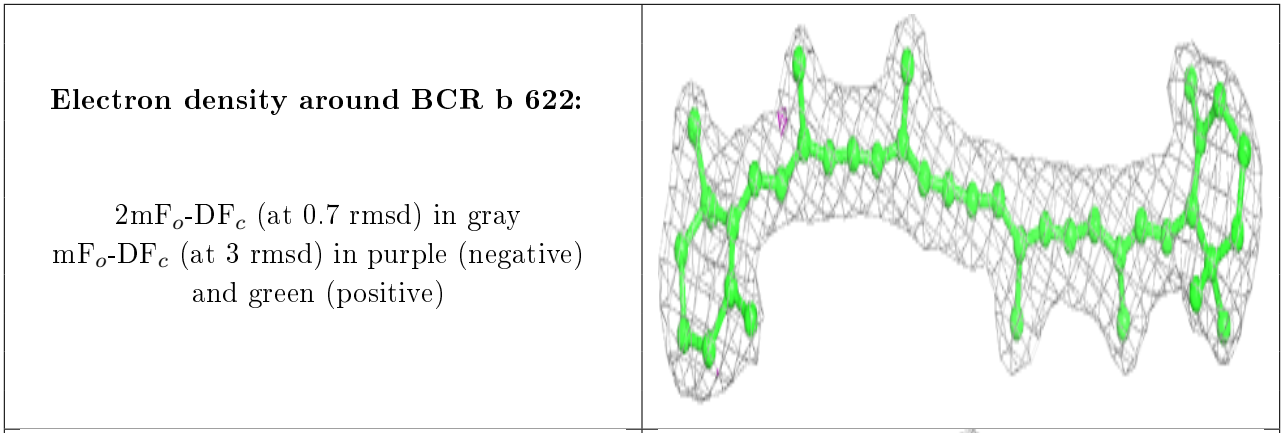
Electron density around CLA C 504:

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



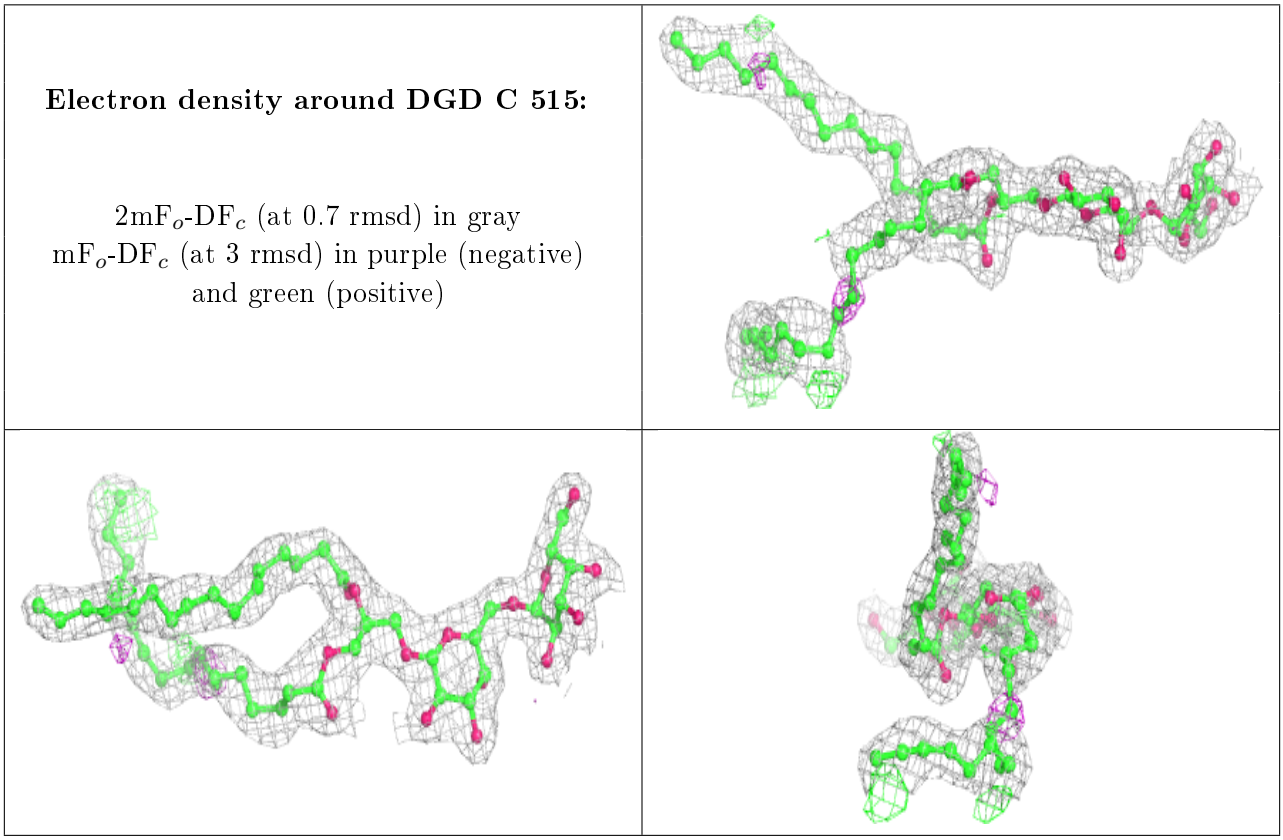
Electron density around BCR b 622:

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



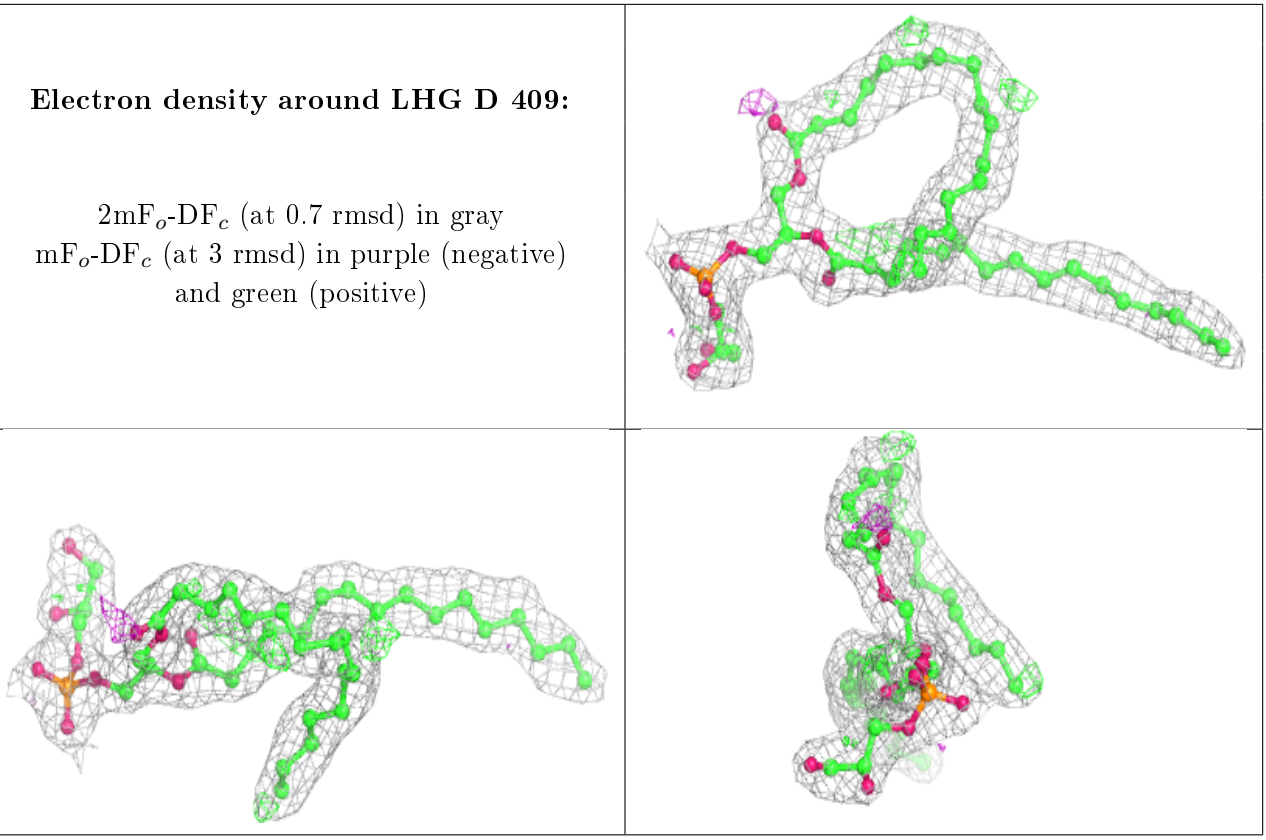
Electron density around DGD C 515:

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



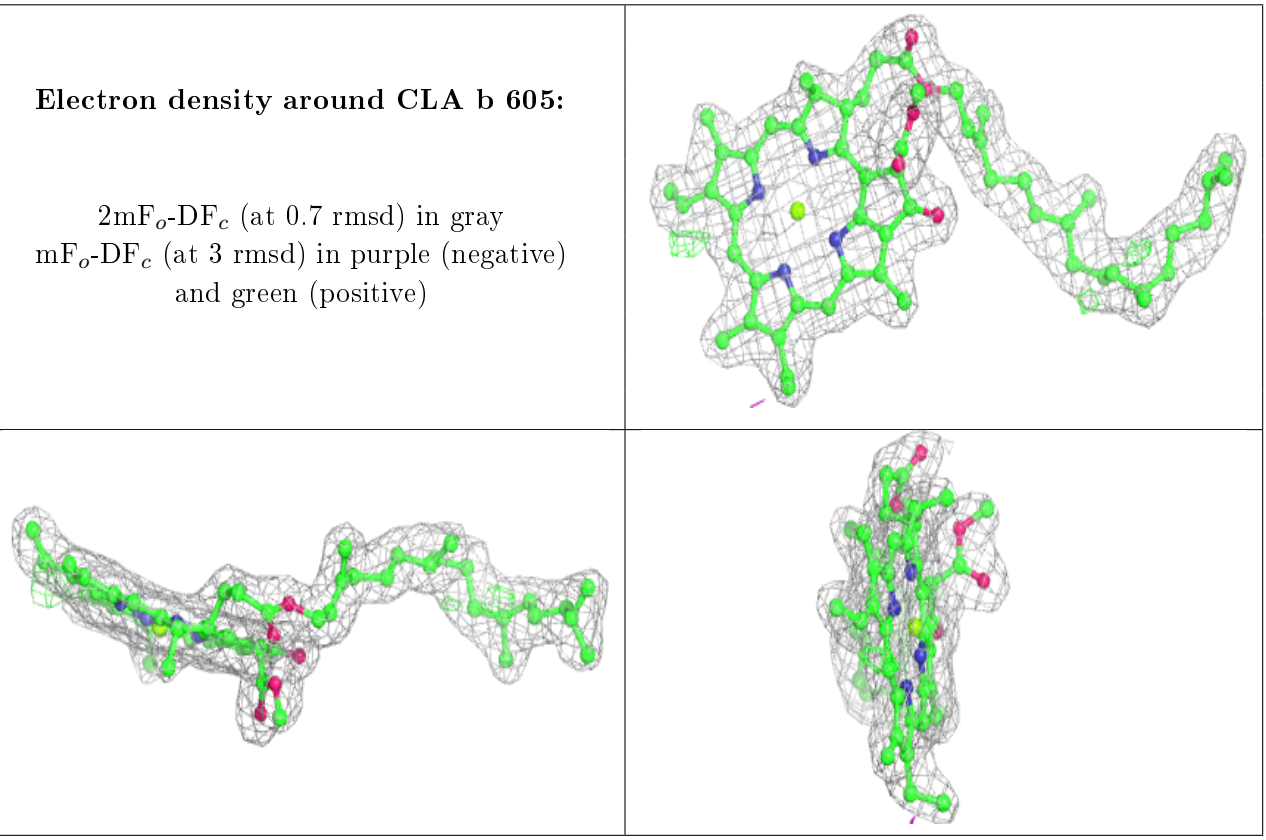
Electron density around LHG D 409:

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



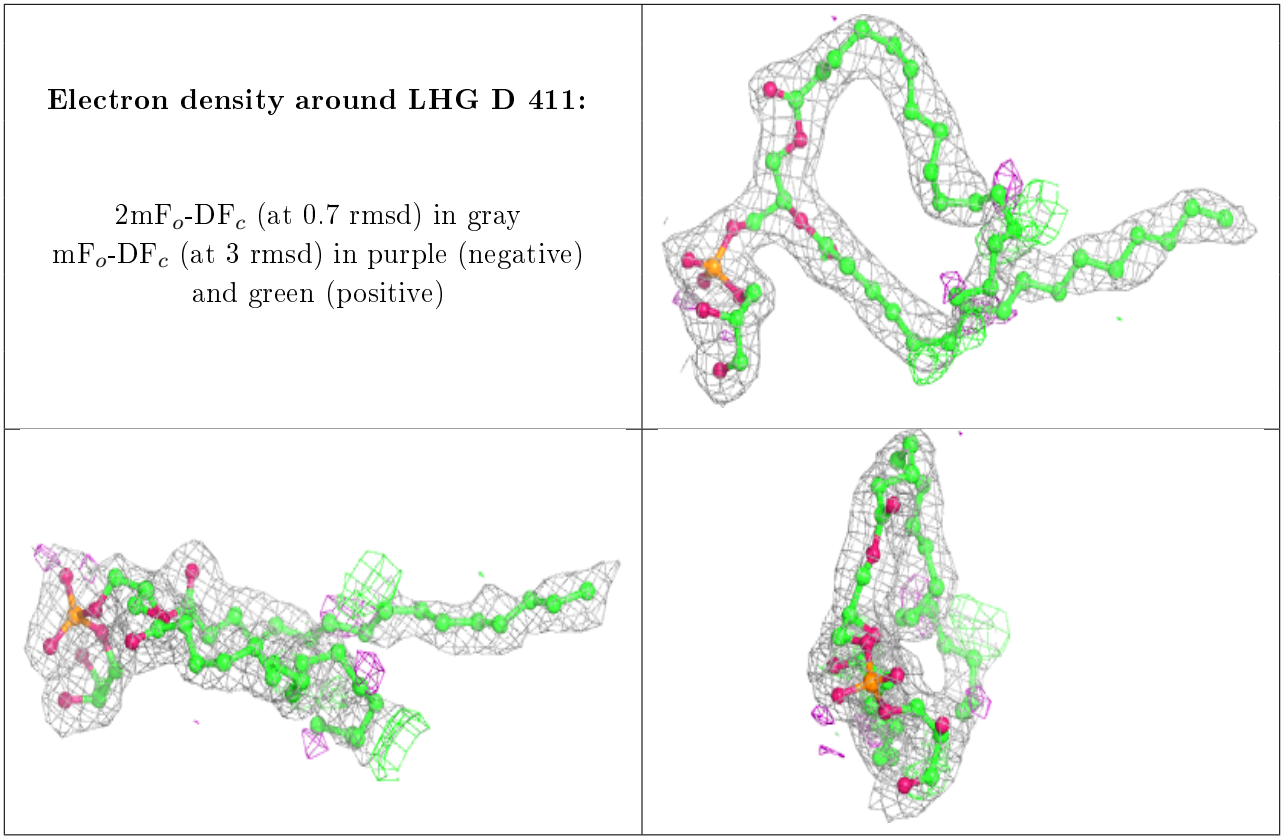
Electron density around CLA b 605:

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



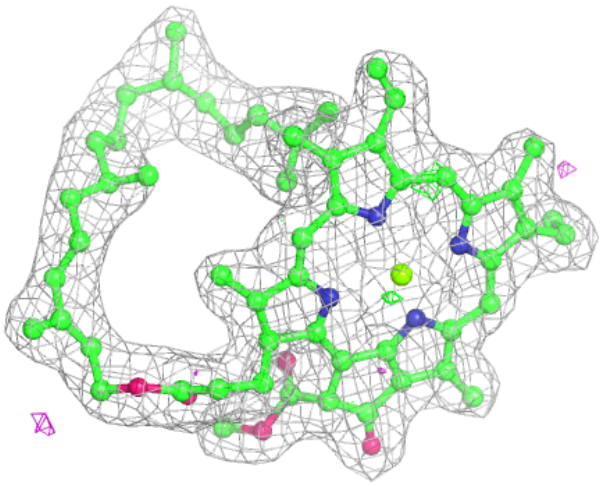
Electron density around LHG D 411:

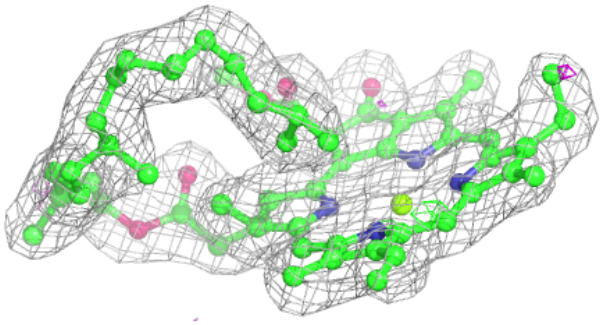
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

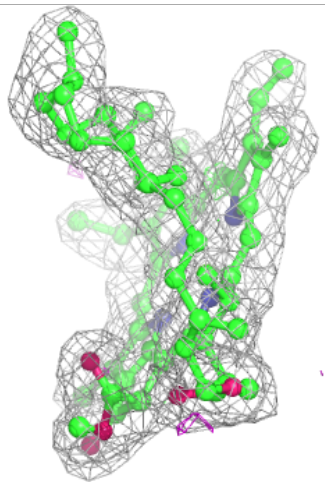


Electron density around CLA B 615:

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

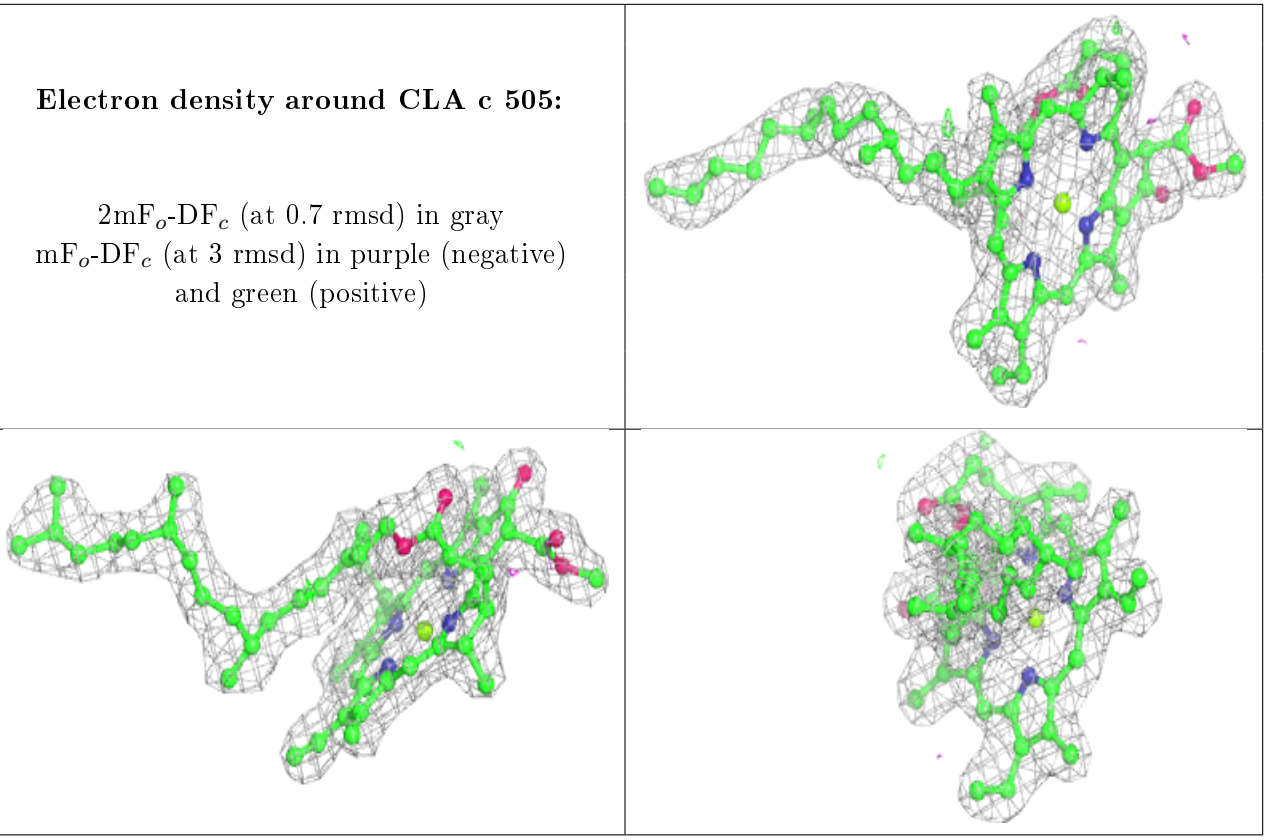






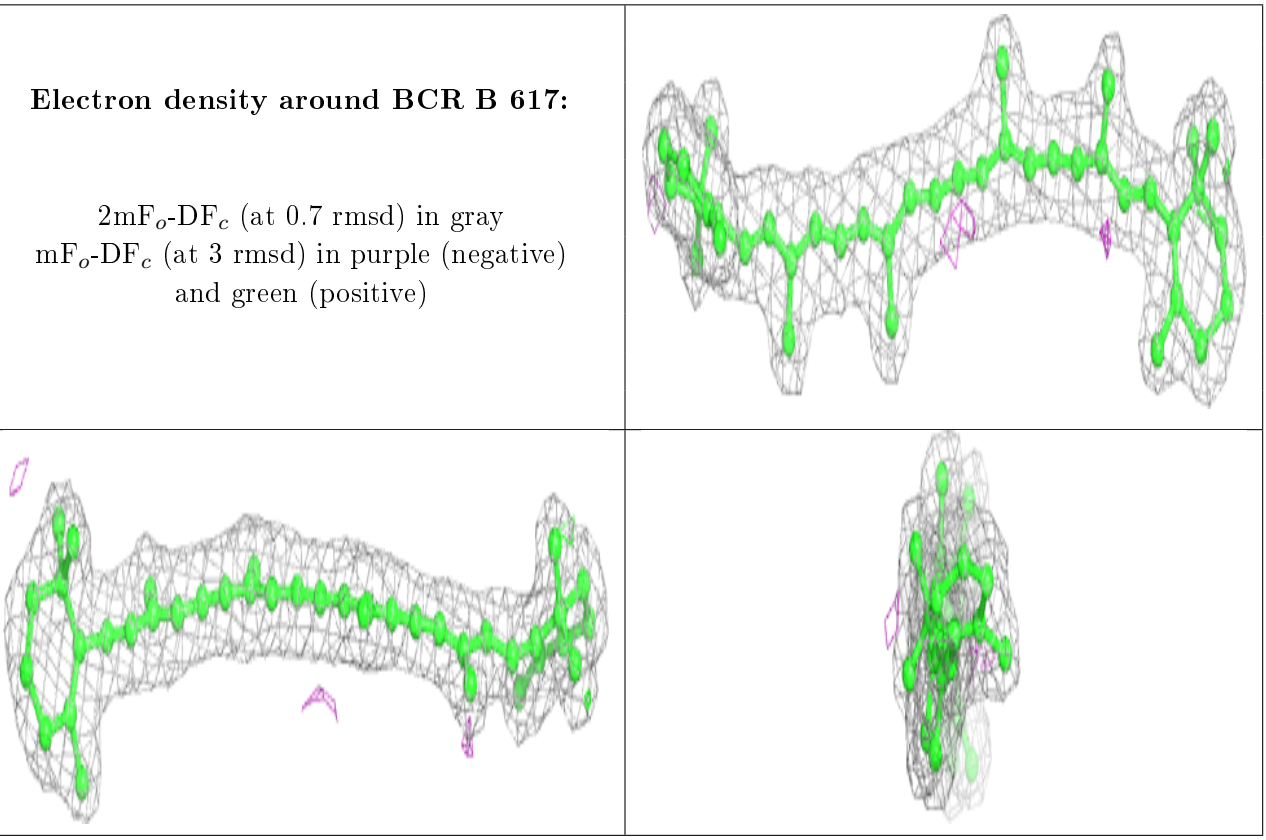
Electron density around CLA c 505:

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



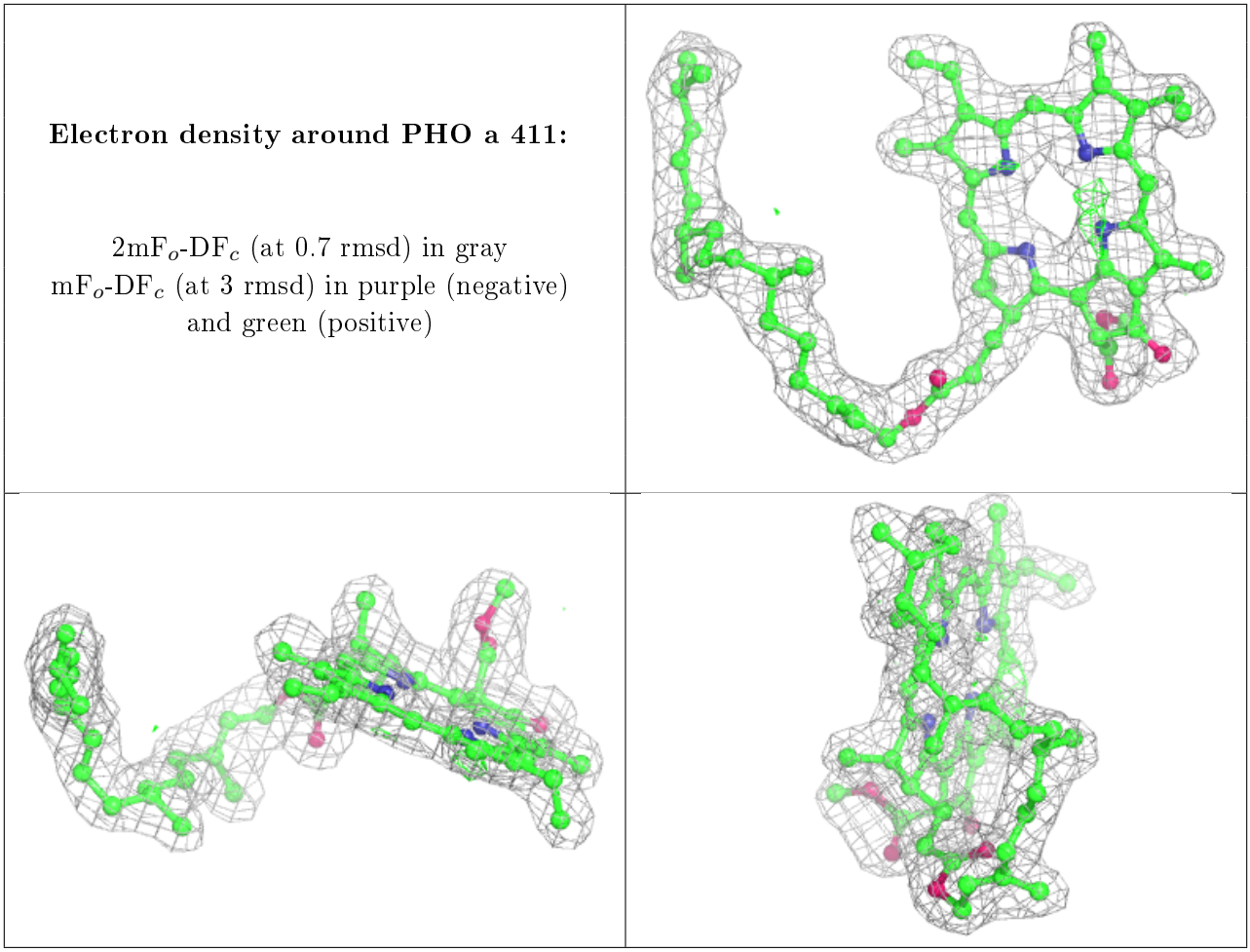
Electron density around BCR B 617:

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



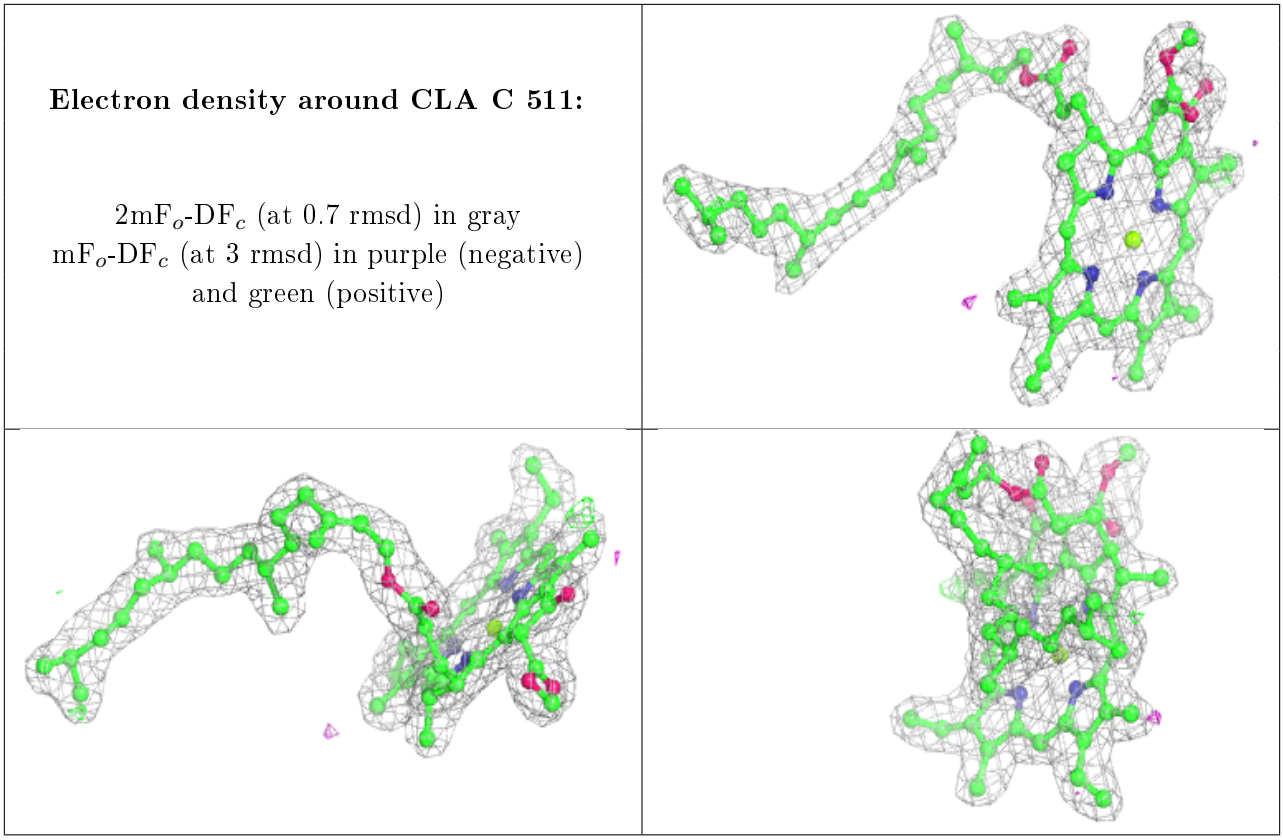
Electron density around PHO a 411:

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



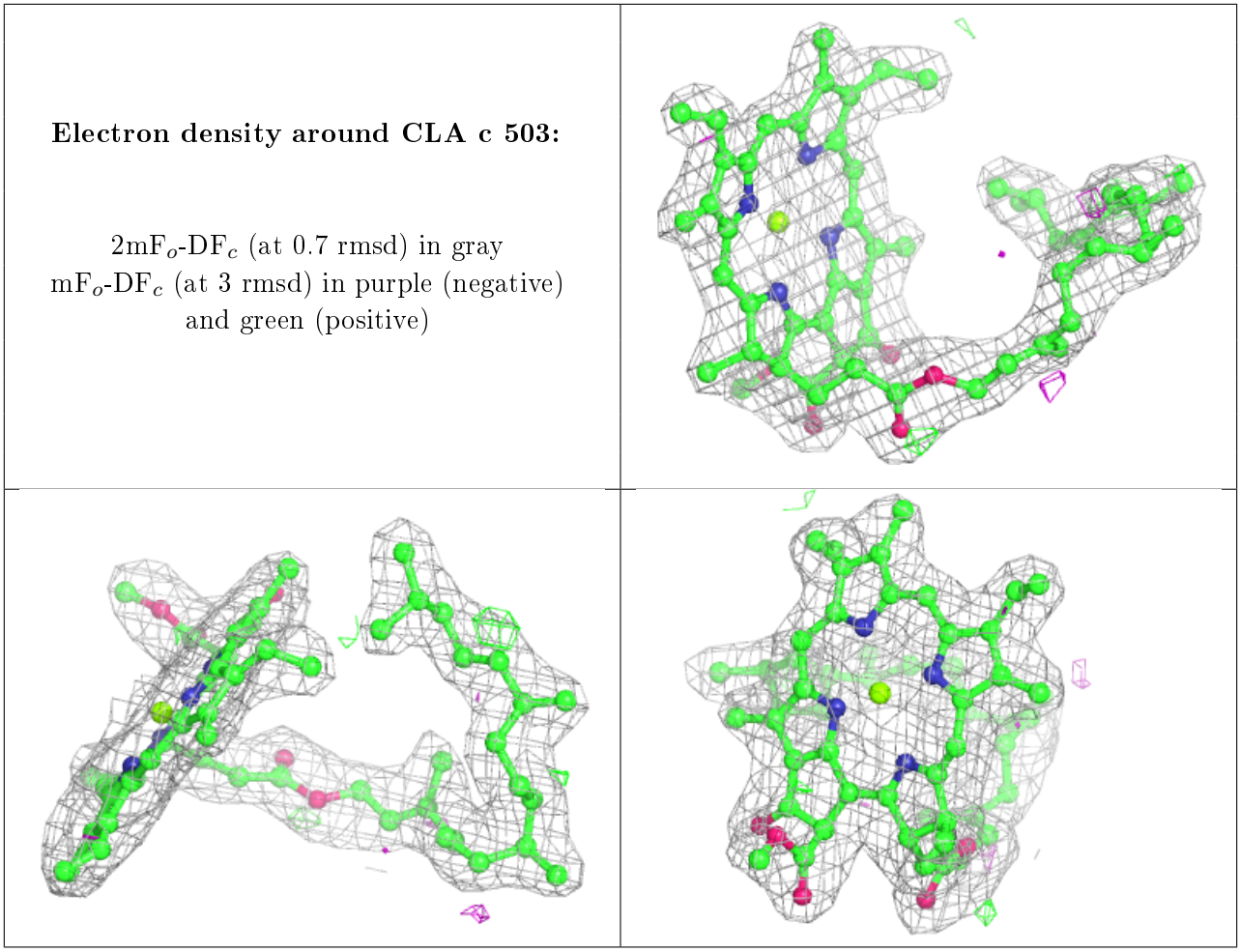
Electron density around CLA C 511:

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



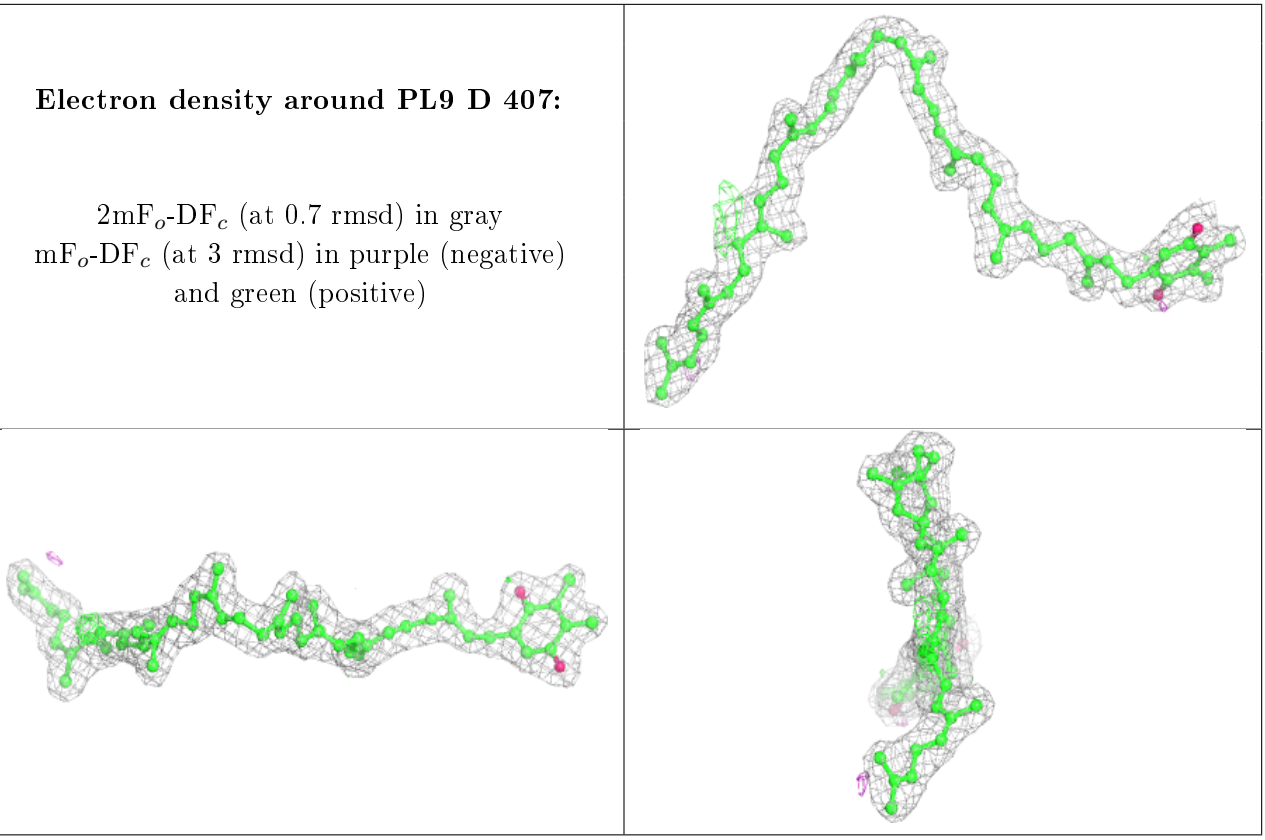
Electron density around CLA c 503:

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



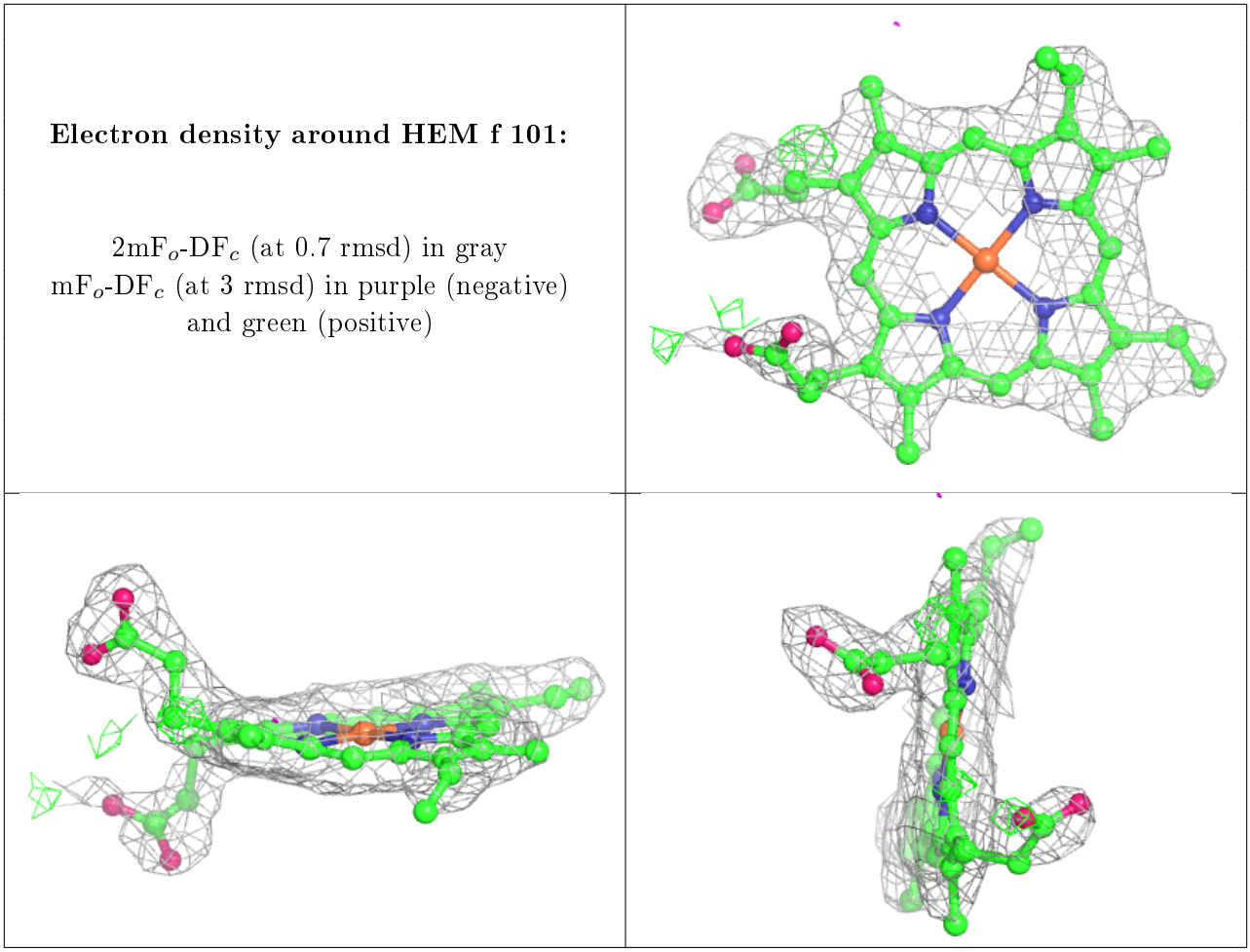
Electron density around PL9 D 407:

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



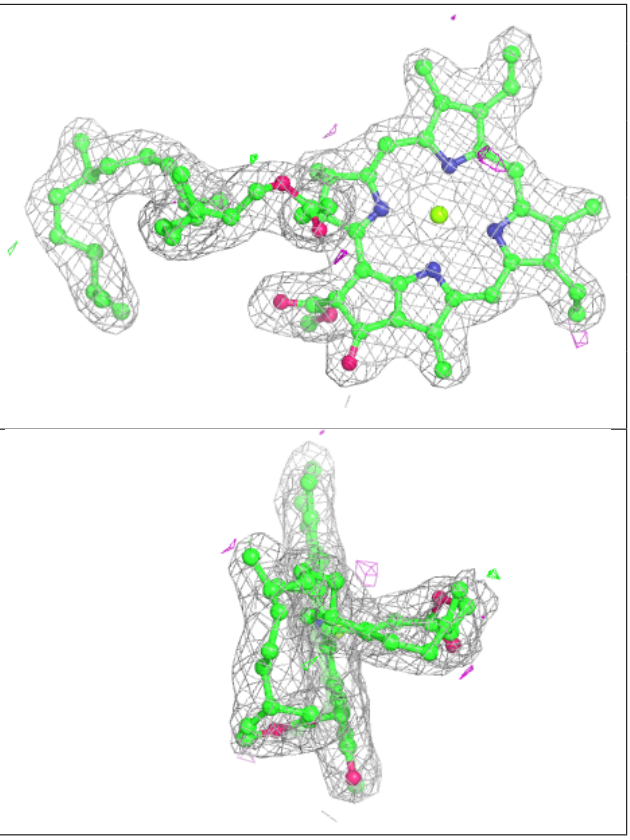
Electron density around HEM f 101:

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



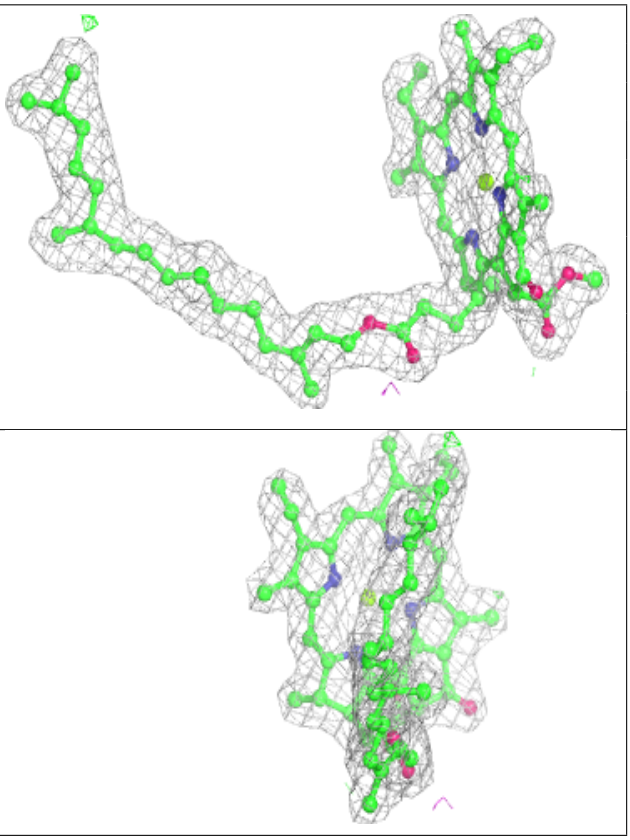
Electron density around CLA b 615:

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



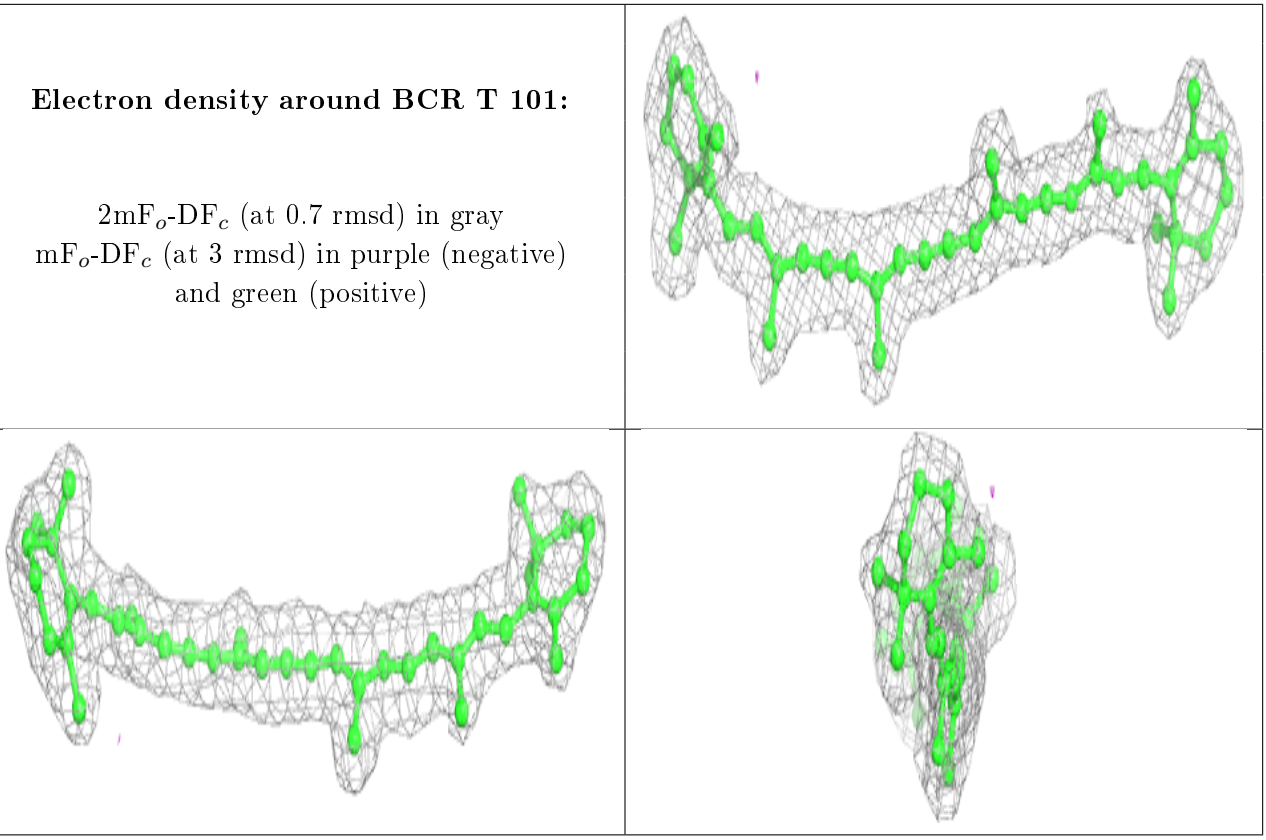
Electron density around CLA B 609:

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



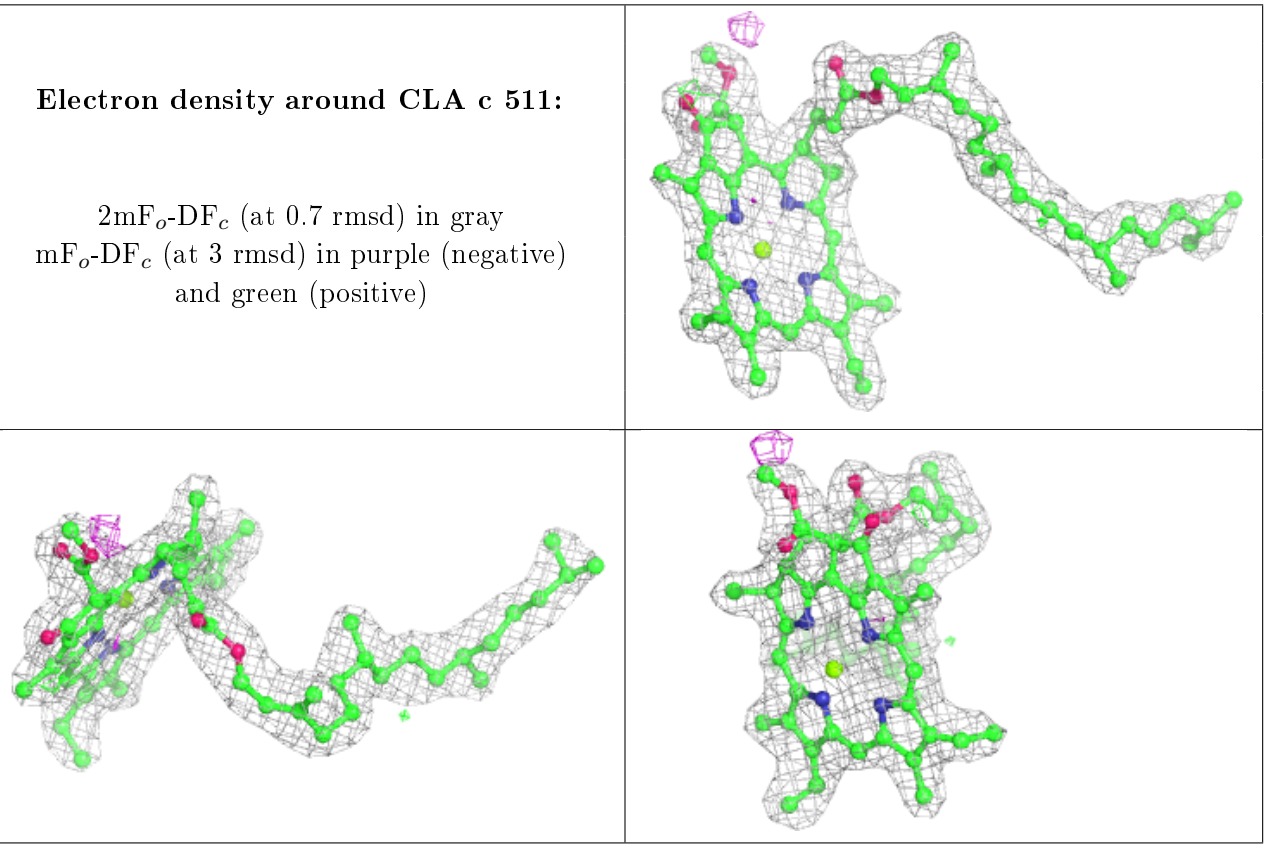
Electron density around BCR T 101:

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



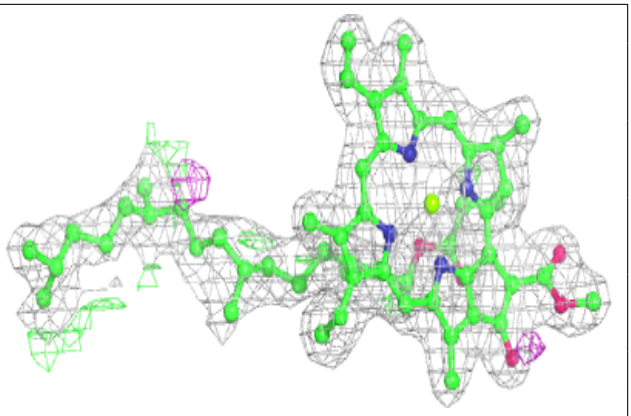
Electron density around CLA c 511:

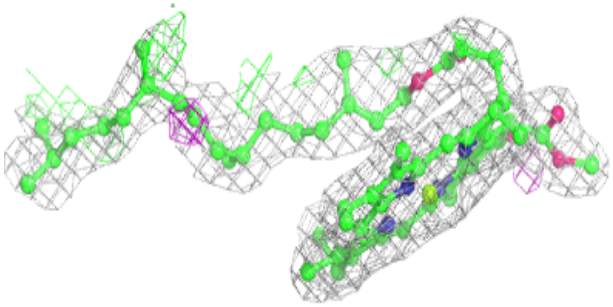
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

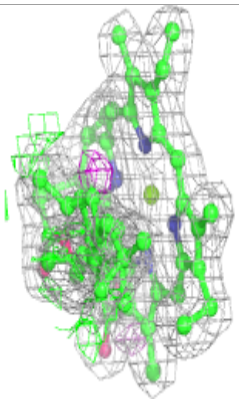


Electron density around CLA B 614:

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

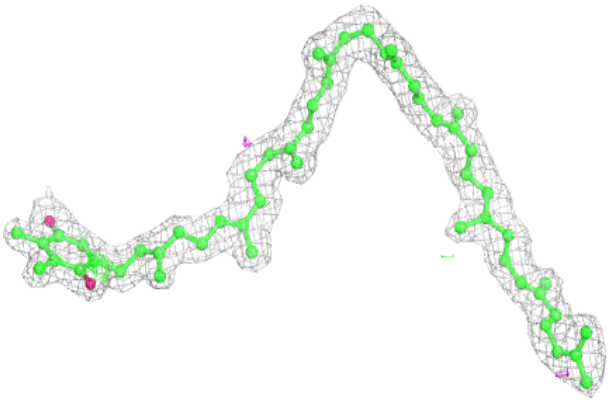


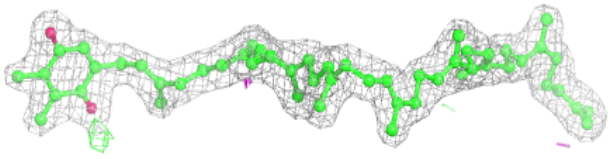




Electron density around PL9 d 405:

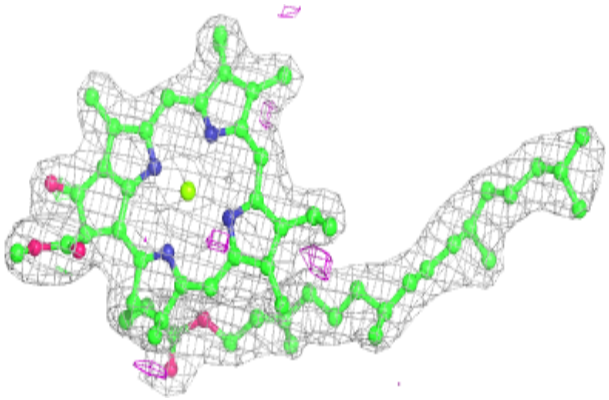
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

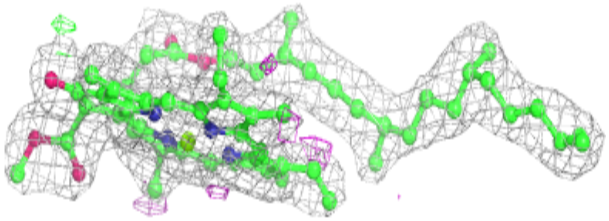


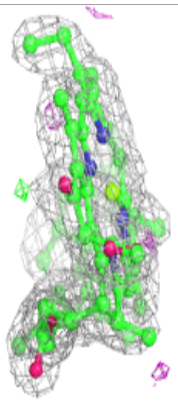


Electron density around CLA c 501:

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

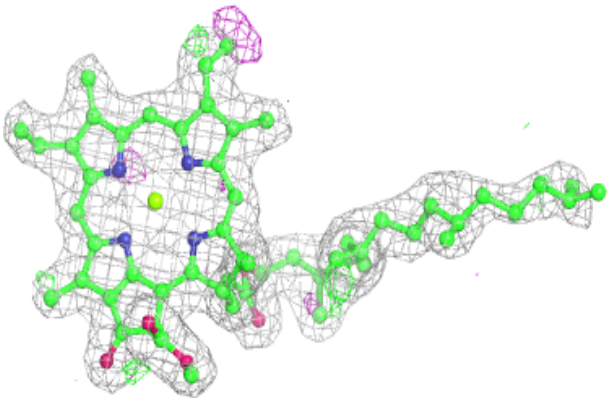


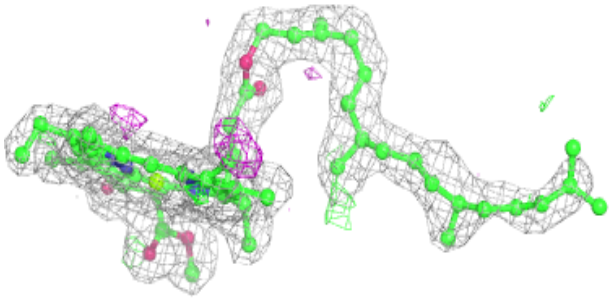


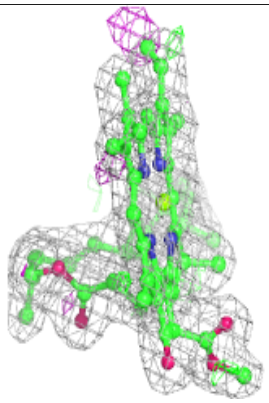


Electron density around CLA A 1006:

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

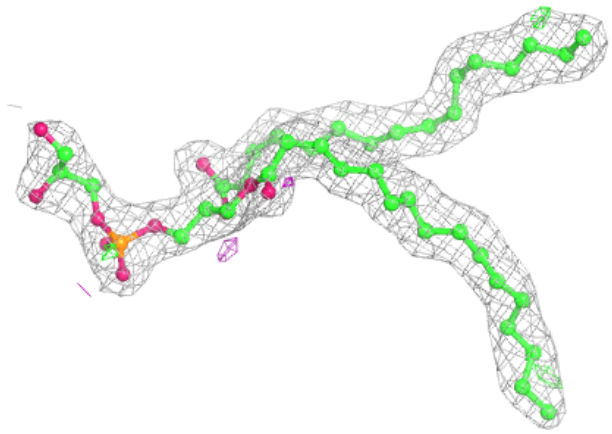


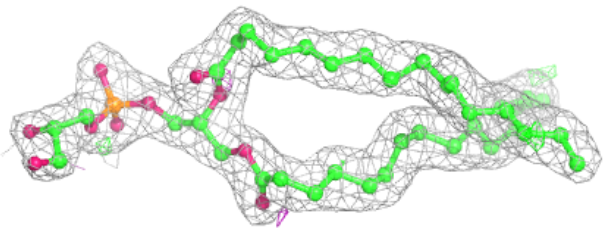


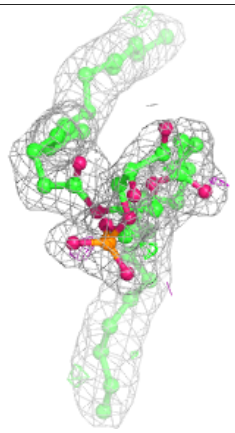


Electron density around LHG d 407:

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

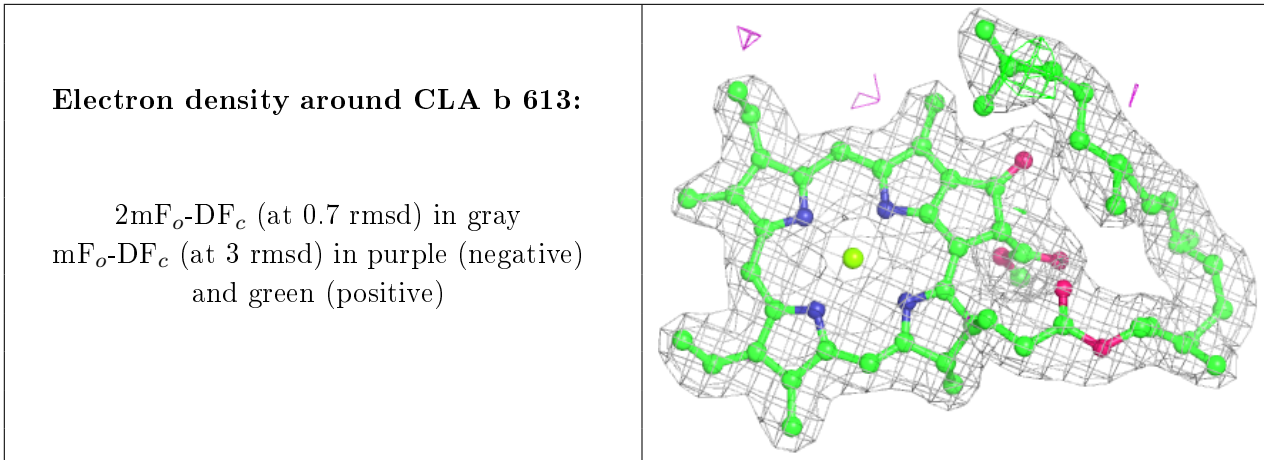


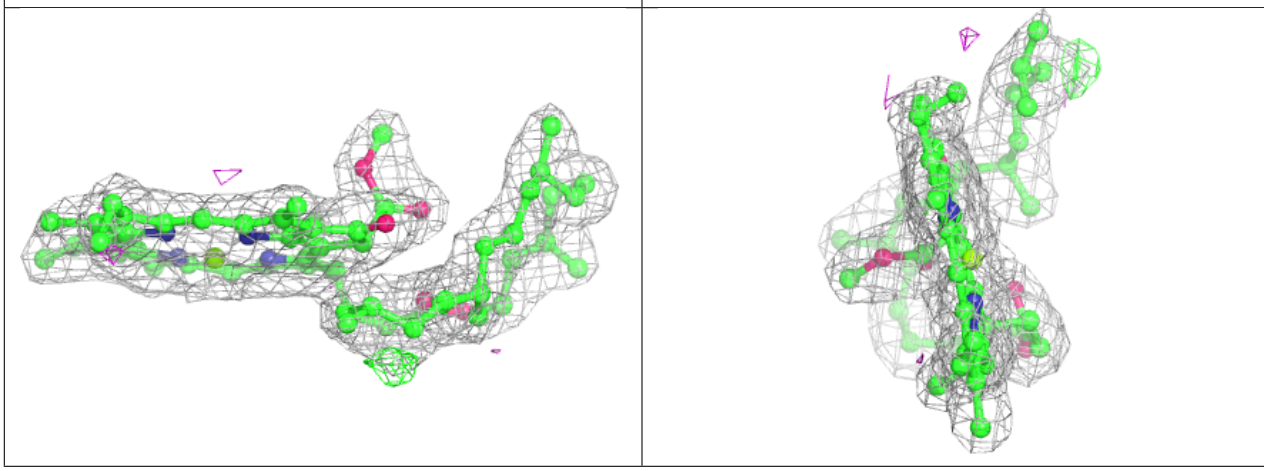




Electron density around CLA b 613:

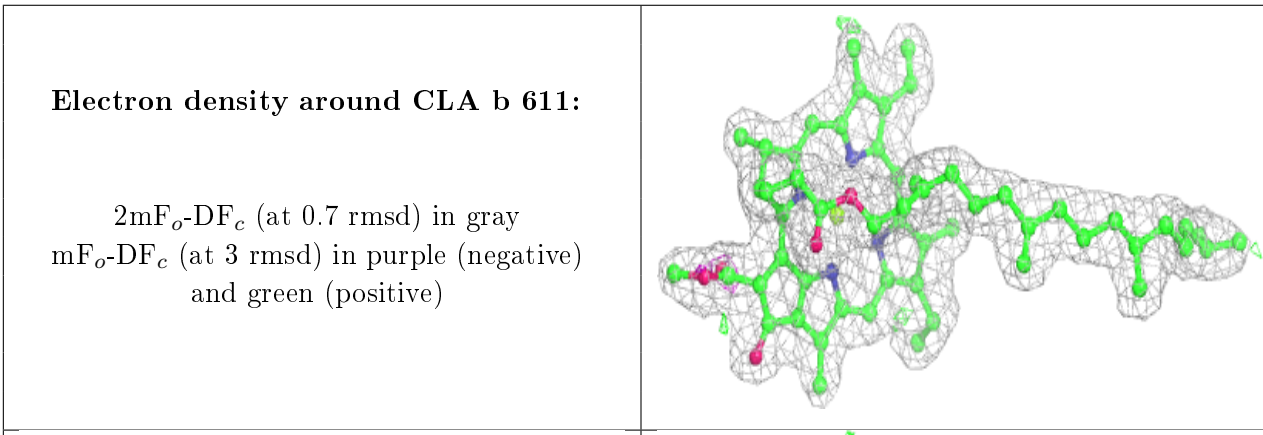
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

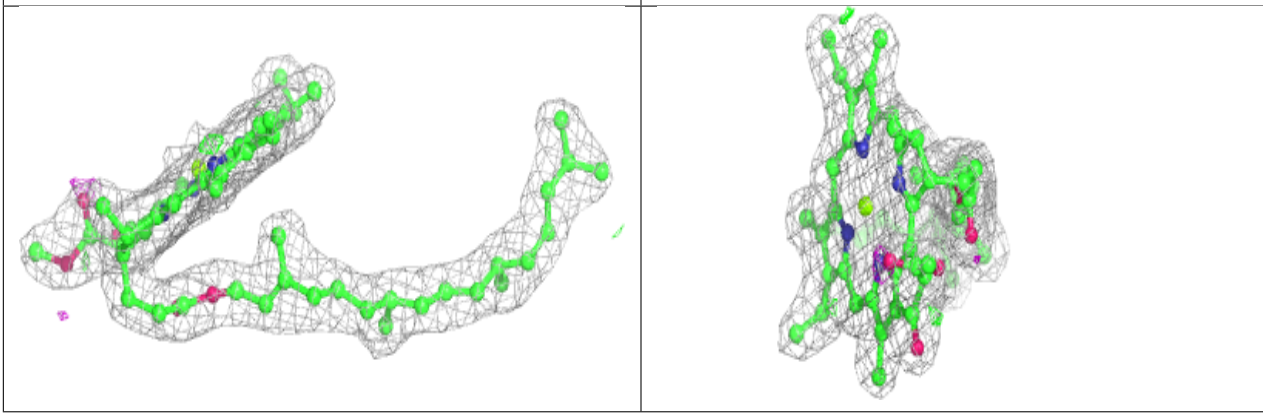




Electron density around CLA b 611:

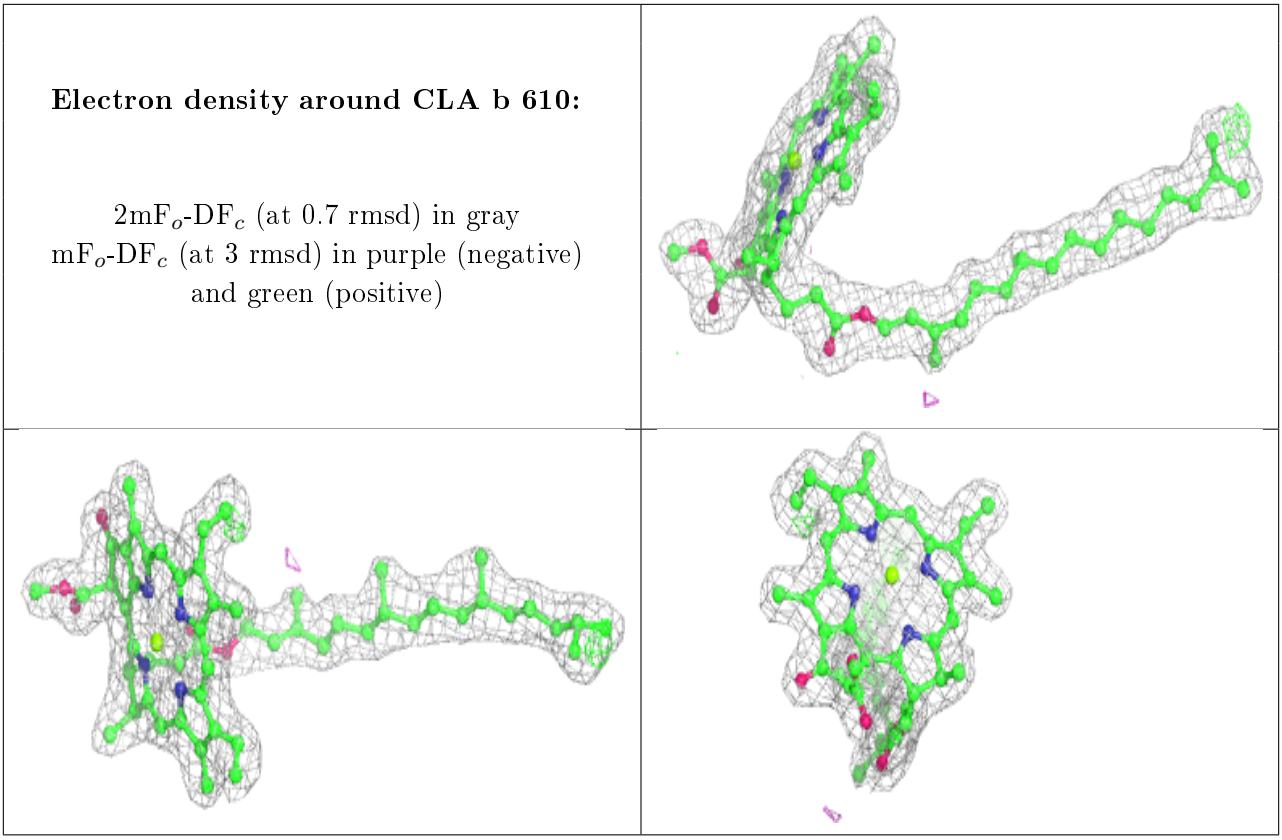
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





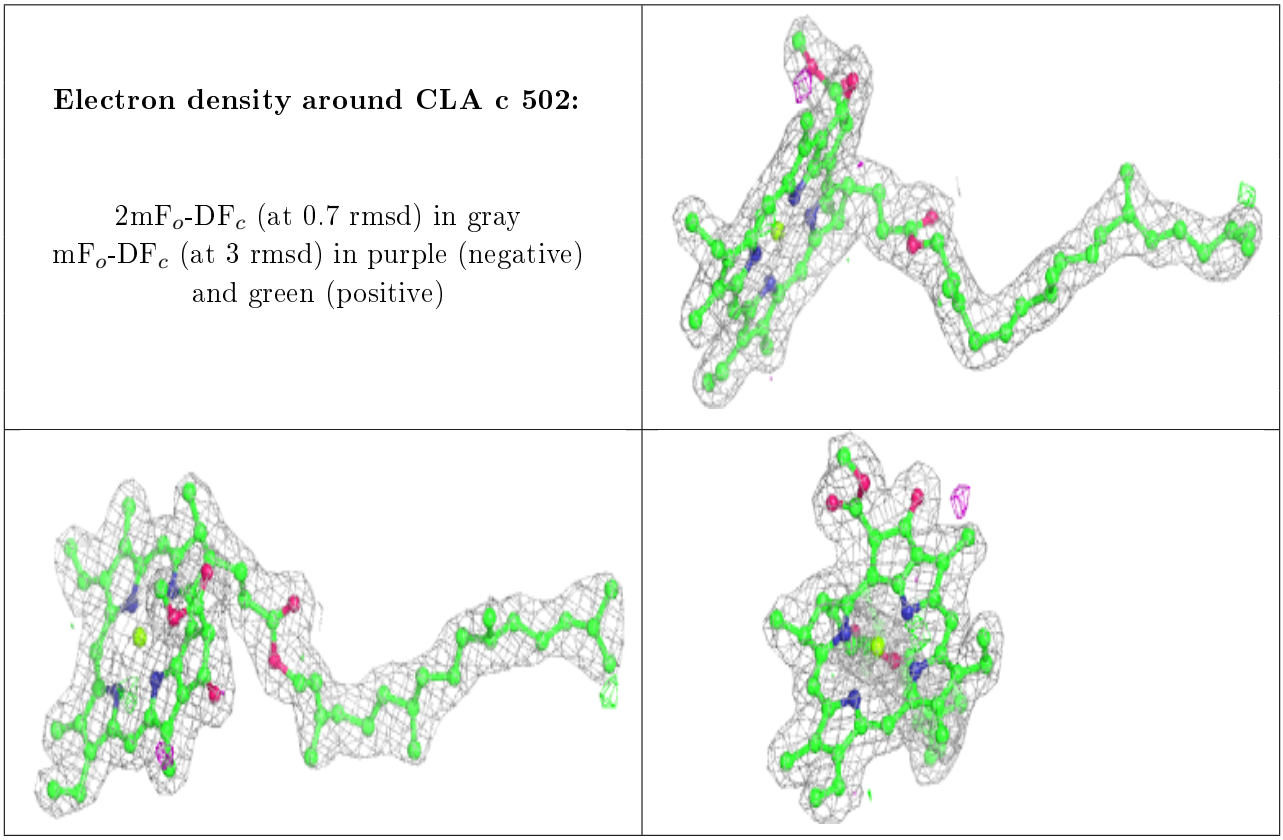
Electron density around CLA b 610:

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



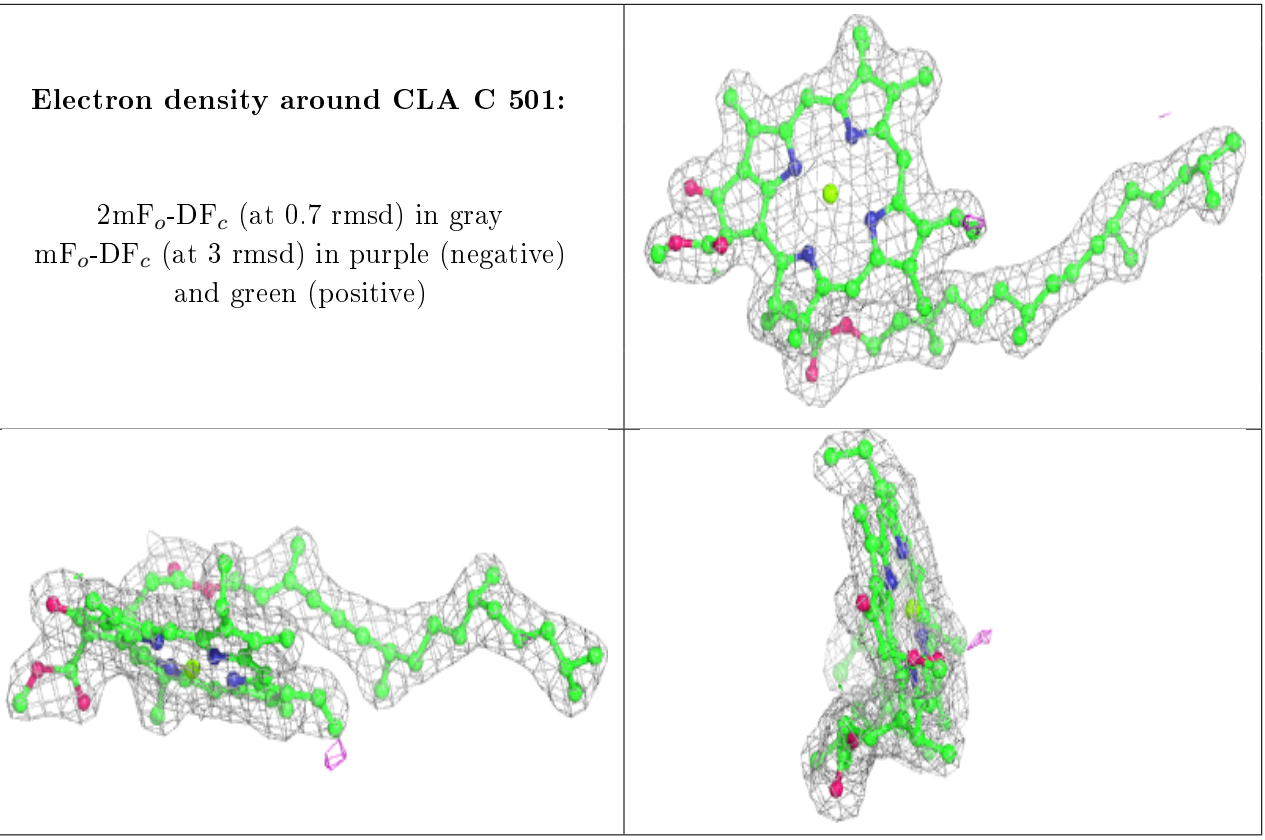
Electron density around CLA c 502:

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



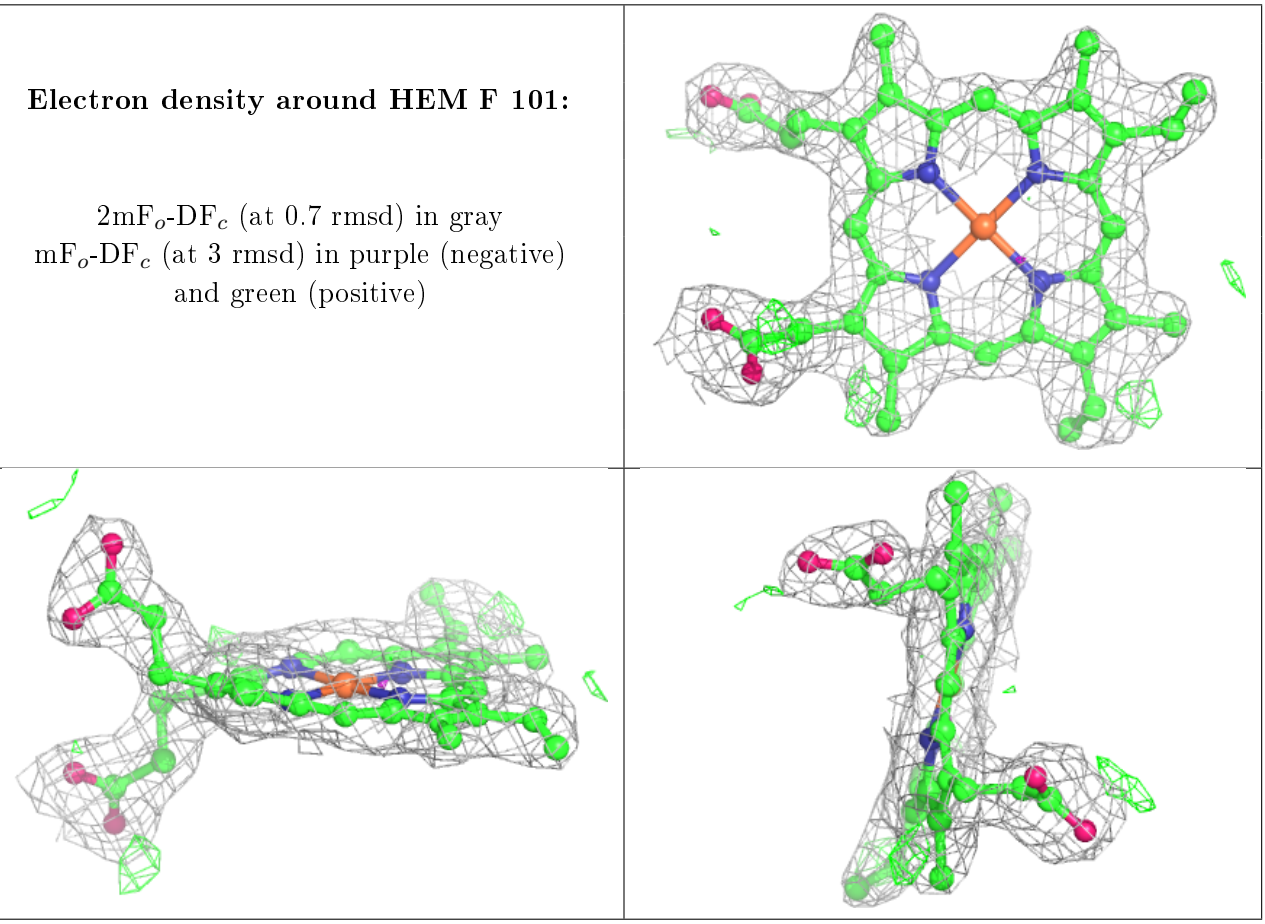
Electron density around CLA C 501:

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



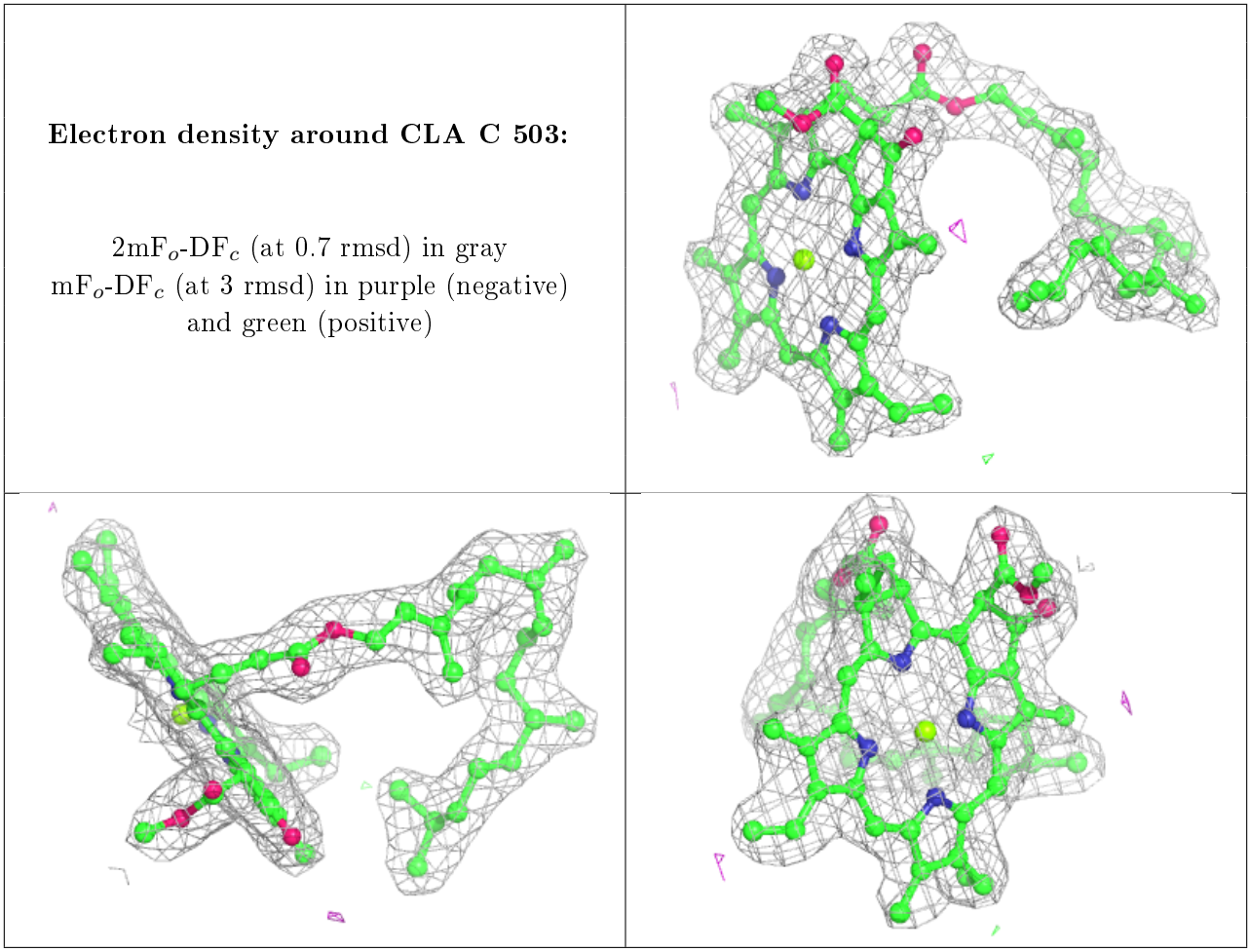
Electron density around HEM F 101:

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



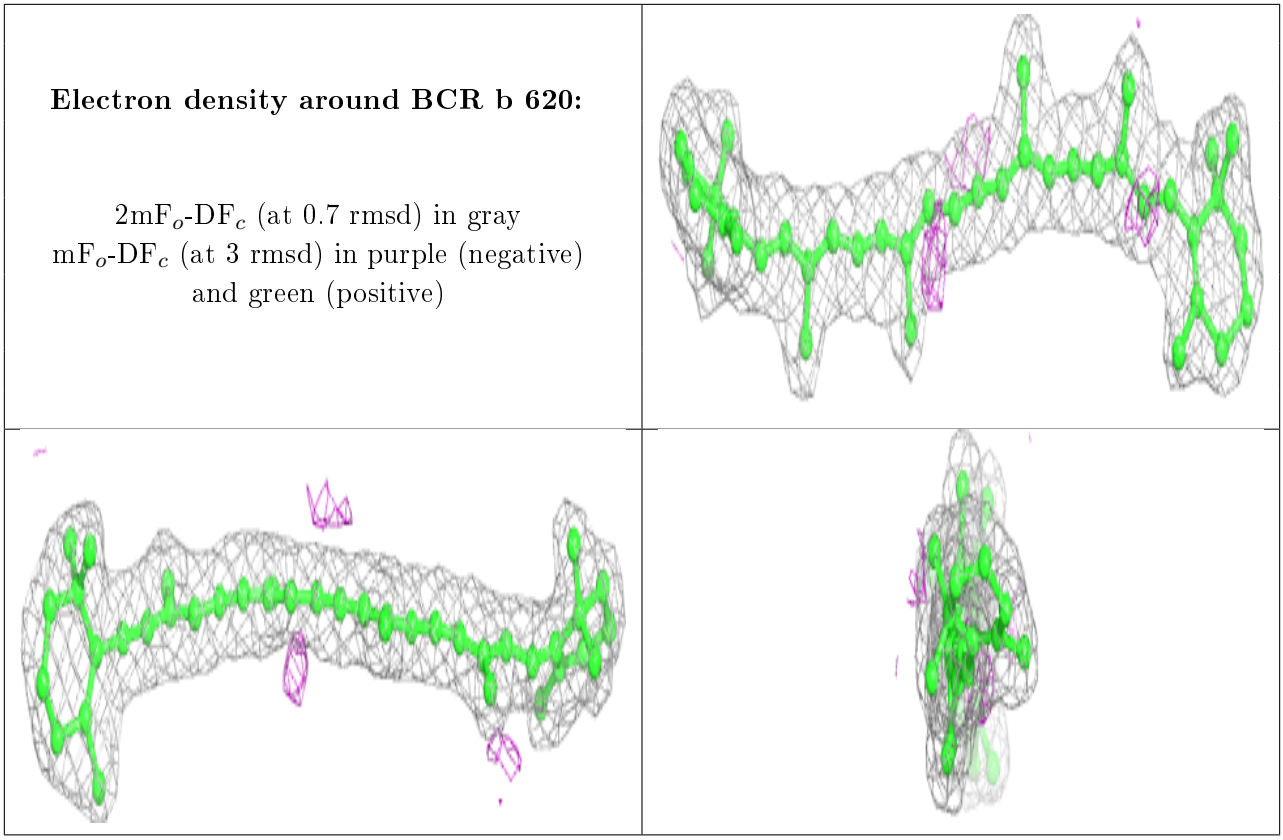
Electron density around CLA C 503:

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



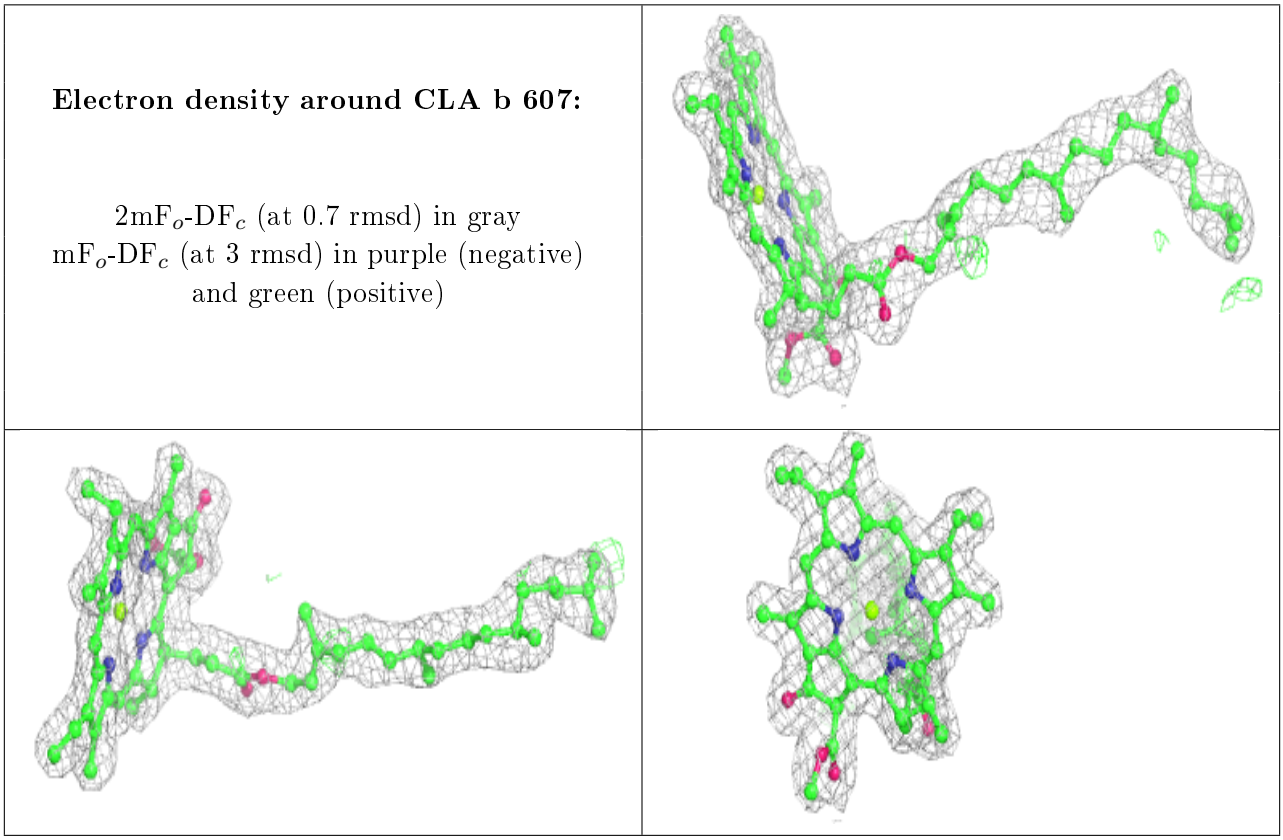
Electron density around BCR b 620:

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



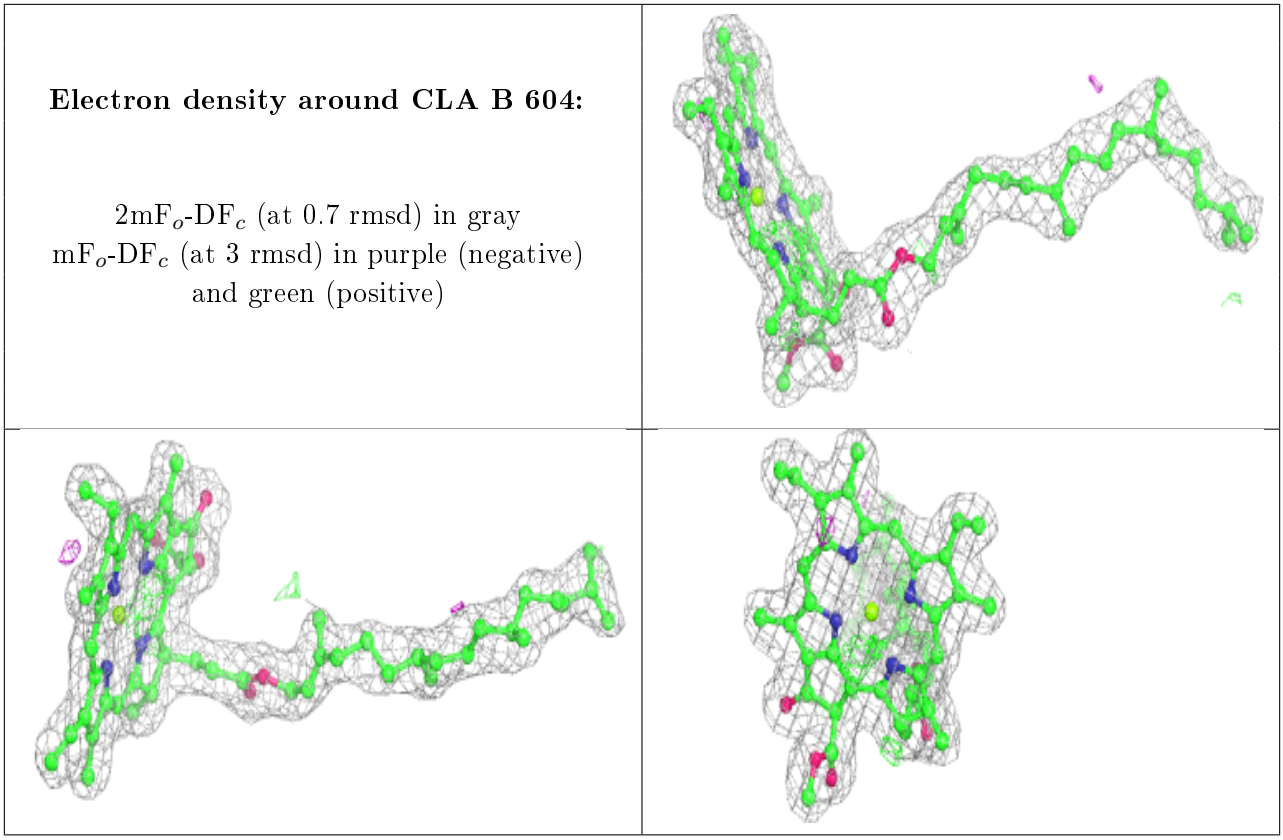
Electron density around CLA b 607:

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



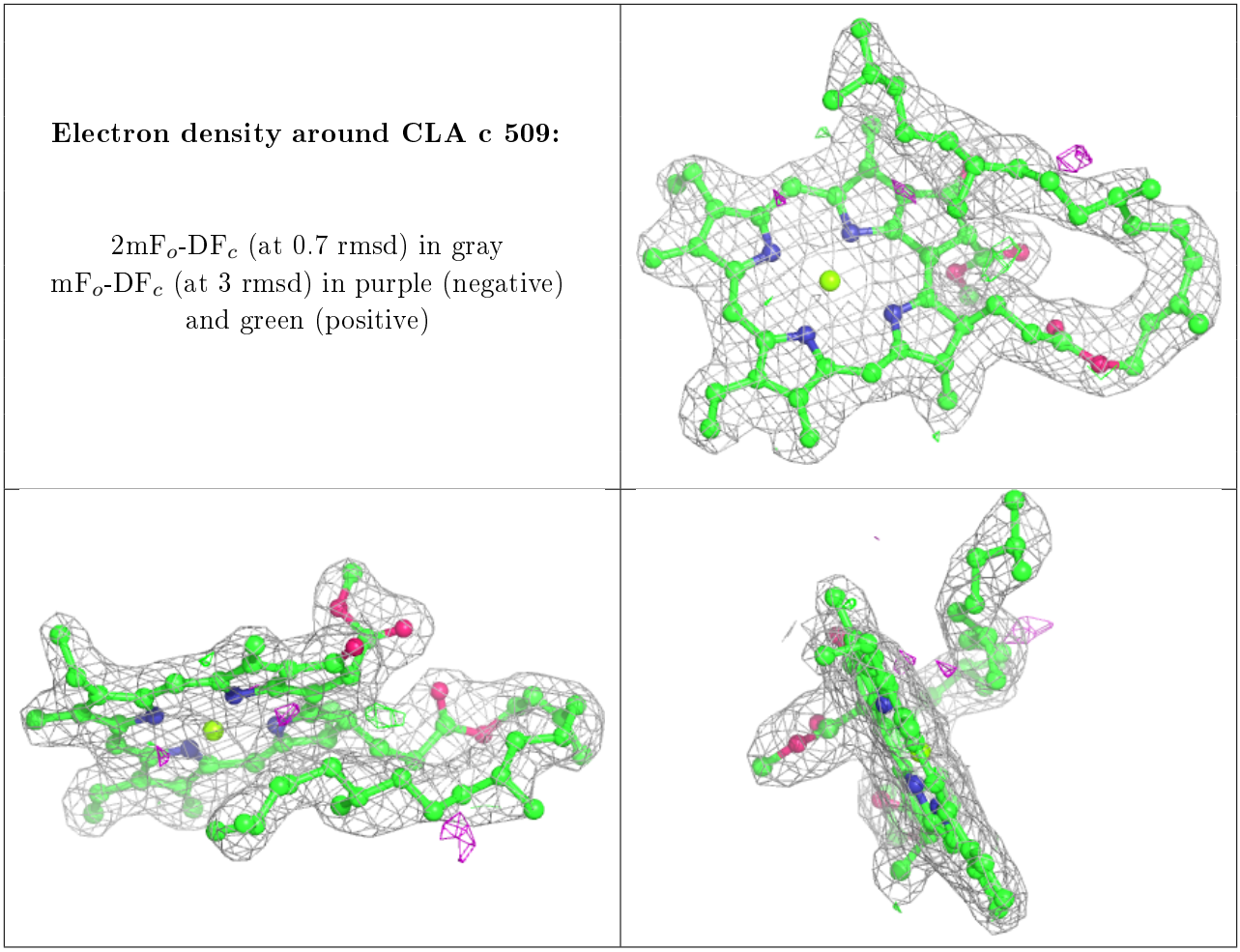
Electron density around CLA B 604:

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



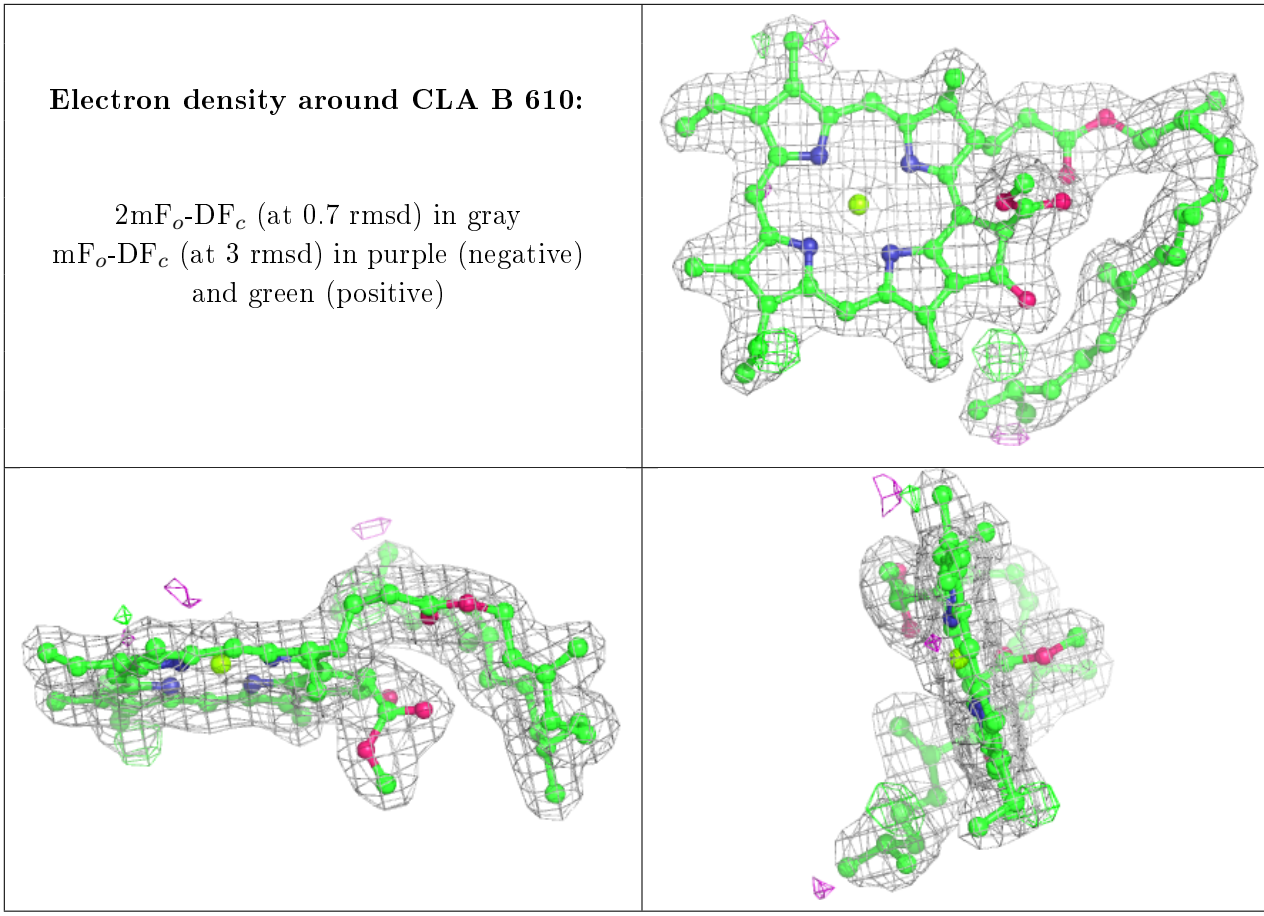
Electron density around CLA c 509:

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



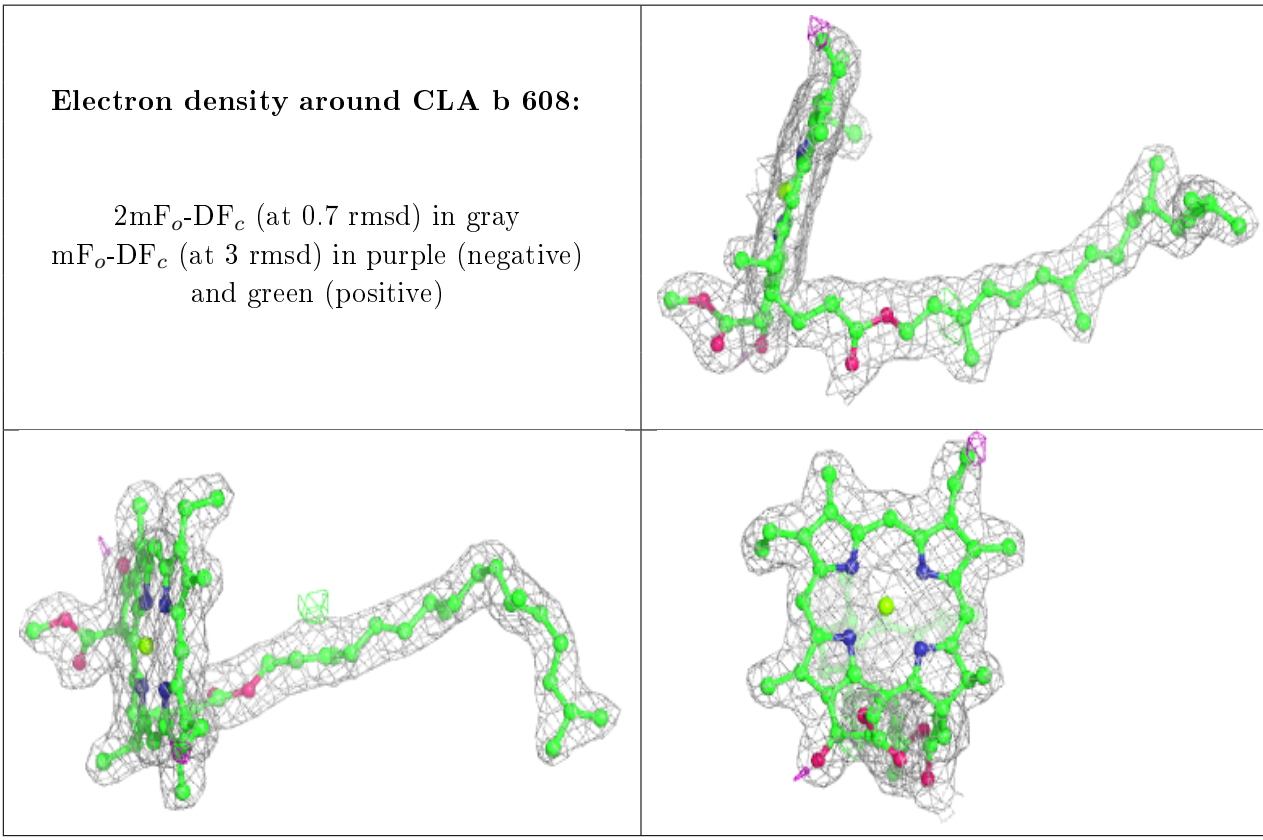
Electron density around CLA B 610:

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



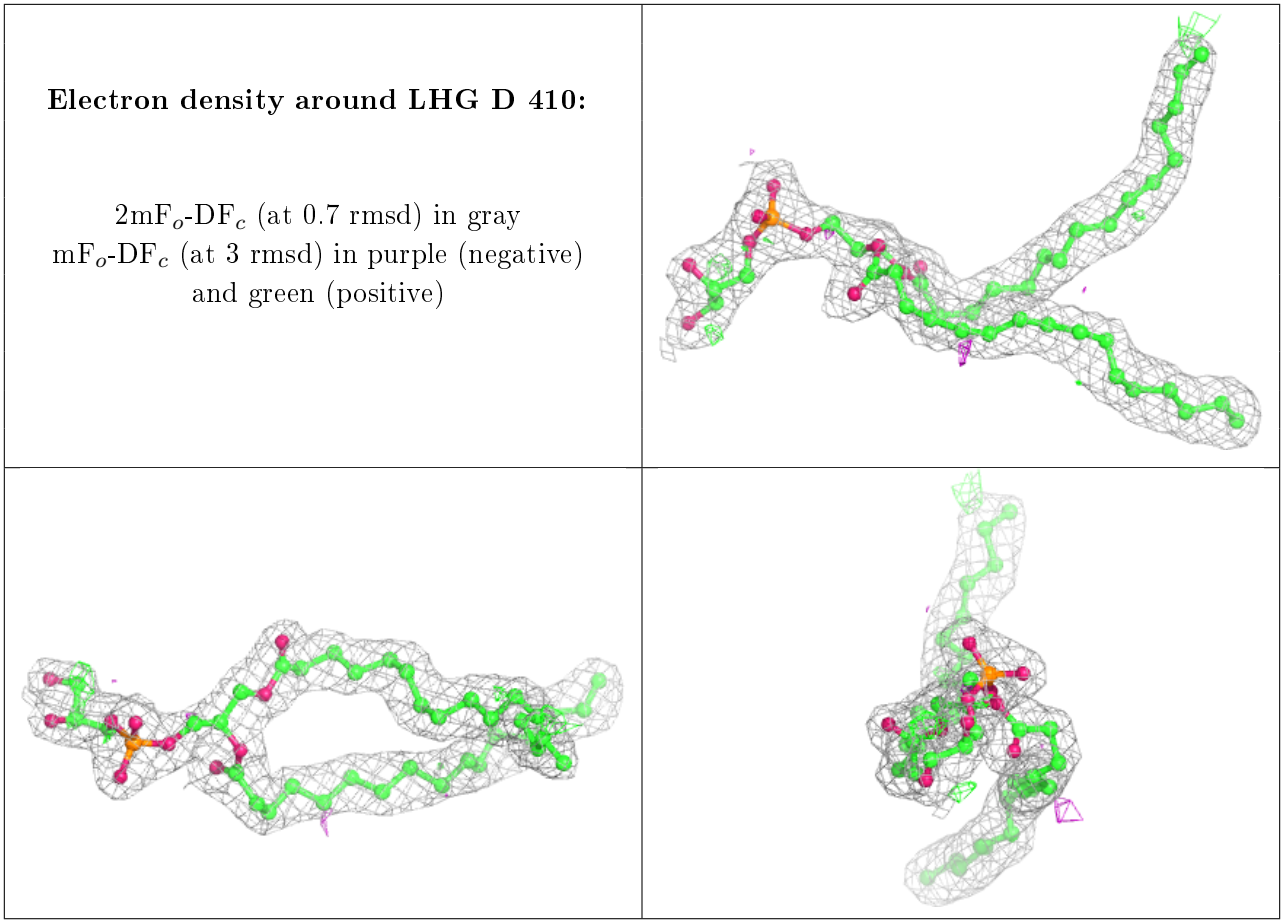
Electron density around CLA b 608:

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



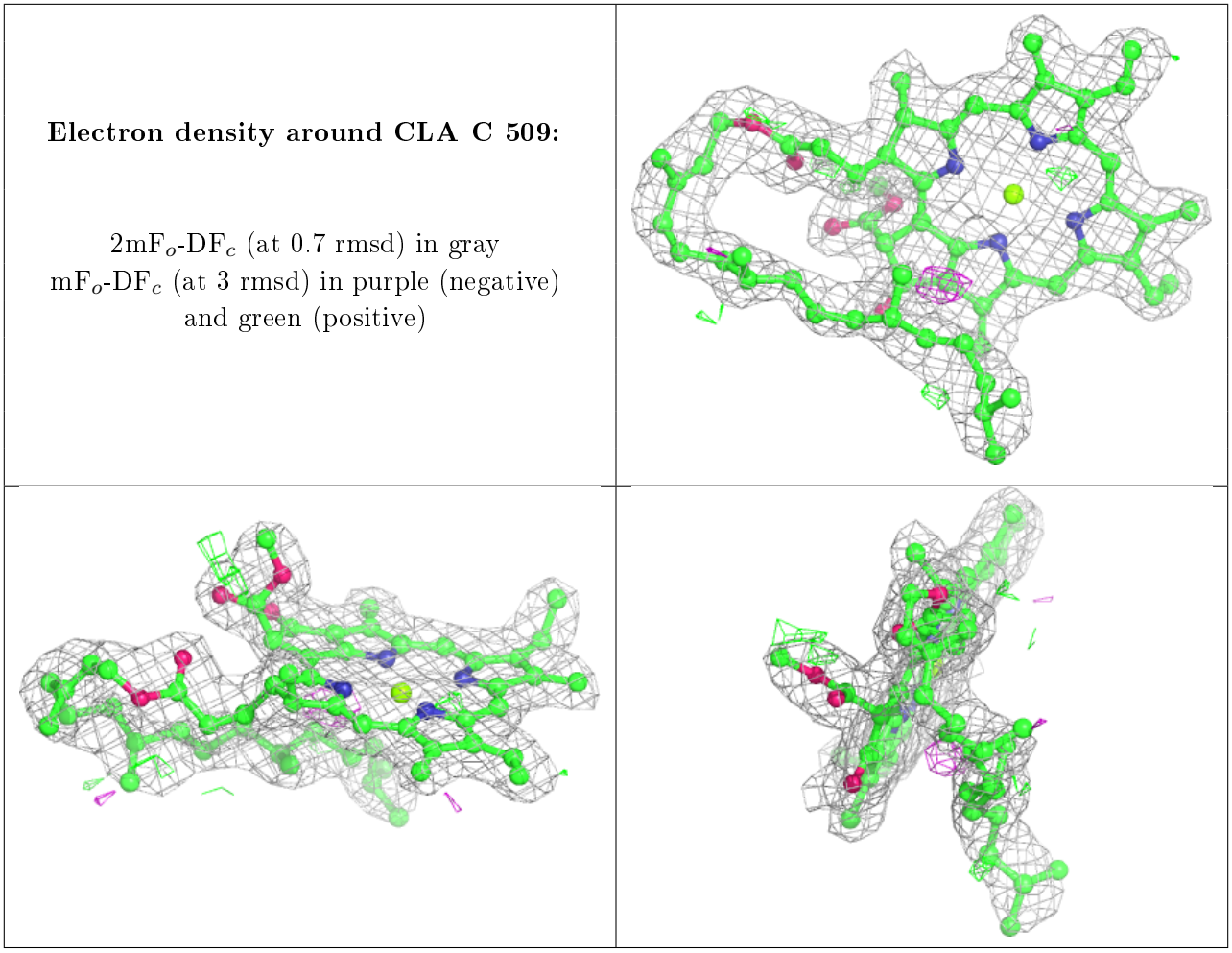
Electron density around LHG D 410:

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



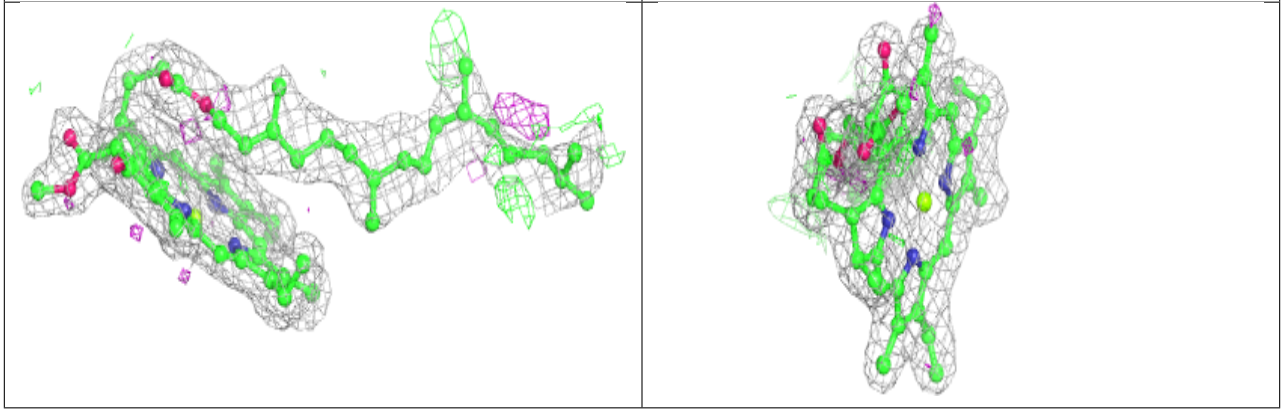
Electron density around CLA C 509:

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



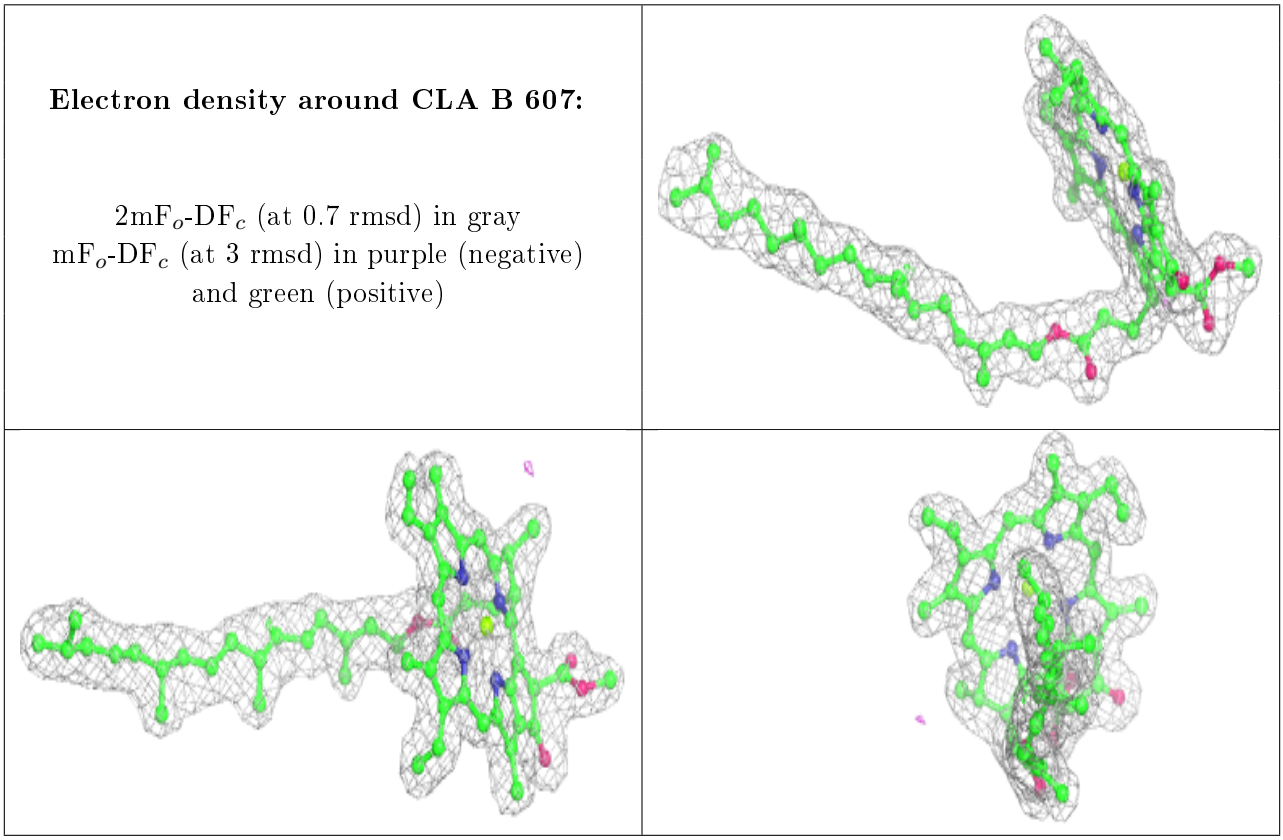
Electron density around CLA b 617:

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



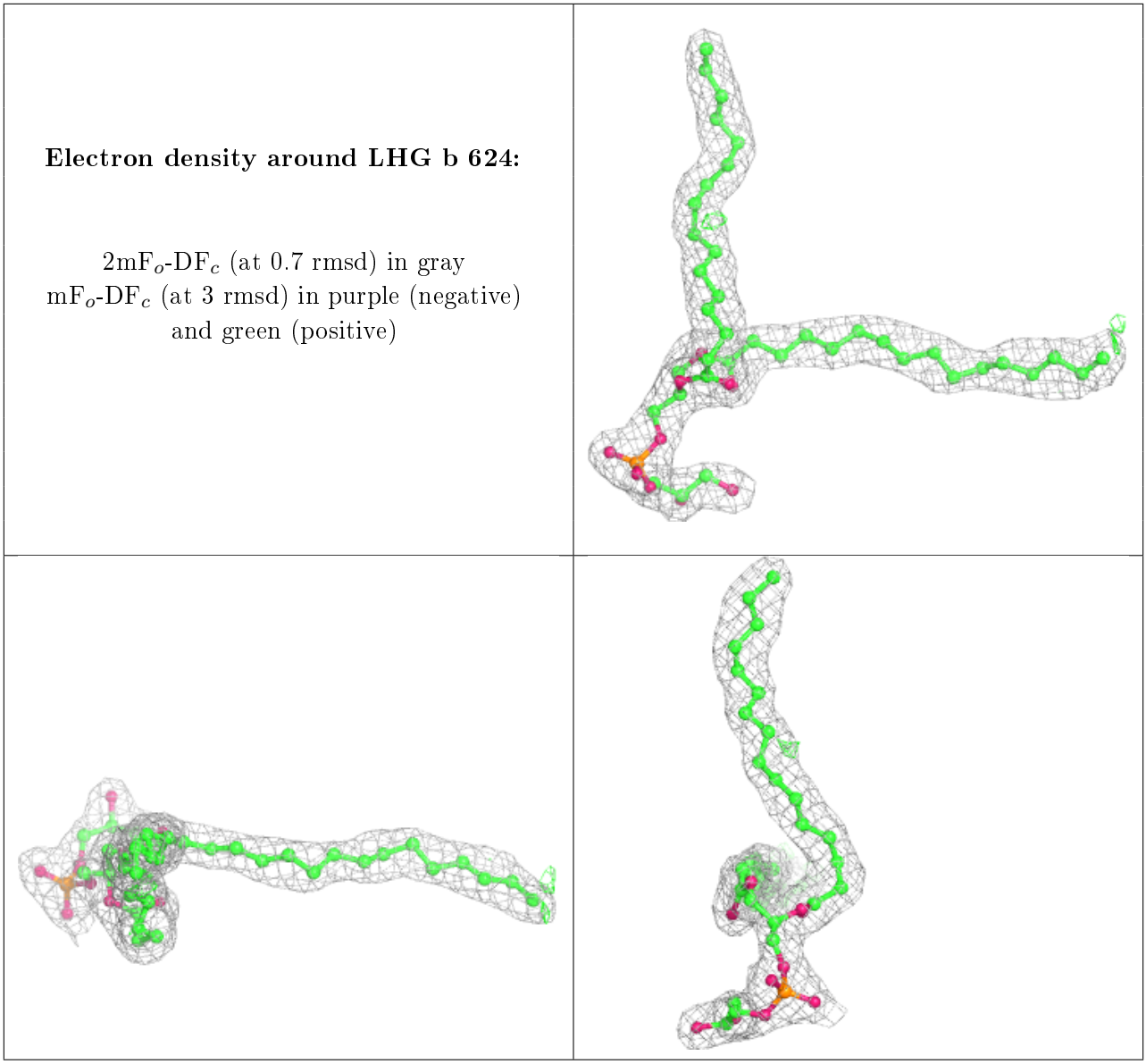
Electron density around CLA B 607:

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



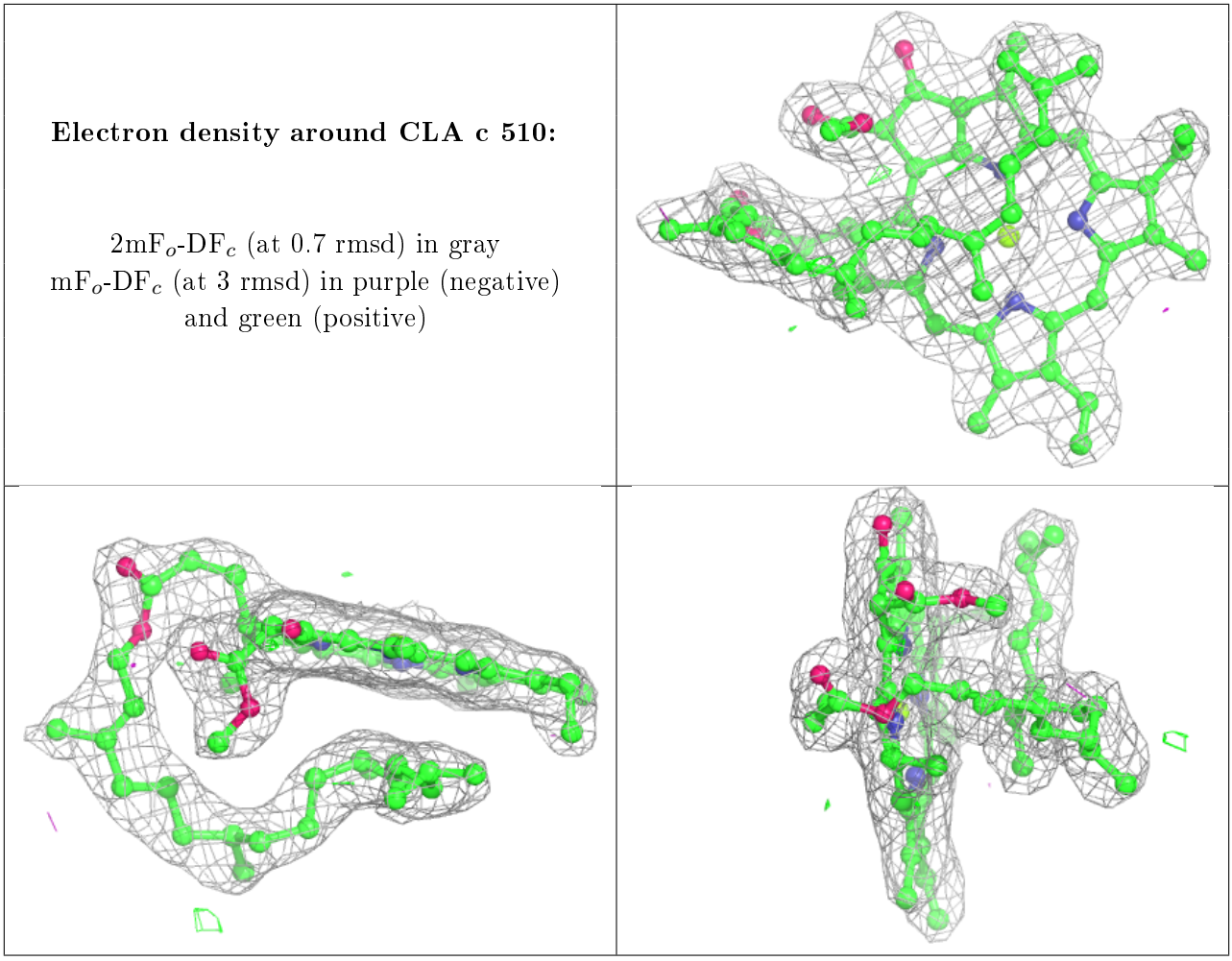
Electron density around LHG b 624:

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



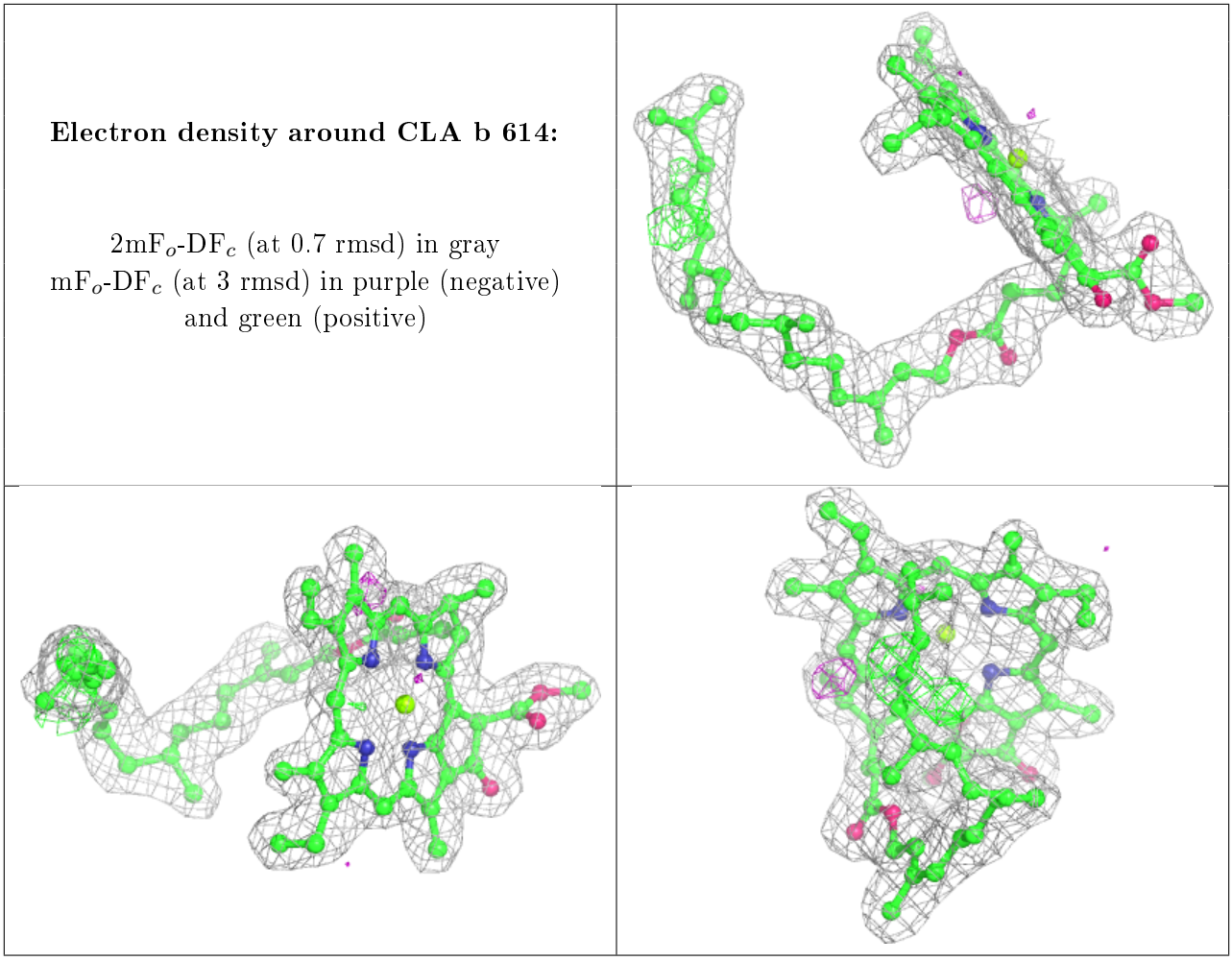
Electron density around CLA c 510:

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



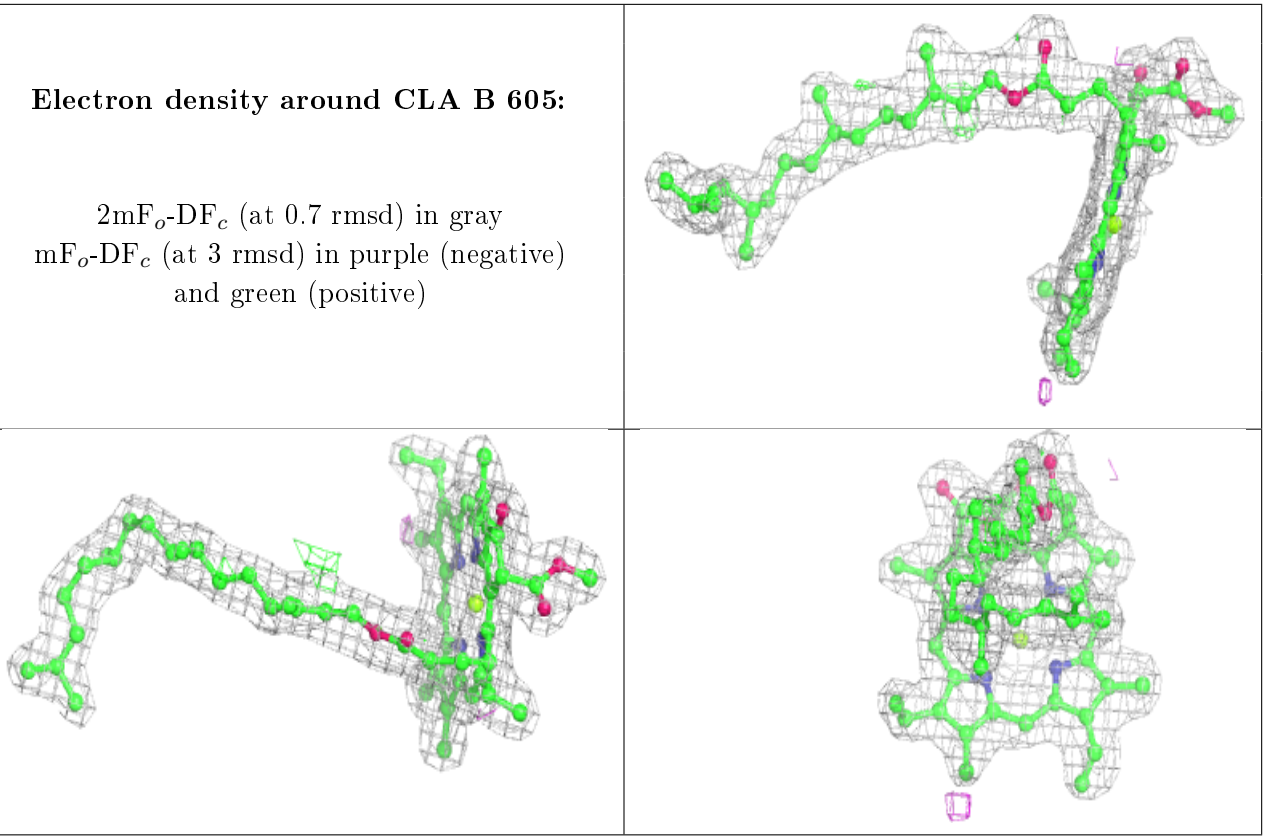
Electron density around CLA b 614:

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



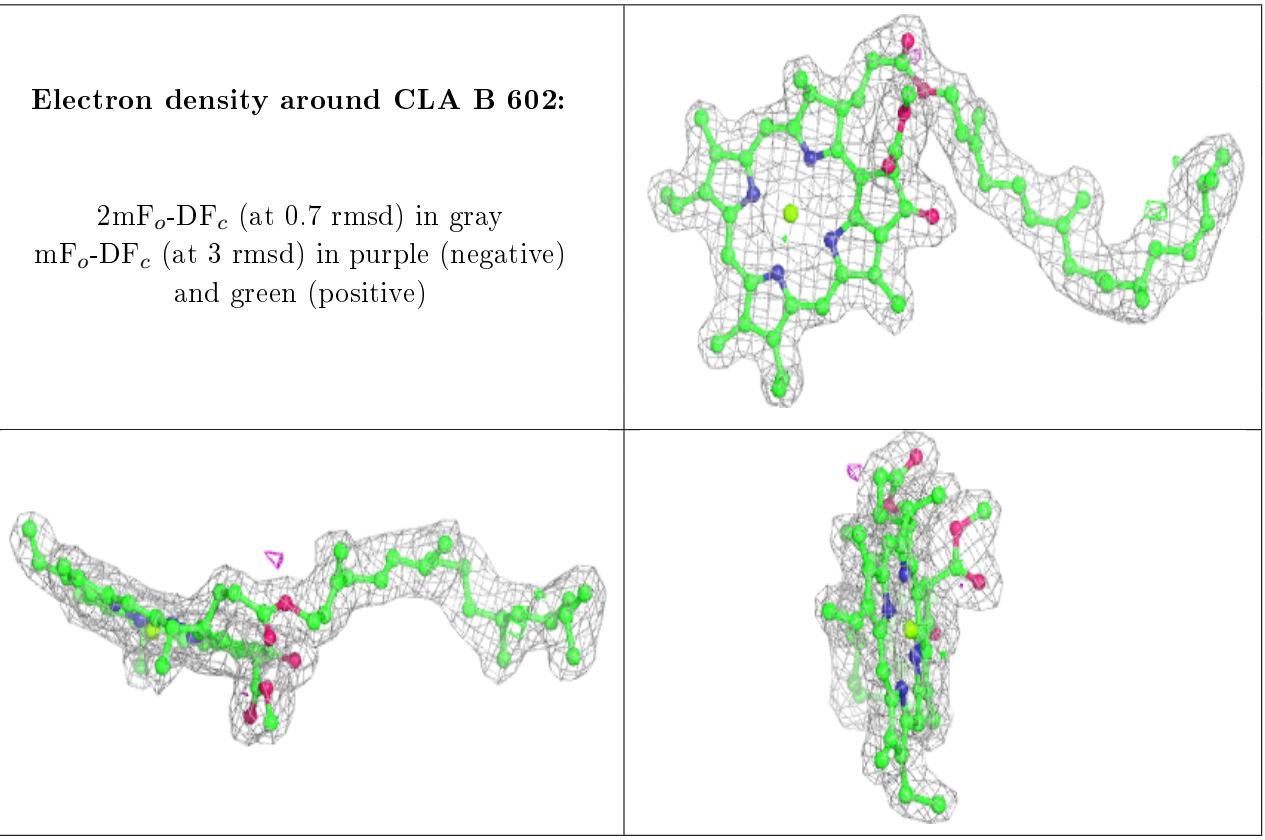
Electron density around CLA B 605:

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



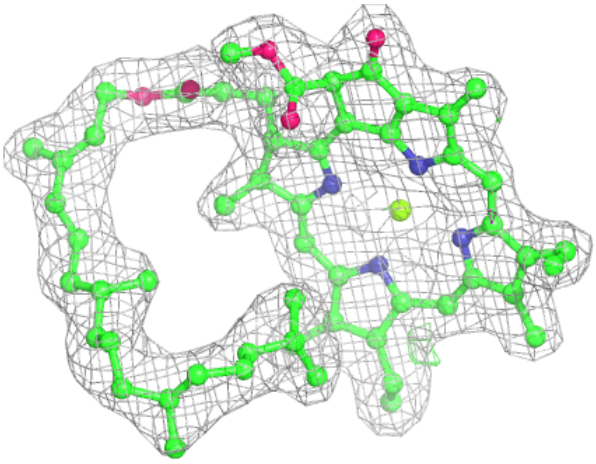
Electron density around CLA B 602:

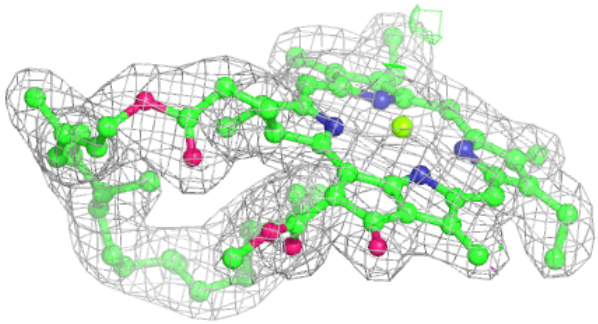
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

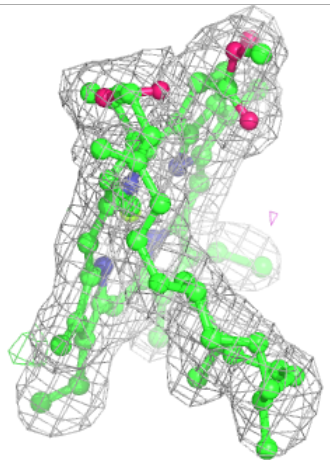


Electron density around CLA b 618:

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

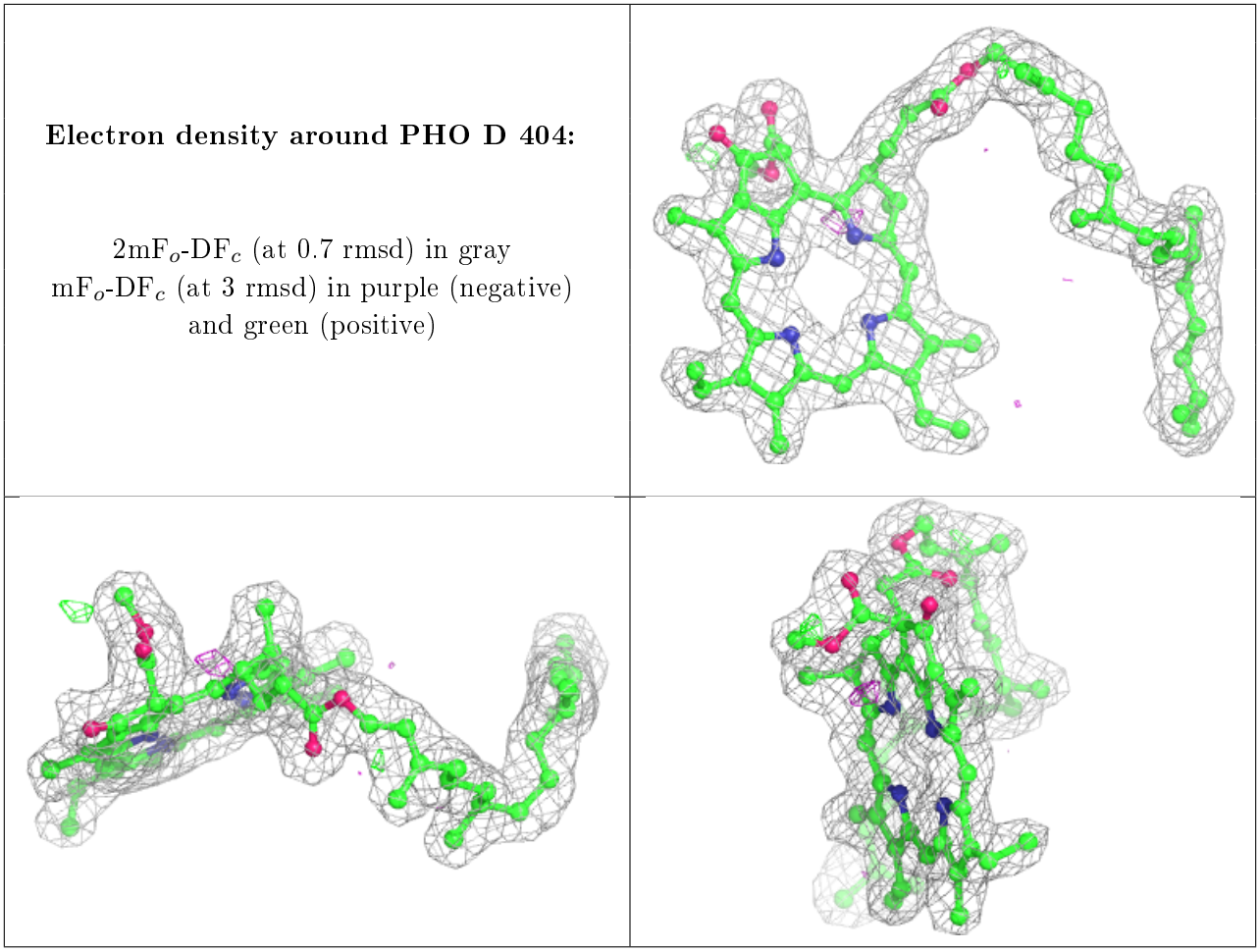






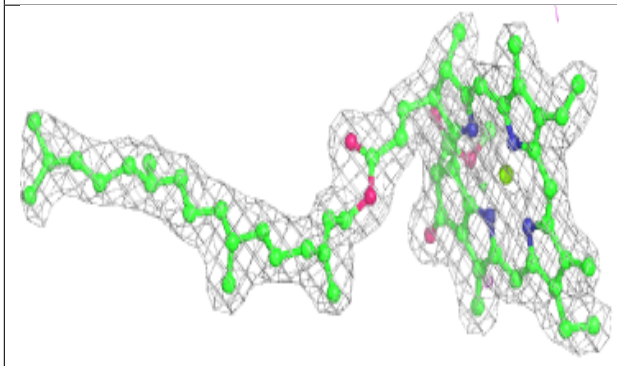
Electron density around PHO D 404:

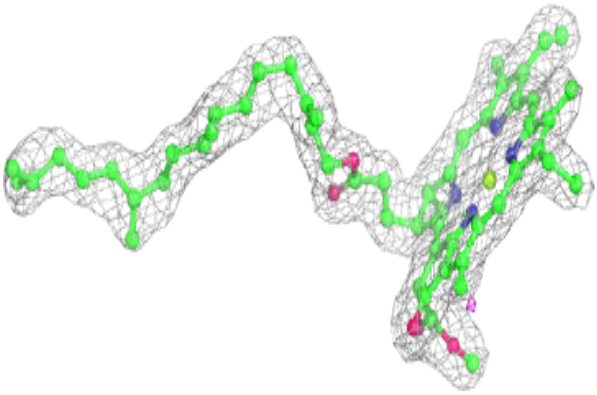
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

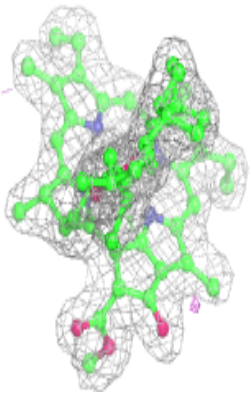


Electron density around CLA C 502:

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

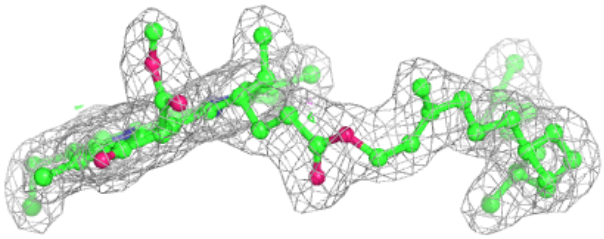


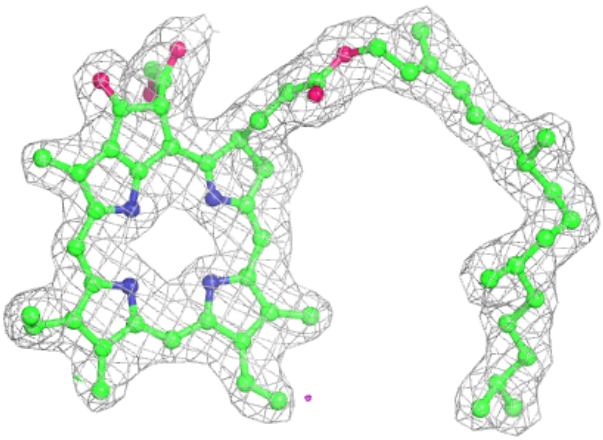


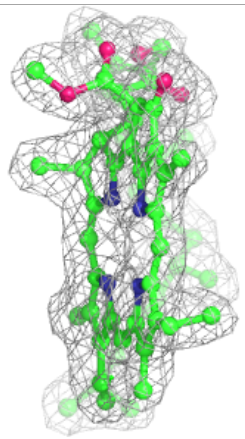


Electron density around PHO a 410:

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

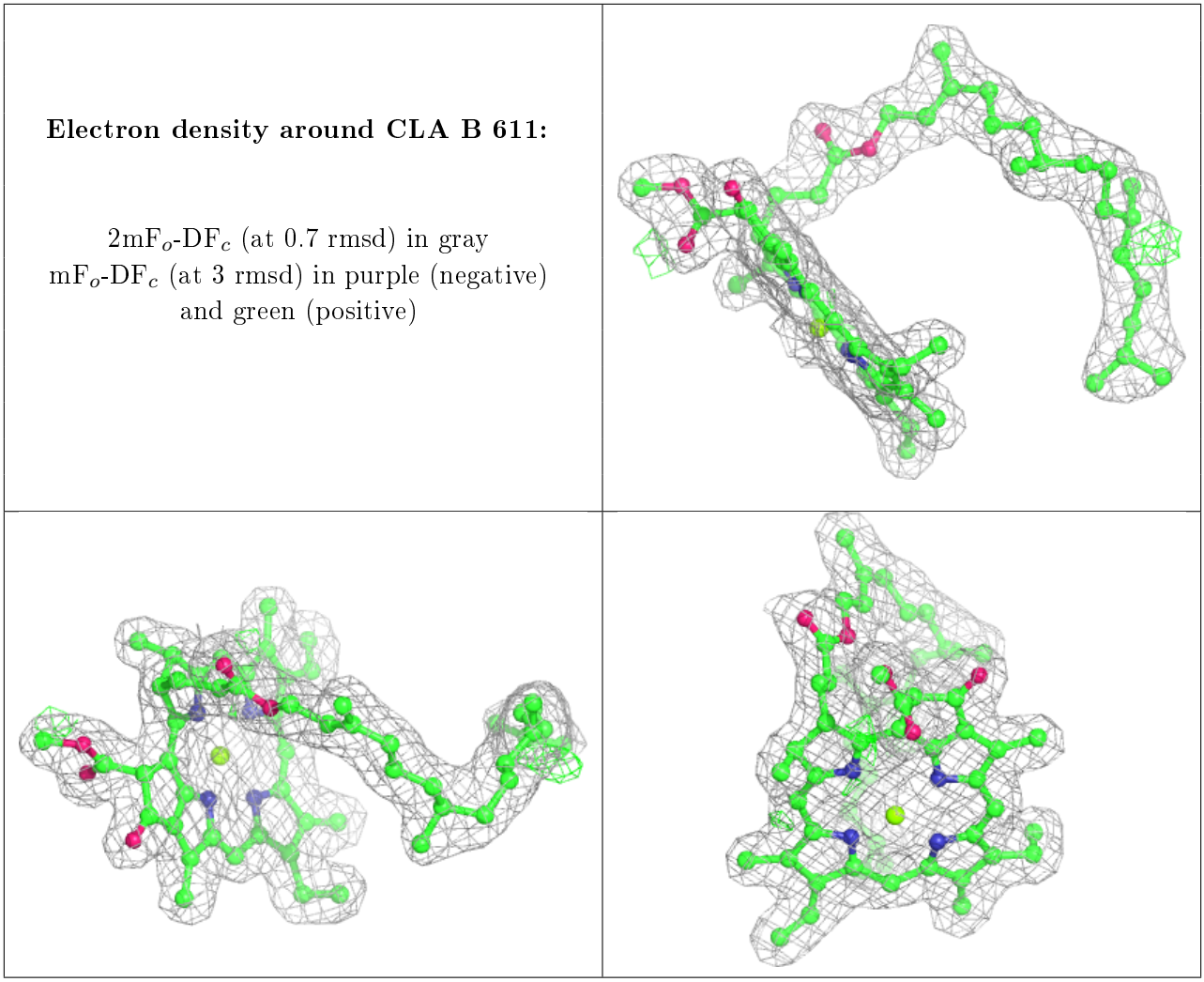






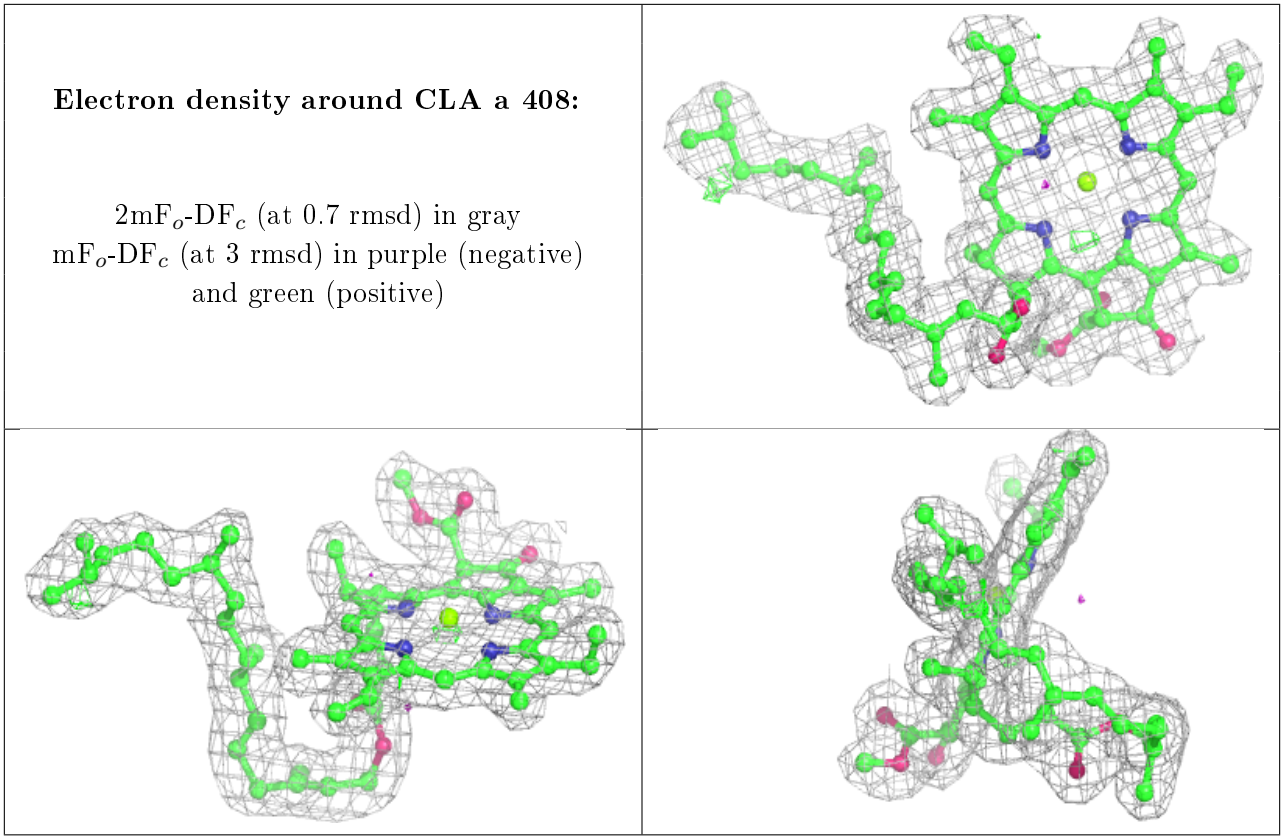
Electron density around CLA B 611:

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



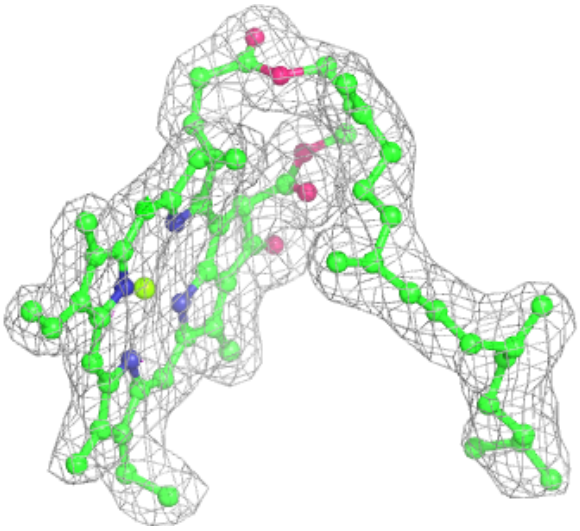
Electron density around CLA a 408:

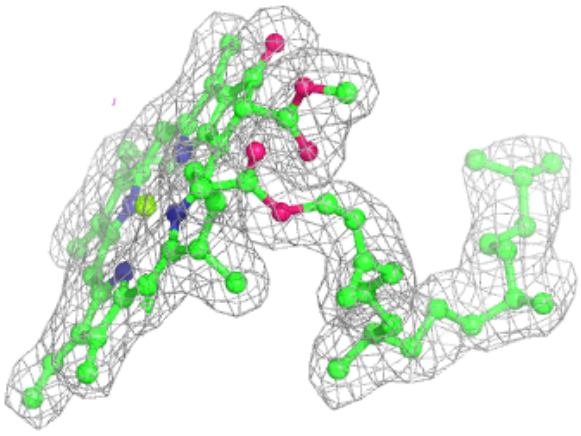
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

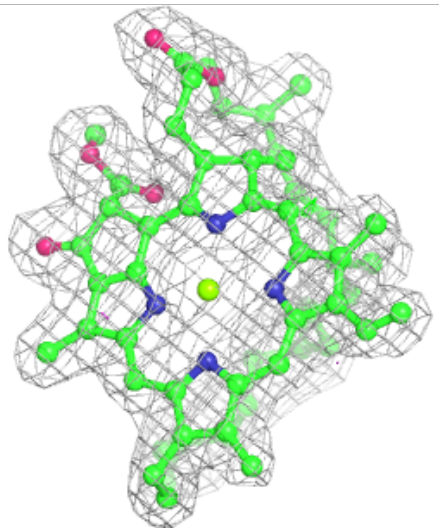


Electron density around CLA B 613:

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

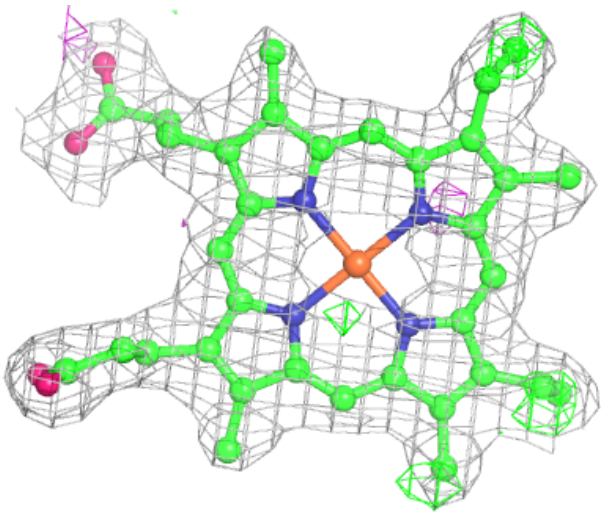


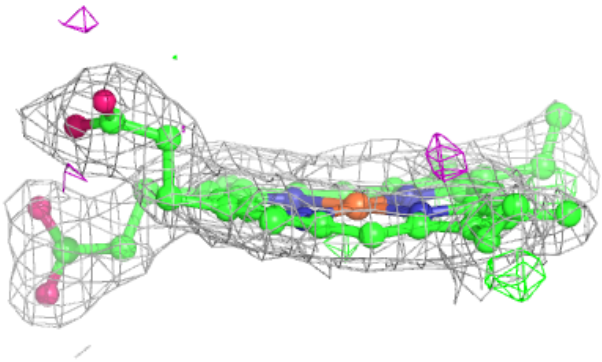


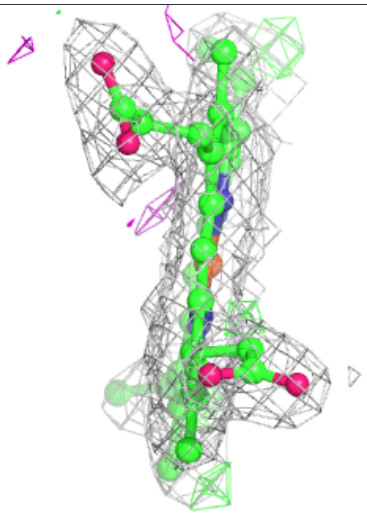


Electron density around HEM v 201:

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

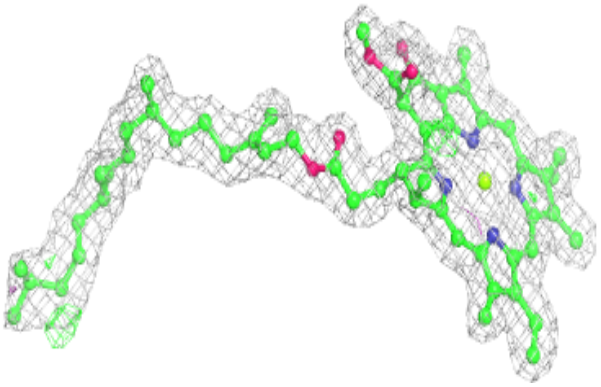


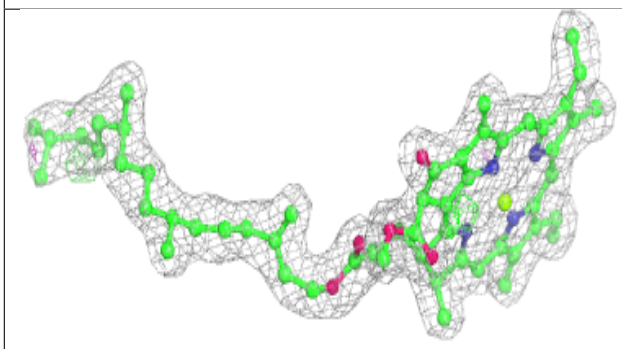


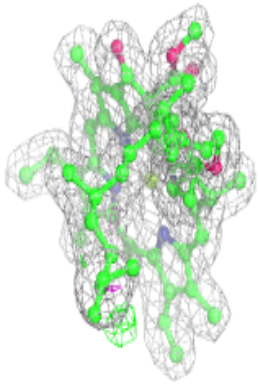


Electron density around CLA A 1005:

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

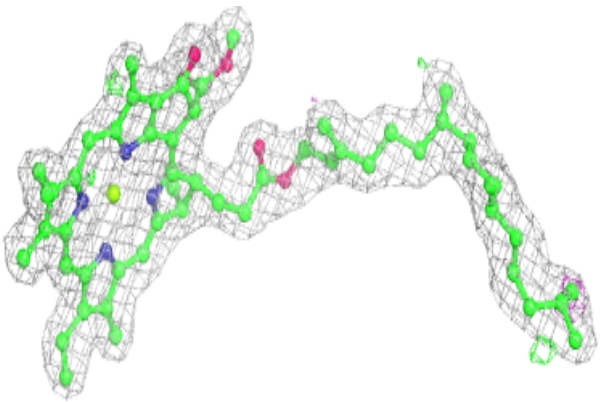


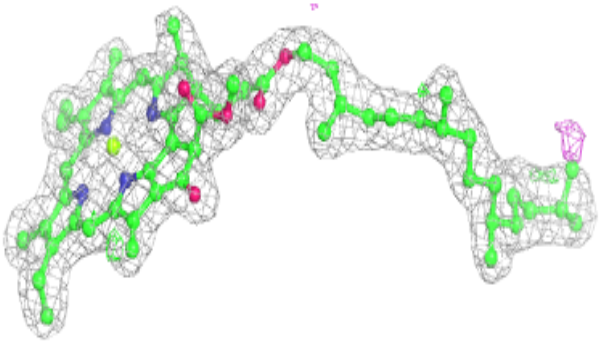


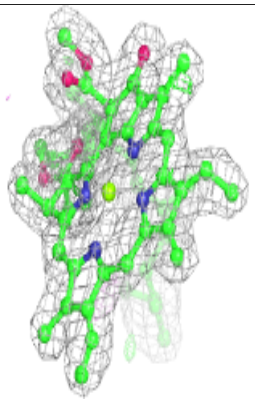


Electron density around CLA a 407:

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

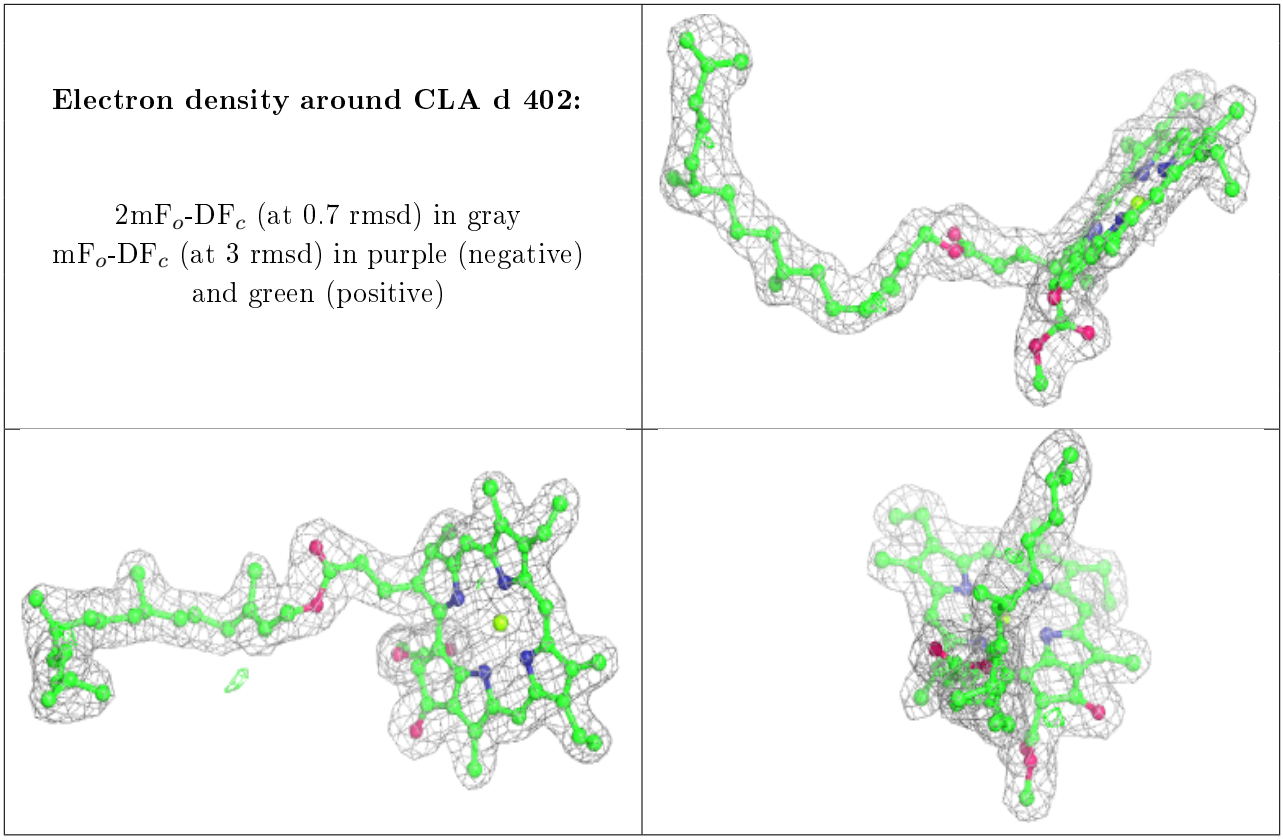






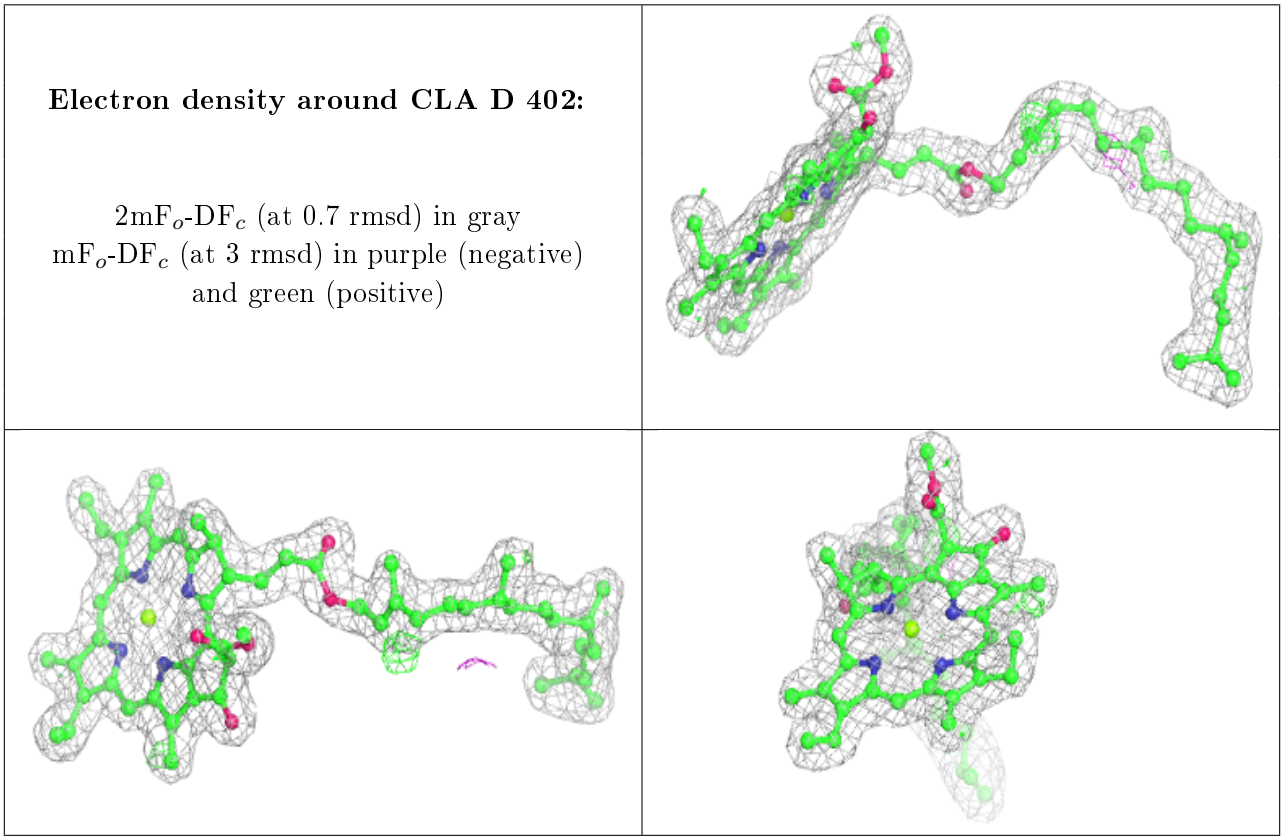
Electron density around CLA d 402:

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



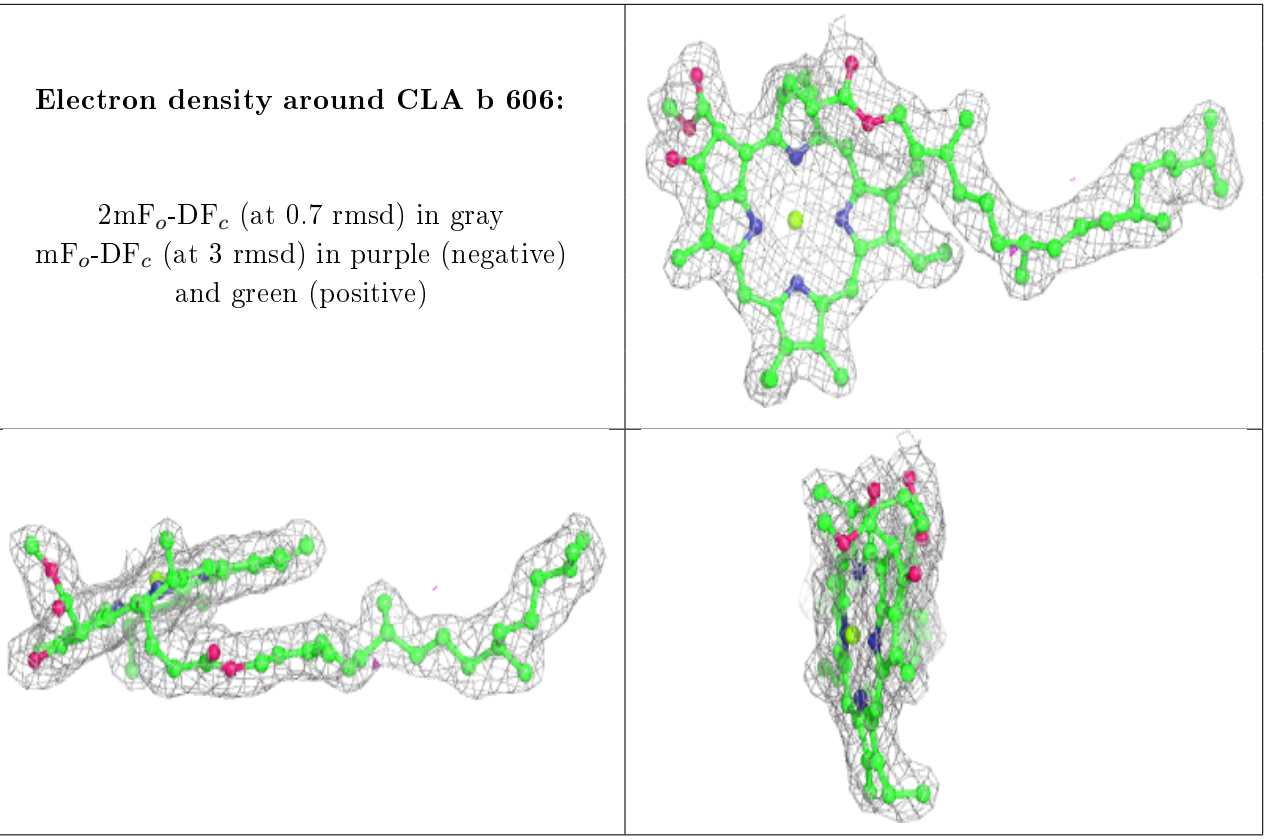
Electron density around CLA D 402:

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



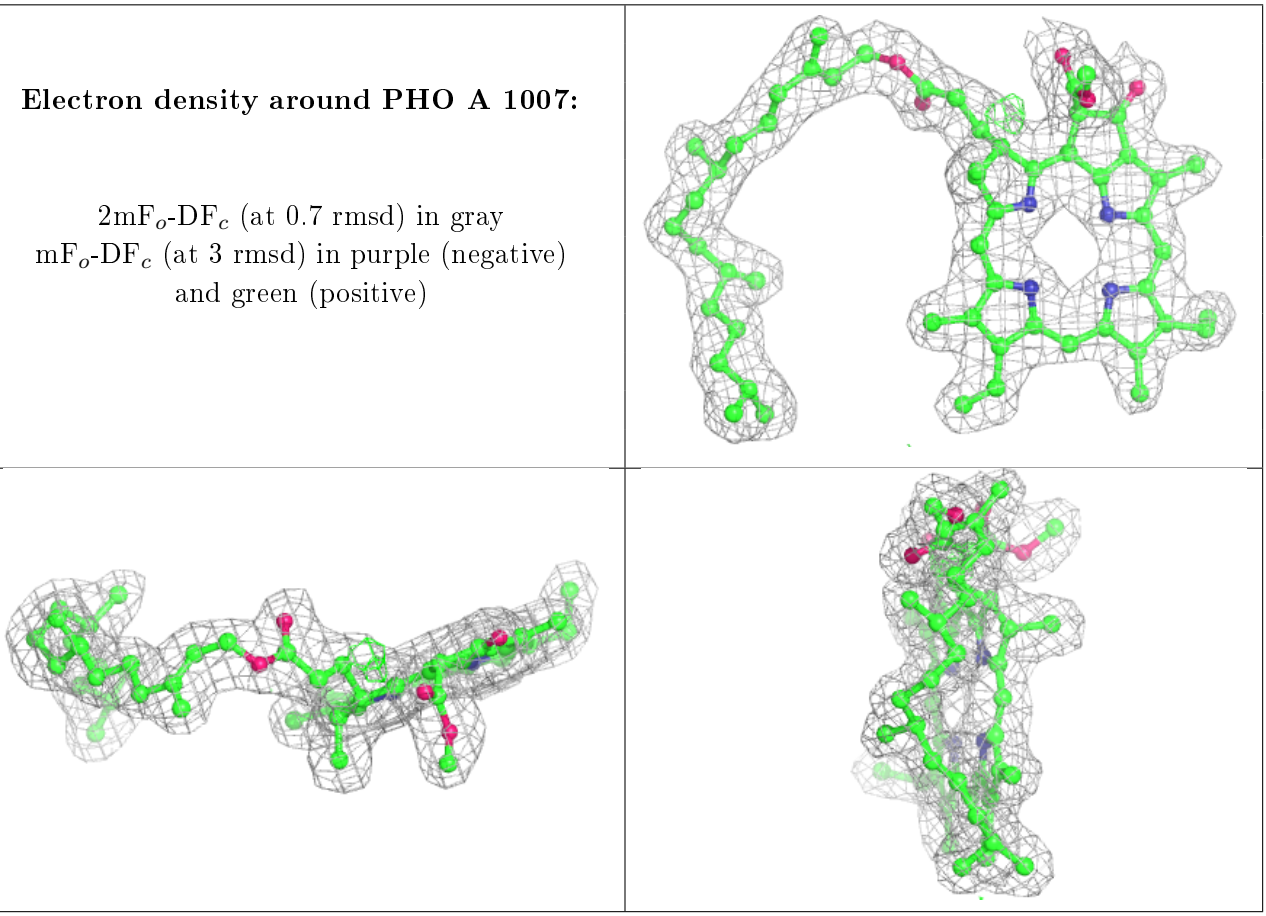
Electron density around CLA b 606:

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



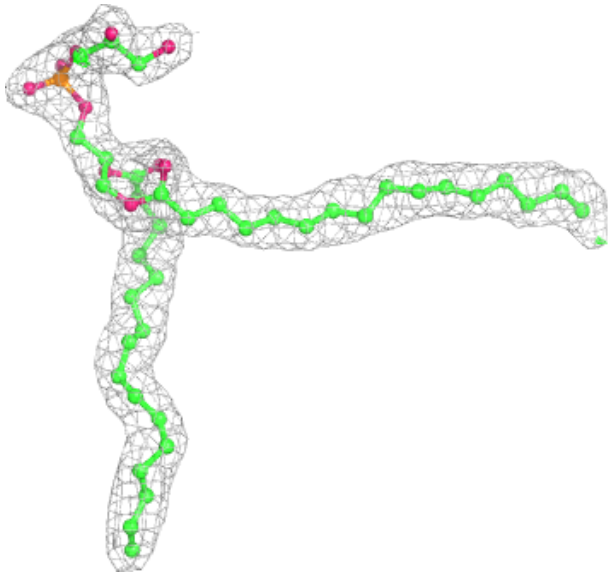
Electron density around PHO A 1007:

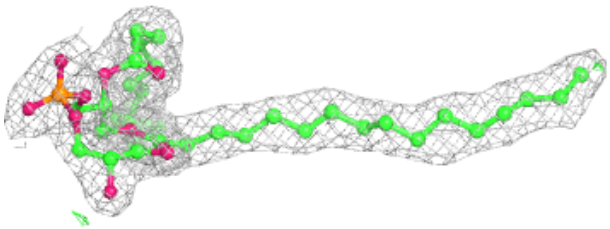
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

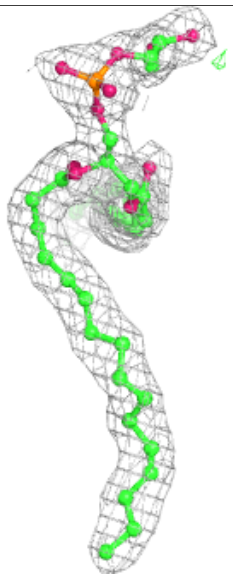


Electron density around LHG B 621:

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

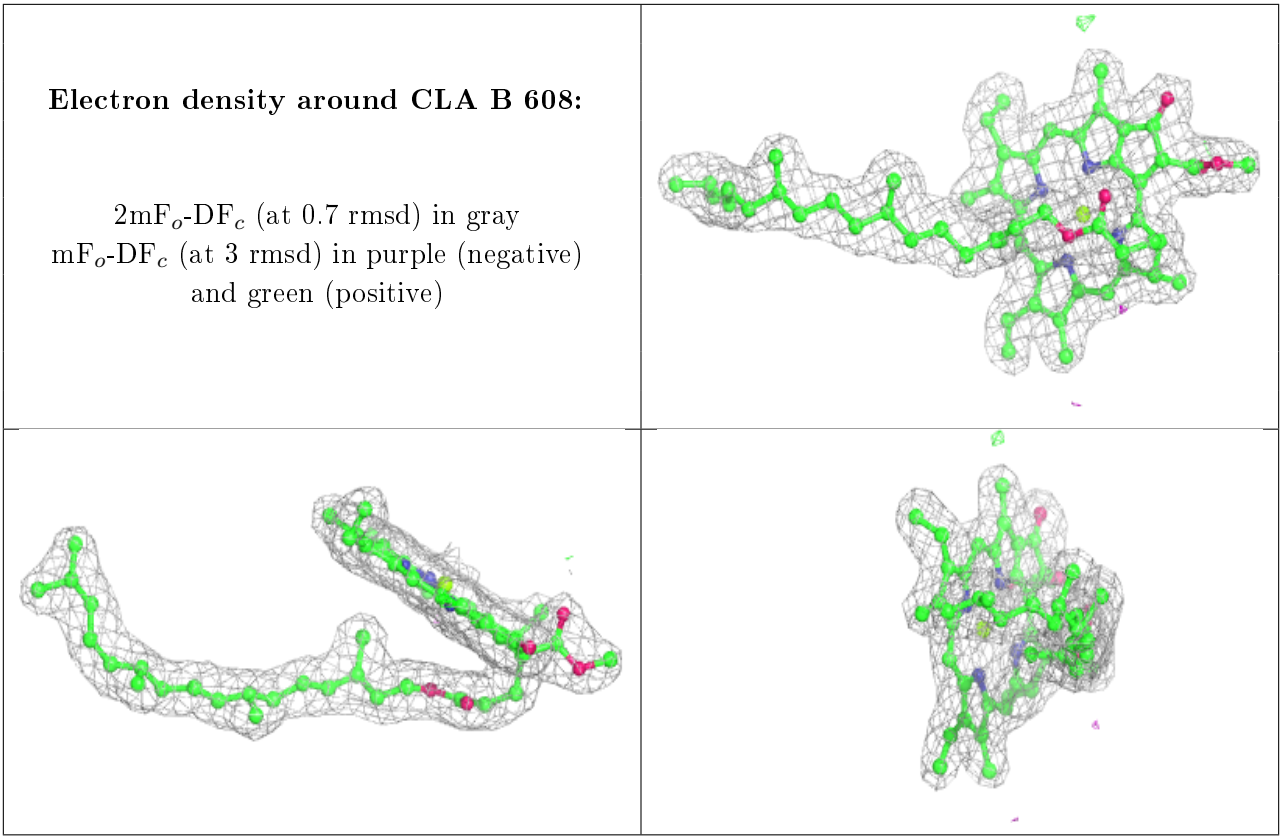






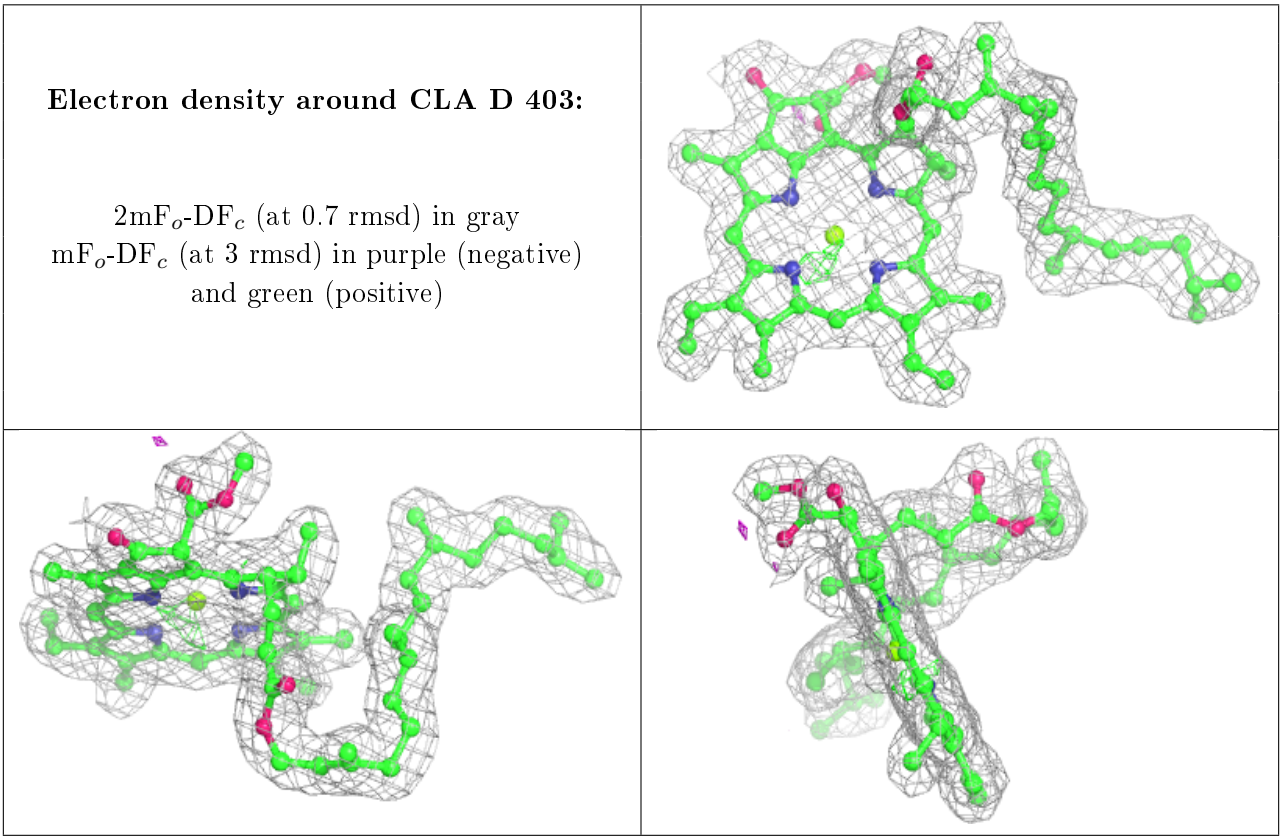
Electron density around CLA B 608:

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



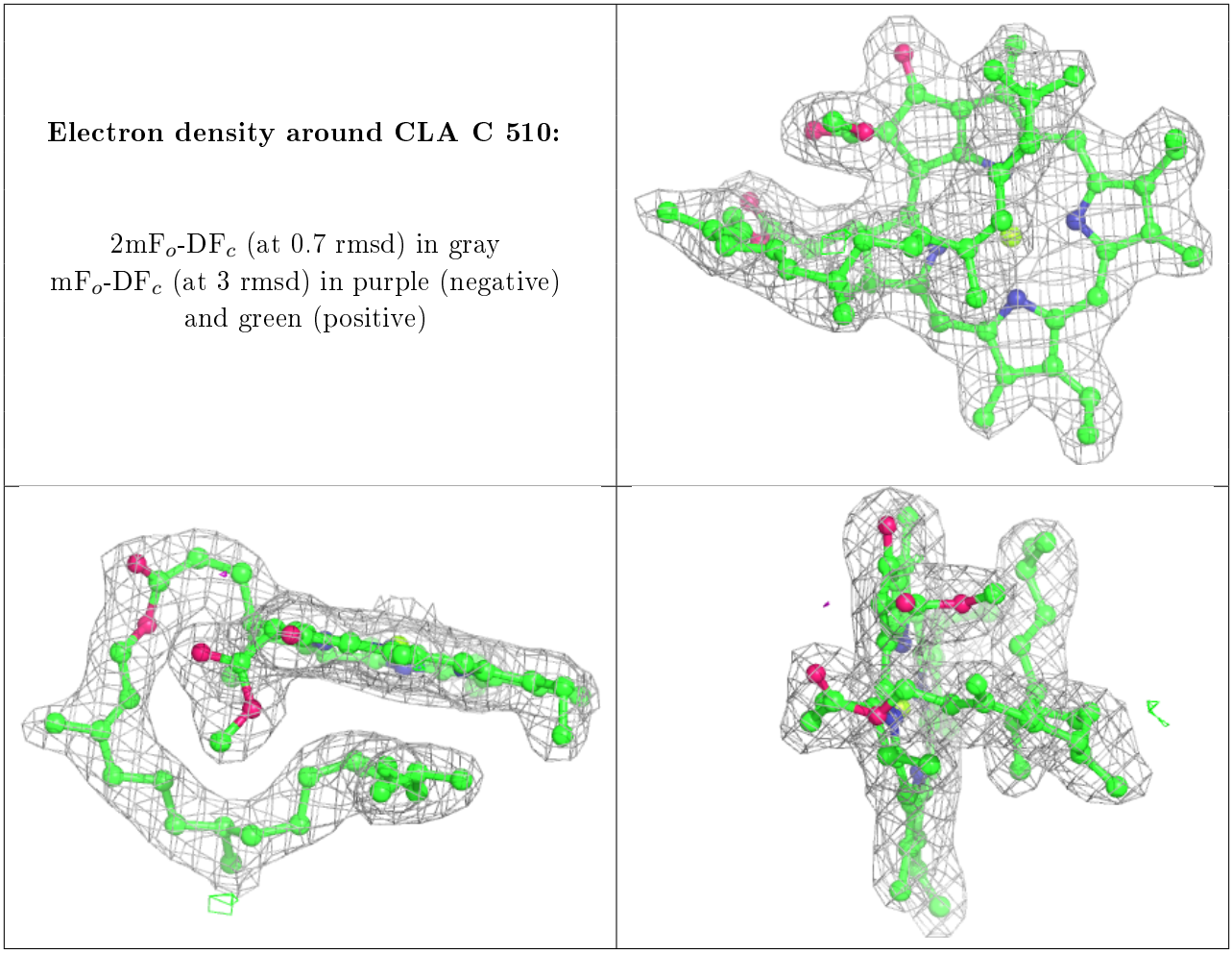
Electron density around CLA D 403:

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



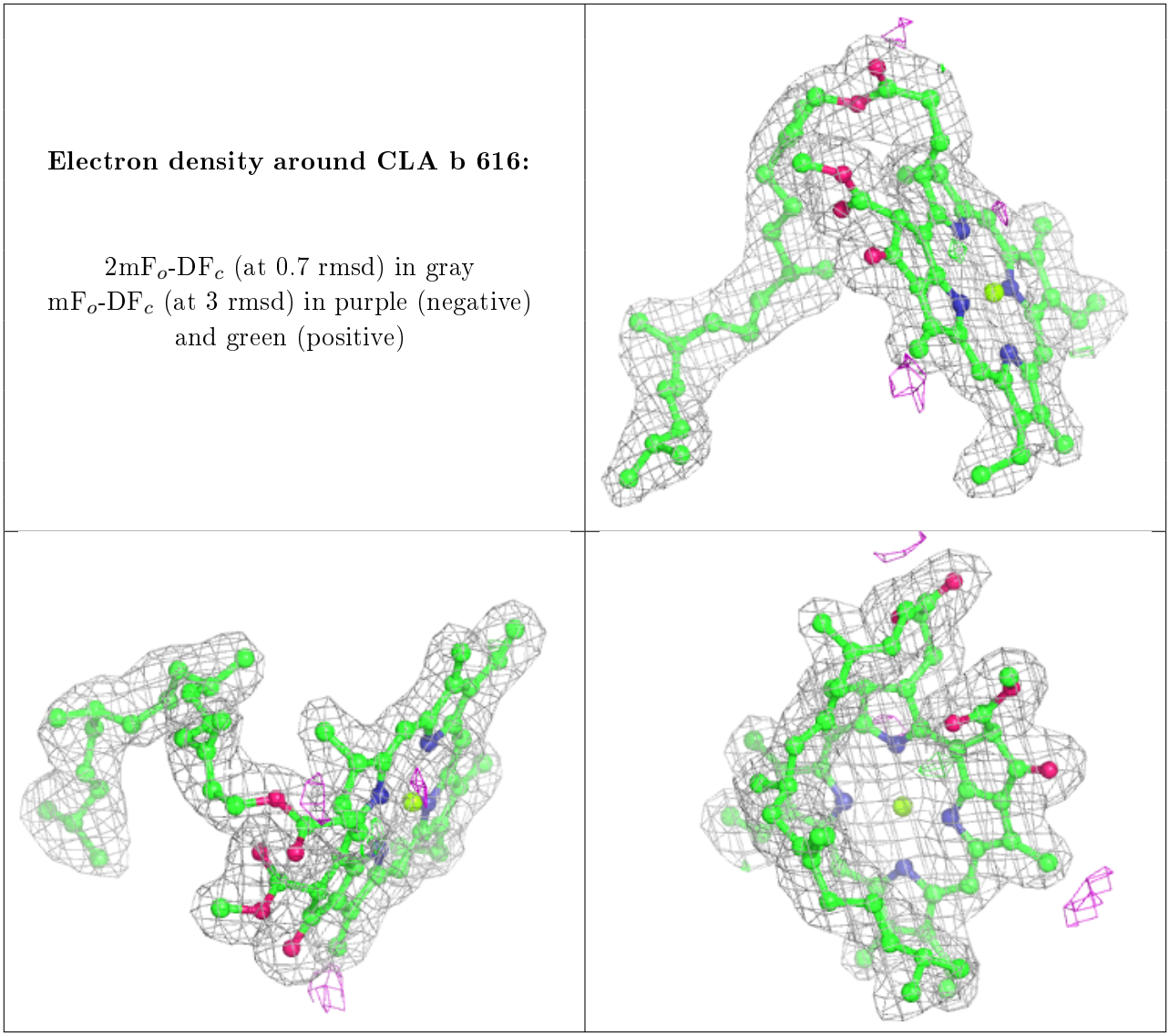
Electron density around CLA C 510:

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



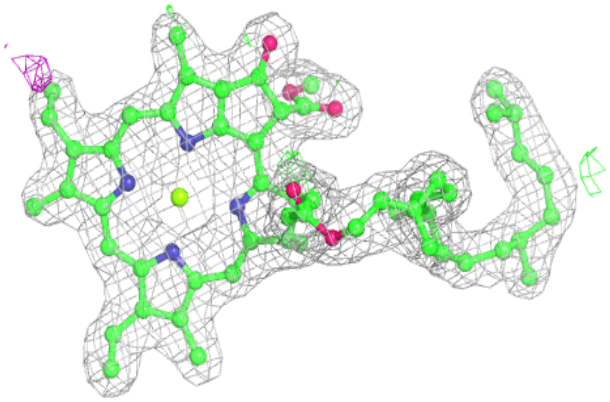
Electron density around CLA b 616:

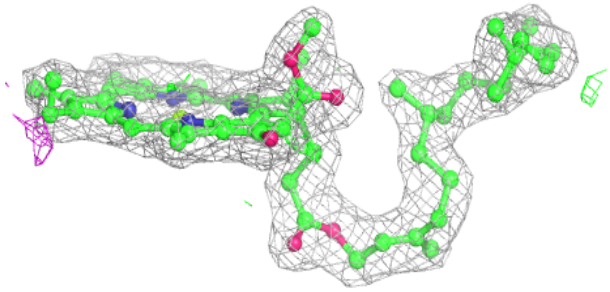
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

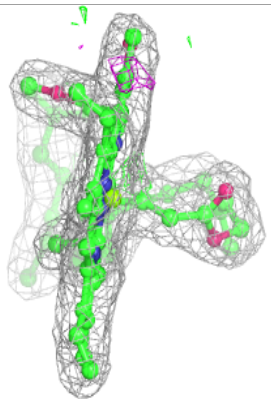


Electron density around CLA B 612:

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

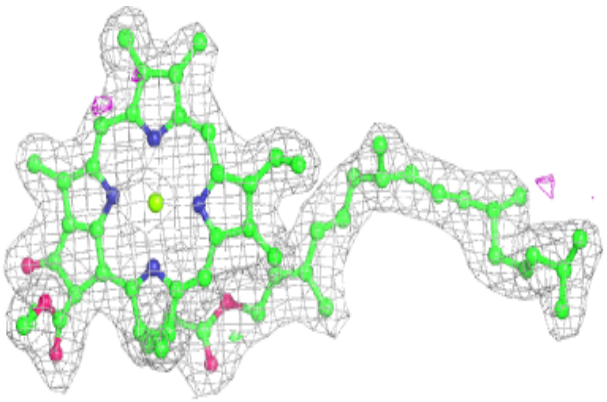


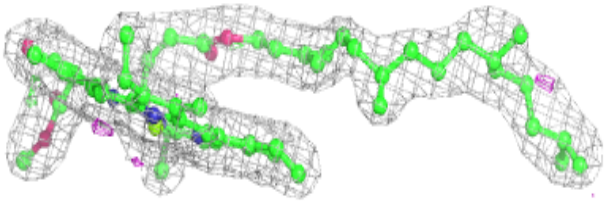


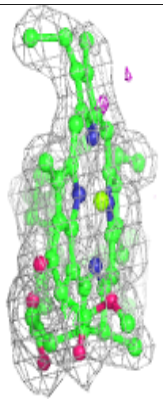


Electron density around CLA B 603:

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

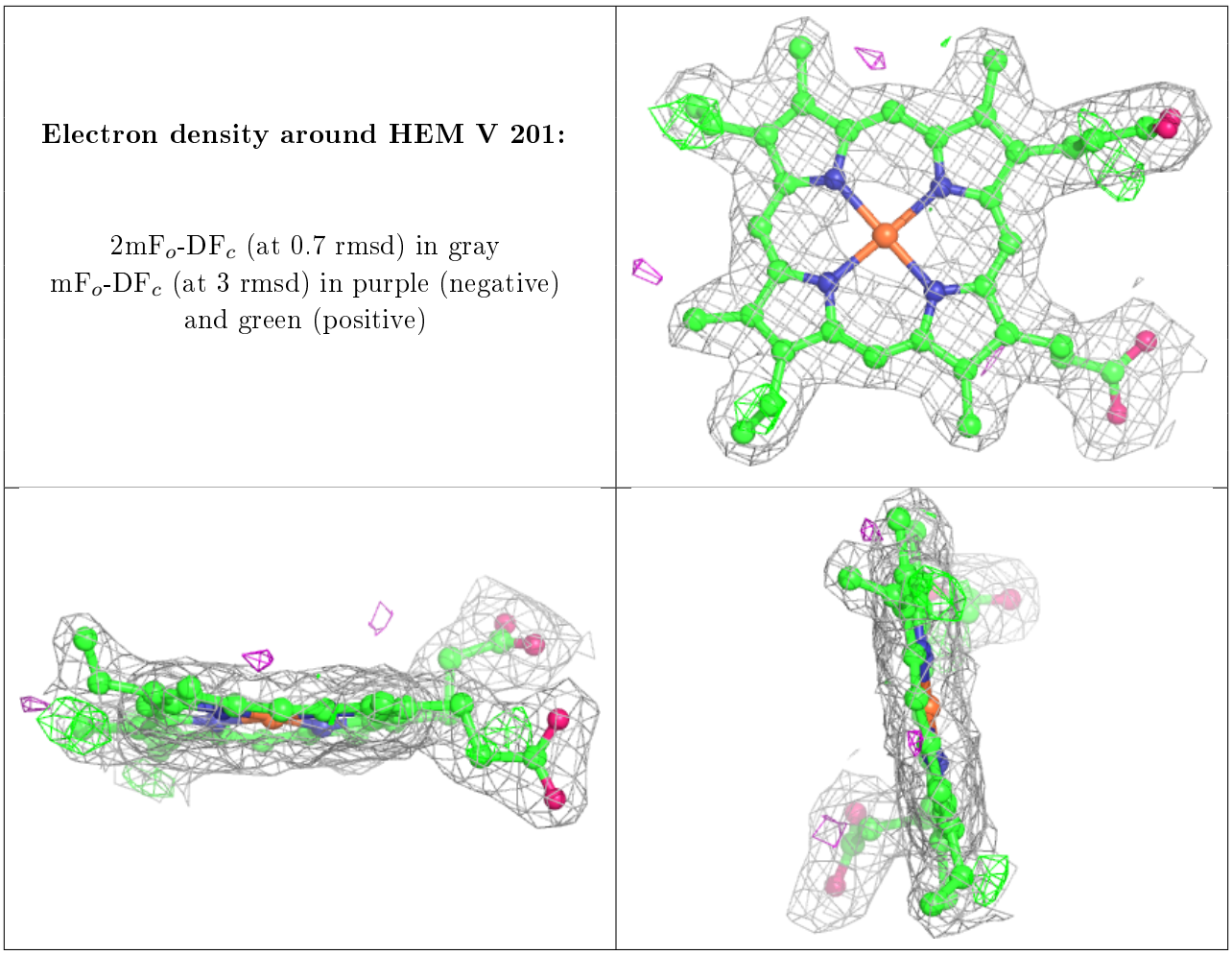






Electron density around HEM V 201:

$2mF_o$-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.