wwPDB X-ray Structure Validation Summary Report (i)

Mar 12, 2024 – 03:11 PM JST

PDB ID	:	8IRD
Title	:	XFEL structure of cyanobacterial photosystem II following two flashes (2F) with a 20-nanosecond delay
Authors	:	Li, H.; Suga, M.; Shen, J.R.
Deposited on	:	2023-03-17
Resolution	:	2.30 Å(reported)

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

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

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

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

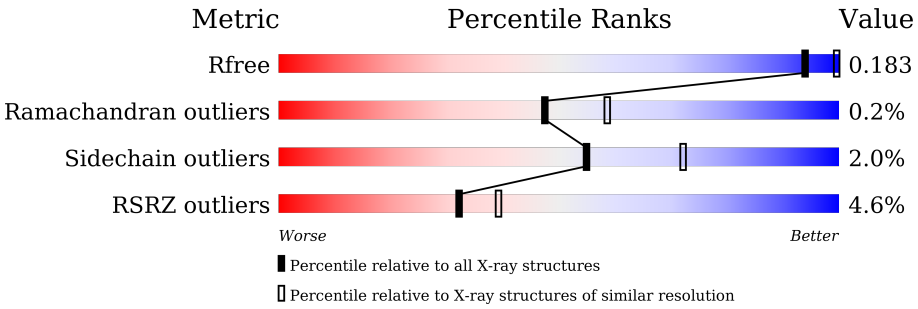
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 2.30 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	5042 (2.30-2.30)
Ramachandran outliers	138981	5575 (2.30-2.30)
Sidechain outliers	138945	5575 (2.30-2.30)
RSRZ outliers	127900	4938 (2.30-2.30)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	344	97%
1	a	344	97%
2	B	505	99%
2	b	505	98%
3	C	455	98%
3	c	455	98%
4	D	342	99%

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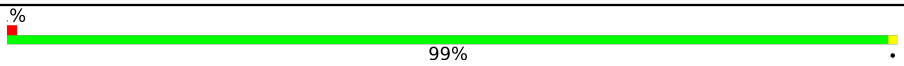
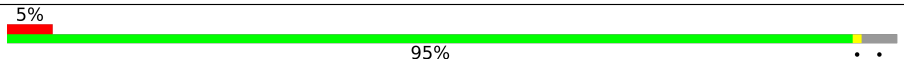
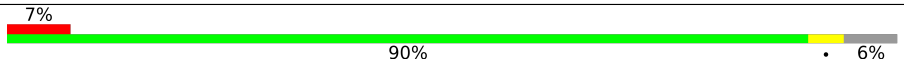
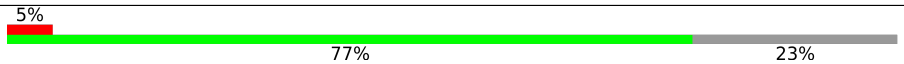
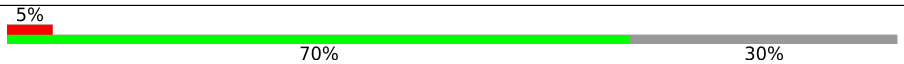
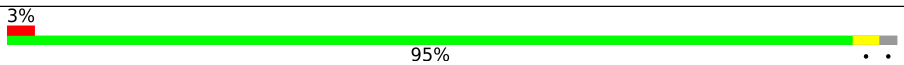
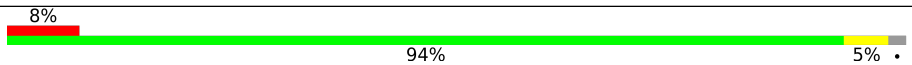
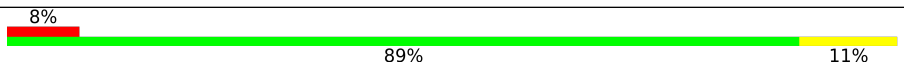
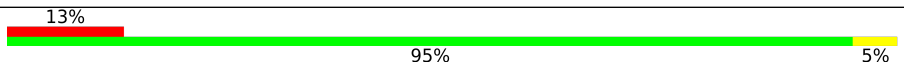
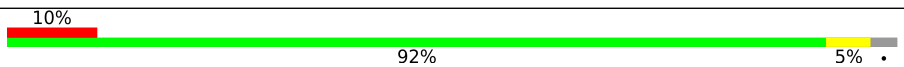
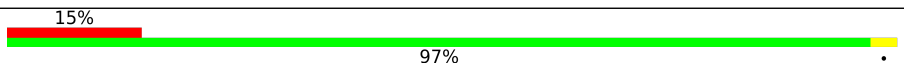
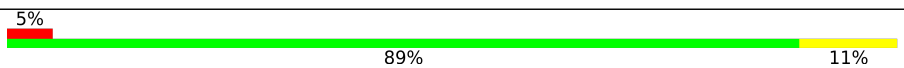
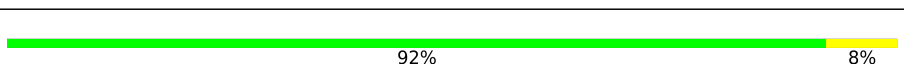
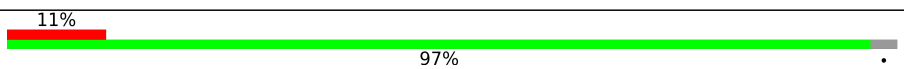
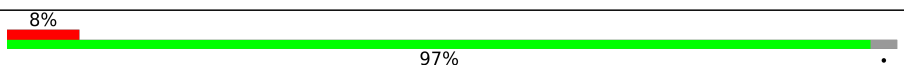
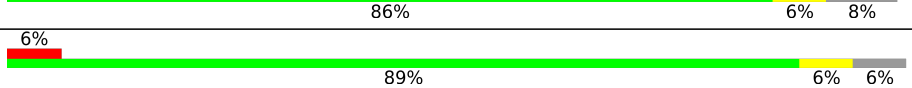
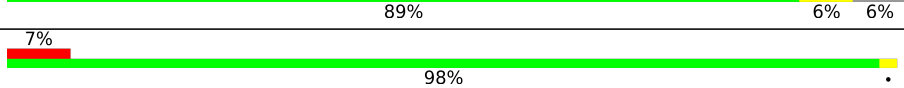
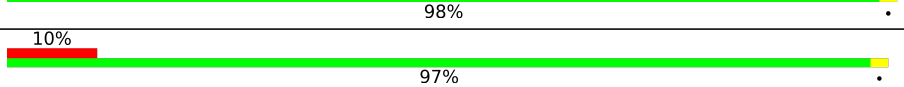
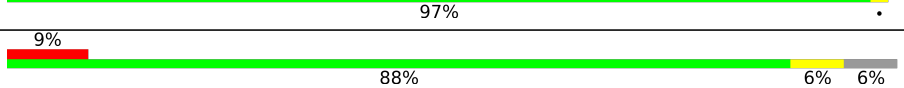
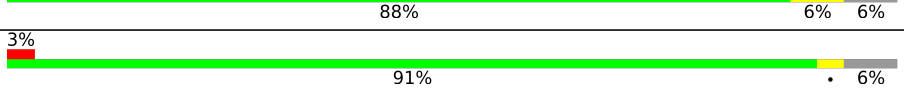
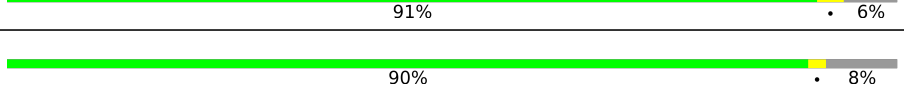
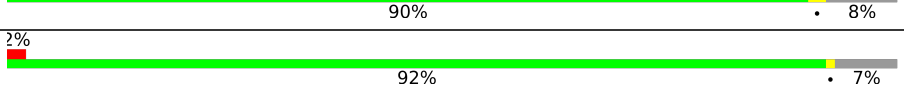
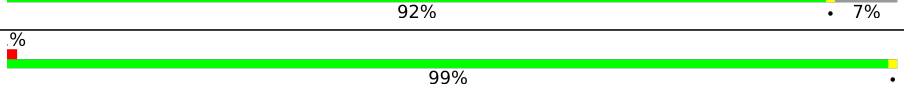
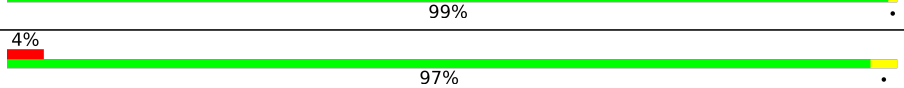
Mol	Chain	Length	Quality of chain
4	d	342	
5	E	84	
5	e	84	
6	F	44	
6	f	44	
7	H	65	
7	h	65	
8	I	38	
8	i	38	
9	J	39	
9	j	39	
10	K	37	
10	k	37	
11	L	37	
11	l	37	
12	M	36	
12	m	36	
13	O	244	
13	o	244	
14	T	32	
14	t	32	
15	U	104	
15	u	104	
16	V	137	
16	v	137	

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Mol	Chain	Length	Quality of chain
17	X	40	5% 95% 5%
17	x	40	10% 95% 5%
18	Y	30	20% 97%
18	y	30	17% 87% 10%
19	Z	62	10% 98%
19	z	62	18% 85% 15%
20	R	34	59% 91% 9%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	A	404[A]	X	-	-	-
23	CLA	A	404[B]	X	-	-	-
23	CLA	A	405[A]	X	-	-	-
23	CLA	A	405[B]	X	-	-	-
23	CLA	A	407	X	-	-	-
23	CLA	B	601	X	-	-	-
23	CLA	B	602	X	-	-	-
23	CLA	B	603	X	-	-	-
23	CLA	B	604	X	-	-	-
23	CLA	B	605	X	-	-	-
23	CLA	B	606	X	-	-	-
23	CLA	B	607	X	-	-	-
23	CLA	B	609	X	-	-	-
23	CLA	B	610	X	-	-	-
23	CLA	B	611	X	-	-	-
23	CLA	B	612	X	-	-	-
23	CLA	B	613	X	-	-	-
23	CLA	B	614	X	-	-	-
23	CLA	B	615	X	-	-	-
23	CLA	B	616	X	-	-	-
23	CLA	C	502	X	-	-	-
23	CLA	C	503	X	-	-	-
23	CLA	C	505	X	-	-	-
23	CLA	C	506	X	-	-	-
23	CLA	C	507	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	C	508	X	-	-	-
23	CLA	C	509	X	-	-	-
23	CLA	C	510	X	-	-	-
23	CLA	C	511	X	-	-	-
23	CLA	C	512	X	-	-	-
23	CLA	C	513	X	-	-	-
23	CLA	C	514	X	-	-	-
23	CLA	D	403[A]	X	-	-	-
23	CLA	D	403[B]	X	-	-	-
23	CLA	D	404	X	-	-	-
23	CLA	a	404[A]	X	-	-	-
23	CLA	a	404[B]	X	-	-	-
23	CLA	a	407	X	-	-	-
23	CLA	b	601	X	-	-	-
23	CLA	b	602	X	-	-	-
23	CLA	b	603	X	-	-	-
23	CLA	b	604	X	-	-	-
23	CLA	b	605	X	-	-	-
23	CLA	b	606	X	-	-	-
23	CLA	b	607	X	-	-	-
23	CLA	b	609	X	-	-	-
23	CLA	b	610	X	-	-	-
23	CLA	b	611	X	-	-	-
23	CLA	b	612	X	-	-	-
23	CLA	b	613	X	-	-	-
23	CLA	b	614	X	-	-	-
23	CLA	b	615	X	-	-	-
23	CLA	b	616	X	-	-	-
23	CLA	c	502	X	-	-	-
23	CLA	c	503	X	-	-	-
23	CLA	c	504	X	-	-	-
23	CLA	c	505	X	-	-	-
23	CLA	c	506	X	-	-	-
23	CLA	c	507	X	-	-	-
23	CLA	c	508	X	-	-	-
23	CLA	c	509	X	-	-	-
23	CLA	c	510	X	-	-	-
23	CLA	c	511	X	-	-	-
23	CLA	c	512	X	-	-	-
23	CLA	c	513	X	-	-	-
23	CLA	d	402[A]	X	-	-	-
23	CLA	d	402[B]	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
23	CLA	d	403[A]	X	-	-	-
23	CLA	d	403[B]	X	-	-	-
23	CLA	d	404	X	-	-	-
26	GOL	D	413	-	X	-	-
26	GOL	a	417	-	-	-	X
29	UNL	c	525[A]	-	-	-	X
29	UNL	c	525[B]	-	-	-	X
32	LMT	F	101	-	-	-	X
32	LMT	a	416	-	-	-	X
32	LMT	e	101	-	-	-	X
33	LHG	a	419[A]	-	-	-	X
33	LHG	a	419[B]	-	-	-	X
35	HTG	b	623	-	-	-	X

2 Entry composition (i)

There are 41 unique types of molecules in this entry. The entry contains 62600 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Photosystem II protein D1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	334	Total	C	N	O	S	0	222	0
			4338	2836	717	760	25			
1	a	334	Total	C	N	O	S	0	221	0
			4330	2830	716	759	25			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	279	PRO	ARG	conflict	UNP P51765
a	279	PRO	ARG	conflict	UNP P51765

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	504	Total	C	N	O	S	0	20	0
			4146	2721	692	720	13			
2	b	504	Total	C	N	O	S	0	19	0
			4134	2718	687	716	13			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	451	Total	C	N	O	S	0	97	0
			4260	2788	713	741	18			
3	c	455	Total	C	N	O	S	0	100	0
			4308	2821	719	750	18			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	19	ASN	-	expression tag	UNP D0VWR7
C	20	SER	-	expression tag	UNP D0VWR7

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Chain	Residue	Modelled	Actual	Comment	Reference
C	21	ILE	-	expression tag	UNP D0VWR7
C	22	PHE	-	expression tag	UNP D0VWR7
c	19	ASN	-	expression tag	UNP D0VWR7
c	20	SER	-	expression tag	UNP D0VWR7
c	21	ILE	-	expression tag	UNP D0VWR7
c	22	PHE	-	expression tag	UNP D0VWR7

- 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	114	0
			3620	2387	596	622	15			
4	d	341	Total	C	N	O	S	0	116	0
			3628	2391	599	623	15			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
5	E	81	Total	C	N	O	0	0	0
			662	432	107	123			
5	e	79	Total	C	N	O	0	2	0
			670	439	110	121			

- 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	31	Total	C	N	O	S	0	1	0
			261	179	43	38	1			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	H	64	Total	C	N	O	S	0	0	0
			506	339	81	84	2			
7	h	64	Total	C	N	O	S	0	1	0
			517	345	85	85	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	I	38	Total 314	C 211	N 48	O 54	S 1	0	0	0
8	i	38	Total 314	C 211	N 48	O 54	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	J	38	Total 272	C 182	N 42	O 47	S 1	0	0	0
9	j	39	Total 277	C 185	N 43	O 48	S 1	0	0	0

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

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

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
K	33	LEU	PHE	conflict	UNP P19054
K	39	TRP	VAL	conflict	UNP P19054
k	33	LEU	PHE	conflict	UNP P19054
k	39	TRP	VAL	conflict	UNP P19054

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
11	L	36	Total 311	C 207	N 49	O 55	0	2	0
11	l	36	Total 311	C 207	N 49	O 55	0	2	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	M	33	Total 268	C 179	N 39	O 49	S 1	0	1	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	m	34	Total	C	N	O	S	0	2	0
			286	190	43	52	1			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
M	8	LEU	PHE	conflict	UNP P12312
m	8	LEU	PHE	conflict	UNP P12312

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	O	243	Total	C	N	O	S	0	10	0
			1958	1221	335	398	4			
13	o	243	Total	C	N	O	S	0	8	0
			1933	1207	330	392	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	T	30	Total	C	N	O	S	0	6	0
			311	213	48	48	2			
14	t	30	Total	C	N	O	S	0	5	0
			302	208	47	45	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
15	U	96	Total	C	N	O	0	4	0
			800	508	133	159			
15	u	97	Total	C	N	O	0	4	0
			807	513	134	160			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	V	137	Total	C	N	O	S	0	6	0
			1120	711	185	220	4			
16	v	137	Total	C	N	O	S	0	6	0
			1117	712	185	216	4			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
17	X	38	Total 289	C 194	N 46	O 49	0	1	0
17	x	38	Total 281	C 188	N 45	O 48	0	0	0

- Molecule 18 is a protein called Photosystem II reaction center protein Ycf12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	Y	29	Total 215	C 142	N 37	O 33	S 3	0	0	0
18	y	29	Total 215	C 142	N 37	O 33	S 3	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 479	C 328	N 72	O 77	S 2	0	0	0
19	z	62	Total 479	C 328	N 72	O 77	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 FE (II) ION (three-letter code: FE2) (formula: Fe) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
21	A	1	Total 2	Fe 2	0	1
21	a	1	Total 2	Fe 2	0	1

- Molecule 22 is CHLORIDE ION (three-letter code: CL) (formula: Cl) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
22	A	2	Total 4	Cl 4	0	2

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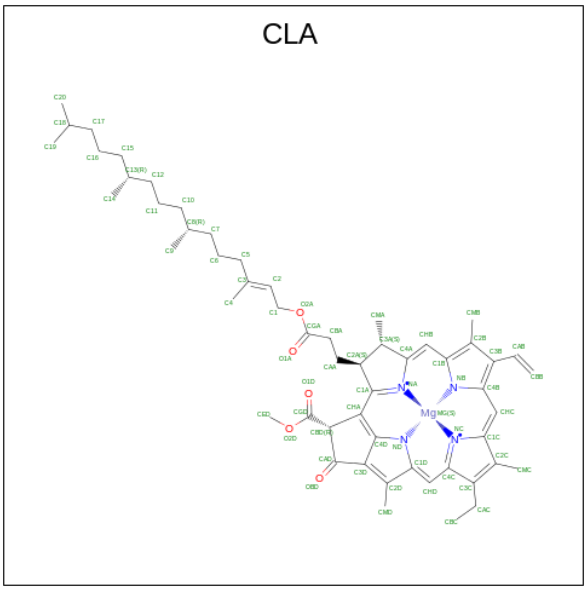
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	a	2	Total Cl 4 4	0	2

- Molecule 23 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	A	1	Total C Mg N O 130 110 2 8 10	0	1
23	A	1	Total C Mg N O 130 110 2 8 10	0	1
23	A	1	Total C Mg N O 130 110 2 8 10	0	1
23	A	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0
23	B	1	Total C Mg N O 65 55 1 4 5	0	0

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

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	C	1	Total C Mg N O 65 55 1 4 5	0	0
23	D	1	Total C Mg N O 130 110 2 8 10	0	1
23	D	1	Total C Mg N O 65 55 1 4 5	0	0
23	a	1	Total C Mg N O 130 110 2 8 10	0	1
23	a	1	Total C Mg N O 130 110 2 8 10	0	1
23	a	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0

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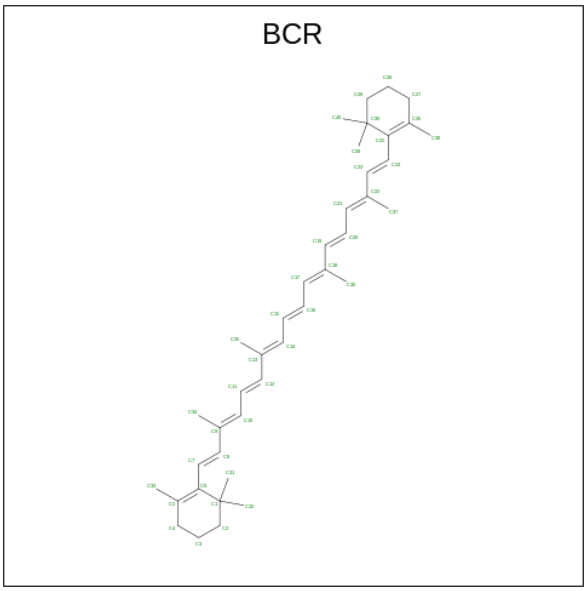
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	b	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	c	1	Total C Mg N O 65 55 1 4 5	0	0
23	d	1	Total C Mg N O 130 110 2 8 10	0	1
23	d	1	Total C Mg N O 130 110 2 8 10	0	1
23	d	1	Total C Mg N O 65 55 1 4 5	0	0

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



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	A	1	Total C 40 40	0	0
24	B	1	Total C 40 40	0	0
24	B	1	Total C 40 40	0	0
24	B	1	Total C 40 40	0	0
24	C	1	Total C 40 40	0	0
24	C	1	Total C 40 40	0	0
24	D	1	Total C 40 40	0	0
24	H	1	Total C 40 40	0	0
24	K	1	Total C 40 40	0	0
24	T	1	Total C 40 40	0	0
24	Y	1	Total C 40 40	0	0
24	a	1	Total C 40 40	0	0
24	b	1	Total C 40 40	0	0
24	b	1	Total C 40 40	0	0

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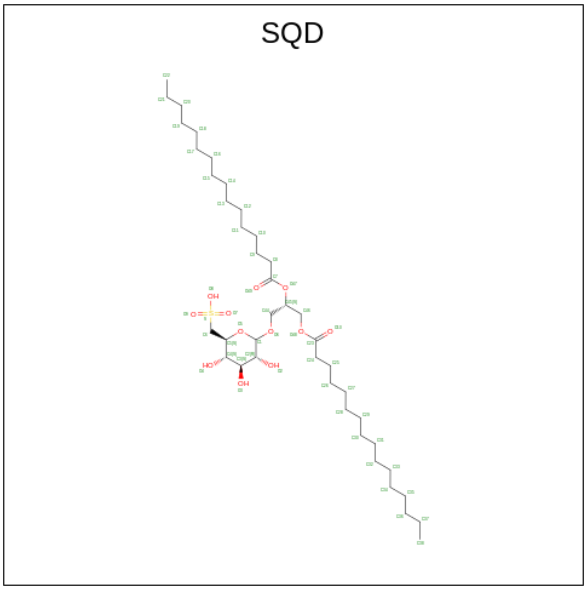
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
24	b	1	Total C 40 40	0	0
24	c	1	Total C 40 40	0	0
24	c	1	Total C 40 40	0	0
24	d	1	Total C 40 40	0	0
24	h	1	Total C 40 40	0	0
24	k	1	Total C 40 40	0	0
24	t	1	Total C 40 40	0	0
24	y	1	Total C 40 40	0	0

- Molecule 25 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
25	A	1	Total C O S 108 82 24 2	0	1
25	A	1	Total C O S 54 41 12 1	0	0
25	X	1	Total C O S 43 30 12 1	0	0

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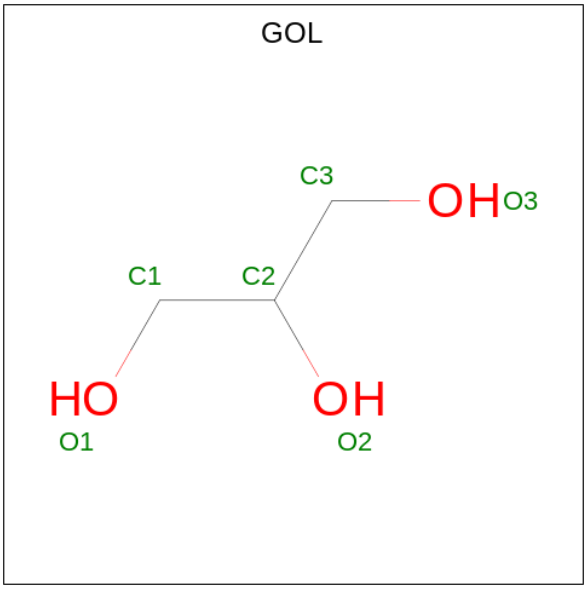
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
25	a	1	Total C O S 108 82 24 2	0	1
25	a	1	Total C O S 54 41 12 1	0	0
25	b	1	Total C O S 54 41 12 1	0	0
25	f	1	Total C O S 43 30 12 1	0	0
25	l	1	Total C O S 54 41 12 1	0	0

- Molecule 26 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	A	1	Total C O 6 3 3	0	0
26	B	1	Total C O 6 3 3	0	0
26	B	1	Total C O 6 3 3	0	0
26	C	1	Total C O 12 6 6	0	1
26	D	1	Total C O 6 3 3	0	0
26	D	1	Total C O 6 3 3	0	0

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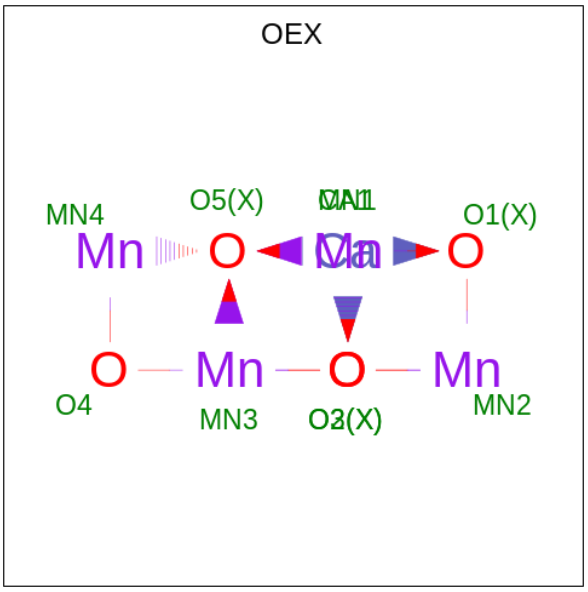
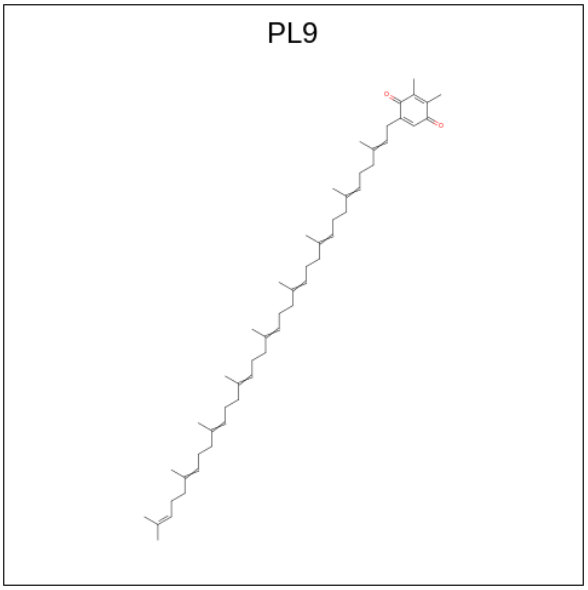
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	O	1	Total C O 6 3 3	0	0
26	O	1	Total C O 6 3 3	0	0
26	V	1	Total C O 12 6 6	0	1
26	a	1	Total C O 6 3 3	0	0
26	a	1	Total C O 6 3 3	0	0
26	a	1	Total C O 6 3 3	0	0
26	b	1	Total C O 6 3 3	0	0
26	b	1	Total C O 6 3 3	0	0
26	c	1	Total C O 12 6 6	0	1
26	c	1	Total C O 6 3 3	0	0
26	d	1	Total C O 6 3 3	0	0
26	l	1	Total C O 12 6 6	0	1
26	o	1	Total C O 6 3 3	0	0
26	o	1	Total C O 6 3 3	0	0
26	v	1	Total C O 12 6 6	0	1

- Molecule 27 is CA-MN4-O5 CLUSTER (three-letter code: OEX) (formula: $CaMn_4O_5$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
27	A	1	Total	Ca	Mn	O	0	1
			20	2	8	10		
27	a	1	Total	Ca	Mn	O	0	1
			20	2	8	10		

- Molecule 28 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: $C_{53}H_{80}O_2$) (labeled as "Ligand of Interest" by depositor).

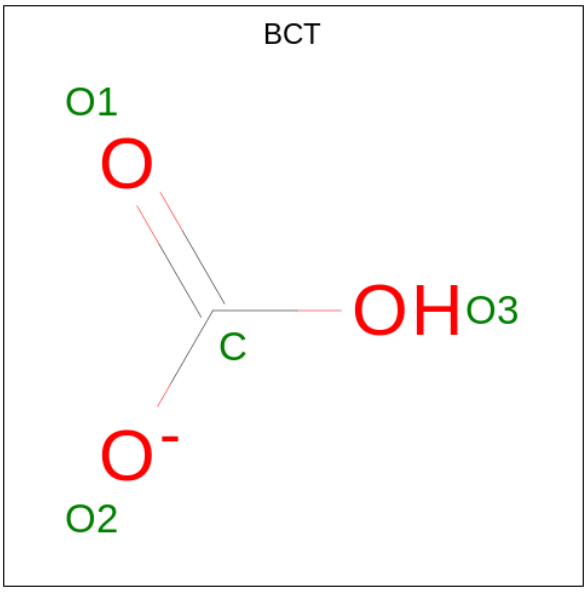


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	A	1	Total C O 110 106 4	0	1
28	D	1	Total C O 110 106 4	0	1
28	a	1	Total C O 110 106 4	0	1
28	d	1	Total C O 110 106 4	0	1

- Molecule 29 is UNKNOWN LIGAND (three-letter code: UNL) (formula:).

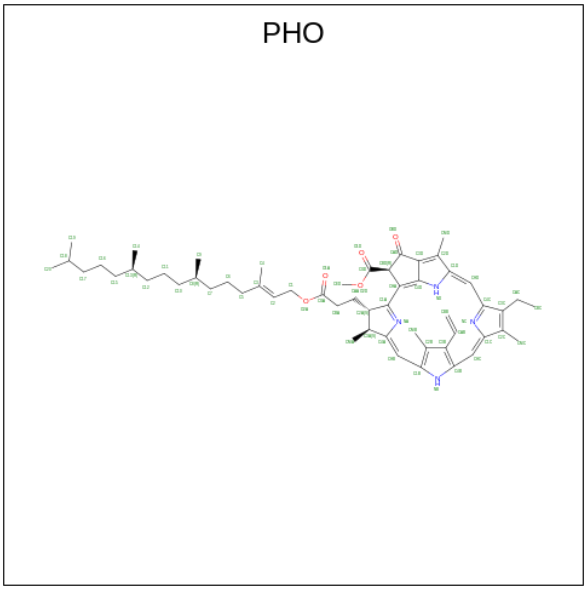
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	A	1	Total C O 28 23 5	0	0
29	B	2	Total C O 73 63 10	0	0
29	D	2	Total C O 57 51 6	0	0
29	I	1	Total C O 40 35 5	0	0
29	J	1	Total C 10 10	0	0
29	K	1	Total C O 68 58 10	0	1
29	X	1	Total C O 18 16 2	0	0
29	a	1	Total C O 30 25 5	0	0
29	b	1	Total C O 33 28 5	0	0
29	c	1	Total C O 64 54 10	0	1
29	d	3	Total C O 71 63 8	0	0
29	j	1	Total C 10 10	0	0
29	l	1	Total C 10 10	0	0
29	m	1	Total C 10 10	0	0

- Molecule 30 is BICARBONATE ION (three-letter code: BCT) (formula: CHO_3) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	A	1	Total C O 8 2 6	0	1
30	d	1	Total C O 8 2 6	0	1

- Molecule 31 is PHEOPHYTIN A (three-letter code: PHO) (formula: $C_{55}H_{74}N_4O_5$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	A	1	Total C N O 128 110 8 10	0	1
31	D	1	Total C N O 128 110 8 10	0	1

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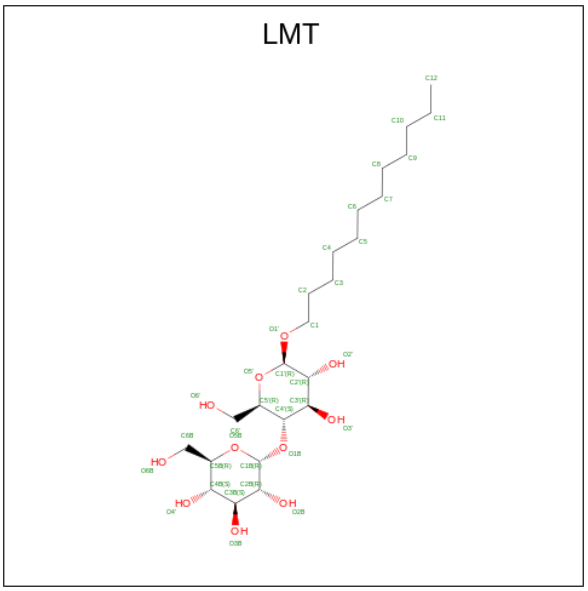
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
31	a	1	Total	C	N	O	0	1
			128	110	8	10		
31	a	1	Total	C	N	O	0	1
			128	110	8	10		

- 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	0	0
			35	24	11		
32	A	1	Total	C	O	0	0
			35	24	11		
32	B	1	Total	C	O	0	0
			35	24	11		
32	B	1	Total	C	O	0	0
			35	24	11		
32	B	1	Total	C	O	0	0
			25	19	6		
32	F	1	Total	C	O	0	0
			35	24	11		
32	M	1	Total	C	O	0	0
			35	24	11		
32	T	1	Total	C	O	0	0
			35	24	11		
32	a	1	Total	C	O	0	0
			35	24	11		

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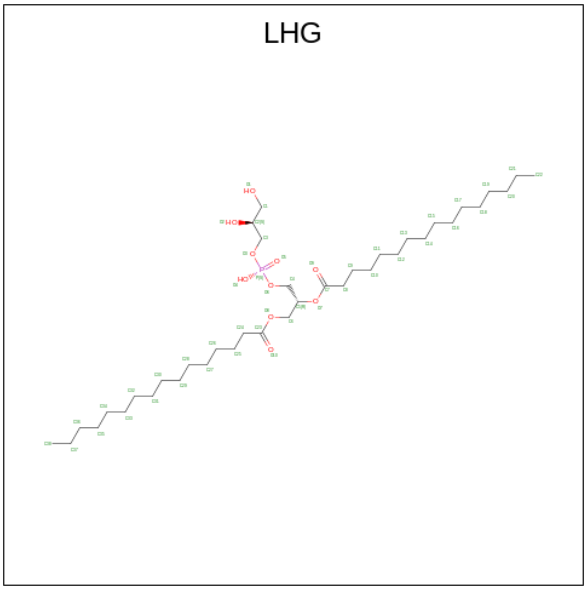
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
32	b	1	Total C O 25 19 6	0	0
32	b	1	Total C O 25 19 6	0	0
32	e	1	Total C O 35 24 11	0	0
32	m	1	Total C O 35 24 11	0	0
32	t	1	Total C O 26 19 7	0	0

- Molecule 33 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
33	A	1	Total C O P 98 76 20 2	0	1
33	D	1	Total C O P 98 76 20 2	0	1
33	D	1	Total C O P 98 76 20 2	0	1
33	E	1	Total C O P 84 62 20 2	0	1
33	L	1	Total C O P 98 76 20 2	0	1
33	a	1	Total C O P 84 62 20 2	0	1

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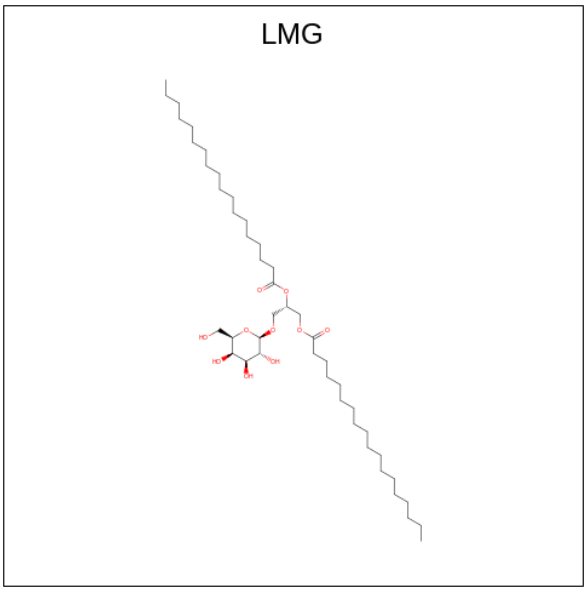
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
33	b	1	Total	C	O	P	0	1
			98	76	20	2		
33	d	1	Total	C	O	P	0	1
			98	76	20	2		
33	d	1	Total	C	O	P	0	1
			98	76	20	2		
33	d	1	Total	C	O	P	0	1
			98	76	20	2		

- Molecule 34 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
34	B	1	Total	C	O	0	0
			51	41	10		
34	C	1	Total	C	O	0	0
			51	41	10		
34	C	1	Total	C	O	0	0
			51	41	10		
34	C	1	Total	C	O	0	0
			51	41	10		
34	D	1	Total	C	O	0	0
			51	41	10		
34	c	1	Total	C	O	0	0
			51	41	10		
34	c	1	Total	C	O	0	0
			51	41	10		

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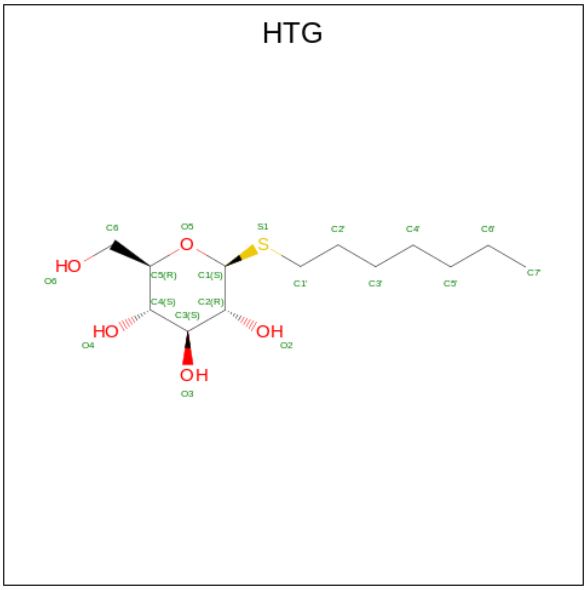
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
34	c	1	Total C O 51 41 10	0	0
34	d	1	Total C O 51 41 10	0	0
34	m	1	Total C O 51 41 10	0	0
34	Z	1	Total C O 37 27 10	0	0
34	z	1	Total C O 39 29 10	0	0

- 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 19 13 5 1	0	0
35	B	1	Total C O S 19 13 5 1	0	0
35	C	1	Total C O S 19 13 5 1	0	0
35	D	1	Total C O S 16 10 5 1	0	0
35	V	1	Total C O 11 6 5	0	0
35	b	1	Total C O S 19 13 5 1	0	0

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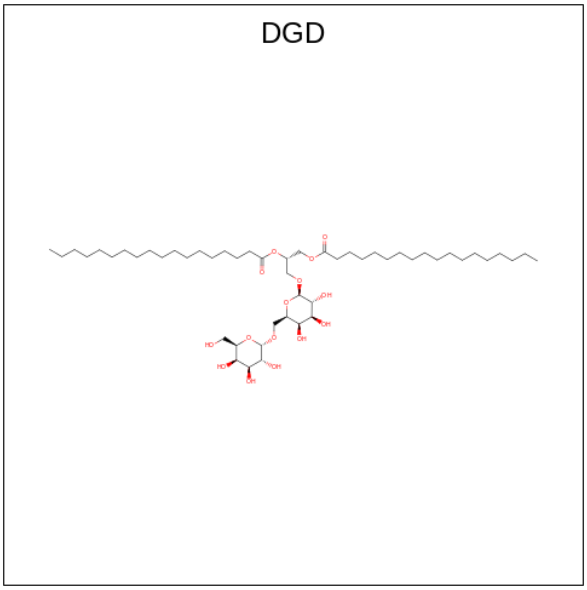
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
35	b	1	Total C O S 19 13 5 1	0	0
35	b	1	Total C O S 19 13 5 1	0	0
35	c	1	Total C O S 19 13 5 1	0	0
35	d	1	Total C O S 16 10 5 1	0	0
35	o	1	Total C O S 19 13 5 1	0	0

- 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 124 94 30	0	1
36	C	1	Total C O 124 94 30	0	1
36	C	1	Total C O 62 47 15	0	0
36	H	1	Total C O 62 47 15	0	0
36	c	1	Total C O 124 94 30	0	1
36	c	1	Total C O 124 94 30	0	1

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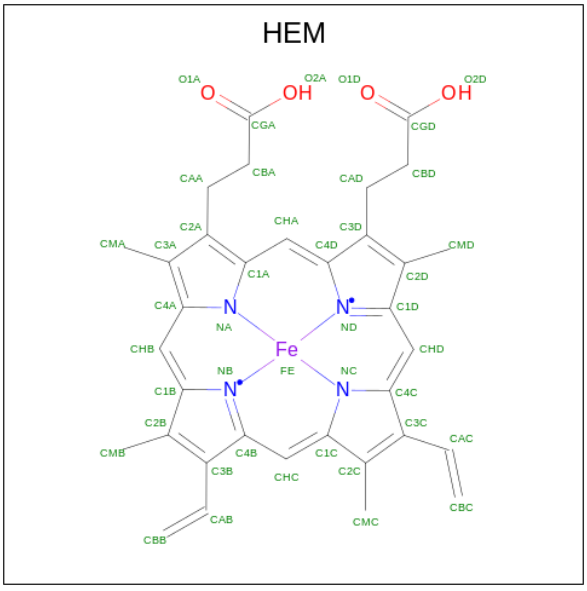
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
36	c	1	Total C O 62 47 15	0	0
36	h	1	Total C O 62 47 15	0	0

- Molecule 37 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
37	C	1	Total Ca 1 1	0	0
37	F	1	Total Ca 1 1	0	0
37	O	1	Total Ca 1 1	0	0
37	c	2	Total Ca 2 2	0	0
37	f	1	Total Ca 1 1	0	0
37	o	1	Total Ca 1 1	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 43 34 1 4 4	0	0

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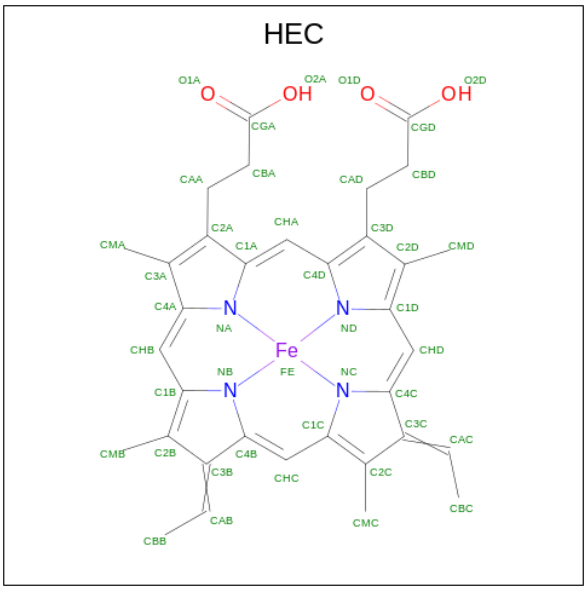
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
38	f	1	Total	C	Fe	N	O	0	0
			43	34	1	4	4		

- 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		

- Molecule 40 is HEME C (three-letter code: HEC) (formula: $C_{34}H_{34}FeN_4O_4$).



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

- Molecule 41 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
41	A	133	Total	O	0	83
			215	215		
41	B	190	Total	O	0	3
			193	193		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
41	C	165	Total O 202 202	0	37
41	D	127	Total O 162 162	0	35
41	E	15	Total O 15 15	0	0
41	F	6	Total O 6 6	0	0
41	H	23	Total O 23 23	0	0
41	I	6	Total O 6 6	0	0
41	J	7	Total O 7 7	0	0
41	K	6	Total O 6 6	0	0
41	L	7	Total O 8 8	0	1
41	M	5	Total O 5 5	0	0
41	O	102	Total O 106 106	0	4
41	T	10	Total O 13 13	0	3
41	U	47	Total O 49 49	0	2
41	V	80	Total O 82 82	0	2
41	X	8	Total O 8 8	0	0
41	a	129	Total O 207 207	0	79
41	b	206	Total O 209 209	0	3
41	c	159	Total O 192 192	0	33
41	d	118	Total O 152 152	0	34
41	e	9	Total O 9 9	0	0
41	f	3	Total O 3 3	0	0

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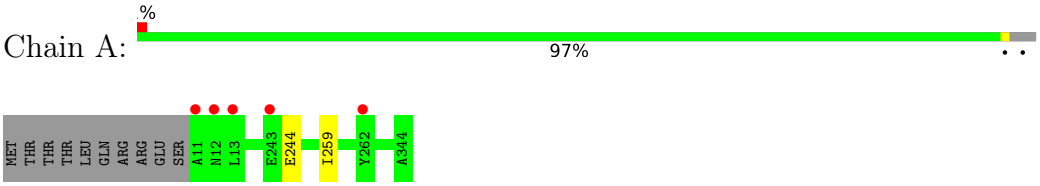
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
41	h	18	Total O 18 18	0	0
41	i	2	Total O 2 2	0	0
41	j	1	Total O 1 1	0	0
41	k	3	Total O 3 3	0	0
41	l	7	Total O 8 8	0	1
41	m	12	Total O 12 12	0	0
41	o	95	Total O 99 99	0	4
41	t	8	Total O 11 11	0	3
41	u	50	Total O 51 51	0	1
41	v	58	Total O 61 61	0	3
41	x	6	Total O 6 6	0	0
41	y	2	Total O 2 2	0	0

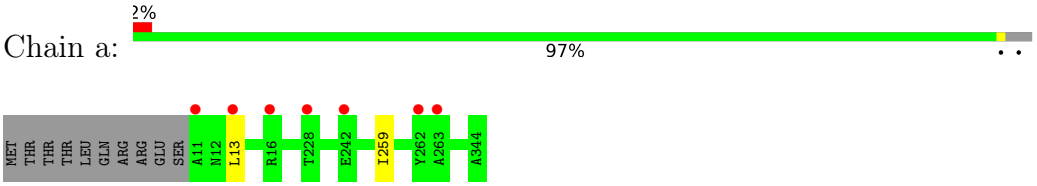
3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

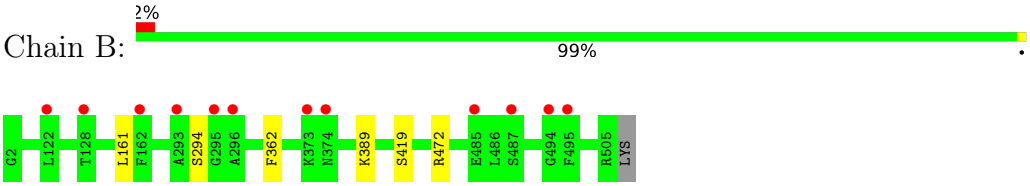
• Molecule 1: Photosystem II protein D1



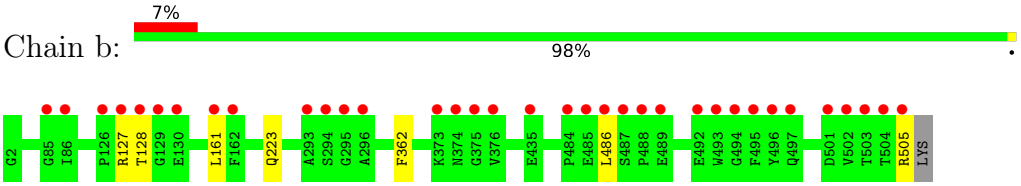
• Molecule 1: Photosystem II protein D1



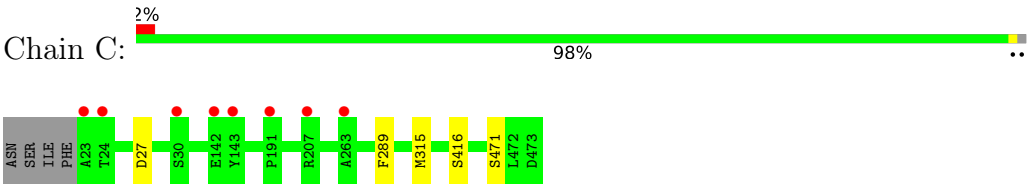
• Molecule 2: Photosystem II CP47 reaction center protein



• Molecule 2: Photosystem II CP47 reaction center protein

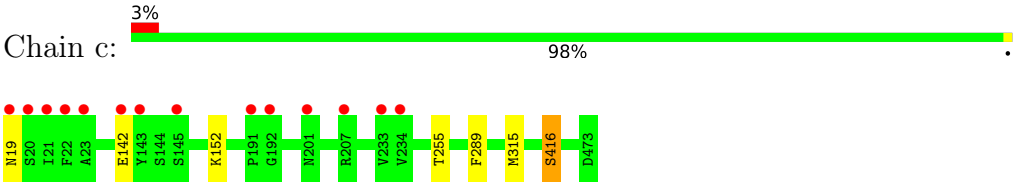


• Molecule 3: Photosystem II CP43 reaction center protein



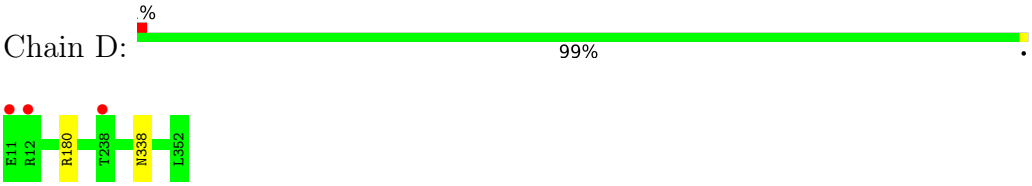
• Molecule 3: Photosystem II CP43 reaction center protein

Chain c:



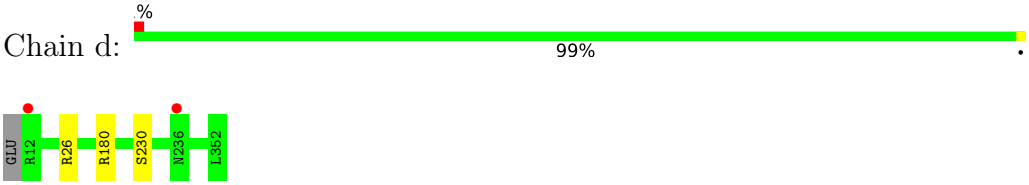
• Molecule 4: Photosystem II D2 protein

Chain D:



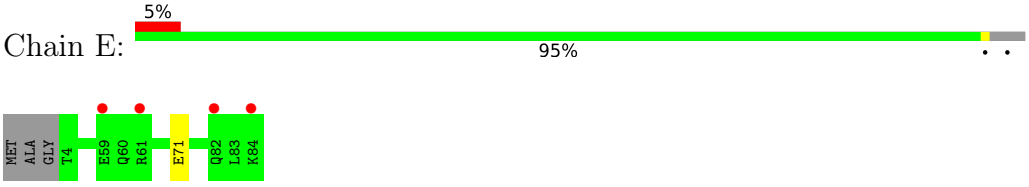
• Molecule 4: Photosystem II D2 protein

Chain d:



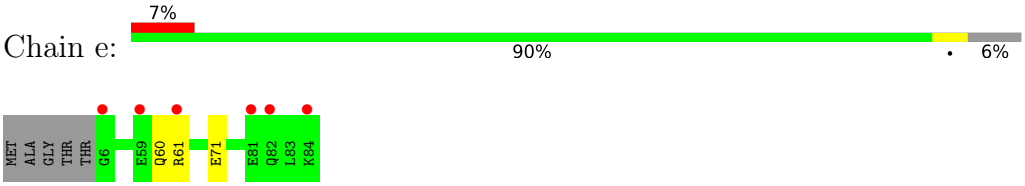
• Molecule 5: Cytochrome b559 subunit alpha

Chain E:



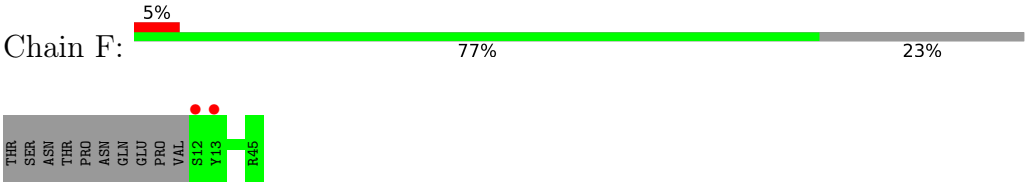
• Molecule 5: Cytochrome b559 subunit alpha

Chain e:



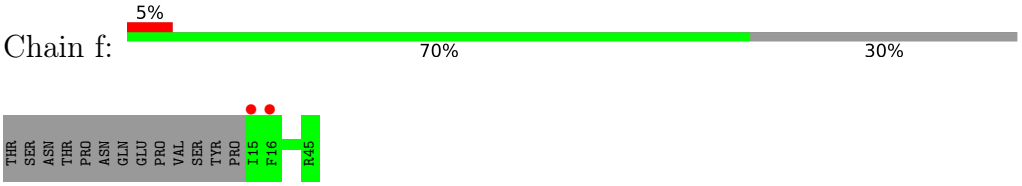
• Molecule 6: Cytochrome b559 subunit beta

Chain F:



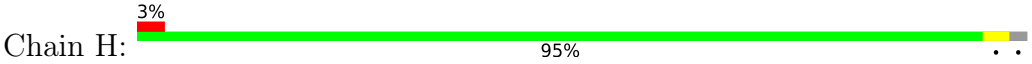
• Molecule 6: Cytochrome b559 subunit beta

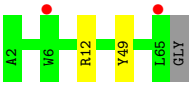
Chain f:



• Molecule 7: Photosystem II reaction center protein H

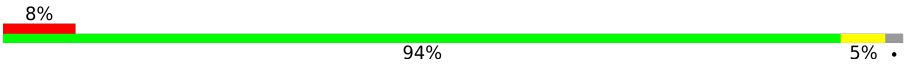
Chain H:

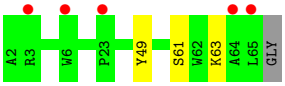




• Molecule 7: Photosystem II reaction center protein H

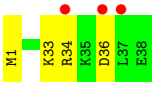
Chain h:





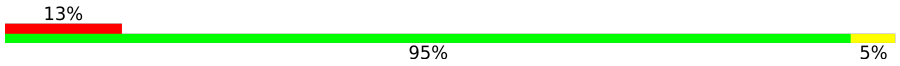
• Molecule 8: Photosystem II reaction center protein I

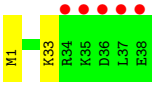
Chain I:



• Molecule 8: Photosystem II reaction center protein I

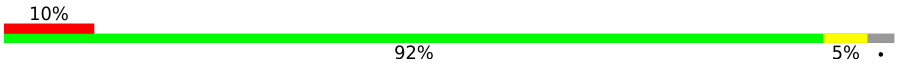
Chain i:

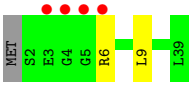




• Molecule 9: Photosystem II reaction center protein J

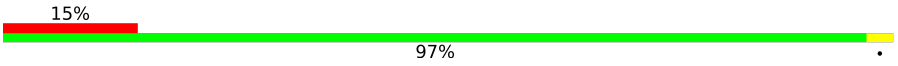
Chain J:

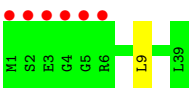




• Molecule 9: Photosystem II reaction center protein J

Chain j:





• Molecule 10: Photosystem II reaction center protein K

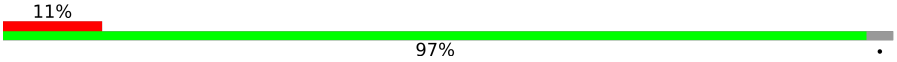
Chain K:

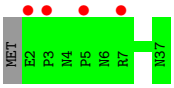
• Molecule 10: Photosystem II reaction center protein K

Chain k:

• Molecule 11: Photosystem II reaction center protein L

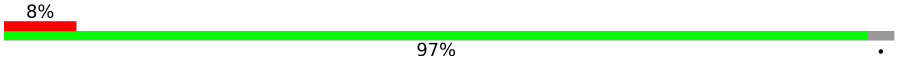
Chain L:

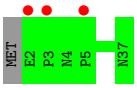




• Molecule 11: Photosystem II reaction center protein L

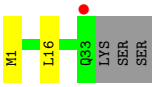
Chain l:





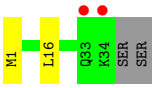
• Molecule 12: Photosystem II reaction center protein M

Chain M:



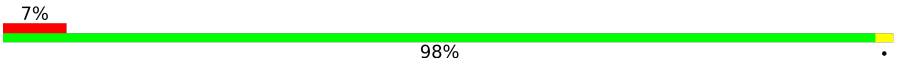
• Molecule 12: Photosystem II reaction center protein M

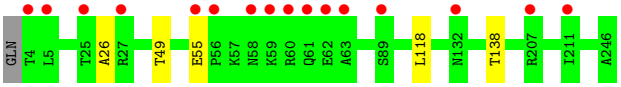
Chain m:



• Molecule 13: Photosystem II manganese-stabilizing polypeptide

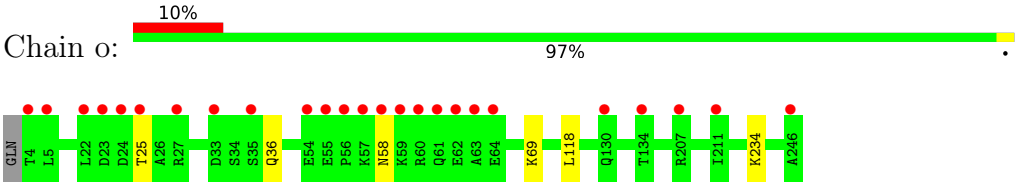
Chain O:





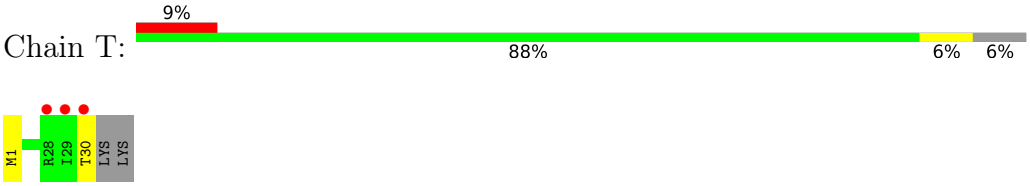
• Molecule 13: Photosystem II manganese-stabilizing polypeptide

Chain o:



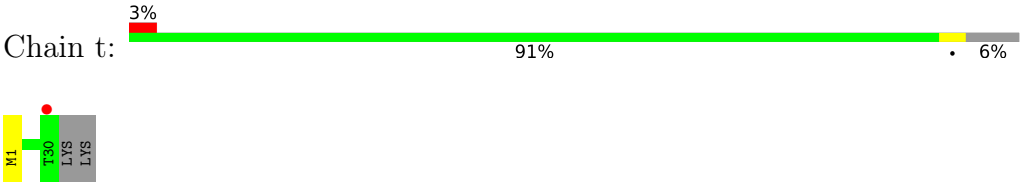
• Molecule 14: Photosystem II reaction center protein T

Chain T:



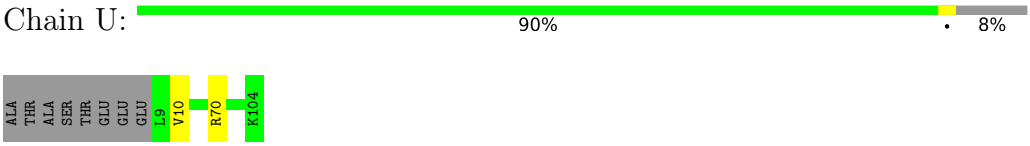
• Molecule 14: Photosystem II reaction center protein T

Chain t:



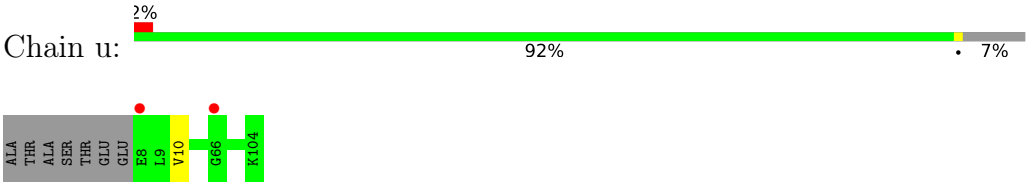
• Molecule 15: Photosystem II 12 kDa extrinsic protein

Chain U:



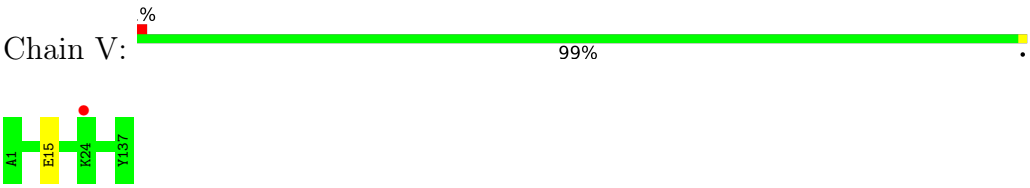
• Molecule 15: Photosystem II 12 kDa extrinsic protein

Chain u:



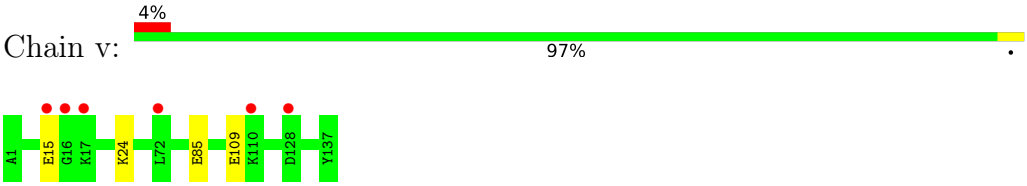
• Molecule 16: Cytochrome c-550

Chain V:



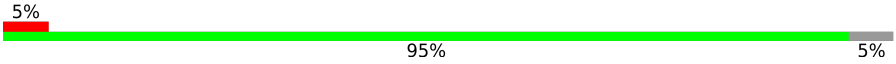
• Molecule 16: Cytochrome c-550

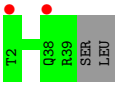
Chain v:



• Molecule 17: Photosystem II reaction center protein X

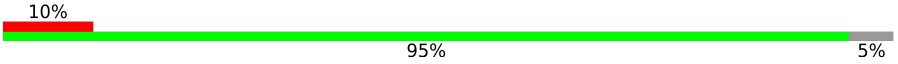
Chain X:

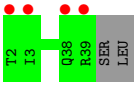




• Molecule 17: Photosystem II reaction center protein X

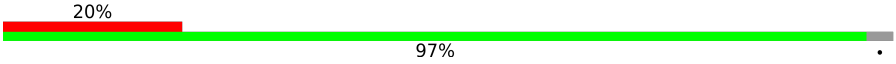
Chain x:

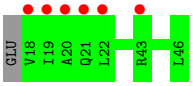




• Molecule 18: Photosystem II reaction center protein Ycf12

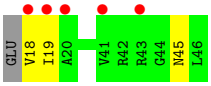
Chain Y:





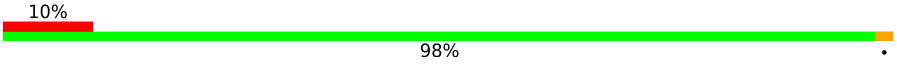
• Molecule 18: Photosystem II reaction center protein Ycf12

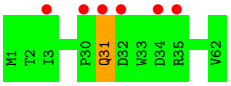
Chain y:



• Molecule 19: Photosystem II reaction center protein Z

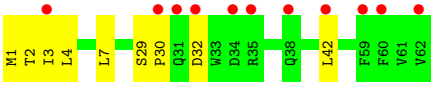
Chain Z:





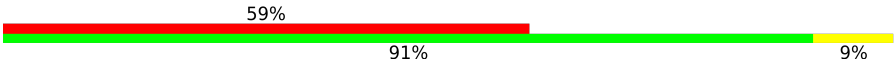
• Molecule 19: Photosystem II reaction center protein Z

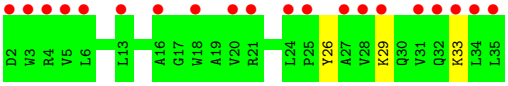
Chain z:



• Molecule 20: Photosystem II protein Y

Chain R:




D2
W3
R4
V5
L6
L13
A16
G17
W18
A19
V20
R21
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	125.77Å 231.76Å 288.58Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	19.99 – 2.30 19.99 – 2.30	Depositor EDS
% Data completeness (in resolution range)	100.0 (19.99-2.30) 100.0 (19.99-2.30)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.70 (at 2.30Å)	Xtriage
Refinement program	PHENIX (1.19.2_4158: ???)	Depositor
R, R_{free}	0.142 , 0.183 0.142 , 0.183	Depositor DCC
R_{free} test set	18655 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å^2)	50.8	Xtriage
Anisotropy	0.494	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.36 , 86.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.98	EDS
Total number of atoms	62600	wwPDB-VP
Average B, all atoms (Å^2)	63.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.66% 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: FE2, SQD, HEC, CA, LMT, CL, CLA, PL9, FME, LHG, DGD, PHO, GOL, MG, OEX, HEM, UNL, LMG, HTG, BCR, BCT

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	0.44	0/4478	0.58	0/6098
1	a	0.42	0/4470	0.56	0/6087
2	B	0.46	0/4293	0.59	0/5851
2	b	0.42	0/4285	0.58	0/5841
3	C	0.41	0/4404	0.56	0/5997
3	c	0.40	0/4459	0.55	0/6071
4	D	0.47	0/3741	0.60	0/5095
4	d	0.45	0/3749	0.58	0/5106
5	E	0.43	0/681	0.61	0/928
5	e	0.40	0/690	0.55	0/939
6	F	0.41	0/284	0.56	0/387
6	f	0.36	0/269	0.51	0/365
7	H	0.40	0/519	0.60	0/708
7	h	0.38	0/530	0.59	0/722
8	I	0.39	0/311	0.54	0/419
8	i	0.43	0/311	0.56	0/419
9	J	0.42	0/278	0.54	0/376
9	j	0.36	0/283	0.53	0/383
10	K	0.39	0/303	0.52	0/416
10	k	0.40	0/303	0.52	0/416
11	L	0.43	0/318	0.57	0/433
11	l	0.48	0/318	0.53	0/433
12	M	0.46	0/261	0.53	0/357
12	m	0.44	0/279	0.52	0/380
13	O	0.43	0/1991	0.65	0/2698
13	o	0.41	0/1966	0.65	0/2665
14	T	0.49	0/310	0.62	0/419
14	t	0.43	0/301	0.60	0/406
15	U	0.45	0/811	0.62	0/1095
15	u	0.45	0/818	0.64	0/1105
16	V	0.40	0/1142	0.57	0/1545

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
16	v	0.35	0/1139	0.56	0/1542
17	X	0.34	0/292	0.51	0/395
17	x	0.35	0/284	0.47	0/384
18	Y	0.33	0/216	0.56	0/289
18	y	0.31	0/216	0.52	0/289
19	Z	0.33	0/490	0.48	0/669
19	z	0.33	0/490	0.42	0/669
20	R	0.31	0/279	0.52	0/383
All	All	0.42	0/50562	0.58	0/68780

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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	553/344 (161%)	542 (98%)	9 (2%)	2 (0%)	34	42
1	a	552/344 (160%)	541 (98%)	9 (2%)	2 (0%)	34	42
2	B	522/505 (103%)	515 (99%)	7 (1%)	0	100	100
2	b	521/505 (103%)	510 (98%)	11 (2%)	0	100	100
3	C	546/455 (120%)	536 (98%)	9 (2%)	1 (0%)	47	58
3	c	553/455 (122%)	539 (98%)	13 (2%)	1 (0%)	47	58

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	D	453/342 (132%)	435 (96%)	18 (4%)	0	100	100
4	d	454/342 (133%)	439 (97%)	15 (3%)	0	100	100
5	E	79/84 (94%)	78 (99%)	1 (1%)	0	100	100
5	e	79/84 (94%)	79 (100%)	0	0	100	100
6	F	32/44 (73%)	32 (100%)	0	0	100	100
6	f	30/44 (68%)	30 (100%)	0	0	100	100
7	H	62/65 (95%)	60 (97%)	2 (3%)	0	100	100
7	h	63/65 (97%)	59 (94%)	3 (5%)	1 (2%)	9	9
8	I	36/38 (95%)	34 (94%)	1 (3%)	1 (3%)	5	3
8	i	36/38 (95%)	32 (89%)	4 (11%)	0	100	100
9	J	36/39 (92%)	35 (97%)	1 (3%)	0	100	100
9	j	37/39 (95%)	37 (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	36/37 (97%)	36 (100%)	0	0	100	100
11	l	36/37 (97%)	36 (100%)	0	0	100	100
12	M	32/36 (89%)	32 (100%)	0	0	100	100
12	m	34/36 (94%)	34 (100%)	0	0	100	100
13	O	251/244 (103%)	242 (96%)	7 (3%)	2 (1%)	19	23
13	o	249/244 (102%)	243 (98%)	6 (2%)	0	100	100
14	T	33/32 (103%)	33 (100%)	0	0	100	100
14	t	32/32 (100%)	32 (100%)	0	0	100	100
15	U	97/104 (93%)	92 (95%)	5 (5%)	0	100	100
15	u	98/104 (94%)	93 (95%)	5 (5%)	0	100	100
16	V	140/137 (102%)	136 (97%)	4 (3%)	0	100	100
16	v	140/137 (102%)	134 (96%)	6 (4%)	0	100	100
17	X	37/40 (92%)	36 (97%)	1 (3%)	0	100	100
17	x	36/40 (90%)	36 (100%)	0	0	100	100
18	Y	27/30 (90%)	26 (96%)	1 (4%)	0	100	100
18	y	27/30 (90%)	27 (100%)	0	0	100	100
19	Z	60/62 (97%)	58 (97%)	1 (2%)	1 (2%)	9	8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	z	60/62 (97%)	59 (98%)	0	1 (2%)	9 8
20	R	32/34 (94%)	31 (97%)	1 (3%)	0	100 100
All	All	6171/5384 (115%)	6019 (98%)	140 (2%)	12 (0%)	47 58

5 of 12 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	416	SER
8	I	36	ASP
13	O	26	ALA
3	c	416	SER
19	Z	31	GLN

5.3.2 Protein sidechains (i)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	444/279 (159%)	442 (100%)	2 (0%)	88 95
1	a	443/279 (159%)	442 (100%)	1 (0%)	93 97
2	B	421/403 (104%)	415 (99%)	6 (1%)	67 81
2	b	420/403 (104%)	412 (98%)	8 (2%)	57 73
3	C	430/356 (121%)	425 (99%)	5 (1%)	71 84
3	c	436/356 (122%)	428 (98%)	8 (2%)	59 75
4	D	368/277 (133%)	366 (100%)	2 (0%)	88 95
4	d	369/277 (133%)	365 (99%)	4 (1%)	73 86
5	E	72/73 (99%)	71 (99%)	1 (1%)	67 81
5	e	72/73 (99%)	69 (96%)	3 (4%)	30 42
6	F	28/38 (74%)	28 (100%)	0	100 100
6	f	26/38 (68%)	26 (100%)	0	100 100
7	H	54/54 (100%)	52 (96%)	2 (4%)	34 48
7	h	55/54 (102%)	53 (96%)	2 (4%)	35 49

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
8	I	34/34 (100%)	32 (94%)	2 (6%)	19 27
8	i	34/34 (100%)	33 (97%)	1 (3%)	42 58
9	J	26/27 (96%)	24 (92%)	2 (8%)	13 16
9	j	26/27 (96%)	25 (96%)	1 (4%)	33 47
10	K	30/30 (100%)	26 (87%)	4 (13%)	4 4
10	k	30/30 (100%)	27 (90%)	3 (10%)	7 9
11	L	36/35 (103%)	36 (100%)	0	100 100
11	l	36/35 (103%)	36 (100%)	0	100 100
12	M	30/32 (94%)	28 (93%)	2 (7%)	16 21
12	m	32/32 (100%)	30 (94%)	2 (6%)	18 24
13	O	216/207 (104%)	213 (99%)	3 (1%)	67 81
13	o	213/207 (103%)	207 (97%)	6 (3%)	43 60
14	T	32/28 (114%)	30 (94%)	2 (6%)	18 24
14	t	31/28 (111%)	31 (100%)	0	100 100
15	U	86/89 (97%)	84 (98%)	2 (2%)	50 67
15	u	87/89 (98%)	85 (98%)	2 (2%)	50 67
16	V	123/117 (105%)	122 (99%)	1 (1%)	81 91
16	v	123/117 (105%)	119 (97%)	4 (3%)	38 53
17	X	32/33 (97%)	32 (100%)	0	100 100
17	x	31/33 (94%)	31 (100%)	0	100 100
18	Y	22/23 (96%)	22 (100%)	0	100 100
18	y	22/23 (96%)	19 (86%)	3 (14%)	3 3
19	Z	52/52 (100%)	51 (98%)	1 (2%)	57 73
19	z	52/52 (100%)	44 (85%)	8 (15%)	2 2
20	R	29/29 (100%)	26 (90%)	3 (10%)	7 8
All	All	5103/4403 (116%)	5007 (98%)	96 (2%)	55 73

5 of 96 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
5	e	60	GLN
13	o	58	ASN
5	e	71	GLU

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Mol	Chain	Res	Type
10	k	17	ILE
15	u	10[A]	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (4) such sidechains are listed below:

Mol	Chain	Res	Type
4	D	61	HIS
5	E	60	GLN
13	o	58	ASN
16	v	86	GLN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

6 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	$\#\|Z\| > 2$
12	FME	M	1	12	8,9,10	0.54	0	7,9,11	1.38	1 (14%)
14	FME	T	1	14	8,9,10	0.59	0	7,9,11	1.62	2 (28%)
8	FME	I	1	8	8,9,10	0.62	0	7,9,11	1.24	1 (14%)
12	FME	m	1	12	8,9,10	0.53	0	7,9,11	1.43	1 (14%)
8	FME	i	1	8	8,9,10	0.64	0	7,9,11	1.22	1 (14%)
14	FME	t	1	14	8,9,10	0.76	0	7,9,11	1.33	1 (14%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
12	FME	M	1	12	-	1/7/9/11	-
14	FME	T	1	14	-	0/7/9/11	-
8	FME	I	1	8	-	1/7/9/11	-
12	FME	m	1	12	-	2/7/9/11	-
8	FME	i	1	8	-	2/7/9/11	-
14	FME	t	1	14	-	0/7/9/11	-

There are no bond length outliers.

The worst 5 of 7 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	t	1	FME	O-C-CA	-2.36	118.58	124.78
14	T	1	FME	CA-N-CN	2.35	126.44	122.82
12	m	1	FME	O1-CN-N	-2.33	119.12	125.27
8	I	1	FME	O-C-CA	-2.19	119.03	124.78
12	M	1	FME	O-C-CA	-2.13	119.21	124.78

There are no chirality outliers.

5 of 6 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	I	1	FME	O-C-CA-CB
12	M	1	FME	O-C-CA-CB
12	m	1	FME	O-C-CA-CB
8	i	1	FME	CA-CB-CG-SD
12	m	1	FME	O1-CN-N-CA

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 274 ligands modelled in this entry, 21 are monoatomic and 20 are unknown - leaving 233 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	$\#\|Z\| > 2$
23	CLA	B	614	-	65,73,73	1.97	16 (24%)	76,113,113	2.98	30 (39%)
36	DGD	C	519	-	63,63,67	0.85	3 (4%)	77,77,81	1.00	3 (3%)
23	CLA	b	612	-	65,73,73	2.03	16 (24%)	76,113,113	2.73	27 (35%)
31	PHO	a	406[A]	-	51,69,69	1.83	8 (15%)	47,99,99	1.87	9 (19%)
36	DGD	C	518[B]	-	63,63,67	0.85	2 (3%)	77,77,81	1.03	5 (6%)
23	CLA	a	404[B]	-	65,73,73	2.08	16 (24%)	76,113,113	2.81	30 (39%)
33	LHG	D	408[A]	-	48,48,48	0.93	2 (4%)	51,54,54	1.02	3 (5%)
36	DGD	c	517[B]	-	63,63,67	0.86	2 (3%)	77,77,81	1.08	5 (6%)
25	SQD	b	620	-	53,54,54	1.05	3 (5%)	62,65,65	1.71	12 (19%)
26	GOL	B	622	-	5,5,5	0.86	0	5,5,5	1.15	1 (20%)
34	LMG	Z	101	-	37,37,55	1.01	2 (5%)	45,45,63	1.46	5 (11%)
35	HTG	B	621	-	19,19,19	0.84	1 (5%)	23,24,24	1.37	1 (4%)
24	BCR	B	619	-	41,41,41	1.06	2 (4%)	56,56,56	1.44	11 (19%)
23	CLA	a	405[B]	41	65,73,73	2.05	15 (23%)	76,113,113	2.80	29 (38%)
32	LMT	B	627	-	36,36,36	1.03	3 (8%)	47,47,47	1.15	4 (8%)
24	BCR	d	405	-	41,41,41	1.15	2 (4%)	56,56,56	1.97	18 (32%)
26	GOL	b	628	-	5,5,5	0.54	0	5,5,5	1.38	1 (20%)
30	BCT	d	401[B]	21	2,3,3	0.64	0	2,3,3	1.18	0
26	GOL	D	413	-	5,5,5	1.51	2 (40%)	5,5,5	0.89	0
33	LHG	d	407[A]	-	48,48,48	0.87	2 (4%)	51,54,54	1.04	4 (7%)
24	BCR	H	101	-	41,41,41	1.03	1 (2%)	56,56,56	1.45	10 (17%)
26	GOL	d	413	-	5,5,5	0.98	0	5,5,5	1.07	0
33	LHG	A	418[A]	-	48,48,48	0.87	2 (4%)	51,54,54	1.27	6 (11%)
35	HTG	o	301	-	19,19,19	1.11	2 (10%)	23,24,24	1.59	5 (21%)
23	CLA	c	509	-	65,73,73	2.17	16 (24%)	76,113,113	2.66	25 (32%)
23	CLA	c	512	3	65,73,73	2.12	15 (23%)	76,113,113	2.80	30 (39%)
23	CLA	C	504	-	65,73,73	1.97	16 (24%)	76,113,113	2.83	27 (35%)
31	PHO	a	415[A]	-	51,69,69	1.88	8 (15%)	47,99,99	1.99	12 (25%)
23	CLA	b	609	-	65,73,73	2.04	16 (24%)	76,113,113	2.76	29 (38%)
24	BCR	h	101	-	41,41,41	1.03	1 (2%)	56,56,56	1.45	12 (21%)
25	SQD	X	101	-	42,43,54	1.21	4 (9%)	51,54,65	2.17	14 (27%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
25	SQD	a	409[B]	-	53,54,54	0.97	3 (5%)	62,65,65	1.60	12 (19%)
26	GOL	C	523[A]	-	5,5,5	1.11	0	5,5,5	0.88	0
26	GOL	o	304	-	5,5,5	1.00	1 (20%)	5,5,5	1.08	0
28	PL9	A	413[A]	-	55,55,55	0.69	2 (3%)	68,69,69	2.01	24 (35%)
33	LHG	d	414[B]	-	48,48,48	0.91	2 (4%)	51,54,54	1.08	4 (7%)
36	DGD	C	518[A]	-	63,63,67	0.90	3 (4%)	77,77,81	1.03	5 (6%)
33	LHG	d	407[B]	-	48,48,48	0.88	2 (4%)	51,54,54	1.12	5 (9%)
32	LMT	B	626	-	36,36,36	1.19	4 (11%)	47,47,47	1.39	5 (10%)
23	CLA	a	404[A]	-	65,73,73	2.01	16 (24%)	76,113,113	2.86	32 (42%)
23	CLA	c	505	41	65,73,73	2.13	16 (24%)	76,113,113	2.77	29 (38%)
36	DGD	c	517[A]	-	63,63,67	0.85	2 (3%)	77,77,81	1.10	7 (9%)
32	LMT	e	101	-	36,36,36	1.03	4 (11%)	47,47,47	0.98	1 (2%)
38	HEM	f	101	5,6	41,50,50	1.28	5 (12%)	45,82,82	1.88	10 (22%)
23	CLA	C	502	-	65,73,73	1.96	16 (24%)	76,113,113	2.85	30 (39%)
36	DGD	h	102	-	63,63,67	0.86	3 (4%)	77,77,81	1.13	5 (6%)
23	CLA	A	406[B]	41	65,73,73	2.08	17 (26%)	76,113,113	2.76	28 (36%)
36	DGD	H	102	-	63,63,67	0.86	3 (4%)	77,77,81	1.07	8 (10%)
23	CLA	a	405[A]	41	65,73,73	1.98	16 (24%)	76,113,113	2.77	27 (35%)
26	GOL	b	624	-	5,5,5	1.18	1 (20%)	5,5,5	0.81	0
23	CLA	c	502	-	65,73,73	2.03	17 (26%)	76,113,113	2.86	28 (36%)
31	PHO	a	415[B]	-	51,69,69	1.92	8 (15%)	47,99,99	1.89	11 (23%)
30	BCT	d	401[A]	21	2,3,3	0.59	0	2,3,3	1.49	0
34	LMG	z	101	-	39,39,55	1.10	2 (5%)	47,47,63	1.06	2 (4%)
23	CLA	B	609	-	65,73,73	2.03	16 (24%)	76,113,113	2.71	27 (35%)
23	CLA	D	404	-	65,73,73	2.09	16 (24%)	76,113,113	2.82	31 (40%)
28	PL9	d	406[B]	-	55,55,55	0.63	1 (1%)	68,69,69	1.72	19 (27%)
23	CLA	C	505	41	65,73,73	2.00	16 (24%)	76,113,113	2.85	30 (39%)
32	LMT	a	416	-	36,36,36	1.00	2 (5%)	47,47,47	1.05	2 (4%)
26	GOL	O	303	-	5,5,5	1.14	1 (20%)	5,5,5	1.10	0
32	LMT	t	101	-	26,26,36	0.93	2 (7%)	31,31,47	1.29	2 (6%)
23	CLA	d	403[A]	-	65,73,73	1.96	16 (24%)	76,113,113	2.74	29 (38%)
23	CLA	B	605	-	65,73,73	1.99	15 (23%)	76,113,113	3.02	30 (39%)
34	LMG	c	520	-	51,51,55	0.90	2 (3%)	59,59,63	1.20	6 (10%)
35	HTG	V	202	-	11,11,19	0.32	0	15,15,24	1.25	1 (6%)
23	CLA	C	511	-	65,73,73	2.05	15 (23%)	76,113,113	2.83	28 (36%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
28	PL9	A	413[B]	-	55,55,55	0.63	2 (3%)	68,69,69	1.96	24 (35%)
35	HTG	B	623	-	19,19,19	1.06	2 (10%)	23,24,24	1.34	3 (13%)
38	HEM	F	102	5,6	41,50,50	1.29	4 (9%)	45,82,82	2.07	14 (31%)
23	CLA	b	611	-	65,73,73	2.00	16 (24%)	76,113,113	2.83	30 (39%)
34	LMG	C	501	-	51,51,55	0.91	2 (3%)	59,59,63	1.55	8 (13%)
23	CLA	C	508	41	65,73,73	1.96	16 (24%)	76,113,113	2.69	25 (32%)
24	BCR	D	405	-	41,41,41	1.11	1 (2%)	56,56,56	1.77	15 (26%)
26	GOL	a	410	-	5,5,5	0.92	0	5,5,5	0.97	0
23	CLA	D	403[B]	-	65,73,73	2.04	16 (24%)	76,113,113	2.88	28 (36%)
25	SQD	a	409[A]	-	53,54,54	0.96	3 (5%)	62,65,65	1.83	13 (20%)
33	LHG	d	414[A]	-	48,48,48	0.89	2 (4%)	51,54,54	1.11	4 (7%)
23	CLA	c	503	-	65,73,73	2.09	16 (24%)	76,113,113	2.61	23 (30%)
35	HTG	d	411	-	16,16,19	0.95	1 (6%)	20,21,24	1.59	1 (5%)
23	CLA	B	606	-	65,73,73	1.94	16 (24%)	76,113,113	3.02	29 (38%)
24	BCR	C	516	-	41,41,41	1.03	1 (2%)	56,56,56	1.34	8 (14%)
34	LMG	d	412	39	51,51,55	0.90	2 (3%)	59,59,63	1.13	5 (8%)
23	CLA	A	405[B]	41	65,73,73	2.03	16 (24%)	76,113,113	2.72	30 (39%)
36	DGD	c	519	-	63,63,67	0.85	4 (6%)	77,77,81	1.08	5 (6%)
26	GOL	v	202[B]	-	5,5,5	1.10	0	5,5,5	0.80	0
24	BCR	b	619	-	41,41,41	1.08	1 (2%)	56,56,56	1.33	9 (16%)
23	CLA	d	403[B]	-	65,73,73	2.04	15 (23%)	76,113,113	2.72	25 (32%)
25	SQD	f	102	-	42,43,54	1.21	3 (7%)	51,54,65	1.61	11 (21%)
23	CLA	B	611	-	65,73,73	2.62	18 (27%)	76,113,113	3.03	26 (34%)
23	CLA	A	406[A]	41	65,73,73	1.98	17 (26%)	76,113,113	2.76	30 (39%)
26	GOL	c	526[A]	-	5,5,5	1.00	0	5,5,5	0.98	0
23	CLA	B	607	41	65,73,73	1.95	17 (26%)	76,113,113	2.93	30 (39%)
23	CLA	C	503	-	65,73,73	2.10	17 (26%)	76,113,113	2.65	27 (35%)
31	PHO	A	416[A]	-	51,69,69	1.92	8 (15%)	47,99,99	1.85	9 (19%)
25	SQD	l	101	-	53,54,54	1.07	4 (7%)	62,65,65	1.79	12 (19%)
23	CLA	B	602	-	65,73,73	2.05	16 (24%)	76,113,113	2.81	27 (35%)
23	CLA	c	507	-	65,73,73	2.04	16 (24%)	76,113,113	2.77	29 (38%)
28	PL9	d	406[A]	-	55,55,55	0.70	1 (1%)	68,69,69	1.63	18 (26%)
30	BCT	A	415[B]	21	2,3,3	0.68	0	2,3,3	0.84	0
23	CLA	A	407	-	65,73,73	1.99	18 (27%)	76,113,113	2.88	32 (42%)
23	CLA	B	601	41	65,73,73	2.07	17 (26%)	76,113,113	2.80	25 (32%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
24	BCR	B	617	-	41,41,41	1.05	1 (2%)	56,56,56	1.46	8 (14%)
26	GOL	B	625	-	5,5,5	0.96	0	5,5,5	1.10	1 (20%)
35	HTG	b	623	-	19,19,19	1.04	1 (5%)	23,24,24	1.94	3 (13%)
34	LMG	D	412	39	51,51,55	0.80	2 (3%)	59,59,63	1.05	3 (5%)
36	DGD	c	518[B]	-	63,63,67	0.86	2 (3%)	77,77,81	1.00	6 (7%)
23	CLA	a	407	-	65,73,73	1.96	14 (21%)	76,113,113	2.93	29 (38%)
34	LMG	C	520	-	51,51,55	0.94	2 (3%)	59,59,63	1.12	4 (6%)
23	CLA	D	403[A]	-	65,73,73	2.04	16 (24%)	76,113,113	2.87	31 (40%)
27	OEX	A	412[B]	3,1,41	0,15,15	-	-	-		
26	GOL	c	526[B]	-	5,5,5	0.96	0	5,5,5	0.99	0
34	LMG	c	501	-	51,51,55	0.91	2 (3%)	59,59,63	1.21	4 (6%)
23	CLA	C	513	-	65,73,73	2.04	15 (23%)	76,113,113	2.83	29 (38%)
23	CLA	c	504	-	65,73,73	2.01	17 (26%)	76,113,113	2.79	26 (34%)
23	CLA	b	615	-	65,73,73	2.01	15 (23%)	76,113,113	2.77	27 (35%)
26	GOL	D	402	-	5,5,5	1.36	2 (40%)	5,5,5	0.82	0
32	LMT	A	417	-	36,36,36	0.94	3 (8%)	47,47,47	1.06	2 (4%)
40	HEC	V	201	16	32,50,50	1.99	3 (9%)	24,82,82	2.17	7 (29%)
31	PHO	A	416[B]	-	51,69,69	1.90	8 (15%)	47,99,99	1.91	12 (25%)
23	CLA	A	405[A]	41	65,73,73	1.99	15 (23%)	76,113,113	2.79	30 (39%)
26	GOL	v	202[A]	-	5,5,5	1.20	0	5,5,5	0.82	0
33	LHG	a	419[B]	-	41,41,48	1.04	2 (4%)	44,47,54	0.94	2 (4%)
23	CLA	B	615	-	65,73,73	2.03	16 (24%)	76,113,113	2.91	30 (39%)
23	CLA	C	510	-	65,73,73	2.11	16 (24%)	76,113,113	2.83	28 (36%)
24	BCR	Y	101	-	41,41,41	0.99	1 (2%)	56,56,56	1.75	14 (25%)
26	GOL	c	527	-	5,5,5	1.14	0	5,5,5	0.98	0
23	CLA	c	514	-	65,73,73	2.12	17 (26%)	76,113,113	2.79	28 (36%)
32	LMT	A	419	-	36,36,36	1.05	2 (5%)	47,47,47	1.18	4 (8%)
26	GOL	l	103[B]	-	5,5,5	0.85	0	5,5,5	1.06	0
26	GOL	o	303	-	5,5,5	1.15	0	5,5,5	0.97	0
24	BCR	A	408	-	41,41,41	1.02	1 (2%)	56,56,56	1.40	8 (14%)
26	GOL	a	417	-	5,5,5	1.30	1 (20%)	5,5,5	1.06	0
32	LMT	F	101	-	36,36,36	1.06	1 (2%)	47,47,47	1.00	1 (2%)
30	BCT	A	415[A]	21	2,3,3	0.64	0	2,3,3	1.30	0
23	CLA	C	512	3	65,73,73	2.07	18 (27%)	76,113,113	2.66	26 (34%)
24	BCR	T	102	-	41,41,41	1.05	1 (2%)	56,56,56	1.59	13 (23%)
33	LHG	L	101[B]	-	48,48,48	0.92	2 (4%)	51,54,54	1.08	3 (5%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
33	LHG	E	101[B]	-	41,41,48	1.06	2 (4%)	44,47,54	1.11	4 (9%)
36	DGD	c	518[A]	-	63,63,67	0.85	3 (4%)	77,77,81	0.97	3 (3%)
24	BCR	c	515	-	41,41,41	1.03	1 (2%)	56,56,56	1.64	12 (21%)
27	OEX	A	412[A]	3,1,41	0,15,15	-	-	-		
23	CLA	B	604	-	65,73,73	1.96	17 (26%)	76,113,113	2.60	30 (39%)
23	CLA	b	606	-	65,73,73	2.01	15 (23%)	76,113,113	2.79	26 (34%)
34	LMG	c	521	-	51,51,55	1.02	2 (3%)	59,59,63	1.35	7 (11%)
31	PHO	D	401[A]	-	51,69,69	1.77	8 (15%)	47,99,99	1.69	10 (21%)
24	BCR	c	516	-	41,41,41	1.01	1 (2%)	56,56,56	1.39	9 (16%)
35	HTG	b	622	-	19,19,19	1.18	2 (10%)	23,24,24	1.94	7 (30%)
23	CLA	c	506	-	65,73,73	2.02	16 (24%)	76,113,113	2.73	26 (34%)
23	CLA	d	404	-	65,73,73	2.04	17 (26%)	76,113,113	2.84	30 (39%)
24	BCR	a	408	-	41,41,41	1.03	1 (2%)	56,56,56	1.42	8 (14%)
24	BCR	k	101	-	41,41,41	1.07	1 (2%)	56,56,56	1.52	10 (17%)
24	BCR	K	102	-	41,41,41	1.07	1 (2%)	56,56,56	1.46	10 (17%)
26	GOL	A	410	-	5,5,5	1.09	0	5,5,5	0.79	0
33	LHG	a	419[A]	-	41,41,48	1.06	2 (4%)	44,47,54	0.92	2 (4%)
24	BCR	b	617	-	41,41,41	1.03	1 (2%)	56,56,56	1.43	9 (16%)
34	LMG	B	620	-	51,51,55	0.93	2 (3%)	59,59,63	1.28	4 (6%)
35	HTG	c	522	-	19,19,19	0.93	1 (5%)	23,24,24	1.60	2 (8%)
26	GOL	V	203[B]	-	5,5,5	1.07	0	5,5,5	0.92	0
26	GOL	l	103[A]	-	5,5,5	0.93	0	5,5,5	0.98	0
23	CLA	d	402[B]	41	65,73,73	2.10	15 (23%)	76,113,113	2.78	30 (39%)
23	CLA	B	612	-	65,73,73	2.06	18 (27%)	76,113,113	2.81	29 (38%)
24	BCR	C	515	-	41,41,41	1.07	1 (2%)	56,56,56	1.42	7 (12%)
34	LMG	m	101	-	51,51,55	0.89	2 (3%)	59,59,63	1.28	7 (11%)
23	CLA	B	616	-	65,73,73	2.10	15 (23%)	76,113,113	2.90	26 (34%)
23	CLA	c	511	-	65,73,73	2.07	16 (24%)	76,113,113	2.85	31 (40%)
23	CLA	b	608	-	65,73,73	2.09	16 (24%)	76,113,113	2.77	29 (38%)
23	CLA	b	601	41	65,73,73	2.14	15 (23%)	76,113,113	2.79	28 (36%)
32	LMT	m	103	-	36,36,36	1.05	3 (8%)	47,47,47	1.09	3 (6%)
35	HTG	C	522	-	19,19,19	0.85	1 (5%)	23,24,24	1.36	2 (8%)
23	CLA	C	506	-	65,73,73	1.99	16 (24%)	76,113,113	2.83	27 (35%)
23	CLA	C	507	-	65,73,73	1.99	17 (26%)	76,113,113	2.83	29 (38%)
24	BCR	b	618	-	41,41,41	1.01	1 (2%)	56,56,56	1.27	6 (10%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	b	613	-	65,73,73	2.05	16 (24%)	76,113,113	2.84	31 (40%)
31	PHO	D	401[B]	-	51,69,69	1.82	8 (15%)	47,99,99	1.84	9 (19%)
33	LHG	E	101[A]	-	41,41,48	1.08	2 (4%)	44,47,54	1.10	3 (6%)
33	LHG	L	101[A]	-	48,48,48	0.88	2 (4%)	51,54,54	1.15	4 (7%)
28	PL9	D	406[B]	-	55,55,55	0.65	2 (3%)	68,69,69	1.66	17 (25%)
23	CLA	b	605	-	65,73,73	1.96	18 (27%)	76,113,113	2.91	27 (35%)
23	CLA	B	613	-	65,73,73	1.97	16 (24%)	76,113,113	2.85	28 (36%)
23	CLA	b	603	-	65,73,73	2.04	16 (24%)	76,113,113	2.82	30 (39%)
32	LMT	T	101	-	36,36,36	1.07	3 (8%)	47,47,47	1.07	2 (4%)
24	BCR	y	101	-	41,41,41	1.02	1 (2%)	56,56,56	1.70	14 (25%)
33	LHG	d	408[A]	-	48,48,48	0.92	2 (4%)	51,54,54	1.01	3 (5%)
23	CLA	A	404[A]	-	65,73,73	2.02	16 (24%)	76,113,113	2.85	30 (39%)
27	OEX	a	412[B]	3,1,41	0,15,15	-	-	-		
28	PL9	a	413[B]	-	55,55,55	0.64	1 (1%)	68,69,69	1.93	20 (29%)
23	CLA	C	514	-	65,73,73	2.07	17 (26%)	76,113,113	2.78	27 (35%)
23	CLA	B	608	-	65,73,73	1.98	16 (24%)	76,113,113	2.81	34 (44%)
33	LHG	D	407[B]	-	48,48,48	0.88	2 (4%)	51,54,54	1.05	4 (7%)
25	SQD	A	409[B]	-	53,54,54	0.93	3 (5%)	62,65,65	1.73	12 (19%)
34	LMG	C	521	-	51,51,55	1.08	3 (5%)	59,59,63	1.41	8 (13%)
35	HTG	D	411	-	16,16,19	1.04	1 (6%)	20,21,24	1.52	1 (5%)
23	CLA	b	616	-	65,73,73	1.99	15 (23%)	76,113,113	2.86	29 (38%)
31	PHO	a	406[B]	-	51,69,69	1.84	7 (13%)	47,99,99	1.84	11 (23%)
23	CLA	c	508	41	65,73,73	2.03	15 (23%)	76,113,113	2.87	27 (35%)
24	BCR	B	618	-	41,41,41	0.98	2 (4%)	56,56,56	1.33	6 (10%)
24	BCR	t	102	-	41,41,41	1.06	1 (2%)	56,56,56	1.60	11 (19%)
26	GOL	V	203[A]	-	5,5,5	1.34	0	5,5,5	0.80	0
23	CLA	d	402[A]	41	65,73,73	2.02	15 (23%)	76,113,113	2.80	29 (38%)
33	LHG	D	408[B]	-	48,48,48	0.91	2 (4%)	51,54,54	1.08	3 (5%)
35	HTG	b	625	-	19,19,19	1.07	2 (10%)	23,24,24	1.52	4 (17%)
36	DGD	C	517[A]	-	63,63,67	0.83	2 (3%)	77,77,81	1.20	8 (10%)
40	HEC	v	201	16	32,50,50	2.03	4 (12%)	24,82,82	1.94	6 (25%)
33	LHG	b	629[A]	-	48,48,48	0.83	2 (4%)	51,54,54	1.04	4 (7%)
23	CLA	c	513	-	65,73,73	2.04	15 (23%)	76,113,113	2.77	28 (36%)
23	CLA	B	603	-	65,73,73	2.04	16 (24%)	76,113,113	2.93	29 (38%)
23	CLA	B	610	41	65,73,73	2.02	16 (24%)	76,113,113	2.85	28 (36%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
23	CLA	C	509	-	65,73,73	2.12	16 (24%)	76,113,113	2.74	25 (32%)
33	LHG	d	408[B]	-	48,48,48	0.91	2 (4%)	51,54,54	1.11	5 (9%)
23	CLA	A	404[B]	-	65,73,73	2.10	16 (24%)	76,113,113	2.80	31 (40%)
23	CLA	b	614	-	65,73,73	1.99	16 (24%)	76,113,113	2.92	28 (36%)
26	GOL	O	302	-	5,5,5	0.94	0	5,5,5	0.90	0
23	CLA	b	607	41	65,73,73	1.99	18 (27%)	76,113,113	2.76	29 (38%)
25	SQD	A	411	-	53,54,54	1.05	3 (5%)	62,65,65	1.24	7 (11%)
23	CLA	b	602	-	65,73,73	2.05	16 (24%)	76,113,113	2.96	34 (44%)
28	PL9	D	406[A]	-	55,55,55	0.63	1 (1%)	68,69,69	1.61	17 (25%)
33	LHG	A	418[B]	-	48,48,48	0.89	2 (4%)	51,54,54	1.14	5 (9%)
23	CLA	b	604	-	65,73,73	2.08	17 (26%)	76,113,113	2.73	28 (36%)
26	GOL	a	418	-	5,5,5	1.26	1 (20%)	5,5,5	0.96	0
36	DGD	C	517[B]	-	63,63,67	0.83	2 (3%)	77,77,81	1.11	5 (6%)
32	LMT	b	627	-	25,25,36	0.89	0	30,30,47	1.05	2 (6%)
23	CLA	c	510	-	65,73,73	2.04	17 (26%)	76,113,113	2.87	29 (38%)
27	OEX	a	412[A]	3,1,41	0,15,15	-	-	-		
25	SQD	a	411	-	53,54,54	1.07	3 (5%)	62,65,65	1.23	8 (12%)
28	PL9	a	413[A]	-	55,55,55	0.65	2 (3%)	68,69,69	2.01	22 (32%)
32	LMT	M	101	-	36,36,36	1.12	2 (5%)	47,47,47	1.26	6 (12%)
33	LHG	b	629[B]	-	48,48,48	0.90	2 (4%)	51,54,54	1.03	3 (5%)
32	LMT	B	629	-	25,25,36	0.90	2 (8%)	30,30,47	1.19	3 (10%)
33	LHG	D	407[A]	-	48,48,48	0.87	2 (4%)	51,54,54	1.01	3 (5%)
32	LMT	b	621	-	25,25,36	0.96	1 (4%)	30,30,47	1.19	3 (10%)
25	SQD	A	409[A]	-	53,54,54	0.93	3 (5%)	62,65,65	1.88	10 (16%)
23	CLA	b	610	41	65,73,73	2.05	16 (24%)	76,113,113	2.92	30 (39%)
26	GOL	C	523[B]	-	5,5,5	1.22	0	5,5,5	0.77	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	B	614	-	1/1/15/20	15/37/115/115	-
36	DGD	C	519	-	-	20/51/91/95	0/2/2/2
23	CLA	b	612	-	1/1/15/20	5/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
31	PHO	a	406[A]	-	-	6/37/103/103	0/5/6/6
36	DGD	C	518[B]	-	-	14/51/91/95	0/2/2/2
23	CLA	a	404[B]	-	1/1/15/20	4/37/115/115	-
33	LHG	D	408[A]	-	-	14/53/53/53	-
36	DGD	c	517[B]	-	-	20/51/91/95	0/2/2/2
25	SQD	b	620	-	-	18/49/69/69	0/1/1/1
26	GOL	B	622	-	-	4/4/4/4	-
34	LMG	Z	101	-	-	12/31/51/70	0/1/1/1
35	HTG	B	621	-	-	2/10/30/30	0/1/1/1
24	BCR	B	619	-	-	0/29/63/63	0/2/2/2
23	CLA	a	405[B]	41	-	5/37/115/115	-
32	LMT	B	627	-	-	10/21/61/61	0/2/2/2
24	BCR	d	405	-	-	5/29/63/63	0/2/2/2
26	GOL	b	628	-	-	0/4/4/4	-
26	GOL	D	413	-	-	4/4/4/4	-
33	LHG	d	407[A]	-	-	13/53/53/53	-
24	BCR	H	101	-	-	3/29/63/63	0/2/2/2
26	GOL	d	413	-	-	1/4/4/4	-
33	LHG	A	418[A]	-	-	14/53/53/53	-
35	HTG	o	301	-	-	4/10/30/30	0/1/1/1
23	CLA	c	509	-	1/1/15/20	4/37/115/115	-
23	CLA	c	512	3	1/1/15/20	6/37/115/115	-
23	CLA	C	504	-	-	4/37/115/115	-
31	PHO	a	415[A]	-	-	1/37/103/103	0/5/6/6
23	CLA	b	609	-	1/1/15/20	1/37/115/115	-
24	BCR	h	101	-	-	2/29/63/63	0/2/2/2
25	SQD	X	101	-	-	12/38/58/69	0/1/1/1
25	SQD	a	409[B]	-	-	9/49/69/69	0/1/1/1
26	GOL	C	523[A]	-	-	0/4/4/4	-
26	GOL	o	304	-	-	4/4/4/4	-
28	PL9	A	413[A]	-	-	15/53/73/73	0/1/1/1
33	LHG	d	414[B]	-	-	9/53/53/53	-
36	DGD	C	518[A]	-	-	13/51/91/95	0/2/2/2
33	LHG	d	407[B]	-	-	16/53/53/53	-
32	LMT	B	626	-	-	12/21/61/61	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	a	404[A]	-	1/1/15/20	4/37/115/115	-
23	CLA	c	505	41	1/1/15/20	6/37/115/115	-
36	DGD	c	517[A]	-	-	18/51/91/95	0/2/2/2
32	LMT	e	101	-	-	15/21/61/61	0/2/2/2
38	HEM	f	101	5,6	-	6/12/54/54	-
23	CLA	C	502	-	1/1/15/20	4/37/115/115	-
36	DGD	h	102	-	-	15/51/91/95	0/2/2/2
23	CLA	A	406[B]	41	-	4/37/115/115	-
36	DGD	H	102	-	-	10/51/91/95	0/2/2/2
23	CLA	a	405[A]	41	-	6/37/115/115	-
26	GOL	b	624	-	-	2/4/4/4	-
23	CLA	c	502	-	1/1/15/20	4/37/115/115	-
31	PHO	a	415[B]	-	-	4/37/103/103	0/5/6/6
34	LMG	z	101	-	-	9/34/54/70	0/1/1/1
23	CLA	B	609	-	1/1/15/20	1/37/115/115	-
23	CLA	D	404	-	1/1/15/20	14/37/115/115	-
28	PL9	d	406[B]	-	-	8/53/73/73	0/1/1/1
23	CLA	C	505	41	1/1/15/20	7/37/115/115	-
32	LMT	a	416	-	-	11/21/61/61	0/2/2/2
26	GOL	O	303	-	-	2/4/4/4	-
32	LMT	t	101	-	-	10/17/38/61	0/1/1/2
23	CLA	d	403[A]	-	1/1/15/20	4/37/115/115	-
23	CLA	B	605	-	1/1/15/20	9/37/115/115	-
34	LMG	c	520	-	-	13/46/66/70	0/1/1/1
35	HTG	V	202	-	-	0/2/19/30	0/1/1/1
23	CLA	C	511	-	1/1/15/20	13/37/115/115	-
28	PL9	A	413[B]	-	-	14/53/73/73	0/1/1/1
35	HTG	B	623	-	-	4/10/30/30	0/1/1/1
38	HEM	F	102	5,6	-	3/12/54/54	-
23	CLA	b	611	-	1/1/15/20	4/37/115/115	-
34	LMG	C	501	-	-	11/46/66/70	0/1/1/1
23	CLA	C	508	41	1/1/15/20	7/37/115/115	-
24	BCR	D	405	-	-	4/29/63/63	0/2/2/2
26	GOL	a	410	-	-	4/4/4/4	-
23	CLA	D	403[B]	-	1/1/15/20	0/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
25	SQD	a	409[A]	-	-	9/49/69/69	0/1/1/1
33	LHG	d	414[A]	-	-	17/53/53/53	-
23	CLA	c	503	-	1/1/15/20	4/37/115/115	-
35	HTG	d	411	-	-	1/7/27/30	0/1/1/1
23	CLA	B	606	-	1/1/15/20	7/37/115/115	-
24	BCR	C	516	-	-	0/29/63/63	0/2/2/2
34	LMG	d	412	39	-	10/46/66/70	0/1/1/1
23	CLA	A	405[B]	41	1/1/15/20	5/37/115/115	-
36	DGD	c	519	-	-	9/51/91/95	0/2/2/2
26	GOL	v	202[B]	-	-	2/4/4/4	-
24	BCR	b	619	-	-	2/29/63/63	0/2/2/2
23	CLA	d	403[B]	-	1/1/15/20	4/37/115/115	-
25	SQD	f	102	-	-	10/38/58/69	0/1/1/1
23	CLA	B	611	-	1/1/15/20	6/37/115/115	-
23	CLA	A	406[A]	41	-	5/37/115/115	-
26	GOL	c	526[A]	-	-	0/4/4/4	-
23	CLA	B	607	41	1/1/15/20	4/37/115/115	-
23	CLA	C	503	-	1/1/15/20	10/37/115/115	-
31	PHO	A	416[A]	-	-	1/37/103/103	0/5/6/6
25	SQD	l	101	-	-	14/49/69/69	0/1/1/1
23	CLA	B	602	-	1/1/15/20	9/37/115/115	-
23	CLA	c	507	-	1/1/15/20	9/37/115/115	-
28	PL9	d	406[A]	-	-	7/53/73/73	0/1/1/1
23	CLA	A	407	-	1/1/15/20	7/37/115/115	-
23	CLA	B	601	41	1/1/15/20	12/37/115/115	-
24	BCR	B	617	-	-	2/29/63/63	0/2/2/2
26	GOL	B	625	-	-	4/4/4/4	-
35	HTG	b	623	-	-	4/10/30/30	0/1/1/1
34	LMG	D	412	39	-	9/46/66/70	0/1/1/1
36	DGD	c	518[B]	-	-	13/51/91/95	0/2/2/2
23	CLA	a	407	-	1/1/15/20	9/37/115/115	-
34	LMG	C	520	-	-	12/46/66/70	0/1/1/1
23	CLA	D	403[A]	-	1/1/15/20	0/37/115/115	-
26	GOL	c	526[B]	-	-	0/4/4/4	-
34	LMG	c	501	-	-	12/46/66/70	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
23	CLA	C	513	-	1/1/15/20	9/37/115/115	-
23	CLA	c	504	-	1/1/15/20	1/37/115/115	-
23	CLA	b	615	-	1/1/15/20	8/37/115/115	-
26	GOL	D	402	-	-	2/4/4/4	-
32	LMT	A	417	-	-	6/21/61/61	0/2/2/2
40	HEC	V	201	16	-	2/10/54/54	-
31	PHO	A	416[B]	-	-	0/37/103/103	0/5/6/6
23	CLA	A	405[A]	41	1/1/15/20	3/37/115/115	-
26	GOL	v	202[A]	-	-	2/4/4/4	-
33	LHG	a	419[B]	-	-	16/46/46/53	-
23	CLA	B	615	-	1/1/15/20	8/37/115/115	-
23	CLA	C	510	-	1/1/15/20	7/37/115/115	-
24	BCR	Y	101	-	-	5/29/63/63	0/2/2/2
26	GOL	c	527	-	-	2/4/4/4	-
23	CLA	c	514	-	-	9/37/115/115	-
32	LMT	A	419	-	-	15/21/61/61	0/2/2/2
26	GOL	l	103[B]	-	-	2/4/4/4	-
26	GOL	o	303	-	-	2/4/4/4	-
24	BCR	A	408	-	-	0/29/63/63	0/2/2/2
26	GOL	a	417	-	-	2/4/4/4	-
32	LMT	F	101	-	-	8/21/61/61	0/2/2/2
23	CLA	C	512	3	1/1/15/20	5/37/115/115	-
24	BCR	T	102	-	-	1/29/63/63	0/2/2/2
33	LHG	L	101[B]	-	-	18/53/53/53	-
33	LHG	E	101[B]	-	-	20/46/46/53	-
36	DGD	c	518[A]	-	-	16/51/91/95	0/2/2/2
24	BCR	c	515	-	-	0/29/63/63	0/2/2/2
23	CLA	B	604	-	1/1/15/20	2/37/115/115	-
23	CLA	b	606	-	1/1/15/20	13/37/115/115	-
34	LMG	c	521	-	-	11/46/66/70	0/1/1/1
31	PHO	D	401[A]	-	-	3/37/103/103	0/5/6/6
24	BCR	c	516	-	-	2/29/63/63	0/2/2/2
35	HTG	b	622	-	-	5/10/30/30	0/1/1/1
23	CLA	c	506	-	1/1/15/20	7/37/115/115	-
23	CLA	d	404	-	1/1/15/20	8/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
24	BCR	a	408	-	-	1/29/63/63	0/2/2/2
24	BCR	k	101	-	-	0/29/63/63	0/2/2/2
24	BCR	K	102	-	-	2/29/63/63	0/2/2/2
26	GOL	A	410	-	-	2/4/4/4	-
33	LHG	a	419[A]	-	-	16/46/46/53	-
24	BCR	b	617	-	-	2/29/63/63	0/2/2/2
34	LMG	B	620	-	-	17/46/66/70	0/1/1/1
35	HTG	c	522	-	-	2/10/30/30	0/1/1/1
26	GOL	V	203[B]	-	-	2/4/4/4	-
26	GOL	l	103[A]	-	-	1/4/4/4	-
23	CLA	d	402[B]	41	1/1/15/20	3/37/115/115	-
23	CLA	B	612	-	1/1/15/20	6/37/115/115	-
24	BCR	C	515	-	-	1/29/63/63	0/2/2/2
34	LMG	m	101	-	-	11/46/66/70	0/1/1/1
23	CLA	B	616	-	1/1/15/20	7/37/115/115	-
23	CLA	c	511	-	1/1/15/20	11/37/115/115	-
23	CLA	b	608	-	-	4/37/115/115	-
23	CLA	b	601	41	1/1/15/20	19/37/115/115	-
32	LMT	m	103	-	-	8/21/61/61	0/2/2/2
35	HTG	C	522	-	-	0/10/30/30	0/1/1/1
23	CLA	C	506	-	1/1/15/20	7/37/115/115	-
23	CLA	C	507	-	1/1/15/20	13/37/115/115	-
24	BCR	b	618	-	-	0/29/63/63	0/2/2/2
23	CLA	b	613	-	1/1/15/20	2/37/115/115	-
31	PHO	D	401[B]	-	-	3/37/103/103	0/5/6/6
33	LHG	E	101[A]	-	-	22/46/46/53	-
33	LHG	L	101[A]	-	-	20/53/53/53	-
28	PL9	D	406[B]	-	-	7/53/73/73	0/1/1/1
23	CLA	b	605	-	1/1/15/20	7/37/115/115	-
23	CLA	B	613	-	1/1/15/20	7/37/115/115	-
23	CLA	b	603	-	1/1/15/20	3/37/115/115	-
32	LMT	T	101	-	-	7/21/61/61	0/2/2/2
24	BCR	y	101	-	-	4/29/63/63	0/2/2/2
33	LHG	d	408[A]	-	-	13/53/53/53	-
23	CLA	A	404[A]	-	1/1/15/20	3/37/115/115	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
28	PL9	a	413[B]	-	-	14/53/73/73	0/1/1/1
23	CLA	C	514	-	1/1/15/20	6/37/115/115	-
23	CLA	B	608	-	-	4/37/115/115	-
33	LHG	D	407[B]	-	-	19/53/53/53	-
25	SQD	A	409[B]	-	-	10/49/69/69	0/1/1/1
34	LMG	C	521	-	-	13/46/66/70	0/1/1/1
35	HTG	D	411	-	-	3/7/27/30	0/1/1/1
23	CLA	b	616	-	1/1/15/20	9/37/115/115	-
31	PHO	a	406[B]	-	-	5/37/103/103	0/5/6/6
23	CLA	c	508	41	1/1/15/20	7/37/115/115	-
24	BCR	B	618	-	-	0/29/63/63	0/2/2/2
24	BCR	t	102	-	-	0/29/63/63	0/2/2/2
26	GOL	V	203[A]	-	-	2/4/4/4	-
23	CLA	d	402[A]	41	1/1/15/20	8/37/115/115	-
33	LHG	D	408[B]	-	-	13/53/53/53	-
35	HTG	b	625	-	-	3/10/30/30	0/1/1/1
36	DGD	C	517[A]	-	-	14/51/91/95	0/2/2/2
40	HEC	v	201	16	-	2/10/54/54	-
33	LHG	b	629[A]	-	-	14/53/53/53	-
23	CLA	c	513	-	1/1/15/20	13/37/115/115	-
23	CLA	B	603	-	1/1/15/20	7/37/115/115	-
23	CLA	B	610	41	1/1/15/20	8/37/115/115	-
23	CLA	C	509	-	1/1/15/20	5/37/115/115	-
33	LHG	d	408[B]	-	-	16/53/53/53	-
23	CLA	A	404[B]	-	1/1/15/20	4/37/115/115	-
23	CLA	b	614	-	1/1/15/20	16/37/115/115	-
26	GOL	O	302	-	-	2/4/4/4	-
23	CLA	b	607	41	1/1/15/20	7/37/115/115	-
25	SQD	A	411	-	-	15/49/69/69	0/1/1/1
23	CLA	b	602	-	1/1/15/20	3/37/115/115	-
28	PL9	D	406[A]	-	-	6/53/73/73	0/1/1/1
33	LHG	A	418[B]	-	-	16/53/53/53	-
23	CLA	b	604	-	1/1/15/20	10/37/115/115	-
26	GOL	a	418	-	-	2/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
36	DGD	C	517[B]	-	-	14/51/91/95	0/2/2/2
32	LMT	b	627	-	-	11/17/37/61	0/1/1/2
23	CLA	c	510	-	1/1/15/20	15/37/115/115	-
25	SQD	a	411	-	-	15/49/69/69	0/1/1/1
28	PL9	a	413[A]	-	-	14/53/73/73	0/1/1/1
32	LMT	M	101	-	-	4/21/61/61	0/2/2/2
33	LHG	b	629[B]	-	-	17/53/53/53	-
32	LMT	B	629	-	-	11/17/37/61	0/1/1/2
33	LHG	D	407[A]	-	-	17/53/53/53	-
32	LMT	b	621	-	-	8/17/37/61	0/1/1/2
25	SQD	A	409[A]	-	-	12/49/69/69	0/1/1/1
23	CLA	b	610	41	1/1/15/20	10/37/115/115	-
26	GOL	C	523[B]	-	-	0/4/4/4	-

The worst 5 of 1555 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
23	B	611	CLA	C3B-C2B	10.37	1.54	1.40
23	B	612	CLA	C3B-C2B	7.42	1.50	1.40
23	B	611	CLA	C1D-ND	7.25	1.46	1.37
23	B	616	CLA	C3B-C2B	7.13	1.50	1.40
23	b	608	CLA	C3B-C2B	6.96	1.50	1.40

The worst 5 of 3123 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	a	407	CLA	C1D-ND-C4D	-10.89	98.60	106.33
23	B	611	CLA	C1D-ND-C4D	-10.78	98.68	106.33
23	a	404[B]	CLA	C1D-ND-C4D	-10.23	99.07	106.33
23	B	615	CLA	C1D-ND-C4D	-10.14	99.13	106.33
23	b	610	CLA	C1D-ND-C4D	-9.93	99.28	106.33

5 of 70 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
23	A	404[A]	CLA	ND
23	A	404[B]	CLA	ND
23	A	405[A]	CLA	ND
23	A	405[B]	CLA	ND

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Mol	Chain	Res	Type	Atom
23	A	407	CLA	ND

5 of 1657 torsion outliers are listed below:

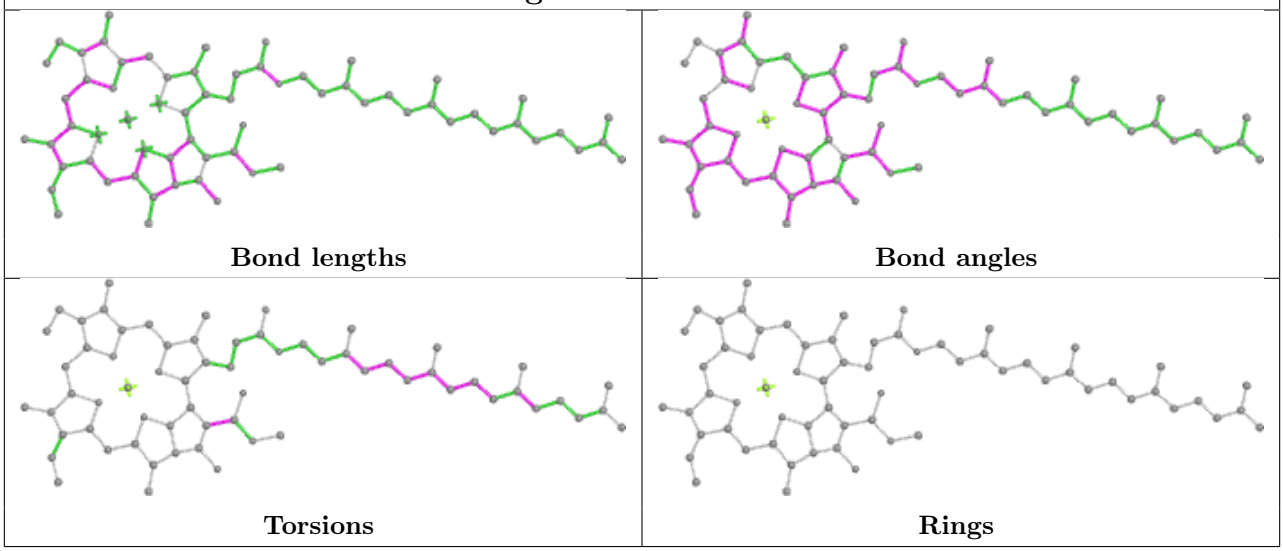
Mol	Chain	Res	Type	Atoms
23	A	407	CLA	C4-C3-C5-C6
23	B	605	CLA	C4-C3-C5-C6
23	B	614	CLA	CHA-CBD-CGD-O1D
23	B	614	CLA	CAD-CBD-CGD-O1D
23	B	614	CLA	CAD-CBD-CGD-O2D

There are no ring outliers.

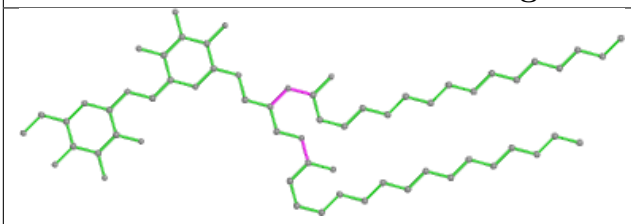
No monomer is involved in short contacts.

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

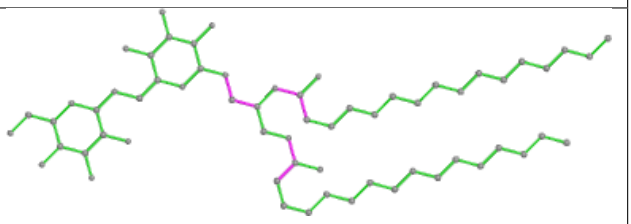
Ligand CLA B 614



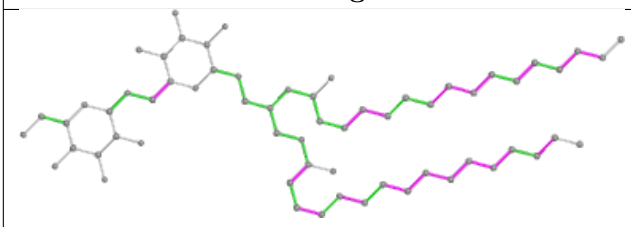
Ligand DGD C 519



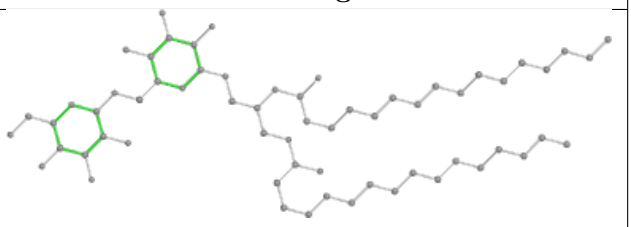
Bond lengths



Bond angles

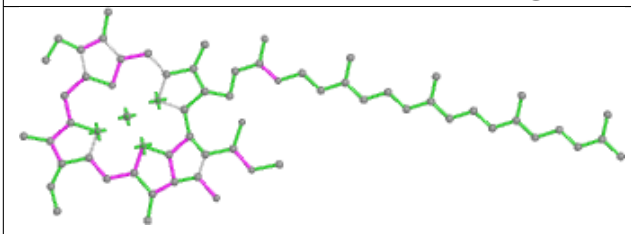


Torsions

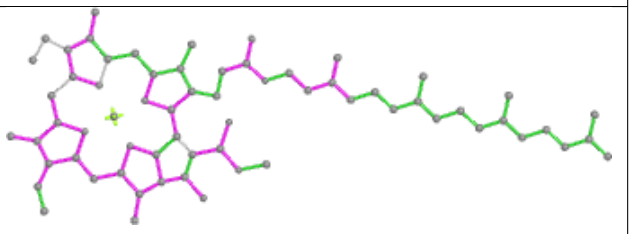


Rings

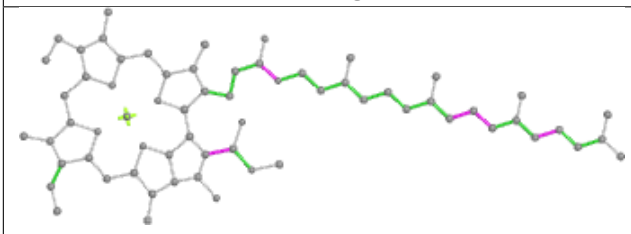
Ligand CLA b 612



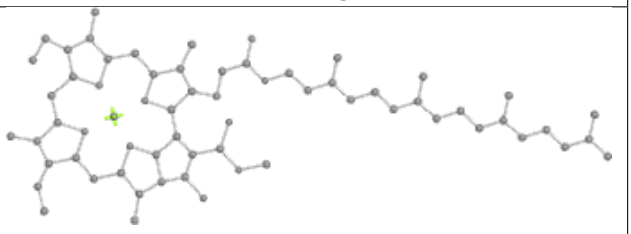
Bond lengths



Bond angles

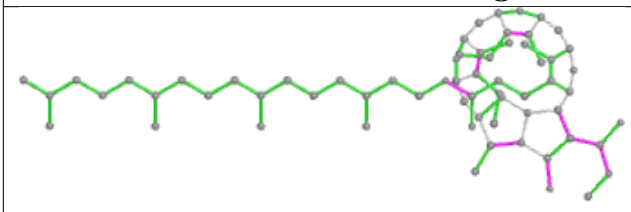


Torsions

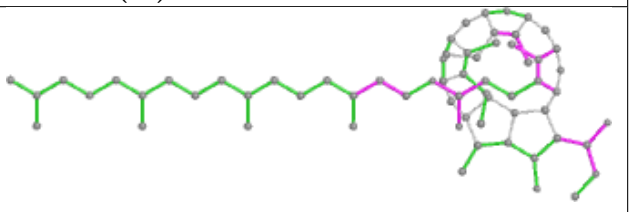


Rings

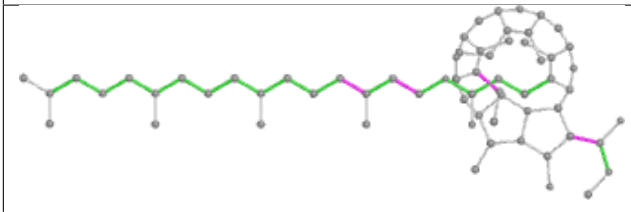
Ligand PHO a 406 (A)



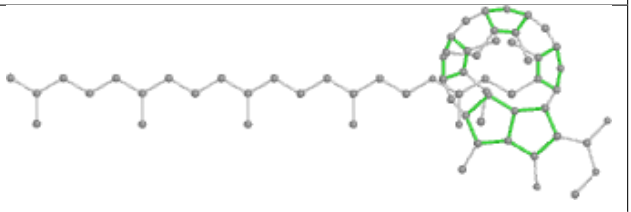
Bond lengths



Bond angles

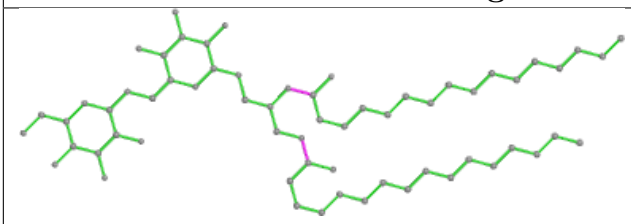


Torsions

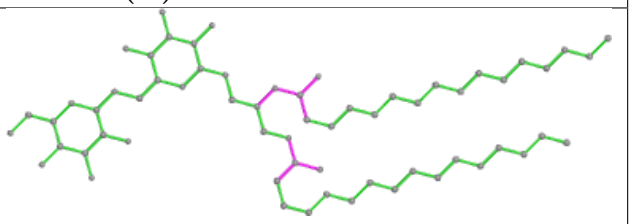


Rings

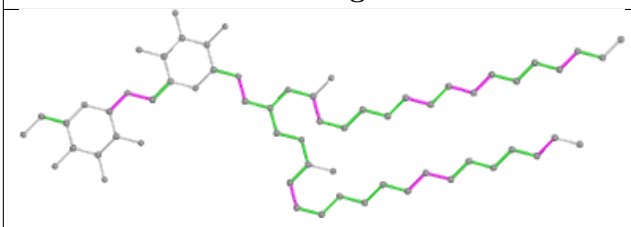
Ligand DGD C 518 (B)



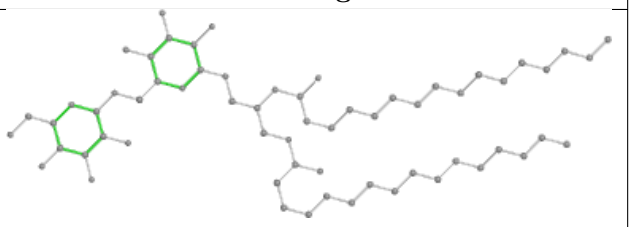
Bond lengths



Bond angles

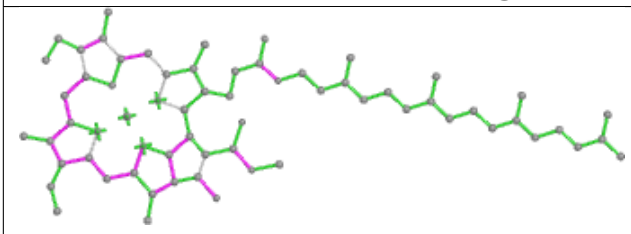


Torsions

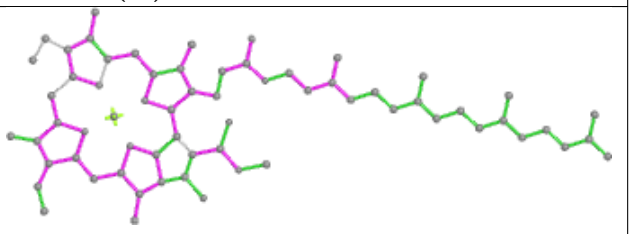


Rings

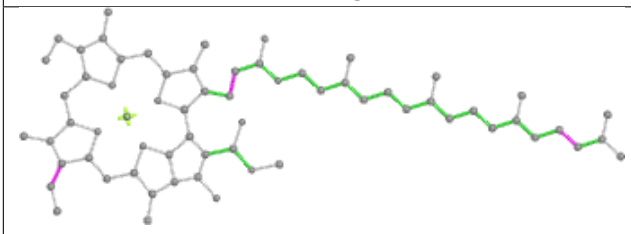
Ligand CLA a 404 (B)



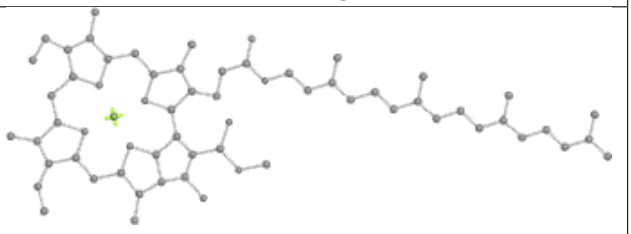
Bond lengths



Bond angles

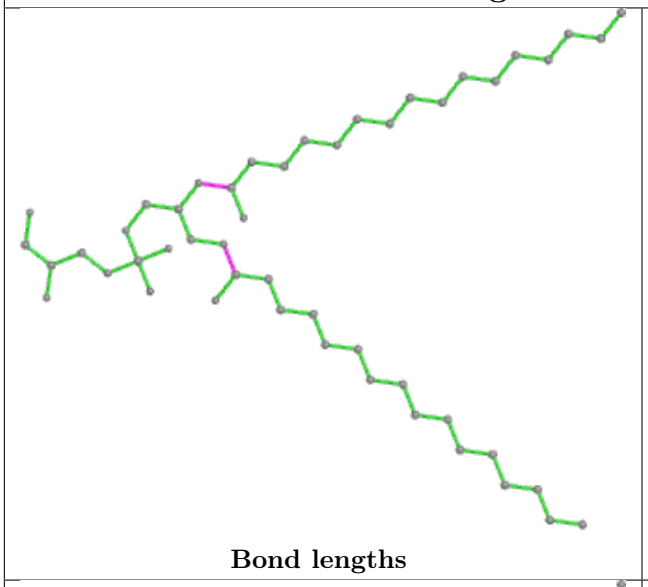


Torsions

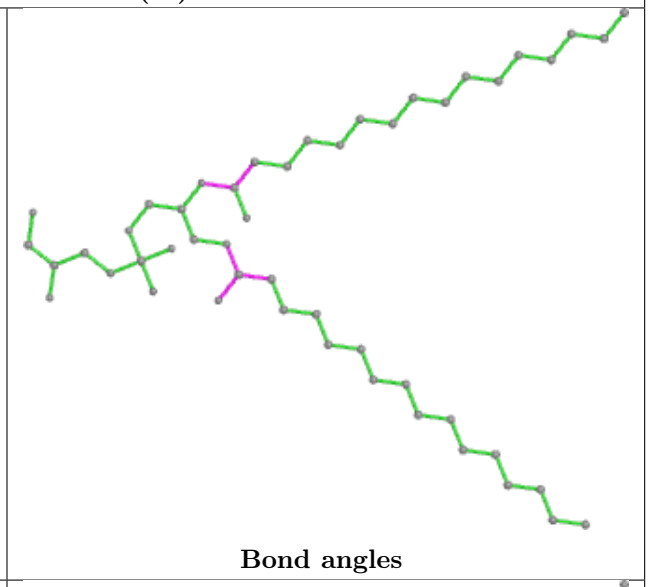


Rings

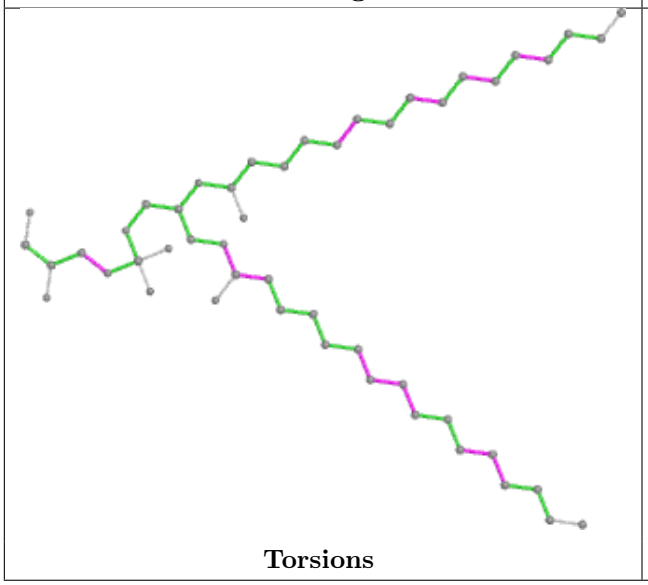
Ligand LHG D 408 (A)



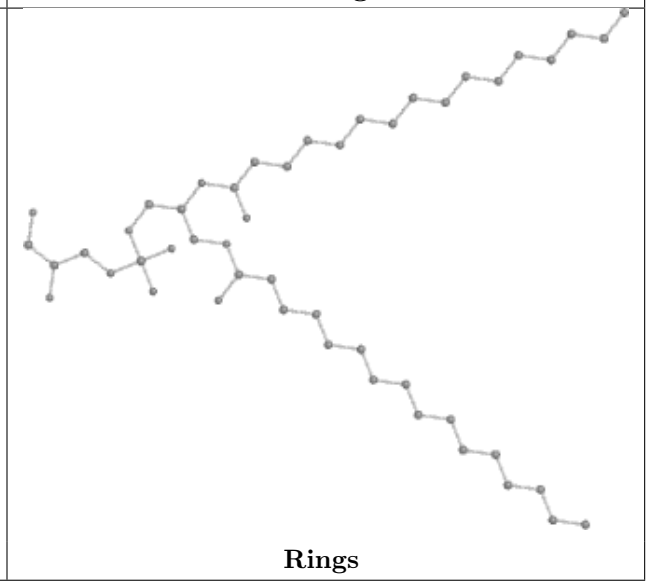
Bond lengths



Bond angles

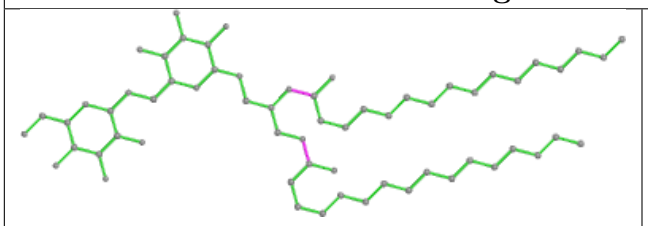


Torsions

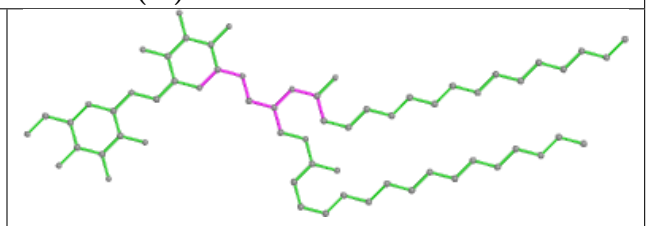


Rings

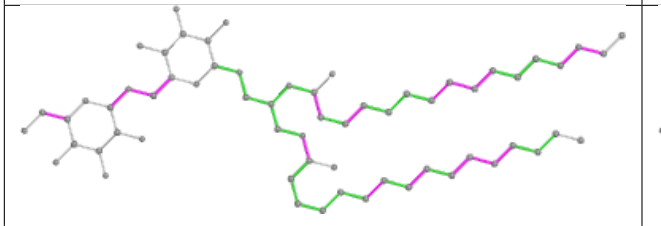
Ligand DGD c 517 (B)



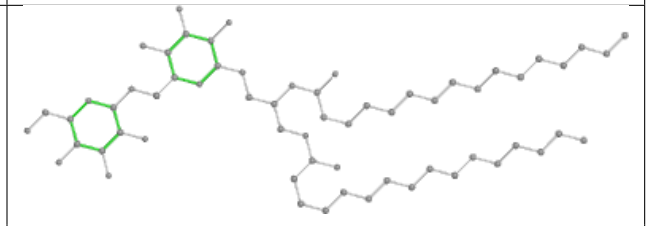
Bond lengths



Bond angles

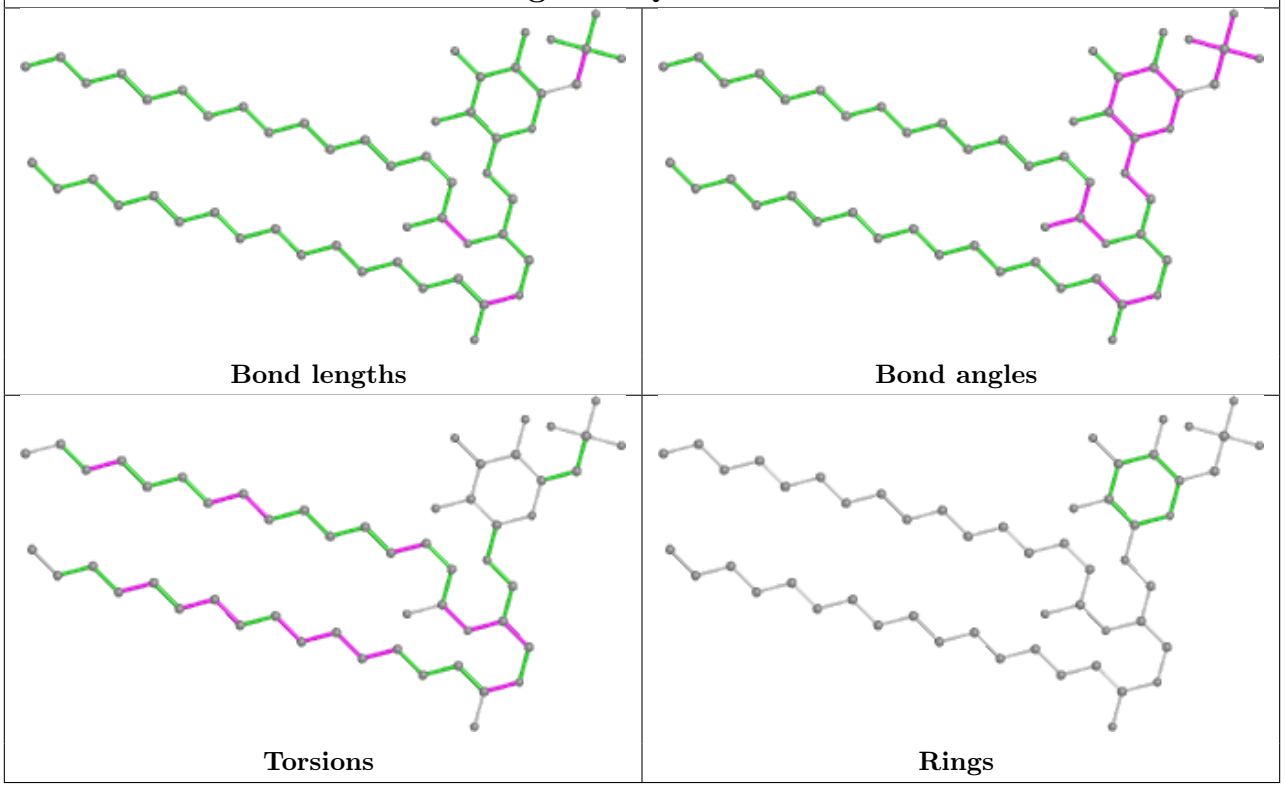


Torsions

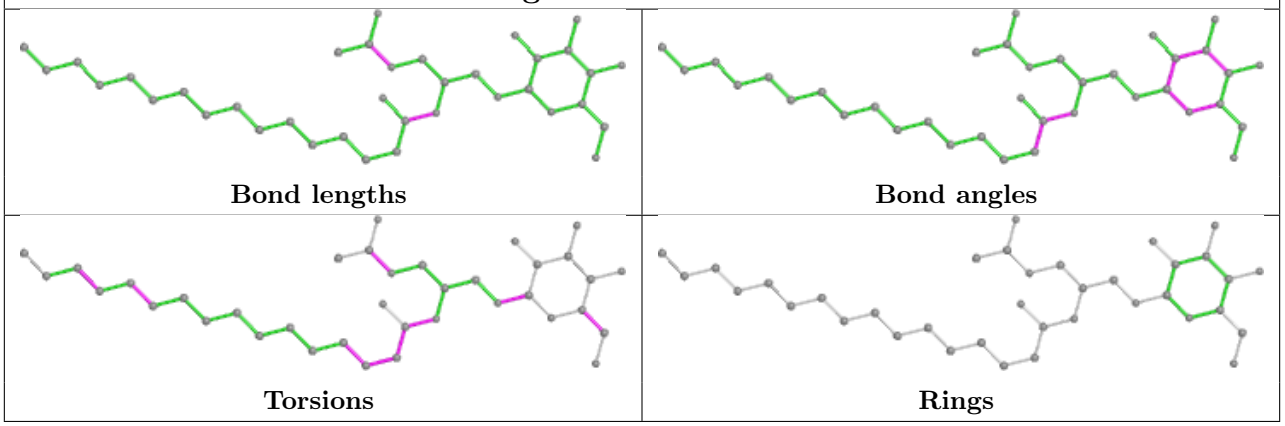


Rings

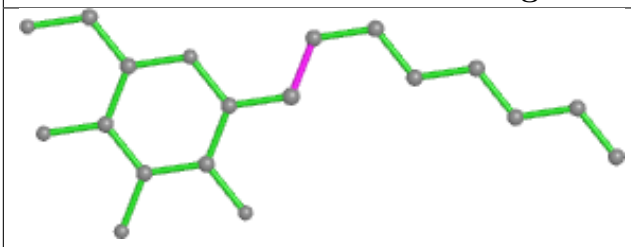
Ligand SQD b 620



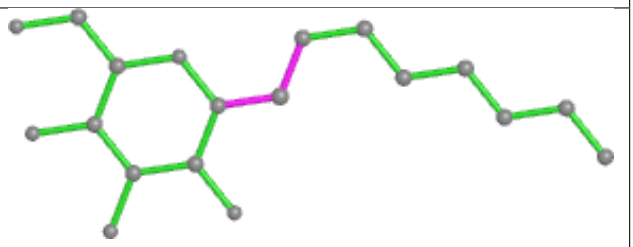
Ligand LMG Z 101



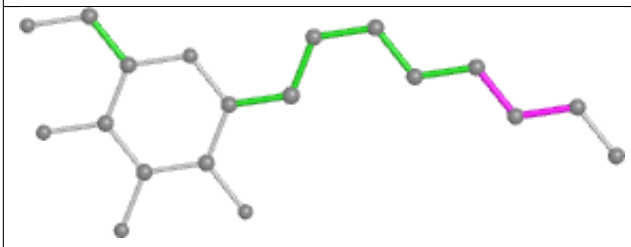
Ligand HTG B 621



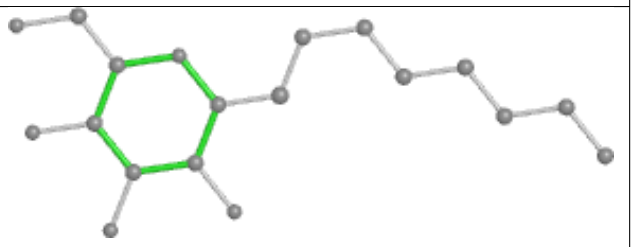
Bond lengths



Bond angles

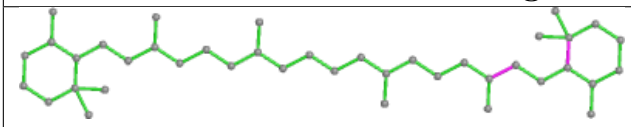


Torsions

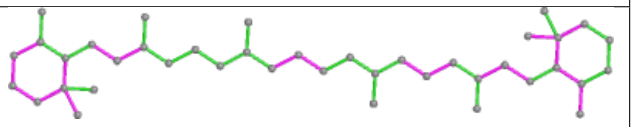


Rings

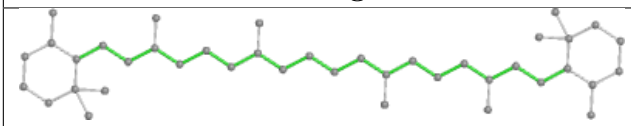
Ligand BCR B 619



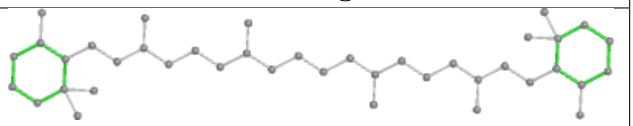
Bond lengths



Bond angles

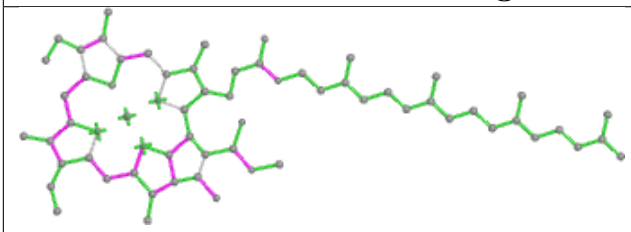


Torsions

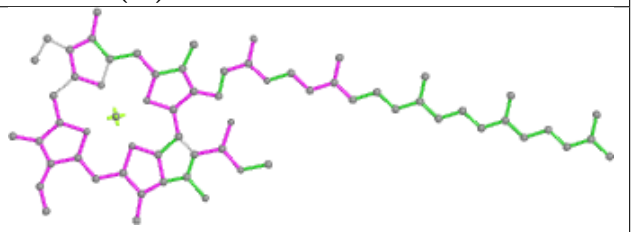


Rings

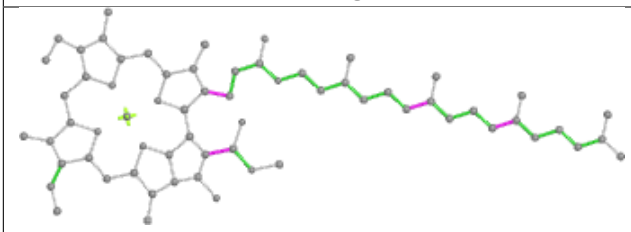
Ligand CLA a 405 (B)



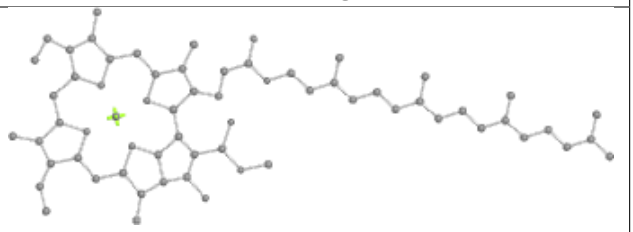
Bond lengths



Bond angles

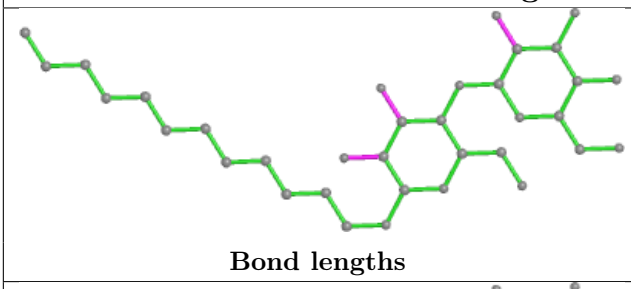


Torsions

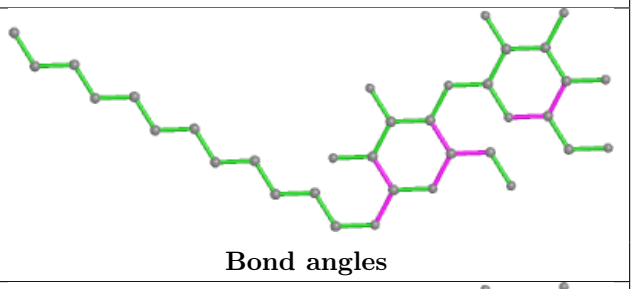


Rings

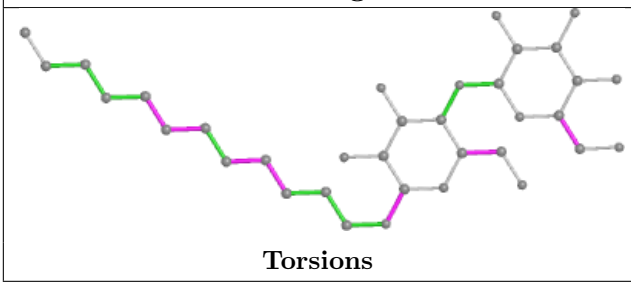
Ligand LMT B 627



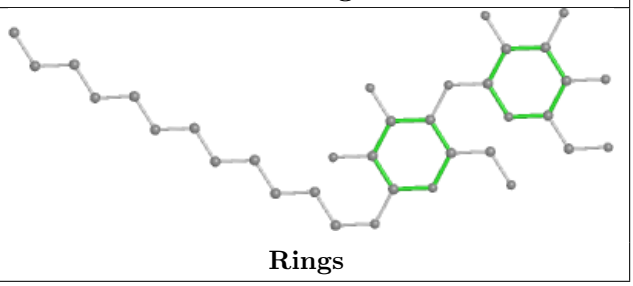
Bond lengths



Bond angles

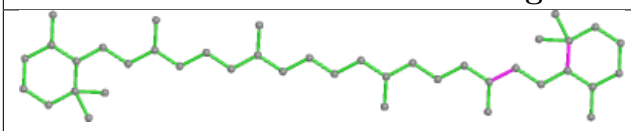


Torsions

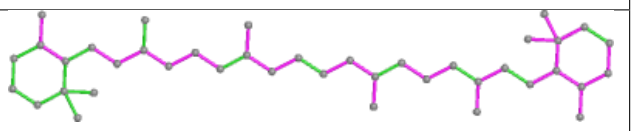


Rings

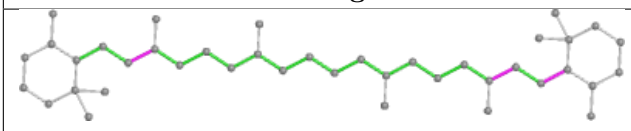
Ligand BCR d 405



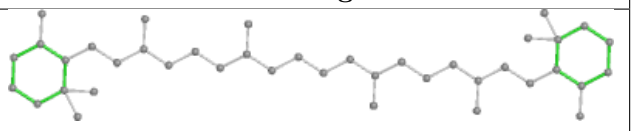
Bond lengths



Bond angles

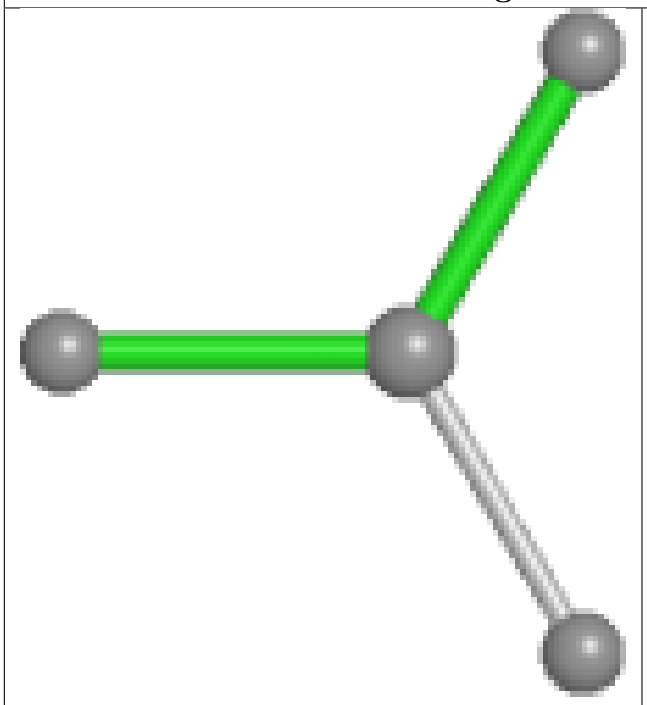


Torsions

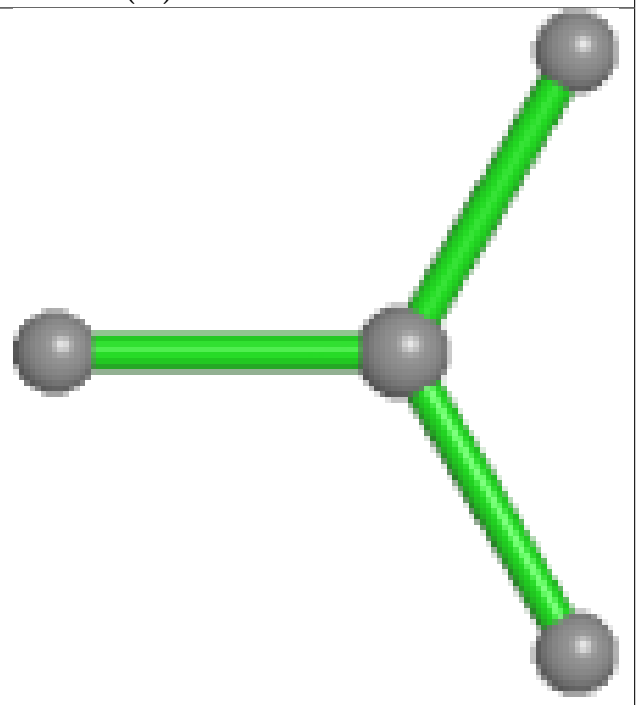


Rings

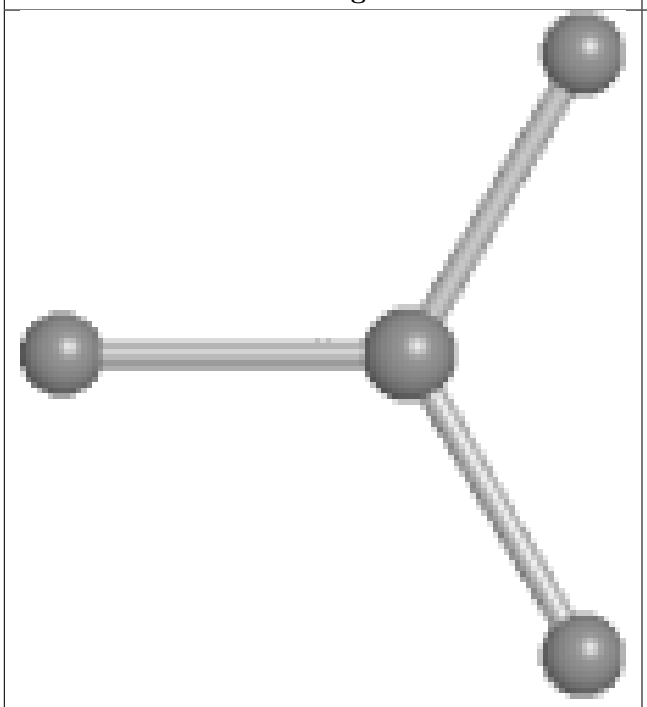
Ligand BCT d 401 (B)



Bond lengths



Bond angles



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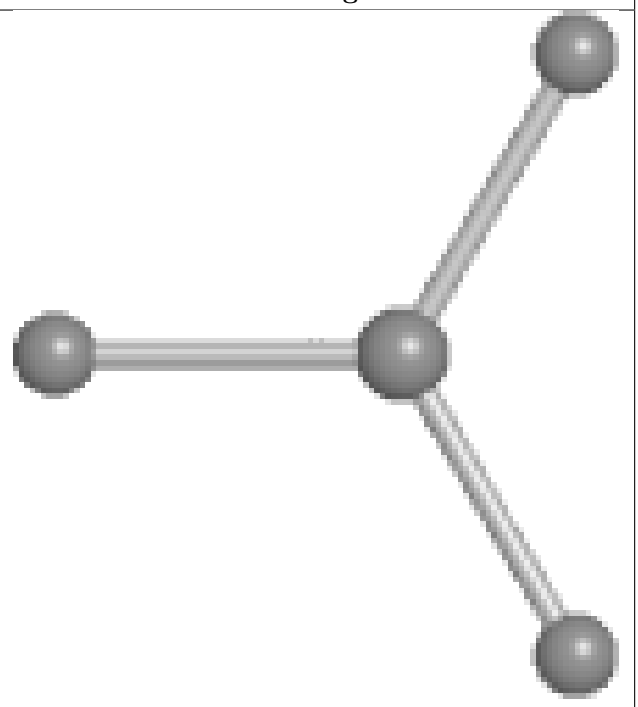
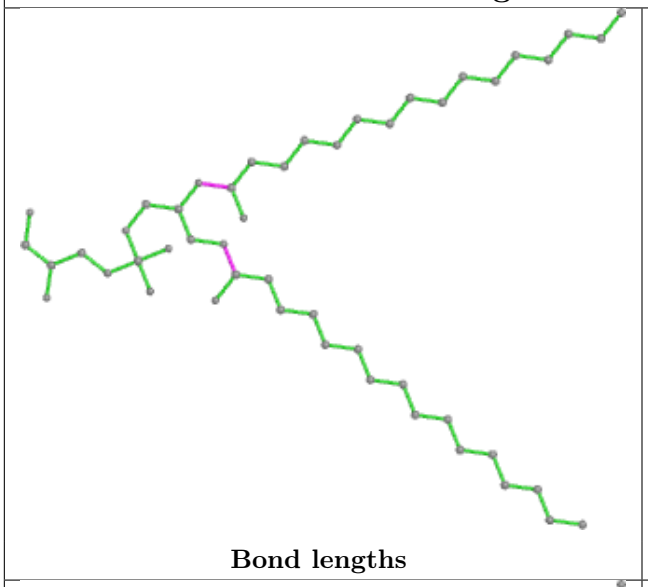
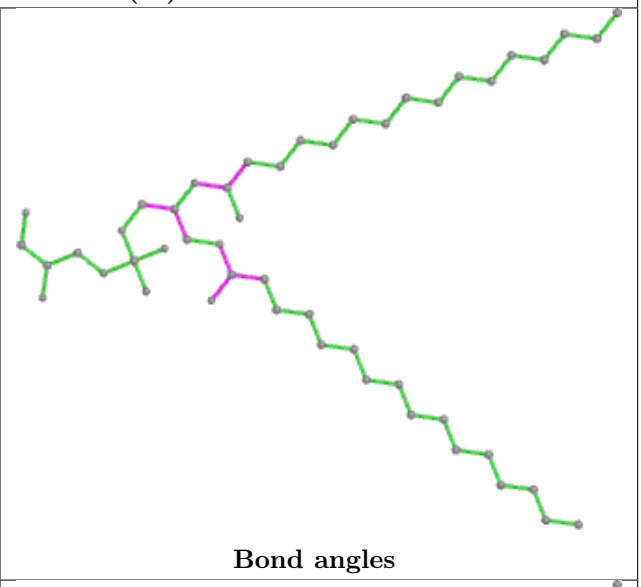


Rings

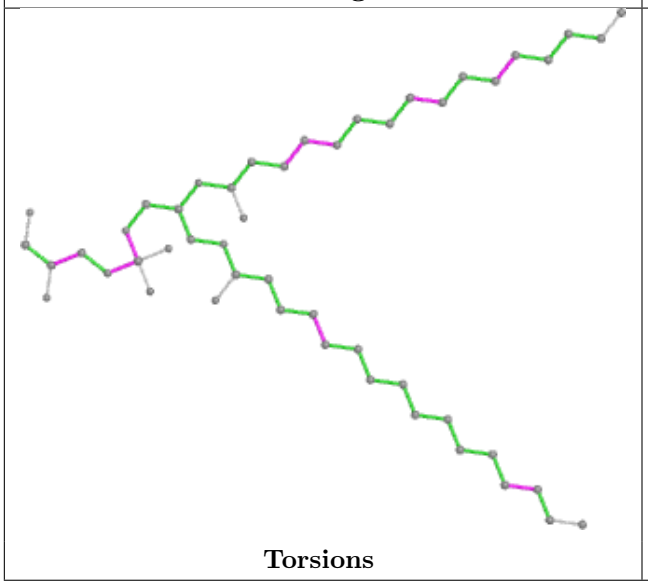
Ligand LHG d 407 (A)



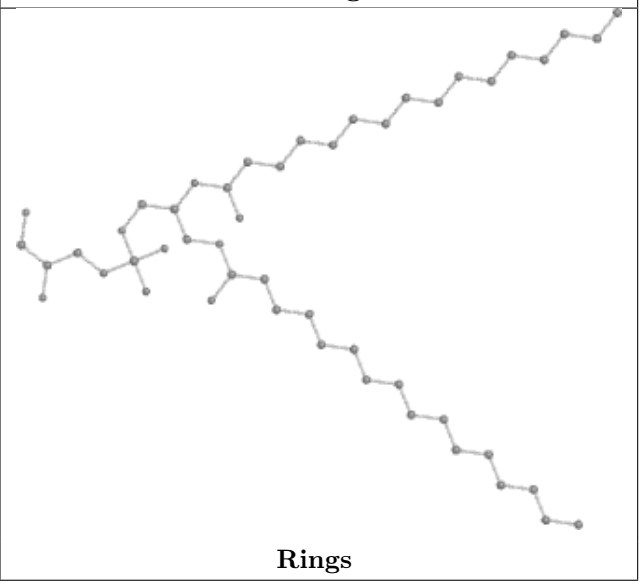
Bond lengths



Bond angles

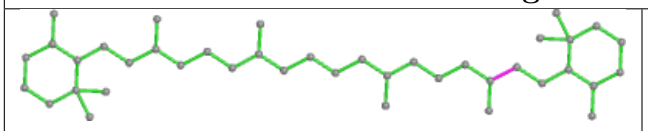


Torsions

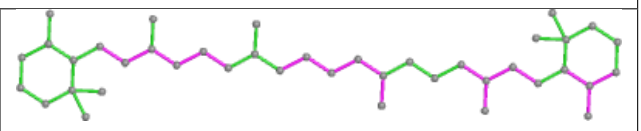


Rings

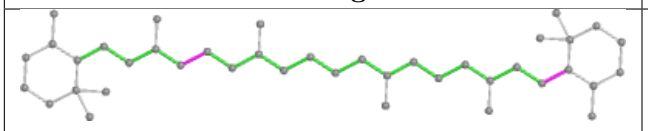
Ligand BCR H 101



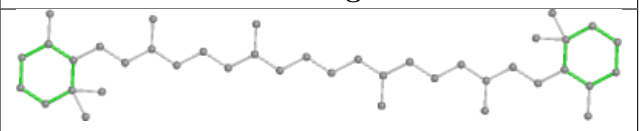
Bond lengths



Bond angles

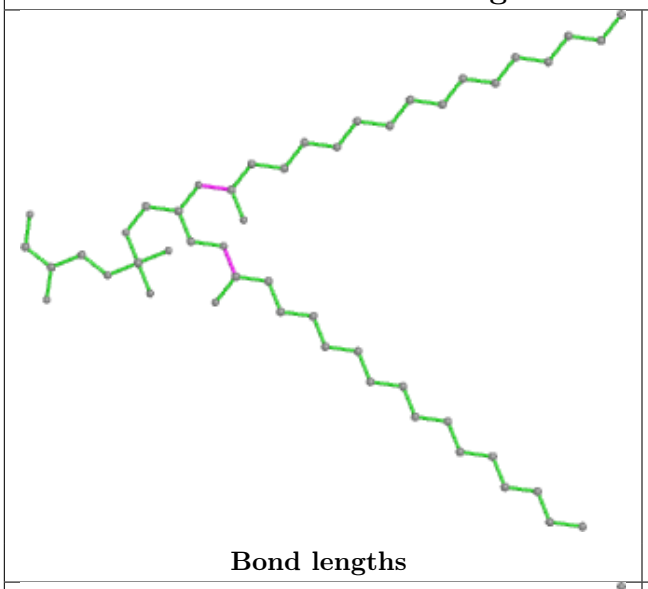


Torsions

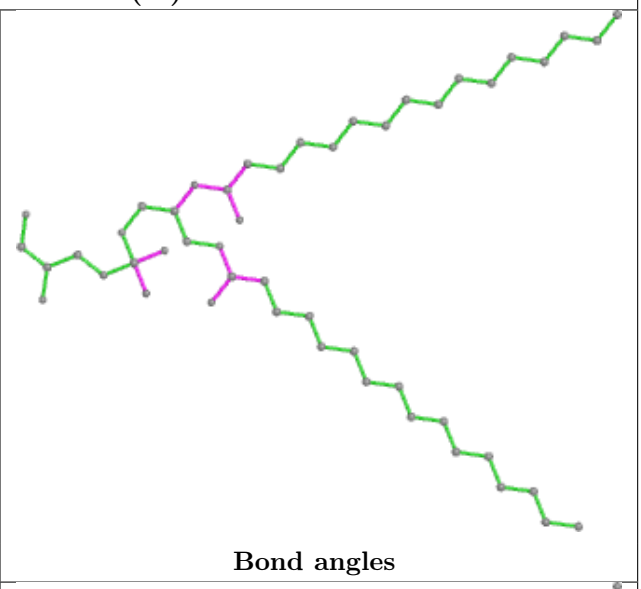


Rings

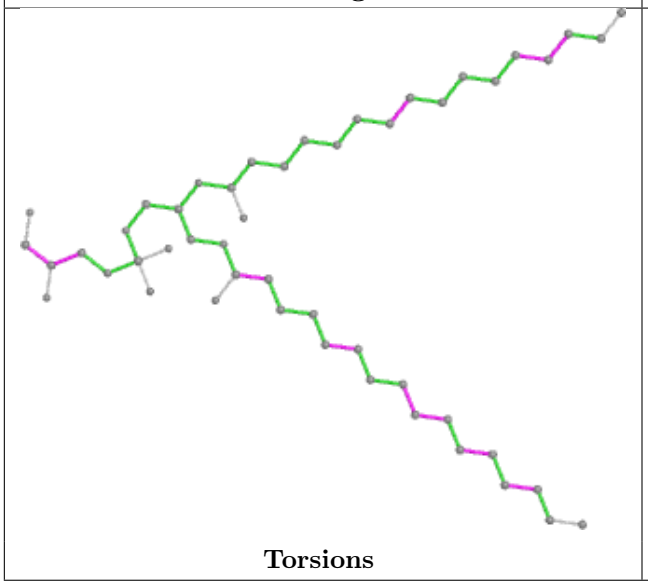
Ligand LHG A 418 (A)



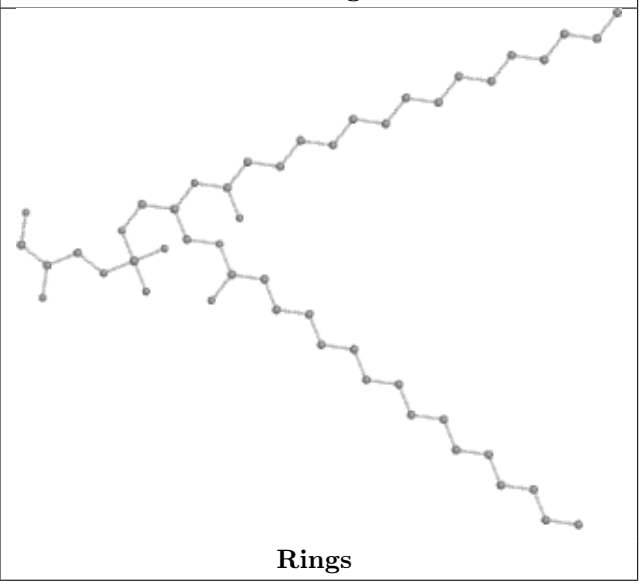
Bond lengths



Bond angles

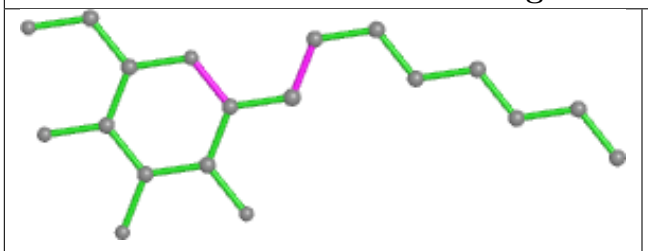


Torsions

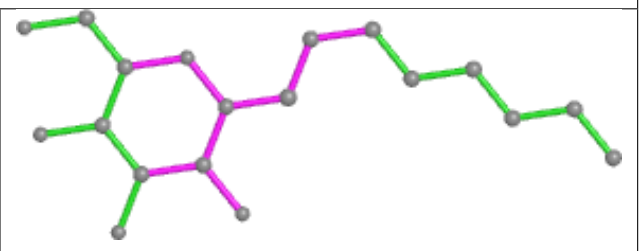


Rings

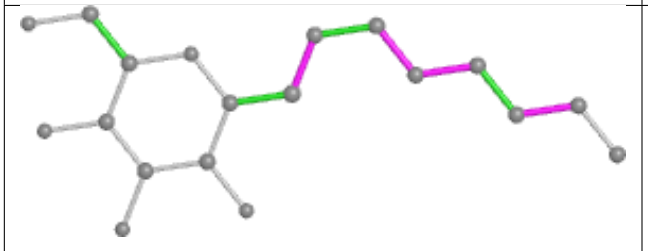
Ligand HTG o 301



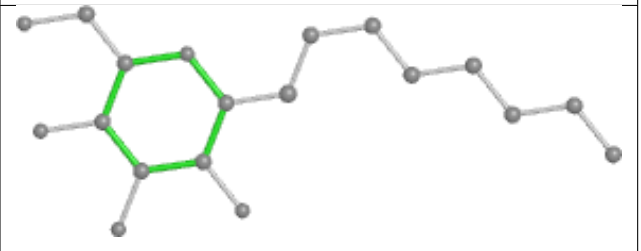
Bond lengths



Bond angles

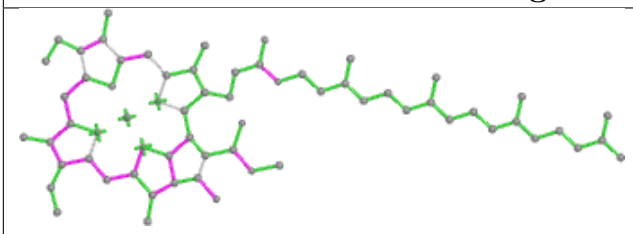


Torsions

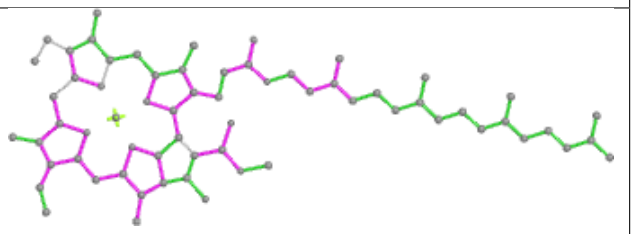


Rings

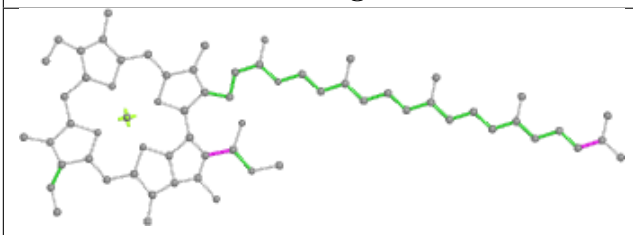
Ligand CLA c 509



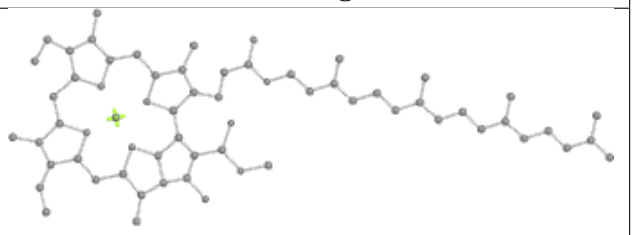
Bond lengths



Bond angles

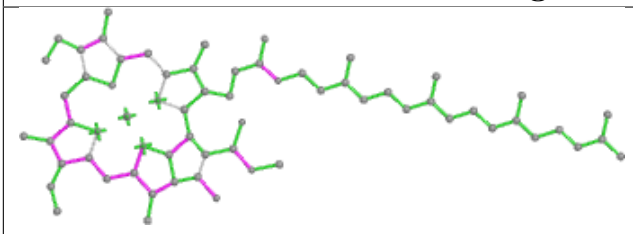


Torsions

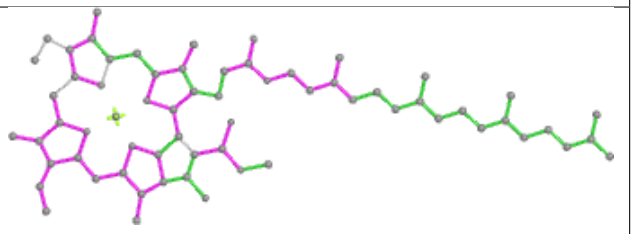


Rings

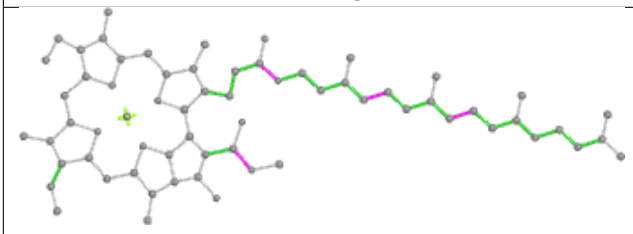
Ligand CLA c 512



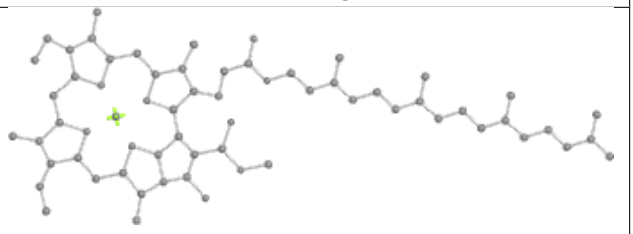
Bond lengths



Bond angles

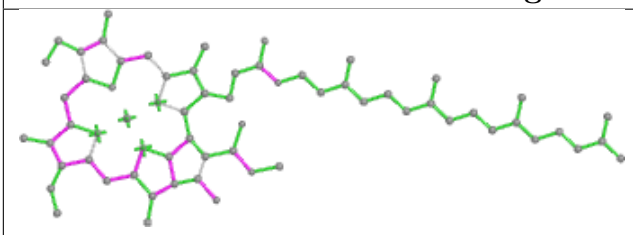


Torsions

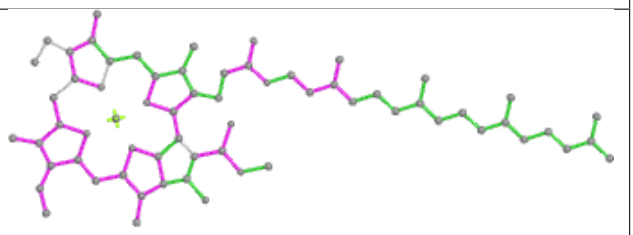


Rings

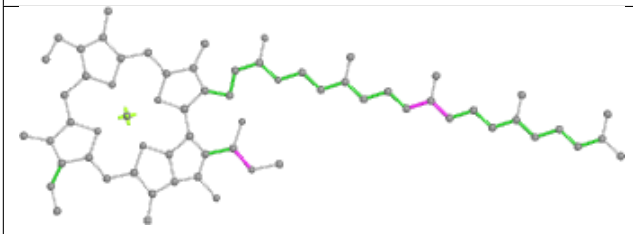
Ligand CLA C 504



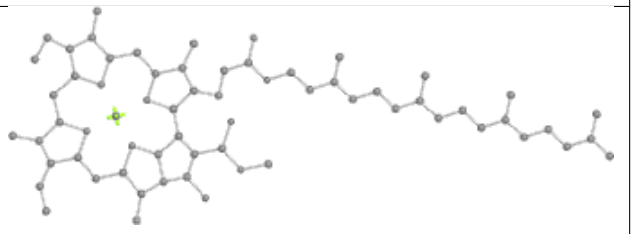
Bond lengths



Bond angles

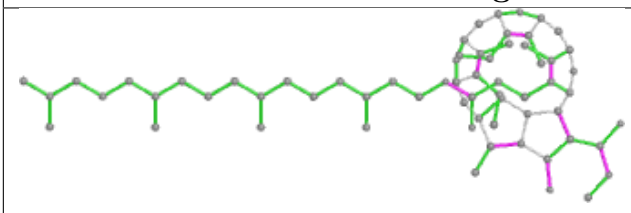


Torsions

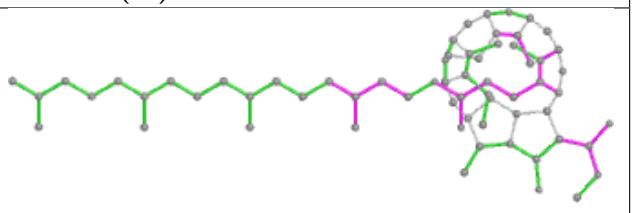


Rings

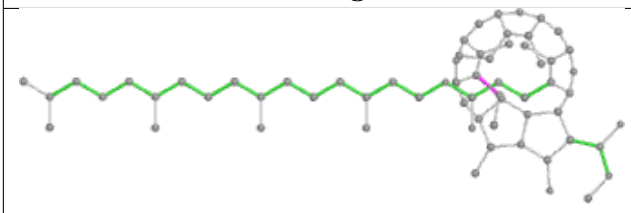
Ligand PHO a 415 (A)



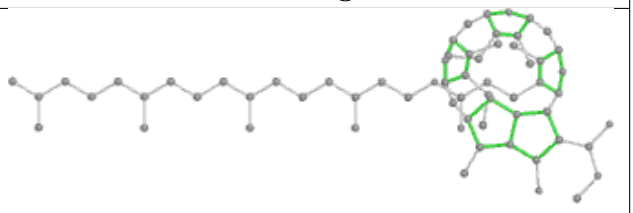
Bond lengths



Bond angles

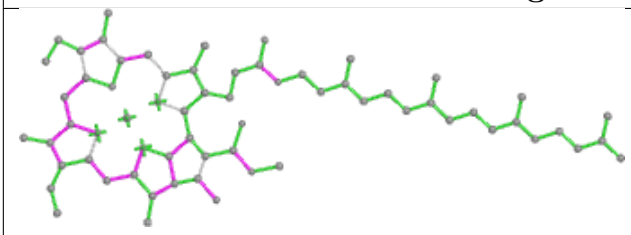


Torsions

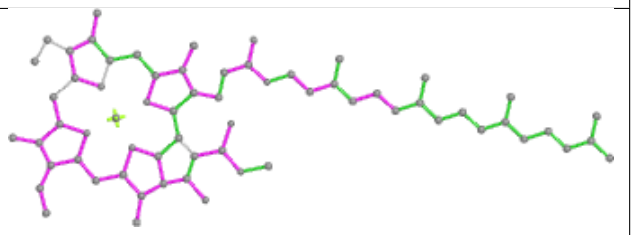


Rings

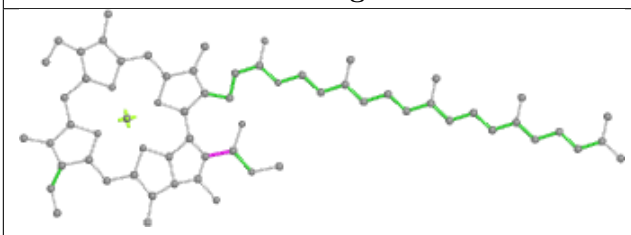
Ligand CLA b 609



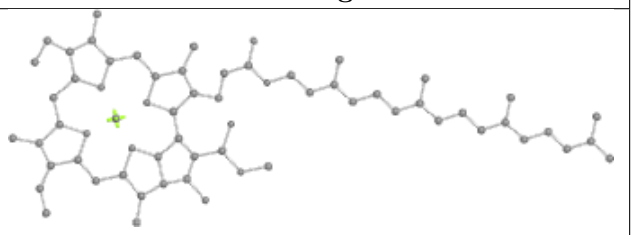
Bond lengths



Bond angles

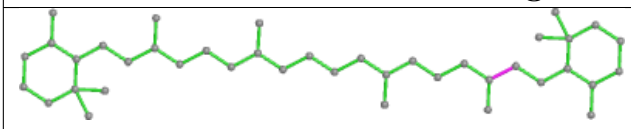


Torsions

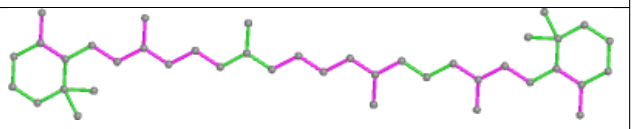


Rings

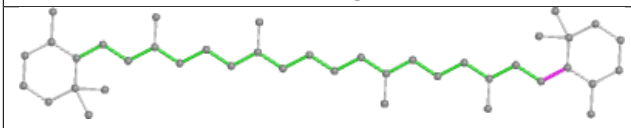
Ligand BCR h 101



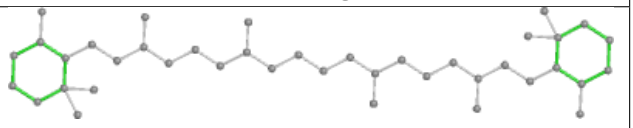
Bond lengths



Bond angles

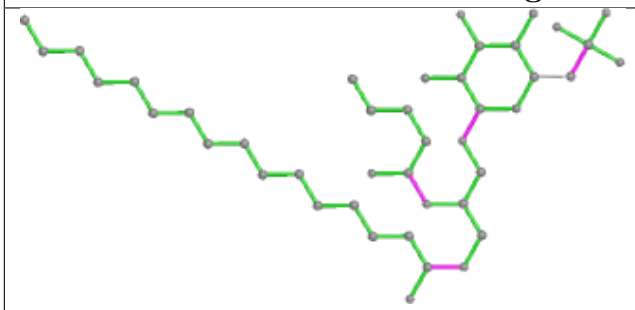


Torsions

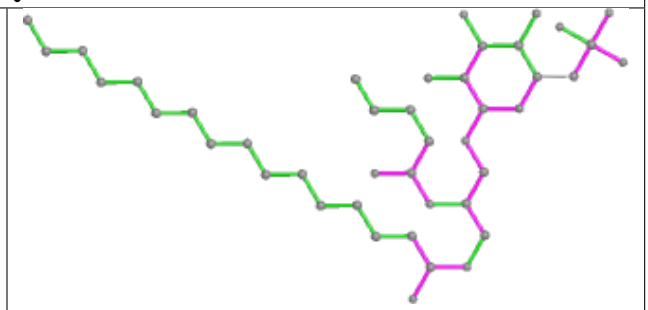


Rings

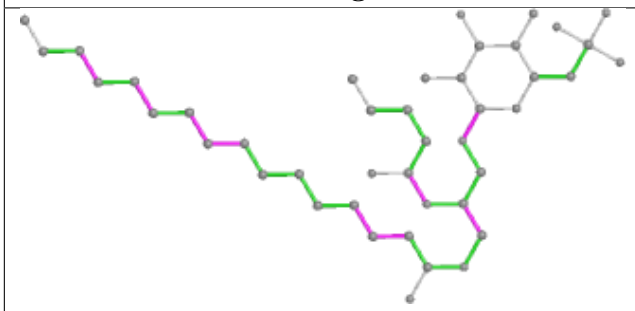
Ligand SQD X 101



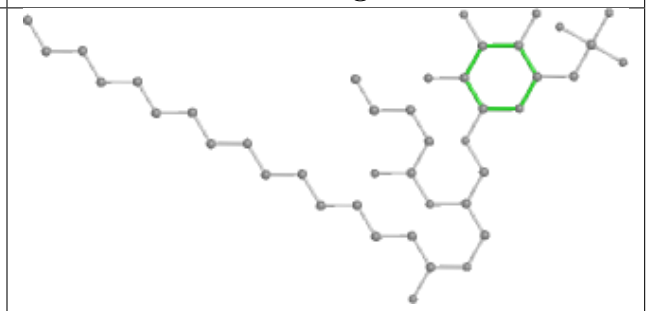
Bond lengths



Bond angles

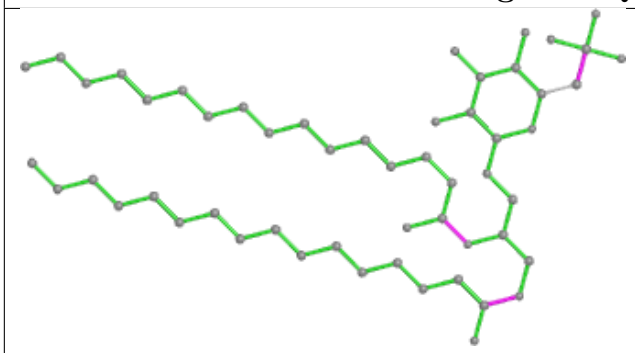


Torsions

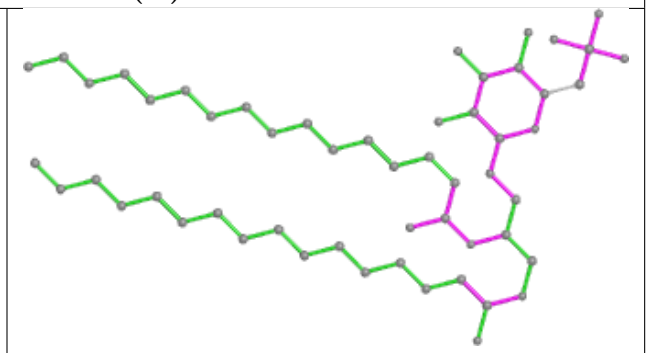


Rings

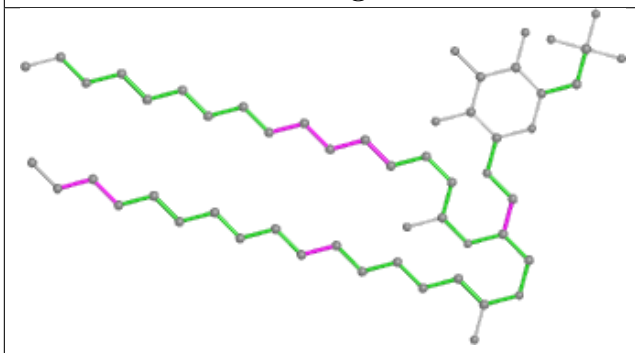
Ligand SQD a 409 (B)



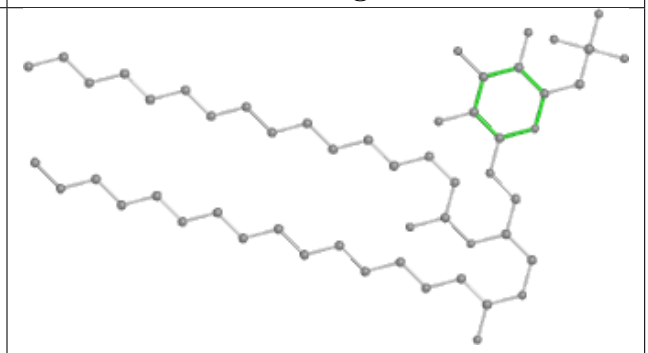
Bond lengths



Bond angles

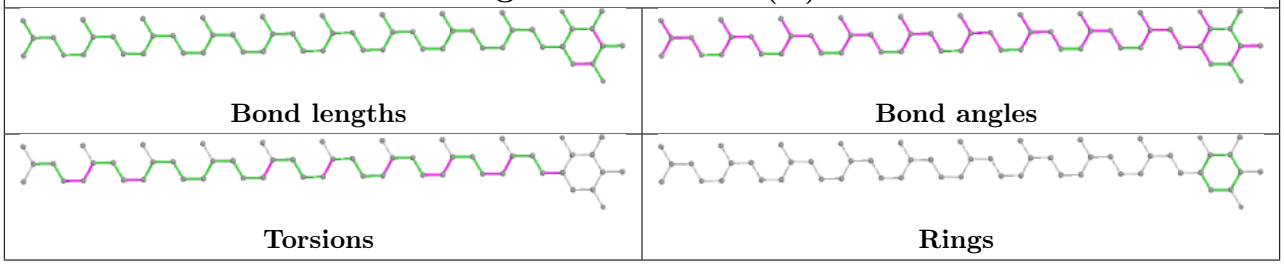


Torsions

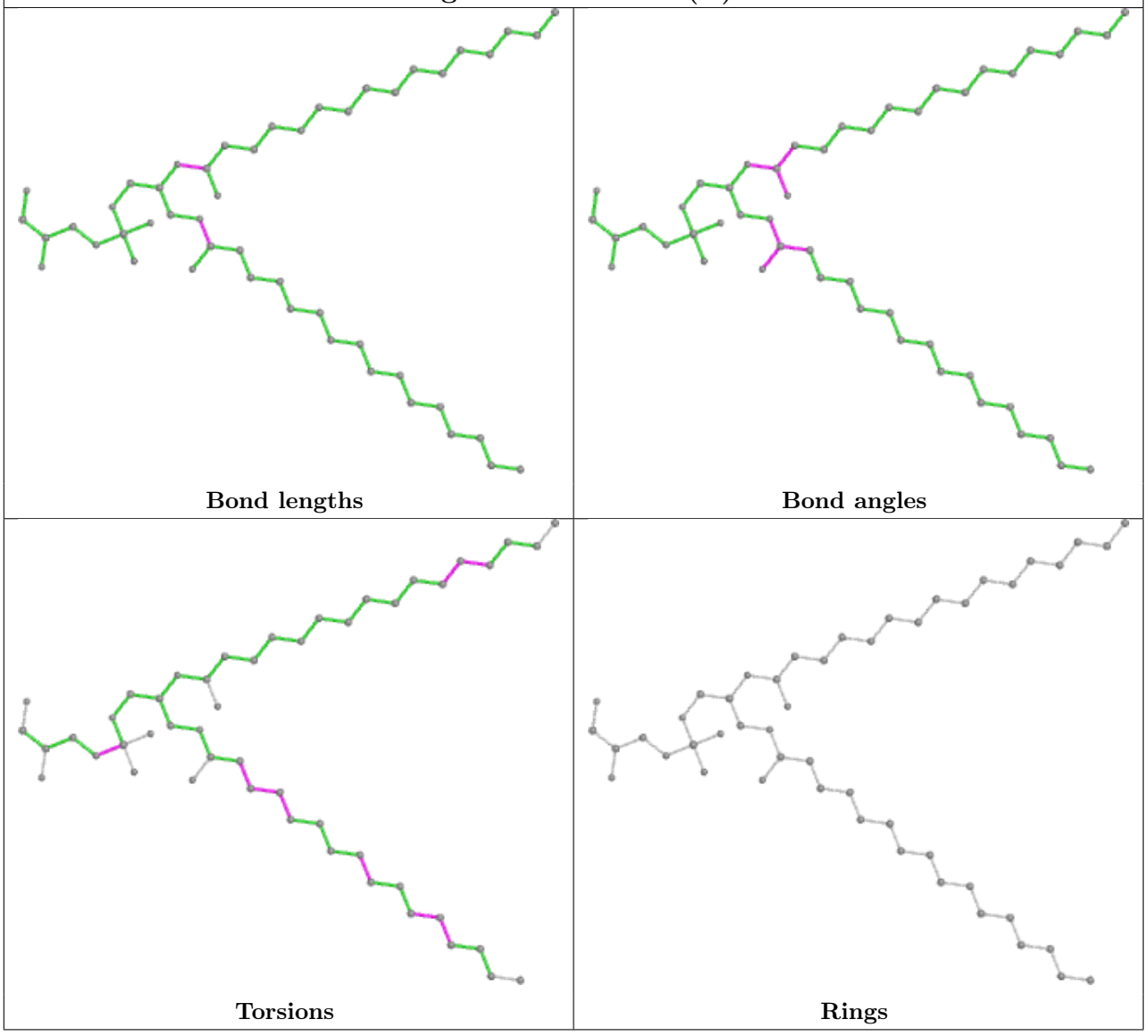


Rings

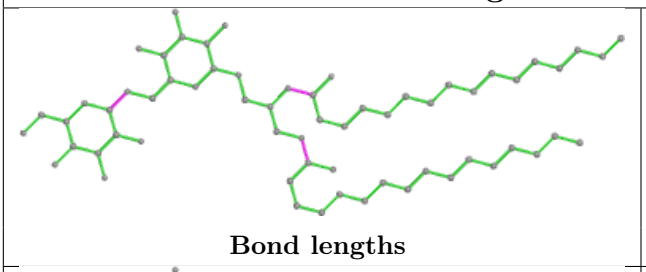
Ligand PL9 A 413 (A)



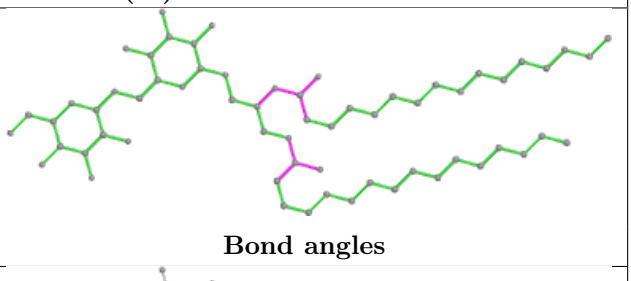
Ligand LHG d 414 (B)



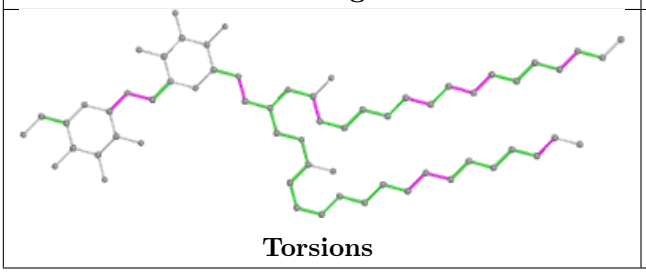
Ligand DGD C 518 (A)



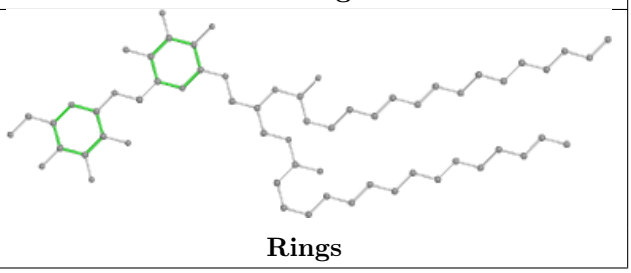
Bond lengths



Bond angles

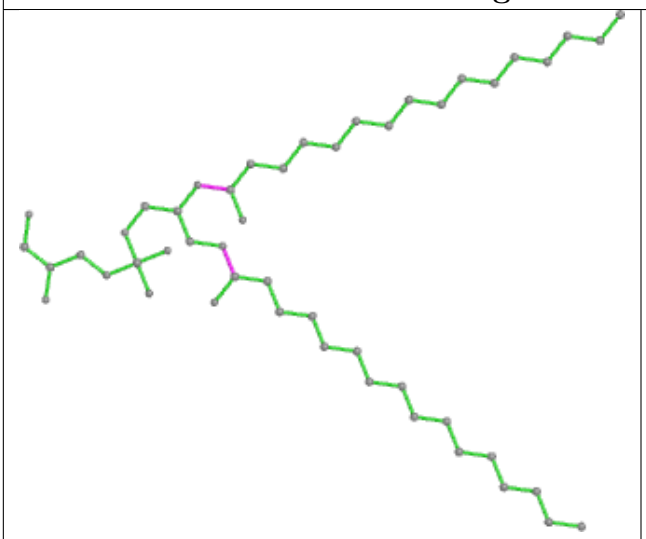


Torsions

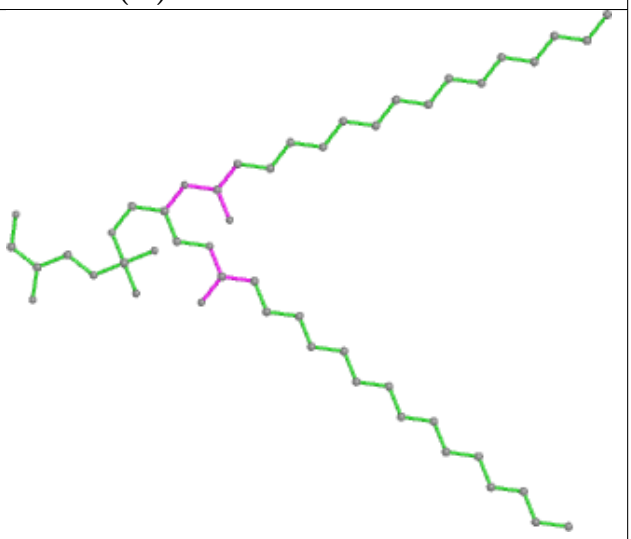


Rings

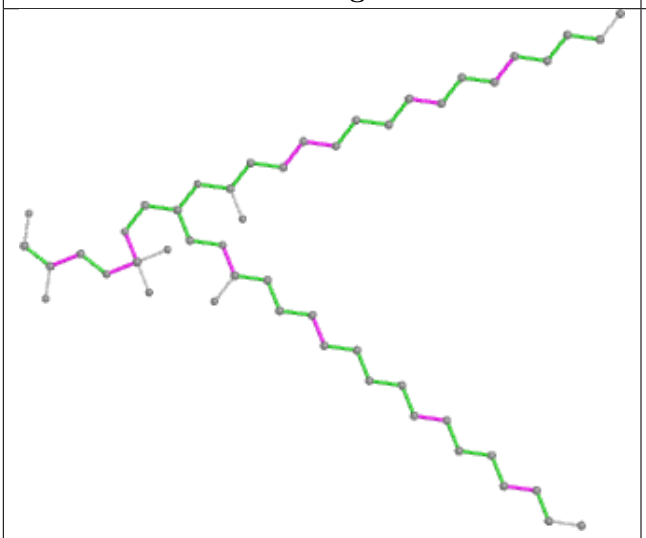
Ligand LHG d 407 (B)



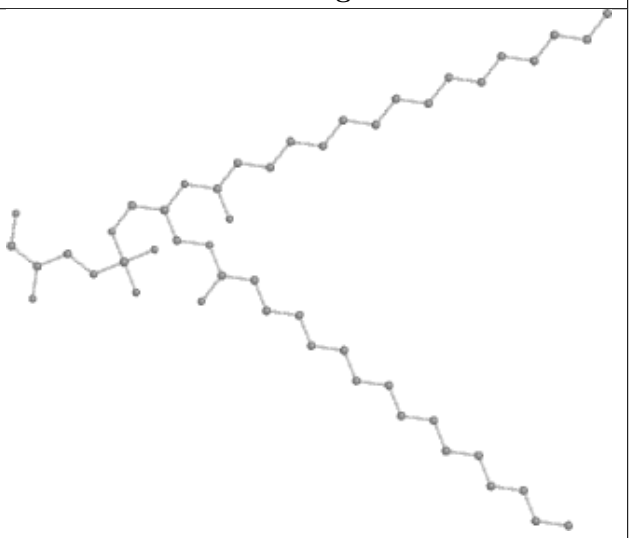
Bond lengths



Bond angles

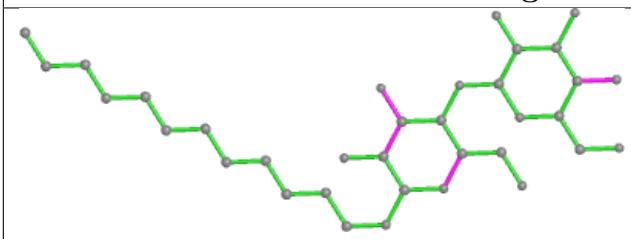


Torsions

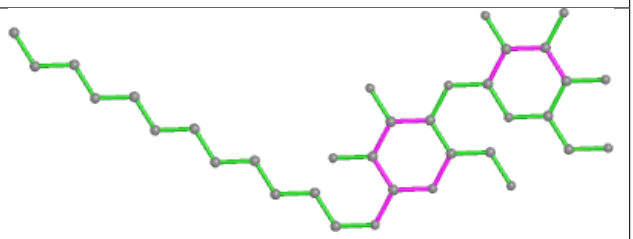


Rings

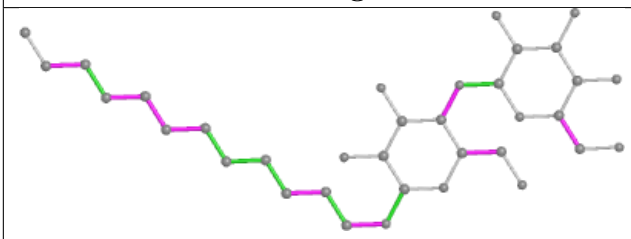
Ligand LMT B 626



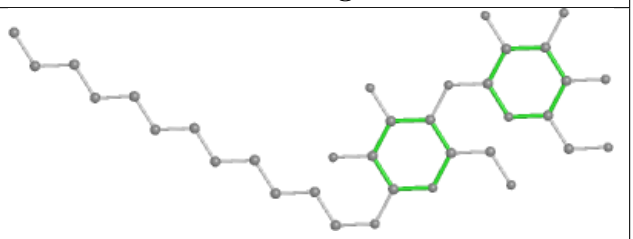
Bond lengths



Bond angles

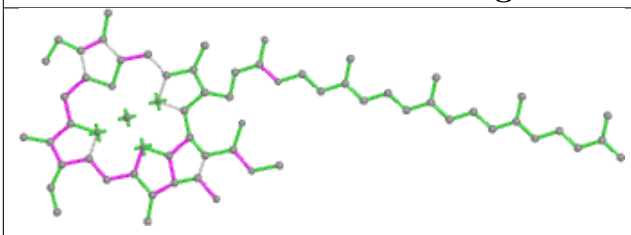


Torsions

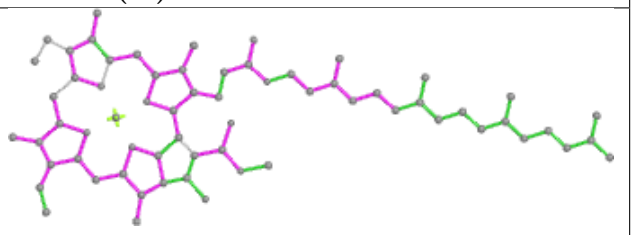


Rings

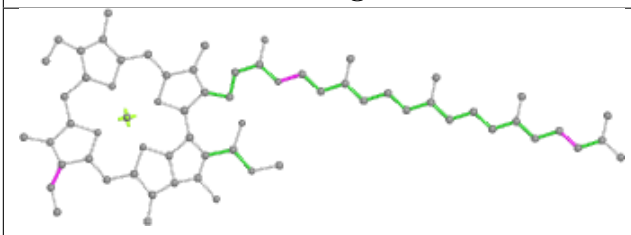
Ligand CLA a 404 (A)



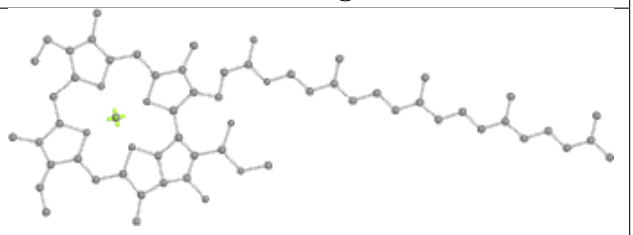
Bond lengths



Bond angles

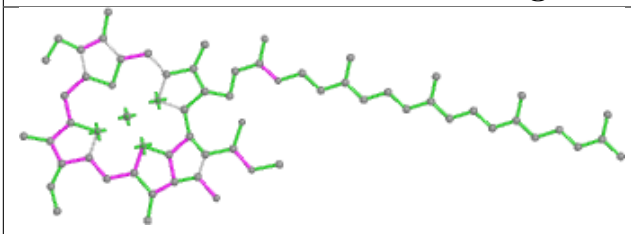


Torsions

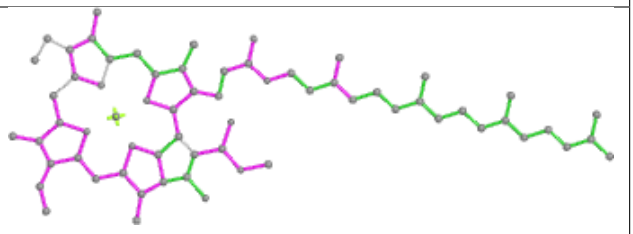


Rings

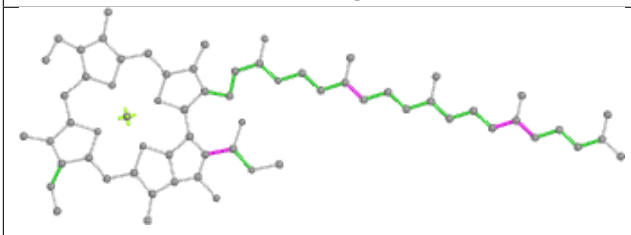
Ligand CLA c 505



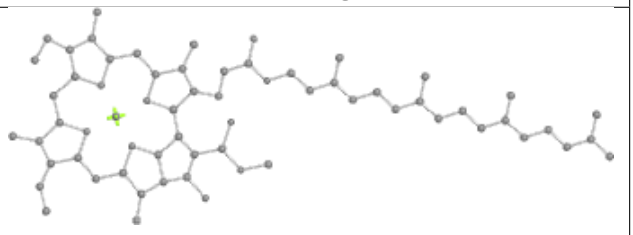
Bond lengths



Bond angles

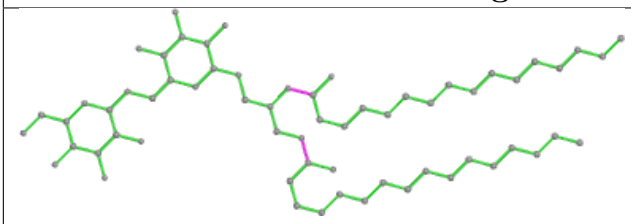


Torsions



Rings

Ligand DGD c 517 (A)



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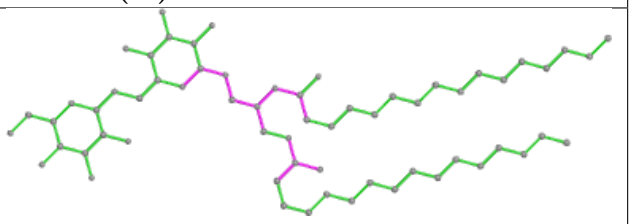
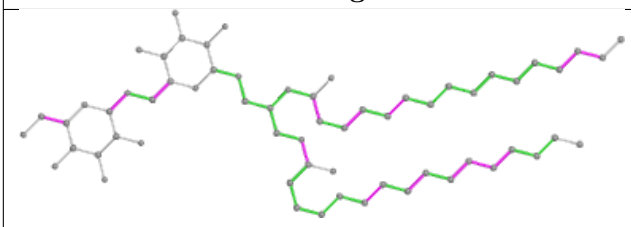
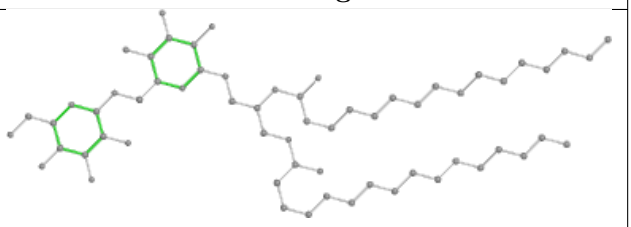


Bond angles

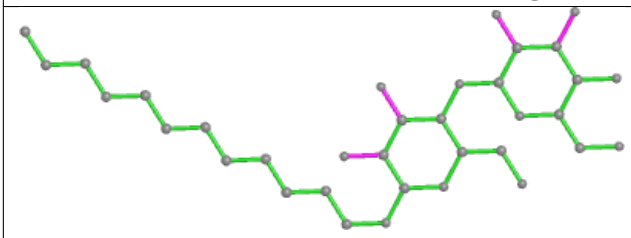


Torsions



Rings

Ligand LMT e 101



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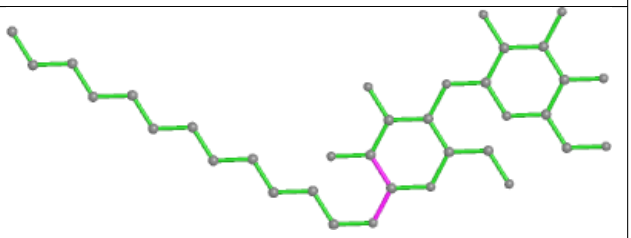
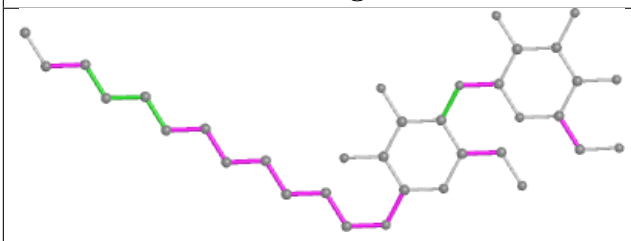
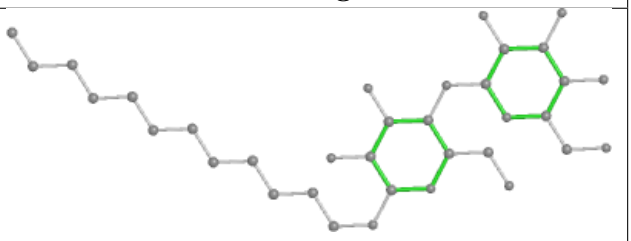


Bond angles

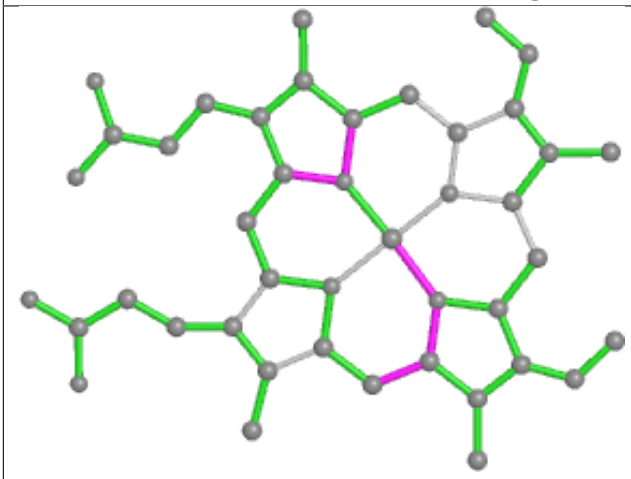


Torsions



Rings

Ligand HEM f 101



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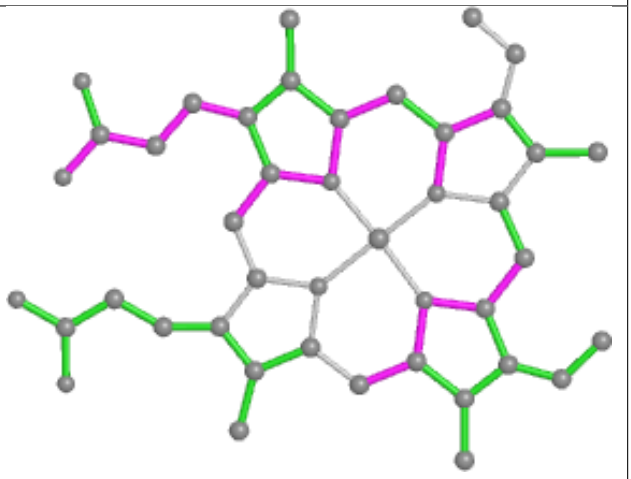
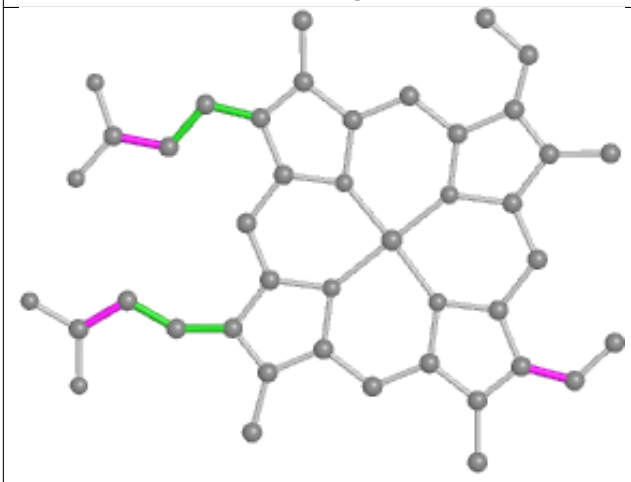


Bond angles



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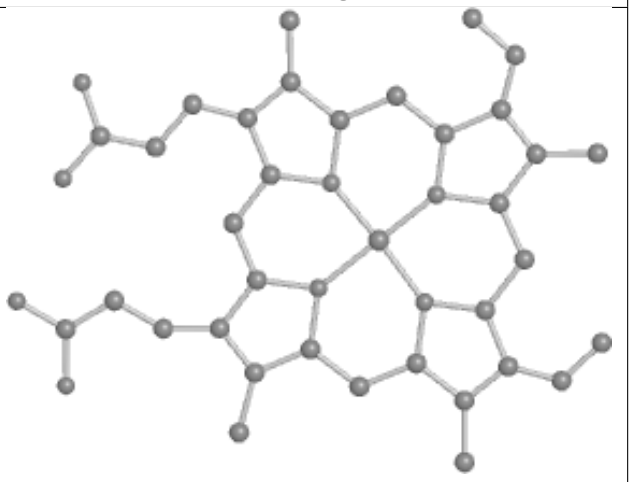
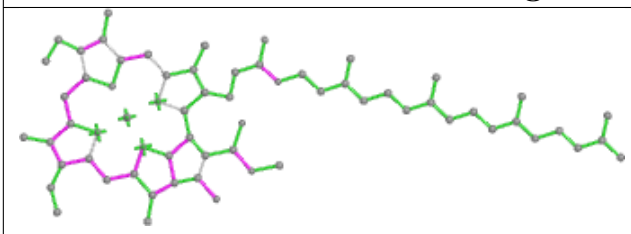


Rings

Ligand CLA C 502



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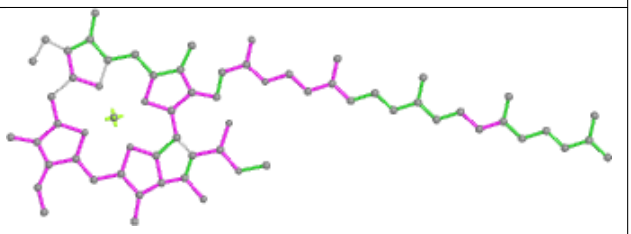
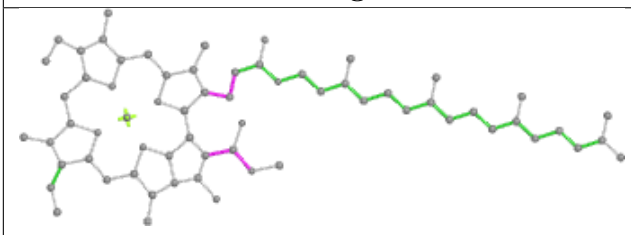


Bond angles



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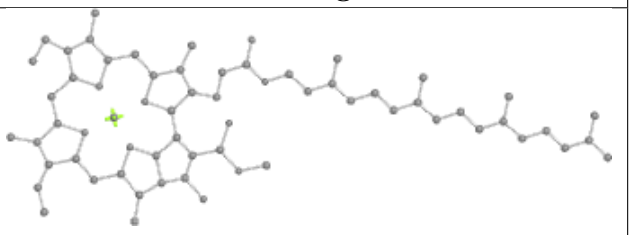
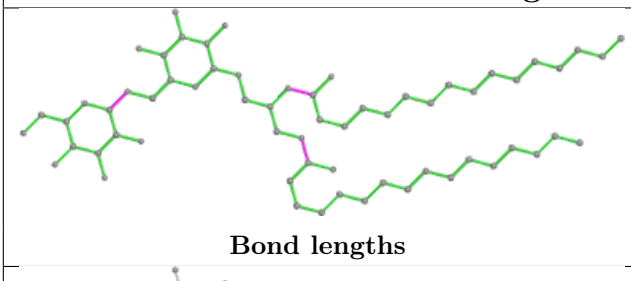


Rings

Ligand DGD h 102



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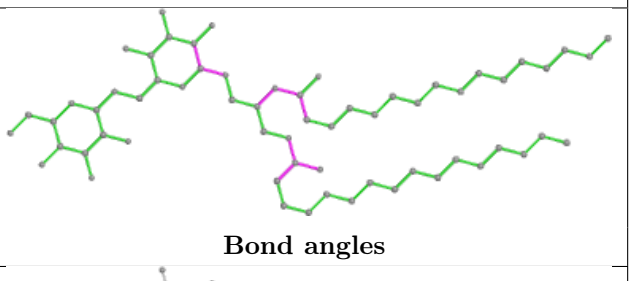
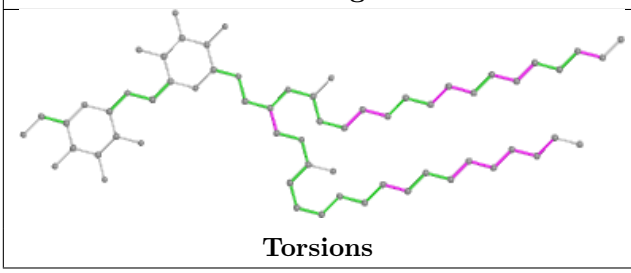


Bond angles



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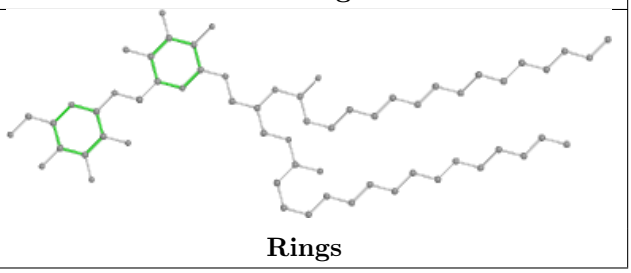
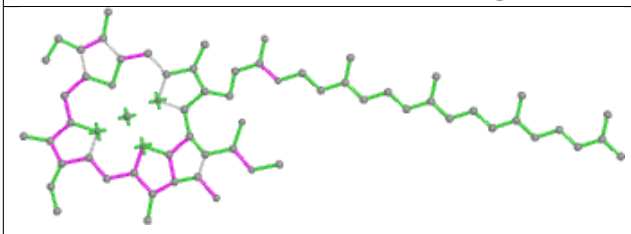


Rings

Ligand CLA A 406 (B)



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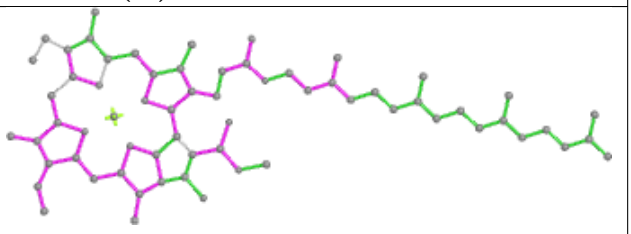
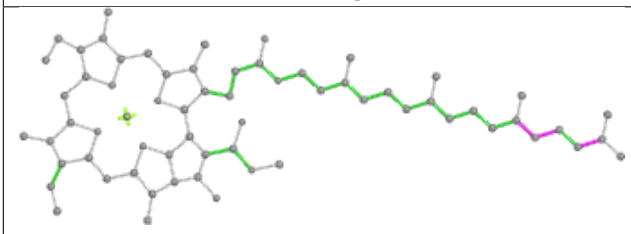
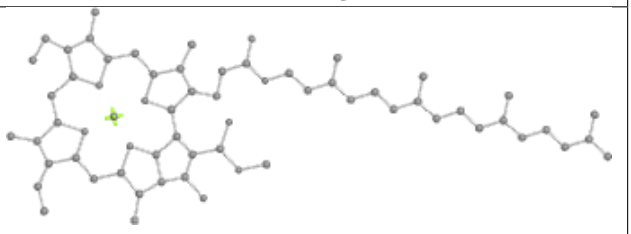


Bond angles

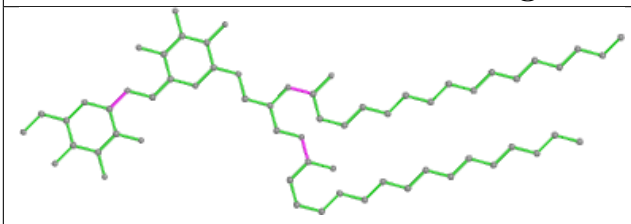


Torsions

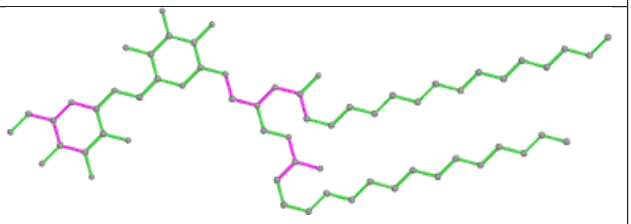


Rings

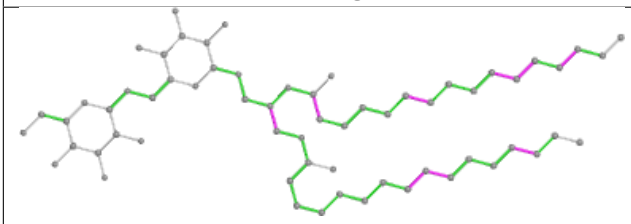
Ligand DGD H 102



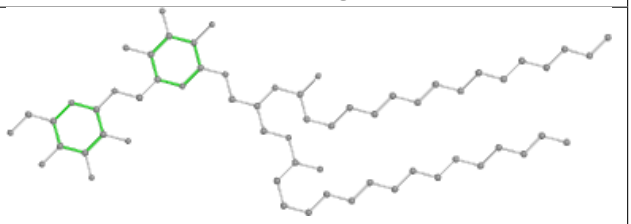
Bond lengths



Bond angles

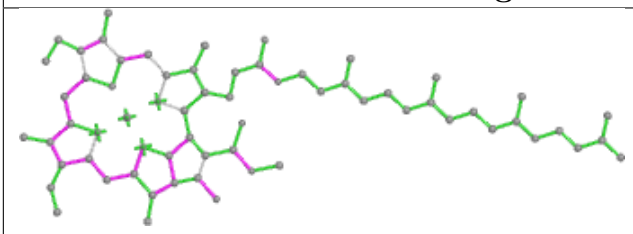


Torsions



Rings

Ligand CLA a 405 (A)



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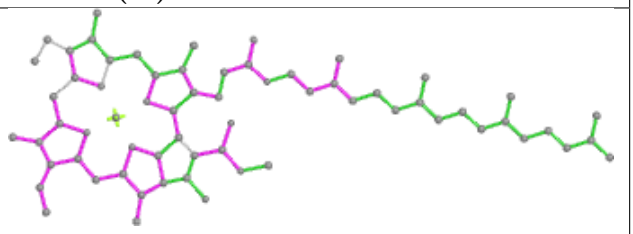
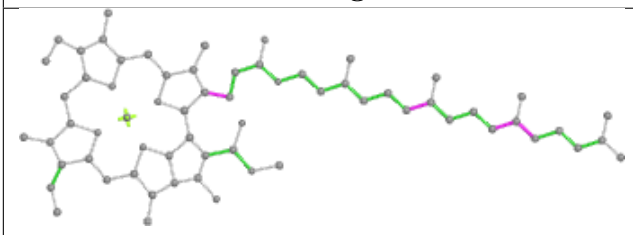
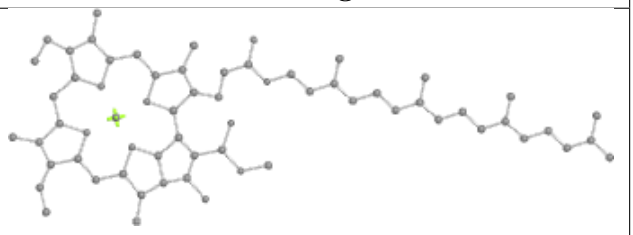


Bond angles

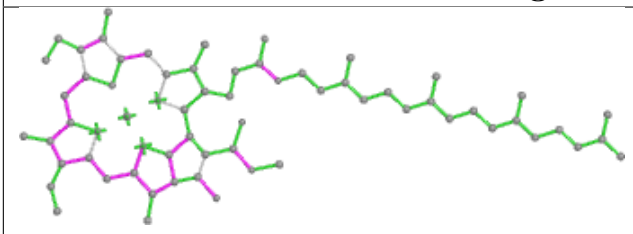


Torsions

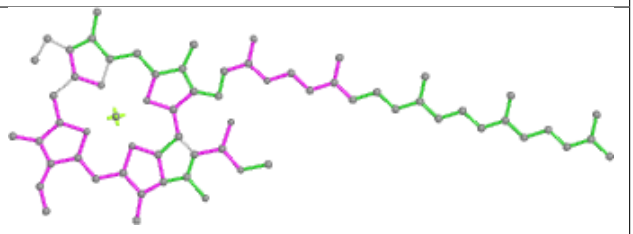


Rings

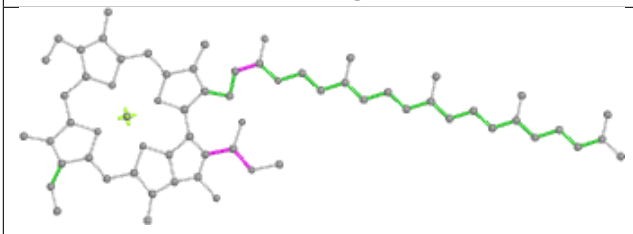
Ligand CLA c 502



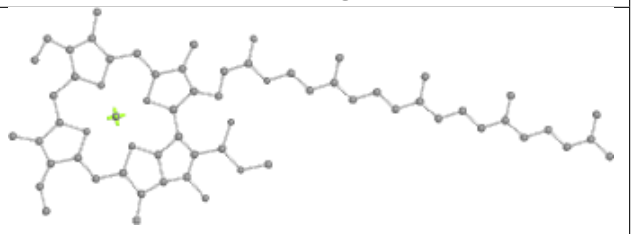
Bond lengths



Bond angles

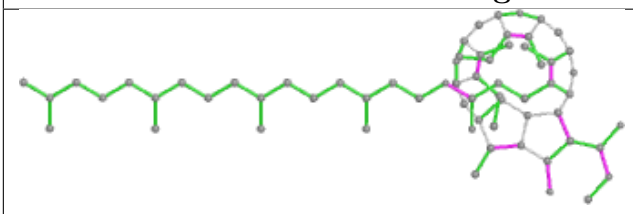


Torsions

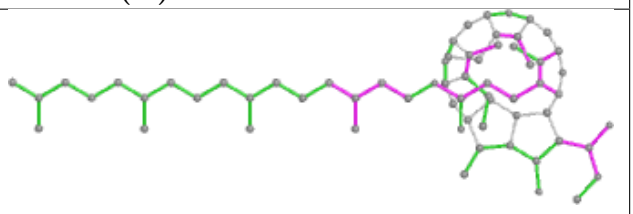


Rings

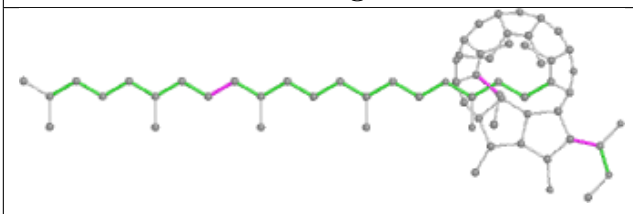
Ligand PHO a 415 (B)



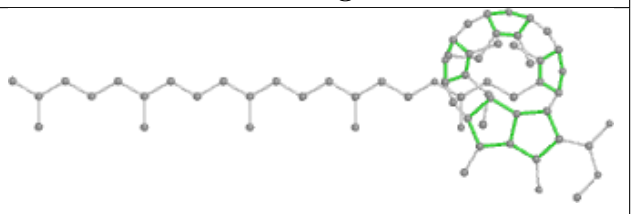
Bond lengths



Bond angles

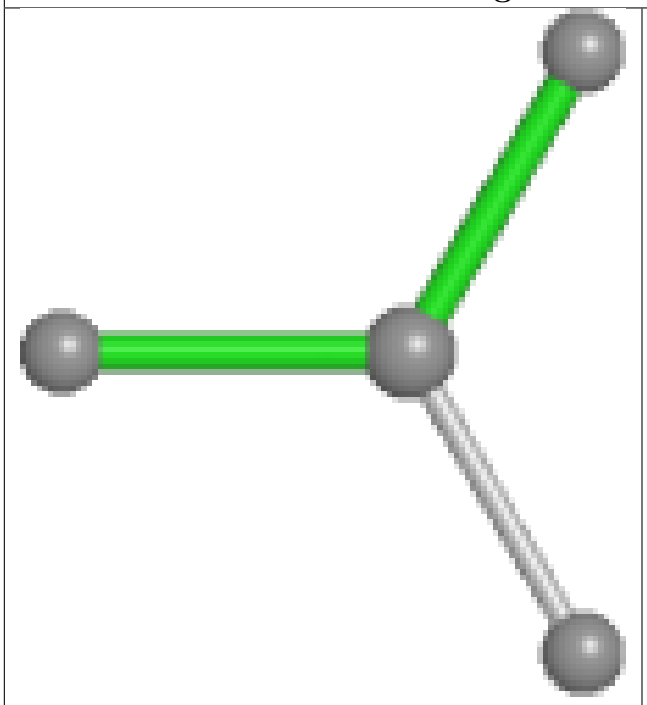


Torsions

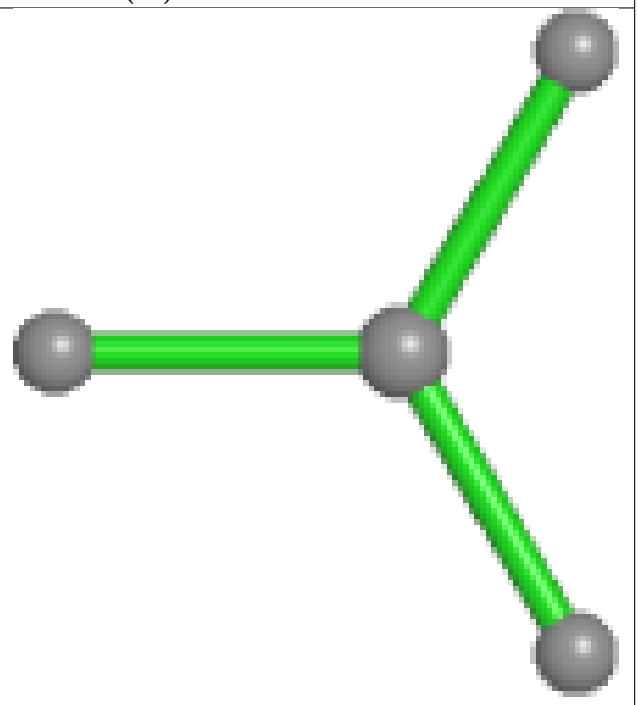


Rings

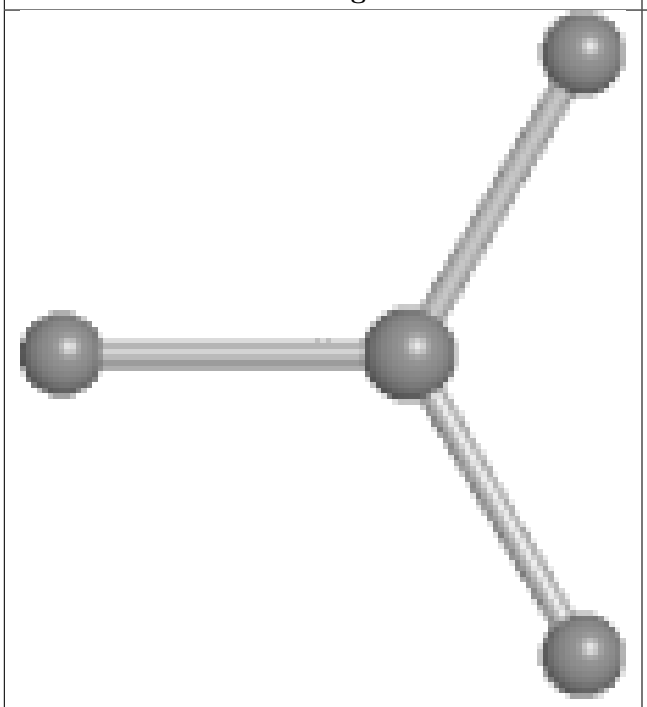
Ligand BCT d 401 (A)



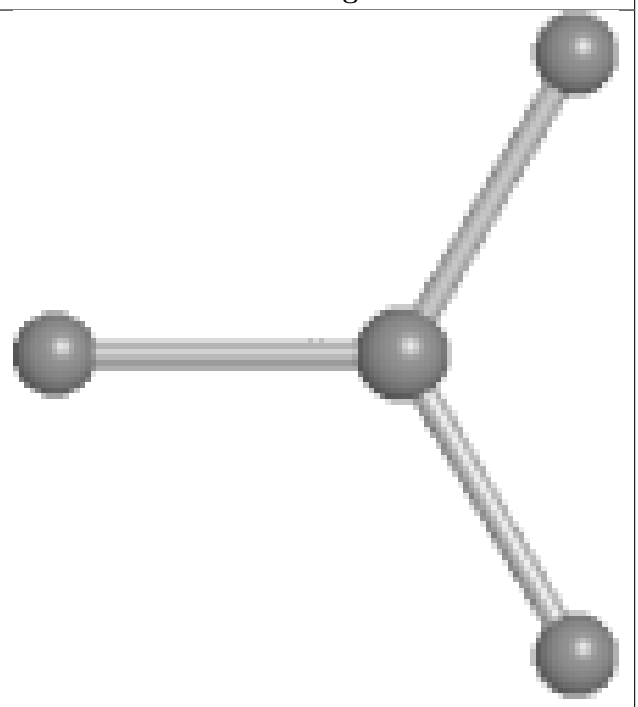
Bond lengths



Bond angles

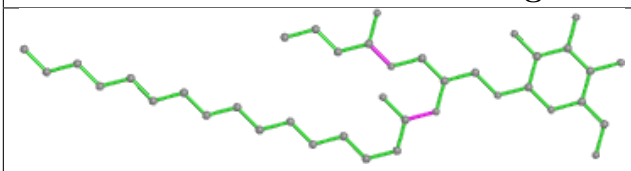


Torsions

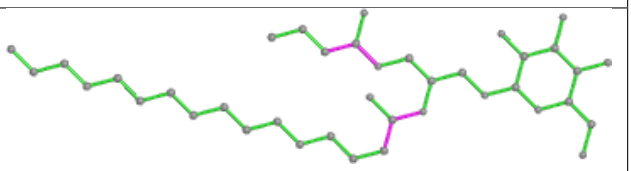


Rings

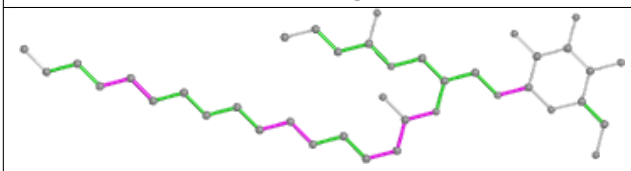
Ligand LMG z 101



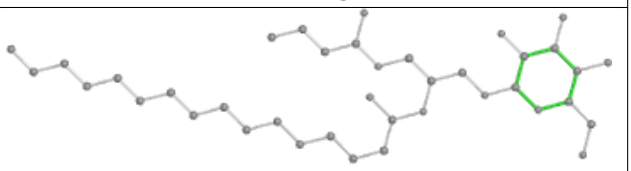
Bond lengths



Bond angles

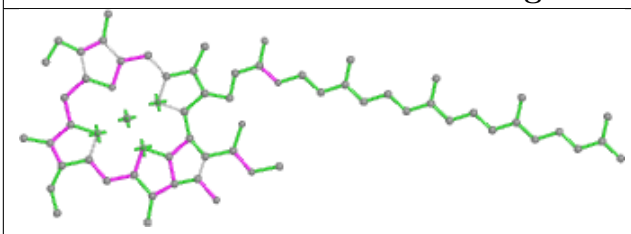


Torsions

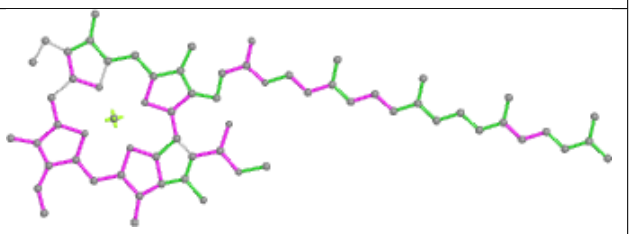


Rings

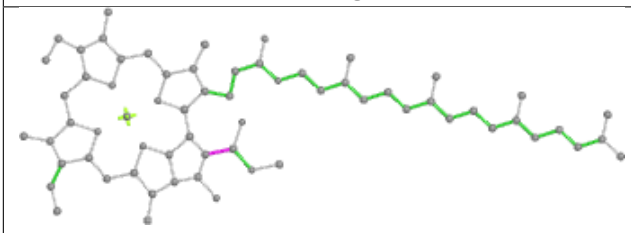
Ligand CLA B 609



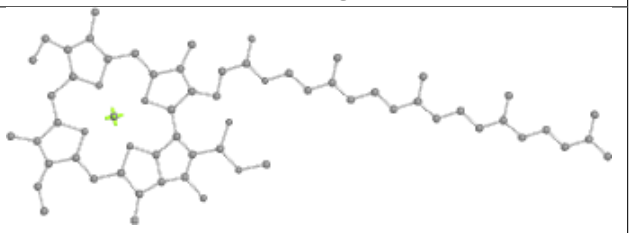
Bond lengths



Bond angles

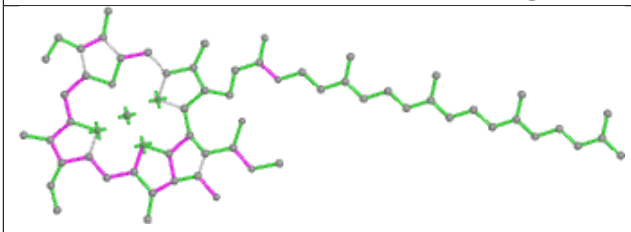


Torsions

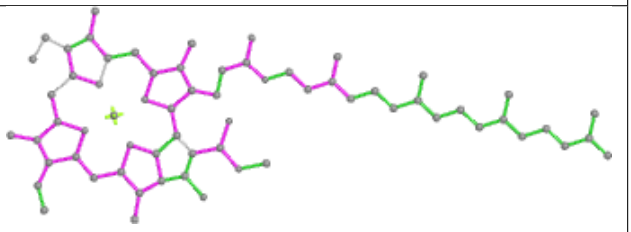


Rings

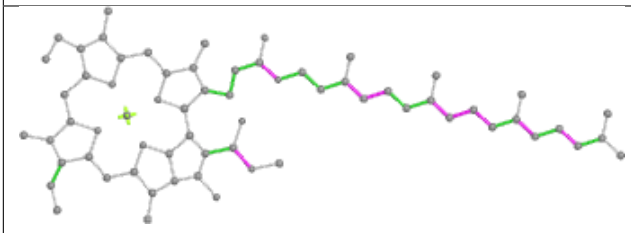
Ligand CLA D 404



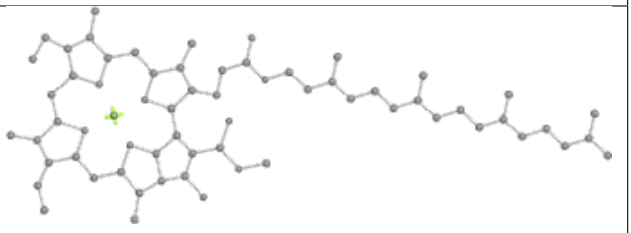
Bond lengths



Bond angles

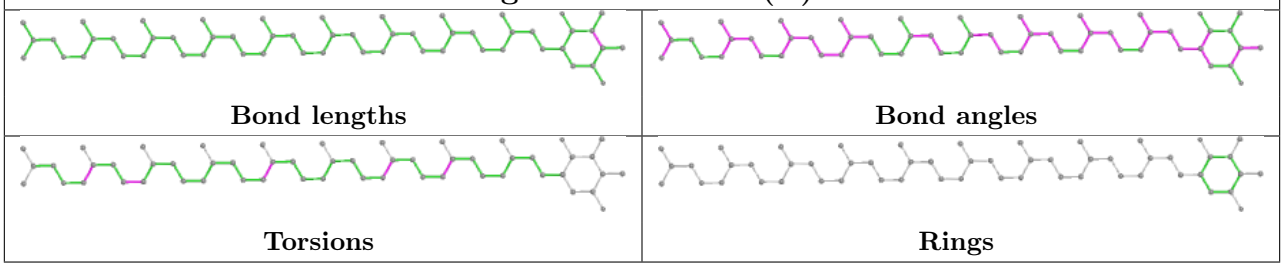


Torsions

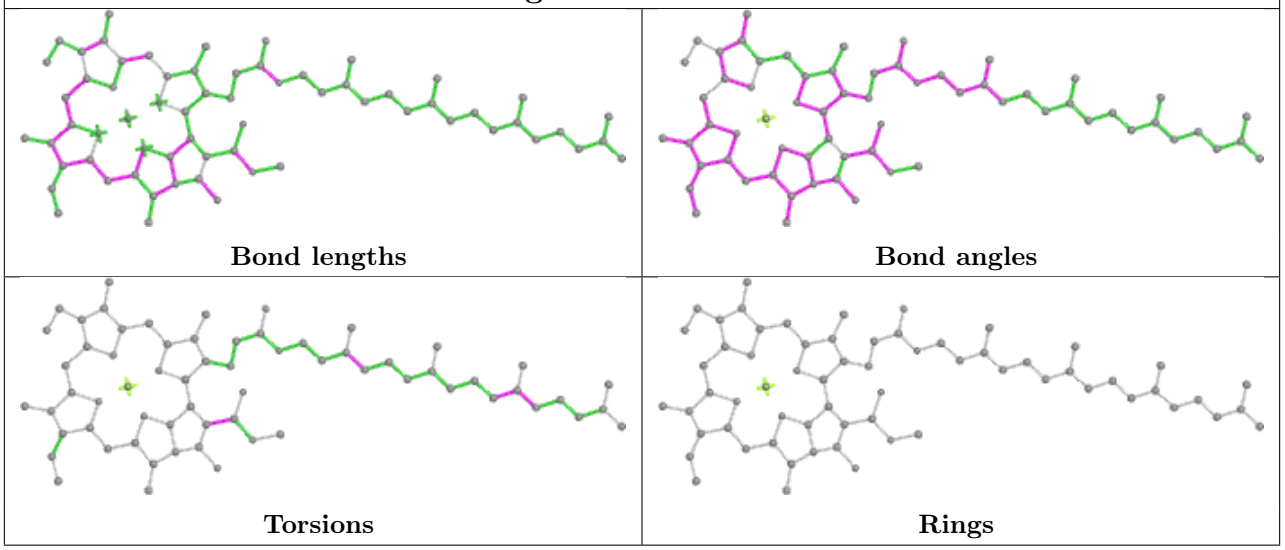


Rings

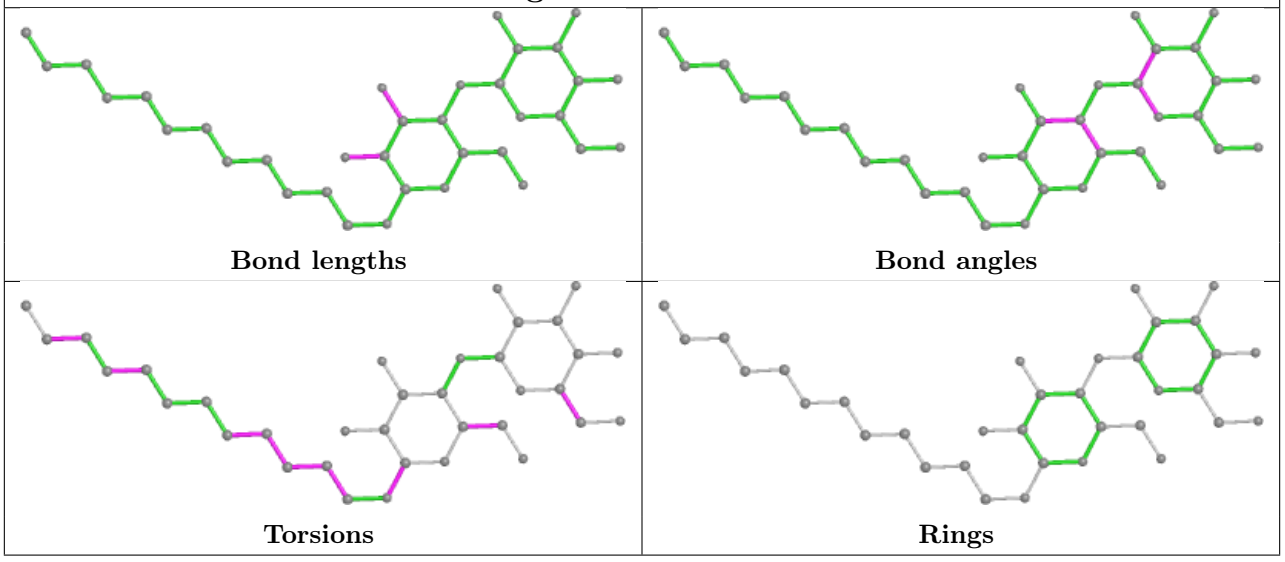
Ligand PL9 d 406 (B)



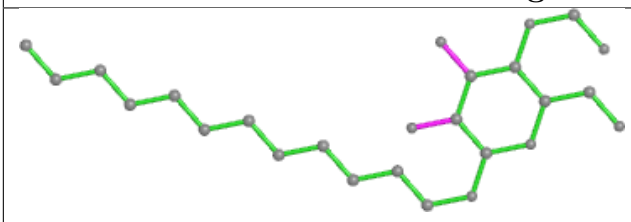
Ligand CLA C 505



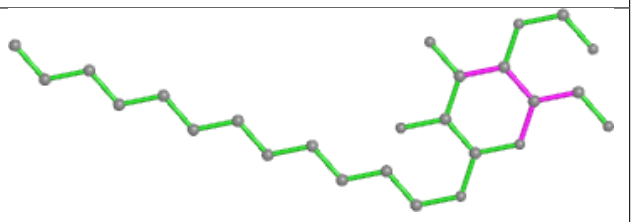
Ligand LMT a 416



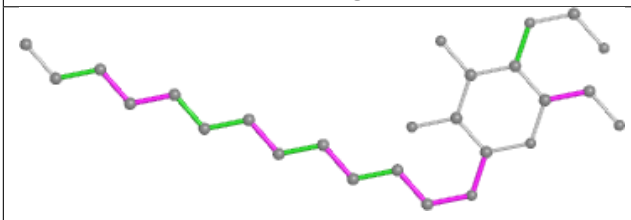
Ligand LMT t 101



Bond lengths



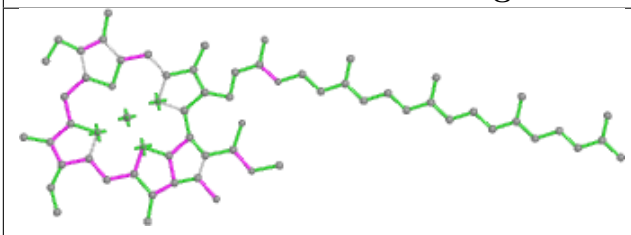
Bond angles



Torsions

Rings

Ligand CLA d 403 (A)



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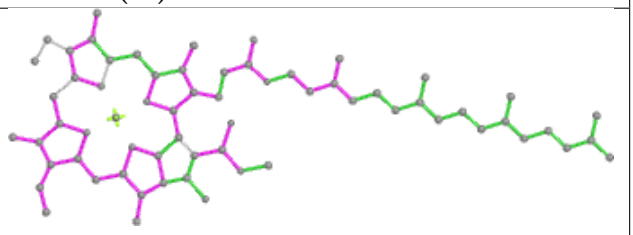
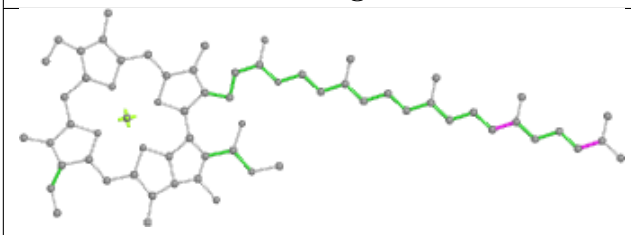
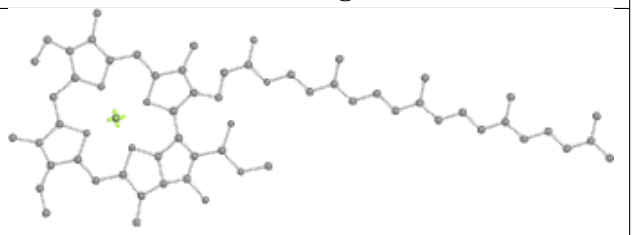


Bond angles

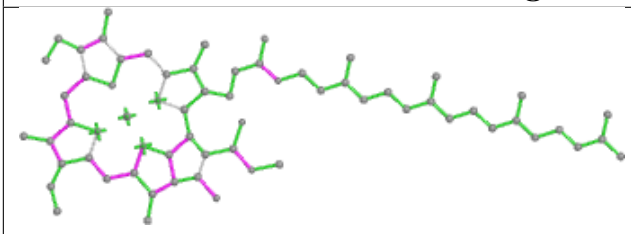


Torsions

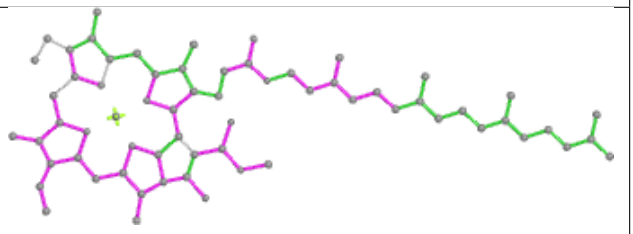


Rings

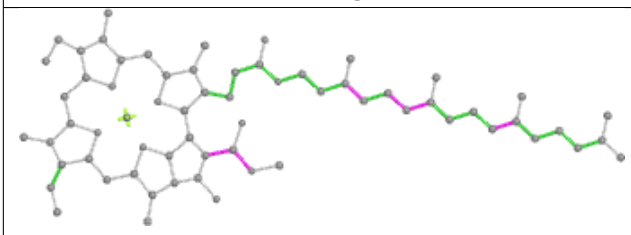
Ligand CLA B 605



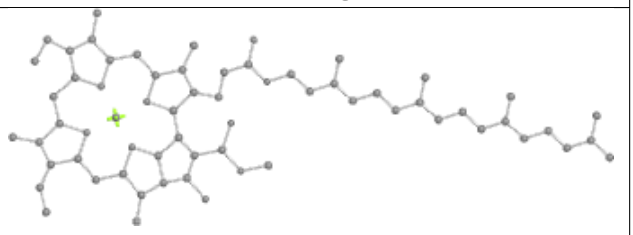
Bond lengths



Bond angles

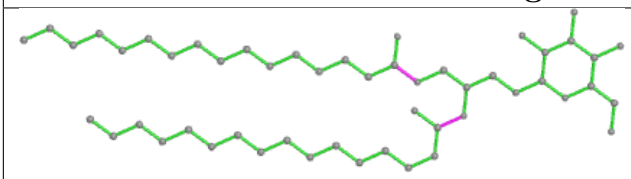


Torsions

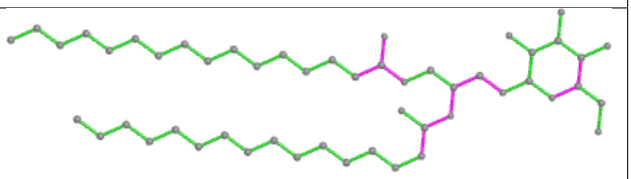


Rings

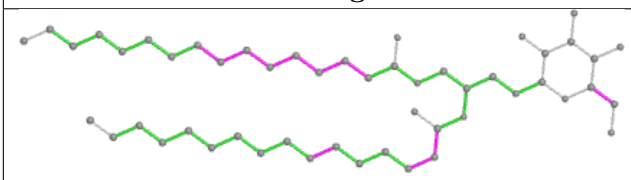
Ligand LMG c 520



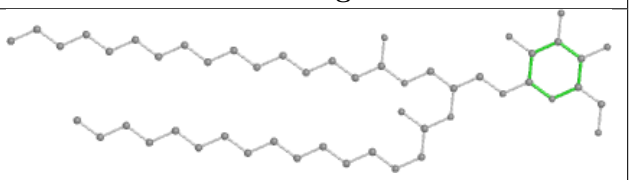
Bond lengths



Bond angles

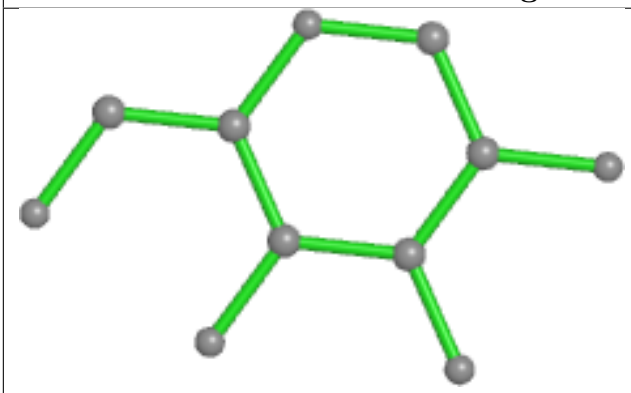


Torsions



Rings

Ligand HTG V 202



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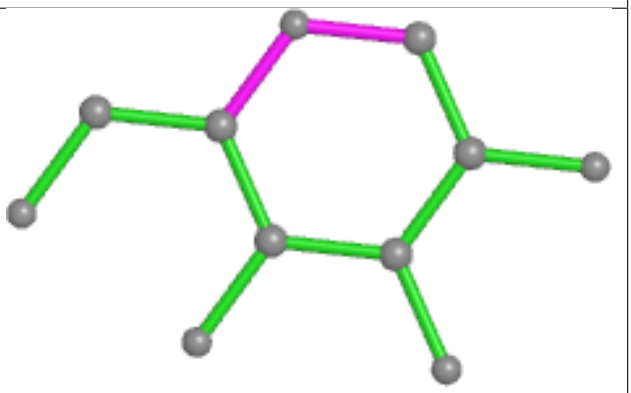
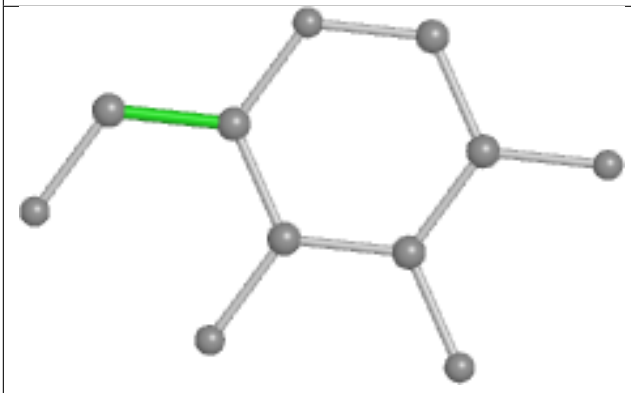
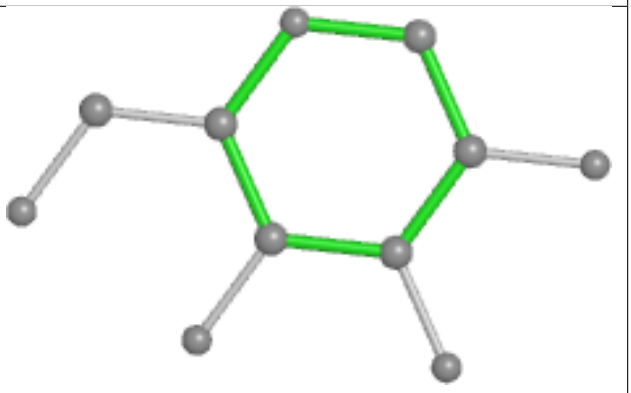


Bond angles

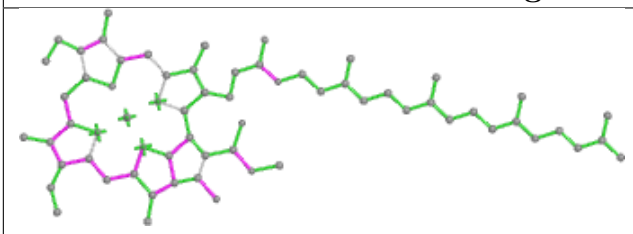


Torsions

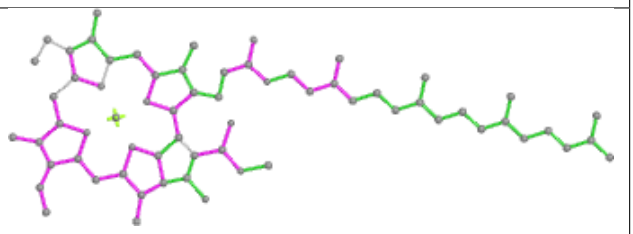


Rings

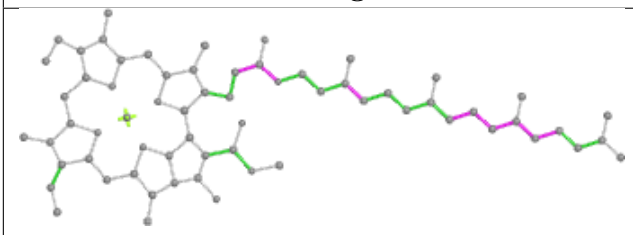
Ligand CLA C 511



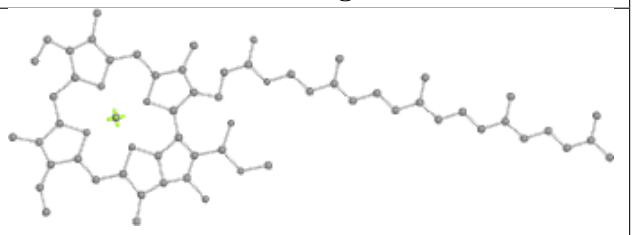
Bond lengths



Bond angles

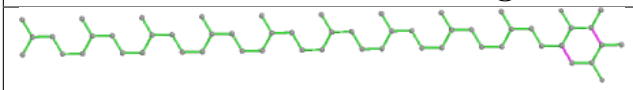


Torsions



Rings

Ligand PL9 A 413 (B)



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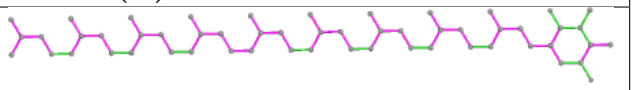
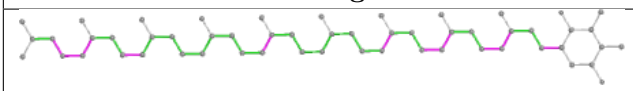
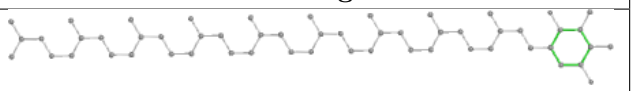


Bond angles

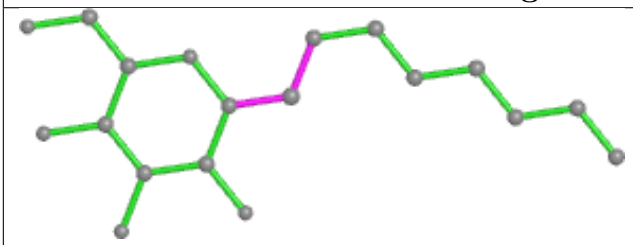


Torsions

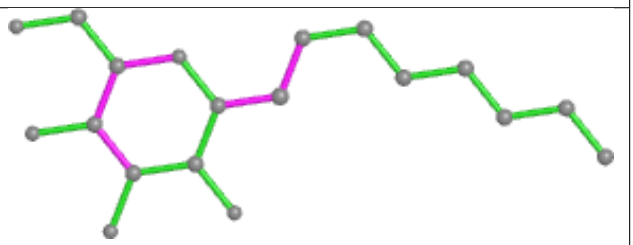


Rings

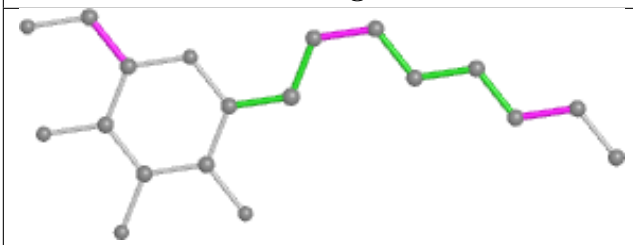
Ligand HTG B 623



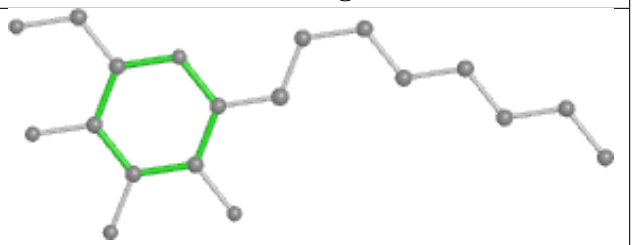
Bond lengths



Bond angles

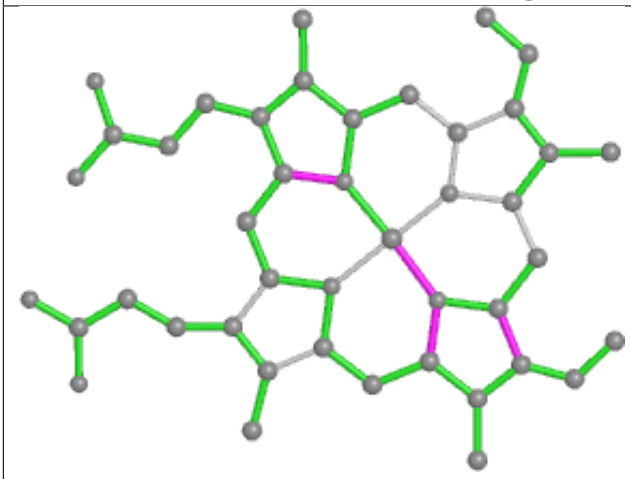


Torsions



Rings

Ligand HEM F 102



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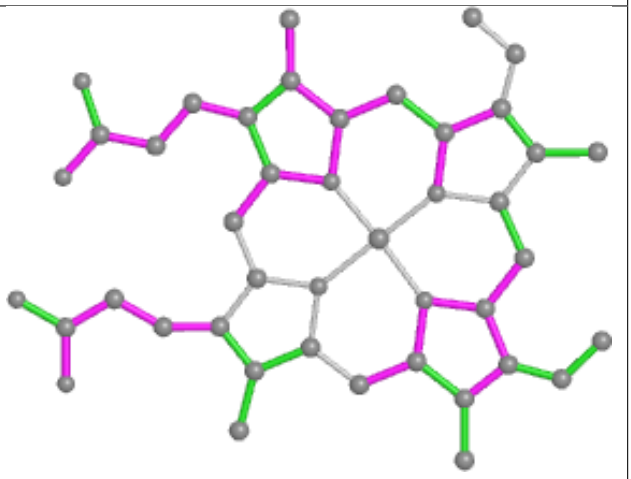
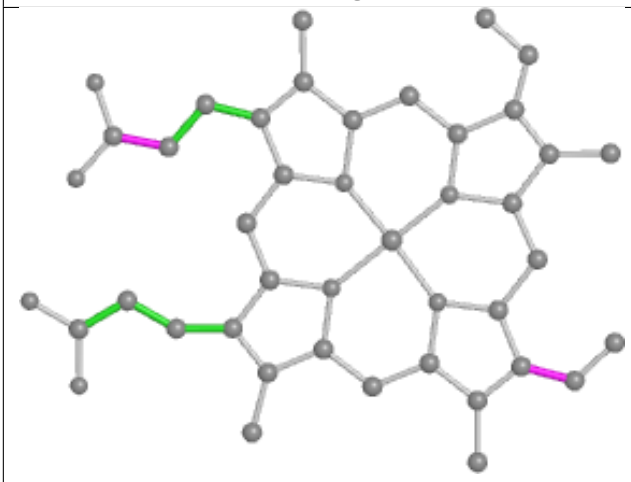
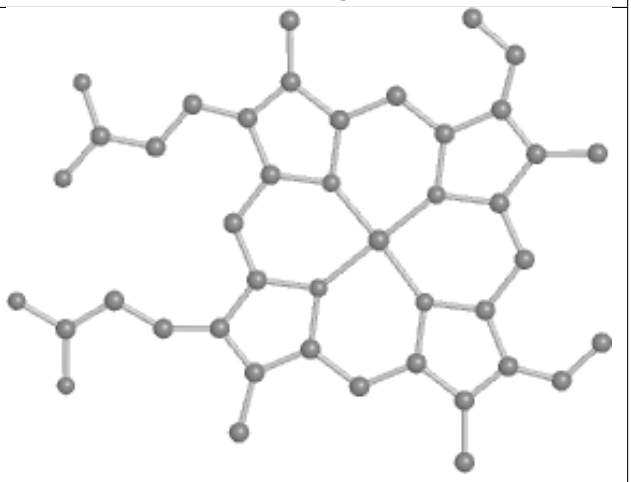


Bond angles

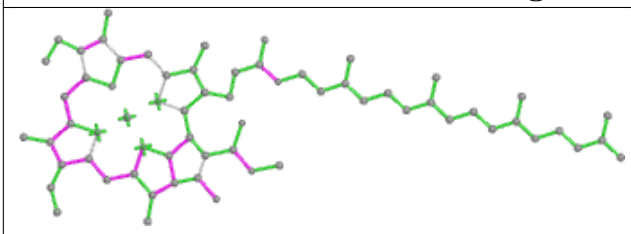


Torsions

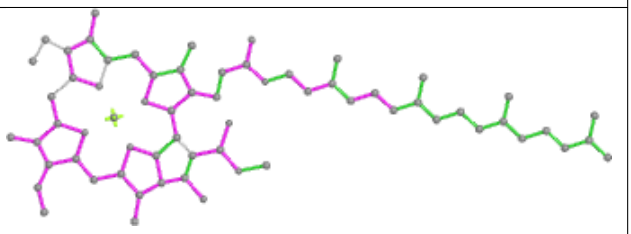


Rings

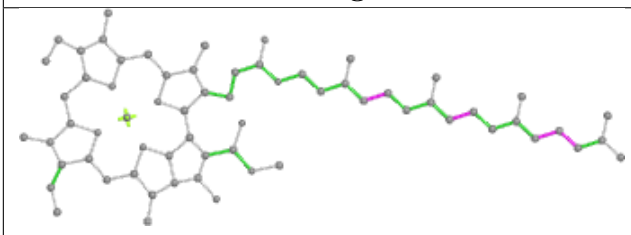
Ligand CLA b 611



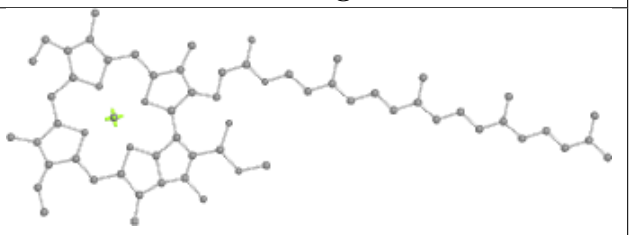
Bond lengths



Bond angles

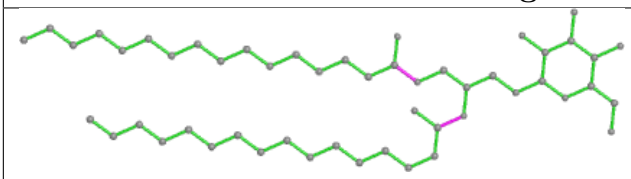


Torsions

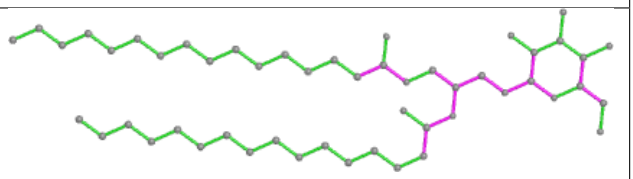


Rings

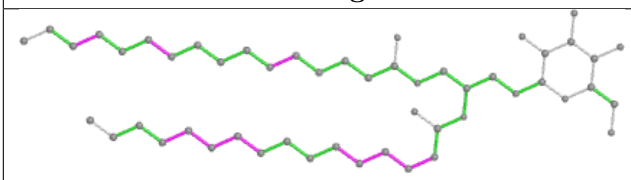
Ligand LMG C 501



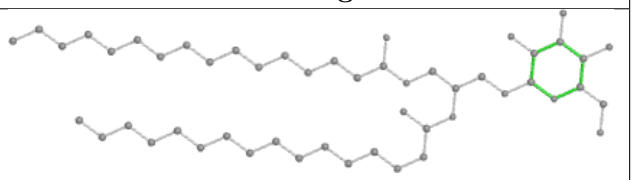
Bond lengths



Bond angles

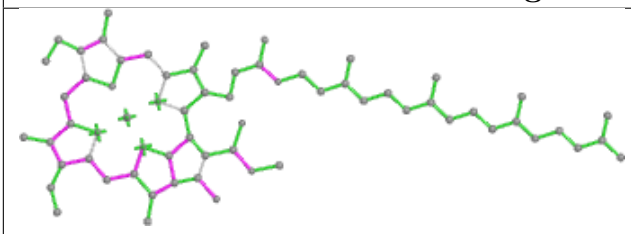


Torsions

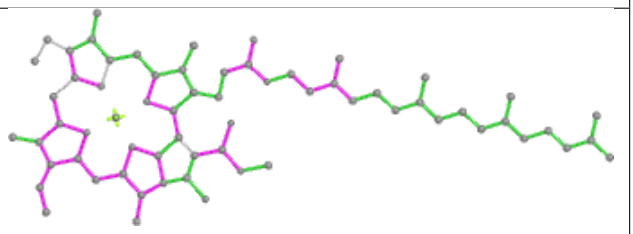


Rings

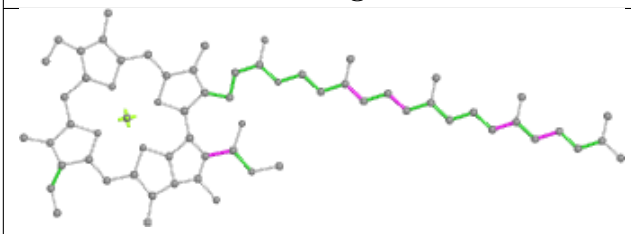
Ligand CLA C 508



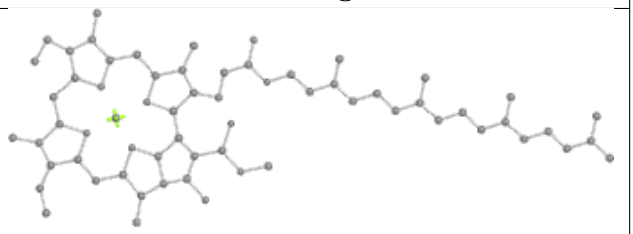
Bond lengths



Bond angles

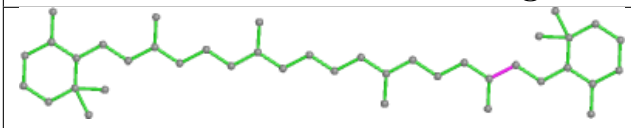


Torsions

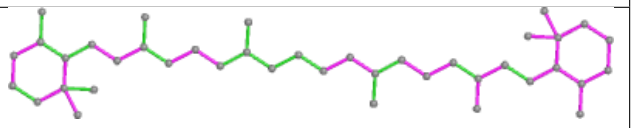


Rings

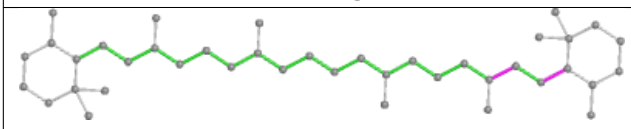
Ligand BCR D 405



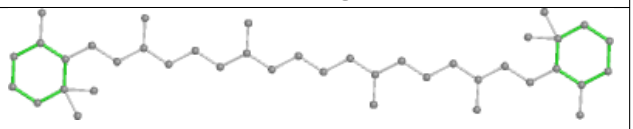
Bond lengths



Bond angles

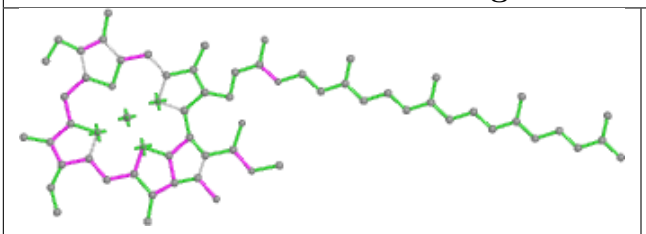


Torsions

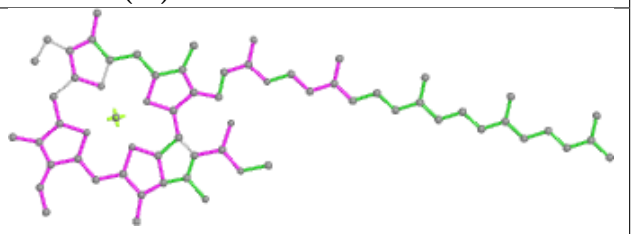


Rings

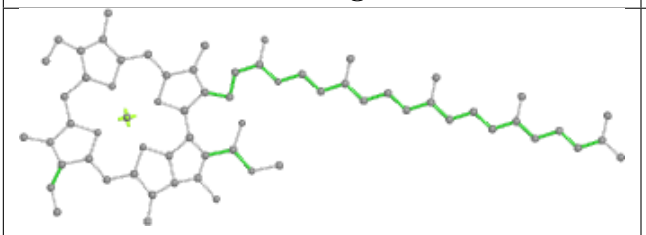
Ligand CLA D 403 (B)



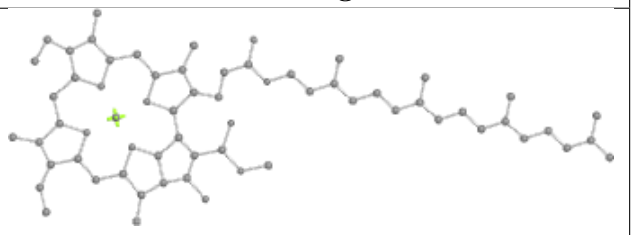
Bond lengths



Bond angles

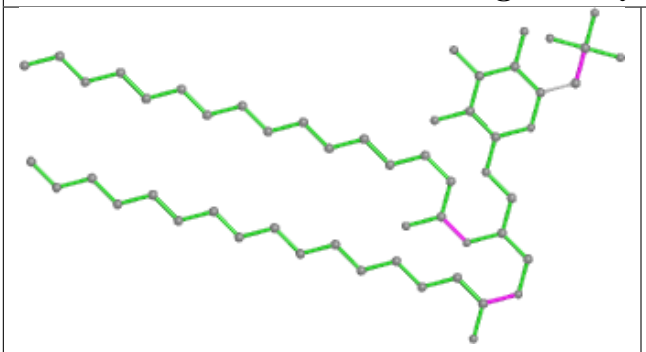


Torsions



Rings

Ligand SQD a 409 (A)



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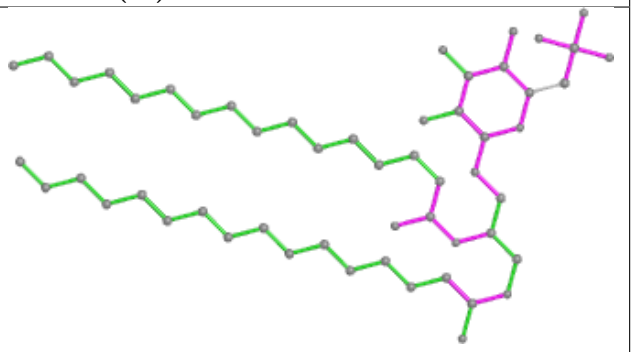
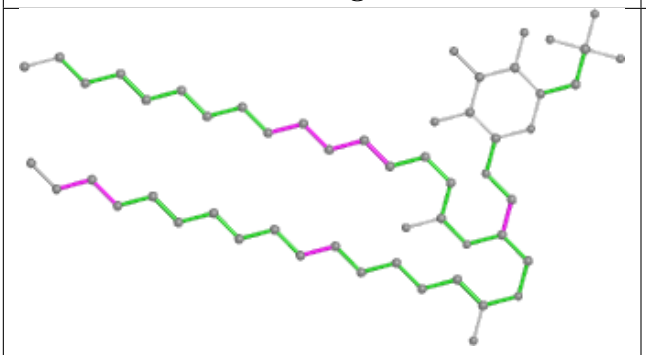
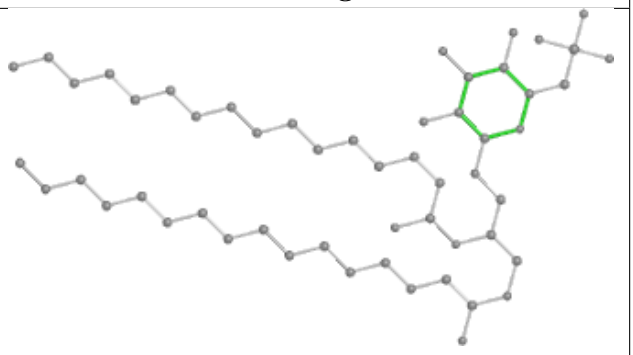


Bond angles

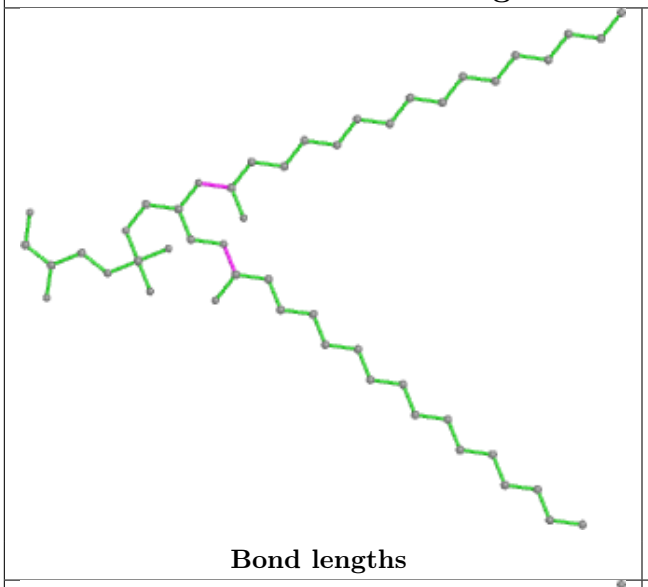


Torsions

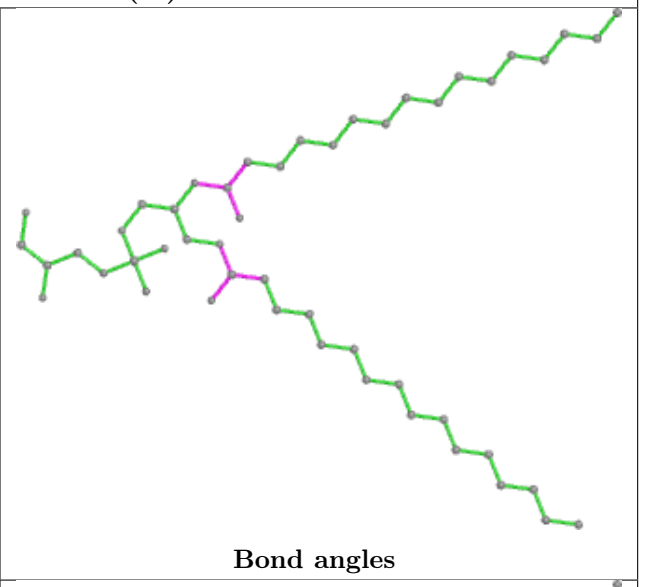


Rings

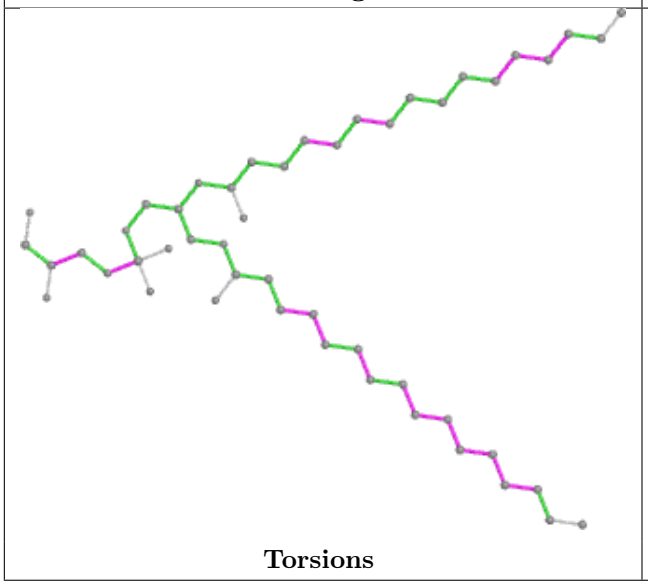
Ligand LHG d 414 (A)



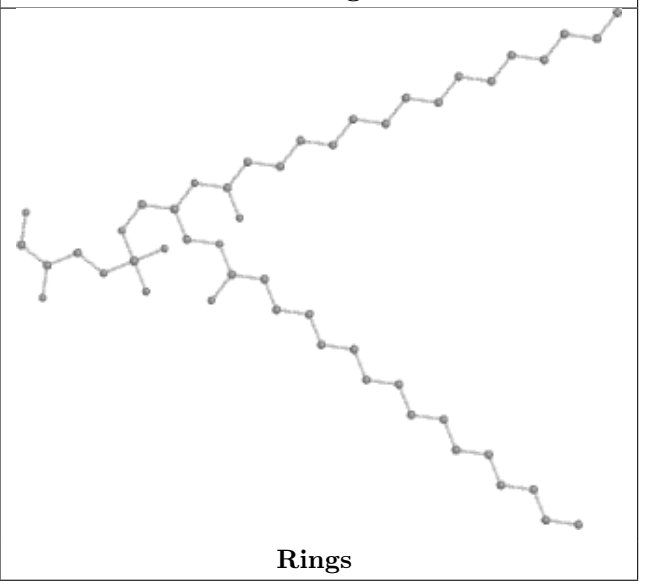
Bond lengths



Bond angles

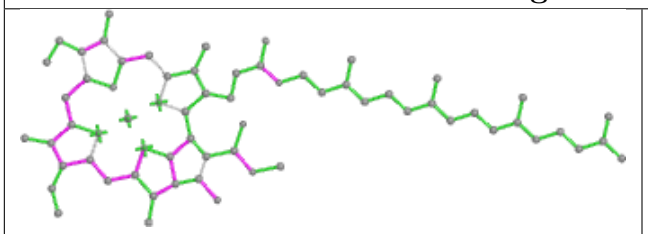


Torsions

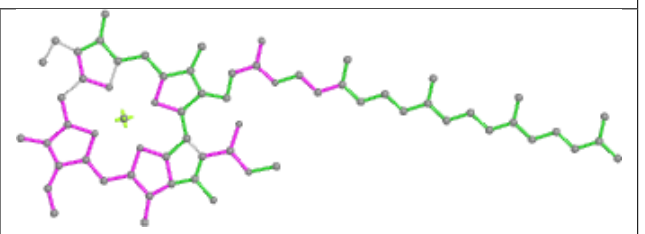


Rings

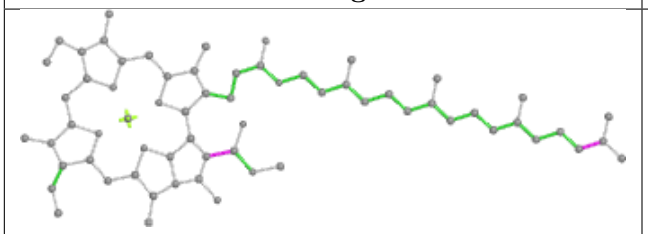
Ligand CLA c 503



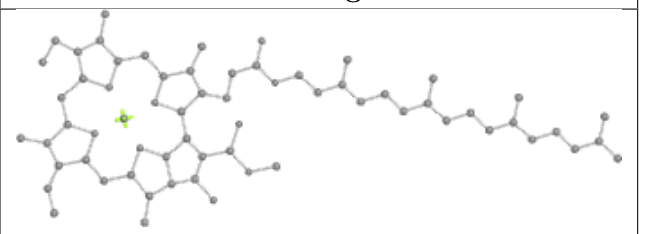
Bond lengths



Bond angles

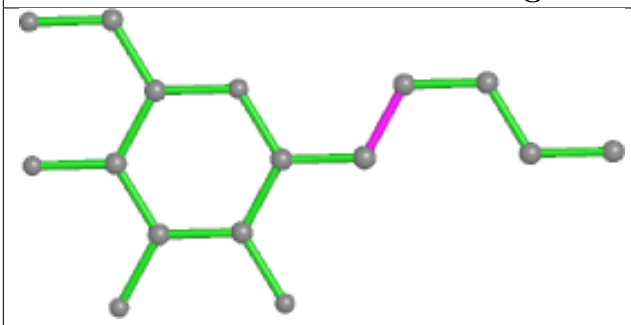


Torsions



Rings

Ligand HTG d 411



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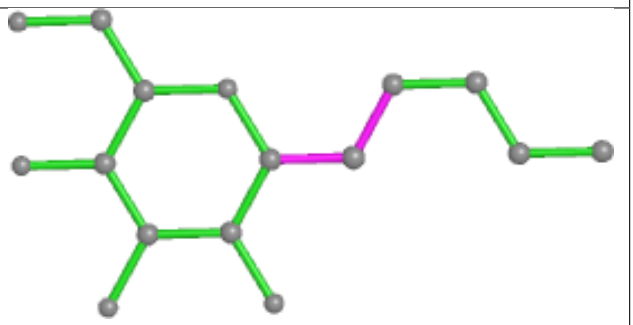
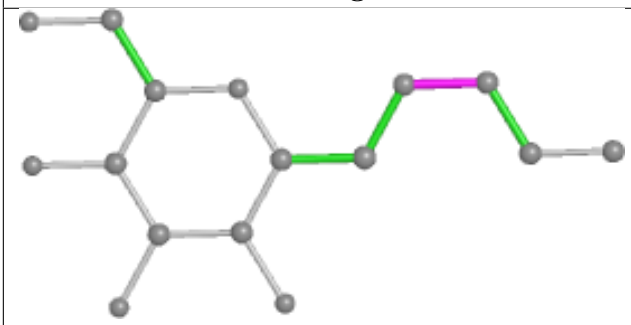


Bond angles



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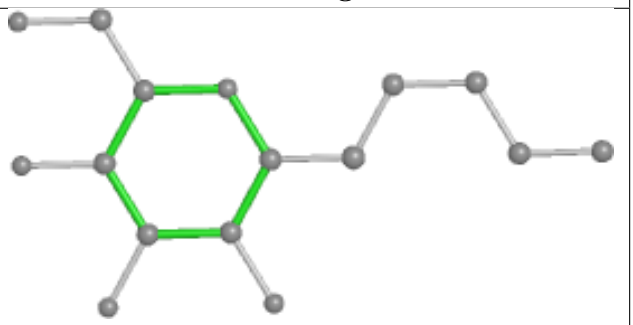
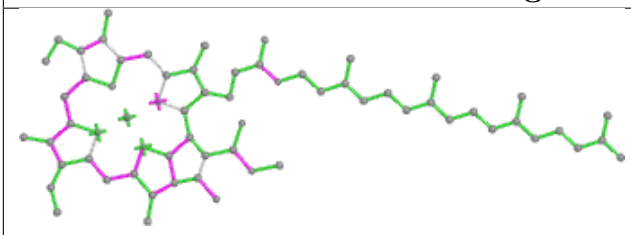
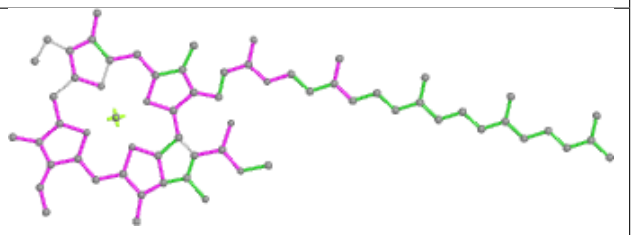


Rings

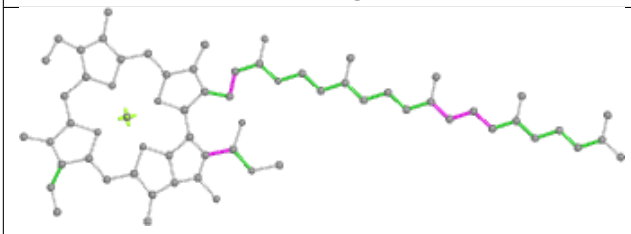
Ligand CLA B 606



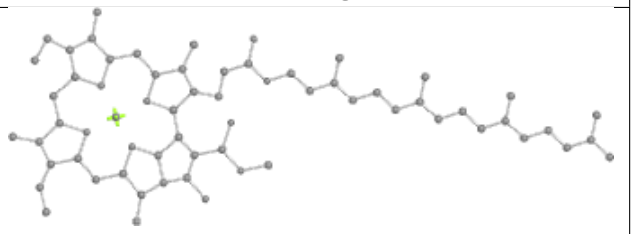
Bond lengths



Bond angles

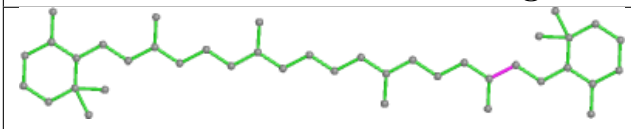


Torsions

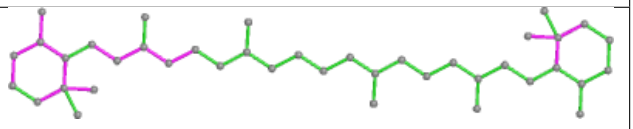


Rings

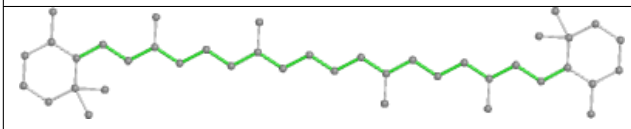
Ligand BCR C 516



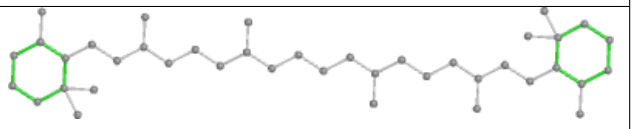
Bond lengths



Bond angles

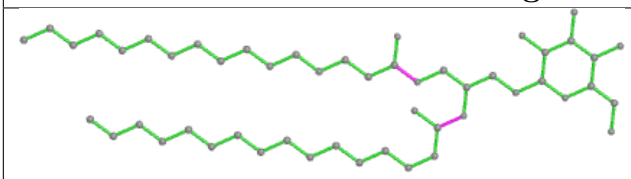


Torsions

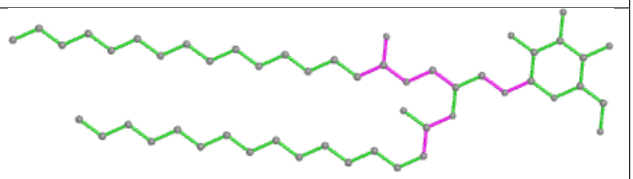


Rings

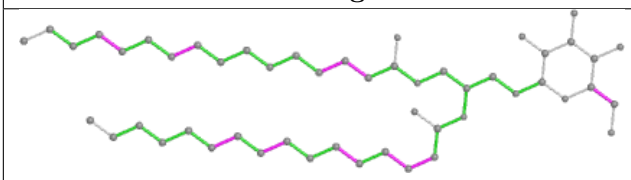
Ligand LMG d 412



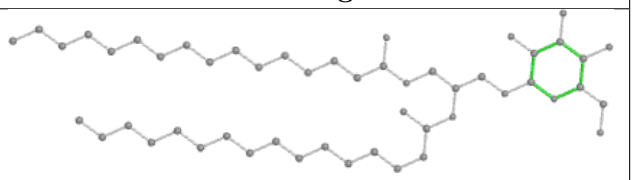
Bond lengths



Bond angles

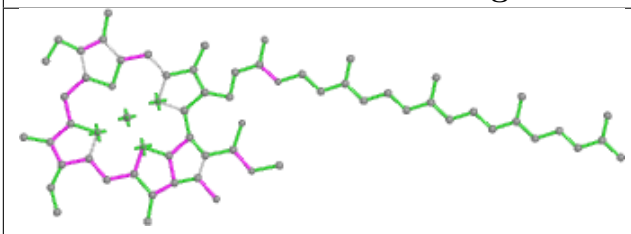


Torsions

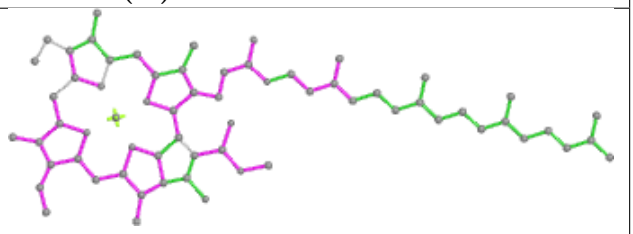


Rings

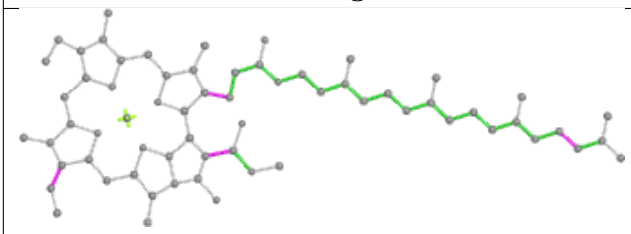
Ligand CLA A 405 (B)



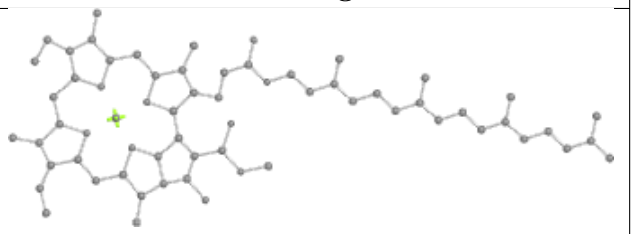
Bond lengths



Bond angles

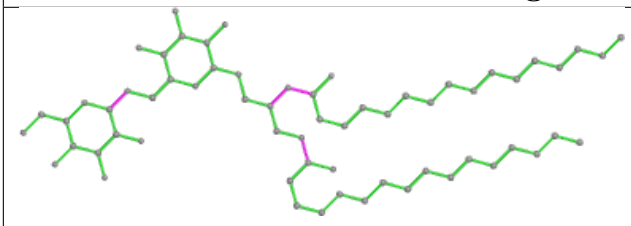


Torsions

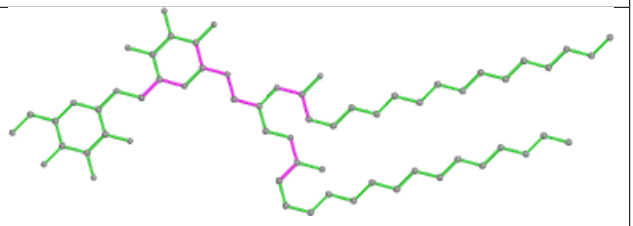


Rings

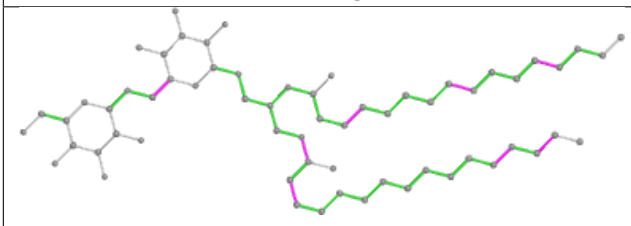
Ligand DGD c 519



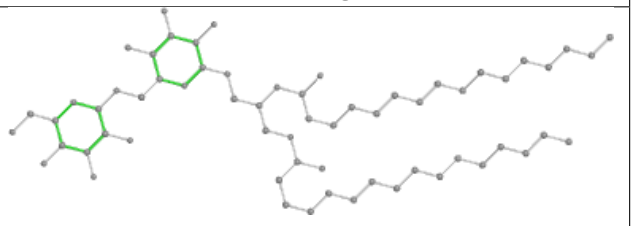
Bond lengths



Bond angles

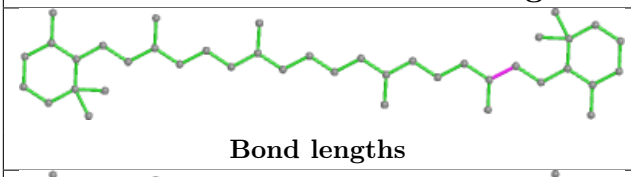


Torsions

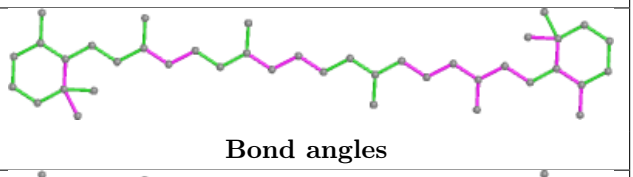


Rings

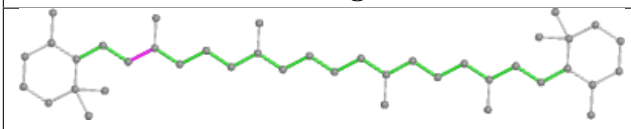
Ligand BCR b 619



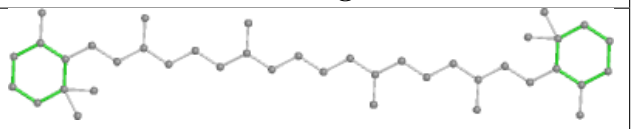
Bond lengths



Bond angles

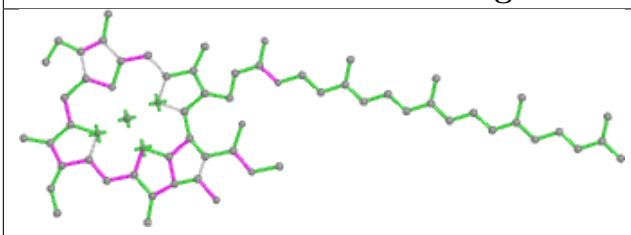


Torsions

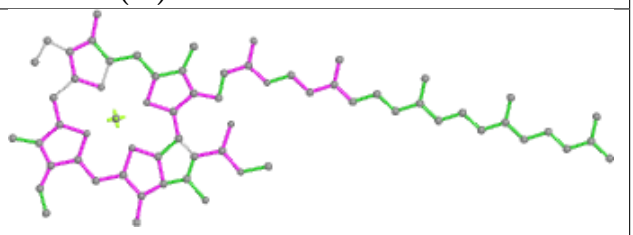


Rings

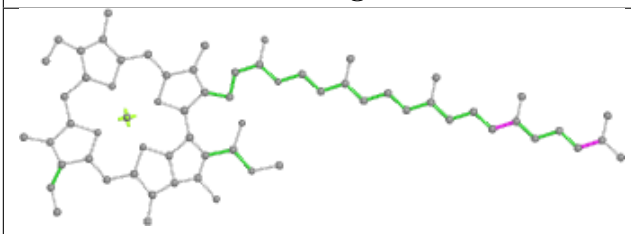
Ligand CLA d 403 (B)



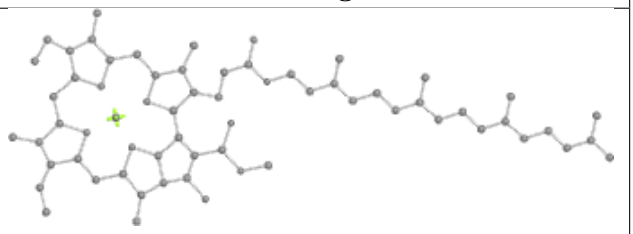
Bond lengths



Bond angles

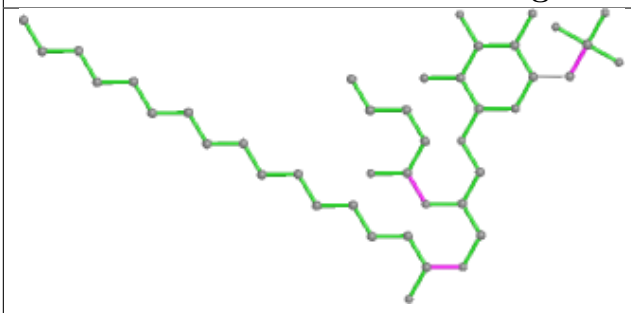


Torsions

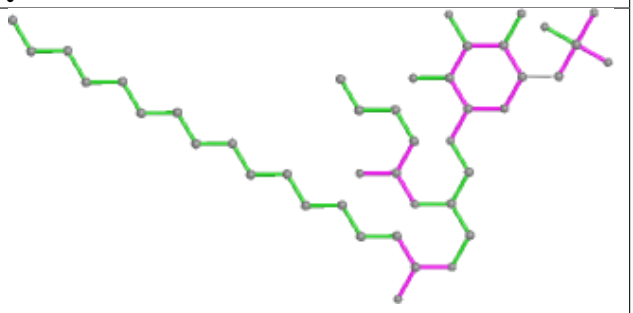


Rings

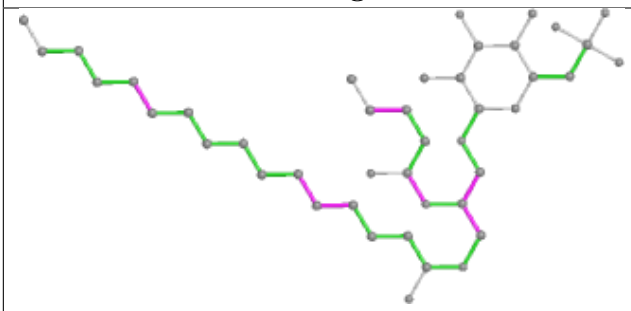
Ligand SQD f 102



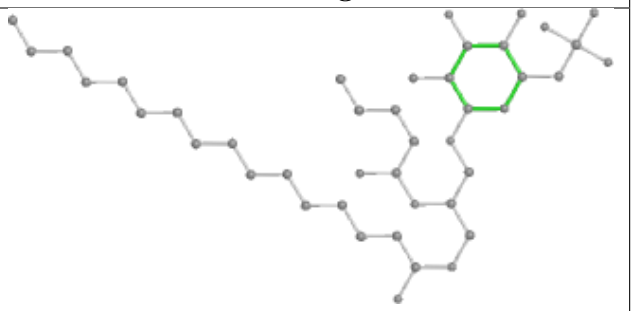
Bond lengths



Bond angles

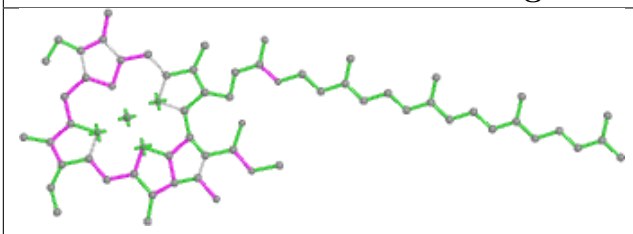


Torsions

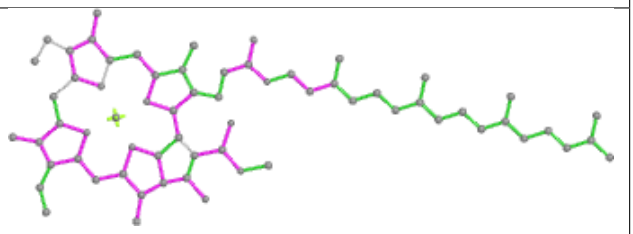


Rings

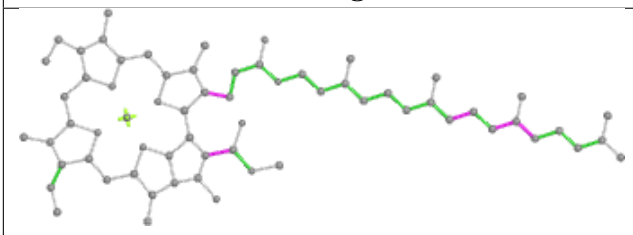
Ligand CLA B 611



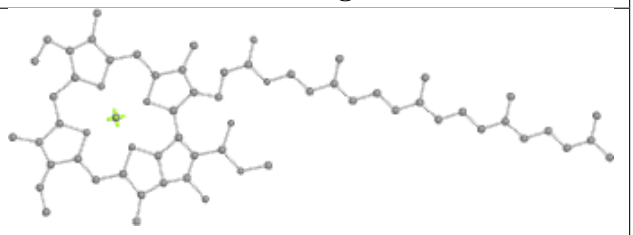
Bond lengths



Bond angles

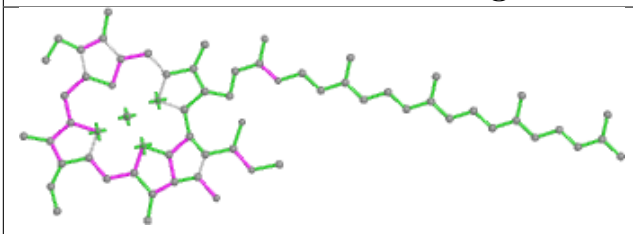


Torsions

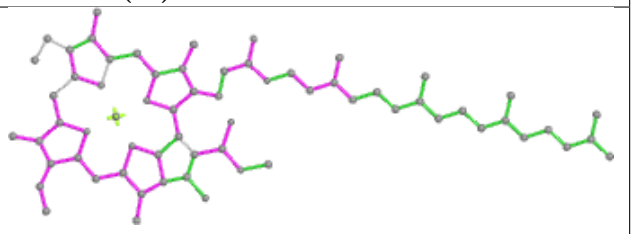


Rings

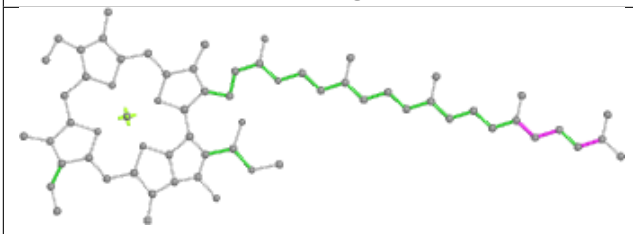
Ligand CLA A 406 (A)



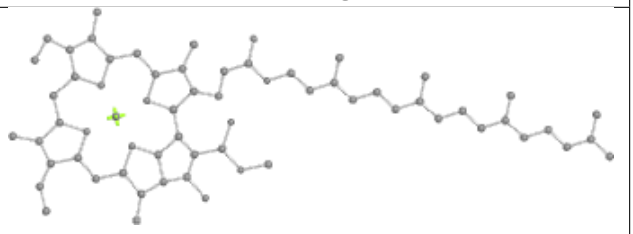
Bond lengths



Bond angles

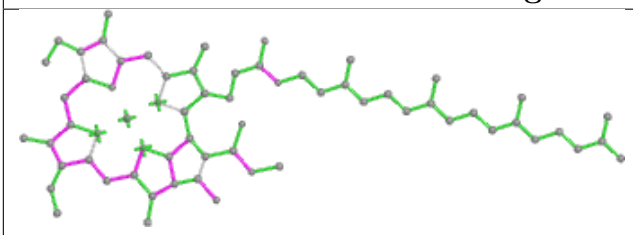


Torsions



Rings

Ligand CLA B 607



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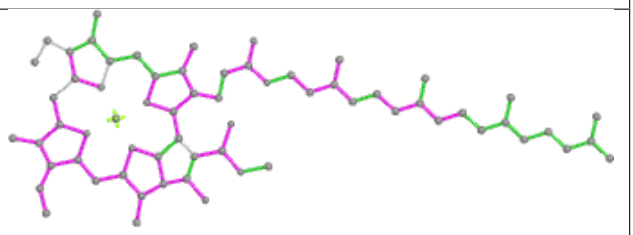
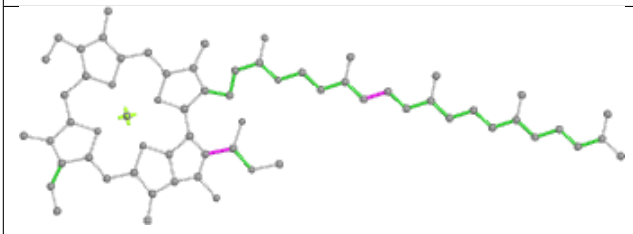
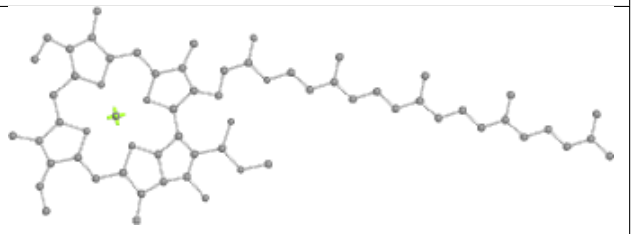


Bond angles

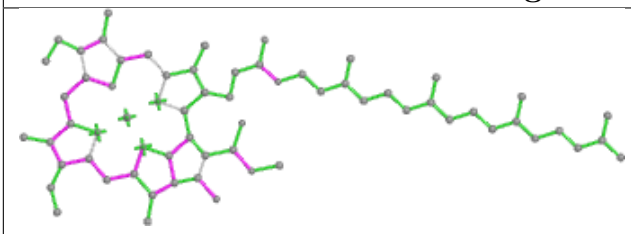


Torsions

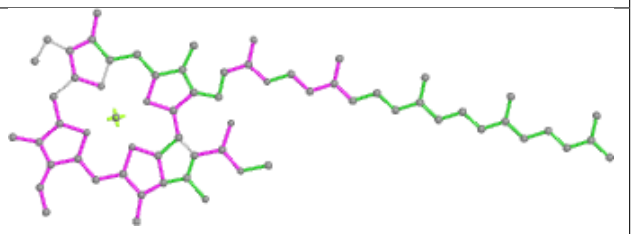


Rings

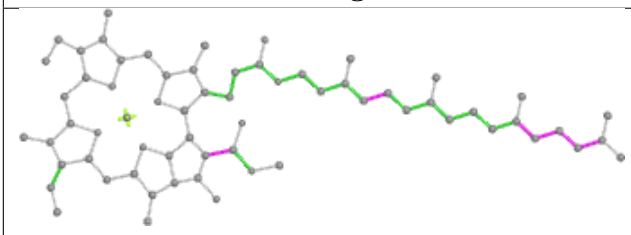
Ligand CLA C 503



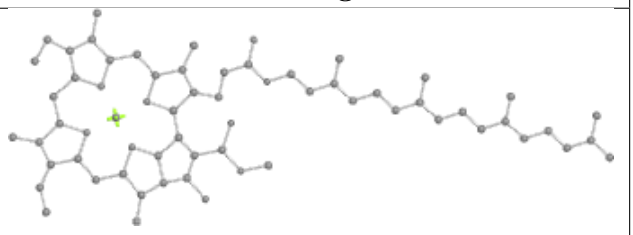
Bond lengths



Bond angles

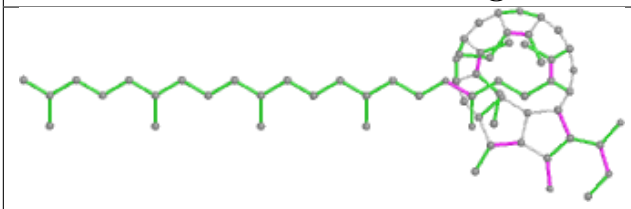


Torsions



Rings

Ligand PHO A 416 (A)



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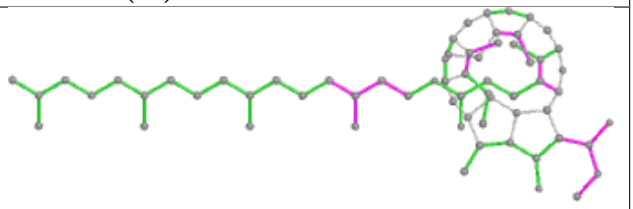
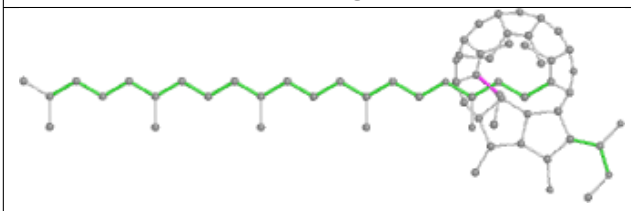
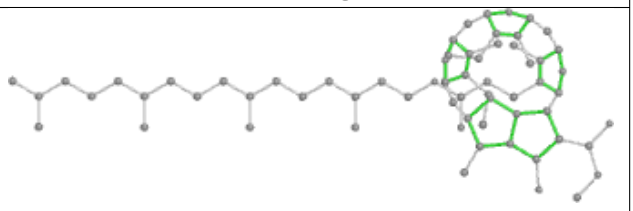


Bond angles

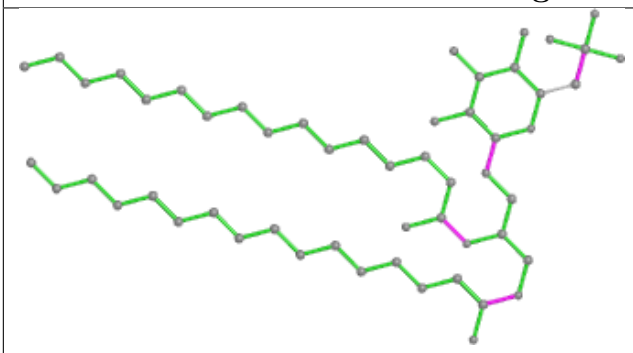


Torsions

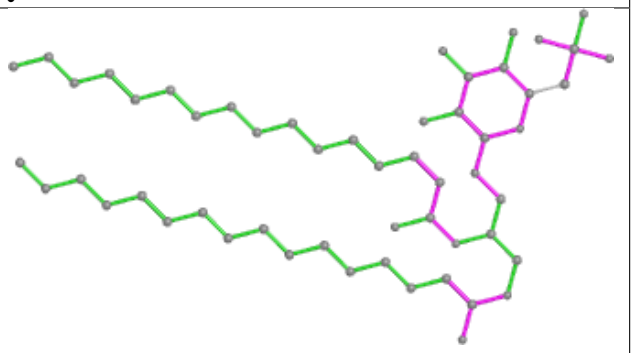


Rings

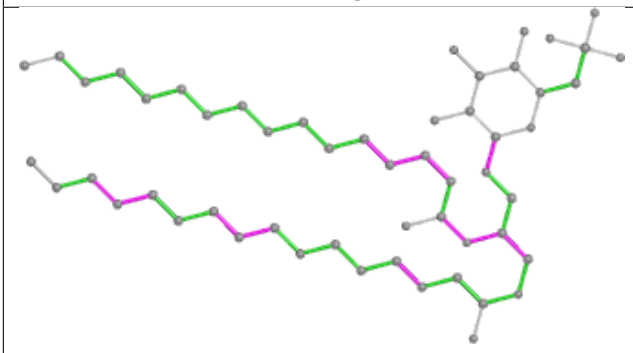
Ligand SQD l 101



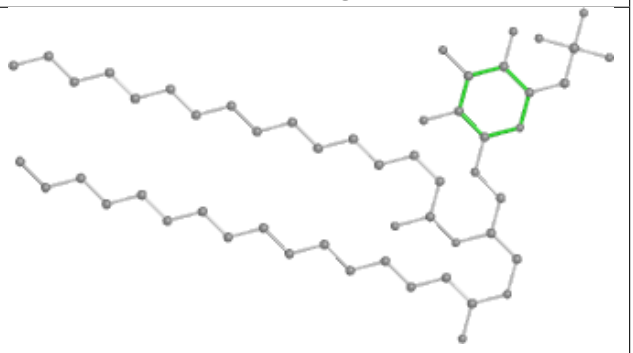
Bond lengths



Bond angles

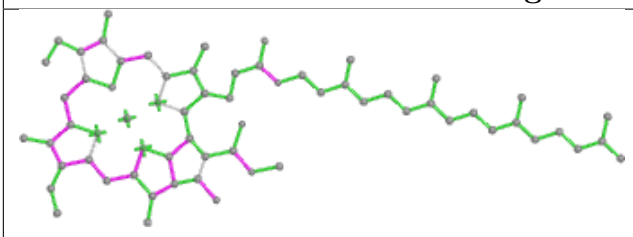


Torsions



Rings

Ligand CLA B 602



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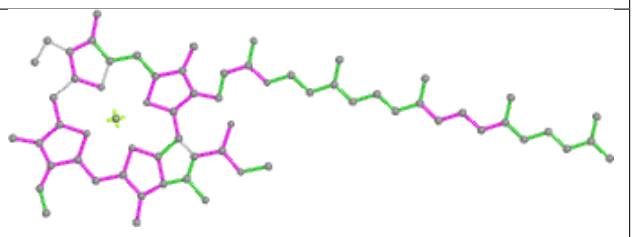
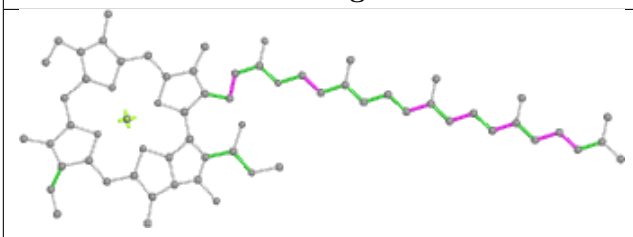


Bond angles



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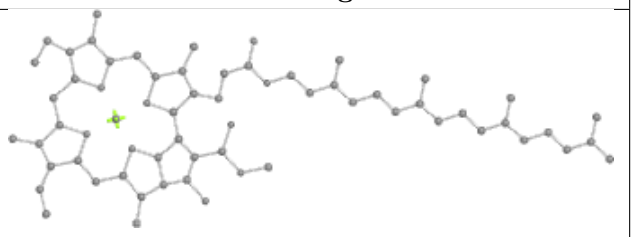
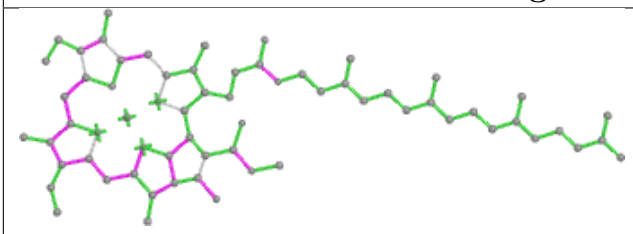


Rings

Ligand CLA c 507



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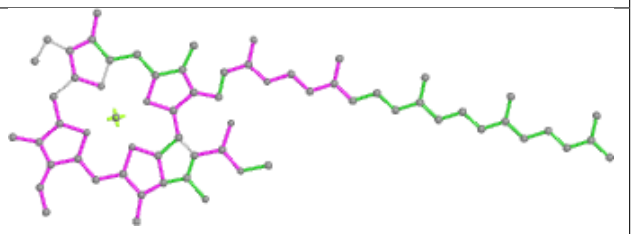
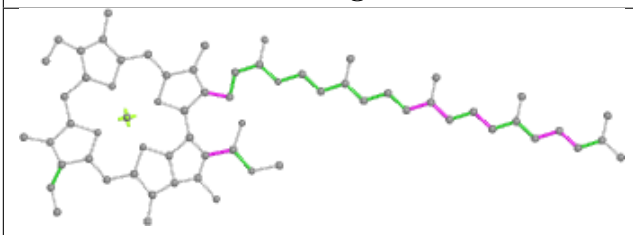


Bond angles



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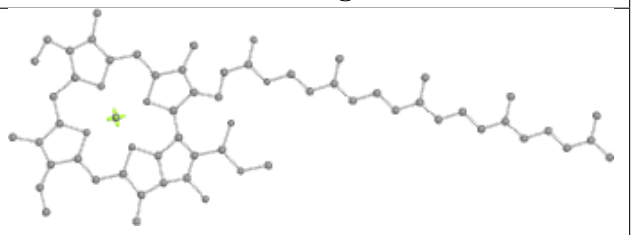
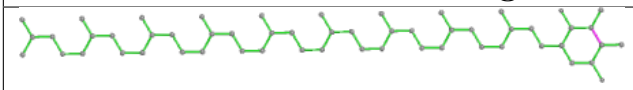


Rings

Ligand PL9 d 406 (A)



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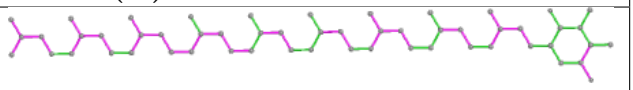
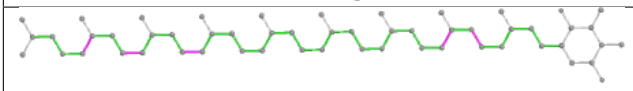
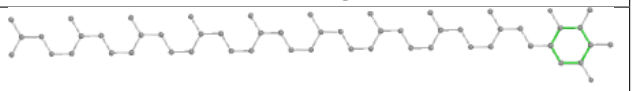


Bond angles

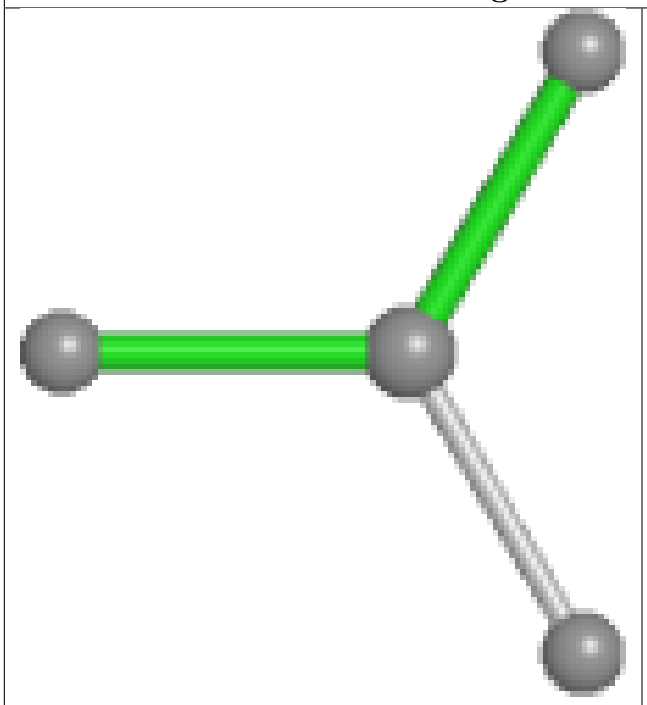


Torsions



Rings

Ligand BCT A 415 (B)



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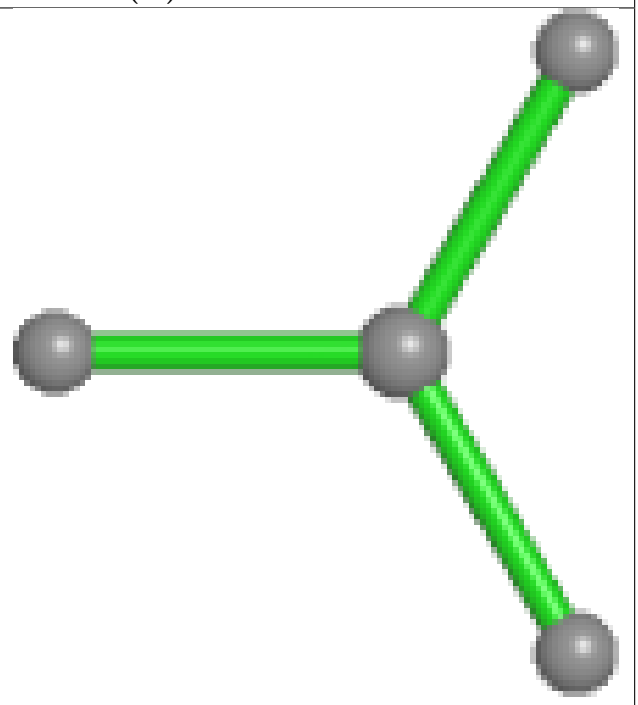
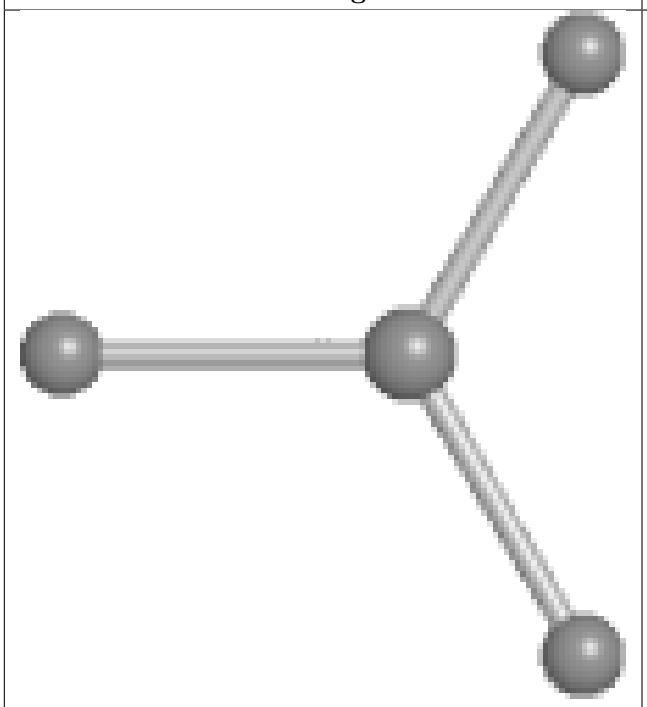
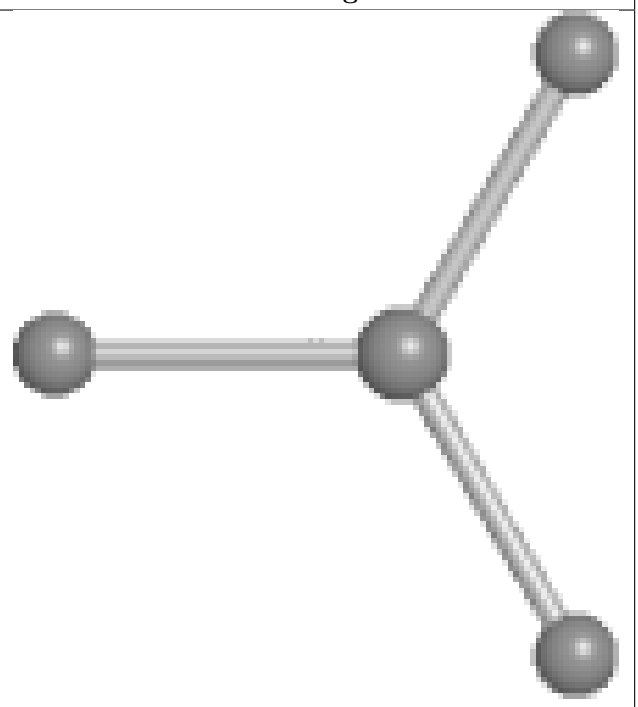


Bond angles

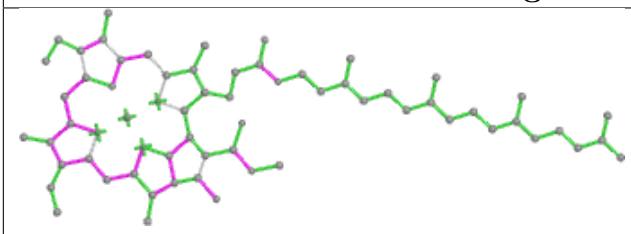


Torsions



Rings

Ligand CLA A 407



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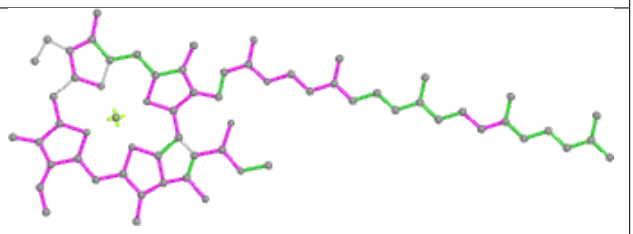
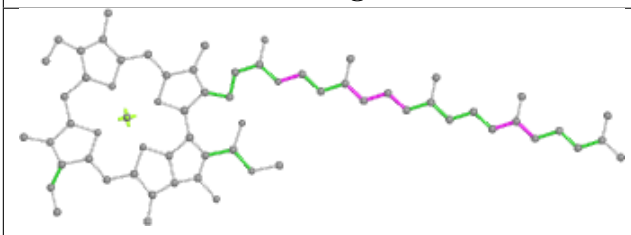
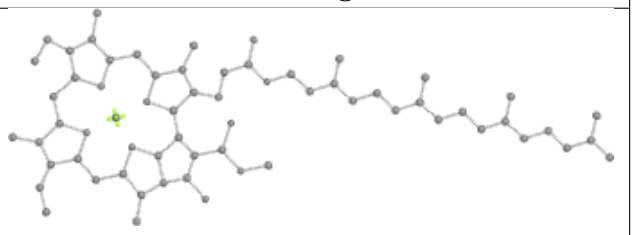


Bond angles

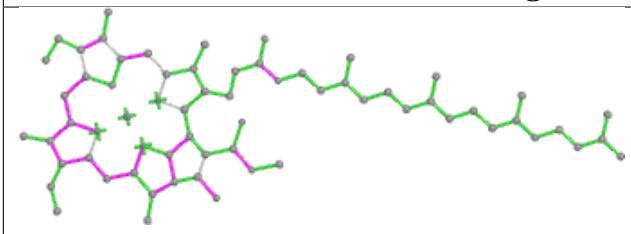


Torsions



Rings

Ligand CLA B 601



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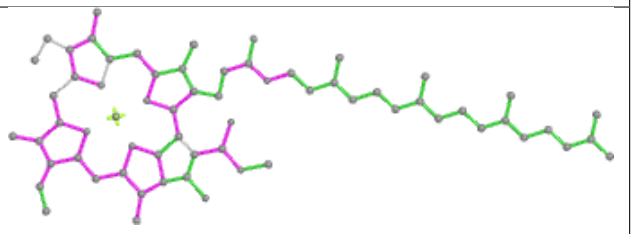
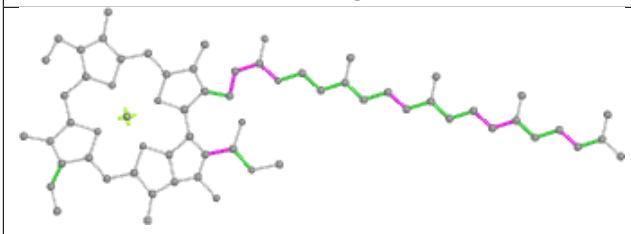
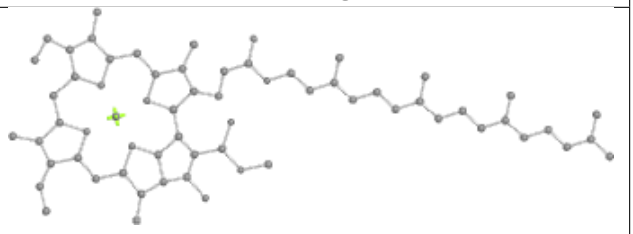


Bond angles

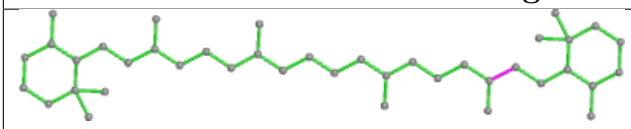


Torsions

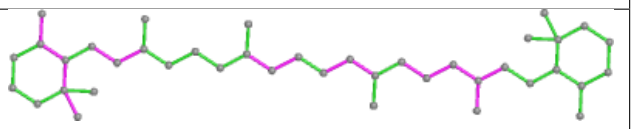


Rings

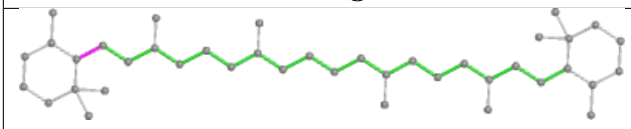
Ligand BCR B 617



Bond lengths



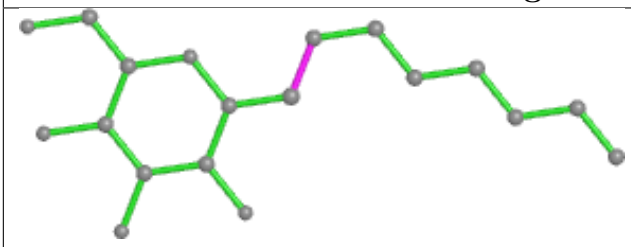
Bond angles

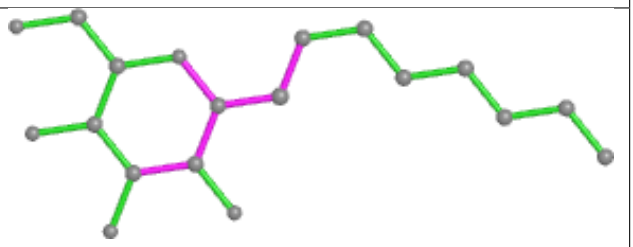


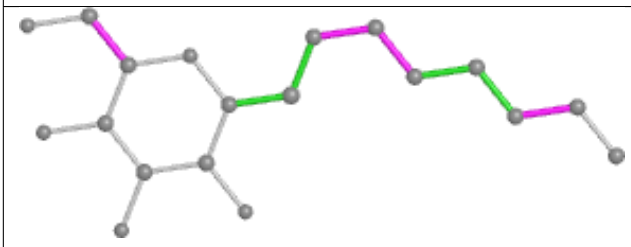
Torsions

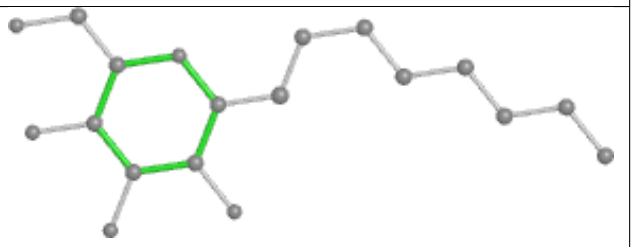
Rings

Ligand HTG b 623

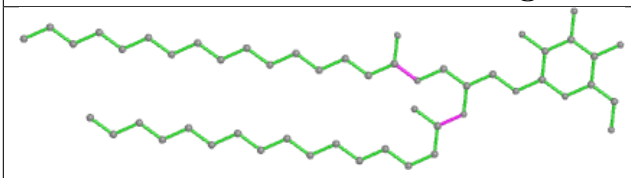

Bond lengths

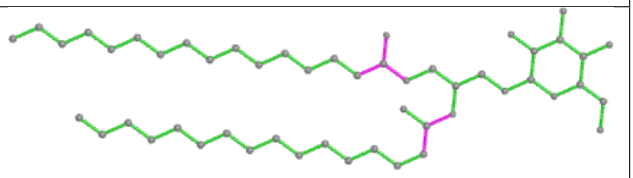

Bond angles

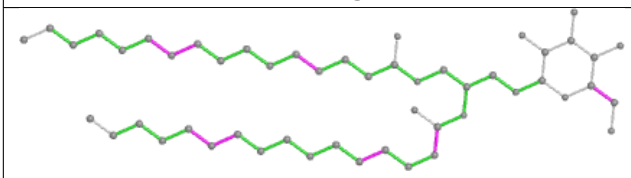

Torsions

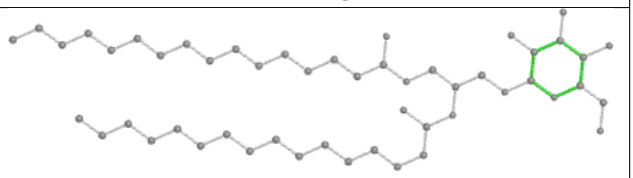

Rings

Ligand LMG D 412

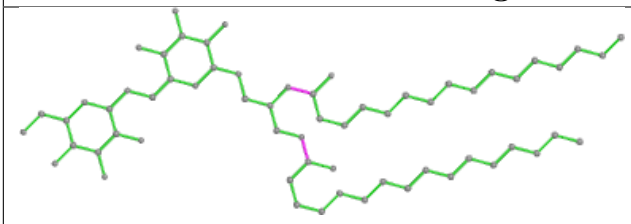

Bond lengths

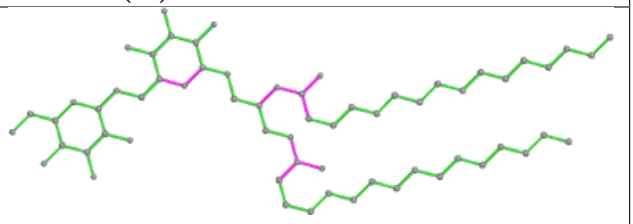

Bond angles

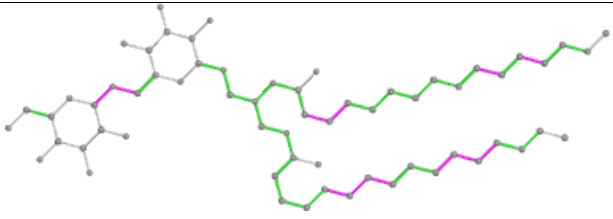

Torsions

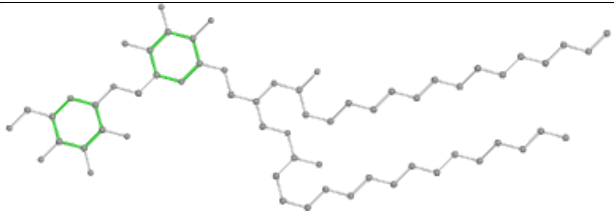

Rings

Ligand DGD c 518 (B)

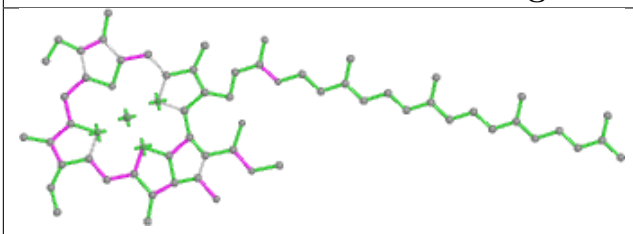

Bond lengths


Bond angles

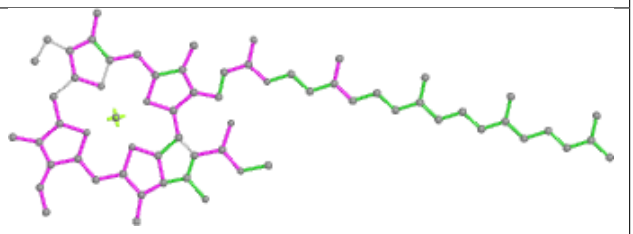

Torsions


Rings

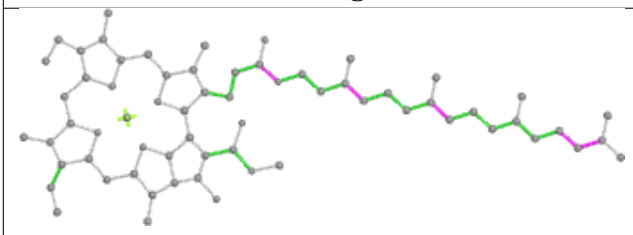
Ligand CLA a 407



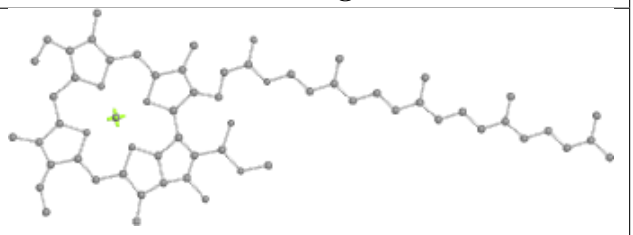
Bond lengths



Bond angles

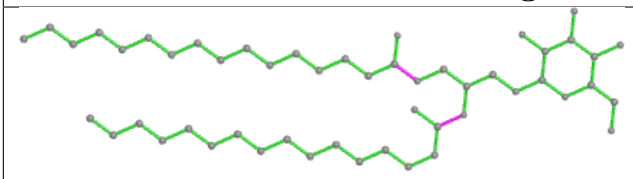


Torsions

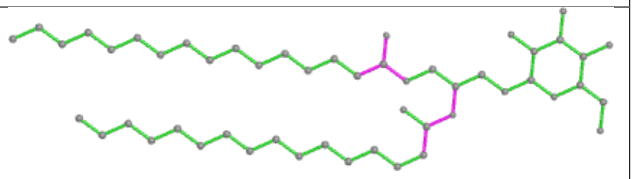


Rings

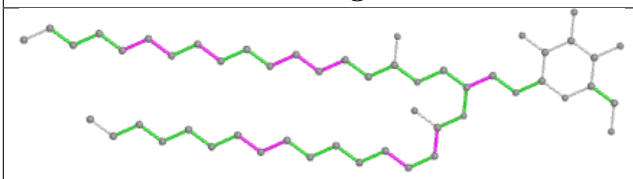
Ligand LMG C 520



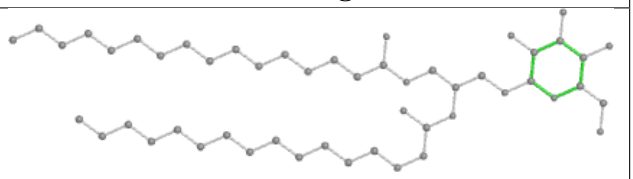
Bond lengths



Bond angles

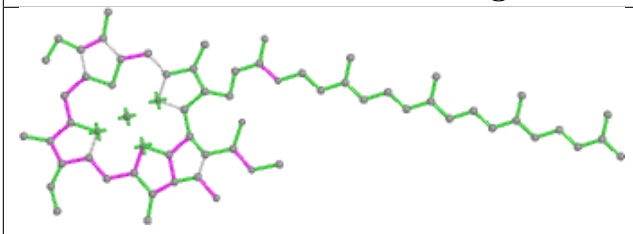


Torsions



Rings

Ligand CLA D 403 (A)



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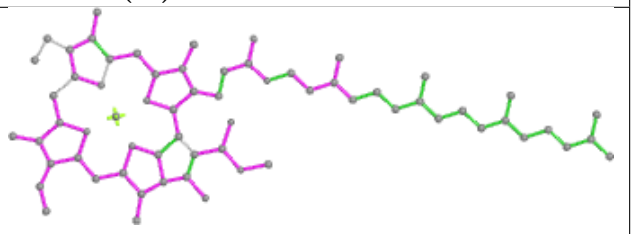
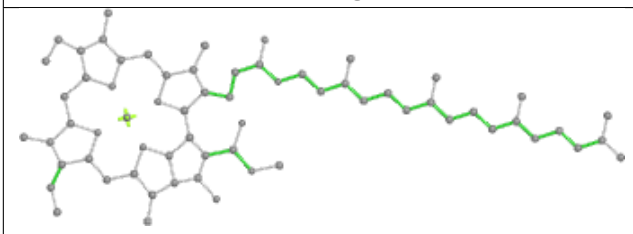
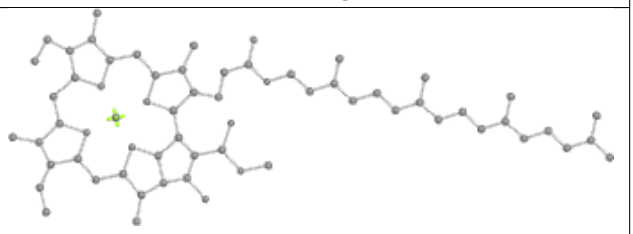


Bond angles

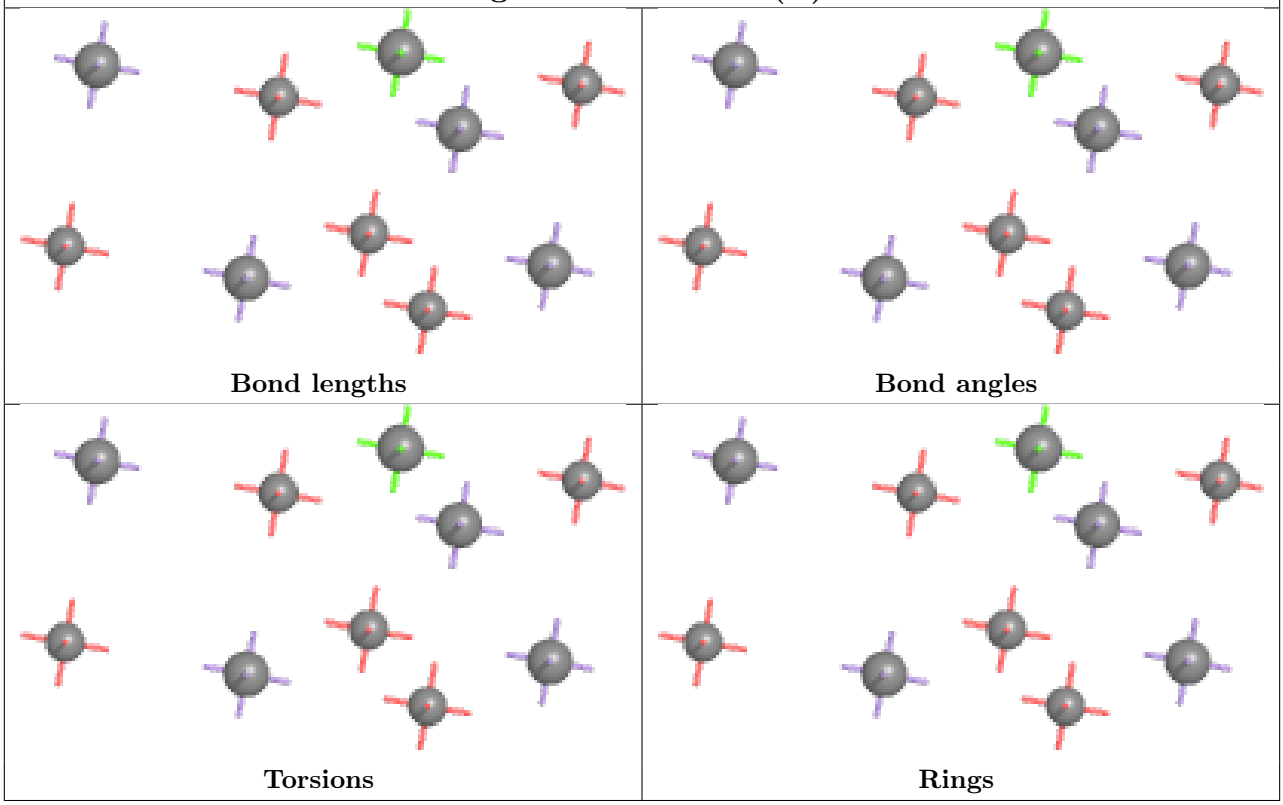


Torsions

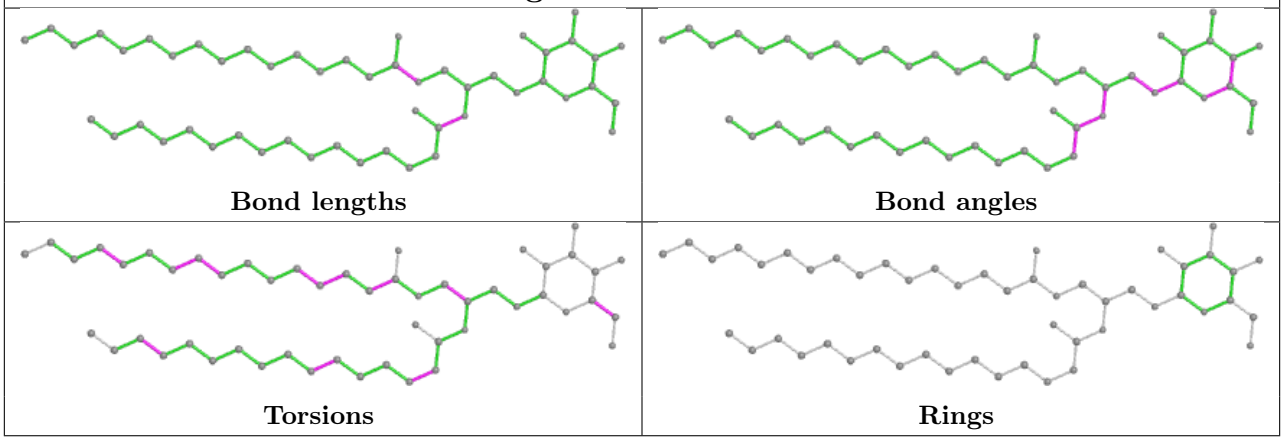


Rings

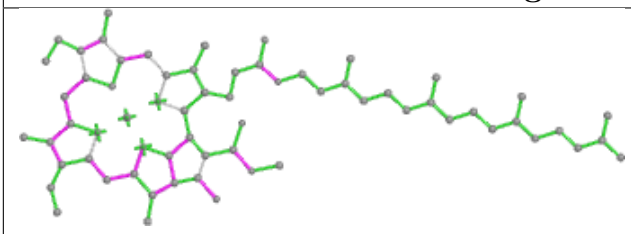
Ligand OEX A 412 (B)



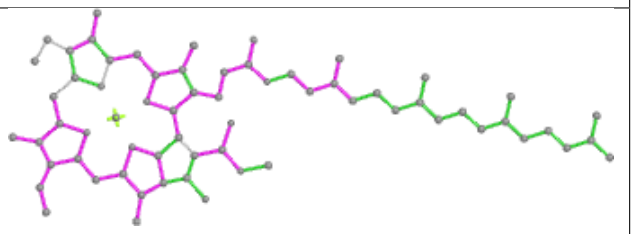
Ligand LMG c 501



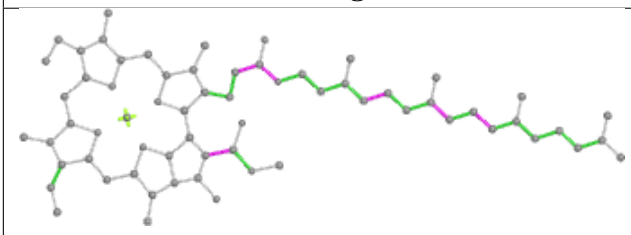
Ligand CLA C 513



Bond lengths



Bond angles



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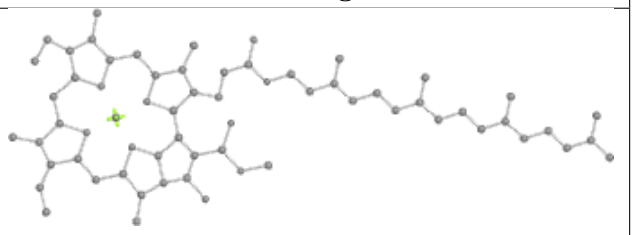
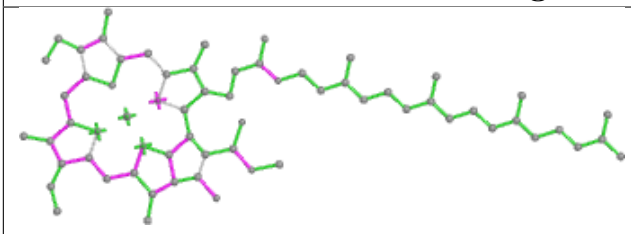
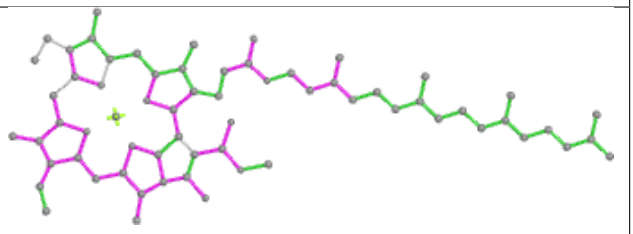


Rings

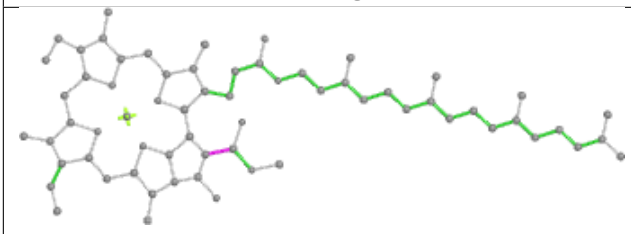
Ligand CLA c 504



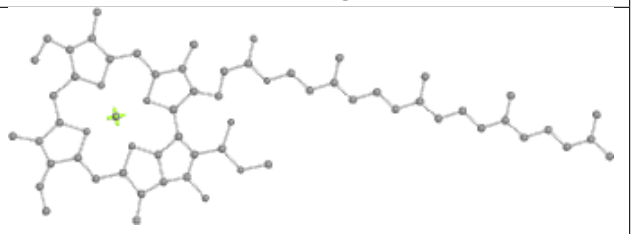
Bond lengths



Bond angles

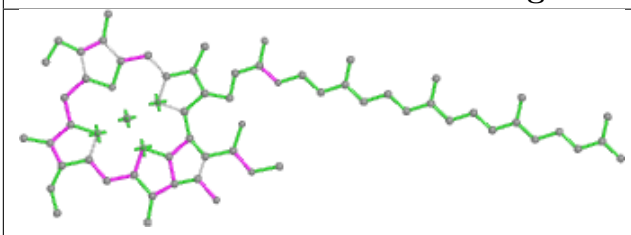


Torsions



Rings

Ligand CLA b 615



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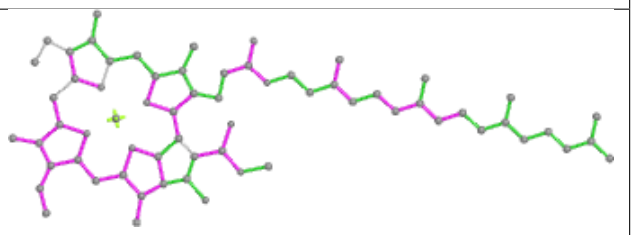
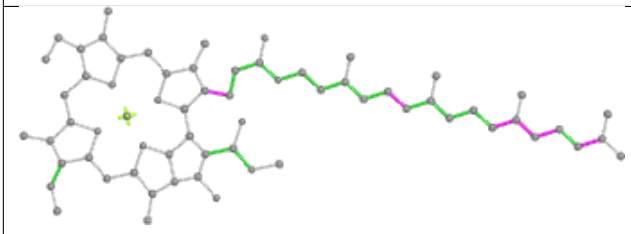
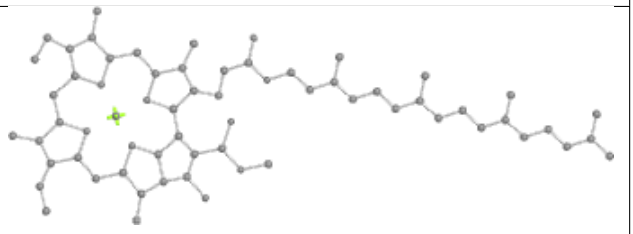


Bond angles

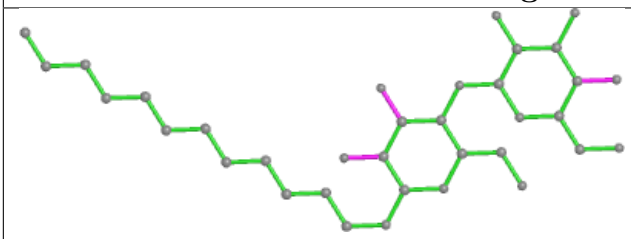


Torsions



Rings

Ligand LMT A 417



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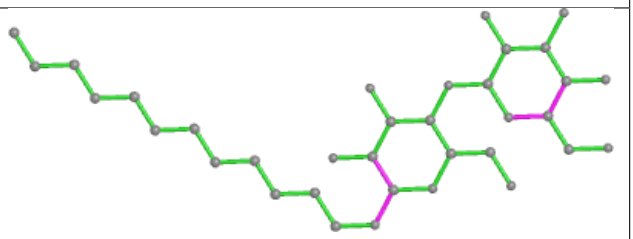
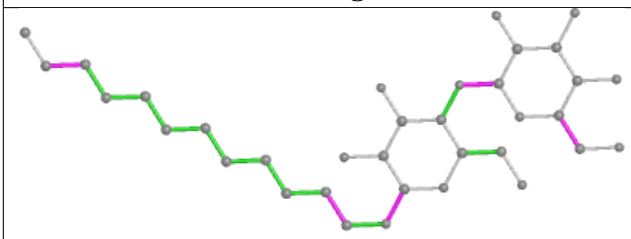
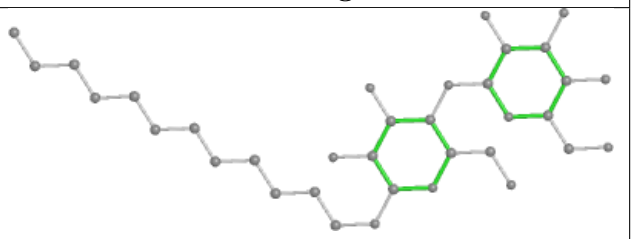


Bond angles

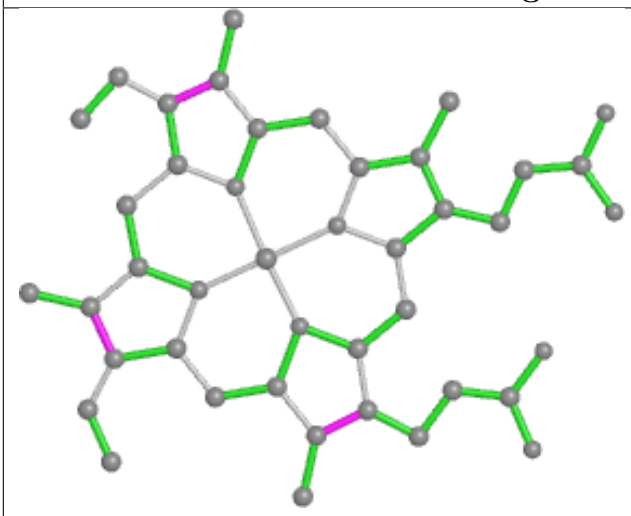


Torsions

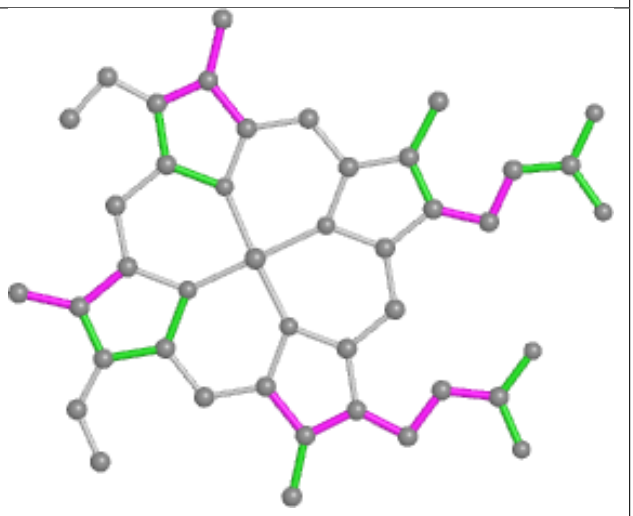


Rings

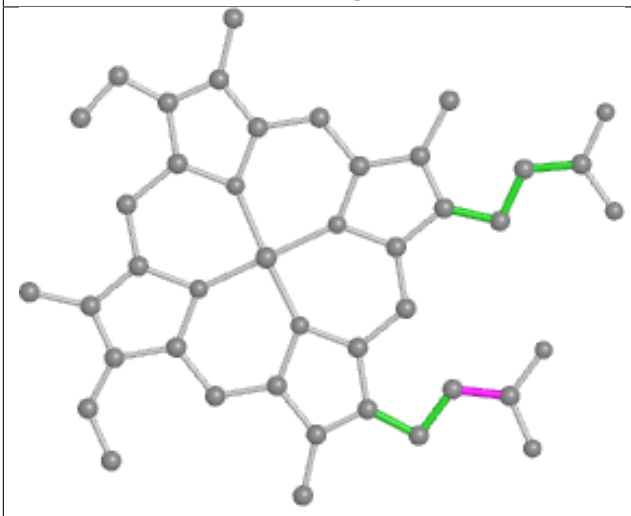
Ligand HEC V 201



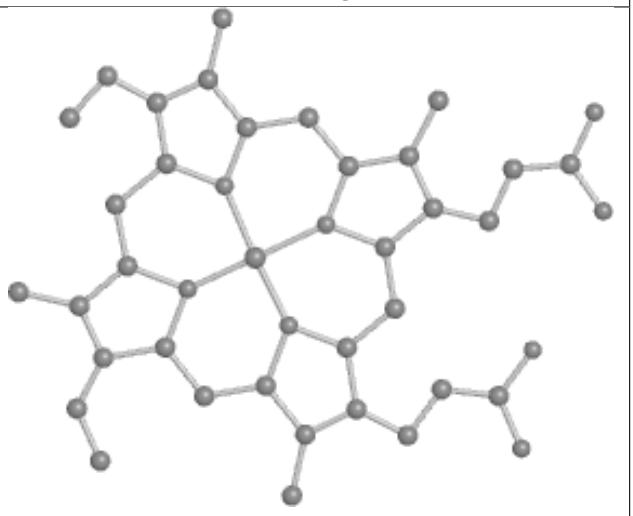
Bond lengths



Bond angles

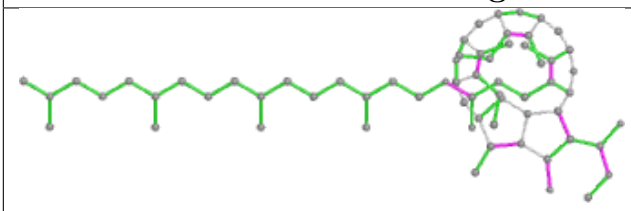


Torsions



Rings

Ligand PHO A 416 (B)



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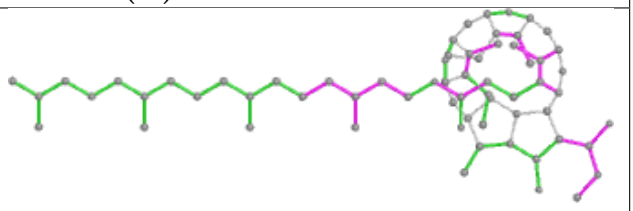
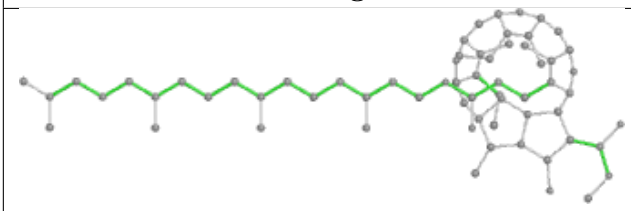
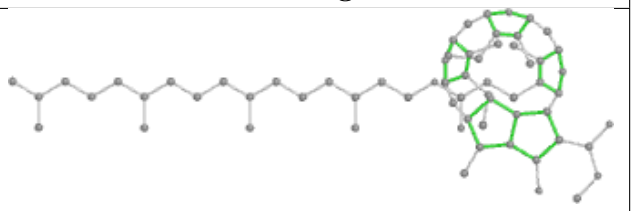


Bond angles

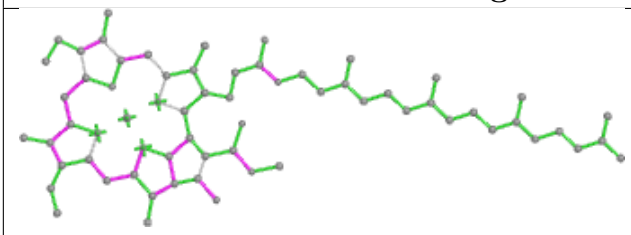


Torsions

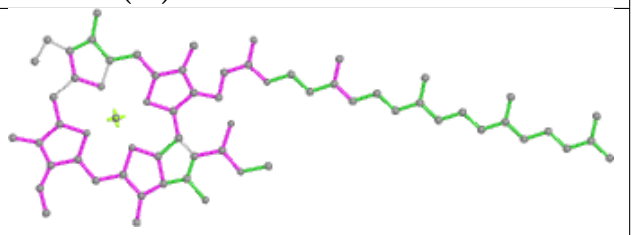


Rings

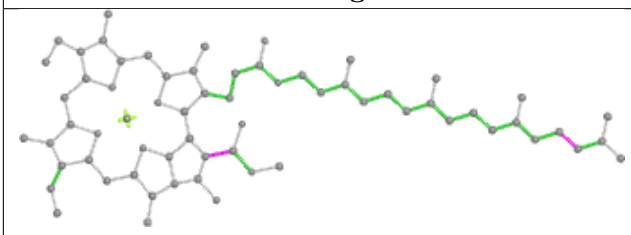
Ligand CLA A 405 (A)



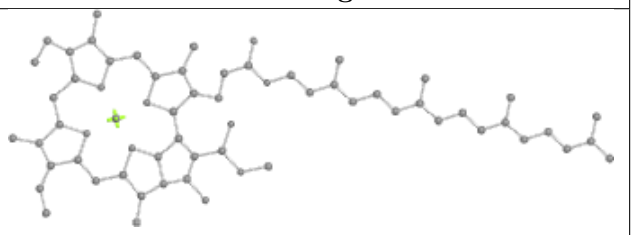
Bond lengths



Bond angles

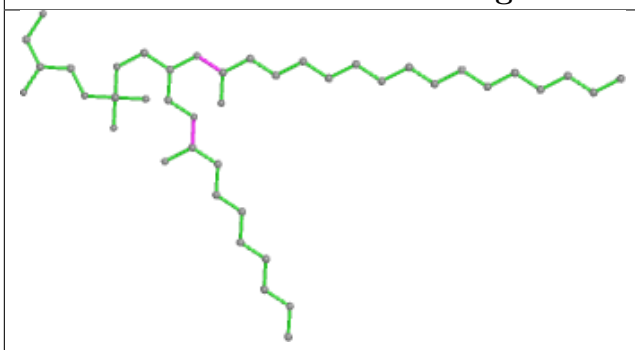


Torsions



Rings

Ligand LHG a 419 (B)



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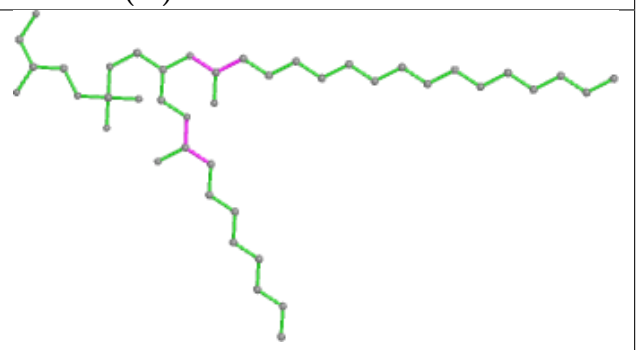
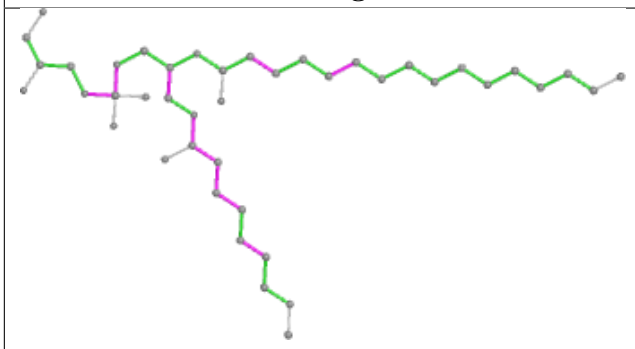
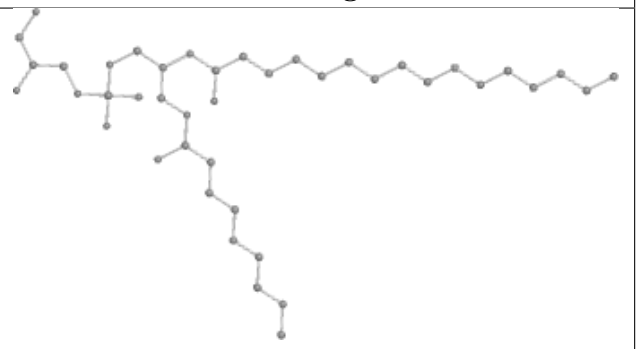


Bond angles

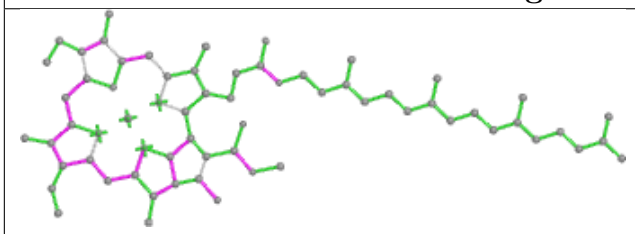


Torsions

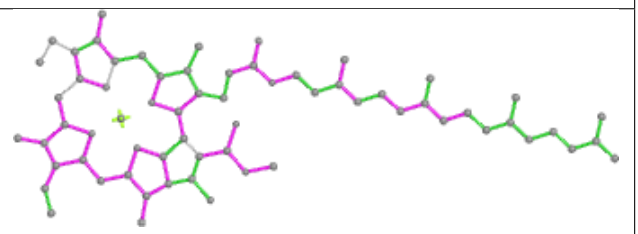


Rings

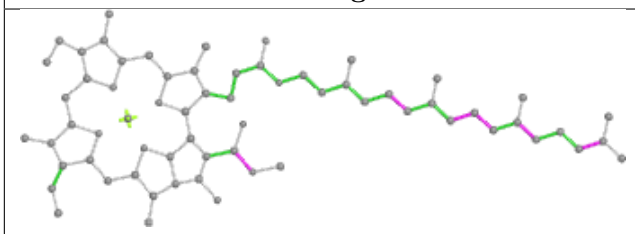
Ligand CLA B 615



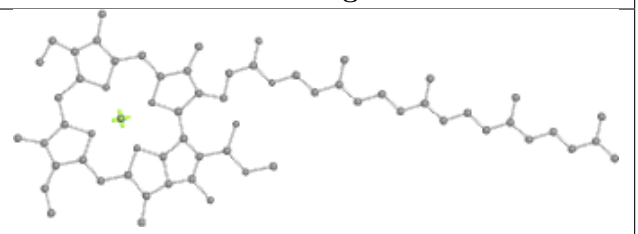
Bond lengths



Bond angles

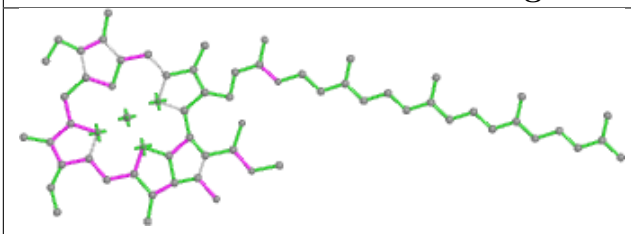


Torsions

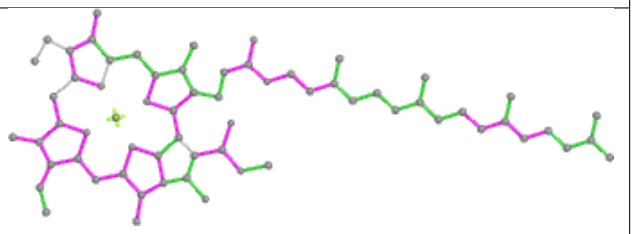


Rings

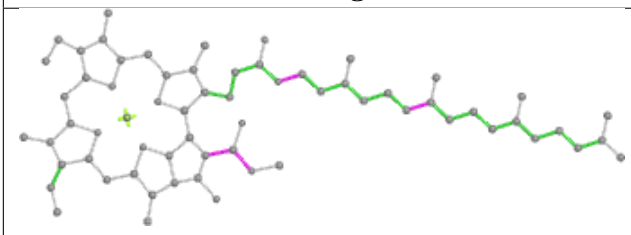
Ligand CLA C 510



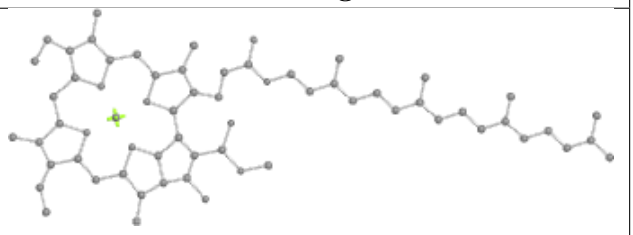
Bond lengths



Bond angles

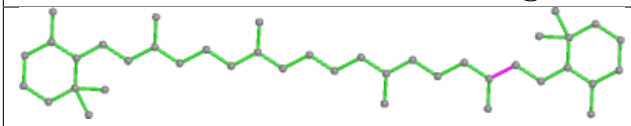


Torsions

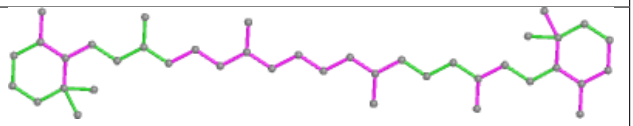


Rings

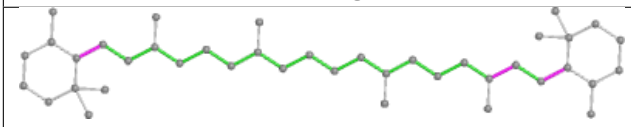
Ligand BCR Y 101



Bond lengths



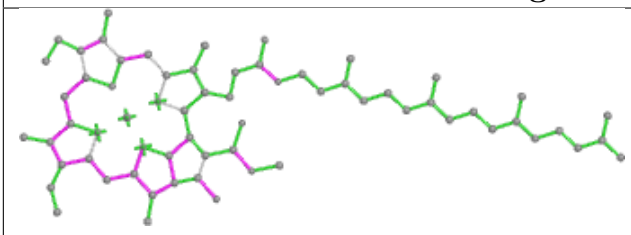
Bond angles



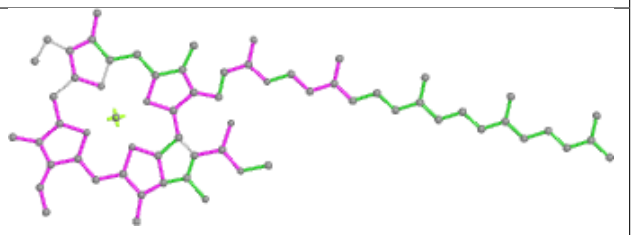
Torsions

Rings

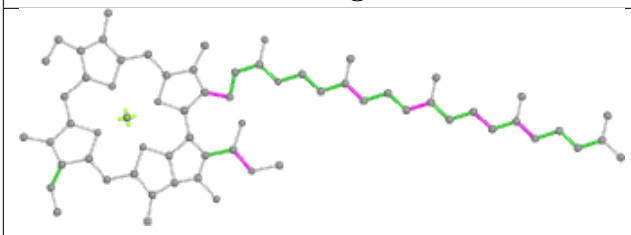
Ligand CLA c 514



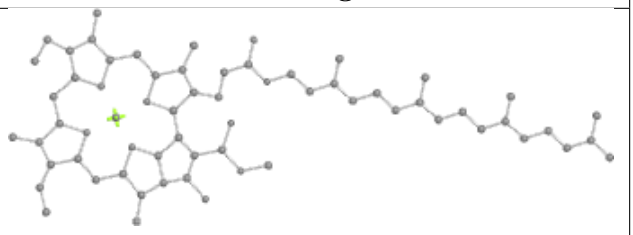
Bond lengths



Bond angles

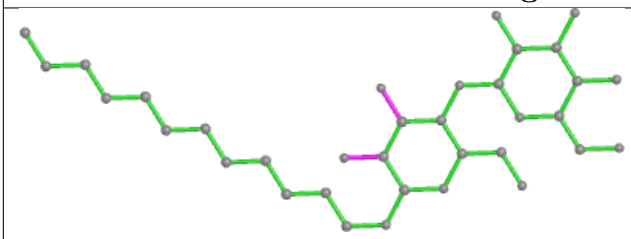


Torsions

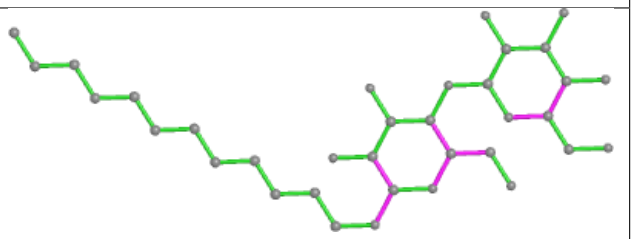


Rings

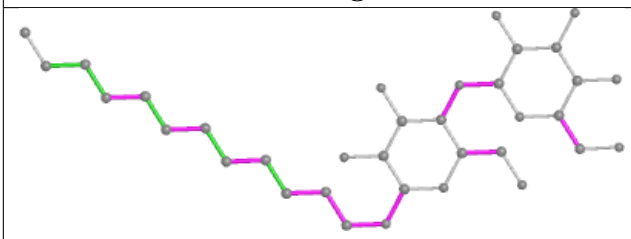
Ligand LMT A 419



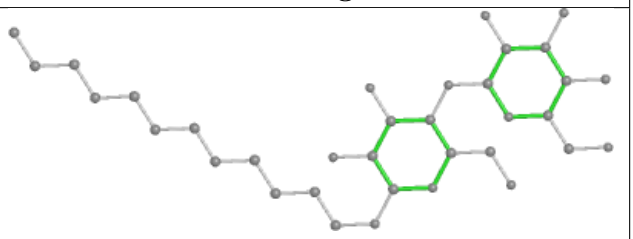
Bond lengths



Bond angles

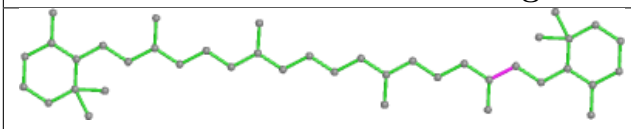


Torsions

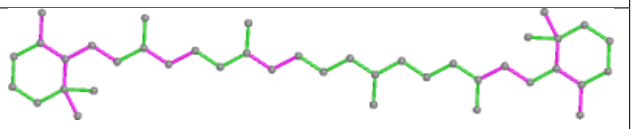


Rings

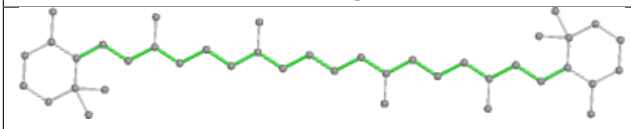
Ligand BCR A 408



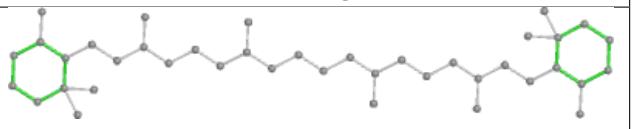
Bond lengths



Bond angles

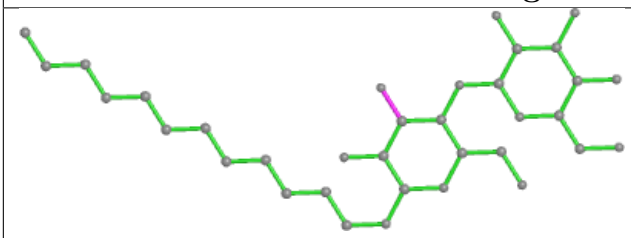


Torsions

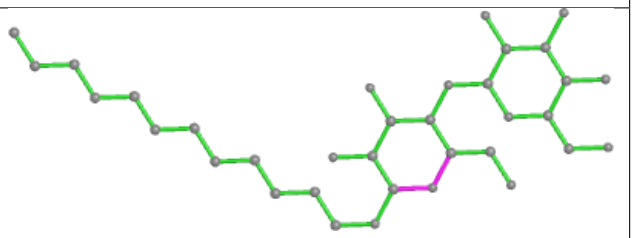


Rings

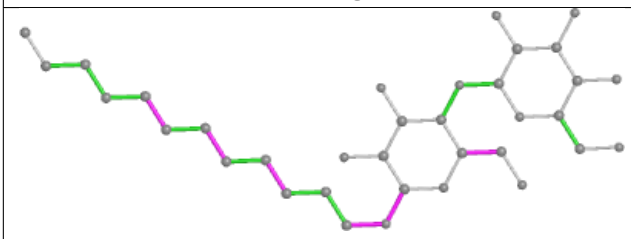
Ligand LMT F 101



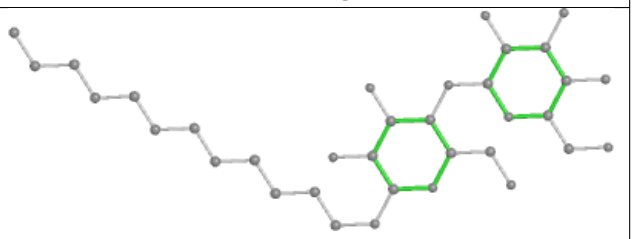
Bond lengths



Bond angles

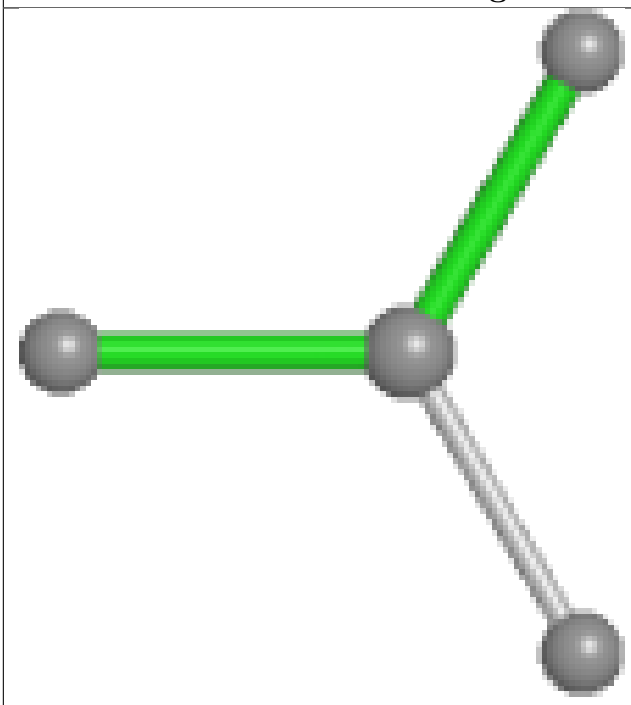


Torsions

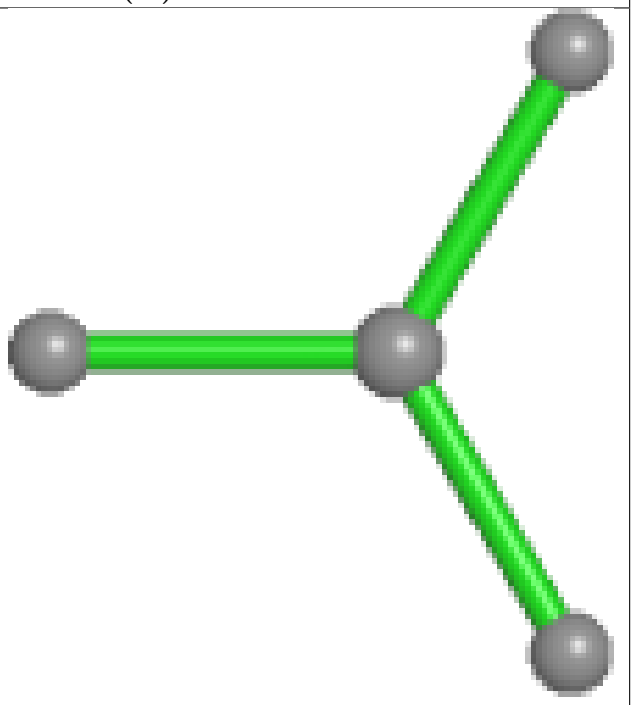


Rings

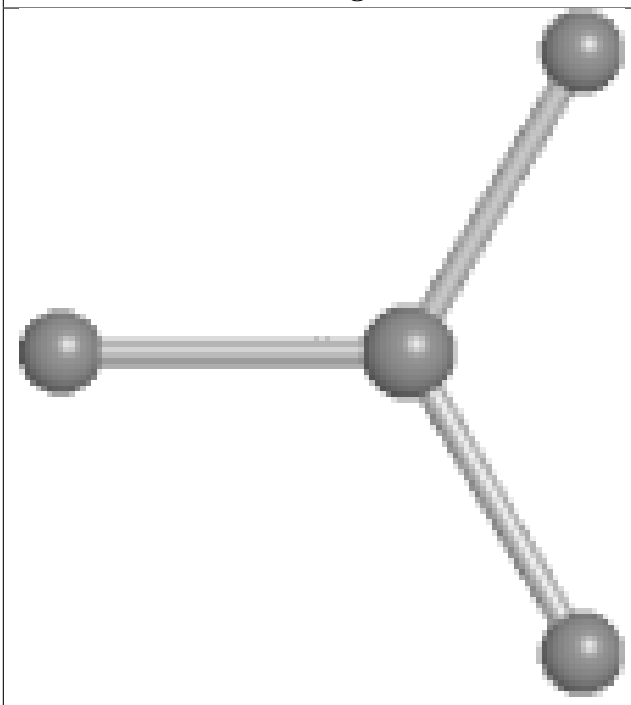
Ligand BCT A 415 (A)



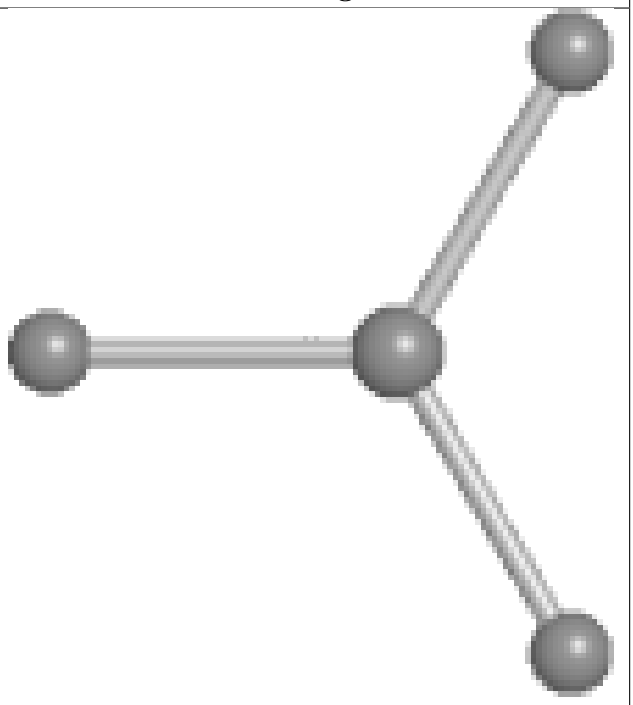
Bond lengths



Bond angles

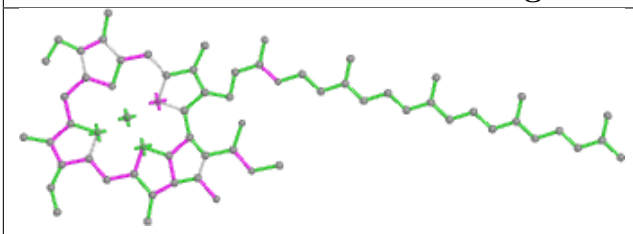


Torsions

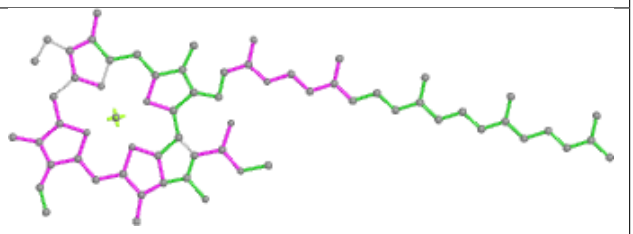


Rings

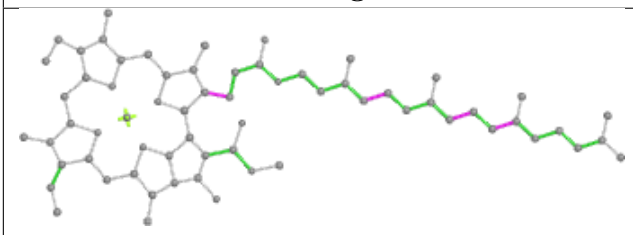
Ligand CLA C 512



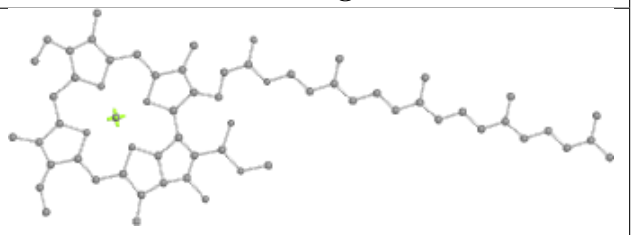
Bond lengths



Bond angles

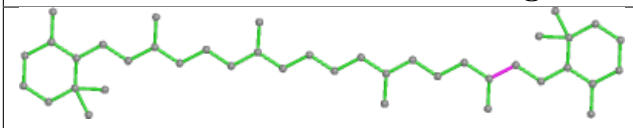


Torsions

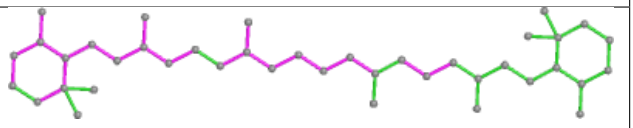


Rings

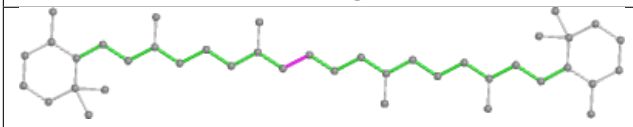
Ligand BCR T 102



Bond lengths



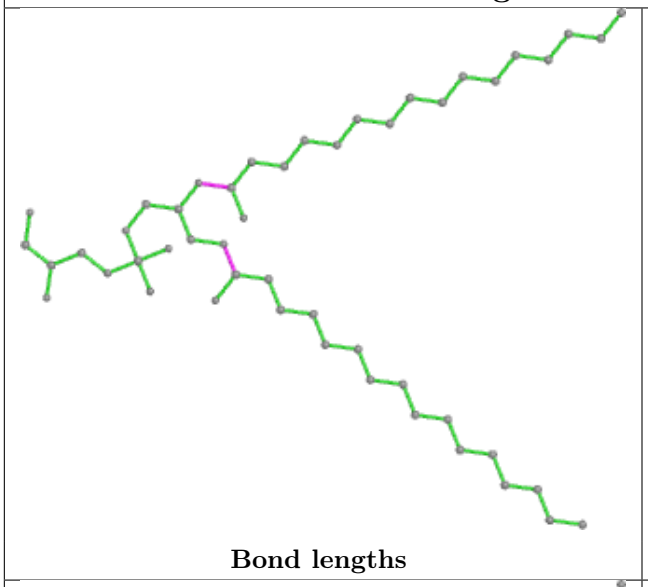
Bond angles



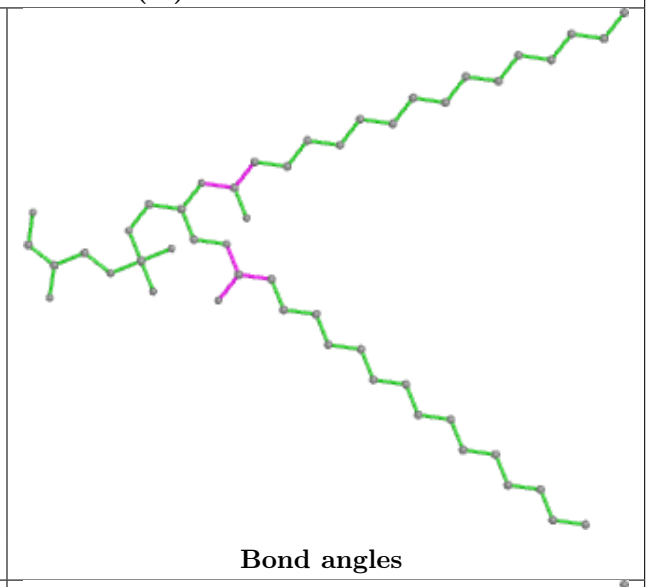
Torsions

Rings

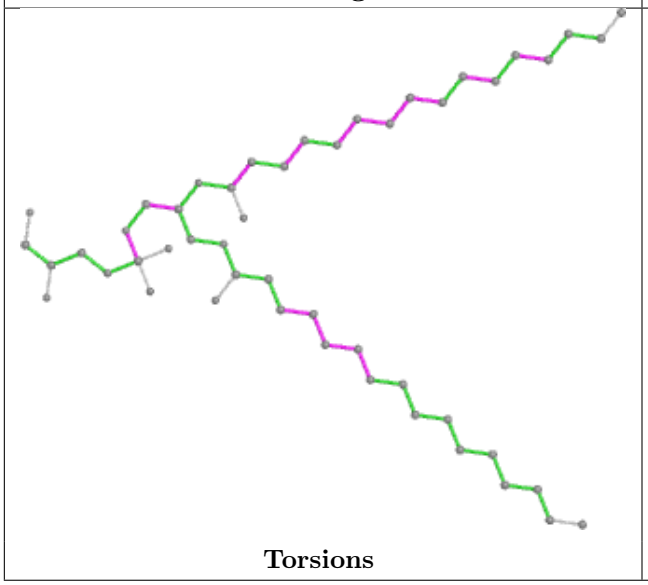
Ligand LHG L 101 (B)



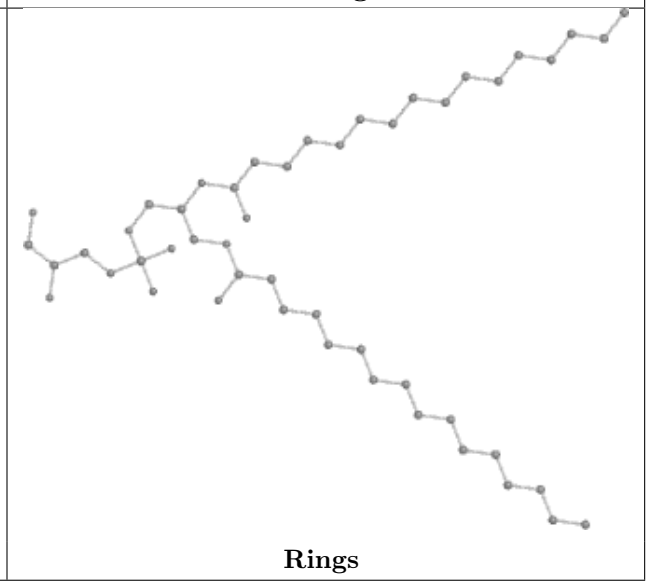
Bond lengths



Bond angles

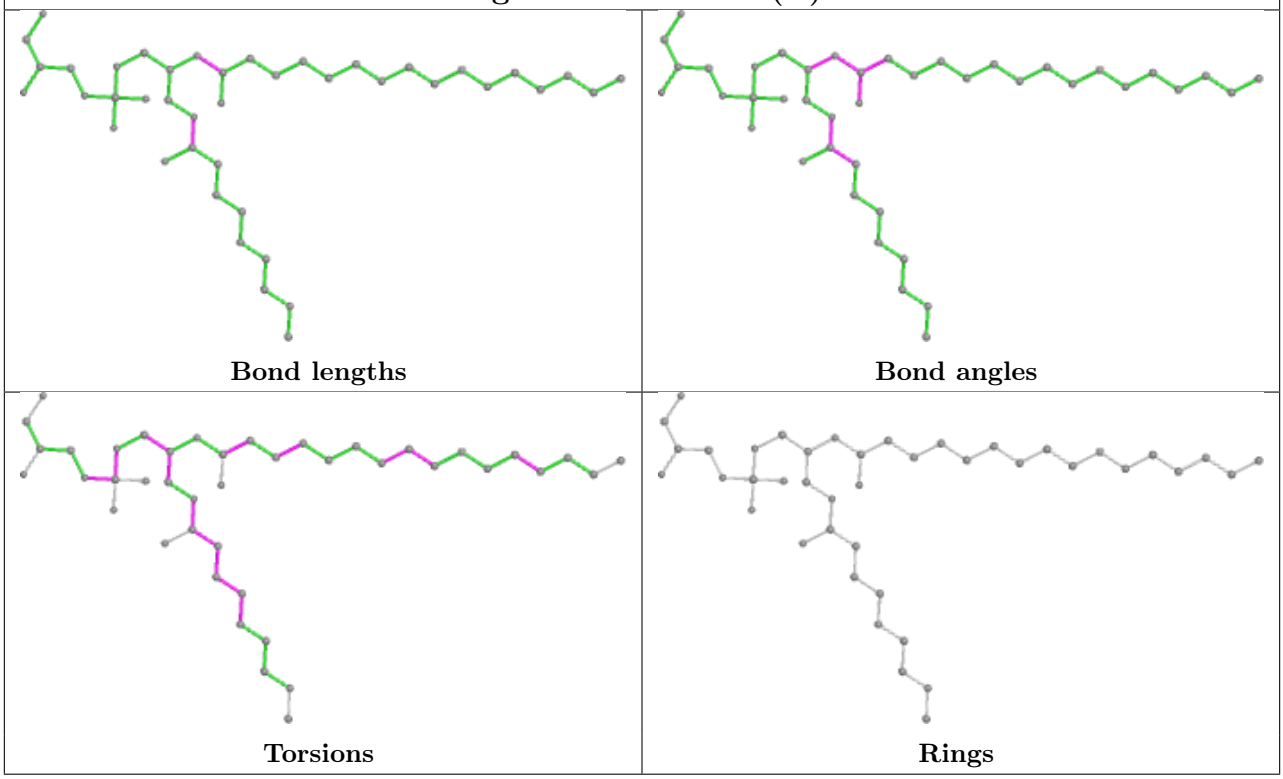


Torsions

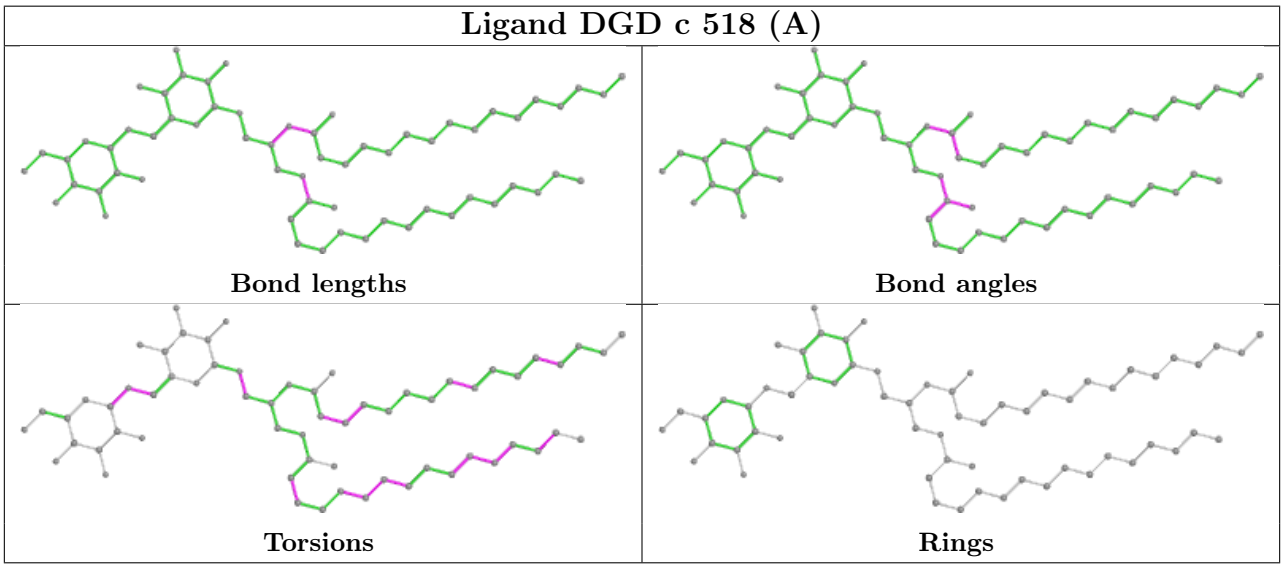


Rings

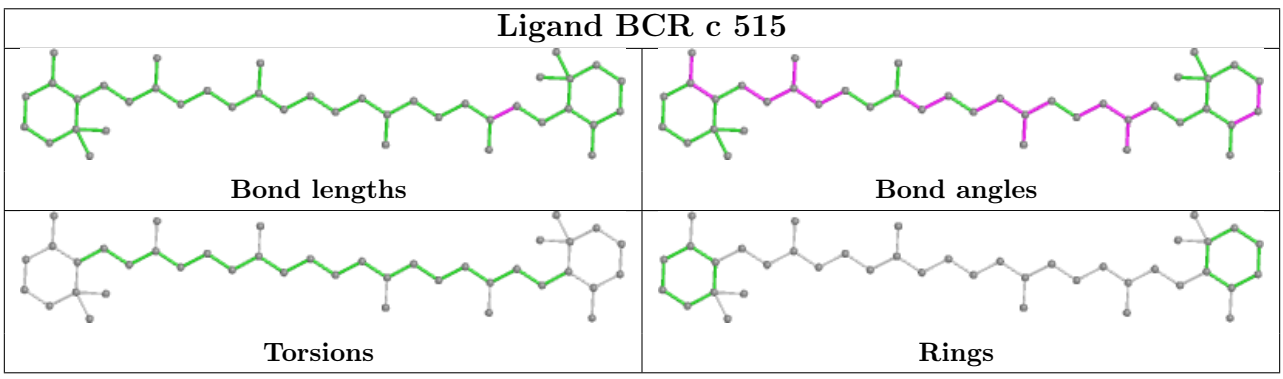
Ligand LHG E 101 (B)



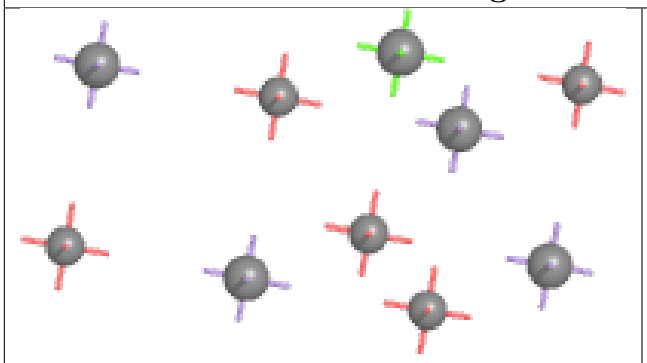
Ligand DGD c 518 (A)



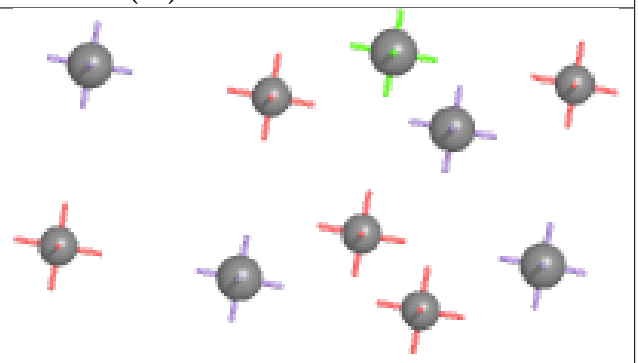
Ligand BCR c 515



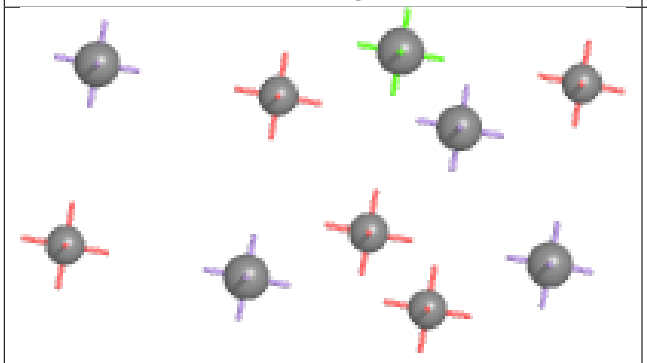
Ligand OEX A 412 (A)



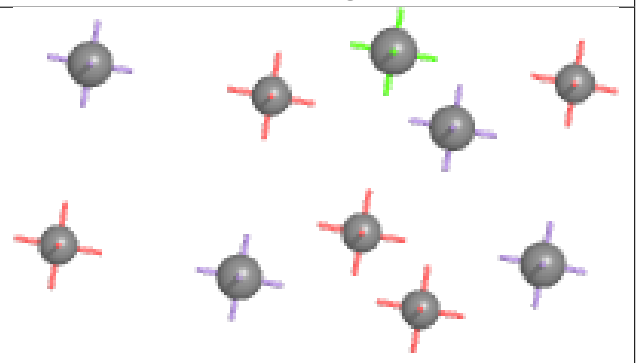
Bond lengths



Bond angles

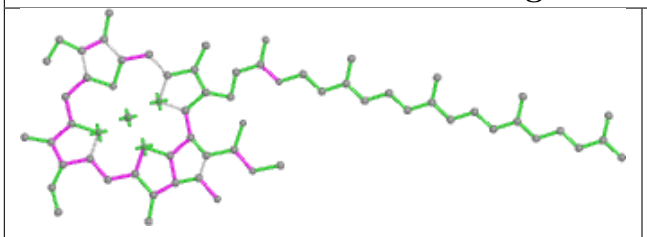


Torsions

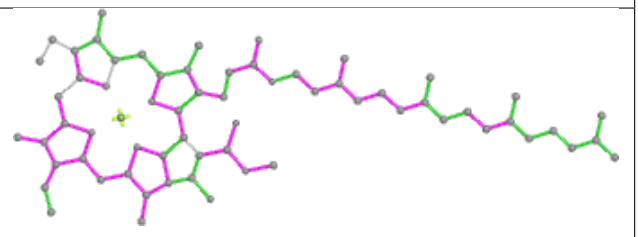


Rings

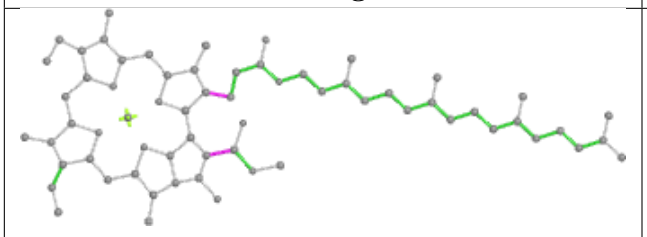
Ligand CLA B 604



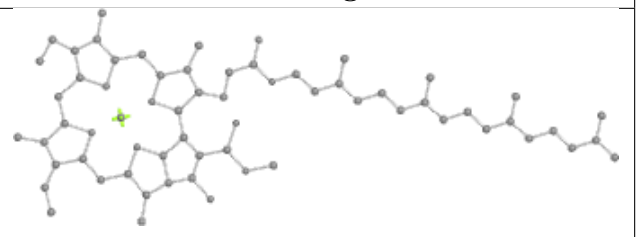
Bond lengths



Bond angles

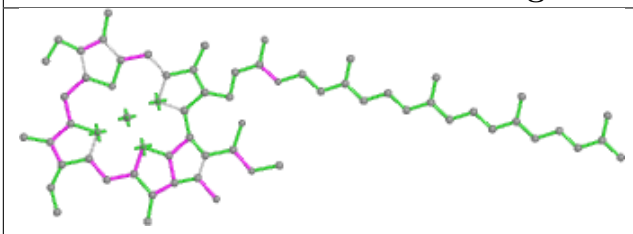


Torsions

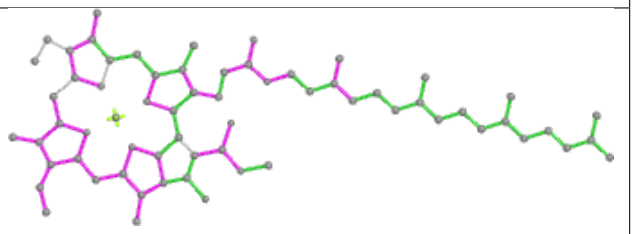


Rings

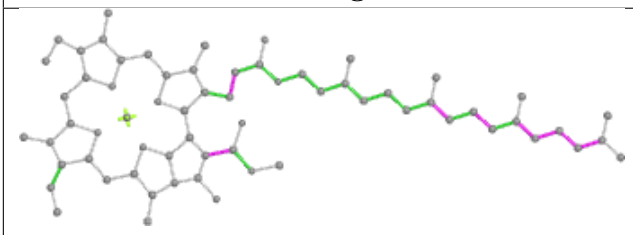
Ligand CLA b 606



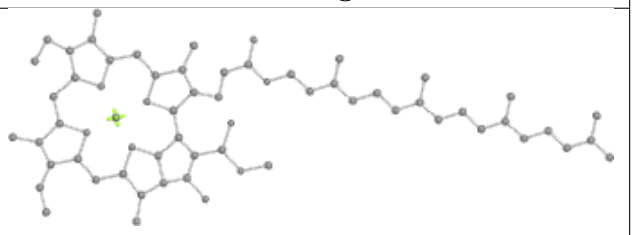
Bond lengths



Bond angles

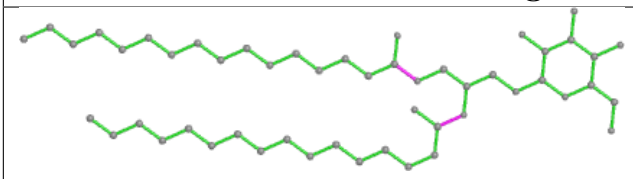


Torsions

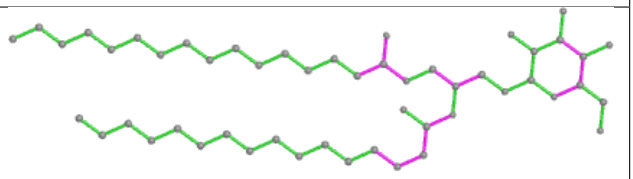


Rings

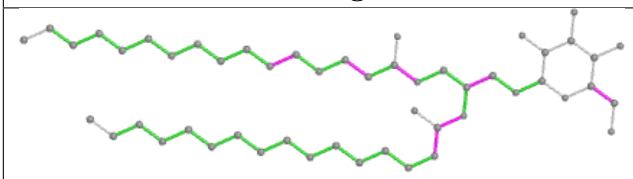
Ligand LMG c 521



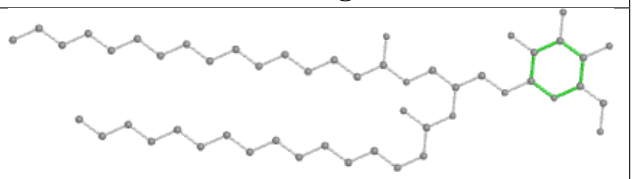
Bond lengths



Bond angles

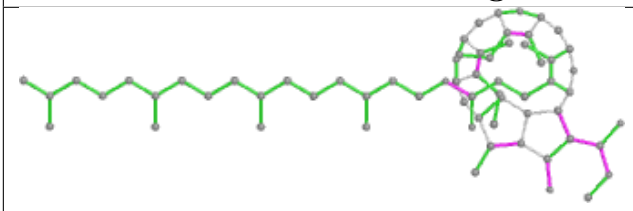


Torsions

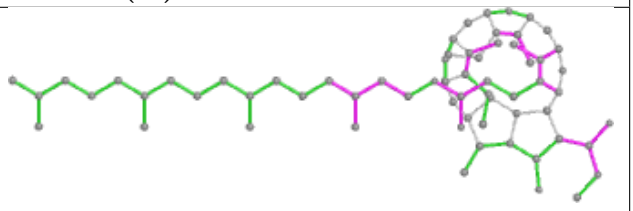


Rings

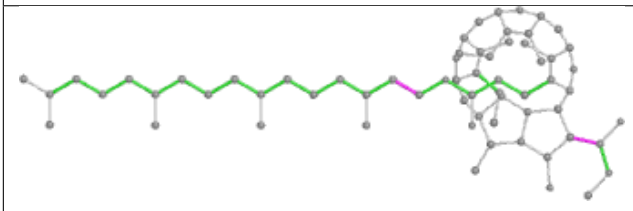
Ligand PHO D 401 (A)



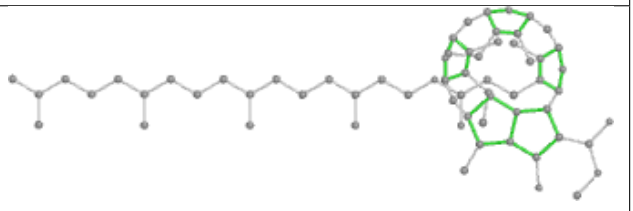
Bond lengths



Bond angles

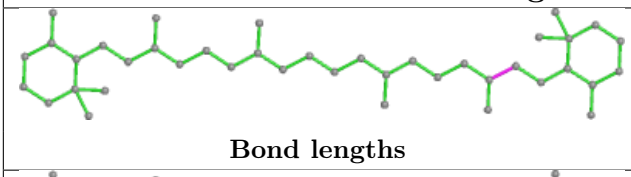


Torsions

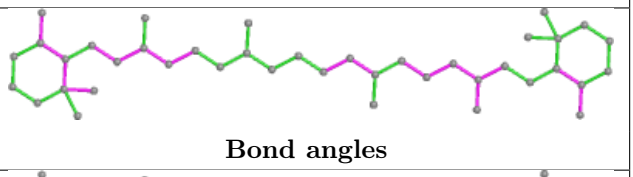


Rings

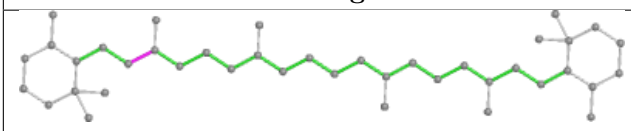
Ligand BCR c 516



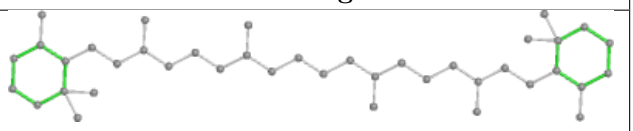
Bond lengths



Bond angles

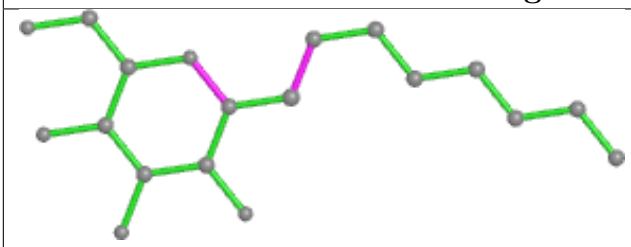


Torsions

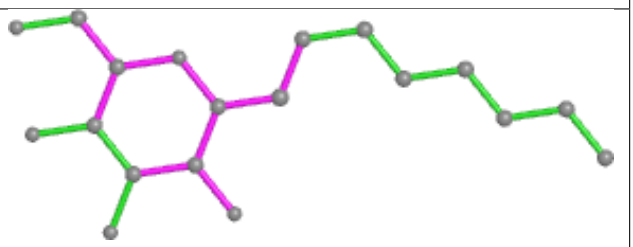


Rings

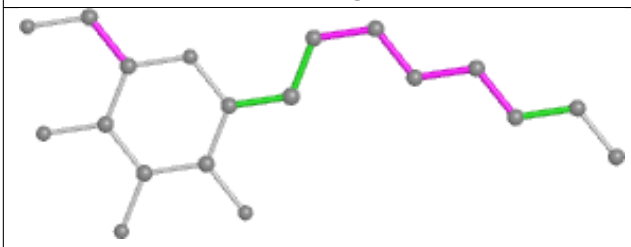
Ligand HTG b 622



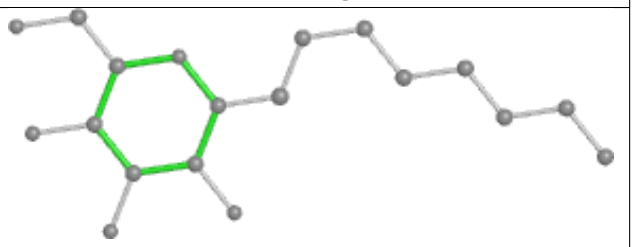
Bond lengths



Bond angles

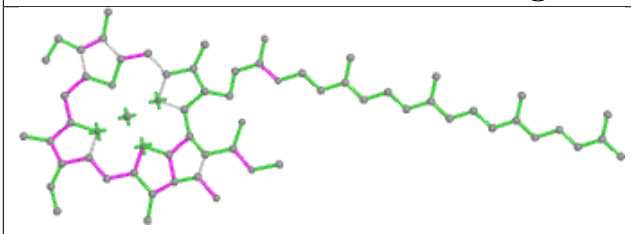


Torsions

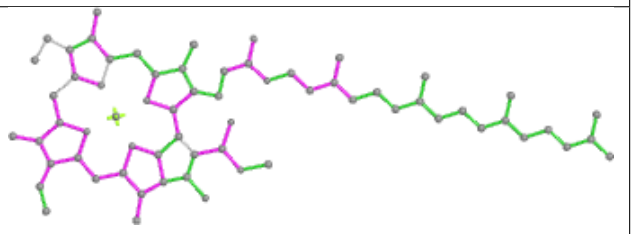


Rings

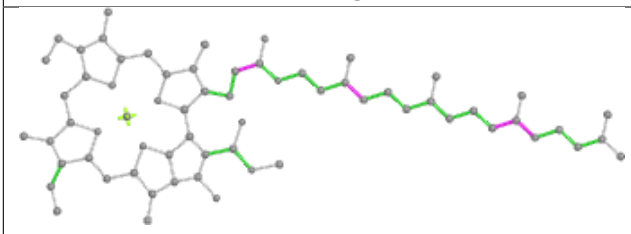
Ligand CLA c 506



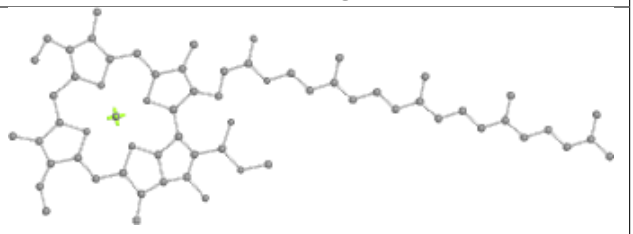
Bond lengths



Bond angles

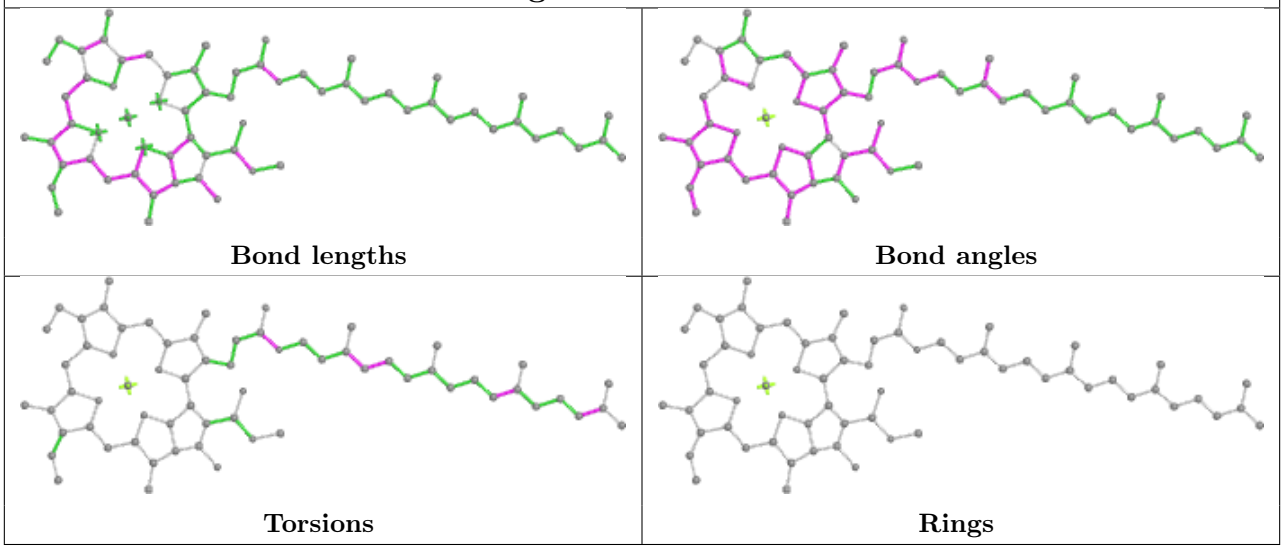


Torsions

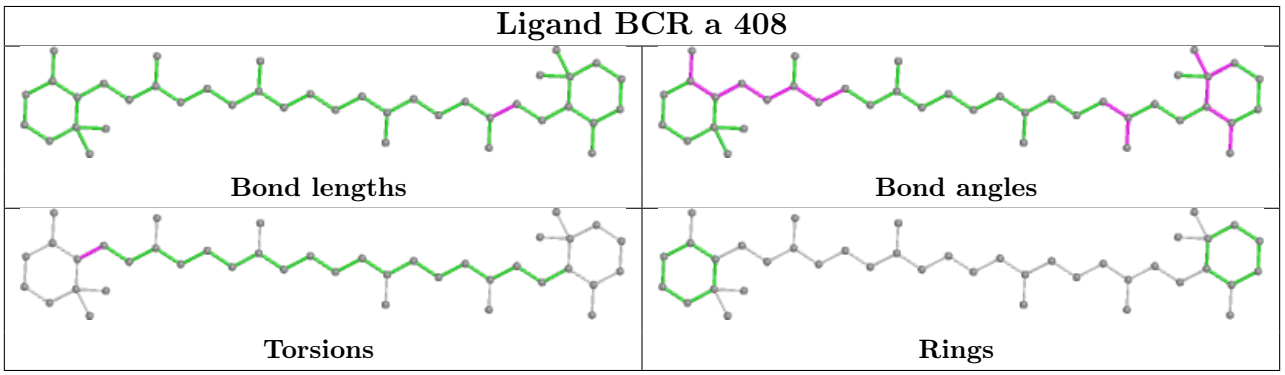


Rings

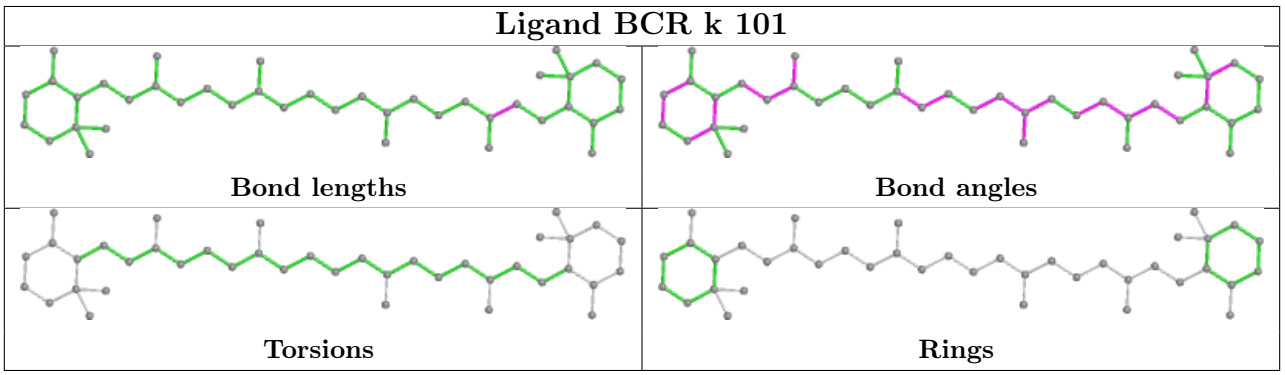
Ligand CLA d 404



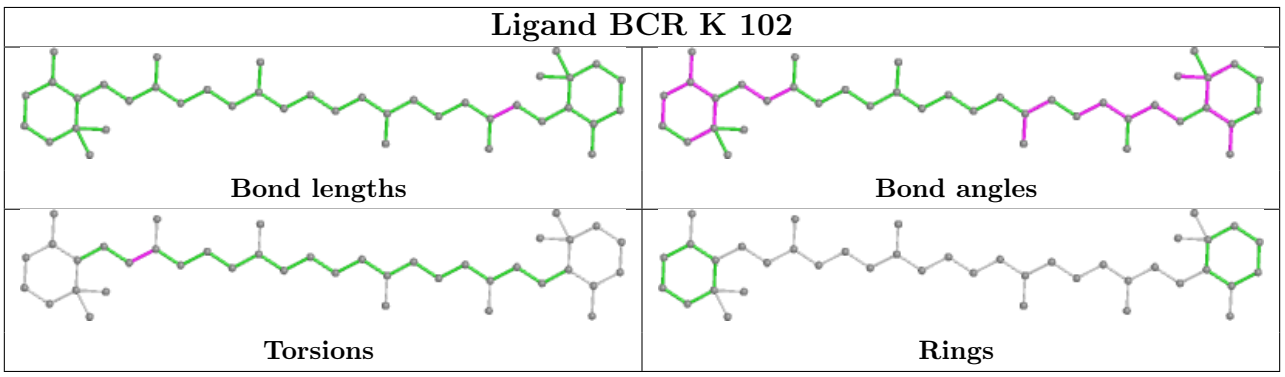
Ligand BCR a 408



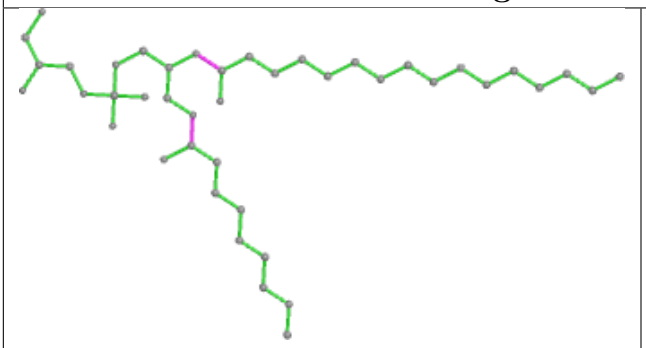
Ligand BCR k 101



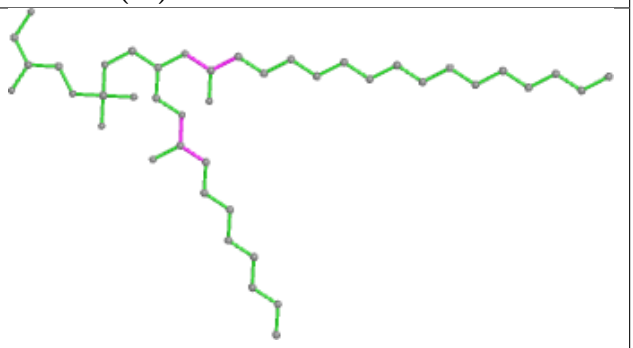
Ligand BCR K 102



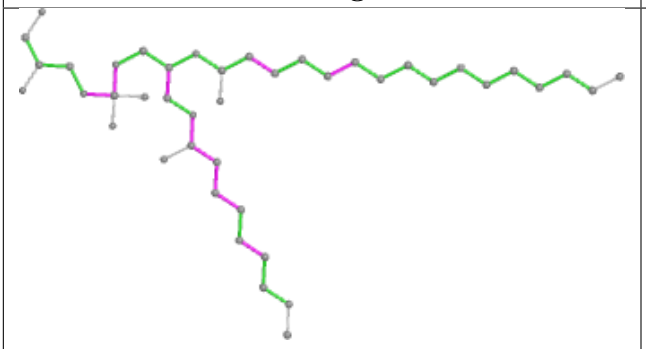
Ligand LHG a 419 (A)



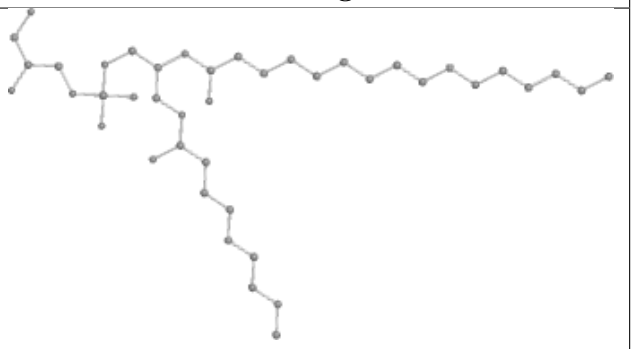
Bond lengths



Bond angles

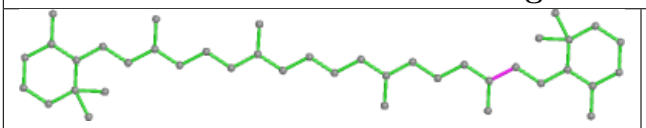


Torsions

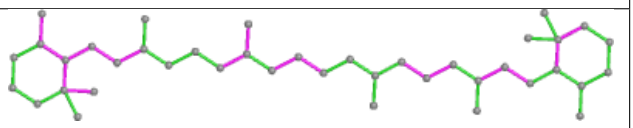


Rings

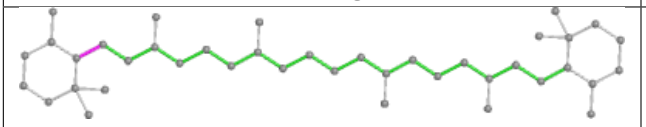
Ligand BCR b 617



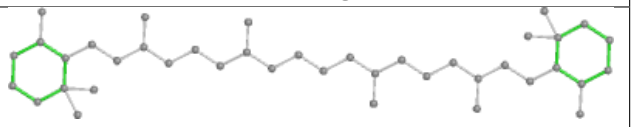
Bond lengths



Bond angles

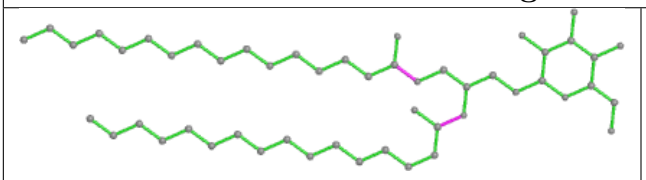


Torsions

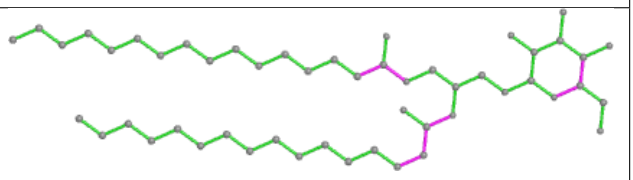


Rings

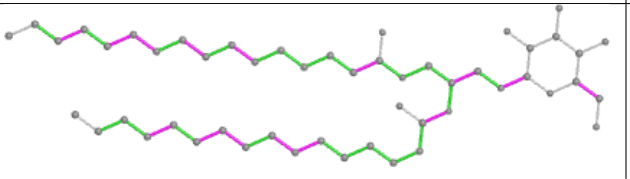
Ligand LMG B 620



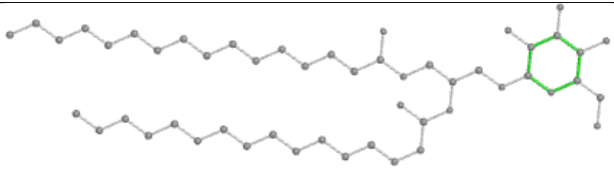
Bond lengths



Bond angles

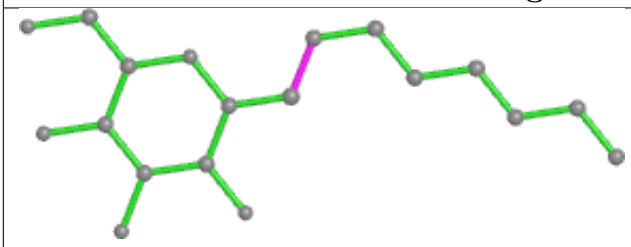


Torsions

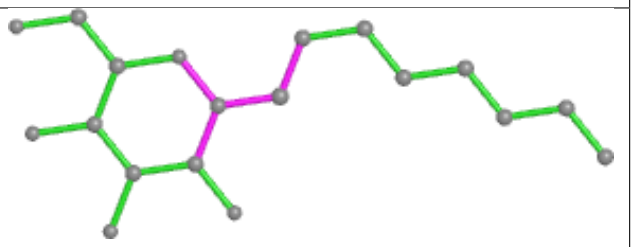


Rings

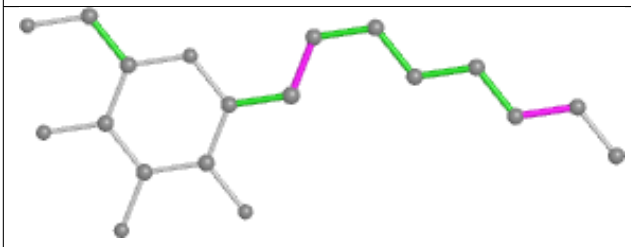
Ligand HTG c 522



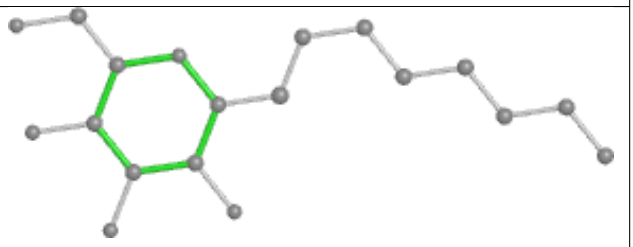
Bond lengths



Bond angles

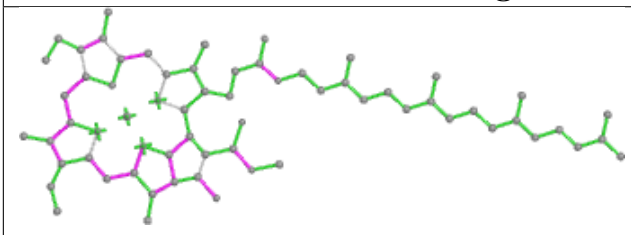


Torsions

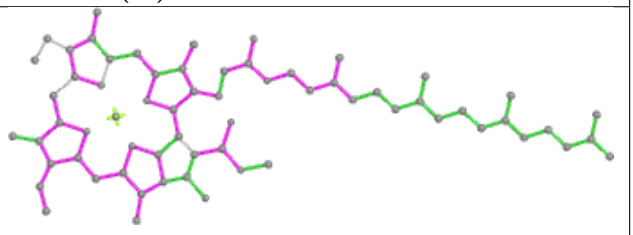


Rings

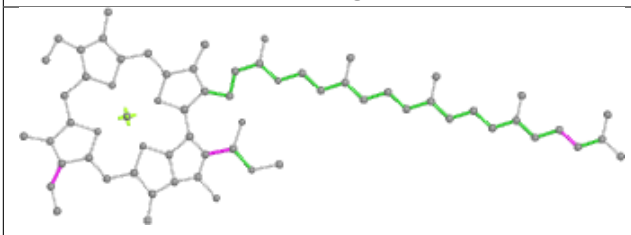
Ligand CLA d 402 (B)



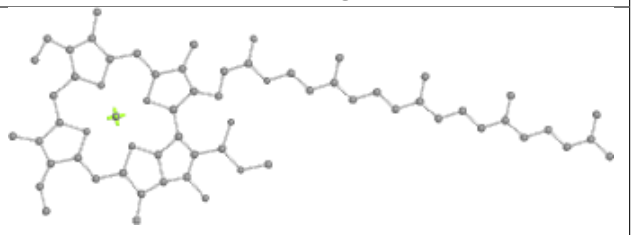
Bond lengths



Bond angles

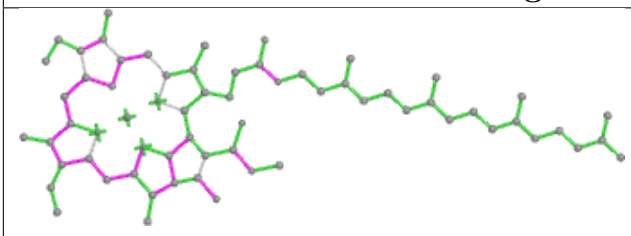


Torsions

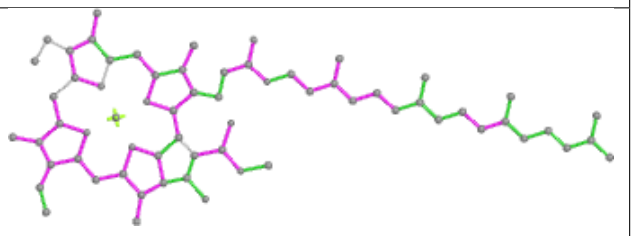


Rings

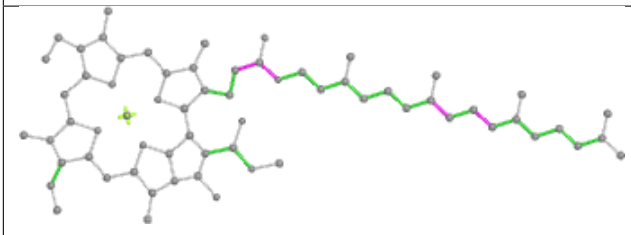
Ligand CLA B 612



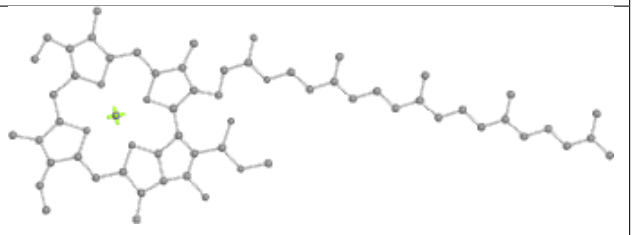
Bond lengths



Bond angles

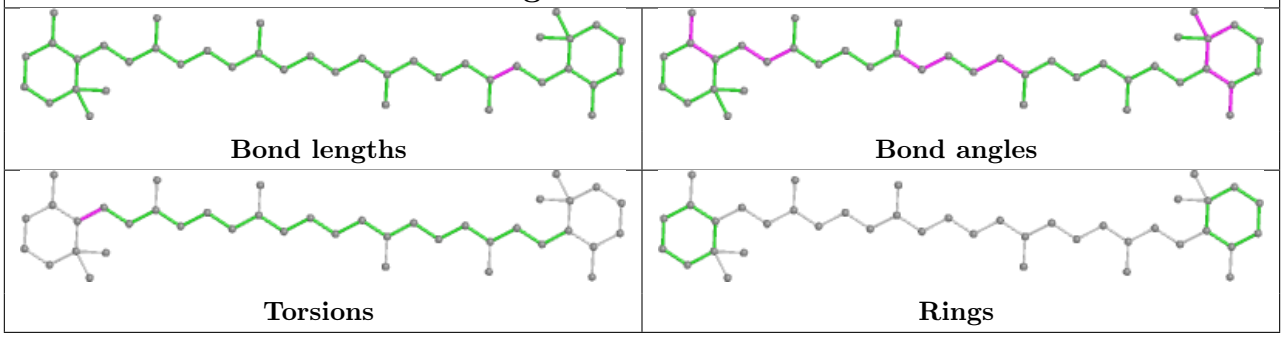


Torsions

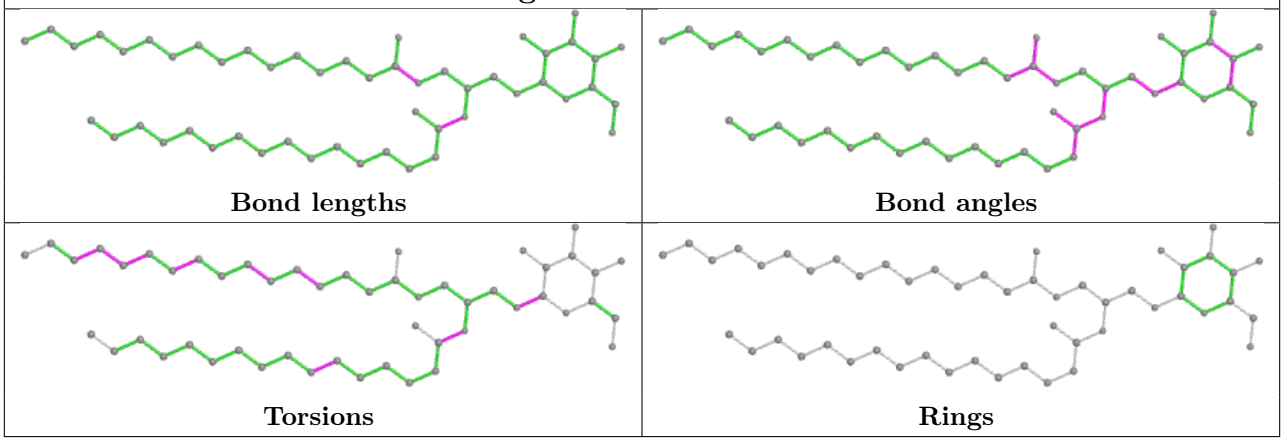


Rings

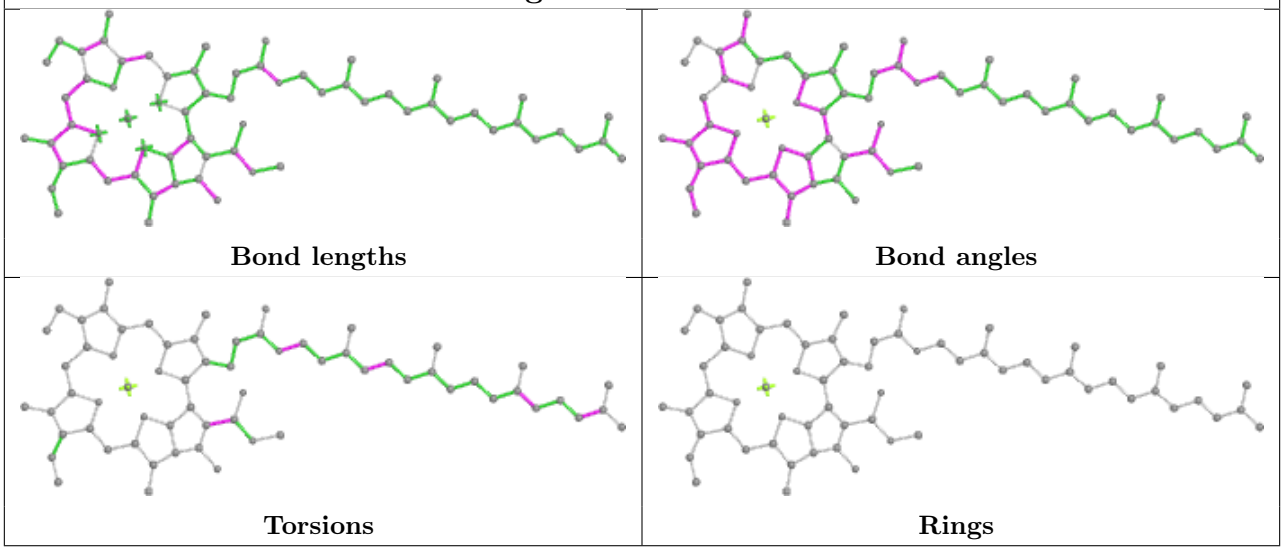
Ligand BCR C 515



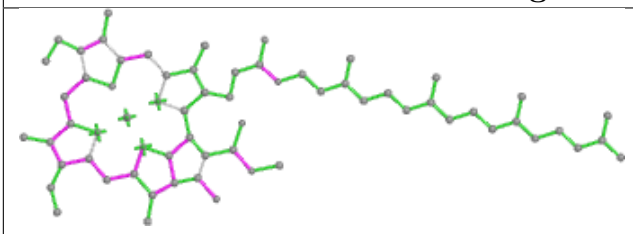
Ligand LMG m 101



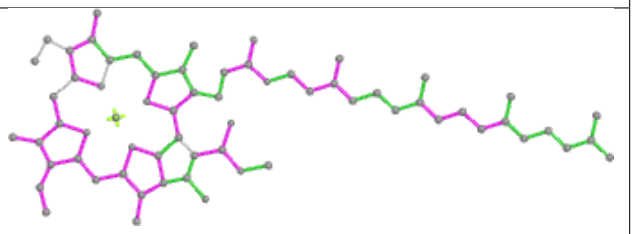
Ligand CLA B 616



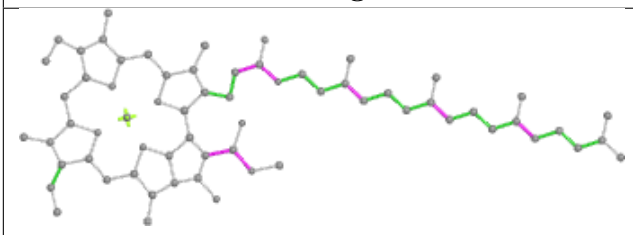
Ligand CLA c 511



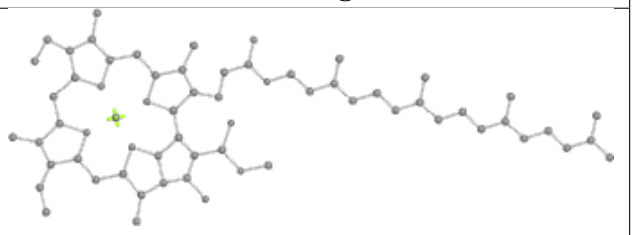
Bond lengths



Bond angles

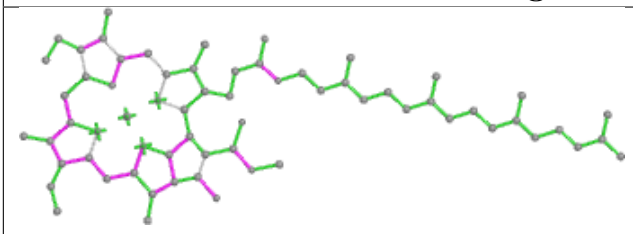


Torsions

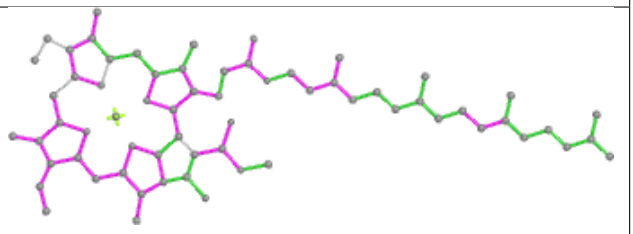


Rings

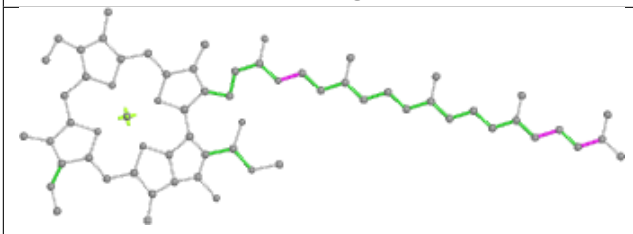
Ligand CLA b 608



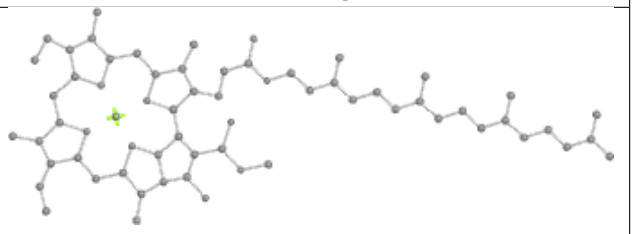
Bond lengths



Bond angles

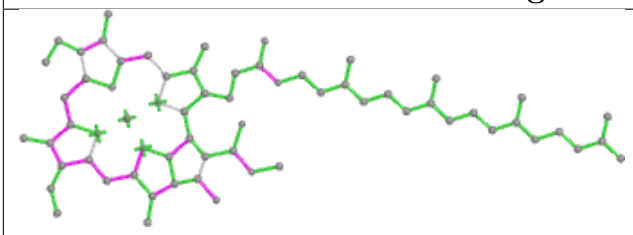


Torsions

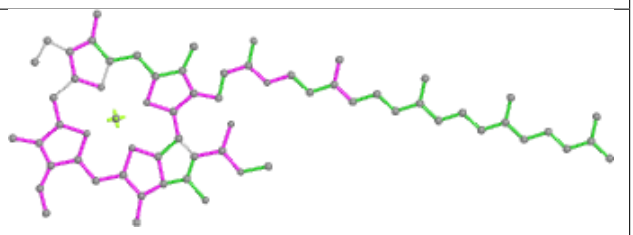


Rings

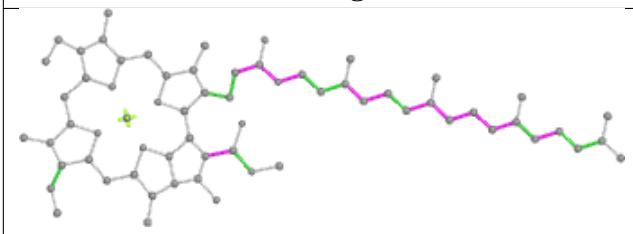
Ligand CLA b 601



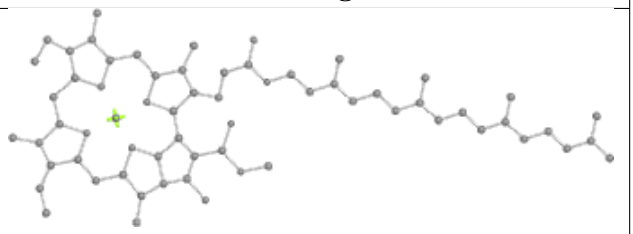
Bond lengths



Bond angles

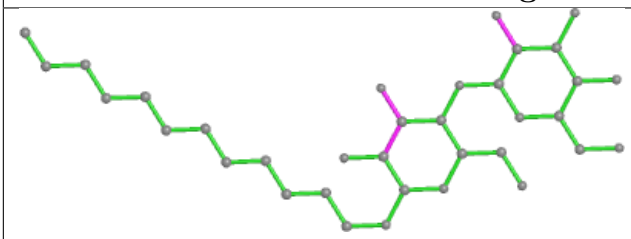


Torsions

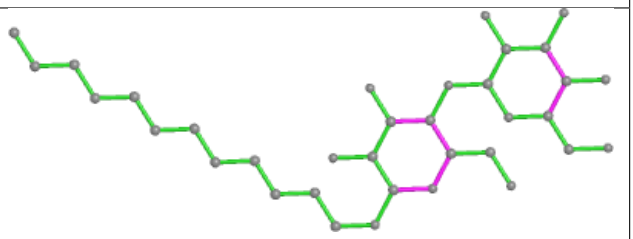


Rings

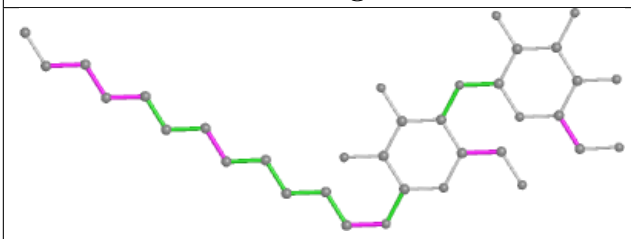
Ligand LMT m 103



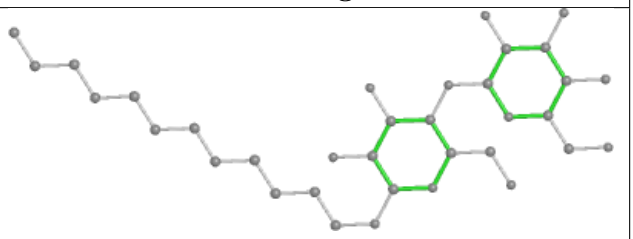
Bond lengths



Bond angles

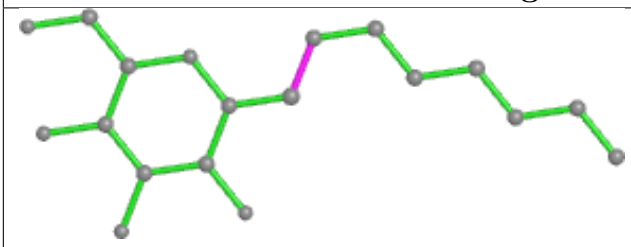


Torsions

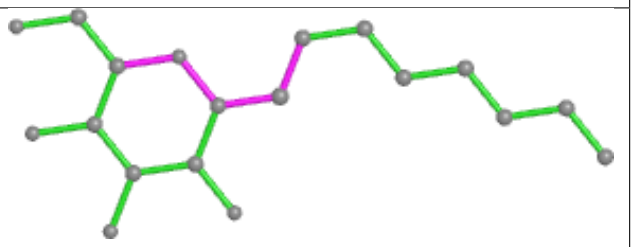


Rings

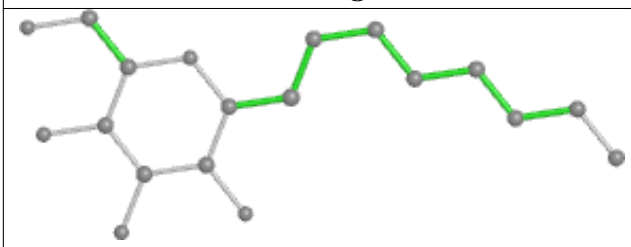
Ligand HTG C 522



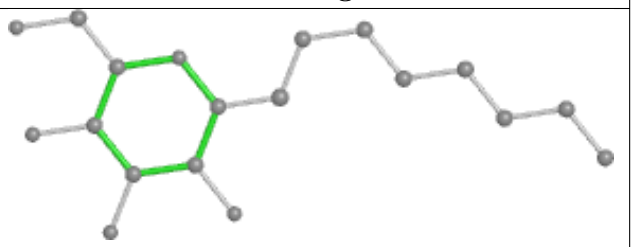
Bond lengths



Bond angles

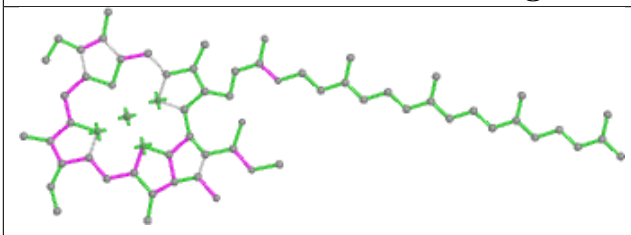


Torsions

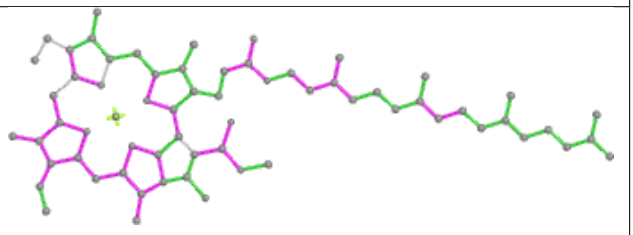


Rings

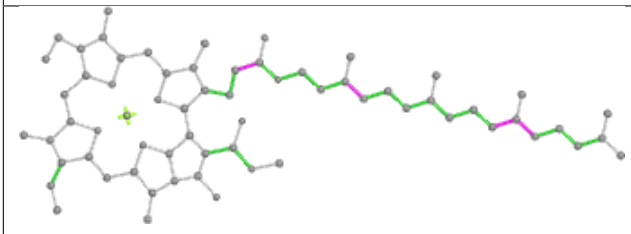
Ligand CLA C 506



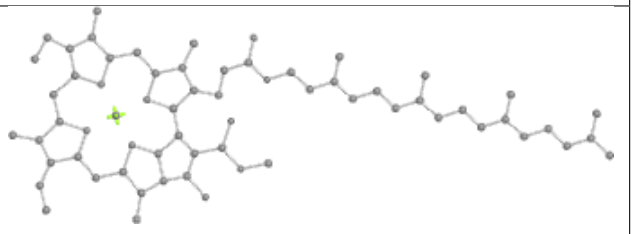
Bond lengths



Bond angles

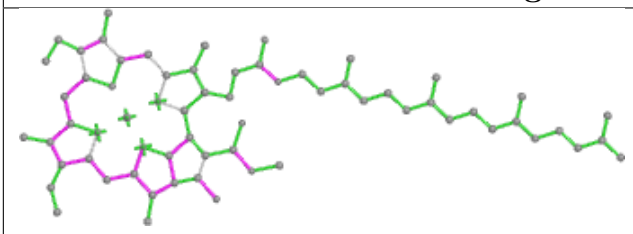


Torsions

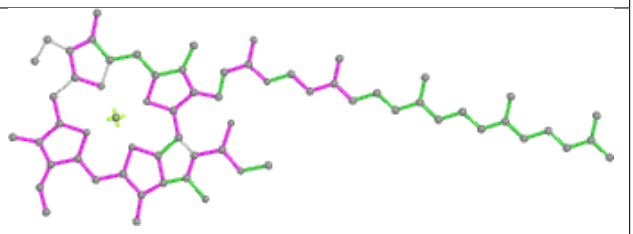


Rings

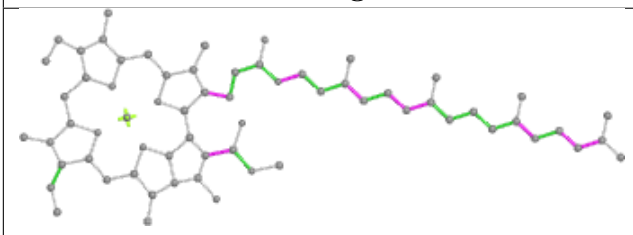
Ligand CLA C 507



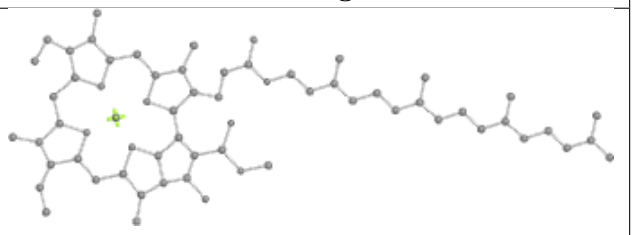
Bond lengths



Bond angles

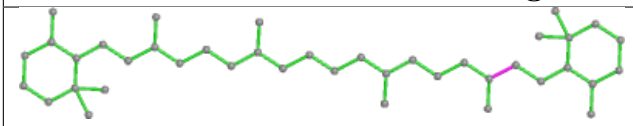


Torsions

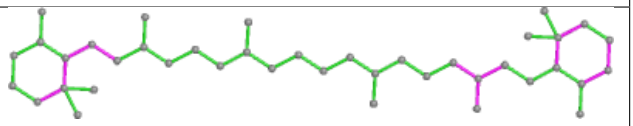


Rings

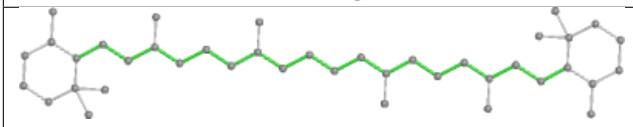
Ligand BCR b 618



Bond lengths



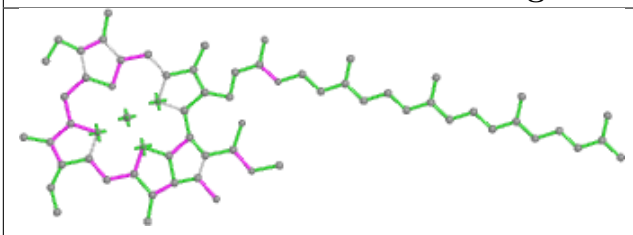
Bond angles



Torsions

Rings

Ligand CLA b 613



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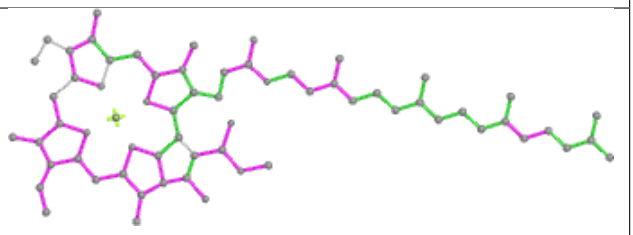
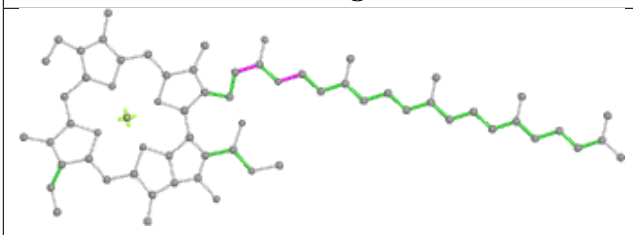
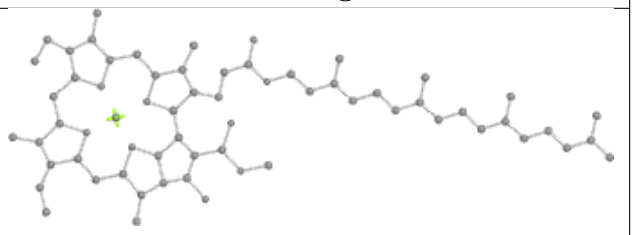


Bond angles

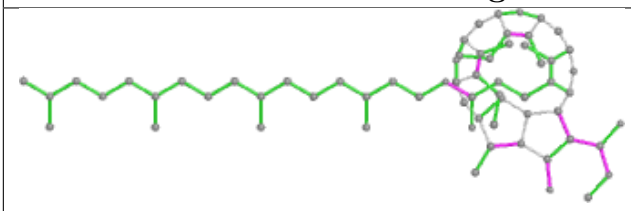


Torsions

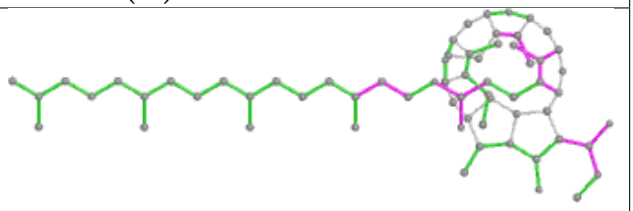


Rings

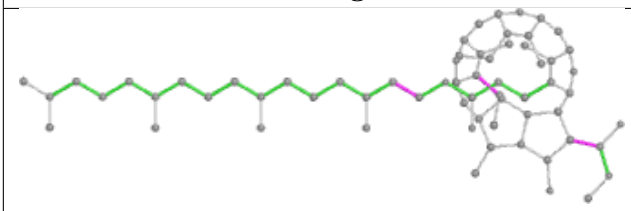
Ligand PHO D 401 (B)



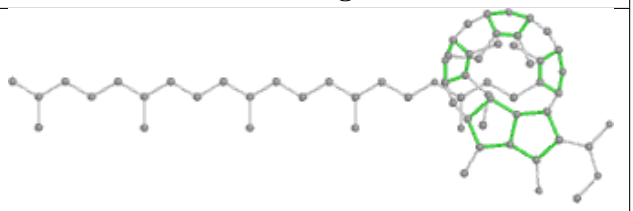
Bond lengths



Bond angles

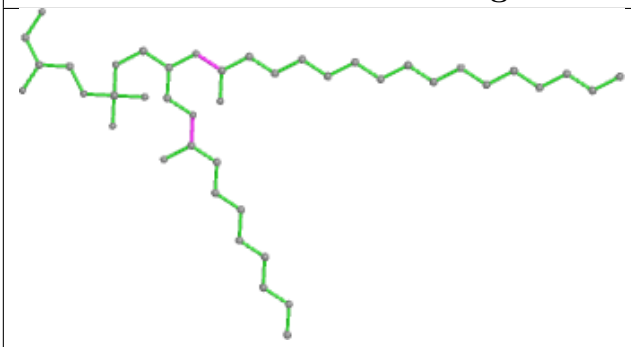


Torsions



Rings

Ligand LHG E 101 (A)



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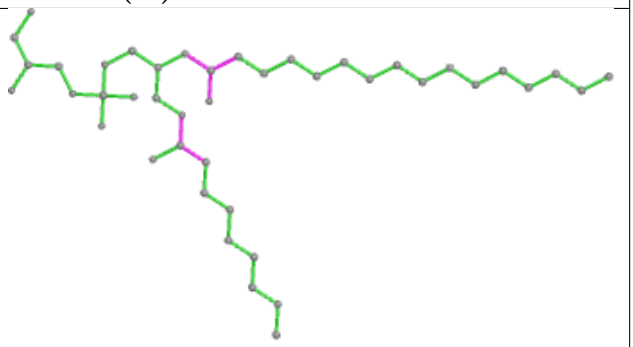
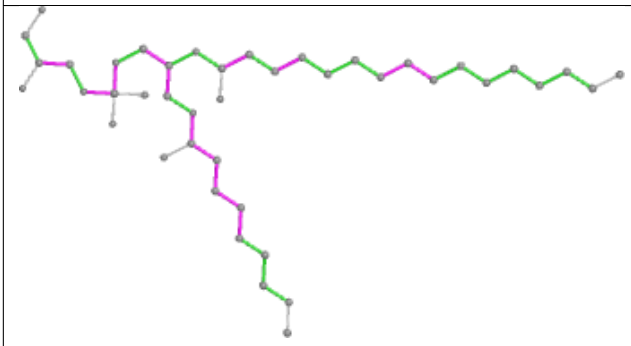
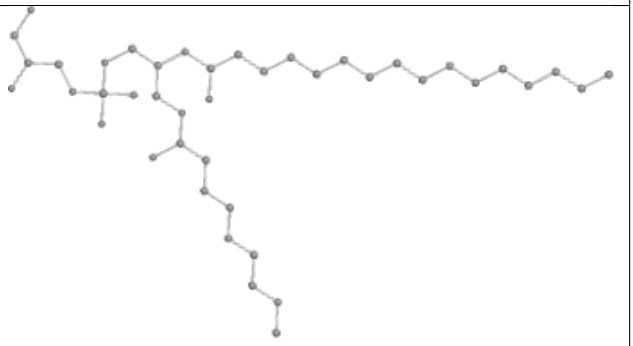


Bond angles

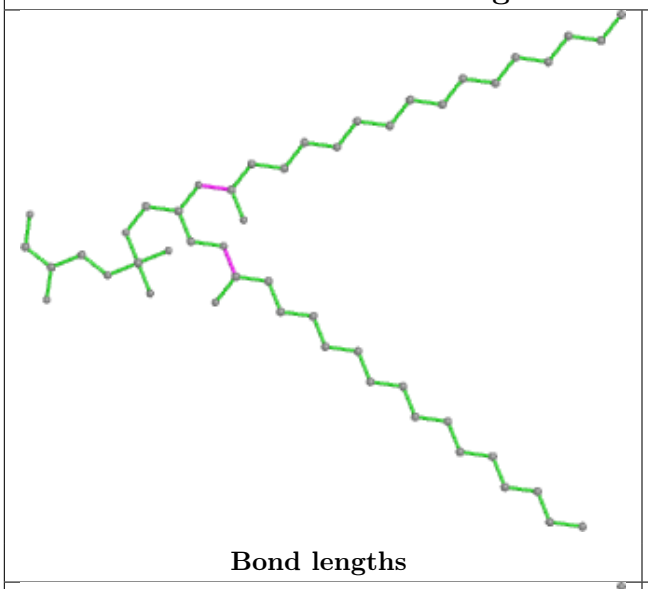


Torsions



Rings

Ligand LHG L 101 (A)



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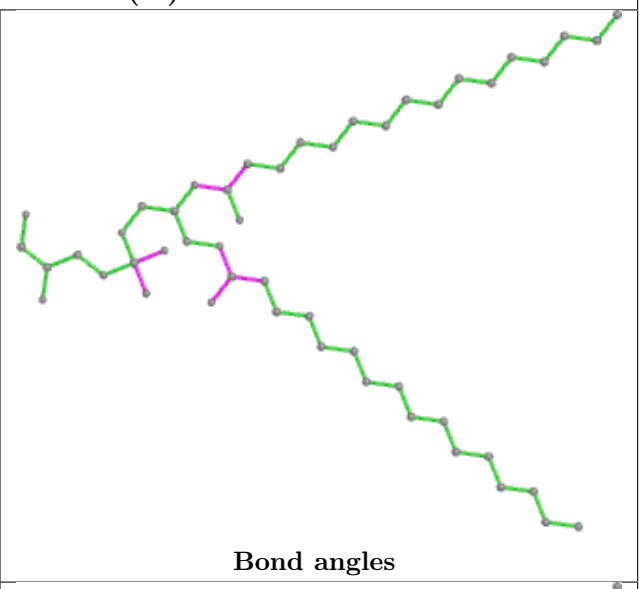
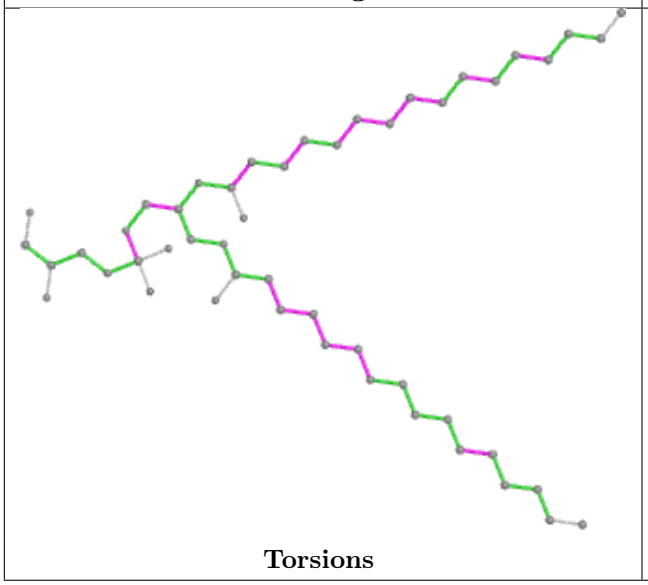
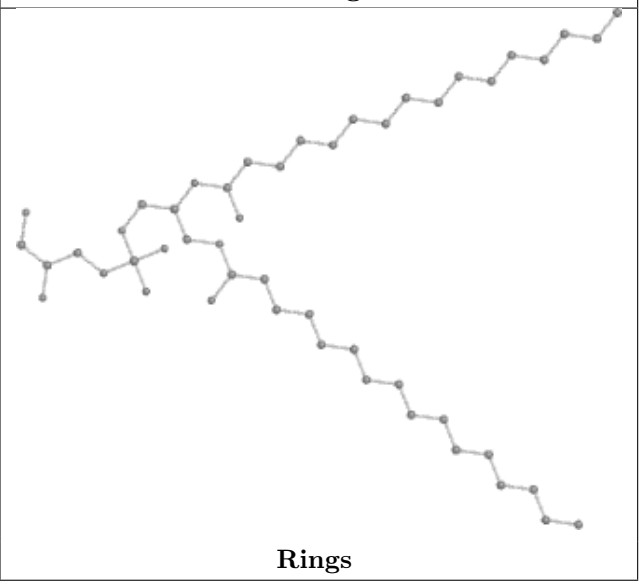


Bond angles

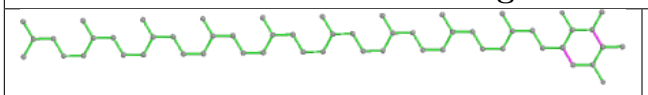


Torsions



Rings

Ligand PL9 D 406 (B)



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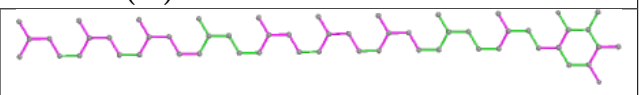
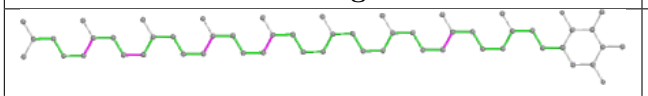
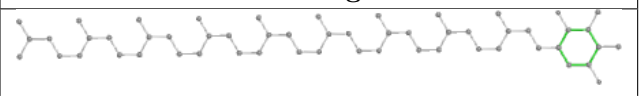


Bond angles

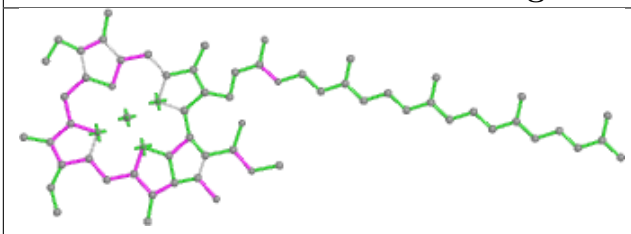


Torsions

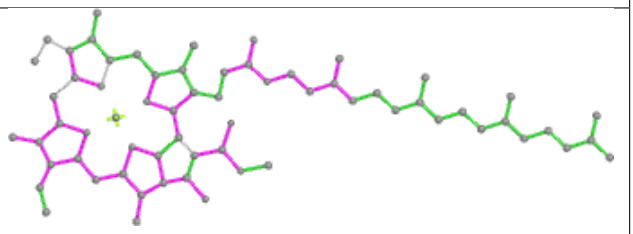


Rings

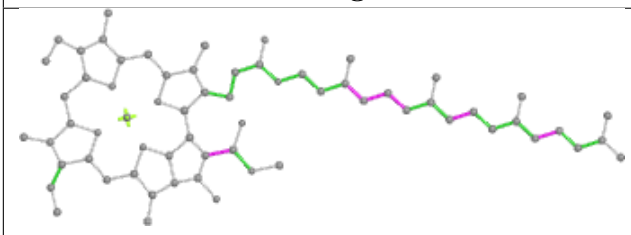
Ligand CLA b 605



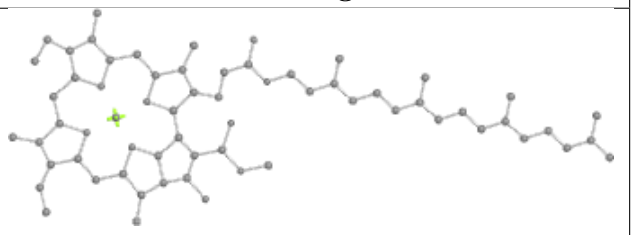
Bond lengths



Bond angles

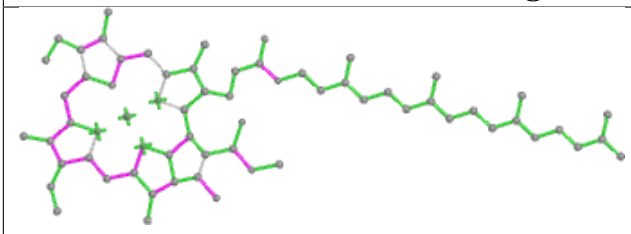


Torsions

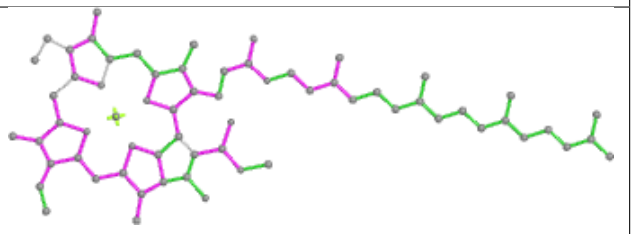


Rings

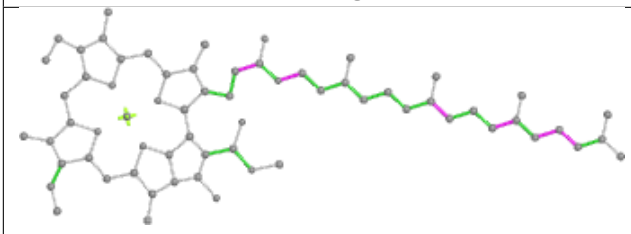
Ligand CLA B 613



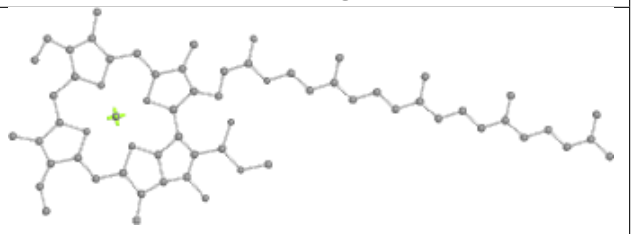
Bond lengths



Bond angles

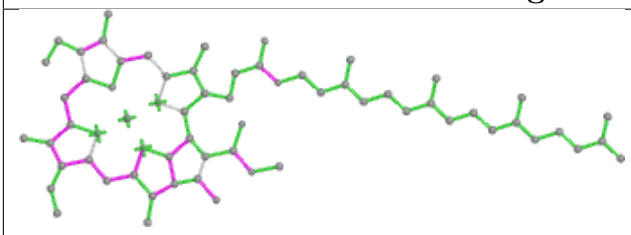


Torsions



Rings

Ligand CLA b 603



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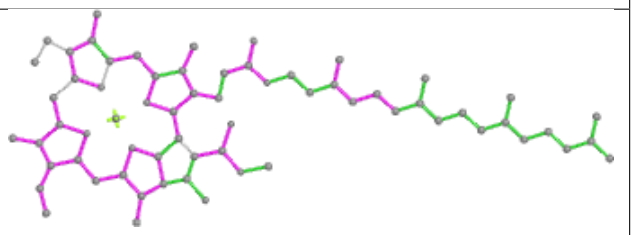
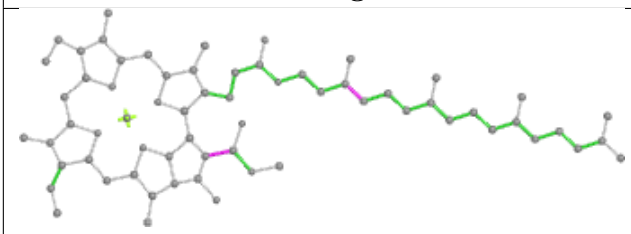
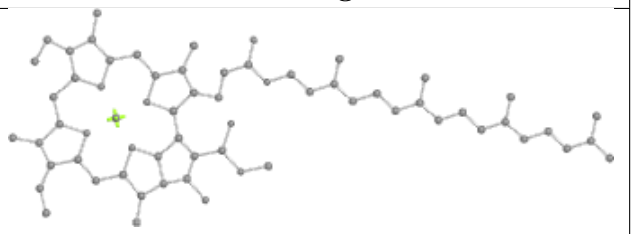


Bond angles

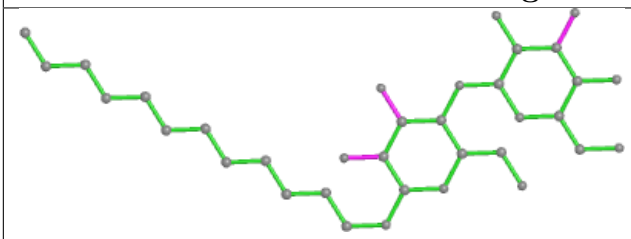


Torsions

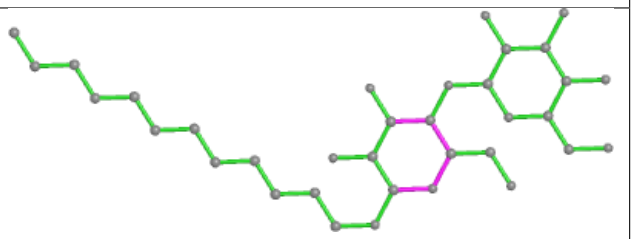


Rings

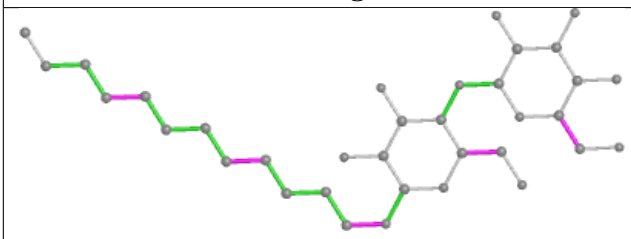
Ligand LMT T 101



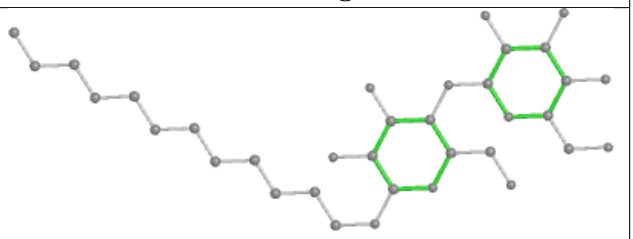
Bond lengths



Bond angles

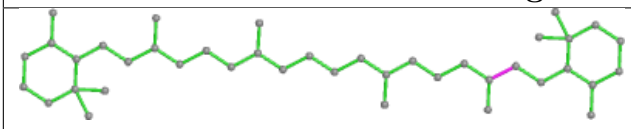


Torsions

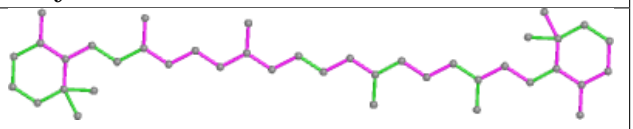


Rings

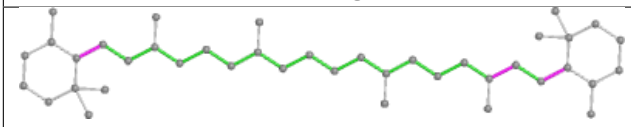
Ligand BCR y 101



Bond lengths



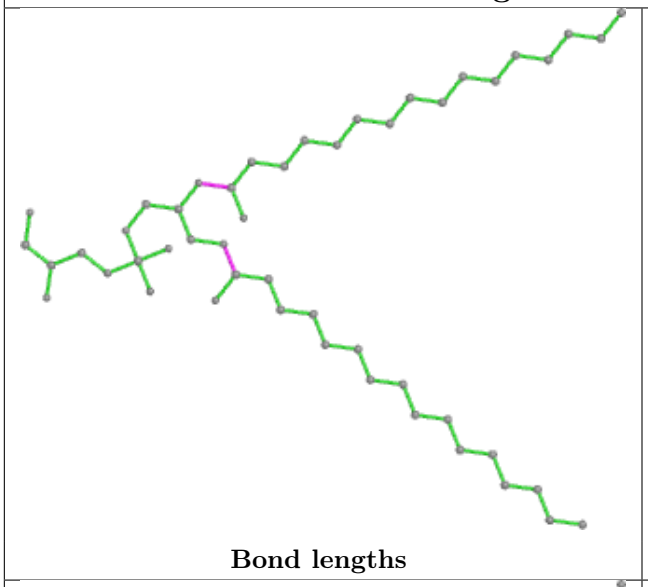
Bond angles



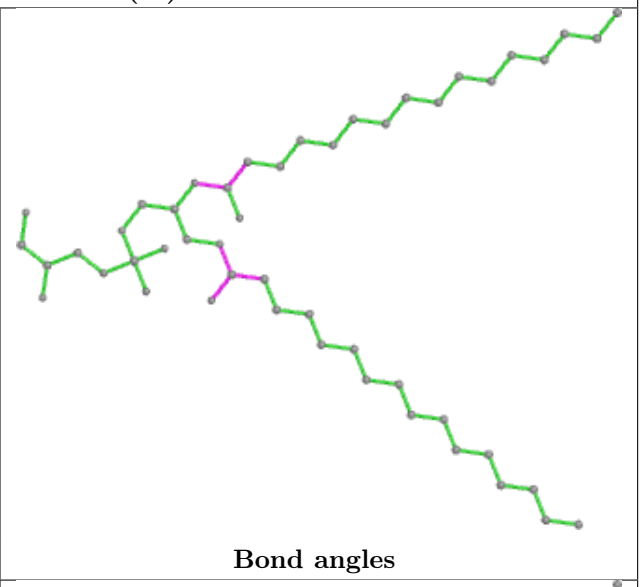
Torsions

Rings

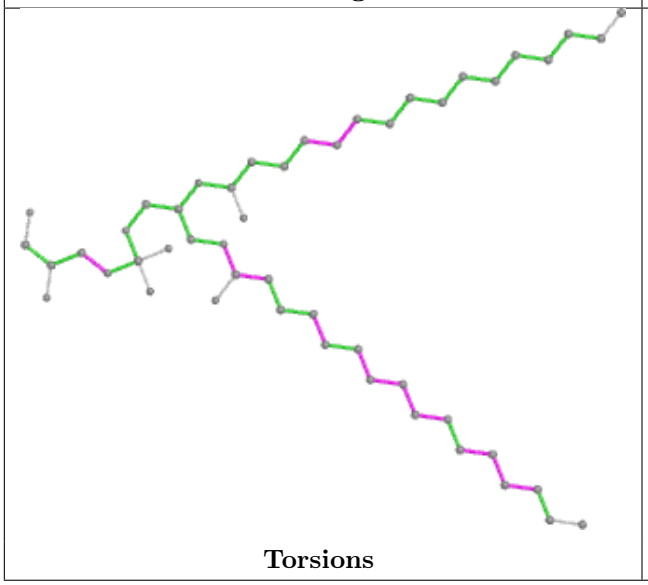
Ligand LHG d 408 (A)



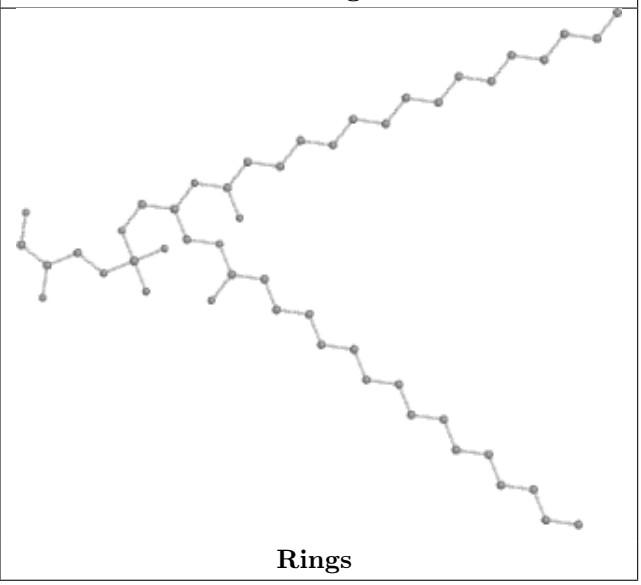
Bond lengths



Bond angles

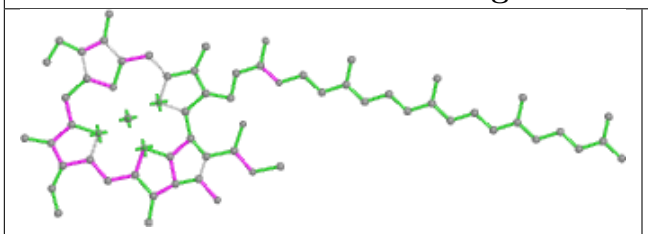


Torsions

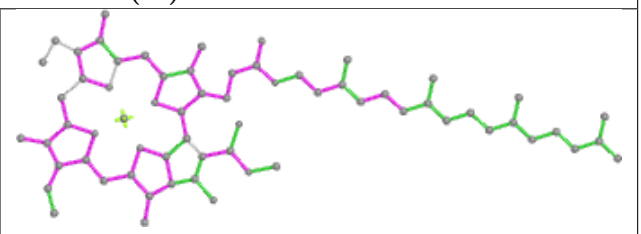


Rings

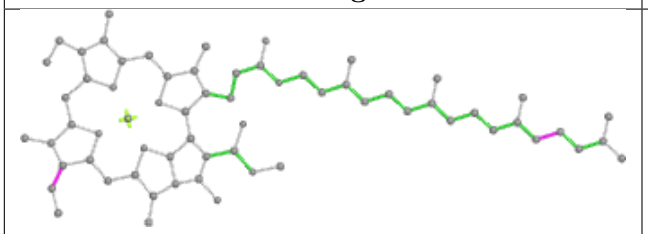
Ligand CLA A 404 (A)



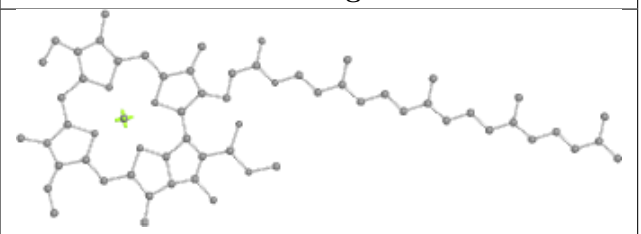
Bond lengths



Bond angles

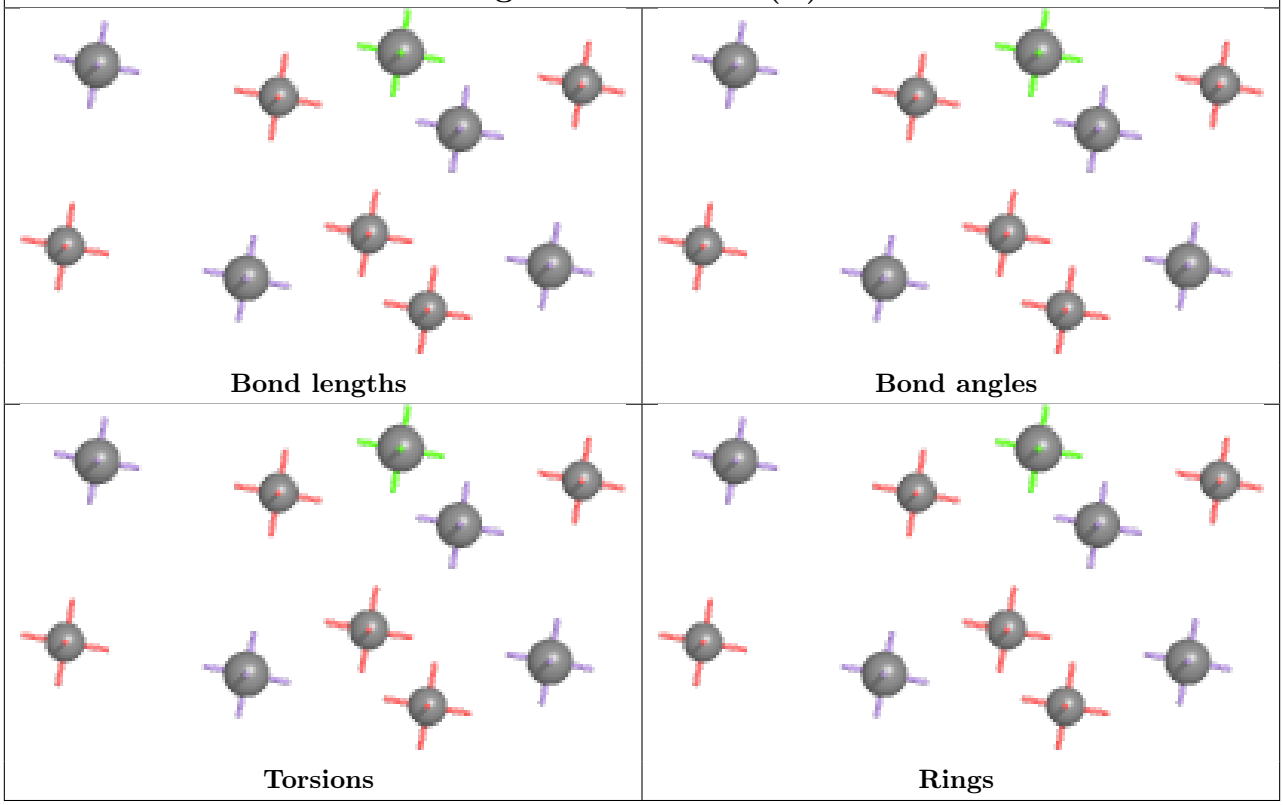


Torsions

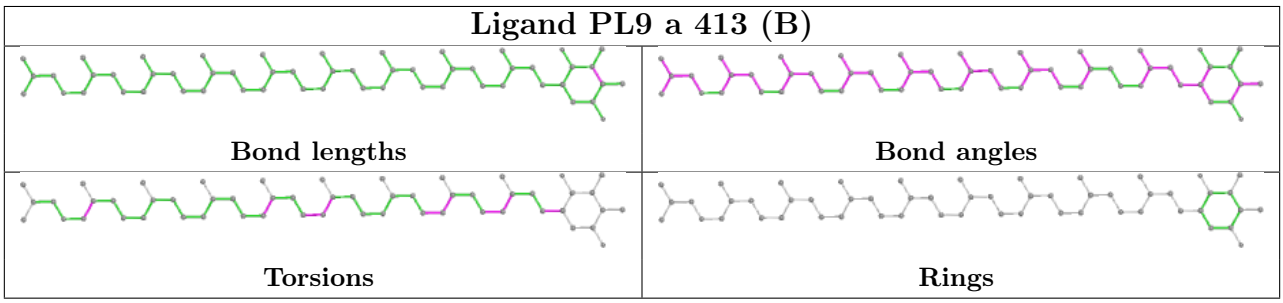


Rings

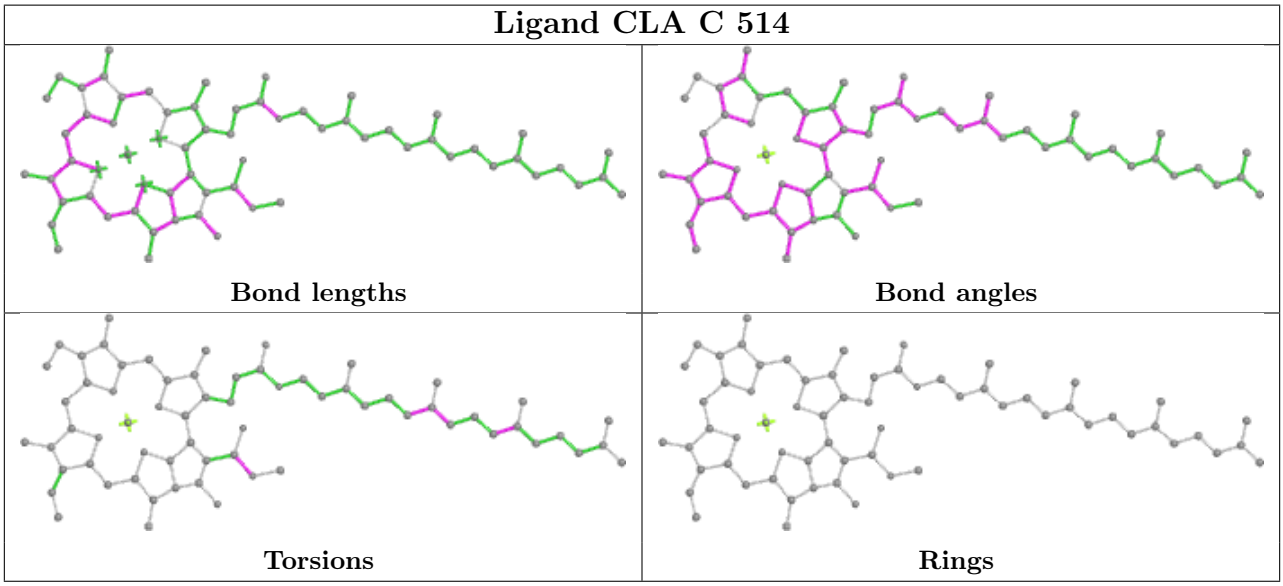
Ligand OEX a 412 (B)



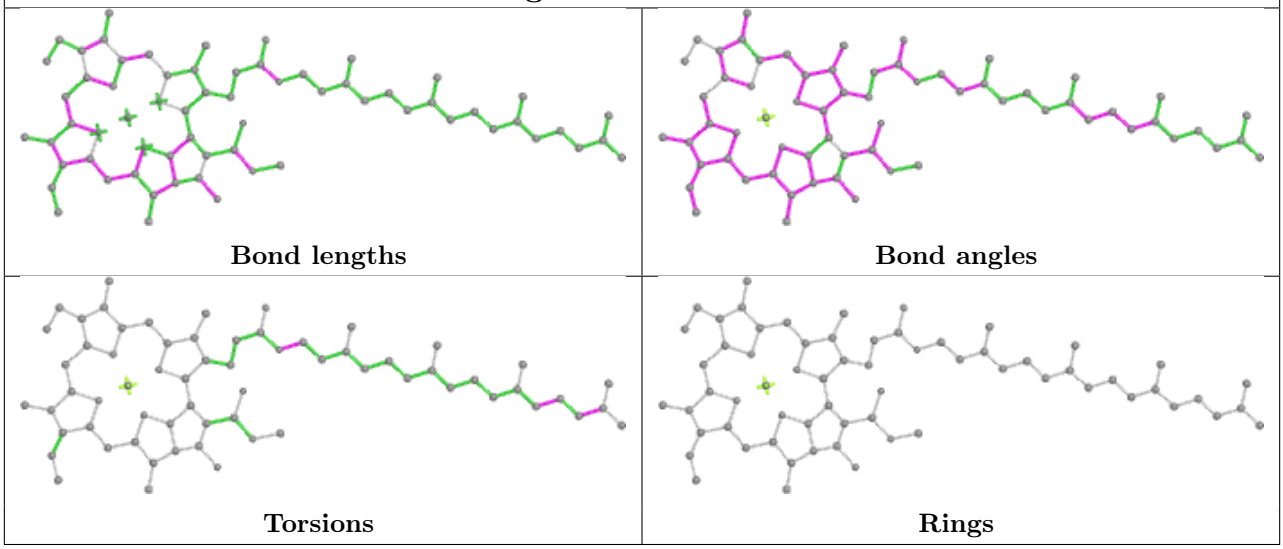
Ligand PL9 a 413 (B)



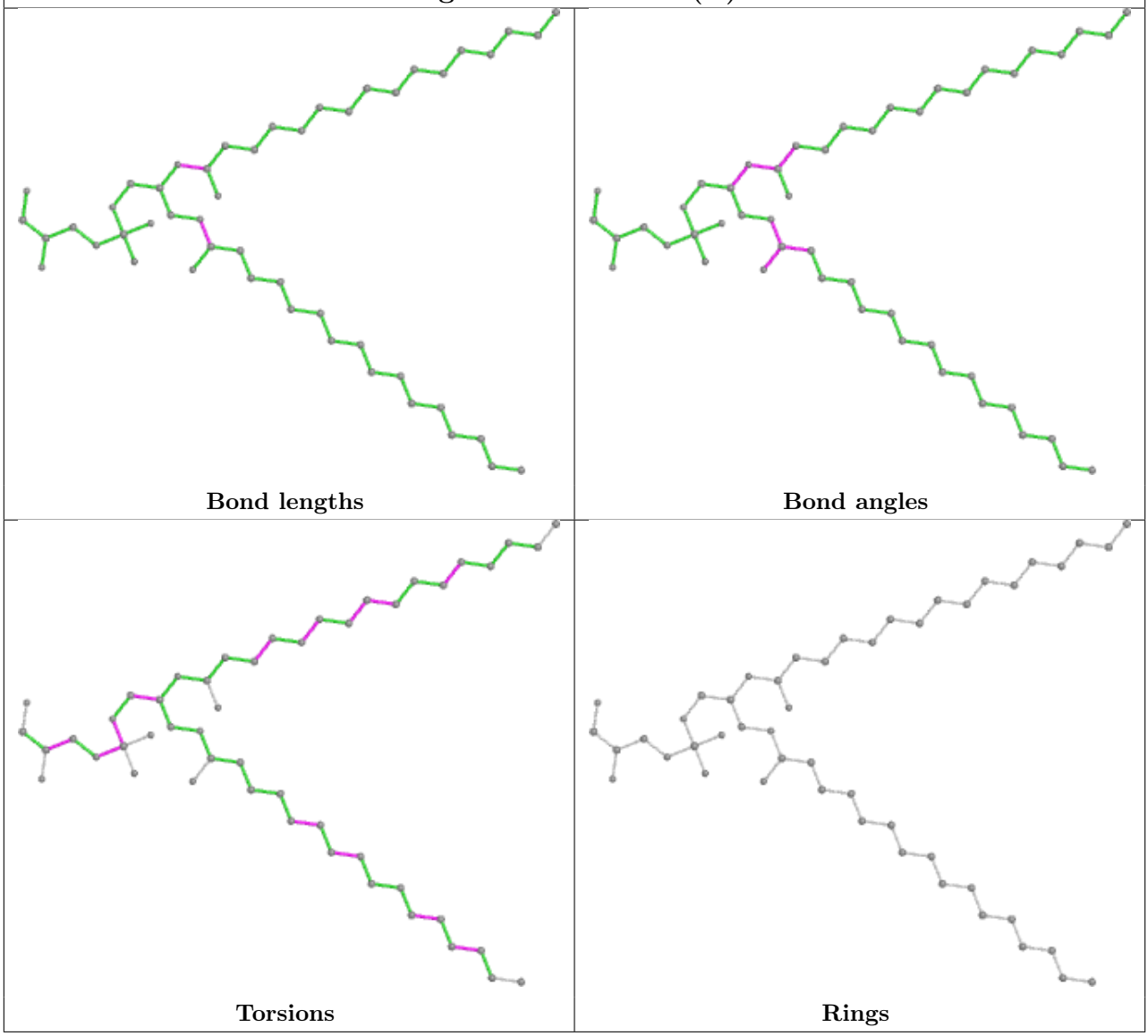
Ligand CLA C 514



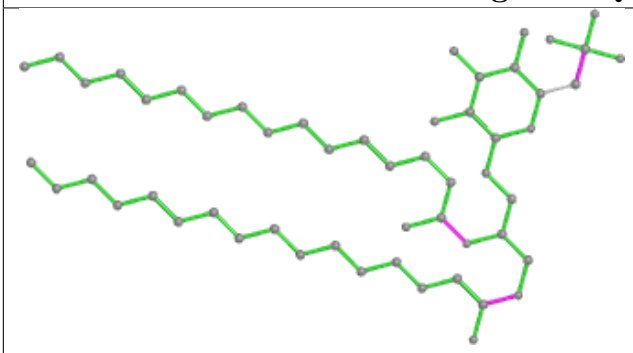
Ligand CLA B 608



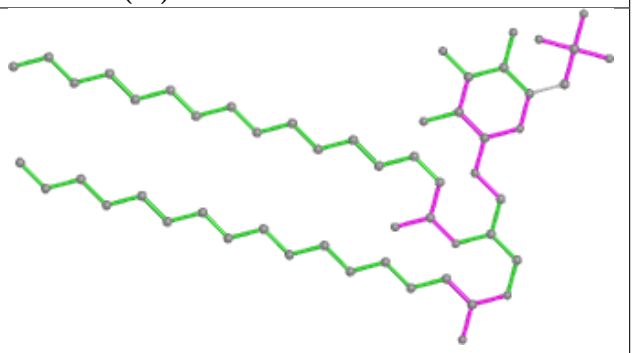
Ligand LHG D 407 (B)



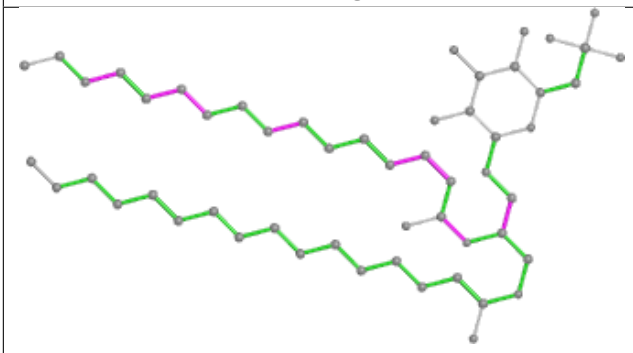
Ligand SQD A 409 (B)



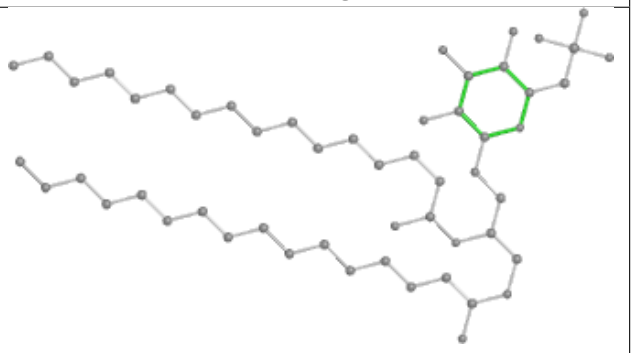
Bond lengths



Bond angles

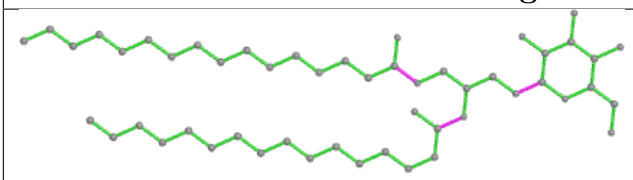


Torsions

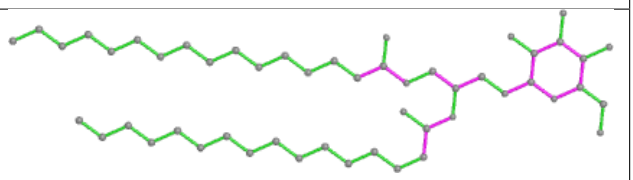


Rings

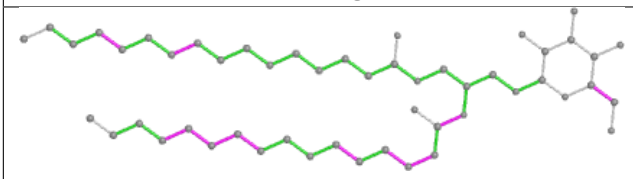
Ligand LMG C 521



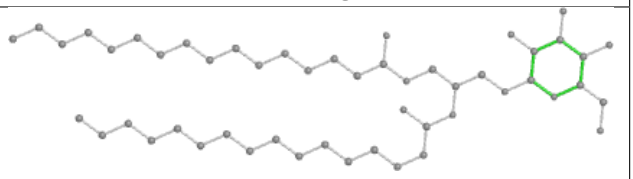
Bond lengths



Bond angles

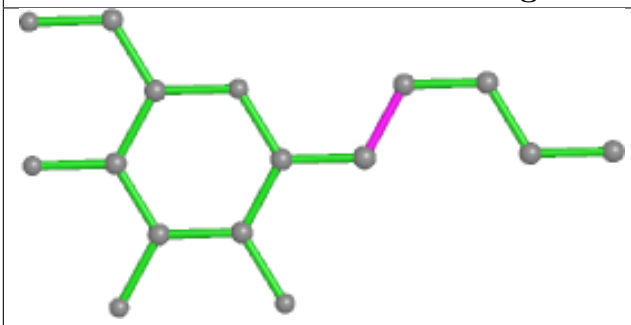


Torsions

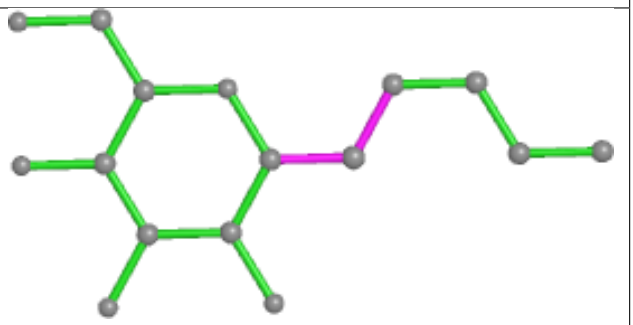


Rings

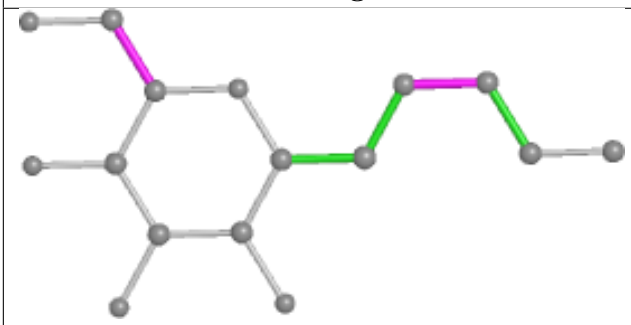
Ligand HTG D 411



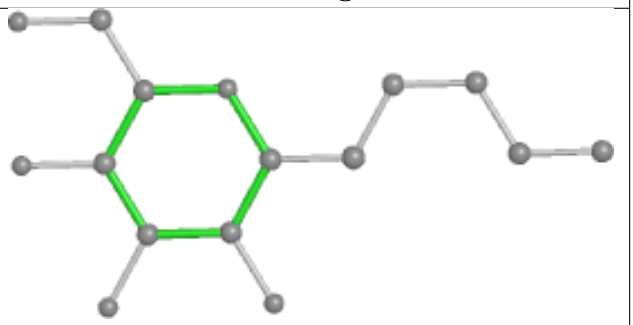
Bond lengths



Bond angles

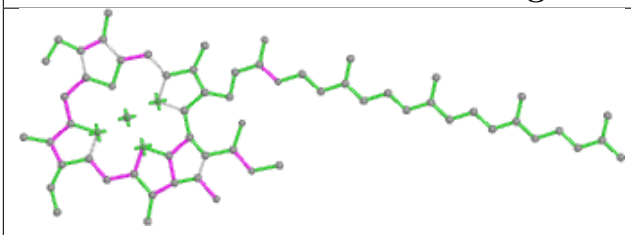


Torsions

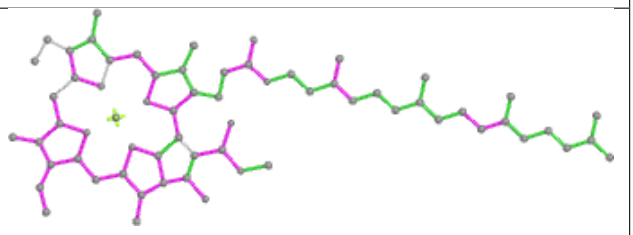


Rings

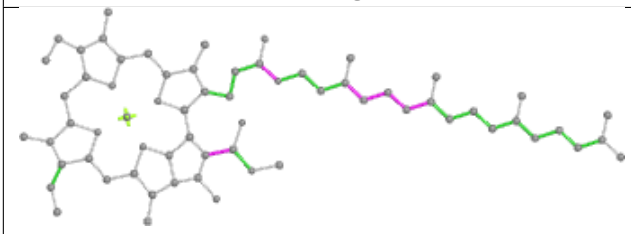
Ligand CLA b 616



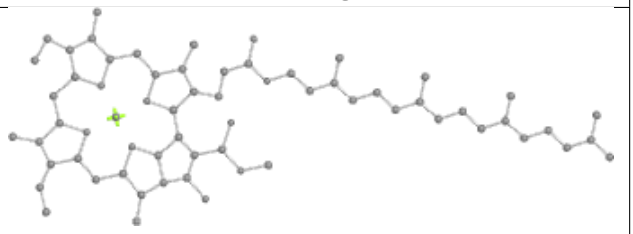
Bond lengths



Bond angles

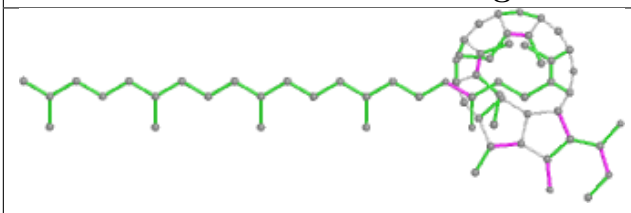


Torsions

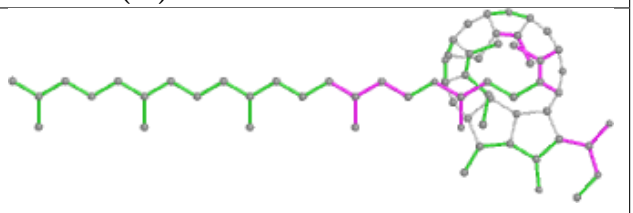


Rings

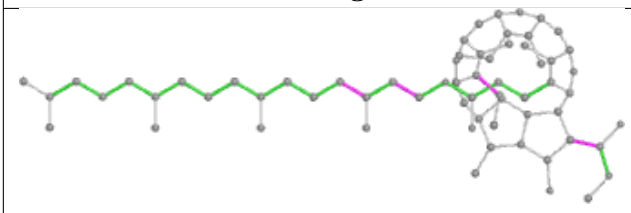
Ligand PHO a 406 (B)



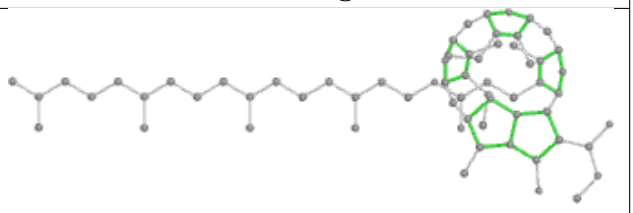
Bond lengths



Bond angles

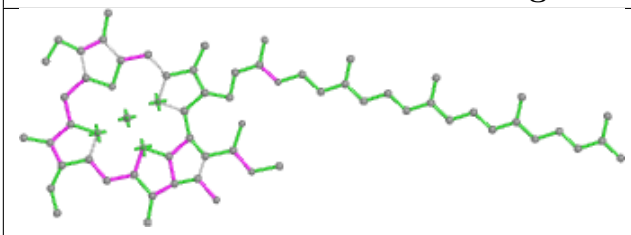


Torsions

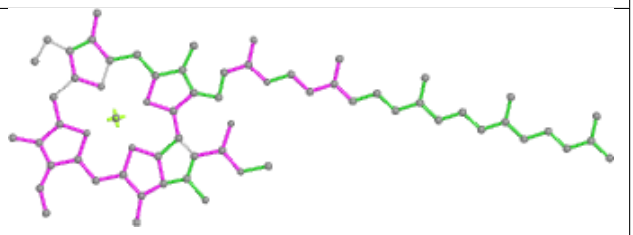


Rings

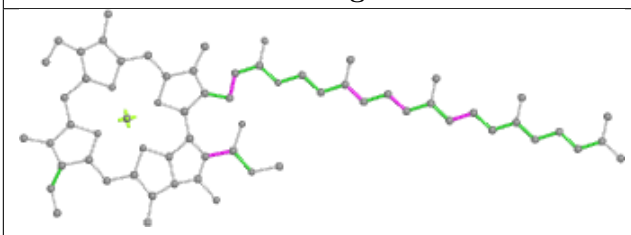
Ligand CLA c 508



Bond lengths



Bond angles



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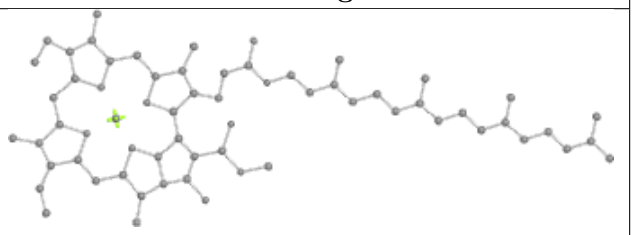
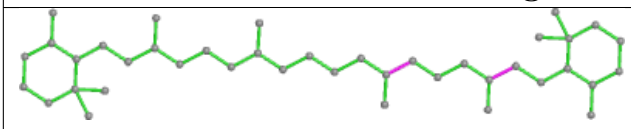
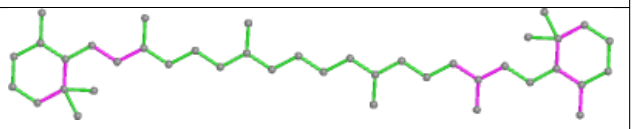


Rings

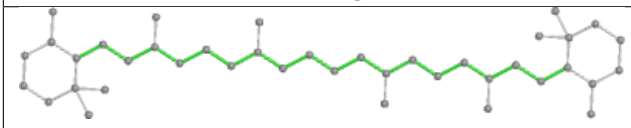
Ligand BCR B 618



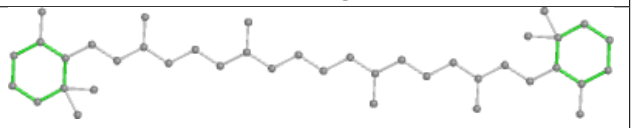
Bond lengths



Bond angles

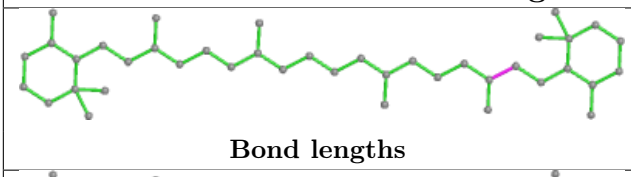


Torsions

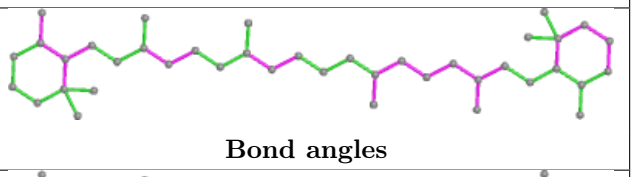


Rings

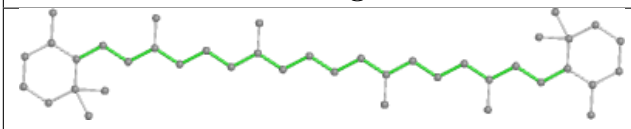
Ligand BCR t 102



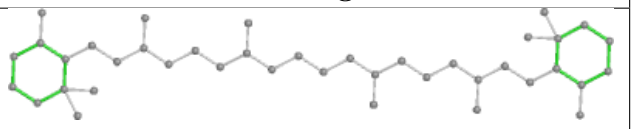
Bond lengths



Bond angles

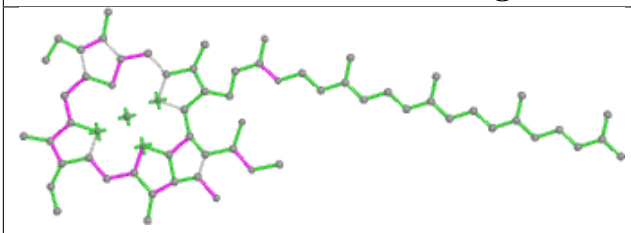


Torsions



Rings

Ligand CLA d 402 (A)



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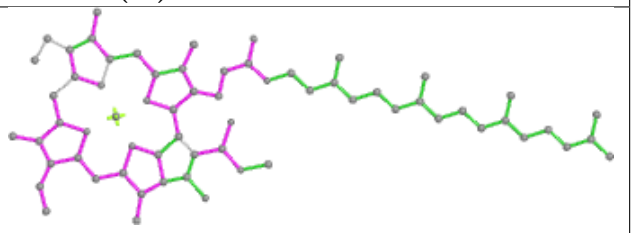
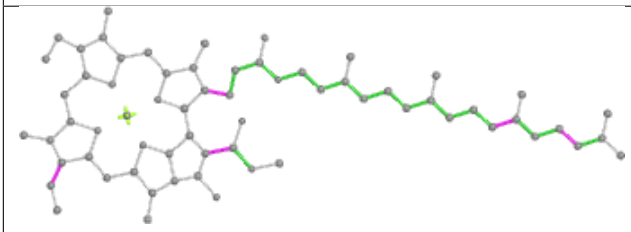
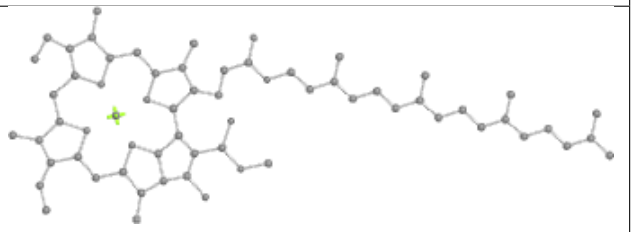


Bond angles

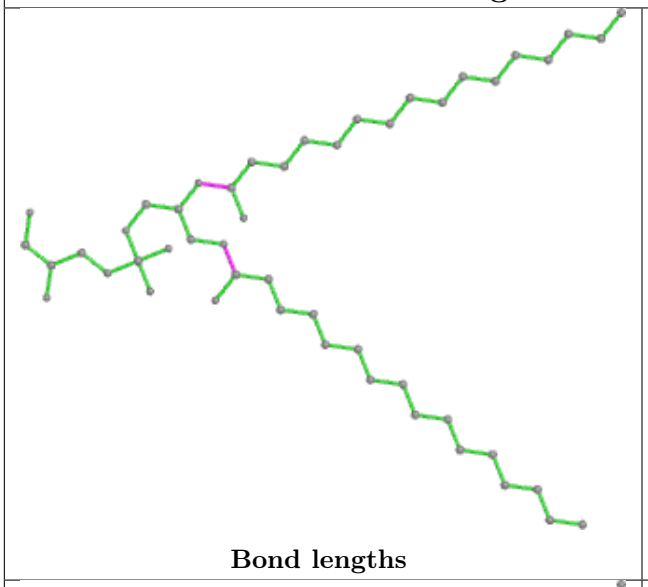


Torsions



Rings

Ligand LHG D 408 (B)



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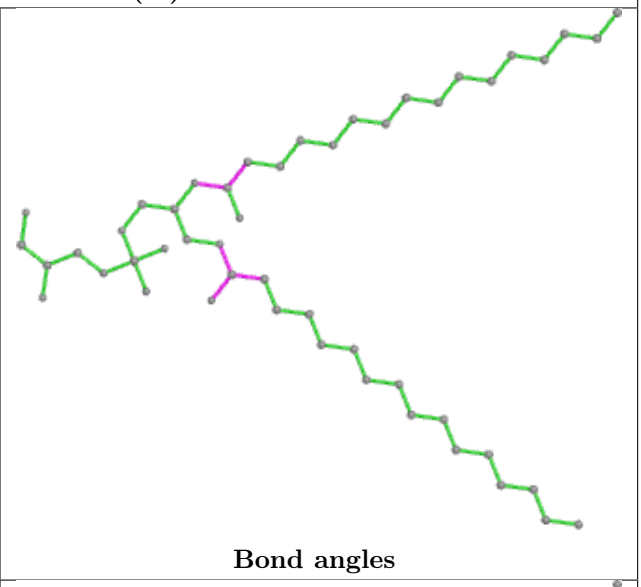
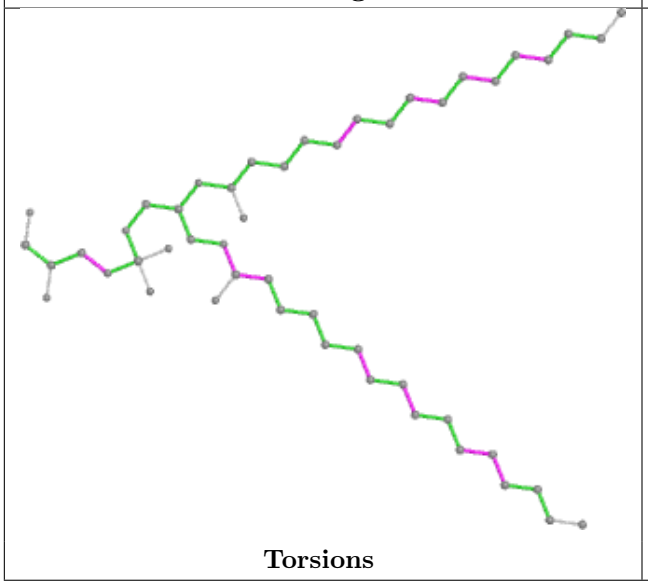
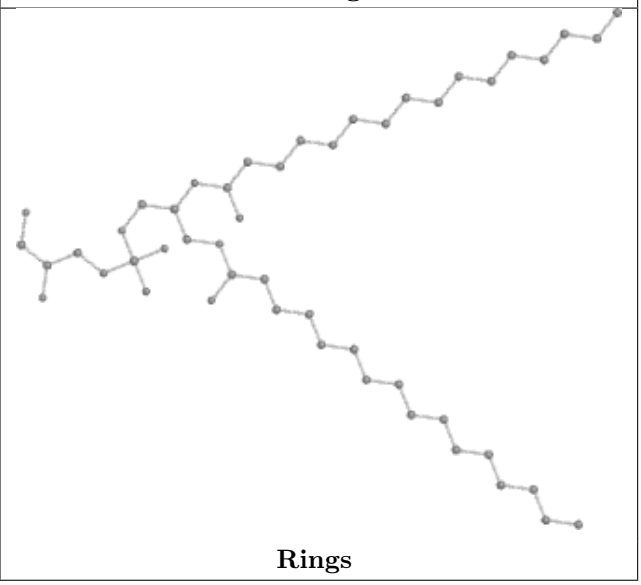


Bond angles

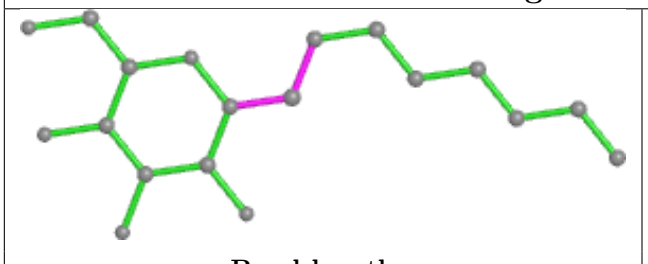


Torsions

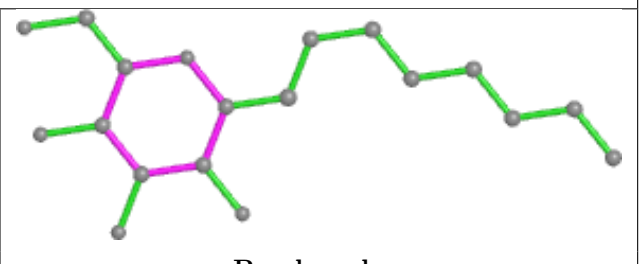


Rings

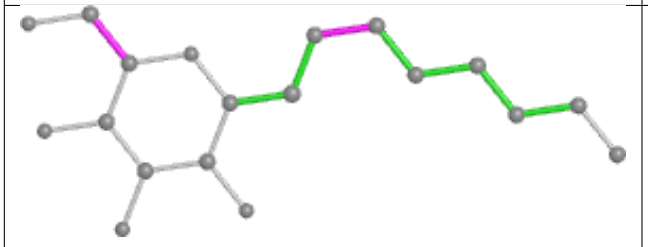
Ligand HTG b 625



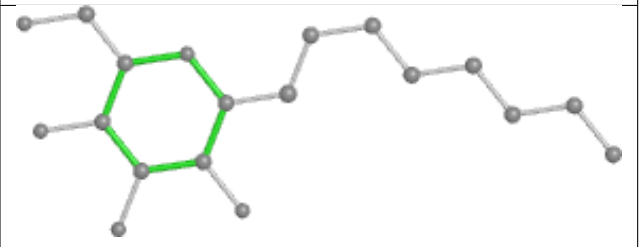
Bond lengths



Bond angles

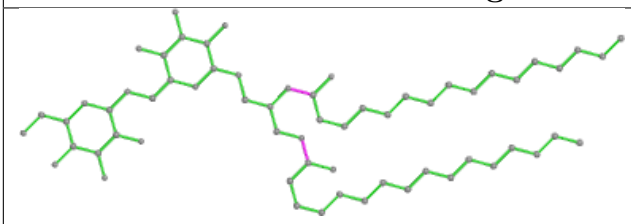


Torsions

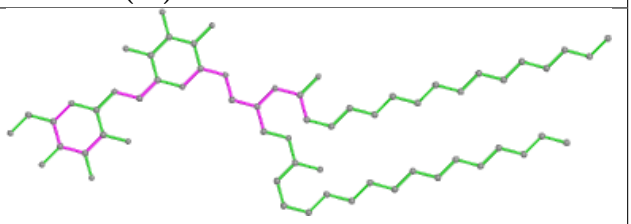


Rings

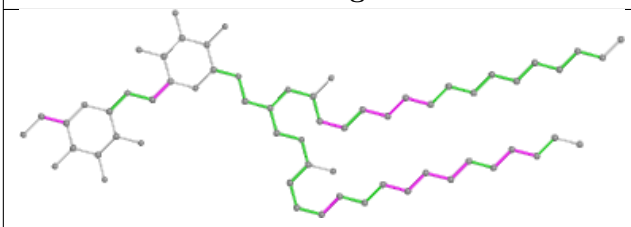
Ligand DGD C 517 (A)



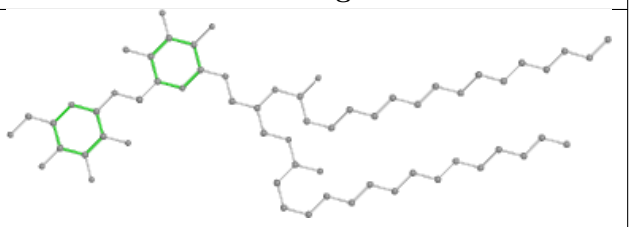
Bond lengths



Bond angles

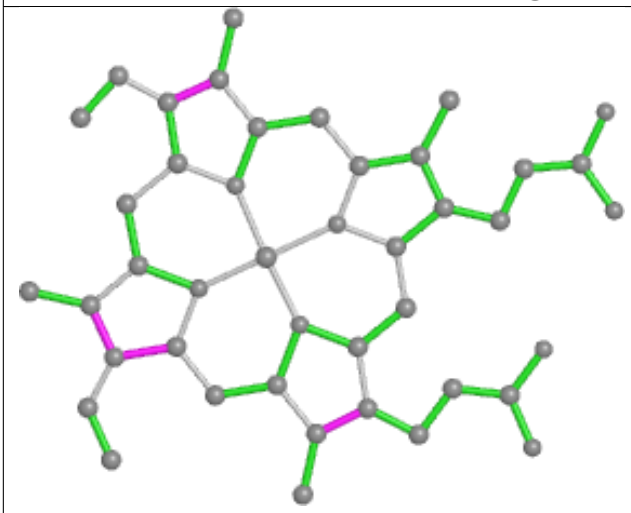


Torsions

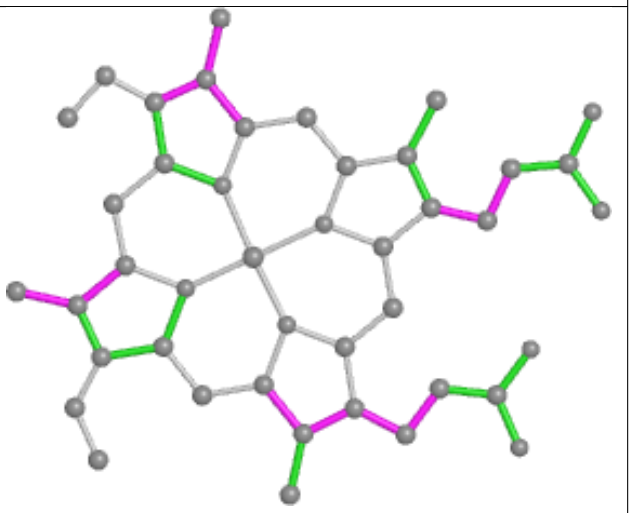


Rings

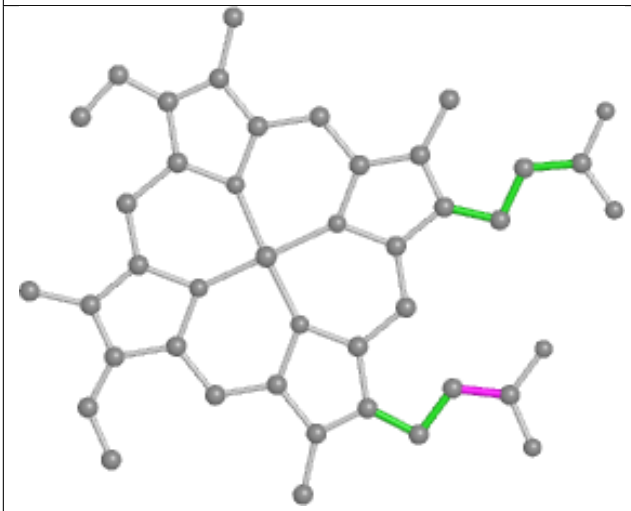
Ligand HEC v 201



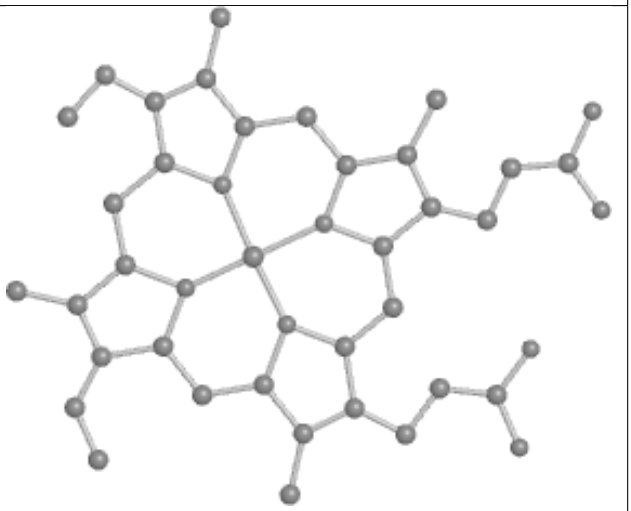
Bond lengths



Bond angles

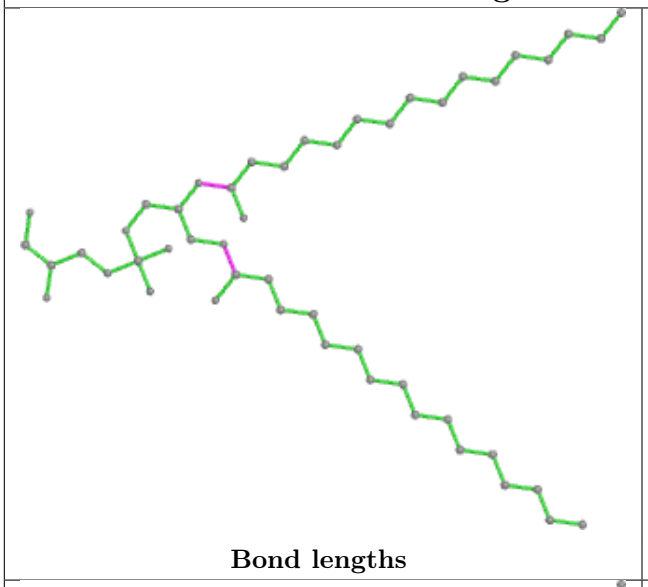


Torsions

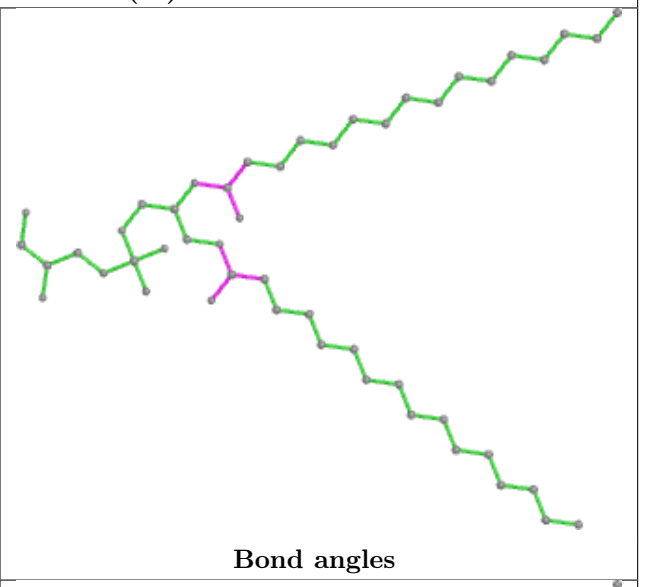


Rings

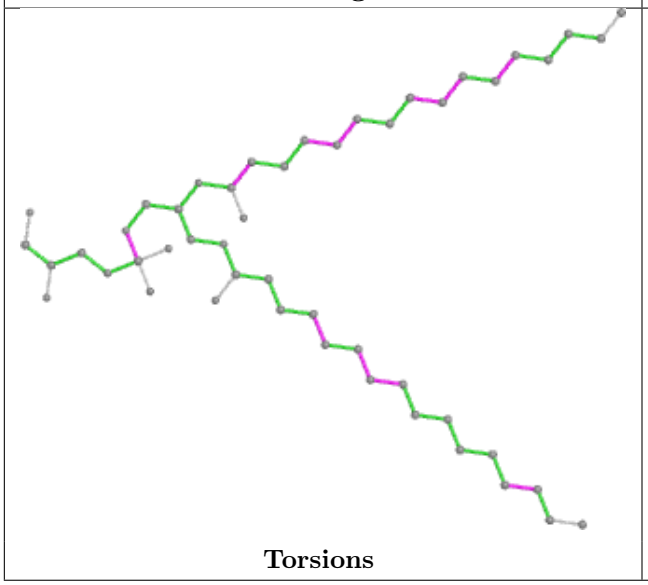
Ligand LHG b 629 (A)



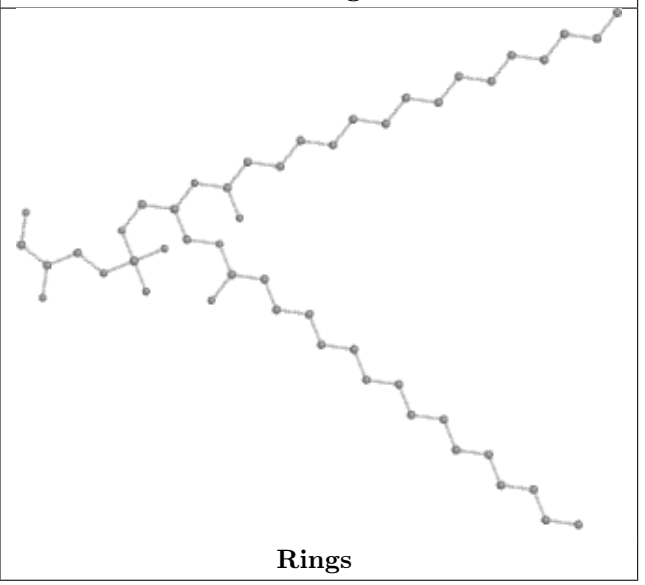
Bond lengths



Bond angles

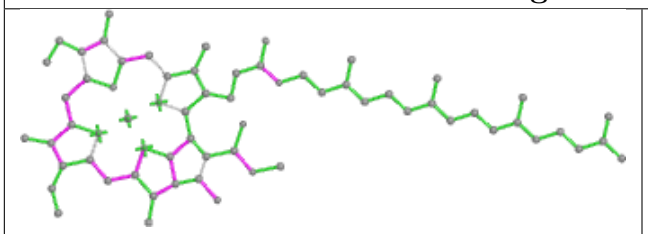


Torsions

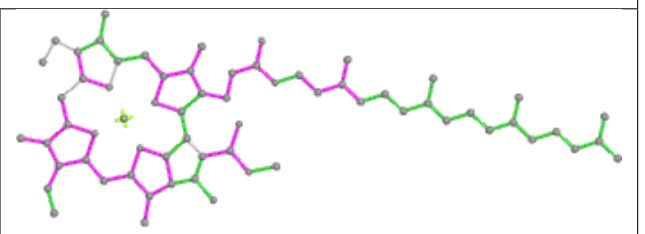


Rings

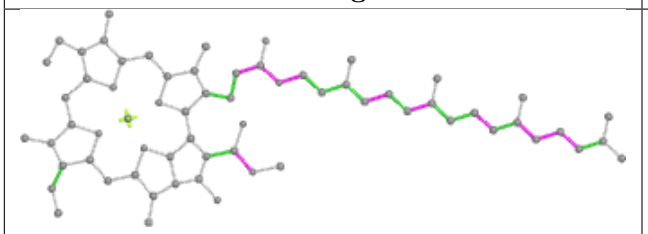
Ligand CLA c 513



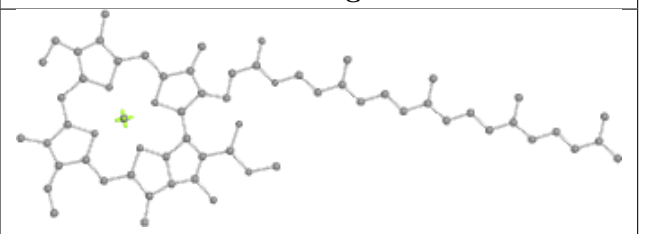
Bond lengths



Bond angles

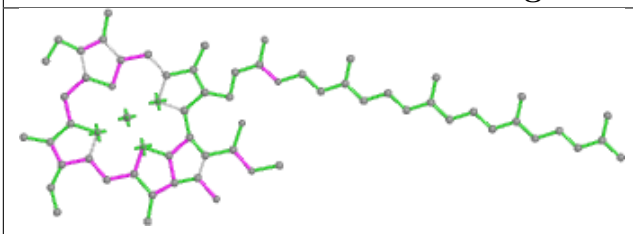


Torsions

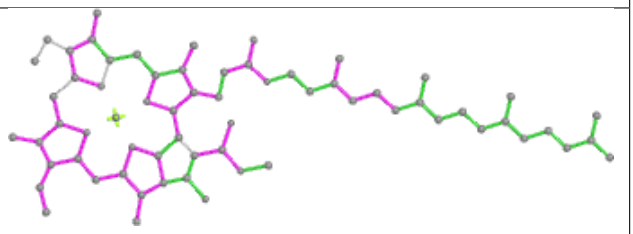


Rings

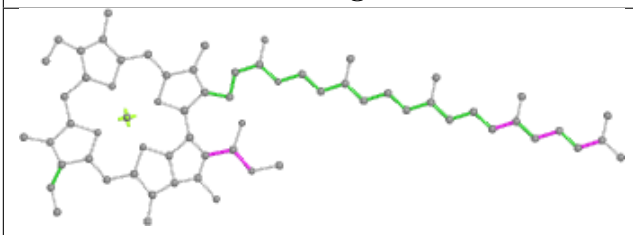
Ligand CLA B 603



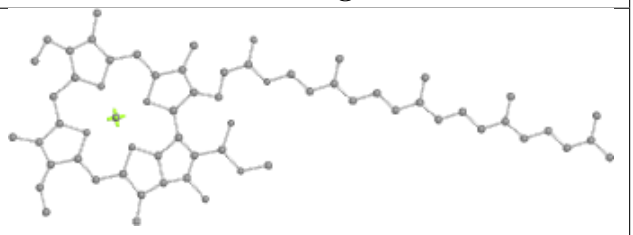
Bond lengths



Bond angles

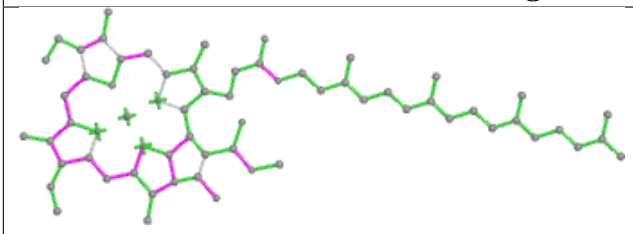


Torsions



Rings

Ligand CLA B 610



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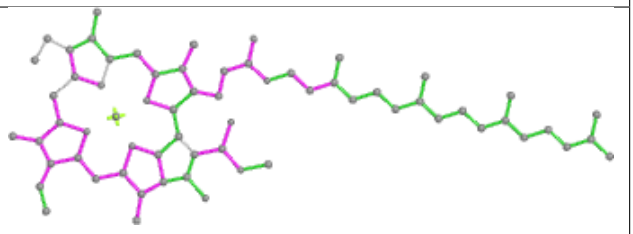
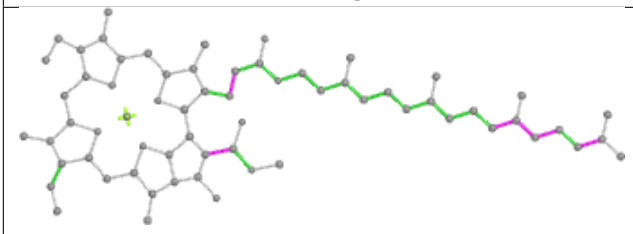
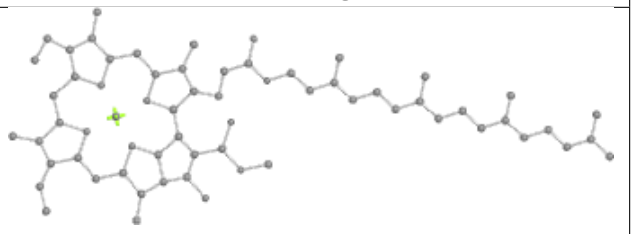


Bond angles

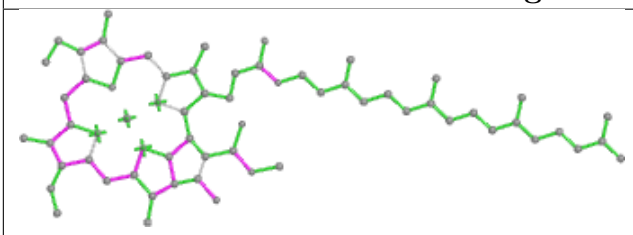


Torsions

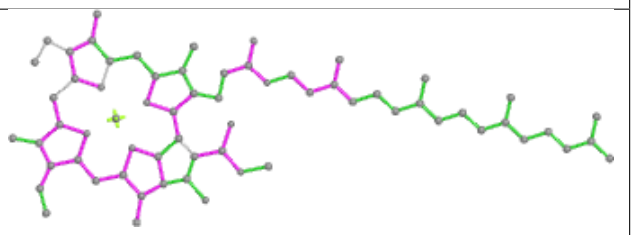


Rings

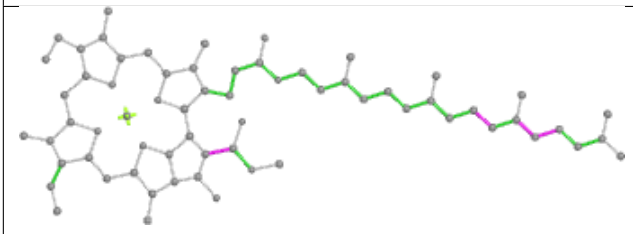
Ligand CLA C 509



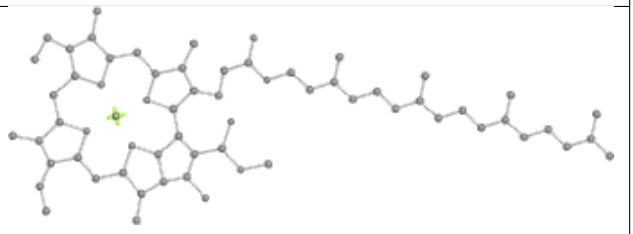
Bond lengths



Bond angles

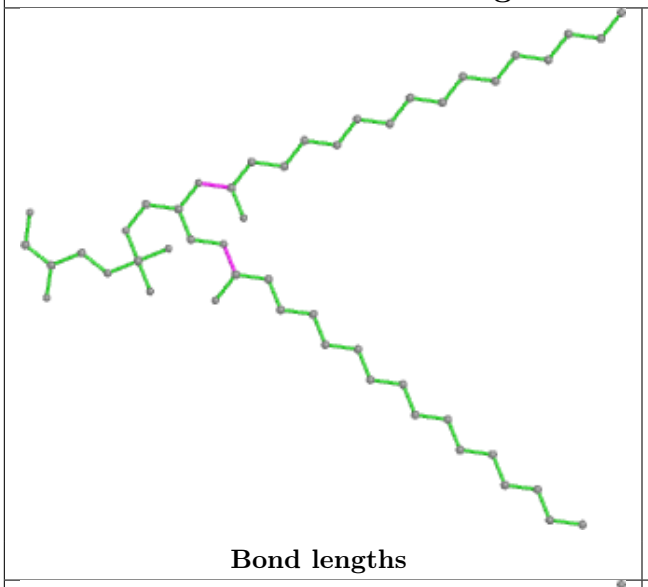


Torsions

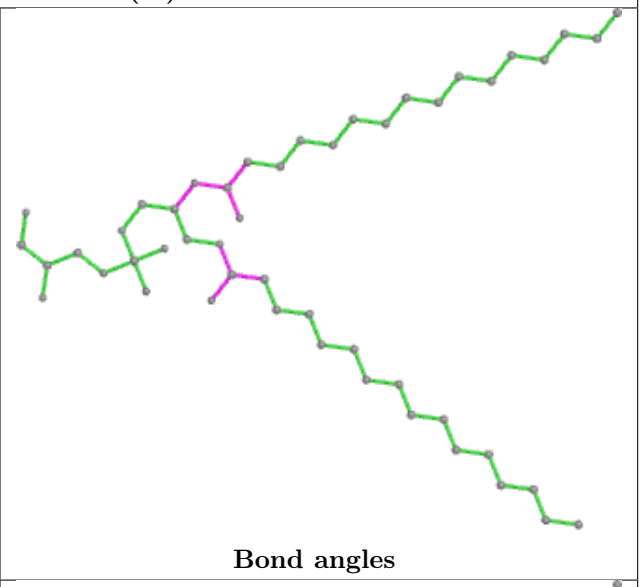


Rings

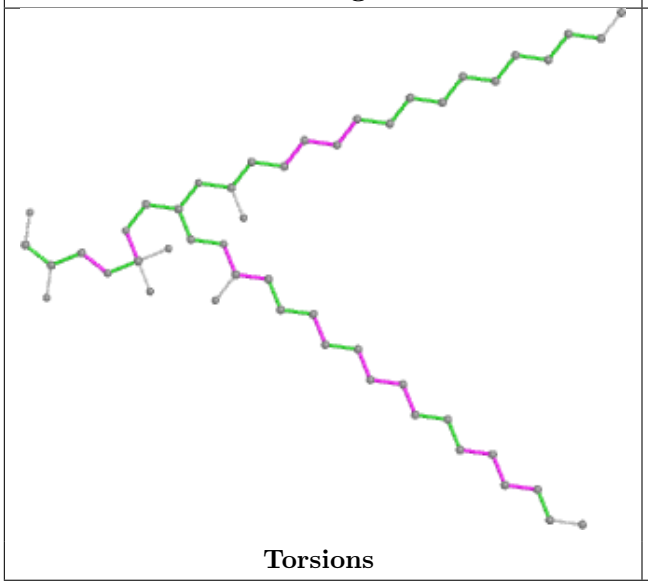
Ligand LHG d 408 (B)



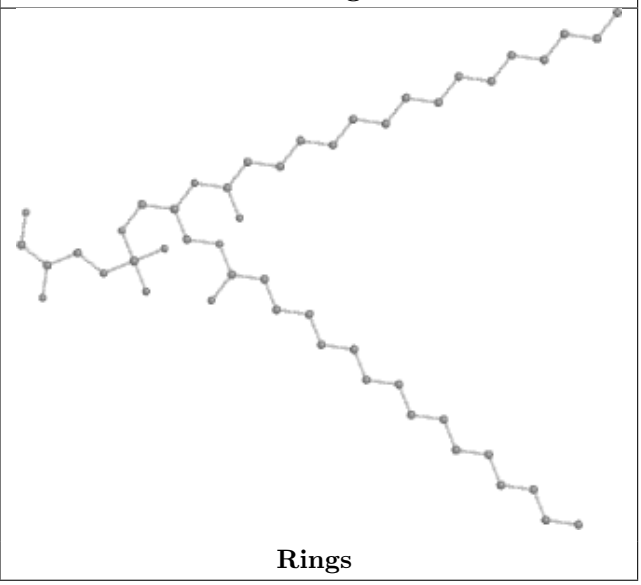
Bond lengths



Bond angles

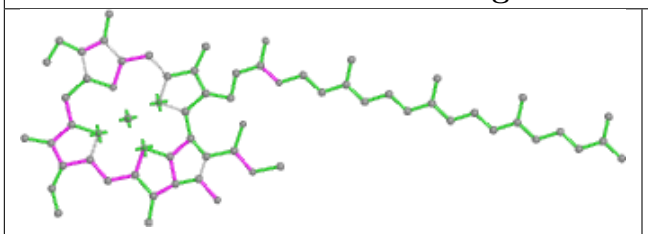


Torsions

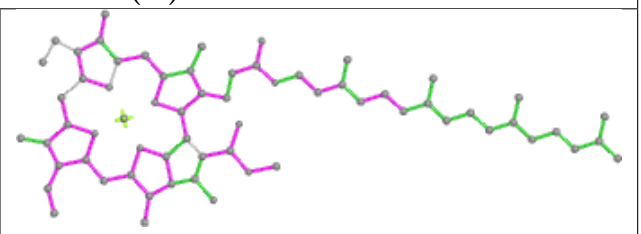


Rings

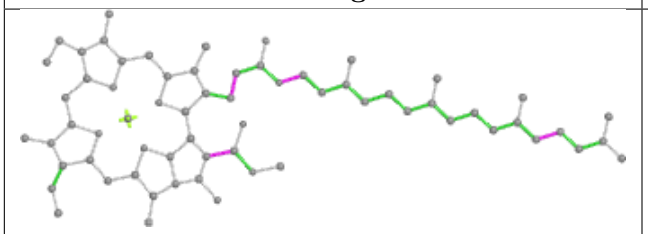
Ligand CLA A 404 (B)



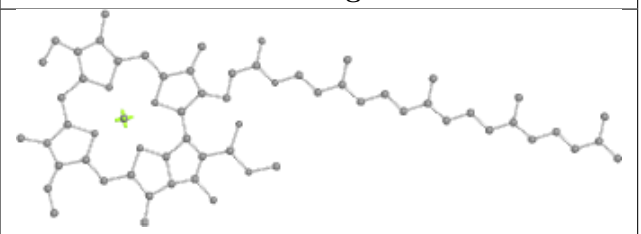
Bond lengths



Bond angles

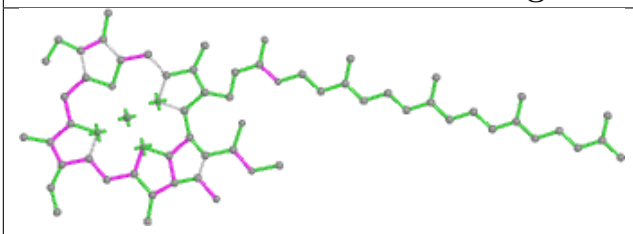


Torsions

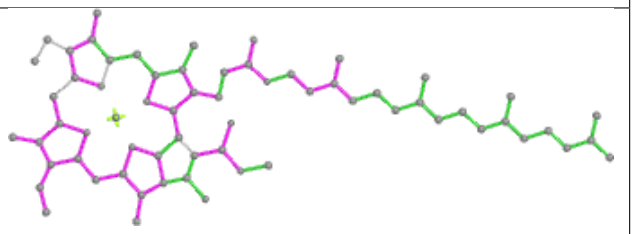


Rings

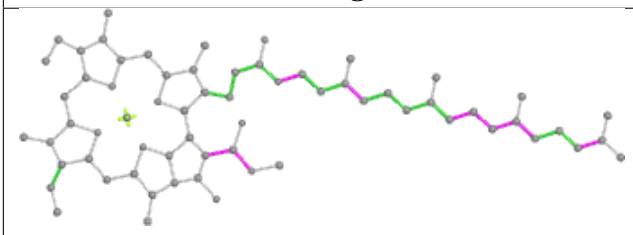
Ligand CLA b 614



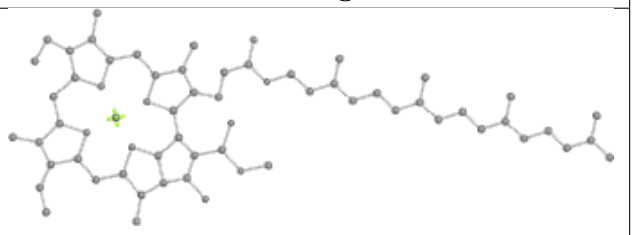
Bond lengths



Bond angles

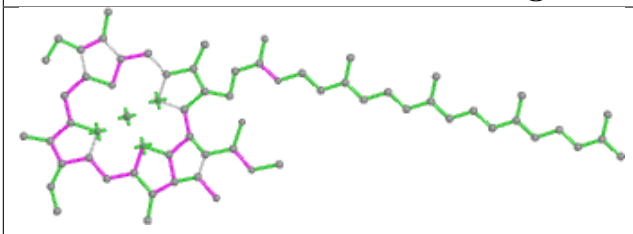


Torsions

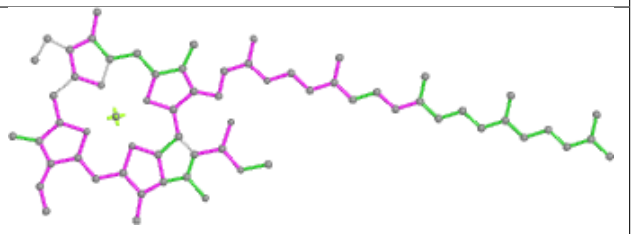


Rings

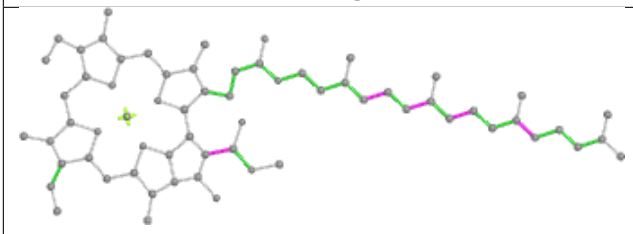
Ligand CLA b 607



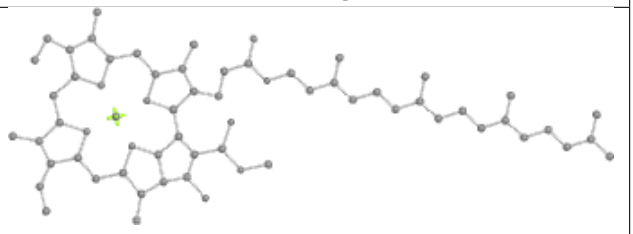
Bond lengths



Bond angles

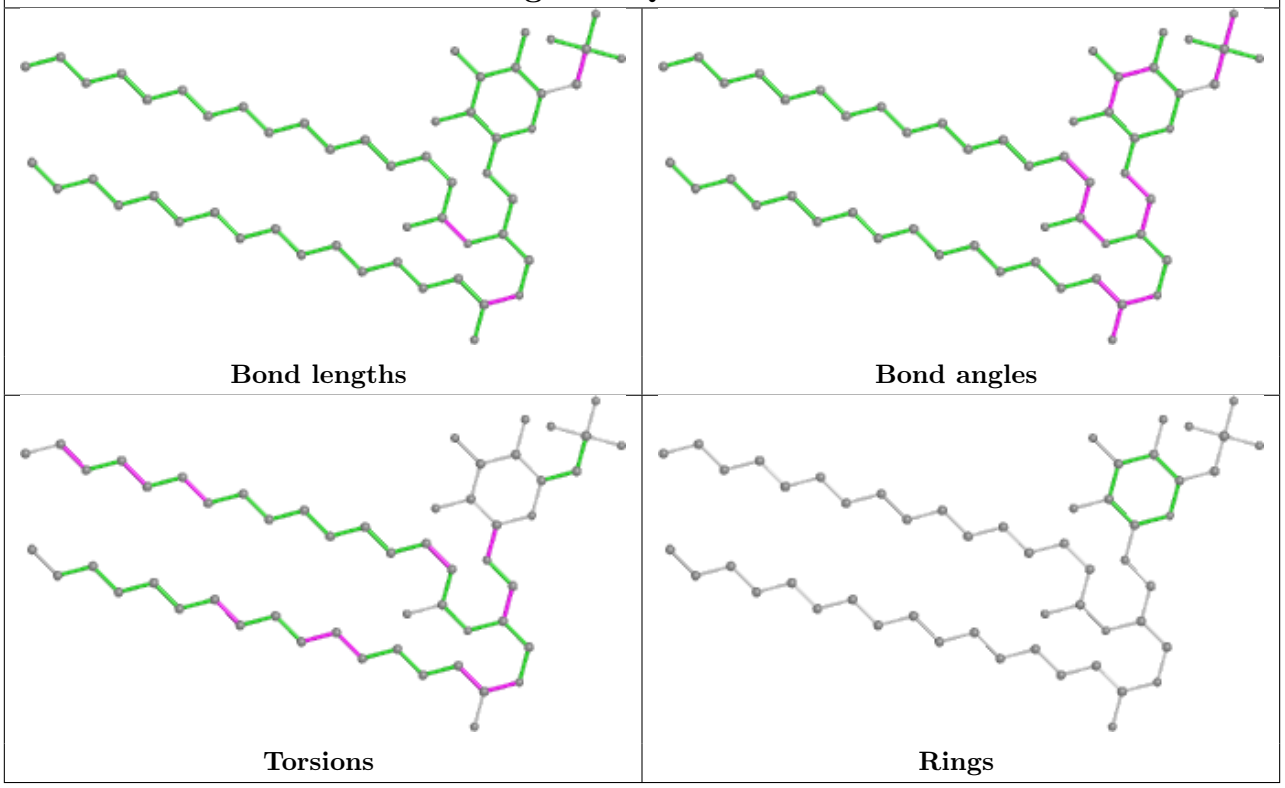


Torsions

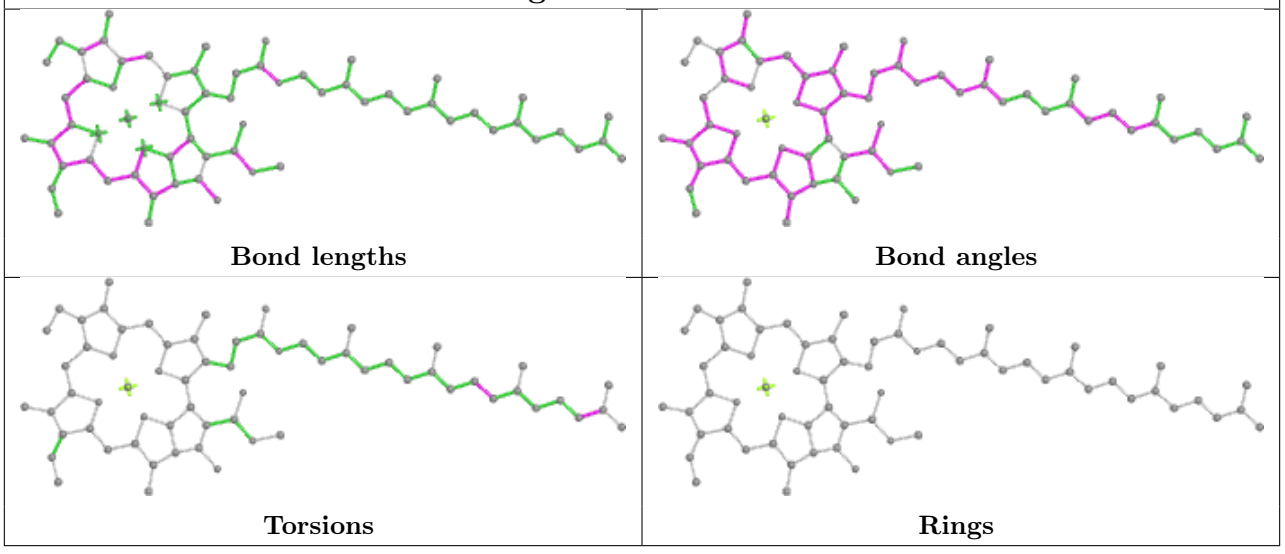


Rings

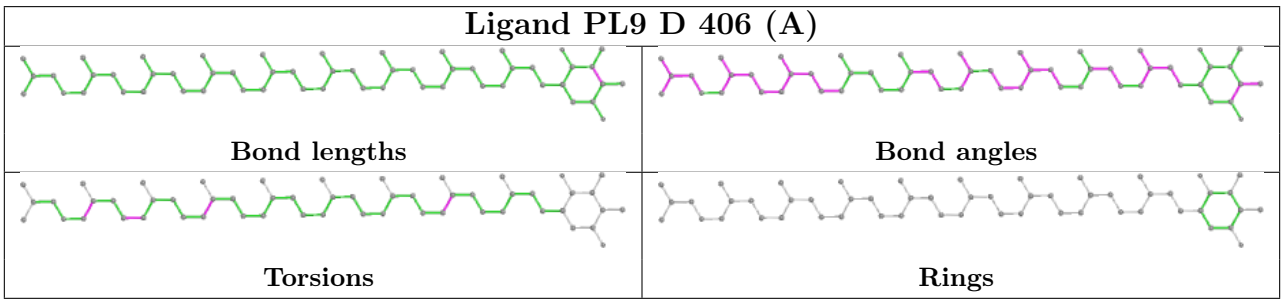
Ligand SQD A 411



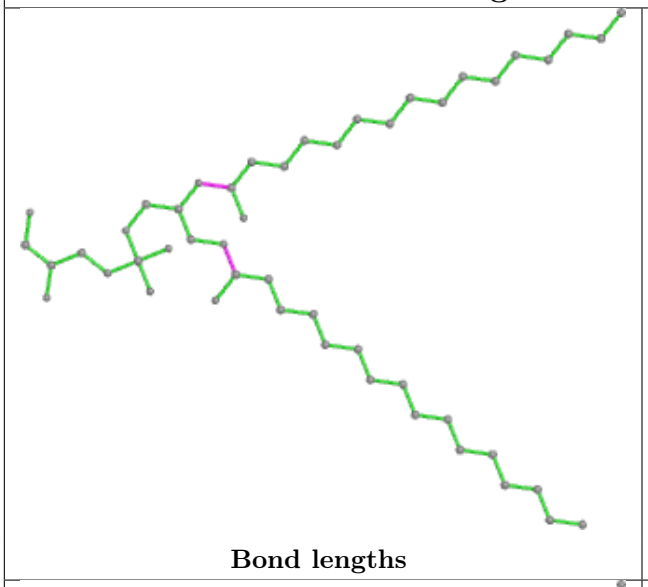
Ligand CLA b 602



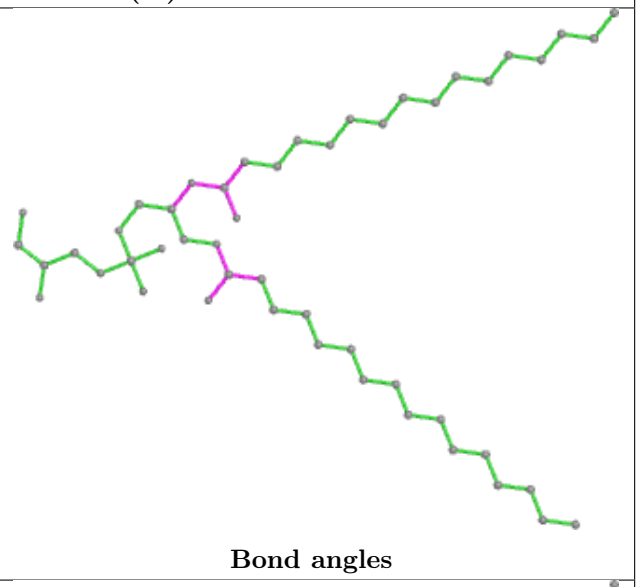
Ligand PL9 D 406 (A)



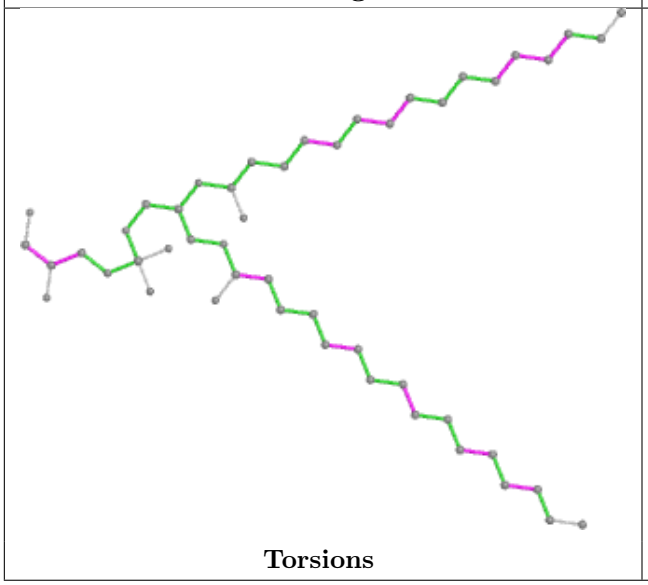
Ligand LHG A 418 (B)



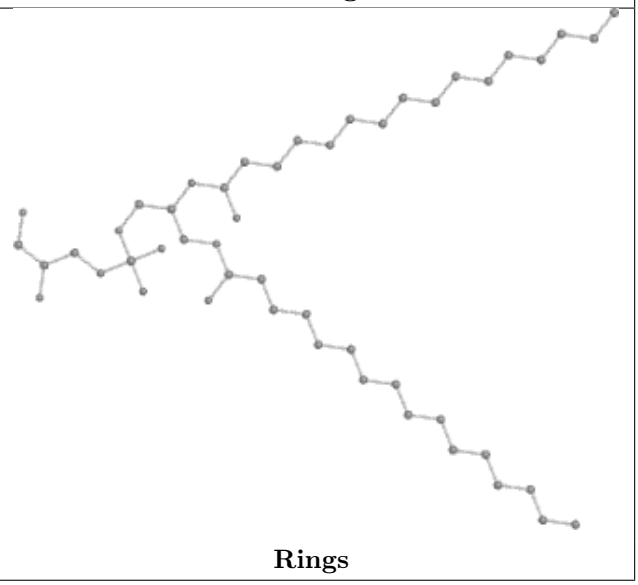
Bond lengths



Bond angles

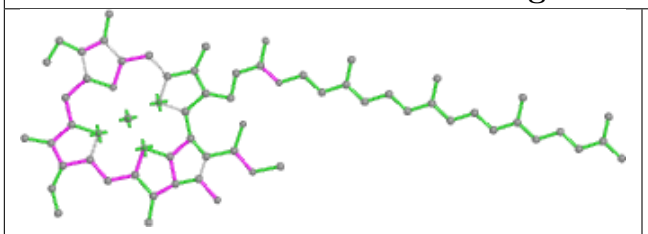


Torsions



Rings

Ligand CLA b 604



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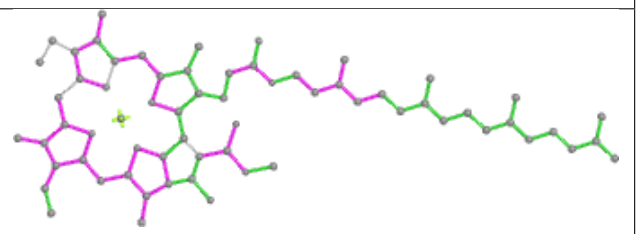
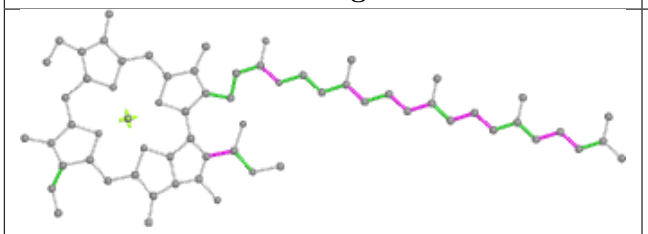
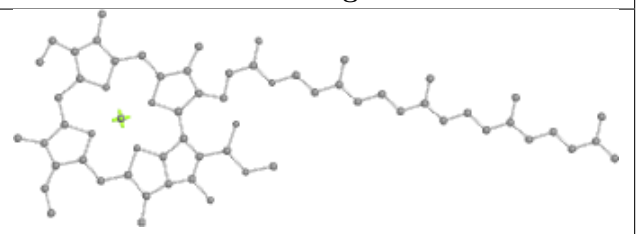


Bond angles

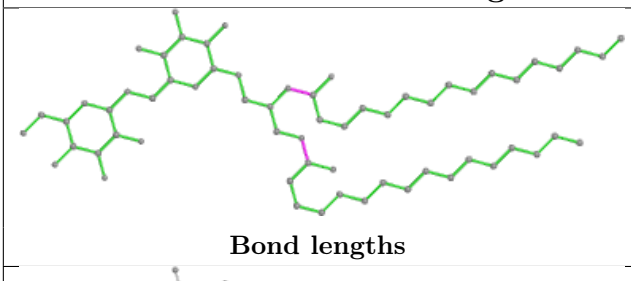


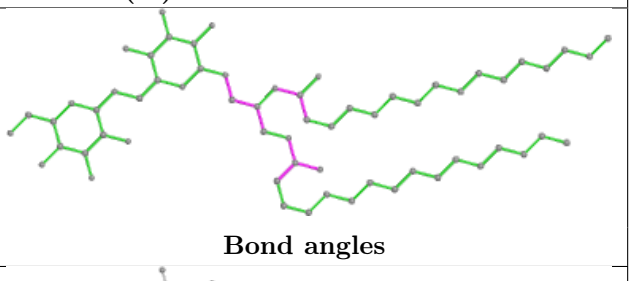
Torsions

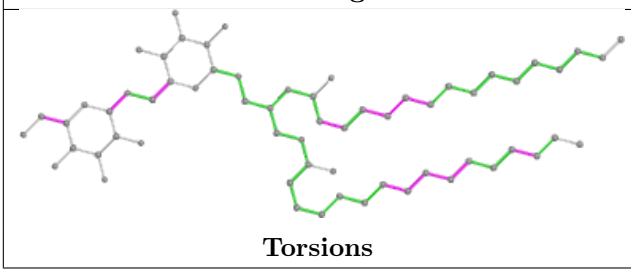


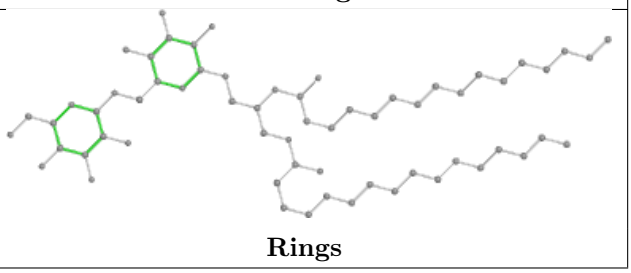
Rings

Ligand DGD C 517 (B)

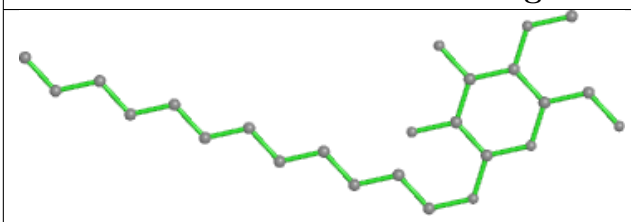

Bond lengths

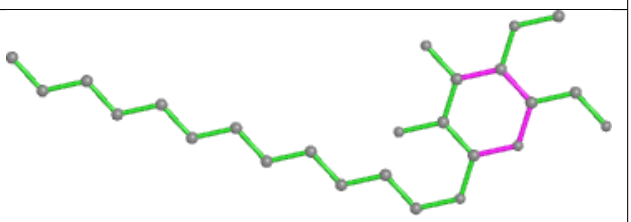

Bond angles

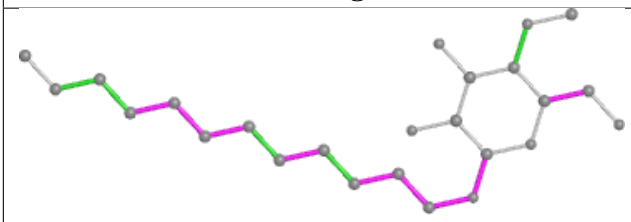

Torsions

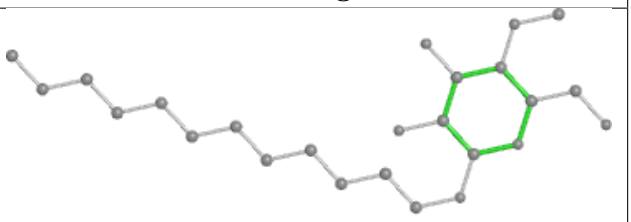

Rings

Ligand LMT b 627

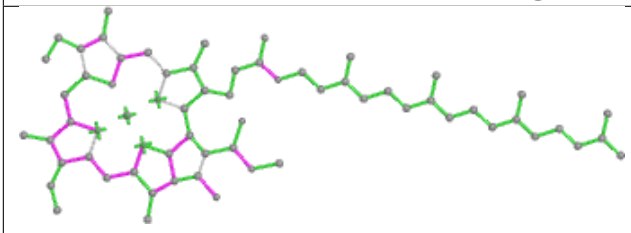

Bond lengths

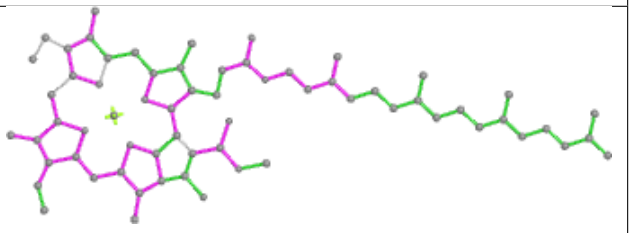

Bond angles

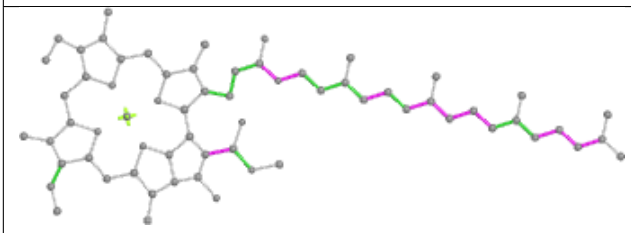

Torsions

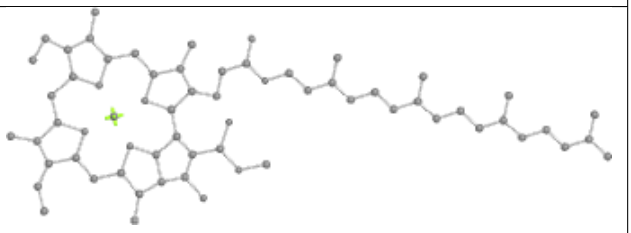

Rings

Ligand CLA c 510

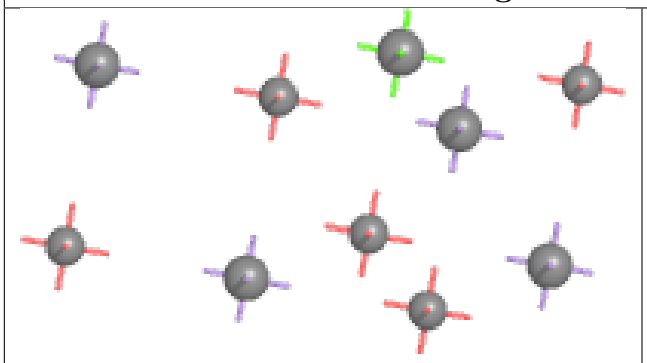

Bond lengths


Bond angles

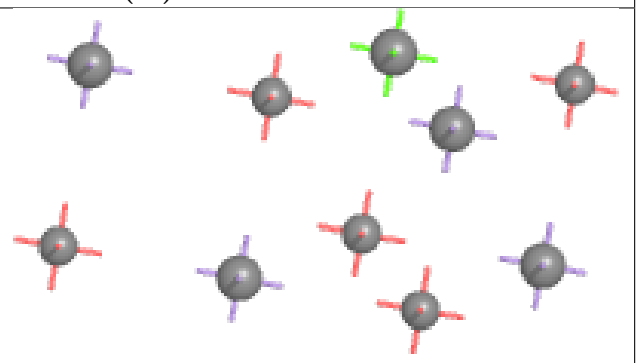

Torsions


Rings

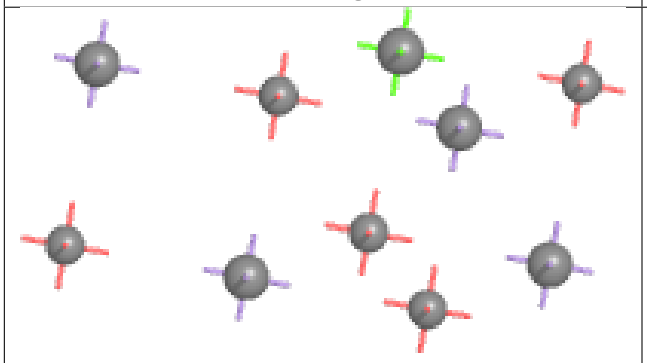
Ligand OEX a 412 (A)



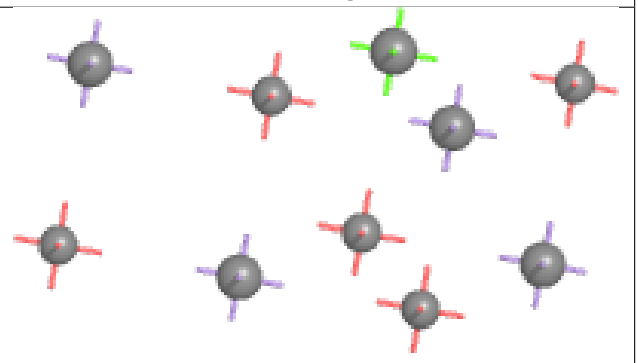
Bond lengths



Bond angles

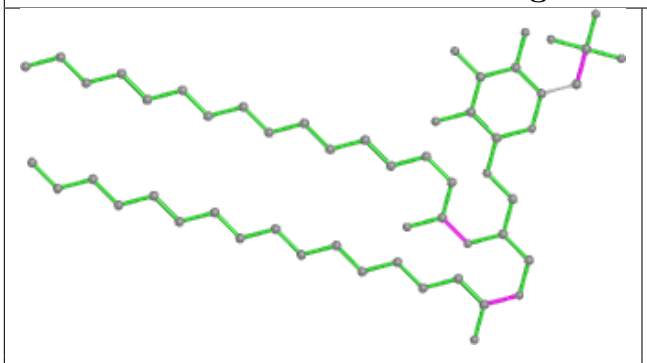


Torsions

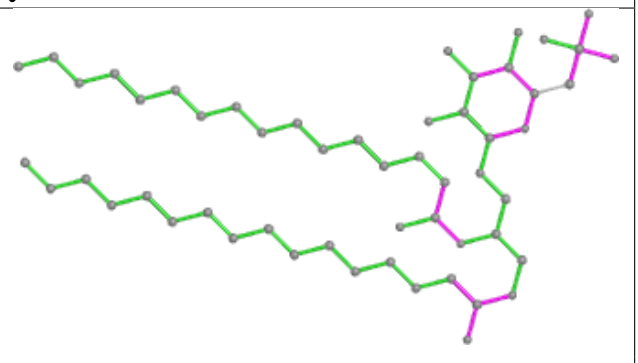


Rings

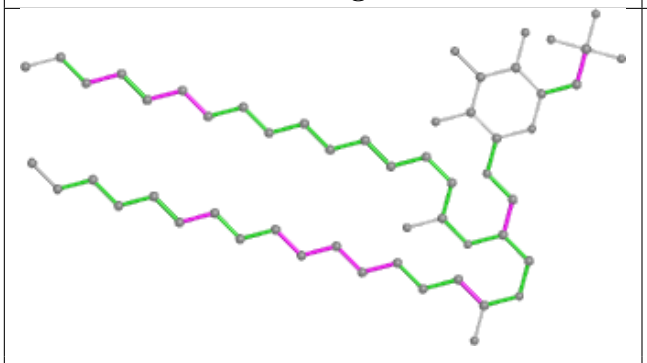
Ligand SQD a 411



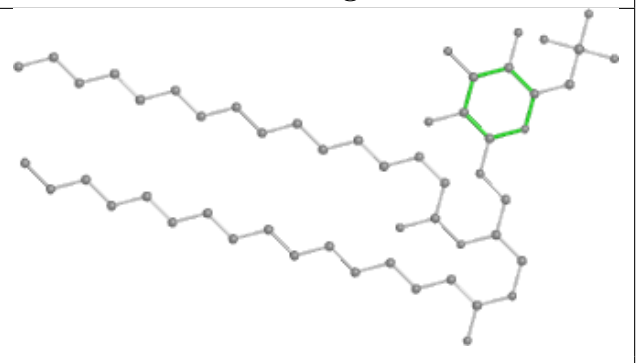
Bond lengths



Bond angles

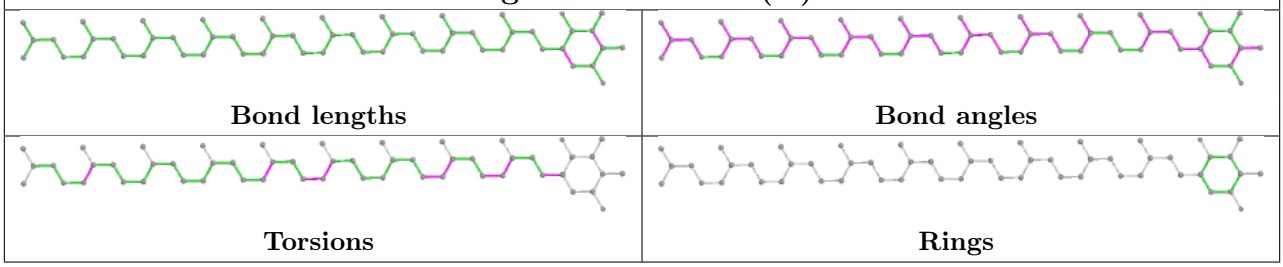


Torsions

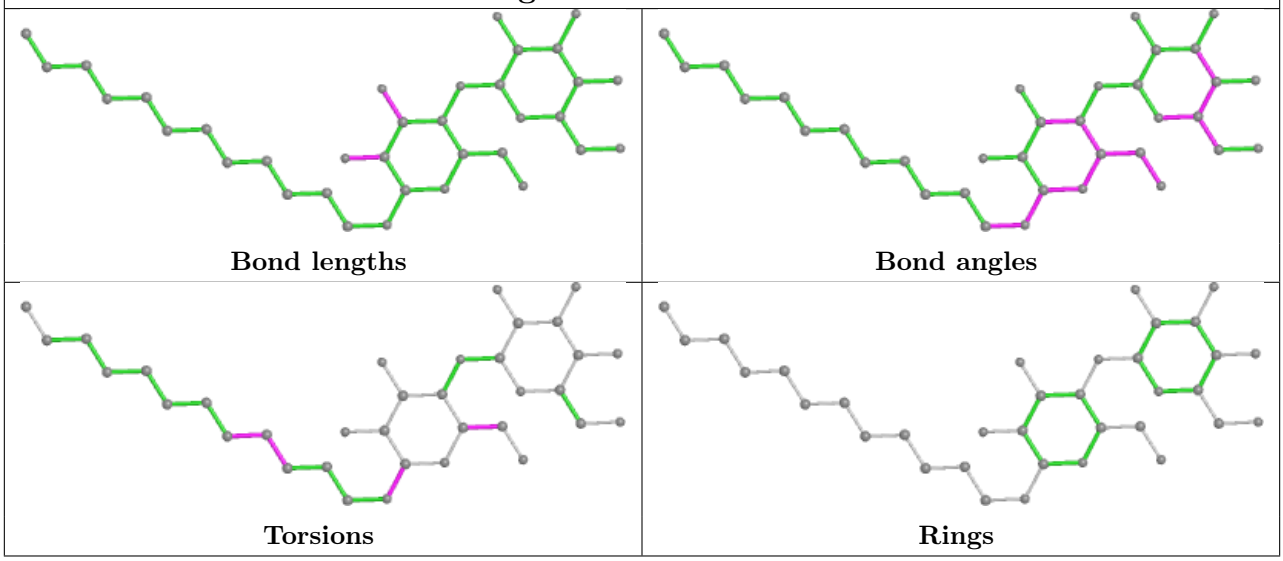


Rings

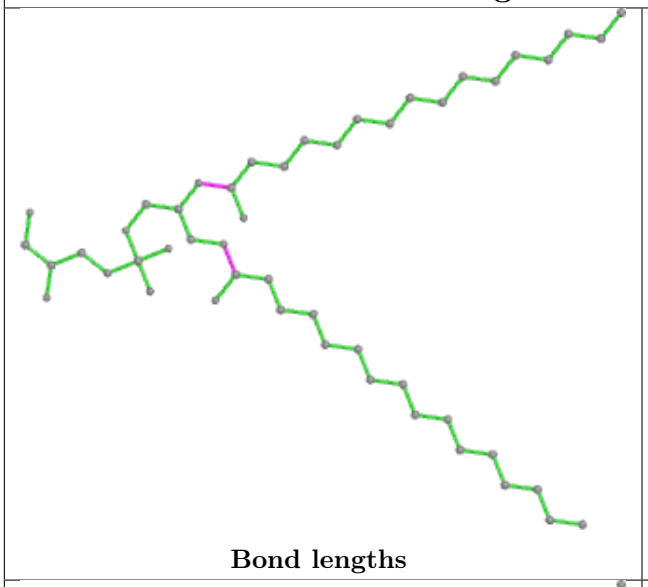
Ligand PL9 a 413 (A)



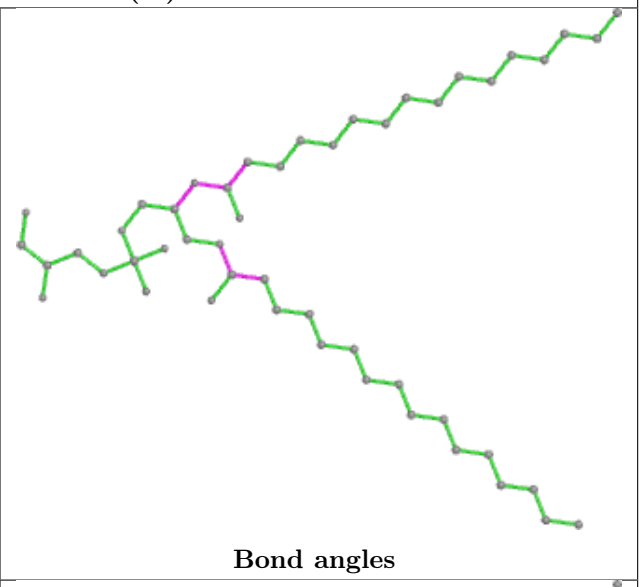
Ligand LMT M 101



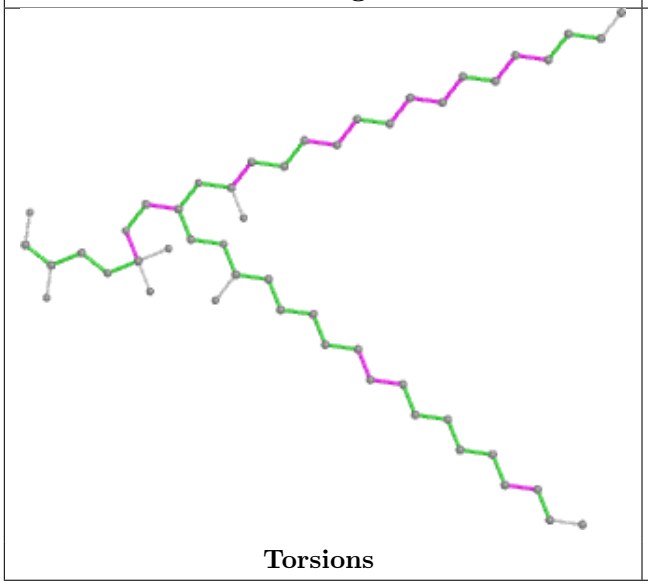
Ligand LHG b 629 (B)



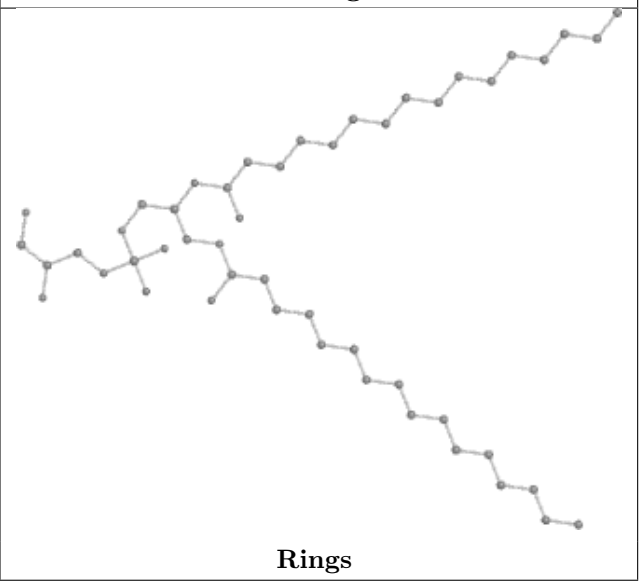
Bond lengths



Bond angles

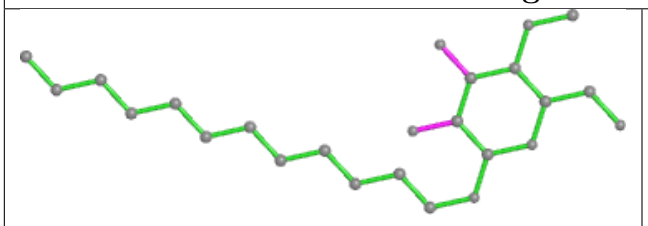


Torsions

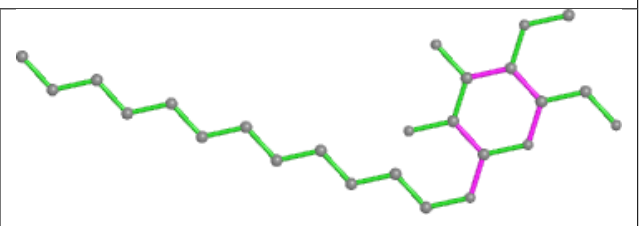


Rings

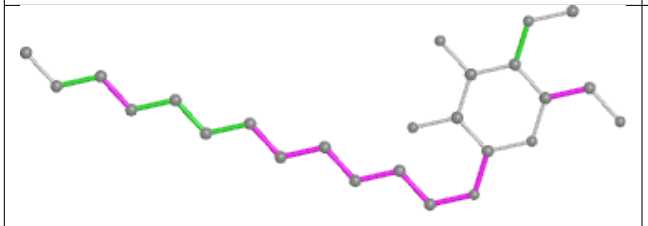
Ligand LMT B 629



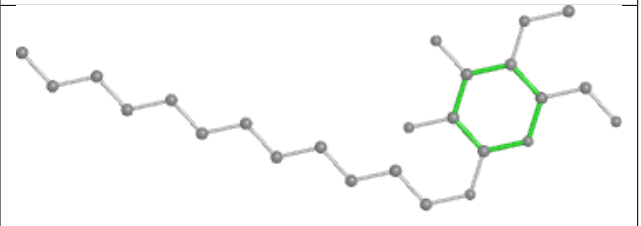
Bond lengths



Bond angles

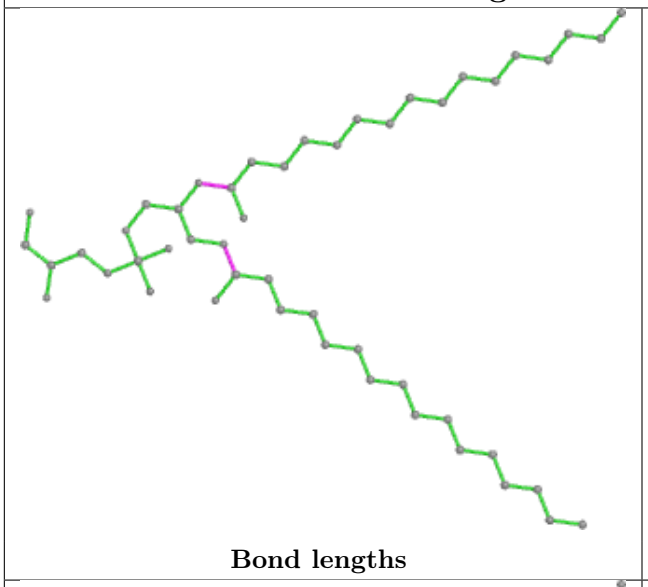


Torsions

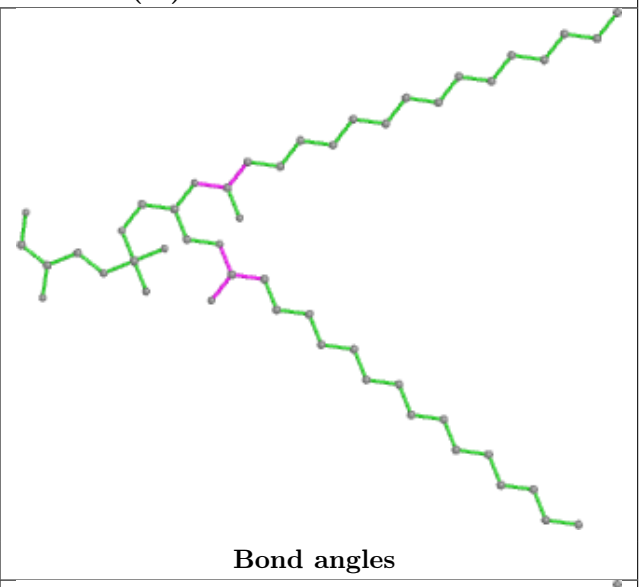


Rings

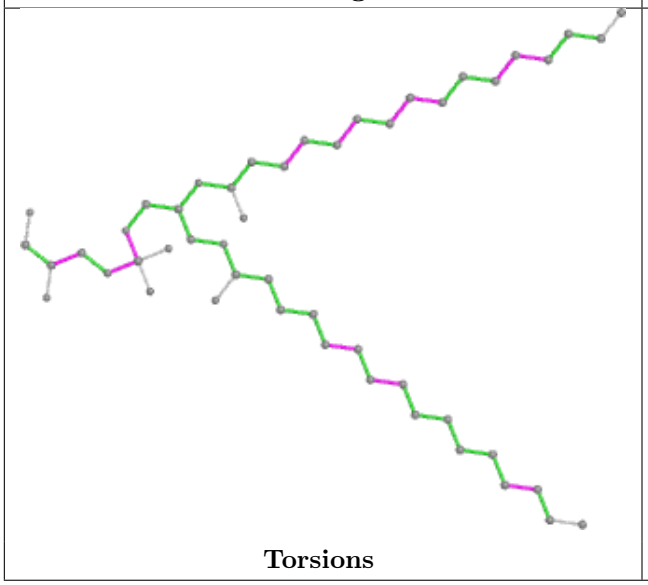
Ligand LHG D 407 (A)



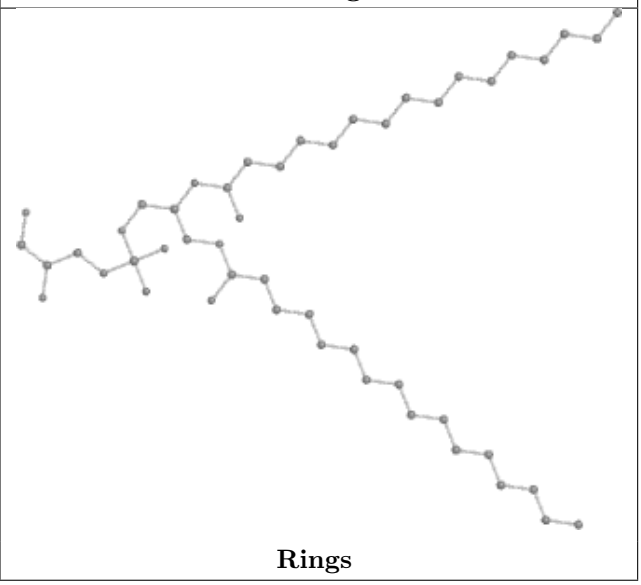
Bond lengths



Bond angles

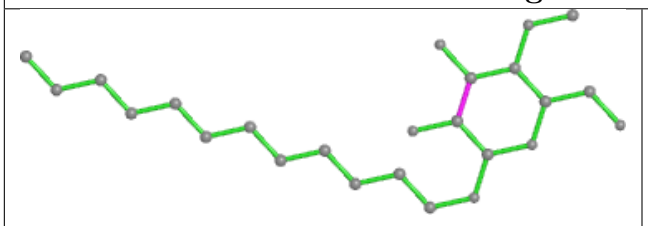


Torsions

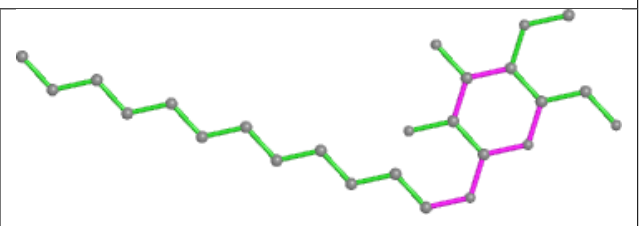


Rings

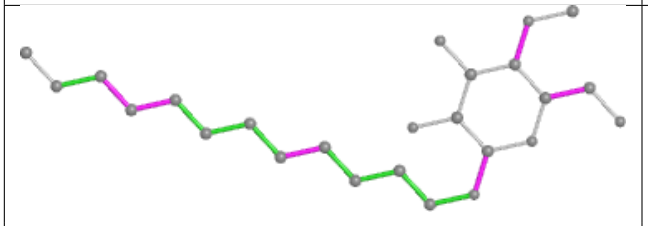
Ligand LMT b 621



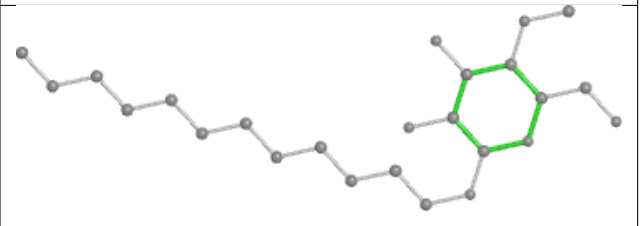
Bond lengths



Bond angles

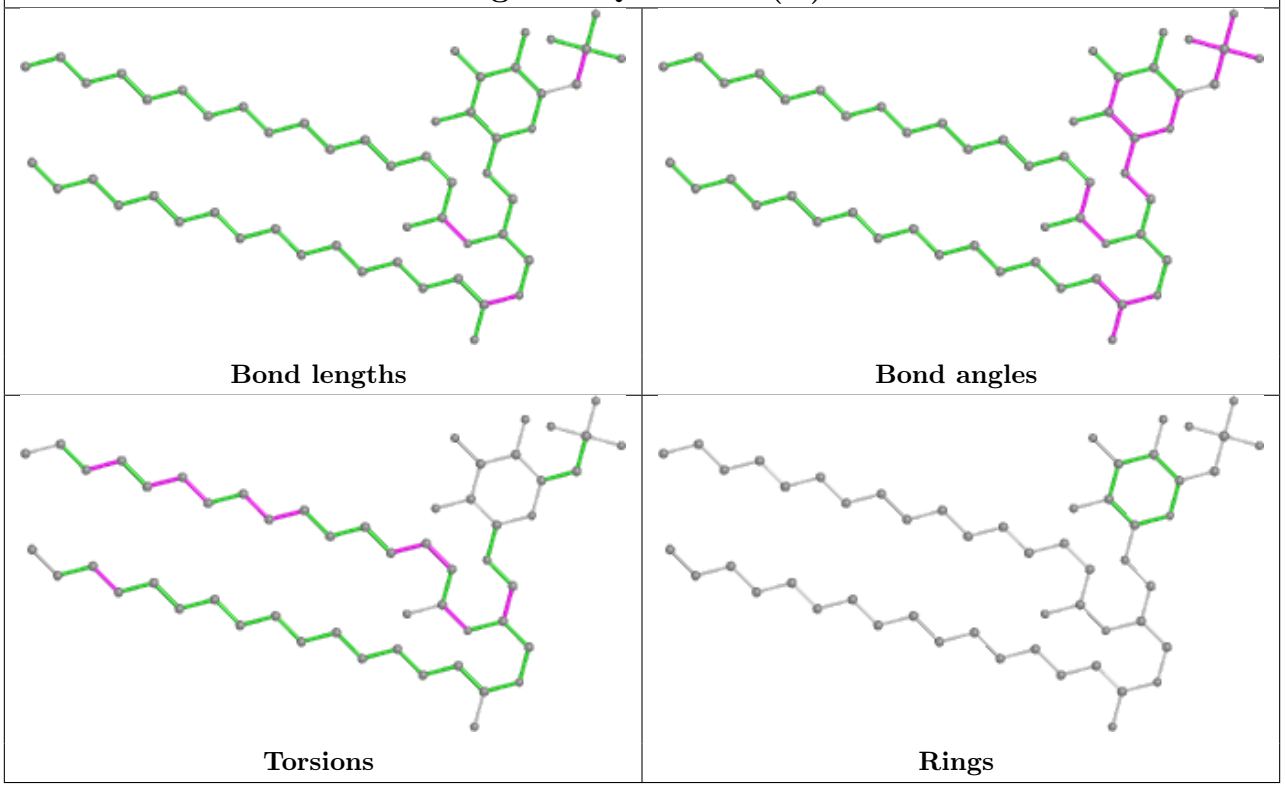


Torsions

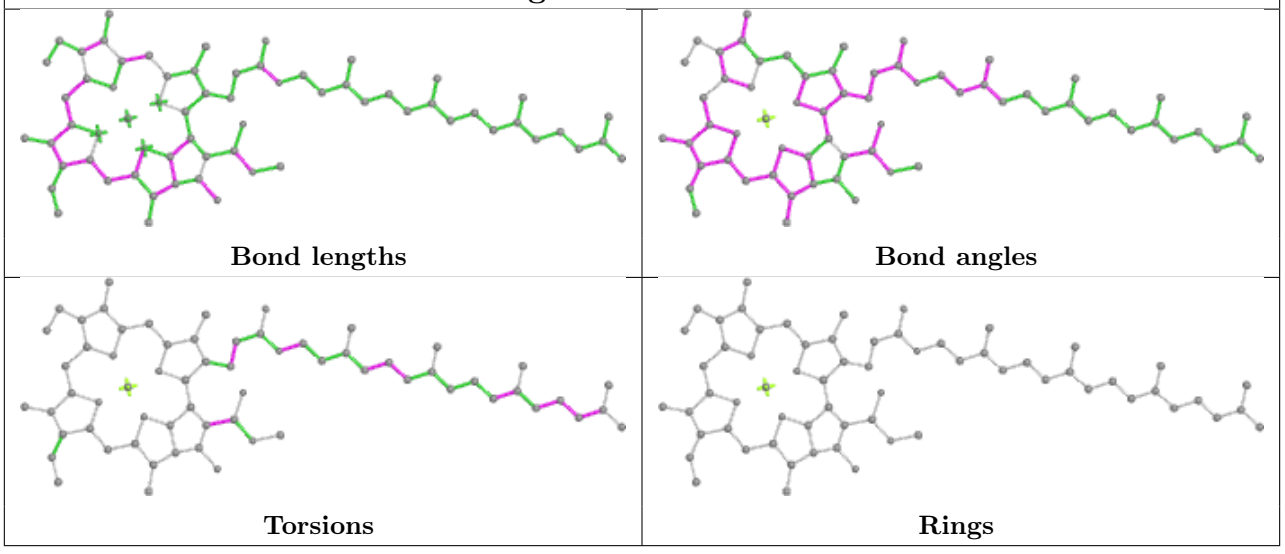


Rings

Ligand SQD A 409 (A)



Ligand CLA b 610



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	334/344 (97%)	-0.78	5 (1%) 73 79	37, 47, 68, 119	0
1	a	334/344 (97%)	-0.66	7 (2%) 63 70	40, 51, 79, 128	0
2	B	504/505 (99%)	-0.51	12 (2%) 59 66	39, 53, 82, 116	0
2	b	504/505 (99%)	-0.31	35 (6%) 16 22	42, 58, 100, 150	1 (0%)
3	C	451/455 (99%)	-0.53	8 (1%) 68 74	43, 59, 82, 134	0
3	c	455/455 (100%)	-0.40	14 (3%) 49 56	48, 65, 88, 128	2 (0%)
4	D	342/342 (100%)	-0.72	3 (0%) 84 88	37, 48, 67, 127	0
4	d	341/342 (99%)	-0.70	2 (0%) 89 92	40, 53, 79, 128	0
5	E	81/84 (96%)	-0.12	4 (4%) 29 36	51, 69, 96, 147	0
5	e	79/84 (94%)	0.23	6 (7%) 13 18	60, 75, 116, 142	0
6	F	34/44 (77%)	-0.46	2 (5%) 22 28	52, 59, 89, 110	0
6	f	31/44 (70%)	-0.25	2 (6%) 18 24	58, 67, 97, 132	0
7	H	64/65 (98%)	-0.22	2 (3%) 49 56	53, 62, 88, 108	0
7	h	64/65 (98%)	-0.26	5 (7%) 13 17	57, 73, 93, 105	0
8	I	37/38 (97%)	-0.08	3 (8%) 12 16	55, 65, 117, 143	0
8	i	37/38 (97%)	-0.03	5 (13%) 3 4	53, 64, 111, 130	0
9	J	38/39 (97%)	-0.15	4 (10%) 6 8	49, 67, 118, 153	0
9	j	39/39 (100%)	0.29	6 (15%) 2 3	56, 77, 124, 150	0
10	K	37/37 (100%)	-0.53	2 (5%) 25 32	57, 66, 85, 105	0
10	k	37/37 (100%)	-0.51	0 100 100	67, 74, 95, 111	0
11	L	36/37 (97%)	-0.39	4 (11%) 5 7	37, 45, 110, 128	0
11	l	36/37 (97%)	-0.42	3 (8%) 11 15	40, 46, 104, 118	0
12	M	32/36 (88%)	-0.73	1 (3%) 49 56	42, 47, 76, 125	0
12	m	33/36 (91%)	-0.46	2 (6%) 21 27	42, 48, 71, 137	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	O	243/244 (99%)	-0.06	16 (6%) 18 23	40, 65, 118, 161	0
13	o	243/244 (99%)	0.06	25 (10%) 6 9	44, 68, 121, 153	0
14	T	29/32 (90%)	-0.66	3 (10%) 6 9	41, 47, 77, 102	0
14	t	29/32 (90%)	-0.65	1 (3%) 45 52	43, 49, 78, 107	0
15	U	96/104 (92%)	-0.40	0 100 100	46, 57, 87, 101	0
15	u	97/104 (93%)	-0.36	2 (2%) 63 70	50, 60, 80, 121	0
16	V	137/137 (100%)	-0.53	1 (0%) 87 91	46, 56, 81, 103	0
16	v	137/137 (100%)	-0.09	6 (4%) 34 41	51, 70, 99, 131	0
17	X	38/40 (95%)	-0.30	2 (5%) 26 33	62, 73, 92, 111	0
17	x	38/40 (95%)	0.04	4 (10%) 6 8	67, 80, 118, 151	0
18	Y	29/30 (96%)	0.86	6 (20%) 1 1	67, 81, 117, 120	0
18	y	29/30 (96%)	0.40	5 (17%) 1 1	77, 88, 110, 112	0
19	Z	62/62 (100%)	0.13	6 (9%) 7 10	67, 81, 130, 150	0
19	z	62/62 (100%)	0.45	11 (17%) 1 1	80, 94, 137, 165	0
20	R	34/34 (100%)	2.26	20 (58%) 0 0	87, 110, 132, 143	0
All	All	5283/5384 (98%)	-0.38	245 (4%) 32 39	37, 59, 100, 165	3 (0%)

The worst 5 of 245 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	C	23	ALA	9.5
5	E	84	LYS	8.5
1	a	11	ALA	8.1
13	O	60	ARG	7.5
3	c	20	SER	7.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
8	FME	i	1	10/11	0.91	0.18	54,70,80,85	0
14	FME	T	1	10/11	0.97	0.07	43,53,70,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
8	FME	I	1	10/11	0.97	0.07	60,70,83,88	0
14	FME	t	1	10/11	0.97	0.09	41,46,62,73	0
12	FME	m	1	10/11	0.98	0.13	50,61,88,116	0
12	FME	M	1	10/11	0.98	0.14	43,55,88,98	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
29	UNL	b	626	33/-	0.48	0.36	63,94,149,161	0
26	GOL	a	417	6/6	0.50	0.56	79,98,105,108	0
29	UNL	B	624	33/-	0.51	0.36	54,104,138,148	0
29	UNL	I	101	40/-	0.53	0.31	73,100,150,155	0
32	LMT	T	101	35/35	0.56	0.31	61,120,165,176	0
29	UNL	B	628	40/-	0.60	0.30	71,99,149,159	0
32	LMT	b	621	25/35	0.60	0.29	78,103,153,161	0
34	LMG	C	521	51/55	0.62	0.32	56,115,150,170	0
33	LHG	a	419[B]	42/49	0.66	0.40	85,125,144,152	42
33	LHG	a	419[A]	42/49	0.66	0.40	85,125,144,152	42
29	UNL	K	101[B]	34/-	0.67	0.36	72,97,111,114	34
29	UNL	A	414	28/-	0.67	0.38	81,103,122,140	0
32	LMT	F	101	35/35	0.67	0.52	91,127,168,174	0
29	UNL	K	101[A]	34/-	0.67	0.36	72,97,111,114	34
34	LMG	c	521	51/55	0.67	0.28	74,126,157,185	0
32	LMT	B	629	25/35	0.68	0.25	56,84,135,159	0
32	LMT	M	101	35/35	0.69	0.26	57,93,120,130	0
32	LMT	B	627	35/35	0.70	0.36	62,116,137,153	0
32	LMT	e	101	35/35	0.70	0.58	100,141,180,182	0
34	LMG	Z	101	37/55	0.71	0.28	66,115,142,163	0
32	LMT	m	103	35/35	0.72	0.25	54,88,104,115	0
29	UNL	d	415	18/-	0.73	0.24	66,79,126,127	0
32	LMT	b	627	25/35	0.73	0.22	51,88,142,153	0
32	LMT	a	416	35/35	0.73	0.41	107,126,147,155	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
35	HTG	b	623	19/19	0.73	0.50	79,124,158,158	0
29	UNL	c	525[B]	32/-	0.74	0.41	86,104,116,126	32
29	UNL	c	525[A]	32/-	0.74	0.41	86,104,116,126	32
32	LMT	A	417	35/35	0.74	0.31	59,109,132,137	0
32	LMT	B	626	35/35	0.74	0.27	66,102,146,152	0
29	UNL	d	410	36/-	0.75	0.20	65,96,131,136	0
29	UNL	j	101	10/-	0.75	0.28	73,87,102,104	0
34	LMG	z	101	39/55	0.76	0.27	72,125,150,157	0
26	GOL	b	624	6/6	0.76	0.20	84,98,100,109	0
32	LMT	A	419	35/35	0.77	0.37	89,125,143,156	0
26	GOL	c	527	6/6	0.78	0.29	89,98,113,115	0
29	UNL	a	414	30/-	0.78	0.36	80,106,129,138	0
25	SQD	f	102	43/54	0.78	0.33	94,125,167,177	0
26	GOL	O	302	6/6	0.78	0.26	79,87,104,108	0
29	UNL	m	102	10/-	0.78	0.29	61,71,91,93	0
29	UNL	l	102	10/-	0.79	0.27	63,77,90,92	0
26	GOL	B	625	6/6	0.79	0.22	68,88,99,112	0
35	HTG	D	411	16/19	0.80	0.26	88,102,126,149	0
35	HTG	d	411	16/19	0.80	0.31	89,124,140,154	0
26	GOL	o	304	6/6	0.81	0.23	76,87,97,97	0
32	LMT	t	101	26/35	0.81	0.19	64,98,139,140	0
35	HTG	C	522	19/19	0.81	0.34	99,119,131,131	0
29	UNL	X	102	18/-	0.82	0.20	52,68,103,105	0
29	UNL	D	410	40/-	0.83	0.18	62,90,136,141	0
26	GOL	A	410	6/6	0.83	0.19	63,79,84,85	0
29	UNL	J	101	10/-	0.83	0.16	60,75,83,91	0
25	SQD	a	411	54/54	0.84	0.20	63,90,135,145	0
34	LMG	c	501	51/55	0.84	0.17	69,91,107,113	0
25	SQD	b	620	54/54	0.84	0.17	55,94,121,128	0
26	GOL	o	303	6/6	0.85	0.24	79,100,105,111	0
28	PL9	A	413[A]	55/55	0.85	0.19	61,85,102,106	55
28	PL9	A	413[B]	55/55	0.85	0.19	61,85,102,106	55
35	HTG	B	621	19/19	0.85	0.24	60,90,112,112	0
35	HTG	b	622	19/19	0.86	0.17	60,90,115,118	0
25	SQD	A	411	54/54	0.86	0.17	57,86,128,153	0
26	GOL	d	413	6/6	0.86	0.25	49,63,77,82	0
33	LHG	E	101[B]	42/49	0.87	0.23	71,96,111,117	42
25	SQD	l	101	54/54	0.87	0.15	59,87,139,148	0
24	BCR	C	515	40/40	0.87	0.16	55,73,87,93	0
34	LMG	C	501	51/55	0.87	0.16	64,89,114,133	0
26	GOL	l	103[A]	6/6	0.87	0.65	61,91,98,100	6
26	GOL	l	103[B]	6/6	0.87	0.65	61,91,98,100	6

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
33	LHG	E	101[A]	42/49	0.87	0.23	71,96,111,117	42
35	HTG	c	522	19/19	0.87	0.27	103,120,141,142	0
34	LMG	d	412	51/55	0.87	0.18	54,68,116,145	0
23	CLA	C	514	65/65	0.88	0.14	63,87,112,119	0
26	GOL	v	202[A]	6/6	0.88	0.17	60,72,80,80	6
26	GOL	v	202[B]	6/6	0.88	0.17	60,72,79,80	6
26	GOL	a	418	6/6	0.88	0.38	54,74,79,80	0
23	CLA	b	601	65/65	0.88	0.17	59,90,123,154	0
34	LMG	D	412	51/55	0.88	0.17	46,67,120,132	0
28	PL9	a	413[A]	55/55	0.88	0.20	72,95,109,116	55
28	PL9	a	413[B]	55/55	0.88	0.20	72,95,109,117	55
23	CLA	b	616	65/65	0.88	0.17	50,63,122,134	0
23	CLA	d	404	65/65	0.89	0.15	54,68,124,147	0
23	CLA	c	514	65/65	0.89	0.18	68,96,126,148	0
37	CA	f	103	1/1	0.89	0.08	117,117,117,117	0
26	GOL	V	203[B]	6/6	0.90	0.15	56,65,67,73	6
23	CLA	c	513	65/65	0.90	0.18	59,80,117,144	0
24	BCR	h	101	40/40	0.90	0.16	54,69,91,98	0
35	HTG	o	301	19/19	0.90	0.15	58,83,117,119	0
26	GOL	V	203[A]	6/6	0.90	0.15	56,65,67,73	6
23	CLA	B	616	65/65	0.91	0.17	46,59,129,139	0
23	CLA	C	513	65/65	0.91	0.16	57,75,108,121	0
23	CLA	B	601	65/65	0.91	0.14	56,80,112,156	0
34	LMG	C	520	51/55	0.91	0.16	54,81,114,130	0
37	CA	F	103	1/1	0.91	0.21	122,122,122,122	0
37	CA	O	301	1/1	0.91	0.12	106,106,106,106	0
24	BCR	Y	101	40/40	0.91	0.14	54,63,80,89	0
37	CA	o	302	1/1	0.91	0.05	113,113,113,113	0
24	BCR	K	102	40/40	0.92	0.17	54,65,80,91	0
34	LMG	c	520	51/55	0.92	0.17	59,90,127,156	0
23	CLA	B	606	65/65	0.92	0.14	41,57,108,129	0
29	UNL	d	409	17/-	0.92	0.13	67,80,117,121	0
24	BCR	d	405	40/40	0.92	0.12	48,64,98,104	0
26	GOL	O	303	6/6	0.92	0.24	69,83,99,99	0
23	CLA	c	507	65/65	0.93	0.13	47,70,117,134	0
35	HTG	V	202	11/19	0.93	0.43	78,108,125,127	0
25	SQD	X	101	43/54	0.93	0.17	72,103,125,141	0
29	UNL	D	409	17/-	0.93	0.14	62,72,103,109	0
35	HTG	b	625	19/19	0.93	0.11	61,79,95,108	0
23	CLA	b	606	65/65	0.93	0.14	42,62,115,119	0
23	CLA	C	507	65/65	0.93	0.13	54,70,117,136	0
34	LMG	B	620	51/55	0.93	0.12	49,66,89,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
36	DGD	c	518[A]	62/66	0.93	0.14	53,67,118,128	62
36	DGD	c	518[B]	62/66	0.93	0.14	53,68,118,128	62
36	DGD	c	519	62/66	0.93	0.11	48,63,100,128	0
36	DGD	h	102	62/66	0.93	0.12	51,65,80,90	0
26	GOL	a	410	6/6	0.93	0.24	70,73,91,93	0
26	GOL	D	402	6/6	0.93	0.35	47,72,77,80	0
35	HTG	B	623	19/19	0.93	0.12	64,77,94,103	0
26	GOL	D	413	6/6	0.93	0.18	45,64,71,91	0
36	DGD	C	518[B]	62/66	0.94	0.13	50,63,110,114	62
36	DGD	C	519	62/66	0.94	0.11	41,56,101,115	0
36	DGD	H	102	62/66	0.94	0.11	44,61,75,90	0
34	LMG	m	101	51/55	0.94	0.11	48,72,97,107	0
24	BCR	k	101	40/40	0.94	0.15	56,72,84,86	0
23	CLA	a	407	65/65	0.94	0.17	42,55,139,160	0
23	CLA	a	405[A]	65/65	0.94	0.11	38,52,118,133	65
24	BCR	c	515	40/40	0.94	0.10	66,82,95,96	0
23	CLA	a	405[B]	65/65	0.94	0.11	38,52,118,133	65
24	BCR	D	405	40/40	0.94	0.10	41,56,98,102	0
36	DGD	C	518[A]	62/66	0.94	0.13	50,63,110,114	62
26	GOL	B	622	6/6	0.95	0.25	66,76,84,85	0
24	BCR	c	516	40/40	0.95	0.12	57,66,80,82	0
26	GOL	C	523[A]	6/6	0.95	0.10	53,56,61,68	6
33	LHG	D	408[A]	49/49	0.95	0.15	43,58,107,110	49
33	LHG	D	408[B]	49/49	0.95	0.15	43,58,107,110	49
26	GOL	C	523[B]	6/6	0.95	0.10	54,58,61,68	6
24	BCR	B	618	40/40	0.95	0.09	37,54,69,79	0
23	CLA	B	609	65/65	0.95	0.16	45,59,72,76	0
24	BCR	C	516	40/40	0.95	0.13	49,64,75,83	0
33	LHG	d	408[A]	49/49	0.95	0.16	49,63,108,129	49
33	LHG	d	408[B]	49/49	0.95	0.16	49,63,108,129	49
24	BCR	y	101	40/40	0.95	0.09	58,72,85,96	0
25	SQD	A	409[A]	54/54	0.95	0.13	56,78,109,113	54
25	SQD	A	409[B]	54/54	0.95	0.13	56,78,109,113	54
23	CLA	D	404	65/65	0.95	0.14	49,58,120,137	0
36	DGD	c	517[A]	62/66	0.95	0.11	49,65,100,108	62
36	DGD	c	517[B]	62/66	0.95	0.11	49,65,100,108	62
24	BCR	H	101	40/40	0.95	0.10	50,64,84,89	0
25	SQD	a	409[A]	54/54	0.95	0.14	60,81,112,118	54
25	SQD	a	409[B]	54/54	0.95	0.14	60,80,112,118	54
23	CLA	C	509	65/65	0.95	0.10	44,55,117,141	0
24	BCR	T	102	40/40	0.95	0.08	43,58,70,78	0
23	CLA	A	407	65/65	0.95	0.12	39,52,127,140	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
24	BCR	b	618	40/40	0.95	0.10	42,57,76,84	0
24	BCR	A	408	40/40	0.95	0.10	40,51,64,65	0
24	BCR	t	102	40/40	0.96	0.08	40,58,79,85	0
23	CLA	b	604	65/65	0.96	0.11	42,52,94,121	0
23	CLA	B	614	65/65	0.96	0.10	35,49,100,116	0
28	PL9	D	406[A]	55/55	0.96	0.11	35,47,55,65	55
28	PL9	D	406[B]	55/55	0.96	0.11	35,47,55,64	55
24	BCR	B	619	40/40	0.96	0.09	46,58,90,104	0
23	CLA	b	609	65/65	0.96	0.15	51,66,83,88	0
33	LHG	b	629[A]	49/49	0.96	0.14	45,57,70,81	49
33	LHG	b	629[B]	49/49	0.96	0.14	45,57,70,82	49
33	LHG	d	407[A]	49/49	0.96	0.15	47,54,69,75	49
33	LHG	d	407[B]	49/49	0.96	0.15	47,54,69,75	49
23	CLA	b	612	65/65	0.96	0.10	38,53,67,76	0
23	CLA	b	615	65/65	0.96	0.10	45,62,85,90	0
33	LHG	d	414[A]	49/49	0.96	0.12	48,65,80,87	49
33	LHG	d	414[B]	49/49	0.96	0.12	48,66,80,87	49
23	CLA	C	508	65/65	0.96	0.12	52,64,85,95	0
23	CLA	c	504	65/65	0.96	0.09	51,71,85,88	0
23	CLA	B	611	65/65	0.96	0.09	32,44,65,72	0
26	GOL	b	628	6/6	0.96	0.19	75,79,82,86	0
23	CLA	c	508	65/65	0.96	0.11	49,68,83,90	0
23	CLA	c	509	65/65	0.96	0.12	47,62,121,152	0
23	CLA	c	510	65/65	0.96	0.10	41,60,86,100	0
37	CA	C	524	1/1	0.96	0.04	75,75,75,75	0
23	CLA	c	512	65/65	0.96	0.10	54,70,85,101	0
23	CLA	C	510	65/65	0.96	0.11	44,59,84,91	0
23	CLA	C	512	65/65	0.96	0.12	52,63,82,92	0
23	CLA	C	505	65/65	0.96	0.10	40,56,98,131	0
38	HEM	f	101	43/43	0.96	0.13	60,84,110,124	0
23	CLA	B	602	65/65	0.97	0.12	46,56,75,88	0
31	PHO	a	415[A]	64/64	0.97	0.12	45,55,62,66	64
31	PHO	a	415[B]	64/64	0.97	0.12	45,55,62,67	64
23	CLA	c	511	65/65	0.97	0.10	47,61,79,83	0
23	CLA	C	502	65/65	0.97	0.09	49,60,75,82	0
23	CLA	C	504	65/65	0.97	0.10	49,62,72,83	0
23	CLA	B	603	65/65	0.97	0.10	43,53,73,87	0
23	CLA	b	602	65/65	0.97	0.13	51,61,81,87	0
23	CLA	C	506	65/65	0.97	0.09	50,60,91,105	0
24	BCR	B	617	40/40	0.97	0.08	39,51,60,67	0
23	CLA	b	605	65/65	0.97	0.11	38,50,74,80	0
23	CLA	A	406[A]	65/65	0.97	0.10	36,46,110,121	65

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
28	PL9	d	406[A]	55/55	0.97	0.10	37,49,59,65	55
28	PL9	d	406[B]	55/55	0.97	0.10	37,49,59,65	55
23	CLA	b	607	65/65	0.97	0.08	36,46,77,84	0
23	CLA	B	607	65/65	0.97	0.09	32,46,73,77	0
23	CLA	b	610	65/65	0.97	0.09	47,59,71,75	0
33	LHG	A	418[A]	49/49	0.97	0.10	46,60,79,84	49
33	LHG	A	418[B]	49/49	0.97	0.10	46,60,79,84	49
23	CLA	b	611	65/65	0.97	0.09	36,48,67,85	0
23	CLA	A	406[B]	65/65	0.97	0.10	36,45,110,121	65
36	DGD	C	517[A]	62/66	0.97	0.11	46,59,101,106	62
36	DGD	C	517[B]	62/66	0.97	0.11	46,59,101,107	62
23	CLA	b	613	65/65	0.97	0.08	41,50,85,95	0
23	CLA	b	614	65/65	0.97	0.09	39,50,98,113	0
33	LHG	L	101[A]	49/49	0.97	0.10	46,54,64,85	49
33	LHG	L	101[B]	49/49	0.97	0.10	46,54,63,85	49
24	BCR	a	408	40/40	0.97	0.08	40,54,63,75	0
24	BCR	b	617	40/40	0.97	0.08	41,52,64,66	0
23	CLA	A	404[A]	65/65	0.97	0.11	35,41,54,66	65
24	BCR	b	619	40/40	0.97	0.08	48,61,90,95	0
23	CLA	C	511	65/65	0.97	0.08	44,56,76,87	0
23	CLA	c	502	65/65	0.97	0.11	56,67,81,88	0
23	CLA	B	612	65/65	0.97	0.08	35,49,60,75	0
23	CLA	c	505	65/65	0.97	0.10	46,64,108,137	0
23	CLA	c	506	65/65	0.97	0.10	47,65,92,105	0
23	CLA	B	613	65/65	0.97	0.08	38,46,99,109	0
23	CLA	A	404[B]	65/65	0.97	0.11	35,41,56,66	65
23	CLA	B	615	65/65	0.97	0.09	42,53,77,94	0
40	HEC	v	201	43/43	0.97	0.12	50,61,70,75	0
33	LHG	D	407[A]	49/49	0.98	0.12	45,53,65,73	49
33	LHG	D	407[B]	49/49	0.98	0.12	45,53,65,73	49
23	CLA	B	605	65/65	0.98	0.11	38,48,63,77	0
23	CLA	C	503	65/65	0.98	0.08	38,55,79,86	0
30	BCT	d	401[A]	4/4	0.98	0.08	53,60,61,76	4
30	BCT	d	401[B]	4/4	0.98	0.08	54,60,61,77	4
31	PHO	A	416[A]	64/64	0.98	0.09	38,48,54,58	64
31	PHO	A	416[B]	64/64	0.98	0.09	38,48,54,57	64
31	PHO	D	401[A]	64/64	0.98	0.08	38,44,51,55	64
31	PHO	D	401[B]	64/64	0.98	0.08	38,44,51,55	64
31	PHO	a	406[A]	64/64	0.98	0.07	40,46,53,60	64
31	PHO	a	406[B]	64/64	0.98	0.07	40,46,53,60	64
23	CLA	A	405[A]	65/65	0.98	0.08	32,42,54,66	65
23	CLA	A	405[B]	65/65	0.98	0.08	32,42,54,66	65

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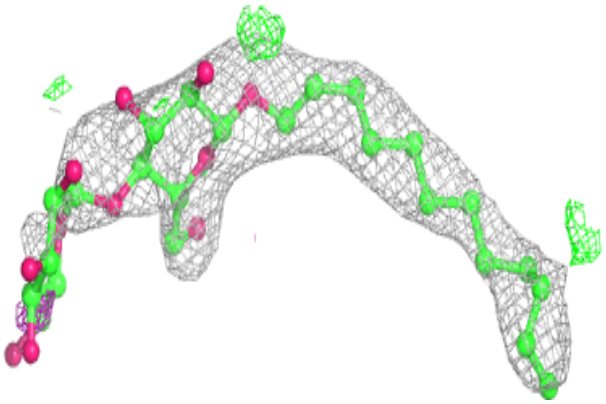
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
26	GOL	c	526[A]	6/6	0.98	0.32	65,66,71,74	6
26	GOL	c	526[B]	6/6	0.98	0.32	64,66,71,74	6
23	CLA	B	608	65/65	0.98	0.07	35,48,69,73	0
23	CLA	d	402[A]	65/65	0.98	0.07	36,43,61,73	65
23	CLA	d	402[B]	65/65	0.98	0.07	36,43,61,73	65
23	CLA	d	403[A]	65/65	0.98	0.10	33,45,71,89	65
23	CLA	d	403[B]	65/65	0.98	0.10	33,45,71,89	65
23	CLA	b	603	65/65	0.98	0.08	44,57,75,91	0
23	CLA	B	604	65/65	0.98	0.09	35,47,105,134	0
23	CLA	c	503	65/65	0.98	0.08	42,57,87,101	0
23	CLA	D	403[A]	65/65	0.98	0.11	32,42,67,73	65
23	CLA	D	403[B]	65/65	0.98	0.11	32,42,67,73	65
37	CA	c	524	1/1	0.98	0.09	81,81,81,81	0
23	CLA	B	610	65/65	0.98	0.12	41,52,68,84	0
23	CLA	b	608	65/65	0.98	0.08	37,56,78,98	0
38	HEM	F	102	43/43	0.98	0.10	52,68,86,92	0
23	CLA	a	404[A]	65/65	0.98	0.12	36,44,61,73	65
39	MG	J	102	1/1	0.98	0.04	57,57,57,57	0
39	MG	j	102	1/1	0.98	0.03	64,64,64,64	0
40	HEC	V	201	43/43	0.98	0.15	39,52,68,71	0
23	CLA	a	404[B]	65/65	0.98	0.12	37,44,61,73	65
22	CL	a	402[B]	1/1	0.99	0.03	47,47,47,47	1
27	OEX	A	412[A]	10/10	0.99	0.05	37,44,51,55	10
27	OEX	A	412[B]	10/10	0.99	0.05	37,44,51,55	10
37	CA	c	523	1/1	0.99	0.06	78,78,78,78	0
30	BCT	A	415[A]	4/4	0.99	0.12	53,53,57,67	4
30	BCT	A	415[B]	4/4	0.99	0.12	53,53,57,67	4
27	OEX	a	412[A]	10/10	0.99	0.06	47,49,54,54	10
27	OEX	a	412[B]	10/10	0.99	0.06	46,49,53,54	10
22	CL	a	403[A]	1/1	0.99	0.03	52,52,52,52	1
22	CL	a	403[B]	1/1	0.99	0.03	51,51,51,51	1
22	CL	A	403[A]	1/1	0.99	0.02	45,45,45,45	1
22	CL	A	403[B]	1/1	0.99	0.02	45,45,45,45	1
22	CL	a	402[A]	1/1	0.99	0.03	47,47,47,47	1
22	CL	A	402[A]	1/1	1.00	0.01	40,40,40,40	1
22	CL	A	402[B]	1/1	1.00	0.01	40,40,40,40	1
21	FE2	A	401[A]	1/1	1.00	0.06	49,49,49,49	1
21	FE2	A	401[B]	1/1	1.00	0.06	50,50,50,50	1
21	FE2	a	401[A]	1/1	1.00	0.04	52,52,52,52	1
21	FE2	a	401[B]	1/1	1.00	0.04	52,52,52,52	1

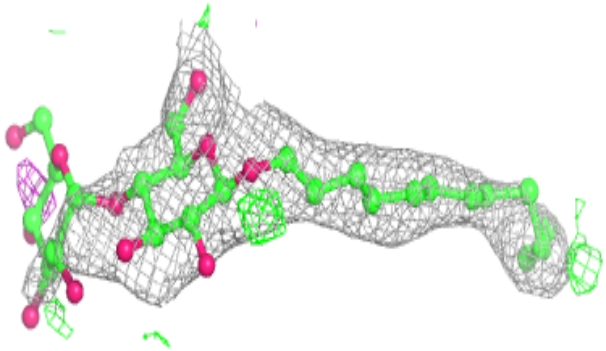
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers

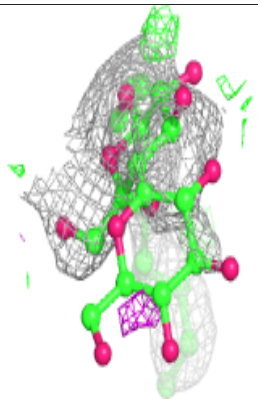
as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around LMT 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)

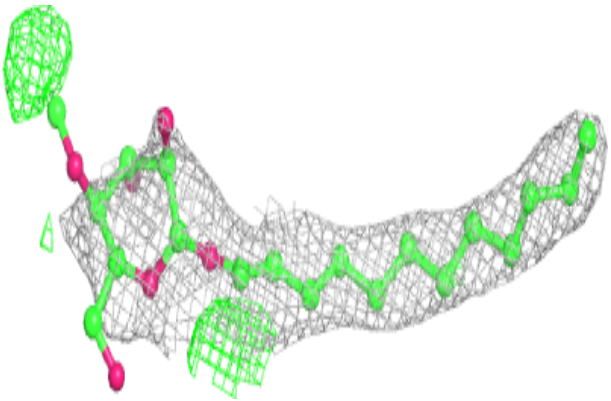


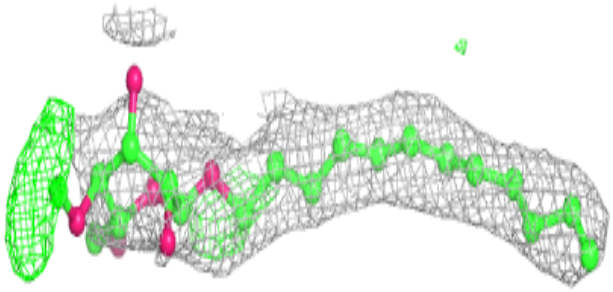


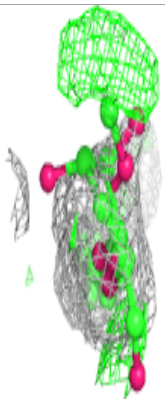


Electron density around LMT b 621:

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

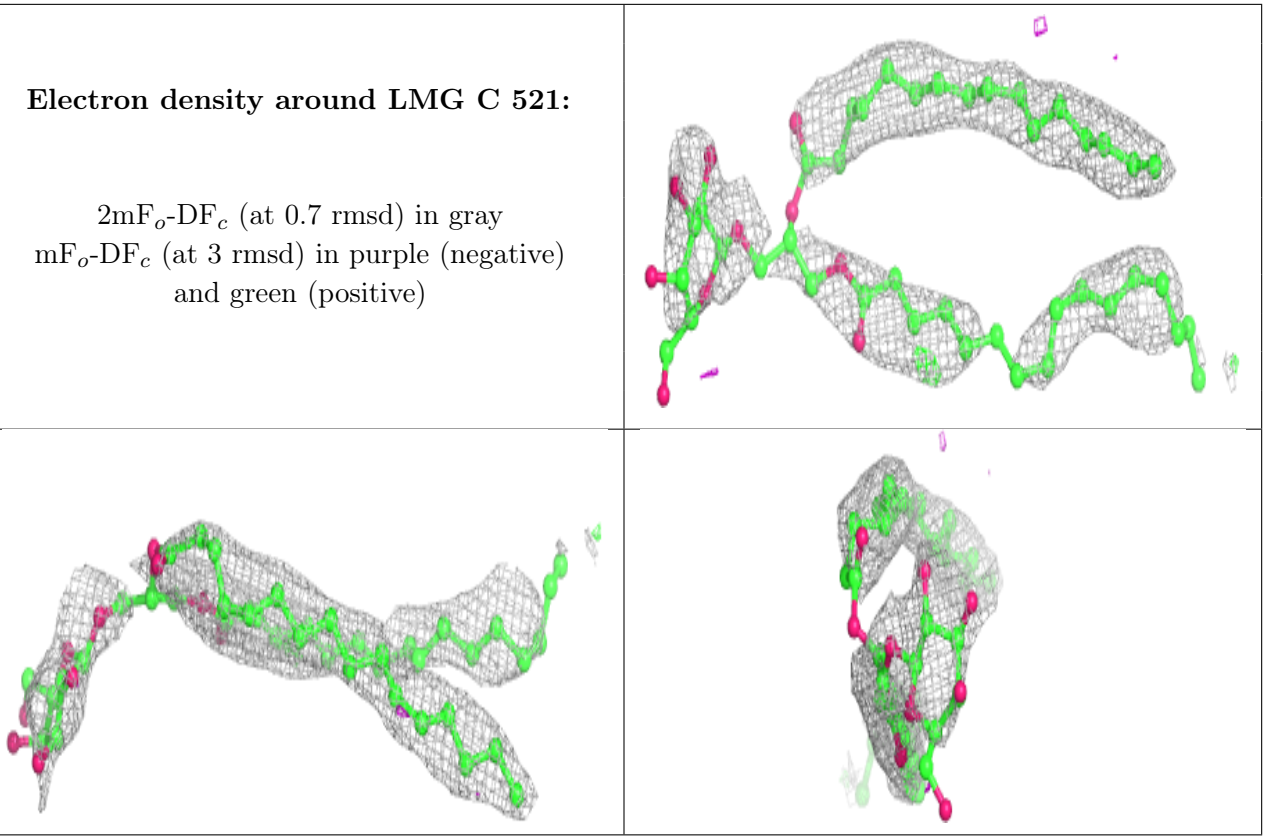






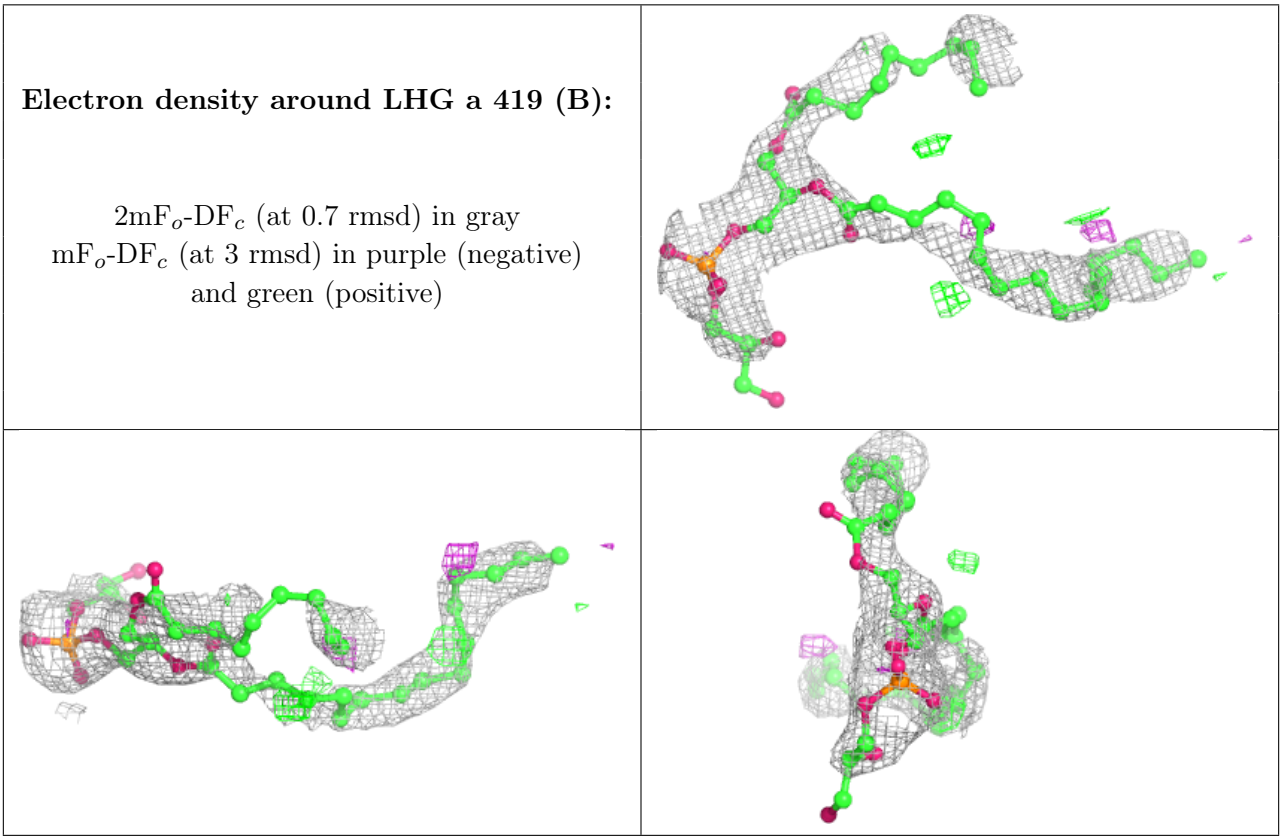
Electron density around LMG C 521:

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



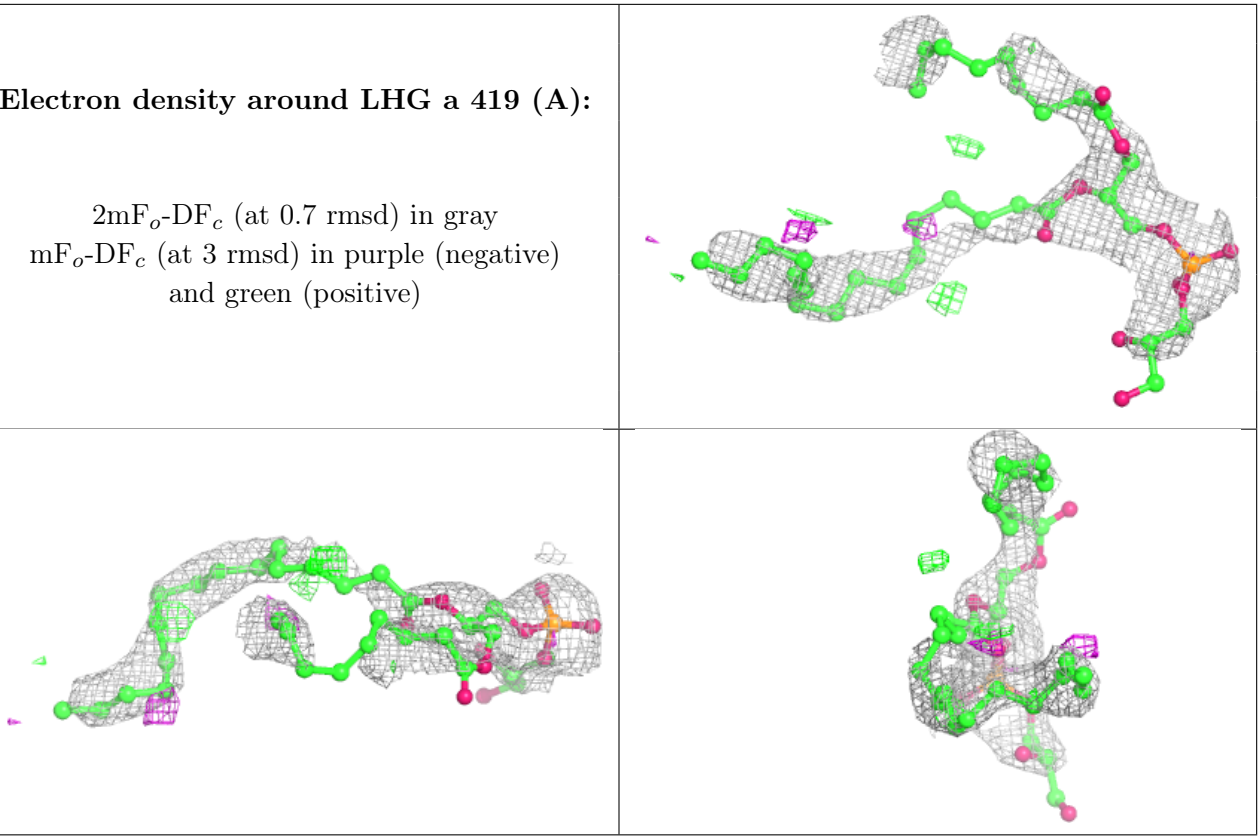
Electron density around LHG a 419 (B):

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



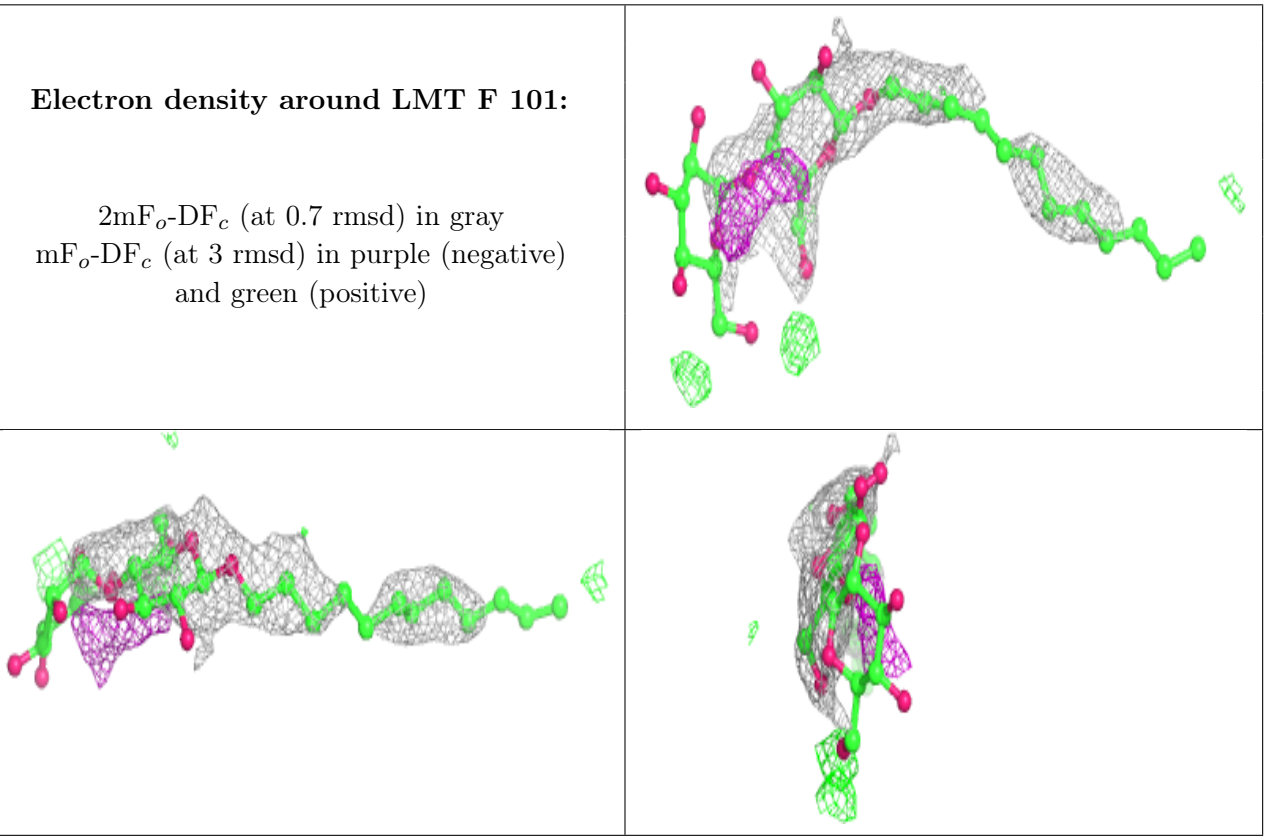
Electron density around LHG a 419 (A):

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



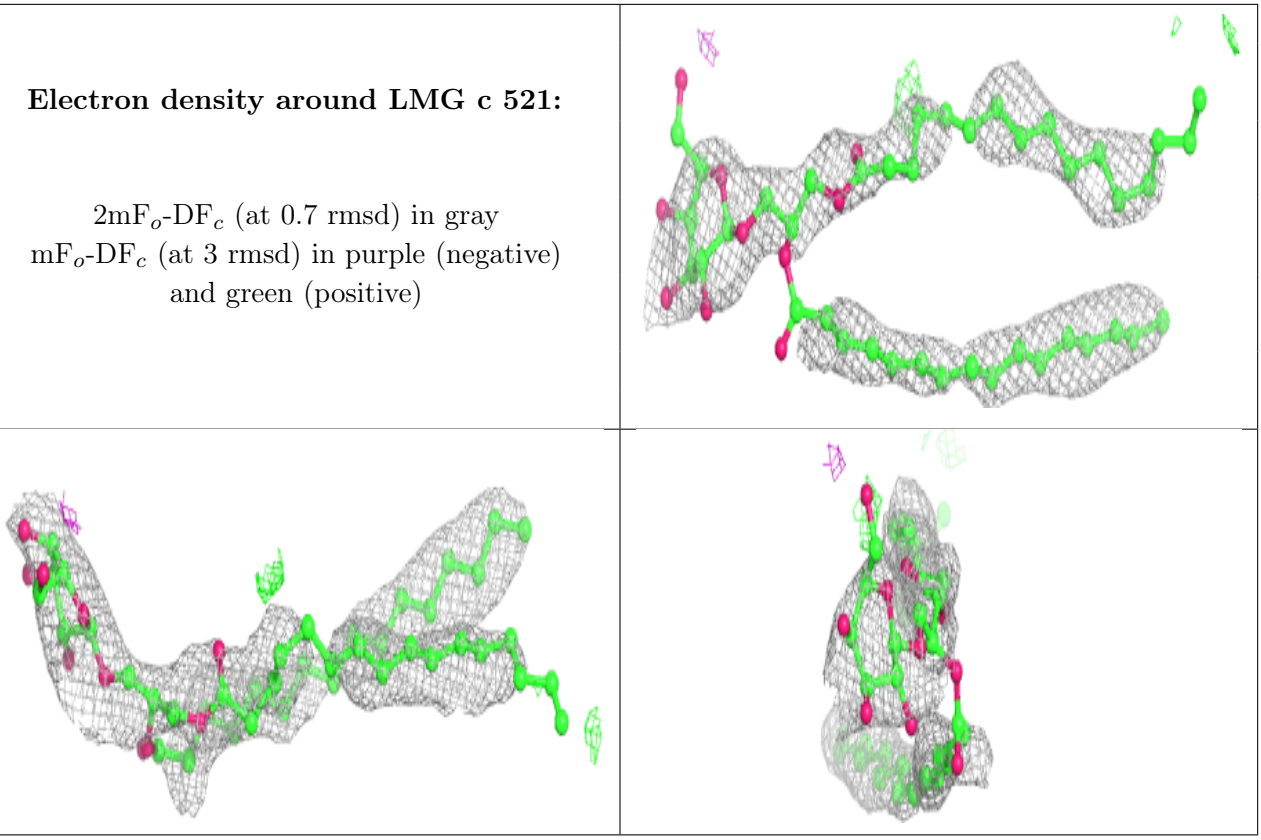
Electron density around LMT F 101:

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



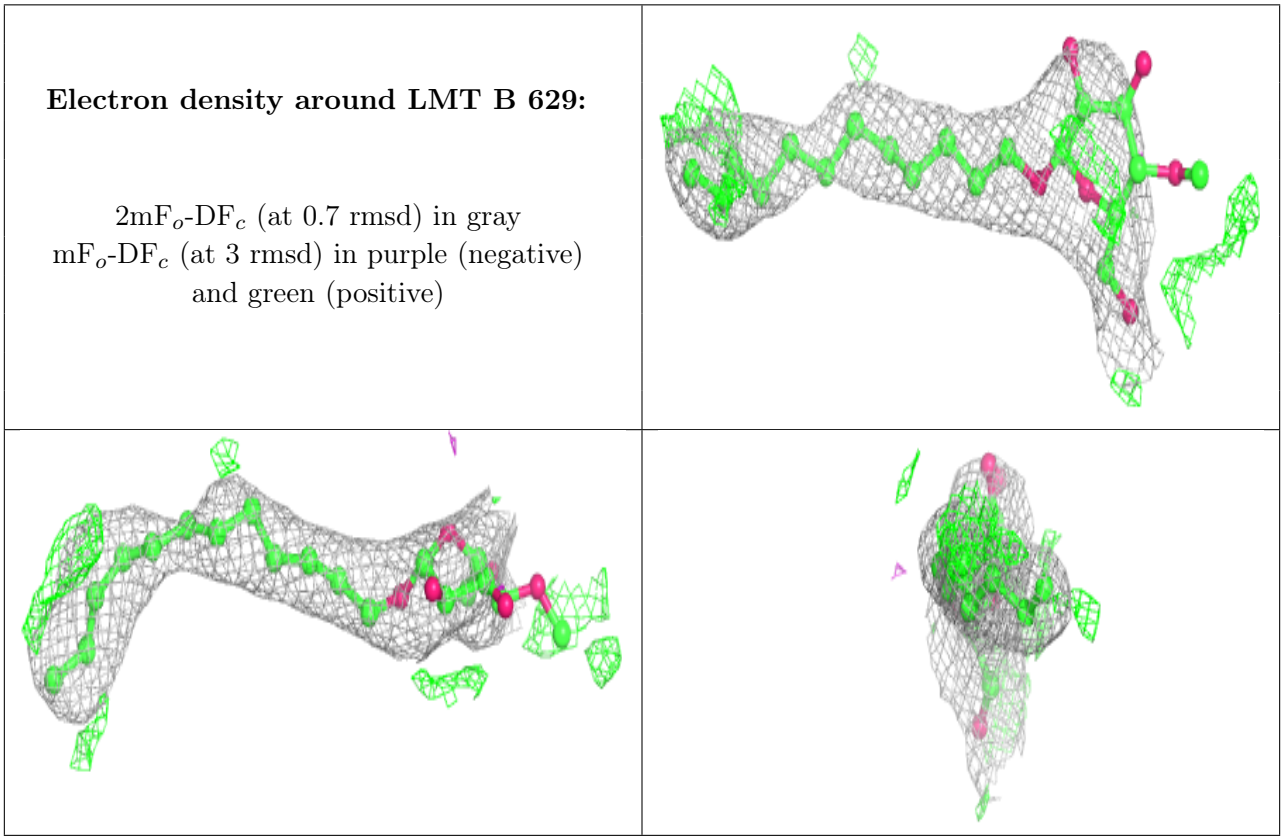
Electron density around LMG c 521:

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



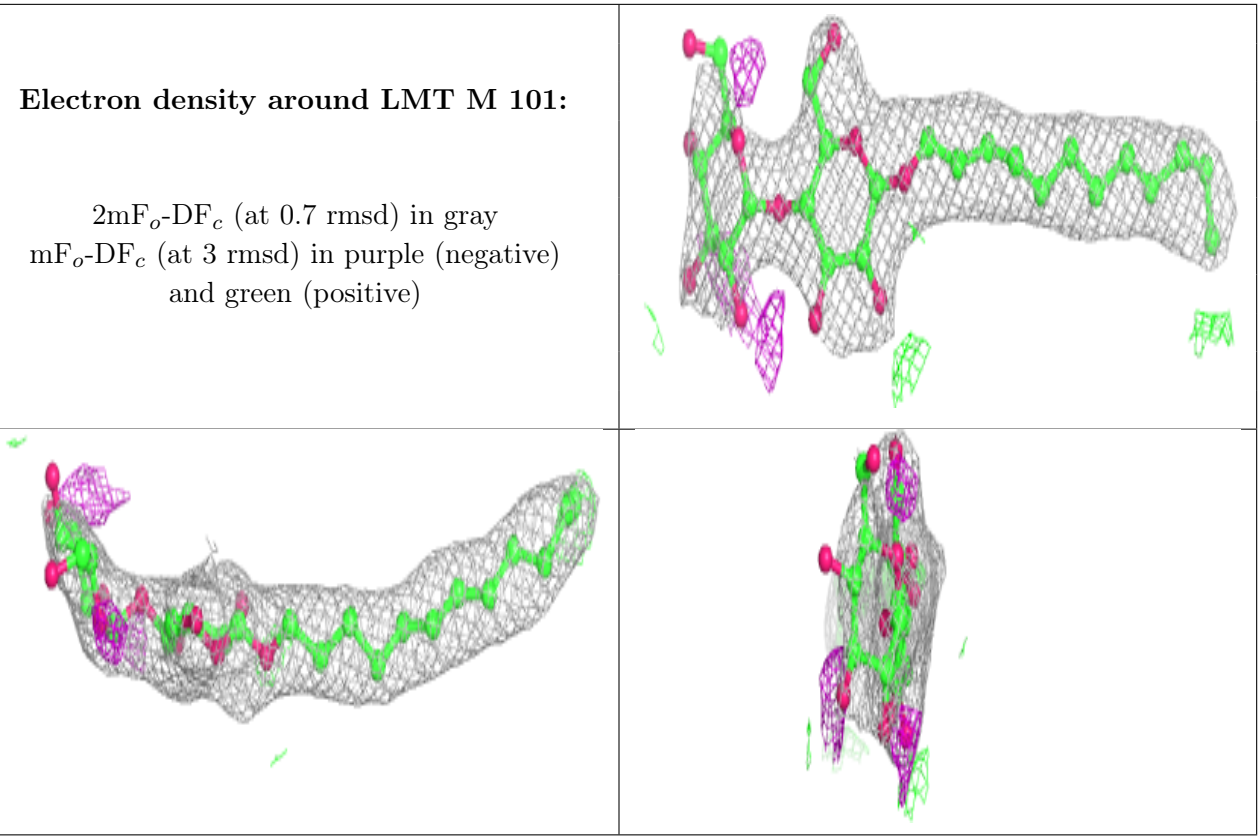
Electron density around LMT B 629:

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



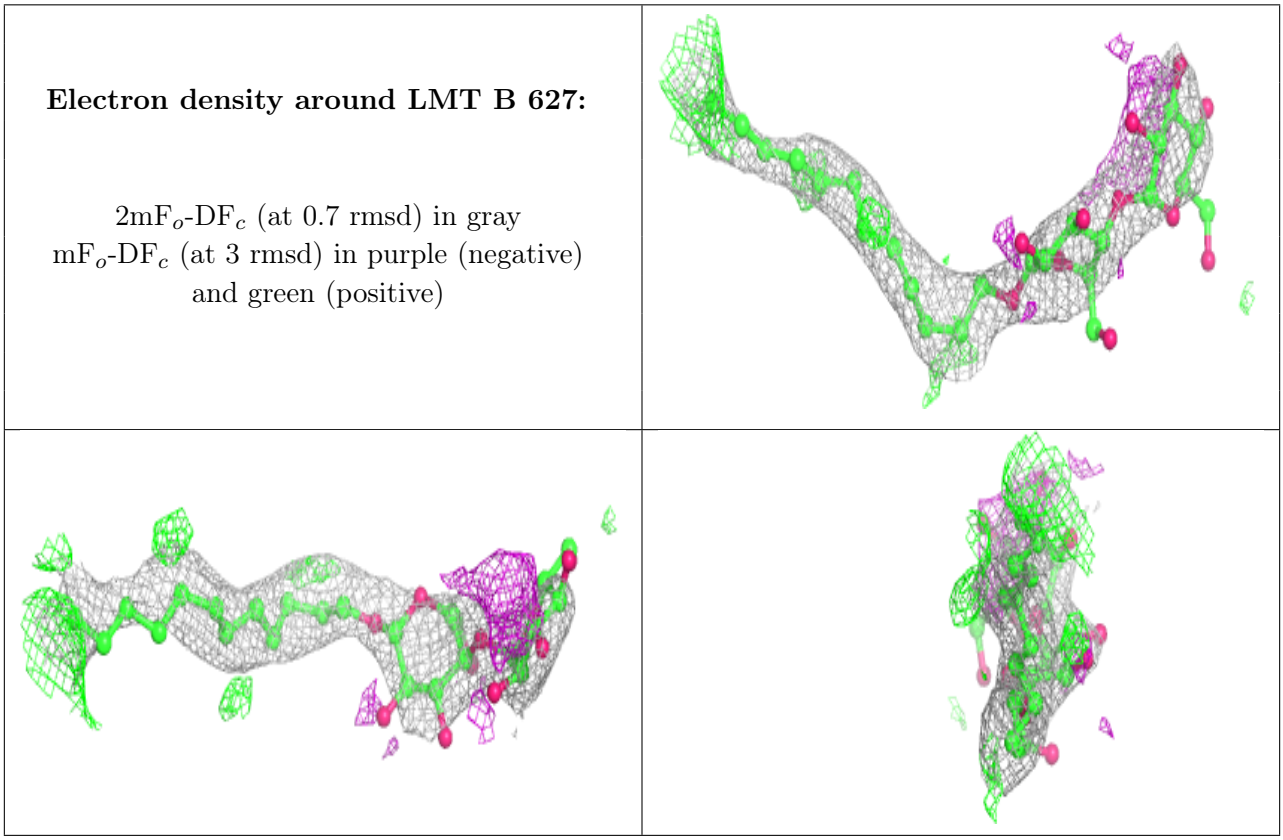
Electron density around LMT M 101:

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



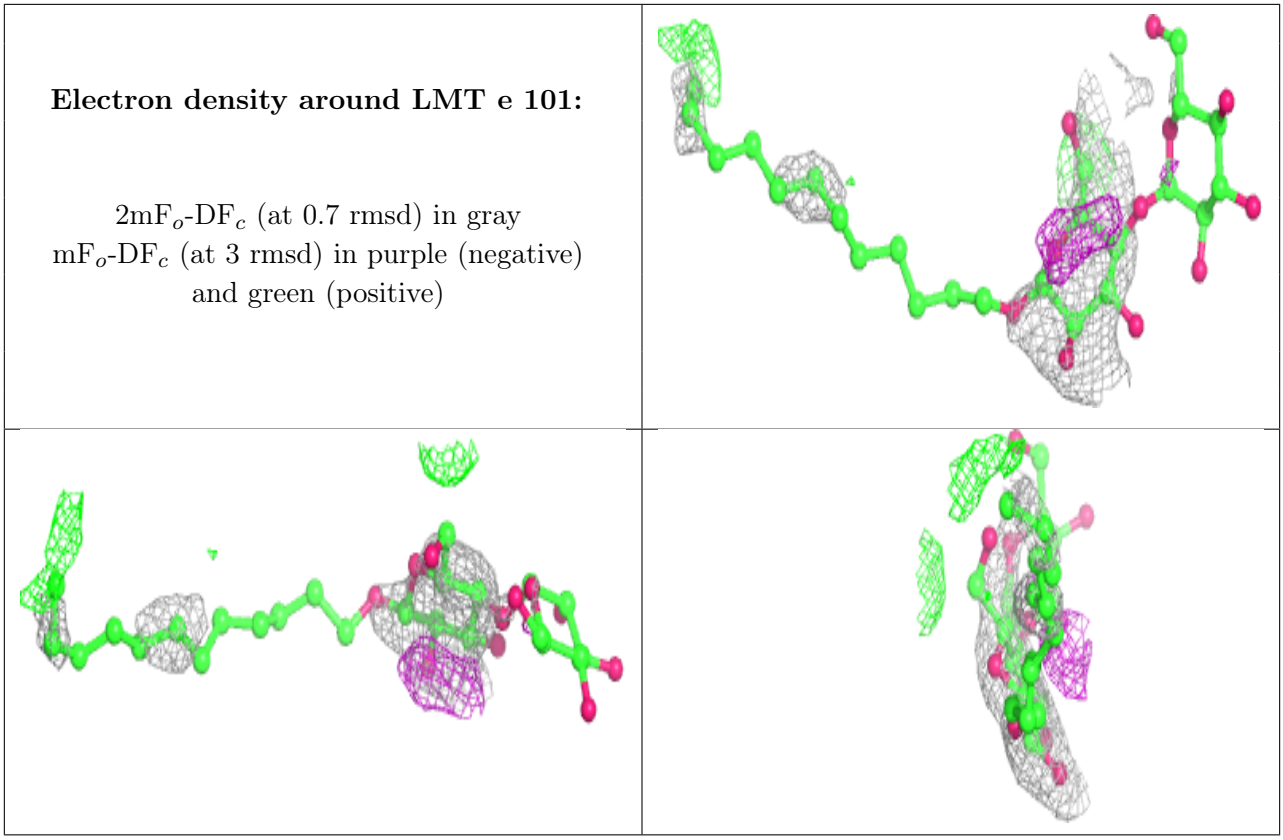
Electron density around LMT B 627:

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



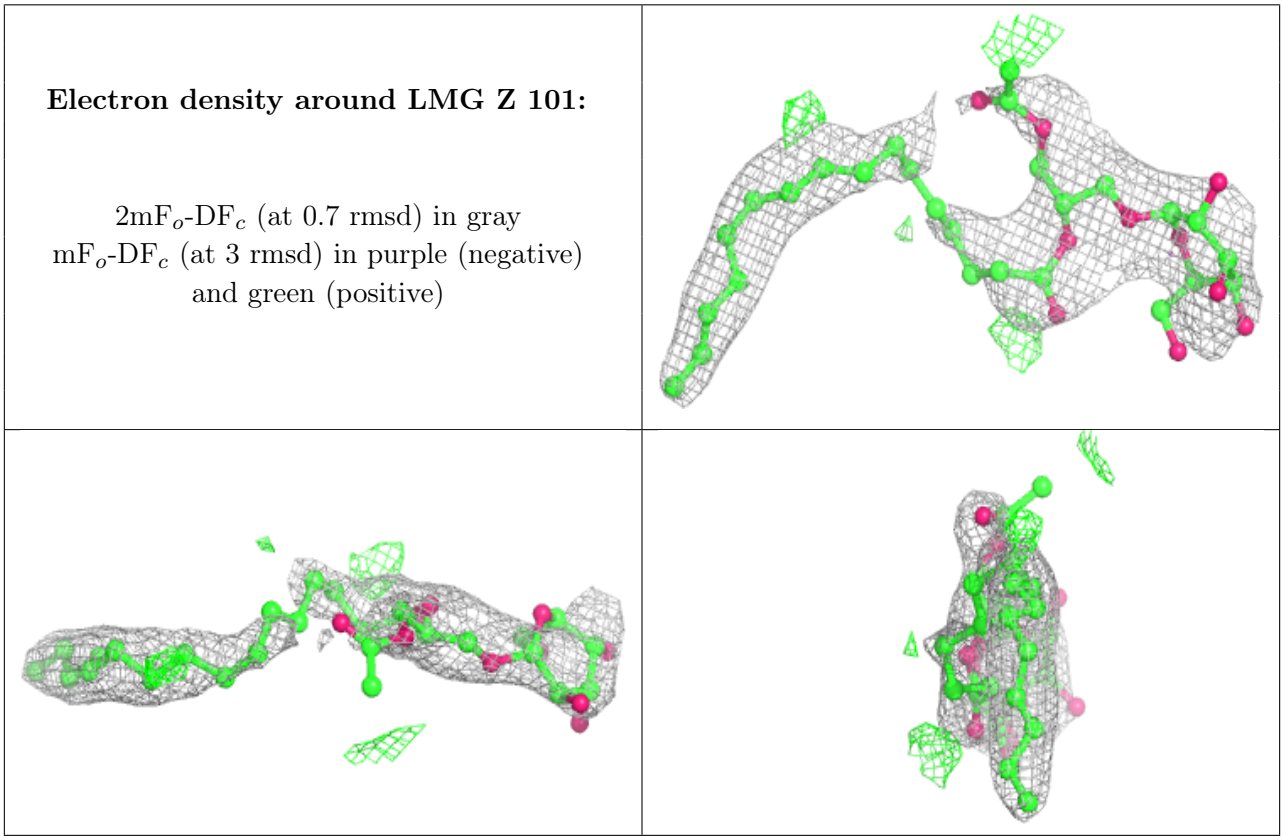
Electron density around LMT e 101:

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



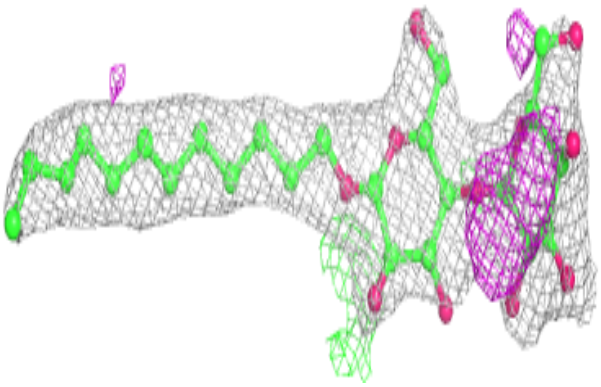
Electron density around LMG Z 101:

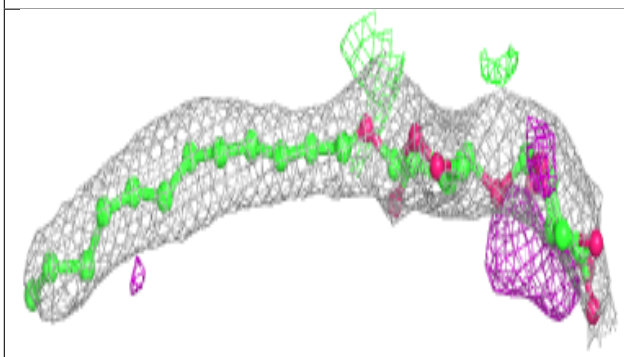
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

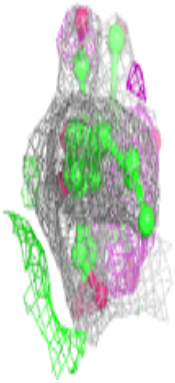


Electron density around LMT m 103:

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

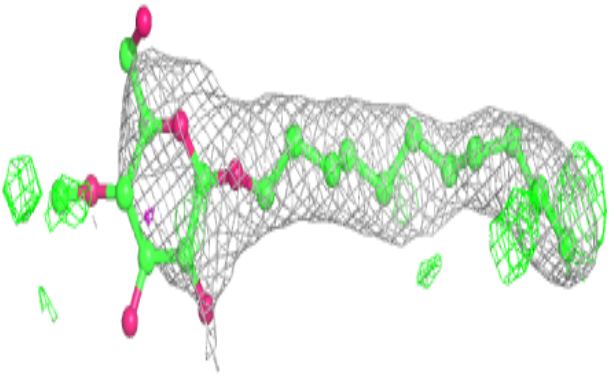


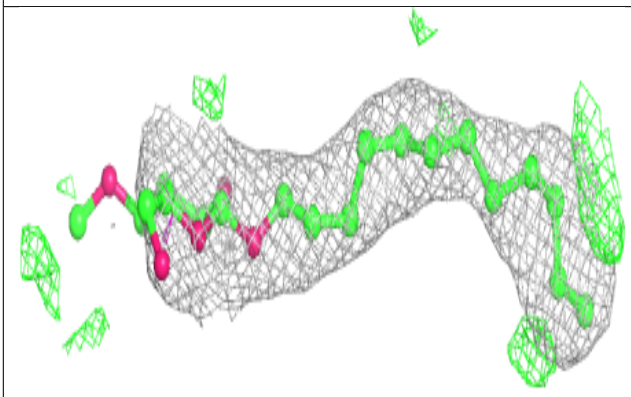


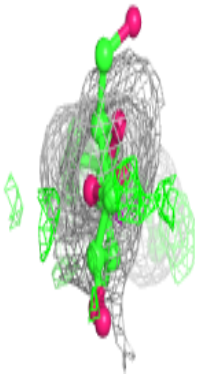


Electron density around LMT b 627:

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

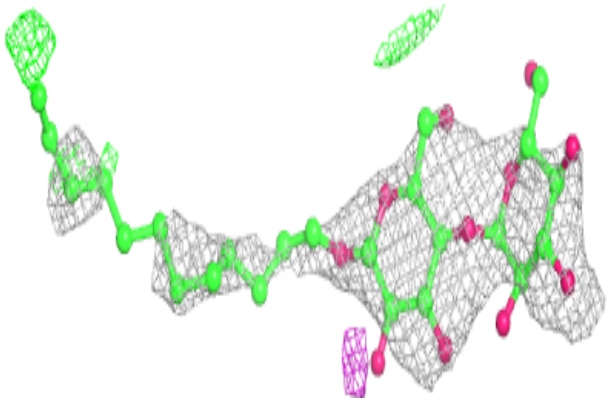


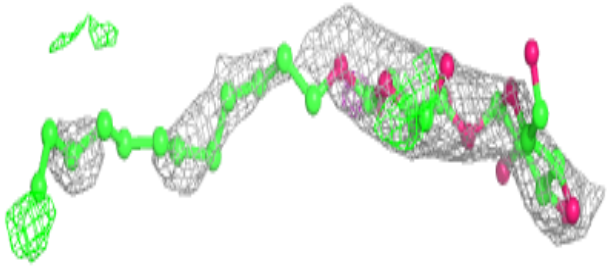


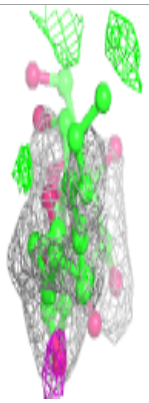


Electron density around LMT a 416:

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

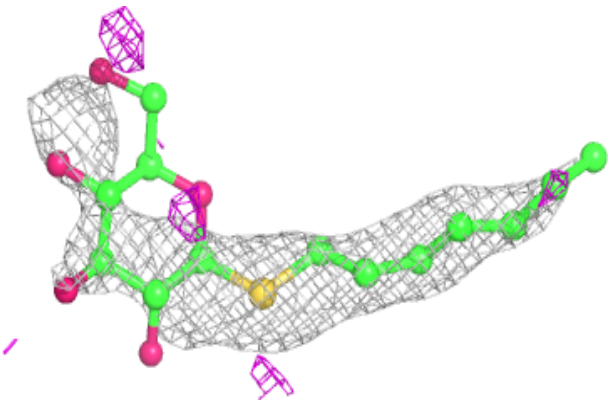


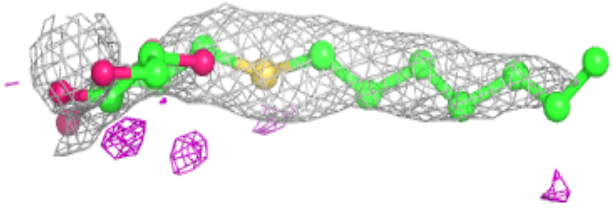


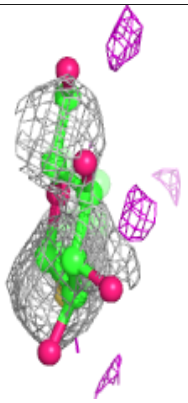


Electron density around HTG b 623:

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

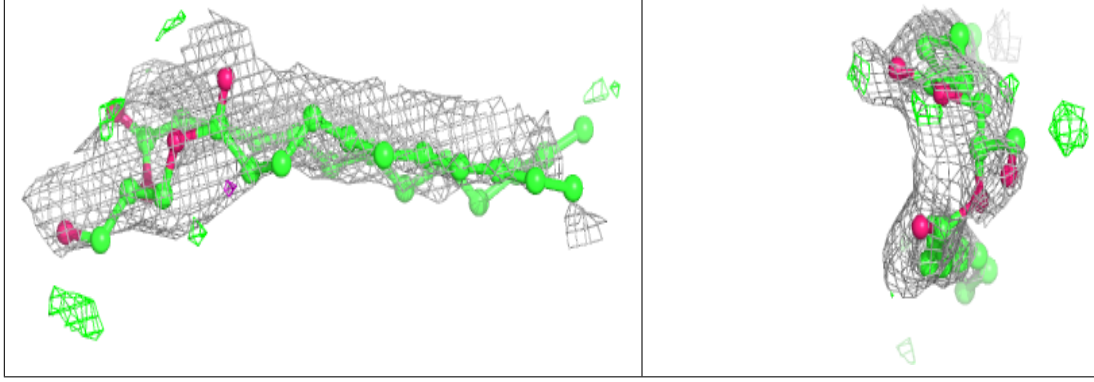






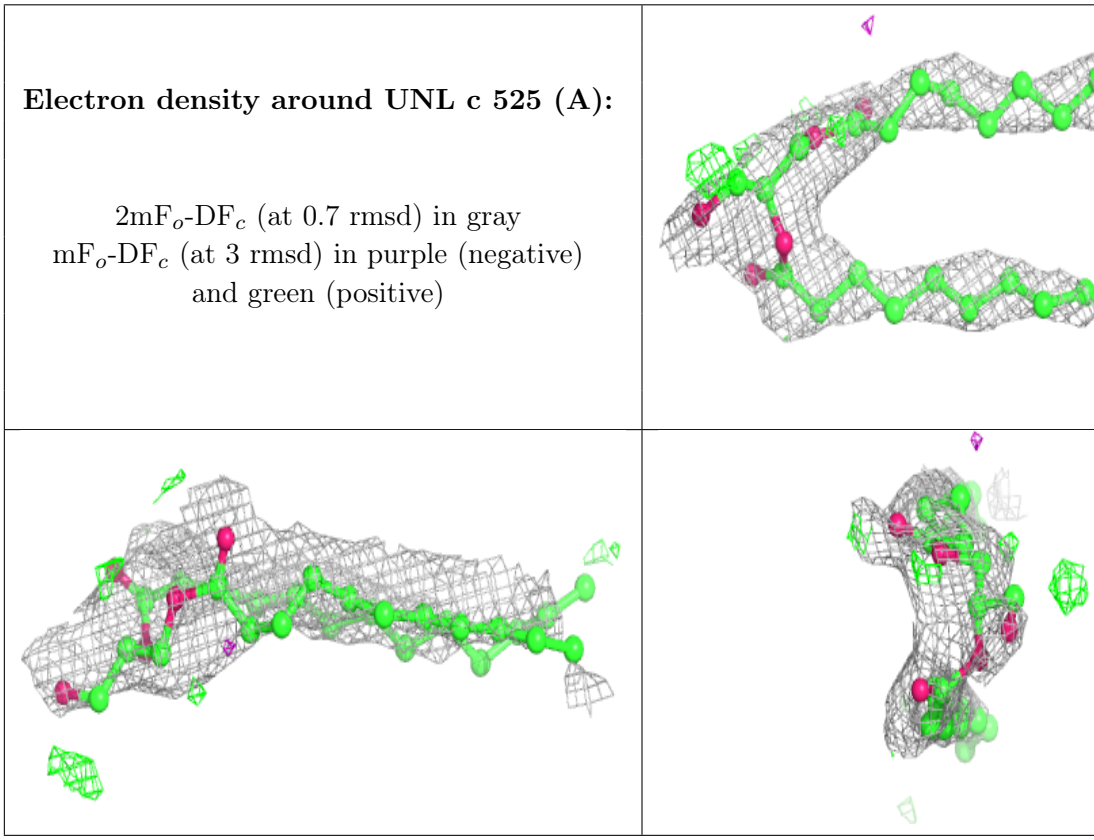
Electron density around UNL c 525 (B):

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



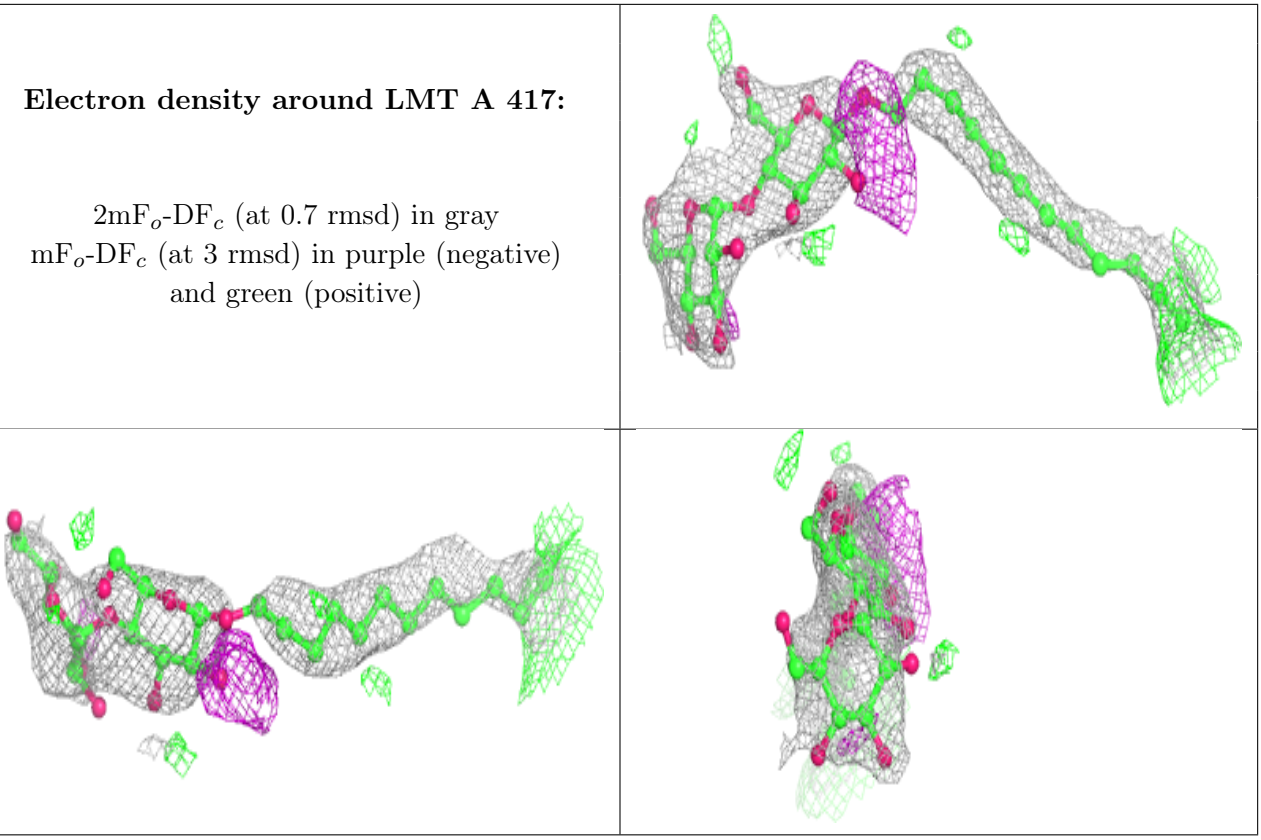
Electron density around UNL c 525 (A):

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



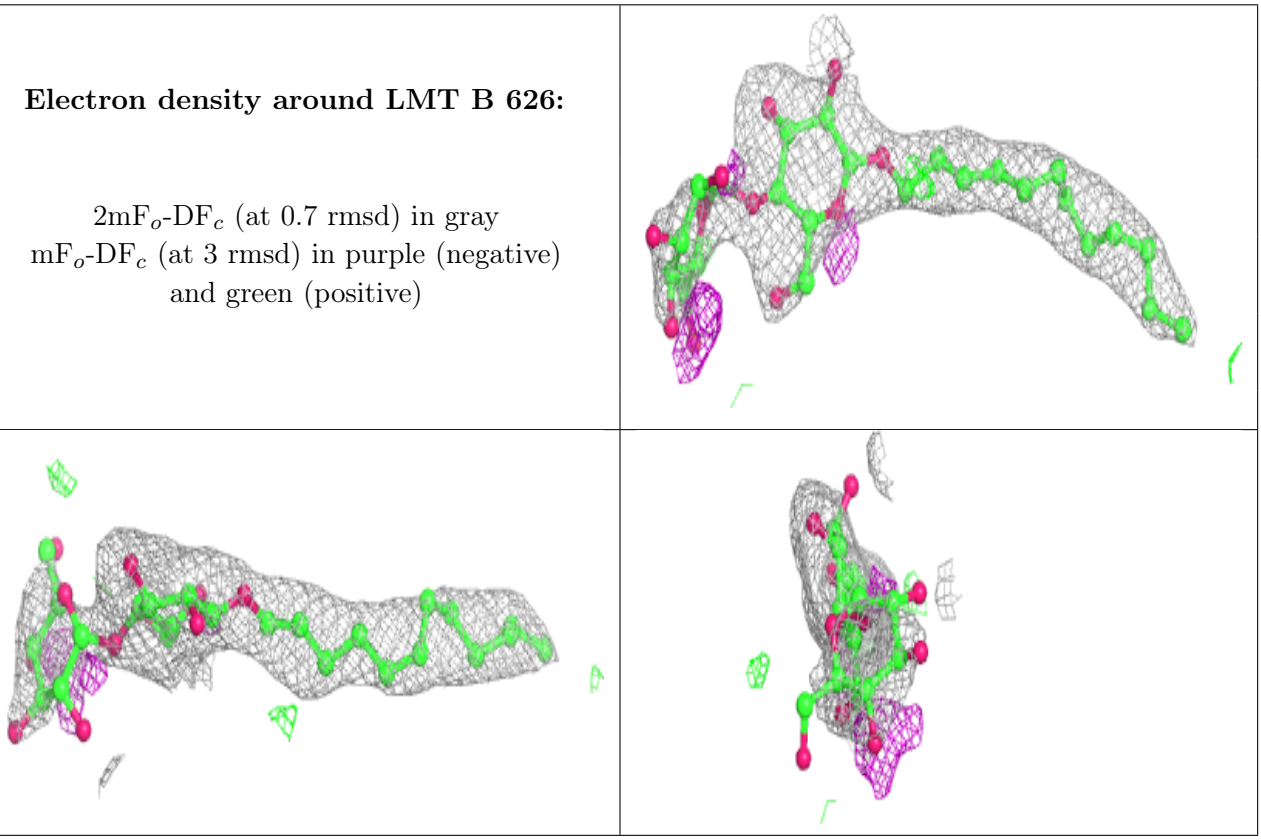
Electron density around LMT A 417:

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



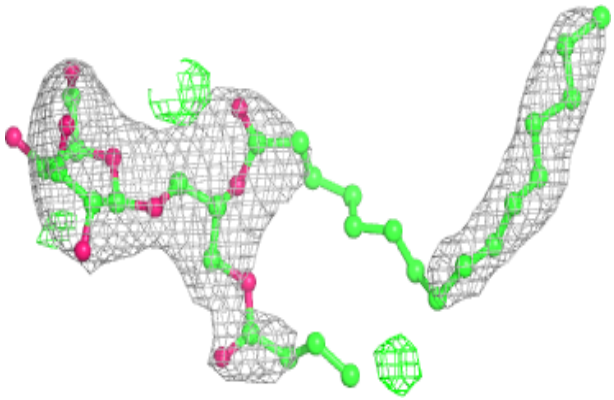
Electron density around LMT B 626:

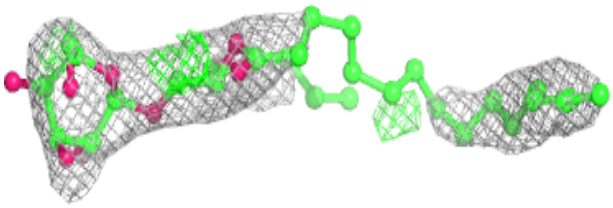
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around LMG z 101:

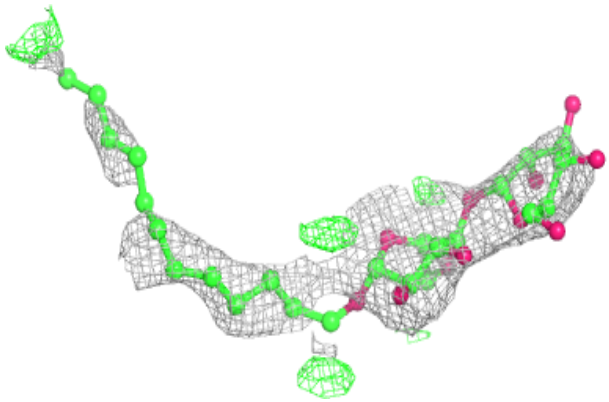
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

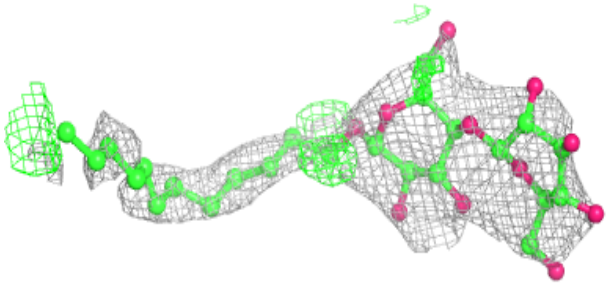


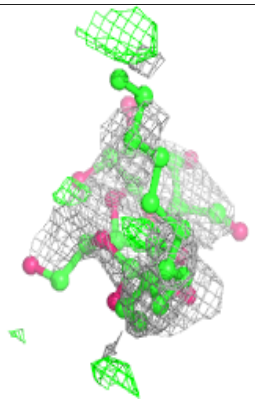


Electron density around LMT A 419:

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

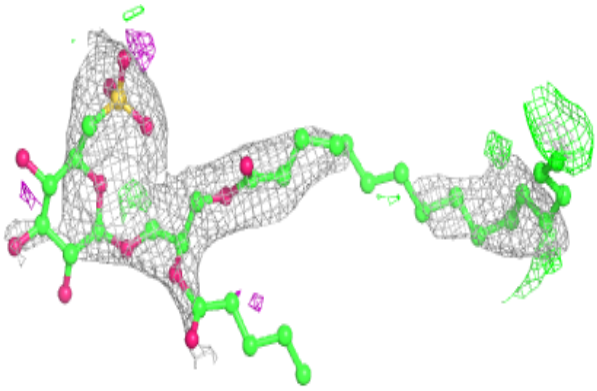


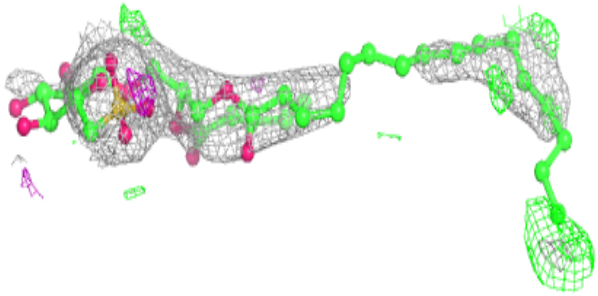


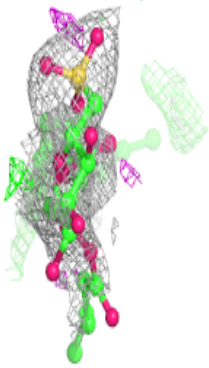


Electron density around SQD f 102:

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

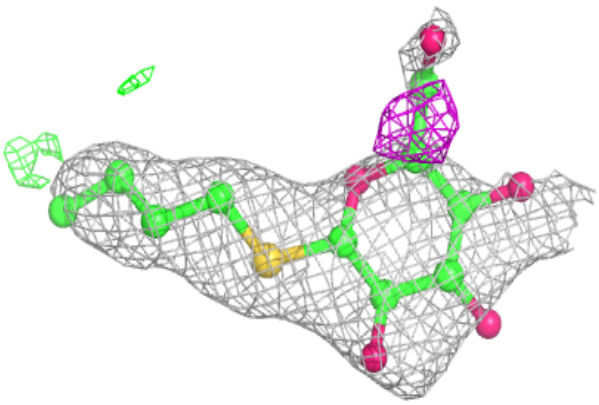


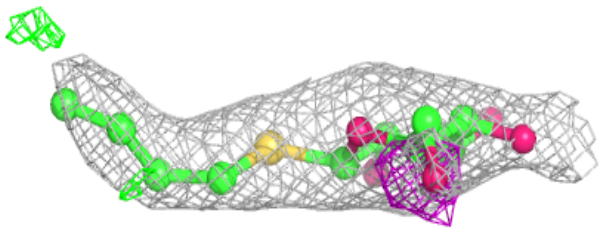


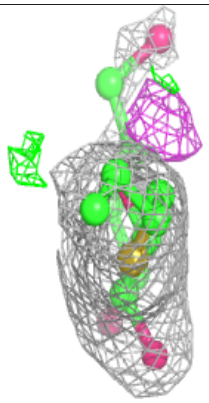


Electron density around HTG D 411:

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

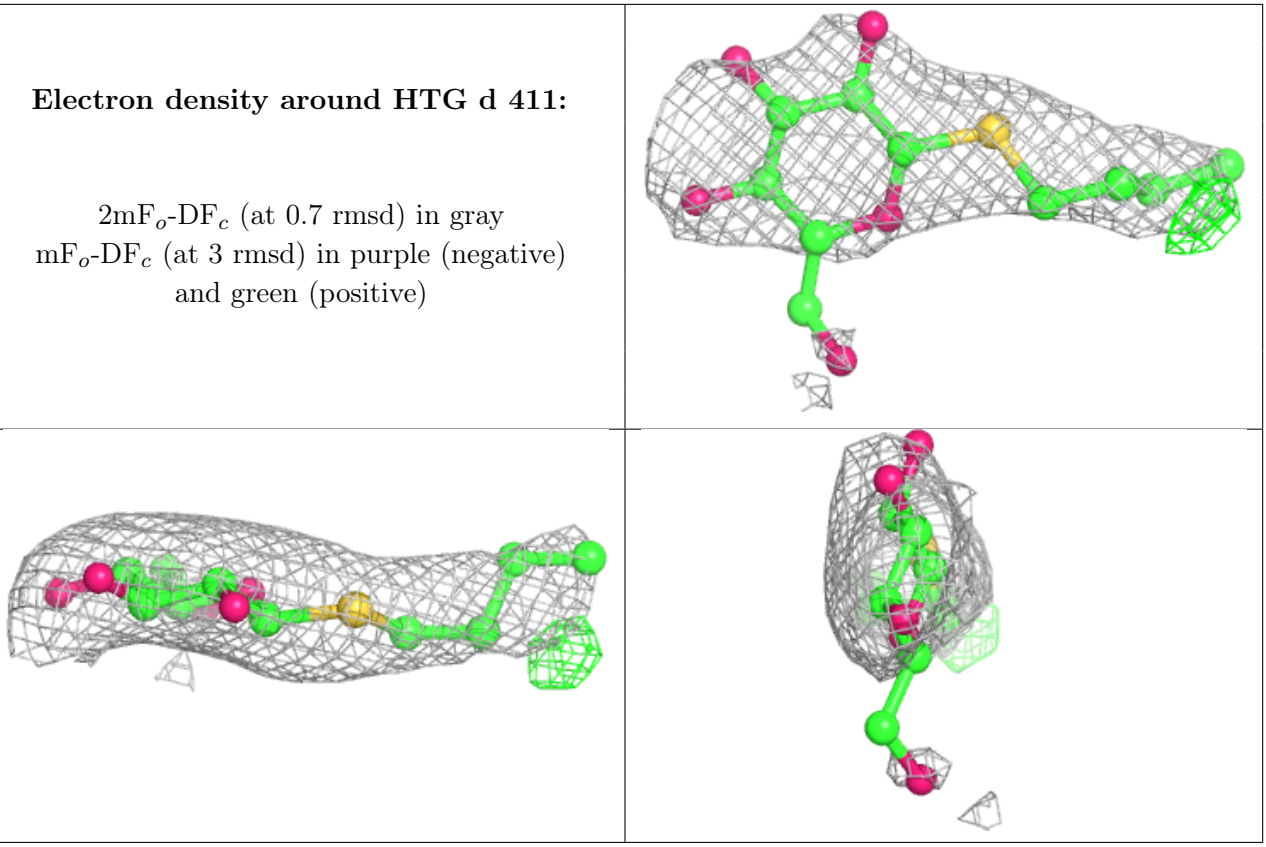






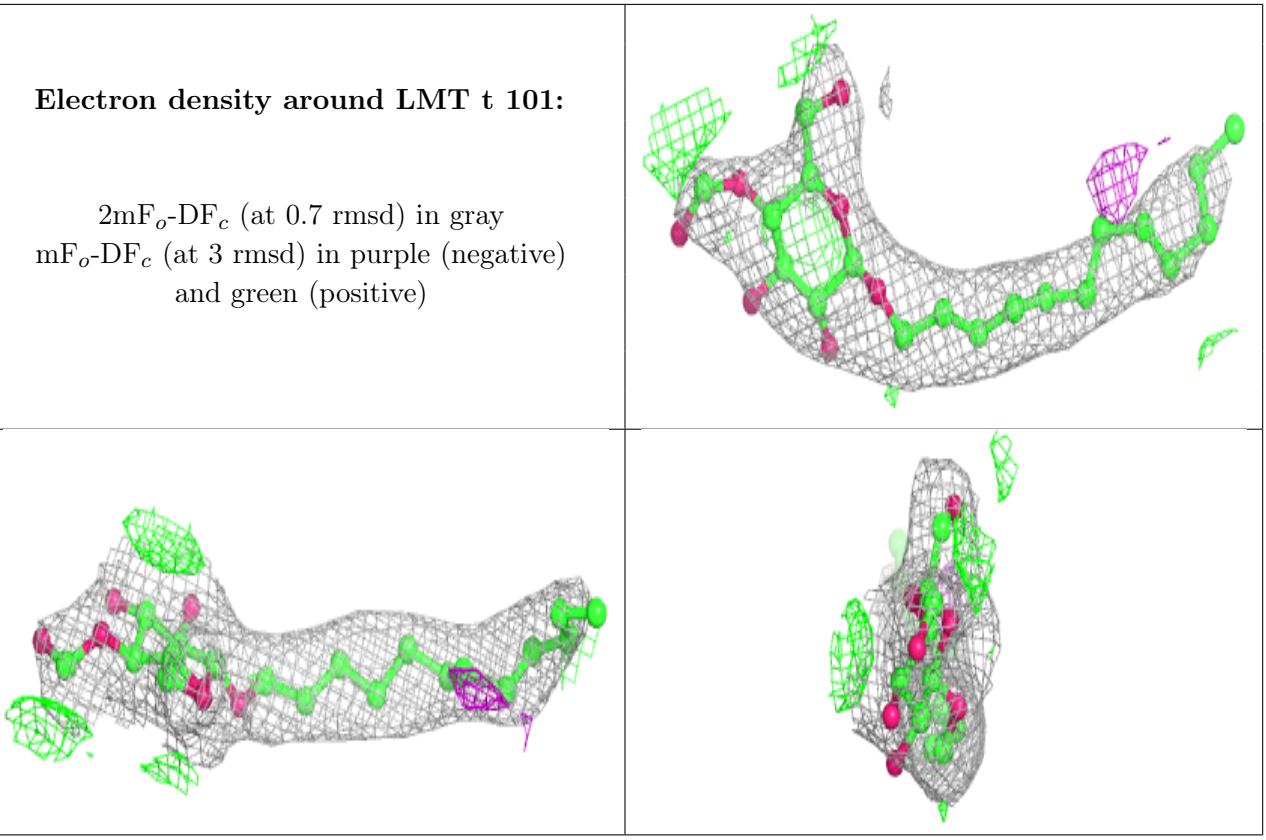
Electron density around HTG d 411:

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



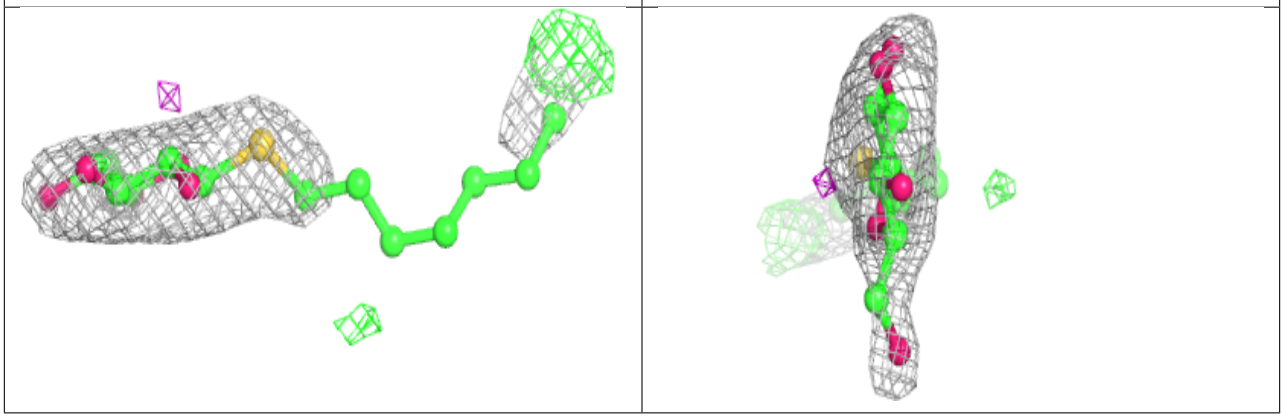
Electron density around LMT t 101:

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



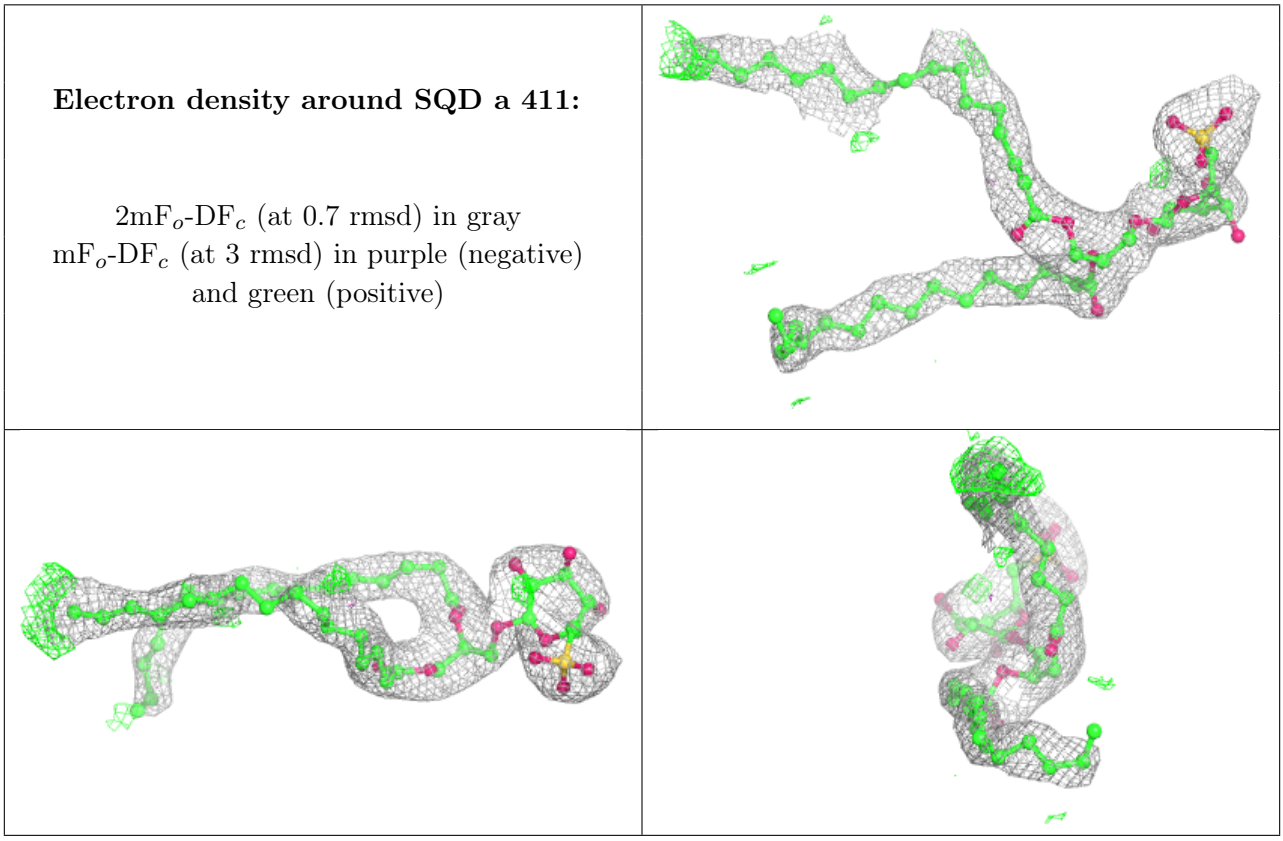
Electron density around HTG C 522:

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



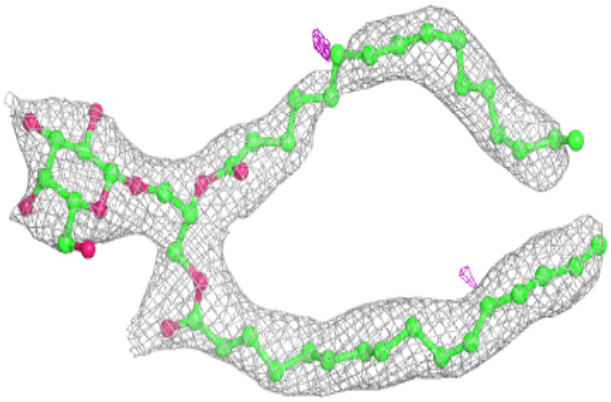
Electron density around SQD a 411:

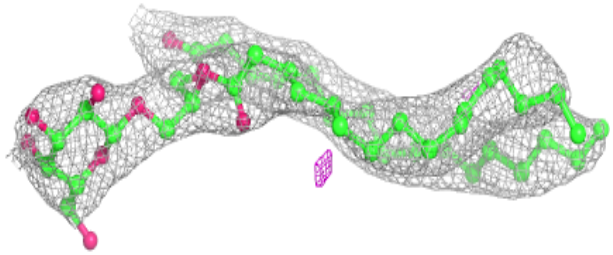
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

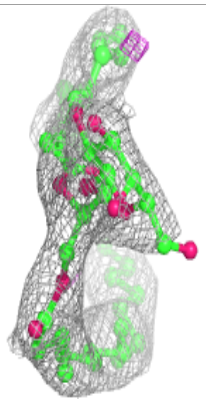


Electron density around LMG c 501:

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

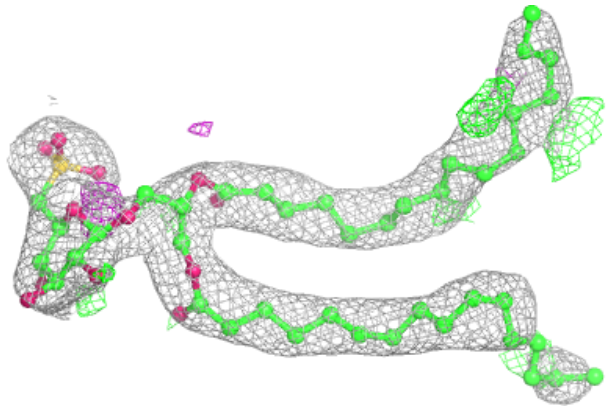


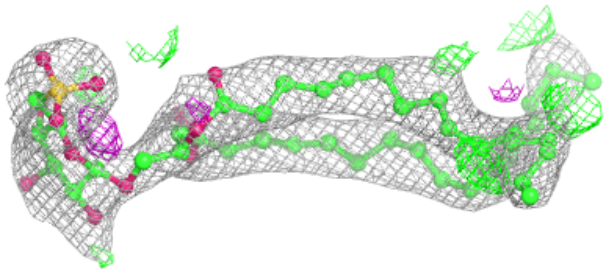




Electron density around SQD b 620:

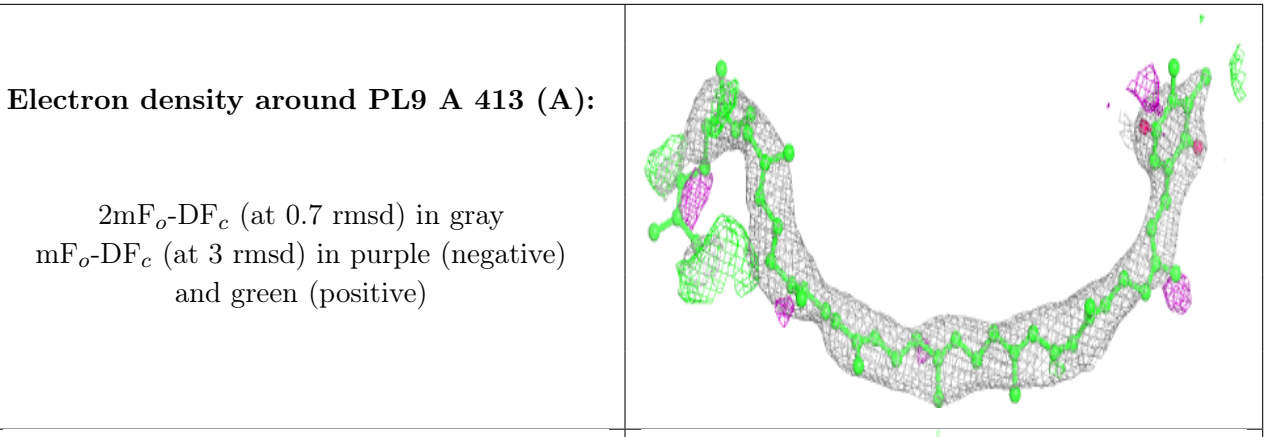
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





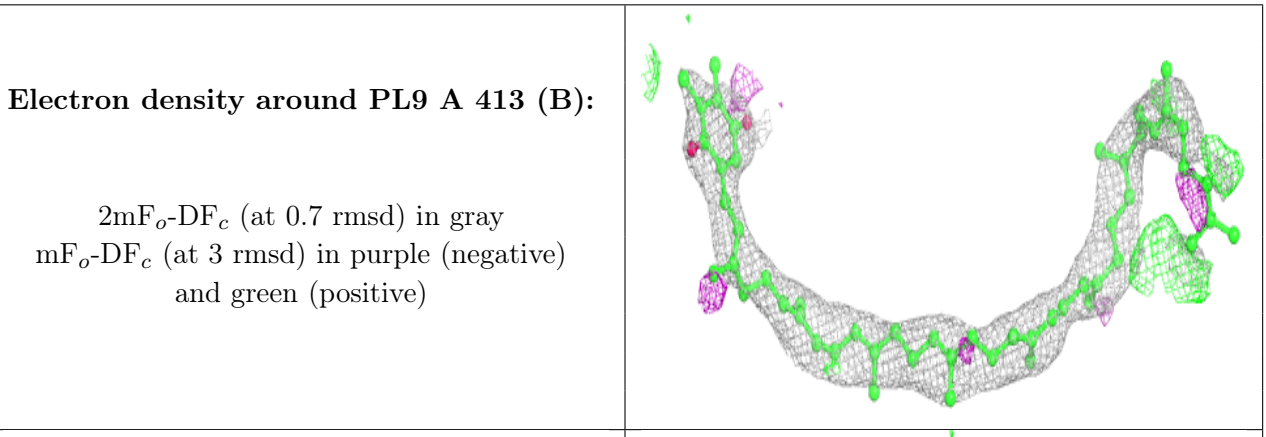
Electron density around PL9 A 413 (A):

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



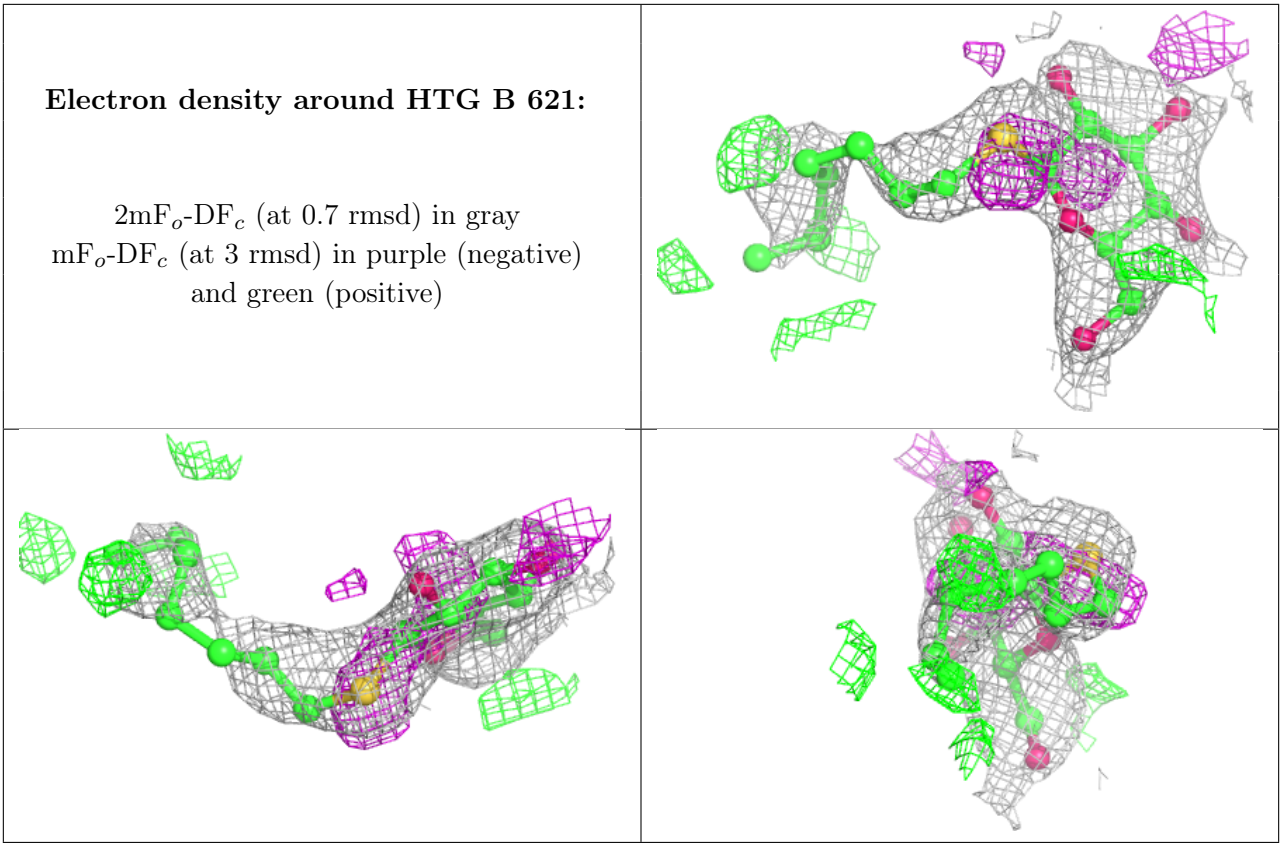
Electron density around PL9 A 413 (B):

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



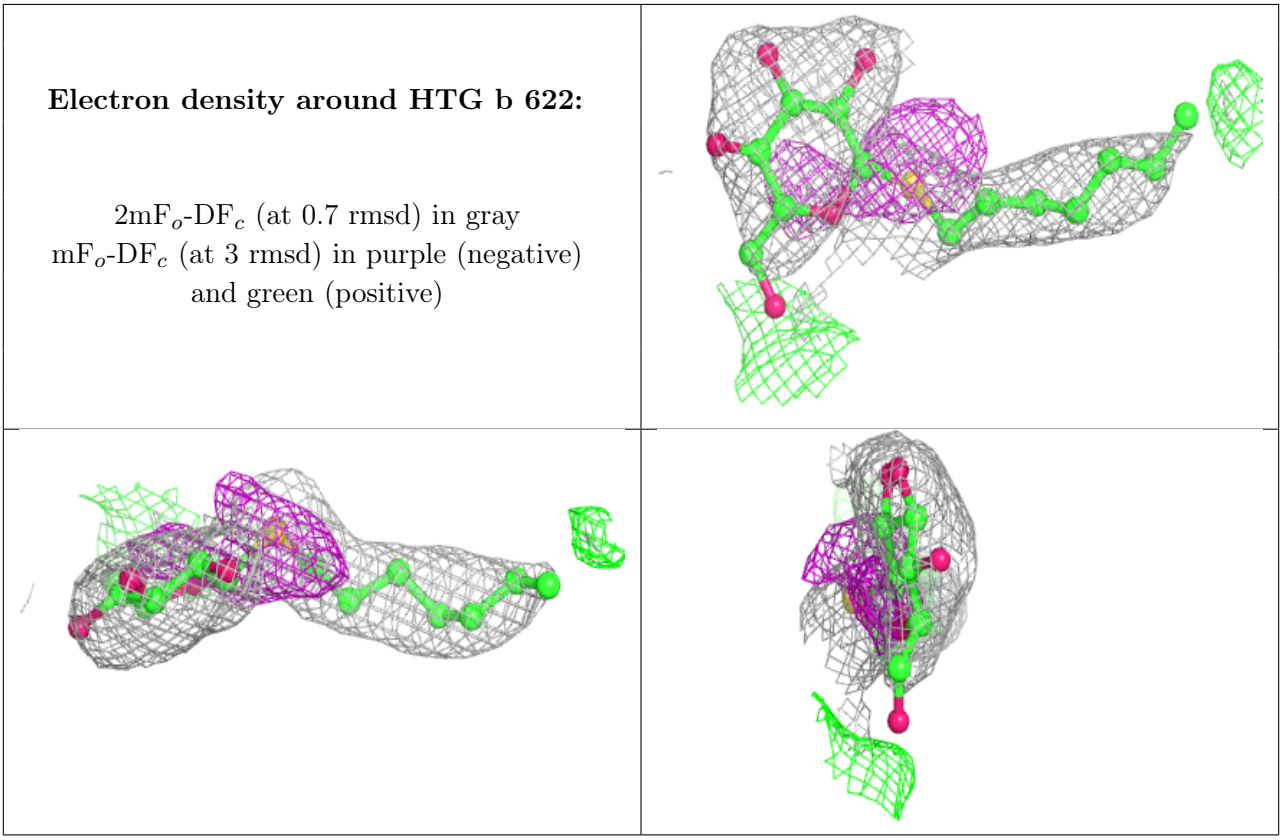
Electron density around HTG B 621:

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



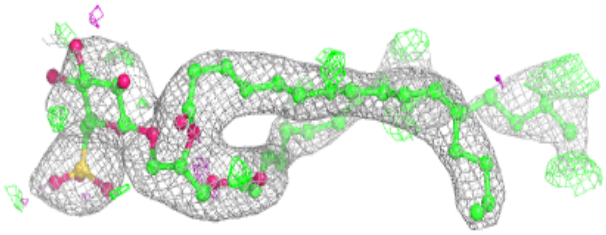
Electron density around HTG b 622:

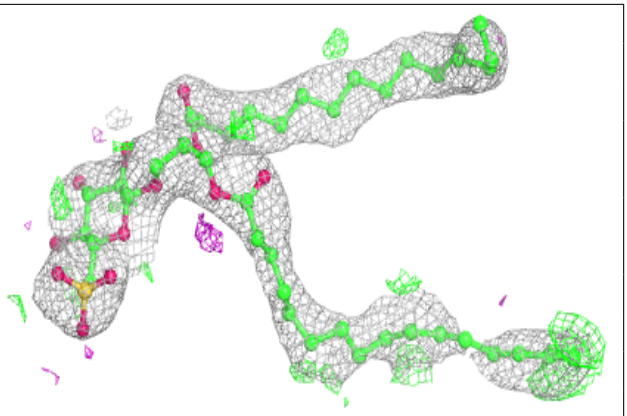
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

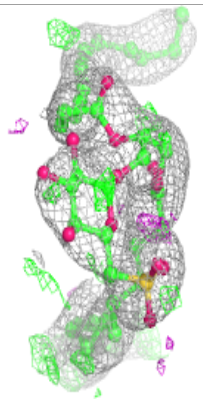


Electron density around SQD A 411:

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

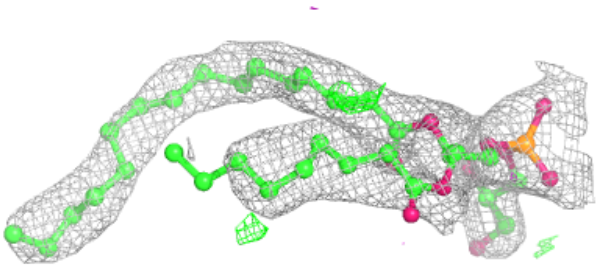


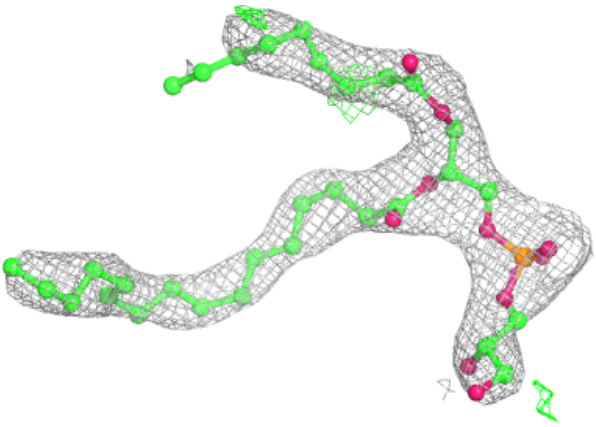


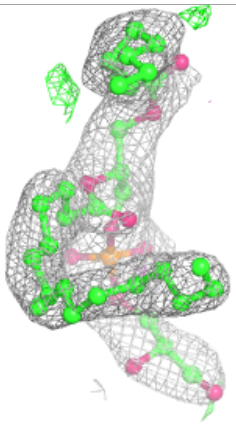


Electron density around LHG E 101 (B):

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

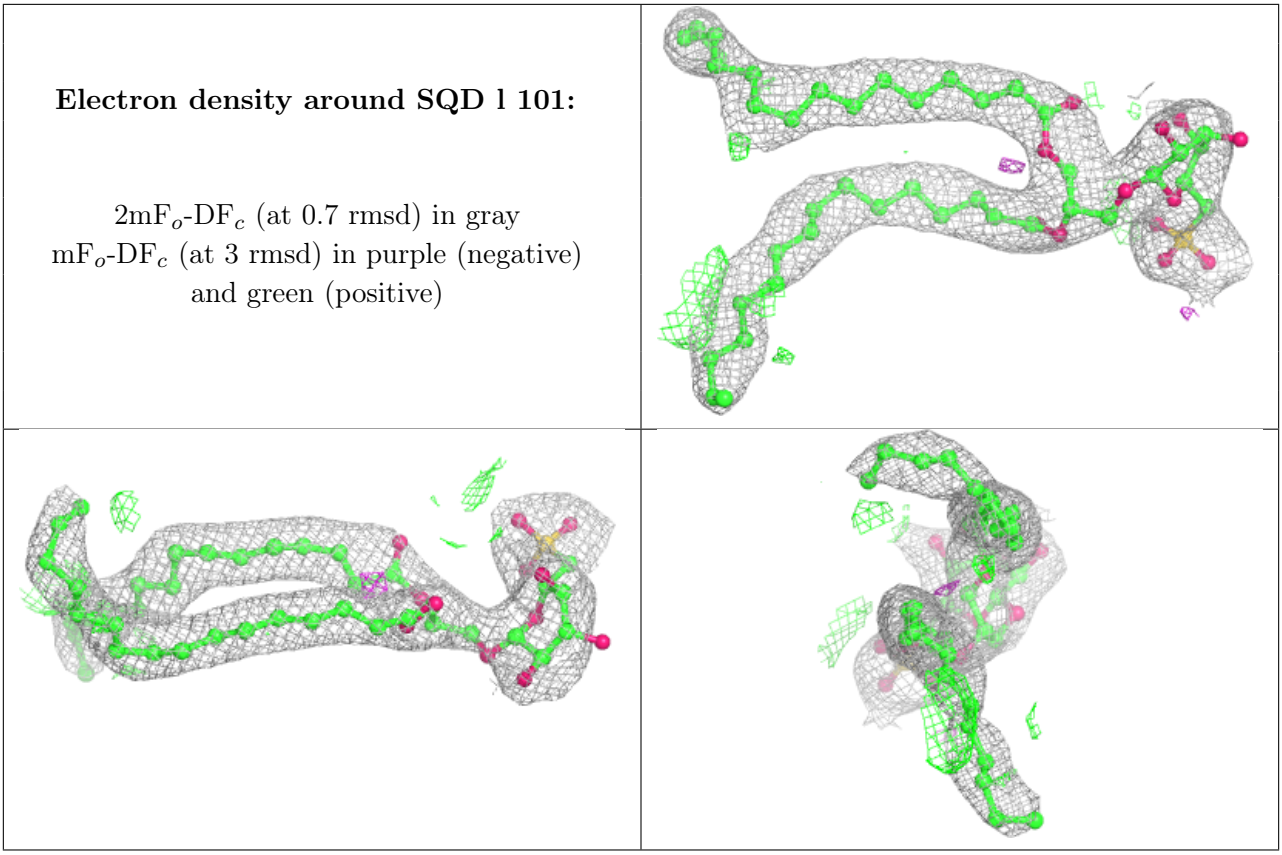






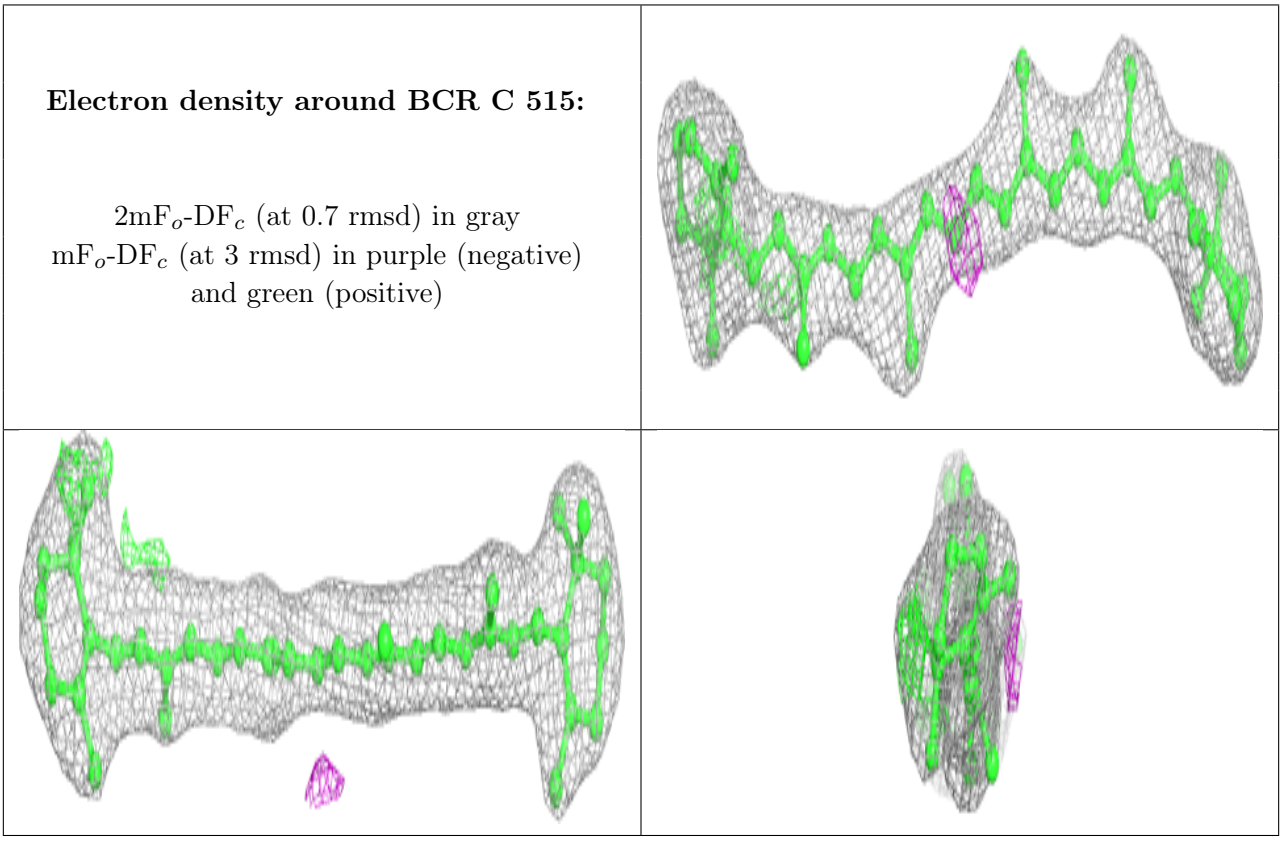
Electron density around SQD l 101:

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



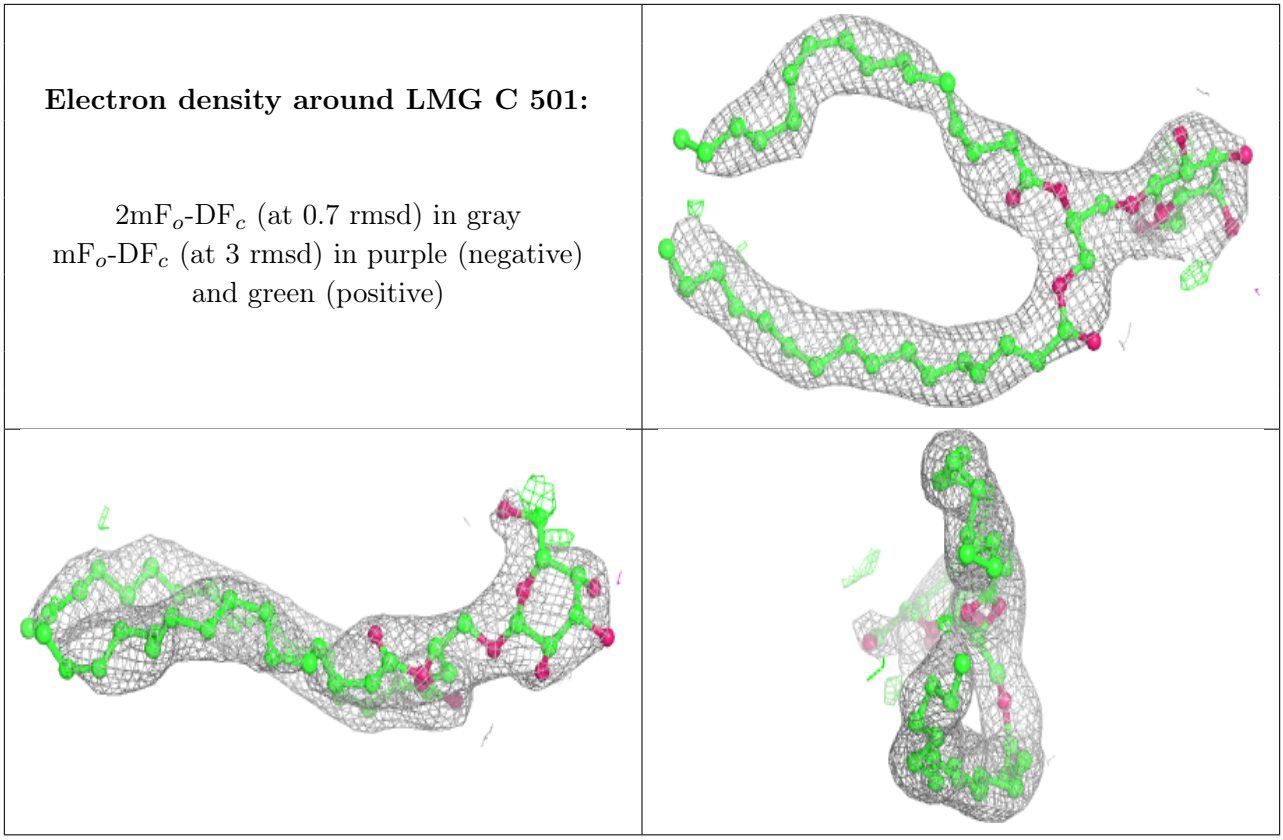
Electron density around BCR C 515:

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



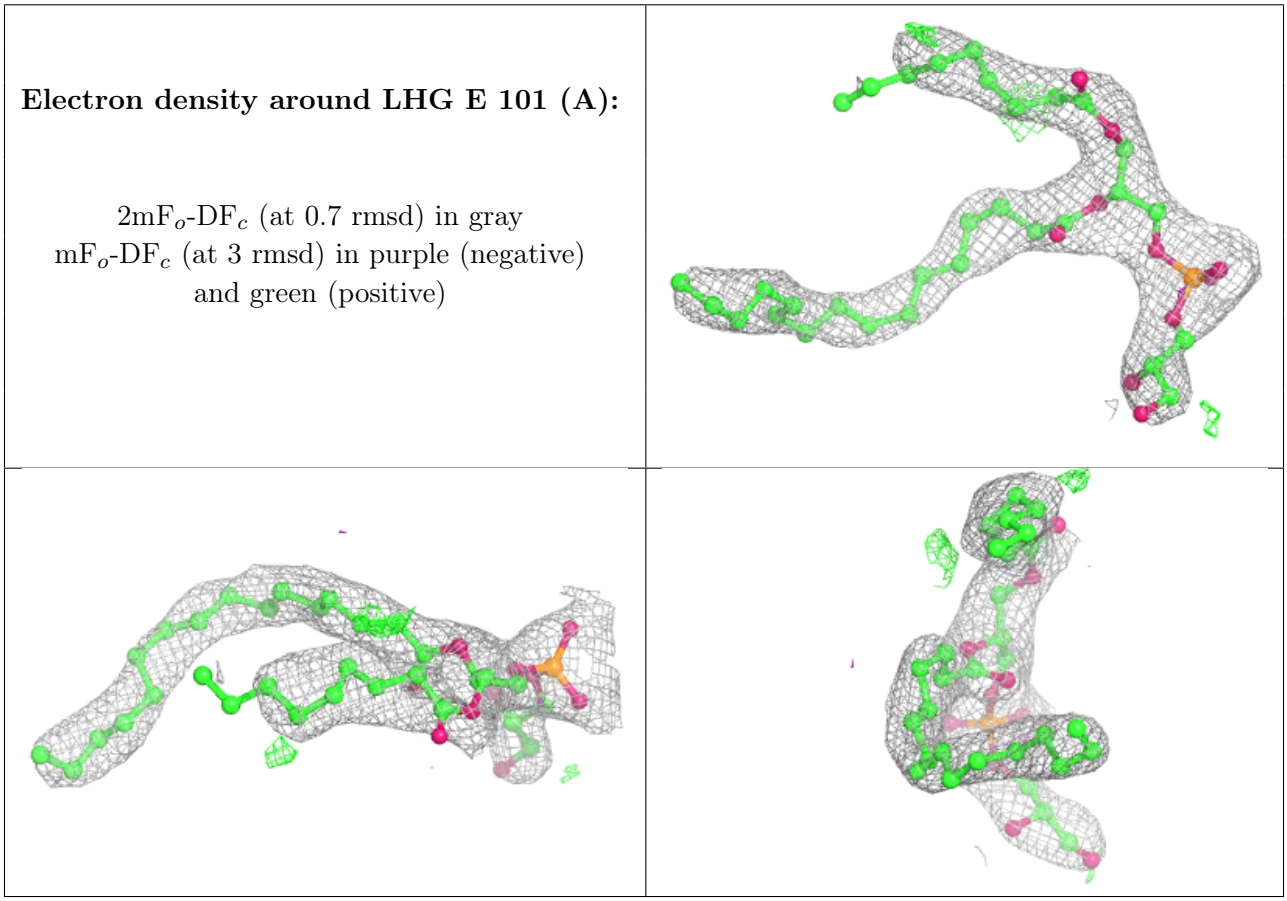
Electron density around LMG C 501:

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



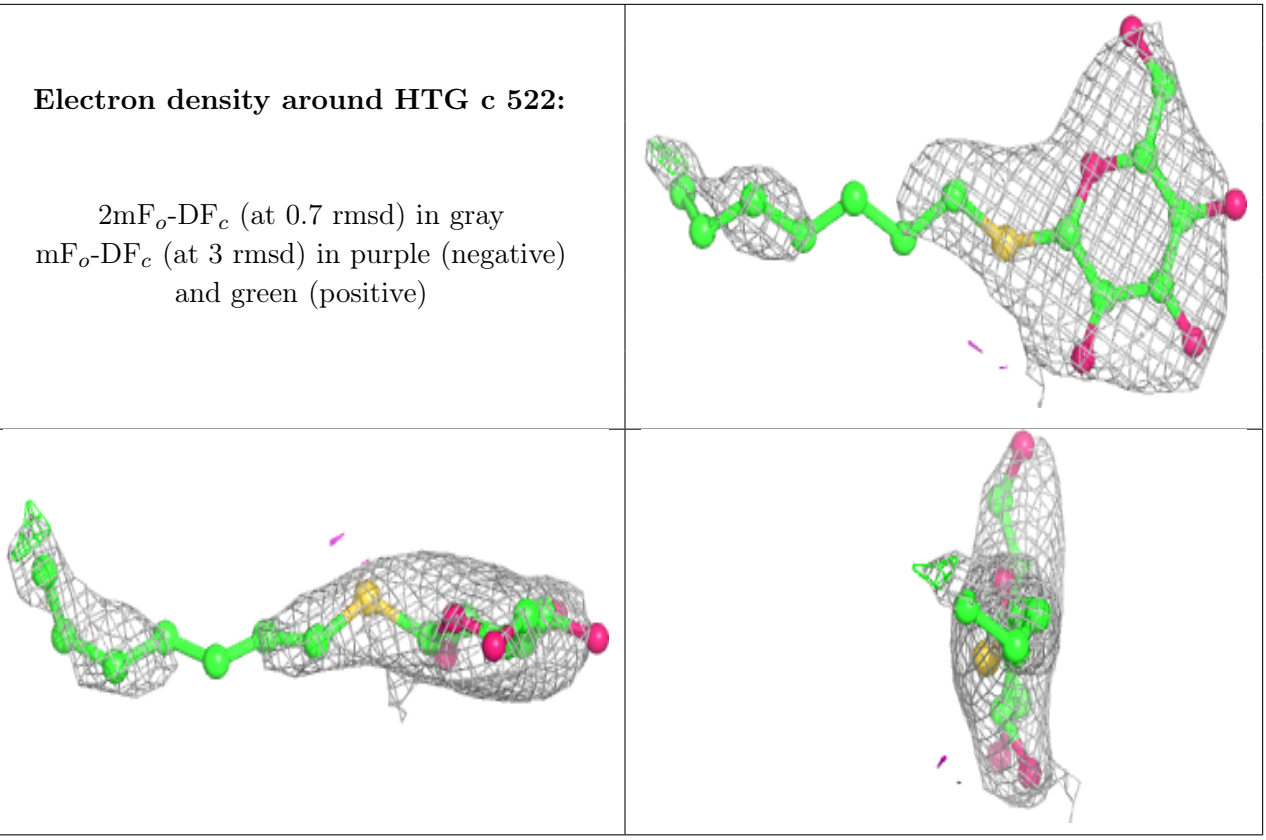
Electron density around LHG E 101 (A):

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



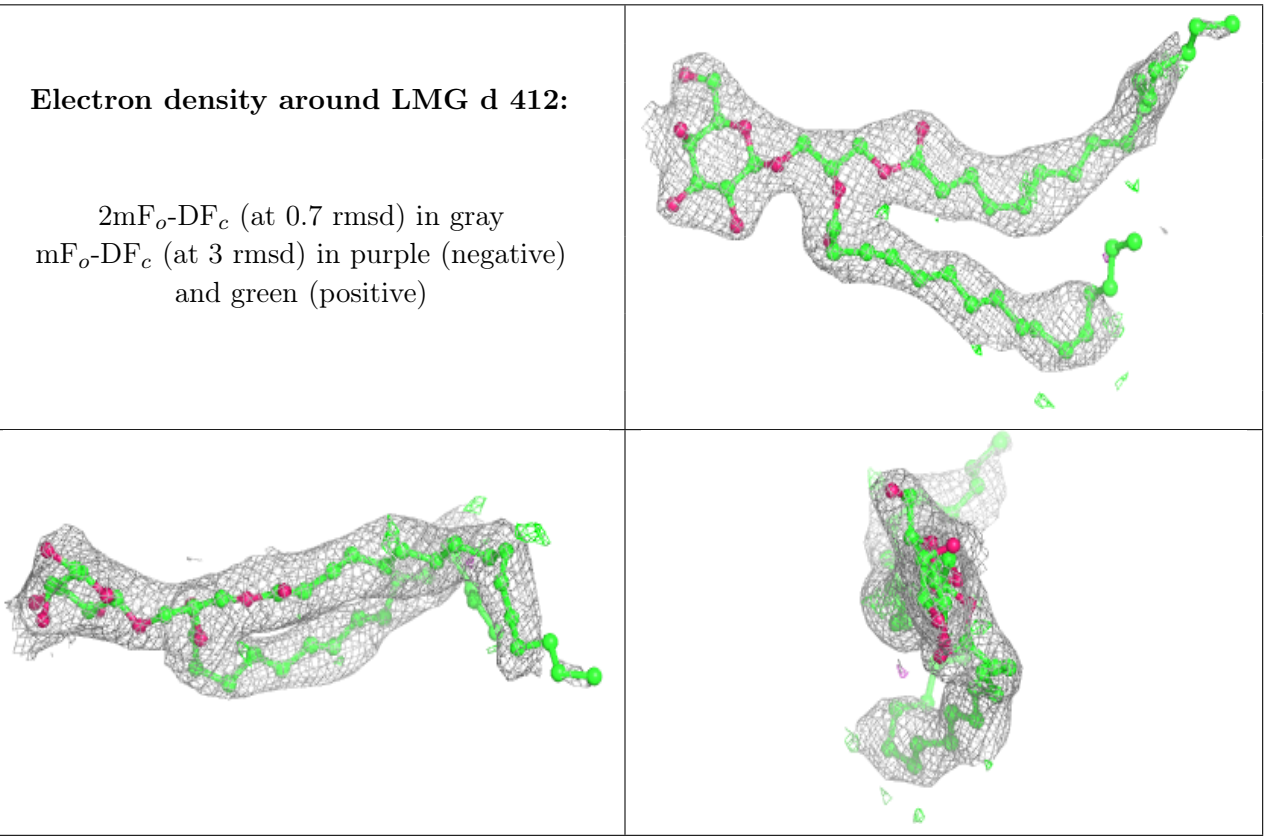
Electron density around HTG c 522:

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



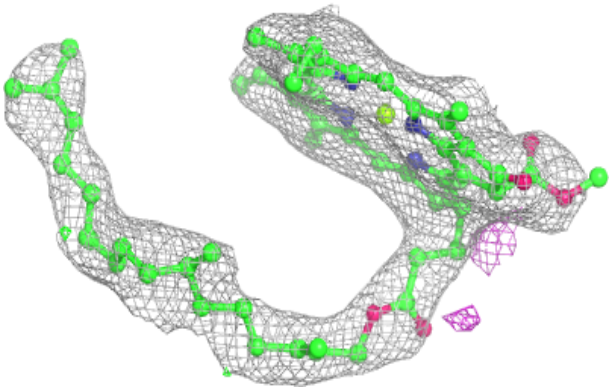
Electron density around LMG d 412:

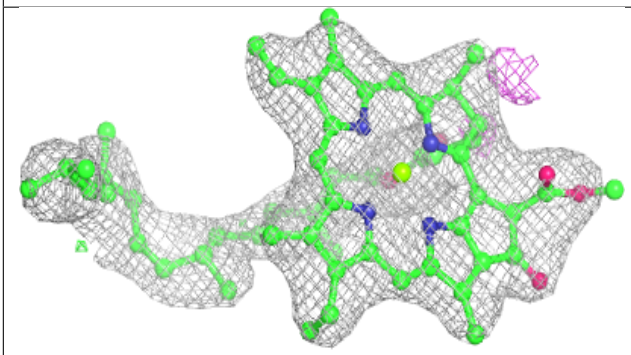
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

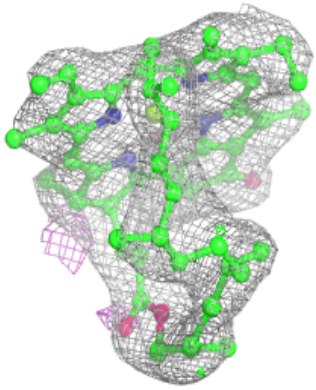


Electron density around CLA C 514:

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

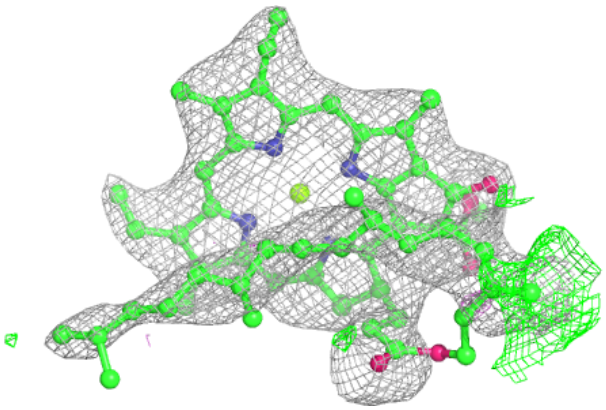


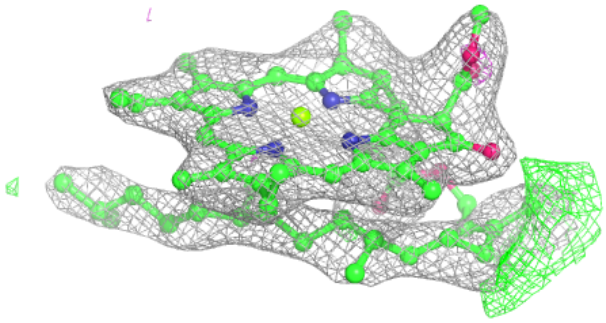


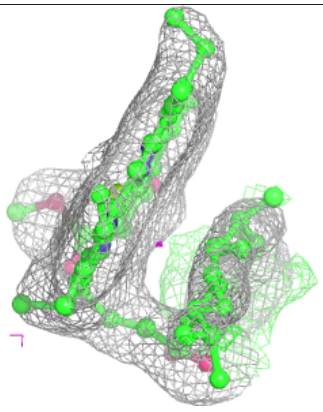


Electron density around CLA b 601:

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

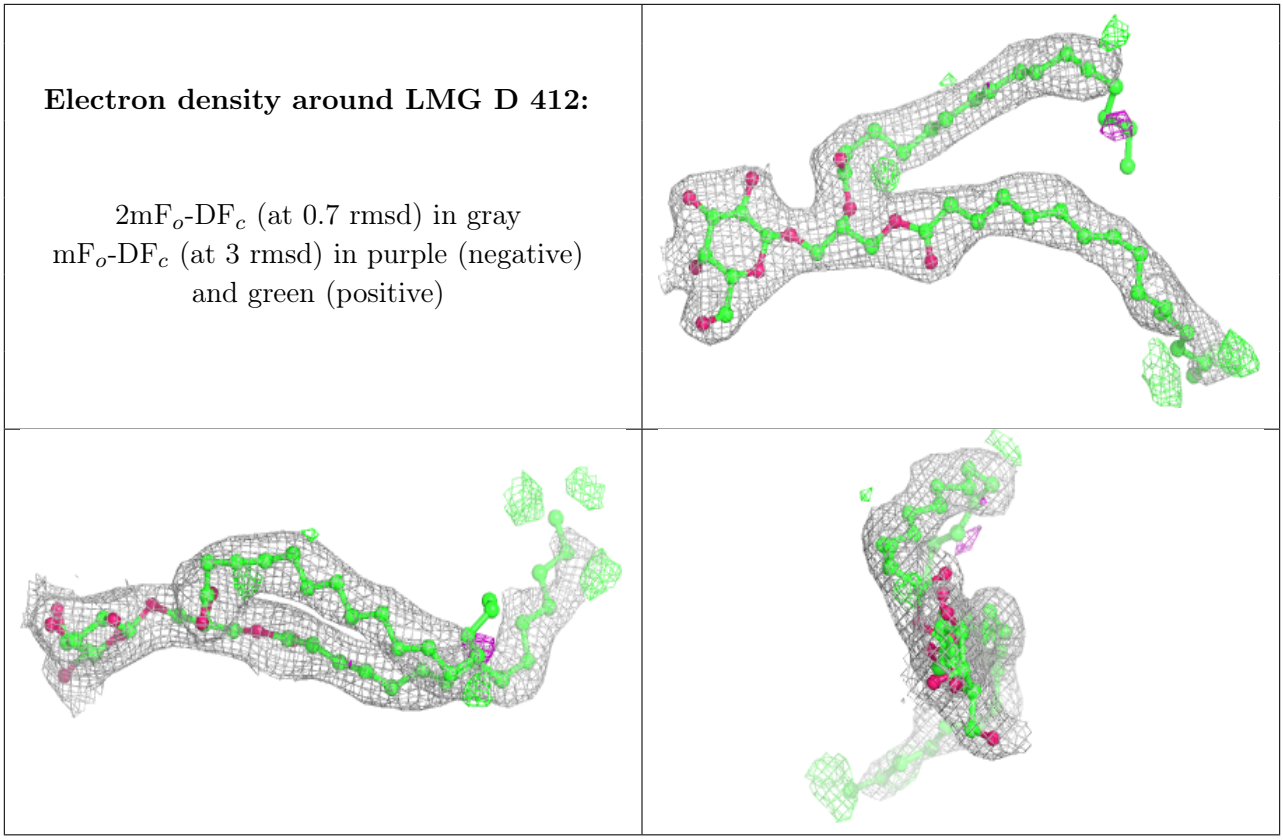






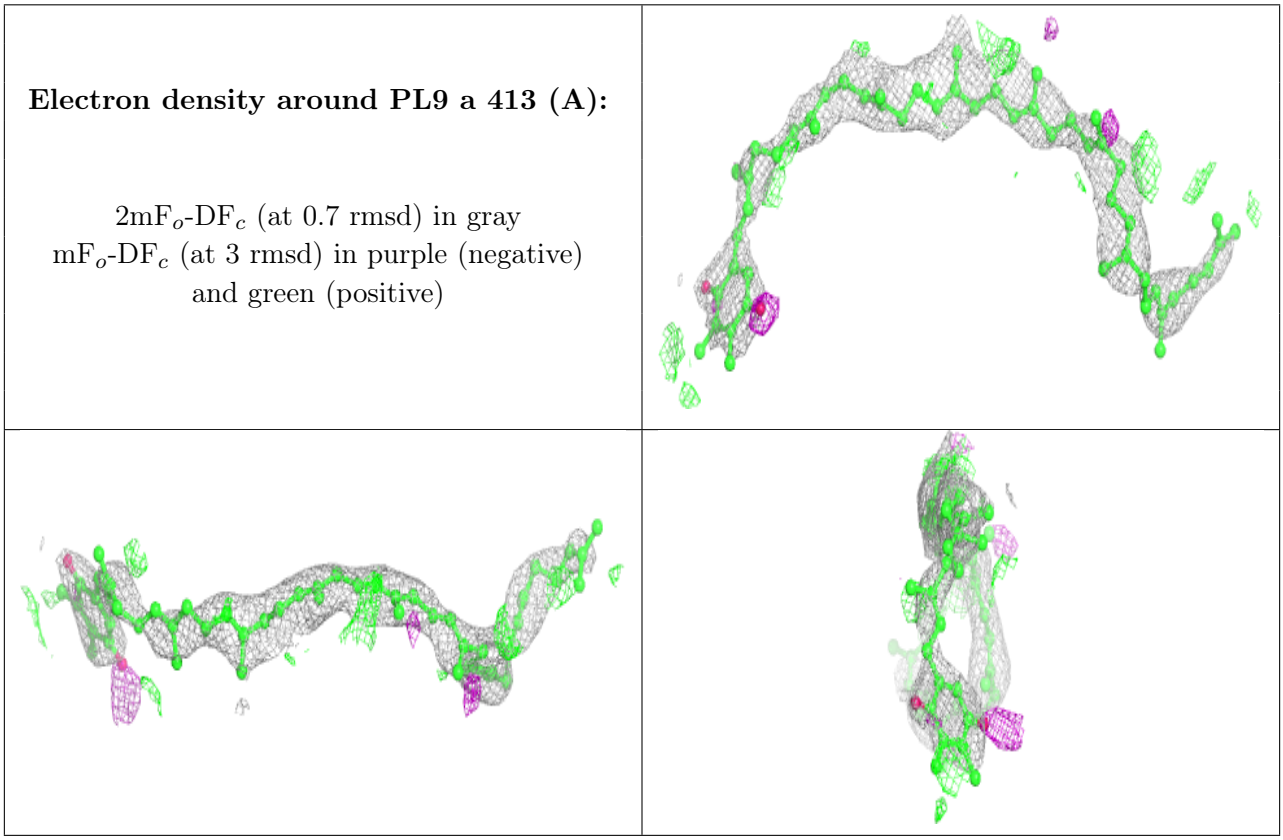
Electron density around LMG D 412:

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



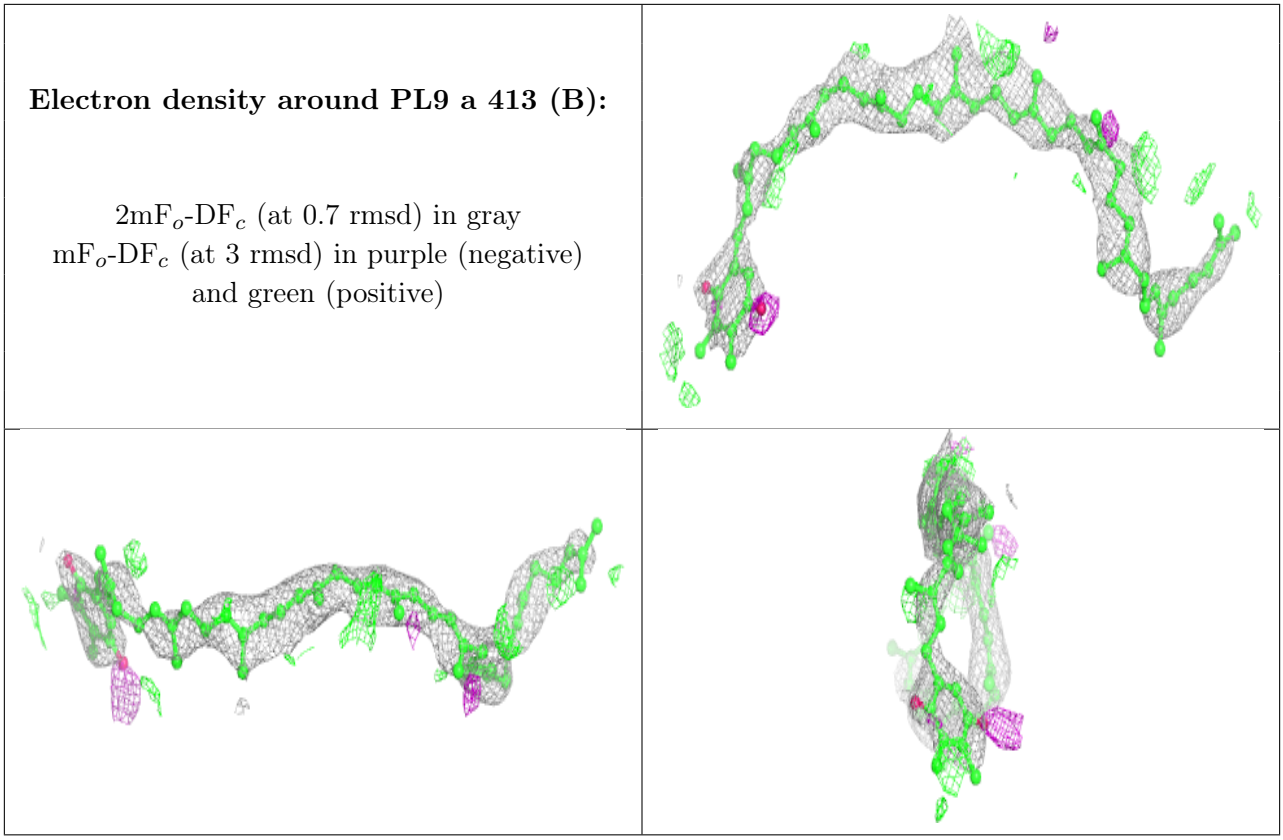
Electron density around PL9 a 413 (A):

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



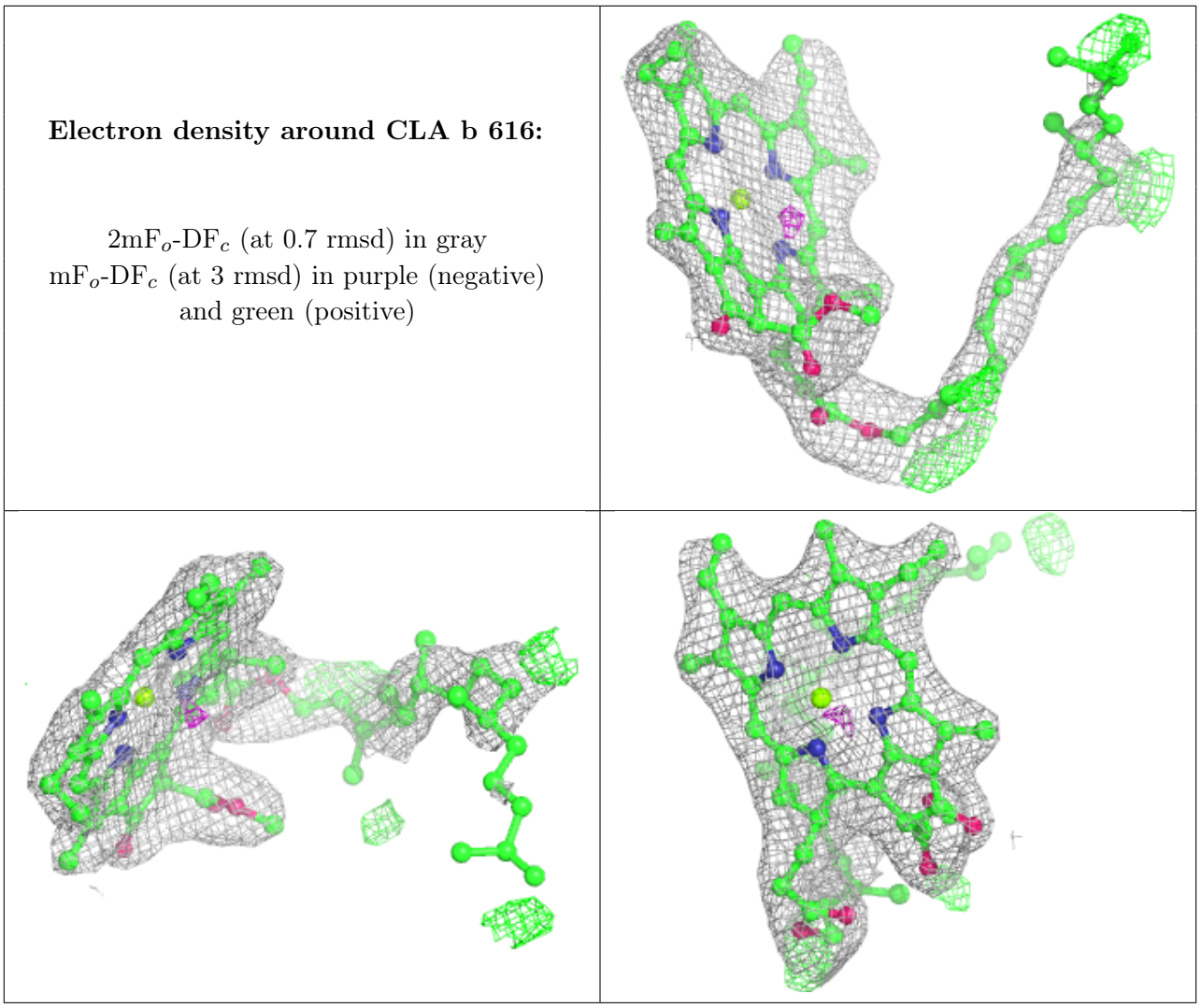
Electron density around PL9 a 413 (B):

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



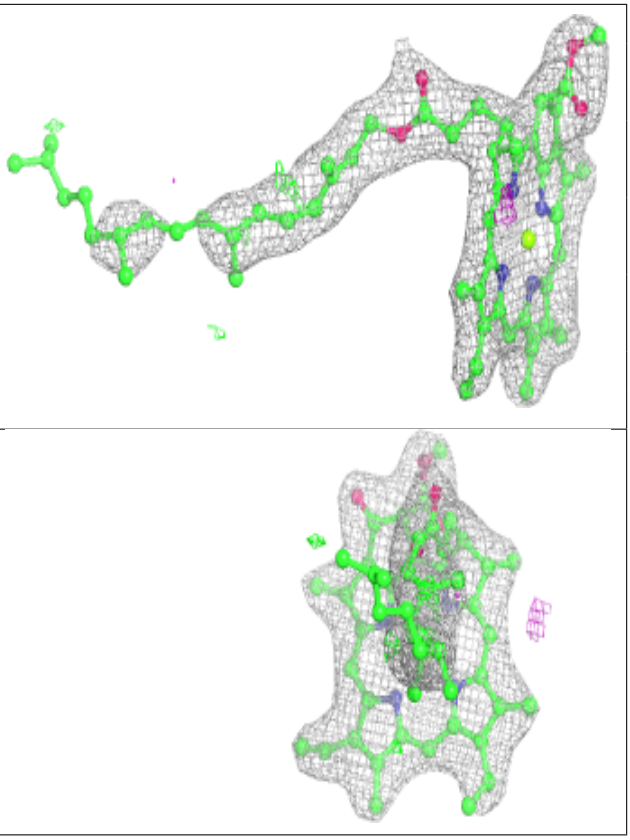
Electron density around CLA b 616:

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



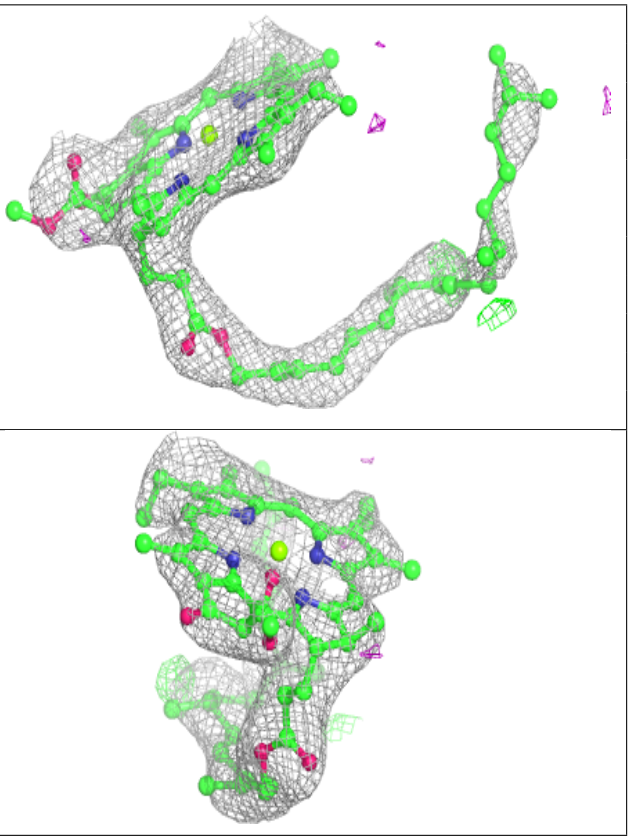
Electron density around CLA d 404:

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



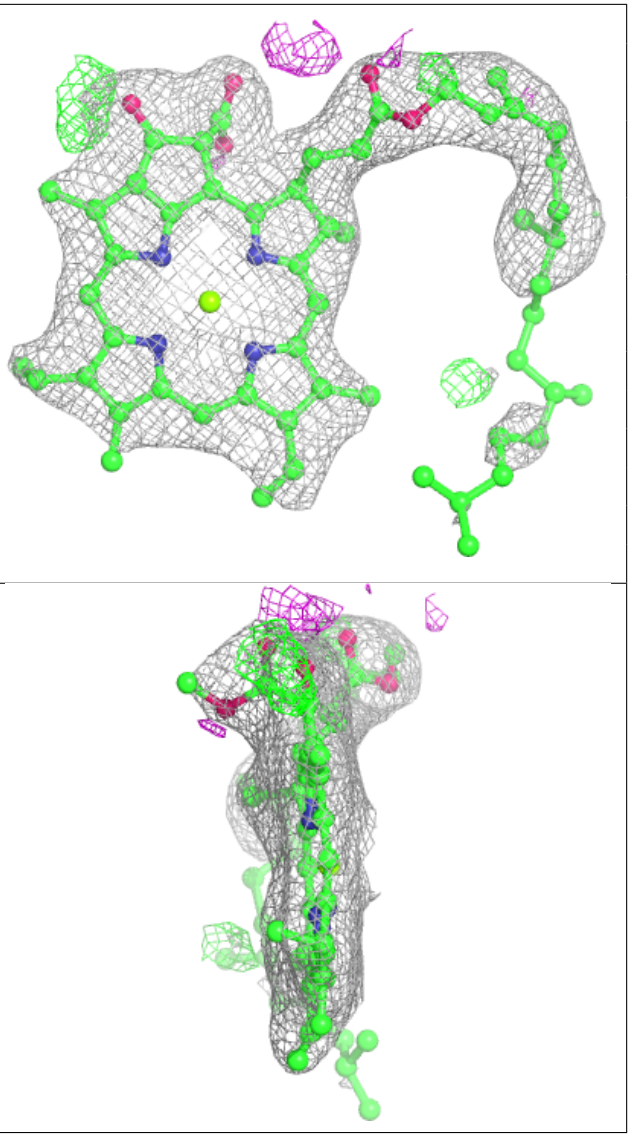
Electron density around CLA c 514:

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



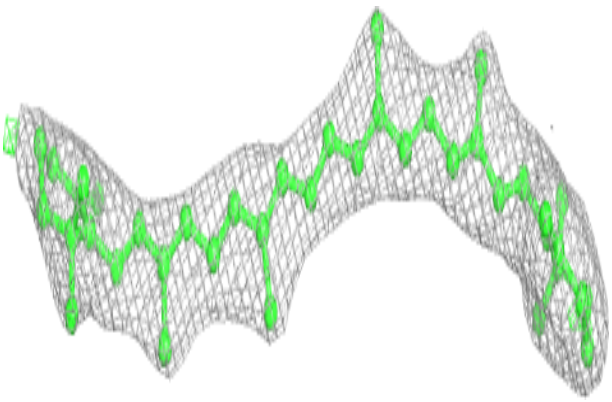
Electron density around CLA c 513:

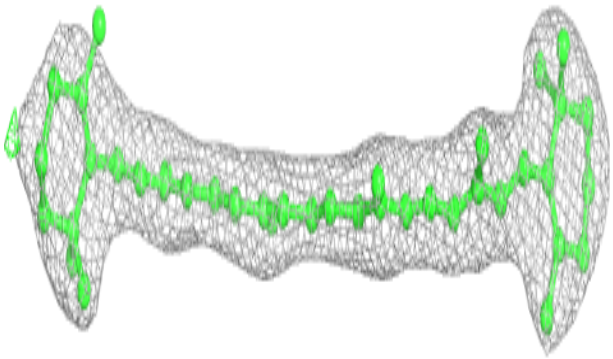
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

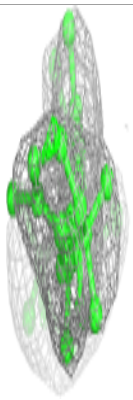


Electron density around BCR h 101:

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

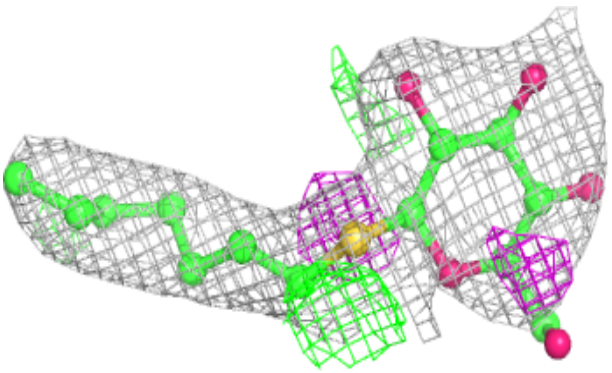


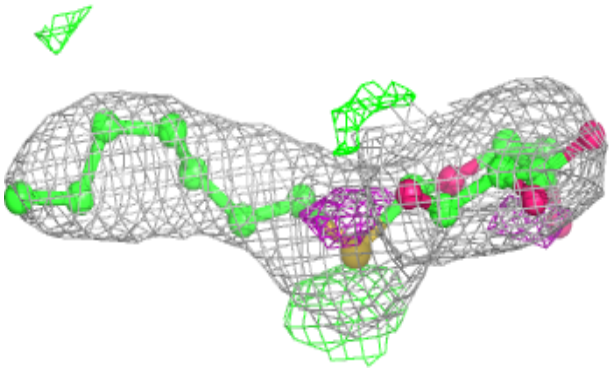


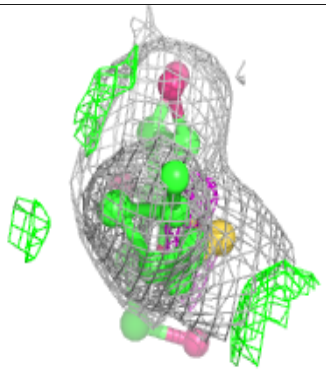


Electron density around HTG o 301:

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

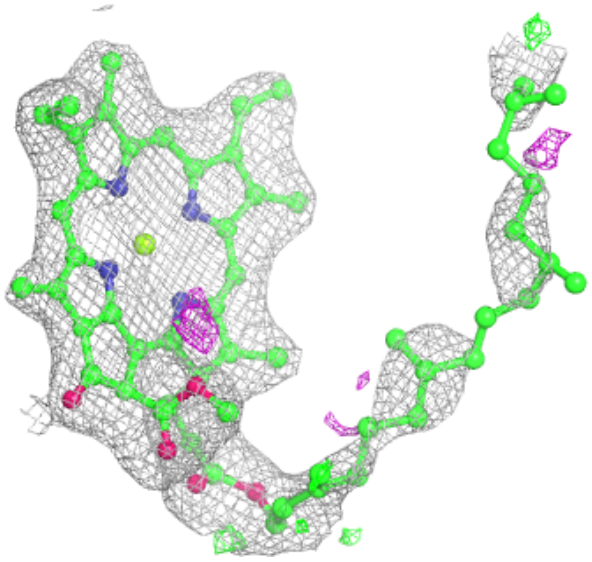


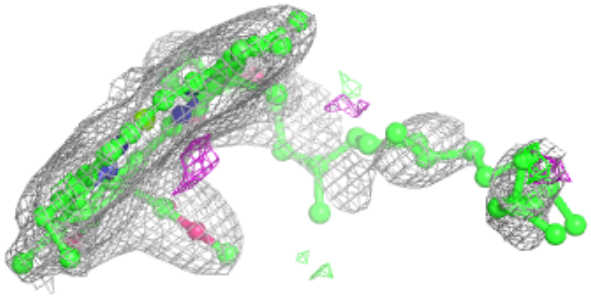


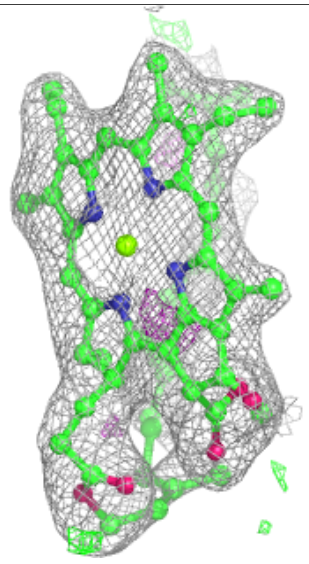


Electron density around CLA B 616:

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

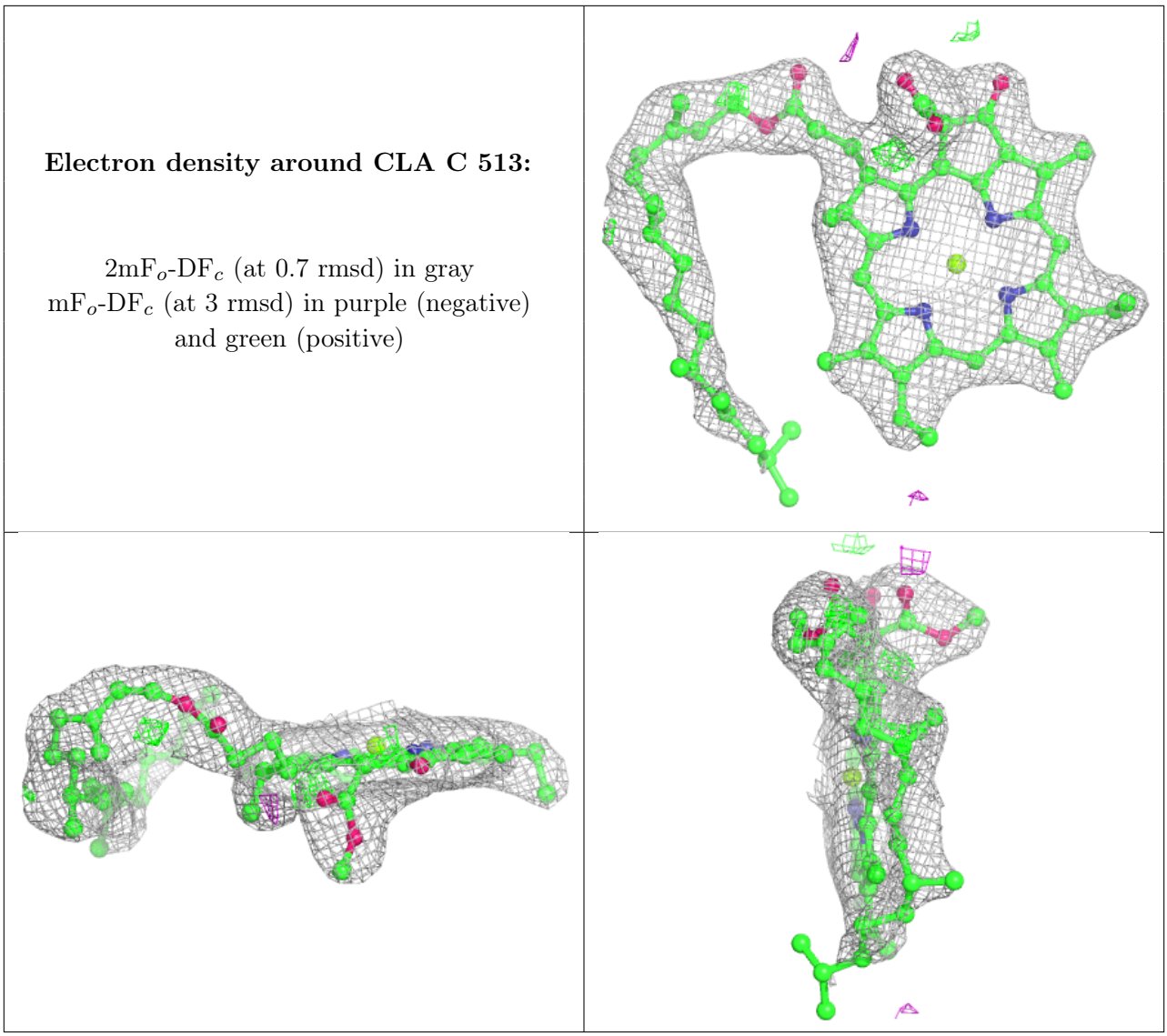






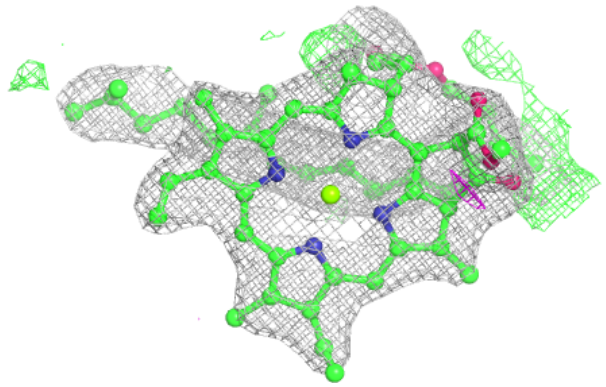
Electron density around CLA C 513:

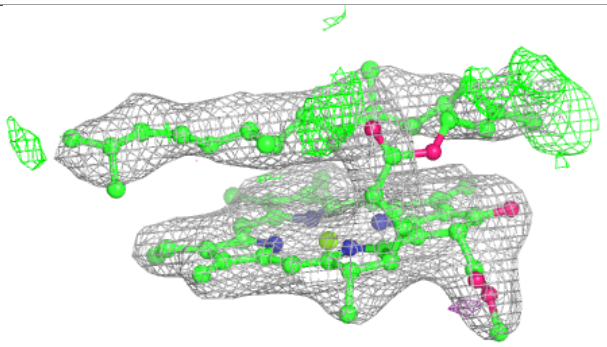
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

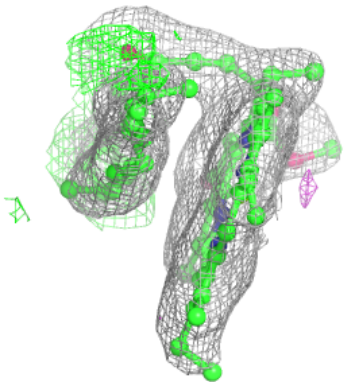


Electron density around CLA B 601:

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

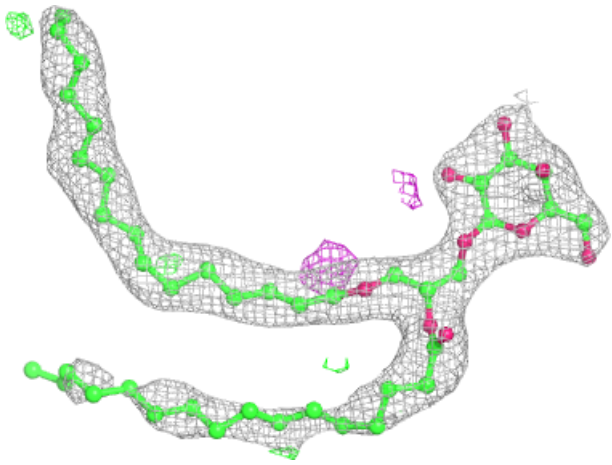


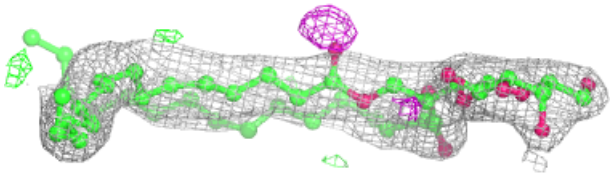


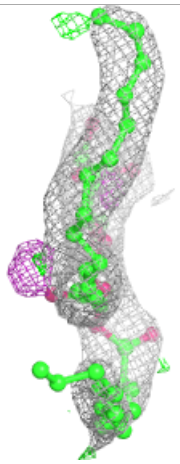


Electron density around LMG C 520:

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

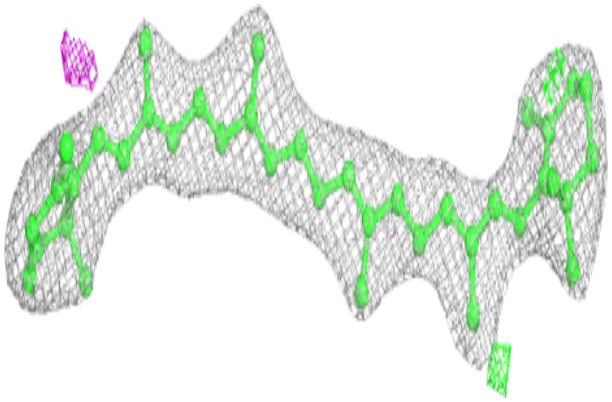


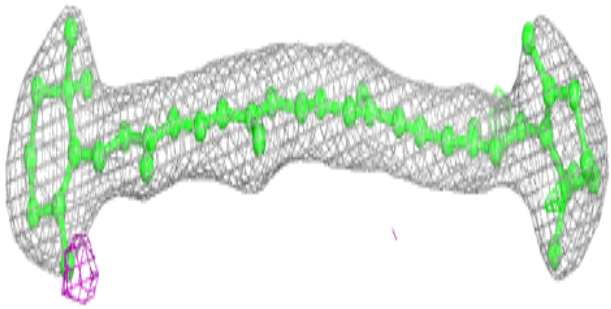


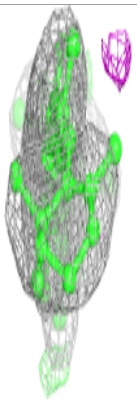


Electron density around BCR Y 101:

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

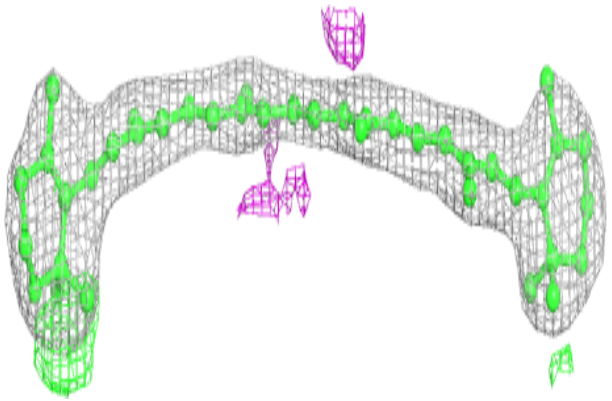


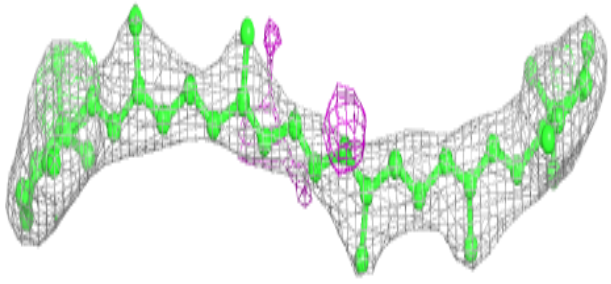


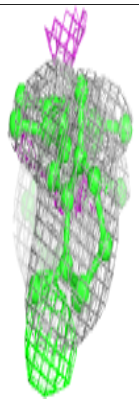


Electron density around BCR K 102:

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

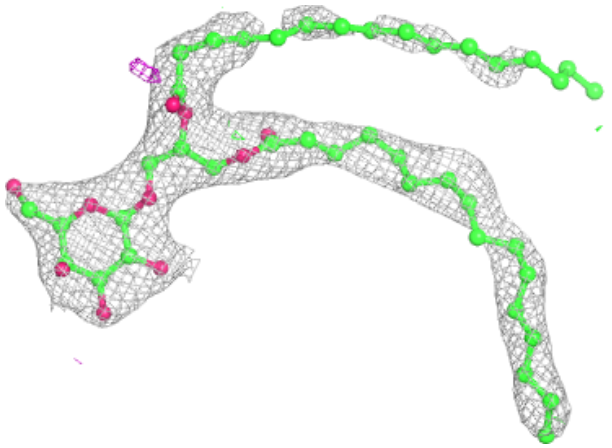


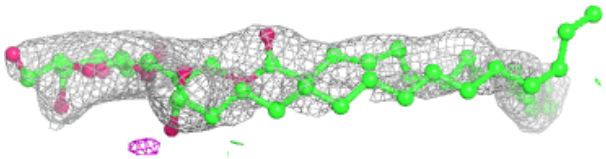


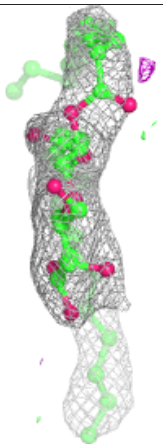


Electron density around LMG c 520:

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

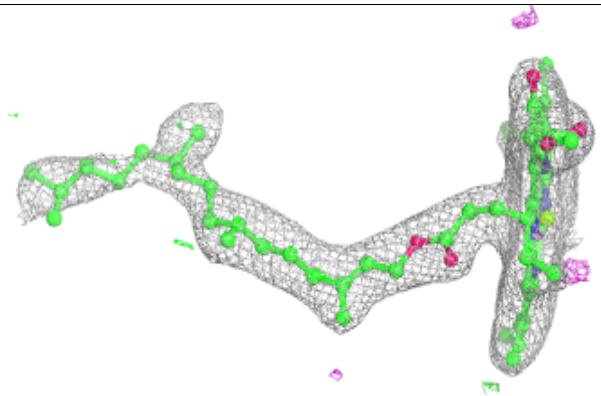


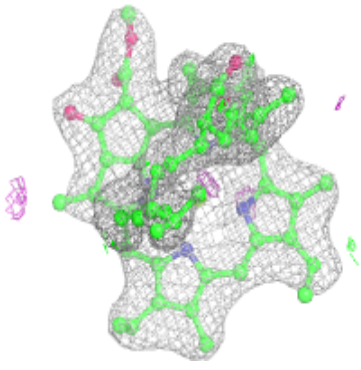




Electron density around CLA B 606:

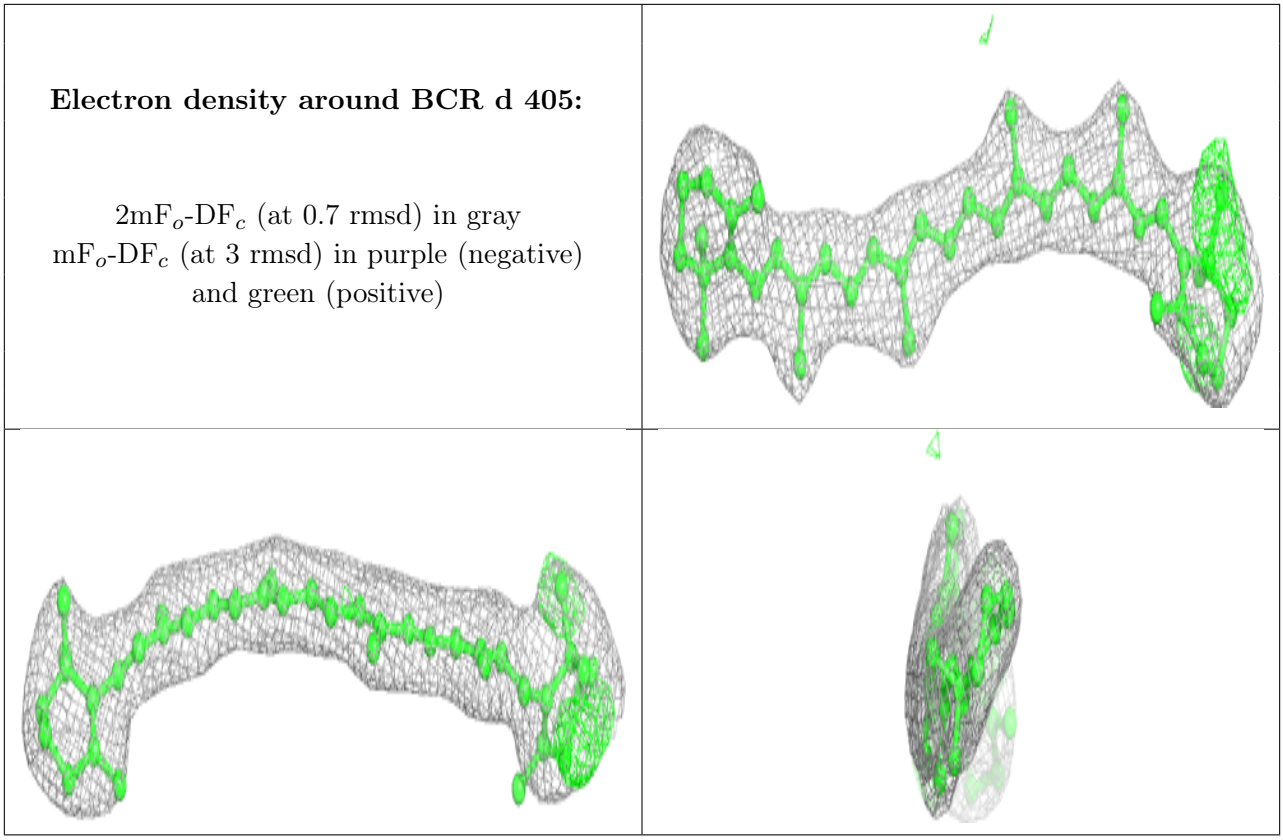
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





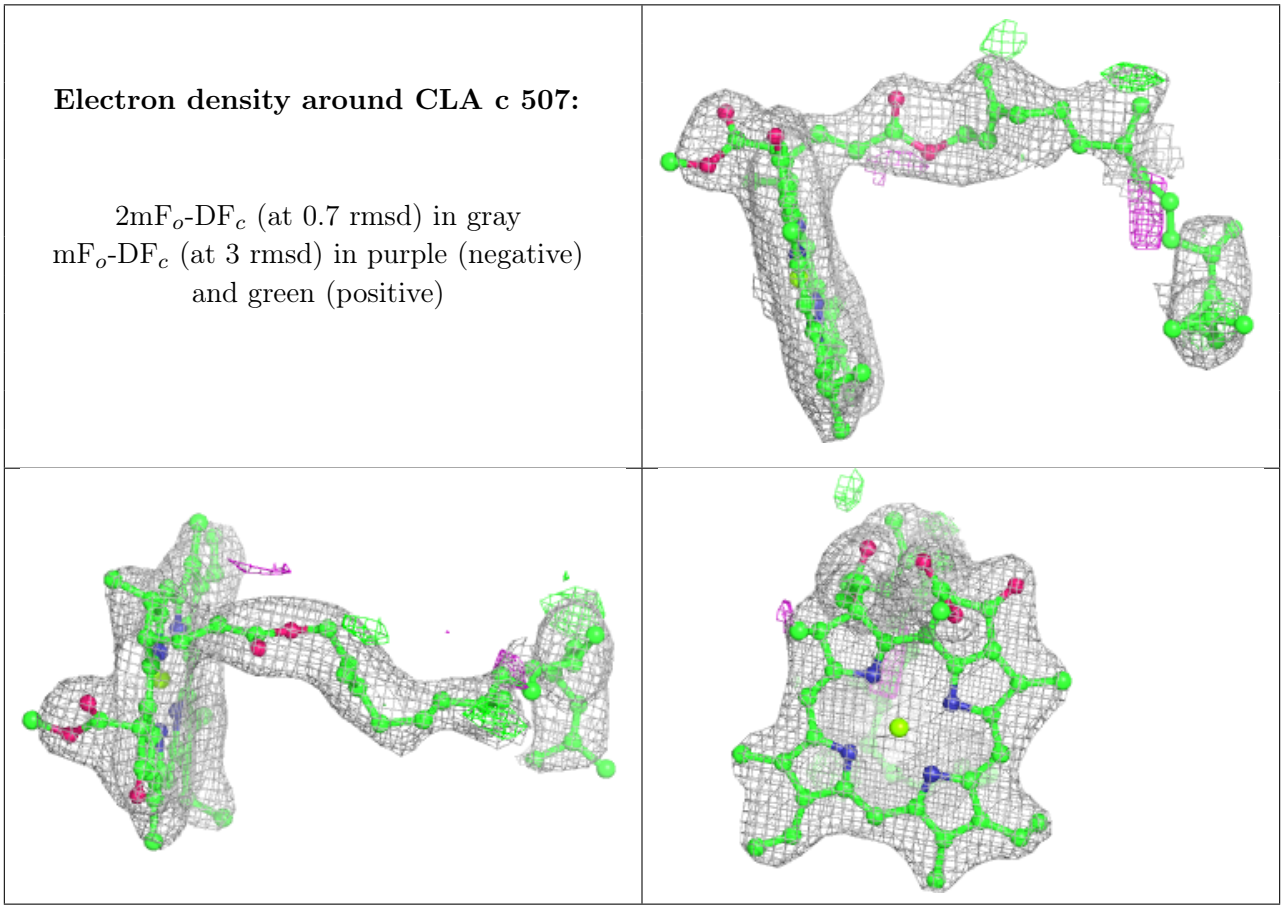
Electron density around BCR d 405:

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



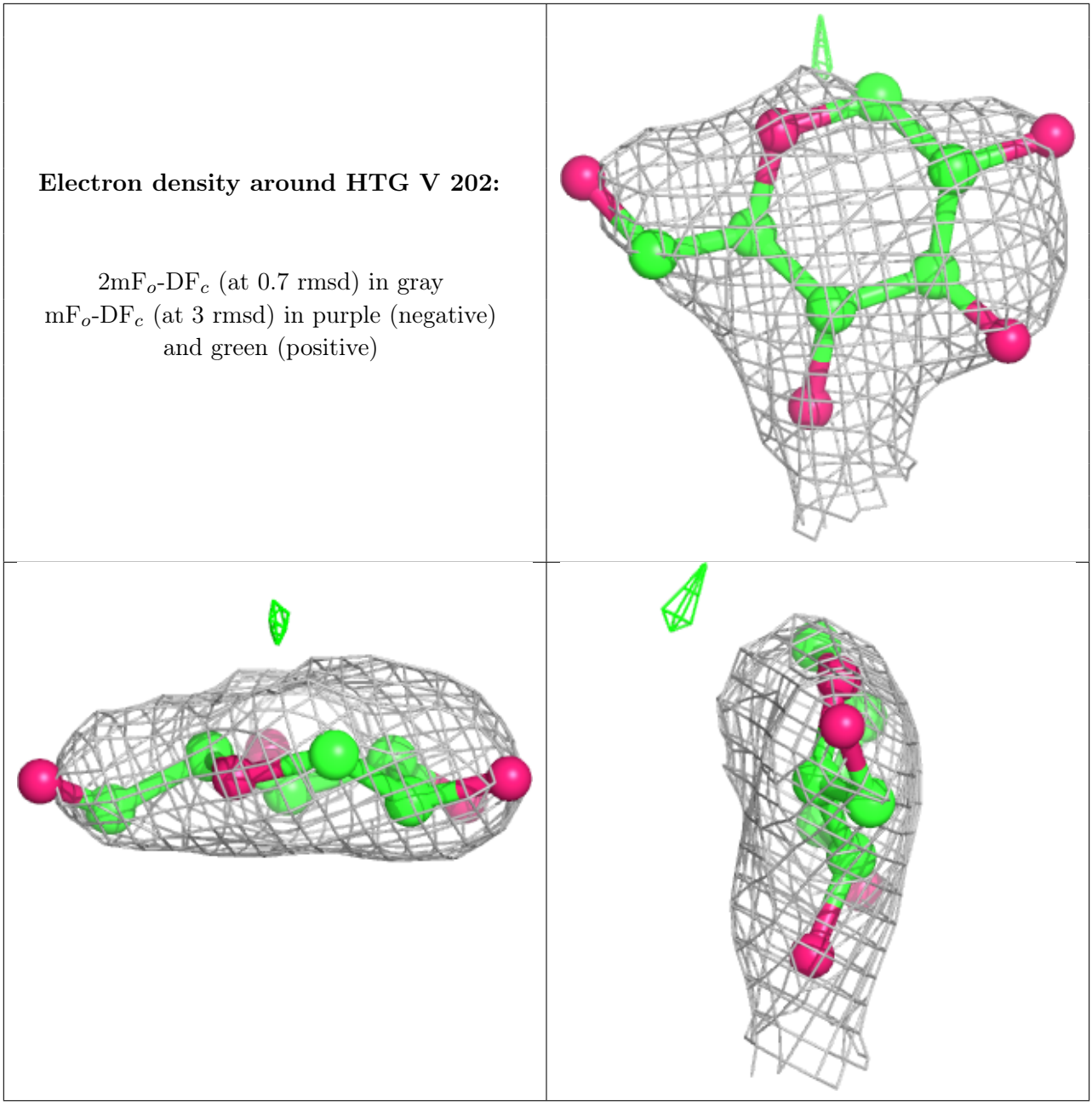
Electron density around CLA c 507:

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



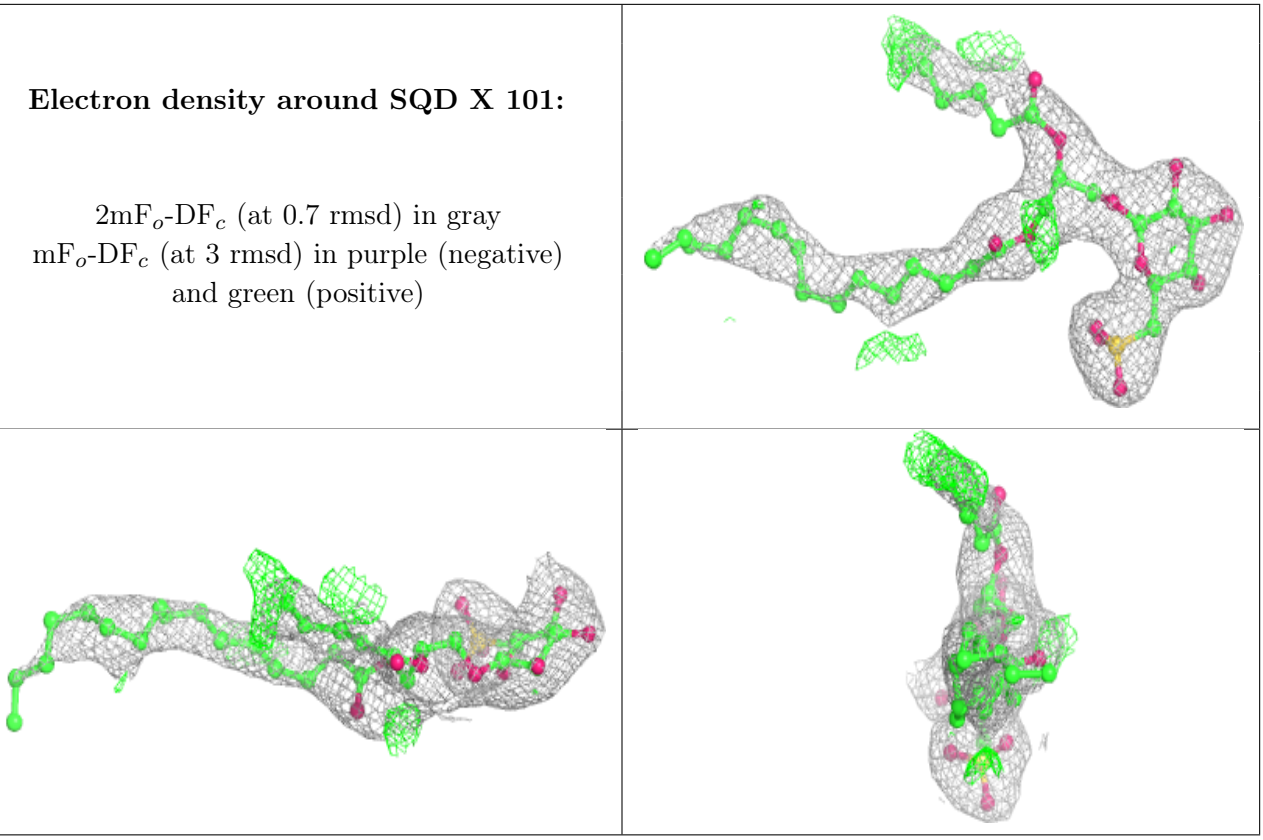
Electron density around HTG V 202:

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



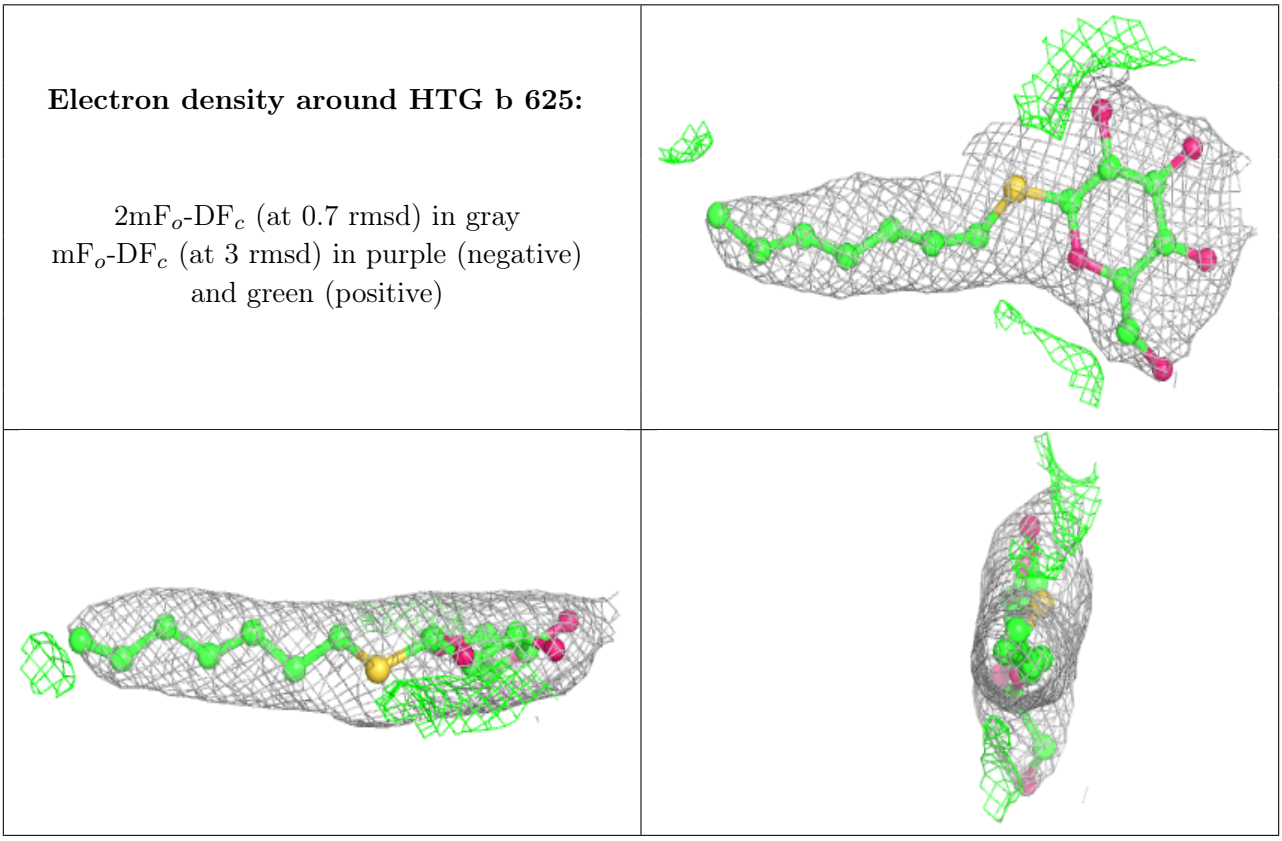
Electron density around SQD X 101:

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



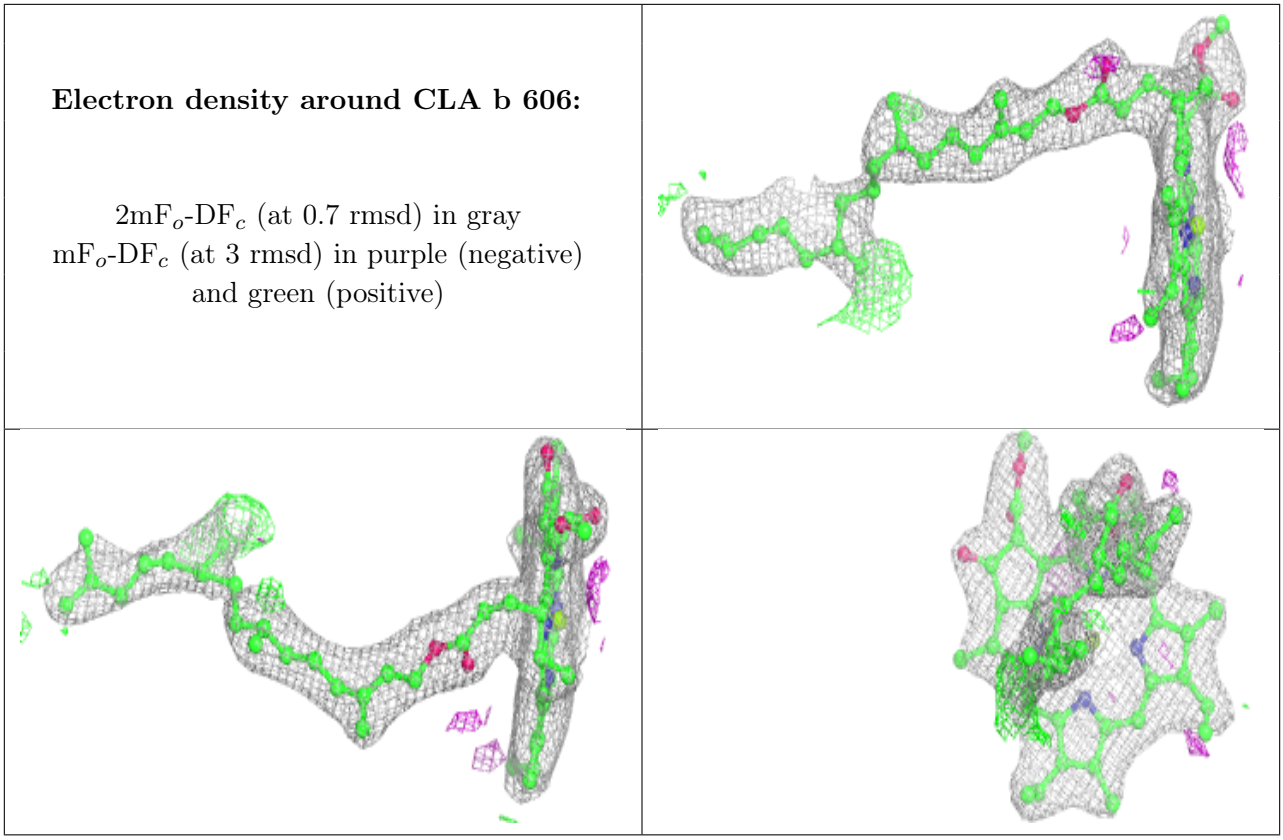
Electron density around HTG b 625:

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



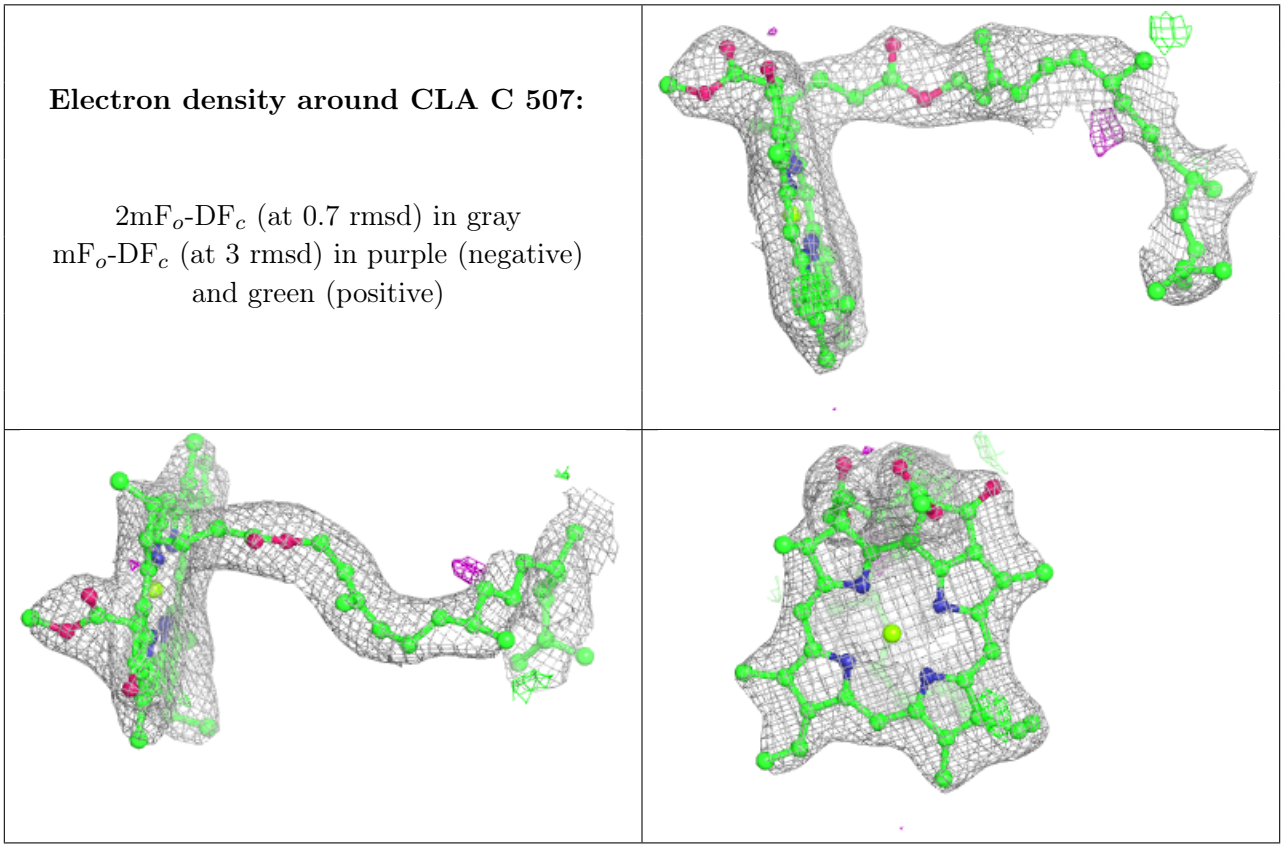
Electron density around CLA b 606:

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



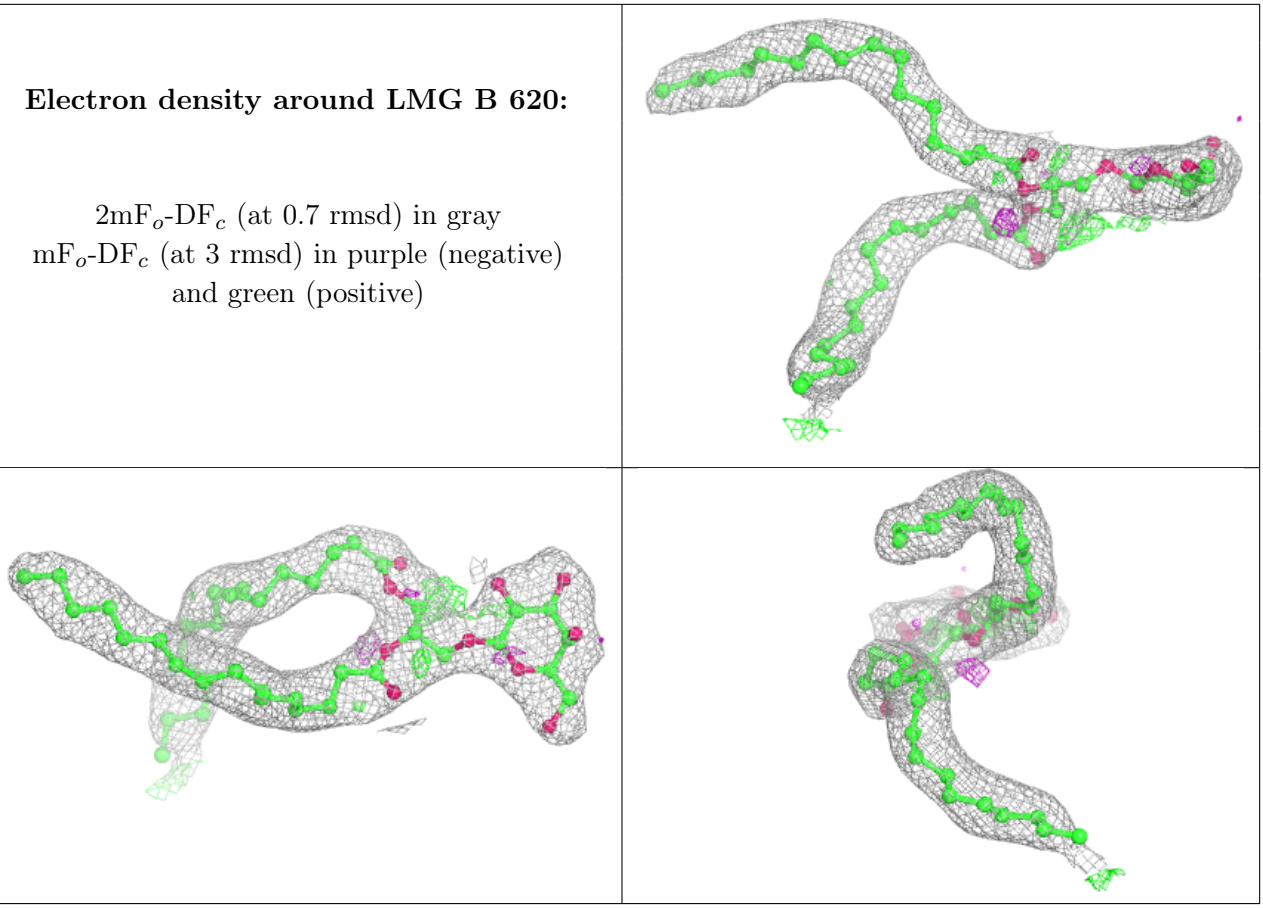
Electron density around CLA C 507:

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



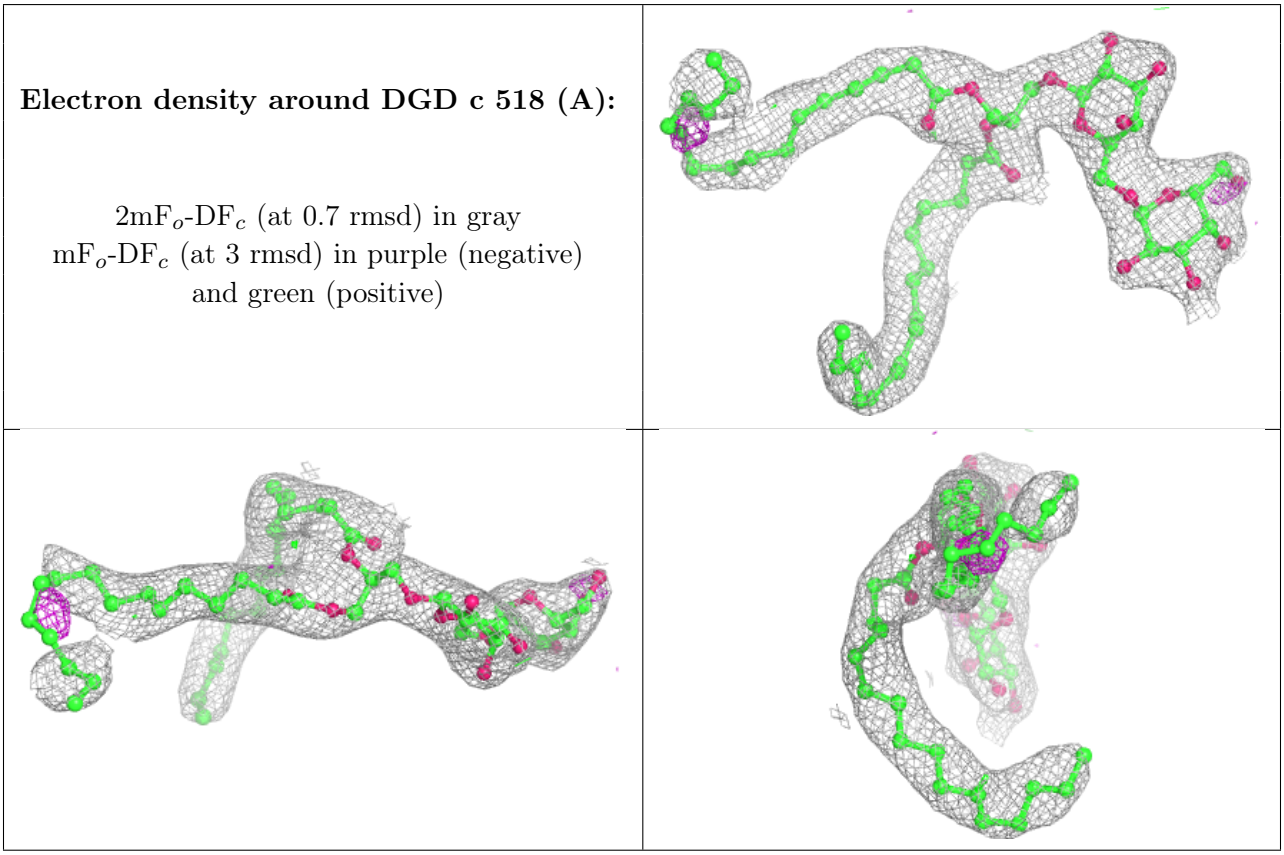
Electron density around LMG B 620:

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



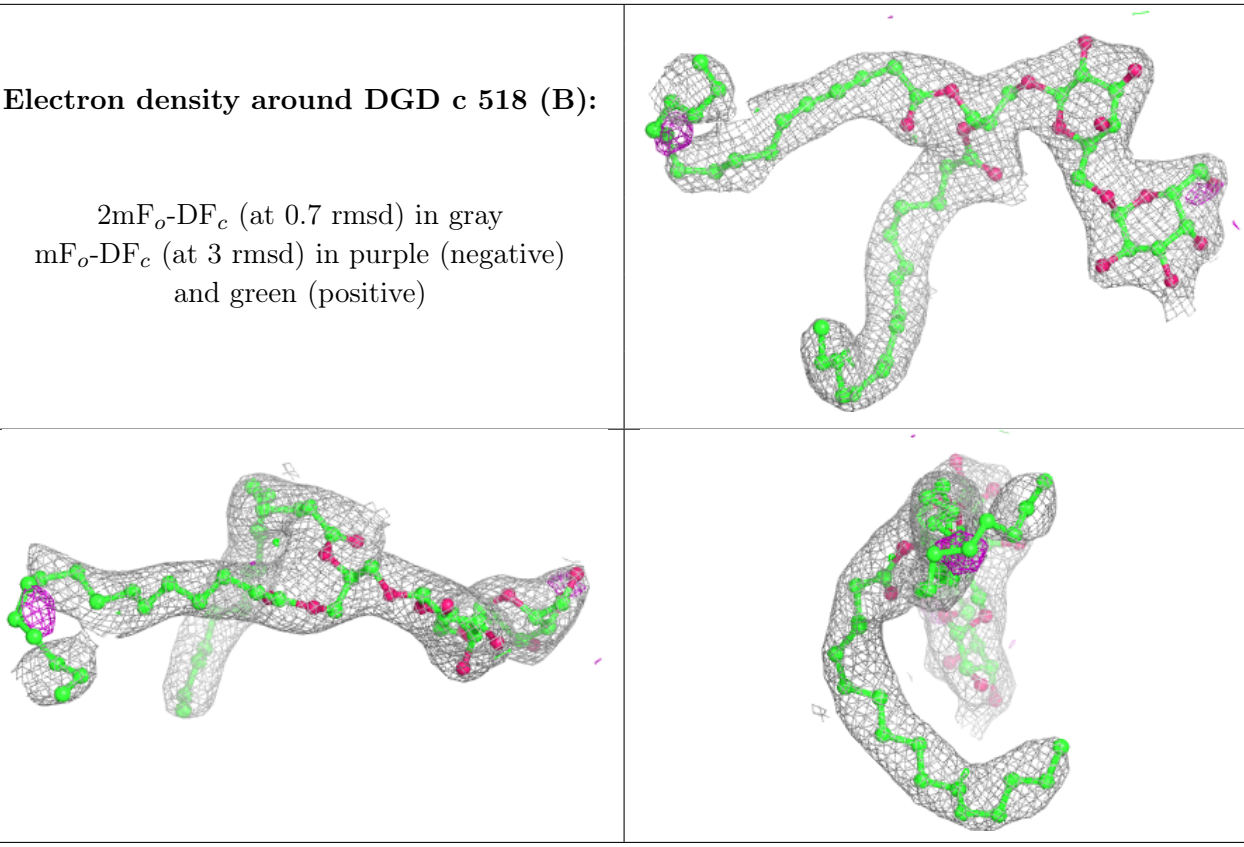
Electron density around DGD c 518 (A):

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



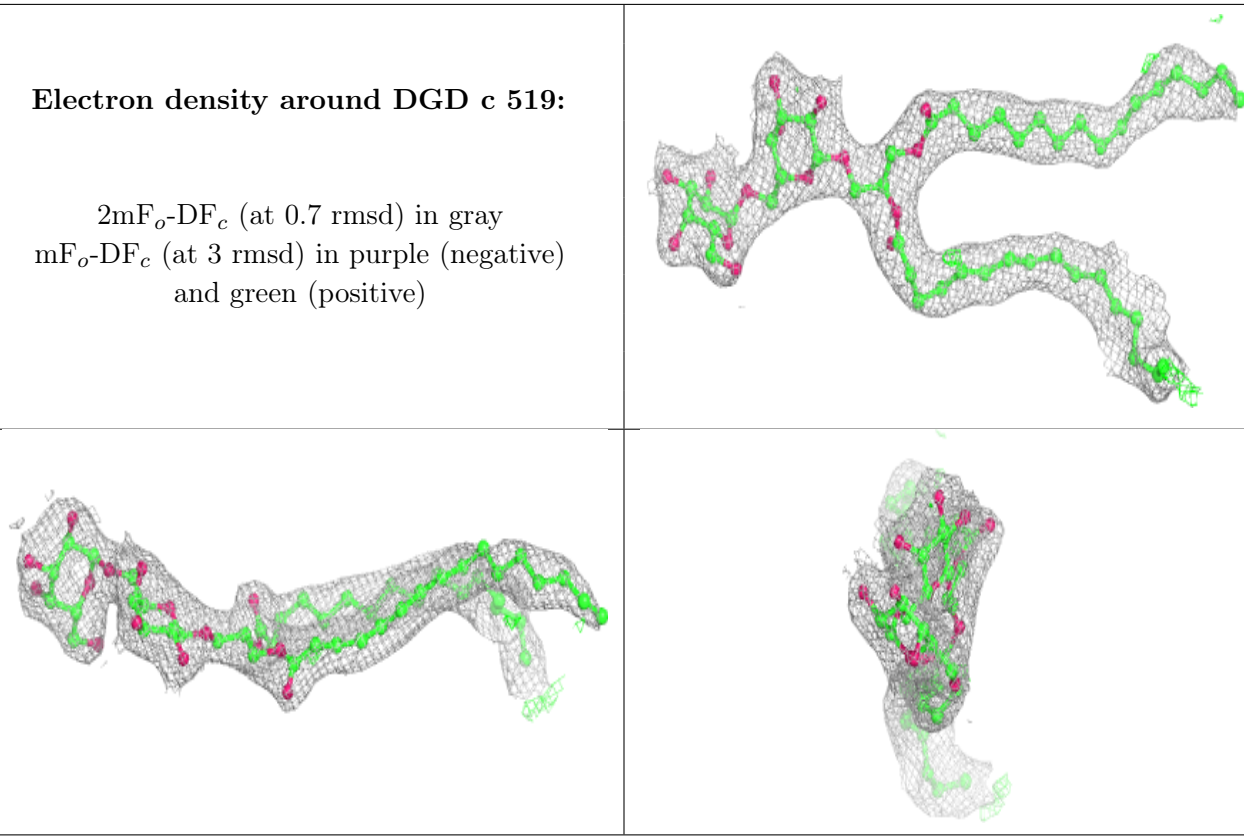
Electron density around DGD c 518 (B):

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



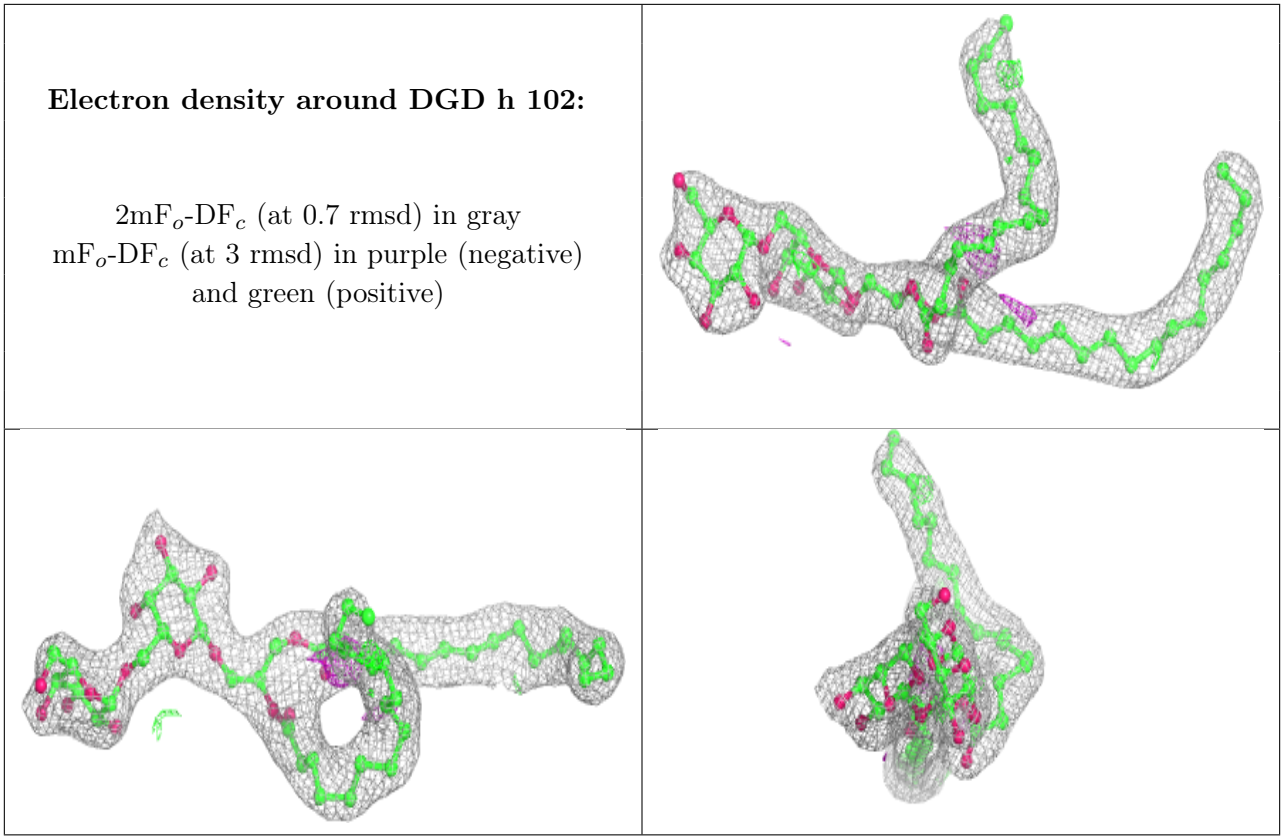
Electron density around DGD c 519:

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



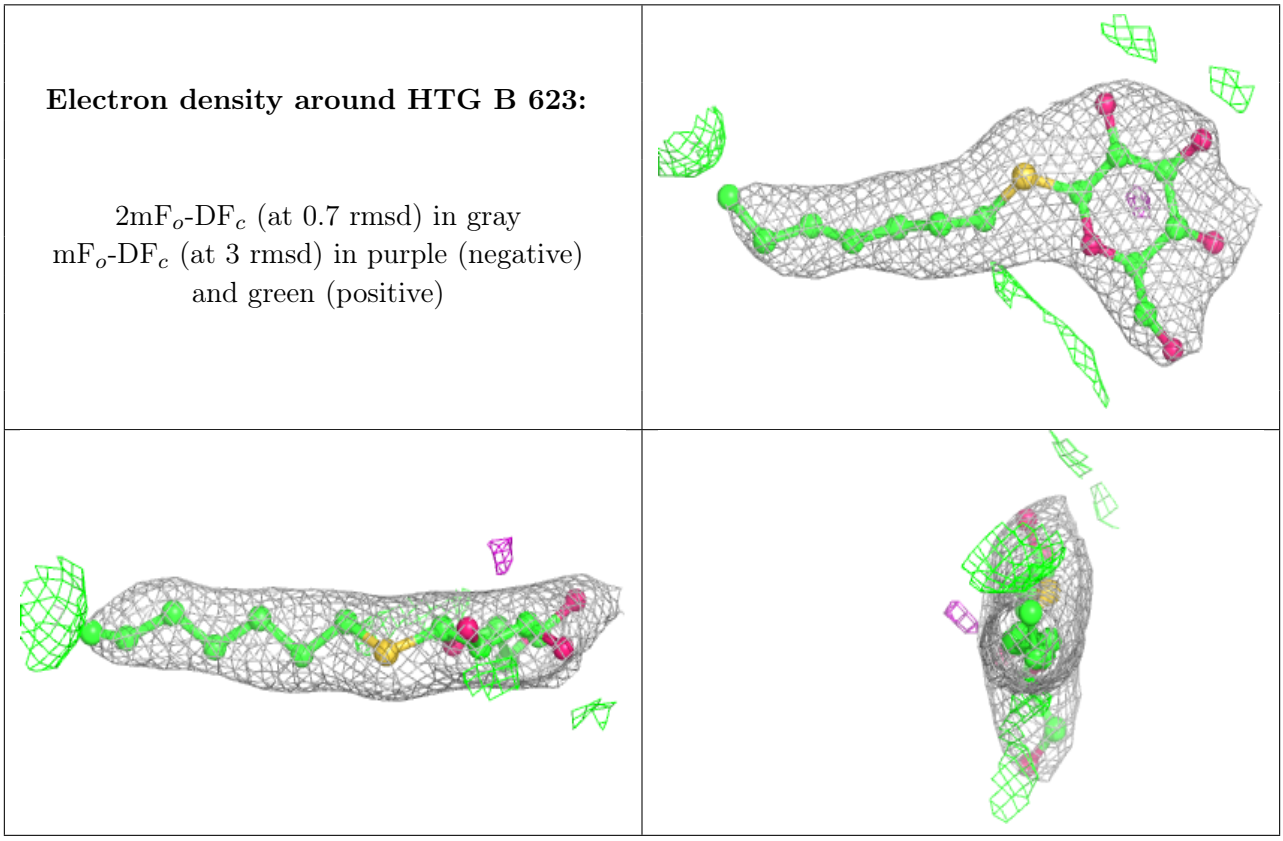
Electron density around DGD h 102:

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



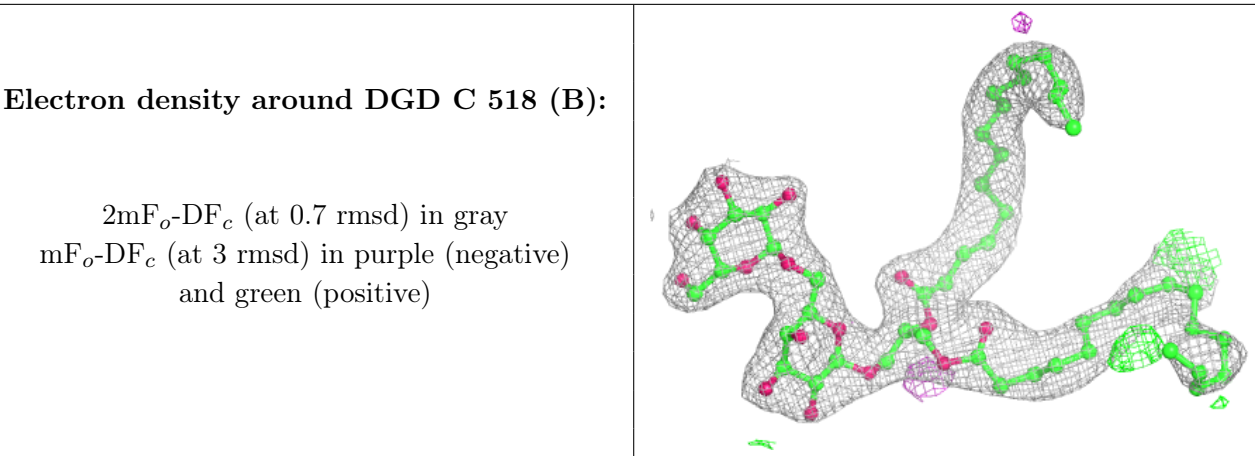
Electron density around HTG B 623:

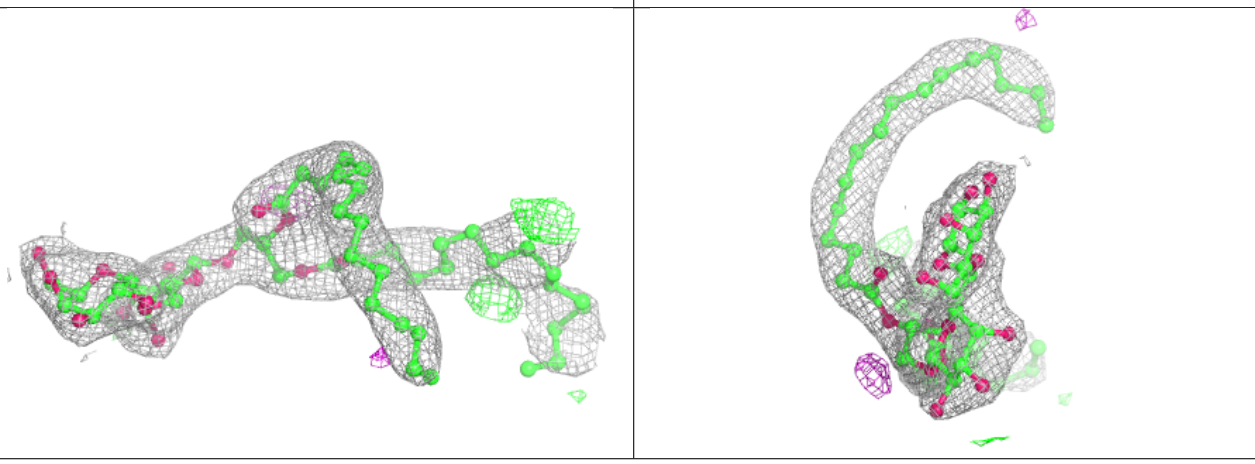
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around DGD C 518 (B):

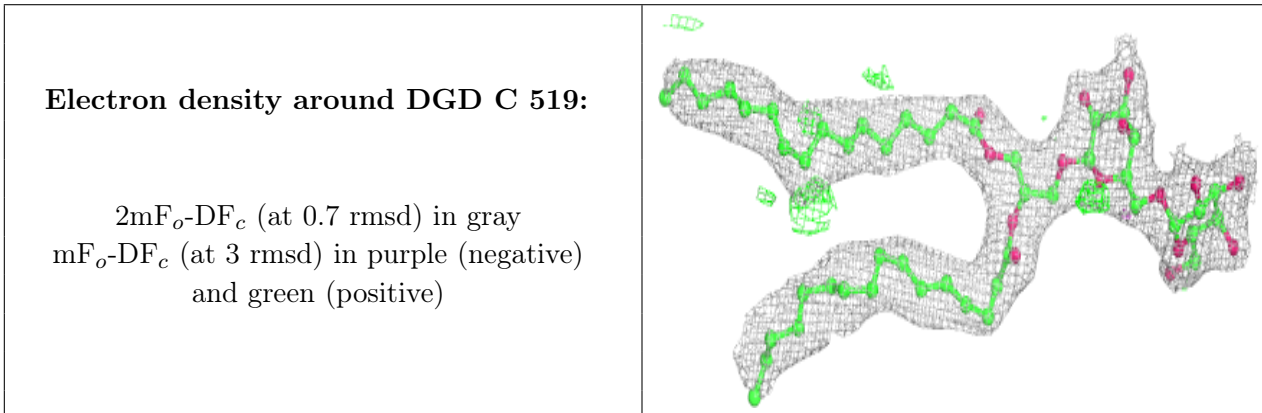
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

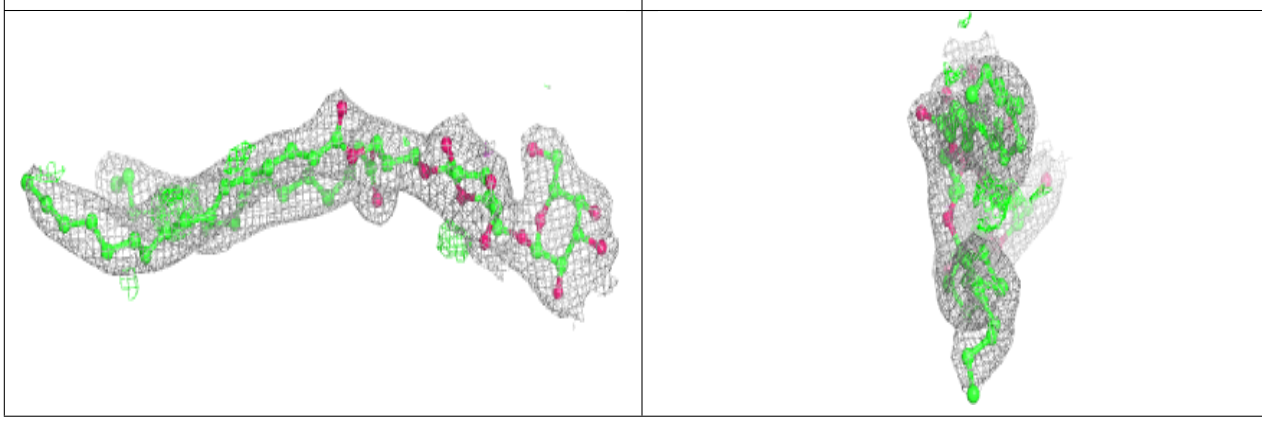




Electron density around DGD C 519:

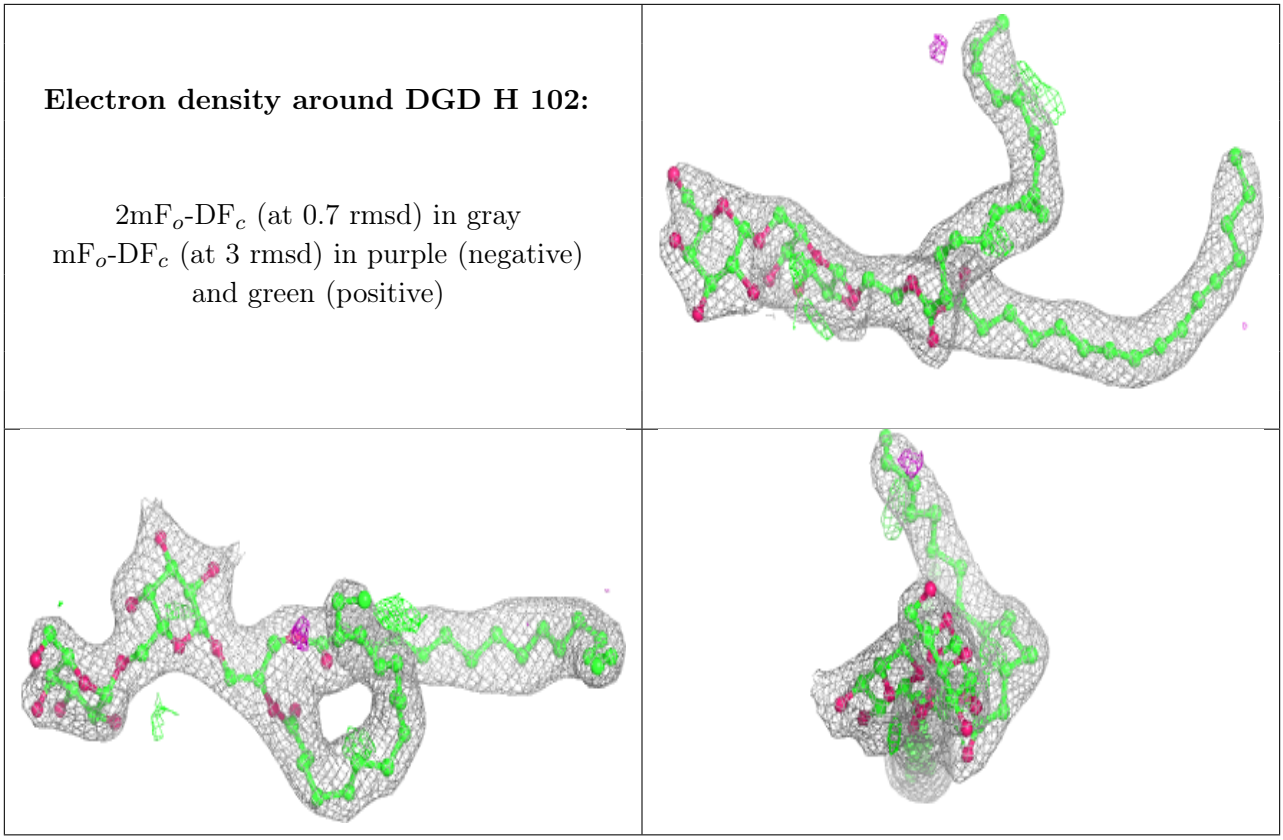
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





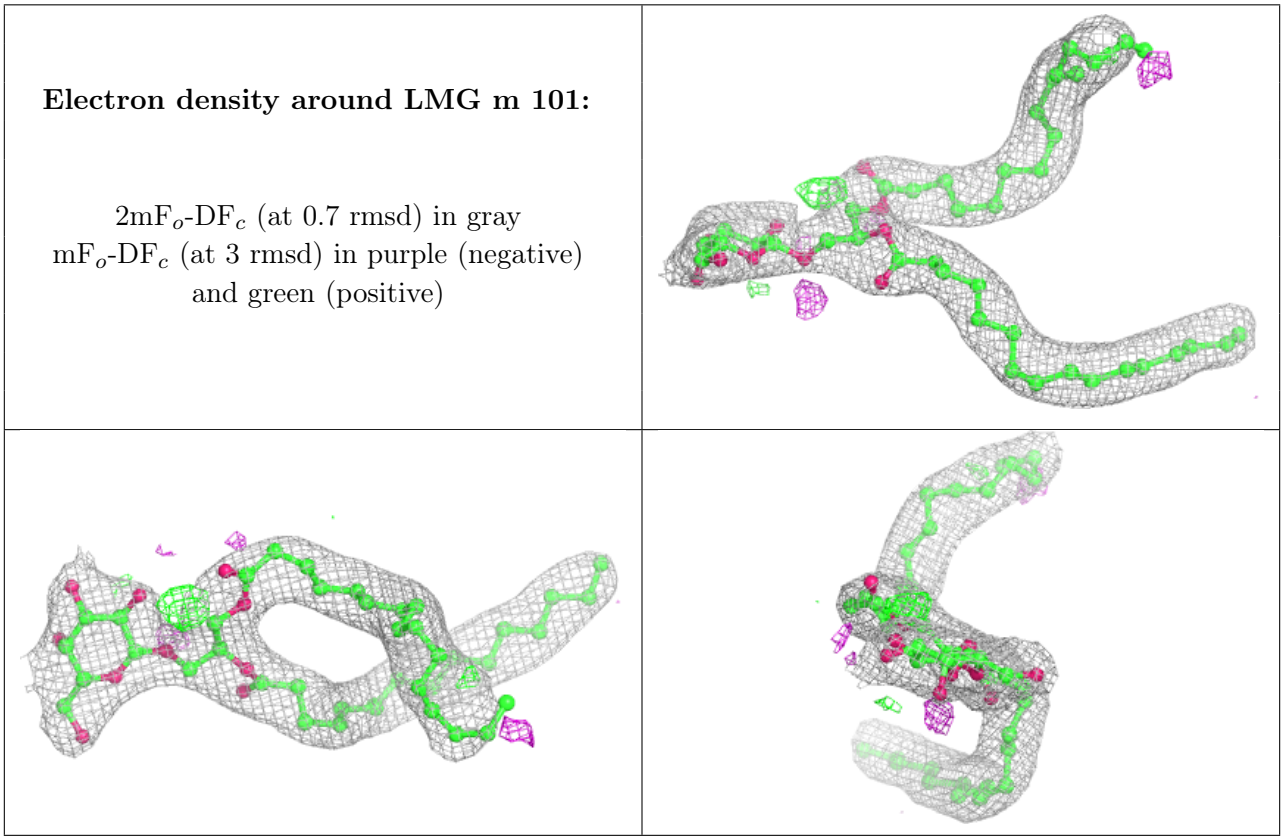
Electron density around DGD H 102:

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



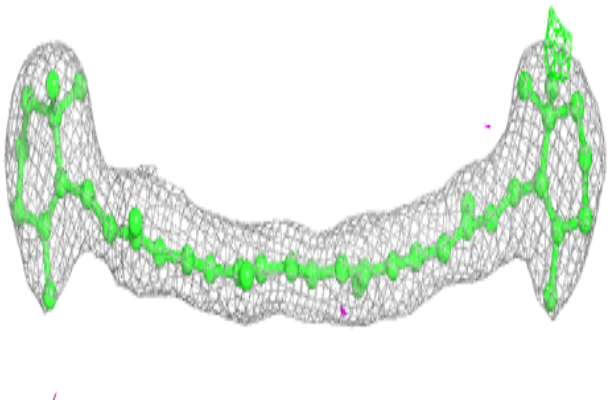
Electron density around LMG m 101:

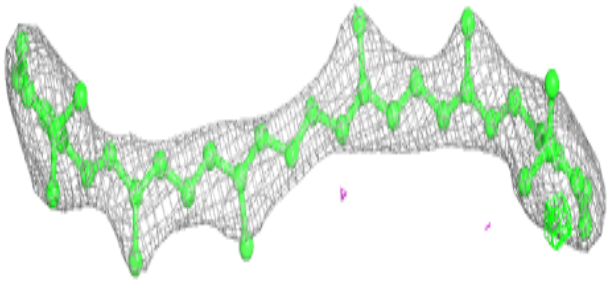
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

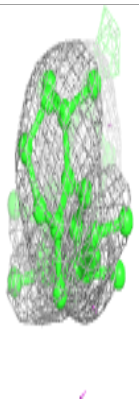


Electron density around BCR k 101:

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

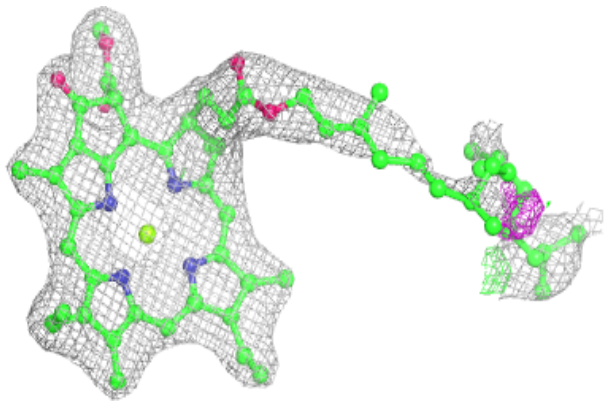


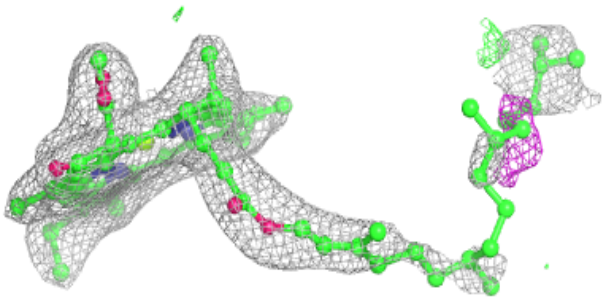


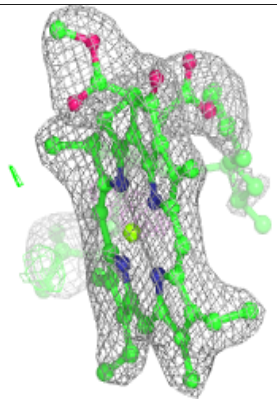


Electron density around CLA a 407:

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

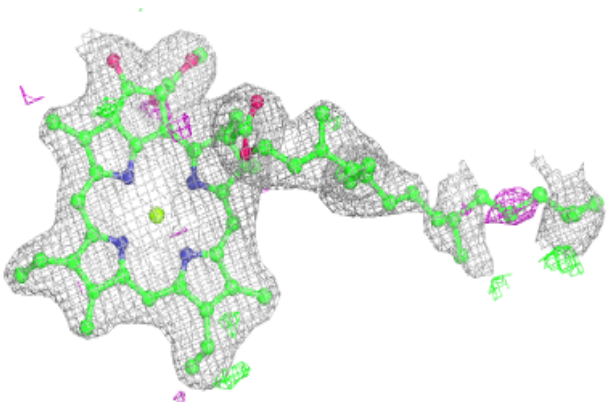


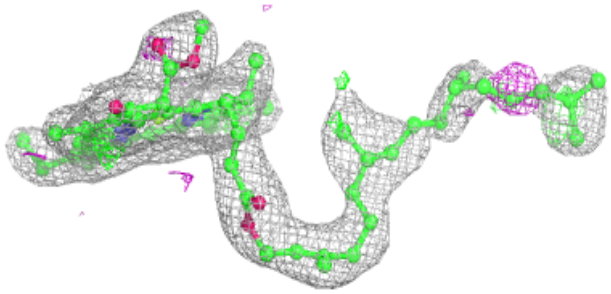




Electron density around CLA a 405 (A):

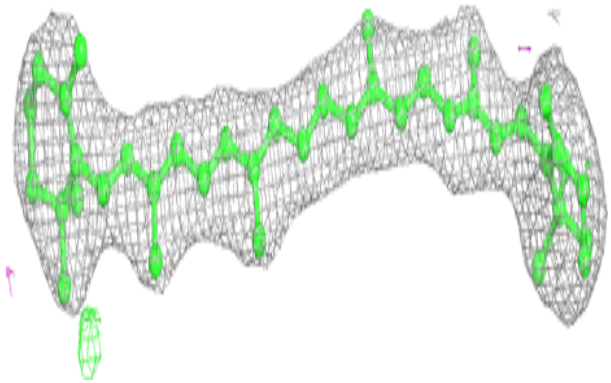
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

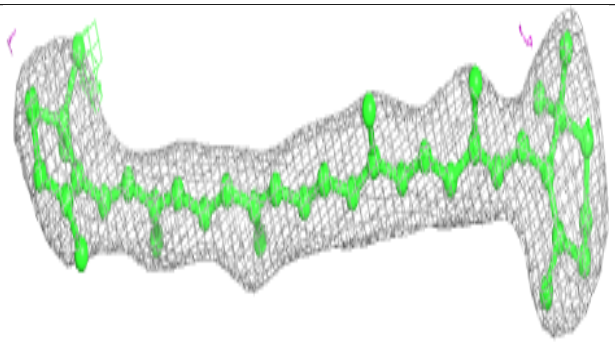


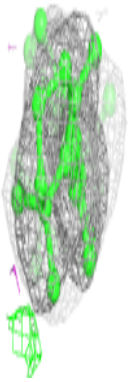


Electron density around BCR c 515:

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

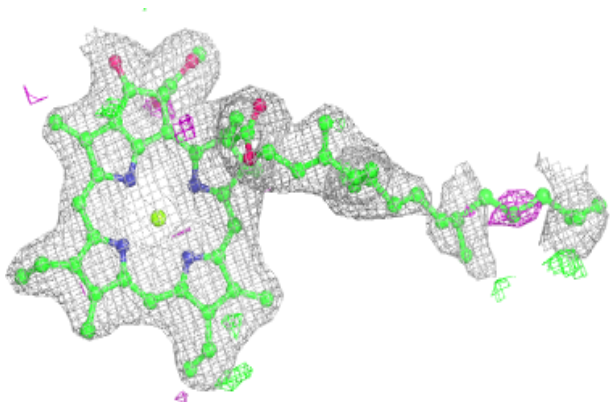


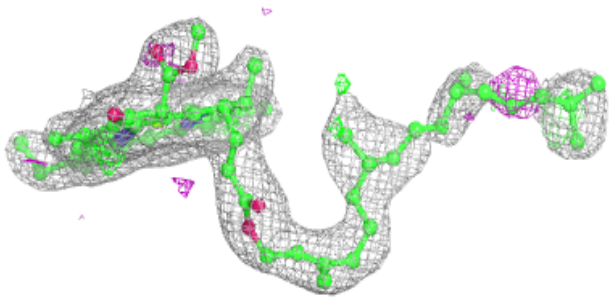


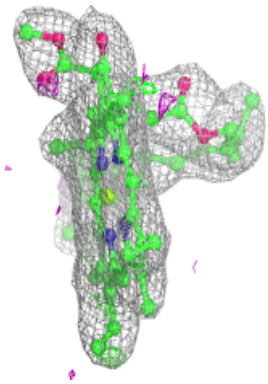


Electron density around CLA a 405 (B):

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

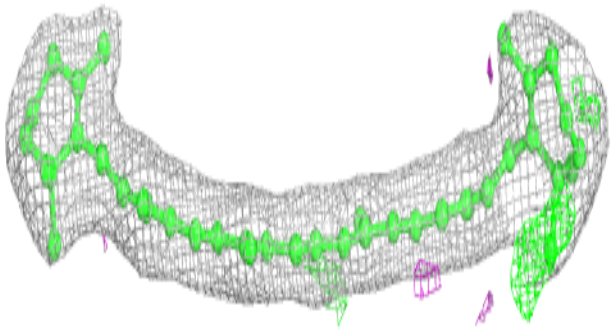


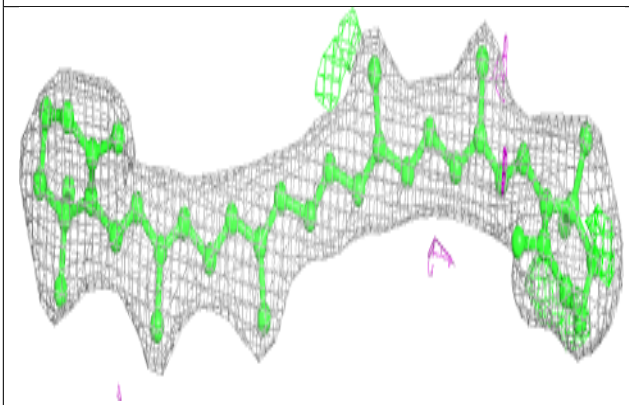


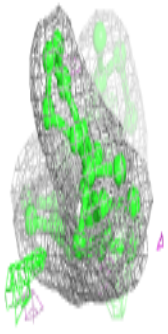


Electron density around BCR D 405:

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

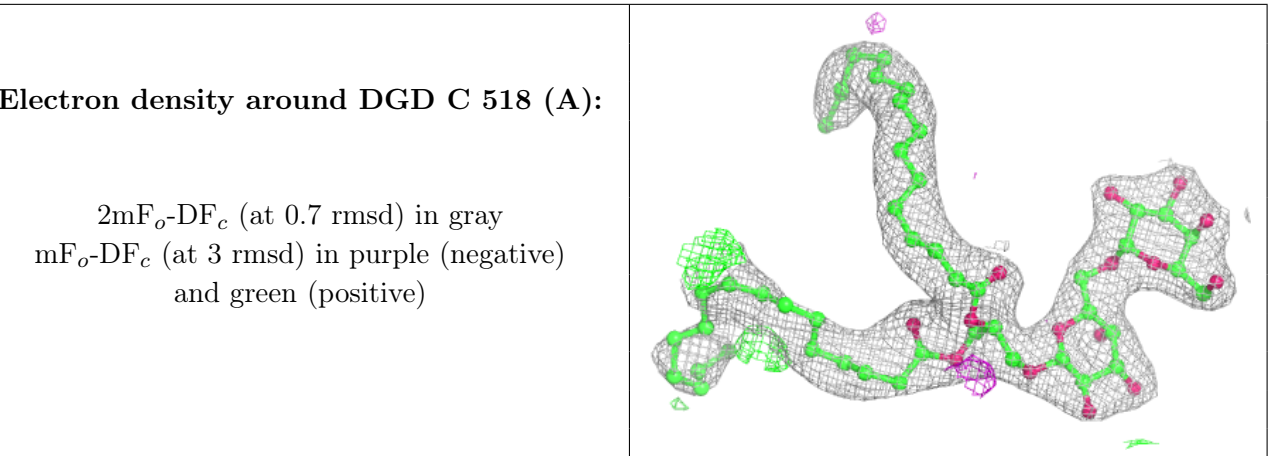






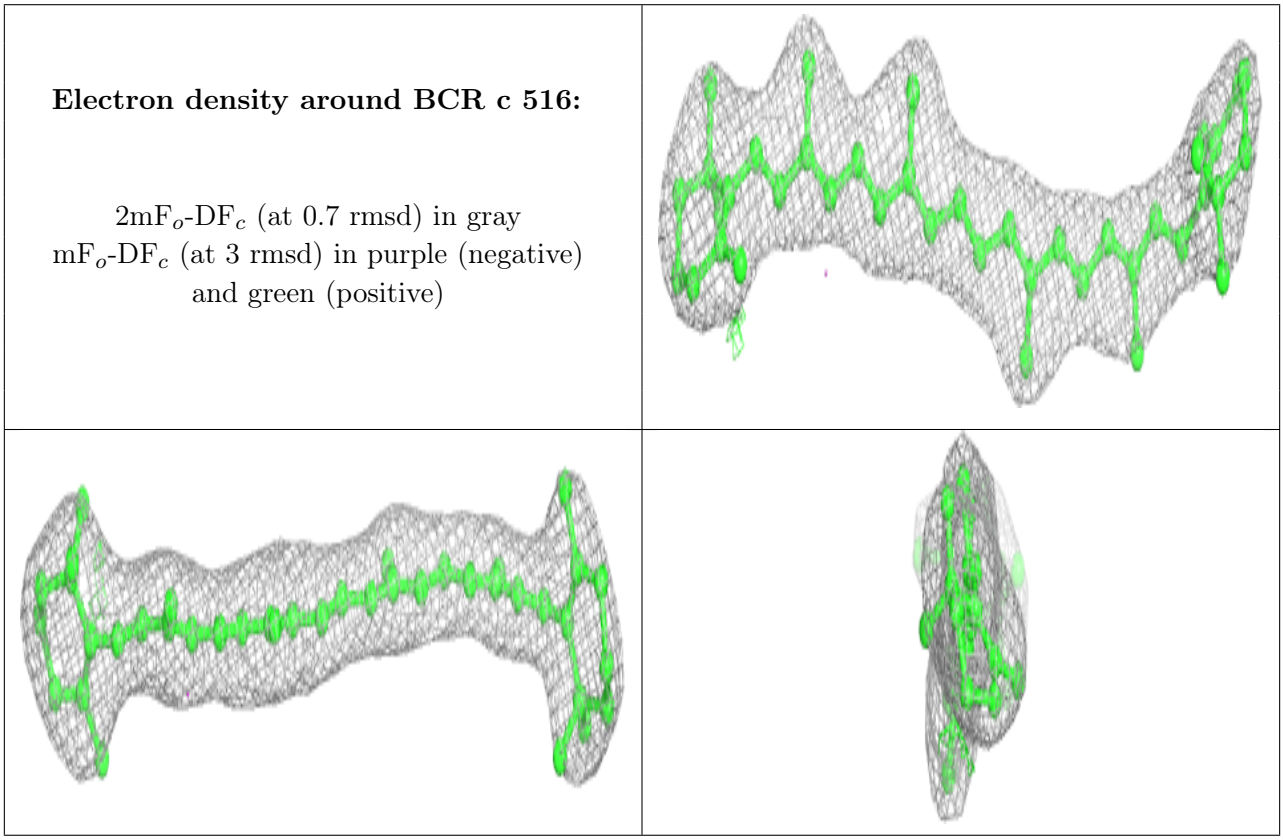
Electron density around DGD C 518 (A):

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



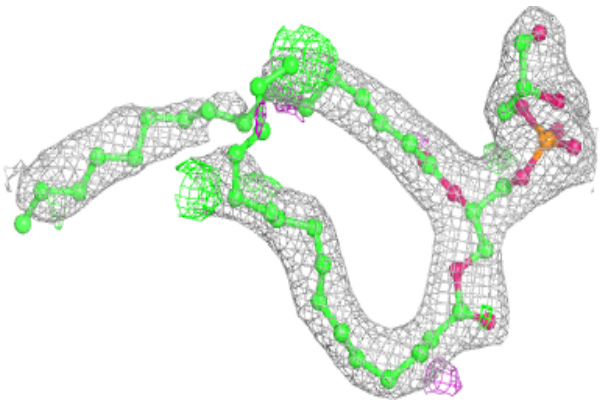
Electron density around BCR c 516:

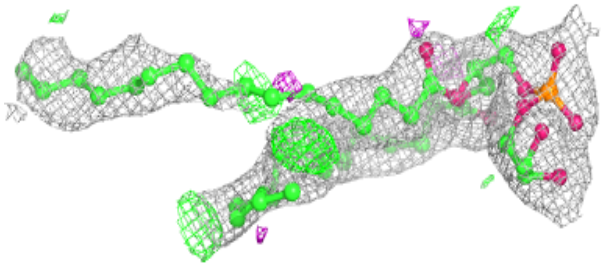
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

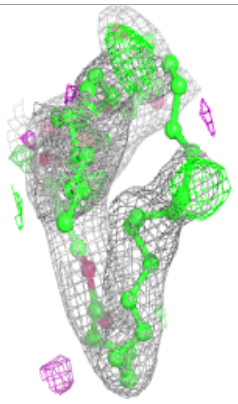


Electron density around LHG D 408 (A):

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

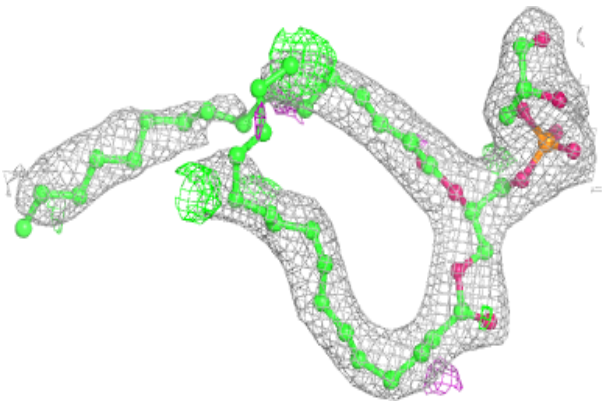


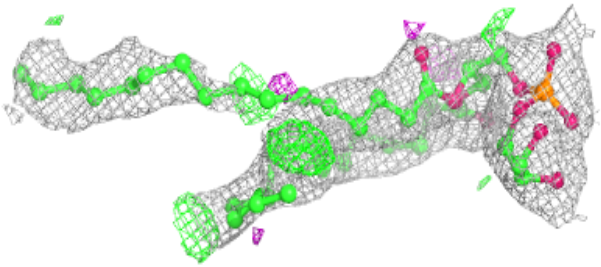


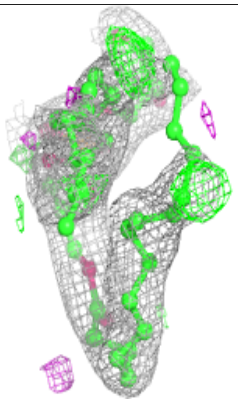


Electron density around LHG D 408 (B):

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

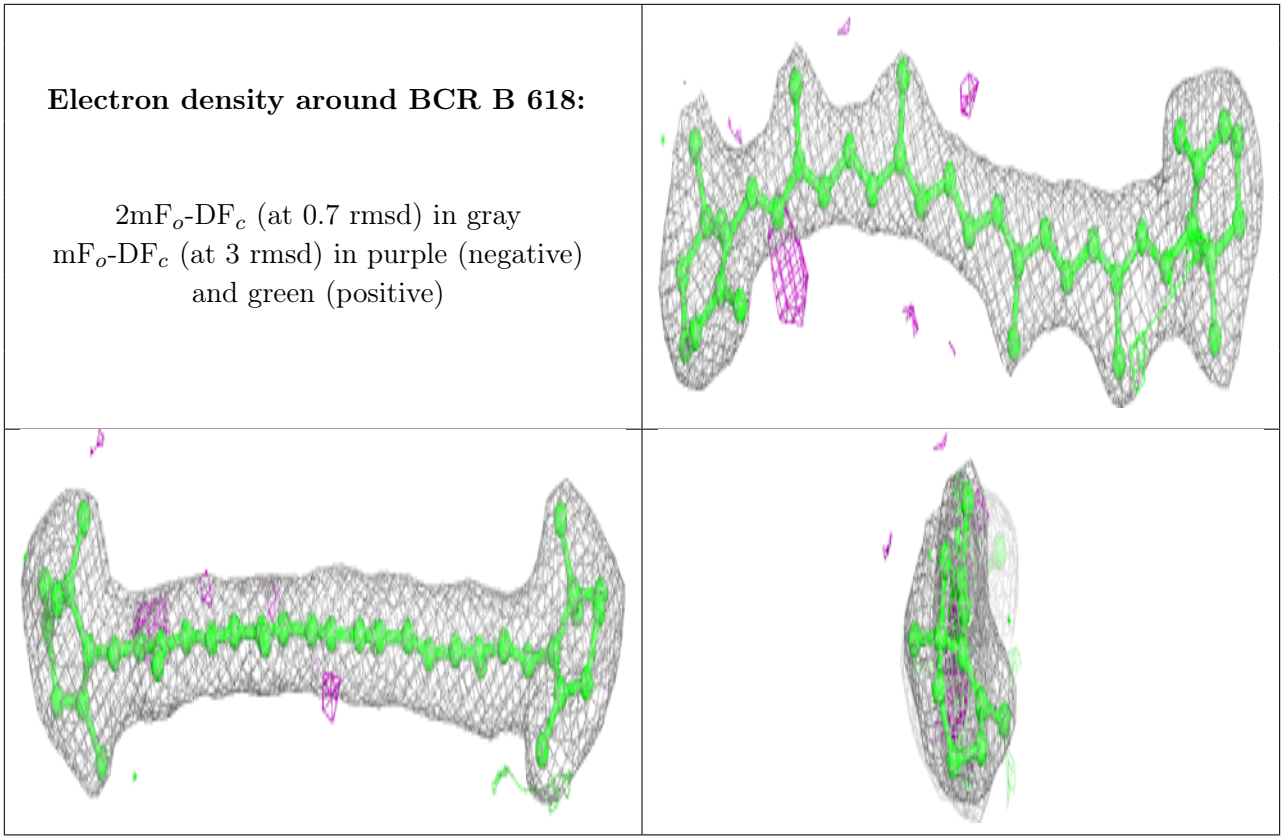






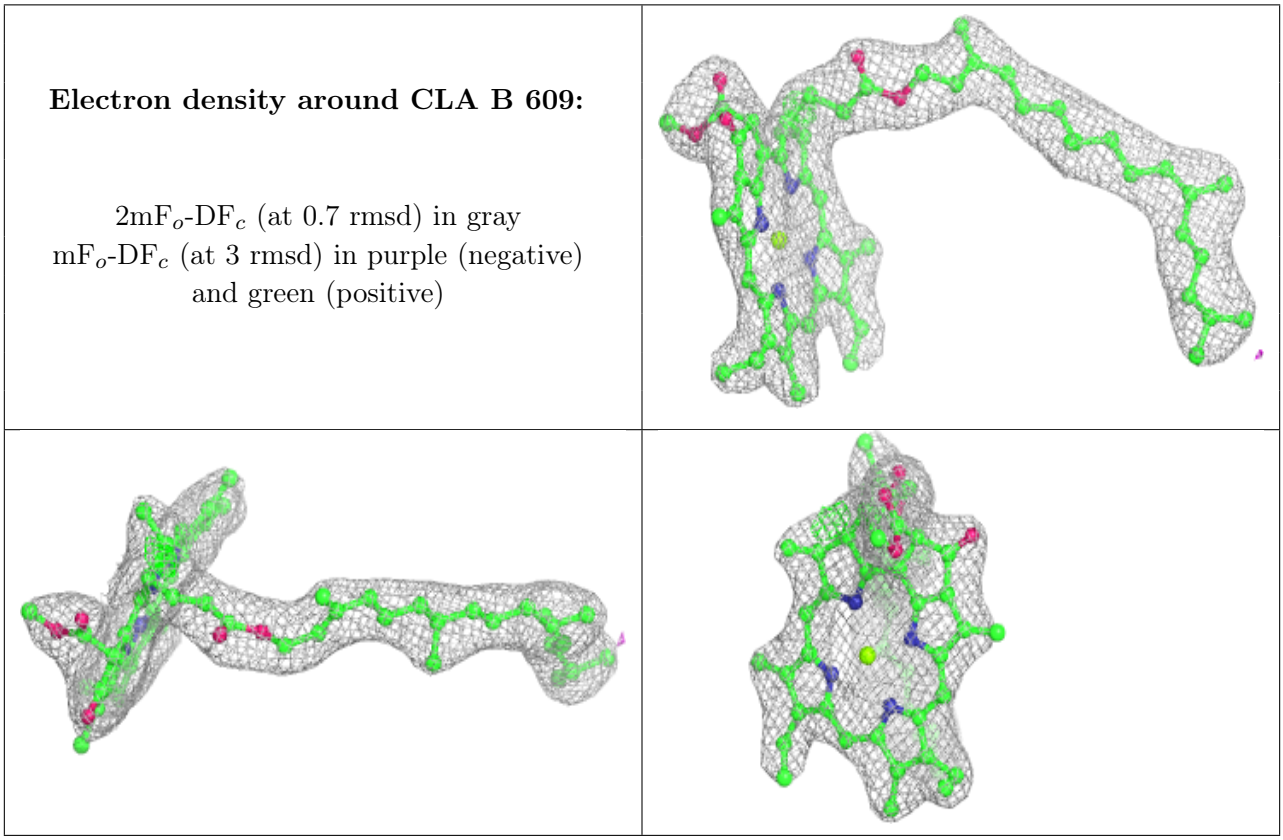
Electron density around BCR B 618:

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



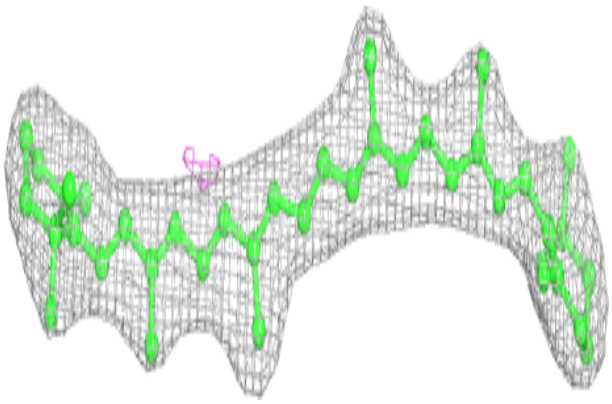
Electron density around CLA B 609:

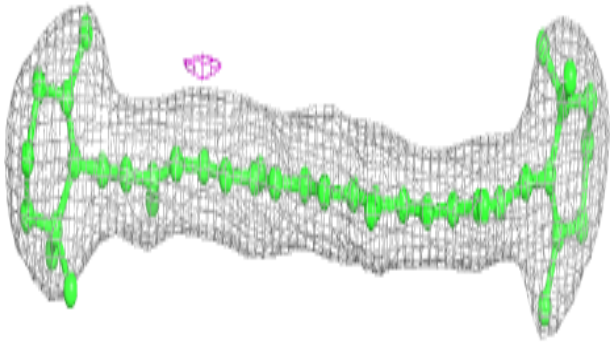
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

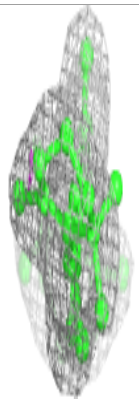


Electron density around BCR C 516:

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

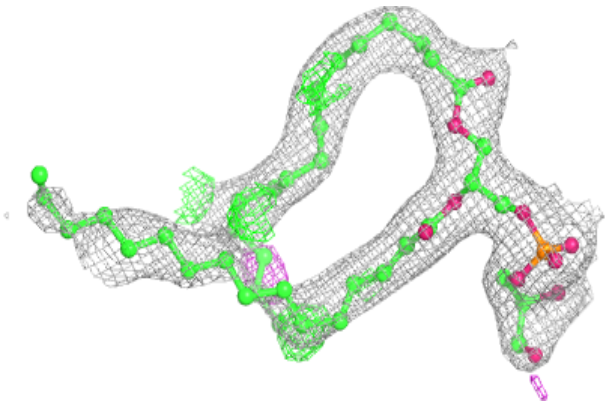


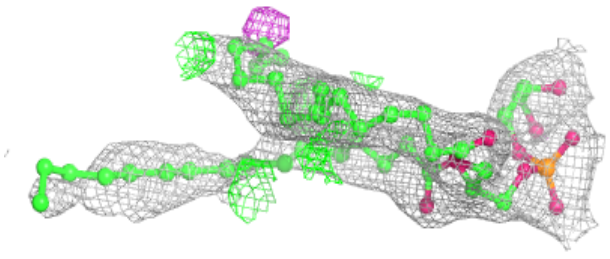


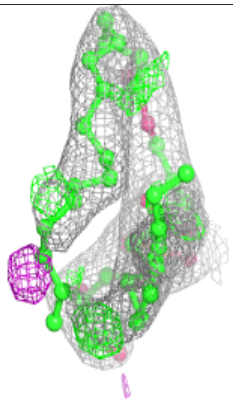


Electron density around LHG d 408 (A):

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

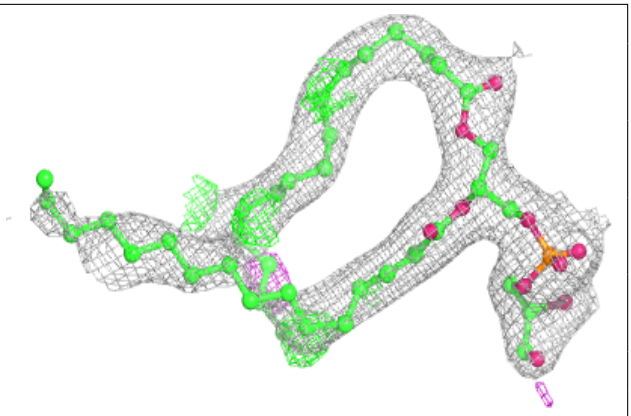


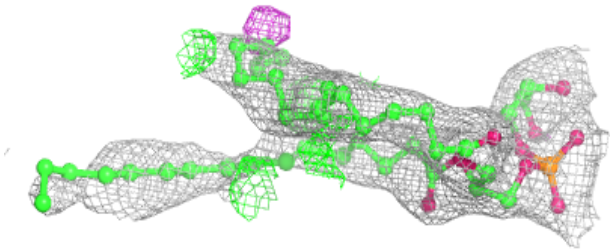


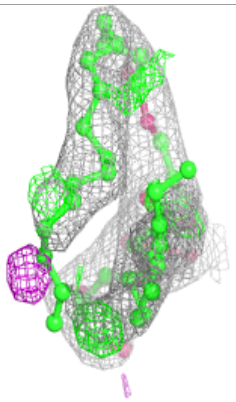


Electron density around LHG d 408 (B):

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

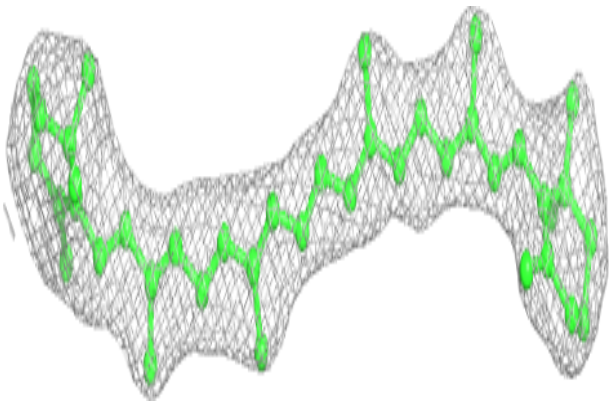


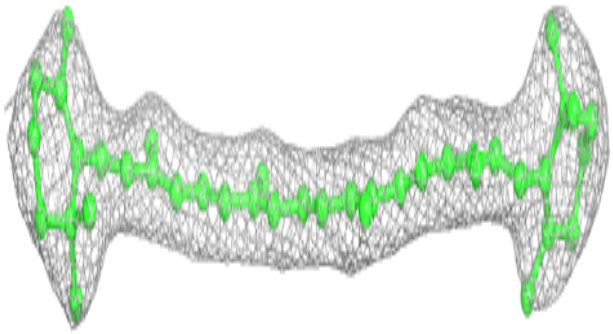


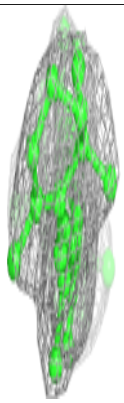


Electron density around BCR y 101:

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

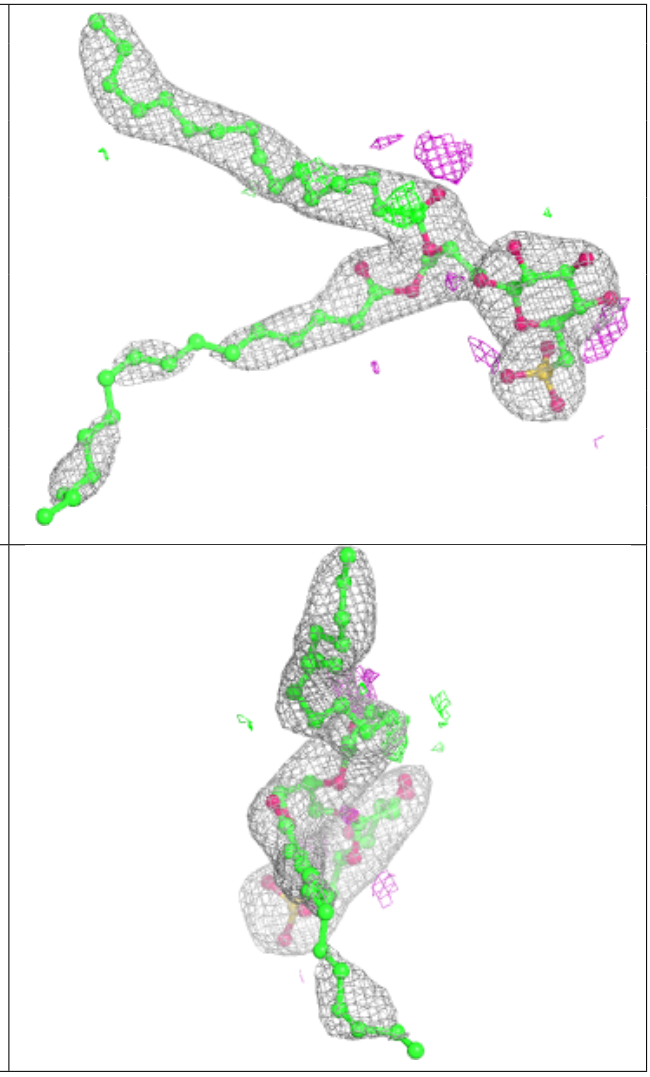






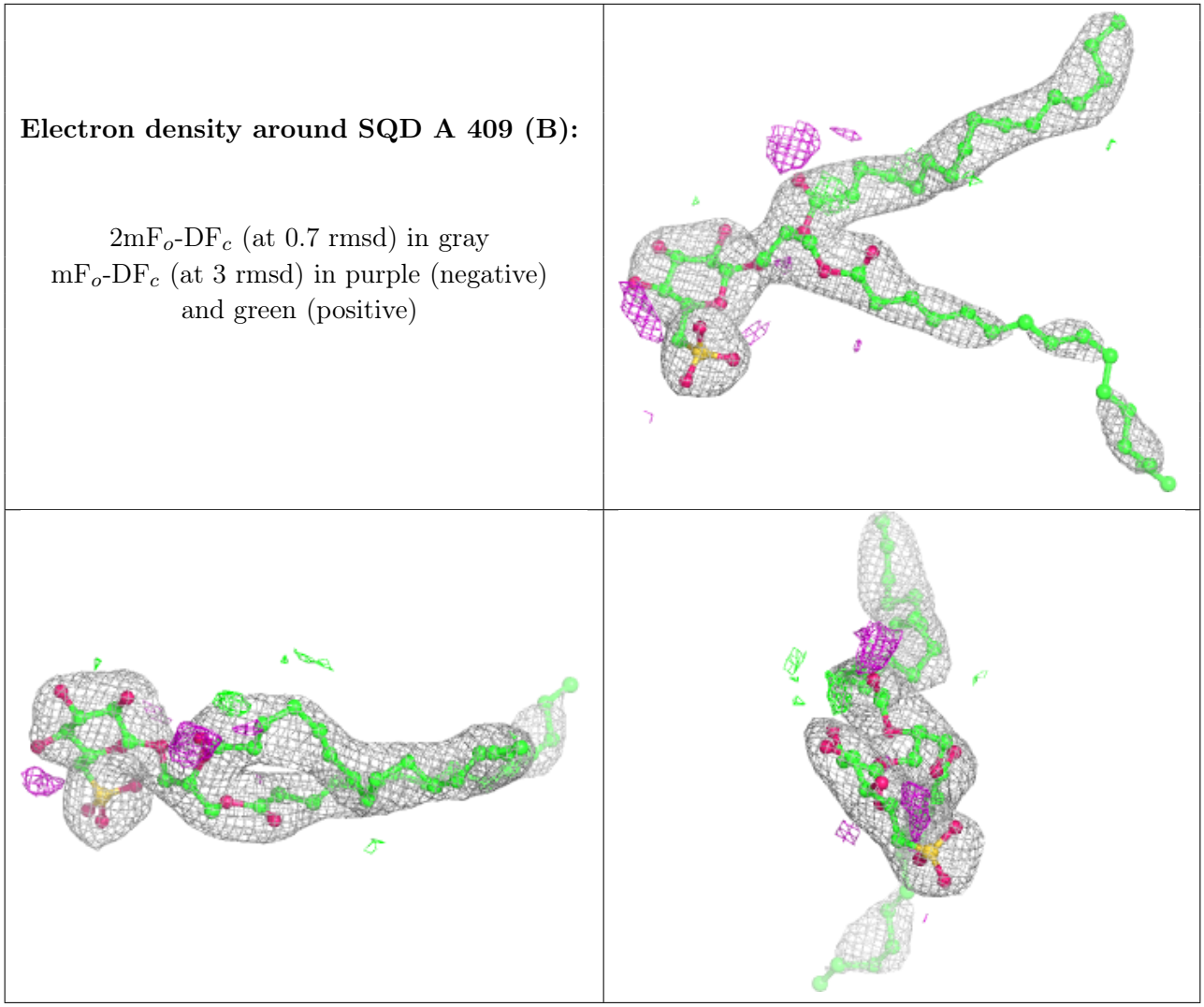
Electron density around SQD A 409 (A):

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



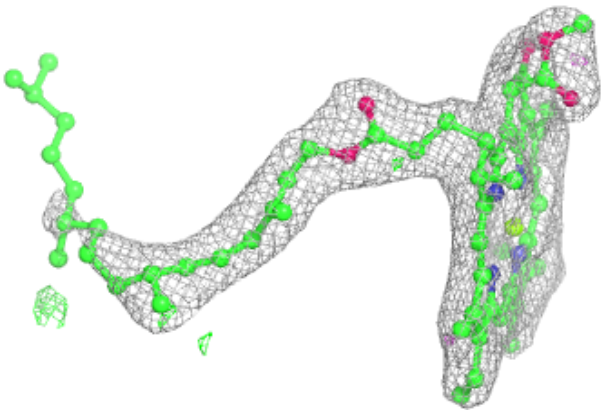
Electron density around SQD A 409 (B):

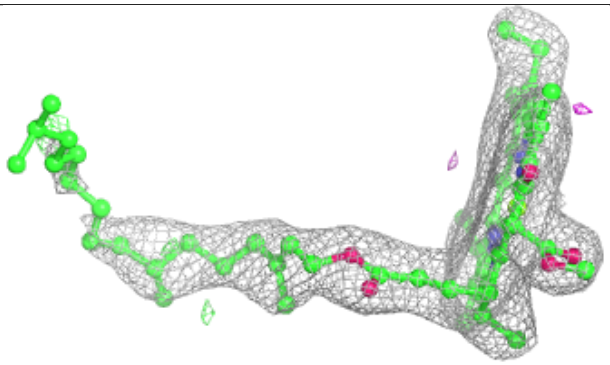
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

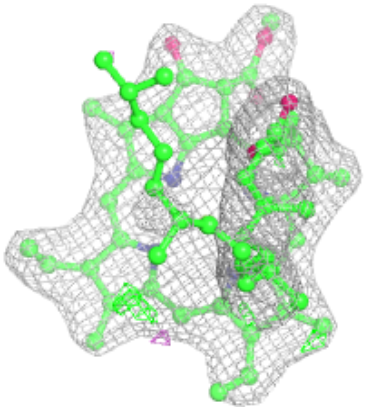


Electron density around CLA D 404:

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

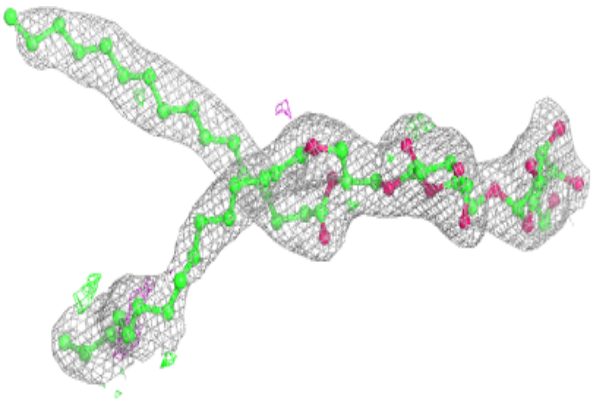


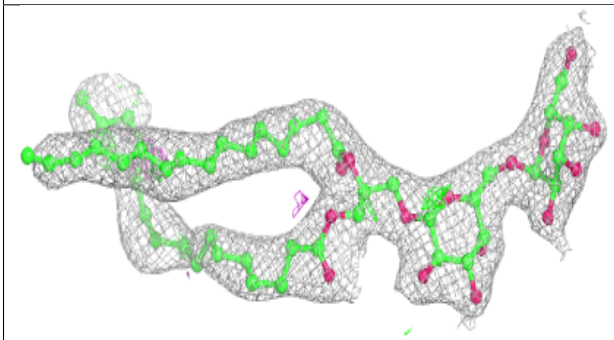


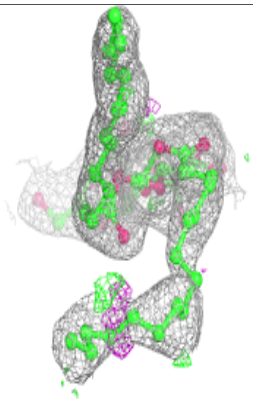


Electron density around DGD c 517 (A):

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

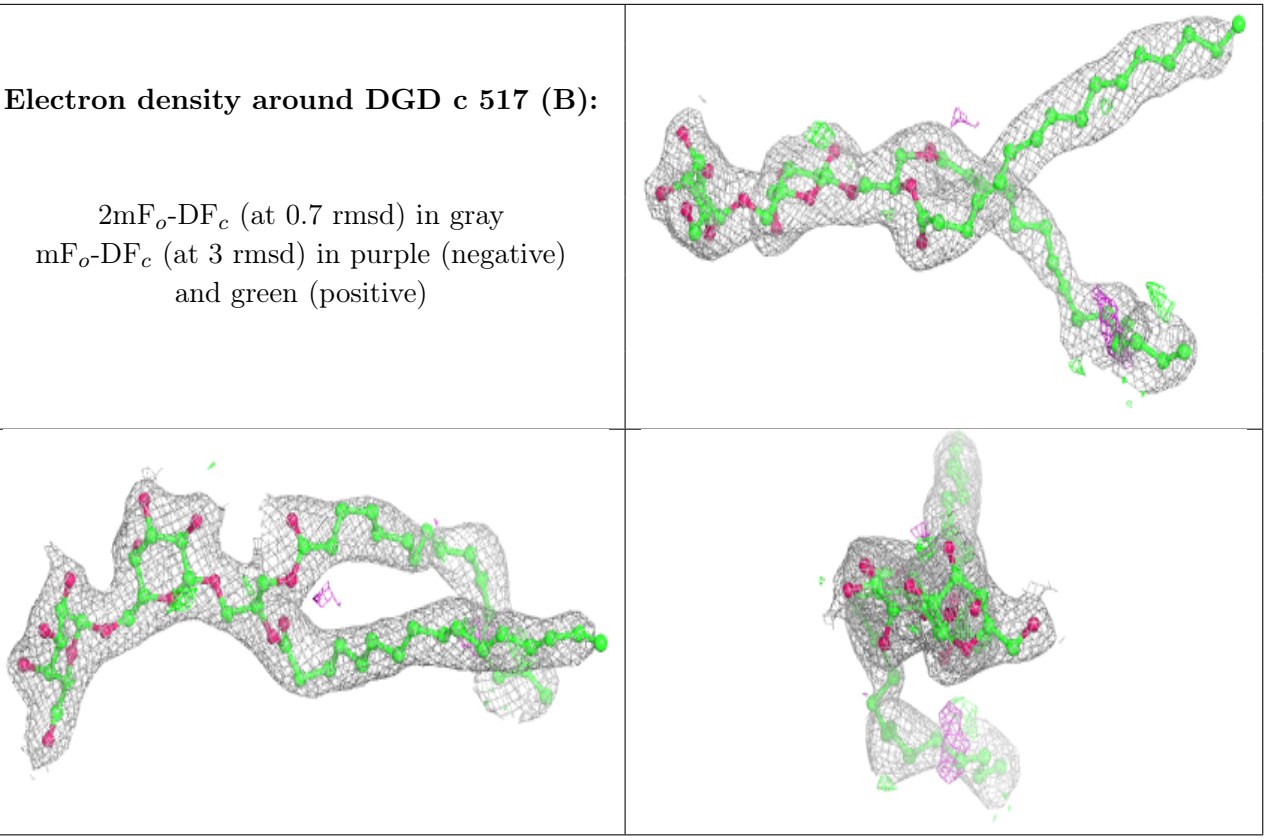






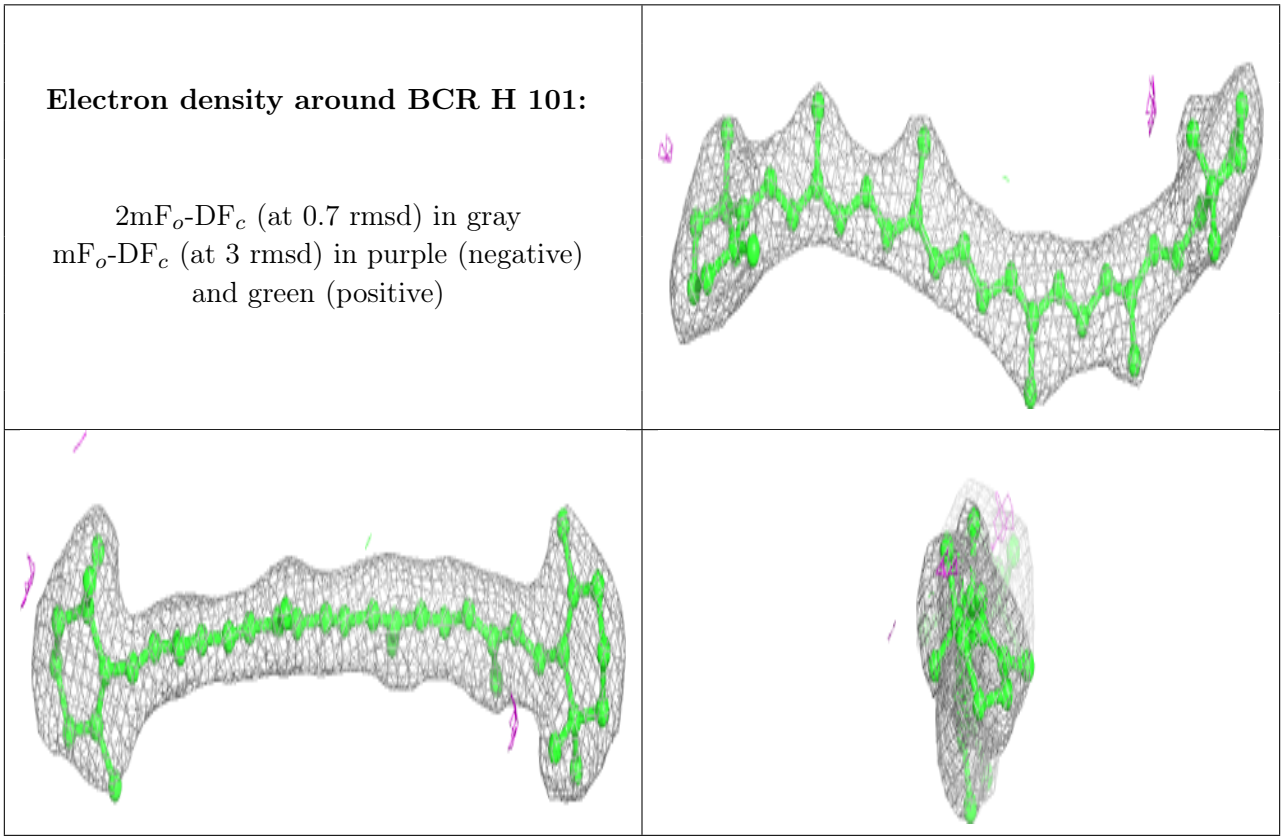
Electron density around DGD c 517 (B):

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



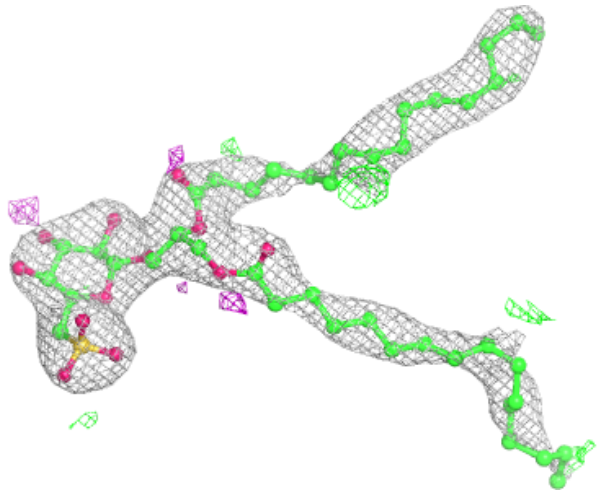
Electron density around BCR H 101:

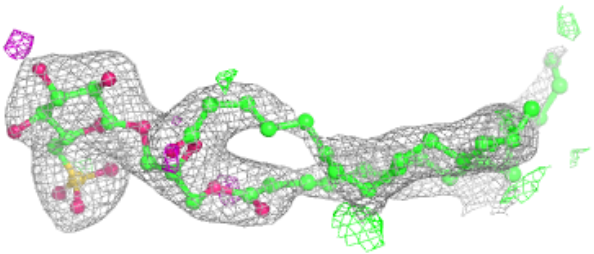
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

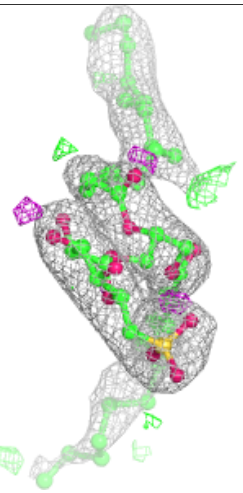


Electron density around SQD a 409 (A):

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

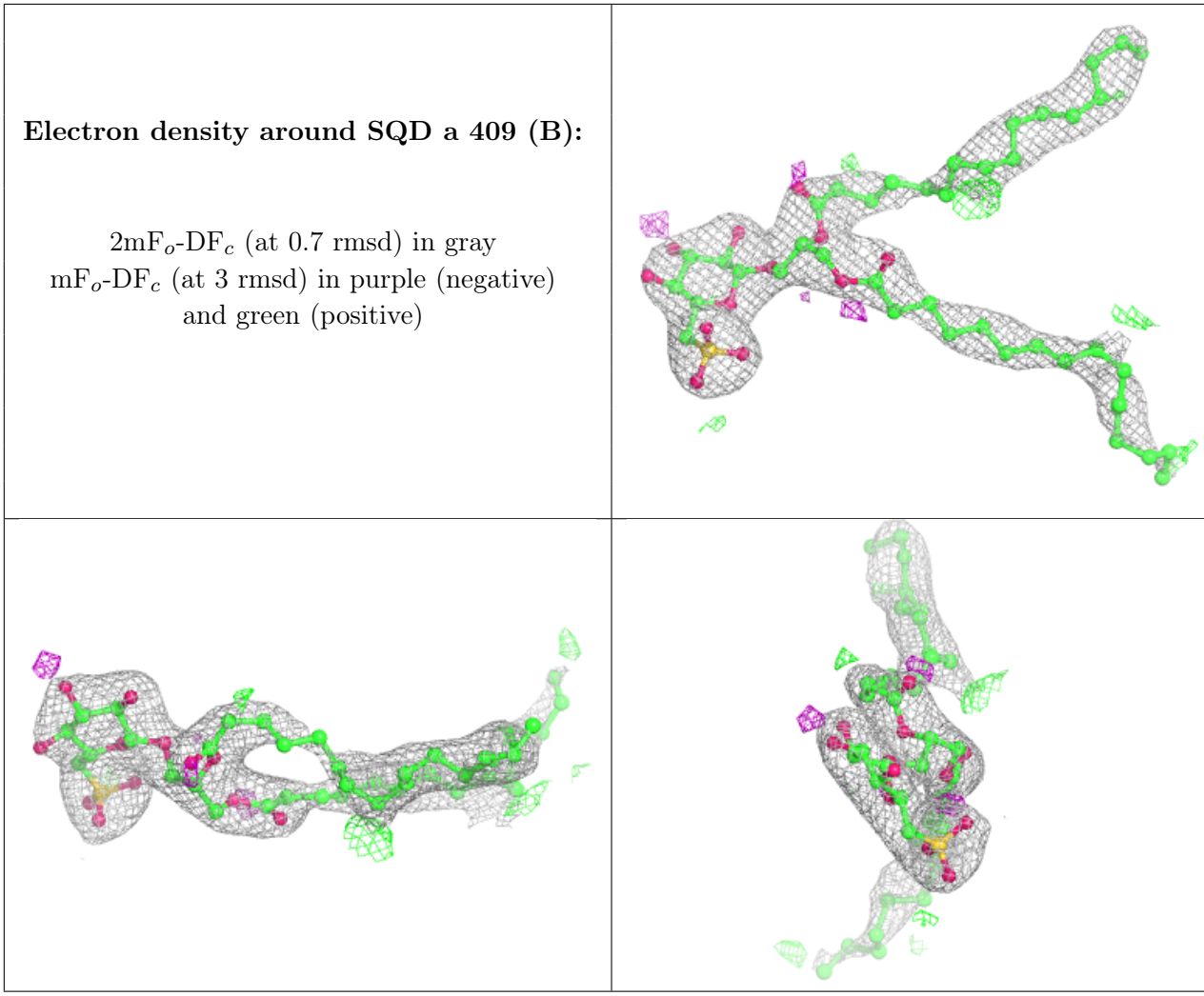






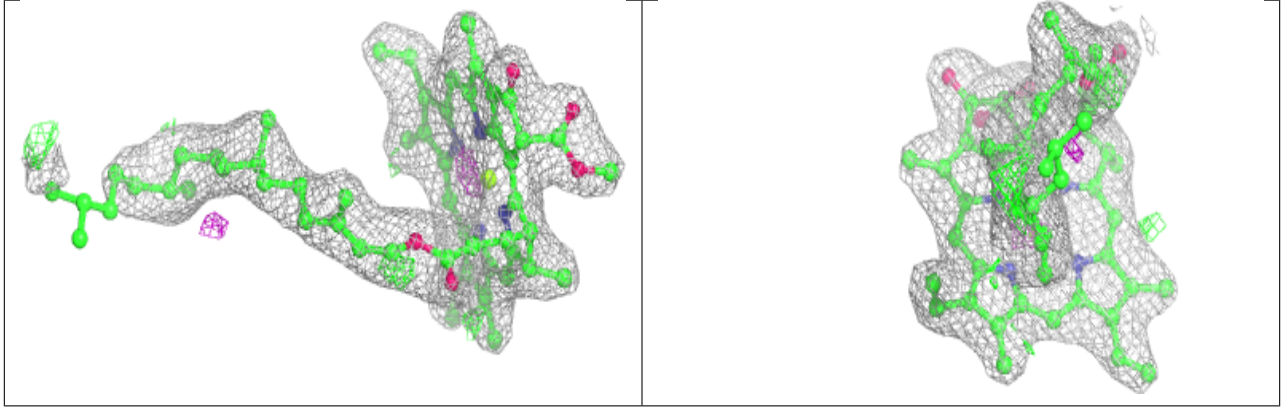
Electron density around SQD a 409 (B):

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



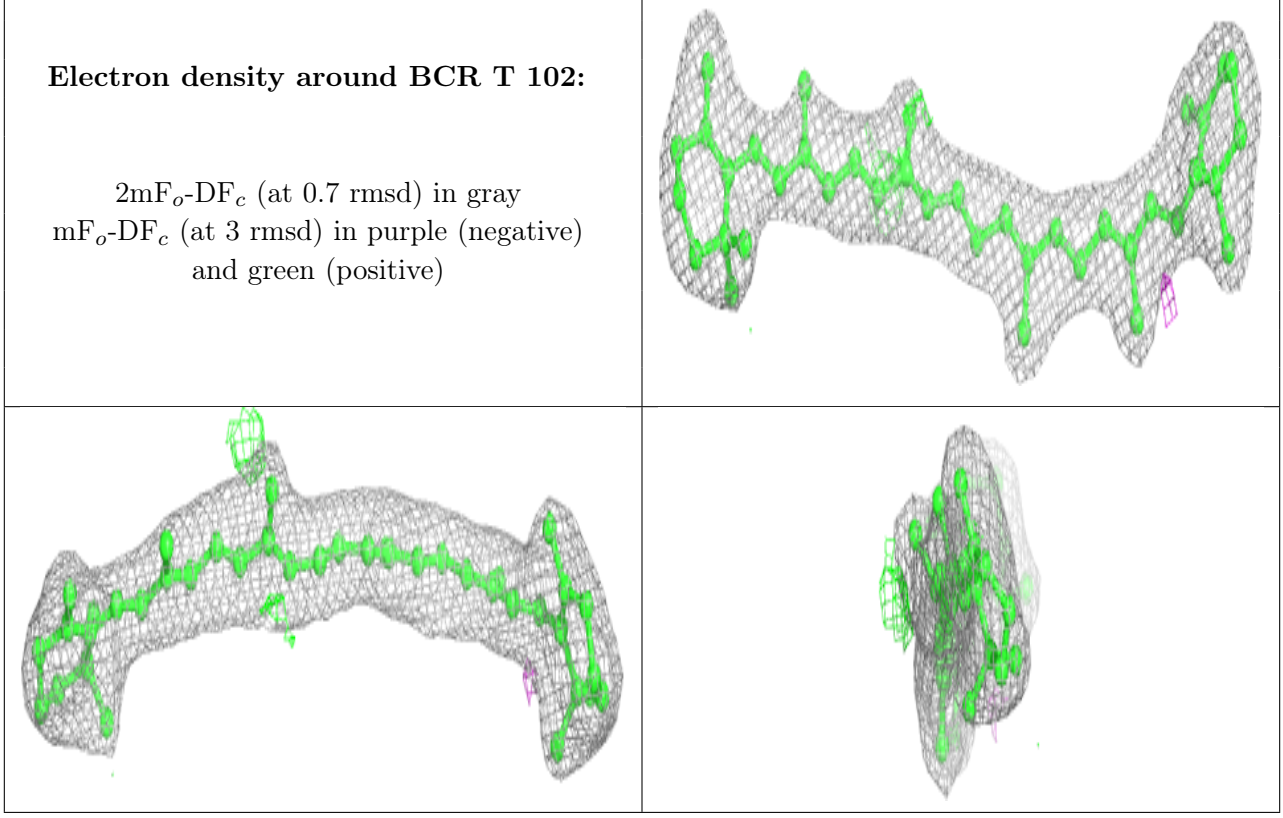
Electron density around CLA C 509:

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



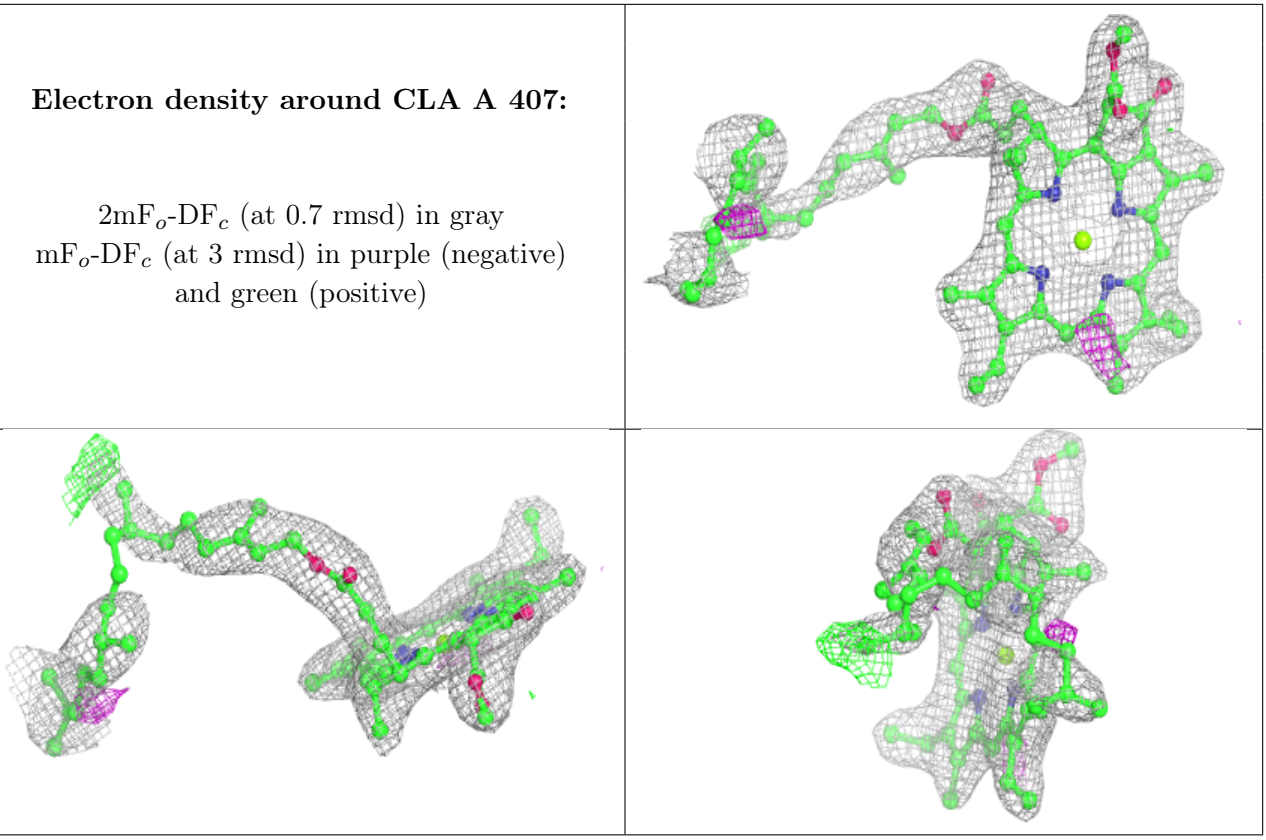
Electron density around BCR T 102:

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



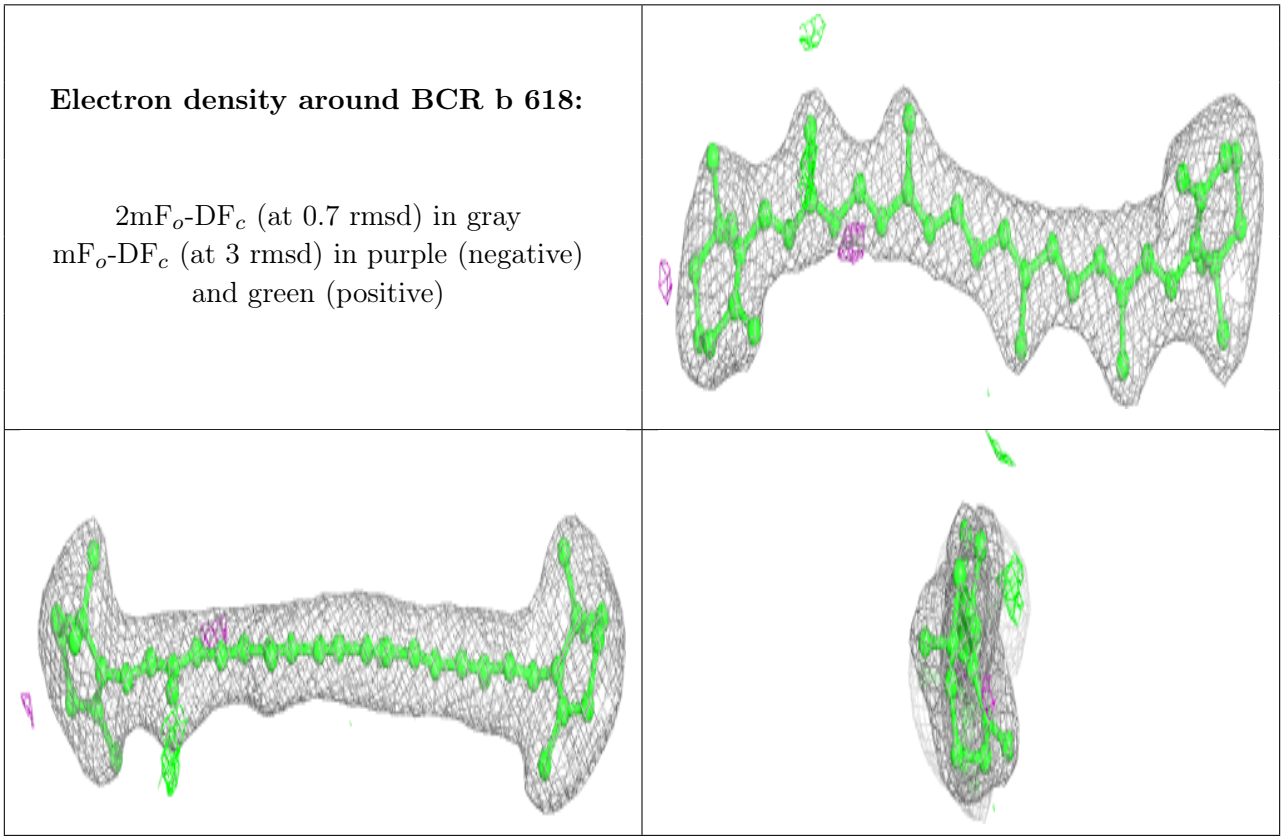
Electron density around CLA A 407:

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



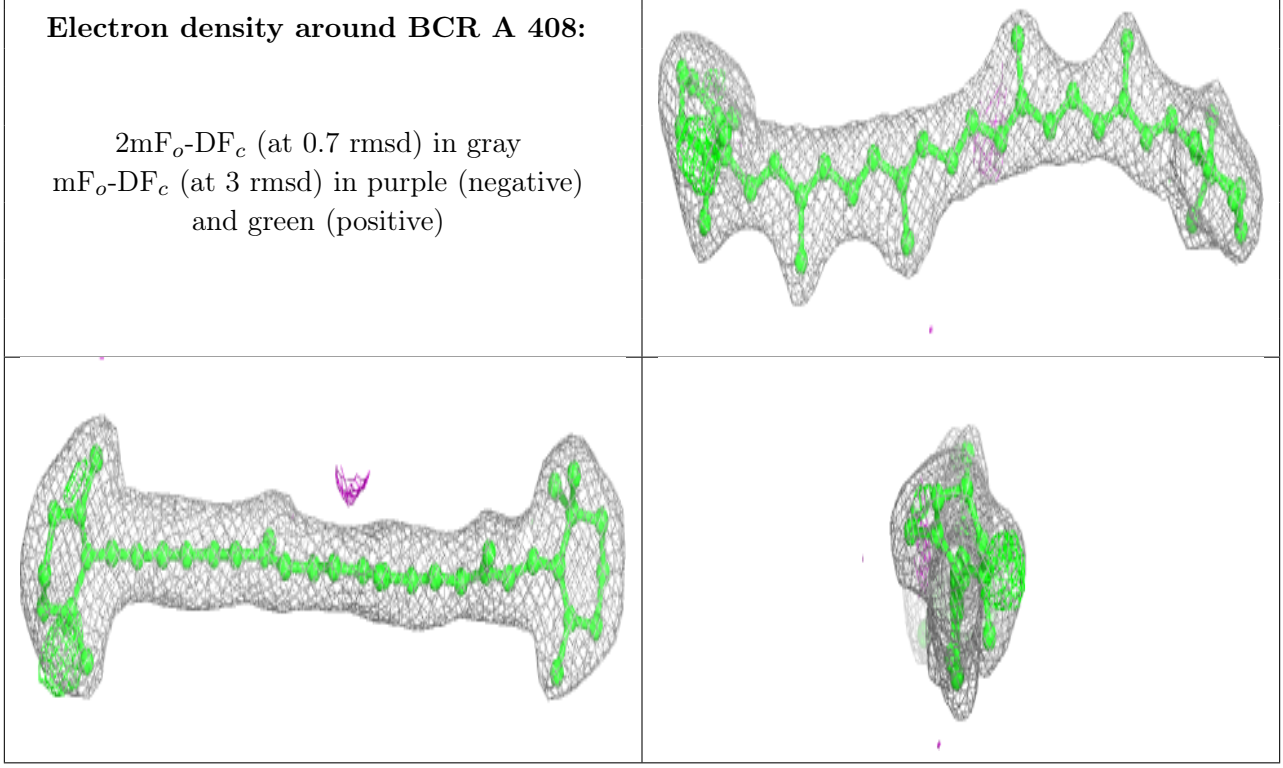
Electron density around BCR b 618:

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



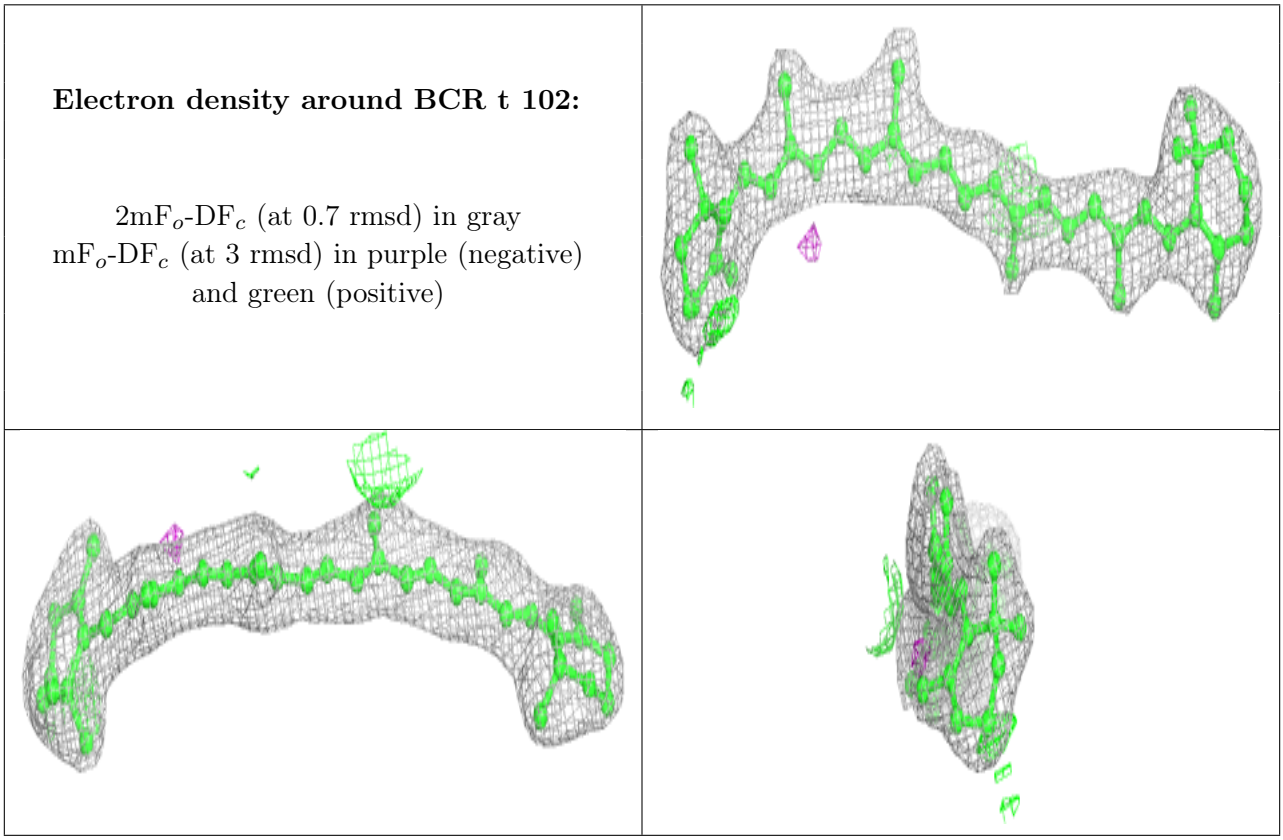
Electron density around BCR A 408:

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



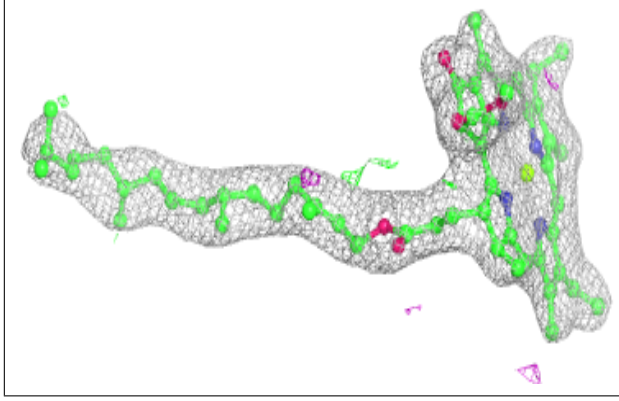
Electron density around BCR t 102:

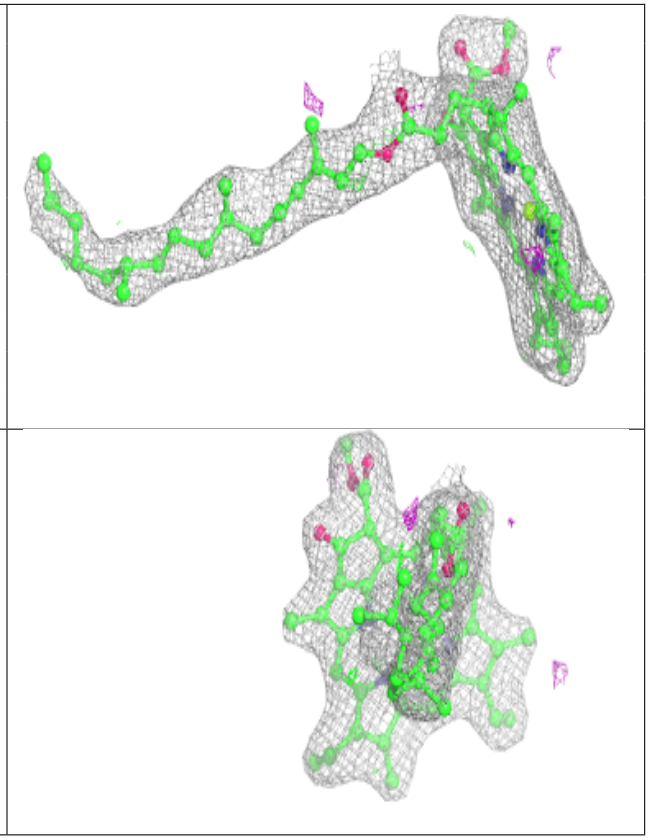
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around CLA b 604:

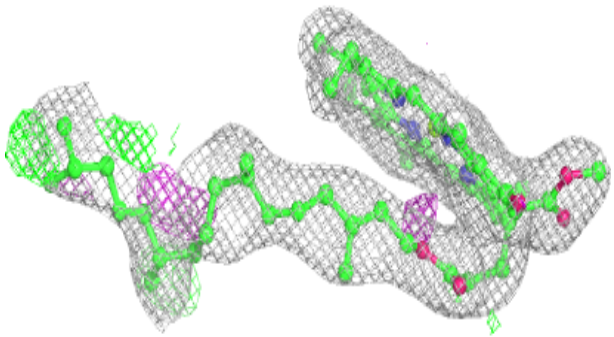
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

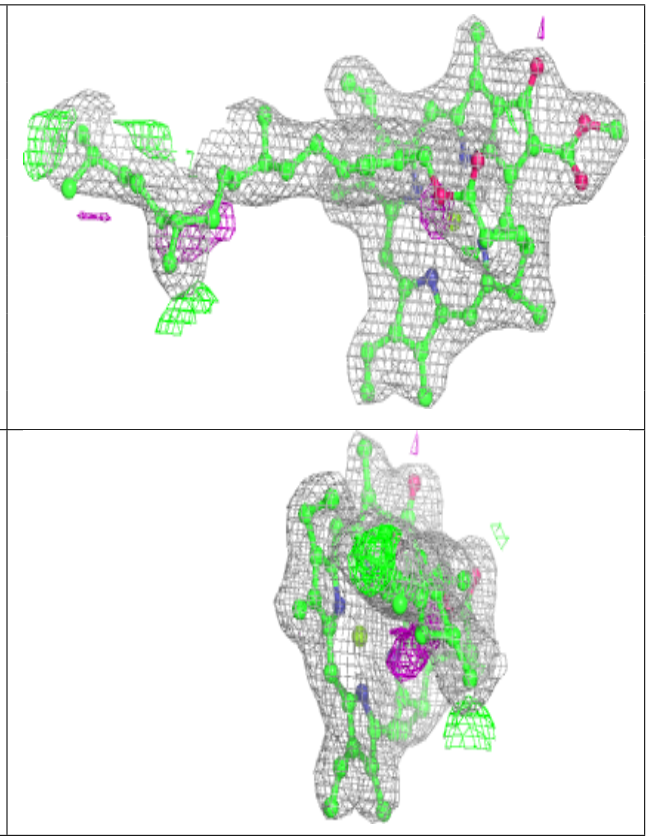




Electron density around CLA B 614:

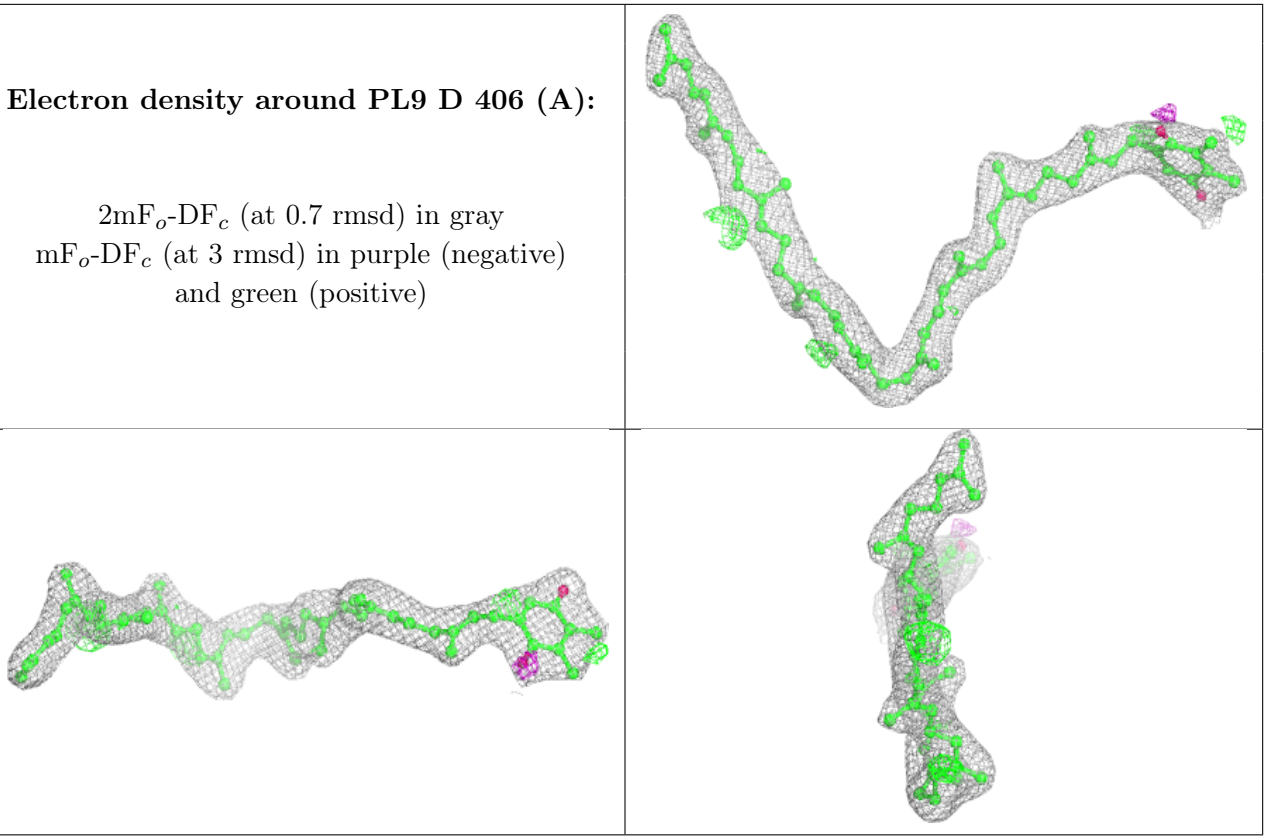
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





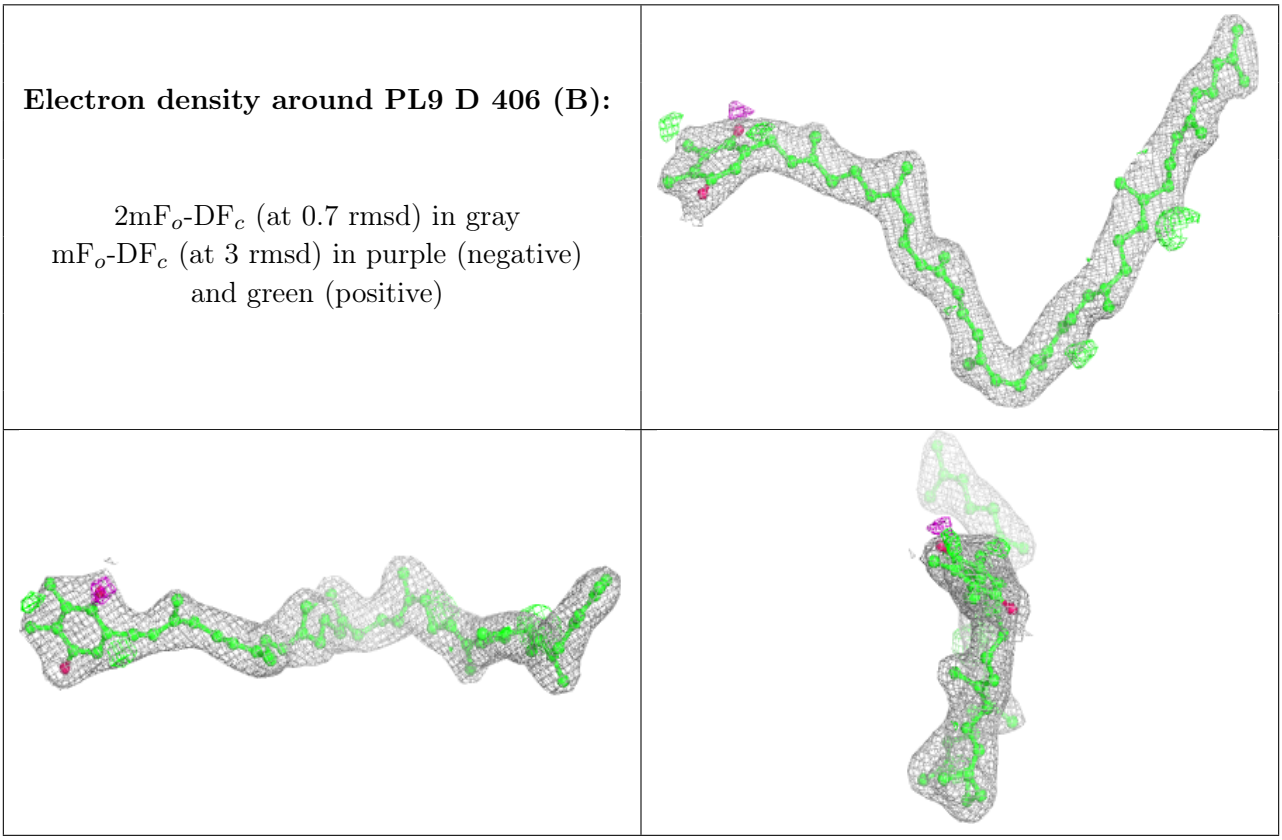
Electron density around PL9 D 406 (A):

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



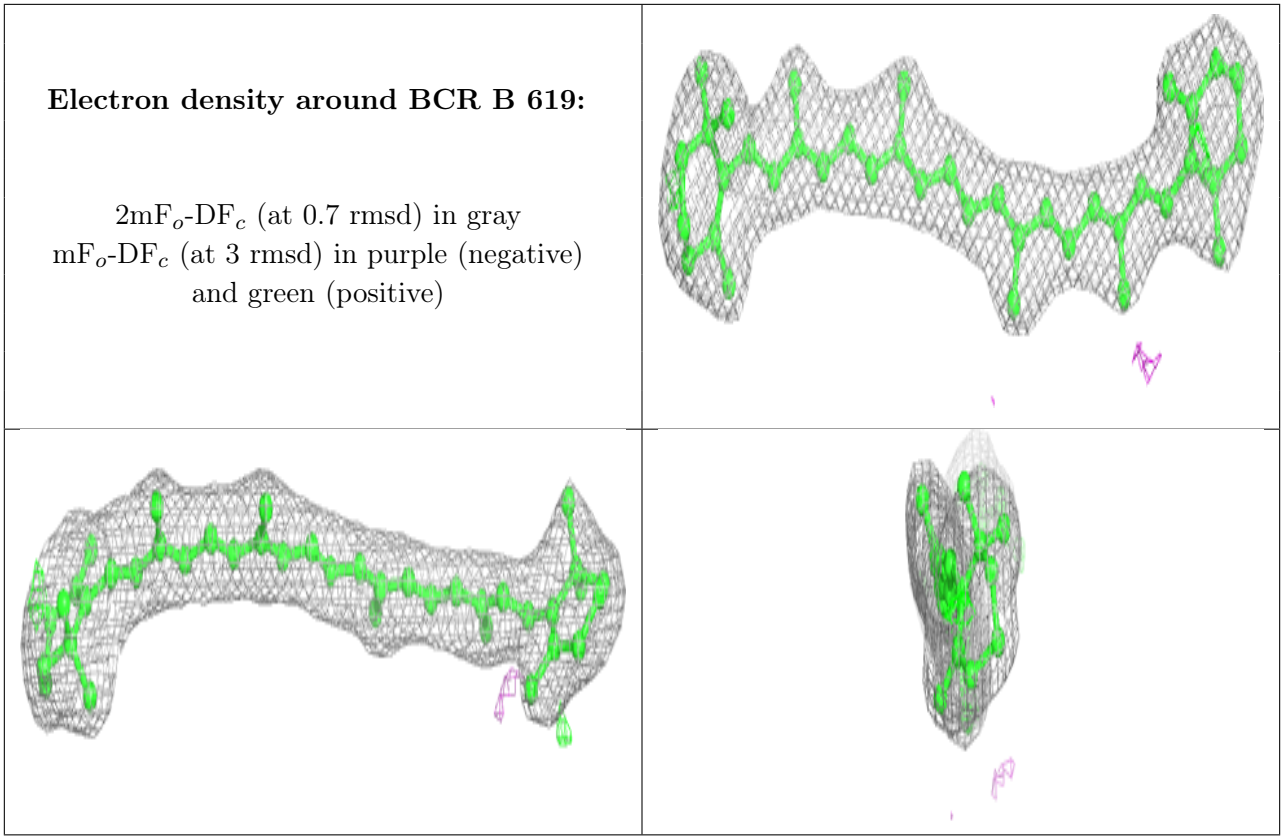
Electron density around PL9 D 406 (B):

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



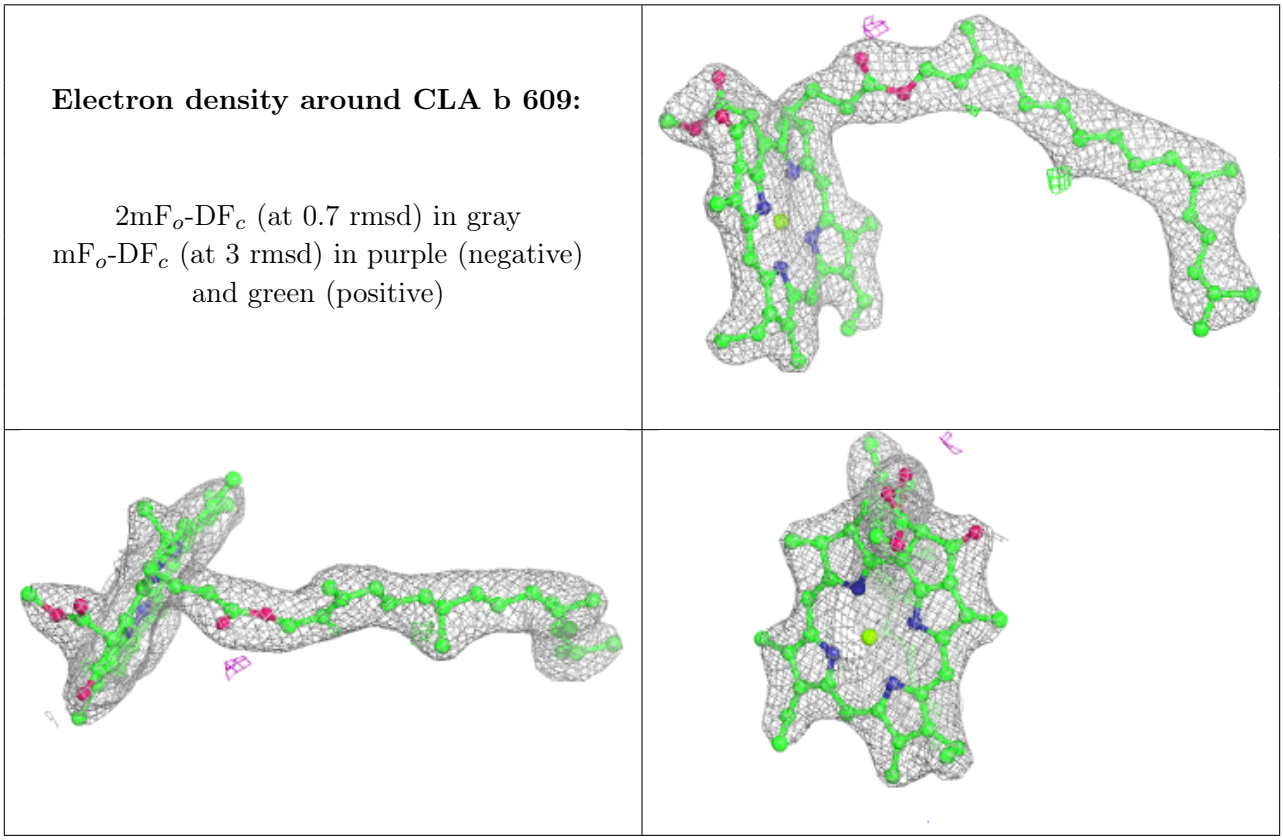
Electron density around BCR B 619:

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



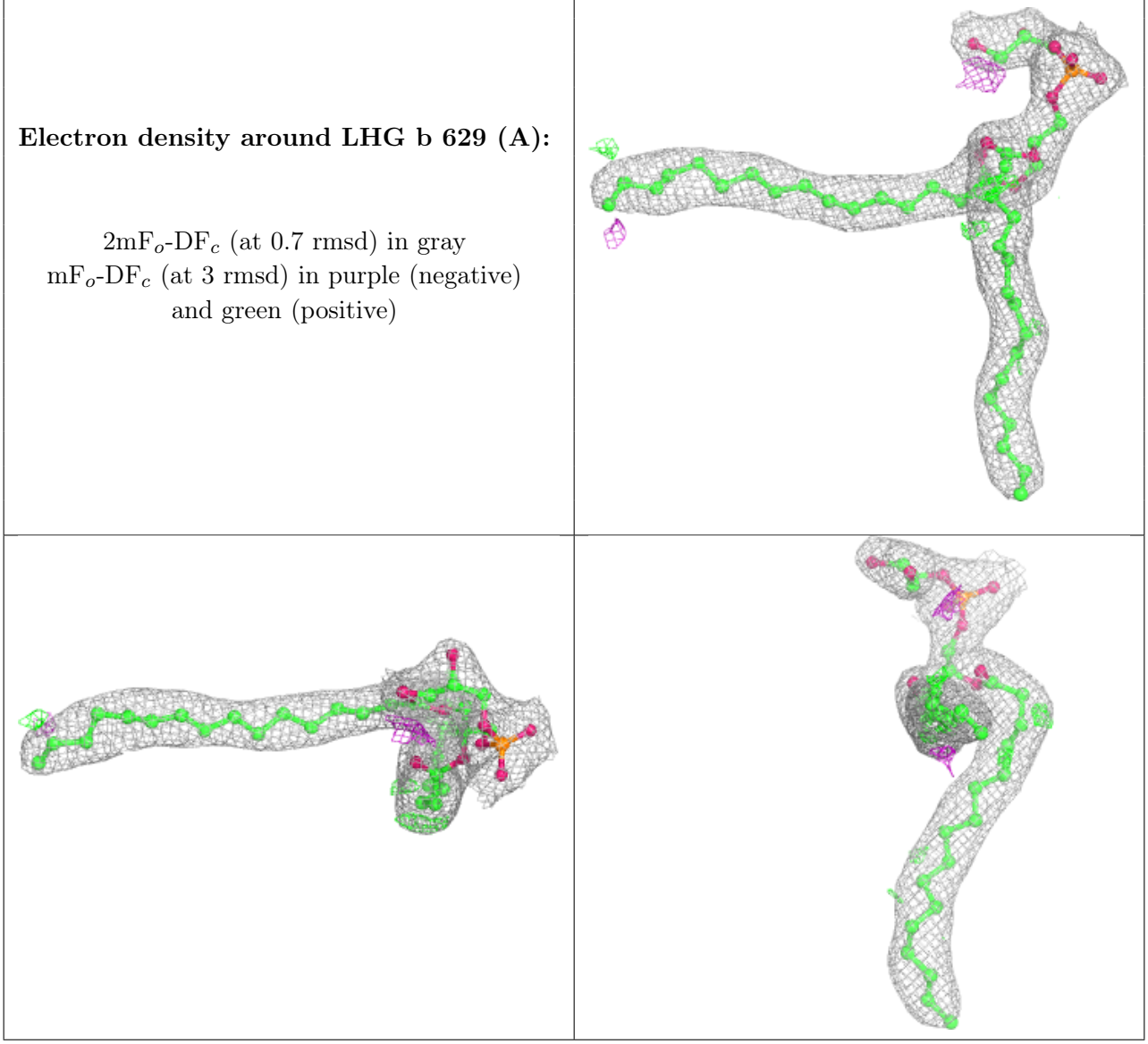
Electron density around CLA b 609:

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



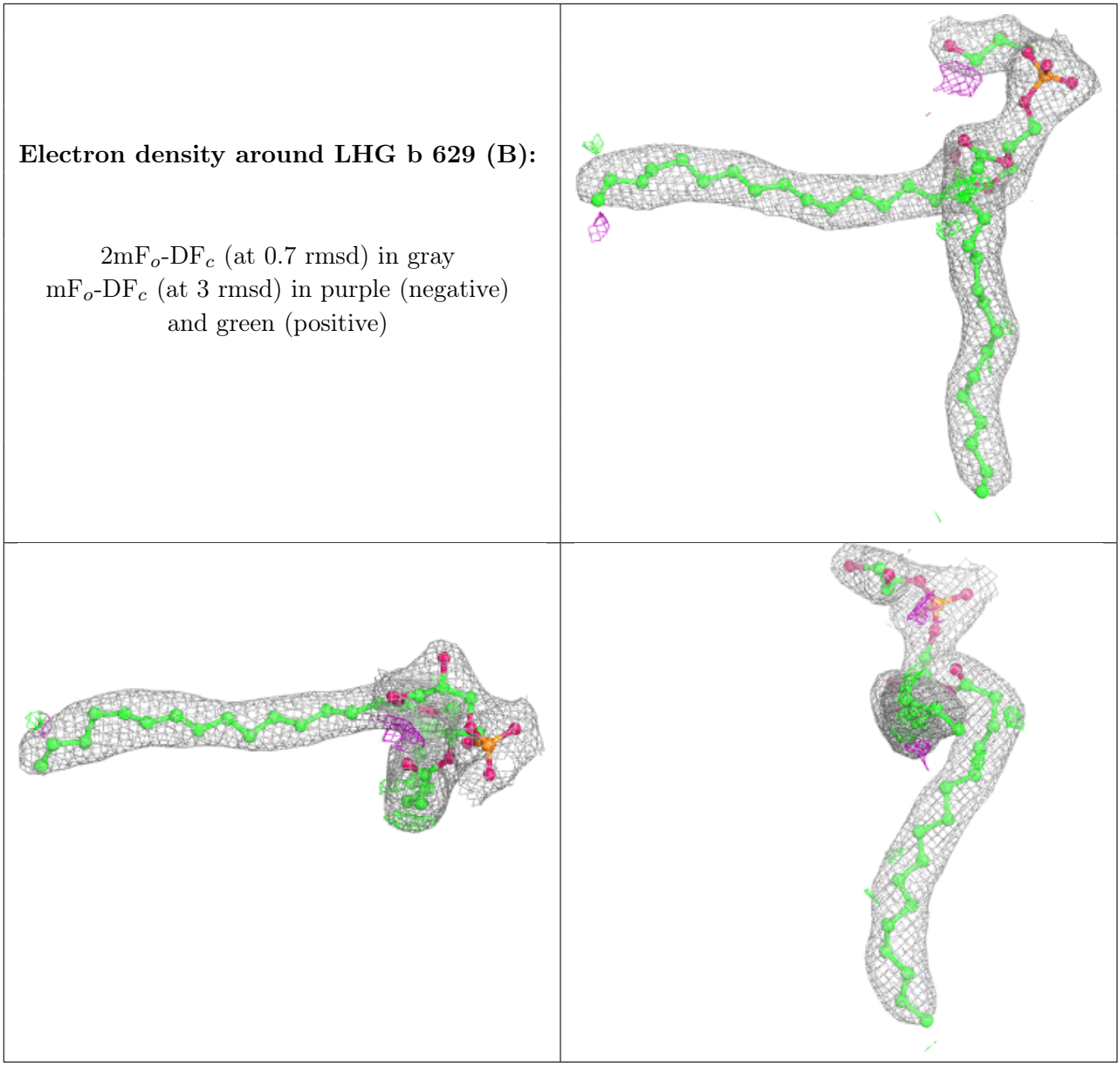
Electron density around LHG b 629 (A):

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



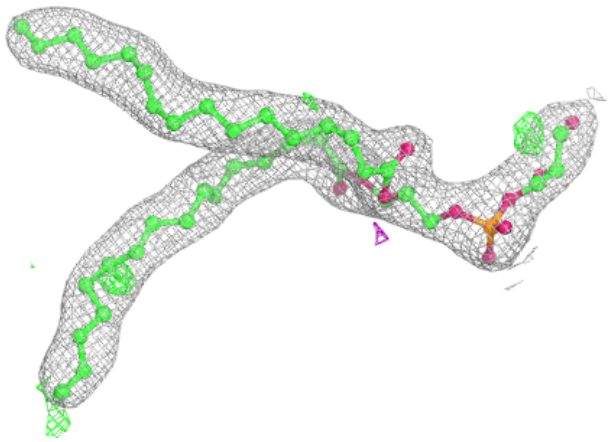
Electron density around LHG b 629 (B):

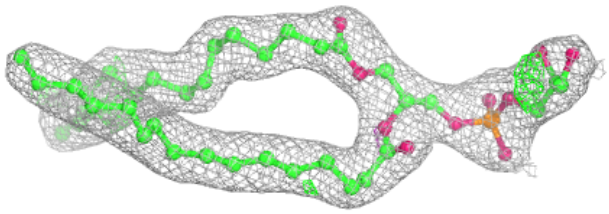
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

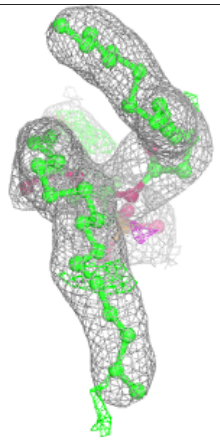


Electron density around LHG d 407 (A):

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

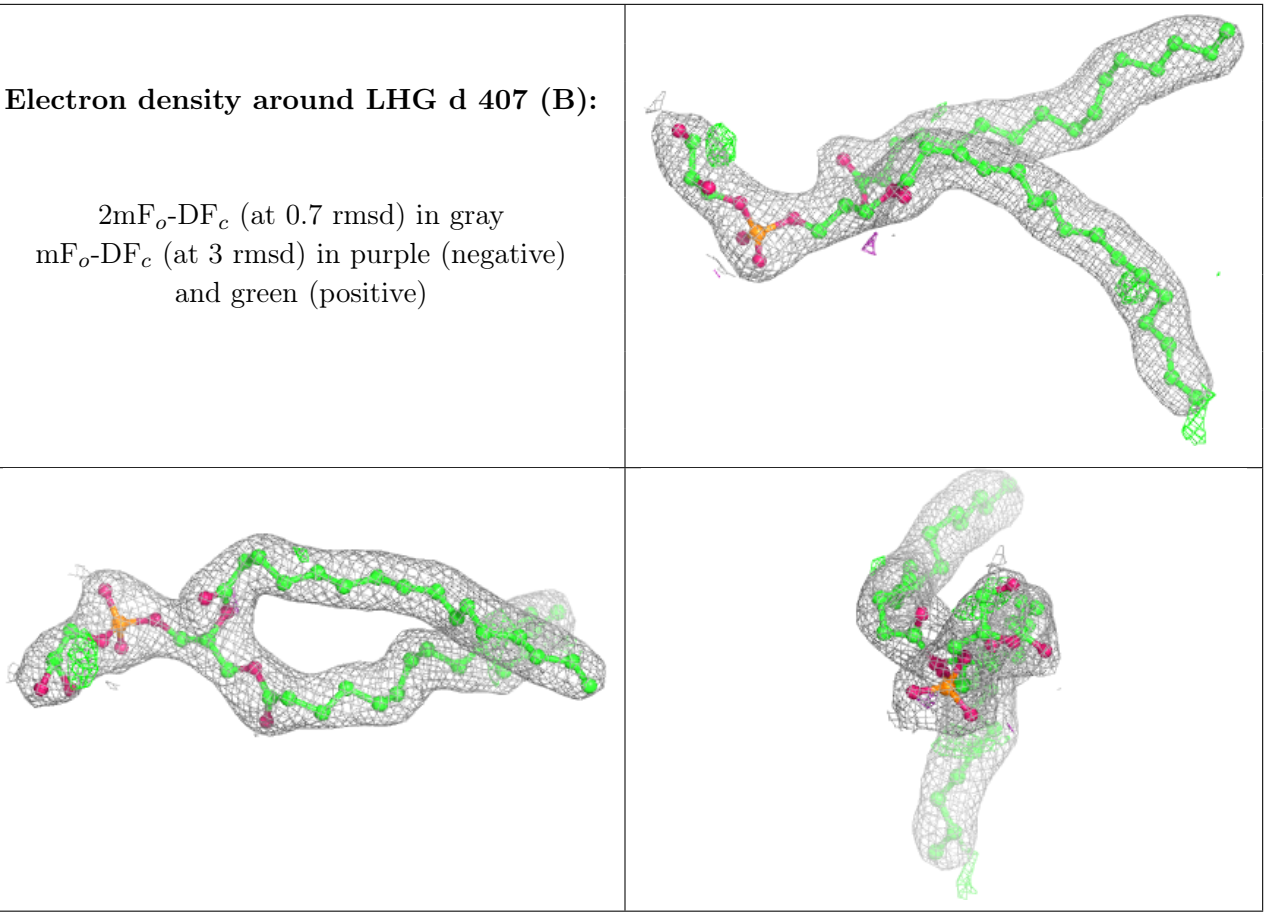






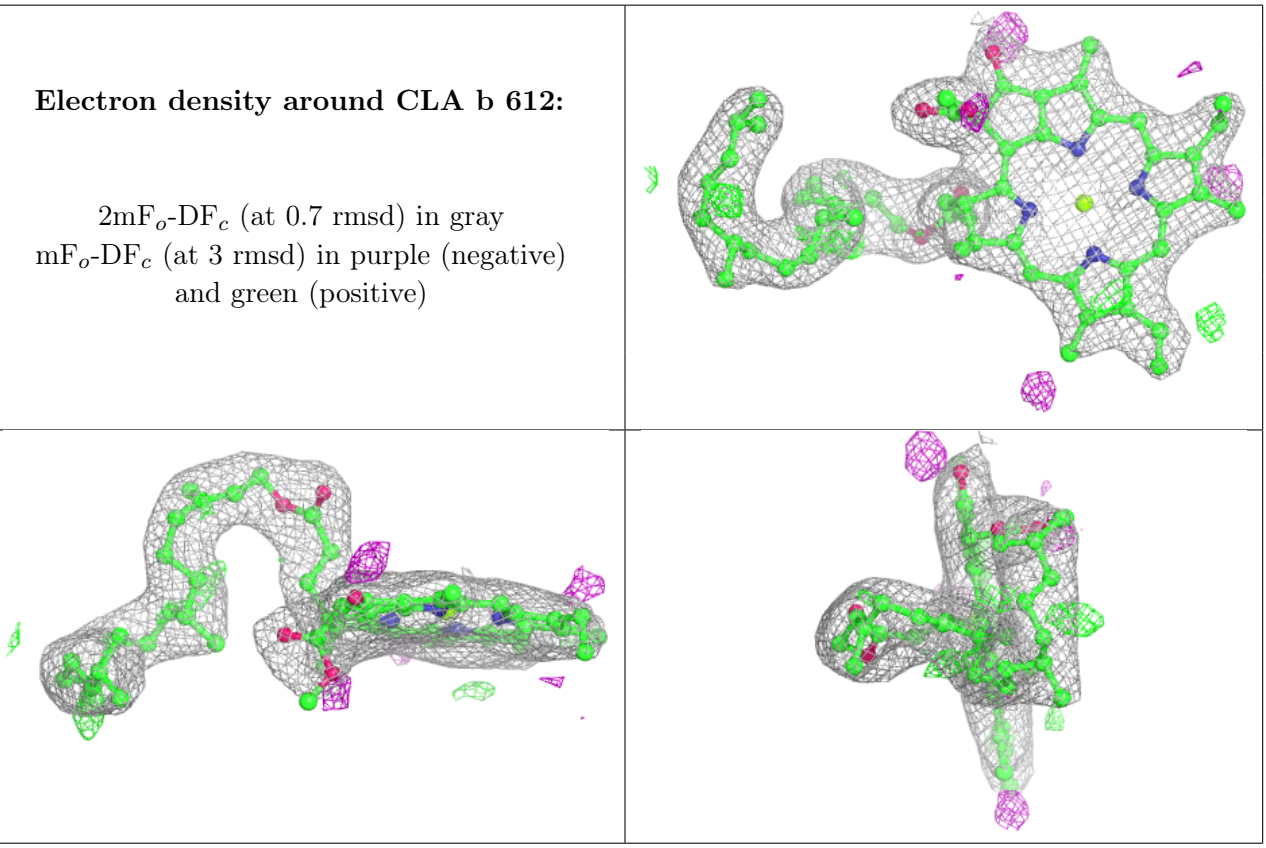
Electron density around LHG d 407 (B):

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



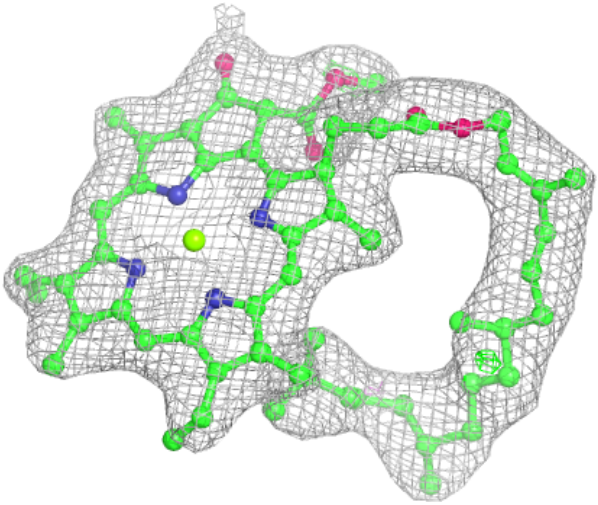
Electron density around CLA b 612:

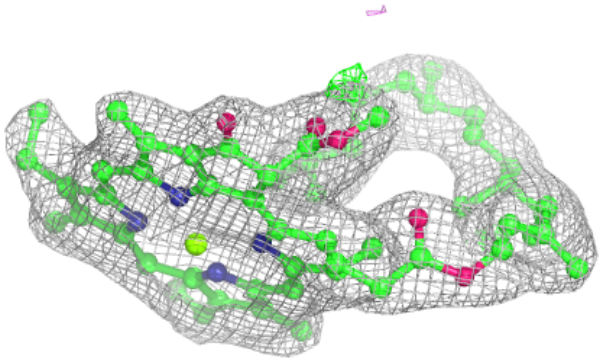
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

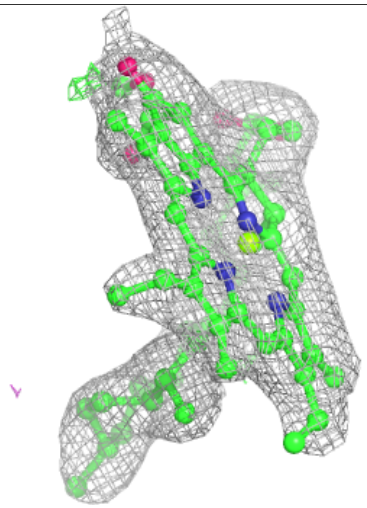


Electron density around CLA b 615:

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

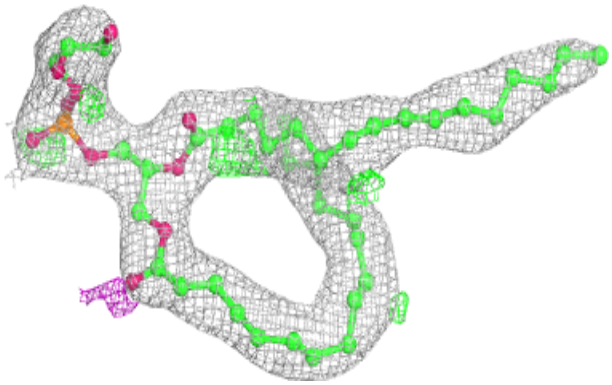


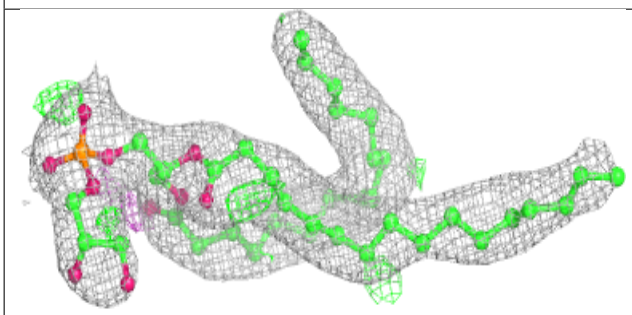


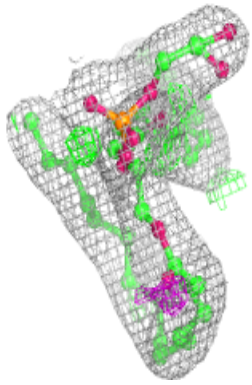


Electron density around LHG d 414 (A):

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

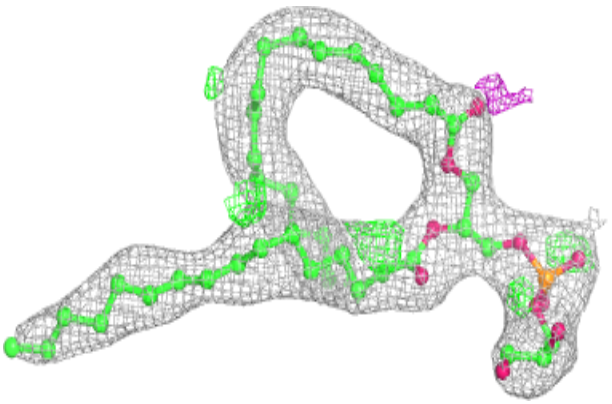


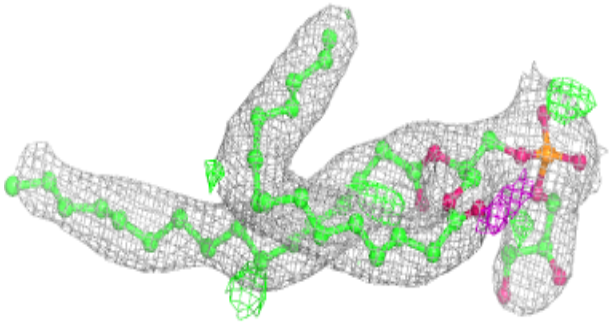


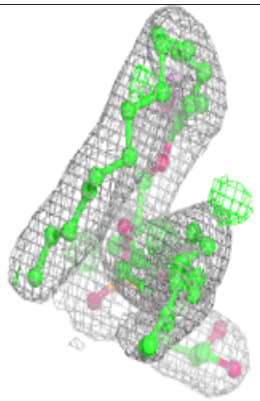


Electron density around LHG d 414 (B):

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

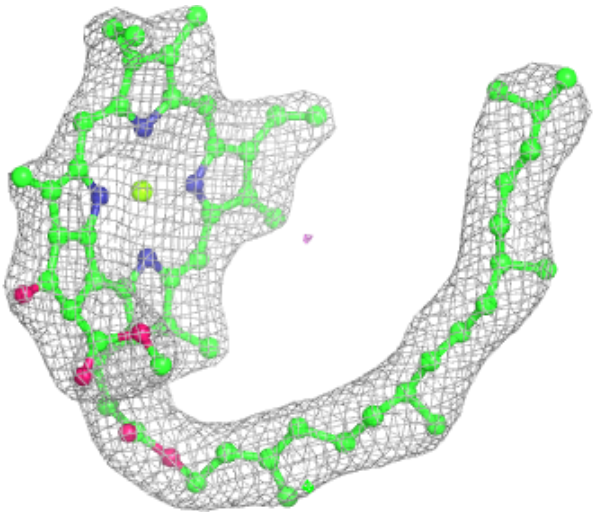


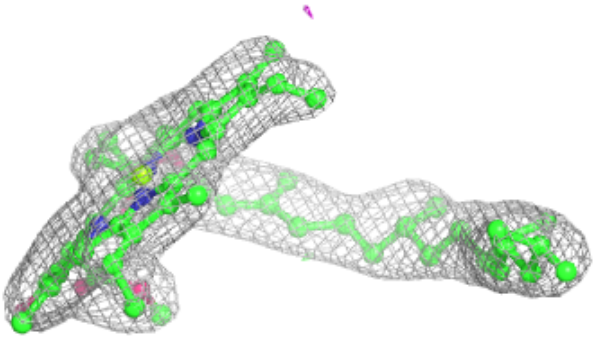


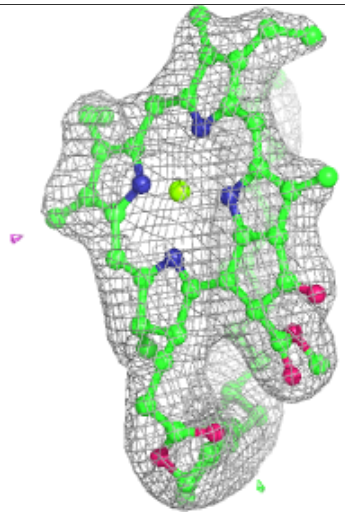


Electron density around CLA C 508:

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

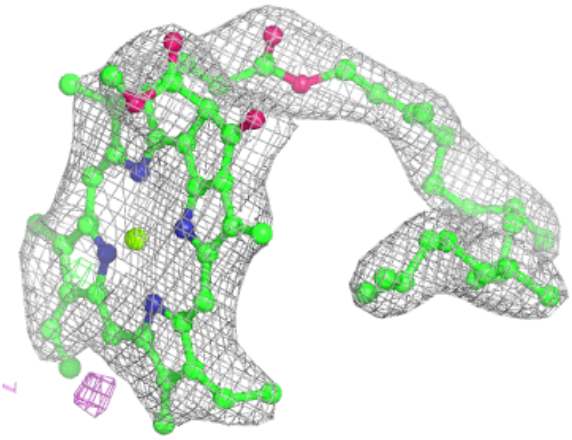


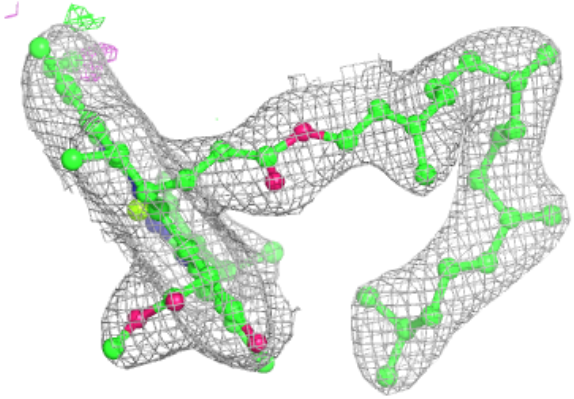


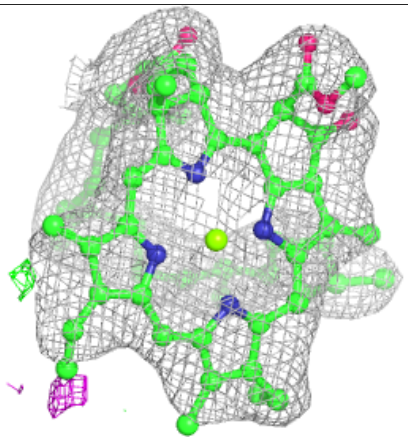


Electron density around CLA c 504:

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

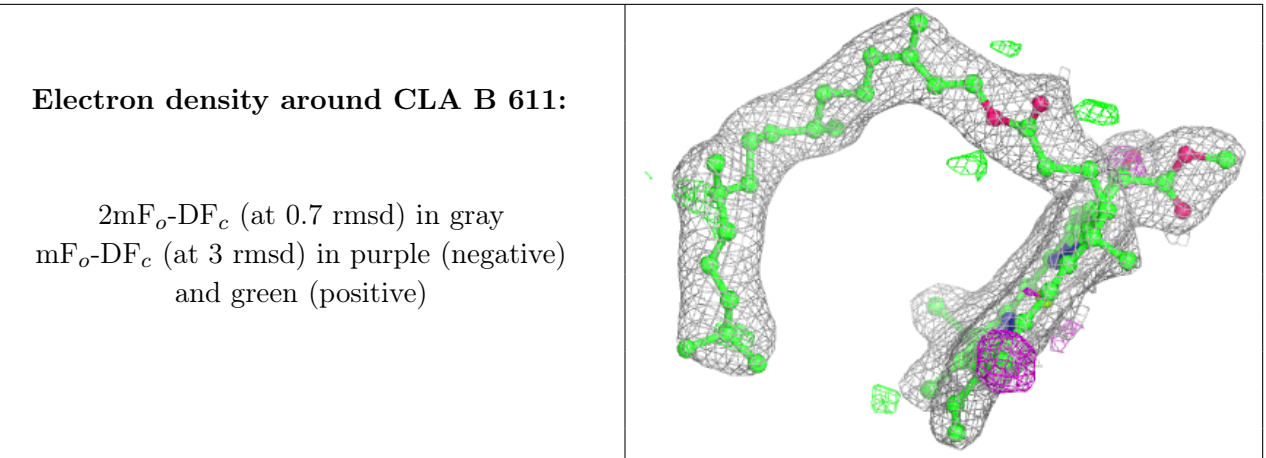


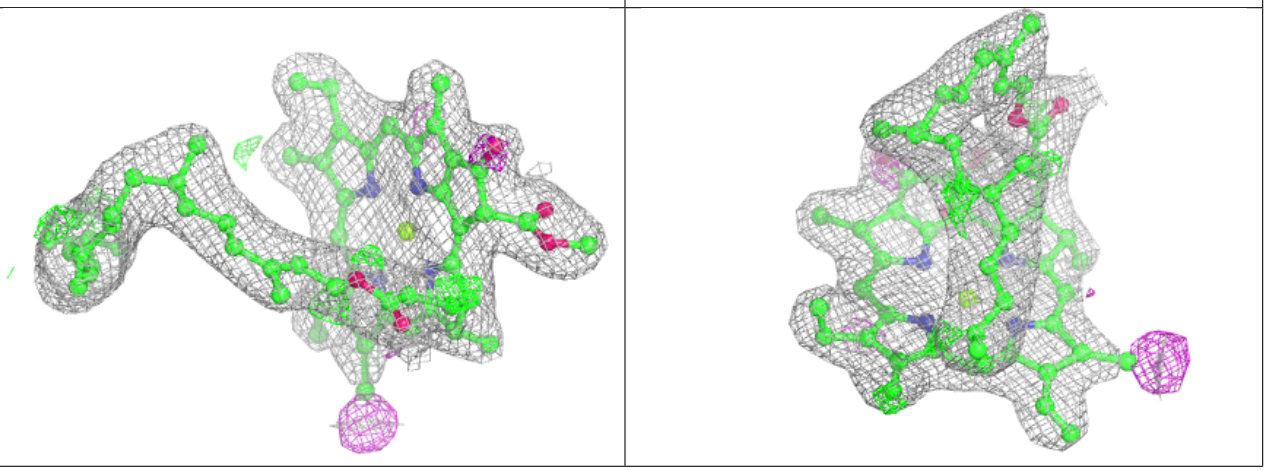




Electron density around CLA B 611:

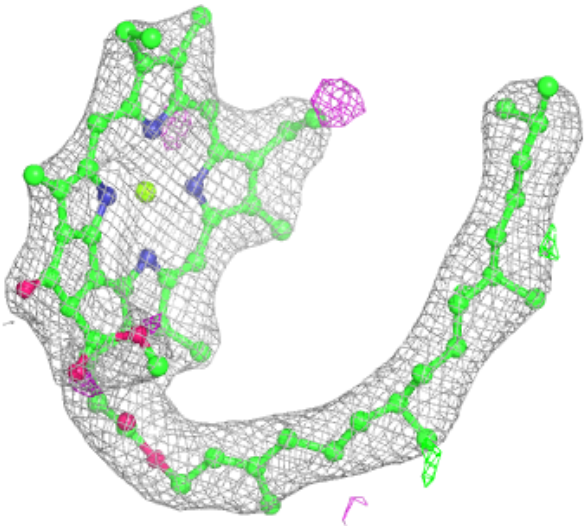
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

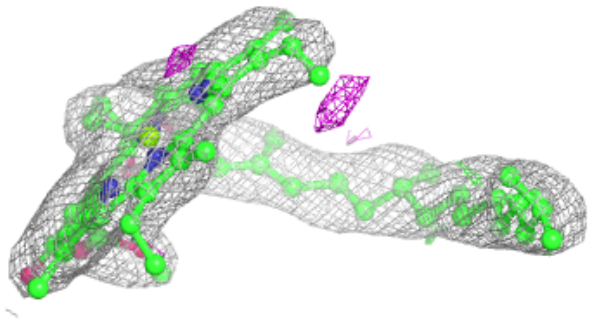


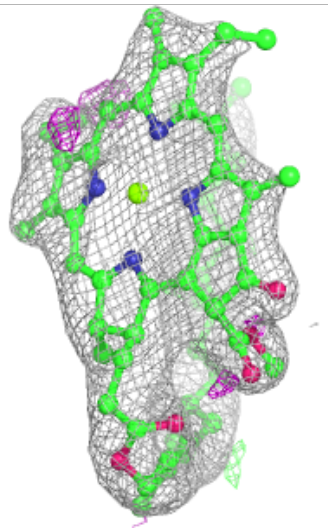


Electron density around CLA c 508:

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

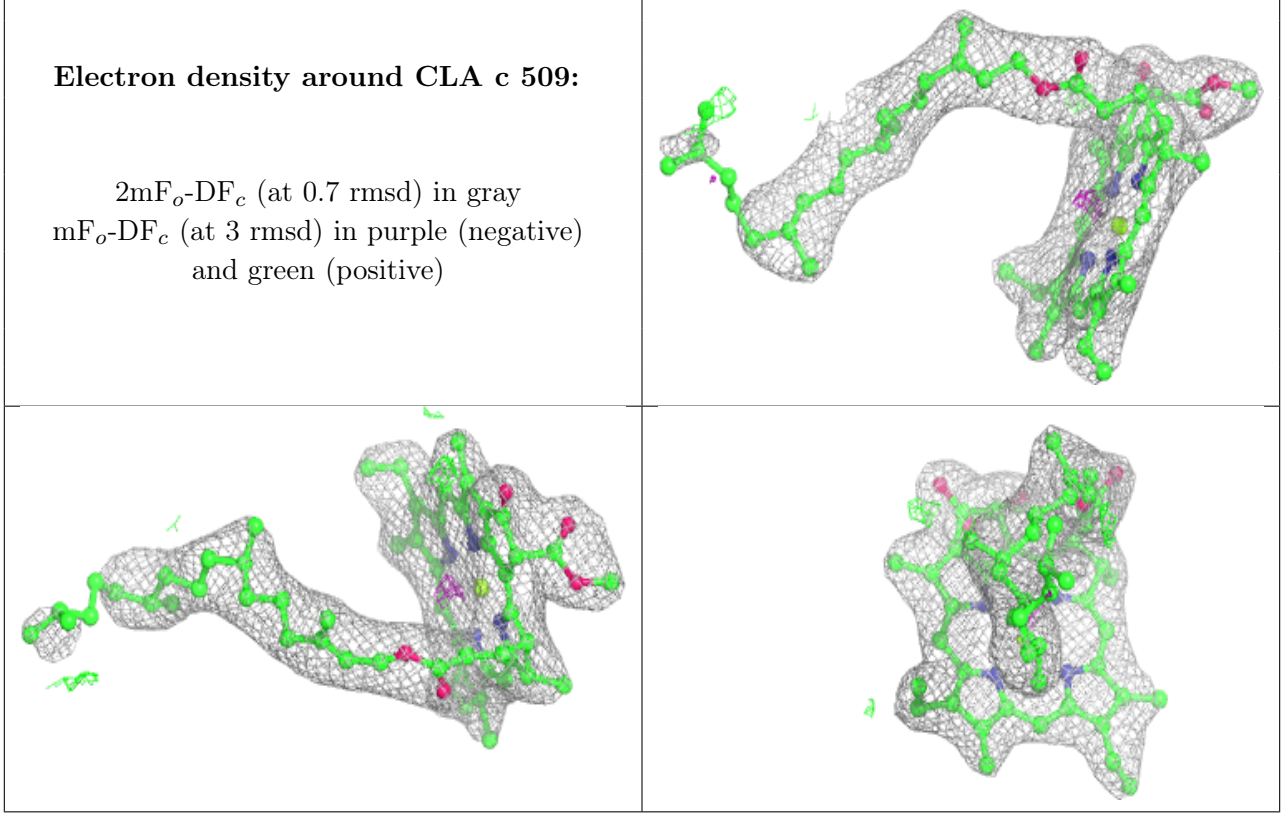






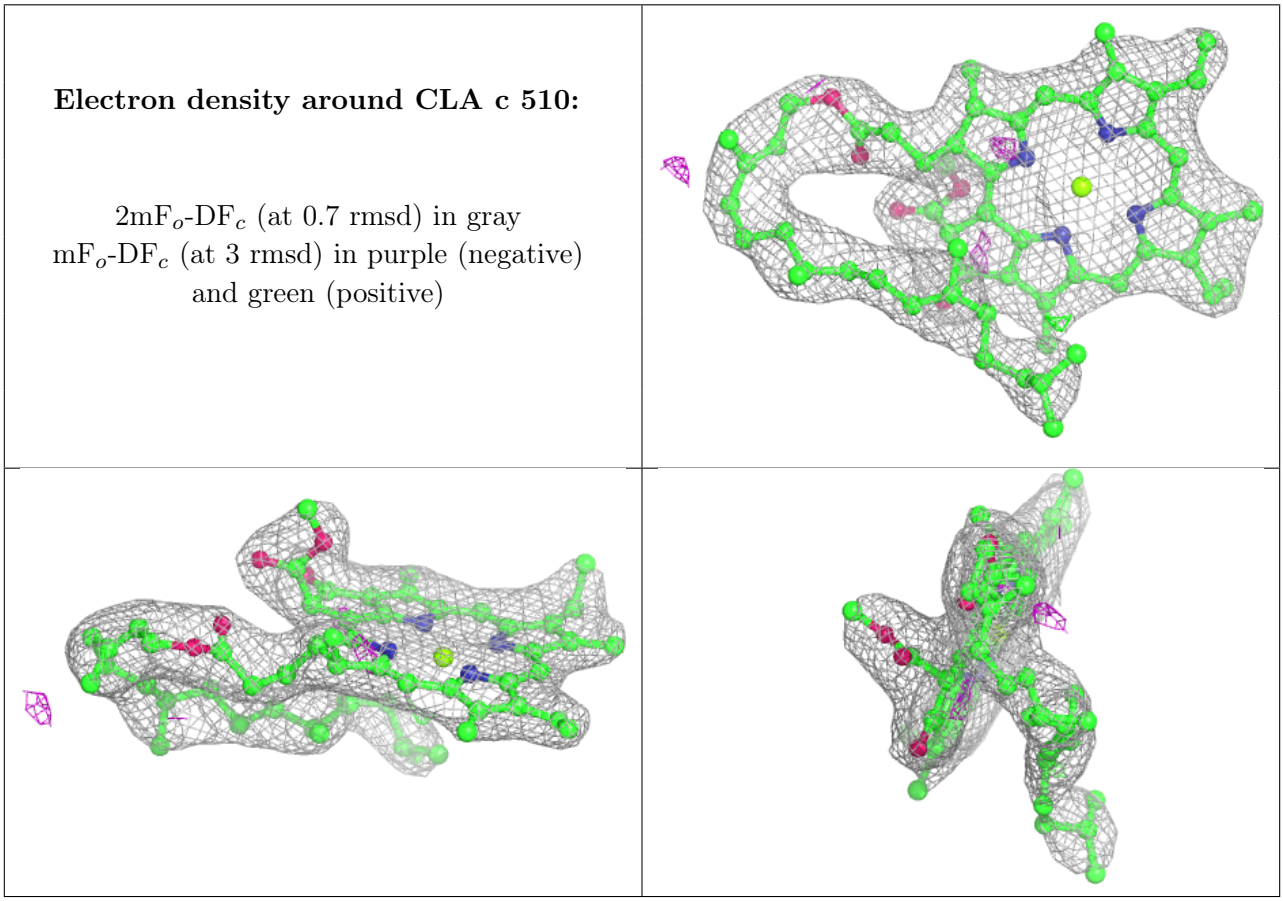
Electron density around CLA c 509:

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



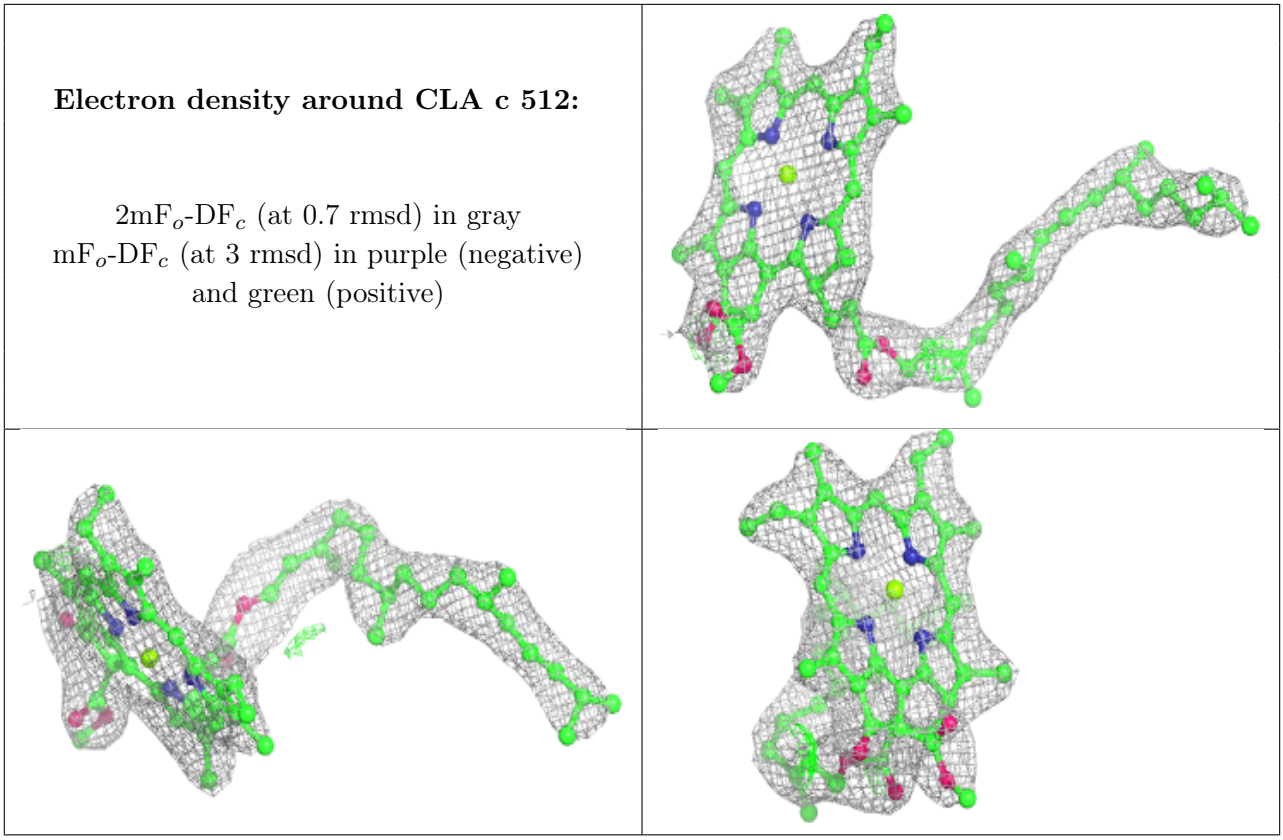
Electron density around CLA c 510:

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



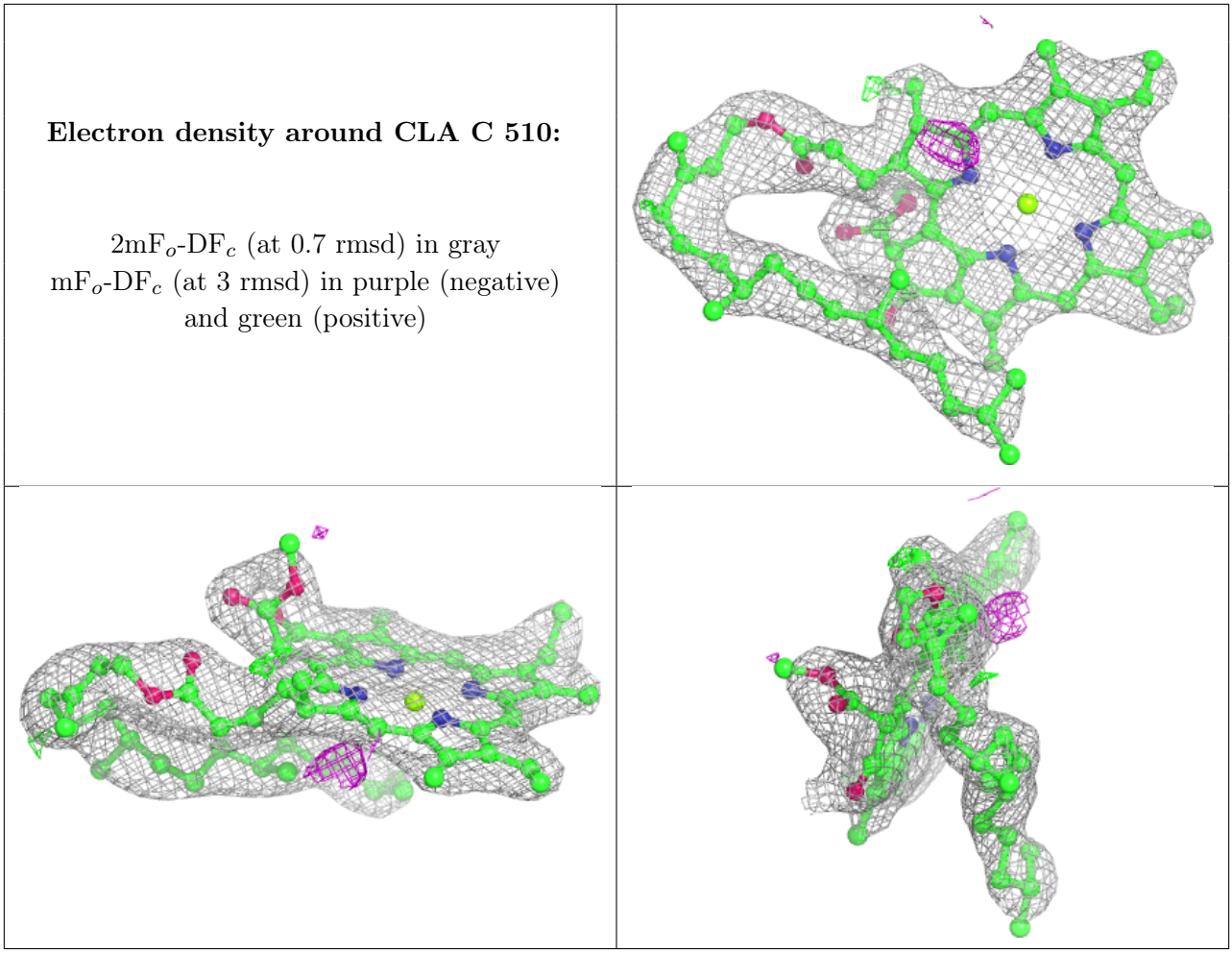
Electron density around CLA c 512:

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



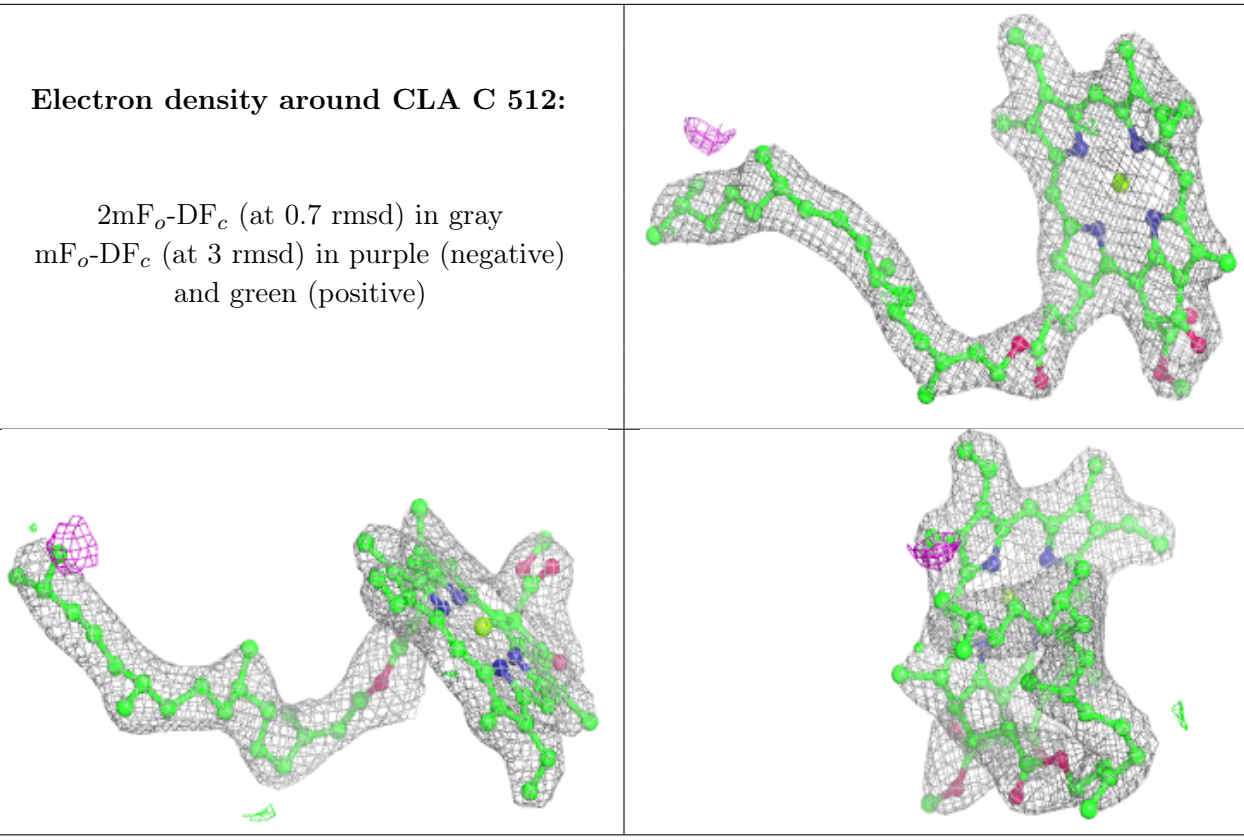
Electron density around CLA C 510:

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



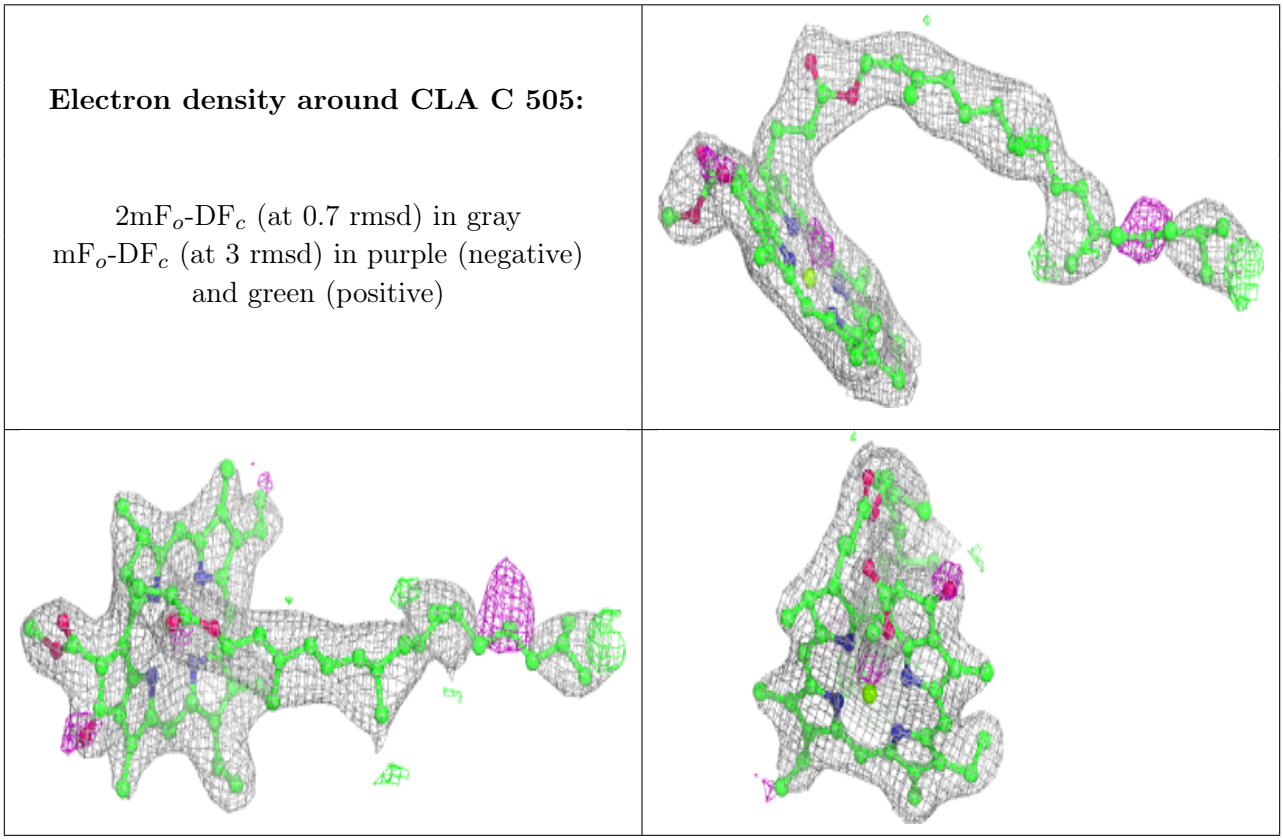
Electron density around CLA C 512:

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



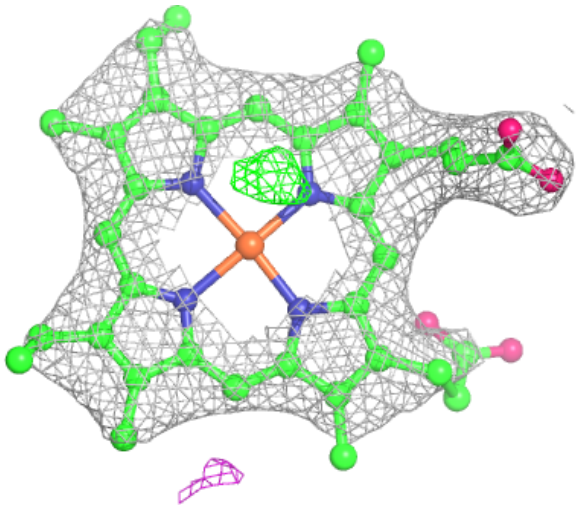
Electron density around CLA C 505:

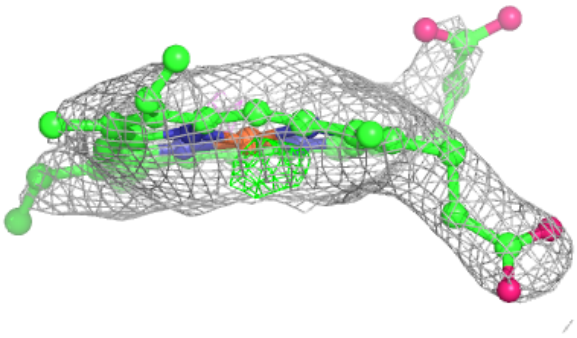
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

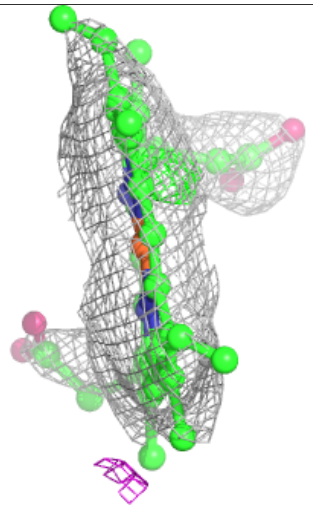


Electron density around HEM f 101:

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

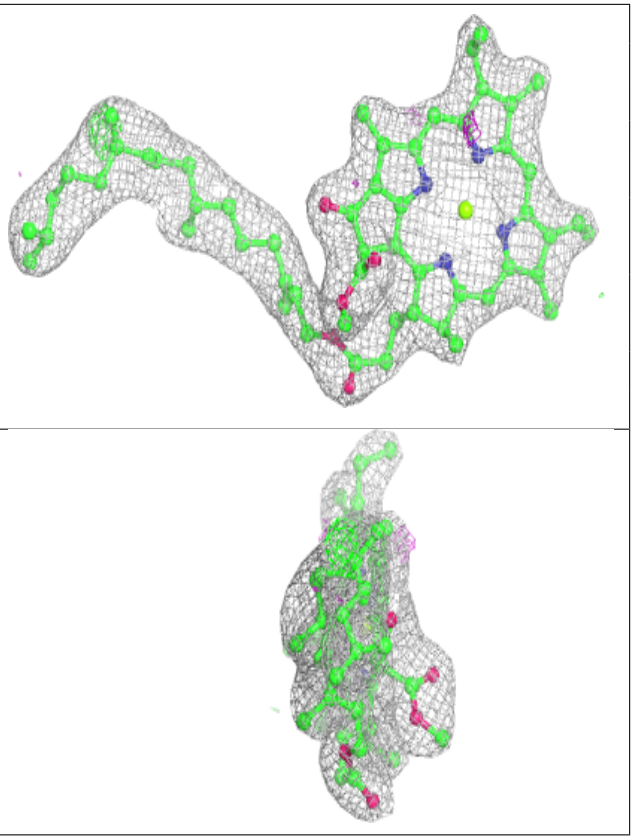


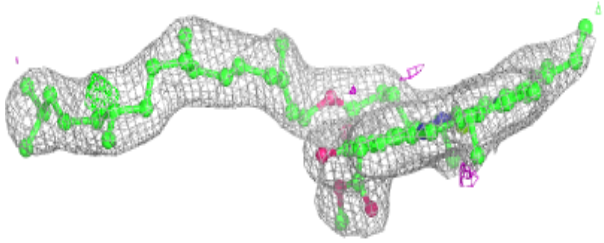




Electron density around CLA B 602:

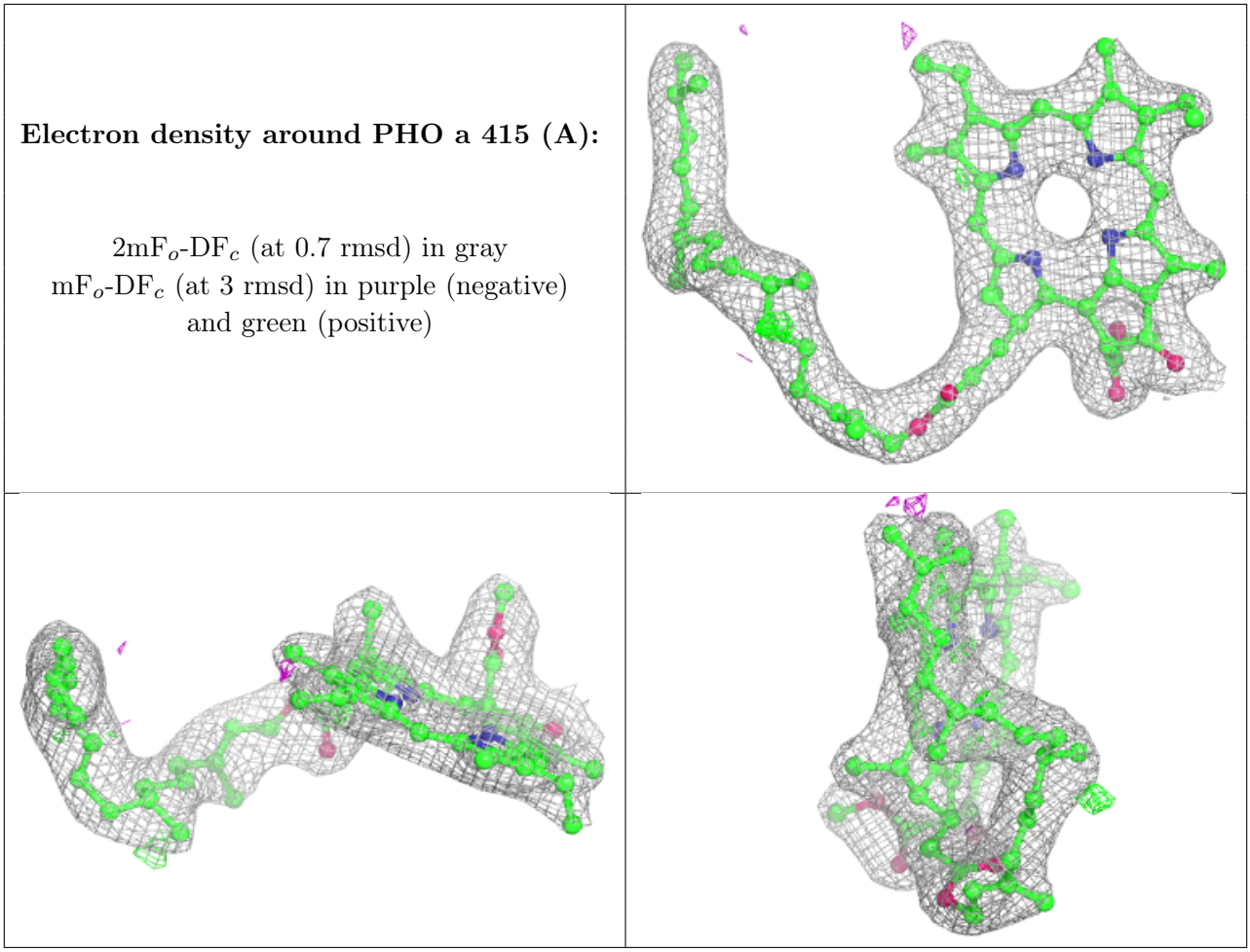
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





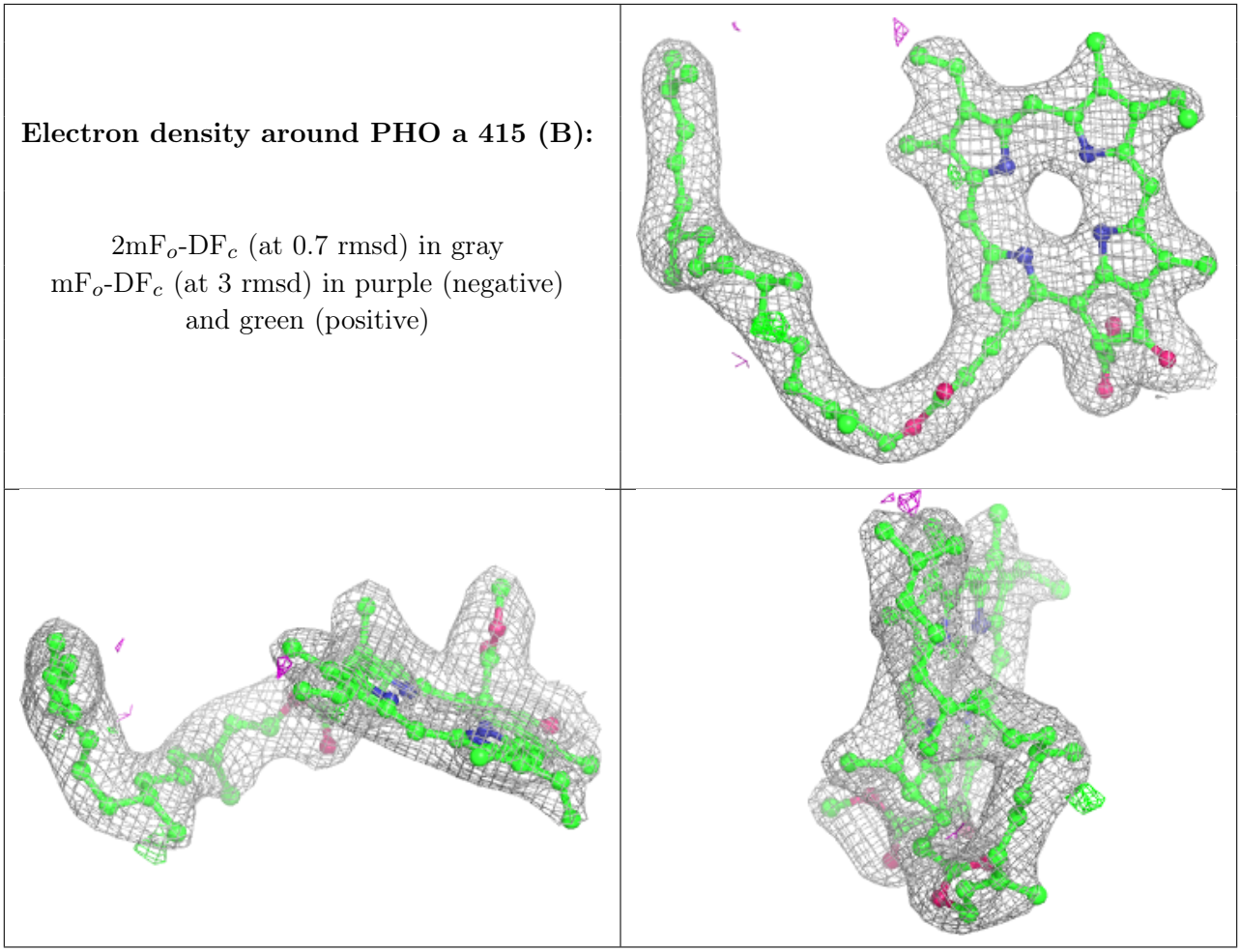
Electron density around PHO a 415 (A):

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



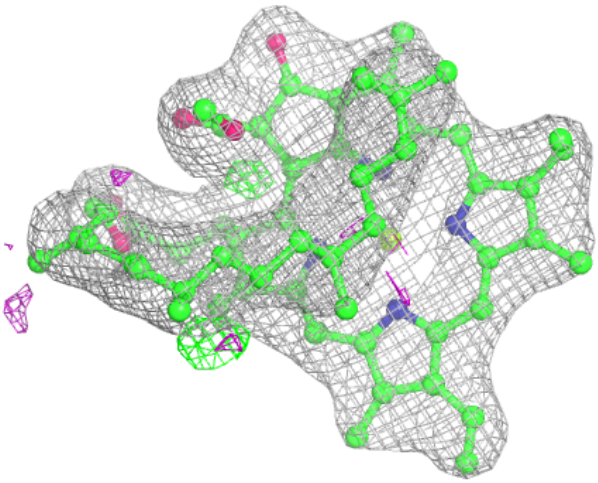
Electron density around PHO a 415 (B):

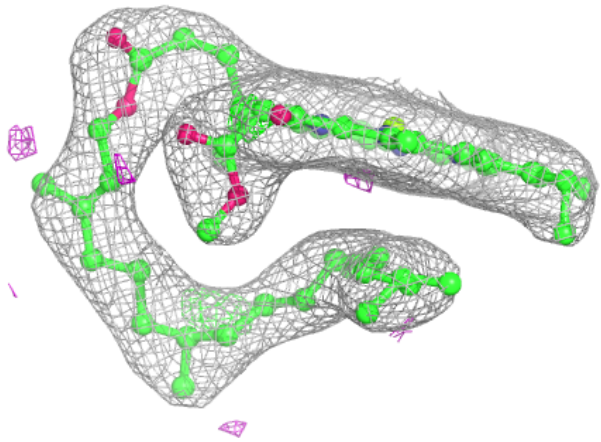
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

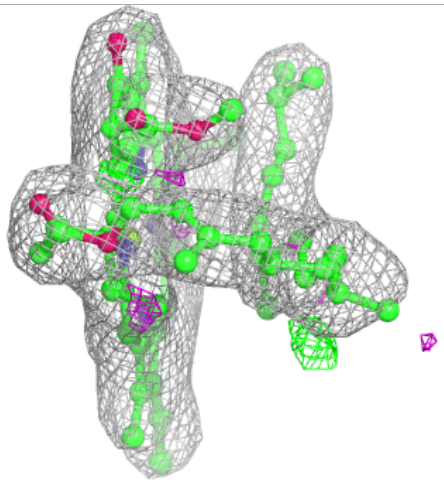


Electron density around CLA c 511:

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

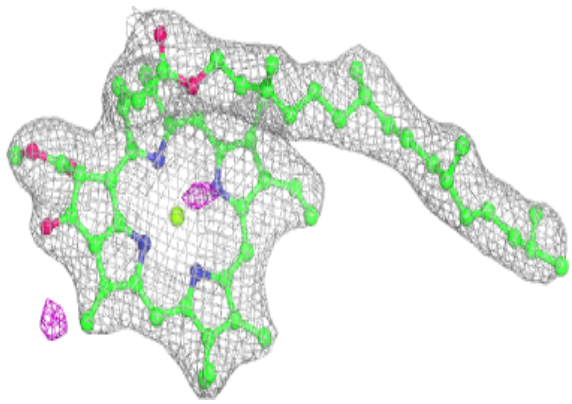


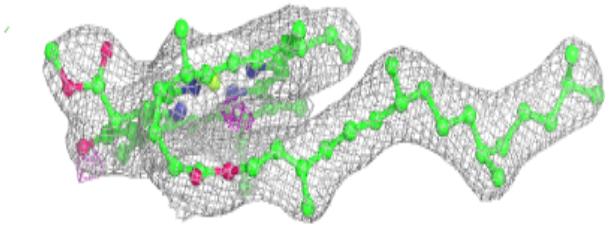


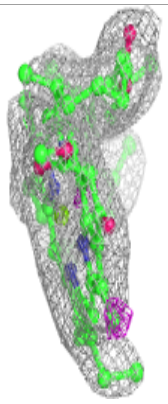


Electron density around CLA C 502:

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

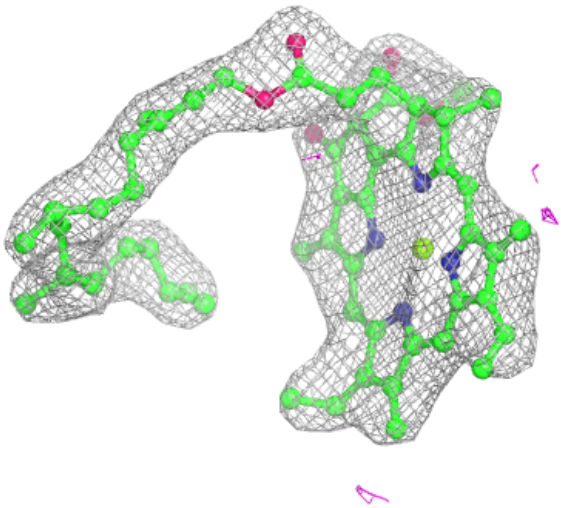


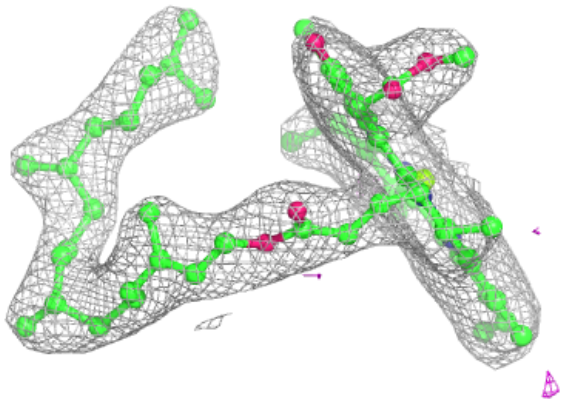


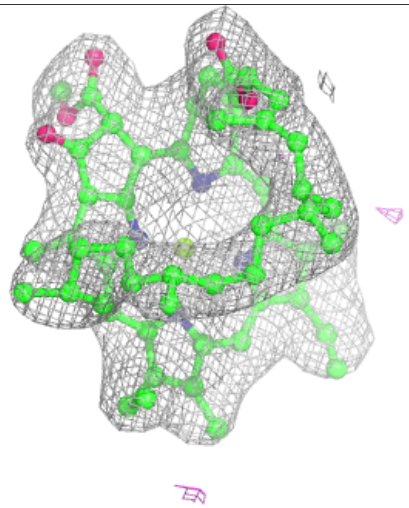


Electron density around CLA C 504:

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

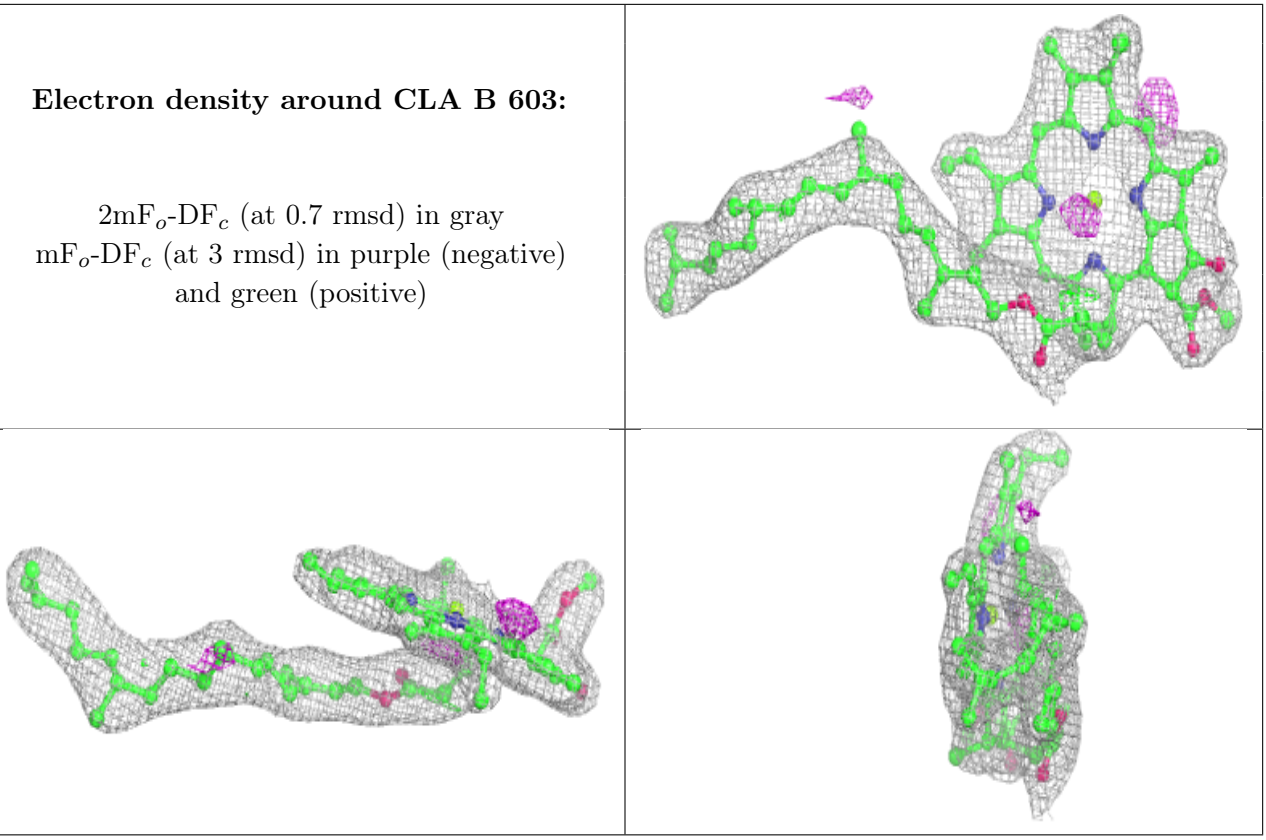






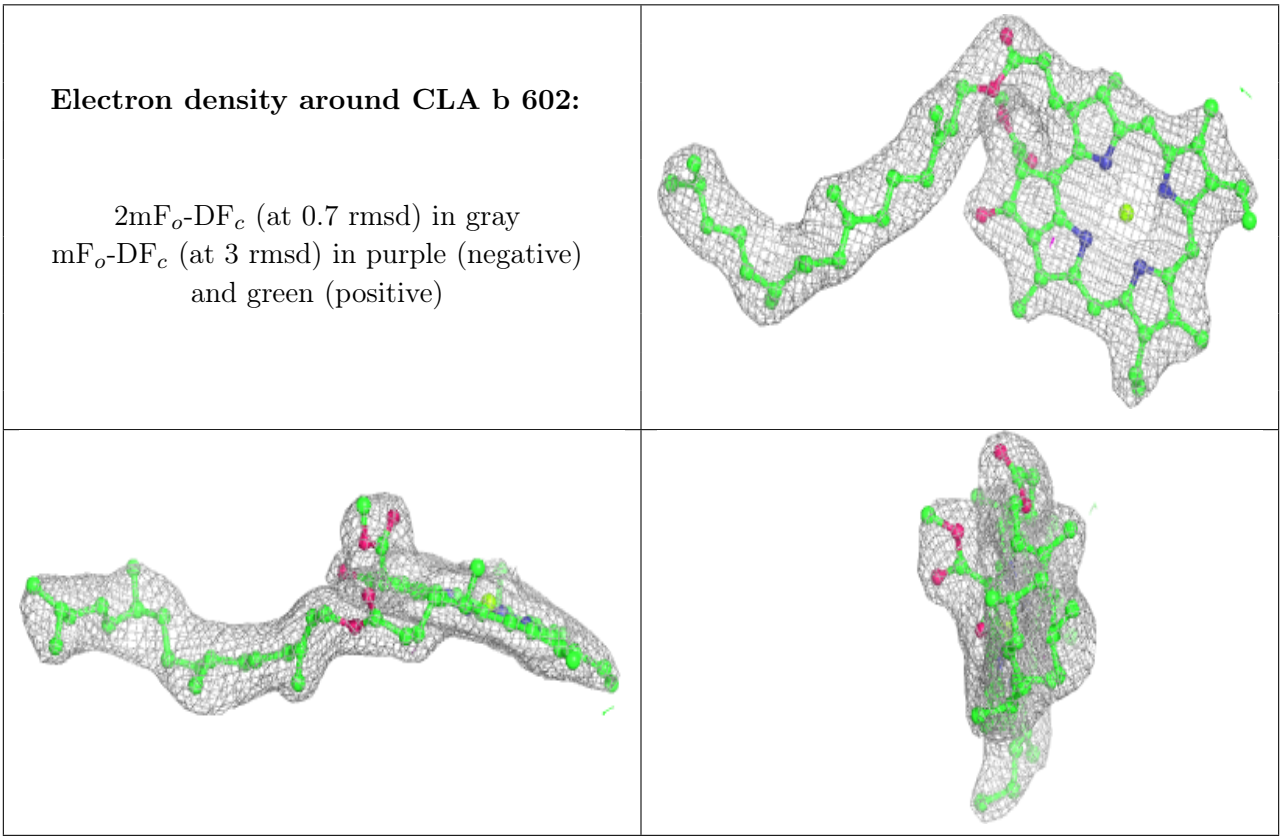
Electron density around CLA B 603:

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



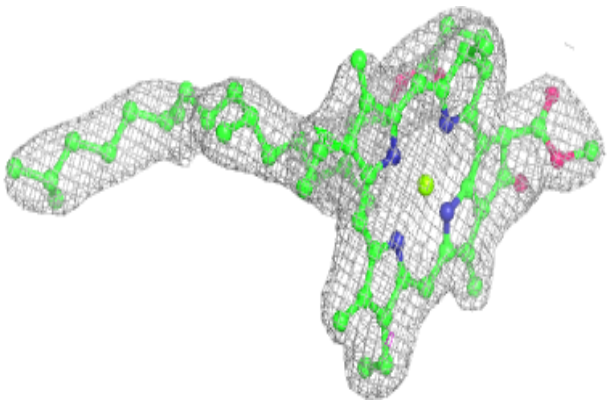
Electron density around CLA b 602:

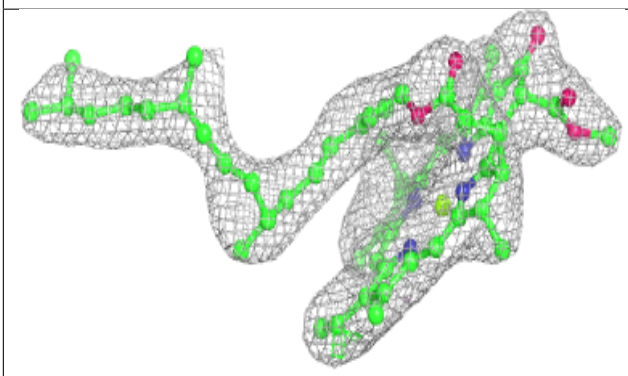
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

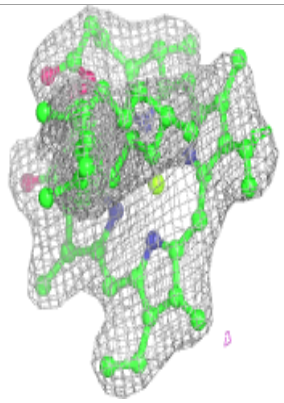


Electron density around CLA C 506:

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

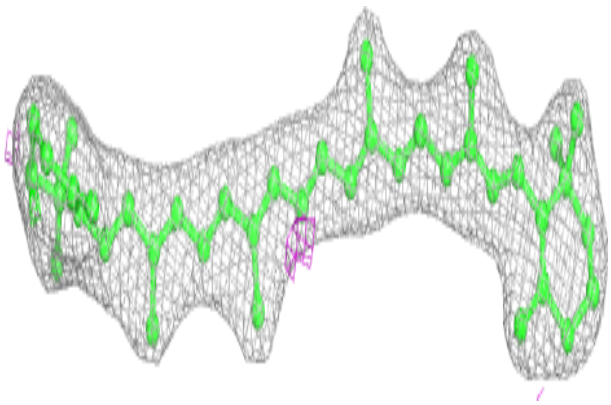


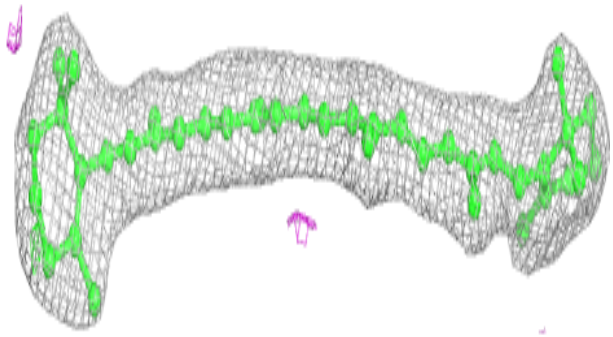


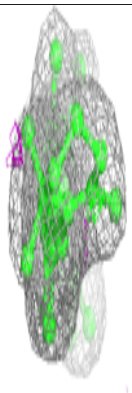


Electron density around BCR B 617:

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

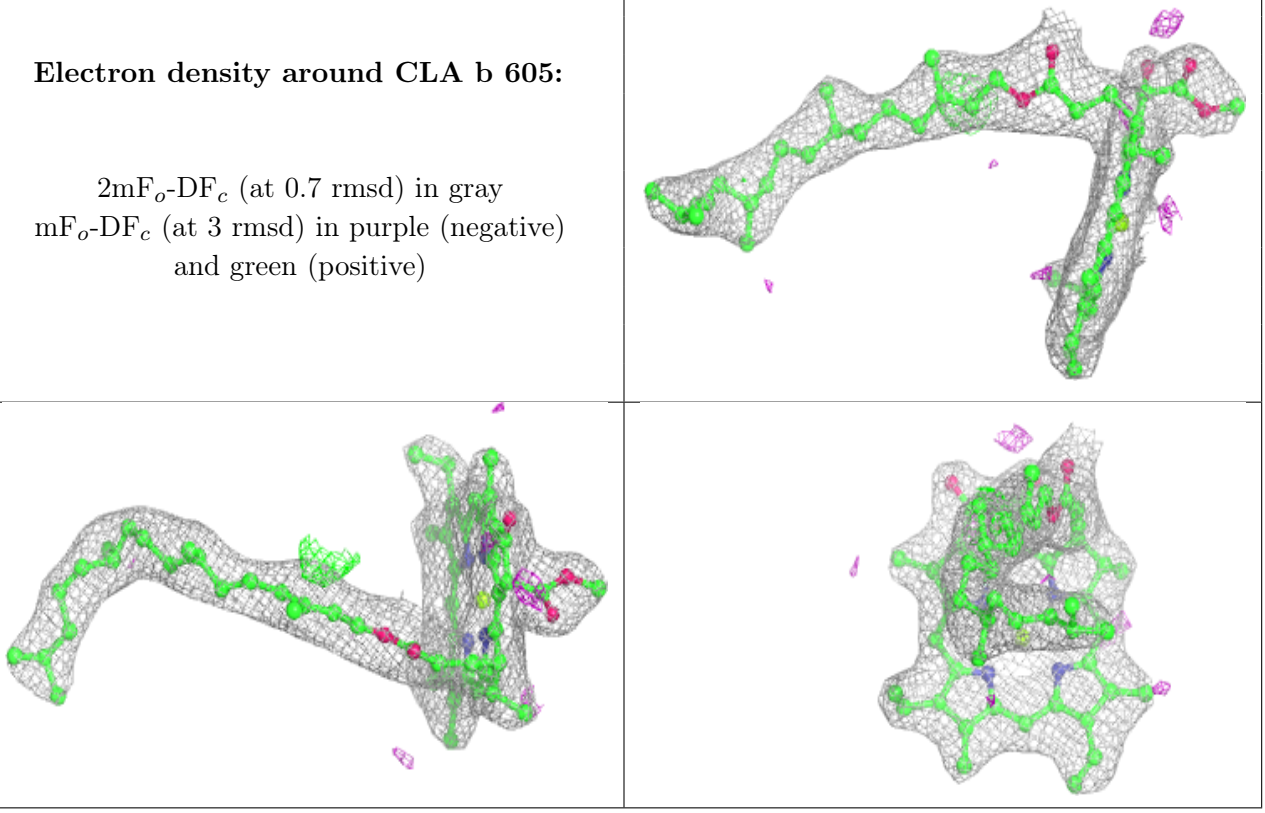






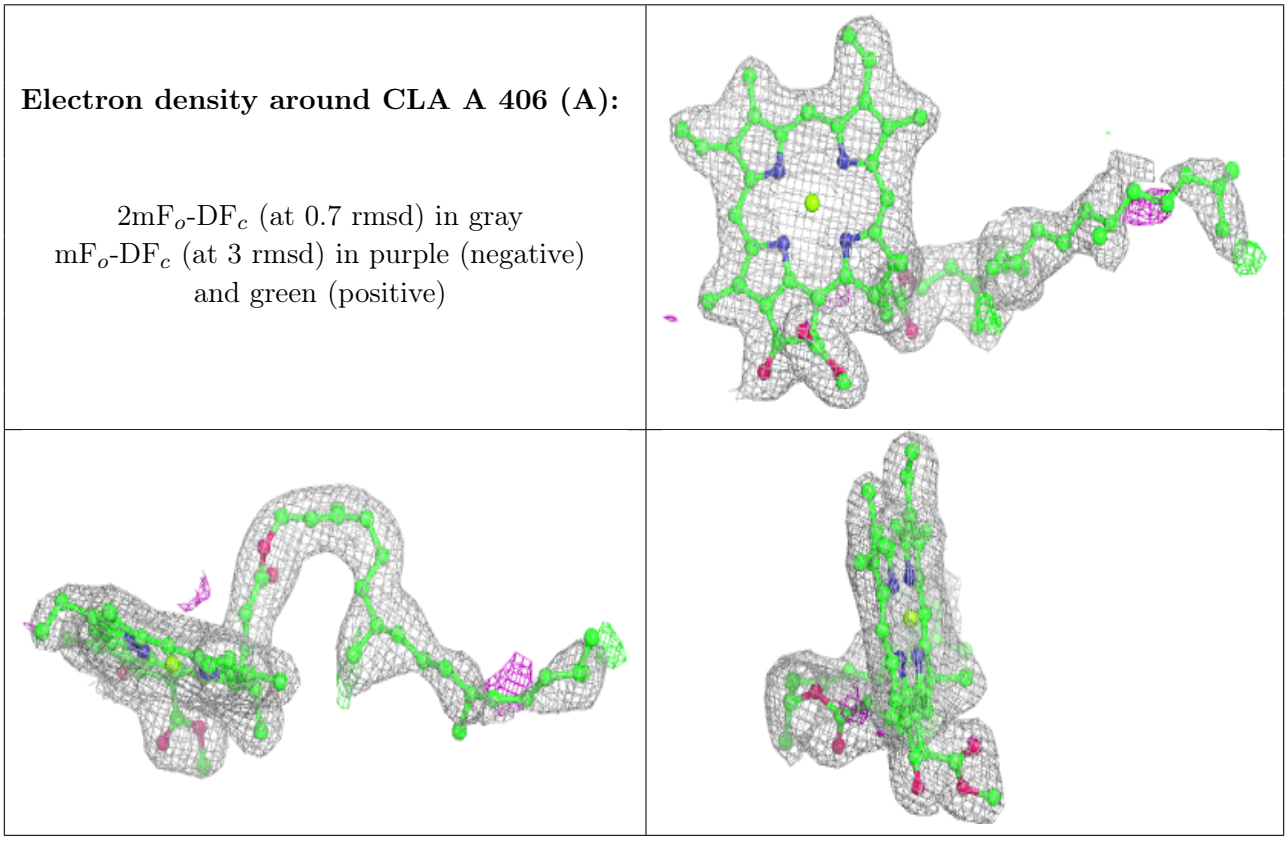
Electron density around CLA b 605:

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



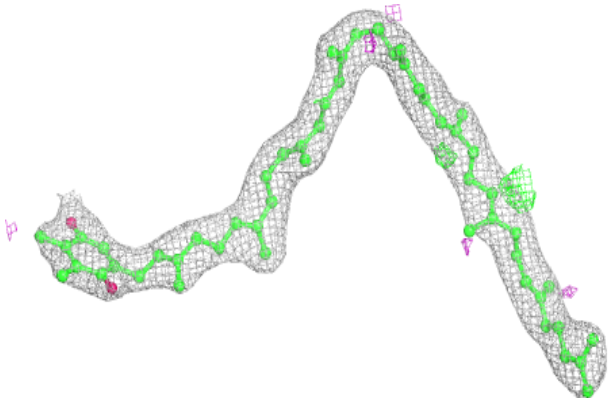
Electron density around CLA A 406 (A):

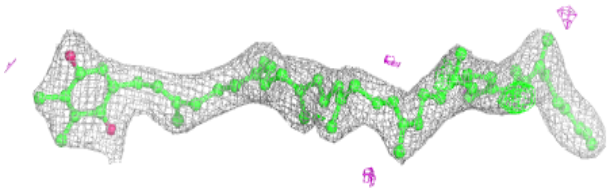
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

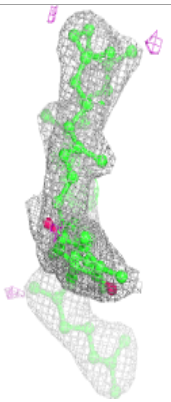


Electron density around PL9 d 406 (A):

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

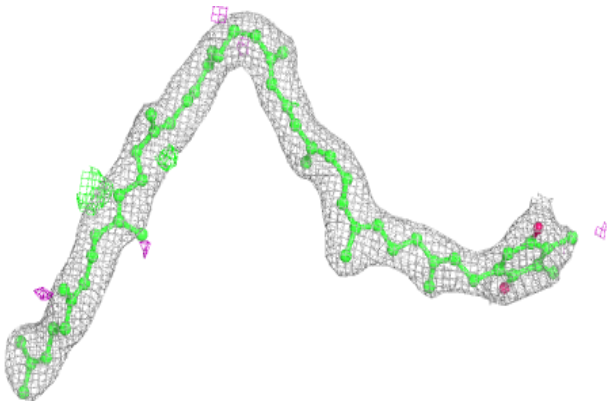


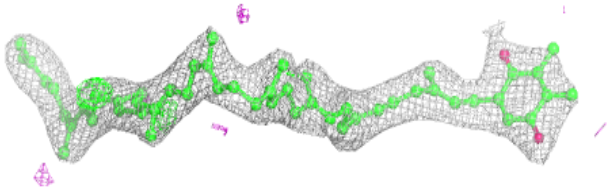


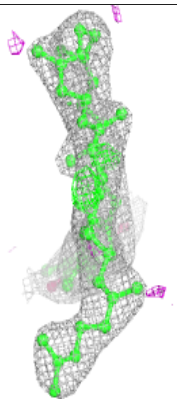


Electron density around PL9 d 406 (B):

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

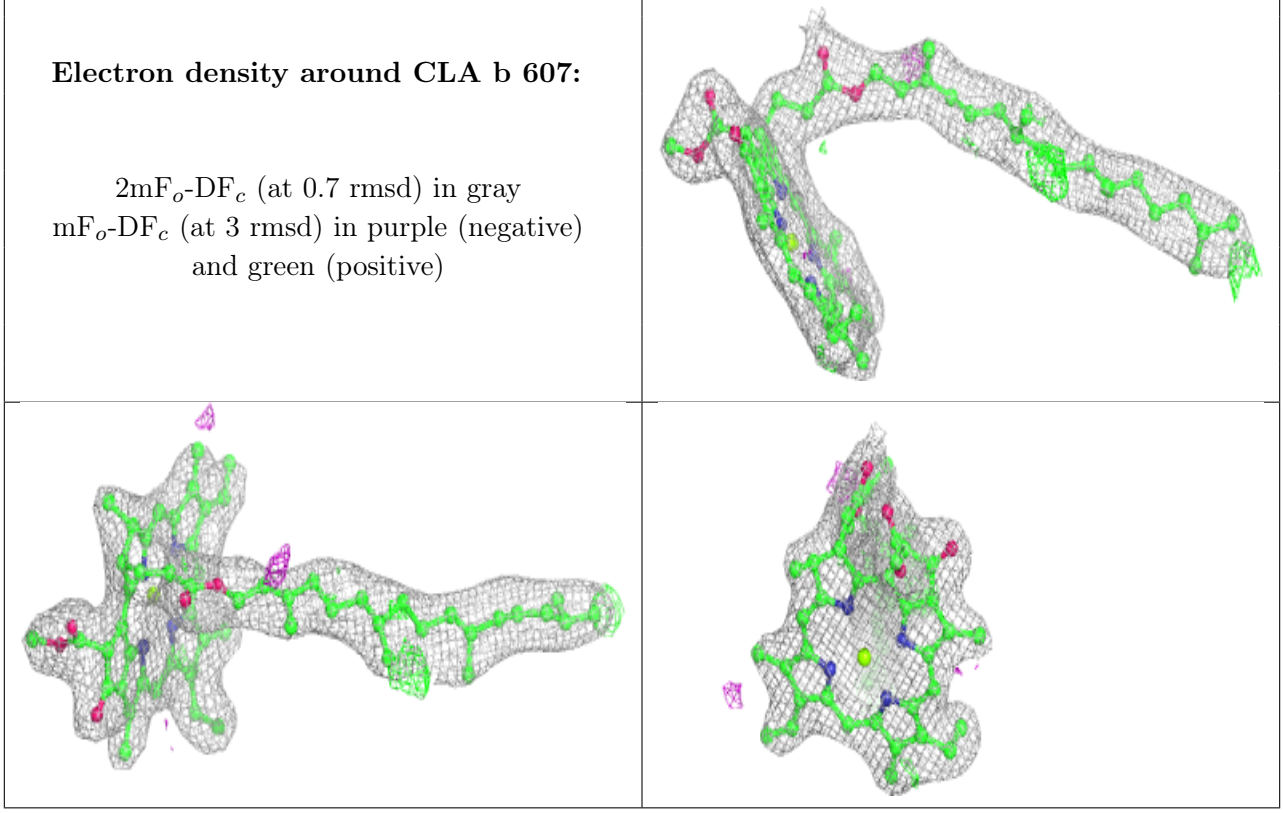






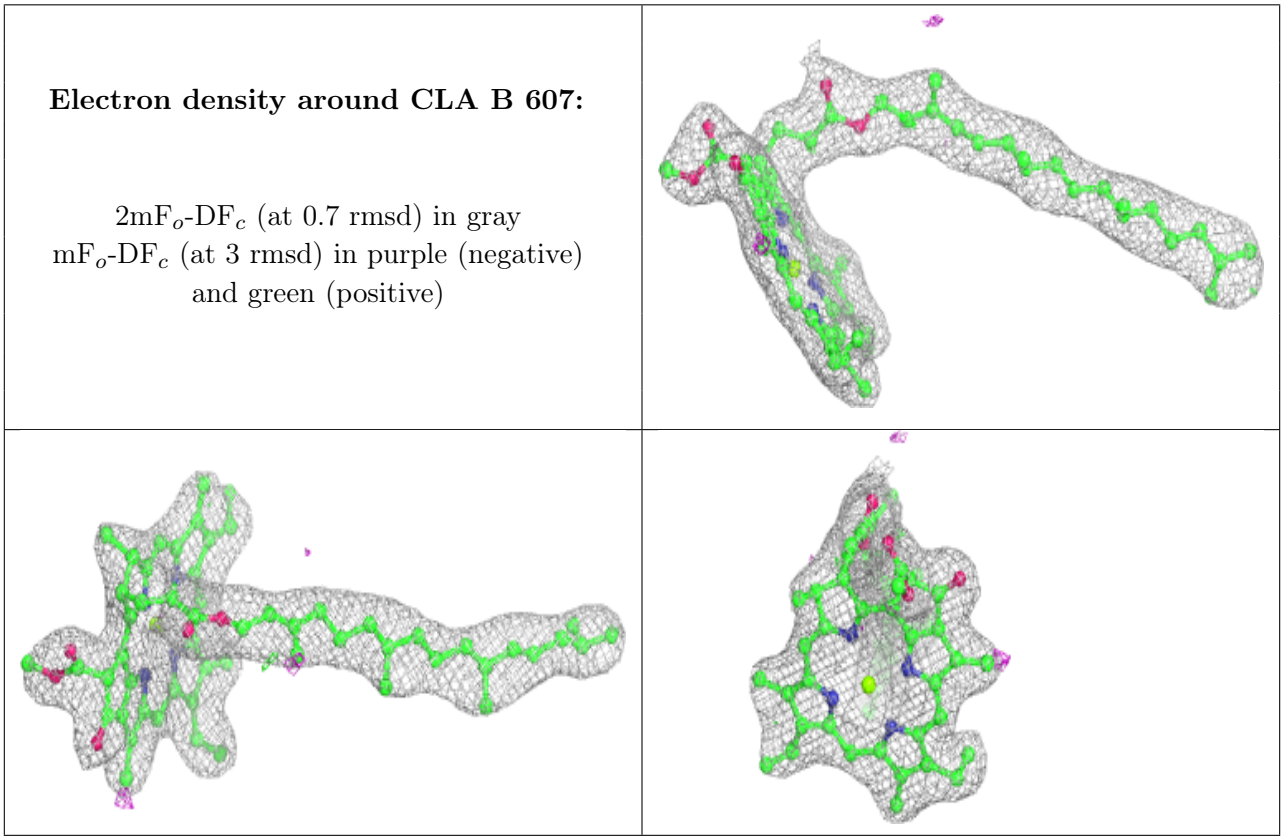
Electron density around CLA b 607:

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



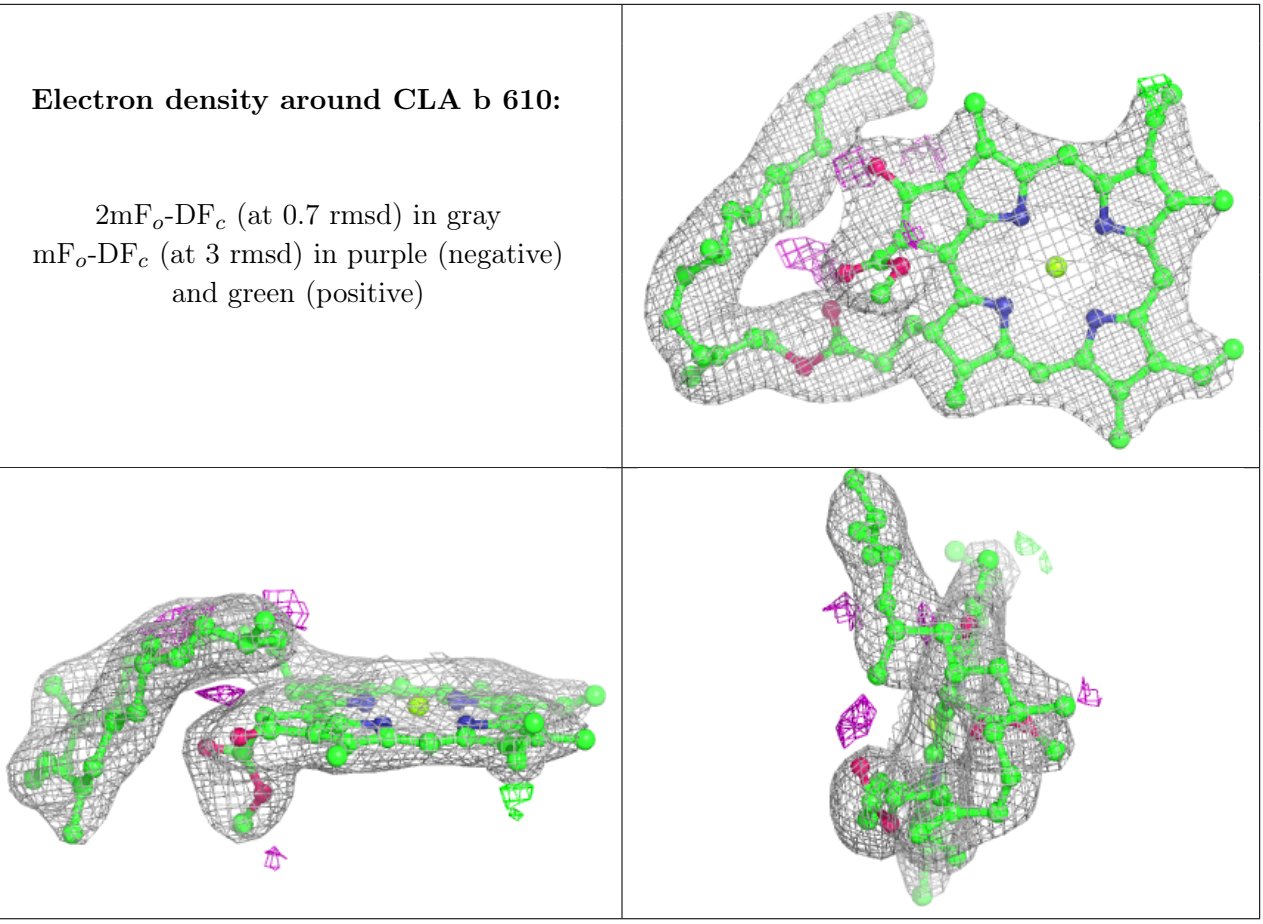
Electron density around CLA B 607:

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



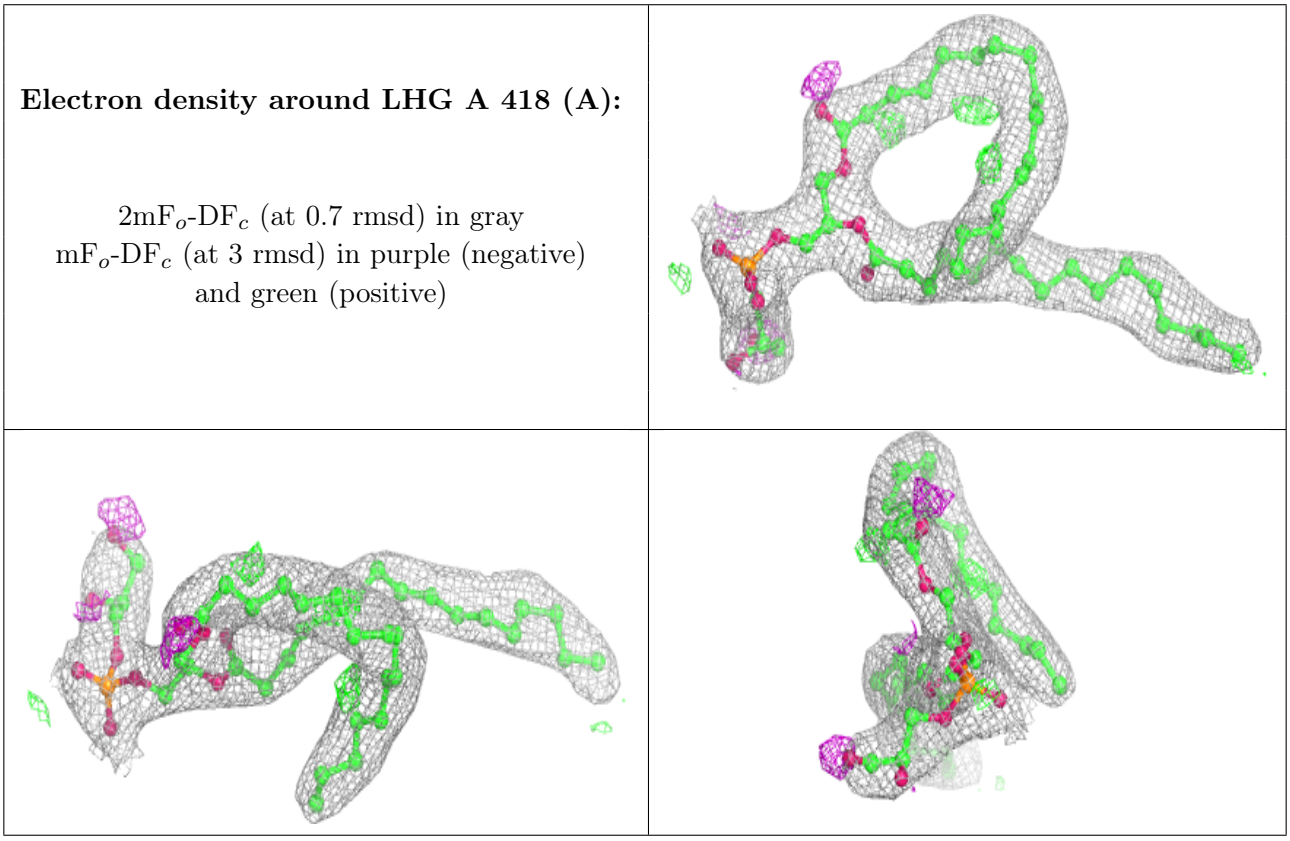
Electron density around CLA b 610:

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



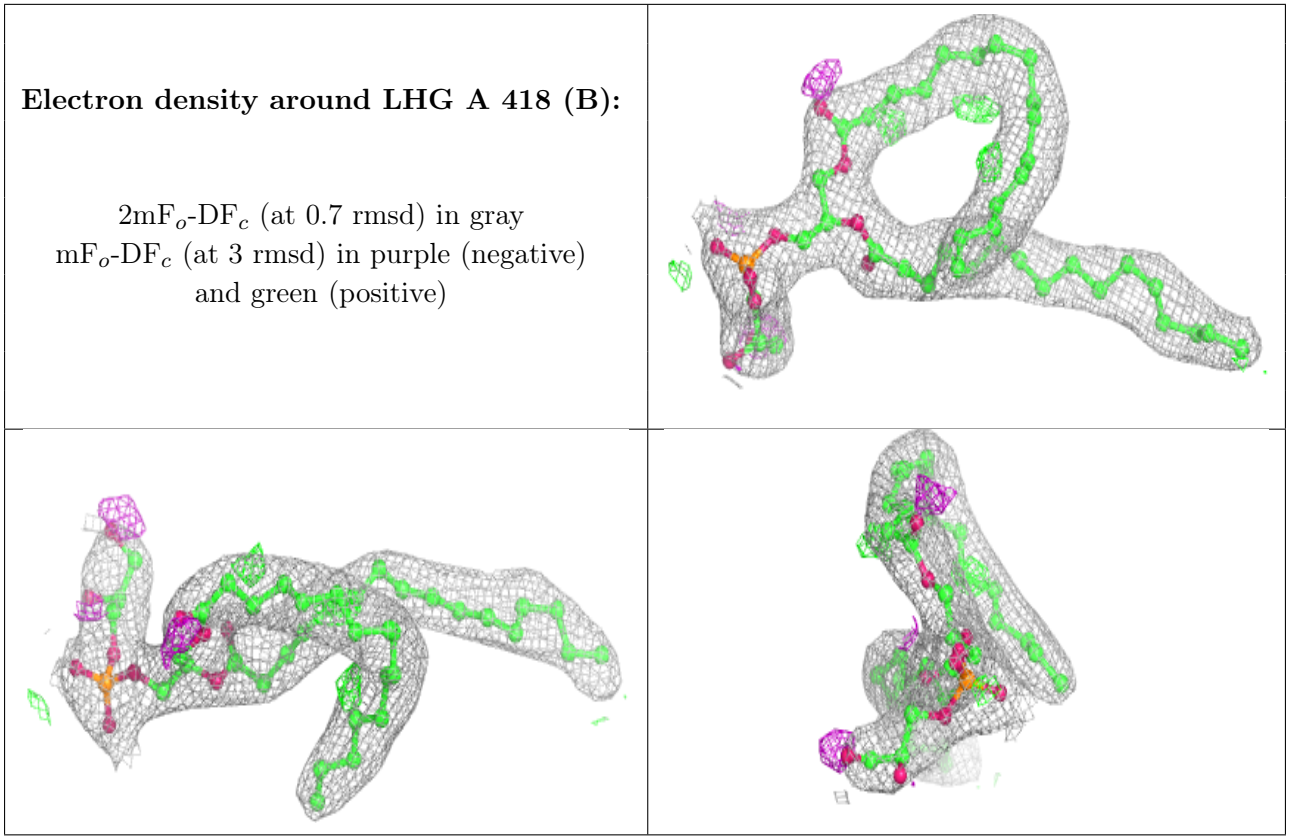
Electron density around LHG A 418 (A):

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



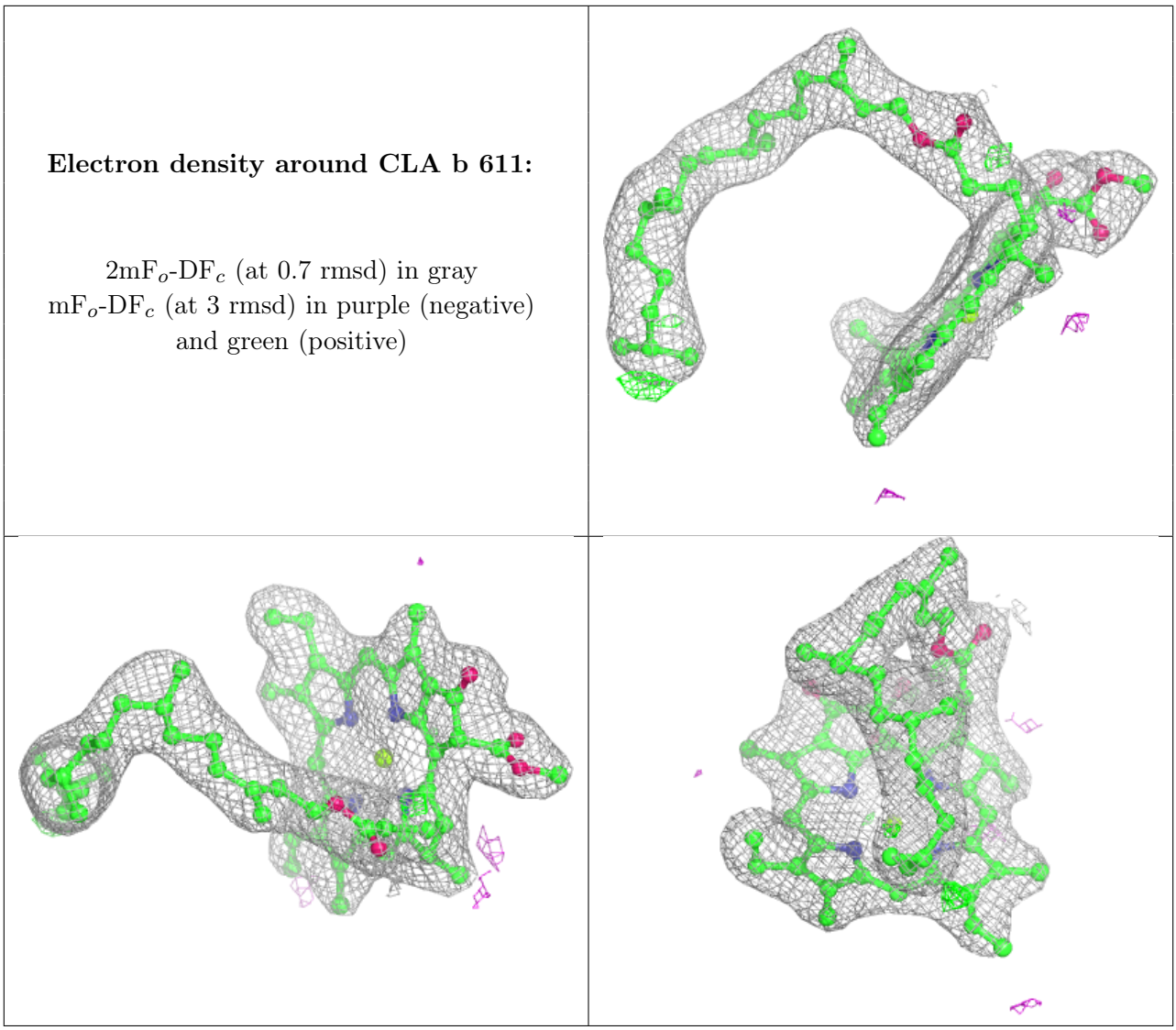
Electron density around LHG A 418 (B):

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



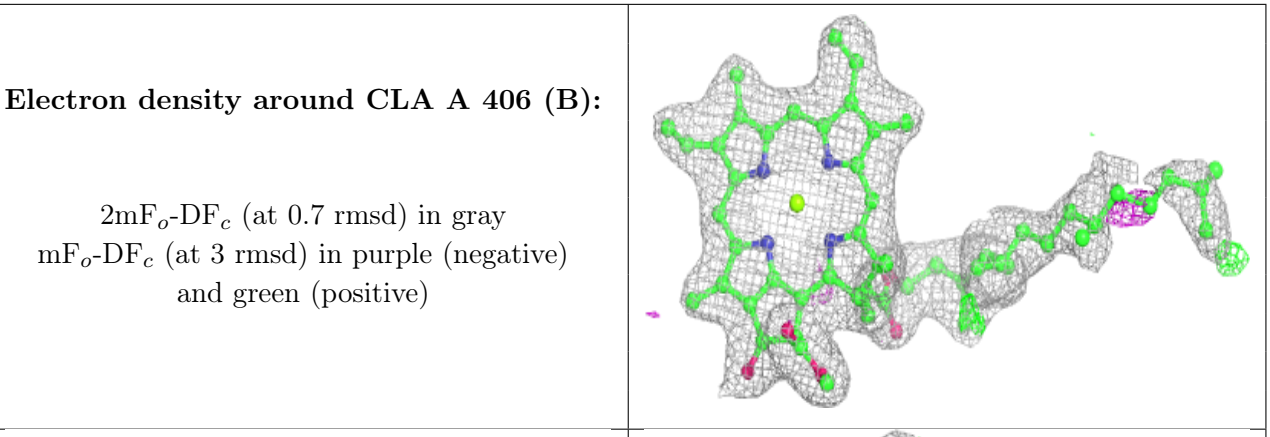
Electron density around CLA b 611:

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



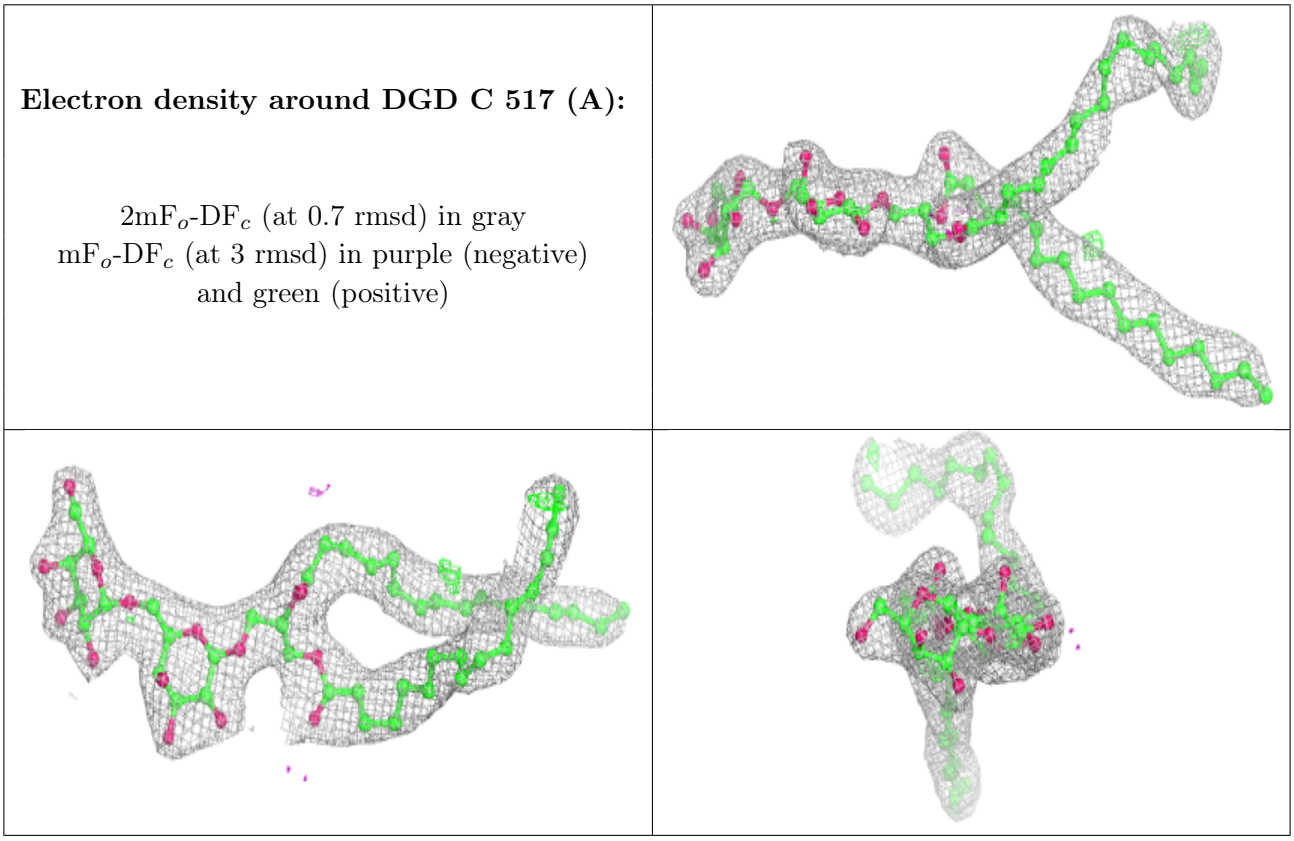
Electron density around CLA A 406 (B):

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



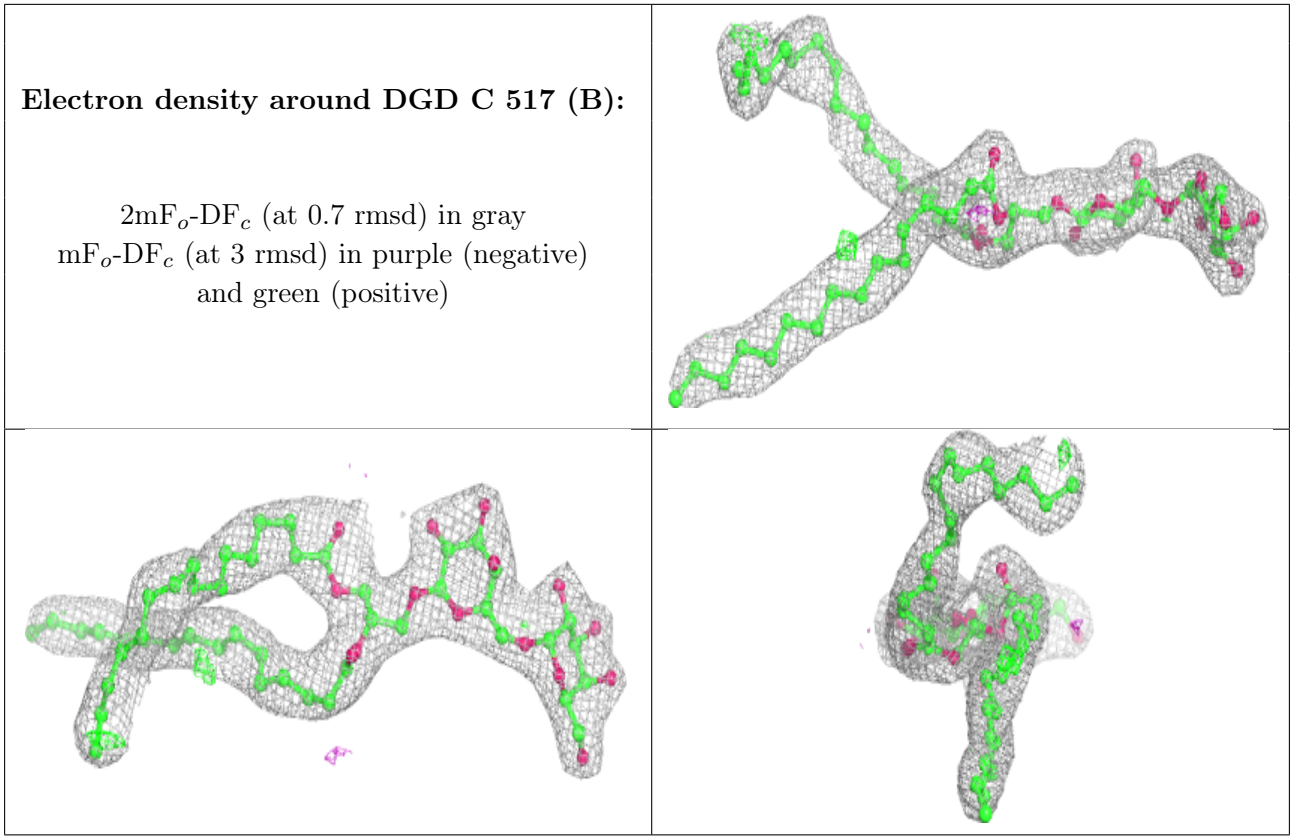
Electron density around DGD C 517 (A):

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



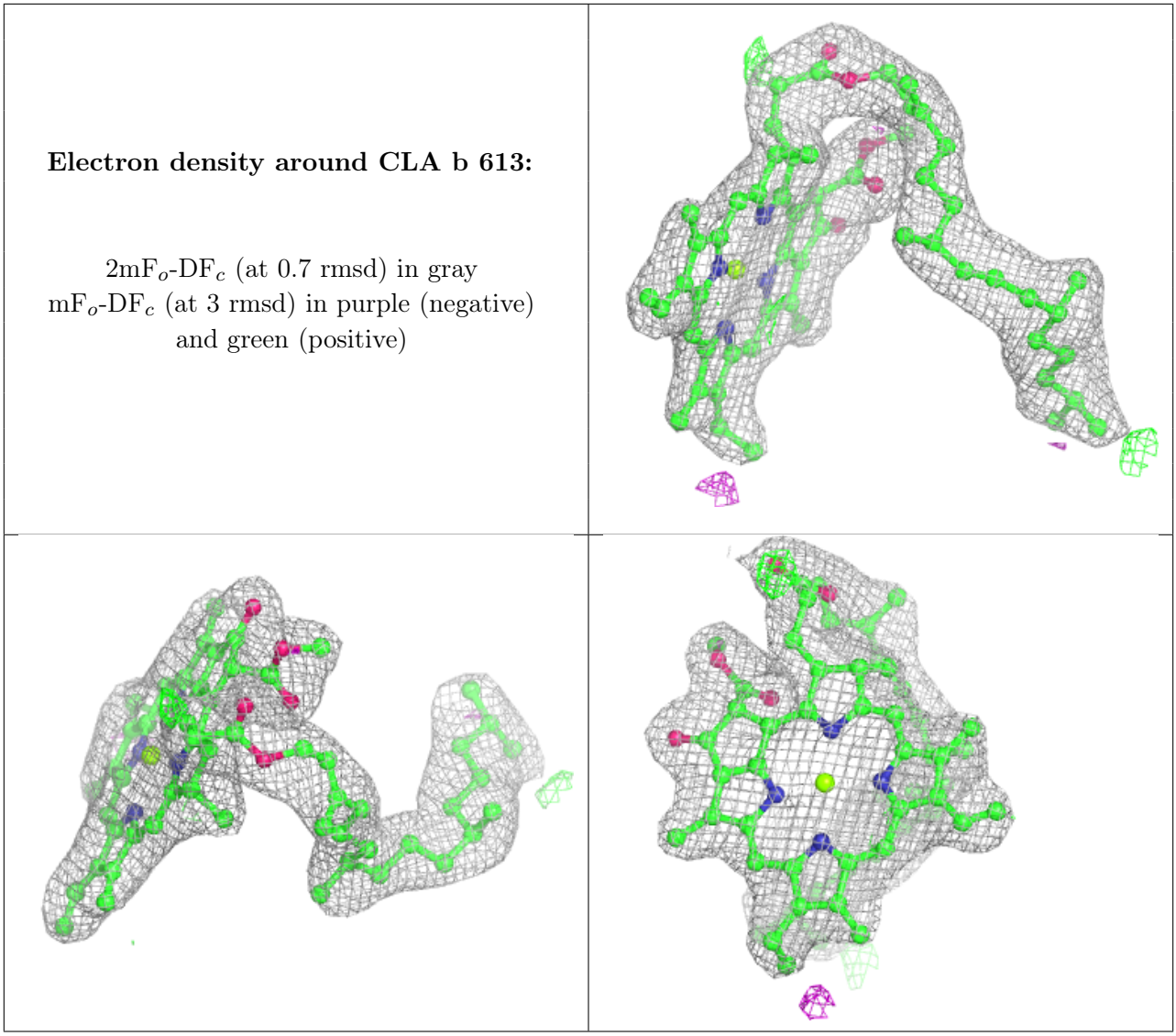
Electron density around DGD C 517 (B):

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



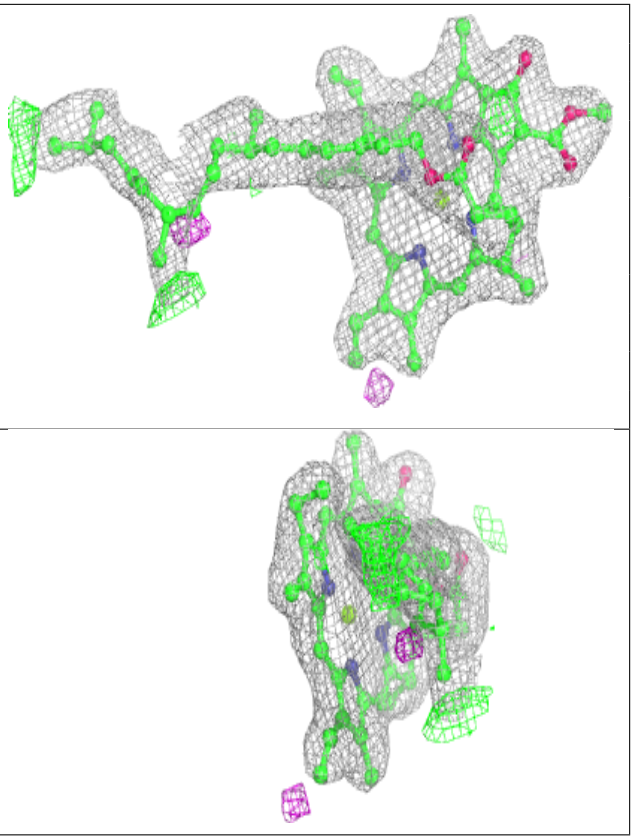
Electron density around CLA b 613:

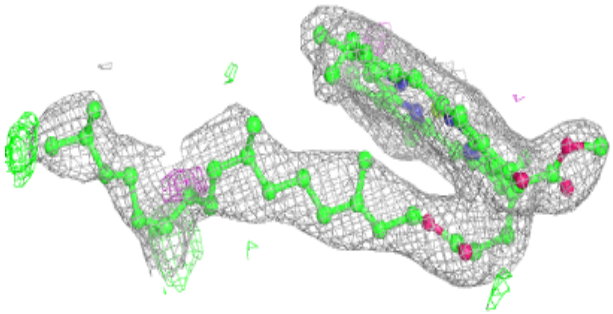
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



Electron density around CLA b 614:

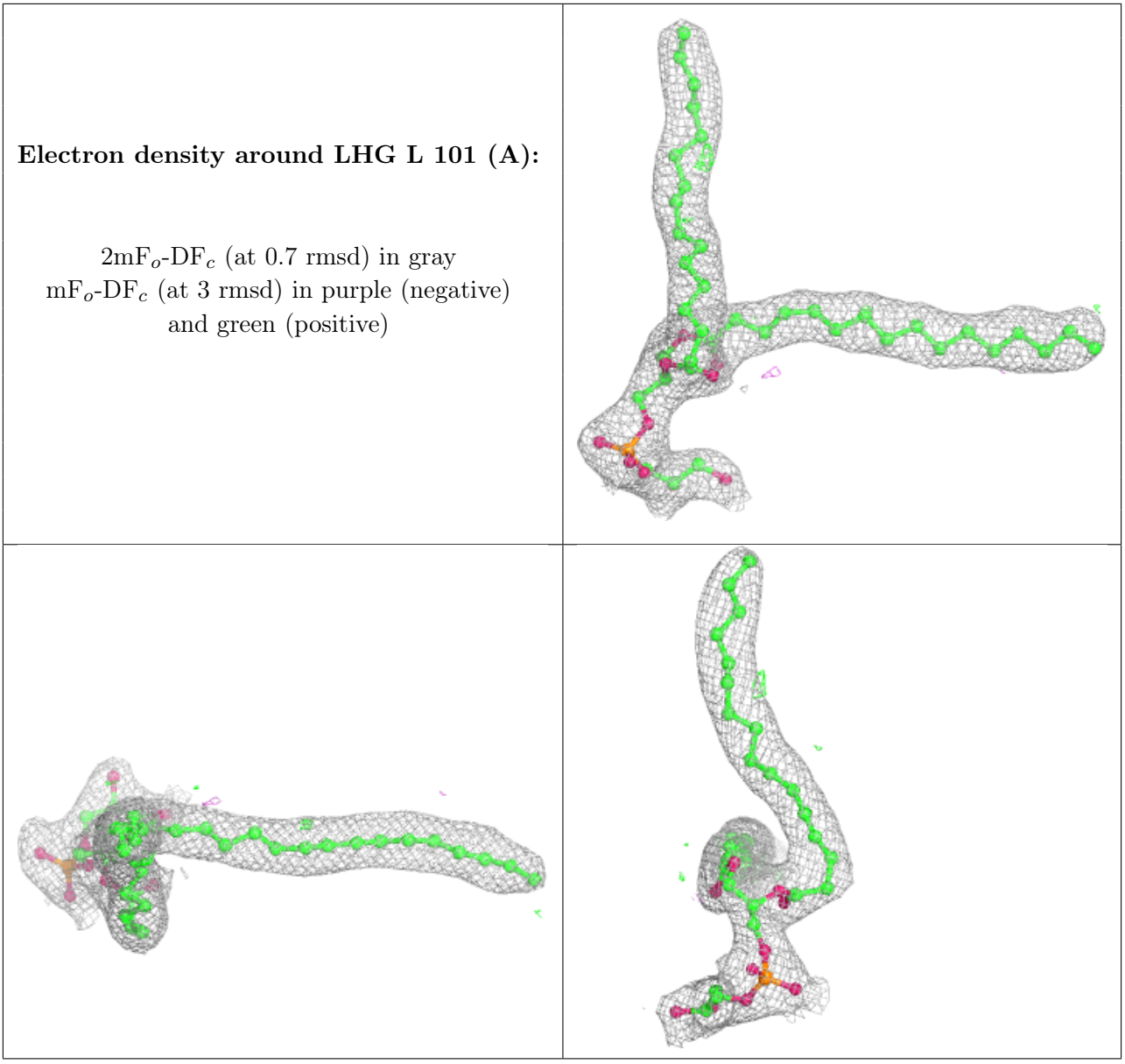
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)





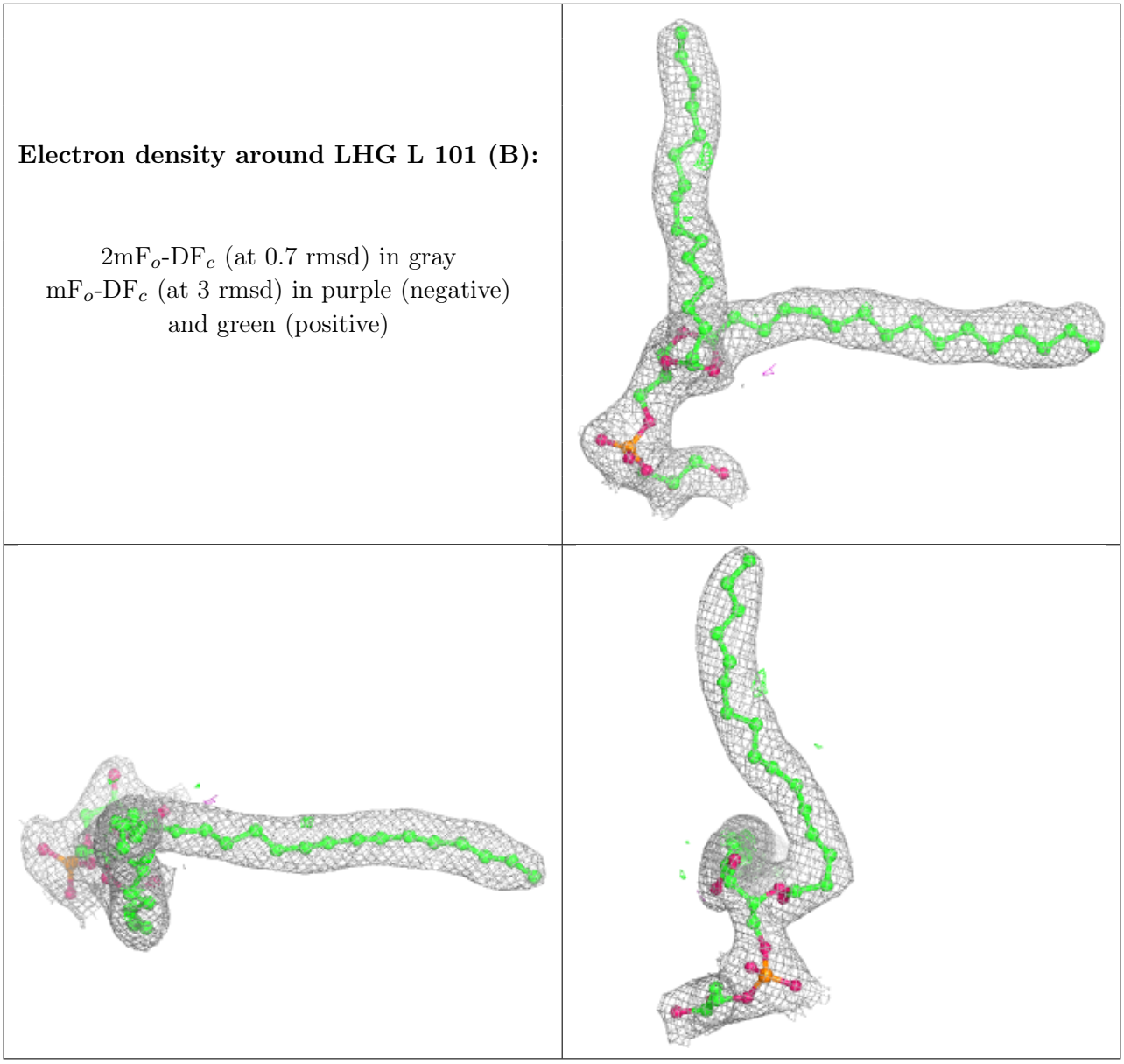
Electron density around LHG L 101 (A):

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



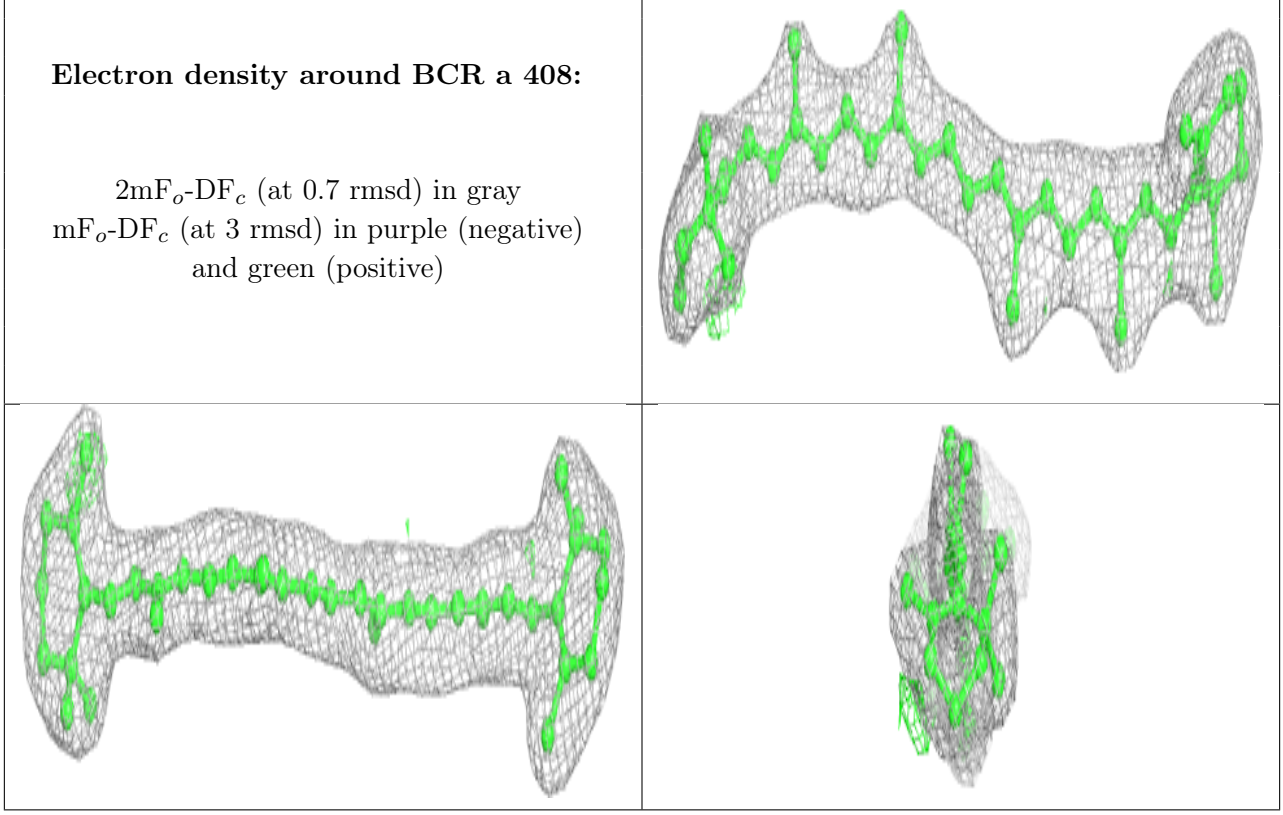
Electron density around LHG L 101 (B):

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



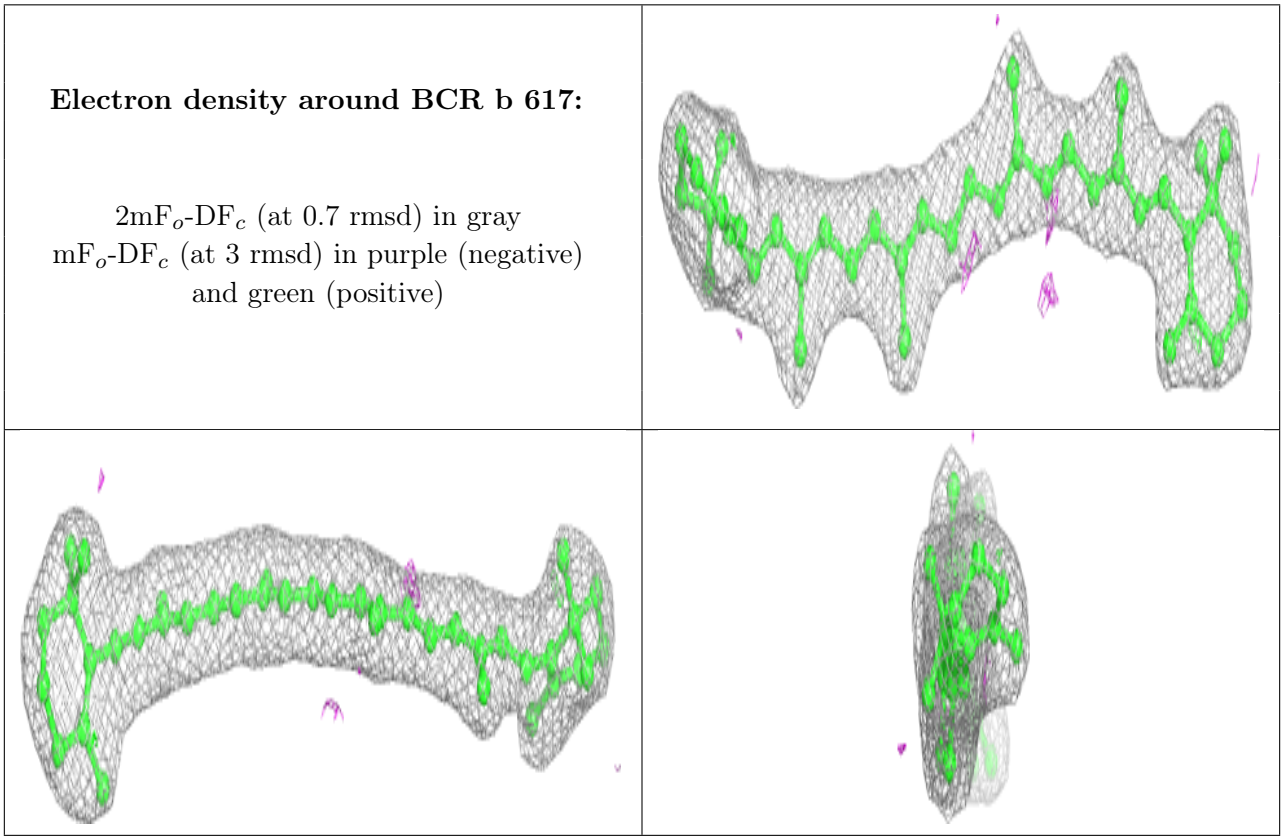
Electron density around BCR a 408:

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



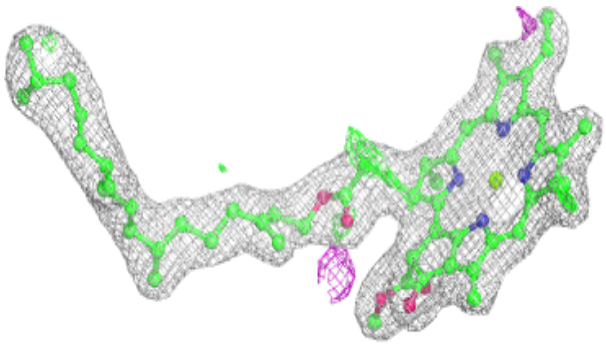
Electron density around BCR b 617:

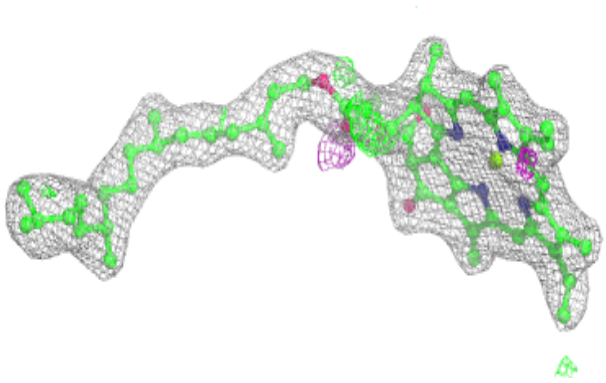
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

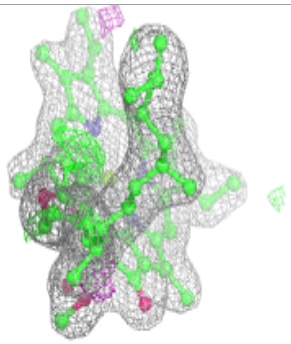


Electron density around CLA A 404 (A):

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

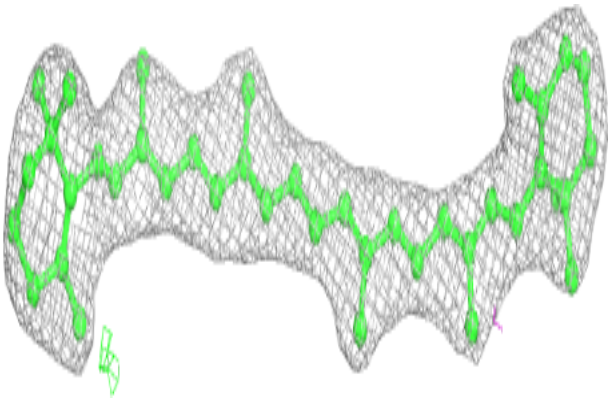


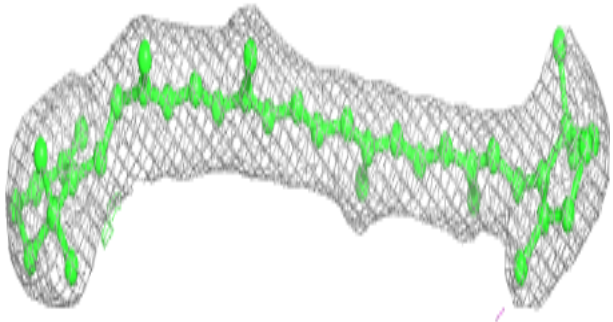


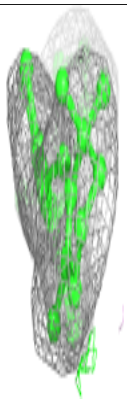


Electron density around BCR b 619:

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

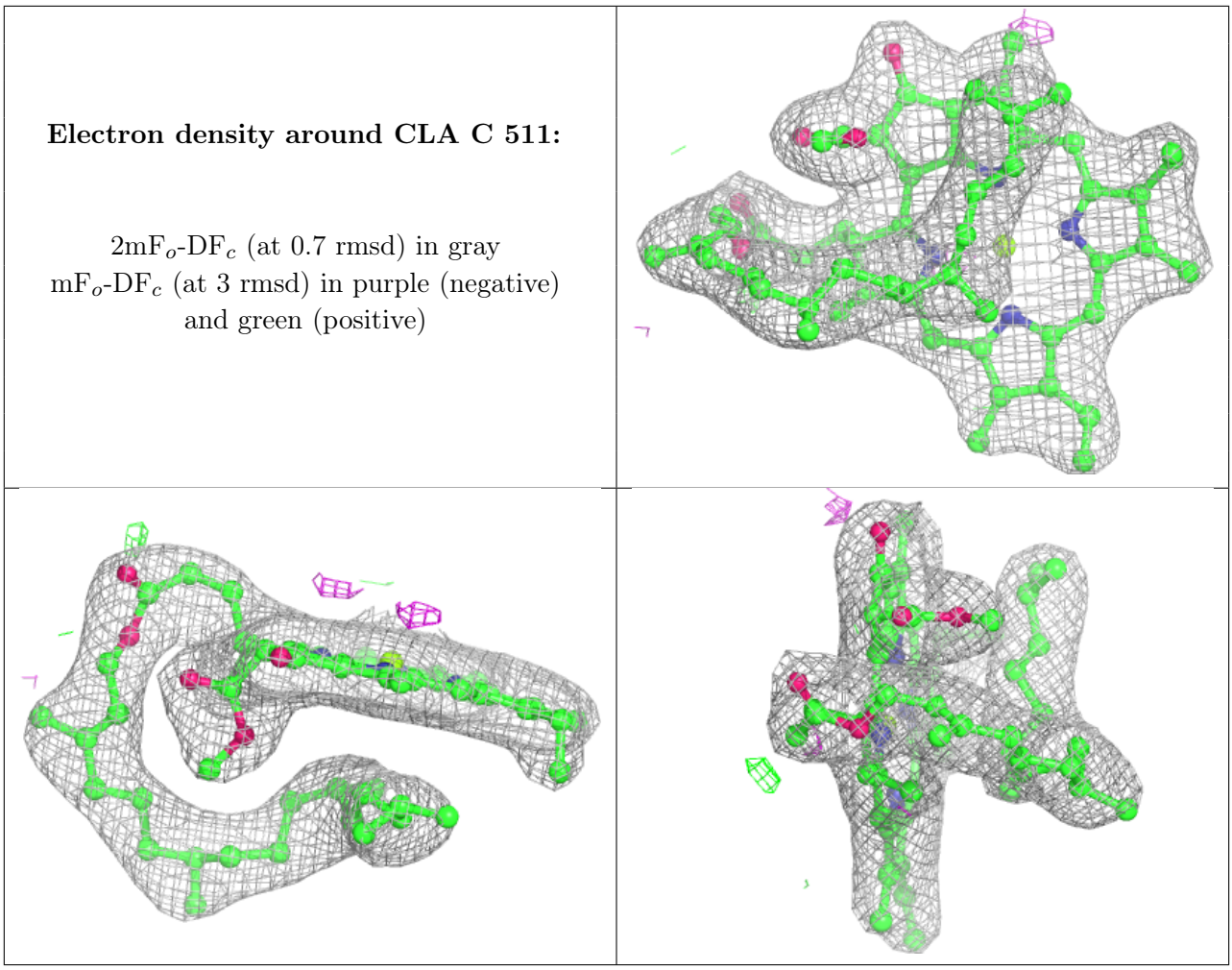






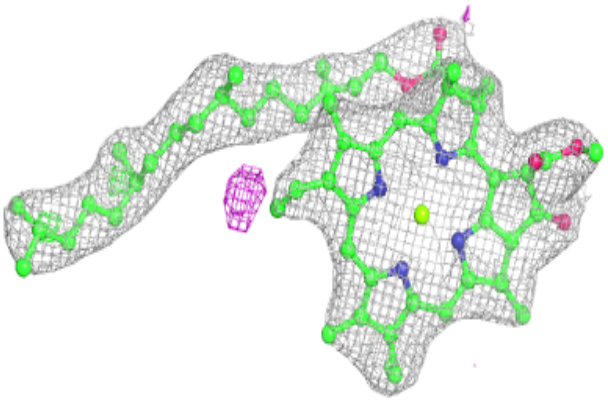
Electron density around CLA C 511:

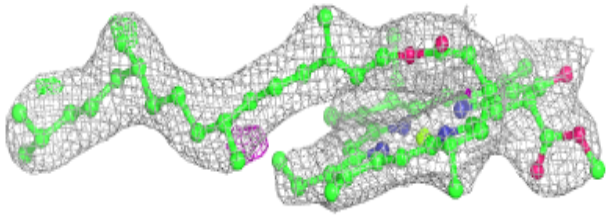
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

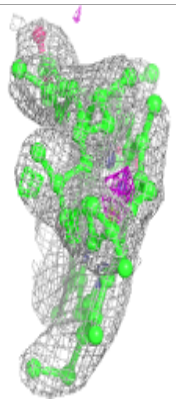


Electron density around CLA c 502:

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

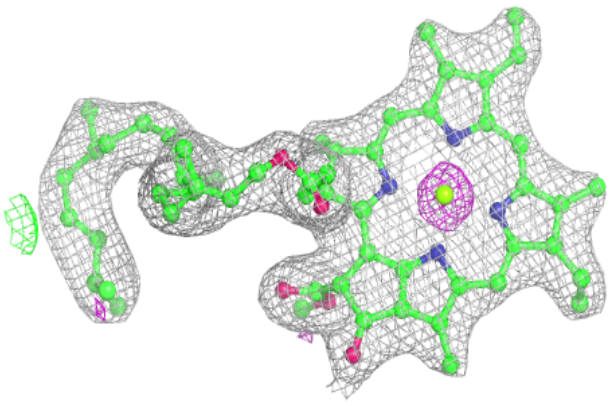


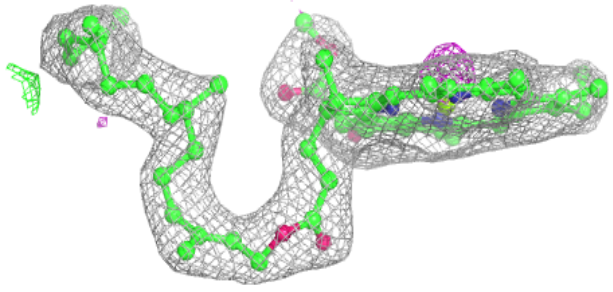


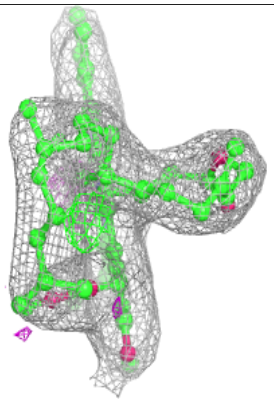


Electron density around CLA B 612:

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

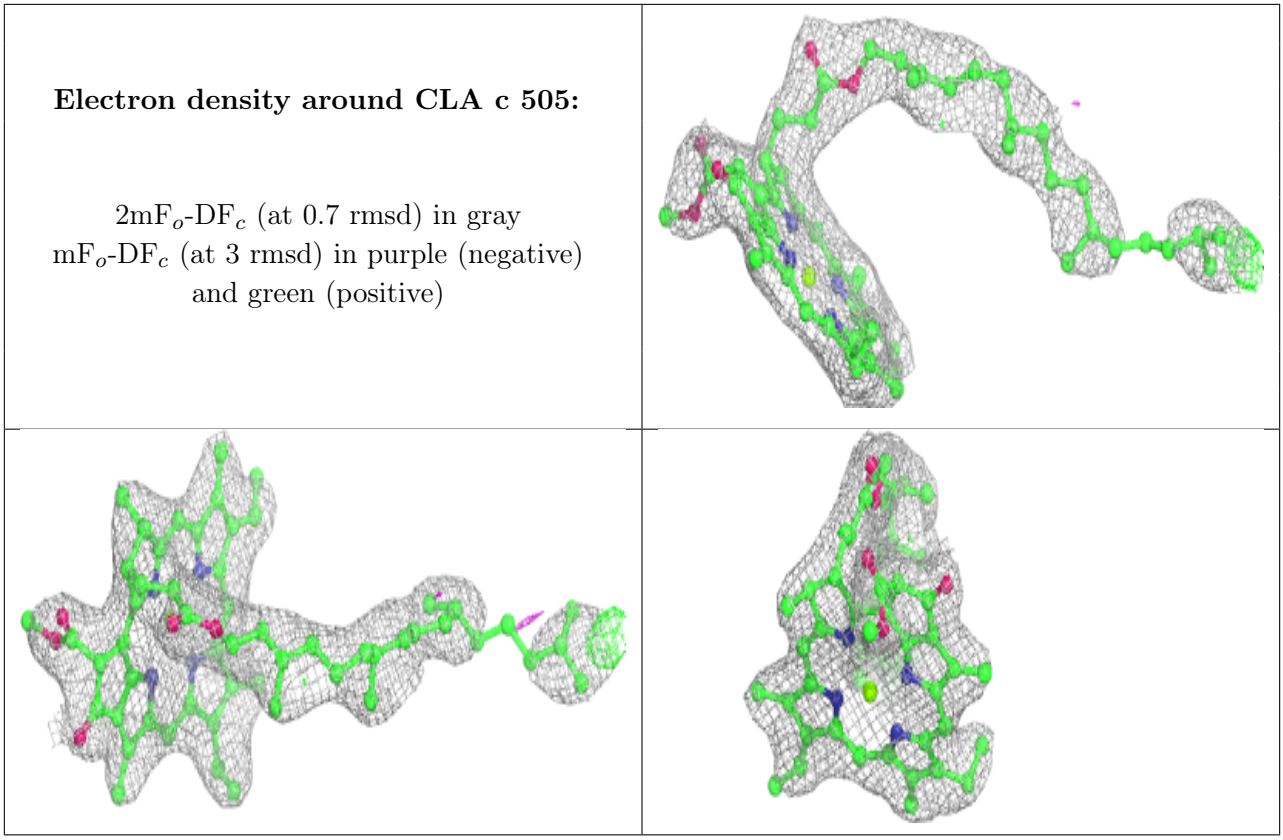






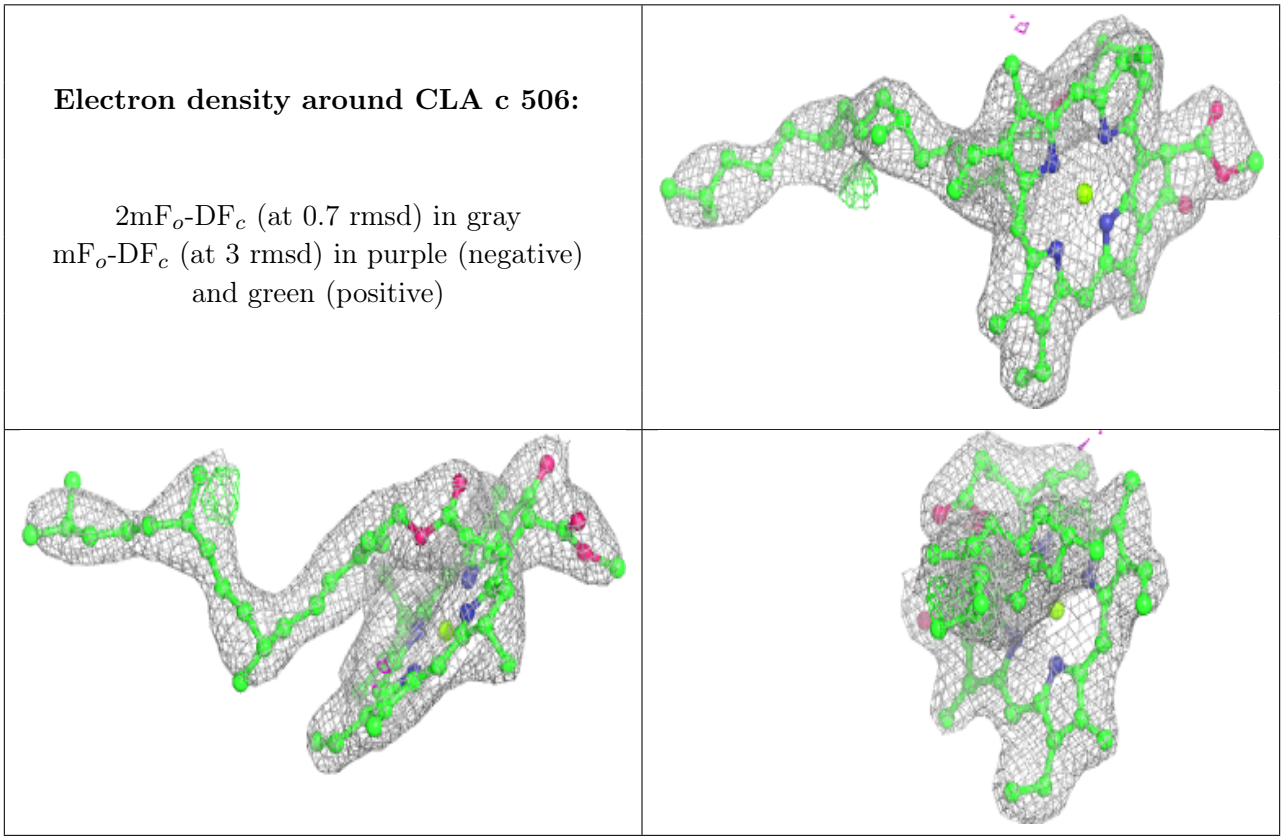
Electron density around CLA c 505:

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



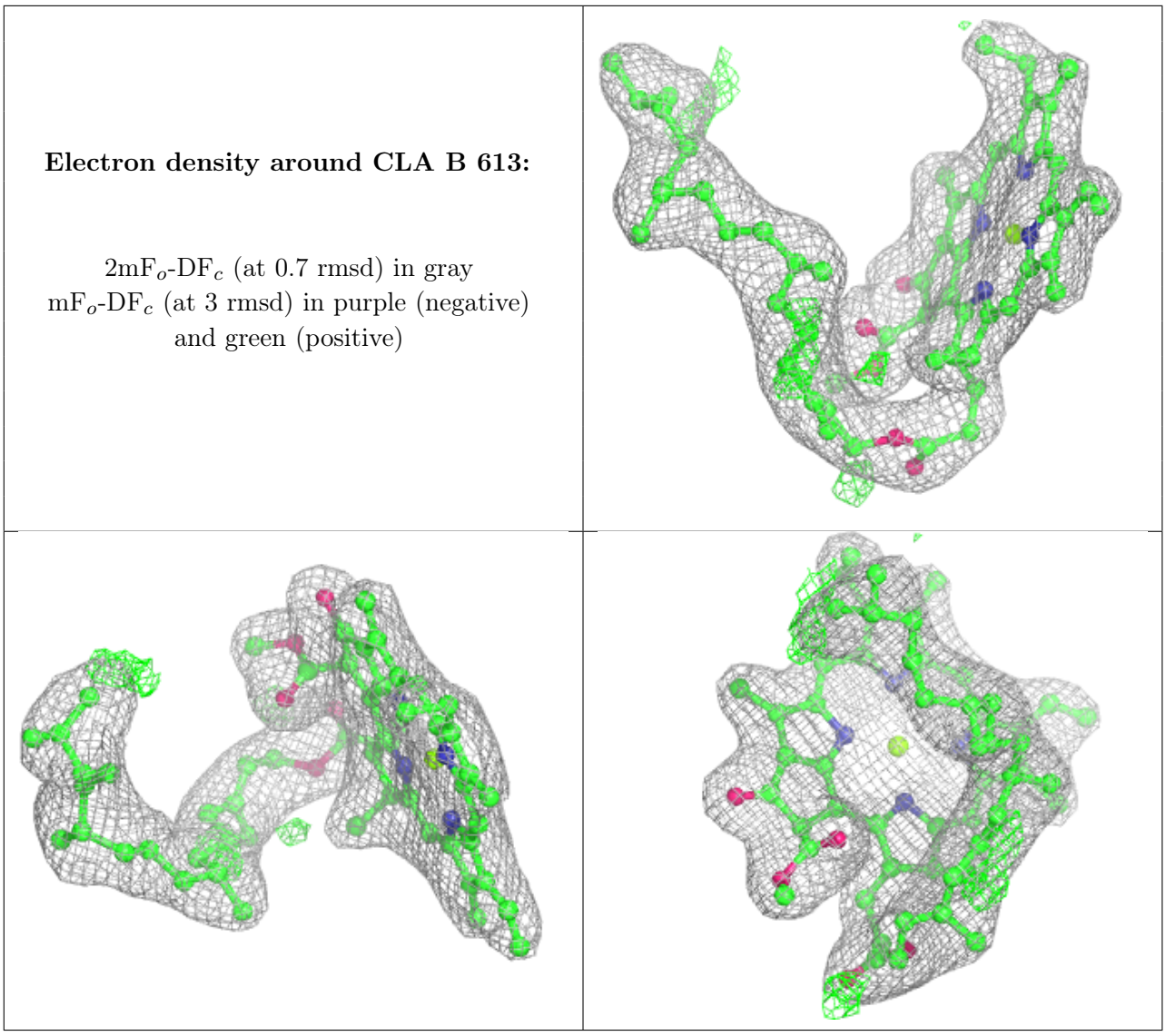
Electron density around CLA c 506:

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



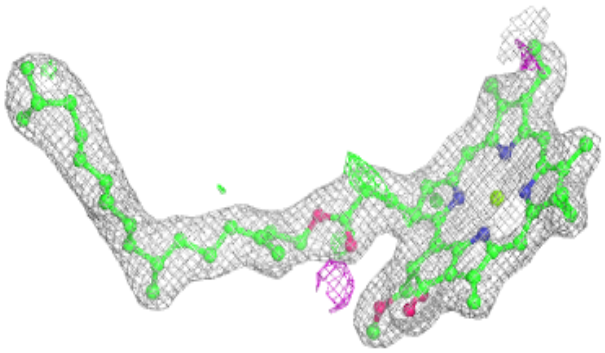
Electron density around CLA B 613:

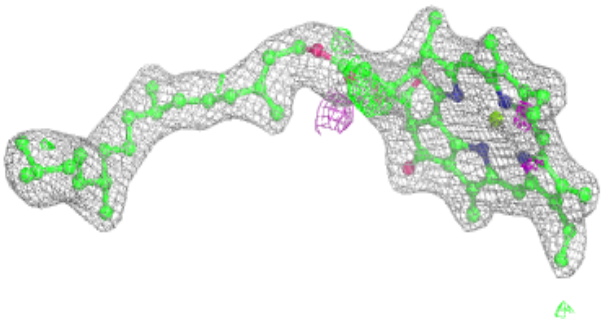
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

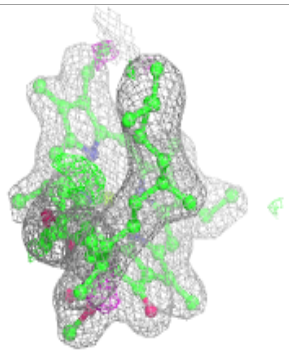


Electron density around CLA A 404 (B):

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

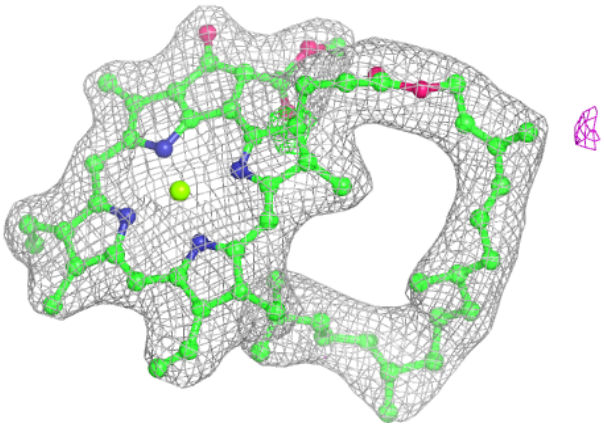


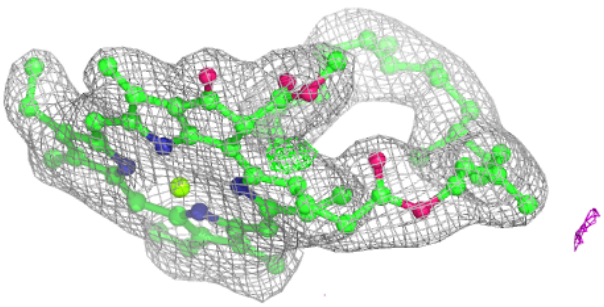


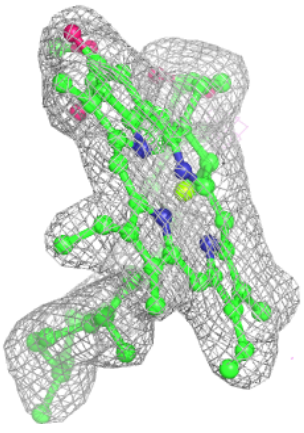


Electron density around CLA B 615:

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

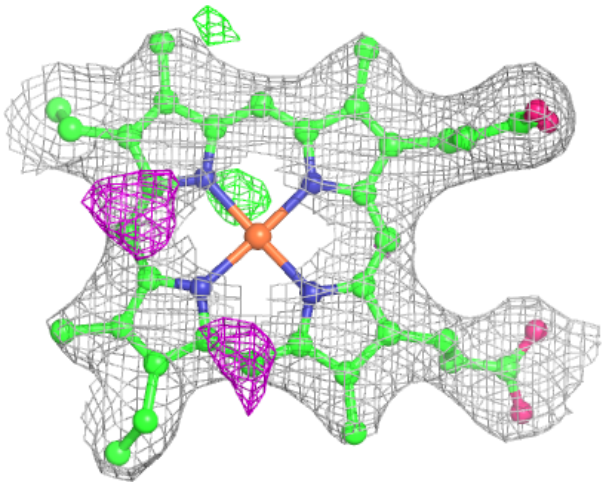


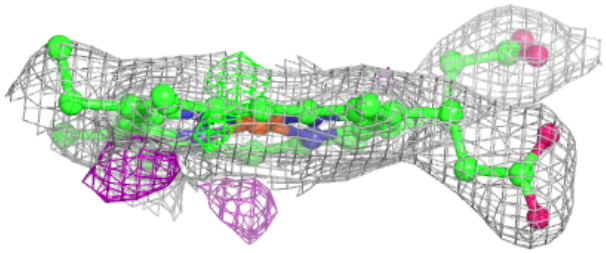


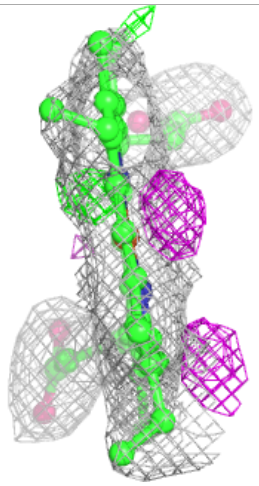


Electron density around HEC v 201:

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

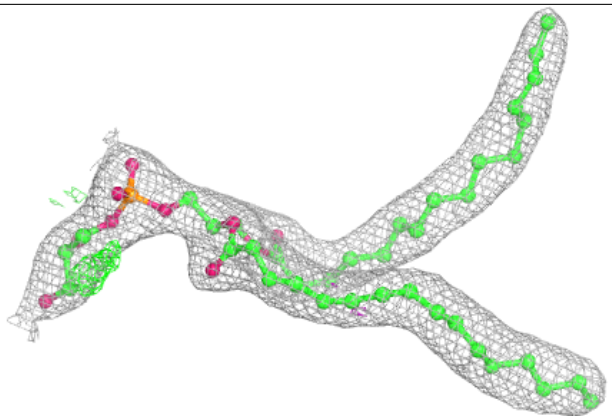


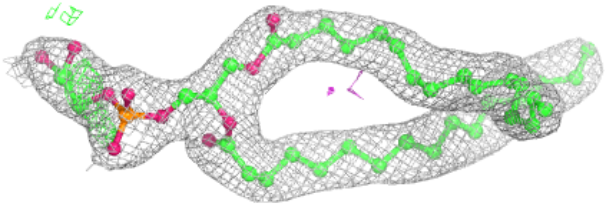


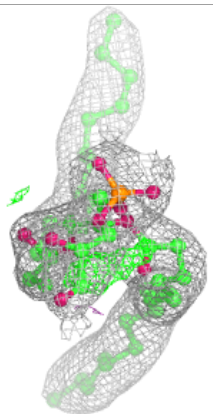


Electron density around LHG D 407 (A):

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

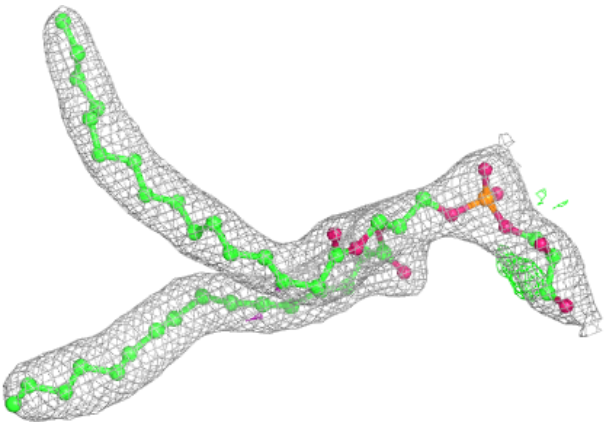


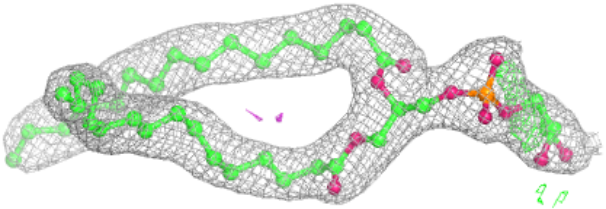


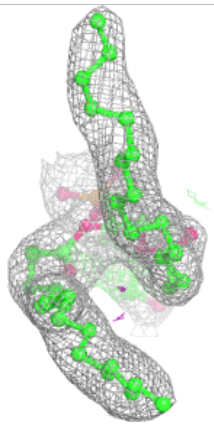


Electron density around LHG D 407 (B):

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

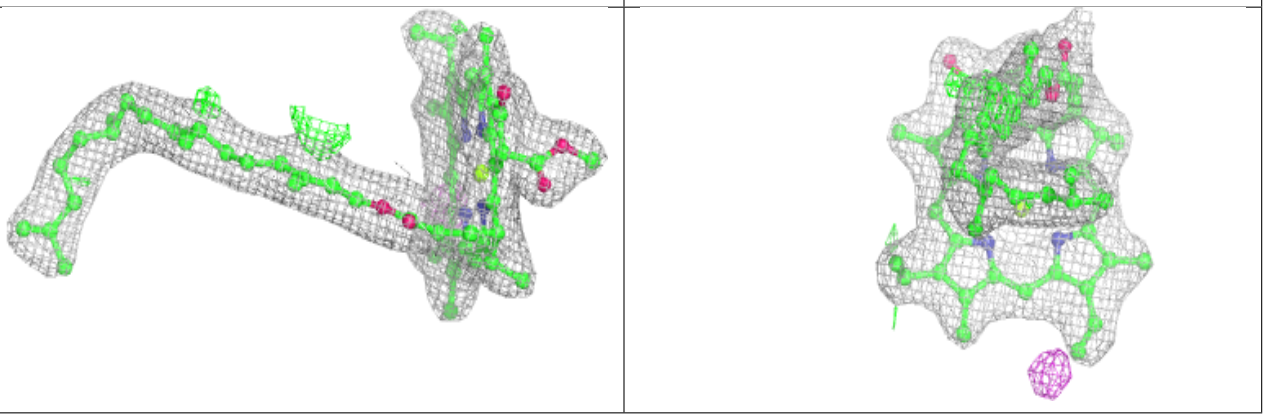






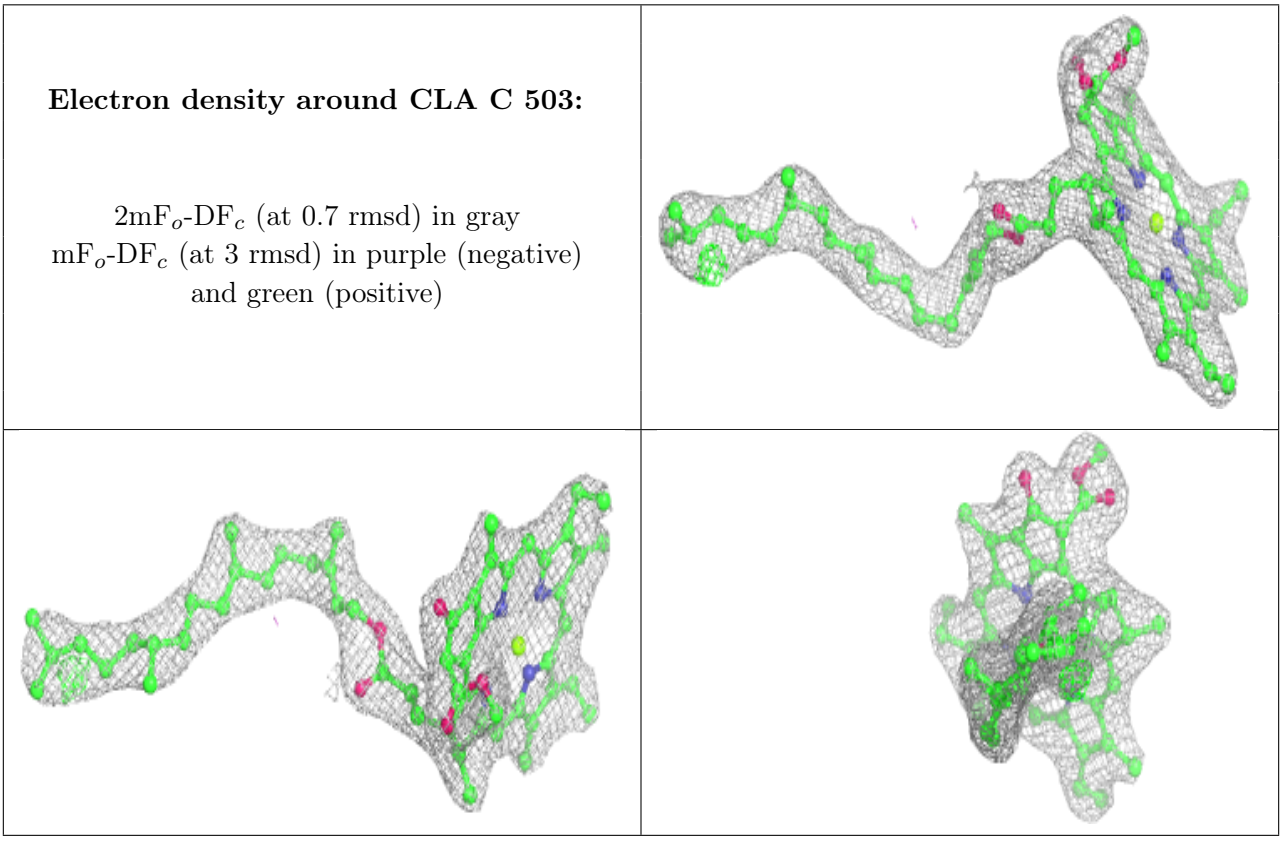
Electron density around CLA B 605:

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



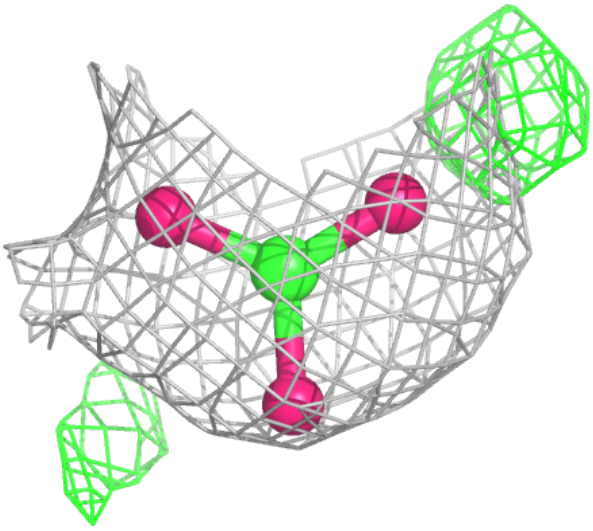
Electron density around CLA C 503:

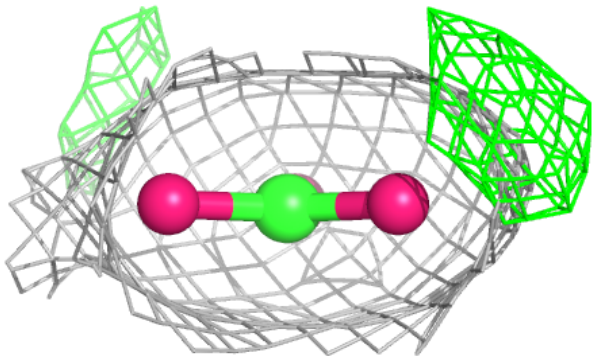
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

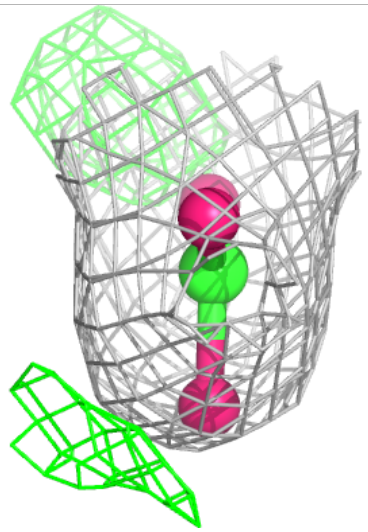


Electron density around BCT d 401 (A):

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

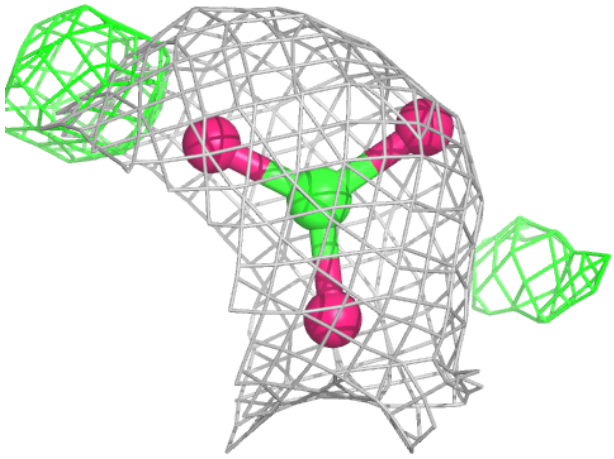


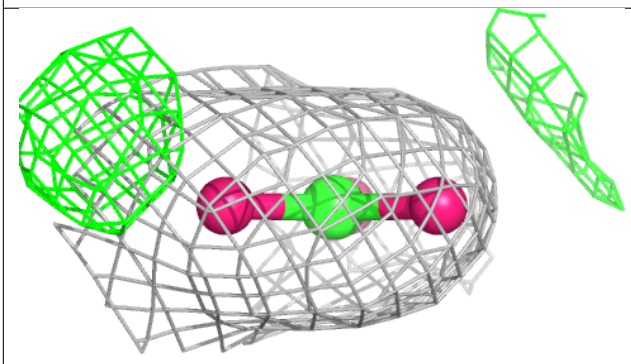


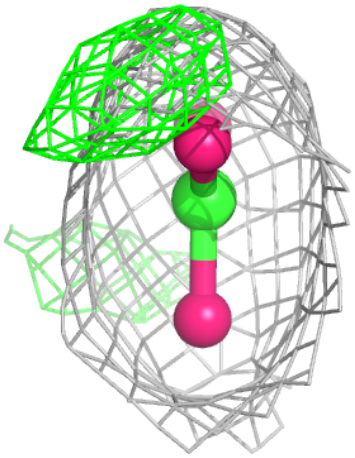


Electron density around BCT d 401 (B):

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

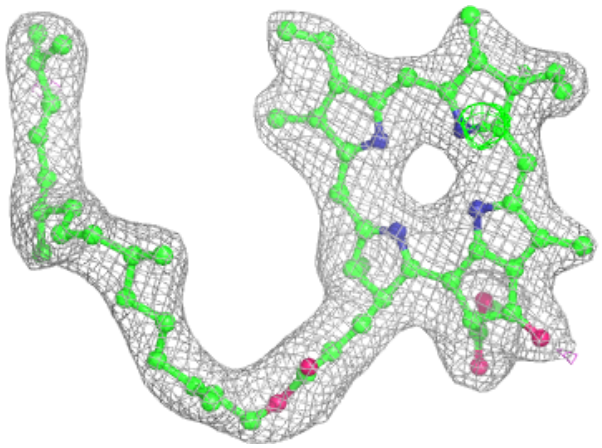


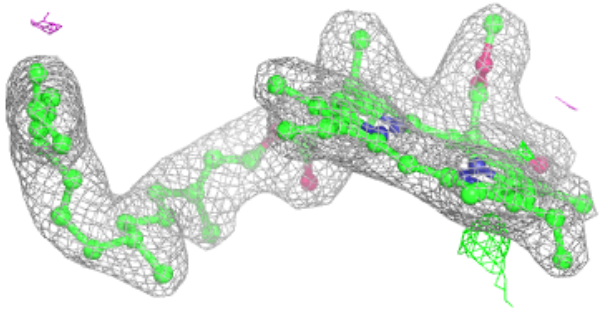


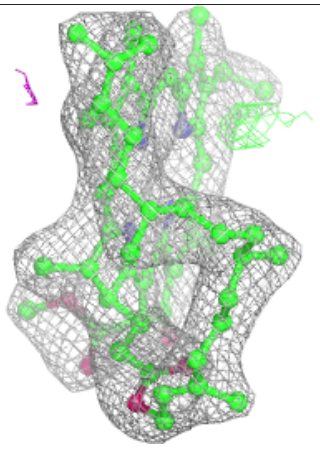


Electron density around PHO A 416 (A):

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

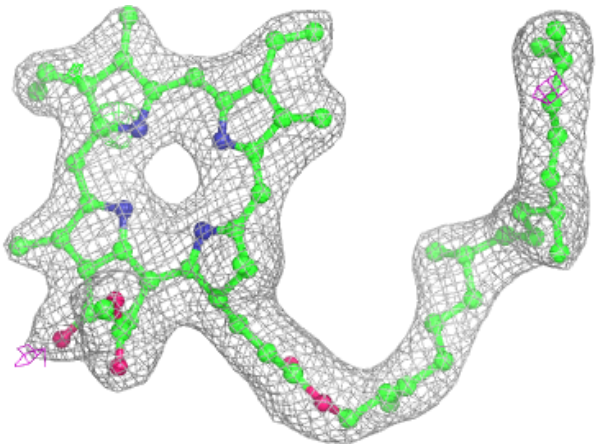


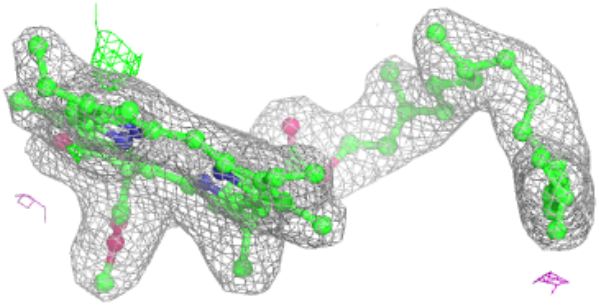


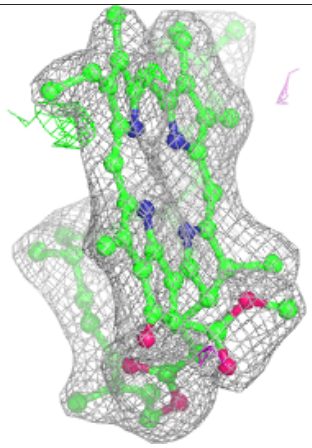


Electron density around PHO A 416 (B):

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

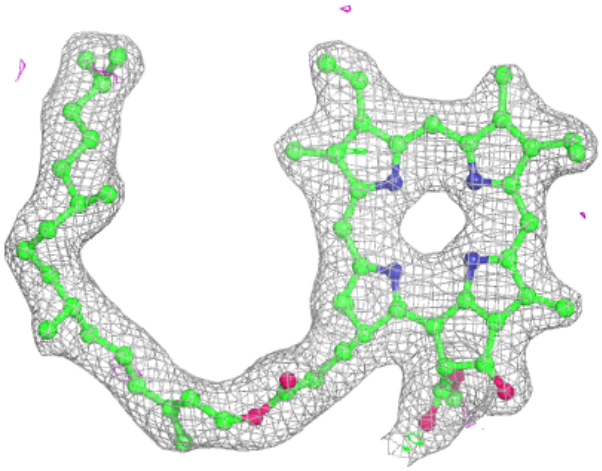


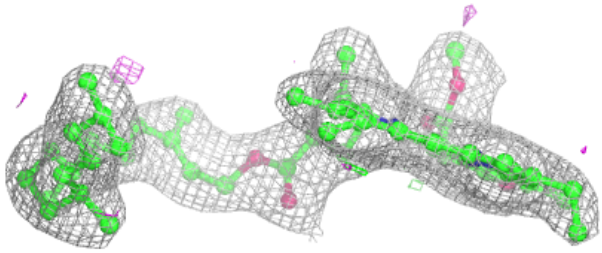


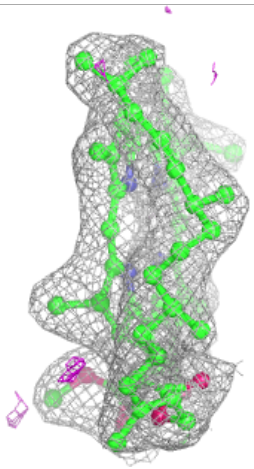


Electron density around PHO D 401 (A):

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

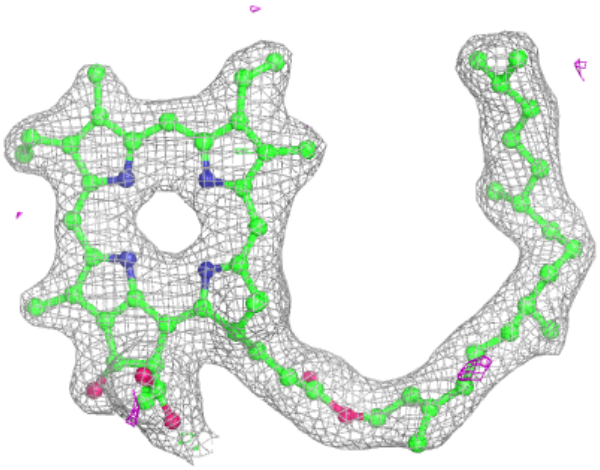


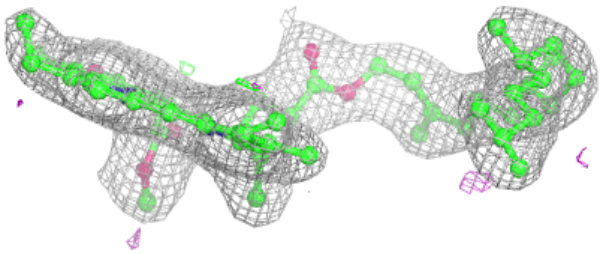


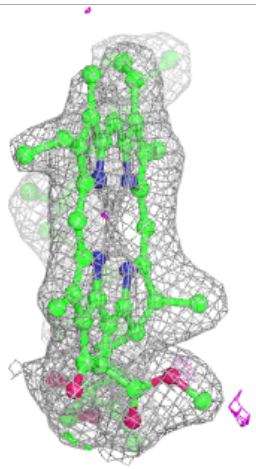


Electron density around PHO D 401 (B):

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

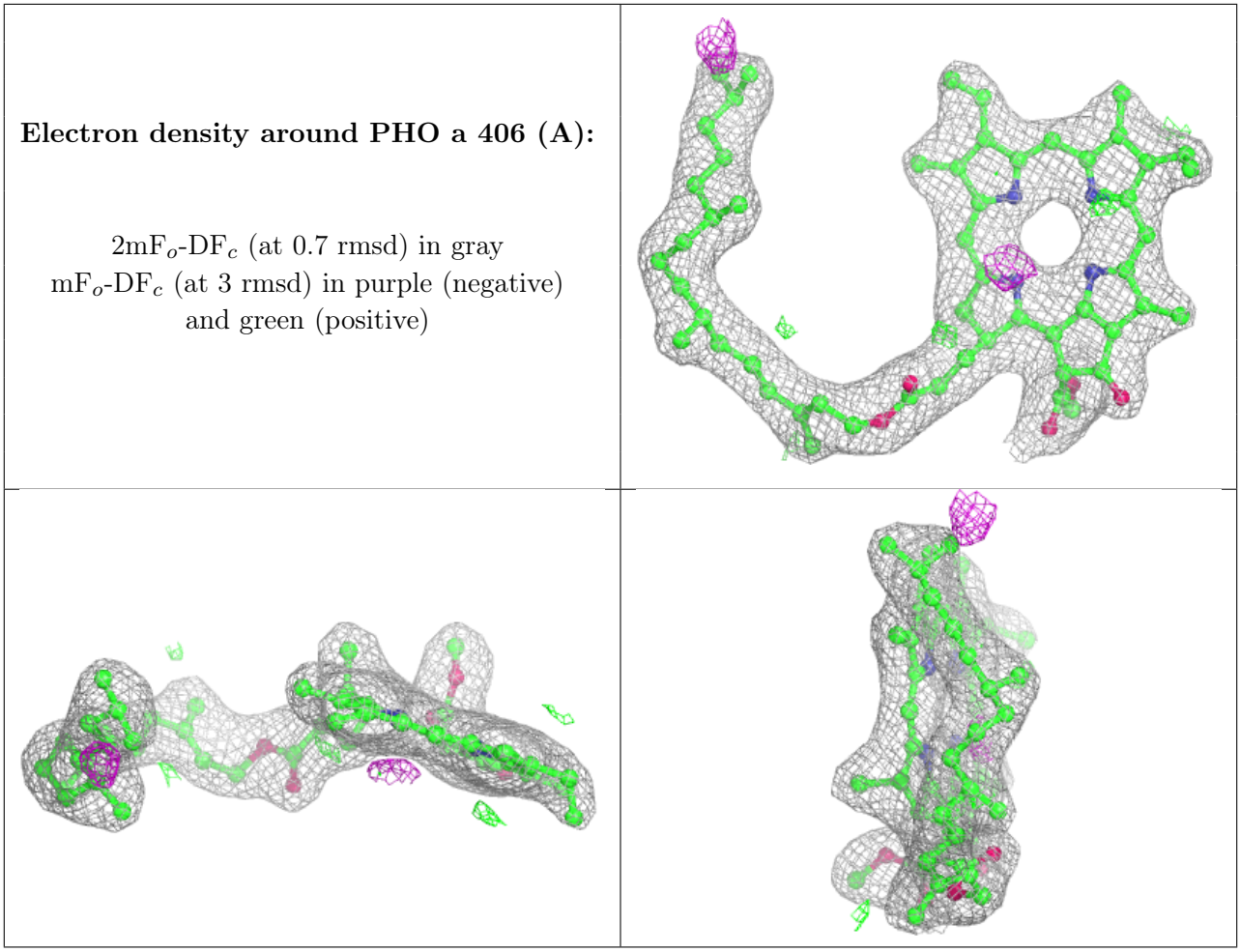






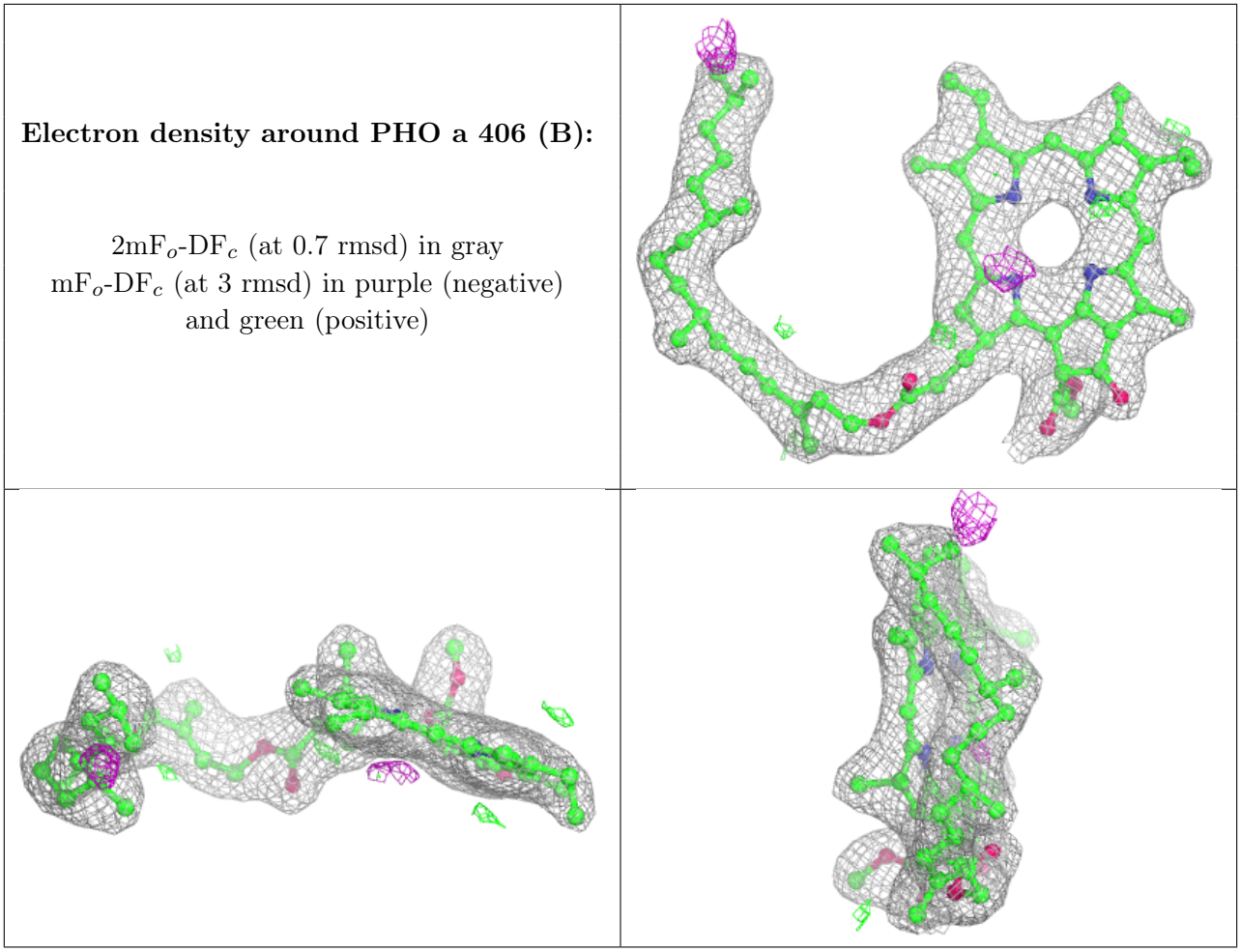
Electron density around PHO a 406 (A):

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



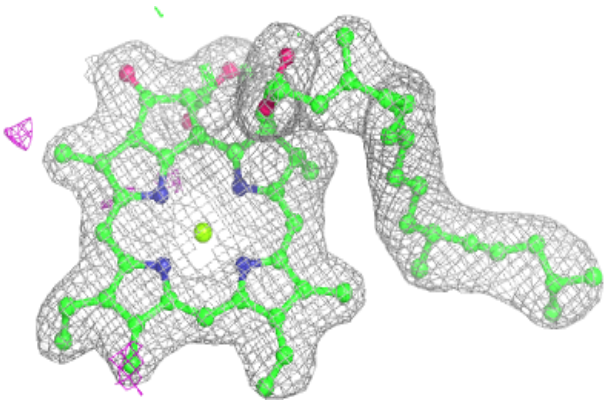
Electron density around PHO a 406 (B):

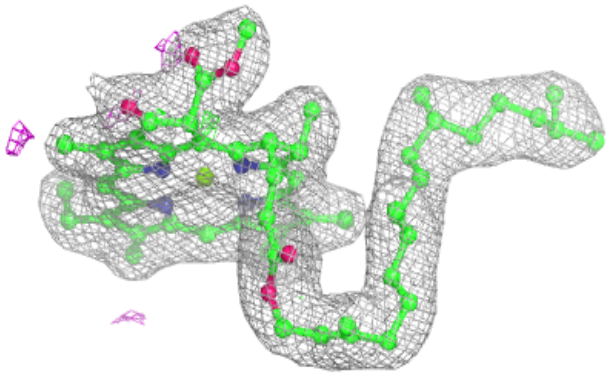
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

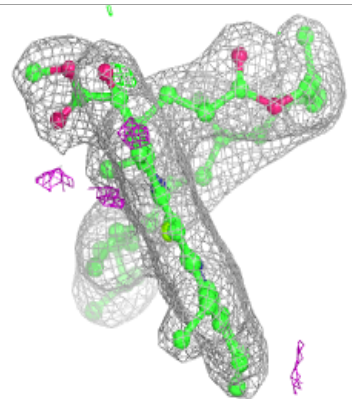


Electron density around CLA A 405 (A):

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

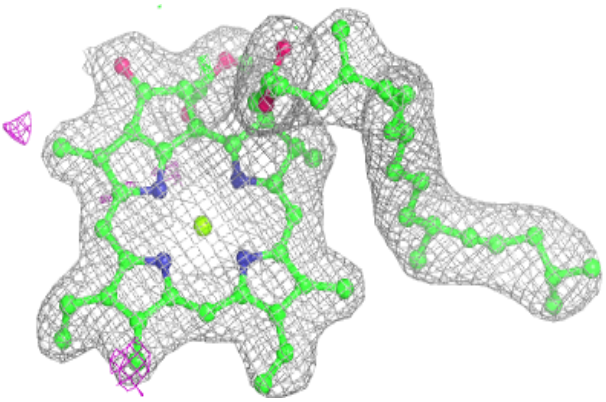


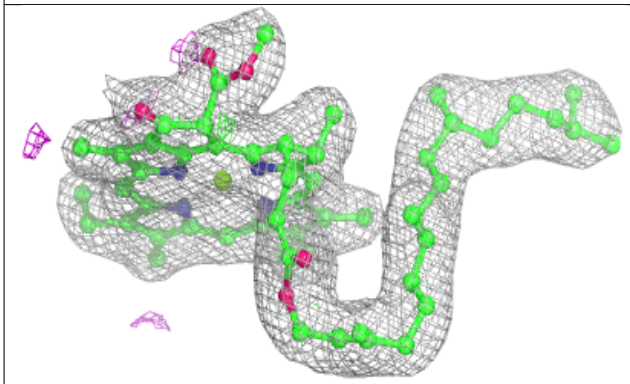


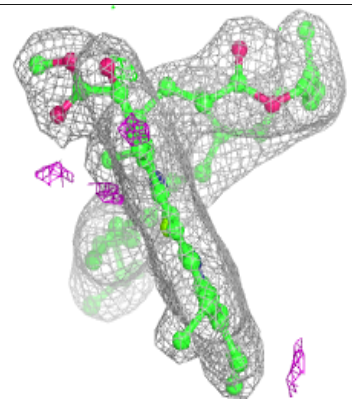


Electron density around CLA A 405 (B):

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

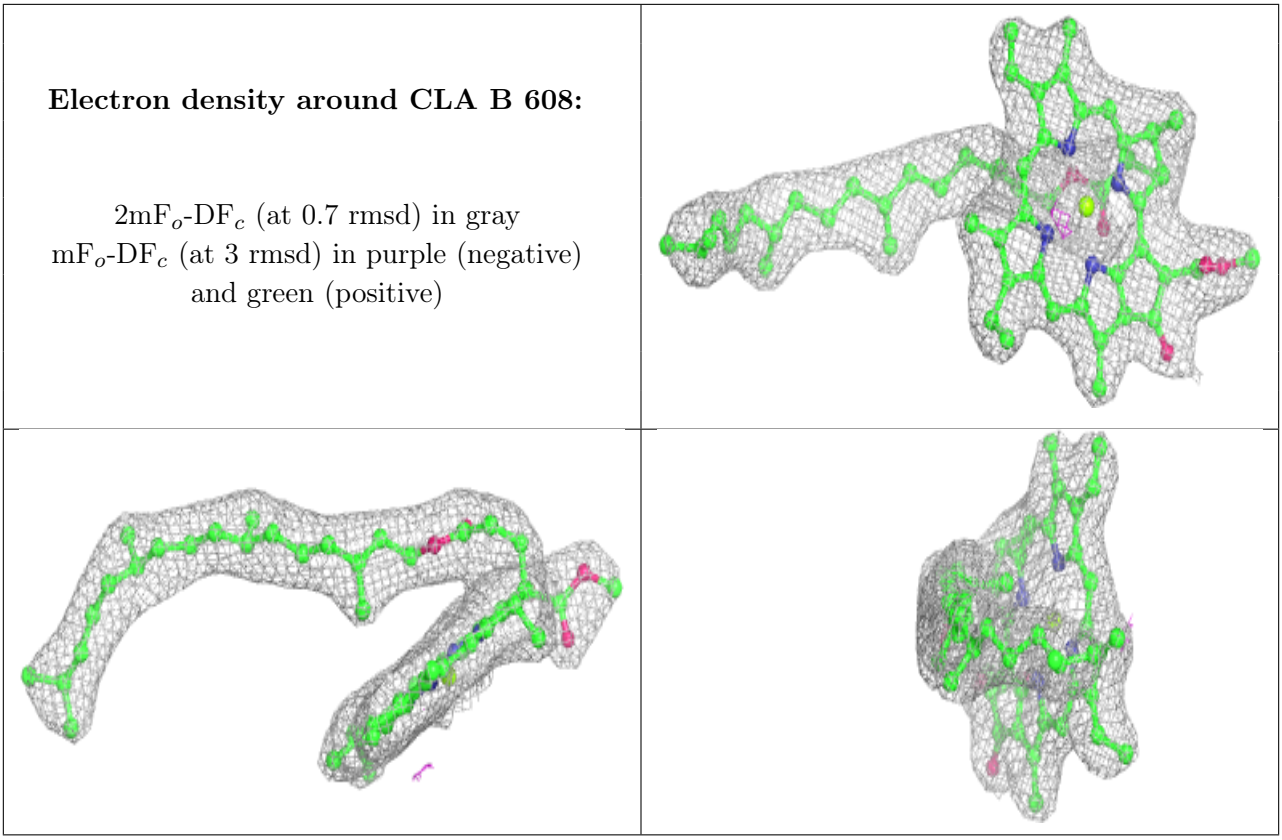






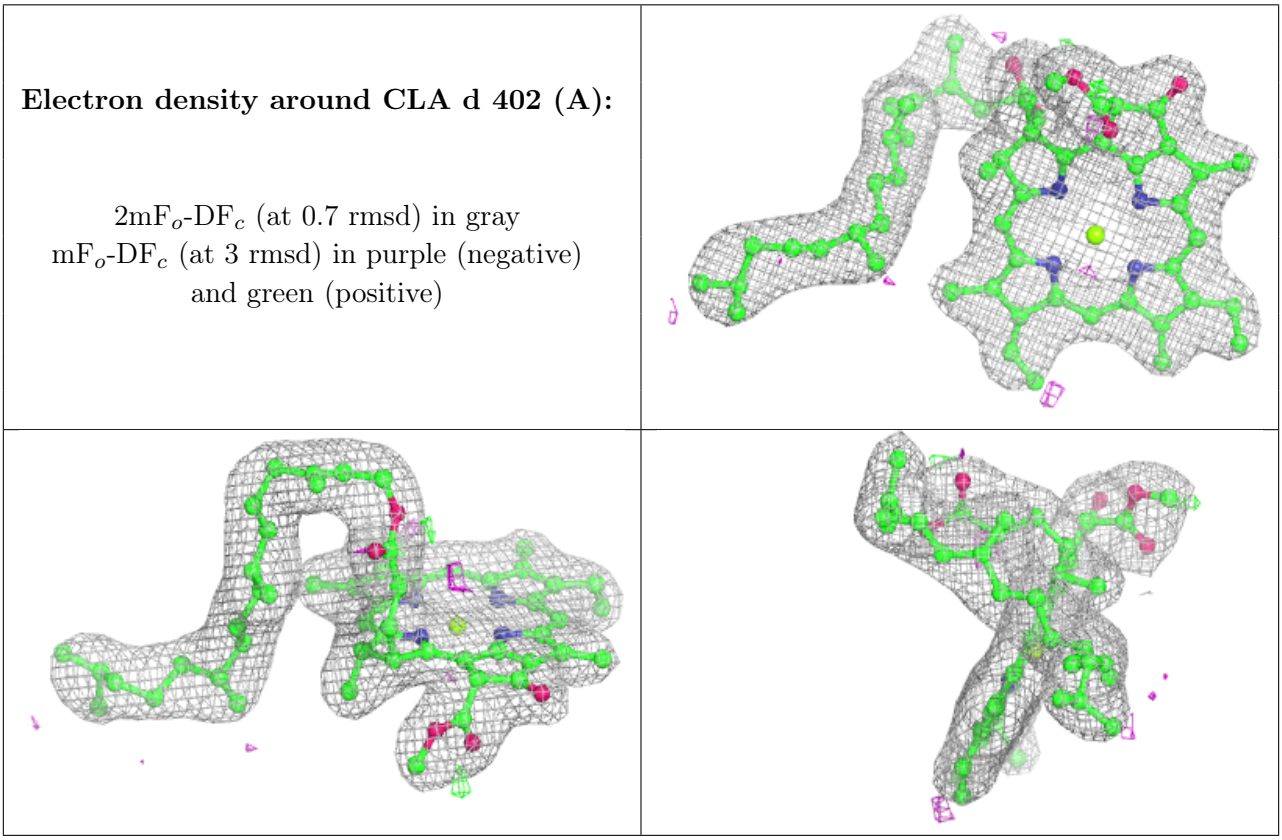
Electron density around CLA B 608:

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



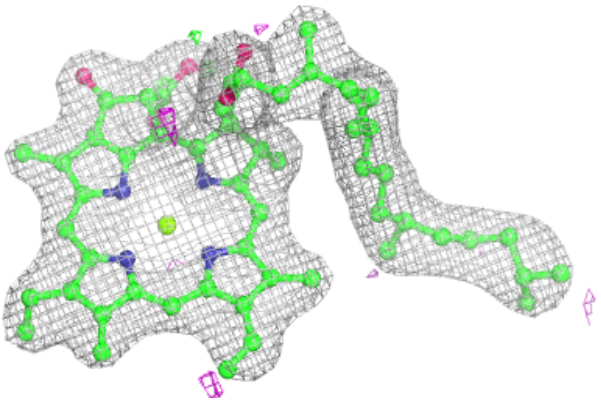
Electron density around CLA d 402 (A):

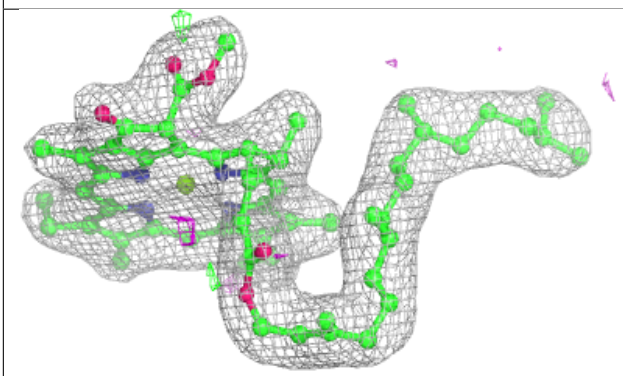
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

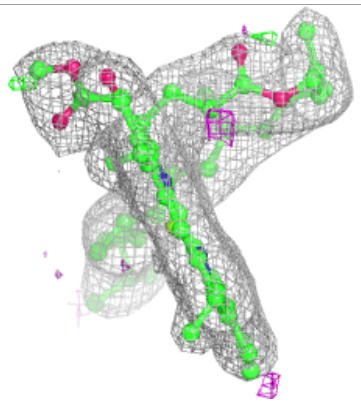


Electron density around CLA d 402 (B):

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

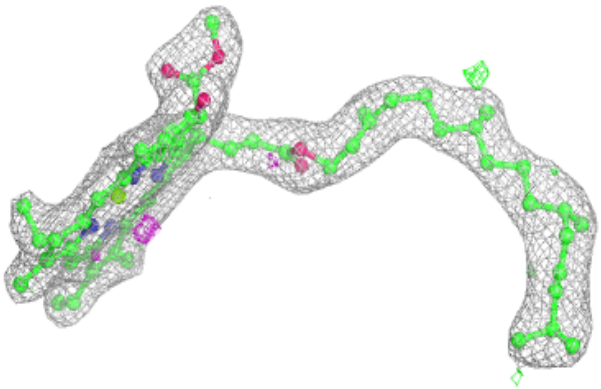


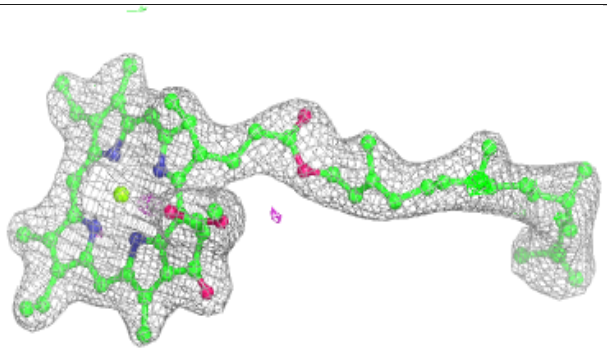


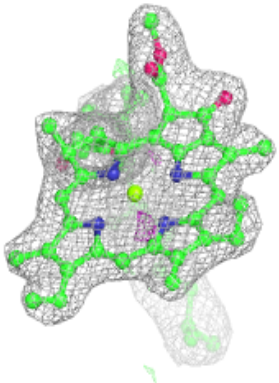


Electron density around CLA d 403 (A):

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

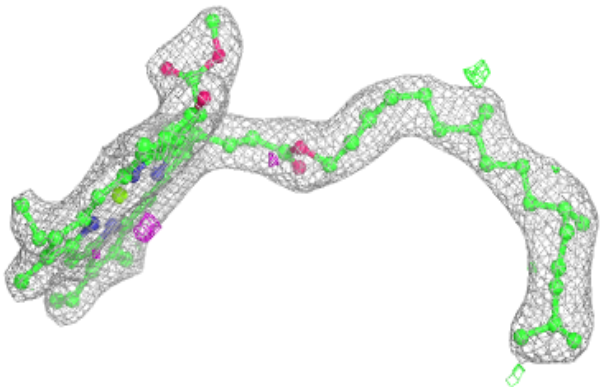


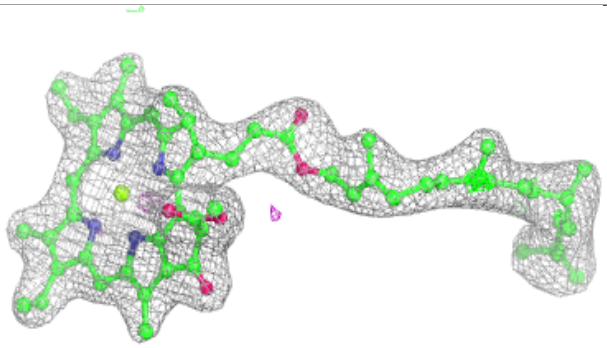


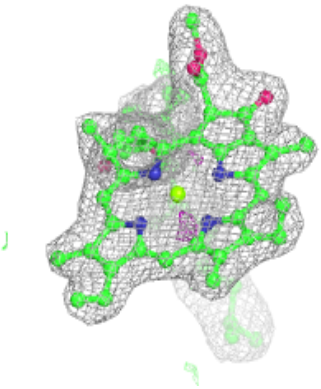


Electron density around CLA d 403 (B):

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

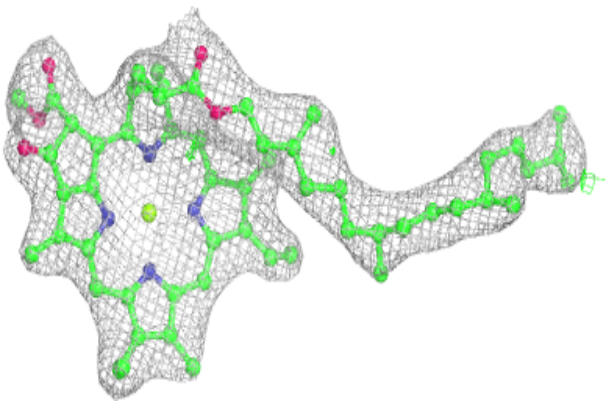


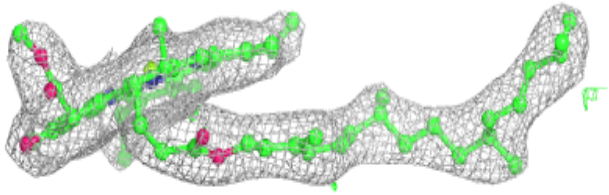


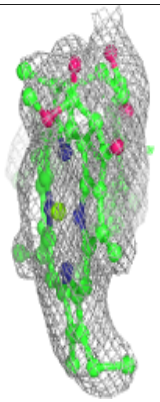


Electron density around CLA b 603:

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

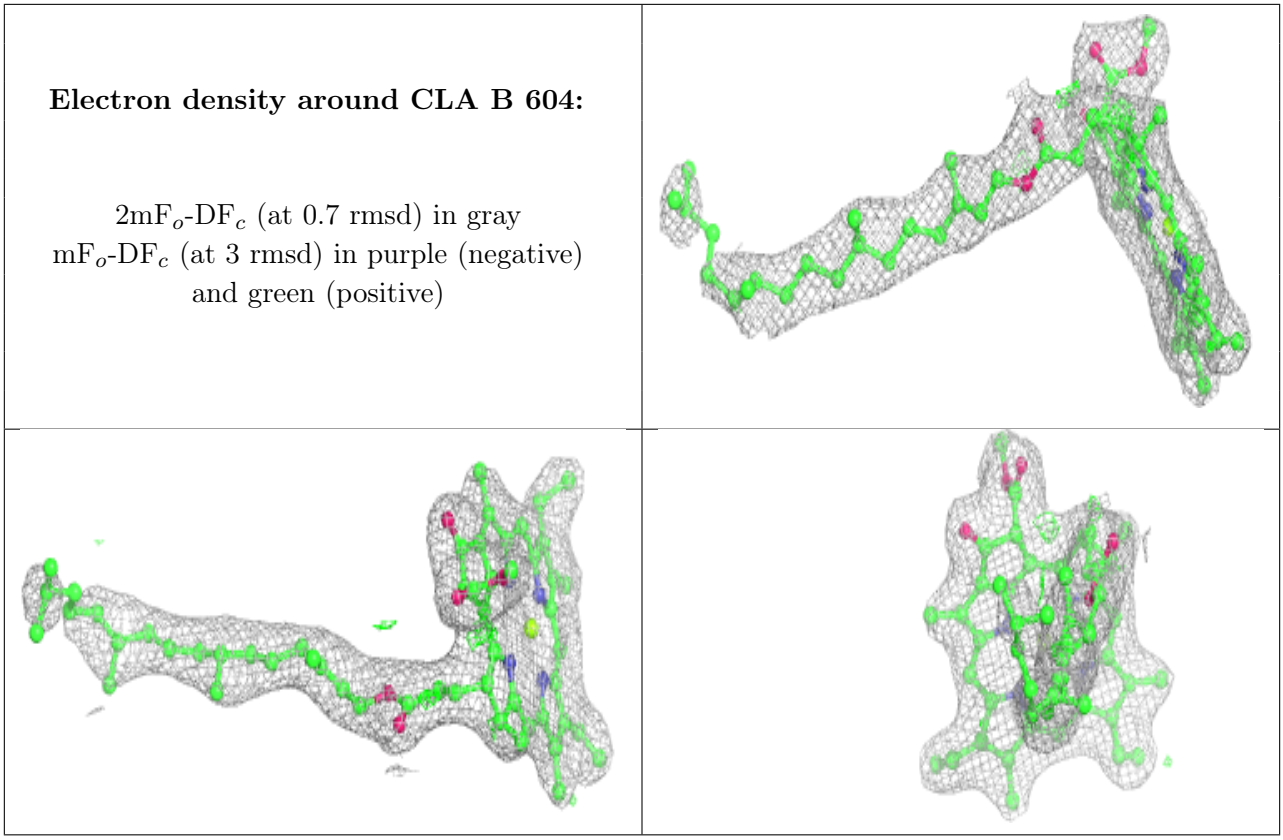






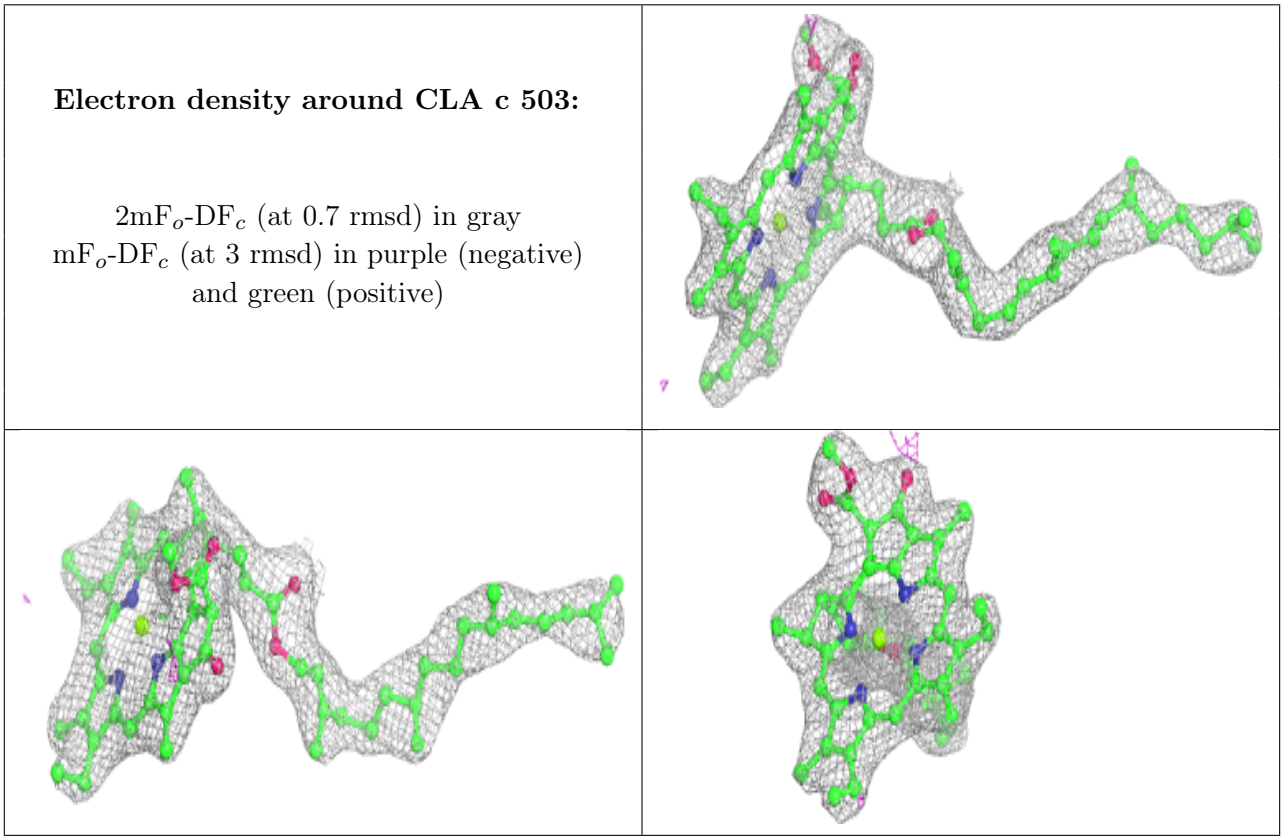
Electron density around CLA B 604:

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



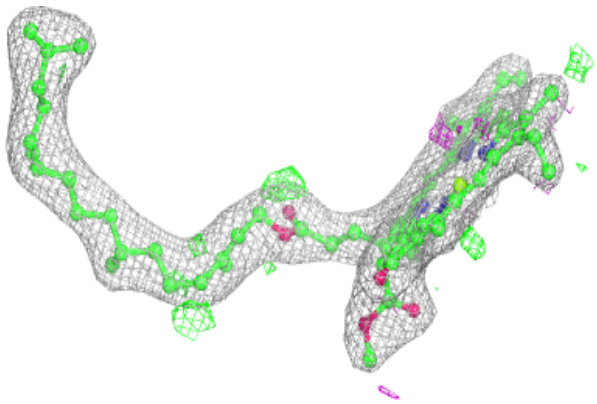
Electron density around CLA c 503:

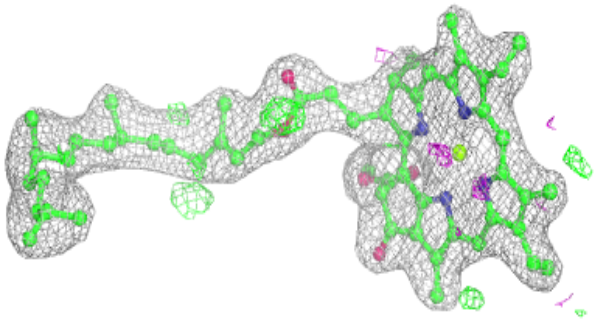
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

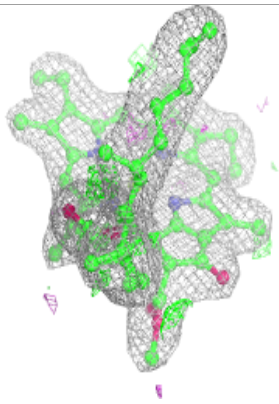


Electron density around CLA D 403 (A):

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

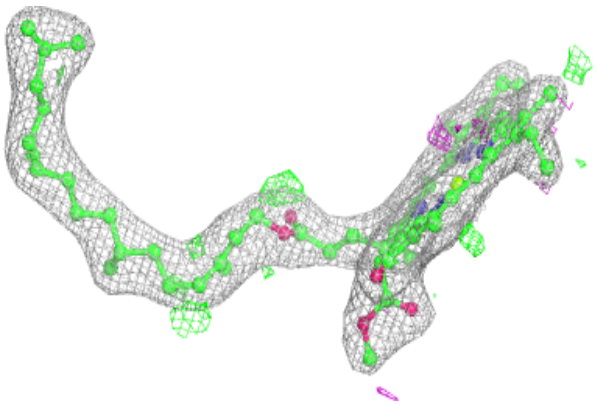


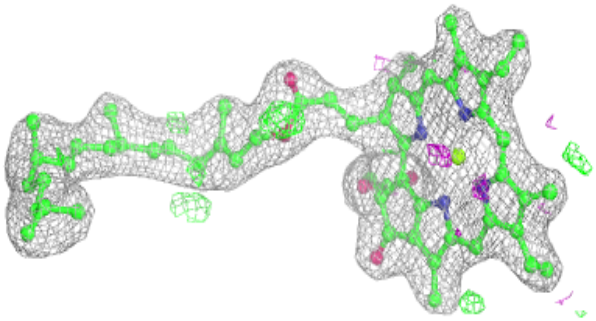


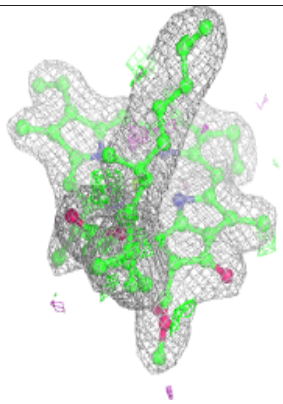


Electron density around CLA D 403 (B):

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

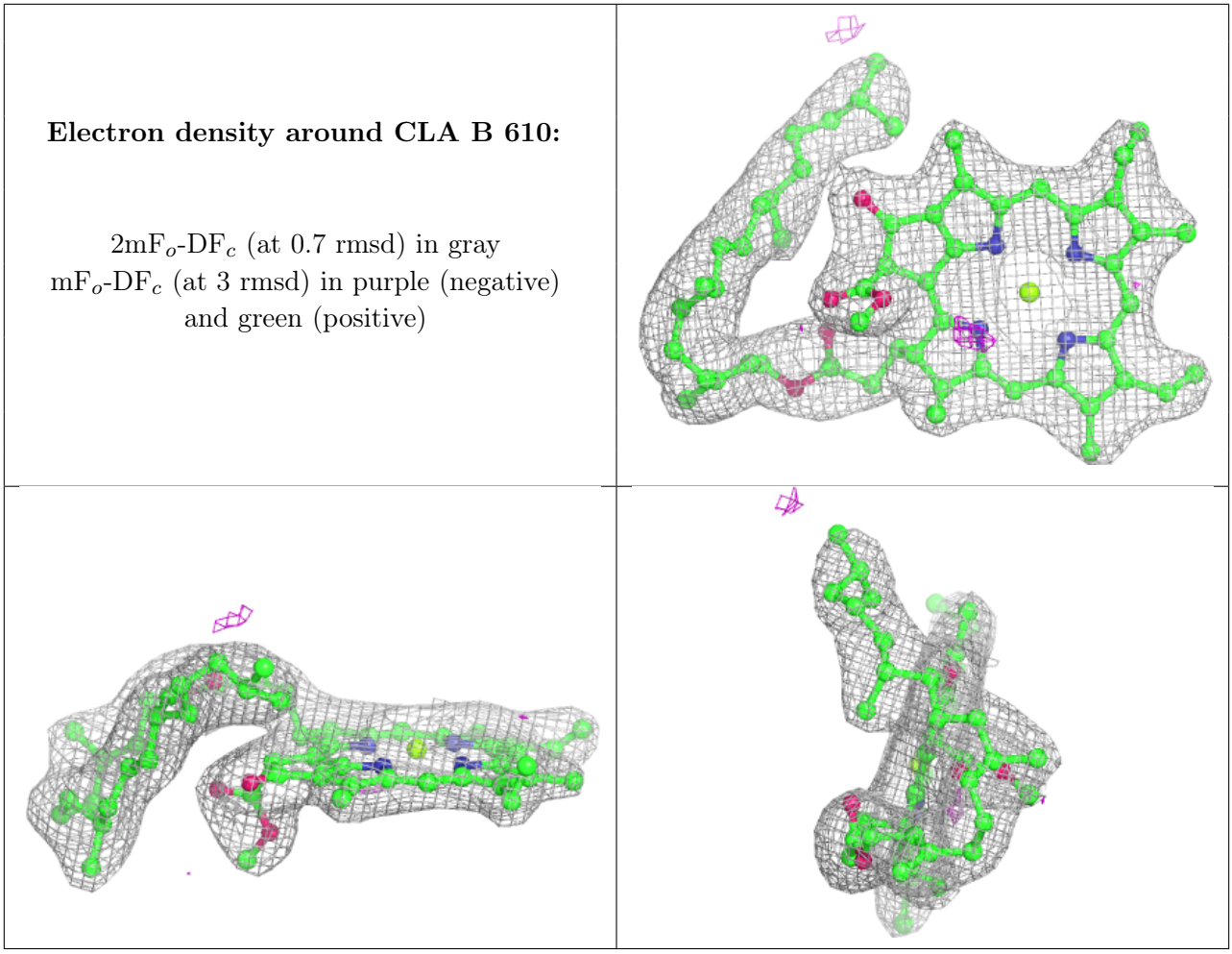






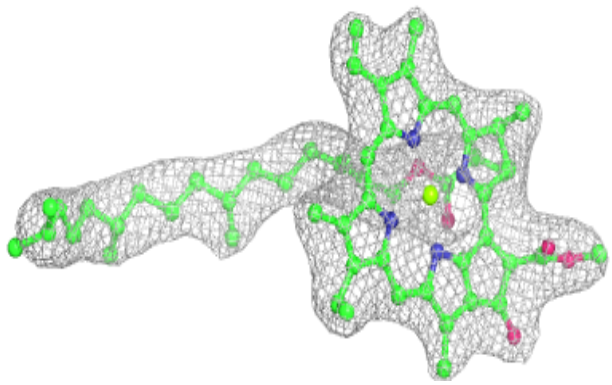
Electron density around CLA B 610:

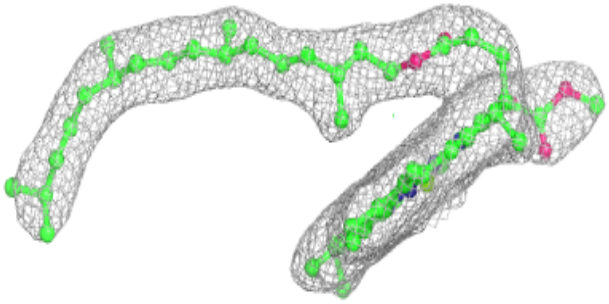
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

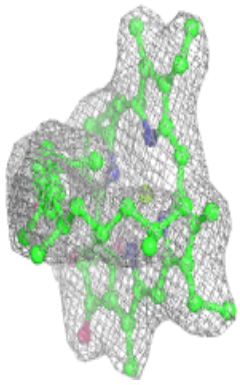


Electron density around CLA b 608:

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

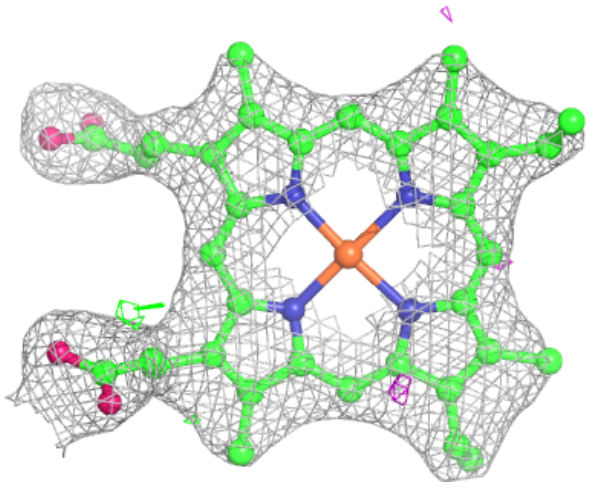


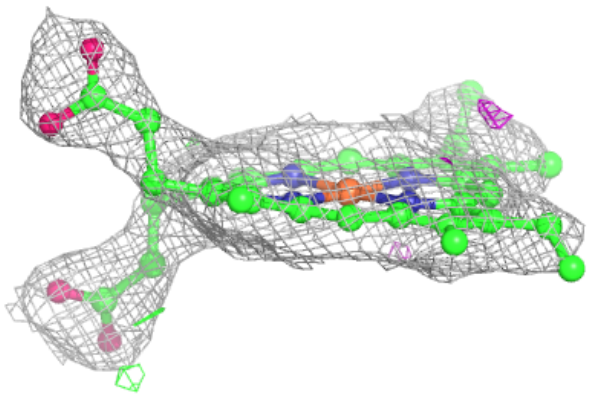


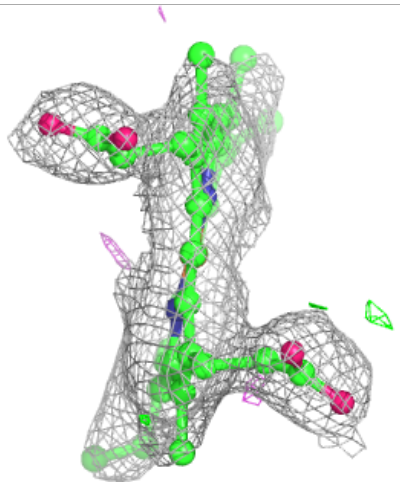


Electron density around HEM F 102:

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

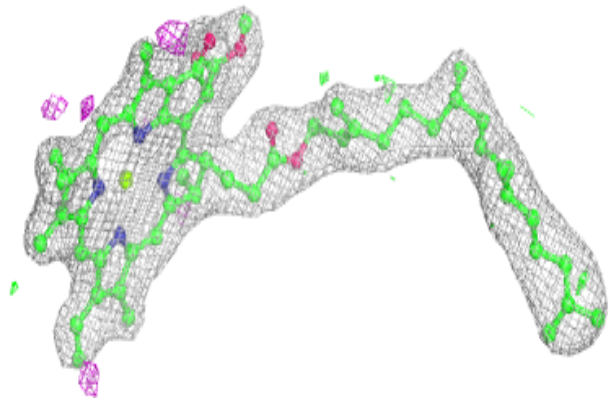


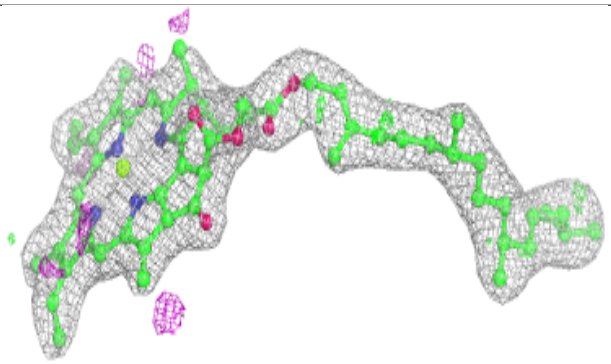


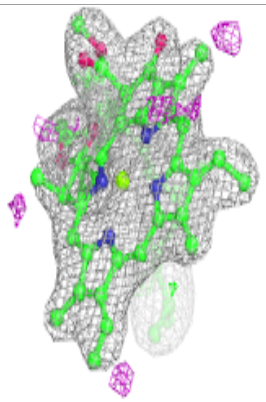


Electron density around CLA a 404 (A):

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

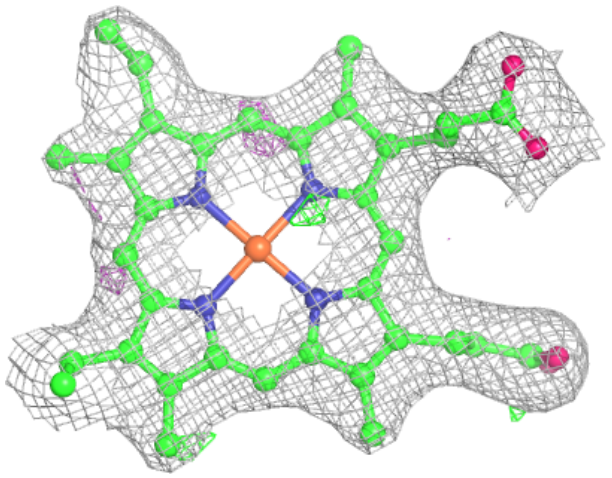


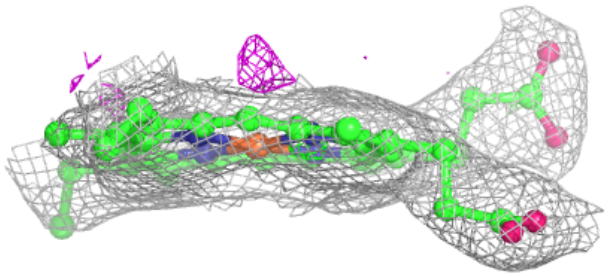


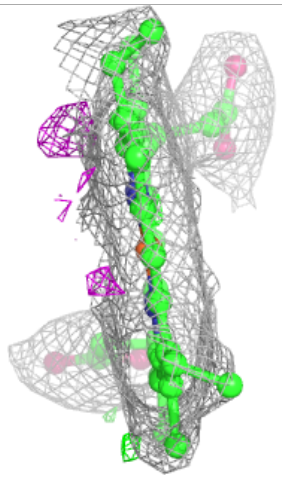


Electron density around HEC V 201:

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

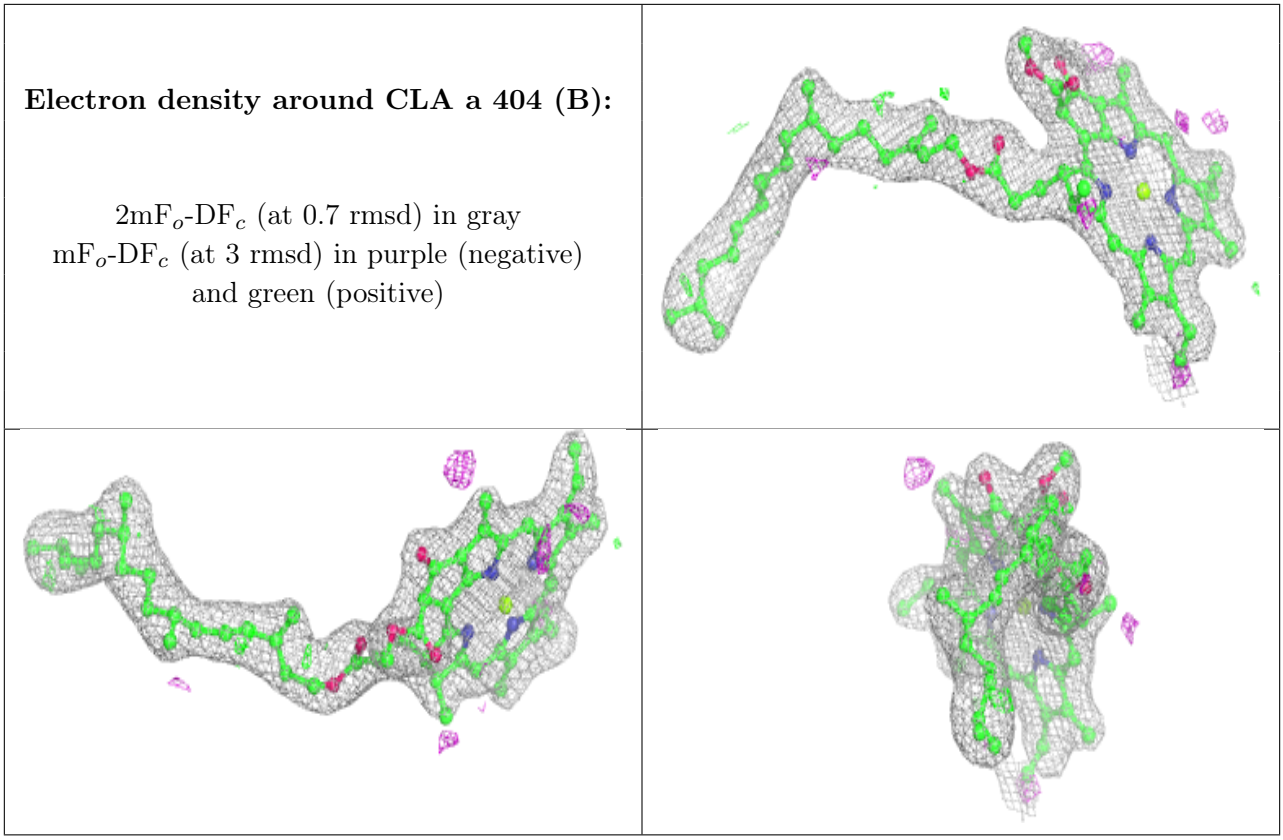






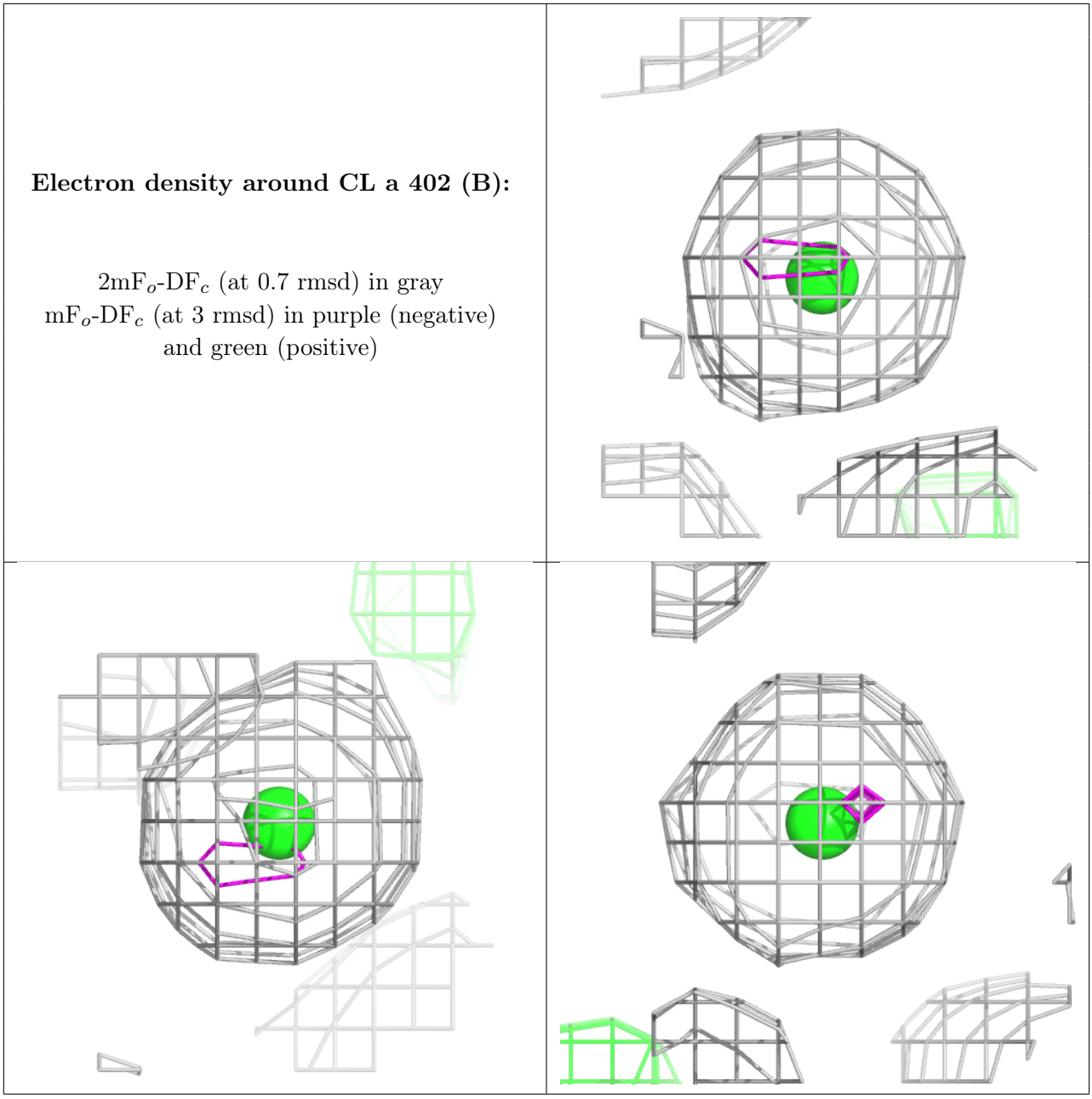
Electron density around CLA a 404 (B):

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



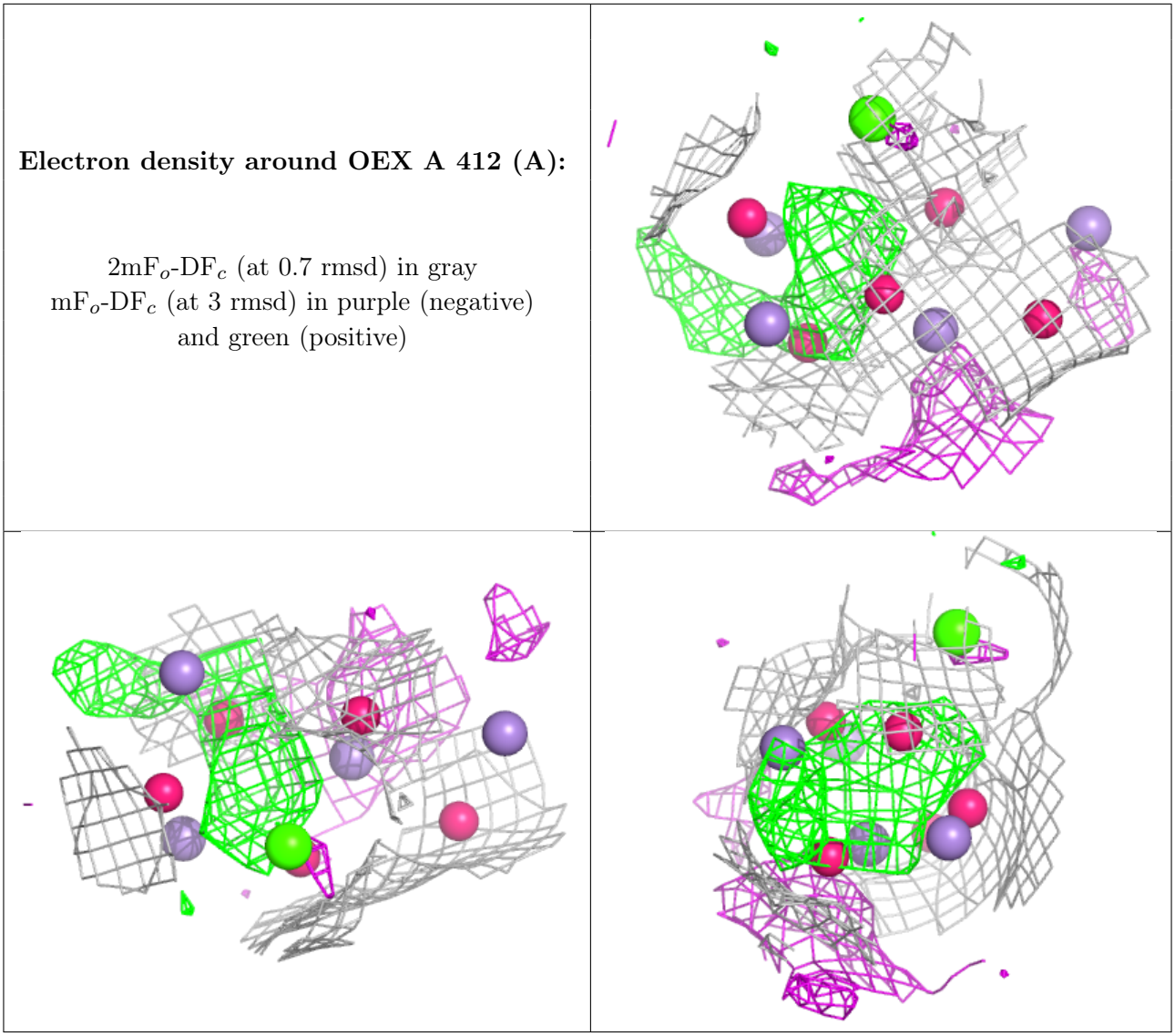
Electron density around CL a 402 (B):

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



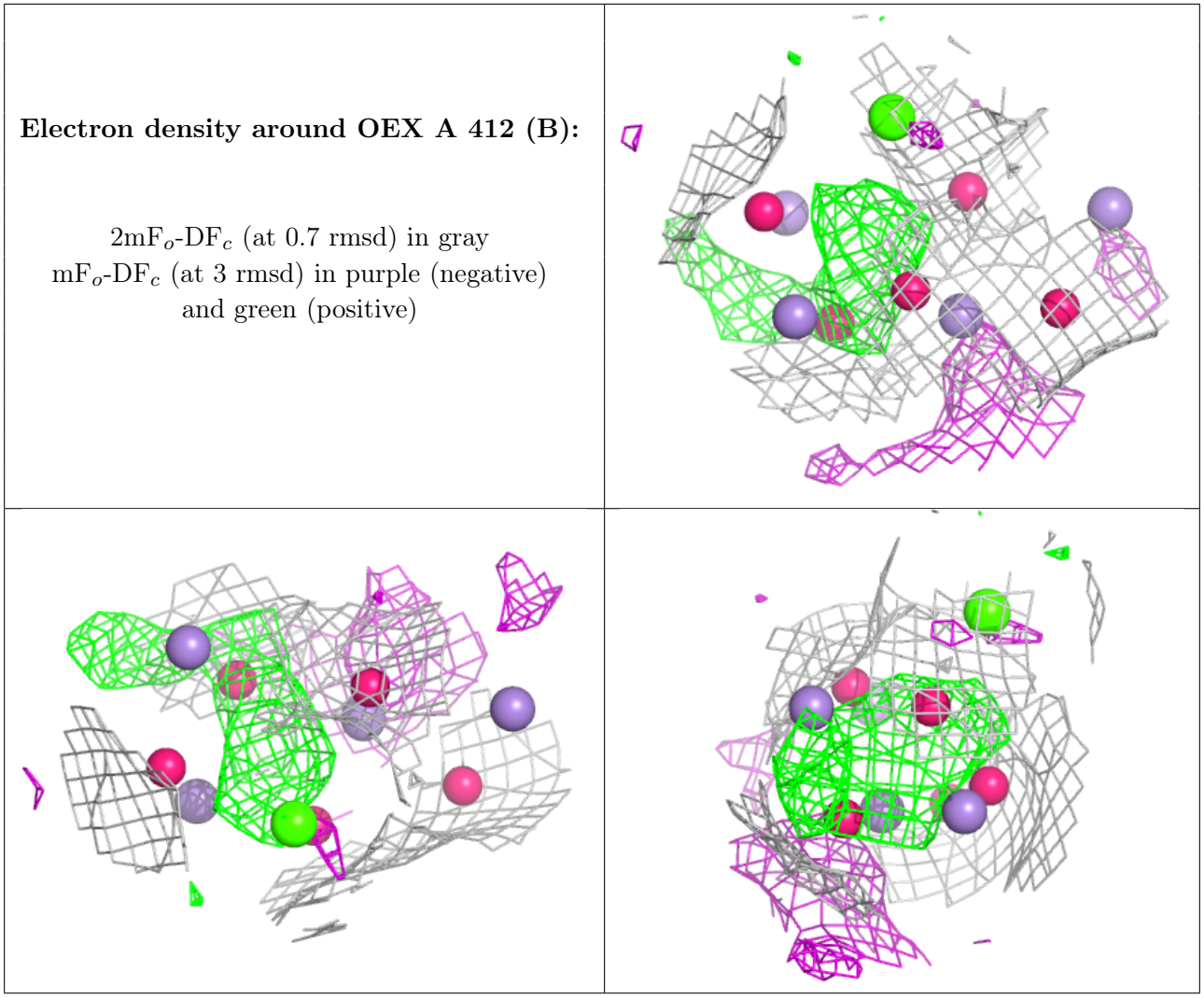
Electron density around OEX A 412 (A):

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



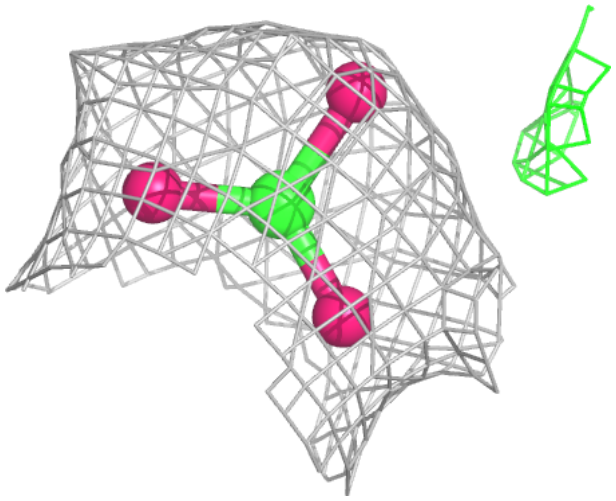
Electron density around OEX A 412 (B):

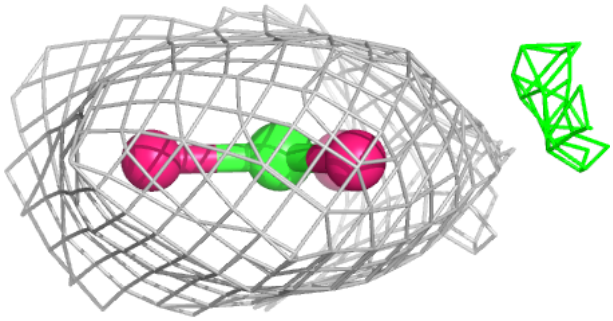
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

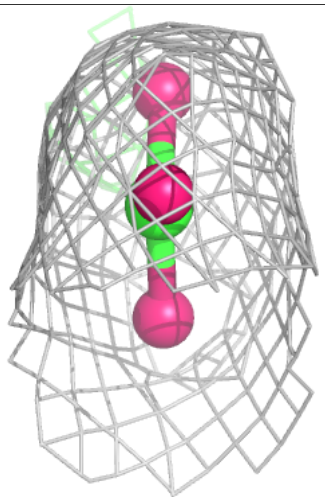


Electron density around BCT A 415 (A):

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

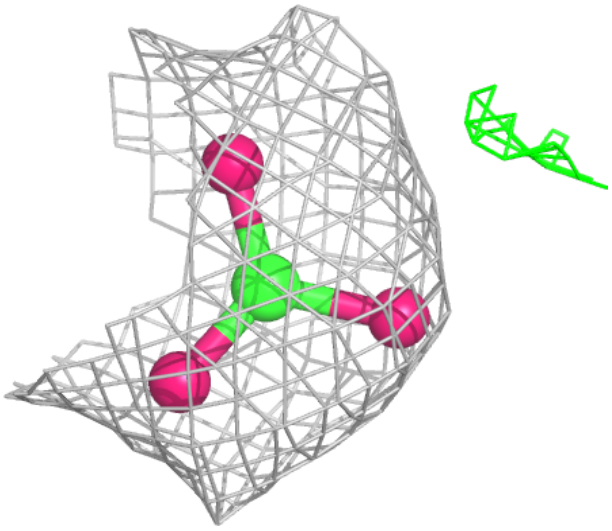


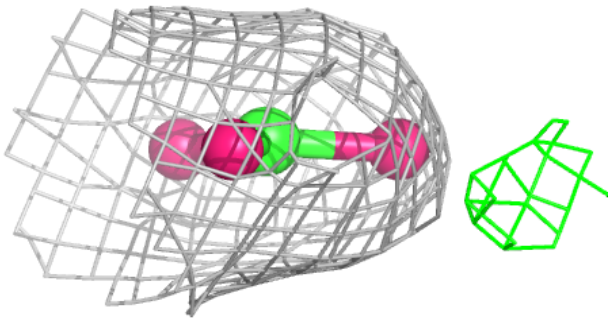


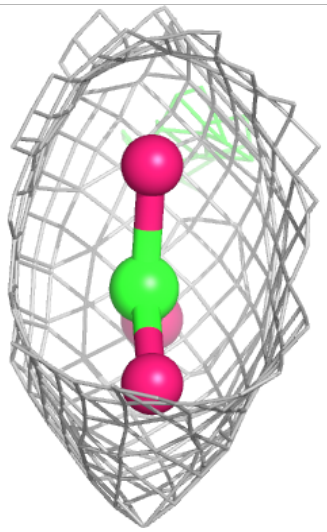


Electron density around BCT A 415 (B):

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

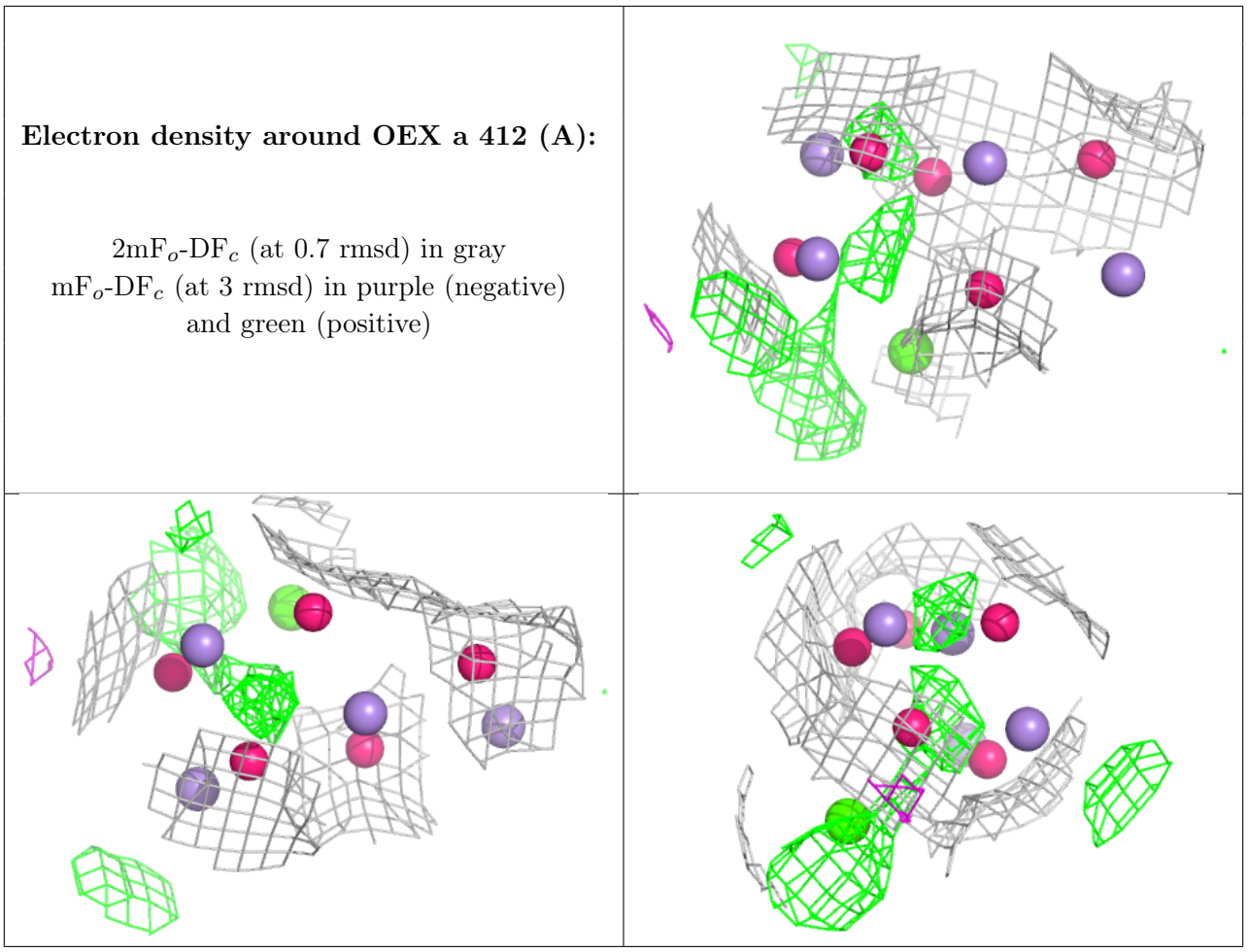






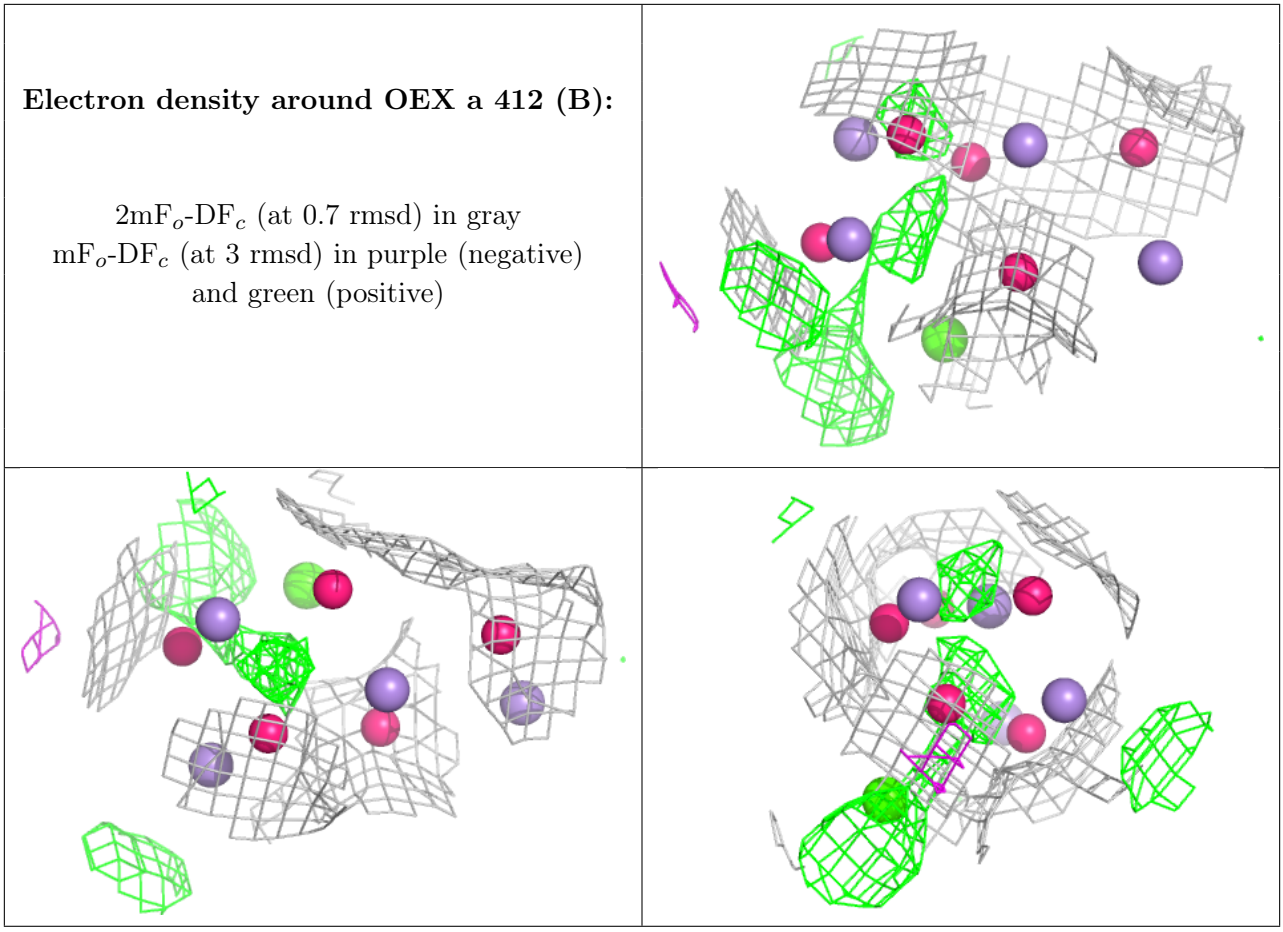
Electron density around OEX a 412 (A):

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



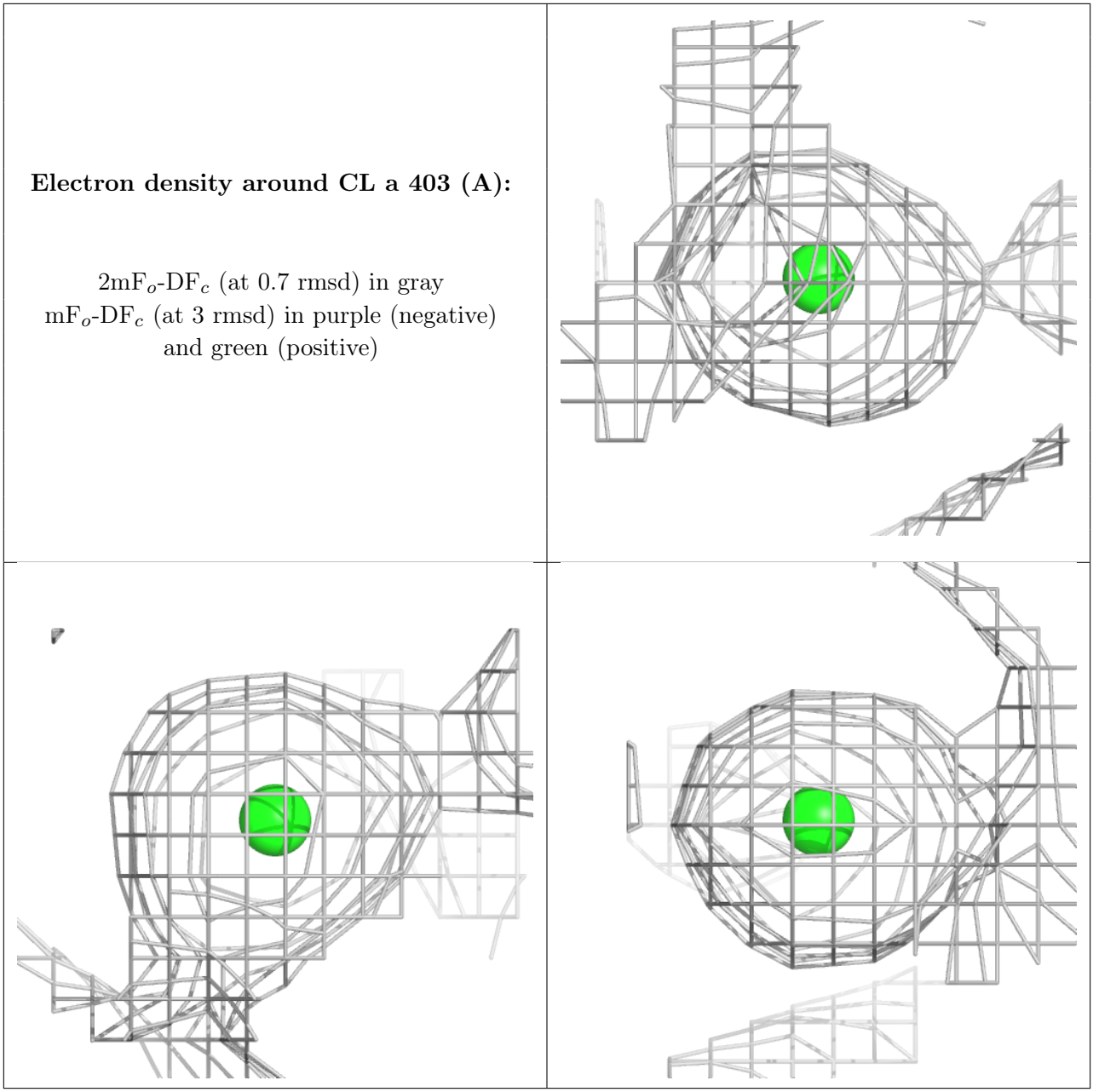
Electron density around OEX a 412 (B):

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



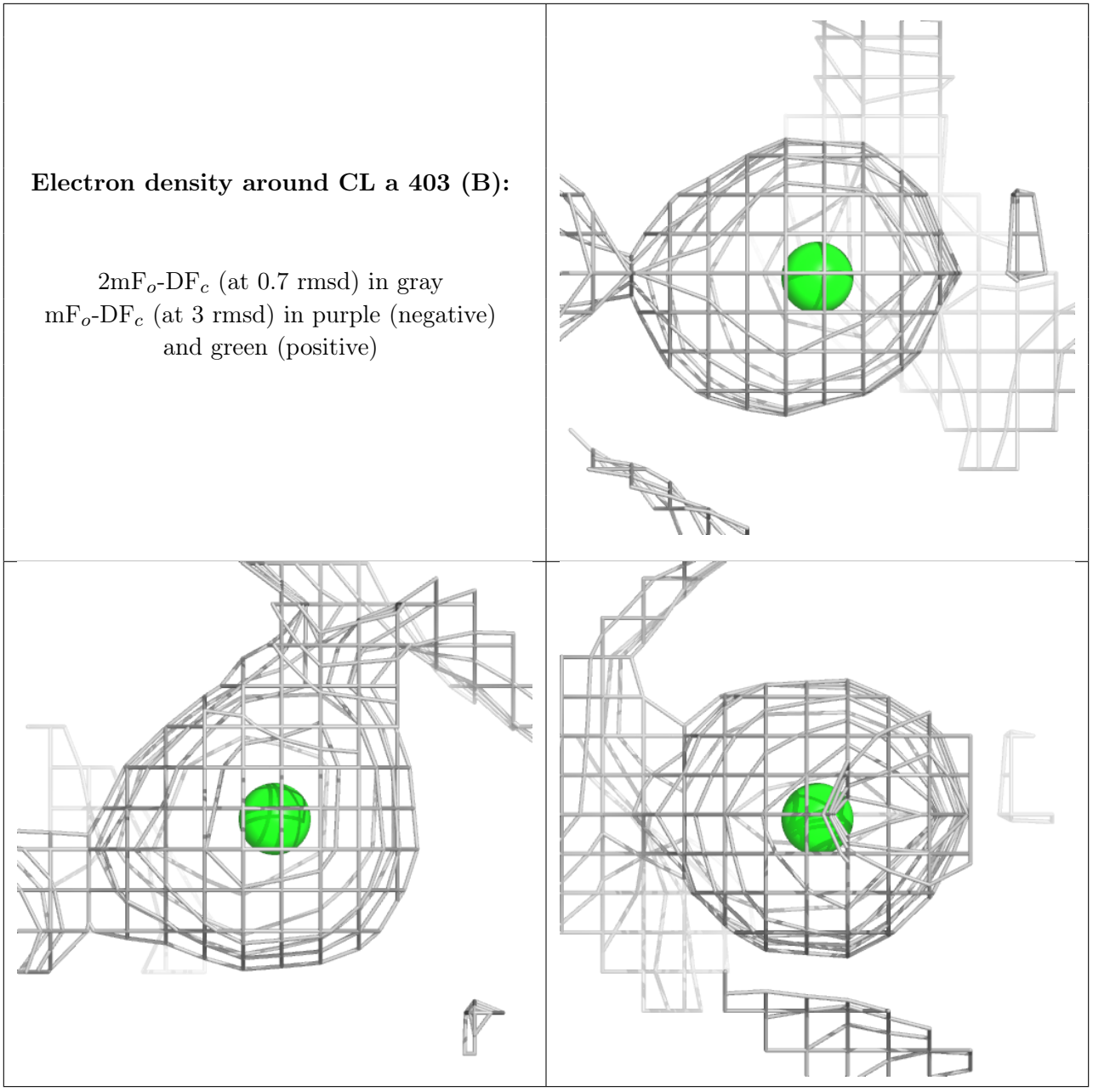
Electron density around CL a 403 (A):

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



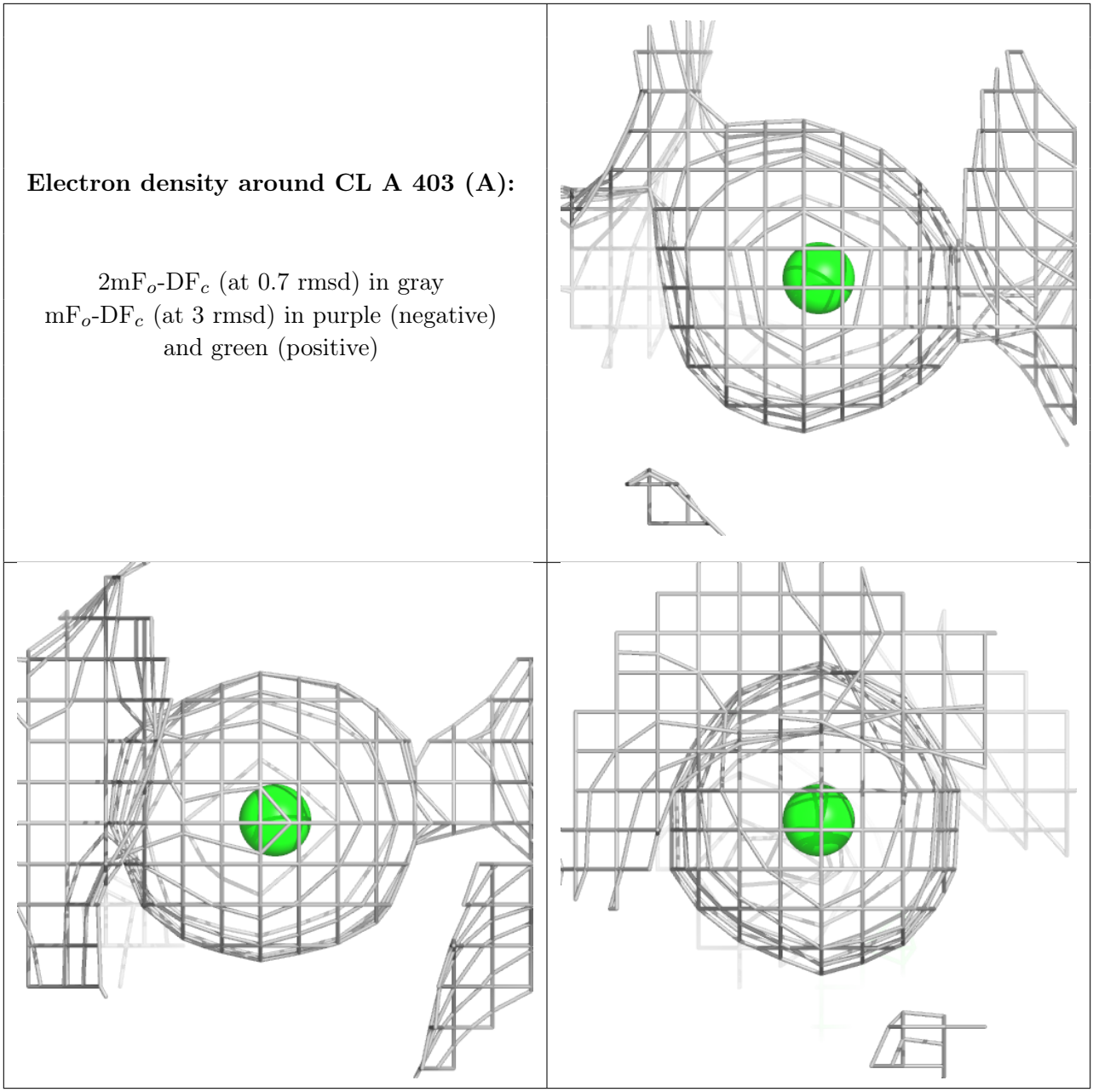
Electron density around CL a 403 (B):

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



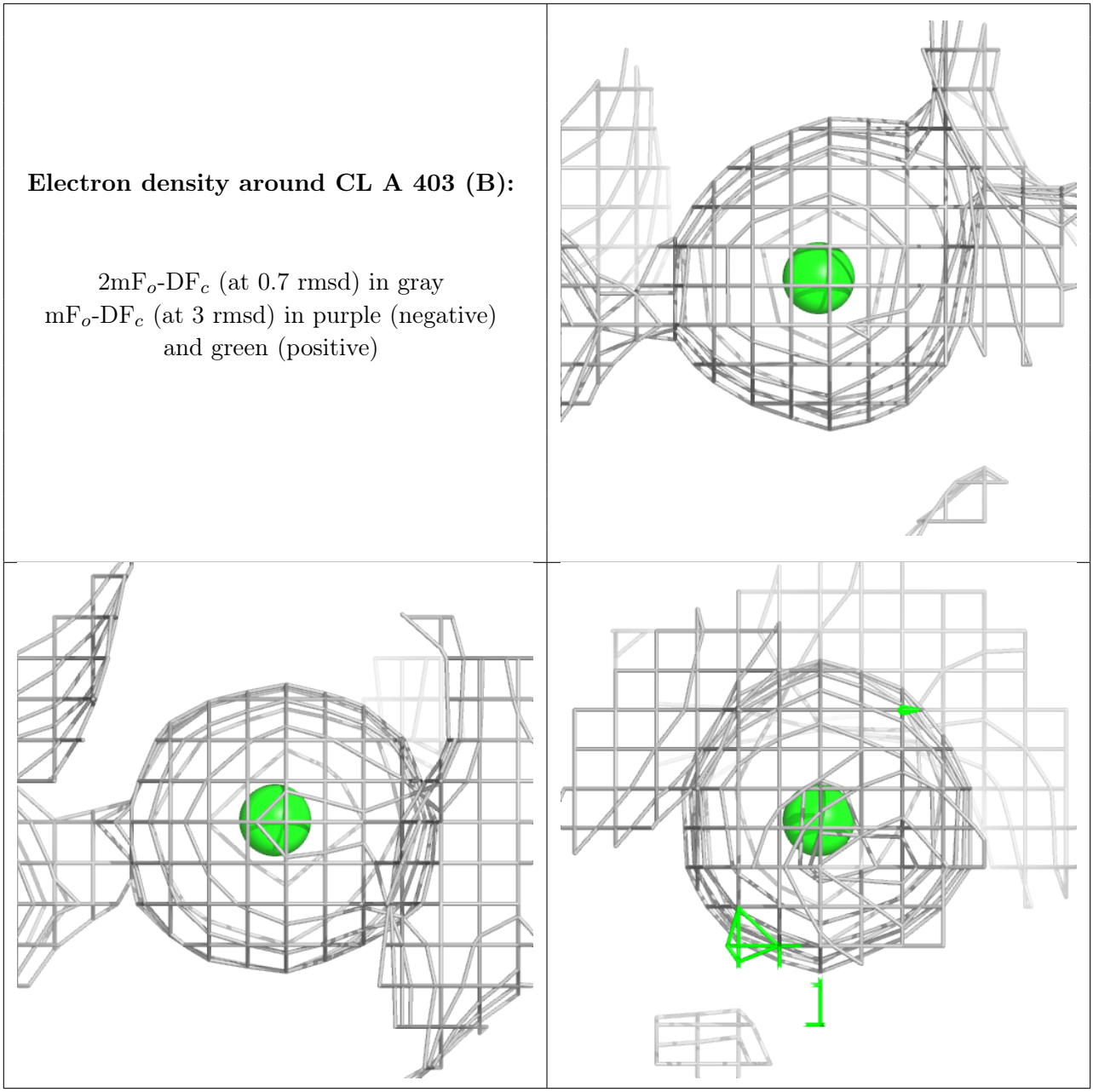
Electron density around CL A 403 (A):

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



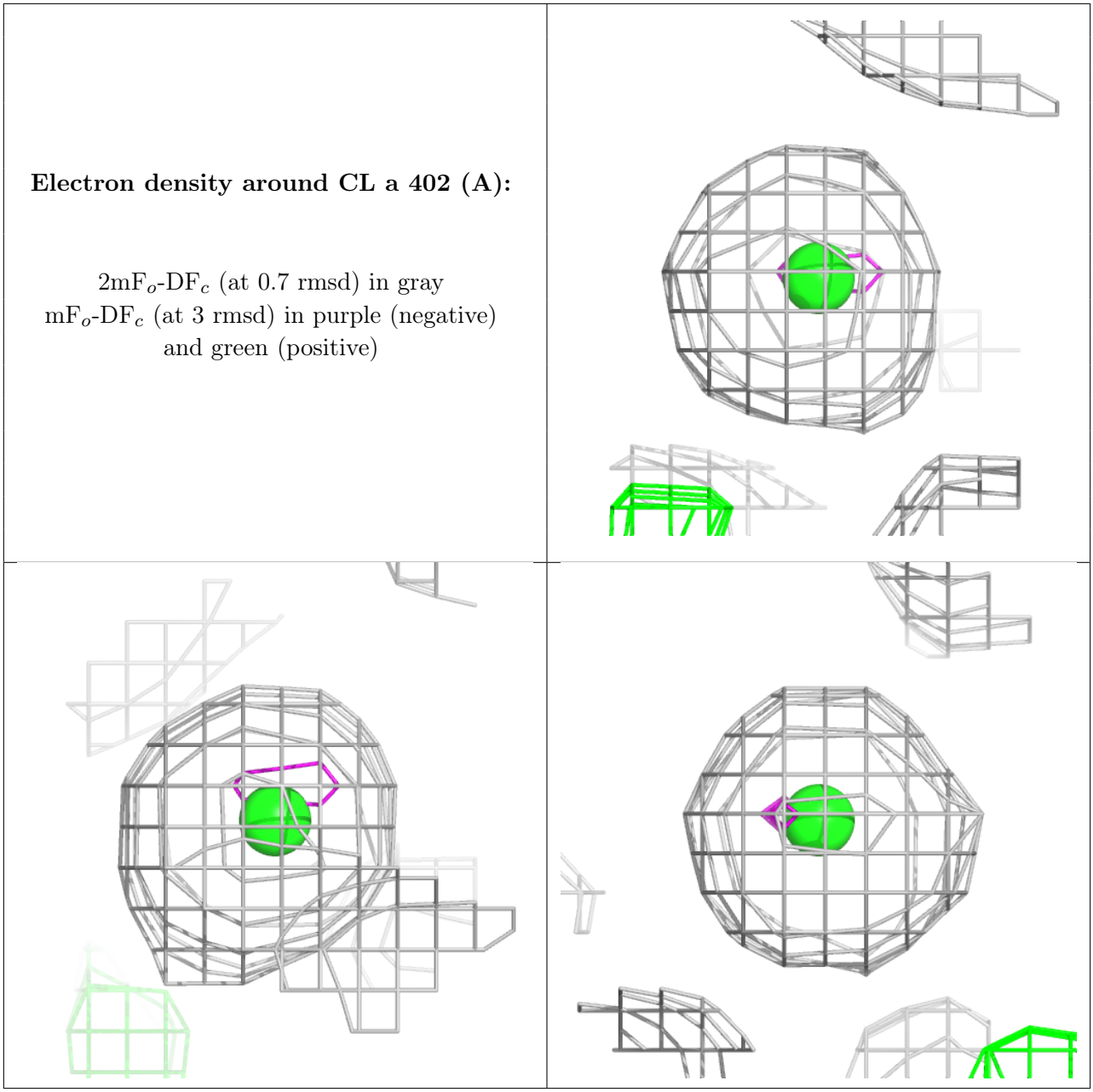
Electron density around CL A 403 (B):

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



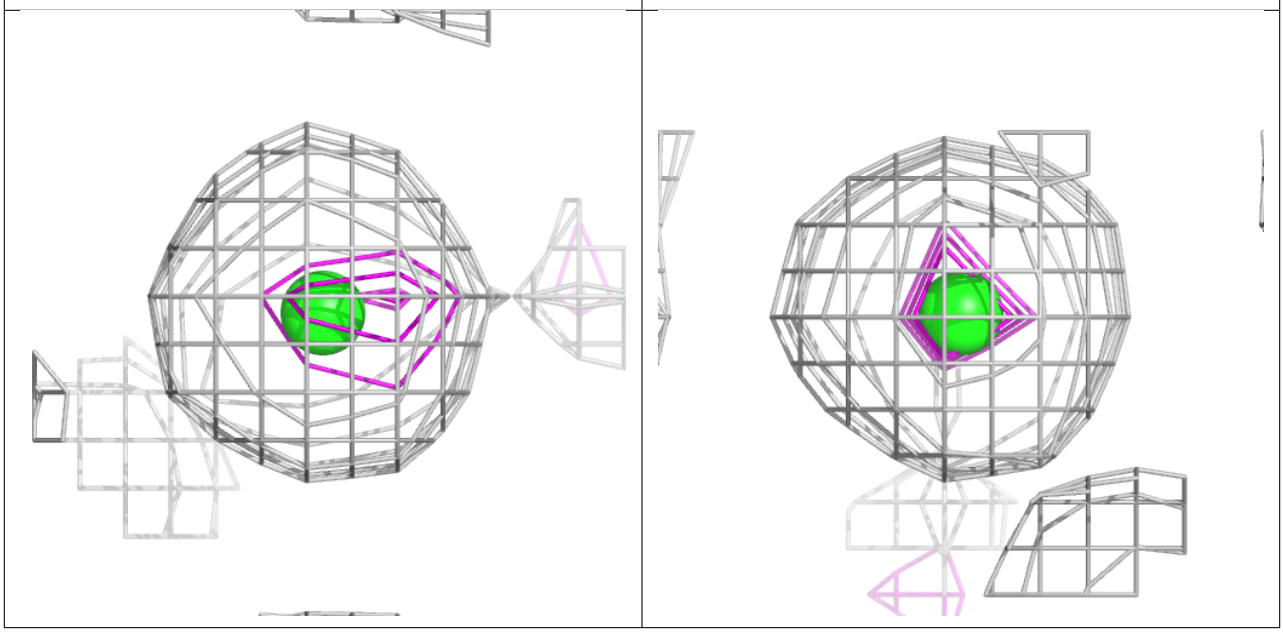
Electron density around CL a 402 (A):

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



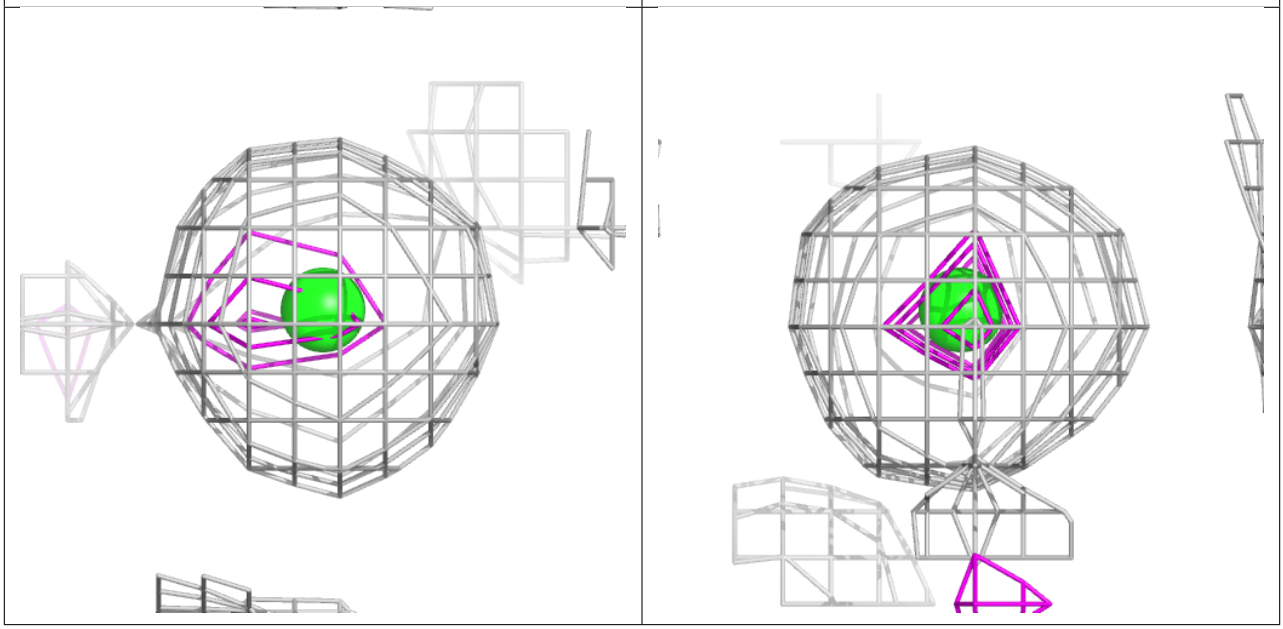
Electron density around CL A 402 (A):

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



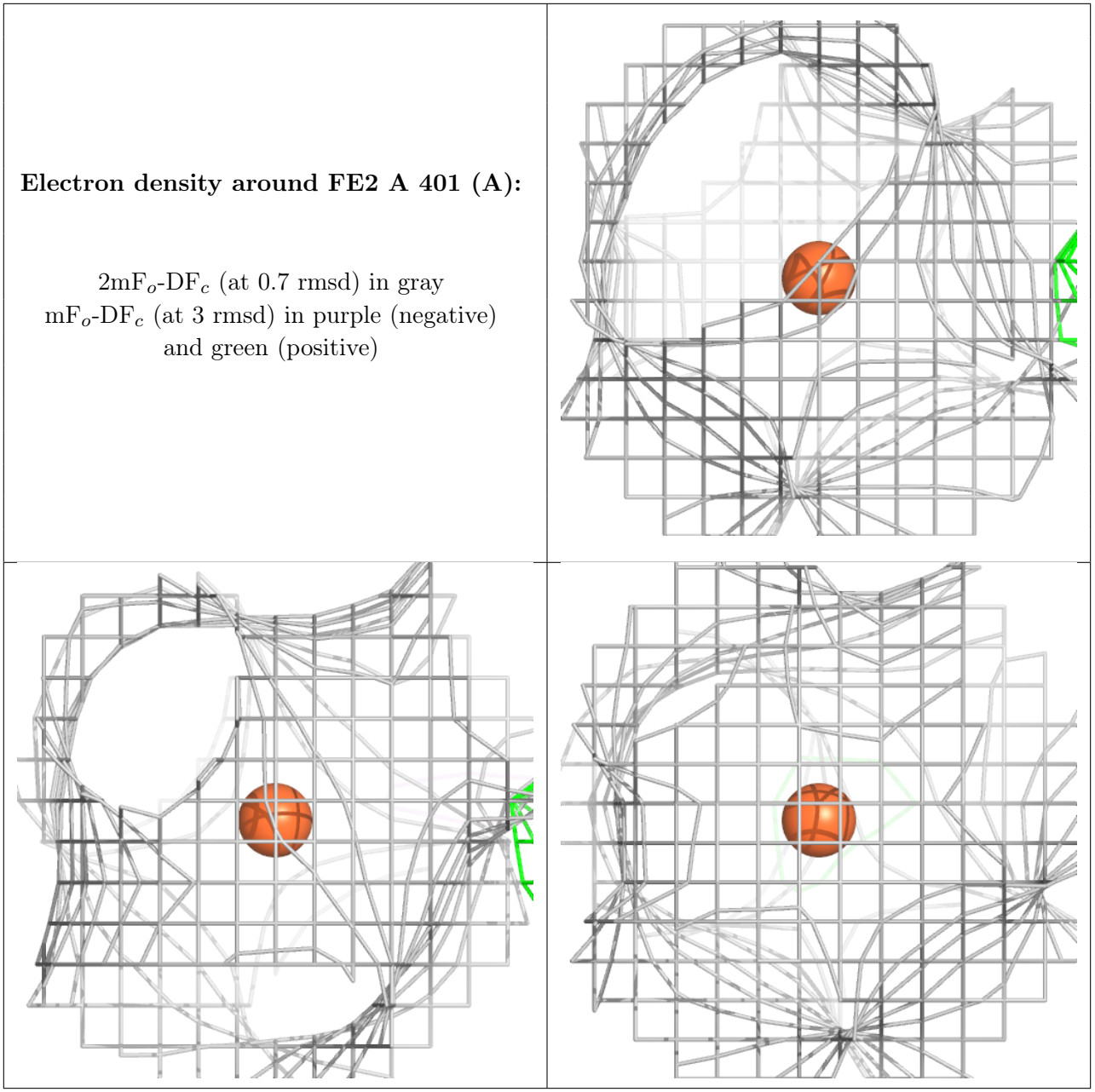
Electron density around CL A 402 (B):

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



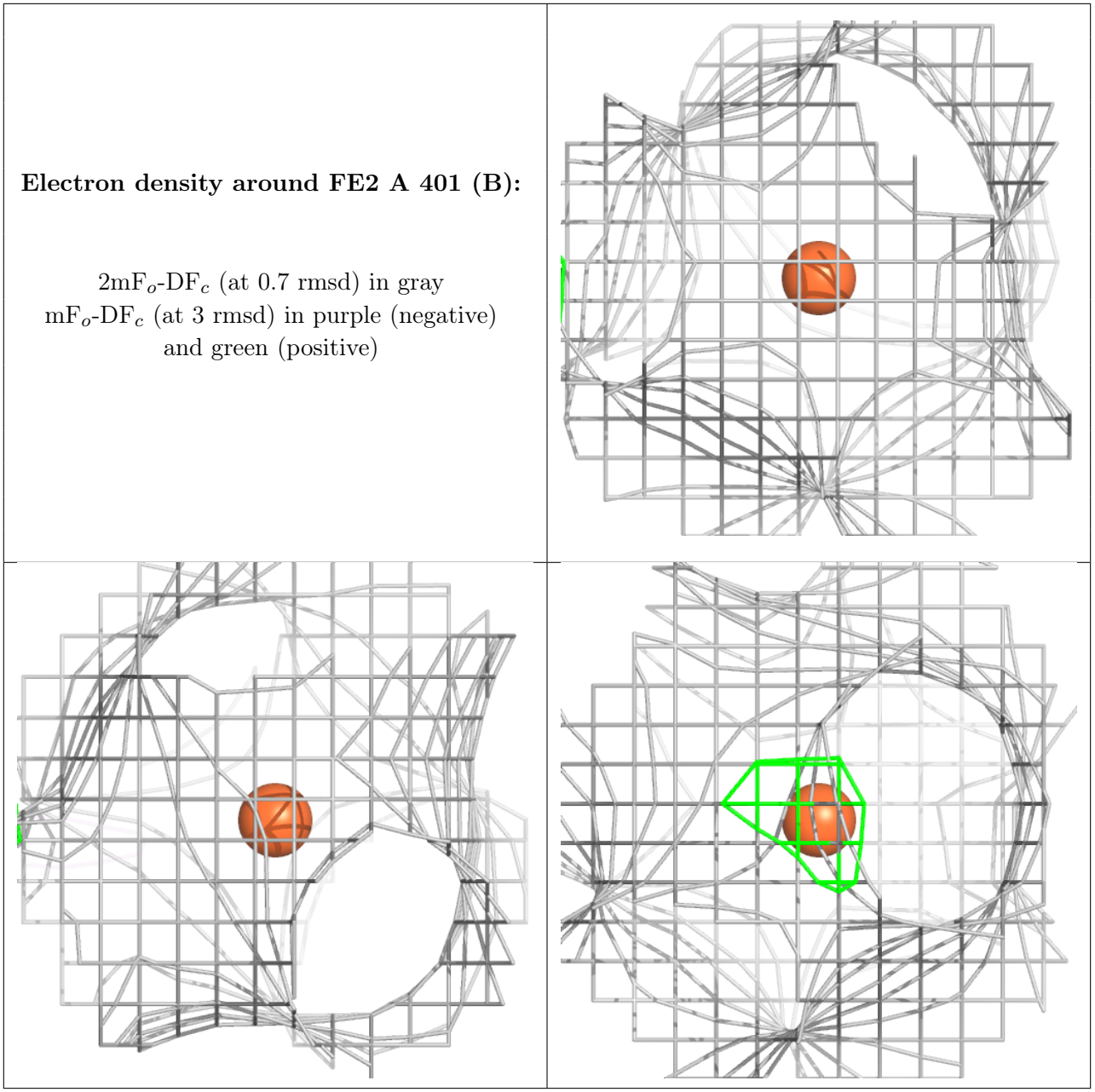
Electron density around FE2 A 401 (A):

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



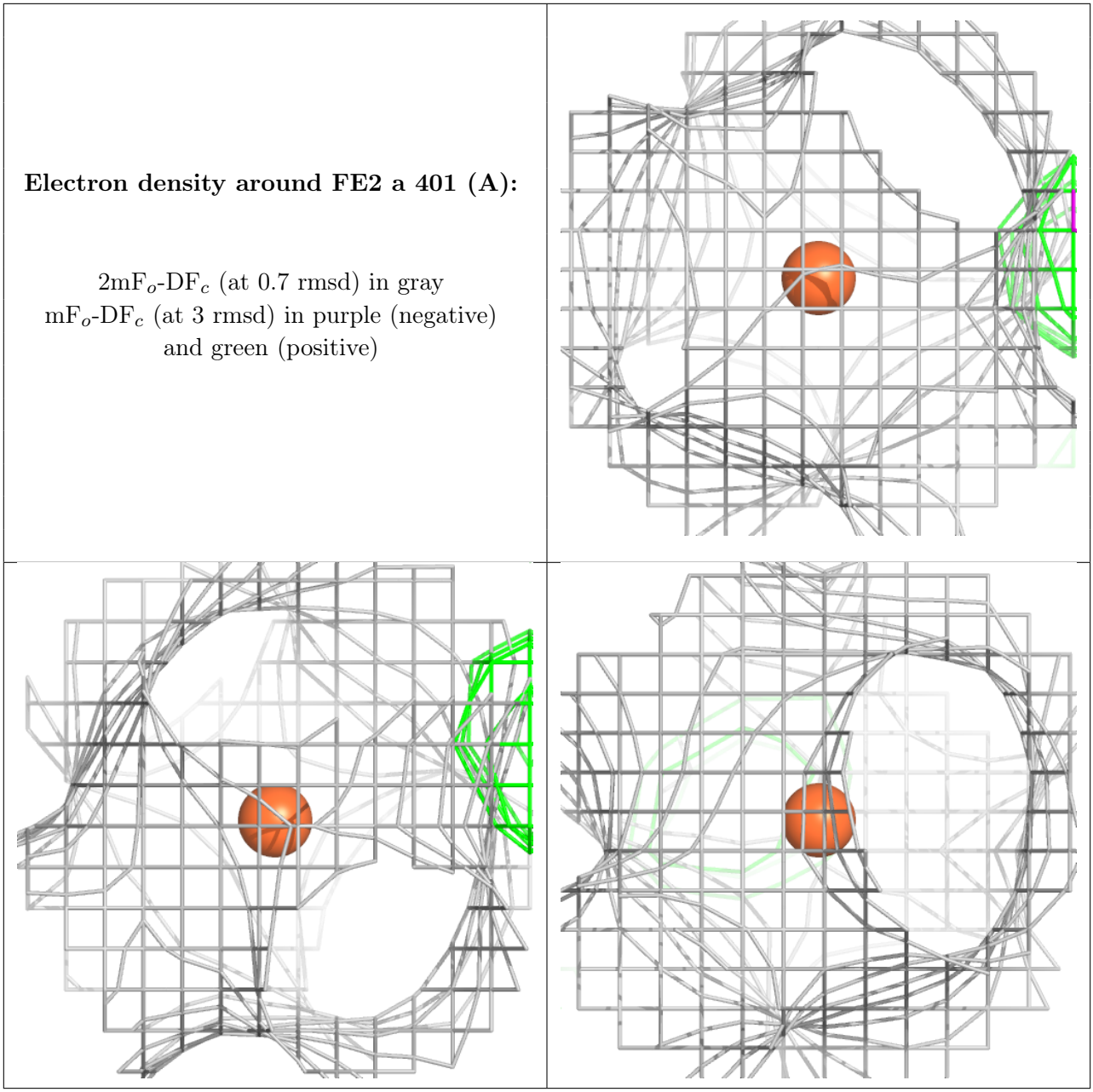
Electron density around FE2 A 401 (B):

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



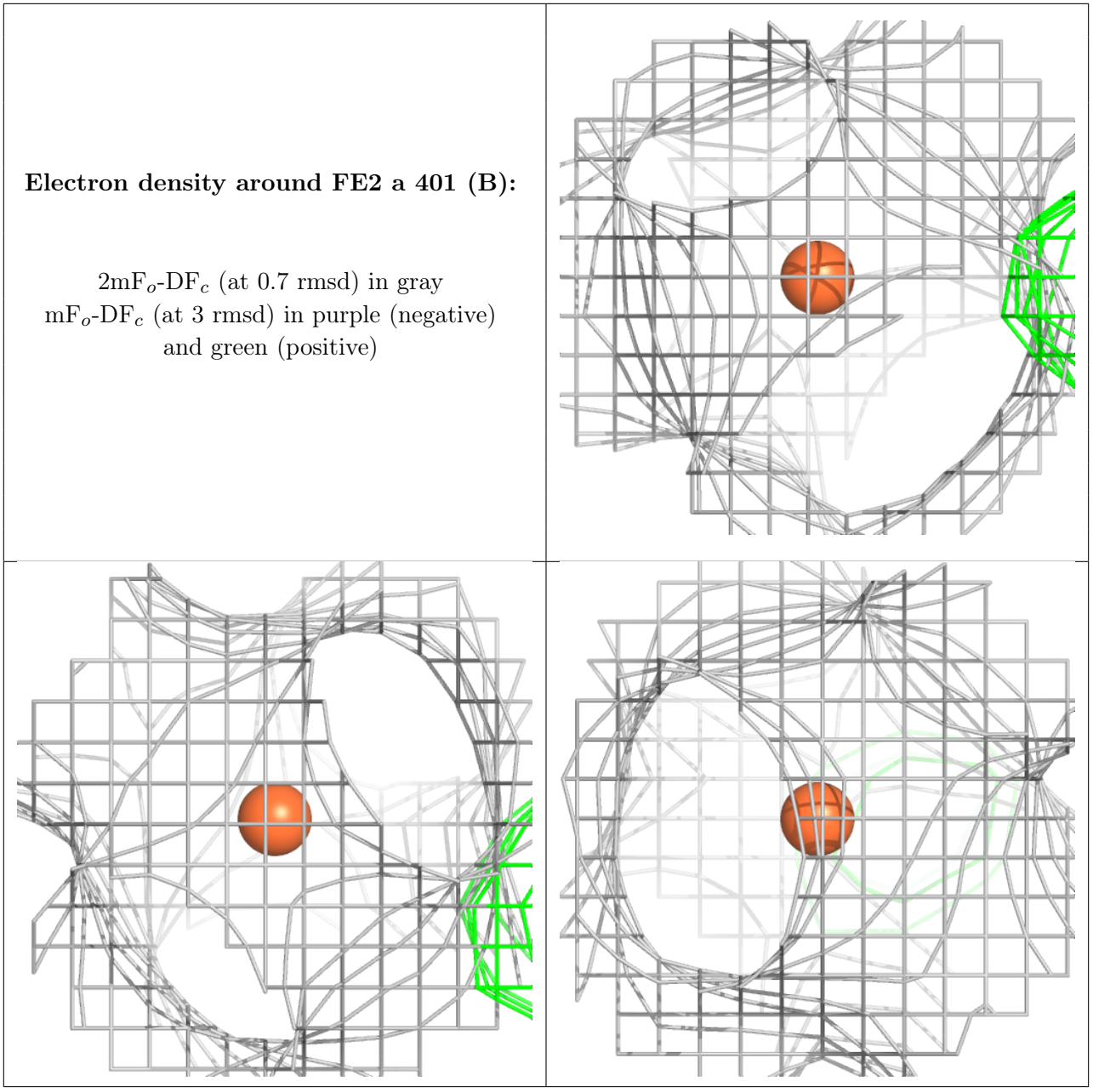
Electron density around FE2 a 401 (A):

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



Electron density around FE2 a 401 (B):

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



6.5 Other polymers (i)

There are no such residues in this entry.