wwPDB X-ray Structure Validation Summary Report (i)

Sep 14, 2020 – 03:22 AM BST

PDB ID	:	4Y28
Title	:	The structure of plant photosystem I super-complex at 2.8 angstrom resolution.
Authors	:	Mazor, Y.; Brovikov, A.; Nelson, N.
Deposited on	:	2015-02-09
Resolution	:	2.80 Å(reported)

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

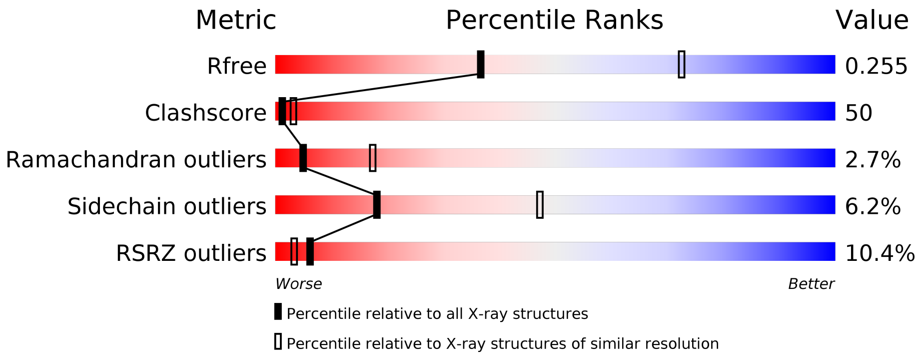
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.14.4.dev1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.14.4.dev1

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 2.80 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	3140 (2.80-2.80)
Clashscore	141614	3569 (2.80-2.80)
Ramachandran outliers	138981	3498 (2.80-2.80)
Sidechain outliers	138945	3500 (2.80-2.80)
RSRZ outliers	127900	3078 (2.80-2.80)

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

Mol	Chain	Length	Quality of chain
1	A	758	6% 74% 23% • •
2	B	733	6% 75% 24% •
3	I	30	13% 33% 53% 10% •
4	J	42	7% 33% 52% 7% 5% •
5	F	154	4% 67% 27% • •
6	G	97	11% 35% 46% 11% • 6%

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Mol	Chain	Length	Quality of chain
7	L	167	14% / 41% 40% 11% • •
8	C	81	5% / 62% 32% 5% •
9	D	147	14% / 46% 37% 10% • •
10	E	66	12% / 50% 44% 6%
11	H	90	12% / 49% 36% 6% • 7%
12	K	129	16% / 9% 30% • • 56%
13	2	269	11% / 19% 47% 8% • 23%
14	4	252	10% / 28% 40% 9% • 21%
15	1	202	19% / 30% 56% 8% • •
16	3	275	12% / 14% 51% 12% • 22%

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
17	CL0	A	1011	X	-	-	-
18	CLA	1	1001	X	-	X	-
18	CLA	1	1002	X	-	X	-
18	CLA	1	1003	X	-	X	-
18	CLA	1	1004	X	-	X	-
18	CLA	1	1005	X	-	-	-
18	CLA	1	1006	X	-	-	-
18	CLA	1	1007	X	-	-	-
18	CLA	1	1008	X	-	X	-
18	CLA	1	1011	X	-	-	-
18	CLA	1	1012	X	-	-	-
18	CLA	1	1013	X	-	-	-
18	CLA	1	1014	X	-	-	-
18	CLA	2	2001	X	-	X	-
18	CLA	2	2002	X	-	X	-
18	CLA	2	2003	X	-	X	-
18	CLA	2	2004	X	-	X	-
18	CLA	2	2005	X	-	X	-
18	CLA	2	2006	X	-	X	-
18	CLA	2	2007	X	-	X	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
18	CLA	2	2008	X	-	-	-
18	CLA	2	2009	X	-	-	-
18	CLA	2	2012	X	-	X	-
18	CLA	2	2016	X	-	X	-
18	CLA	2	2019	X	-	-	-
18	CLA	3	3001	X	-	X	-
18	CLA	3	3002	X	-	-	-
18	CLA	3	3003	X	-	X	-
18	CLA	3	3004	X	-	-	-
18	CLA	3	3005	X	-	-	-
18	CLA	3	3006	X	-	X	-
18	CLA	3	3007	X	-	-	-
18	CLA	3	3008	X	-	-	-
18	CLA	3	3010	X	-	X	-
18	CLA	3	3012	X	-	X	-
18	CLA	3	3013	X	-	X	-
18	CLA	3	3017	X	-	-	-
18	CLA	3	3018	X	-	-	-
18	CLA	3	3019	X	-	-	X
18	CLA	4	4001	X	-	X	-
18	CLA	4	4002	X	-	-	-
18	CLA	4	4003	X	-	-	-
18	CLA	4	4004	X	-	-	-
18	CLA	4	4005	X	-	-	-
18	CLA	4	4006	X	-	X	-
18	CLA	4	4007	X	-	-	-
18	CLA	4	4008	X	-	-	-
18	CLA	4	4009	X	-	-	-
18	CLA	4	4012	X	-	X	-
18	CLA	4	4016	X	-	X	-
18	CLA	4	4017	X	-	-	-
18	CLA	A	1013	X	-	-	-
18	CLA	A	1022	X	-	-	-
18	CLA	A	1101	X	-	-	-
18	CLA	A	1102	X	-	-	-
18	CLA	A	1103	X	-	-	-
18	CLA	A	1104	X	-	-	-
18	CLA	A	1105	X	-	-	-
18	CLA	A	1106	X	-	-	-
18	CLA	A	1107	X	-	-	-
18	CLA	A	1108	X	-	-	-
18	CLA	A	1109	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
18	CLA	A	1110	X	-	-	-
18	CLA	A	1111	X	-	-	-
18	CLA	A	1112	X	-	-	-
18	CLA	A	1113	X	-	-	-
18	CLA	A	1114	X	-	-	-
18	CLA	A	1115	X	-	-	-
18	CLA	A	1116	X	-	-	-
18	CLA	A	1117	X	-	-	-
18	CLA	A	1118	X	-	-	-
18	CLA	A	1119	X	-	-	-
18	CLA	A	1120	X	-	-	-
18	CLA	A	1121	X	-	-	-
18	CLA	A	1122	X	-	-	-
18	CLA	A	1123	X	-	-	-
18	CLA	A	1124	X	-	-	-
18	CLA	A	1125	X	-	-	-
18	CLA	A	1126	X	-	-	-
18	CLA	A	1127	X	-	-	-
18	CLA	A	1128	X	-	-	-
18	CLA	A	1129	X	-	-	-
18	CLA	A	1130	X	-	-	-
18	CLA	A	1131	X	-	-	-
18	CLA	A	1132	X	-	-	-
18	CLA	A	1133	X	-	-	-
18	CLA	A	1134	X	-	-	-
18	CLA	A	1135	X	-	-	-
18	CLA	A	1136	X	-	-	-
18	CLA	A	1137	X	-	-	-
18	CLA	A	1138	X	-	-	-
18	CLA	A	1139	X	-	-	-
18	CLA	A	1140	X	-	-	-
18	CLA	A	1151	X	-	-	-
18	CLA	A	1237	X	-	-	-
18	CLA	B	1012	X	-	-	-
18	CLA	B	1021	X	-	-	-
18	CLA	B	1023	X	-	-	-
18	CLA	B	1201	X	-	-	-
18	CLA	B	1202	X	-	-	-
18	CLA	B	1203	X	-	-	-
18	CLA	B	1204	X	-	-	-
18	CLA	B	1205	X	-	-	-
18	CLA	B	1206	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
18	CLA	B	1207	X	-	-	-
18	CLA	B	1208	X	-	-	-
18	CLA	B	1209	X	-	-	-
18	CLA	B	1210	X	-	-	-
18	CLA	B	1211	X	-	-	-
18	CLA	B	1212	X	-	-	-
18	CLA	B	1213	X	-	-	-
18	CLA	B	1214	X	-	-	-
18	CLA	B	1215	X	-	-	-
18	CLA	B	1216	X	-	-	-
18	CLA	B	1217	X	-	-	-
18	CLA	B	1218	X	-	-	-
18	CLA	B	1219	X	-	-	-
18	CLA	B	1220	X	-	-	-
18	CLA	B	1221	X	-	-	-
18	CLA	B	1222	X	-	-	-
18	CLA	B	1223	X	-	-	-
18	CLA	B	1224	X	-	-	-
18	CLA	B	1225	X	-	-	-
18	CLA	B	1226	X	-	-	-
18	CLA	B	1227	X	-	-	-
18	CLA	B	1228	X	-	-	-
18	CLA	B	1229	X	-	-	-
18	CLA	B	1230	X	-	-	-
18	CLA	B	1231	X	-	-	-
18	CLA	B	1232	X	-	-	-
18	CLA	B	1234	X	-	-	-
18	CLA	B	1235	X	-	-	-
18	CLA	B	1236	X	-	-	-
18	CLA	B	1238	X	-	-	-
18	CLA	B	1239	X	-	-	-
18	CLA	B	1240	X	-	-	-
18	CLA	F	1301	X	-	-	-
18	CLA	F	1302	X	-	-	-
18	CLA	G	1001	X	-	X	-
18	CLA	G	1002	X	-	X	-
18	CLA	G	1003	X	-	X	-
18	CLA	H	1000	X	-	-	-
18	CLA	J	1302	X	-	-	-
18	CLA	K	1001	X	-	-	-
18	CLA	L	1501	X	-	-	-
18	CLA	L	1502	X	-	-	-

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
18	CLA	L	1503	X	-	-	-
22	BCR	3	3503	-	-	X	-
22	BCR	B	6005	-	-	-	X
22	BCR	G	2011	-	-	X	-
22	BCR	L	6019	-	-	X	-
27	LUT	1	1501	X	-	X	-
27	LUT	1	1502	X	-	-	-
27	LUT	2	2501	X	-	X	-
27	LUT	2	2502	X	-	X	-
27	LUT	3	3501	X	-	X	X
27	LUT	3	3502	X	-	X	-
27	LUT	4	4501	X	-	X	-
27	LUT	4	4502	X	-	X	-
27	LUT	4	4503	X	-	X	-
27	LUT	I	6018	X	-	-	-
28	CHL	1	1009	X	-	X	-
28	CHL	1	1010	X	-	-	-
28	CHL	2	2010	X	-	-	-
28	CHL	2	2011	X	-	-	-
28	CHL	2	2013	X	-	-	-
28	CHL	3	3011	X	-	X	-
28	CHL	4	4010	X	-	-	-
28	CHL	4	4011	X	-	-	-
28	CHL	4	4013	X	-	-	-

2 Entry composition (i)

There are 29 unique types of molecules in this entry. The entry contains 35653 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 I P700 chlorophyll a apoprotein A1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	742	Total 5852	C 3833	N 997	O 1004	S 18	0	0	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	21	ILE	LEU	engineered mutation	UNP P05310
A	22	LEU	VAL	engineered mutation	UNP P05310
A	117	ARG	GLY	engineered mutation	UNP P05310
A	220	GLY	ARG	engineered mutation	UNP P05310

- Molecule 2 is a protein called Photosystem I P700 chlorophyll a apoprotein A2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	732	Total 5856	C 3851	N 995	O 996	S 14	0	0	0

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	5	LEU	ILE	engineered mutation	UNP P05311
B	115	ILE	ASN	engineered mutation	UNP P05311
B	273	MET	VAL	engineered mutation	UNP P05311
B	471	SER	THR	engineered mutation	UNP P05311
B	476	VAL	ILE	engineered mutation	UNP P05311
B	477	LEU	PRO	engineered mutation	UNP P05311
B	635	TYR	ILE	engineered mutation	UNP P05311

- Molecule 3 is a protein called Photosystem I reaction center subunit VIII.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	I	29	Total 224	C 155	N 35	O 33	S 1	0	0	0

- Molecule 4 is a protein called Photosystem I reaction center subunit IX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
4	J	41	Total 321	C 217	N 50	O 54	0	0	0

- Molecule 5 is a protein called Photosystem I reaction center subunit III.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	F	150	Total 1187	C 770	N 207	O 208	S 2	0	0	0

- Molecule 6 is a protein called photosystem I reaction center.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
6	G	91	Total 689	C 444	N 117	O 128	0	0	0

- Molecule 7 is a protein called Putative uncharacterized protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	L	160	Total 1197	C 791	N 190	O 215	S 1	0	0	0

- Molecule 8 is a protein called Photosystem I iron-sulfur center.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	C	80	Total 612	C 379	N 107	O 115	S 11	0	0	0

- Molecule 9 is a protein called Photosystem I reaction center subunit II, chloroplastic.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	D	141	Total 1116	C 720	N 192	O 201	S 3	0	0	0

- Molecule 10 is a protein called Photosystem I reaction center subunit IV A, chloroplastic.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
10	E	66	530	337	93	100	0	0	0

- Molecule 11 is a protein called Photosystem I reaction center subunit VI.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
11	H	84	642	425	97	120	0	0	0

- Molecule 12 is a protein called Photosystem I reaction center subunit X psaK.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
12	K	57	379	241	64	71	3	0	0	0

- Molecule 13 is a protein called Type II chlorophyll a/b binding protein from photosystem I.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
13	2	207	1613	1057	263	289	4	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
2	133	LEU	ASN	engineered mutation	UNP Q41038

- Molecule 14 is a protein called Chlorophyll a-b binding protein P4, chloroplastic.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
14	4	198	1544	1007	252	282	3	0	0	0

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
4	128	ASP	ALA	engineered mutation	UNP Q9SQL2

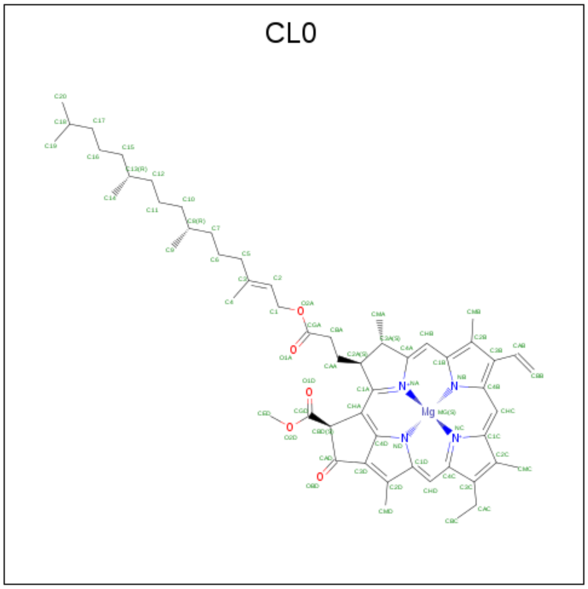
- Molecule 15 is a protein called Light-harvesting complex I chlorophyll A/B-binding protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
15	1	194	1513	986	254	268	5	0	0	0

- Molecule 16 is a protein called Chlorophyll a-b binding protein 3, chloroplastic.

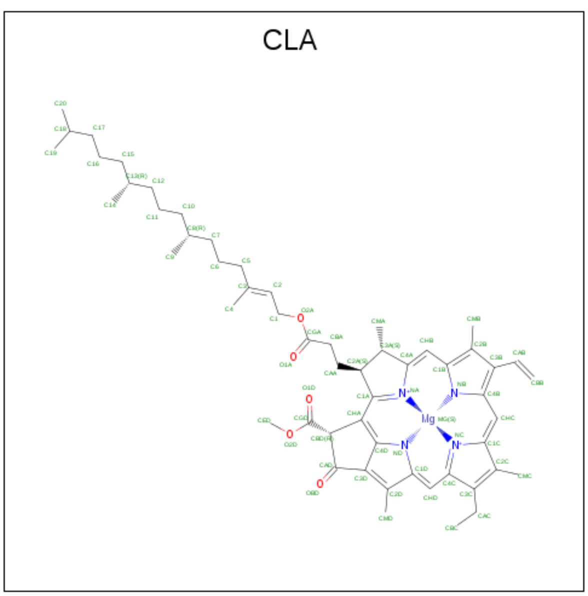
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
16	3	215	1619	1053	263	298	5	0	0	0

- Molecule 17 is CHLOROPHYLL A ISOMER (three-letter code: CL0) (formula: $C_{55}H_{72}MgN_4O_5$).



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

- Molecule 18 is CHLOROPHYLL A (three-letter code: CLA) (formula: $C_{55}H_{72}MgN_4O_5$).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	A	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 51	C 41	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	A	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	A	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	A	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	A	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 55	C 45	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
18	A	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	A	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	A	1	Total 51	C 41	Mg 1	N 4	O 5	0	0
18	A	1	Total 56	C 46	Mg 1	N 4	O 5	0	0
18	A	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	A	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	A	1	Total 65	C 55	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	A	1	Total C Mg N O 50 40 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 60 50 1 4 5	0	0
18	B	1	Total C Mg N O 55 45 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 55 45 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 46 36 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 60 50 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 50 40 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 55 45 1 4 5	0	0
18	B	1	Total C Mg N O 46 36 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 55 45 1 4 5	0	0
18	B	1	Total C Mg N O 60 50 1 4 5	0	0
18	B	1	Total C Mg N O 59 49 1 4 5	0	0
18	B	1	Total C Mg N O 60 50 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 60 50 1 4 5	0	0
18	B	1	Total C Mg N O 65 55 1 4 5	0	0
18	B	1	Total C Mg N O 58 48 1 4 5	0	0
18	B	1	Total C Mg N O 55 45 1 4 5	0	0
18	B	1	Total C Mg N O 60 50 1 4 5	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
18	J	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	F	1	Total 45	C 35	Mg 1	N 4	O 5	0	0
18	F	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	G	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	G	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	G	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	L	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	L	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	L	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	H	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	K	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	2	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	2	1	Total 46	C 36	Mg 1	N 4	O 5	0	0
18	2	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	2	1	Total 65	C 55	Mg 1	N 4	O 5	0	0
18	2	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	2	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	2	1	Total 60	C 50	Mg 1	N 4	O 5	0	0
18	2	1	Total 50	C 40	Mg 1	N 4	O 5	0	0
18	2	1	Total 55	C 45	Mg 1	N 4	O 5	0	0
18	2	1	Total 50	C 40	Mg 1	N 4	O 5	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	2	1	Total C Mg N 27 22 1 4	0	0
18	2	1	Total C Mg N O 50 40 1 4 5	0	0
18	4	1	Total C Mg N O 50 40 1 4 5	0	0
18	4	1	Total C Mg N O 60 50 1 4 5	0	0
18	4	1	Total C Mg N O 50 40 1 4 5	0	0
18	4	1	Total C Mg N O 65 55 1 4 5	0	0
18	4	1	Total C Mg N O 60 50 1 4 5	0	0
18	4	1	Total C Mg N O 60 50 1 4 5	0	0
18	4	1	Total C Mg N O 50 40 1 4 5	0	0
18	4	1	Total C Mg N O 60 50 1 4 5	0	0
18	4	1	Total C Mg N O 46 36 1 4 5	0	0
18	4	1	Total C Mg N O 65 55 1 4 5	0	0
18	4	1	Total C Mg N O 46 36 1 4 5	0	0
18	4	1	Total C Mg N O 65 55 1 4 5	0	0
18	1	1	Total C Mg N O 60 50 1 4 5	0	0
18	1	1	Total C Mg N O 46 36 1 4 5	0	0
18	1	1	Total C Mg N O 55 45 1 4 5	0	0
18	1	1	Total C Mg N O 65 55 1 4 5	0	0
18	1	1	Total C Mg N O 55 45 1 4 5	0	0
18	1	1	Total C Mg N O 50 40 1 4 5	0	0
18	1	1	Total C Mg N O 46 36 1 4 5	0	0

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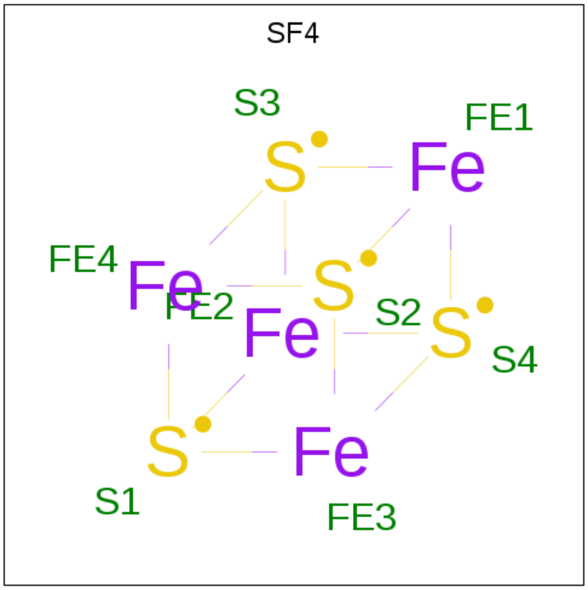
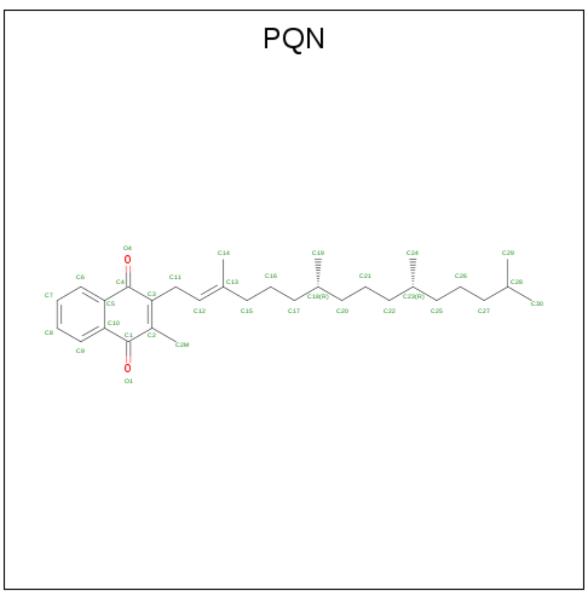
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
18	1	1	Total C Mg N O 46 36 1 4 5	0	0
18	1	1	Total C Mg N O 50 40 1 4 5	0	0
18	1	1	Total C Mg N O 50 40 1 4 5	0	0
18	1	1	Total C Mg N O 46 36 1 4 5	0	0
18	1	1	Total C Mg N O 46 36 1 4 5	0	0
18	3	1	Total C Mg N O 50 40 1 4 5	0	0
18	3	1	Total C Mg N O 46 36 1 4 5	0	0
18	3	1	Total C Mg N O 60 50 1 4 5	0	0
18	3	1	Total C Mg N O 60 50 1 4 5	0	0
18	3	1	Total C Mg N O 55 45 1 4 5	0	0
18	3	1	Total C Mg N O 50 40 1 4 5	0	0
18	3	1	Total C Mg N O 50 40 1 4 5	0	0
18	3	1	Total C Mg N O 48 38 1 4 5	0	0
18	3	1	Total C Mg N O 60 50 1 4 5	0	0
18	3	1	Total C Mg N O 50 40 1 4 5	0	0
18	3	1	Total C Mg N O 46 36 1 4 5	0	0
18	3	1	Total C Mg N O 46 36 1 4 5	0	0
18	3	1	Total C Mg N O 50 40 1 4 5	0	0
18	3	1	Total C Mg N 27 22 1 4	0	0

- Molecule 19 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
19	A	1	Total Fe S 8 4 4	0	0
19	C	1	Total Fe S 8 4 4	0	0
19	C	1	Total Fe S 8 4 4	0	0

- Molecule 20 is PHYLLOQUINONE (three-letter code: PQN) (formula: $C_{31}H_{46}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
20	A	1	Total C O 33 31 2	0	0

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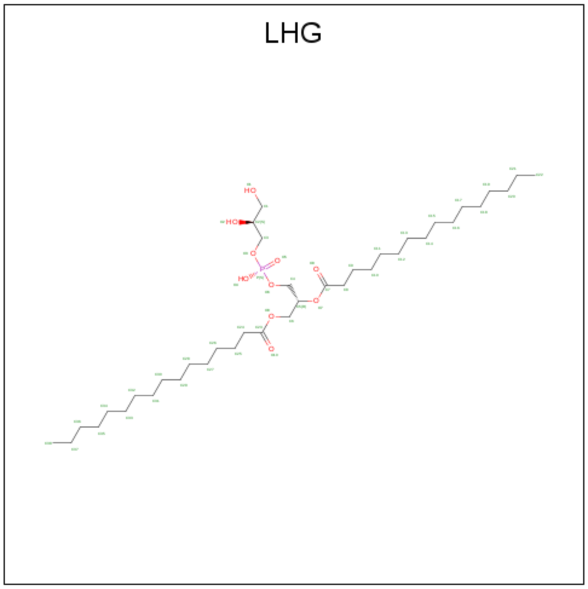
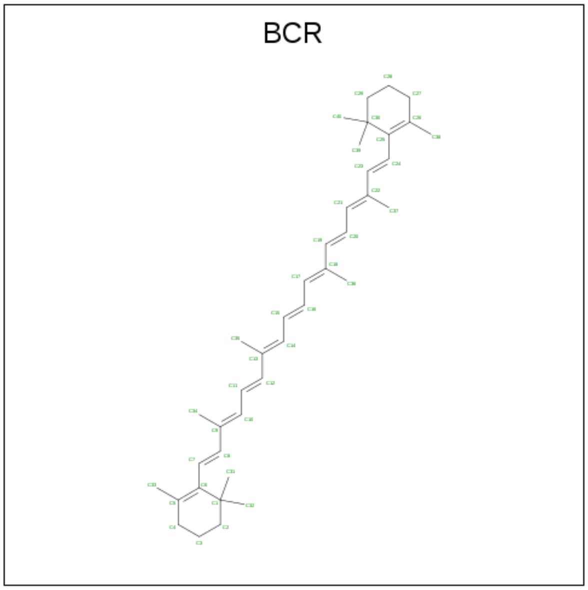
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
20	B	1	Total C O 33 31 2	0	0

- Molecule 21 is 1,2-DIPALMITOYL-PHOSPHATIDYL-GLYCEROLE (three-letter code: LHG) (formula: $C_{38}H_{75}O_{10}P$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
21	A	1	Total C O P 40 29 10 1	0	0
21	A	1	Total C O P 49 38 10 1	0	0
21	B	1	Total C O P 21 10 10 1	0	0
21	2	1	Total C O P 24 13 10 1	0	0
21	1	1	Total C O P 49 38 10 1	0	0

- Molecule 22 is BETA-CAROTENE (three-letter code: BCR) (formula: $C_{40}H_{56}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	A	1	Total C 40 40	0	0
22	A	1	Total C 40 40	0	0
22	A	1	Total C 40 40	0	0
22	A	1	Total C 40 40	0	0
22	A	1	Total C 40 40	0	0
22	A	1	Total C 40 40	0	0
22	B	1	Total C 40 40	0	0
22	B	1	Total C 40 40	0	0
22	B	1	Total C 40 40	0	0
22	B	1	Total C 40 40	0	0
22	B	1	Total C 40 40	0	0
22	I	1	Total C 40 40	0	0
22	J	1	Total C 40 40	0	0
22	J	1	Total C 40 40	0	0

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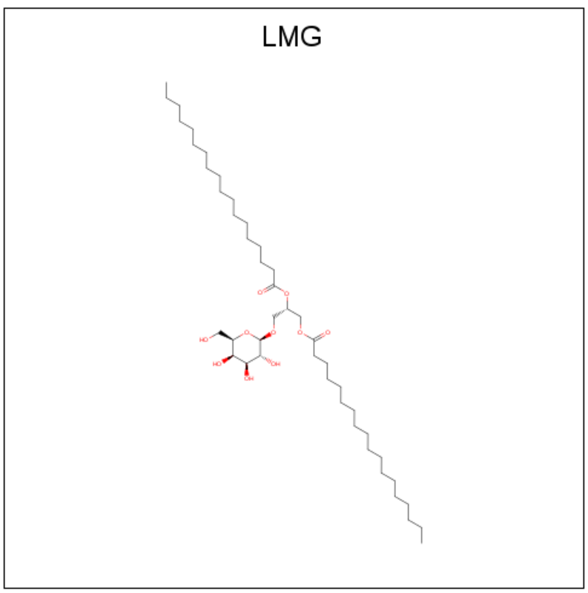
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
22	F	1	Total C 40 40	0	0
22	F	1	Total C 40 40	0	0
22	G	1	Total C 40 40	0	0
22	L	1	Total C 40 40	0	0
22	L	1	Total C 40 40	0	0
22	K	1	Total C 40 40	0	0
22	3	1	Total C 40 40	0	0

- Molecule 23 is 1,2-DISTEAROYL-MONOGALACTOSYL-DIGLYCERIDE (three-letter code: LMG) (formula: $C_{45}H_{86}O_{10}$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
23	B	1	Total C O 38 28 10	0	0
23	J	1	Total C O 55 45 10	0	0
23	F	1	Total C O 23 13 10	0	0
23	F	1	Total C O 37 27 10	0	0

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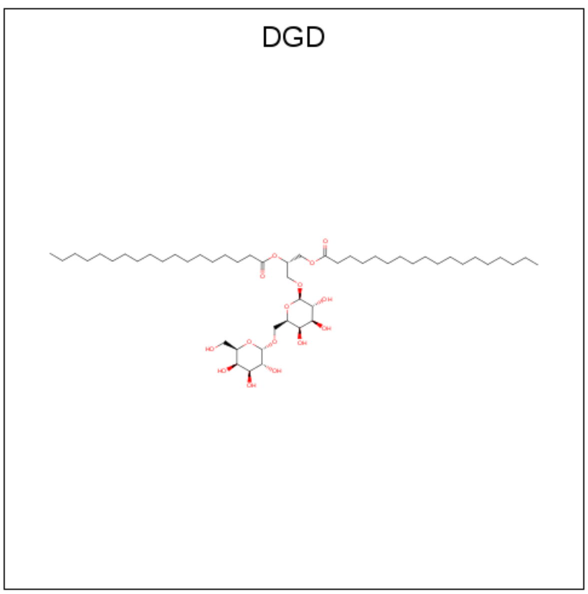
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
23	G	1	41	31	10	0	0
23	2	1	35	25	10	0	0
23	4	1	35	25	10	0	0

- Molecule 24 is CALCIUM ION (three-letter code: CA) (formula: Ca).

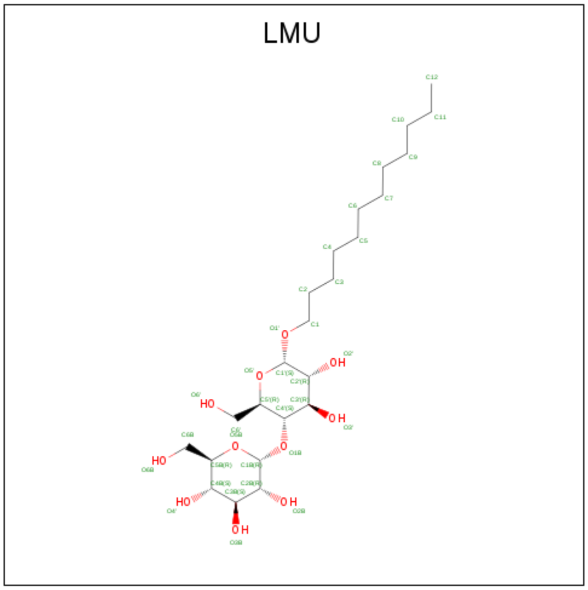
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Ca		
24	B	1	1	1	0	0

- Molecule 25 is DIGALACTOSYL DIACYL GLYCEROL (DGDG) (three-letter code: DGD) (formula: $C_{51}H_{96}O_{15}$).



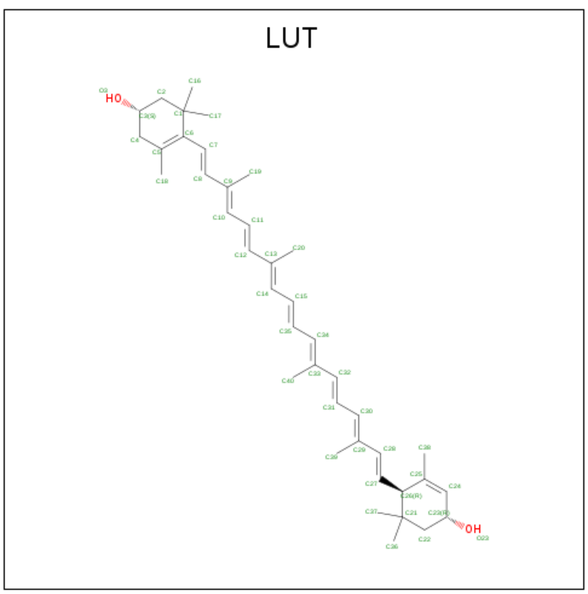
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
25	B	1	61	46	15	0	0

- Molecule 26 is DODECYL-ALPHA-D-MALTOSIDE (three-letter code: LMU) (formula: $C_{24}H_{46}O_{11}$).



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

- Molecule 27 is (3R,3'R,6S)-4,5-DIDEHYDRO-5,6-DIHYDRO-BETA,BETA-CAROTENE-3 ,3'-DIOL (three-letter code: LUT) (formula: $C_{40}H_{56}O_2$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	I	1	Total C O 42 40 2	0	0

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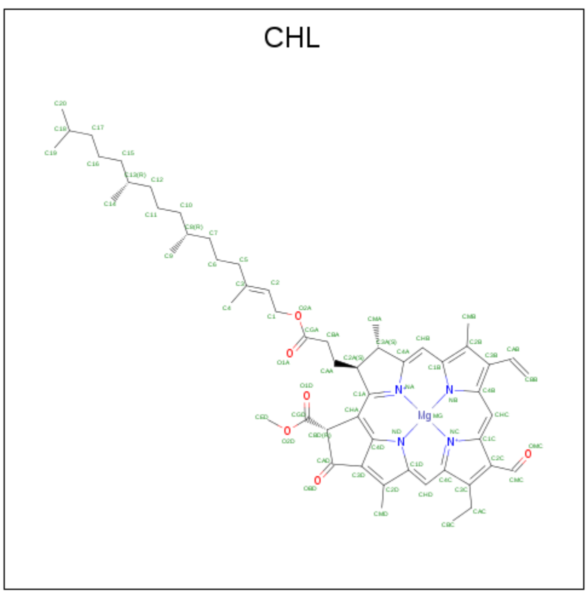
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	2	1	Total C O 42 40 2	0	0
27	2	1	Total C O 42 40 2	0	0
27	4	1	Total C O 42 40 2	0	0
27	4	1	Total C O 42 40 2	0	0
27	4	1	Total C O 42 40 2	0	0
27	1	1	Total C O 42 40 2	0	0
27	1	1	Total C O 42 40 2	0	0
27	3	1	Total C O 42 40 2	0	0
27	3	1	Total C O 42 40 2	0	0

- Molecule 28 is CHLOROPHYLL B (three-letter code: CHL) (formula: $C_{55}H_{70}MgN_4O_6$).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	2	1	Total C Mg N O 47 36 1 4 6	0	0
28	2	1	Total C Mg N O 48 37 1 4 6	0	0

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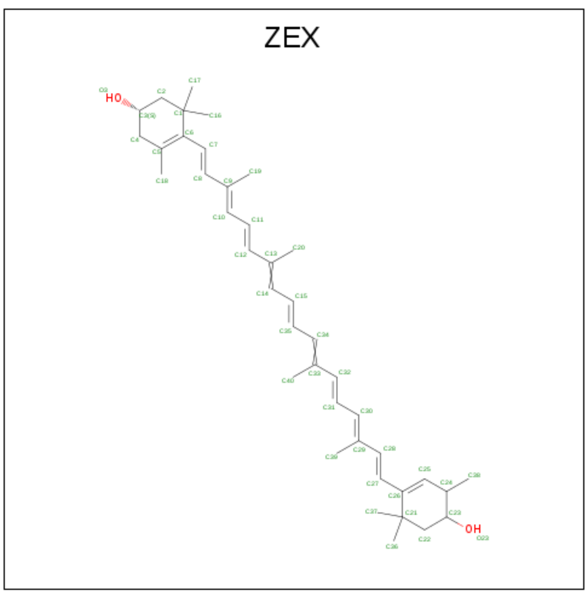
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
28	2	1	Total C Mg N O 46 35 1 4 6	0	0
28	4	1	Total C Mg N O 47 36 1 4 6	0	0
28	4	1	Total C Mg N O 51 40 1 4 6	0	0
28	4	1	Total C Mg N O 47 36 1 4 6	0	0
28	1	1	Total C Mg N O 56 45 1 4 6	0	0
28	1	1	Total C Mg N O 47 36 1 4 6	0	0
28	3	1	Total C Mg N O 56 45 1 4 6	0	0

- Molecule 29 is (1R,2S)-4-{(1E,3E,5E,7E,9E,11E,13E,15E,17E)-18-[(4S)-4-hydroxy-2,6,6-trimethylcyclohex-1-en-1-yl]-3,7,12,16-tetramethyloctadeca-1,3,5,7,9,11,13,15,17-nonaen-1-yl}-2,5,5-trimethylcyclohex-3-en-1-ol (three-letter code: ZEX) (formula: $C_{40}H_{56}O_2$).



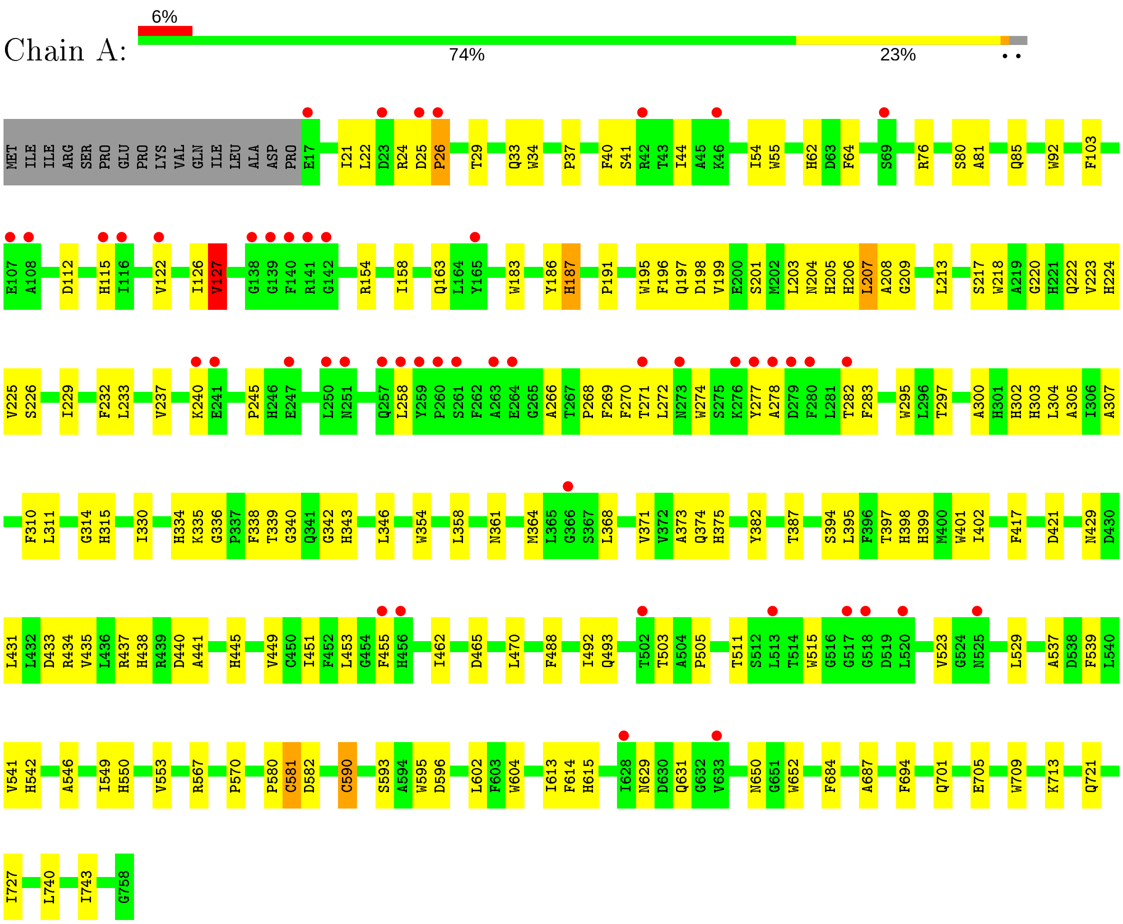
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
29	4	1	Total C O 42 40 2	0	0

3 Residue-property plots

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.

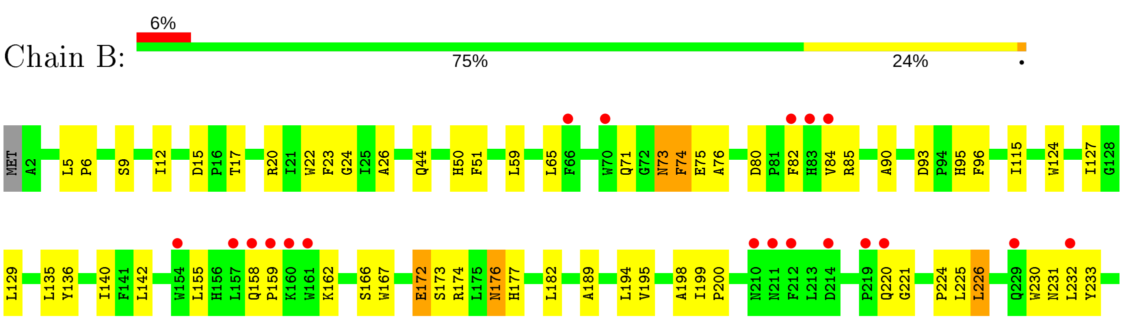
- Molecule 1: Photosystem I P700 chlorophyll a apoprotein A1

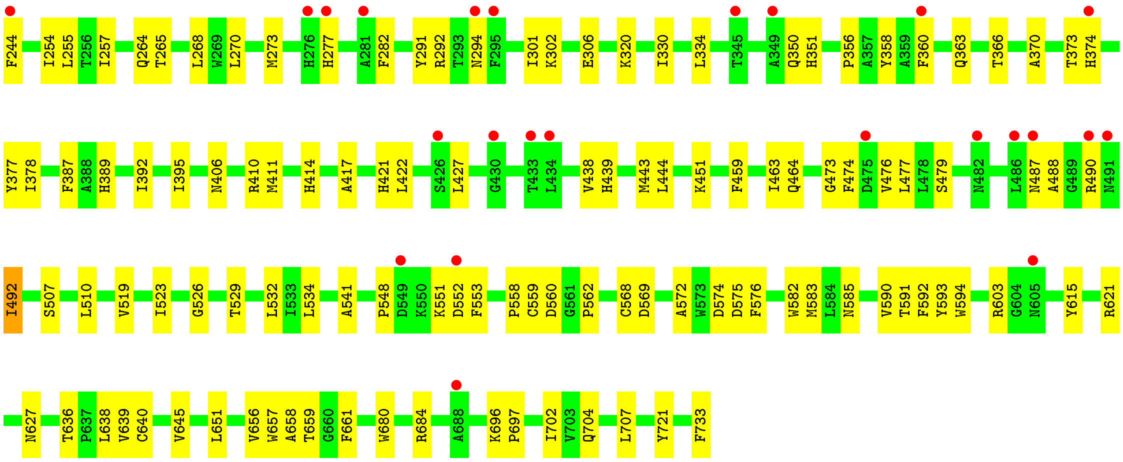
Chain A:



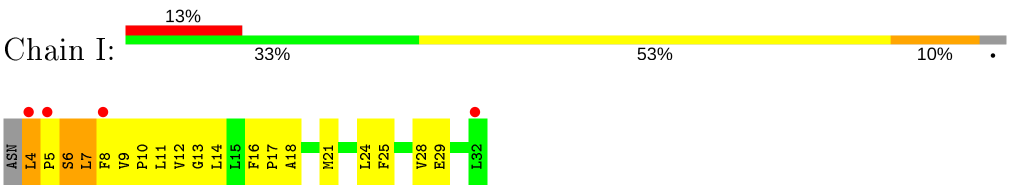
- Molecule 2: Photosystem I P700 chlorophyll a apoprotein A2

Chain B:

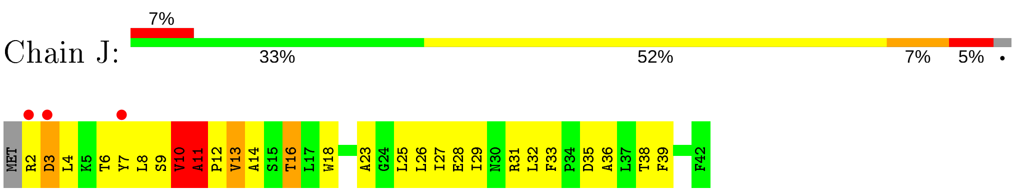




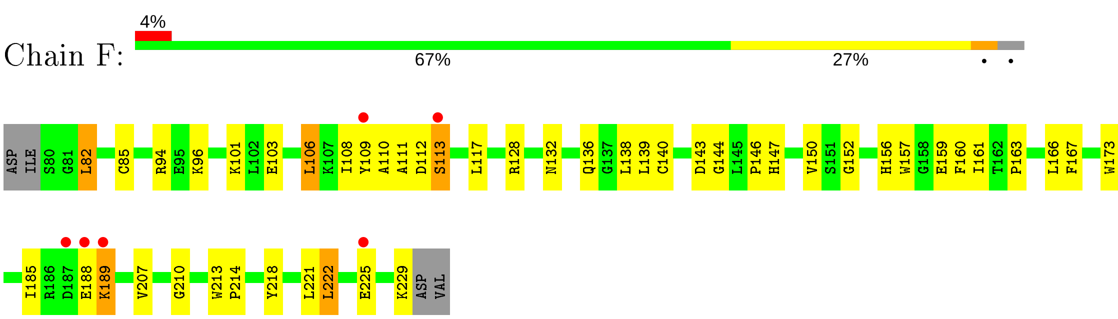
- Molecule 3: Photosystem I reaction center subunit VIII



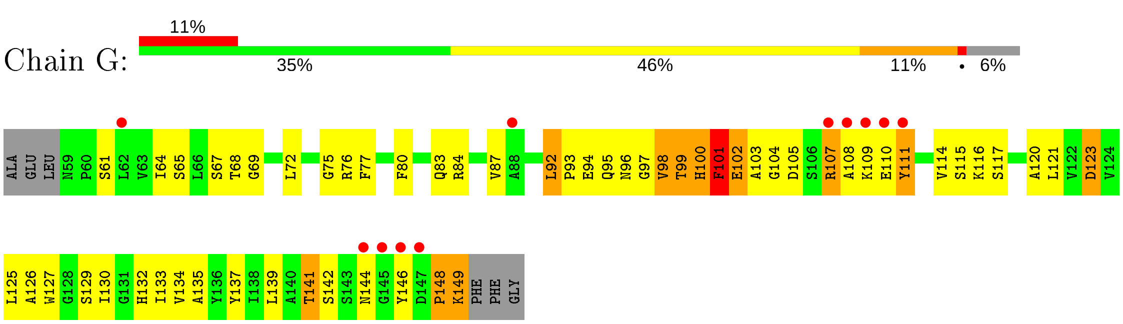
- Molecule 4: Photosystem I reaction center subunit IX



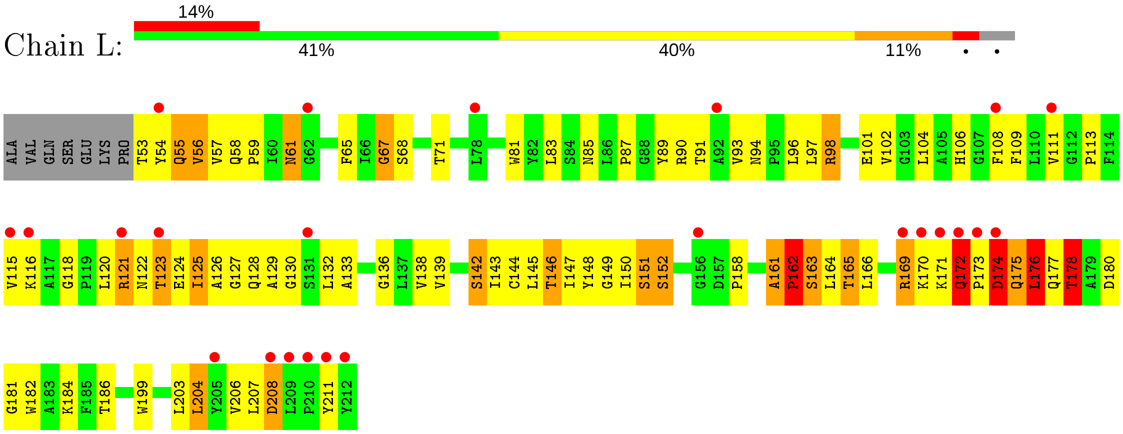
- Molecule 5: Photosystem I reaction center subunit III



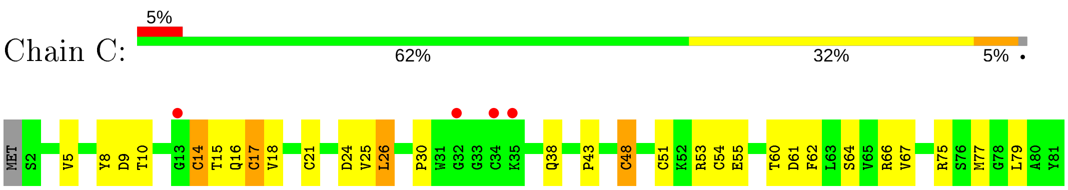
- Molecule 6: photosystem I reaction center



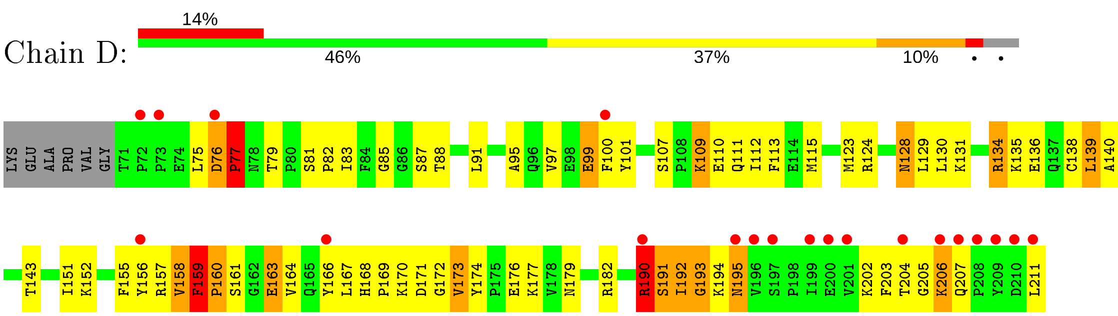
- Molecule 7: Putative uncharacterized protein



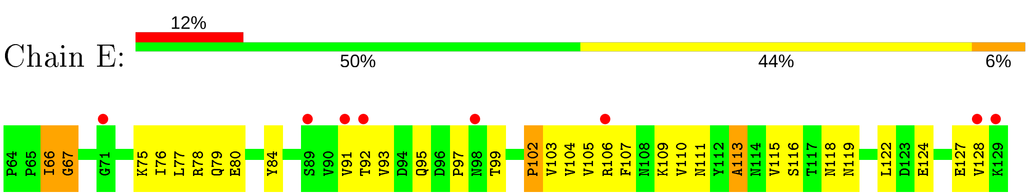
- Molecule 8: Photosystem I iron-sulfur center



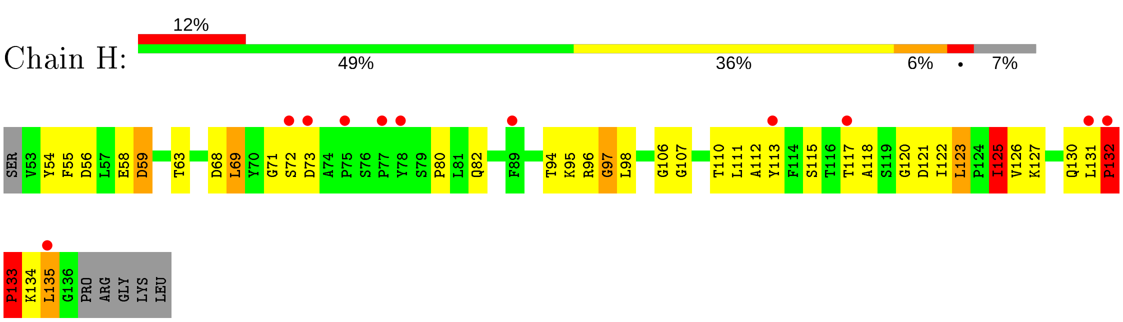
- Molecule 9: Photosystem I reaction center subunit II, chloroplastic



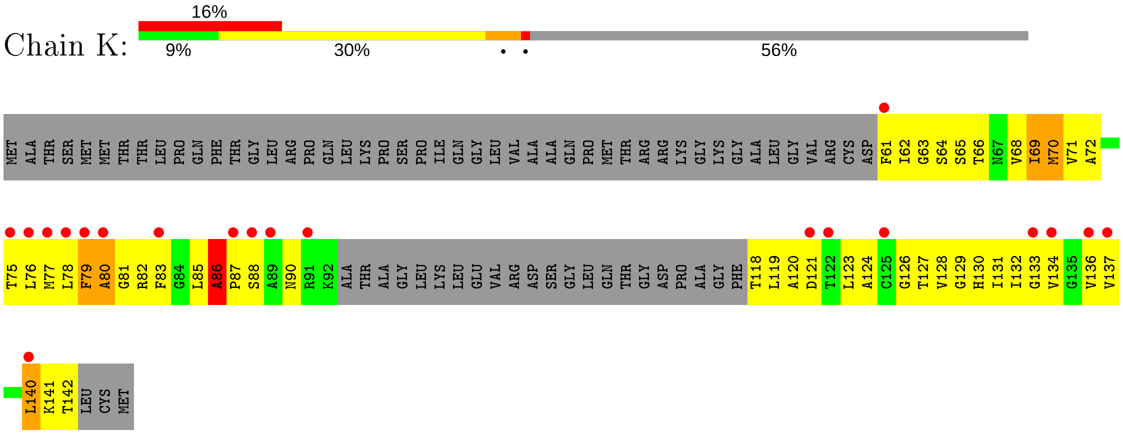
- Molecule 10: Photosystem I reaction center subunit IV A, chloroplastic



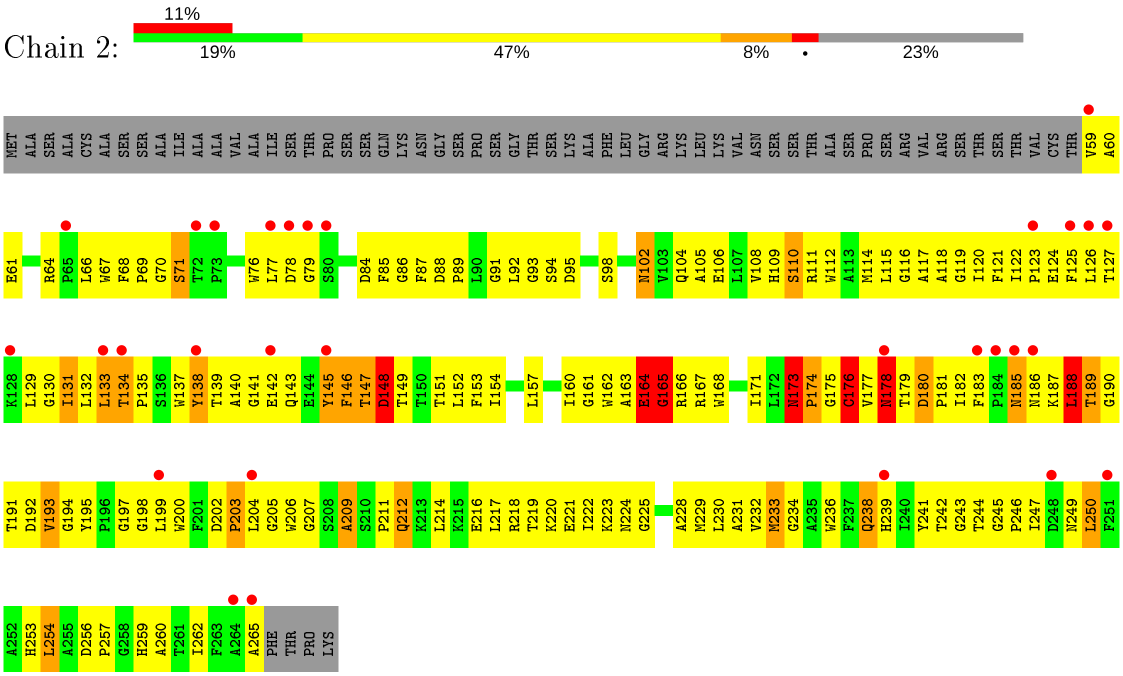
- Molecule 11: Photosystem I reaction center subunit VI



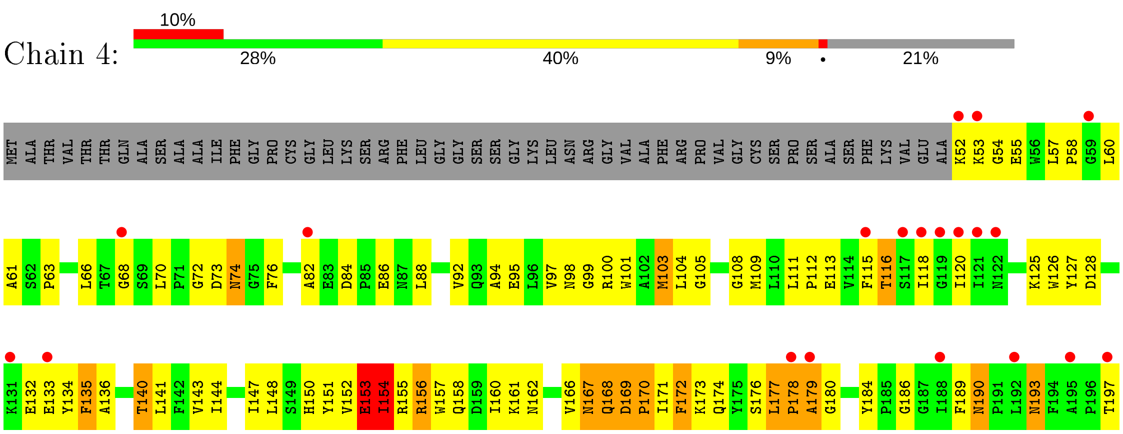
• Molecule 12: Photosystem I reaction center subunit X psaK

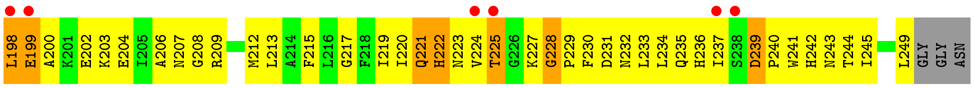


• Molecule 13: Type II chlorophyll a/b binding protein from photosystem I



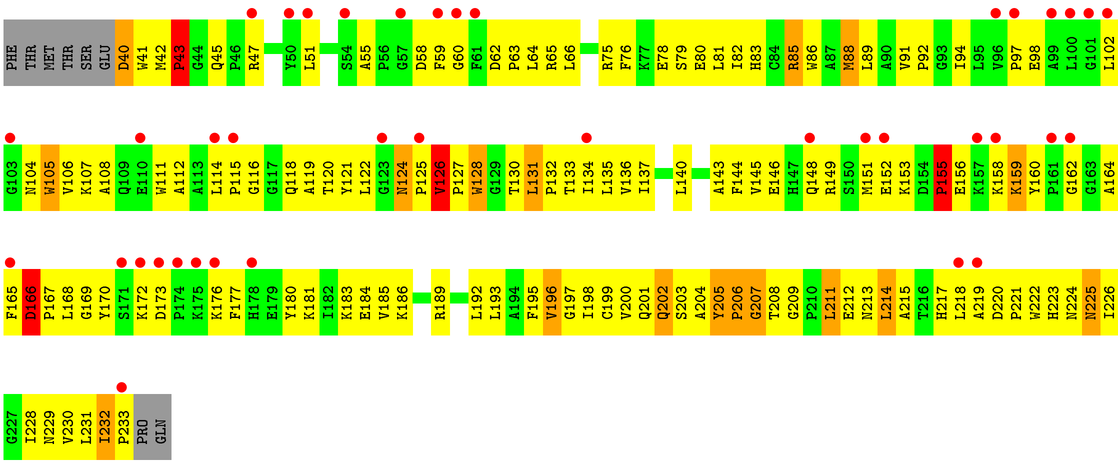
• Molecule 14: Chlorophyll a-b binding protein P4, chloroplastic





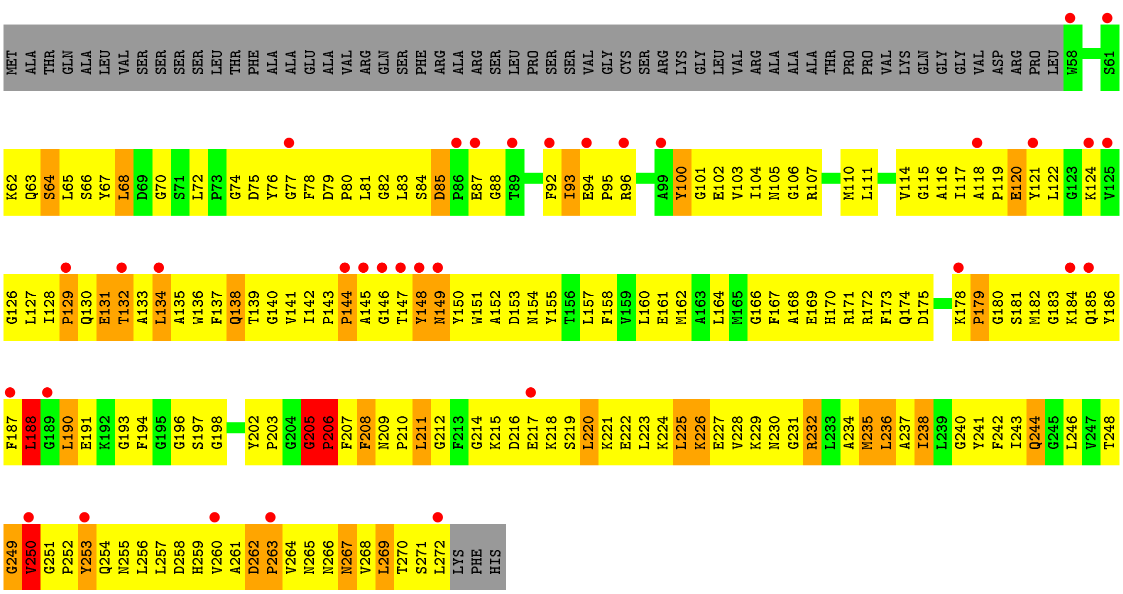
- Molecule 15: Light-harvesting complex I chlorophyll A/B-binding protein

Chain 1:



- Molecule 16: Chlorophyll a-b binding protein 3, chloroplastic

Chain 3:



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	189.00Å 201.90Å 213.20Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	48.65 – 2.80 39.89 – 2.79	Depositor EDS
% Data completeness (in resolution range)	100.0 (48.65-2.80) 88.8 (39.89-2.79)	Depositor EDS
R_{merge}	0.26	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.29 (at 2.81Å)	Xtriage
Refinement program	PHENIX	Depositor
R, R_{free}	0.259 , 0.268 0.243 , 0.255	Depositor DCC
R_{free} test set	3977 reflections (1.99%)	wwPDB-VP
Wilson B-factor (Å^2)	78.1	Xtriage
Anisotropy	0.306	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.26 , 65.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.29$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.90	EDS
Total number of atoms	35653	wwPDB-VP
Average B, all atoms (Å^2)	113.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.92% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: LHG, LUT, DGD, SF4, CHL, CLA, PQN, LMU, ZEX, CL0, CA, BCR, LMG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	A	0.23	0/6049	0.40	0/8253
2	B	0.24	0/6067	0.40	0/8287
3	I	0.92	0/230	1.02	2/313 (0.6%)
4	J	0.76	0/330	0.90	2/452 (0.4%)
5	F	0.62	0/1214	0.64	0/1638
6	G	0.78	0/705	1.01	3/956 (0.3%)
7	L	0.76	0/1233	0.94	7/1690 (0.4%)
8	C	0.82	0/625	0.81	1/846 (0.1%)
9	D	1.00	0/1146	1.06	7/1550 (0.5%)
10	E	0.89	0/542	0.90	3/737 (0.4%)
11	H	0.62	0/662	0.85	4/902 (0.4%)
12	K	0.48	0/381	0.87	1/517 (0.2%)
13	2	0.94	2/1672 (0.1%)	1.09	11/2292 (0.5%)
14	4	0.93	2/1592 (0.1%)	0.99	10/2174 (0.5%)
15	1	0.86	0/1563	1.04	6/2132 (0.3%)
16	3	0.86	2/1666 (0.1%)	1.08	11/2265 (0.5%)
All	All	0.63	6/25677 (0.0%)	0.76	68/35004 (0.2%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand.A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
6	G	0	1
7	L	0	1
13	2	0	1
14	4	0	1
16	3	0	1
All	All	0	5

The worst 5 of 6 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
14	4	153	GLU	C-O	-10.68	1.03	1.23
13	2	164	GLU	C-O	-10.38	1.03	1.23
16	3	205	GLY	C-N	7.70	1.48	1.34
16	3	205	GLY	C-O	-7.23	1.12	1.23
13	2	164	GLU	C-N	6.29	1.44	1.33

The worst 5 of 68 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	G	101	PHE	C-N-CA	11.02	149.25	121.70
6	G	100	HIS	N-CA-C	-10.25	83.33	111.00
13	2	165	GLY	N-CA-C	-9.45	89.48	113.10
11	H	120	GLY	N-CA-C	-8.68	91.41	113.10
16	3	206	PRO	CA-N-CD	-8.59	99.47	111.50

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
13	2	164	GLU	Mainchain
16	3	205	GLY	Mainchain
14	4	153	GLU	Mainchain
6	G	101	PHE	Peptide
7	L	98	ARG	Sidechain

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	5852	0	5710	169	0
2	B	5856	0	5666	146	0
3	I	224	0	247	34	0
4	J	321	0	328	48	0
5	F	1187	0	1226	39	3
6	G	689	0	675	112	0
7	L	1197	0	1187	165	3

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
8	C	612	0	594	36	0
9	D	1116	0	1126	103	0
10	E	530	0	530	44	0
11	H	642	0	637	48	0
12	K	379	0	386	92	0
13	2	1613	0	1554	371	0
14	4	1544	0	1489	230	0
15	1	1513	0	1495	379	0
16	3	1619	0	1554	472	0
17	A	65	0	72	6	0
18	1	615	0	511	235	0
18	2	628	0	538	255	0
18	3	698	0	559	265	0
18	4	677	0	635	195	0
18	A	2583	0	2555	197	0
18	B	2519	0	2617	217	0
18	F	95	0	72	20	0
18	G	161	0	141	92	0
18	H	46	0	33	4	0
18	J	50	0	39	7	0
18	K	46	0	33	12	0
18	L	160	0	137	39	0
19	A	8	0	0	1	0
19	C	16	0	0	0	0
20	A	33	0	46	3	0
20	B	33	0	46	5	0
21	1	49	0	74	15	0
21	2	24	0	18	6	0
21	A	89	0	127	12	0
21	B	21	0	12	1	0
22	3	40	0	48	21	0
22	A	240	0	292	21	0
22	B	200	0	245	24	0
22	F	80	0	98	19	0
22	G	40	0	49	29	0
22	I	40	0	49	3	0
22	J	80	0	98	15	0
22	K	40	0	49	17	0
22	L	80	0	98	28	0
23	2	35	0	40	9	0
23	4	35	0	40	6	0
23	B	38	0	46	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	F	60	0	60	13	0
23	G	41	0	52	20	0
23	J	55	0	86	9	0
24	B	1	0	0	0	0
25	B	61	0	83	4	0
26	B	70	0	92	4	0
27	1	84	0	110	48	0
27	2	84	0	110	55	0
27	3	84	0	110	62	0
27	4	126	0	165	84	0
27	I	42	0	55	14	0
28	1	103	0	78	35	0
28	2	141	0	95	39	0
28	3	56	0	47	22	0
28	4	145	0	99	44	0
29	4	42	0	56	12	0
All	All	35653	0	35119	3560	3

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 50.

The worst 5 of 3560 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:3:138:GLN:HB2	16:3:145:ALA:HB2	1.25	1.18
18:3:3012:CLA:HBB1	18:3:3012:CLA:HMB1	1.18	1.17
16:3:268:VAL:HG21	18:3:3003:CLA:H43	1.17	1.16
18:3:3004:CLA:HBB1	18:3:3004:CLA:HMB1	1.25	1.15
16:3:111:LEU:HD22	18:3:3006:CLA:CBB	1.74	1.15

All (3) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:96:LYS:CD	7:L:170:LYS:NZ[3_555]	1.69	0.51
5:F:96:LYS:CE	7:L:170:LYS:NZ[3_555]	1.86	0.34
5:F:96:LYS:CG	7:L:170:LYS:NZ[3_555]	1.99	0.21

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	740/758 (98%)	691 (93%)	45 (6%)	4 (0%)	29	61
2	B	730/733 (100%)	695 (95%)	30 (4%)	5 (1%)	22	53
3	I	27/30 (90%)	25 (93%)	1 (4%)	1 (4%)	3	11
4	J	39/42 (93%)	34 (87%)	3 (8%)	2 (5%)	2	6
5	F	148/154 (96%)	138 (93%)	8 (5%)	2 (1%)	11	34
6	G	89/97 (92%)	76 (85%)	8 (9%)	5 (6%)	2	5
7	L	158/167 (95%)	133 (84%)	15 (10%)	10 (6%)	1	3
8	C	78/81 (96%)	72 (92%)	6 (8%)	0	100	100
9	D	139/147 (95%)	116 (84%)	14 (10%)	9 (6%)	1	3
10	E	64/66 (97%)	57 (89%)	6 (9%)	1 (2%)	9	31
11	H	82/90 (91%)	65 (79%)	10 (12%)	7 (8%)	1	1
12	K	53/129 (41%)	49 (92%)	2 (4%)	2 (4%)	3	10
13	2	205/269 (76%)	184 (90%)	7 (3%)	14 (7%)	1	3
14	4	196/252 (78%)	174 (89%)	15 (8%)	7 (4%)	3	11
15	1	192/202 (95%)	168 (88%)	17 (9%)	7 (4%)	3	11
16	3	213/275 (78%)	189 (89%)	15 (7%)	9 (4%)	3	9
All	All	3153/3492 (90%)	2866 (91%)	202 (6%)	85 (3%)	5	17

5 of 85 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	127	VAL
3	I	6	SER
4	J	11	ALA
6	G	101	PHE
6	G	102	GLU

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	603/619 (97%)	595 (99%)	8 (1%)	69	91
2	B	599/600 (100%)	587 (98%)	12 (2%)	55	84
3	I	25/26 (96%)	23 (92%)	2 (8%)	12	34
4	J	33/35 (94%)	29 (88%)	4 (12%)	5	15
5	F	123/127 (97%)	115 (94%)	8 (6%)	17	44
6	G	71/76 (93%)	65 (92%)	6 (8%)	10	31
7	L	124/133 (93%)	107 (86%)	17 (14%)	3	11
8	C	69/70 (99%)	65 (94%)	4 (6%)	20	50
9	D	120/125 (96%)	110 (92%)	10 (8%)	11	32
10	E	59/59 (100%)	57 (97%)	2 (3%)	37	71
11	H	69/74 (93%)	63 (91%)	6 (9%)	10	30
12	K	38/99 (38%)	32 (84%)	6 (16%)	2	8
13	2	166/216 (77%)	148 (89%)	18 (11%)	6	19
14	4	161/202 (80%)	145 (90%)	16 (10%)	8	23
15	1	158/167 (95%)	141 (89%)	17 (11%)	6	19
16	3	159/213 (75%)	135 (85%)	24 (15%)	3	9
All	All	2577/2841 (91%)	2417 (94%)	160 (6%)	18	47

5 of 160 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
10	E	127	GLU
13	2	138	TYR
16	3	206	PRO
11	H	59	ASP
12	K	70	MET

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 59 such sidechains are listed below:

Mol	Chain	Res	Type
6	G	144	ASN
10	E	111	ASN
16	3	174	GLN
7	L	122	ASN
9	D	78	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 209 ligands modelled in this entry, 1 is monoatomic - leaving 208 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	$\#\|Z\| > 2$
21	LHG	B	5004	18	20,20,48	1.34	2 (10%)	23,26,54	1.53	3 (13%)
21	LHG	1	1801	18	48,48,48	0.91	2 (4%)	51,54,54	1.20	5 (9%)
18	CLA	A	1132	-	59,73,73	2.35	16 (27%)	67,113,113	2.11	17 (25%)
18	CLA	B	1220	-	59,73,73	2.34	16 (27%)	67,113,113	2.01	16 (23%)
18	CLA	B	1201	-	44,58,73	2.71	16 (36%)	49,95,113	2.42	17 (34%)
22	BCR	I	6020	-	41,41,41	2.77	7 (17%)	56,56,56	6.64	20 (35%)
22	BCR	A	6003	-	41,41,41	2.79	6 (14%)	56,56,56	6.48	20 (35%)
18	CLA	4	4001	14	54,68,73	2.20	15 (27%)	61,107,113	2.44	19 (31%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
18	CLA	1	1005	-	49,63,73	2.29	15 (30%)	55,101,113	2.50	19 (34%)
18	CLA	3	3004	16	54,68,73	2.24	16 (29%)	61,107,113	2.37	14 (22%)
18	CLA	B	1222	-	59,73,73	2.33	15 (25%)	67,113,113	2.20	18 (26%)
18	CLA	B	1240	21	59,73,73	2.33	15 (25%)	67,113,113	2.13	18 (26%)
19	SF4	C	3003	8	0,12,12	0.00	-	-		
18	CLA	B	1225	-	59,73,73	2.35	16 (27%)	67,113,113	2.15	15 (22%)
18	CLA	1	1003	15	49,63,73	2.35	17 (34%)	55,101,113	2.49	21 (38%)
18	CLA	4	4009	14	44,58,73	2.39	15 (34%)	49,95,113	2.51	14 (28%)
18	CLA	A	1013	-	59,73,73	2.33	16 (27%)	67,113,113	2.14	17 (25%)
18	CLA	J	1302	4	44,58,73	2.74	16 (36%)	49,95,113	2.60	17 (34%)
18	CLA	B	1211	-	59,73,73	2.31	15 (25%)	67,113,113	2.24	19 (28%)
18	CLA	A	1126	-	59,73,73	2.35	16 (27%)	67,113,113	2.17	16 (23%)
18	CLA	A	1111	-	54,68,73	2.44	15 (27%)	61,107,113	2.21	17 (27%)
28	CHL	4	4011	-	45,59,74	1.64	9 (20%)	46,96,114	1.47	10 (21%)
22	BCR	B	6004	-	41,41,41	2.78	6 (14%)	56,56,56	6.67	29 (51%)
18	CLA	1	1013	-	40,54,73	2.70	16 (40%)	44,90,113	2.68	12 (27%)
18	CLA	A	1114	-	40,54,73	2.91	15 (37%)	44,90,113	2.36	13 (29%)
18	CLA	2	2001	13	54,68,73	2.20	16 (29%)	61,107,113	2.57	21 (34%)
18	CLA	A	1237	-	54,68,73	2.43	15 (27%)	61,107,113	2.34	17 (27%)
18	CLA	A	1121	-	49,63,73	2.57	16 (32%)	55,101,113	2.43	17 (30%)
18	CLA	2	2004	13	59,73,73	2.26	14 (23%)	67,113,113	2.18	16 (23%)
26	LMU	B	8001	-	36,36,36	0.49	0	47,47,47	1.18	5 (10%)
18	CLA	3	3008	-	42,56,73	2.52	14 (33%)	46,92,113	3.21	19 (41%)
18	CLA	G	1003	-	54,68,73	2.28	15 (27%)	61,107,113	2.32	19 (31%)
27	LUT	2	2502	-	42,43,43	2.47	3 (7%)	51,60,60	2.10	16 (31%)
27	LUT	2	2501	-	42,43,43	2.43	1 (2%)	51,60,60	2.11	14 (27%)
18	CLA	3	3002	-	40,54,73	2.60	16 (40%)	44,90,113	2.58	18 (40%)
19	SF4	C	3002	8	0,12,12	0.00	-	-		
18	CLA	3	3013	-	40,54,73	2.74	16 (40%)	44,90,113	2.24	14 (31%)
18	CLA	2	2009	13	44,58,73	2.50	16 (36%)	49,95,113	2.53	16 (32%)
18	CLA	2	2008	-	44,58,73	2.37	15 (34%)	49,95,113	2.96	23 (46%)
18	CLA	B	1228	-	54,68,73	2.46	15 (27%)	61,107,113	2.17	15 (24%)
22	BCR	B	6006	-	41,41,41	2.79	6 (14%)	56,56,56	6.86	28 (50%)
18	CLA	A	1112	-	59,73,73	2.32	16 (27%)	67,113,113	2.14	16 (23%)
18	CLA	A	1118	-	40,54,73	2.89	14 (35%)	44,90,113	2.42	13 (29%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
18	CLA	A	1139	-	59,73,73	2.34	16 (27%)	67,113,113	2.15	16 (23%)
27	LUT	3	3502	-	42,43,43	2.39	3 (7%)	51,60,60	2.28	17 (33%)
18	CLA	A	1130	-	44,58,73	2.74	16 (36%)	49,95,113	2.46	14 (28%)
18	CLA	4	4003	14	59,73,73	2.17	16 (27%)	67,113,113	2.22	17 (25%)
18	CLA	A	1107	1	59,73,73	2.35	16 (27%)	67,113,113	2.18	16 (23%)
18	CLA	2	2019	-	23,35,73	3.17	12 (52%)	26,60,113	3.36	15 (57%)
22	BCR	J	6013	-	41,41,41	2.89	8 (19%)	56,56,56	6.55	30 (53%)
21	LHG	A	7001	-	48,48,48	0.96	2 (4%)	51,54,54	1.13	4 (7%)
18	CLA	B	1221	-	59,73,73	2.35	15 (25%)	67,113,113	2.25	18 (26%)
18	CLA	4	4016	-	40,54,73	2.75	14 (35%)	44,90,113	2.42	17 (38%)
27	LUT	1	1502	-	42,43,43	2.47	4 (9%)	51,60,60	2.21	18 (35%)
26	LMU	B	8002	-	36,36,36	0.45	0	47,47,47	1.06	3 (6%)
21	LHG	2	2801	-	23,23,48	1.32	2 (8%)	26,29,54	1.21	4 (15%)
18	CLA	B	1208	-	49,63,73	2.60	16 (32%)	55,101,113	2.38	15 (27%)
23	LMG	F	5002	-	37,37,55	1.07	2 (5%)	45,45,63	1.27	5 (11%)
18	CLA	A	1116	-	54,68,73	2.45	15 (27%)	61,107,113	2.35	15 (24%)
18	CLA	B	1204	-	49,63,73	2.59	15 (30%)	55,101,113	2.32	14 (25%)
18	CLA	2	2006	-	49,63,73	2.45	14 (28%)	55,101,113	2.42	15 (27%)
25	DGD	B	7101	-	62,62,67	0.91	1 (1%)	76,76,81	1.33	11 (14%)
22	BCR	F	6014	-	41,41,41	3.05	7 (17%)	56,56,56	6.69	23 (41%)
18	CLA	A	1137	-	49,63,73	2.58	16 (32%)	55,101,113	2.26	15 (27%)
18	CLA	2	2003	-	49,63,73	2.31	14 (28%)	55,101,113	2.63	17 (30%)
22	BCR	J	6012	-	41,41,41	2.91	8 (19%)	56,56,56	6.56	29 (51%)
22	BCR	L	6019	-	41,41,41	2.93	7 (17%)	56,56,56	6.55	24 (42%)
18	CLA	1	1001	15	54,68,73	2.25	15 (27%)	61,107,113	2.37	15 (24%)
29	ZEX	4	4505	-	42,43,43	1.08	3 (7%)	55,60,60	2.17	19 (34%)
18	CLA	4	4007	-	54,68,73	2.18	13 (24%)	61,107,113	2.54	15 (24%)
18	CLA	A	1123	-	59,73,73	2.36	16 (27%)	67,113,113	2.22	17 (25%)
18	CLA	A	1115	-	40,54,73	2.91	16 (40%)	44,90,113	2.25	12 (27%)
18	CLA	H	1000	11	40,54,73	2.90	15 (37%)	44,90,113	2.34	12 (27%)
18	CLA	A	1134	-	49,63,73	2.58	15 (30%)	55,101,113	2.34	15 (27%)
18	CLA	3	3010	-	54,68,73	2.24	14 (25%)	61,107,113	2.39	16 (26%)
27	LUT	4	4503	-	42,43,43	2.41	3 (7%)	51,60,60	2.42	15 (29%)
18	CLA	1	1006	-	44,58,73	2.49	17 (38%)	49,95,113	2.59	17 (34%)
18	CLA	2	2005	-	49,63,73	2.46	14 (28%)	55,101,113	2.30	17 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
18	CLA	A	1022	-	59,73,73	2.35	15 (25%)	67,113,113	2.18	17 (25%)
18	CLA	B	1232	-	49,63,73	2.58	16 (32%)	55,101,113	2.29	14 (25%)
18	CLA	A	1129	-	44,58,73	2.70	15 (34%)	49,95,113	2.52	16 (32%)
28	CHL	1	1010	15	41,55,74	1.43	6 (14%)	41,91,114	1.40	7 (17%)
18	CLA	F	1301	-	36,53,73	2.72	13 (36%)	39,89,113	2.39	11 (28%)
18	CLA	L	1502	-	54,68,73	2.26	15 (27%)	61,107,113	2.33	17 (27%)
27	LUT	1	1501	-	42,43,43	2.50	4 (9%)	51,60,60	2.31	14 (27%)
18	CLA	2	2007	-	54,68,73	2.32	15 (27%)	61,107,113	2.26	15 (24%)
18	CLA	3	3007	-	44,58,73	2.55	16 (36%)	49,95,113	2.57	17 (34%)
18	CLA	2	2002	-	40,54,73	2.59	15 (37%)	44,90,113	2.46	16 (36%)
18	CLA	B	1223	-	59,73,73	2.29	15 (25%)	67,113,113	2.21	16 (23%)
18	CLA	A	1133	-	49,63,73	2.56	16 (32%)	55,101,113	2.42	17 (30%)
23	LMG	4	4801	-	35,35,55	1.04	2 (5%)	43,43,63	1.63	10 (23%)
28	CHL	1	1009	-	50,64,74	1.33	6 (12%)	52,102,114	1.34	10 (19%)
18	CLA	A	1151	21	44,58,73	2.77	16 (36%)	49,95,113	2.46	13 (26%)
18	CLA	A	1104	-	59,73,73	2.35	16 (27%)	67,113,113	2.12	15 (22%)
18	CLA	B	1023	-	59,73,73	2.34	15 (25%)	67,113,113	2.18	19 (28%)
18	CLA	3	3018	16	44,58,73	2.50	17 (38%)	49,95,113	2.65	18 (36%)
18	CLA	3	3019	-	23,35,73	3.36	13 (56%)	26,60,113	3.39	14 (53%)
18	CLA	2	2012	13	49,63,73	2.29	15 (30%)	55,101,113	2.38	18 (32%)
18	CLA	B	1238	-	59,73,73	2.35	16 (27%)	67,113,113	2.12	14 (20%)
18	CLA	A	1135	-	45,59,73	2.68	15 (33%)	50,96,113	2.53	15 (30%)
20	PQN	A	5001	-	34,34,34	1.62	2 (5%)	42,45,45	1.19	3 (7%)
22	BCR	B	6005	-	41,41,41	2.71	6 (14%)	56,56,56	6.79	23 (41%)
18	CLA	A	1102	-	44,58,73	2.73	15 (34%)	49,95,113	2.45	14 (28%)
18	CLA	A	1127	-	59,73,73	2.35	15 (25%)	67,113,113	2.17	16 (23%)
18	CLA	3	3017	-	40,54,73	2.68	15 (37%)	44,90,113	2.30	13 (29%)
18	CLA	4	4005	14	54,68,73	2.19	14 (25%)	61,107,113	2.50	20 (32%)
17	CL0	A	1011	-	59,73,73	2.34	16 (27%)	67,113,113	2.25	16 (23%)
22	BCR	A	6017	-	41,41,41	2.67	6 (14%)	56,56,56	7.12	27 (48%)
23	LMG	F	5001	-	23,23,55	1.24	3 (13%)	31,31,63	1.72	6 (19%)
27	LUT	4	4502	-	42,43,43	2.38	3 (7%)	51,60,60	1.95	15 (29%)
18	CLA	4	4004	14	54,68,73	2.22	14 (25%)	61,107,113	2.28	17 (27%)
18	CLA	B	1202	-	59,73,73	2.31	15 (25%)	67,113,113	2.30	16 (23%)
18	CLA	B	1227	-	59,73,73	2.33	16 (27%)	67,113,113	2.18	17 (25%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
18	CLA	B	1230	-	52,66,73	2.48	14 (26%)	58,104,113	2.44	16 (27%)
18	CLA	A	1120	-	54,68,73	2.43	15 (27%)	61,107,113	2.25	15 (24%)
28	CHL	4	4013	-	41,55,74	1.79	7 (17%)	41,91,114	1.57	10 (24%)
18	CLA	A	1108	-	40,54,73	2.93	16 (40%)	44,90,113	2.30	14 (31%)
28	CHL	4	4010	-	41,55,74	1.86	10 (24%)	41,91,114	1.91	14 (34%)
18	CLA	4	4002	-	44,58,73	2.44	14 (31%)	49,95,113	2.70	19 (38%)
18	CLA	A	1125	-	54,68,73	2.40	15 (27%)	61,107,113	2.25	16 (26%)
18	CLA	B	1206	2	59,73,73	2.35	15 (25%)	67,113,113	2.28	18 (26%)
18	CLA	A	1117	-	59,73,73	2.34	15 (25%)	67,113,113	2.13	15 (22%)
18	CLA	B	1207	-	59,73,73	2.34	16 (27%)	67,113,113	2.19	16 (23%)
23	LMG	J	5001	-	55,55,55	0.88	2 (3%)	63,63,63	1.44	7 (11%)
18	CLA	3	3012	16	44,58,73	2.45	15 (34%)	49,95,113	2.65	16 (32%)
18	CLA	A	1140	-	59,73,73	2.36	16 (27%)	67,113,113	2.11	16 (23%)
18	CLA	1	1004	15	59,73,73	2.14	15 (25%)	67,113,113	2.25	16 (23%)
18	CLA	4	4008	-	40,54,73	2.53	14 (35%)	44,90,113	2.93	18 (40%)
22	BCR	L	6020	-	41,41,41	2.83	7 (17%)	56,56,56	6.55	29 (51%)
18	CLA	2	2016	13	44,58,73	2.57	15 (34%)	49,95,113	3.36	21 (42%)
27	LUT	4	4501	-	42,43,43	2.44	3 (7%)	51,60,60	2.19	16 (31%)
28	CHL	2	2010	-	41,55,74	1.72	7 (17%)	41,91,114	1.61	9 (21%)
18	CLA	3	3005	-	49,63,73	2.32	15 (30%)	55,101,113	2.60	17 (30%)
18	CLA	B	1214	-	53,67,73	2.47	15 (28%)	59,105,113	2.34	17 (28%)
18	CLA	A	1110	-	49,63,73	2.59	16 (32%)	55,101,113	2.29	16 (29%)
18	CLA	L	1503	-	44,58,73	2.53	15 (34%)	49,95,113	2.55	17 (34%)
18	CLA	A	1131	-	59,73,73	2.35	16 (27%)	67,113,113	2.11	14 (20%)
18	CLA	B	1231	-	54,68,73	2.48	16 (29%)	61,107,113	2.16	16 (26%)
18	CLA	B	1234	-	54,68,73	2.48	16 (29%)	61,107,113	2.32	18 (29%)
27	LUT	I	6018	-	42,43,43	2.46	1 (2%)	51,60,60	2.21	18 (35%)
18	CLA	3	3006	-	44,58,73	2.50	16 (36%)	49,95,113	2.73	17 (34%)
18	CLA	3	3003	16	54,68,73	2.26	16 (29%)	61,107,113	2.44	17 (27%)
18	CLA	B	1209	-	40,54,73	2.94	15 (37%)	44,90,113	2.38	12 (27%)
23	LMG	G	2021	-	41,41,55	0.95	2 (4%)	49,49,63	1.16	5 (10%)
18	CLA	1	1014	15	40,54,73	2.66	15 (37%)	44,90,113	2.51	15 (34%)
18	CLA	B	1236	-	49,63,73	2.58	15 (30%)	55,101,113	2.35	15 (27%)
18	CLA	B	1235	-	59,73,73	2.33	15 (25%)	67,113,113	2.22	15 (22%)
18	CLA	1	1011	-	44,58,73	2.47	15 (34%)	49,95,113	2.52	17 (34%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
18	CLA	B	1219	-	54,68,73	2.46	16 (29%)	61,107,113	2.21	14 (22%)
23	LMG	B	5005	-	38,38,55	1.08	2 (5%)	46,46,63	1.04	3 (6%)
18	CLA	B	1218	-	59,73,73	2.34	16 (27%)	67,113,113	2.22	16 (23%)
18	CLA	A	1109	-	59,73,73	2.34	15 (25%)	67,113,113	2.13	15 (22%)
18	CLA	B	1203	2	59,73,73	2.29	15 (25%)	67,113,113	2.15	15 (22%)
18	CLA	1	1012	15	44,58,73	2.48	16 (36%)	49,95,113	2.47	16 (32%)
18	CLA	A	1106	1	59,73,73	2.36	16 (27%)	67,113,113	2.23	16 (23%)
18	CLA	G	1002	-	40,54,73	2.71	16 (40%)	44,90,113	2.51	14 (31%)
28	CHL	3	3011	-	50,64,74	1.65	8 (16%)	52,102,114	1.39	10 (19%)
22	BCR	A	6008	-	41,41,41	2.83	6 (14%)	56,56,56	6.57	26 (46%)
18	CLA	A	1103	-	59,73,73	2.31	16 (27%)	67,113,113	2.21	17 (25%)
18	CLA	B	1224	-	59,73,73	2.32	15 (25%)	67,113,113	2.21	16 (23%)
18	CLA	4	4006	-	44,58,73	2.43	14 (31%)	49,95,113	2.51	18 (36%)
18	CLA	F	1302	5	44,58,73	2.60	14 (31%)	49,95,113	2.53	14 (28%)
28	CHL	2	2013	-	37,54,74	1.25	4 (10%)	36,90,114	1.40	8 (22%)
18	CLA	4	4017	-	59,73,73	2.13	16 (27%)	67,113,113	2.22	17 (25%)
18	CLA	A	1122	-	59,73,73	2.34	15 (25%)	67,113,113	2.10	15 (22%)
27	LUT	3	3501	-	42,43,43	2.34	1 (2%)	51,60,60	2.37	19 (37%)
22	BCR	B	6010	-	41,41,41	2.73	6 (14%)	56,56,56	6.56	23 (41%)
18	CLA	B	1239	-	59,73,73	2.34	16 (27%)	67,113,113	2.16	15 (22%)
28	CHL	2	2011	-	42,56,74	1.81	9 (21%)	42,92,114	1.47	9 (21%)
18	CLA	B	1216	-	59,73,73	2.34	16 (27%)	67,113,113	2.16	16 (23%)
23	LMG	2	2802	-	35,35,55	1.08	2 (5%)	43,43,63	1.33	7 (16%)
18	CLA	1	1007	21	40,54,73	2.59	15 (37%)	44,90,113	2.64	15 (34%)
18	CLA	A	1124	-	49,63,73	2.58	16 (32%)	55,101,113	2.36	16 (29%)
18	CLA	1	1008	-	40,54,73	2.63	15 (37%)	44,90,113	2.58	16 (36%)
18	CLA	A	1113	-	40,54,73	2.91	15 (37%)	44,90,113	2.32	14 (31%)
18	CLA	1	1002	-	40,54,73	2.63	14 (35%)	44,90,113	2.58	15 (34%)
18	CLA	B	1213	-	54,68,73	2.45	14 (25%)	61,107,113	2.22	15 (24%)
19	SF4	A	3001	1,2	0,12,12	0.00	-	-		
18	CLA	A	1105	-	45,59,73	2.70	16 (35%)	50,96,113	2.44	18 (36%)
22	BCR	B	6009	-	41,41,41	2.81	6 (14%)	56,56,56	6.39	23 (41%)
22	BCR	K	2011	-	41,41,41	2.71	6 (14%)	56,56,56	6.74	27 (48%)
22	BCR	A	6002	-	41,41,41	2.74	6 (14%)	56,56,56	6.45	22 (39%)
18	CLA	L	1501	7	44,58,73	2.47	16 (36%)	49,95,113	2.57	20 (40%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	#|Z| > 2	Counts	RMSZ	#|Z| > 2
18	CLA	A	1136	-	50,64,73	2.54	16 (32%)	56,102,113	2.34	18 (32%)
18	CLA	B	1021	-	59,73,73	2.34	14 (23%)	67,113,113	2.25	17 (25%)
18	CLA	B	1215	-	54,68,73	2.48	16 (29%)	61,107,113	2.24	15 (24%)
18	CLA	A	1128	-	59,73,73	2.34	15 (25%)	67,113,113	2.17	16 (23%)
20	PQN	B	5002	-	34,34,34	1.69	2 (5%)	42,45,45	1.07	3 (7%)
18	CLA	3	3001	16	44,58,73	2.49	15 (34%)	49,95,113	2.57	15 (30%)
22	BCR	3	3503	-	41,41,41	2.95	9 (21%)	56,56,56	6.43	31 (55%)
18	CLA	4	4012	14	59,73,73	2.09	15 (25%)	67,113,113	2.29	19 (28%)
21	LHG	A	5003	18	39,39,48	1.04	2 (5%)	42,45,54	1.18	4 (9%)
22	BCR	A	6011	-	41,41,41	2.89	6 (14%)	56,56,56	6.72	24 (42%)
18	CLA	A	1119	-	59,73,73	2.32	15 (25%)	67,113,113	2.11	16 (23%)
22	BCR	F	6016	-	41,41,41	3.07	9 (21%)	56,56,56	6.70	24 (42%)
18	CLA	B	1217	-	40,54,73	2.91	16 (40%)	44,90,113	2.35	12 (27%)
18	CLA	A	1101	-	59,73,73	2.33	15 (25%)	67,113,113	2.24	15 (22%)
18	CLA	A	1138	-	59,73,73	2.37	15 (25%)	67,113,113	2.05	17 (25%)
22	BCR	G	2011	-	41,41,41	3.05	7 (17%)	56,56,56	6.73	29 (51%)
18	CLA	K	1001	-	40,54,73	2.68	15 (37%)	44,90,113	2.76	14 (31%)
18	CLA	B	1212	-	49,63,73	2.56	16 (32%)	55,101,113	2.41	17 (30%)
18	CLA	B	1012	-	59,73,73	2.33	15 (25%)	67,113,113	2.22	17 (25%)
18	CLA	G	1001	-	49,63,73	2.34	15 (30%)	55,101,113	2.61	20 (36%)
18	CLA	B	1205	-	59,73,73	2.32	15 (25%)	67,113,113	2.09	17 (25%)
18	CLA	B	1210	-	59,73,73	2.31	15 (25%)	67,113,113	2.15	17 (25%)
22	BCR	A	6007	-	41,41,41	2.75	7 (17%)	56,56,56	6.52	23 (41%)
18	CLA	B	1229	-	59,73,73	2.36	16 (27%)	67,113,113	2.14	17 (25%)
18	CLA	B	1226	-	59,73,73	2.29	15 (25%)	67,113,113	2.20	15 (22%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
21	LHG	B	5004	18	-	15/23/23/53	-
21	LHG	1	1801	18	-	24/53/53/53	-
18	CLA	A	1132	-	3/3/20/25	13/37/135/135	-
18	CLA	B	1220	-	2/2/20/25	16/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	CLA	B	1201	-	3/3/17/25	10/19/117/135	-
22	BCR	I	6020	-	-	10/29/63/63	0/2/2/2
22	BCR	A	6003	-	-	13/29/63/63	0/2/2/2
18	CLA	4	4001	14	3/3/19/25	13/31/129/135	-
18	CLA	1	1005	-	3/3/18/25	10/25/123/135	-
18	CLA	3	3004	16	3/3/19/25	10/31/129/135	-
18	CLA	B	1222	-	3/3/20/25	16/37/135/135	-
18	CLA	B	1240	21	2/2/20/25	17/37/135/135	-
19	SF4	C	3003	8	-	-	0/6/5/5
18	CLA	B	1225	-	3/3/20/25	16/37/135/135	-
18	CLA	1	1003	15	3/3/18/25	7/25/123/135	-
18	CLA	4	4009	14	3/3/17/25	4/19/117/135	-
18	CLA	A	1013	-	3/3/20/25	12/37/135/135	-
18	CLA	J	1302	4	3/3/17/25	11/19/117/135	-
18	CLA	A	1126	-	3/3/20/25	15/37/135/135	-
18	CLA	A	1111	-	2/2/19/25	11/31/129/135	-
28	CHL	4	4011	-	3/3/17/26	3/21/119/137	-
22	BCR	B	6004	-	-	10/29/63/63	0/2/2/2
18	CLA	1	1013	-	3/3/16/25	8/15/113/135	-
18	CLA	A	1114	-	3/3/16/25	6/15/113/135	-
18	CLA	2	2001	13	3/3/19/25	18/31/129/135	-
18	CLA	A	1237	-	3/3/19/25	13/31/129/135	-
18	CLA	A	1121	-	3/3/18/25	15/25/123/135	-
18	CLA	2	2004	13	3/3/20/25	13/37/135/135	-
26	LMU	B	8001	-	-	8/21/61/61	0/2/2/2
18	CLA	3	3008	-	3/3/16/25	12/17/115/135	-
18	CLA	G	1003	-	3/3/19/25	13/31/129/135	-
22	BCR	G	2011	-	-	11/29/63/63	0/2/2/2
27	LUT	2	2501	-	1/1/12/27	3/29/67/67	0/2/2/2
18	CLA	3	3002	-	3/3/16/25	6/15/113/135	-
18	CLA	A	1137	-	3/3/18/25	12/25/123/135	-
18	CLA	3	3013	-	3/3/16/25	11/15/113/135	-
18	CLA	2	2009	13	3/3/17/25	7/19/117/135	-
19	SF4	C	3002	8	-	-	0/6/5/5

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	CLA	2	2008	-	3/3/17/25	9/19/117/135	-
18	CLA	B	1228	-	3/3/19/25	15/31/129/135	-
22	BCR	B	6006	-	-	10/29/63/63	0/2/2/2
18	CLA	A	1112	-	2/2/20/25	14/37/135/135	-
18	CLA	A	1118	-	3/3/16/25	8/15/113/135	-
18	CLA	A	1139	-	3/3/20/25	14/37/135/135	-
27	LUT	3	3502	-	1/1/12/27	8/29/67/67	0/2/2/2
18	CLA	A	1130	-	2/2/17/25	7/19/117/135	-
18	CLA	4	4003	14	3/3/20/25	17/37/135/135	-
18	CLA	A	1107	1	3/3/20/25	14/37/135/135	-
18	CLA	2	2019	-	3/3/8/25	-	-
22	BCR	B	6009	-	-	7/29/63/63	0/2/2/2
22	BCR	J	6013	-	-	13/29/63/63	0/2/2/2
21	LHG	A	7001	-	-	30/53/53/53	-
18	CLA	B	1221	-	3/3/20/25	19/37/135/135	-
18	CLA	4	4016	-	3/3/16/25	11/15/113/135	-
27	LUT	1	1502	-	1/1/12/27	3/29/67/67	0/2/2/2
26	LMU	B	8002	-	-	14/21/61/61	0/2/2/2
21	LHG	2	2801	-	-	15/28/28/53	-
22	BCR	K	2011	-	-	11/29/63/63	0/2/2/2
18	CLA	B	1208	-	3/3/18/25	15/25/123/135	-
23	LMG	F	5002	-	-	15/32/52/70	0/1/1/1
18	CLA	A	1116	-	3/3/19/25	17/31/129/135	-
18	CLA	B	1204	-	2/2/18/25	12/25/123/135	-
18	CLA	2	2006	-	3/3/18/25	10/25/123/135	-
25	DGD	B	7101	-	-	23/50/90/95	0/2/2/2
22	BCR	F	6014	-	-	12/29/63/63	0/2/2/2
18	CLA	2	2003	-	3/3/18/25	11/25/123/135	-
22	BCR	J	6012	-	-	11/29/63/63	0/2/2/2
22	BCR	L	6019	-	-	11/29/63/63	0/2/2/2
18	CLA	1	1001	15	3/3/19/25	14/31/129/135	-
29	ZEX	4	4505	-	-	2/29/67/67	0/2/2/2
18	CLA	4	4007	-	3/3/19/25	14/31/129/135	-
18	CLA	A	1123	-	2/2/20/25	16/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	CLA	A	1115	-	3/3/16/25	6/15/113/135	-
18	CLA	H	1000	11	3/3/16/25	10/15/113/135	-
18	CLA	A	1134	-	2/2/18/25	15/25/123/135	-
18	CLA	3	3010	-	3/3/19/25	17/31/129/135	-
27	LUT	4	4503	-	1/1/12/27	10/29/67/67	0/2/2/2
18	CLA	1	1006	-	3/3/17/25	8/19/117/135	-
18	CLA	2	2005	-	3/3/18/25	14/25/123/135	-
18	CLA	A	1022	-	2/2/20/25	12/37/135/135	-
18	CLA	B	1232	-	3/3/18/25	6/25/123/135	-
18	CLA	A	1129	-	2/2/17/25	9/19/117/135	-
28	CHL	1	1010	15	3/3/16/26	5/17/115/137	-
18	CLA	F	1301	-	3/3/16/25	2/11/111/135	-
18	CLA	L	1502	-	3/3/19/25	15/31/129/135	-
27	LUT	1	1501	-	1/1/12/27	8/29/67/67	0/2/2/2
18	CLA	2	2007	-	3/3/19/25	13/31/129/135	-
18	CLA	3	3007	-	3/3/17/25	6/19/117/135	-
18	CLA	2	2002	-	3/3/16/25	8/15/113/135	-
18	CLA	B	1223	-	2/2/20/25	14/37/135/135	-
18	CLA	A	1133	-	2/2/18/25	10/25/123/135	-
23	LMG	4	4801	-	-	16/30/50/70	0/1/1/1
28	CHL	1	1009	-	4/4/18/26	8/27/125/137	-
18	CLA	A	1151	21	3/3/17/25	11/19/117/135	-
18	CLA	B	1238	-	3/3/20/25	15/37/135/135	-
18	CLA	A	1104	-	3/3/20/25	16/37/135/135	-
18	CLA	B	1023	-	3/3/20/25	10/37/135/135	-
18	CLA	3	3018	16	3/3/17/25	7/19/117/135	-
18	CLA	3	3019	-	3/3/8/25	-	-
18	CLA	2	2012	13	3/3/18/25	9/25/123/135	-
18	CLA	B	1229	-	3/3/20/25	15/37/135/135	-
18	CLA	A	1135	-	2/2/17/25	6/21/119/135	-
20	PQN	A	5001	-	-	10/23/43/43	0/2/2/2
22	BCR	B	6005	-	-	13/29/63/63	0/2/2/2
18	CLA	A	1102	-	3/3/17/25	7/19/117/135	-
18	CLA	A	1127	-	3/3/20/25	19/37/135/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	CLA	3	3017	-	3/3/16/25	9/15/113/135	-
18	CLA	4	4005	14	3/3/19/25	12/31/129/135	-
17	CL0	A	1011	-	3/3/20/25	8/37/135/135	-
22	BCR	A	6017	-	-	10/29/63/63	0/2/2/2
23	LMG	F	5001	-	-	9/16/36/70	0/1/1/1
27	LUT	4	4502	-	1/1/12/27	8/29/67/67	0/2/2/2
18	CLA	4	4004	14	3/3/19/25	10/31/129/135	-
18	CLA	B	1227	-	3/3/20/25	11/37/135/135	-
18	CLA	B	1230	-	3/3/18/25	16/29/127/135	-
18	CLA	A	1120	-	3/3/19/25	16/31/129/135	-
18	CLA	A	1108	-	3/3/16/25	6/15/113/135	-
28	CHL	4	4010	-	3/3/16/26	4/17/115/137	-
18	CLA	4	4002	-	3/3/17/25	7/19/117/135	-
18	CLA	A	1125	-	3/3/19/25	19/31/129/135	-
18	CLA	B	1206	2	2/2/20/25	15/37/135/135	-
18	CLA	A	1117	-	2/2/20/25	13/37/135/135	-
18	CLA	B	1207	-	2/2/20/25	18/37/135/135	-
23	LMG	J	5001	-	-	36/50/70/70	0/1/1/1
18	CLA	B	1235	-	2/2/20/25	17/37/135/135	-
18	CLA	A	1140	-	3/3/20/25	16/37/135/135	-
18	CLA	1	1004	15	3/3/20/25	18/37/135/135	-
18	CLA	4	4008	-	3/3/16/25	12/15/113/135	-
18	CLA	B	1211	-	3/3/20/25	11/37/135/135	-
18	CLA	2	2016	13	3/3/17/25	9/19/117/135	-
27	LUT	4	4501	-	1/1/12/27	4/29/67/67	0/2/2/2
28	CHL	2	2010	-	3/3/16/26	2/17/115/137	-
18	CLA	3	3005	-	3/3/18/25	17/25/123/135	-
18	CLA	B	1214	-	3/3/18/25	10/30/128/135	-
18	CLA	A	1110	-	3/3/18/25	10/25/123/135	-
18	CLA	L	1503	-	3/3/17/25	5/19/117/135	-
18	CLA	A	1131	-	3/3/20/25	12/37/135/135	-
18	CLA	B	1231	-	3/3/19/25	11/31/129/135	-
18	CLA	B	1234	-	3/3/19/25	11/31/129/135	-
27	LUT	I	6018	-	1/1/12/27	3/29/67/67	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	CLA	3	3006	-	3/3/17/25	6/19/117/135	-
18	CLA	3	3003	16	3/3/19/25	10/31/129/135	-
18	CLA	B	1209	-	3/3/16/25	5/15/113/135	-
23	LMG	G	2021	-	-	24/36/56/70	0/1/1/1
18	CLA	1	1014	15	3/3/16/25	9/15/113/135	-
18	CLA	B	1236	-	2/2/18/25	10/25/123/135	-
18	CLA	3	3012	16	3/3/17/25	7/19/117/135	-
18	CLA	1	1011	-	3/3/17/25	10/19/117/135	-
18	CLA	B	1219	-	3/3/19/25	17/31/129/135	-
23	LMG	B	5005	-	-	17/33/53/70	0/1/1/1
18	CLA	B	1218	-	3/3/20/25	16/37/135/135	-
18	CLA	A	1109	-	3/3/20/25	11/37/135/135	-
18	CLA	B	1203	2	2/2/20/25	14/37/135/135	-
22	BCR	F	6016	-	-	8/29/63/63	0/2/2/2
18	CLA	1	1012	15	3/3/17/25	8/19/117/135	-
18	CLA	A	1106	1	3/3/20/25	14/37/135/135	-
18	CLA	G	1002	-	3/3/16/25	8/15/113/135	-
28	CHL	3	3011	-	4/4/18/26	6/27/125/137	-
22	BCR	A	6008	-	-	9/29/63/63	0/2/2/2
18	CLA	A	1103	-	2/2/20/25	21/37/135/135	-
18	CLA	B	1224	-	3/3/20/25	21/37/135/135	-
18	CLA	4	4006	-	3/3/17/25	6/19/117/135	-
18	CLA	F	1302	5	3/3/17/25	10/19/117/135	-
28	CHL	2	2013	-	3/3/16/26	2/13/113/137	-
18	CLA	4	4017	-	3/3/20/25	19/37/135/135	-
18	CLA	A	1122	-	3/3/20/25	24/37/135/135	-
27	LUT	3	3501	-	1/1/12/27	5/29/67/67	0/2/2/2
22	BCR	B	6010	-	-	10/29/63/63	0/2/2/2
18	CLA	B	1239	-	3/3/20/25	18/37/135/135	-
28	CHL	2	2011	-	3/3/16/26	2/18/116/137	-
18	CLA	B	1216	-	3/3/20/25	13/37/135/135	-
23	LMG	2	2802	-	-	12/30/50/70	0/1/1/1
18	CLA	1	1007	21	3/3/16/25	8/15/113/135	-
18	CLA	A	1124	-	3/3/18/25	10/25/123/135	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	CLA	1	1008	-	3/3/16/25	9/15/113/135	-
18	CLA	A	1113	-	2/2/16/25	11/15/113/135	-
18	CLA	1	1002	-	3/3/16/25	6/15/113/135	-
18	CLA	B	1213	-	2/2/19/25	13/31/129/135	-
19	SF4	A	3001	1,2	-	-	0/6/5/5
18	CLA	A	1105	-	3/3/17/25	12/21/119/135	-
27	LUT	2	2502	-	1/1/12/27	4/29/67/67	0/2/2/2
28	CHL	4	4013	-	3/3/16/26	4/17/115/137	-
22	BCR	A	6002	-	-	11/29/63/63	0/2/2/2
18	CLA	L	1501	7	3/3/17/25	7/19/117/135	-
18	CLA	A	1136	-	3/3/18/25	9/27/125/135	-
18	CLA	B	1021	-	3/3/20/25	14/37/135/135	-
18	CLA	B	1215	-	2/2/19/25	15/31/129/135	-
18	CLA	A	1128	-	3/3/20/25	13/37/135/135	-
20	PQN	B	5002	-	-	13/23/43/43	0/2/2/2
18	CLA	3	3001	16	3/3/17/25	4/19/117/135	-
22	BCR	3	3503	-	-	14/29/63/63	0/2/2/2
18	CLA	4	4012	14	3/3/20/25	17/37/135/135	-
21	LHG	A	5003	18	-	21/44/44/53	-
22	BCR	A	6011	-	-	18/29/63/63	0/2/2/2
18	CLA	A	1119	-	3/3/20/25	24/37/135/135	-
22	BCR	L	6020	-	-	9/29/63/63	0/2/2/2
18	CLA	B	1217	-	3/3/16/25	8/15/113/135	-
18	CLA	A	1101	-	2/2/20/25	15/37/135/135	-
18	CLA	A	1138	-	3/3/20/25	19/37/135/135	-
18	CLA	B	1202	-	2/2/20/25	18/37/135/135	-
18	CLA	K	1001	-	3/3/16/25	11/15/113/135	-
18	CLA	B	1212	-	3/3/18/25	7/25/123/135	-
18	CLA	B	1012	-	2/2/20/25	15/37/135/135	-
18	CLA	G	1001	-	3/3/18/25	18/25/123/135	-
18	CLA	B	1205	-	3/3/20/25	10/37/135/135	-
18	CLA	B	1210	-	3/3/20/25	15/37/135/135	-
22	BCR	A	6007	-	-	6/29/63/63	0/2/2/2
18	CLA	B	1226	-	3/3/20/25	19/37/135/135	-

The worst 5 of 2508 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	2	2502	LUT	C24-C25	14.89	1.51	1.33
27	I	6018	LUT	C24-C25	14.89	1.51	1.33
27	2	2501	LUT	C24-C25	14.81	1.51	1.33
27	1	1501	LUT	C24-C25	14.74	1.51	1.33
27	1	1502	LUT	C24-C25	14.31	1.51	1.33

The worst 5 of 3260 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	A	6017	BCR	C16-C17-C18	29.85	169.91	127.31
22	G	2011	BCR	C16-C17-C18	27.95	167.20	127.31
22	B	6005	BCR	C16-C17-C18	27.71	166.86	127.31
22	K	2011	BCR	C16-C17-C18	27.60	166.70	127.31
22	I	6020	BCR	C16-C17-C18	27.15	166.06	127.31

5 of 454 chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
18	A	1132	CLA	NC
18	A	1132	CLA	ND
18	A	1132	CLA	NA
18	B	1220	CLA	NC
18	B	1220	CLA	NA

5 of 2378 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
21	B	5004	LHG	C3-O3-P-O4
21	B	5004	LHG	C4-O6-P-O4
21	B	5004	LHG	C8-C7-O7-C5
21	1	1801	LHG	C3-O3-P-O4
21	1	1801	LHG	C3-O3-P-O5

There are no ring outliers.

205 monomers are involved in 1953 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
21	B	5004	LHG	1	0
21	1	1801	LHG	15	0
18	A	1132	CLA	7	0
18	B	1220	CLA	11	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
18	B	1201	CLA	2	0
22	I	6020	BCR	3	0
22	A	6003	BCR	2	0
18	4	4001	CLA	25	0
18	1	1005	CLA	15	0
18	3	3004	CLA	20	0
18	B	1222	CLA	8	0
18	B	1240	CLA	10	0
18	B	1225	CLA	4	0
18	1	1003	CLA	32	0
18	4	4009	CLA	9	0
18	A	1013	CLA	8	0
18	J	1302	CLA	7	0
18	B	1211	CLA	7	0
18	A	1126	CLA	10	0
18	A	1111	CLA	8	0
28	4	4011	CHL	20	0
22	B	6004	BCR	10	0
18	1	1013	CLA	16	0
18	A	1114	CLA	3	0
18	2	2001	CLA	33	0
18	A	1237	CLA	5	0
18	A	1121	CLA	4	0
18	2	2004	CLA	23	0
26	B	8001	LMU	1	0
18	3	3008	CLA	19	0
18	G	1003	CLA	30	0
27	2	2502	LUT	32	0
27	2	2501	LUT	23	0
18	3	3002	CLA	10	0
18	3	3013	CLA	23	0
18	2	2009	CLA	15	0
18	2	2008	CLA	16	0
18	B	1228	CLA	1	0
22	B	6006	BCR	5	0
18	A	1112	CLA	13	0
18	A	1118	CLA	3	0
18	A	1139	CLA	5	0
27	3	3502	LUT	24	0
18	A	1130	CLA	4	0
18	4	4003	CLA	13	0
18	A	1107	CLA	3	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
22	J	6013	BCR	8	0
21	A	7001	LHG	7	0
18	B	1221	CLA	14	0
18	4	4016	CLA	24	0
27	1	1502	LUT	17	0
26	B	8002	LMU	3	0
21	2	2801	LHG	6	0
18	B	1208	CLA	7	0
23	F	5002	LMG	6	0
18	A	1116	CLA	7	0
18	B	1204	CLA	10	0
18	2	2006	CLA	22	0
25	B	7101	DGD	4	0
22	F	6014	BCR	8	0
18	A	1137	CLA	3	0
18	2	2003	CLA	30	0
22	J	6012	BCR	7	0
22	L	6019	BCR	22	0
18	1	1001	CLA	48	0
29	4	4505	ZEX	12	0
18	4	4007	CLA	20	0
18	A	1123	CLA	4	0
18	A	1115	CLA	3	0
18	H	1000	CLA	4	0
18	A	1134	CLA	2	0
18	3	3010	CLA	34	0
27	4	4503	LUT	32	0
18	1	1006	CLA	11	0
18	2	2005	CLA	24	0
18	A	1022	CLA	7	0
18	B	1232	CLA	3	0
18	A	1129	CLA	1	0
28	1	1010	CHL	8	0
18	F	1301	CLA	6	0
18	L	1502	CLA	13	0
27	1	1501	LUT	31	0
18	2	2007	CLA	26	0
18	3	3007	CLA	8	0
18	2	2002	CLA	38	0
18	B	1223	CLA	4	0
18	A	1133	CLA	3	0
23	4	4801	LMG	6	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
28	1	1009	CHL	27	0
18	A	1151	CLA	4	0
18	A	1104	CLA	4	0
18	B	1023	CLA	5	0
18	3	3018	CLA	19	0
18	3	3019	CLA	1	0
18	2	2012	CLA	24	0
18	B	1238	CLA	9	0
18	A	1135	CLA	4	0
20	A	5001	PQN	3	0
22	B	6005	BCR	2	0
18	A	1102	CLA	4	0
18	A	1127	CLA	6	0
18	3	3017	CLA	11	0
18	4	4005	CLA	16	0
17	A	1011	CL0	6	0
22	A	6017	BCR	5	0
23	F	5001	LMG	7	0
27	4	4502	LUT	31	0
18	4	4004	CLA	19	0
18	B	1202	CLA	7	0
18	B	1227	CLA	8	0
18	B	1230	CLA	8	0
18	A	1120	CLA	3	0
28	4	4013	CHL	19	0
18	A	1108	CLA	3	0
28	4	4010	CHL	8	0
18	4	4002	CLA	11	0
18	A	1125	CLA	3	0
18	B	1206	CLA	6	0
18	A	1117	CLA	4	0
18	B	1207	CLA	12	0
23	J	5001	LMG	9	0
18	3	3012	CLA	32	0
18	A	1140	CLA	5	0
18	1	1004	CLA	26	0
18	4	4008	CLA	15	0
22	L	6020	BCR	6	0
18	2	2016	CLA	36	0
27	4	4501	LUT	21	0
28	2	2010	CHL	18	0
18	3	3005	CLA	18	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
18	B	1214	CLA	3	0
18	A	1110	CLA	10	0
18	L	1503	CLA	11	0
18	A	1131	CLA	3	0
18	B	1231	CLA	3	0
18	B	1234	CLA	8	0
27	I	6018	LUT	14	0
18	3	3006	CLA	36	0
18	3	3003	CLA	51	0
18	B	1209	CLA	3	0
23	G	2021	LMG	20	0
18	1	1014	CLA	14	0
18	B	1236	CLA	5	0
18	B	1235	CLA	5	0
18	1	1011	CLA	18	0
18	B	1219	CLA	2	0
23	B	5005	LMG	3	0
18	B	1218	CLA	11	0
18	A	1109	CLA	8	0
18	B	1203	CLA	3	0
18	1	1012	CLA	16	0
18	A	1106	CLA	9	0
18	G	1002	CLA	26	0
28	3	3011	CHL	22	0
22	A	6008	BCR	2	0
18	A	1103	CLA	6	0
18	B	1224	CLA	7	0
18	4	4006	CLA	21	0
18	F	1302	CLA	14	0
28	2	2013	CHL	18	0
18	4	4017	CLA	11	0
18	A	1122	CLA	6	0
27	3	3501	LUT	38	0
22	B	6010	BCR	1	0
18	B	1239	CLA	5	0
28	2	2011	CHL	6	0
18	B	1216	CLA	7	0
23	2	2802	LMG	9	0
18	1	1007	CLA	10	0
18	A	1124	CLA	4	0
18	1	1008	CLA	34	0
18	A	1113	CLA	2	0

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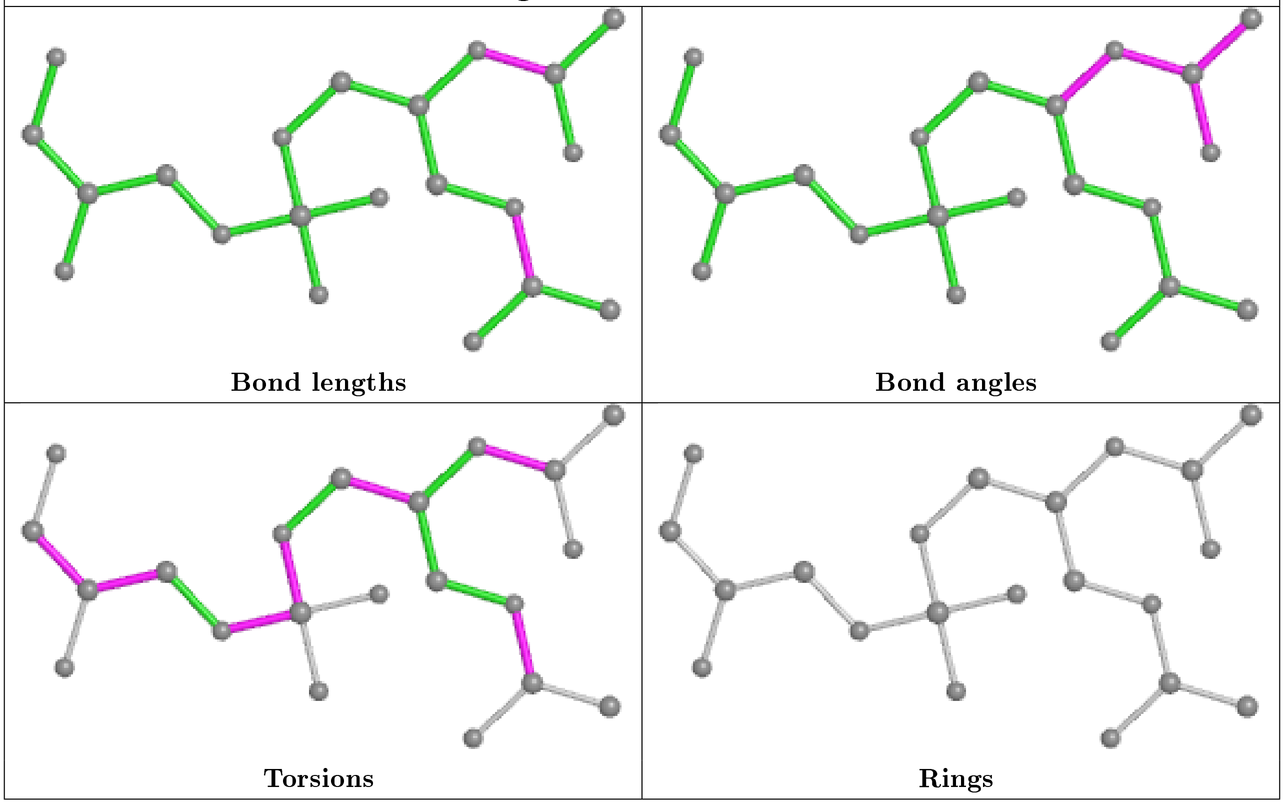
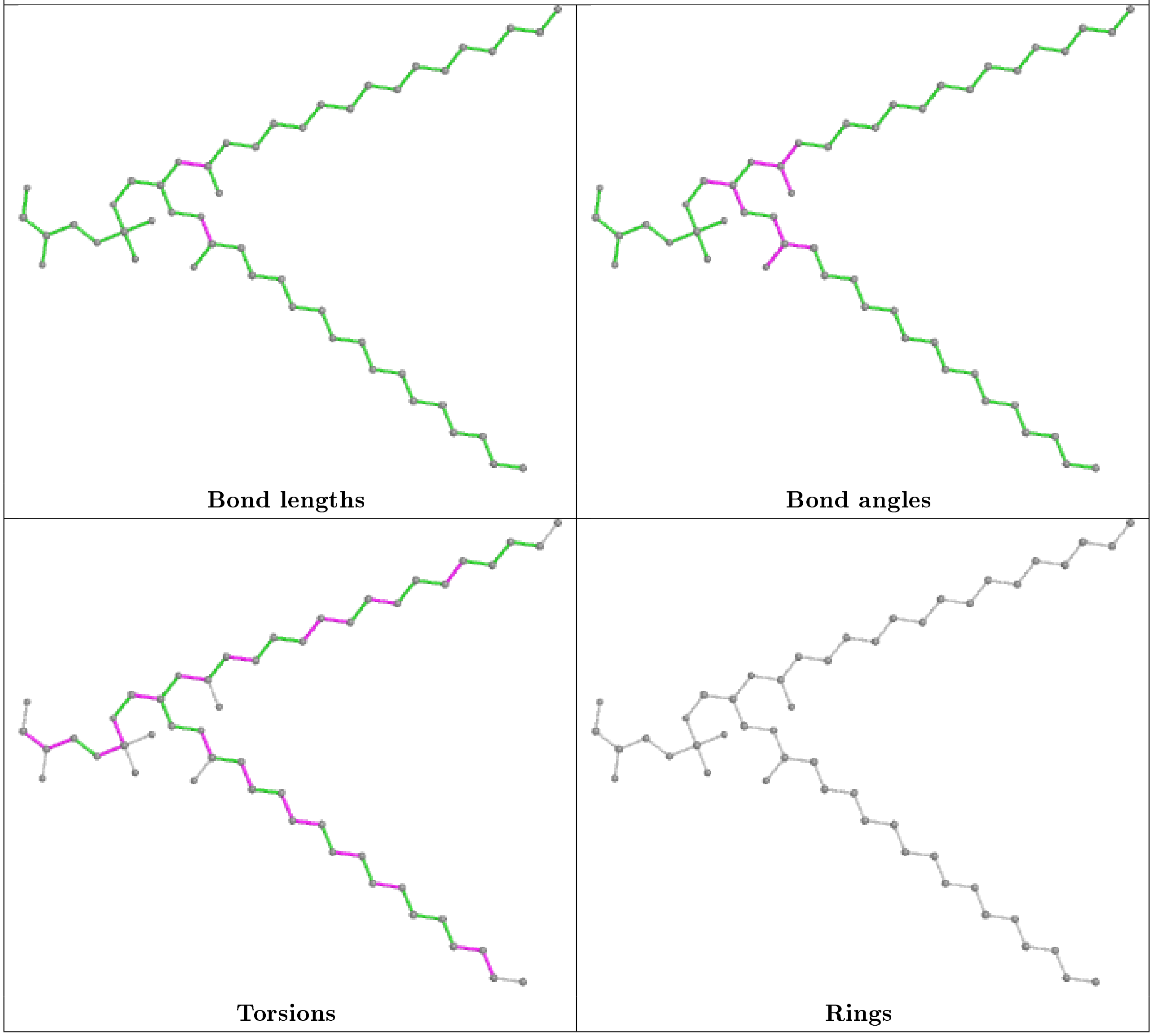
Mol	Chain	Res	Type	Clashes	Symm-Clashes
18	1	1002	CLA	21	0
18	B	1213	CLA	6	0
19	A	3001	SF4	1	0
18	A	1105	CLA	3	0
22	B	6009	BCR	6	0
22	K	2011	BCR	17	0
22	A	6002	BCR	4	0
18	L	1501	CLA	15	0
18	A	1136	CLA	7	0
18	B	1021	CLA	9	0
18	B	1215	CLA	4	0
18	A	1128	CLA	11	0
20	B	5002	PQN	5	0
18	3	3001	CLA	24	0
22	3	3503	BCR	21	0
18	4	4012	CLA	28	0
21	A	5003	LHG	5	0
22	A	6011	BCR	5	0
18	A	1119	CLA	7	0
22	F	6016	BCR	11	0
18	B	1217	CLA	1	0
18	A	1101	CLA	6	0
18	A	1138	CLA	4	0
22	G	2011	BCR	29	0
18	K	1001	CLA	12	0
18	B	1212	CLA	5	0
18	B	1012	CLA	6	0
18	G	1001	CLA	36	0
18	B	1205	CLA	8	0
18	B	1210	CLA	9	0
22	A	6007	BCR	3	0
18	B	1229	CLA	6	0
18	B	1226	CLA	7	0

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

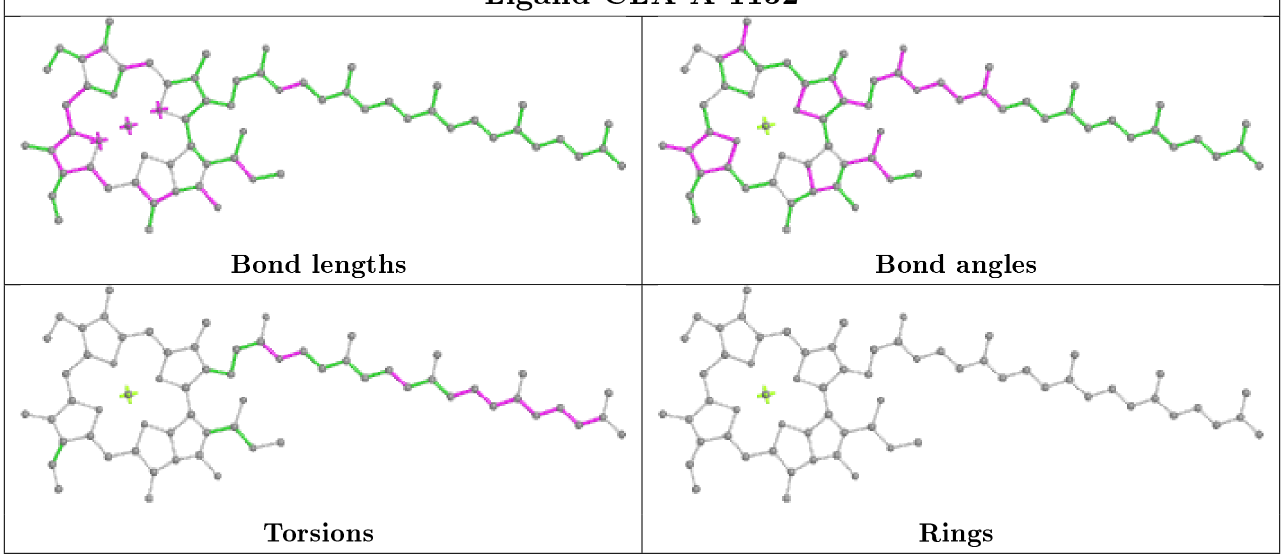
Ligand LHG B 5004



Ligand LHG 1 1801



Ligand CLA A 1132



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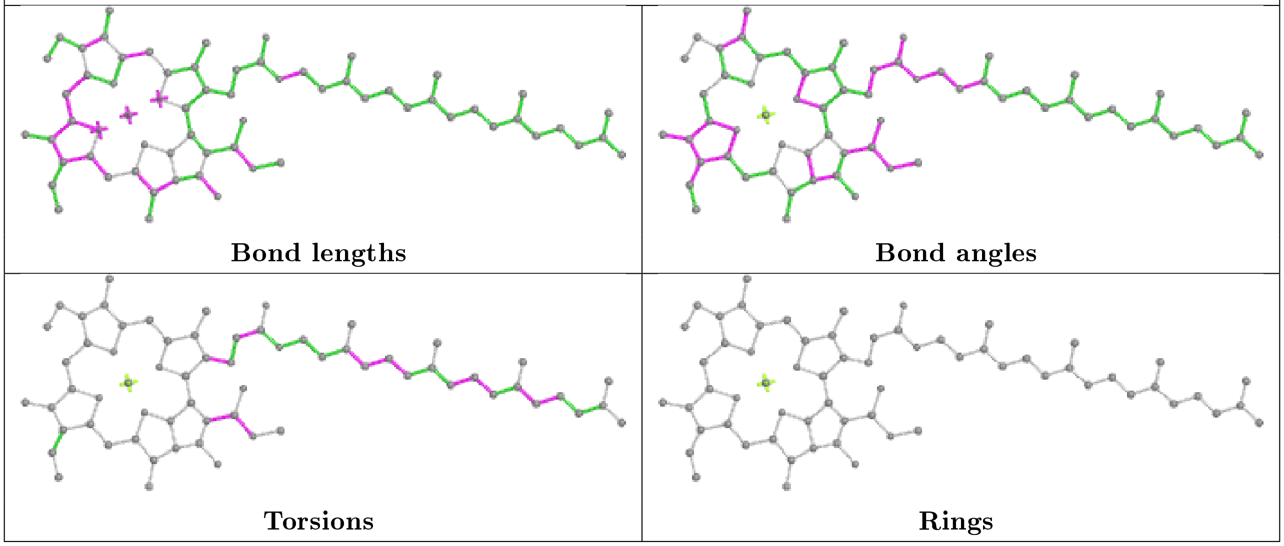

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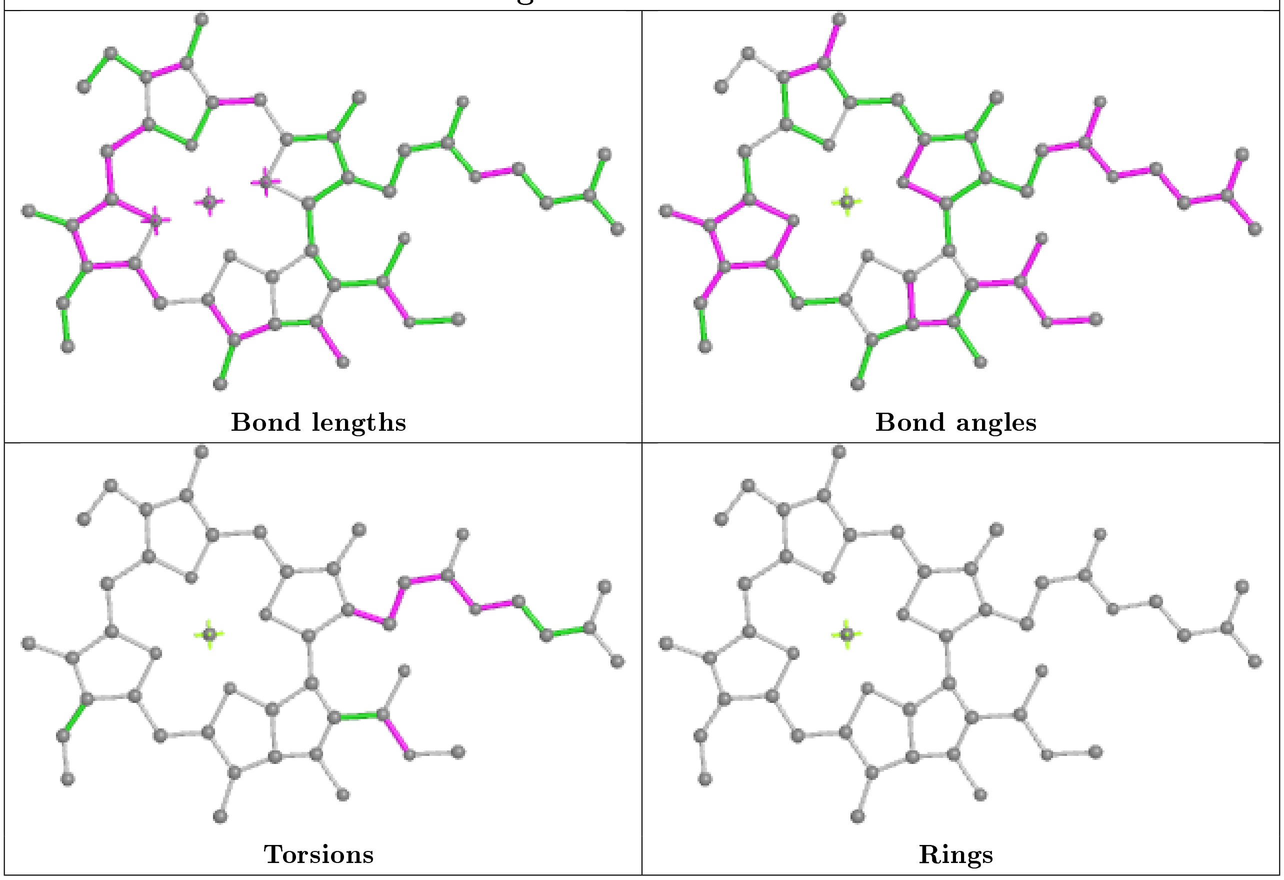
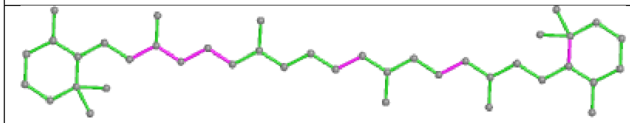
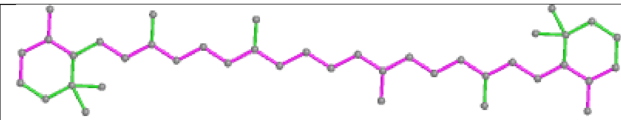


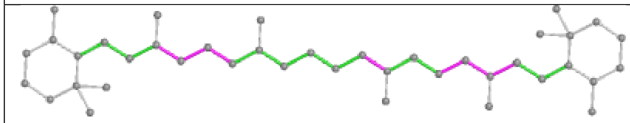
Ligand BCR I 6020



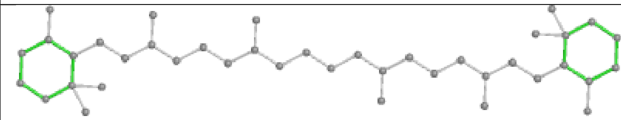
Bond lengths



Bond angles

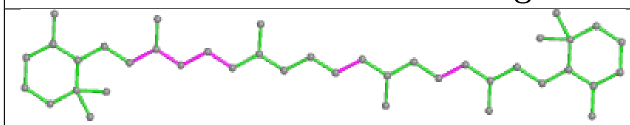


Torsions



Rings

Ligand BCR A 6003



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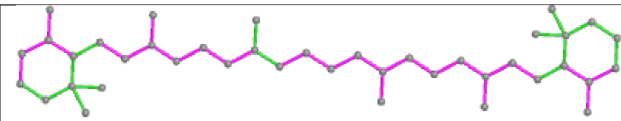

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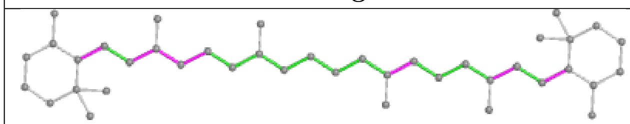

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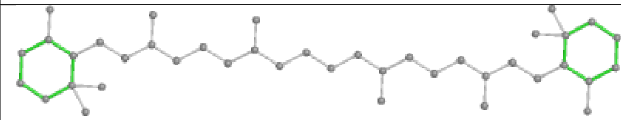
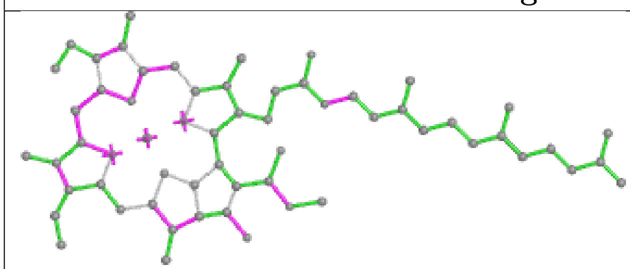


Rings

Ligand CLA 4 4001



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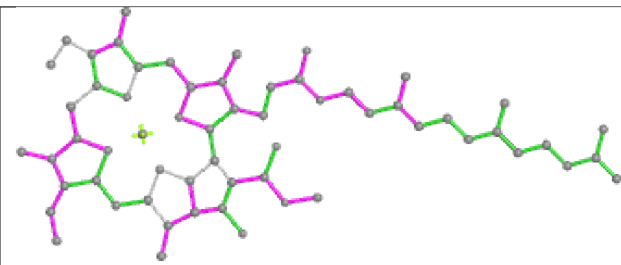

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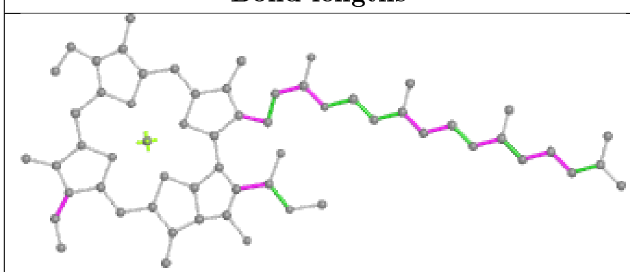

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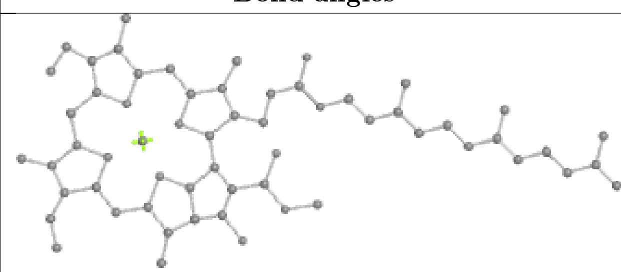
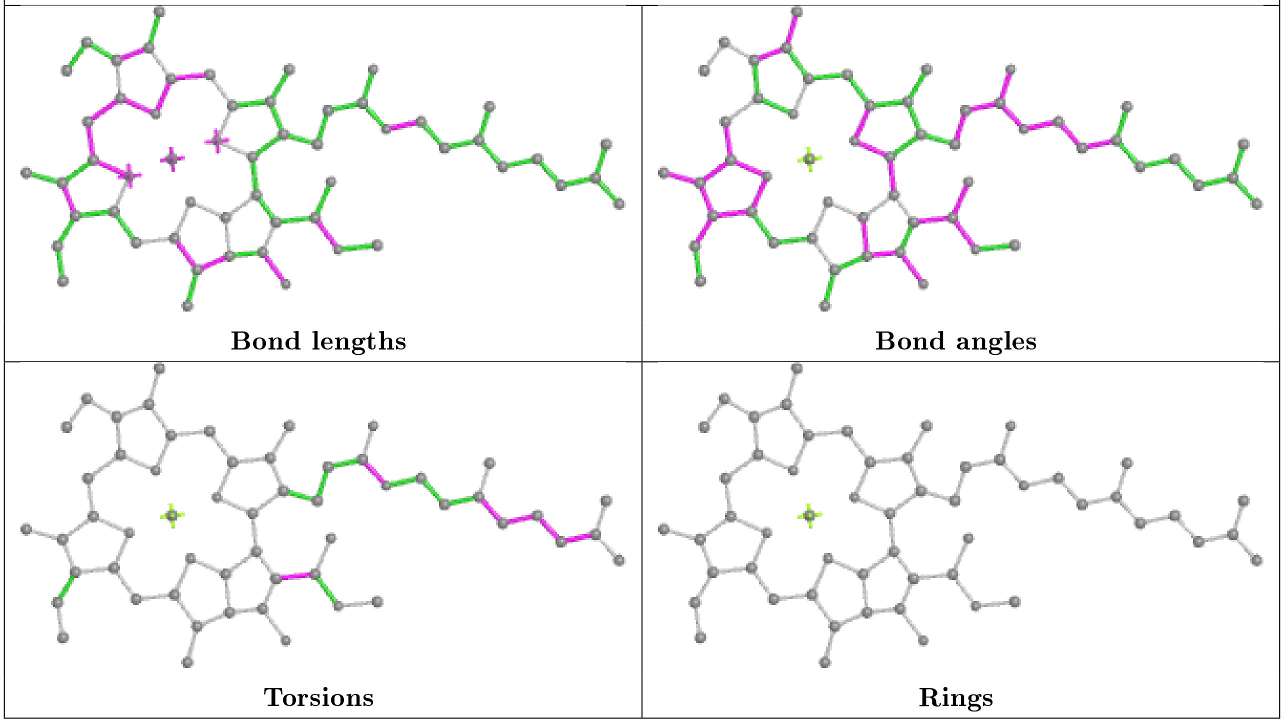
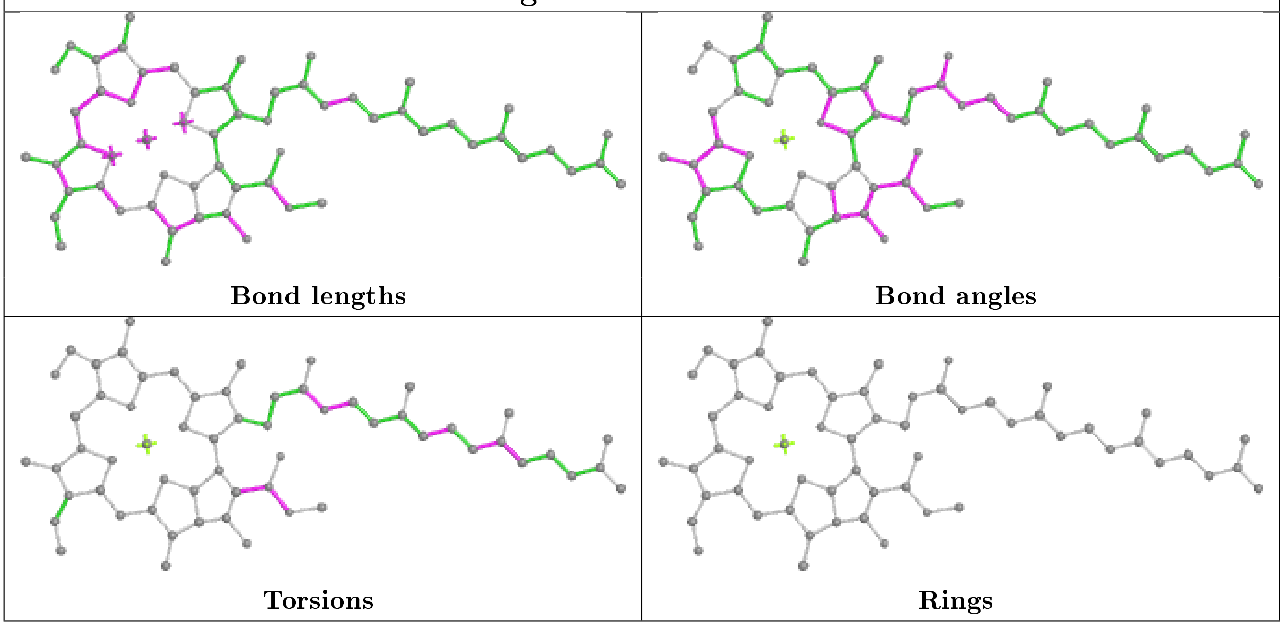


Rings

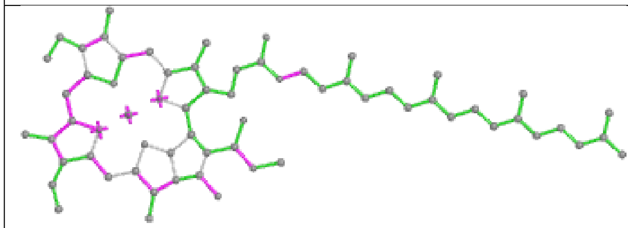
Ligand CLA 1 1005



Ligand CLA 3 3004



Ligand CLA B 1222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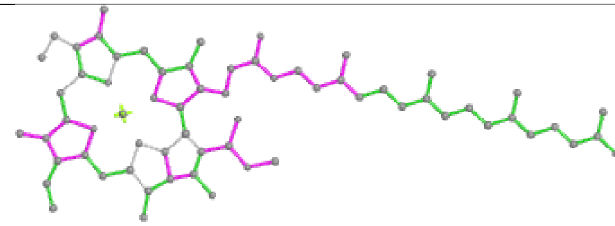
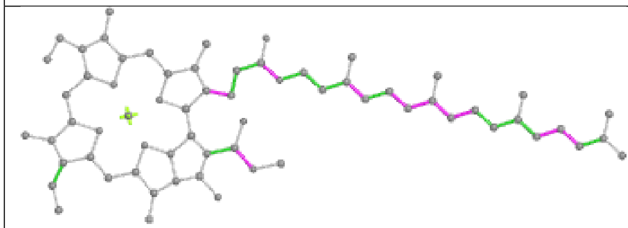

Bond angles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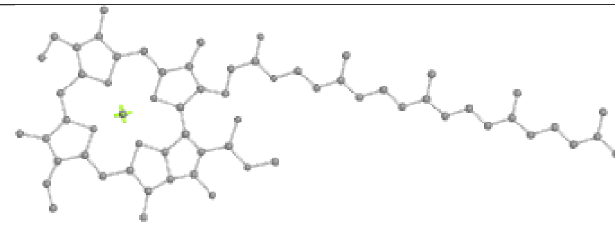
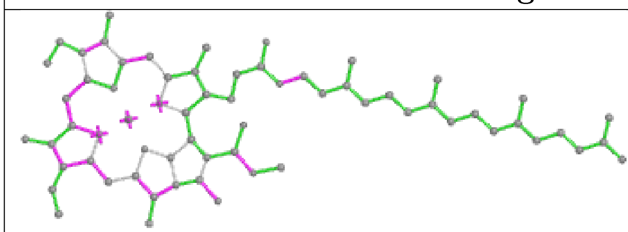

Rings

Ligand CLA B 1240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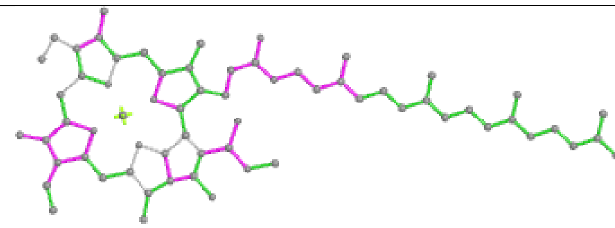
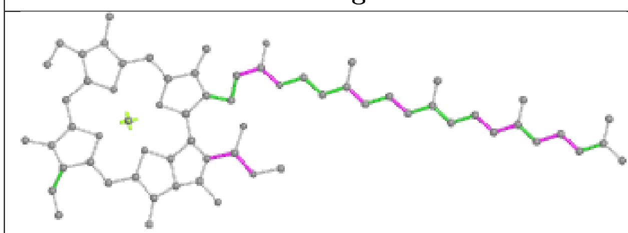

Bond angles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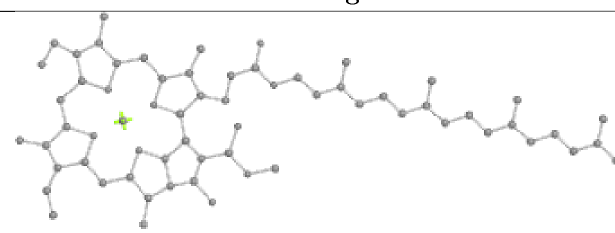
Rings

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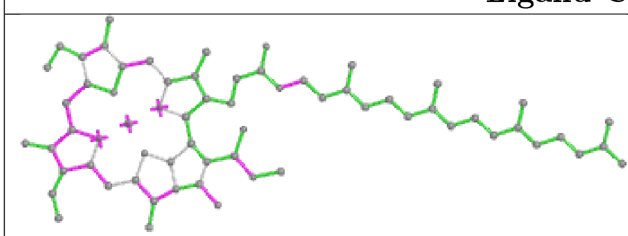
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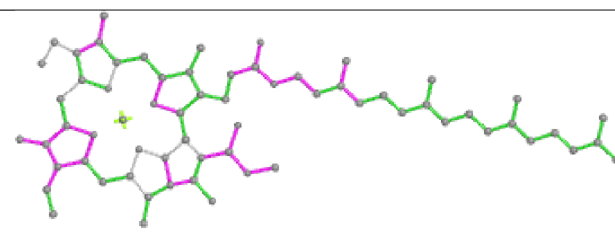
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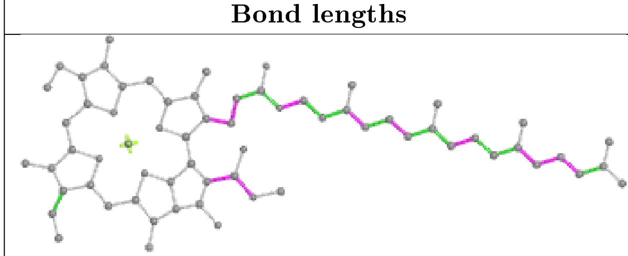
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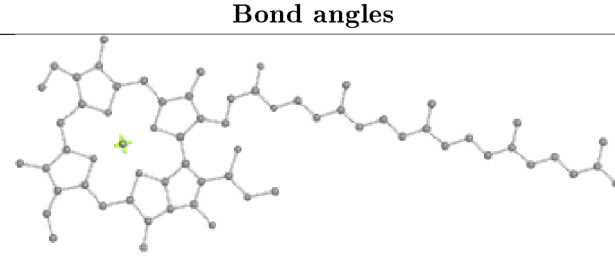
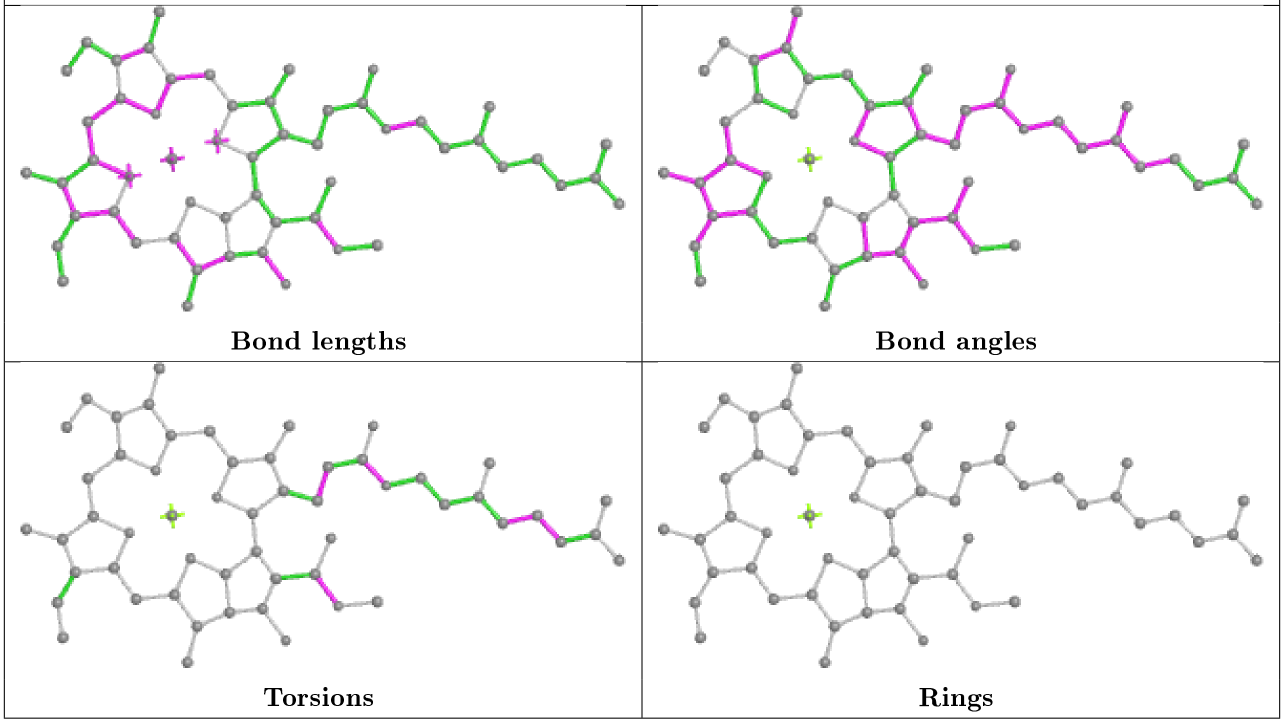
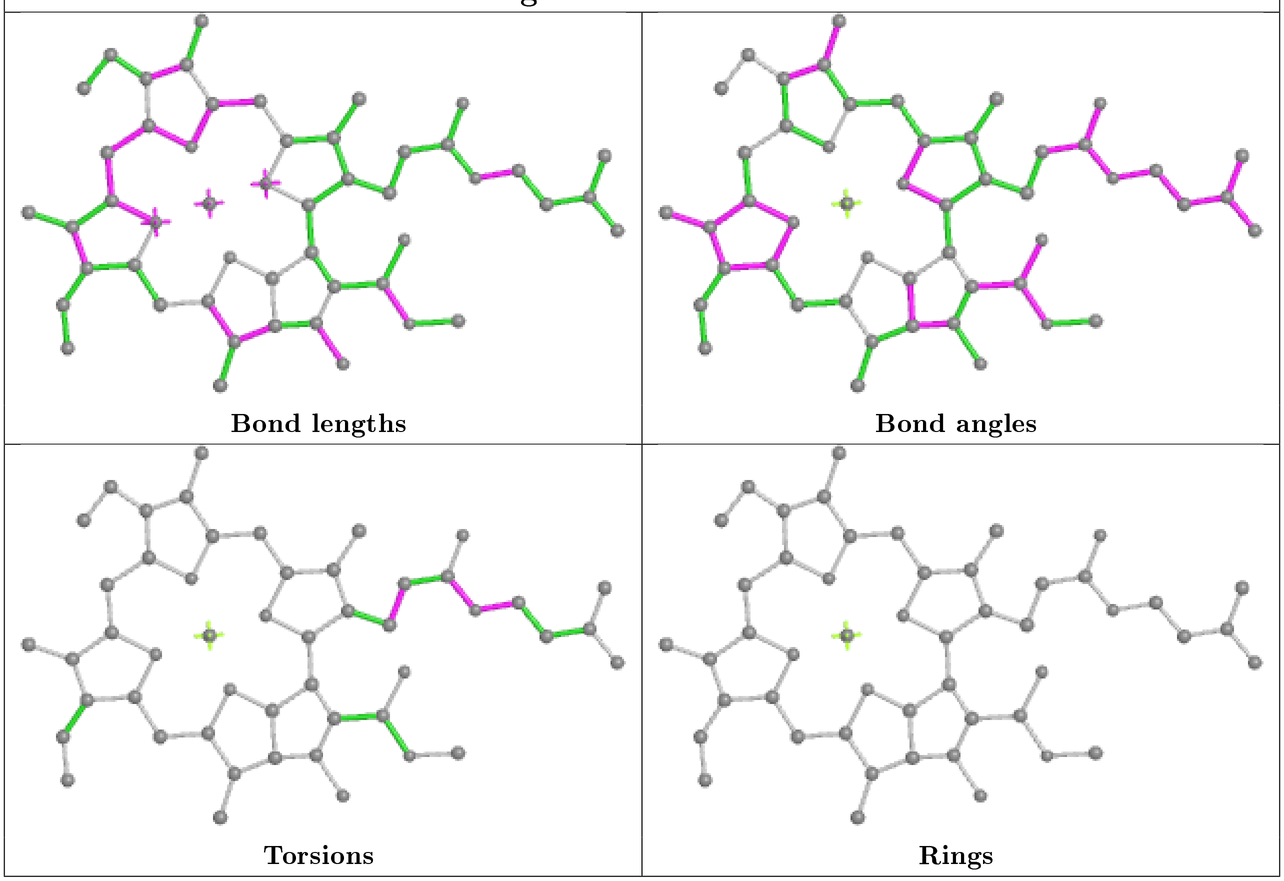

Rings

Ligand CLA 1 1003



Ligand CLA 4 4009



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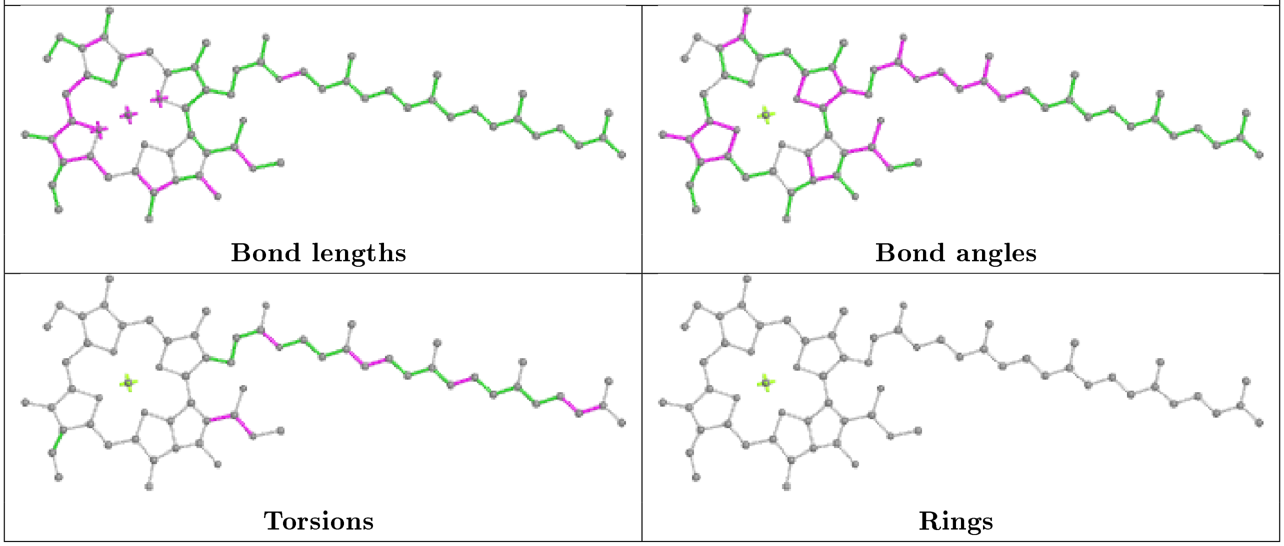

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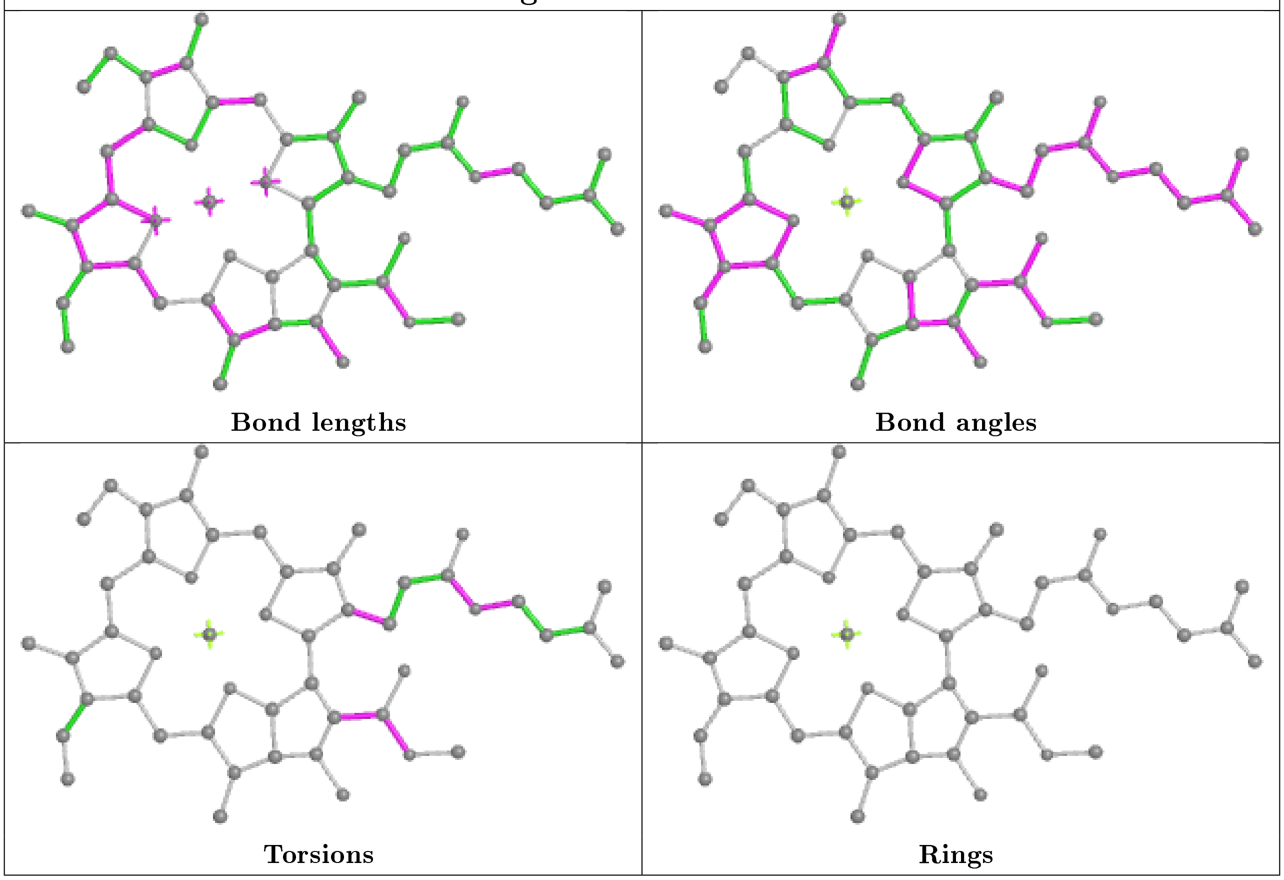

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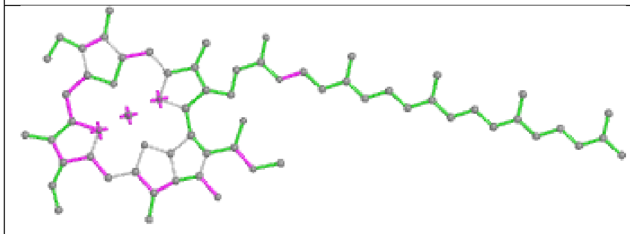

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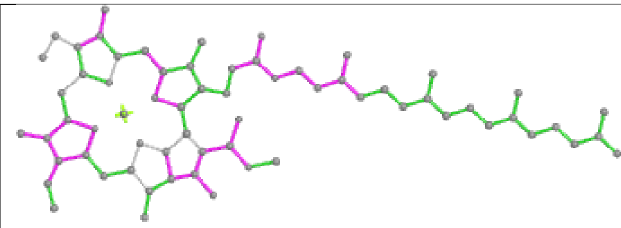
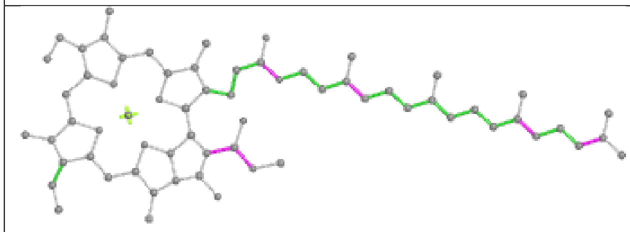


Bond angles



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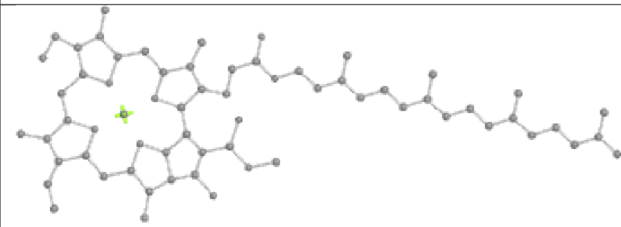
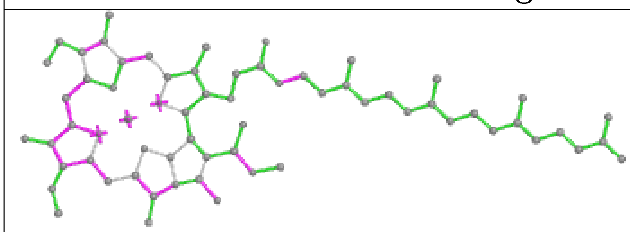


Rings

Ligand CLA A 1126



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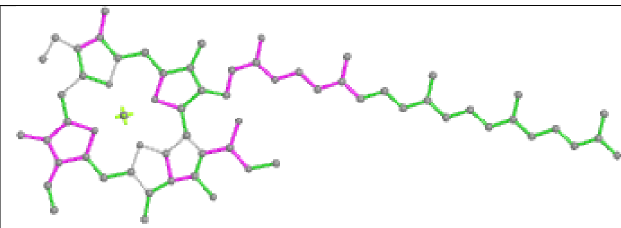
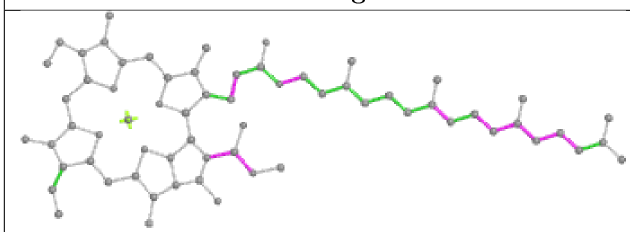


Bond angles



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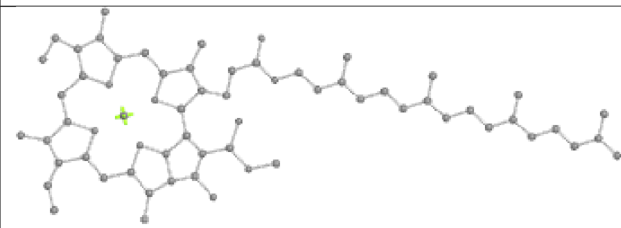
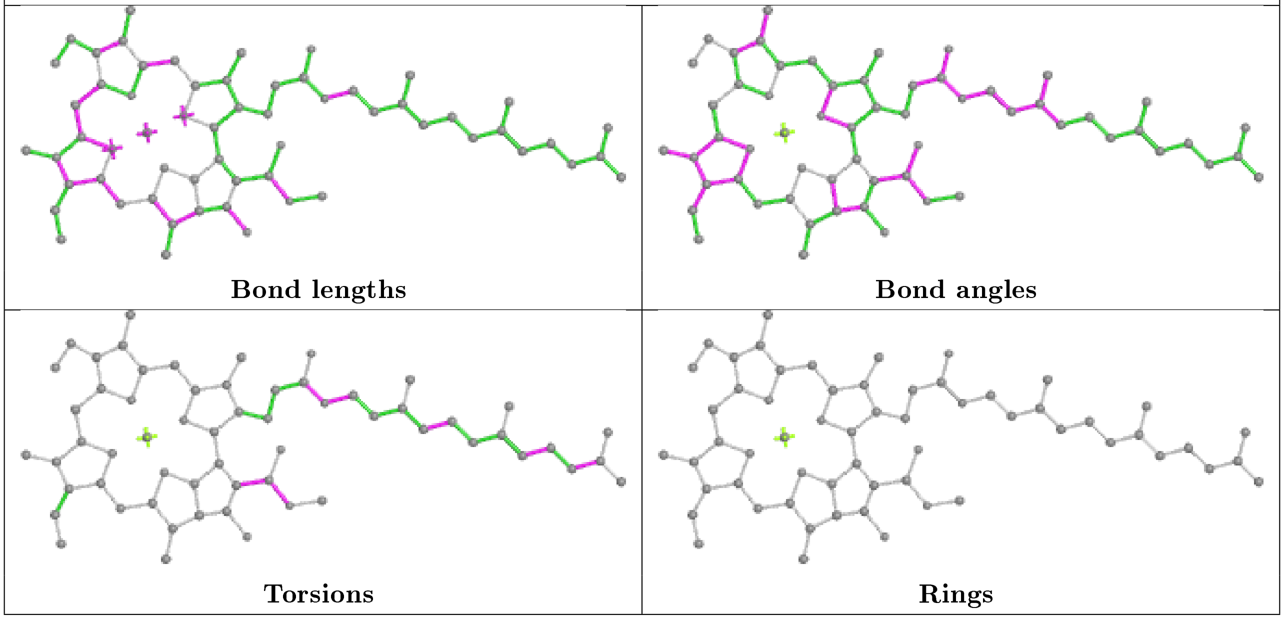


Rings

Ligand CLA A 1111



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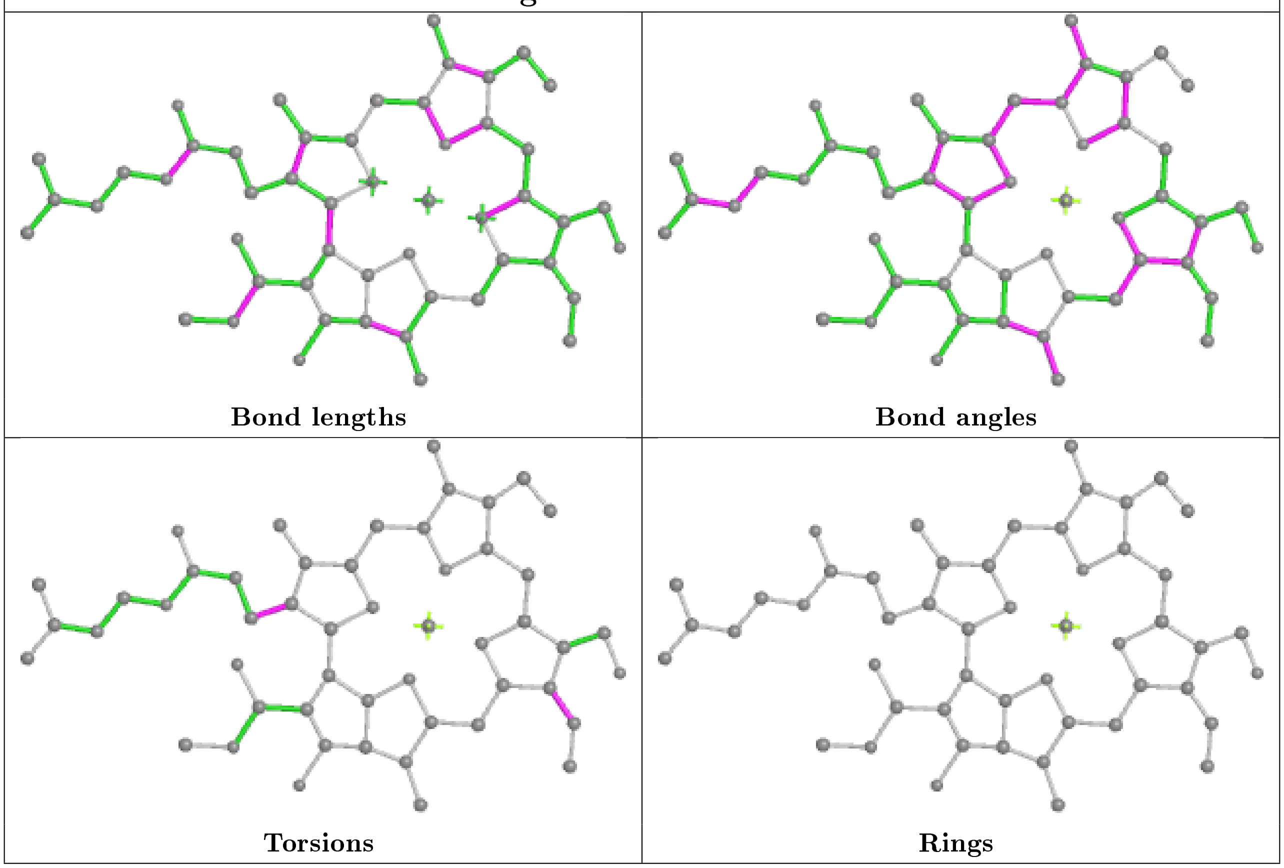

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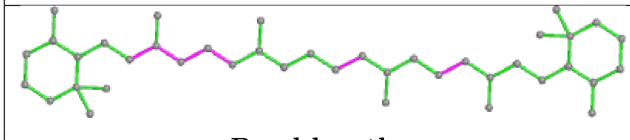
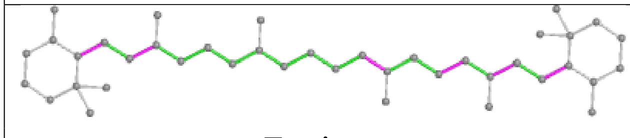


Bond lengths

Bond angles



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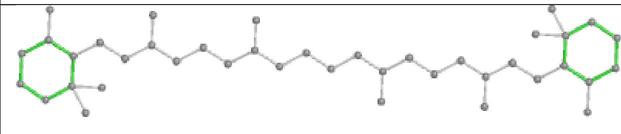
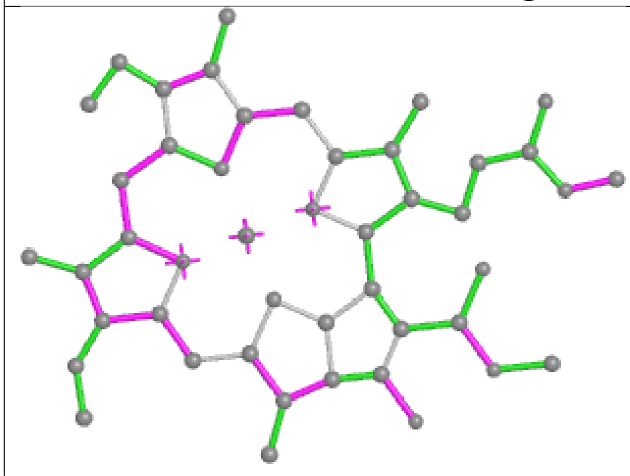


Rings

Ligand CLA 1 1013



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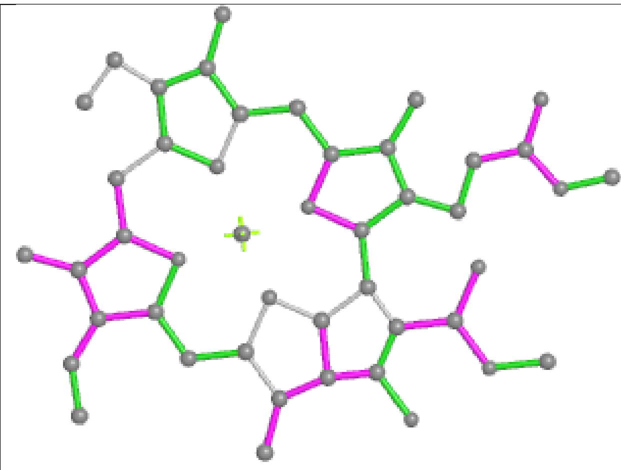
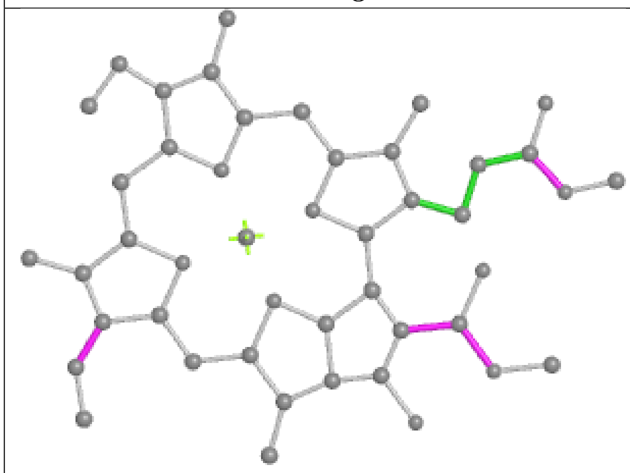


Bond angles



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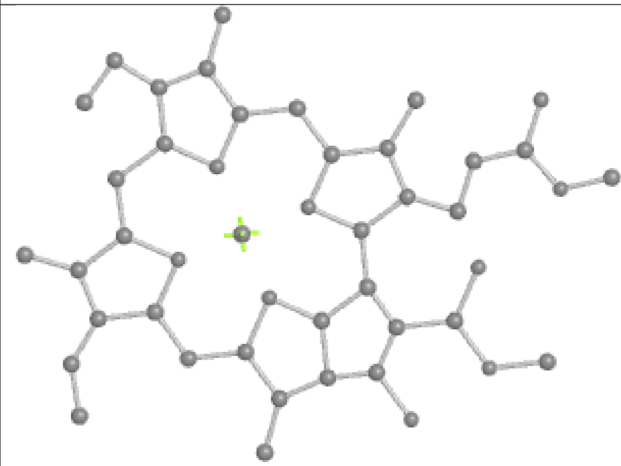
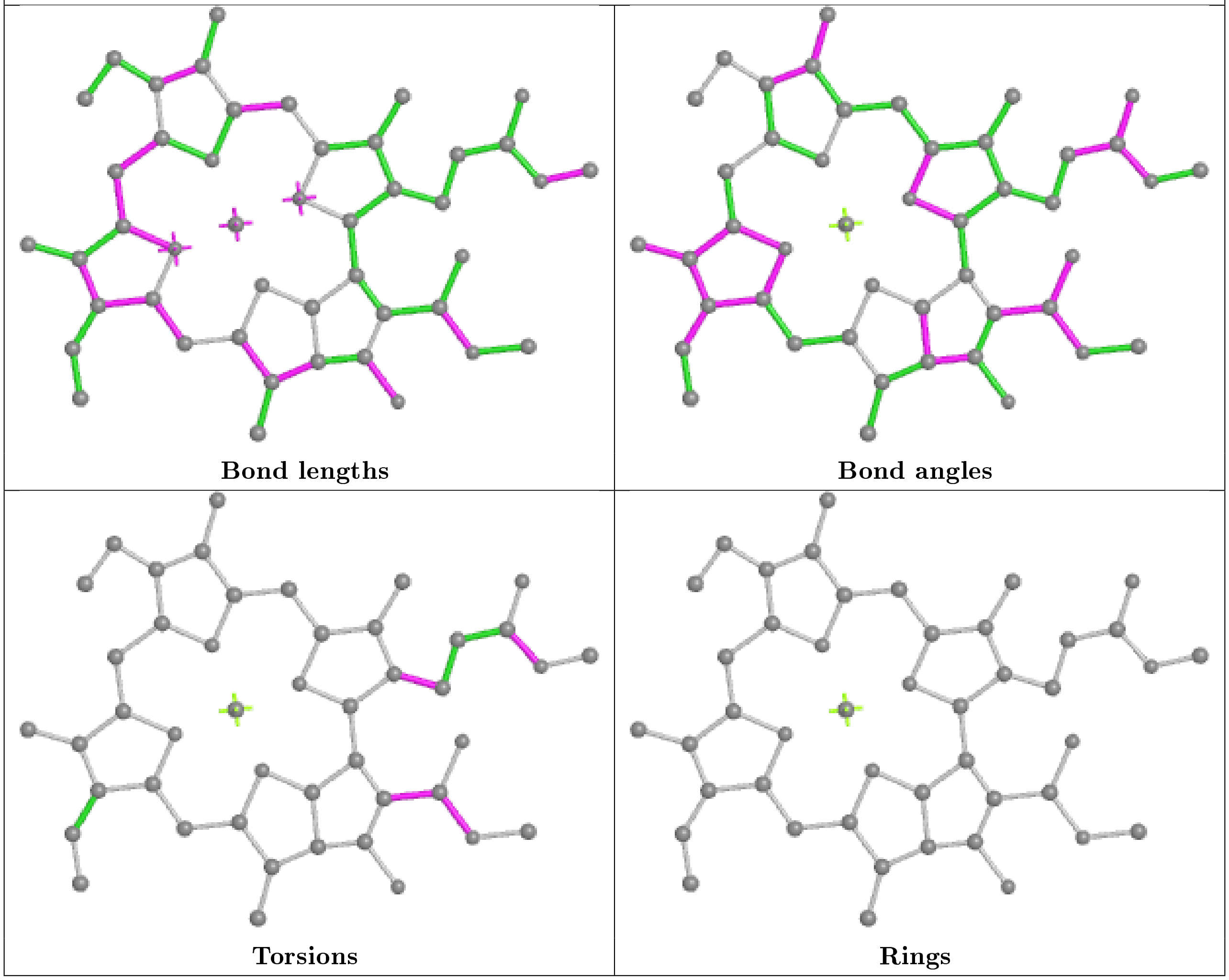
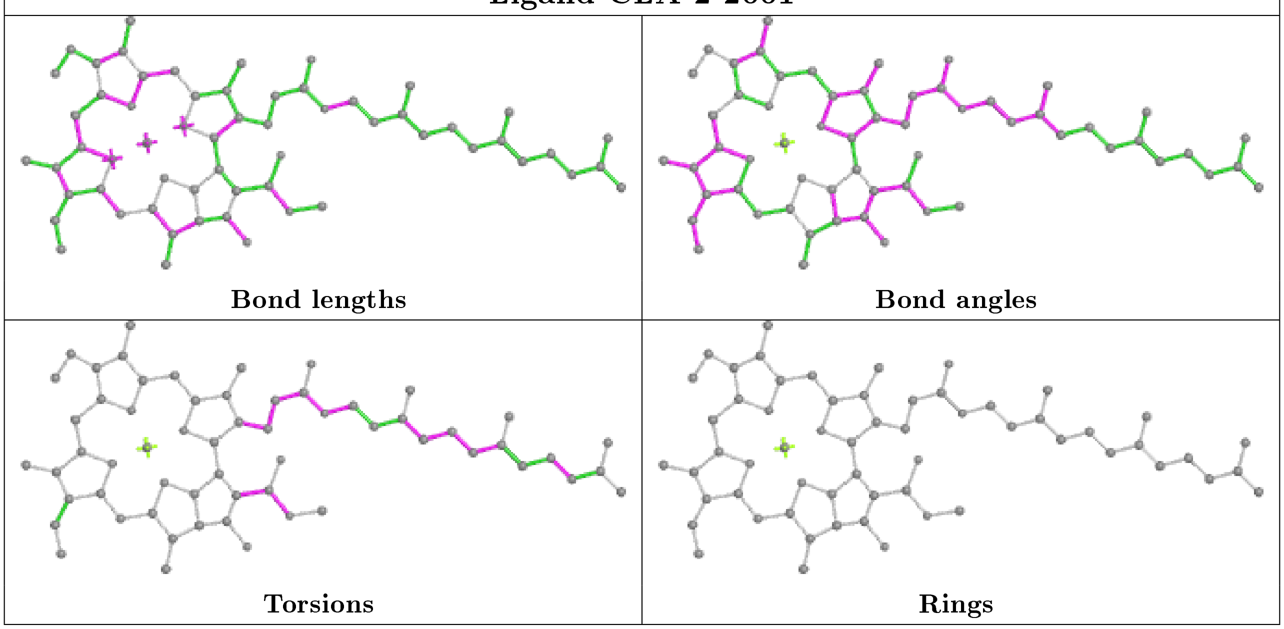


Rings

Ligand CLA A 1114



Ligand CLA 2 2001



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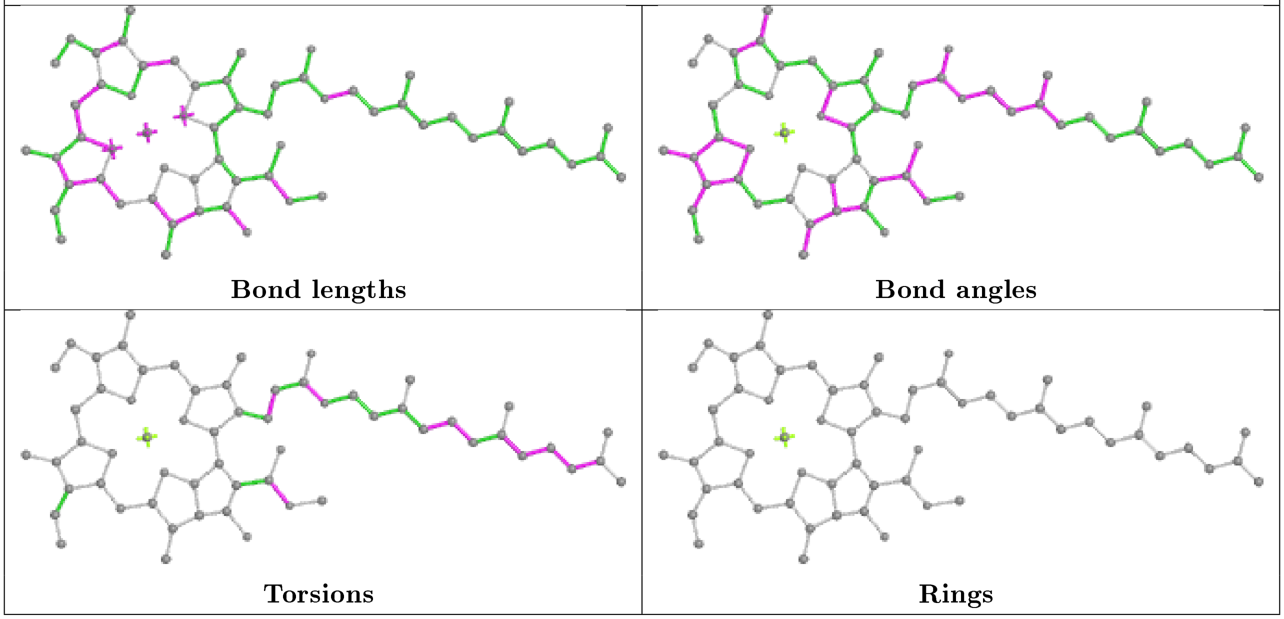

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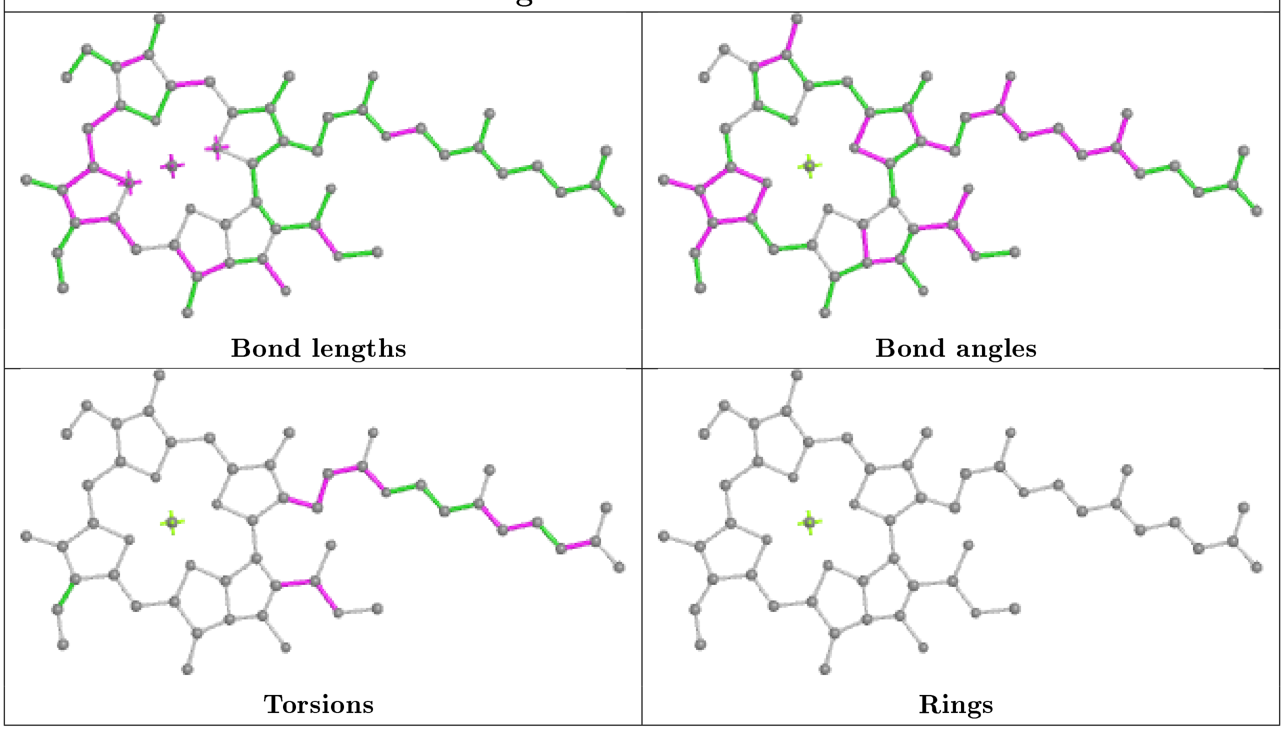

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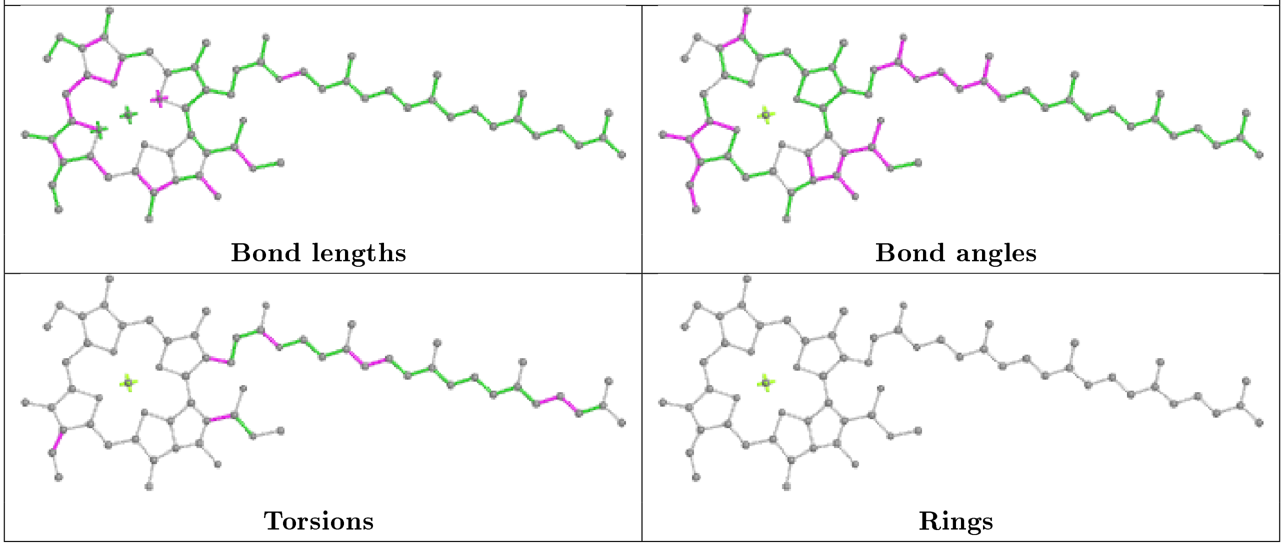
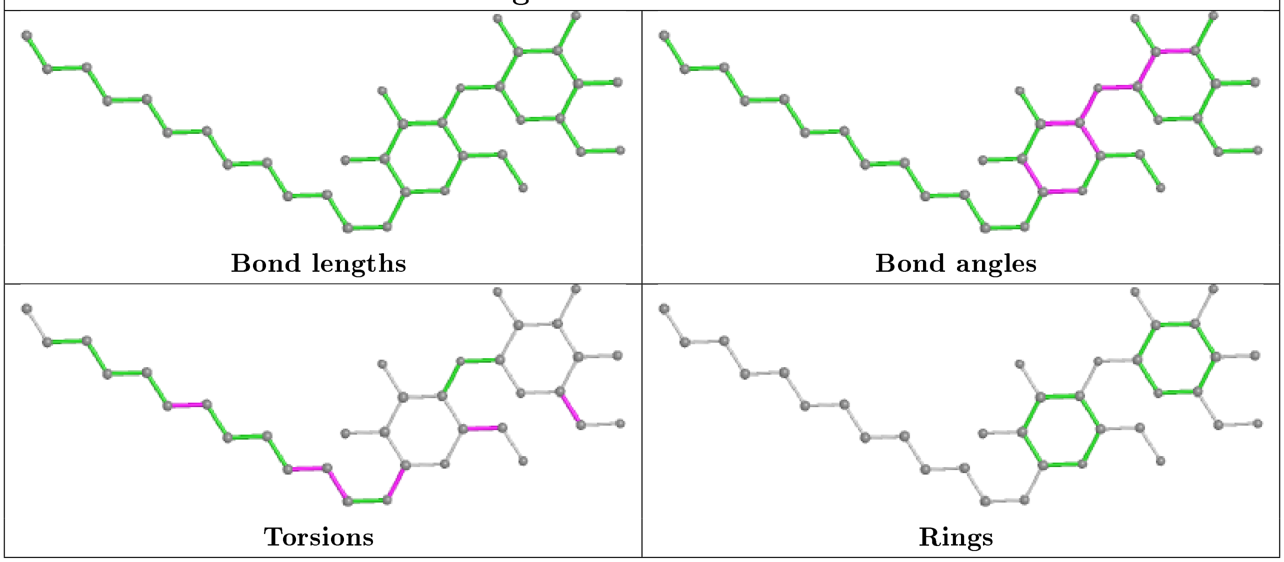
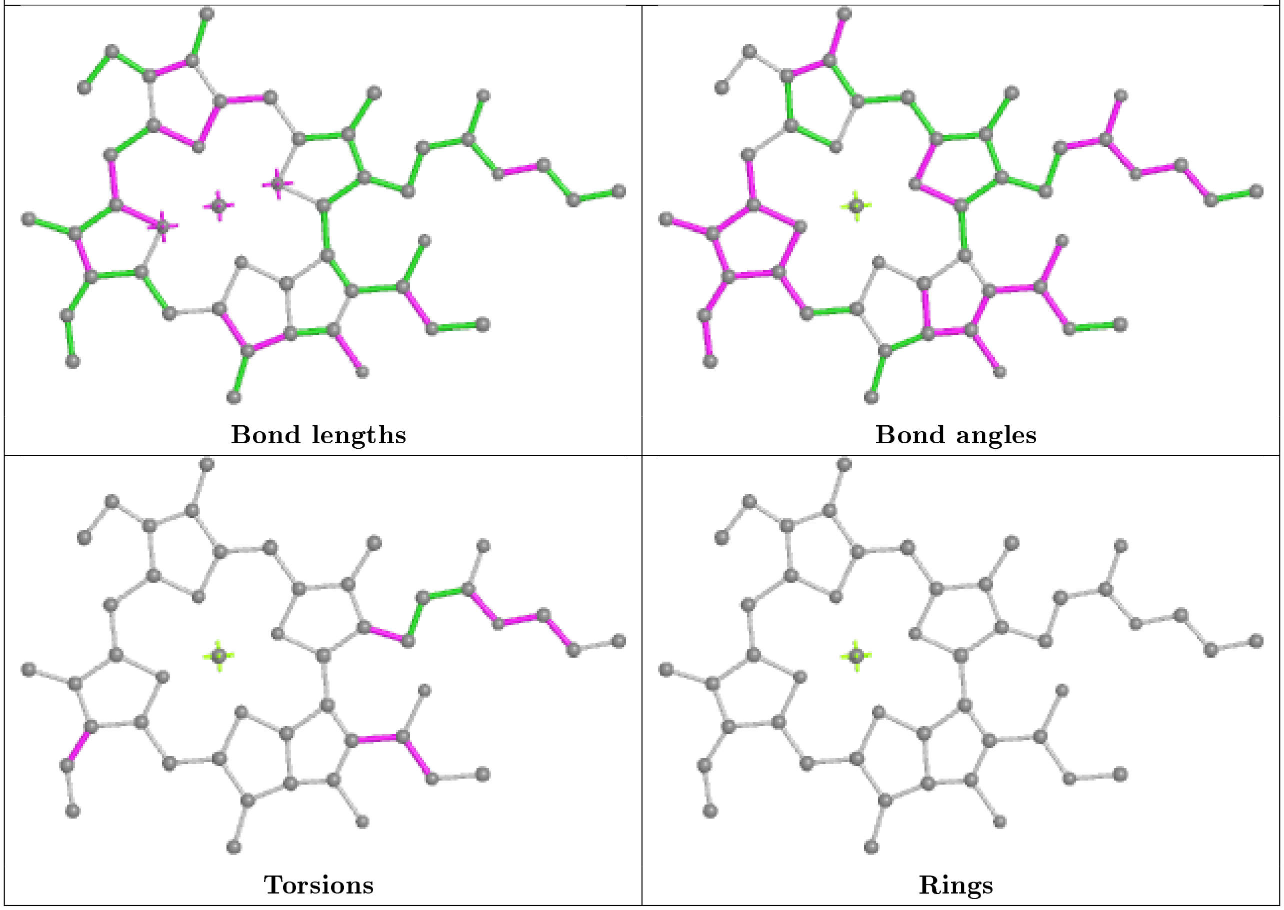


Ligand LMU B 8001



Ligand CLA 3 3008



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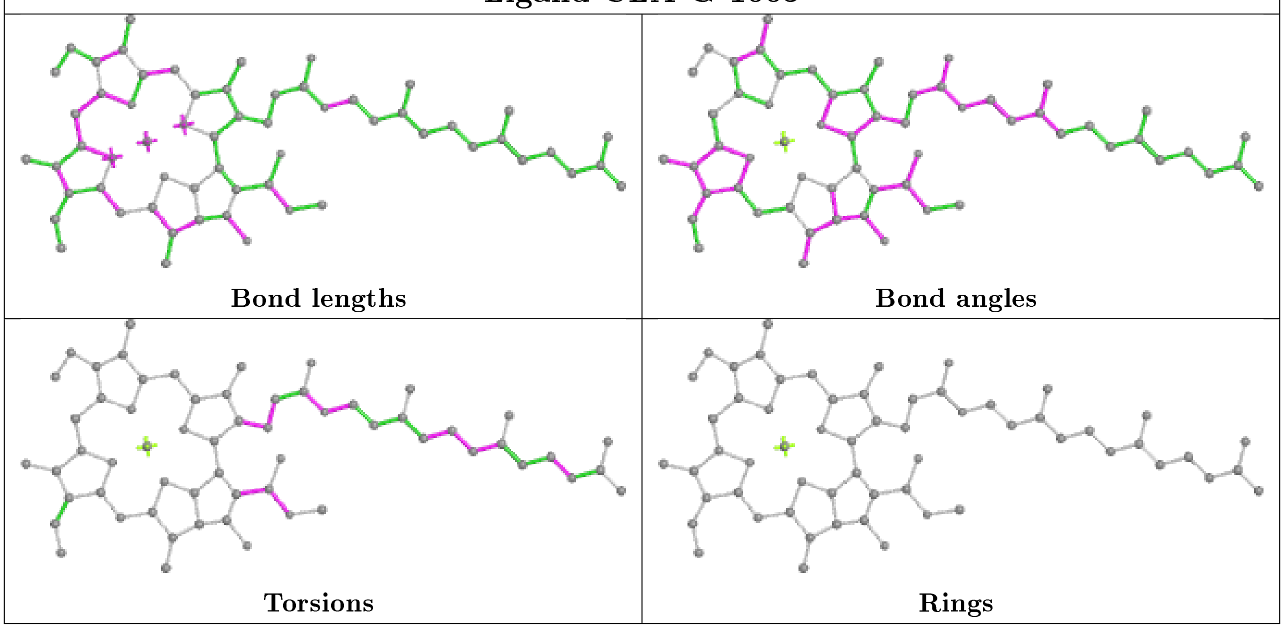
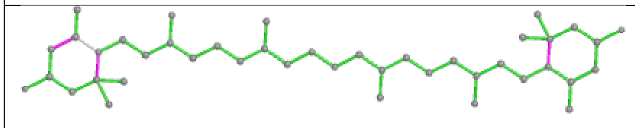
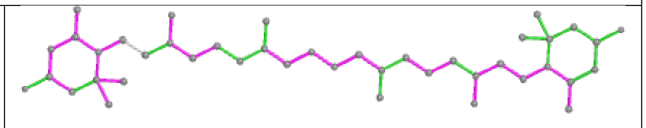
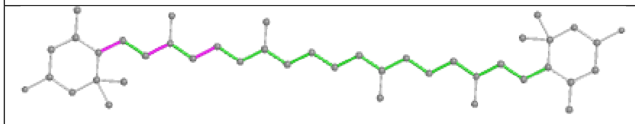
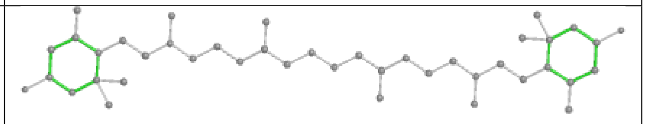


Ligand LUT 2 2502

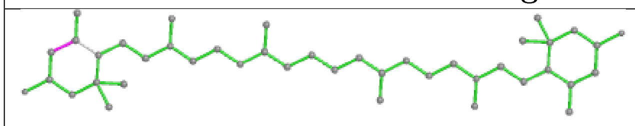

Bond lengths


Bond angles


Torsions


Rings

Ligand LUT 2 2501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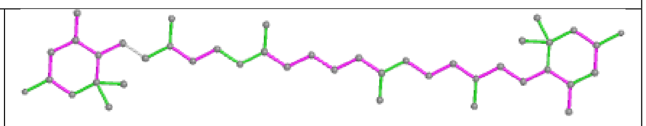
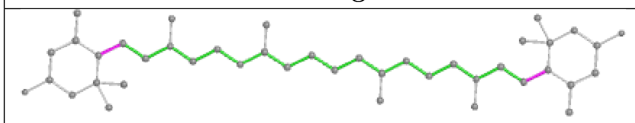

Bond angles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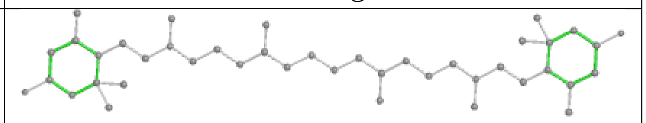
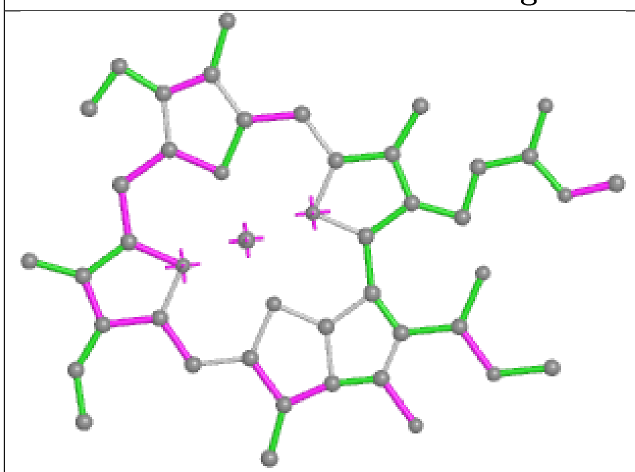

Rings

Ligand CLA 3 3002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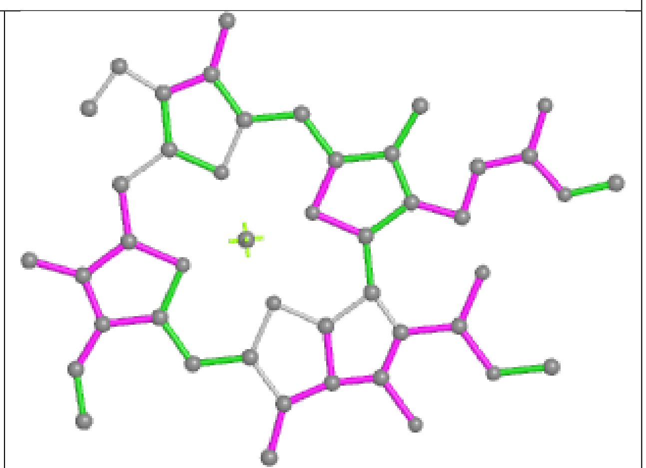
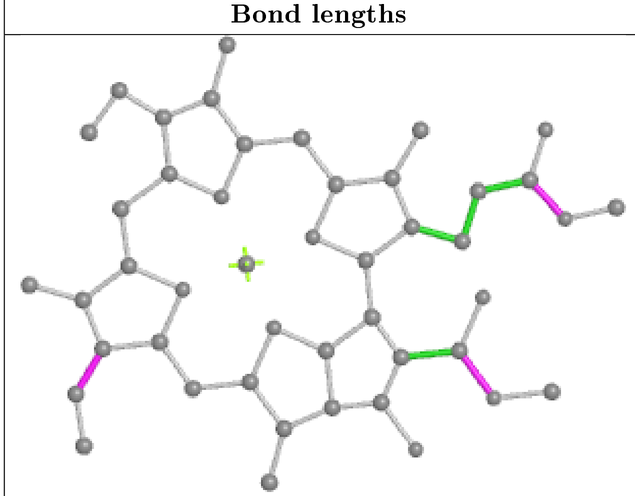

Bond angles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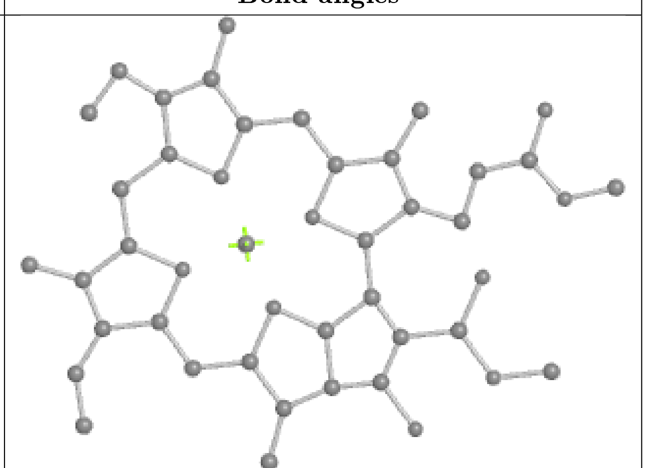
Rings

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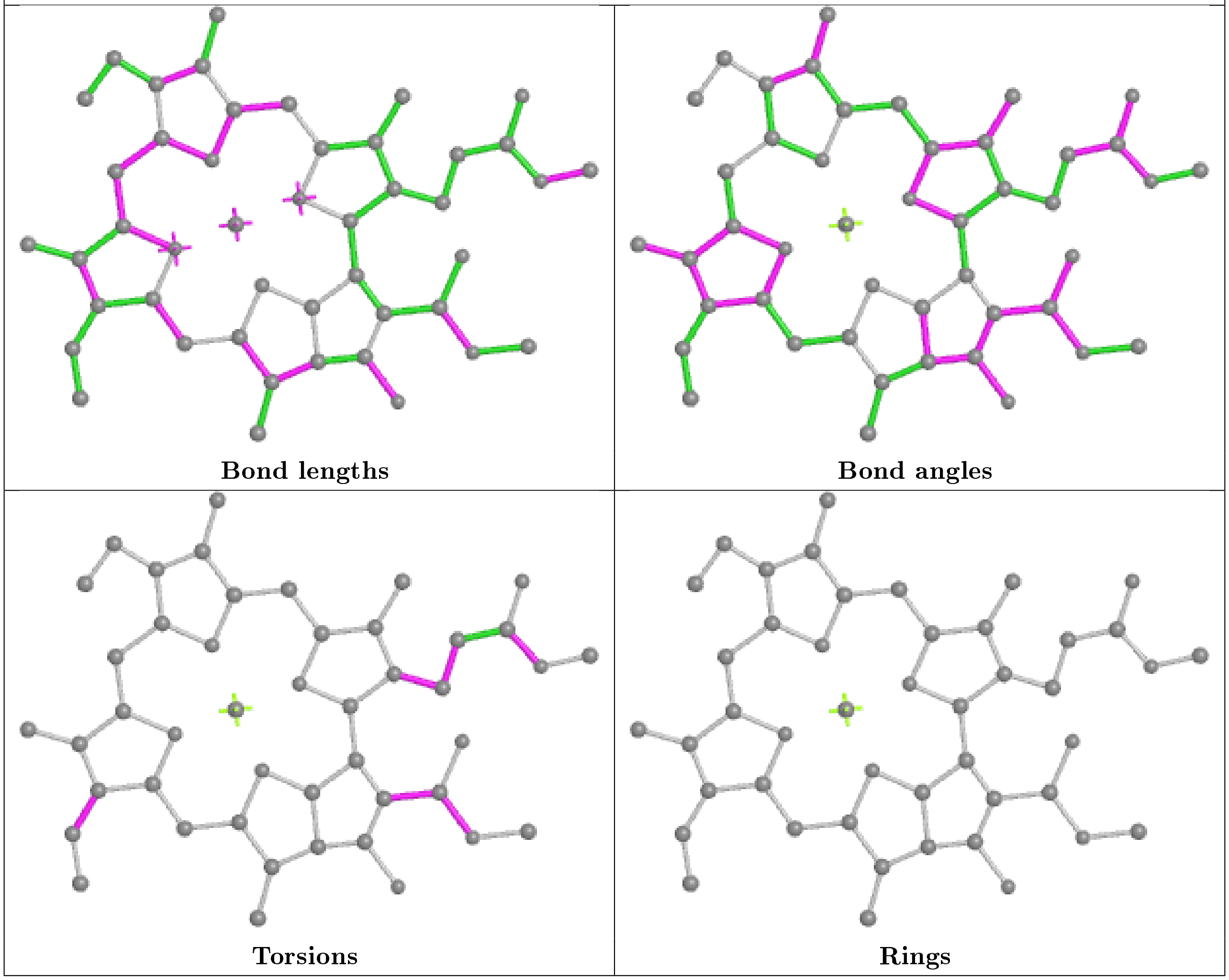
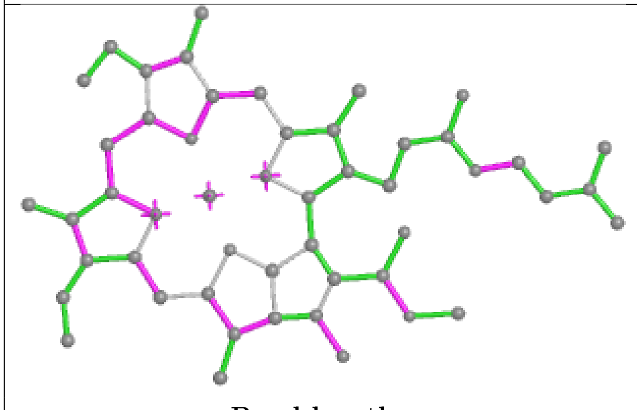
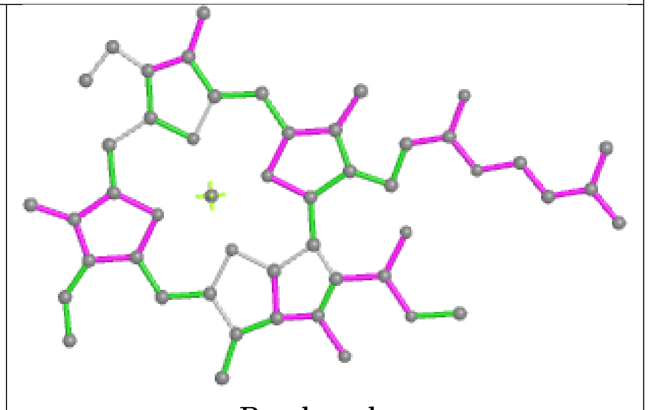
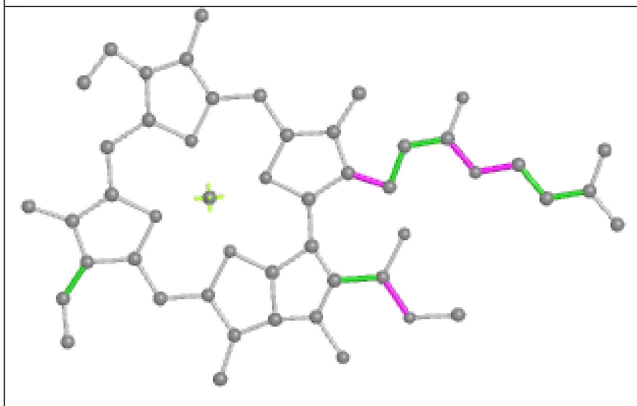
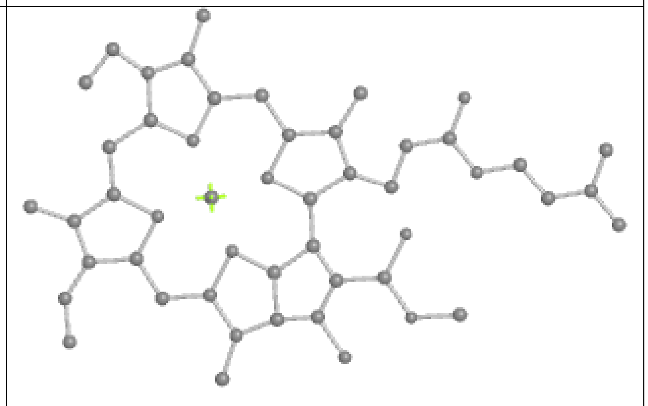
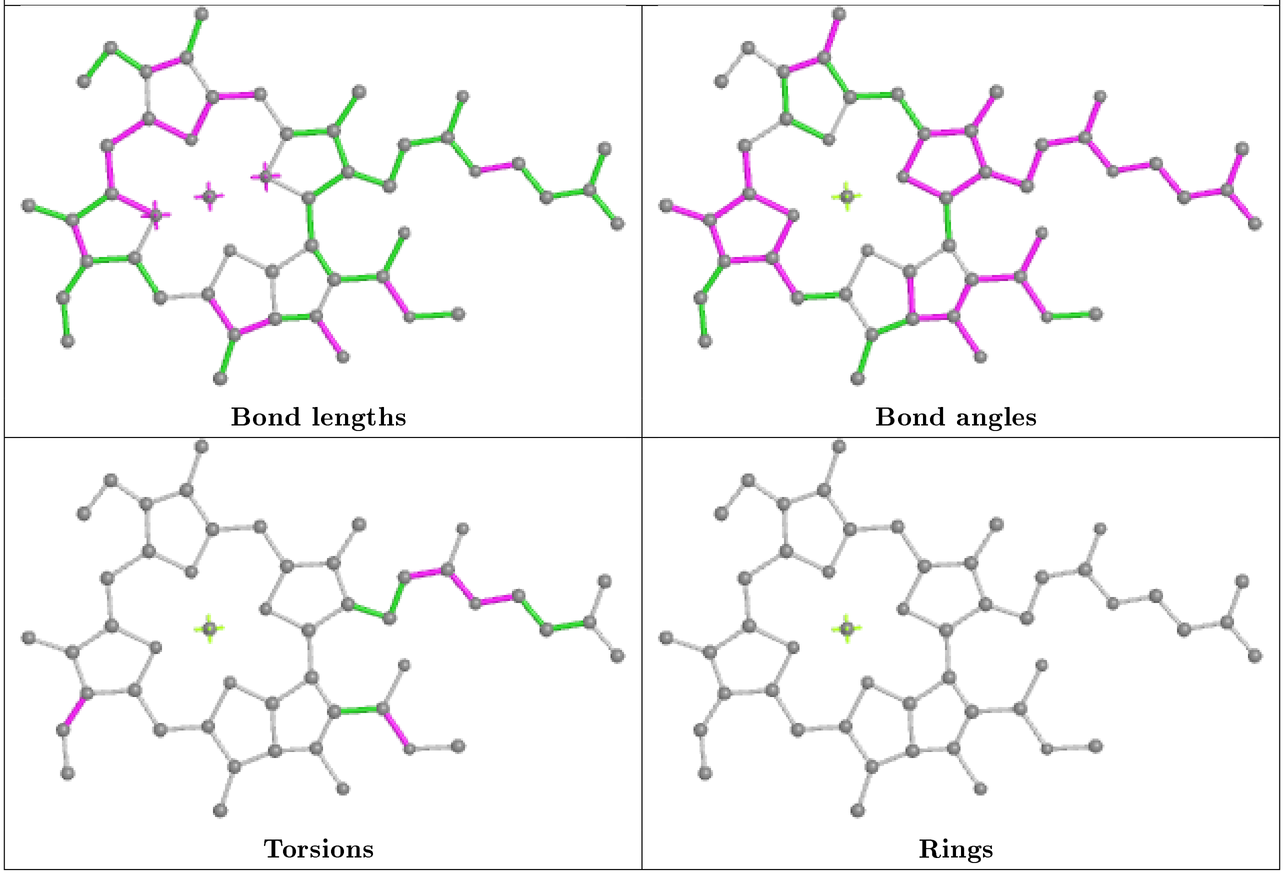
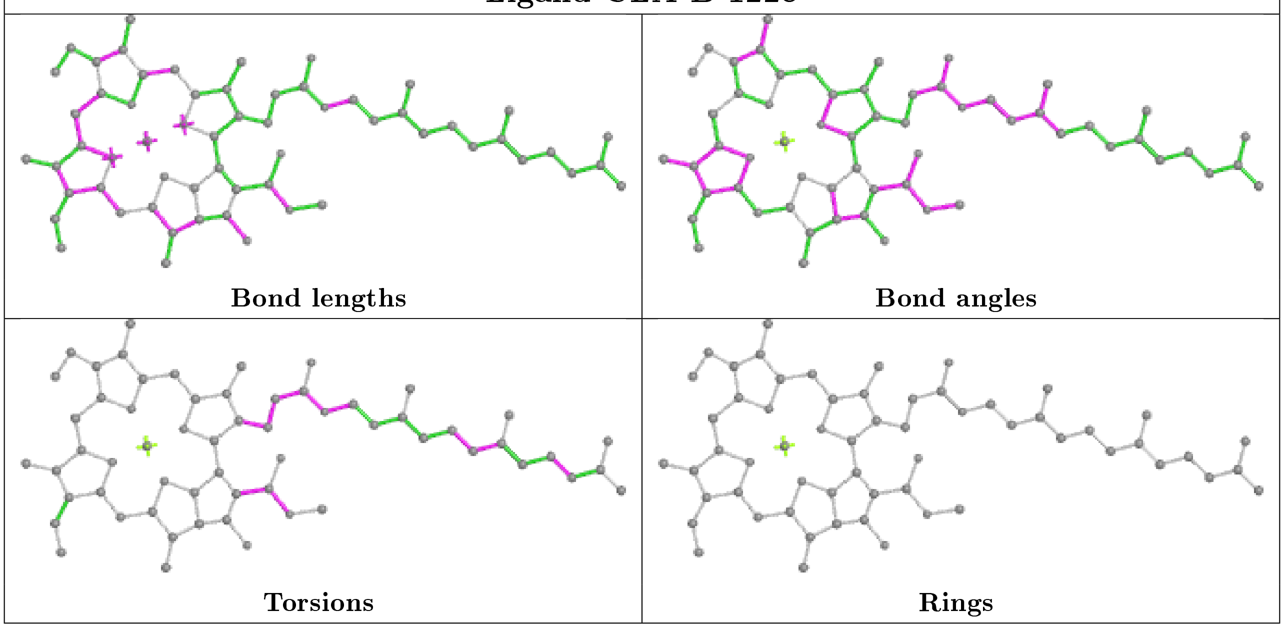


Ligand CLA 2 2009	
 Bond lengths	 Bond angles
 Torsions	 Rings

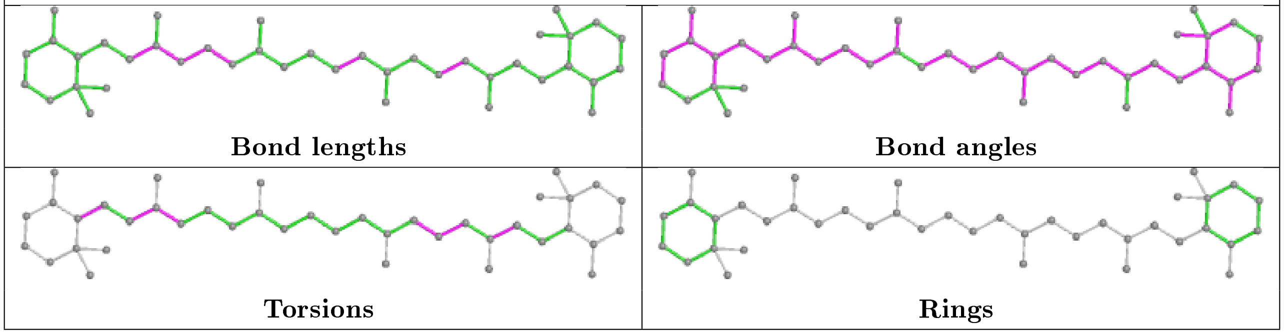
Ligand CLA 2 2008



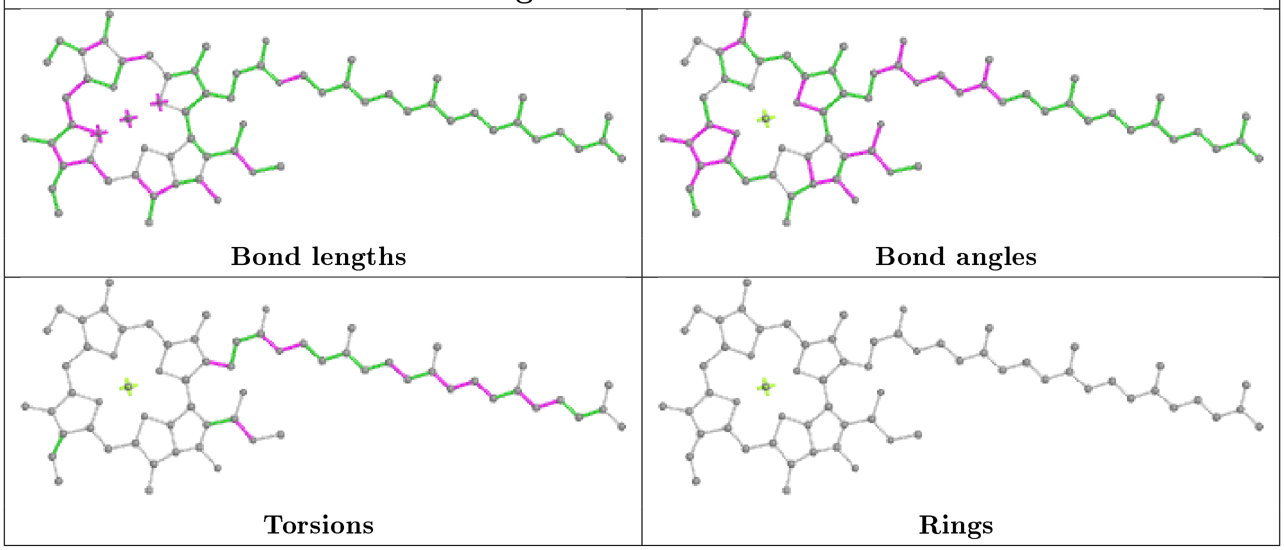
Ligand CLA B 1228



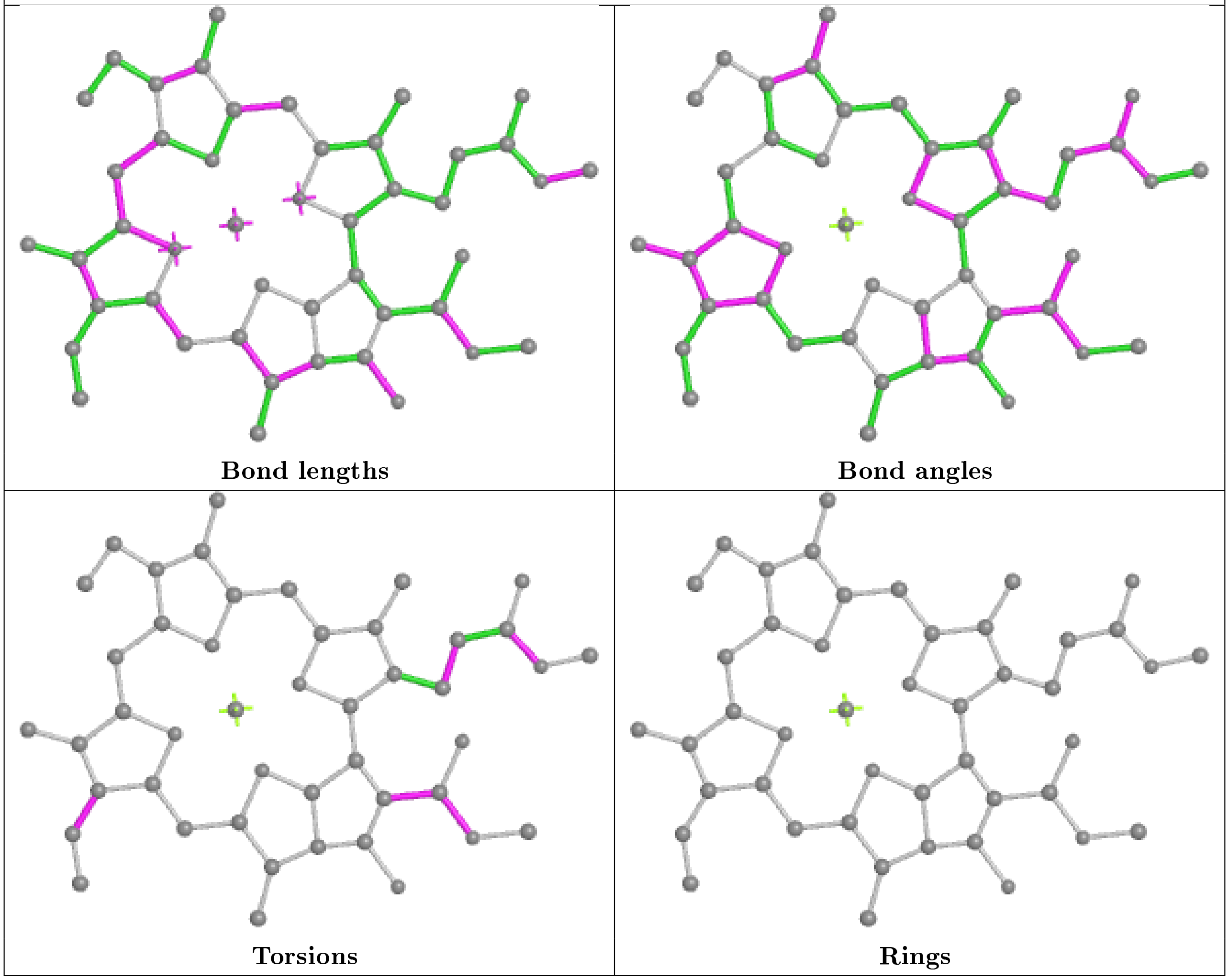
Ligand BCR B 6006



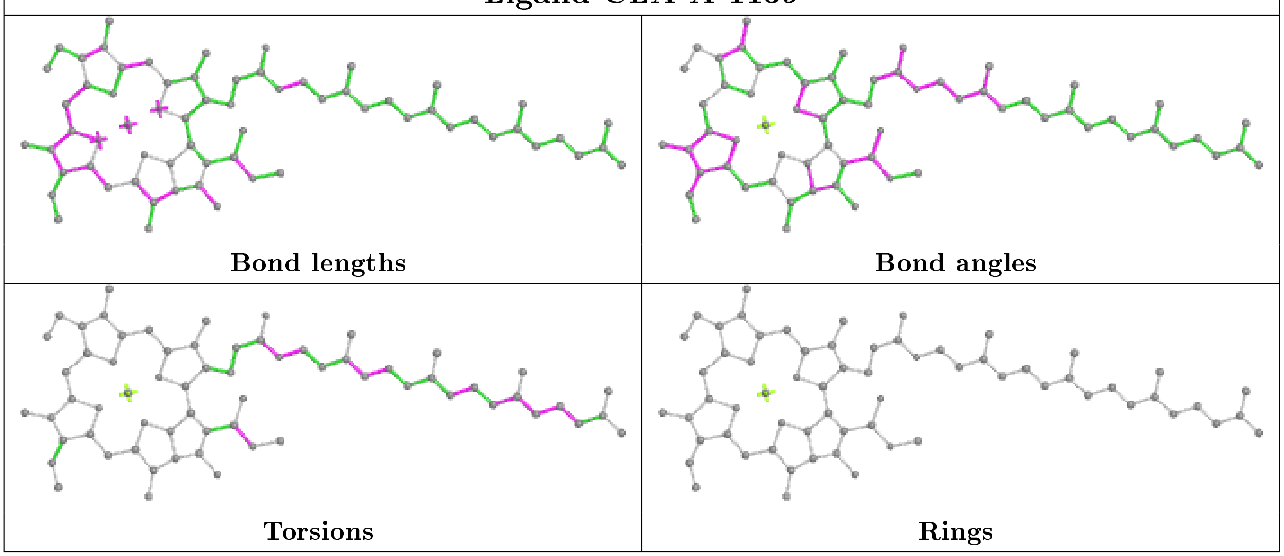
Ligand CLA A 1112

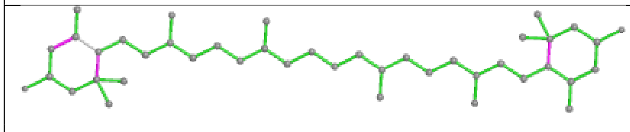
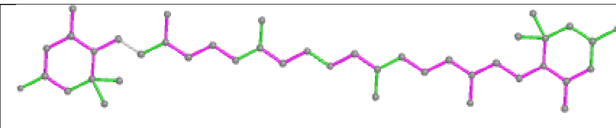
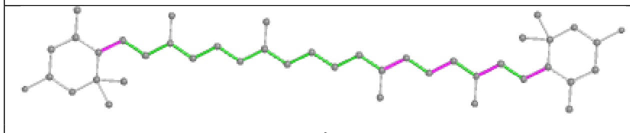
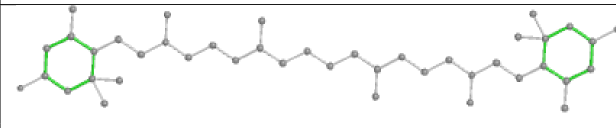


Ligand CLA A 1118



Ligand CLA A 1139



Ligand LUT 3 3502	
 Bond lengths	 Bond angles
 Torsions	 Rings

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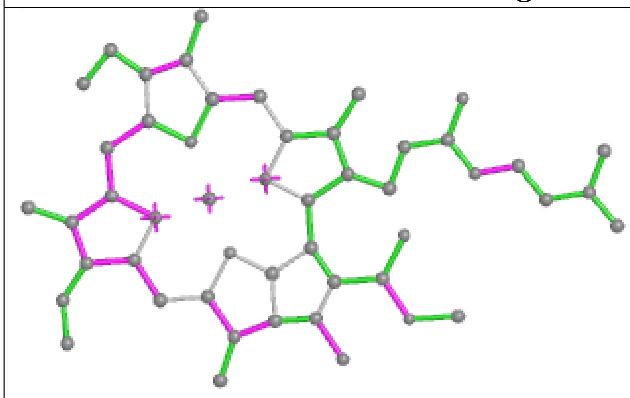
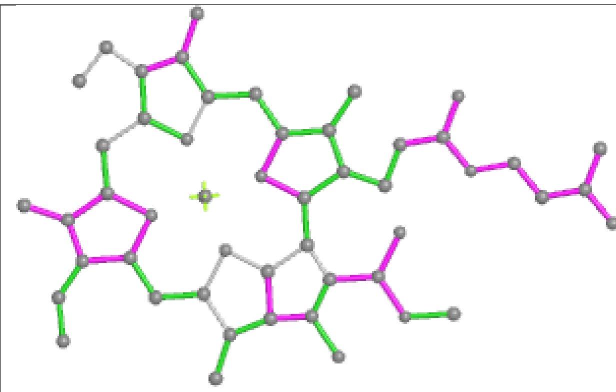
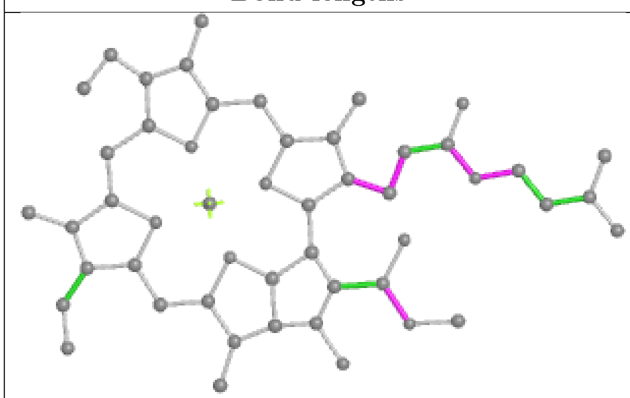
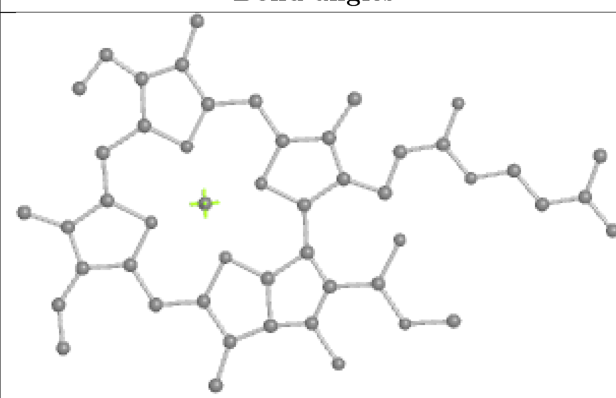
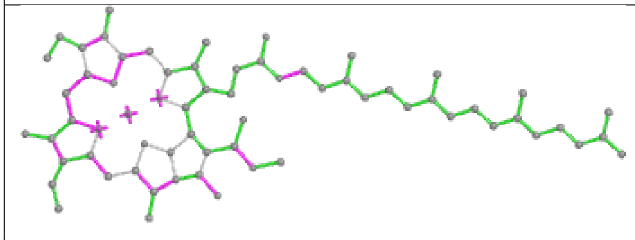
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand CLA 4 4003



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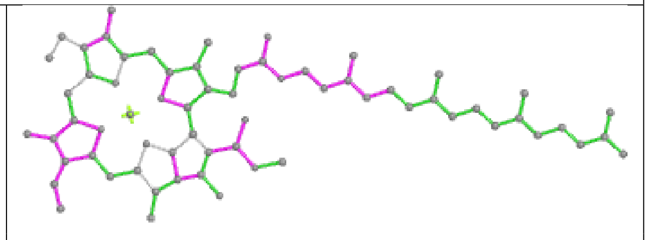

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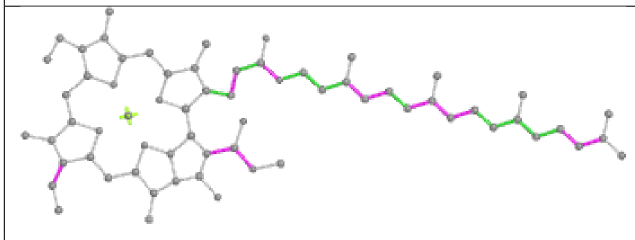

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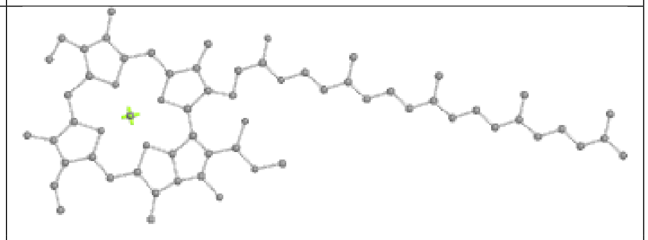
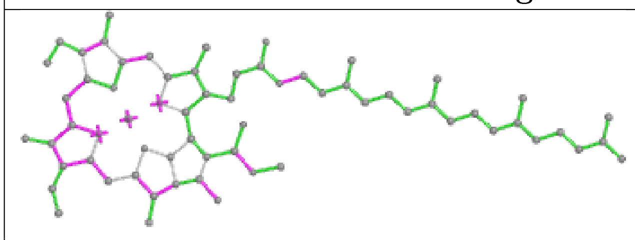


Rings

Ligand CLA A 1107



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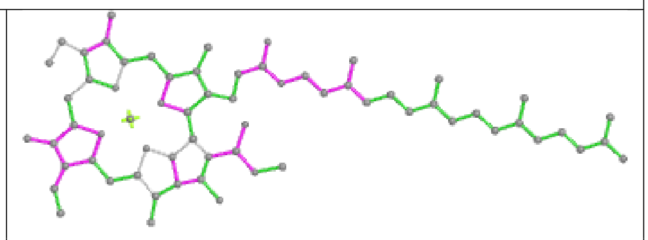
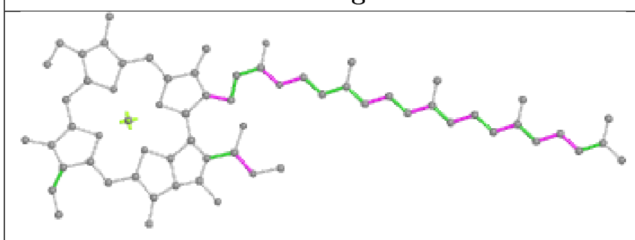


Bond angles



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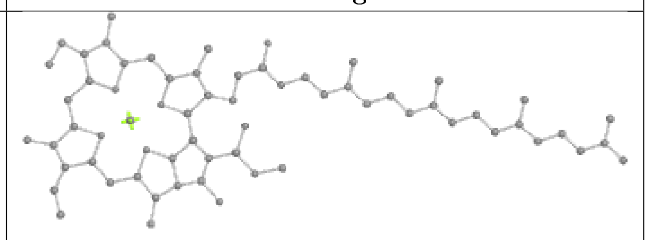
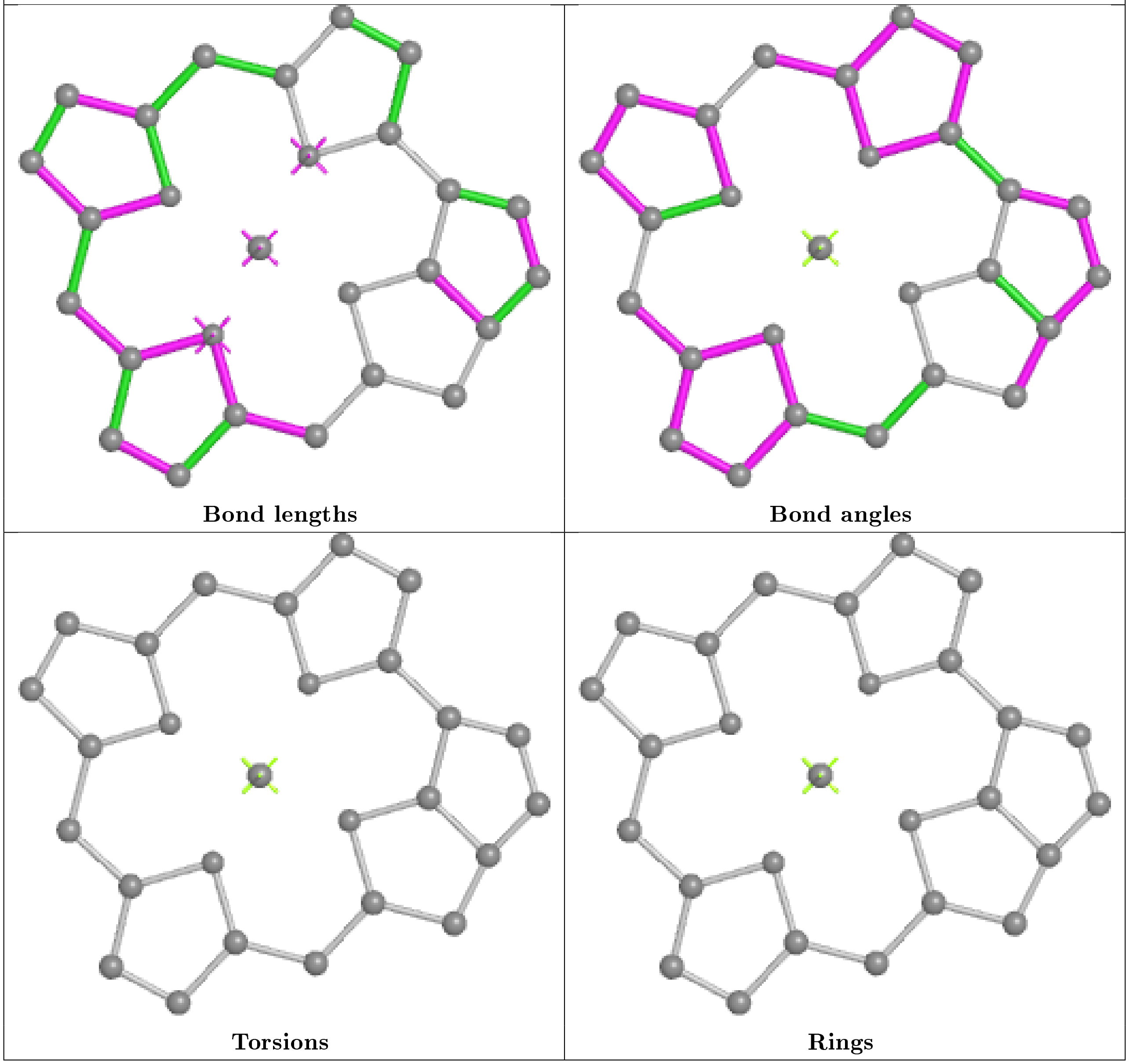
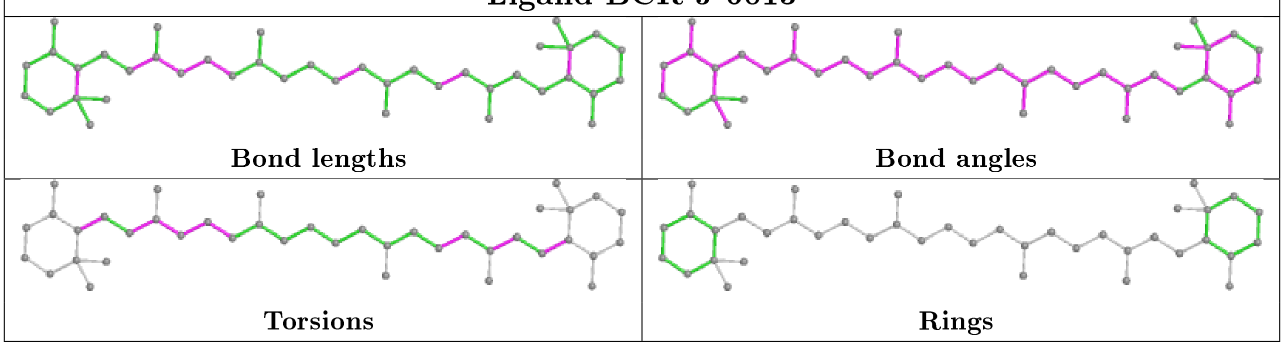


Rings

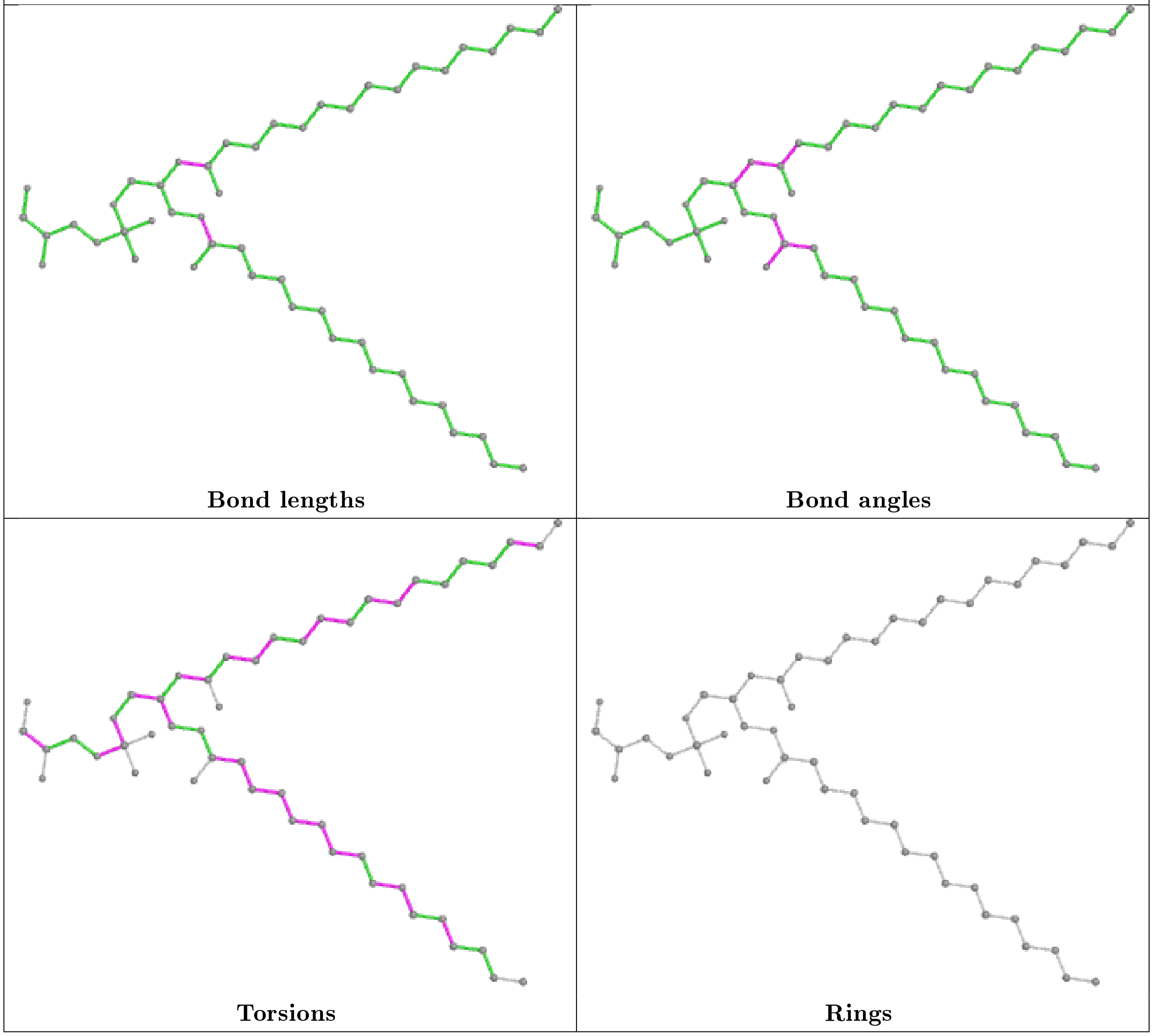
Ligand CLA 2 2019



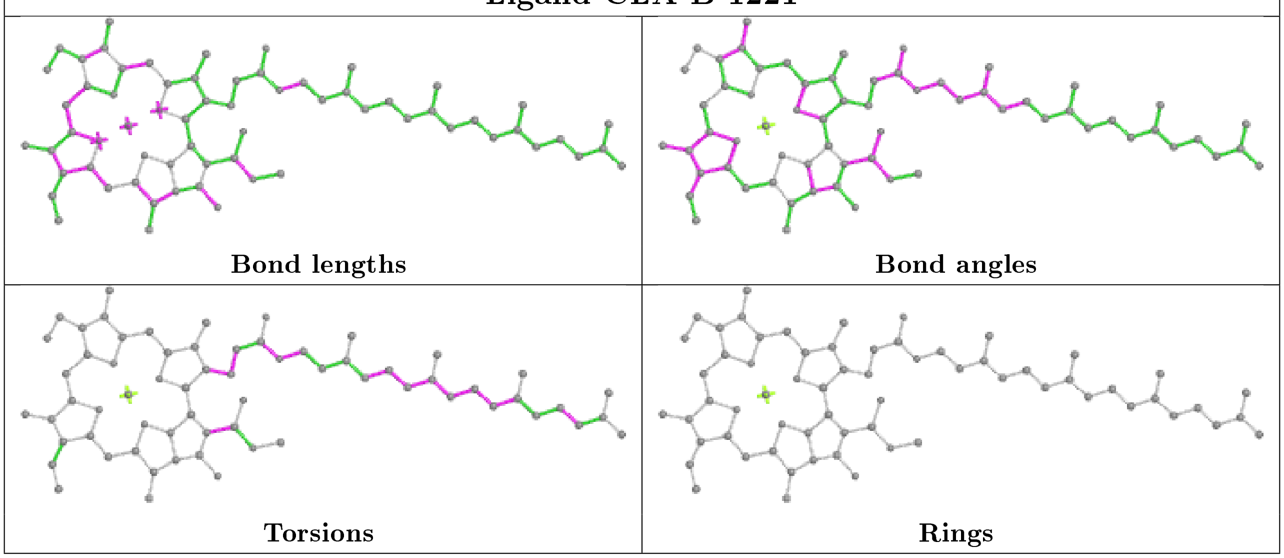
Ligand BCR J 6013



Ligand LHG A 7001



Ligand CLA B 1221



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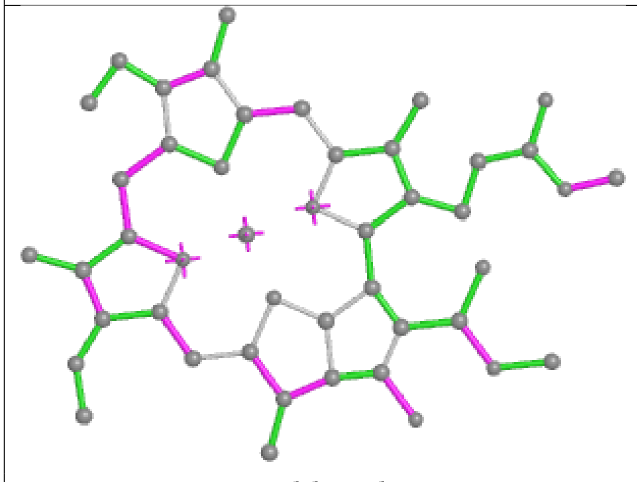
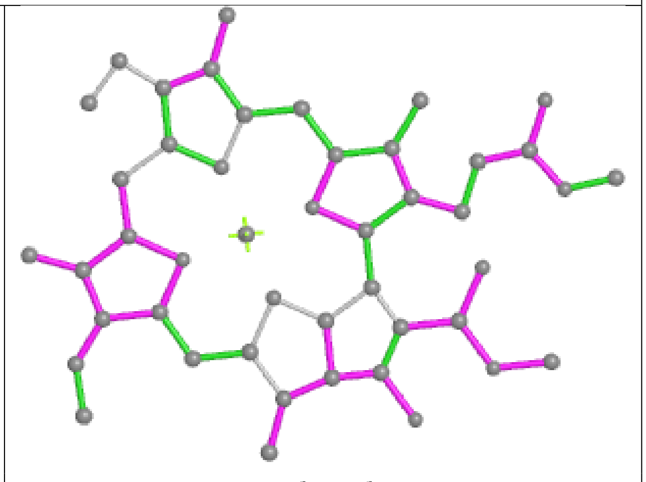
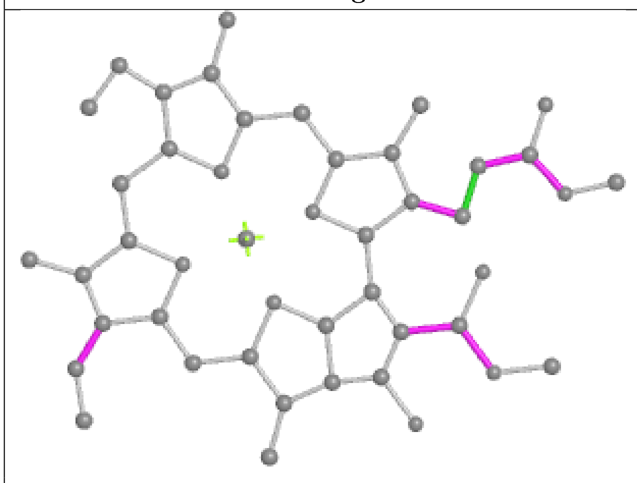

Bond lengths


Bond angles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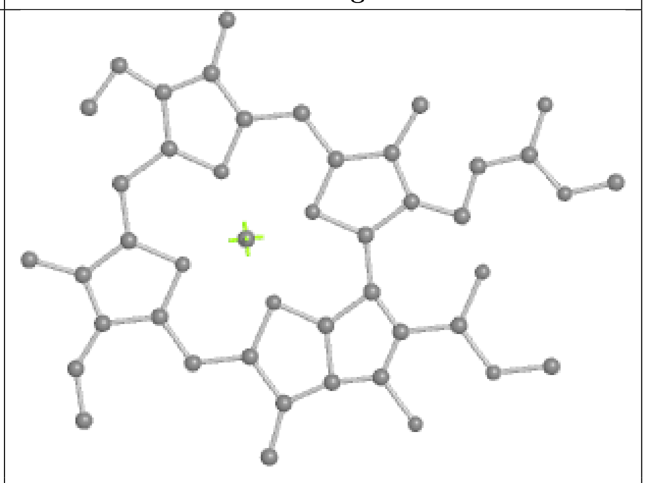
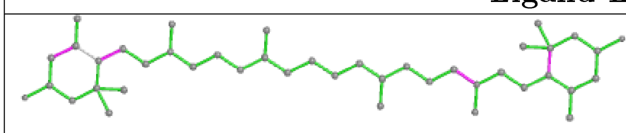
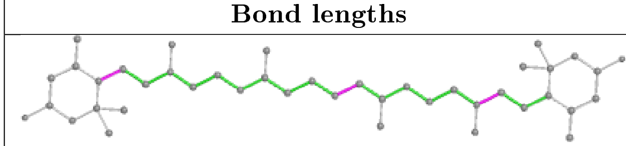

Rings

Ligand LUT 1 1502


Bond lengths


Bond angles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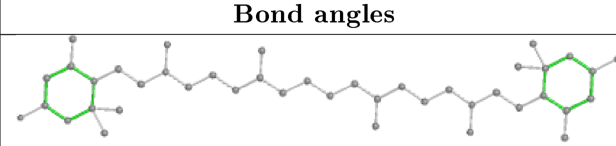
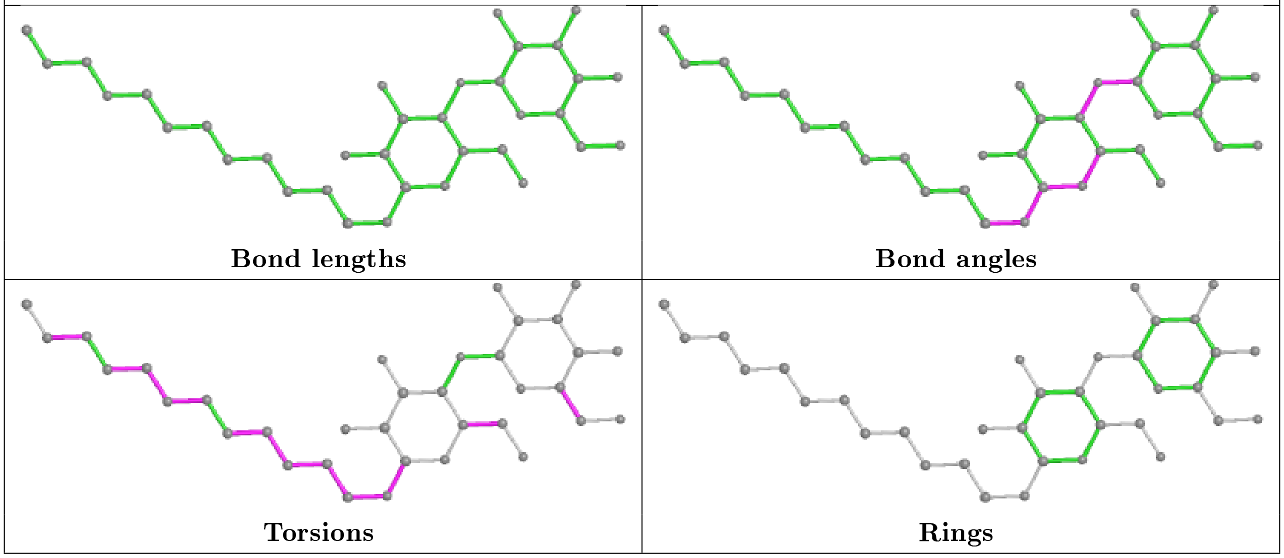
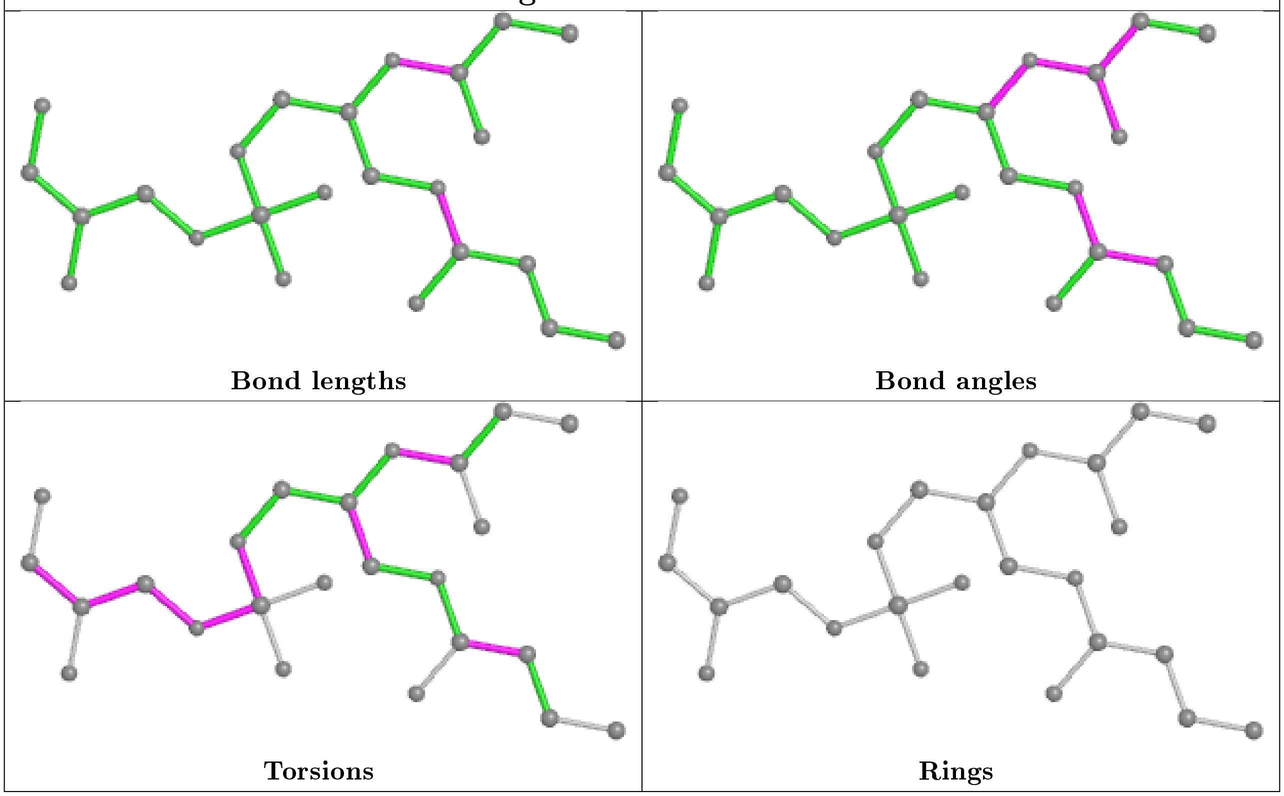

Rings

Ligand LMU B 8002



Ligand LHG 2 2801



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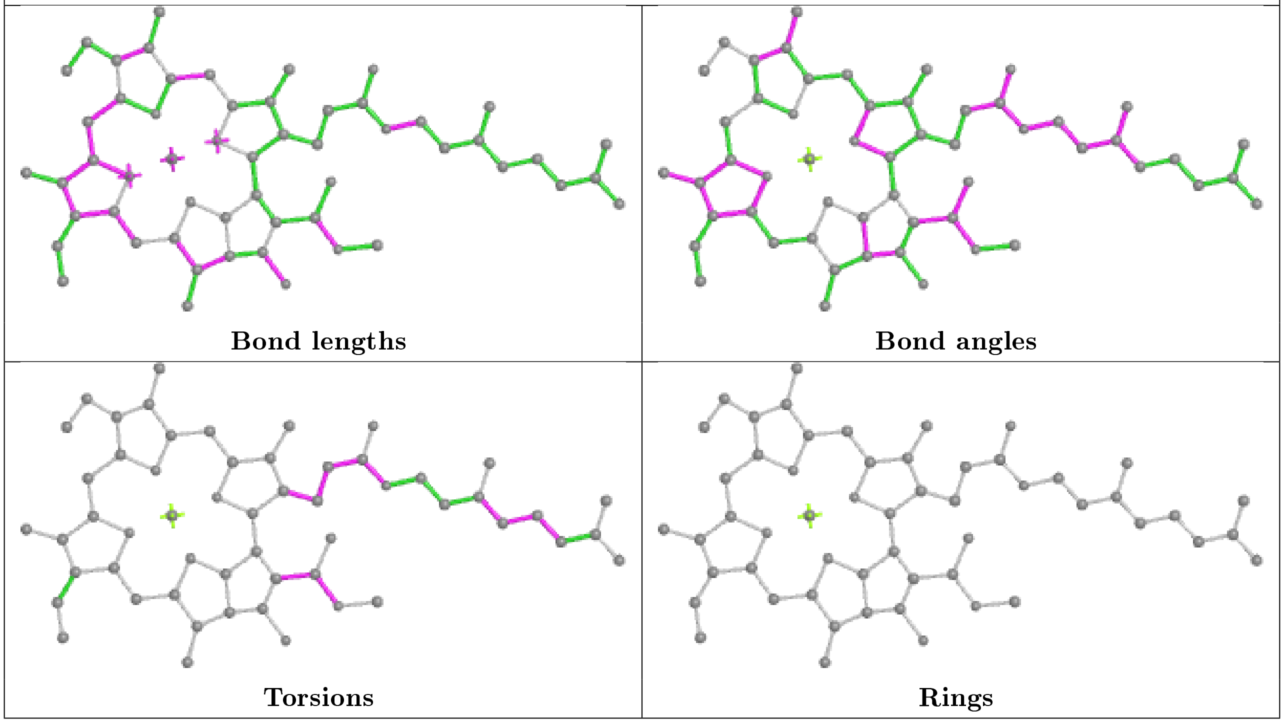
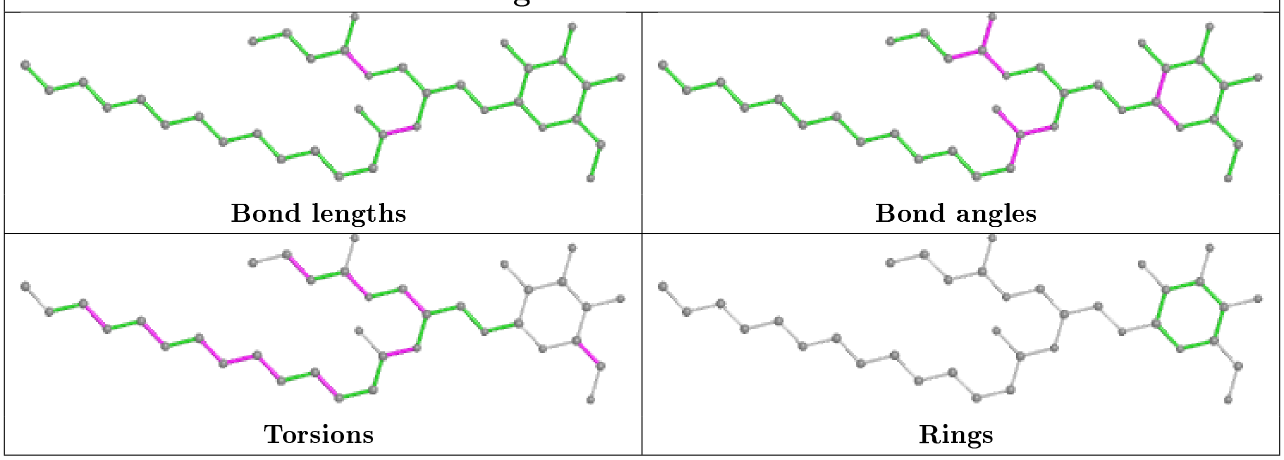
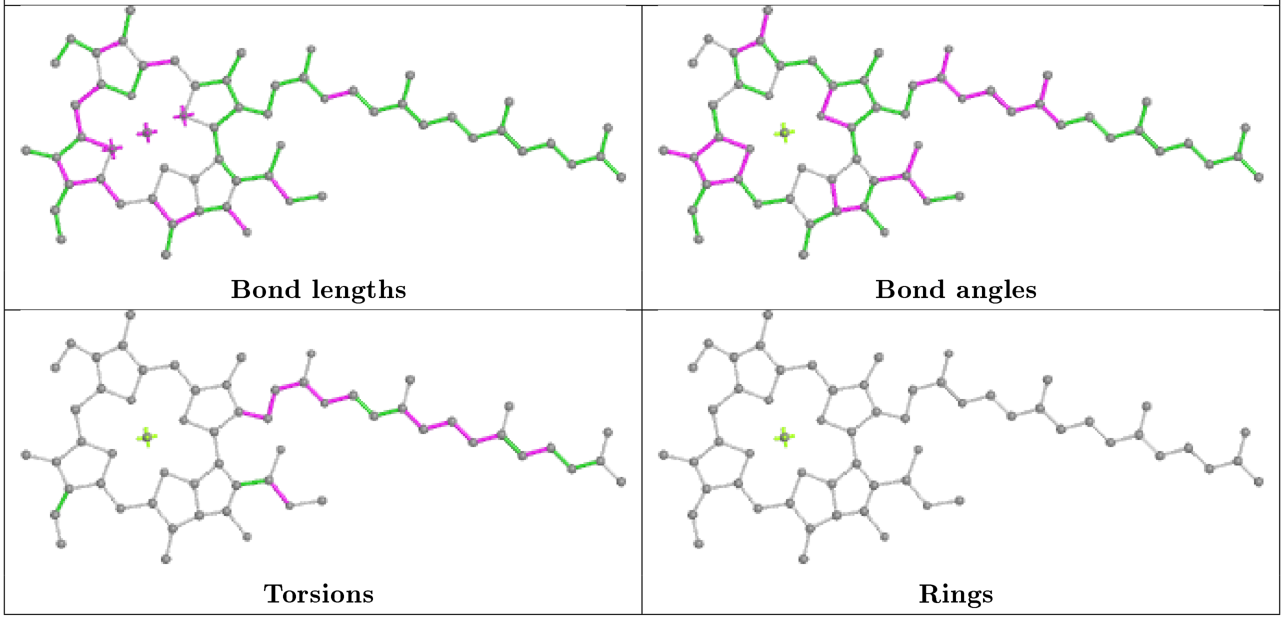


Ligand LMG F 5002



Ligand CLA A 1116



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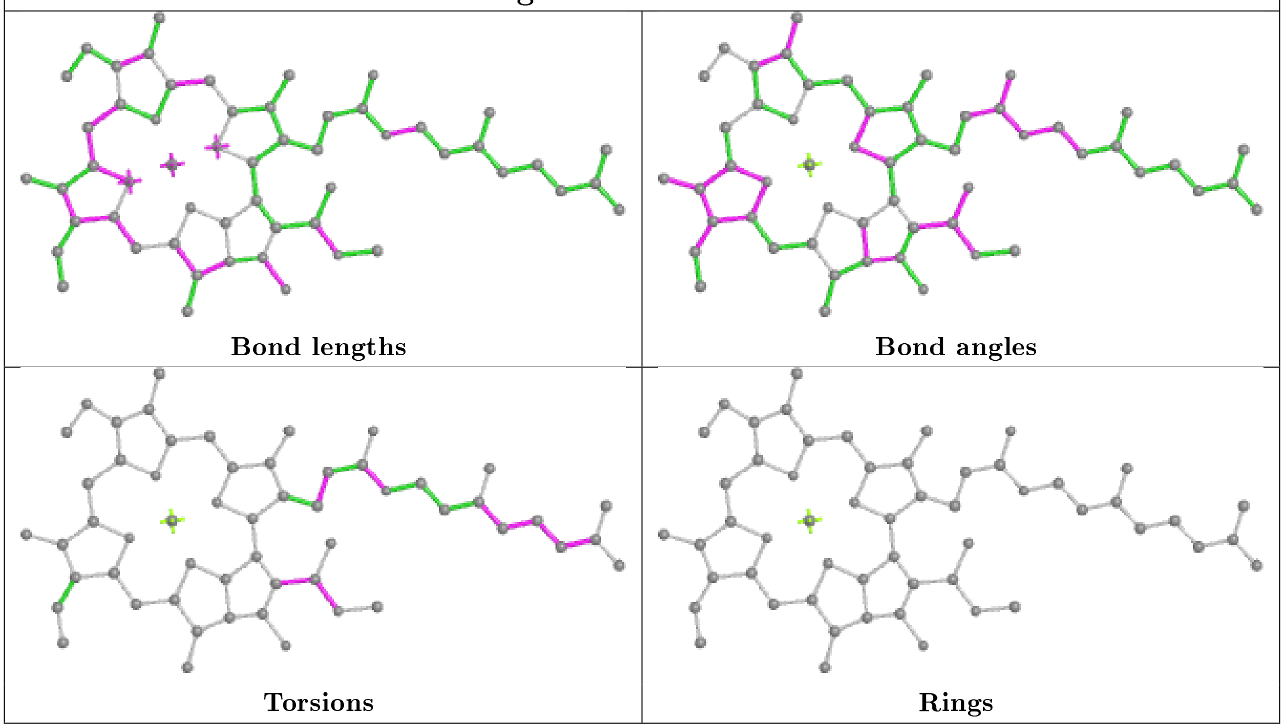
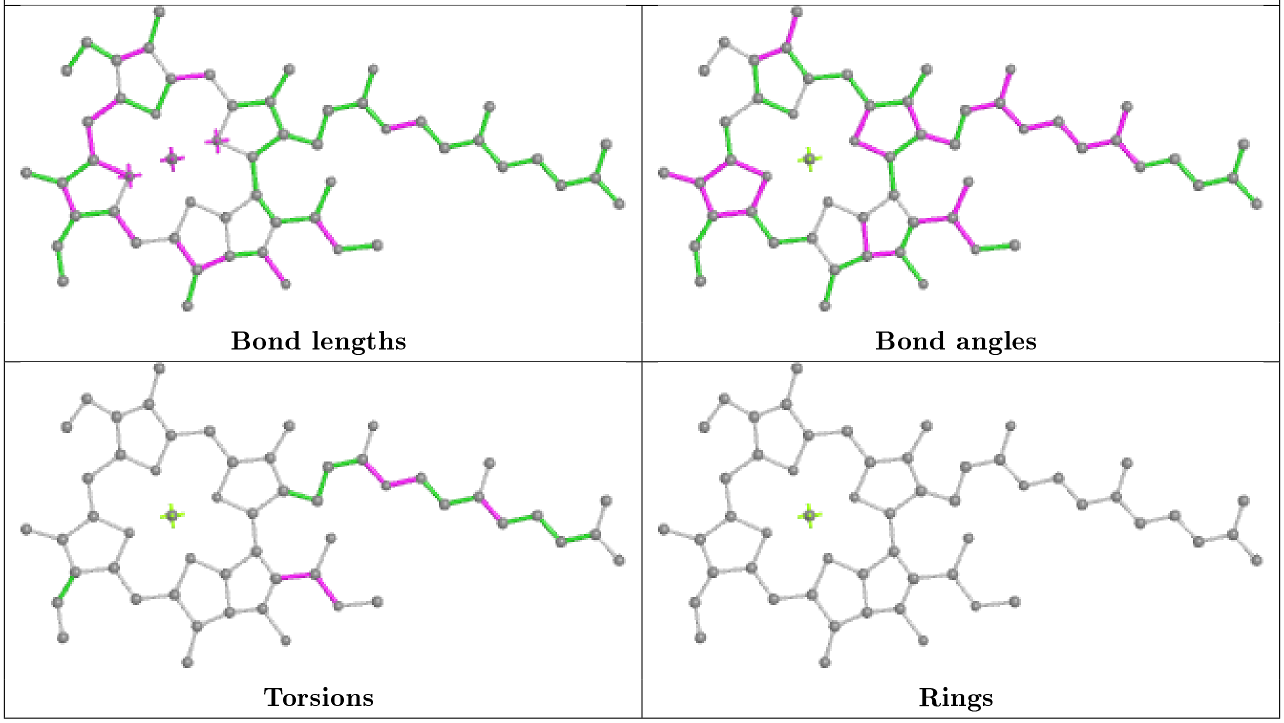


Ligand CLA 2 2006



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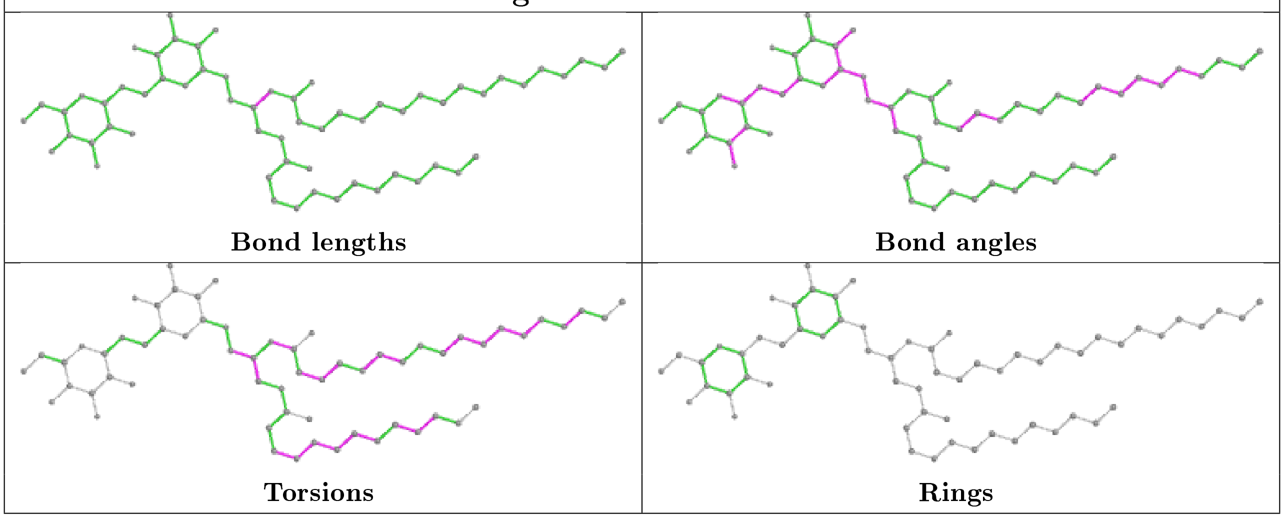

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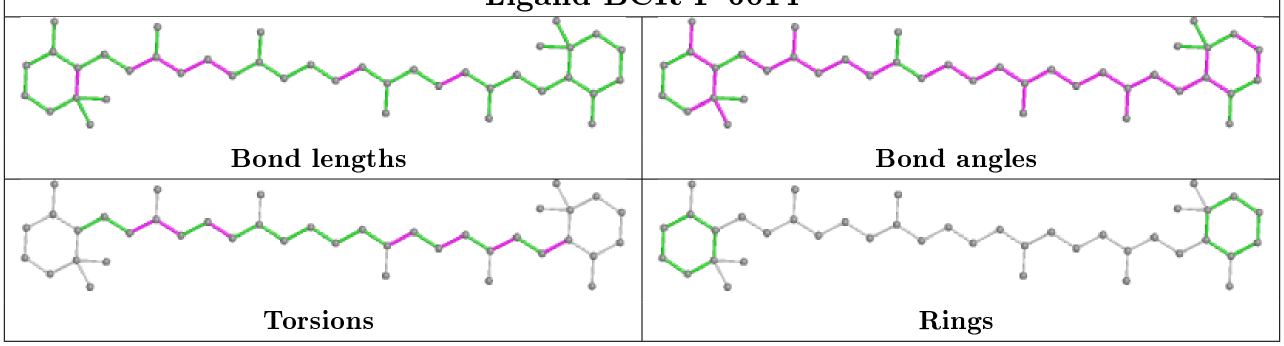

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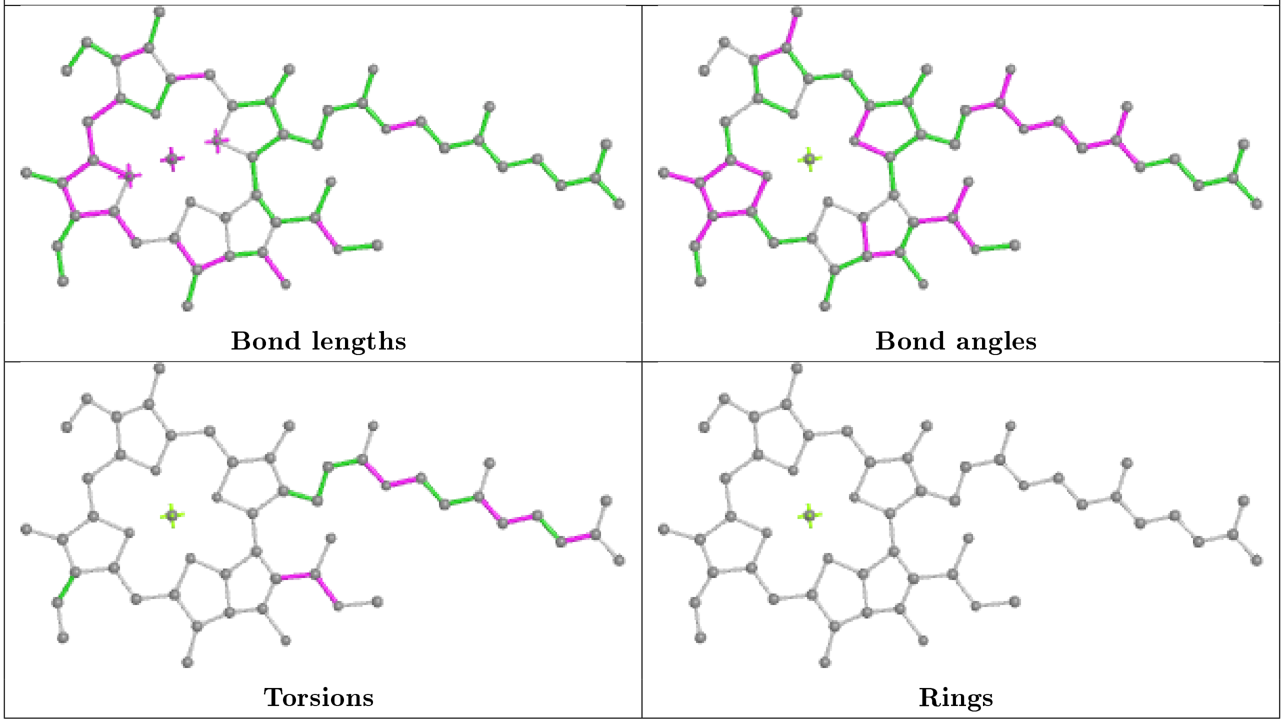
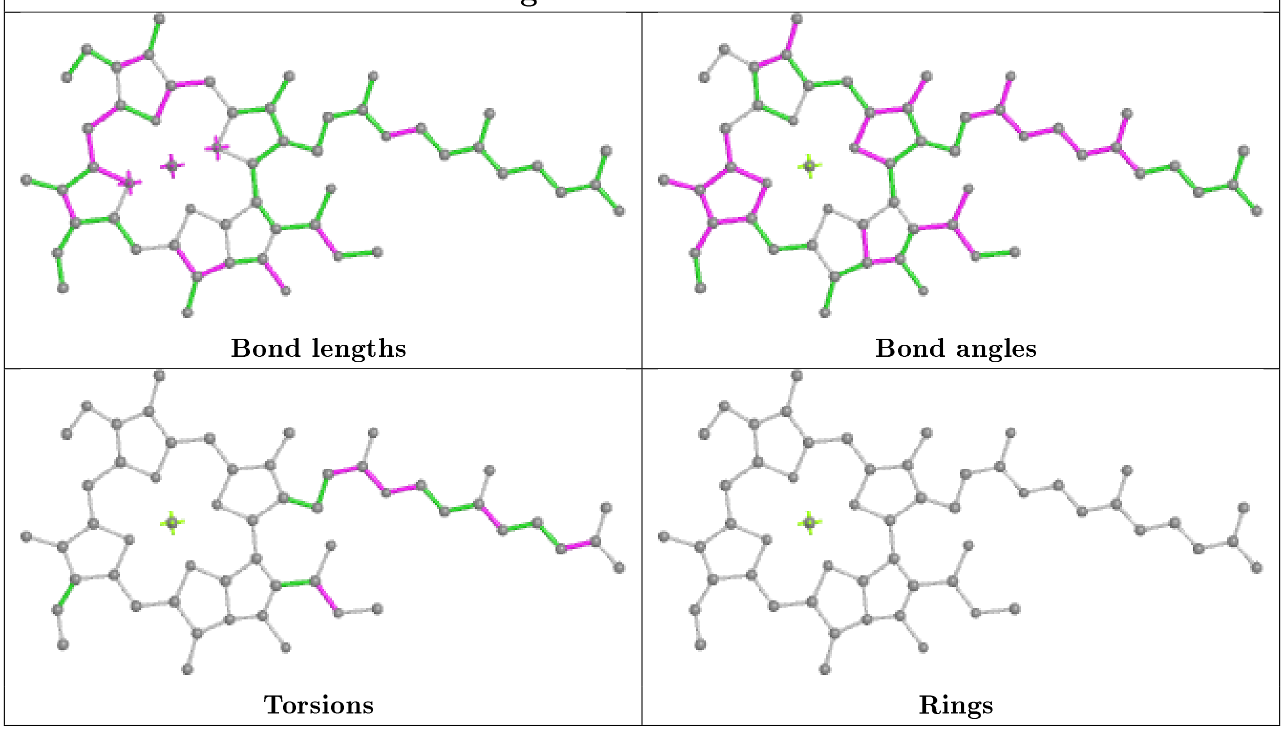


Ligand CLA 2 2003



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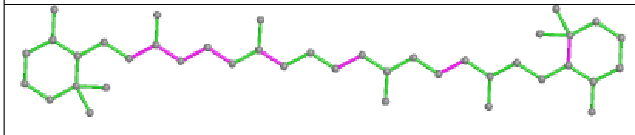
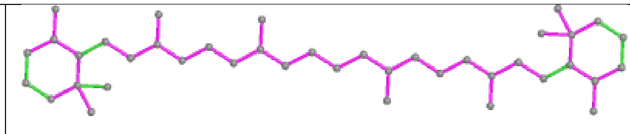
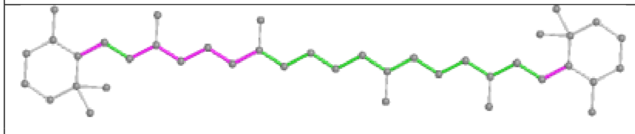


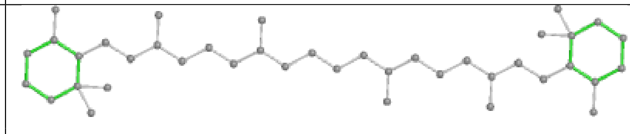
Bond lengths



Bond angles

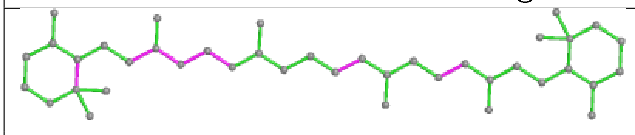


Torsions



Rings

Ligand BCR L 6019



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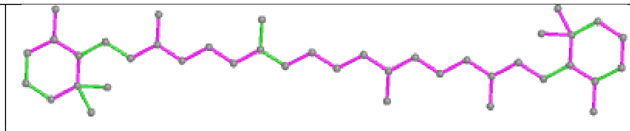
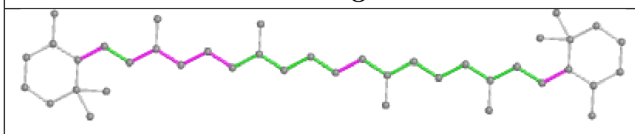


Bond angles



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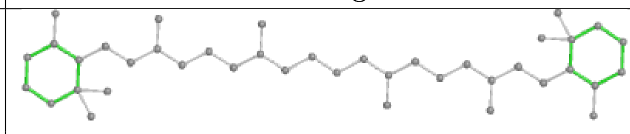
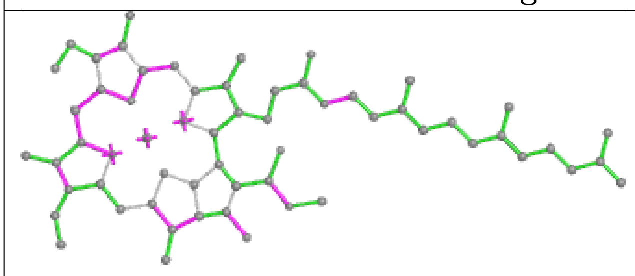
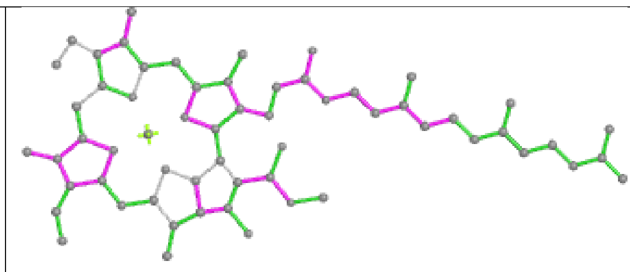


Rings

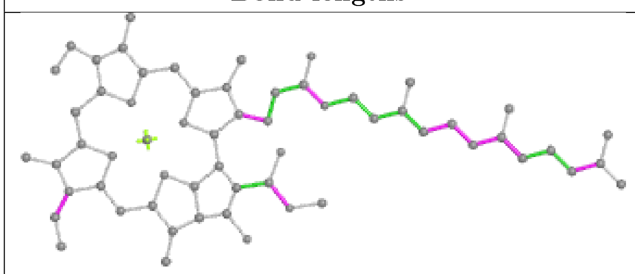
Ligand CLA 1 1001



Bond lengths



Bond angles



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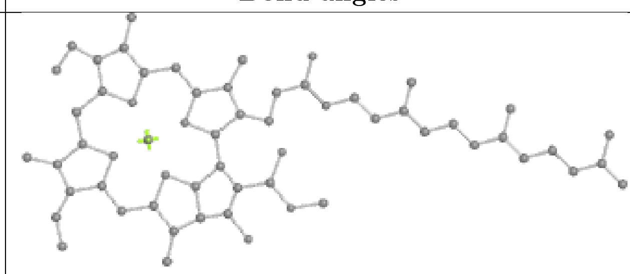
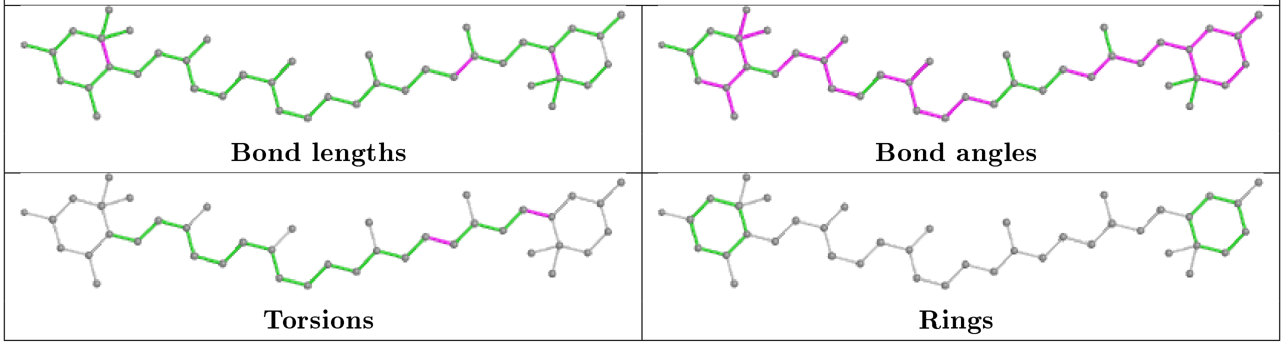


Rings

Ligand ZEX 4 4505



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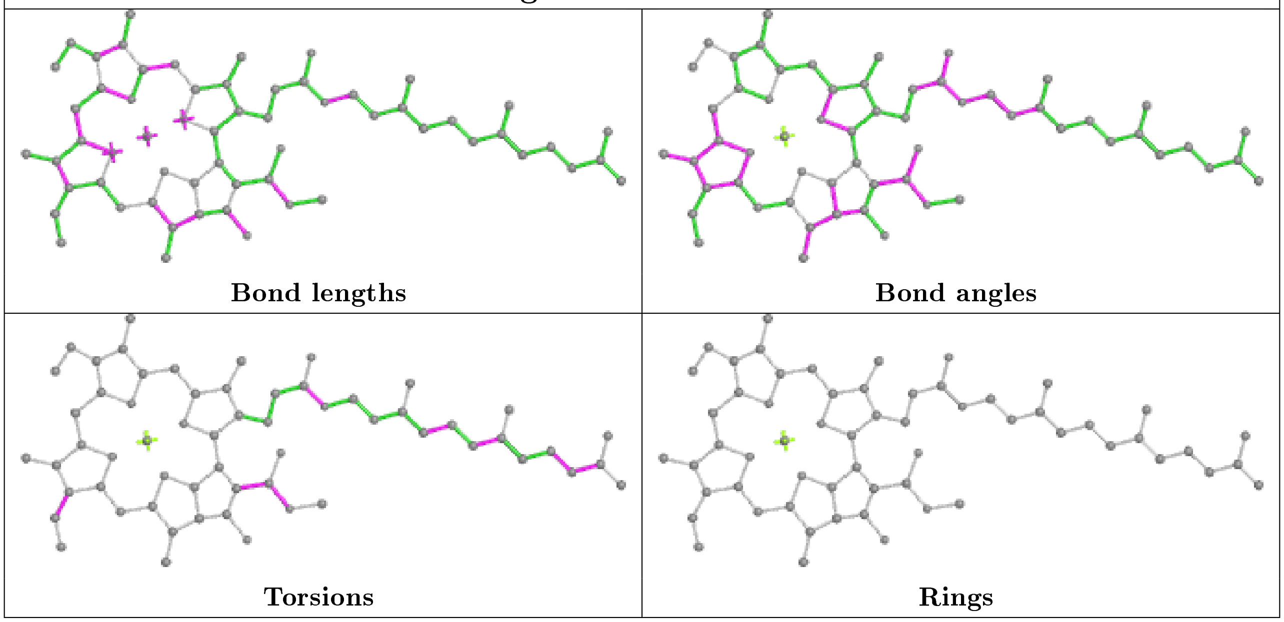

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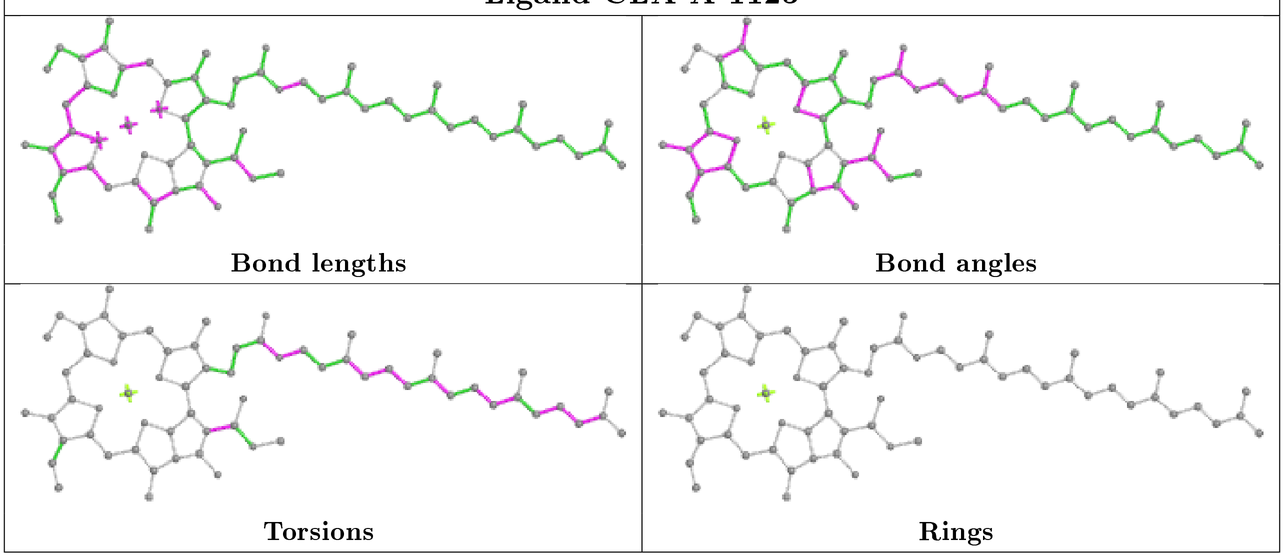

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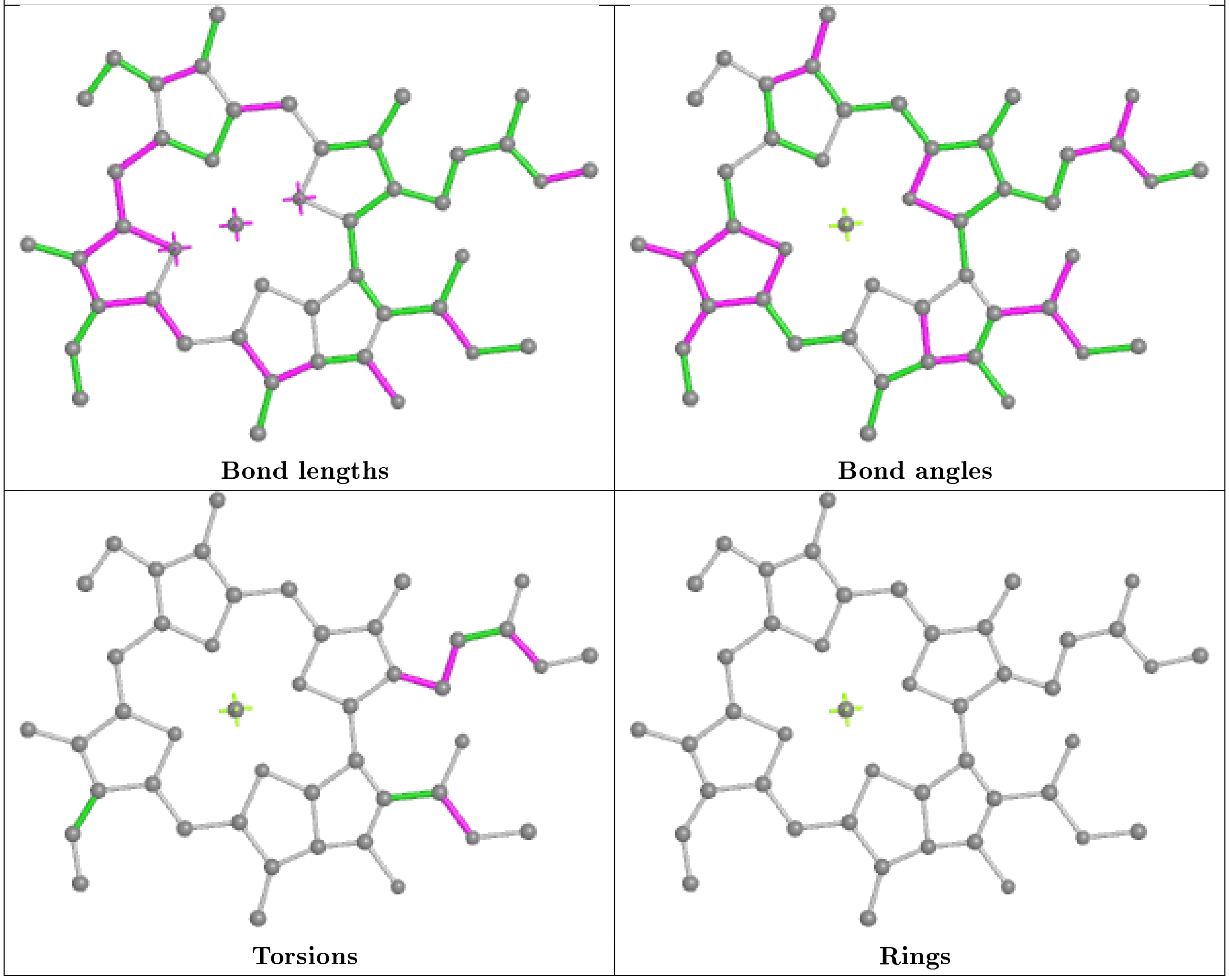
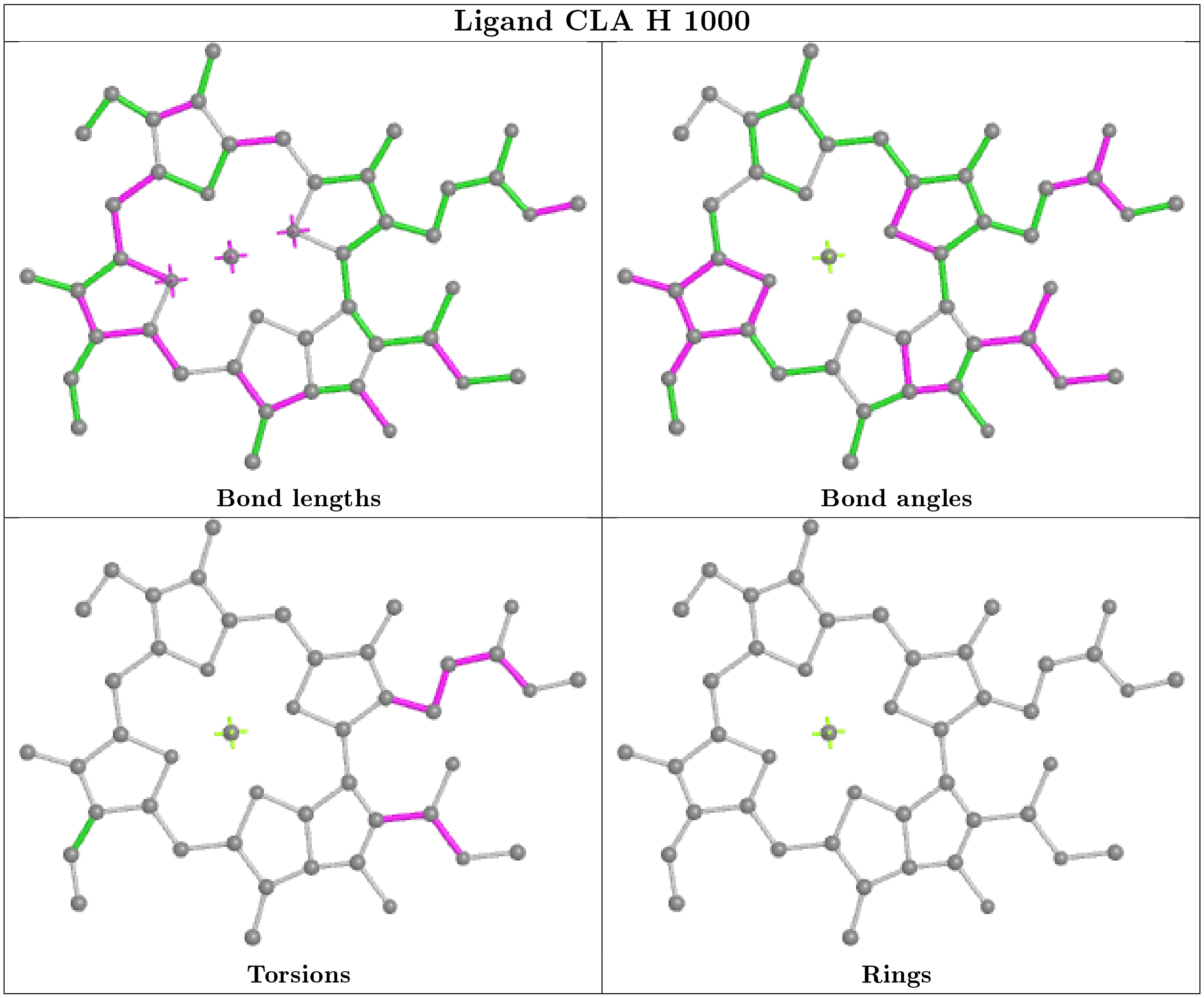
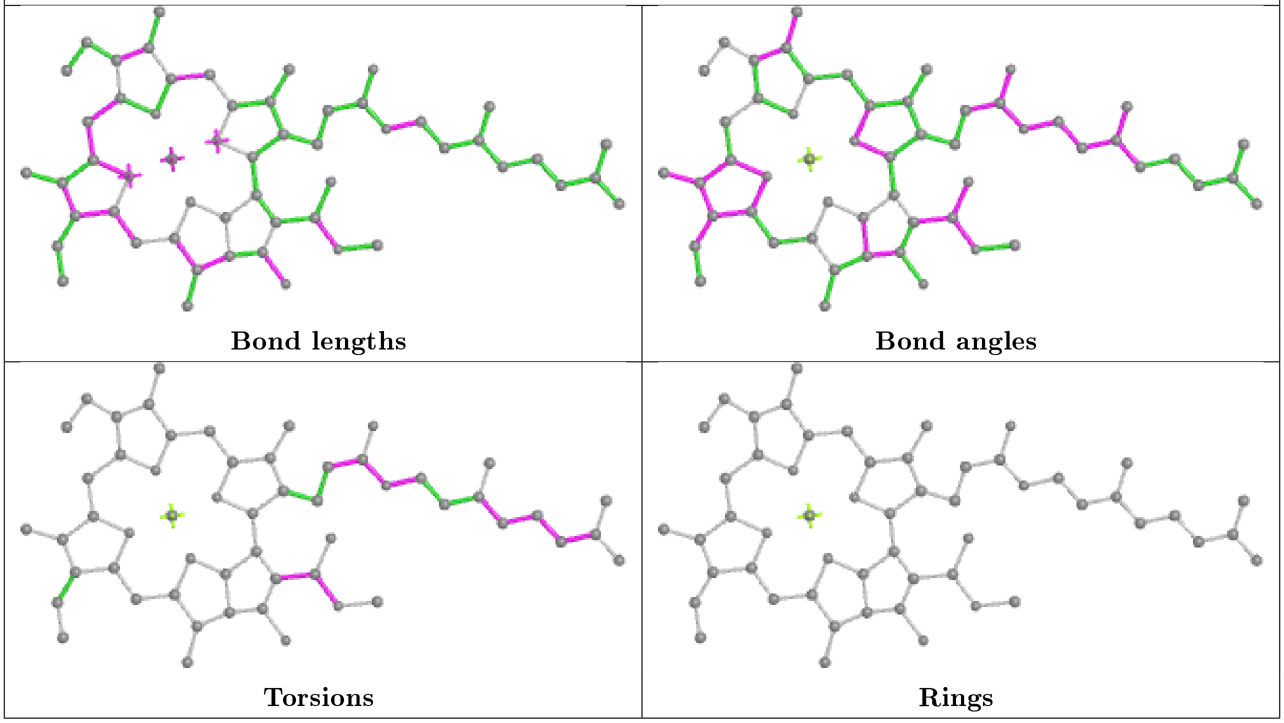


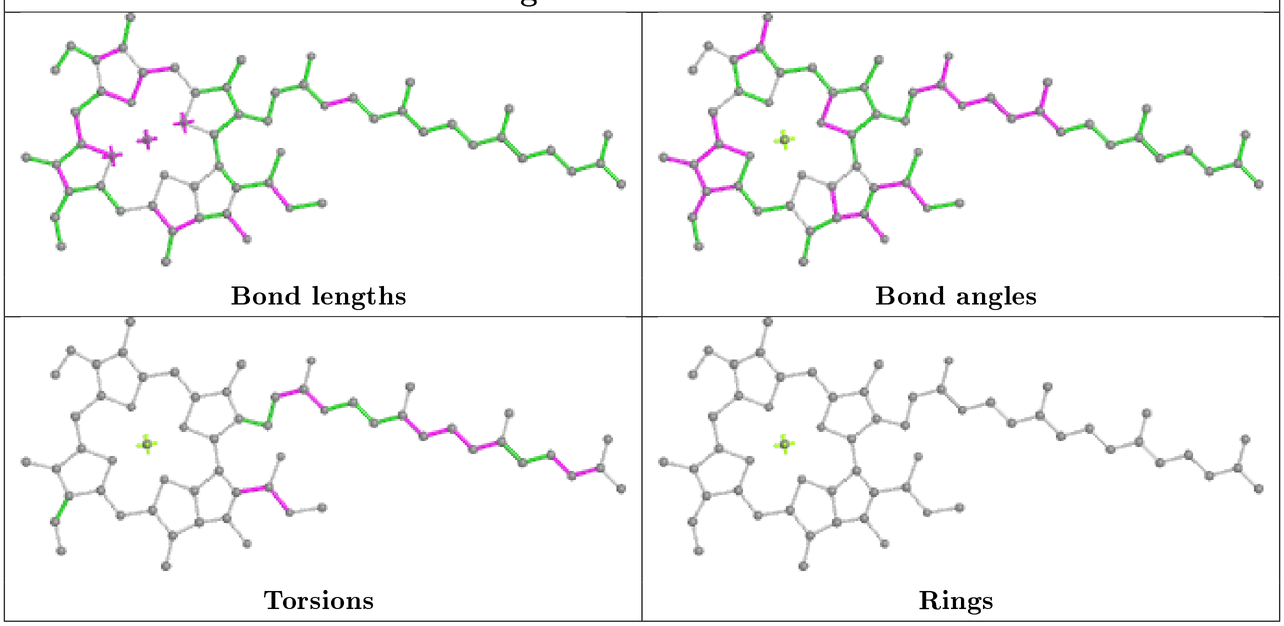

Ligand CLA H 1000
Bond lengths
Bond angles
Torsions
Rings

Ligand CLA A 1134



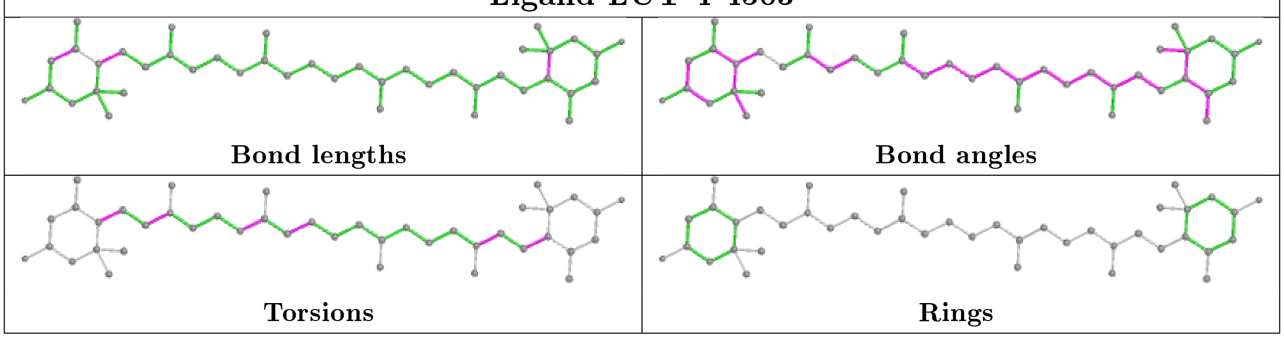
Bond lengths | Bond angles | Torsions | Rings

Ligand CLA 3 3010



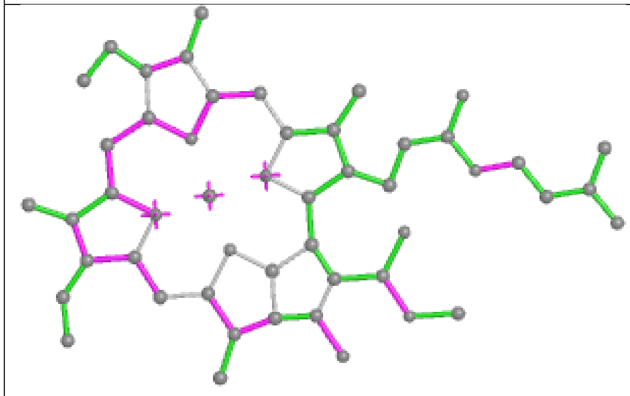
Bond lengths | Bond angles | Torsions | Rings

Ligand LUT 4 4503

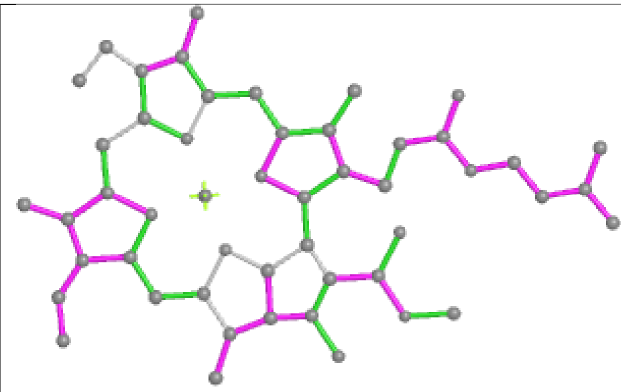


Bond lengths | Bond angles | Torsions | Rings

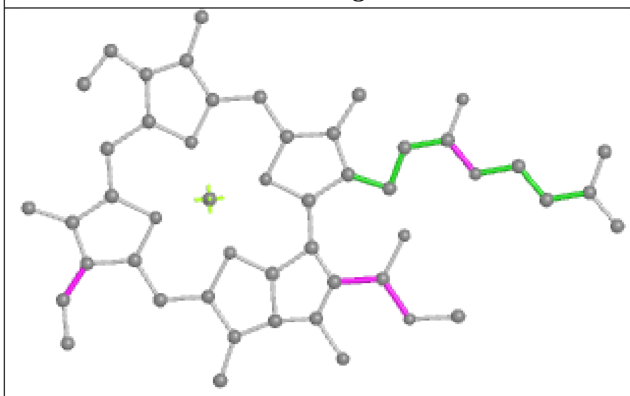
Ligand CLA 1 1006



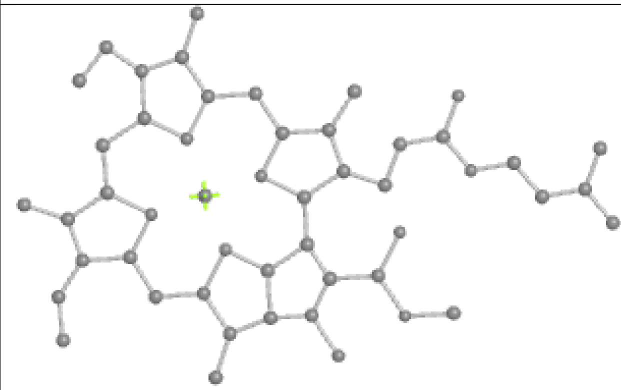
Bond lengths



Bond angles

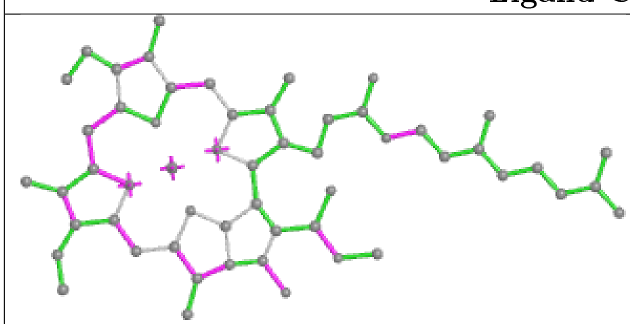


Torsions



Rings

Ligand CLA 2 2005



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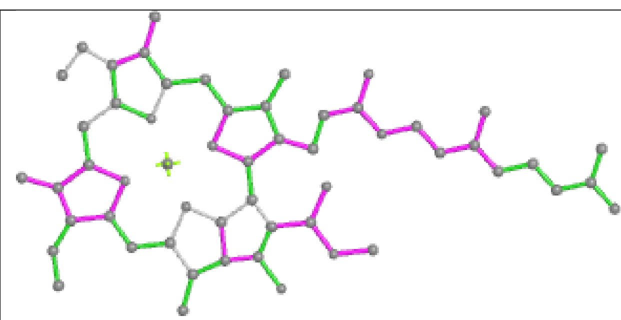
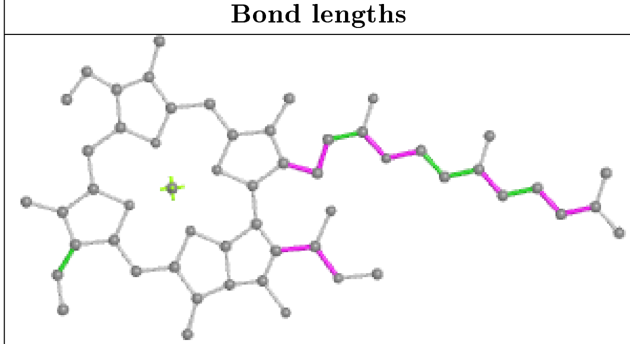
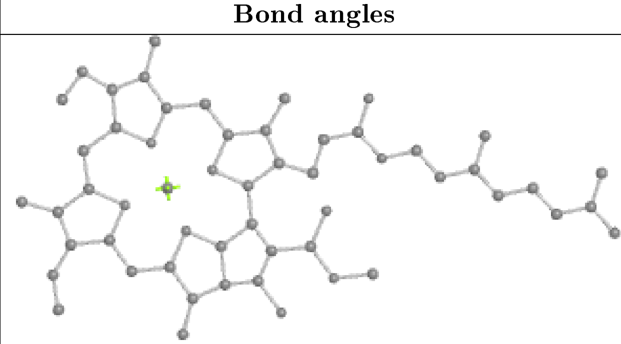


Bond angles



Torsions



Rings

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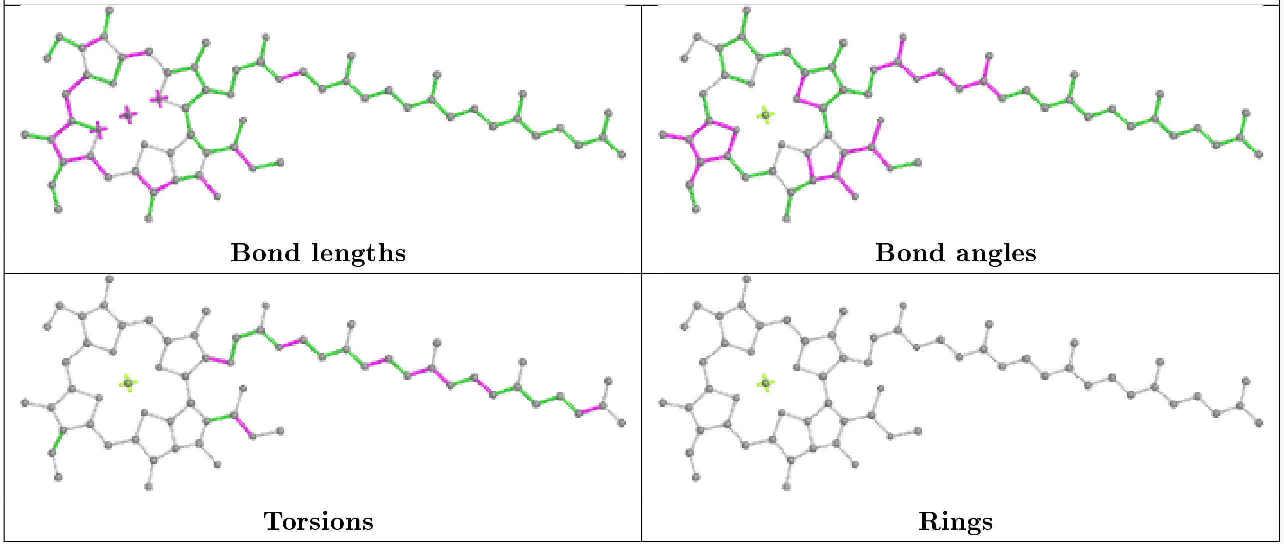

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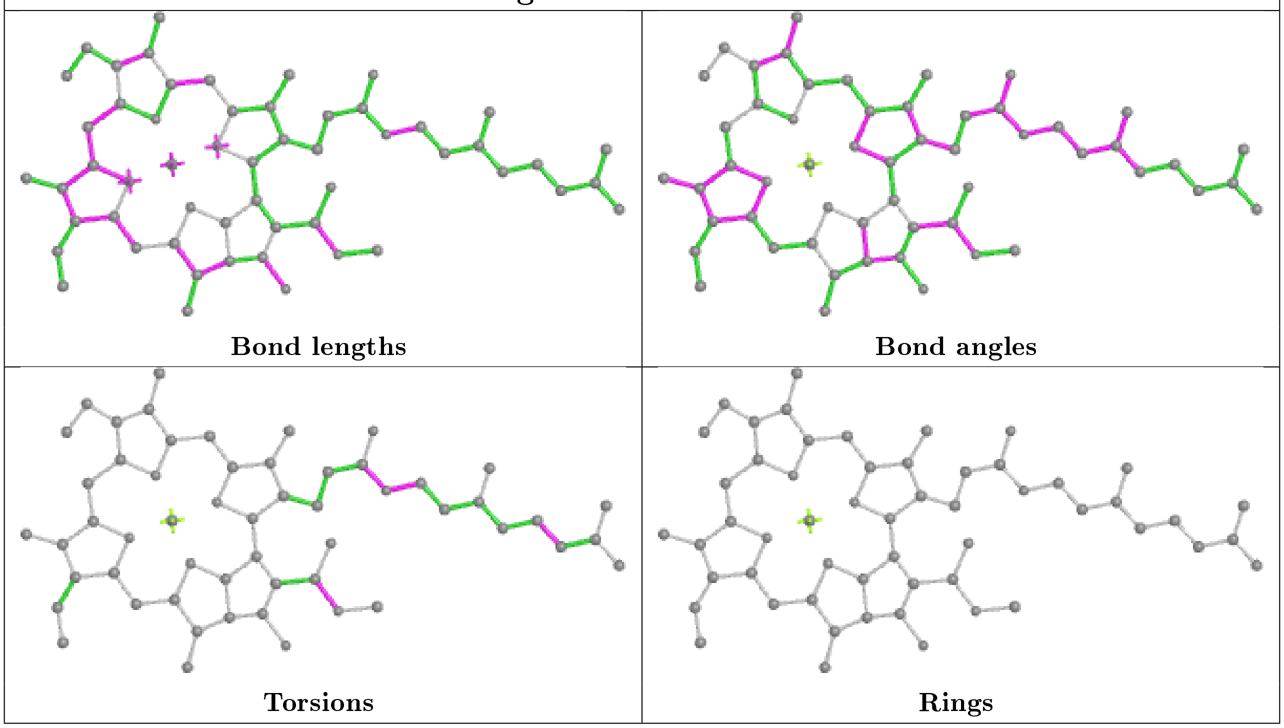

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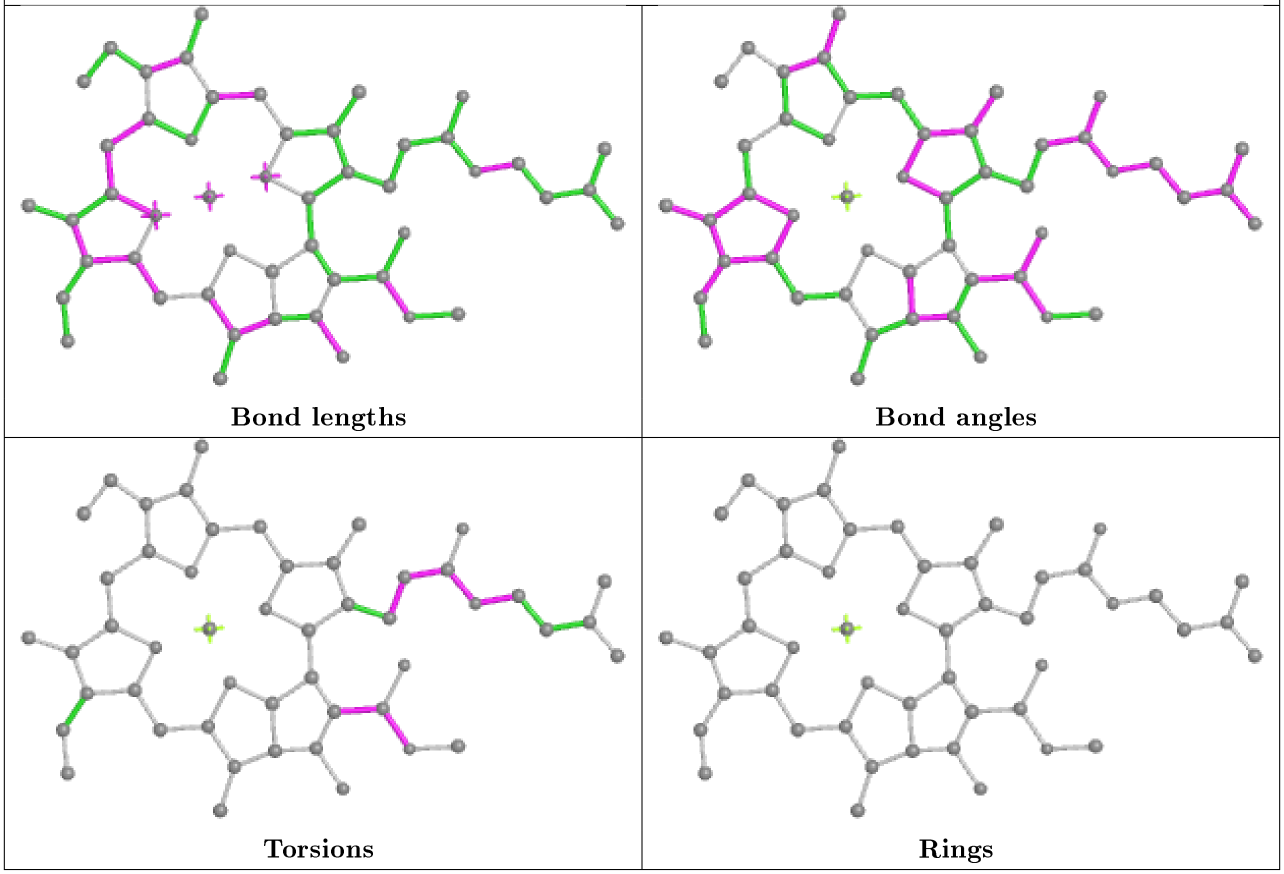


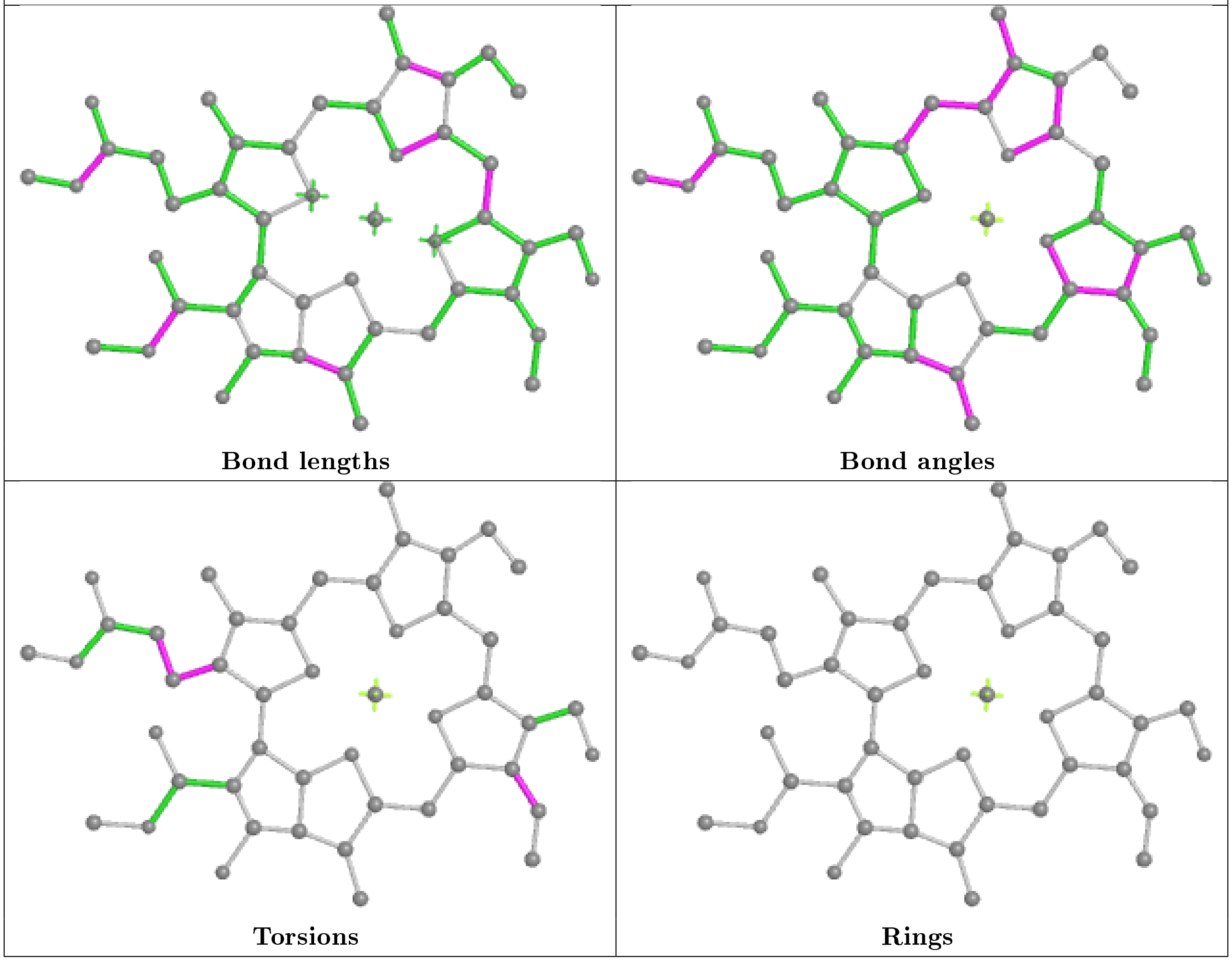
Bond lengths

Bond angles

Torsions

Rings

Ligand CHL 1 1010



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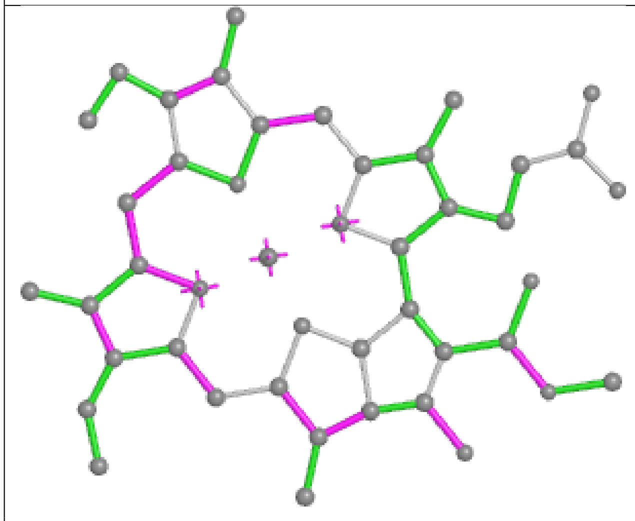

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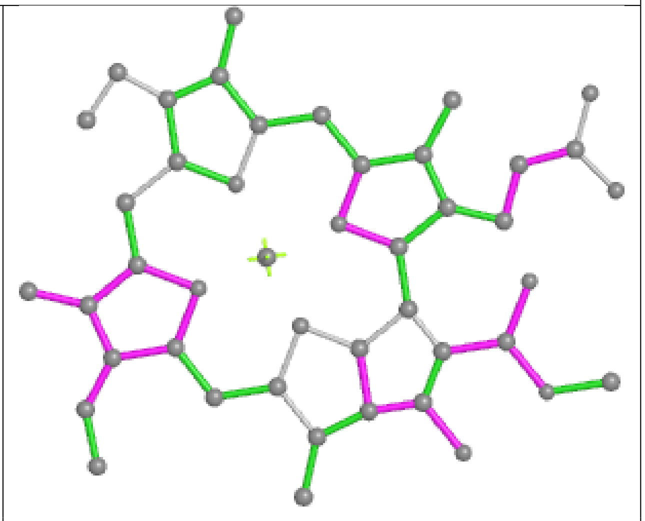
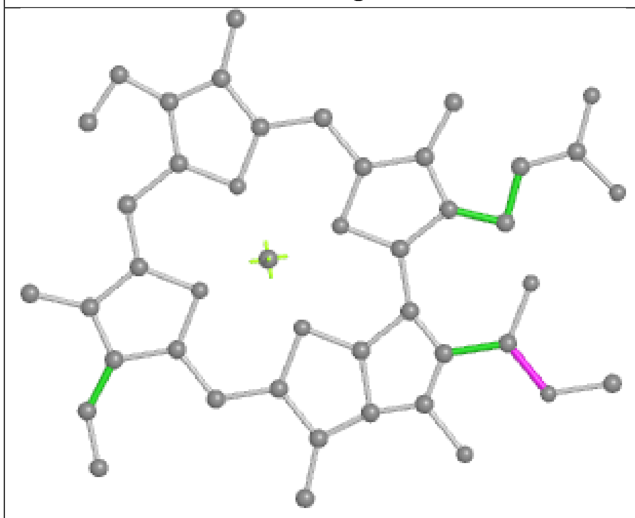


Bond angles



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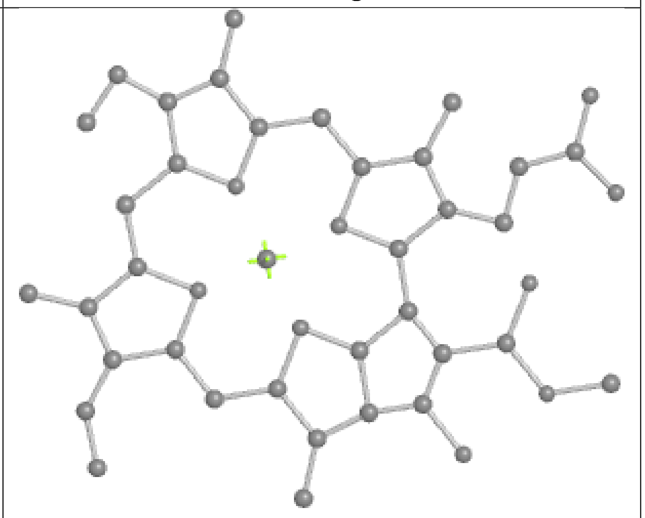

Rings

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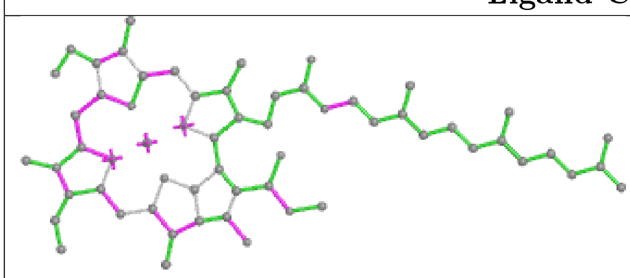

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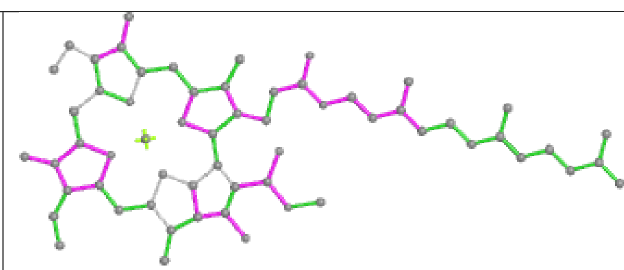
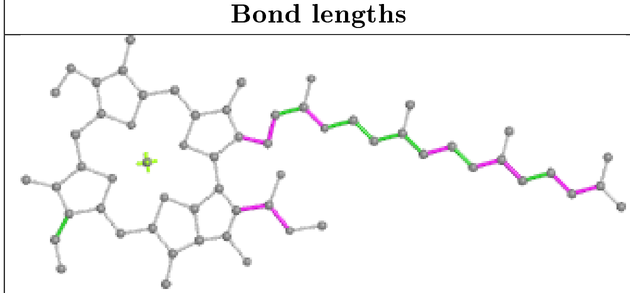


Bond angles



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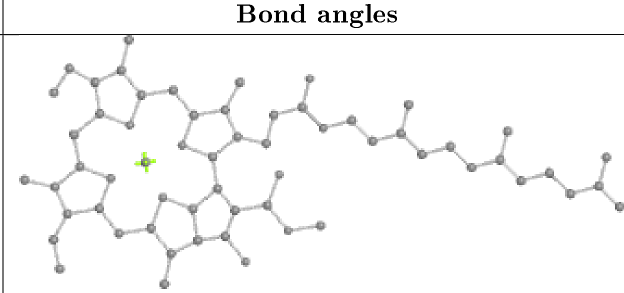
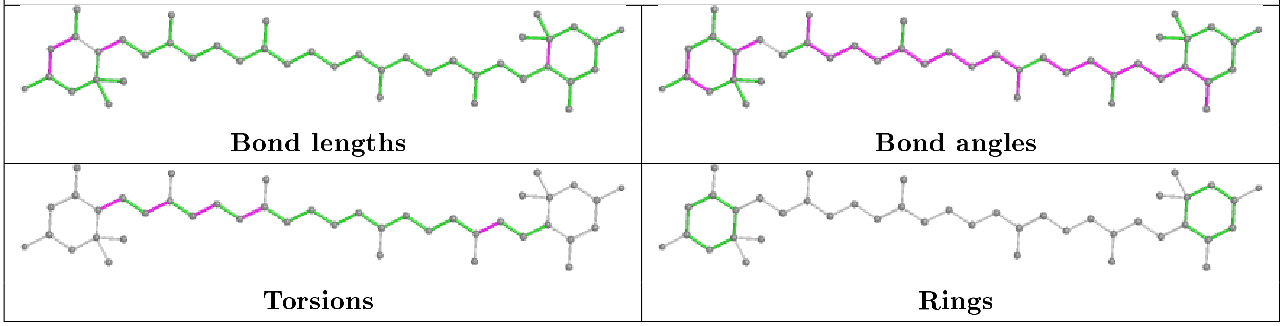
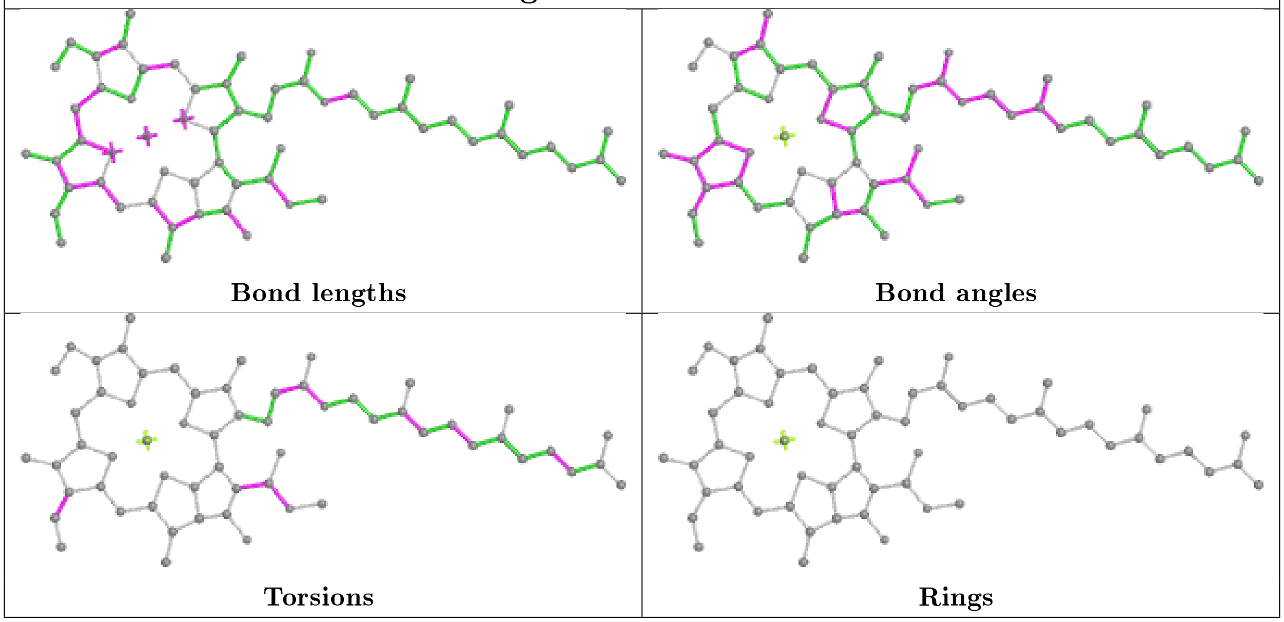


Rings

Ligand LUT 1 1501



Ligand CLA 2 2007



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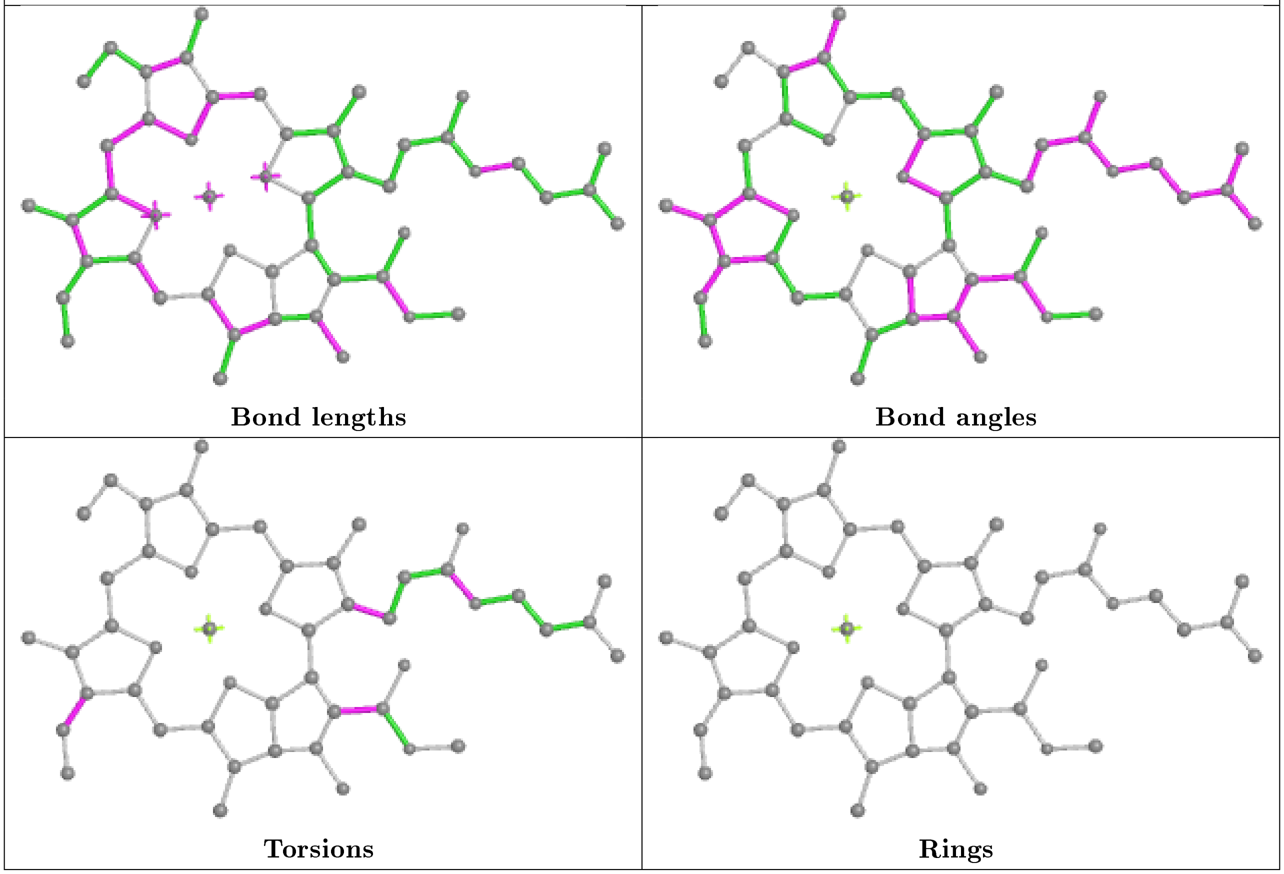
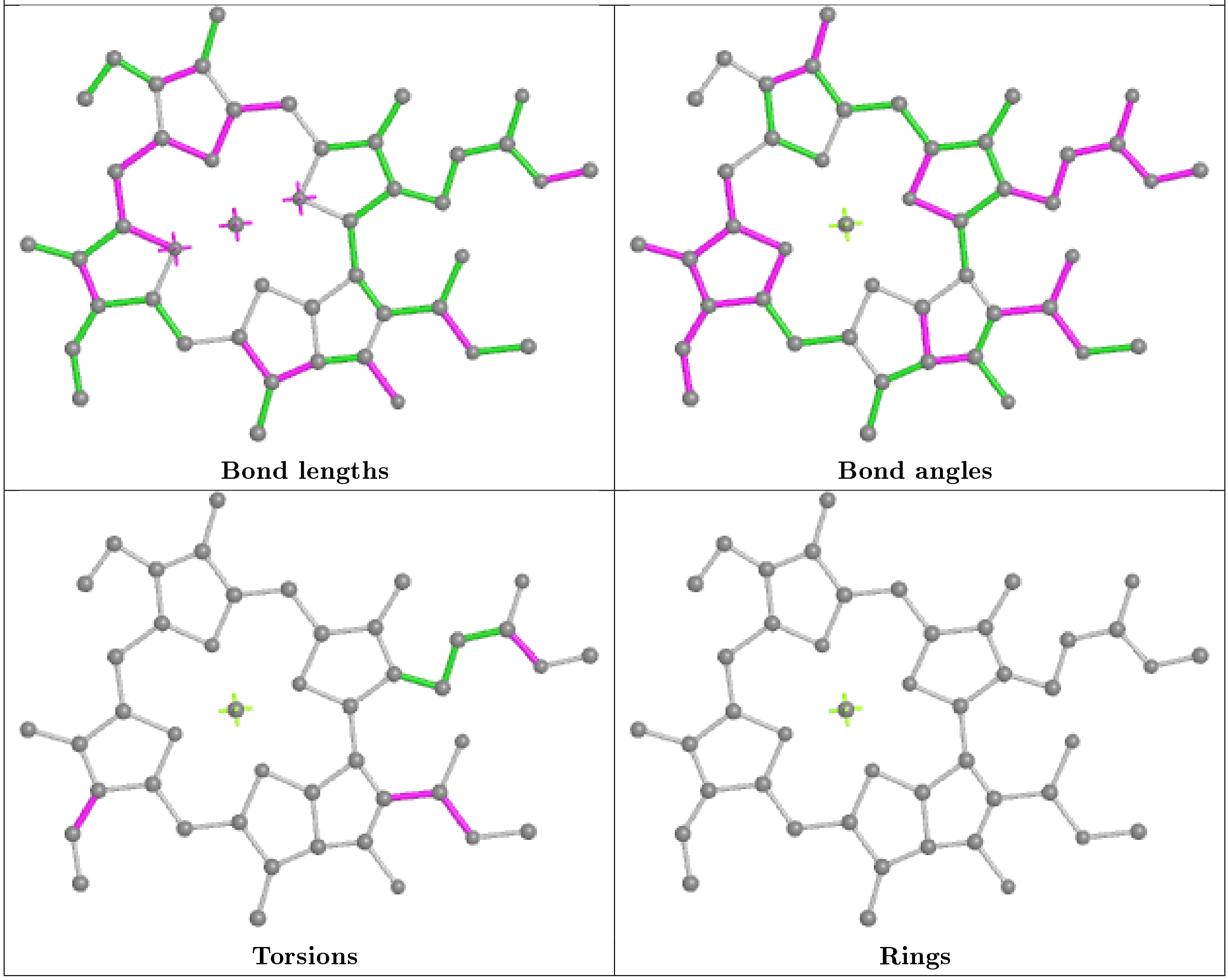
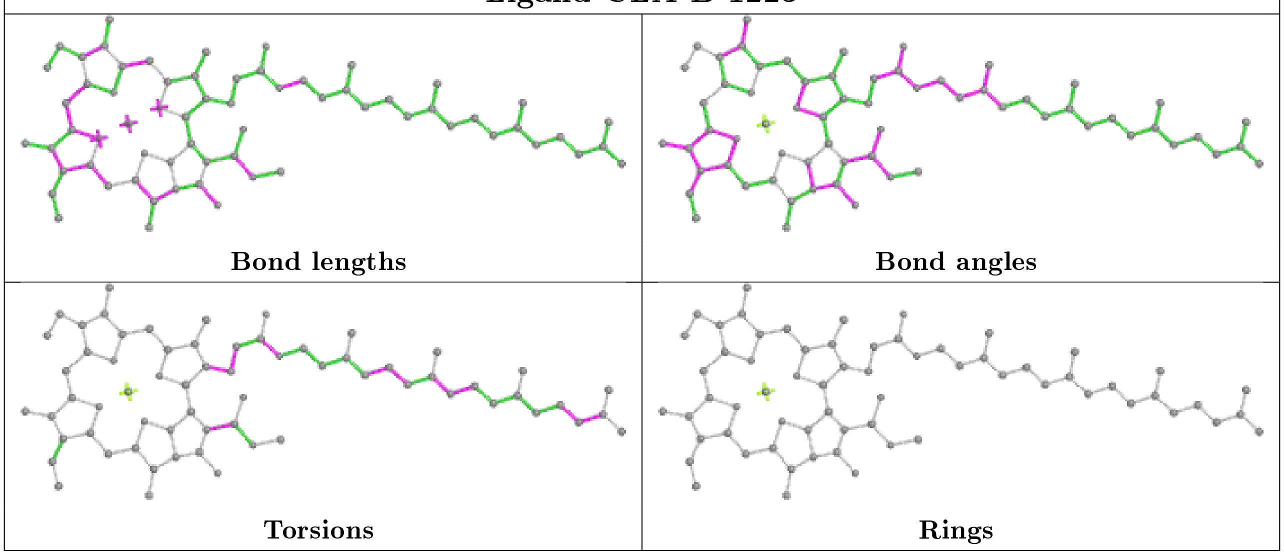


Ligand CLA 2 2002



Ligand CLA B 1223



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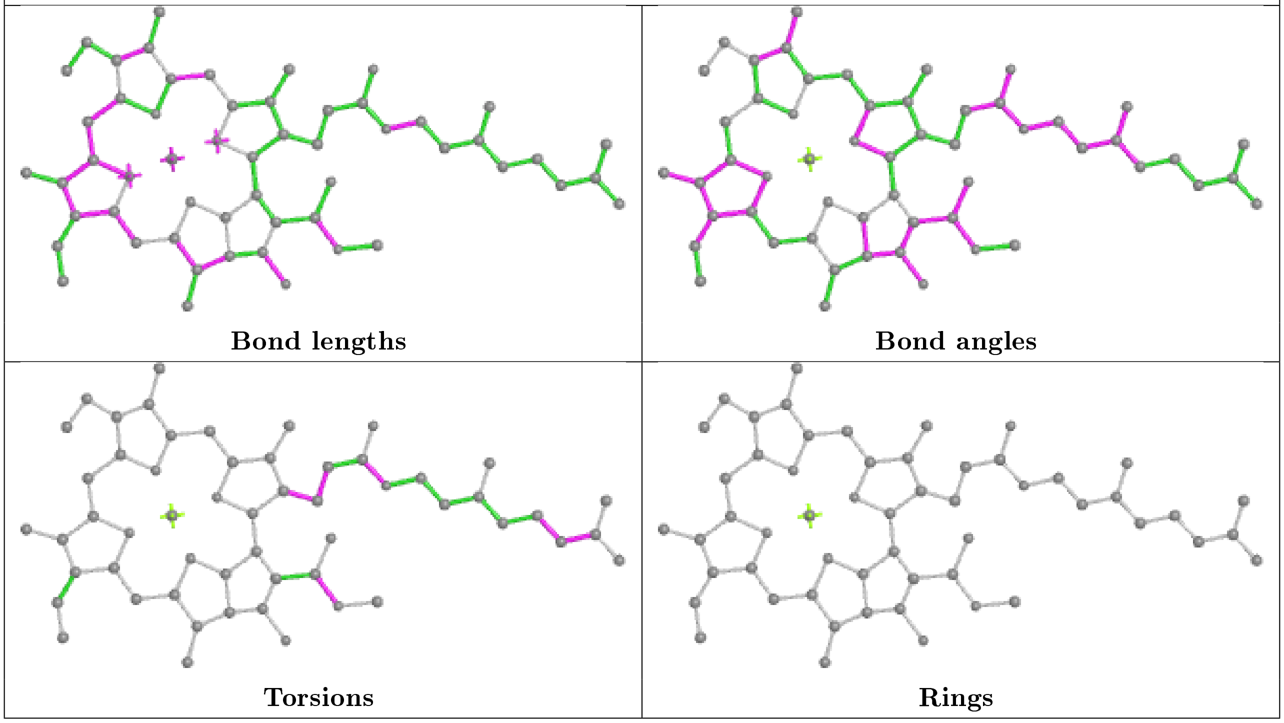

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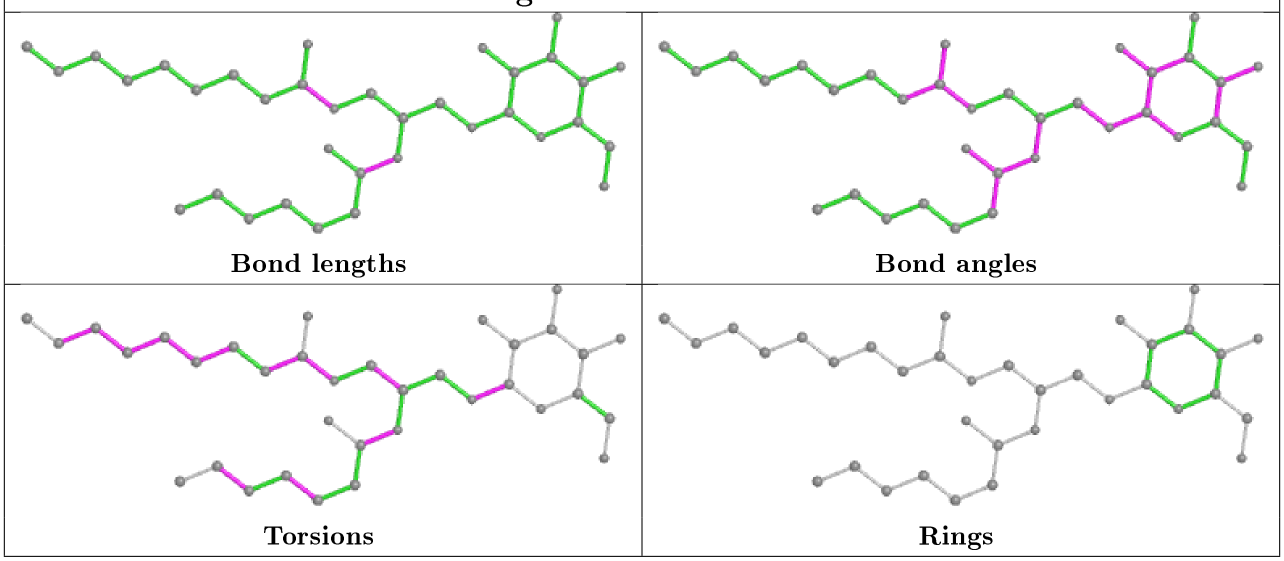

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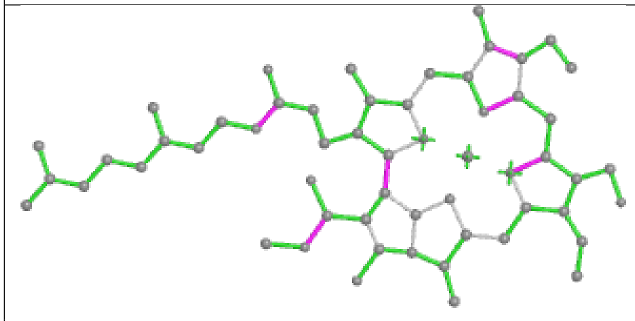
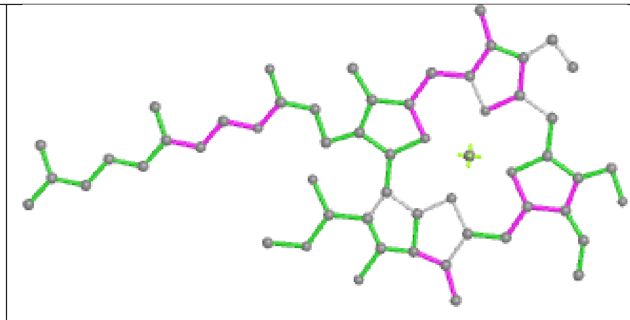
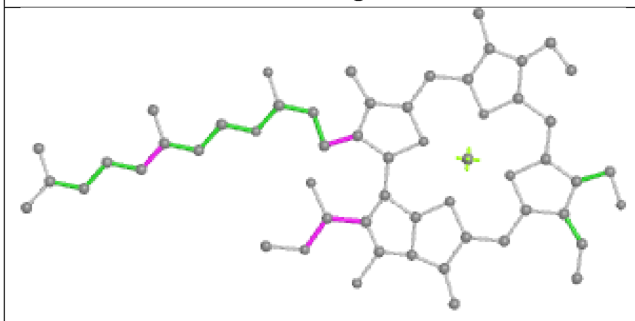


Bond lengths



Bond angles



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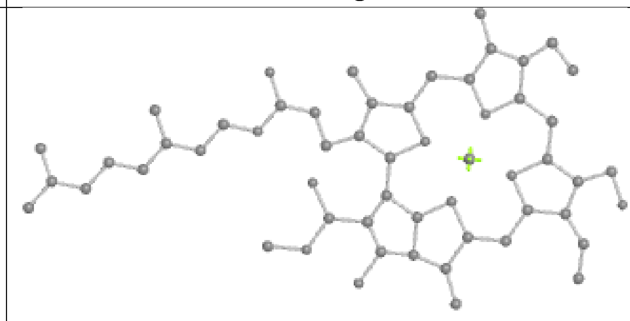
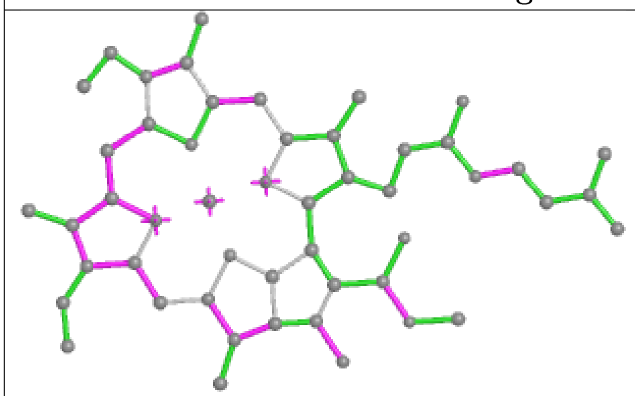


Rings

Ligand CLA A 1151



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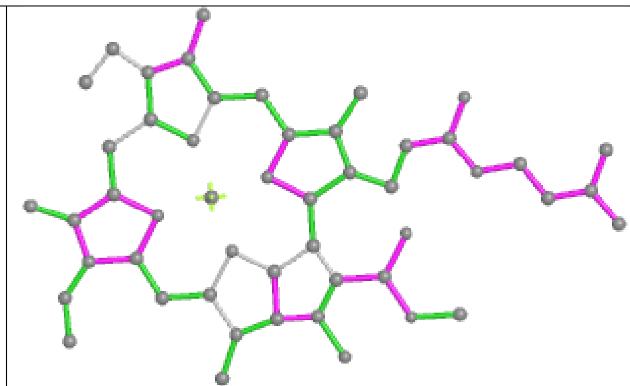
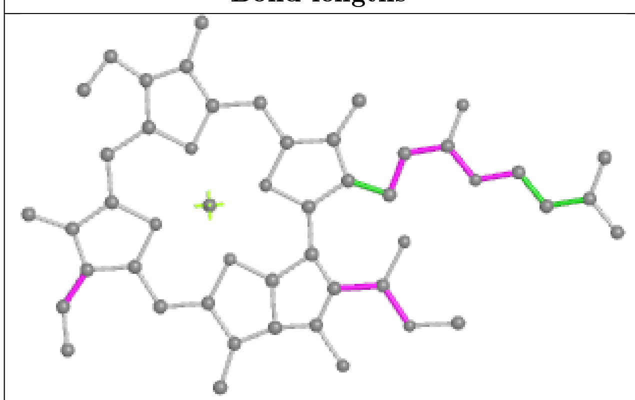


Bond angles



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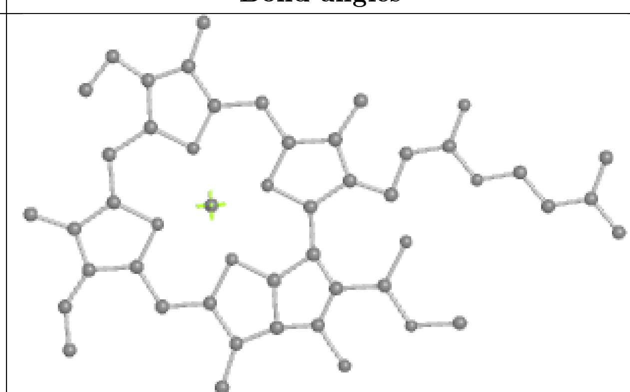
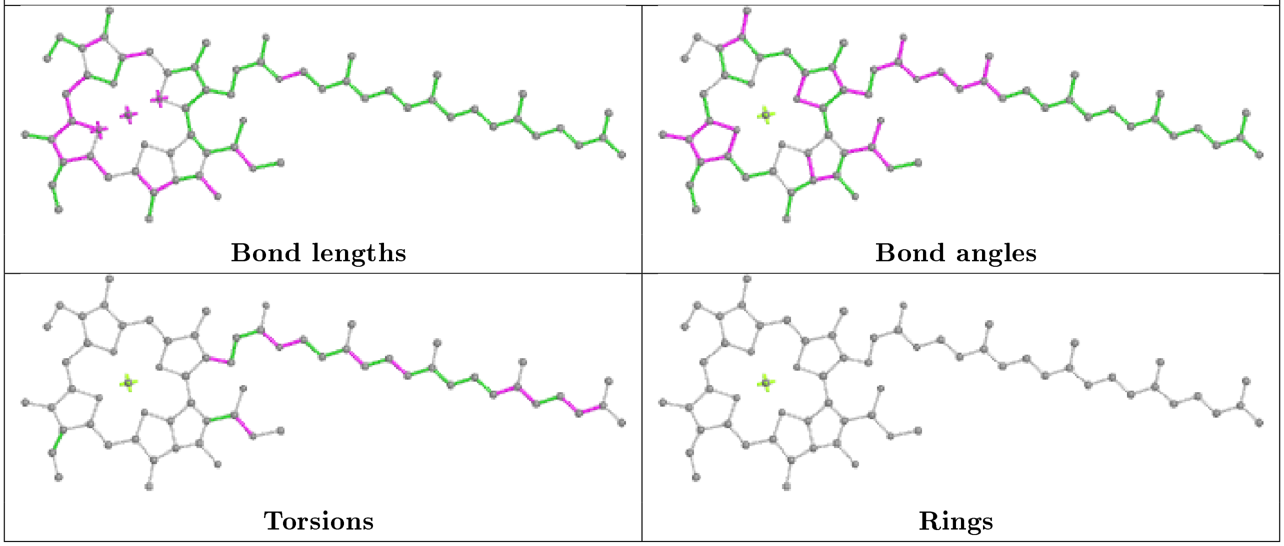


Rings

Ligand CLA A 1104



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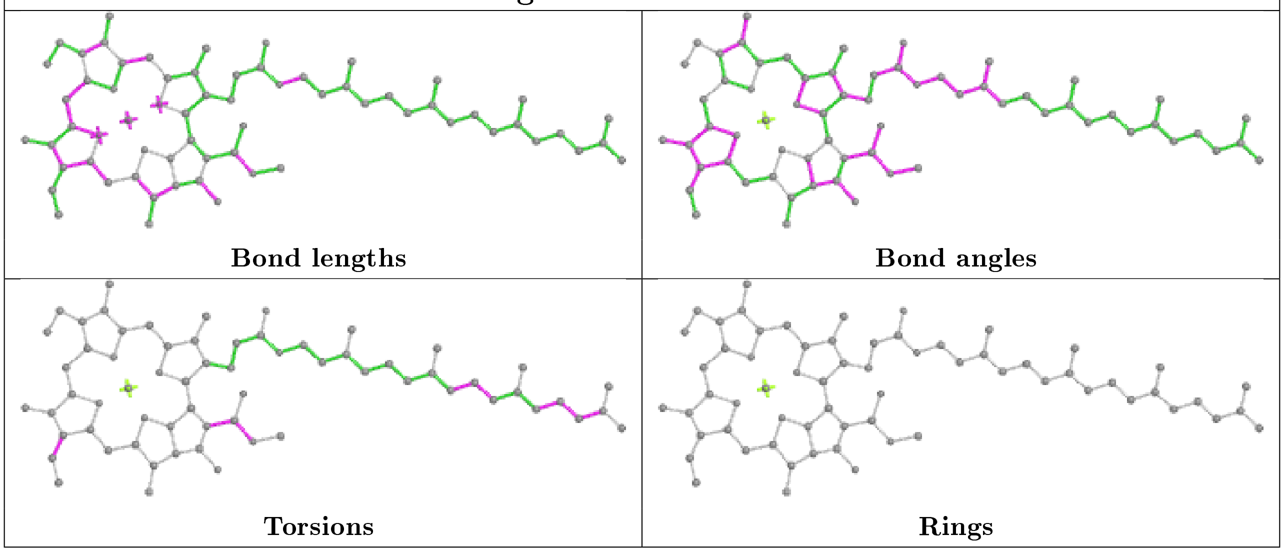
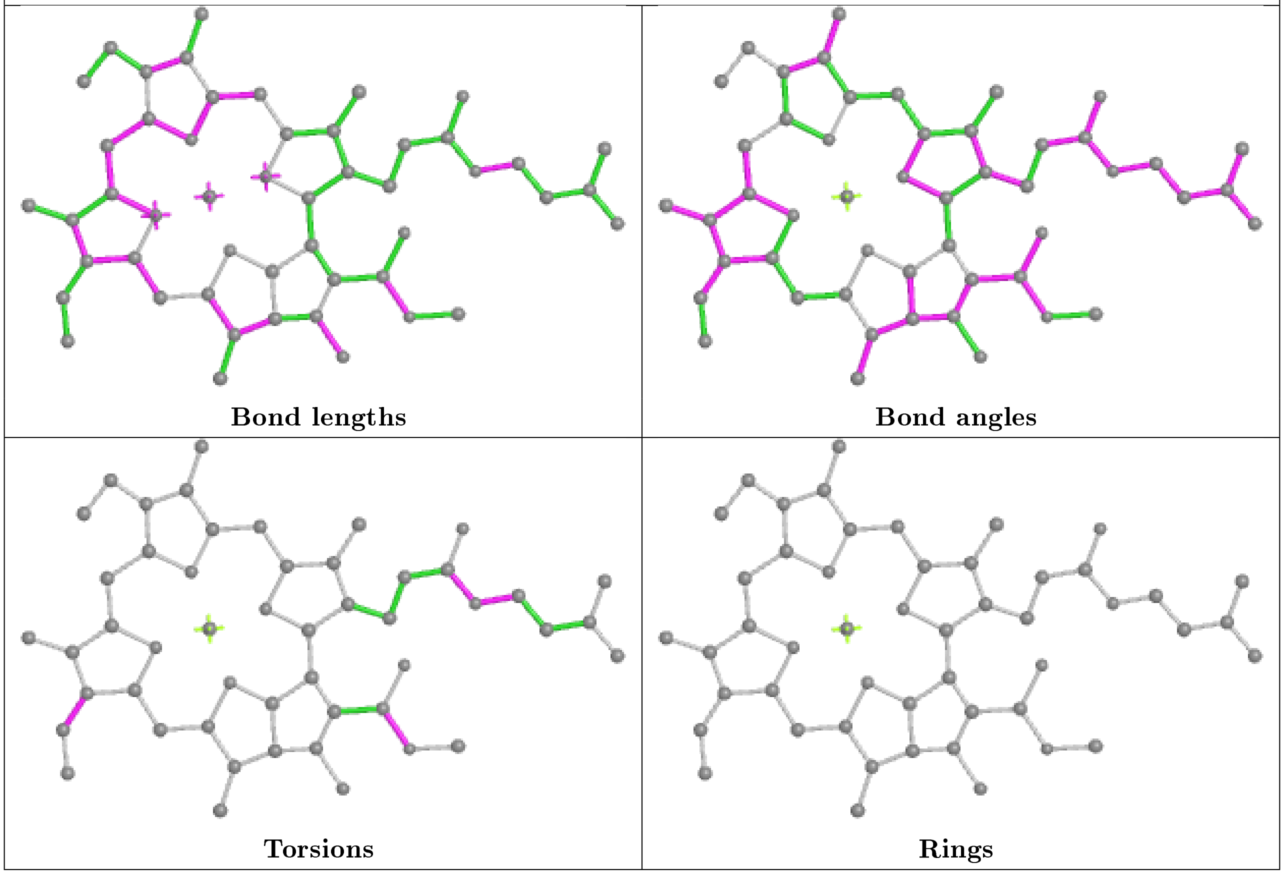


Ligand CLA 3 3018



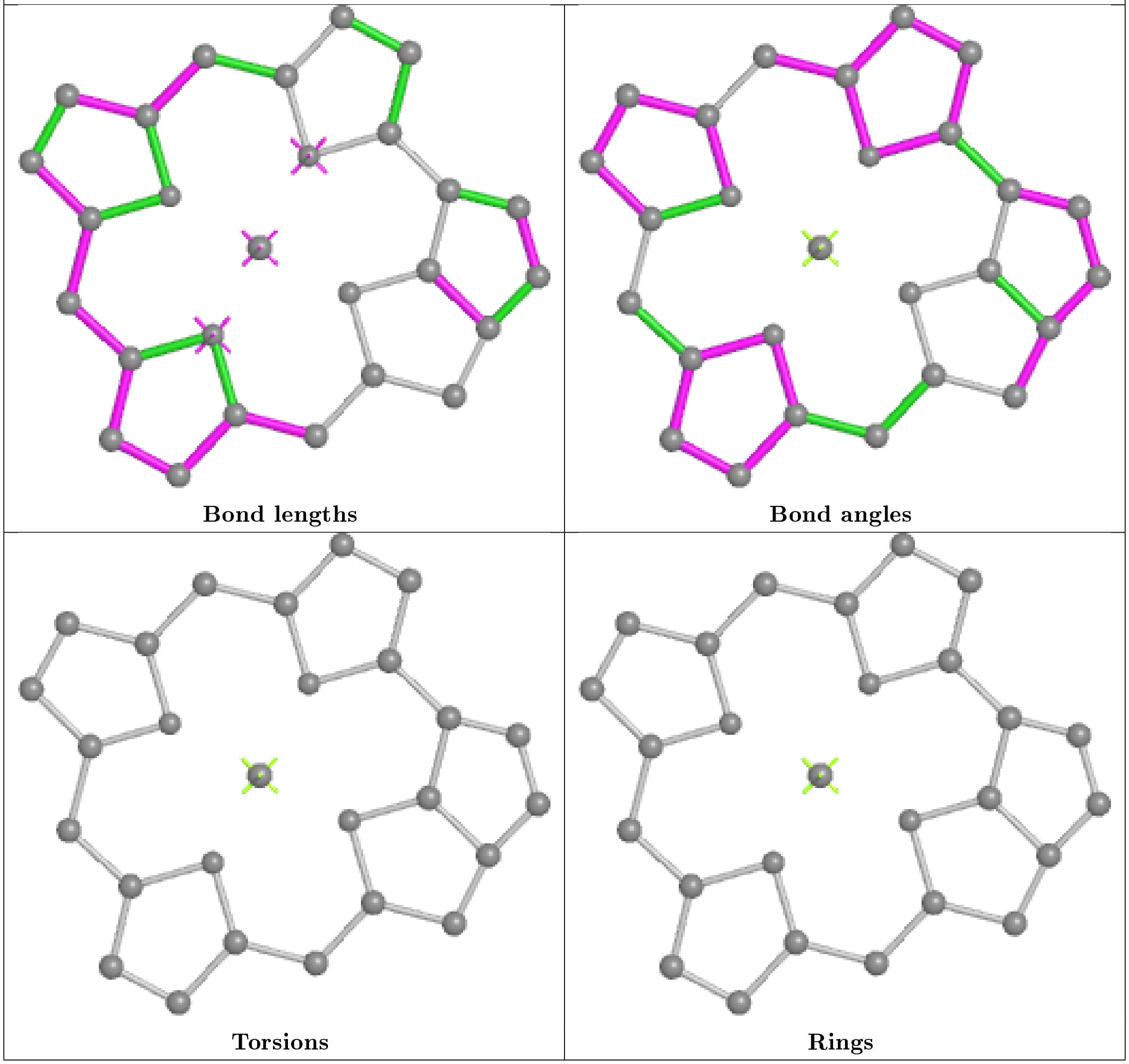
Bond lengths

Bond angles

Torsions

Rings

Ligand CLA 3 3019



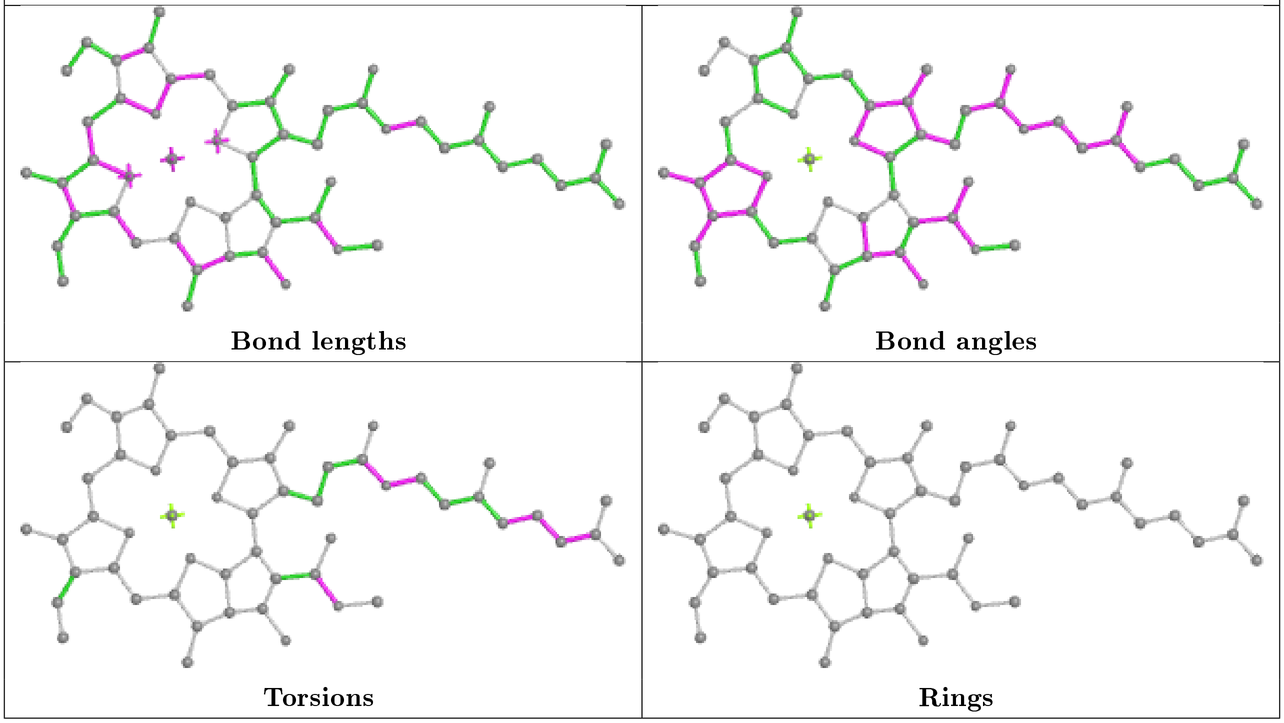
Bond lengths

Bond angles

Torsions

Rings

Ligand CLA 2 2012



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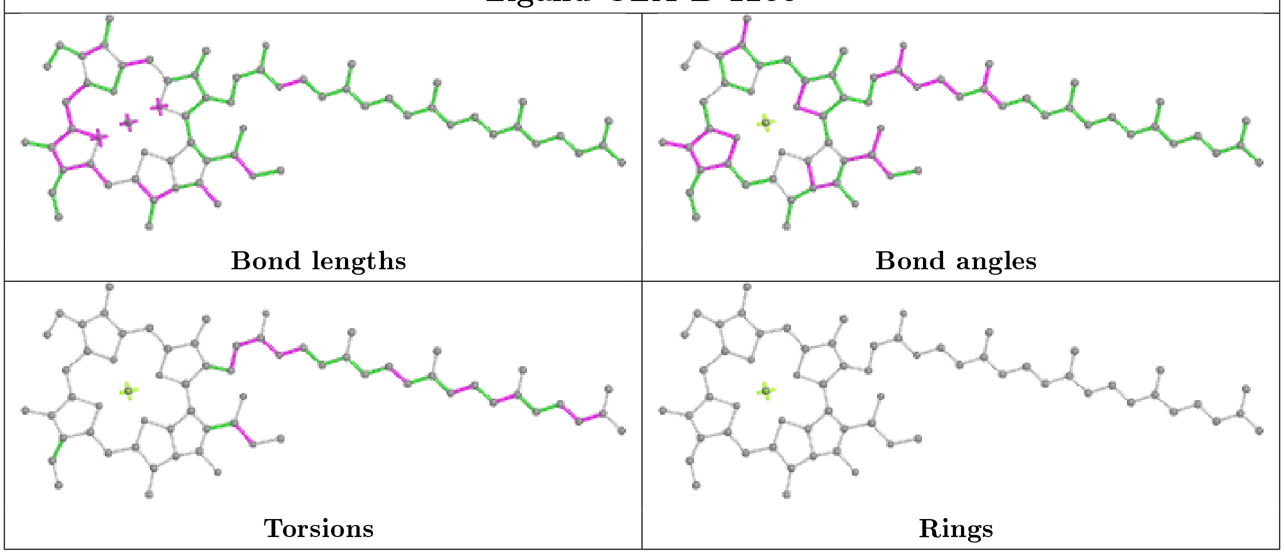

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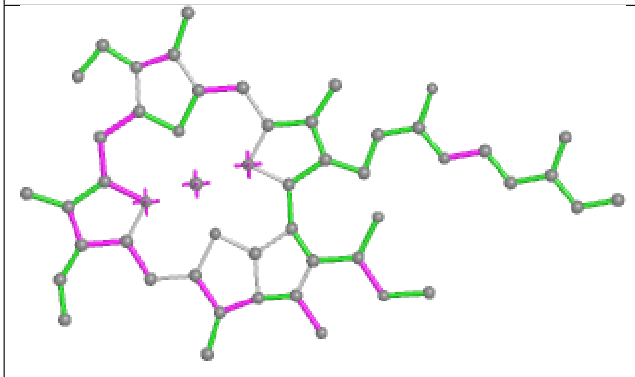

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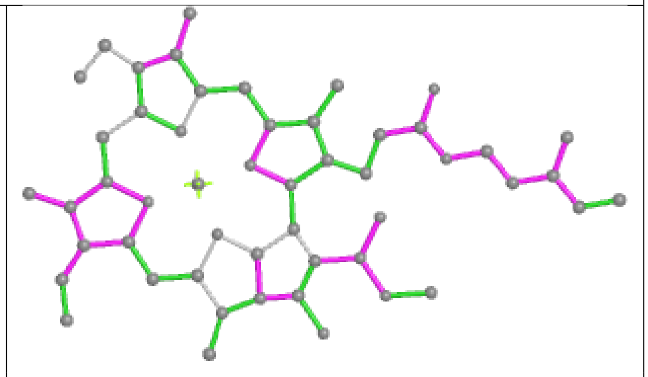
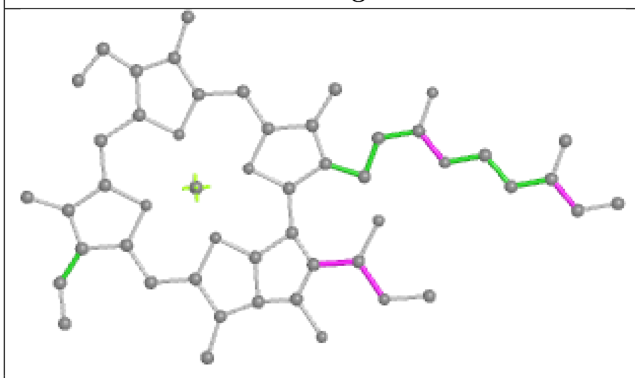


Bond angles



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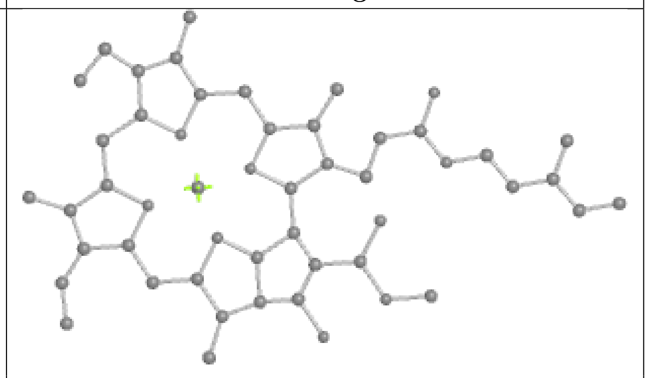
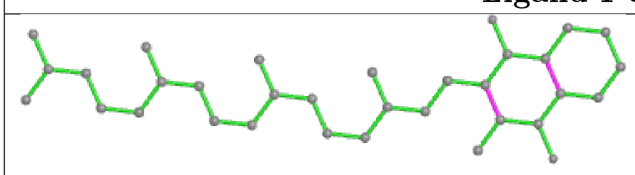


Rings

Ligand PQN A 5001



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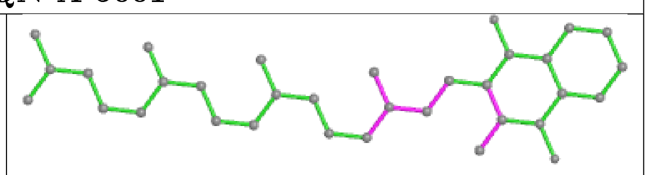
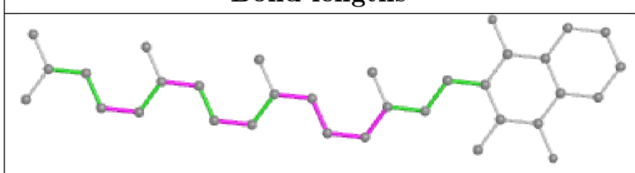


Bond angles



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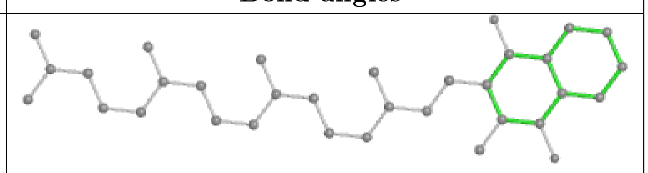
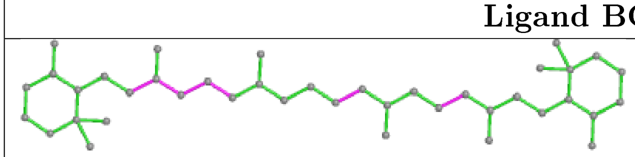


Rings

Ligand BCR B 6005



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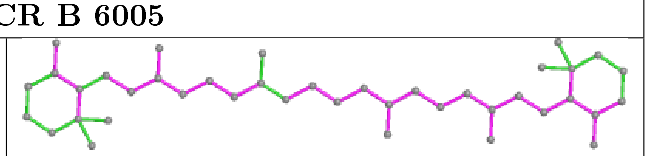
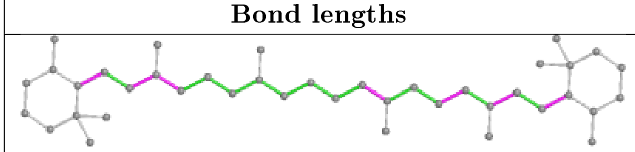


Bond angles



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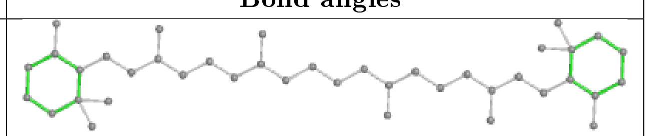
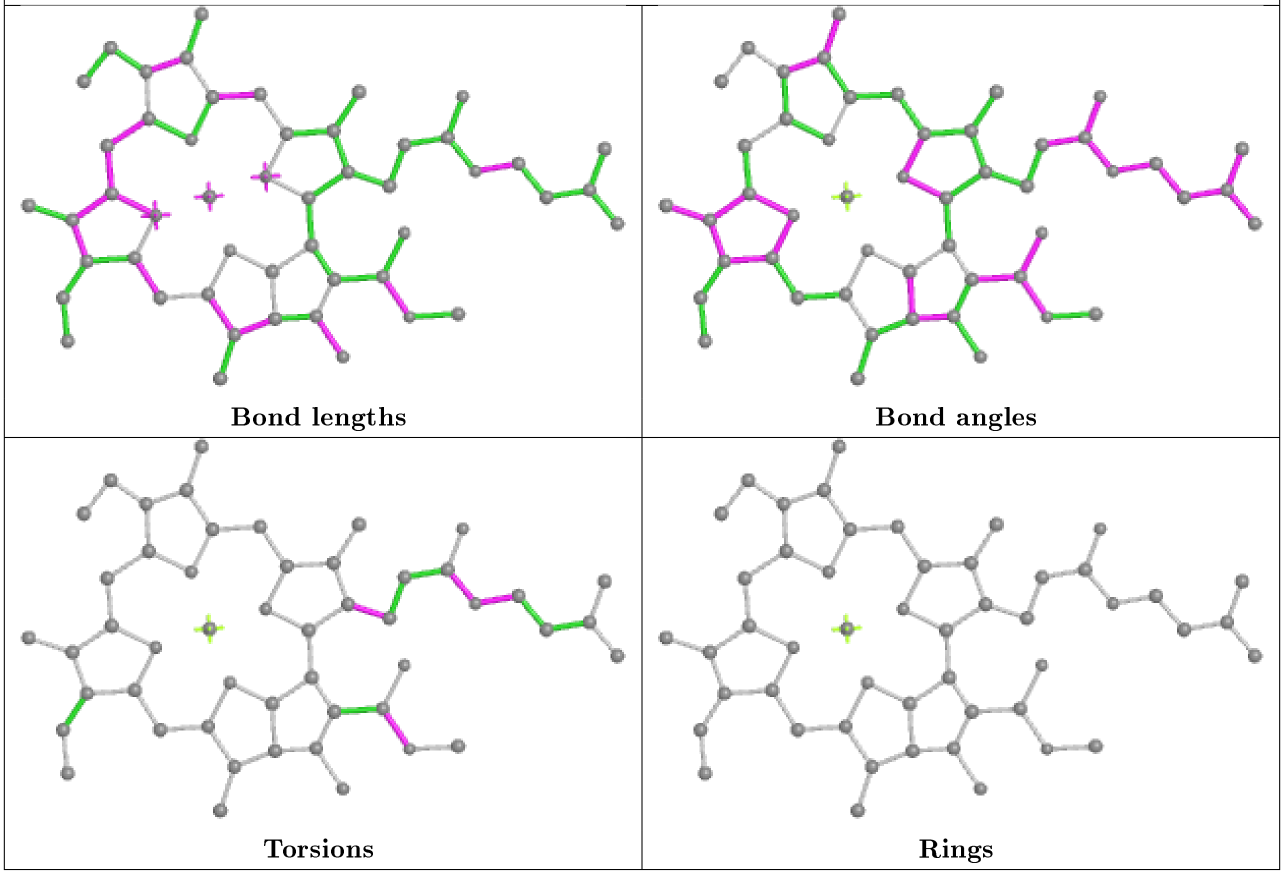
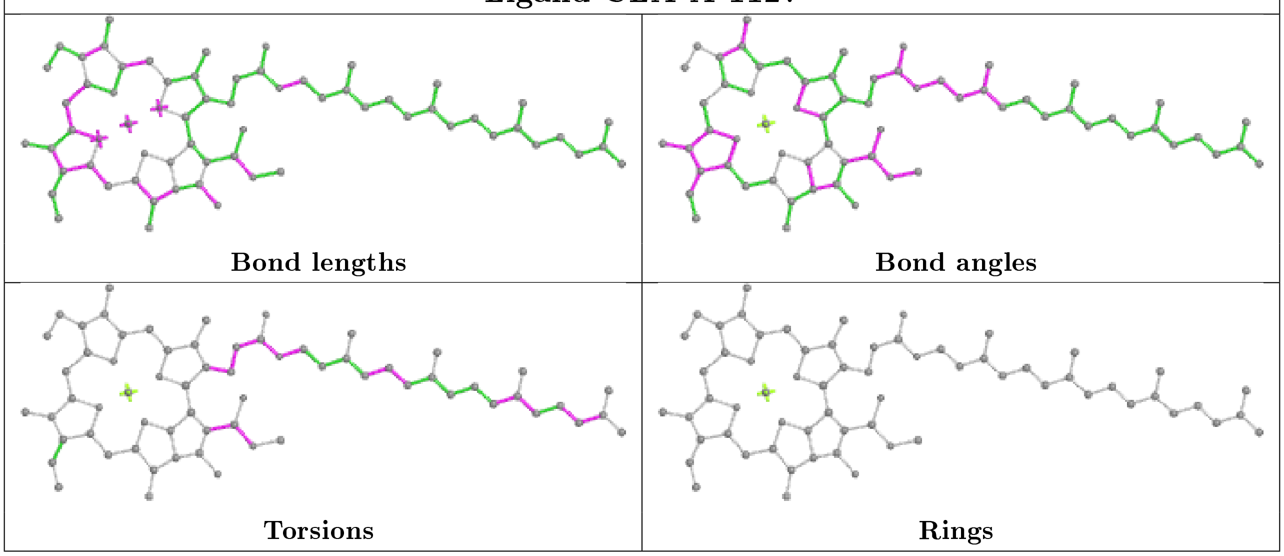


Rings

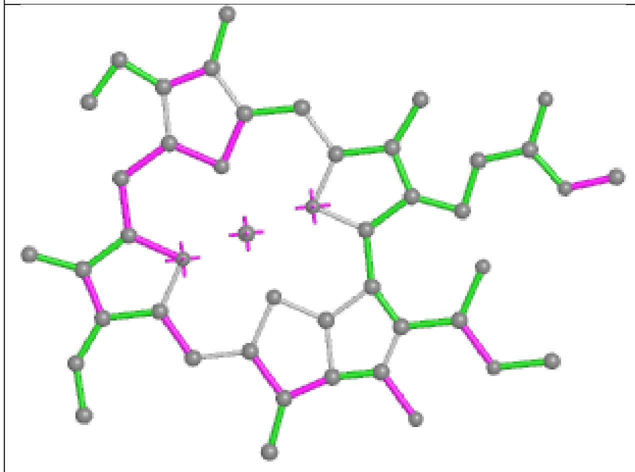
Ligand CLA A 1102



Ligand CLA A 1127



Ligand CLA 3 3017



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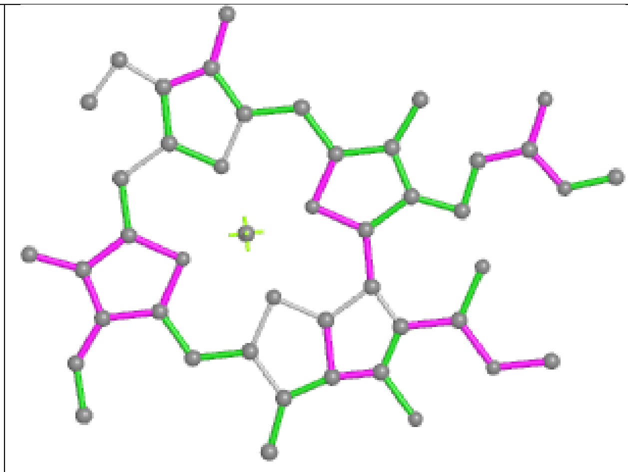
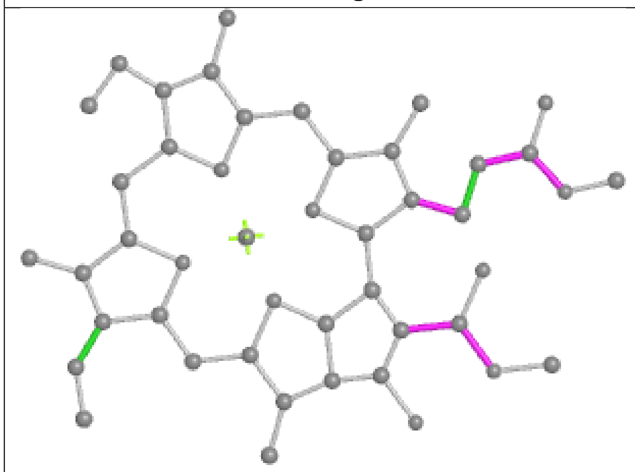


Bond angles



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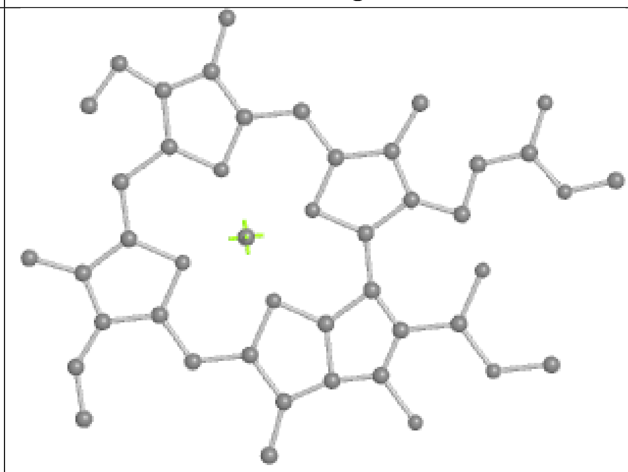
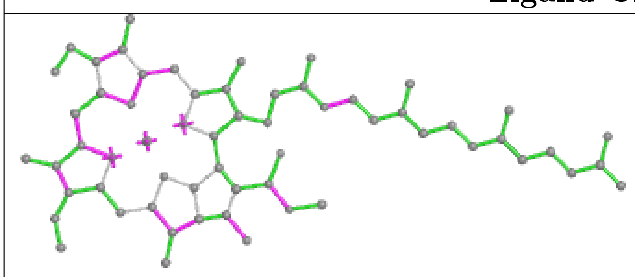


Rings

Ligand CLA 4 4005



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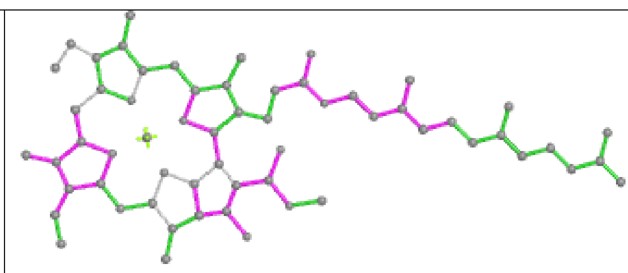
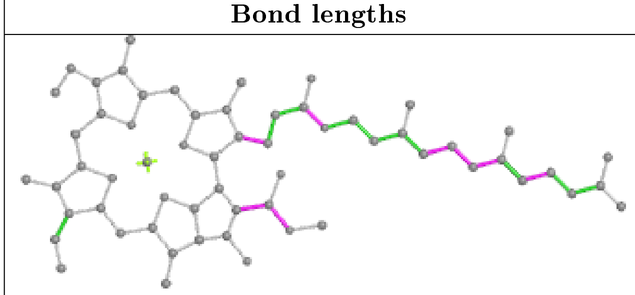


Bond angles



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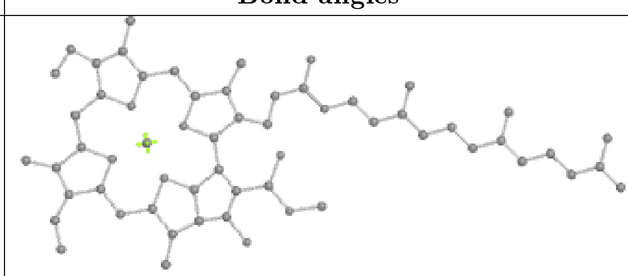
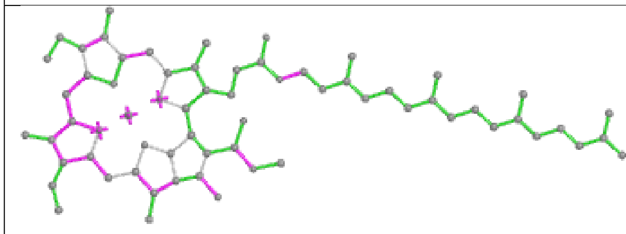


Rings

Ligand CL0 A 1011



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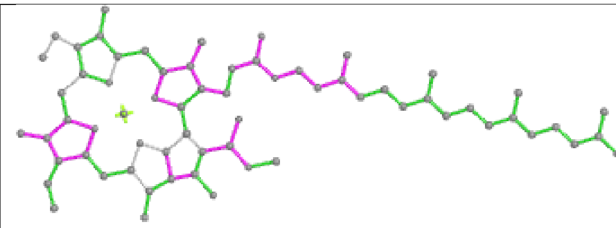

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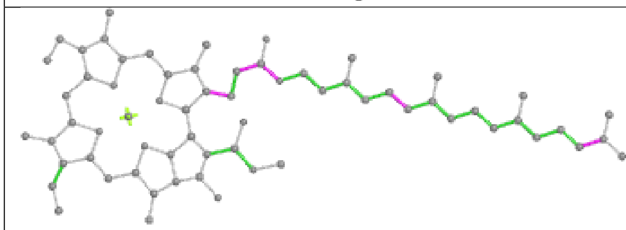

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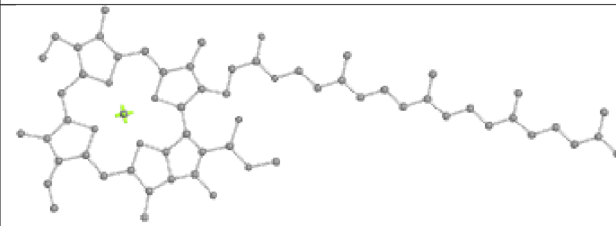
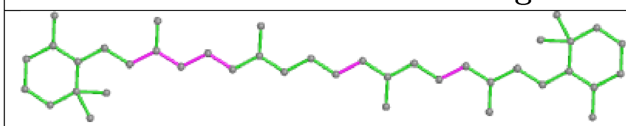


Rings

Ligand BCR A 6017



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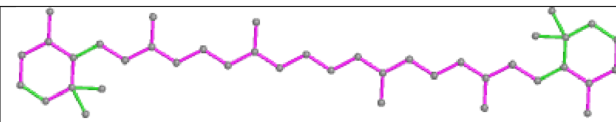

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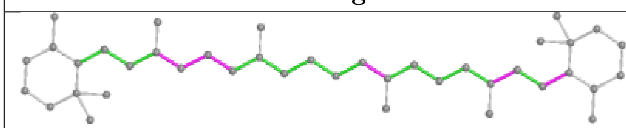

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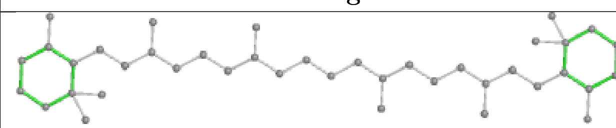
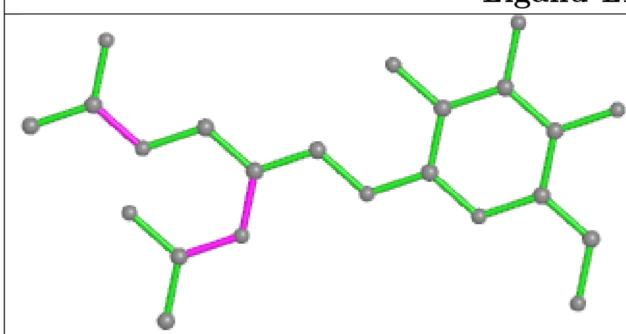


Rings

Ligand LMG F 5001



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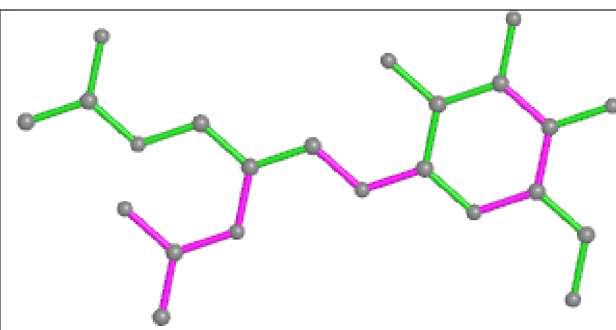

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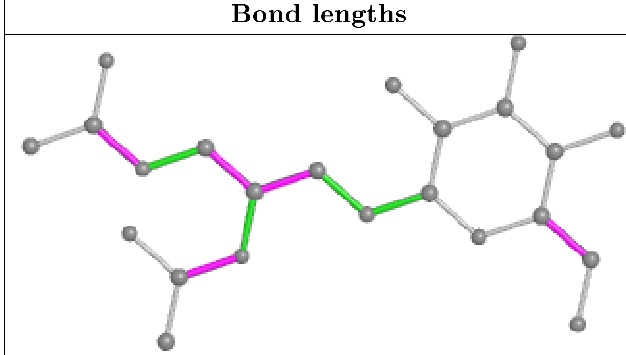

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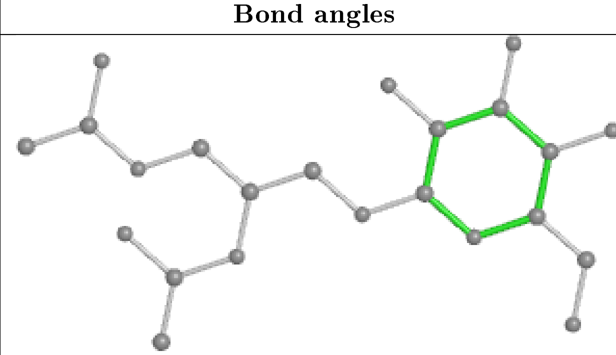
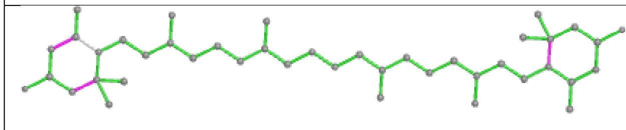


Rings

Ligand LUT 4 4502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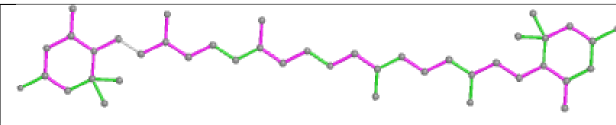
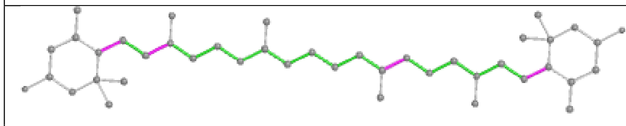
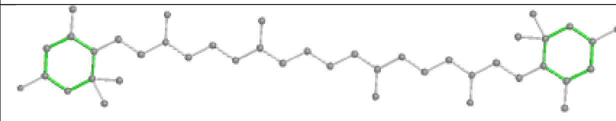
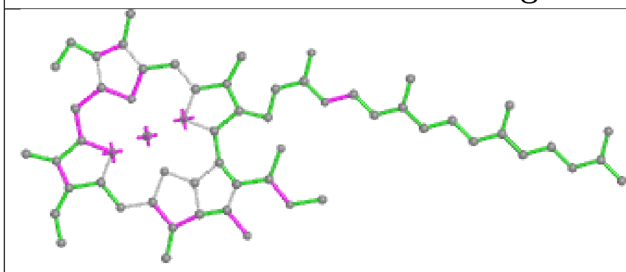

Bond angles


Torsions


Rings

Ligand CLA 4 4004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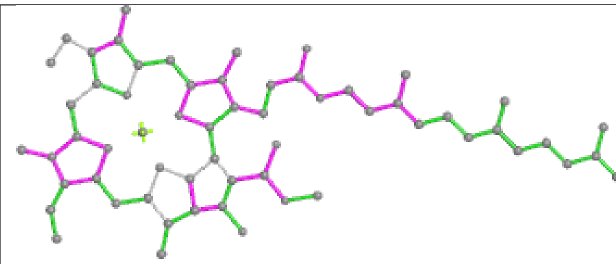
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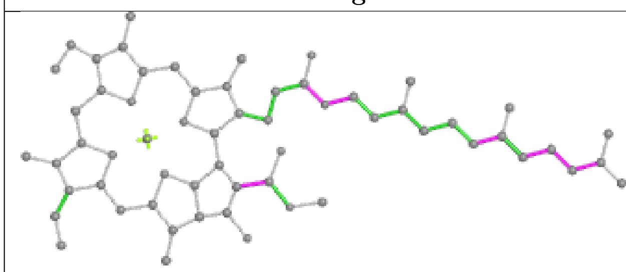
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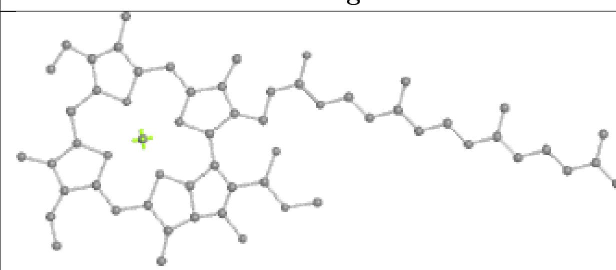
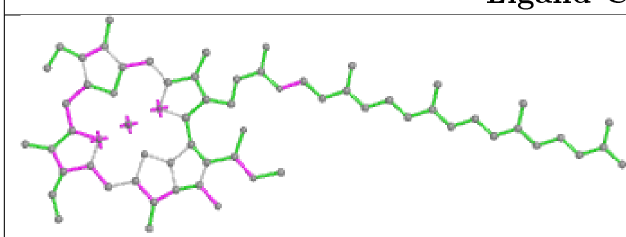

Rings

Ligand CLA B 1202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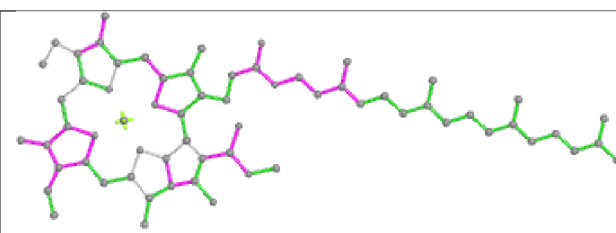
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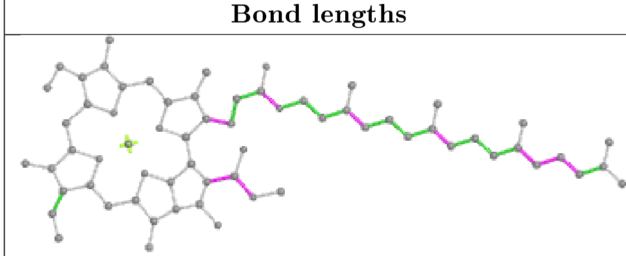
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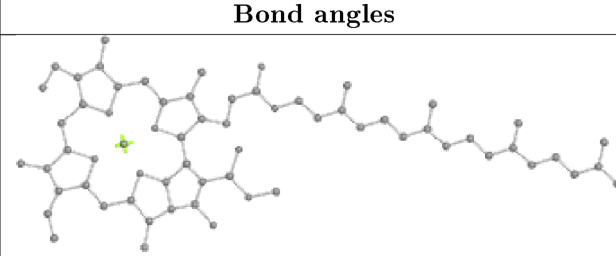
Rings

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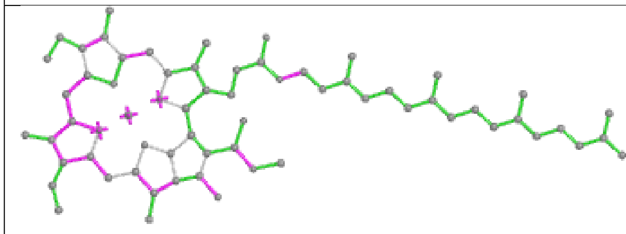

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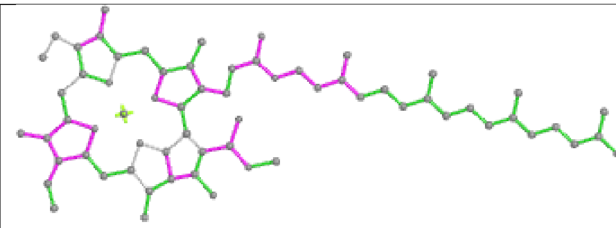
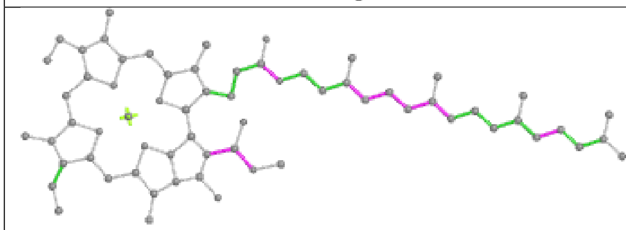


Bond angles



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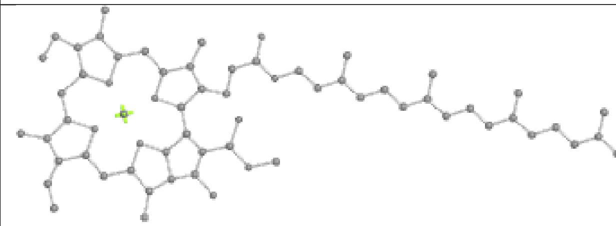

Rings

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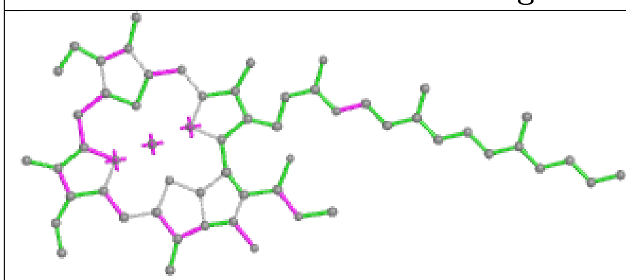

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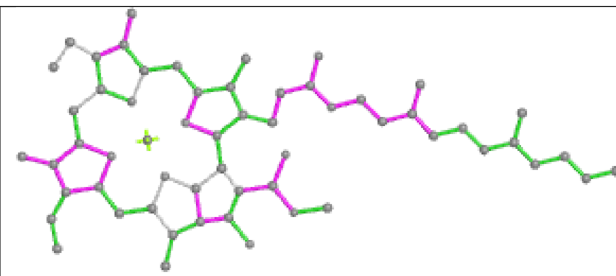

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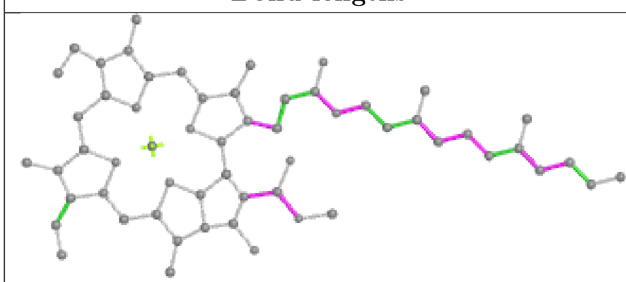

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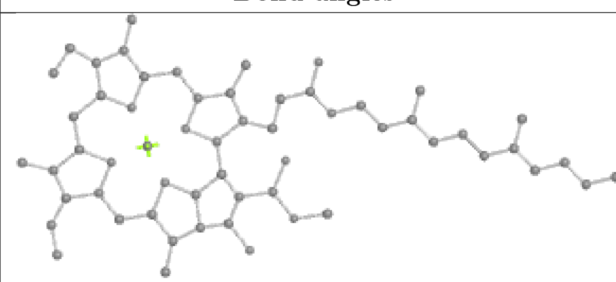
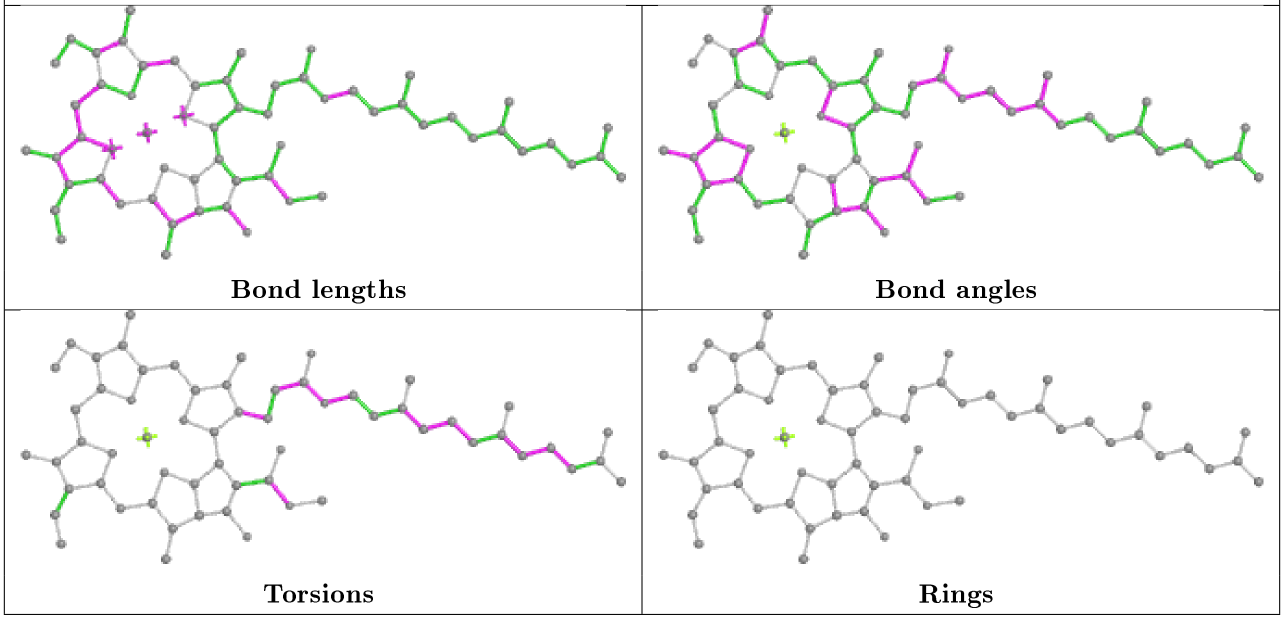
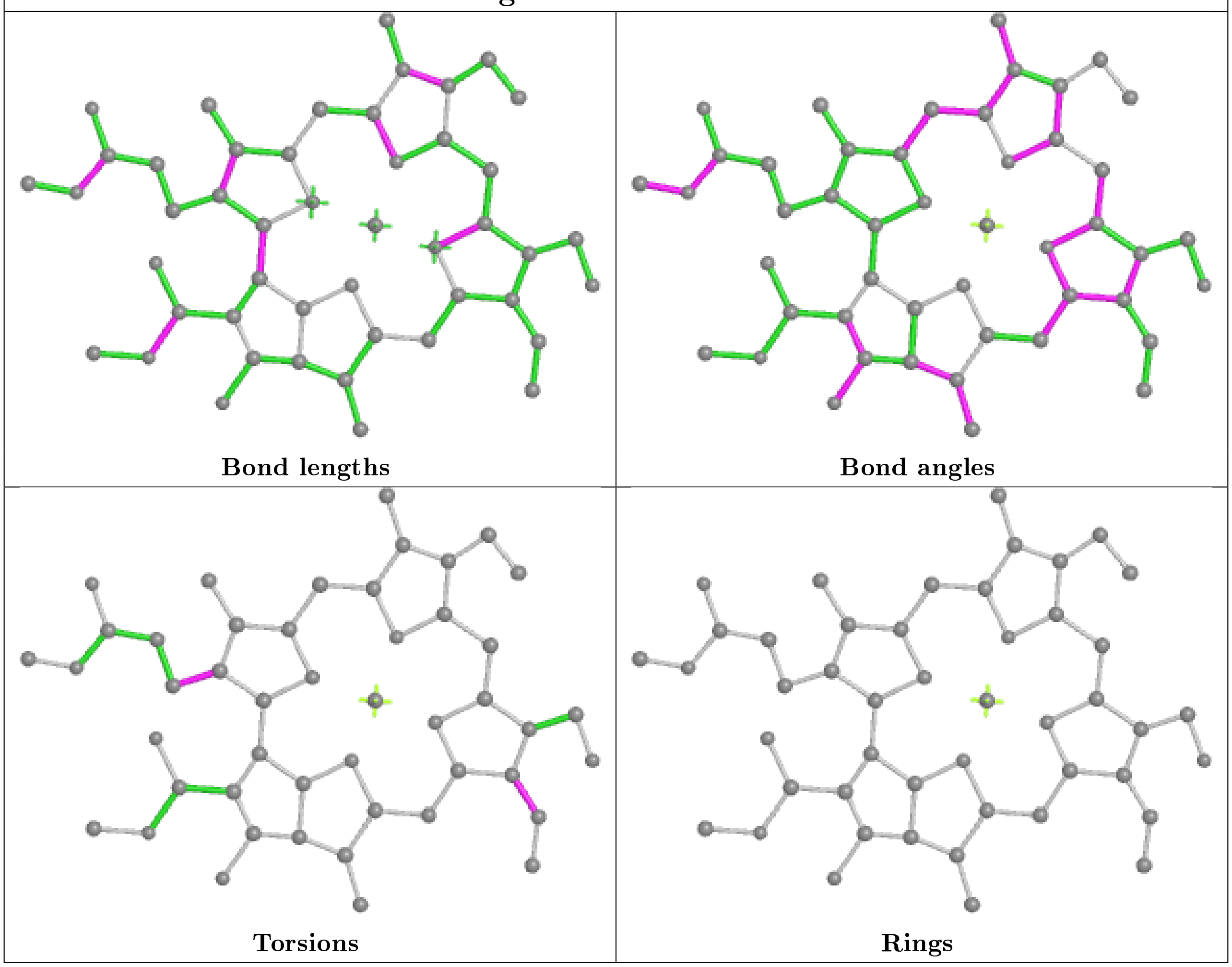


Rings

Ligand CLA A 1120



Ligand CHL 4 4013



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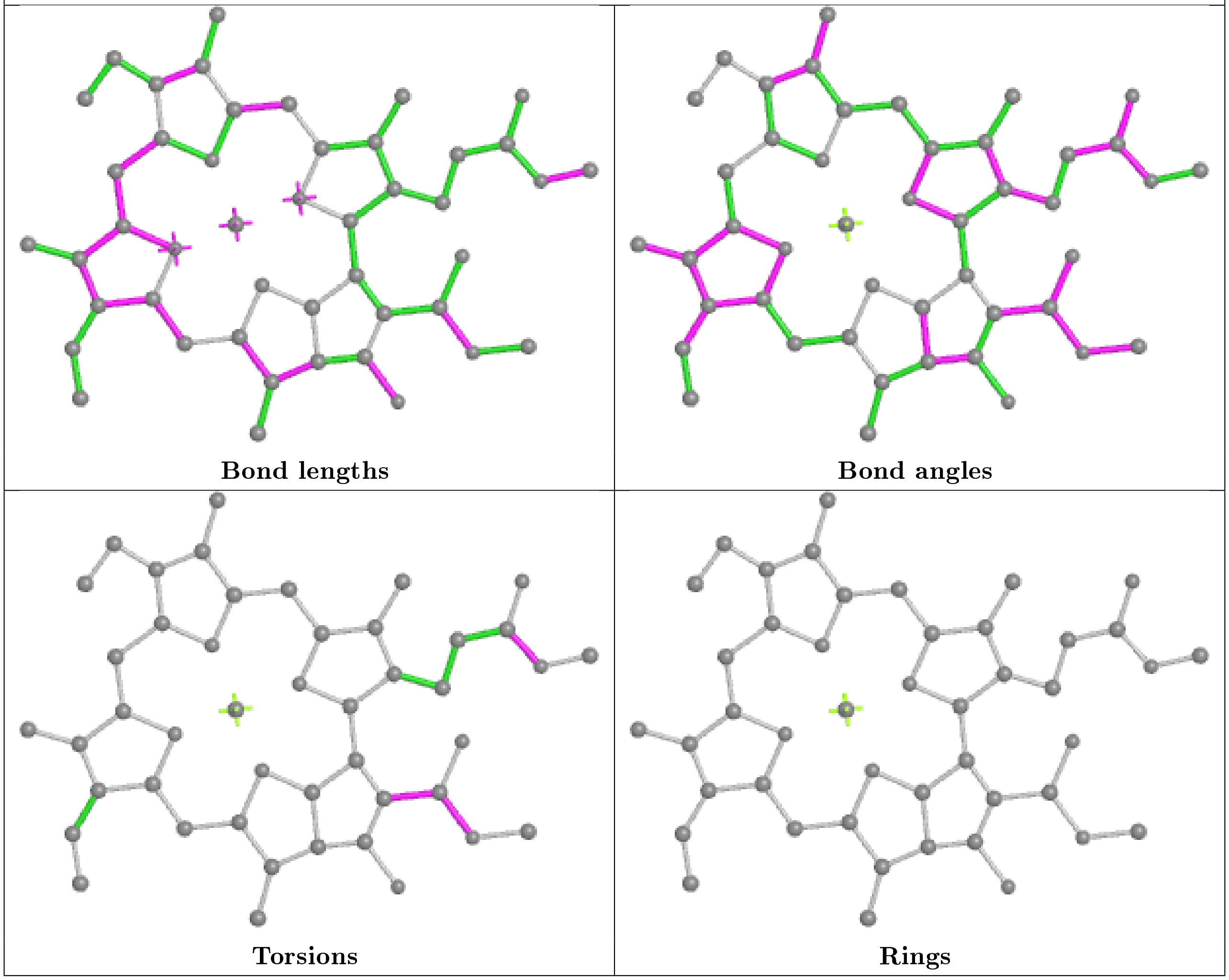

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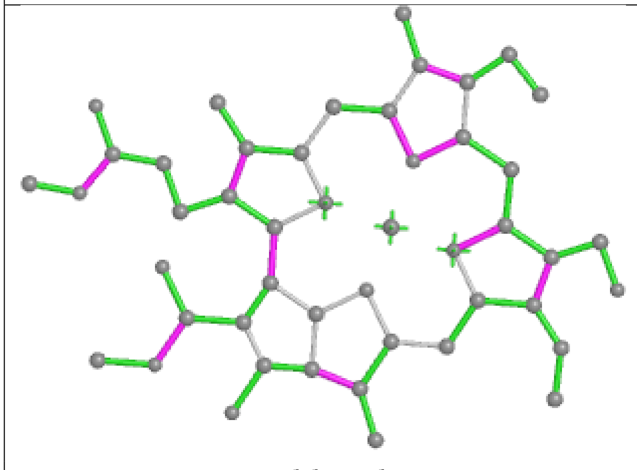

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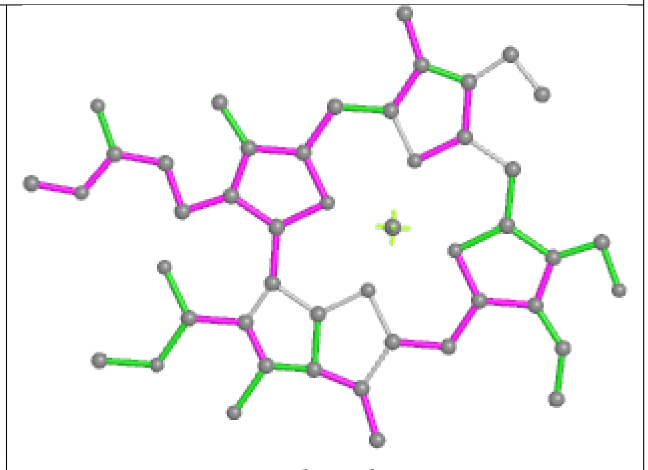

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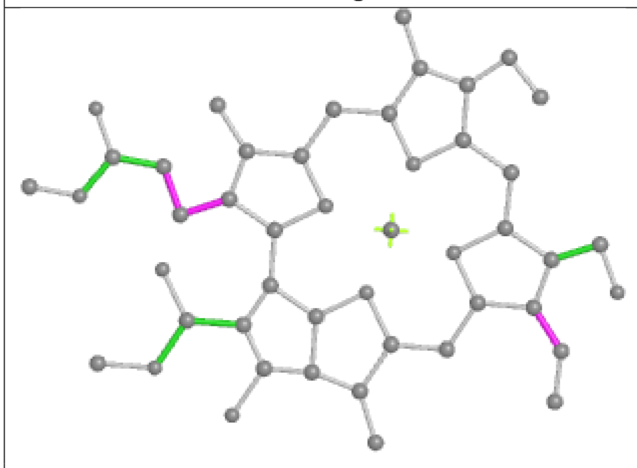

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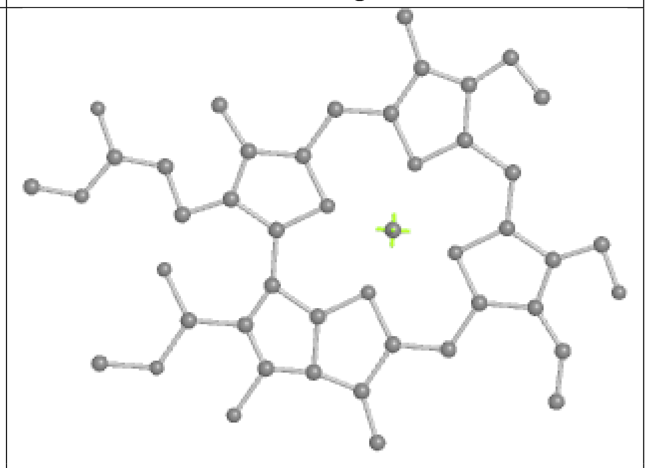

Rings

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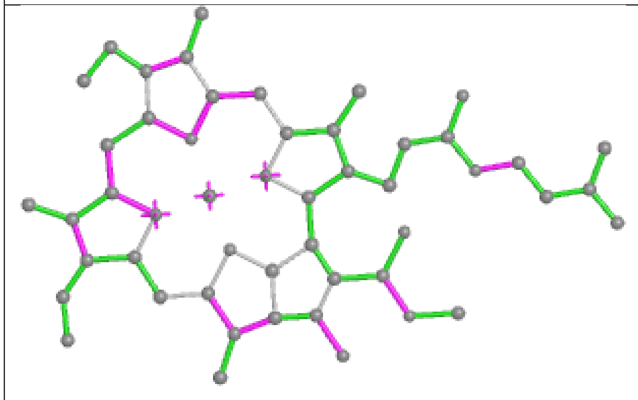

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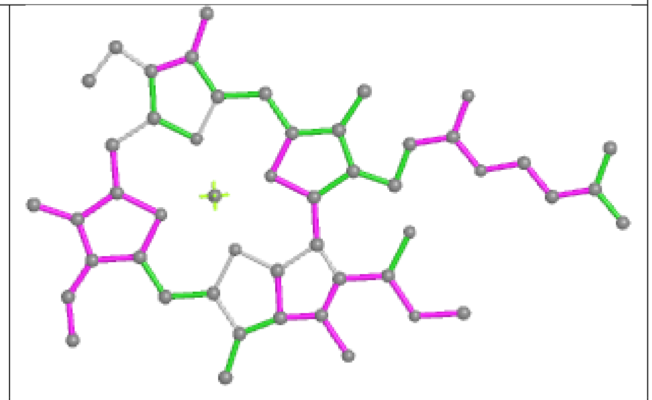

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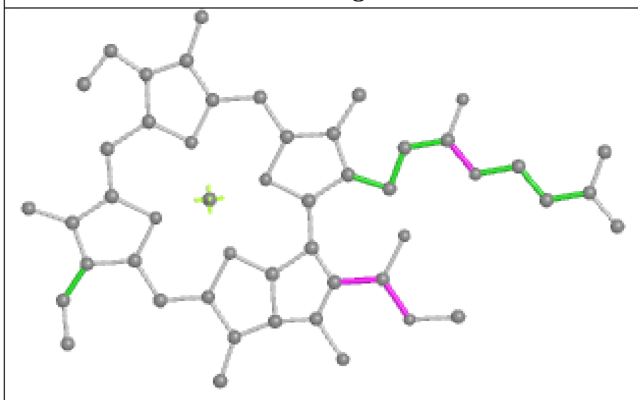

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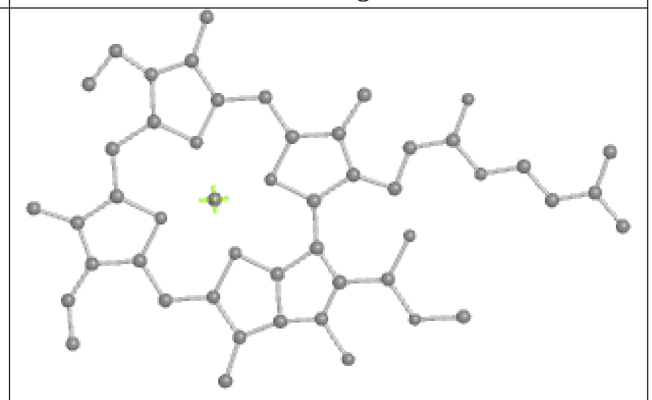

Rings

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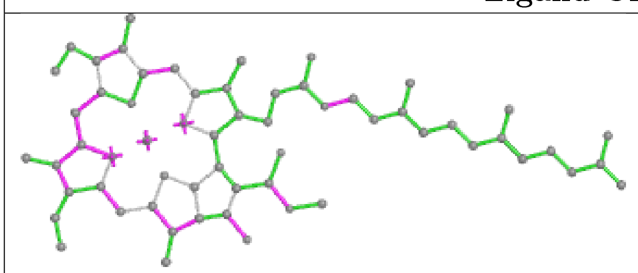

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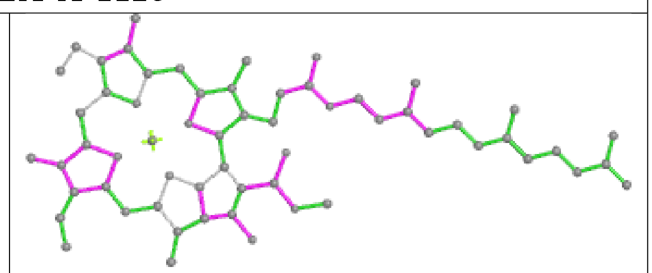

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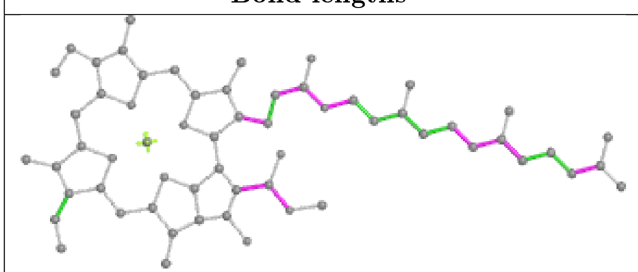

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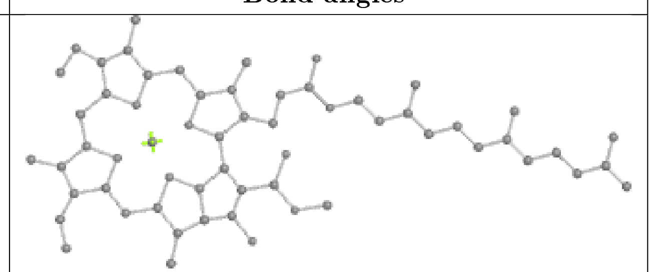
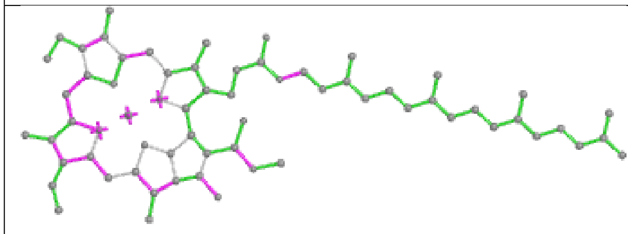


Rings

Ligand CLA B 1206



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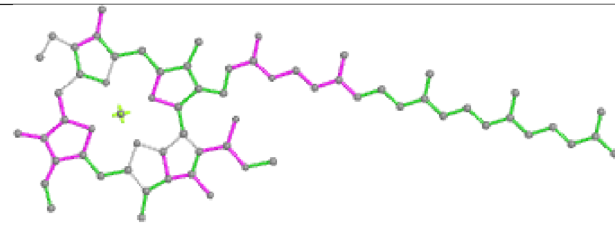

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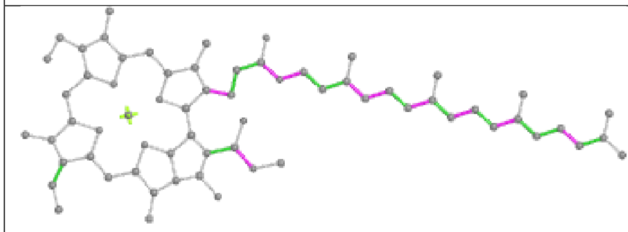

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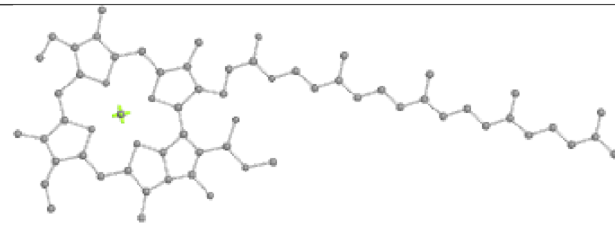
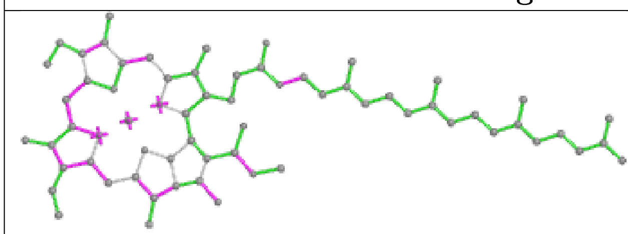


Rings

Ligand CLA A 1117



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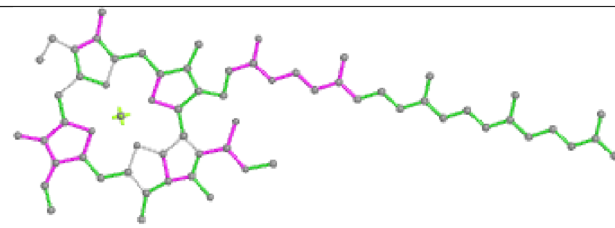

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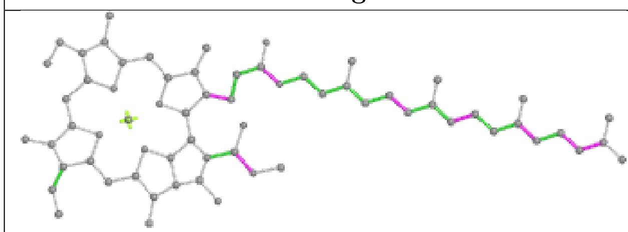

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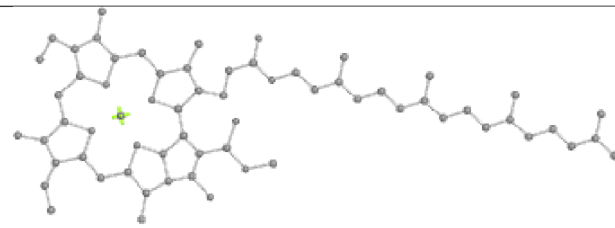

Rings

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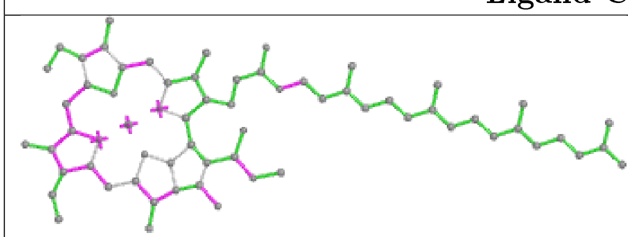

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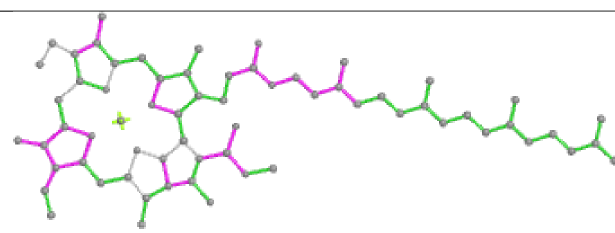
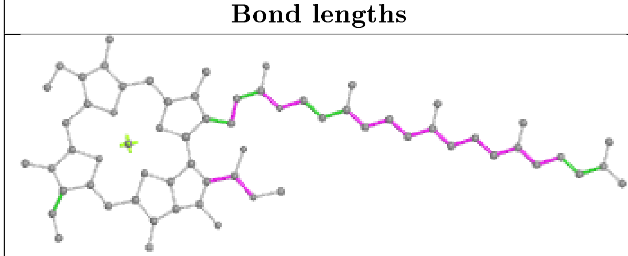


Bond angles



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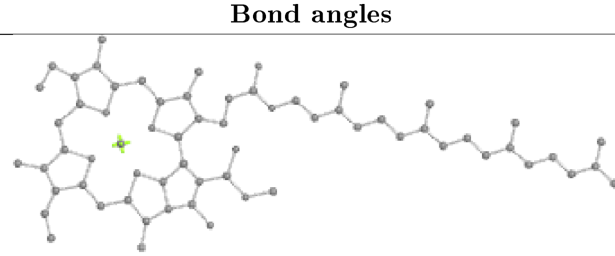
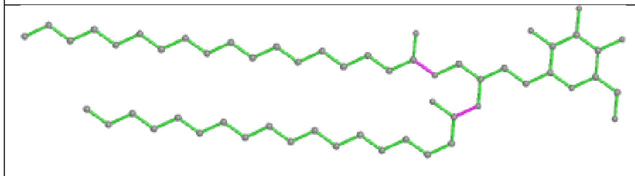


Rings

Ligand LMG J 5001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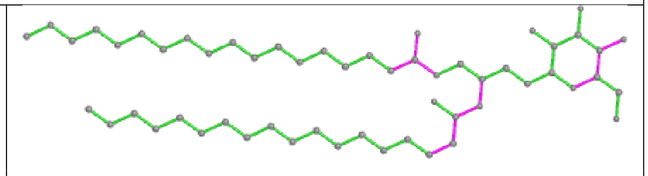
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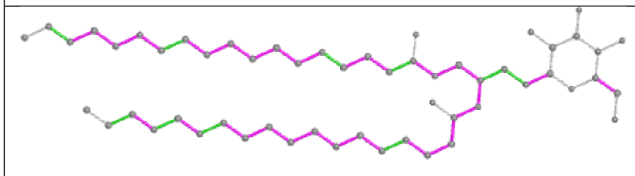
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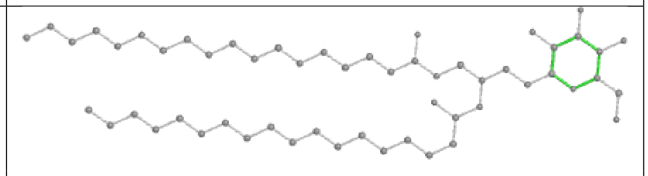
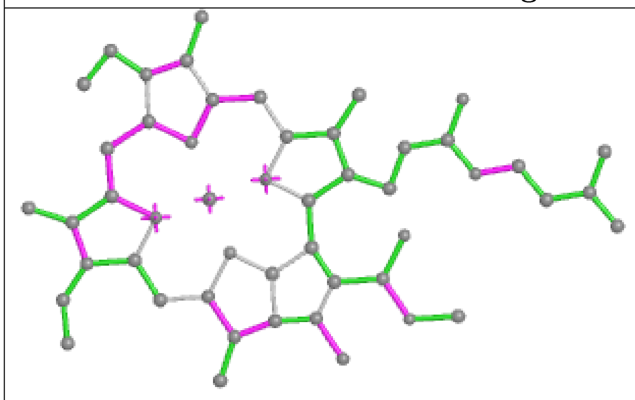

Rings

Ligand CLA 3 3012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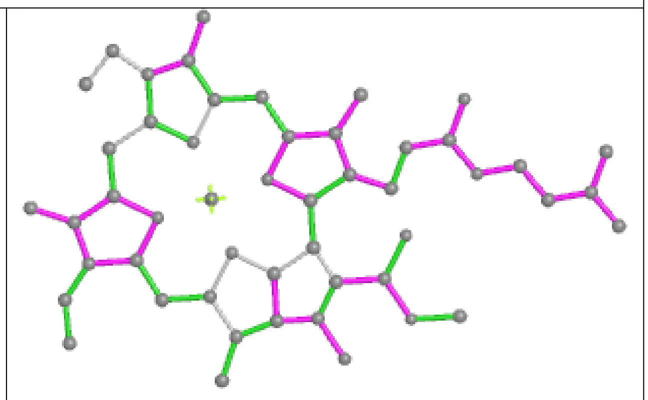
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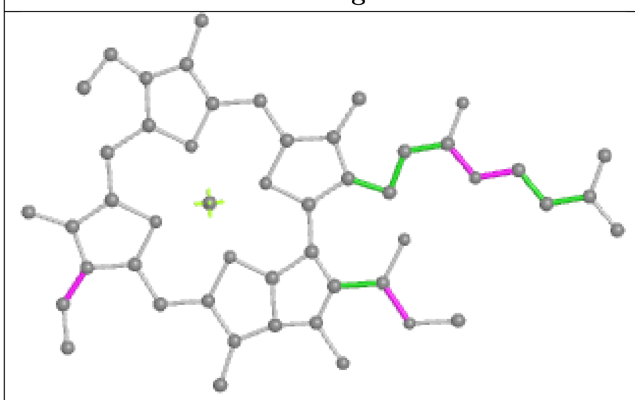
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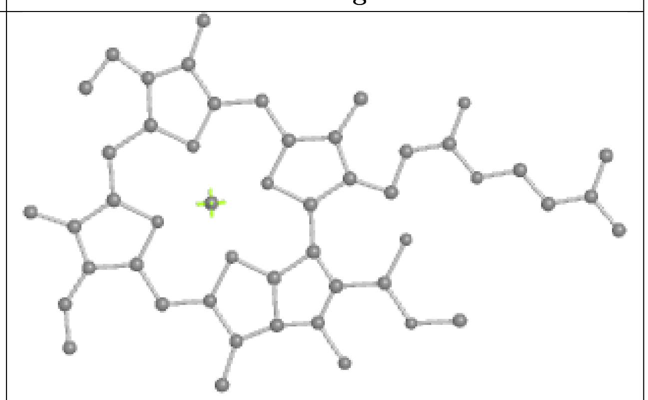
Rings

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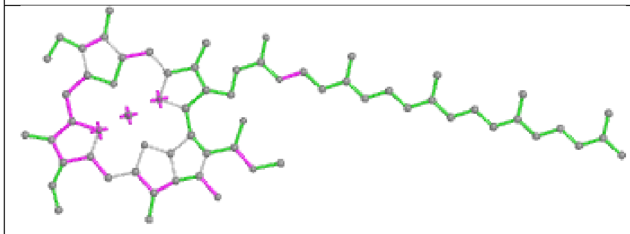

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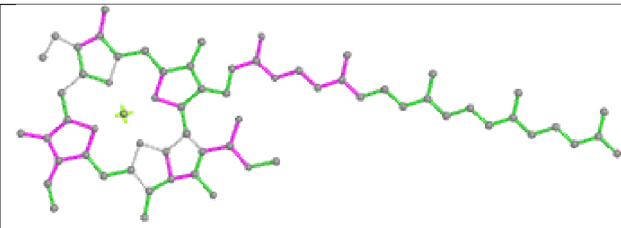

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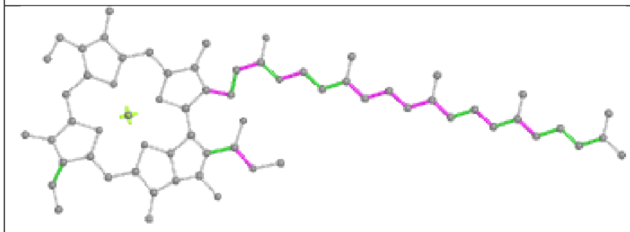

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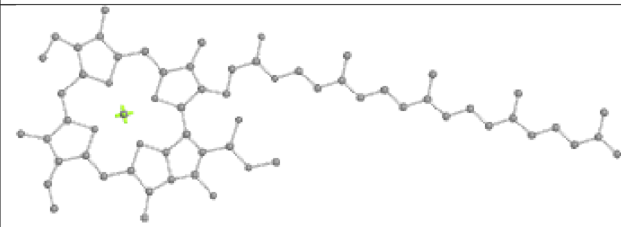
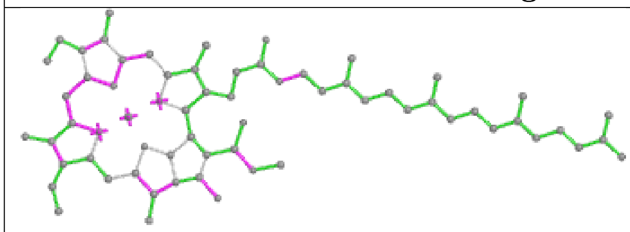


Rings

Ligand CLA 1 1004



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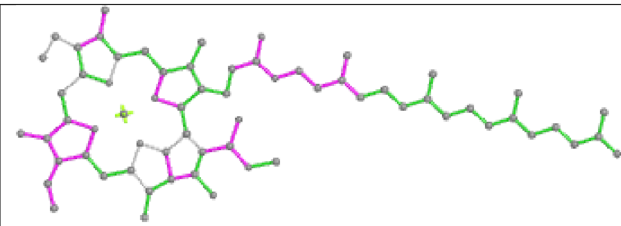

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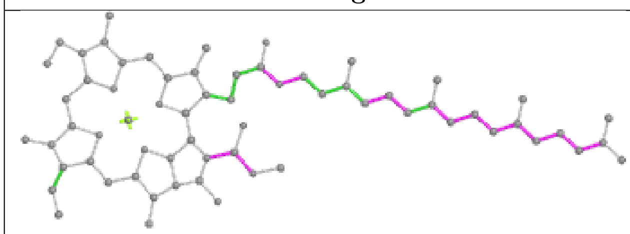

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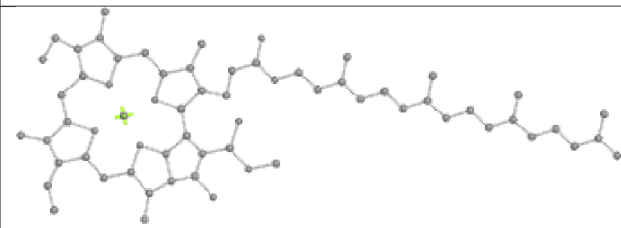

Rings

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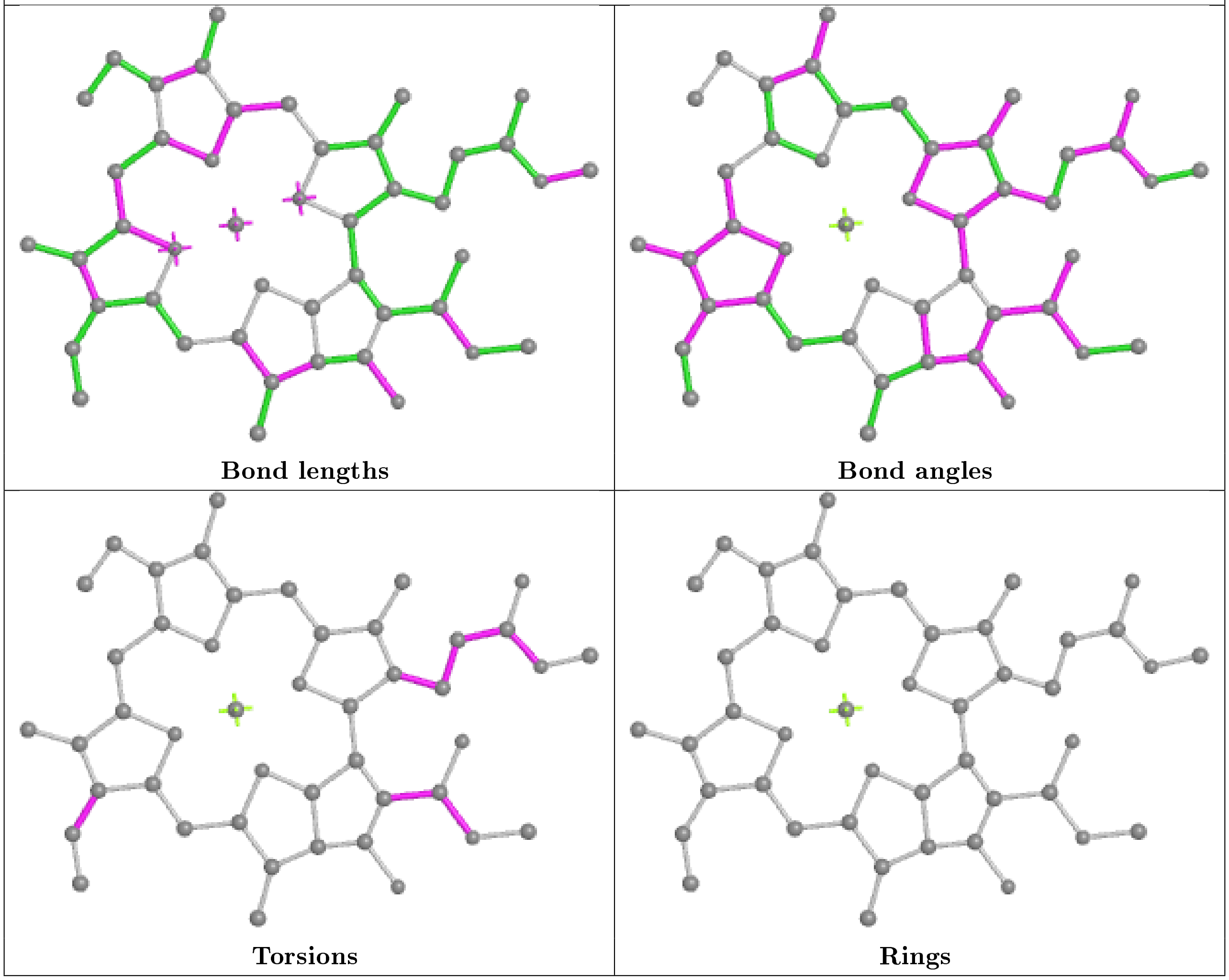

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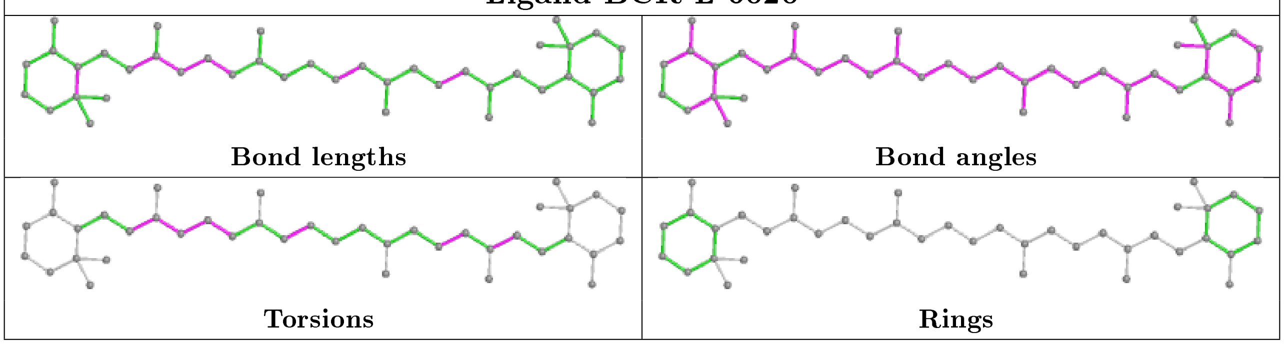
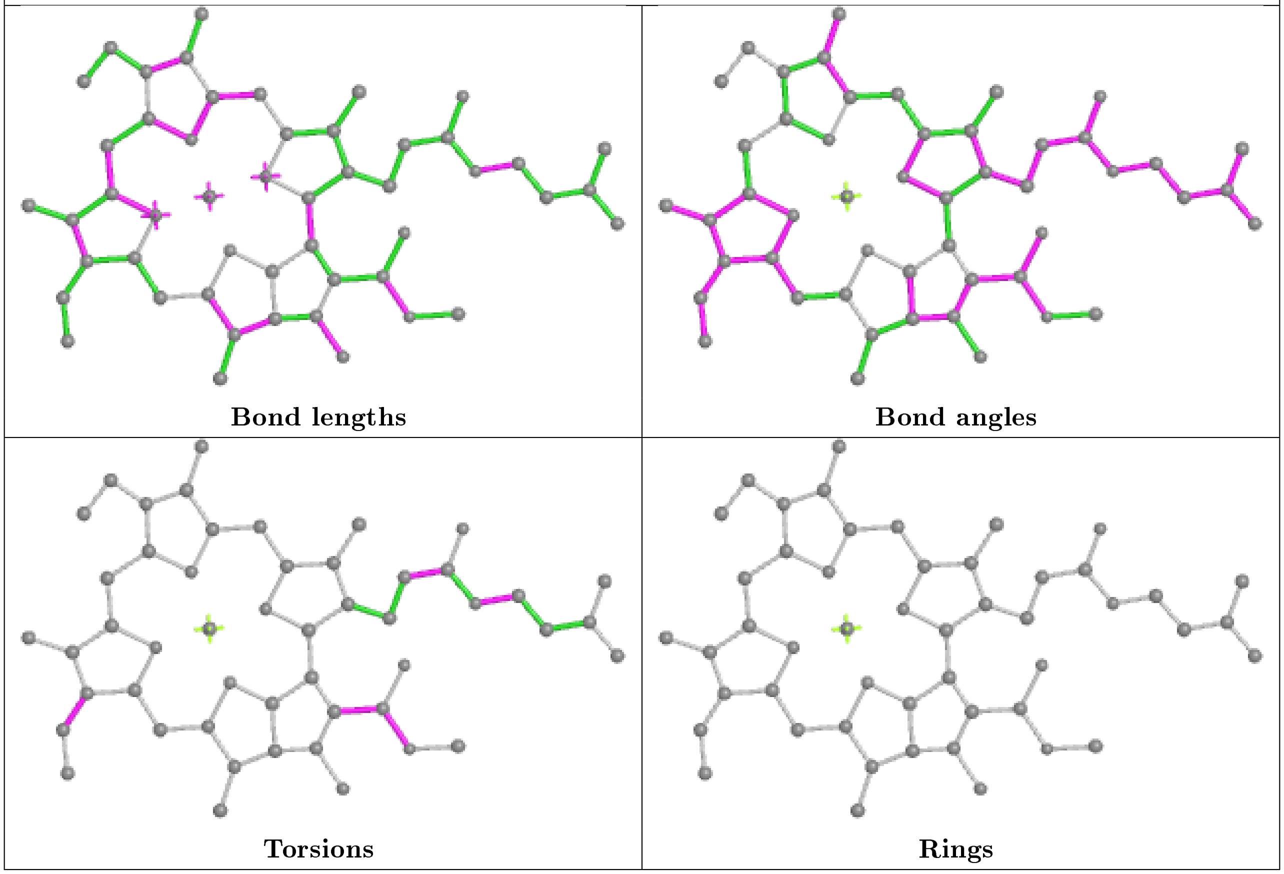


Ligand CLA 2 2016



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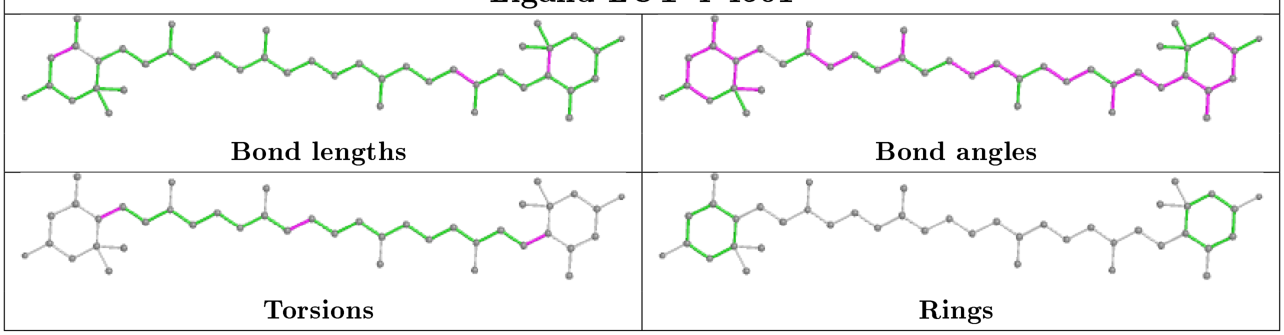

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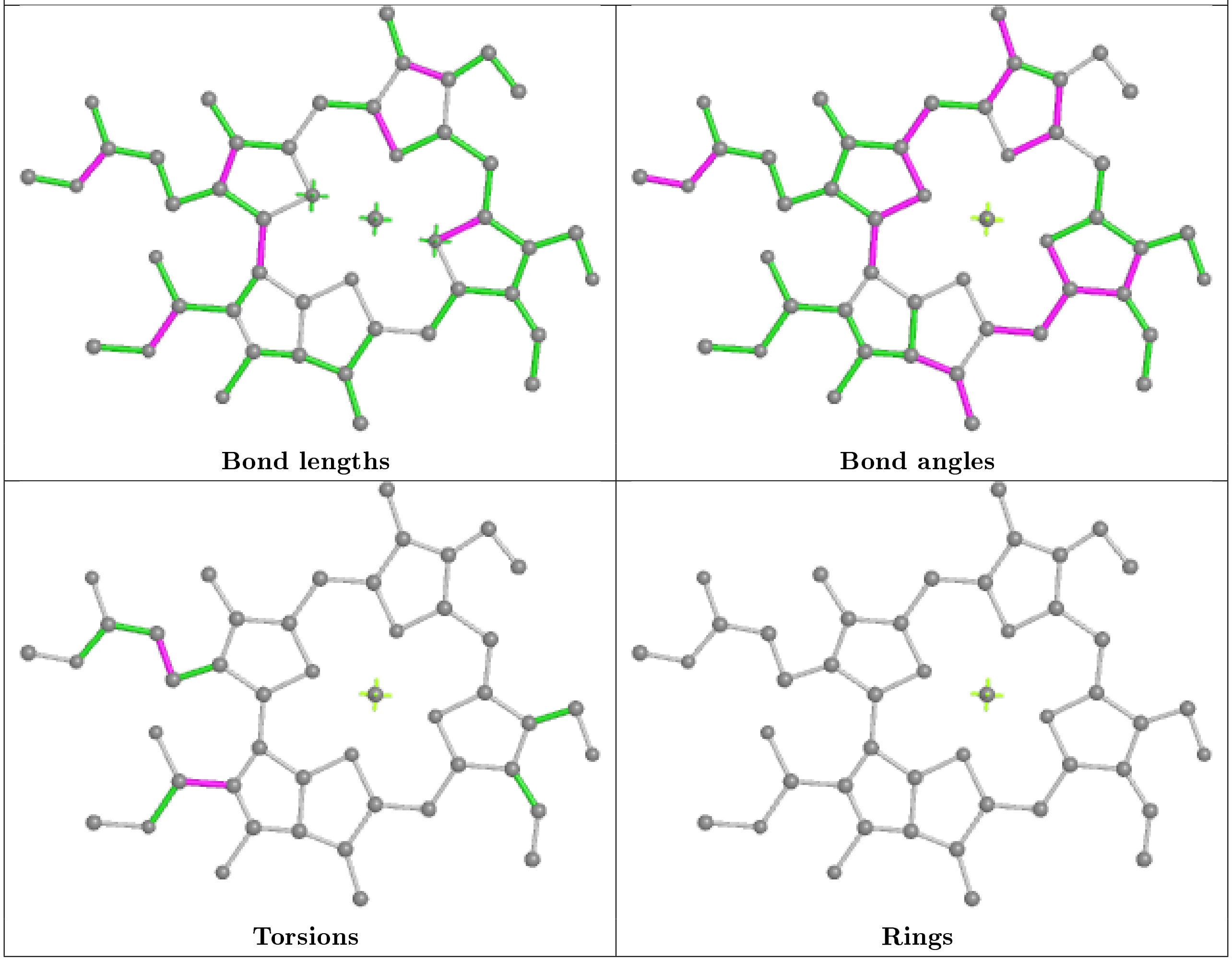

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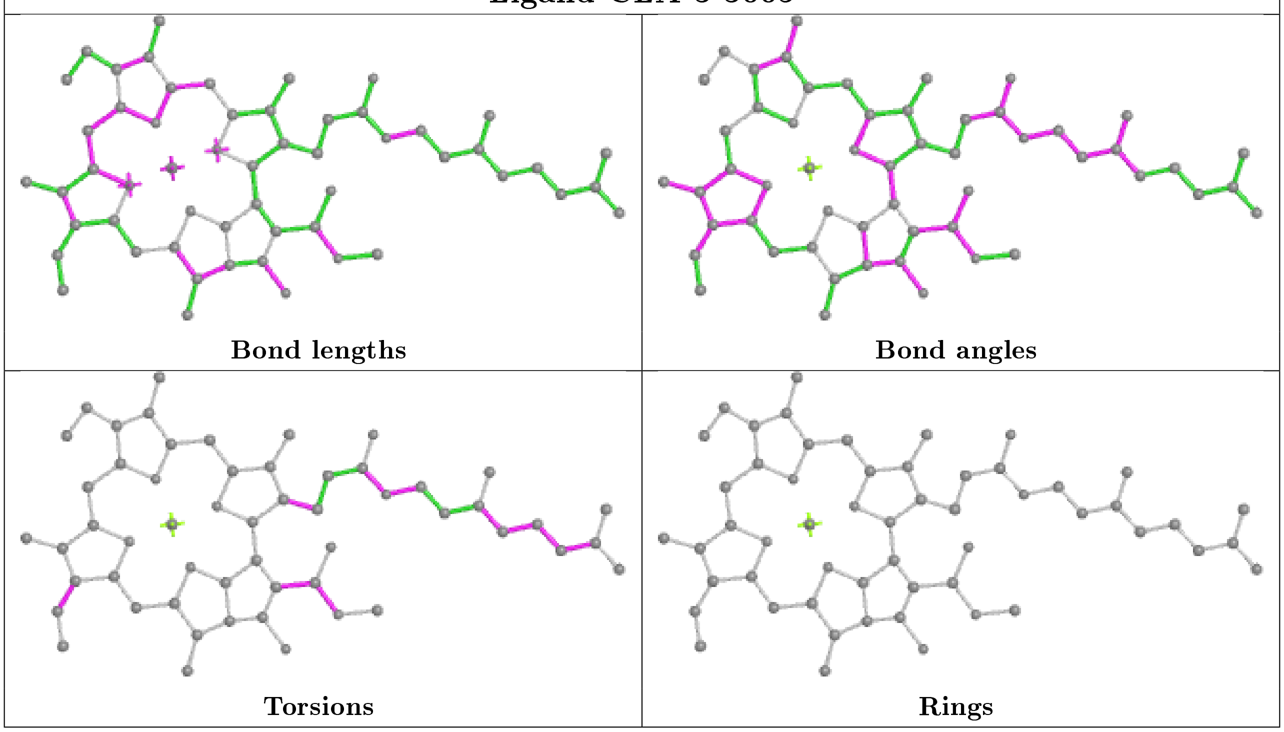

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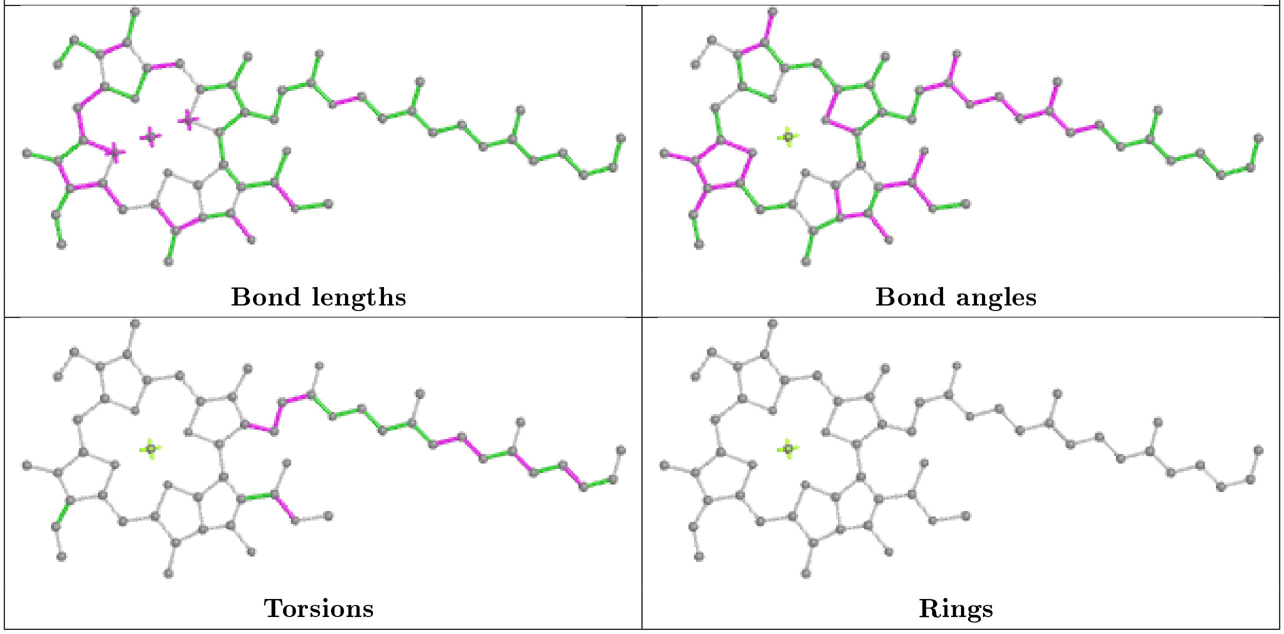

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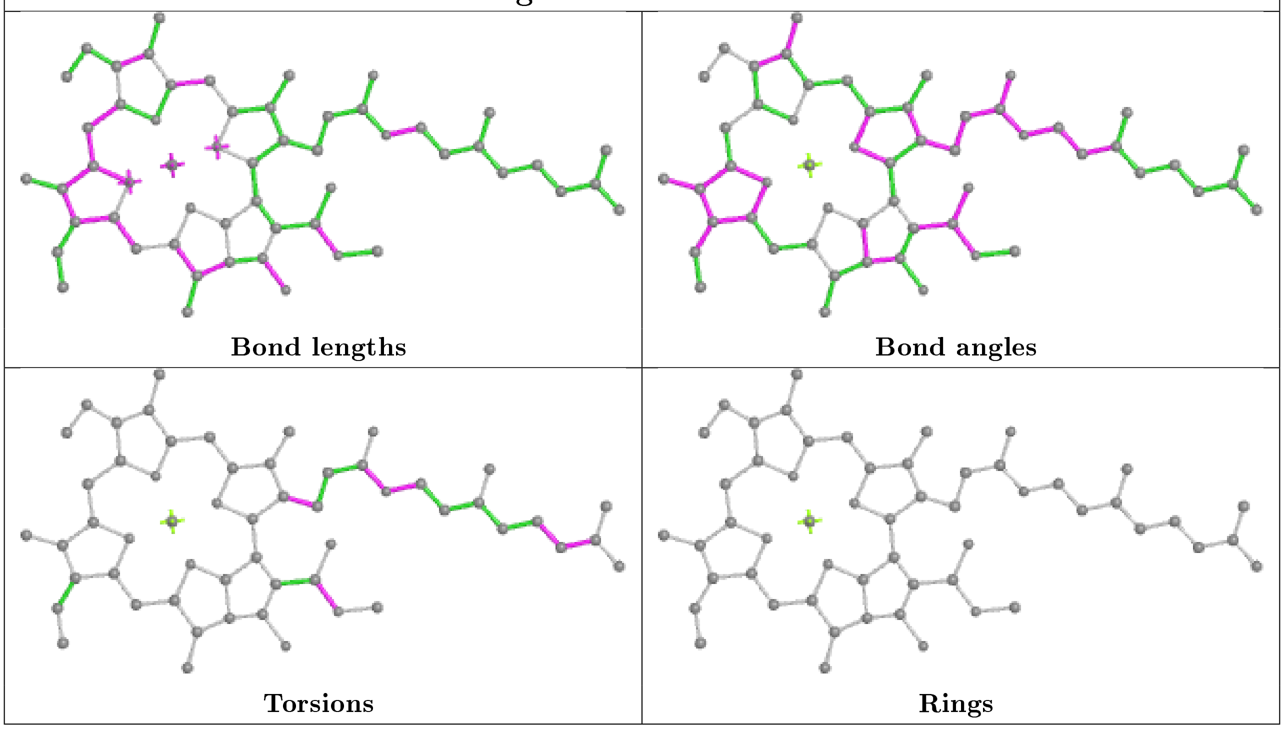

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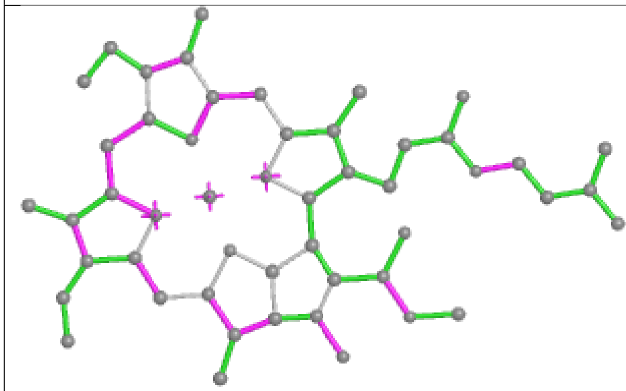
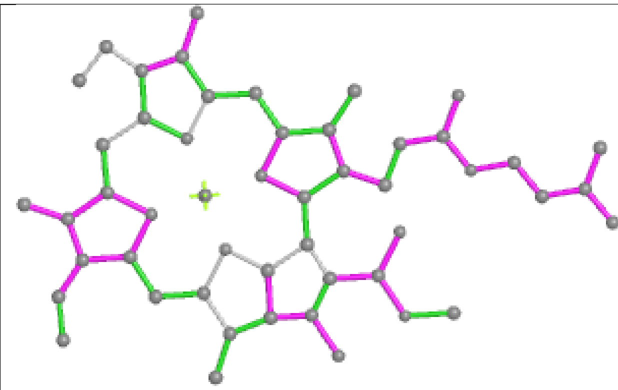
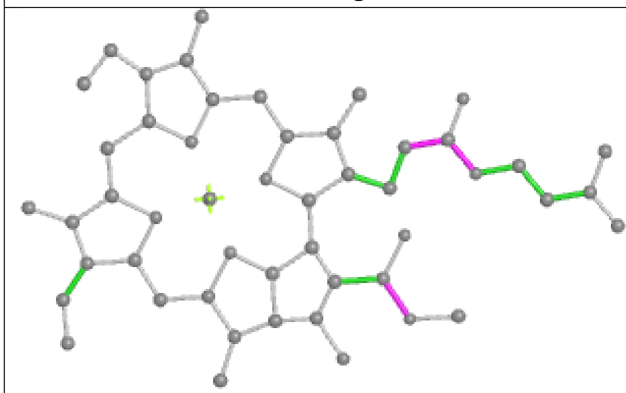


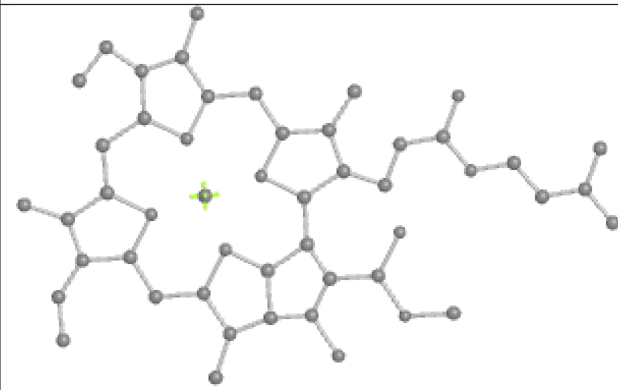
Bond lengths



Bond angles

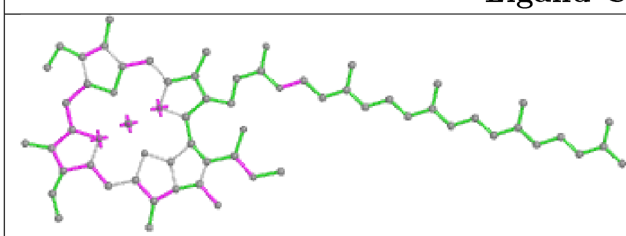


Torsions

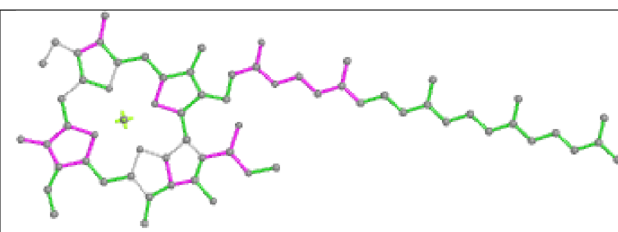


Rings

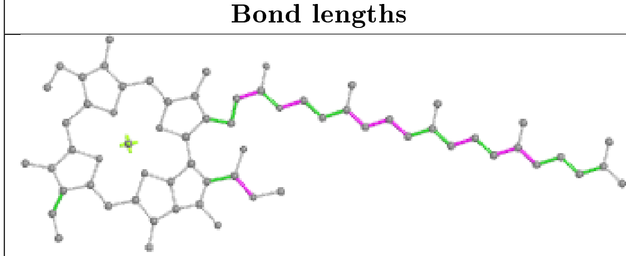
Ligand CLA A 1131



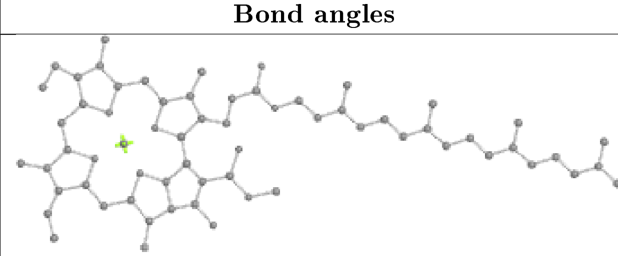
Bond lengths



Bond angles

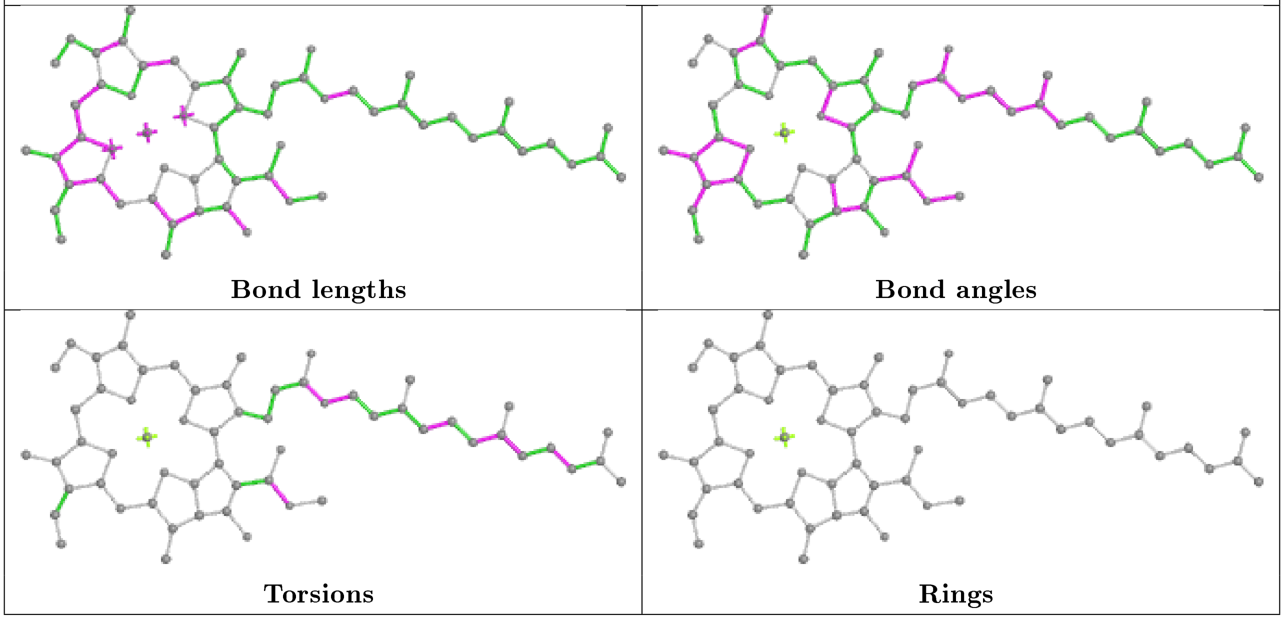


Torsions



Rings

Ligand CLA B 1231



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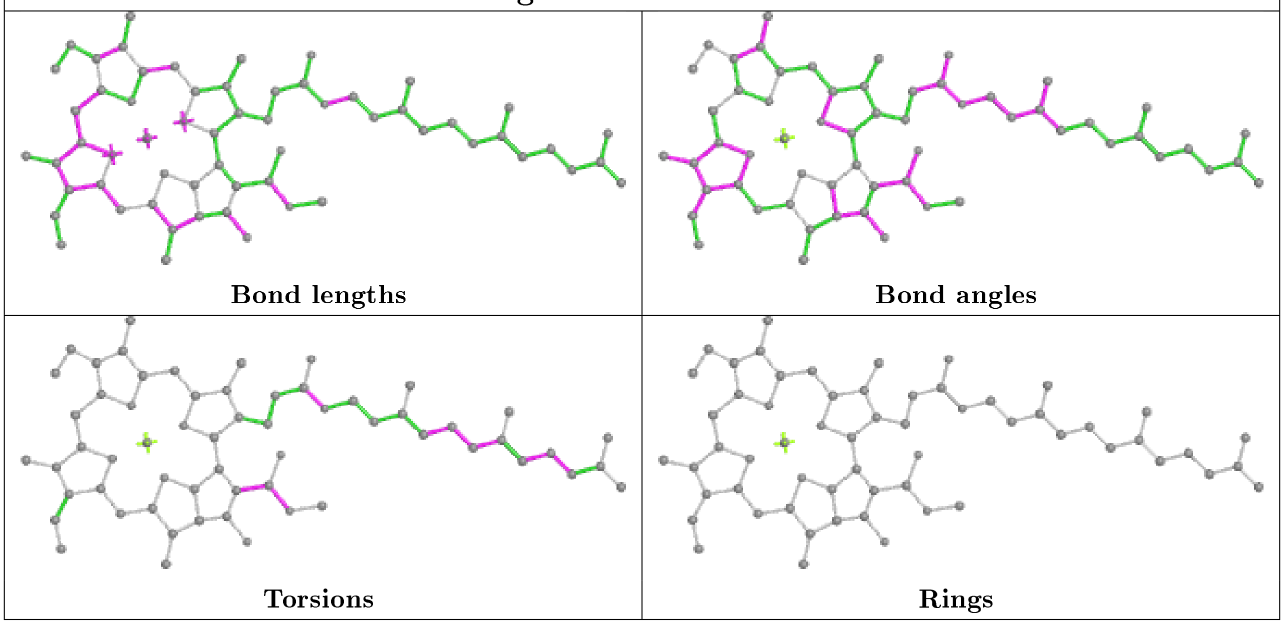
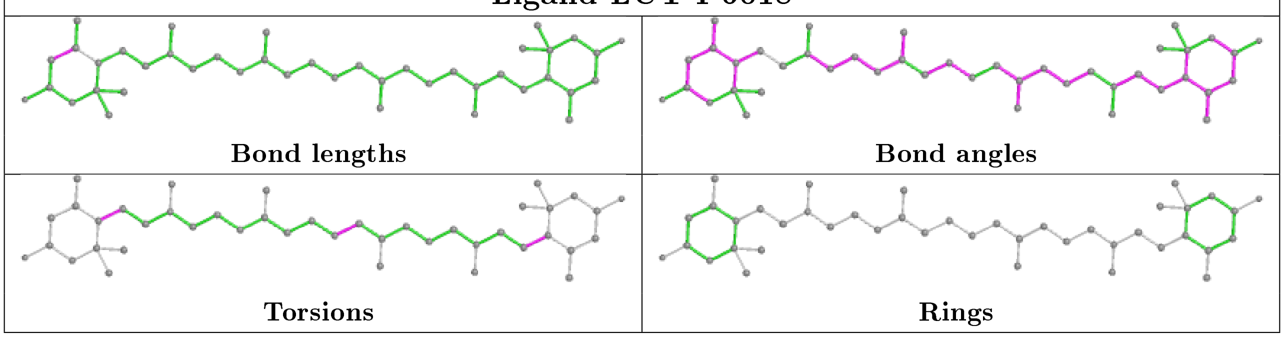
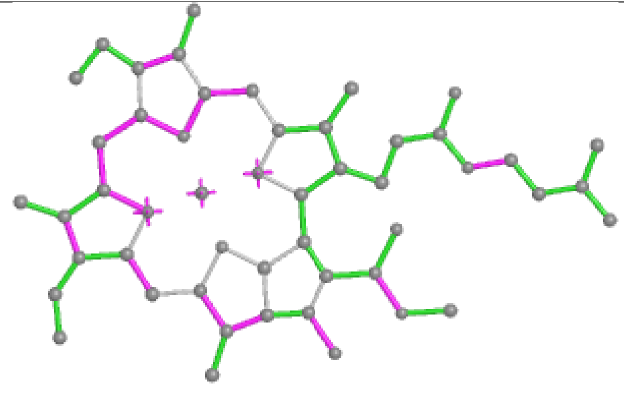


Ligand LUT I 6018



Ligand CLA 3 3006



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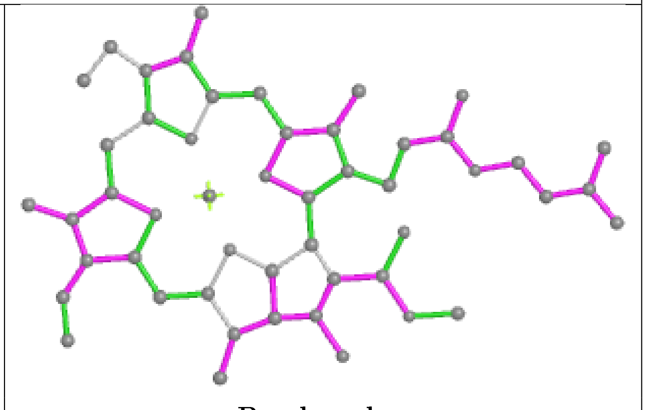
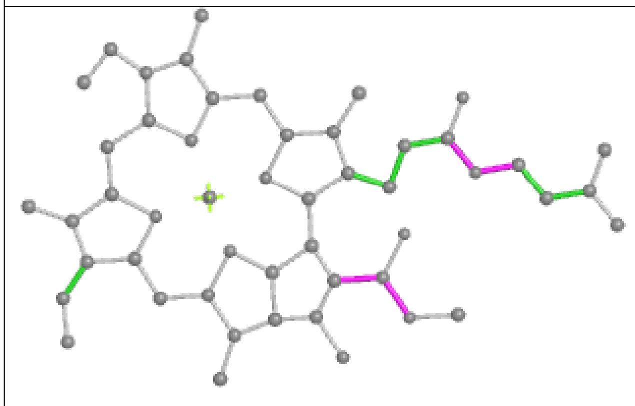


Bond angles



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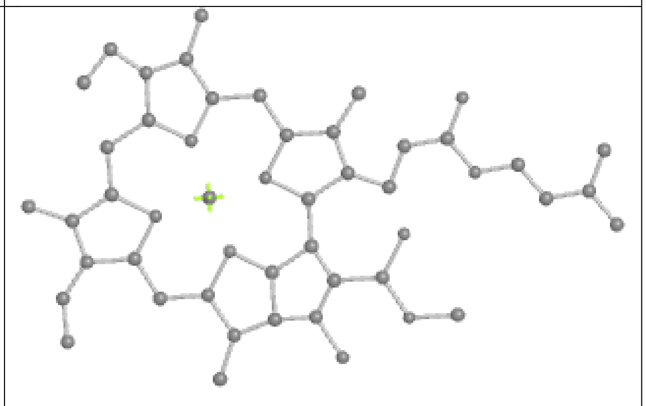

Rings

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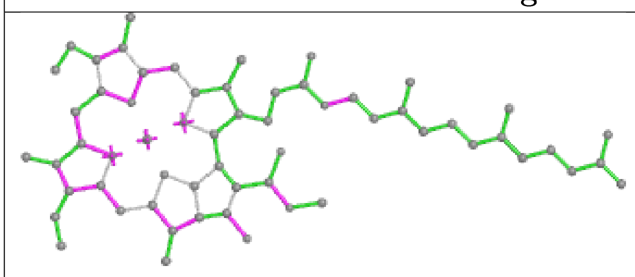

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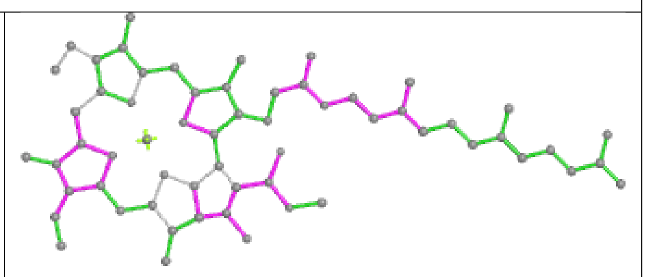
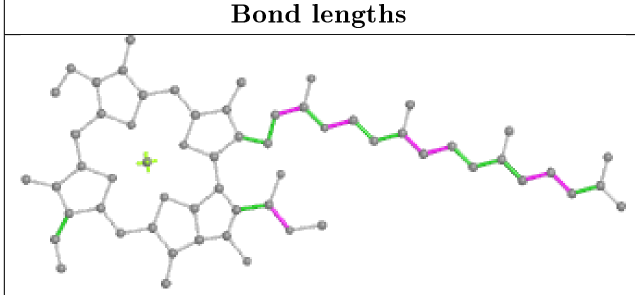
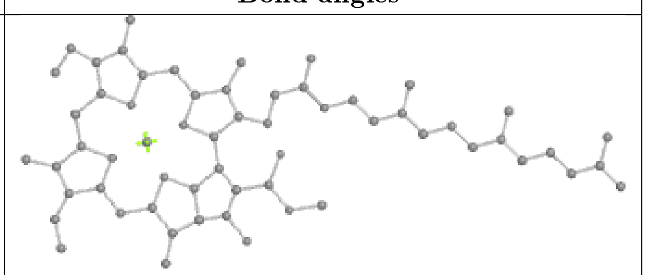


Bond angles

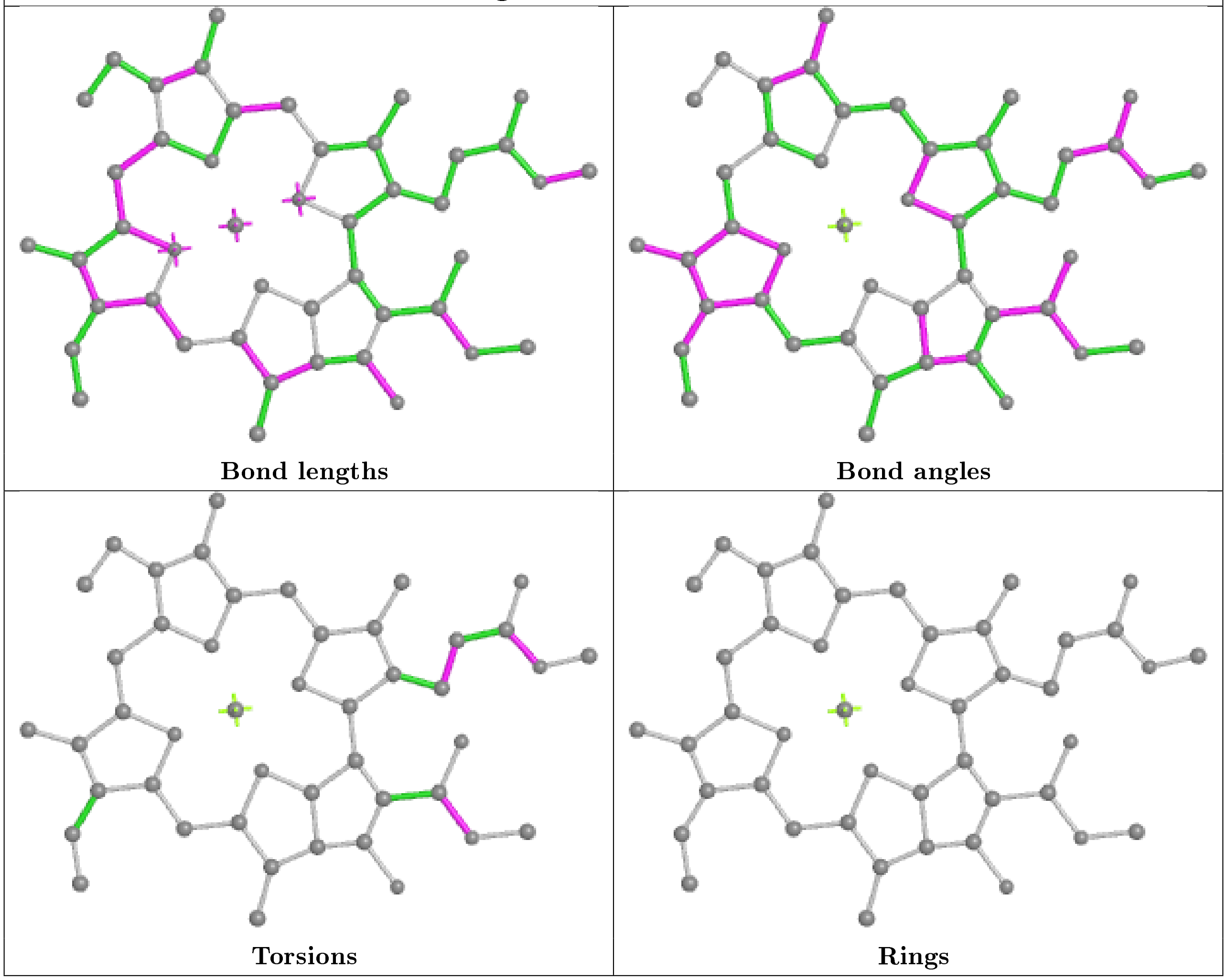


Torsions

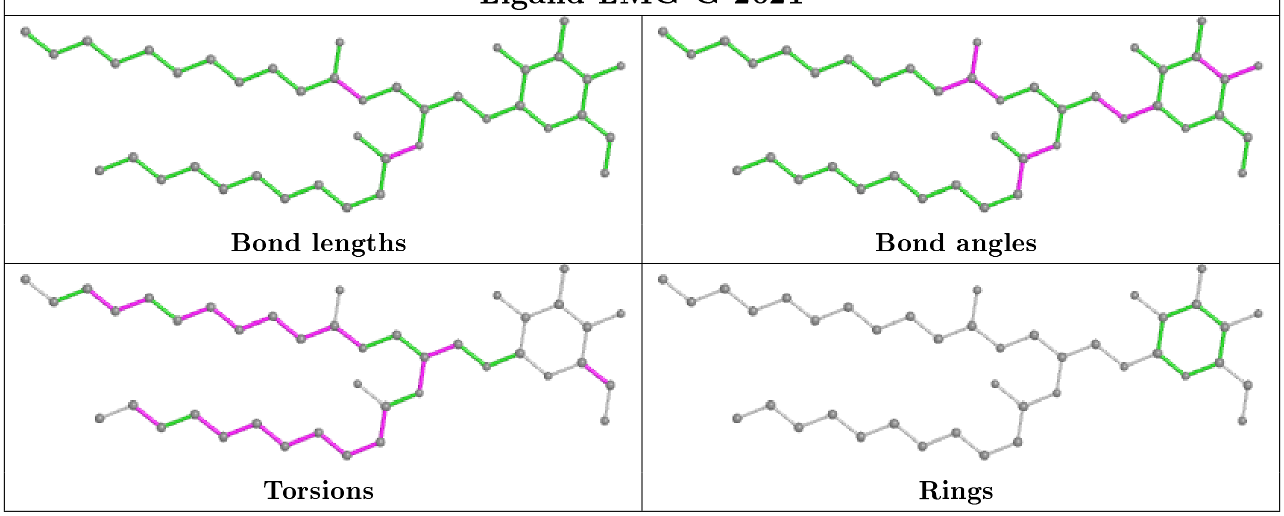


Rings

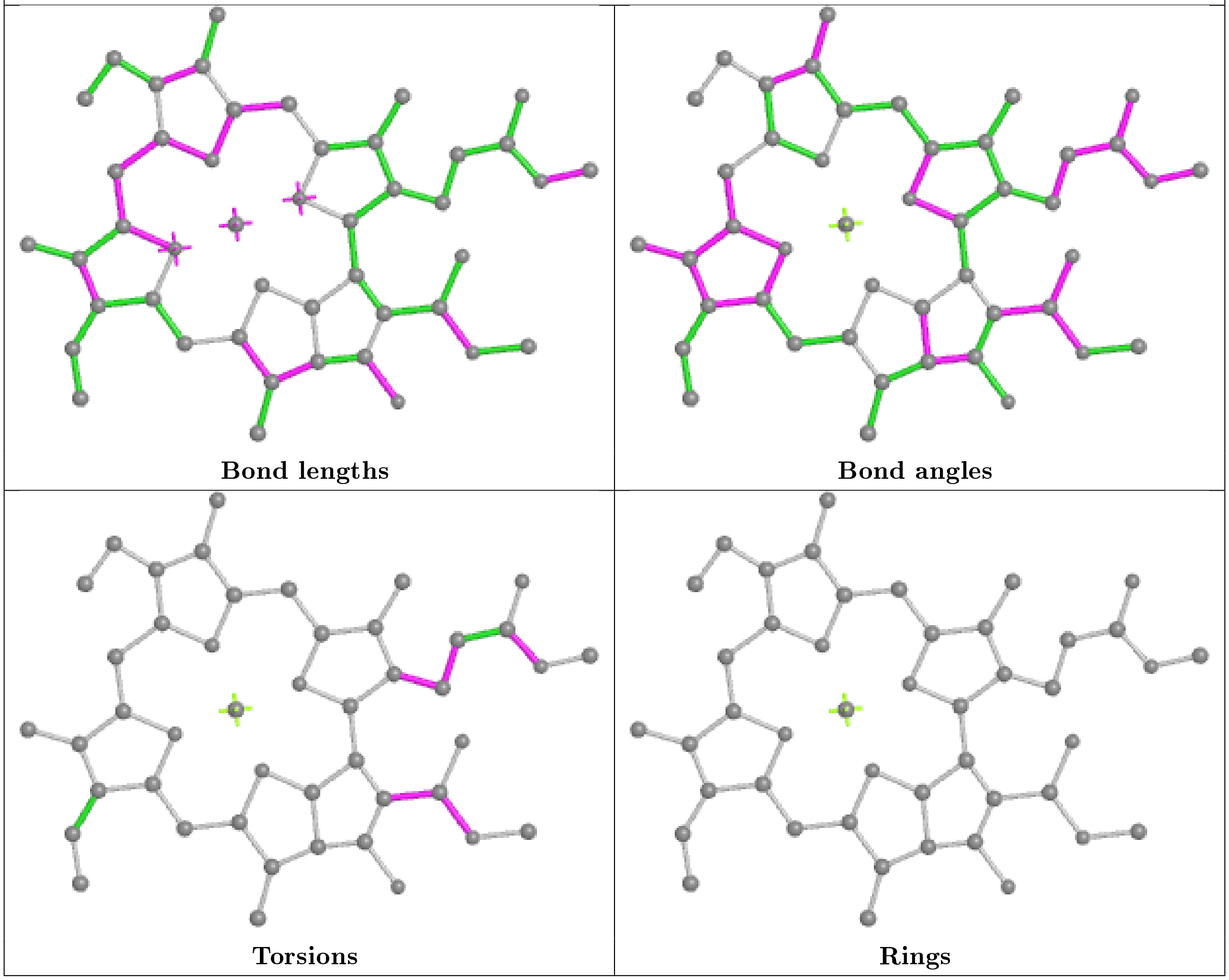
Ligand CLA B 1209



Ligand LMG G 2021



Ligand CLA 1 1014



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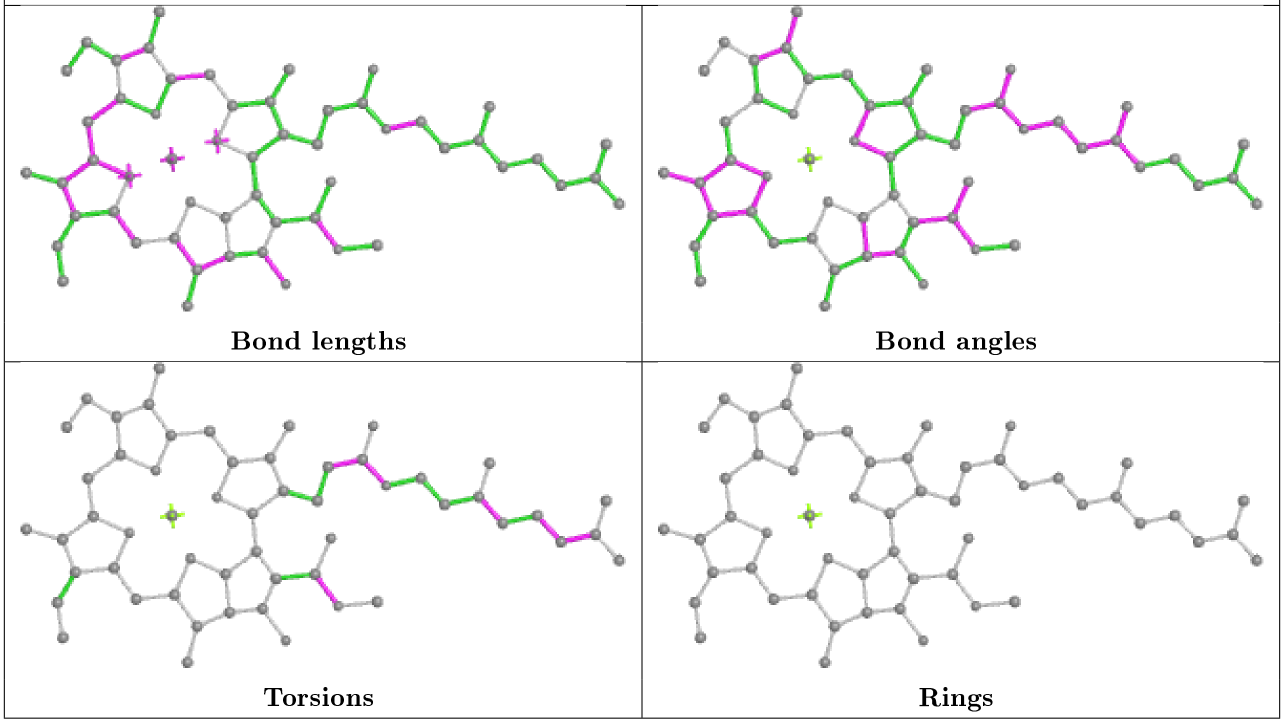

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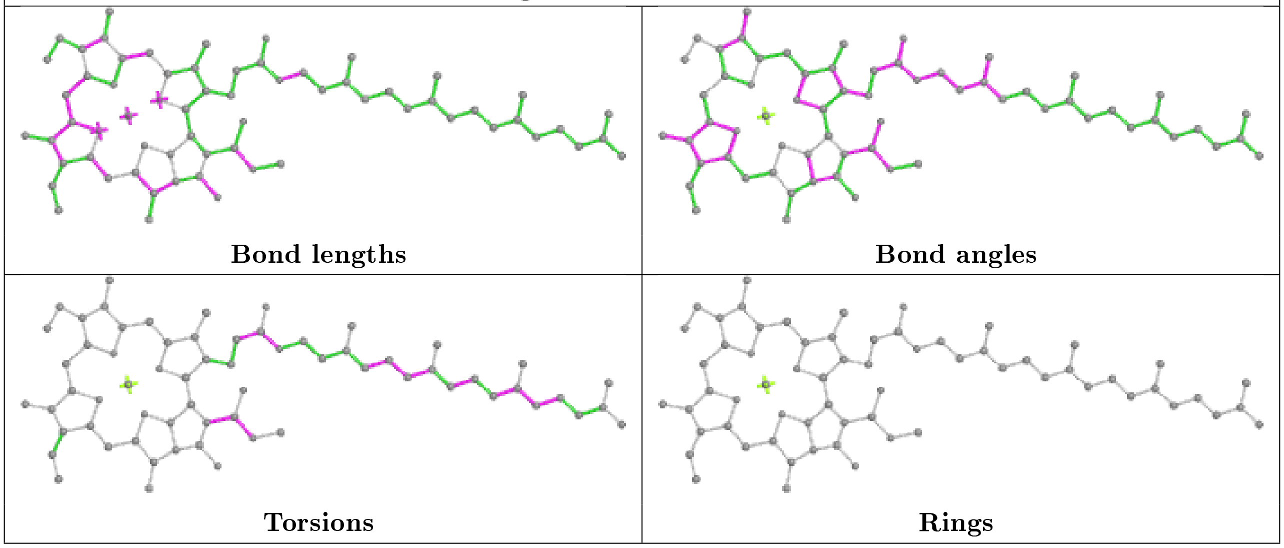
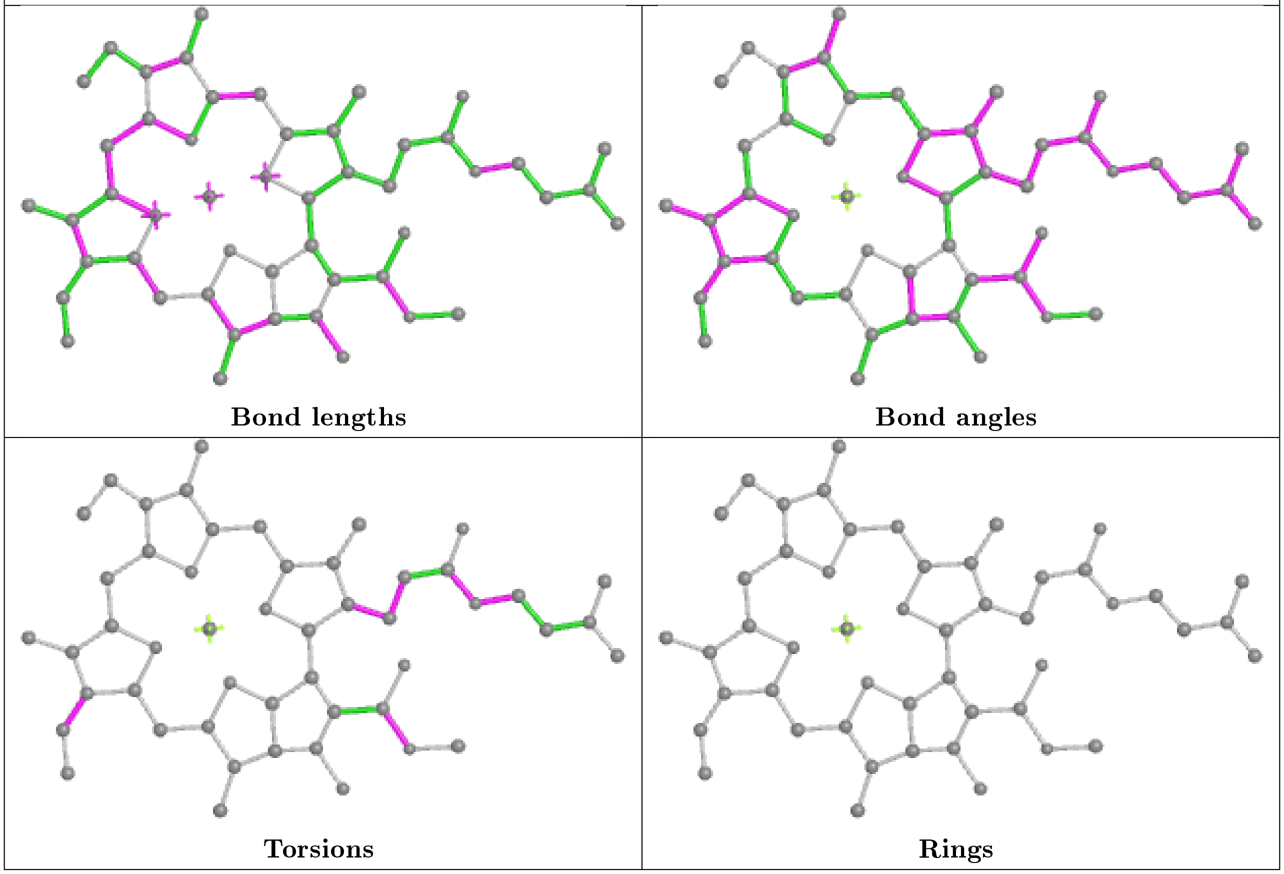


Ligand CLA 1 1011



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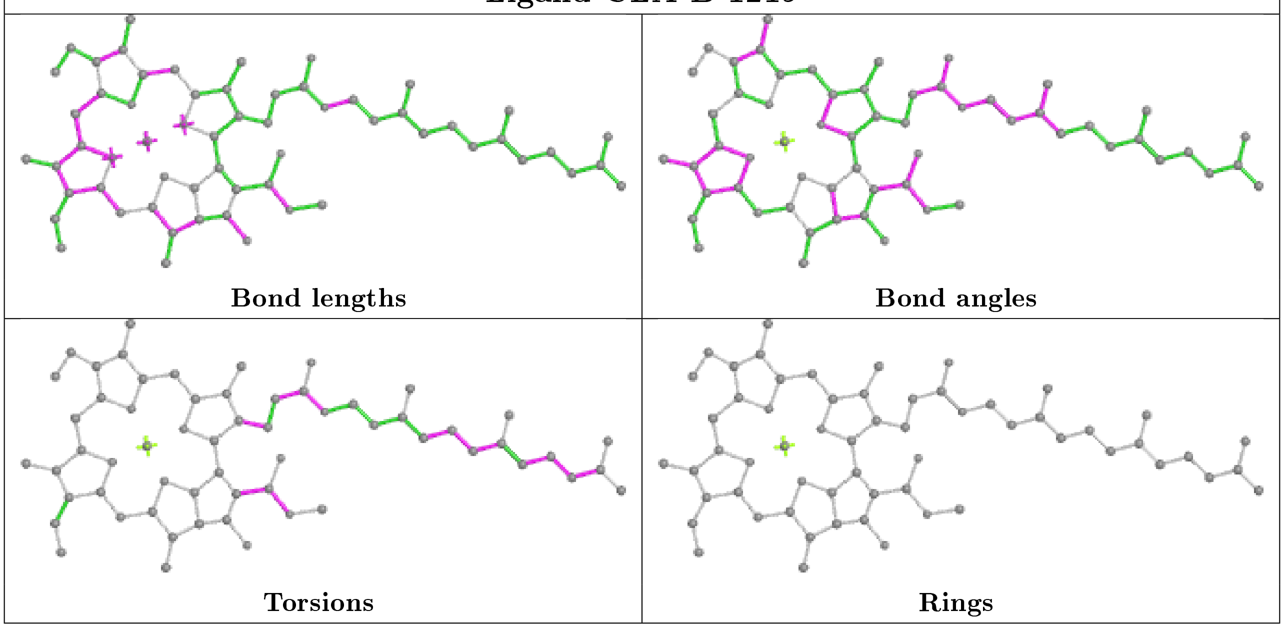

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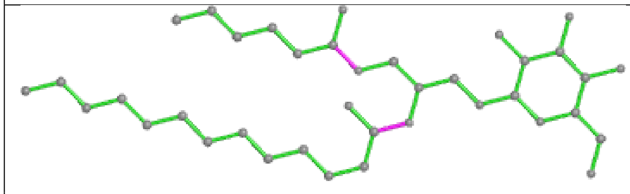
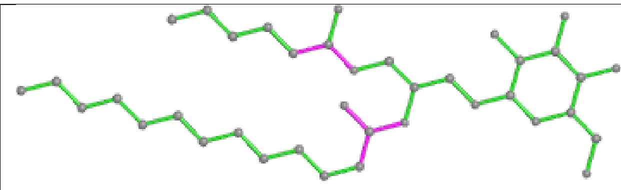
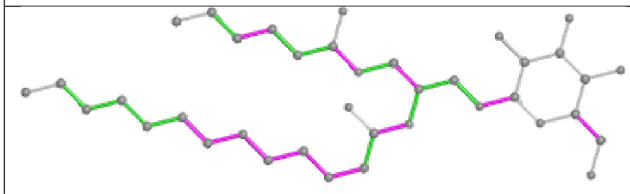


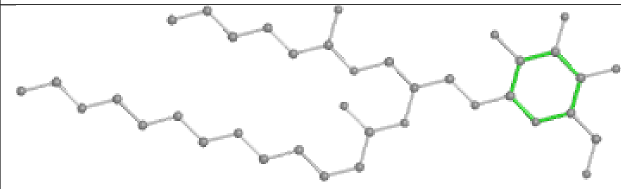
Bond lengths



Bond angles

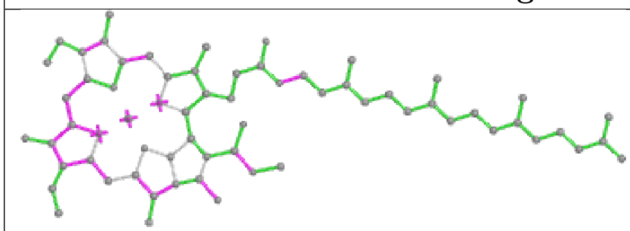


Torsions

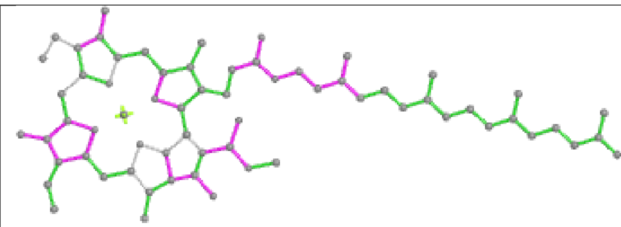


Rings

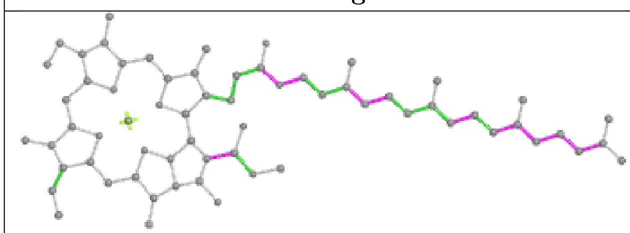
Ligand CLA B 1218



Bond lengths



Bond angles



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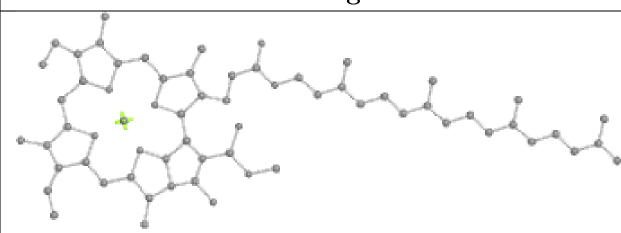
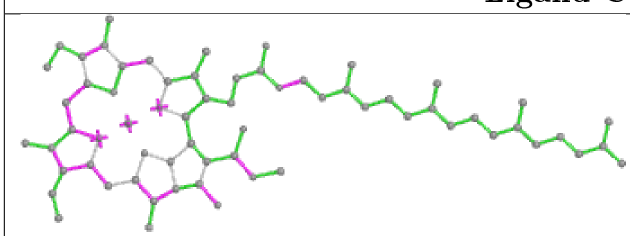


Rings

Ligand CLA A 1109



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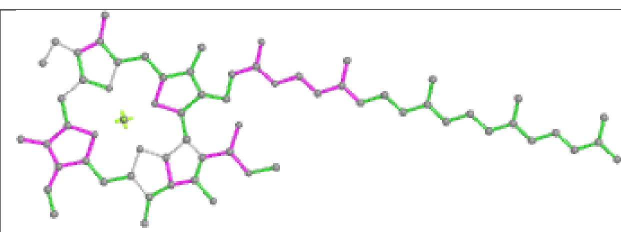
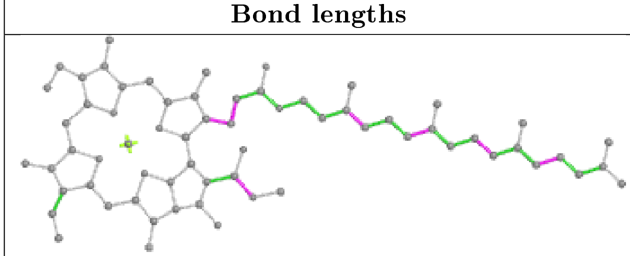


Bond angles



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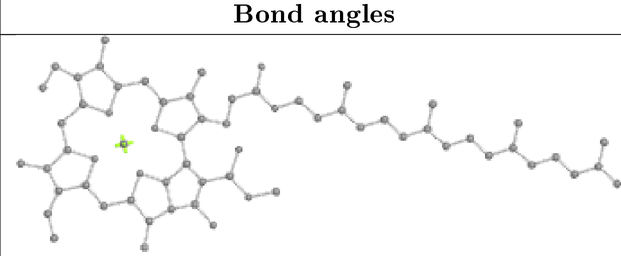
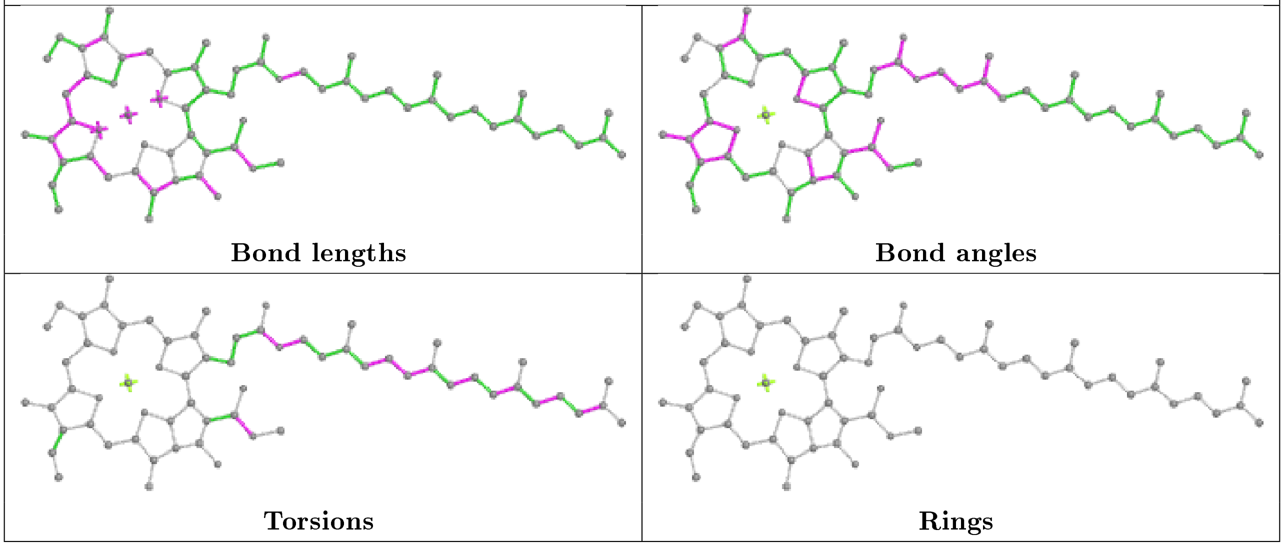
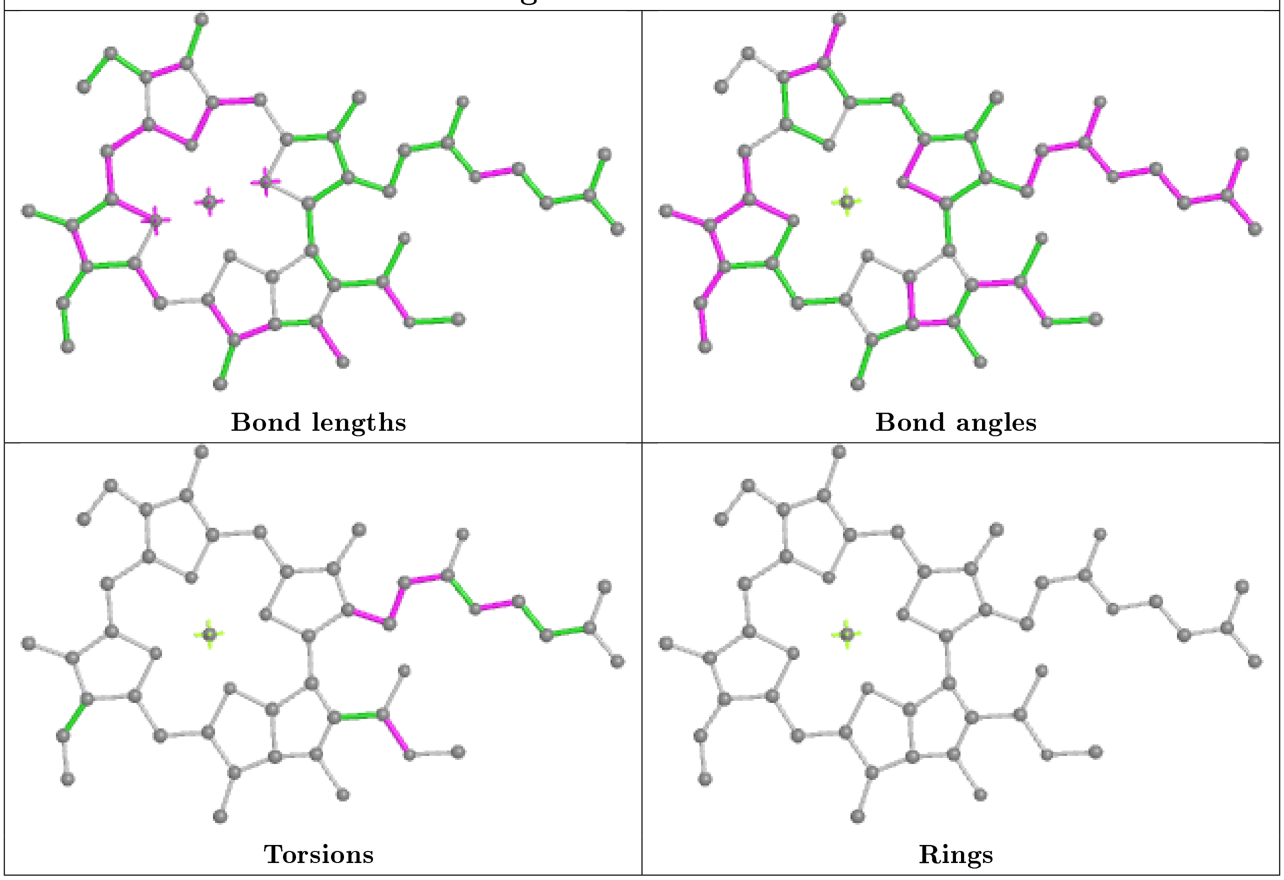


Rings

Ligand CLA B 1203



Ligand CLA 1 1012



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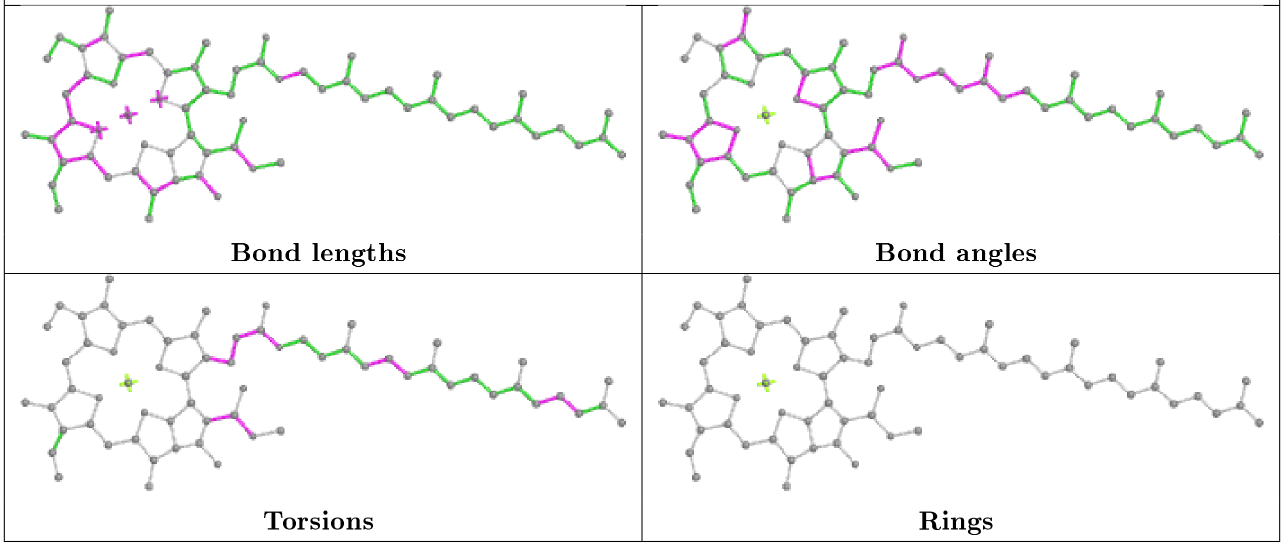

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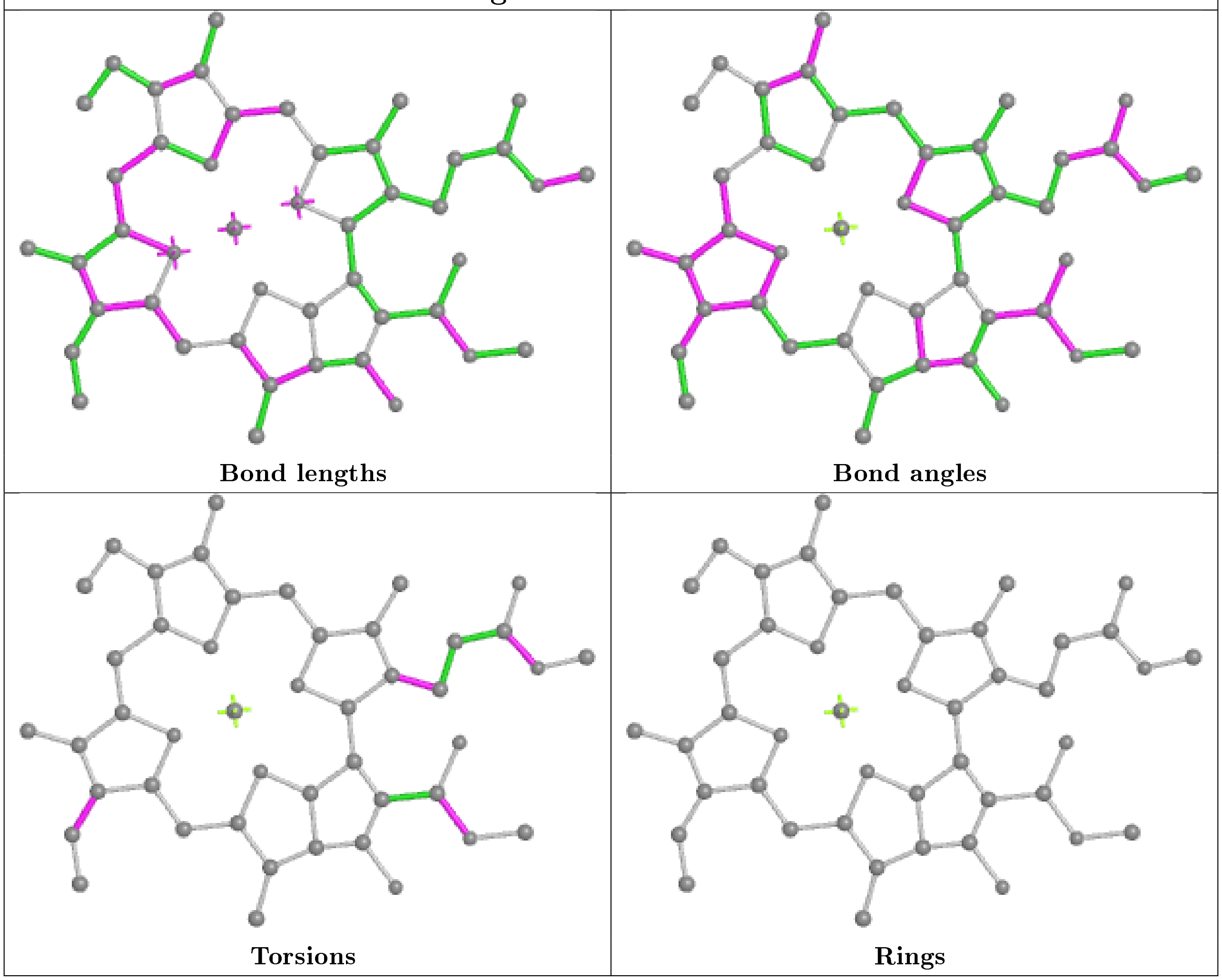
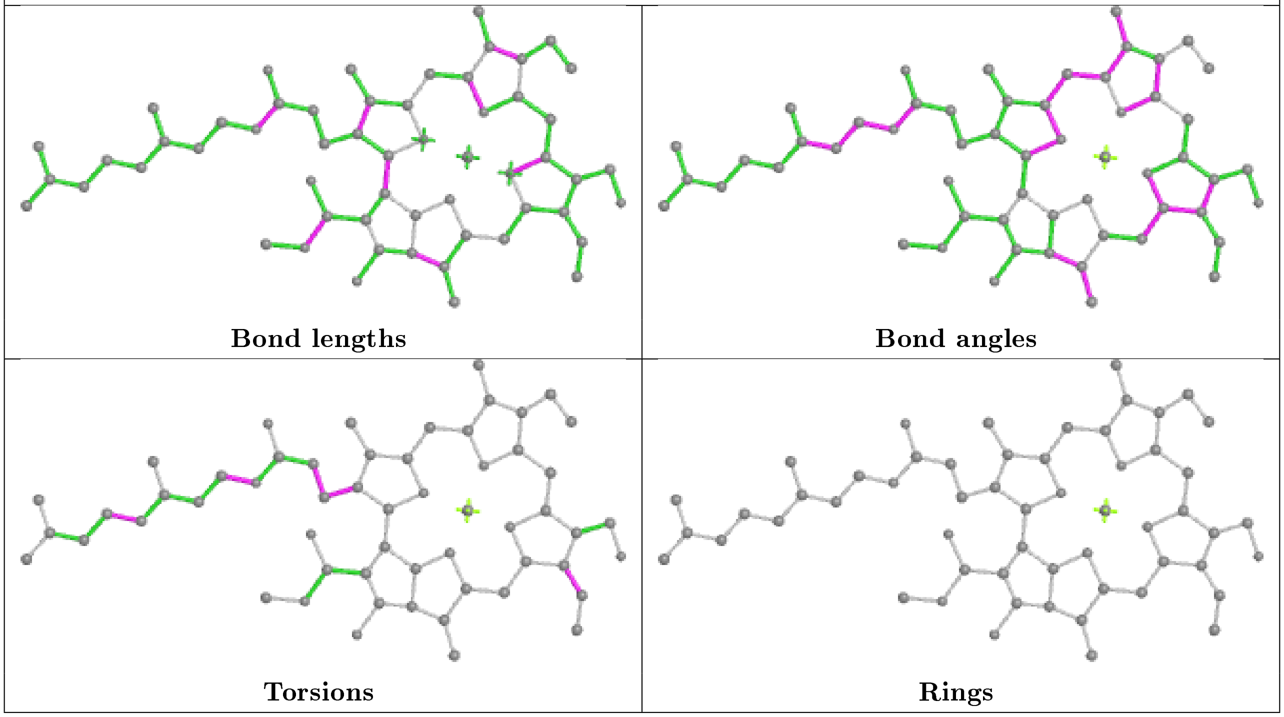
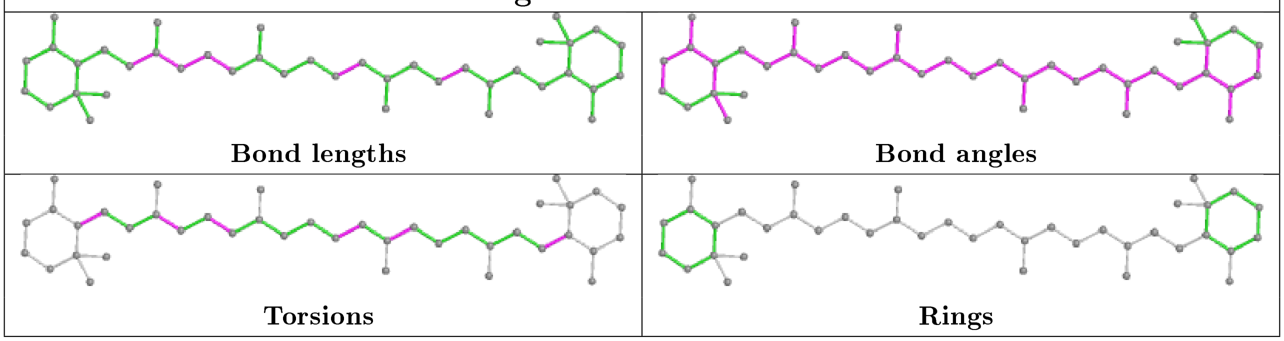


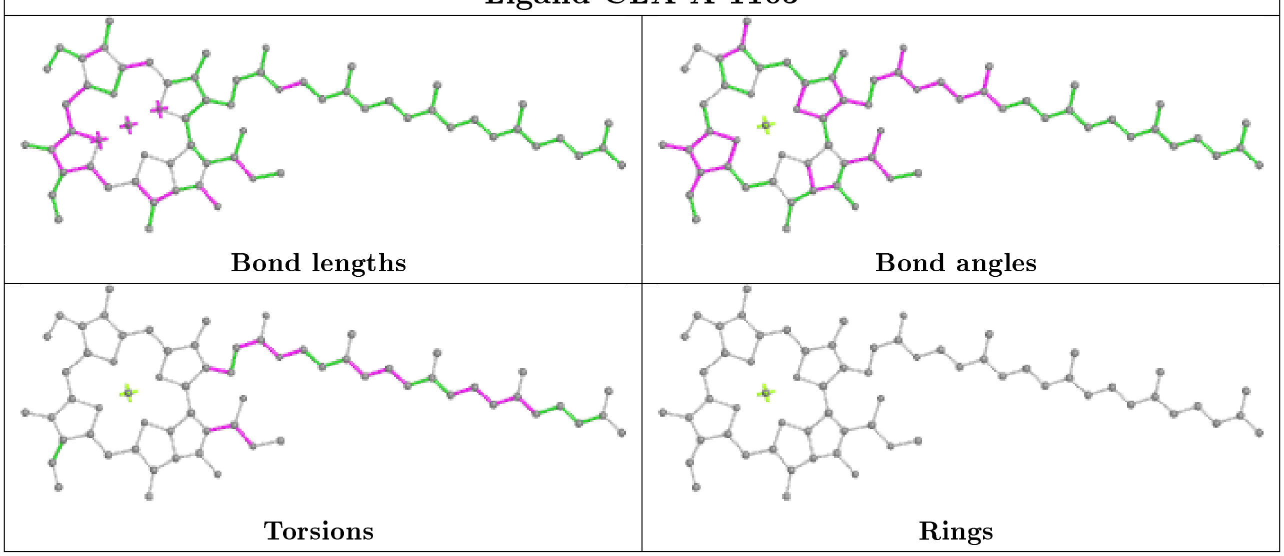
Ligand CHL 3 3011



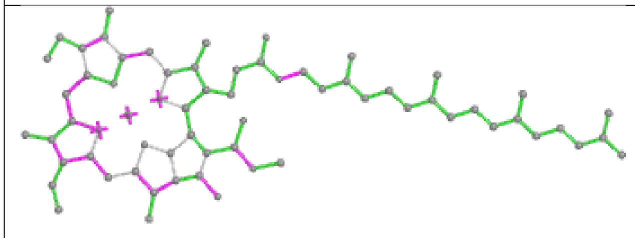
Ligand BCR A 6008

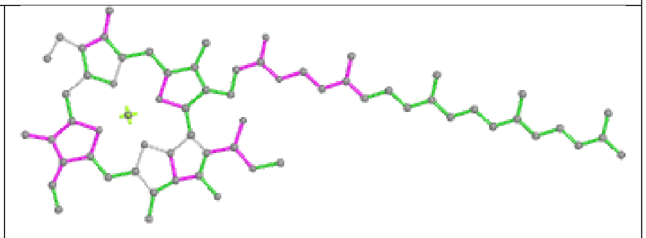


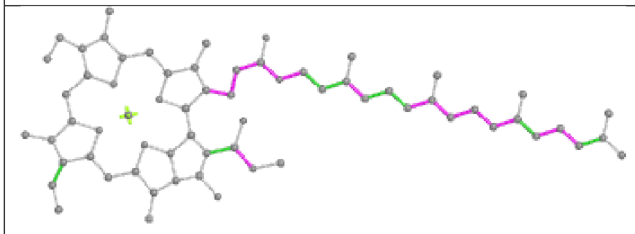
Ligand CLA A 1103

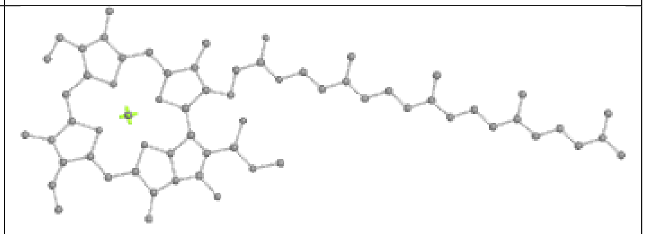


Ligand CLA B 1224

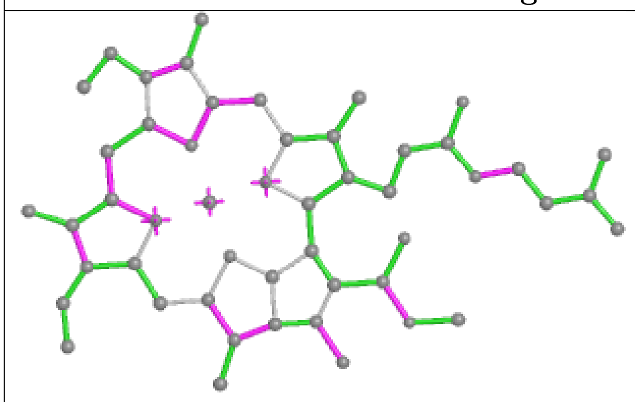

Bond lengths

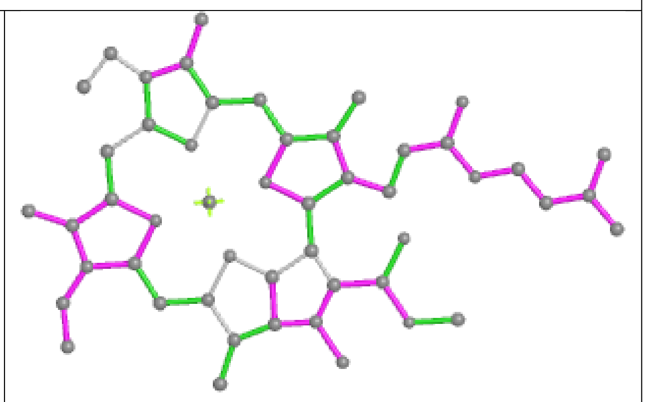

Bond angles

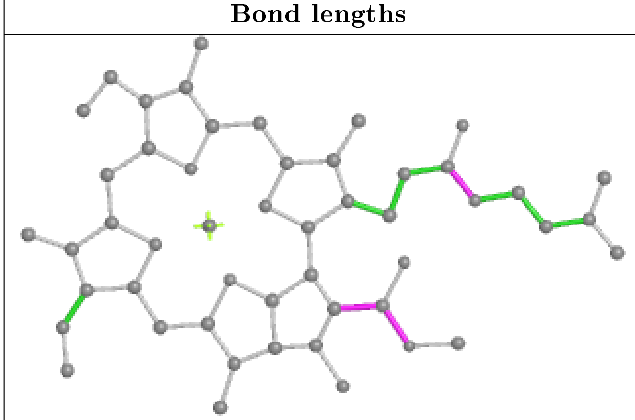

Torsions

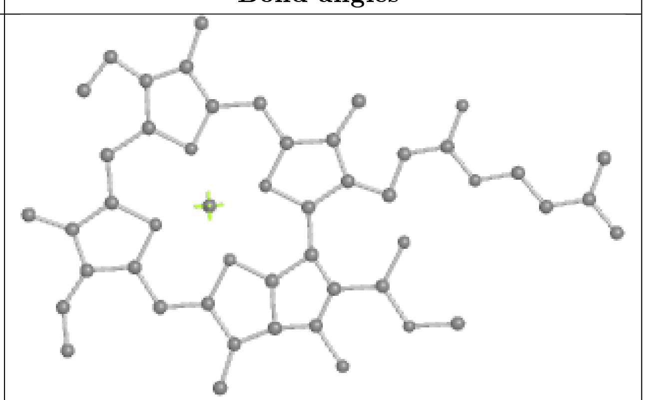

Rings

Ligand CLA 4 4006

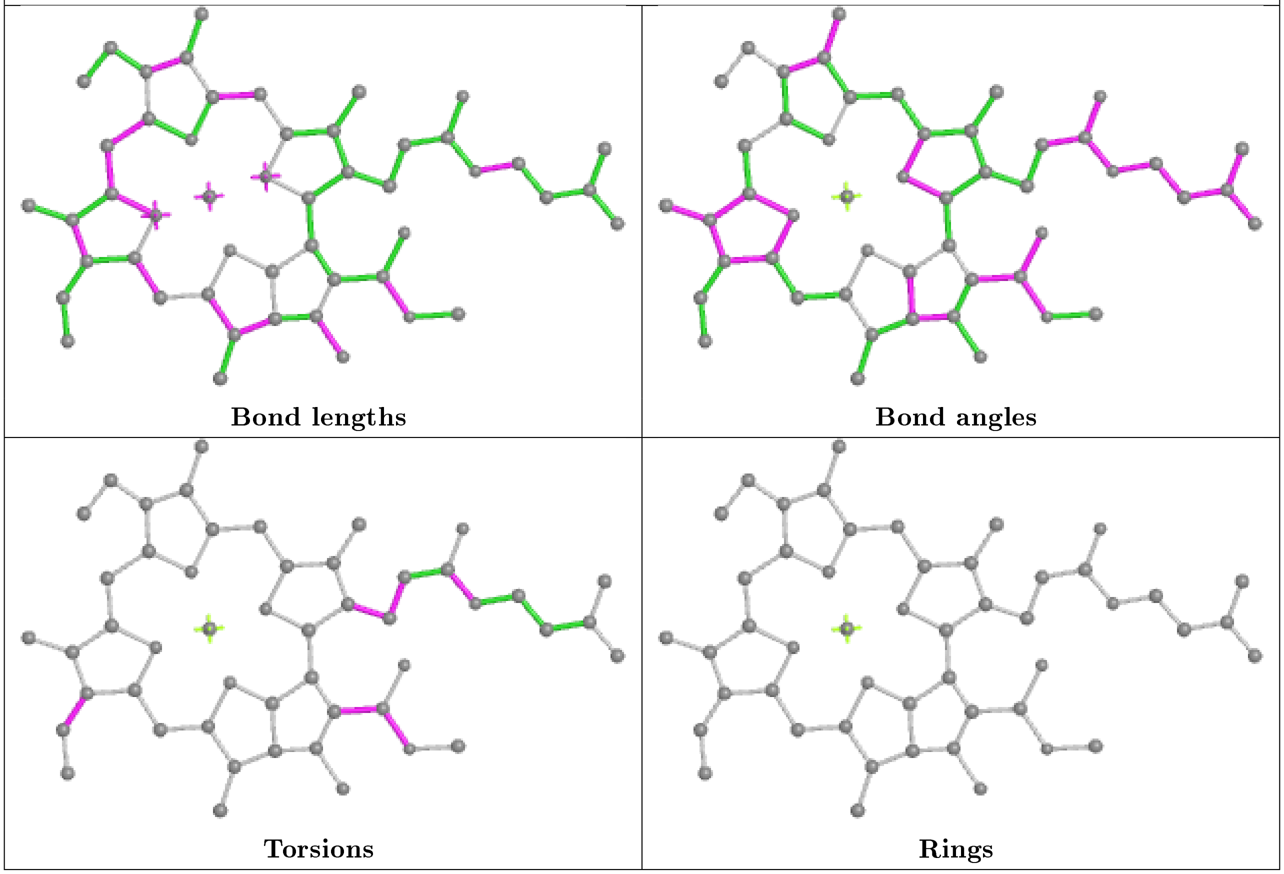

Bond lengths


Bond angles

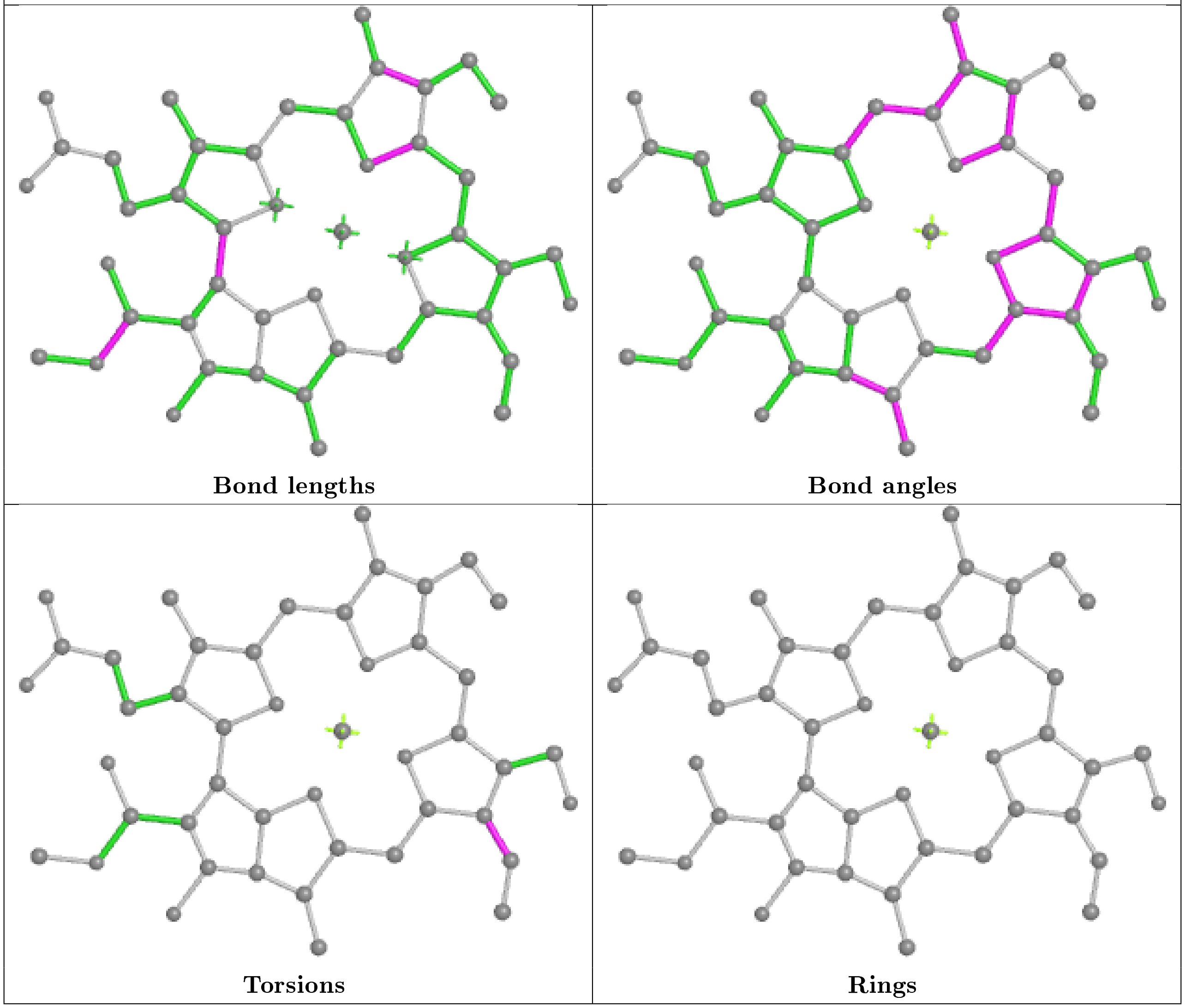

Torsions


Rings

Ligand CLA F 1302



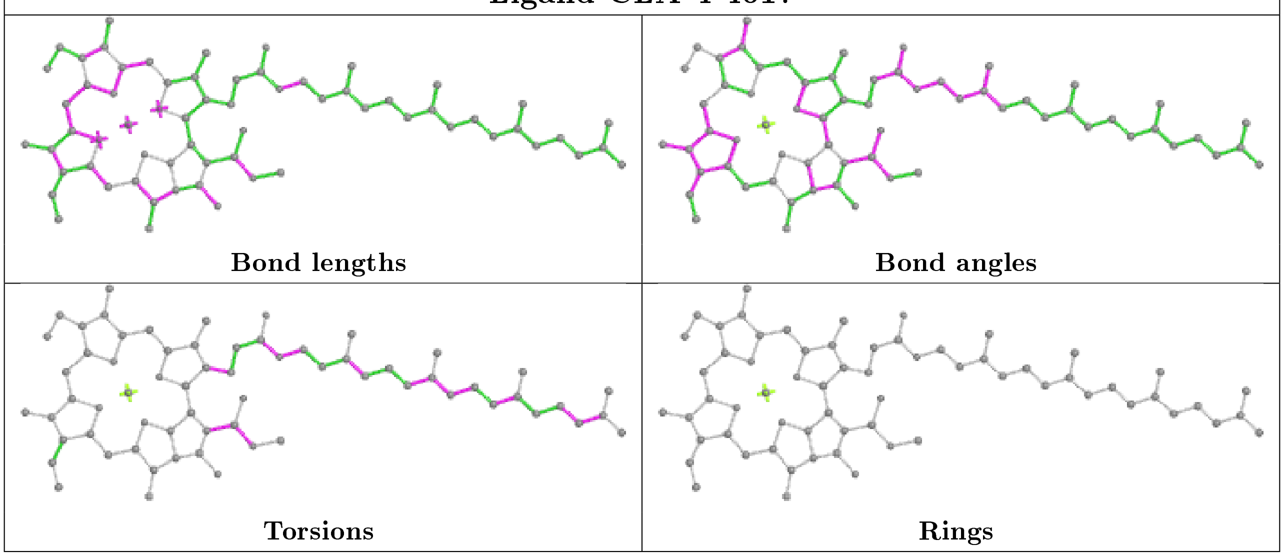
Ligand CHL 2 2013



Bond lengths | Bond angles

Torsions | Rings

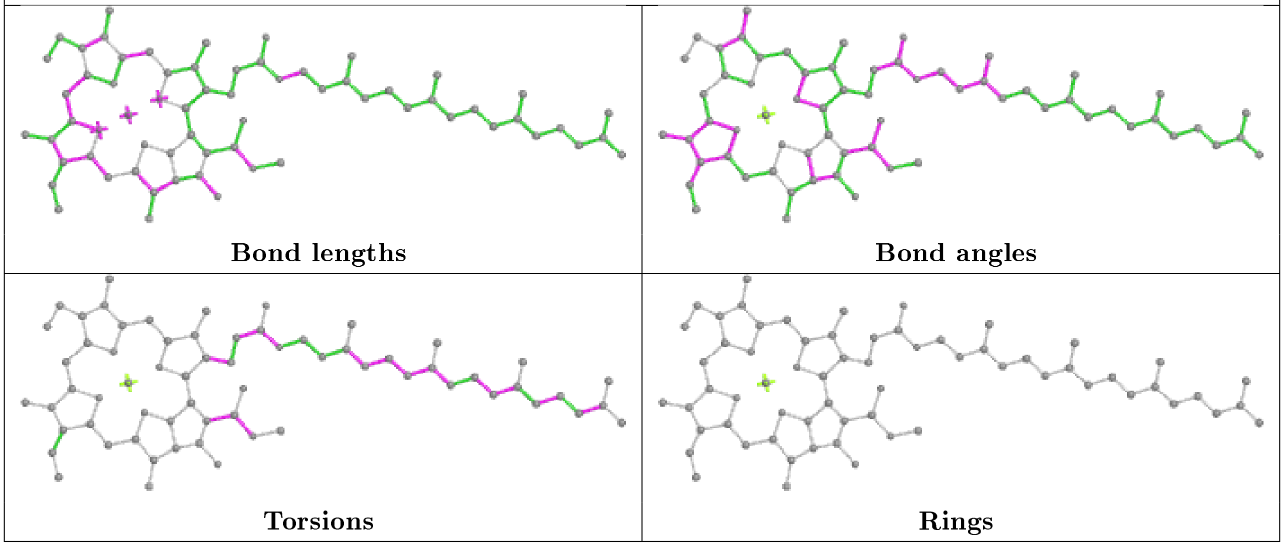
Ligand CLA 4 4017



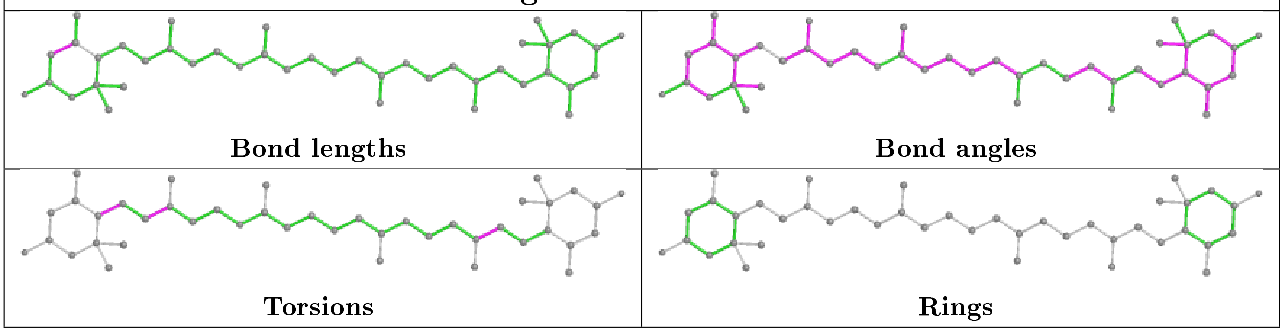
Bond lengths | Bond angles

Torsions | Rings

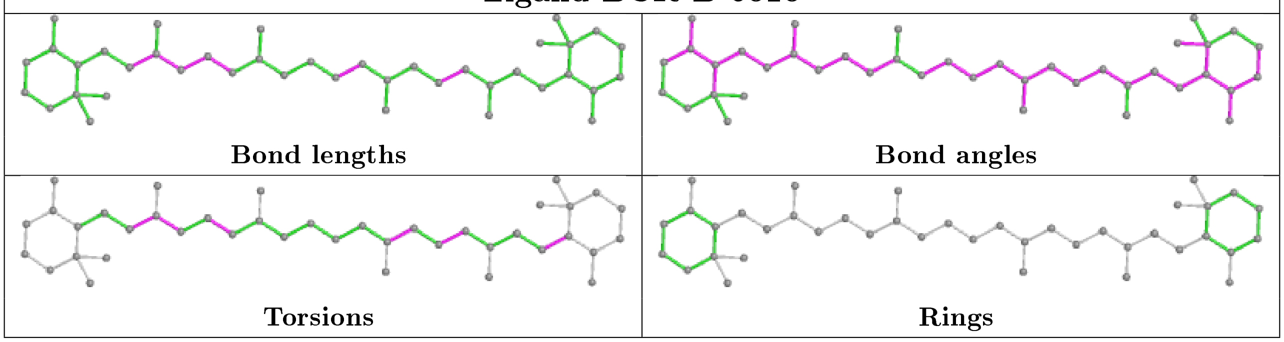
Ligand CLA A 1122



Ligand LUT 3 3501



Ligand BCR B 6010



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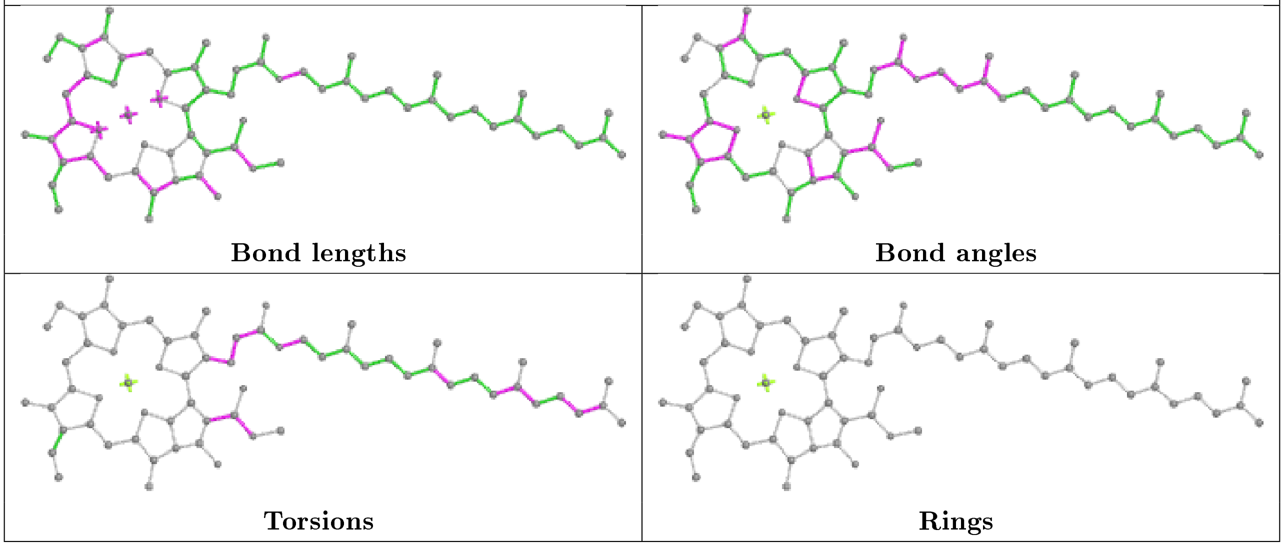
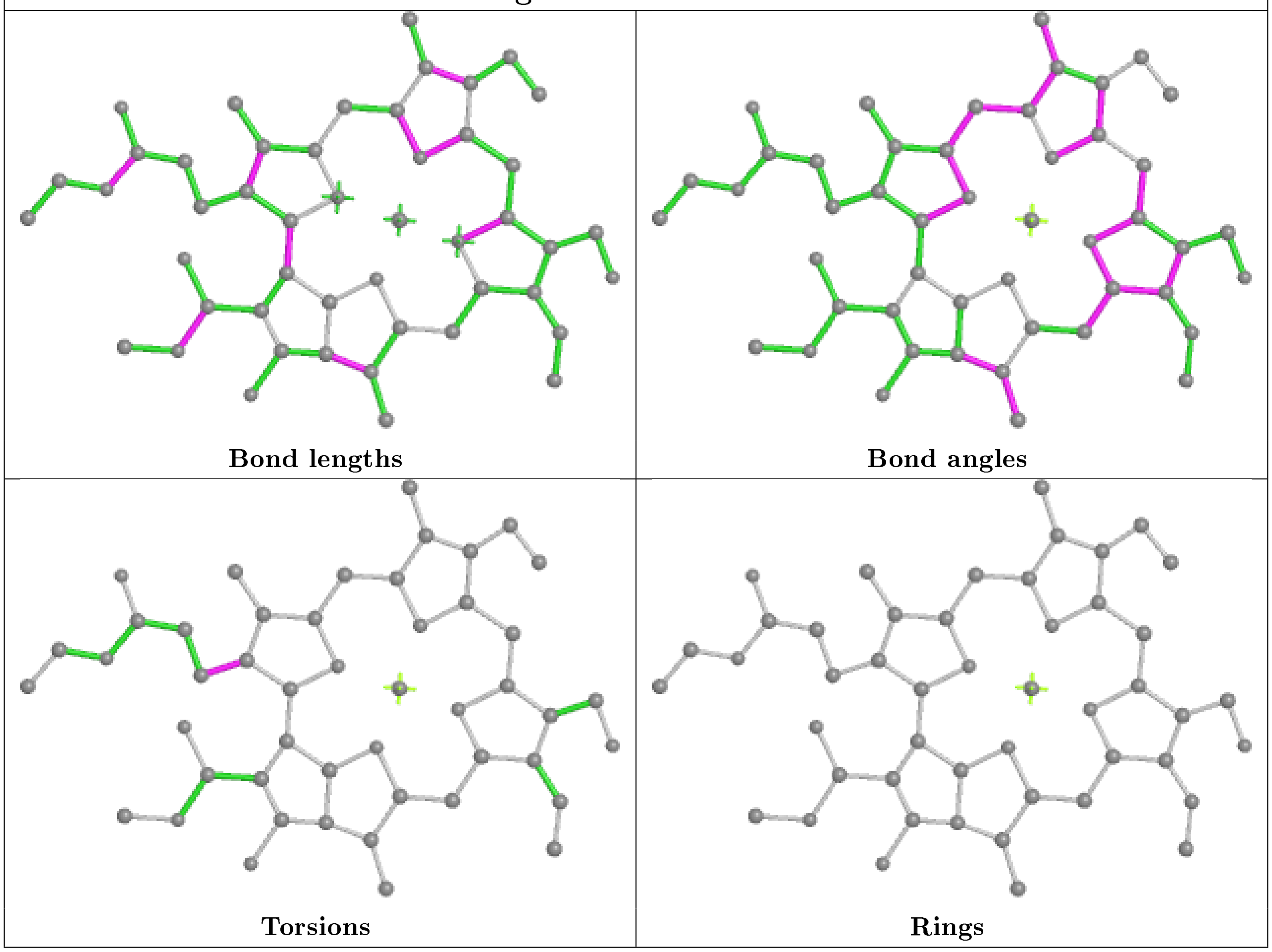


Ligand CHL 2 2011



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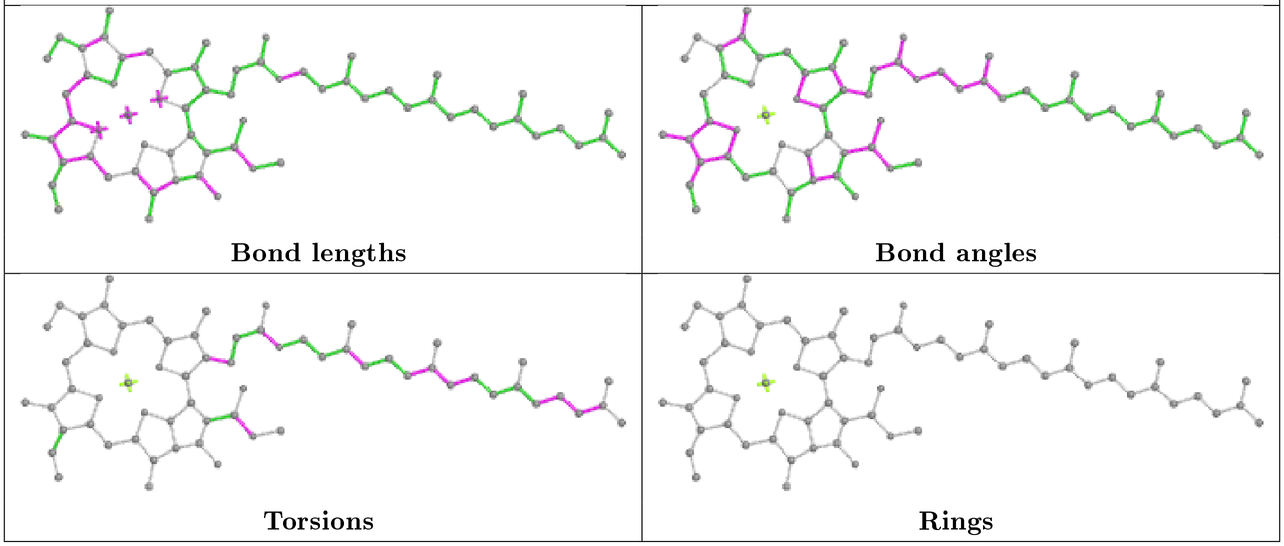
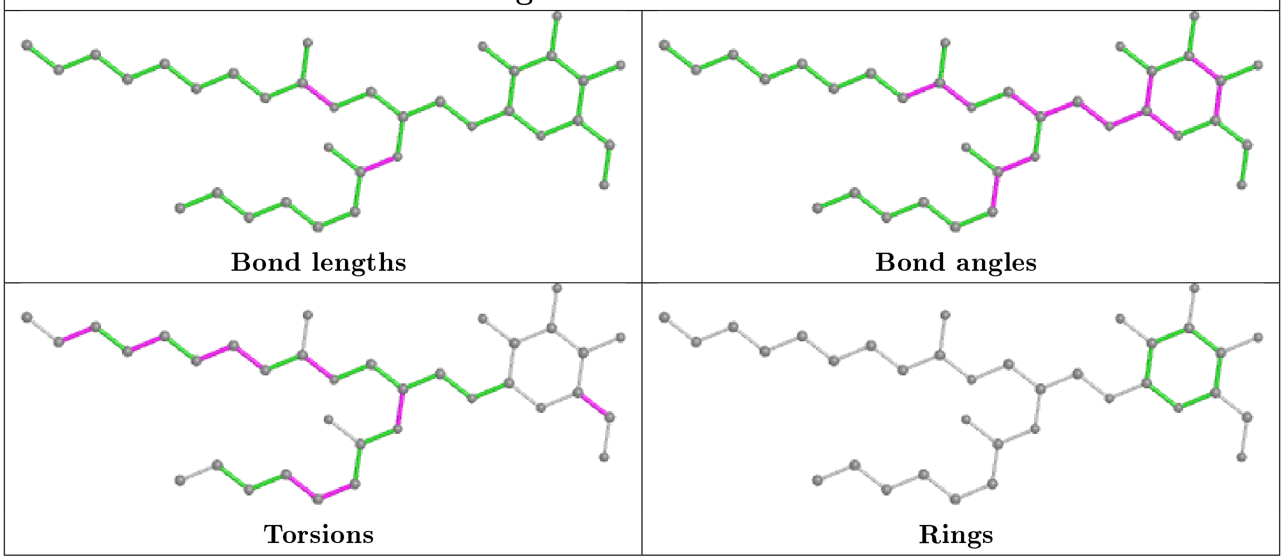
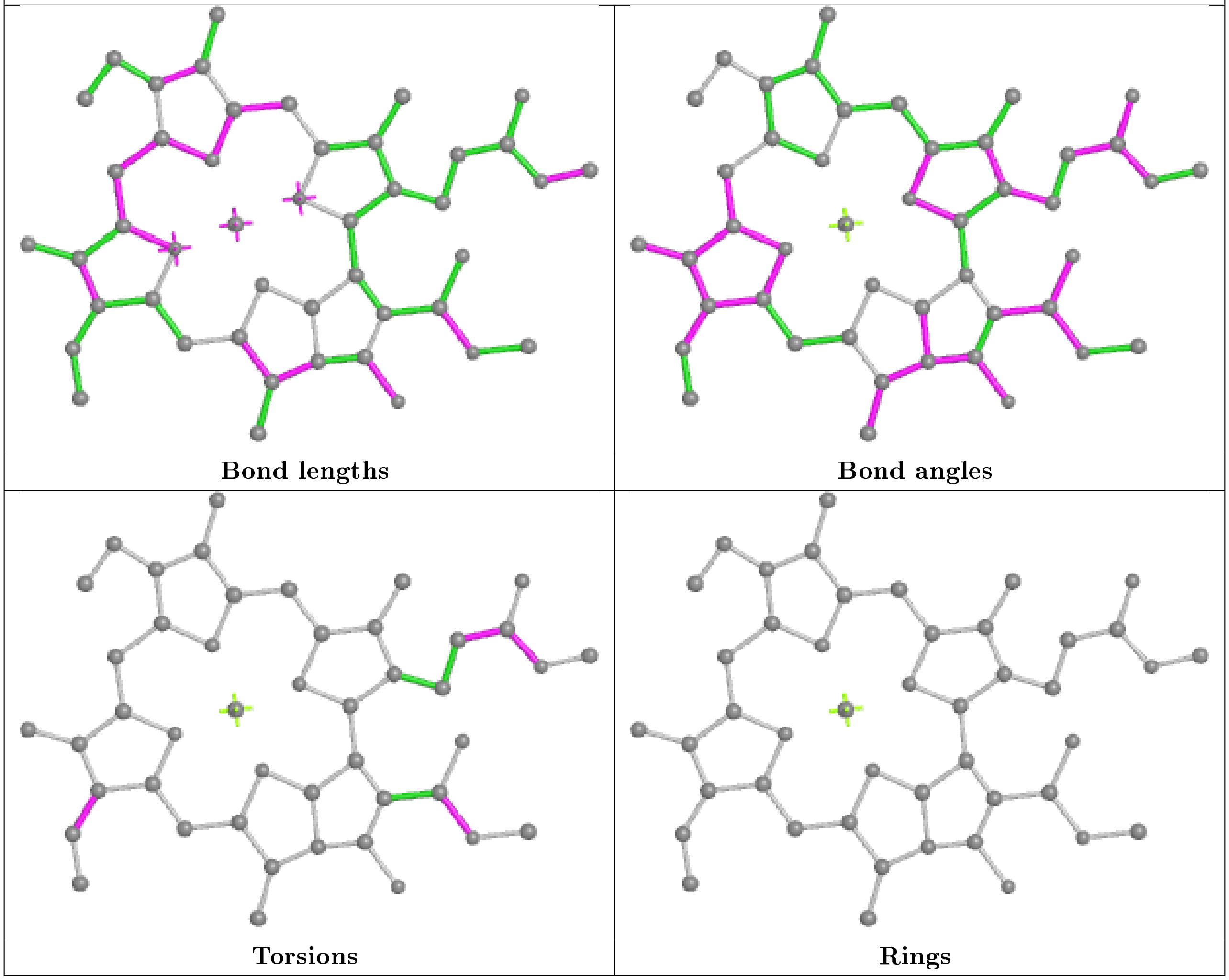


Ligand LMG 2 2802



Ligand CLA 1 1007



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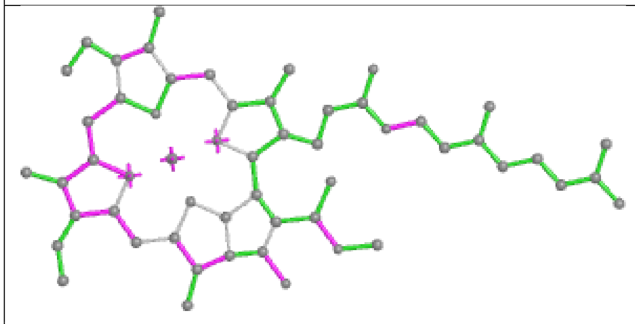
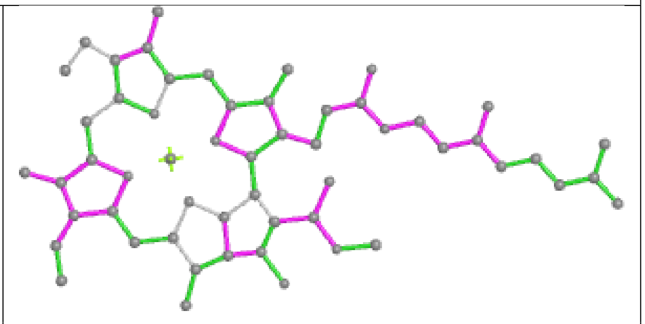
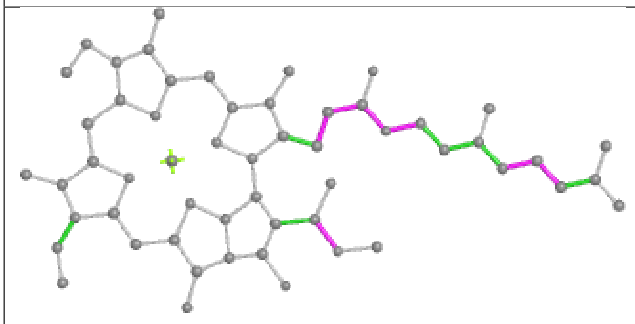


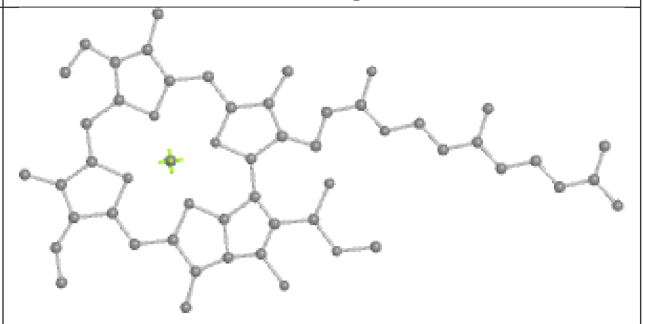
Bond lengths



Bond angles

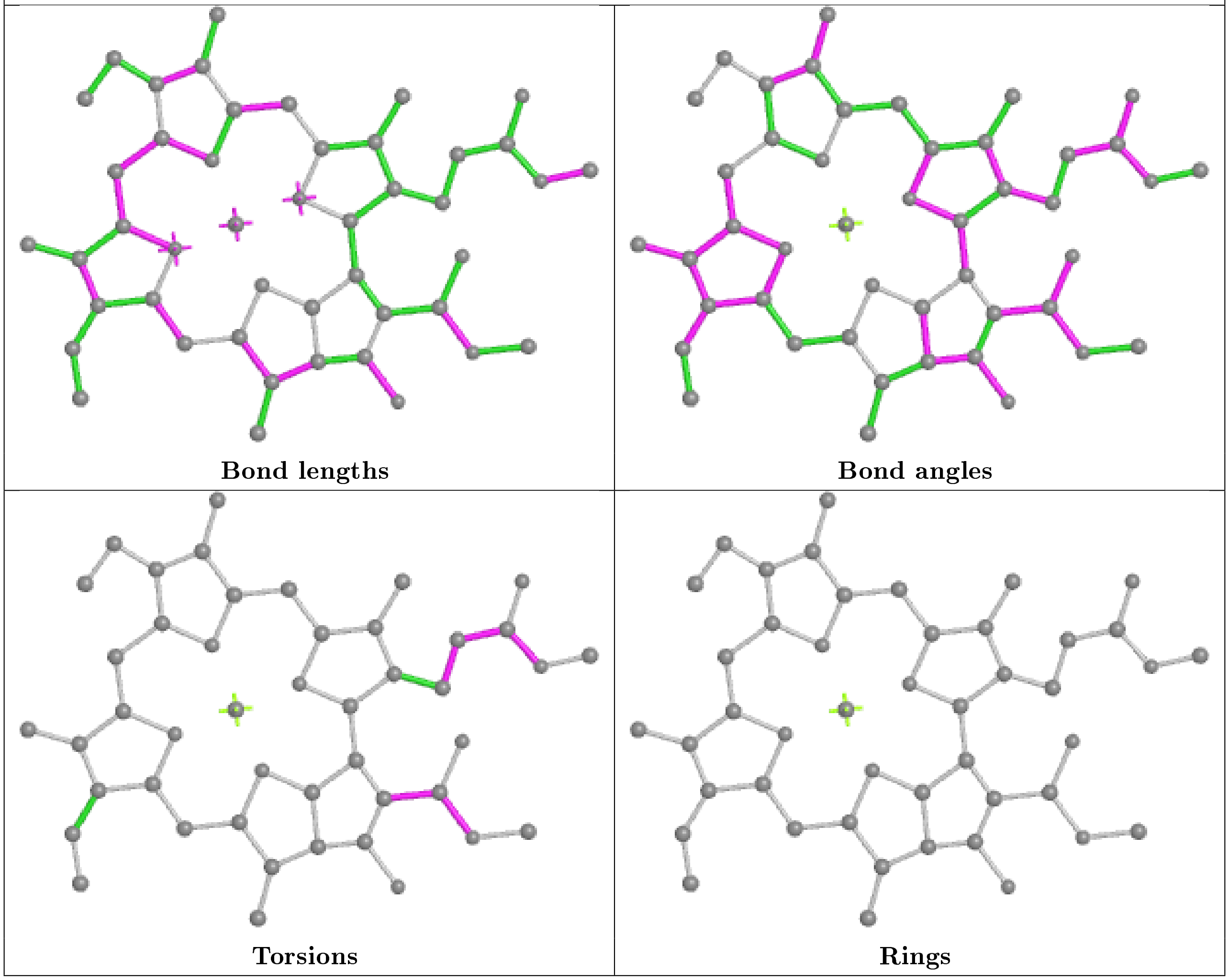


Torsions

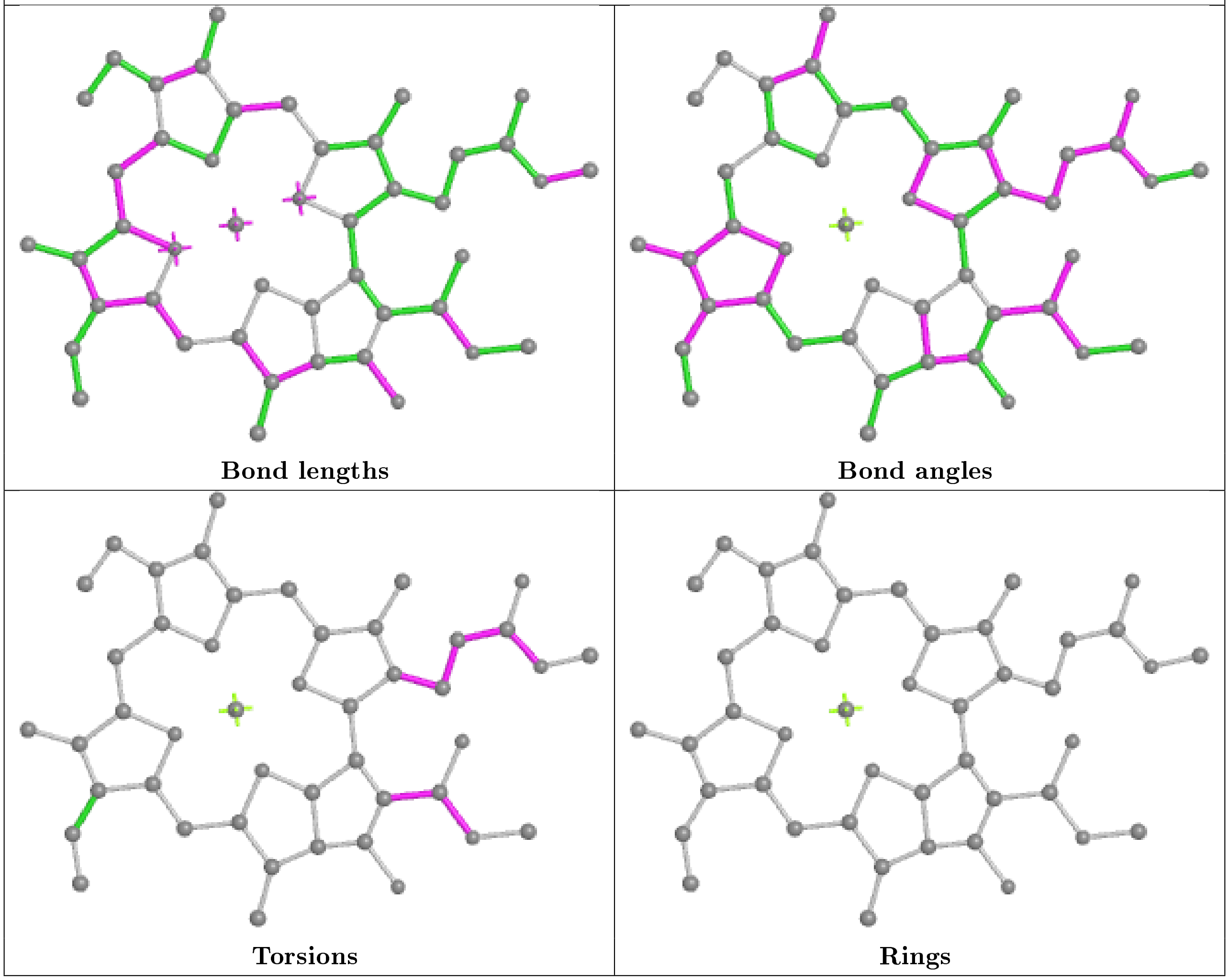


Rings

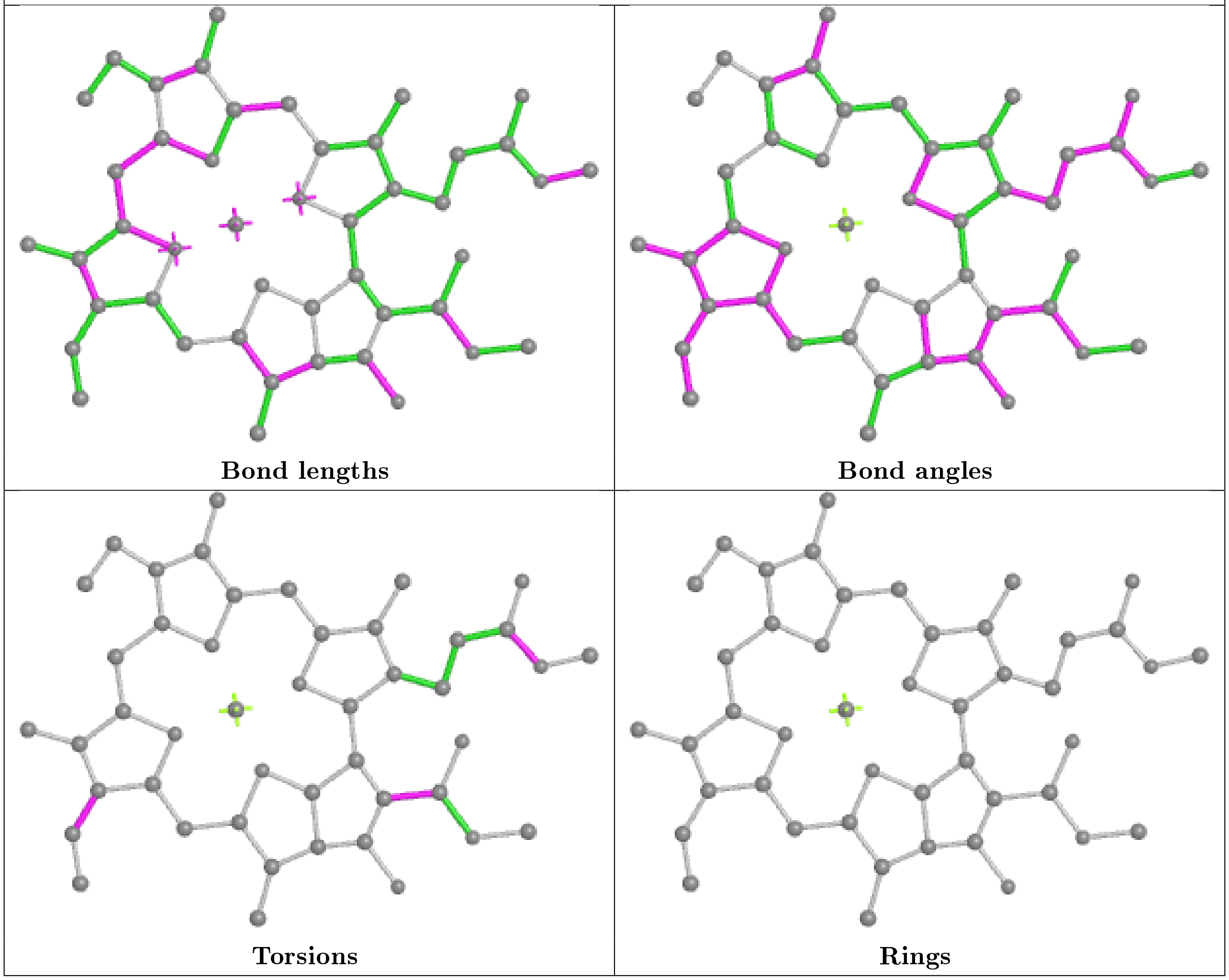
Ligand CLA 1 1008



Ligand CLA A 1113

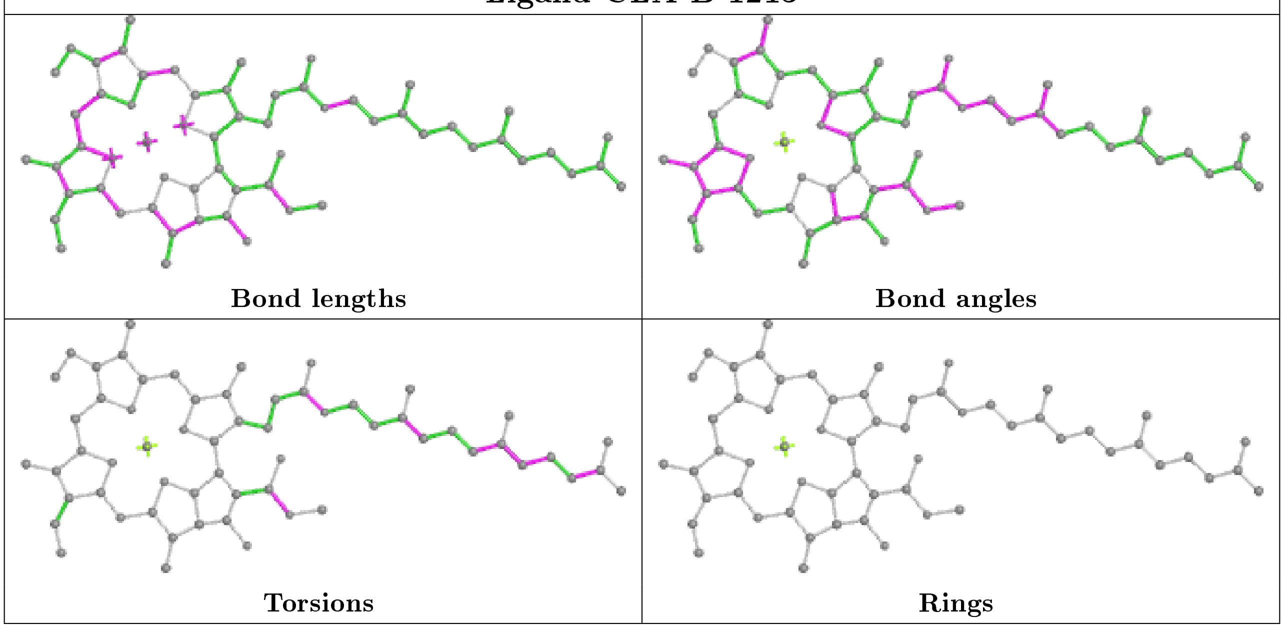


Ligand CLA 1 1002



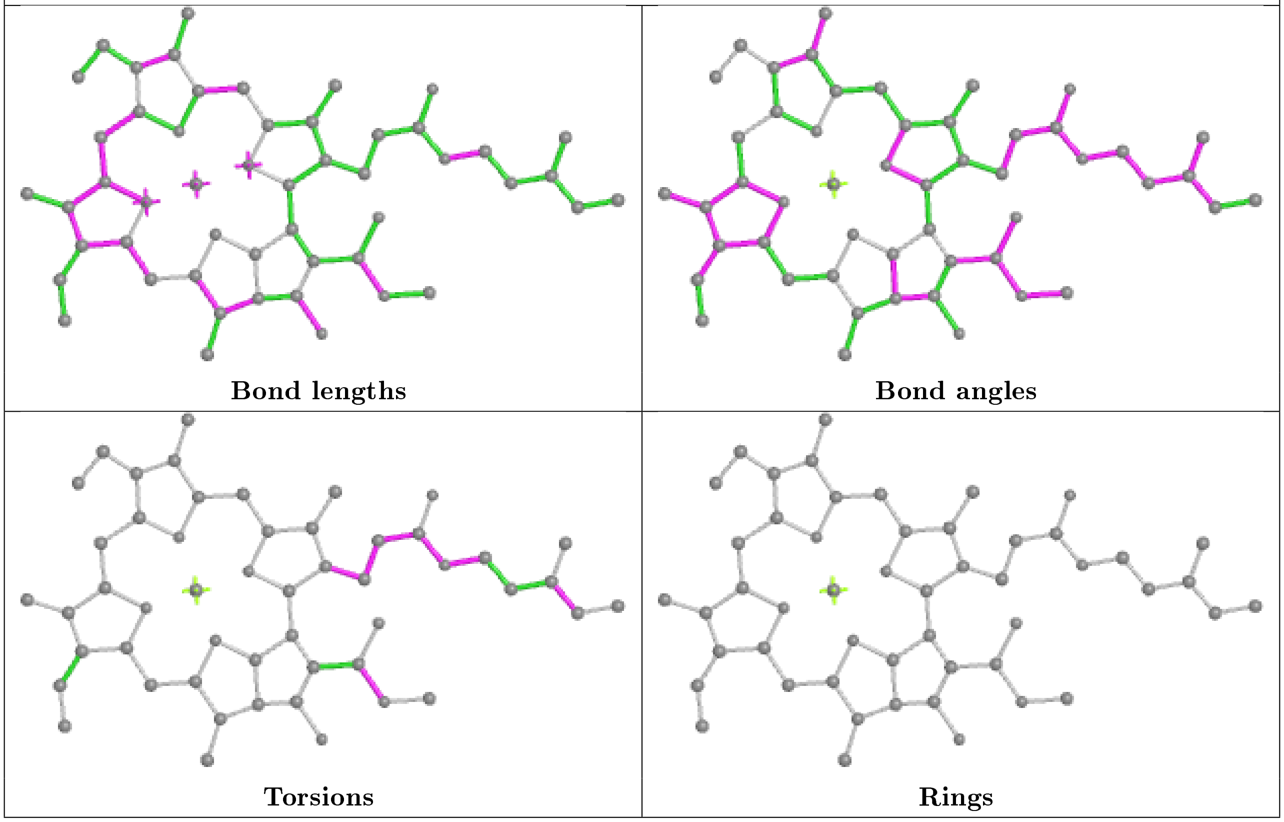
Bond lengths | Bond angles | Torsions | Rings

Ligand CLA B 1213

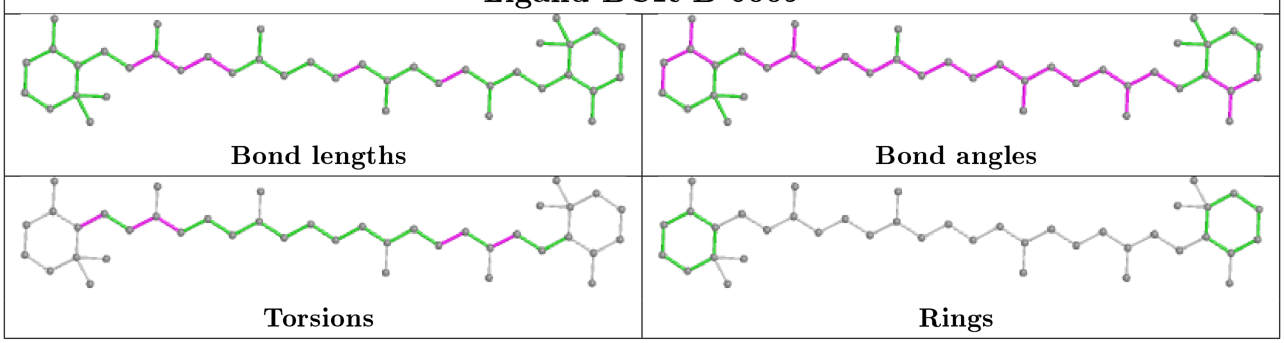


Bond lengths | Bond angles | Torsions | Rings

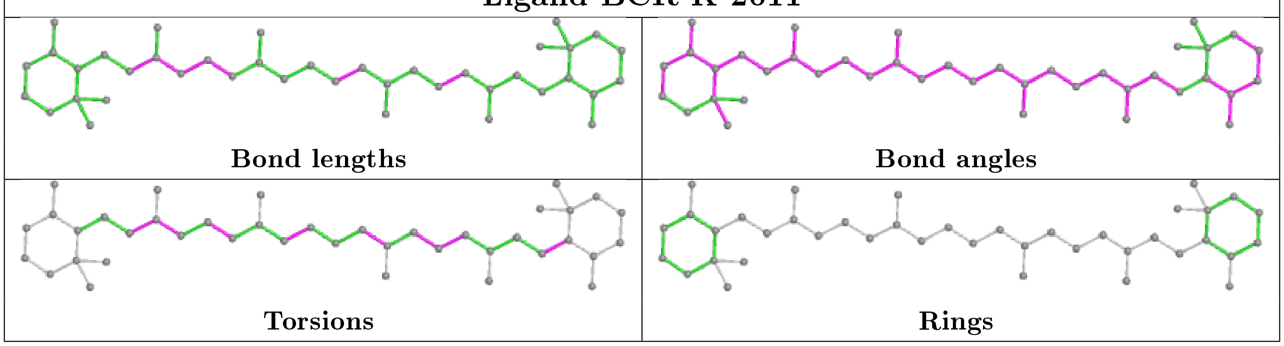
Ligand CLA A 1105



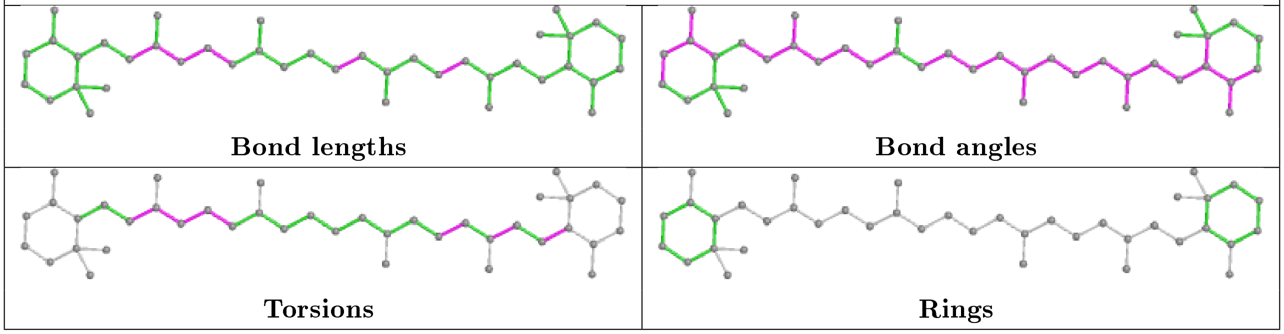
Ligand BCR B 6009



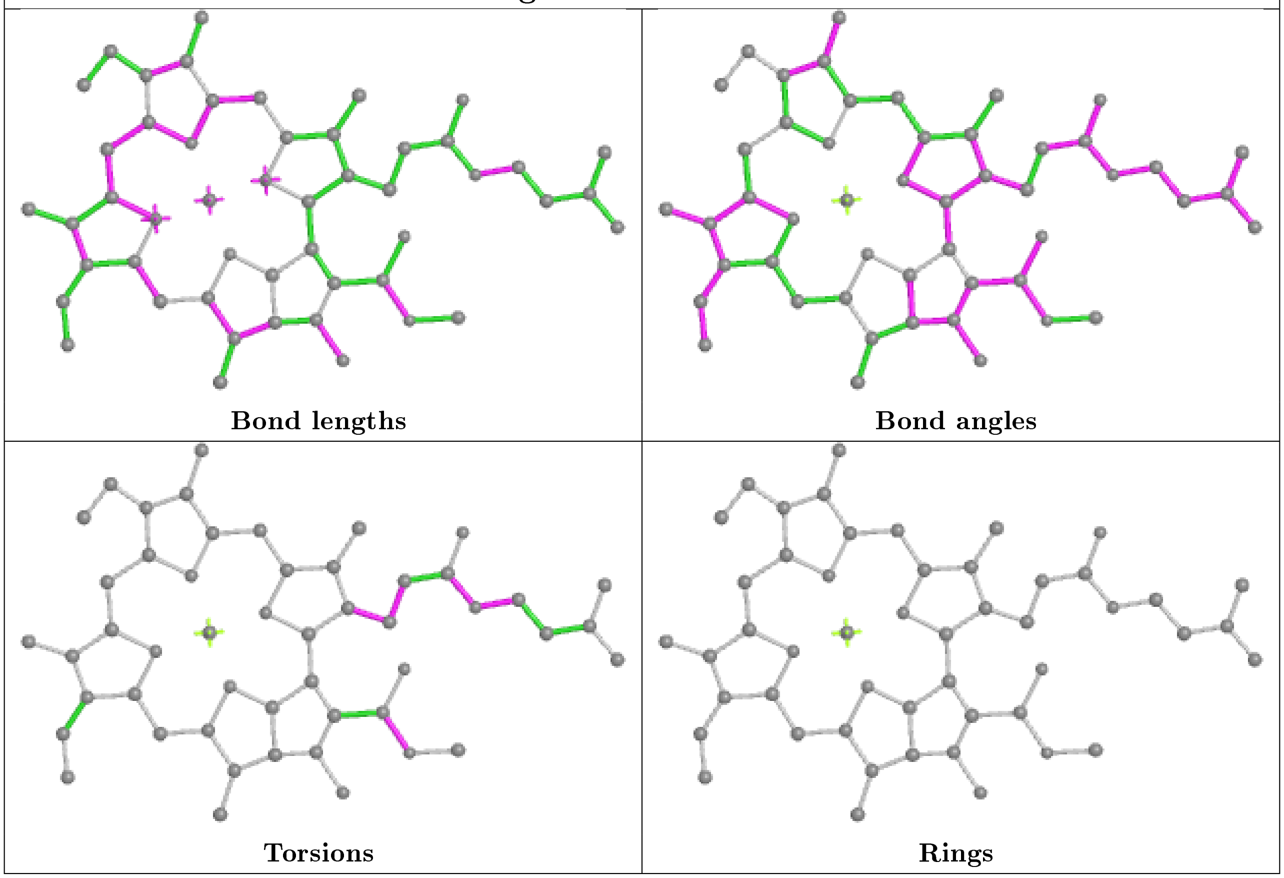
Ligand BCR K 2011



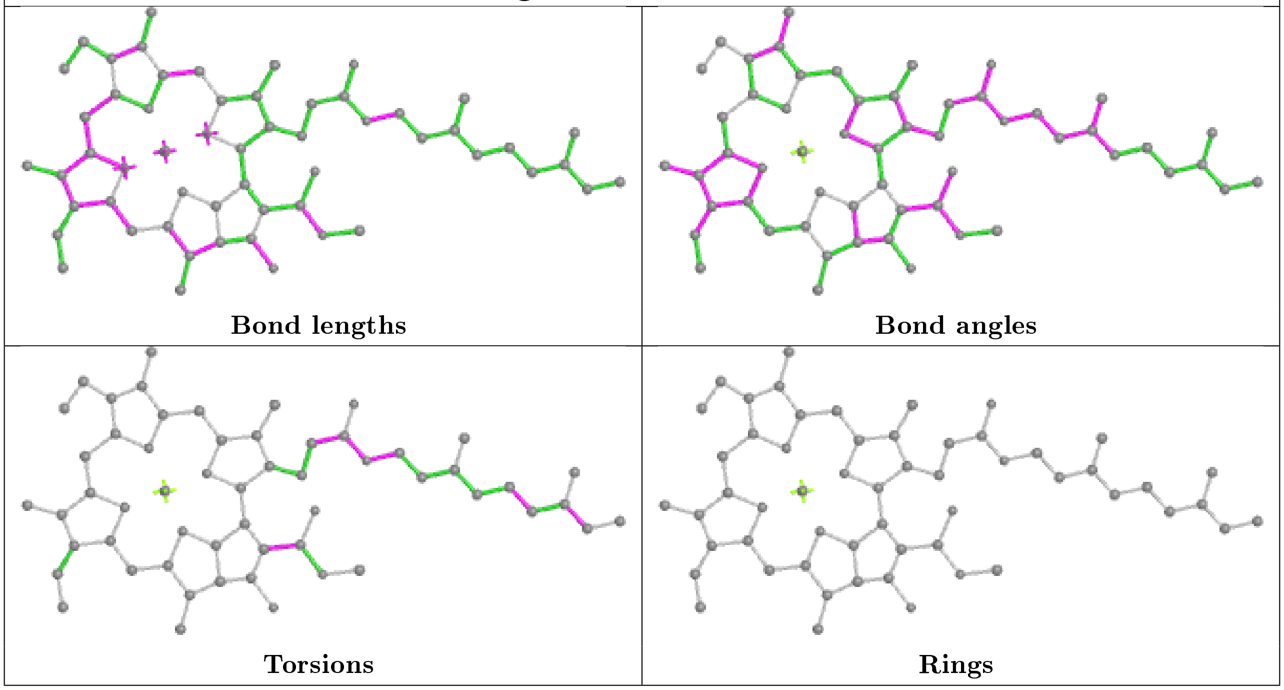
Ligand BCR A 6002



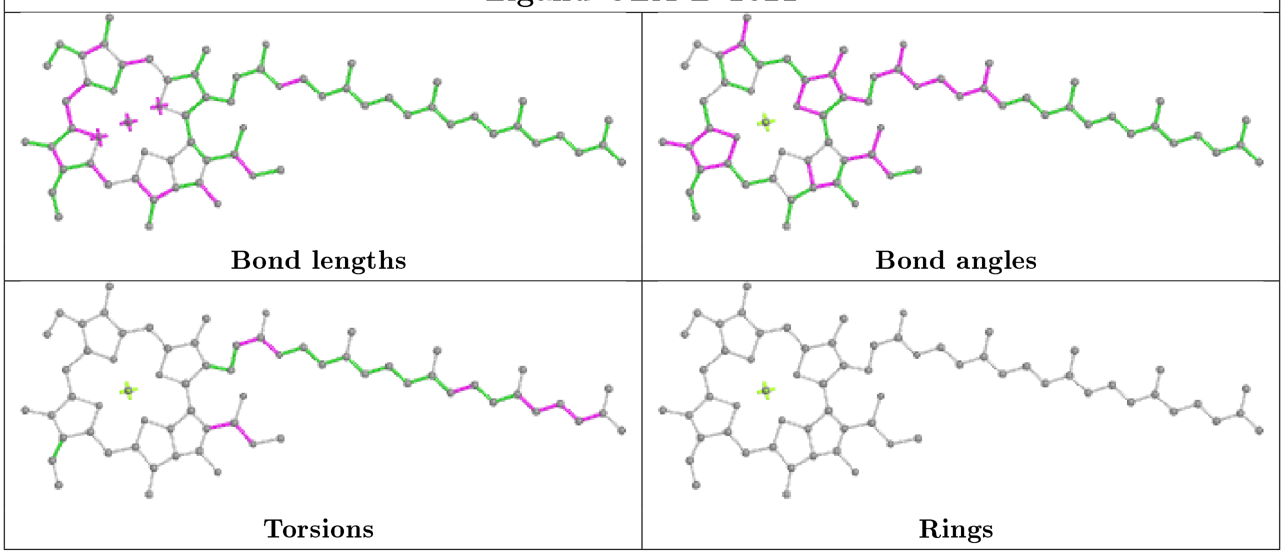
Ligand CLA L 1501



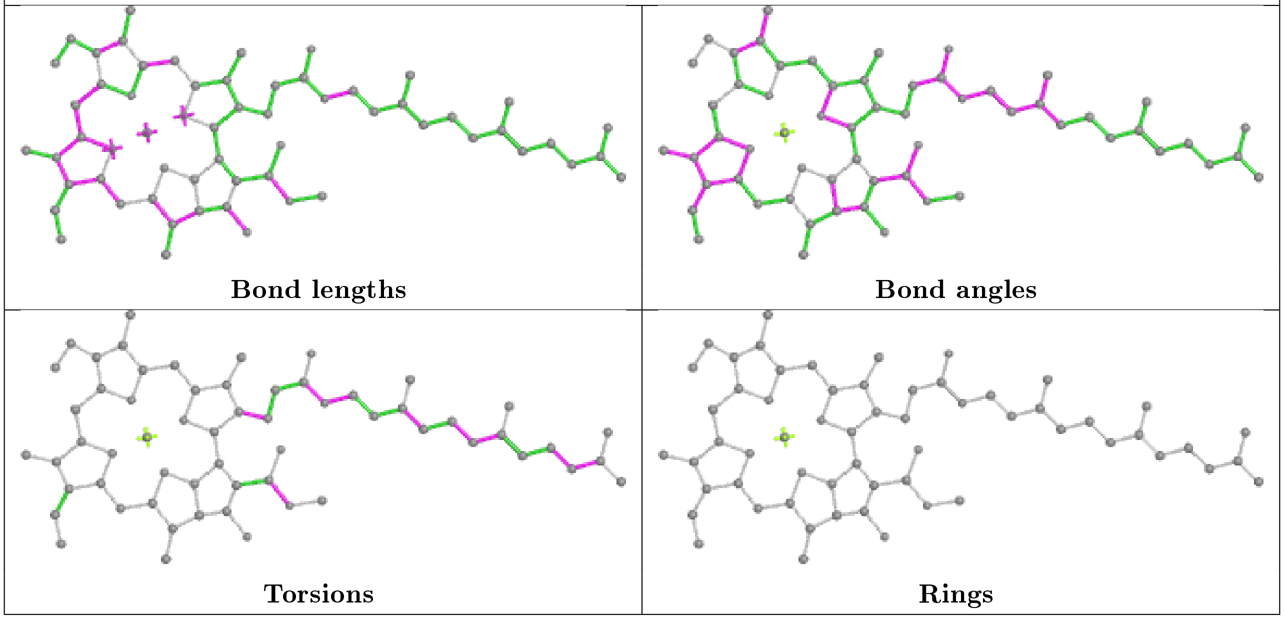
Ligand CLA A 1136



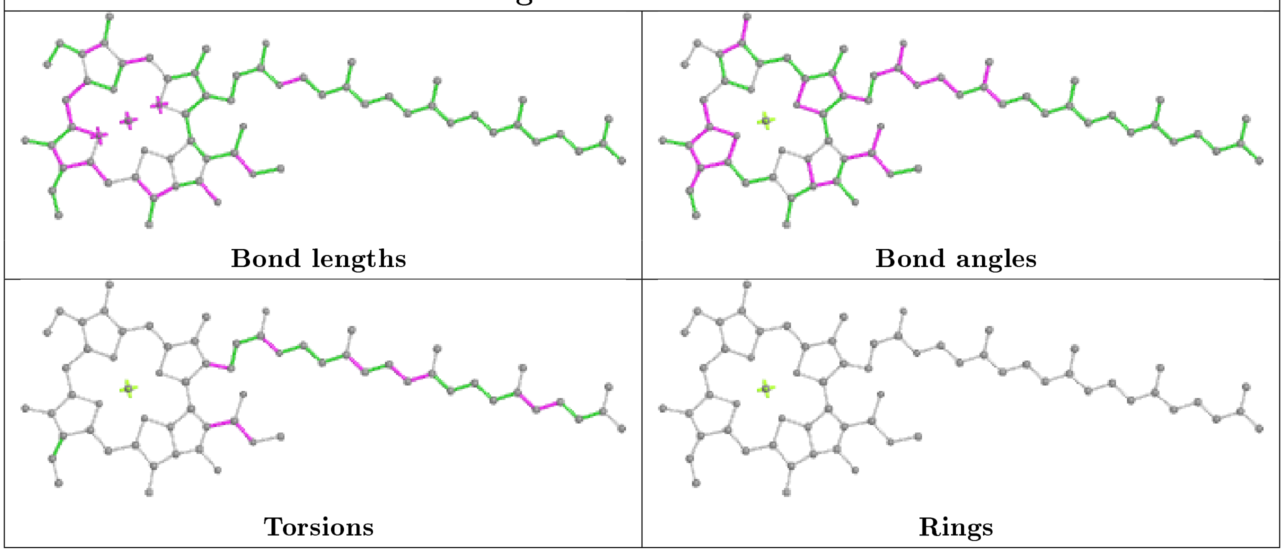
Ligand CLA B 1021



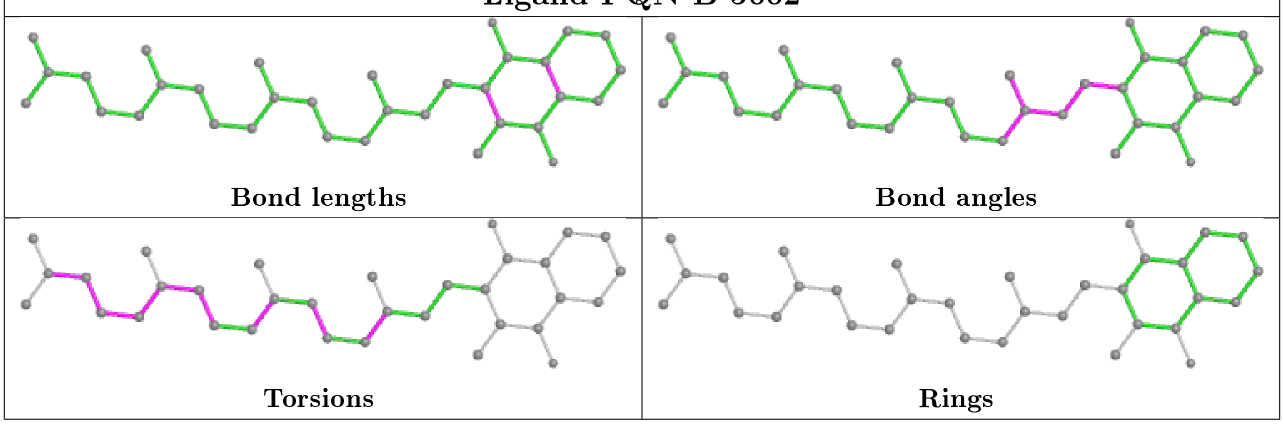
Ligand CLA B 1215



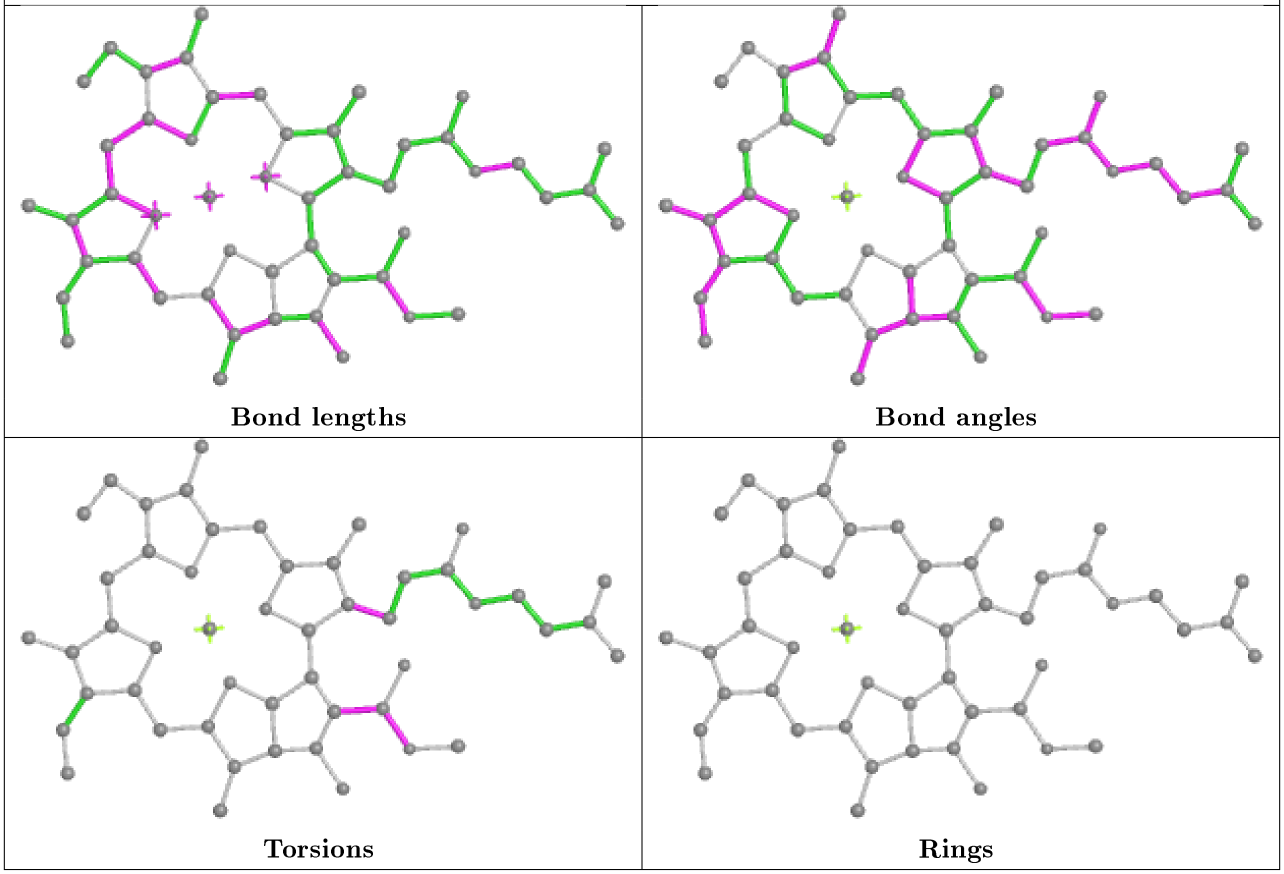
Ligand CLA A 1128



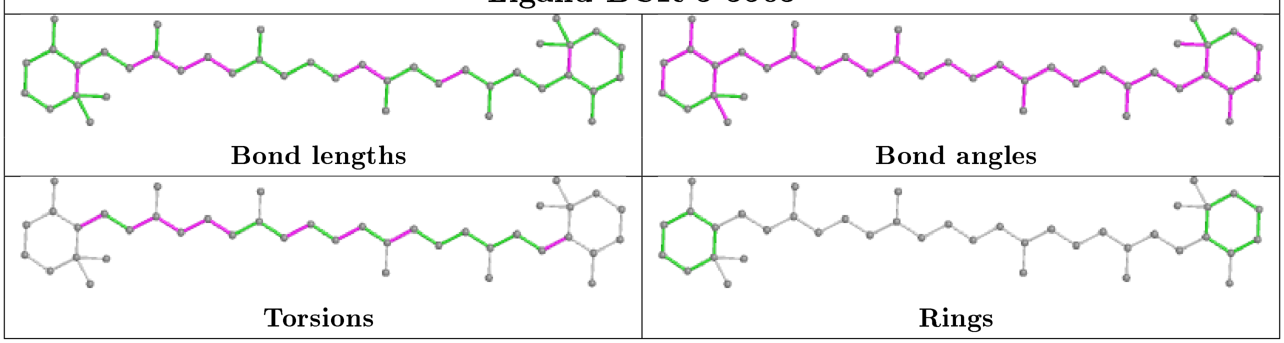
Ligand PQN B 5002



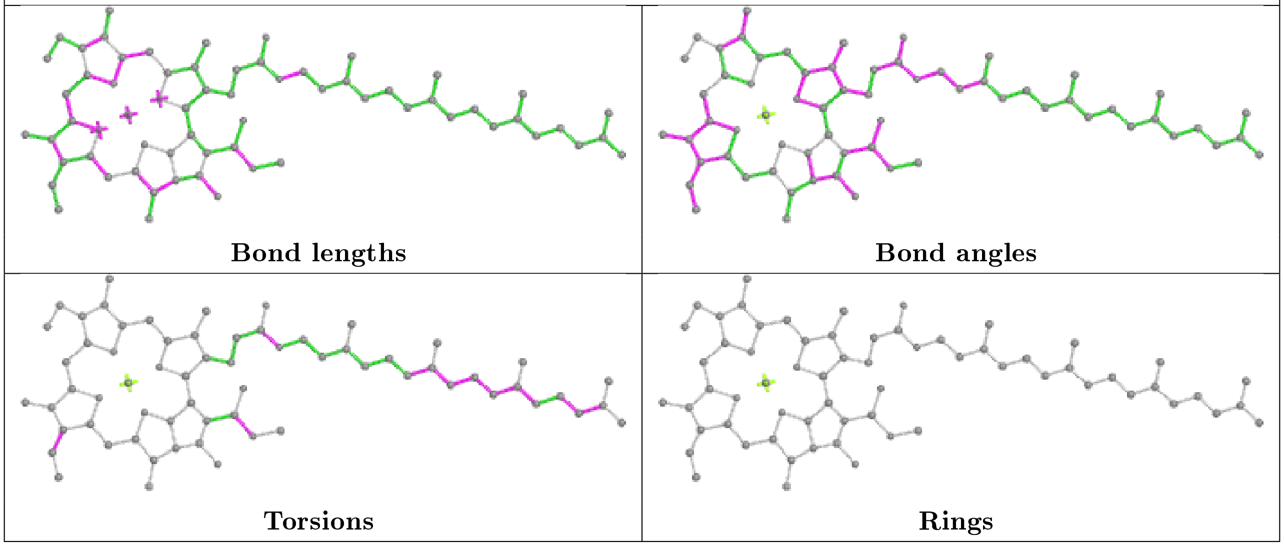
Ligand CLA 3 3001



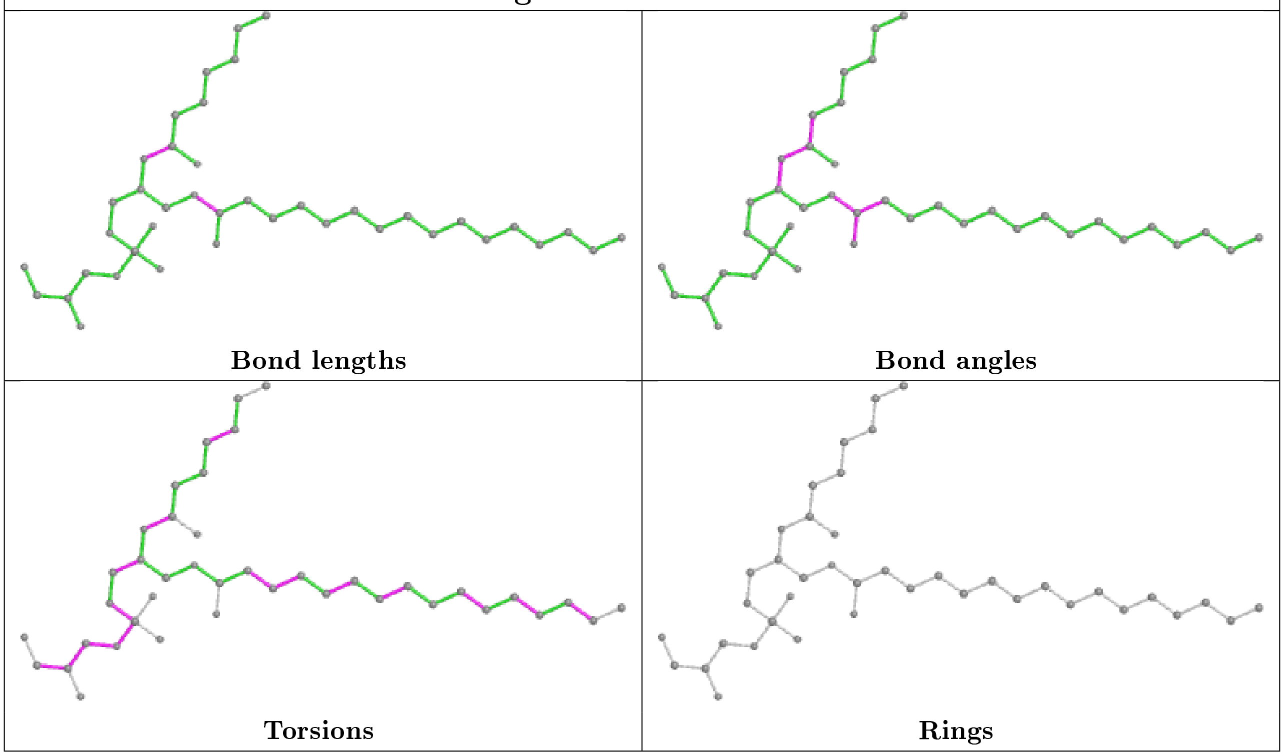
Ligand BCR 3 3503



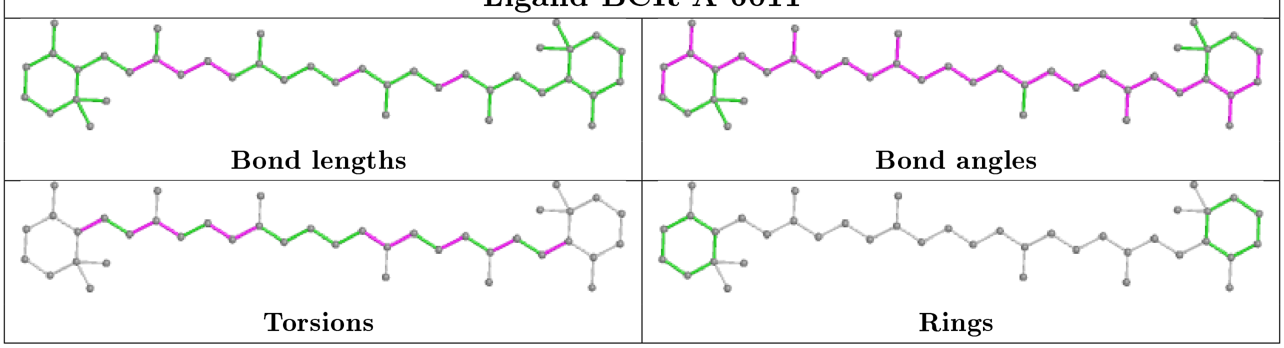
Ligand CLA 4 4012



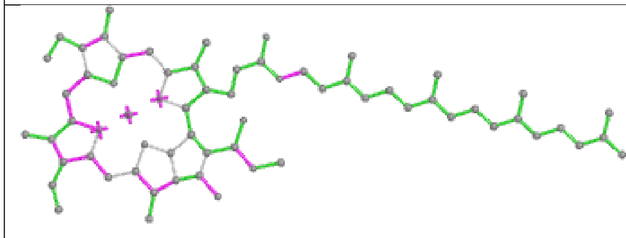
Ligand LHG A 5003



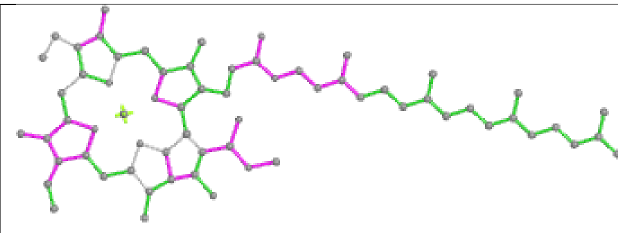
Ligand BCR A 6011



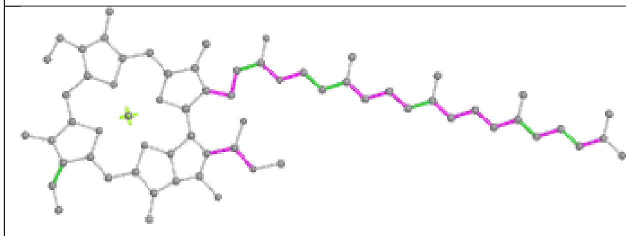
Ligand CLA A 1119



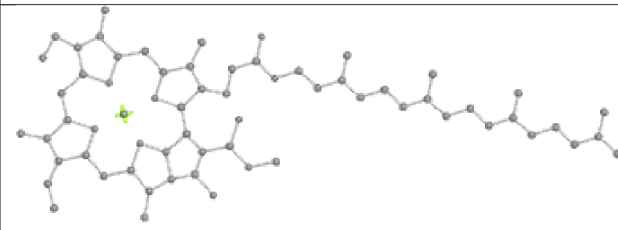
Bond lengths



Bond angles

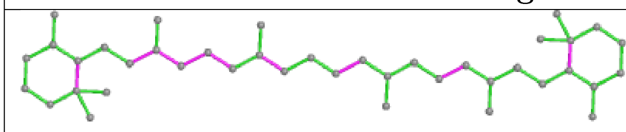


Torsions

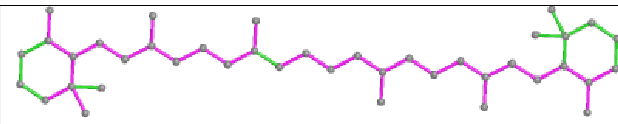


Rings

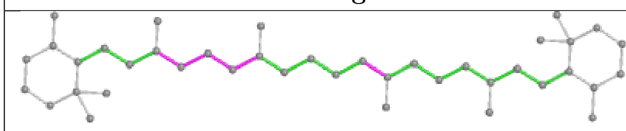
Ligand BCR F 6016



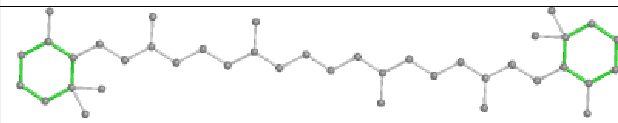
Bond lengths



Bond angles

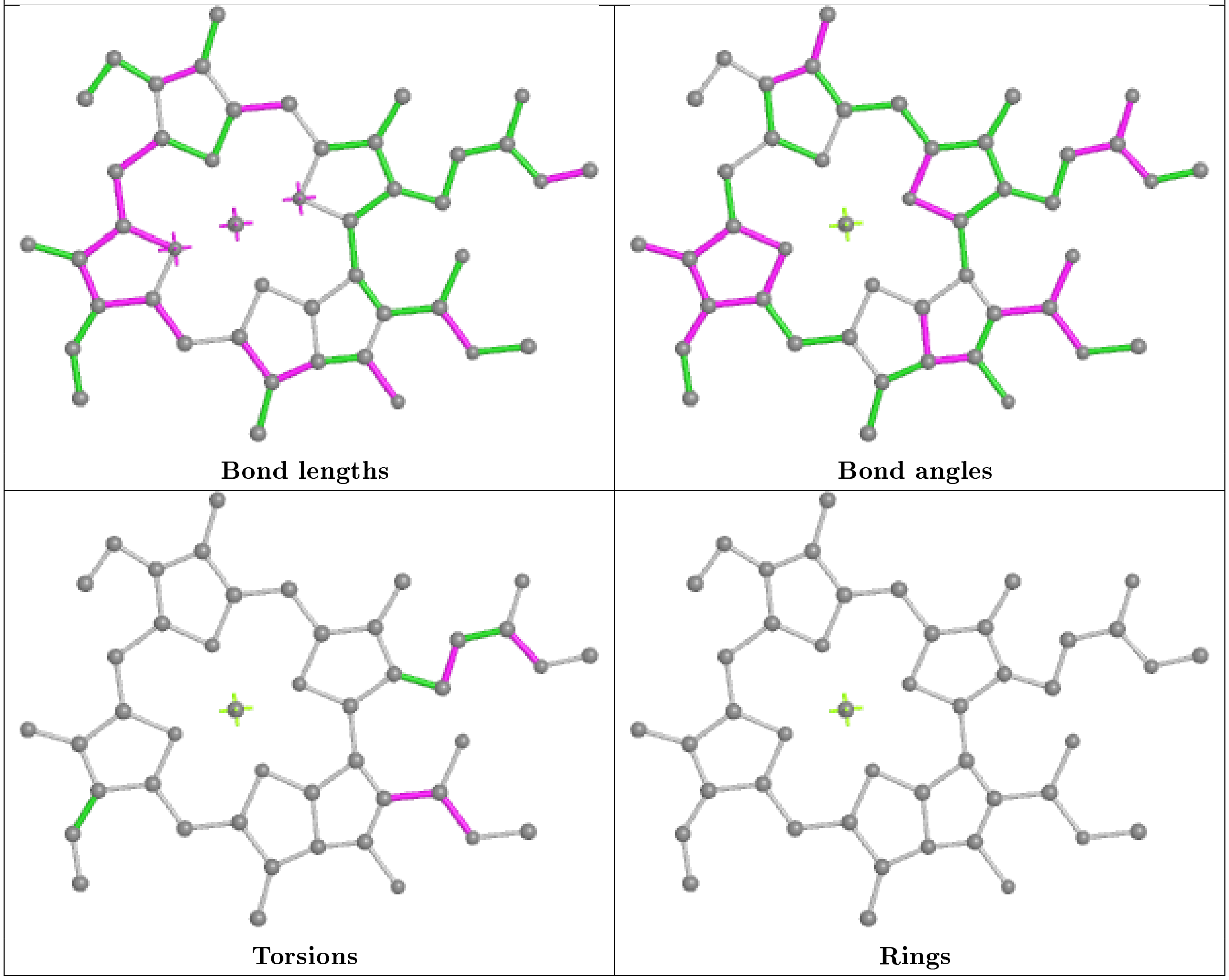


Torsions

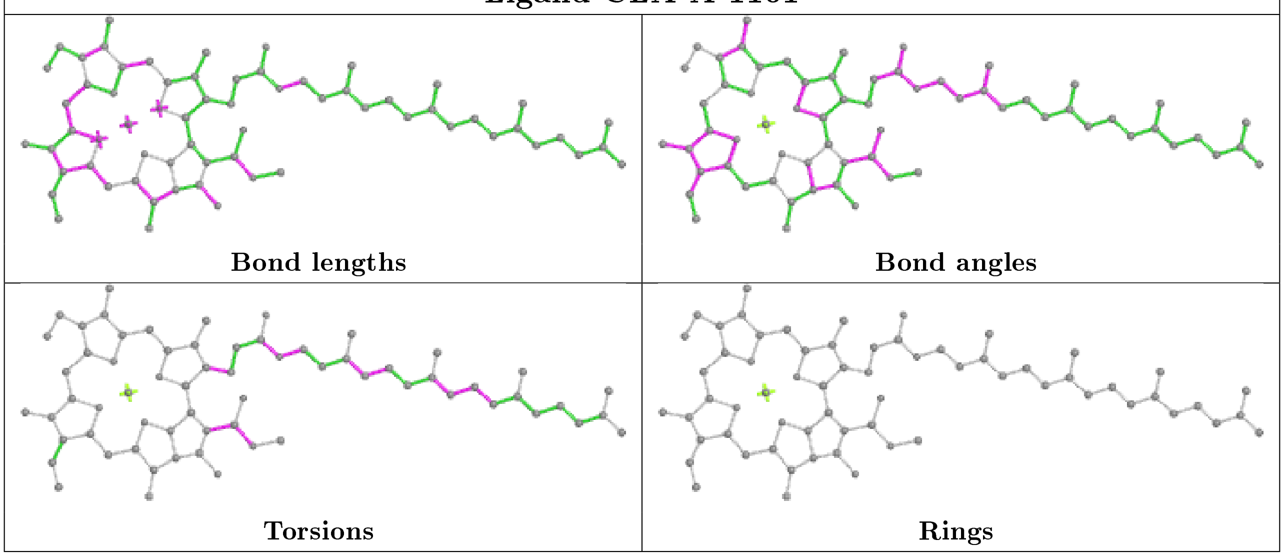


Rings

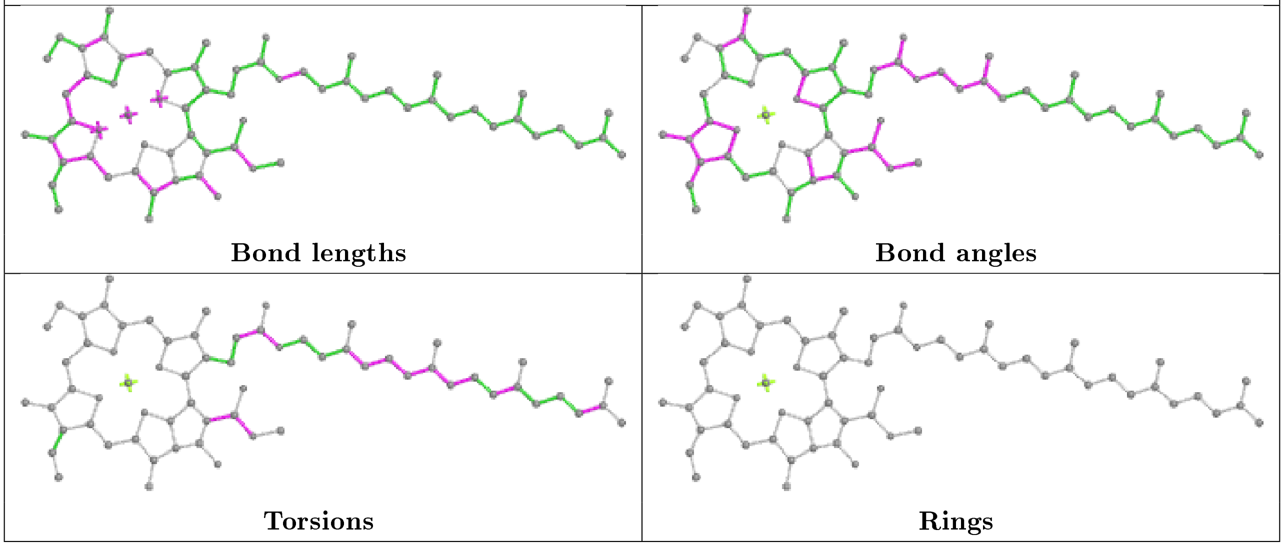
Ligand CLA B 1217



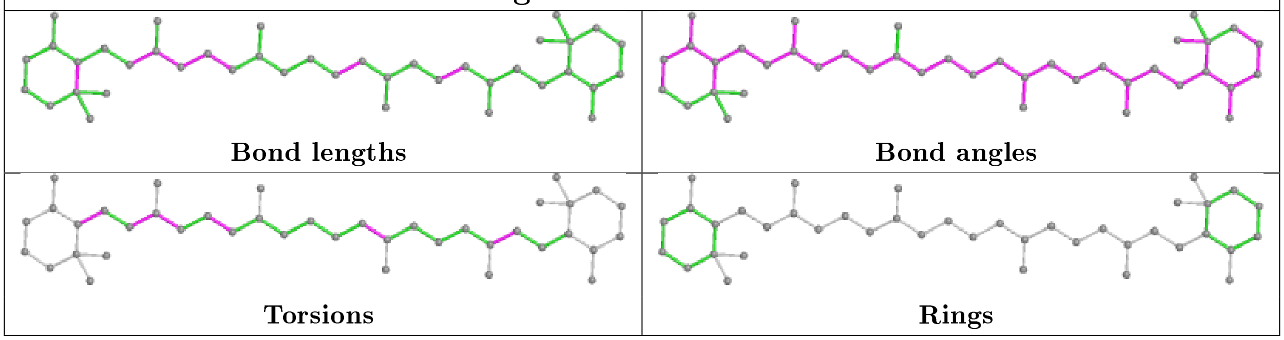
Ligand CLA A 1101



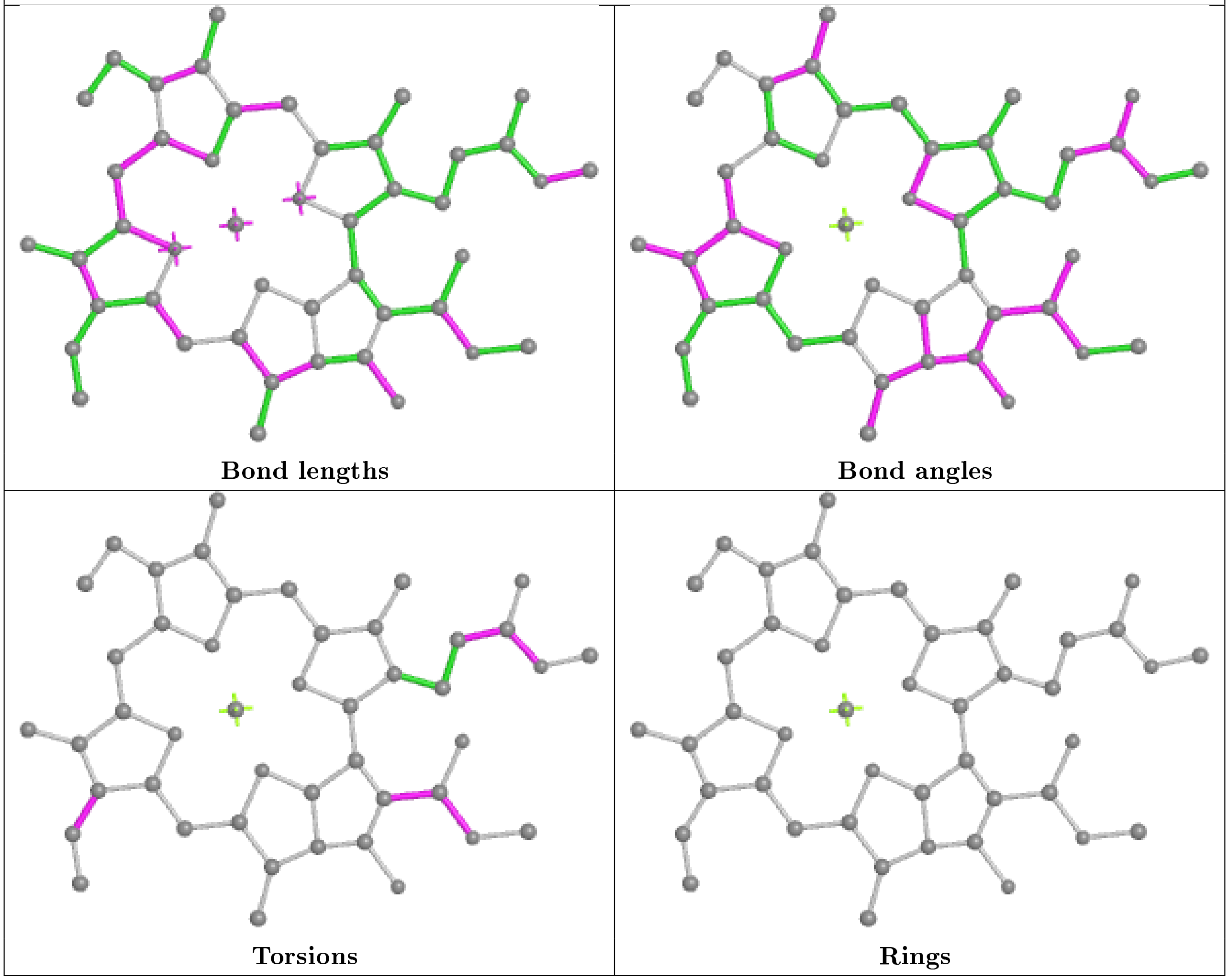
Ligand CLA A 1138



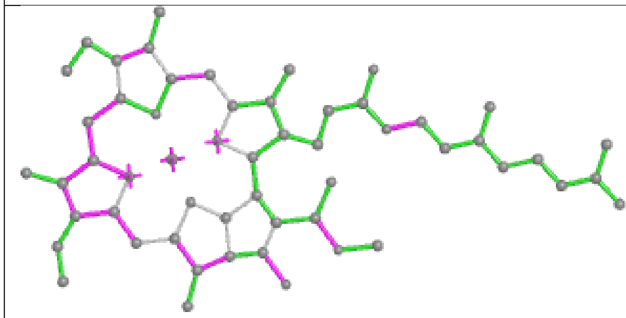
Ligand BCR G 2011



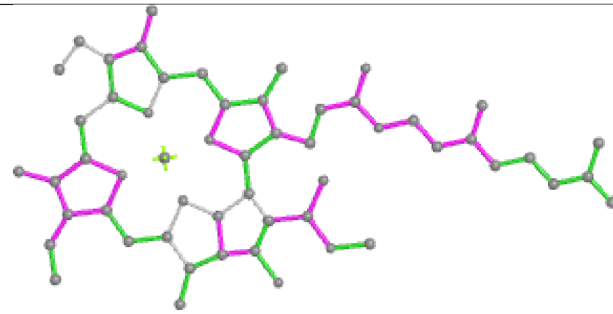
Ligand CLA K 1001



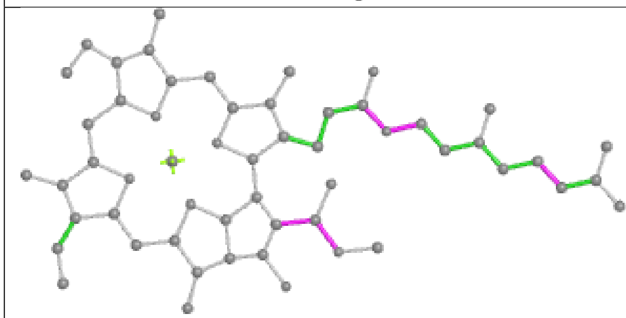
Ligand CLA B 1212



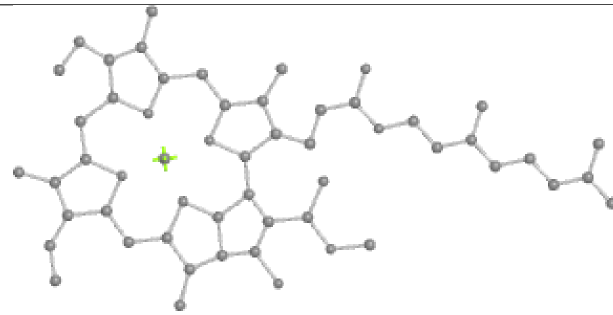
Bond lengths



Bond angles

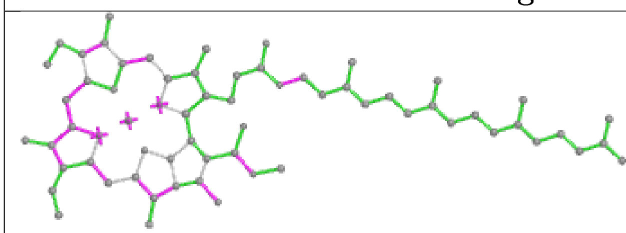


Torsions

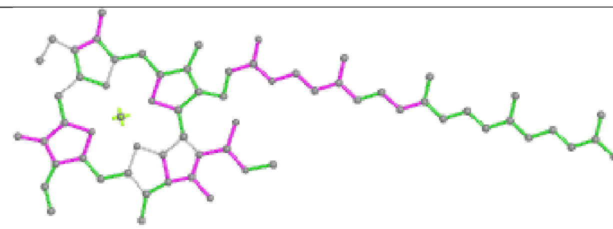


Rings

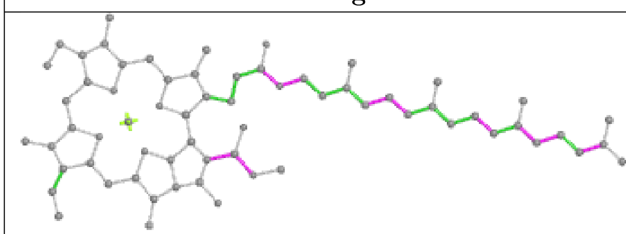
Ligand CLA B 1012



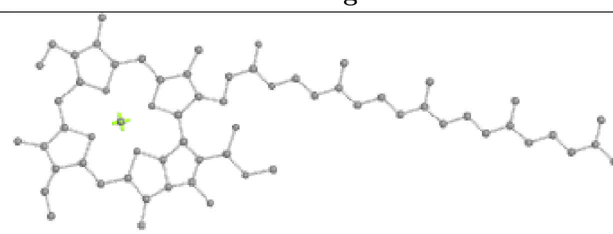
Bond lengths



Bond angles

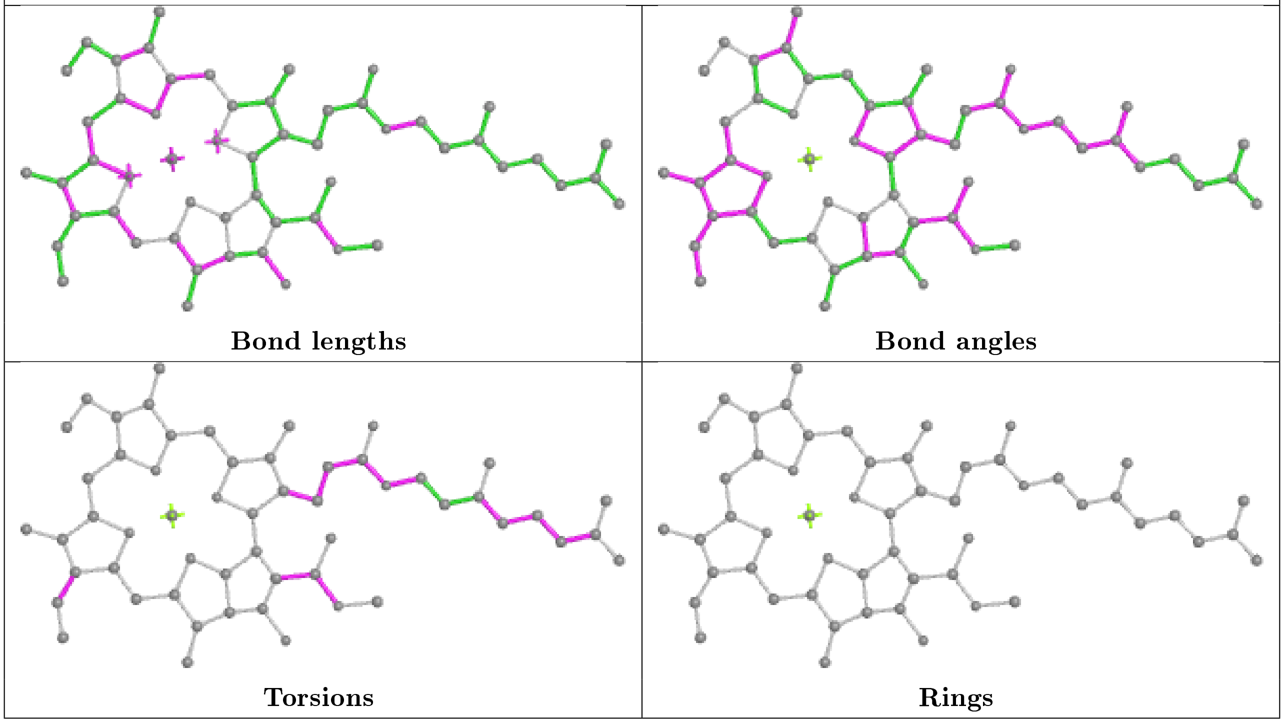


Torsions

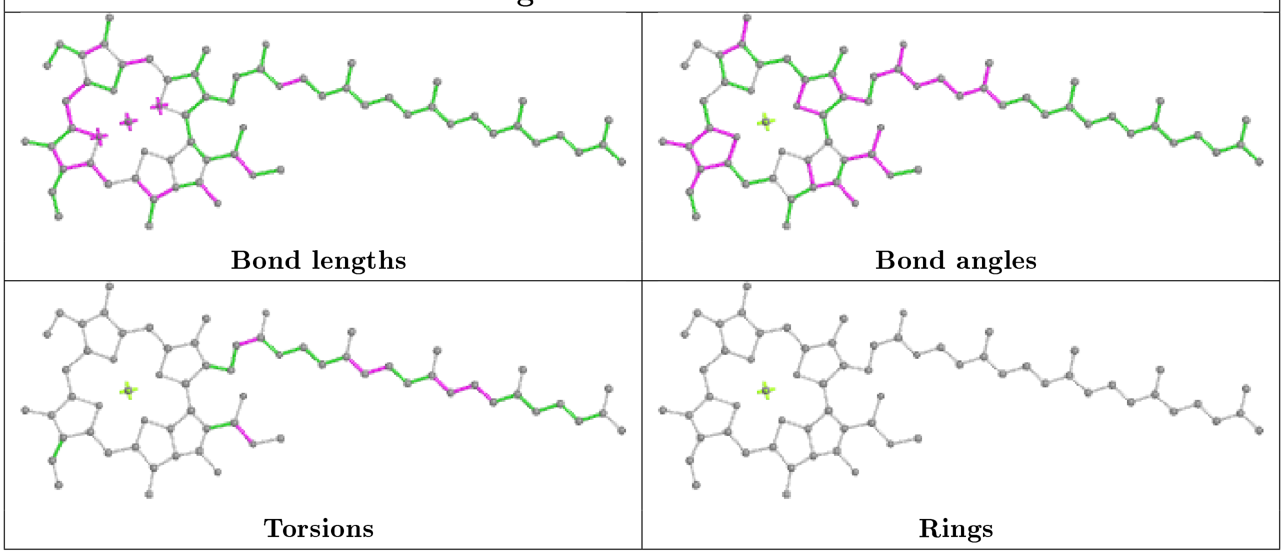


Rings

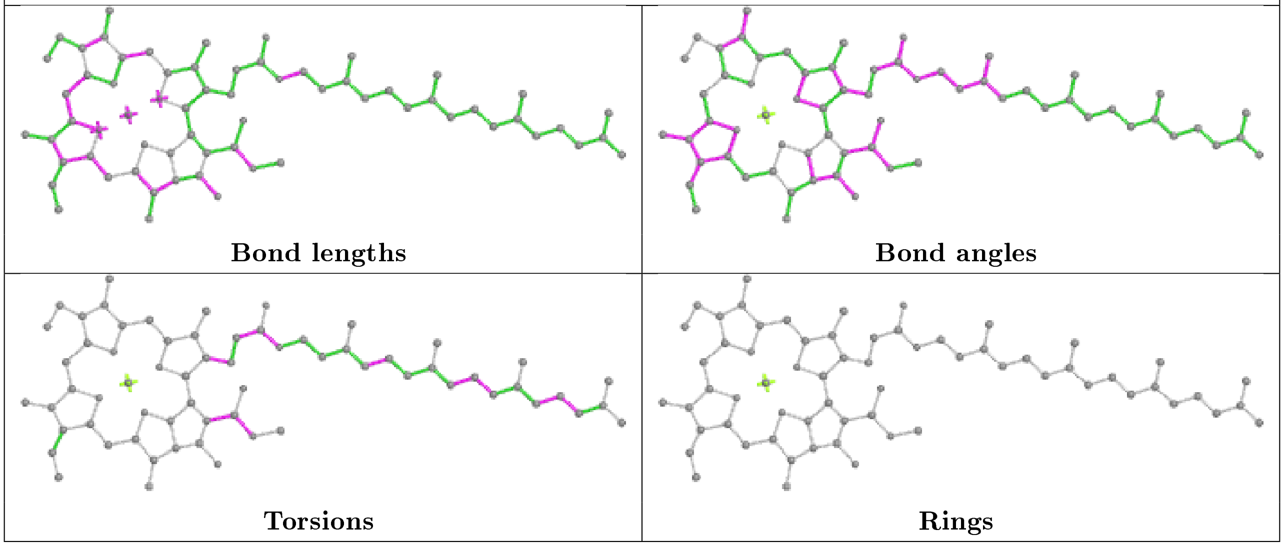
Ligand CLA G 1001



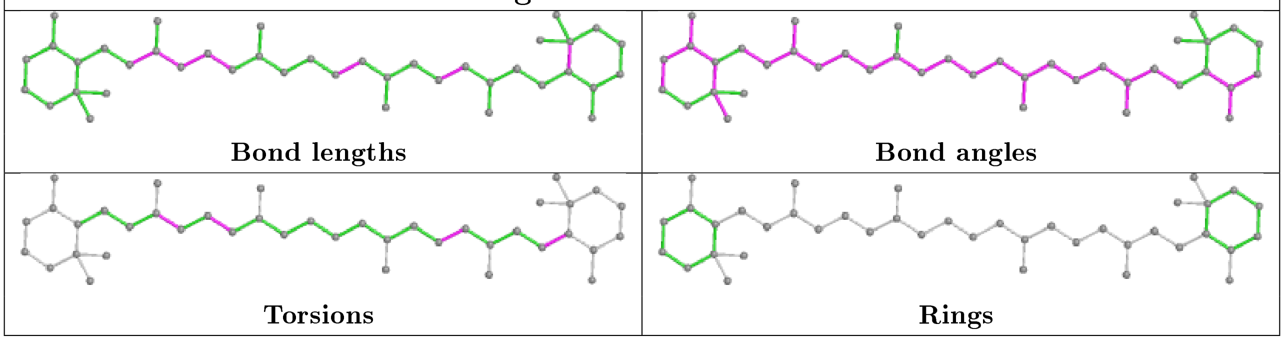
Ligand CLA B 1205



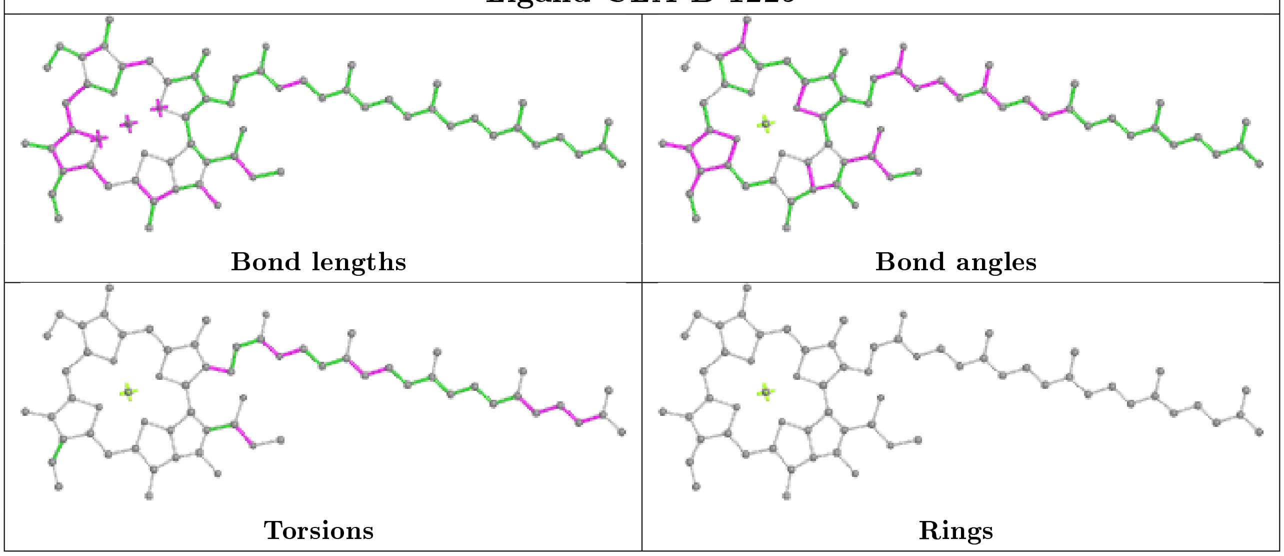
Ligand CLA B 1210



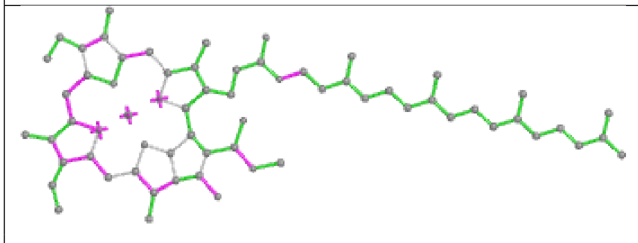
Ligand BCR A 6007



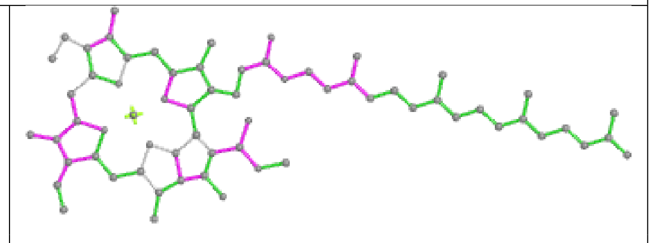
Ligand CLA B 1229



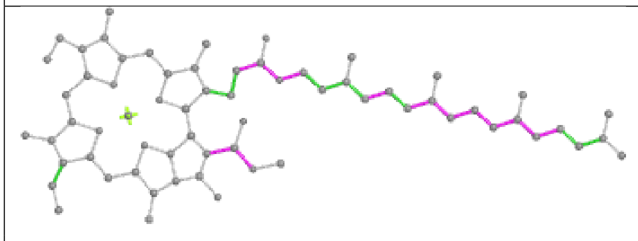
Ligand CLA B 1226



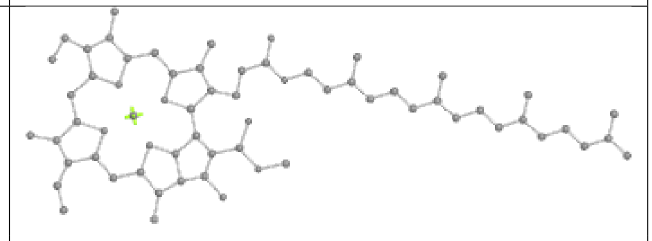
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

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	742/758 (97%)	0.36	49 (6%)	18	11	56, 92, 150, 244	0
2	B	732/733 (99%)	0.30	43 (5%)	22	14	61, 89, 126, 157	0
3	I	29/30 (96%)	0.52	4 (13%)	2	1	89, 114, 148, 153	0
4	J	41/42 (97%)	0.18	3 (7%)	15	8	70, 80, 116, 164	0
5	F	150/154 (97%)	0.08	6 (4%)	38	28	66, 90, 122, 157	0
6	G	91/97 (93%)	0.50	11 (12%)	4	2	98, 129, 174, 184	0
7	L	160/167 (95%)	0.68	24 (15%)	2	1	86, 123, 172, 197	0
8	C	80/81 (98%)	0.11	4 (5%)	28	19	66, 81, 96, 106	0
9	D	141/147 (95%)	0.56	20 (14%)	2	1	77, 97, 120, 139	0
10	E	66/66 (100%)	0.35	8 (12%)	4	2	65, 91, 136, 183	0
11	H	84/90 (93%)	0.33	11 (13%)	3	2	103, 138, 178, 234	0
12	K	57/129 (44%)	1.59	20 (35%)	0	0	147, 215, 286, 324	0
13	2	207/269 (76%)	0.60	30 (14%)	2	1	85, 130, 180, 270	0
14	4	198/252 (78%)	0.60	26 (13%)	3	2	84, 121, 193, 274	0
15	1	194/202 (96%)	0.85	39 (20%)	1	0	95, 147, 225, 289	0
16	3	215/275 (78%)	0.74	34 (15%)	2	1	111, 179, 317, 368	0
All	All	3187/3492 (91%)	0.46	332 (10%)	6	3	56, 106, 205, 368	0

The worst 5 of 332 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
15	1	103	GLY	12.4
16	3	145	ALA	10.8
15	1	172	LYS	9.5
2	B	82	PHE	8.1
9	D	206	LYS	7.5

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

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
18	CLA	3	3019	27/65	0.29	0.59	158,174,188,189	1
23	LMG	B	5005	38/55	0.61	0.31	76,120,141,143	0
18	CLA	2	2016	50/65	0.67	0.30	114,164,207,211	0
22	BCR	G	2011	40/40	0.68	0.29	112,132,172,174	0
27	LUT	3	3501	42/42	0.68	0.63	202,209,216,218	0
27	LUT	2	2501	42/42	0.71	0.35	121,137,141,143	0
22	BCR	B	6005	40/40	0.72	0.41	87,103,182,184	0
27	LUT	3	3502	42/42	0.74	0.34	133,142,164,166	0
22	BCR	J	6013	40/40	0.75	0.34	74,94,112,116	0
22	BCR	3	3503	40/40	0.76	0.31	119,136,175,177	0
23	LMG	G	2021	41/55	0.76	0.29	138,156,175,176	0
22	BCR	B	6004	40/40	0.77	0.36	105,112,138,144	0
18	CLA	1	1013	46/65	0.77	0.34	127,154,181,185	0
18	CLA	2	2019	27/65	0.77	0.18	148,159,174,174	1
22	BCR	B	6006	40/40	0.78	0.35	94,115,164,164	0
18	CLA	4	4016	46/65	0.79	0.30	126,166,177,183	0
27	LUT	1	1501	42/42	0.79	0.32	115,142,189,197	0
22	BCR	K	2011	40/40	0.79	0.37	125,136,144,147	0
28	CHL	3	3011	56/66	0.80	0.34	144,156,197,200	0
18	CLA	4	4006	50/65	0.80	0.24	110,127,148,156	0
26	LMU	B	8001	35/35	0.80	0.28	104,158,168,172	0
18	CLA	1	1008	46/65	0.80	0.25	112,129,142,150	0
18	CLA	3	3003	60/65	0.80	0.25	137,170,188,190	0
18	CLA	K	1001	46/65	0.80	0.35	147,173,200,209	0
18	CLA	3	3007	50/65	0.81	0.23	175,193,239,246	0
27	LUT	4	4501	42/42	0.81	0.25	107,121,142,149	0
18	CLA	3	3018	50/65	0.81	0.31	173,190,207,213	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
23	LMG	2	2802	35/55	0.81	0.41	108,127,149,152	0
21	LHG	2	2801	24/49	0.81	0.25	109,123,148,152	0
22	BCR	L	6019	40/40	0.81	0.40	88,105,132,135	0
18	CLA	3	3004	60/65	0.81	0.26	125,139,154,155	0
18	CLA	4	4002	50/65	0.82	0.24	107,141,171,211	0
18	CLA	3	3006	50/65	0.82	0.25	125,157,167,170	0
18	CLA	3	3010	60/65	0.82	0.29	122,158,181,196	0
18	CLA	2	2002	46/65	0.82	0.21	137,154,171,183	0
18	CLA	3	3008	48/65	0.83	0.46	180,199,214,217	0
22	BCR	A	6008	40/40	0.83	0.31	76,97,137,139	0
18	CLA	1	1006	50/65	0.83	0.24	125,138,144,148	0
18	CLA	L	1503	50/65	0.83	0.37	106,114,143,149	0
28	CHL	4	4010	47/66	0.83	0.28	105,125,180,187	0
26	LMU	B	8002	35/35	0.83	0.23	162,173,189,191	0
22	BCR	J	6012	40/40	0.83	0.31	67,80,89,91	0
18	CLA	2	2007	60/65	0.83	0.30	116,142,189,195	0
18	CLA	B	1214	59/65	0.84	0.30	71,91,100,108	0
18	CLA	1	1001	60/65	0.84	0.20	122,151,165,171	0
18	CLA	J	1302	50/65	0.84	0.35	137,152,189,196	0
27	LUT	4	4503	42/42	0.84	0.38	110,135,158,160	0
18	CLA	G	1003	60/65	0.84	0.24	97,121,149,153	0
18	CLA	4	4001	60/65	0.84	0.27	113,129,158,160	0
18	CLA	B	1212	55/65	0.84	0.26	109,129,146,154	0
28	CHL	2	2010	47/66	0.84	0.25	111,134,142,143	0
18	CLA	3	3012	50/65	0.85	0.22	117,135,142,144	0
18	CLA	1	1011	50/65	0.85	0.29	126,153,175,185	0
18	CLA	H	1000	46/65	0.85	0.31	119,150,170,176	0
18	CLA	B	1222	65/65	0.85	0.30	58,74,103,110	0
27	LUT	2	2502	42/42	0.85	0.36	102,115,124,131	0
23	LMG	F	5002	37/55	0.85	0.39	84,107,120,126	0
22	BCR	A	6003	40/40	0.85	0.34	79,94,139,140	0
22	BCR	B	6010	40/40	0.85	0.28	64,73,96,100	0
18	CLA	4	4008	46/65	0.85	0.25	93,112,129,137	0
18	CLA	B	1234	60/65	0.85	0.30	64,77,106,108	0
18	CLA	A	1113	46/65	0.85	0.27	119,135,172,187	0
22	BCR	B	6009	40/40	0.85	0.28	63,78,94,95	0
27	LUT	1	1502	42/42	0.85	0.27	85,116,128,129	0
18	CLA	4	4007	60/65	0.85	0.29	110,130,179,183	0
23	LMG	J	5001	55/55	0.85	0.22	62,96,110,122	0
18	CLA	2	2006	55/65	0.86	0.23	105,132,173,174	0
27	LUT	I	6018	42/42	0.86	0.28	101,109,116,121	0
18	CLA	A	1134	55/65	0.86	0.27	112,124,168,172	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
27	LUT	4	4502	42/42	0.86	0.26	88,106,117,121	0
18	CLA	3	3013	46/65	0.86	0.19	127,157,166,176	0
18	CLA	A	1107	65/65	0.86	0.29	60,77,94,105	0
18	CLA	B	1213	60/65	0.86	0.23	85,105,118,126	0
28	CHL	1	1010	47/66	0.86	0.17	125,137,152,155	0
18	CLA	A	1112	65/65	0.86	0.25	101,118,138,140	0
18	CLA	L	1501	50/65	0.86	0.22	106,129,153,159	0
18	CLA	A	1123	65/65	0.86	0.31	70,88,93,96	0
18	CLA	B	1231	60/65	0.86	0.23	65,81,101,104	0
22	BCR	A	6007	40/40	0.86	0.30	77,90,147,151	0
28	CHL	1	1009	56/66	0.87	0.25	92,105,113,130	0
18	CLA	A	1151	50/65	0.87	0.24	99,113,187,189	0
18	CLA	A	1110	55/65	0.87	0.27	97,114,138,143	0
18	CLA	B	1228	60/65	0.87	0.26	63,73,111,114	0
25	DGD	B	7101	61/66	0.87	0.24	62,79,104,113	0
18	CLA	1	1014	46/65	0.87	0.17	83,110,123,143	0
22	BCR	F	6014	40/40	0.87	0.27	54,64,73,74	0
23	LMG	F	5001	23/55	0.87	0.27	86,94,106,109	0
18	CLA	3	3005	55/65	0.87	0.25	107,131,144,157	0
18	CLA	3	3001	50/65	0.87	0.31	147,169,201,206	0
18	CLA	1	1005	55/65	0.87	0.21	84,113,122,124	0
18	CLA	A	1115	46/65	0.87	0.24	107,141,170,178	0
23	LMG	4	4801	35/55	0.87	0.25	104,117,128,132	0
18	CLA	A	1105	51/65	0.88	0.25	66,88,97,100	0
18	CLA	3	3017	46/65	0.88	0.24	101,119,134,145	0
28	CHL	2	2011	48/66	0.88	0.24	108,124,129,136	0
21	LHG	1	1801	49/49	0.88	0.26	94,113,164,170	0
18	CLA	4	4004	60/65	0.88	0.24	76,99,112,118	0
18	CLA	4	4017	65/65	0.88	0.27	93,103,120,121	0
18	CLA	1	1002	46/65	0.88	0.19	120,155,171,194	0
18	CLA	G	1001	55/65	0.88	0.17	119,145,181,184	0
18	CLA	A	1109	65/65	0.88	0.22	71,85,94,101	0
18	CLA	A	1104	65/65	0.89	0.28	55,73,81,85	0
18	CLA	B	1023	65/65	0.89	0.24	57,70,94,105	0
18	CLA	1	1004	65/65	0.89	0.23	98,114,122,125	0
18	CLA	F	1301	45/65	0.89	0.23	61,73,86,101	0
18	CLA	L	1502	60/65	0.89	0.23	86,116,125,130	0
22	BCR	L	6020	40/40	0.89	0.37	98,131,157,164	0
18	CLA	2	2003	55/65	0.89	0.16	103,127,135,158	0
18	CLA	A	1114	46/65	0.89	0.29	107,117,124,136	0
18	CLA	B	1218	65/65	0.89	0.25	86,100,155,160	0
18	CLA	A	1118	46/65	0.89	0.23	99,108,127,131	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
29	ZEX	4	4505	42/42	0.89	0.25	85,96,107,114	0
18	CLA	3	3002	46/65	0.89	0.24	173,188,195,222	0
18	CLA	A	1103	65/65	0.89	0.25	66,83,104,107	0
18	CLA	B	1227	65/65	0.89	0.23	60,74,99,105	0
24	CA	B	6000	1/1	0.89	0.06	100,100,100,100	0
18	CLA	2	2001	60/65	0.89	0.29	114,134,167,169	0
18	CLA	4	4003	65/65	0.90	0.23	84,106,135,143	0
18	CLA	A	1106	65/65	0.90	0.28	59,74,90,106	0
18	CLA	A	1111	60/65	0.90	0.24	75,91,112,118	0
18	CLA	2	2012	55/65	0.90	0.29	86,104,149,153	0
18	CLA	2	2009	50/65	0.90	0.18	100,117,138,139	0
18	CLA	A	1120	60/65	0.90	0.18	95,118,178,182	0
28	CHL	2	2013	46/66	0.90	0.23	110,125,130,135	0
18	CLA	A	1130	50/65	0.90	0.23	83,100,123,127	0
18	CLA	A	1022	65/65	0.90	0.24	58,76,88,99	0
22	BCR	F	6016	40/40	0.90	0.21	66,75,91,94	0
18	CLA	B	1232	55/65	0.90	0.22	80,97,118,122	0
18	CLA	A	1140	65/65	0.90	0.28	58,66,78,106	0
18	CLA	B	1216	65/65	0.90	0.24	73,86,105,108	0
21	LHG	A	7001	49/49	0.90	0.23	56,72,84,92	0
28	CHL	4	4013	47/66	0.91	0.20	98,118,130,134	0
18	CLA	A	1108	46/65	0.91	0.29	85,101,121,126	0
18	CLA	2	2004	65/65	0.91	0.22	84,105,117,125	0
18	CLA	A	1116	60/65	0.91	0.25	89,119,137,142	0
18	CLA	B	1204	55/65	0.91	0.20	80,103,118,124	0
18	CLA	1	1007	46/65	0.91	0.19	112,131,162,181	0
18	CLA	B	1229	65/65	0.91	0.26	60,72,82,84	0
18	CLA	B	1236	55/65	0.91	0.24	56,69,117,124	0
18	CLA	A	1135	51/65	0.91	0.28	72,92,114,117	0
18	CLA	2	2008	50/65	0.91	0.20	109,138,148,156	0
18	CLA	2	2005	55/65	0.91	0.25	93,103,129,135	0
18	CLA	B	1211	65/65	0.91	0.23	93,107,131,136	0
18	CLA	4	4005	60/65	0.91	0.21	84,97,106,120	0
22	BCR	A	6002	40/40	0.91	0.28	82,115,168,169	0
18	CLA	B	1223	65/65	0.91	0.22	59,78,90,96	0
18	CLA	B	1021	65/65	0.91	0.25	61,72,80,83	0
18	CLA	A	1133	55/65	0.91	0.23	83,109,120,126	0
18	CLA	1	1003	55/65	0.91	0.19	100,122,134,142	0
18	CLA	A	1101	65/65	0.91	0.23	58,72,90,113	0
18	CLA	A	1139	65/65	0.91	0.25	56,70,98,104	0
28	CHL	4	4011	51/66	0.91	0.23	117,131,149,154	0
18	CLA	B	1012	65/65	0.91	0.27	51,69,85,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
18	CLA	B	1230	58/65	0.91	0.20	58,74,83,86	0
18	CLA	B	1210	65/65	0.91	0.28	81,94,107,113	0
18	CLA	B	1208	55/65	0.91	0.19	82,114,133,137	0
18	CLA	A	1124	55/65	0.92	0.23	59,77,104,116	0
18	CLA	B	1225	65/65	0.92	0.30	66,81,98,105	0
18	CLA	A	1102	50/65	0.92	0.20	58,69,95,104	0
18	CLA	A	1127	65/65	0.92	0.33	69,83,95,99	0
22	BCR	A	6017	40/40	0.92	0.25	71,86,105,122	0
18	CLA	A	1125	60/65	0.92	0.22	79,94,102,114	0
18	CLA	B	1207	65/65	0.92	0.23	78,102,122,129	0
18	CLA	A	1132	65/65	0.92	0.28	79,94,120,129	0
18	CLA	B	1224	65/65	0.92	0.30	65,83,100,107	0
18	CLA	B	1235	65/65	0.92	0.22	54,68,78,92	0
18	CLA	A	1136	56/65	0.92	0.17	84,98,115,119	0
18	CLA	B	1220	65/65	0.92	0.23	61,76,114,118	0
18	CLA	B	1215	60/65	0.92	0.30	82,91,102,109	0
18	CLA	A	1128	65/65	0.92	0.21	56,66,74,85	0
18	CLA	A	1126	65/65	0.92	0.28	65,79,87,97	0
18	CLA	4	4012	65/65	0.92	0.21	92,104,117,120	0
21	LHG	A	5003	40/49	0.92	0.21	101,117,132,134	0
22	BCR	A	6011	40/40	0.92	0.36	61,73,88,96	0
18	CLA	A	1119	65/65	0.92	0.23	78,95,107,115	0
18	CLA	A	1122	65/65	0.92	0.23	76,96,122,139	0
18	CLA	B	1217	46/65	0.92	0.27	96,109,124,127	0
18	CLA	A	1121	55/65	0.92	0.17	104,123,209,211	0
18	CLA	A	1138	65/65	0.92	0.26	55,65,75,82	0
22	BCR	I	6020	40/40	0.92	0.26	85,97,110,111	0
18	CLA	B	1239	65/65	0.92	0.24	69,82,111,116	0
21	LHG	B	5004	21/49	0.92	0.16	86,102,116,119	0
18	CLA	A	1129	50/65	0.92	0.24	71,93,115,126	0
20	PQN	A	5001	33/33	0.92	0.24	53,63,76,85	0
18	CLA	B	1219	60/65	0.92	0.20	82,97,134,135	0
18	CLA	A	1117	65/65	0.93	0.36	85,98,110,114	0
18	CLA	A	1131	65/65	0.93	0.30	79,93,103,112	0
18	CLA	B	1238	65/65	0.93	0.22	70,85,96,116	0
18	CLA	4	4009	50/65	0.93	0.20	85,94,116,131	0
18	CLA	A	1137	55/65	0.93	0.22	71,85,125,126	0
18	CLA	A	1013	65/65	0.93	0.32	49,62,74,90	0
18	CLA	B	1240	65/65	0.93	0.19	66,84,103,108	0
18	CLA	B	1206	65/65	0.93	0.21	86,104,112,127	0
18	CLA	B	1209	46/65	0.93	0.22	100,109,118,145	0
18	CLA	B	1226	65/65	0.93	0.23	65,76,97,103	0

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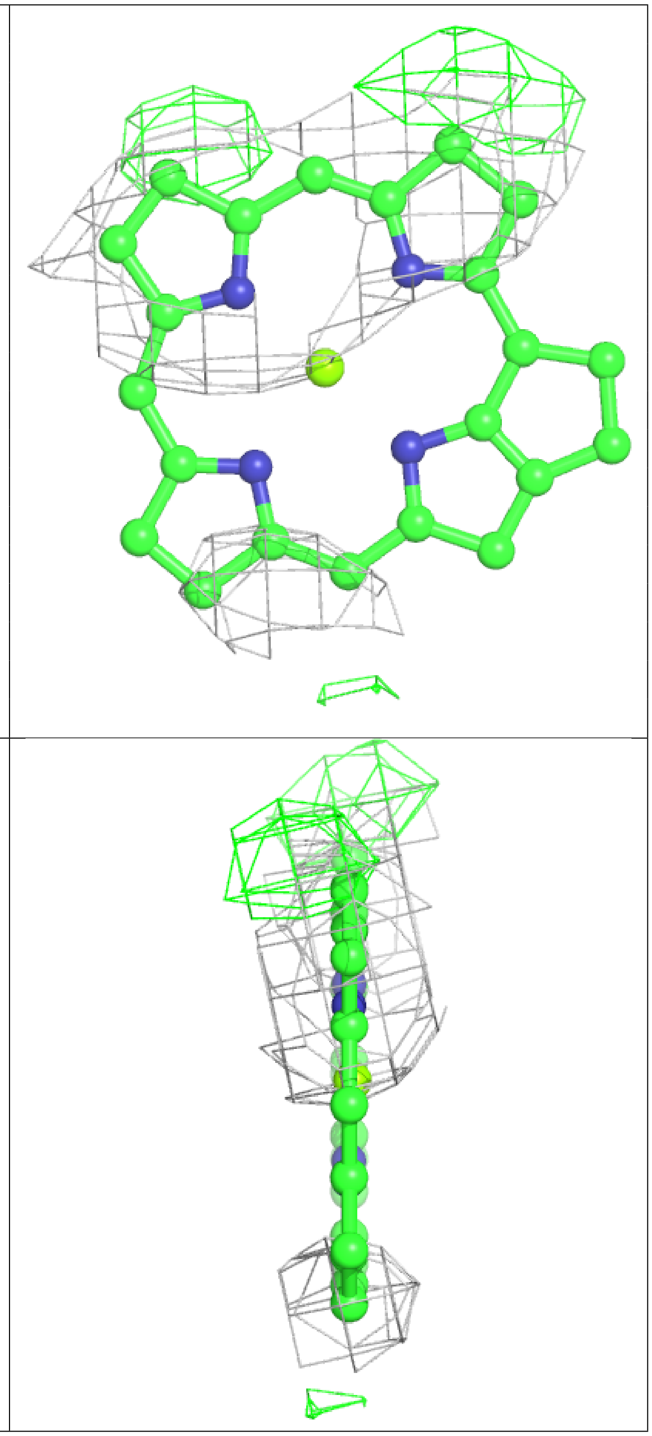
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
18	CLA	A	1237	60/65	0.94	0.29	75,94,113,116	0
18	CLA	1	1012	50/65	0.94	0.16	103,125,130,132	0
18	CLA	B	1221	65/65	0.94	0.24	66,78,115,122	0
18	CLA	F	1302	50/65	0.94	0.16	67,84,114,124	0
18	CLA	G	1002	46/65	0.94	0.19	142,160,173,181	0
18	CLA	B	1205	65/65	0.94	0.26	90,103,116,152	0
18	CLA	B	1201	50/65	0.94	0.18	80,93,131,134	0
17	CL0	A	1011	65/65	0.94	0.24	52,70,82,84	0
20	PQN	B	5002	33/33	0.94	0.23	54,72,91,93	0
18	CLA	B	1202	65/65	0.95	0.22	71,82,91,104	0
19	SF4	C	3002	8/8	0.95	0.12	73,103,107,107	0
18	CLA	B	1203	65/65	0.96	0.22	68,82,97,104	0
19	SF4	C	3003	8/8	0.97	0.07	89,106,119,126	0
19	SF4	A	3001	8/8	0.98	0.10	69,95,97,99	0

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

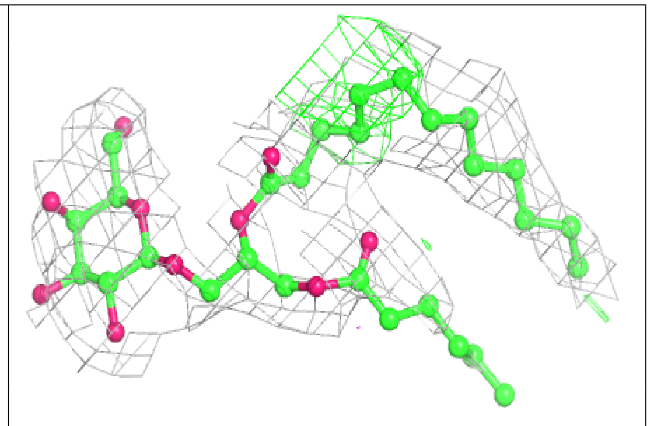
Electron density around CLA 3 3019:

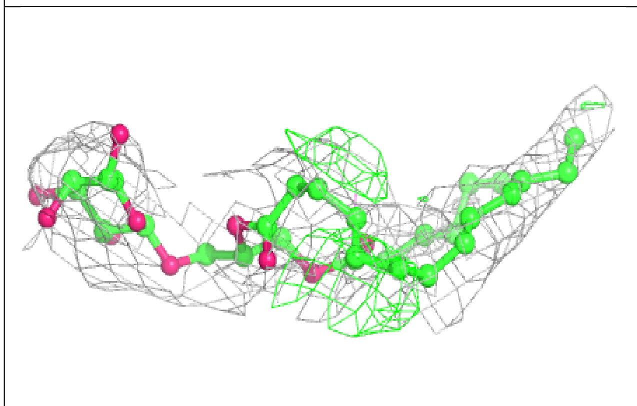
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

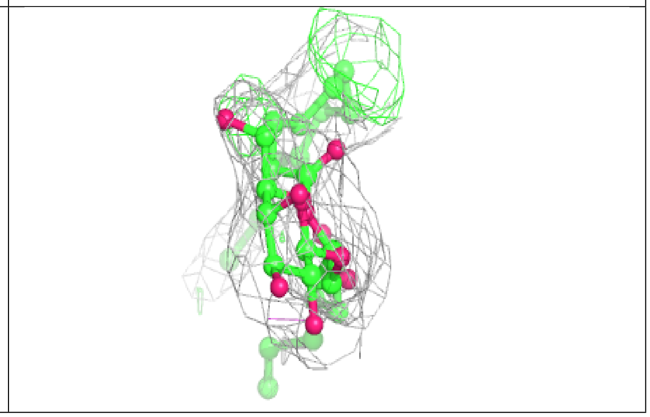


Electron density around LMG B 5005:

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

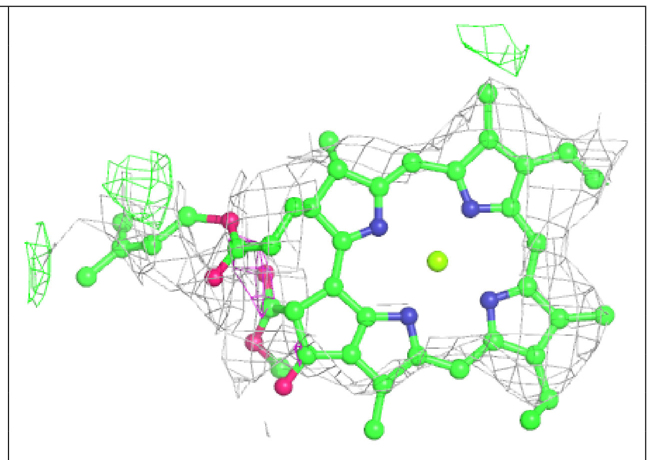


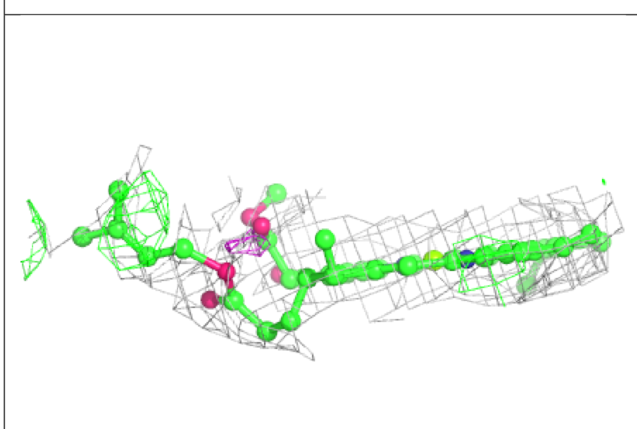


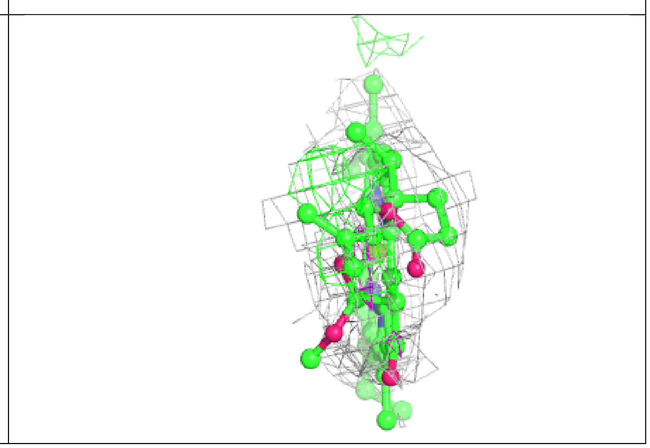


Electron density around CLA 2 2016:

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

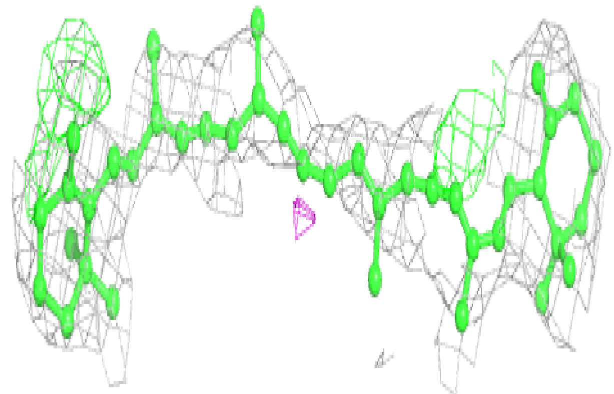


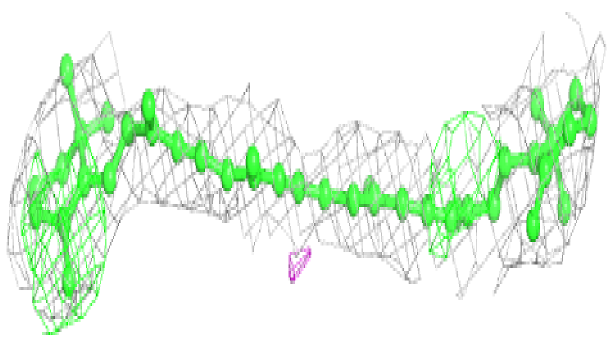




Electron density around BCR G 2011:

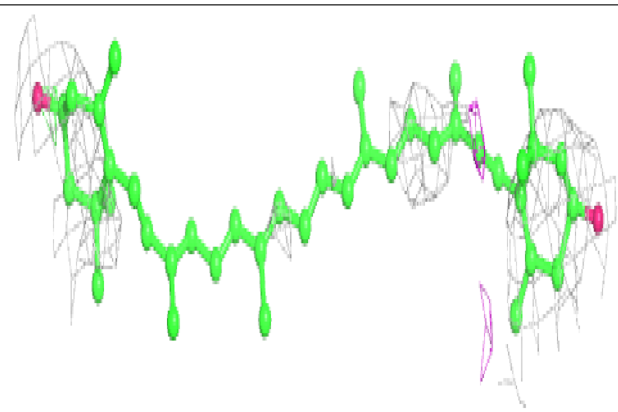
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

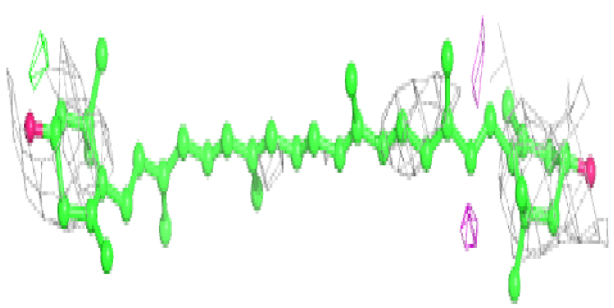




Electron density around LUT 3 3501:

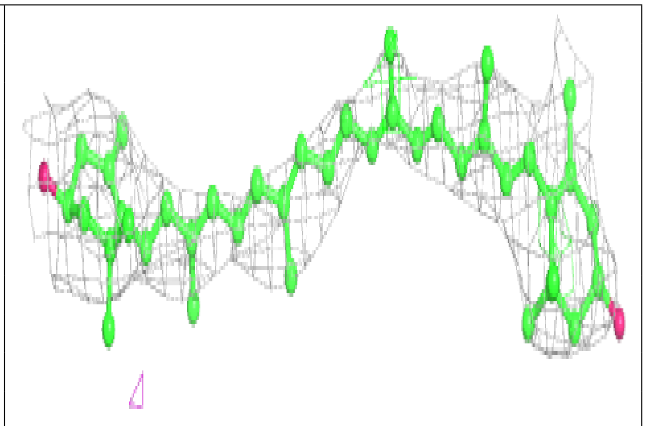
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

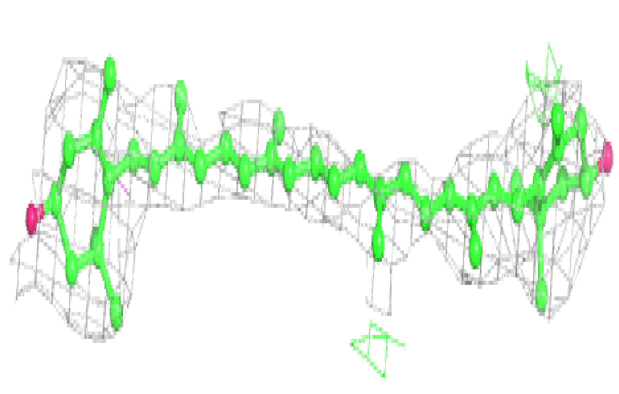




Electron density around LUT 2 2501:

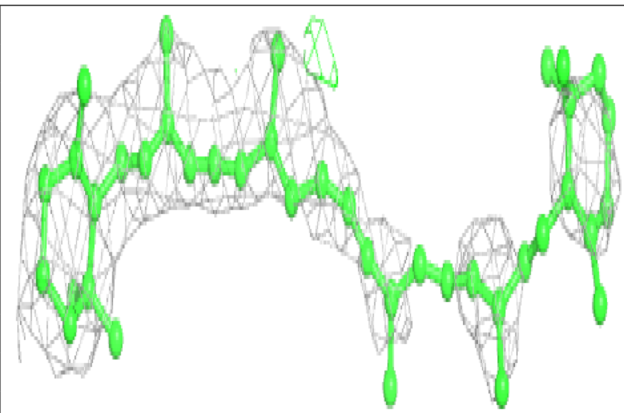
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

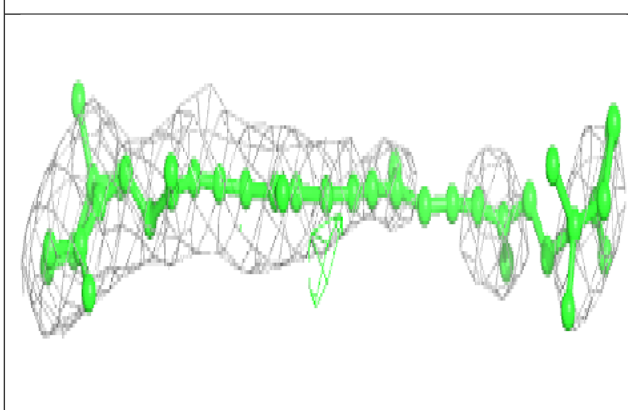


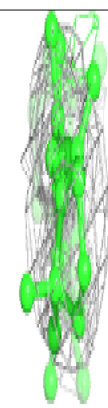


Electron density around BCR B 6005:

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

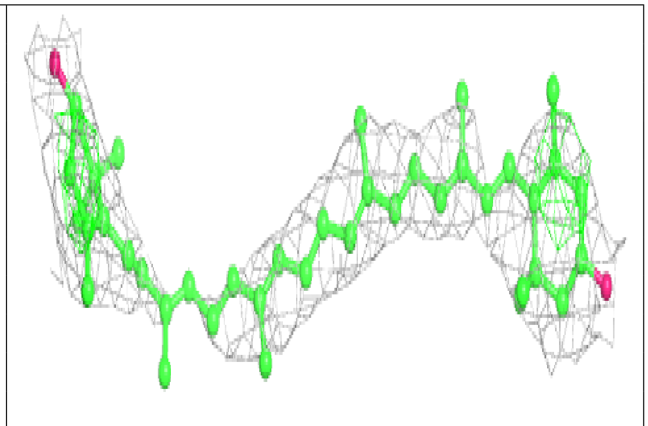


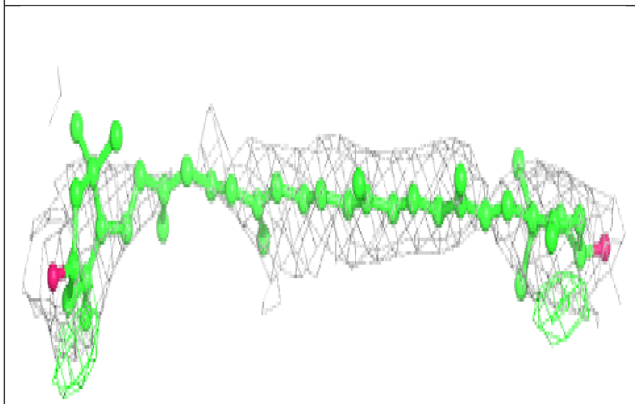


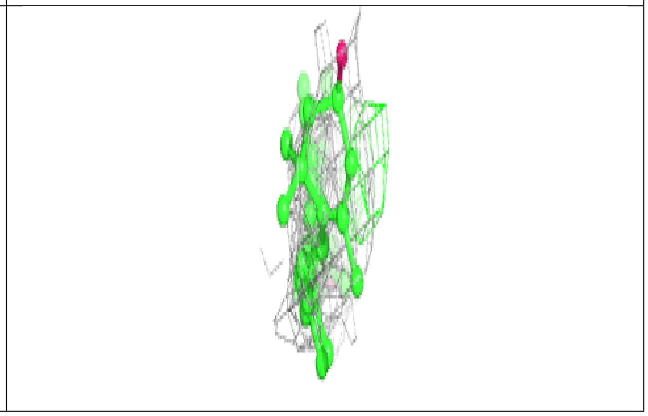


Electron density around LUT 3 3502:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

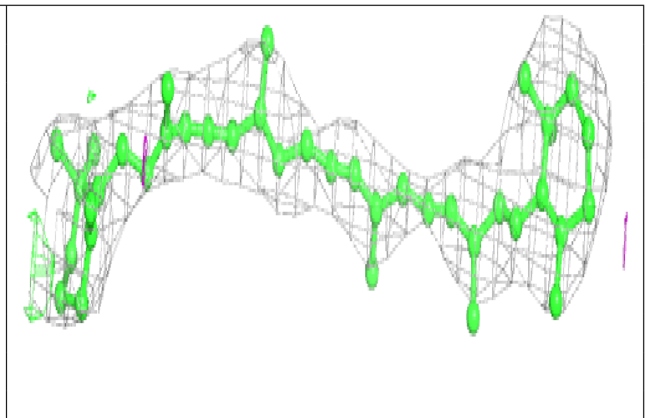


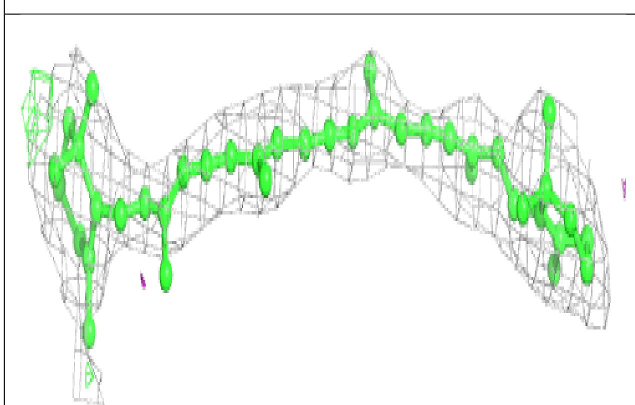


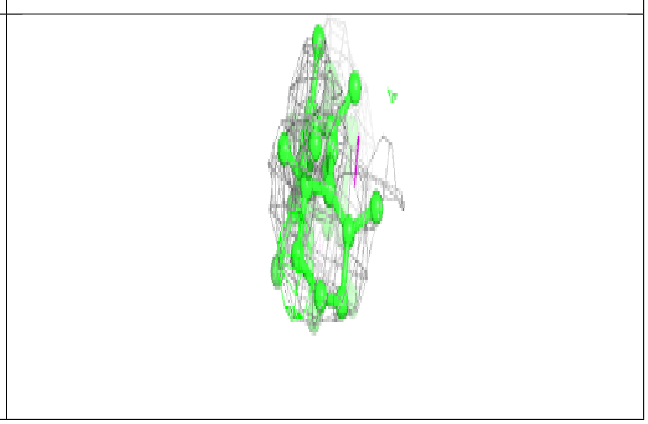


Electron density around BCR J 6013:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

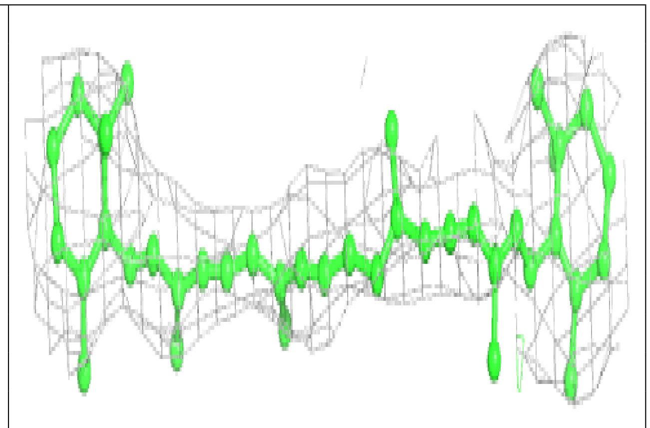


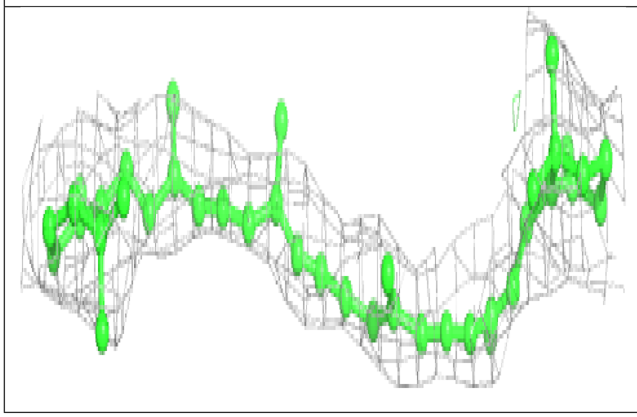


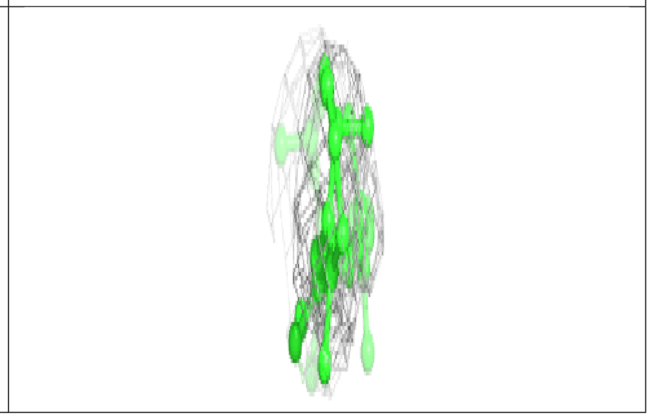


Electron density around BCR 3 3503:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

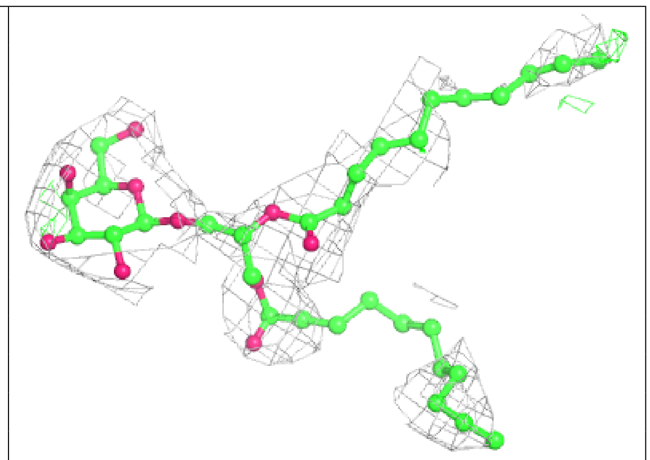


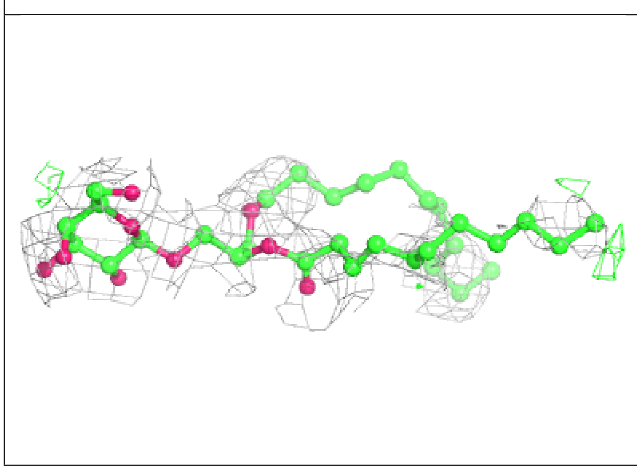


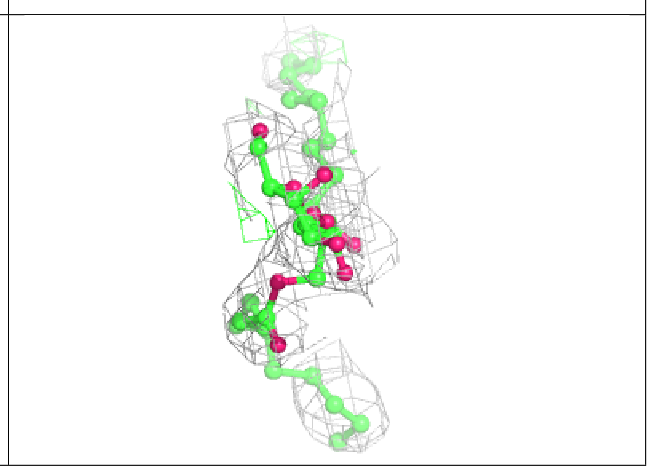


Electron density around LMG G 2021:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

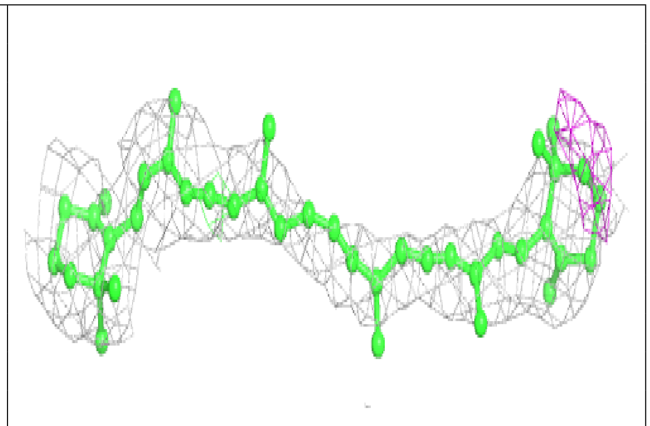


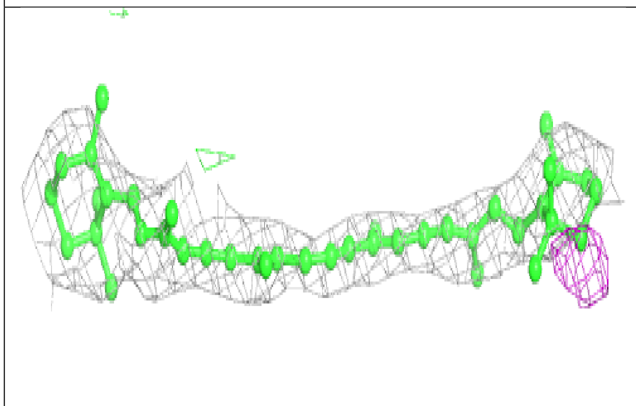


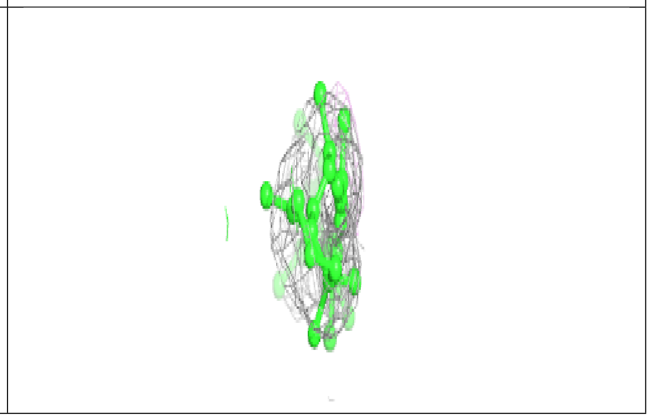


Electron density around BCR B 6004:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

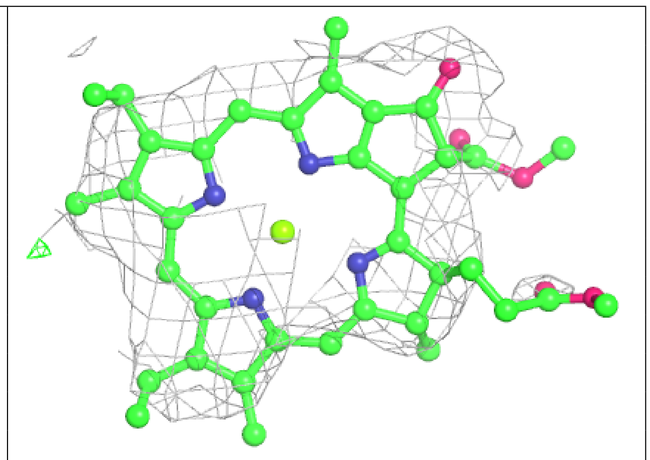


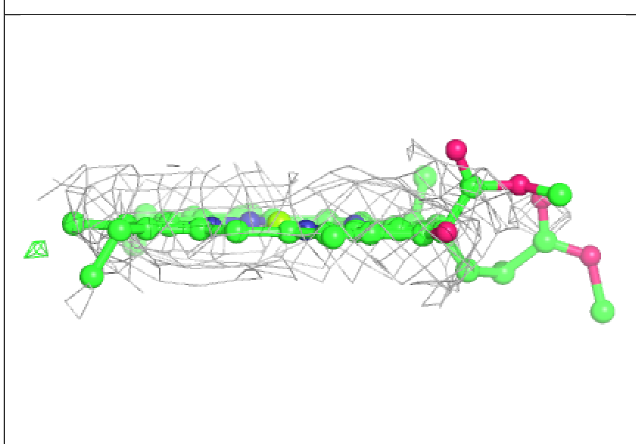


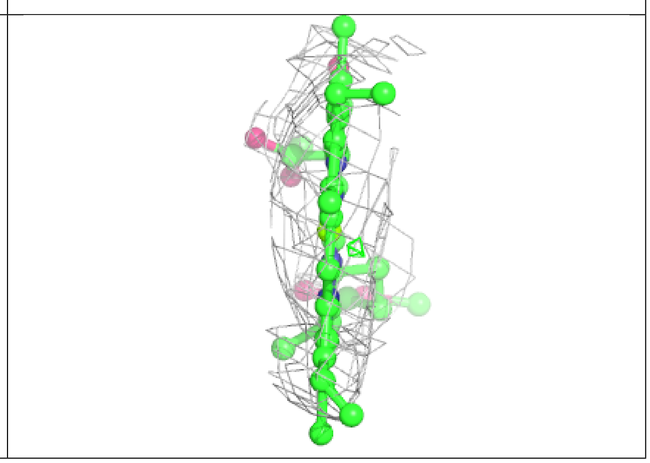


Electron density around CLA 1 1013:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

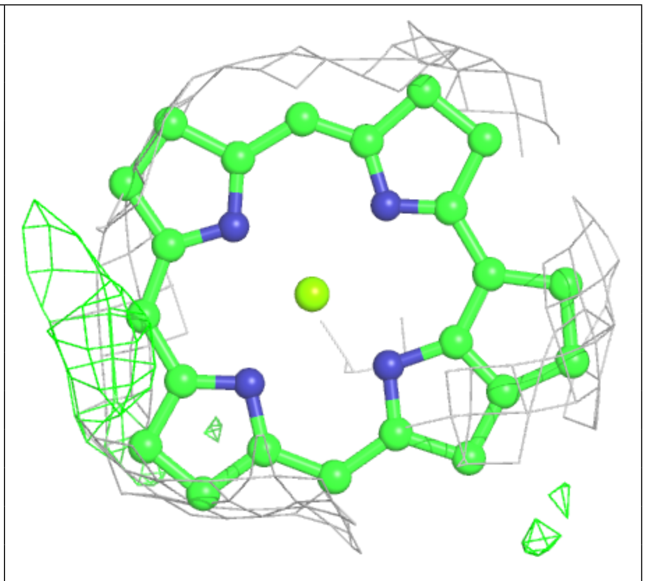


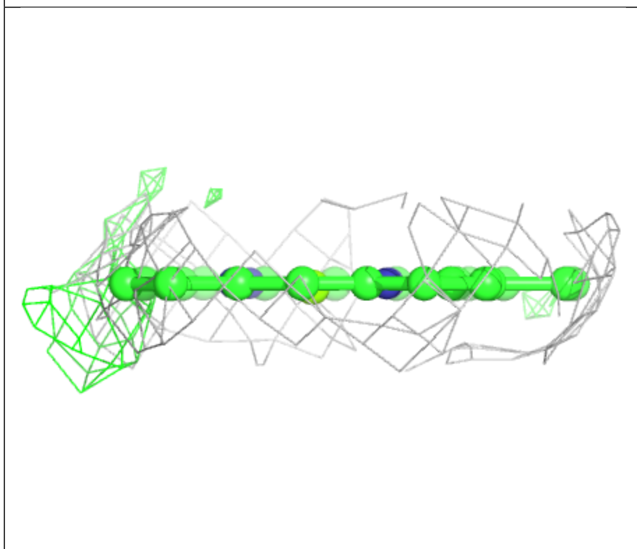


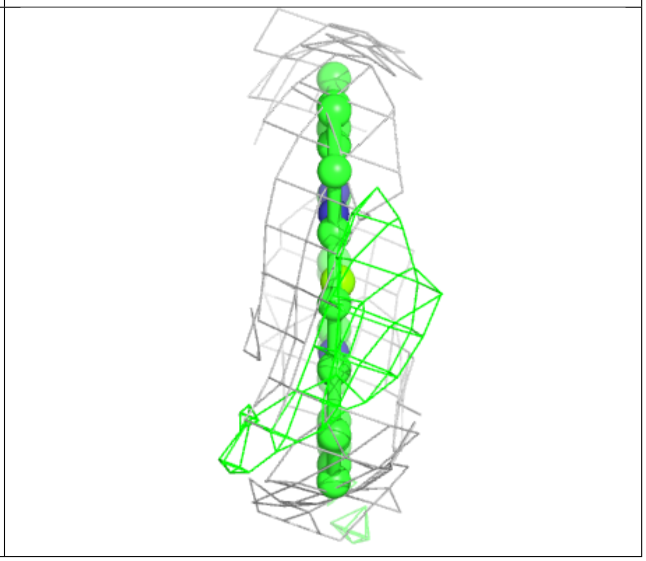


Electron density around CLA 2 2019:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

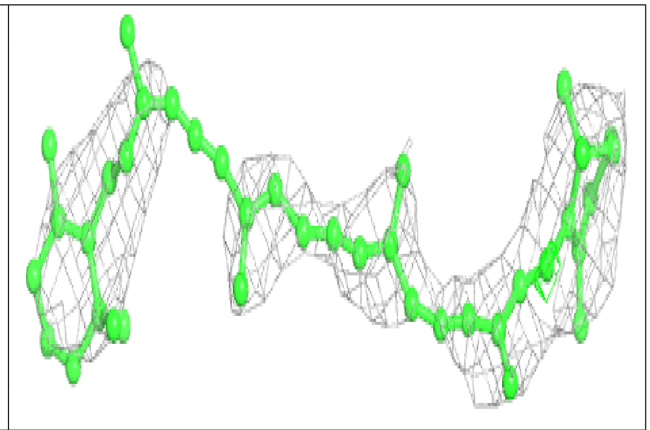


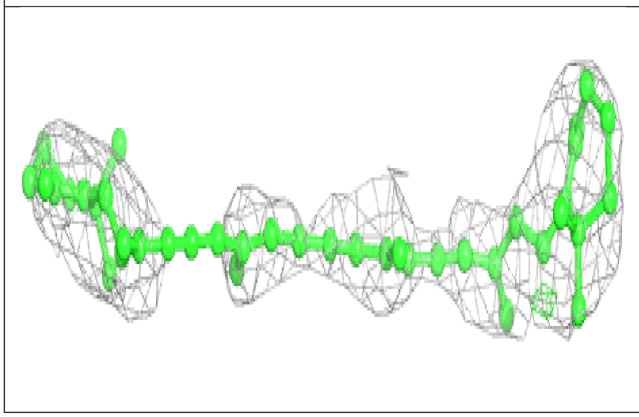


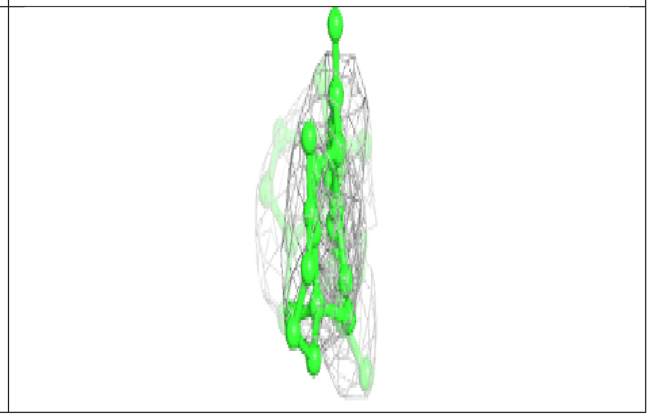


Electron density around BCR B 6006:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

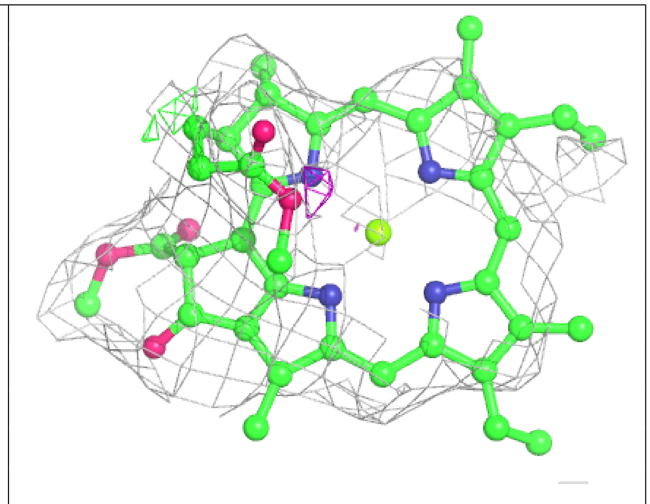


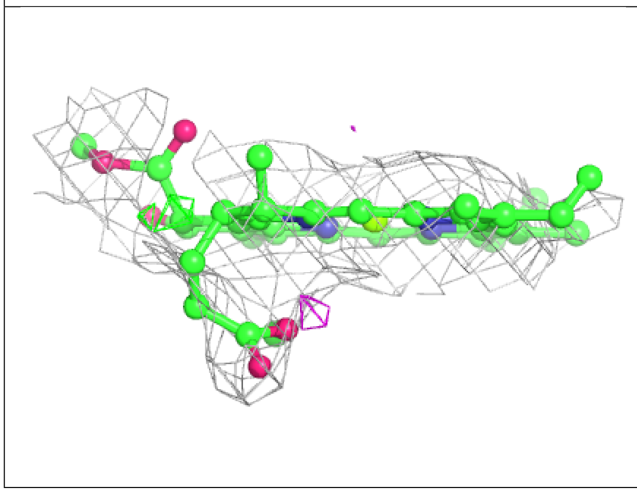


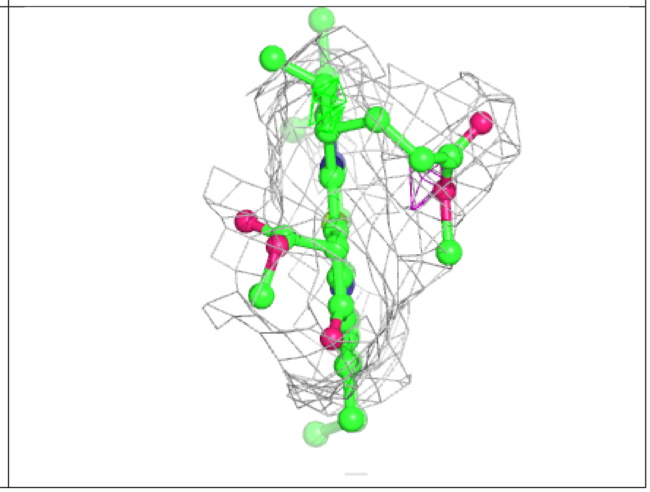


Electron density around CLA 4 4016:

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

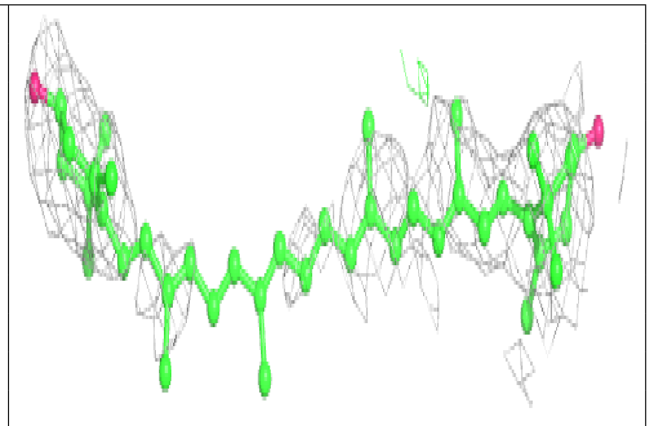


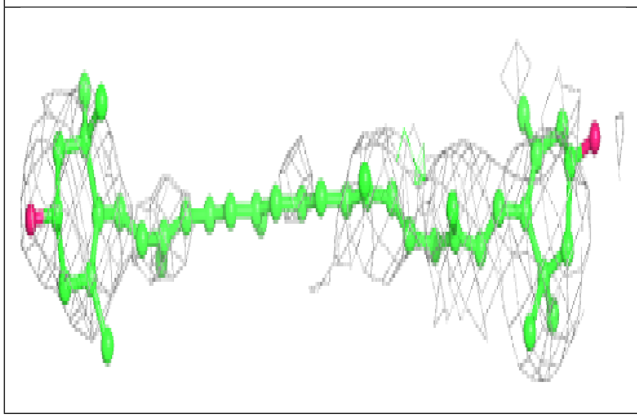


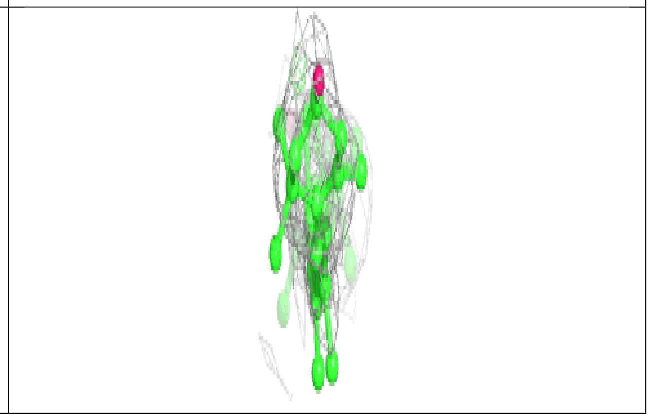


Electron density around LUT 1 1501:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

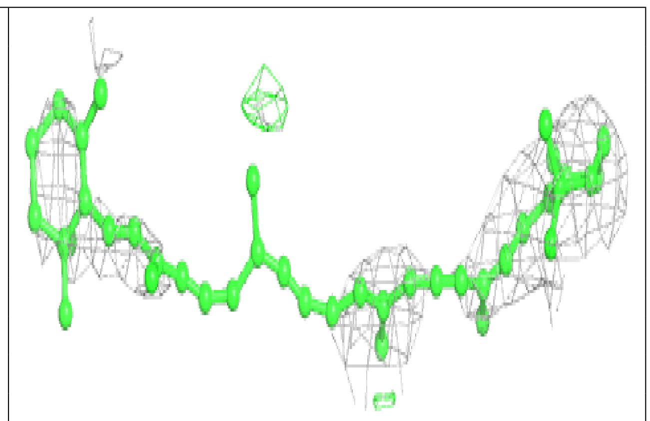


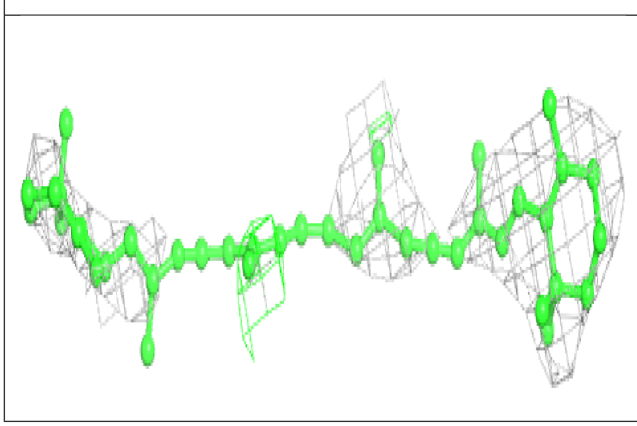


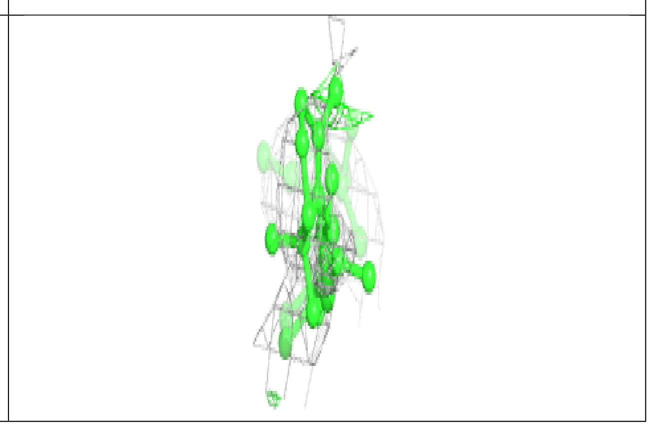


Electron density around BCR K 2011:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

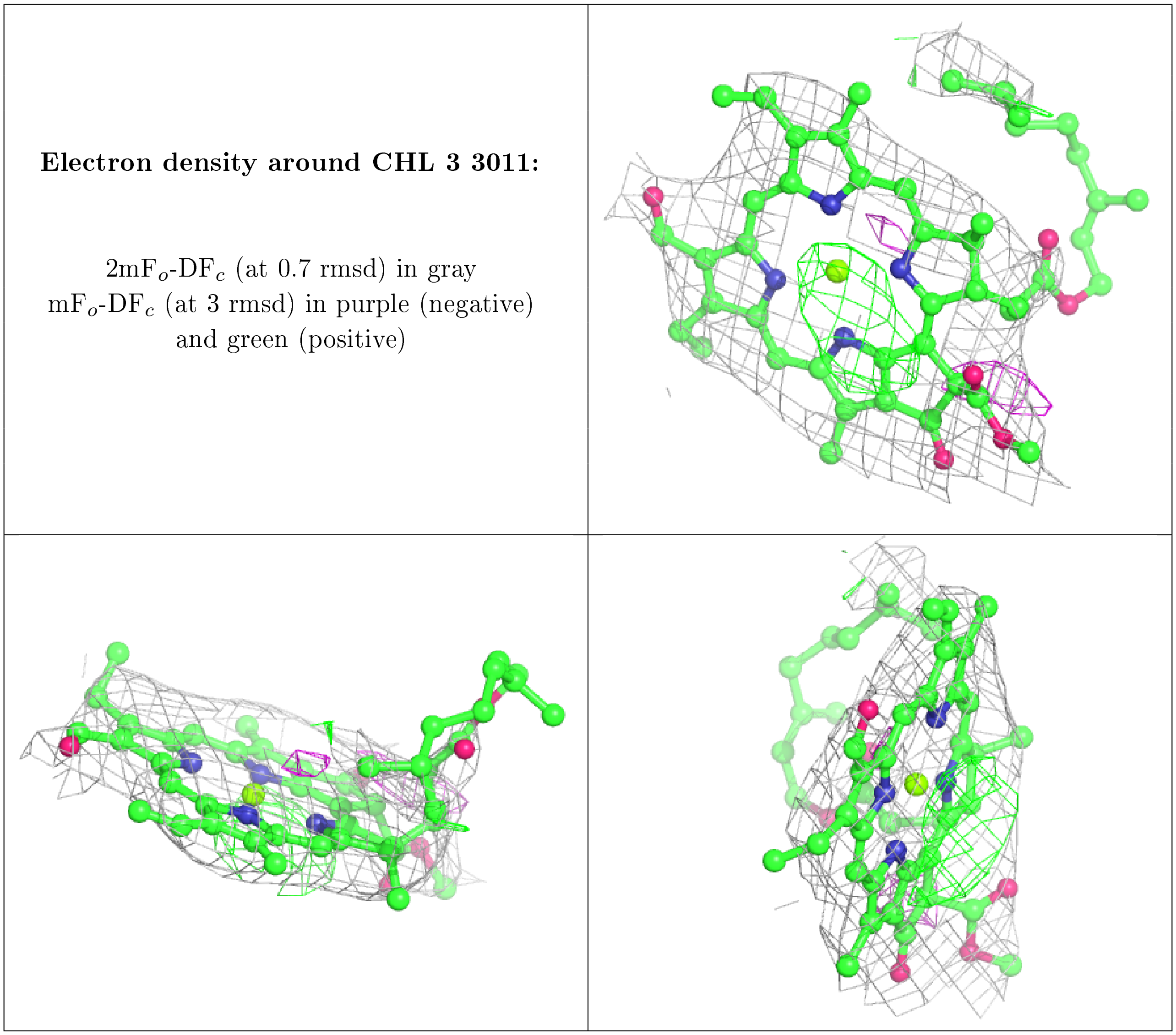






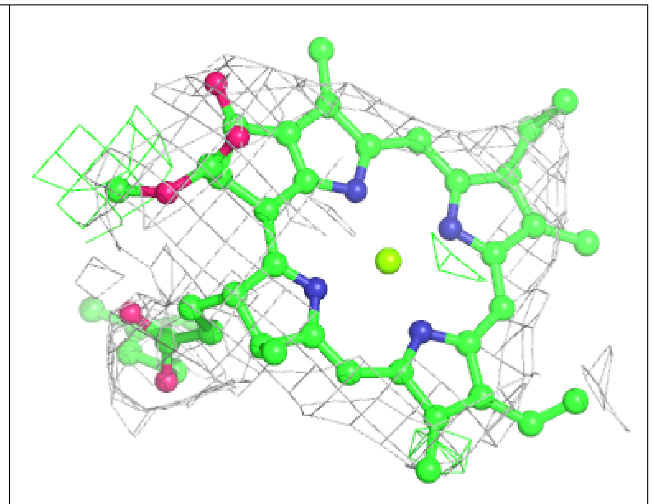
Electron density around CHL 3 3011:

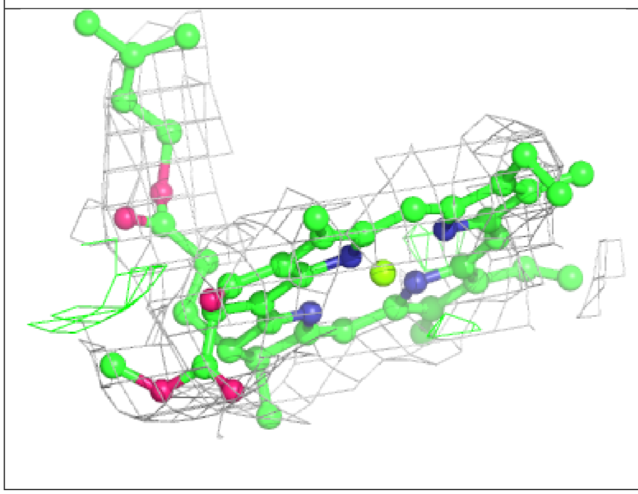
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

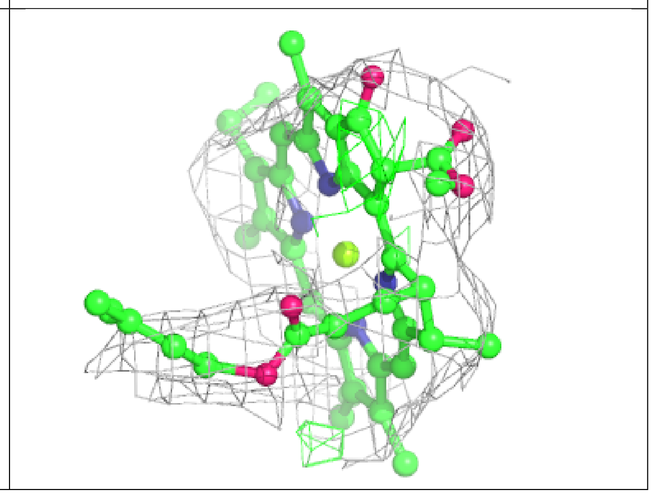


Electron density around CLA 4 4006:

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

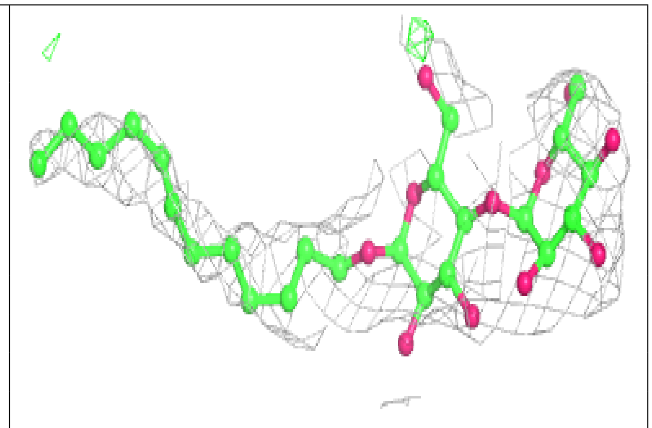


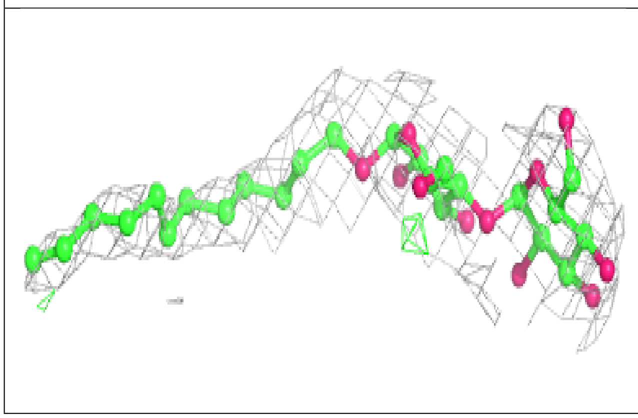


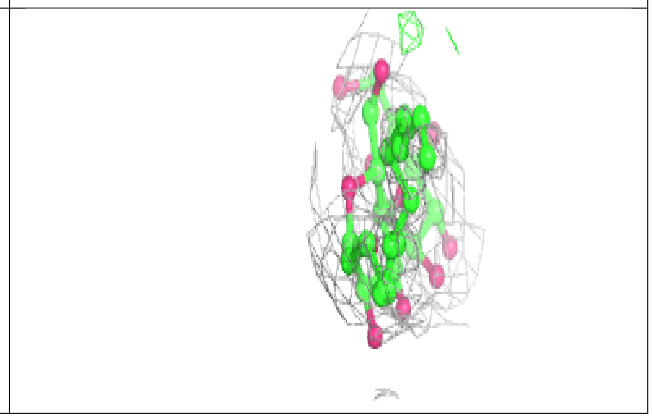


Electron density around LMU B 8001:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

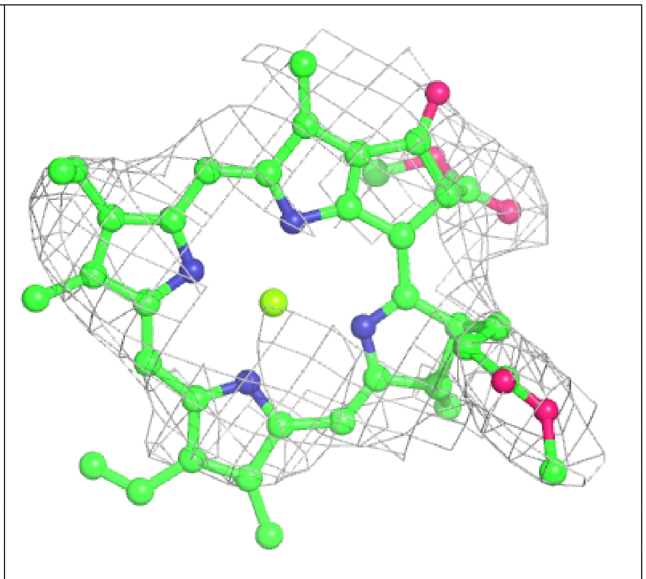


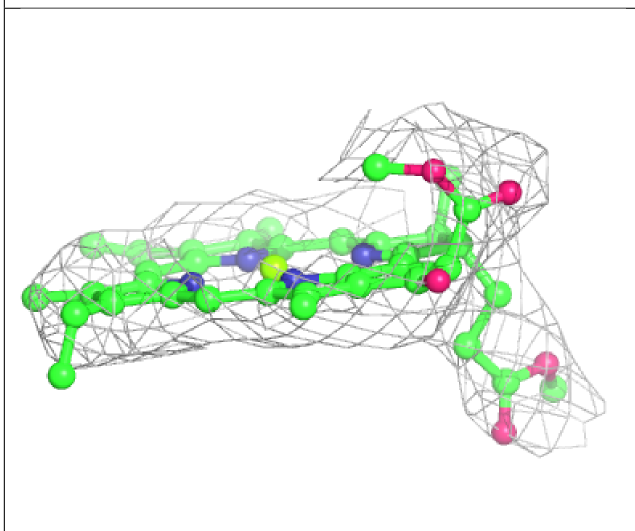


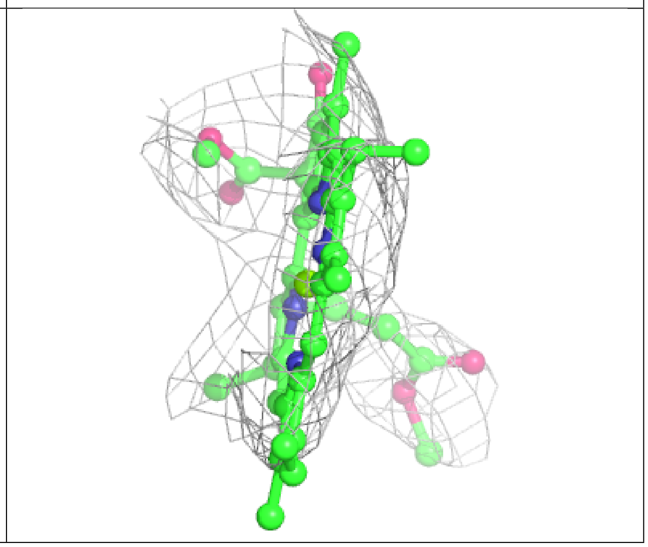


Electron density around CLA 1 1008:

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

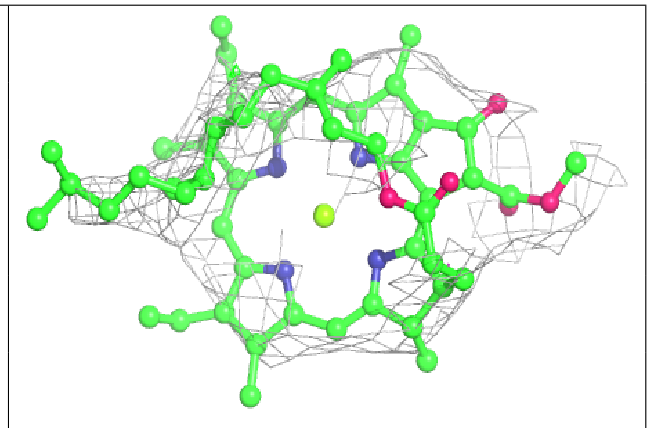


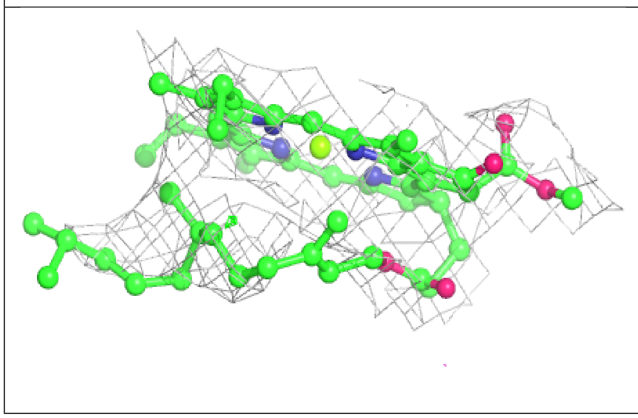


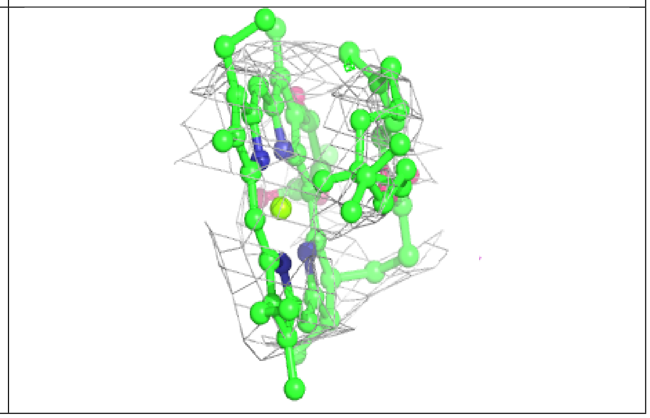


Electron density around CLA 3 3003:

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

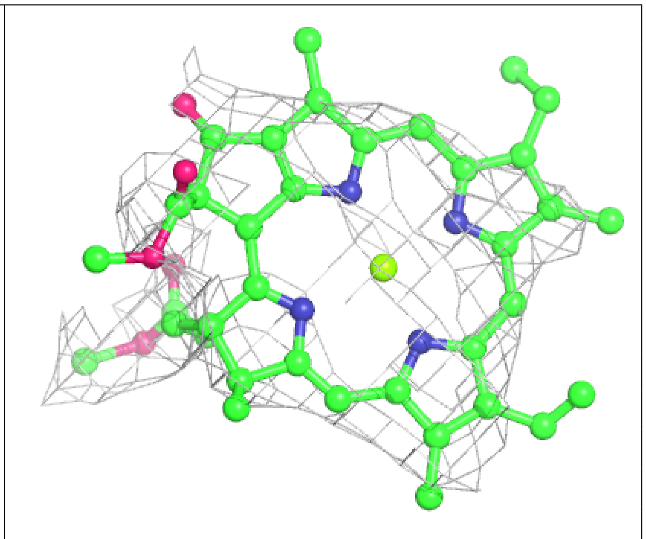


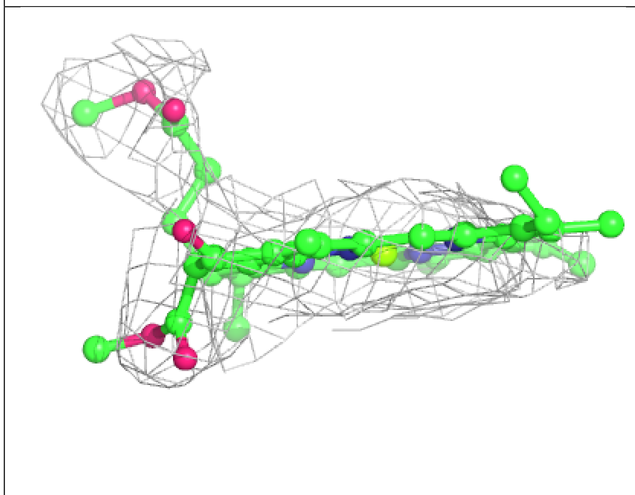


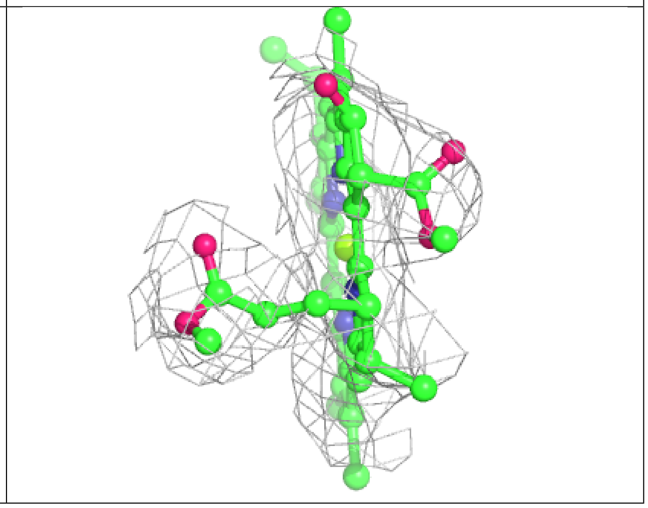


Electron density around CLA K 1001:

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

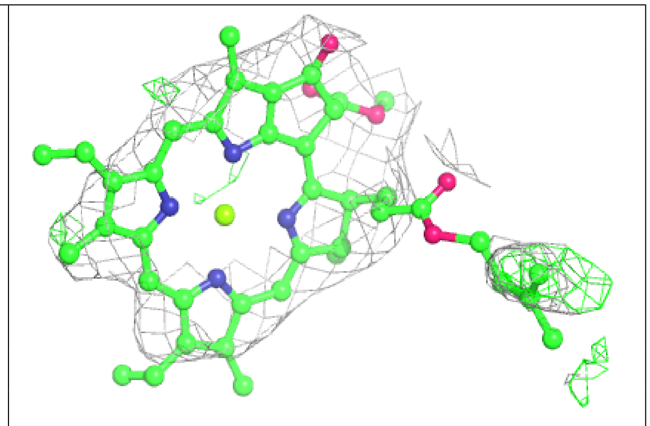


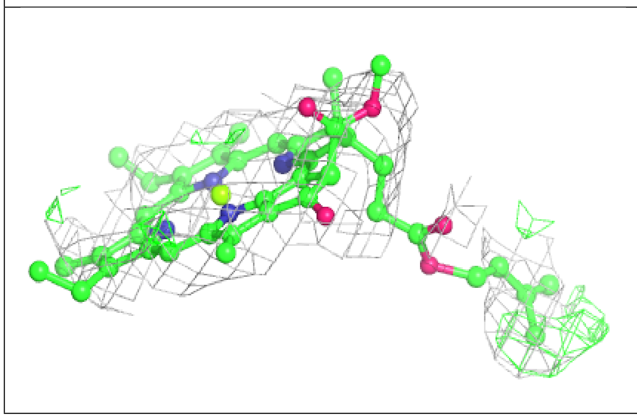


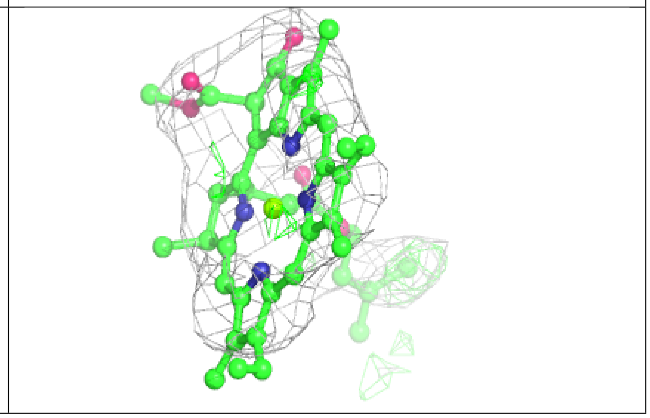


Electron density around CLA 3 3007:

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

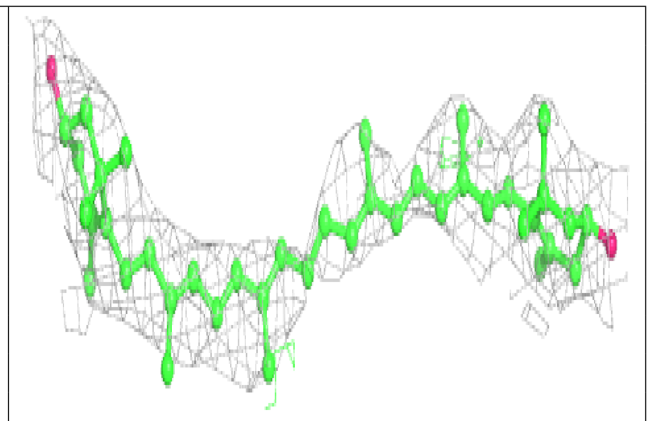


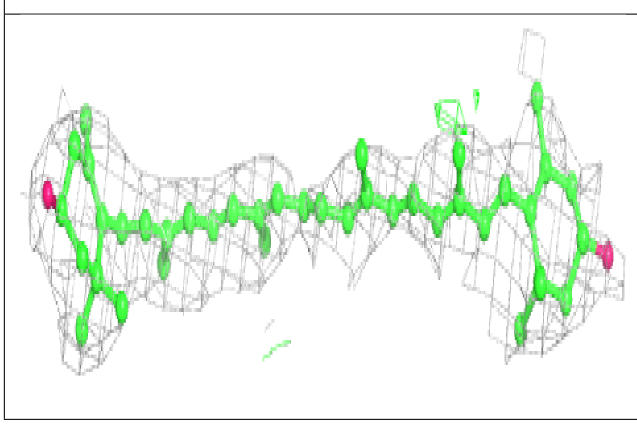


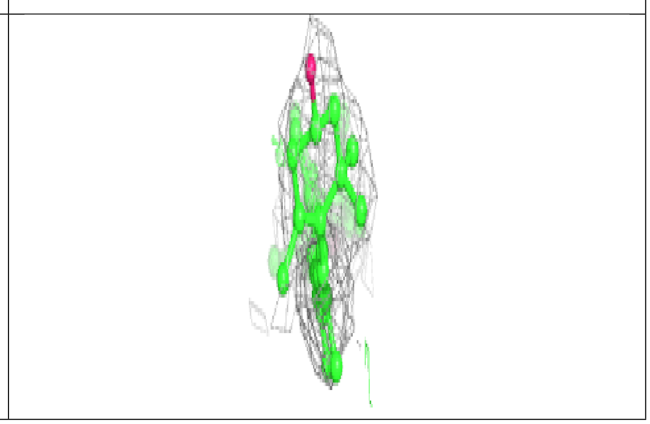


Electron density around LUT 4 4501:

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

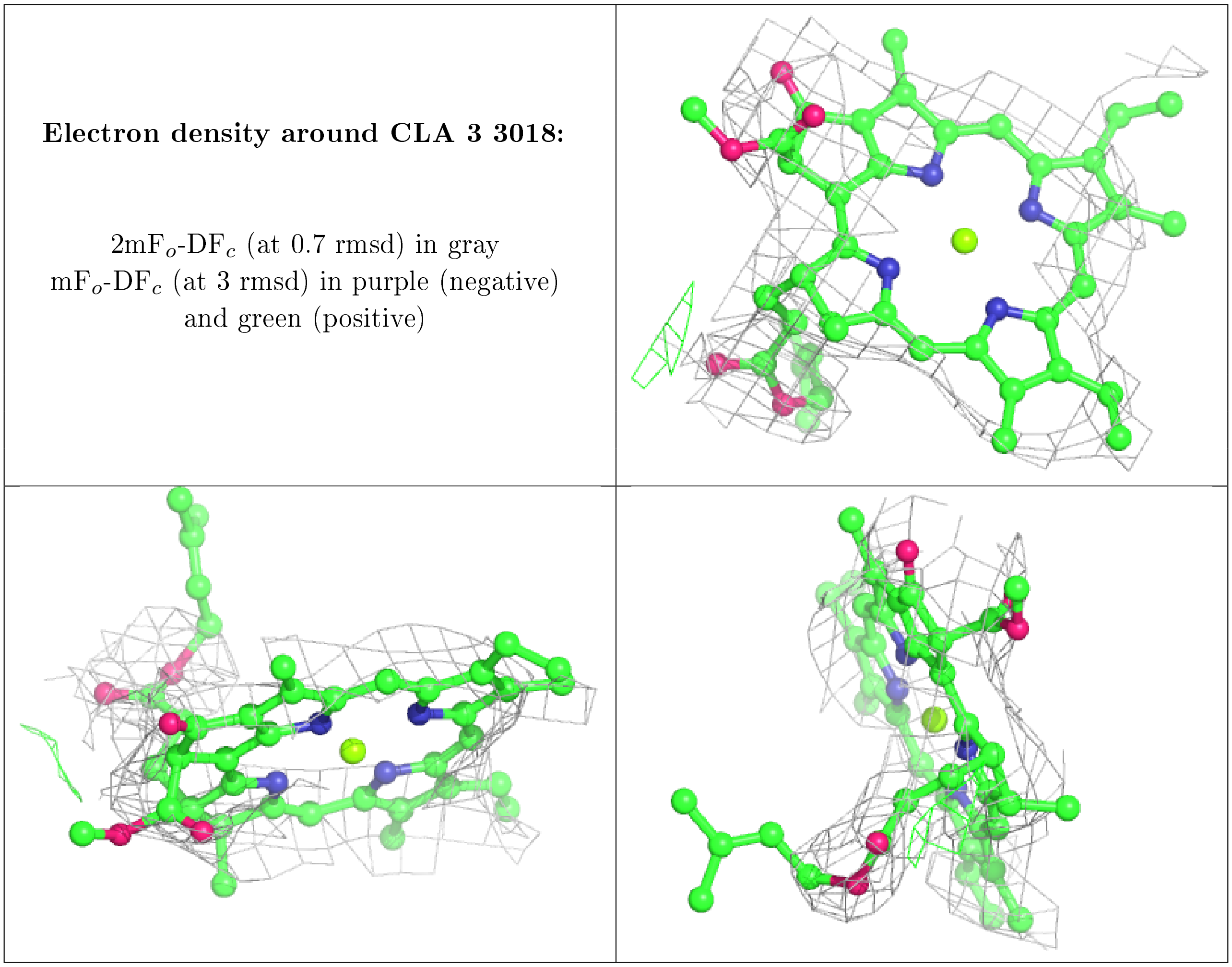






Electron density around CLA 3 3018:

2mF$_o$-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 2 2802:

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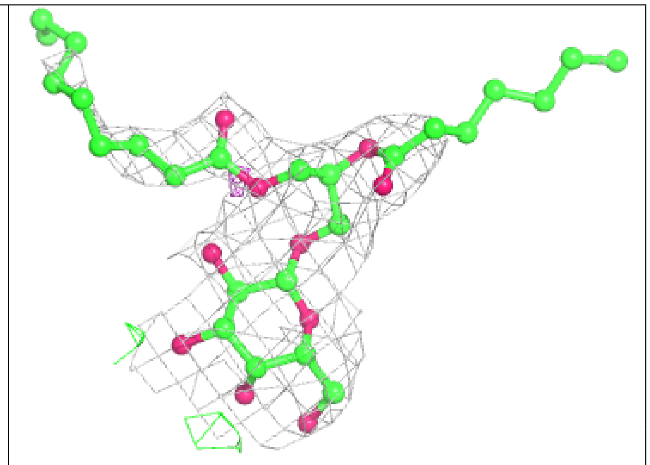
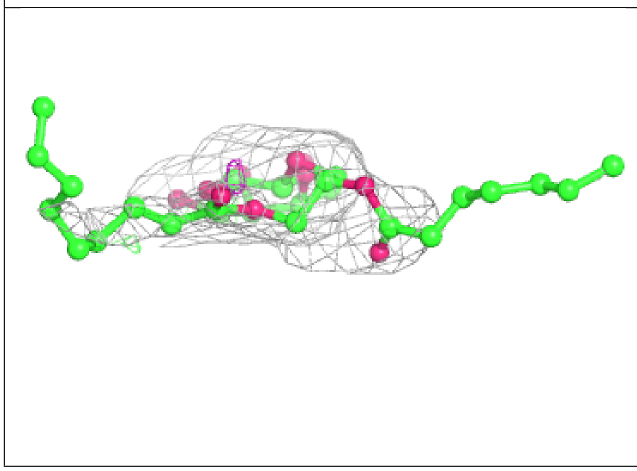
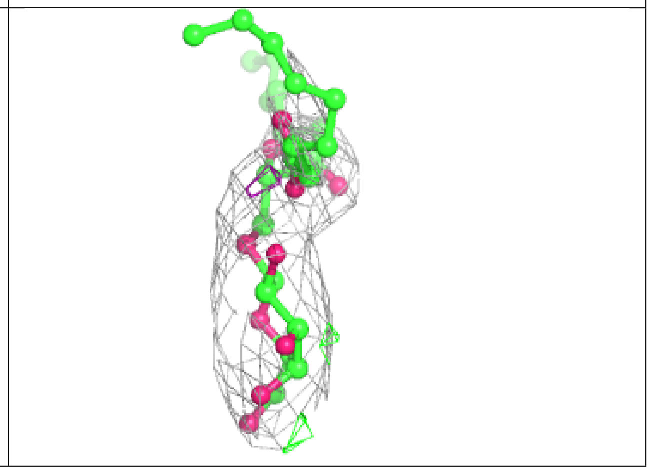
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)







Electron density around LHG 2 2801:

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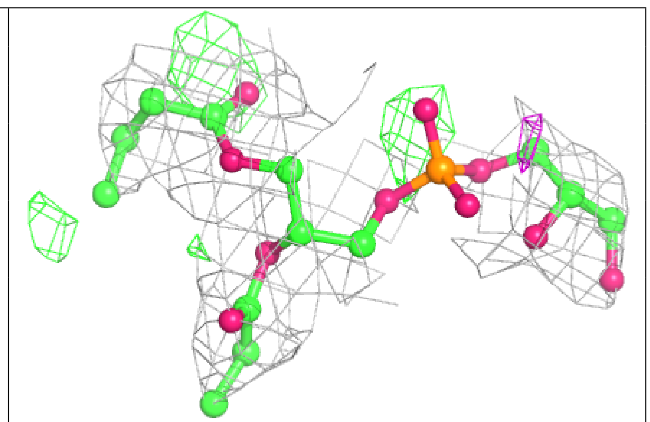
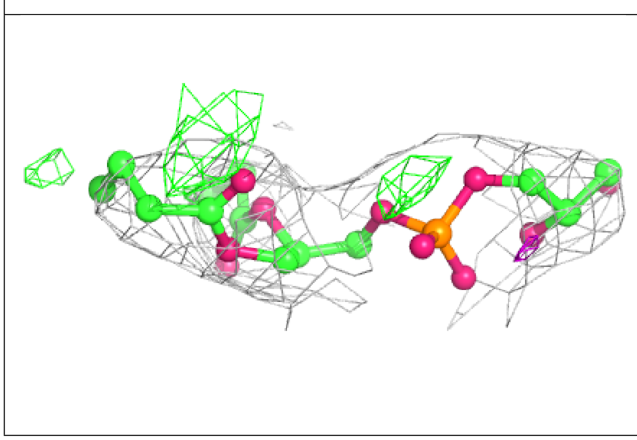
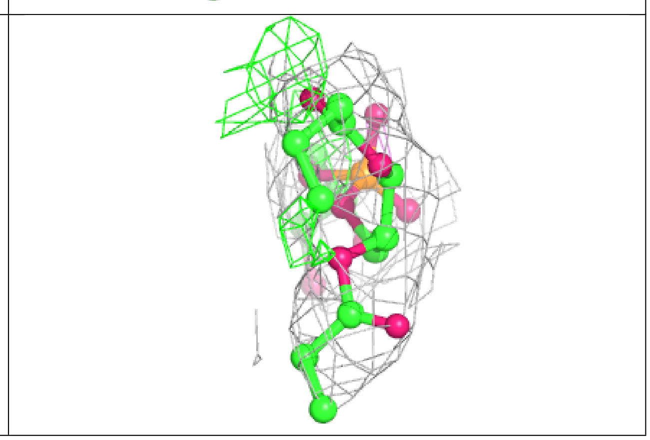
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

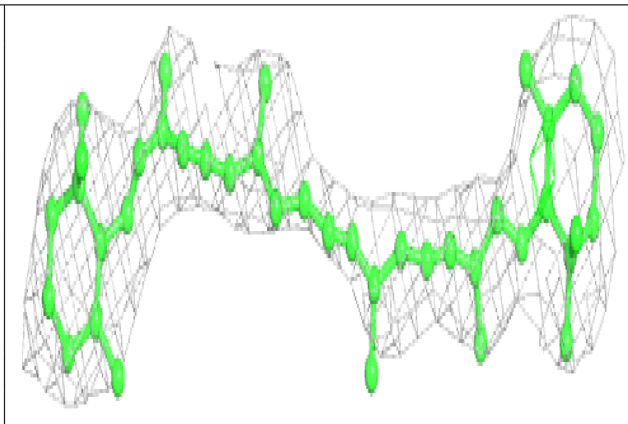


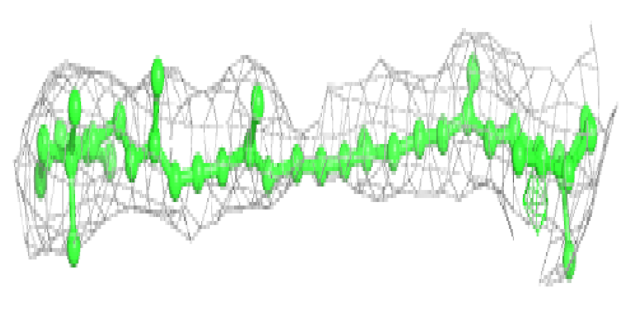


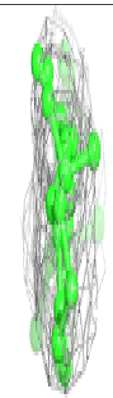


Electron density around BCR L 6019:

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

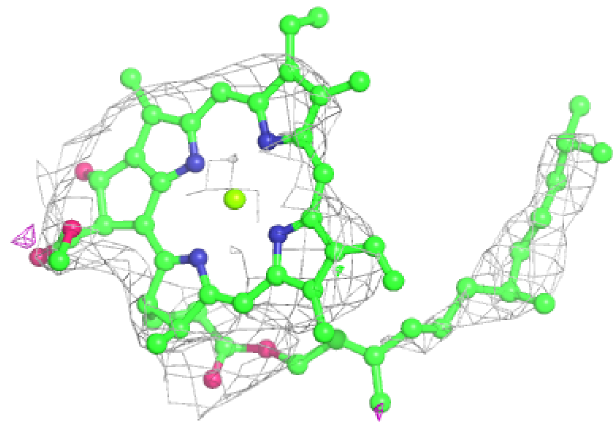


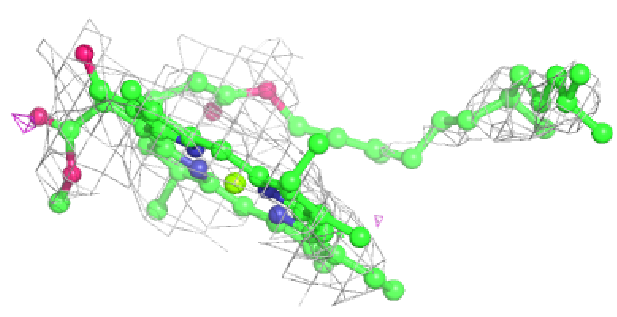


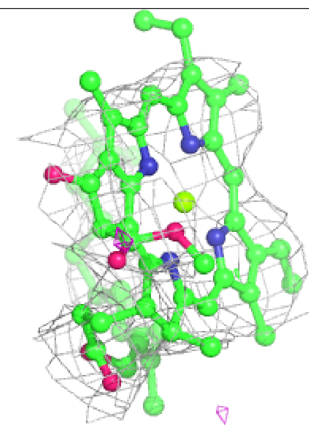


Electron density around CLA 3 3004:

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

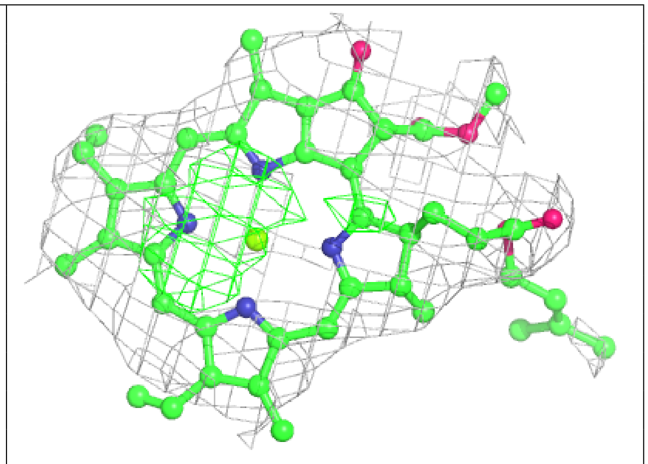


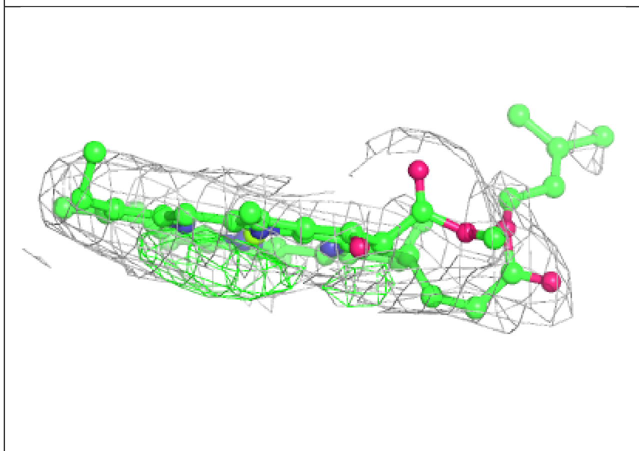


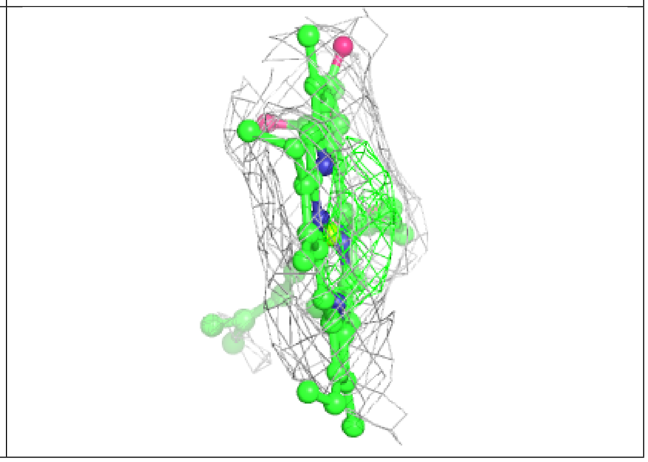


Electron density around CLA 4 4002:

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

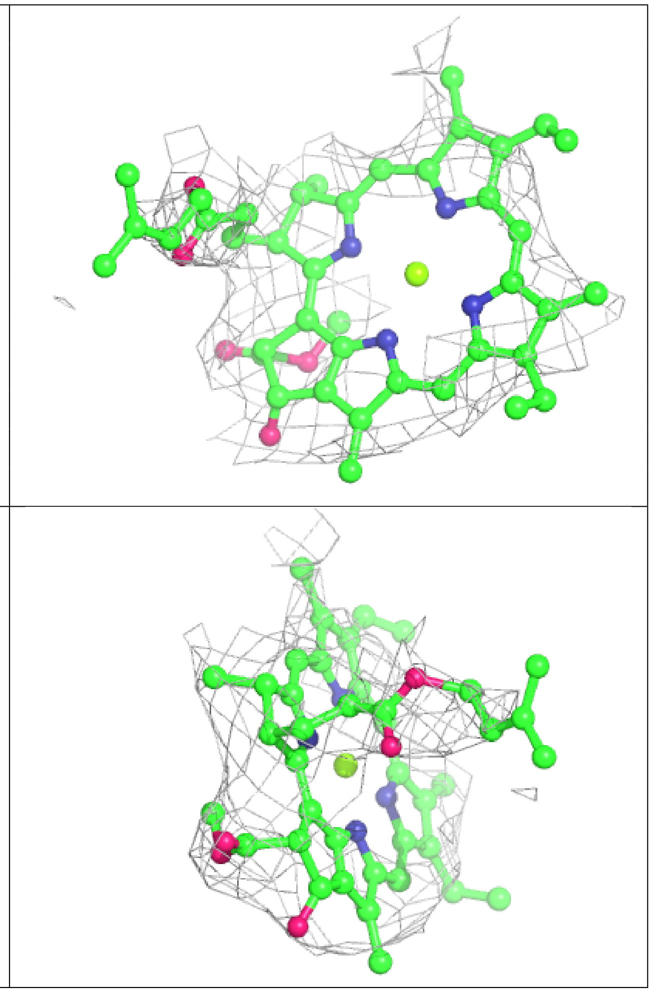


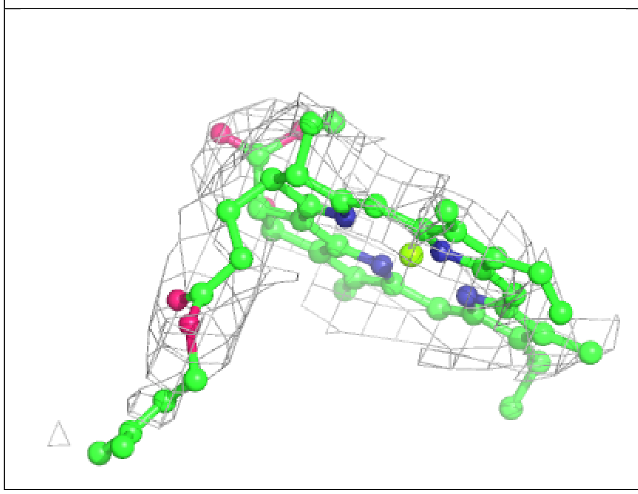




Electron density around CLA 3 3006:

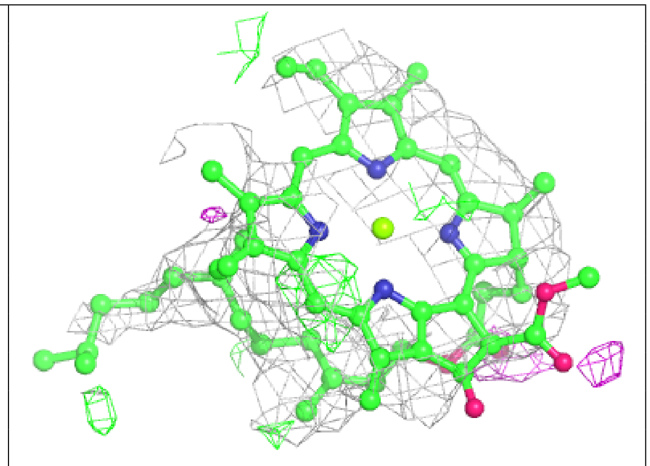
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

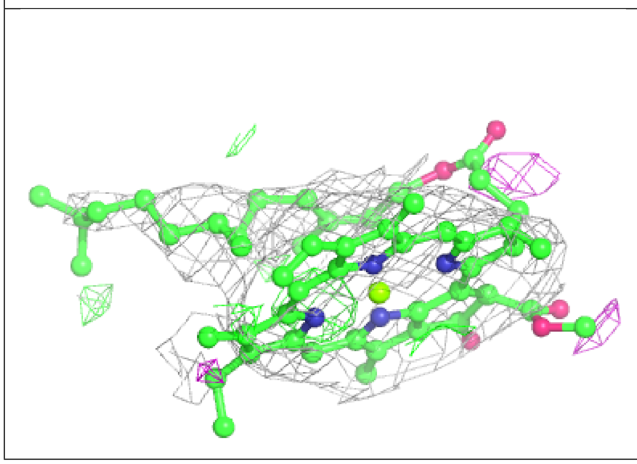


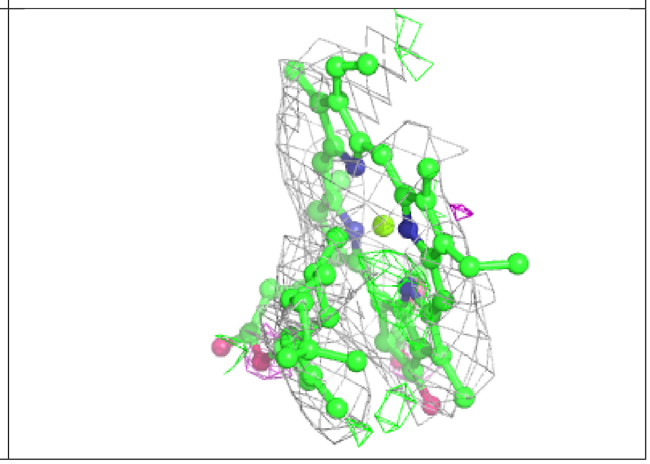


Electron density around CLA 3 3010:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

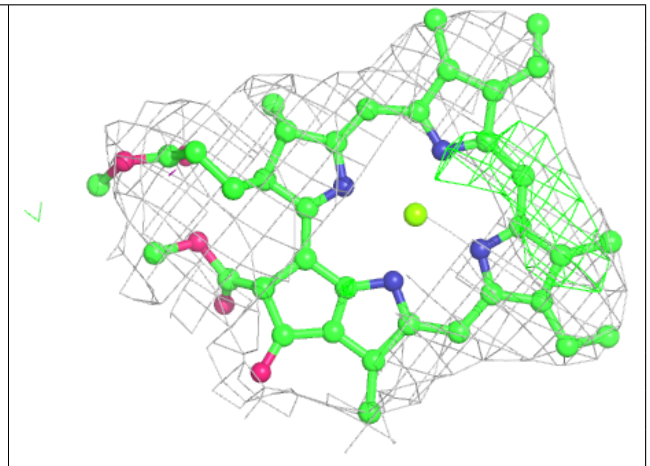


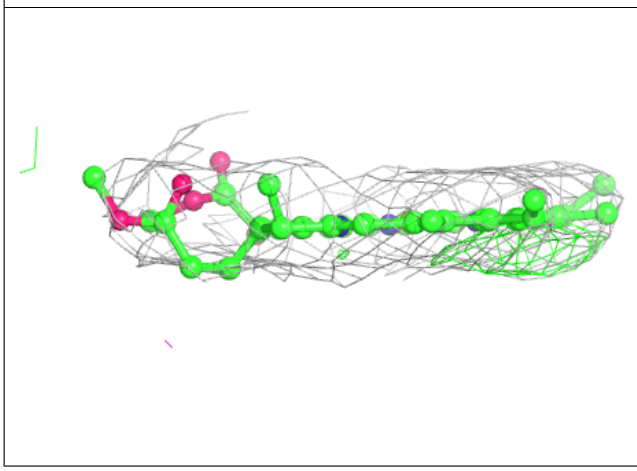


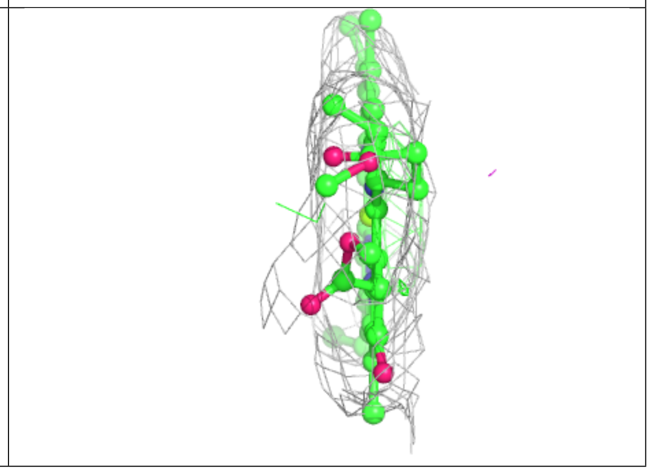


Electron density around CLA 2 2002:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

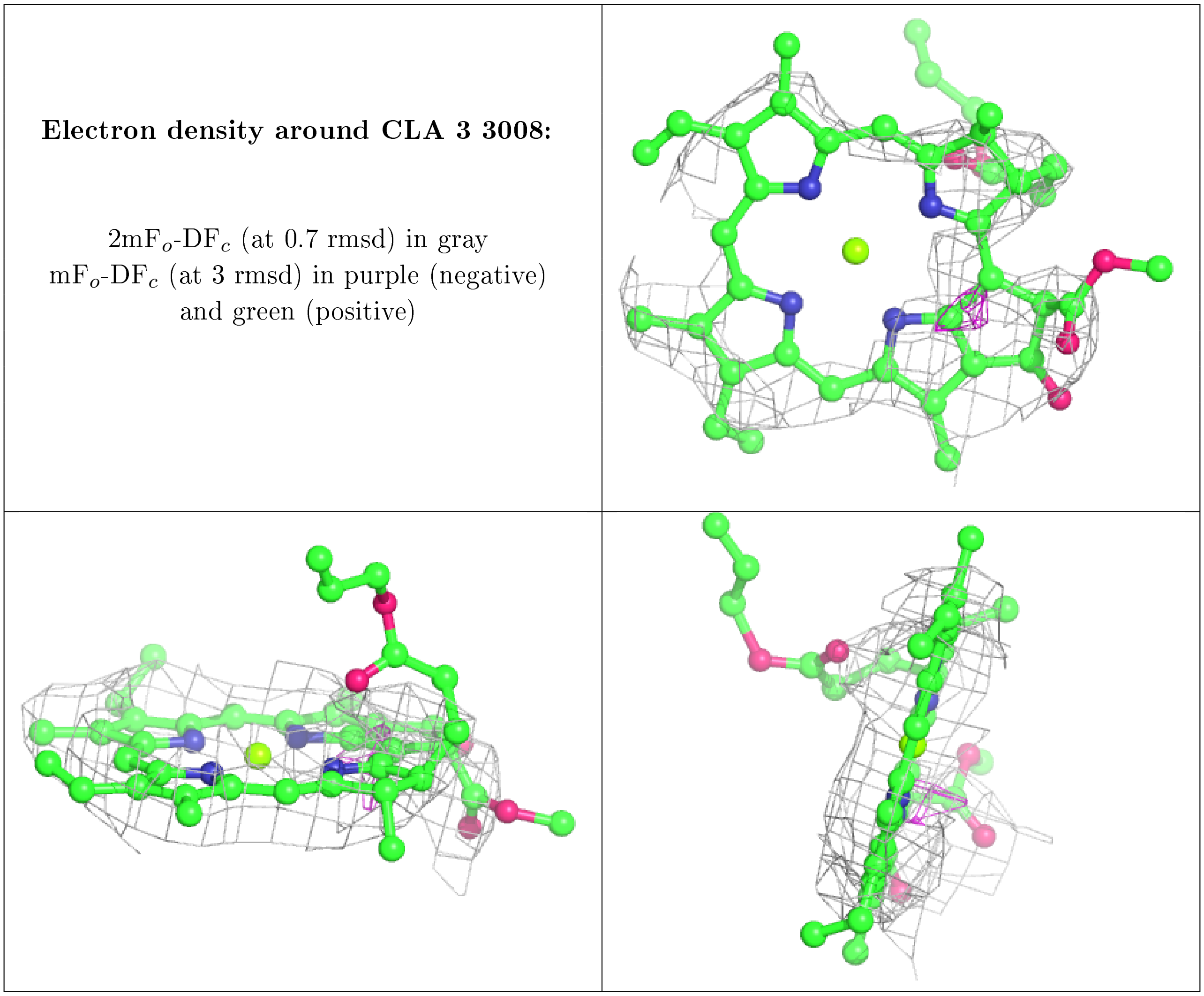






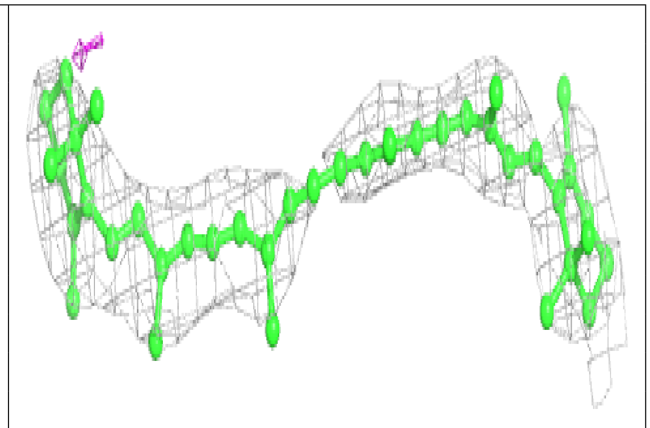
Electron density around CLA 3 3008:

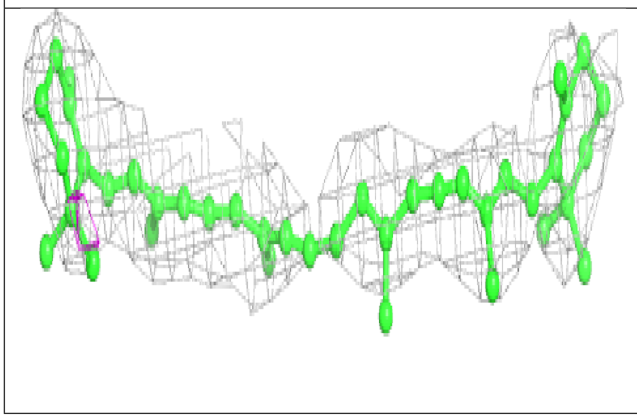
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around BCR A 6008:

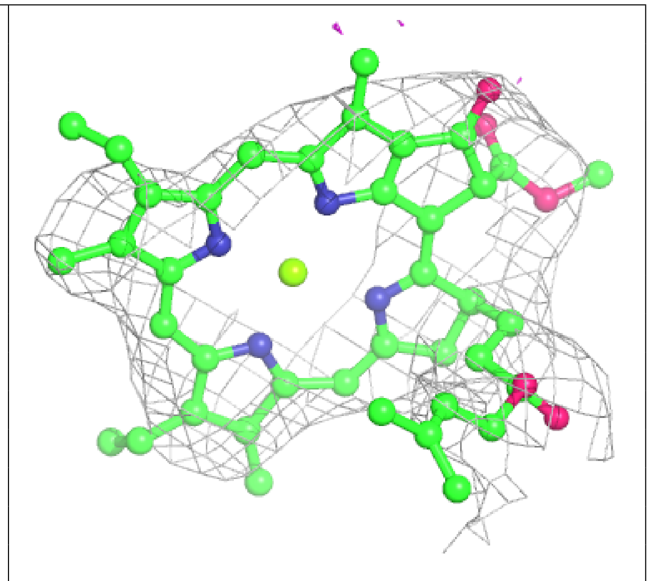
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

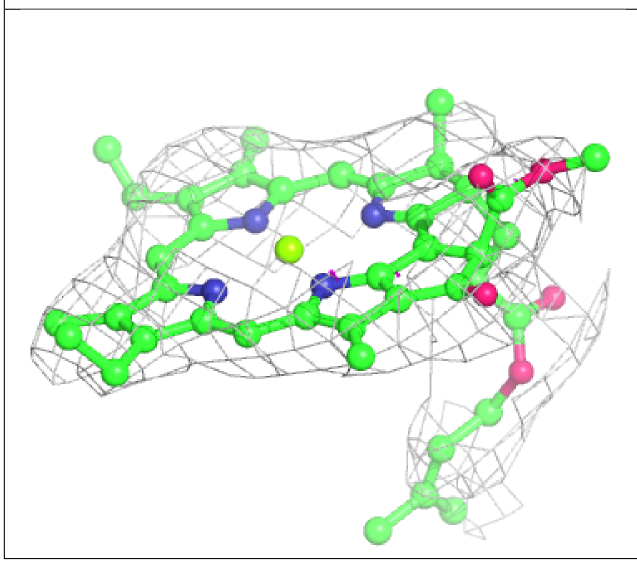


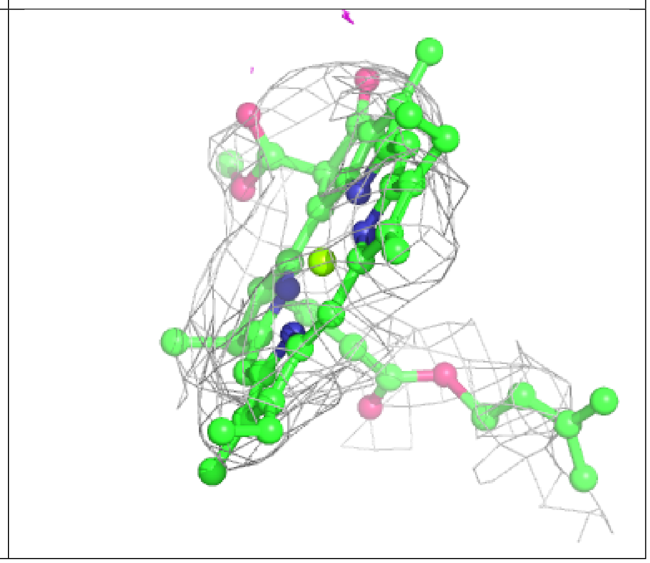


Electron density around CLA 1 1006:

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

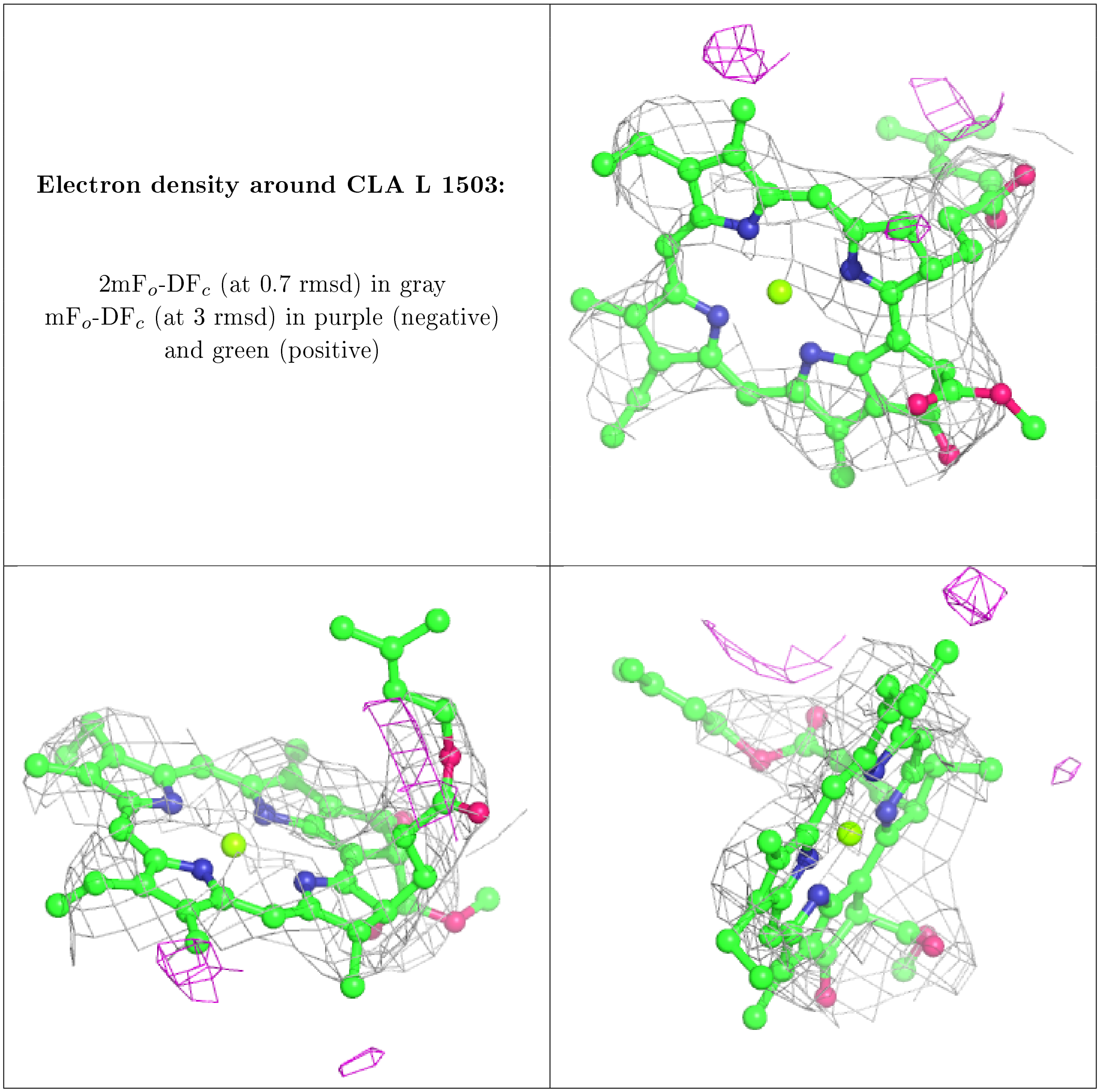






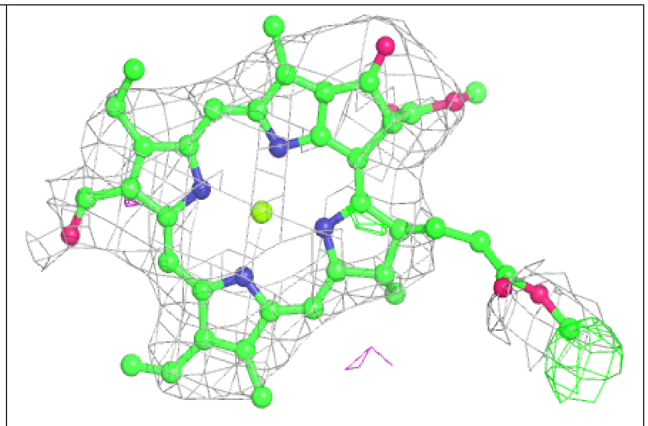
Electron density around CLA L 1503:

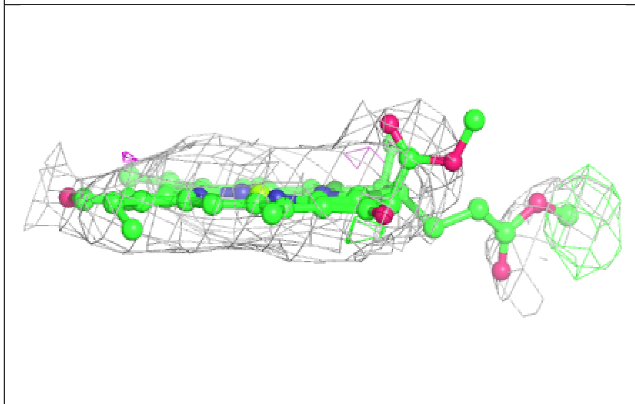
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

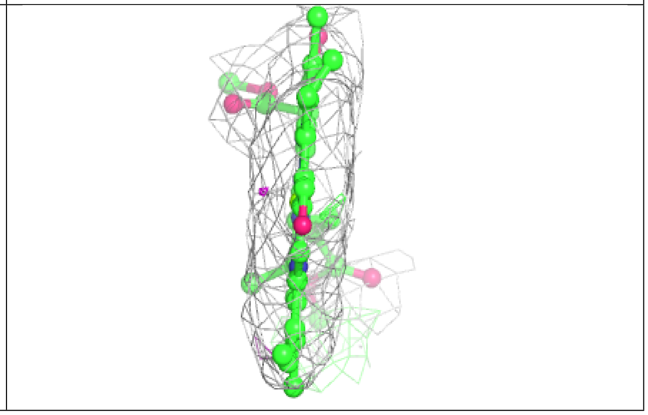


Electron density around CHL 4 4010:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

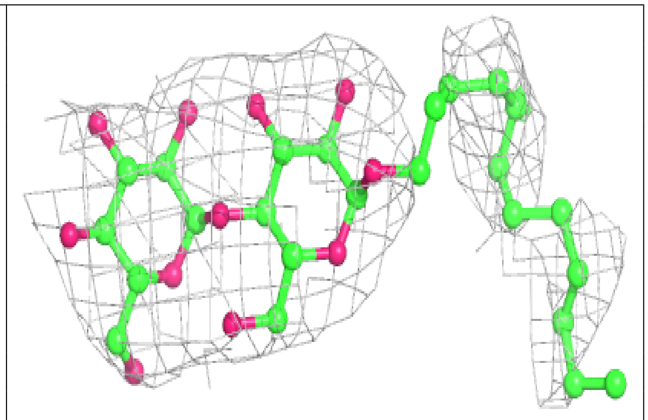


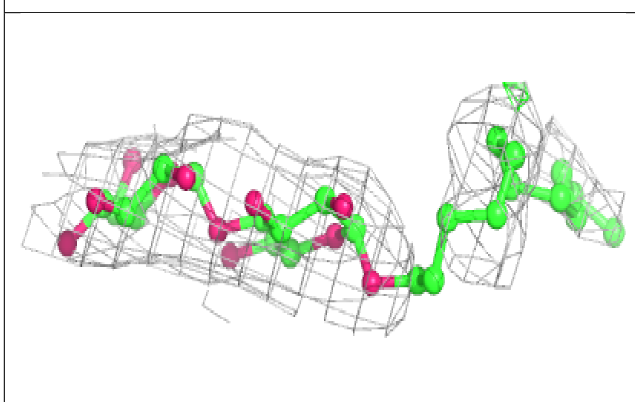


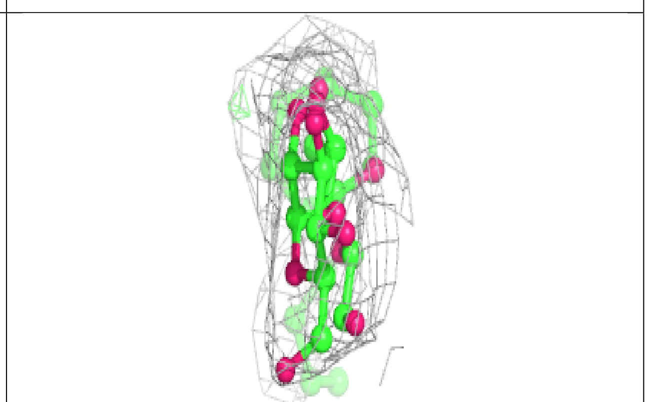


Electron density around LMU B 8002:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

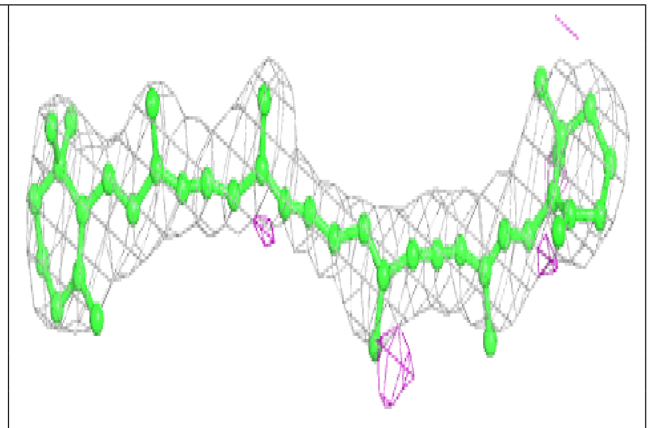


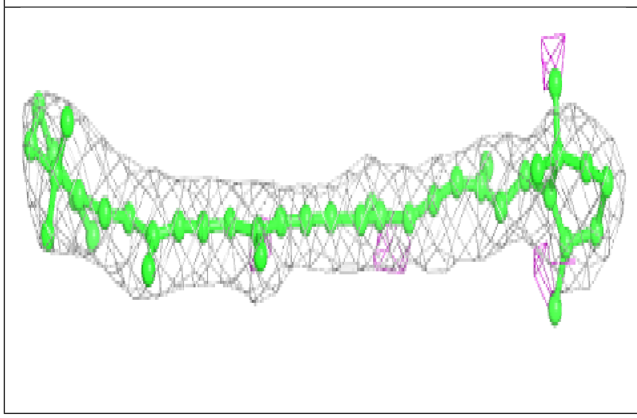


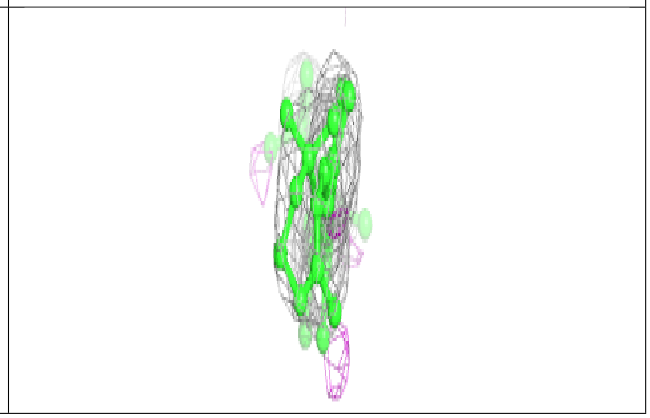


Electron density around BCR J 6012:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

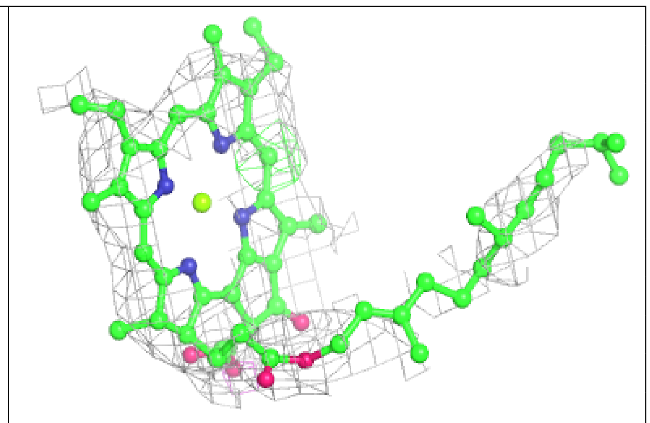


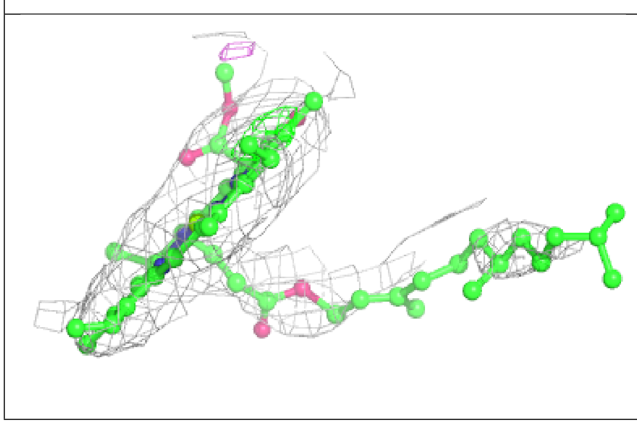


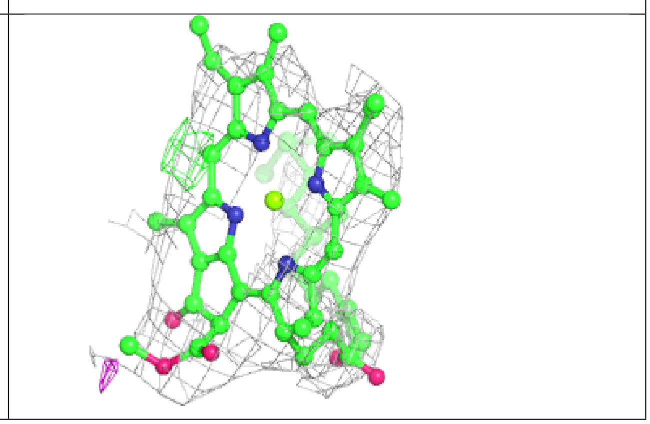


Electron density around CLA 2 2007:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

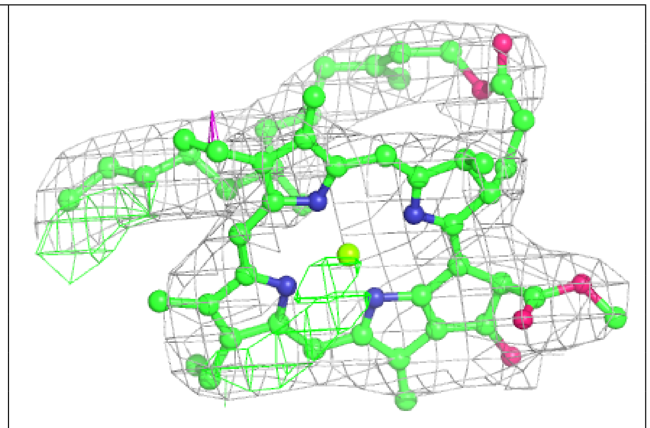


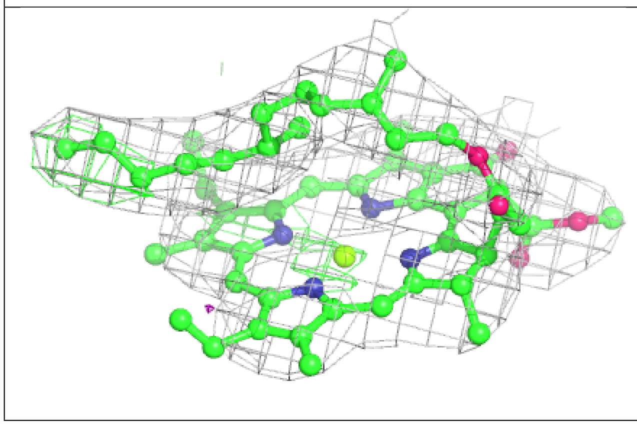


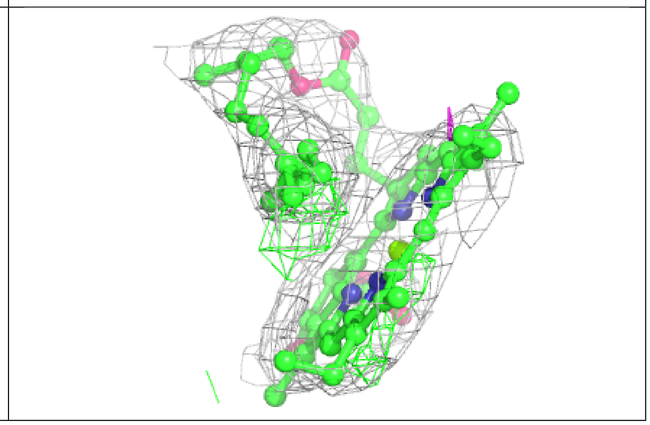


Electron density around CLA B 1214:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

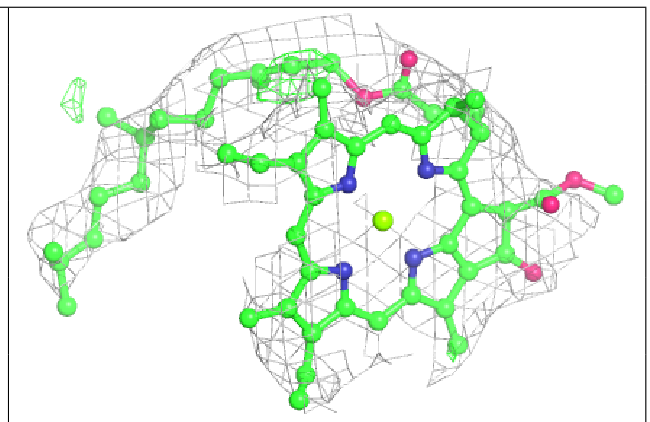


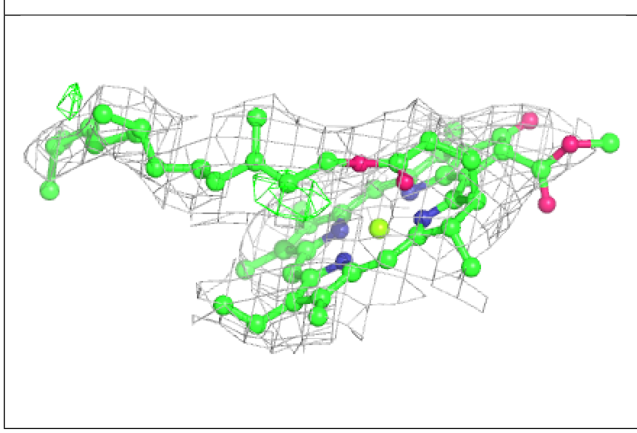


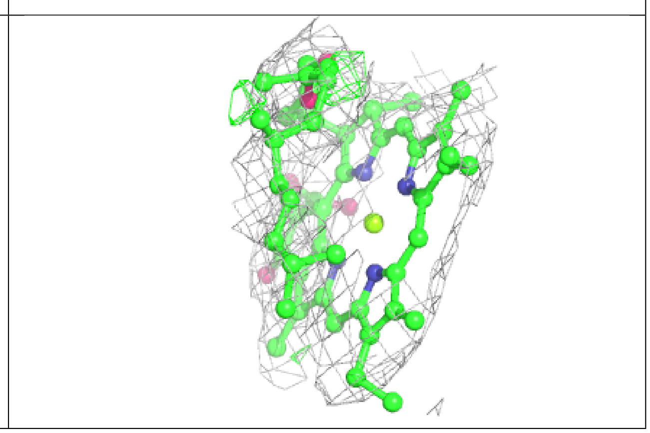


Electron density around CLA 1 1001:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

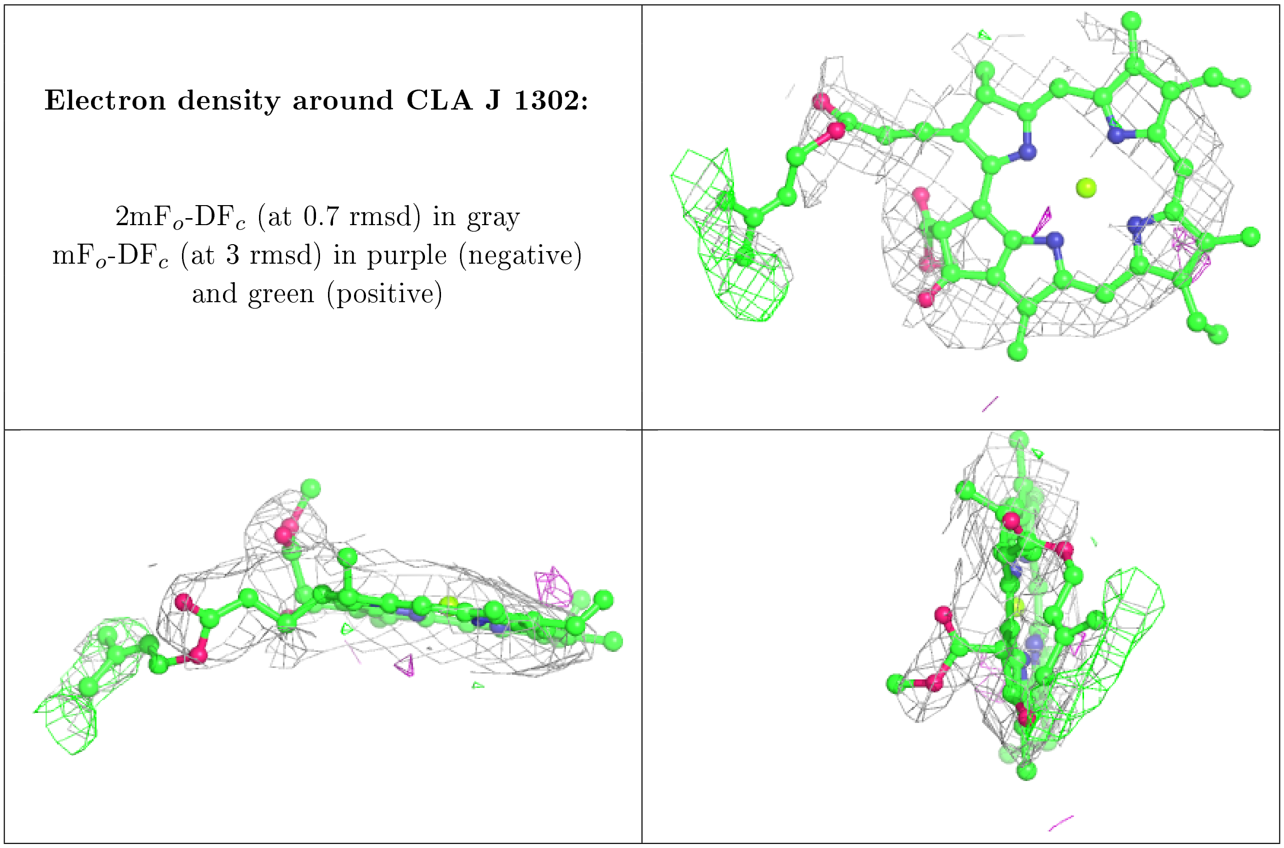






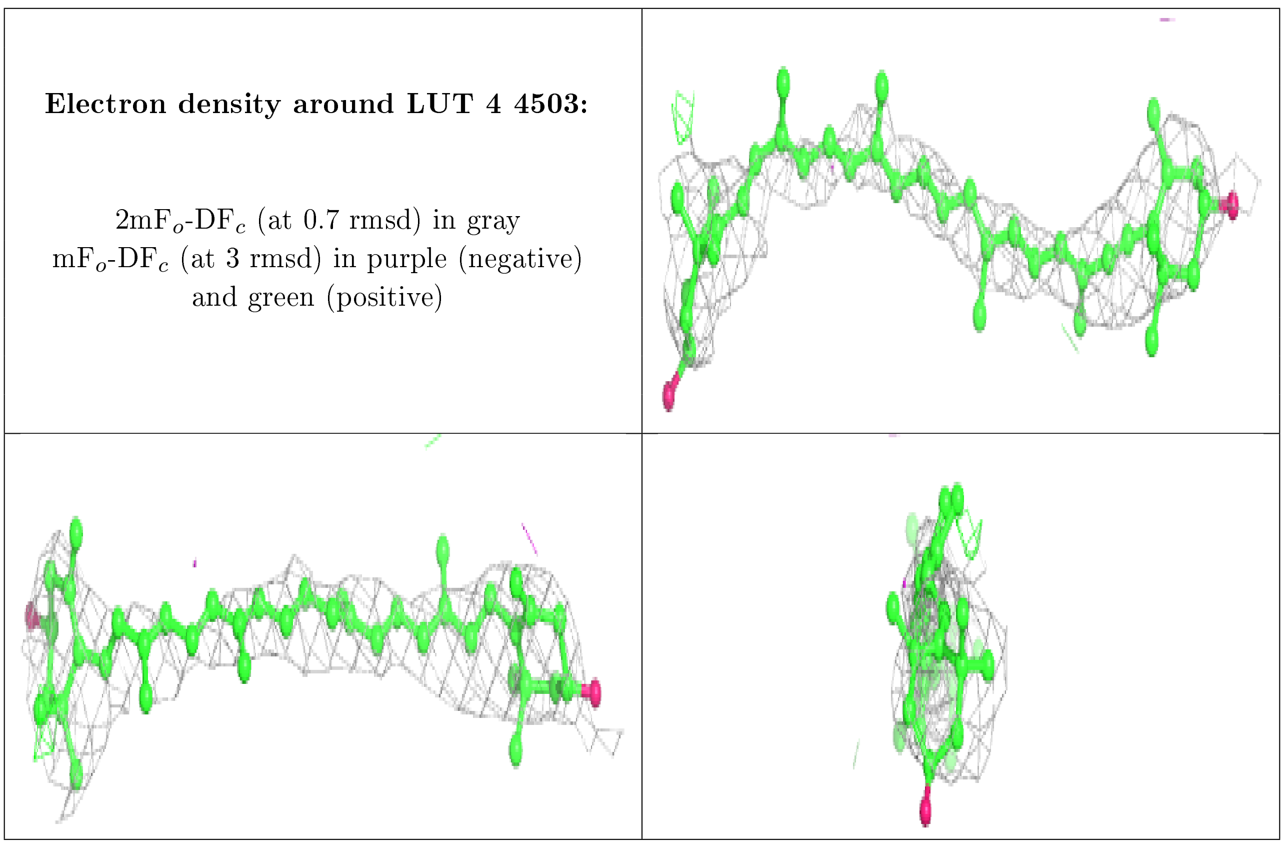
Electron density around CLA J 1302:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)



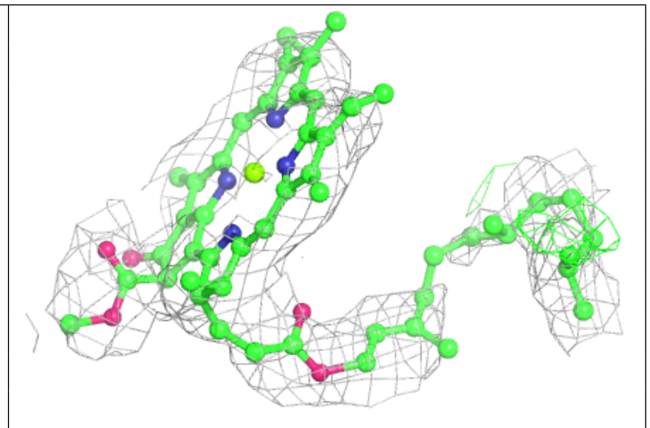
Electron density around LUT 4 4503:

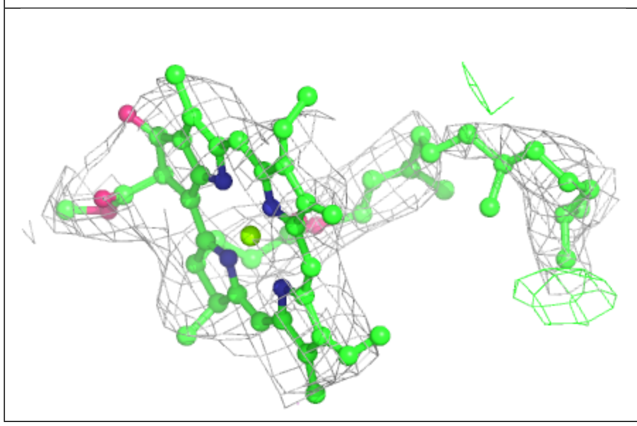
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

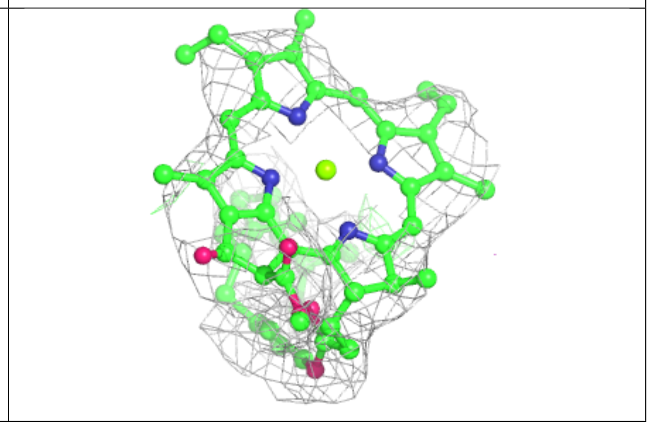


Electron density around CLA G 1003:

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

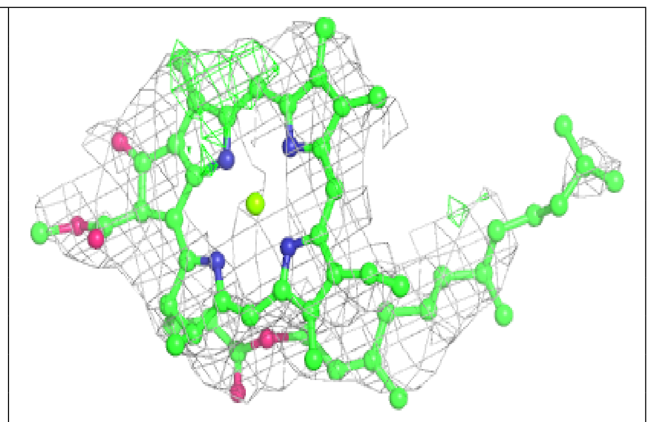


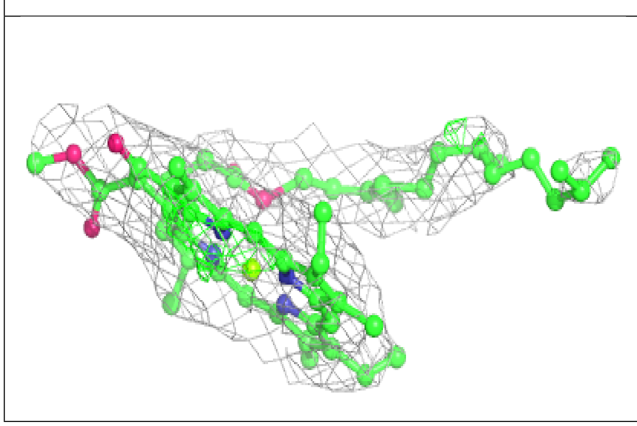


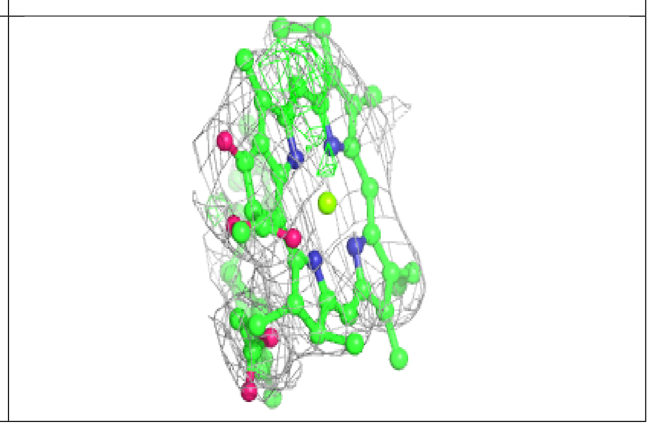


Electron density around CLA 4 4001:

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

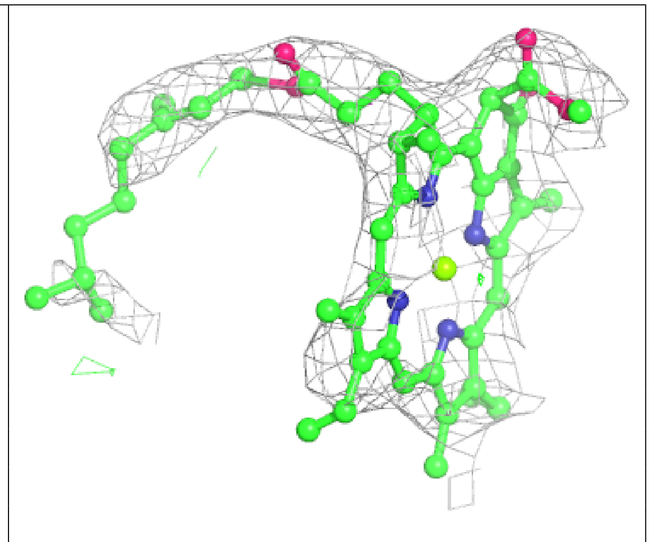


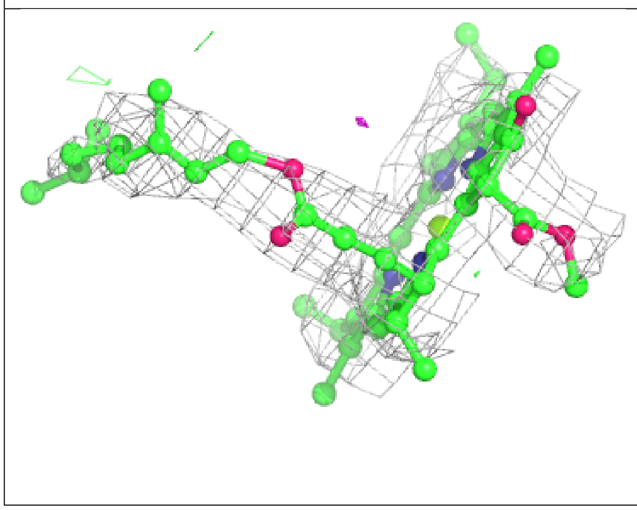


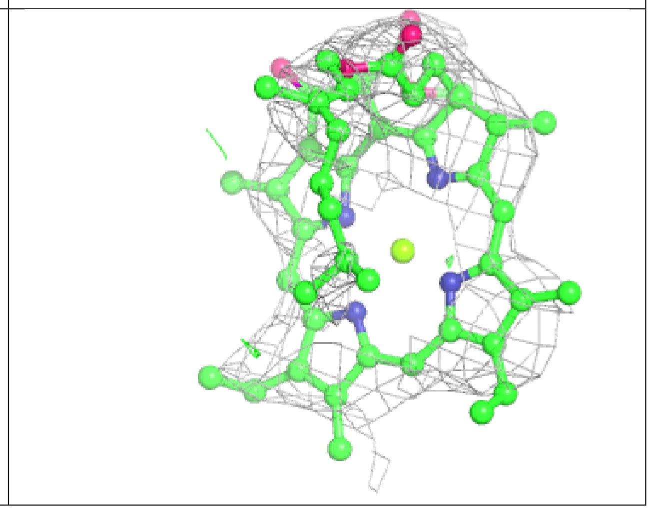


Electron density around CLA B 1212:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

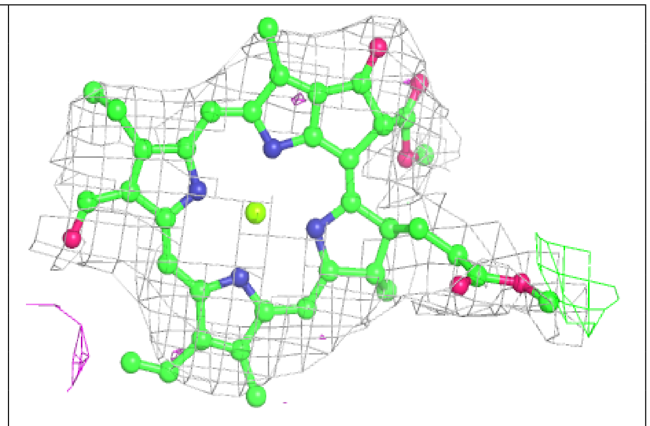


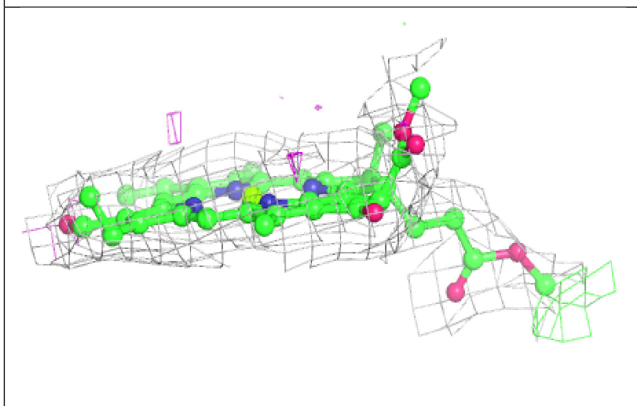


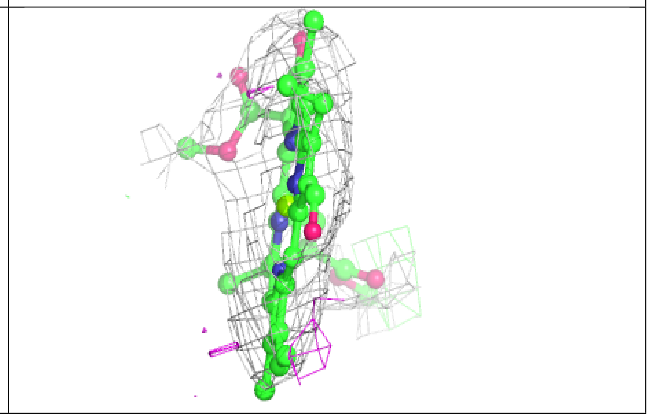


Electron density around CHL 2 2010:

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

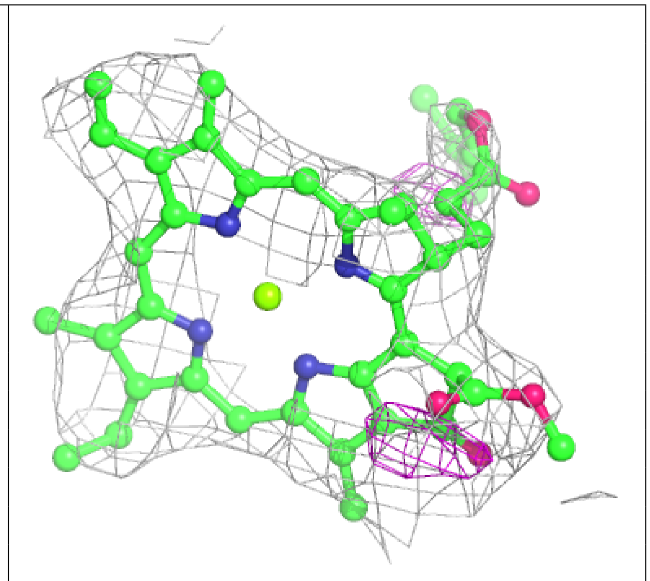


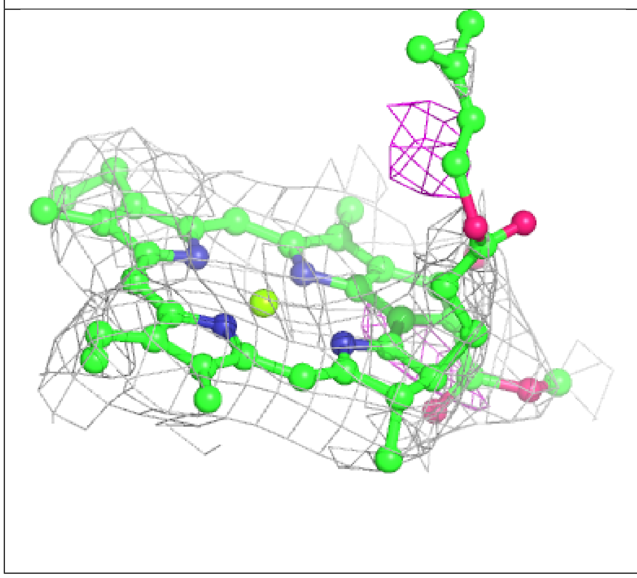


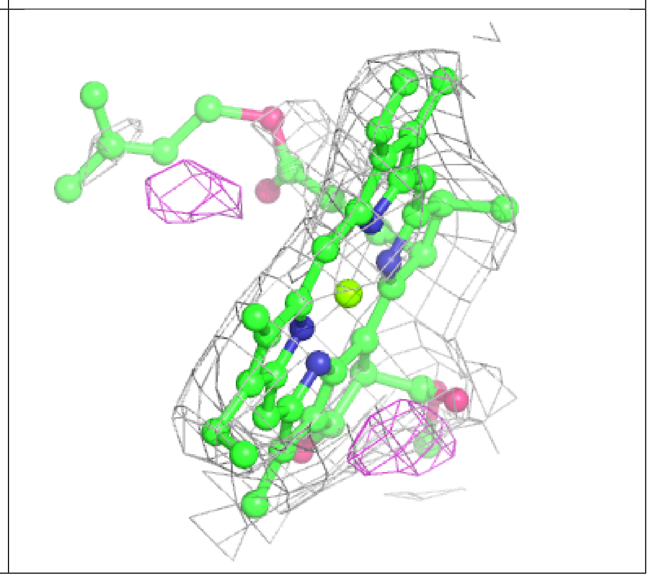


Electron density around CLA 3 3012:

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

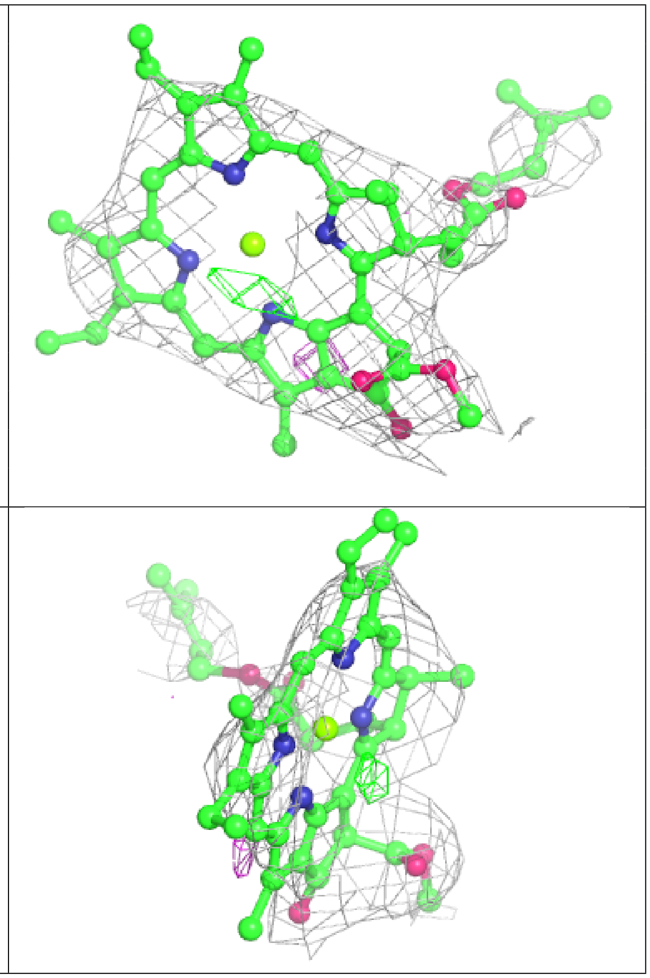






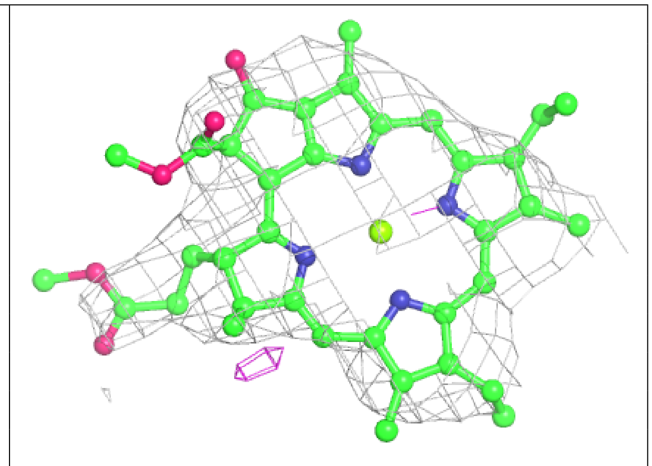
Electron density around CLA 1 1011:

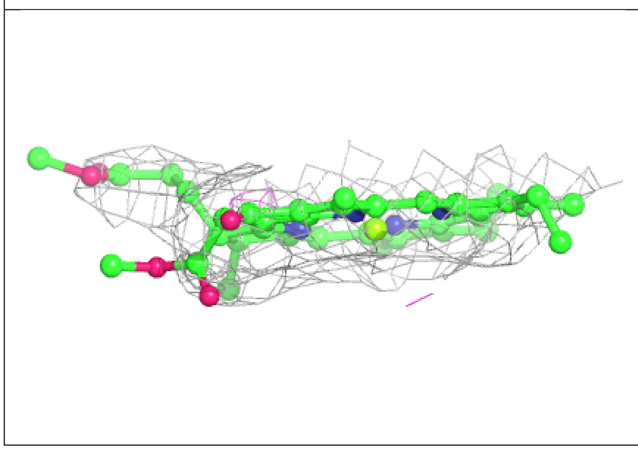
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

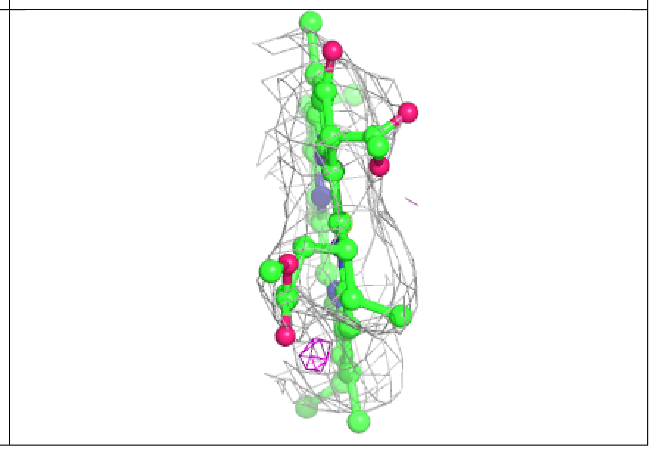


Electron density around CLA H 1000:

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

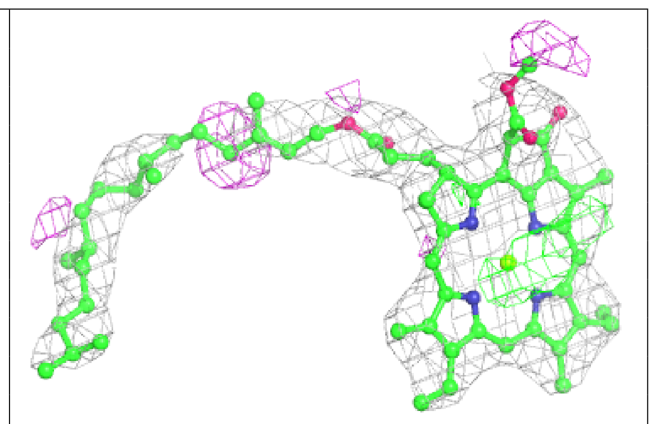


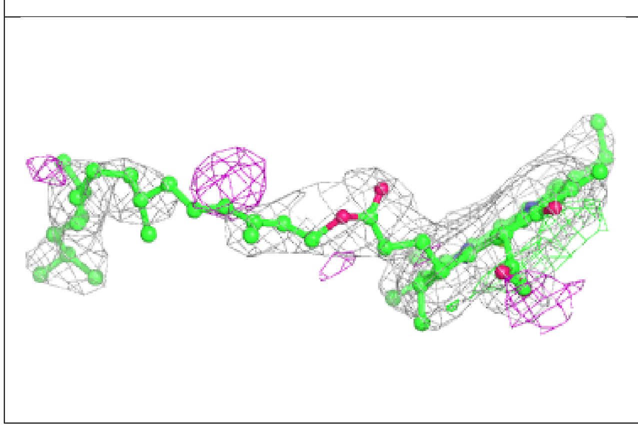


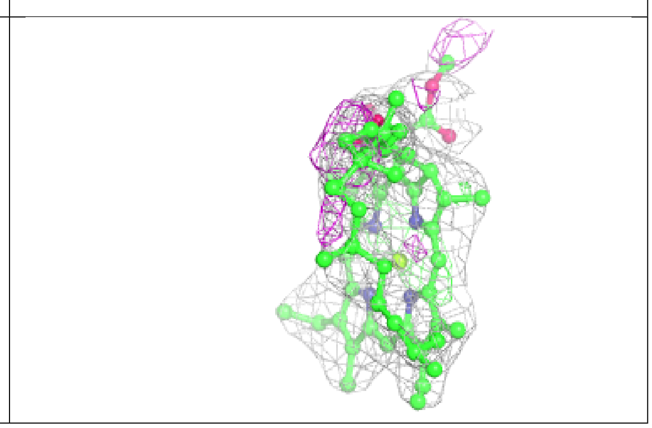


Electron density around CLA B 1222:

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

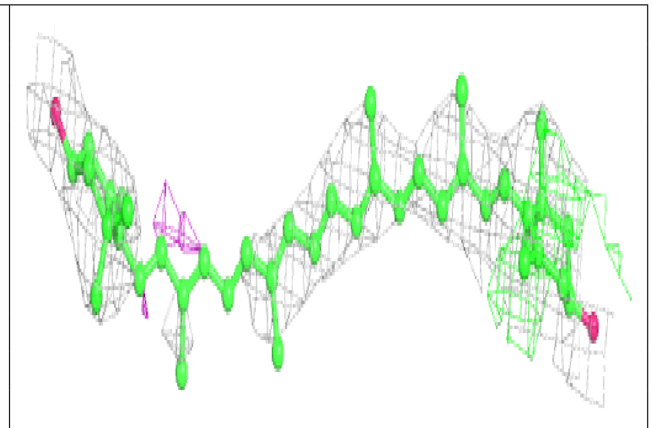


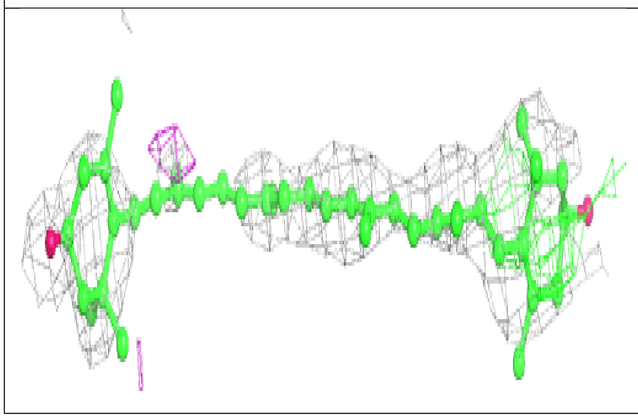


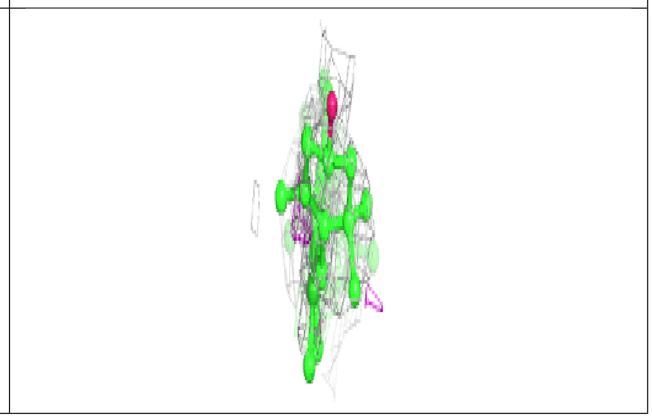


Electron density around LUT 2 2502:

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

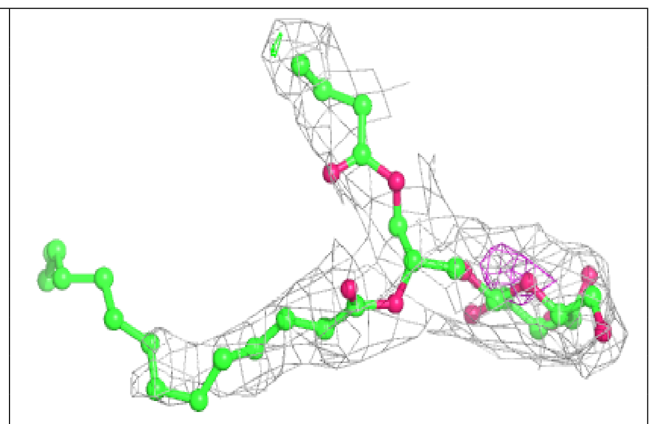


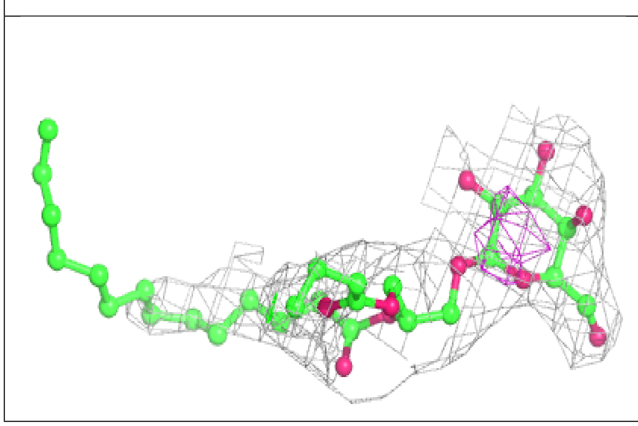


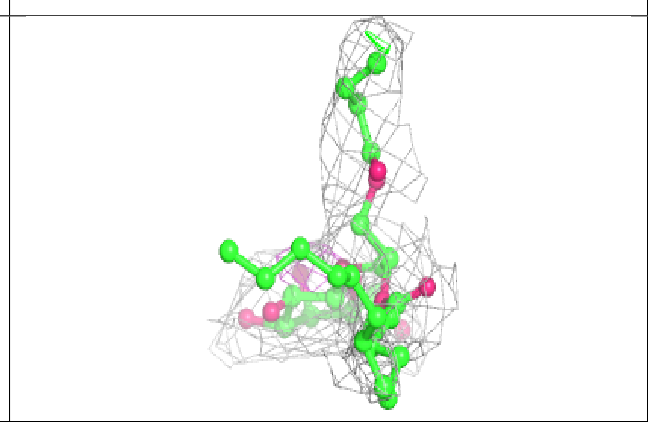


Electron density around LMG F 5002:

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

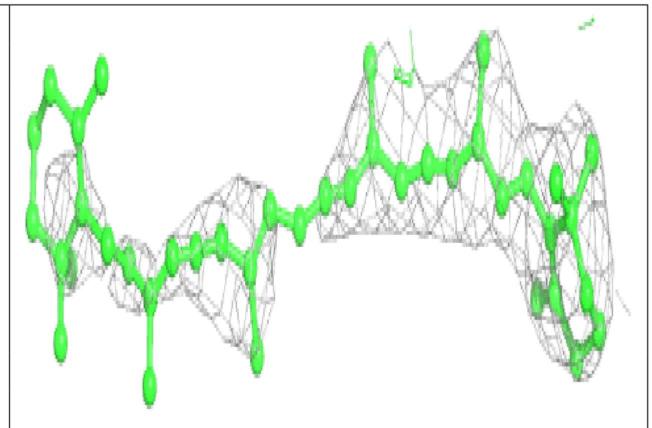


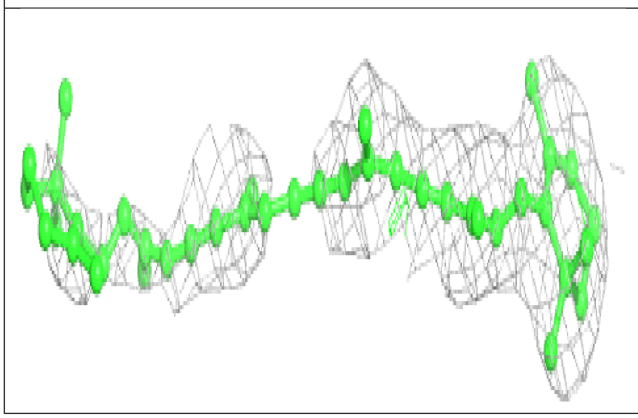


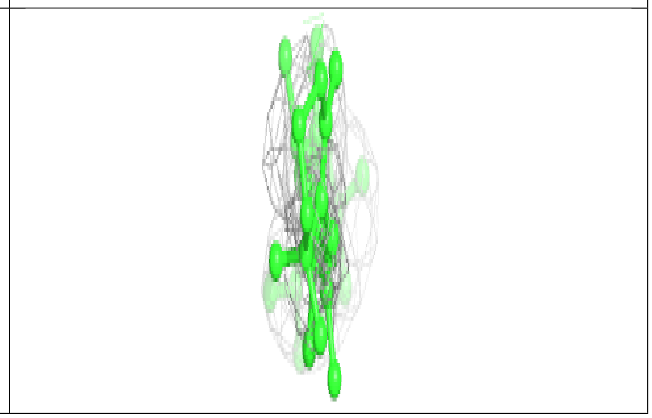


Electron density around BCR A 6003:

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

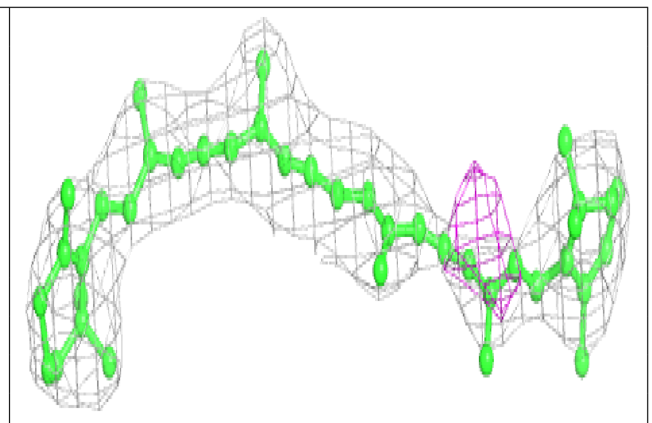


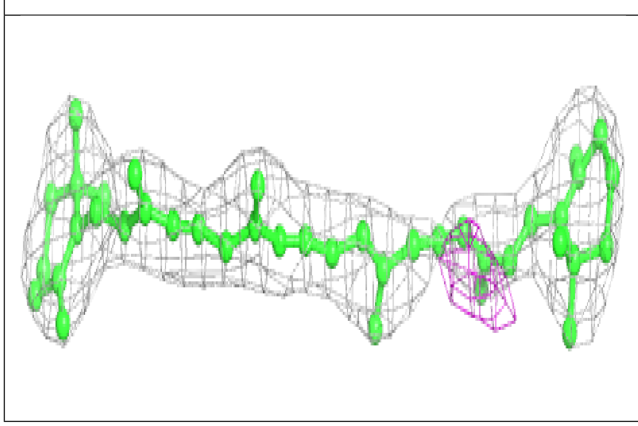


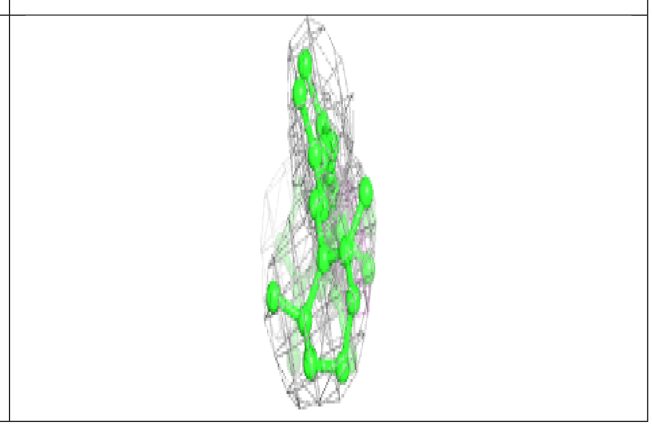


Electron density around BCR B 6010:

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

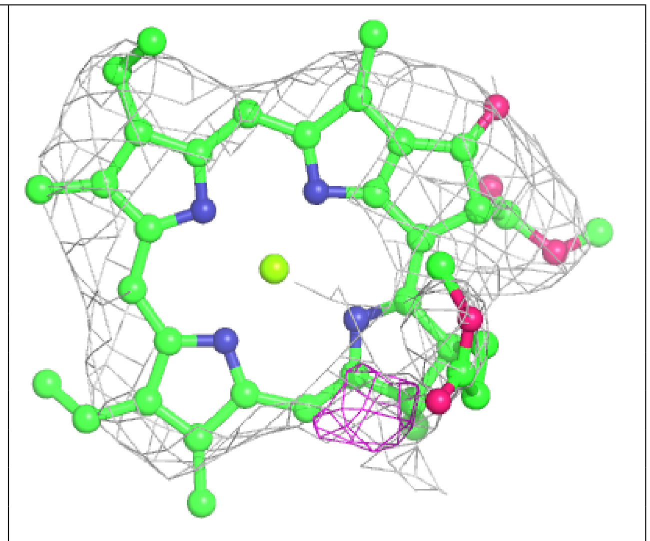


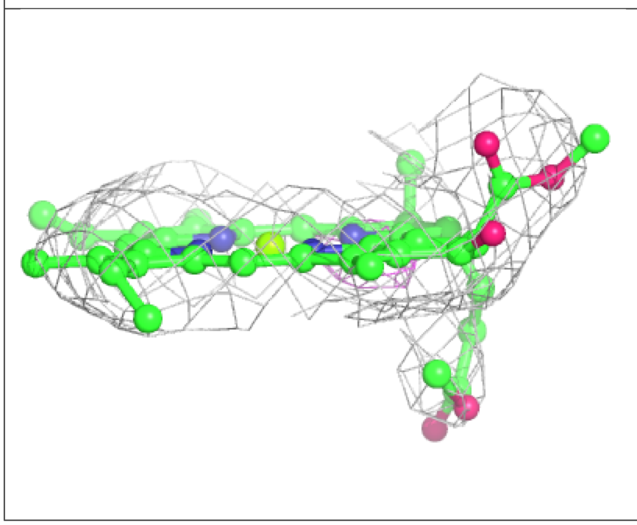


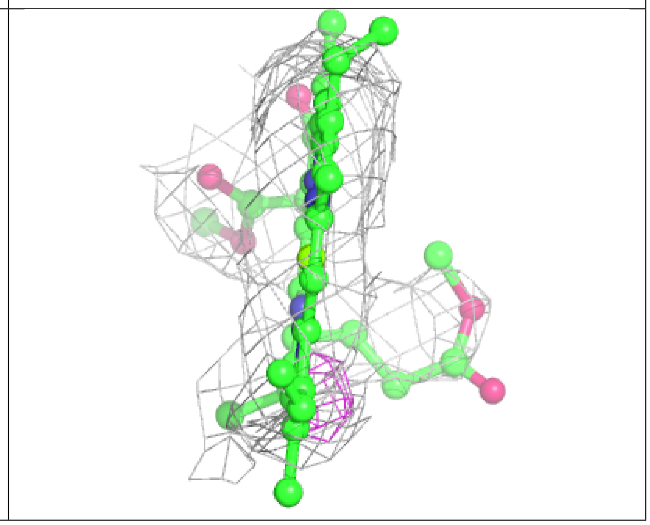


Electron density around CLA 4 4008:

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

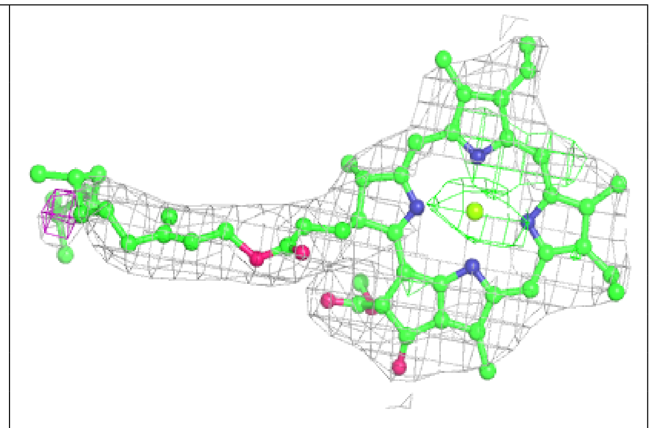


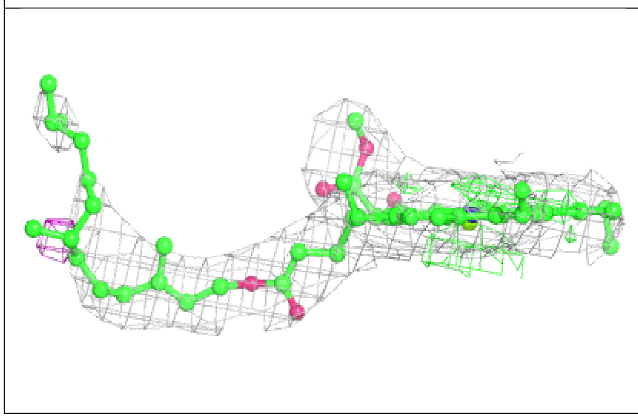


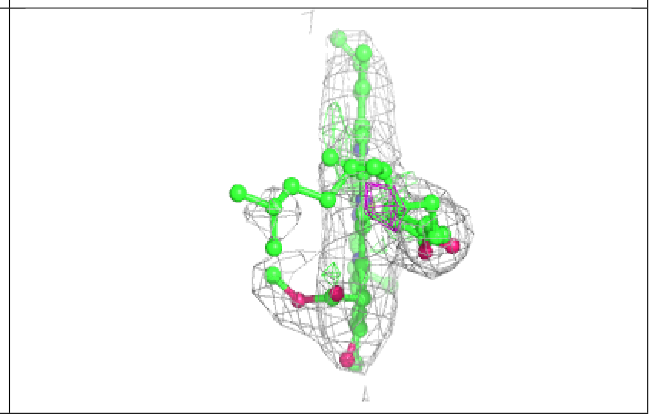


Electron density around CLA B 1234:

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

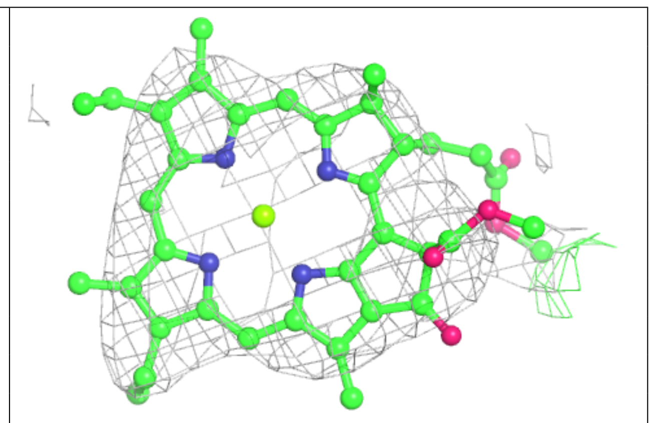


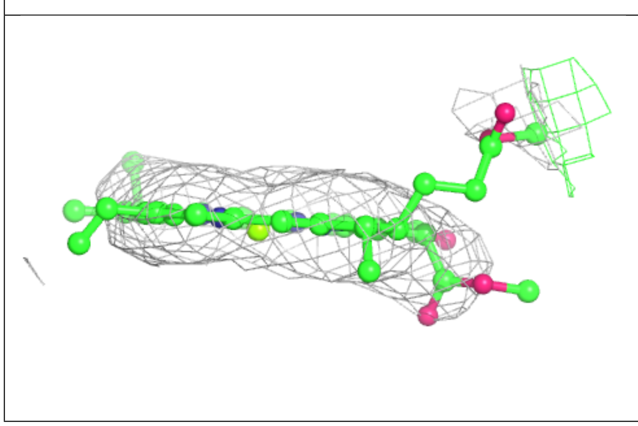


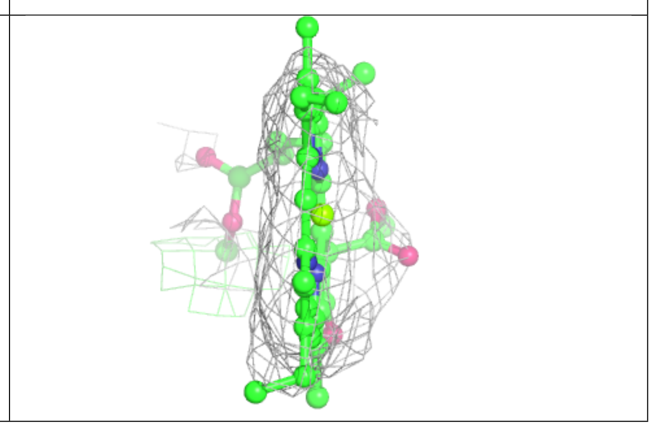


Electron density around CLA A 1113:

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

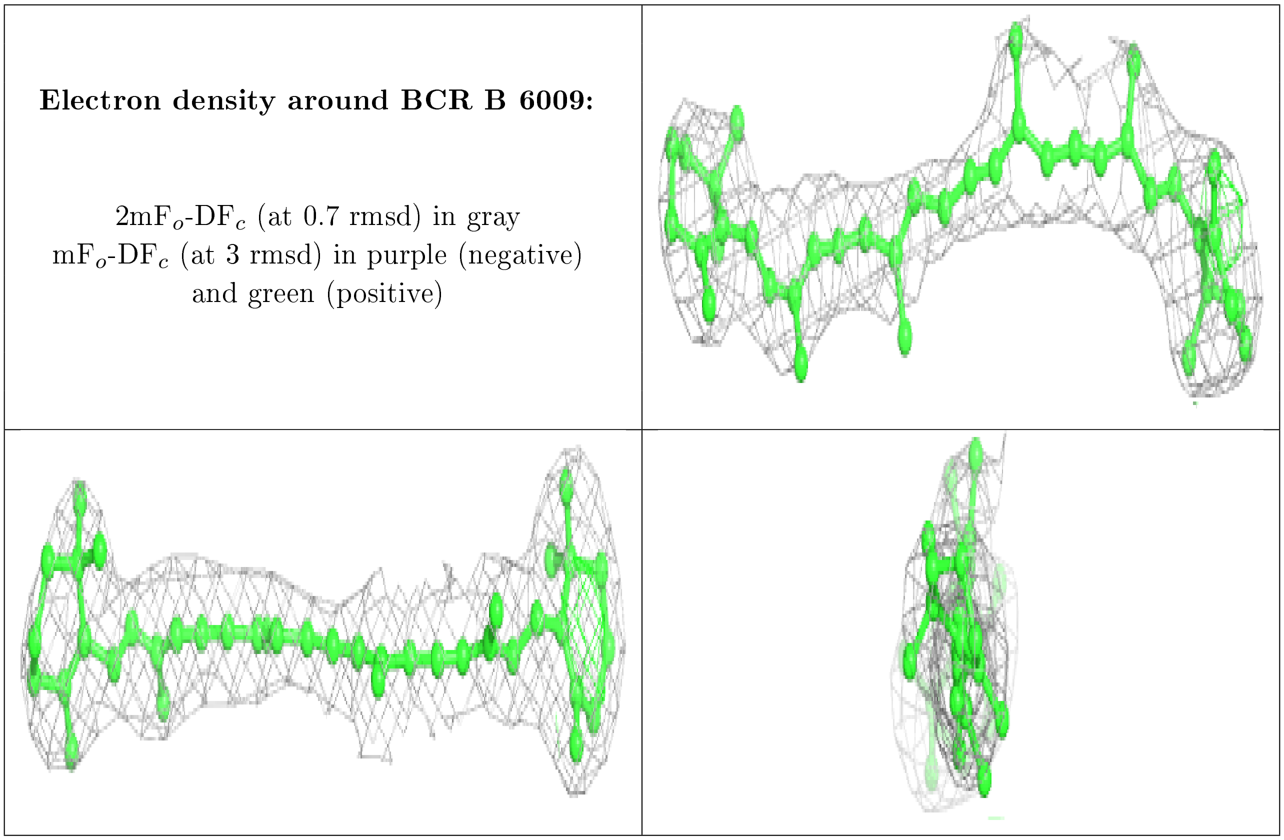






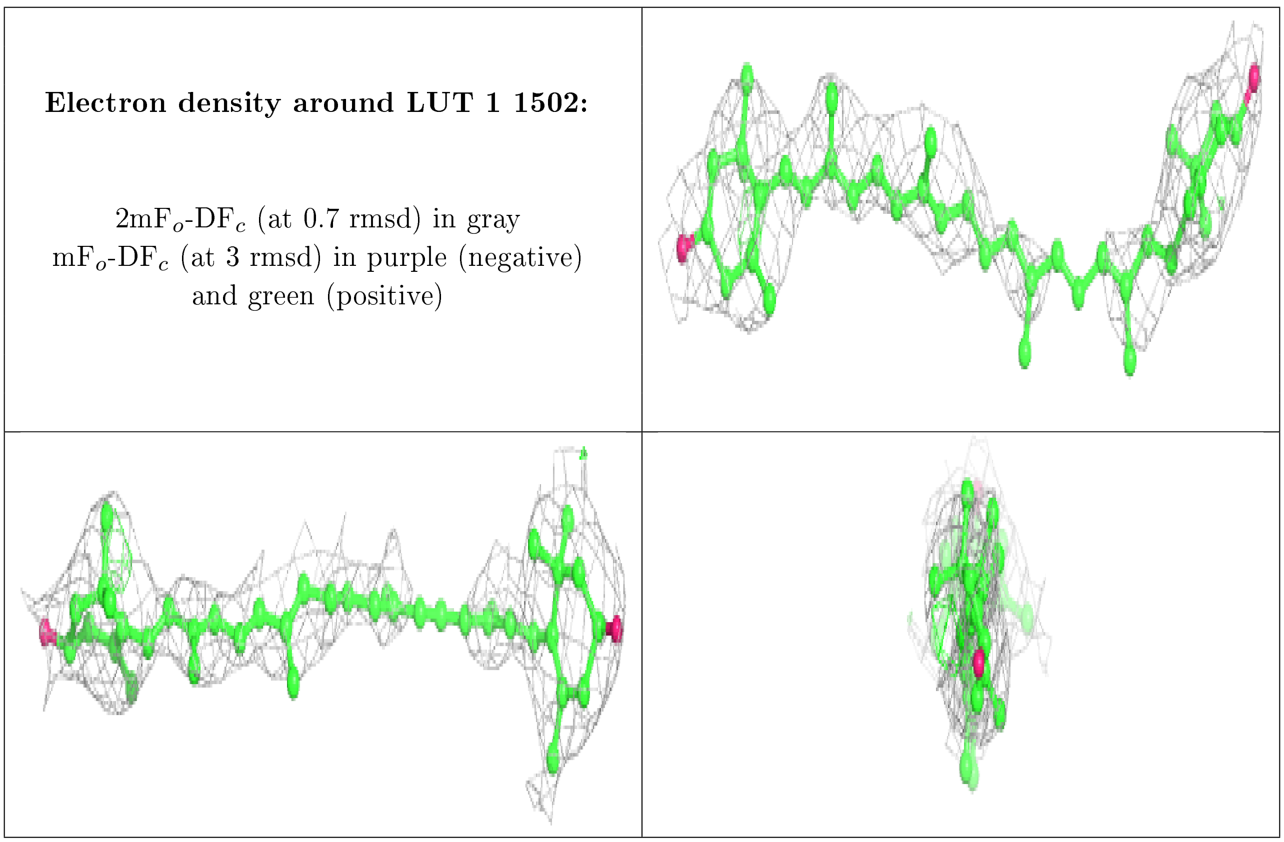
Electron density around BCR B 6009:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)



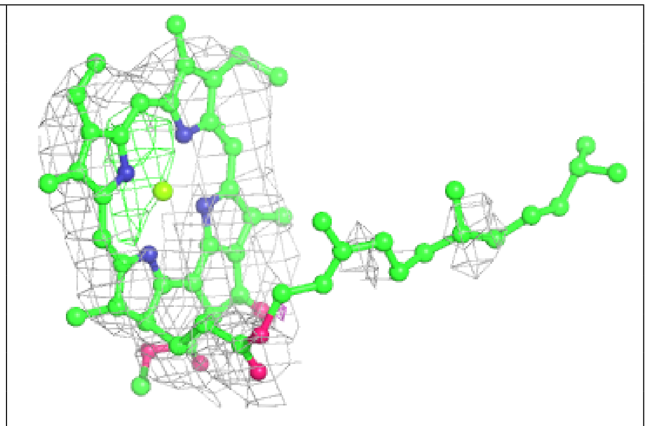
Electron density around LUT 1 1502:

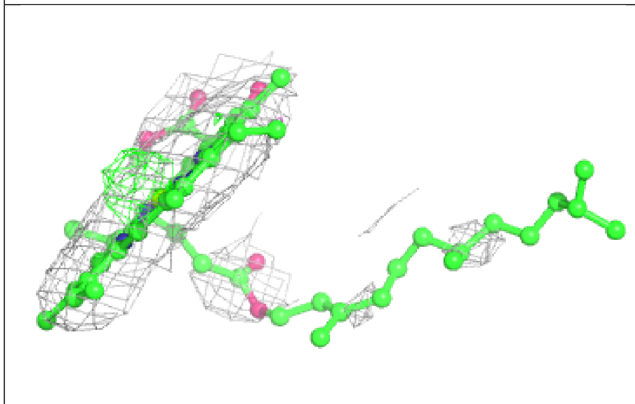
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

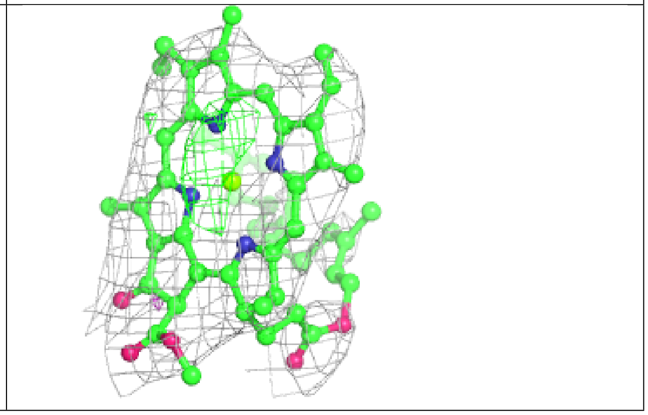


Electron density around CLA 4 4007:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

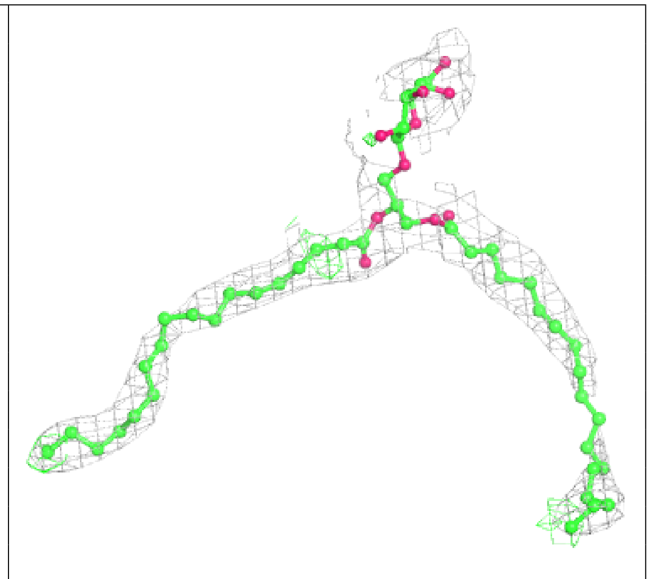


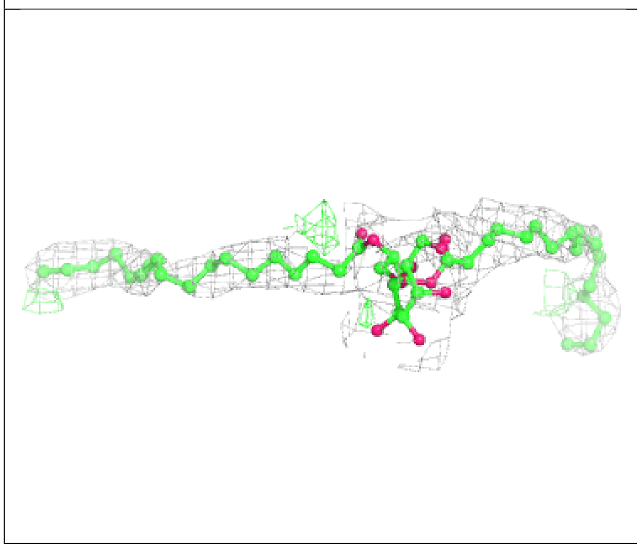


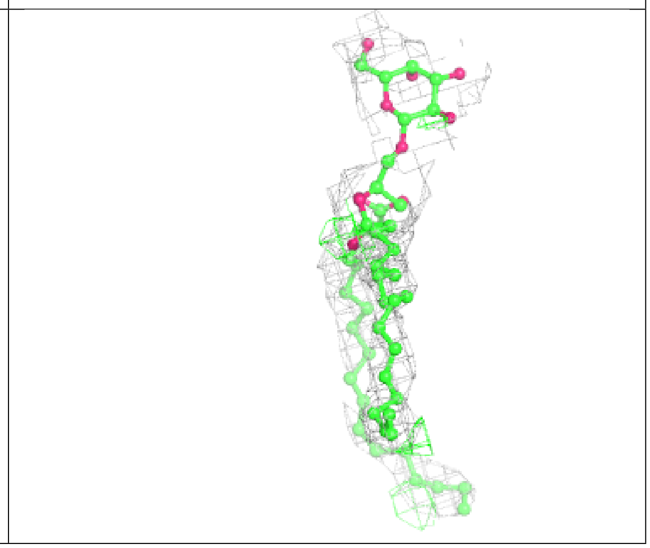


Electron density around LMG J 5001:

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

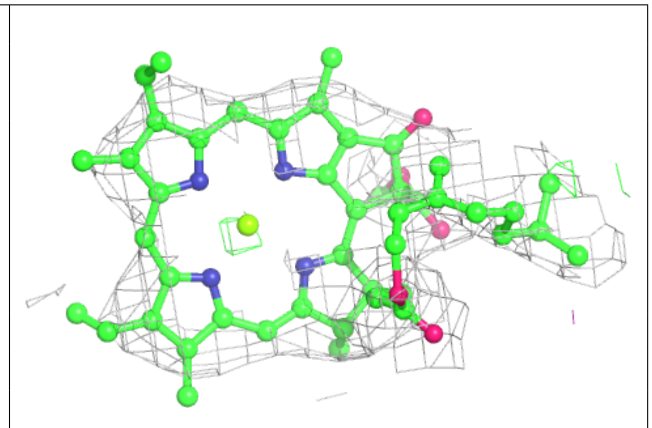


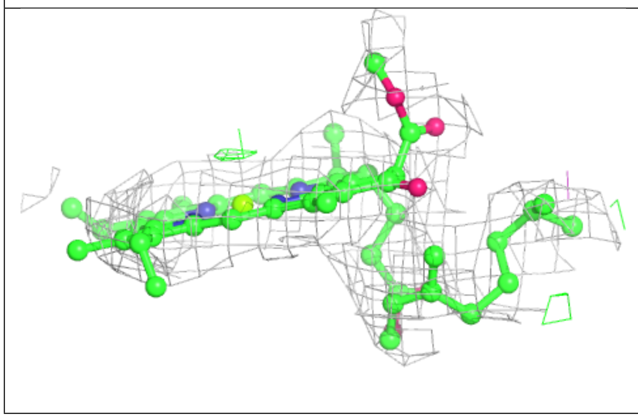


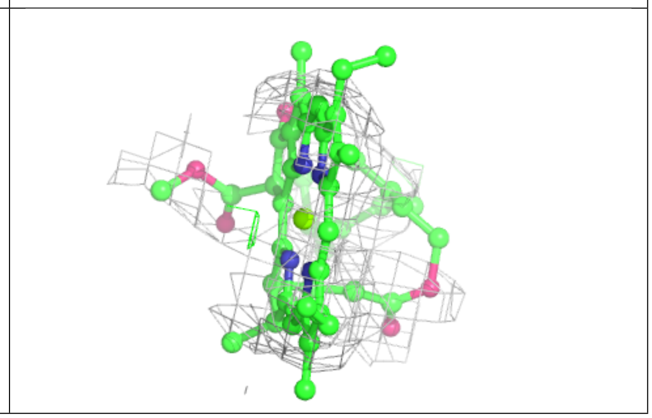


Electron density around CLA 2 2006:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

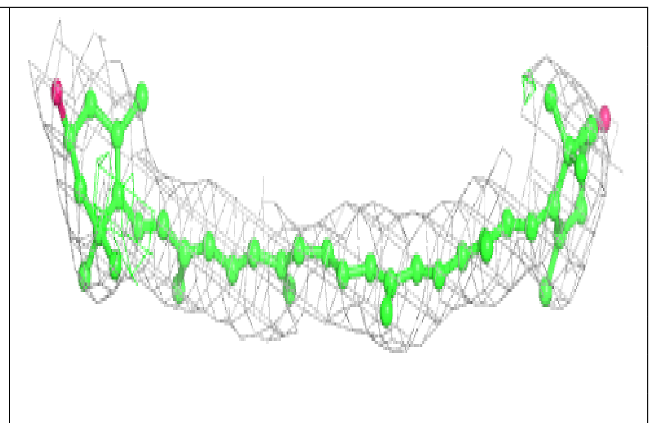


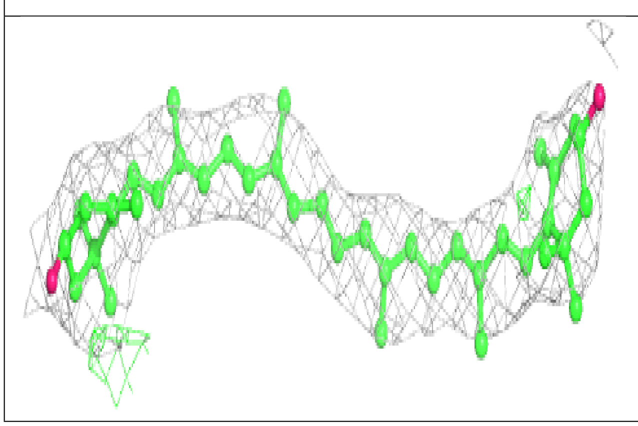


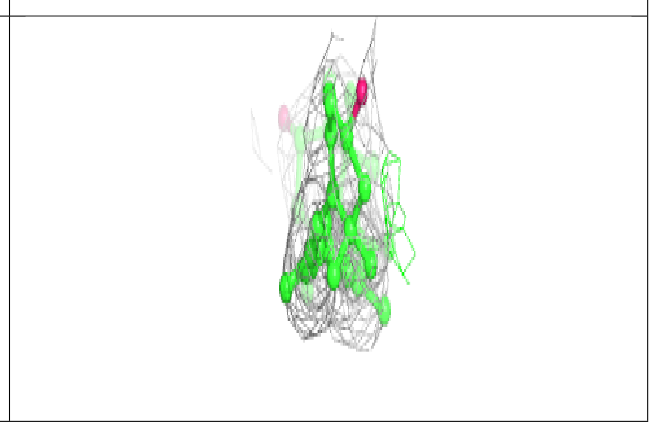


Electron density around LUT I 6018:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

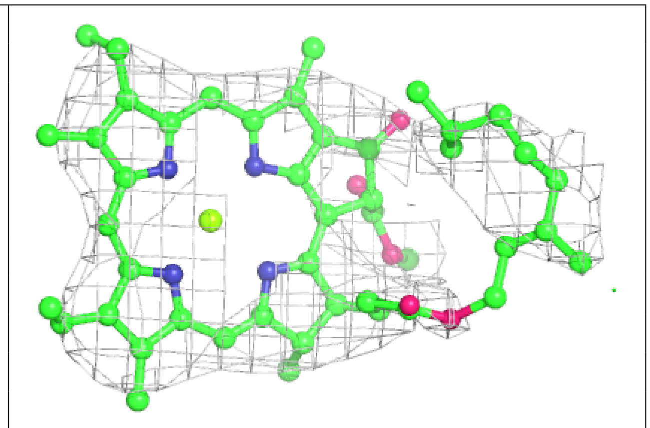


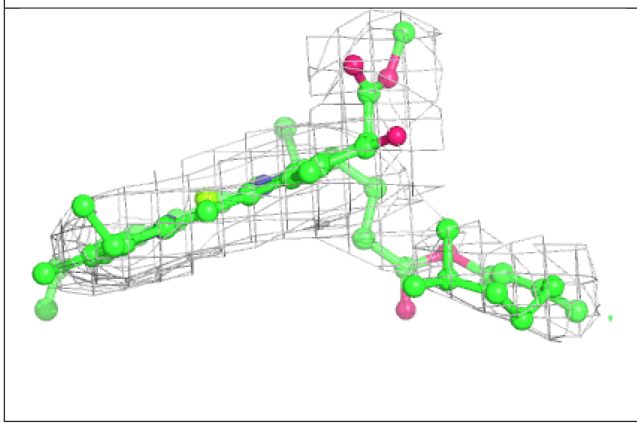


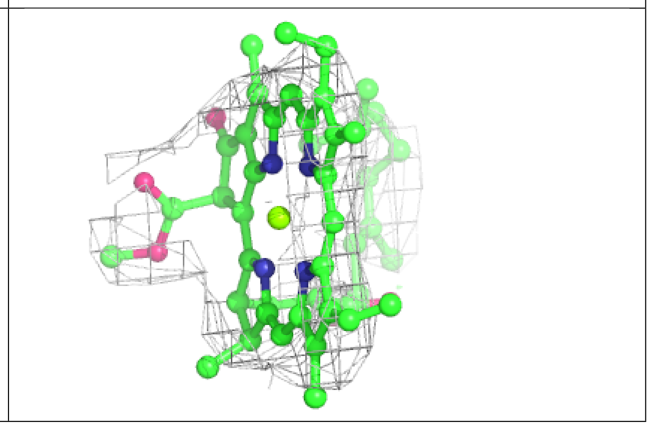


Electron density around CLA A 1134:

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

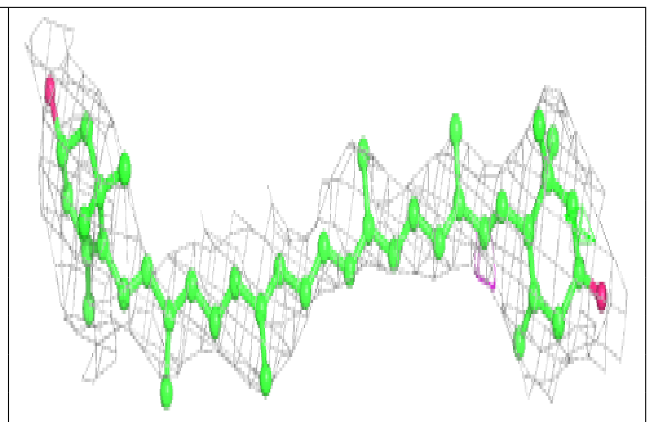


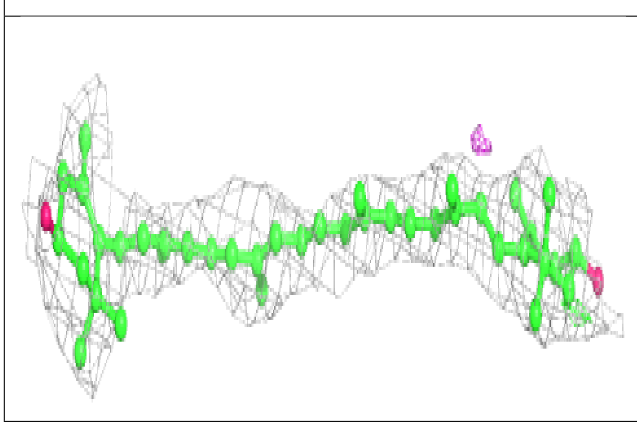


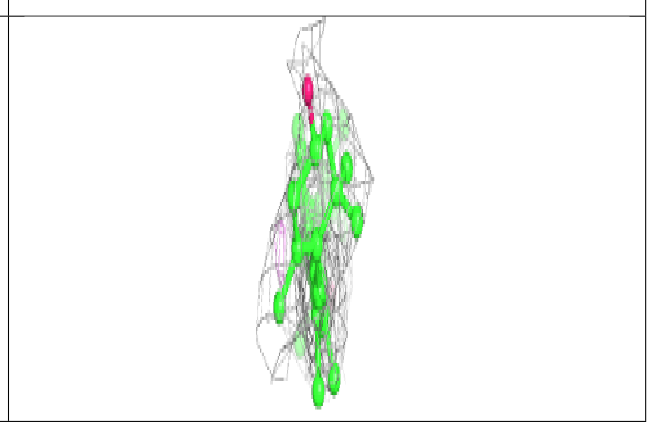


Electron density around LUT 4 4502:

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

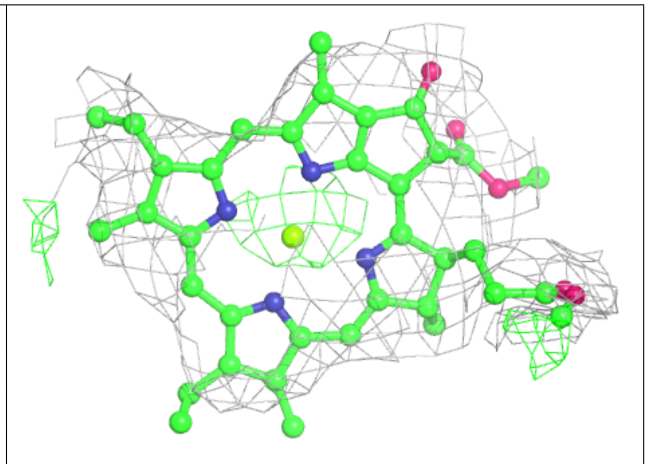


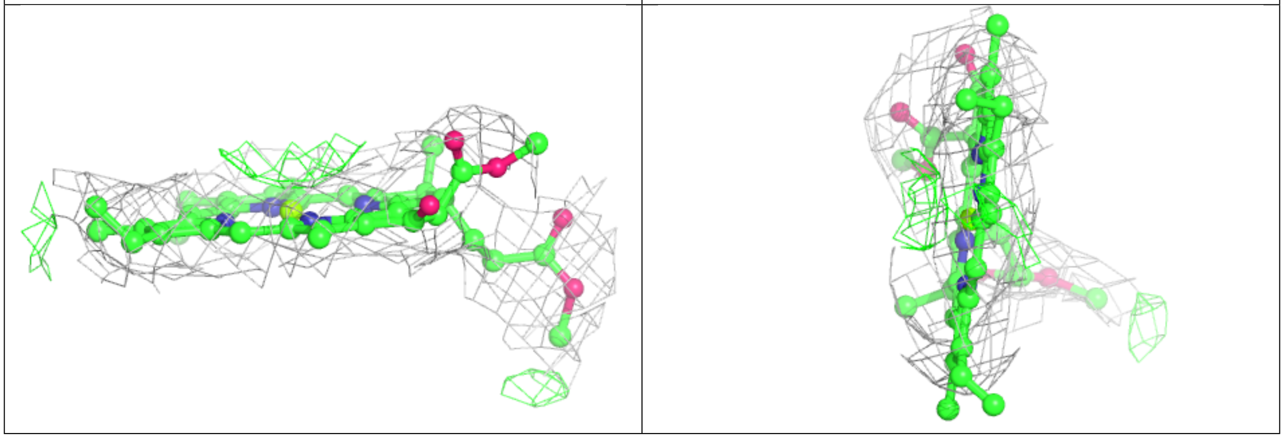




Electron density around CLA 3 3013:

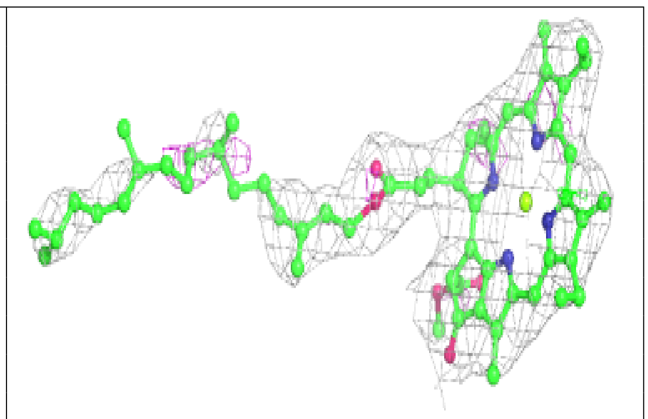
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

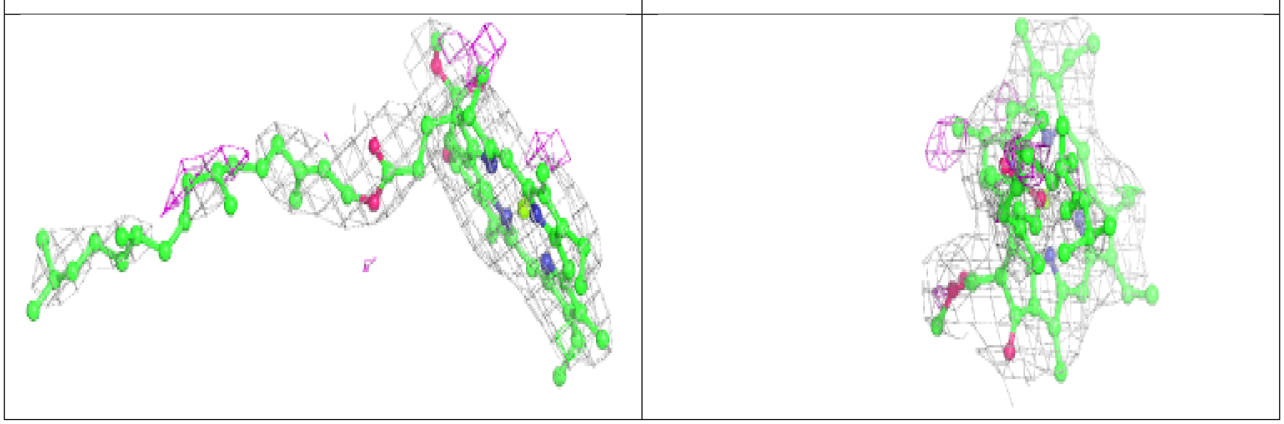




Electron density around CLA A 1107:

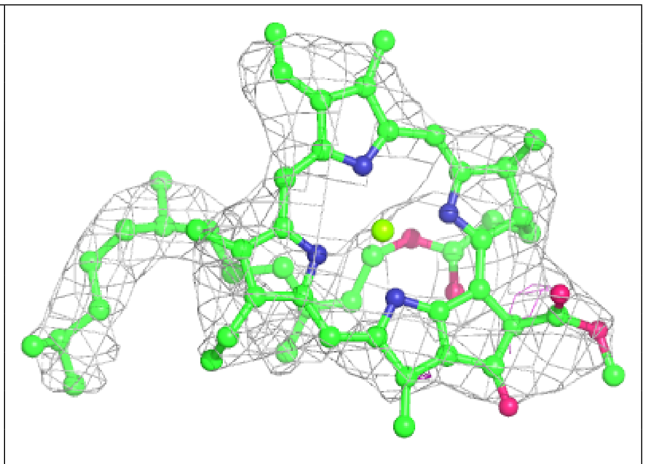
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

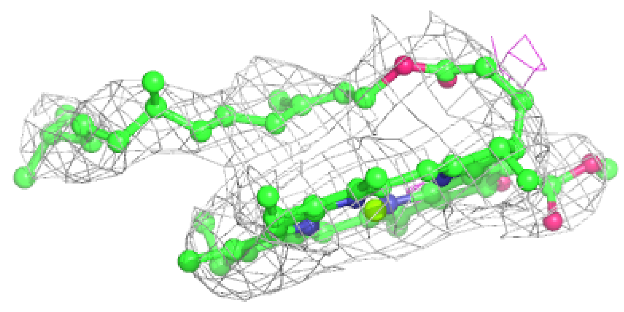


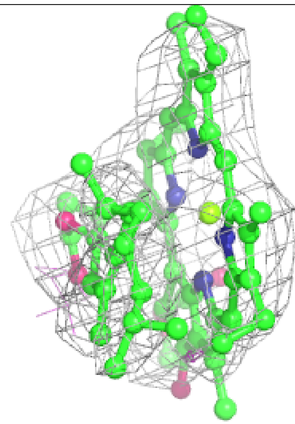


Electron density around CLA B 1213:

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

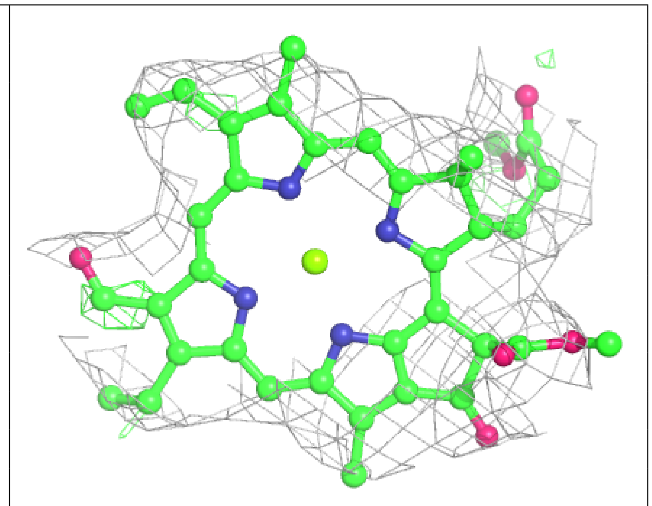


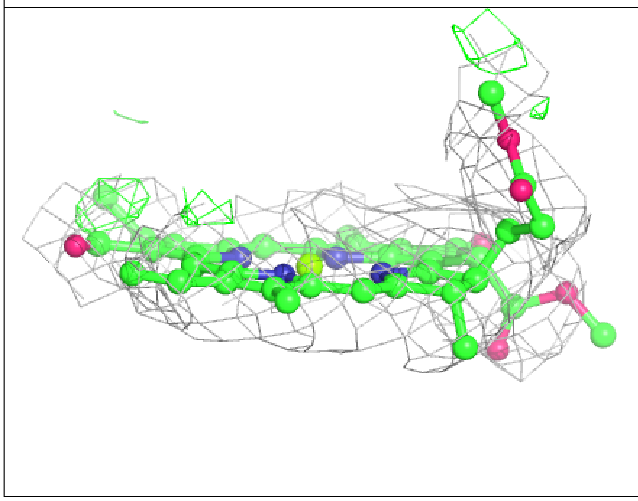


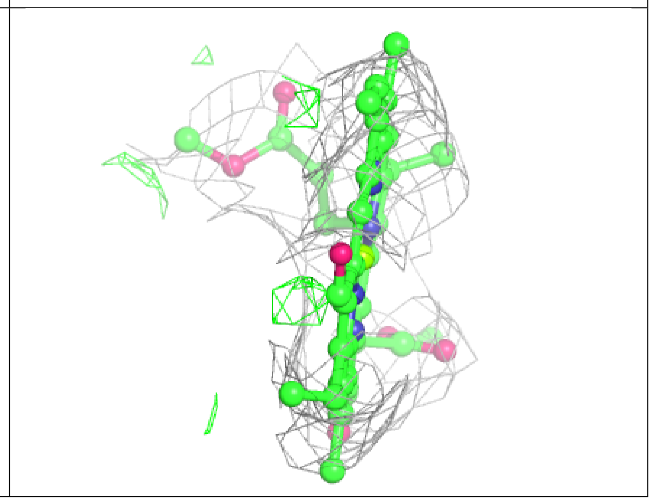


Electron density around CHL 1 1010:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

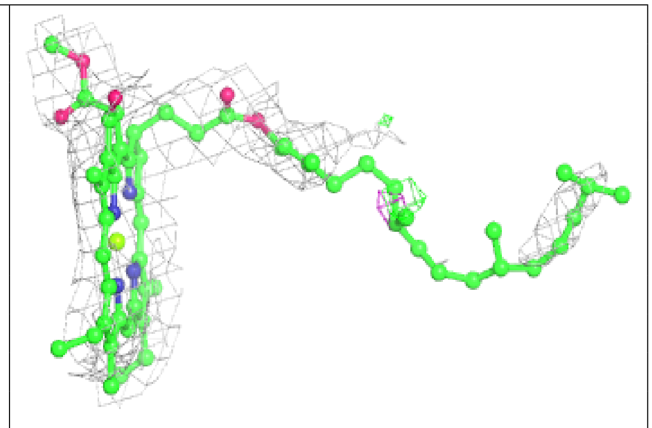


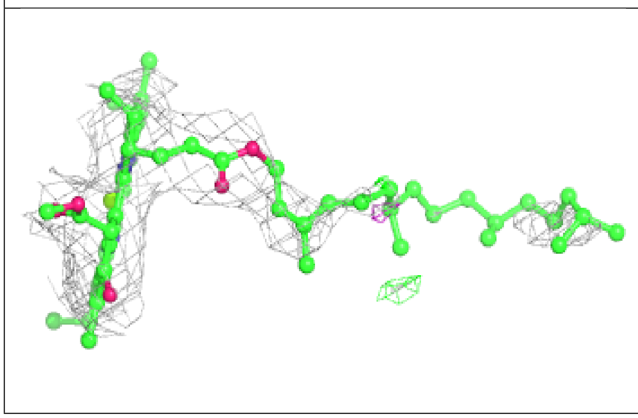


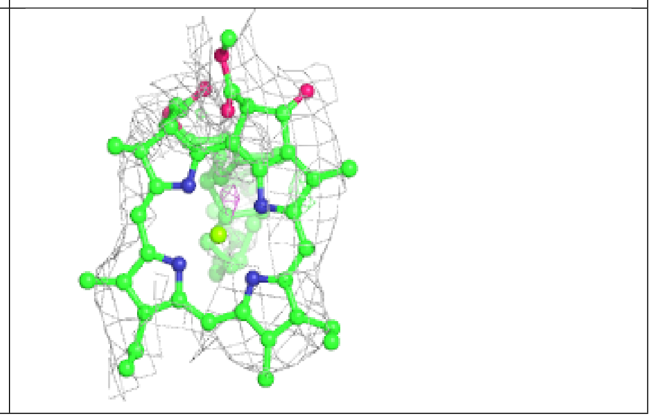


Electron density around CLA A 1112:

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

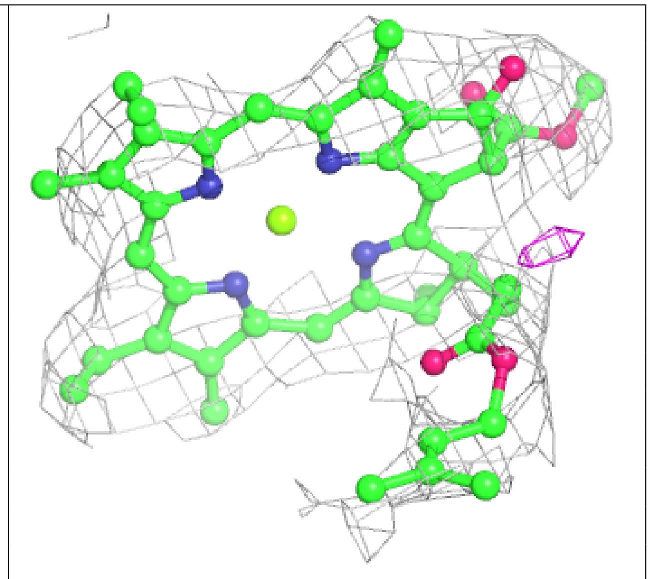


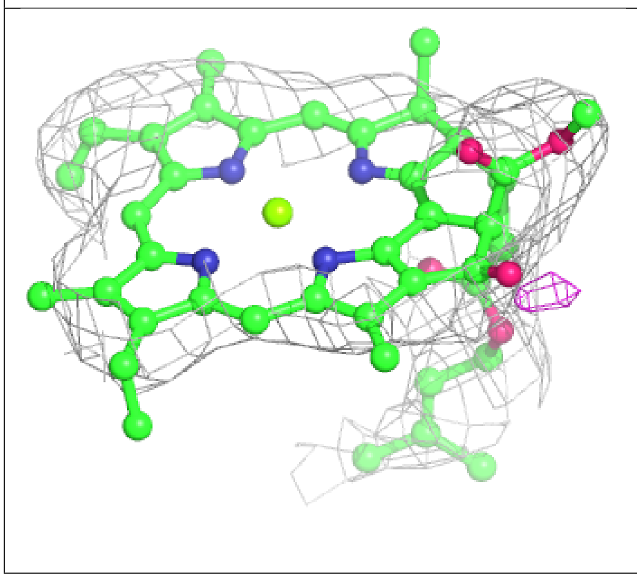


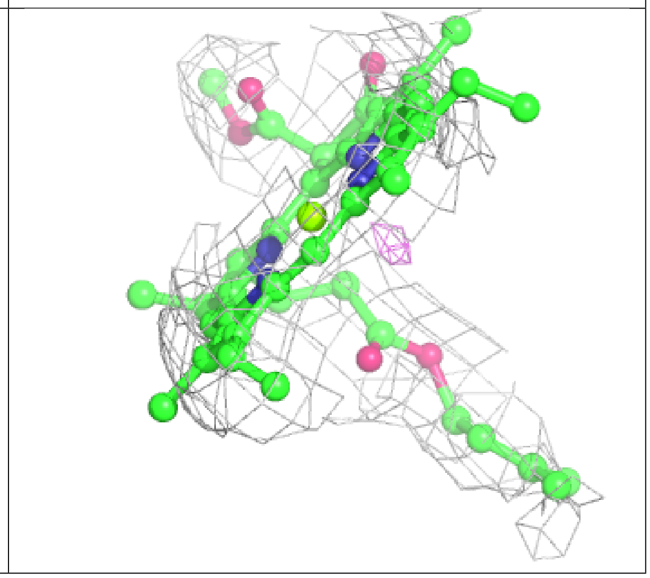


Electron density around CLA L 1501:

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

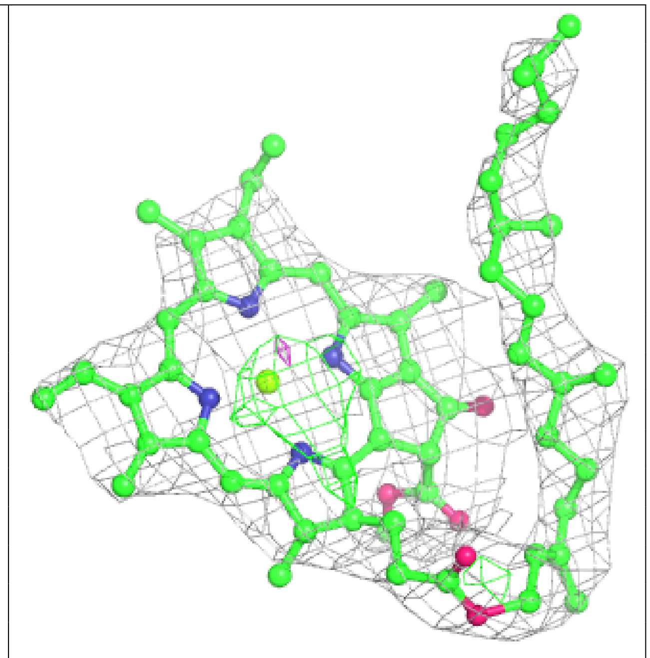


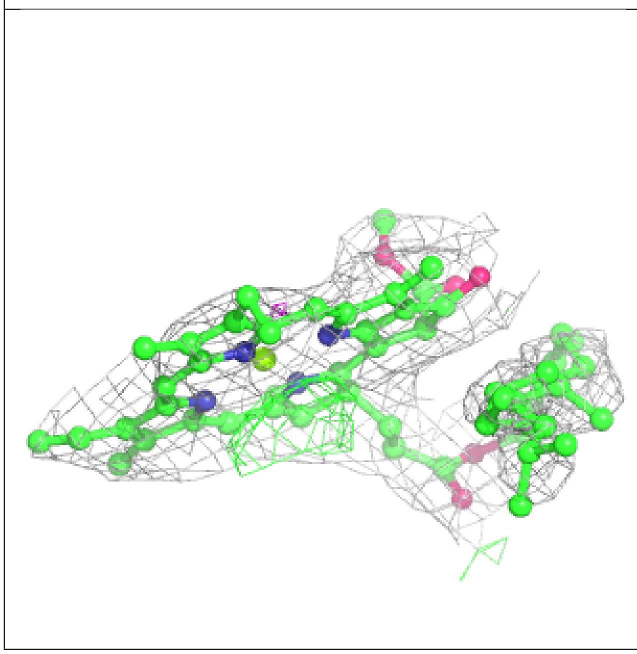


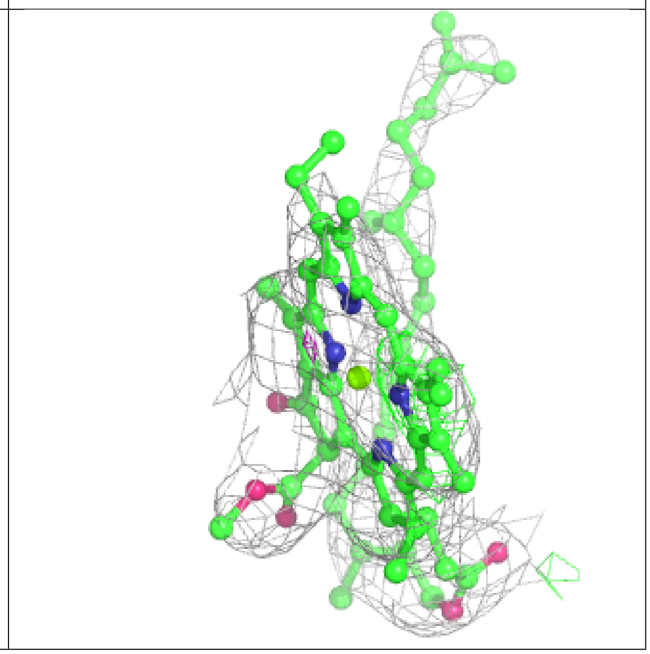


Electron density around CLA A 1123:

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

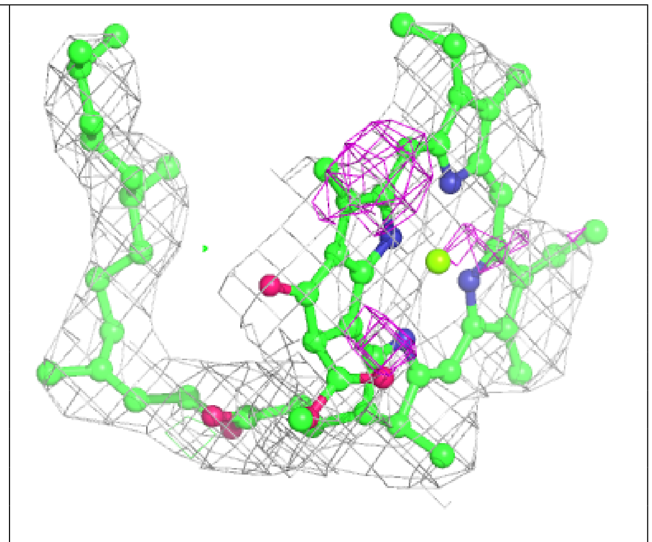


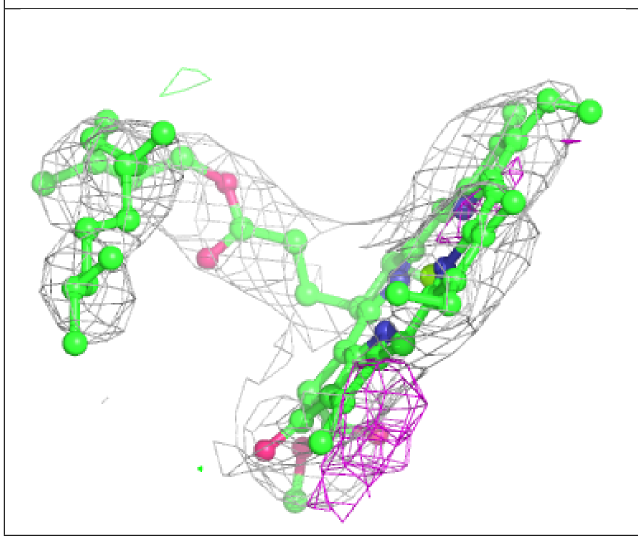


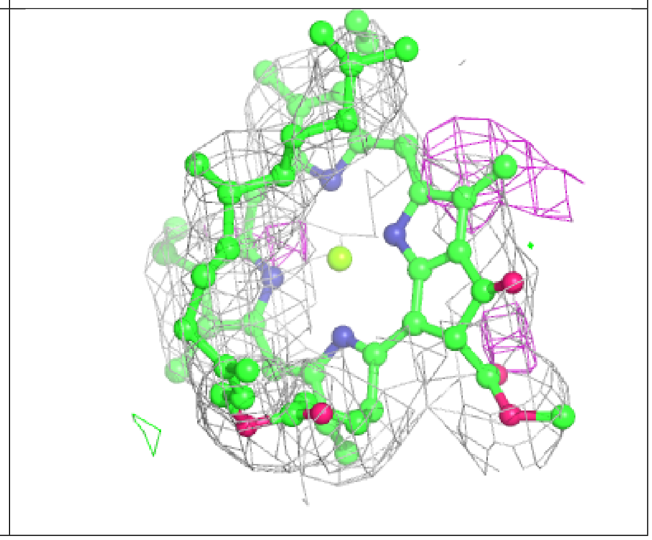


Electron density around CLA B 1231:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

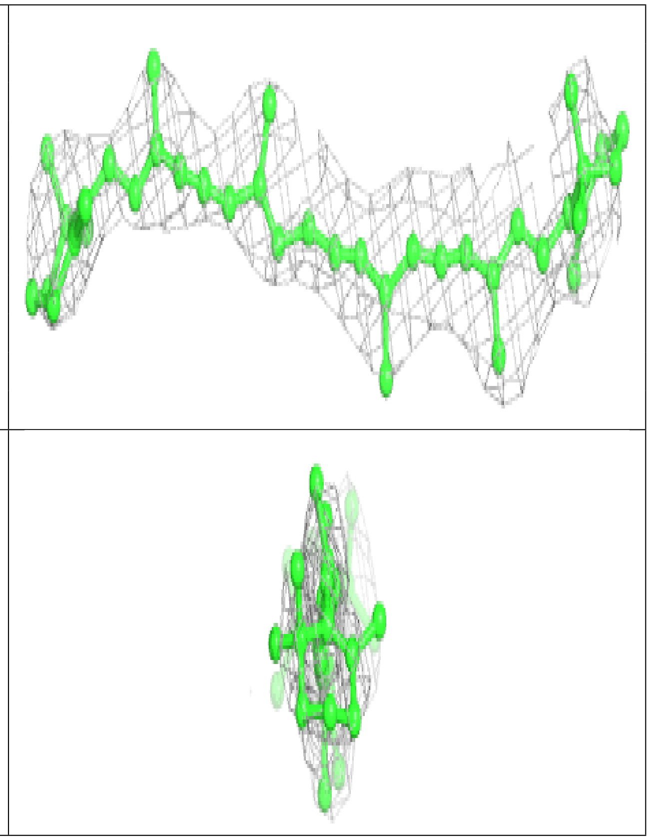






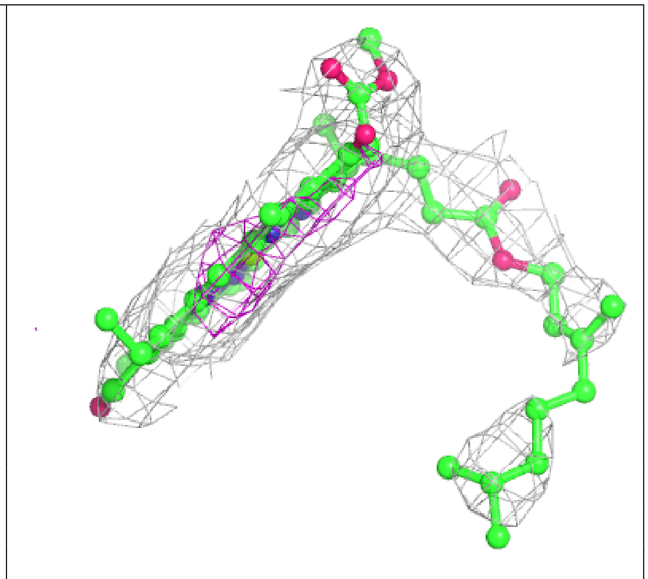
Electron density around BCR A 6007:

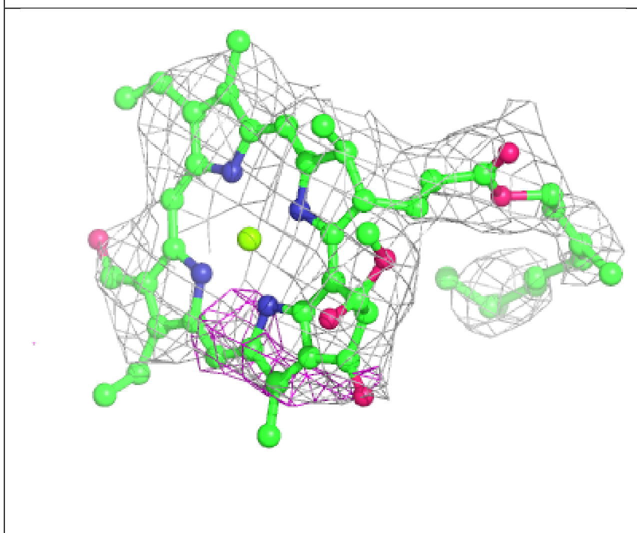
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

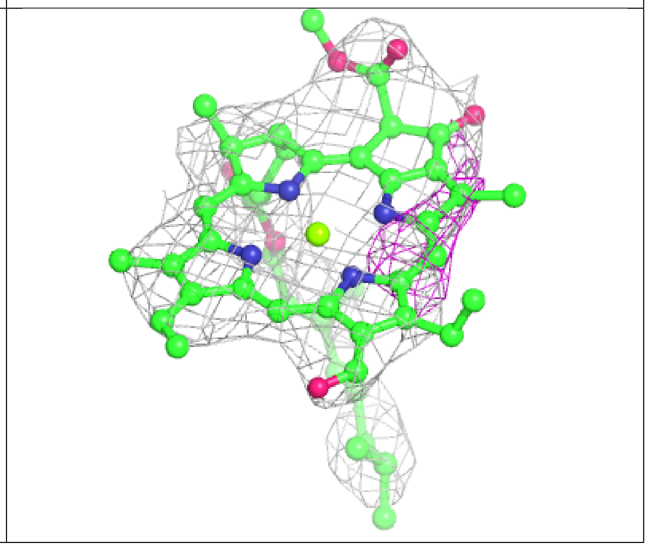


Electron density around CHL 1 1009:

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

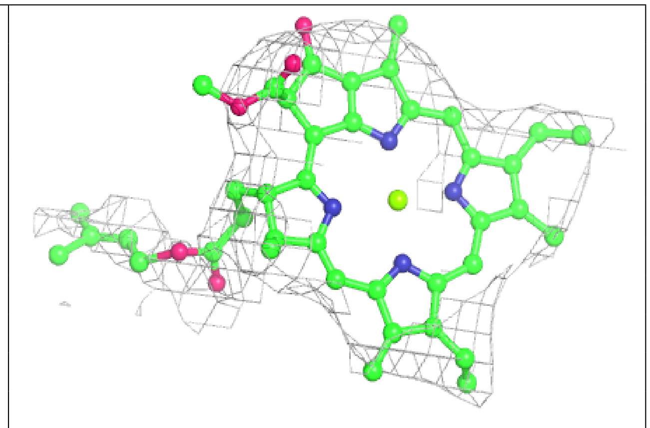


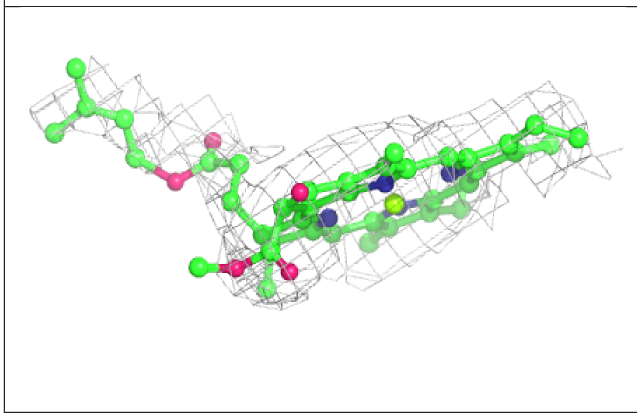


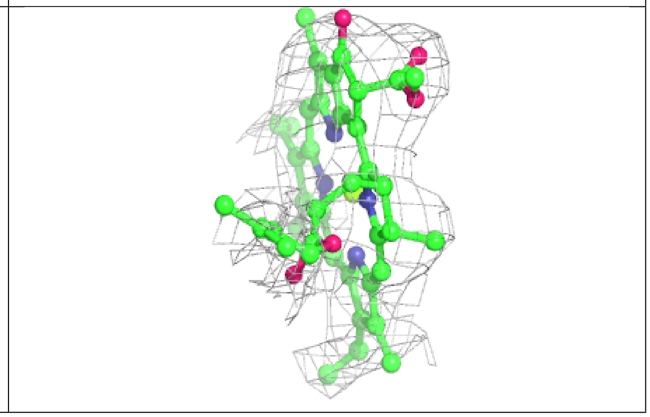


Electron density around CLA A 1151:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

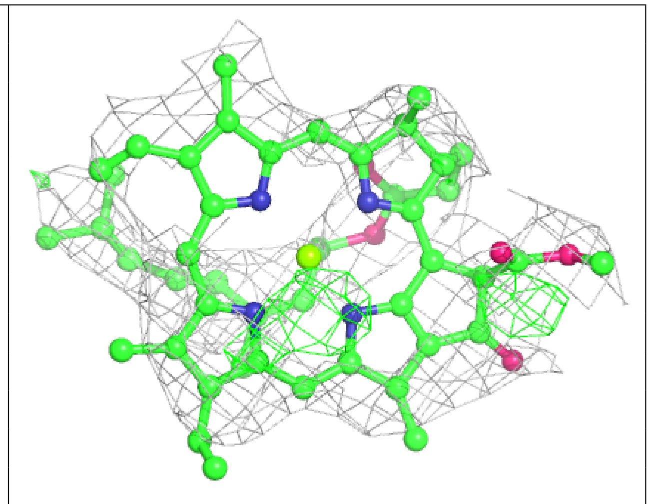


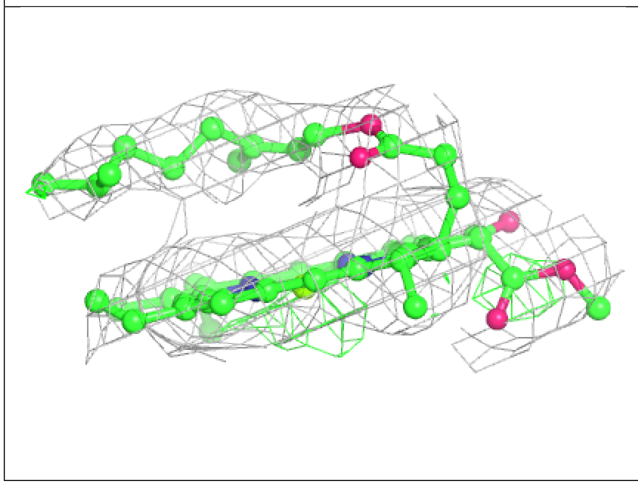


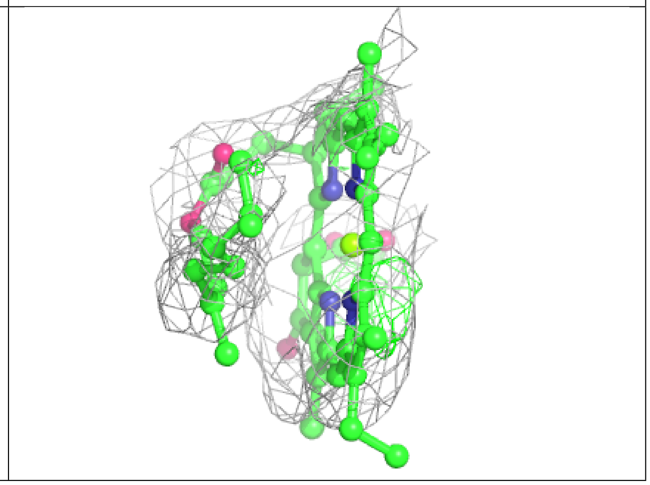


Electron density around CLA A 1110:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

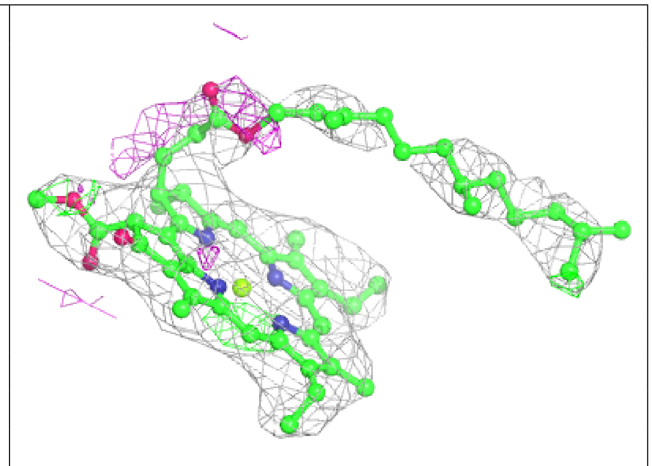


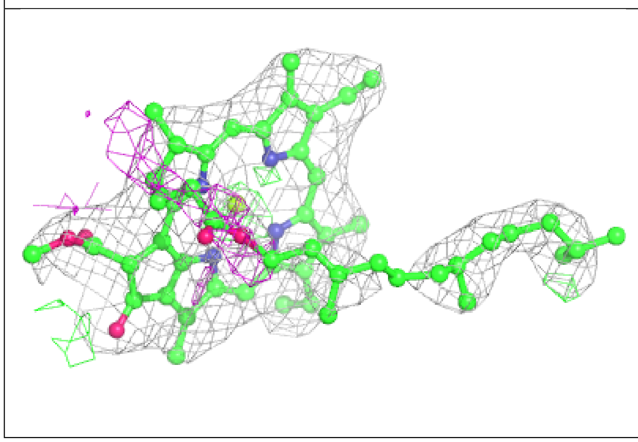


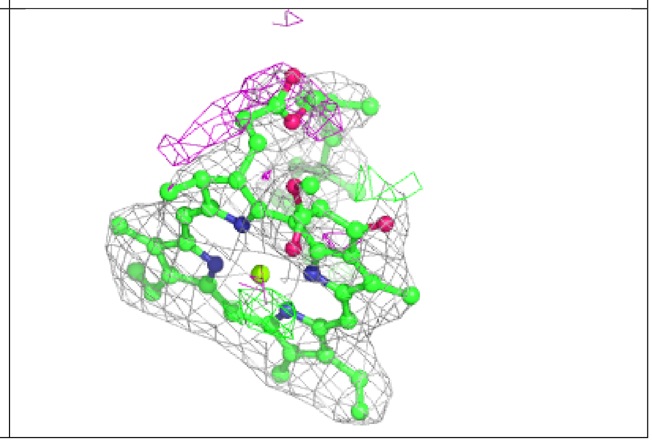


Electron density around CLA B 1228:

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

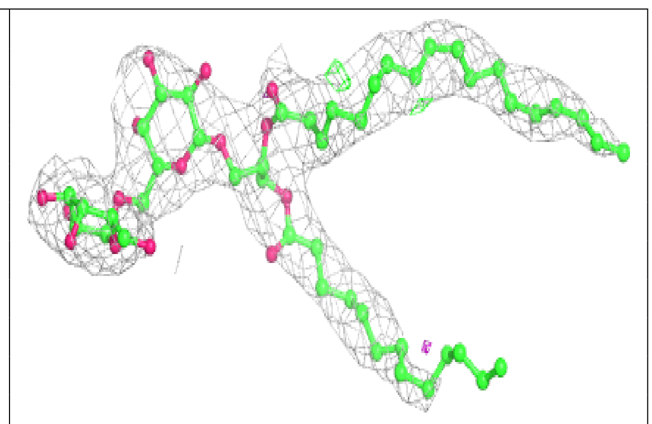


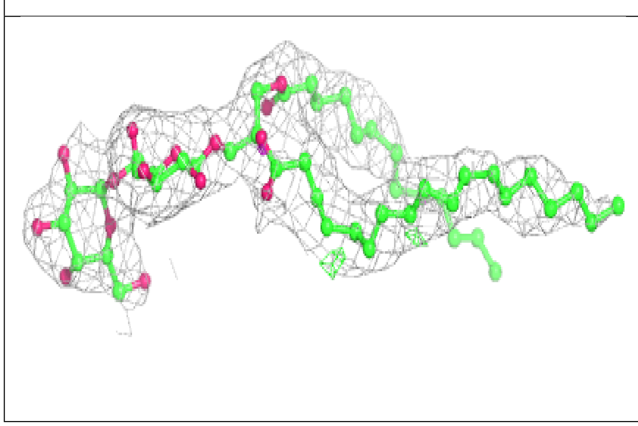


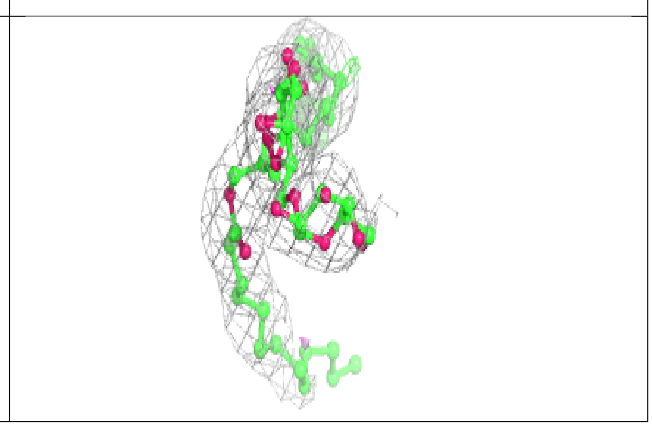


Electron density around DGD B 7101:

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

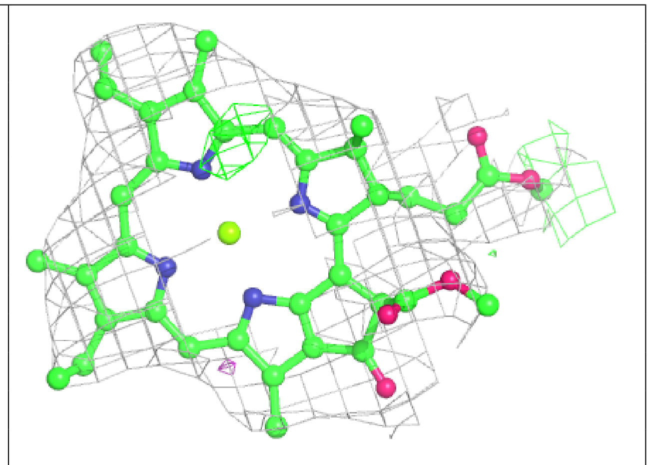


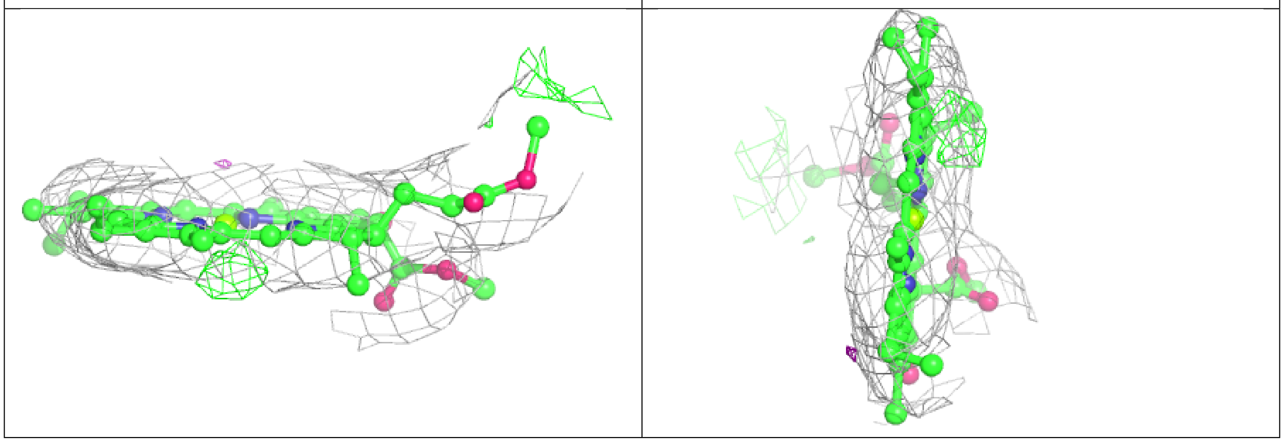




Electron density around CLA 1 1014:

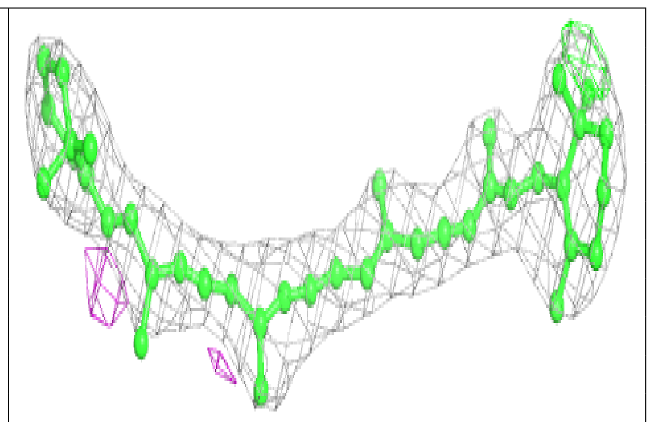
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

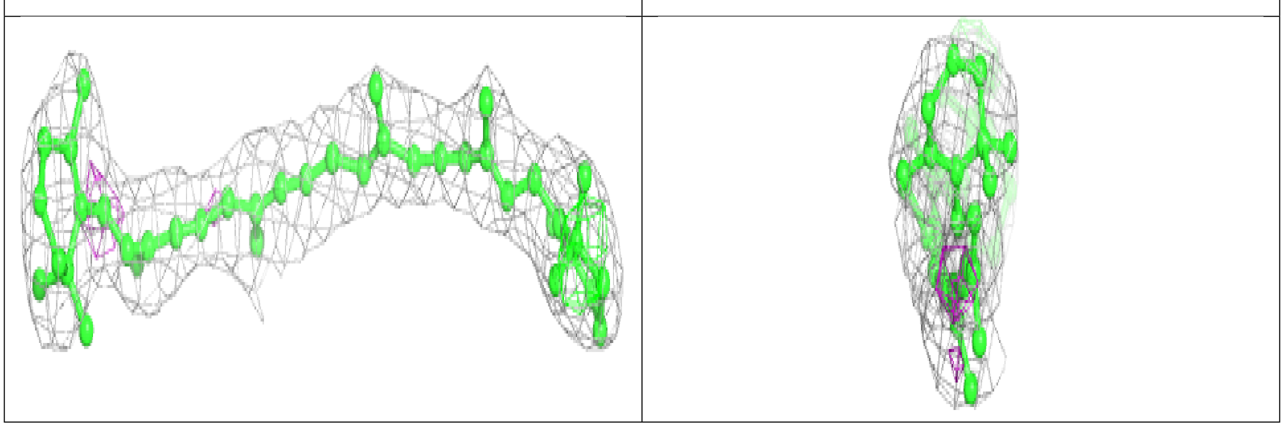




Electron density around BCR F 6014:

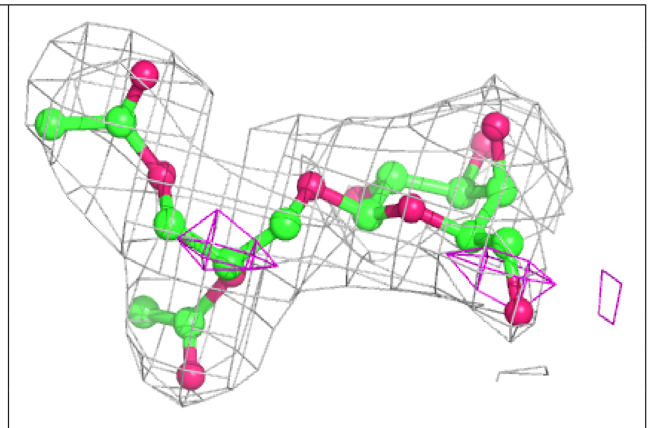
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

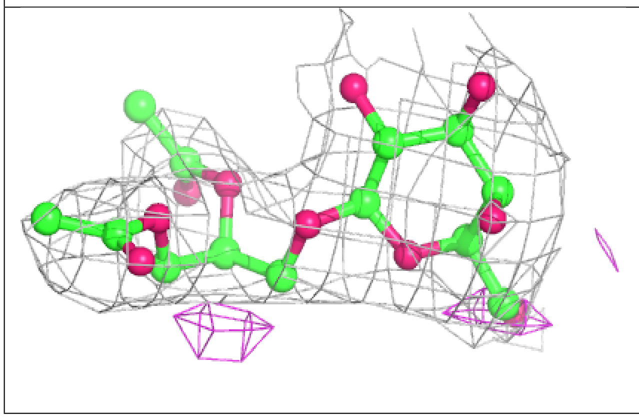


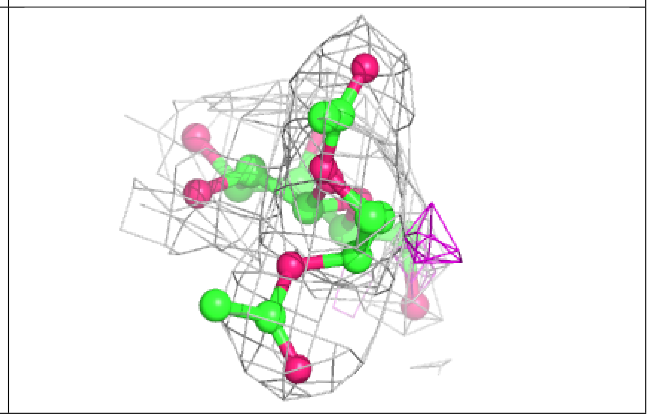


Electron density around LMG F 5001:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

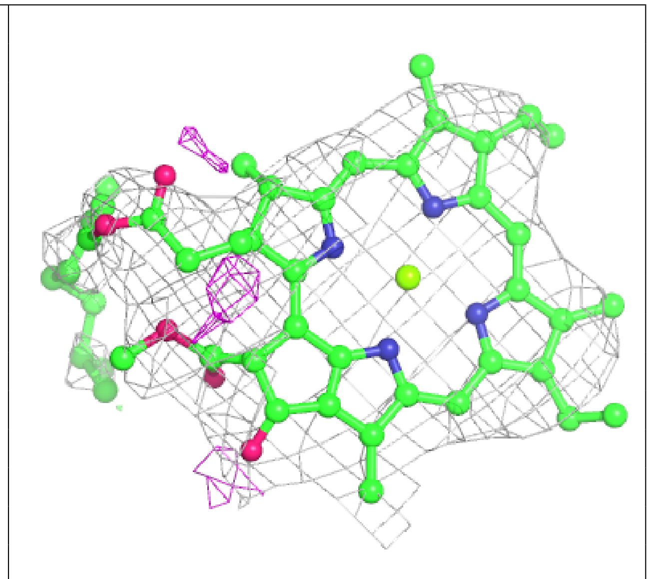


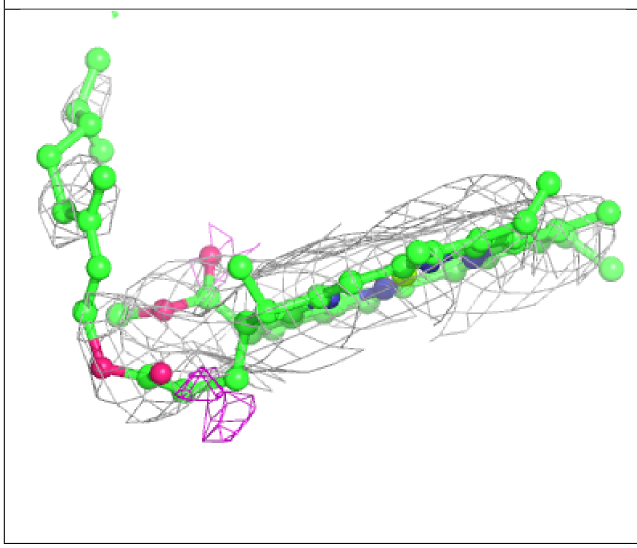


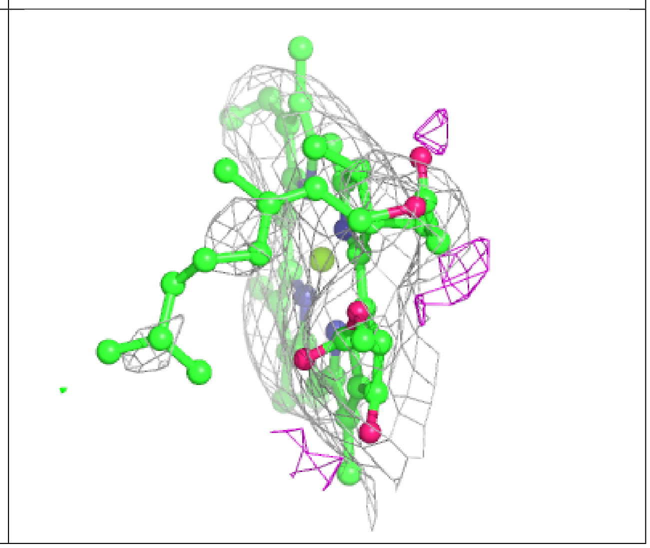


Electron density around CLA 3 3005:

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

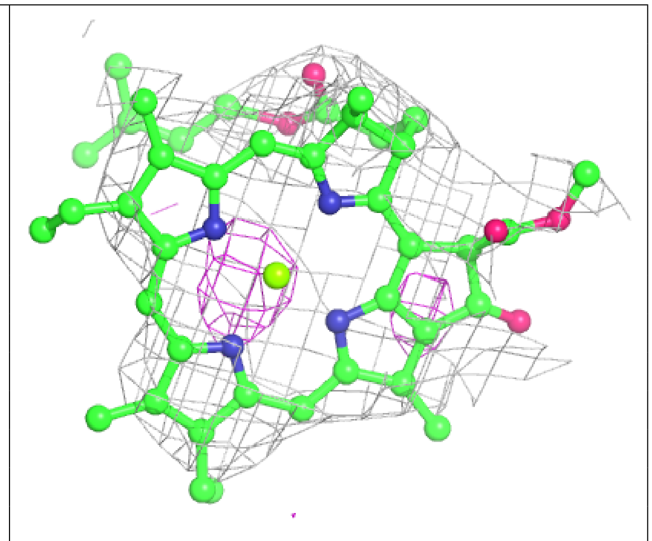


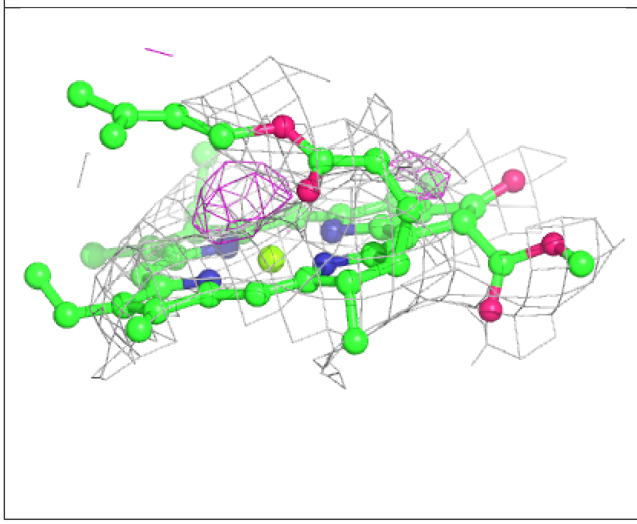


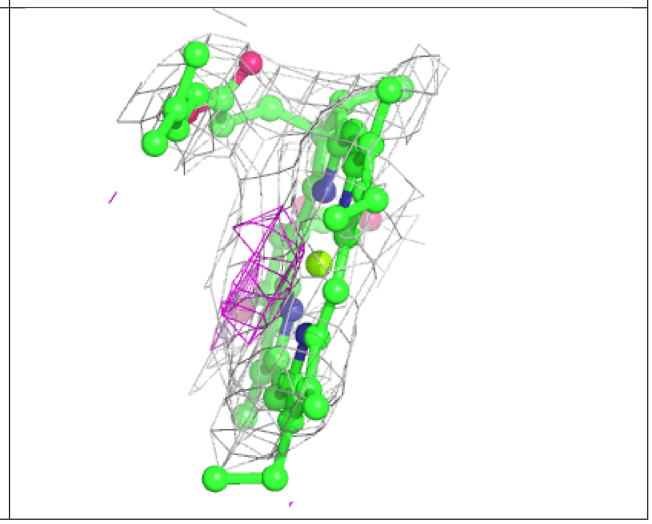


Electron density around CLA 3 3001:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

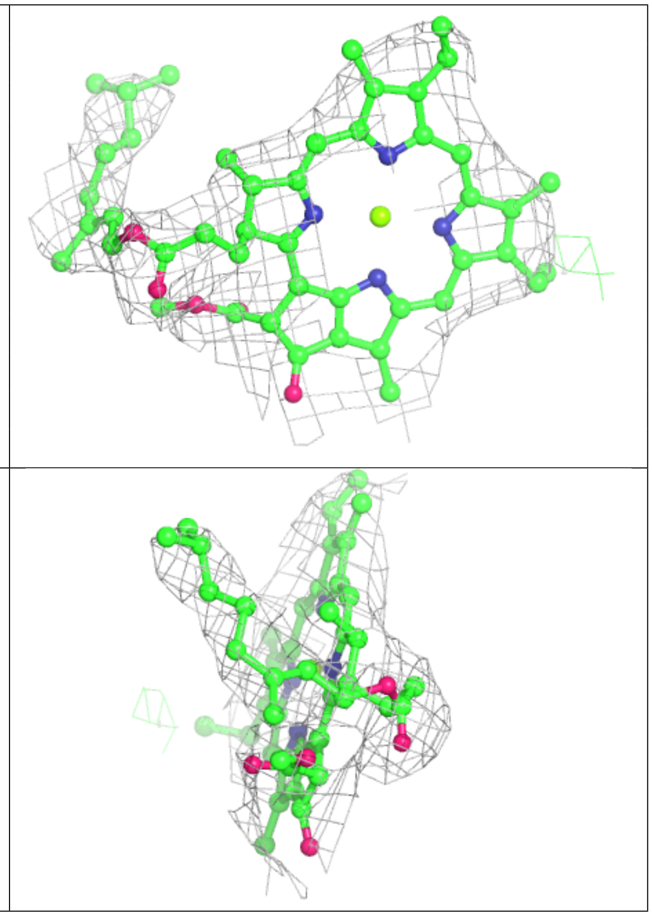






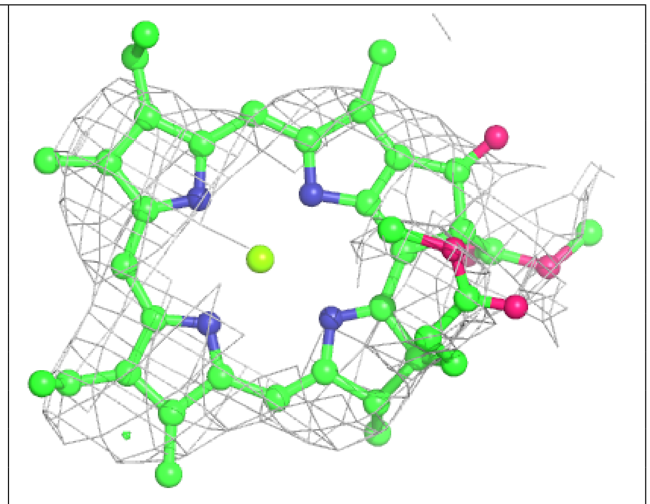
Electron density around CLA 1 1005:

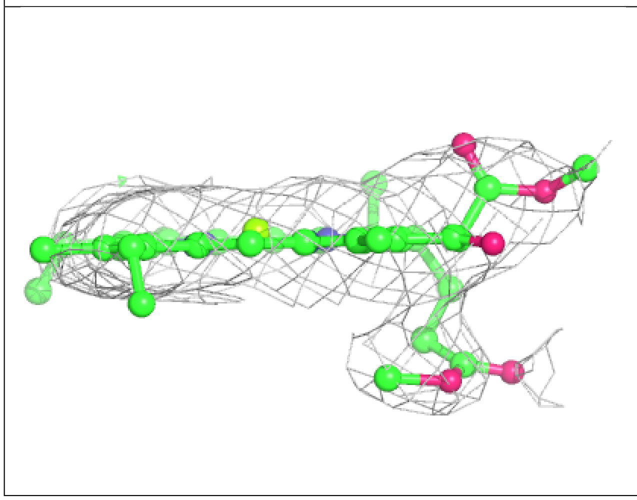
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

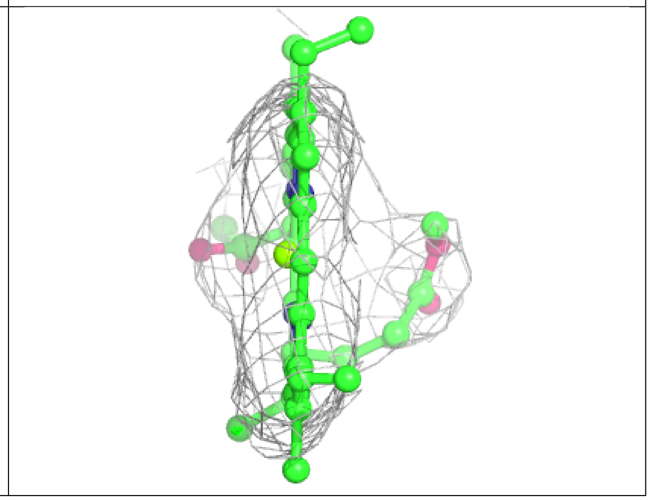


Electron density around CLA A 1115:

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

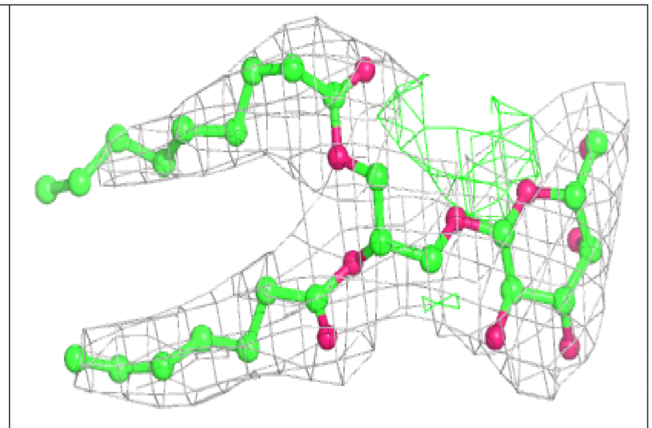


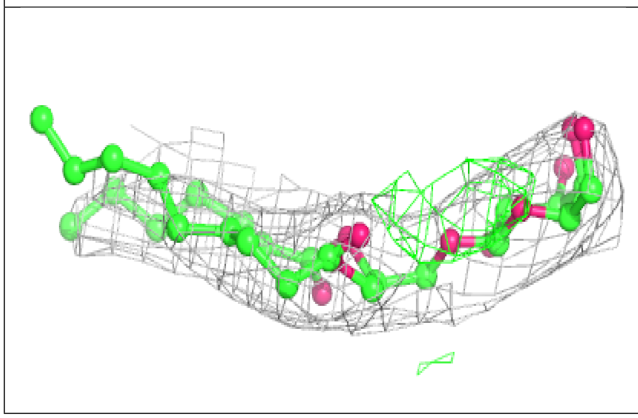


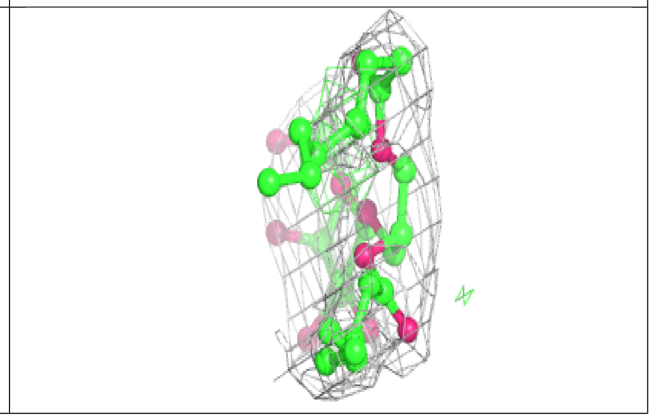


Electron density around LMG 4 4801:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

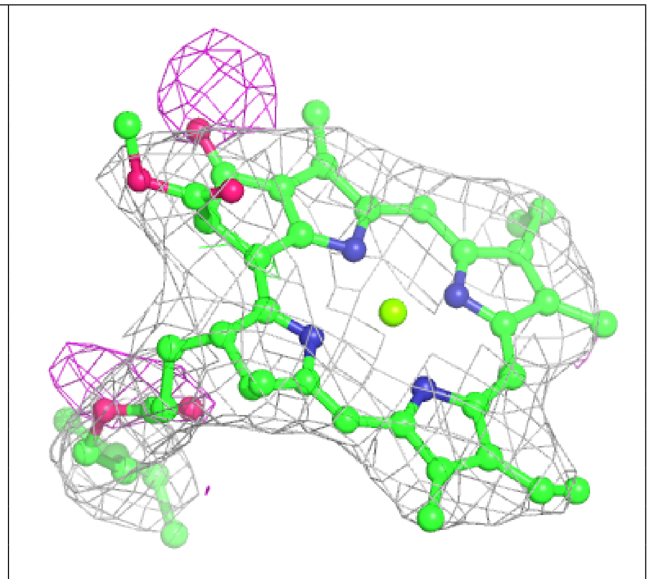


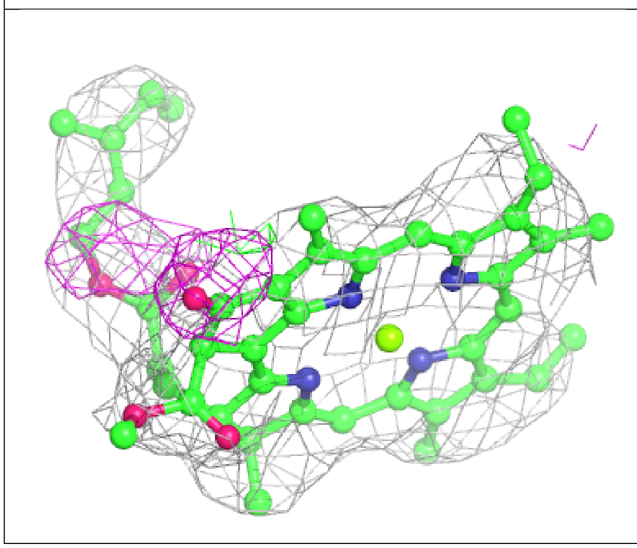


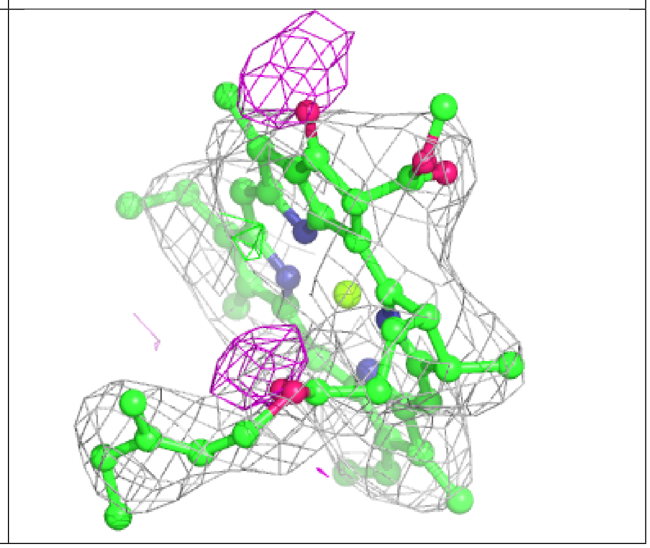


Electron density around CLA A 1105:

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

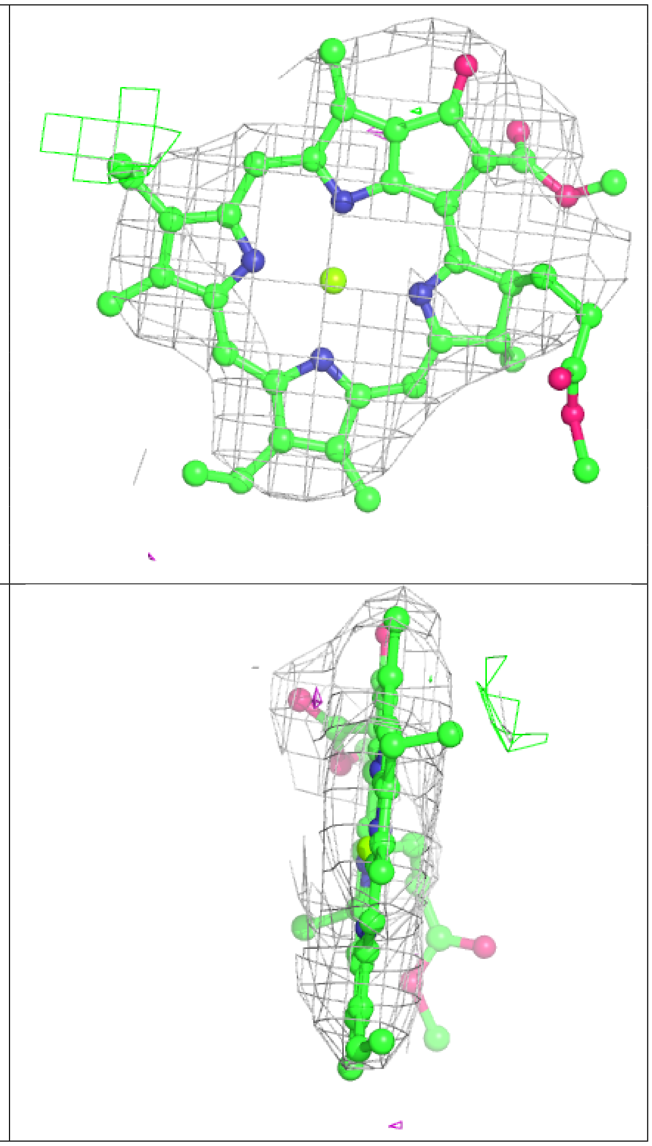






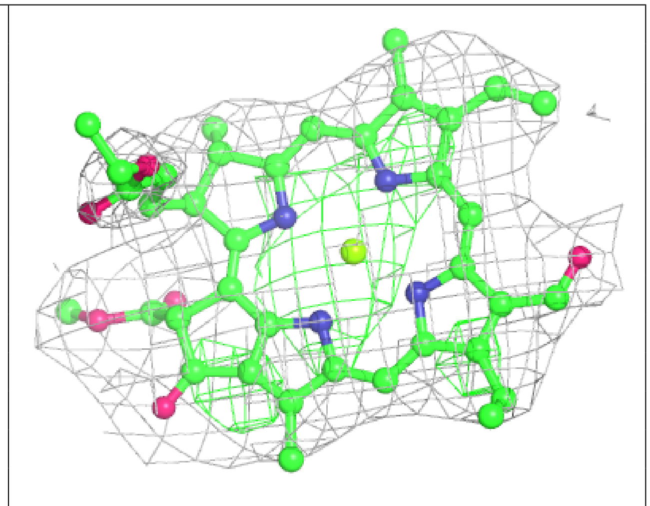
Electron density around CLA 3 3017:

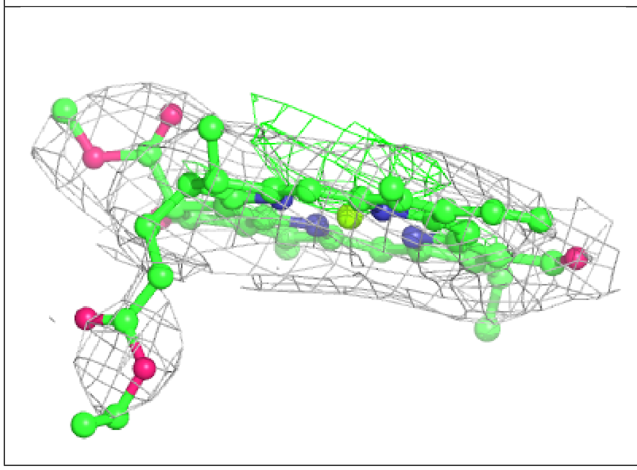
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

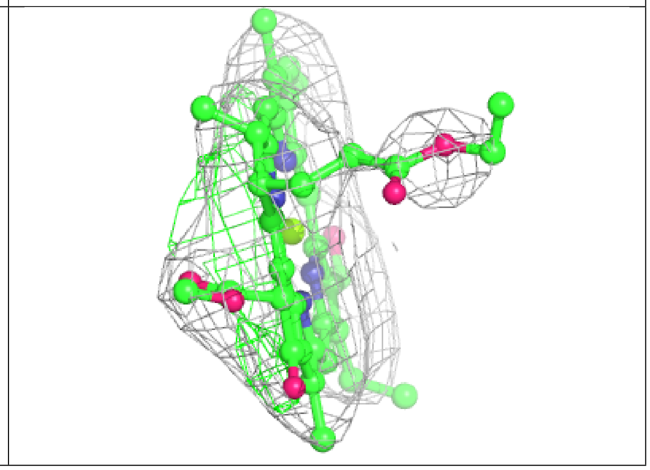


Electron density around CHL 2 2011:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

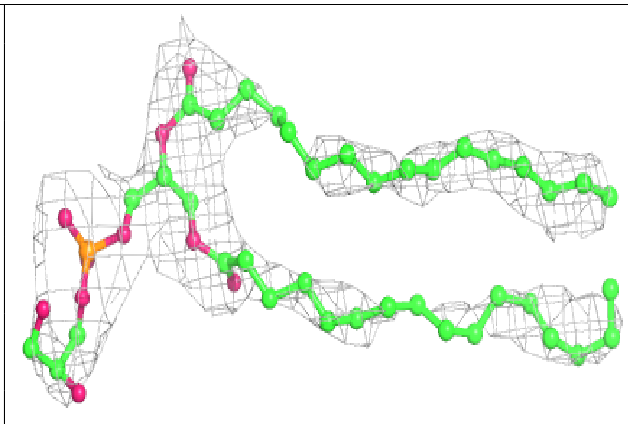


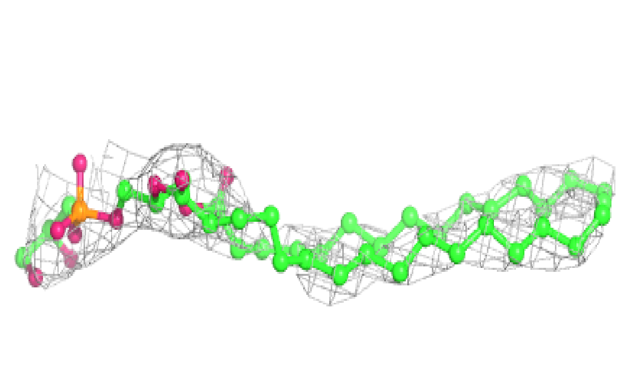


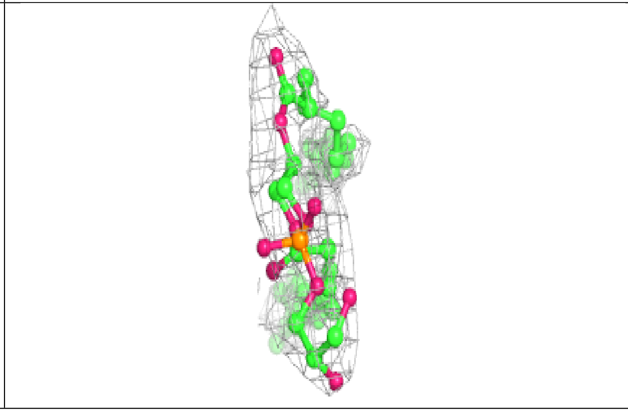


Electron density around LHG 1 1801:

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

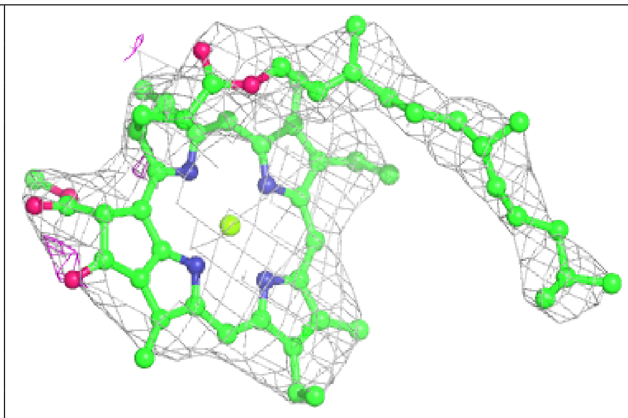


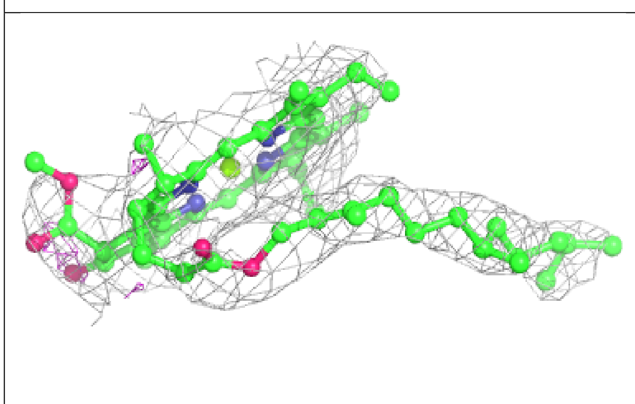


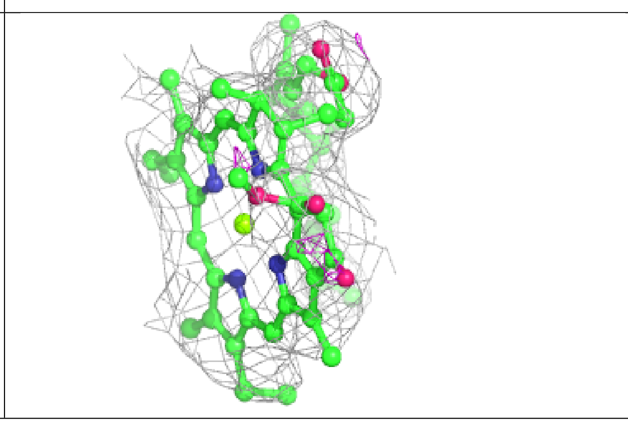


Electron density around CLA 4 4004:

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

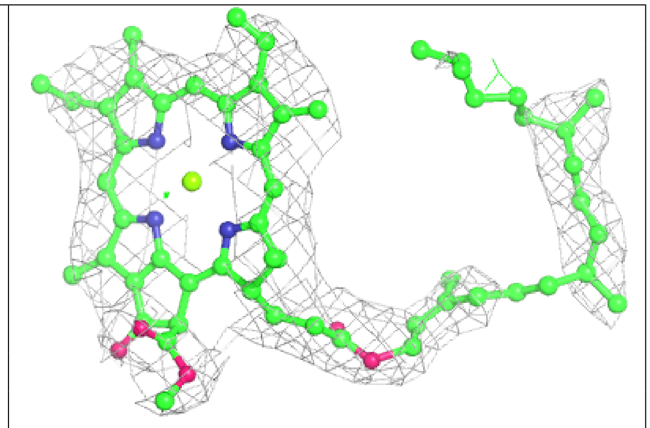


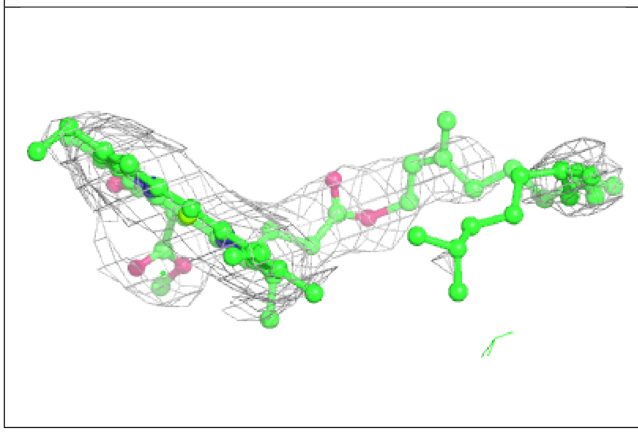


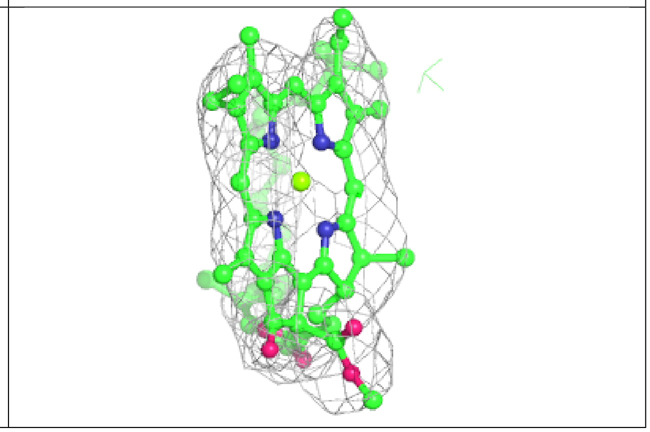


Electron density around CLA 4 4017:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

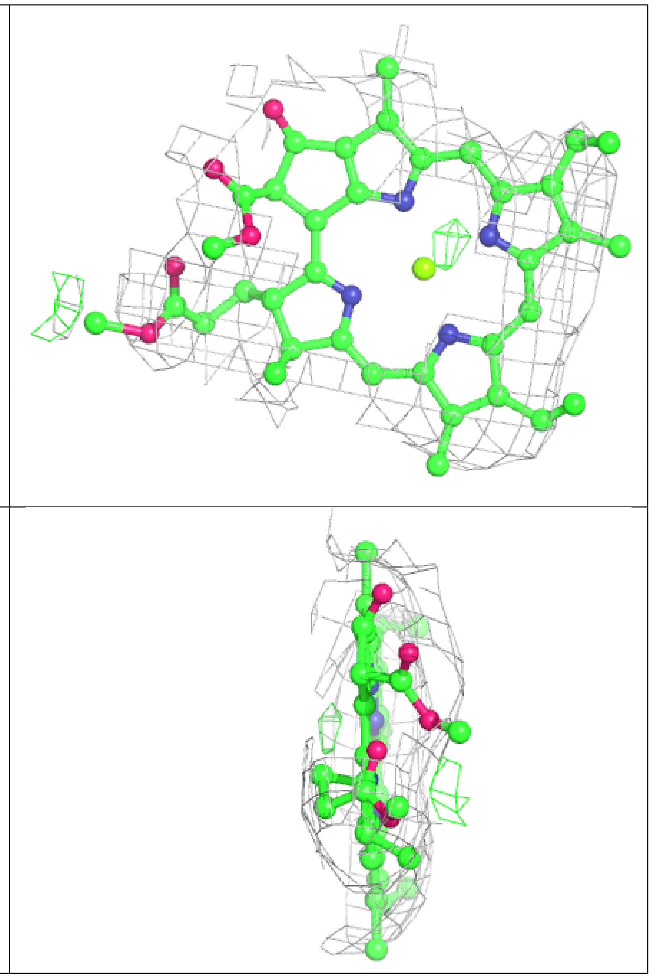






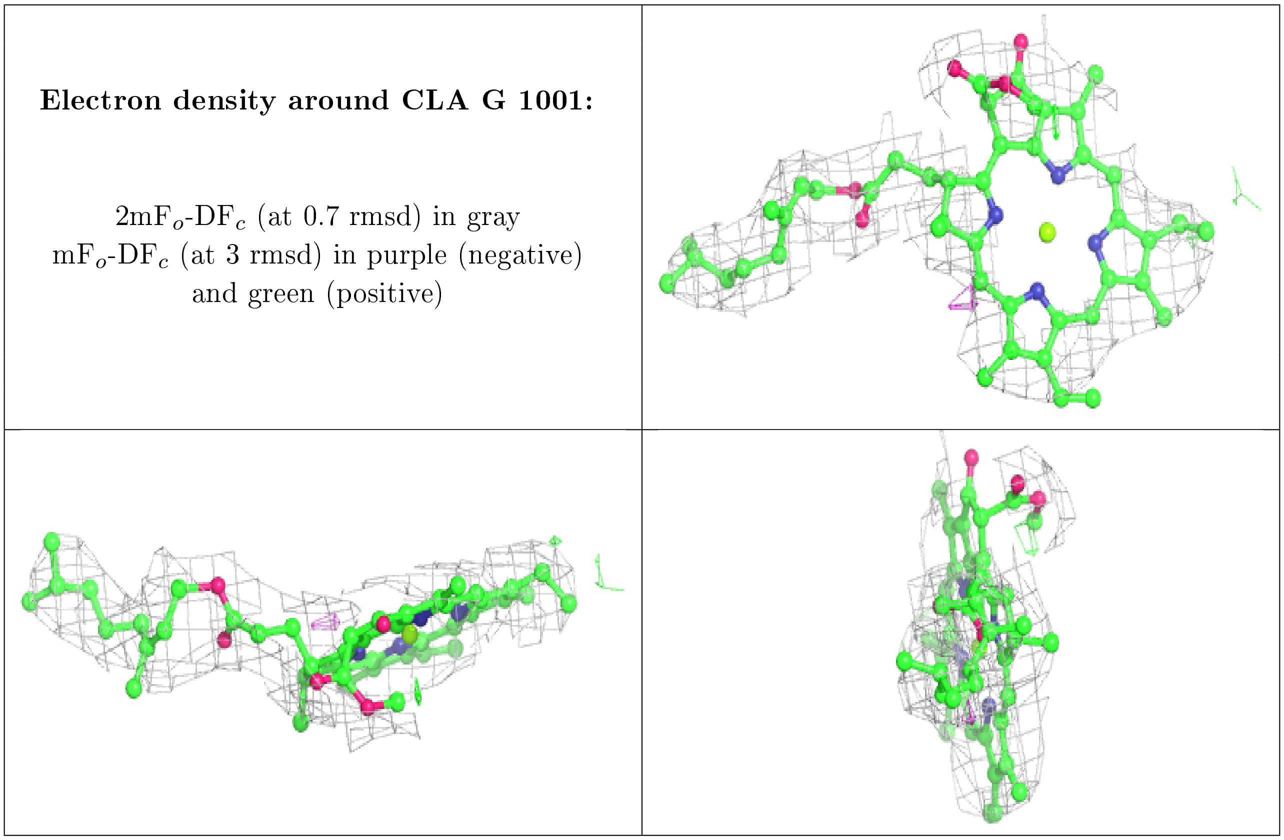
Electron density around CLA 1 1002:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)



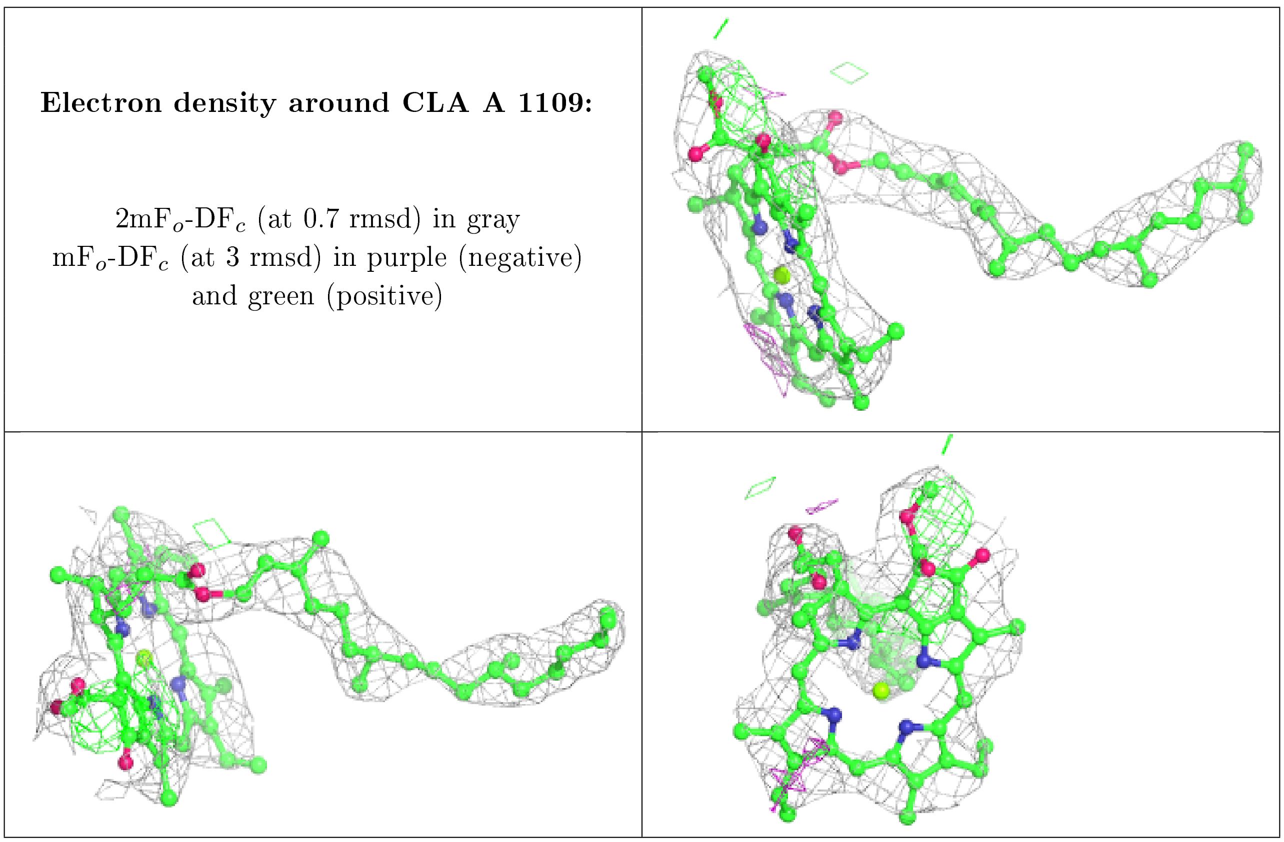
Electron density around CLA G 1001:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)



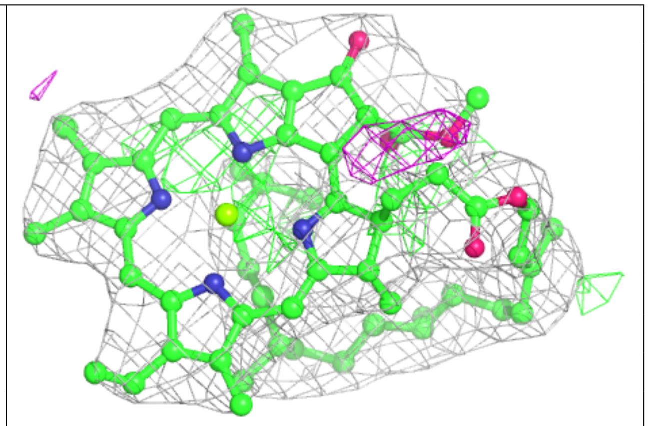
Electron density around CLA A 1109:

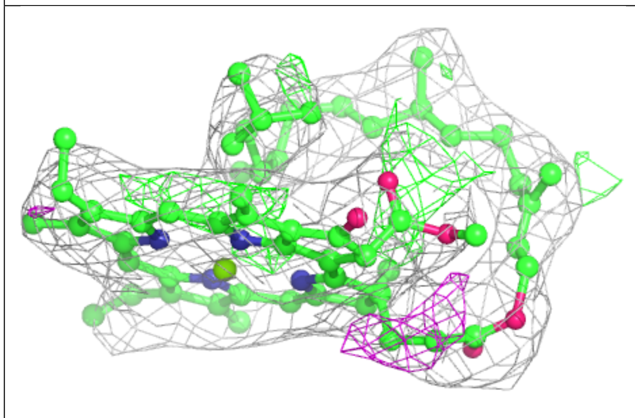
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

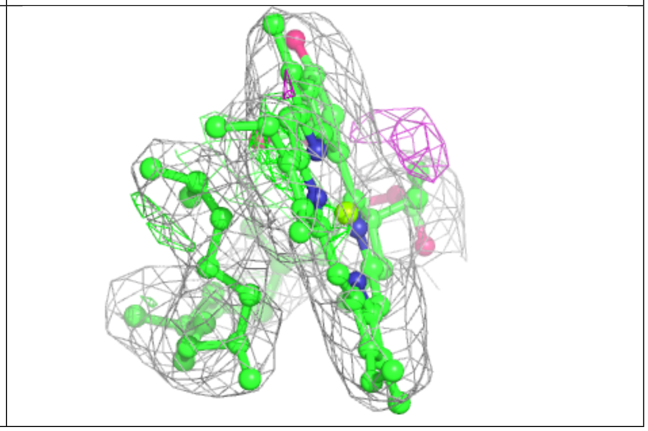


Electron density around CLA A 1104:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

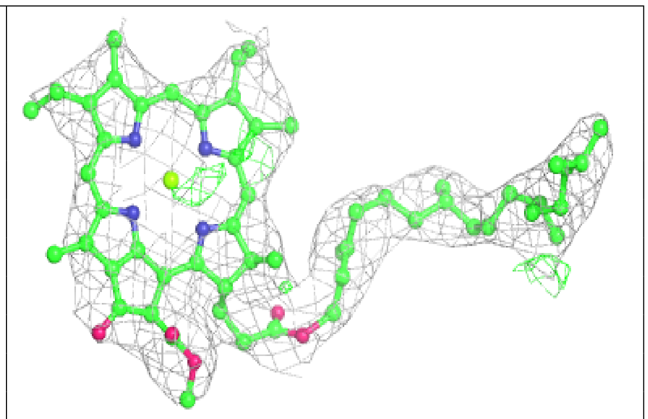


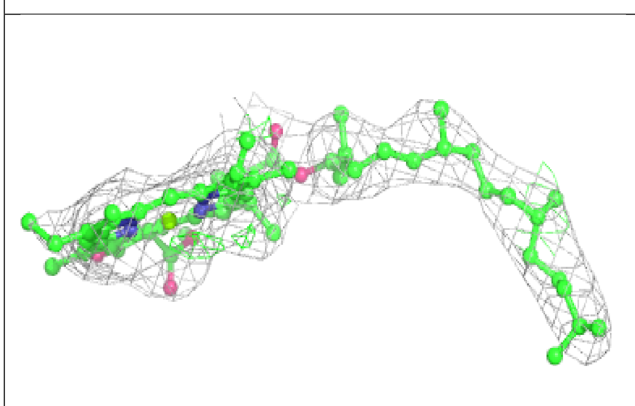


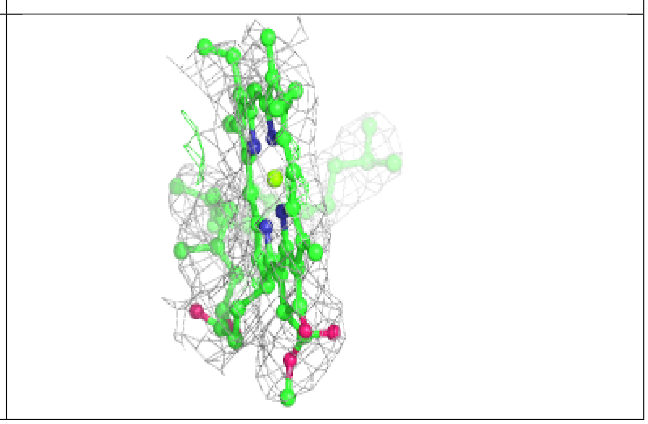


Electron density around CLA B 1023:

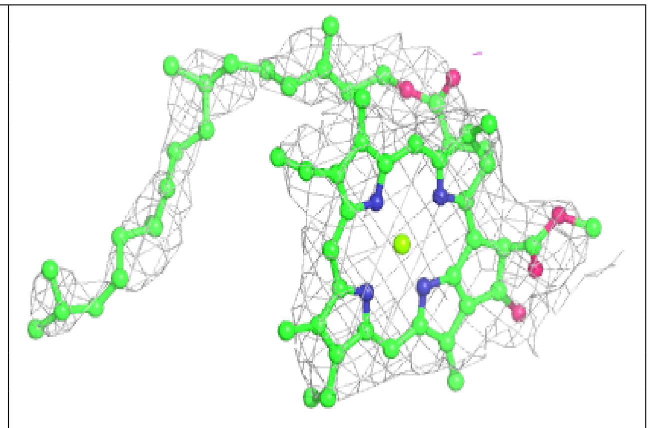
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)



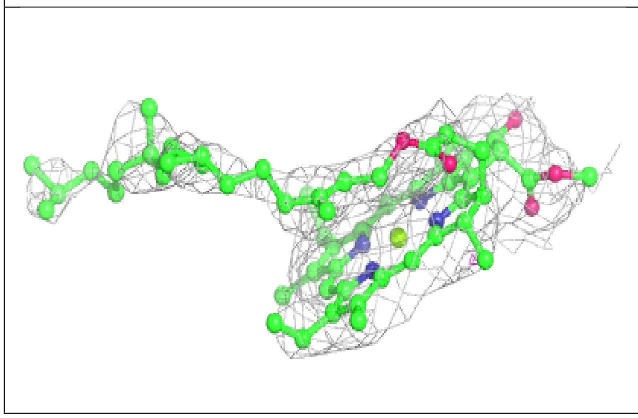


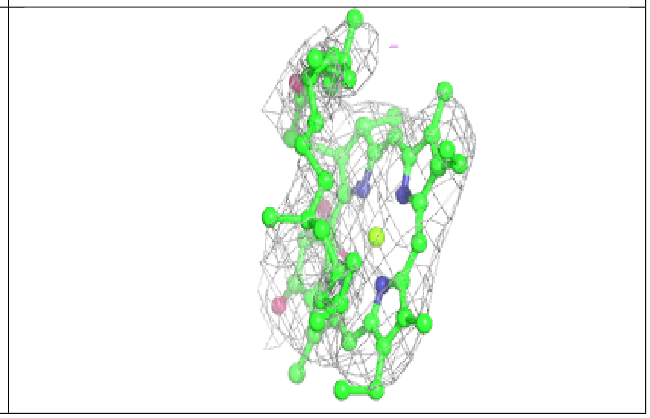


Electron density around CLA 1 1004:



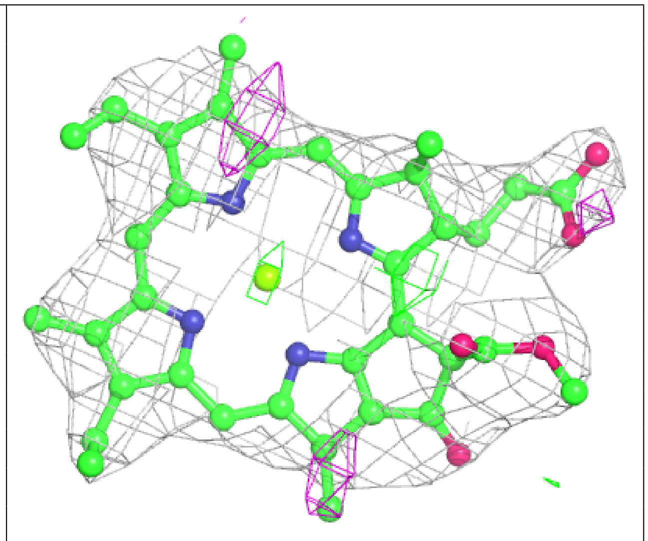
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

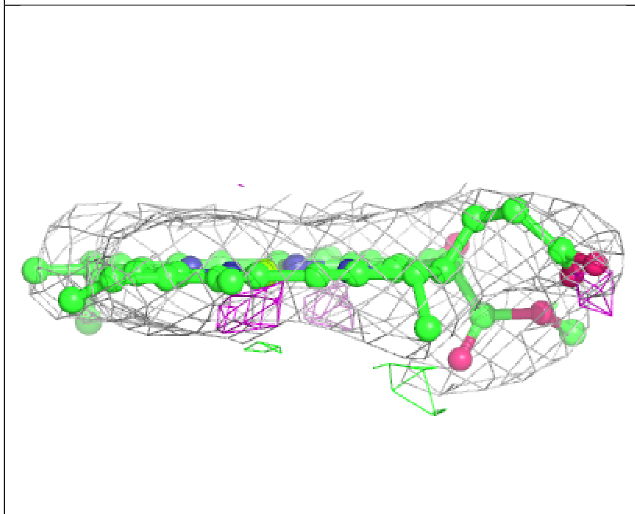


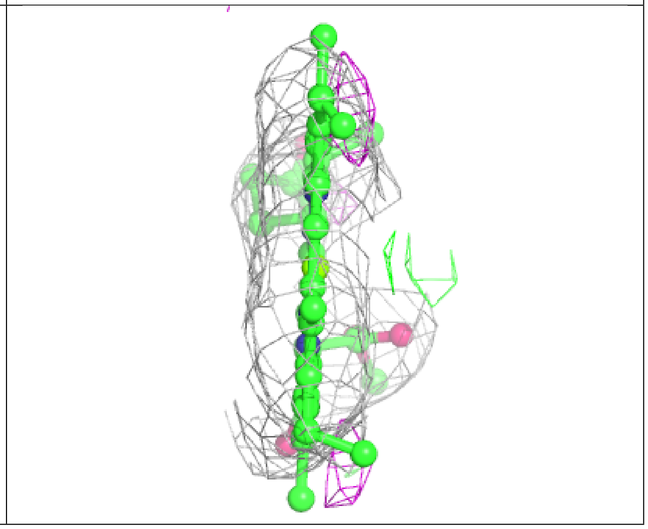


Electron density around CLA F 1301:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

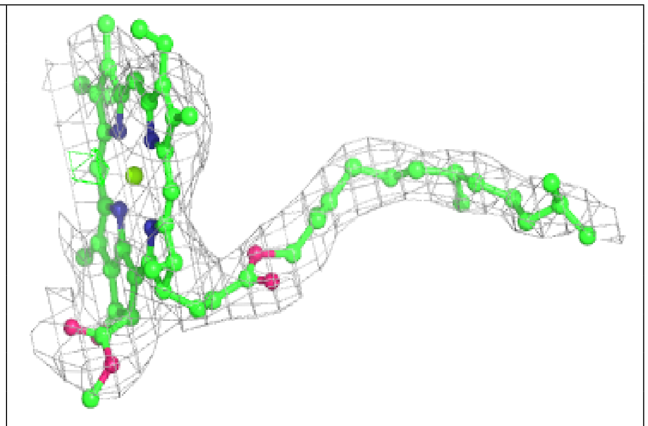


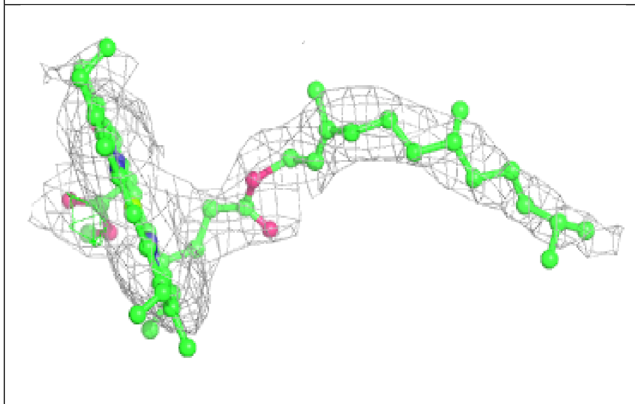


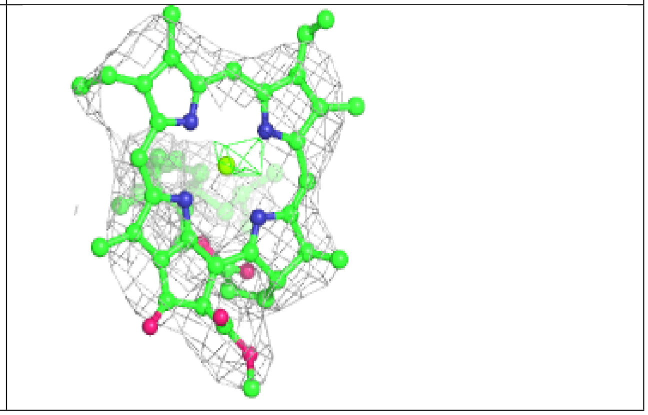


Electron density around CLA L 1502:

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

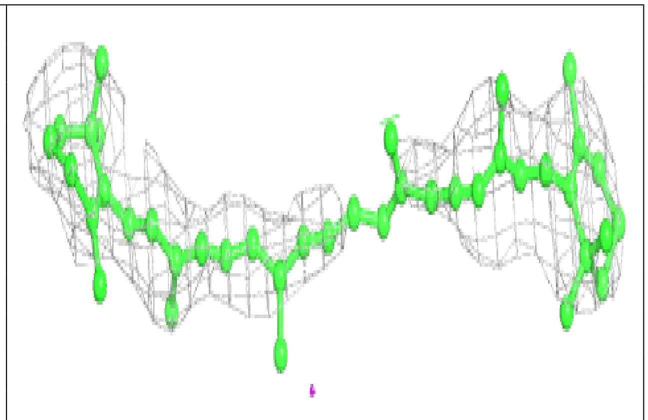


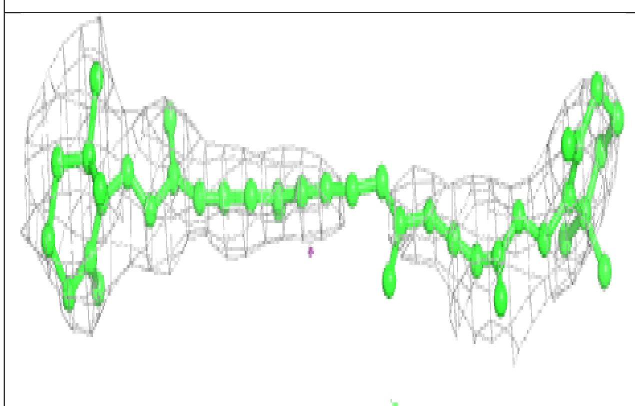


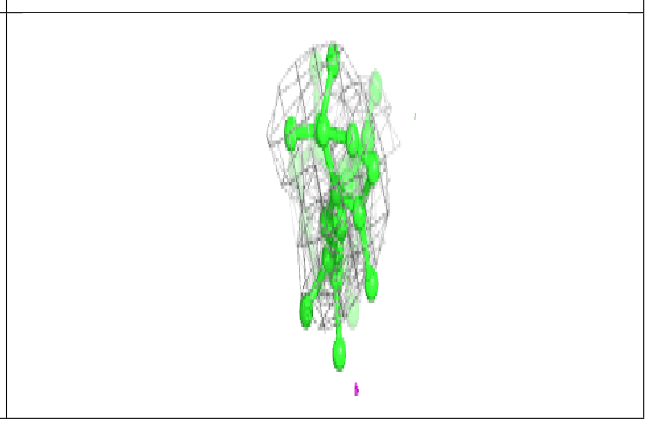


Electron density around BCR L 6020:

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

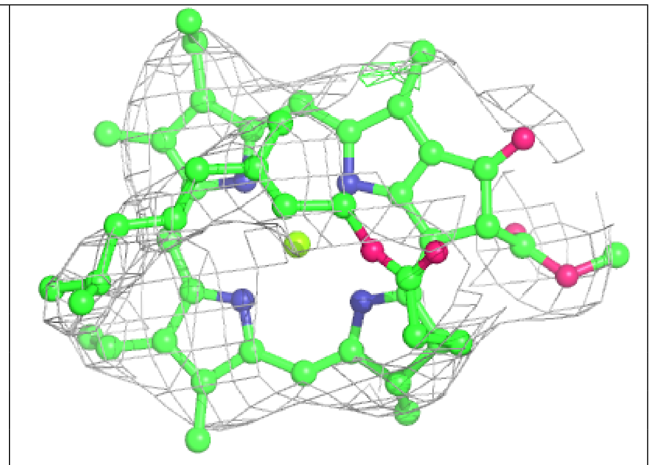


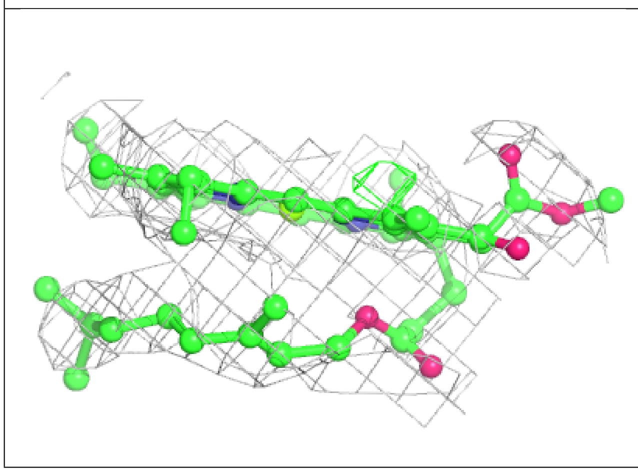


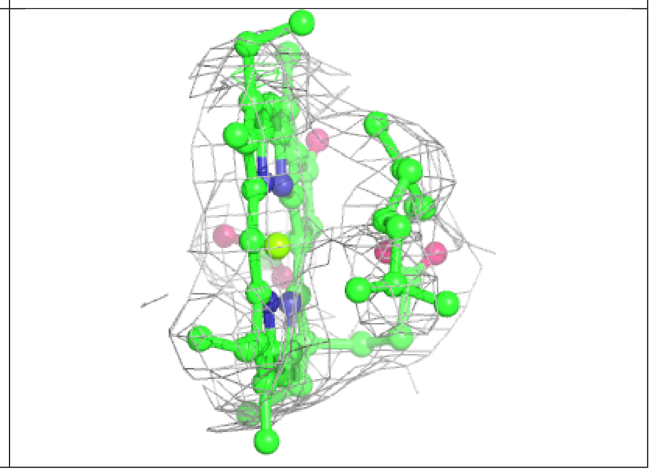


Electron density around CLA 2 2003:

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

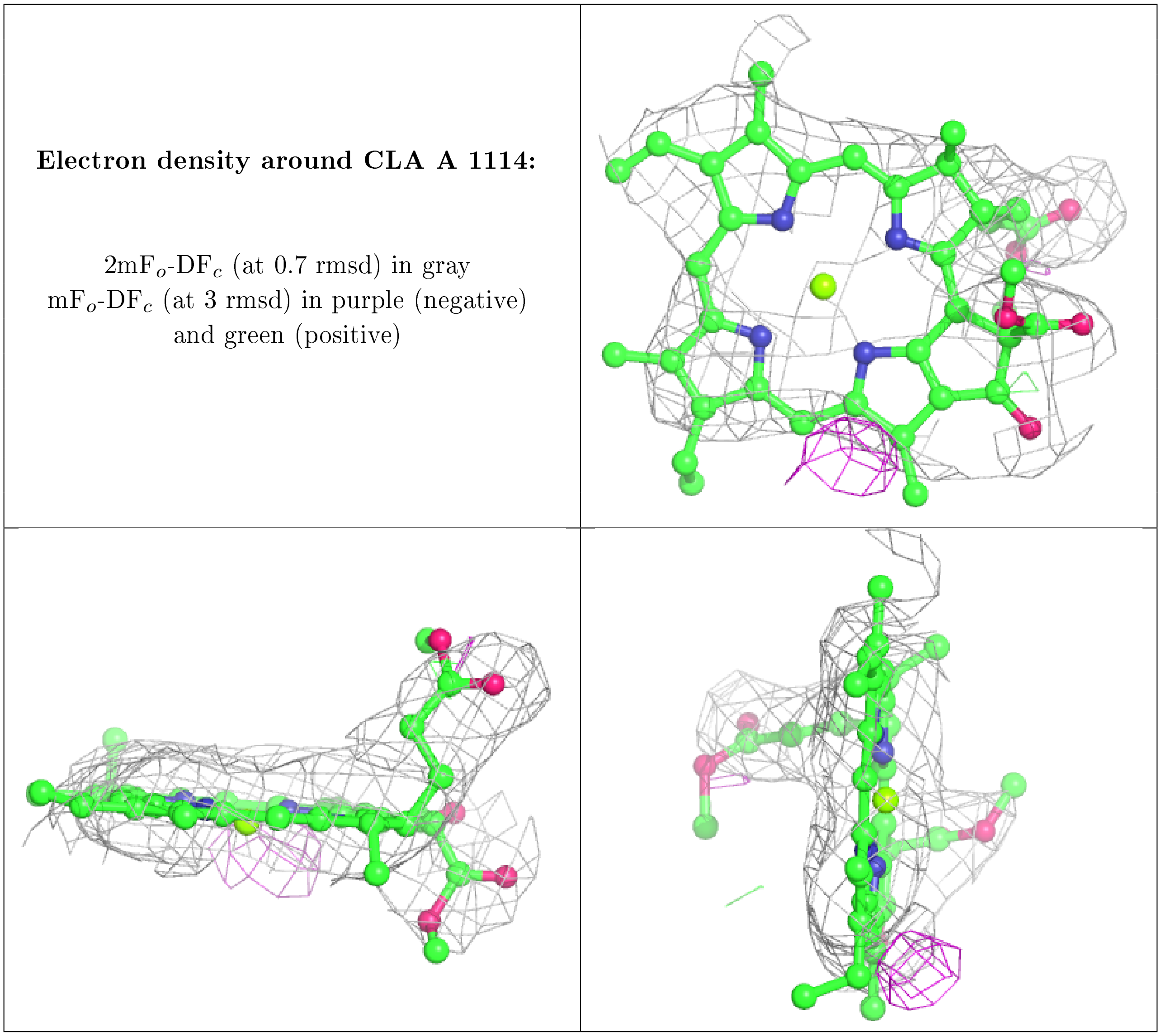






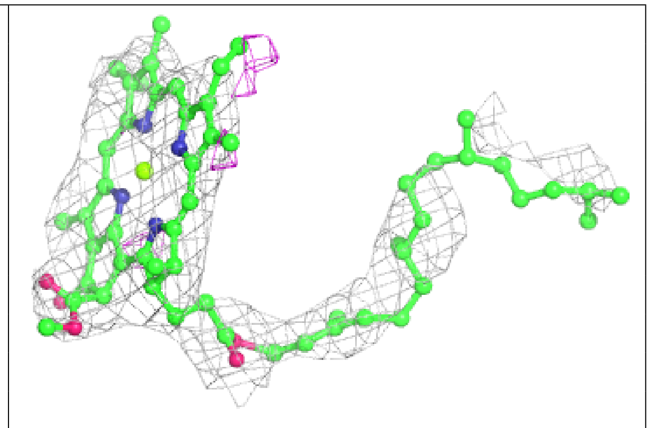
Electron density around CLA A 1114:

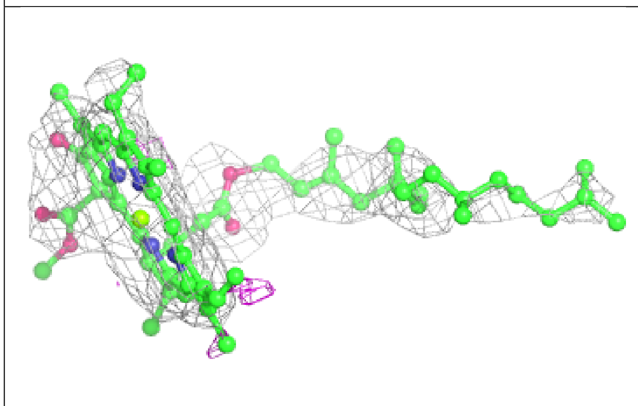
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

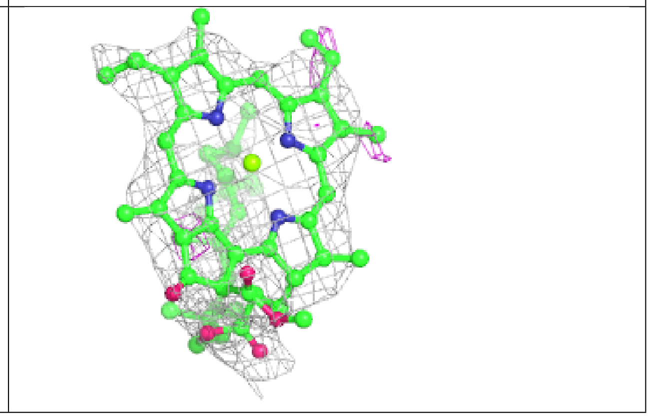


Electron density around CLA B 1218:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

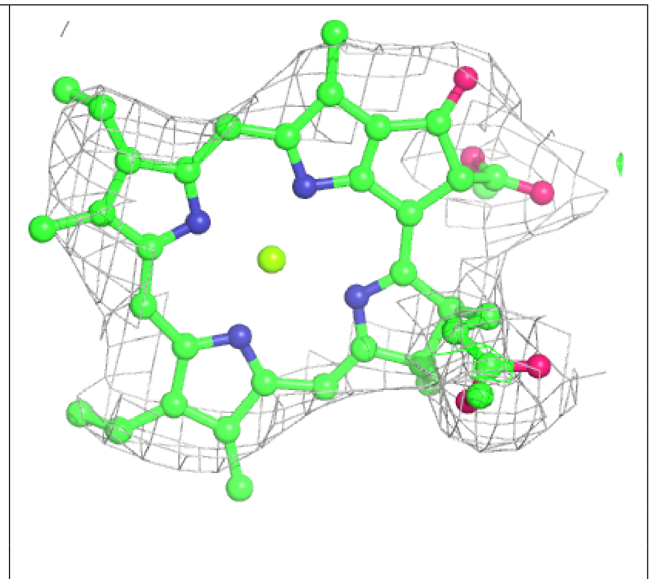


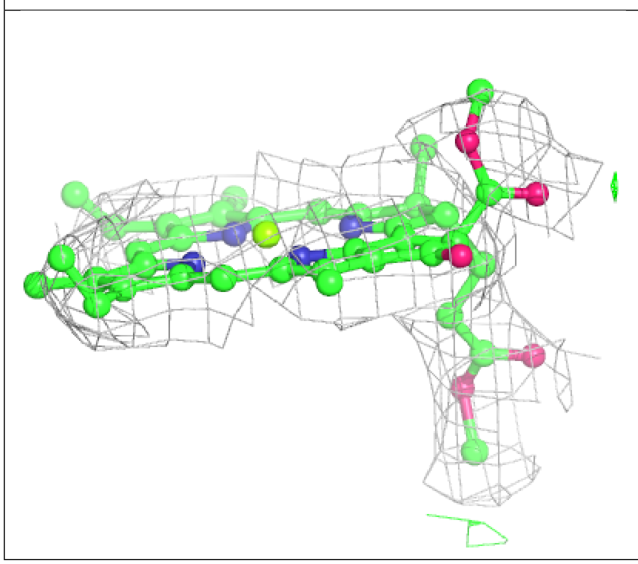


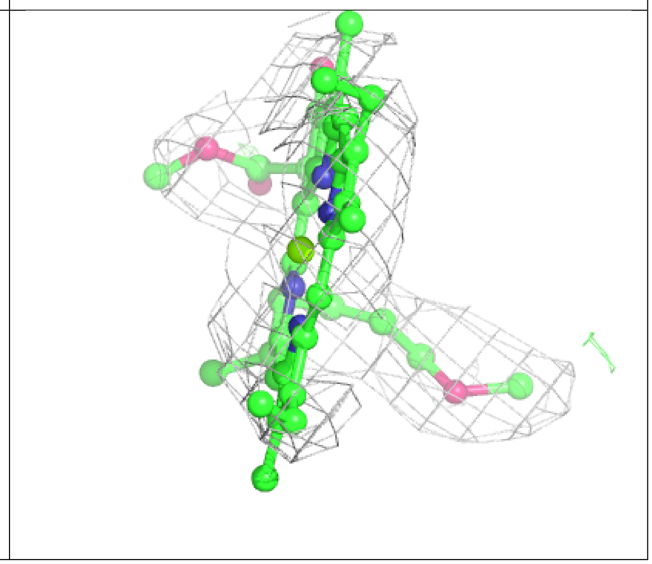


Electron density around CLA A 1118:

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

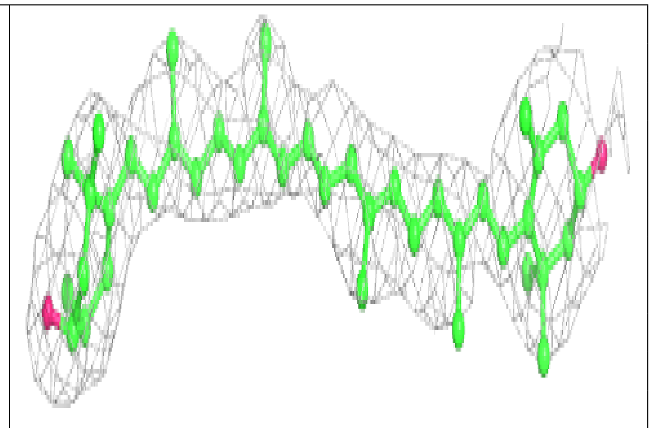


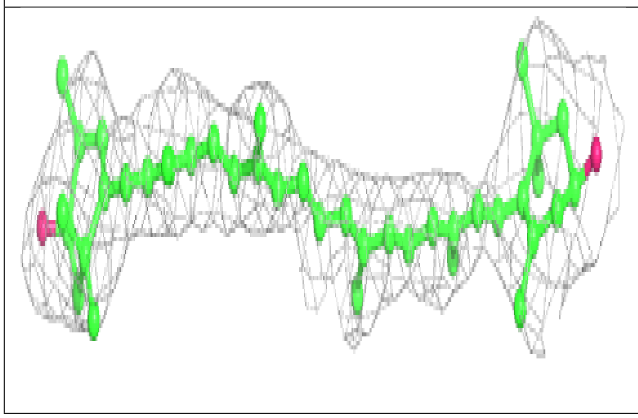


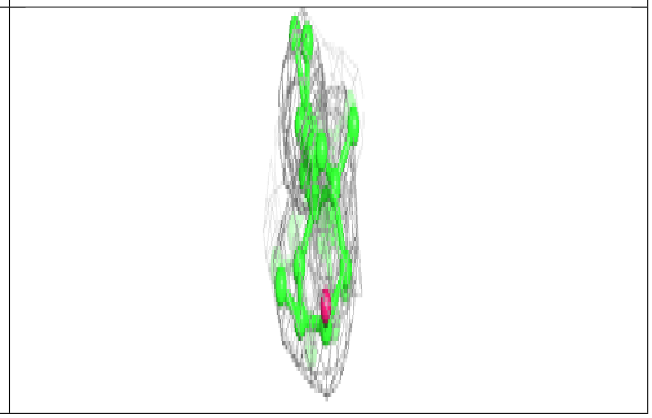


Electron density around ZEX 4 4505:

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

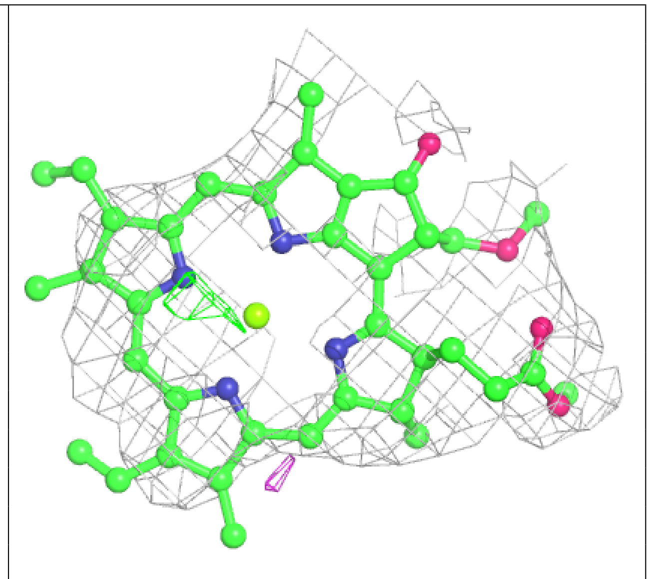


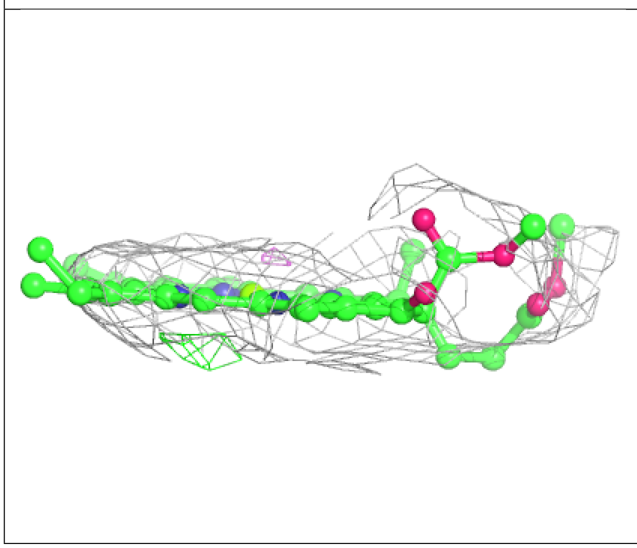


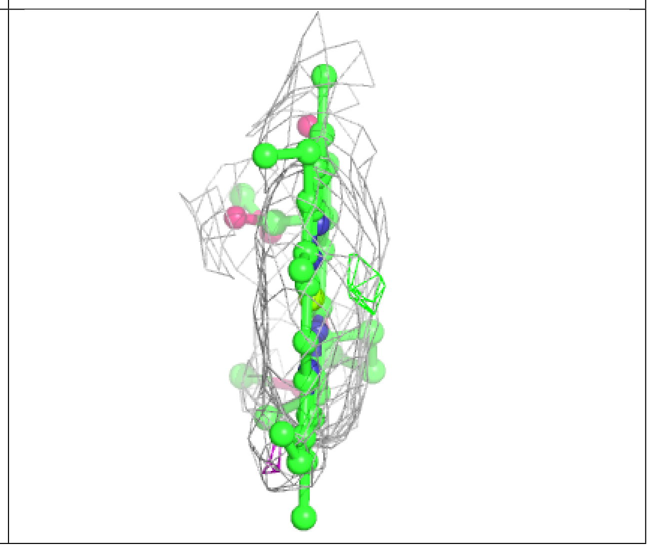


Electron density around CLA 3 3002:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

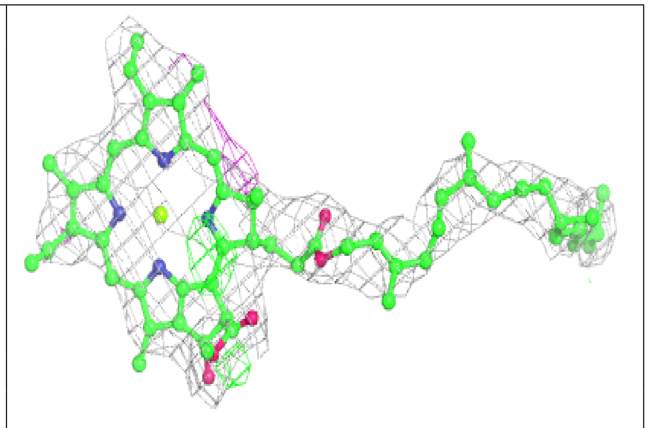


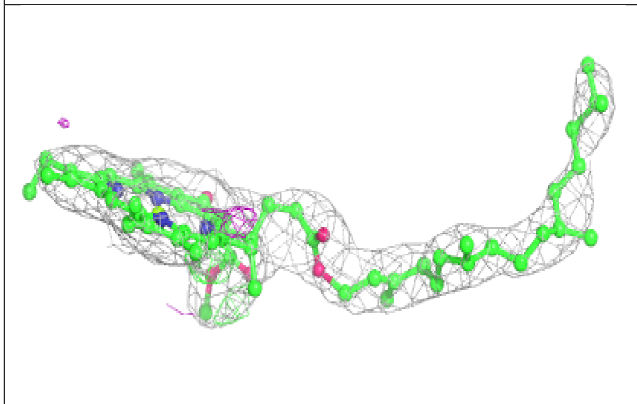


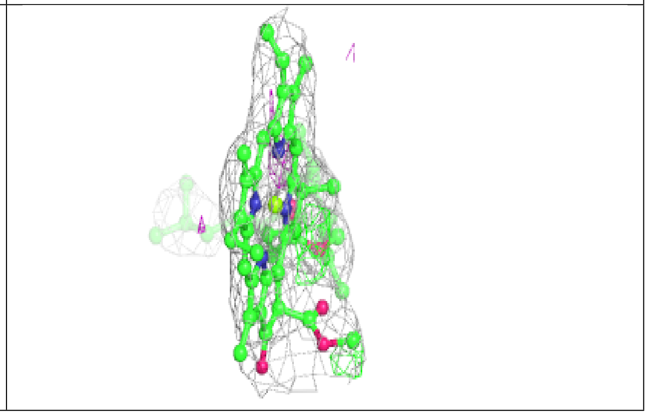


Electron density around CLA A 1103:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

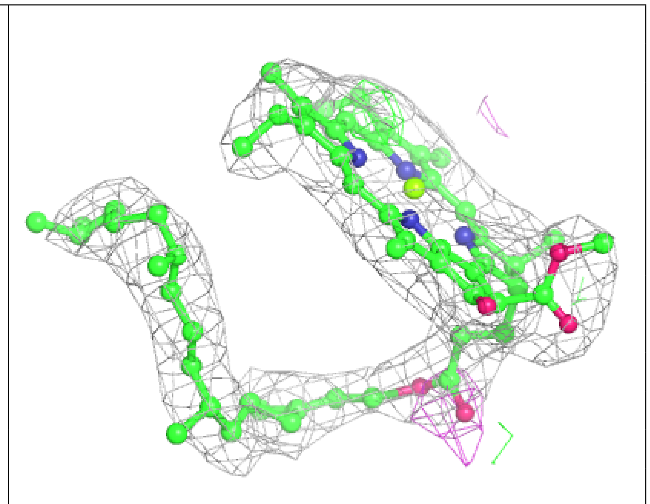


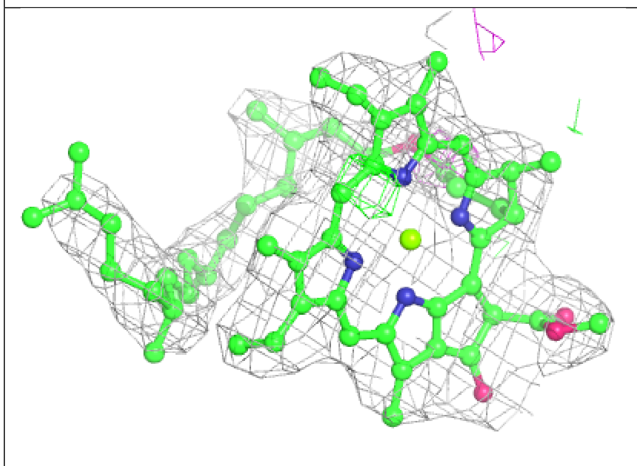


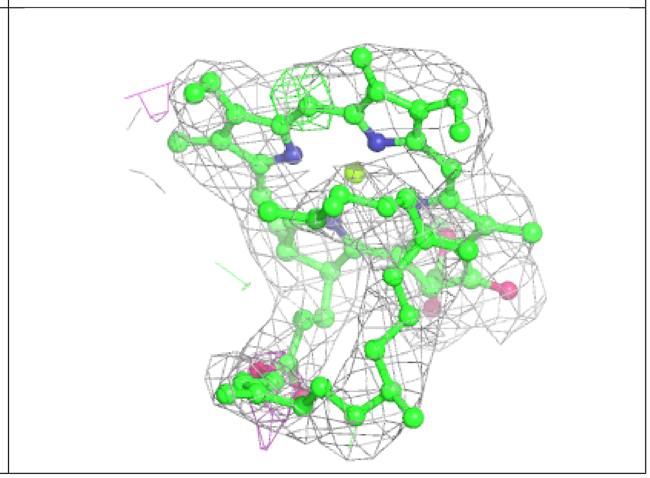


Electron density around CLA B 1227:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

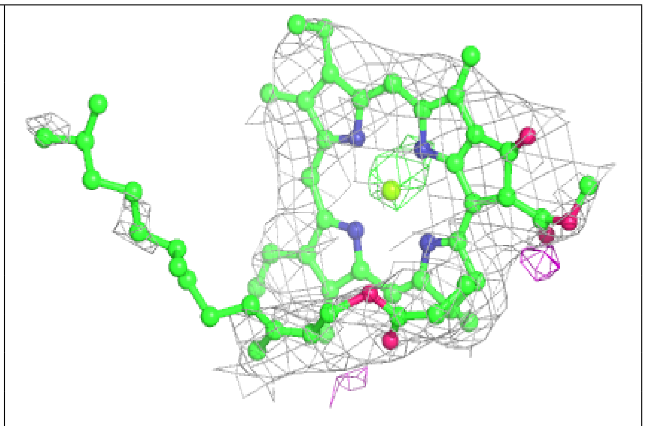


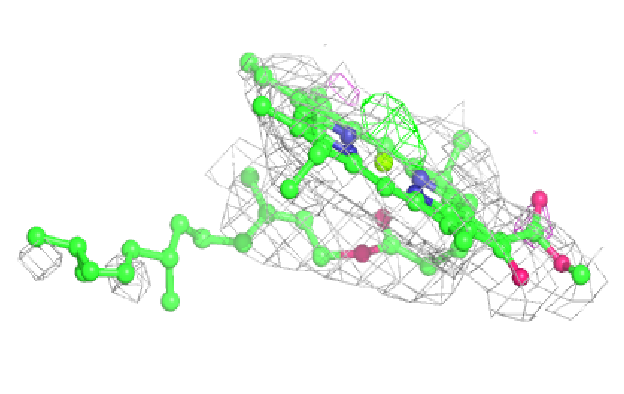


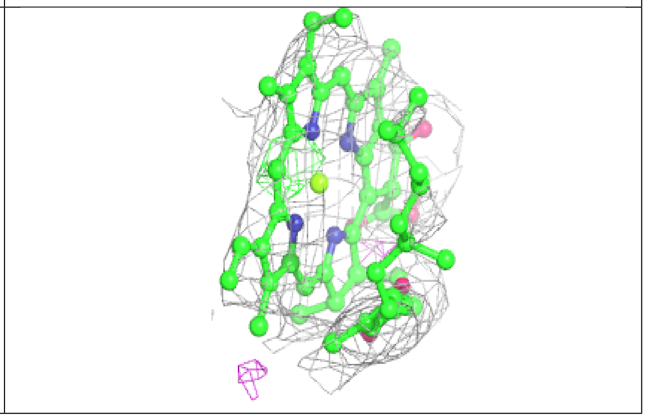


Electron density around CLA 2 2001:

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

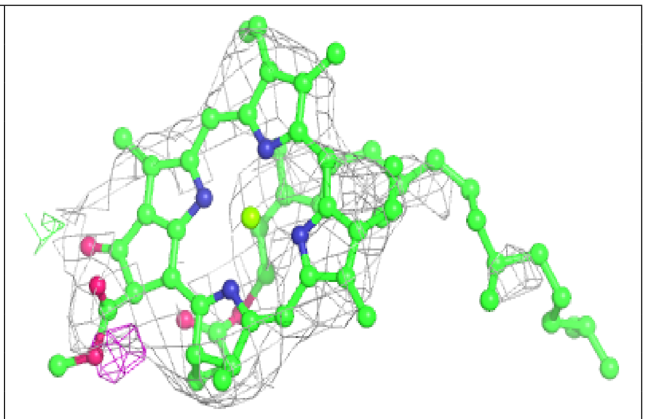


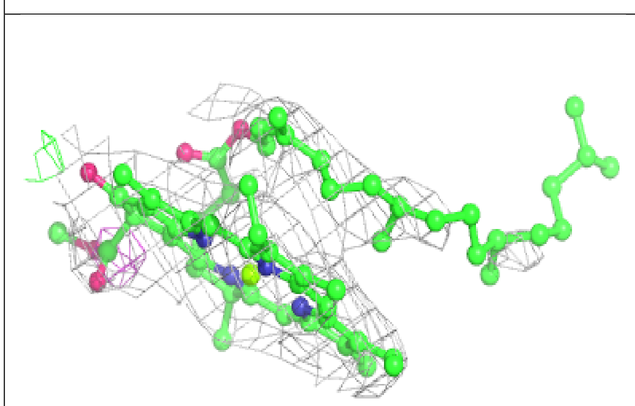


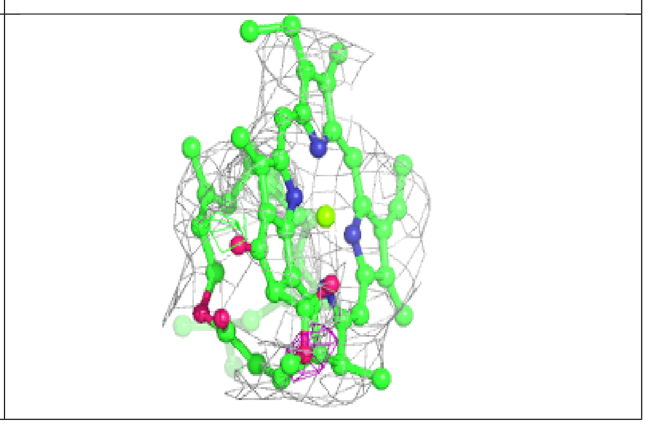


Electron density around CLA 4 4003:

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

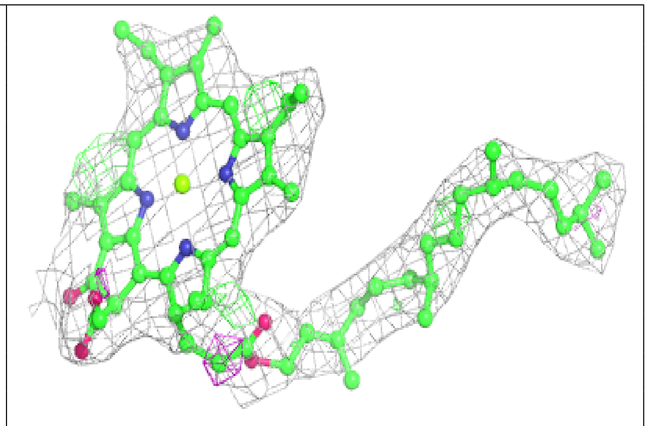


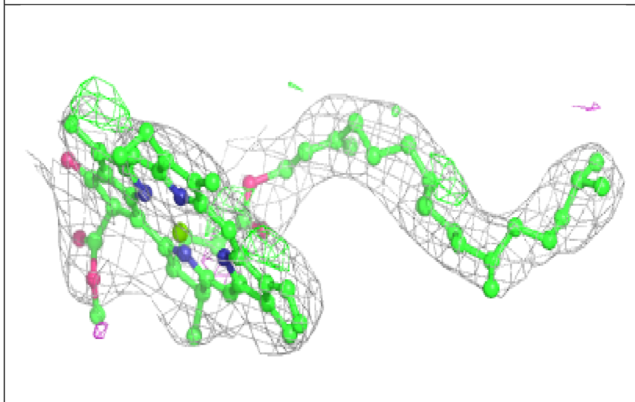


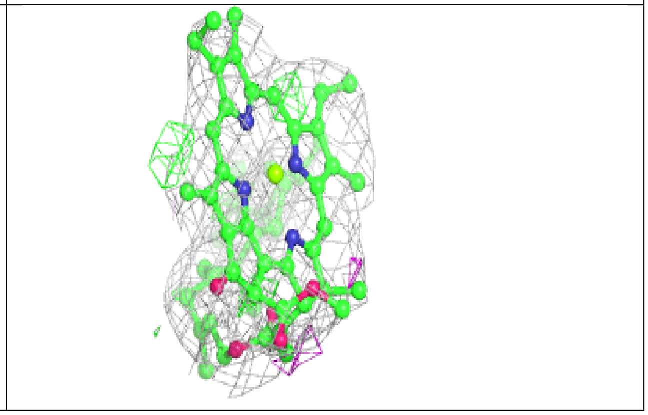


Electron density around CLA A 1106:

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

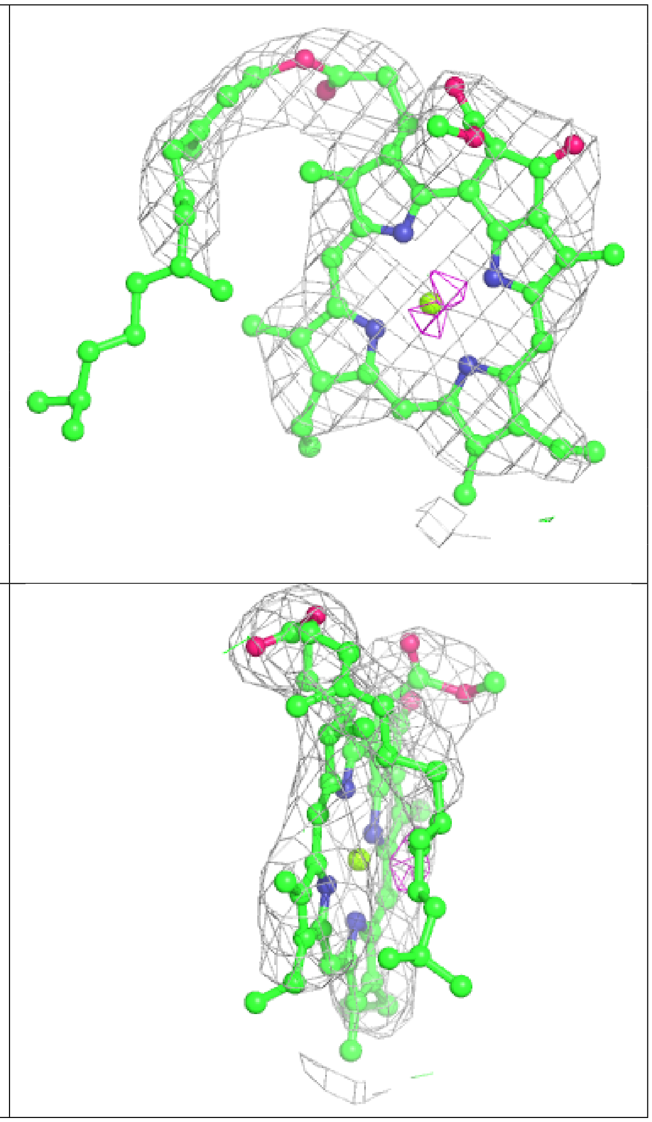


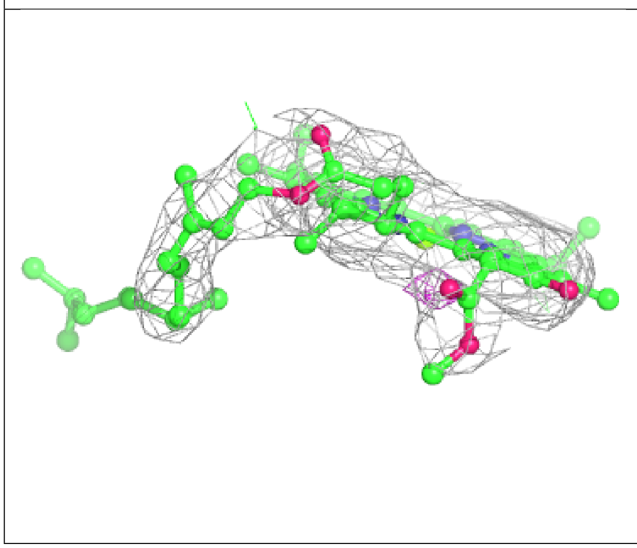




Electron density around CLA A 1111:

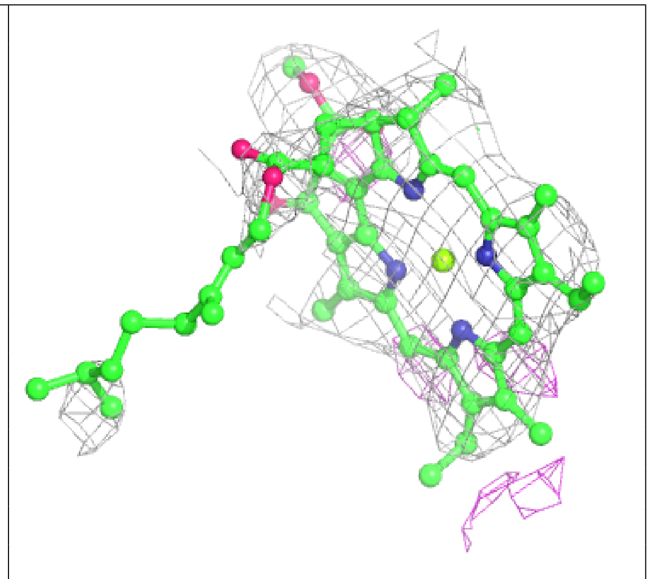
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

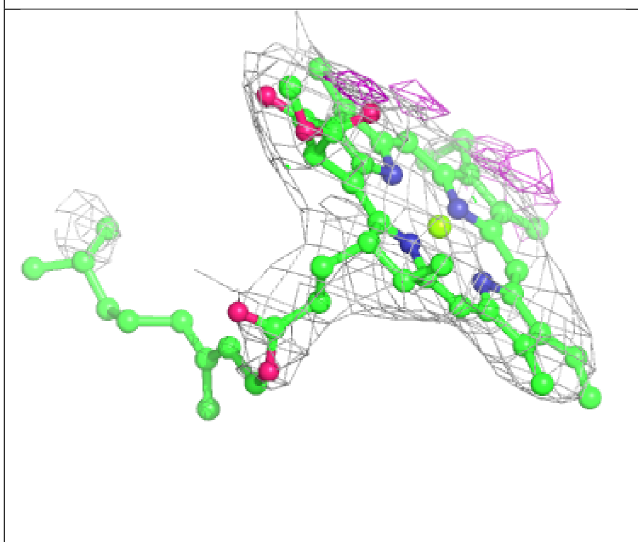


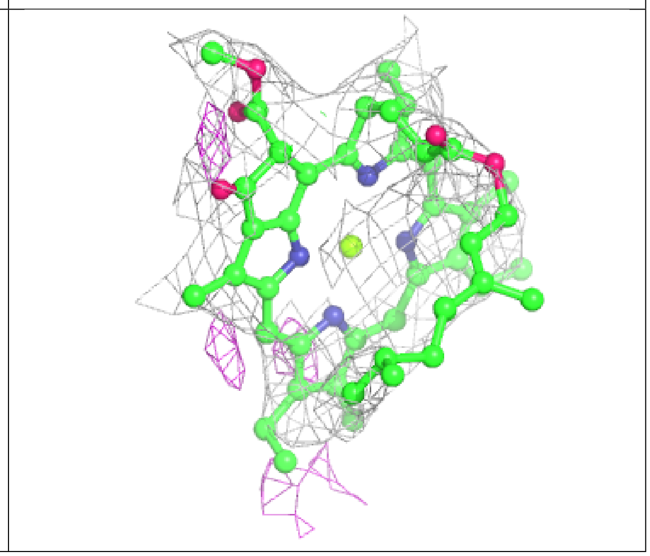


Electron density around CLA 2 2012:

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

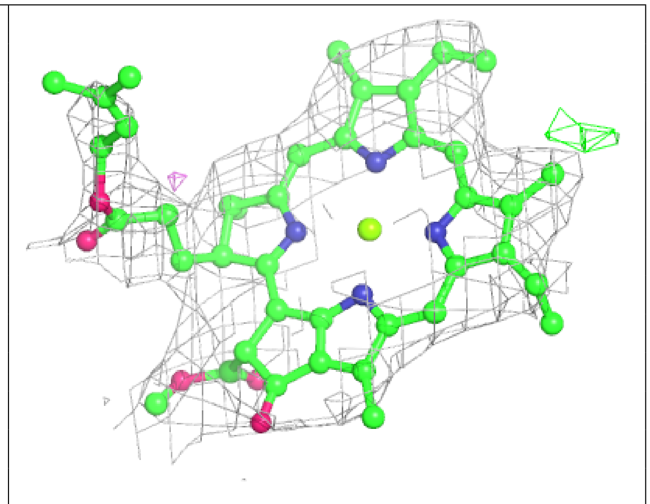


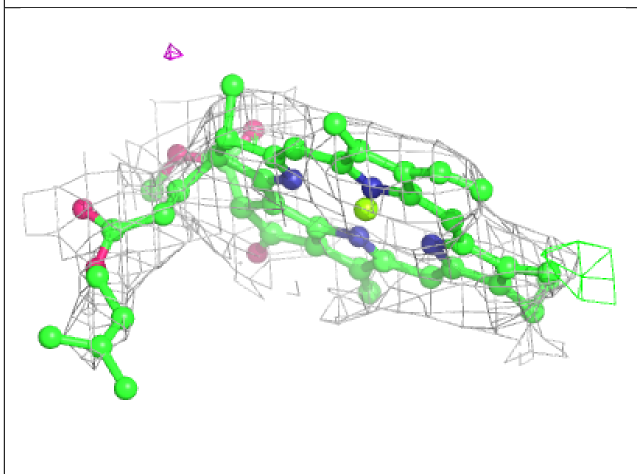


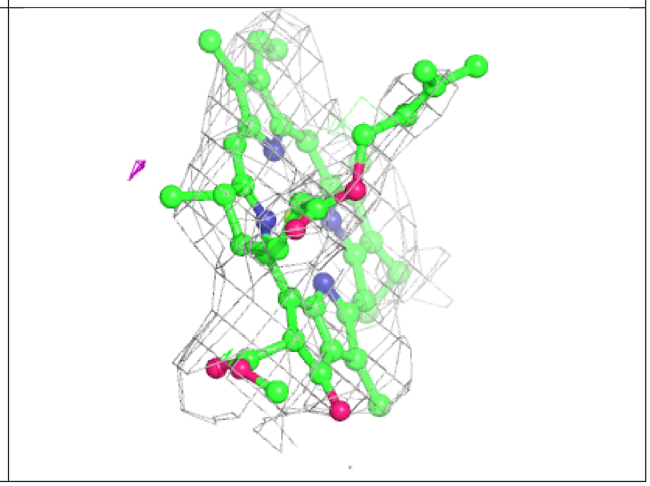


Electron density around CLA 2 2009:

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

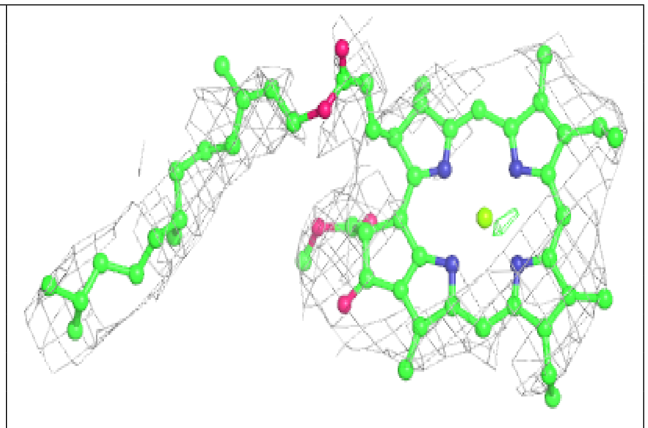


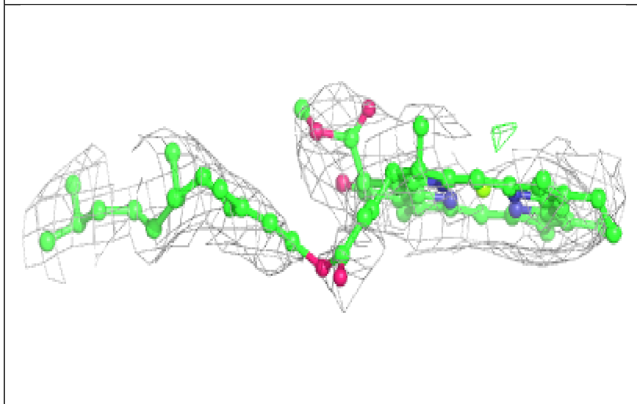


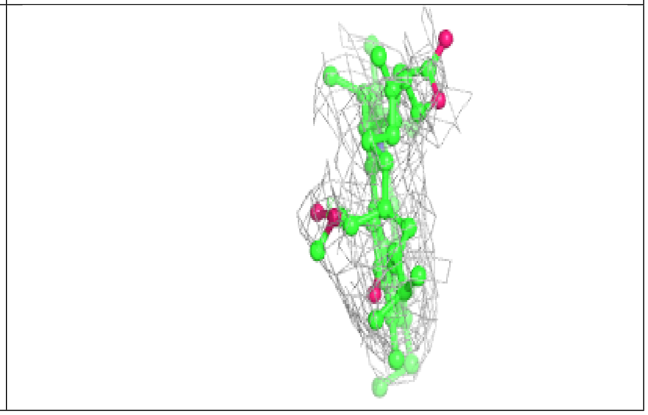


Electron density around CLA A 1120:

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

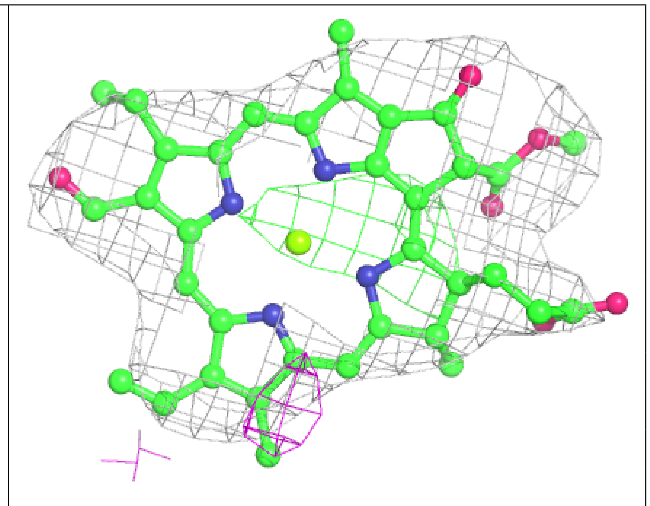


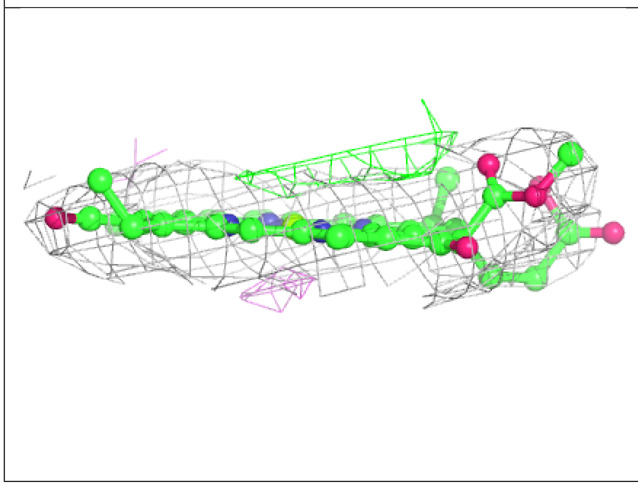


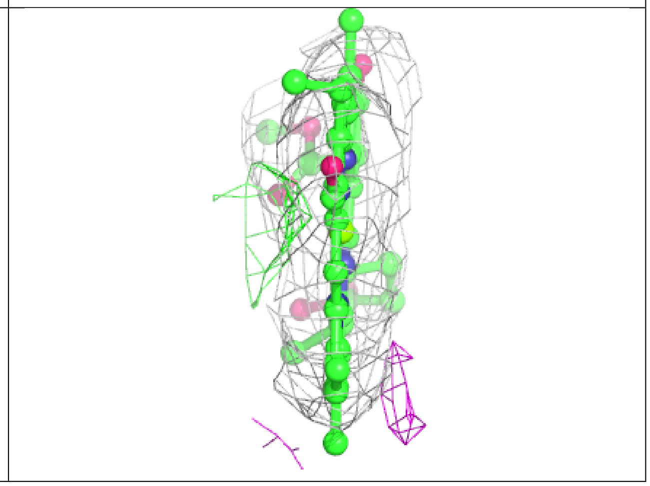


Electron density around CHL 2 2013:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

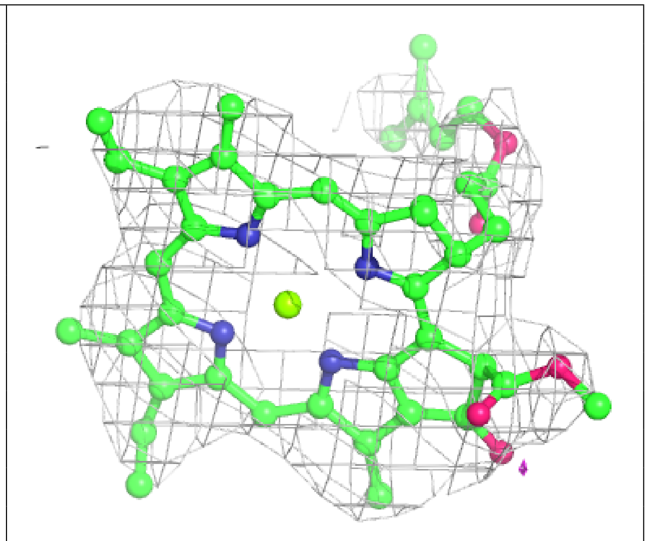


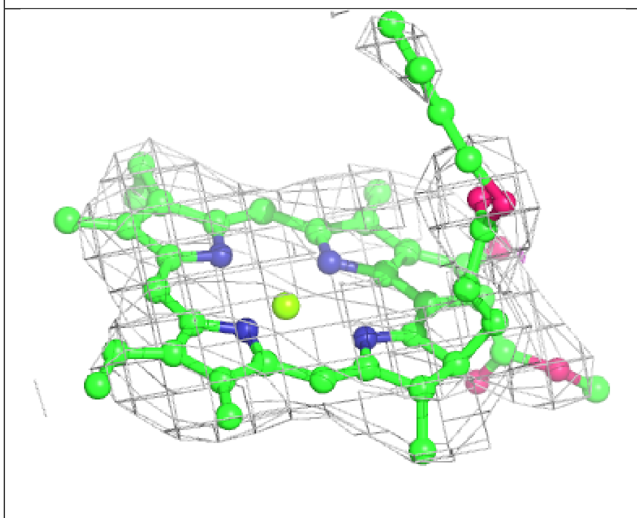


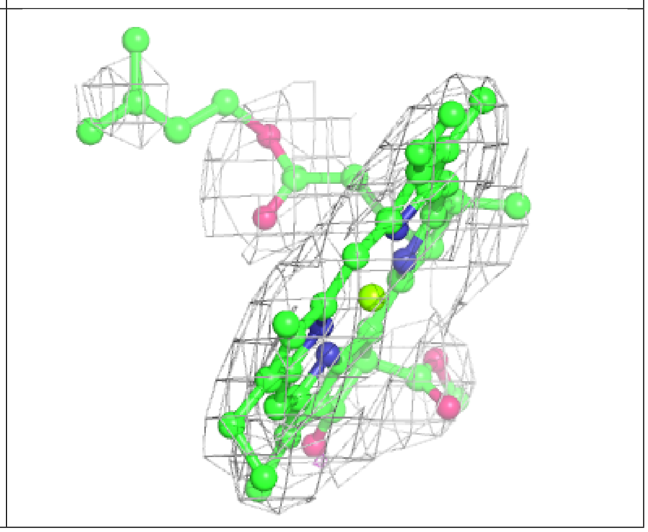


Electron density around CLA A 1130:

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

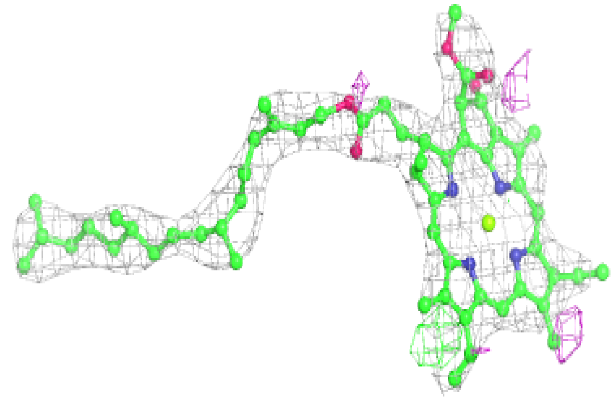


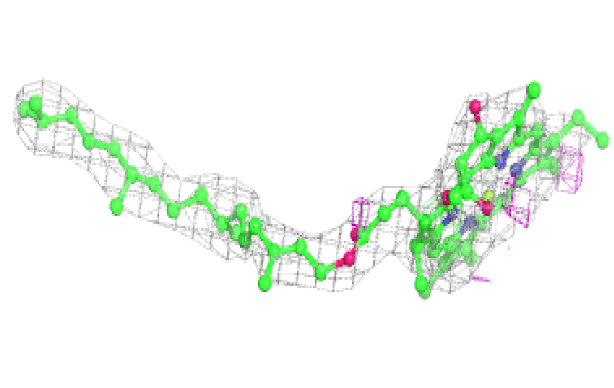


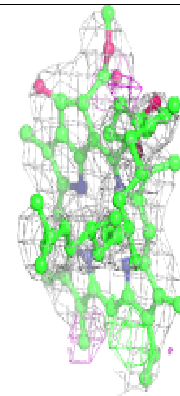


Electron density around CLA A 1022:

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

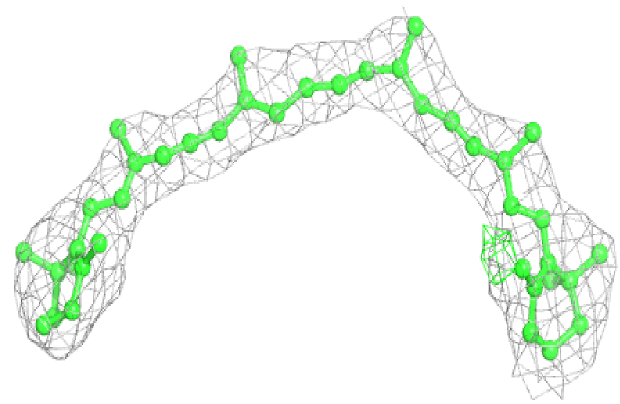


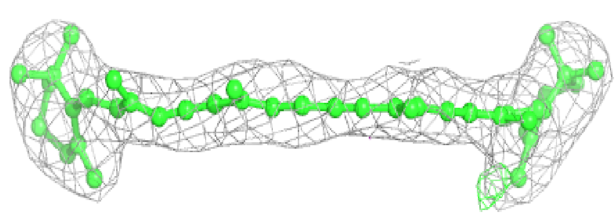


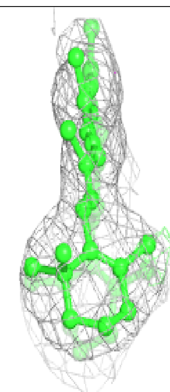


Electron density around BCR F 6016:

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

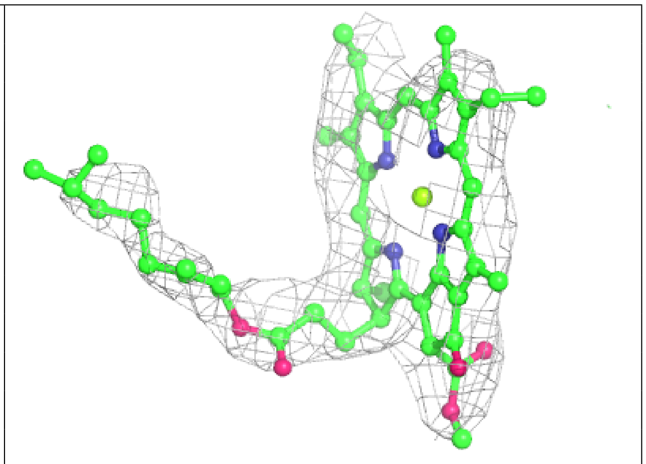


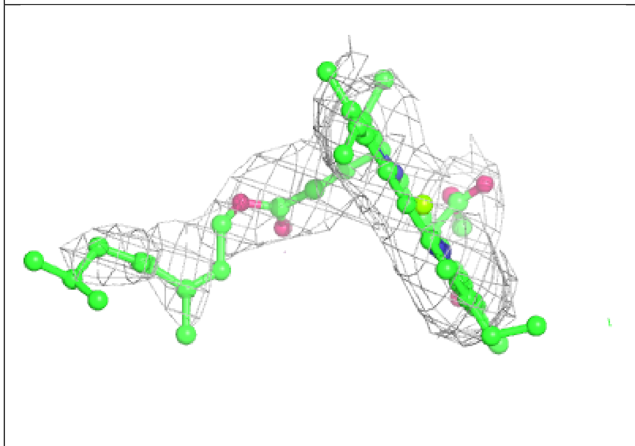


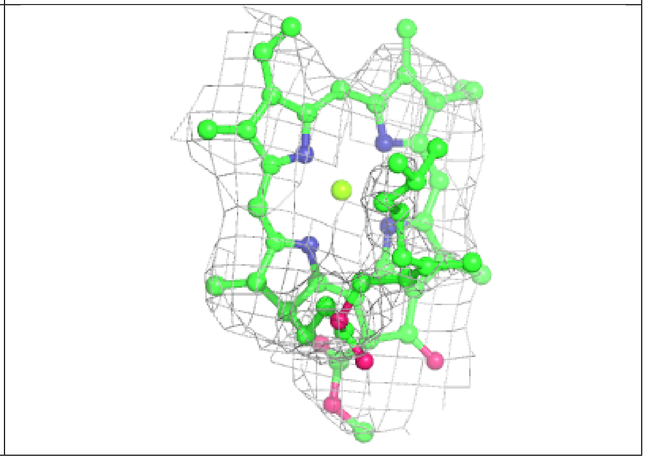


Electron density around CLA B 1232:

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

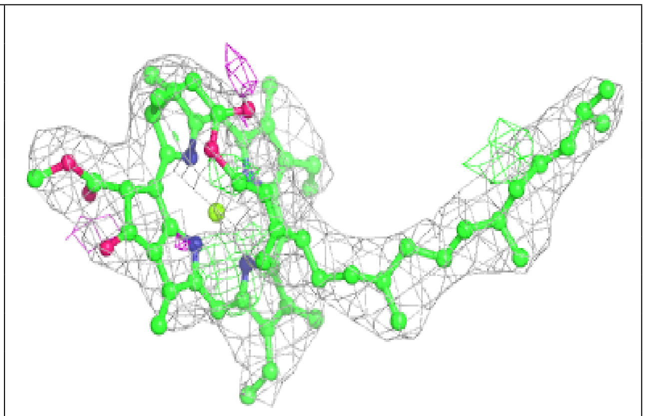


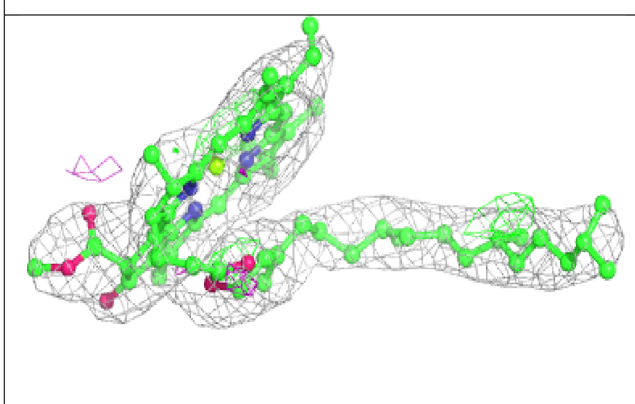


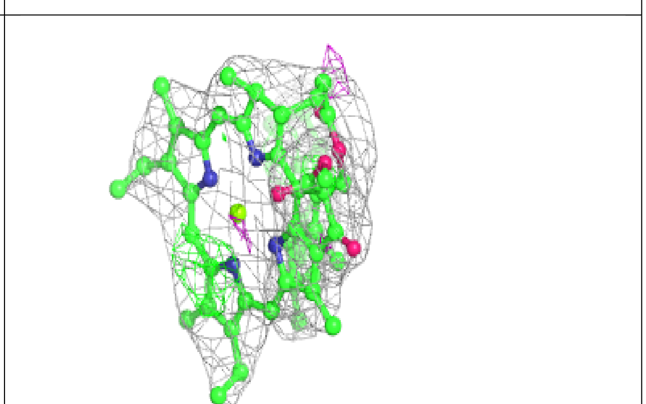


Electron density around CLA A 1140:

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

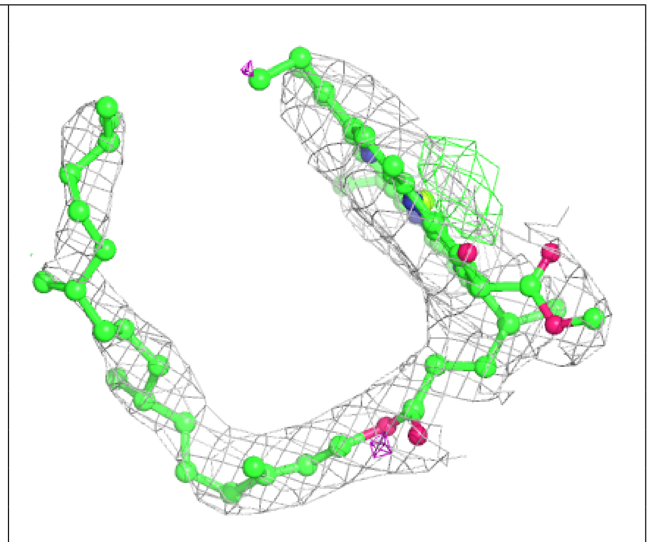


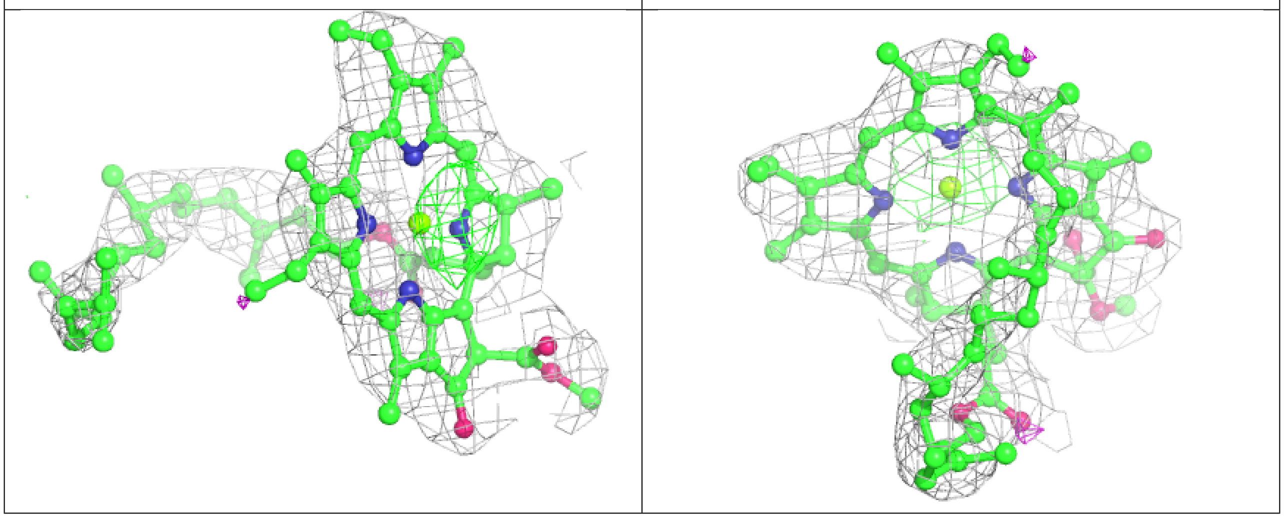




Electron density around CLA B 1216:

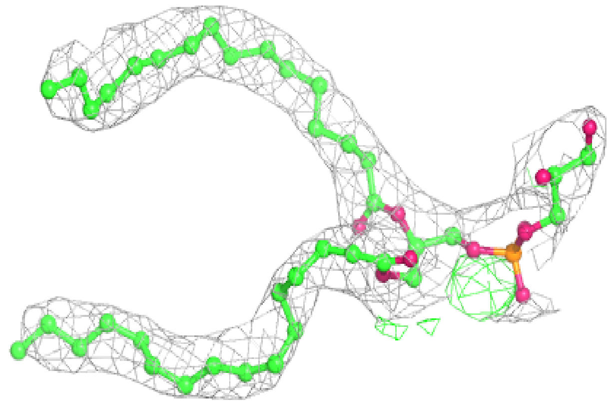
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

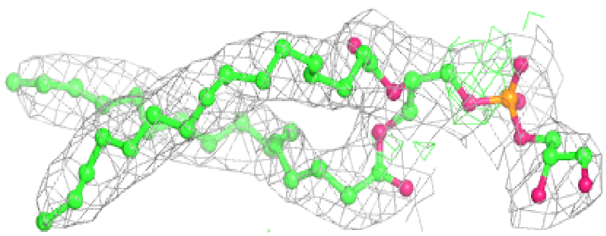


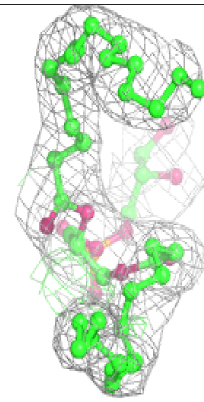


Electron density around LHG A 7001:

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

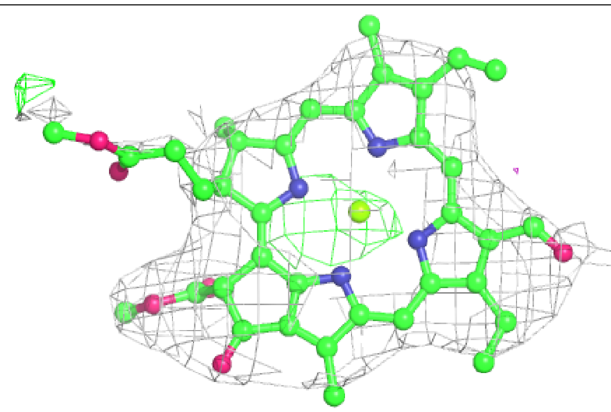


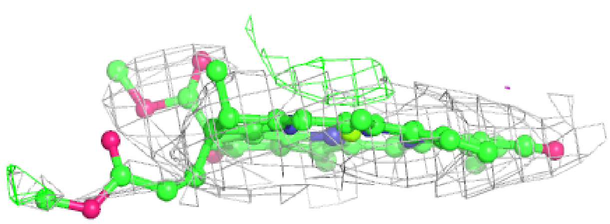


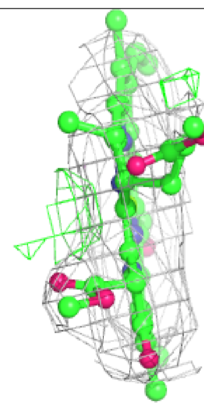


Electron density around CHL 4 4013:

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

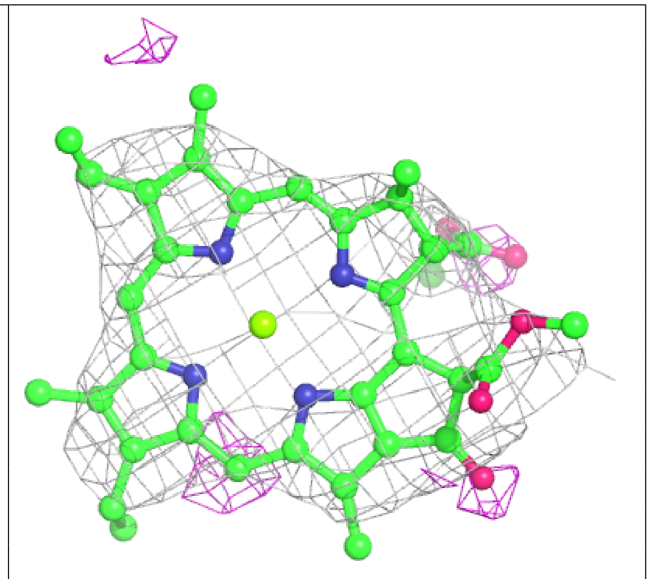


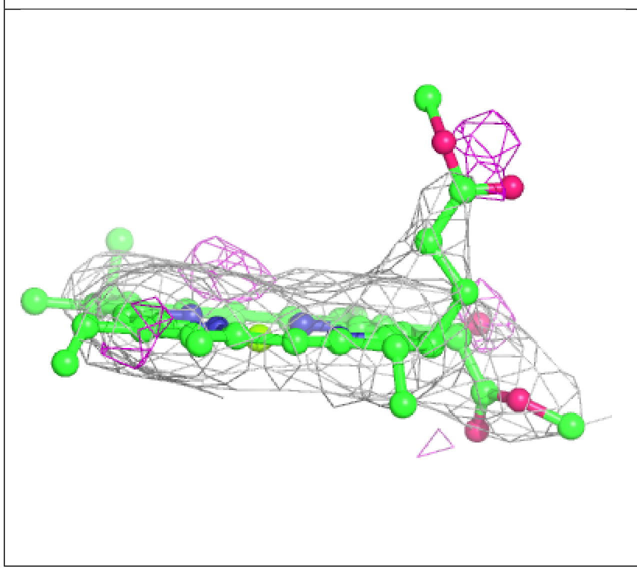


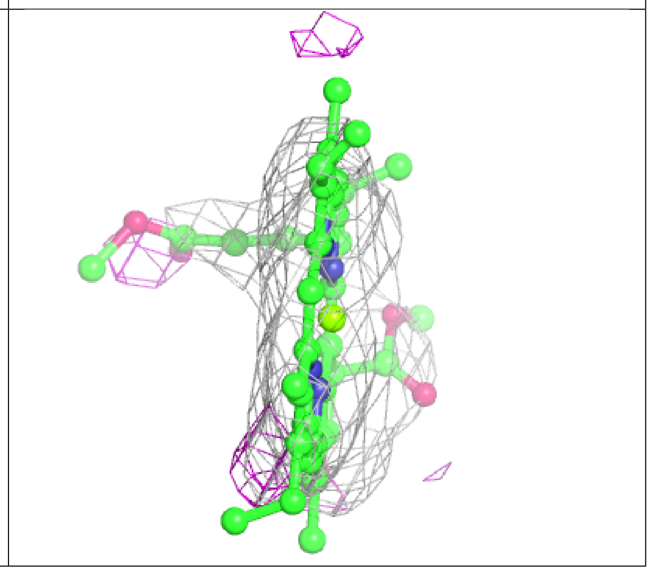


Electron density around CLA A 1108:

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

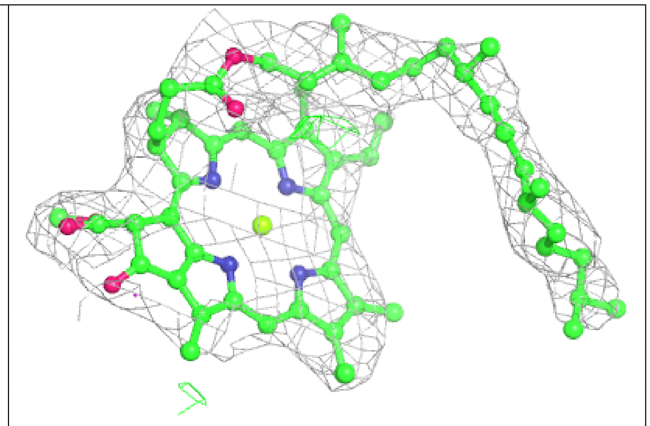


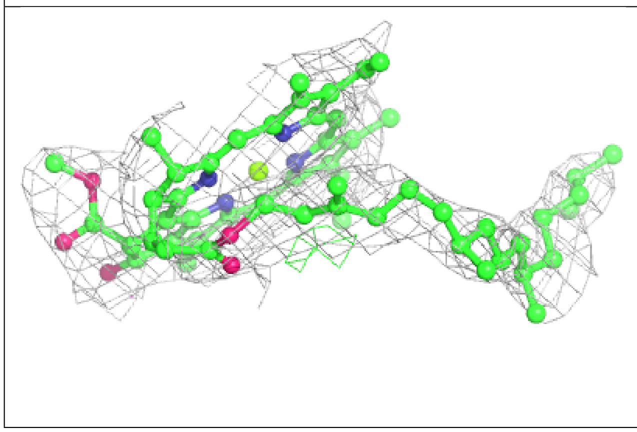


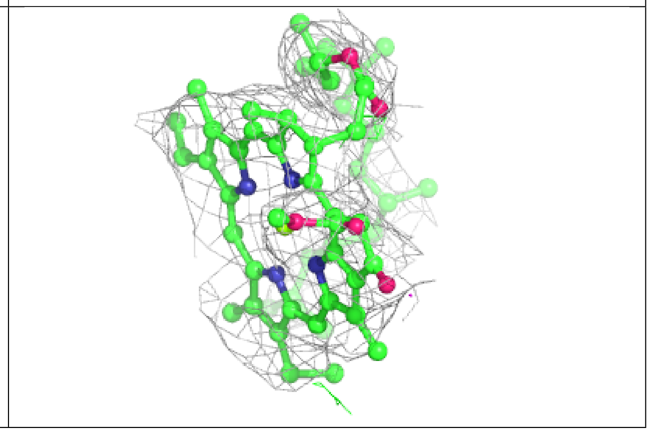


Electron density around CLA 2 2004:

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

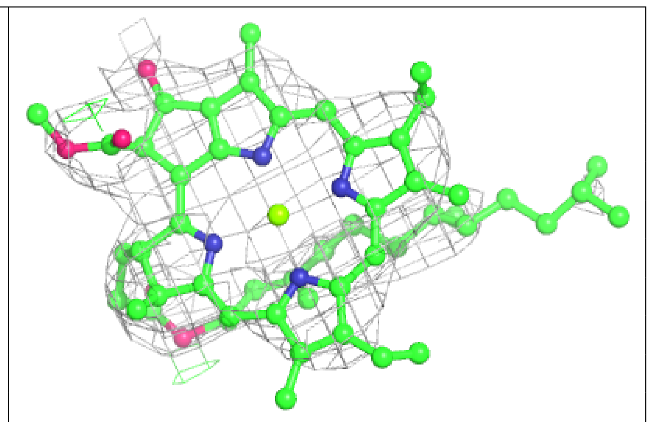


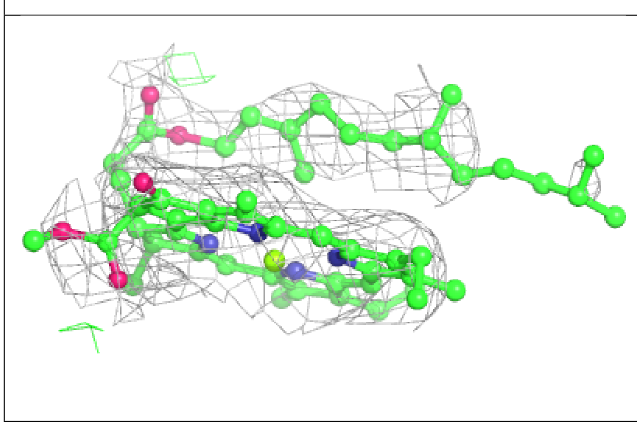


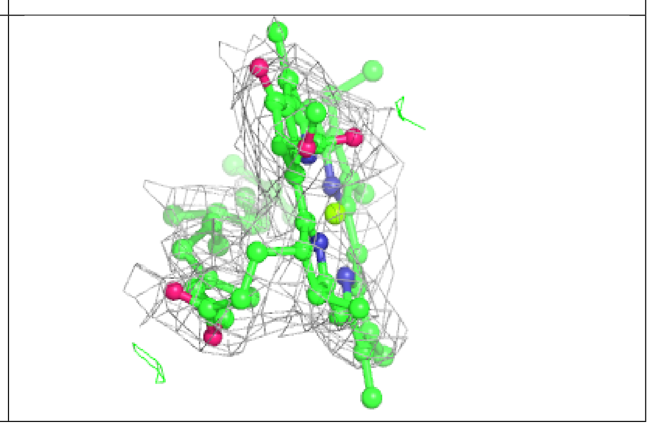


Electron density around CLA A 1116:

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

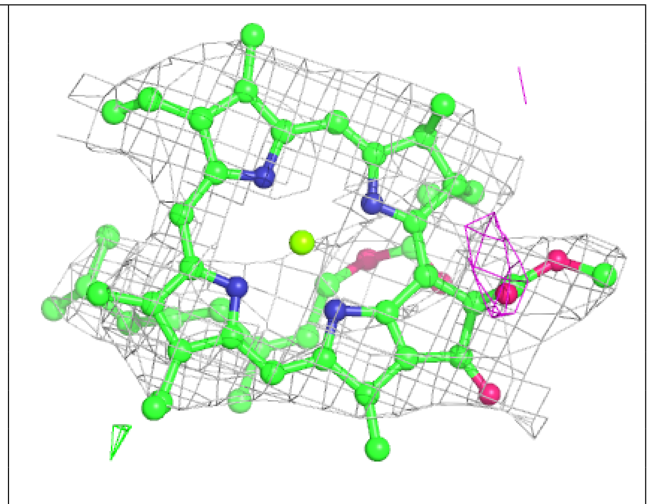


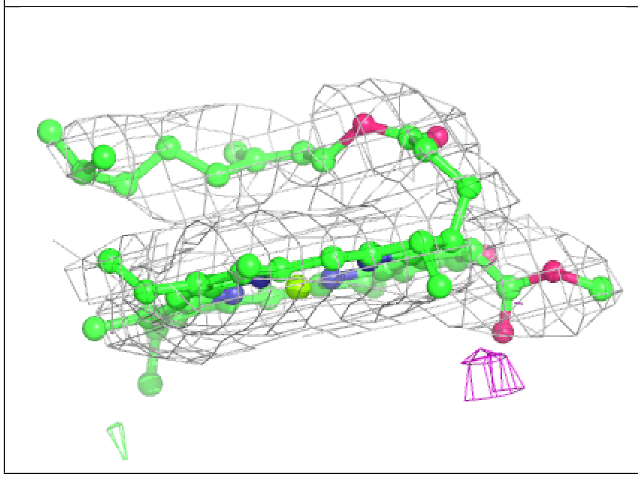


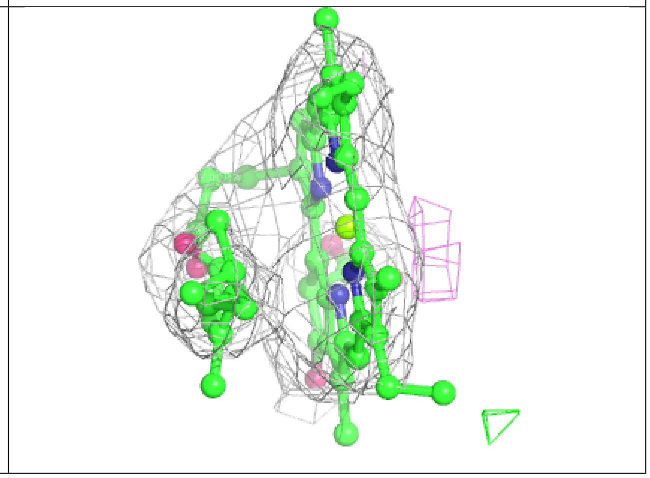


Electron density around CLA B 1204:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

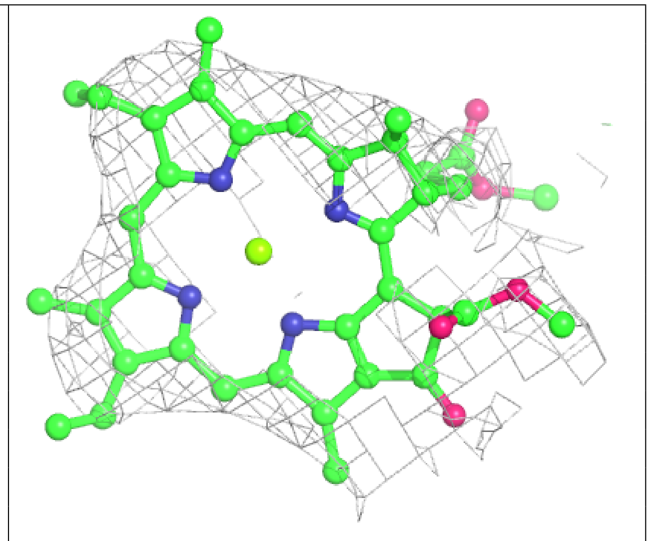


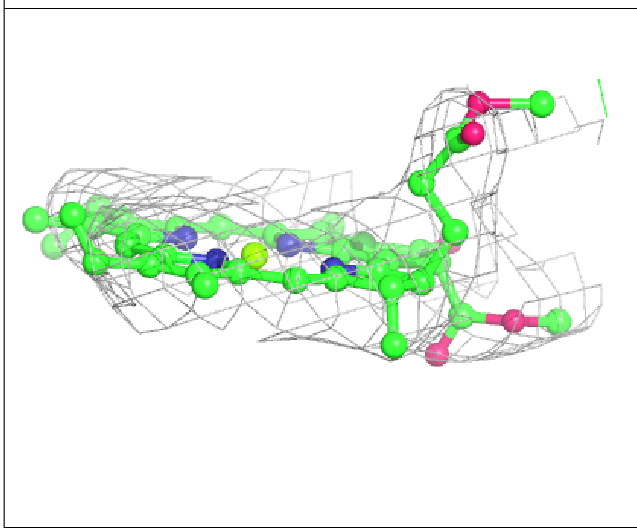


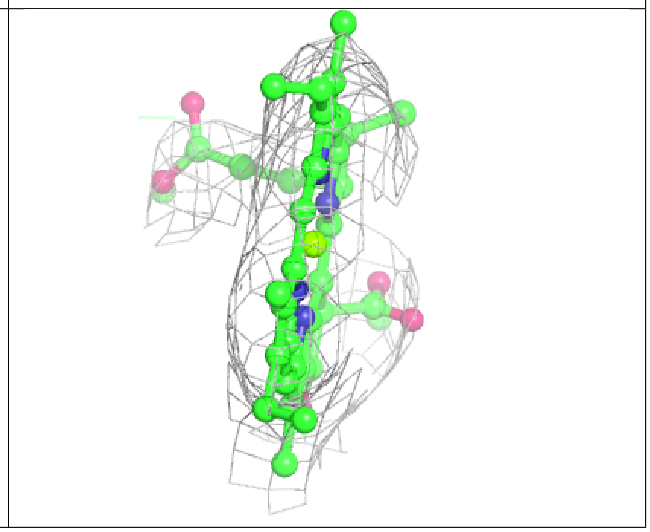


Electron density around CLA 1 1007:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

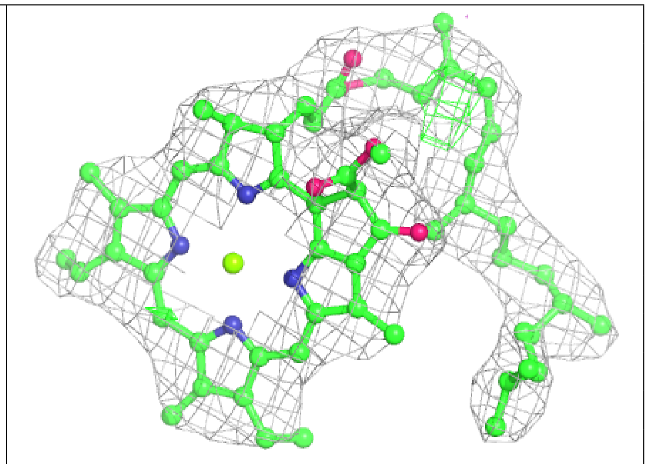


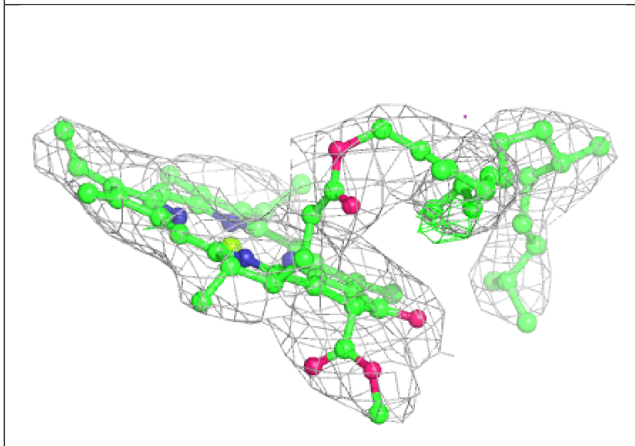


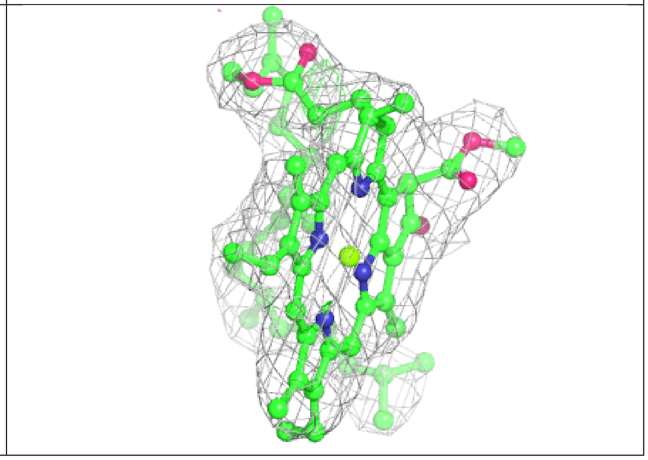


Electron density around CLA B 1229:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

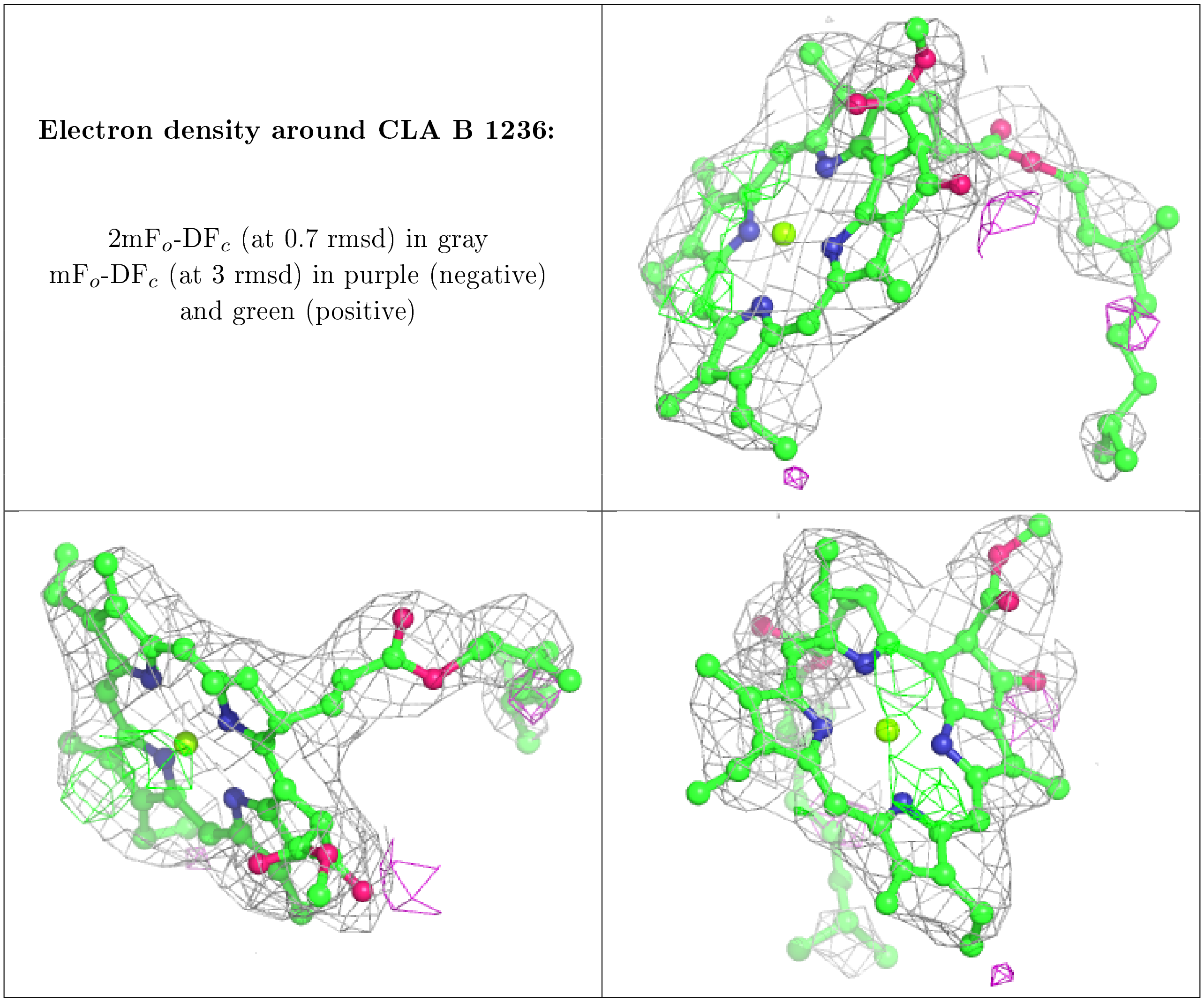






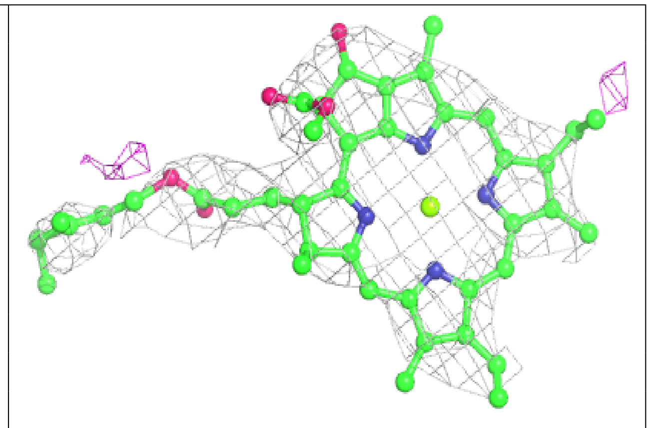
Electron density around CLA B 1236:

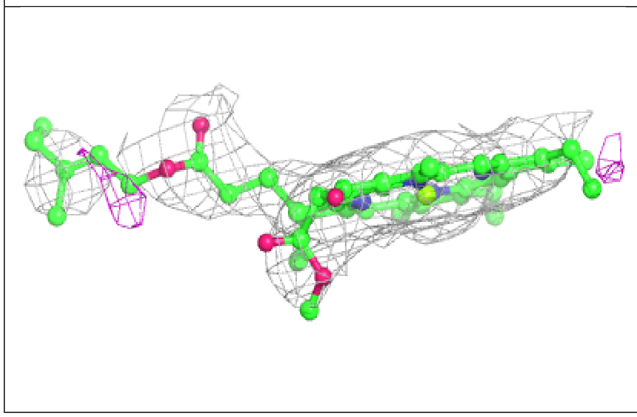
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

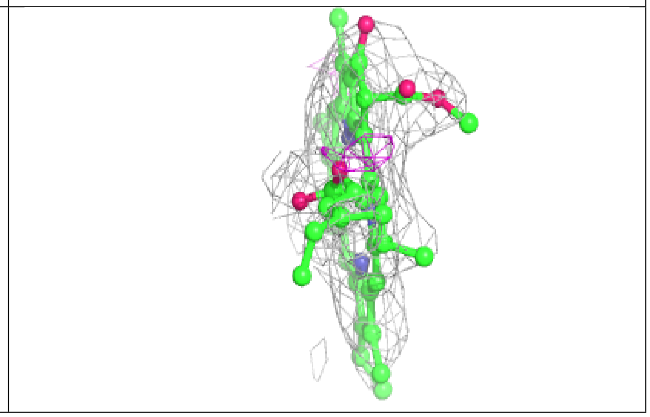


Electron density around CLA A 1135:

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

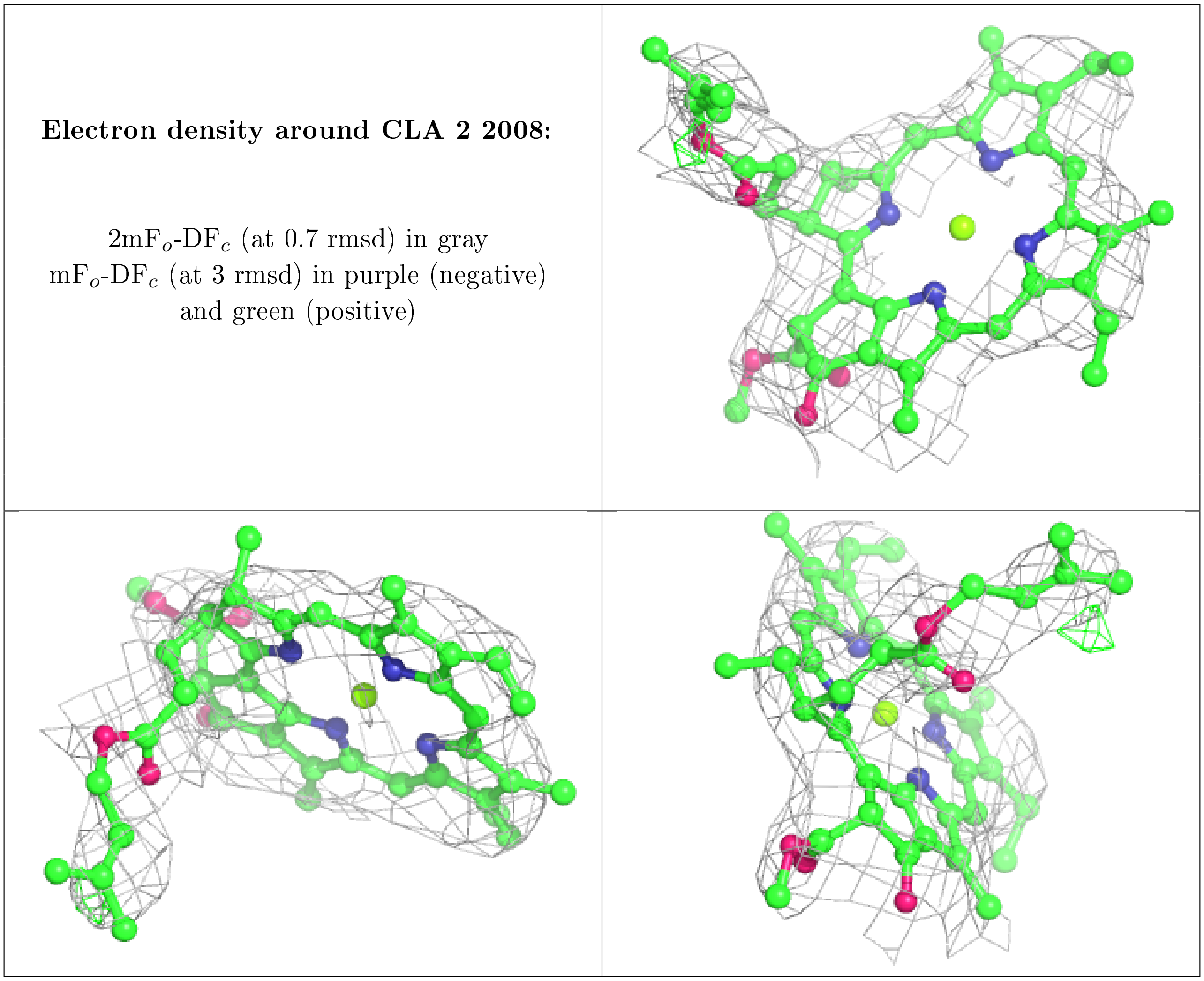






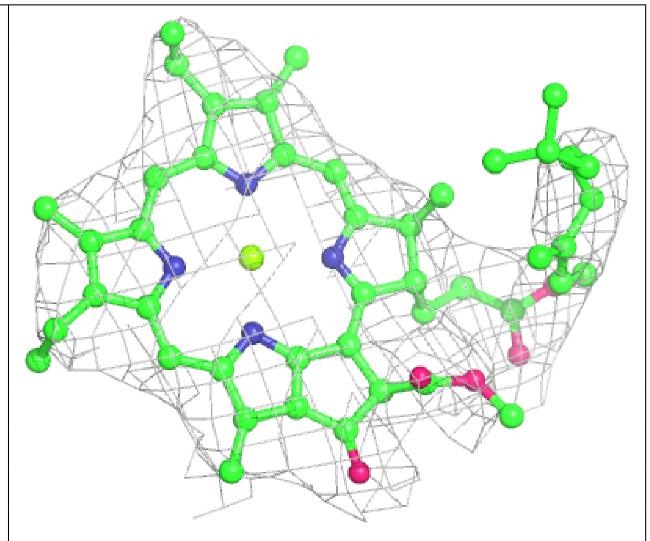
Electron density around CLA 2 2008:

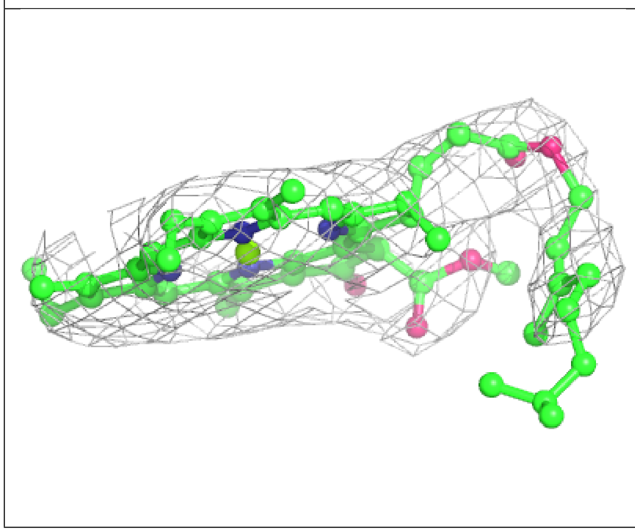
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

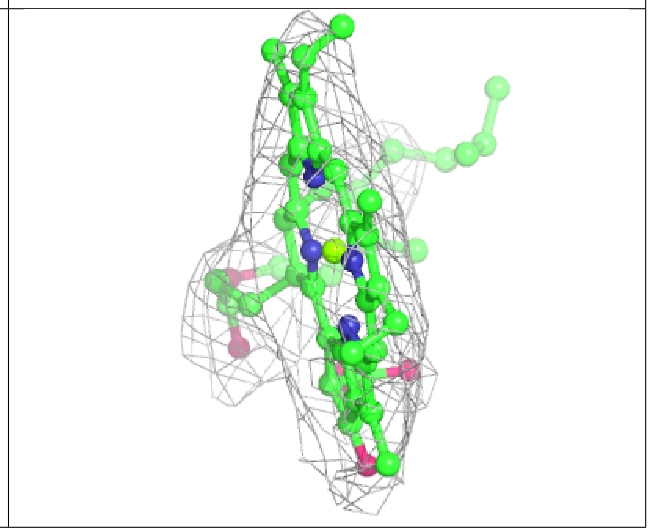


Electron density around CLA 2 2005:

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

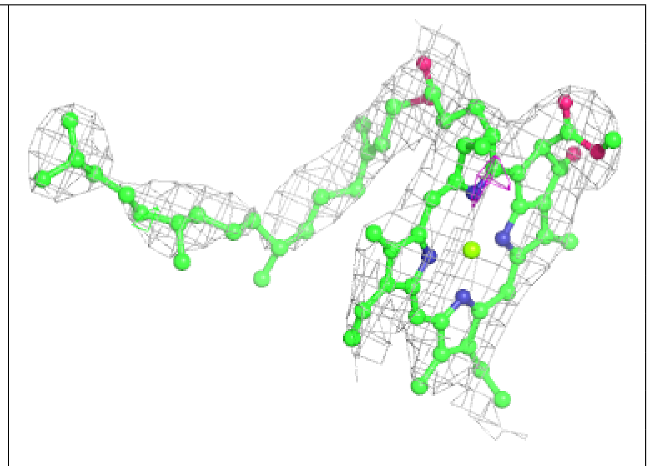


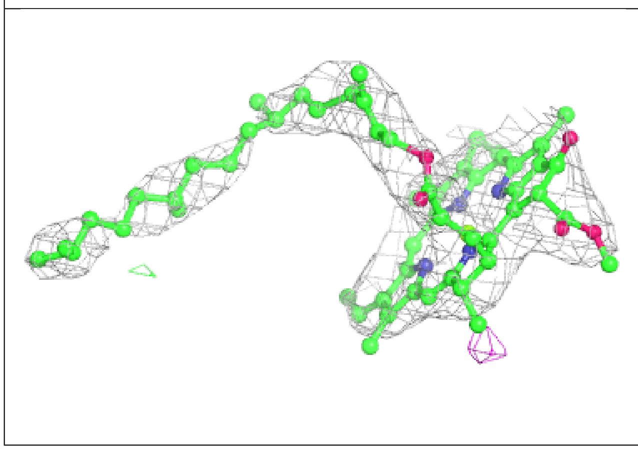


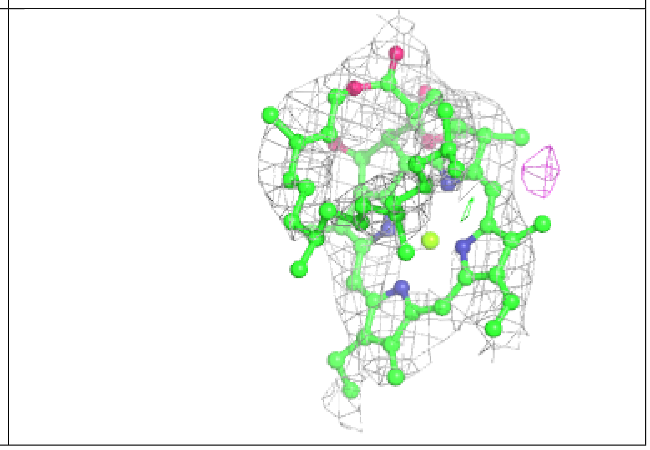


Electron density around CLA B 1211:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

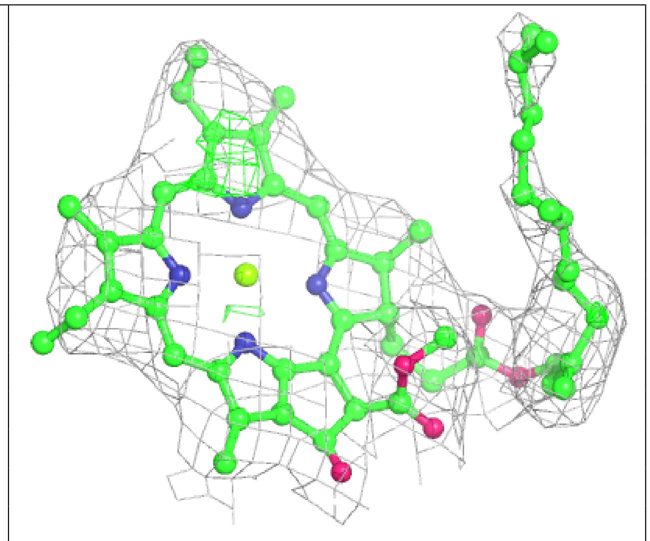


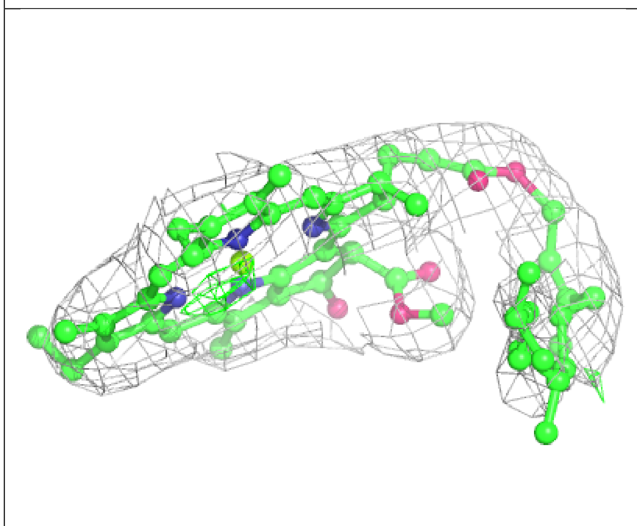


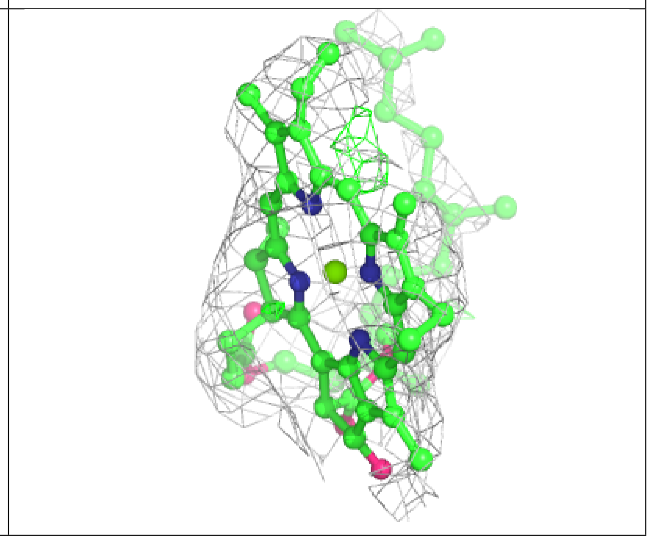


Electron density around CLA 4 4005:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

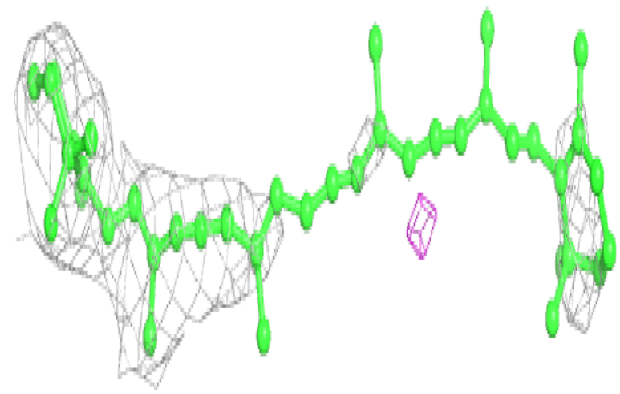


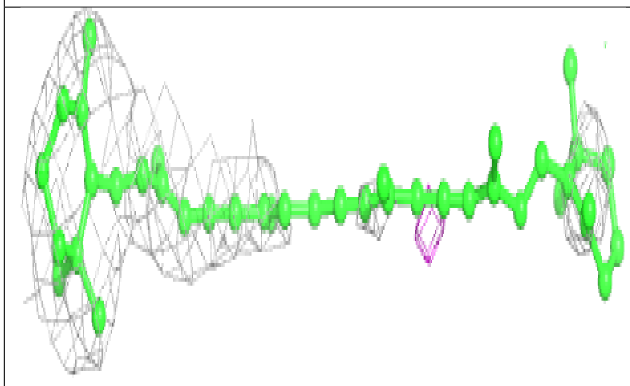


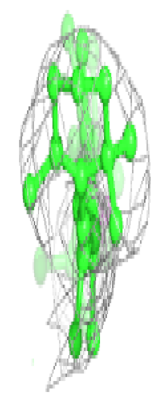


Electron density around BCR A 6002:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

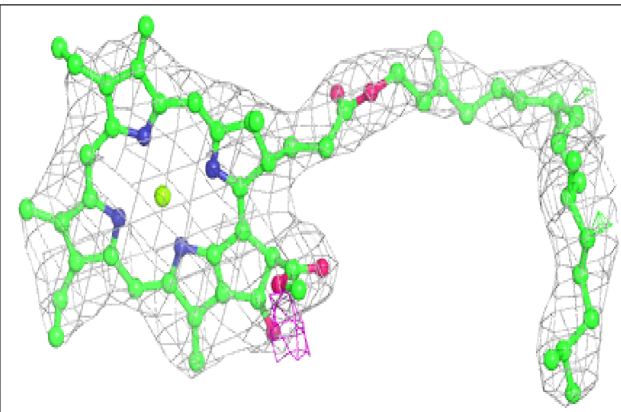


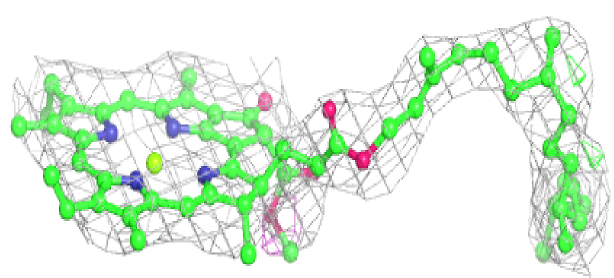


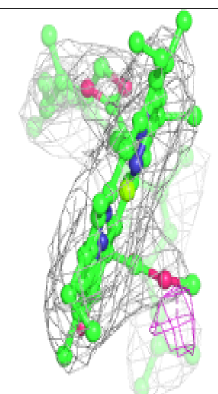


Electron density around CLA B 1223:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

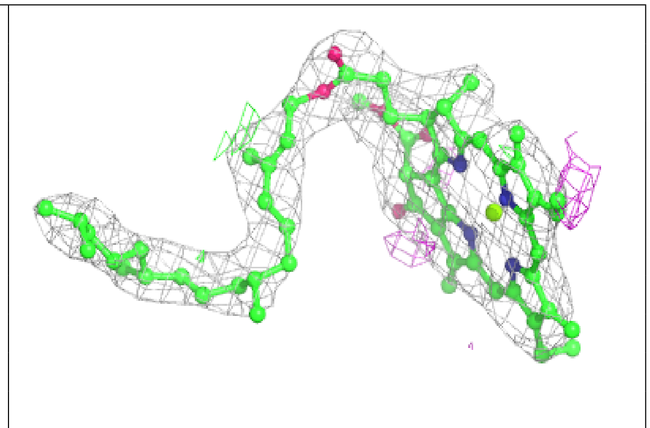


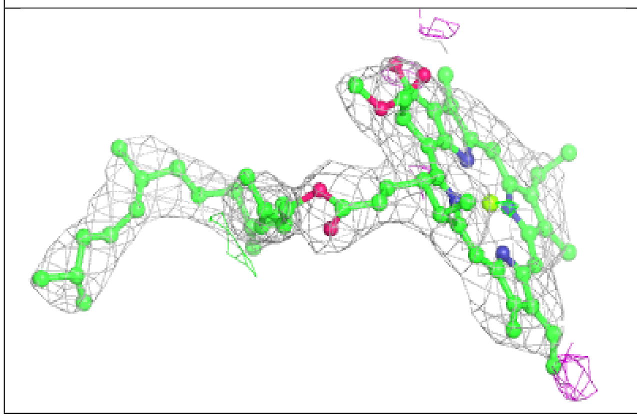


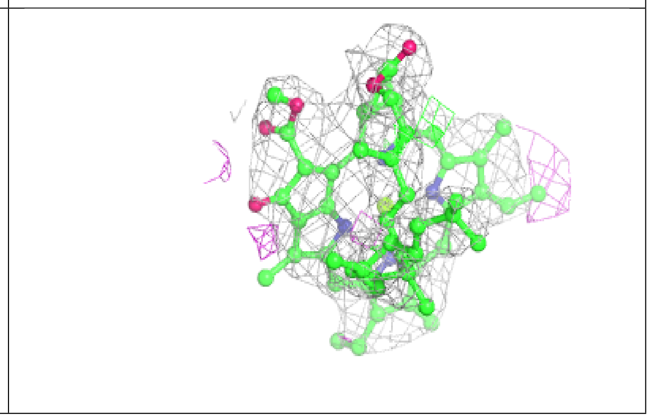


Electron density around CLA B 1021:

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

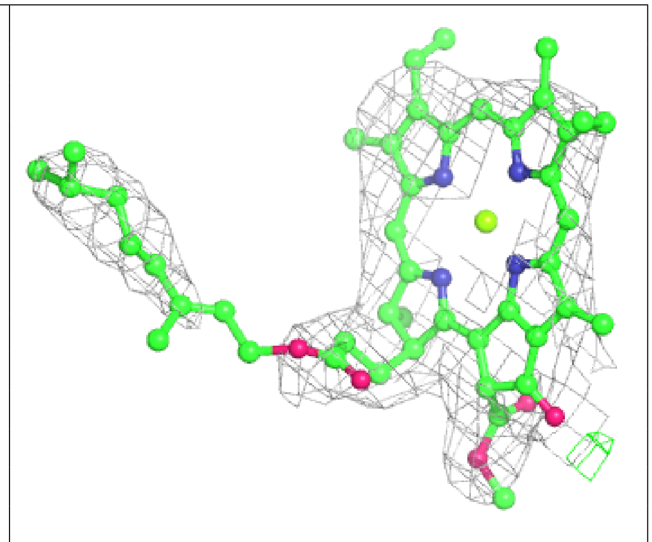


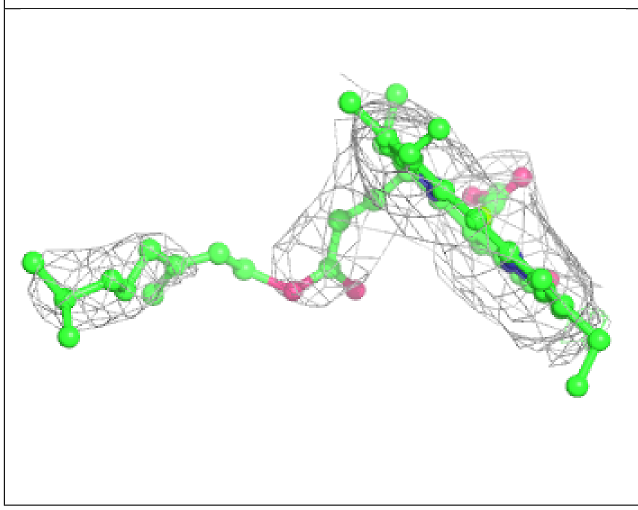


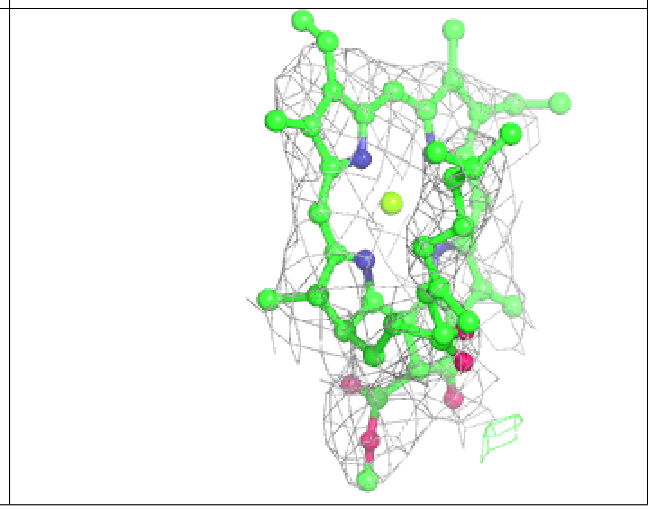


Electron density around CLA A 1133:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

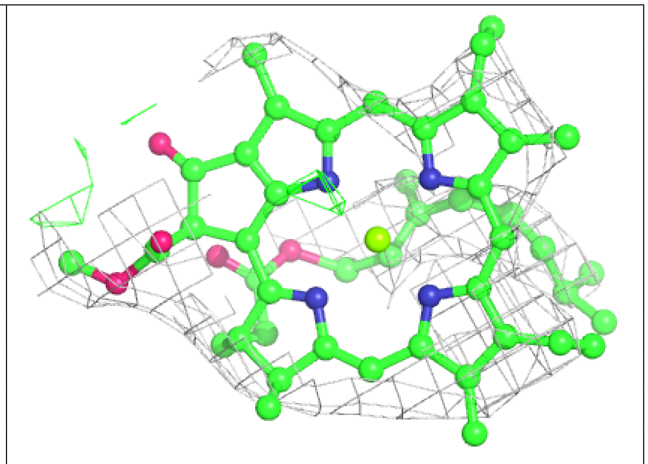


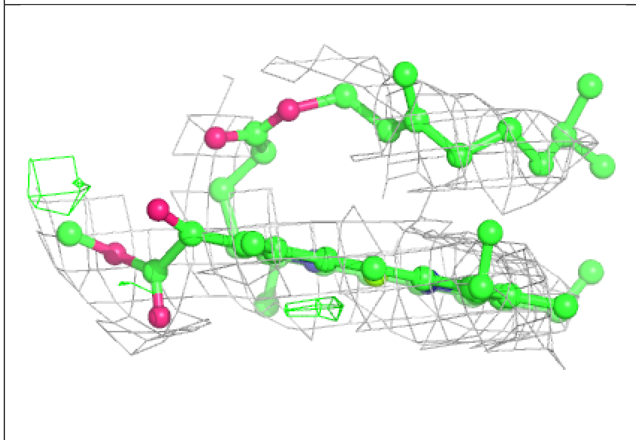


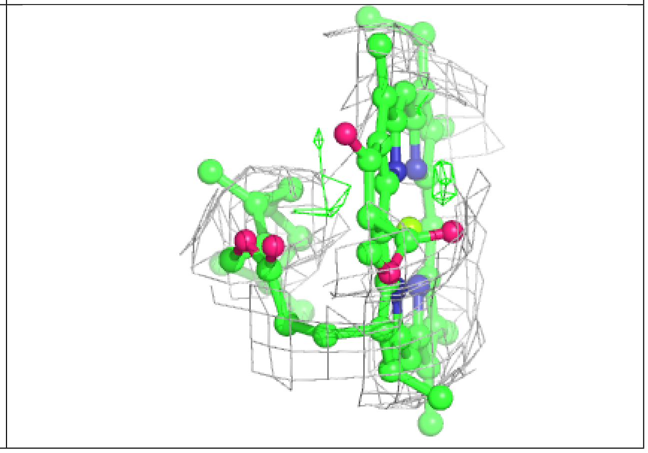


Electron density around CLA 1 1003:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

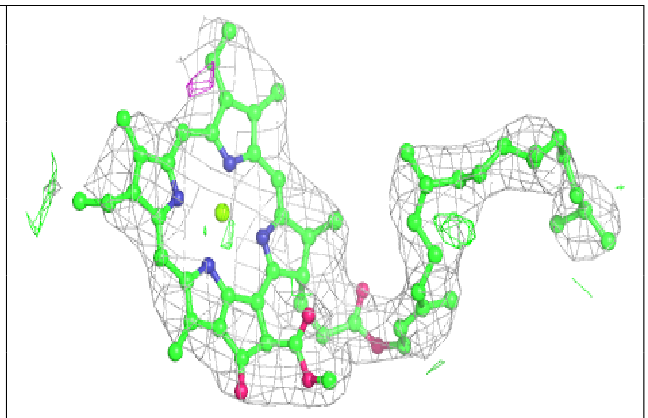


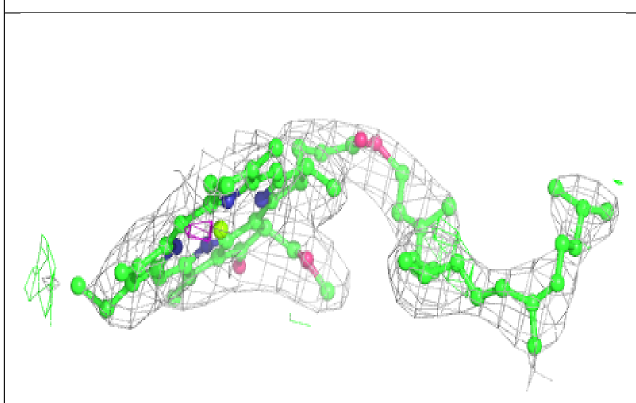


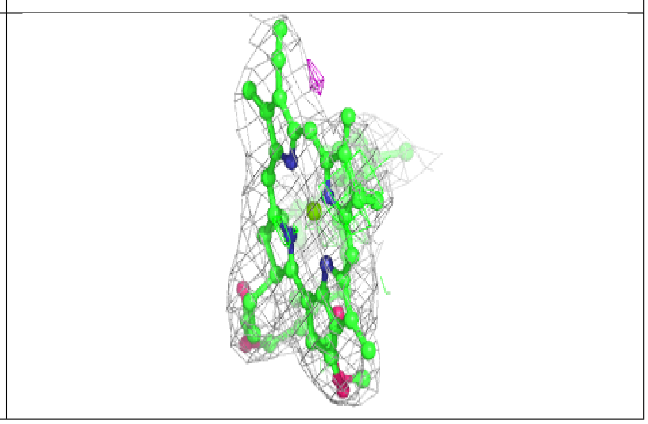


Electron density around CLA A 1101:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

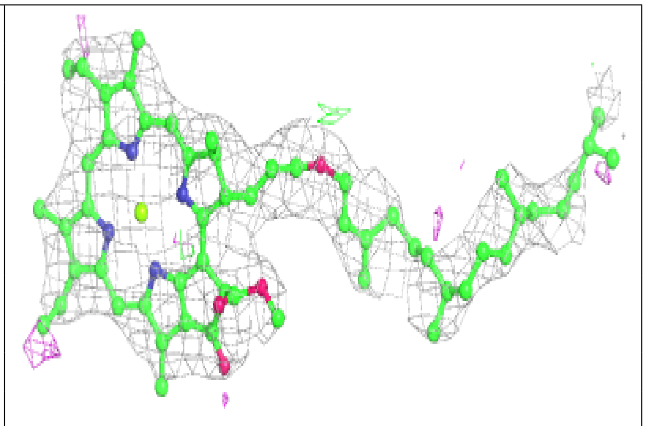


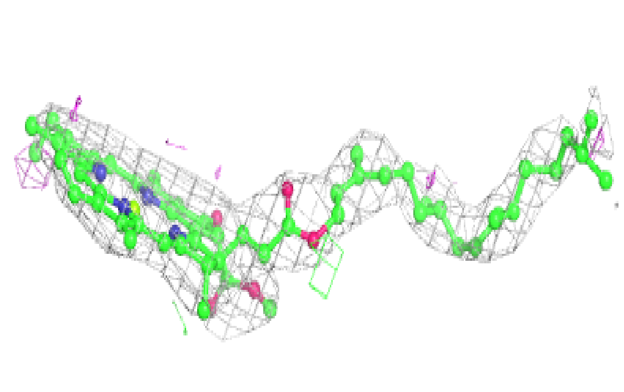


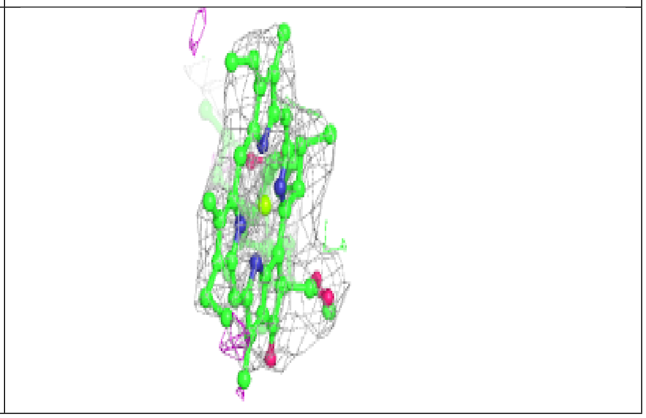


Electron density around CLA A 1139:

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

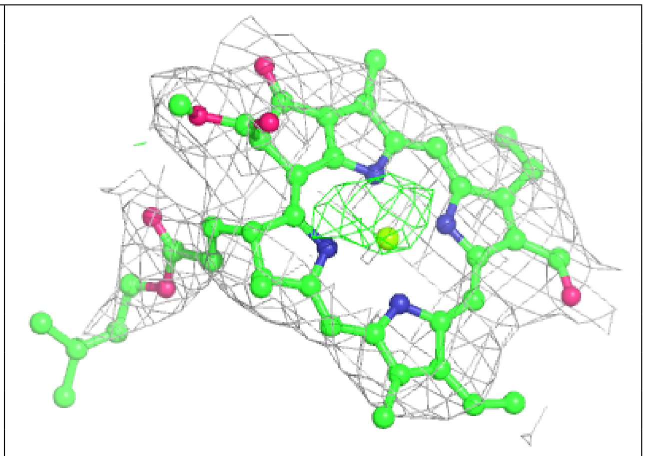


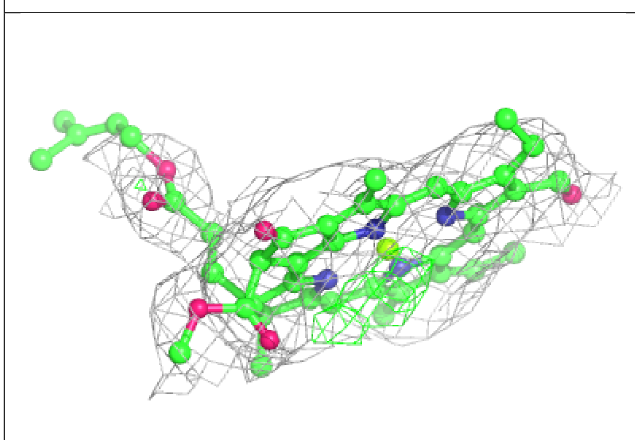


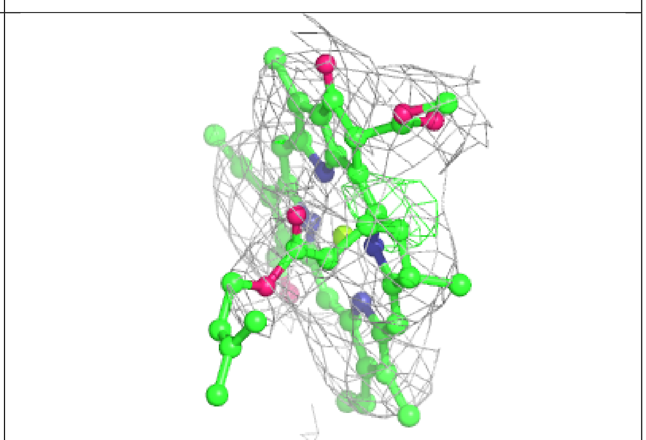


Electron density around CHL 4 4011:

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

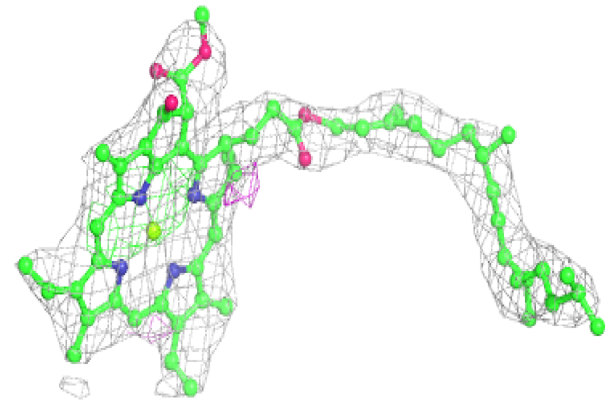


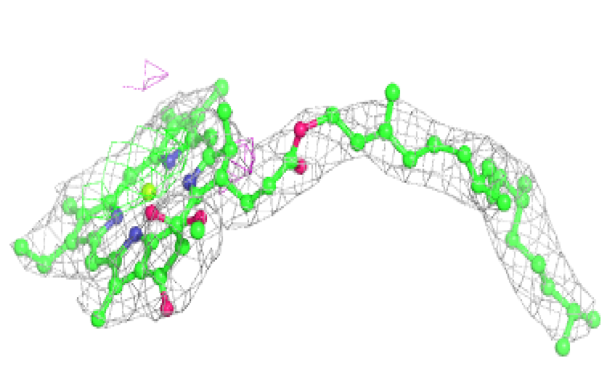


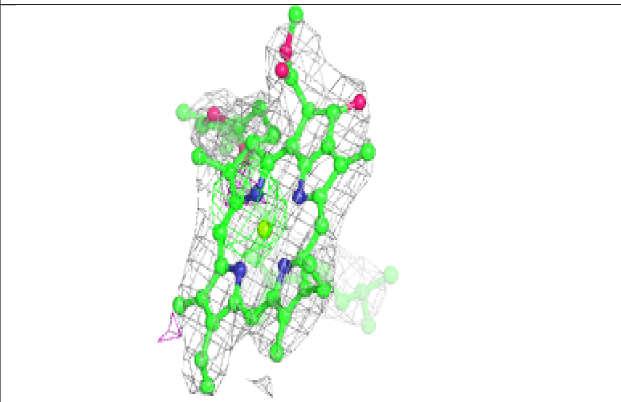


Electron density around CLA B 1012:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

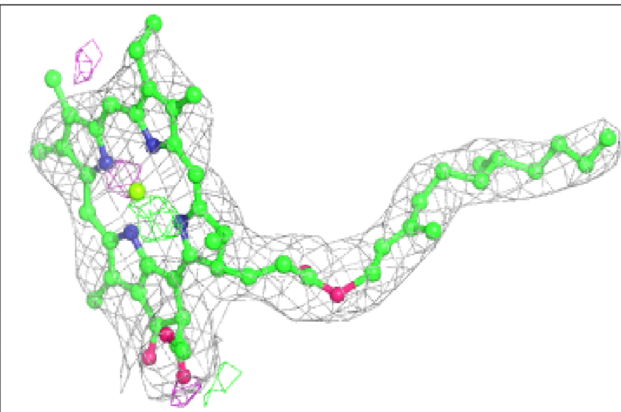


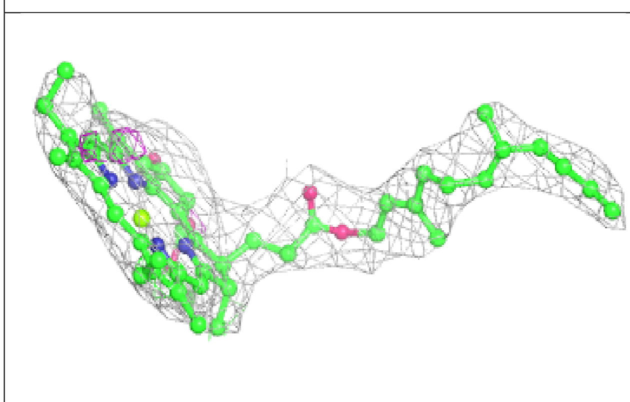


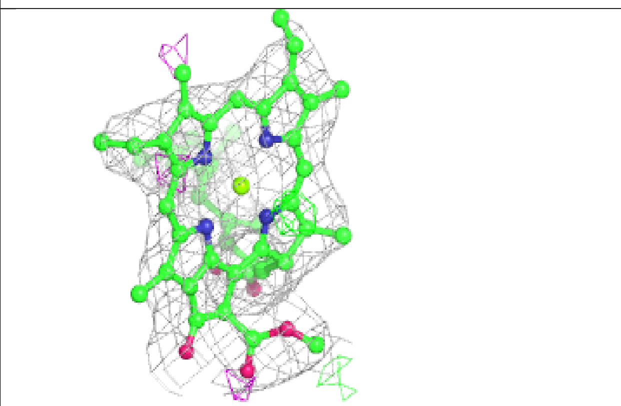


Electron density around CLA B 1230:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

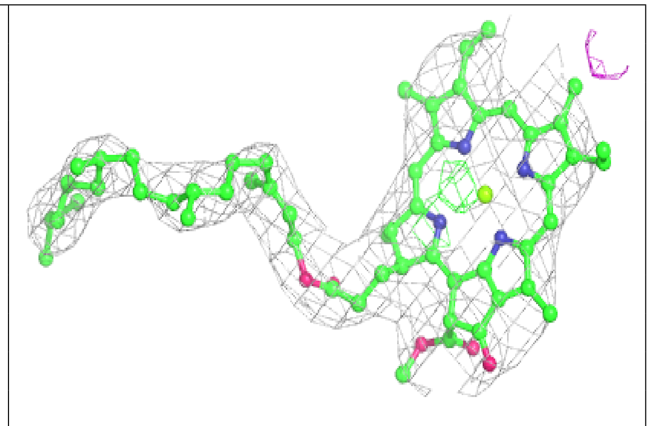


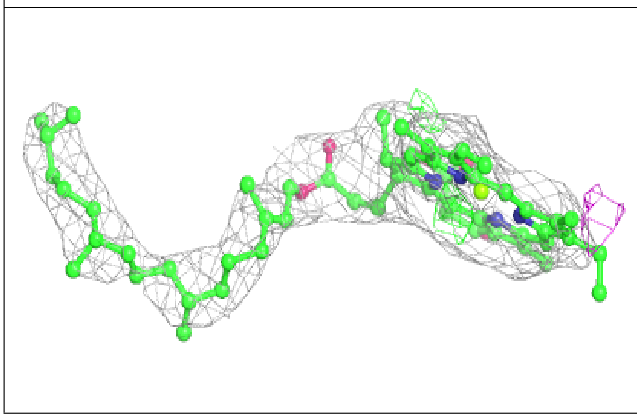


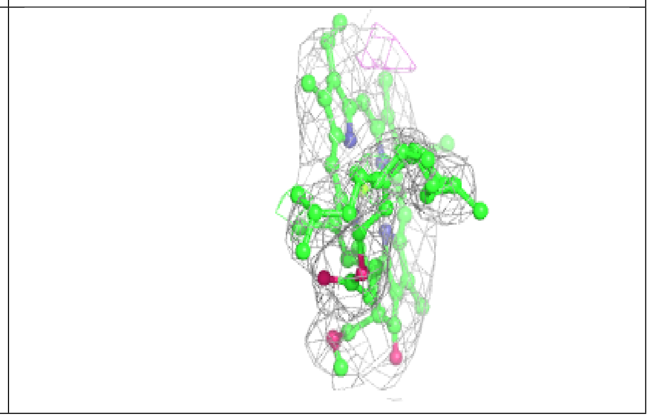


Electron density around CLA B 1210:

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

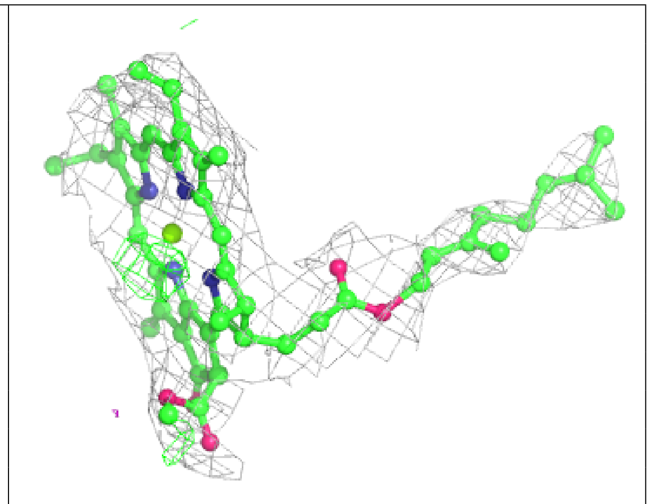


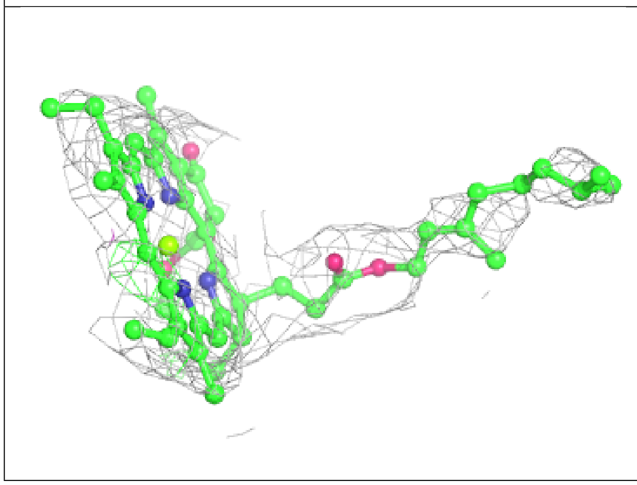


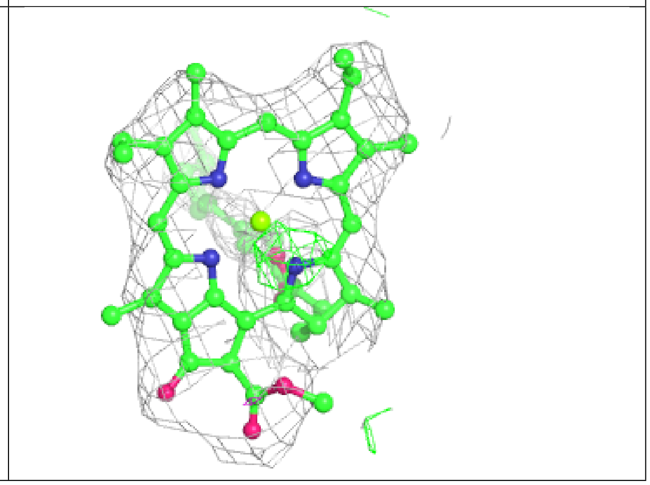


Electron density around CLA B 1208:

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

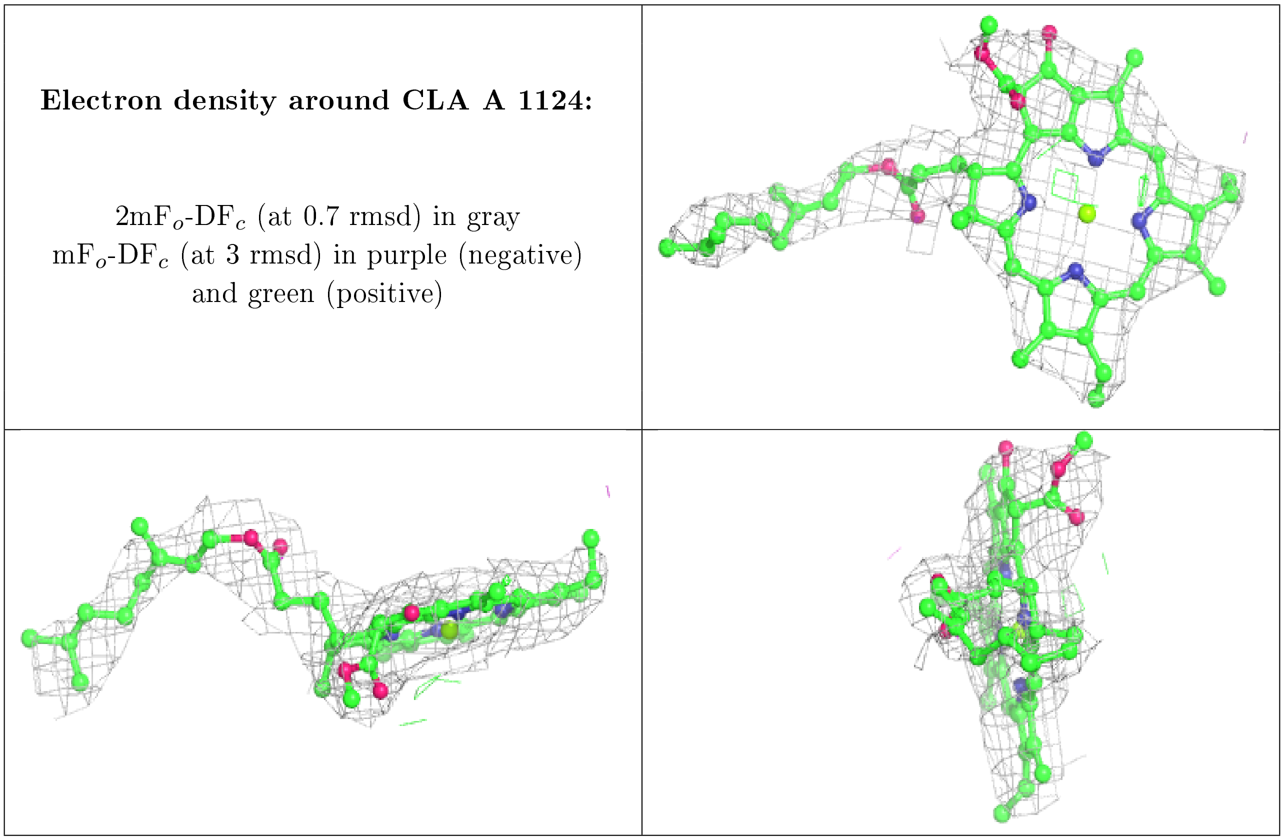






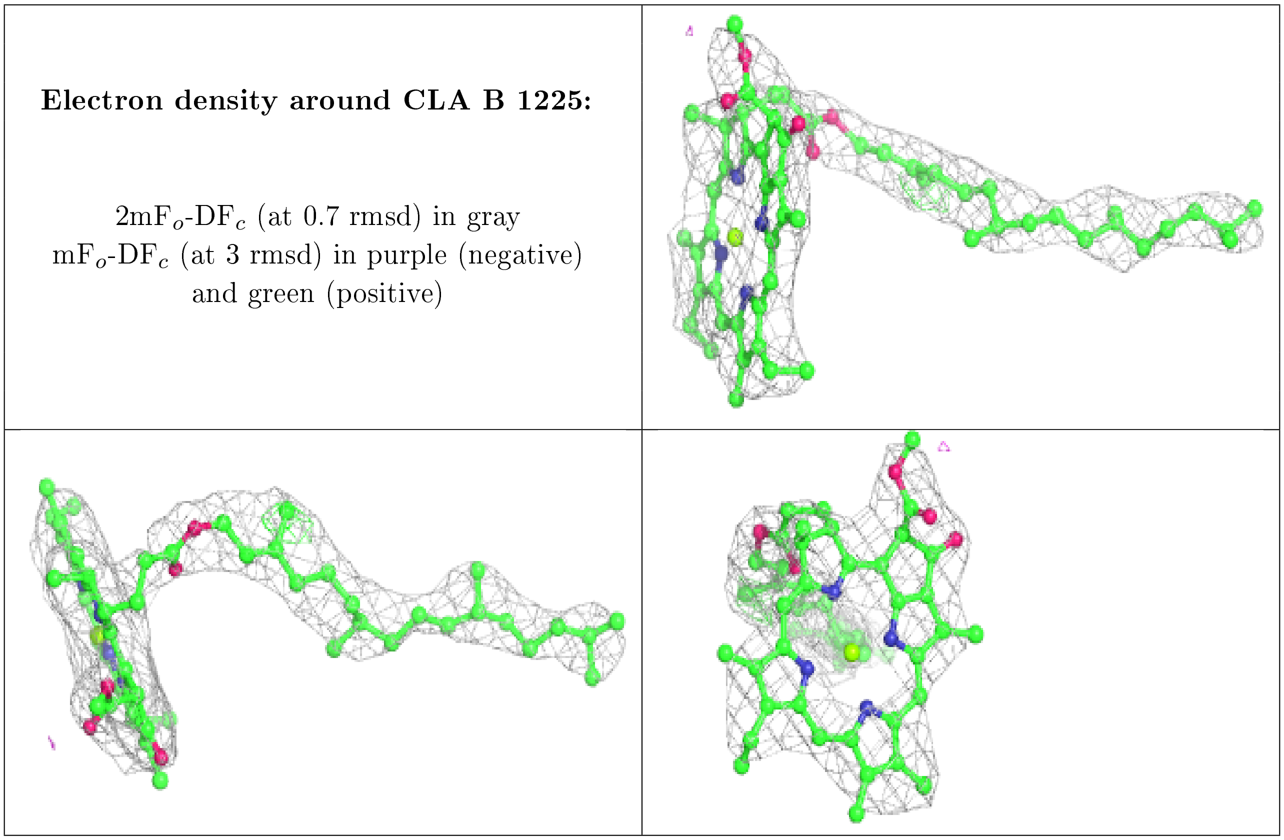
Electron density around CLA A 1124:

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



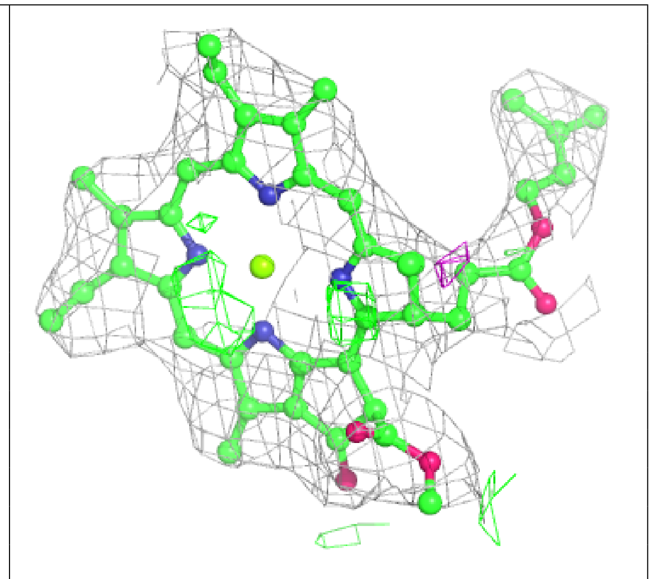
Electron density around CLA B 1225:

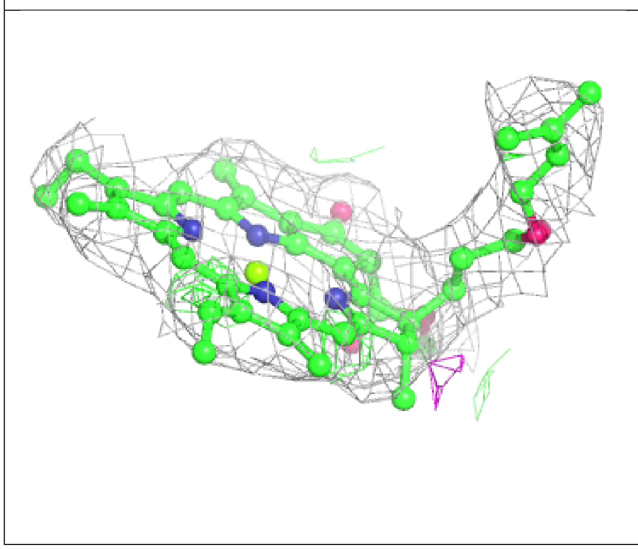
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

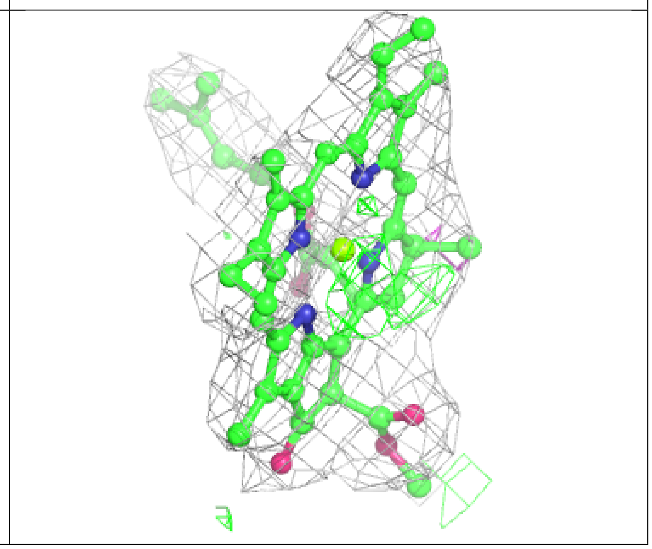


Electron density around CLA A 1102:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

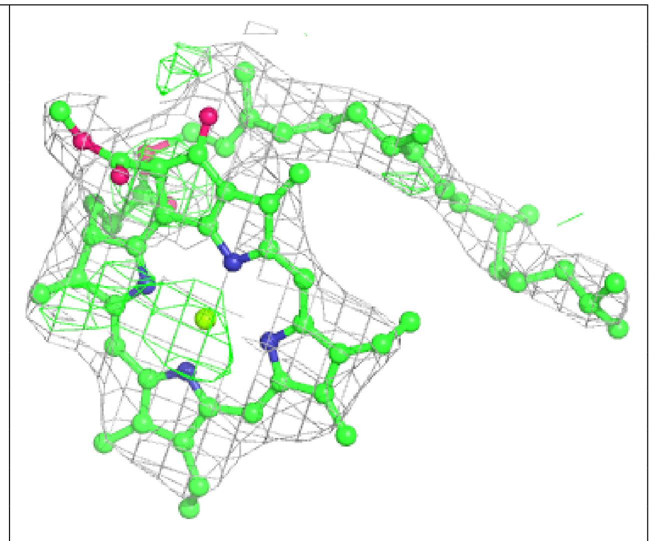


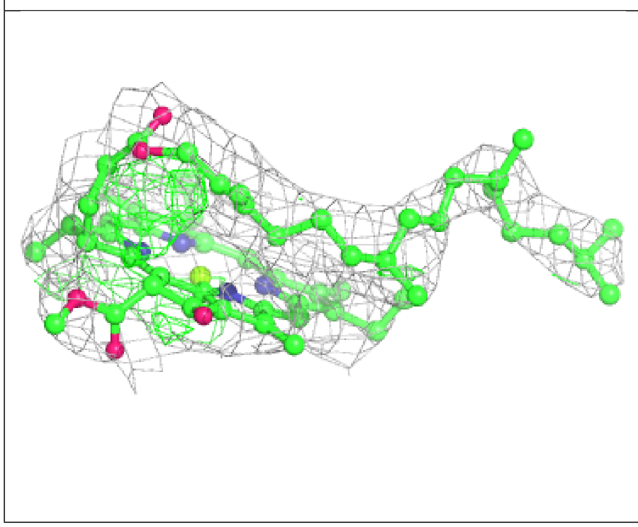


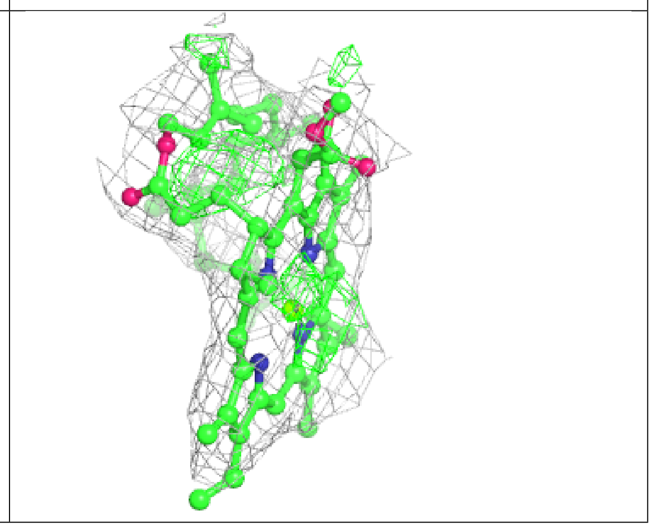


Electron density around CLA A 1127:

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

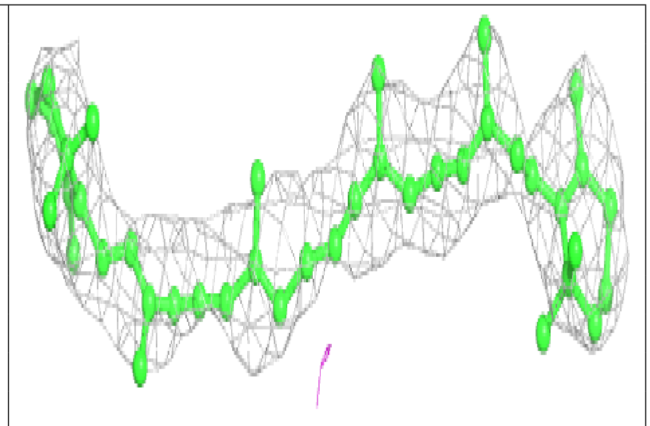


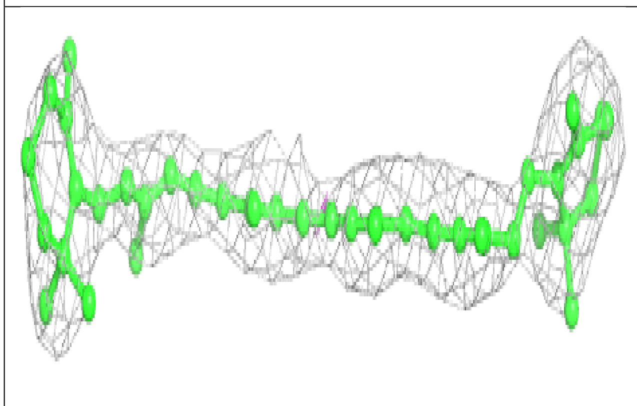


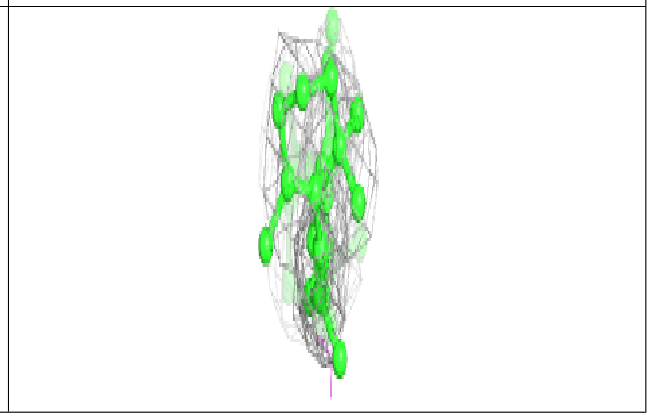


Electron density around BCR A 6017:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

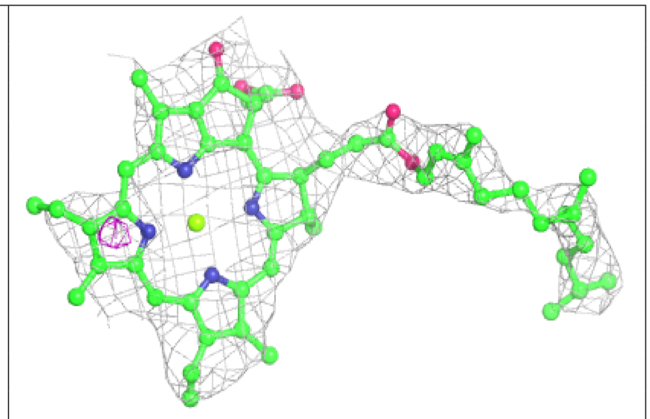


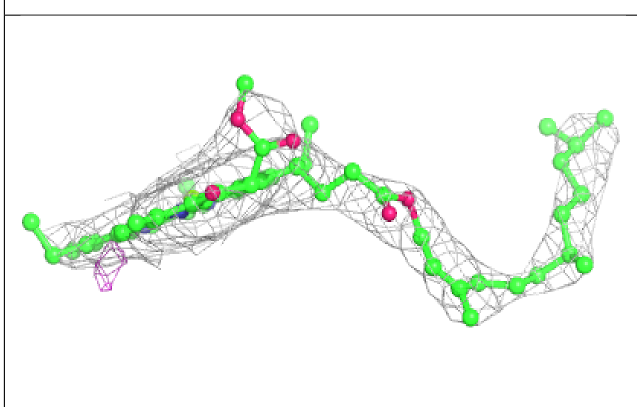


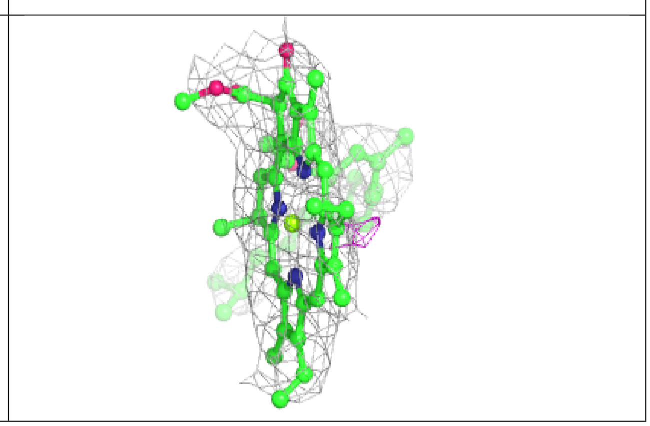


Electron density around CLA A 1125:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

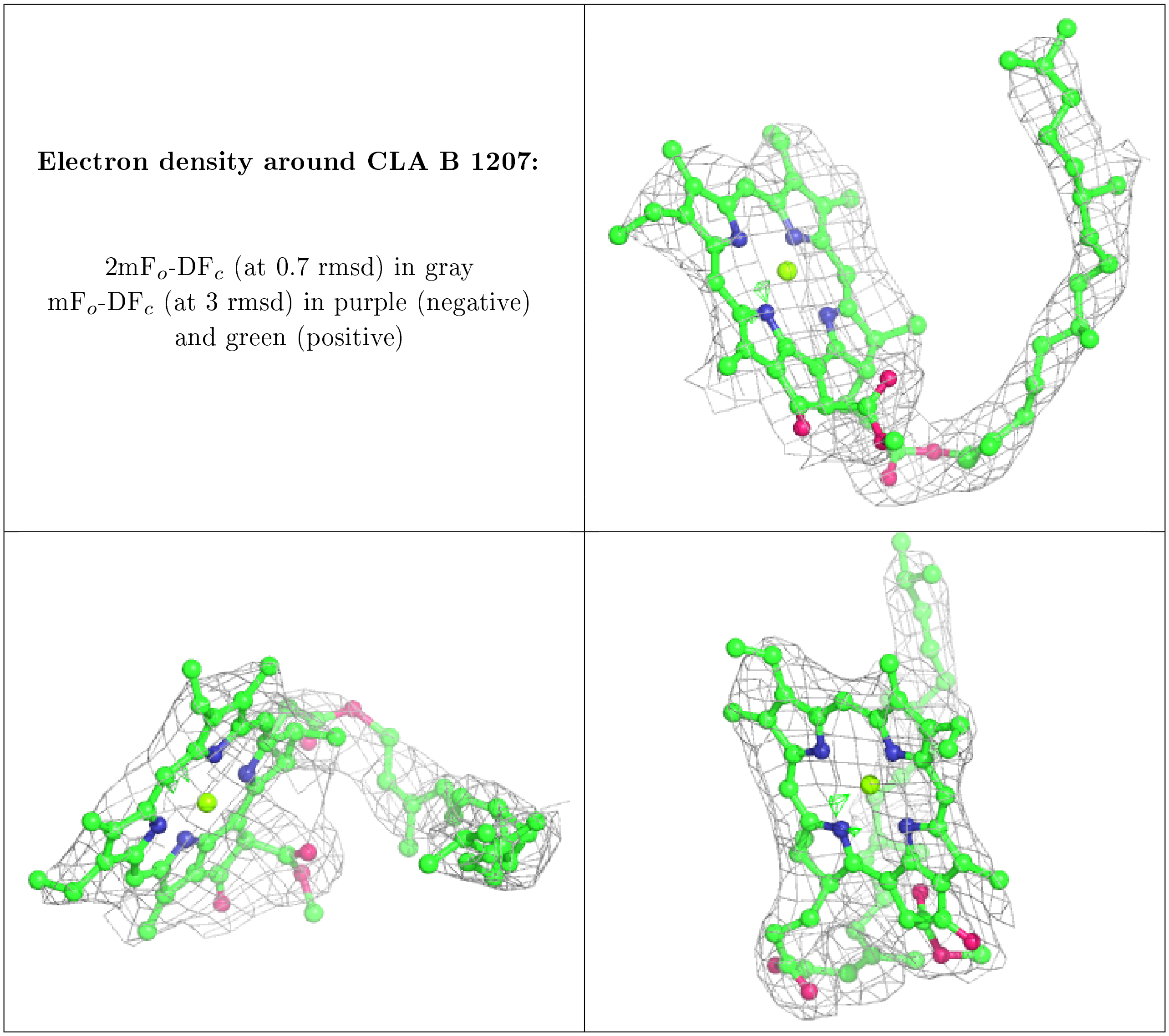






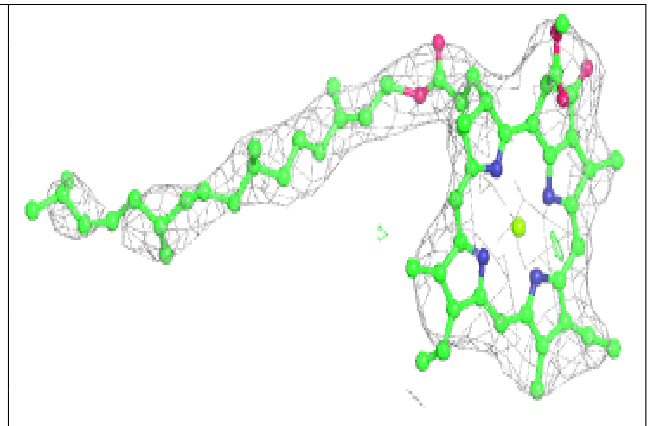
Electron density around CLA B 1207:

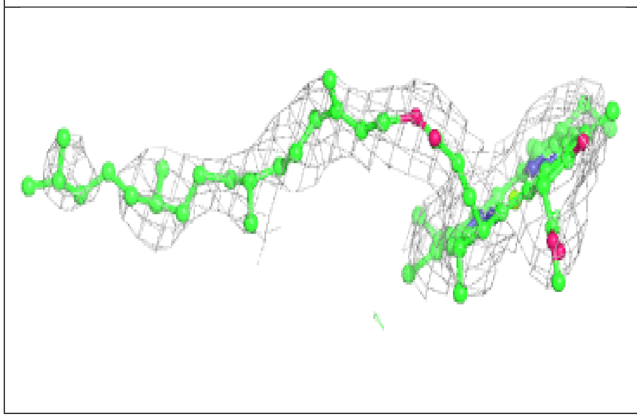
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

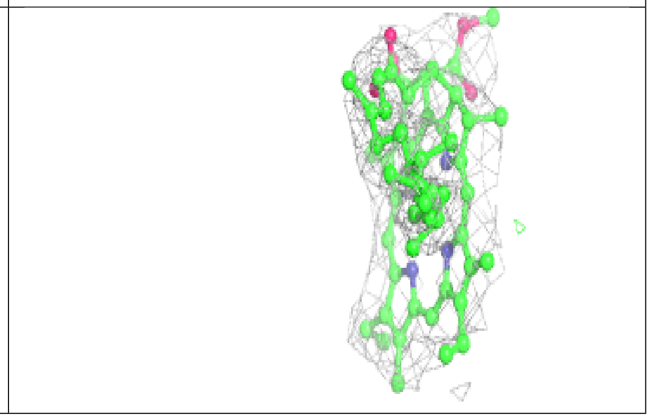


Electron density around CLA A 1132:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

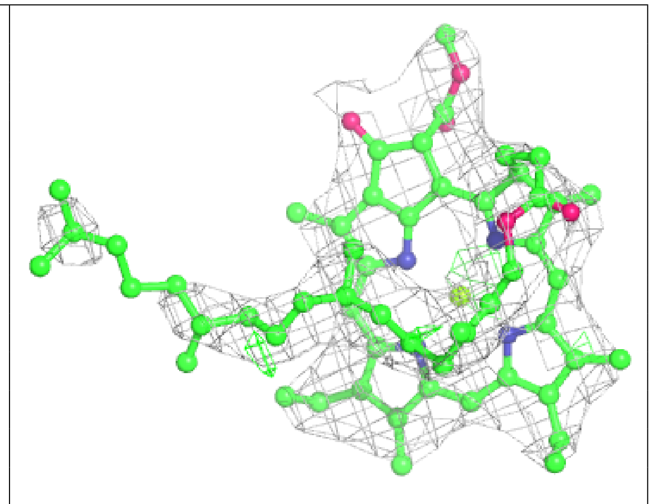


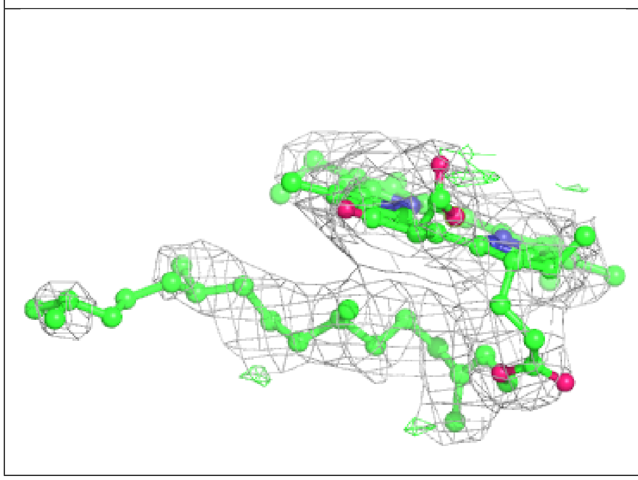


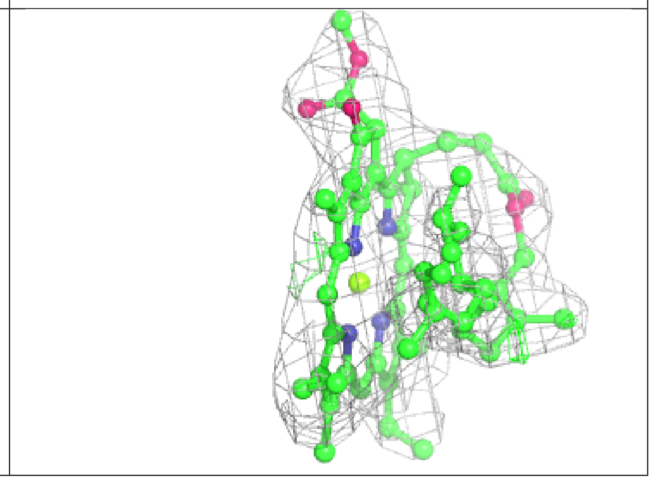


Electron density around CLA B 1224:

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

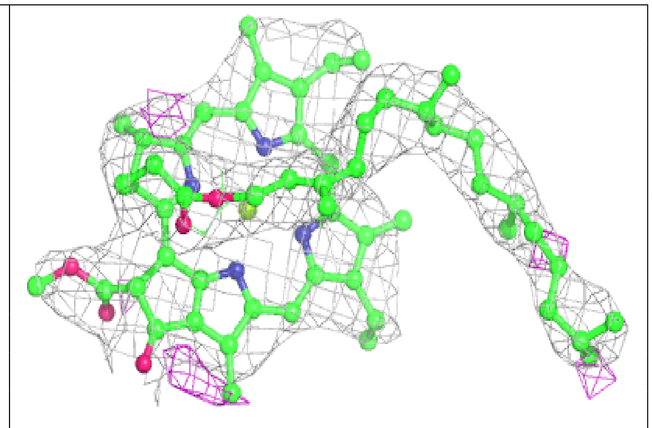


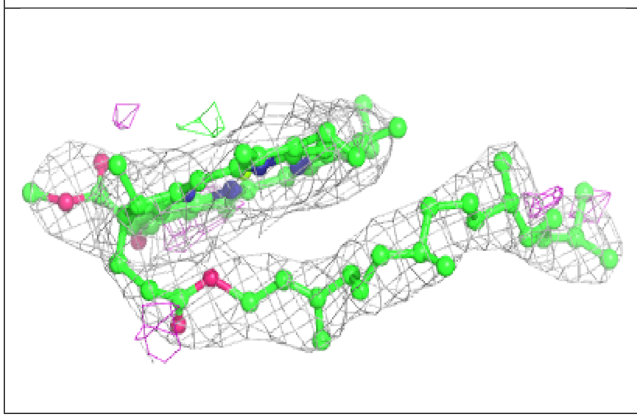


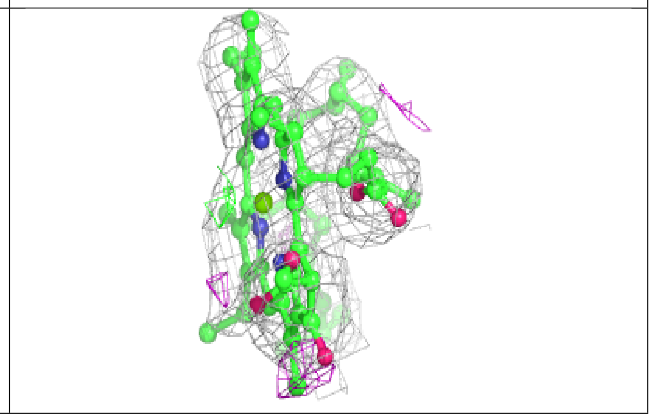


Electron density around CLA B 1235:

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

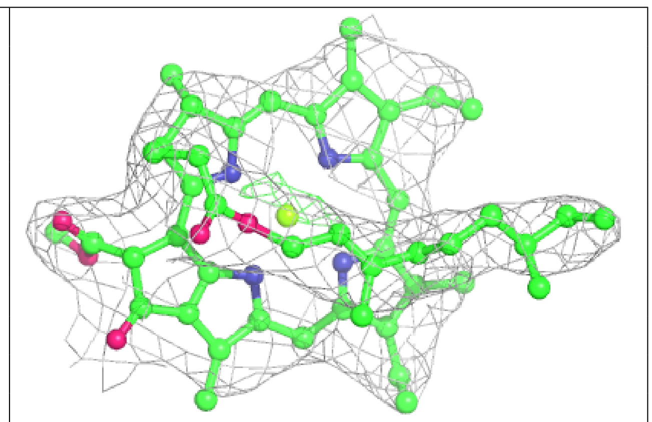


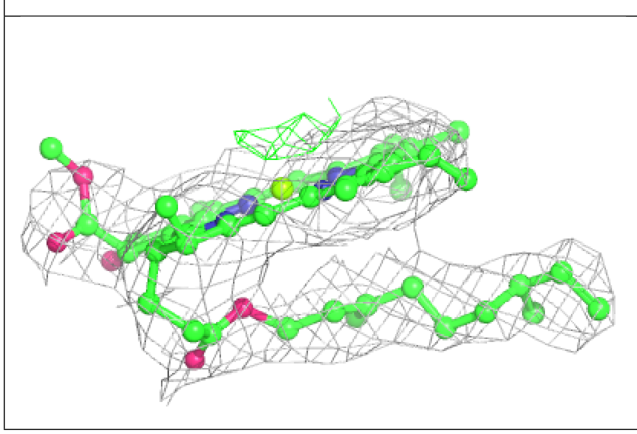


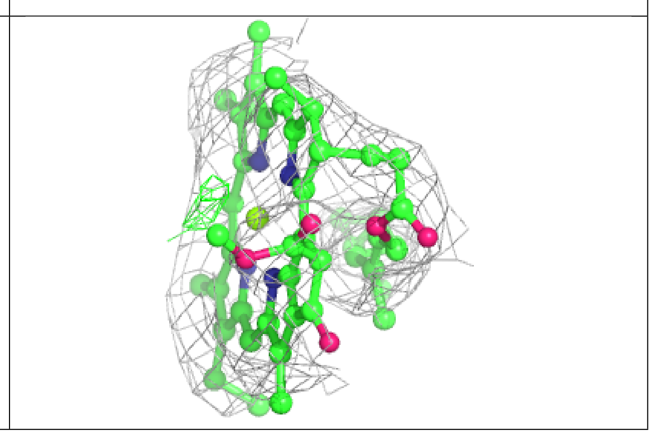


Electron density around CLA A 1136:

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

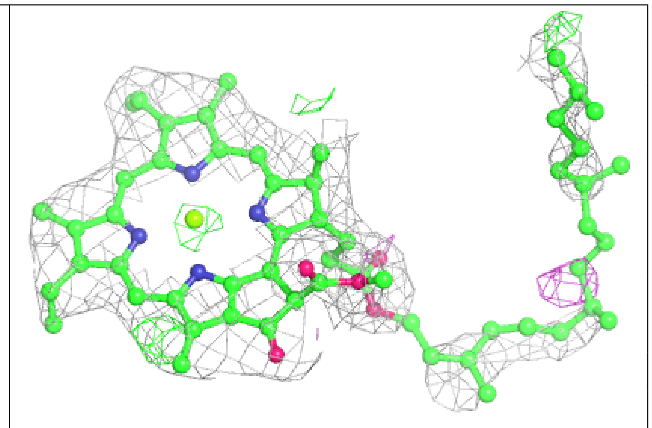


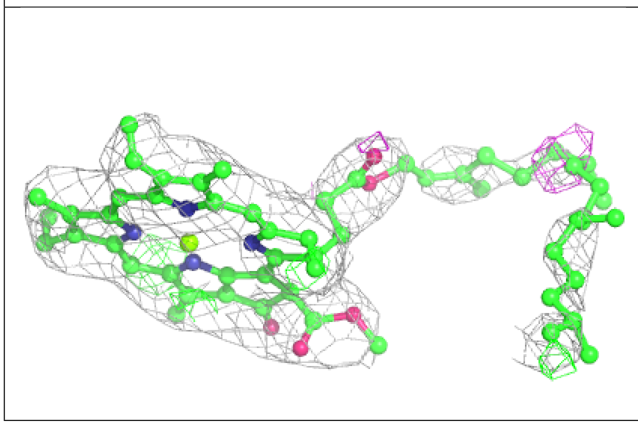


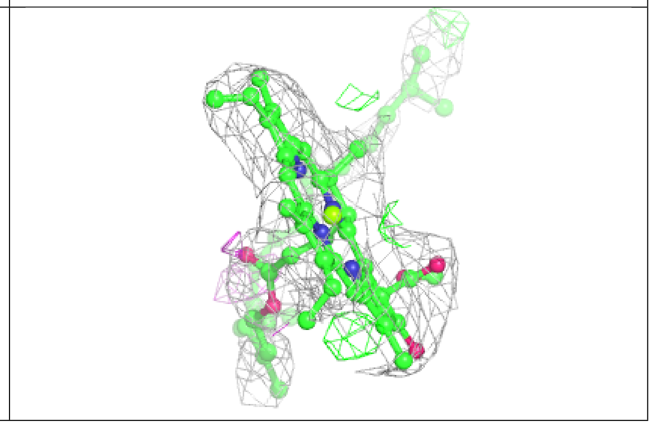


Electron density around CLA B 1220:

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

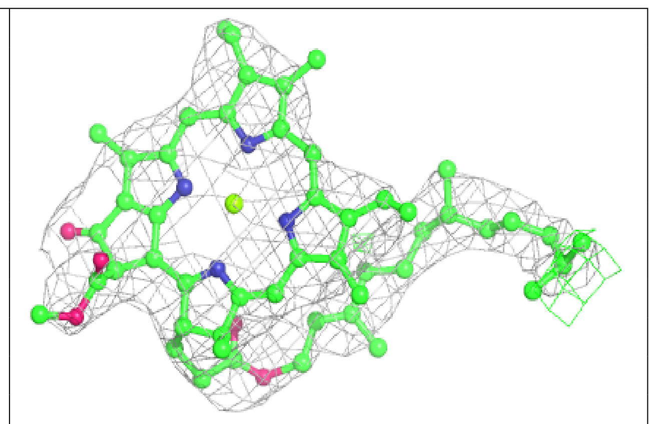


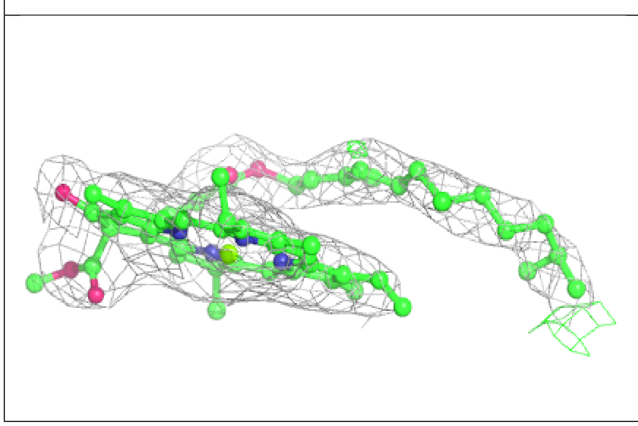


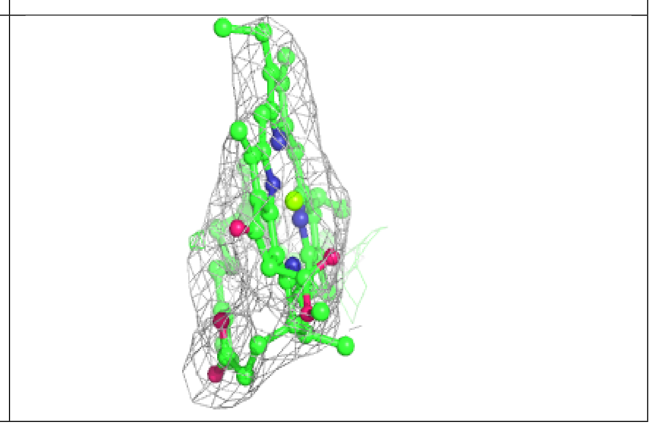


Electron density around CLA B 1215:

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

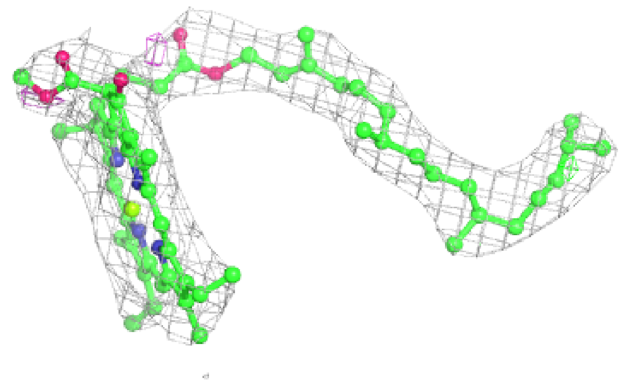


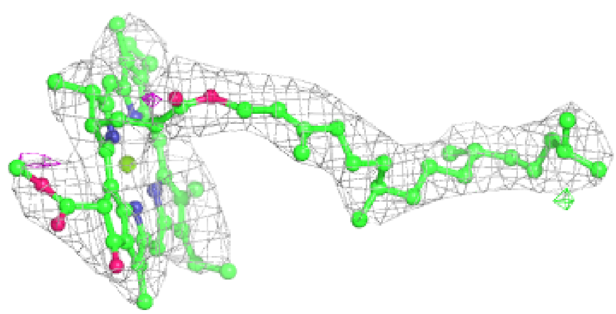


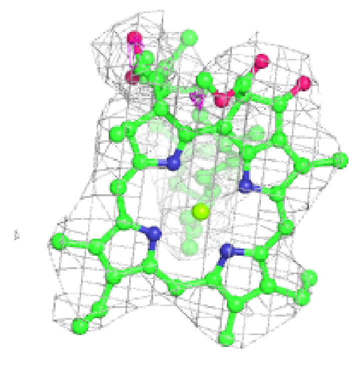


Electron density around CLA A 1128:

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

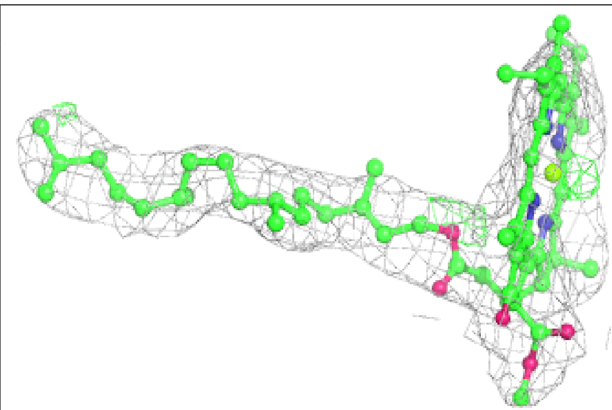


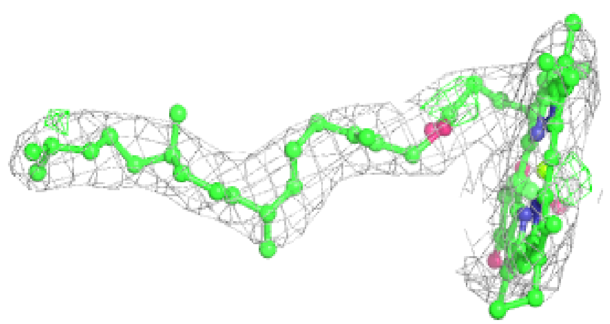


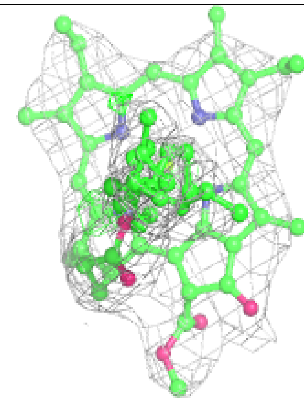


Electron density around CLA A 1126:

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

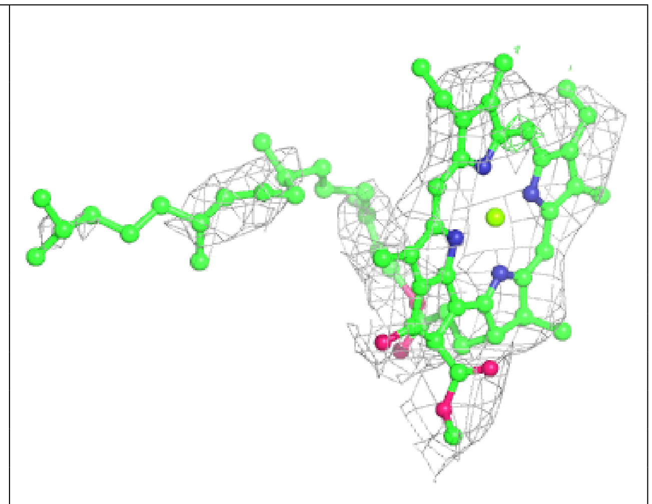


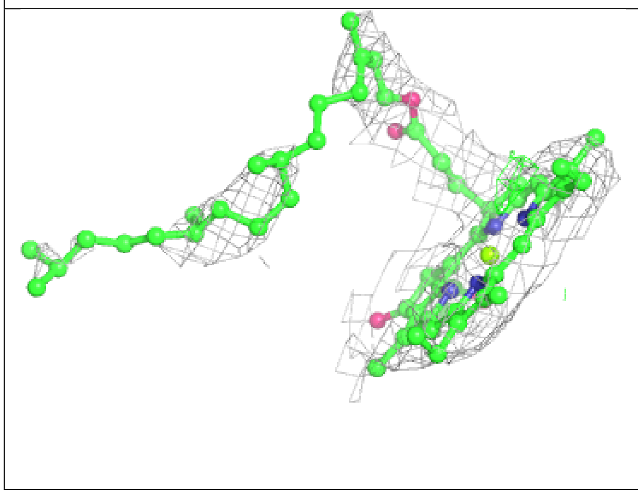


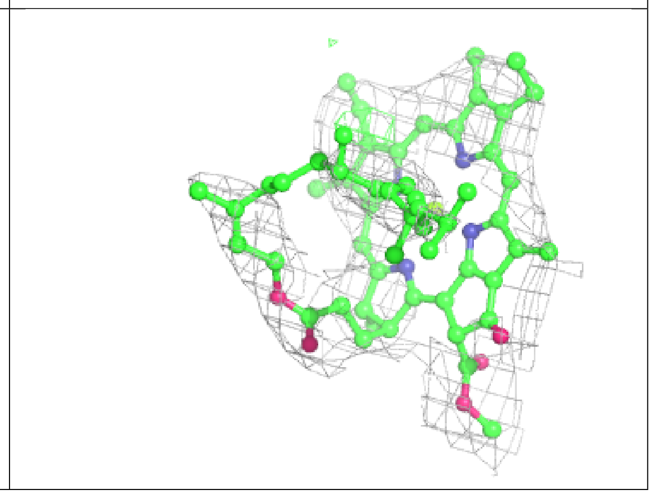


Electron density around CLA 4 4012:

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

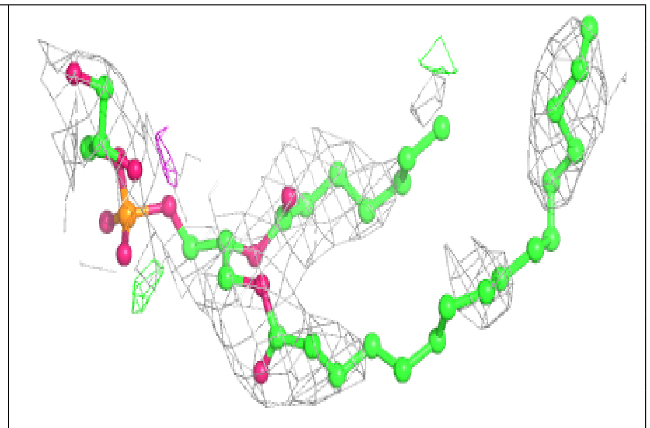


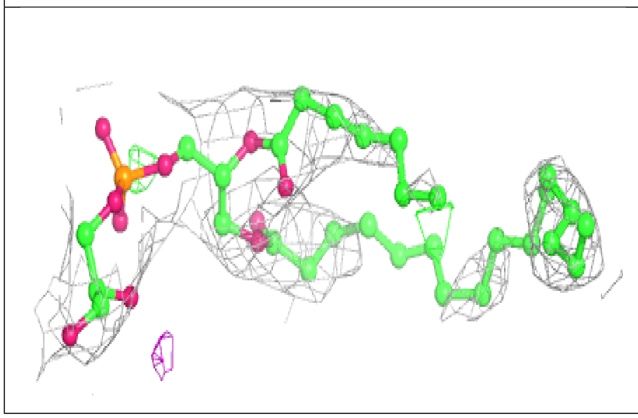


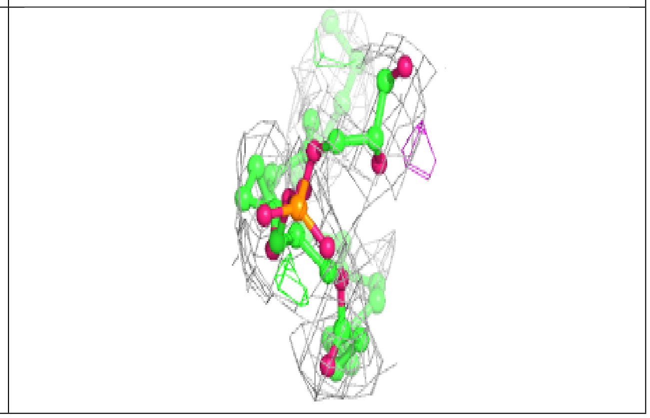


Electron density around LHG A 5003:

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

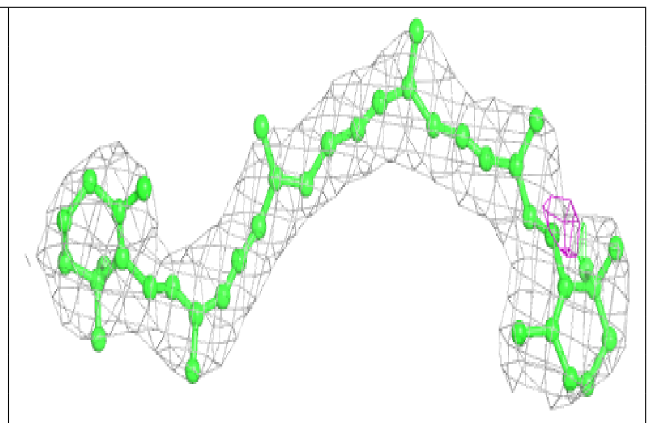


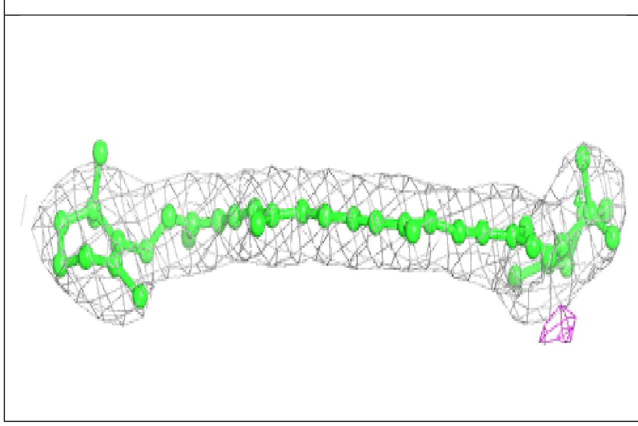


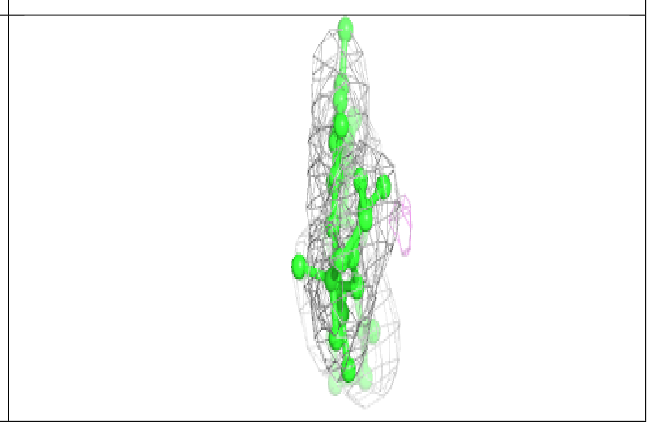


Electron density around BCR A 6011:

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

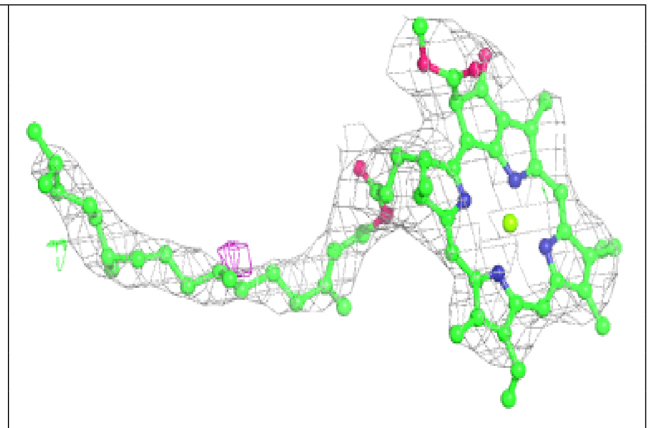


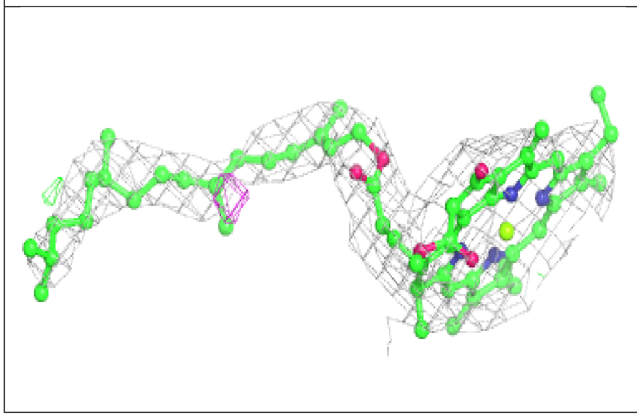


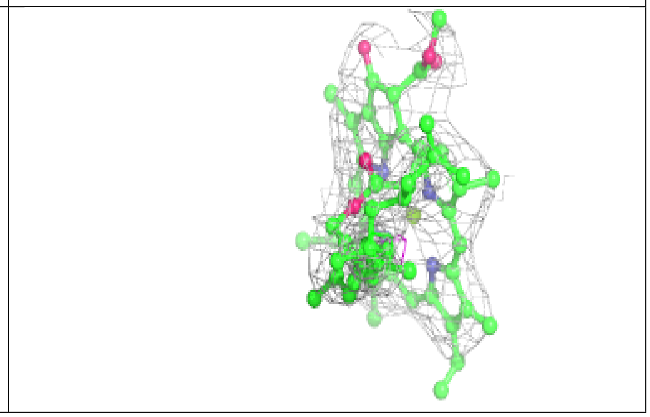


Electron density around CLA A 1119:

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

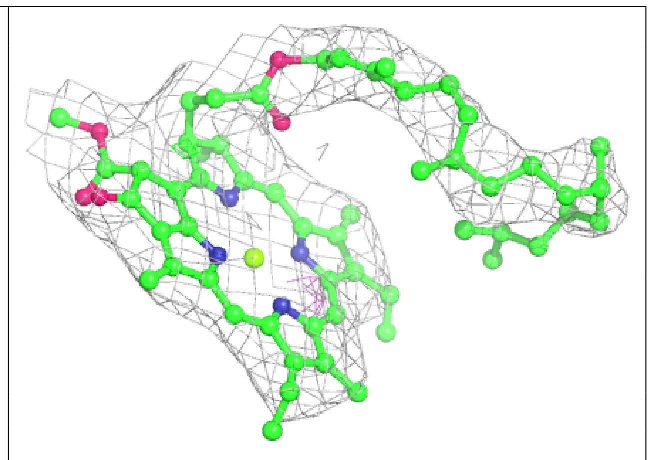


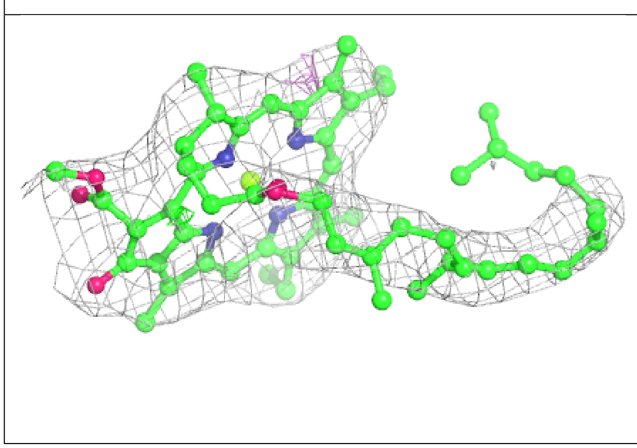


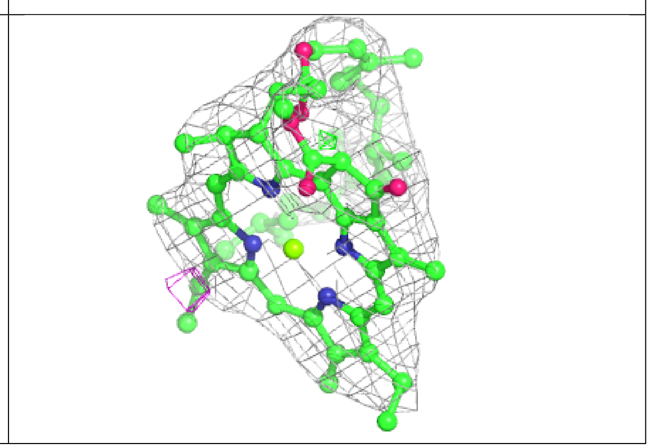


Electron density around CLA A 1122:

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

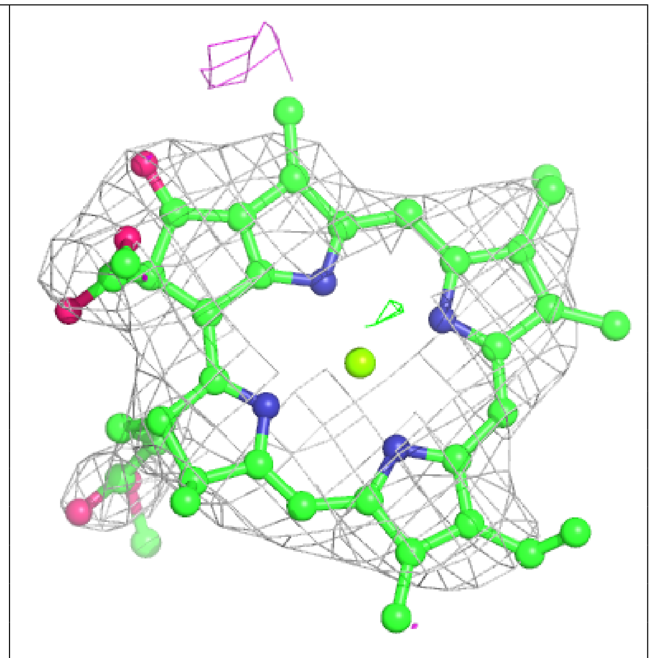


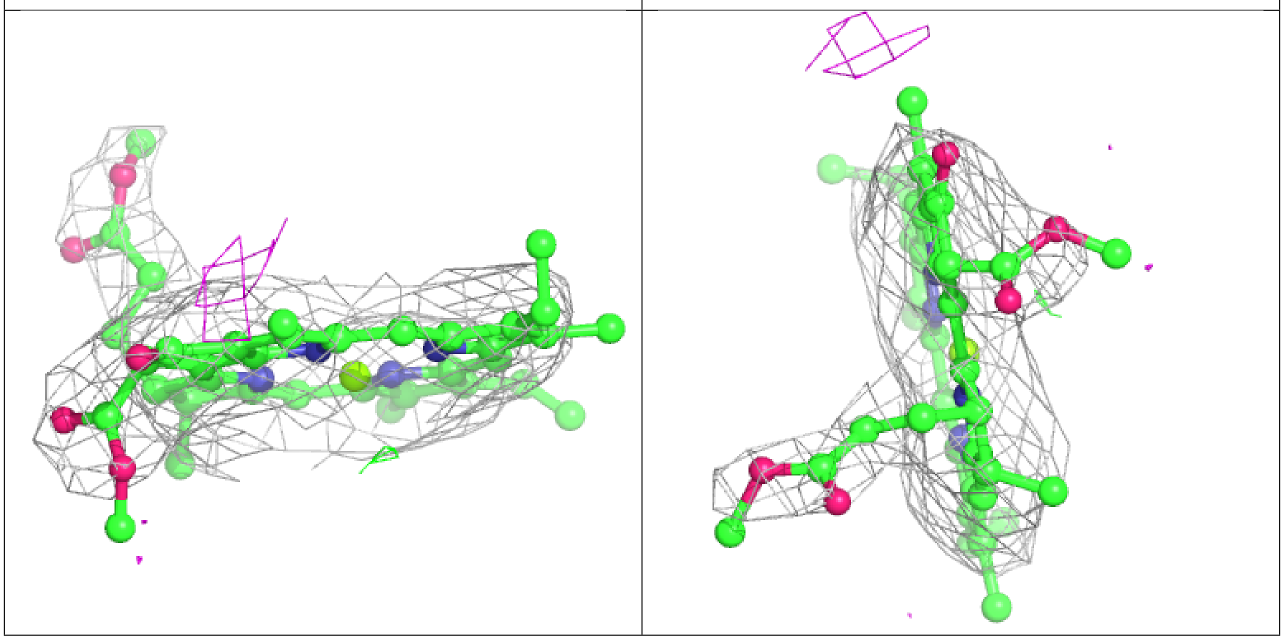




Electron density around CLA B 1217:

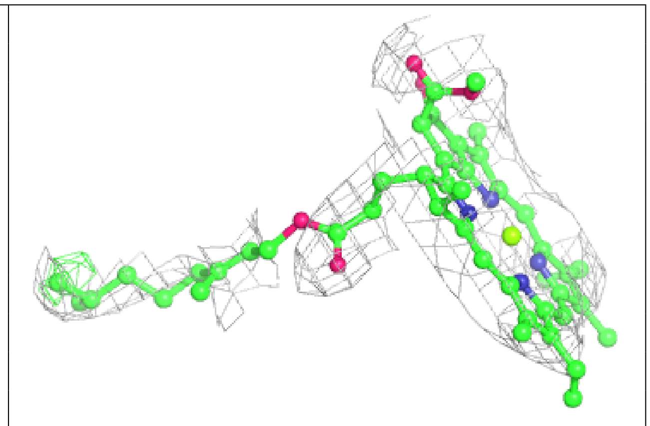
2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

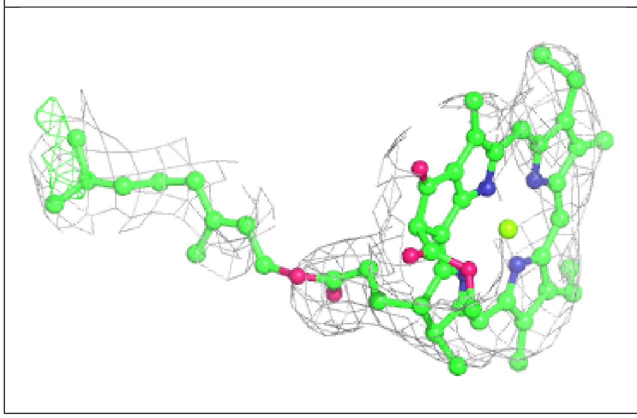


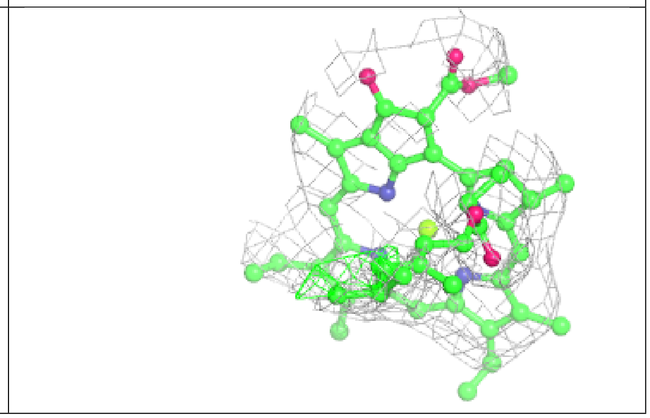


Electron density around CLA A 1121:

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

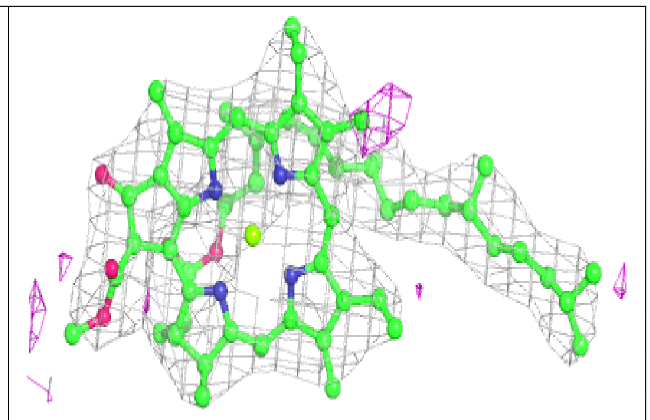


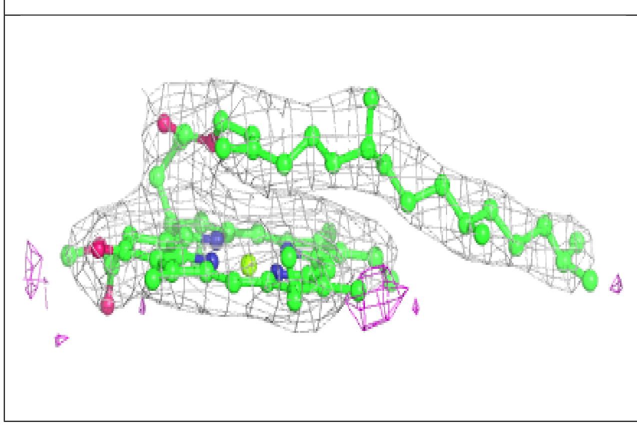


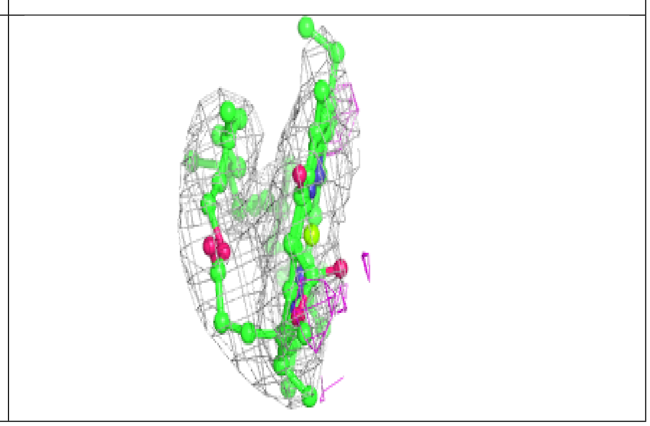


Electron density around CLA A 1138:

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

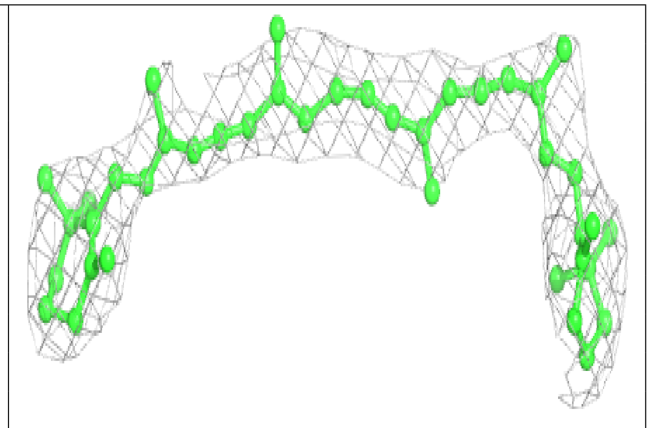


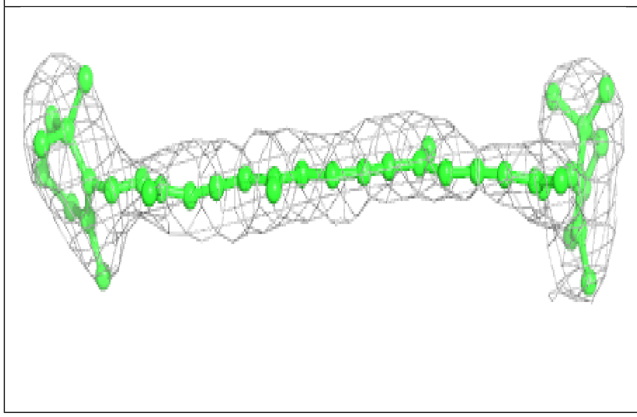


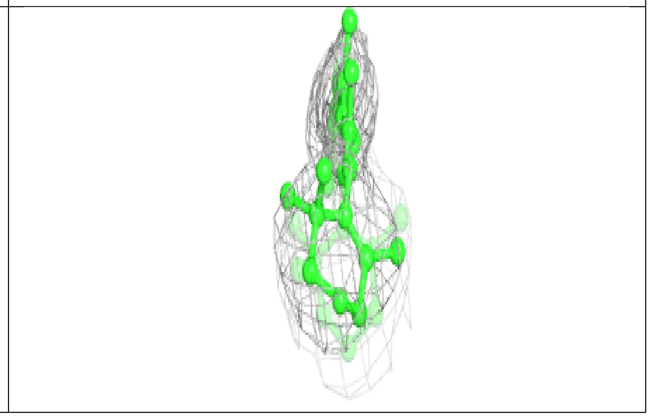


Electron density around BCR I 6020:

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

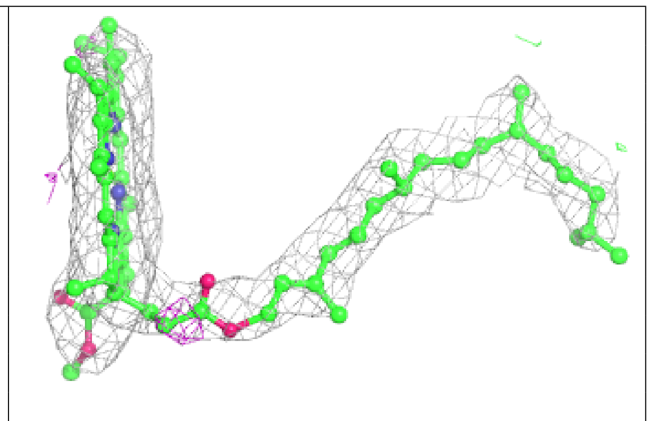


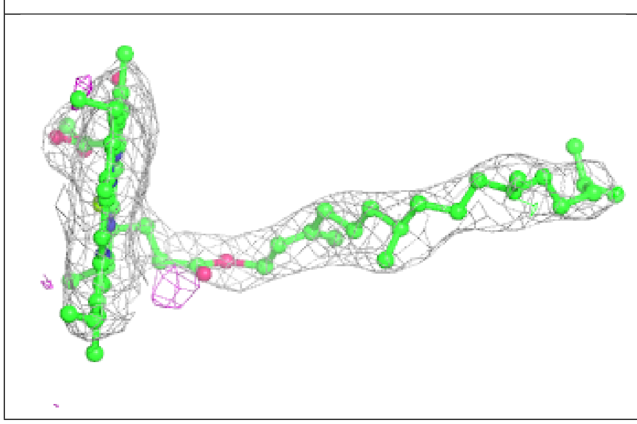


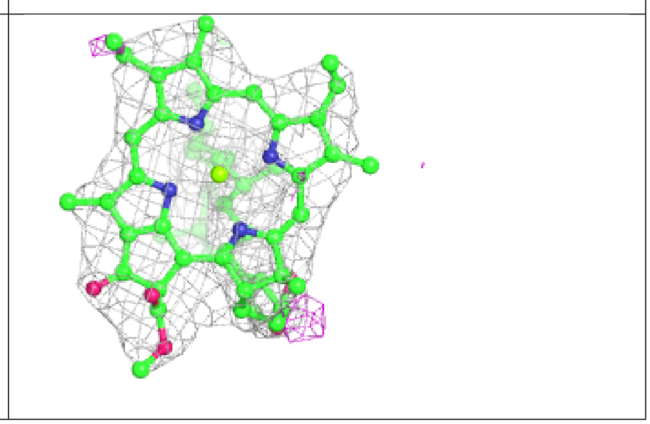


Electron density around CLA B 1239:

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

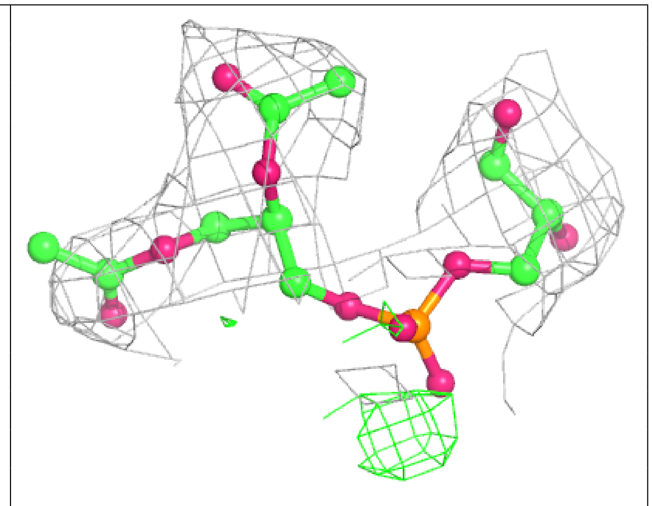


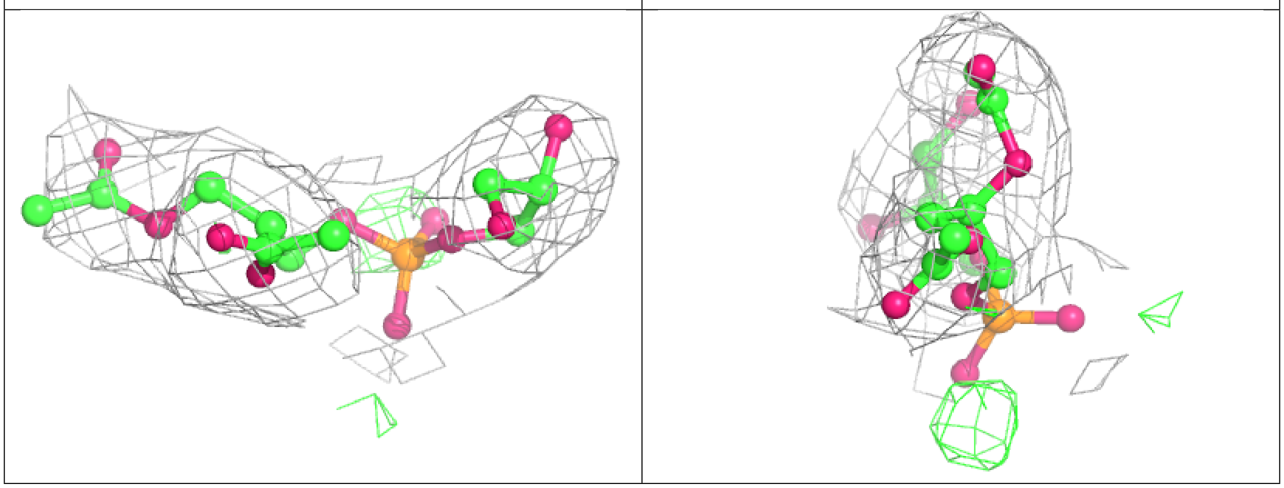




Electron density around LHG B 5004:

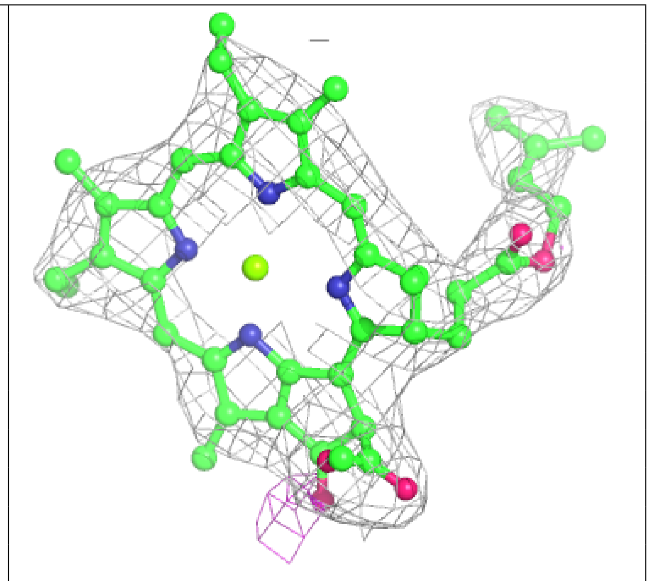
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

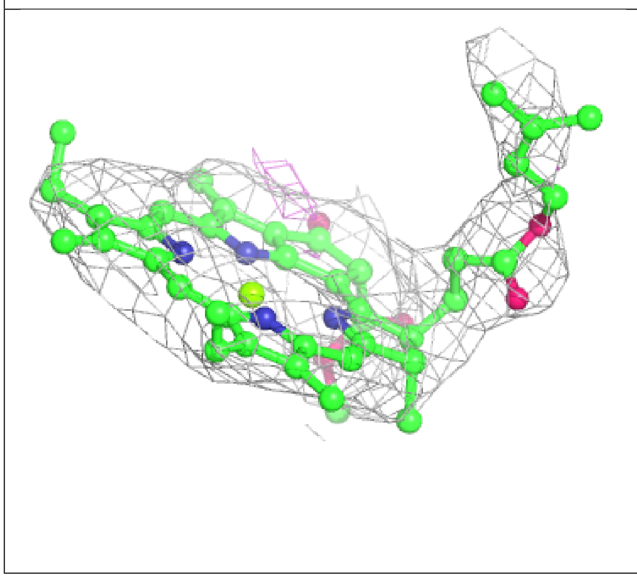


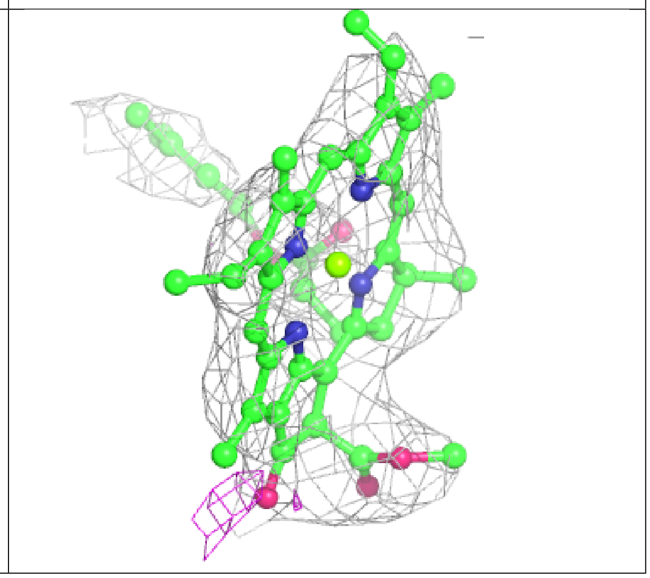


Electron density around CLA A 1129:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

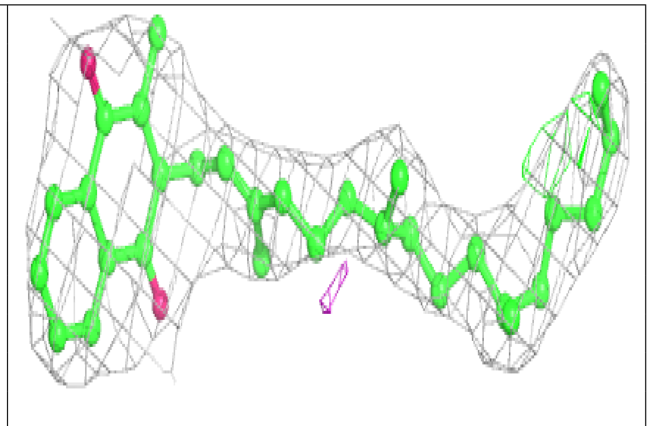


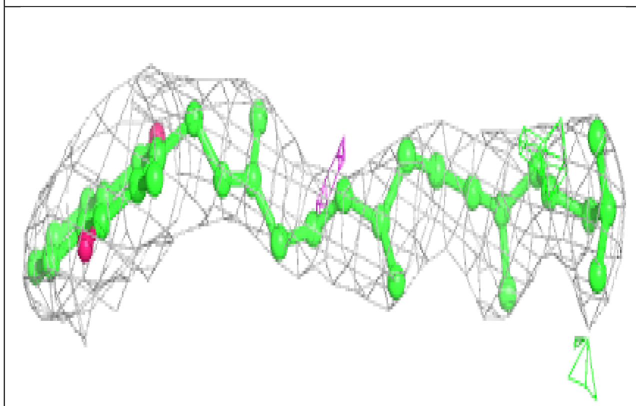


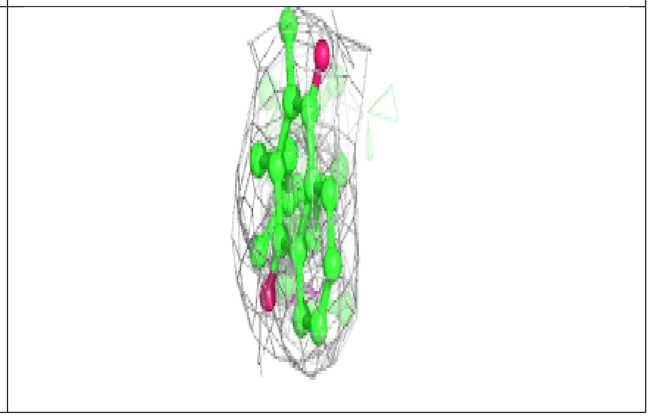


Electron density around PQN A 5001:

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

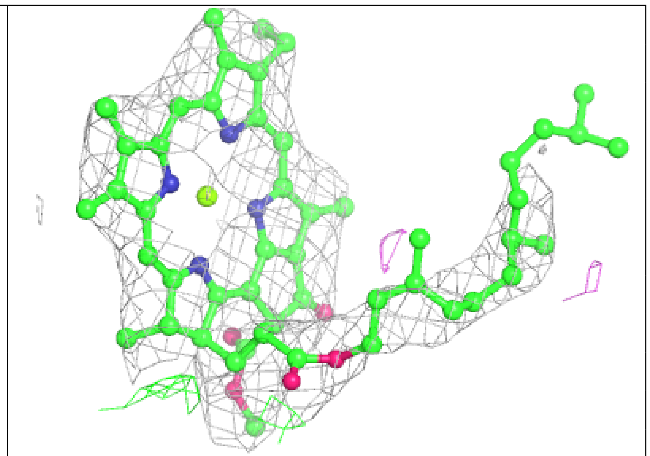


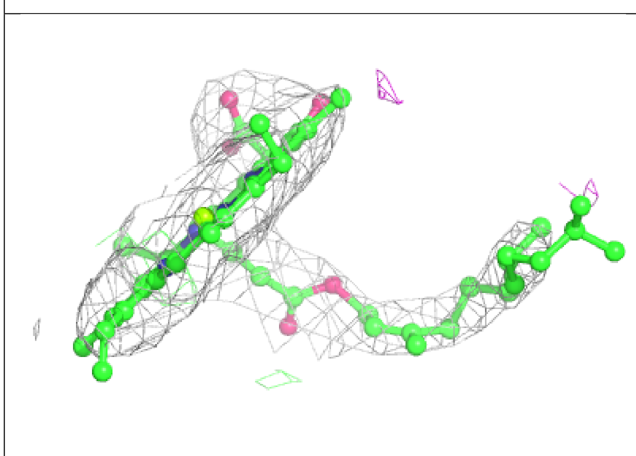


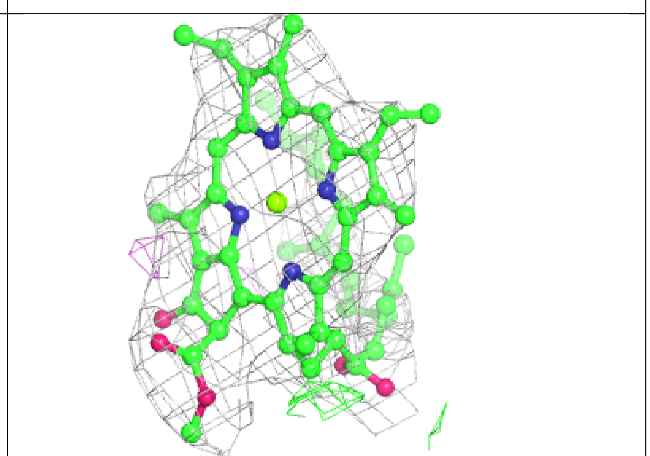


Electron density around CLA B 1219:

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

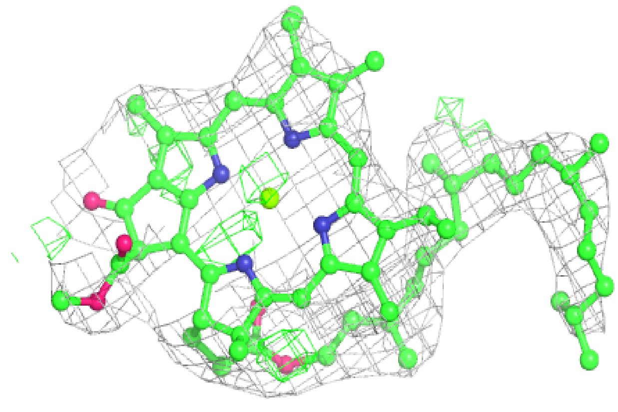


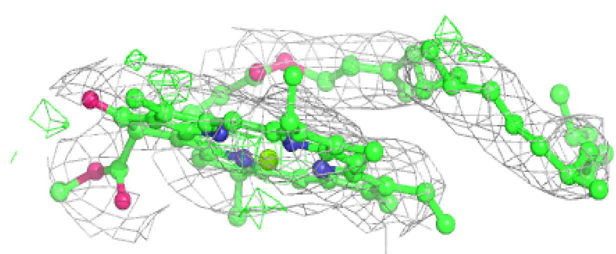


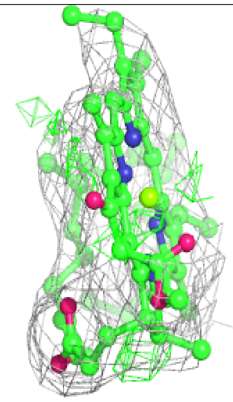


Electron density around CLA A 1117:

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

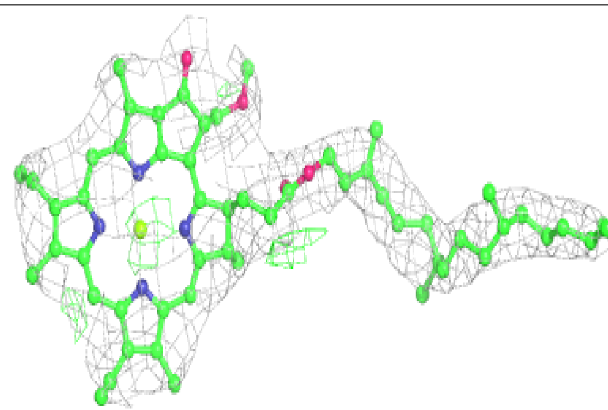


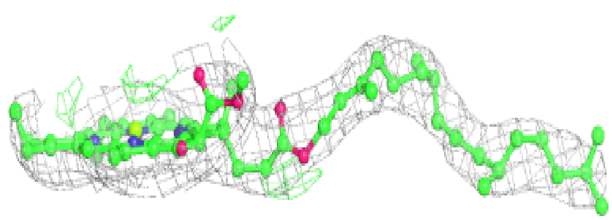




Electron density around CLA A 1131:

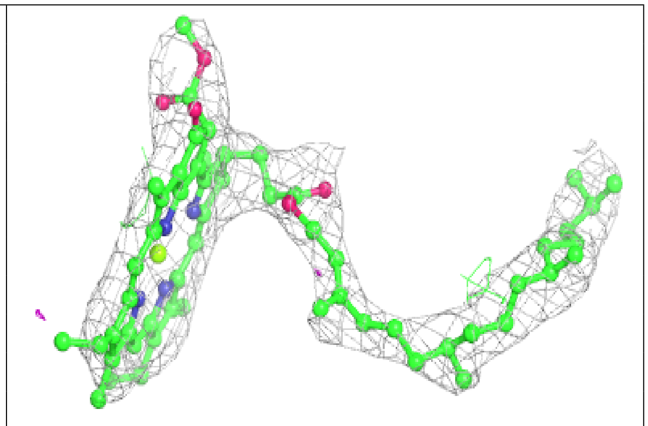
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)

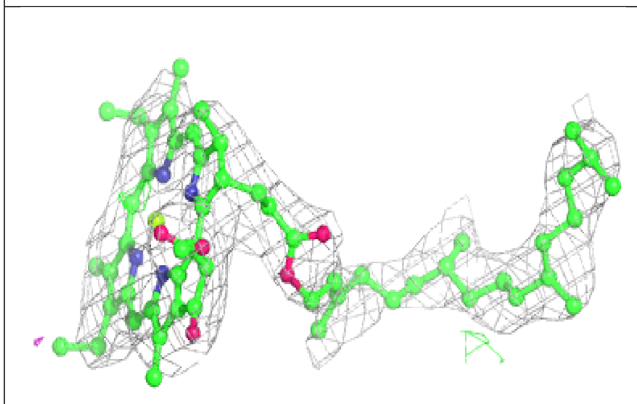


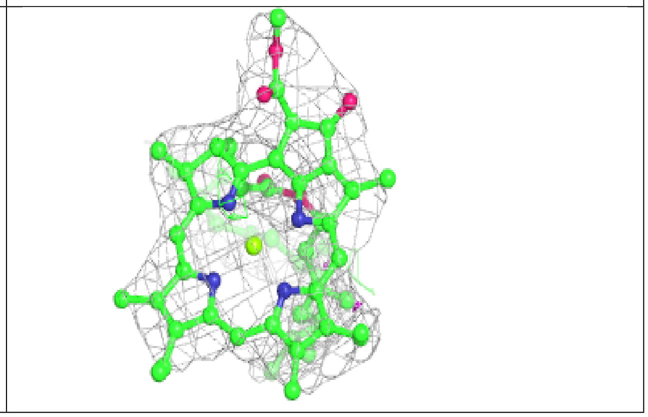


Electron density around CLA B 1238:

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

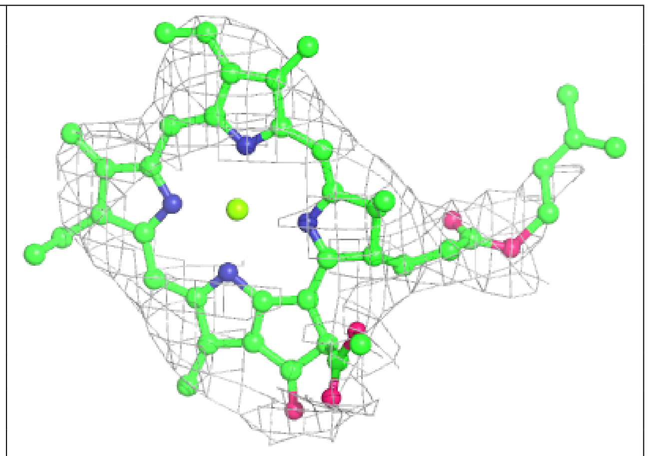


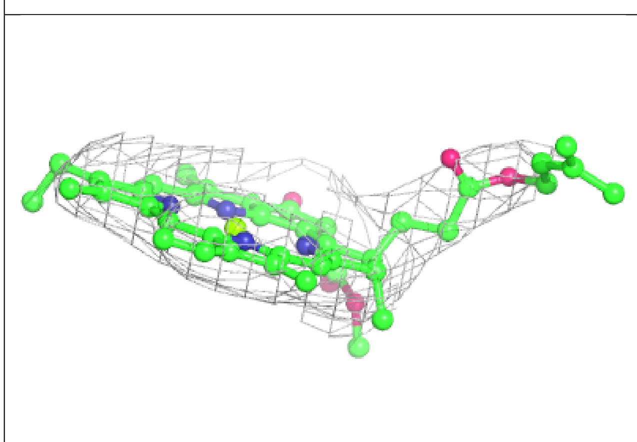


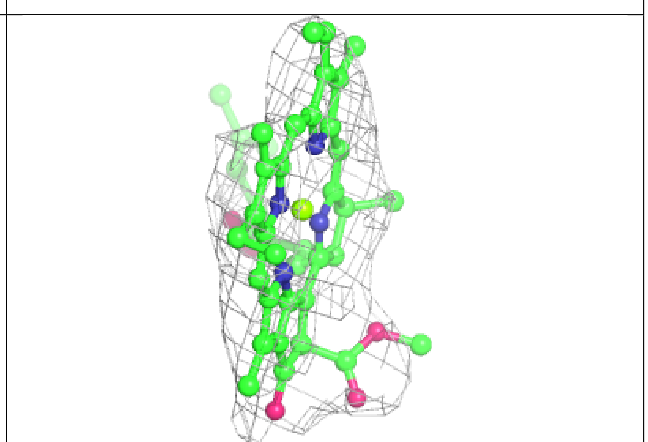


Electron density around CLA 4 4009:

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

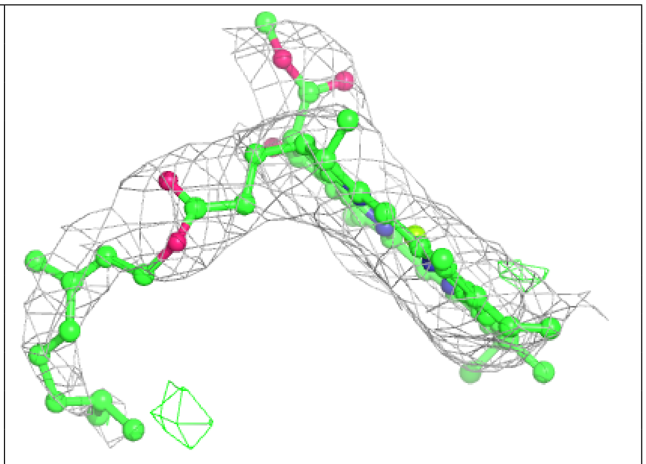


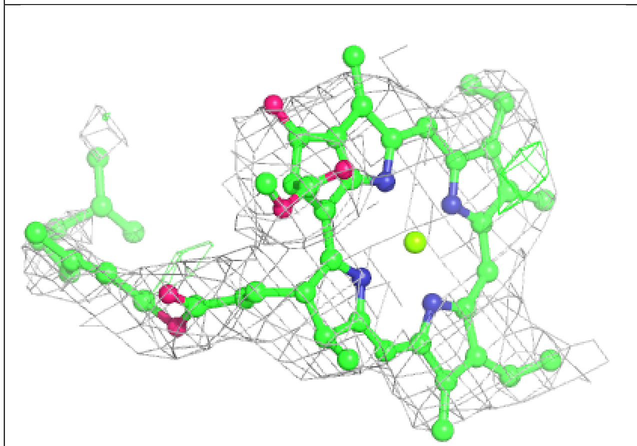


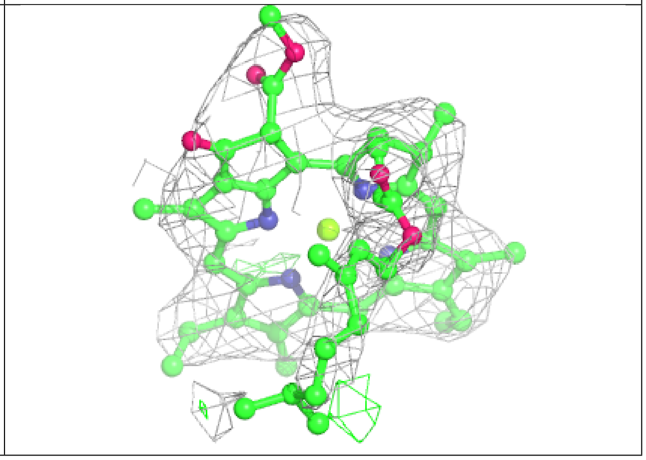


Electron density around CLA A 1137:

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

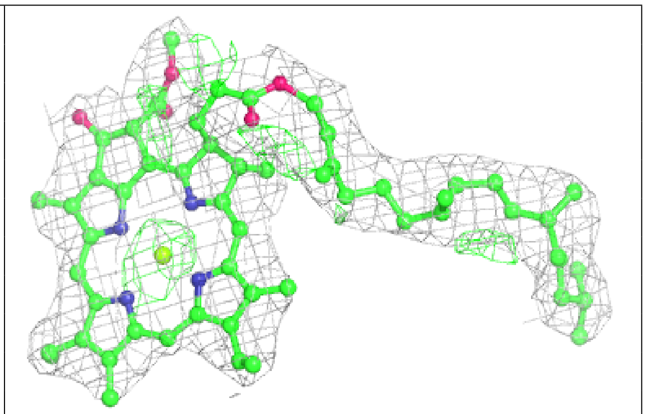


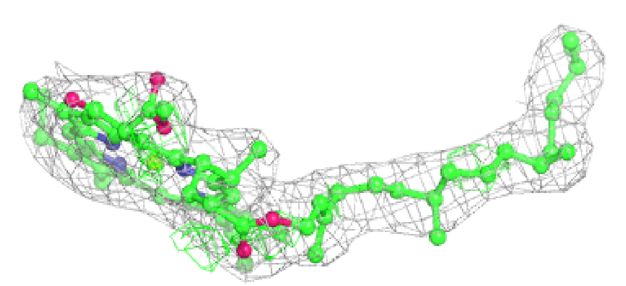


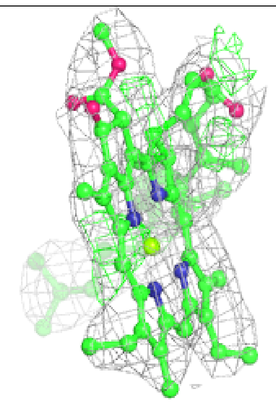


Electron density around CLA A 1013:

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

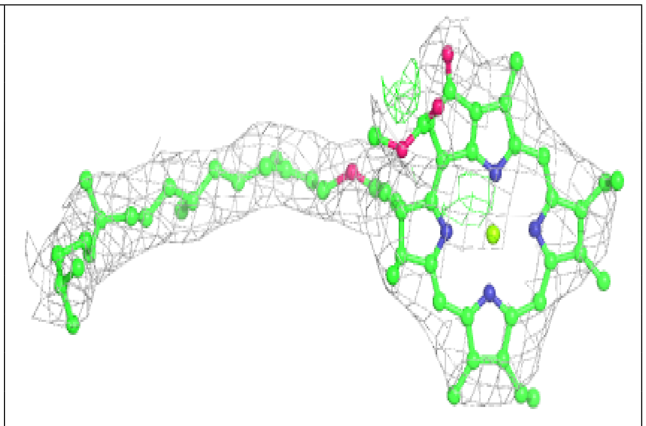


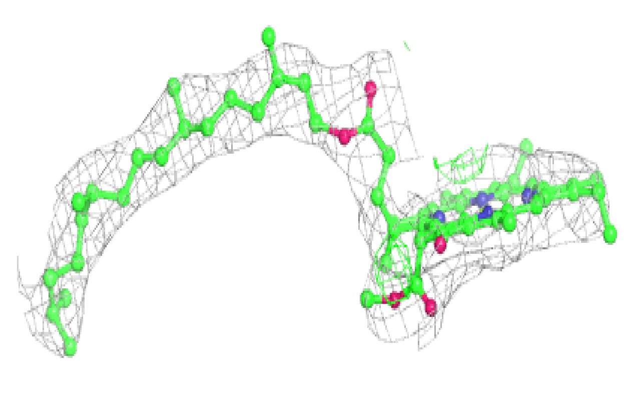


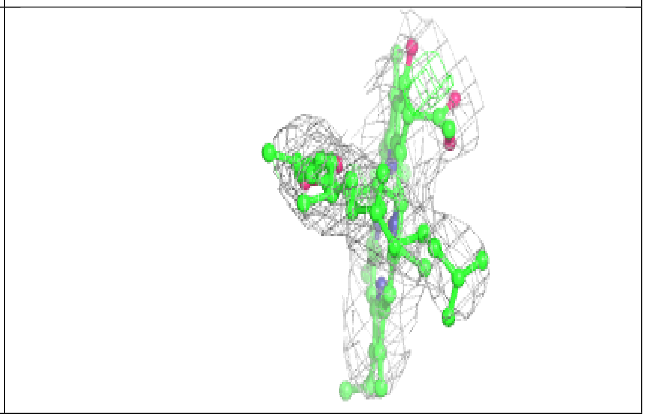


Electron density around CLA B 1240:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

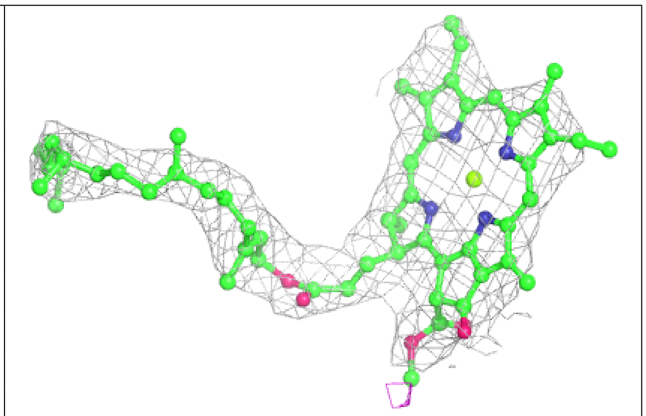


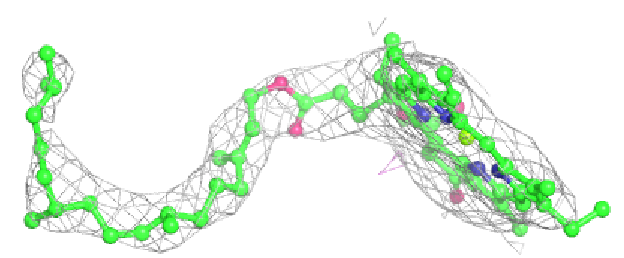


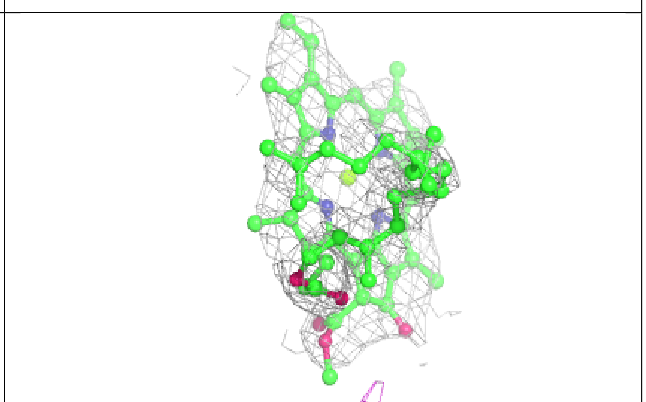


Electron density around CLA B 1206:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

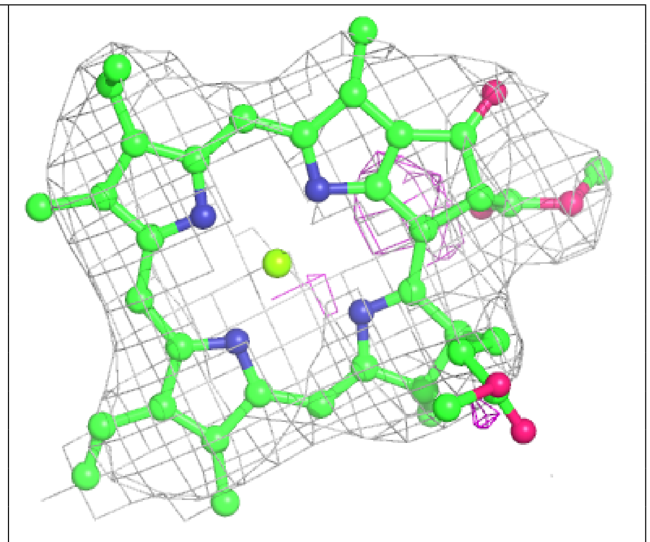


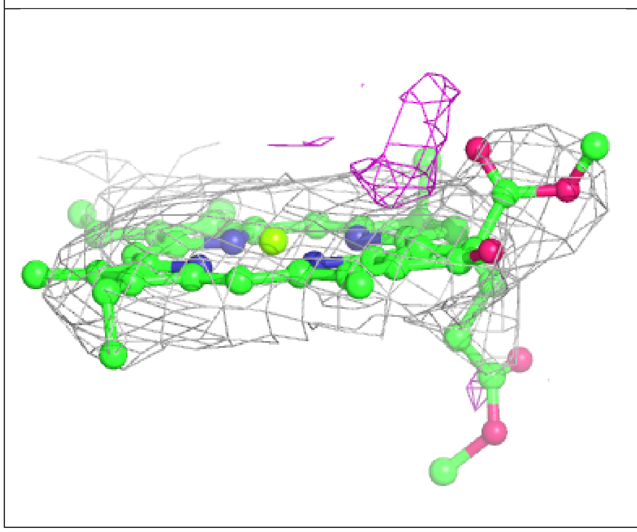


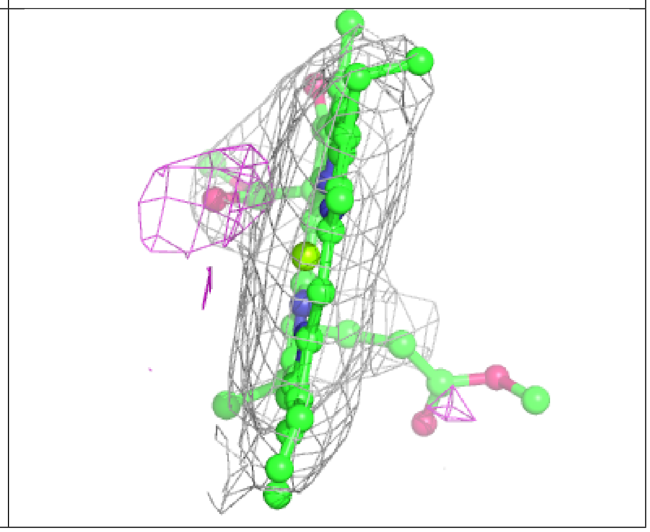


Electron density around CLA B 1209:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

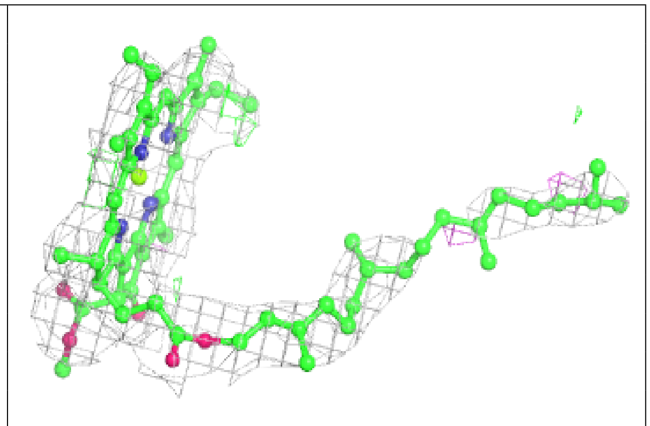


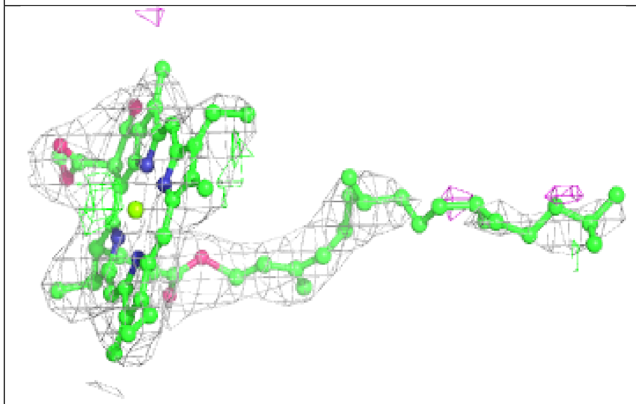


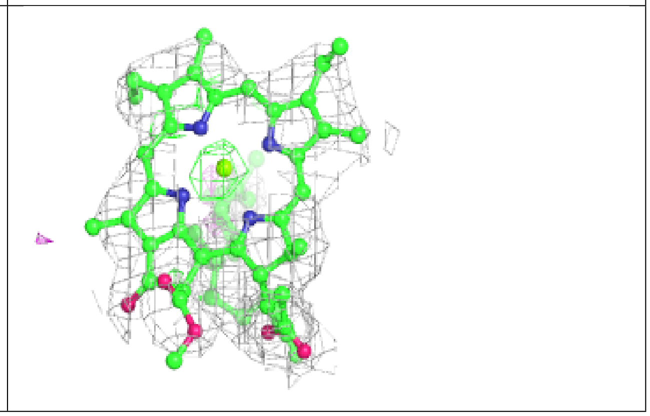


Electron density around CLA B 1226:

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

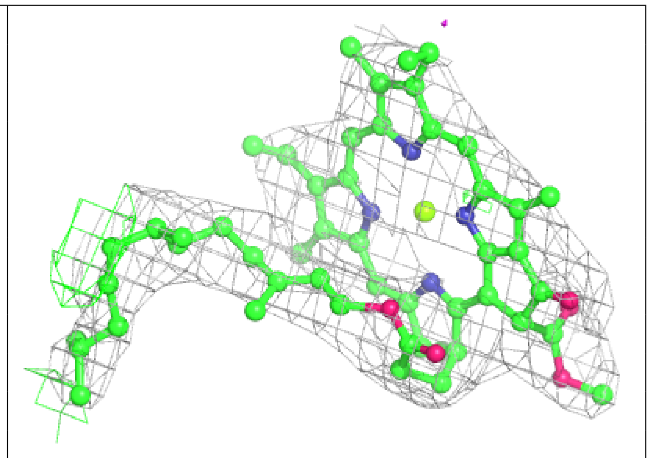


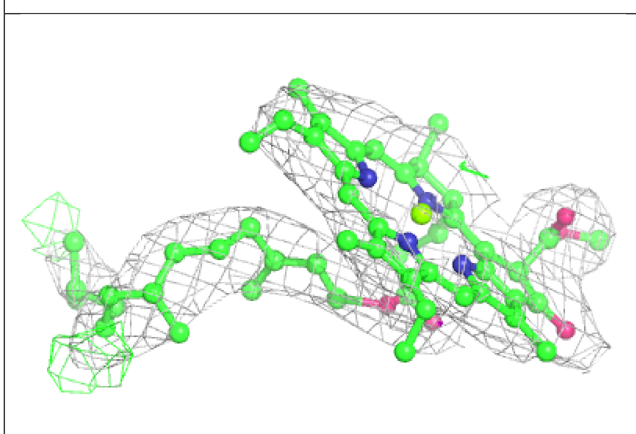


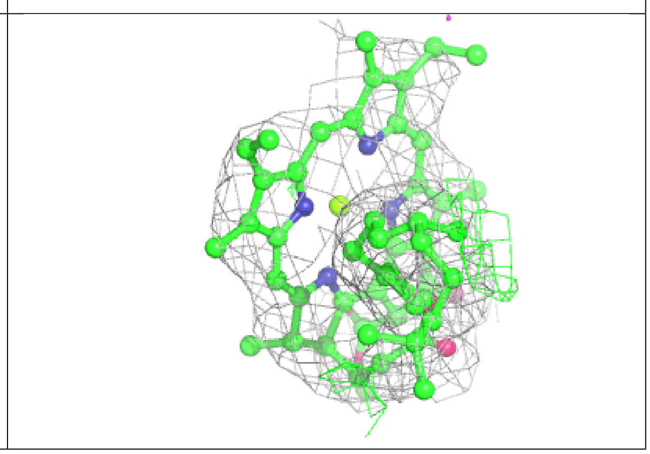


Electron density around CLA A 1237:

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

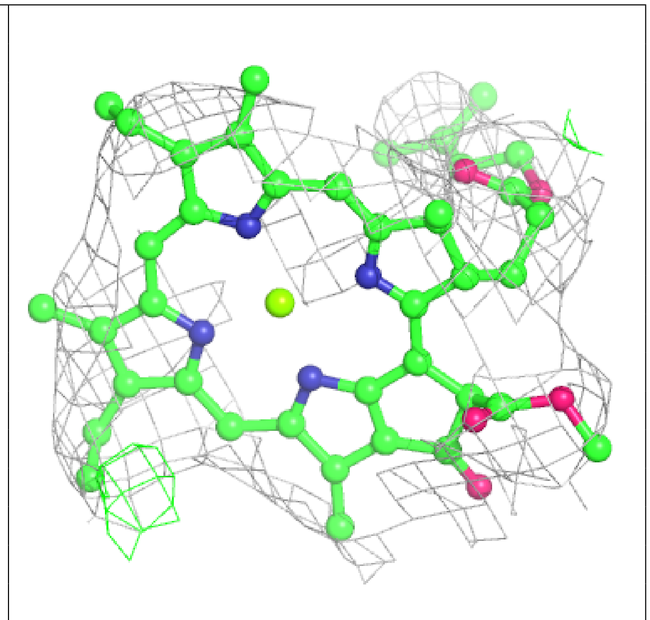


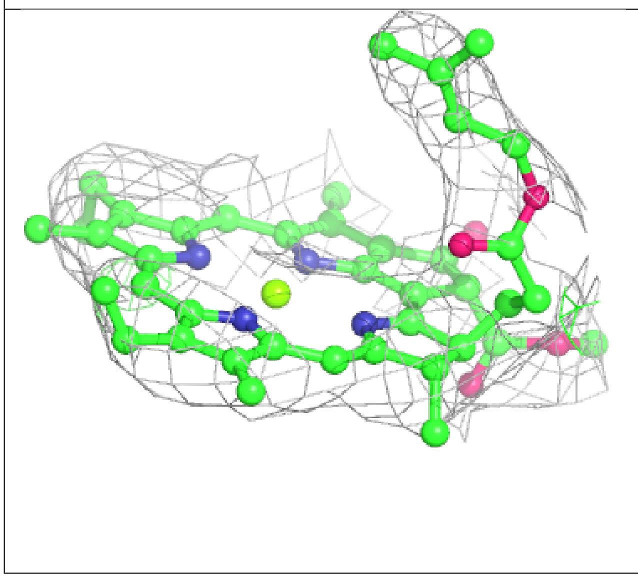


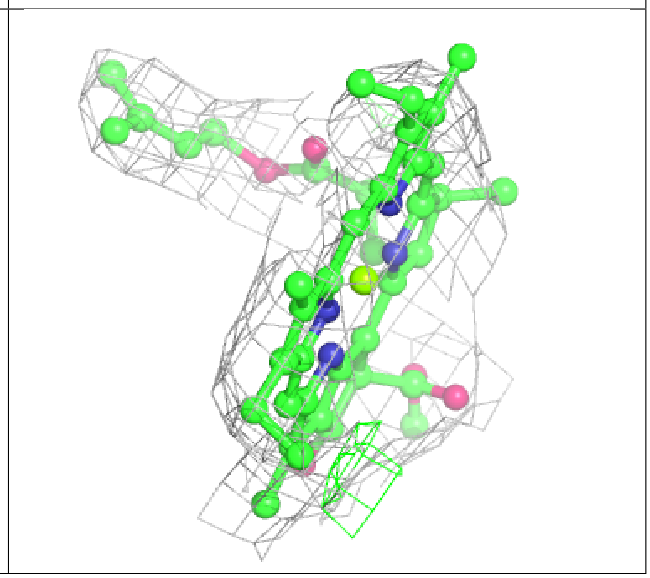


Electron density around CLA 1 1012:

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

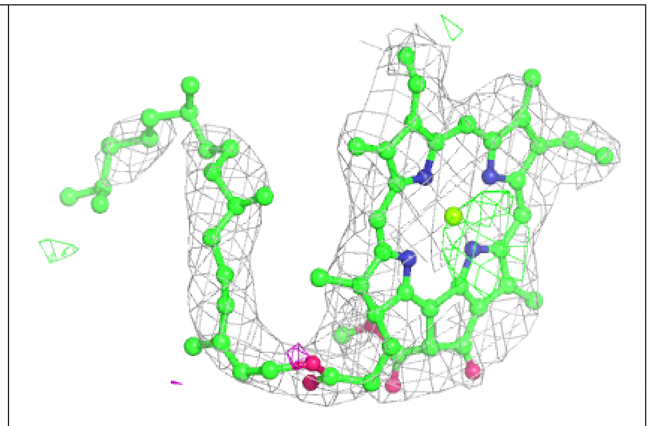


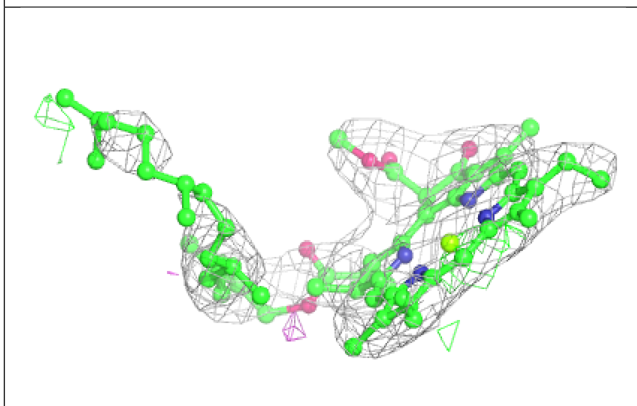


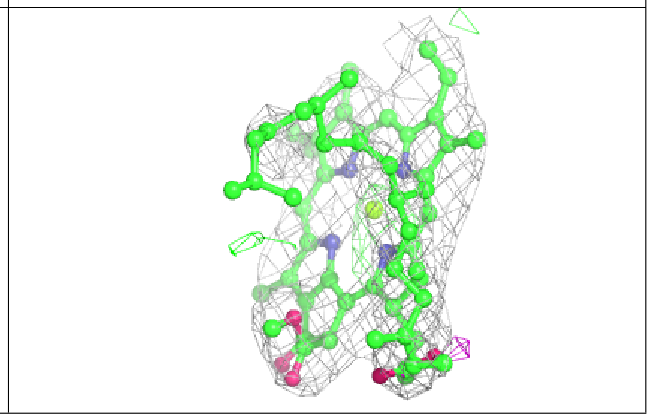


Electron density around CLA B 1221:

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

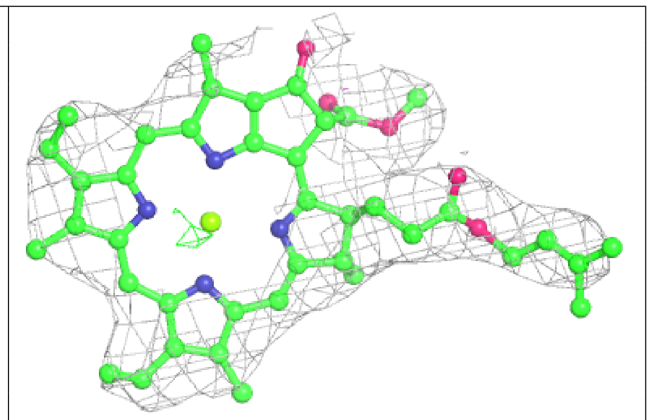


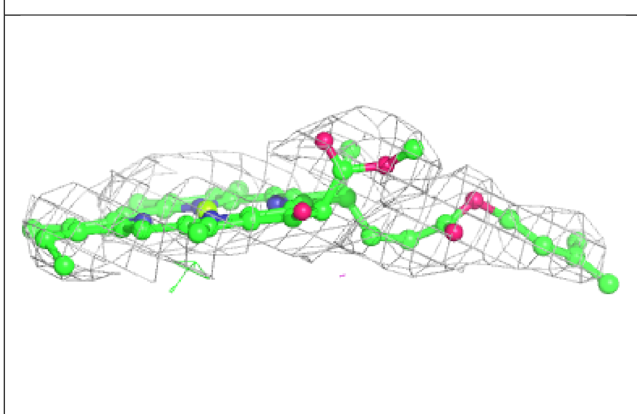


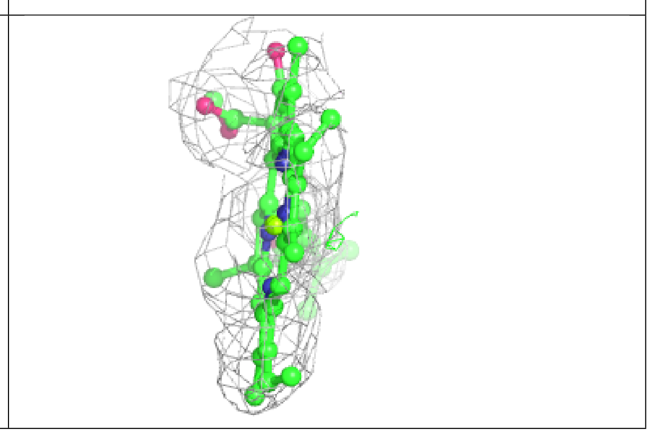


Electron density around CLA F 1302:

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

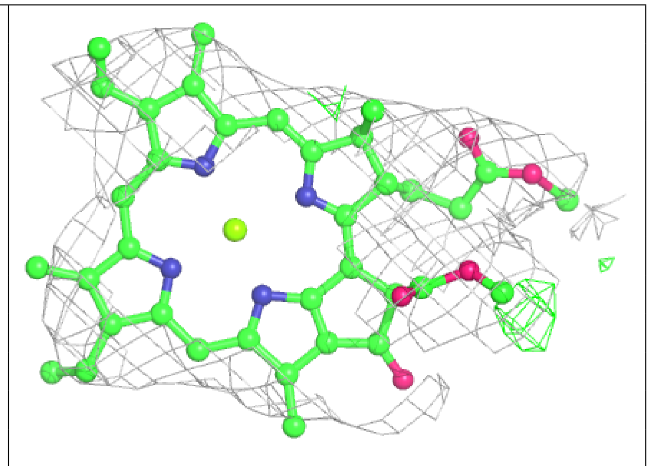


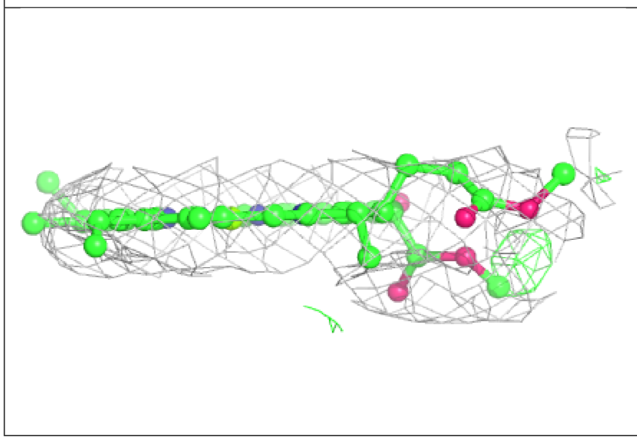


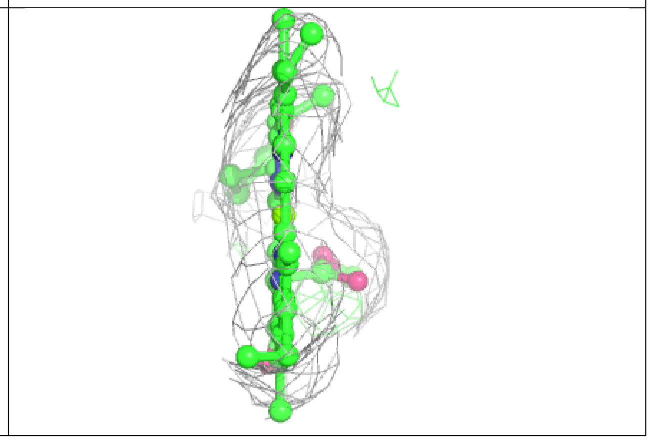


Electron density around CLA G 1002:

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

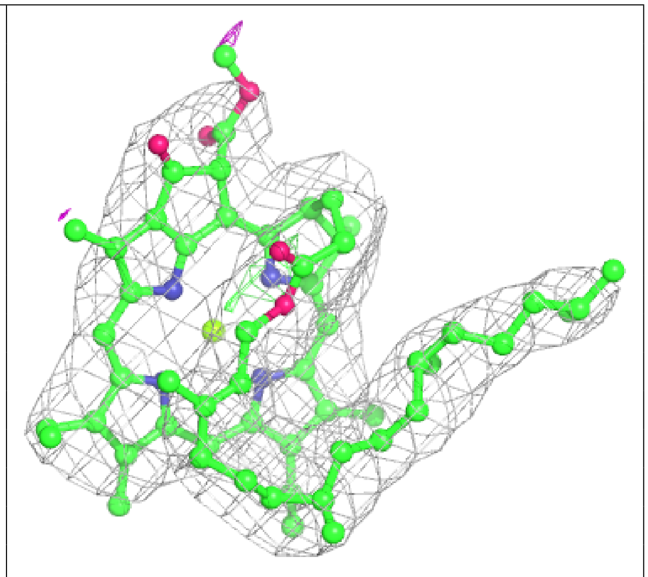


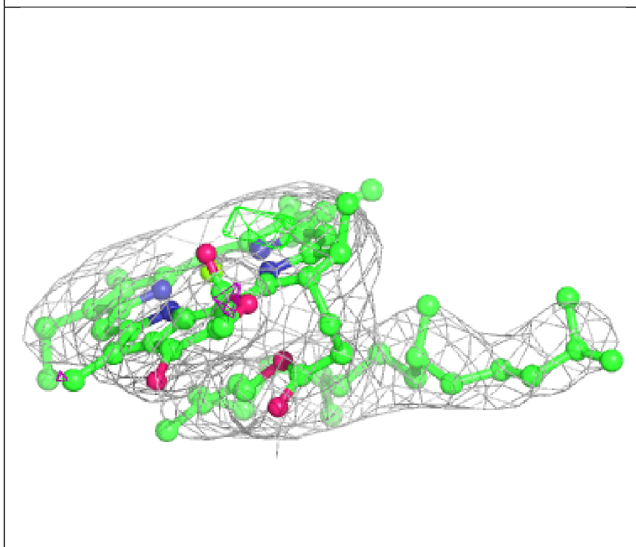


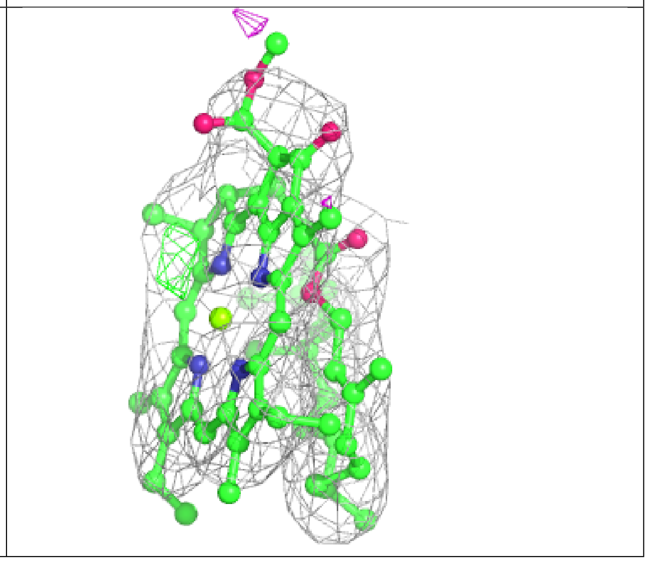


Electron density around CLA B 1205:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

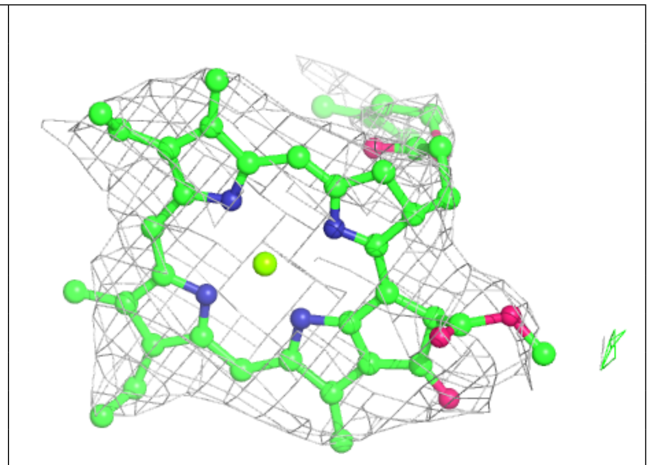


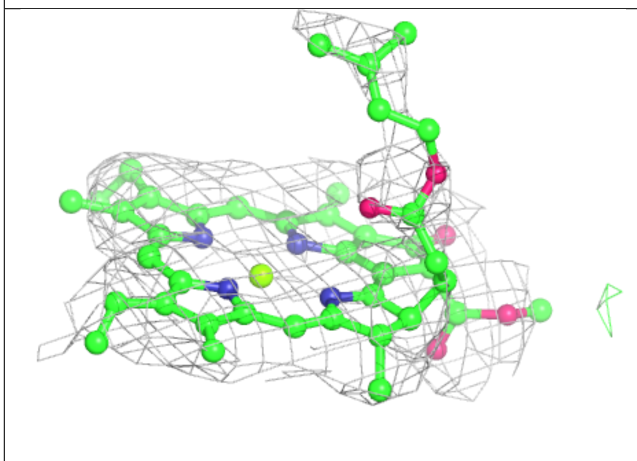


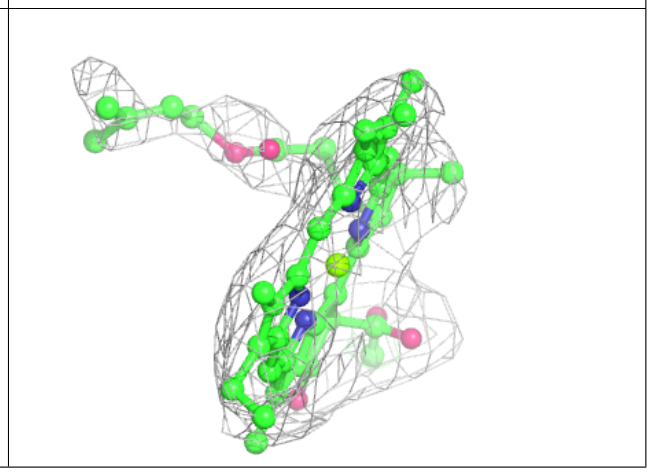


Electron density around CLA B 1201:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

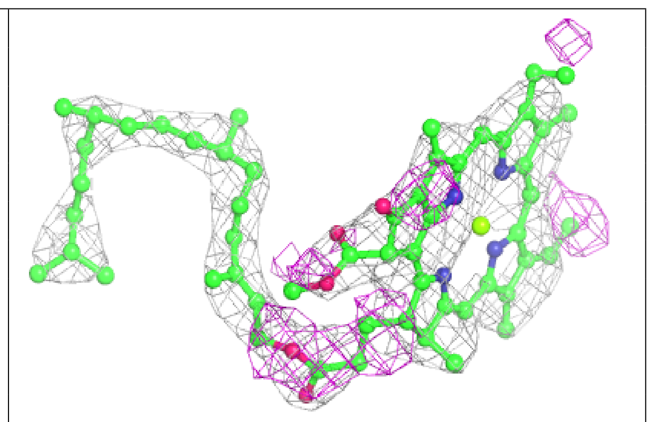


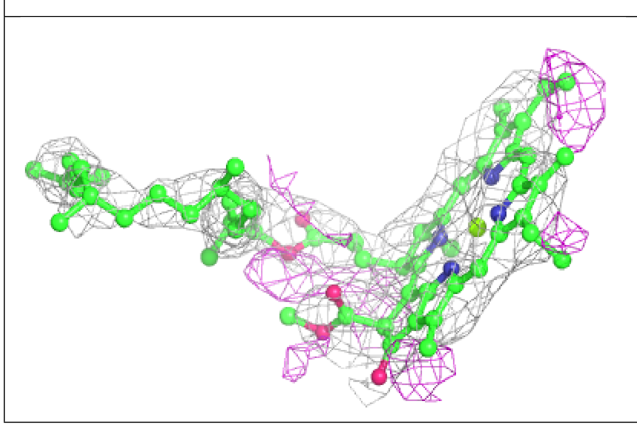


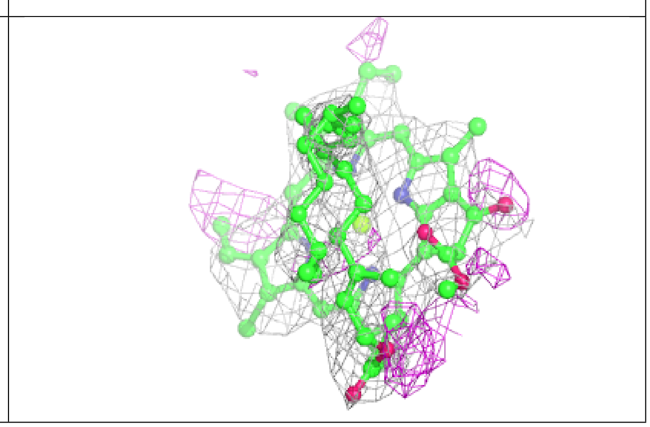


Electron density around CL0 A 1011:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

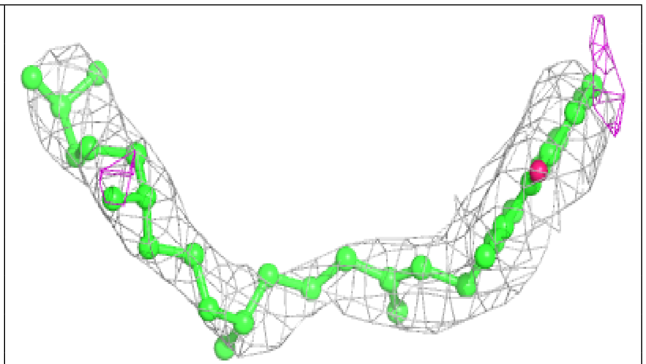


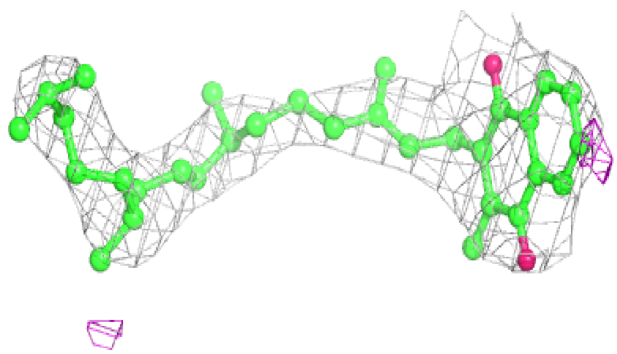


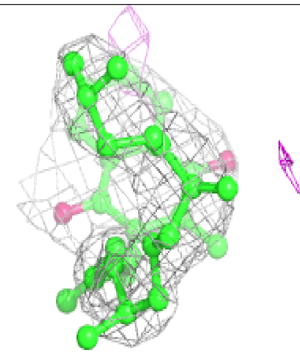


Electron density around PQN B 5002:

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

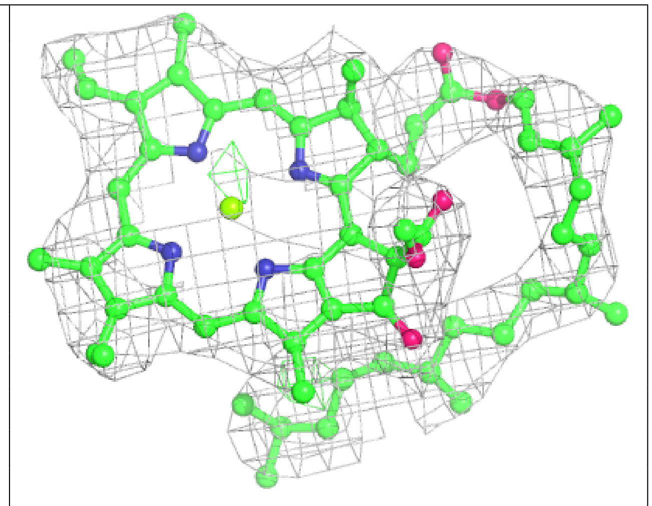


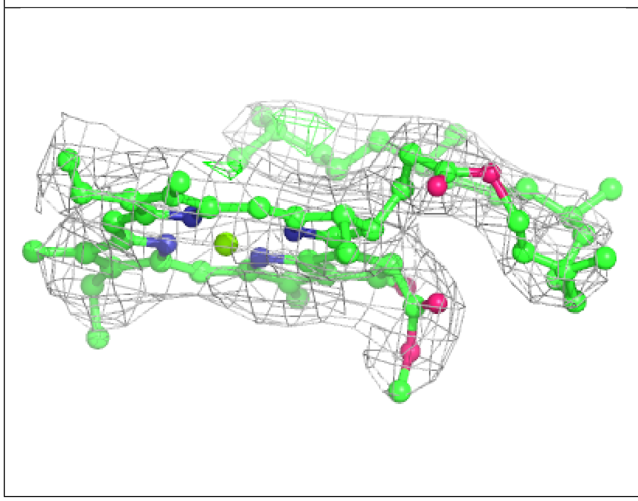


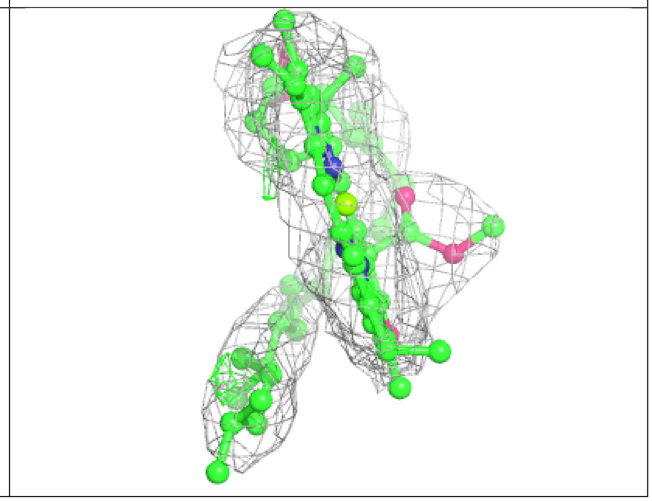


Electron density around CLA B 1202:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

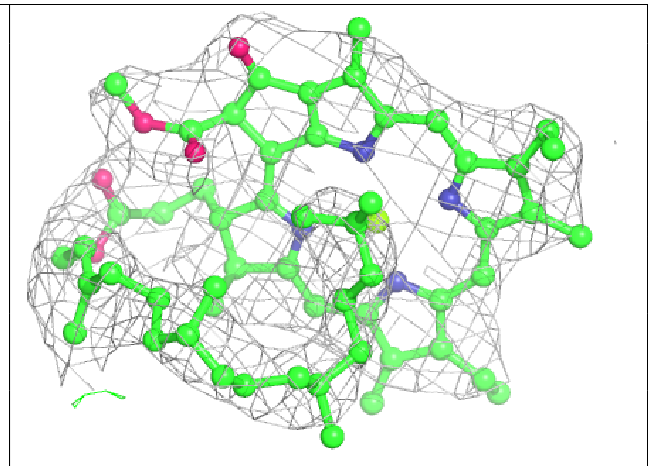


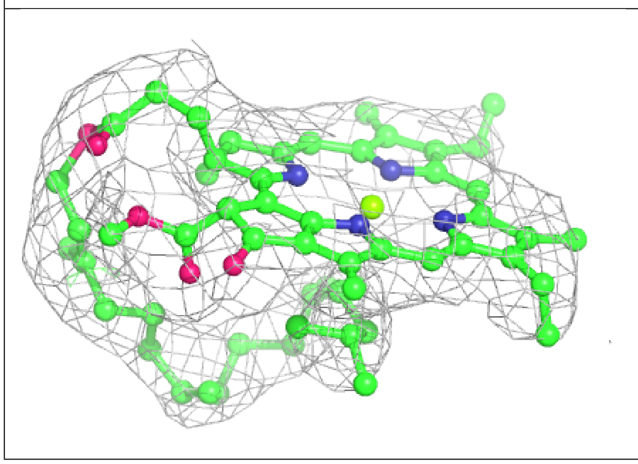


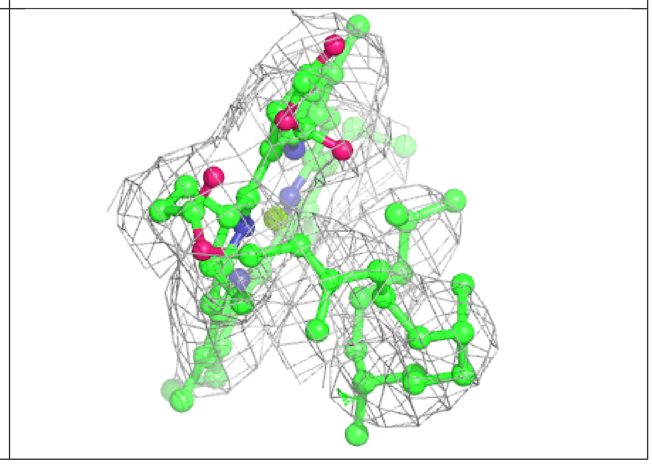


Electron density around CLA B 1203:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)







6.5 Other polymers

There are no such residues in this entry.