



Full wwPDB X-ray Structure Validation Report ⓘ

Sep 17, 2026 – 12:41 PM EDT

PDB ID : 36CV / pdb_000036cv
Title : Crystal structure of cyanate bound bovine cytochrome c oxidase
Authors : Ishigami, I.; Rousseau, D.L.; Yeh, S.-R.
Deposited on : 2026-06-01
Resolution : 2.10 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.015 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.50

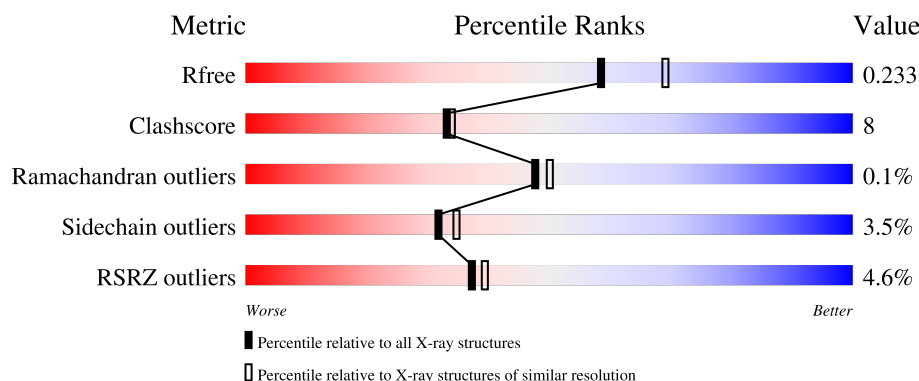
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 2.10 Å.

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



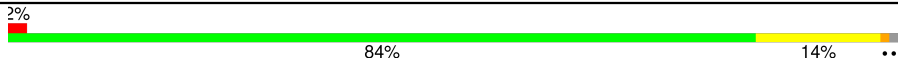
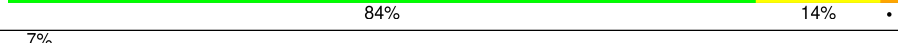
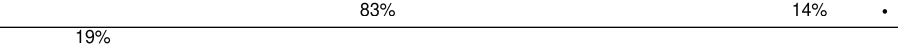
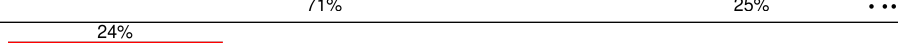
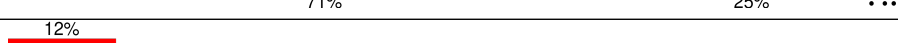
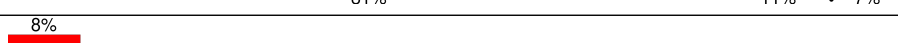
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	6658 (2.10-2.10)
Clashscore	190562	7164 (2.10-2.10)
Ramachandran outliers	187476	7099 (2.10-2.10)
Sidechain outliers	187428	7100 (2.10-2.10)
RSRZ outliers	180081	6662 (2.10-2.10)

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

Mol	Chain	Length	Quality of chain
1	A	514	86% 13% .
1	N	514	84% 15% .
2	B	227	3% 85% 14% .
2	O	227	5% 83% 15% .
3	C	261	85% 14% .

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
3	P	261	
4	D	147	
4	Q	147	
5	E	109	
5	R	109	
6	F	98	
6	S	98	
7	G	85	
7	T	85	
8	H	85	
8	U	85	
9	I	73	
9	V	73	
10	J	59	
10	W	59	
11	K	56	
11	X	56	
12	L	47	
12	Y	47	
13	M	46	
13	Z	46	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
19	EDO	C	310	-	-	X	-
19	EDO	O	304	-	-	X	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
26	DMU	C	316	X	-	-	-
26	DMU	G	101	X	-	-	-
26	DMU	G	105	X	-	-	-
26	DMU	M	103	X	-	-	-
26	DMU	P	314	X	-	-	-
26	DMU	Z	102	X	-	-	-

2 Entry composition

There are 30 unique types of molecules in this entry. The entry contains 32333 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Cytochrome c oxidase subunit 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	514	Total	C	N	O	S	0	0	0
			4027	2691	623	678	35			
1	N	514	Total	C	N	O	S	0	0	0
			4027	2691	623	678	35			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	227	Total	C	N	O	S	0	0	0
			1824	1185	281	340	18			
2	O	227	Total	C	N	O	S	0	0	0
			1824	1185	281	340	18			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	259	Total	C	N	O	S	0	0	0
			2110	1412	336	350	12			
3	P	259	Total	C	N	O	S	0	0	0
			2110	1412	336	350	12			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	144	Total	C	N	O	S	0	0	0
			1195	777	196	218	4			
4	Q	141	Total	C	N	O	S	0	0	0
			1175	764	193	214	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	105	Total	C	N	O	S	0	0	0
			852	544	144	162	2			
5	R	105	Total	C	N	O	S	0	0	0
			852	544	144	162	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	98	Total	C	N	O	S	0	0	0
			748	464	134	145	5			
6	S	98	Total	C	N	O	S	0	0	0
			748	464	134	145	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace	
7	G	84	Total 675	C 431	N 129	O 113	P 1	S 1	0	0	0
7	T	84	Total 675	C 431	N 129	O 113	P 1	S 1	0	0	0

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	79	Total	C	N	O	S	0	0	0
			662	417	121	119	5			
8	U	79	Total	C	N	O	S	0	0	0
			662	417	121	119	5			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	I	72	Total	C	N	O	S	0	0	0
			592	385	106	97	4			
9	V	72	Total	C	N	O	S	0	0	0
			592	385	106	97	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	58	Total	C	N	O	S	0	0	0
			460	297	78	82	3			

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	W	58	Total	C	N	O	S	0	0	0
			460	297	78	82	3			

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	L	46	Total	C	N	O	S	0	0	0
			380	254	64	60	2			
12	Y	46	Total	C	N	O	S	0	0	0
			380	254	64	60	2			

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
13	M	43	Total	C	N	O	0	0	0
			335	223	53	59			
13	Z	43	Total	C	N	O	0	0	0
			335	223	53	59			

- Molecule 14 is COPPER (II) ION (CCD ID: CU) (formula: Cu) (labeled as "Ligand of Interest" by depositor).

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

- Molecule 15 is MAGNESIUM ION (CCD ID: MG) (formula: Mg) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
15	A	1	Total	Mg	0	0
			1	1		

Continued on next page...

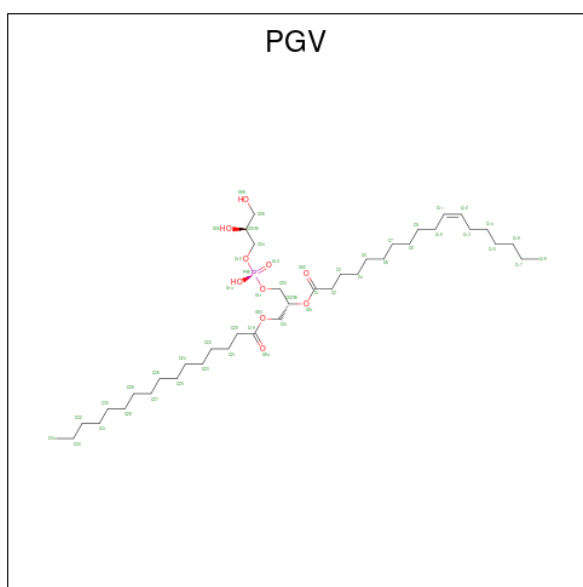
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
15	N	1	Total	Mg	0	0
			1	1		

- Molecule 16 is SODIUM ION (CCD ID: NA) (formula: Na) (labeled as "Ligand of Interest" by depositor).

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

- Molecule 17 is (1R)-2-{{[(2S)-2,3-DIHYDROXYPROPYL]OXY}(HYDROXY)PHOSPHORYL]OXY}-1-[(PALMITOYLOXY)METHYL]ETHYL (11E)-OCTADEC-11-ENOATE (CCD ID: PGV) (formula: C₄₀H₇₇O₁₀P) (labeled as "Ligand of Interest" by depositor).



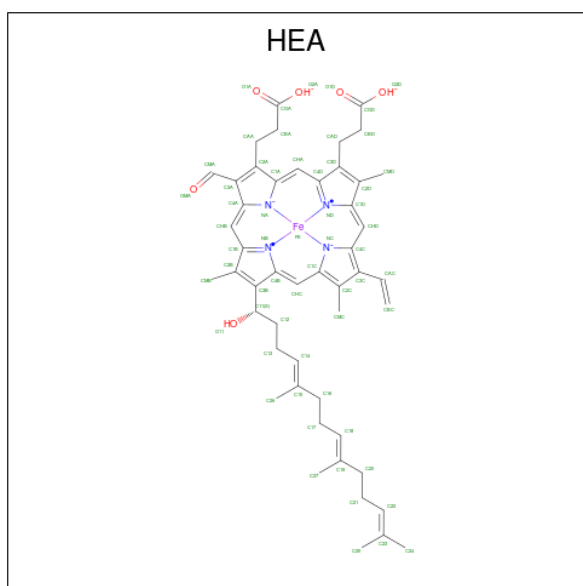
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
17	A	1	Total	C	O	P	0	0
			51	40	10	1		
17	C	1	Total	C	O	P	0	0
			51	40	10	1		
17	C	1	Total	C	O	P	0	0
			51	40	10	1		
17	M	1	Total	C	O	P	0	0
			51	40	10	1		
17	P	1	Total	C	O	P	0	0
			51	40	10	1		

Continued on next page...

Continued from previous page...

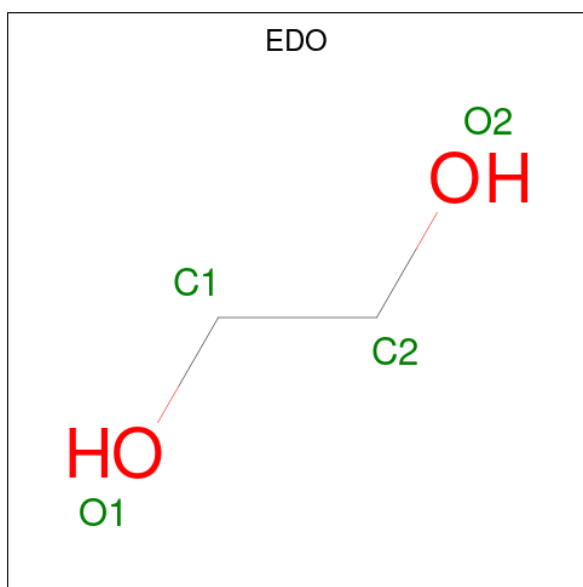
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
17	P	1	Total	C	O	P	0	0
			51	40	10	1		
17	P	1	Total	C	O	P	0	0
			51	40	10	1		
17	Z	1	Total	C	O	P	0	0
			51	40	10	1		

- Molecule 18 is HEME-A (CCD ID: HEA) (formula: $C_{49}H_{56}FeN_4O_6$) (labeled as "Ligand of Interest" by depositor).



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

- Molecule 19 is 1,2-ETHANEDIOL (CCD ID: EDO) (formula: $C_2H_6O_2$) (labeled as "Ligand of Interest" by depositor).



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

Continued on next page...

Continued from previous page...

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

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
19	F	1	Total 4	C 2	O 2	0	0
19	F	1	Total 4	C 2	O 2	0	0
19	F	1	Total 4	C 2	O 2	0	0
19	F	1	Total 4	C 2	O 2	0	0
19	F	1	Total 4	C 2	O 2	0	0
19	G	1	Total 4	C 2	O 2	0	0
19	G	1	Total 4	C 2	O 2	0	0
19	G	1	Total 4	C 2	O 2	0	0
19	G	1	Total 4	C 2	O 2	0	0
19	I	1	Total 4	C 2	O 2	0	0
19	J	1	Total 4	C 2	O 2	0	0
19	J	1	Total 4	C 2	O 2	0	0
19	K	1	Total 4	C 2	O 2	0	0
19	L	1	Total 4	C 2	O 2	0	0
19	L	1	Total 4	C 2	O 2	0	0
19	L	1	Total 4	C 2	O 2	0	0
19	L	1	Total 4	C 2	O 2	0	0
19	M	1	Total 4	C 2	O 2	0	0
19	N	1	Total 4	C 2	O 2	0	0
19	N	1	Total 4	C 2	O 2	0	0
19	N	1	Total 4	C 2	O 2	0	0

Continued on next page...

Continued from previous page...

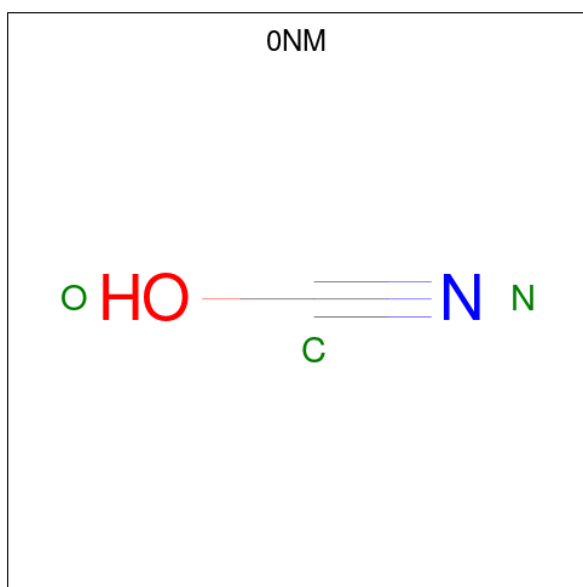
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	N	1	Total C O 4 2 2	0	0
19	O	1	Total C O 4 2 2	0	0
19	O	1	Total C O 4 2 2	0	0
19	P	1	Total C O 4 2 2	0	0
19	P	1	Total C O 4 2 2	0	0
19	P	1	Total C O 4 2 2	0	0
19	Q	1	Total C O 4 2 2	0	0
19	Q	1	Total C O 4 2 2	0	0
19	Q	1	Total C O 4 2 2	0	0
19	R	1	Total C O 4 2 2	0	0
19	R	1	Total C O 4 2 2	0	0

Continued on next page...

Continued from previous page...

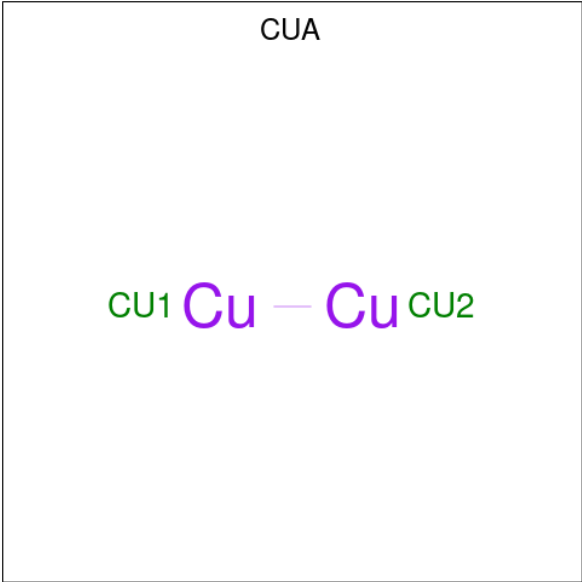
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
19	S	1	Total 4	C 2	O 2	0	0
19	S	1	Total 4	C 2	O 2	0	0
19	S	1	Total 4	C 2	O 2	0	0
19	S	1	Total 4	C 2	O 2	0	0
19	S	1	Total 4	C 2	O 2	0	0
19	S	1	Total 4	C 2	O 2	0	0
19	T	1	Total 4	C 2	O 2	0	0
19	T	1	Total 4	C 2	O 2	0	0
19	V	1	Total 4	C 2	O 2	0	0
19	V	1	Total 4	C 2	O 2	0	0
19	W	1	Total 4	C 2	O 2	0	0
19	W	1	Total 4	C 2	O 2	0	0
19	W	1	Total 4	C 2	O 2	0	0
19	Y	1	Total 4	C 2	O 2	0	0

- Molecule 20 is cyanic acid (CCD ID: 0NM) (formula: CHNO) (labeled as "Ligand of Interest" by depositor).



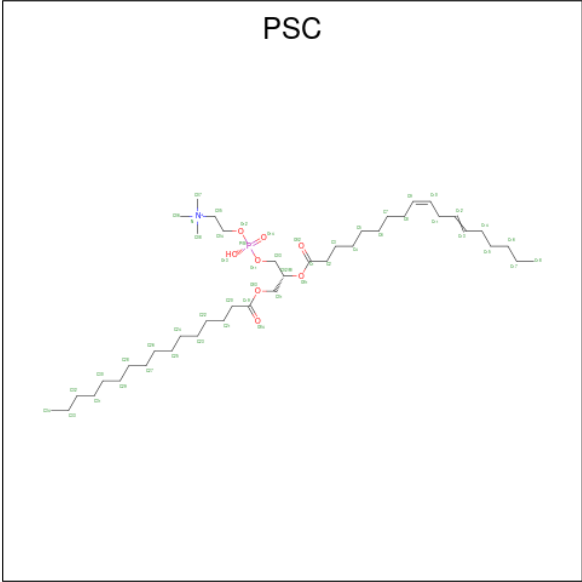
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
20	A	1	Total	C	N	O	0	0
			3	1	1	1		
20	A	1	Total	C	N	O	0	0
			3	1	1	1		
20	A	1	Total	C	N	O	0	0
			3	1	1	1		
20	C	1	Total	C	N	O	0	0
			3	1	1	1		
20	N	1	Total	C	N	O	0	0
			3	1	1	1		
20	N	1	Total	C	N	O	0	0
			3	1	1	1		
20	N	1	Total	C	N	O	0	0
			3	1	1	1		
20	N	1	Total	C	N	O	0	0
			3	1	1	1		

- Molecule 21 is DINUCLEAR COPPER ION (CCD ID: CUA) (formula: Cu₂) (labeled as "Ligand of Interest" by depositor).



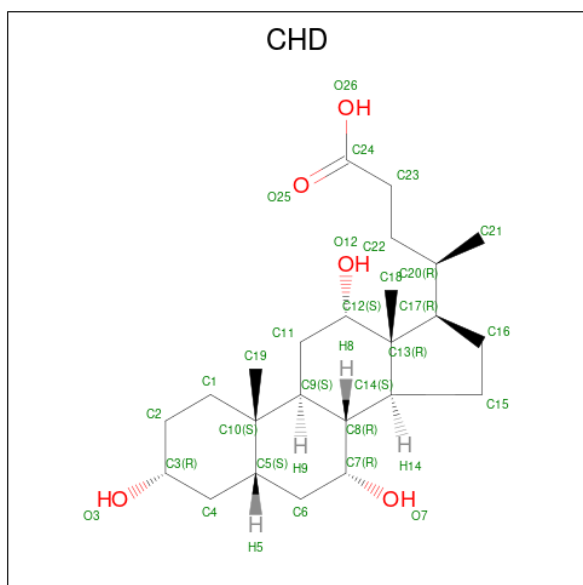
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
21	B	1	Total Cu 2 2	0	0
21	O	1	Total Cu 2 2	0	0

- Molecule 22 is (7R,17E,20E)-4-HYDROXY-N,N,N-TRIMETHYL-9-OXO-7-[(PALMITOYLOXY)METHYL]-3,5,8-TRIOXA-4-PHOSPHAHEXACOSA-17,20-DIEN-1-AMINIUM 4-OXIDE (CCD ID: PSC) (formula: C₄₂H₈₁NO₈P) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
22	B	1	Total	C	N	O	P	0	0
			52	42	1	8	1		
22	O	1	Total	C	N	O	P	0	0
			52	42	1	8	1		

- Molecule 23 is CHOLIC ACID (CCD ID: CHD) (formula: $C_{24}H_{40}O_5$) (labeled as "Ligand of Interest" by depositor).



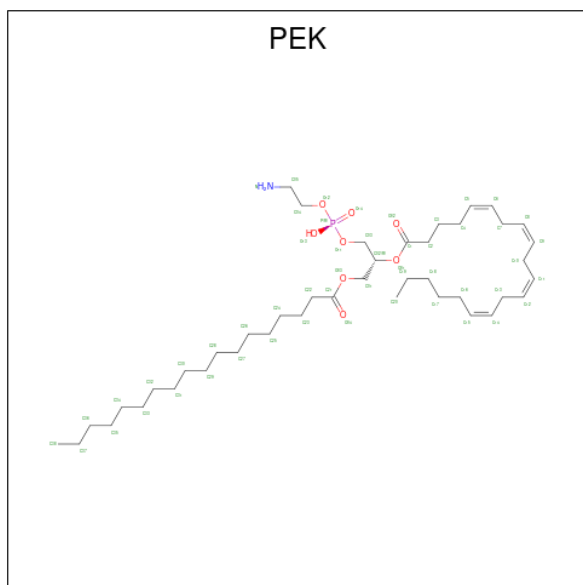
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
23	B	1	Total	C	O	0	0
			29	24	5		
23	C	1	Total	C	O	0	0
			29	24	5		
23	C	1	Total	C	O	0	0
			29	24	5		
23	G	1	Total	C	O	0	0
			29	24	5		
23	J	1	Total	C	O	0	0
			29	24	5		
23	P	1	Total	C	O	0	0
			29	24	5		
23	P	1	Total	C	O	0	0
			29	24	5		
23	T	1	Total	C	O	0	0
			29	24	5		
23	W	1	Total	C	O	0	0
			29	24	5		

Continued on next page...

Continued from previous page...

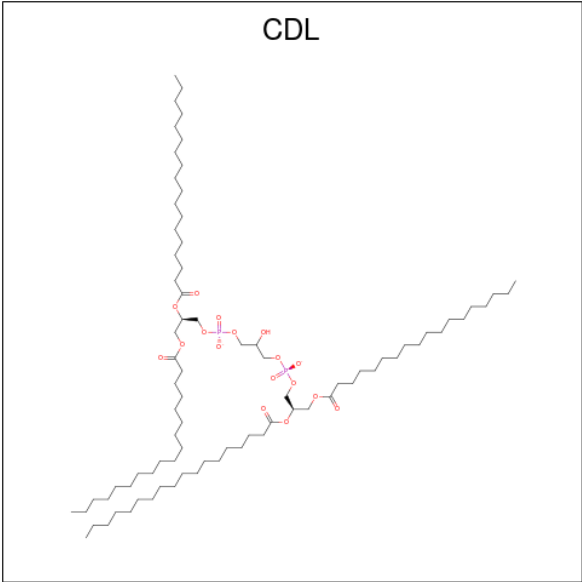
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
23	Y	1	Total	C	O	0	0
			29	24	5		

- Molecule 24 is (1S)-2-{[(2-AMINOETHOXY)(HYDROXY)PHOSPHORYL]OXY}-1-[(STEAROYLOXY)METHYL]ETHYL (5E,8E,11E,14E)-ICOSA-5,8,11,14-TETRAENOATE (CCD ID: PEK) (formula: C₄₃H₇₈NO₈P) (labeled as "Ligand of Interest" by depositor).



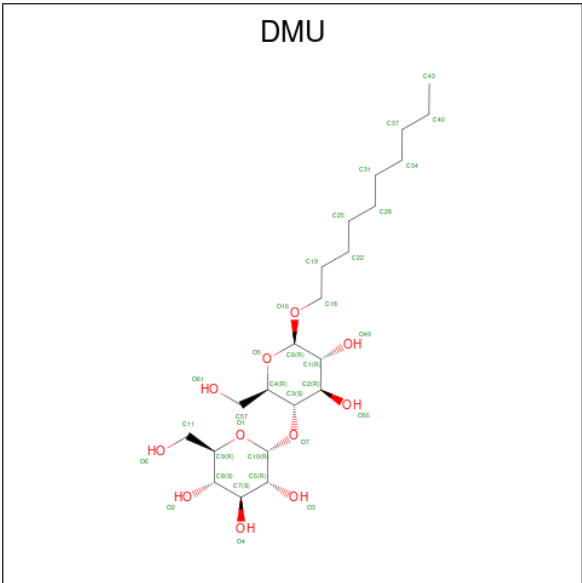
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
24	C	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	C	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	C	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	P	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	P	1	Total	C	N	O	P	0	0
			53	43	1	8	1		
24	P	1	Total	C	N	O	P	0	0
			53	43	1	8	1		

- Molecule 25 is CARDIOLIPIN (CCD ID: CDL) (formula: C₈₁H₁₅₆O₁₇P₂) (labeled as "Ligand of Interest" by depositor).



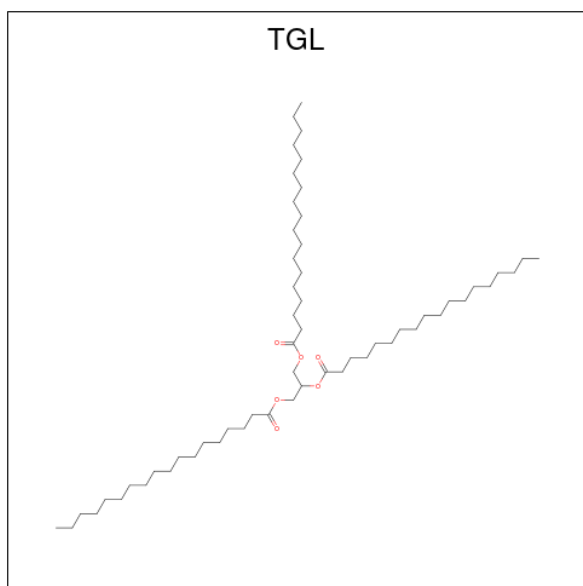
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
25	C	1	Total	C	O	P	0	0
			100	81	17	2		
25	C	1	Total	C	O	P	0	0
			100	81	17	2		
25	P	1	Total	C	O	P	0	0
			100	81	17	2		
25	P	1	Total	C	O	P	0	0
			100	81	17	2		

- Molecule 26 is DECYL-BETA-D-MALTOPYRANOSIDE (CCD ID: DMU) (formula: $C_{22}H_{42}O_{11}$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
26	C	1	Total C O 33 22 11	0	0
26	G	1	Total C O 33 22 11	0	0
26	G	1	Total C O 33 22 11	0	0
26	M	1	Total C O 33 22 11	0	0
26	P	1	Total C O 33 22 11	0	0
26	Z	1	Total C O 33 22 11	0	0

- Molecule 27 is TRISTEAROYLGLYCEROL (CCD ID: TGL) (formula: $C_{57}H_{110}O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
27	D	1	Total C O 63 57 6	0	0
27	I	1	Total C O 63 57 6	0	0
27	L	1	Total C O 63 57 6	0	0
27	N	1	Total C O 63 57 6	0	0
27	N	1	Total C O 63 57 6	0	0

Continued on next page...

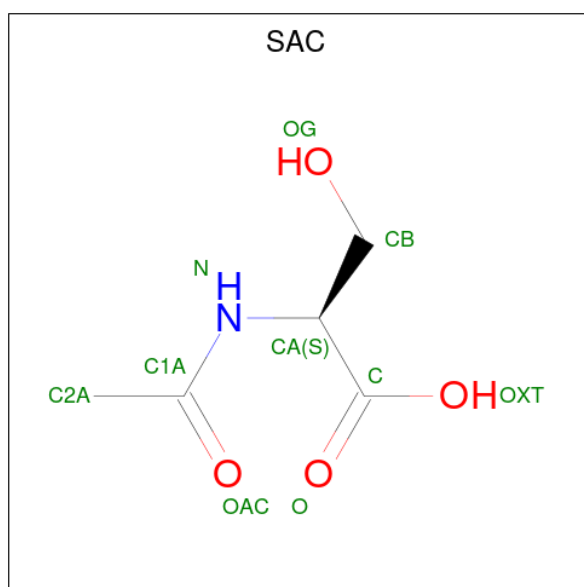
Continued from previous page...

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
27	Y	1	Total	C	O	0	0
			63	57	6		

- Molecule 28 is ZINC ION (CCD ID: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

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

- Molecule 29 is N-ACETYL-SERINE (CCD ID: SAC) (formula: C₅H₉NO₄) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
29	I	1	Total	C	N	O	0	0
			9	5	1	3		
29	V	1	Total	C	N	O	0	0
			9	5	1	3		

- Molecule 30 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
30	A	150	Total	O	0	0
			150	150		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
30	B	112	Total O 112 112	0	0
30	C	78	Total O 78 78	0	0
30	D	34	Total O 34 34	0	0
30	E	38	Total O 38 38	0	0
30	F	60	Total O 60 60	0	0
30	G	42	Total O 42 42	0	0
30	H	44	Total O 44 44	0	0
30	I	18	Total O 18 18	0	0
30	J	19	Total O 19 19	0	0
30	K	1	Total O 1 1	0	0
30	L	21	Total O 21 21	0	0
30	M	13	Total O 13 13	0	0
30	N	130	Total O 130 130	0	0
30	O	73	Total O 73 73	0	0
30	P	69	Total O 69 69	0	0
30	Q	30	Total O 30 30	0	0
30	R	34	Total O 34 34	0	0
30	S	43	Total O 43 43	0	0
30	T	22	Total O 22 22	0	0
30	U	35	Total O 35 35	0	0
30	V	11	Total O 11 11	0	0

Continued on next page...

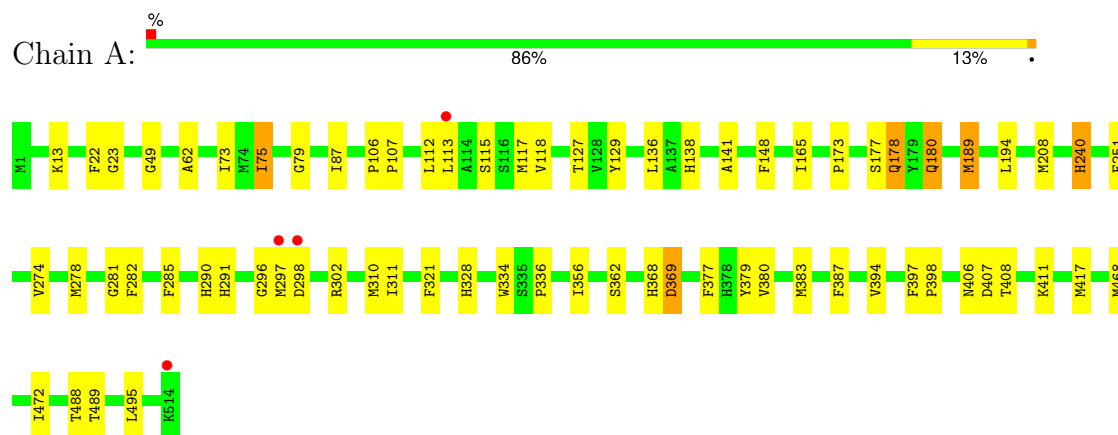
Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
30	W	12	Total 12	O 12	0	0
30	X	3	Total 3	O 3	0	0
30	Y	9	Total 9	O 9	0	0
30	Z	7	Total 7	O 7	0	0

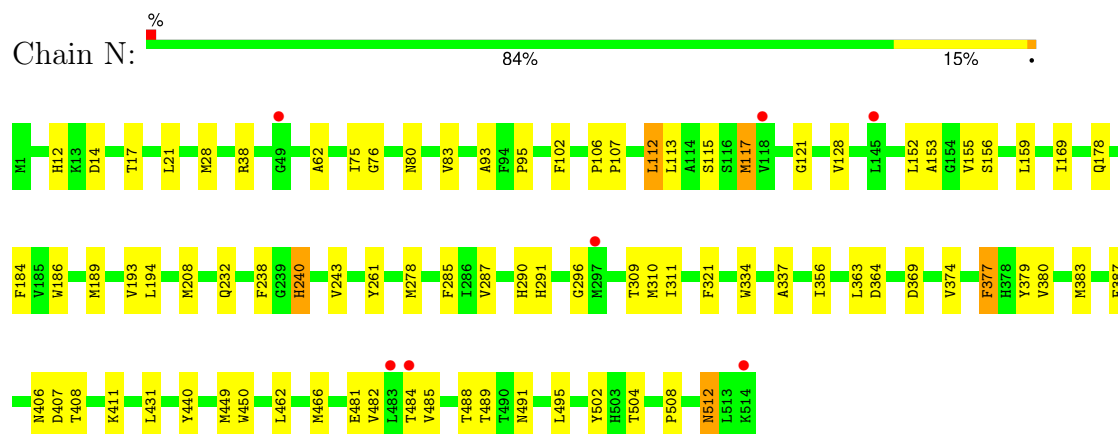
3 Residue-property plots

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.

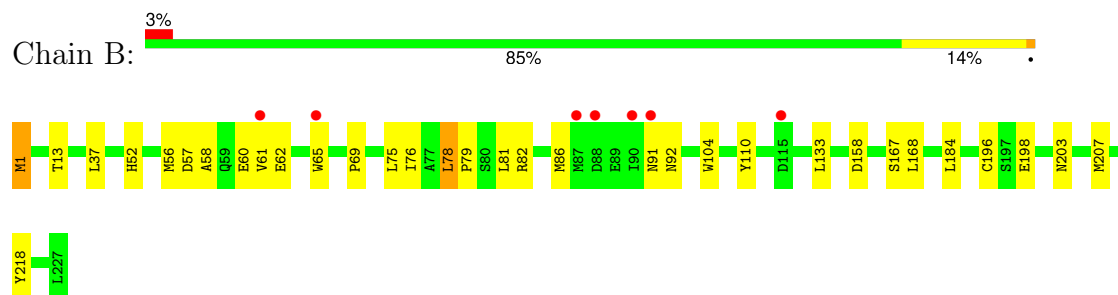
• Molecule 1: Cytochrome c oxidase subunit 1



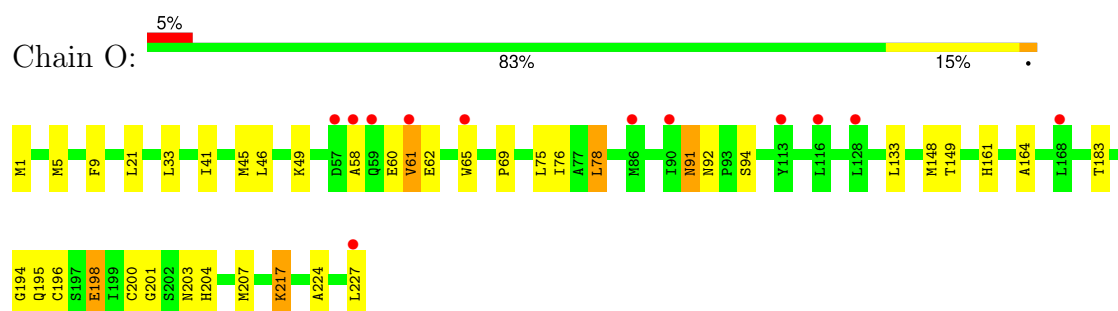
• Molecule 1: Cytochrome c oxidase subunit 1



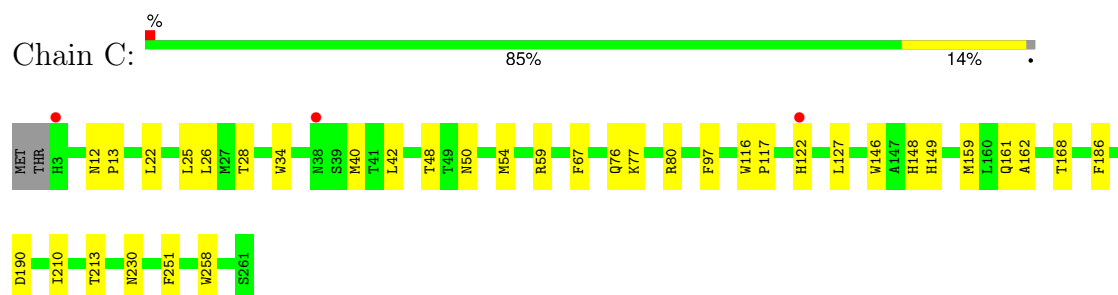
• Molecule 2: Cytochrome c oxidase subunit 2



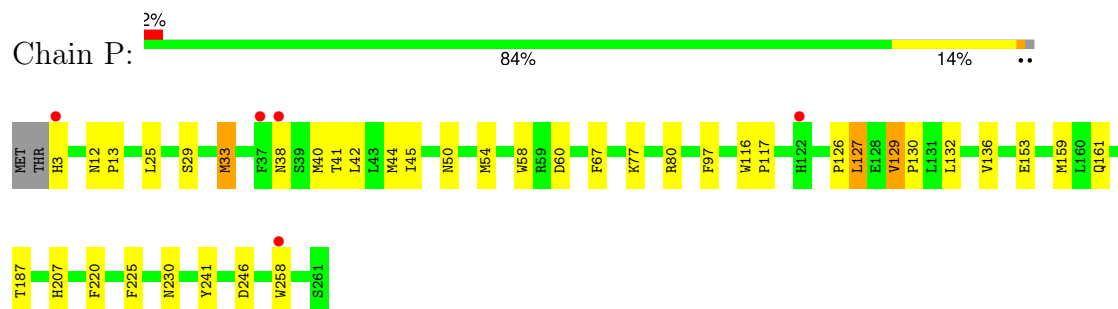
- Molecule 2: Cytochrome c oxidase subunit 2



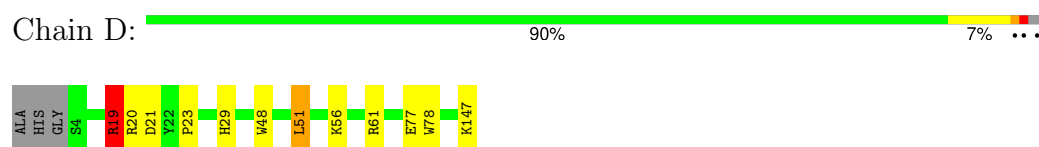
- Molecule 3: Cytochrome c oxidase subunit 3



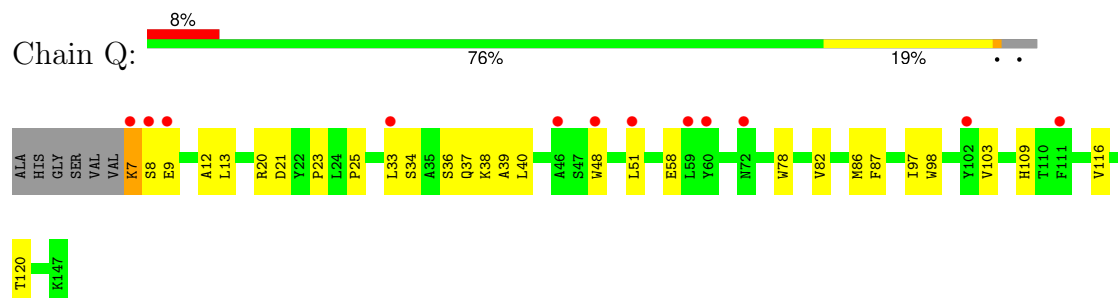
- Molecule 3: Cytochrome c oxidase subunit 3



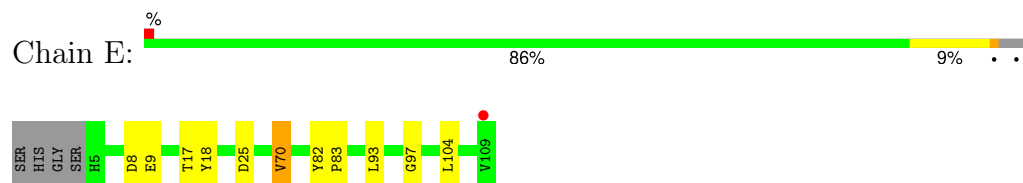
- Molecule 4: Cytochrome c oxidase subunit 4 isoform 1



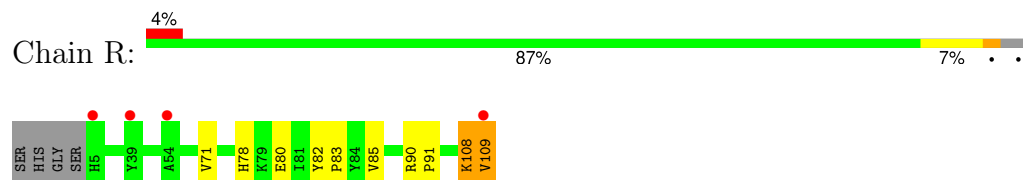
- Molecule 4: Cytochrome c oxidase subunit 4 isoform 1



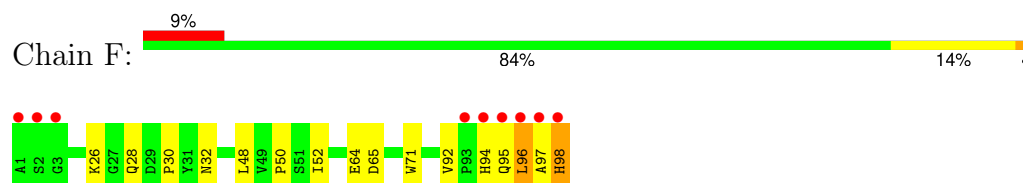
- Molecule 5: Cytochrome c oxidase subunit 5A



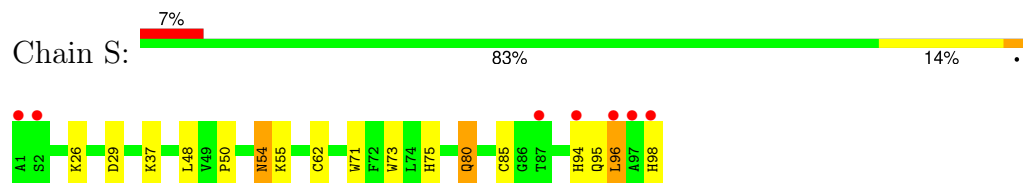
- Molecule 5: Cytochrome c oxidase subunit 5A



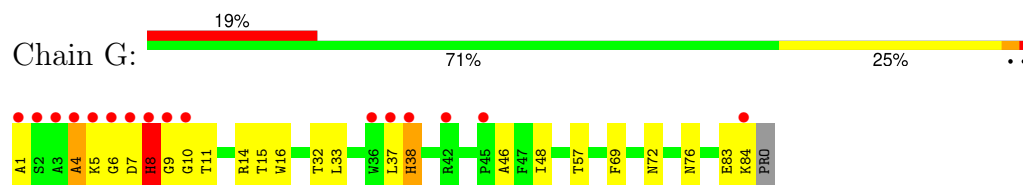
- Molecule 6: Cytochrome c oxidase subunit 5B



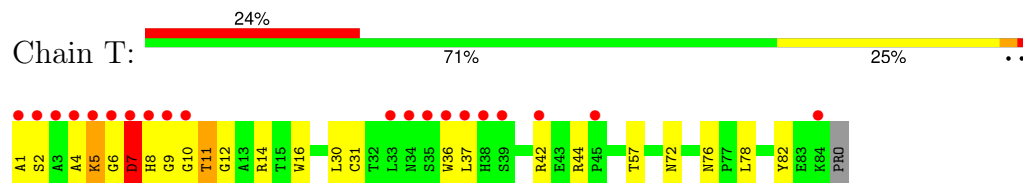
- Molecule 6: Cytochrome c oxidase subunit 5B



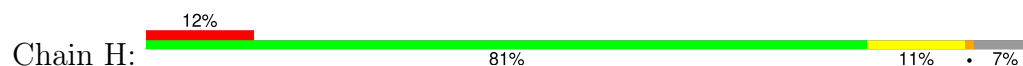
- Molecule 7: Cytochrome c oxidase subunit 6A2

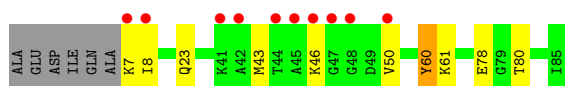


- Molecule 7: Cytochrome c oxidase subunit 6A2

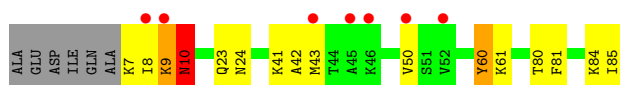
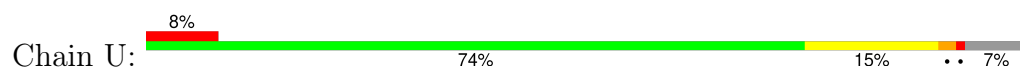


- Molecule 8: Cytochrome c oxidase subunit 6B1

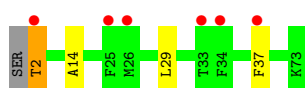




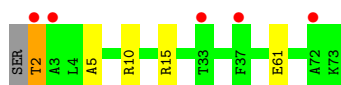
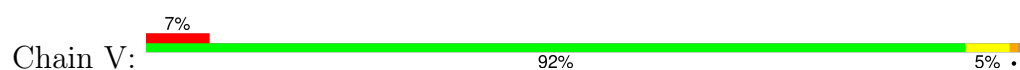
- Molecule 8: Cytochrome c oxidase subunit 6B1



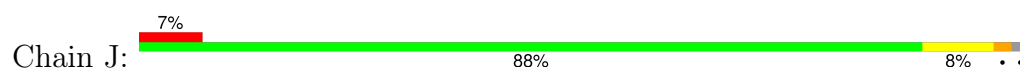
- Molecule 9: Cytochrome c oxidase subunit 6C



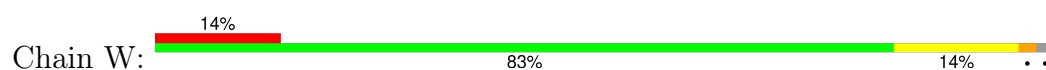
- Molecule 9: Cytochrome c oxidase subunit 6C



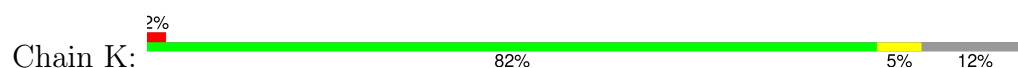
- Molecule 10: Cytochrome c oxidase subunit 7A1



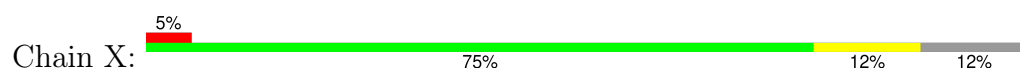
- Molecule 10: Cytochrome c oxidase subunit 7A1



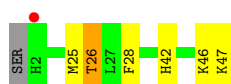
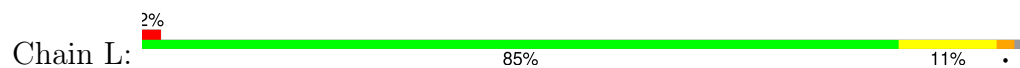
- Molecule 11: Cytochrome c oxidase subunit 7B



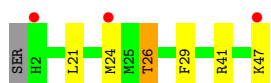
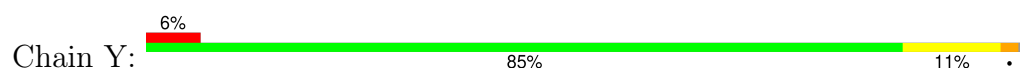
- Molecule 11: Cytochrome c oxidase subunit 7B



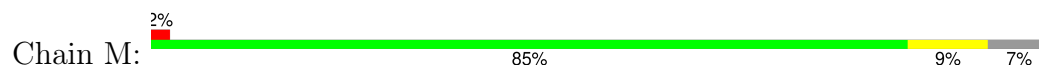
- Molecule 12: Cytochrome c oxidase subunit 7C



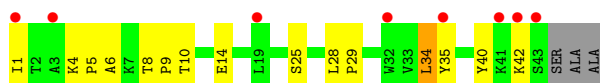
- Molecule 12: Cytochrome c oxidase subunit 7C



- Molecule 13: Cytochrome c oxidase subunit 8B



- Molecule 13: Cytochrome c oxidase subunit 8B



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	178.29Å 182.82Å 208.75Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	30.00 – 2.10 30.00 – 2.10	Depositor EDS
% Data completeness (in resolution range)	99.9 (30.00-2.10) 99.9 (30.00-2.10)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.51 (at 2.10Å)	Xtriage
Refinement program	REFMAC 5.8.0267	Depositor
R, R_{free}	0.194 , 0.228 0.201 , 0.233	Depositor DCC
R_{free} test set	20057 reflections (5.09%)	wwPDB-VP
Wilson B-factor (Å ²)	40.6	Xtriage
Anisotropy	0.110	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.32 , 37.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	0.000 for k,h,-l	Xtriage
F_o, F_c correlation	0.96	EDS
Total number of atoms	32333	wwPDB-VP
Average B, all atoms (Å ²)	50.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.06% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: 0NM, NA, CUA, ZN, TGL, CU, EDO, SAC, CHD, TPO, FME, DMU, CDL, PGV, PEK, MG, HEA, PSC

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	1.09	2/4156 (0.0%)	1.39	7/5678 (0.1%)
1	N	1.18	5/4156 (0.1%)	1.35	13/5678 (0.2%)
2	B	1.11	1/1860 (0.1%)	1.35	1/2534 (0.0%)
2	O	1.06	1/1860 (0.1%)	1.38	5/2534 (0.2%)
3	C	1.03	0/2197	1.33	1/3005 (0.0%)
3	P	1.15	2/2197 (0.1%)	1.23	2/3005 (0.1%)
4	D	1.11	0/1229	1.30	1/1658 (0.1%)
4	Q	1.05	1/1209 (0.1%)	1.35	1/1630 (0.1%)
5	E	1.06	0/871	1.41	6/1182 (0.5%)
5	R	0.99	0/871	1.42	2/1182 (0.2%)
6	F	1.08	0/765	1.32	0/1038
6	S	1.11	0/765	1.30	0/1038
7	G	1.04	1/690 (0.1%)	1.34	2/937 (0.2%)
7	T	1.02	0/690	1.30	1/937 (0.1%)
8	H	0.99	0/682	1.42	0/921
8	U	0.96	0/682	1.48	3/921 (0.3%)
9	I	1.01	0/605	1.35	0/802
9	V	0.99	0/605	1.50	0/802
10	J	0.99	0/471	1.39	1/636 (0.2%)
10	W	1.17	0/471	1.34	0/636
11	K	1.08	0/398	1.39	0/546
11	X	1.10	0/398	1.35	0/546
12	L	0.97	0/393	1.44	2/526 (0.4%)
12	Y	1.10	0/393	1.38	0/526
13	M	1.01	0/345	1.38	0/470
13	Z	1.09	0/345	1.48	0/470
All	All	1.08	13/29304 (0.0%)	1.36	48/39838 (0.1%)

All (13) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	198	GLU	C-O	9.67	1.34	1.23
2	O	198	GLU	C-O	8.01	1.32	1.23
3	P	60	ASP	C-O	6.81	1.32	1.24
1	N	240	HIS	CE1-NE2	6.65	1.39	1.32
1	A	240	HIS	CE1-NE2	6.35	1.38	1.32
1	A	49	GLY	C-O	6.14	1.31	1.23
1	N	21	LEU	C-O	5.48	1.30	1.24
4	Q	97	ILE	C-O	5.32	1.30	1.24
1	N	287	VAL	N-CA	5.28	1.51	1.46
1	N	12	HIS	C-O	5.21	1.30	1.24
1	N	232	GLN	C-O	5.19	1.30	1.24
7	G	48	ILE	N-CA	5.09	1.49	1.45
3	P	220	PHE	C-O	5.04	1.30	1.24

All (48) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	N	240	HIS	CA-CB-CG	-11.47	102.33	113.80
2	O	92	ASN	CB-CA-C	10.71	120.08	110.44
1	A	240	HIS	CA-CB-CG	-8.91	104.89	113.80
2	B	92	ASN	CB-CA-C	8.09	118.58	110.33
1	N	102	PHE	CA-CB-CG	-6.97	106.83	113.80
10	J	27	THR	CA-CB-OG1	-6.39	100.02	109.60
12	L	26	THR	CB-CA-C	6.32	120.89	110.90
1	A	240	HIS	N-CA-CB	6.15	117.68	110.42
5	R	78	HIS	CA-C-N	5.99	128.58	120.38
5	R	78	HIS	C-N-CA	5.99	128.58	120.38
5	E	17	THR	CA-CB-OG1	-5.96	100.65	109.60
1	A	251	PHE	CA-CB-CG	5.89	119.69	113.80
3	P	225	PHE	CA-CB-CG	5.80	119.60	113.80
1	N	377	PHE	CA-CB-CG	5.80	119.60	113.80
3	C	122	HIS	CB-CA-C	5.73	116.61	110.65
4	Q	21	ASP	CA-CB-CG	5.61	118.21	112.60
7	G	57	THR	N-CA-C	-5.60	106.61	113.50
2	O	201	GLY	CA-C-N	5.50	127.92	120.38
2	O	201	GLY	C-N-CA	5.50	127.92	120.38
1	N	184	PHE	CA-C-N	5.46	127.44	120.56
1	N	184	PHE	C-N-CA	5.46	127.44	120.56
7	T	57	THR	N-CA-C	-5.42	107.03	113.97
12	L	26	THR	CA-CB-OG1	-5.39	101.52	109.60
1	A	75	ILE	N-CA-C	-5.35	106.48	111.45
5	E	25	ASP	CA-C-N	5.27	127.29	120.44
5	E	25	ASP	C-N-CA	5.27	127.29	120.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	E	9	GLU	CB-CG-CD	5.26	121.55	112.60
8	U	80	THR	CA-CB-OG1	-5.22	101.77	109.60
1	N	75	ILE	CA-C-N	5.21	125.73	119.94
1	N	75	ILE	C-N-CA	5.21	125.73	119.94
1	N	17	THR	CA-CB-OG1	-5.19	101.82	109.60
1	A	362	SER	CA-C-O	-5.18	115.36	120.70
7	G	32	THR	CA-C-O	-5.18	115.06	120.55
4	D	19	ARG	NE-CZ-NH2	5.13	123.82	119.20
8	U	10	ASN	CA-C-N	5.12	128.37	121.05
8	U	10	ASN	C-N-CA	5.12	128.37	121.05
1	N	491	ASN	CA-C-N	5.11	127.84	120.38
1	N	491	ASN	C-N-CA	5.11	127.84	120.38
1	N	238	PHE	CA-C-N	5.10	125.60	119.94
1	N	238	PHE	C-N-CA	5.10	125.60	119.94
1	A	22	PHE	CA-C-N	5.10	125.64	119.98
1	A	22	PHE	C-N-CA	5.10	125.64	119.98
1	N	83	VAL	N-CA-CB	5.09	114.42	110.45
3	P	80	ARG	CG-CD-NE	-5.09	100.81	112.00
2	O	203	ASN	CA-C-N	5.07	127.32	120.38
2	O	203	ASN	C-N-CA	5.07	127.32	120.38
5	E	8	ASP	CA-C-N	5.04	127.00	120.44
5	E	8	ASP	C-N-CA	5.04	127.00	120.44

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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	4027	0	4001	62	0
1	N	4027	0	4001	53	0
2	B	1824	0	1833	23	0
2	O	1824	0	1833	30	0
3	C	2110	0	2027	28	0
3	P	2110	0	2027	25	0
4	D	1195	0	1183	13	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	Q	1175	0	1160	26	0
5	E	852	0	845	4	0
5	R	852	0	845	6	0
6	F	748	0	728	21	0
6	S	748	0	728	13	0
7	G	675	0	644	26	0
7	T	675	0	644	27	0
8	H	662	0	623	4	0
8	U	662	0	623	12	0
9	I	592	0	604	4	0
9	V	592	0	604	5	0
10	J	460	0	459	3	0
10	W	460	0	459	7	0
11	K	384	0	366	4	0
11	X	384	0	366	4	0
12	L	380	0	380	6	0
12	Y	380	0	380	11	0
13	M	335	0	352	3	0
13	Z	335	0	352	27	0
14	A	1	0	0	0	0
14	N	1	0	0	0	0
15	A	1	0	0	0	0
15	N	1	0	0	0	0
16	A	1	0	0	0	0
16	N	1	0	0	0	0
17	A	51	0	76	0	0
17	C	102	0	152	7	0
17	M	51	0	76	6	0
17	P	153	0	228	5	0
17	Z	51	0	76	20	0
18	A	120	0	108	6	0
18	N	120	0	108	9	0
19	A	36	0	54	3	0
19	B	36	0	54	2	0
19	C	24	0	36	7	0
19	D	16	0	24	0	0
19	E	16	0	24	1	0
19	F	32	0	48	3	0
19	G	16	0	23	1	0
19	I	4	0	6	0	0
19	J	8	0	12	0	0
19	K	4	0	6	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	L	16	0	24	0	0
19	M	4	0	6	0	0
19	N	56	0	84	5	0
19	O	8	0	12	5	0
19	P	12	0	18	0	0
19	Q	12	0	18	0	0
19	R	8	0	12	2	0
19	S	24	0	36	2	0
19	T	8	0	12	0	0
19	V	8	0	12	0	0
19	W	12	0	18	0	0
19	Y	4	0	6	0	0
20	A	9	0	1	1	0
20	C	3	0	1	0	0
20	N	15	0	3	1	0
21	B	2	0	0	0	0
21	O	2	0	0	0	0
22	B	52	0	80	10	0
22	O	52	0	80	5	0
23	B	29	0	39	0	0
23	C	58	0	78	1	0
23	G	29	0	39	0	0
23	J	29	0	39	1	0
23	P	58	0	78	2	0
23	T	29	0	39	7	0
23	W	29	0	39	0	0
23	Y	29	0	39	4	0
24	C	159	0	231	16	0
24	P	159	0	231	13	0
25	C	200	0	312	15	0
25	P	200	0	312	12	0
26	C	33	0	42	3	0
26	G	66	0	83	9	0
26	M	33	0	42	0	0
26	P	33	0	42	0	0
26	Z	33	0	42	16	0
27	D	63	0	110	12	0
27	I	63	0	110	3	0
27	L	63	0	110	6	0
27	N	126	0	220	8	0
27	Y	63	0	110	5	0
28	F	1	0	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
28	S	1	0	0	0	0
29	I	9	0	8	1	0
29	V	9	0	8	2	0
30	A	150	0	0	1	0
30	B	112	0	0	1	0
30	C	78	0	0	2	0
30	D	34	0	0	1	0
30	E	38	0	0	0	0
30	F	60	0	0	1	0
30	G	42	0	0	2	0
30	H	44	0	0	0	0
30	I	18	0	0	0	0
30	J	19	0	0	0	0
30	K	1	0	0	1	0
30	L	21	0	0	2	0
30	M	13	0	0	0	0
30	N	130	0	0	4	0
30	O	73	0	0	2	0
30	P	69	0	0	4	0
30	Q	30	0	0	2	0
30	R	34	0	0	3	0
30	S	43	0	0	1	0
30	T	22	0	0	5	0
30	U	35	0	0	3	0
30	V	11	0	0	1	0
30	W	12	0	0	2	0
30	X	3	0	0	1	0
30	Y	9	0	0	2	0
30	Z	7	0	0	0	0
All	All	32333	0	32004	493	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 8.

All (493) 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)
13:Z:28:LEU:HD23	26:Z:102:DMU:C19	1.61	1.30
3:C:77:LYS:NZ	30:C:402:HOH:O	1.78	1.14
19:C:310:EDO:O1	24:C:317:PEK:H012	1.47	1.13
13:Z:28:LEU:HD23	26:Z:102:DMU:C18	1.79	1.11

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:28:LEU:HD23	26:Z:102:DMU:H9	1.21	1.09
26:C:316:DMU:O61	30:C:401:HOH:O	1.71	1.07
6:F:52:ILE:HG22	6:F:97:ALA:HA	1.38	1.03
8:U:10:ASN:HA	30:U:133:HOH:O	1.57	1.03
1:A:406:ASN:HD21	17:M:101:PGV:H81	1.27	0.97
6:F:94:HIS:HA	6:F:97:ALA:CB	1.94	0.97
6:F:94:HIS:HA	6:F:97:ALA:HB3	1.45	0.96
13:Z:28:LEU:HD23	26:Z:102:DMU:H6	1.45	0.96
4:Q:8:SER:HA	4:Q:13:LEU:HD11	1.49	0.94
13:Z:28:LEU:CD2	26:Z:102:DMU:H9	1.97	0.93
13:Z:28:LEU:HA	26:Z:102:DMU:H6	1.51	0.93
13:Z:28:LEU:CD2	26:Z:102:DMU:C19	2.47	0.92
4:D:19:ARG:HG3	4:D:21:ASP:OD1	1.73	0.87
13:Z:28:LEU:CD2	26:Z:102:DMU:H6	2.06	0.86
19:C:310:EDO:O1	24:C:317:PEK:C01	2.25	0.85
7:G:72:ASN:H	7:G:76:ASN:HD22	1.19	0.84
13:Z:35:TYR:CZ	26:Z:102:DMU:O2	2.32	0.83
1:A:165:ILE:HG23	1:A:189:MET:HE3	1.62	0.82
7:G:10:GLY:O	26:G:105:DMU:H34	1.78	0.82
17:Z:101:PGV:H62	17:Z:101:PGV:C1	2.09	0.82
13:Z:28:LEU:HA	26:Z:102:DMU:C18	2.10	0.81
13:Z:28:LEU:CD2	26:Z:102:DMU:C18	2.61	0.79
9:V:2:THR:N	29:V:101:SAC:HG	1.81	0.79
27:I:101:TGL:HC41	27:I:101:TGL:H151	1.63	0.79
12:Y:41:ARG:HD2	13:Z:40:TYR:CZ	2.20	0.77
17:Z:101:PGV:C1	17:Z:101:PGV:C6	2.63	0.77
6:F:92:VAL:HG12	6:F:95:GLN:HB2	1.68	0.76
11:K:54:ARG:NH2	30:K:301:HOH:O	2.19	0.76
17:Z:101:PGV:H032	17:Z:101:PGV:O02	1.86	0.74
6:S:75:HIS:H	6:S:80:GLN:HE22	1.36	0.73
1:A:177:SER:HB2	7:T:10:GLY:HA2	1.69	0.73
3:C:148:HIS:NE2	26:G:105:DMU:H25	2.04	0.73
19:N:613:EDO:H11	30:N:776:HOH:O	1.88	0.73
17:Z:101:PGV:O02	17:Z:101:PGV:C5	2.38	0.71
8:U:9:LYS:HD3	8:U:9:LYS:H	1.54	0.71
1:A:165:ILE:HG23	1:A:189:MET:CE	2.20	0.71
12:Y:41:ARG:HH12	23:Y:103:CHD:H183	1.56	0.71
12:Y:24:MET:SD	30:Y:209:HOH:O	2.49	0.70
4:Q:98:TRP:CE3	26:Z:102:DMU:H16	2.26	0.70
10:W:2:GLU:O	30:W:401:HOH:O	2.09	0.70
18:N:606:HEA:HBC1	18:N:606:HEA:HMC3	1.74	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:F:94:HIS:HA	6:F:97:ALA:HB2	1.75	0.68
4:Q:7:LYS:HA	6:S:55:LYS:HD3	1.75	0.68
6:F:50:PRO:HB3	6:F:95:GLN:HB3	1.75	0.68
19:R:202:EDO:H11	30:R:307:HOH:O	1.92	0.68
7:G:11:TPO:HG23	7:G:14:ARG:H	1.58	0.68
7:G:46:ALA:O	30:G:201:HOH:O	2.11	0.68
3:P:40:MET:O	3:P:44:MET:HG2	1.93	0.68
13:M:9:PRO:HB3	17:M:101:PGV:H221	1.75	0.68
30:L:616:HOH:O	13:M:32:TRP:CH2	2.47	0.67
3:P:33:MET:HE2	10:W:49:CYS:SG	2.35	0.67
7:T:72:ASN:H	7:T:76:ASN:HD22	1.41	0.66
30:L:616:HOH:O	13:M:32:TRP:HH2	1.78	0.66
27:N:622:TGL:HC32	30:N:702:HOH:O	1.94	0.66
24:P:304:PEK:HN2	7:T:76:ASN:HD21	1.45	0.65
29:V:101:SAC:H2A1	29:V:101:SAC:OG	1.97	0.65
1:A:278:MET:SD	7:T:5:LYS:HB2	2.36	0.65
17:Z:101:PGV:C1	17:Z:101:PGV:O14	2.45	0.65
3:C:168:THR:HG22	24:C:303:PEK:H132	1.78	0.64
24:P:305:PEK:H382	25:P:312:CDL:C25	2.28	0.64
24:P:305:PEK:H382	25:P:312:CDL:H251	1.79	0.64
19:R:202:EDO:C1	30:R:307:HOH:O	2.46	0.64
1:A:178:GLN:HB2	7:T:9:GLY:H	1.62	0.64
12:Y:41:ARG:NH1	23:Y:103:CHD:H183	2.12	0.64
3:C:67:PHE:CE2	25:C:306:CDL:HB21	2.33	0.63
7:G:72:ASN:H	7:G:76:ASN:ND2	1.94	0.63
24:C:302:PEK:HN2	7:G:76:ASN:HD21	1.44	0.63
1:A:189:MET:HE2	7:T:6:GLY:HA2	1.78	0.62
25:C:306:CDL:H611	25:C:306:CDL:H221	1.79	0.62
1:N:113:LEU:HB2	27:Y:101:TGL:H323	1.80	0.62
1:N:406:ASN:HD21	17:Z:101:PGV:H61	1.63	0.62
17:Z:101:PGV:O02	17:Z:101:PGV:C4	2.48	0.62
17:Z:101:PGV:O02	17:Z:101:PGV:H52	2.00	0.62
19:O:304:EDO:C1	8:U:24:ASN:HD21	2.12	0.62
4:D:78:TRP:N	27:D:201:TGL:HB32	2.15	0.61
2:O:217:LYS:H	2:O:217:LYS:CE	2.13	0.61
4:Q:98:TRP:CZ2	26:Z:102:DMU:H15	2.35	0.61
7:T:44:ARG:NH1	30:T:1402:HOH:O	2.27	0.61
1:N:296:GLY:HA2	8:U:23:GLN:OE1	1.99	0.61
1:A:328:HIS:NE2	22:B:302:PSC:H51	2.16	0.61
27:D:201:TGL:HG32	27:D:201:TGL:HC52	1.82	0.60
27:I:101:TGL:H171	27:I:101:TGL:HC32	1.82	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:C:304:PGV:H141	25:C:306:CDL:H672	1.82	0.60
6:F:64:GLU:O	6:F:65:ASP:HB2	1.99	0.60
6:F:52:ILE:HG22	6:F:97:ALA:CA	2.24	0.60
19:O:304:EDO:H11	8:U:24:ASN:HD21	1.67	0.60
7:G:69:PHE:O	19:G:103:EDO:H11	2.02	0.59
24:C:302:PEK:H12	24:C:302:PEK:H31	1.84	0.59
2:B:56:MET:HA	22:B:302:PSC:H221	1.84	0.59
1:N:321:PHE:HB3	2:O:65:TRP:CE2	2.38	0.59
7:T:9:GLY:HA2	30:T:1401:HOH:O	2.01	0.59
19:C:310:EDO:O1	24:C:317:PEK:O04	2.21	0.58
24:P:305:PEK:C38	25:P:312:CDL:H271	2.33	0.58
22:B:302:PSC:H61	22:B:302:PSC:H22	1.85	0.58
4:Q:98:TRP:CE2	26:Z:102:DMU:H15	2.39	0.58
7:T:16:TRP:HE1	23:T:1302:CHD:H181	1.68	0.58
1:N:178:GLN:HG3	1:N:186:TRP:CZ2	2.39	0.58
19:N:610:EDO:H12	30:N:736:HOH:O	2.04	0.58
13:Z:6:ALA:H	17:Z:101:PGV:H062	1.69	0.58
4:Q:7:LYS:HG2	6:S:75:HIS:ND1	2.19	0.58
5:R:90:ARG:HD3	30:R:319:HOH:O	2.03	0.57
1:N:383:MET:O	1:N:387:PHE:HB2	2.03	0.57
1:A:194:LEU:HD22	1:A:285:PHE:HE2	1.70	0.57
19:C:310:EDO:HO1	24:C:317:PEK:C21	2.16	0.57
1:A:310:MET:HE1	2:B:76:ILE:CG2	2.34	0.57
2:O:91:ASN:HB2	2:O:149:THR:HG21	1.85	0.57
7:T:5:LYS:HG3	7:T:8:HIS:CE1	2.39	0.57
7:G:8:HIS:HB2	7:G:15:THR:HG23	1.87	0.57
22:O:302:PSC:C08	9:V:10:ARG:HH21	2.17	0.57
23:T:1302:CHD:H183	23:T:1302:CHD:C23	2.35	0.57
4:D:48:TRP:HA	4:D:51:LEU:HD22	1.86	0.57
3:P:246:ASP:HB2	30:P:463:HOH:O	2.04	0.57
2:O:1:FME:HE1	2:O:133:LEU:HD22	1.87	0.56
17:Z:101:PGV:C1	17:Z:101:PGV:C5	2.83	0.56
7:G:10:GLY:O	7:G:11:TPO:C	2.54	0.56
3:P:258:TRP:CD1	25:P:312:CDL:H781	2.40	0.56
1:A:472:ILE:HG21	27:L:502:TGL:H202	1.88	0.56
11:X:15:ASN:ND2	30:X:101:HOH:O	2.36	0.56
12:L:46:LYS:O	12:L:47:LYS:HD2	2.05	0.56
3:C:258:TRP:CD1	25:C:313:CDL:H561	2.40	0.56
6:F:52:ILE:HA	6:F:97:ALA:HB2	1.87	0.55
7:G:7:ASP:O	7:G:8:HIS:C	2.49	0.55
1:A:297:MET:HE2	1:A:302:ARG:CG	2.37	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:N:622:TGL:CG2	27:N:622:TGL:CC2	2.85	0.55
7:G:1:ALA:HB2	17:P:307:PGV:H342	1.89	0.55
4:Q:34:SER:H	4:Q:37:GLN:NE2	2.05	0.55
1:A:282:PHE:CD1	7:T:2:SER:O	2.60	0.55
1:A:310:MET:HE1	2:B:76:ILE:HG21	1.89	0.54
1:A:87:ILE:O	1:A:173:PRO:HD3	2.07	0.54
10:W:32:TYR:CE1	10:W:36:MET:HG3	2.42	0.54
12:Y:21:LEU:HA	12:Y:24:MET:HE3	1.88	0.54
27:D:201:TGL:HB42	27:D:201:TGL:HG11	1.89	0.54
7:G:16:TRP:HE1	26:G:105:DMU:H4	1.72	0.54
7:G:11:TPO:HA	7:G:11:TPO:O3P	2.07	0.54
4:Q:8:SER:CA	4:Q:13:LEU:HD11	2.32	0.54
17:C:305:PGV:H171	30:T:1422:HOH:O	2.07	0.54
1:A:406:ASN:ND2	17:M:101:PGV:H81	2.10	0.54
3:P:58:TRP:CG	17:P:306:PGV:H41	2.42	0.53
7:T:7:ASP:OD2	30:T:1401:HOH:O	2.19	0.53
1:N:240:HIS:C	1:N:240:HIS:CD2	2.87	0.53
2:O:65:TRP:O	2:O:69:PRO:HG2	2.08	0.53
4:D:78:TRP:H	27:D:201:TGL:HB32	1.73	0.53
24:P:301:PEK:H032	30:P:443:HOH:O	2.08	0.53
19:O:304:EDO:H21	30:O:446:HOH:O	2.07	0.53
12:Y:41:ARG:NH1	23:Y:103:CHD:C18	2.72	0.53
18:N:606:HEA:H122	18:N:606:HEA:HHC	1.89	0.53
1:A:297:MET:HE2	1:A:302:ARG:HG2	1.90	0.53
1:A:468:MET:HG3	20:A:615:ONM:N	2.24	0.53
1:A:177:SER:H	1:A:180:GLN:NE2	2.07	0.53
3:C:50:ASN:ND2	3:C:54:MET:HE2	2.23	0.53
7:G:83:GLU:OE2	30:G:202:HOH:O	2.19	0.53
5:R:82:TYR:HB3	5:R:83:PRO:HD3	1.91	0.53
3:C:161:GLN:NE2	24:C:303:PEK:H031	2.24	0.53
22:B:302:PSC:H42	9:I:14:ALA:HB2	1.90	0.52
19:C:310:EDO:O1	24:C:317:PEK:C21	2.58	0.52
11:K:54:ARG:HG3	11:K:54:ARG:NH1	2.23	0.52
3:P:50:ASN:ND2	3:P:54:MET:HE2	2.23	0.52
2:O:1:FME:HE1	2:O:133:LEU:HD13	1.91	0.52
17:Z:101:PGV:H62	17:Z:101:PGV:C2	2.38	0.52
3:C:59:ARG:HA	25:C:306:CDL:H512	1.91	0.52
1:N:488:THR:HB	1:N:495:LEU:HD13	1.92	0.52
1:A:298:ASP:HB3	30:A:828:HOH:O	2.10	0.52
6:S:54:ASN:HD22	6:S:54:ASN:C	2.17	0.52
6:F:92:VAL:CG1	6:F:95:GLN:HB2	2.39	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:41:ILE:O	2:O:45:MET:HG2	2.09	0.51
2:O:224:ALA:HA	2:O:227:LEU:HD23	1.92	0.51
2:B:82:ARG:HG2	2:B:86:MET:HE3	1.93	0.51
8:U:10:ASN:CB	30:U:133:HOH:O	2.56	0.51
2:O:217:LYS:H	2:O:217:LYS:HE2	1.75	0.51
5:R:108:LYS:O	5:R:109:VAL:C	2.53	0.51
26:C:316:DMU:H24	10:J:38:LEU:HD23	1.91	0.51
7:G:16:TRP:HE1	26:G:105:DMU:C4	2.24	0.51
1:A:107:PRO:HB3	3:C:25:LEU:HB2	1.92	0.51
1:A:194:LEU:HD22	1:A:285:PHE:CE2	2.45	0.51
1:A:368:HIS:CD2	1:A:369:ASP:HB2	2.46	0.51
2:B:52:HIS:ND1	22:B:302:PSC:H32	2.26	0.51
19:C:310:EDO:HO1	24:C:317:PEK:C01	2.22	0.51
1:N:407:ASP:O	1:N:411:LYS:HG3	2.11	0.51
3:P:153:GLU:OE2	7:T:11:TPO:O2P	2.29	0.50
7:G:4:ALA:HB1	1:N:194:LEU:CD2	2.41	0.50
19:A:616:EDO:H11	30:B:444:HOH:O	2.11	0.50
1:A:290:HIS:CD2	1:A:291:HIS:CD2	3.00	0.50
18:A:606:HEA:HBC1	18:A:606:HEA:HMC3	1.93	0.50
6:F:96:LEU:HB3	19:F:704:EDO:C2	2.41	0.50
10:J:54:SER:O	12:L:46:LYS:HE2	2.12	0.50
1:N:117:MET:HA	1:N:117:MET:HE2	1.93	0.50
2:O:161:HIS:CE1	2:O:200:CYS:HB2	2.47	0.50
3:P:41:THR:O	3:P:45:ILE:HG13	2.12	0.50
4:D:23:PRO:HB3	5:E:70:VAL:CG2	2.42	0.50
2:O:58:ALA:O	2:O:62:GLU:HG3	2.12	0.50
11:X:24:PHE:O	11:X:28:VAL:HG12	2.12	0.49
1:A:488:THR:HB	1:A:495:LEU:HD13	1.95	0.49
26:G:101:DMU:H30	26:G:101:DMU:H1	1.94	0.49
22:O:302:PSC:H082	9:V:10:ARG:HH21	1.76	0.49
1:N:117:MET:HA	1:N:117:MET:CE	2.42	0.49
1:A:112:LEU:O	1:A:115:SER:HB3	2.13	0.49
1:A:383:MET:O	1:A:387:PHE:HB2	2.11	0.49
2:O:217:LYS:H	2:O:217:LYS:HE3	1.76	0.49
23:T:1302:CHD:H183	23:T:1302:CHD:O26	2.12	0.49
3:C:161:GLN:HE22	24:C:303:PEK:H031	1.77	0.49
4:D:20:ARG:HG2	30:D:318:HOH:O	2.12	0.49
5:E:18:TYR:O	19:E:201:EDO:O2	2.30	0.49
4:D:19:ARG:CG	4:D:21:ASP:OD1	2.55	0.49
7:G:7:ASP:O	7:G:9:GLY:N	2.46	0.49
1:N:508:PRO:HB2	19:N:610:EDO:H22	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:281:GLY:C	7:T:4:ALA:CB	2.86	0.49
1:A:336:PRO:HB2	1:A:394:VAL:HG11	1.94	0.49
2:O:9:PHE:HB2	2:O:21:LEU:HD21	1.94	0.49
24:P:305:PEK:H383	25:P:312:CDL:H271	1.95	0.49
17:C:304:PGV:C13	25:C:306:CDL:H652	2.43	0.49
7:G:10:GLY:O	26:G:105:DMU:C8	2.55	0.48
3:P:116:TRP:HA	3:P:117:PRO:C	2.38	0.48
4:Q:87:PHE:CD2	17:Z:101:PGV:H171	2.48	0.48
8:U:10:ASN:HB3	30:U:133:HOH:O	2.12	0.48
1:A:113:LEU:O	1:A:117:MET:HG3	2.13	0.48
2:O:196:CYS:HB2	2:O:207:MET:HG3	1.94	0.48
11:X:10:HIS:NE2	17:Z:101:PGV:H41	2.28	0.48
11:K:16:ALA:O	11:K:20:SER:OG	2.29	0.48
2:B:196:CYS:HB2	2:B:207:MET:HG3	1.95	0.48
24:P:301:PEK:H291	24:P:301:PEK:H252	1.95	0.48
1:A:297:MET:CE	1:A:302:ARG:HG2	2.43	0.48
2:B:58:ALA:O	2:B:62:GLU:HG3	2.14	0.48
3:P:207:HIS:HD2	3:P:241:TYR:OH	1.96	0.48
22:B:302:PSC:H52	9:I:14:ALA:HA	1.95	0.48
24:C:317:PEK:H42	24:C:317:PEK:H251	1.95	0.48
4:D:78:TRP:HA	27:D:201:TGL:HB52	1.96	0.48
6:F:52:ILE:CG2	6:F:97:ALA:HA	2.28	0.48
1:N:112:LEU:HD23	1:N:112:LEU:C	2.38	0.48
17:C:304:PGV:H132	25:C:306:CDL:H652	1.95	0.48
6:F:94:HIS:O	6:F:95:GLN:C	2.57	0.48
27:N:622:TGL:CC2	27:N:622:TGL:HG2	2.43	0.48
3:P:161:GLN:HE22	24:P:305:PEK:H42	1.79	0.48
7:T:11:TPO:O3P	7:T:14:ARG:HB2	2.14	0.48
1:A:177:SER:HB2	7:T:10:GLY:CA	2.42	0.48
1:A:321:PHE:HB3	2:B:65:TRP:CE2	2.49	0.48
1:A:379:TYR:O	1:A:383:MET:HB2	2.14	0.48
2:B:1:FME:HE2	2:B:133:LEU:HD13	1.96	0.47
25:C:306:CDL:H111	25:C:306:CDL:HA4	1.65	0.47
10:J:4:ARG:HG2	10:J:4:ARG:HH11	1.79	0.47
12:L:25:MET:HG2	27:L:502:TGL:HA71	1.96	0.47
3:P:126:PRO:HG2	25:P:312:CDL:H782	1.95	0.47
7:T:9:GLY:CA	30:T:1401:HOH:O	2.60	0.47
10:W:32:TYR:CZ	10:W:36:MET:HG3	2.47	0.47
7:G:5:LYS:HA	1:N:278:MET:HG2	1.96	0.47
18:N:605:HEA:CMC	18:N:605:HEA:HBC1	2.44	0.47
27:N:622:TGL:HB42	4:Q:78:TRP:HA	1.95	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:N:606:HEA:HBC1	18:N:606:HEA:CMC	2.44	0.47
27:N:622:TGL:HG11	27:N:622:TGL:HC22	1.95	0.47
4:Q:48:TRP:O	4:Q:51:LEU:HB2	2.14	0.47
1:N:106:PRO:HB2	1:N:107:PRO:HD3	1.96	0.47
7:T:6:GLY:O	7:T:8:HIS:N	2.47	0.47
1:A:397:PHE:HB3	1:A:398:PRO:HD3	1.96	0.47
17:C:305:PGV:H301	7:T:1:ALA:HB2	1.97	0.47
17:C:305:PGV:C30	7:T:1:ALA:HB2	2.44	0.47
7:G:6:GLY:HA2	1:N:193:VAL:HG21	1.95	0.47
22:O:302:PSC:C13	22:O:302:PSC:H343	2.45	0.47
4:Q:36:SER:O	4:Q:39:ALA:HB3	2.13	0.47
7:G:38:HIS:ND1	7:G:38:HIS:N	2.62	0.47
27:N:622:TGL:CG2	27:N:622:TGL:HC22	2.43	0.47
13:Z:10:THR:HA	13:Z:14:GLU:OE2	2.13	0.47
1:N:28:MET:HE3	12:Y:29:PHE:CD1	2.50	0.47
18:N:605:HEA:HBC1	18:N:605:HEA:HMC3	1.96	0.47
3:P:67:PHE:HE2	25:P:308:CDL:HB22	1.79	0.47
4:Q:33:LEU:O	4:Q:38:LYS:HE3	2.13	0.47
4:Q:82:VAL:O	4:Q:86:MET:HG3	2.15	0.47
12:Y:41:ARG:HD2	13:Z:40:TYR:OH	2.14	0.47
1:N:310:MET:HE3	1:N:356:ILE:HG23	1.96	0.47
13:Z:6:ALA:H	17:Z:101:PGV:C06	2.28	0.47
6:F:96:LEU:HD11	30:F:853:HOH:O	2.14	0.47
1:A:106:PRO:HB2	1:A:107:PRO:HD3	1.97	0.47
1:N:512:ASN:C	1:N:512:ASN:HD22	2.22	0.47
4:Q:98:TRP:CZ3	26:Z:102:DMU:H16	2.50	0.47
9:V:10:ARG:O	9:V:15:ARG:NH1	2.48	0.47
27:Y:101:TGL:OA1	27:Y:101:TGL:HG2	2.14	0.47
6:F:32:ASN:HD21	19:F:704:EDO:H11	1.80	0.46
1:N:449:MET:SD	2:O:5:MET:HG2	2.55	0.46
3:P:129:VAL:N	3:P:130:PRO:CD	2.79	0.46
6:S:26:LYS:NZ	30:S:1706:HOH:O	2.47	0.46
2:B:81:LEU:HD13	25:P:312:CDL:H111	1.98	0.46
22:B:302:PSC:H21	9:I:14:ALA:HB2	1.98	0.46
3:C:13:PRO:HD2	19:C:315:EDO:C1	2.45	0.46
8:H:78:GLU:HG2	8:H:80:THR:HG23	1.96	0.46
13:Z:5:PRO:HA	17:Z:101:PGV:O06	2.15	0.46
23:Y:103:CHD:H192	23:Y:103:CHD:H3	1.98	0.46
2:B:218:TYR:CZ	19:B:310:EDO:H12	2.51	0.46
1:A:62:ALA:HB2	18:A:606:HEA:HBD1	1.97	0.46
7:G:11:TPO:CG2	7:G:14:ARG:H	2.28	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:194:LEU:HD22	1:N:285:PHE:HE2	1.80	0.46
19:N:610:EDO:C1	30:N:736:HOH:O	2.61	0.46
19:O:304:EDO:H12	8:U:24:ASN:HD21	1.79	0.46
3:P:67:PHE:CE2	25:P:308:CDL:HB22	2.49	0.46
23:P:309:CHD:H212	23:P:309:CHD:H183	1.98	0.46
1:A:310:MET:HE3	1:A:356:ILE:HG23	1.98	0.46
1:A:408:THR:HB	17:M:101:PGV:H92	1.97	0.46
24:P:301:PEK:H252	24:P:301:PEK:C29	2.46	0.46
1:A:75:ILE:O	1:A:79:GLY:HA3	2.16	0.46
27:D:201:TGL:H162	27:D:201:TGL:HC71	1.98	0.46
1:N:107:PRO:HB3	3:P:25:LEU:HB2	1.98	0.46
22:O:302:PSC:C21	22:O:302:PSC:H011	2.45	0.46
19:A:616:EDO:H21	2:B:58:ALA:HB3	1.98	0.46
7:G:38:HIS:N	7:G:38:HIS:HD1	2.14	0.46
23:J:101:CHD:H12	23:J:101:CHD:H212	1.98	0.46
2:O:60:GLU:HG2	2:O:61:VAL:N	2.31	0.46
7:T:44:ARG:HD2	7:T:82:TYR:CE1	2.51	0.46
10:W:1:PHE:N	30:W:403:HOH:O	2.48	0.46
7:G:1:ALA:N	24:P:301:PEK:H361	2.31	0.45
1:N:14:ASP:OD2	1:N:502:TYR:HE1	1.99	0.45
1:N:408:THR:OG1	17:Z:101:PGV:H51	2.16	0.45
3:P:29:SER:HB3	3:P:42:LEU:HD13	1.97	0.45
24:P:301:PEK:C38	17:P:307:PGV:H342	2.46	0.45
6:S:62:CYS:HB3	6:S:85:CYS:HB3	1.97	0.45
6:F:96:LEU:HB3	19:F:704:EDO:O2	2.15	0.45
8:H:60:TYR:CD1	8:H:60:TYR:C	2.94	0.45
7:T:6:GLY:C	7:T:8:HIS:N	2.75	0.45
10:W:36:MET:HE3	10:W:36:MET:HA	1.97	0.45
27:Y:101:TGL:C24	27:Y:101:TGL:H202	2.46	0.45
1:N:169:ILE:CD1	1:N:189:MET:HE1	2.46	0.45
22:B:302:PSC:H61	22:B:302:PSC:C2	2.45	0.45
3:C:116:TRP:HA	3:C:117:PRO:C	2.41	0.45
6:F:97:ALA:C	6:F:98:HIS:CG	2.94	0.45
6:S:29:ASP:HB3	19:S:1607:EDO:H11	1.99	0.45
4:D:77:GLU:HB3	27:D:201:TGL:CB3	2.47	0.45
3:C:168:THR:CG2	24:C:303:PEK:H132	2.45	0.45
1:N:310:MET:HE1	2:O:76:ILE:CG2	2.47	0.45
17:Z:101:PGV:O02	17:Z:101:PGV:H42	2.16	0.45
2:O:61:VAL:HG23	22:O:302:PSC:H82	1.99	0.45
8:H:43:MET:HE1	8:U:43:MET:SD	2.56	0.45
25:P:312:CDL:H561	7:T:31:CYS:SG	2.57	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:76:GLY:O	1:N:80:ASN:HB2	2.17	0.45
1:N:243:VAL:HB	18:N:605:HEA:CAC	2.47	0.45
1:A:417:MET:CE	18:A:606:HEA:H263	2.47	0.44
3:C:48:THR:HG23	25:C:306:CDL:H431	1.99	0.44
7:G:11:TPO:HG23	7:G:14:ARG:HB2	1.99	0.44
17:M:101:PGV:H71	17:M:101:PGV:H41	1.37	0.44
1:N:489:THR:HA	6:S:71:TRP:O	2.17	0.44
3:P:207:HIS:CD2	3:P:241:TYR:OH	2.71	0.44
1:A:178:GLN:HB2	7:T:9:GLY:N	2.32	0.44
1:N:153:ALA:O	1:N:156:SER:HB3	2.17	0.44
3:P:12:ASN:O	3:P:13:PRO:C	2.58	0.44
8:U:41:LYS:O	8:U:42:ALA:C	2.60	0.44
13:Z:28:LEU:HB2	13:Z:29:PRO:HD3	1.98	0.44
2:B:104:TRP:CG	2:B:203:ASN:HB2	2.53	0.44
3:C:213:THR:HG23	25:C:306:CDL:H771	1.98	0.44
4:D:56:LYS:NZ	5:E:97:GLY:O	2.49	0.44
1:N:462:LEU:HG	1:N:466:MET:HE2	2.00	0.44
23:T:1302:CHD:H183	23:T:1302:CHD:H231	1.98	0.44
2:B:57:ASP:H	22:B:302:PSC:H212	1.81	0.44
4:Q:109:HIS:CD2	30:Q:1905:HOH:O	2.70	0.44
13:Z:10:THR:O	17:Z:101:PGV:H231	2.17	0.44
1:A:117:MET:HE2	12:L:42:HIS:CD2	2.53	0.44
1:A:296:GLY:HA2	8:H:23:GLN:OE1	2.18	0.44
11:K:54:ARG:HG3	11:K:54:ARG:HH11	1.82	0.44
3:C:42:LEU:HD23	3:C:42:LEU:HA	1.88	0.44
3:C:210:ILE:HD13	17:C:304:PGV:H302	2.00	0.44
2:O:1:FME:CE	2:O:133:LEU:HD13	2.48	0.44
2:O:49:LYS:O	4:Q:20:ARG:NH2	2.39	0.44
3:P:77:LYS:NZ	30:P:407:HOH:O	2.50	0.44
23:T:1302:CHD:O7	23:T:1302:CHD:C15	2.65	0.44
3:C:149:HIS:NE2	26:G:105:DMU:H7	2.33	0.44
5:R:71:VAL:HG11	5:R:85:VAL:HG11	1.99	0.44
27:D:201:TGL:HB42	27:D:201:TGL:CG1	2.48	0.44
8:U:60:TYR:CD1	8:U:60:TYR:C	2.96	0.44
8:U:81:PHE:CE2	8:U:85:ILE:HD11	2.53	0.44
2:B:158:ASP:HB2	19:B:305:EDO:H22	1.99	0.43
4:Q:109:HIS:HD2	30:Q:1905:HOH:O	2.01	0.43
6:S:29:ASP:OD2	19:S:1607:EDO:H12	2.18	0.43
12:Y:29:PHE:HZ	27:Y:101:TGL:HA91	1.82	0.43
2:B:13:THR:OG1	2:B:167:SER:HB2	2.18	0.43
2:B:168:LEU:HD13	2:B:184:LEU:HG	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:251:PHE:CD2	24:C:317:PEK:H203	2.53	0.43
4:D:29:HIS:HD2	4:D:61:ARG:O	2.01	0.43
6:F:26:LYS:O	6:F:28:GLN:HG3	2.18	0.43
24:P:301:PEK:H383	17:P:307:PGV:H342	2.01	0.43
4:Q:116:VAL:O	4:Q:120:THR:OG1	2.34	0.43
25:C:306:CDL:OA5	25:C:306:CDL:HB31	2.19	0.43
1:N:481:GLU:HB2	13:Z:4:LYS:HE2	2.00	0.43
12:Y:26:THR:HG23	13:Z:25:SER:CB	2.48	0.43
1:A:208:MET:HE2	3:C:97:PHE:CD1	2.53	0.43
6:F:96:LEU:HD13	6:F:96:LEU:HA	1.83	0.43
17:M:101:PGV:O11	17:M:101:PGV:H42	2.19	0.43
2:O:1:FME:HE1	2:O:133:LEU:CD2	2.47	0.43
4:Q:33:LEU:HA	4:Q:37:GLN:HE21	1.84	0.43
3:C:146:TRP:CD2	3:C:162:ALA:HB2	2.54	0.43
5:E:82:TYR:HB3	5:E:83:PRO:HD3	2.00	0.43
2:O:198:GLU:C	2:O:204:HIS:CE1	2.97	0.43
1:A:240:HIS:CD2	1:A:240:HIS:C	2.96	0.43
7:G:9:GLY:HA2	26:G:105:DMU:O4	2.18	0.43
1:N:431:LEU:HD21	1:N:450:TRP:HB2	2.01	0.43
19:N:624:EDO:H22	6:S:50:PRO:HB2	2.01	0.43
2:O:164:ALA:O	2:O:194:GLY:HA3	2.19	0.43
13:Z:42:LYS:HA	13:Z:42:LYS:HE2	2.01	0.43
1:A:13:LYS:HD3	19:A:612:EDO:H22	2.01	0.43
1:N:364:ASP:OD1	18:N:605:HEA:O2A	2.37	0.43
27:N:622:TGL:HC22	27:N:622:TGL:HG31	1.87	0.43
2:O:91:ASN:HD21	2:O:183:THR:HG21	1.84	0.43
4:Q:103:VAL:HG22	13:Z:34:LEU:HB3	1.99	0.43
1:A:407:ASP:O	1:A:411:LYS:HG3	2.19	0.42
25:C:306:CDL:CA3	25:C:306:CDL:H1	2.49	0.42
23:C:301:CHD:H212	23:C:301:CHD:H12	2.02	0.42
2:O:94:SER:OG	2:O:148:MET:HE3	2.18	0.42
3:P:129:VAL:HG13	30:P:457:HOH:O	2.19	0.42
23:T:1302:CHD:O7	23:T:1302:CHD:H151	2.19	0.42
1:A:118:VAL:HG11	1:A:141:ALA:HB3	2.01	0.42
1:A:281:GLY:C	7:T:4:ALA:HB3	2.44	0.42
2:B:1:FME:CE	2:B:133:LEU:CD2	2.97	0.42
3:C:76:GLN:O	3:C:80:ARG:HG3	2.19	0.42
6:F:30:PRO:HA	6:F:96:LEU:HG	2.01	0.42
4:Q:48:TRP:HA	4:Q:51:LEU:HD12	2.01	0.42
1:A:281:GLY:HA3	7:T:4:ALA:CB	2.50	0.42
2:B:57:ASP:H	22:B:302:PSC:C21	2.32	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:334:TRP:CH2	2:O:46:LEU:HD13	2.55	0.42
1:N:440:TYR:OH	2:O:195:GLN:HB3	2.20	0.42
27:N:622:TGL:HC22	27:N:622:TGL:CG1	2.50	0.42
19:O:304:EDO:C2	30:O:446:HOH:O	2.67	0.42
4:Q:33:LEU:HA	4:Q:37:GLN:NE2	2.35	0.42
4:Q:98:TRP:CD2	26:Z:102:DMU:C31	3.03	0.42
6:S:94:HIS:CE1	6:S:98:HIS:OXT	2.73	0.42
3:C:186:PHE:HA	3:C:190:ASP:OD2	2.20	0.42
1:N:379:TYR:O	1:N:383:MET:HB2	2.20	0.42
18:A:606:HEA:HBC1	18:A:606:HEA:CMC	2.50	0.42
3:C:34:TRP:CD1	3:C:40:MET:HG2	2.54	0.42
27:L:502:TGL:HB42	27:L:502:TGL:HB71	1.84	0.42
1:A:177:SER:H	1:A:180:GLN:HE21	1.67	0.42
1:A:297:MET:CE	1:A:302:ARG:CG	2.98	0.42
1:A:334:TRP:HZ3	27:D:201:TGL:HA62	1.84	0.42
27:L:502:TGL:HC92	27:L:502:TGL:HC52	2.02	0.42
17:P:306:PGV:H151	17:P:306:PGV:H11	2.00	0.42
5:R:90:ARG:HB3	5:R:91:PRO:HD3	2.02	0.42
12:L:28:PHE:CD1	27:L:502:TGL:HA32	2.54	0.41
1:N:169:ILE:HD13	1:N:189:MET:HE1	2.02	0.41
1:A:489:THR:HA	6:F:71:TRP:O	2.20	0.41
18:A:605:HEA:H253	2:B:69:PRO:HB3	2.02	0.41
1:N:62:ALA:HB2	18:N:606:HEA:HBD1	2.01	0.41
1:N:290:HIS:CD2	1:N:291:HIS:CD2	3.08	0.41
3:P:187:THR:HG22	24:P:304:PEK:H052	2.02	0.41
1:A:311:ILE:CD1	25:P:312:CDL:H181	2.50	0.41
18:A:605:HEA:HBC1	18:A:605:HEA:CMC	2.51	0.41
27:D:201:TGL:HG32	27:D:201:TGL:CC5	2.50	0.41
12:L:28:PHE:CE1	27:L:502:TGL:HA32	2.54	0.41
1:N:208:MET:HE2	3:P:97:PHE:CD1	2.55	0.41
1:N:363:LEU:HD23	1:N:363:LEU:HA	1.87	0.41
23:P:303:CHD:H212	23:P:303:CHD:H12	2.02	0.41
4:Q:23:PRO:O	4:Q:25:PRO:HD3	2.19	0.41
27:Y:101:TGL:HC42	30:Y:209:HOH:O	2.19	0.41
3:C:258:TRP:NE1	25:C:313:CDL:H561	2.35	0.41
4:D:77:GLU:HB3	27:D:201:TGL:HB31	2.02	0.41
1:N:261:TYR:CE2	1:N:337:ALA:HB3	2.55	0.41
1:A:377:PHE:HA	1:A:380:VAL:HG22	2.01	0.41
2:B:78:LEU:CB	2:B:79:PRO:CD	2.97	0.41
24:C:303:PEK:H311	24:C:303:PEK:H41	2.02	0.41
1:N:243:VAL:HG21	20:N:615:0NM:C	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:Z:9:PRO:HB3	17:Z:101:PGV:H212	2.01	0.41
2:B:82:ARG:HH11	2:B:86:MET:HE1	1.86	0.41
3:C:22:LEU:O	3:C:26:LEU:HG	2.20	0.41
3:P:132:LEU:O	3:P:136:VAL:HG23	2.20	0.41
9:V:5:ALA:O	30:V:201:HOH:O	2.22	0.41
12:Y:26:THR:HG23	13:Z:25:SER:HB2	2.03	0.41
1:A:23:GLY:HA3	1:A:73:ILE:HG13	2.03	0.41
1:A:148:PHE:HB3	3:C:28:THR:HB	2.03	0.41
1:N:377:PHE:HA	1:N:380:VAL:HG22	2.02	0.41
2:B:1:FME:HE1	2:B:133:LEU:HD21	2.02	0.41
6:S:96:LEU:HD13	6:S:96:LEU:HA	1.84	0.41
1:A:127:THR:HB	1:A:129:TYR:CE1	2.56	0.41
25:C:306:CDL:H602	25:C:306:CDL:H192	2.02	0.41
27:I:101:TGL:HA81	27:I:101:TGL:HA51	1.73	0.41
1:N:93:ALA:C	1:N:95:PRO:HD3	2.46	0.41
1:N:374:VAL:HA	1:N:377:PHE:CE2	2.56	0.41
2:O:227:LEU:OXT	2:O:227:LEU:HD12	2.21	0.41
7:T:12:GLY:HA3	23:T:1302:CHD:H191	2.03	0.41
10:W:24:GLY:N	10:W:28:ASP:OD2	2.50	0.41
4:Q:12:ALA:HA	6:S:73:TRP:CD1	2.56	0.41
5:R:108:LYS:HD2	5:R:108:LYS:N	2.35	0.41
11:X:9:PHE:CD2	17:Z:101:PGV:H272	2.56	0.41
25:C:313:CDL:H111	25:C:313:CDL:H392	2.03	0.40
4:D:21:ASP:OD1	4:D:21:ASP:N	2.54	0.40
1:N:155:VAL:O	1:N:159:LEU:HG	2.21	0.40
13:Z:8:THR:O	13:Z:9:PRO:C	2.63	0.40
1:A:334:TRP:CZ3	27:D:201:TGL:HA62	2.57	0.40
3:P:127:LEU:HD22	25:P:312:CDL:H812	2.03	0.40
26:C:316:DMU:C18	26:C:316:DMU:O49	2.70	0.40
24:C:317:PEK:H052	26:G:105:DMU:H12	2.04	0.40
1:N:115:SER:O	1:N:121:GLY:HA2	2.22	0.40
2:O:78:LEU:HD12	2:O:78:LEU:HA	1.91	0.40
1:A:274:VAL:O	1:A:278:MET:HG3	2.22	0.40
3:C:12:ASN:O	3:C:13:PRO:C	2.65	0.40
9:I:2:THR:N	29:I:102:SAC:C1A	2.85	0.40
1:N:309:THR:HG22	18:N:605:HEA:HMB1	2.04	0.40
1:N:310:MET:HE1	2:O:76:ILE:HB	2.04	0.40
1:N:482:VAL:HG22	13:Z:1:ILE:HD11	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	512/514 (100%)	495 (97%)	17 (3%)	0	100	100
1	N	512/514 (100%)	494 (96%)	18 (4%)	0	100	100
2	B	225/227 (99%)	220 (98%)	5 (2%)	0	100	100
2	O	225/227 (99%)	220 (98%)	5 (2%)	0	100	100
3	C	257/261 (98%)	253 (98%)	4 (2%)	0	100	100
3	P	257/261 (98%)	252 (98%)	4 (2%)	1 (0%)	30	28
4	D	142/147 (97%)	139 (98%)	3 (2%)	0	100	100
4	Q	139/147 (95%)	130 (94%)	9 (6%)	0	100	100
5	E	103/109 (94%)	103 (100%)	0	0	100	100
5	R	103/109 (94%)	102 (99%)	1 (1%)	0	100	100
6	F	96/98 (98%)	92 (96%)	4 (4%)	0	100	100
6	S	96/98 (98%)	93 (97%)	3 (3%)	0	100	100
7	G	81/85 (95%)	72 (89%)	7 (9%)	2 (2%)	4	1
7	T	81/85 (95%)	73 (90%)	7 (9%)	1 (1%)	10	7
8	H	77/85 (91%)	74 (96%)	3 (4%)	0	100	100
8	U	77/85 (91%)	72 (94%)	5 (6%)	0	100	100
9	I	70/73 (96%)	70 (100%)	0	0	100	100
9	V	70/73 (96%)	68 (97%)	2 (3%)	0	100	100
10	J	56/59 (95%)	56 (100%)	0	0	100	100
10	W	56/59 (95%)	55 (98%)	1 (2%)	0	100	100
11	K	47/56 (84%)	46 (98%)	1 (2%)	0	100	100
11	X	47/56 (84%)	44 (94%)	3 (6%)	0	100	100
12	L	44/47 (94%)	41 (93%)	3 (7%)	0	100	100
12	Y	44/47 (94%)	43 (98%)	1 (2%)	0	100	100
13	M	41/46 (89%)	40 (98%)	1 (2%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
13	Z	41/46 (89%)	40 (98%)	1 (2%)	0	100	100
All	All	3499/3614 (97%)	3387 (97%)	108 (3%)	4 (0%)	48	50

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
7	G	4	ALA
7	T	7	ASP
7	G	8	HIS
3	P	38	ASN

5.3.2 Protein sidechains ⓘ

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	426/426 (100%)	420 (99%)	6 (1%)	59	67
1	N	426/426 (100%)	415 (97%)	11 (3%)	40	46
2	B	210/210 (100%)	203 (97%)	7 (3%)	33	37
2	O	210/210 (100%)	204 (97%)	6 (3%)	37	42
3	C	224/226 (99%)	221 (99%)	3 (1%)	61	69
3	P	224/226 (99%)	218 (97%)	6 (3%)	39	45
4	D	128/129 (99%)	125 (98%)	3 (2%)	44	51
4	Q	125/129 (97%)	121 (97%)	4 (3%)	34	38
5	E	92/95 (97%)	89 (97%)	3 (3%)	33	37
5	R	92/95 (97%)	89 (97%)	3 (3%)	33	37
6	F	81/81 (100%)	78 (96%)	3 (4%)	30	33
6	S	81/81 (100%)	75 (93%)	6 (7%)	13	10
7	G	67/68 (98%)	62 (92%)	5 (8%)	12	10
7	T	67/68 (98%)	60 (90%)	7 (10%)	7	4
8	H	71/75 (95%)	65 (92%)	6 (8%)	10	7

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
8	U	71/75 (95%)	63 (89%)	8 (11%)	5	3
9	I	57/58 (98%)	54 (95%)	3 (5%)	20	19
9	V	57/58 (98%)	55 (96%)	2 (4%)	32	35
10	J	49/50 (98%)	46 (94%)	3 (6%)	17	15
10	W	49/50 (98%)	46 (94%)	3 (6%)	17	15
11	K	39/46 (85%)	39 (100%)	0	100	100
11	X	39/46 (85%)	37 (95%)	2 (5%)	21	21
12	L	39/40 (98%)	38 (97%)	1 (3%)	40	46
12	Y	39/40 (98%)	37 (95%)	2 (5%)	21	21
13	M	37/38 (97%)	35 (95%)	2 (5%)	20	18
13	Z	37/38 (97%)	36 (97%)	1 (3%)	39	45
All	All	3037/3084 (98%)	2931 (96%)	106 (4%)	32	35

All (106) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	136	LEU
1	A	138	HIS
1	A	178	GLN
1	A	180	GLN
1	A	189	MET
1	A	369	ASP
2	B	37	LEU
2	B	60	GLU
2	B	61	VAL
2	B	75	LEU
2	B	78	LEU
2	B	91	ASN
2	B	110	TYR
3	C	127	LEU
3	C	159	MET
3	C	230	ASN
4	D	19	ARG
4	D	51	LEU
4	D	147	LYS
5	E	70	VAL
5	E	93	LEU
5	E	104	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	F	48	LEU
6	F	96	LEU
6	F	98	HIS
7	G	8	HIS
7	G	33	LEU
7	G	37	LEU
7	G	38	HIS
7	G	84	LYS
8	H	7	LYS
8	H	8	ILE
8	H	46	LYS
8	H	50	VAL
8	H	60	TYR
8	H	61	LYS
9	I	2	THR
9	I	29	LEU
9	I	37	PHE
10	J	27	THR
10	J	50	LEU
10	J	58	LYS
12	L	26	THR
13	M	34	LEU
13	M	43	SER
1	N	38	ARG
1	N	112	LEU
1	N	117	MET
1	N	128	VAL
1	N	152	LEU
1	N	311	ILE
1	N	369	ASP
1	N	484	THR
1	N	485	VAL
1	N	504	THR
1	N	512	ASN
2	O	33	LEU
2	O	61	VAL
2	O	75	LEU
2	O	78	LEU
2	O	91	ASN
2	O	217	LYS
3	P	3	HIS
3	P	33	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	P	127	LEU
3	P	129	VAL
3	P	159	MET
3	P	230	ASN
4	Q	7	LYS
4	Q	9	GLU
4	Q	40	LEU
4	Q	58	GLU
5	R	80	GLU
5	R	108	LYS
5	R	109	VAL
6	S	37	LYS
6	S	48	LEU
6	S	54	ASN
6	S	80	GLN
6	S	95	GLN
6	S	96	LEU
7	T	5	LYS
7	T	7	ASP
7	T	30	LEU
7	T	36	TRP
7	T	37	LEU
7	T	42	ARG
7	T	78	LEU
8	U	7	LYS
8	U	8	ILE
8	U	9	LYS
8	U	10	ASN
8	U	50	VAL
8	U	60	TYR
8	U	61	LYS
8	U	84	LYS
9	V	2	THR
9	V	61	GLU
10	W	36	MET
10	W	50	LEU
10	W	58	LYS
11	X	12	LYS
11	X	52	GLU
12	Y	26	THR
12	Y	47	LYS
13	Z	34	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (47) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	43	GLN
1	A	178	GLN
1	A	180	GLN
1	A	422	ASN
2	B	10	GLN
2	B	59	GLN
3	C	50	ASN
3	C	68	GLN
3	C	161	GLN
4	D	29	HIS
4	D	32	ASN
4	D	109	HIS
4	D	119	GLN
4	D	143	ASN
5	E	94	ASN
6	F	32	ASN
6	F	94	HIS
7	G	34	ASN
7	G	76	ASN
8	H	31	GLN
8	H	37	HIS
11	K	35	GLN
1	N	491	ASN
1	N	512	ASN
2	O	181	GLN
3	P	50	ASN
3	P	68	GLN
3	P	161	GLN
3	P	207	HIS
3	P	230	ASN
4	Q	32	ASN
4	Q	37	GLN
4	Q	76	ASN
4	Q	109	HIS
4	Q	119	GLN
4	Q	143	ASN
5	R	5	HIS
5	R	94	ASN
6	S	54	ASN
6	S	80	GLN
6	S	88	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	T	76	ASN
8	U	10	ASN
8	U	32	ASN
9	V	8	GLN
9	V	70	GLN
11	X	35	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
1	FME	N	1	1	8,9,10	0.47	0	8,9,11	0.74	0
2	FME	O	1	2	8,9,10	0.50	0	8,9,11	0.86	0
7	TPO	G	11	7	8,10,11	0.83	0	10,14,16	0.82	0
1	FME	A	1	1	8,9,10	0.67	0	8,9,11	1.07	0
7	TPO	T	11	7	8,10,11	1.15	1 (12%)	10,14,16	0.83	0
2	FME	B	1	2	8,9,10	0.58	0	8,9,11	1.20	1 (12%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	FME	N	1	1	-	3/7/9/11	-
2	FME	O	1	2	-	0/7/9/11	-
7	TPO	G	11	7	-	6/9/11/13	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	FME	A	1	1	-	3/7/9/11	-
7	TPO	T	11	7	-	2/9/11/13	-
2	FME	B	1	2	-	4/7/9/11	-

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	T	11	TPO	P-OG1	2.62	1.64	1.59

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	1	FME	CA-N-CN	-2.04	119.69	122.82

There are no chirality outliers.

All (18) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	B	1	FME	C-CA-CB-CG
7	G	11	TPO	N-CA-CB-CG2
7	G	11	TPO	N-CA-CB-OG1
7	G	11	TPO	C-CA-CB-CG2
7	G	11	TPO	O-C-CA-CB
7	G	11	TPO	CA-CB-OG1-P
1	N	1	FME	N-CA-CB-CG
1	N	1	FME	C-CA-CB-CG
2	B	1	FME	CA-CB-CG-SD
2	B	1	FME	N-CA-CB-CG
1	N	1	FME	CA-CB-CG-SD
1	A	1	FME	C-CA-CB-CG
7	G	11	TPO	CG2-CB-OG1-P
2	B	1	FME	CB-CG-SD-CE
1	A	1	FME	CB-CG-SD-CE
7	T	11	TPO	CB-OG1-P-O2P
1	A	1	FME	CA-CB-CG-SD
7	T	11	TPO	O-C-CA-CB

There are no ring outliers.

4 monomers are involved in 14 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	O	1	FME	4	0
7	G	11	TPO	5	0
7	T	11	TPO	2	0
2	B	1	FME	3	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 158 ligands modelled in this entry, 8 are monoatomic - leaving 150 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	$\# Z > 2$
27	TGL	I	101	-	62,62,62	0.37	0	65,65,65	0.72	1 (1%)
19	EDO	B	306	-	3,3,3	0.31	0	2,2,2	0.13	0
19	EDO	N	613	-	3,3,3	0.38	0	2,2,2	0.59	0
17	PGV	Z	101	-	50,50,50	0.40	0	53,56,56	0.61	1 (1%)
19	EDO	T	1301	-	3,3,3	0.34	0	2,2,2	0.24	0
19	EDO	B	312	-	3,3,3	0.06	0	2,2,2	0.16	0
22	PSC	B	302	-	51,51,51	0.39	0	57,59,59	0.57	1 (1%)
22	PSC	O	302	-	51,51,51	0.40	0	57,59,59	0.53	0
19	EDO	B	307	-	3,3,3	0.16	0	2,2,2	0.24	0
20	ONM	A	615	-	1,2,2	0.14	0	0,1,1	-	-
19	EDO	C	310	-	3,3,3	0.07	0	2,2,2	0.07	0
25	CDL	P	308	-	99,99,99	0.44	0	105,111,111	0.60	2 (1%)
19	EDO	G	104	-	3,3,3	0.20	0	2,2,2	0.02	0
19	EDO	E	201	-	3,3,3	0.15	0	2,2,2	0.11	0
19	EDO	Q	1802	-	3,3,3	0.08	0	2,2,2	0.14	0
23	CHD	J	101	-	32,32,32	0.64	1 (3%)	51,51,51	0.85	1 (1%)
19	EDO	P	310	-	3,3,3	0.06	0	2,2,2	0.17	0
17	PGV	C	305	-	50,50,50	0.40	0	53,56,56	0.49	0
24	PEK	P	304	-	52,52,52	0.36	0	55,57,57	0.68	2 (3%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
19	EDO	A	610	-	3,3,3	0.31	0	2,2,2	0.05	0
18	HEA	A	606	1	67,67,67	2.29	26 (38%)	81,103,103	2.58	33 (40%)
19	EDO	B	310	-	3,3,3	0.09	0	2,2,2	0.25	0
26	DMU	P	314	-	34,34,34	0.52	0	45,45,45	1.45	9 (20%)
25	CDL	C	306	-	99,99,99	0.37	0	105,111,111	0.46	1 (0%)
20	0NM	N	616	-	1,2,2	0.07	0	0,1,1	-	-
19	EDO	D	204	-	3,3,3	0.36	0	2,2,2	0.34	0
19	EDO	F	707	-	3,3,3	0.34	0	2,2,2	0.09	0
19	EDO	F	702	-	3,3,3	0.38	0	2,2,2	0.37	0
19	EDO	F	705	-	3,3,3	0.16	0	2,2,2	0.06	0
29	SAC	V	101	-	7,8,9	0.56	0	7,9,11	1.09	1 (14%)
19	EDO	B	309	-	3,3,3	0.09	0	2,2,2	0.63	0
19	EDO	J	102	-	3,3,3	0.16	0	2,2,2	0.22	0
19	EDO	D	203	-	3,3,3	0.26	0	2,2,2	0.37	0
19	EDO	W	303	-	3,3,3	0.12	0	2,2,2	0.08	0
19	EDO	A	618	-	3,3,3	0.31	0	2,2,2	0.52	0
19	EDO	S	1601	-	3,3,3	0.08	0	2,2,2	0.10	0
24	PEK	P	301	-	52,52,52	0.35	0	55,57,57	0.50	0
19	EDO	E	202	-	3,3,3	0.14	0	2,2,2	0.15	0
19	EDO	E	203	-	3,3,3	0.22	0	2,2,2	0.13	0
19	EDO	C	314	-	3,3,3	0.59	0	2,2,2	0.64	0
19	EDO	N	614	-	3,3,3	0.12	0	2,2,2	0.17	0
24	PEK	C	302	-	52,52,52	0.42	0	55,57,57	0.74	1 (1%)
17	PGV	A	604	-	50,50,50	0.54	0	53,56,56	0.61	0
23	CHD	P	303	-	32,32,32	0.63	1 (3%)	51,51,51	0.77	0
17	PGV	P	302	-	50,50,50	0.44	0	53,56,56	0.60	0
19	EDO	A	616	-	3,3,3	0.12	0	2,2,2	0.21	0
19	EDO	N	626	-	3,3,3	0.21	0	2,2,2	0.34	0
19	EDO	G	107	-	3,3,3	0.12	0	2,2,2	0.16	0
19	EDO	S	1603	-	3,3,3	0.54	0	2,2,2	0.33	0
19	EDO	F	704	-	3,3,3	0.16	0	2,2,2	0.33	0
17	PGV	M	101	-	50,50,50	0.39	0	53,56,56	0.48	0
27	TGL	L	502	-	62,62,62	0.32	0	65,65,65	0.43	1 (1%)
19	EDO	W	301	-	3,3,3	0.16	0	2,2,2	0.36	0
19	EDO	R	202	-	3,3,3	0.10	0	2,2,2	0.22	0
19	EDO	S	1606	-	3,3,3	0.12	0	2,2,2	0.20	0
19	EDO	N	620	-	3,3,3	0.25	0	2,2,2	0.25	0
19	EDO	S	1605	-	3,3,3	0.06	0	2,2,2	0.17	0
17	PGV	P	307	-	50,50,50	0.34	0	53,56,56	0.46	0
19	EDO	M	102	-	3,3,3	0.14	0	2,2,2	0.32	0
19	EDO	V	102	-	3,3,3	0.12	0	2,2,2	0.23	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
19	EDO	N	611	-	3,3,3	0.22	0	2,2,2	0.05	0
19	EDO	A	611	-	3,3,3	0.26	0	2,2,2	0.45	0
23	CHD	C	307	-	32,32,32	0.54	0	51,51,51	0.77	0
24	PEK	C	317	-	52,52,52	0.42	0	55,57,57	0.82	2 (3%)
19	EDO	C	311	-	3,3,3	0.05	0	2,2,2	0.16	0
19	EDO	F	709	-	3,3,3	0.32	0	2,2,2	0.40	0
21	CUA	B	301	2	0,1,1	-	-	-		
21	CUA	O	301	2	0,1,1	-	-	-		
27	TGL	D	201	-	62,62,62	0.36	0	65,65,65	0.36	0
19	EDO	Q	1801	-	3,3,3	0.26	0	2,2,2	0.07	0
19	EDO	G	102	-	3,3,3	0.17	0	2,2,2	0.43	0
24	PEK	C	303	-	52,52,52	0.36	0	55,57,57	0.49	0
23	CHD	T	1302	-	32,32,32	0.69	0	51,51,51	1.11	2 (3%)
17	PGV	P	306	-	50,50,50	0.45	0	53,56,56	0.51	1 (1%)
19	EDO	A	609	-	3,3,3	0.31	0	2,2,2	0.17	0
19	EDO	A	612	-	3,3,3	0.13	0	2,2,2	0.07	0
23	CHD	B	303	-	32,32,32	0.59	0	51,51,51	1.12	2 (3%)
19	EDO	J	103	-	3,3,3	0.18	0	2,2,2	0.16	0
20	ONM	A	613	18,14	1,2,2	0.09	0	0,1,1	-	-
19	EDO	B	311	-	3,3,3	0.06	0	2,2,2	0.19	0
17	PGV	C	304	-	50,50,50	0.38	0	53,56,56	0.52	0
18	HEA	N	605	20,1	67,67,67	2.15	23 (34%)	81,103,103	2.56	31 (38%)
19	EDO	L	501	-	3,3,3	0.19	0	2,2,2	0.20	0
25	CDL	P	312	-	99,99,99	0.35	0	105,111,111	0.44	0
19	EDO	L	504	-	3,3,3	0.17	0	2,2,2	0.21	0
19	EDO	F	706	-	3,3,3	0.35	0	2,2,2	0.78	0
20	ONM	A	614	-	1,2,2	0.01	0	0,1,1	-	-
19	EDO	N	607	-	3,3,3	0.12	0	2,2,2	0.27	0
26	DMU	M	103	-	34,34,34	0.78	1 (2%)	45,45,45	1.91	15 (33%)
19	EDO	N	610	-	3,3,3	0.28	0	2,2,2	0.50	0
19	EDO	N	608	-	3,3,3	0.27	0	2,2,2	0.11	0
19	EDO	P	311	-	3,3,3	0.09	0	2,2,2	0.16	0
27	TGL	N	622	-	62,62,62	0.34	0	65,65,65	0.39	0
19	EDO	B	304	-	3,3,3	0.21	0	2,2,2	0.41	0
27	TGL	Y	101	-	62,62,62	0.41	0	65,65,65	0.76	2 (3%)
19	EDO	I	103	-	3,3,3	0.30	0	2,2,2	0.24	0
27	TGL	N	604	-	62,62,62	0.37	0	65,65,65	0.67	1 (1%)
23	CHD	C	301	-	32,32,32	0.55	0	51,51,51	0.87	1 (1%)
19	EDO	V	103	-	3,3,3	0.13	0	2,2,2	0.11	0
19	EDO	C	315	-	3,3,3	0.39	0	2,2,2	0.43	0
19	EDO	L	505	-	3,3,3	0.18	0	2,2,2	0.23	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
19	EDO	N	624	-	3,3,3	0.37	0	2,2,2	0.38	0
19	EDO	B	308	-	3,3,3	0.51	0	2,2,2	0.26	0
19	EDO	G	103	-	3,3,3	0.21	0	2,2,2	0.25	0
19	EDO	N	612	-	3,3,3	0.15	0	2,2,2	0.38	0
19	EDO	O	304	-	3,3,3	0.14	0	2,2,2	0.09	0
20	ONM	N	619	-	1,2,2	0.09	0	0,1,1	-	-
20	ONM	N	617	-	1,2,2	0.17	0	0,1,1	-	-
19	EDO	Q	1803	-	3,3,3	0.17	0	2,2,2	0.22	0
23	CHD	G	106	-	32,32,32	0.68	0	51,51,51	0.80	0
19	EDO	O	303	-	3,3,3	0.08	0	2,2,2	0.08	0
18	HEA	A	605	20,1	67,67,67	2.10	24 (35%)	81,103,103	2.61	28 (34%)
19	EDO	N	625	-	3,3,3	0.16	0	2,2,2	0.21	0
19	EDO	A	617	-	3,3,3	0.22	0	2,2,2	0.18	0
19	EDO	K	201	-	3,3,3	0.12	0	2,2,2	0.08	0
26	DMU	G	101	-	34,34,34	0.70	1 (2%)	45,45,45	1.26	3 (6%)
19	EDO	N	621	-	3,3,3	1.74	1 (33%)	2,2,2	1.14	0
19	EDO	A	607	-	3,3,3	0.46	0	2,2,2	0.53	0
19	EDO	A	608	-	3,3,3	0.44	0	2,2,2	0.17	0
19	EDO	L	503	-	3,3,3	0.04	0	2,2,2	0.15	0
20	ONM	N	615	18,14	1,2,2	0.06	0	0,1,1	-	-
19	EDO	B	305	-	3,3,3	0.72	0	2,2,2	0.57	0
19	EDO	Y	102	-	3,3,3	0.09	0	2,2,2	0.24	0
23	CHD	Y	103	-	32,32,32	0.60	0	51,51,51	0.92	0
20	ONM	C	312	-	1,2,2	0.05	0	0,1,1	-	-
19	EDO	T	1303	-	3,3,3	0.23	0	2,2,2	0.03	0
19	EDO	N	609	-	3,3,3	0.24	0	2,2,2	0.42	0
19	EDO	P	313	-	3,3,3	0.47	0	2,2,2	0.58	0
19	EDO	S	1607	-	3,3,3	0.10	0	2,2,2	0.30	0
20	ONM	N	618	-	1,2,2	0.03	0	0,1,1	-	-
26	DMU	G	105	-	34,34,34	1.09	1 (2%)	45,45,45	1.37	7 (15%)
19	EDO	N	623	-	3,3,3	0.05	0	2,2,2	0.18	0
29	SAC	I	102	-	7,8,9	0.61	0	7,9,11	1.19	1 (14%)
19	EDO	S	1604	-	3,3,3	0.31	0	2,2,2	0.29	0
19	EDO	R	201	-	3,3,3	0.22	0	2,2,2	0.08	0
19	EDO	E	204	-	3,3,3	0.14	0	2,2,2	0.27	0
23	CHD	P	309	-	32,32,32	0.66	0	51,51,51	1.14	2 (3%)
25	CDL	C	313	-	99,99,99	0.49	0	105,111,111	0.49	0
18	HEA	N	606	1	67,67,67	2.36	26 (38%)	81,103,103	2.65	32 (39%)
19	EDO	D	202	-	3,3,3	0.15	0	2,2,2	0.05	0
26	DMU	Z	102	-	34,34,34	0.54	0	45,45,45	1.64	11 (24%)
19	EDO	W	304	-	3,3,3	0.12	0	2,2,2	0.07	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
24	PEK	P	305	-	52,52,52	0.38	0	55,57,57	0.58	1 (1%)
19	EDO	C	308	-	3,3,3	0.32	0	2,2,2	0.17	0
19	EDO	F	708	-	3,3,3	0.10	0	2,2,2	0.26	0
19	EDO	D	205	-	3,3,3	0.12	0	2,2,2	0.11	0
23	CHD	W	302	-	32,32,32	0.60	0	51,51,51	0.89	0
26	DMU	C	316	-	34,34,34	0.66	0	45,45,45	1.17	5 (11%)
19	EDO	C	309	-	3,3,3	0.27	0	2,2,2	0.18	0
19	EDO	F	701	-	3,3,3	0.27	0	2,2,2	0.56	0

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns.

'-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	TGL	I	101	-	-	39/65/65/65	-
19	EDO	B	306	-	-	0/1/1/1	-
19	EDO	N	613	-	-	0/1/1/1	-
17	PGV	Z	101	-	-	26/55/55/55	-
19	EDO	T	1301	-	-	1/1/1/1	-
19	EDO	B	312	-	-	0/1/1/1	-
22	PSC	B	302	-	-	22/55/55/55	-
22	PSC	O	302	-	-	27/55/55/55	-
19	EDO	B	307	-	-	0/1/1/1	-
19	EDO	C	310	-	-	1/1/1/1	-
25	CDL	P	308	-	-	59/110/110/110	-
19	EDO	G	104	-	-	1/1/1/1	-
19	EDO	E	201	-	-	1/1/1/1	-
19	EDO	Q	1802	-	-	1/1/1/1	-
23	CHD	J	101	-	-	2/9/74/74	0/4/4/4
19	EDO	P	310	-	-	1/1/1/1	-
17	PGV	C	305	-	-	28/55/55/55	-
24	PEK	P	304	-	-	16/56/56/56	-
19	EDO	A	610	-	-	1/1/1/1	-
18	HEA	A	606	1	-	2/36/76/76	-
26	DMU	P	314	-	2/2/10/10	9/19/59/59	0/2/2/2
19	EDO	B	310	-	-	1/1/1/1	-
25	CDL	C	306	-	-	57/110/110/110	-
19	EDO	D	204	-	-	1/1/1/1	-
19	EDO	F	707	-	-	0/1/1/1	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
19	EDO	F	702	-	-	1/1/1/1	-
19	EDO	F	705	-	-	0/1/1/1	-
29	SAC	V	101	-	-	2/7/8/10	-
19	EDO	B	309	-	-	0/1/1/1	-
19	EDO	J	102	-	-	0/1/1/1	-
19	EDO	D	203	-	-	1/1/1/1	-
19	EDO	W	303	-	-	1/1/1/1	-
19	EDO	A	618	-	-	0/1/1/1	-
19	EDO	S	1601	-	-	0/1/1/1	-
24	PEK	P	301	-	-	19/56/56/56	-
19	EDO	E	202	-	-	1/1/1/1	-
19	EDO	E	203	-	-	1/1/1/1	-
19	EDO	C	314	-	-	0/1/1/1	-
19	EDO	N	614	-	-	0/1/1/1	-
24	PEK	C	302	-	-	20/56/56/56	-
17	PGV	A	604	-	-	16/55/55/55	-
23	CHD	P	303	-	-	2/9/74/74	0/4/4/4
17	PGV	P	302	-	-	10/55/55/55	-
19	EDO	A	616	-	-	0/1/1/1	-
19	EDO	N	626	-	-	1/1/1/1	-
19	EDO	G	107	-	-	1/1/1/1	-
19	EDO	S	1603	-	-	1/1/1/1	-
19	EDO	F	704	-	-	1/1/1/1	-
17	PGV	M	101	-	-	30/55/55/55	-
27	TGL	L	502	-	-	33/65/65/65	-
19	EDO	W	301	-	-	1/1/1/1	-
19	EDO	R	202	-	-	1/1/1/1	-
19	EDO	S	1606	-	-	1/1/1/1	-
19	EDO	N	620	-	-	1/1/1/1	-
19	EDO	S	1605	-	-	1/1/1/1	-
17	PGV	P	307	-	-	21/55/55/55	-
19	EDO	M	102	-	-	1/1/1/1	-
19	EDO	V	102	-	-	0/1/1/1	-
19	EDO	N	611	-	-	1/1/1/1	-
19	EDO	A	611	-	-	0/1/1/1	-
23	CHD	C	307	-	-	2/9/74/74	0/4/4/4
24	PEK	C	317	-	-	26/56/56/56	-
19	EDO	C	311	-	-	1/1/1/1	-
19	EDO	F	709	-	-	1/1/1/1	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
27	TGL	D	201	-	-	34/65/65/65	-
19	EDO	Q	1801	-	-	1/1/1/1	-
19	EDO	G	102	-	-	1/1/1/1	-
24	PEK	C	303	-	-	28/56/56/56	-
23	CHD	T	1302	-	-	7/9/74/74	0/4/4/4
17	PGV	P	306	-	-	17/55/55/55	-
19	EDO	A	609	-	-	0/1/1/1	-
19	EDO	A	612	-	-	0/1/1/1	-
23	CHD	B	303	-	-	2/9/74/74	0/4/4/4
19	EDO	J	103	-	-	1/1/1/1	-
19	EDO	B	311	-	-	0/1/1/1	-
17	PGV	C	304	-	-	19/55/55/55	-
18	HEA	N	605	20,1	-	6/36/76/76	-
19	EDO	L	501	-	-	1/1/1/1	-
25	CDL	P	312	-	-	56/110/110/110	-
19	EDO	L	504	-	-	0/1/1/1	-
19	EDO	F	706	-	-	0/1/1/1	-
19	EDO	N	607	-	-	1/1/1/1	-
26	DMU	M	103	-	2/2/10/10	7/19/59/59	0/2/2/2
19	EDO	N	610	-	-	0/1/1/1	-
19	EDO	N	608	-	-	1/1/1/1	-
19	EDO	P	311	-	-	1/1/1/1	-
27	TGL	N	622	-	-	40/65/65/65	-
19	EDO	B	304	-	-	0/1/1/1	-
27	TGL	Y	101	-	-	36/65/65/65	-
19	EDO	I	103	-	-	1/1/1/1	-
27	TGL	N	604	-	-	31/65/65/65	-
23	CHD	C	301	-	-	2/9/74/74	0/4/4/4
19	EDO	V	103	-	-	1/1/1/1	-
19	EDO	C	315	-	-	1/1/1/1	-
19	EDO	L	505	-	-	1/1/1/1	-
19	EDO	B	308	-	-	1/1/1/1	-
19	EDO	G	103	-	-	0/1/1/1	-
19	EDO	N	624	-	-	1/1/1/1	-
19	EDO	N	612	-	-	1/1/1/1	-
19	EDO	O	304	-	-	1/1/1/1	-
19	EDO	Q	1803	-	-	1/1/1/1	-
23	CHD	G	106	-	-	4/9/74/74	0/4/4/4
19	EDO	O	303	-	-	0/1/1/1	-

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
18	HEA	A	605	20,1	-	6/36/76/76	-
19	EDO	N	625	-	-	1/1/1/1	-
19	EDO	A	617	-	-	1/1/1/1	-
26	DMU	G	101	-	2/2/10/10	12/19/59/59	0/2/2/2
19	EDO	K	201	-	-	1/1/1/1	-
19	EDO	N	621	-	-	0/1/1/1	-
19	EDO	A	607	-	-	1/1/1/1	-
19	EDO	A	608	-	-	0/1/1/1	-
19	EDO	L	503	-	-	1/1/1/1	-
19	EDO	B	305	-	-	1/1/1/1	-
19	EDO	Y	102	-	-	1/1/1/1	-
23	CHD	Y	103	-	-	0/9/74/74	0/4/4/4
19	EDO	T	1303	-	-	1/1/1/1	-
19	EDO	N	609	-	-	1/1/1/1	-
19	EDO	P	313	-	-	1/1/1/1	-
19	EDO	S	1607	-	-	1/1/1/1	-
26	DMU	G	105	-	2/2/10/10	10/19/59/59	0/2/2/2
19	EDO	N	623	-	-	0/1/1/1	-
29	SAC	I	102	-	-	6/7/8/10	-
19	EDO	S	1604	-	-	1/1/1/1	-
19	EDO	R	201	-	-	0/1/1/1	-
19	EDO	E	204	-	-	1/1/1/1	-
23	CHD	P	309	-	-	2/9/74/74	0/4/4/4
25	CDL	C	313	-	-	54/110/110/110	-
18	HEA	N	606	1	-	4/36/76/76	-
19	EDO	D	202	-	-	1/1/1/1	-
26	DMU	Z	102	-	2/2/10/10	14/19/59/59	0/2/2/2
19	EDO	W	304	-	-	1/1/1/1	-
24	PEK	P	305	-	-	33/56/56/56	-
19	EDO	C	308	-	-	1/1/1/1	-
19	EDO	F	708	-	-	1/1/1/1	-
19	EDO	D	205	-	-	0/1/1/1	-
23	CHD	W	302	-	-	1/9/74/74	0/4/4/4
26	DMU	C	316	-	2/2/10/10	14/19/59/59	0/2/2/2
19	EDO	C	309	-	-	0/1/1/1	-
19	EDO	F	701	-	-	1/1/1/1	-

All (105) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	N	606	HEA	FE-ND	5.85	2.12	1.94
18	A	606	HEA	C4C-NC	-5.50	1.29	1.39
18	N	606	HEA	C1D-ND	-5.49	1.30	1.40
18	N	606	HEA	FE-NB	5.26	2.11	1.94
18	A	606	HEA	CHB-C4A	5.13	1.48	1.38
18	A	605	HEA	C3B-C2B	5.09	1.46	1.34
18	N	605	HEA	FE-ND	4.96	2.10	1.94
18	N	605	HEA	C3B-C2B	4.88	1.45	1.34
18	A	606	HEA	FE-NC	4.74	2.10	1.95
18	N	606	HEA	C3B-C2B	4.71	1.45	1.34
18	A	606	HEA	C3B-C2B	4.67	1.45	1.34
18	A	606	HEA	FE-NA	4.59	2.10	1.95
18	A	606	HEA	C1D-ND	-4.58	1.32	1.40
18	N	606	HEA	C4B-NB	-4.51	1.32	1.40
18	N	605	HEA	C11-C3B	-4.46	1.45	1.51
18	N	606	HEA	C11-C3B	-4.45	1.45	1.51
18	N	605	HEA	C3A-C2A	4.36	1.47	1.37
18	A	605	HEA	C4A-NA	-4.35	1.31	1.39
18	A	606	HEA	C4A-NA	-4.34	1.31	1.39
18	N	606	HEA	C4D-ND	-4.30	1.30	1.38
18	N	605	HEA	C4B-NB	-4.21	1.33	1.40
18	A	606	HEA	C3D-C2D	4.14	1.45	1.36
18	N	606	HEA	C1B-NB	-4.13	1.30	1.38
18	A	605	HEA	C1B-NB	-4.10	1.30	1.38
18	N	606	HEA	C3A-C2A	4.07	1.46	1.37
18	A	605	HEA	FE-NC	4.06	2.08	1.95
18	A	605	HEA	C3D-C2D	4.06	1.45	1.36
18	N	605	HEA	CHA-C1A	3.96	1.46	1.38
18	A	605	HEA	FE-NA	3.85	2.07	1.95
18	N	605	HEA	FE-NB	3.73	2.06	1.94
18	N	606	HEA	C4A-NA	-3.70	1.32	1.39
18	N	606	HEA	C4B-C3B	3.66	1.51	1.44
18	N	606	HEA	CHD-C4C	3.66	1.47	1.39
18	N	605	HEA	CHB-C4A	3.65	1.45	1.38
26	G	105	DMU	O16-C6	3.60	1.46	1.40
18	A	606	HEA	C3A-C2A	3.58	1.45	1.37
18	A	606	HEA	C4D-ND	-3.53	1.31	1.38
18	N	606	HEA	CHA-C1A	3.52	1.45	1.38
18	A	605	HEA	C1D-ND	-3.50	1.34	1.40
18	A	606	HEA	C1A-NA	-3.46	1.33	1.39
18	N	605	HEA	C4D-C3D	3.42	1.50	1.45
18	A	605	HEA	C1C-NC	-3.40	1.33	1.39
18	A	605	HEA	C4C-NC	-3.40	1.33	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	A	605	HEA	CHA-C1A	3.38	1.45	1.38
18	A	606	HEA	CHA-C1A	3.37	1.45	1.38
18	N	605	HEA	C4B-C3B	3.26	1.50	1.44
18	N	605	HEA	CHA-C4D	3.23	1.46	1.39
18	A	605	HEA	CHB-C4A	3.23	1.44	1.38
18	N	605	HEA	C1D-ND	-3.23	1.34	1.40
18	A	605	HEA	C3A-C2A	3.19	1.44	1.37
18	N	605	HEA	CHD-C4C	3.18	1.46	1.39
18	A	606	HEA	FE-NB	3.13	2.04	1.94
18	A	605	HEA	C1A-NA	-3.12	1.33	1.39
18	N	606	HEA	C3D-C2D	3.11	1.43	1.36
18	A	605	HEA	CHB-C1B	3.06	1.46	1.39
18	A	606	HEA	C1C-NC	-3.05	1.33	1.39
18	N	606	HEA	CHC-C4B	3.05	1.44	1.38
18	A	605	HEA	CHA-C4D	2.94	1.45	1.39
18	N	606	HEA	CHB-C4A	2.88	1.44	1.38
18	A	605	HEA	FE-ND	2.84	2.03	1.94
18	A	606	HEA	CHC-C4B	2.84	1.44	1.38
18	N	606	HEA	CHC-C1C	2.83	1.45	1.39
26	M	103	DMU	O16-C6	2.82	1.44	1.40
18	N	605	HEA	CHD-C1D	2.82	1.44	1.38
18	N	605	HEA	CHC-C1C	2.80	1.45	1.39
18	A	606	HEA	FE-ND	2.78	2.03	1.94
18	N	606	HEA	C1C-C2C	2.75	1.49	1.43
18	N	605	HEA	C4A-NA	-2.73	1.34	1.39
18	N	605	HEA	C1B-NB	-2.72	1.33	1.38
18	A	605	HEA	CHD-C1D	2.72	1.43	1.38
18	A	605	HEA	C4B-C3B	2.65	1.49	1.44
18	A	606	HEA	CHD-C1D	2.64	1.43	1.38
18	A	606	HEA	CHB-C1B	2.64	1.45	1.39
18	A	605	HEA	C1C-C2C	2.62	1.49	1.43
18	N	605	HEA	CHC-C4B	2.61	1.43	1.38
18	N	606	HEA	C1B-C2B	2.58	1.49	1.44
18	N	605	HEA	C4D-ND	-2.56	1.33	1.38
18	A	606	HEA	C1B-NB	-2.55	1.33	1.38
26	G	101	DMU	O16-C6	2.54	1.44	1.40
18	A	606	HEA	CHC-C1C	2.50	1.45	1.39
18	A	606	HEA	C4B-C3B	2.49	1.49	1.44
18	N	606	HEA	CHB-C1B	2.46	1.44	1.39
18	N	605	HEA	C4C-NC	-2.45	1.35	1.39
18	N	605	HEA	CHB-C1B	2.44	1.44	1.39
18	N	606	HEA	CHA-C4D	2.43	1.44	1.39

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
19	N	621	EDO	O1-C1	2.37	1.54	1.42
18	N	605	HEA	FE-NA	2.36	2.02	1.95
23	P	303	CHD	O26-C24	-2.35	1.23	1.30
18	A	605	HEA	C4B-NB	-2.26	1.36	1.40
18	A	605	HEA	CHC-C4B	2.26	1.43	1.38
18	N	606	HEA	CHD-C1D	2.24	1.43	1.38
18	A	605	HEA	FE-NB	2.24	2.01	1.94
18	A	605	HEA	CHC-C1C	2.23	1.44	1.39
18	A	606	HEA	C11-C3B	-2.21	1.48	1.51
23	J	101	CHD	O26-C24	-2.21	1.23	1.30
18	A	606	HEA	C16-C17	-2.20	1.46	1.53
18	A	606	HEA	C4B-NB	-2.19	1.36	1.40
18	A	606	HEA	CHD-C4C	2.16	1.44	1.39
18	N	606	HEA	C1C-NC	-2.15	1.35	1.39
18	N	605	HEA	C14-C15	2.14	1.38	1.33
18	N	606	HEA	C4C-NC	-2.12	1.35	1.39
18	A	606	HEA	C1C-C2C	2.09	1.48	1.43
18	N	606	HEA	CMA-C3A	2.08	1.50	1.45
18	A	605	HEA	CHD-C4C	2.04	1.44	1.39
18	N	606	HEA	C1A-NA	-2.01	1.35	1.39

All (201) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	N	605	HEA	C2D-C1D-ND	7.21	118.13	109.84
18	A	606	HEA	C3C-C2C-C1C	-7.17	98.71	107.17
18	A	605	HEA	C2D-C1D-ND	7.07	117.97	109.84
18	N	606	HEA	C3D-C4D-ND	6.74	116.87	110.35
18	N	606	HEA	C3A-C2A-C1A	-6.70	100.70	107.05
18	A	606	HEA	C3A-C2A-C1A	-6.69	100.71	107.05
18	A	605	HEA	C3A-C2A-C1A	-6.61	100.79	107.05
18	A	606	HEA	C2D-C1D-ND	6.43	117.23	109.84
18	N	606	HEA	C2D-C1D-ND	6.40	117.20	109.84
18	A	605	HEA	C3C-C4C-NC	6.40	115.19	109.80
18	A	606	HEA	C3D-C4D-ND	6.29	116.43	110.35
18	A	605	HEA	C3D-C4D-ND	6.24	116.38	110.35
18	N	606	HEA	C3C-C4C-NC	6.10	114.94	109.80
18	A	606	HEA	C1D-C2D-C3D	-5.94	100.74	106.98
18	A	605	HEA	C1D-C2D-C3D	-5.89	100.79	106.98
18	N	605	HEA	C2B-C1B-NB	5.86	116.67	109.90
18	A	605	HEA	C3B-C4B-NB	5.62	116.30	109.84
18	N	605	HEA	C3C-C4C-NC	5.49	114.42	109.80

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	N	605	HEA	C3A-C2A-C1A	-5.38	101.95	107.05
18	N	605	HEA	C1D-C2D-C3D	-5.31	101.39	106.98
18	N	606	HEA	C2A-C1A-NA	5.28	115.42	110.32
18	N	606	HEA	C1D-C2D-C3D	-5.21	101.50	106.98
18	A	605	HEA	C2B-C1B-NB	5.15	115.86	109.90
18	N	606	HEA	C2B-C1B-NB	5.14	115.85	109.90
18	N	606	HEA	C3B-C4B-NB	5.14	115.75	109.84
26	M	103	DMU	C6-O5-C4	5.10	123.68	113.72
18	N	605	HEA	C3C-C2C-C1C	-5.04	101.23	107.17
18	N	605	HEA	CMD-C2D-C1D	5.03	132.90	125.03
18	N	605	HEA	CAD-CBD-CGD	-4.99	100.42	113.67
18	A	605	HEA	C3C-C2C-C1C	-4.84	101.46	107.17
18	N	606	HEA	C3C-C2C-C1C	-4.83	101.48	107.17
18	N	606	HEA	CMC-C2C-C1C	4.75	132.65	125.42
27	I	101	TGL	OG2-CB1-CB2	4.73	121.71	111.48
18	A	606	HEA	C3C-C4C-NC	4.72	113.78	109.80
27	Y	101	TGL	OG2-CB1-CB2	4.70	121.64	111.48
18	N	605	HEA	C3D-C4D-ND	4.67	114.87	110.35
18	N	606	HEA	C13-C12-C11	-4.66	106.95	114.39
18	A	606	HEA	C2A-C1A-NA	4.64	114.80	110.32
18	A	605	HEA	CMD-C2D-C1D	4.57	132.18	125.03
18	A	606	HEA	C13-C12-C11	-4.55	107.12	114.39
18	N	605	HEA	C1B-C2B-C3B	-4.53	101.55	106.80
18	A	605	HEA	CAD-CBD-CGD	-4.49	101.75	113.67
18	A	605	HEA	C2A-C1A-NA	4.46	114.63	110.32
26	Z	102	DMU	O5-C4-C3	-4.43	100.56	109.72
18	N	605	HEA	C2A-C1A-NA	4.38	114.55	110.32
18	A	606	HEA	C3B-C4B-NB	4.38	114.87	109.84
26	M	103	DMU	O5-C6-C1	4.35	119.31	110.37
23	P	309	CHD	C1-C2-C3	4.33	116.22	110.48
18	A	605	HEA	C4B-C3B-C2B	-4.31	100.19	107.44
27	N	604	TGL	OG2-CB1-CB2	4.30	120.79	111.48
26	G	101	DMU	O16-C6-C1	4.29	114.79	108.27
26	M	103	DMU	O16-C6-C1	4.08	114.48	108.27
26	G	105	DMU	O16-C6-C1	4.03	114.39	108.27
18	A	606	HEA	C2C-C1C-NC	4.00	116.56	110.14
24	C	317	PEK	O01-C1-C2	3.98	120.10	111.48
18	A	605	HEA	CHA-C4D-C3D	-3.98	118.97	124.77
18	A	606	HEA	CHA-C4D-C3D	-3.94	119.03	124.77
18	A	606	HEA	C2B-C1B-NB	3.92	114.43	109.90
26	M	103	DMU	O1-C9-C11	3.82	115.91	106.44
18	N	606	HEA	C4B-C3B-C2B	-3.77	101.10	107.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	A	606	HEA	CAA-CBA-CGA	-3.77	103.67	113.67
18	N	605	HEA	CMC-C2C-C1C	3.75	131.13	125.42
23	P	309	CHD	C2-C1-C10	3.74	119.06	112.74
18	N	606	HEA	CAA-CBA-CGA	-3.72	103.80	113.67
18	N	605	HEA	C3B-C4B-NB	3.69	114.08	109.84
26	G	105	DMU	C7-C8-C9	3.69	116.92	110.23
23	T	1302	CHD	C5-C6-C7	-3.68	110.03	114.40
18	N	605	HEA	C2C-C1C-NC	3.66	116.01	110.14
26	G	101	DMU	C10-O7-C3	-3.62	109.39	117.98
18	A	605	HEA	C2C-C1C-NC	3.61	115.93	110.14
18	N	605	HEA	CHB-C1B-C2B	-3.60	119.35	125.03
18	N	606	HEA	C2C-C1C-NC	3.53	115.80	110.14
18	A	605	HEA	C1D-ND-C4D	-3.50	101.07	105.21
18	N	606	HEA	CHB-C1B-C2B	-3.48	119.53	125.03
18	N	605	HEA	C1D-ND-C4D	-3.46	101.11	105.21
26	Z	102	DMU	C6-C1-C2	3.45	117.26	110.01
18	N	606	HEA	CAA-C2A-C1A	3.42	131.80	124.85
18	A	606	HEA	C4B-C3B-C2B	-3.41	101.70	107.44
23	B	303	CHD	C14-C13-C12	-3.40	104.30	107.42
23	C	301	CHD	C6-C7-C8	3.40	115.21	111.50
18	N	606	HEA	C1B-C2B-C3B	-3.39	102.87	106.80
26	Z	102	DMU	O2-C8-C7	-3.38	102.41	110.38
18	N	606	HEA	C4D-C3D-C2D	-3.35	102.01	106.89
18	N	606	HEA	C27-C19-C20	3.30	120.96	115.23
26	P	314	DMU	O5-C6-O16	-3.28	102.29	110.04
18	N	605	HEA	CHA-C4D-C3D	-3.28	119.99	124.77
26	G	105	DMU	C18-O16-C6	3.22	119.19	113.68
18	A	606	HEA	C27-C19-C20	3.20	120.78	115.23
23	T	1302	CHD	C13-C17-C20	3.13	123.27	119.48
18	N	605	HEA	CHC-C1C-C2C	-3.12	118.36	127.43
18	N	605	HEA	OMA-CMA-C3A	-3.11	118.61	125.62
26	P	314	DMU	C6-O5-C4	3.09	119.76	113.72
26	C	316	DMU	C10-O7-C3	-3.07	110.69	117.98
18	A	606	HEA	CMD-C2D-C1D	3.06	129.82	125.03
18	N	605	HEA	CAA-C2A-C1A	3.06	131.07	124.85
18	A	605	HEA	CAA-C2A-C1A	3.05	131.06	124.85
18	A	605	HEA	OMA-CMA-C3A	-3.05	118.73	125.62
26	M	103	DMU	C7-C8-C9	3.05	115.75	110.23
18	N	606	HEA	CHA-C1A-C2A	-3.03	120.08	124.86
18	A	606	HEA	CHD-C1D-C2D	-3.02	118.37	126.95
26	P	314	DMU	O1-C9-C11	2.99	113.84	106.44
29	I	102	SAC	O-C-CA	-2.98	117.10	124.77

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
26	P	314	DMU	O16-C6-C1	2.93	112.73	108.27
18	A	606	HEA	CHA-C1A-C2A	-2.89	120.29	124.86
23	B	303	CHD	C17-C13-C14	2.88	103.00	100.11
26	Z	102	DMU	C7-C8-C9	2.88	115.44	110.23
18	A	606	HEA	CMC-C2C-C3C	2.84	133.23	126.55
26	Z	102	DMU	O7-C3-C2	2.80	114.36	107.23
18	A	605	HEA	CHD-C1D-C2D	-2.77	119.08	126.95
26	M	103	DMU	C18-O16-C6	-2.76	108.97	113.68
26	Z	102	DMU	O5-C6-O16	-2.74	103.57	110.04
18	A	605	HEA	CHA-C1A-C2A	-2.73	120.55	124.86
17	P	306	PGV	O14-P-O13	2.73	125.15	112.44
17	Z	101	PGV	O01-C1-C2	2.73	117.39	111.48
22	B	302	PSC	O01-C1-C2	2.72	117.36	111.48
18	A	605	HEA	C4C-C3C-C2C	-2.71	103.93	107.30
25	P	308	CDL	OB6-CB5-OB7	-2.68	117.43	123.70
18	N	606	HEA	CHA-C4D-ND	-2.68	121.54	124.42
26	M	103	DMU	O4-C7-C5	-2.66	104.12	110.38
18	N	606	HEA	CHC-C1C-C2C	-2.65	119.74	127.43
18	N	606	HEA	CHD-C1D-ND	-2.64	121.10	124.37
26	M	103	DMU	C8-C7-C5	2.63	115.45	110.83
18	A	606	HEA	C4D-C3D-C2D	-2.62	103.08	106.89
18	A	606	HEA	CAD-C3D-C4D	2.61	129.25	124.70
26	P	314	DMU	C10-O1-C9	-2.60	108.65	113.72
26	Z	102	DMU	O5-C6-C1	2.59	115.69	110.37
24	C	317	PEK	O01-C1-O02	-2.58	117.67	123.70
26	P	314	DMU	O4-C7-C5	-2.56	104.34	110.38
18	N	605	HEA	CHD-C1D-C2D	-2.53	119.76	126.95
18	A	605	HEA	CMC-C2C-C1C	2.52	129.26	125.42
26	M	103	DMU	O3-C5-C10	-2.51	104.10	110.08
25	P	308	CDL	OB6-CB5-C51	2.48	116.84	111.48
26	Z	102	DMU	C2-C3-C4	-2.47	105.45	110.93
18	A	606	HEA	CHB-C1B-C2B	-2.47	121.13	125.03
26	G	105	DMU	O5-C4-C57	2.45	112.52	106.44
26	P	314	DMU	C1-C2-C3	2.43	115.20	109.68
26	C	316	DMU	O7-C10-O1	2.43	117.09	110.69
18	N	605	HEA	CHA-C1A-C2A	-2.41	121.05	124.86
26	Z	102	DMU	C11-C9-C8	2.41	118.94	113.02
26	C	316	DMU	O1-C9-C11	2.41	112.40	106.44
18	A	605	HEA	CMB-C2B-C1B	2.40	128.79	125.03
18	N	605	HEA	C4B-C3B-C2B	-2.40	103.40	107.44
26	C	316	DMU	O7-C3-C4	2.39	115.74	109.48
26	Z	102	DMU	O5-C4-C57	2.38	112.33	106.44

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	N	606	HEA	C1D-ND-C4D	-2.38	102.39	105.21
26	M	103	DMU	O7-C3-C4	-2.37	103.26	109.48
26	G	105	DMU	O5-C6-O16	2.33	115.54	110.04
18	A	606	HEA	O2D-CGD-O1D	-2.32	117.36	123.33
18	N	605	HEA	C27-C19-C20	2.31	119.24	115.23
18	N	605	HEA	C12-C11-C3B	-2.29	108.54	112.12
18	A	606	HEA	CHC-C4B-NB	-2.29	121.53	124.37
18	N	606	HEA	C4C-C3C-C2C	-2.29	104.45	107.30
18	A	606	HEA	C1D-ND-C4D	-2.29	102.50	105.21
18	A	605	HEA	CHC-C4B-C3B	-2.28	120.06	125.80
26	P	314	DMU	O5-C6-C1	2.27	115.04	110.37
18	N	605	HEA	CMB-C2B-C1B	2.27	128.58	125.03
18	N	606	HEA	OMA-CMA-C3A	-2.26	120.52	125.62
18	N	606	HEA	O2A-CGA-O1A	-2.25	117.54	123.33
29	V	101	SAC	O-C-CA	-2.23	119.03	124.77
18	A	605	HEA	C4D-C3D-C2D	-2.23	103.64	106.89
25	C	306	CDL	OA6-CA5-C11	2.23	116.31	111.48
18	A	606	HEA	C21-C20-C19	2.22	120.53	113.19
18	N	606	HEA	CHA-C4D-C3D	-2.22	121.54	124.77
18	A	605	HEA	CHB-C1B-C2B	-2.19	121.56	125.03
18	A	606	HEA	CAD-CBD-CGD	-2.19	107.85	113.67
18	N	606	HEA	CHC-C4B-NB	-2.19	121.66	124.37
18	N	606	HEA	O11-C11-C3B	-2.19	107.25	111.26
26	M	103	DMU	C6-C1-C2	2.17	114.58	110.01
18	A	605	HEA	C1B-C2B-C3B	-2.17	104.28	106.80
24	P	305	PEK	O01-C1-C2	2.17	116.17	111.48
18	A	606	HEA	CHC-C1C-C2C	-2.16	121.15	127.43
18	N	605	HEA	CHD-C4C-C3C	-2.16	118.00	127.37
18	N	606	HEA	CMD-C2D-C1D	2.16	128.40	125.03
26	M	103	DMU	O1-C10-C5	2.15	114.78	110.37
24	C	302	PEK	O12-P-O14	2.15	117.45	108.94
26	C	316	DMU	O1-C10-C5	-2.14	105.97	110.37
18	N	605	HEA	C13-C12-C11	-2.14	110.98	114.39
26	G	101	DMU	O5-C4-C57	2.12	111.69	106.44
18	A	605	HEA	CAD-C3D-C4D	2.11	128.38	124.70
27	Y	101	TGL	OG2-CB1-OB1	-2.11	118.78	123.70
18	A	606	HEA	C26-C15-C16	2.10	118.88	115.23
18	A	606	HEA	C25-C23-C24	2.10	119.42	114.59
26	Z	102	DMU	C10-O7-C3	-2.10	113.01	117.98
27	L	502	TGL	OG2-CB1-CB2	2.09	116.00	111.48
18	N	605	HEA	C4C-NC-C1C	-2.09	102.42	105.82
26	M	103	DMU	O7-C10-C5	-2.09	102.96	108.09

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	P	304	PEK	O13-P-O14	2.06	122.05	112.44
18	A	605	HEA	O2A-CGA-CBA	2.06	120.52	114.00
18	N	605	HEA	C4A-CHB-C1B	2.06	130.40	126.02
24	P	304	PEK	O11-P-O14	-2.06	100.78	108.94
26	P	314	DMU	O7-C10-O1	-2.05	105.29	110.69
18	N	605	HEA	CHD-C4C-NC	2.05	127.57	123.86
18	A	606	HEA	O11-C11-C12	2.04	114.55	109.14
23	J	101	CHD	C13-C17-C20	-2.04	117.02	119.48
18	A	606	HEA	C24-C23-C22	-2.04	116.55	122.66
26	G	105	DMU	O1-C9-C8	2.04	113.37	109.70
26	M	103	DMU	C10-C5-C7	2.03	114.28	110.01
26	G	105	DMU	O3-C5-C7	2.03	115.16	110.38
18	A	606	HEA	C17-C18-C19	-2.02	122.99	127.62
18	N	606	HEA	CBD-CAD-C3D	-2.02	106.96	112.53
26	M	103	DMU	O2-C8-C7	-2.01	105.63	110.38

All (12) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
26	C	316	DMU	C5
26	C	316	DMU	C6
26	G	101	DMU	C5
26	G	101	DMU	C6
26	G	105	DMU	C5
26	G	105	DMU	C6
26	M	103	DMU	C5
26	M	103	DMU	C6
26	P	314	DMU	C5
26	P	314	DMU	C6
26	Z	102	DMU	C5
26	Z	102	DMU	C6

All (974) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
17	C	305	PGV	C04-O12-P-O11
17	M	101	PGV	C03-O11-P-O12
17	M	101	PGV	C03-O11-P-O13
17	M	101	PGV	C03-O11-P-O14
17	M	101	PGV	C04-O12-P-O11
17	M	101	PGV	C04-O12-P-O14
17	M	101	PGV	C05-C04-O12-P

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
17	M	101	PGV	C2-C1-O01-C02
17	P	307	PGV	C05-C04-O12-P
17	Z	101	PGV	C02-C03-O11-P
18	N	605	HEA	C2A-C3A-CMA-OMA
22	B	302	PSC	C04-O12-P-O11
22	B	302	PSC	C04-O12-P-O14
22	B	302	PSC	O12-C04-C05-N
22	O	302	PSC	C03-O11-P-O14
22	O	302	PSC	O04-C19-O03-C01
22	O	302	PSC	C20-C19-O03-C01
22	O	302	PSC	C9-C10-C11-C12
22	O	302	PSC	C10-C11-C12-C13
24	C	302	PEK	O12-C04-C05-N
24	C	302	PEK	C6-C7-C8-C9
24	C	303	PEK	C03-O11-P-O12
24	C	303	PEK	C03-O11-P-O13
24	C	303	PEK	C03-O11-P-O14
24	C	303	PEK	O12-C04-C05-N
24	C	317	PEK	C04-O12-P-O11
24	C	317	PEK	C04-O12-P-O13
24	C	317	PEK	O12-C04-C05-N
24	P	301	PEK	C04-O12-P-O11
24	P	301	PEK	C04-O12-P-O13
24	P	301	PEK	O12-C04-C05-N
24	P	301	PEK	C6-C7-C8-C9
24	P	304	PEK	O12-C04-C05-N
24	P	305	PEK	C03-O11-P-O12
24	P	305	PEK	C03-O11-P-O14
24	P	305	PEK	O12-C04-C05-N
24	P	305	PEK	O02-C1-O01-C02
24	P	305	PEK	C2-C1-O01-C02
25	C	306	CDL	C1-CA2-OA2-PA1
25	C	306	CDL	CA3-OA5-PA1-OA2
25	C	306	CDL	CA3-OA5-PA1-OA3
25	C	306	CDL	CA3-OA5-PA1-OA4
25	C	306	CDL	OA7-CA5-OA6-CA4
25	C	306	CDL	C11-CA5-OA6-CA4
25	C	313	CDL	CA2-C1-CB2-OB2
25	C	313	CDL	CA3-OA5-PA1-OA2
25	C	313	CDL	CA3-OA5-PA1-OA3
25	C	313	CDL	CA3-OA5-PA1-OA4
25	C	313	CDL	CB2-OB2-PB2-OB4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
25	C	313	CDL	CB2-OB2-PB2-OB5
25	C	313	CDL	CB3-OB5-PB2-OB2
25	C	313	CDL	CB3-OB5-PB2-OB3
25	C	313	CDL	CB3-OB5-PB2-OB4
25	P	308	CDL	CA2-C1-CB2-OB2
25	P	308	CDL	C1-CA2-OA2-PA1
25	P	308	CDL	CA3-OA5-PA1-OA2
25	P	308	CDL	CA3-OA5-PA1-OA3
25	P	308	CDL	CA3-OA5-PA1-OA4
25	P	312	CDL	CA2-C1-CB2-OB2
25	P	312	CDL	C1-CA2-OA2-PA1
25	P	312	CDL	CA2-OA2-PA1-OA3
25	P	312	CDL	CA2-OA2-PA1-OA5
25	P	312	CDL	CB2-OB2-PB2-OB4
25	P	312	CDL	CB3-OB5-PB2-OB2
25	P	312	CDL	CB3-OB5-PB2-OB4
26	C	316	DMU	O5-C6-O16-C18
26	G	101	DMU	C19-C18-O16-C6
26	G	105	DMU	O5-C6-O16-C18
26	G	105	DMU	C5-C10-O7-C3
26	Z	102	DMU	C1-C6-O16-C18
26	Z	102	DMU	O5-C6-O16-C18
27	D	201	TGL	CB2-CB1-OG2-CG2
27	N	622	TGL	CC2-CC1-OG3-CG3
27	N	622	TGL	OC1-CC1-OG3-CG3
27	Y	101	TGL	OB1-CB1-OG2-CG2
29	I	102	SAC	C-CA-N-C1A
29	I	102	SAC	CB-CA-N-C1A
29	I	102	SAC	C-CA-CB-OG
29	V	101	SAC	C2A-C1A-N-CA
29	V	101	SAC	OAC-C1A-N-CA
27	D	201	TGL	OC1-CC1-OG3-CG3
27	I	101	TGL	OC1-CC1-OG3-CG3
27	N	604	TGL	OC1-CC1-OG3-CG3
17	M	101	PGV	O02-C1-O01-C02
27	D	201	TGL	OB1-CB1-OG2-CG2
26	G	105	DMU	O6-C11-C9-C8
27	D	201	TGL	CC2-CC1-OG3-CG3
27	I	101	TGL	CC2-CC1-OG3-CG3
27	N	604	TGL	CC2-CC1-OG3-CG3
27	Y	101	TGL	CB2-CB1-OG2-CG2
26	G	101	DMU	O1-C10-O7-C3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
18	N	606	HEA	C27-C19-C20-C21
18	N	606	HEA	C18-C19-C20-C21
26	P	314	DMU	O6-C11-C9-C8
24	C	302	PEK	C4-C5-C6-C7
24	P	305	PEK	C4-C5-C6-C7
26	G	101	DMU	C5-C10-O7-C3
26	Z	102	DMU	C2-C3-O7-C10
17	M	101	PGV	C1-C2-C3-C4
17	Z	101	PGV	C3-C4-C5-C6
26	P	314	DMU	O5-C4-C57-O61
25	C	313	CDL	O1-C1-CA2-OA2
25	C	313	CDL	O1-C1-CB2-OB2
25	P	312	CDL	O1-C1-CA2-OA2
26	G	105	DMU	O5-C4-C57-O61
26	M	103	DMU	O6-C11-C9-O1
26	P	314	DMU	C3-C4-C57-O61
27	L	502	TGL	CB2-CB1-OG2-CG2
22	O	302	PSC	C19-C20-C21-C22
18	A	606	HEA	C19-C20-C21-C22
22	B	302	PSC	C3-C4-C5-C6
17	Z	101	PGV	C1-C2-C3-C4
27	I	101	TGL	C21-C20-CA9-CA8
23	T	1302	CHD	C17-C20-C22-C23
26	C	316	DMU	O6-C11-C9-O1
26	G	105	DMU	O6-C11-C9-O1
26	P	314	DMU	O6-C11-C9-O1
17	C	305	PGV	C2-C3-C4-C5
25	C	306	CDL	C51-CB5-OB6-CB4
25	P	308	CDL	CB2-C1-CA2-OA2
17	M	101	PGV	C20-C19-O03-C01
24	C	303	PEK	C22-C21-O03-C01
26	C	316	DMU	O6-C11-C9-C8
26	M	103	DMU	O6-C11-C9-C8
17	M	101	PGV	C4-C5-C6-C7
17	M	101	PGV	C20-C21-C22-C23
17	P	307	PGV	C26-C27-C28-C29
24	C	303	PEK	C23-C24-C25-C26
27	I	101	TGL	CA5-CA6-CA7-CA8
23	G	106	CHD	C17-C20-C22-C23
25	C	313	CDL	CB7-C71-C72-C73
25	P	308	CDL	O1-C1-CA2-OA2
25	P	308	CDL	O1-C1-CB2-OB2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
23	J	101	CHD	C20-C22-C23-C24
17	M	101	PGV	O04-C19-O03-C01
27	L	502	TGL	OB1-CB1-OG2-CG2
25	P	308	CDL	CA7-C31-C32-C33
24	C	302	PEK	C7-C8-C9-C10
29	I	102	SAC	C2A-C1A-N-CA
29	I	102	SAC	OAC-C1A-N-CA
17	C	304	PGV	C12-C13-C14-C15
24	C	303	PEK	O04-C21-O03-C01
23	T	1302	CHD	C21-C20-C22-C23
27	N	604	TGL	CC1-CC2-CC3-CC4
27	N	622	TGL	CB1-CB2-CB3-CB4
27	Y	101	TGL	CC1-CC2-CC3-CC4
25	C	306	CDL	C21-C22-C23-C24
27	L	502	TGL	C17-C18-C19-C33
24	C	303	PEK	C1-C2-C3-C4
25	C	313	CDL	CA7-C31-C32-C33
27	D	201	TGL	CC1-CC2-CC3-CC4
27	L	502	TGL	CB1-CB2-CB3-CB4
27	N	604	TGL	CB1-CB2-CB3-CB4
26	G	101	DMU	O5-C4-C57-O61
22	O	302	PSC	C1-C2-C3-C4
25	P	312	CDL	CA5-C11-C12-C13
26	G	105	DMU	C3-C4-C57-O61
27	L	502	TGL	CB4-CB5-CB6-CB7
25	C	306	CDL	O1-C1-CA2-OA2
27	I	101	TGL	CC1-CC2-CC3-CC4
17	P	306	PGV	C10-C11-C12-C13
24	P	305	PEK	C1-C2-C3-C4
27	N	604	TGL	C12-C13-C14-C29
24	P	305	PEK	C22-C21-O03-C01
27	I	101	TGL	CB2-CB1-OG2-CG2
25	C	306	CDL	OB7-CB5-OB6-CB4
25	P	312	CDL	CB2-C1-CA2-OA2
27	I	101	TGL	C33-C34-C35-C36
23	T	1302	CHD	C13-C17-C20-C22
24	P	304	PEK	C7-C8-C9-C10
17	C	305	PGV	O12-C04-C05-O05
25	P	312	CDL	O1-C1-CB2-OB2
25	C	313	CDL	C71-CB7-OB8-CB6
25	C	306	CDL	C59-C60-C61-C62
27	N	622	TGL	CA1-CA2-CA3-CA4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
17	P	307	PGV	C04-C05-C06-O06
17	Z	101	PGV	O02-C1-O01-C02
27	I	101	TGL	OB1-CB1-OG2-CG2
27	L	502	TGL	C16-C15-CC9-CC8
26	G	101	DMU	C18-C19-C22-C25
24	P	305	PEK	O04-C21-O03-C01
26	Z	102	DMU	O6-C11-C9-O1
25	P	308	CDL	C58-C59-C60-C61
26	P	314	DMU	C19-C22-C25-C28
27	L	502	TGL	C14-C29-C30-C31
27	N	622	TGL	C20-C21-C22-C23
17	M	101	PGV	C23-C24-C25-C26
24	C	302	PEK	C26-C27-C28-C29
25	C	306	CDL	C56-C57-C58-C59
25	P	308	CDL	C42-C43-C44-C45
25	P	312	CDL	C81-C82-C83-C84
26	Z	102	DMU	C19-C22-C25-C28
27	L	502	TGL	C22-C23-C24-C25
27	I	101	TGL	CA4-CA5-CA6-CA7
27	N	622	TGL	CB3-CB4-CB5-CB6
27	N	622	TGL	CC2-CC3-CC4-CC5
27	Y	101	TGL	CB5-CB6-CB7-CB8
25	P	312	CDL	C31-CA7-OA8-CA6
17	P	306	PGV	C6-C7-C8-C9
17	P	306	PGV	C7-C8-C9-C10
17	P	307	PGV	C2-C3-C4-C5
17	Z	101	PGV	C24-C25-C26-C27
25	C	306	CDL	C83-C84-C85-C86
25	C	313	CDL	C22-C23-C24-C25
25	P	308	CDL	C59-C60-C61-C62
25	P	308	CDL	C81-C82-C83-C84
25	P	312	CDL	C18-C19-C20-C21
25	P	312	CDL	C62-C63-C64-C65
27	D	201	TGL	CC6-CC7-CC8-CC9
27	N	622	TGL	CC4-CC5-CC6-CC7
17	A	604	PGV	C5-C6-C7-C8
17	Z	101	PGV	C21-C22-C23-C24
25	C	306	CDL	C39-C40-C41-C42
25	P	312	CDL	C22-C23-C24-C25
27	N	604	TGL	CB3-CB4-CB5-CB6
27	N	604	TGL	CC5-CC6-CC7-CC8
27	N	622	TGL	CB7-CB8-CB9-C10

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
27	Y	101	TGL	CA3-CA4-CA5-CA6
17	M	101	PGV	C11-C10-C9-C8
17	P	307	PGV	C22-C23-C24-C25
24	C	317	PEK	C33-C34-C35-C36
25	C	306	CDL	C19-C20-C21-C22
25	C	313	CDL	C79-C80-C81-C82
27	D	201	TGL	C22-C23-C24-C25
17	Z	101	PGV	C2-C1-O01-C02
25	P	308	CDL	C22-C23-C24-C25
17	M	101	PGV	C14-C15-C16-C17
17	P	302	PGV	C7-C8-C9-C10
17	P	306	PGV	C24-C25-C26-C27
25	C	306	CDL	C82-C83-C84-C85
25	P	312	CDL	C56-C57-C58-C59
27	I	101	TGL	CA3-CA4-CA5-CA6
27	I	101	TGL	CC9-C15-C16-C17
27	I	101	TGL	C22-C23-C24-C25
27	N	622	TGL	CC9-C15-C16-C17
25	P	312	CDL	CA7-C31-C32-C33
17	C	304	PGV	C14-C15-C16-C17
22	B	302	PSC	C4-C5-C6-C7
22	B	302	PSC	C24-C25-C26-C27
24	C	302	PEK	C31-C32-C33-C34
24	C	303	PEK	C27-C28-C29-C30
25	C	313	CDL	C23-C24-C25-C26
27	D	201	TGL	C12-C13-C14-C29
27	I	101	TGL	CC4-CC5-CC6-CC7
17	M	101	PGV	C27-C28-C29-C30
27	N	622	TGL	C23-C24-C25-C26
29	I	102	SAC	N-CA-CB-OG
27	I	101	TGL	C11-C12-C13-C14
23	T	1302	CHD	C13-C17-C20-C21
25	P	312	CDL	C35-C36-C37-C38
26	M	103	DMU	O16-C18-C19-C22
17	Z	101	PGV	C4-C5-C6-C7
24	C	317	PEK	C28-C29-C30-C31
24	P	305	PEK	C23-C24-C25-C26
25	C	306	CDL	C23-C24-C25-C26
25	P	308	CDL	C52-C53-C54-C55
25	P	308	CDL	C78-C79-C80-C81
27	N	604	TGL	CC2-CC3-CC4-CC5
27	N	622	TGL	CC5-CC6-CC7-CC8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
25	C	306	CDL	CB2-C1-CA2-OA2
27	D	201	TGL	OG1-CG1-CG2-CG3
17	P	306	PGV	C22-C23-C24-C25
25	C	306	CDL	C52-C53-C54-C55
25	C	306	CDL	C79-C80-C81-C82
27	I	101	TGL	C20-C21-C22-C23
17	P	306	PGV	C1-C2-C3-C4
17	Z	101	PGV	C27-C28-C29-C30
25	P	312	CDL	C57-C58-C59-C60
25	P	312	CDL	C83-C84-C85-C86
26	G	105	DMU	C25-C28-C31-C34
27	N	622	TGL	CA2-CA3-CA4-CA5
27	N	622	TGL	CB9-C10-C11-C12
27	Y	101	TGL	CB2-CB3-CB4-CB5
27	Y	101	TGL	C22-C23-C24-C25
19	B	305	EDO	O1-C1-C2-O2
19	G	107	EDO	O1-C1-C2-O2
19	N	611	EDO	O1-C1-C2-O2
19	N	620	EDO	O1-C1-C2-O2
19	P	310	EDO	O1-C1-C2-O2
17	A	604	PGV	C6-C7-C8-C9
17	A	604	PGV	C23-C24-C25-C26
27	D	201	TGL	C19-C33-C34-C35
27	N	622	TGL	C14-C29-C30-C31
27	L	502	TGL	CB7-CB8-CB9-C10
25	C	313	CDL	C11-CA5-OA6-CA4
22	B	302	PSC	C6-C7-C8-C9
24	P	305	PEK	C7-C8-C9-C10
25	P	312	CDL	C71-C72-C73-C74
24	C	303	PEK	C24-C25-C26-C27
27	D	201	TGL	CA6-CA7-CA8-CA9
17	P	302	PGV	C6-C7-C8-C9
17	Z	101	PGV	C5-C6-C7-C8
24	P	304	PEK	C24-C25-C26-C27
27	D	201	TGL	CA9-C20-C21-C22
25	C	313	CDL	OB9-CB7-OB8-CB6
25	P	312	CDL	OA9-CA7-OA8-CA6
17	C	305	PGV	C27-C28-C29-C30
27	I	101	TGL	C23-C24-C25-C26
27	N	604	TGL	C11-C12-C13-C14
27	N	622	TGL	C16-C17-C18-C19
27	L	502	TGL	CB6-CB7-CB8-CB9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
27	Y	101	TGL	CA7-CA8-CA9-C20
27	Y	101	TGL	C10-C11-C12-C13
17	M	101	PGV	C26-C27-C28-C29
25	C	313	CDL	C52-C53-C54-C55
27	I	101	TGL	CB5-CB6-CB7-CB8
27	I	101	TGL	CC7-CC8-CC9-C15
24	C	317	PEK	C22-C21-O03-C01
25	P	308	CDL	C19-C20-C21-C22
27	I	101	TGL	CC5-CC6-CC7-CC8
25	C	306	CDL	C37-C38-C39-C40
25	C	313	CDL	C21-C22-C23-C24
25	C	313	CDL	C74-C75-C76-C77
25	C	313	CDL	C76-C77-C78-C79
27	D	201	TGL	CB4-CB5-CB6-CB7
27	L	502	TGL	CA9-C20-C21-C22
26	M	103	DMU	O5-C6-O16-C18
27	N	604	TGL	C10-C11-C12-C13
26	C	316	DMU	C1-C6-O16-C18
17	M	101	PGV	C24-C25-C26-C27
25	C	313	CDL	CA5-C11-C12-C13
17	P	306	PGV	C25-C26-C27-C28
22	B	302	PSC	C20-C21-C22-C23
24	P	305	PEK	C27-C28-C29-C30
26	P	314	DMU	C25-C28-C31-C34
27	D	201	TGL	C15-C16-C17-C18
27	N	604	TGL	CA9-C20-C21-C22
27	N	604	TGL	C20-C21-C22-C23
24	P	301	PEK	C2-C1-O01-C02
25	P	308	CDL	C51-CB5-OB6-CB4
17	Z	101	PGV	C20-C21-C22-C23
24	P	301	PEK	C29-C30-C31-C32
26	M	103	DMU	C28-C31-C34-C37
25	C	306	CDL	CB4-CB6-OB8-CB7
25	C	313	CDL	OA7-CA5-OA6-CA4
25	P	312	CDL	C43-C44-C45-C46
27	N	604	TGL	CA5-CA6-CA7-CA8
27	N	622	TGL	C16-C15-CC9-CC8
22	O	302	PSC	C6-C7-C8-C9
22	O	302	PSC	C13-C14-C15-C16
24	C	302	PEK	C15-C16-C17-C18
27	D	201	TGL	C14-C29-C30-C31
24	P	301	PEK	C22-C23-C24-C25

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
25	P	312	CDL	C78-C79-C80-C81
25	C	306	CDL	C31-C32-C33-C34
25	P	312	CDL	C20-C21-C22-C23
27	Y	101	TGL	CB3-CB4-CB5-CB6
24	C	303	PEK	C29-C30-C31-C32
25	P	308	CDL	C75-C76-C77-C78
27	L	502	TGL	C16-C17-C18-C19
17	C	304	PGV	C27-C28-C29-C30
17	C	305	PGV	C7-C8-C9-C10
24	P	301	PEK	C33-C34-C35-C36
26	Z	102	DMU	C22-C25-C28-C31
27	L	502	TGL	C12-C13-C14-C29
27	Y	101	TGL	C20-C21-C22-C23
27	I	101	TGL	C15-C16-C17-C18
27	L	502	TGL	CC6-CC7-CC8-CC9
27	N	604	TGL	CB4-CB5-CB6-CB7
26	M	103	DMU	C18-C19-C22-C25
27	Y	101	TGL	C21-C20-CA9-CA8
25	C	306	CDL	C76-C77-C78-C79
27	N	622	TGL	CB2-CB3-CB4-CB5
27	Y	101	TGL	CA1-CA2-CA3-CA4
17	C	305	PGV	C24-C25-C26-C27
24	P	301	PEK	O02-C1-O01-C02
17	P	302	PGV	C23-C24-C25-C26
25	P	308	CDL	C77-C78-C79-C80
24	C	302	PEK	C28-C29-C30-C31
27	Y	101	TGL	C24-C25-C26-C27
27	Y	101	TGL	OA1-CA1-OG1-CG1
17	P	302	PGV	C5-C6-C7-C8
22	O	302	PSC	C5-C6-C7-C8
27	N	604	TGL	CA1-CA2-CA3-CA4
17	Z	101	PGV	C26-C27-C28-C29
25	C	313	CDL	C62-C63-C64-C65
17	P	302	PGV	C12-C13-C14-C15
24	P	305	PEK	C2-C3-C4-C5
27	I	101	TGL	OG1-CG1-CG2-OG2
27	L	502	TGL	OG1-CG1-CG2-OG2
17	C	305	PGV	C20-C21-C22-C23
24	C	303	PEK	C25-C26-C27-C28
25	C	313	CDL	C57-C58-C59-C60
24	C	317	PEK	C26-C27-C28-C29
25	P	312	CDL	C37-C38-C39-C40

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
24	P	304	PEK	C3-C4-C5-C6
17	C	304	PGV	C22-C23-C24-C25
25	P	308	CDL	C39-C40-C41-C42
24	P	305	PEK	C02-C03-O11-P
22	O	302	PSC	C28-C29-C30-C31
25	C	306	CDL	C61-C62-C63-C64
26	C	316	DMU	O5-C4-C57-O61
17	C	305	PGV	O12-C04-C05-C06
25	C	313	CDL	CB2-C1-CA2-OA2
17	P	307	PGV	C4-C5-C6-C7
25	C	306	CDL	C74-C75-C76-C77
25	C	313	CDL	C31-C32-C33-C34
25	C	313	CDL	C13-C14-C15-C16
24	P	304	PEK	C13-C14-C15-C16
17	P	307	PGV	C1-C2-C3-C4
17	C	305	PGV	C23-C24-C25-C26
17	P	306	PGV	C27-C28-C29-C30
25	C	313	CDL	C83-C84-C85-C86
17	P	307	PGV	C28-C29-C30-C31
27	N	622	TGL	C17-C18-C19-C33
23	T	1302	CHD	C16-C17-C20-C21
17	P	306	PGV	C14-C15-C16-C17
25	C	313	CDL	C37-C38-C39-C40
25	P	308	CDL	C15-C16-C17-C18
25	P	312	CDL	C12-C13-C14-C15
27	D	201	TGL	C13-C14-C29-C30
27	L	502	TGL	CC3-CC4-CC5-CC6
24	P	305	PEK	C15-C16-C17-C18
26	Z	102	DMU	C4-C3-O7-C10
27	I	101	TGL	C21-C22-C23-C24
22	B	302	PSC	C01-C02-C03-O11
25	P	308	CDL	OA5-CA3-CA4-CA6
25	P	308	CDL	OB7-CB5-OB6-CB4
27	Y	101	TGL	CC7-CC8-CC9-C15
22	O	302	PSC	C14-C15-C16-C17
25	C	306	CDL	C57-C58-C59-C60
22	B	302	PSC	C1-C2-C3-C4
17	A	604	PGV	C4-C5-C6-C7
17	A	604	PGV	C7-C8-C9-C10
24	P	305	PEK	C30-C31-C32-C33
25	C	306	CDL	C80-C81-C82-C83
25	C	313	CDL	C19-C20-C21-C22

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
27	Y	101	TGL	CA2-CA1-OG1-CG1
27	N	604	TGL	CC4-CC5-CC6-CC7
24	C	302	PEK	C25-C26-C27-C28
26	M	103	DMU	C31-C34-C37-C40
27	Y	101	TGL	CC6-CC7-CC8-CC9
26	G	105	DMU	C1-C6-O16-C18
24	C	303	PEK	C7-C8-C9-C10
27	D	201	TGL	C21-C20-CA9-CA8
25	C	306	CDL	CA3-CA4-CA6-OA8
25	P	312	CDL	CB3-CB4-CB6-OB8
27	I	101	TGL	OG1-CG1-CG2-CG3
27	L	502	TGL	OG1-CG1-CG2-CG3
27	L	502	TGL	CG1-CG2-CG3-OG3
24	P	305	PEK	C17-C18-C19-C20
27	I	101	TGL	C12-C13-C14-C29
27	L	502	TGL	C21-C22-C23-C24
24	C	317	PEK	O04-C21-O03-C01
24	C	317	PEK	C15-C16-C17-C18
24	P	304	PEK	C15-C16-C17-C18
25	C	306	CDL	C15-C16-C17-C18
17	M	101	PGV	C5-C6-C7-C8
24	P	301	PEK	C23-C24-C25-C26
19	B	310	EDO	O1-C1-C2-O2
19	C	310	EDO	O1-C1-C2-O2
19	C	311	EDO	O1-C1-C2-O2
19	C	315	EDO	O1-C1-C2-O2
19	G	104	EDO	O1-C1-C2-O2
19	L	505	EDO	O1-C1-C2-O2
19	N	625	EDO	O1-C1-C2-O2
19	P	311	EDO	O1-C1-C2-O2
19	S	1606	EDO	O1-C1-C2-O2
19	S	1607	EDO	O1-C1-C2-O2
19	T	1301	EDO	O1-C1-C2-O2
19	V	103	EDO	O1-C1-C2-O2
19	W	301	EDO	O1-C1-C2-O2
19	W	304	EDO	O1-C1-C2-O2
19	Y	102	EDO	O1-C1-C2-O2
25	C	313	CDL	C55-C56-C57-C58
27	Y	101	TGL	CC4-CC5-CC6-CC7
27	L	502	TGL	CC9-C15-C16-C17
17	P	302	PGV	C29-C30-C31-C32
26	Z	102	DMU	O16-C18-C19-C22

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
24	P	301	PEK	C30-C31-C32-C33
25	P	312	CDL	C31-C32-C33-C34
25	P	312	CDL	C74-C75-C76-C77
25	P	308	CDL	C37-C38-C39-C40
25	P	308	CDL	C61-C62-C63-C64
25	P	308	CDL	C36-C37-C38-C39
24	C	302	PEK	C17-C18-C19-C20
24	P	304	PEK	C32-C33-C34-C35
17	Z	101	PGV	C03-C02-O01-C1
24	C	302	PEK	C24-C25-C26-C27
24	P	305	PEK	C32-C33-C34-C35
24	C	303	PEK	C2-C3-C4-C5
24	P	301	PEK	C16-C17-C18-C19
25	C	313	CDL	C33-C34-C35-C36
25	P	308	CDL	C12-C13-C14-C15
25	P	312	CDL	C72-C73-C74-C75
27	Y	101	TGL	CC2-CC3-CC4-CC5
18	A	605	HEA	C2A-C3A-CMA-OMA
18	A	606	HEA	C2A-C3A-CMA-OMA
24	P	305	PEK	C35-C36-C37-C38
26	G	101	DMU	O16-C18-C19-C22
25	C	313	CDL	C56-C57-C58-C59
25	P	312	CDL	C60-C61-C62-C63
24	P	305	PEK	O01-C02-C03-O11
27	D	201	TGL	CA2-CA1-OG1-CG1
25	P	312	CDL	C51-CB5-OB6-CB4
27	I	101	TGL	CB1-CB2-CB3-CB4
17	C	304	PGV	C24-C25-C26-C27
24	P	305	PEK	C28-C29-C30-C31
17	C	304	PGV	C25-C26-C27-C28
17	P	306	PGV	C30-C31-C32-C33
25	C	306	CDL	C51-C52-C53-C54
26	G	101	DMU	C28-C31-C34-C37
26	C	316	DMU	C34-C37-C40-C43
17	P	307	PGV	C23-C24-C25-C26
27	D	201	TGL	CC9-C15-C16-C17
27	D	201	TGL	C18-C19-C33-C34
27	L	502	TGL	CA2-CA3-CA4-CA5
27	Y	101	TGL	OG2-CG2-CG3-OG3
27	D	201	TGL	CA3-CA4-CA5-CA6
27	N	622	TGL	CA6-CA7-CA8-CA9
25	P	308	CDL	C84-C85-C86-C87

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
26	G	105	DMU	C34-C37-C40-C43
17	C	305	PGV	C14-C15-C16-C17
25	C	306	CDL	C73-C74-C75-C76
27	N	604	TGL	CC7-CC8-CC9-C15
27	N	622	TGL	CA9-C20-C21-C22
24	C	303	PEK	C17-C18-C19-C20
24	C	317	PEK	C17-C18-C19-C20
24	C	303	PEK	C35-C36-C37-C38
27	N	604	TGL	C29-C30-C31-C32
17	C	304	PGV	C26-C27-C28-C29
27	N	622	TGL	CB4-CB5-CB6-CB7
24	P	301	PEK	C22-C21-O03-C01
22	O	302	PSC	C22-C23-C24-C25
25	C	306	CDL	C13-C14-C15-C16
27	L	502	TGL	C23-C24-C25-C26
27	I	101	TGL	C18-C19-C33-C34
27	Y	101	TGL	C33-C34-C35-C36
17	M	101	PGV	C10-C11-C12-C13
24	C	302	PEK	C13-C14-C15-C16
24	C	303	PEK	C10-C11-C12-C13
17	C	305	PGV	C31-C32-C33-C34
17	M	101	PGV	C3-C4-C5-C6
17	P	306	PGV	C15-C16-C17-C18
17	M	101	PGV	C25-C26-C27-C28
17	C	305	PGV	C02-C03-O11-P
27	L	502	TGL	CC4-CC5-CC6-CC7
27	N	622	TGL	C24-C25-C26-C27
17	C	304	PGV	C7-C8-C9-C10
27	L	502	TGL	C20-C21-C22-C23
27	Y	101	TGL	C16-C15-CC9-CC8
17	P	307	PGV	C01-C02-C03-O11
25	C	306	CDL	OA5-CA3-CA4-CA6
27	N	604	TGL	C21-C22-C23-C24
17	Z	101	PGV	O12-C04-C05-O05
24	C	317	PEK	C35-C36-C37-C38
25	P	308	CDL	C56-C57-C58-C59
25	P	312	CDL	C24-C25-C26-C27
27	D	201	TGL	OA1-CA1-OG1-CG1
24	C	303	PEK	C13-C14-C15-C16
17	C	305	PGV	C4-C5-C6-C7
25	C	306	CDL	C24-C25-C26-C27
17	C	304	PGV	C1-C2-C3-C4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
17	Z	101	PGV	O03-C01-C02-C03
22	O	302	PSC	O03-C01-C02-C03
25	P	308	CDL	CA3-CA4-CA6-OA8
27	N	622	TGL	CG1-CG2-CG3-OG3
27	D	201	TGL	C29-C30-C31-C32
17	C	305	PGV	C13-C14-C15-C16
27	L	502	TGL	CA5-CA6-CA7-CA8
17	A	604	PGV	C26-C27-C28-C29
22	O	302	PSC	C2-C3-C4-C5
25	P	308	CDL	C74-C75-C76-C77
17	C	305	PGV	C15-C16-C17-C18
25	C	313	CDL	C44-C45-C46-C47
27	L	502	TGL	CB2-CB3-CB4-CB5
19	A	610	EDO	O1-C1-C2-O2
19	Q	1803	EDO	O1-C1-C2-O2
19	R	202	EDO	O1-C1-C2-O2
25	C	313	CDL	CB5-C51-C52-C53
27	I	101	TGL	CA1-CA2-CA3-CA4
17	P	307	PGV	O01-C02-C03-O11
22	B	302	PSC	O01-C02-C03-O11
25	C	306	CDL	OA5-CA3-CA4-OA6
22	B	302	PSC	C14-C15-C16-C17
24	P	304	PEK	C30-C31-C32-C33
24	C	317	PEK	C30-C31-C32-C33
24	P	301	PEK	C7-C8-C9-C10
27	Y	101	TGL	C17-C18-C19-C33
25	P	308	CDL	C64-C65-C66-C67
17	C	304	PGV	C30-C31-C32-C33
25	P	312	CDL	C38-C39-C40-C41
24	C	302	PEK	C30-C31-C32-C33
23	W	302	CHD	C20-C22-C23-C24
17	C	305	PGV	O03-C01-C02-O01
27	N	622	TGL	OG2-CG2-CG3-OG3
22	B	302	PSC	C9-C10-C11-C12
22	B	302	PSC	C10-C11-C12-C13
24	C	302	PEK	C12-C13-C14-C15
24	C	303	PEK	C11-C12-C13-C14
24	C	317	PEK	C5-C6-C7-C8
24	C	317	PEK	C6-C7-C8-C9
24	C	317	PEK	C9-C10-C11-C12
24	C	317	PEK	C12-C13-C14-C15
24	P	301	PEK	C5-C6-C7-C8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
24	P	301	PEK	C9-C10-C11-C12
24	P	305	PEK	C11-C12-C13-C14
24	P	305	PEK	C12-C13-C14-C15
26	Z	102	DMU	O6-C11-C9-C8
24	C	302	PEK	C35-C36-C37-C38
25	P	308	CDL	C51-C52-C53-C54
27	I	101	TGL	CA7-CA8-CA9-C20
27	D	201	TGL	C16-C15-CC9-CC8
24	C	317	PEK	C16-C17-C18-C19
27	Y	101	TGL	C23-C24-C25-C26
17	M	101	PGV	C2-C3-C4-C5
17	P	306	PGV	C31-C32-C33-C34
27	Y	101	TGL	CG2-CG1-OG1-CA1
24	P	304	PEK	C17-C18-C19-C20
24	C	317	PEK	C2-C1-O01-C02
27	I	101	TGL	CB9-C10-C11-C12
25	P	308	CDL	C62-C63-C64-C65
17	P	307	PGV	C21-C22-C23-C24
22	B	302	PSC	C26-C27-C28-C29
25	P	308	CDL	C63-C64-C65-C66
17	P	302	PGV	C11-C10-C9-C8
17	Z	101	PGV	C01-C02-C03-O11
24	P	305	PEK	C01-C02-C03-O11
25	P	312	CDL	OB5-CB3-CB4-CB6
17	P	306	PGV	C9-C10-C11-C12
27	I	101	TGL	C25-C26-C27-C28
17	P	306	PGV	C21-C22-C23-C24
25	C	306	CDL	C16-C17-C18-C19
27	D	201	TGL	C16-C17-C18-C19
25	P	312	CDL	C40-C41-C42-C43
25	C	306	CDL	C42-C43-C44-C45
17	A	604	PGV	C19-C20-C21-C22
17	P	306	PGV	C26-C27-C28-C29
25	P	312	CDL	CB6-CB4-OB6-CB5
17	A	604	PGV	C12-C13-C14-C15
22	O	302	PSC	C24-C25-C26-C27
24	P	301	PEK	O04-C21-O03-C01
27	Y	101	TGL	C11-C12-C13-C14
17	A	604	PGV	C30-C31-C32-C33
25	P	312	CDL	OB7-CB5-OB6-CB4
25	C	313	CDL	OA5-CA3-CA4-OA6
17	C	305	PGV	C22-C23-C24-C25

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
24	C	303	PEK	O03-C01-C02-C03
25	C	313	CDL	CB3-CB4-CB6-OB8
27	N	622	TGL	OG1-CG1-CG2-CG3
25	C	306	CDL	C38-C39-C40-C41
22	B	302	PSC	C11-C10-C9-C8
24	C	317	PEK	C10-C11-C12-C13
22	O	302	PSC	O03-C01-C02-O01
25	C	306	CDL	OA6-CA4-CA6-OA8
25	P	308	CDL	OA6-CA4-CA6-OA8
24	C	303	PEK	C31-C32-C33-C34
25	C	313	CDL	C38-C39-C40-C41
17	M	101	PGV	C21-C22-C23-C24
26	C	316	DMU	C25-C28-C31-C34
27	I	101	TGL	C11-C10-CB9-CB8
27	L	502	TGL	CC7-CC8-CC9-C15
27	N	604	TGL	C16-C15-CC9-CC8
24	C	302	PEK	C32-C33-C34-C35
26	P	314	DMU	C2-C3-O7-C10
17	C	305	PGV	C3-C4-C5-C6
26	C	316	DMU	O16-C18-C19-C22
27	N	622	TGL	CG2-CG3-OG3-CC1
24	C	317	PEK	C31-C32-C33-C34
25	P	312	CDL	C23-C24-C25-C26
27	N	622	TGL	CA4-CA5-CA6-CA7
24	C	302	PEK	C33-C34-C35-C36
17	M	101	PGV	O05-C05-C06-O06
17	P	307	PGV	O05-C05-C06-O06
26	C	316	DMU	C19-C18-O16-C6
25	P	312	CDL	C54-C55-C56-C57
17	A	604	PGV	C13-C14-C15-C16
25	C	306	CDL	C71-C72-C73-C74
17	C	305	PGV	C11-C10-C9-C8
25	P	308	CDL	CB7-C71-C72-C73
24	P	305	PEK	C33-C34-C35-C36
17	Z	101	PGV	C6-C7-C8-C9
17	Z	101	PGV	C30-C31-C32-C33
26	Z	102	DMU	C31-C34-C37-C40
26	G	101	DMU	C3-C4-C57-O61
24	P	305	PEK	C13-C14-C15-C16
24	C	303	PEK	C14-C15-C16-C17
27	N	622	TGL	CA7-CA8-CA9-C20
17	P	307	PGV	C02-C03-O11-P

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
17	Z	101	PGV	C28-C29-C30-C31
27	Y	101	TGL	CA2-CA3-CA4-CA5
25	C	313	CDL	C51-C52-C53-C54
24	C	317	PEK	O02-C1-O01-C02
17	Z	101	PGV	O01-C02-C03-O11
25	C	306	CDL	OB5-CB3-CB4-OB6
25	P	308	CDL	OA5-CA3-CA4-OA6
25	P	308	CDL	OB5-CB3-CB4-OB6
25	P	312	CDL	OB5-CB3-CB4-OB6
25	P	308	CDL	C24-C25-C26-C27
27	N	604	TGL	C22-C23-C24-C25
27	Y	101	TGL	CB6-CB7-CB8-CB9
25	C	313	CDL	C17-C18-C19-C20
17	C	304	PGV	C15-C16-C17-C18
18	N	605	HEA	C4A-C3A-CMA-OMA
18	N	606	HEA	C4A-C3A-CMA-OMA
17	P	302	PGV	C9-C10-C11-C12
24	C	317	PEK	C14-C15-C16-C17
27	I	101	TGL	CB2-CB3-CB4-CB5
25	C	313	CDL	C35-C36-C37-C38
17	Z	101	PGV	C22-C23-C24-C25
24	C	303	PEK	O03-C01-C02-O01
25	P	312	CDL	OB6-CB4-CB6-OB8
27	D	201	TGL	OG1-CG1-CG2-OG2
27	N	622	TGL	OG1-CG1-CG2-OG2
17	C	305	PGV	O03-C01-C02-C03
27	Y	101	TGL	CG1-CG2-CG3-OG3
27	I	101	TGL	C16-C17-C18-C19
25	C	306	CDL	CA7-C31-C32-C33
17	P	307	PGV	O12-C04-C05-O05
27	N	604	TGL	CB5-CB6-CB7-CB8
27	D	201	TGL	C11-C12-C13-C14
25	P	312	CDL	C59-C60-C61-C62
19	N	624	EDO	O1-C1-C2-O2
25	P	308	CDL	C21-C22-C23-C24
26	C	316	DMU	C4-C3-O7-C10
17	C	305	PGV	C26-C27-C28-C29
17	P	307	PGV	C25-C26-C27-C28
17	C	305	PGV	C03-O11-P-O14
17	C	305	PGV	C04-O12-P-O13
24	P	305	PEK	C03-O11-P-O13
25	C	306	CDL	CB2-OB2-PB2-OB3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
25	C	306	CDL	CB2-OB2-PB2-OB4
25	C	306	CDL	CB2-OB2-PB2-OB5
25	C	313	CDL	CA2-OA2-PA1-OA3
25	P	308	CDL	CB2-OB2-PB2-OB3
25	P	308	CDL	CB2-OB2-PB2-OB4
25	P	308	CDL	CB2-OB2-PB2-OB5
25	P	312	CDL	CA2-OA2-PA1-OA4
25	P	312	CDL	CB2-OB2-PB2-OB5
25	P	312	CDL	C11-C12-C13-C14
26	P	314	DMU	C4-C3-O7-C10
17	C	304	PGV	C02-C03-O11-P
17	P	306	PGV	C02-C03-O11-P
25	C	306	CDL	CA4-CA3-OA5-PA1
25	P	308	CDL	CA4-CA3-OA5-PA1
25	P	308	CDL	CB4-CB3-OB5-PB2
27	N	604	TGL	CB2-CB3-CB4-CB5
27	N	622	TGL	OB1-CB1-OG2-CG2
27	D	201	TGL	C20-C21-C22-C23
17	P	307	PGV	C7-C8-C9-C10
27	Y	101	TGL	C15-C16-C17-C18
17	M	101	PGV	C19-C20-C21-C22
25	P	308	CDL	OB5-CB3-CB4-CB6
24	C	317	PEK	C24-C25-C26-C27
22	O	302	PSC	C27-C28-C29-C30
17	C	305	PGV	C11-C12-C13-C14
25	C	313	CDL	C11-C12-C13-C14
27	N	604	TGL	OA1-CA1-OG1-CG1
27	Y	101	TGL	C21-C22-C23-C24
17	A	604	PGV	C27-C28-C29-C30
27	Y	101	TGL	C13-C14-C29-C30
25	C	313	CDL	C73-C74-C75-C76
25	C	313	CDL	OB6-CB4-CB6-OB8
27	L	502	TGL	OG2-CG2-CG3-OG3
22	B	302	PSC	C30-C31-C32-C33
17	C	305	PGV	C2-C1-O01-C02
27	D	201	TGL	CC5-CC6-CC7-CC8
25	C	313	CDL	OA9-CA7-OA8-CA6
17	P	302	PGV	O03-C19-C20-C21
19	A	617	EDO	O1-C1-C2-O2
19	D	204	EDO	O1-C1-C2-O2
19	E	204	EDO	O1-C1-C2-O2
19	F	708	EDO	O1-C1-C2-O2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
19	L	503	EDO	O1-C1-C2-O2
17	A	604	PGV	C11-C10-C9-C8
24	C	303	PEK	C34-C35-C36-C37
17	A	604	PGV	O03-C19-C20-C21
27	L	502	TGL	C11-C10-CB9-CB8
25	C	313	CDL	C54-C55-C56-C57
25	C	306	CDL	CA2-C1-CB2-OB2
26	Z	102	DMU	C19-C18-O16-C6
27	N	604	TGL	CA2-CA1-OG1-CG1
25	P	308	CDL	C71-C72-C73-C74
26	C	316	DMU	C2-C3-O7-C10
25	C	313	CDL	C31-CA7-OA8-CA6
17	C	304	PGV	C19-C20-C21-C22
25	C	313	CDL	OB5-CB3-CB4-OB6
24	C	302	PEK	C3-C4-C5-C6
24	P	305	PEK	C24-C25-C26-C27
25	C	306	CDL	C35-C36-C37-C38
25	P	308	CDL	C20-C21-C22-C23
25	P	308	CDL	C60-C61-C62-C63
27	Y	101	TGL	CA5-CA6-CA7-CA8
25	P	312	CDL	C36-C37-C38-C39
17	Z	101	PGV	C15-C16-C17-C18
17	C	305	PGV	O02-C1-O01-C02
27	I	101	TGL	C16-C15-CC9-CC8
24	P	305	PEK	C16-C17-C18-C19
26	Z	102	DMU	C34-C37-C40-C43
27	Y	101	TGL	CB7-CB8-CB9-C10
17	C	304	PGV	C05-C04-O12-P
25	C	313	CDL	C40-C41-C42-C43
26	C	316	DMU	C31-C34-C37-C40
17	M	101	PGV	C13-C14-C15-C16
26	C	316	DMU	C28-C31-C34-C37
17	A	604	PGV	C10-C11-C12-C13
24	P	304	PEK	C4-C5-C6-C7
25	C	306	CDL	C62-C63-C64-C65
25	P	308	CDL	C55-C56-C57-C58
26	Z	102	DMU	C3-C4-C57-O61
17	P	307	PGV	C3-C4-C5-C6
19	N	607	EDO	O1-C1-C2-O2
19	N	609	EDO	O1-C1-C2-O2
23	B	303	CHD	C22-C23-C24-O25
23	P	309	CHD	C22-C23-C24-O25

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
23	T	1302	CHD	C22-C23-C24-O25
26	G	101	DMU	C22-C25-C28-C31
23	B	303	CHD	C22-C23-C24-O26
23	C	307	CHD	C22-C23-C24-O25
27	N	622	TGL	C10-C11-C12-C13
27	I	101	TGL	C29-C30-C31-C32
25	P	308	CDL	C79-C80-C81-C82
18	A	605	HEA	CAD-CBD-CGD-O1D
18	A	605	HEA	CAD-CBD-CGD-O2D
26	G	105	DMU	C19-C22-C25-C28
24	C	303	PEK	C6-C7-C8-C9
24	P	301	PEK	C11-C12-C13-C14
17	C	304	PGV	C28-C29-C30-C31
24	C	317	PEK	C22-C23-C24-C25
25	C	306	CDL	C60-C61-C62-C63
23	G	106	CHD	C21-C20-C22-C23
27	I	101	TGL	CB6-CB7-CB8-CB9
24	P	304	PEK	C25-C26-C27-C28
27	I	101	TGL	CC2-CC3-CC4-CC5
25	P	308	CDL	C31-C32-C33-C34
23	C	307	CHD	C22-C23-C24-O26
25	C	306	CDL	C17-C18-C19-C20
24	P	301	PEK	C02-C03-O11-P
27	D	201	TGL	C10-C11-C12-C13
17	Z	101	PGV	C7-C8-C9-C10
24	C	303	PEK	C30-C31-C32-C33
23	T	1302	CHD	C22-C23-C24-O26
24	P	304	PEK	C35-C36-C37-C38
22	B	302	PSC	C22-C23-C24-C25
22	B	302	PSC	C27-C28-C29-C30
27	N	604	TGL	CA7-CA8-CA9-C20
19	D	202	EDO	O1-C1-C2-O2
19	D	203	EDO	O1-C1-C2-O2
19	E	201	EDO	O1-C1-C2-O2
19	E	203	EDO	O1-C1-C2-O2
19	F	702	EDO	O1-C1-C2-O2
19	N	612	EDO	O1-C1-C2-O2
19	N	626	EDO	O1-C1-C2-O2
19	O	304	EDO	O1-C1-C2-O2
19	P	313	EDO	O1-C1-C2-O2
19	Q	1802	EDO	O1-C1-C2-O2
19	S	1604	EDO	O1-C1-C2-O2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
19	S	1605	EDO	O1-C1-C2-O2
19	W	303	EDO	O1-C1-C2-O2
23	G	106	CHD	C22-C23-C24-O26
23	P	309	CHD	C22-C23-C24-O26
22	O	302	PSC	C12-C13-C14-C15
27	I	101	TGL	CA6-CA7-CA8-CA9
23	G	106	CHD	C22-C23-C24-O25
23	P	303	CHD	C22-C23-C24-O26
26	G	101	DMU	C34-C37-C40-C43
23	J	101	CHD	C17-C20-C22-C23
24	C	303	PEK	O03-C21-C22-C23
17	P	307	PGV	C20-C21-C22-C23
17	P	307	PGV	C9-C10-C11-C12
26	G	101	DMU	C31-C34-C37-C40
17	C	304	PGV	C23-C24-C25-C26
24	P	305	PEK	C22-C23-C24-C25
25	P	312	CDL	C55-C56-C57-C58
24	P	304	PEK	C34-C35-C36-C37
17	C	304	PGV	C11-C12-C13-C14
25	P	312	CDL	C13-C14-C15-C16
18	A	605	HEA	CAA-CBA-CGA-O1A
27	N	604	TGL	CA6-CA7-CA8-CA9
17	C	305	PGV	C30-C31-C32-C33
22	O	302	PSC	C03-C02-O01-C1
27	N	622	TGL	CG1-CG2-OG2-CB1
17	A	604	PGV	C31-C32-C33-C34
17	Z	101	PGV	C11-C10-C9-C8
18	N	606	HEA	C2A-C3A-CMA-OMA
27	D	201	TGL	C25-C26-C27-C28
24	C	317	PEK	C7-C8-C9-C10
22	O	302	PSC	C25-C26-C27-C28
17	P	307	PGV	C31-C32-C33-C34
17	P	306	PGV	C5-C6-C7-C8
27	N	622	TGL	C18-C19-C33-C34
27	D	201	TGL	CB6-CB7-CB8-CB9
27	L	502	TGL	OC1-CC1-OG3-CG3
17	C	304	PGV	C13-C14-C15-C16
27	D	201	TGL	C21-C22-C23-C24
18	N	605	HEA	CAD-CBD-CGD-O2D
23	P	303	CHD	C22-C23-C24-O25
27	N	622	TGL	C25-C26-C27-C28
17	M	101	PGV	O01-C1-C2-C3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
22	O	302	PSC	O03-C19-C20-C21
27	D	201	TGL	OG2-CB1-CB2-CB3
19	A	607	EDO	O1-C1-C2-O2
19	C	308	EDO	O1-C1-C2-O2
19	E	202	EDO	O1-C1-C2-O2
19	F	701	EDO	O1-C1-C2-O2
19	F	704	EDO	O1-C1-C2-O2
19	F	709	EDO	O1-C1-C2-O2
19	G	102	EDO	O1-C1-C2-O2
19	K	201	EDO	O1-C1-C2-O2
19	L	501	EDO	O1-C1-C2-O2
19	M	102	EDO	O1-C1-C2-O2
19	Q	1801	EDO	O1-C1-C2-O2
18	N	605	HEA	CAD-CBD-CGD-O1D
24	P	305	PEK	C3-C4-C5-C6
25	C	306	CDL	OB5-CB3-CB4-CB6
17	A	604	PGV	C25-C26-C27-C28
17	C	305	PGV	C28-C29-C30-C31
22	B	302	PSC	C31-C32-C33-C34
18	A	605	HEA	C3B-C11-C12-C13
27	N	604	TGL	CC9-C15-C16-C17
25	P	308	CDL	C32-C31-CA7-OA8
25	C	313	CDL	C53-C54-C55-C56
25	P	312	CDL	C32-C33-C34-C35
18	A	605	HEA	CAA-CBA-CGA-O2A
22	O	302	PSC	O02-C1-O01-C02
18	N	605	HEA	CAA-CBA-CGA-O2A
27	I	101	TGL	C10-C11-C12-C13
27	L	502	TGL	CB5-CB6-CB7-CB8
25	C	306	CDL	C32-C31-CA7-OA8
25	C	306	CDL	C36-C37-C38-C39
25	P	308	CDL	C17-C18-C19-C20
26	P	314	DMU	C19-C18-O16-C6
17	Z	101	PGV	O03-C19-C20-C21
27	N	622	TGL	OG2-CB1-CB2-CB3
23	C	301	CHD	C22-C23-C24-O26
24	P	305	PEK	C31-C32-C33-C34
24	P	304	PEK	O01-C1-C2-C3
25	P	308	CDL	C72-C71-CB7-OB8
17	C	304	PGV	C21-C22-C23-C24
26	G	101	DMU	C1-C6-O16-C18
19	B	308	EDO	O1-C1-C2-O2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
19	J	103	EDO	O1-C1-C2-O2
19	S	1603	EDO	O1-C1-C2-O2
19	T	1303	EDO	O1-C1-C2-O2
22	O	302	PSC	C04-C05-N-C07
27	N	604	TGL	C13-C14-C29-C30
26	Z	102	DMU	C28-C31-C34-C37
25	C	306	CDL	C22-C23-C24-C25
25	P	312	CDL	CA4-CA3-OA5-PA1
17	P	302	PGV	C31-C32-C33-C34
25	P	308	CDL	C32-C31-CA7-OA9
27	N	622	TGL	C33-C34-C35-C36
27	L	502	TGL	CC2-CC1-OG3-CG3
23	C	301	CHD	C22-C23-C24-O25
22	O	302	PSC	C04-C05-N-C08
25	P	312	CDL	C42-C43-C44-C45
17	Z	101	PGV	O04-C19-C20-C21
27	N	604	TGL	OB1-CB1-OG2-CG2
17	M	101	PGV	O02-C1-C2-C3
22	O	302	PSC	O04-C19-C20-C21
25	P	308	CDL	C72-C71-CB7-OB9
24	C	302	PEK	C02-C03-O11-P
24	P	304	PEK	O03-C21-C22-C23
24	P	305	PEK	O01-C1-C2-C3
27	Y	101	TGL	OG2-CB1-CB2-CB3
27	L	502	TGL	CB9-C10-C11-C12
22	O	302	PSC	C04-C05-N-C06
27	N	622	TGL	C13-C14-C29-C30
18	N	605	HEA	CAA-CBA-CGA-O1A
22	B	302	PSC	C13-C14-C15-C16
24	P	304	PEK	O02-C1-C2-C3
24	C	303	PEK	C33-C34-C35-C36
25	C	306	CDL	C20-C21-C22-C23
27	N	622	TGL	OB1-CB1-CB2-CB3
26	C	316	DMU	C19-C22-C25-C28
19	I	103	EDO	O1-C1-C2-O2
19	N	608	EDO	O1-C1-C2-O2
24	C	317	PEK	C4-C5-C6-C7
24	C	302	PEK	O01-C1-C2-C3
27	N	604	TGL	CB2-CB1-OG2-CG2
27	N	622	TGL	CB2-CB1-OG2-CG2
22	B	302	PSC	O01-C1-C2-C3
25	P	312	CDL	C72-C71-CB7-OB8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms
25	P	312	CDL	C33-C34-C35-C36

There are no ring outliers.

56 monomers are involved in 221 short contacts:

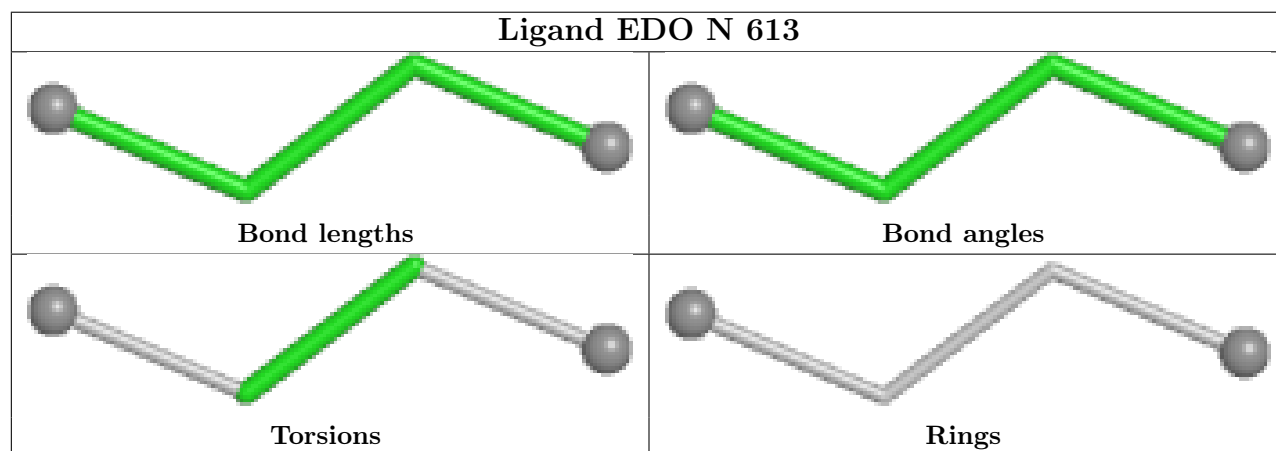
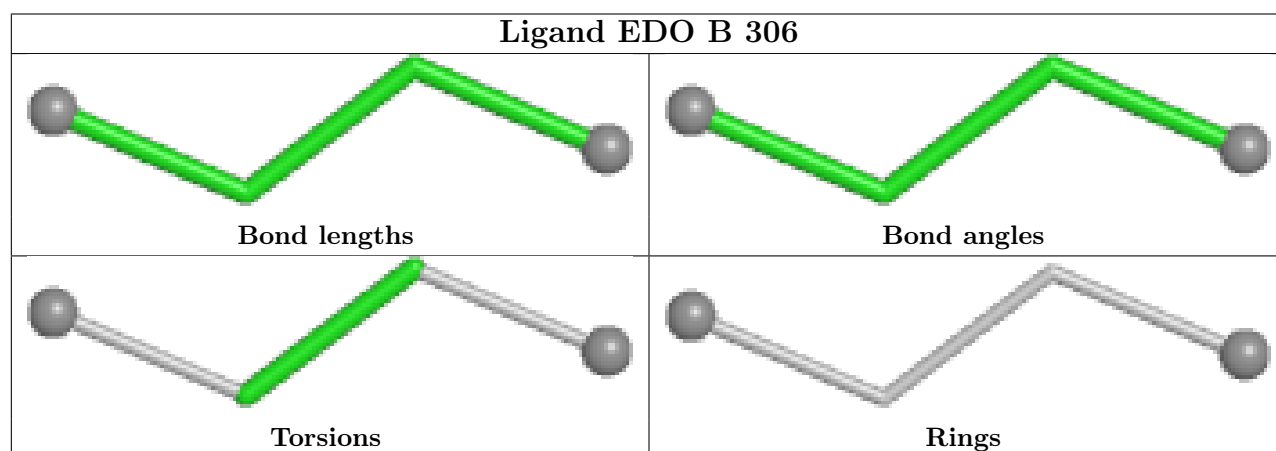
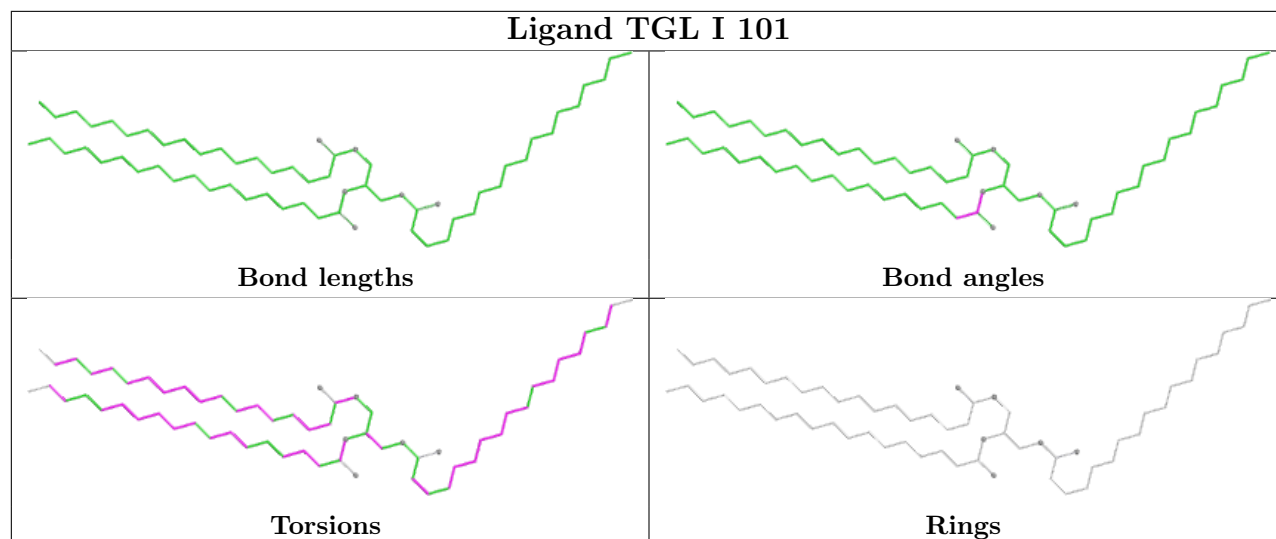
Mol	Chain	Res	Type	Clashes	Symm-Clashes
27	I	101	TGL	3	0
19	N	613	EDO	1	0
17	Z	101	PGV	20	0
22	B	302	PSC	10	0
22	O	302	PSC	5	0
20	A	615	0NM	1	0
19	C	310	EDO	6	0
25	P	308	CDL	2	0
19	E	201	EDO	1	0
23	J	101	CHD	1	0
17	C	305	PGV	3	0
24	P	304	PEK	2	0
18	A	606	HEA	4	0
19	B	310	EDO	1	0
25	C	306	CDL	12	0
29	V	101	SAC	2	0
24	P	301	PEK	6	0
24	C	302	PEK	2	0
23	P	303	CHD	1	0
19	A	616	EDO	2	0
19	F	704	EDO	3	0
17	M	101	PGV	6	0
27	L	502	TGL	6	0
19	R	202	EDO	2	0
17	P	307	PGV	3	0
24	C	317	PEK	9	0
27	D	201	TGL	12	0
24	C	303	PEK	5	0
23	T	1302	CHD	7	0
17	P	306	PGV	2	0
19	A	612	EDO	1	0
17	C	304	PGV	4	0
18	N	605	HEA	5	0
25	P	312	CDL	10	0
19	N	610	EDO	3	0
27	N	622	TGL	8	0

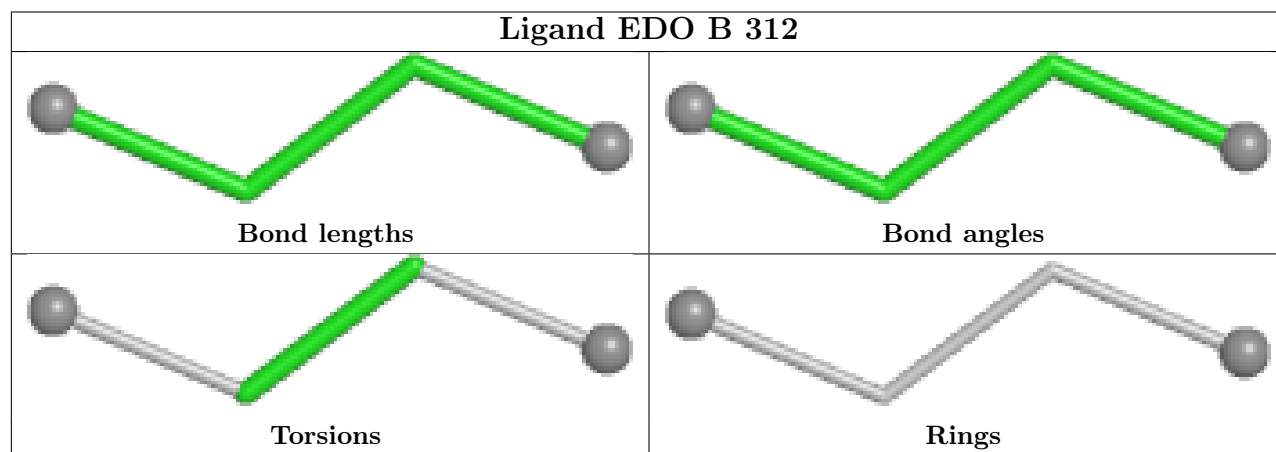
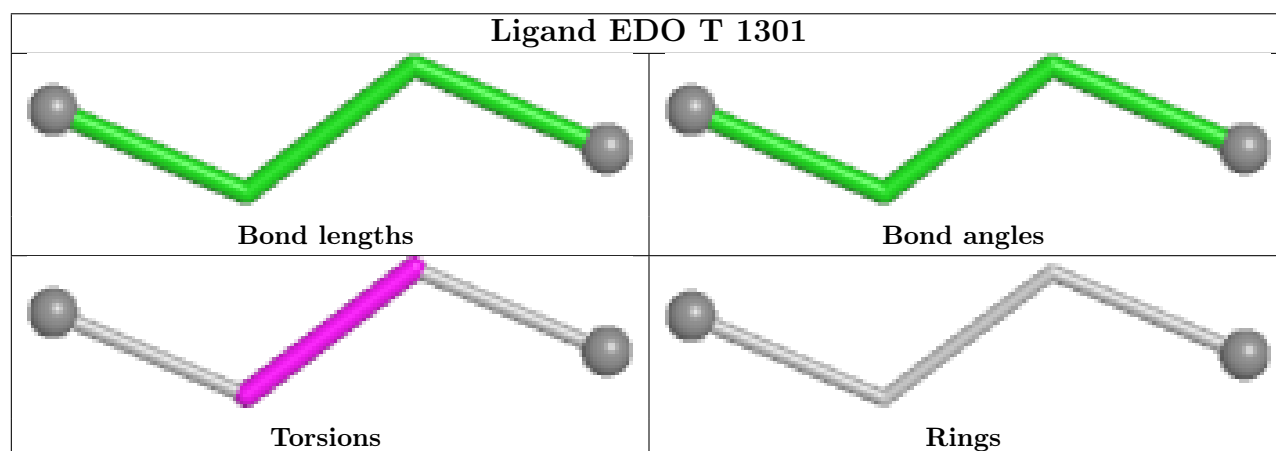
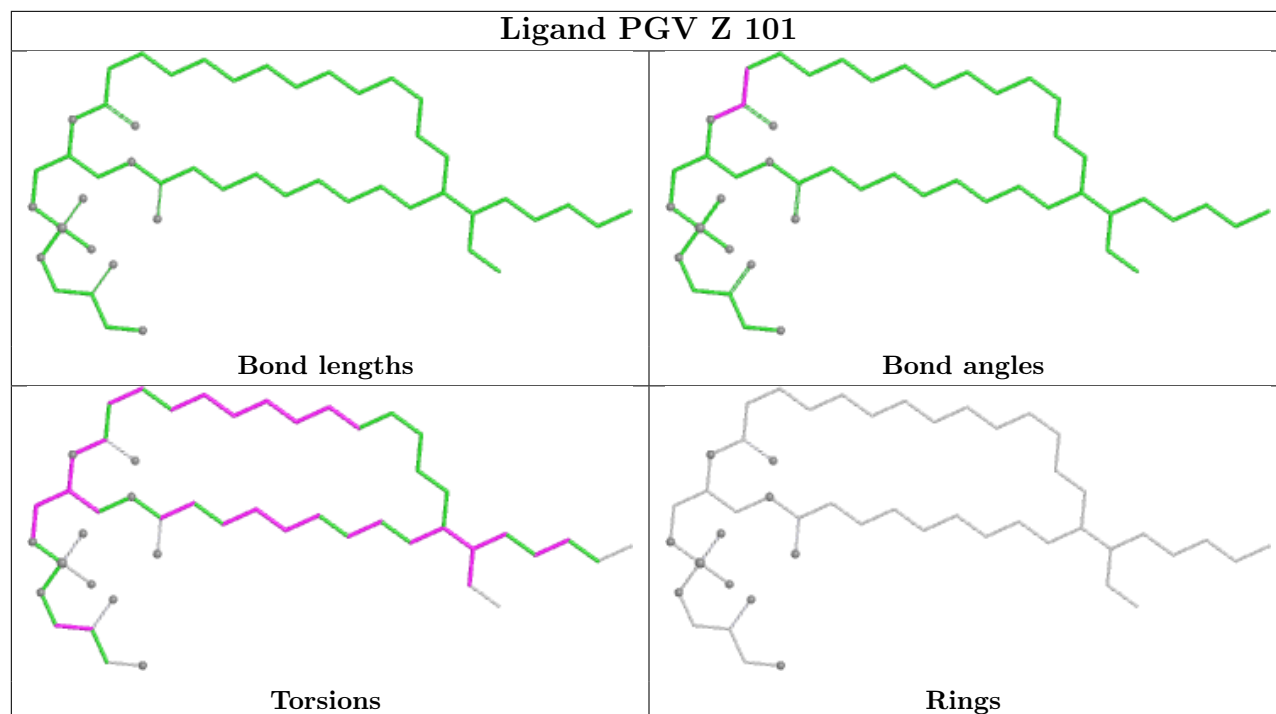
Continued on next page...

Continued from previous page...

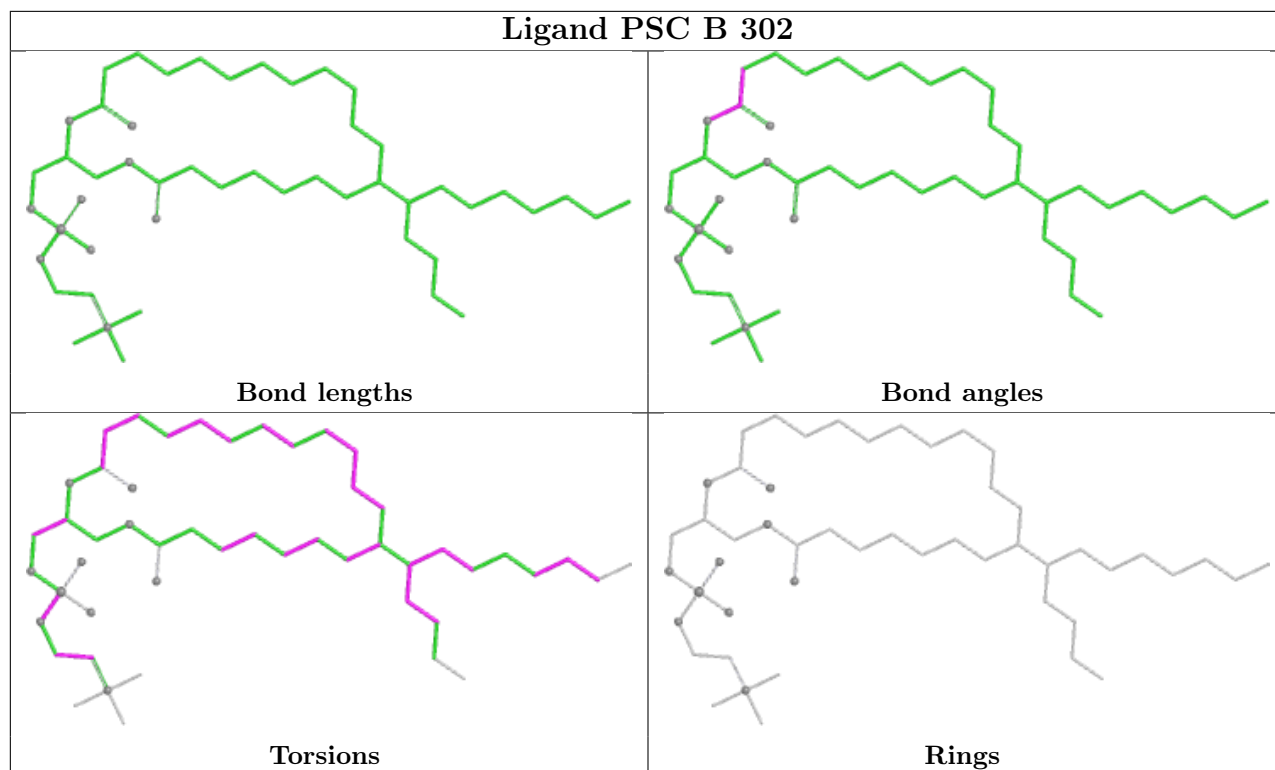
Mol	Chain	Res	Type	Clashes	Symm-Clashes
27	Y	101	TGL	5	0
23	C	301	CHD	1	0
19	C	315	EDO	1	0
19	N	624	EDO	1	0
19	G	103	EDO	1	0
19	O	304	EDO	5	0
18	A	605	HEA	2	0
26	G	101	DMU	1	0
20	N	615	0NM	1	0
19	B	305	EDO	1	0
23	Y	103	CHD	4	0
19	S	1607	EDO	2	0
26	G	105	DMU	8	0
29	I	102	SAC	1	0
23	P	309	CHD	1	0
25	C	313	CDL	3	0
18	N	606	HEA	4	0
26	Z	102	DMU	16	0
24	P	305	PEK	5	0
26	C	316	DMU	3	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 than 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.

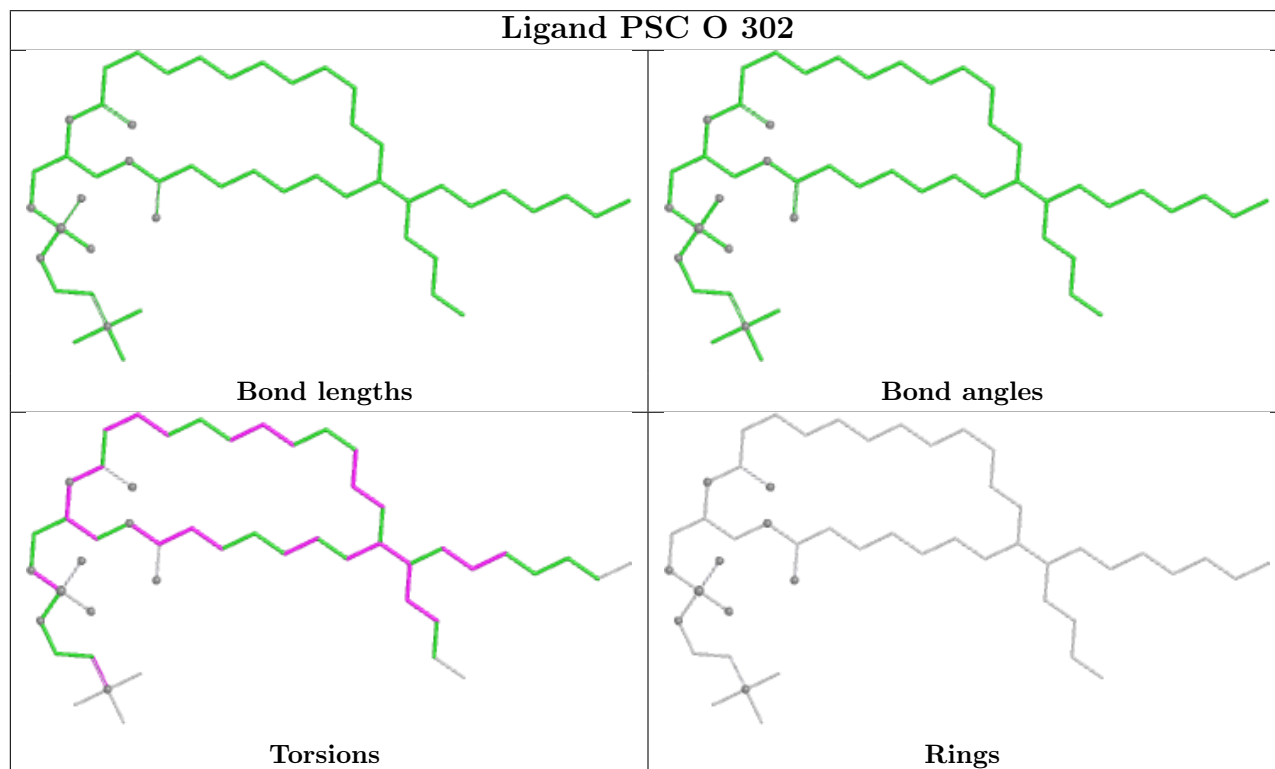


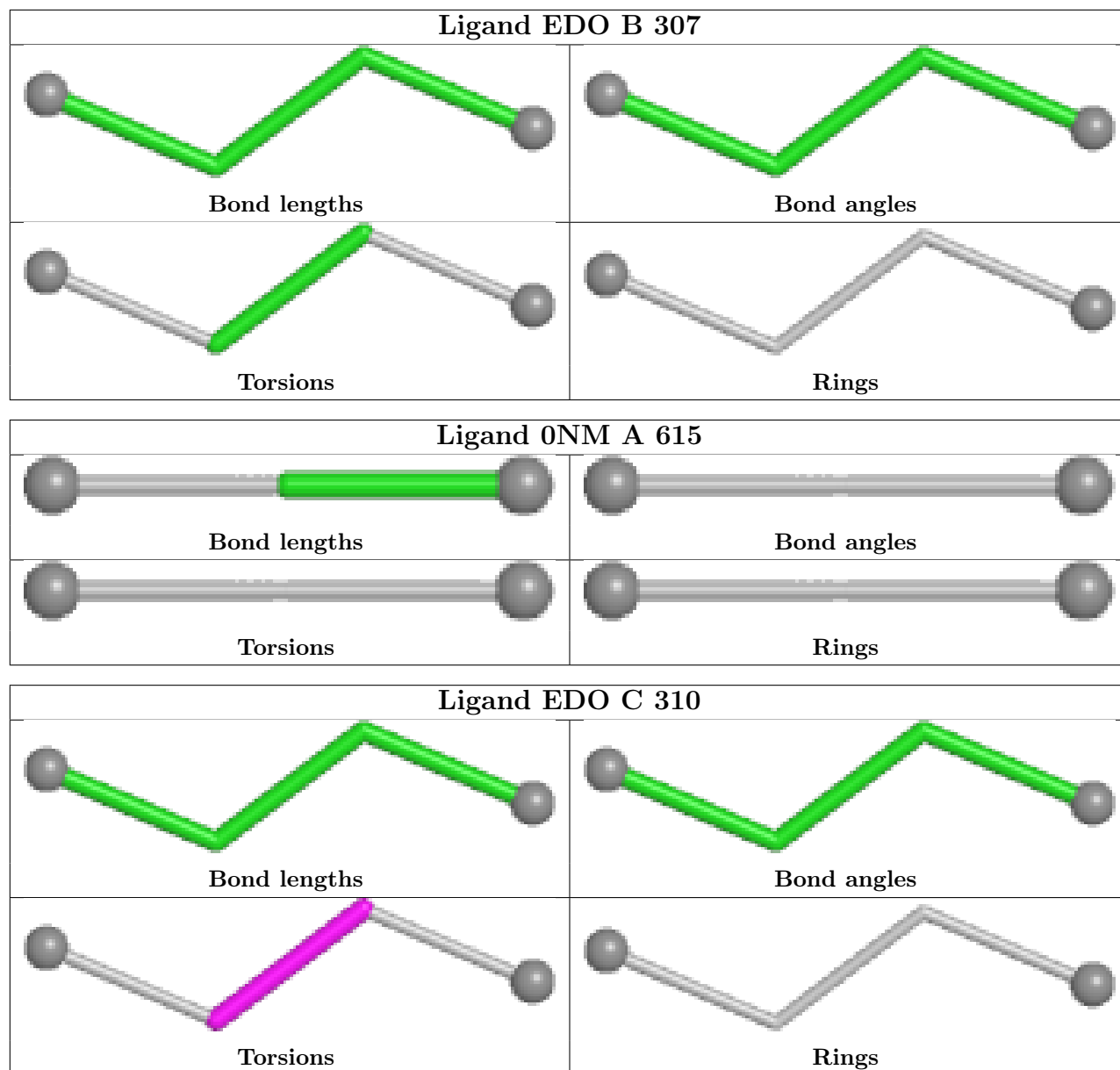


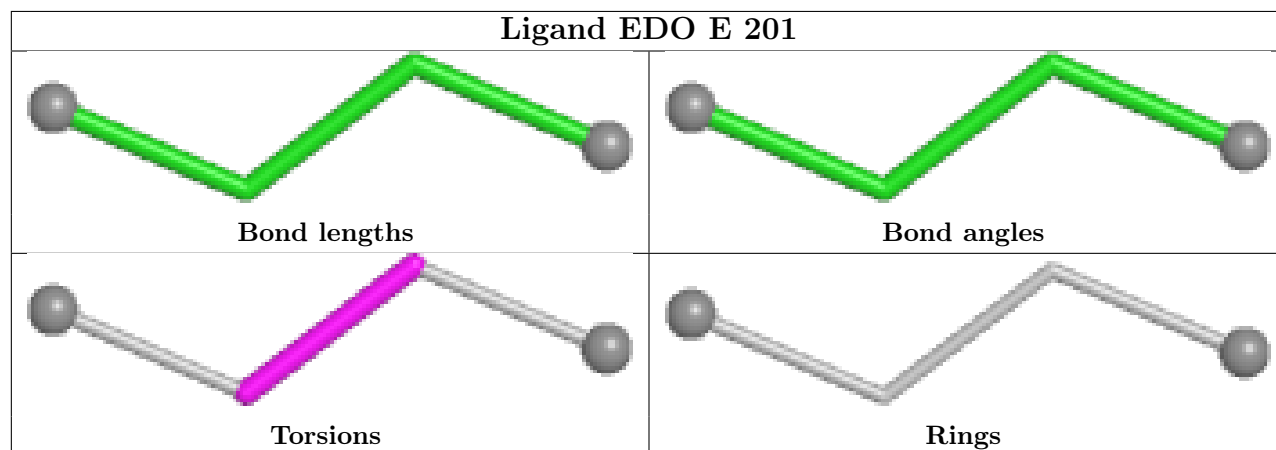
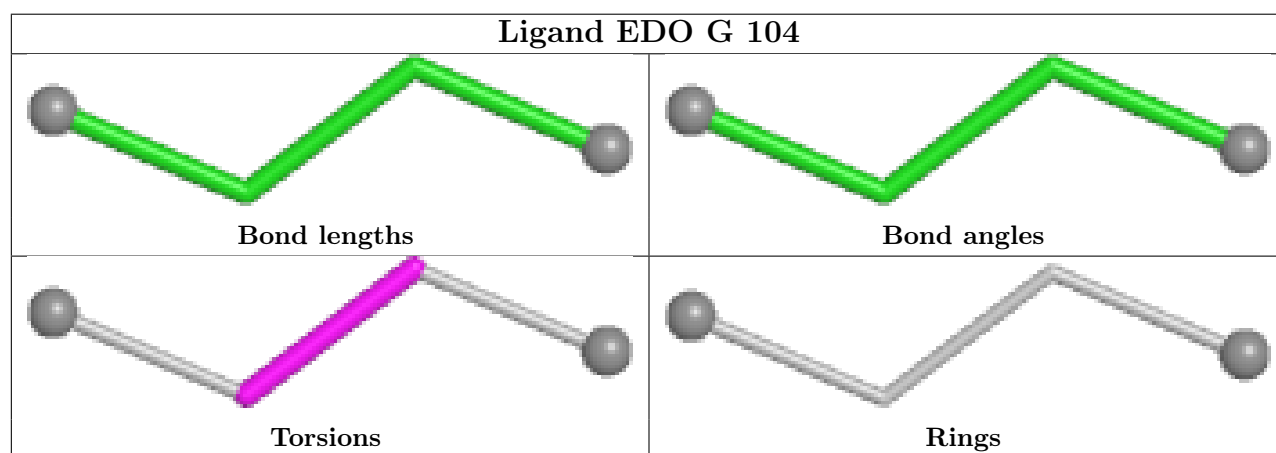
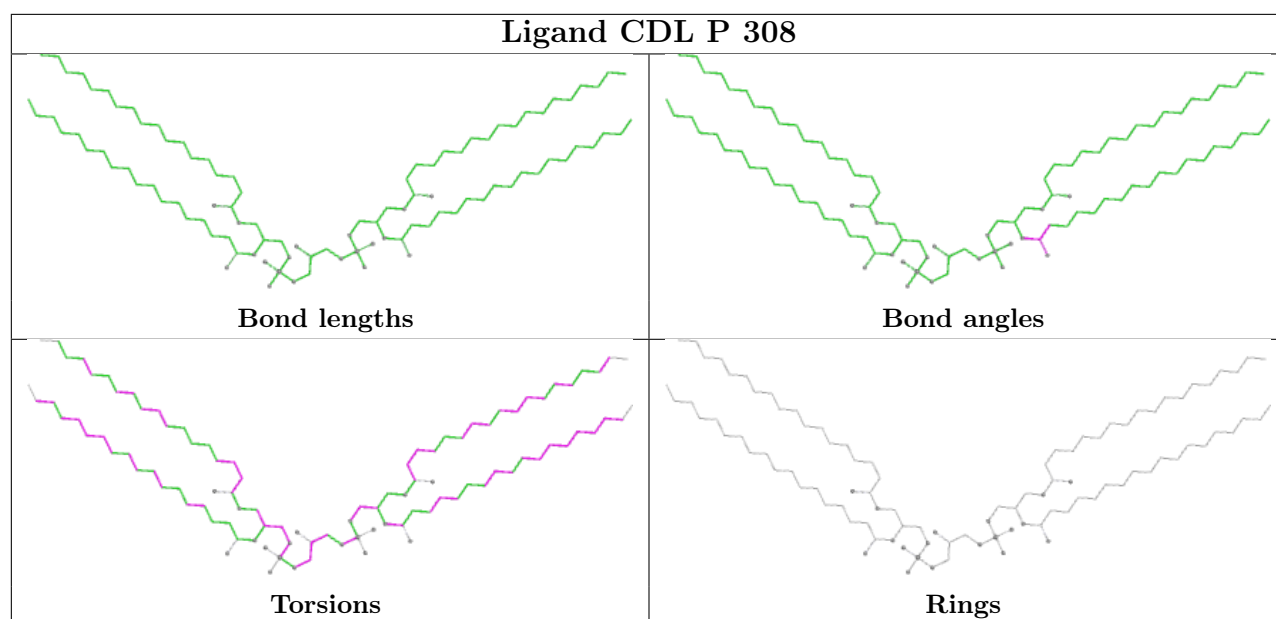
Ligand PSC B 302



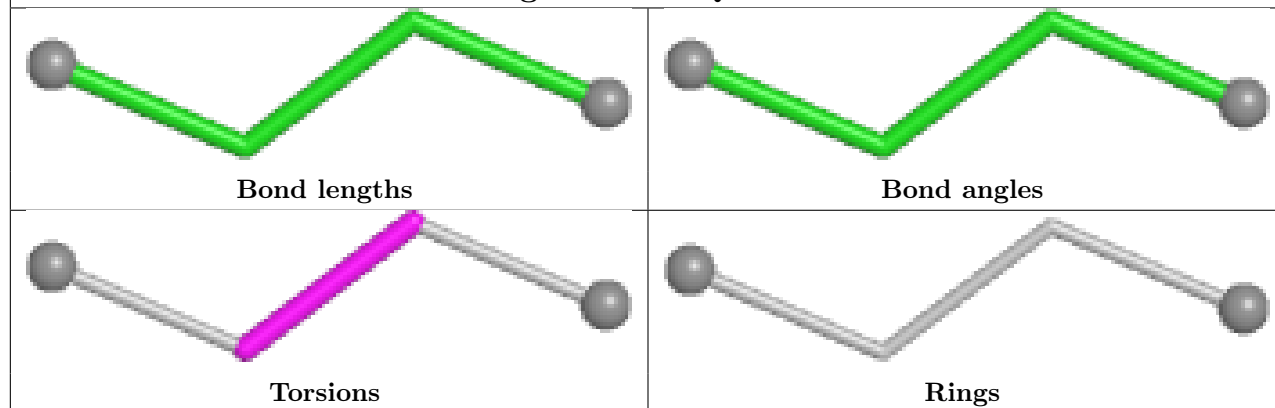
Ligand PSC O 302



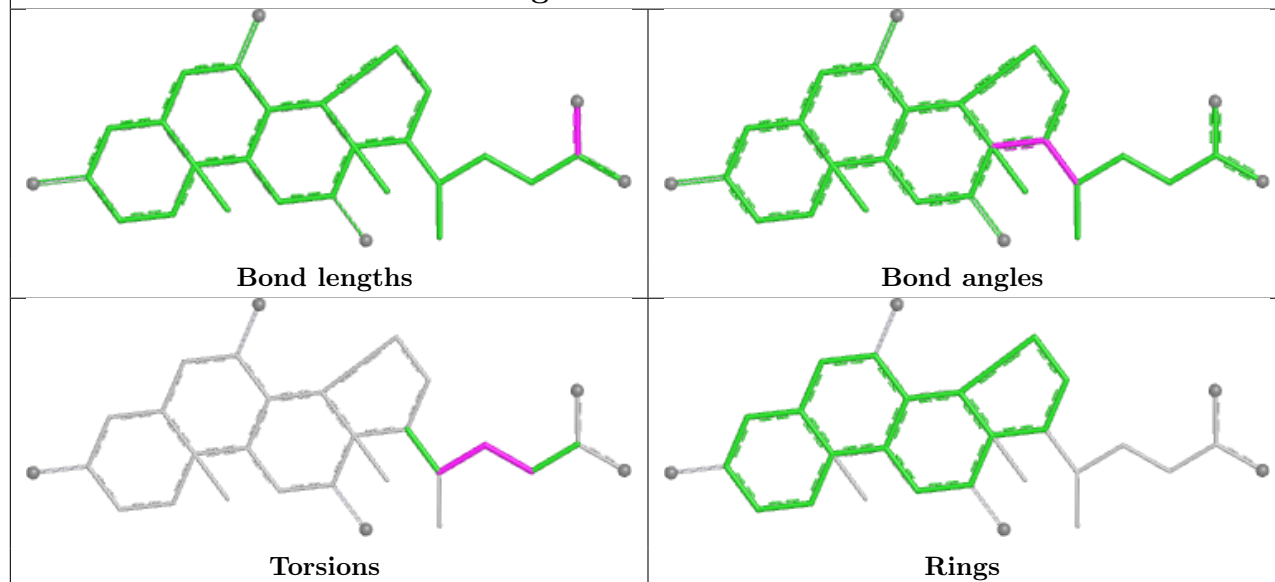




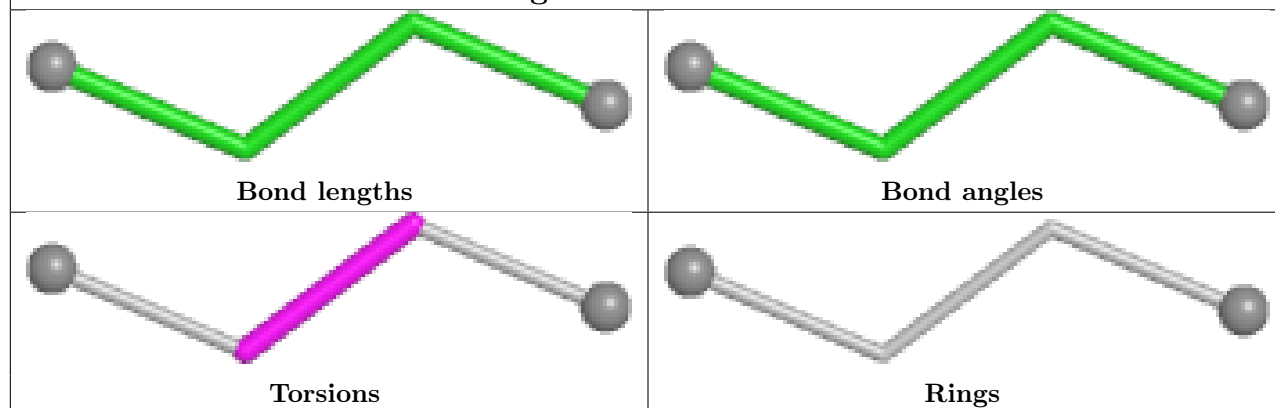
Ligand EDO Q 1802

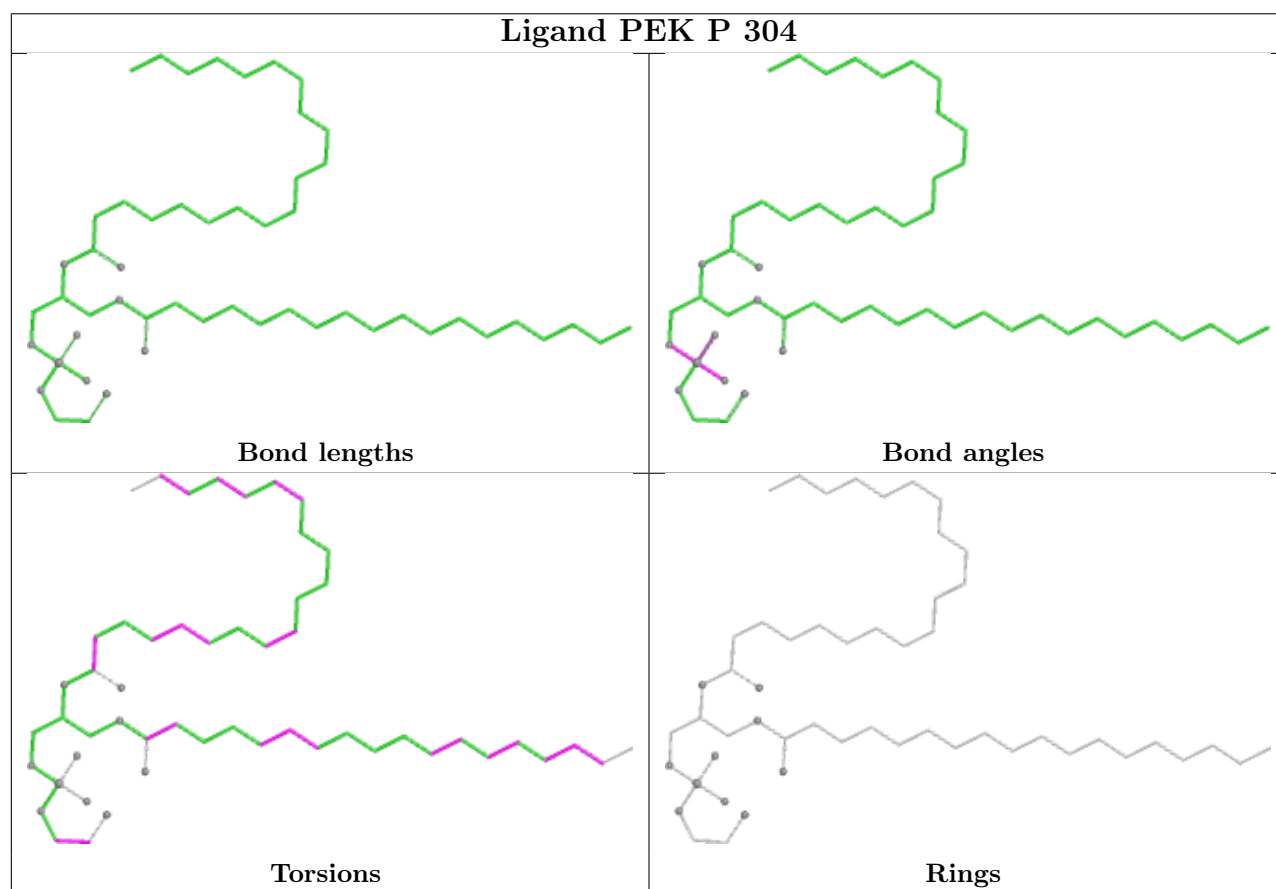
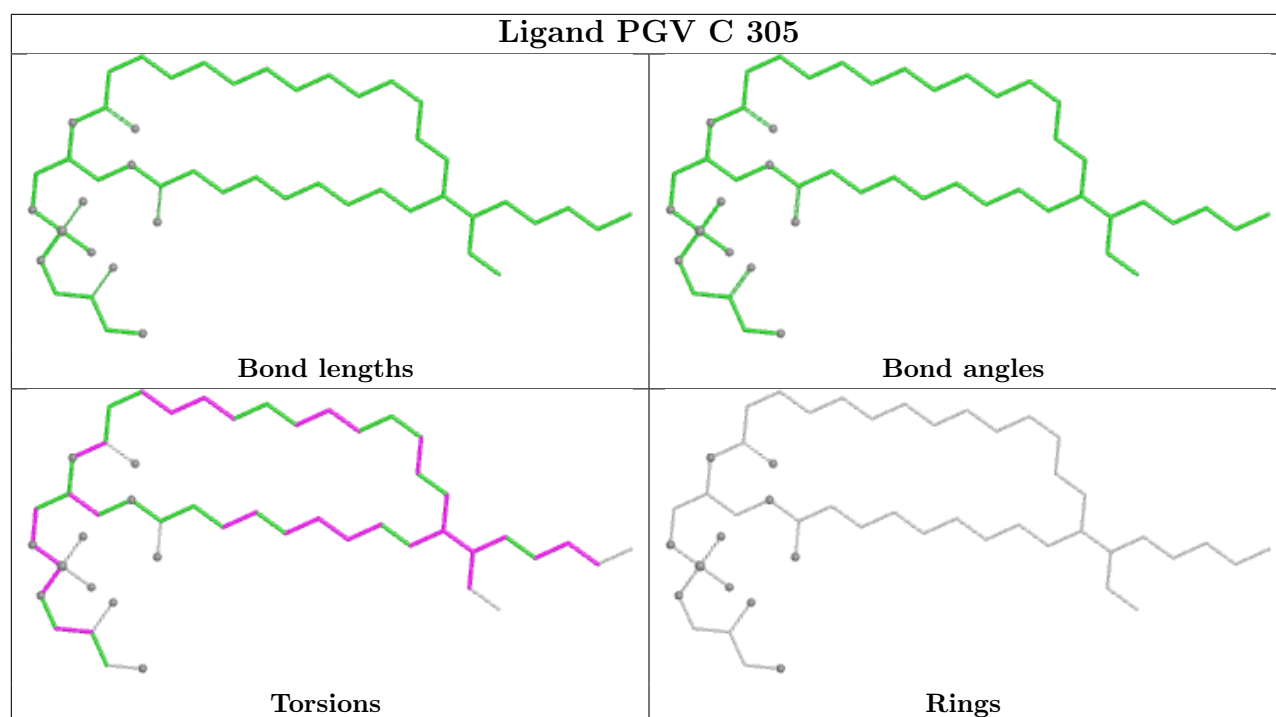


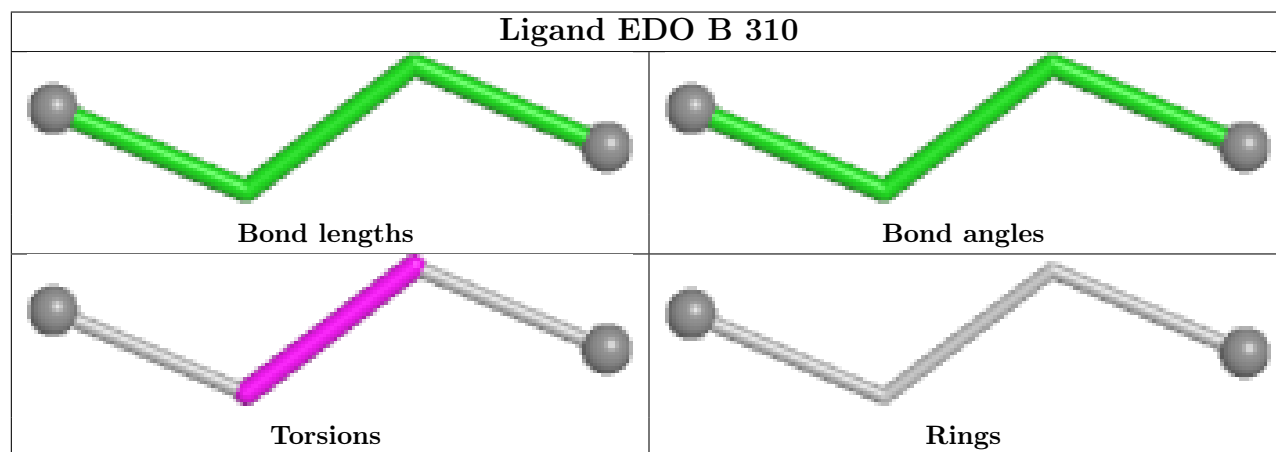
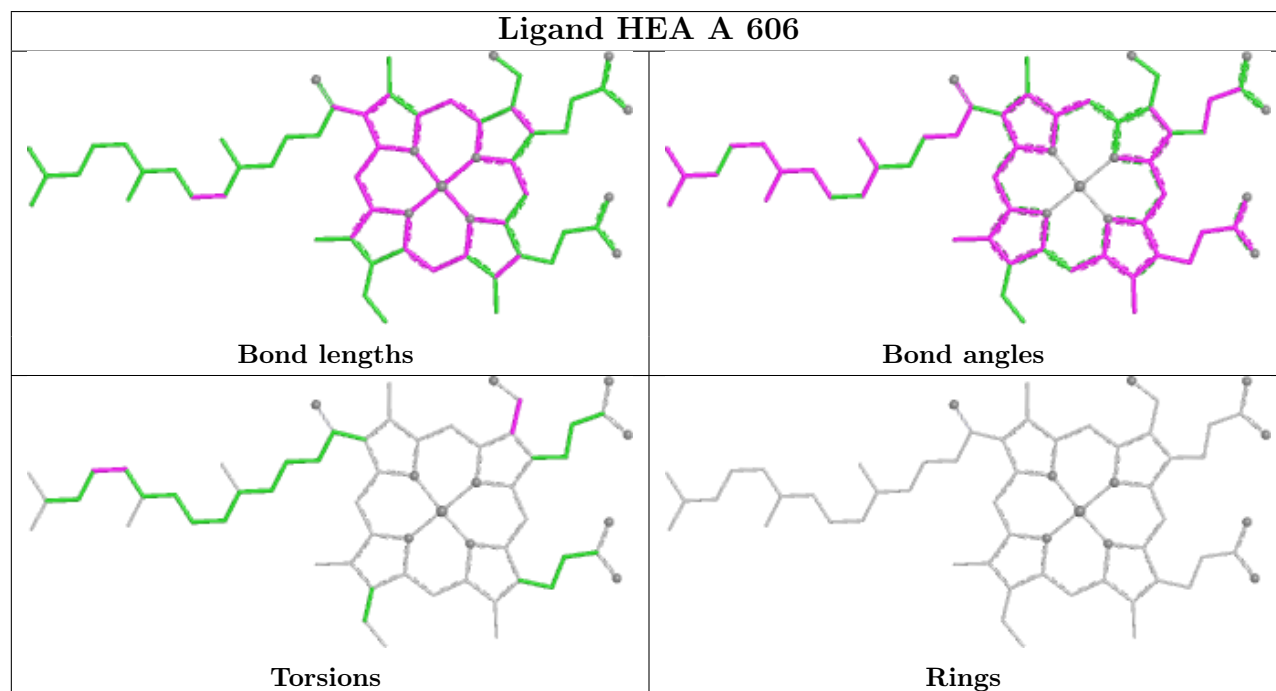
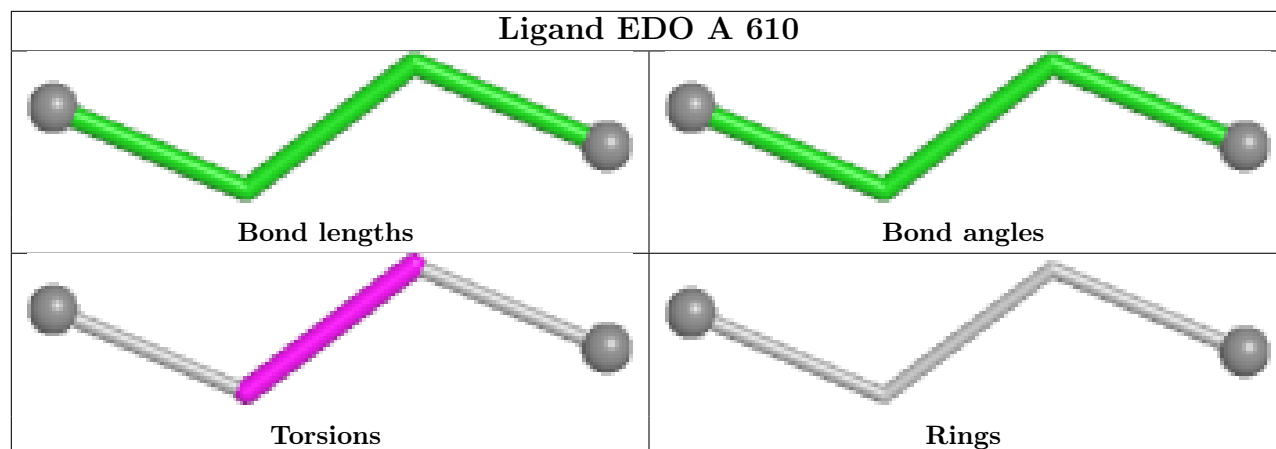
Ligand CHD J 101

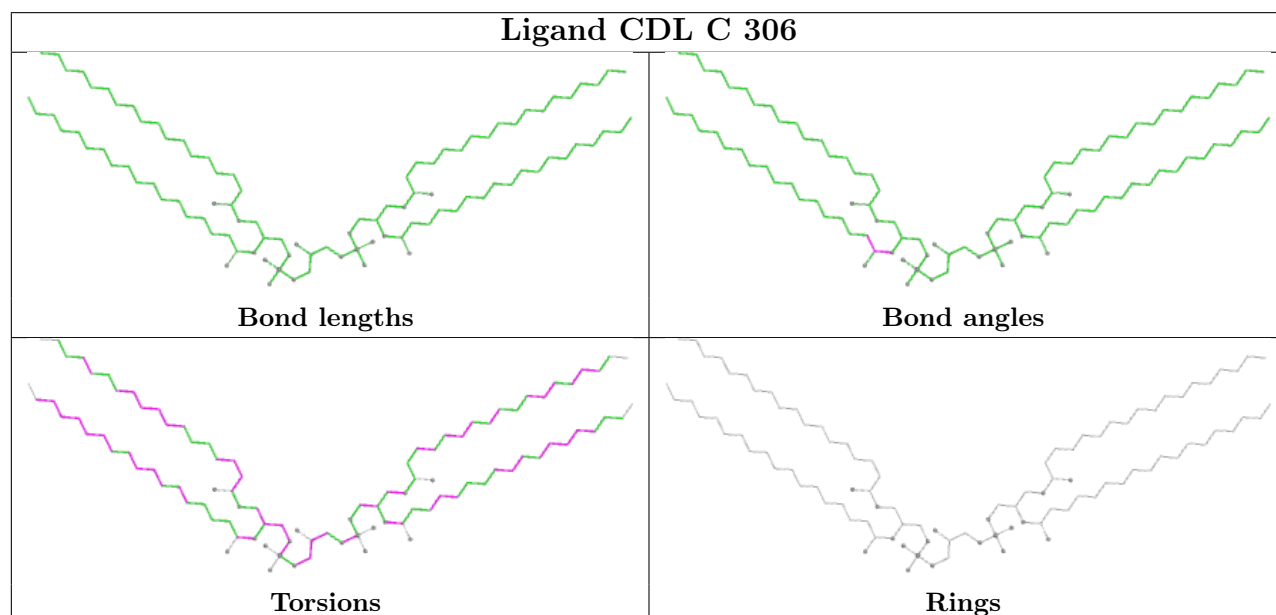
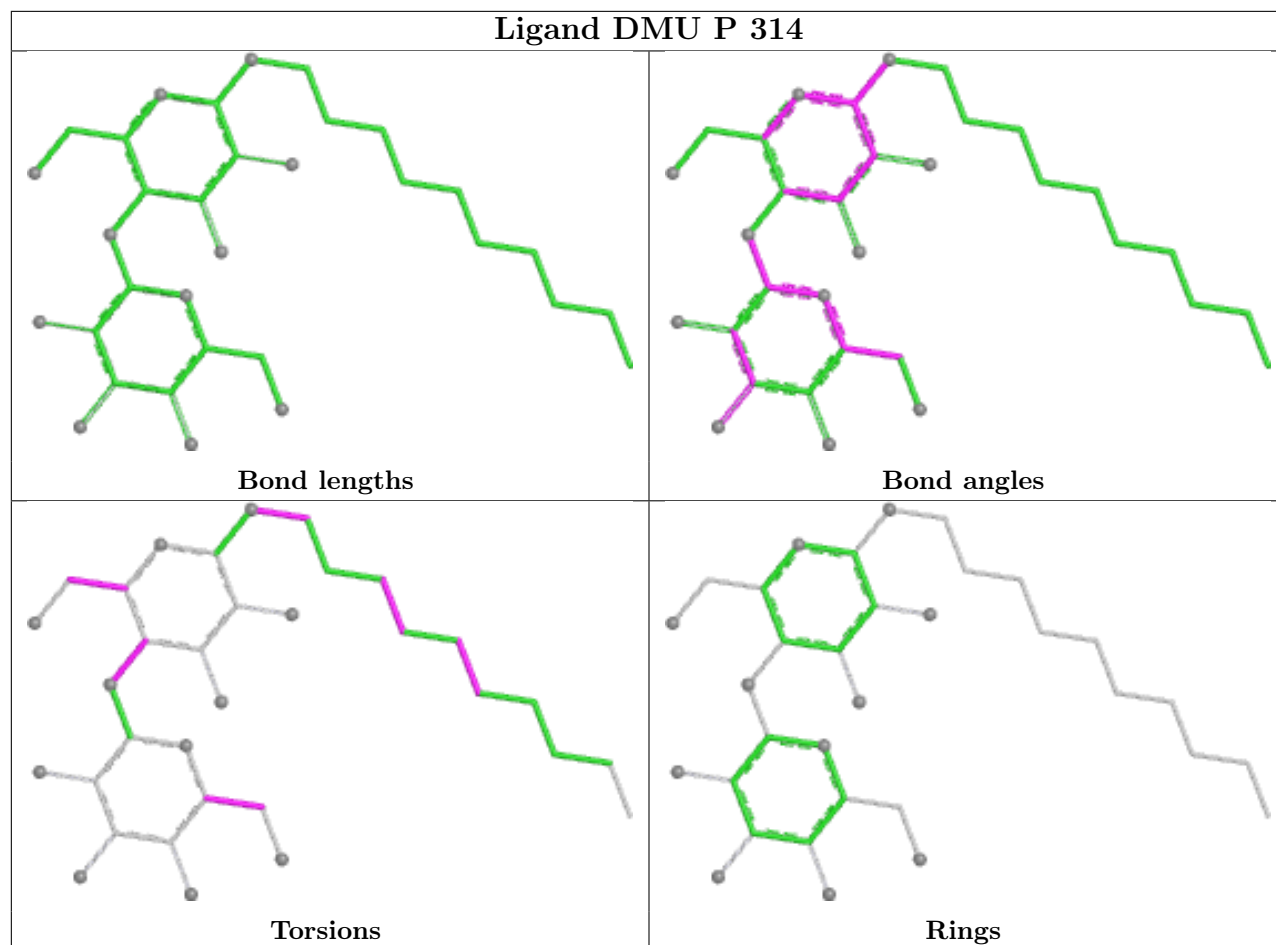


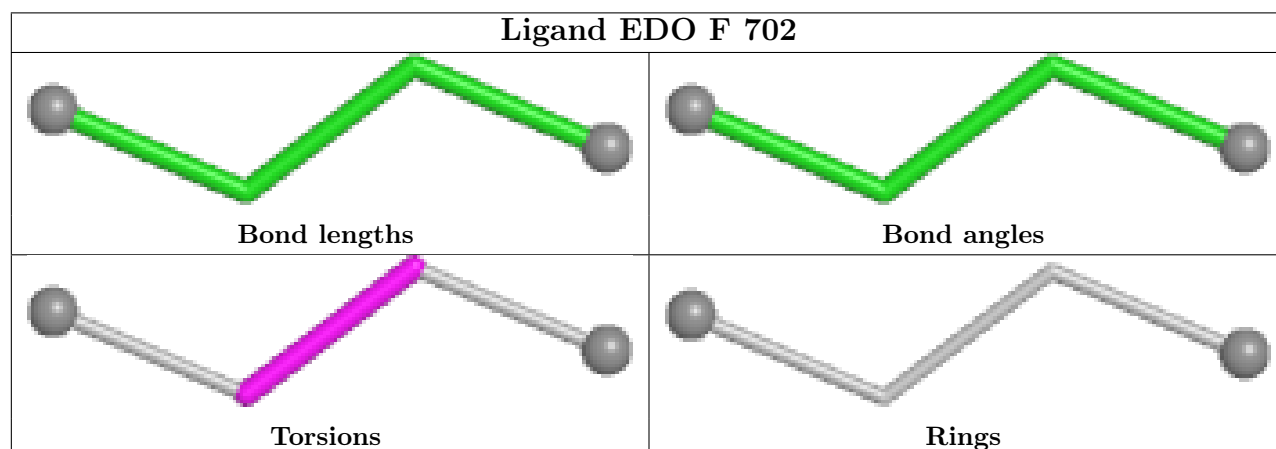
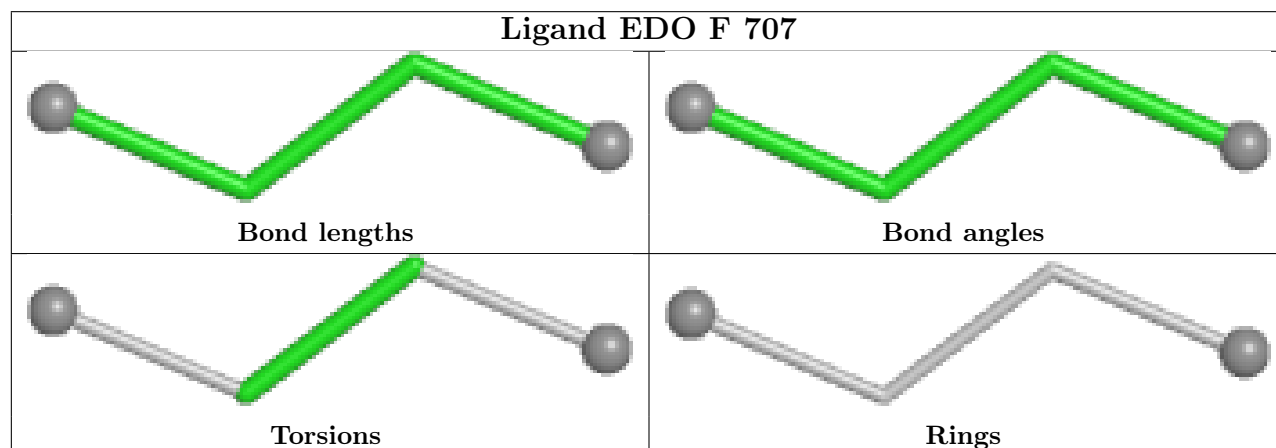
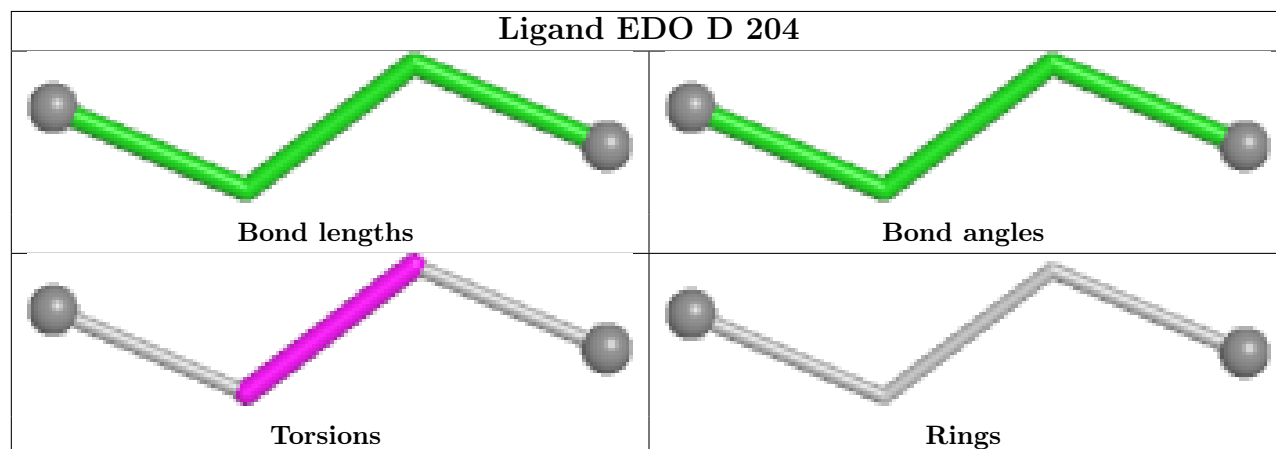
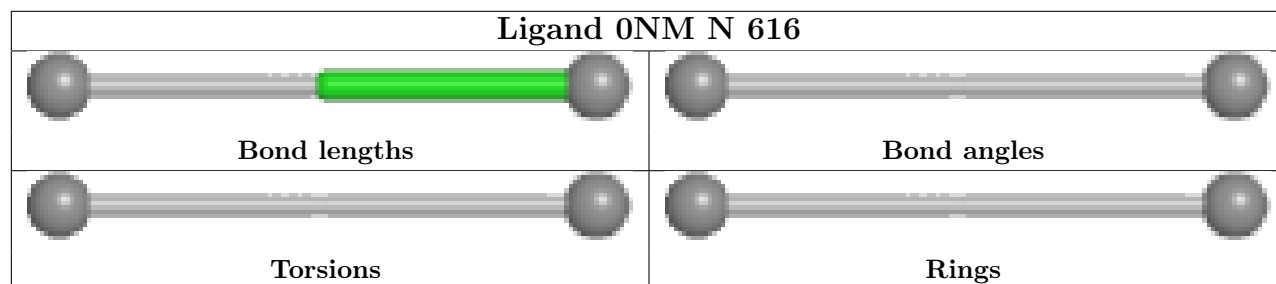
Ligand EDO P 310

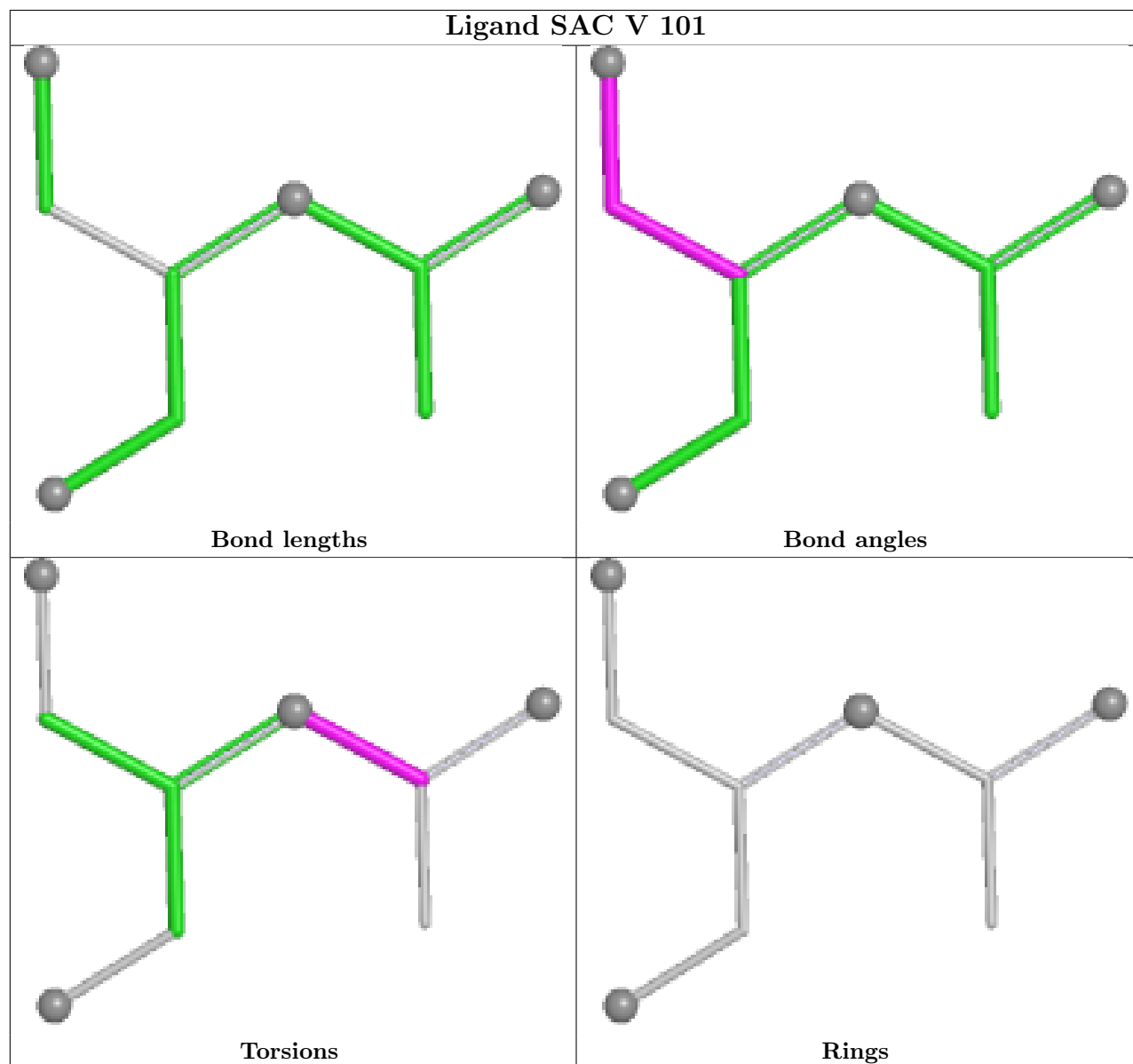
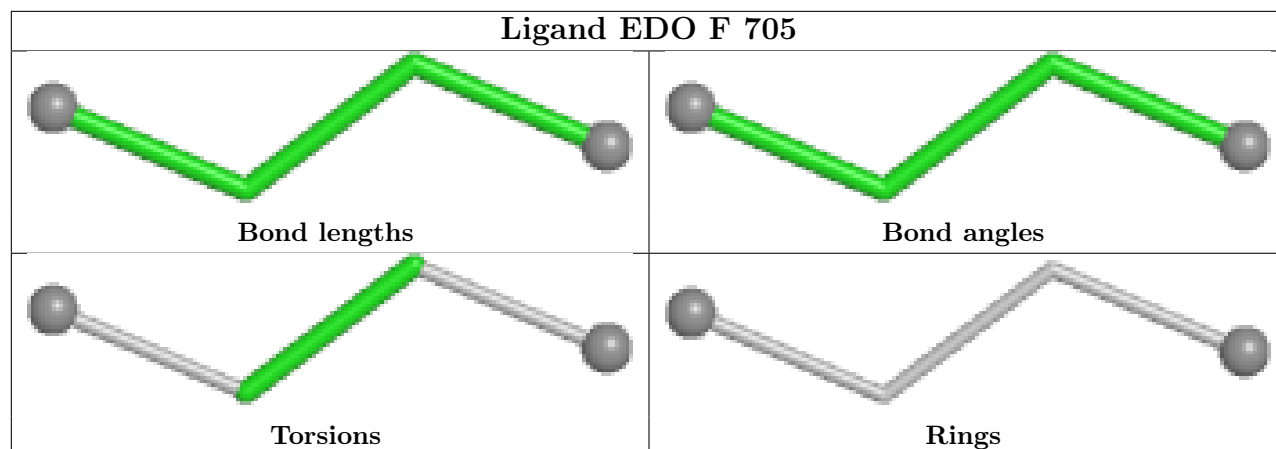


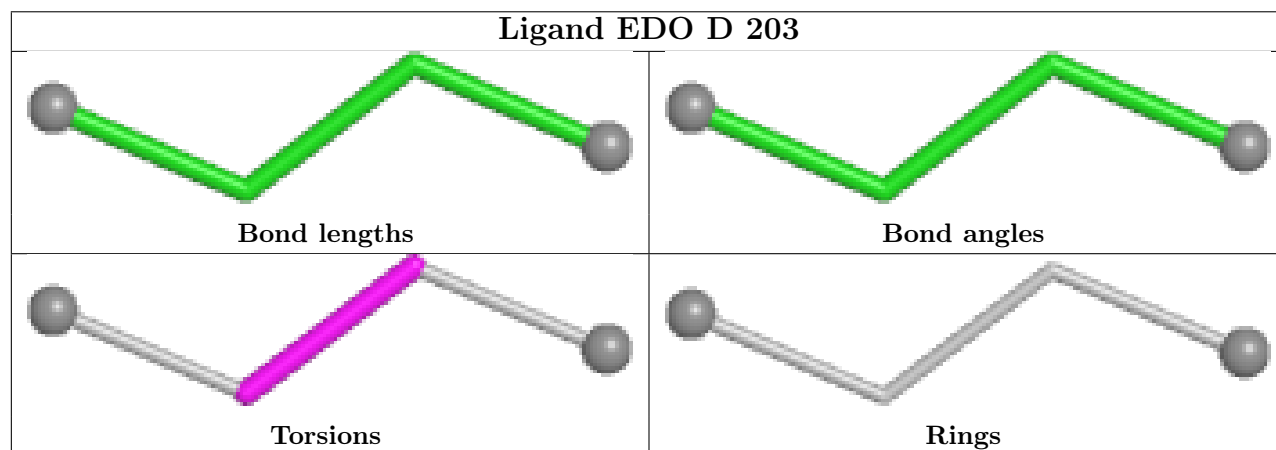
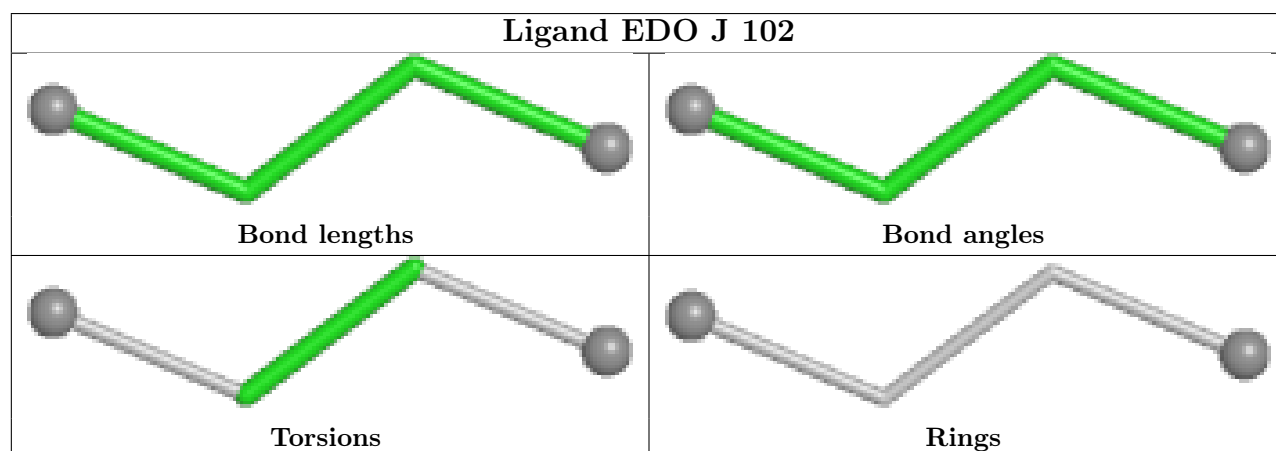
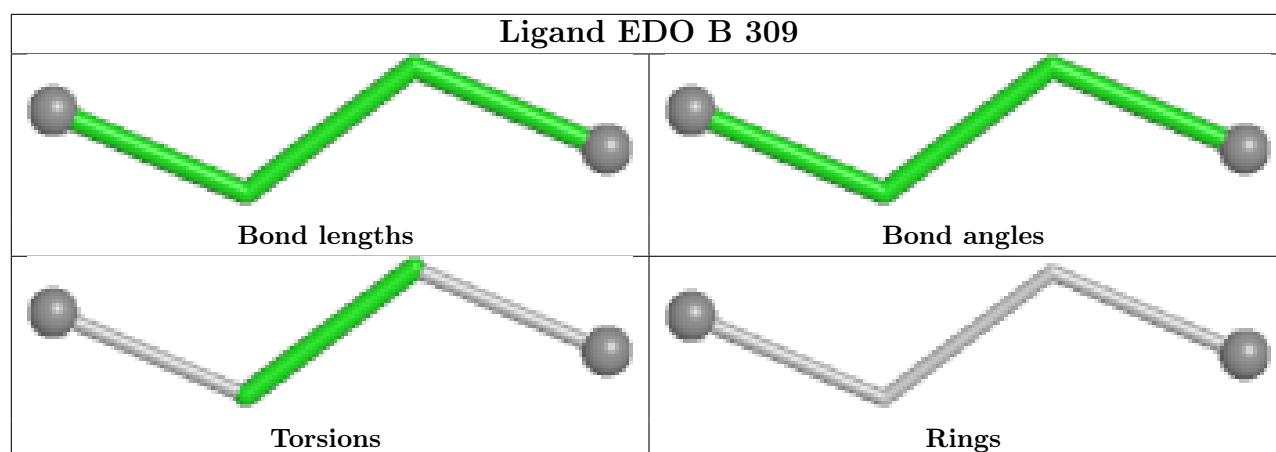


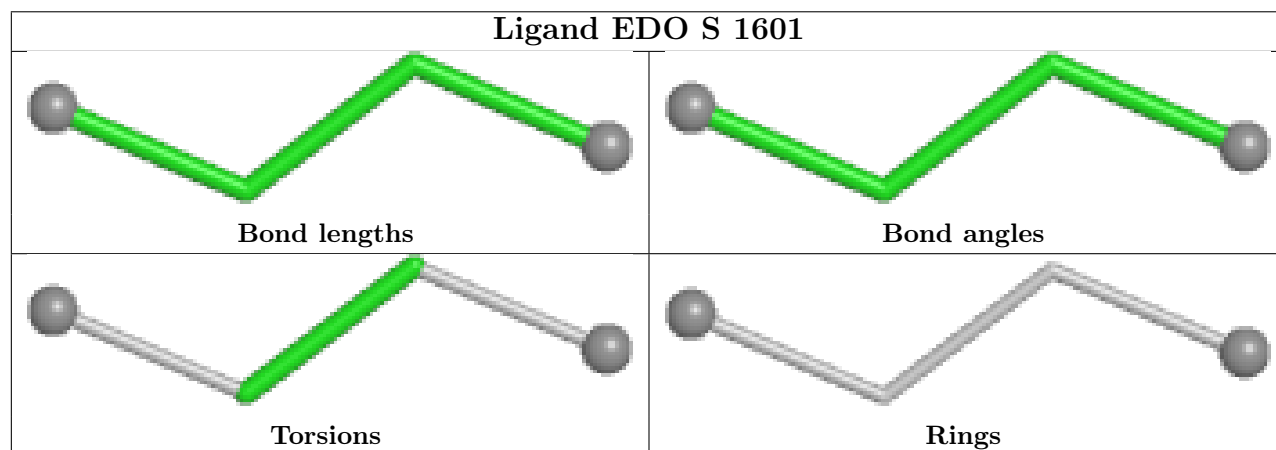
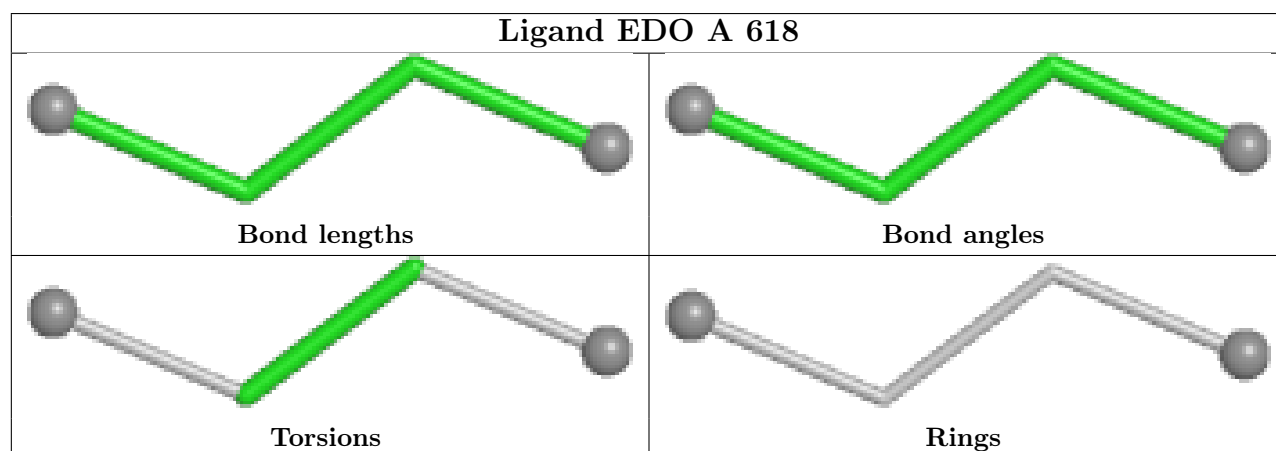
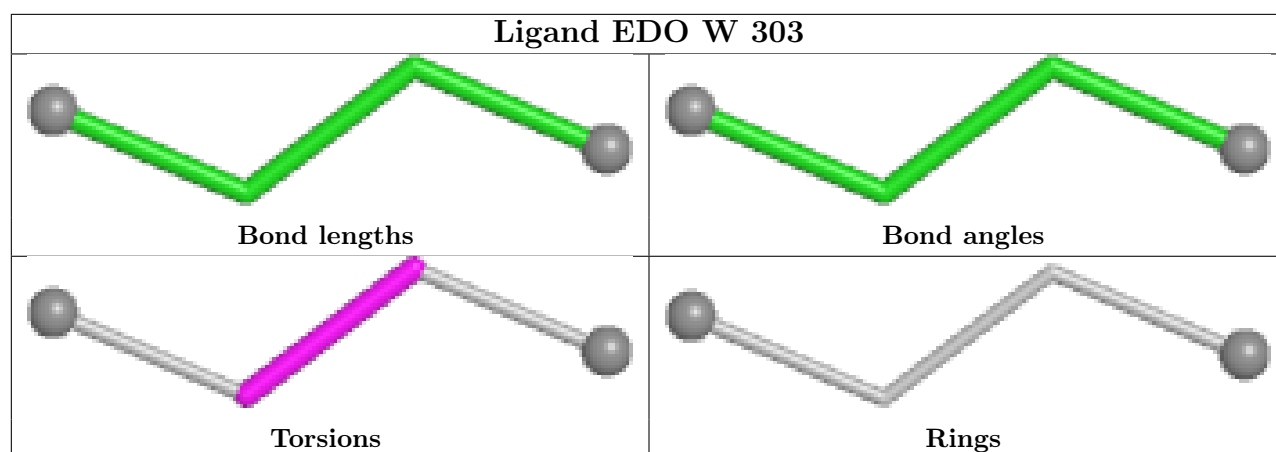




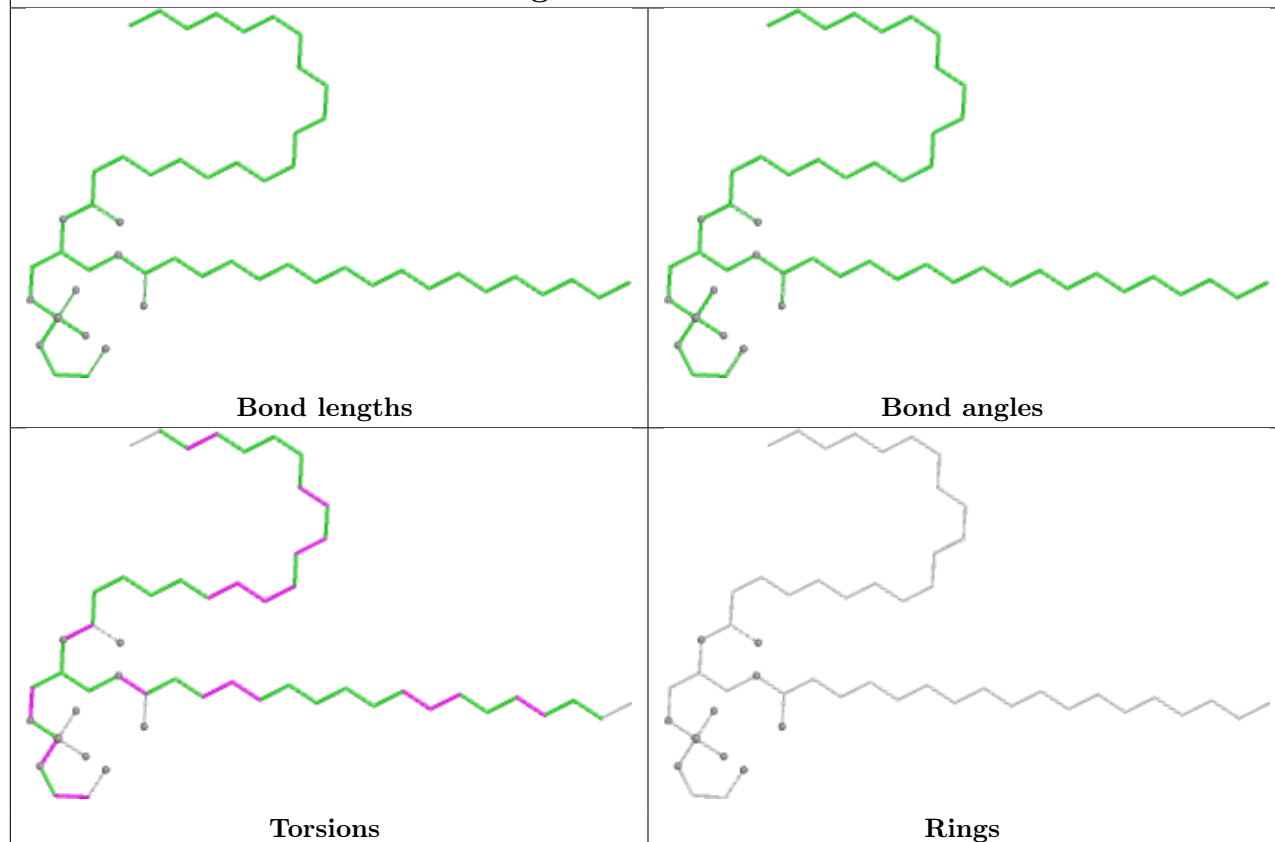




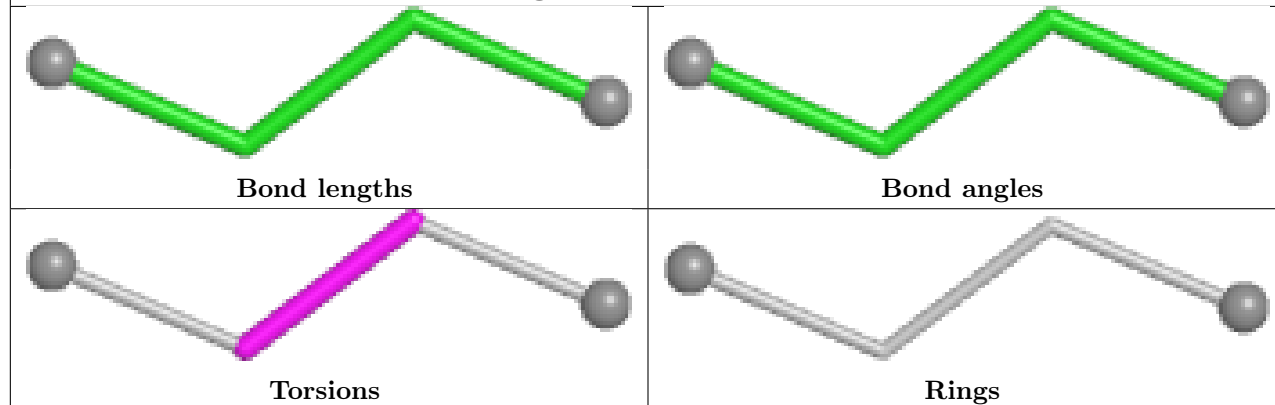


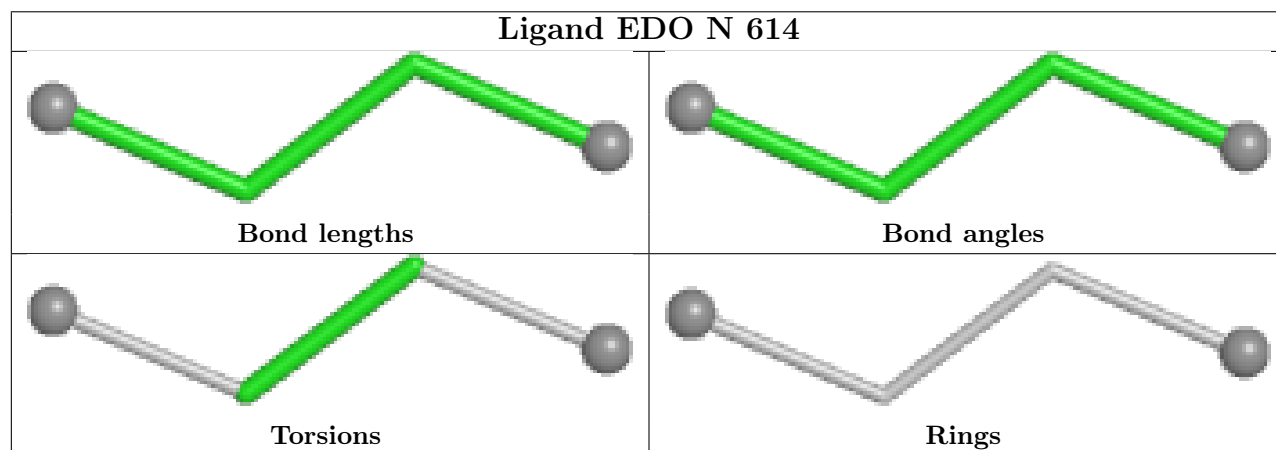
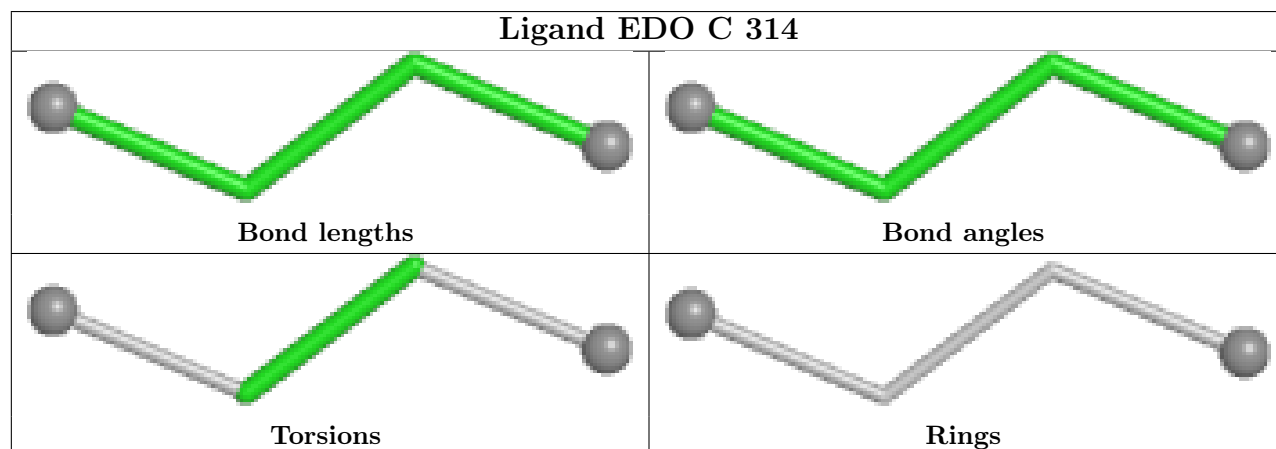
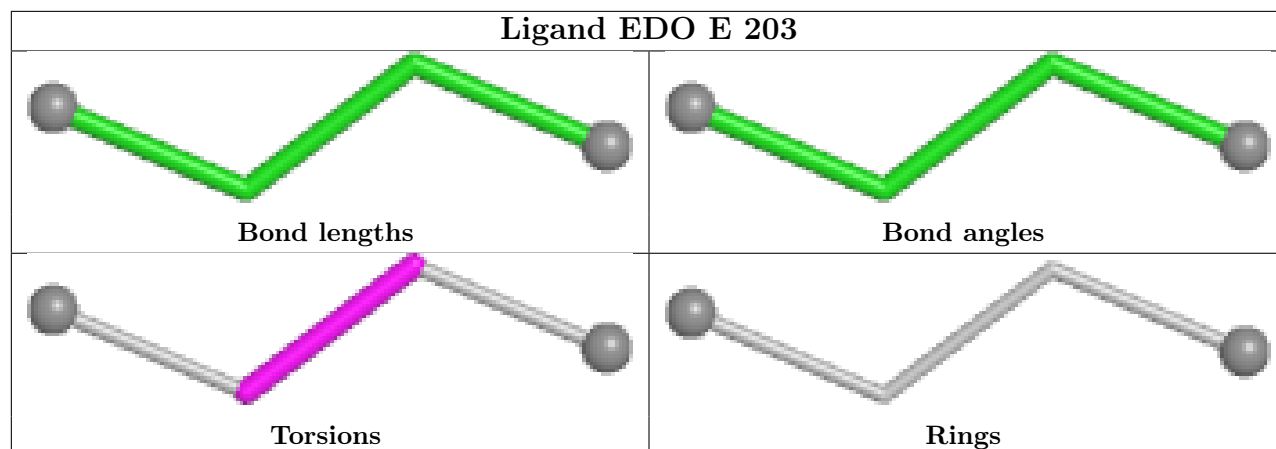


Ligand PEK P 301

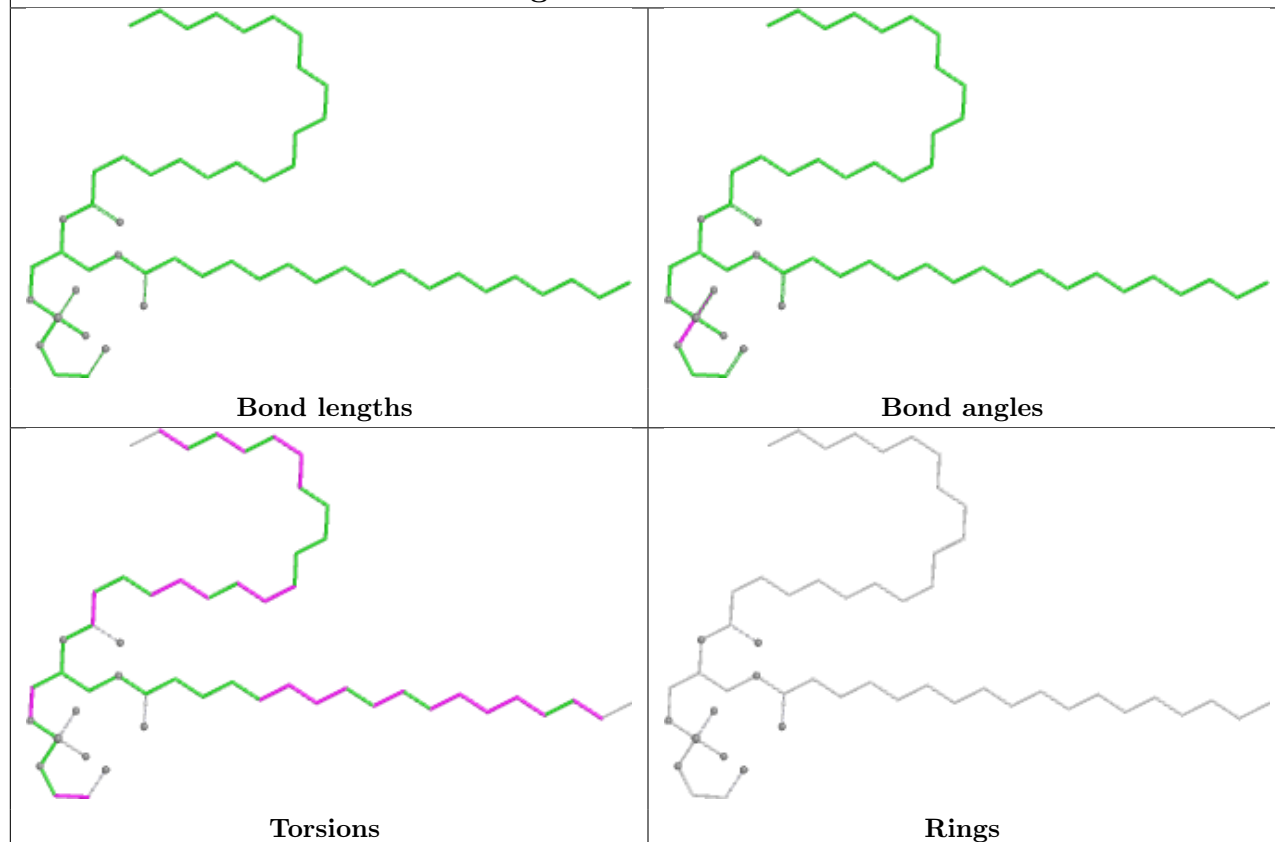


Ligand EDO E 202

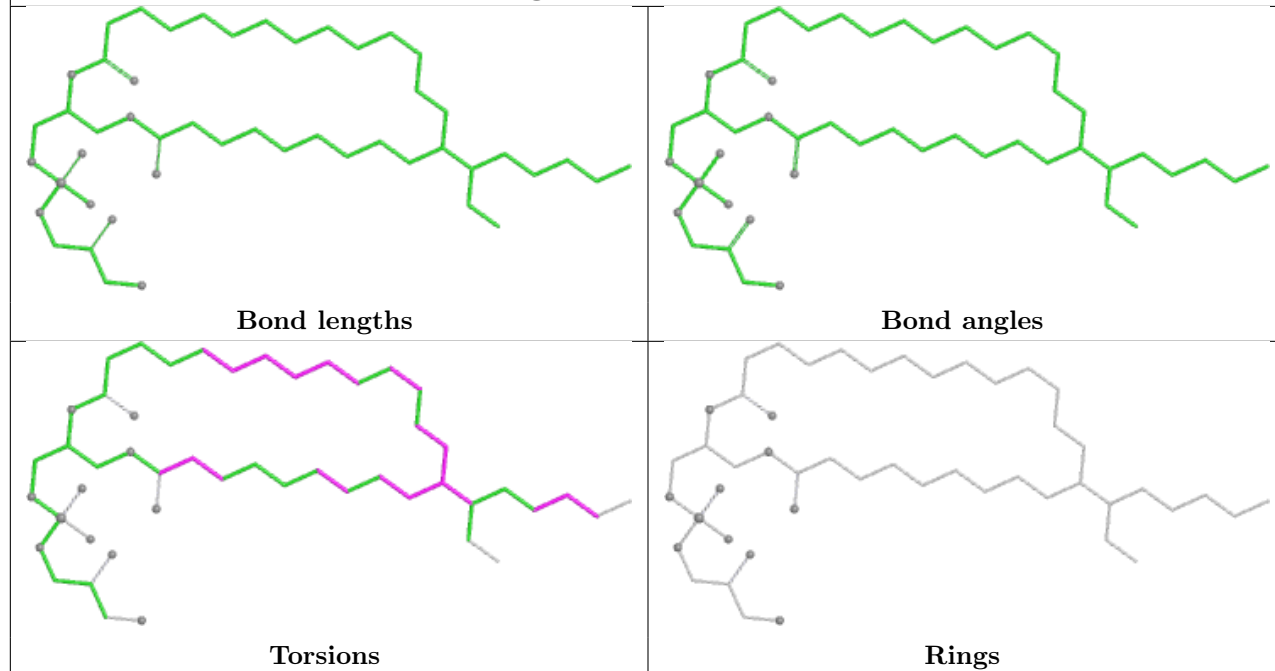


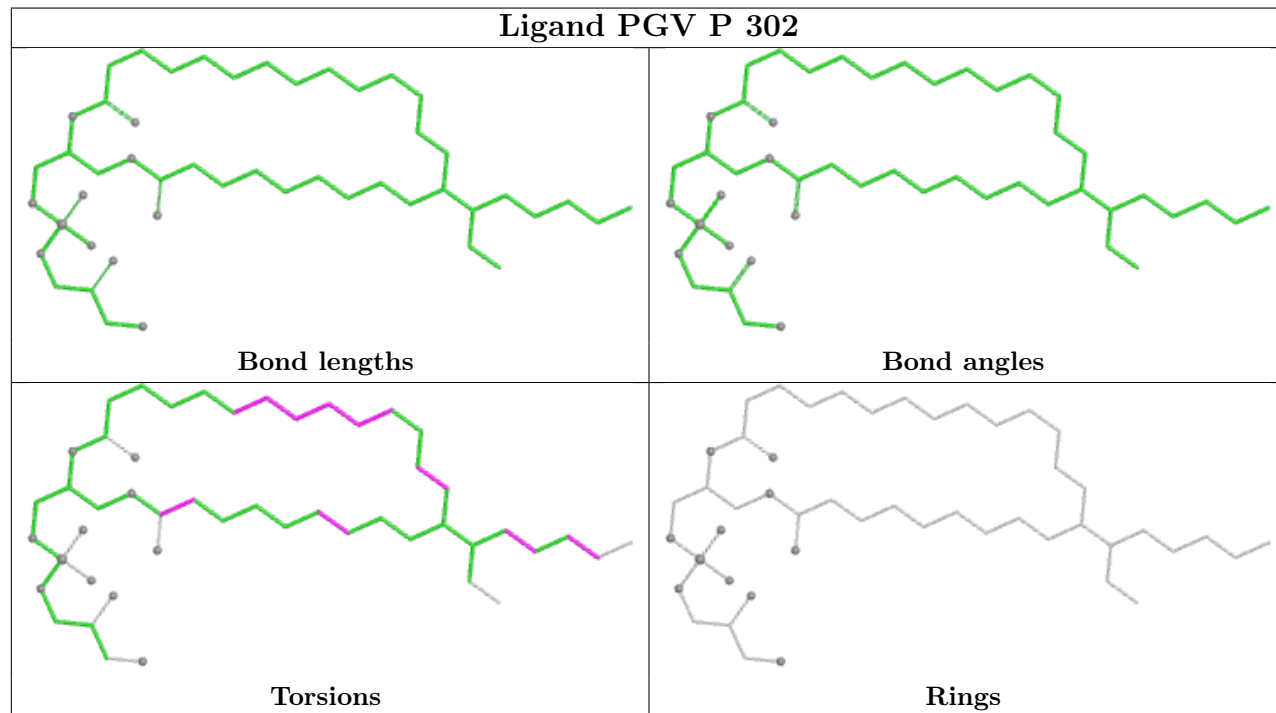
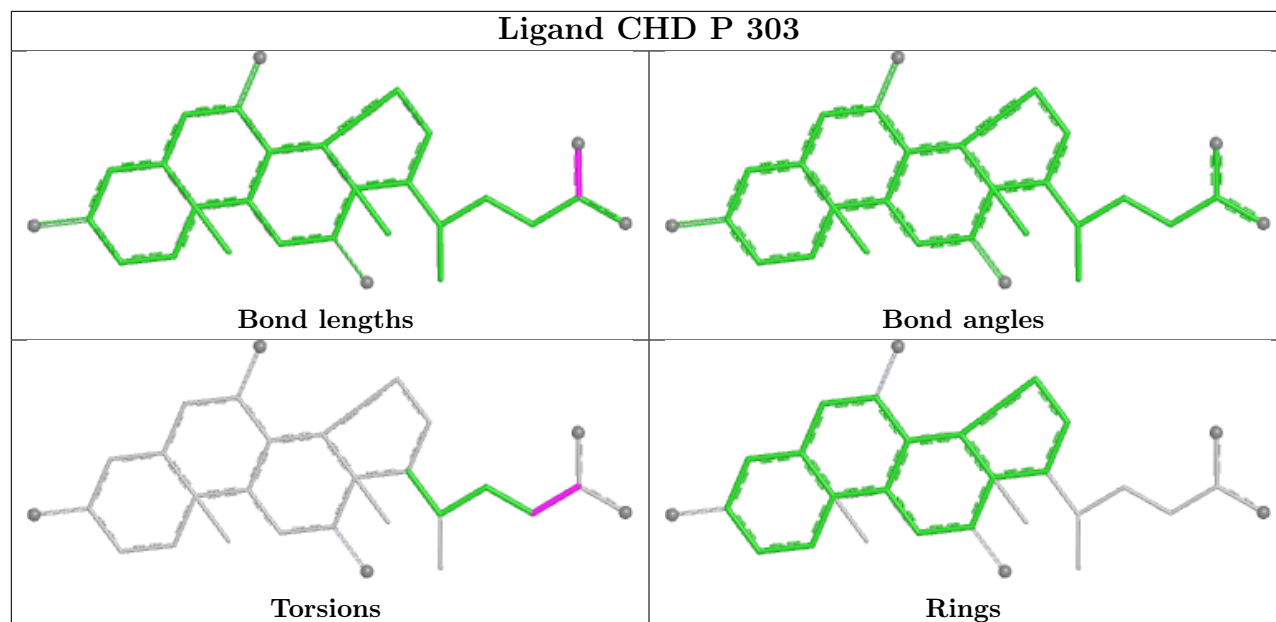


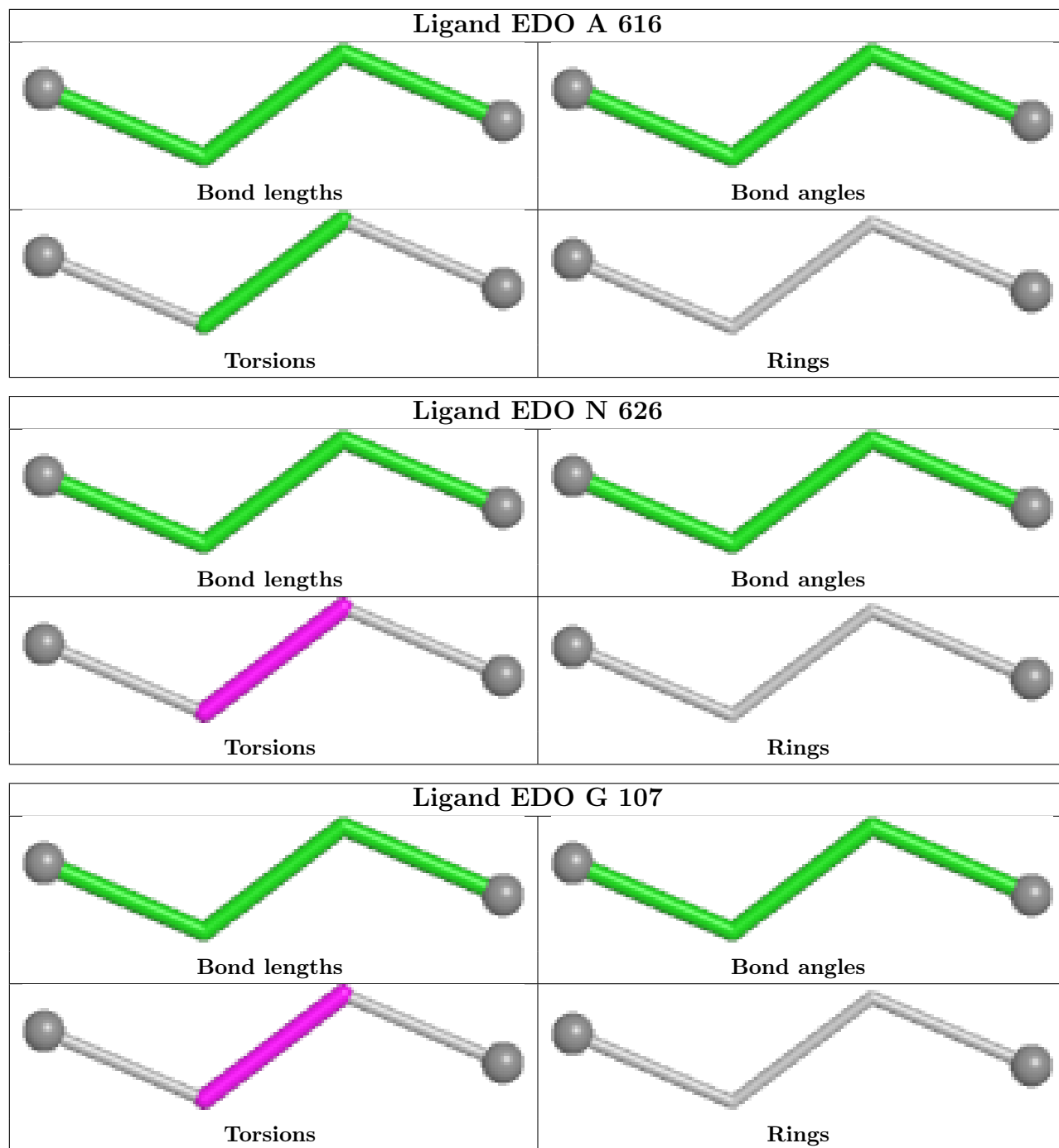
Ligand PEK C 302

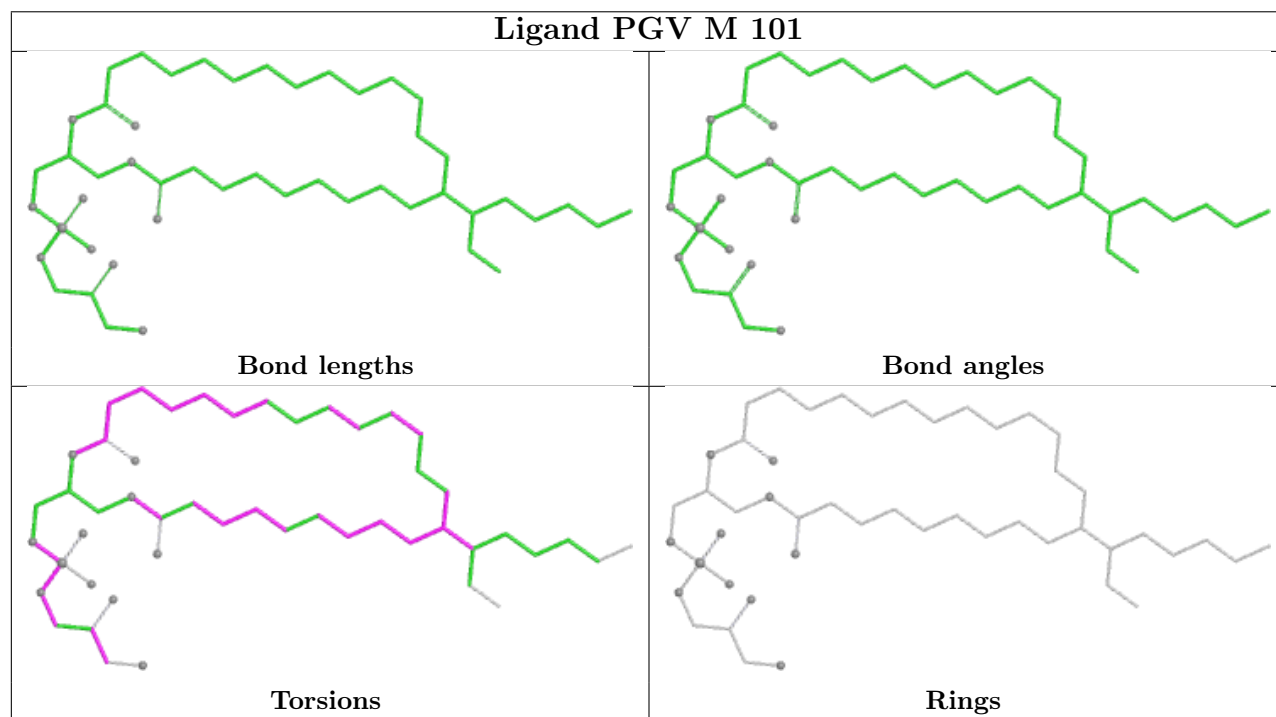
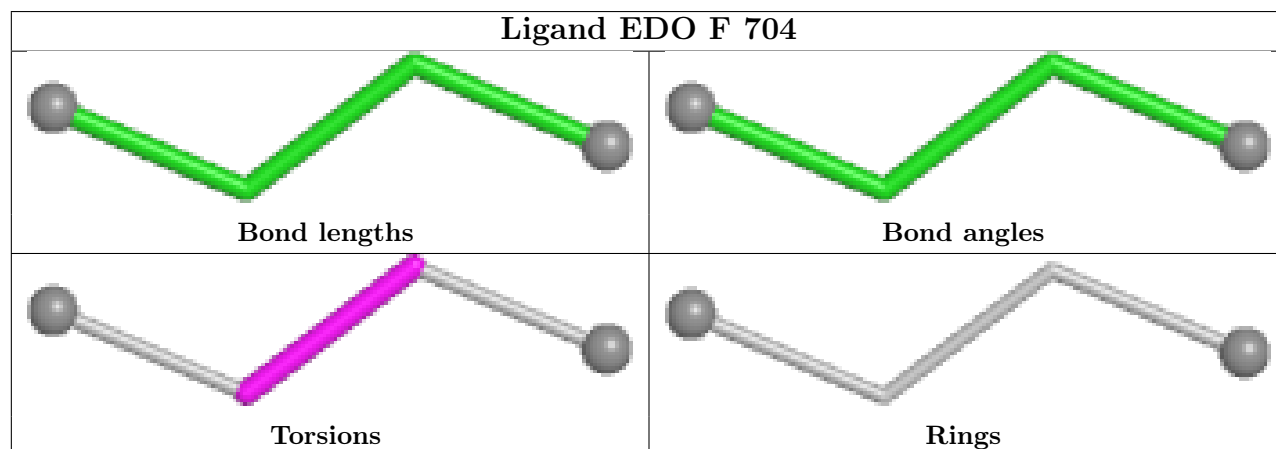
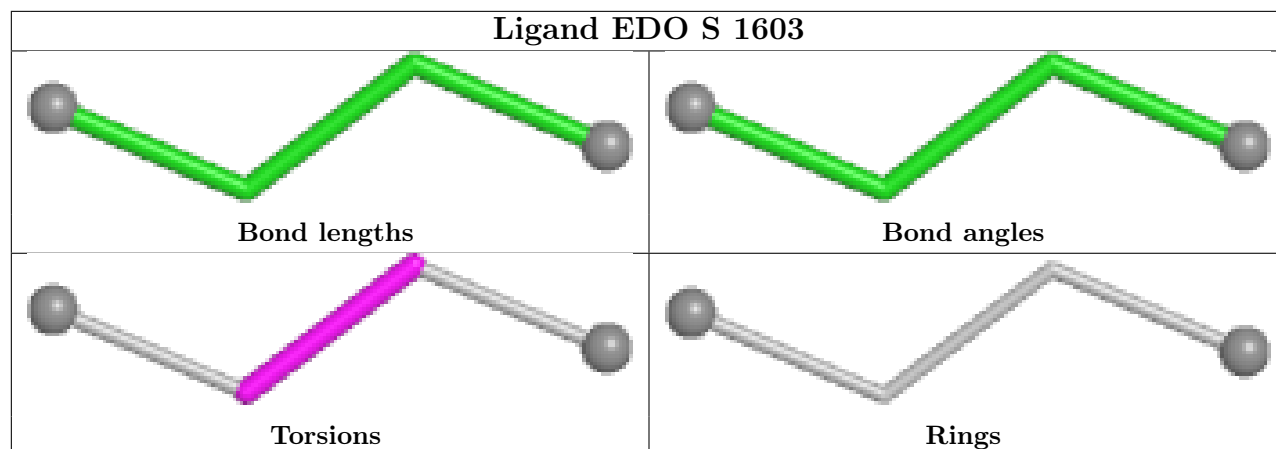


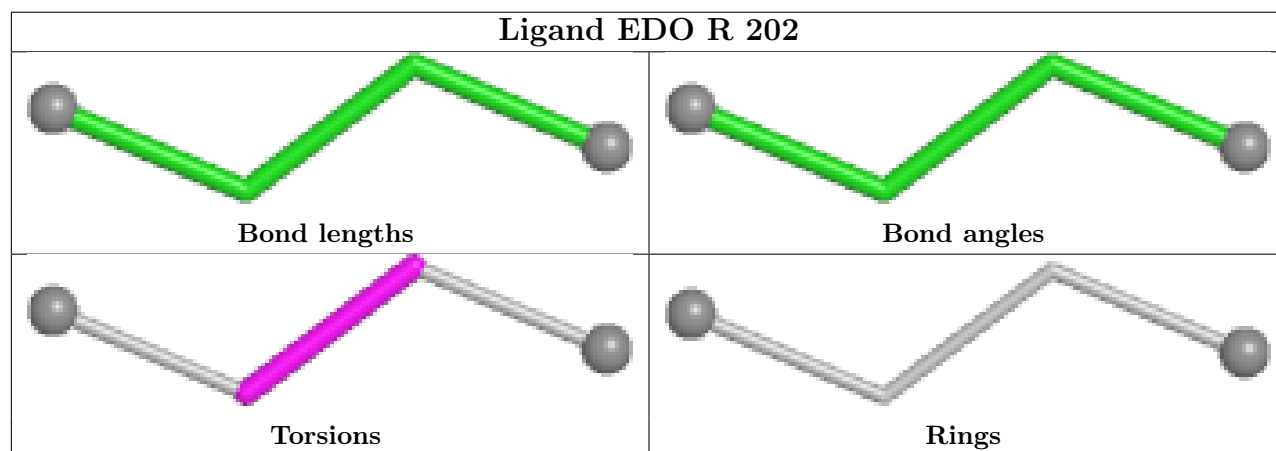
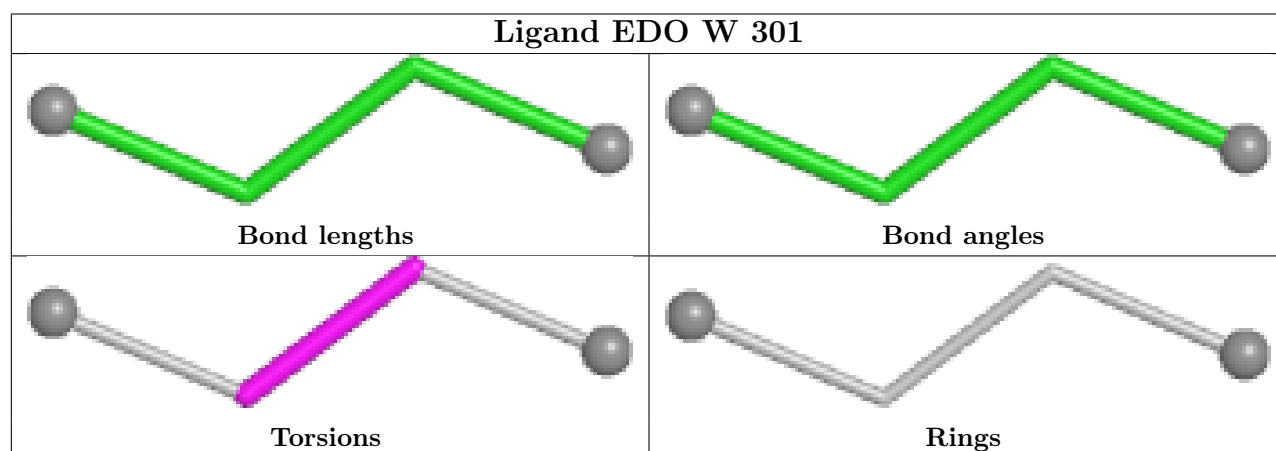
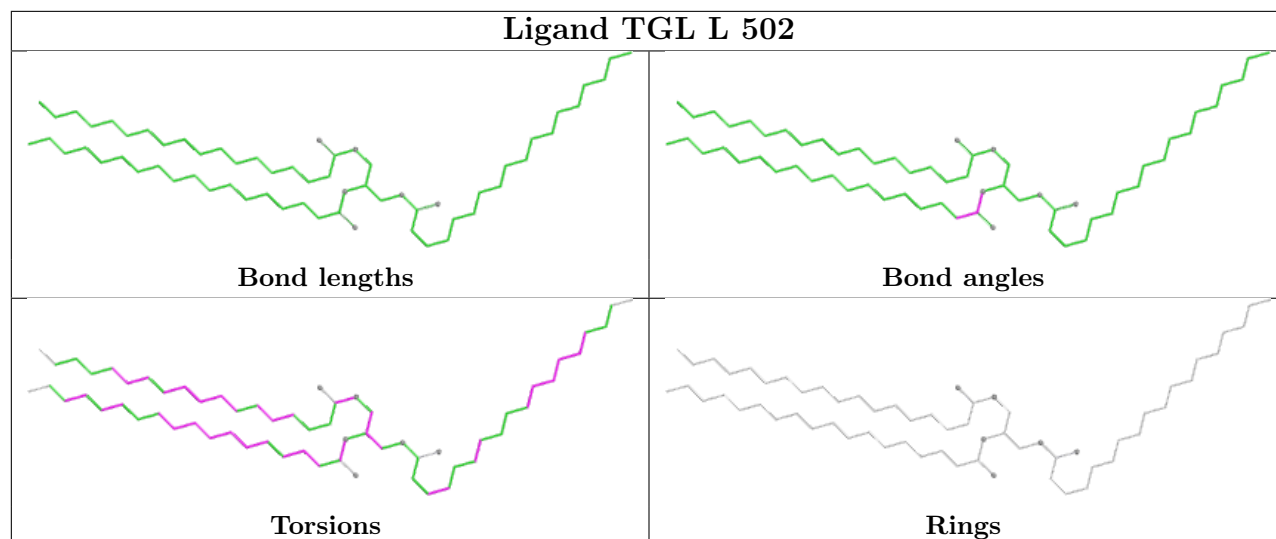
Ligand PGV A 604

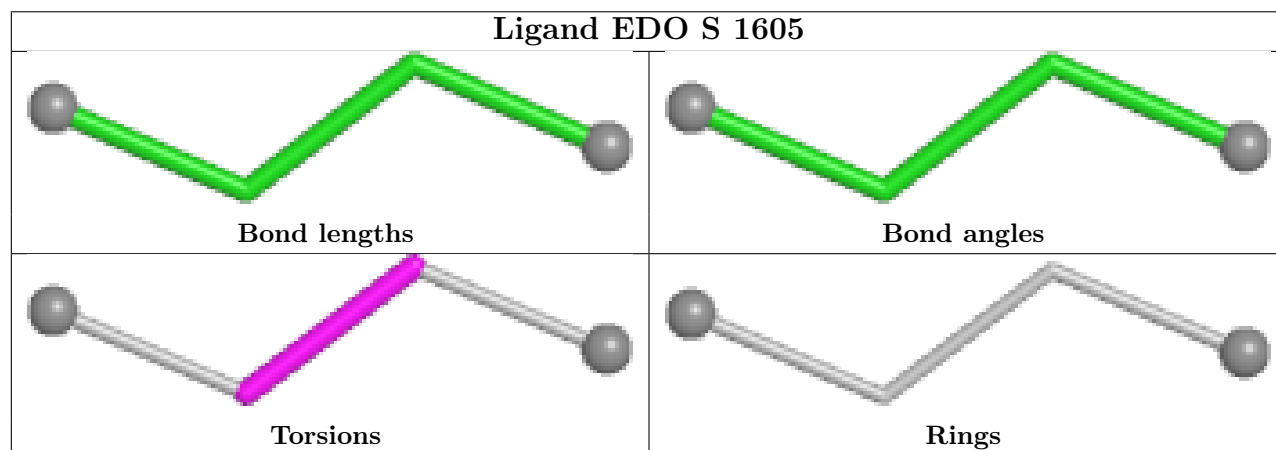
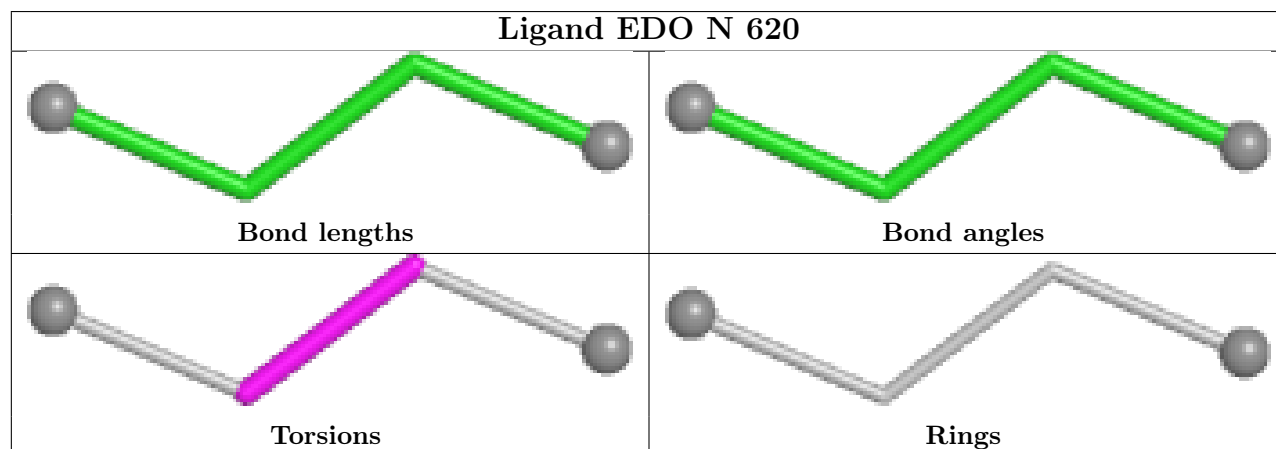
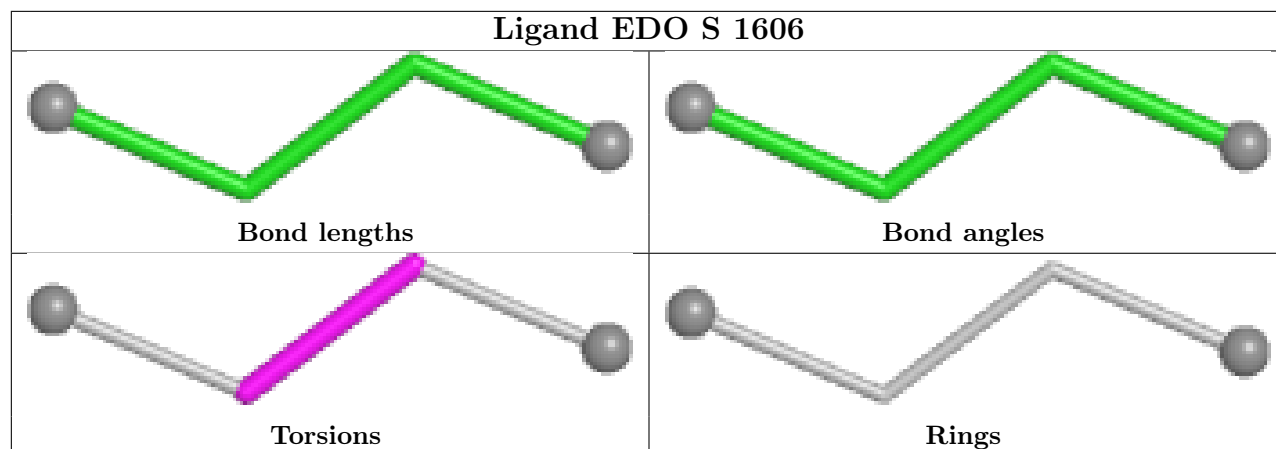


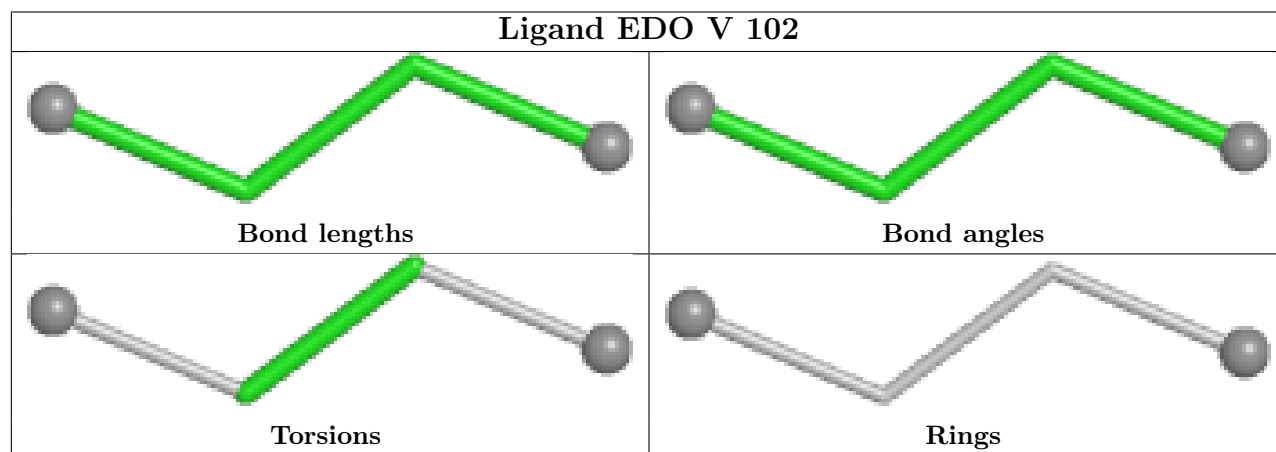
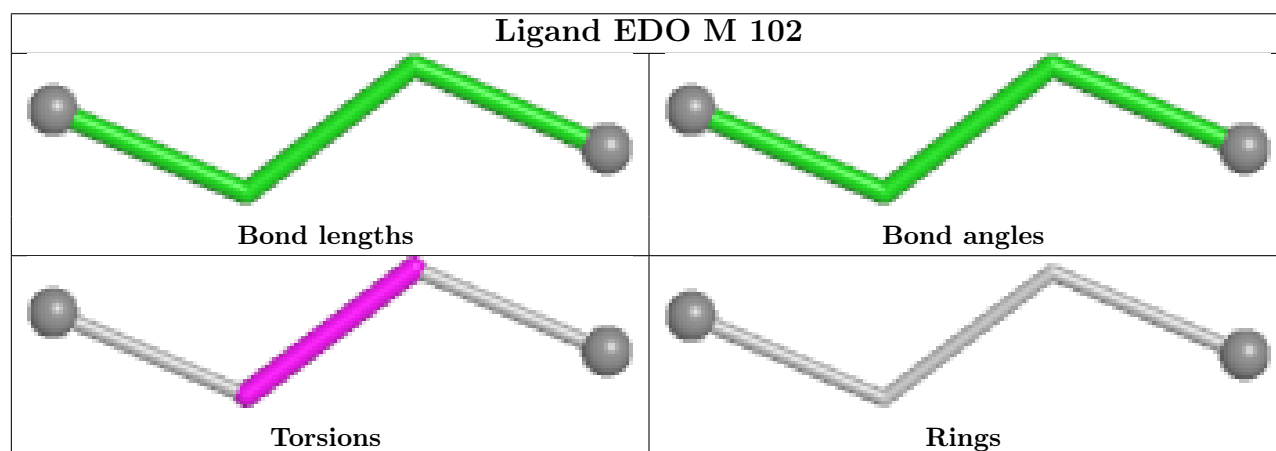
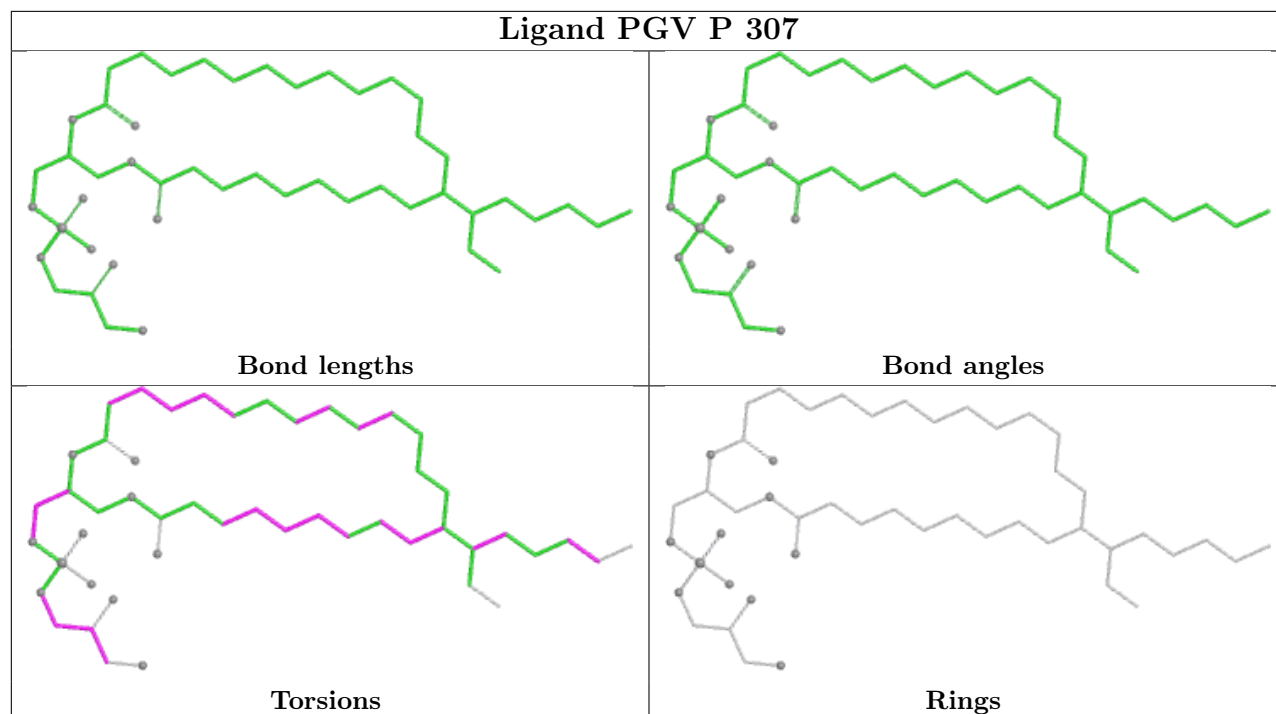


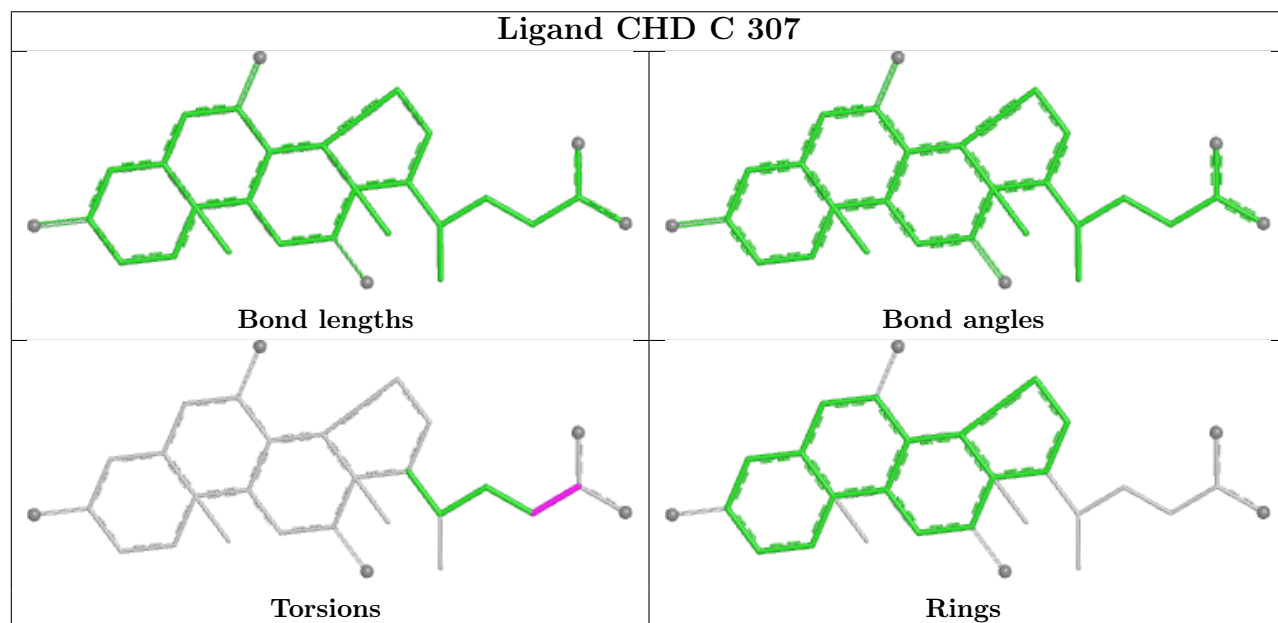
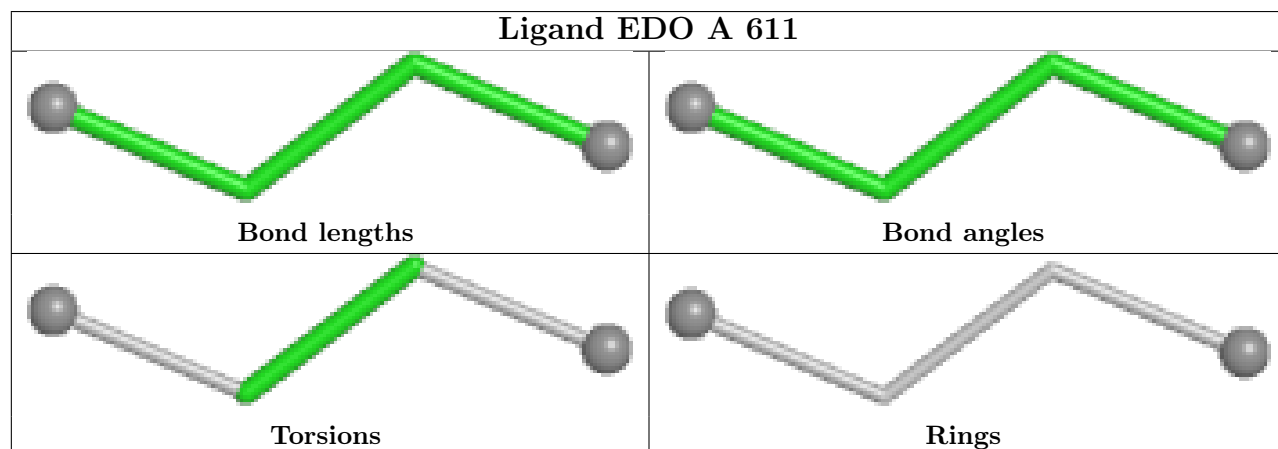
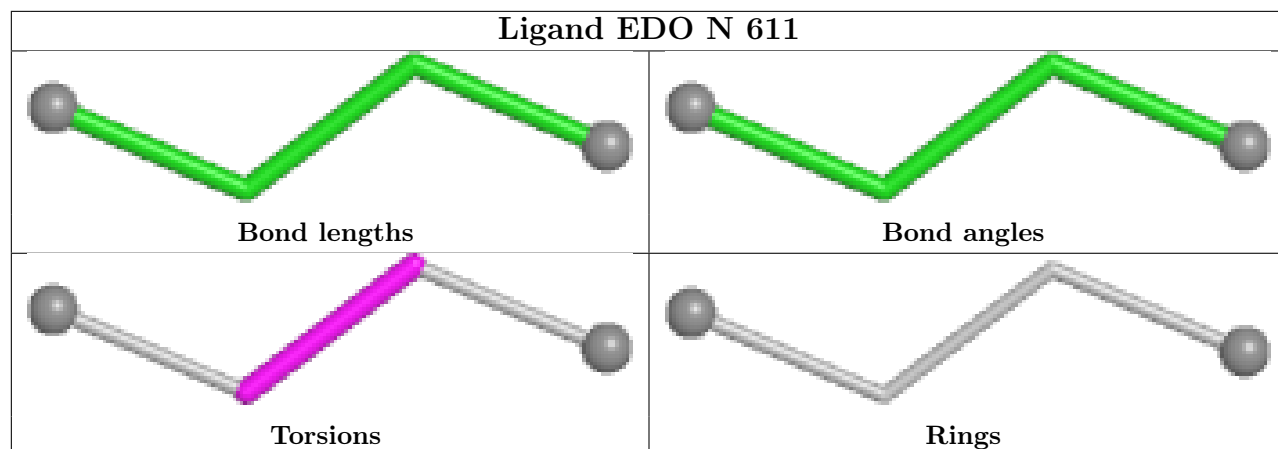




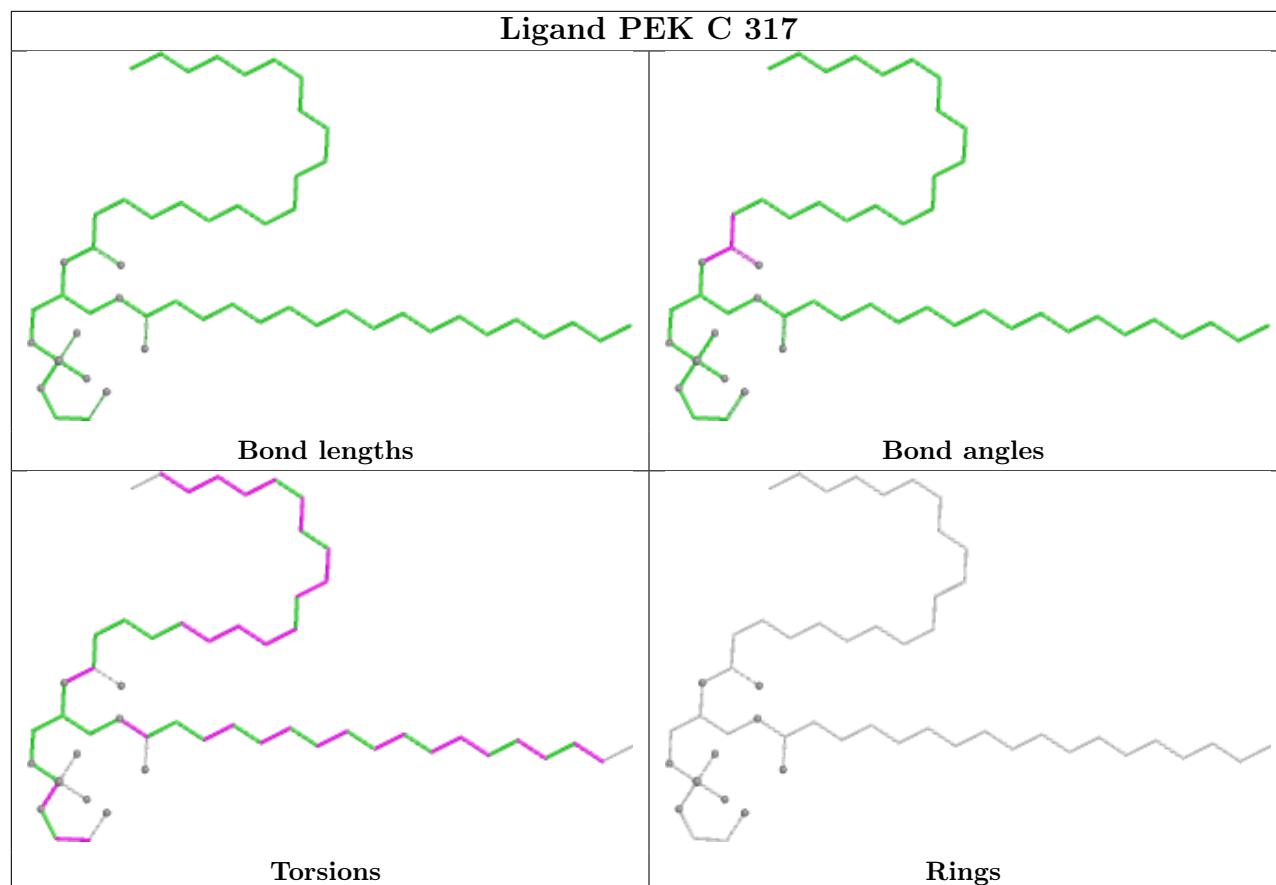




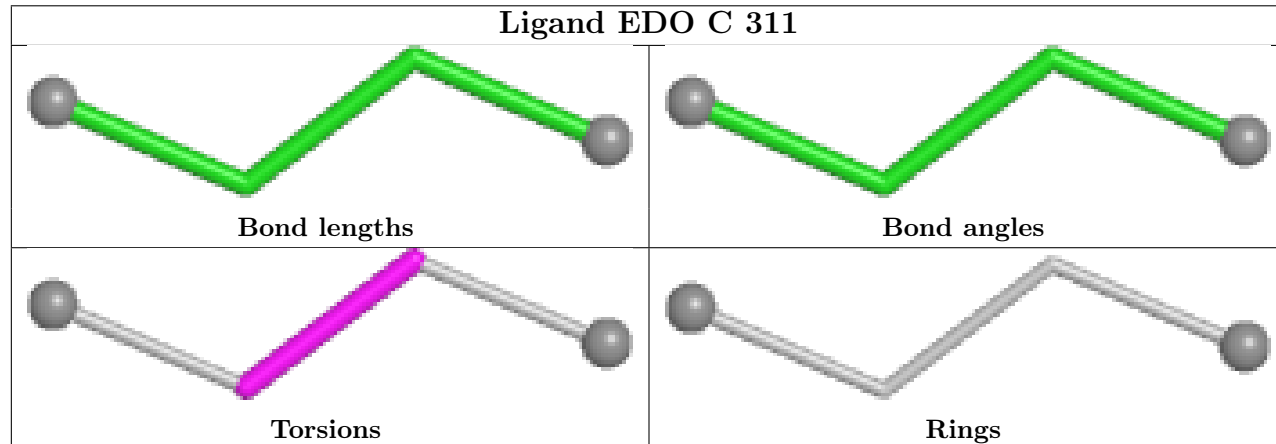


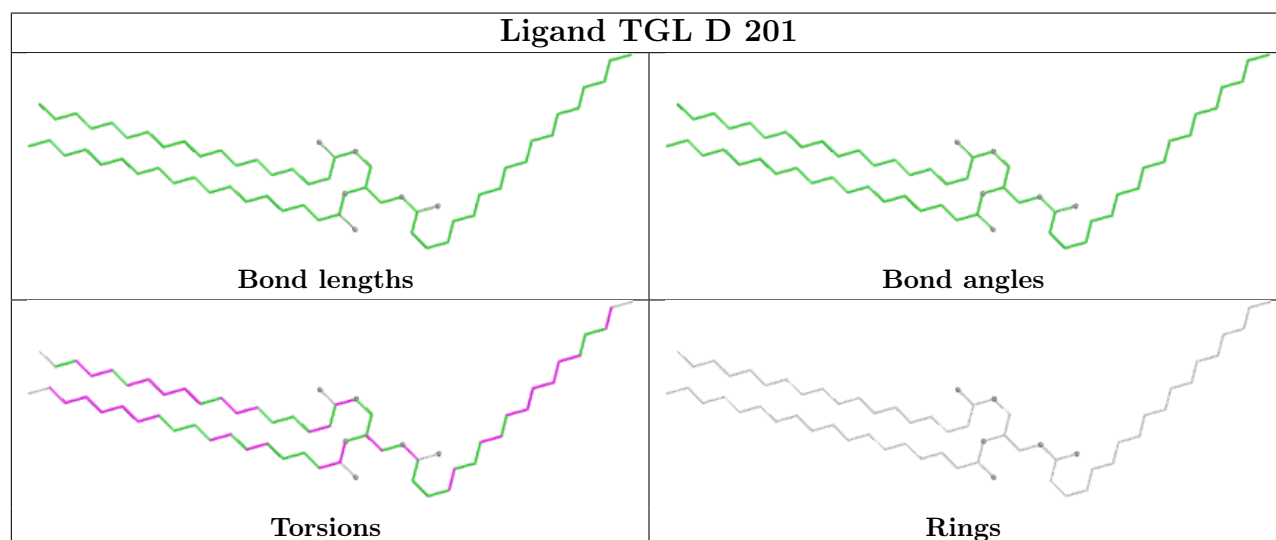
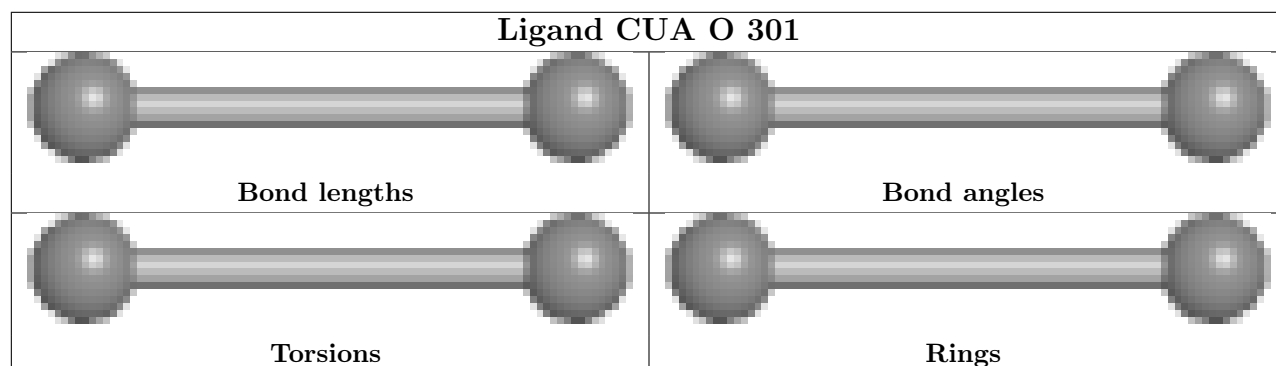
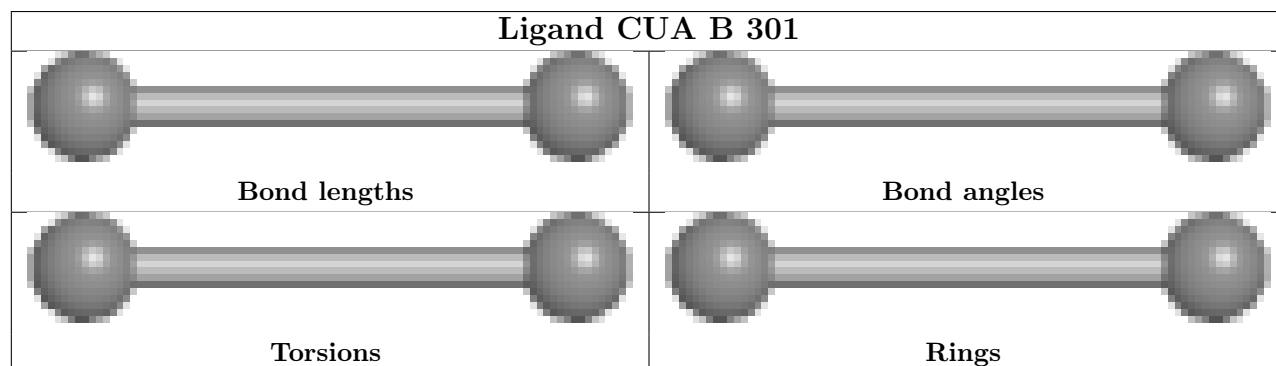
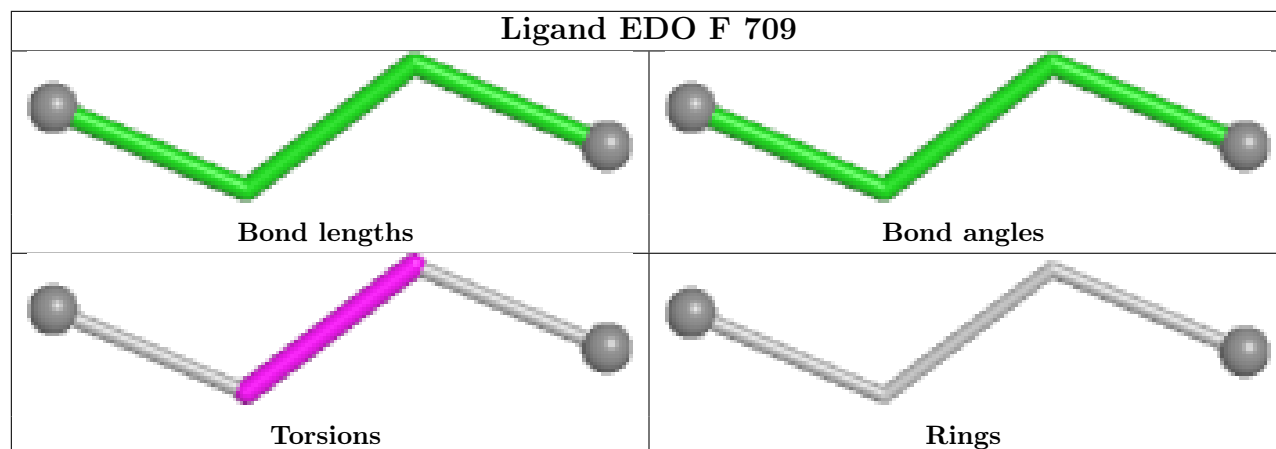


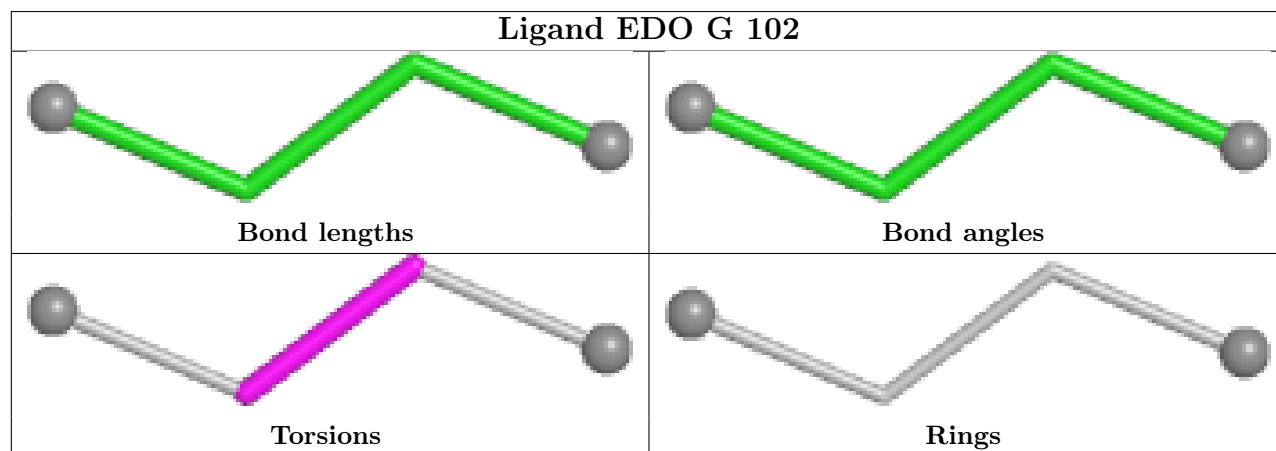
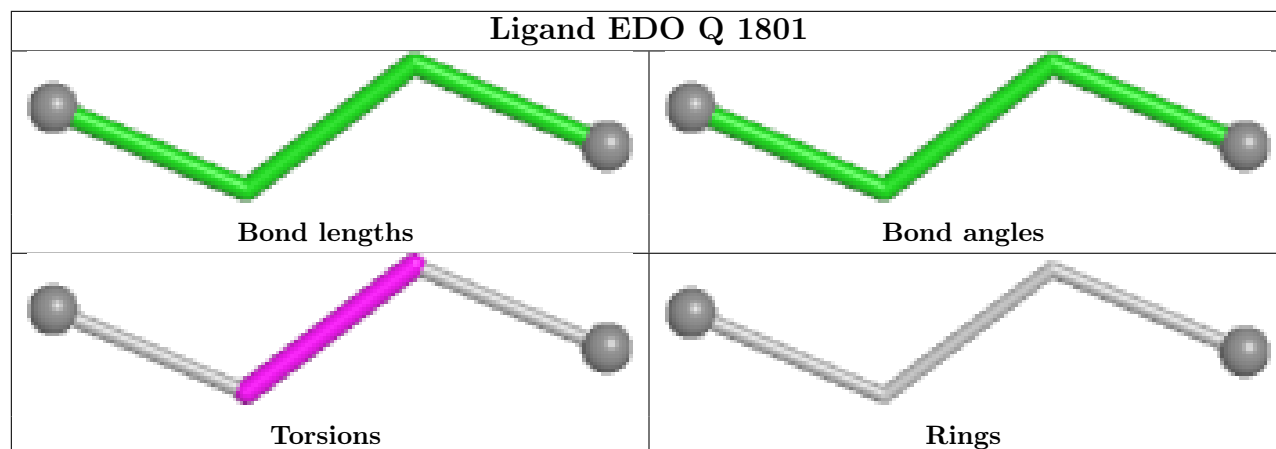
Ligand PEK C 317



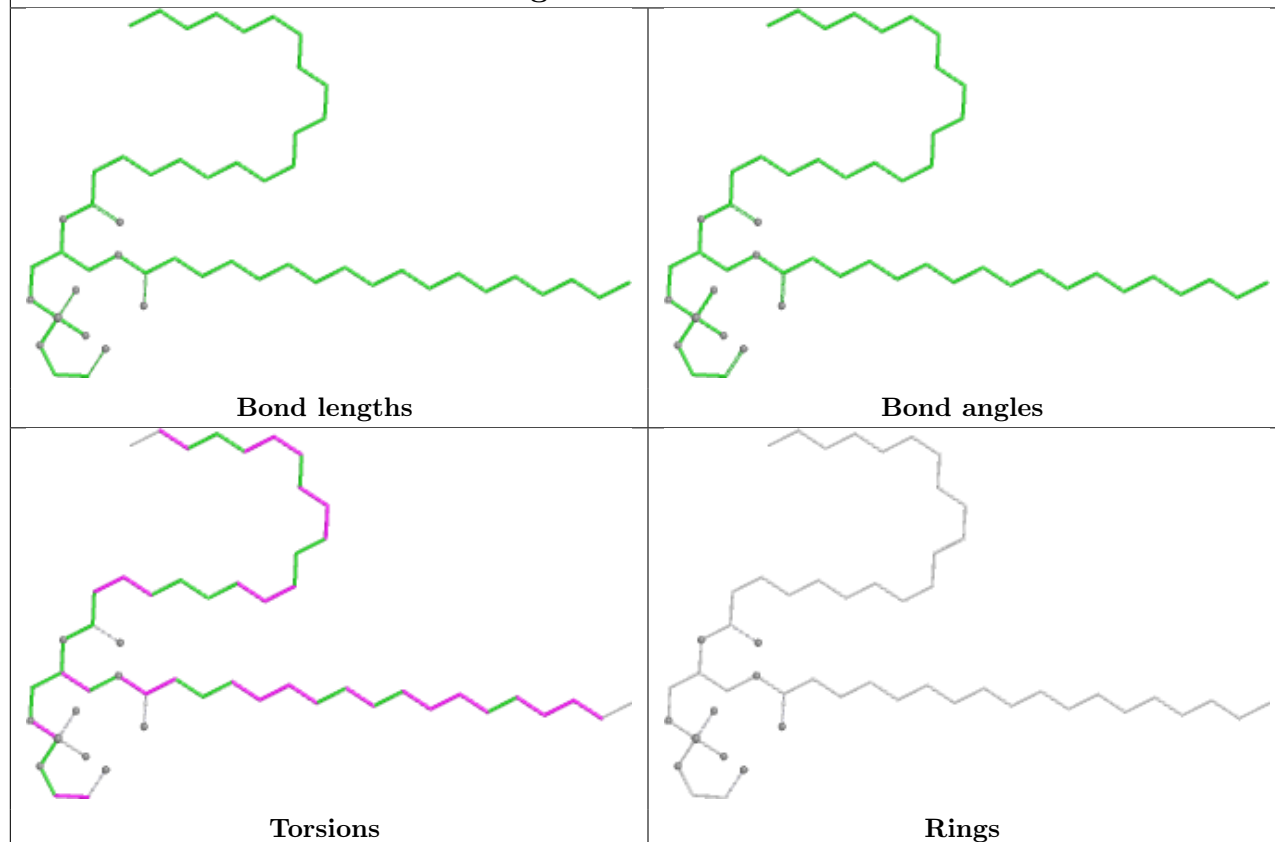
Ligand EDO C 311



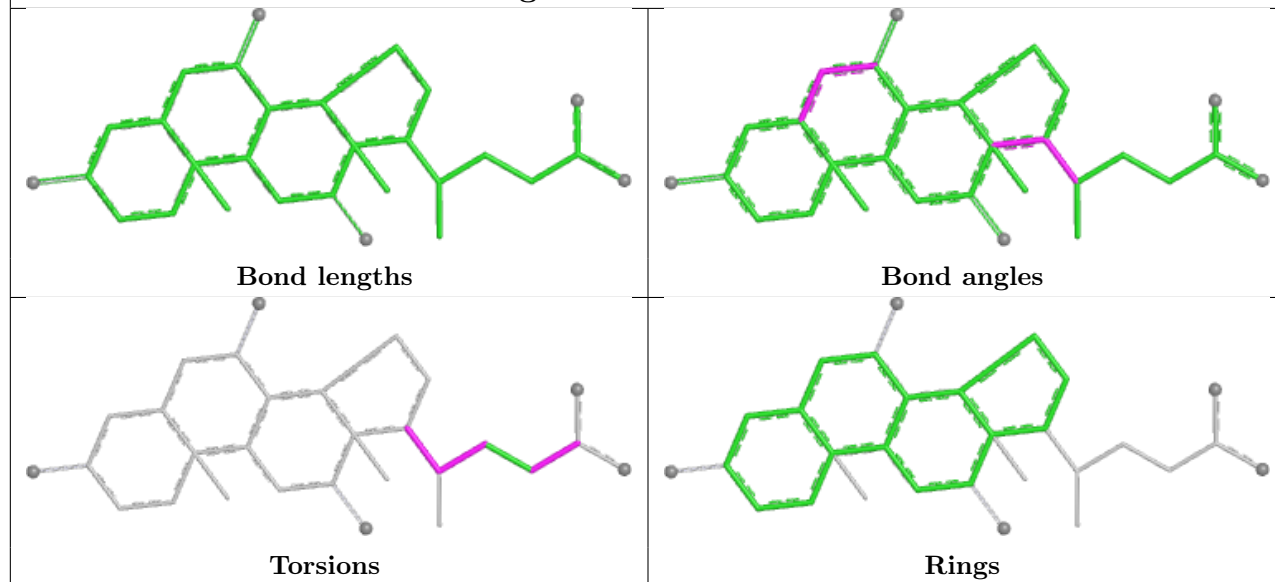


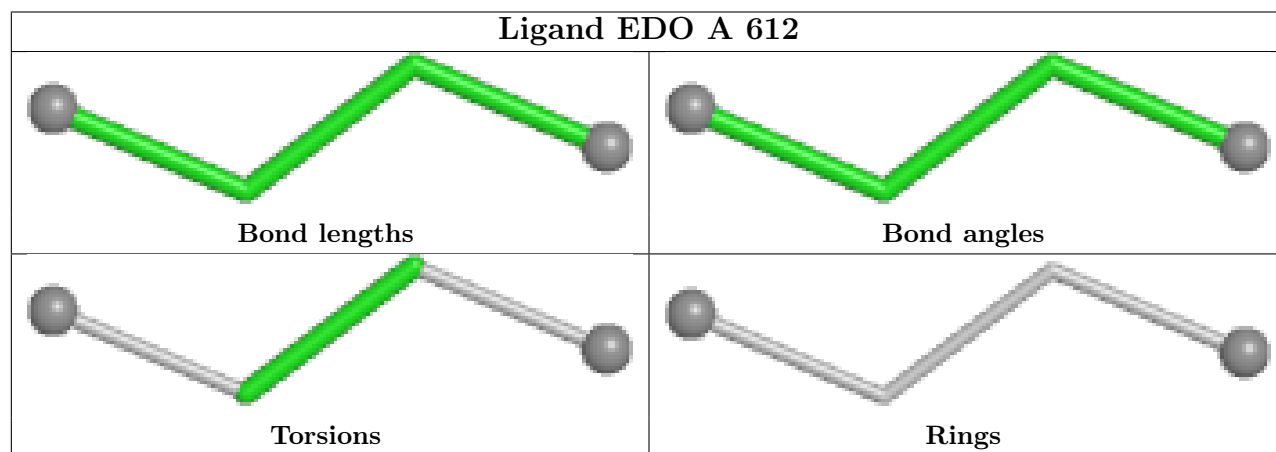
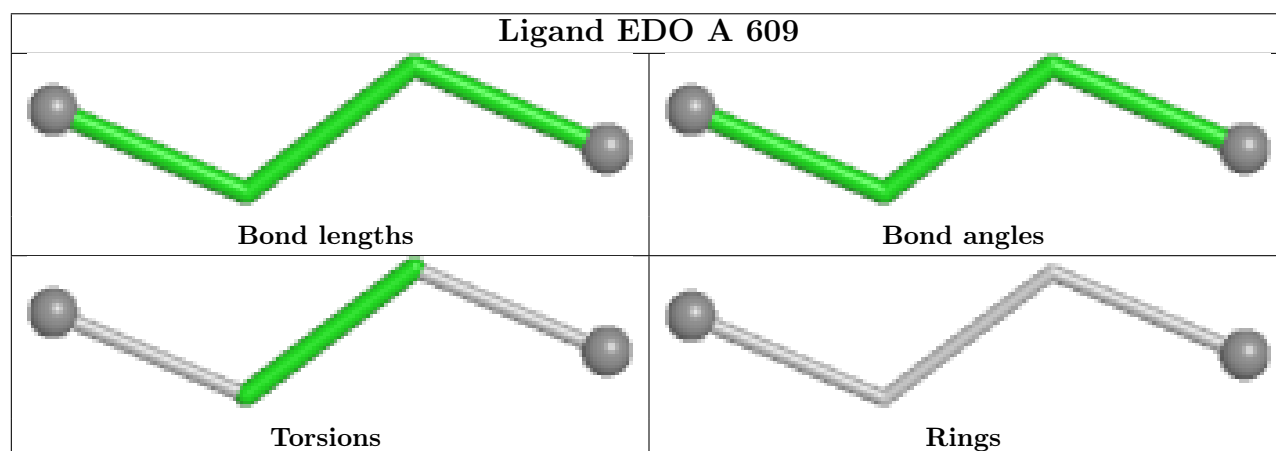
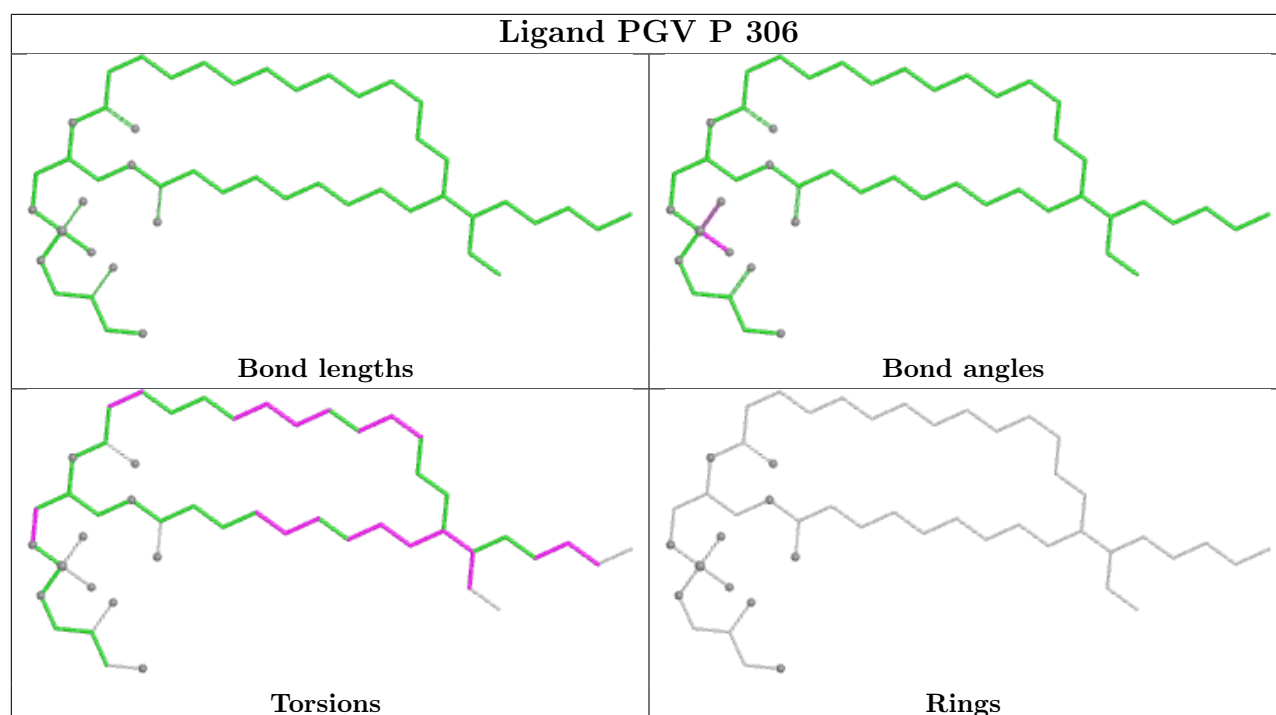


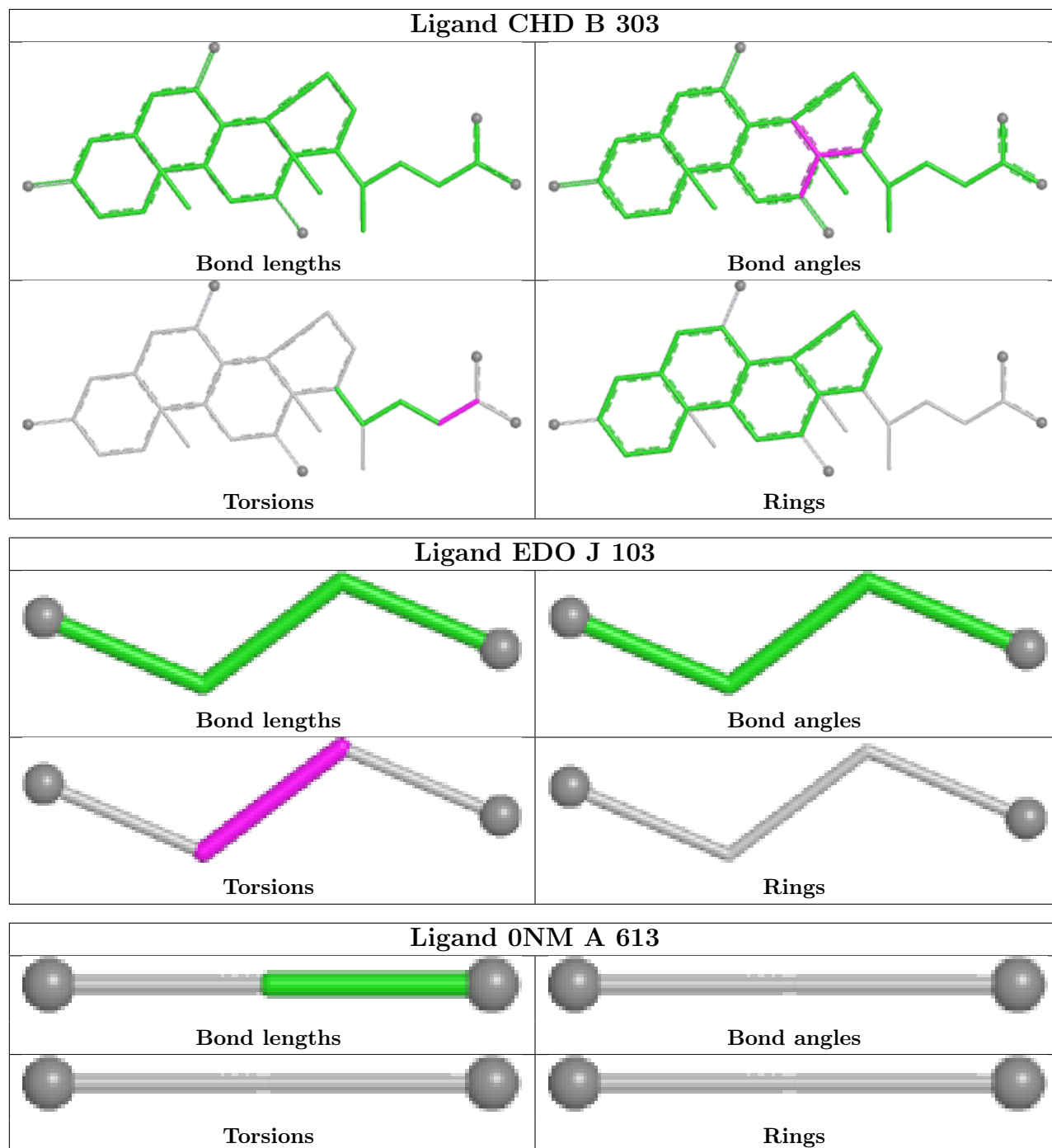
Ligand PEK C 303

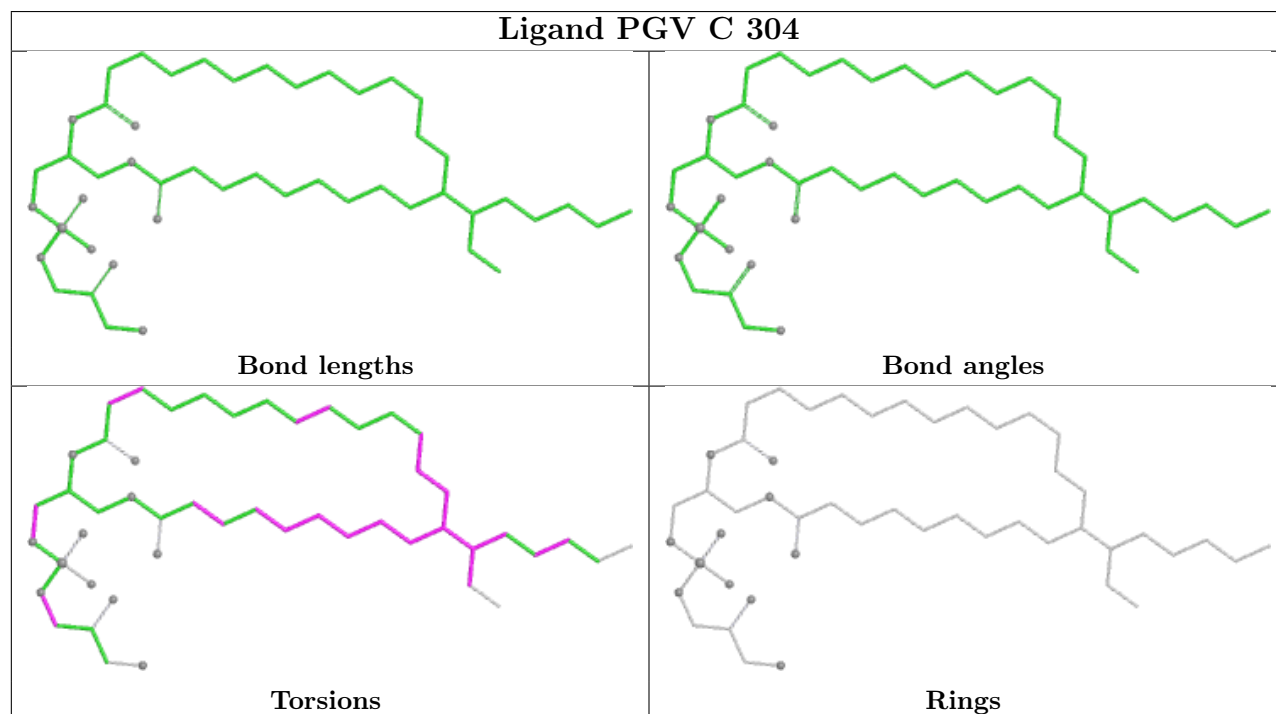
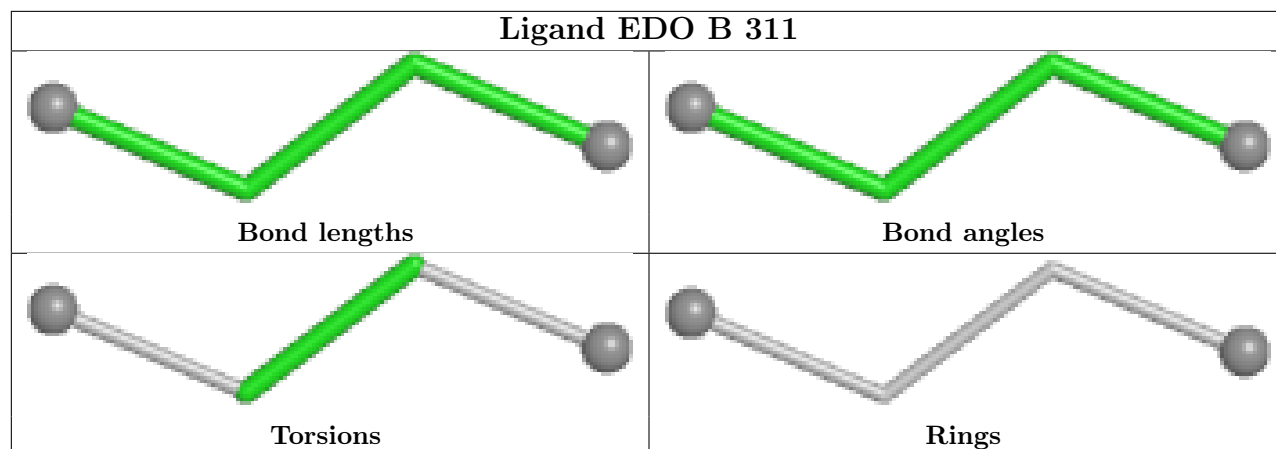


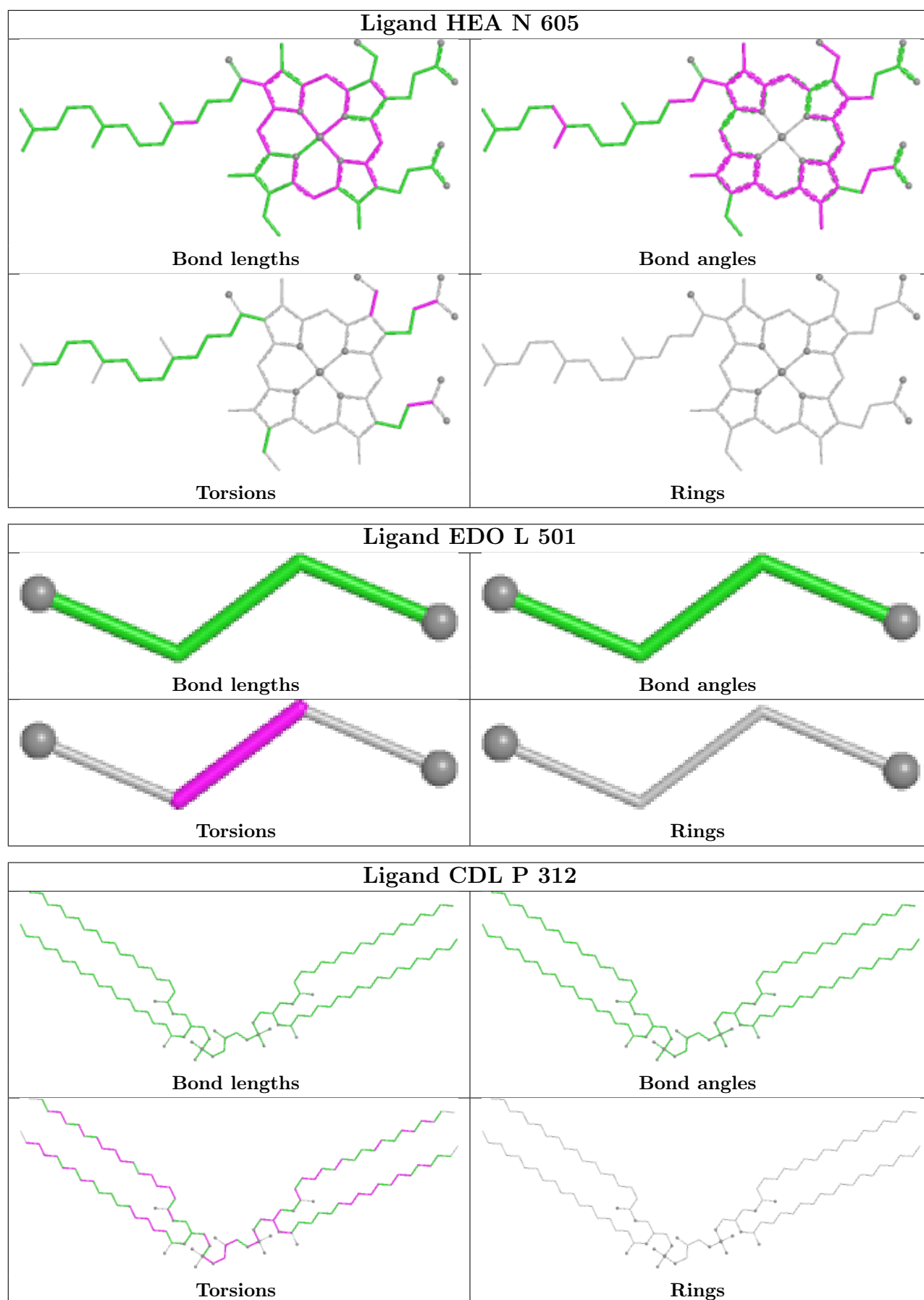
Ligand CHD T 1302

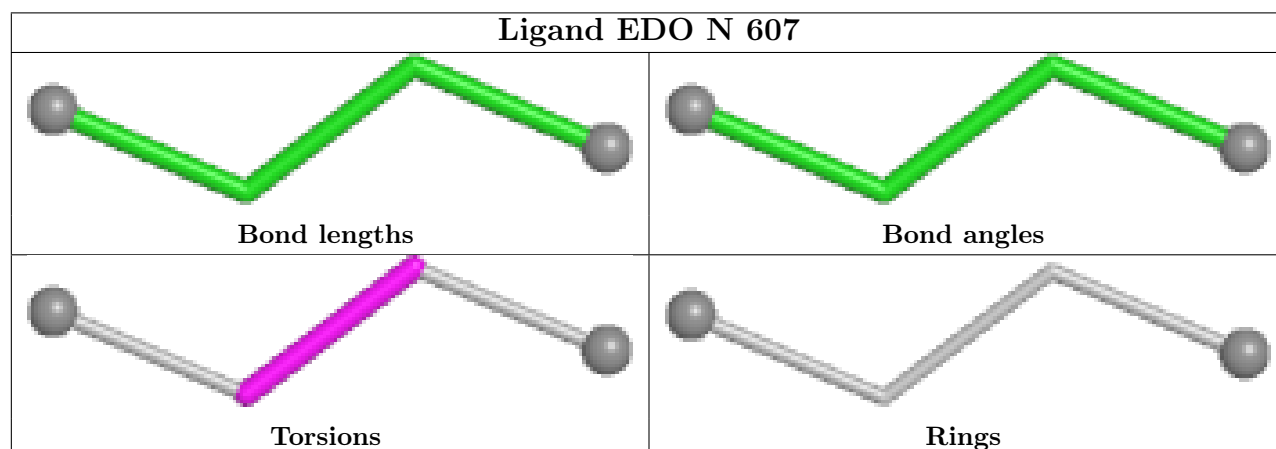
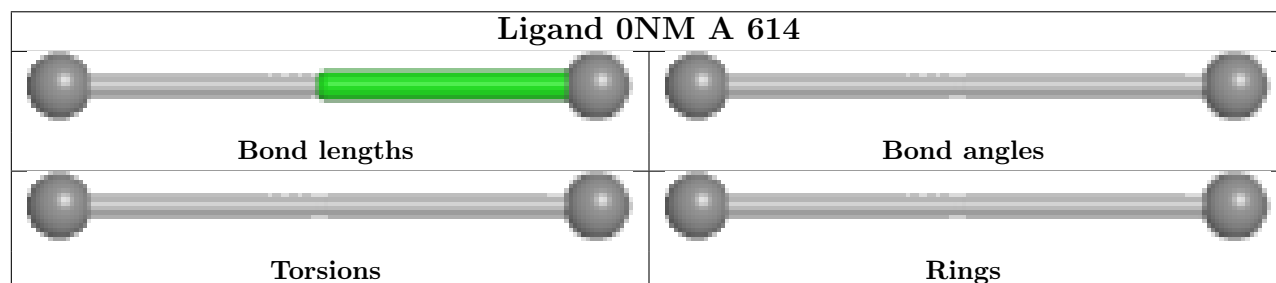
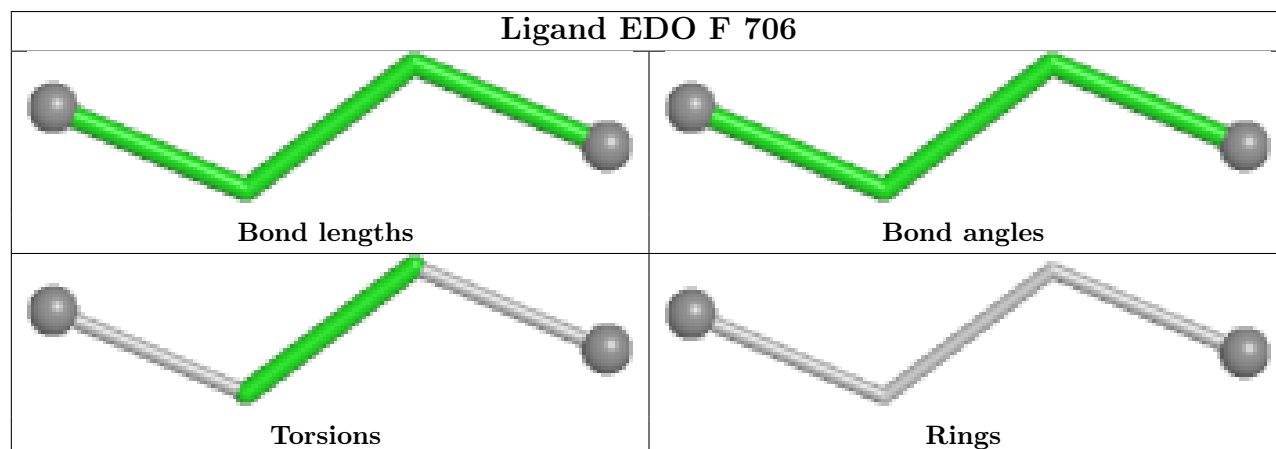
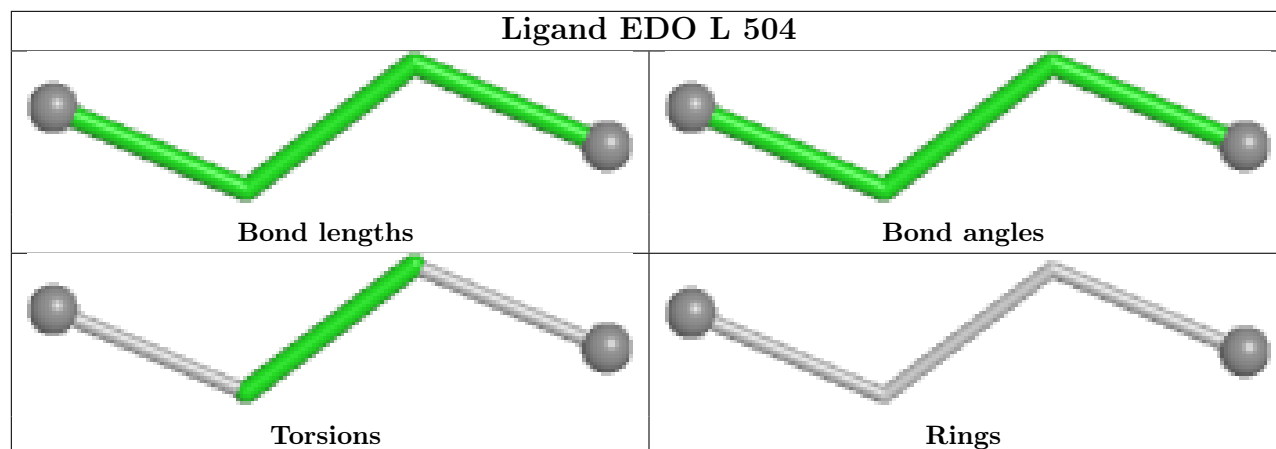




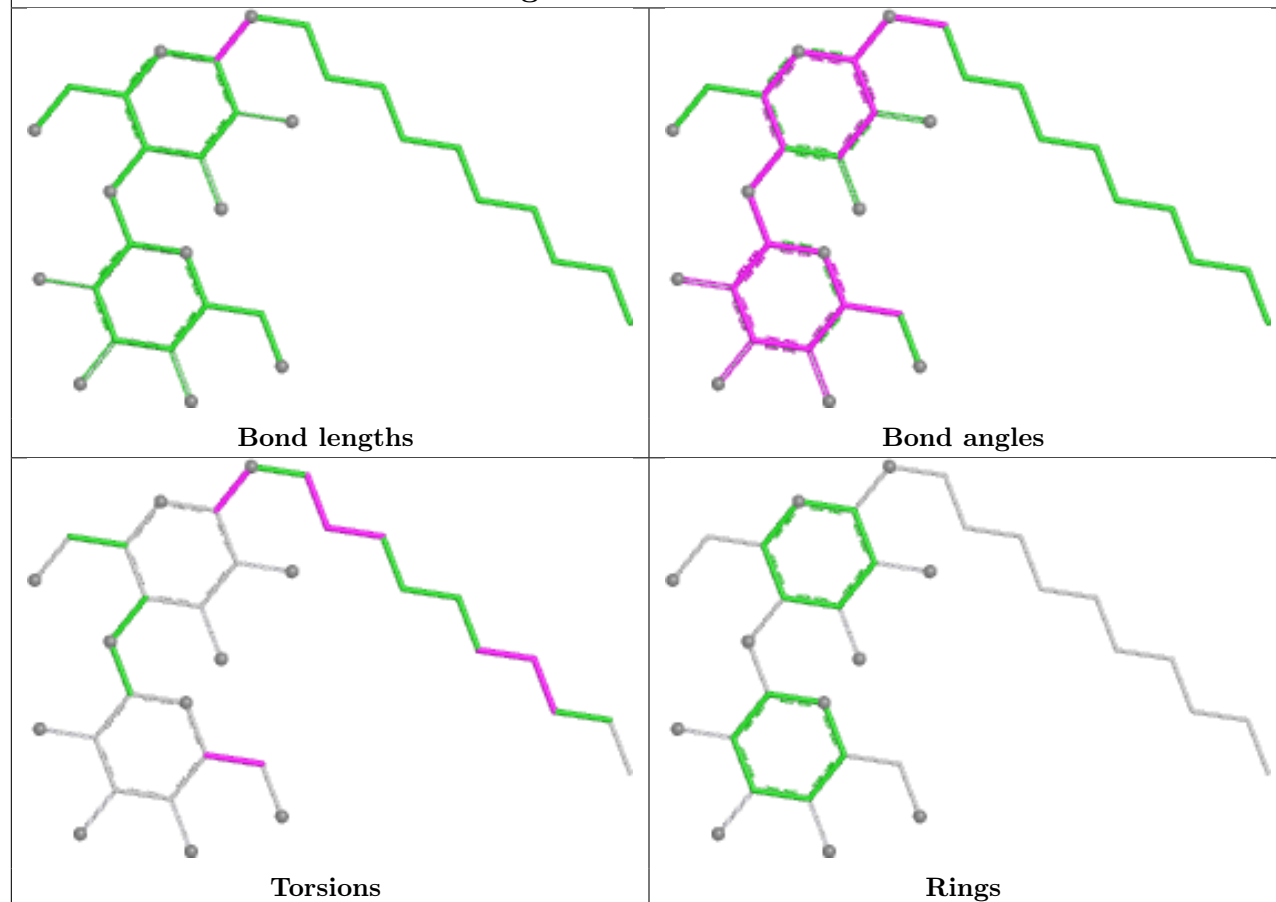




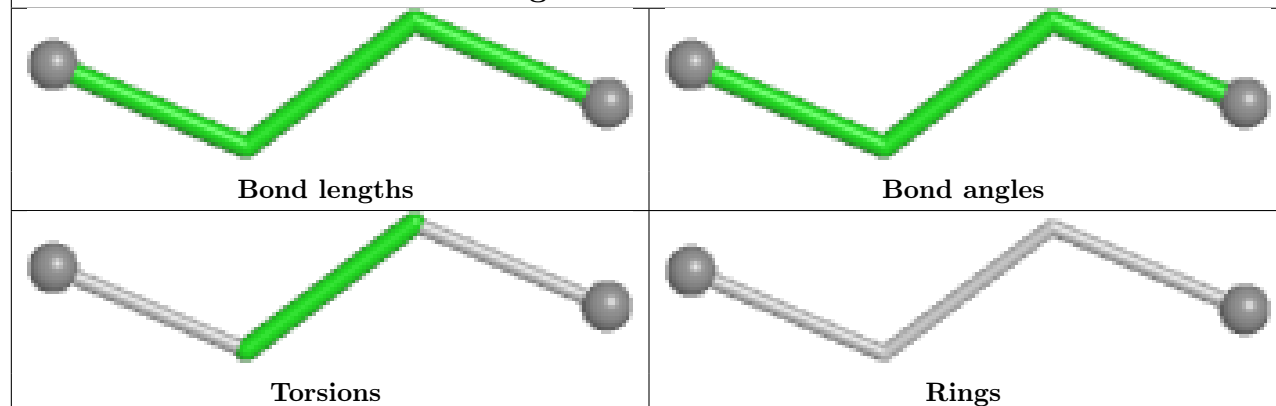


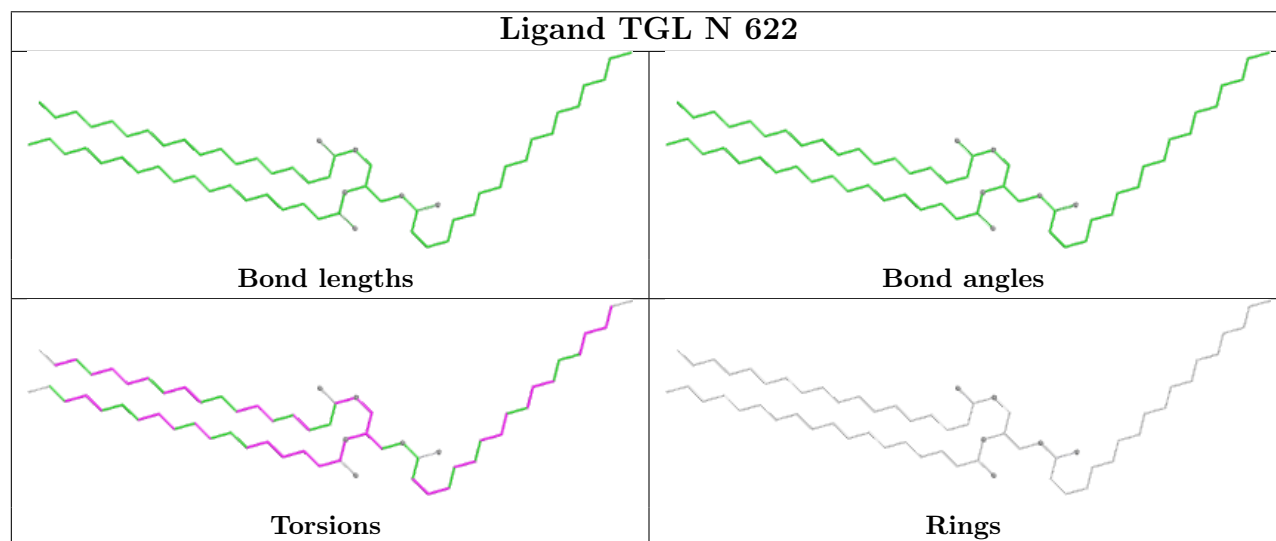
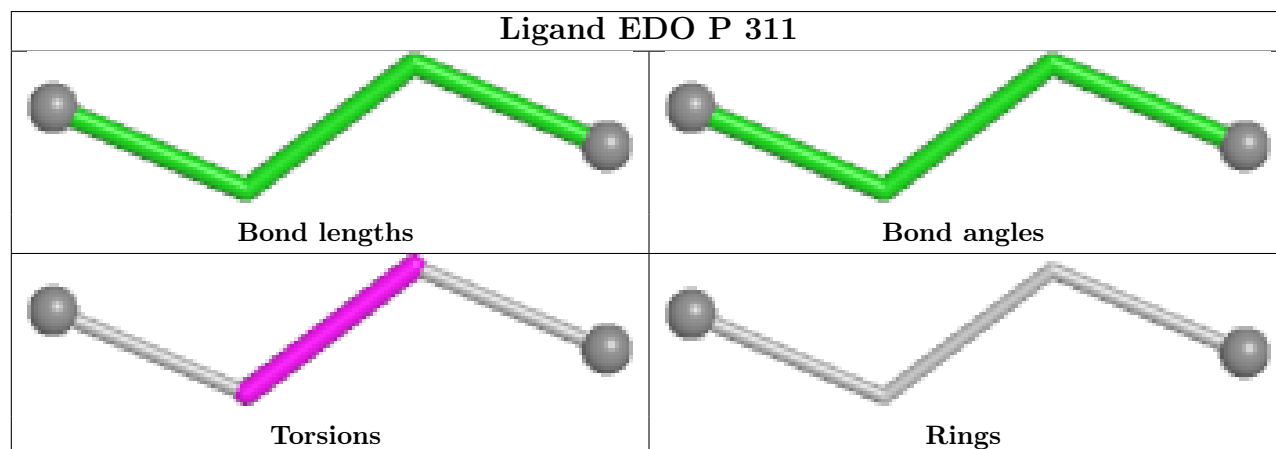
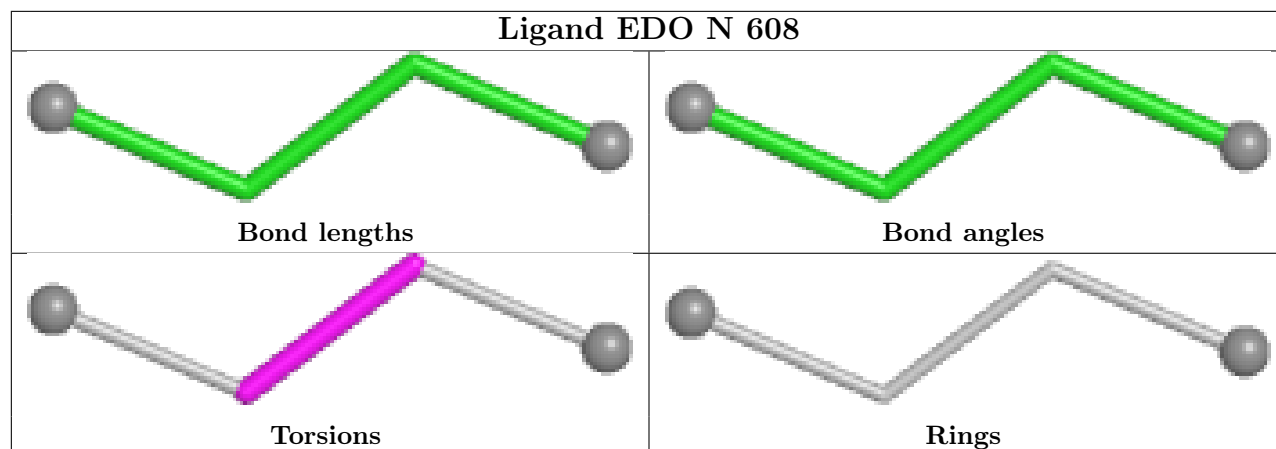


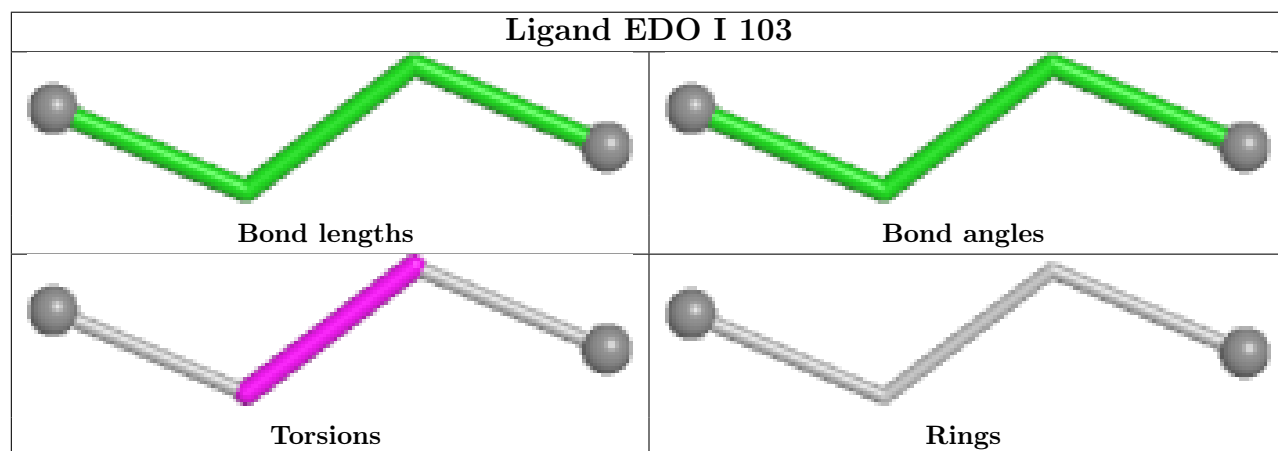
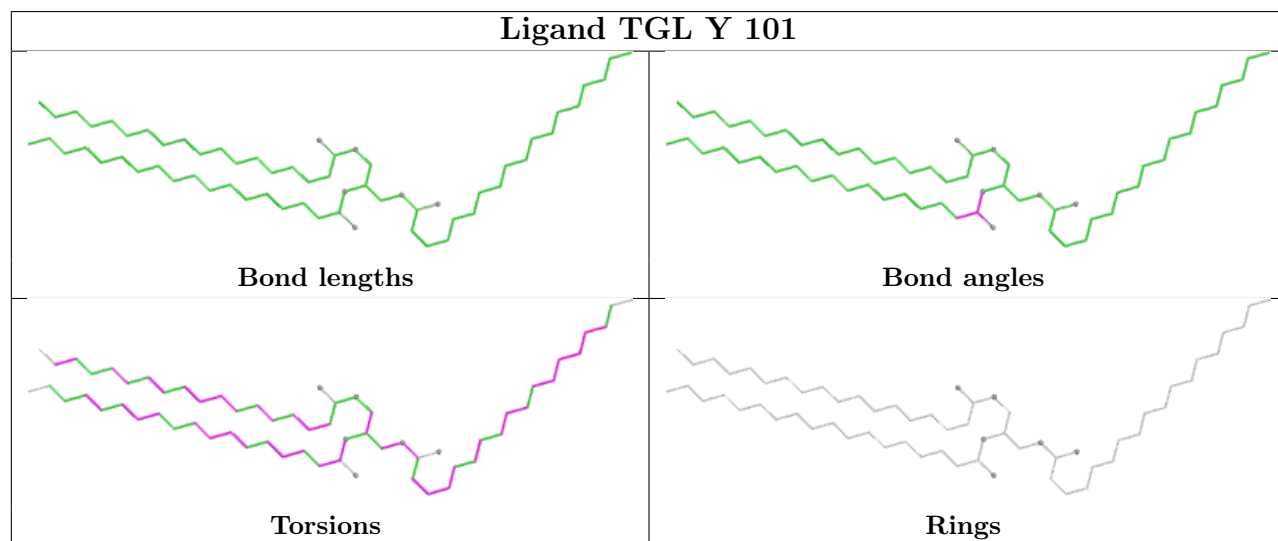
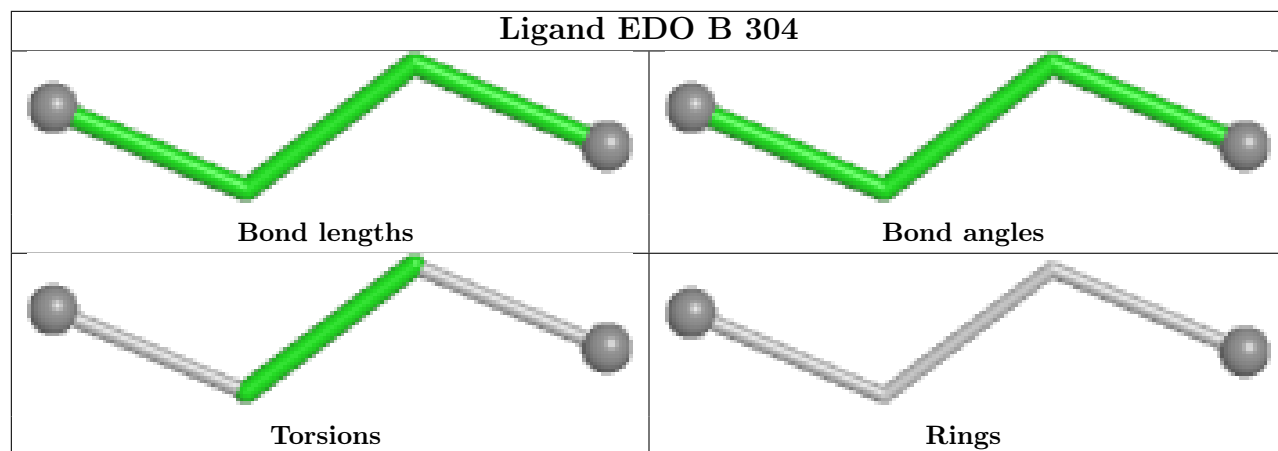
Ligand DMU M 103

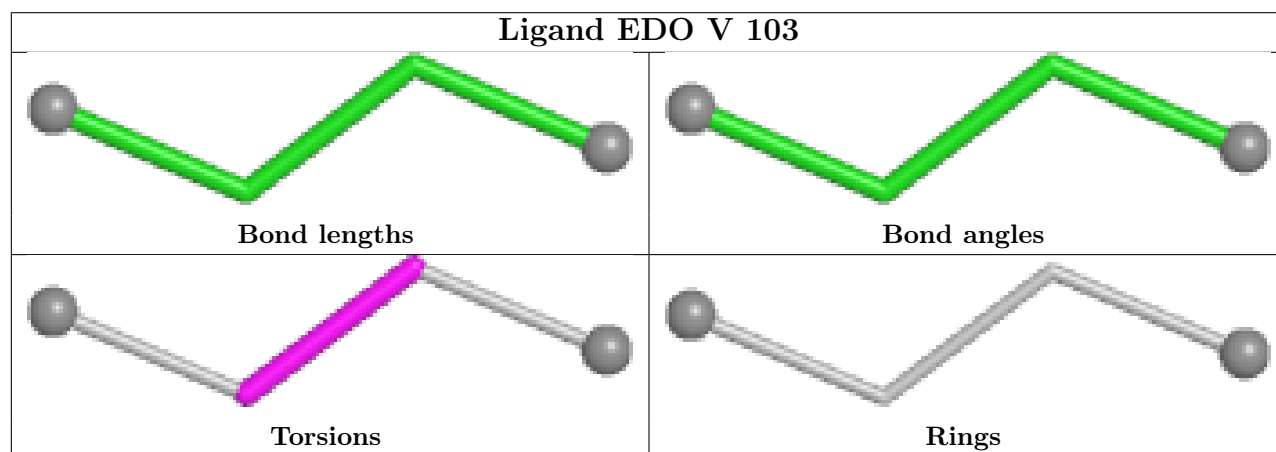
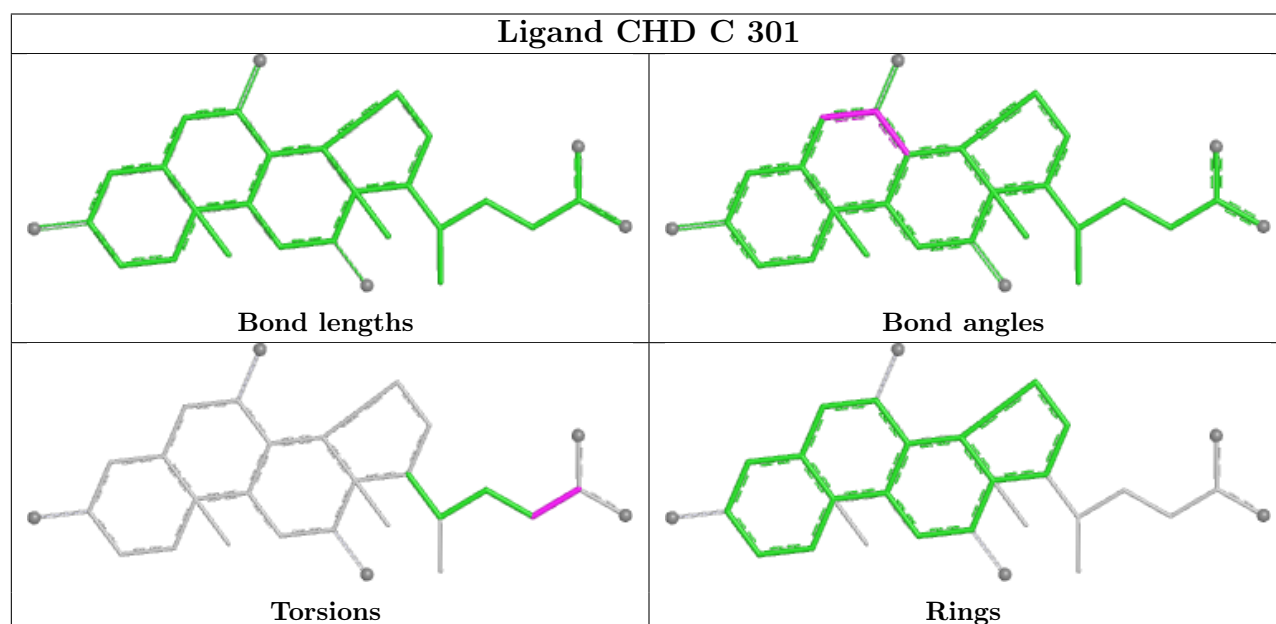
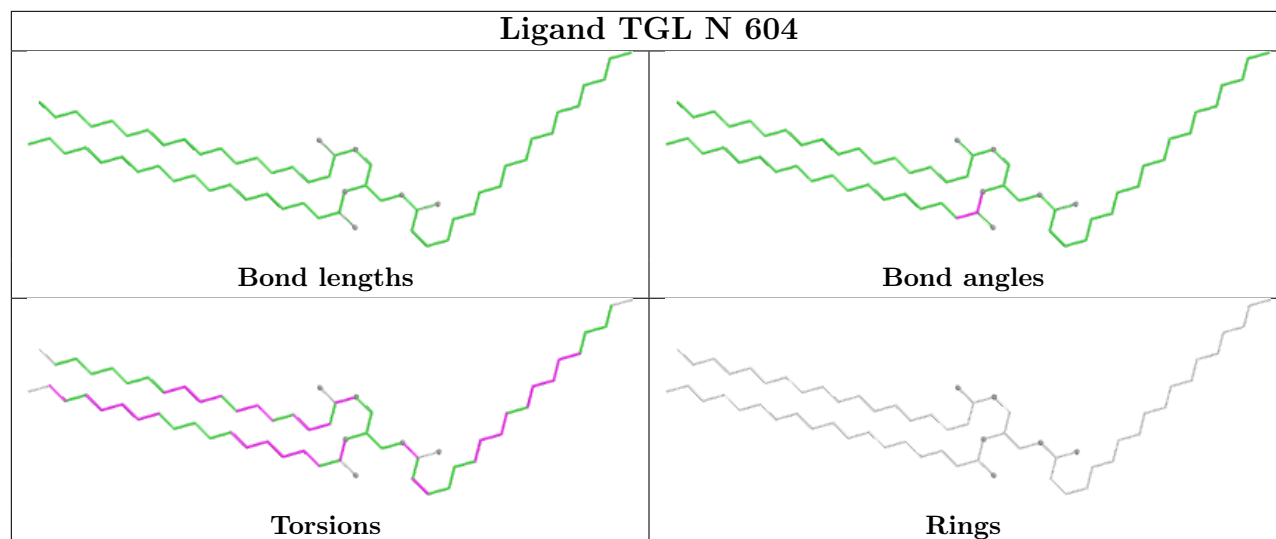


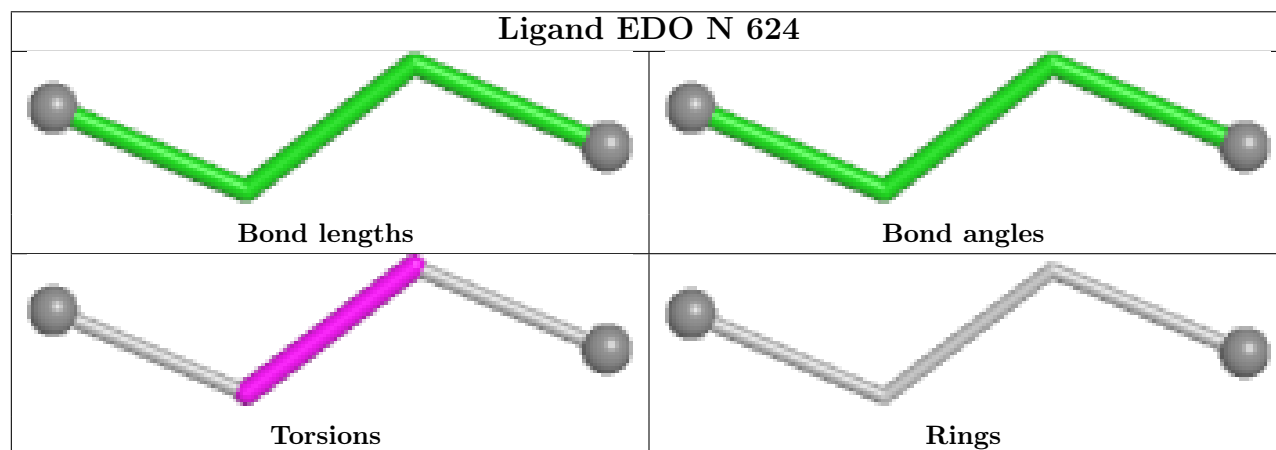
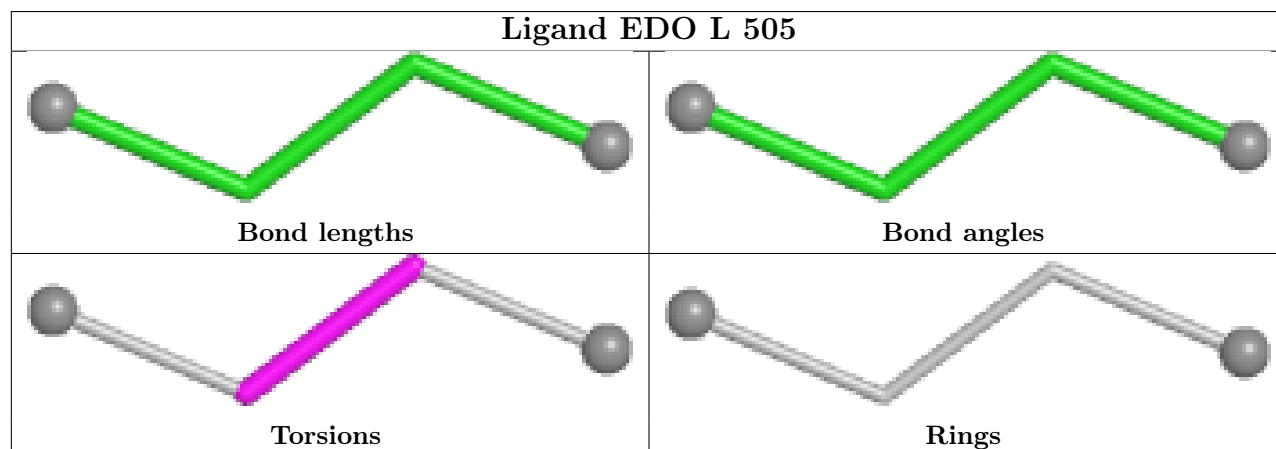
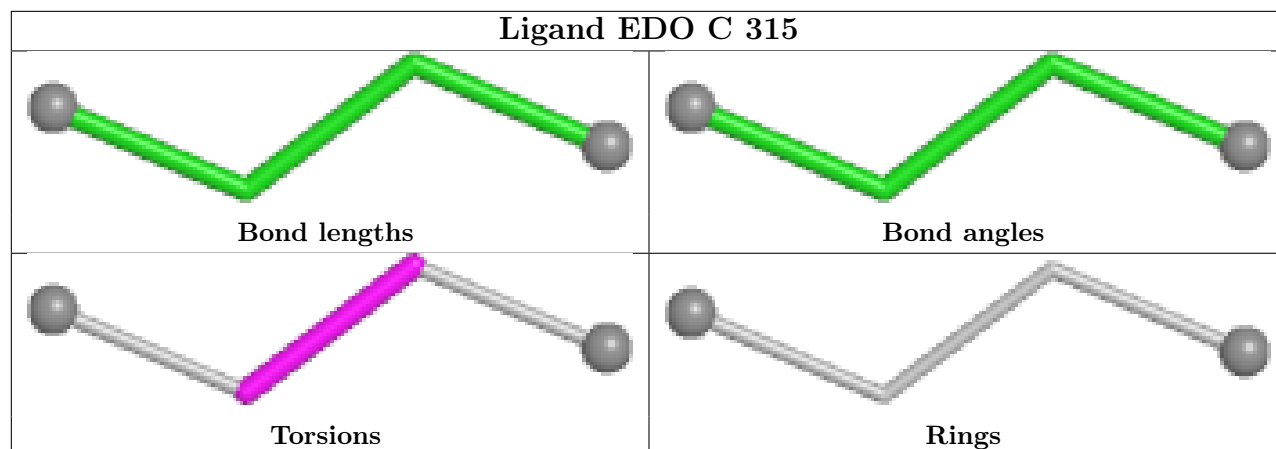
Ligand EDO N 610

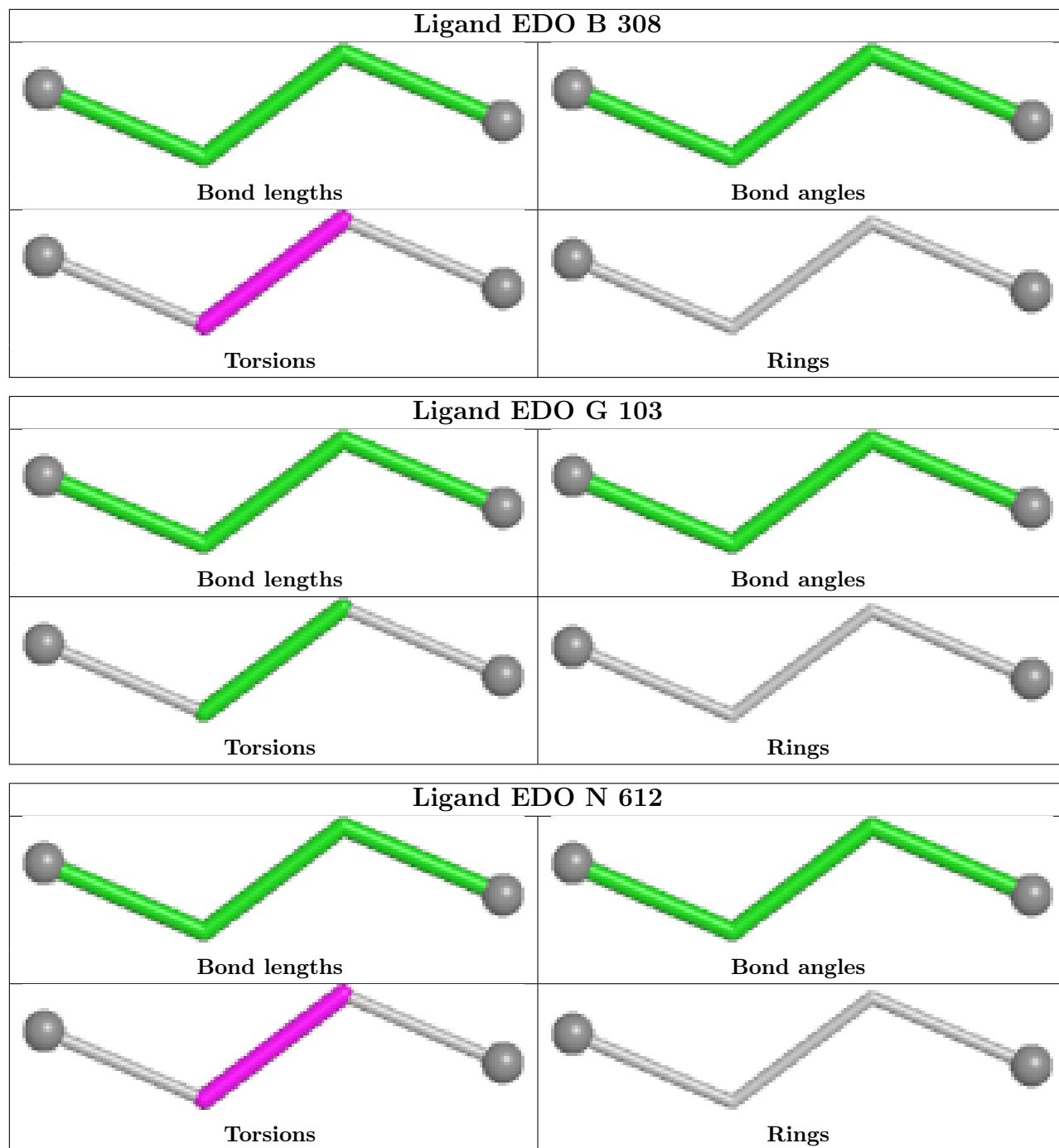


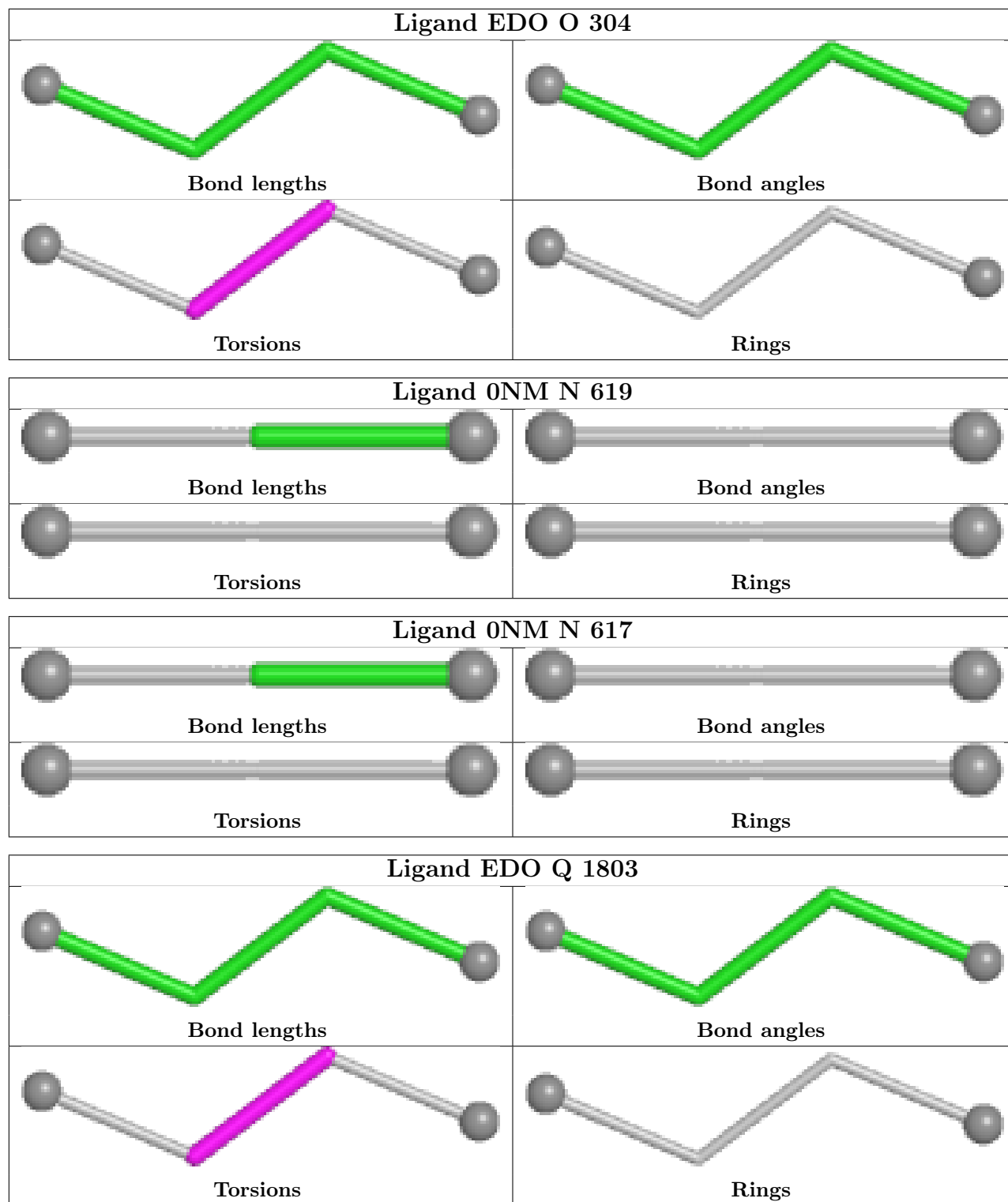


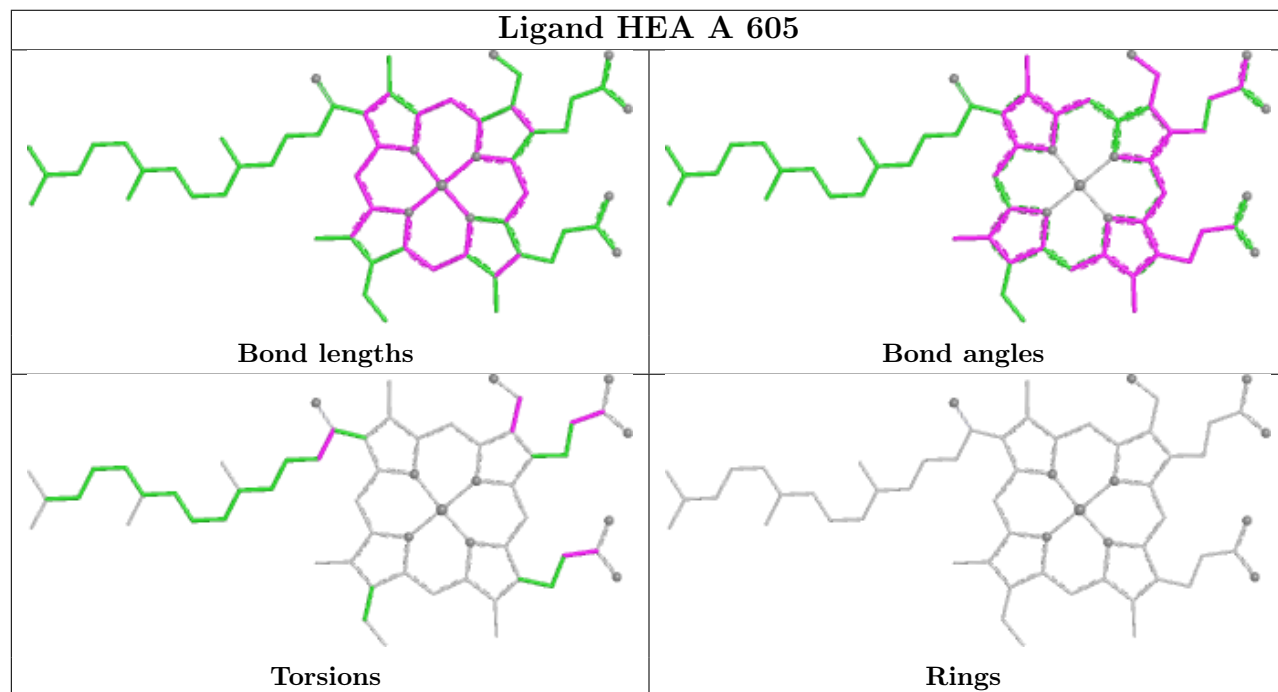
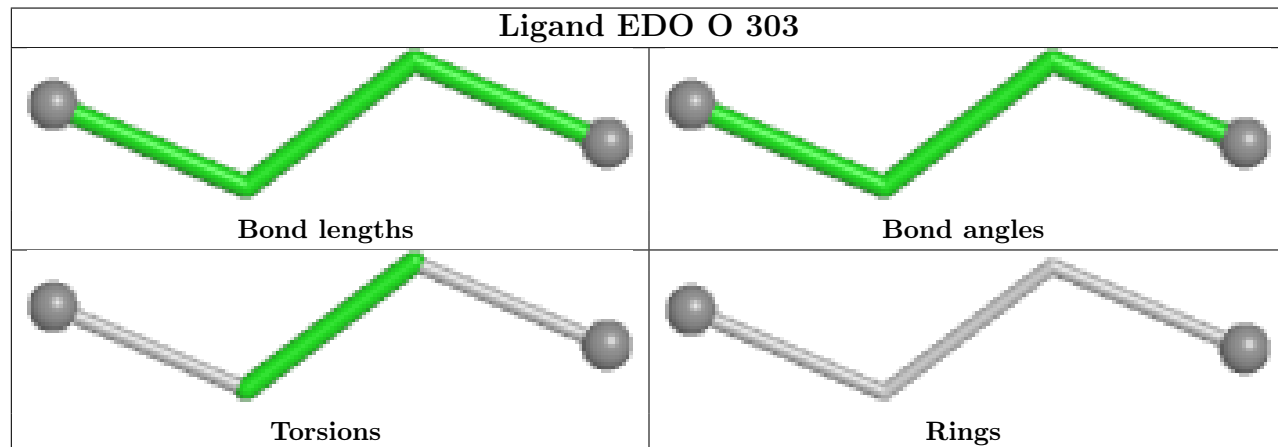
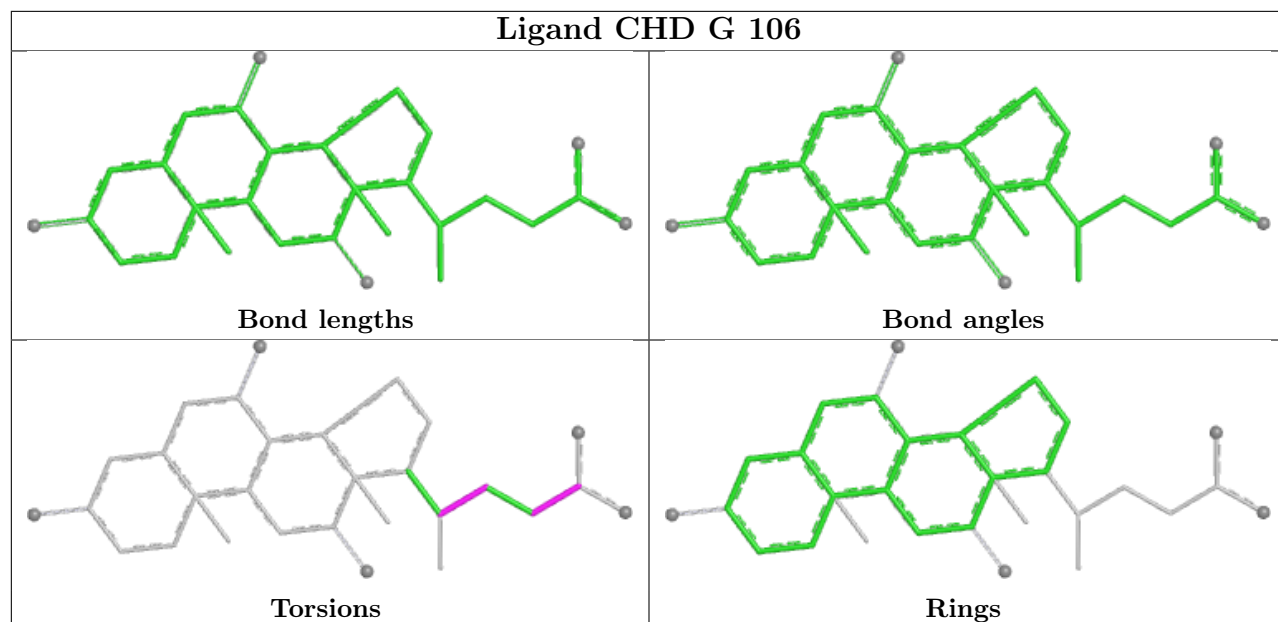


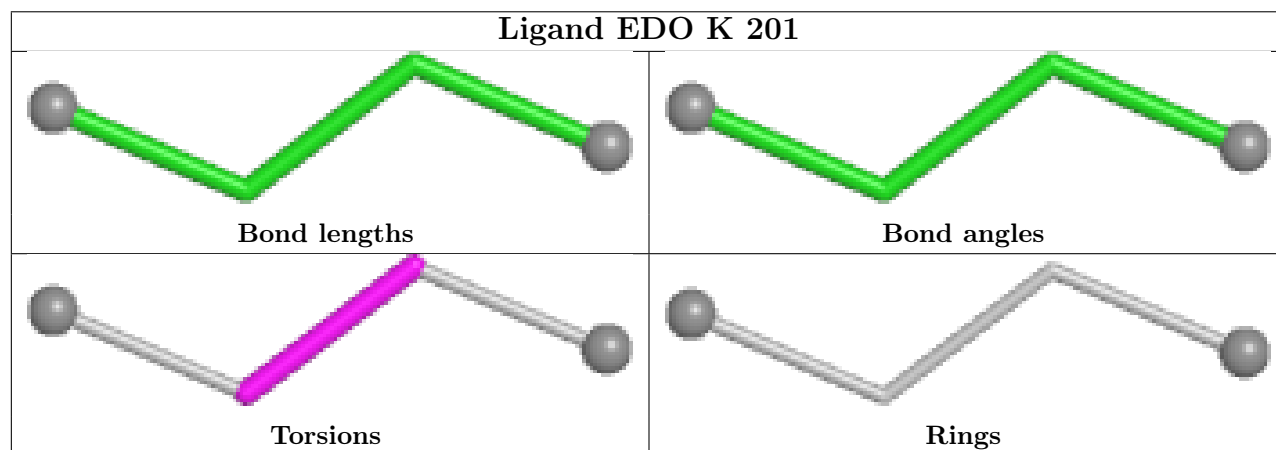
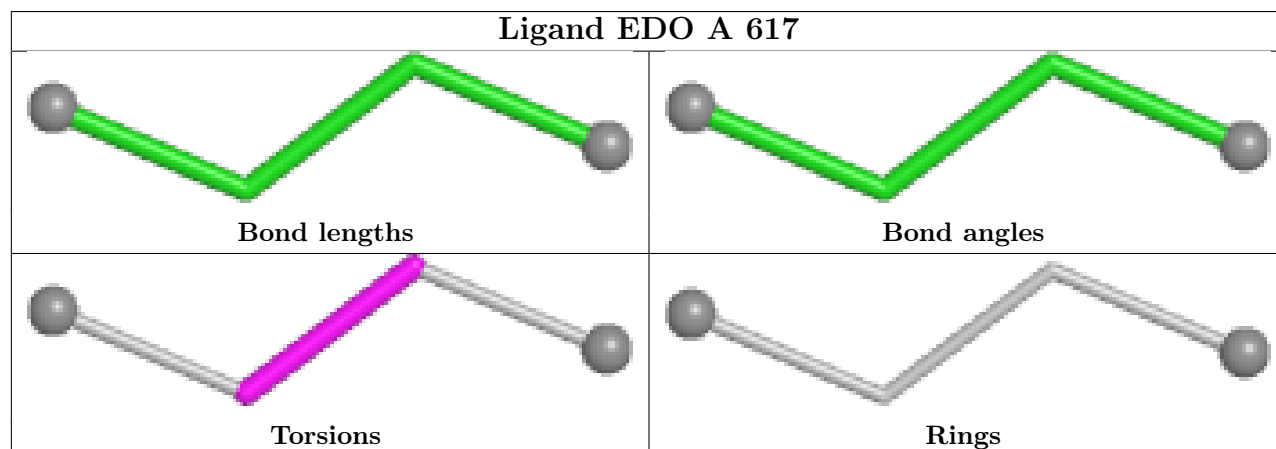
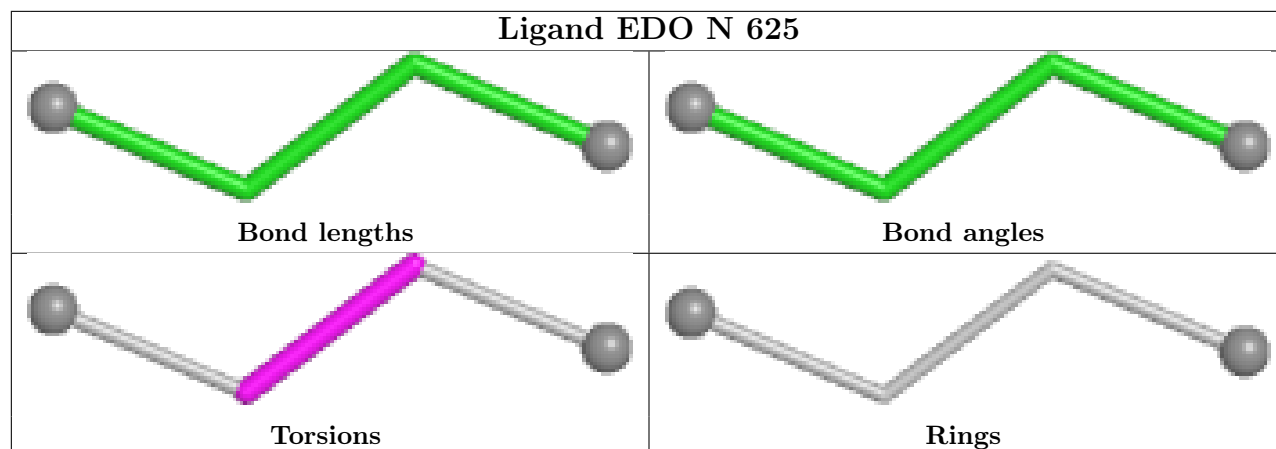


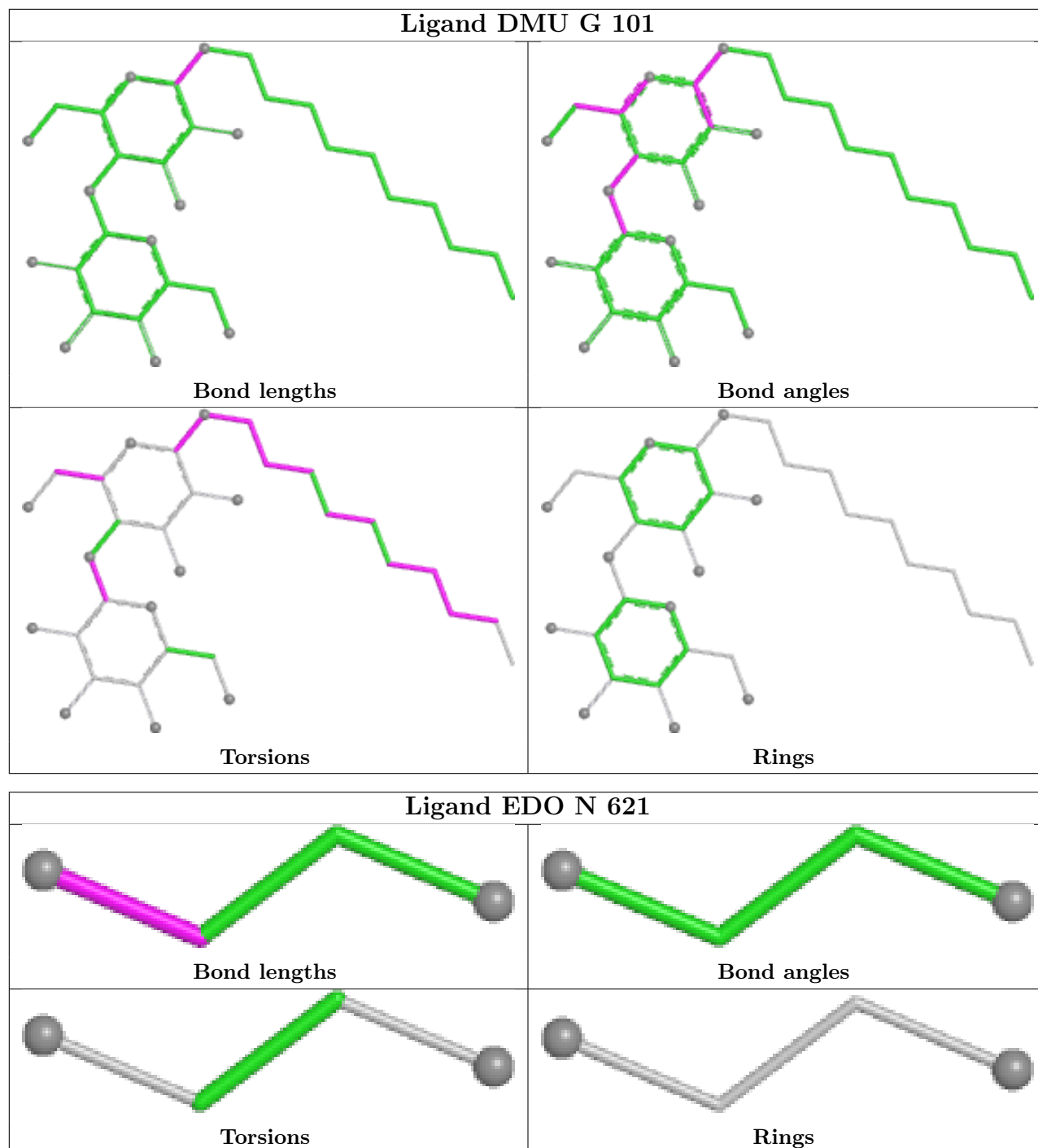


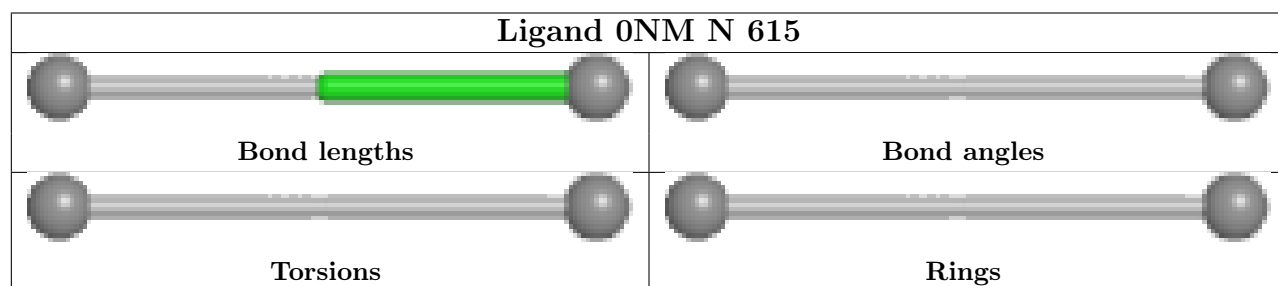
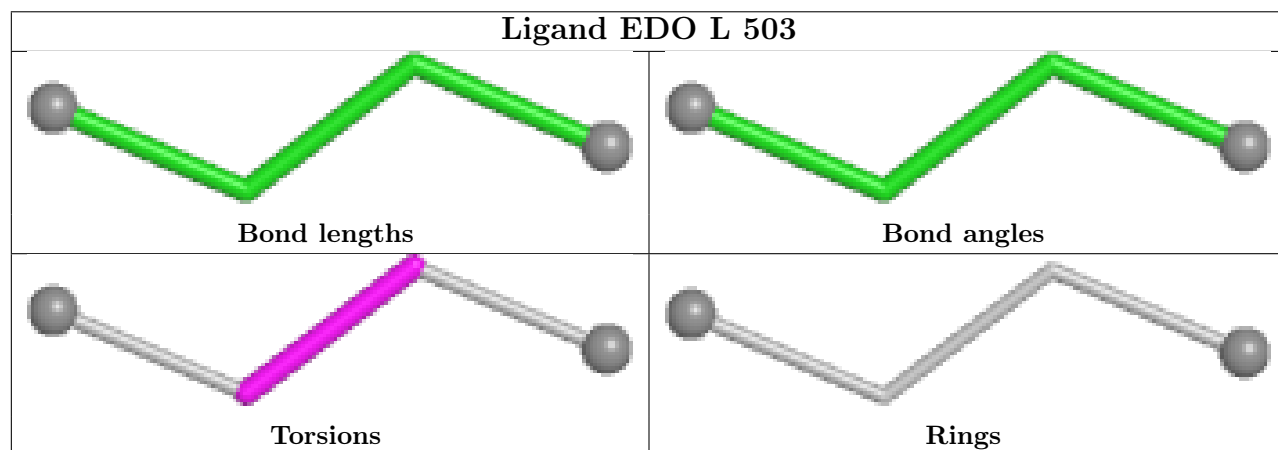
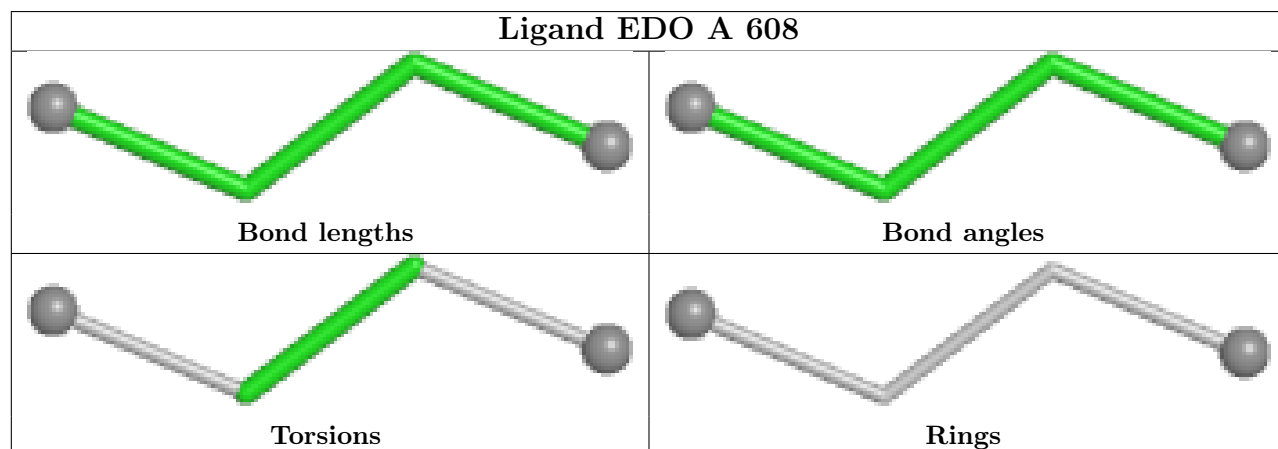
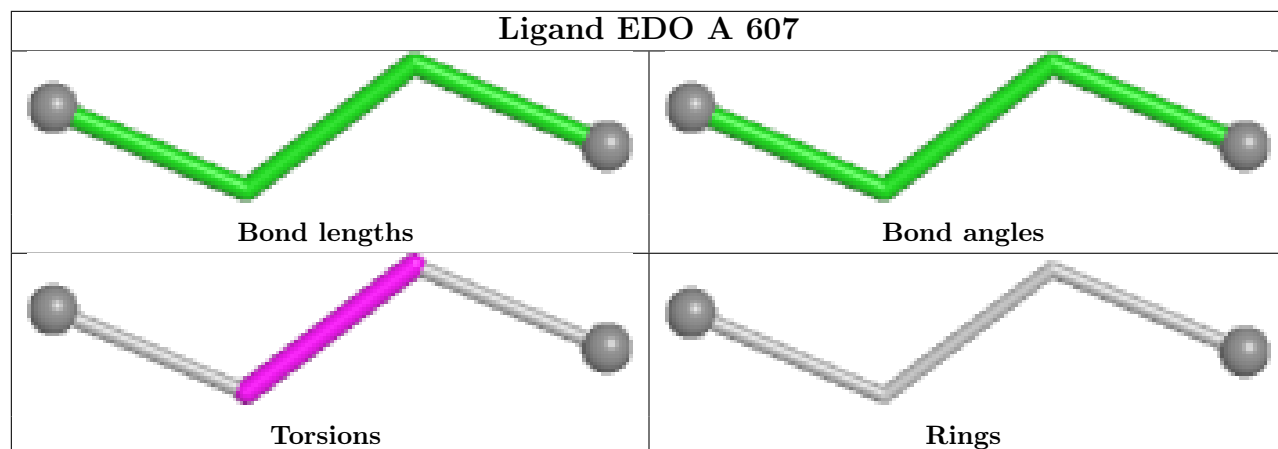


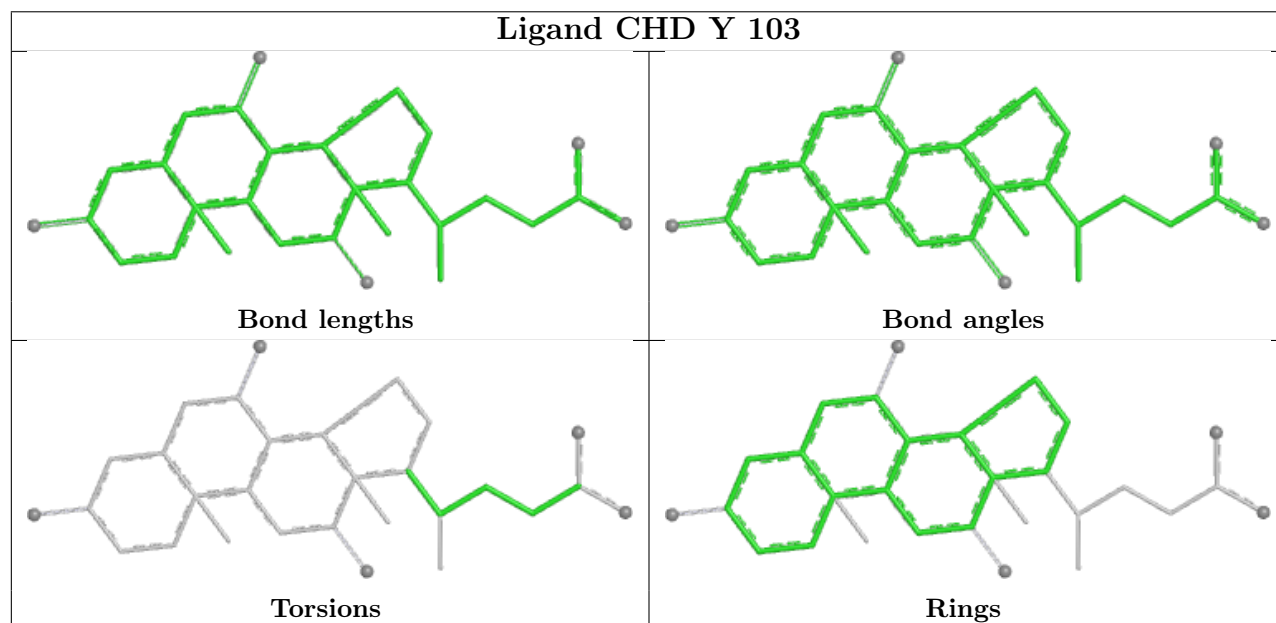
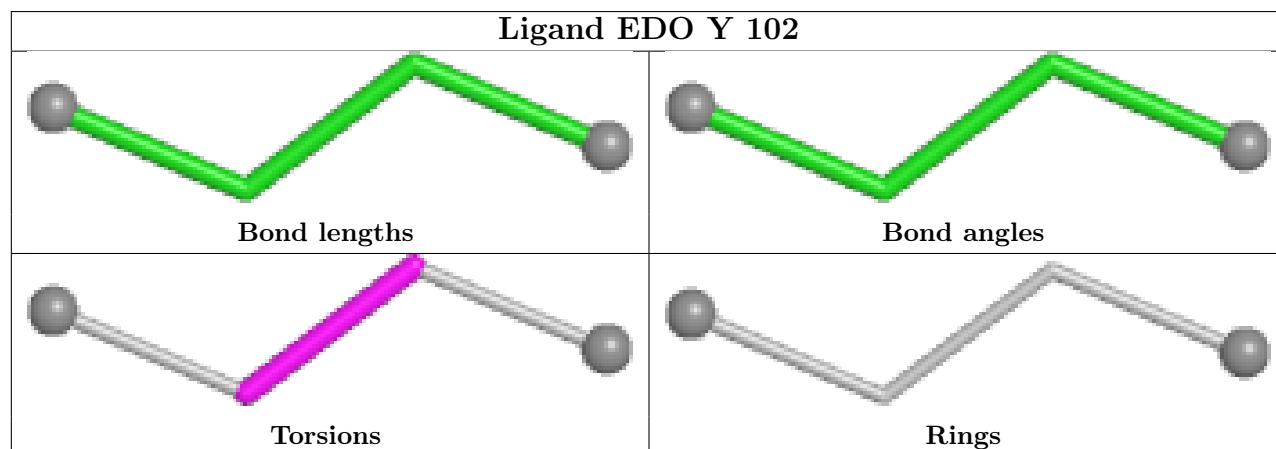
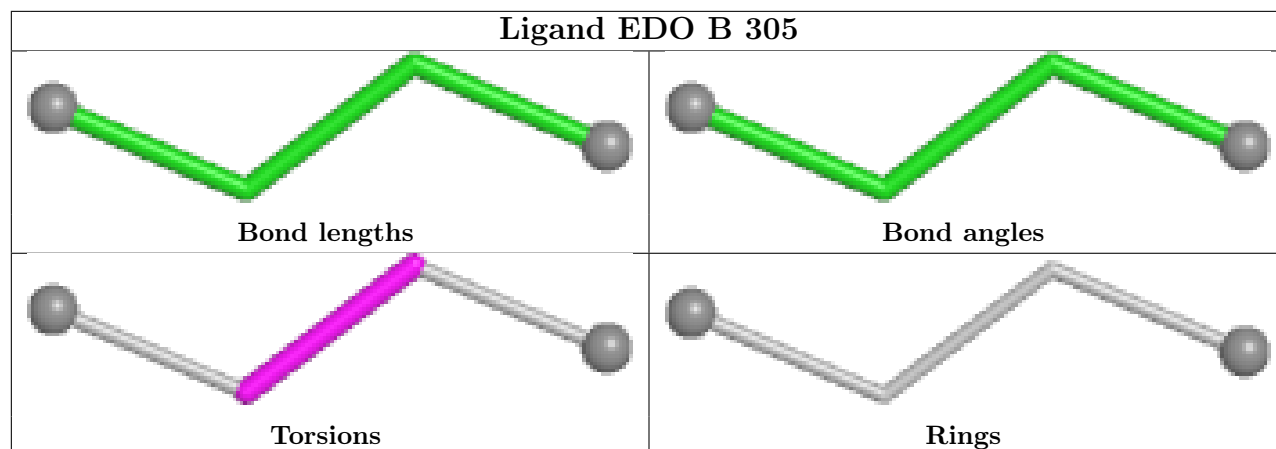


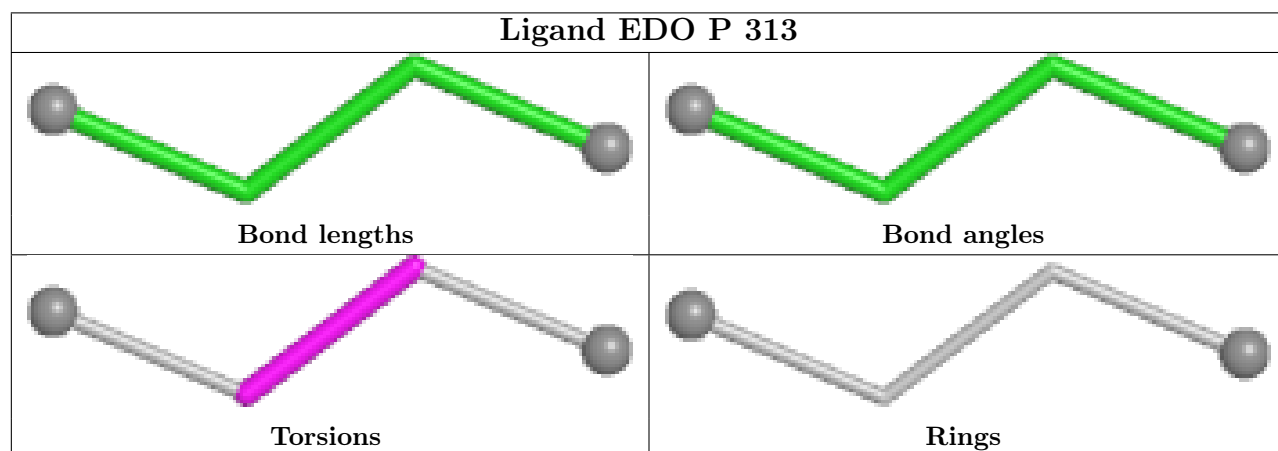
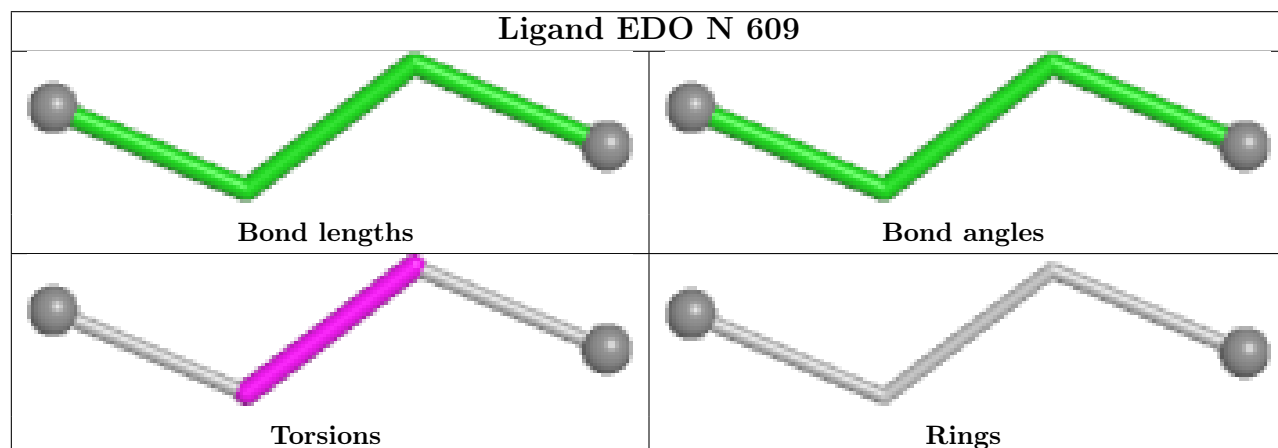
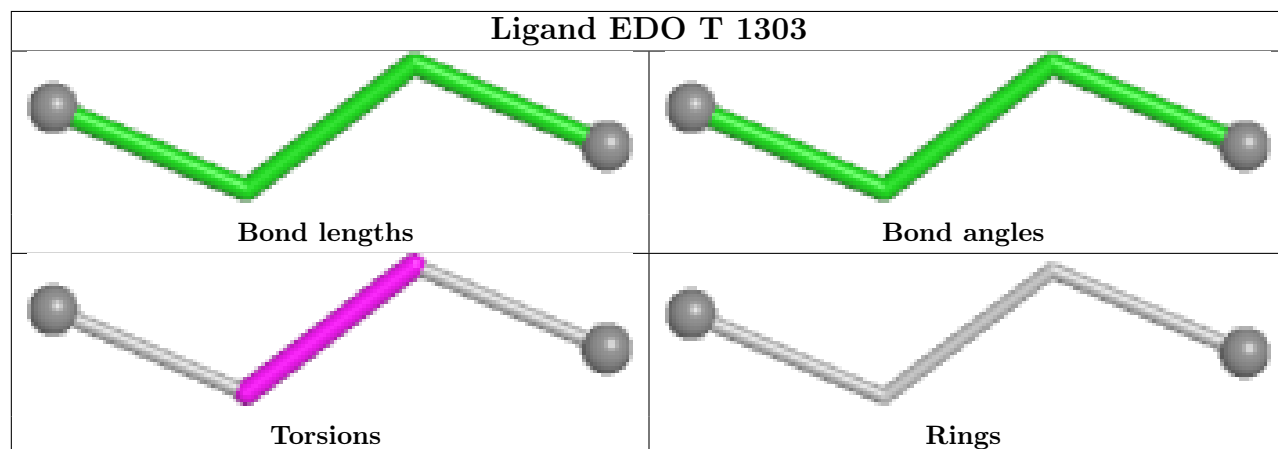
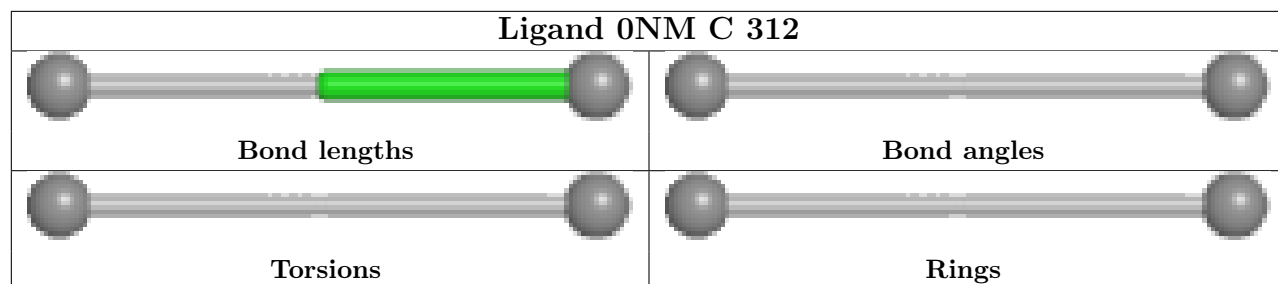


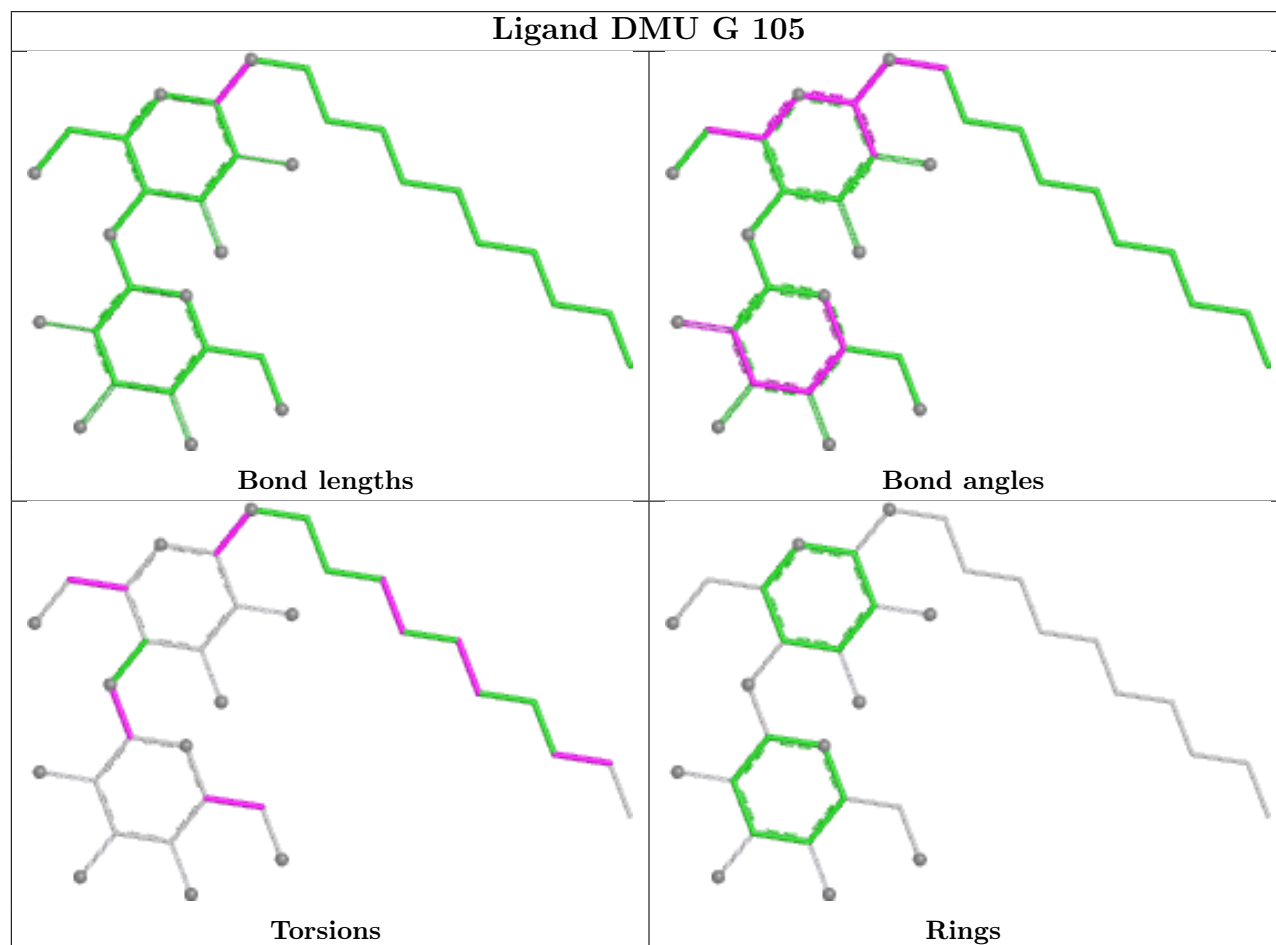
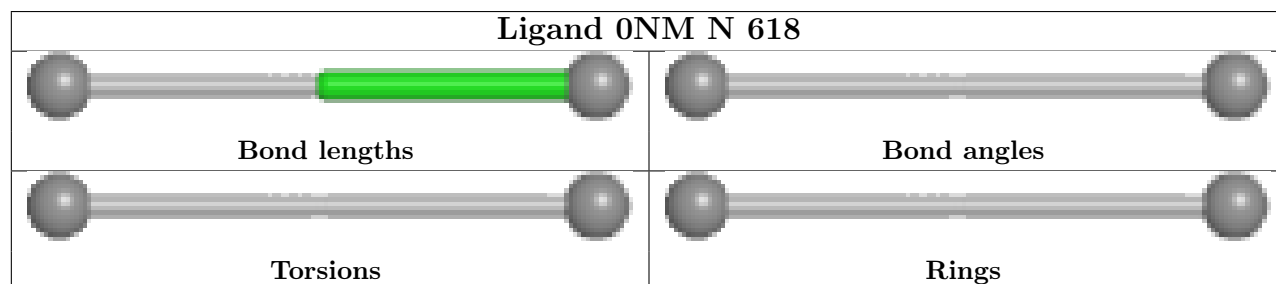
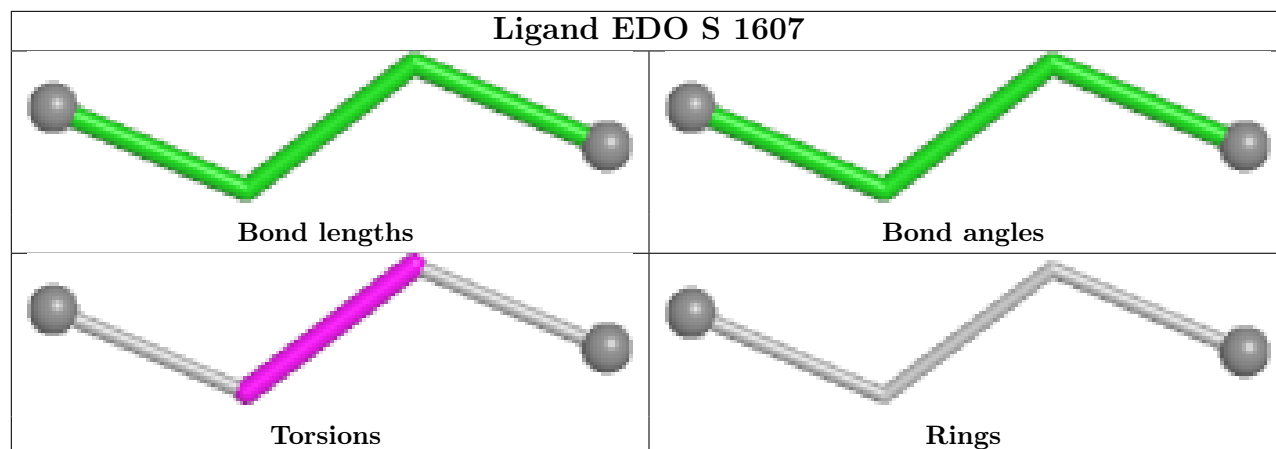


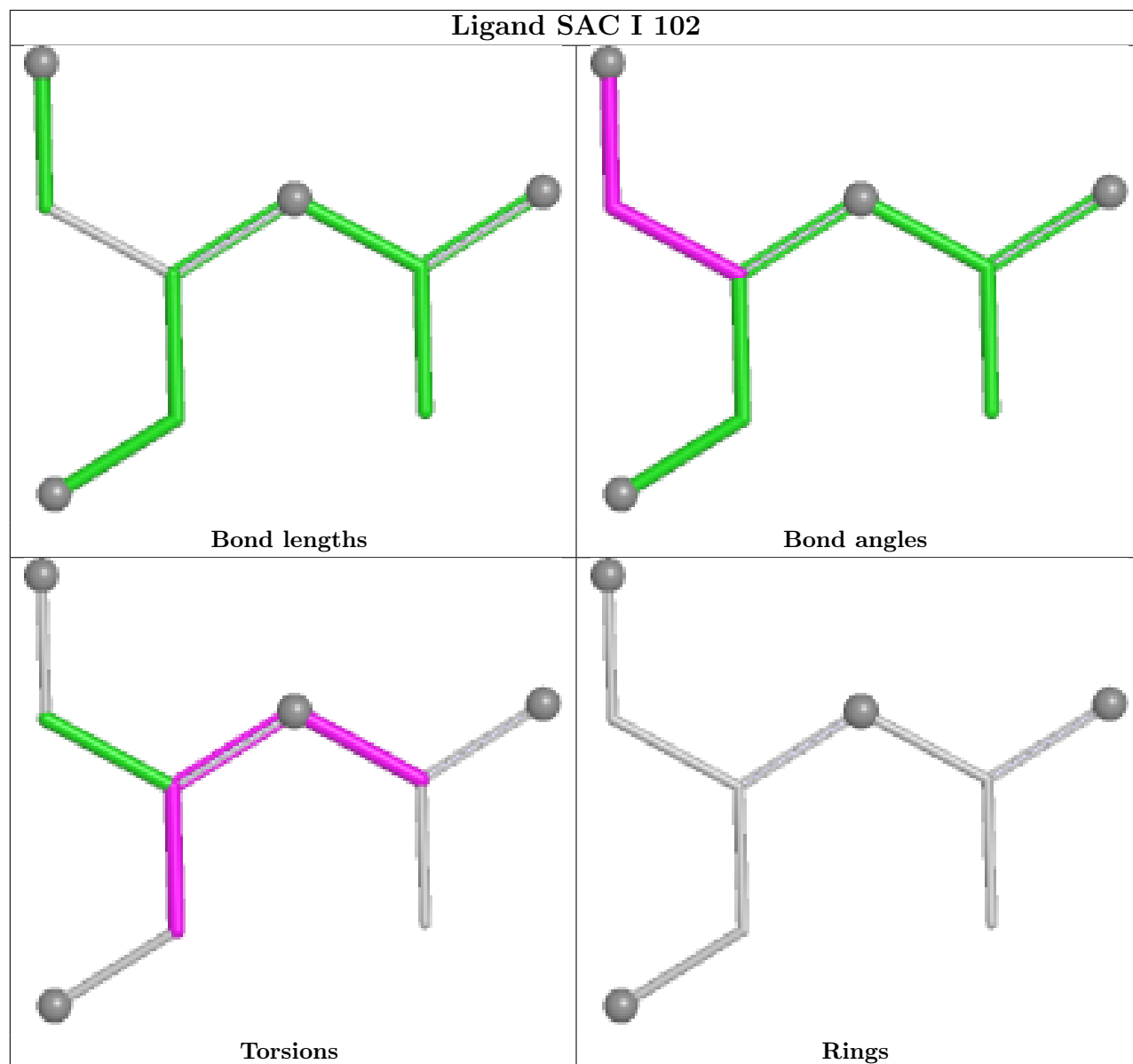
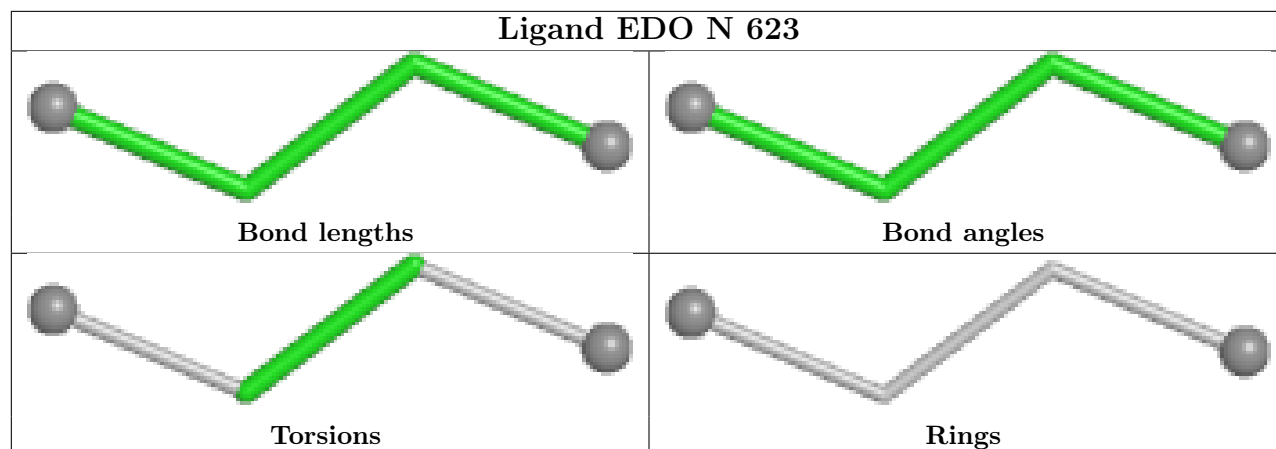


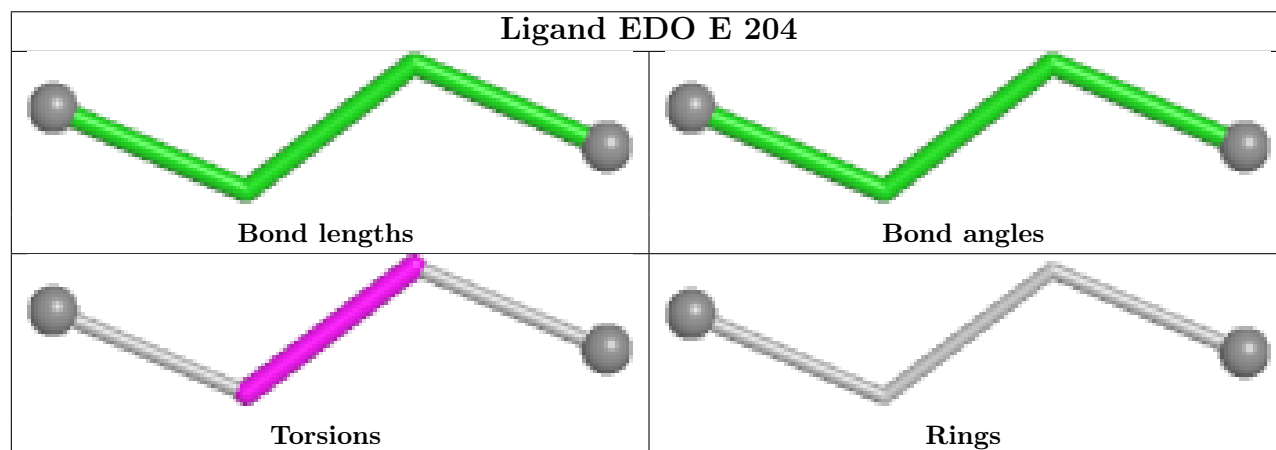
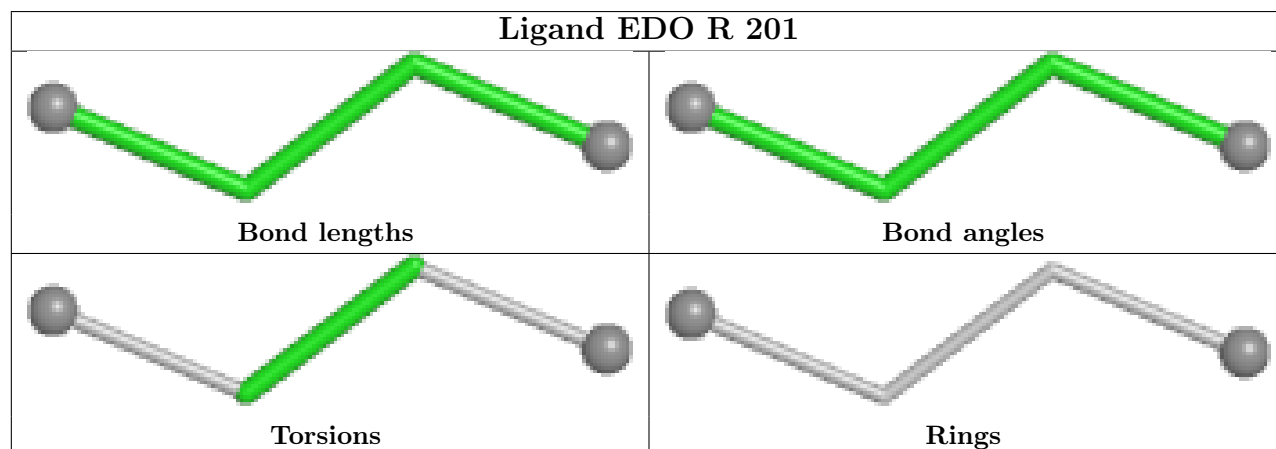
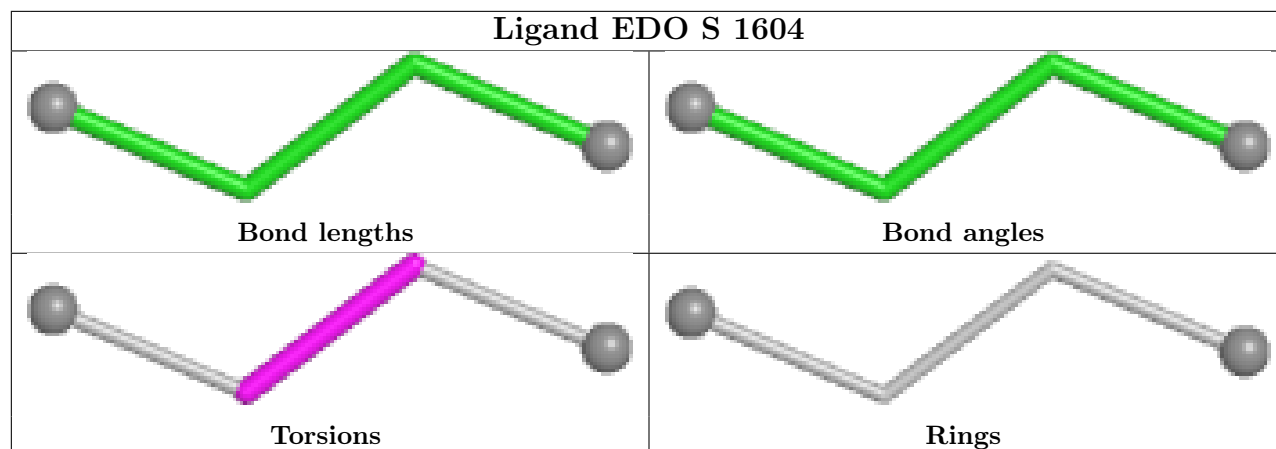


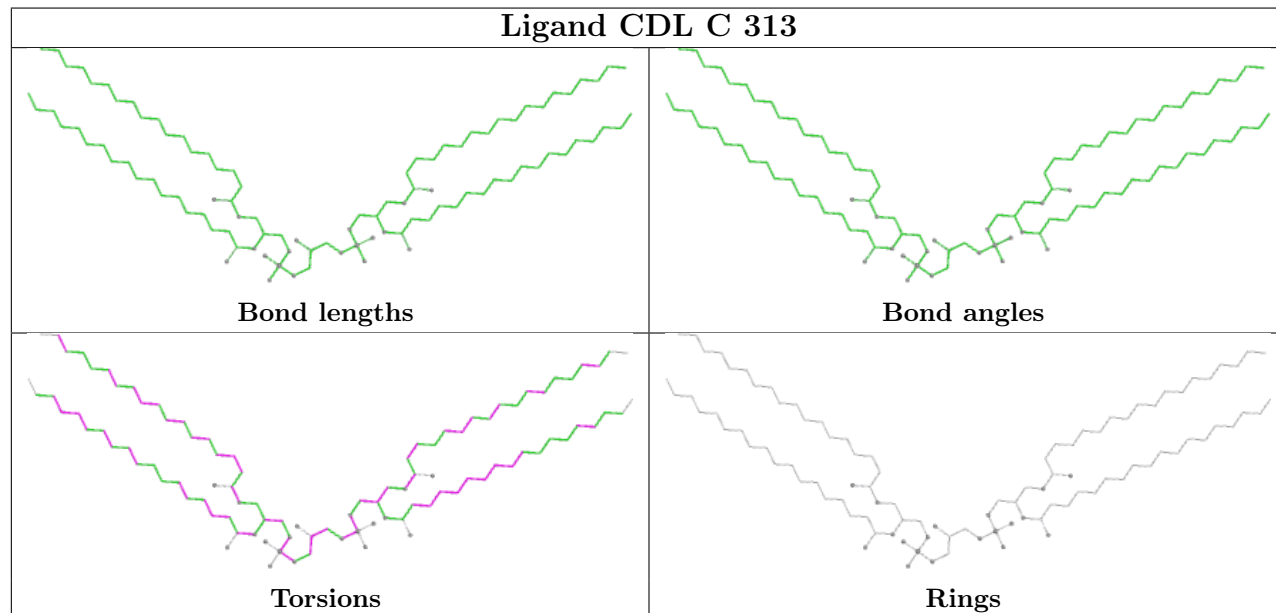
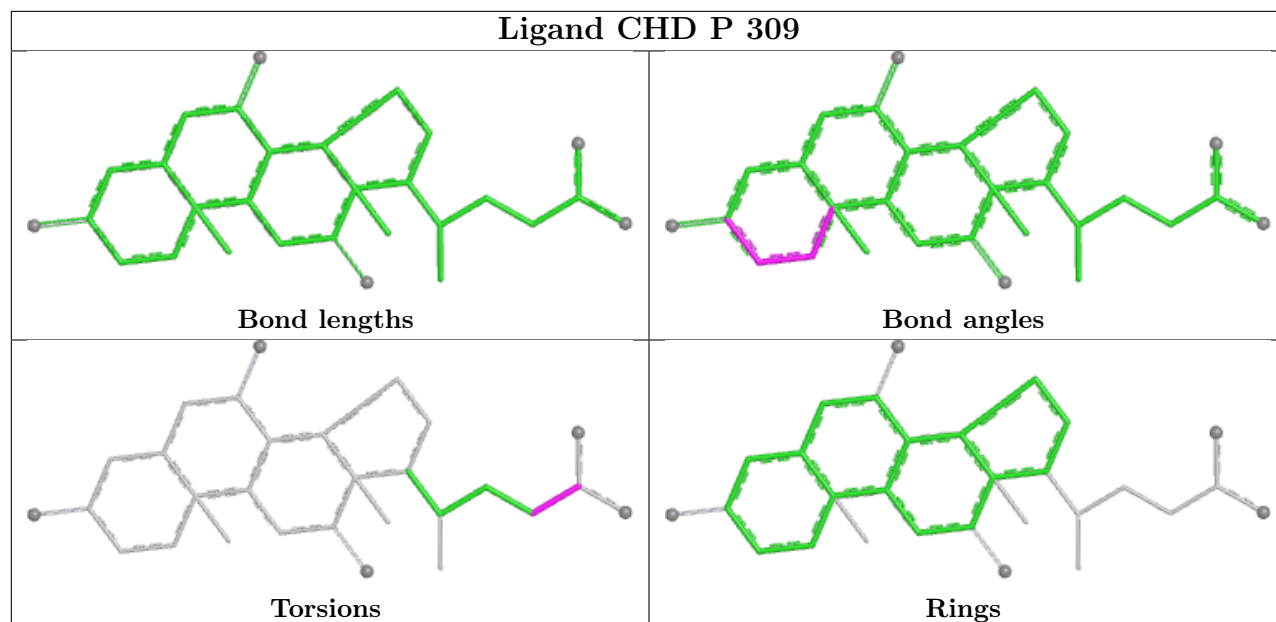


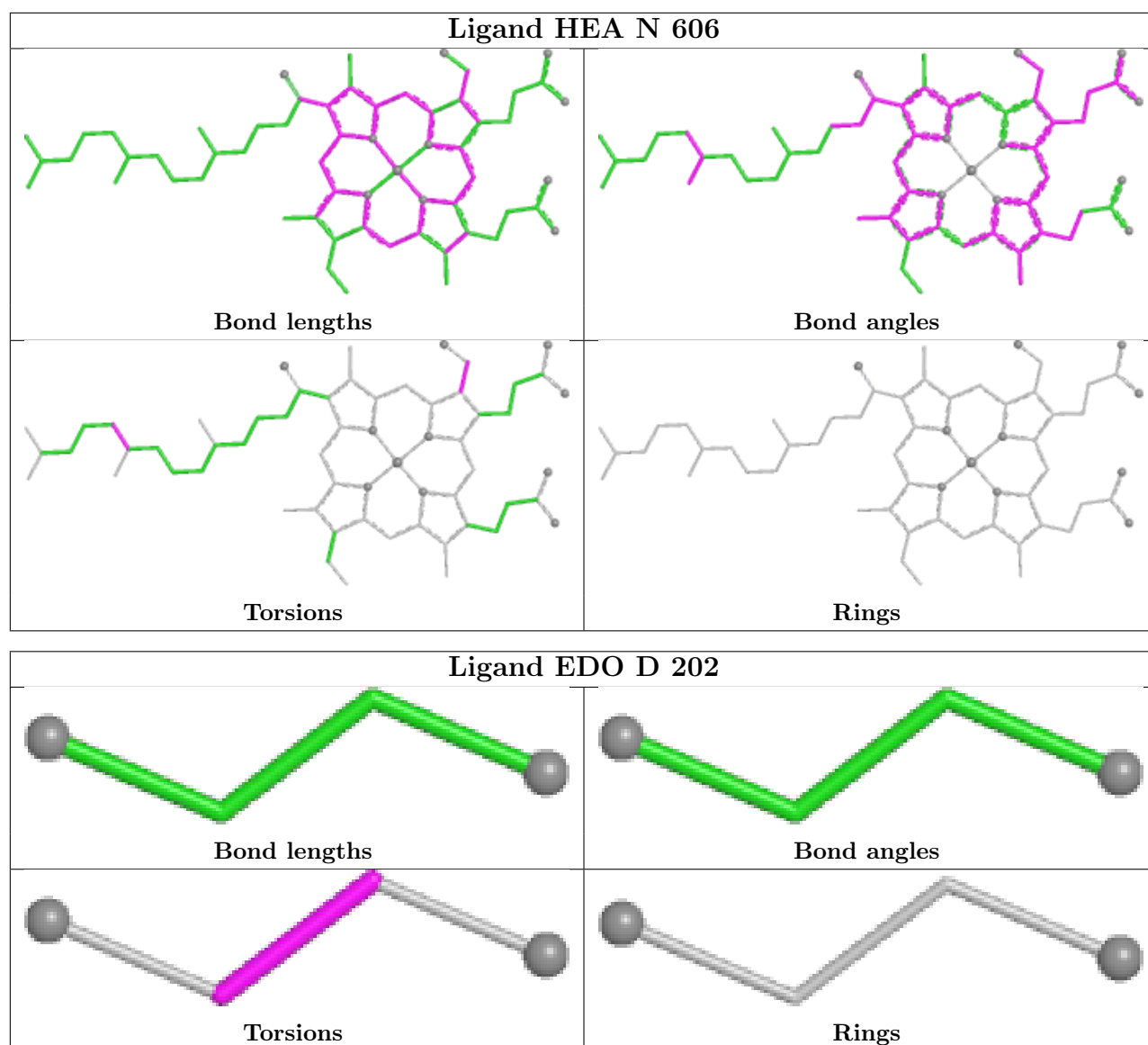


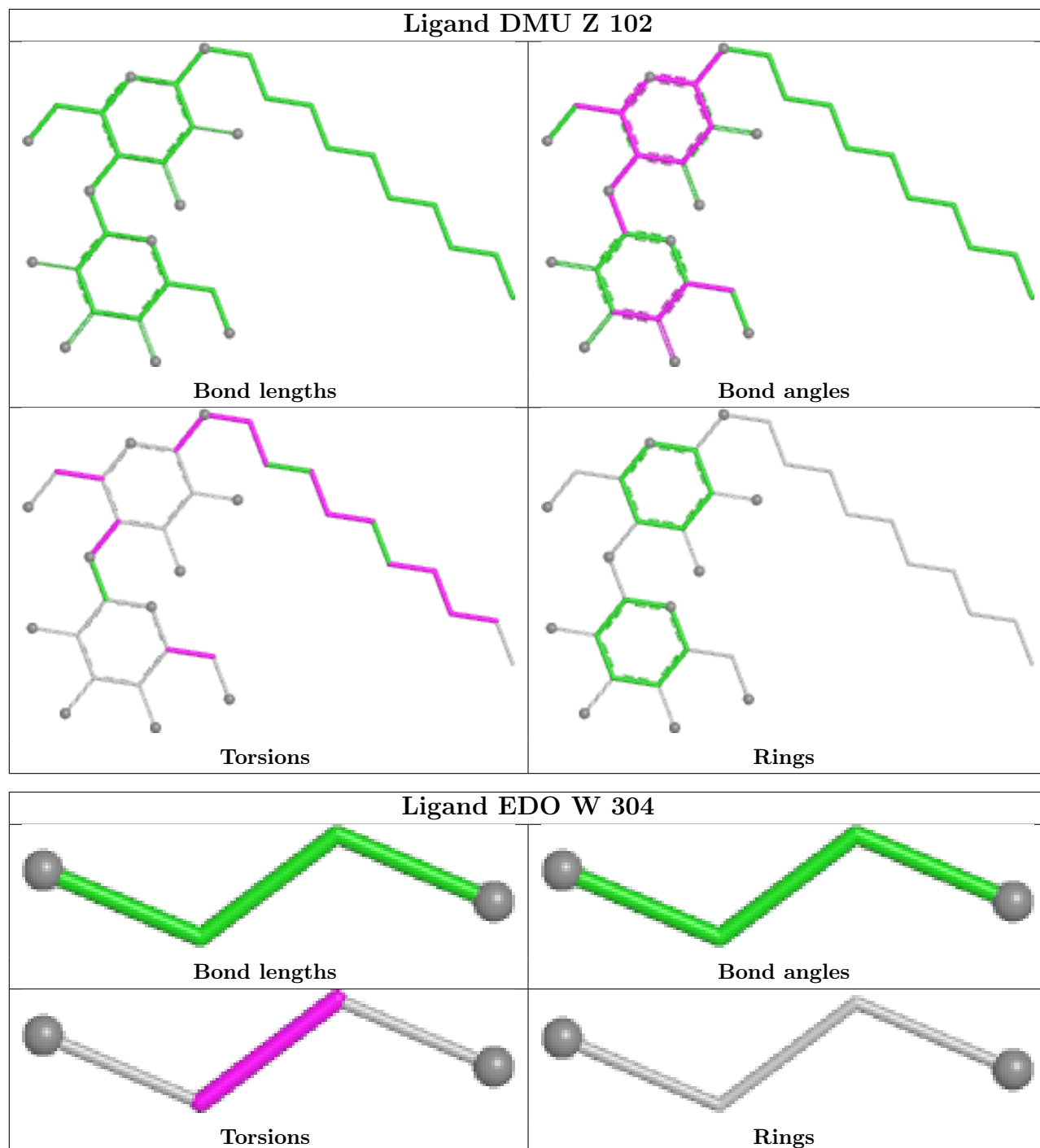




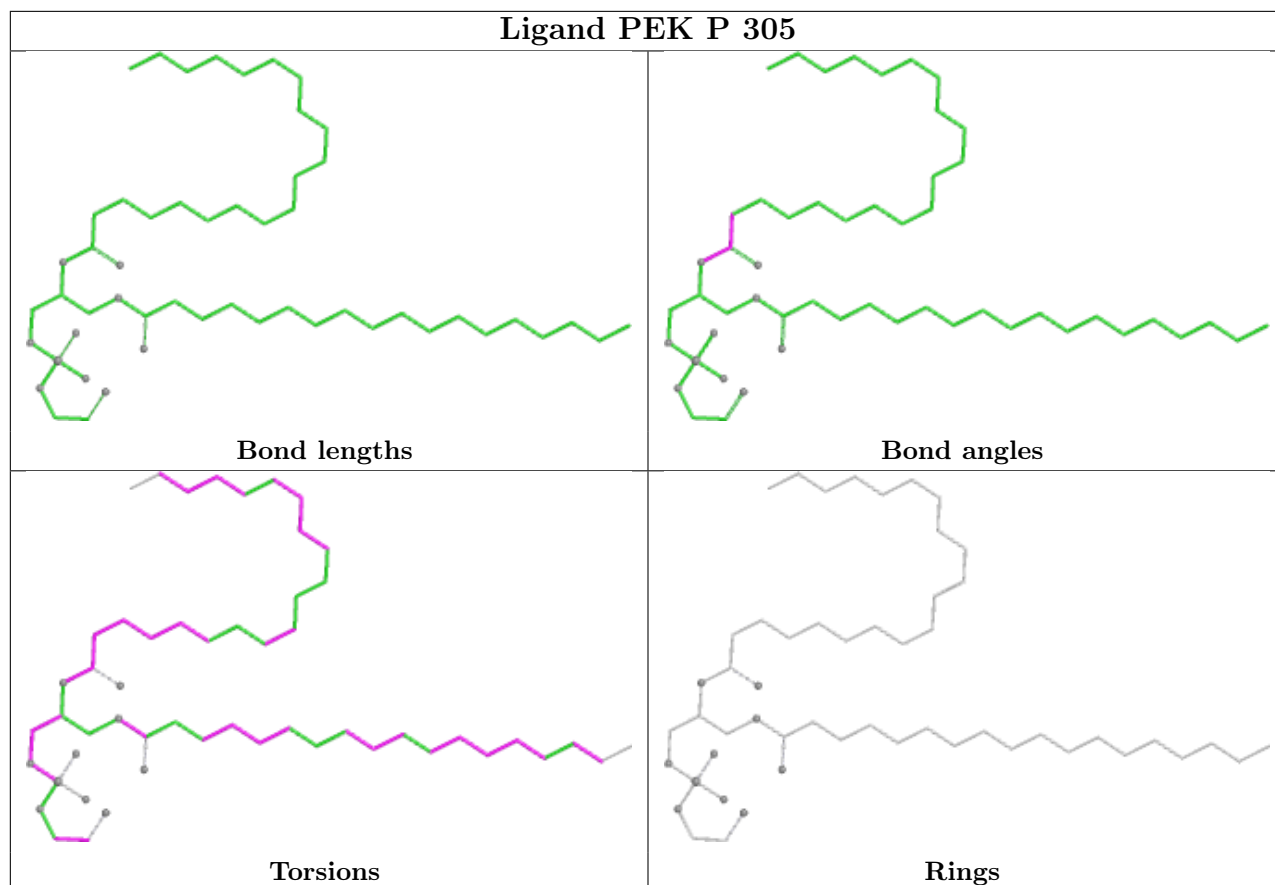




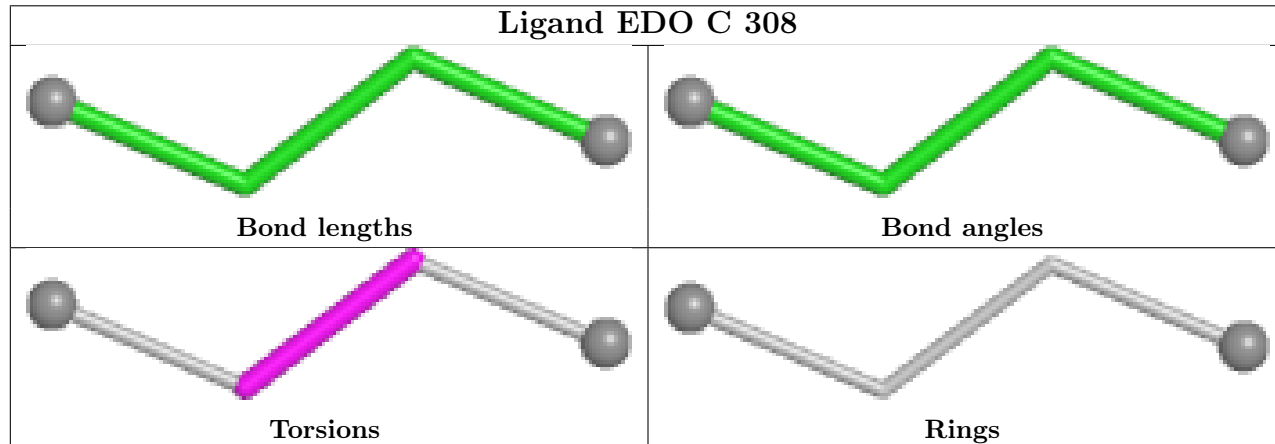


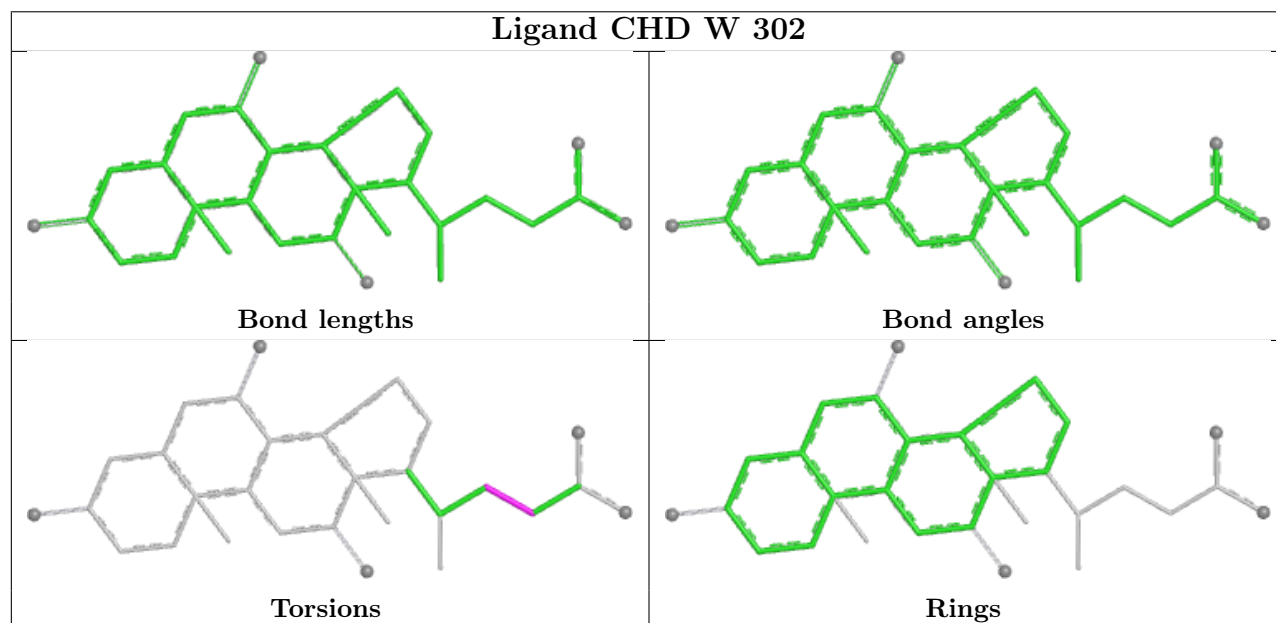
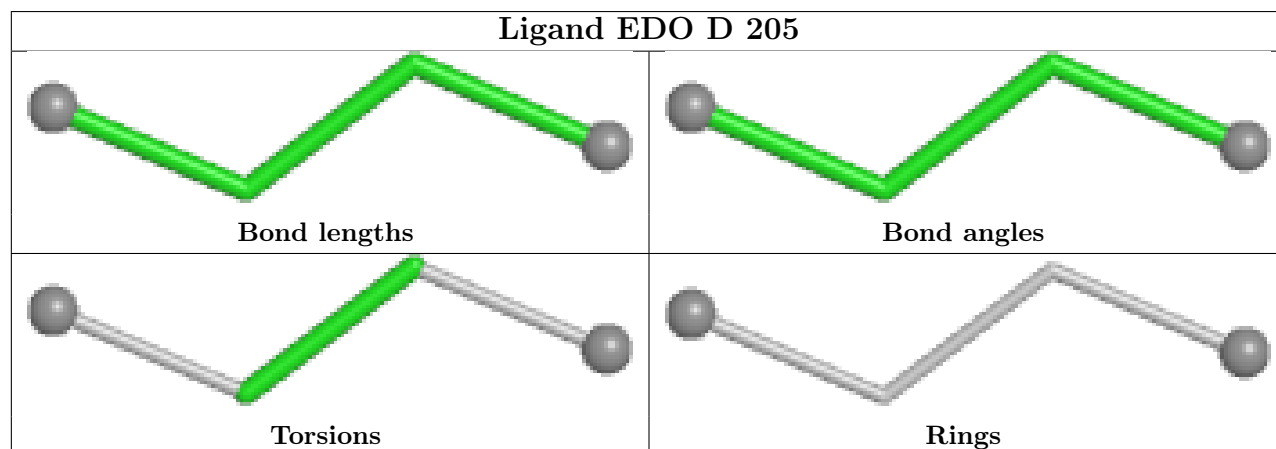
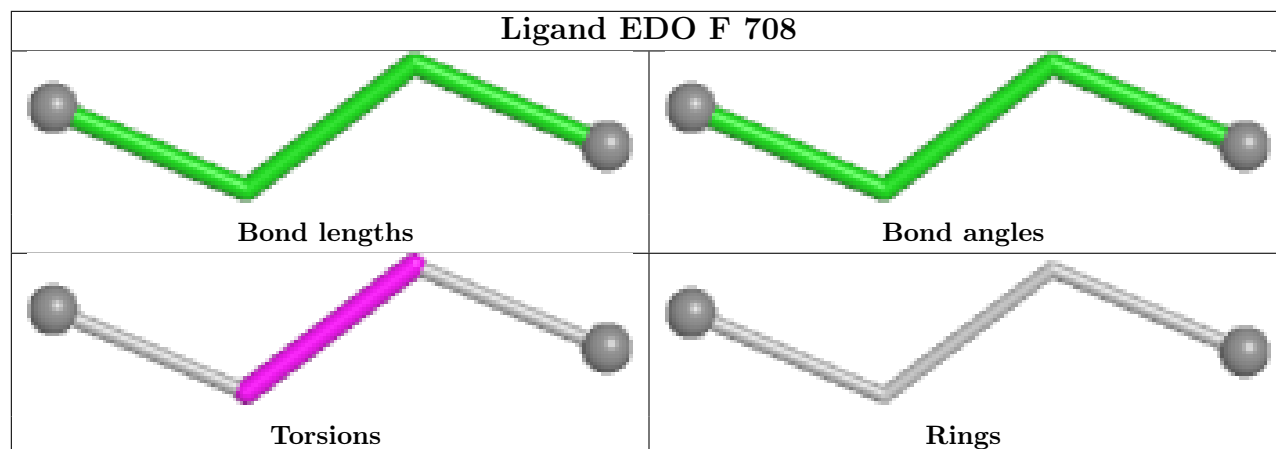


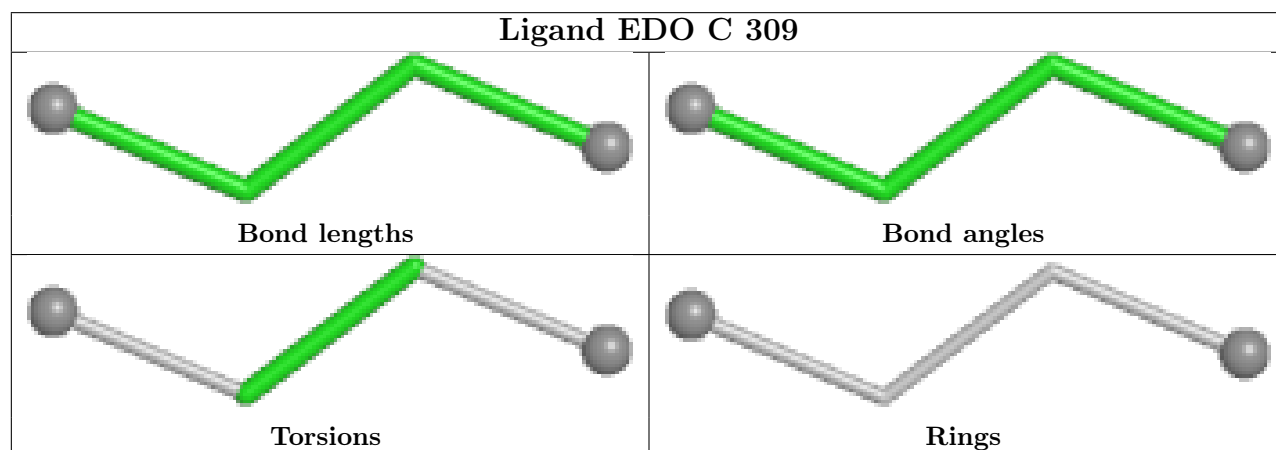
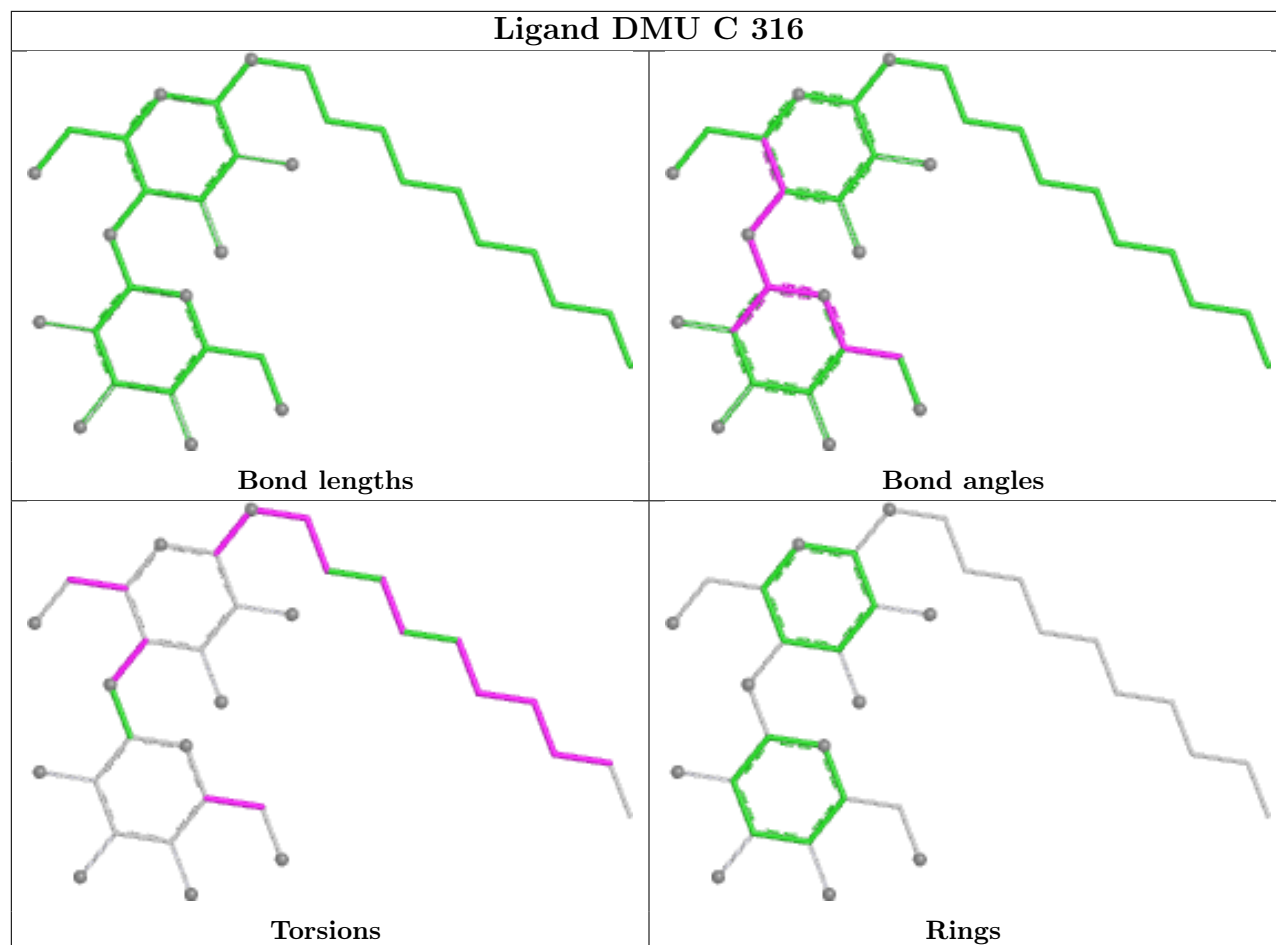
Ligand PEK P 305

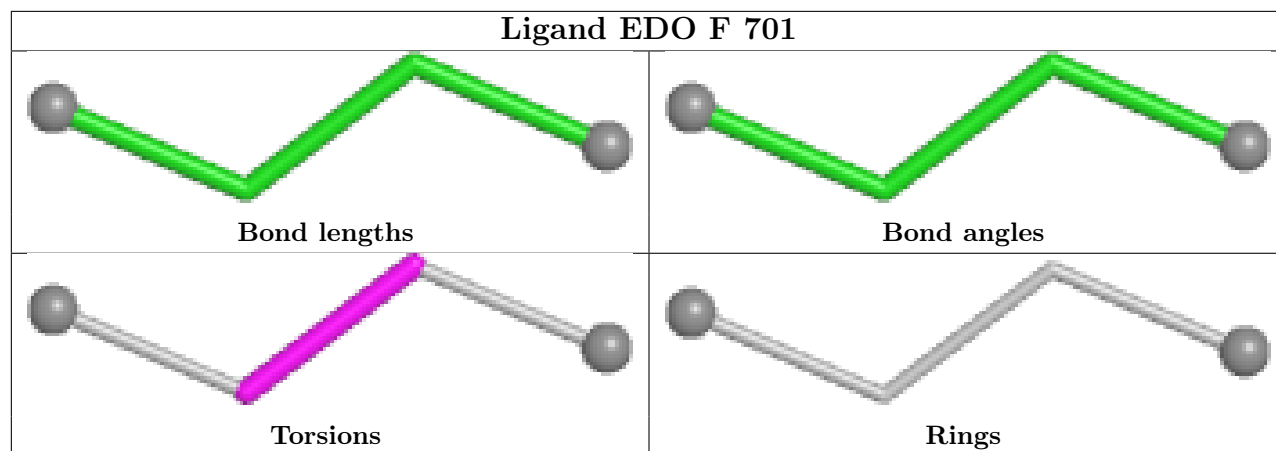


Ligand EDO C 308









5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th 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	513/514 (99%)	-0.39	4 (0%) 82 84	26, 33, 42, 73	0
1	N	513/514 (99%)	0.21	7 (1%) 73 75	33, 43, 55, 84	0
2	B	226/227 (99%)	0.08	7 (3%) 51 54	29, 39, 69, 93	0
2	O	226/227 (99%)	0.54	12 (5%) 32 34	38, 51, 80, 103	0
3	C	259/261 (99%)	-0.20	3 (1%) 76 78	30, 37, 49, 88	0
3	P	259/261 (99%)	0.13	5 (1%) 66 69	34, 43, 57, 90	0
4	D	144/147 (97%)	0.08	0 100 100	34, 43, 58, 87	0
4	Q	141/147 (95%)	1.04	12 (8%) 16 17	47, 63, 86, 103	0
5	E	105/109 (96%)	0.05	1 (0%) 79 81	37, 46, 69, 117	0
5	R	105/109 (96%)	0.68	4 (3%) 44 46	46, 58, 75, 117	0
6	F	98/98 (100%)	0.40	9 (9%) 14 15	34, 44, 93, 151	0
6	S	98/98 (100%)	0.67	7 (7%) 22 23	40, 53, 93, 149	0
7	G	83/85 (97%)	0.97	16 (19%) 3 3	34, 44, 115, 146	0
7	T	83/85 (97%)	1.26	20 (24%) 2 2	36, 52, 110, 123	0
8	H	79/85 (92%)	0.59	10 (12%) 8 8	34, 49, 88, 98	0
8	U	79/85 (92%)	0.71	7 (8%) 15 16	44, 56, 106, 118	0
9	I	72/73 (98%)	0.40	6 (8%) 17 18	35, 51, 76, 81	0
9	V	72/73 (98%)	0.67	5 (6%) 23 24	41, 61, 82, 101	0
10	J	58/59 (98%)	0.38	4 (6%) 23 24	35, 47, 72, 123	0
10	W	58/59 (98%)	0.98	8 (13%) 6 6	46, 56, 83, 128	0
11	K	49/56 (87%)	0.56	1 (2%) 65 67	33, 45, 64, 82	0
11	X	49/56 (87%)	1.04	3 (6%) 27 29	56, 63, 86, 116	0
12	L	46/47 (97%)	0.04	1 (2%) 62 65	34, 40, 62, 93	0
12	Y	46/47 (97%)	0.93	3 (6%) 25 26	46, 56, 82, 101	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	M	43/46 (93%)	0.19	1 (2%) 61 64	34, 40, 67, 90	0
13	Z	43/46 (93%)	1.17	8 (18%) 3 3	51, 60, 86, 114	0
All	All	3547/3614 (98%)	0.28	164 (4%) 37 39	26, 44, 78, 151	0

All (164) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
7	G	4	ALA	9.7
7	G	3	ALA	9.6
6	F	96	LEU	8.0
8	H	45	ALA	7.6
7	G	1	ALA	6.9
5	R	109	VAL	6.7
7	G	8	HIS	6.7
7	T	5	LYS	6.7
7	T	10	GLY	6.6
7	G	2	SER	6.4
7	T	8	HIS	6.2
7	T	3	ALA	6.1
7	G	5	LYS	5.9
8	U	8	ILE	5.8
6	S	96	LEU	5.7
7	T	4	ALA	5.5
7	T	6	GLY	5.3
7	G	36	TRP	5.2
7	T	1	ALA	5.0
6	S	1	ALA	4.9
6	F	97	ALA	4.9
8	H	47	GLY	4.8
7	T	9	GLY	4.7
2	O	65	TRP	4.7
6	F	95	GLN	4.6
9	I	37	PHE	4.6
7	T	2	SER	4.6
7	T	36	TRP	4.5
7	G	6	GLY	4.5
5	E	109	VAL	4.5
7	G	9	GLY	4.4
9	V	2	THR	4.3
6	S	97	ALA	4.0
2	B	65	TRP	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
8	H	7	LYS	3.8
11	X	6	ALA	3.8
7	T	84	LYS	3.8
8	H	44	THR	3.7
3	C	3	HIS	3.7
7	T	7	ASP	3.7
6	F	98	HIS	3.6
2	O	61	VAL	3.6
12	L	2	HIS	3.5
3	P	37	PHE	3.4
7	T	38	HIS	3.4
4	Q	33	LEU	3.4
7	T	33	LEU	3.4
3	P	3	HIS	3.3
7	T	37	LEU	3.3
9	V	37	PHE	3.3
8	H	46	LYS	3.3
4	Q	46	ALA	3.3
2	B	87	MET	3.3
7	G	38	HIS	3.2
7	G	45	PRO	3.2
7	G	84	LYS	3.2
1	A	113	LEU	3.2
11	K	6	ALA	3.1
7	G	10	GLY	3.1
9	V	72	ALA	3.1
10	J	58	LYS	3.1
10	W	52	TRP	3.1
6	F	94	HIS	3.1
2	O	227	LEU	3.1
7	T	42	ARG	3.0
6	S	98	HIS	3.0
8	H	8	ILE	3.0
9	I	25	PHE	3.0
8	U	45	ALA	3.0
12	Y	47	LYS	2.9
7	G	7	ASP	2.9
4	Q	8	SER	2.9
7	T	39	SER	2.9
7	G	37	LEU	2.9
2	O	113	TYR	2.9
4	Q	111	PHE	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
10	W	48	TYR	2.8
1	N	297	MET	2.8
6	F	1	ALA	2.8
1	A	514	LYS	2.8
2	B	90	ILE	2.8
8	H	42	ALA	2.8
6	S	87	THR	2.8
13	M	43	SER	2.7
1	N	483	LEU	2.7
4	Q	59	LEU	2.7
11	X	47	ARG	2.7
4	Q	72	ASN	2.7
13	Z	43	SER	2.7
2	B	115	ASP	2.7
13	Z	32	TRP	2.7
13	Z	42	LYS	2.7
10	W	56	PRO	2.6
8	H	50	VAL	2.6
9	V	33	THR	2.6
6	F	2	SER	2.6
2	B	61	VAL	2.6
6	S	94	HIS	2.6
12	Y	2	HIS	2.6
9	I	34	PHE	2.5
2	O	86	MET	2.5
4	Q	102	TYR	2.5
9	I	33	THR	2.5
3	C	122	HIS	2.5
1	N	49	GLY	2.4
7	G	42	ARG	2.4
11	X	7	PRO	2.4
3	P	122	HIS	2.4
2	O	128	LEU	2.4
2	B	88	ASP	2.4
4	Q	7	LYS	2.4
8	H	41	LYS	2.4
5	R	39	TYR	2.3
2	O	116	LEU	2.3
6	F	3	GLY	2.3
1	A	298	ASP	2.3
8	U	9	LYS	2.3
3	P	258	TRP	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	O	90	ILE	2.3
1	N	145	LEU	2.3
2	O	168	LEU	2.3
1	A	297	MET	2.3
4	Q	9	GLU	2.3
10	J	55	PHE	2.3
13	Z	1	ILE	2.3
4	Q	60	TYR	2.3
1	N	118	VAL	2.2
1	N	514	LYS	2.2
9	I	26	MET	2.2
5	R	54	ALA	2.2
4	Q	48	TRP	2.2
13	Z	41	LYS	2.2
3	P	38	ASN	2.2
6	F	93	PRO	2.2
10	W	1	PHE	2.2
8	U	50	VAL	2.2
13	Z	3	ALA	2.2
10	J	57	HIS	2.2
10	W	58	LYS	2.2
3	C	38	ASN	2.2
12	Y	24	MET	2.2
1	N	484	THR	2.2
9	I	2	THR	2.2
10	J	1	PHE	2.1
10	W	34	VAL	2.1
13	Z	19	LEU	2.1
6	S	2	SER	2.1
5	R	5	HIS	2.1
10	W	57	HIS	2.1
8	H	48	GLY	2.1
8	U	46	LYS	2.1
2	O	58	ALA	2.1
10	W	44	LEU	2.1
2	O	59	GLN	2.1
13	Z	35	TYR	2.1
8	U	52	VAL	2.1
9	V	3	ALA	2.1
8	U	43	MET	2.0
7	T	34	ASN	2.0
2	O	57	ASP	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
7	T	35	SER	2.0
2	B	91	ASN	2.0
4	Q	51	LEU	2.0
7	T	45	PRO	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
7	TPO	T	11	11/12	0.49	0.32	63,91,147,165	0
7	TPO	G	11	11/12	0.62	0.24	54,91,144,148	0
1	FME	N	1	10/11	0.88	0.15	55,63,89,89	0
1	FME	A	1	10/11	0.91	0.14	43,51,95,99	0
2	FME	O	1	10/11	0.95	0.13	46,54,64,70	0
2	FME	B	1	10/11	0.97	0.08	33,38,50,60	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
19	EDO	W	304	4/4	0.13	0.22	114,117,118,123	0
29	SAC	V	101	9/10	0.36	0.18	103,122,133,133	0
23	CHD	Y	103	29/29	0.64	0.22	99,135,142,153	0
23	CHD	T	1302	29/29	0.67	0.26	71,129,153,158	0
26	DMU	Z	102	33/33	0.68	0.20	67,91,110,120	0
25	CDL	C	313	100/100	0.69	0.31	67,94,143,160	0
26	DMU	G	101	33/33	0.69	0.19	73,114,131,141	0
29	SAC	I	102	9/10	0.70	0.17	79,93,108,110	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
19	EDO	D	204	4/4	0.70	0.26	67,82,89,93	0
24	PEK	C	317	53/53	0.72	0.26	66,83,124,129	0
19	EDO	N	621	4/4	0.72	0.32	49,55,55,58	0
19	EDO	L	504	4/4	0.73	0.18	60,68,70,73	0
26	DMU	P	314	33/33	0.74	0.17	71,94,112,116	0
24	PEK	C	303	53/53	0.74	0.26	65,88,140,165	0
19	EDO	F	702	4/4	0.74	0.27	64,89,91,93	0
26	DMU	G	105	33/33	0.74	0.18	55,90,112,113	0
19	EDO	G	103	4/4	0.75	0.22	87,95,108,110	0
26	DMU	C	316	33/33	0.75	0.17	55,86,100,104	0
19	EDO	Q	1801	4/4	0.76	0.26	69,70,73,87	0
27	TGL	N	604	63/63	0.76	0.28	66,92,112,114	0
17	PGV	M	101	51/51	0.76	0.24	45,82,124,145	0
22	PSC	B	302	52/52	0.76	0.25	52,94,153,161	0
17	PGV	C	305	51/51	0.77	0.23	55,87,130,154	0
19	EDO	V	103	4/4	0.78	0.23	80,87,88,96	0
27	TGL	I	101	63/63	0.78	0.26	54,76,109,116	0
24	PEK	P	301	53/53	0.78	0.22	59,84,139,158	0
19	EDO	J	102	4/4	0.78	0.20	77,79,83,86	0
25	CDL	P	312	100/100	0.78	0.28	62,99,162,190	0
17	PGV	Z	101	51/51	0.79	0.26	53,94,153,166	0
27	TGL	D	201	63/63	0.79	0.25	48,78,104,116	0
24	PEK	P	305	53/53	0.79	0.25	60,87,146,165	0
25	CDL	P	308	100/100	0.80	0.23	51,89,124,143	0
22	PSC	O	302	52/52	0.80	0.24	49,101,159,170	0
17	PGV	P	307	51/51	0.80	0.22	66,95,121,138	0
20	0NM	N	618	3/3	0.81	0.23	59,59,65,68	0
19	EDO	N	613	4/4	0.82	0.24	61,62,73,74	0
19	EDO	Y	102	4/4	0.82	0.27	92,97,99,101	0
19	EDO	L	505	4/4	0.82	0.20	77,77,81,87	0
20	0NM	N	619	3/3	0.83	0.31	53,53,58,62	0
25	CDL	C	306	100/100	0.83	0.22	49,84,115,124	0
19	EDO	B	311	4/4	0.83	0.21	73,81,83,98	0
27	TGL	Y	101	63/63	0.83	0.26	57,82,128,138	0
19	EDO	T	1301	4/4	0.83	0.20	61,66,67,70	0
19	EDO	N	626	4/4	0.83	0.21	70,71,73,84	0
19	EDO	B	308	4/4	0.84	0.26	52,66,74,76	0
19	EDO	G	104	4/4	0.85	0.19	66,67,67,70	0
19	EDO	Q	1803	4/4	0.85	0.16	69,83,84,85	0
19	EDO	R	202	4/4	0.85	0.17	63,69,75,82	0
19	EDO	G	107	4/4	0.85	0.13	85,86,88,90	0
27	TGL	N	622	63/63	0.86	0.21	69,86,100,108	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
19	EDO	S	1604	4/4	0.86	0.20	61,70,77,78	0
19	EDO	B	312	4/4	0.86	0.17	86,94,95,95	0
19	EDO	C	309	4/4	0.86	0.16	68,76,77,78	0
19	EDO	V	102	4/4	0.87	0.23	86,87,87,94	0
27	TGL	L	502	63/63	0.87	0.20	44,71,100,109	0
19	EDO	B	305	4/4	0.87	0.18	54,57,59,60	0
19	EDO	F	709	4/4	0.87	0.18	53,74,89,99	0
19	EDO	N	610	4/4	0.87	0.21	66,75,79,87	0
19	EDO	S	1606	4/4	0.87	0.21	50,61,72,75	0
19	EDO	N	612	4/4	0.87	0.23	70,76,84,85	0
19	EDO	A	610	4/4	0.88	0.14	47,55,62,65	0
19	EDO	A	616	4/4	0.88	0.17	48,64,68,71	0
23	CHD	W	302	29/29	0.88	0.14	69,80,103,104	0
19	EDO	S	1605	4/4	0.88	0.16	59,63,63,72	0
19	EDO	N	625	4/4	0.88	0.18	71,72,75,85	0
20	0NM	N	616	3/3	0.89	0.31	52,52,62,69	0
19	EDO	S	1607	4/4	0.89	0.14	72,74,76,81	0
19	EDO	C	315	4/4	0.89	0.18	54,69,71,74	0
19	EDO	N	611	4/4	0.89	0.14	69,73,75,82	0
19	EDO	F	704	4/4	0.89	0.20	59,71,72,78	0
26	DMU	M	103	33/33	0.89	0.12	48,58,74,88	0
19	EDO	P	311	4/4	0.89	0.18	61,67,76,80	0
19	EDO	E	204	4/4	0.89	0.25	76,77,86,88	0
19	EDO	N	623	4/4	0.90	0.16	51,57,64,68	0
23	CHD	J	101	29/29	0.90	0.12	54,67,82,88	0
19	EDO	N	624	4/4	0.90	0.13	54,55,56,65	0
19	EDO	S	1601	4/4	0.90	0.17	53,67,67,68	0
19	EDO	A	609	4/4	0.90	0.15	39,40,46,50	0
19	EDO	A	611	4/4	0.90	0.15	54,55,61,68	0
19	EDO	N	620	4/4	0.90	0.19	49,71,81,91	0
19	EDO	E	203	4/4	0.90	0.15	60,68,70,88	0
19	EDO	Q	1802	4/4	0.90	0.21	75,80,82,99	0
19	EDO	A	612	4/4	0.91	0.27	62,64,65,68	0
19	EDO	B	307	4/4	0.91	0.14	59,67,72,73	0
20	0NM	C	312	3/3	0.91	0.23	43,43,52,68	0
19	EDO	F	705	4/4	0.91	0.14	66,68,71,71	0
20	0NM	N	617	3/3	0.91	0.21	66,66,69,74	0
19	EDO	L	501	4/4	0.91	0.15	53,61,68,73	0
19	EDO	P	313	4/4	0.91	0.13	45,46,48,55	0
19	EDO	C	311	4/4	0.91	0.15	71,74,75,78	0
19	EDO	C	314	4/4	0.91	0.17	53,57,60,66	0
19	EDO	N	609	4/4	0.91	0.17	62,62,65,68	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
23	CHD	P	309	29/29	0.91	0.10	51,59,66,68	0
19	EDO	R	201	4/4	0.91	0.13	50,52,53,54	0
19	EDO	D	203	4/4	0.92	0.17	67,68,70,78	0
19	EDO	I	103	4/4	0.92	0.16	62,63,66,72	0
24	PEK	P	304	53/53	0.92	0.16	45,62,98,106	0
19	EDO	A	618	4/4	0.92	0.17	62,68,68,71	0
19	EDO	W	301	4/4	0.92	0.15	61,77,77,80	0
19	EDO	W	303	4/4	0.92	0.18	68,79,81,82	0
19	EDO	J	103	4/4	0.92	0.14	57,61,62,74	0
19	EDO	B	309	4/4	0.92	0.14	65,67,67,68	0
19	EDO	N	614	4/4	0.92	0.18	53,65,73,74	0
19	EDO	B	310	4/4	0.92	0.14	54,65,68,72	0
19	EDO	D	202	4/4	0.92	0.12	55,66,69,70	0
19	EDO	F	708	4/4	0.93	0.14	52,55,62,63	0
19	EDO	M	102	4/4	0.93	0.14	69,76,78,82	0
19	EDO	O	303	4/4	0.93	0.16	69,71,72,78	0
19	EDO	O	304	4/4	0.93	0.19	58,62,64,67	0
23	CHD	C	307	29/29	0.93	0.08	48,55,60,61	0
19	EDO	P	310	4/4	0.93	0.13	70,72,76,85	0
19	EDO	C	310	4/4	0.93	0.11	71,74,77,83	0
20	0NM	A	614	3/3	0.93	0.14	49,49,57,67	0
19	EDO	A	617	4/4	0.93	0.15	53,56,57,61	0
19	EDO	A	607	4/4	0.93	0.14	45,46,58,63	0
19	EDO	F	707	4/4	0.93	0.09	44,50,51,52	0
24	PEK	C	302	53/53	0.94	0.14	37,56,92,105	0
19	EDO	S	1603	4/4	0.94	0.11	37,42,42,47	0
20	0NM	A	615	3/3	0.94	0.15	62,62,65,72	0
19	EDO	N	608	4/4	0.94	0.12	45,47,52,55	0
17	PGV	P	302	51/51	0.94	0.13	34,55,83,92	0
19	EDO	B	306	4/4	0.94	0.10	44,45,48,51	0
19	EDO	K	201	4/4	0.95	0.10	65,65,67,73	0
23	CHD	C	301	29/29	0.95	0.07	33,36,42,44	0
19	EDO	E	201	4/4	0.95	0.09	46,47,47,49	0
19	EDO	L	503	4/4	0.95	0.13	66,66,69,77	0
19	EDO	E	202	4/4	0.95	0.10	47,54,56,57	0
17	PGV	A	604	51/51	0.95	0.12	29,45,74,79	0
19	EDO	D	205	4/4	0.95	0.14	58,64,66,66	0
19	EDO	T	1303	4/4	0.95	0.12	42,45,45,49	0
15	MG	N	602	1/1	0.96	0.05	44,44,44,44	0
23	CHD	P	303	29/29	0.96	0.07	36,40,43,46	0
19	EDO	C	308	4/4	0.96	0.10	43,52,56,56	0
17	PGV	P	306	51/51	0.96	0.11	35,48,86,92	0

Continued on next page...

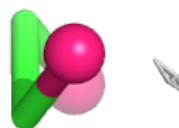
Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
19	EDO	G	102	4/4	0.96	0.09	36,38,45,47	0
19	EDO	B	304	4/4	0.96	0.10	30,30,31,37	0
19	EDO	A	608	4/4	0.96	0.07	32,33,33,34	0
23	CHD	B	303	29/29	0.96	0.07	36,40,44,51	0
15	MG	A	602	1/1	0.96	0.05	34,34,34,34	0
19	EDO	F	706	4/4	0.96	0.08	28,31,33,33	0
16	NA	N	603	1/1	0.97	0.05	46,46,46,46	0
17	PGV	C	304	51/51	0.97	0.11	31,44,94,106	0
19	EDO	N	607	4/4	0.97	0.07	40,41,44,48	0
19	EDO	F	701	4/4	0.97	0.07	42,43,43,48	0
23	CHD	G	106	29/29	0.97	0.06	33,42,48,50	0
18	HEA	N	605	60/60	0.98	0.07	30,38,46,60	0
20	ONM	N	615	3/3	0.98	0.09	54,54,61,67	0
18	HEA	N	606	60/60	0.98	0.08	32,40,55,56	0
16	NA	A	603	1/1	0.98	0.08	31,31,31,31	0
18	HEA	A	605	60/60	0.98	0.06	25,30,40,45	0
18	HEA	A	606	60/60	0.98	0.07	25,29,57,65	0
20	ONM	A	613	3/3	0.99	0.11	35,35,36,37	0
28	ZN	S	1602	1/1	0.99	0.02	46,46,46,46	0
21	CUA	B	301	2/2	0.99	0.02	29,29,29,30	0
21	CUA	O	301	2/2	0.99	0.03	41,41,41,43	0
14	CU	A	601	1/1	1.00	0.01	31,31,31,31	0
14	CU	N	601	1/1	1.00	0.02	40,40,40,40	0
28	ZN	F	703	1/1	1.00	0.03	38,38,38,38	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.

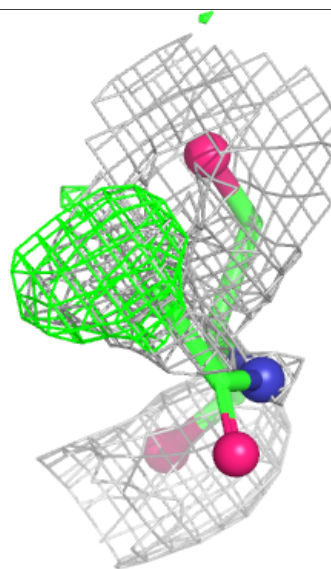
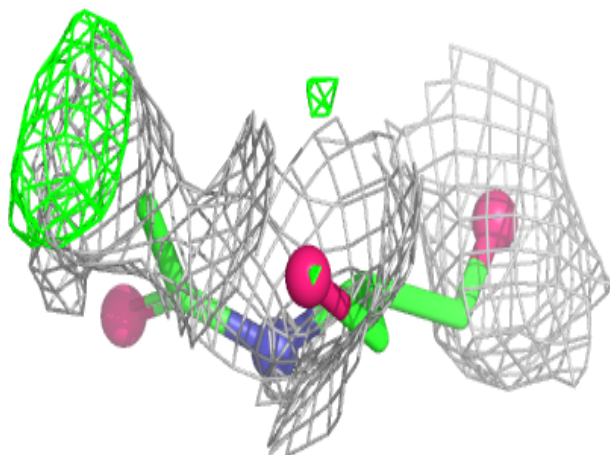
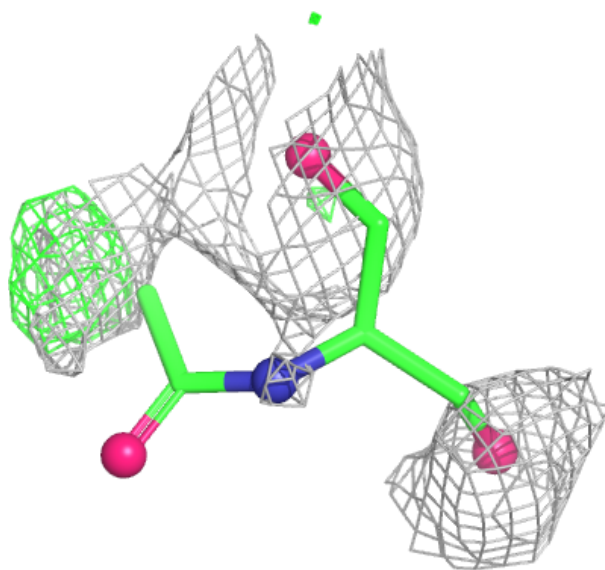
Electron density around EDO W 304:

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



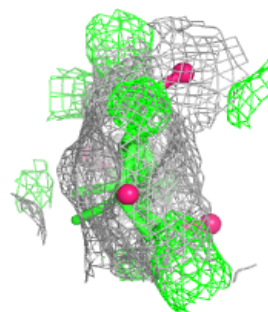
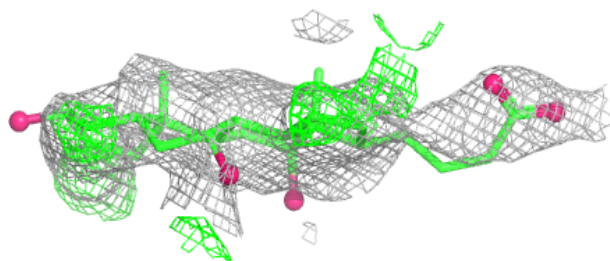
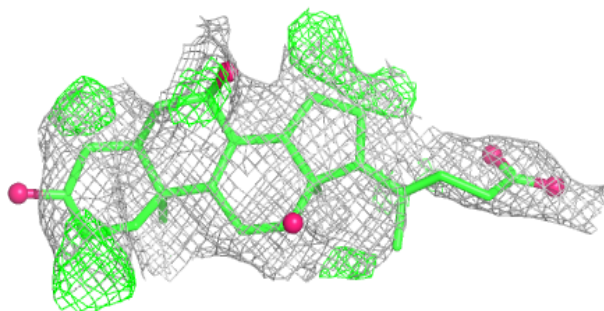
Electron density around SAC V 101:

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

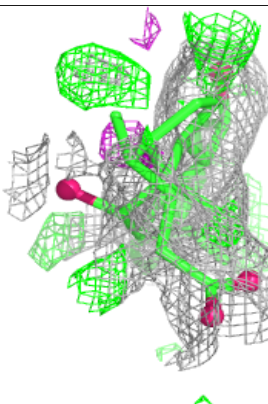
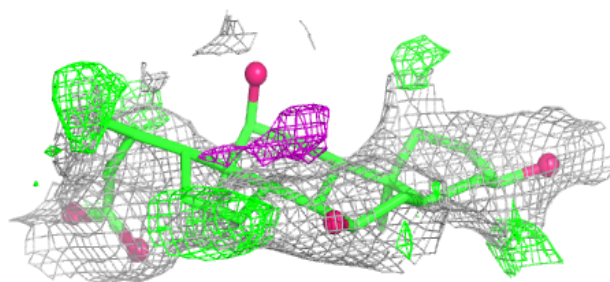
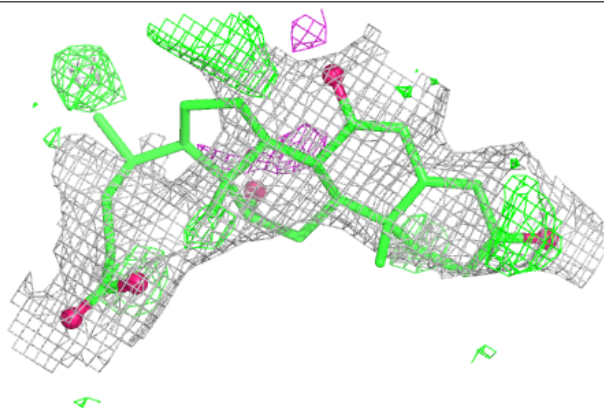


Electron density around CHD Y 103:

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

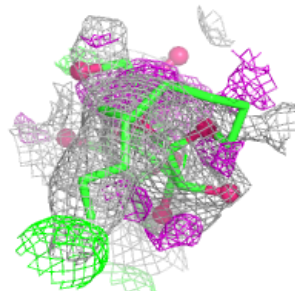
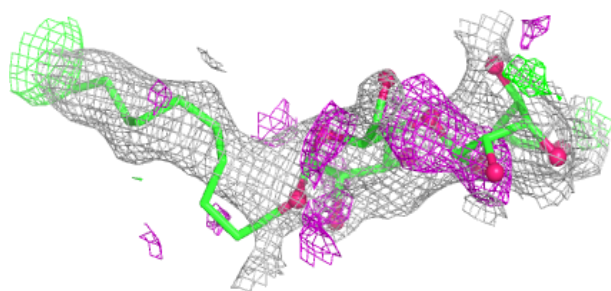
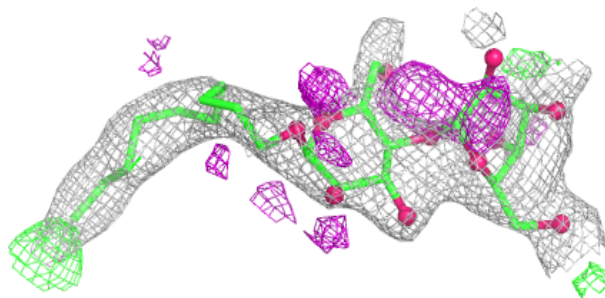
**Electron density around CHD T 1302:**

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

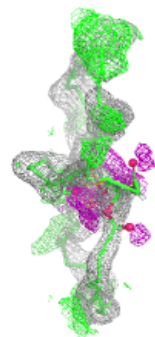
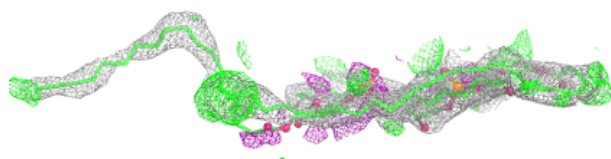
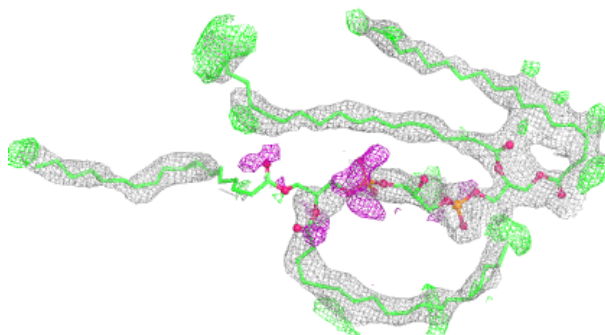


Electron density around DMU Z 102:

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

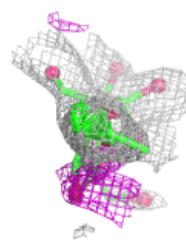
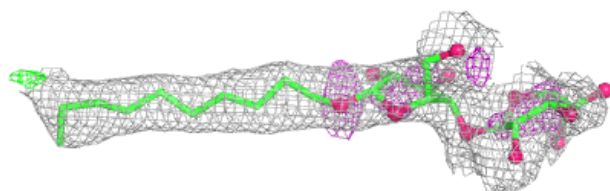
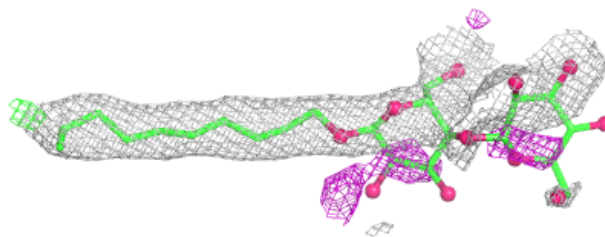
**Electron density around CDL C 313:**

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



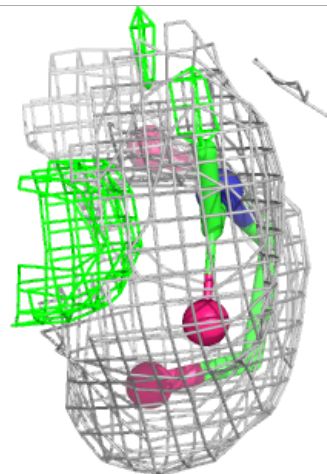
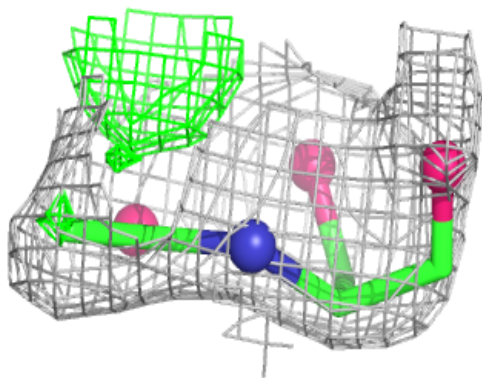
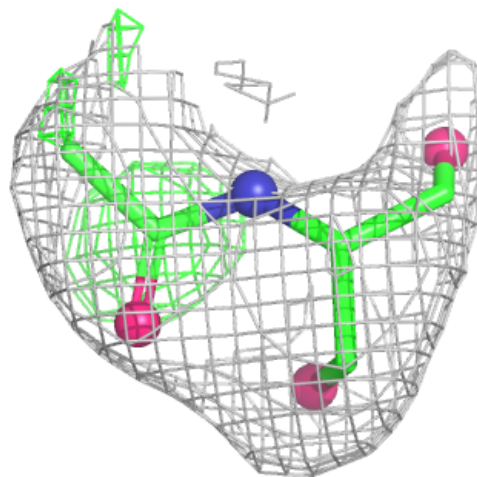
Electron density around DMU G 101:

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



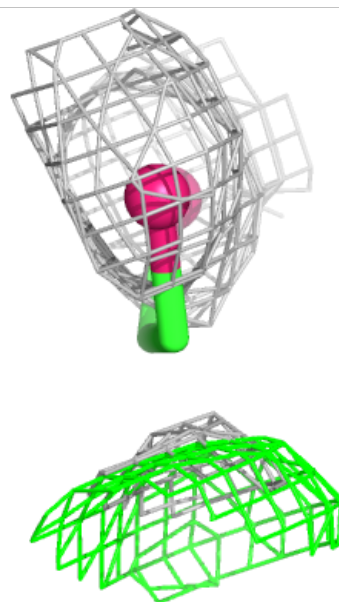
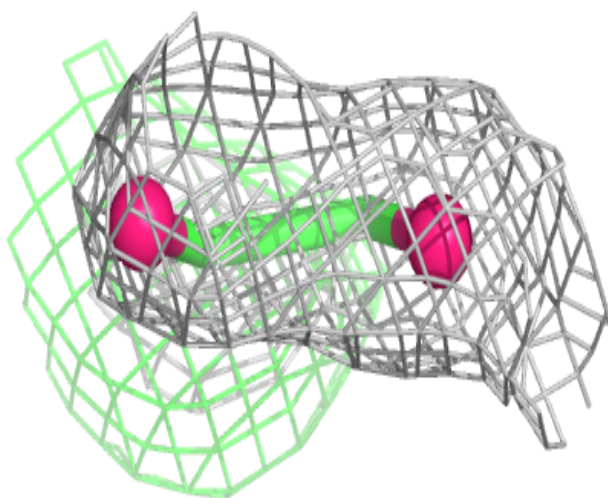
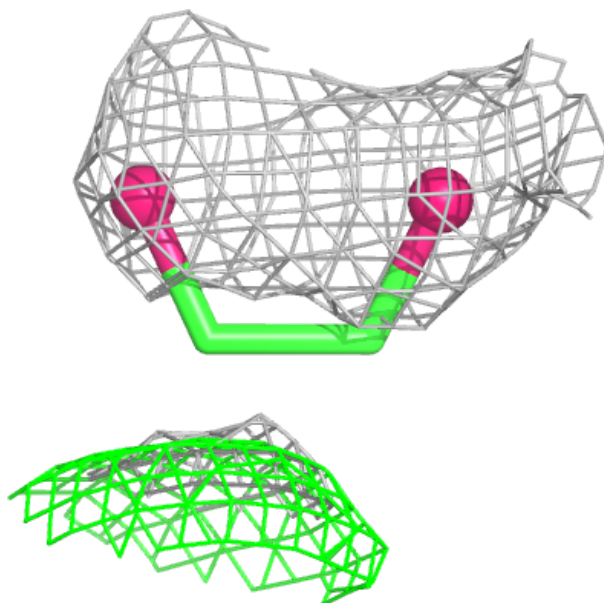
Electron density around SAC I 102:

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



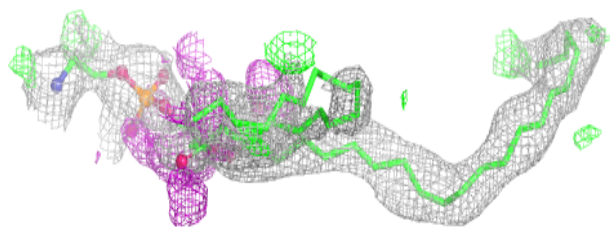
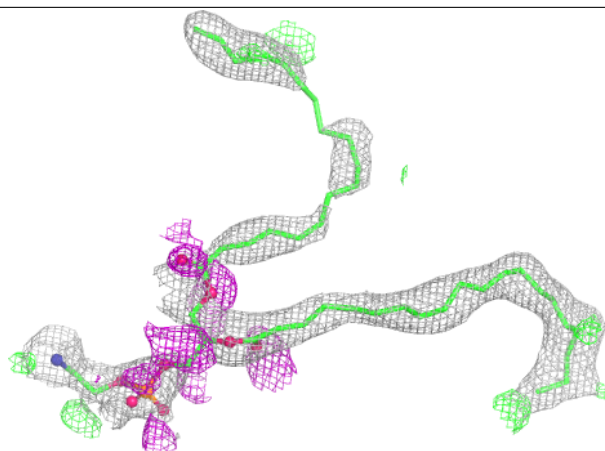
Electron density around EDO D 204:

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



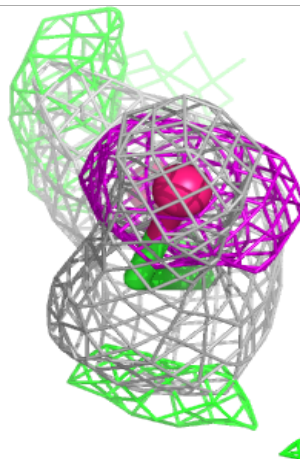
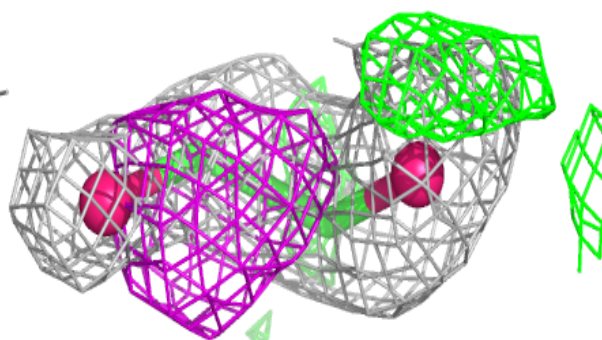
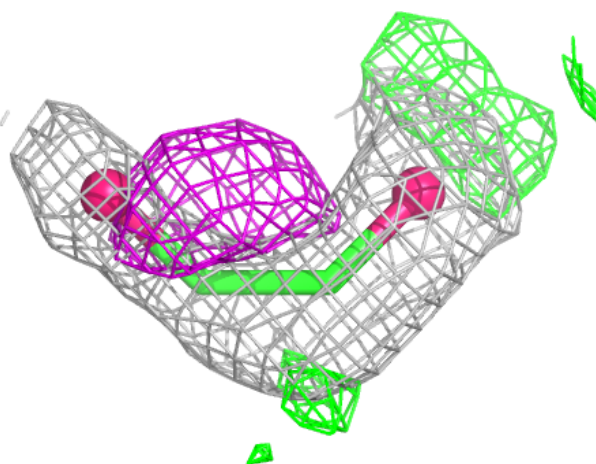
Electron density around PEK C 317:

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



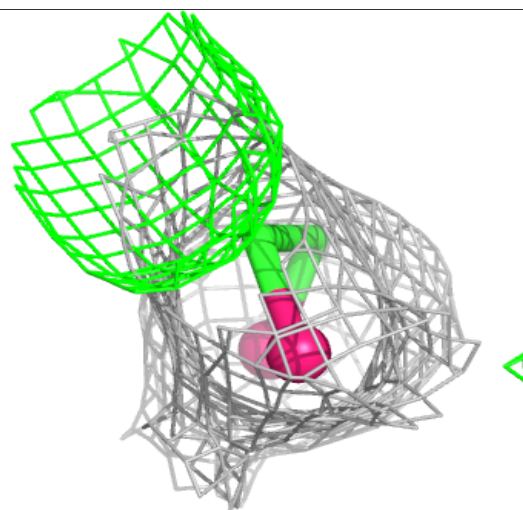
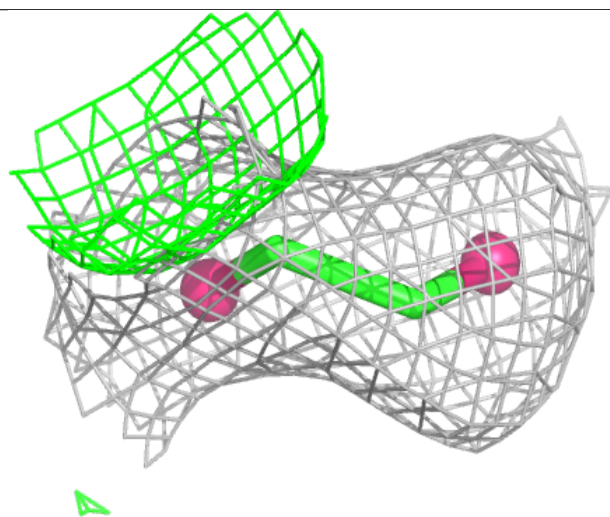
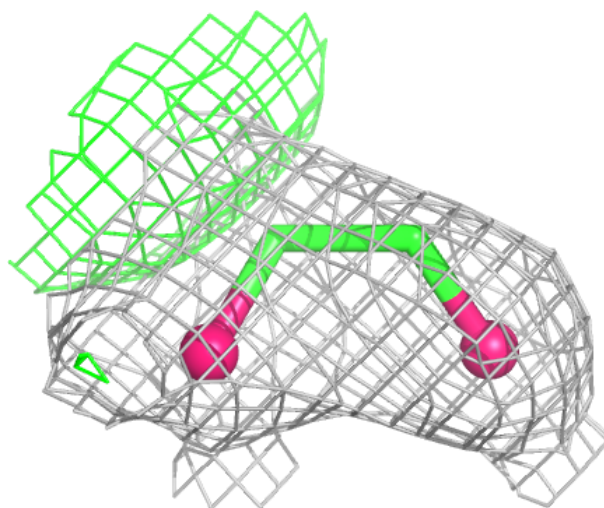
Electron density around EDO N 621:

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



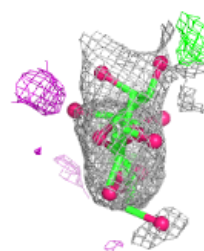
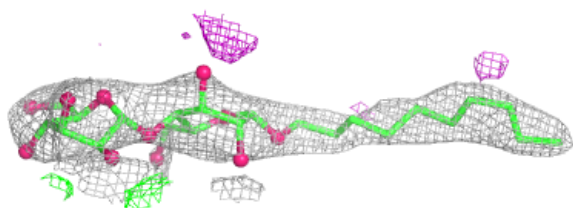
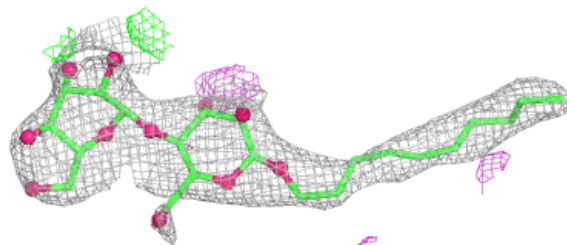
Electron density around EDO L 504:

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

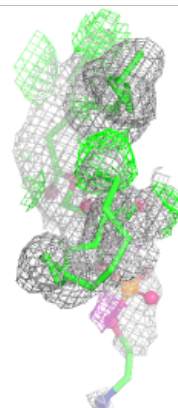
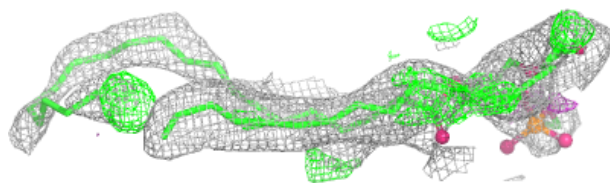
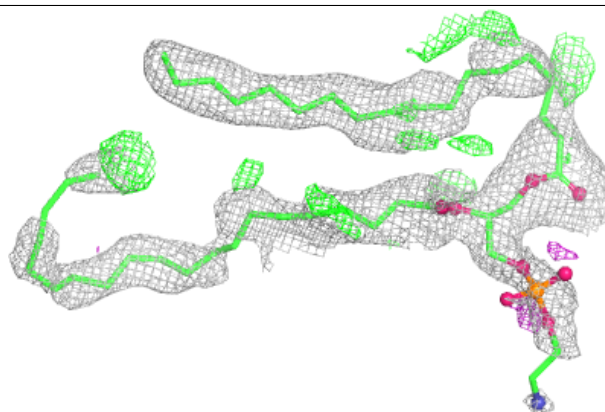


Electron density around DMU P 314:

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

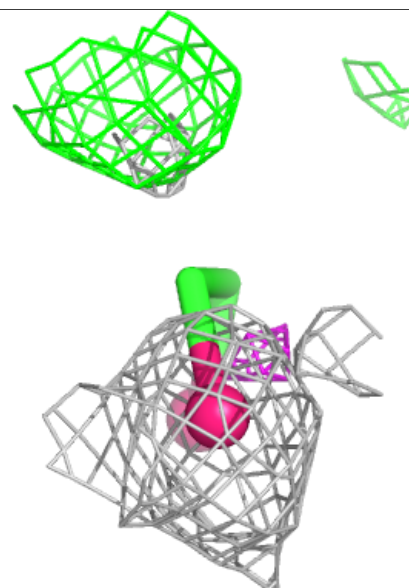
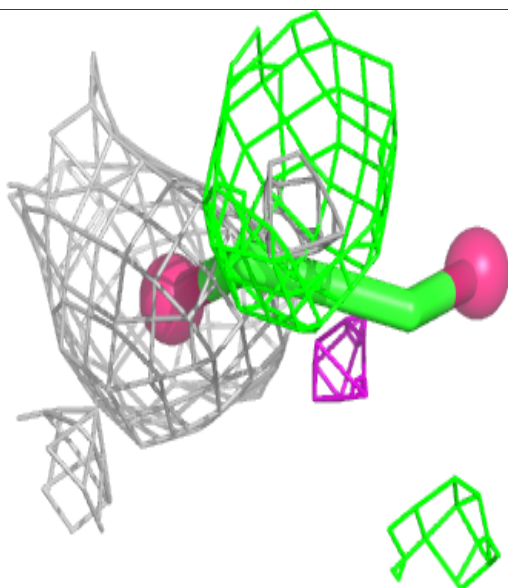
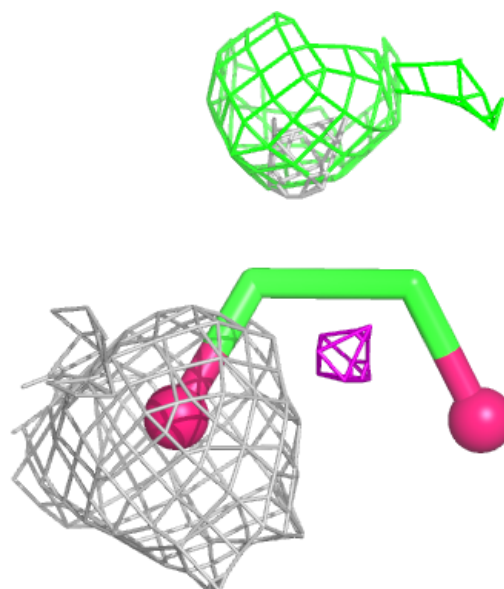
**Electron density around PEK C 303:**

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



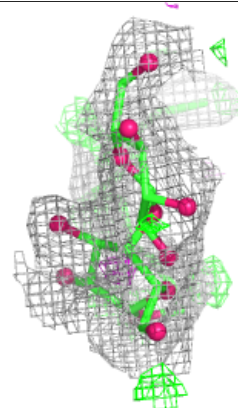
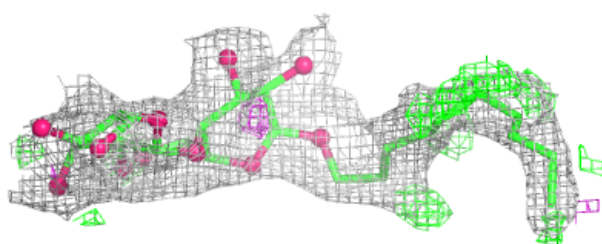
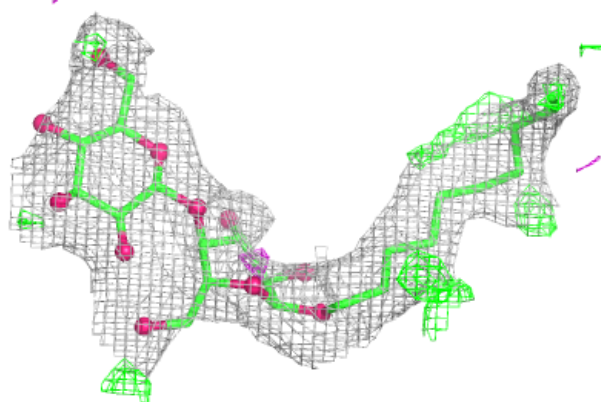
Electron density around EDO F 702:

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

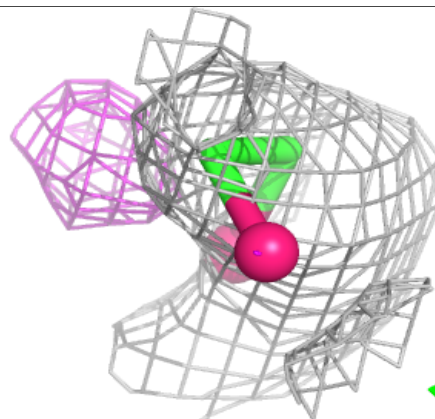
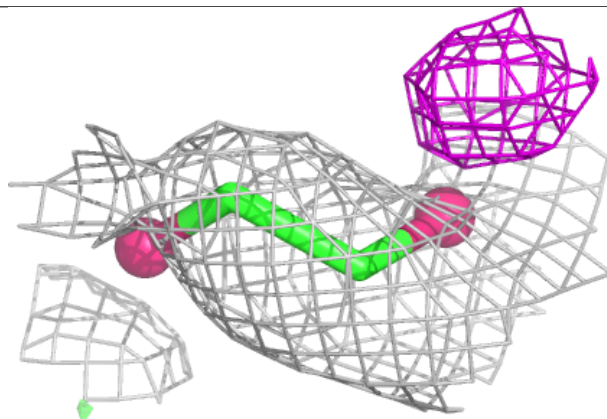
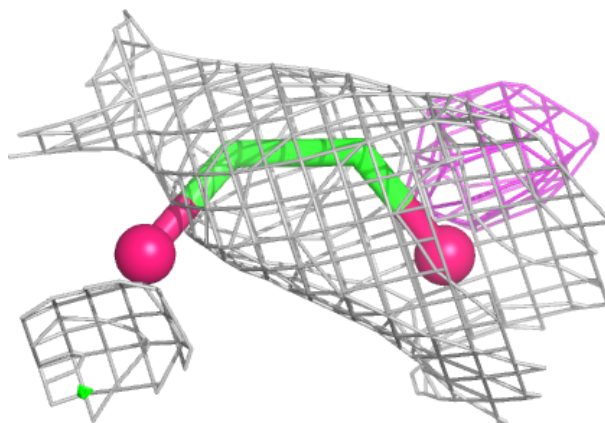


Electron density around DMU G 105:

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

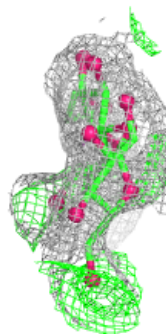
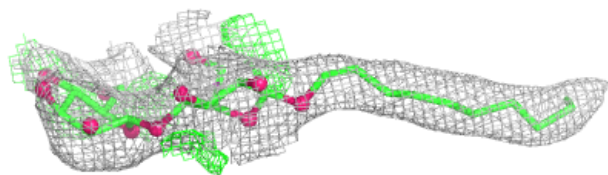
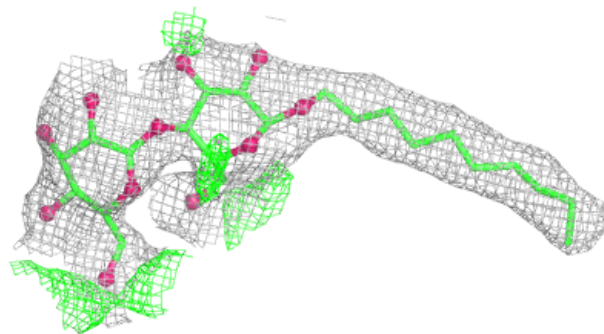
**Electron density around EDO G 103:**

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



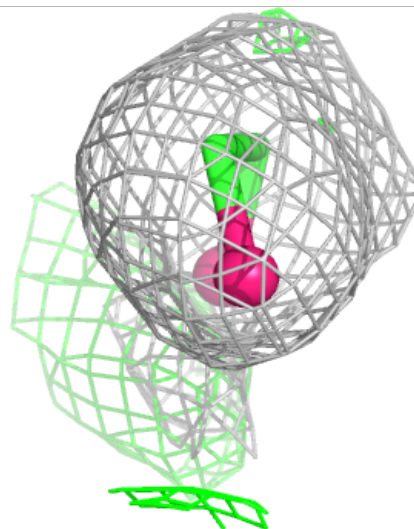
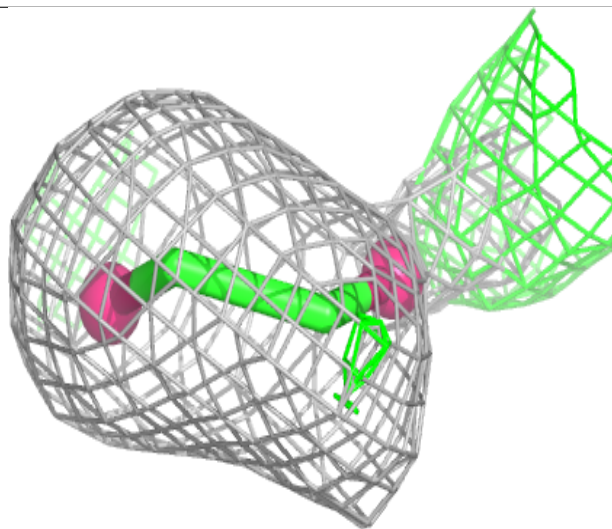
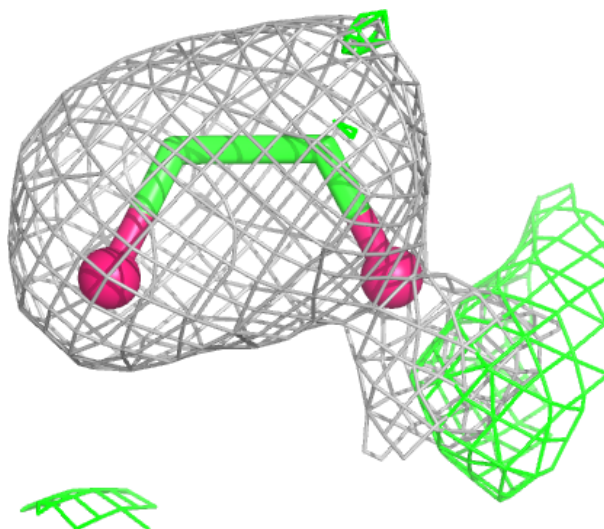
Electron density around DMU C 316:

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



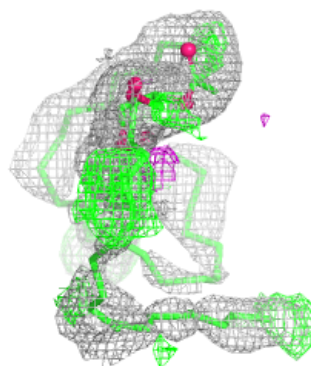
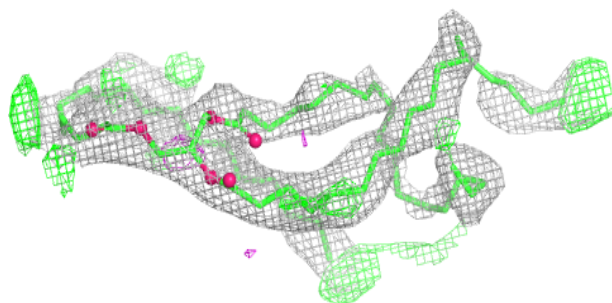
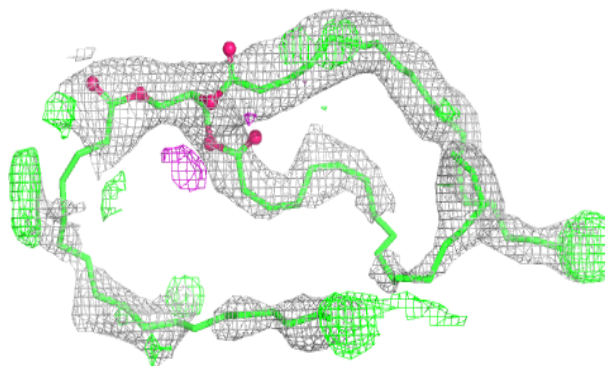
Electron density around EDO Q 1801:

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

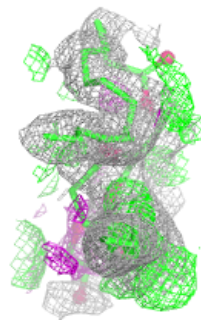
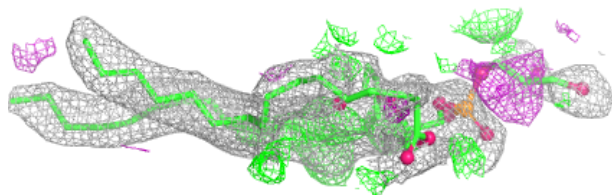
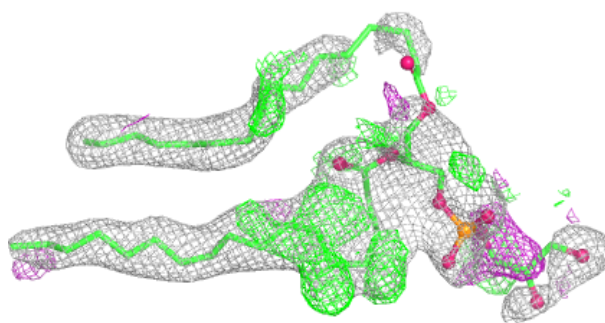


Electron density around TGL N 604:

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

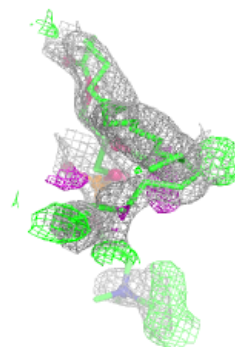
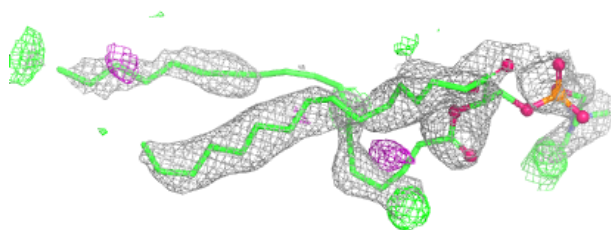
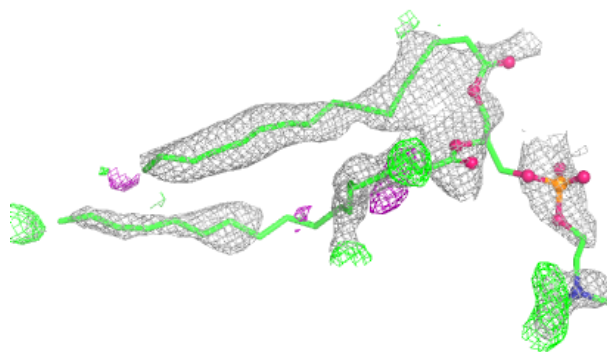
**Electron density around PGV M 101:**

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

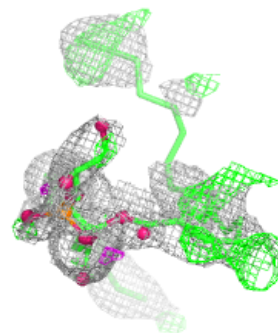
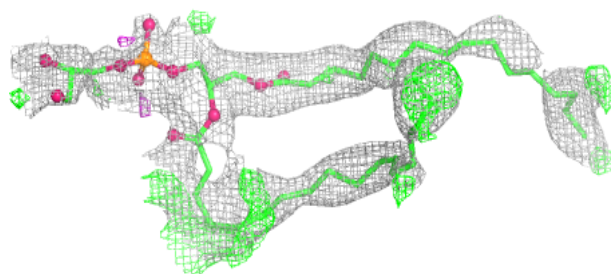
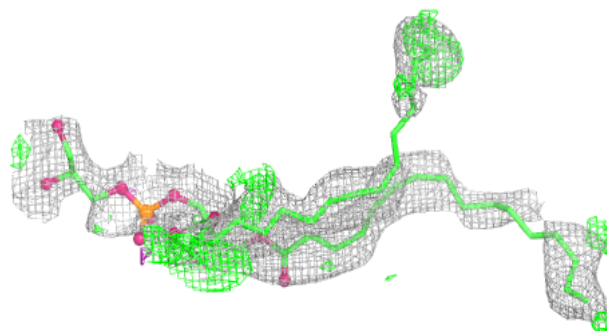


Electron density around PSC B 302:

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

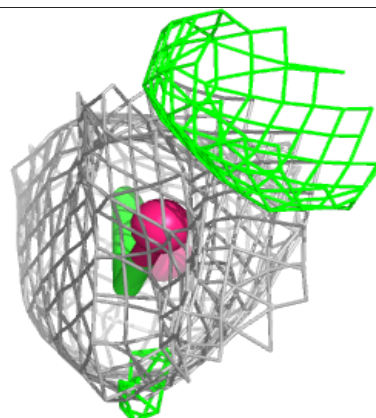
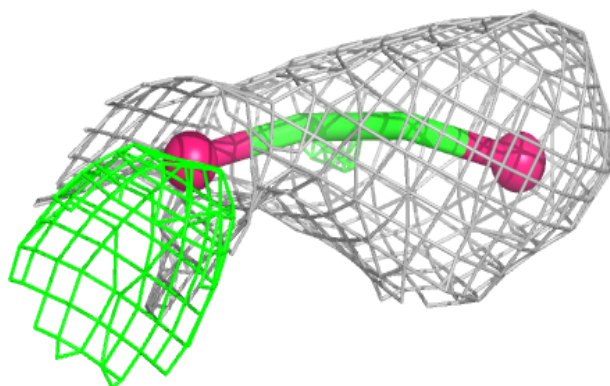
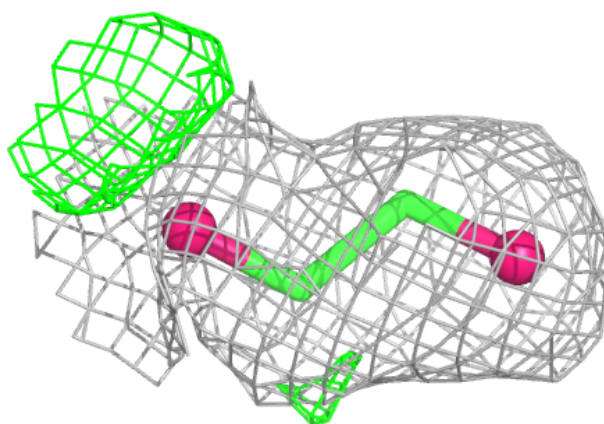
**Electron density around PGV C 305:**

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

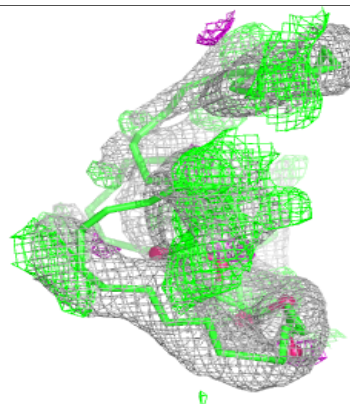
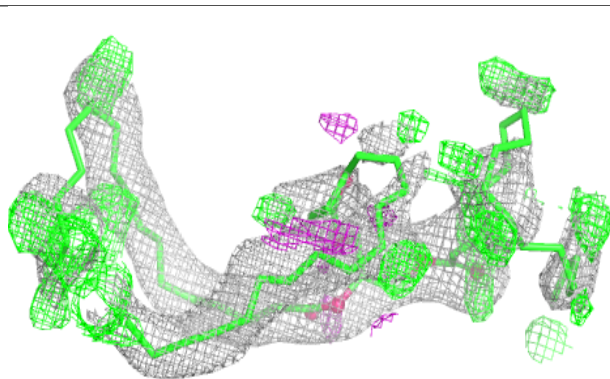
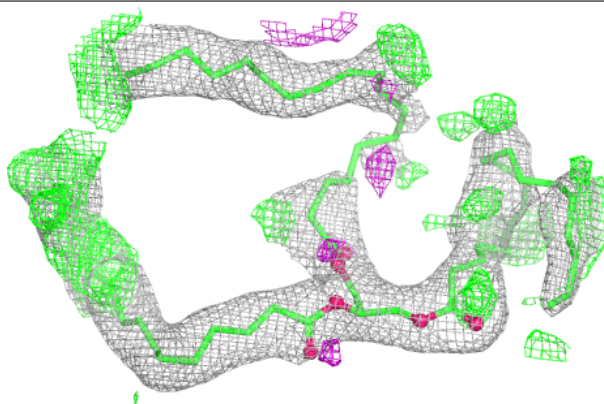


Electron density around EDO V 103:

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

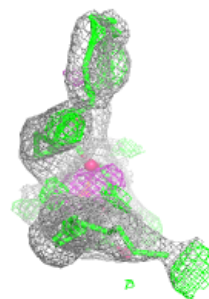
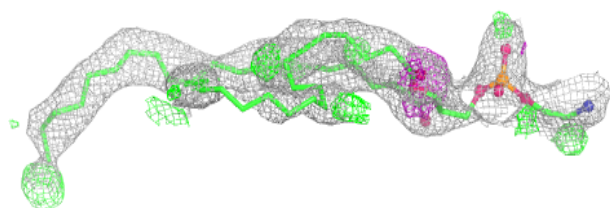
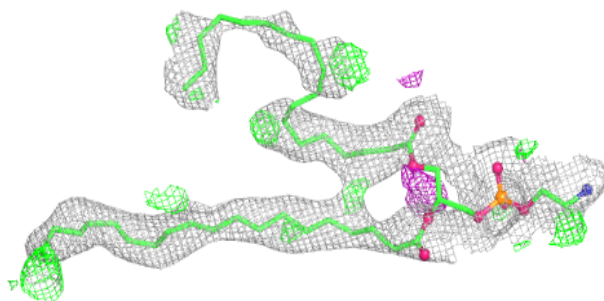
**Electron density around TGL I 101:**

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



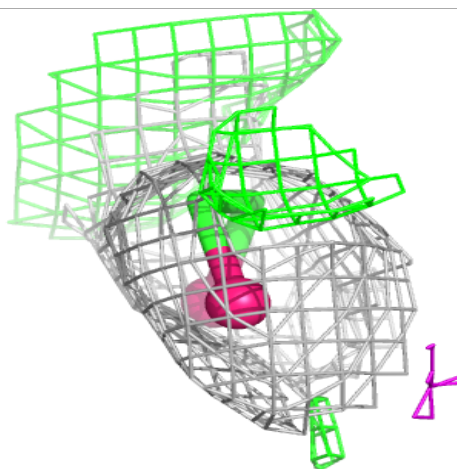
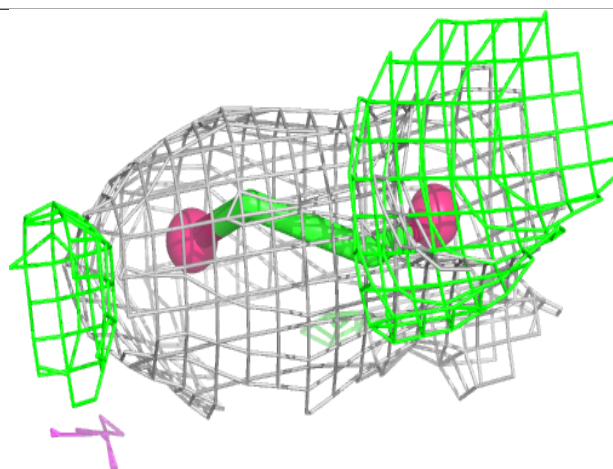
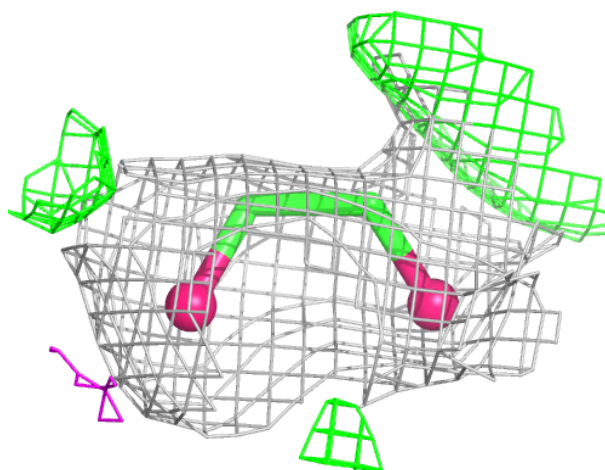
Electron density around PEK P 301:

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



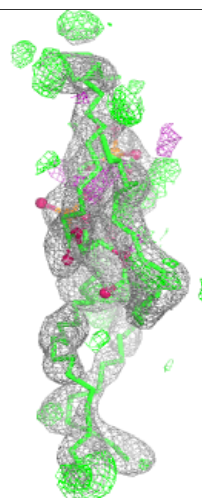
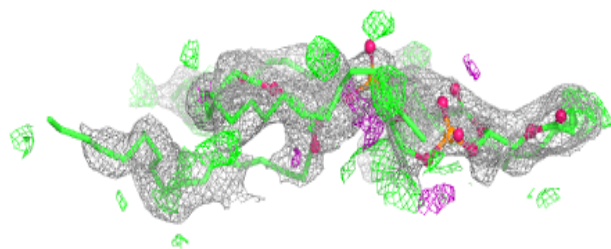
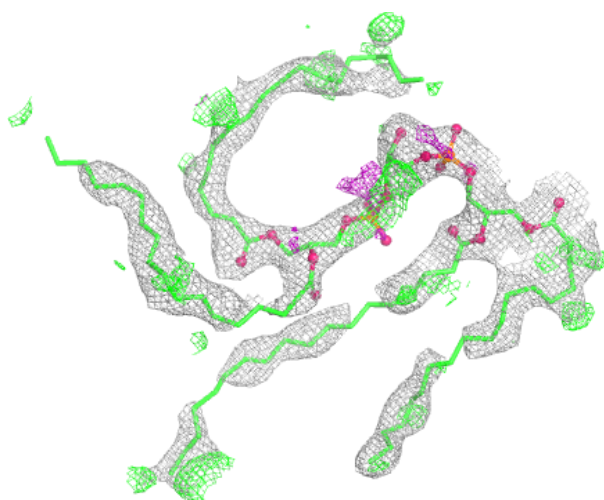
Electron density around EDO J 102:

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



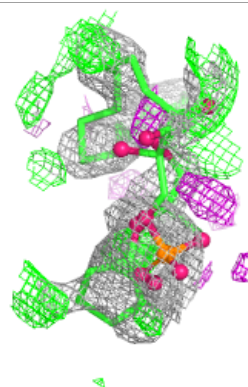
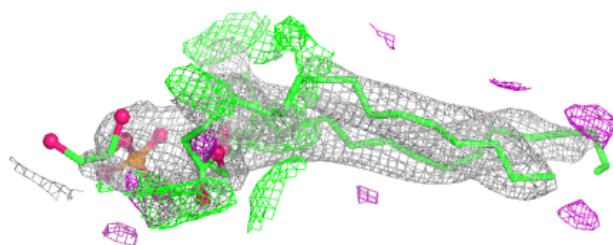
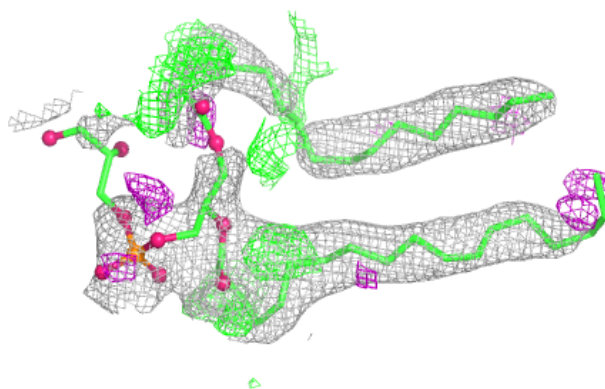
Electron density around CDL P 312:

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



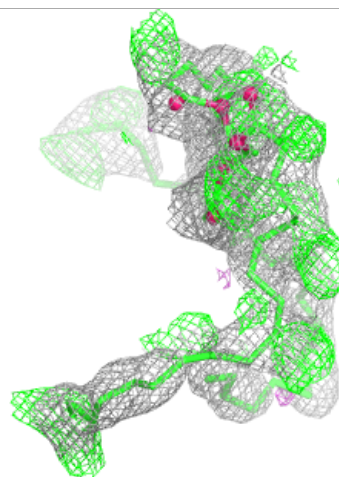
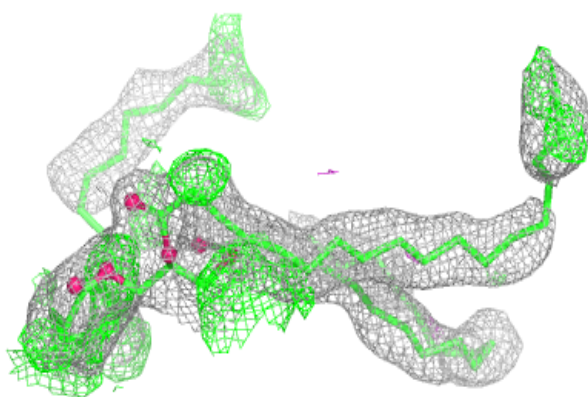
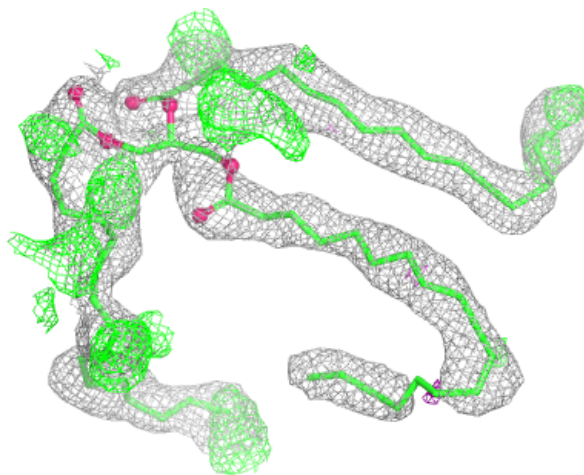
Electron density around PGV Z 101:

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



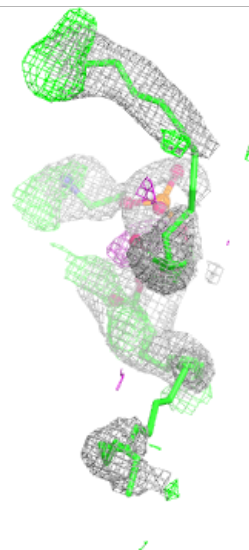
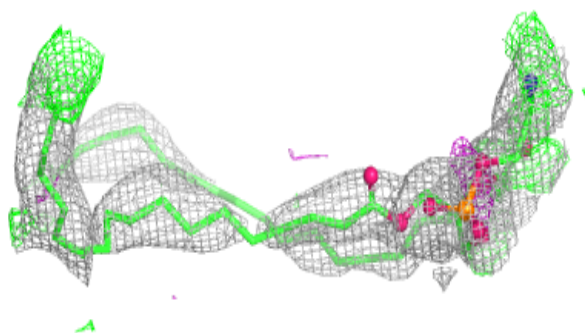
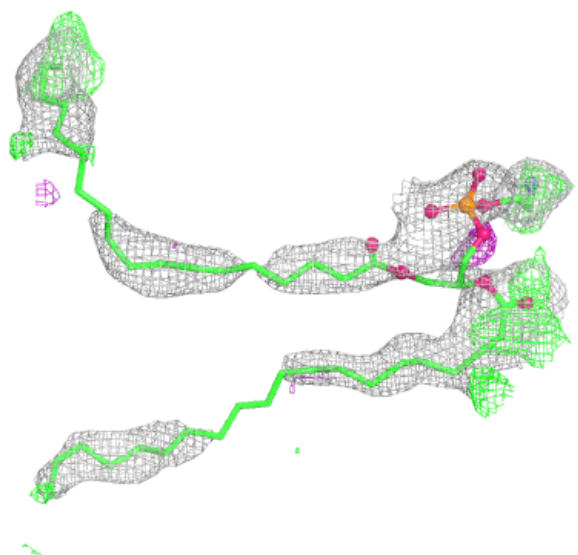
Electron density around TGL D 201:

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



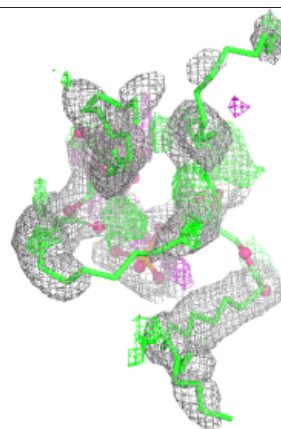
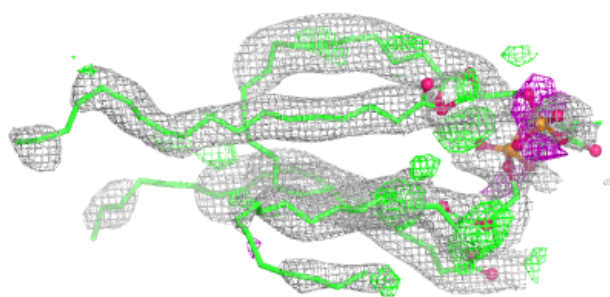
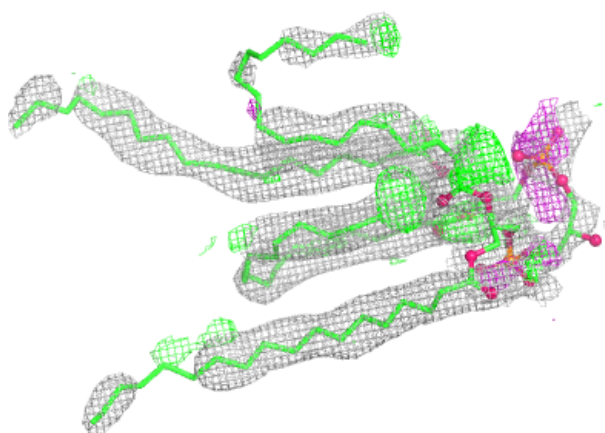
Electron density around PEK P 305:

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

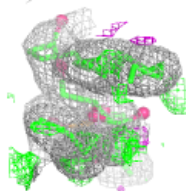
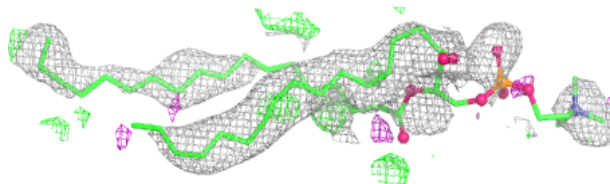
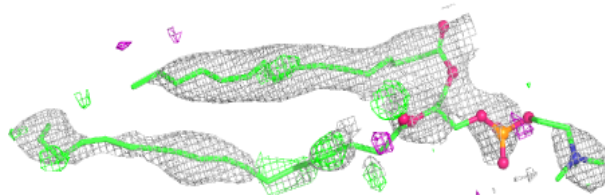


Electron density around CDL P 308:

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

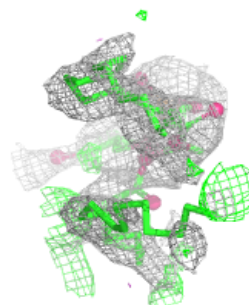
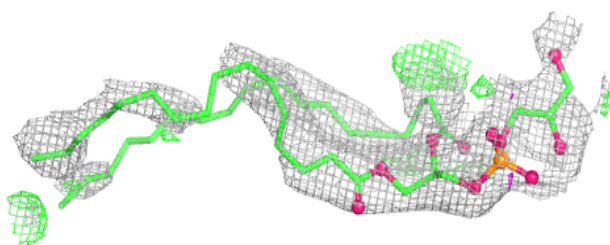
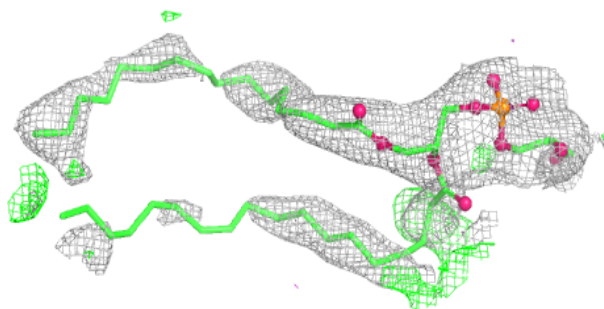
**Electron density around PSC O 302:**

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

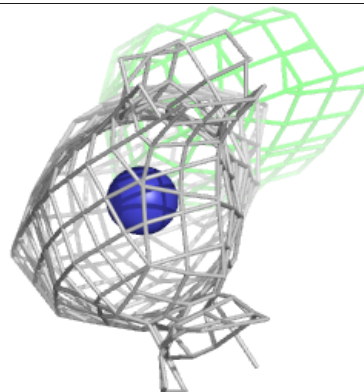
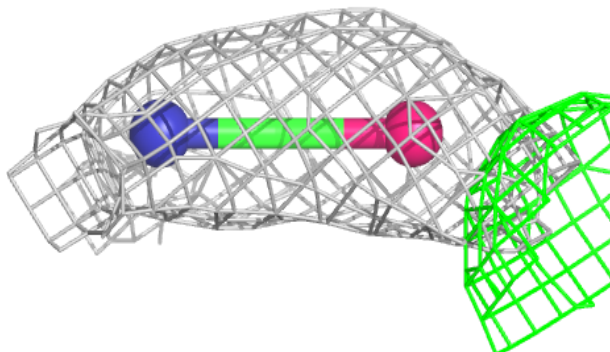
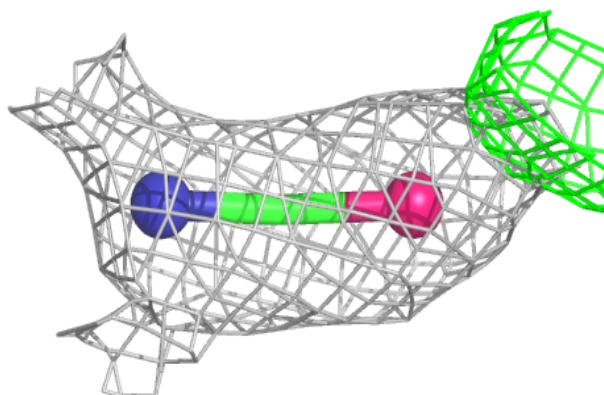


Electron density around PGV P 307:

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

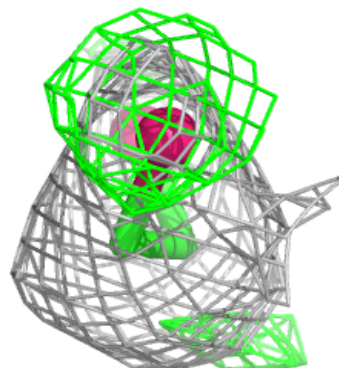
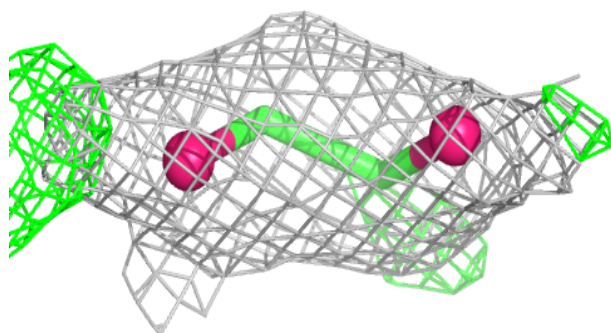
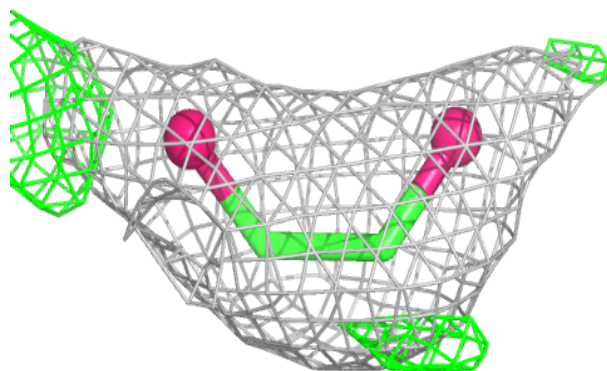
**Electron density around 0NM N 618:**

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

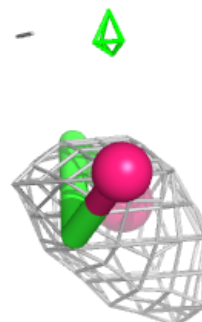
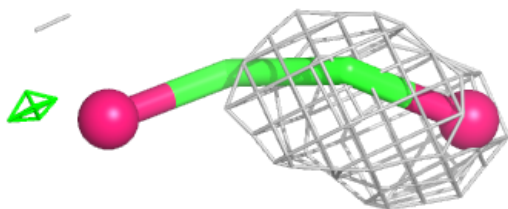
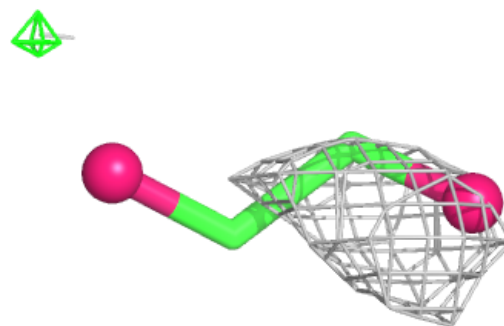


Electron density around EDO N 613:

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

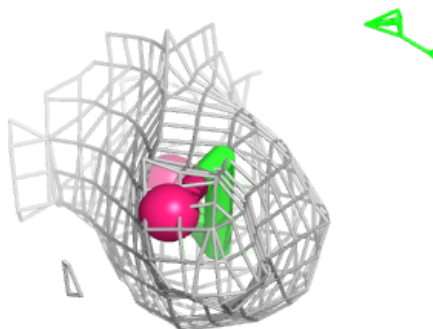
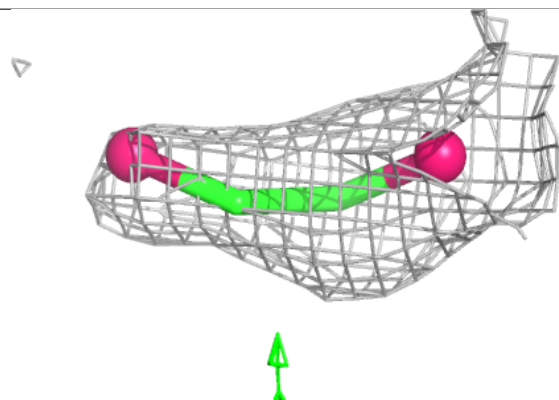
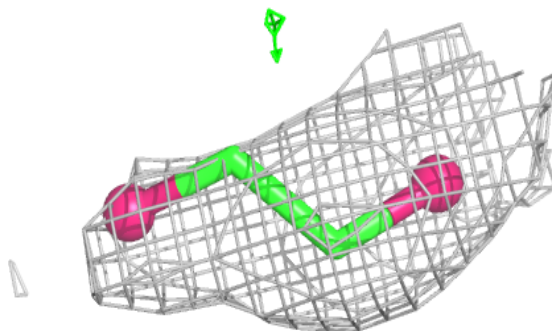
**Electron density around EDO Y 102:**

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

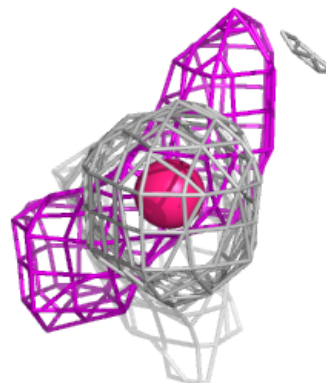
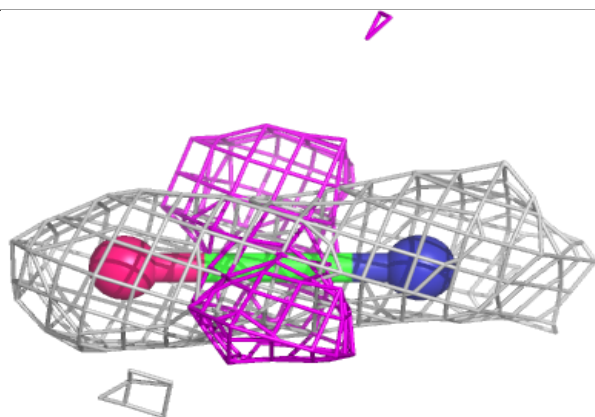
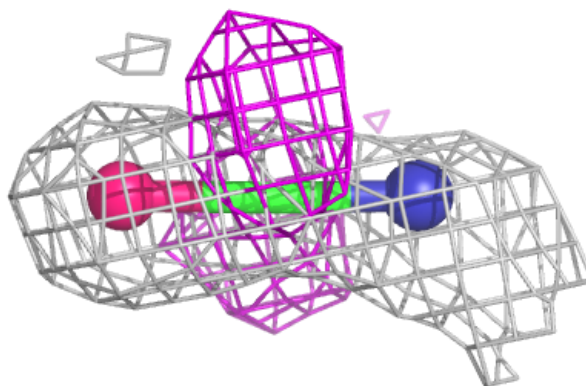


Electron density around EDO L 505:

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

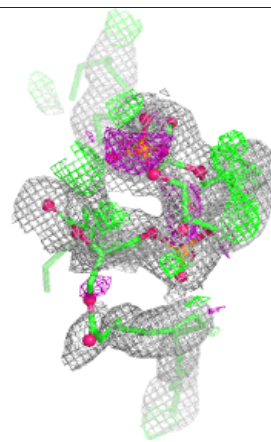
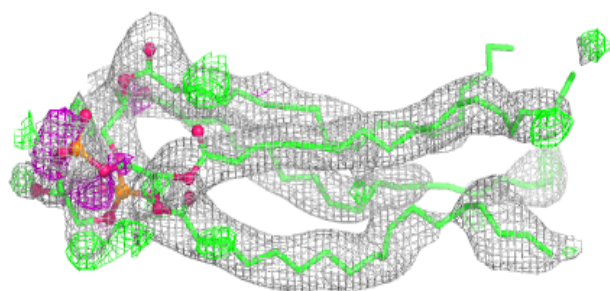
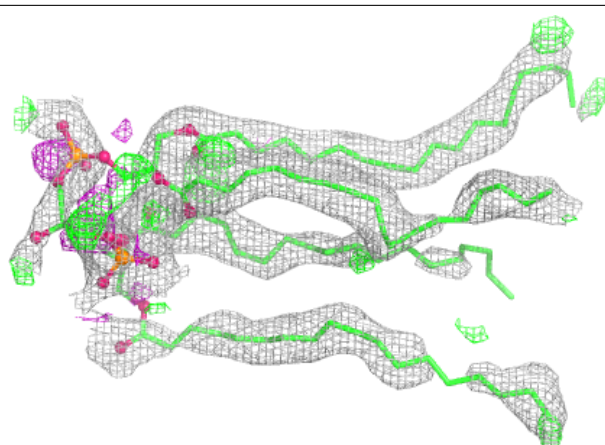
**Electron density around ONM N 619:**

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

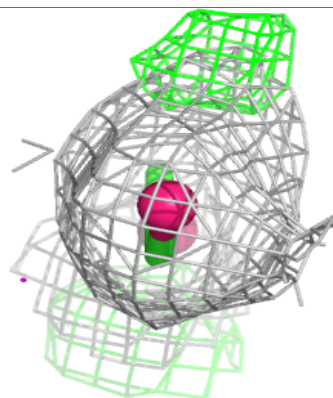
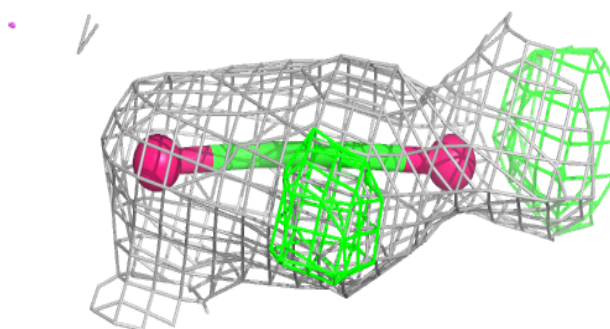
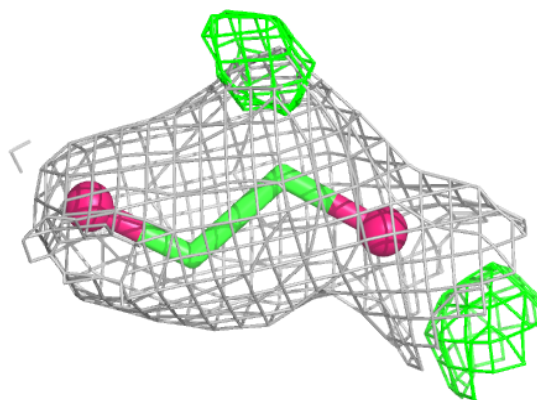


Electron density around CDL C 306:

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

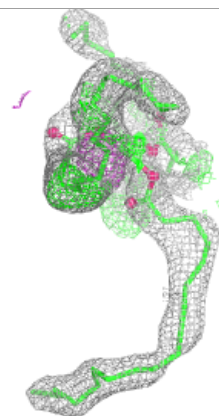
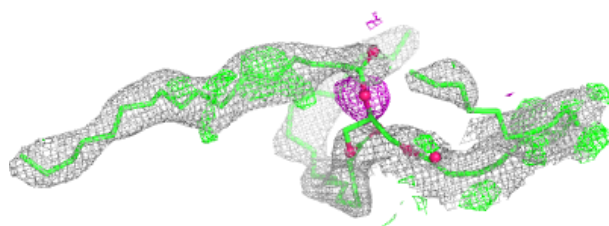
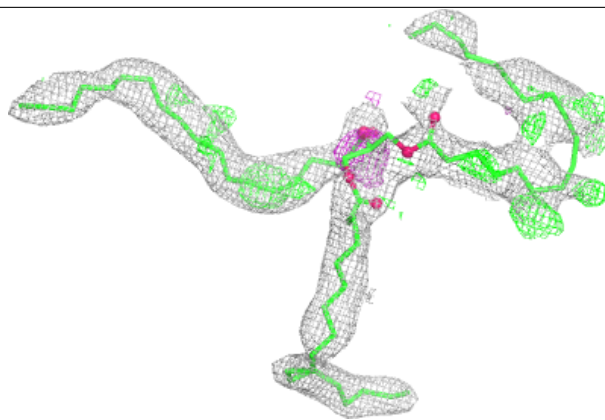
**Electron density around EDO B 311:**

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



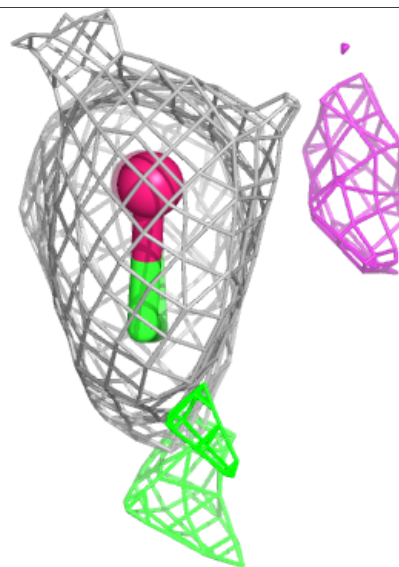
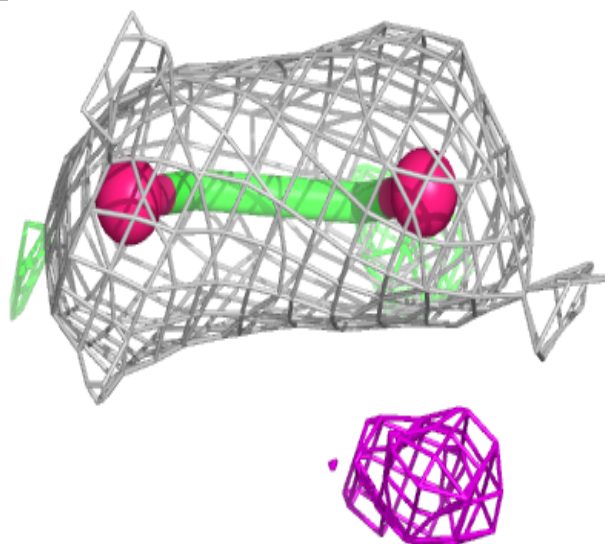
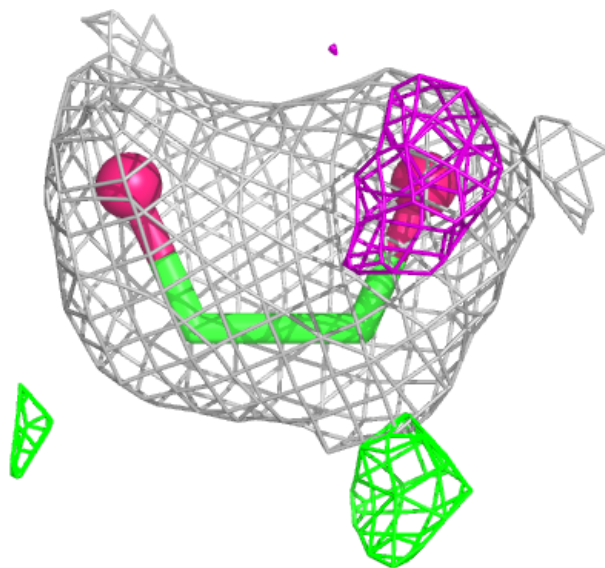
Electron density around TGL Y 101:

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



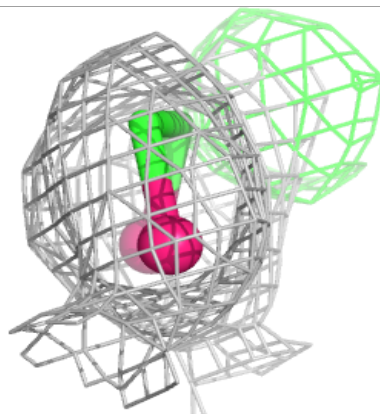
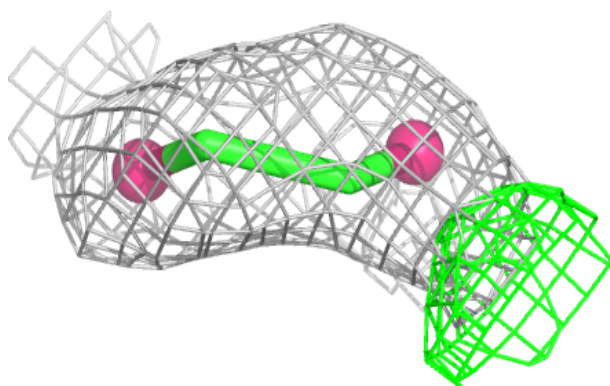
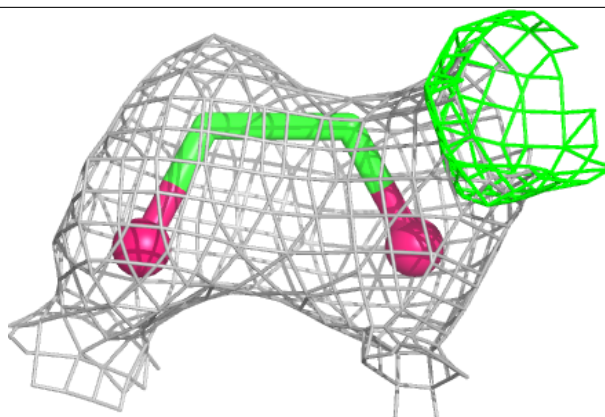
Electron density around EDO T 1301:

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

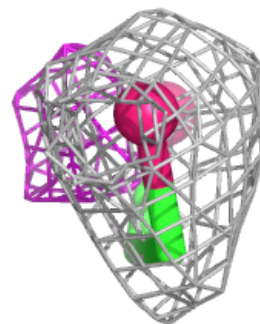
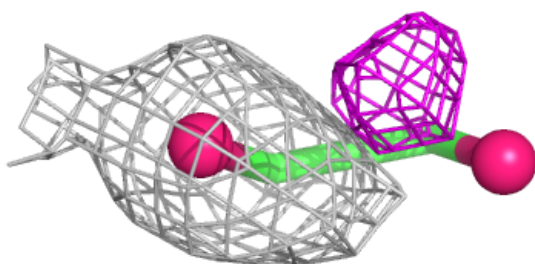
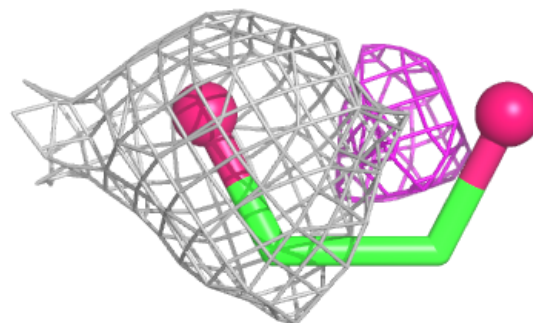


Electron density around EDO N 626:

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

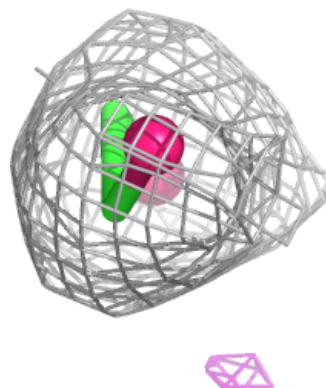
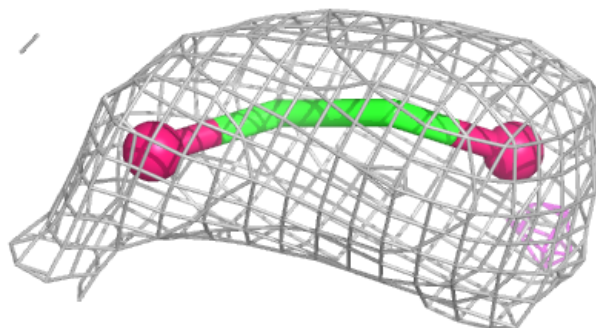
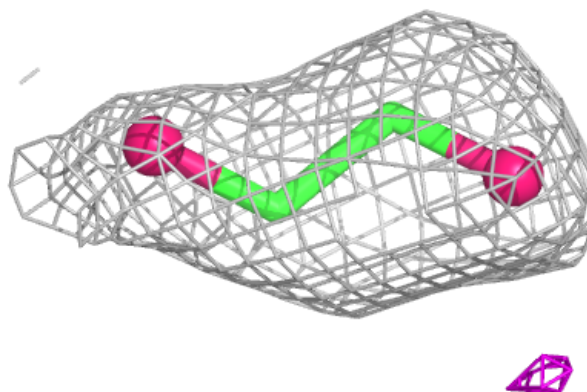
**Electron density around EDO B 308:**

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

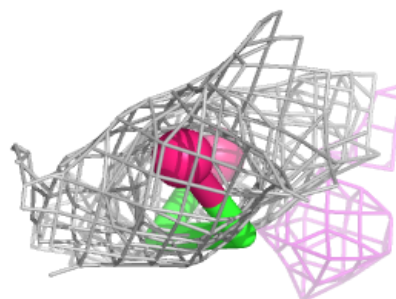
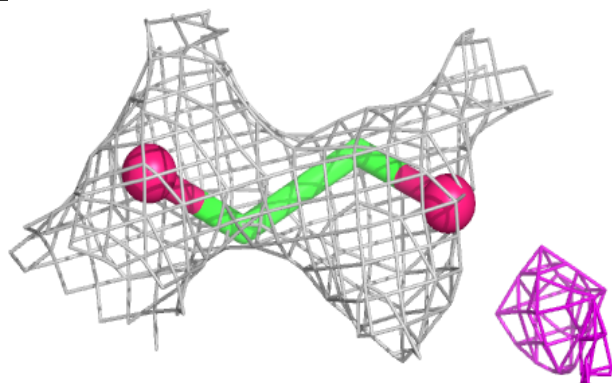
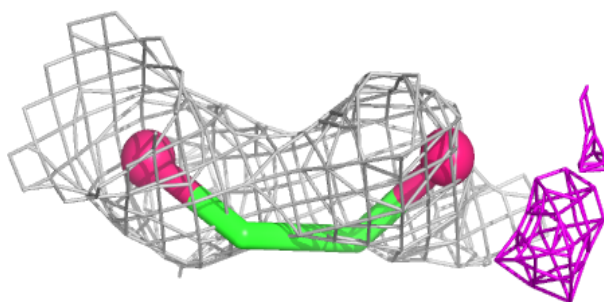


Electron density around EDO G 104:

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

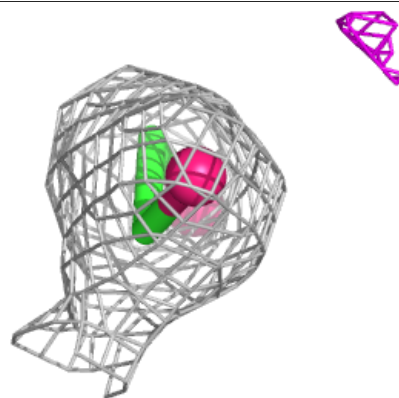
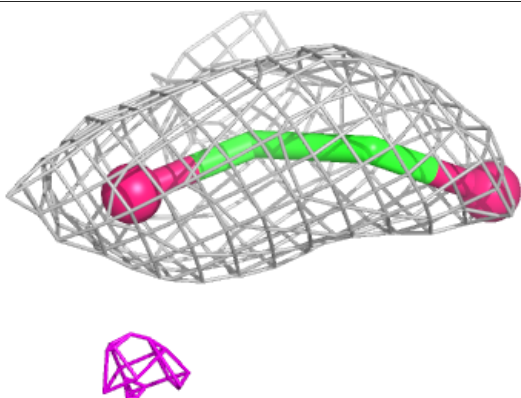
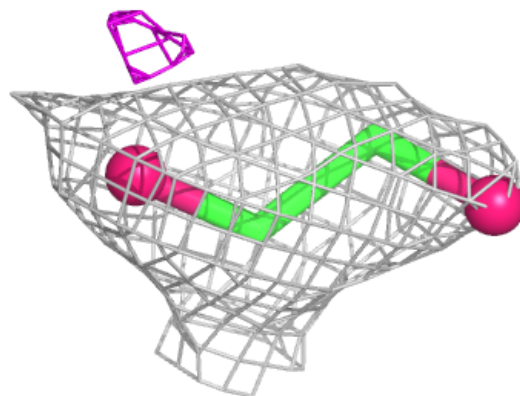
**Electron density around EDO Q 1803:**

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

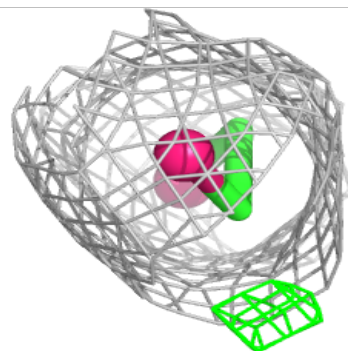
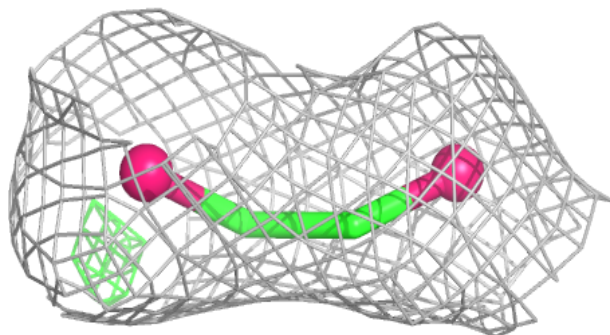
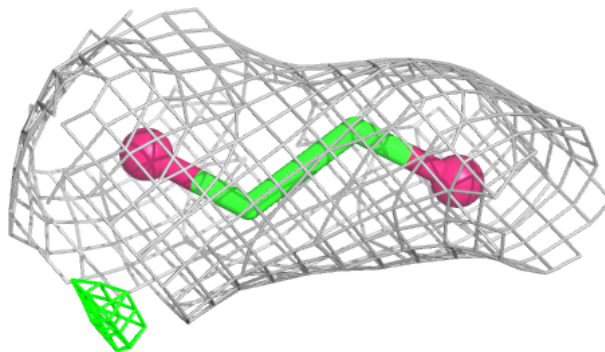


Electron density around EDO R 202:

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

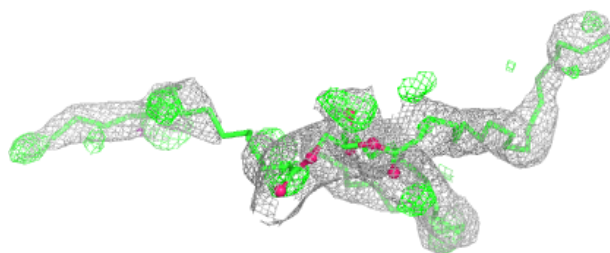
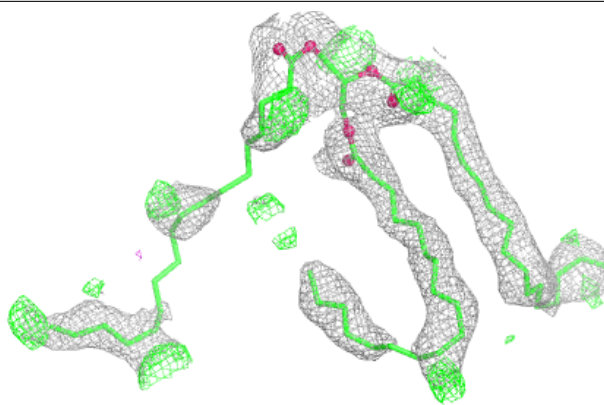
**Electron density around EDO G 107:**

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



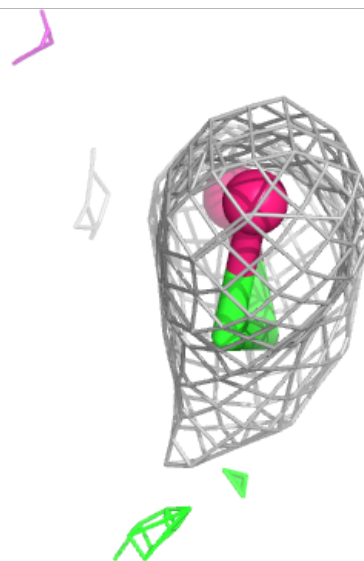
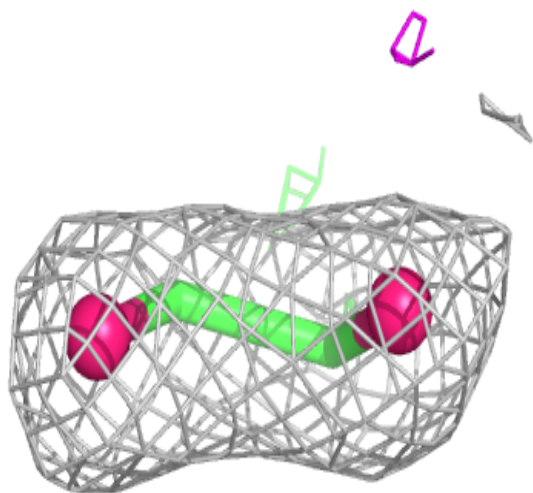
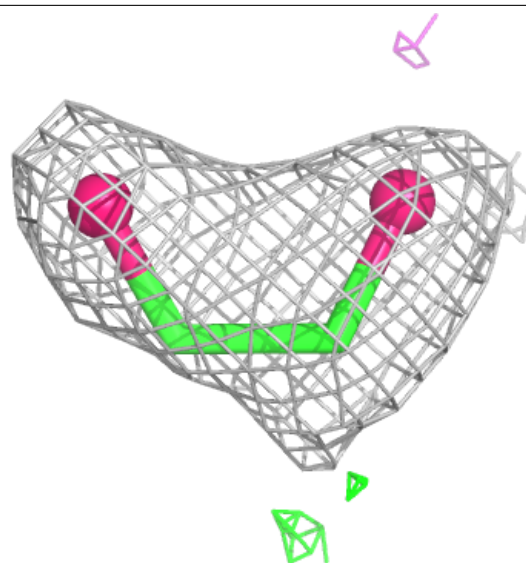
Electron density around TGL N 622:

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



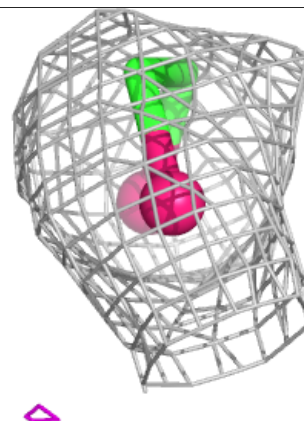
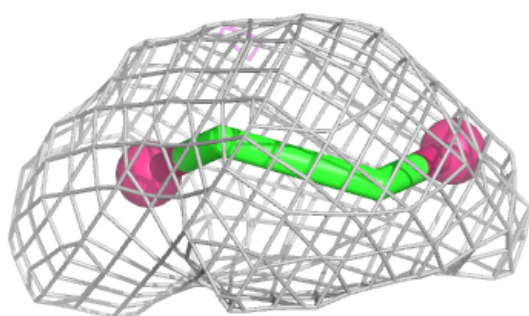
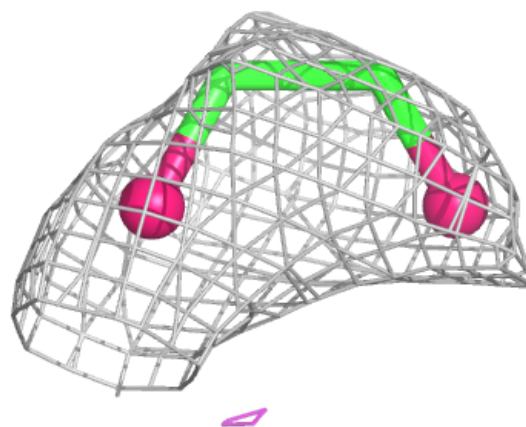
Electron density around EDO S 1604:

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

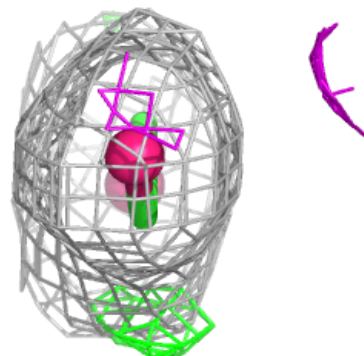
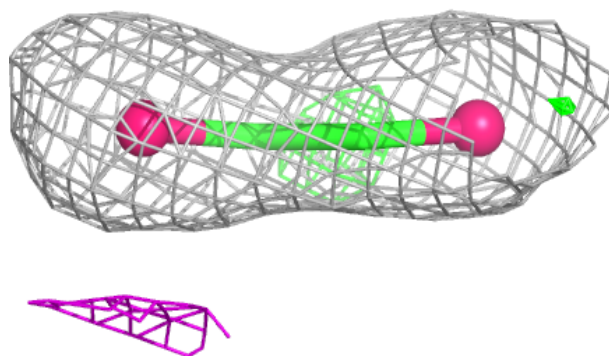
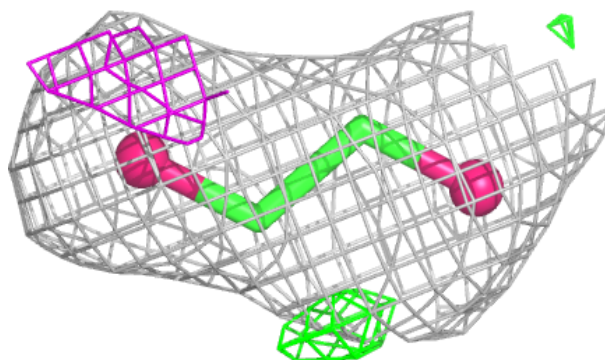


Electron density around EDO B 312:

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

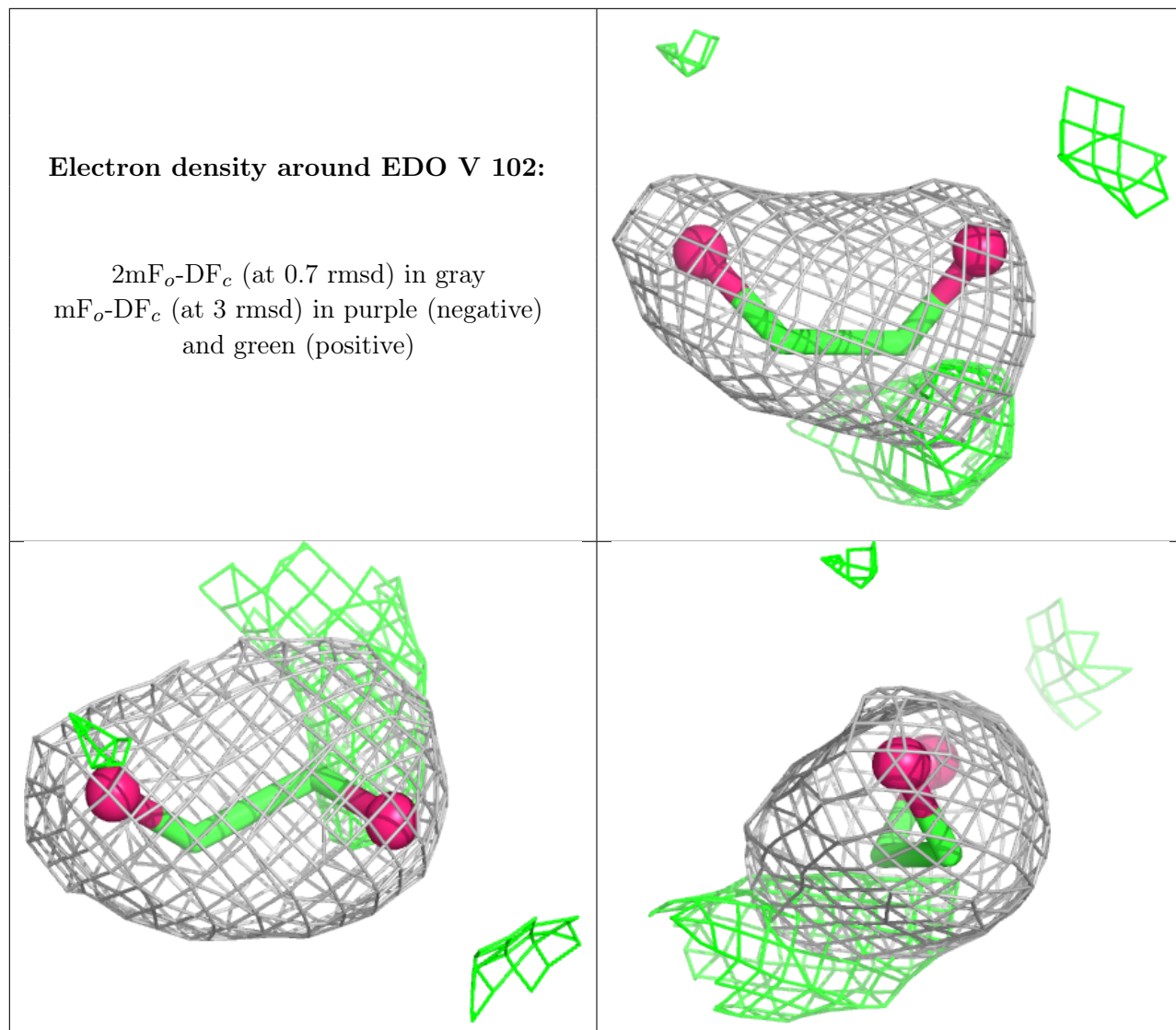
**Electron density around EDO C 309:**

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



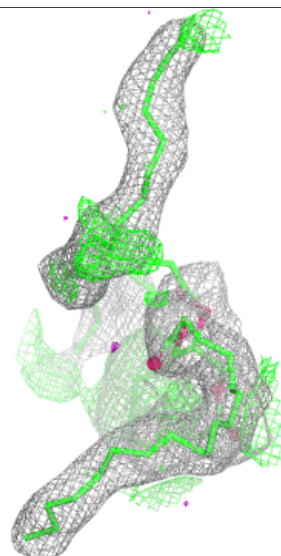
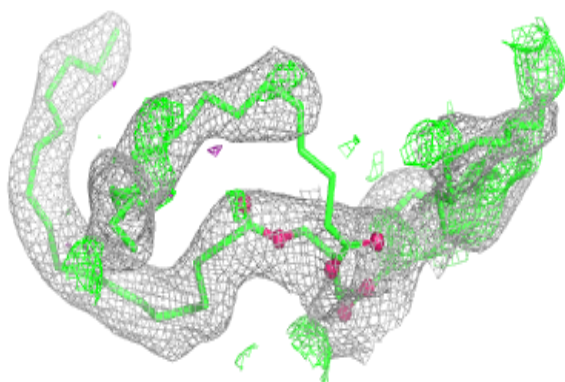
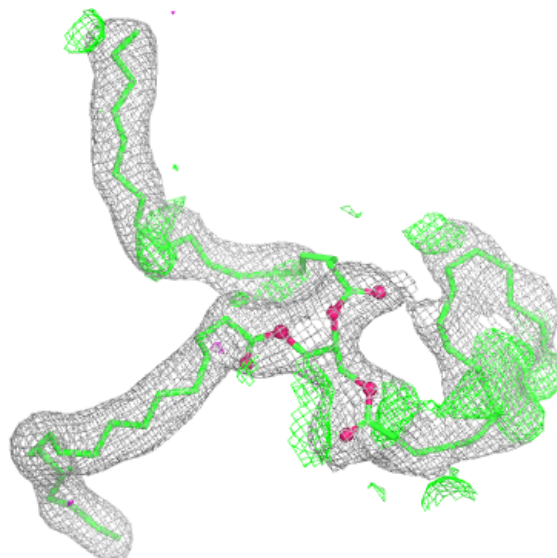
Electron density around EDO V 102:

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



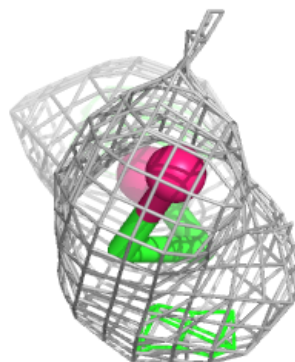
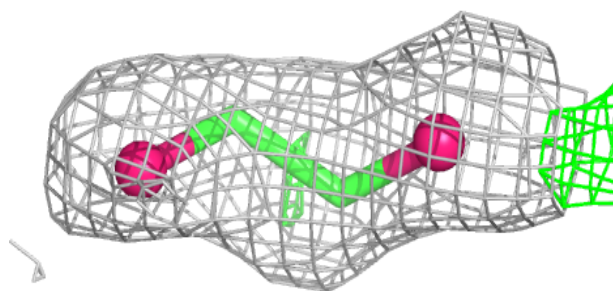
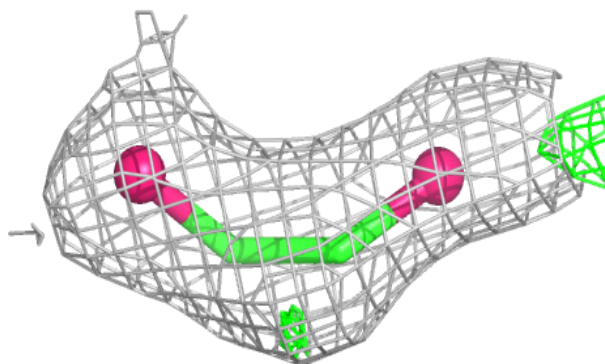
Electron density around TGL L 502:

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

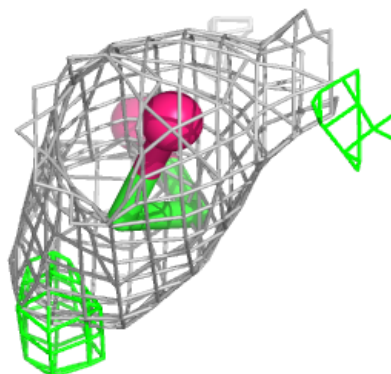
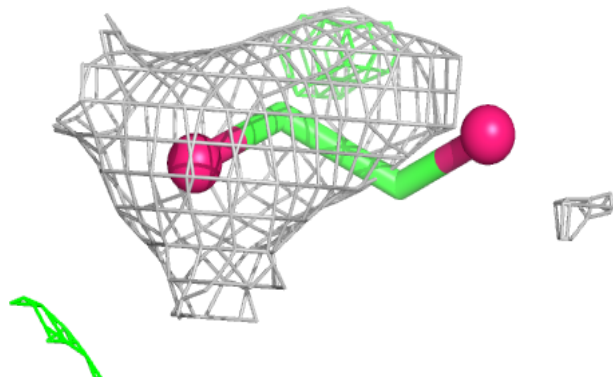
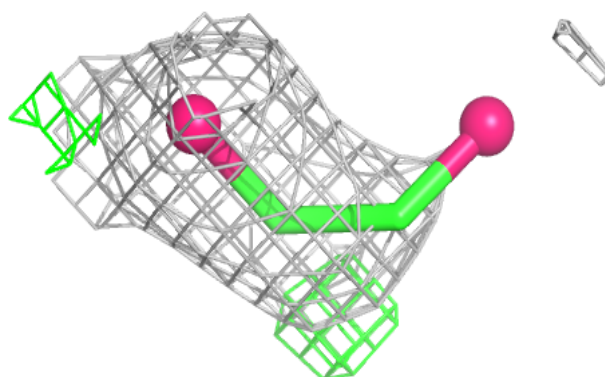


Electron density around EDO B 305:

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

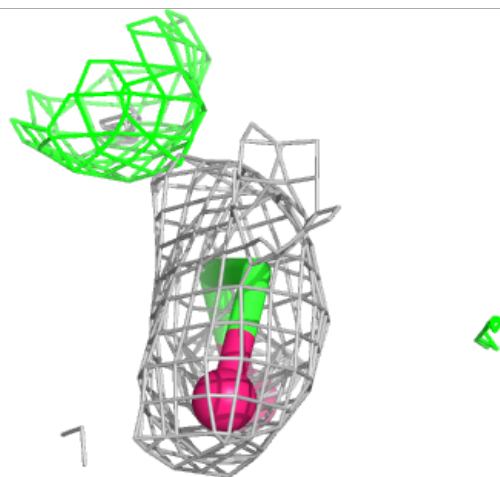
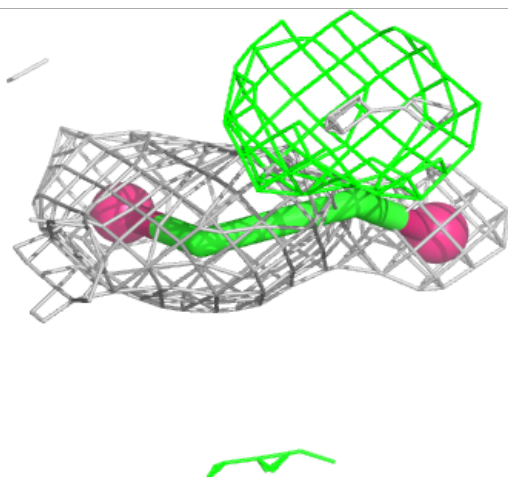
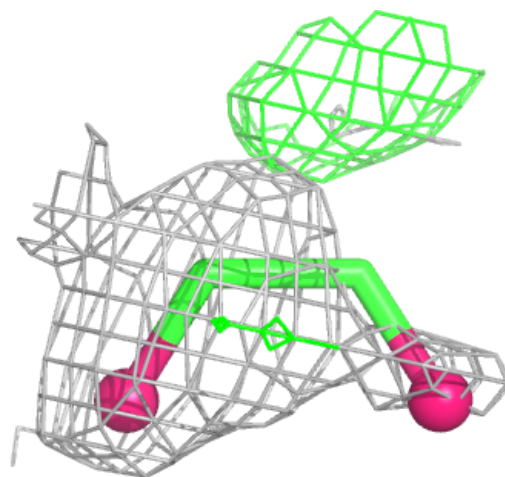
**Electron density around EDO F 709:**

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



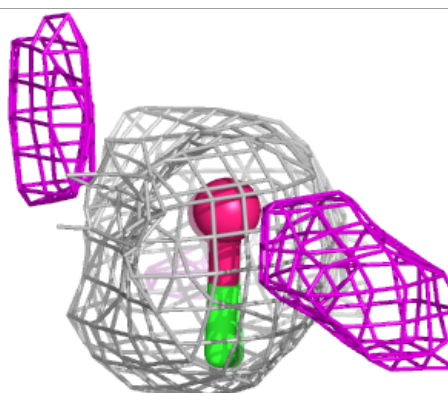
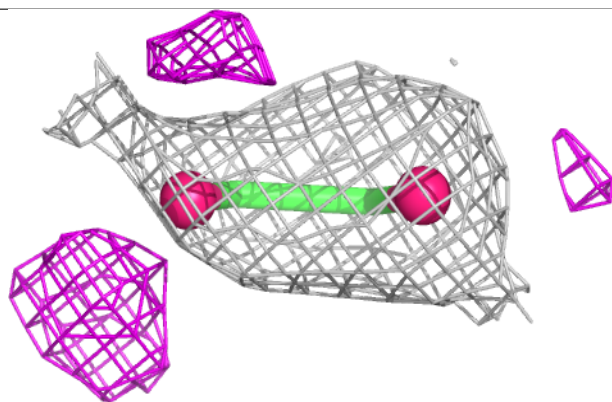
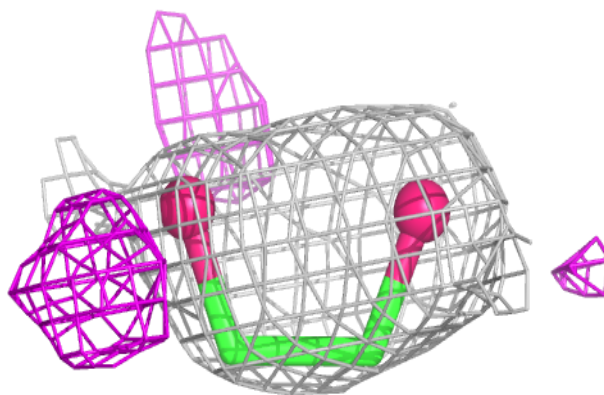
Electron density around EDO N 610:

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

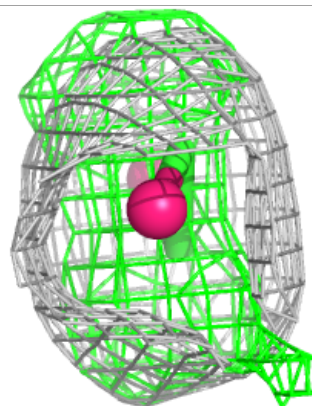
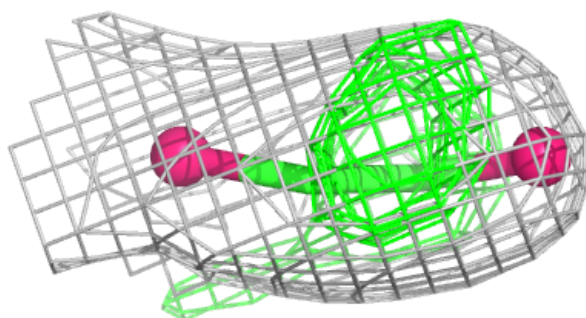
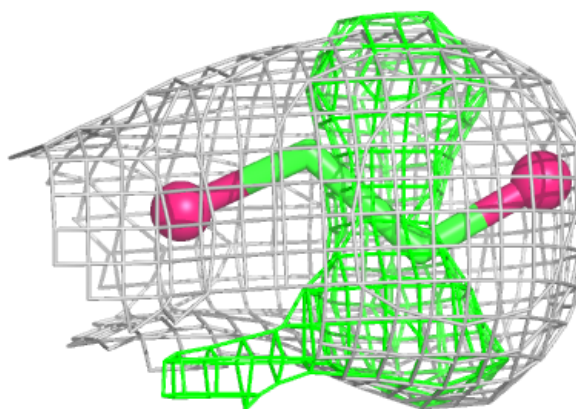


Electron density around EDO S 1606:

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

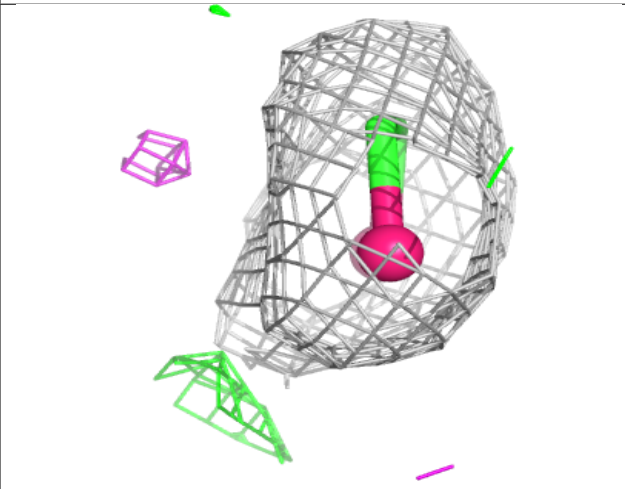
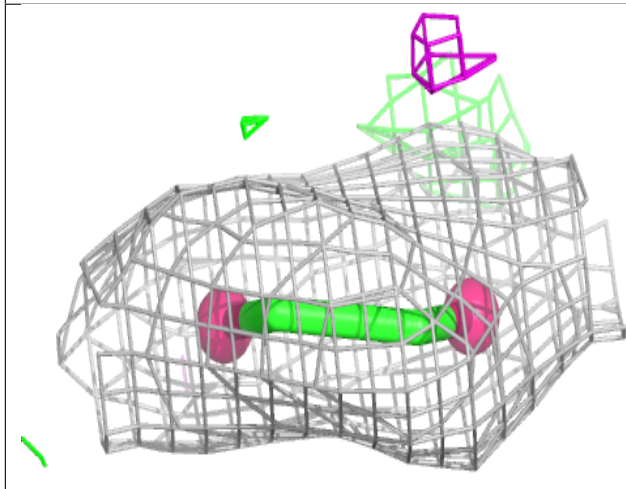
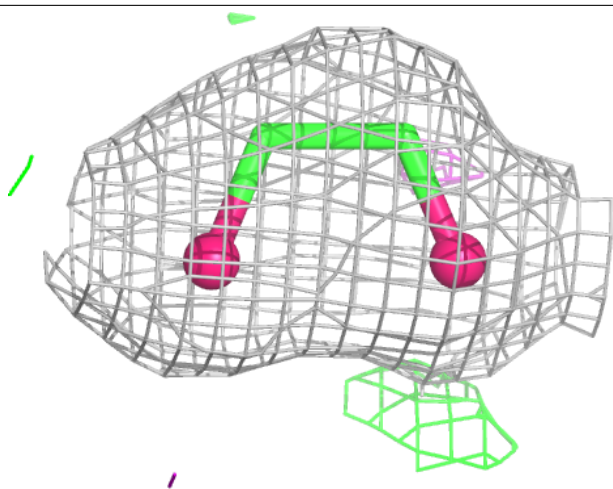
**Electron density around EDO N 612:**

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



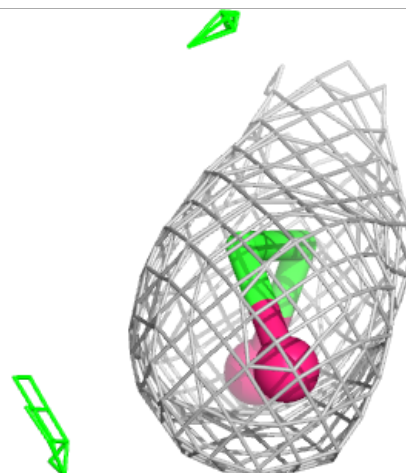
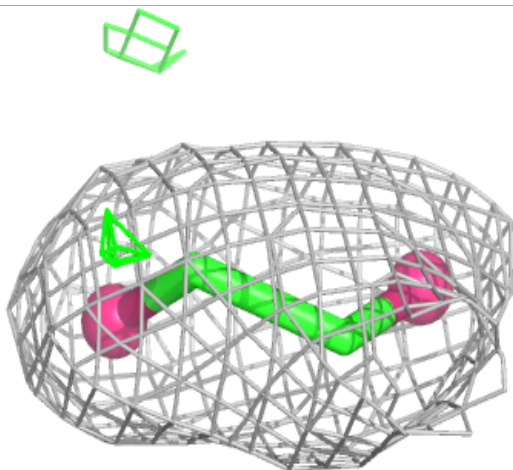
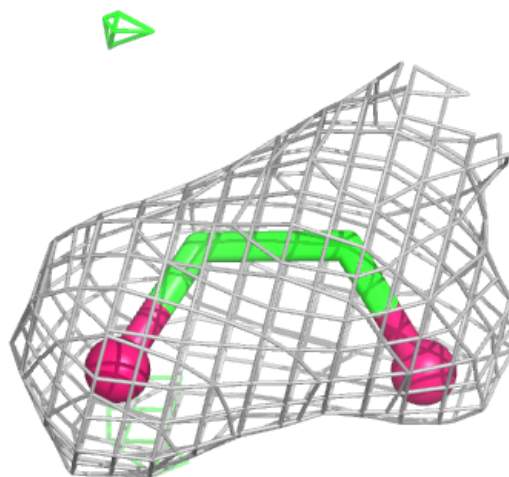
Electron density around EDO A 610:

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



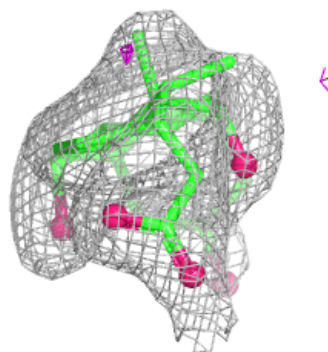
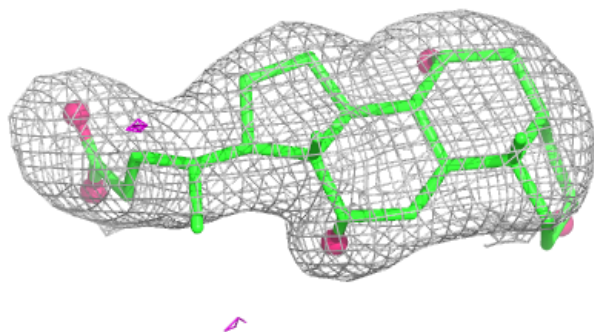
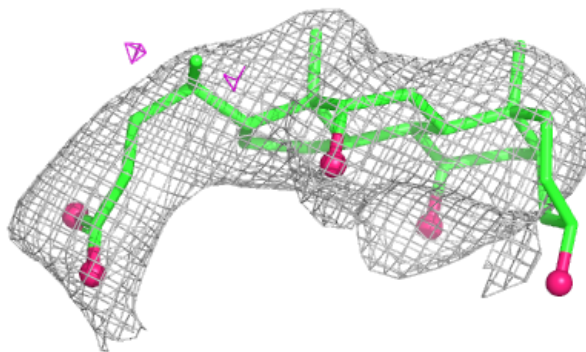
Electron density around EDO A 616:

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

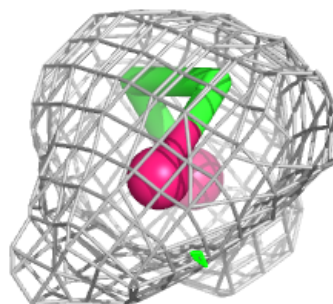
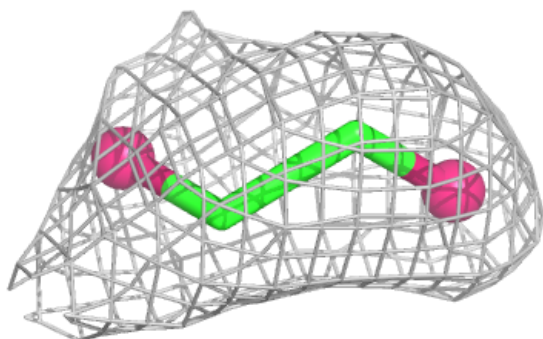
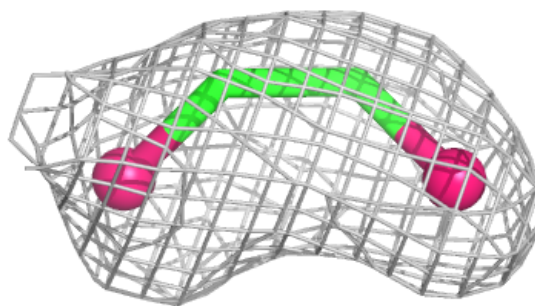


Electron density around CHD W 302:

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

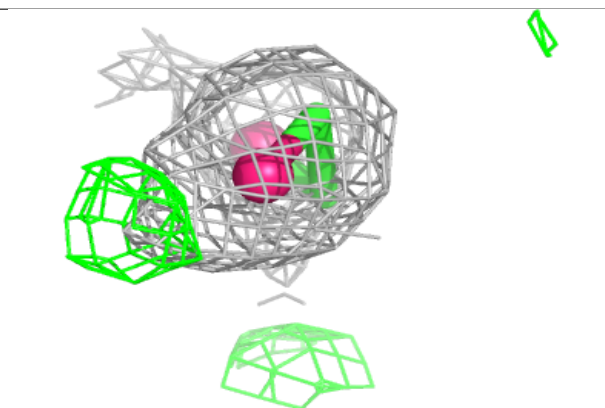
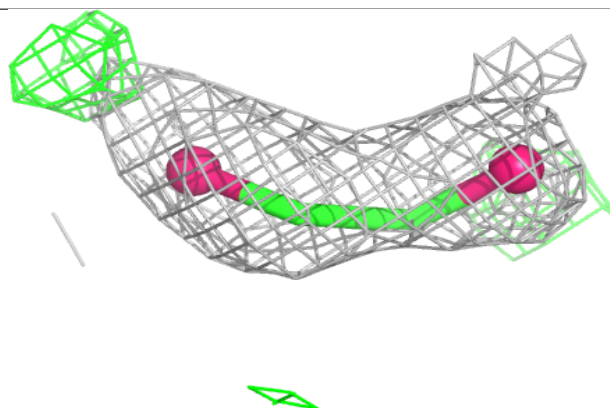
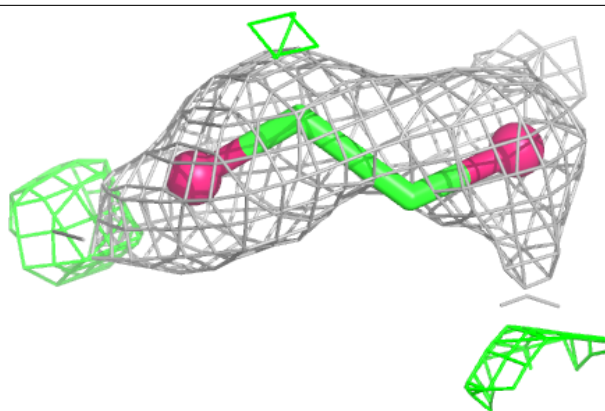
**Electron density around EDO S 1605:**

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

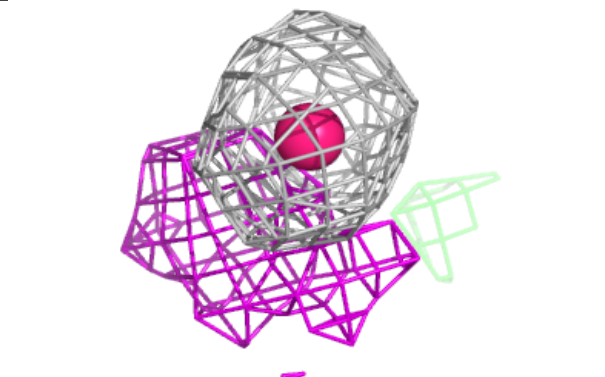
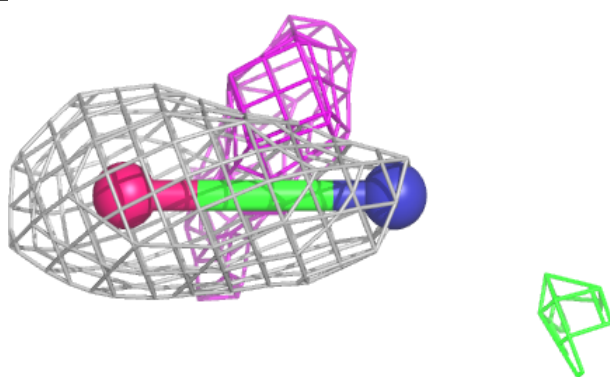
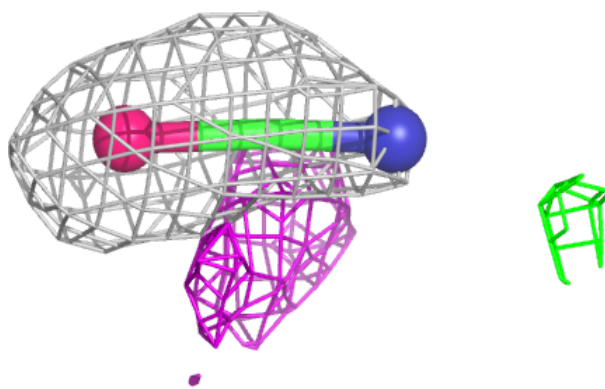


Electron density around EDO N 625:

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

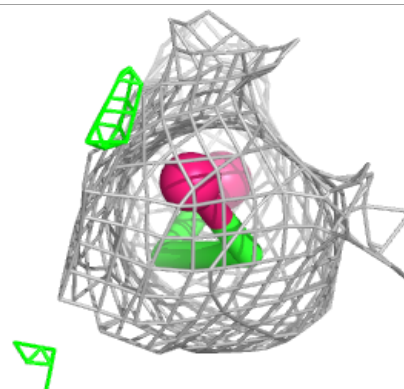
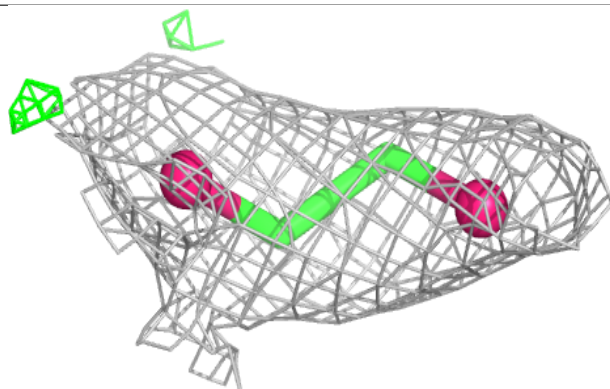
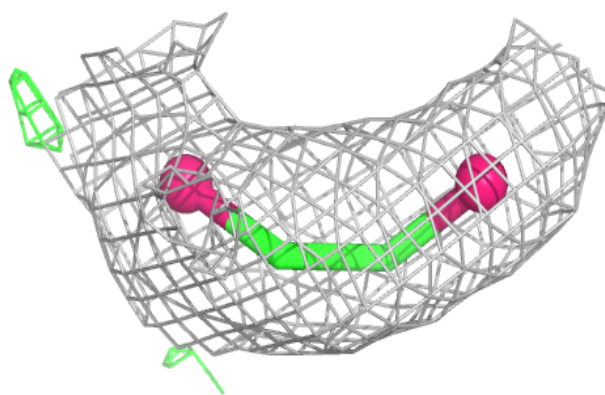
**Electron density around ONM N 616:**

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

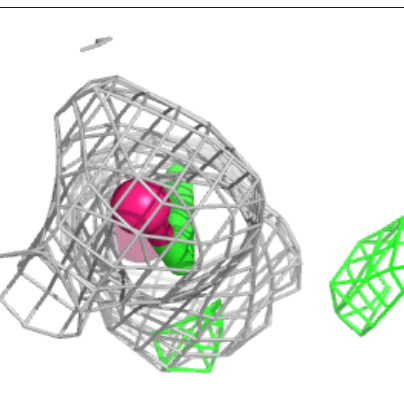
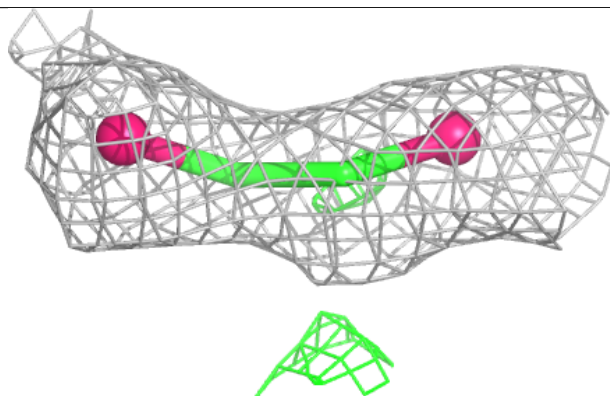
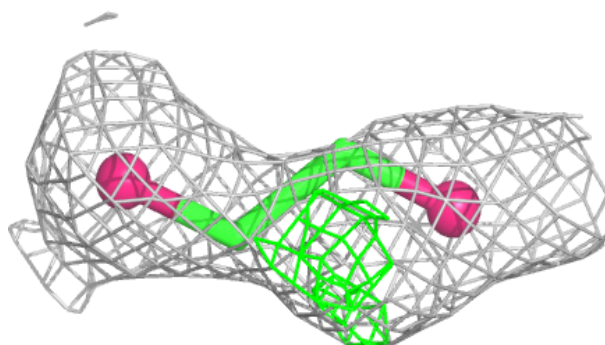


Electron density around EDO S 1607:

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

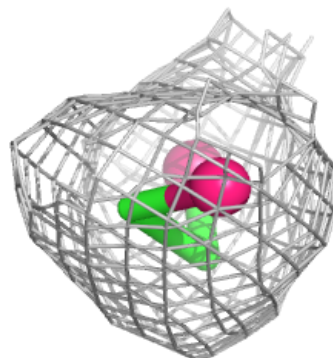
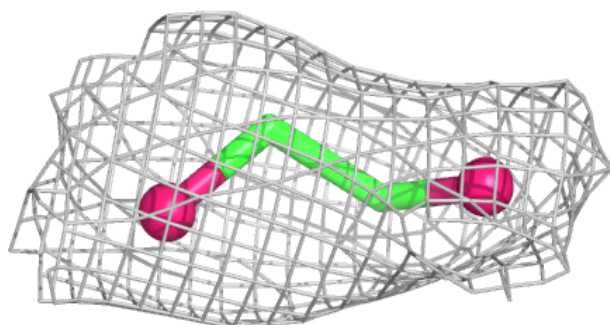
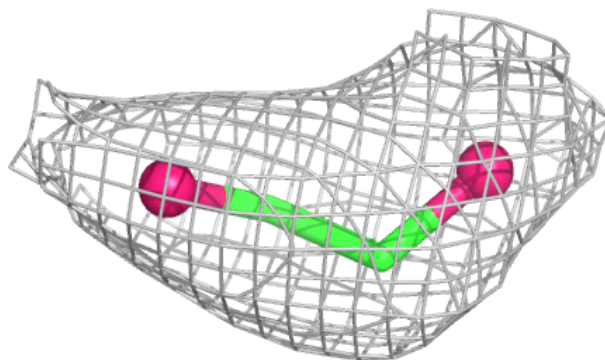
**Electron density around EDO C 315:**

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



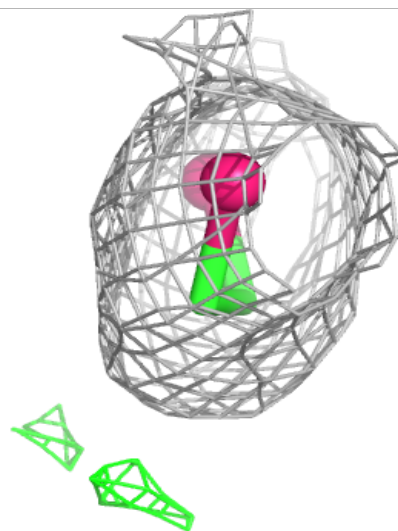
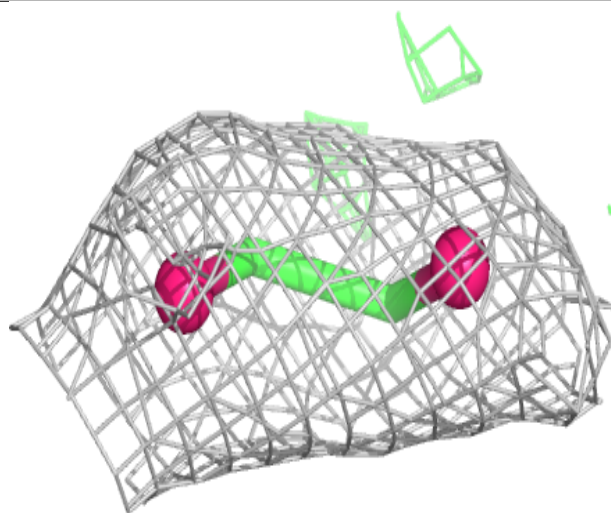
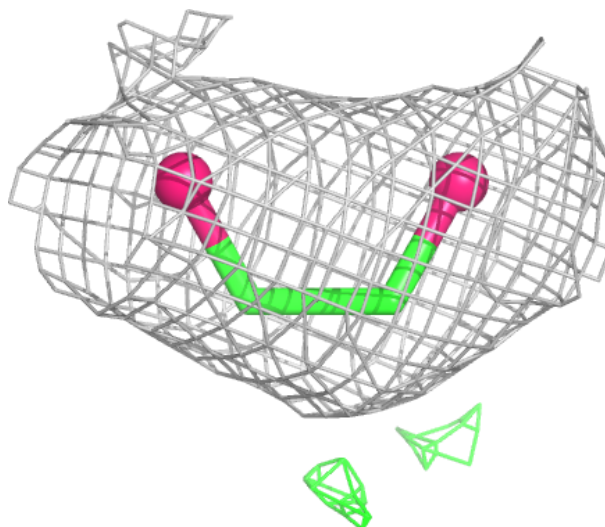
Electron density around EDO N 611:

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



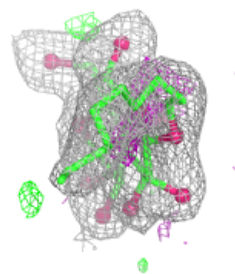
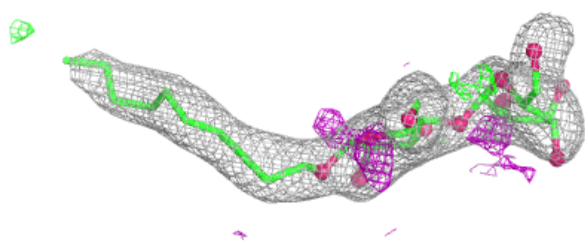
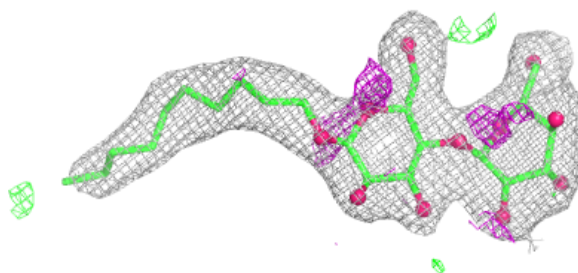
Electron density around EDO F 704:

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



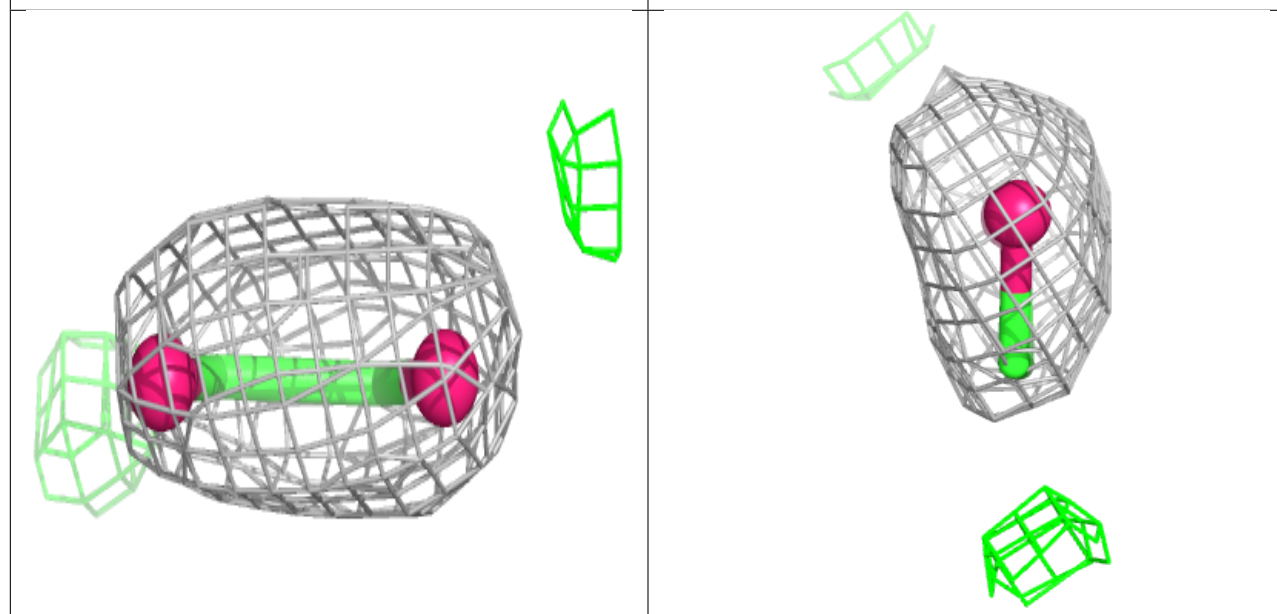
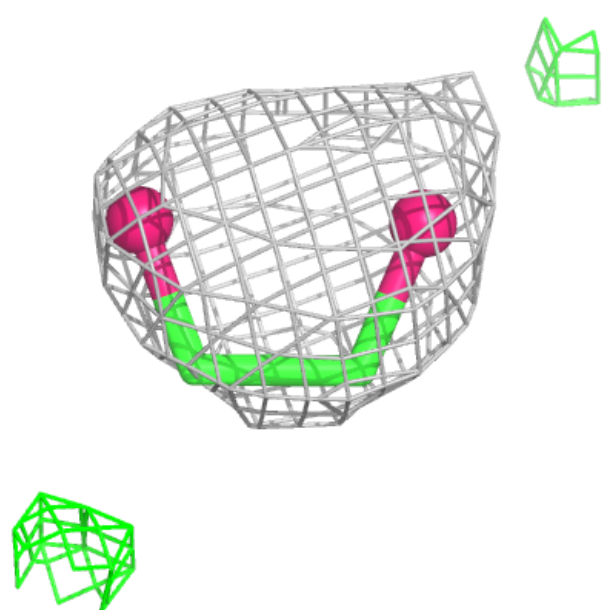
Electron density around DMU M 103:

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



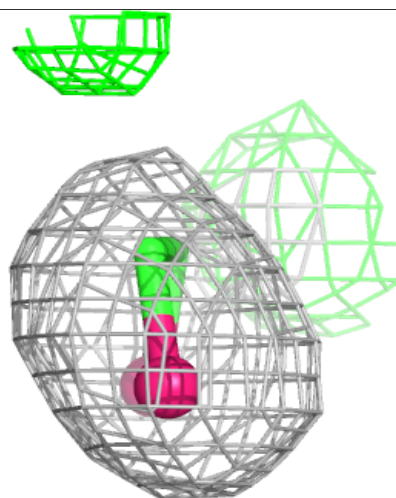
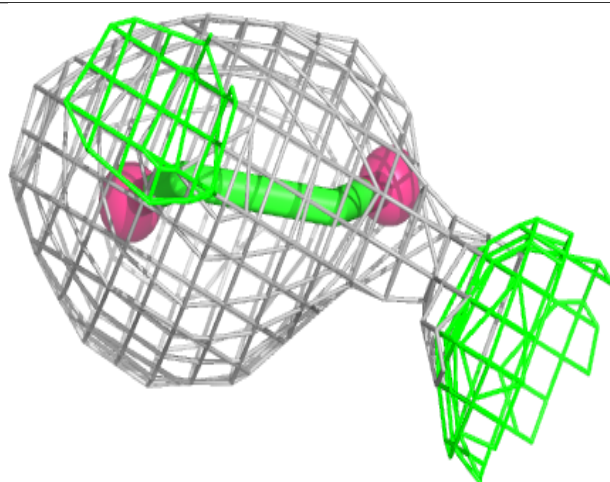
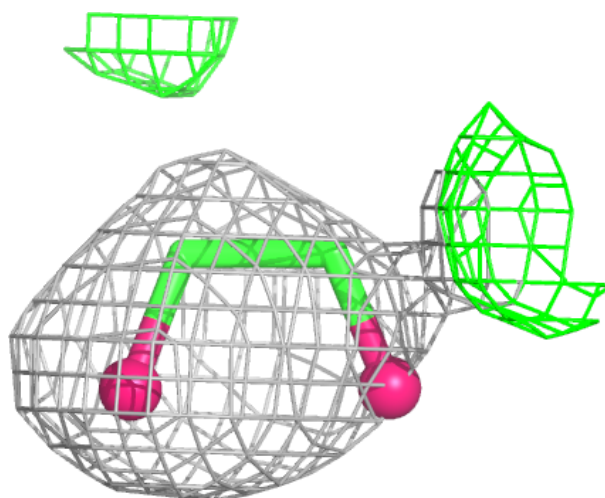
Electron density around EDO P 311:

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



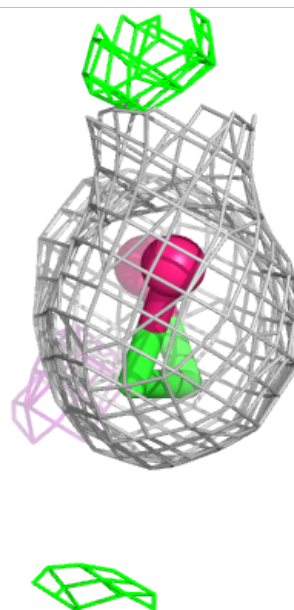
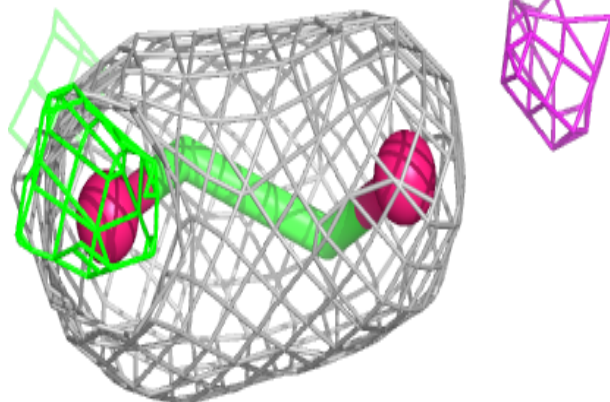
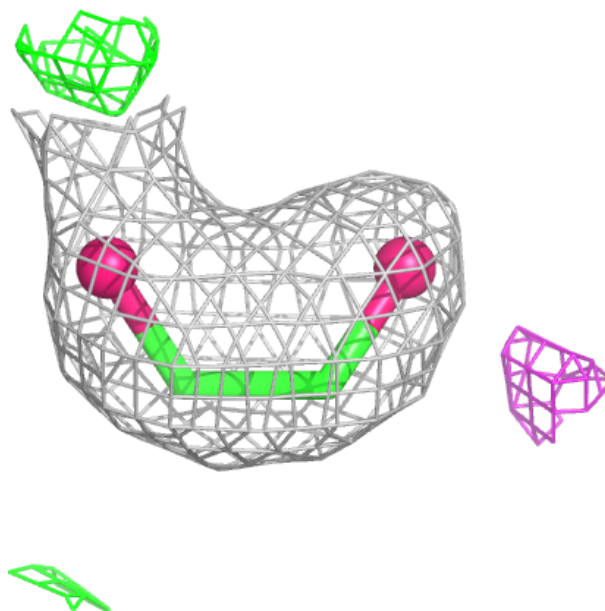
Electron density around EDO E 204:

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



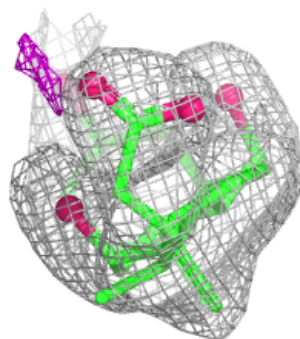
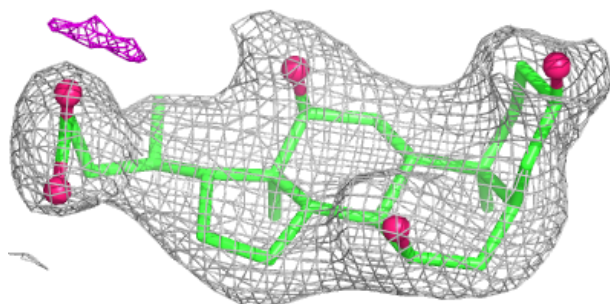
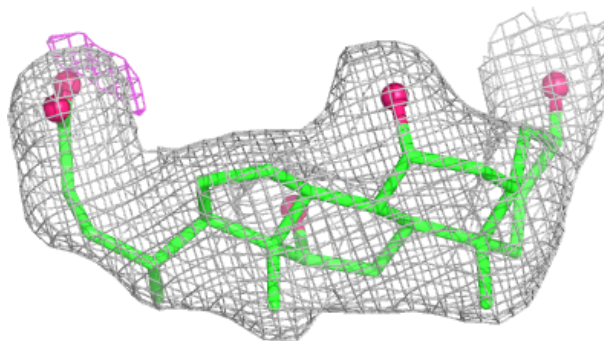
Electron density around EDO N 623:

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

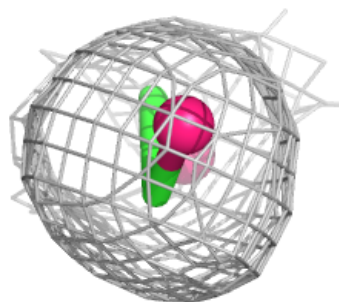
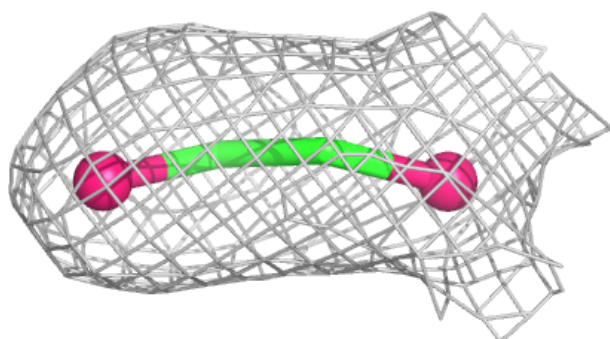
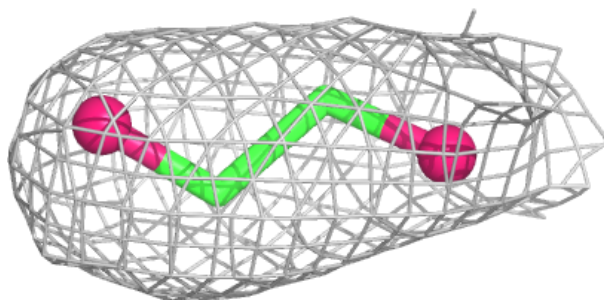


Electron density around CHD J 101:

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

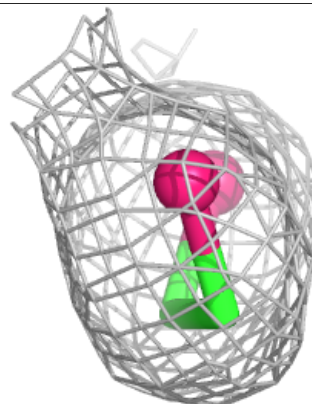
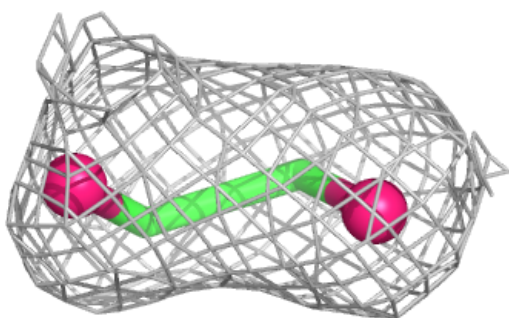
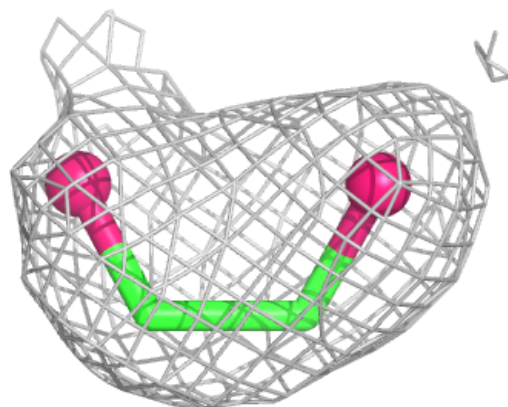
**Electron density around EDO N 624:**

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



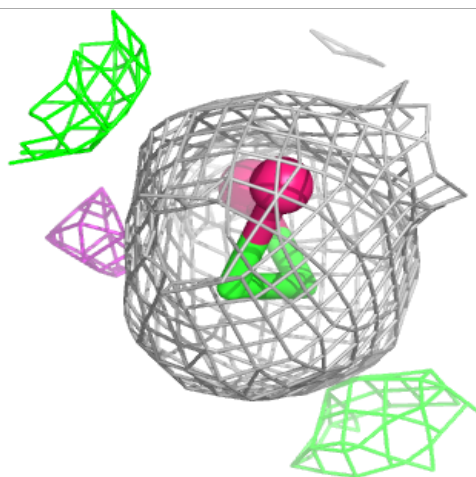
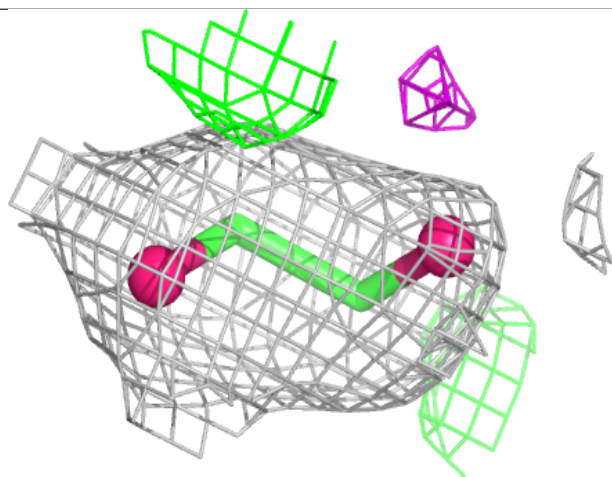
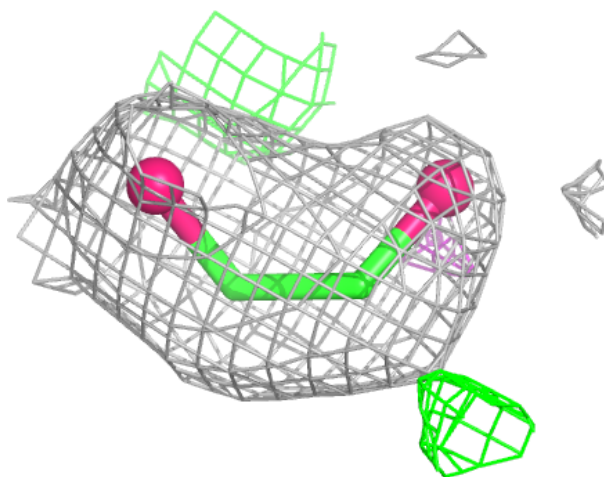
Electron density around EDO S 1601:

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



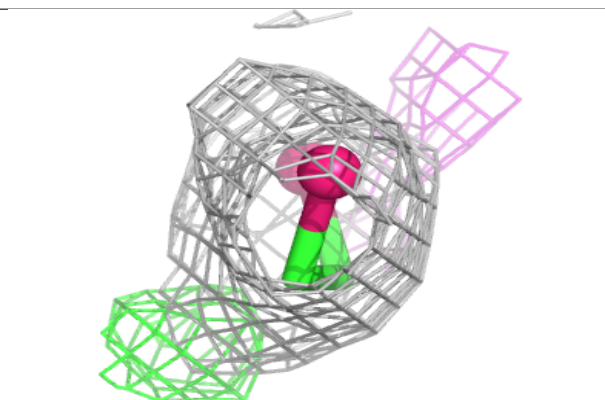
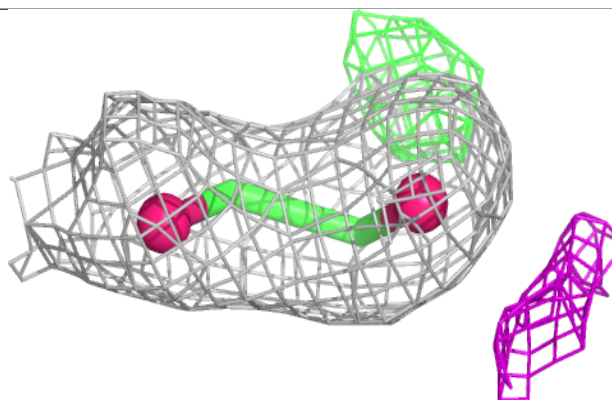
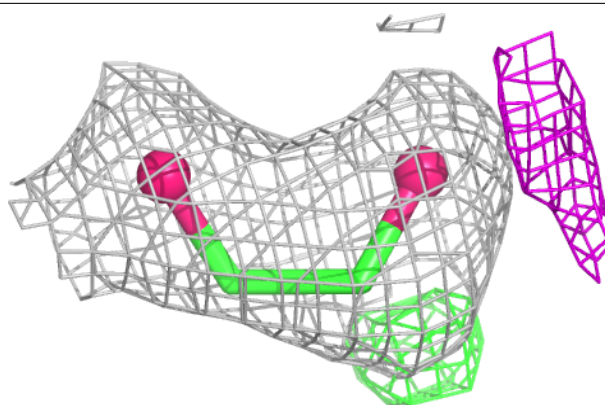
Electron density around EDO A 609:

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

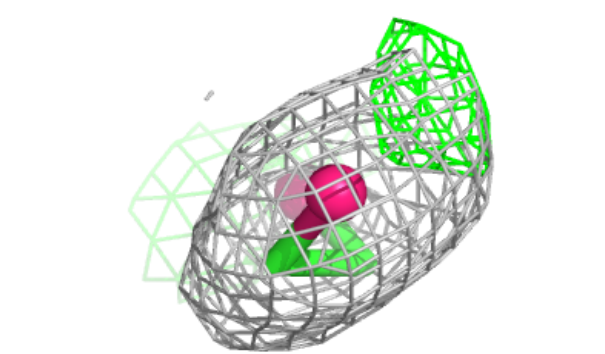
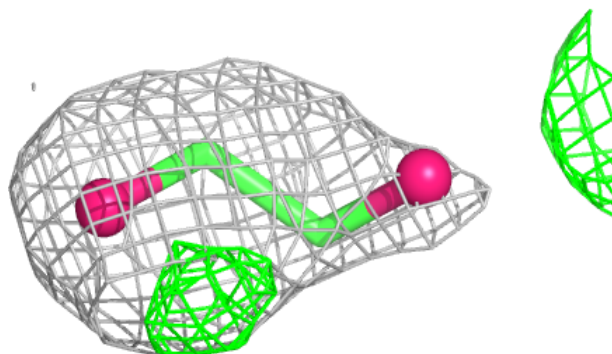
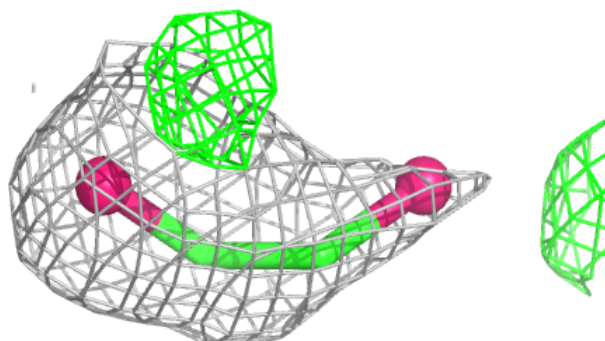


Electron density around EDO A 611:

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

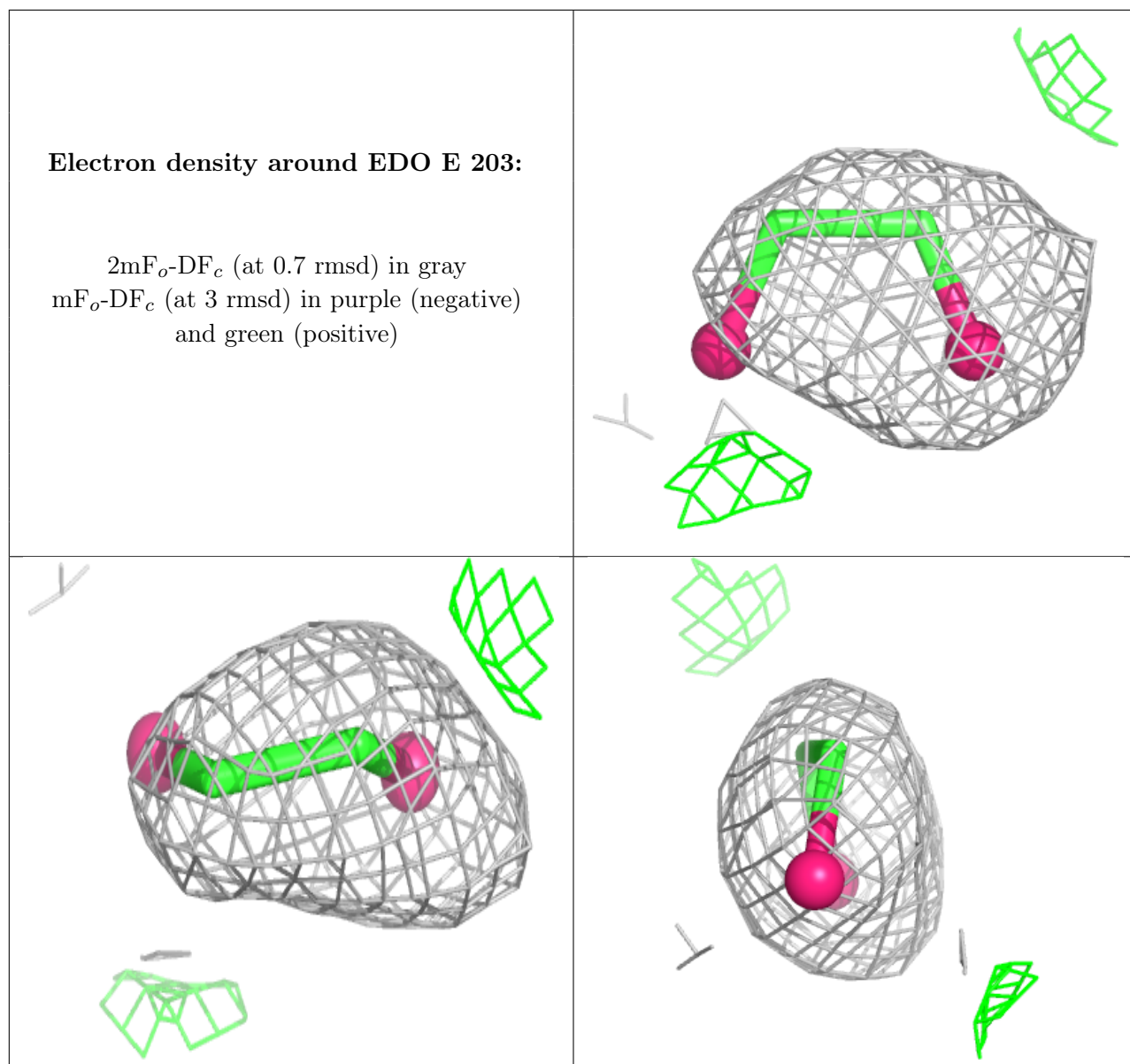
**Electron density around EDO N 620:**

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



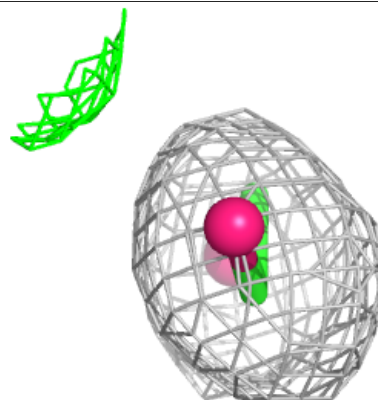
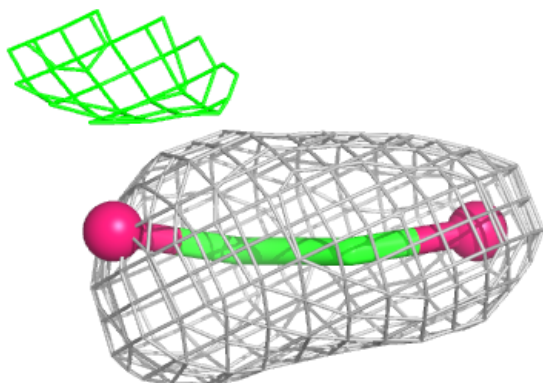
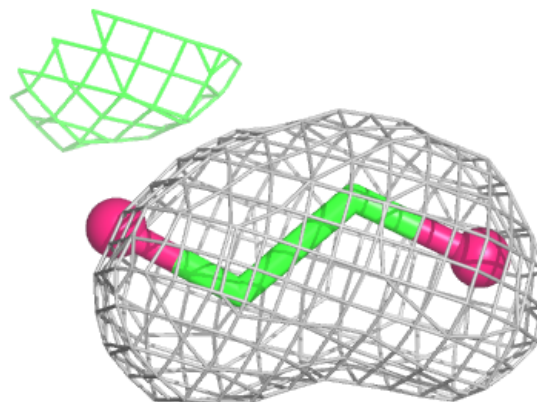
Electron density around EDO E 203:

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

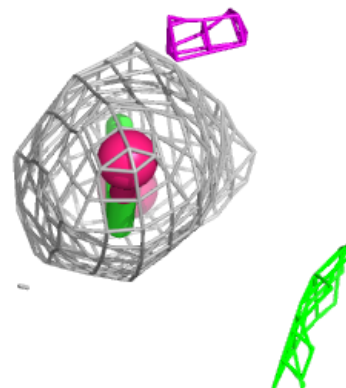
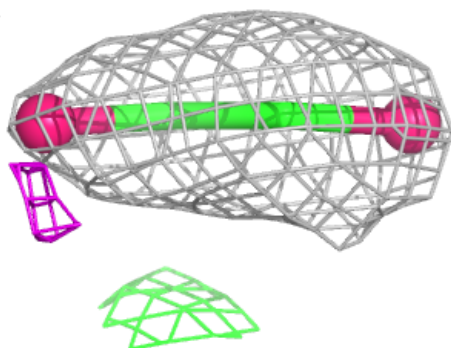
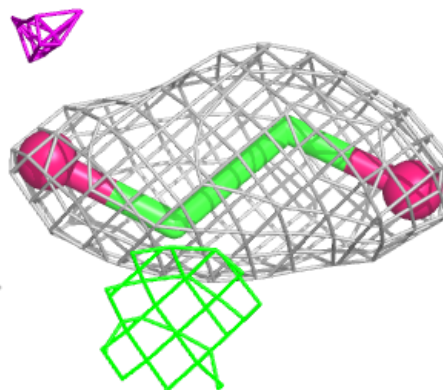


Electron density around EDO Q 1802:

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

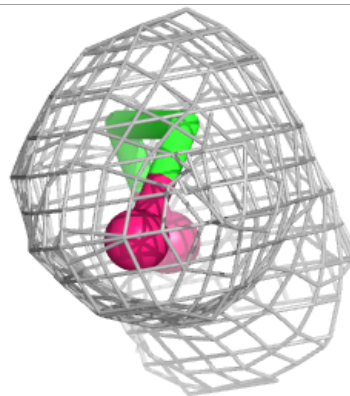
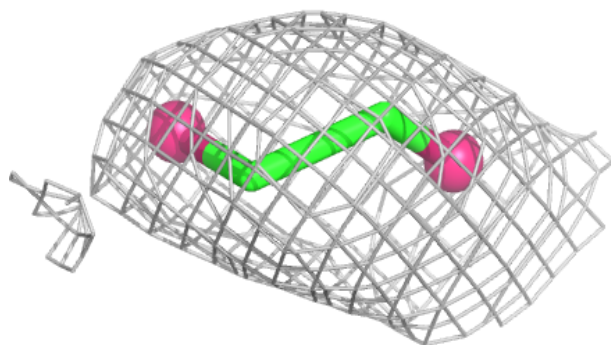
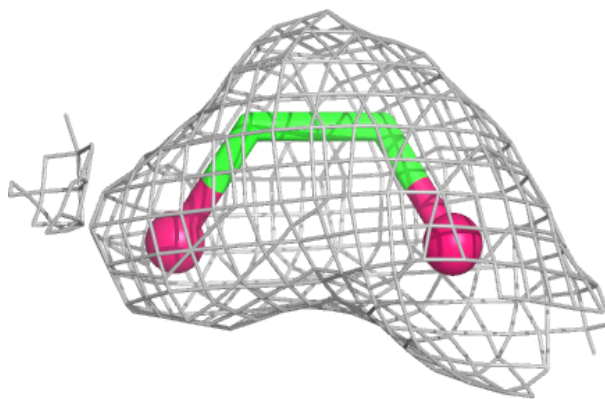
**Electron density around EDO A 612:**

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



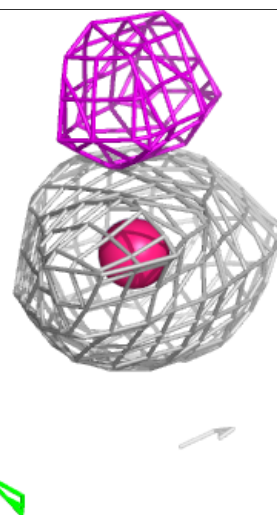
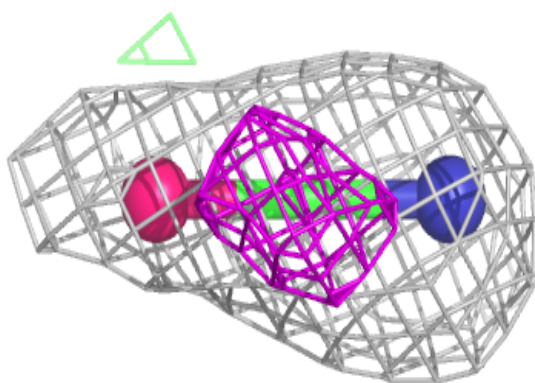
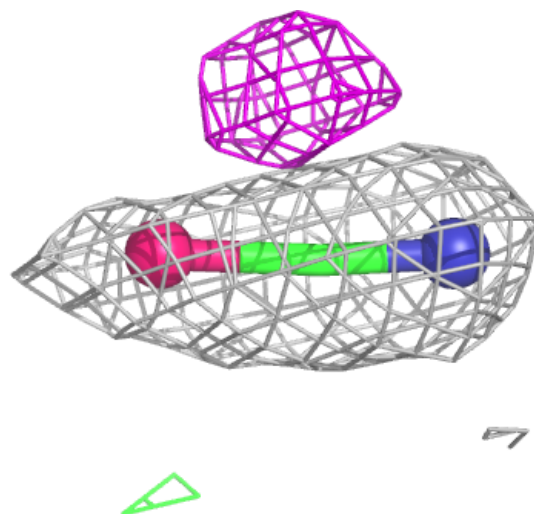
Electron density around EDO B 307:

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



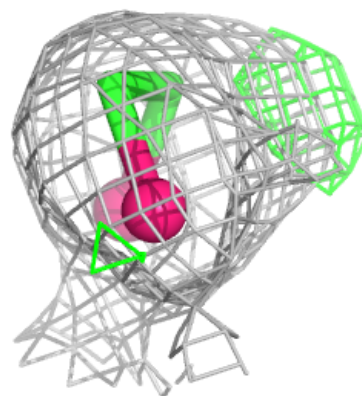
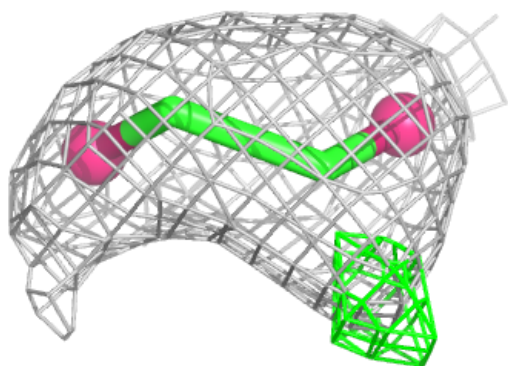
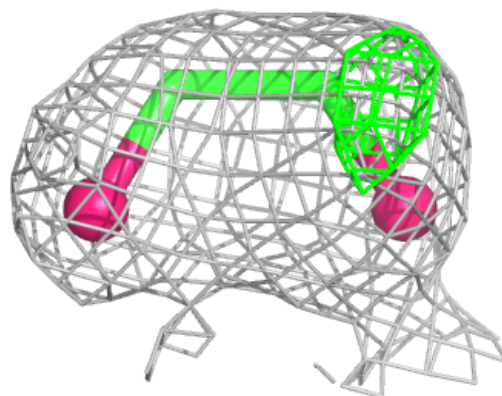
Electron density around 0NM C 312:

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

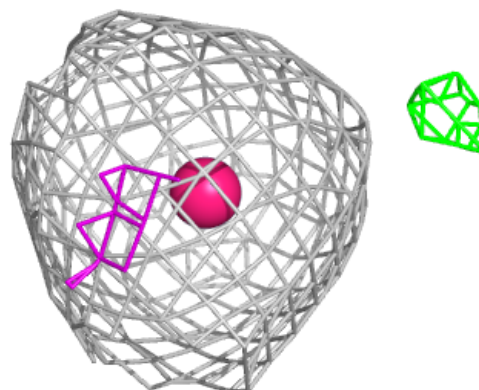
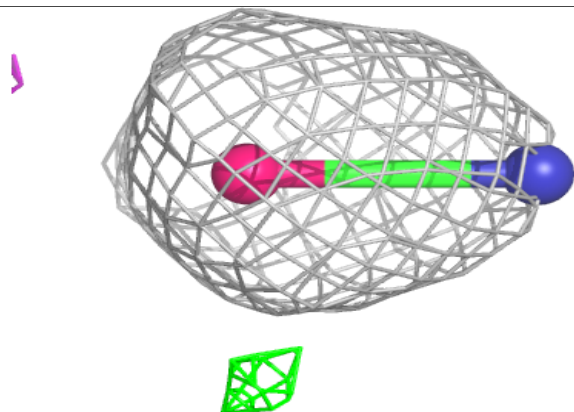
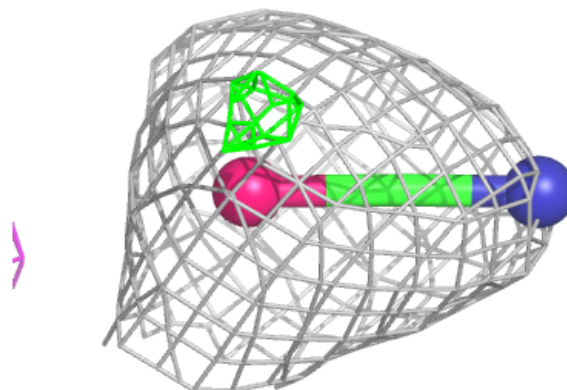


Electron density around EDO F 705:

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

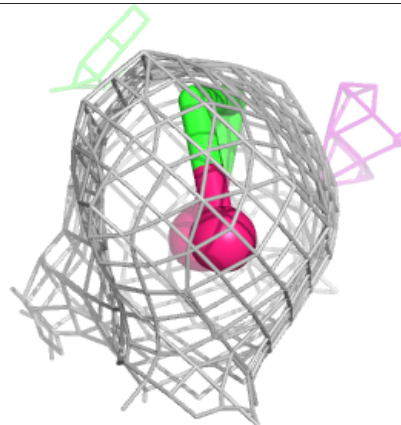
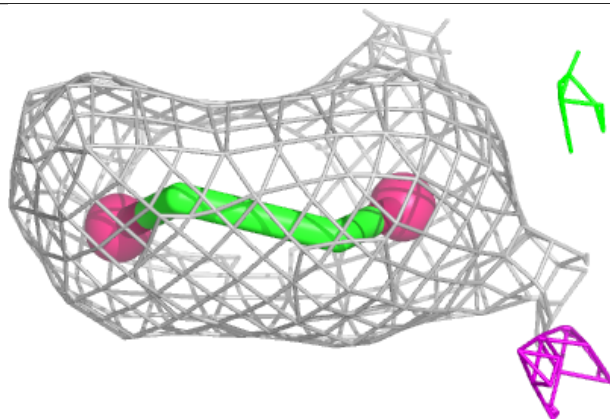
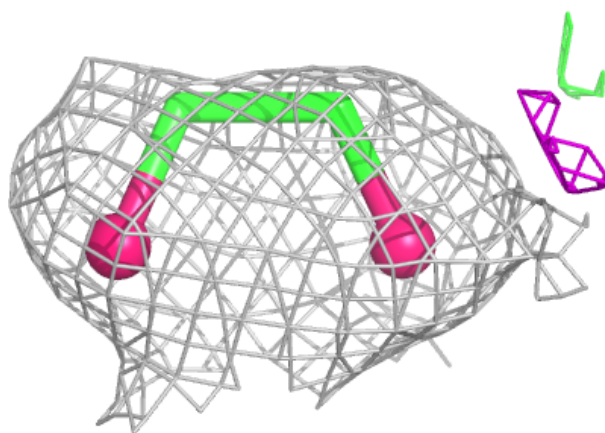
**Electron density around 0NM N 617:**

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

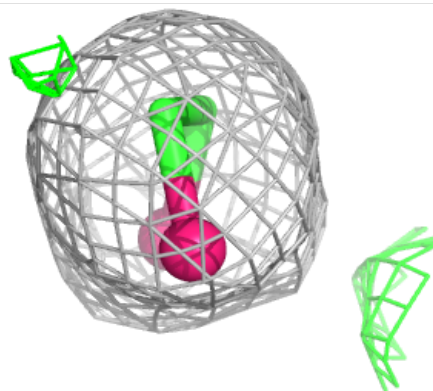
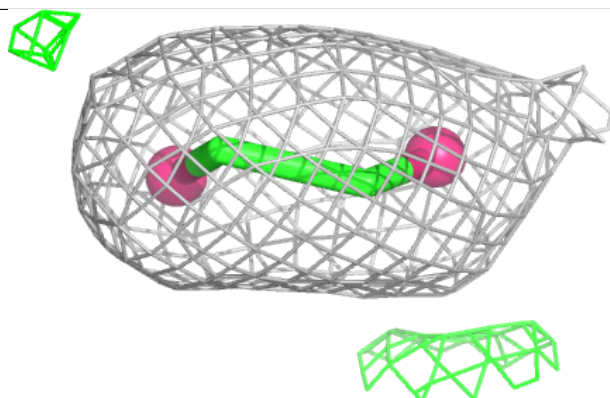
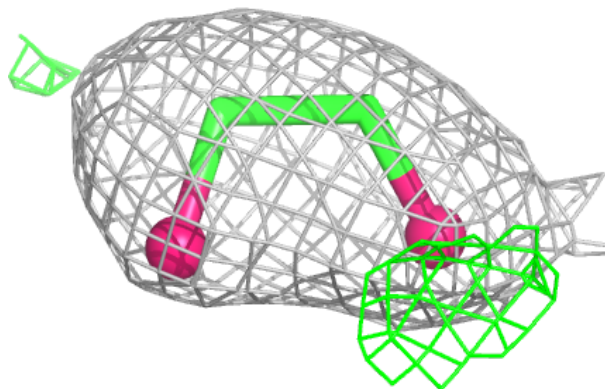


Electron density around EDO L 501:

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

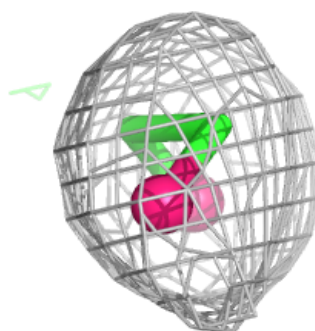
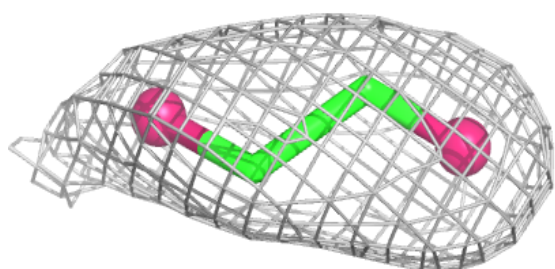
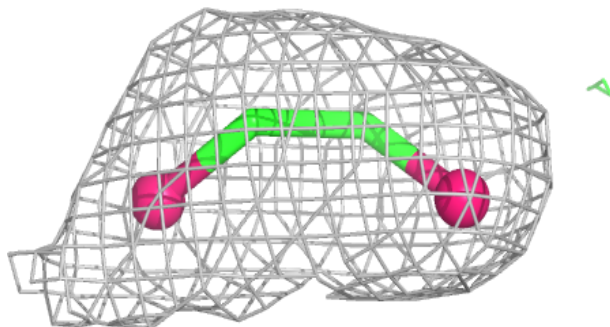
**Electron density around EDO P 313:**

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

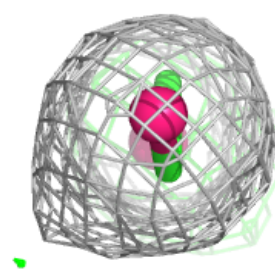
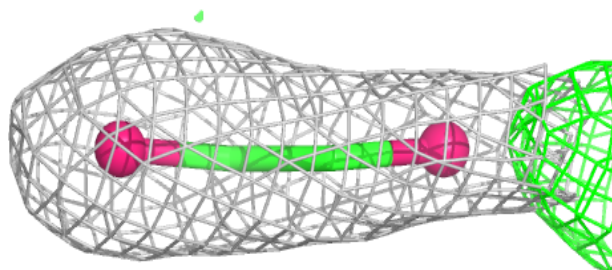
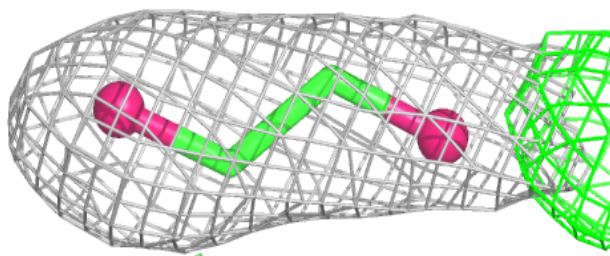


Electron density around EDO C 311:

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

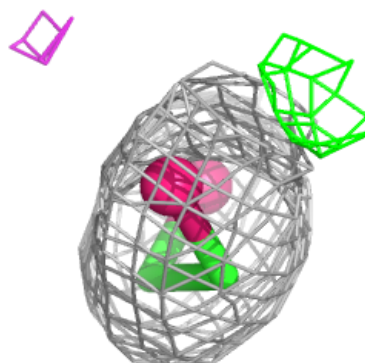
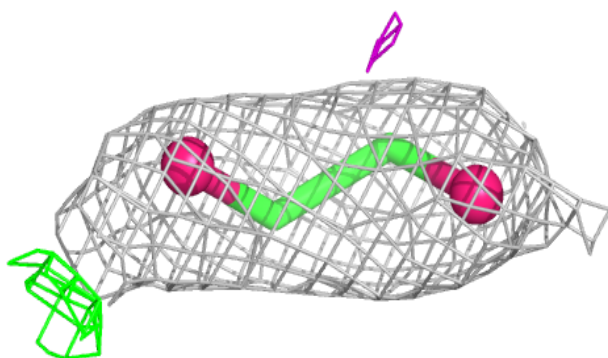
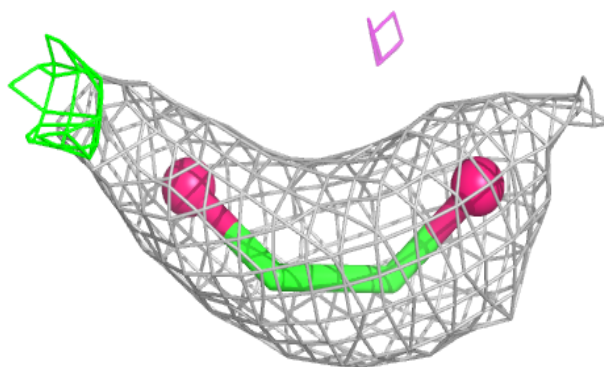
**Electron density around EDO C 314:**

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

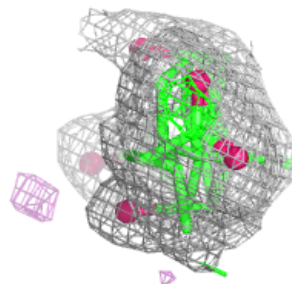
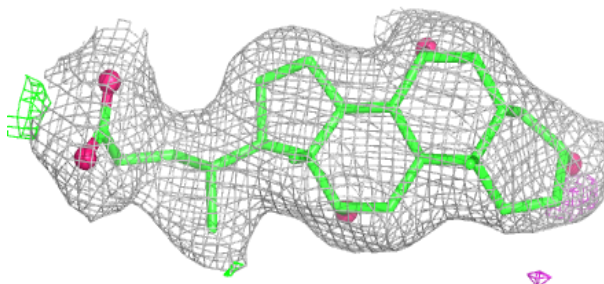


Electron density around EDO N 609:

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

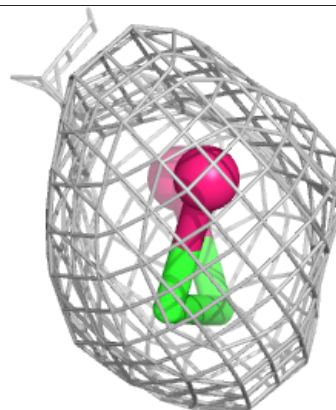
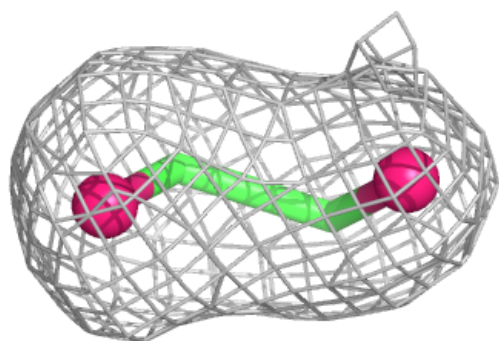
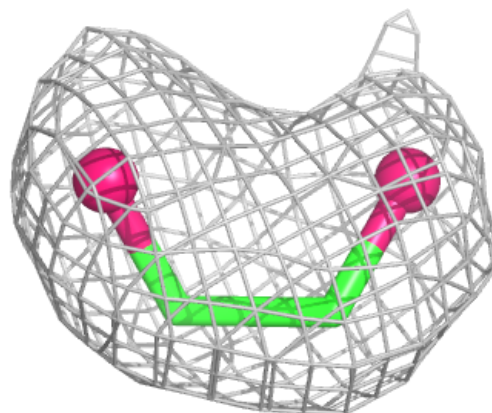
**Electron density around CHD P 309:**

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

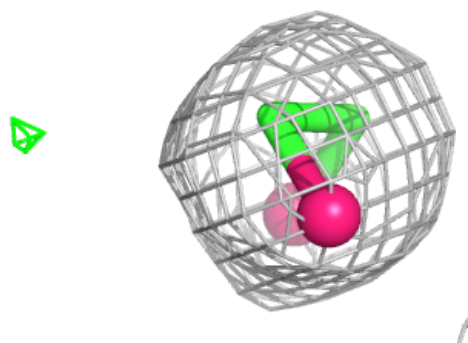
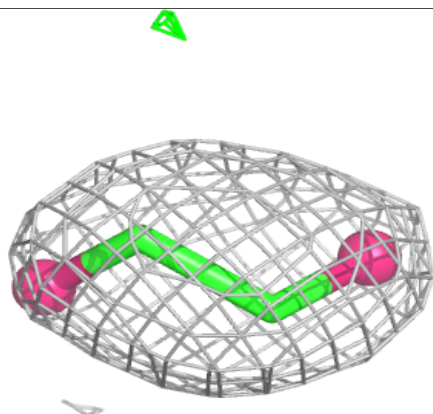
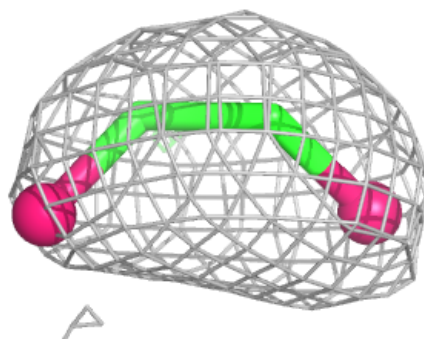


Electron density around EDO R 201:

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

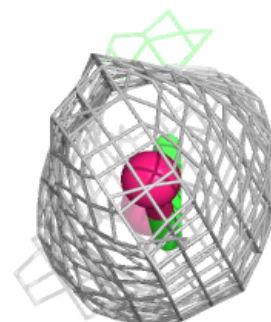
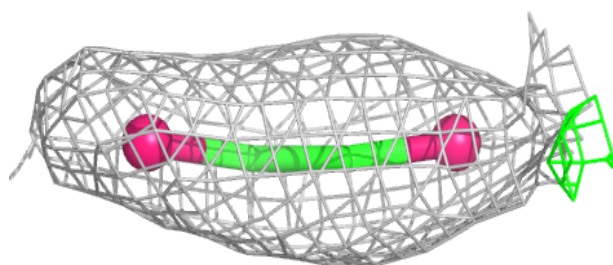
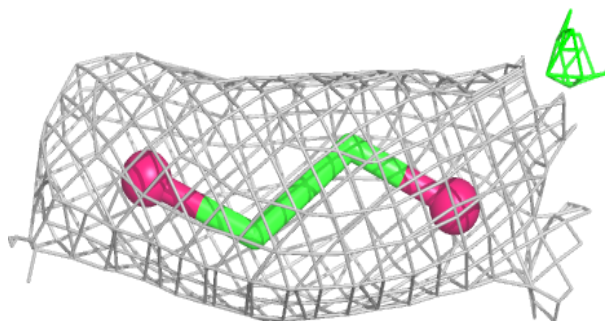
**Electron density around EDO D 203:**

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

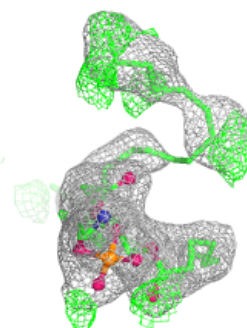
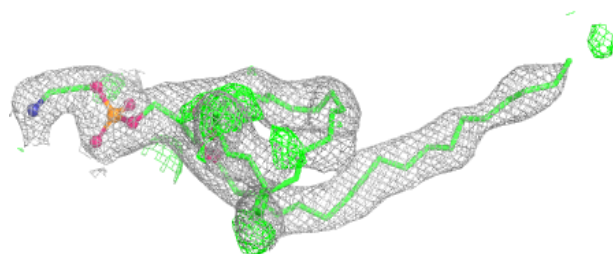
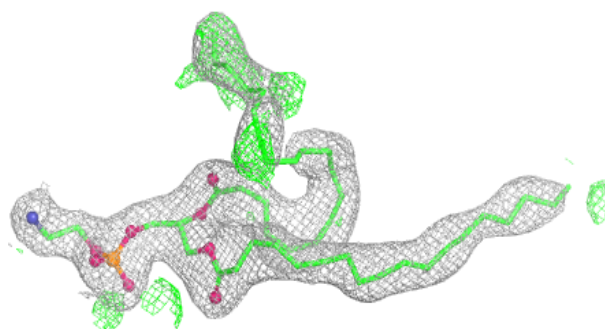


Electron density around EDO I 103:

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

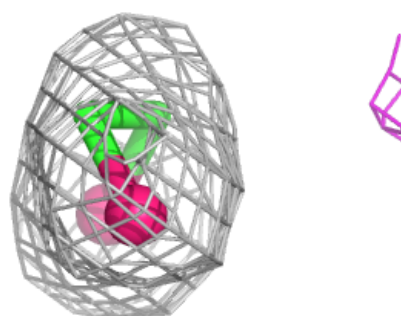
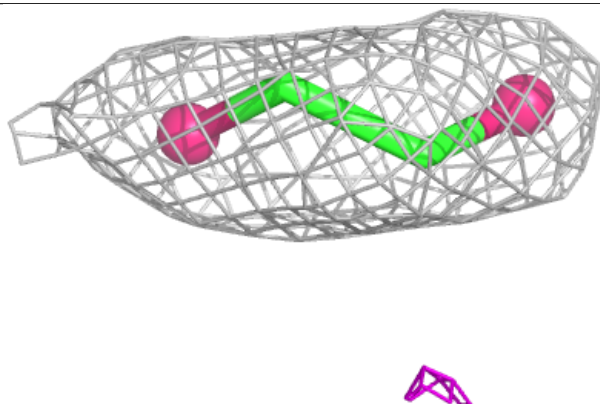
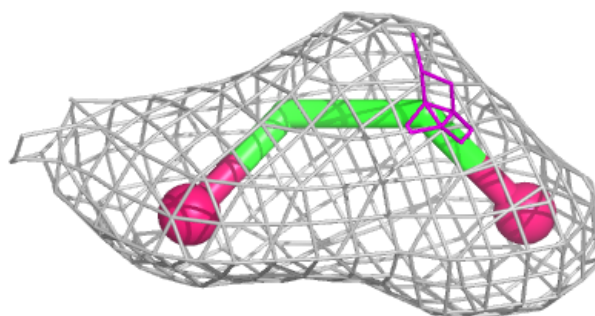
**Electron density around PEK P 304:**

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

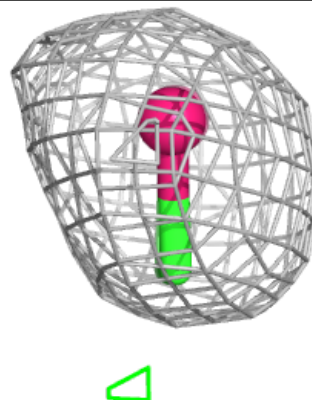
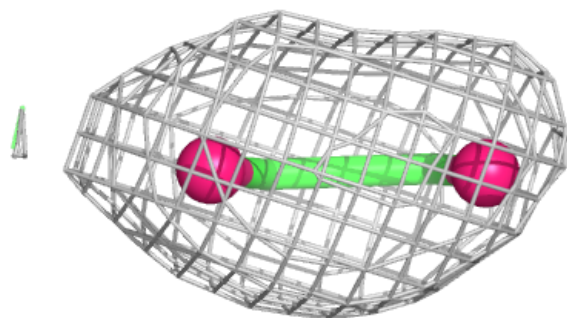
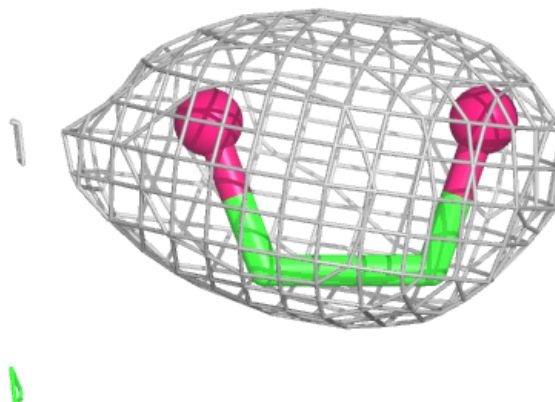


Electron density around EDO A 618:

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

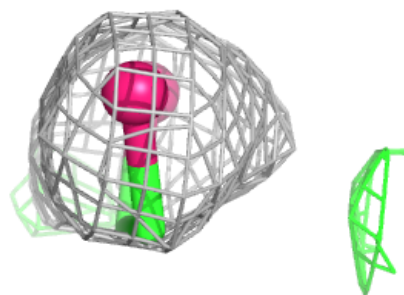
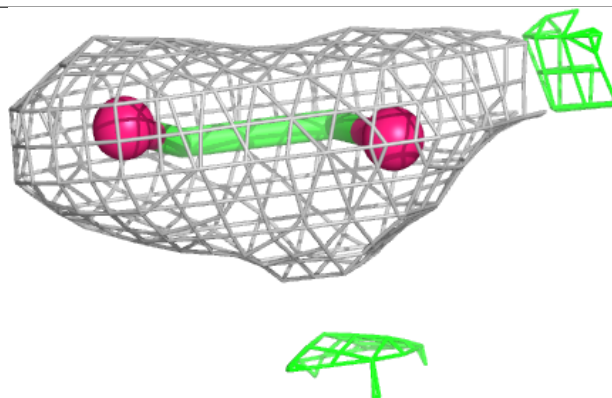
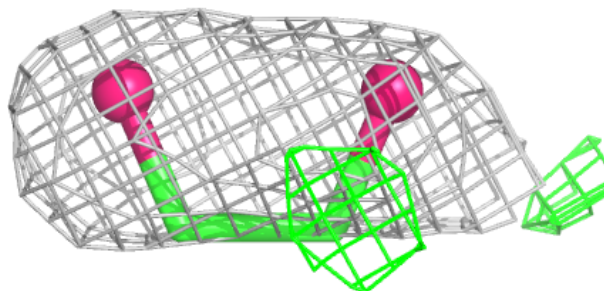
**Electron density around EDO W 301:**

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



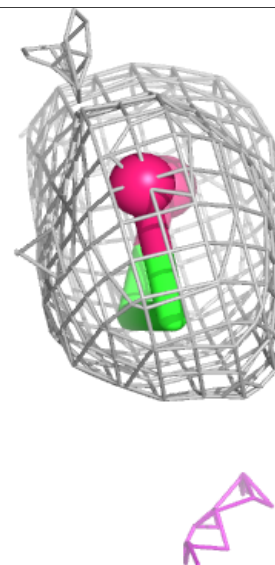
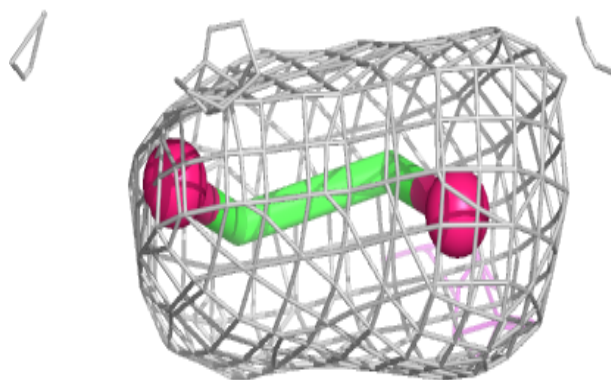
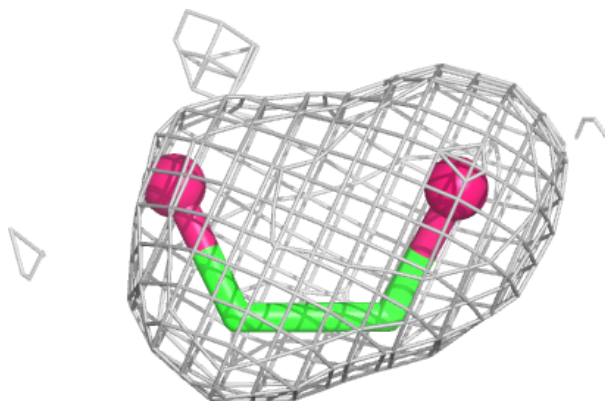
Electron density around EDO W 303:

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



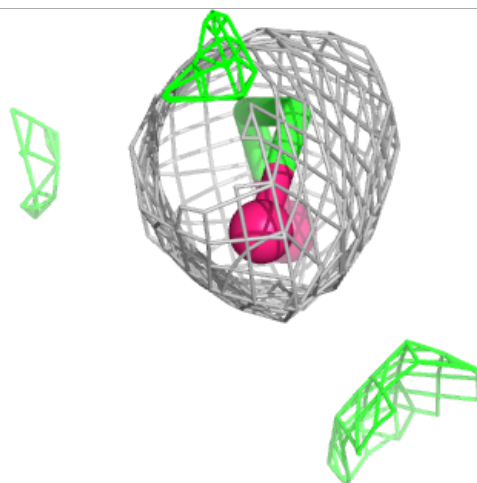
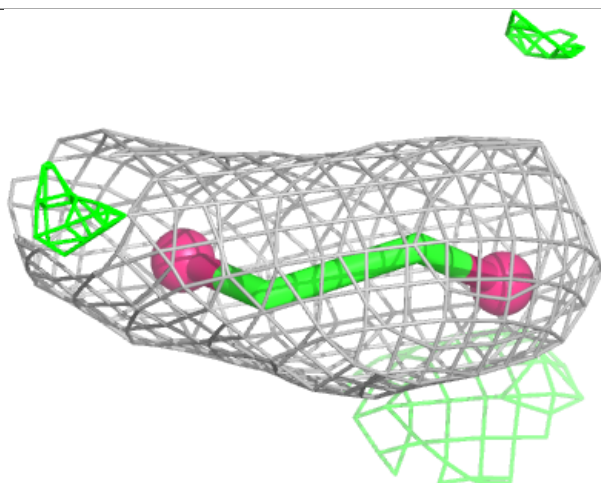
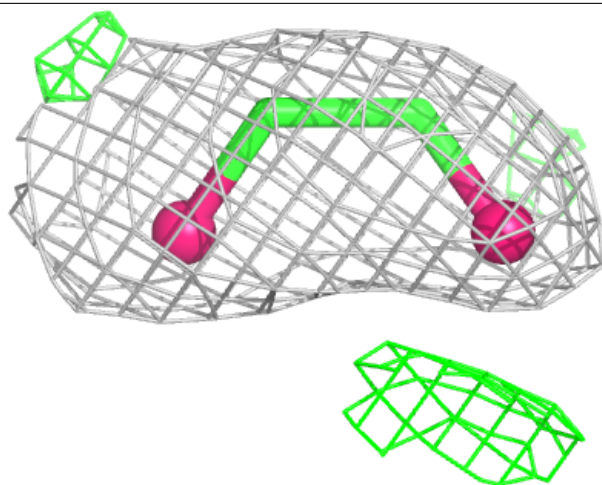
Electron density around EDO J 103:

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



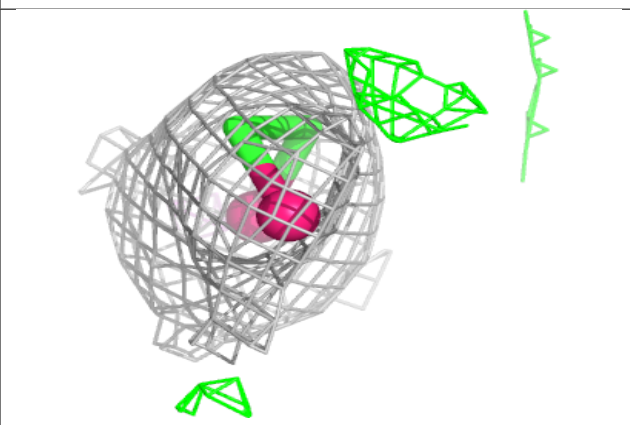
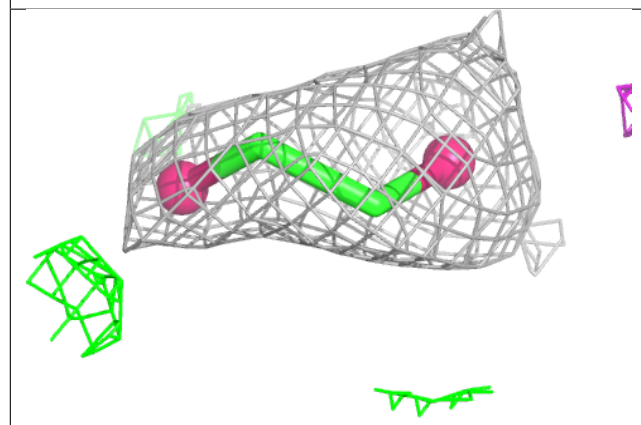
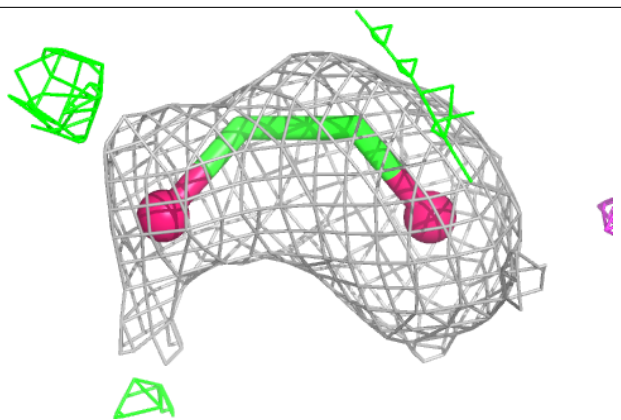
Electron density around EDO B 309:

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

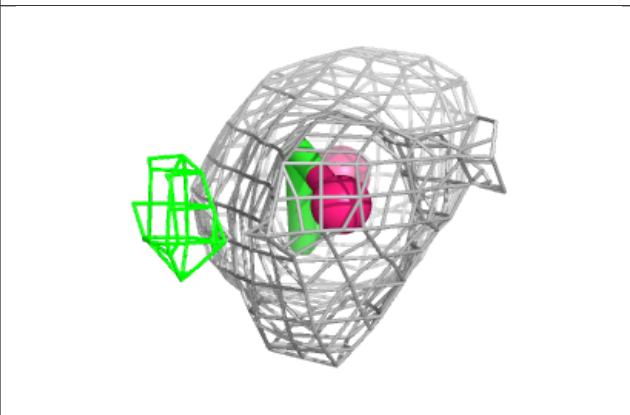
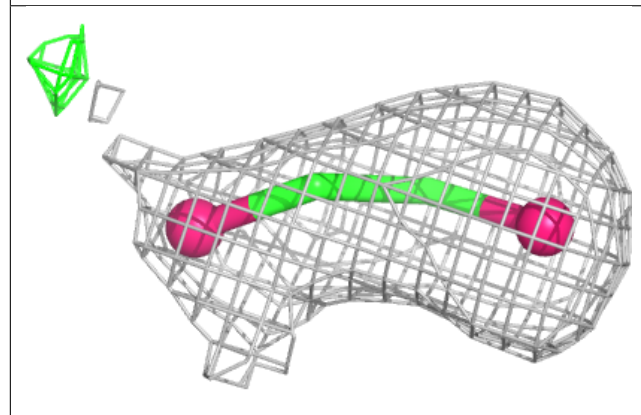
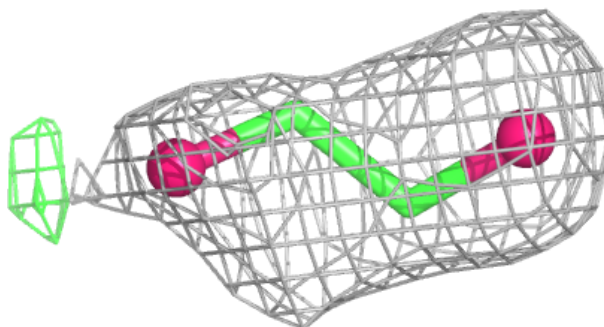


Electron density around EDO N 614:

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

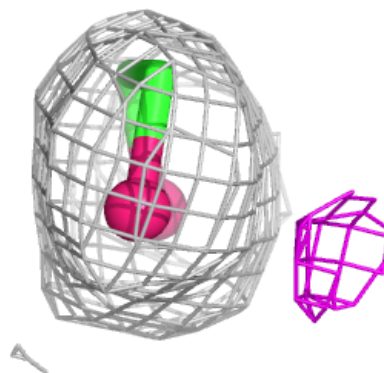
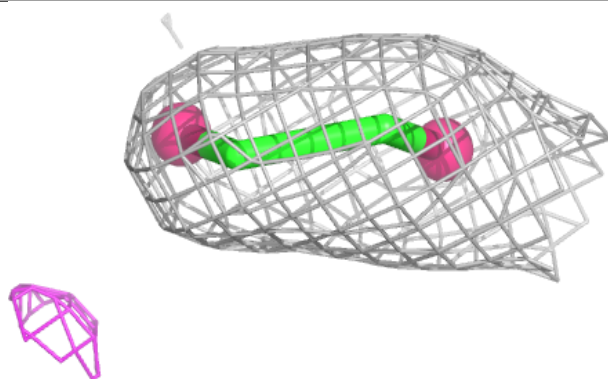
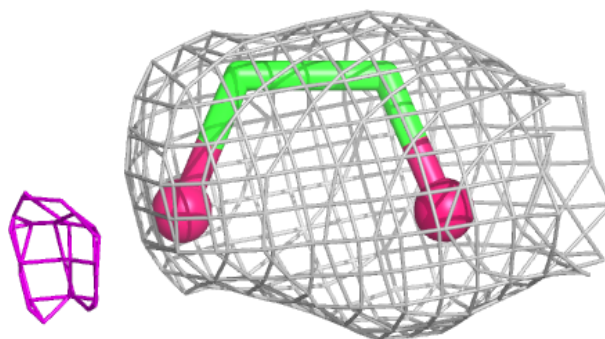
**Electron density around EDO B 310:**

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

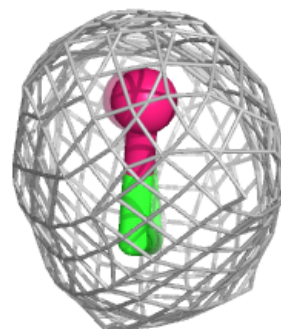
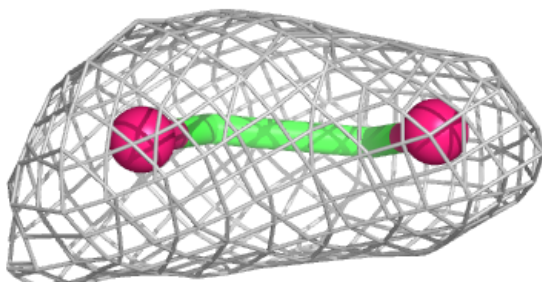
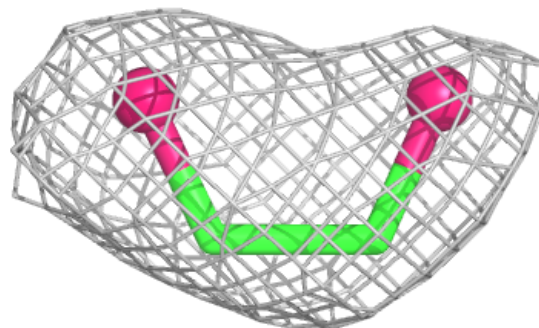


Electron density around EDO D 202:

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

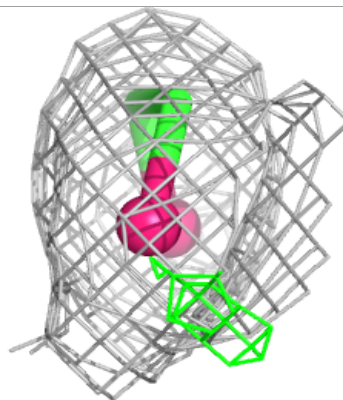
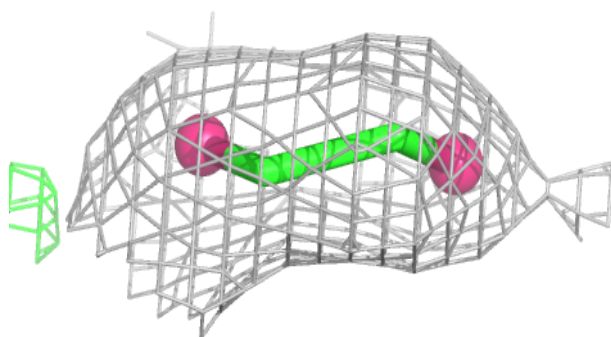
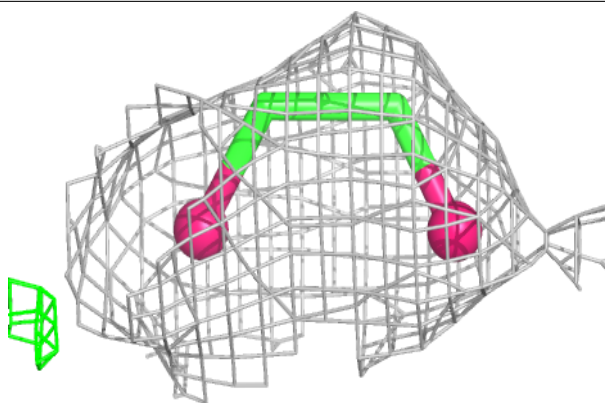
**Electron density around EDO F 708:**

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

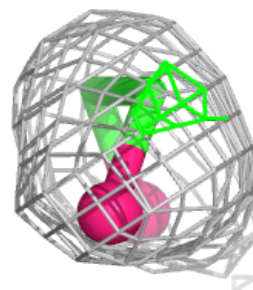
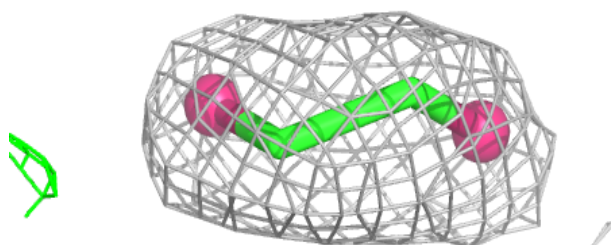
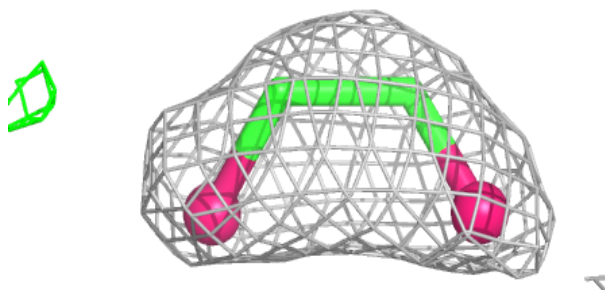


Electron density around EDO M 102:

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

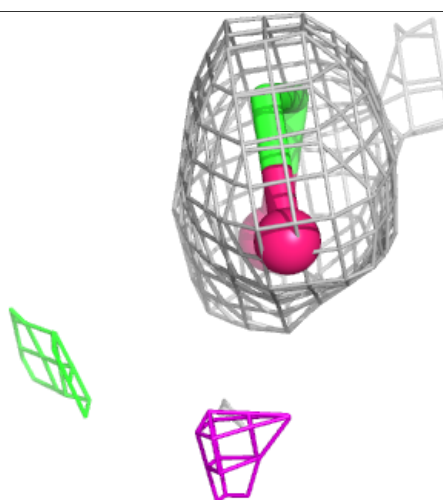
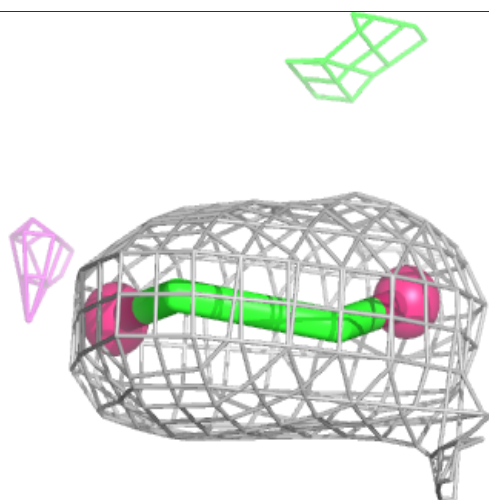
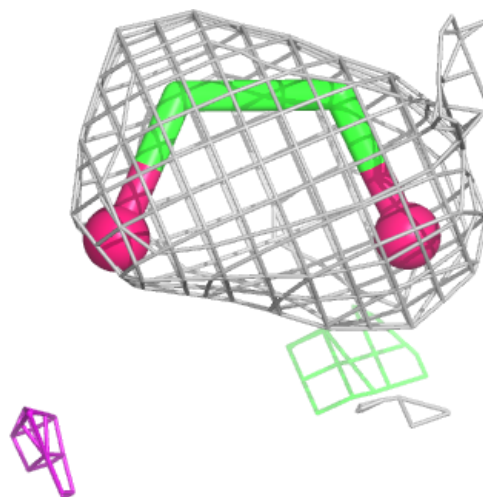
**Electron density around EDO O 303:**

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



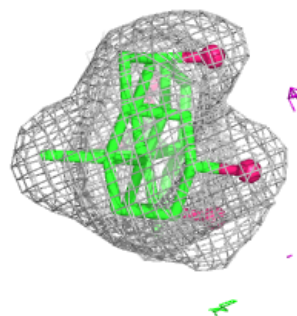
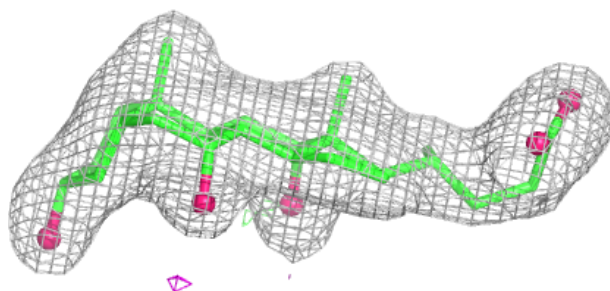
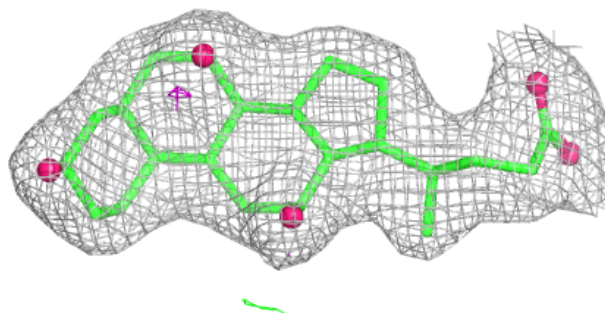
Electron density around EDO O 304:

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

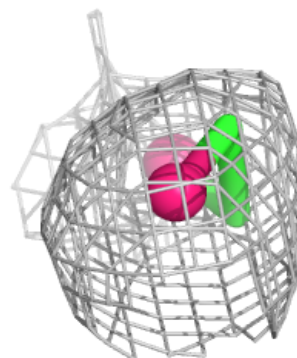
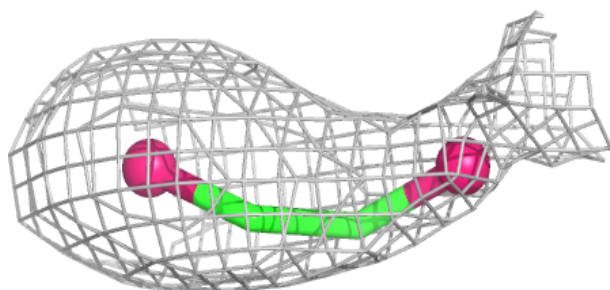
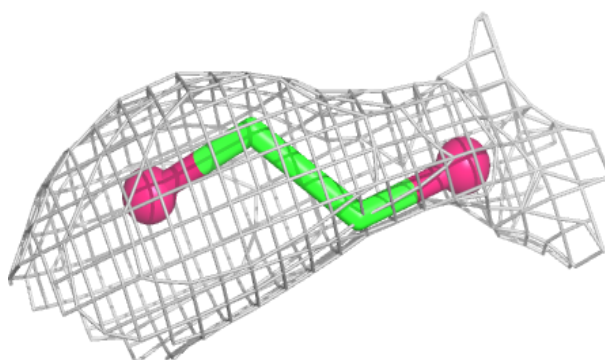


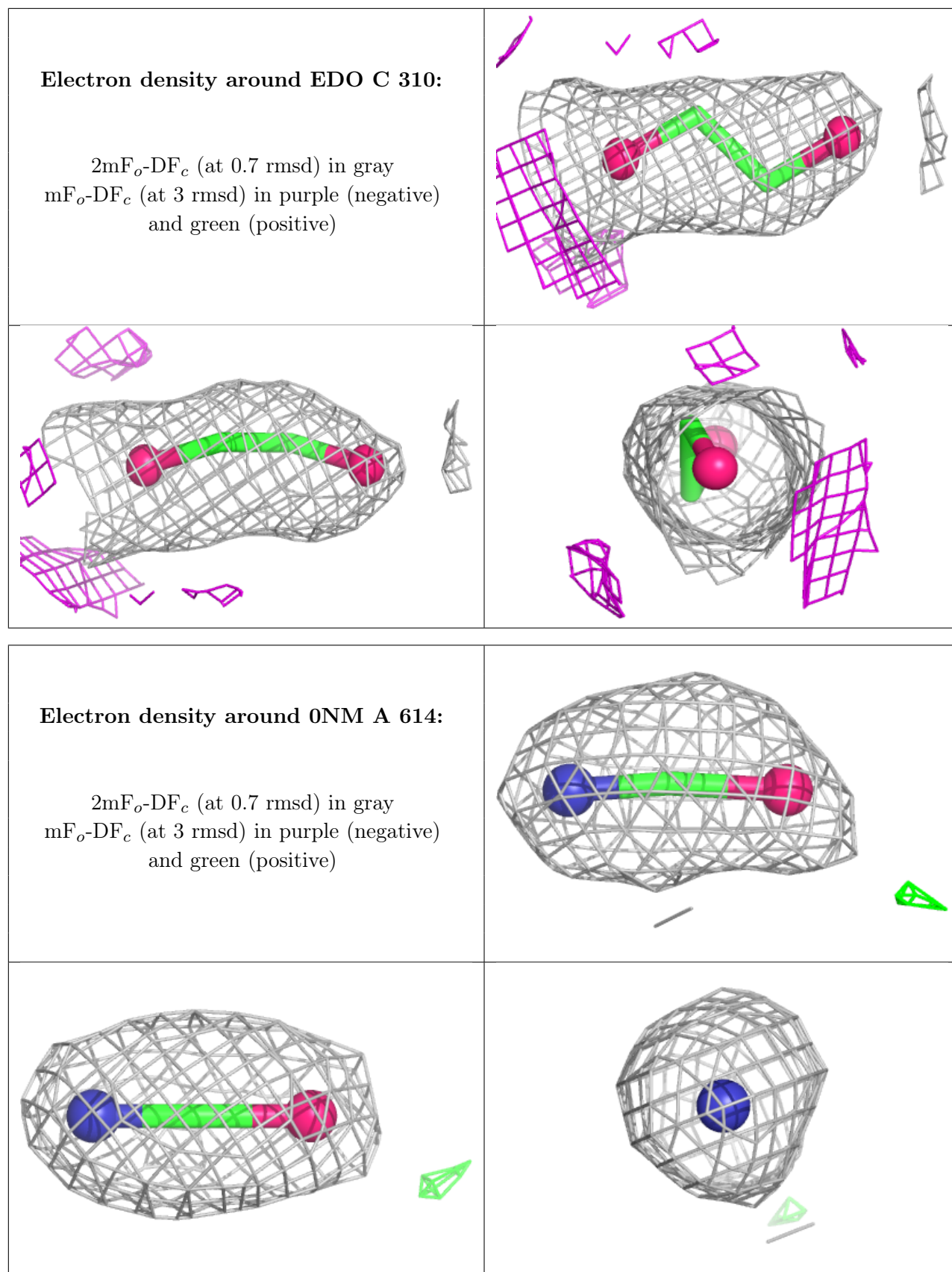
Electron density around CHD C 307:

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

**Electron density around EDO P 310:**

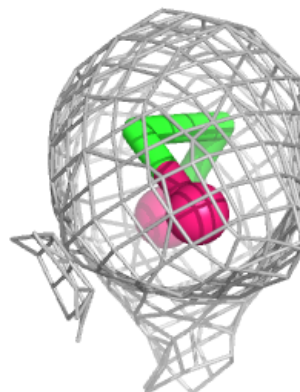
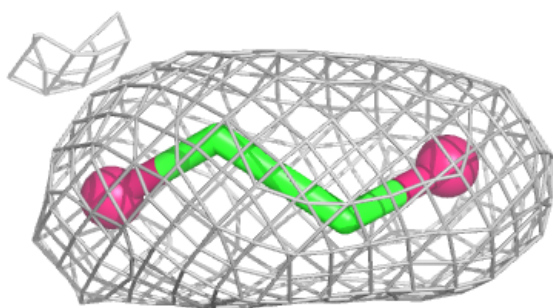
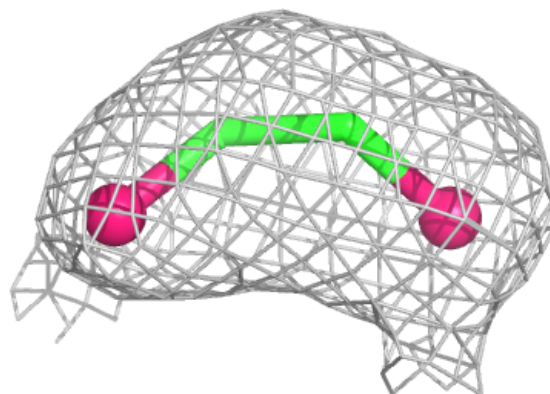
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



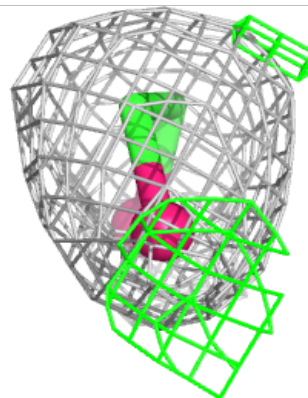
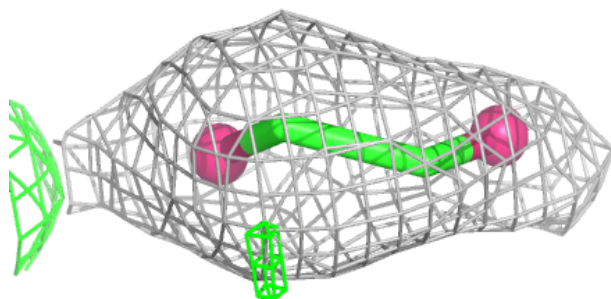
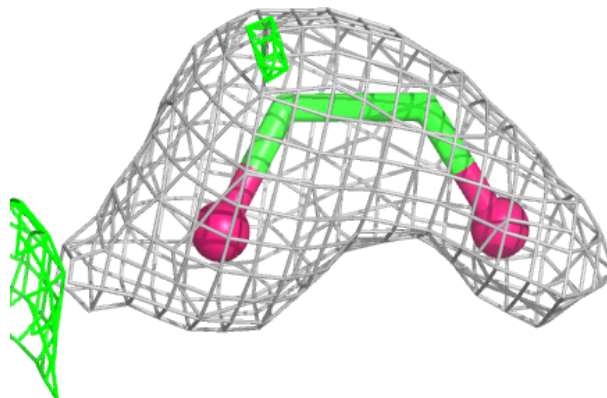


Electron density around EDO A 617:

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

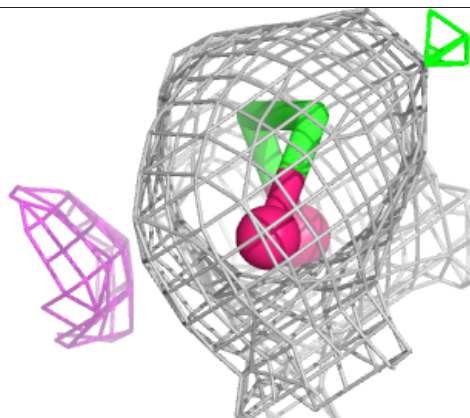
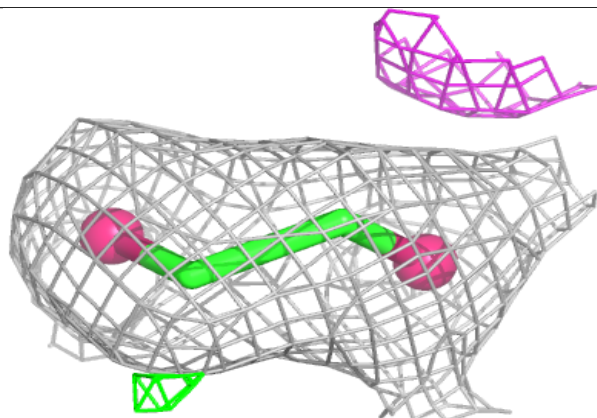
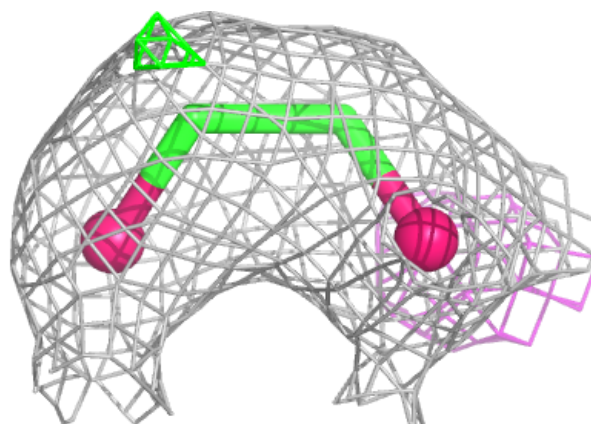
**Electron density around EDO A 607:**

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

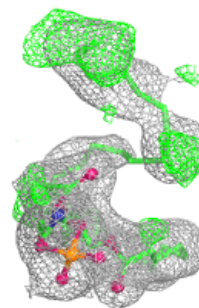
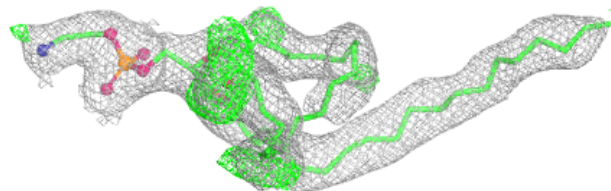
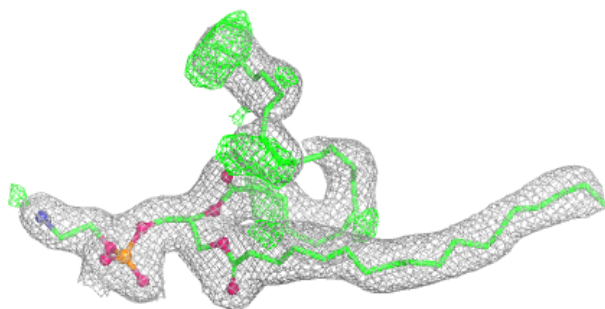


Electron density around EDO F 707:

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

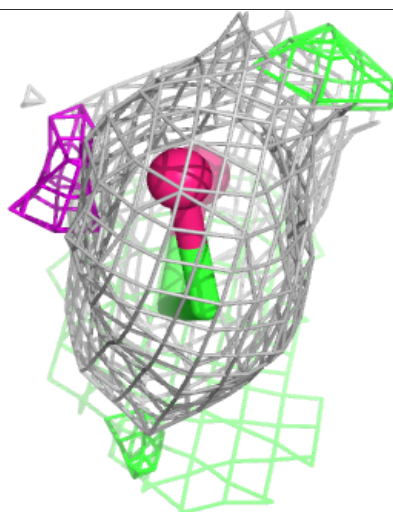
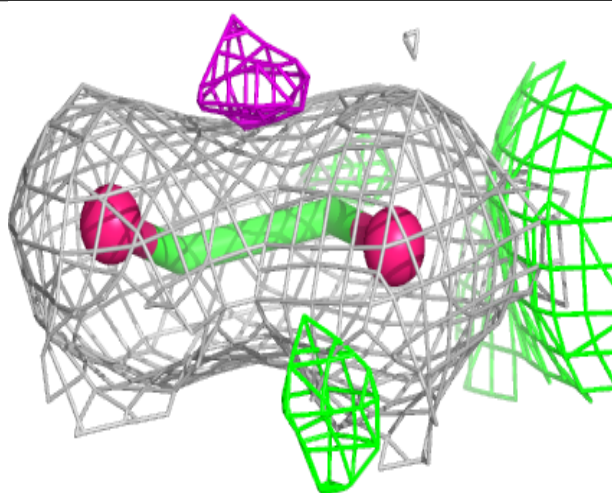
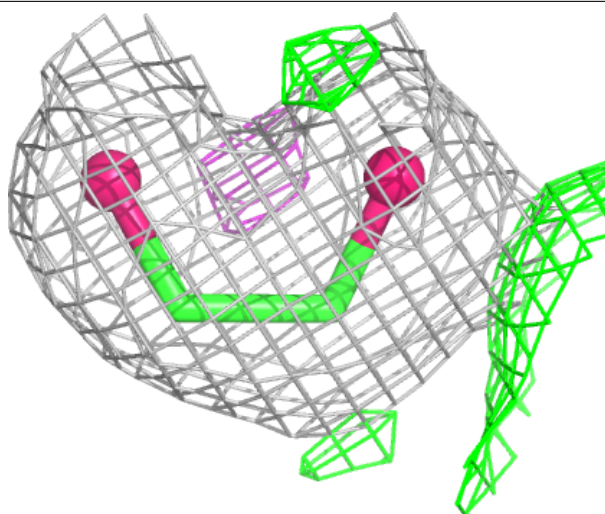
**Electron density around PEK C 302:**

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



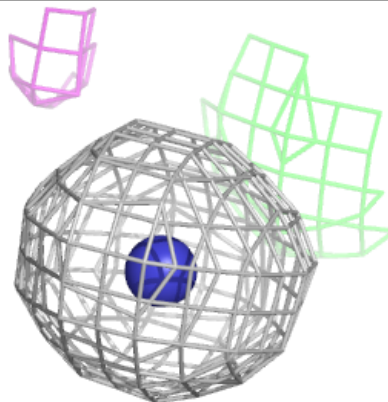
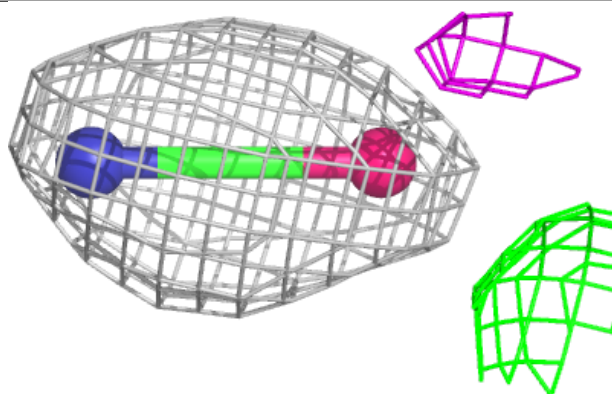
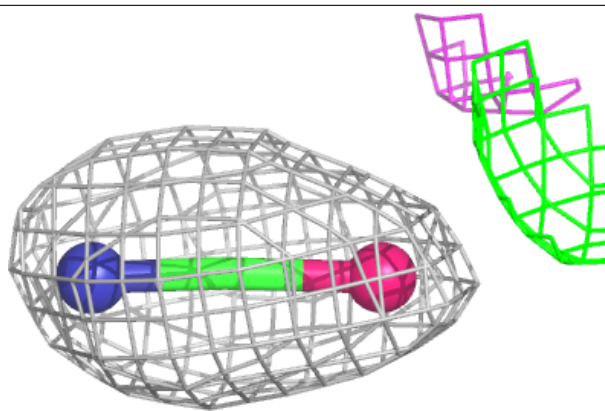
Electron density around EDO S 1603:

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



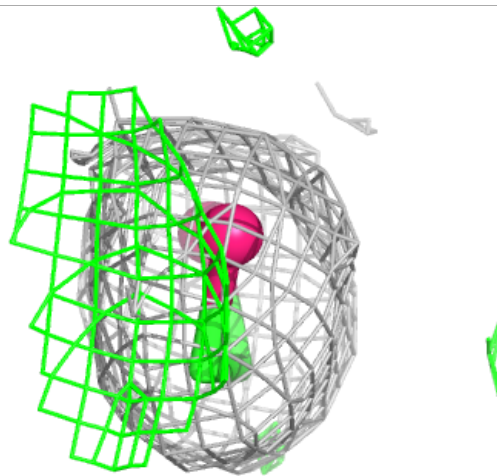
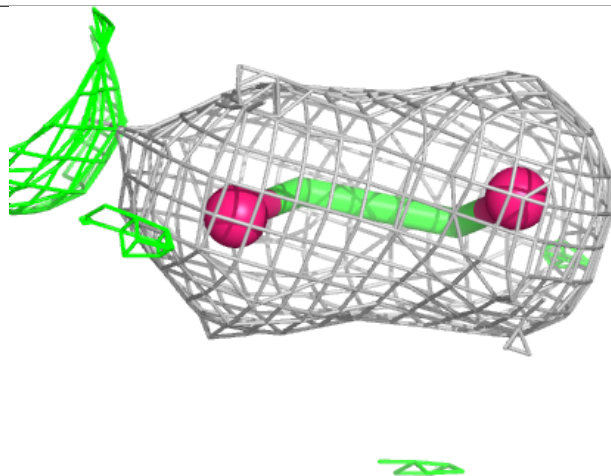
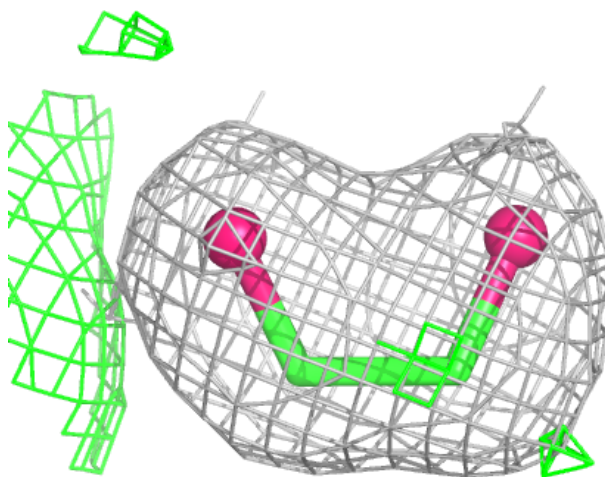
Electron density around 0NM A 615:

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



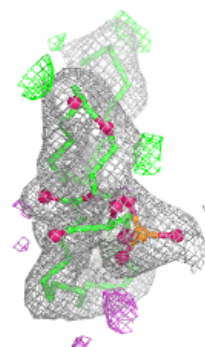
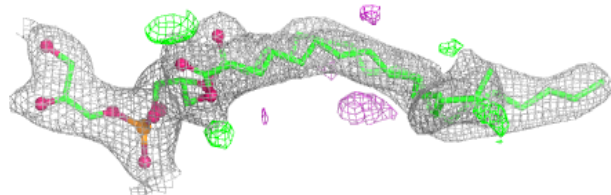
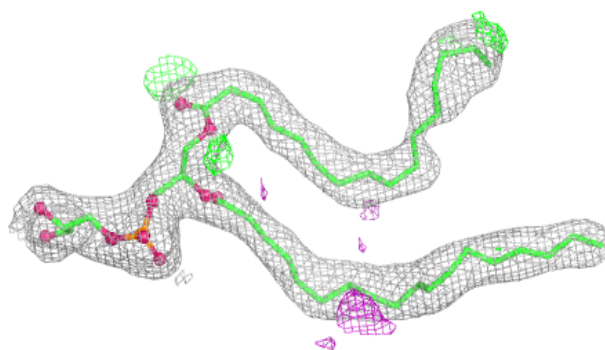
Electron density around EDO N 608:

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

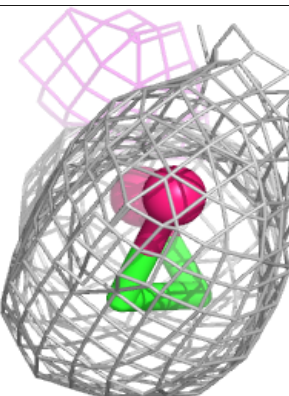
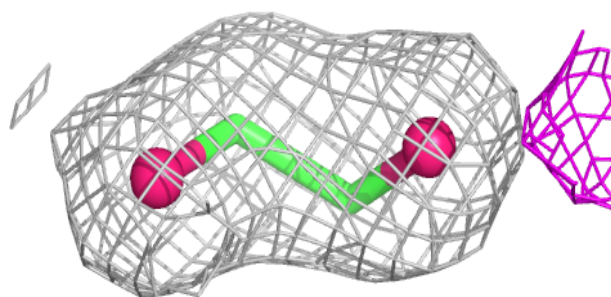
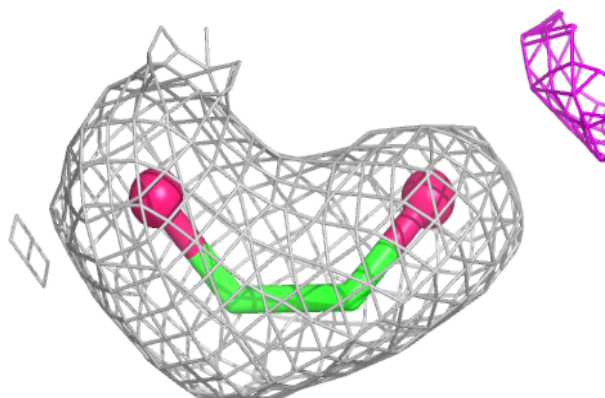


Electron density around PGV P 302:

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

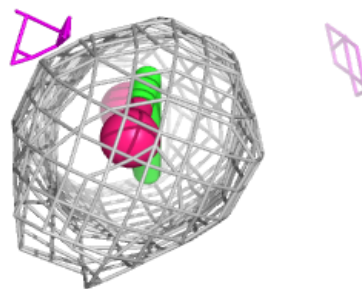
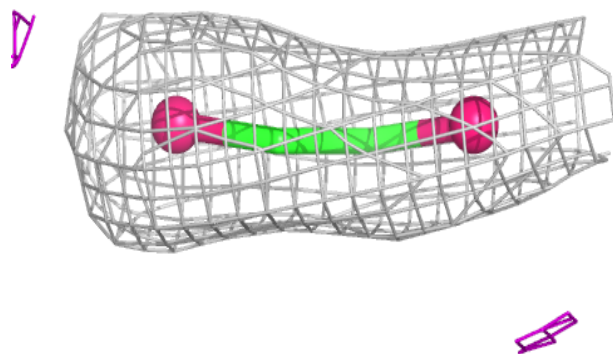
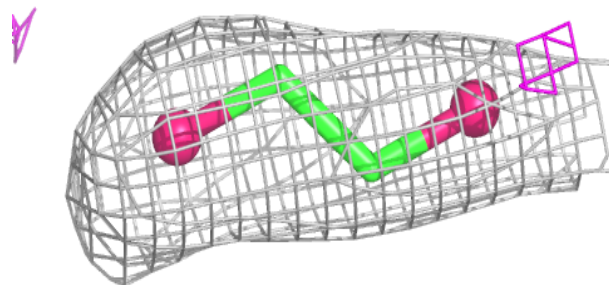
**Electron density around EDO B 306:**

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

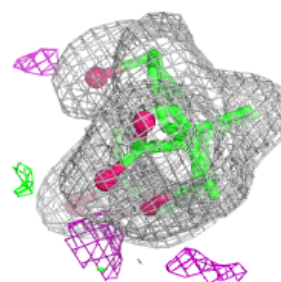
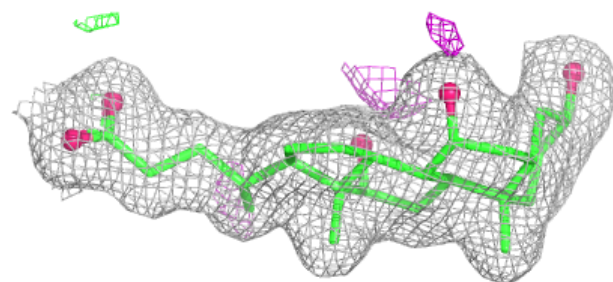
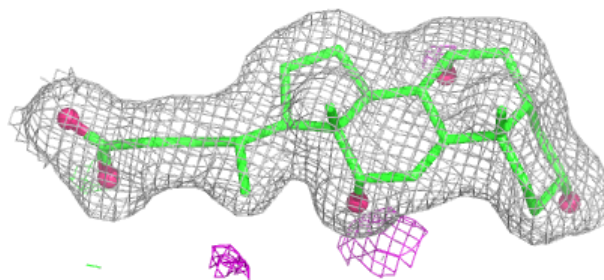


Electron density around EDO K 201:

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

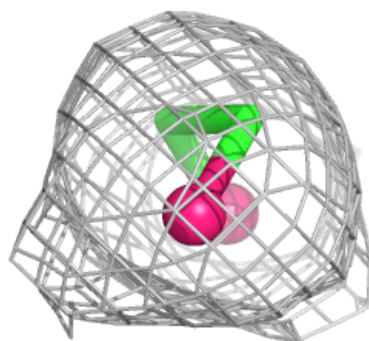
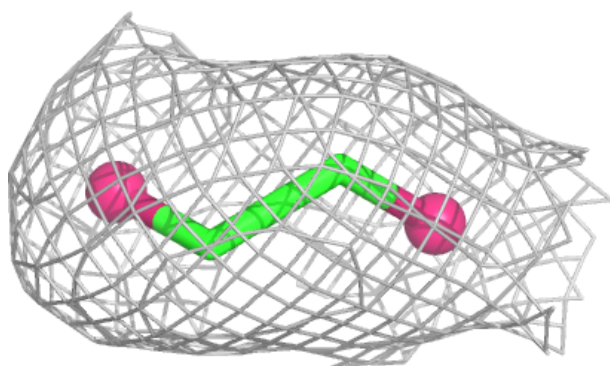
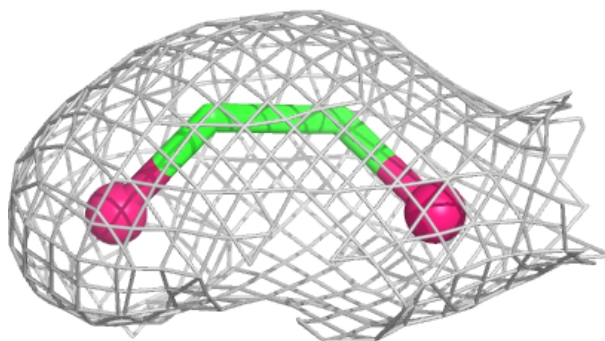
**Electron density around CHD C 301:**

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

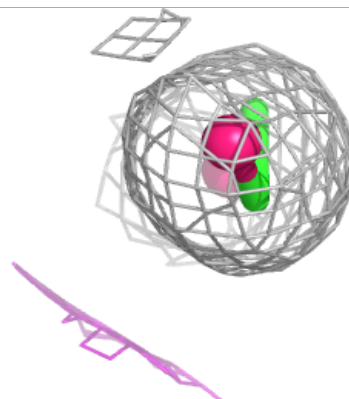
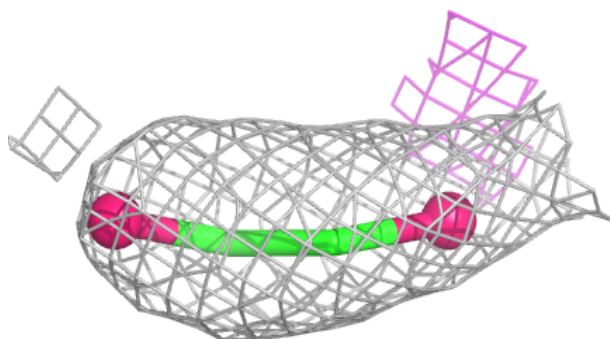
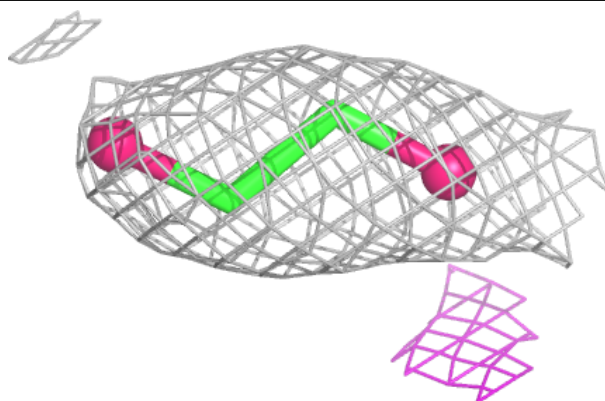


Electron density around EDO E 201:

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

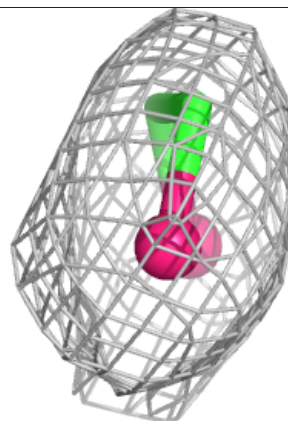
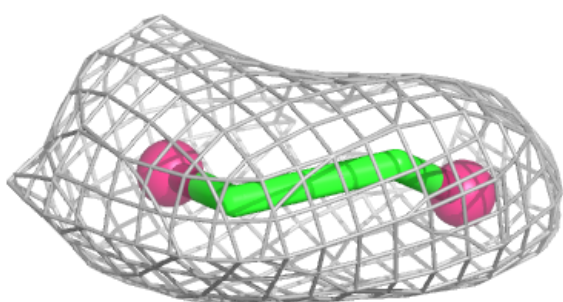
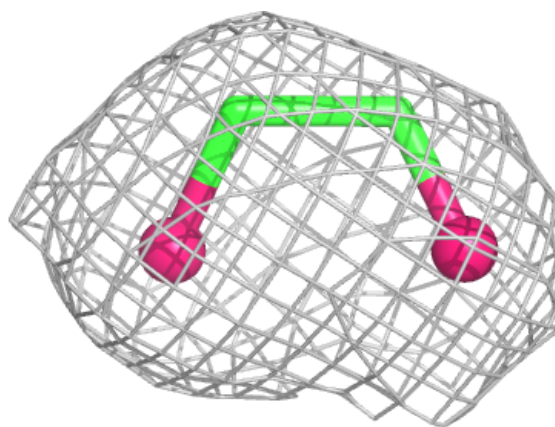
**Electron density around EDO L 503:**

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

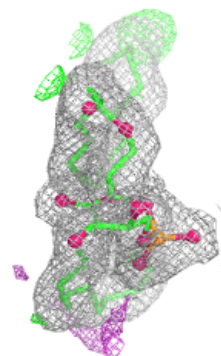
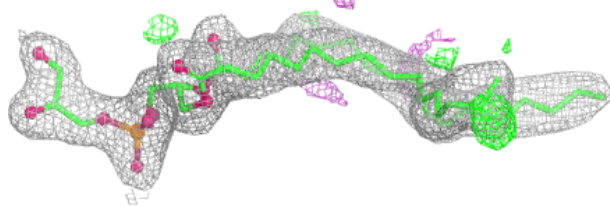
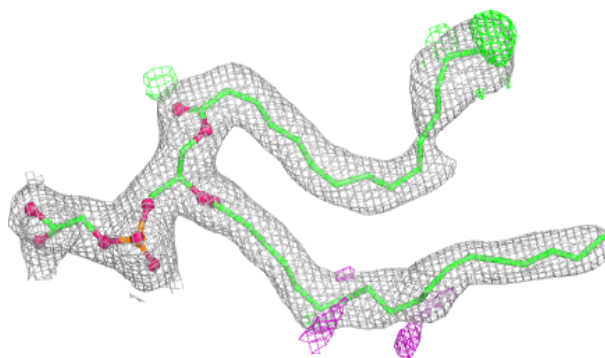


Electron density around EDO E 202:

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

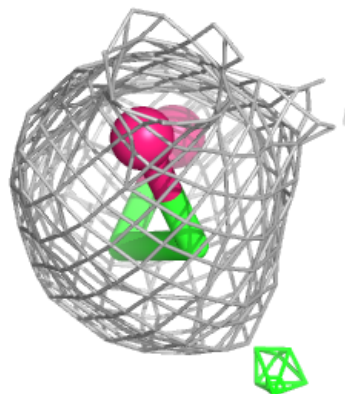
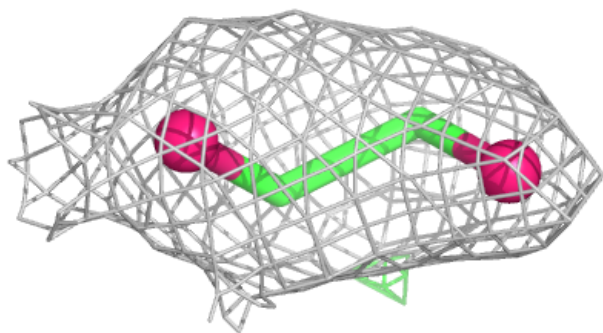
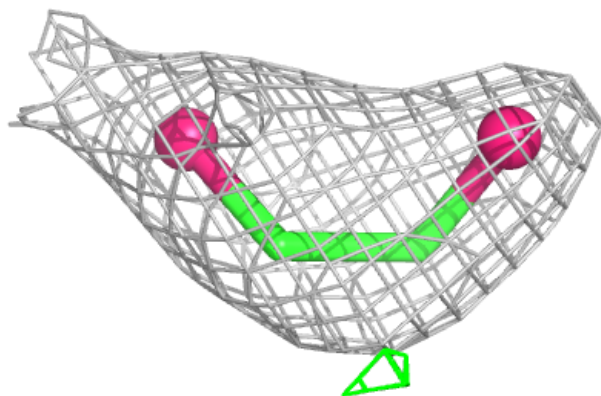
**Electron density around PGV A 604:**

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



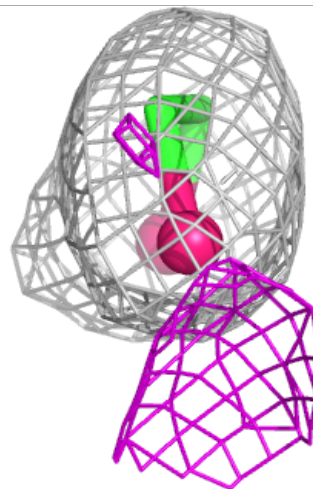
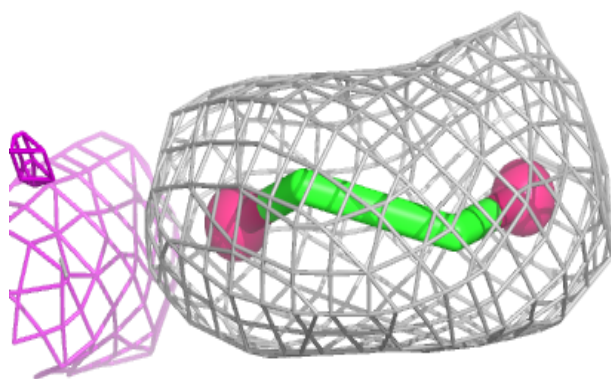
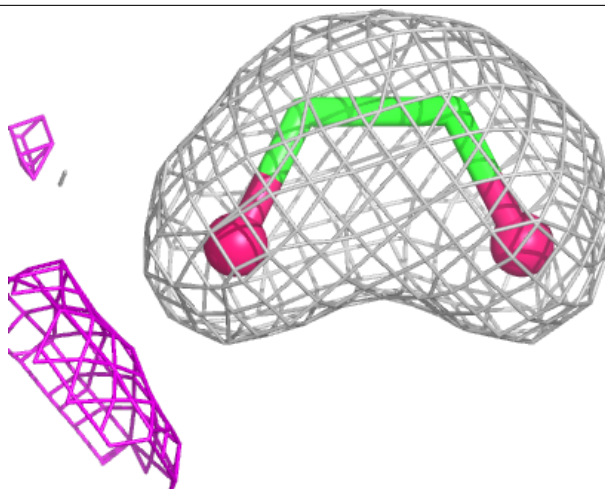
Electron density around EDO D 205:

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



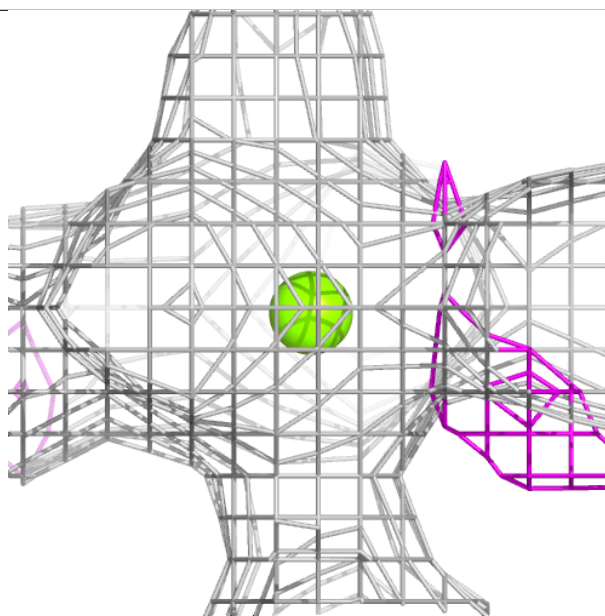
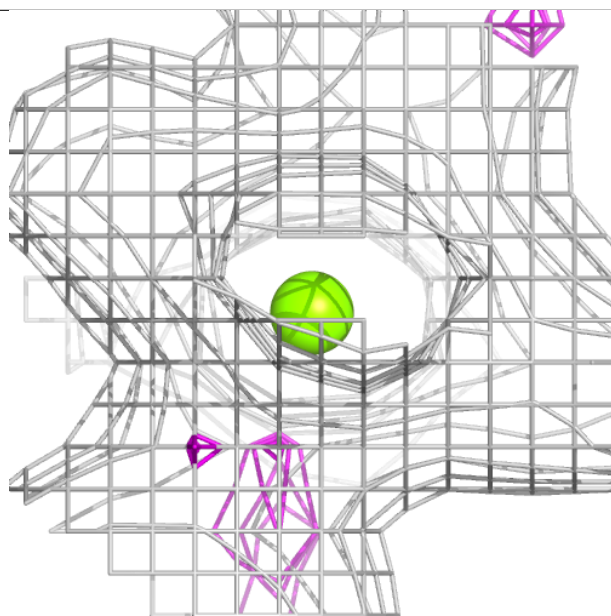
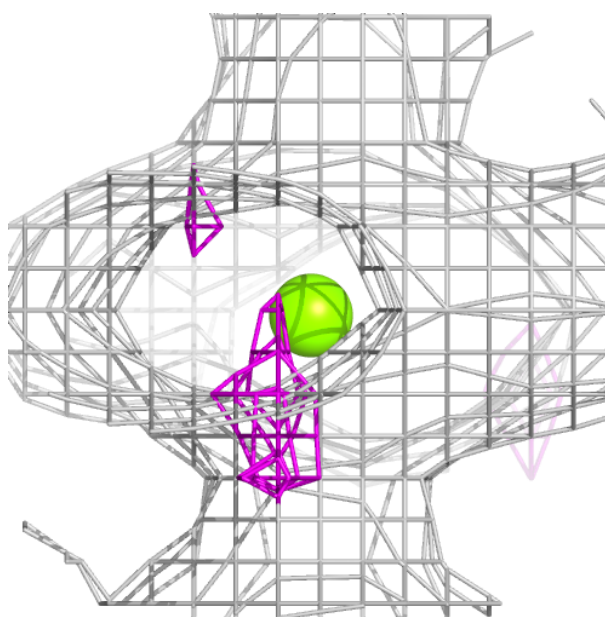
Electron density around EDO T 1303:

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



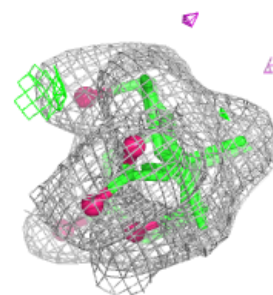
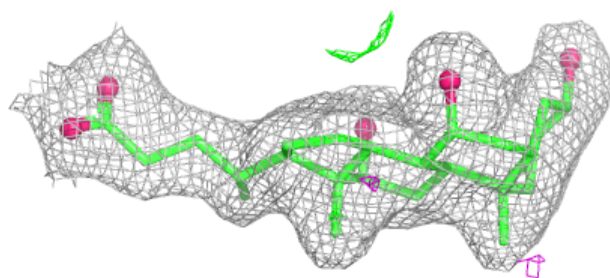
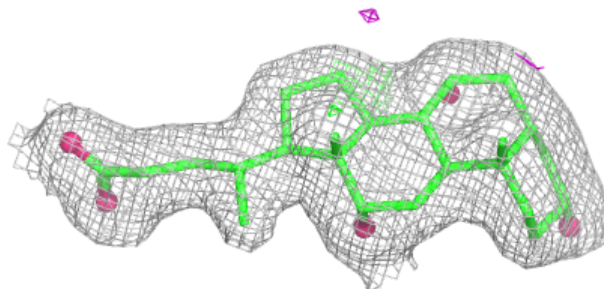
Electron density around MG N 602:

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

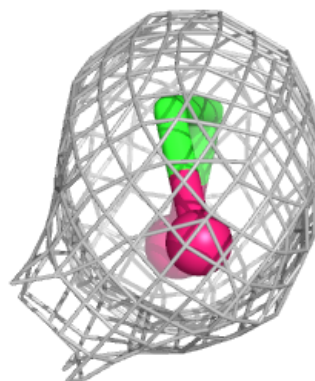
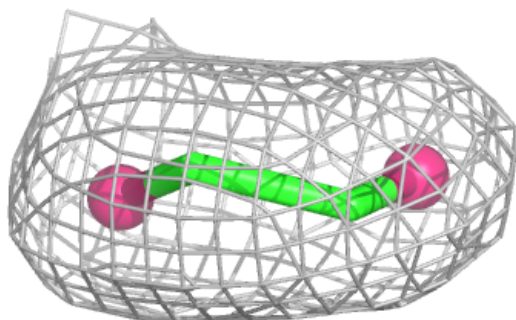
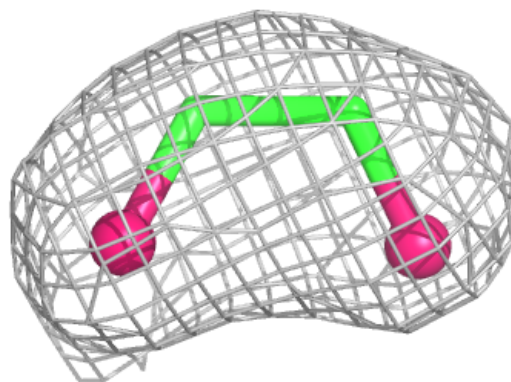


Electron density around CHD P 303:

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

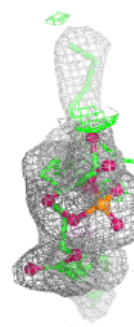
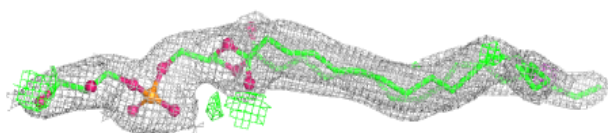
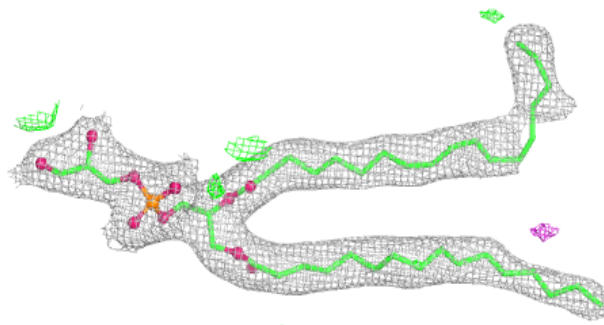
**Electron density around EDO C 308:**

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

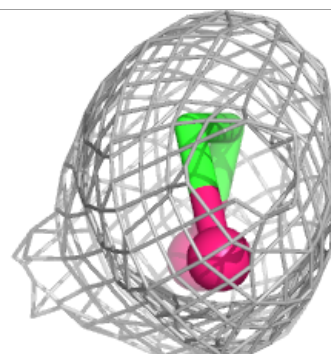
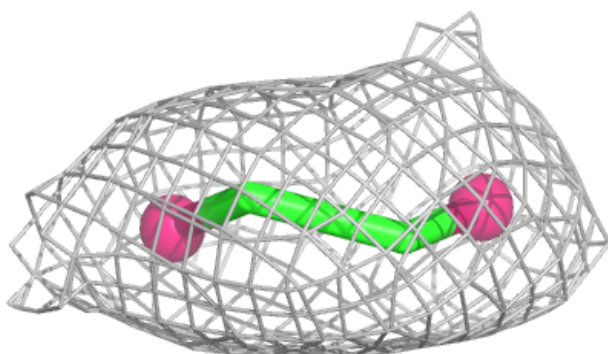
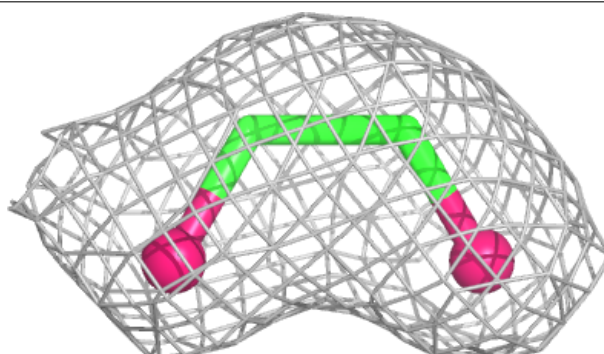


Electron density around PGV P 306:

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

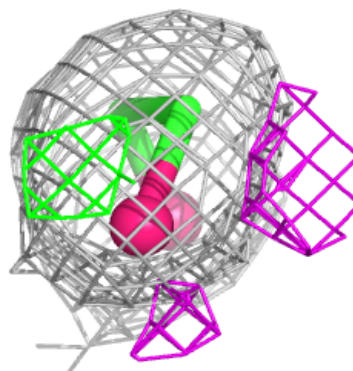
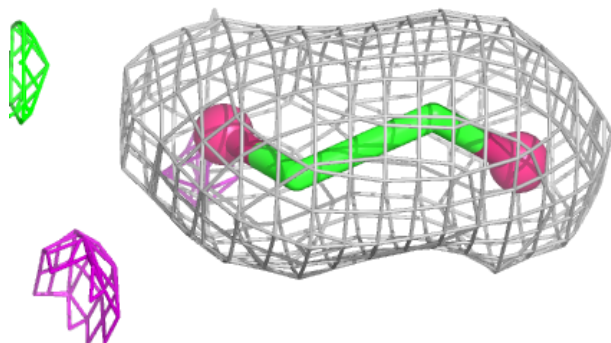
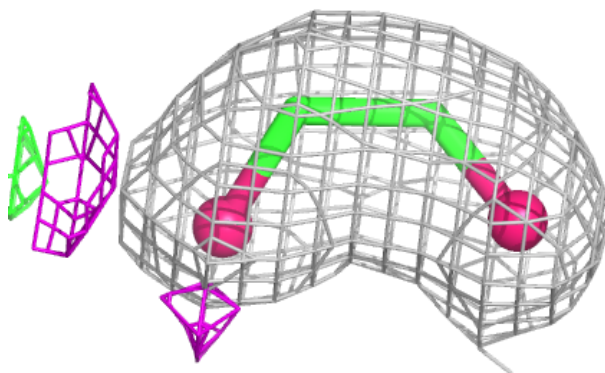
**Electron density around EDO G 102:**

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

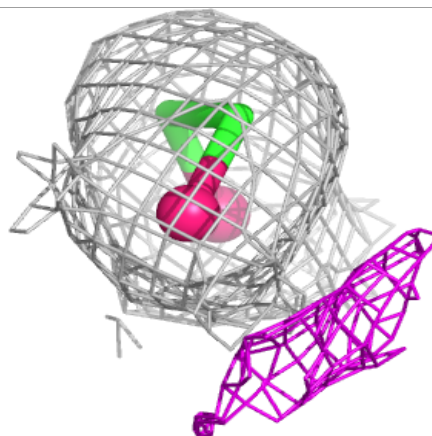
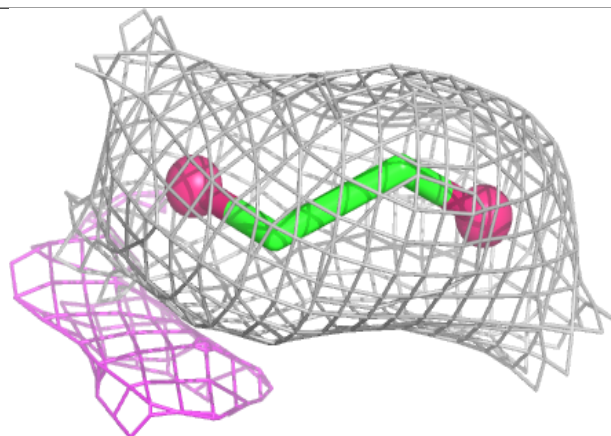
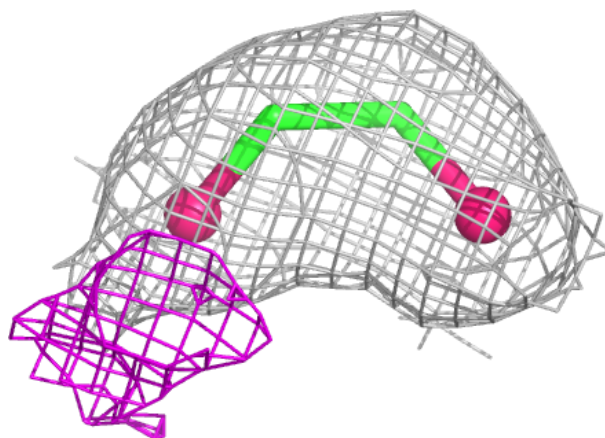


Electron density around EDO B 304:

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

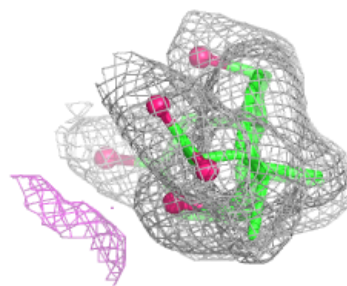
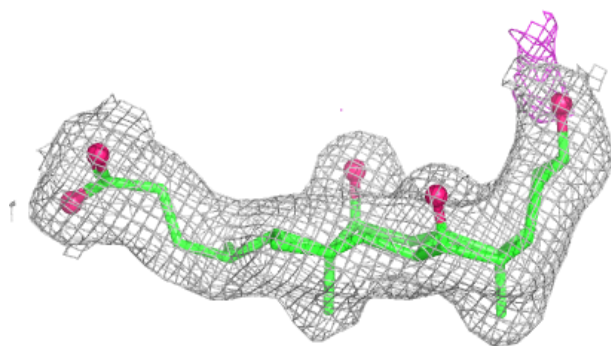
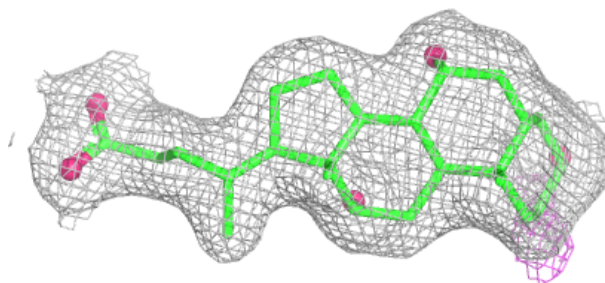
**Electron density around EDO A 608:**

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



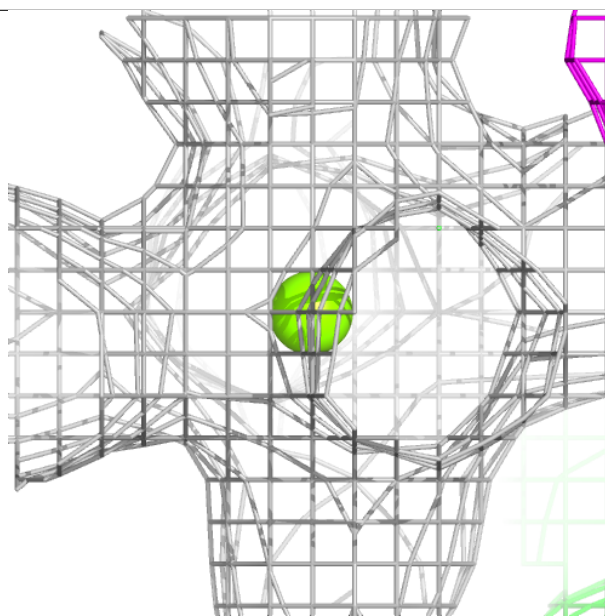
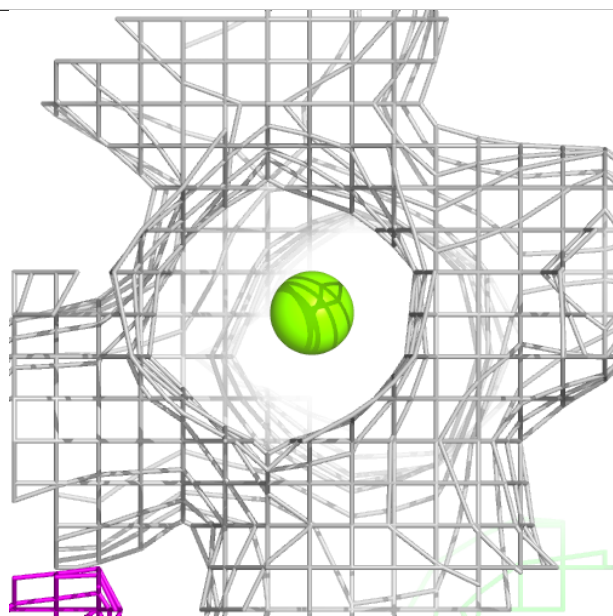
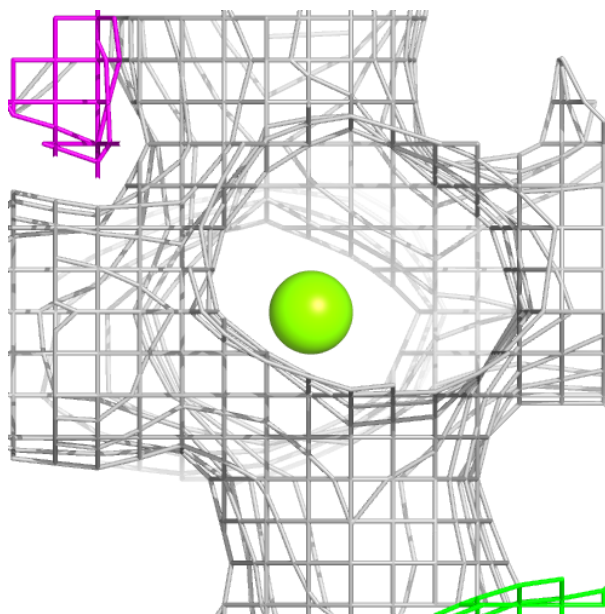
Electron density around CHD B 303:

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



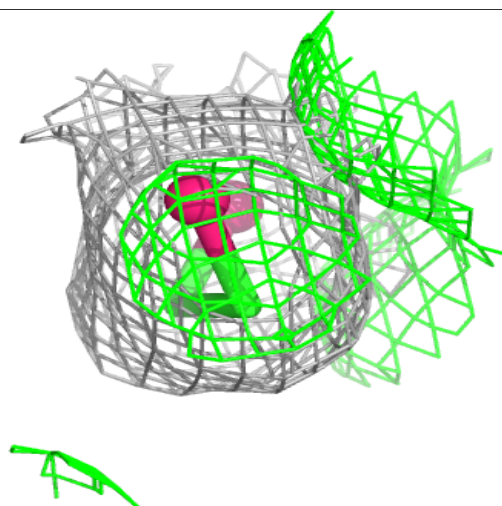
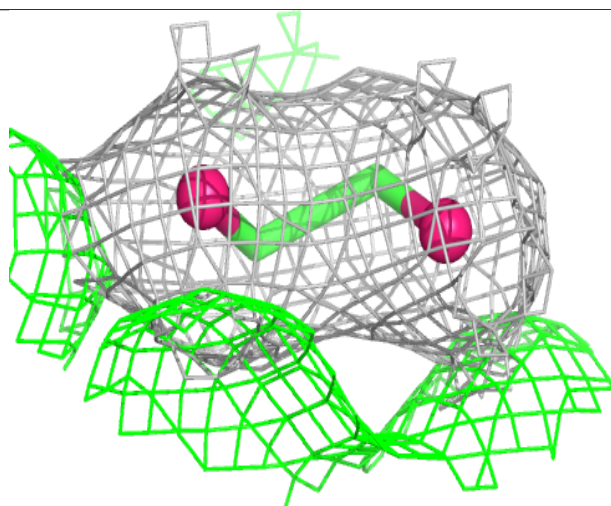
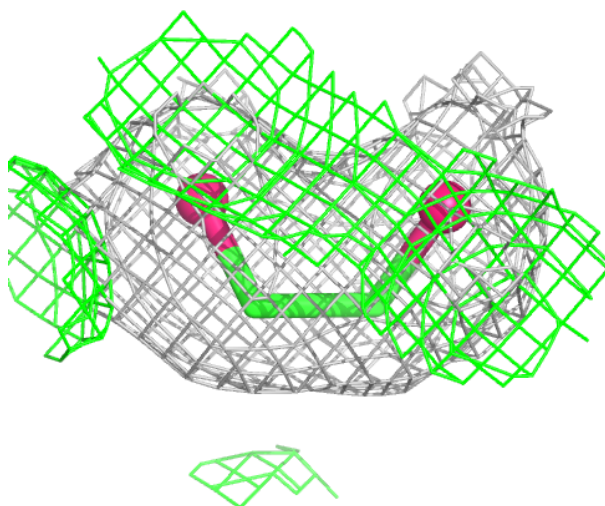
Electron density around MG A 602:

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



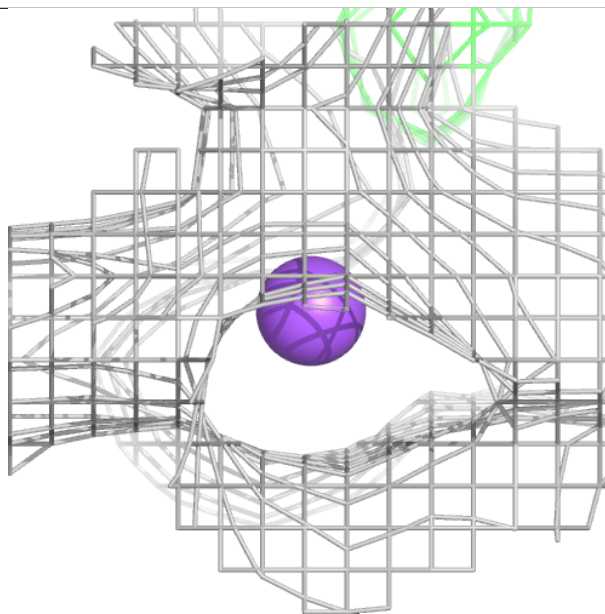
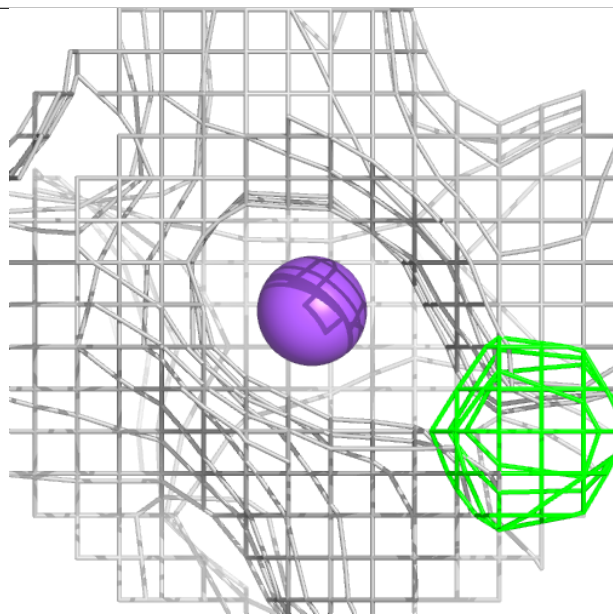
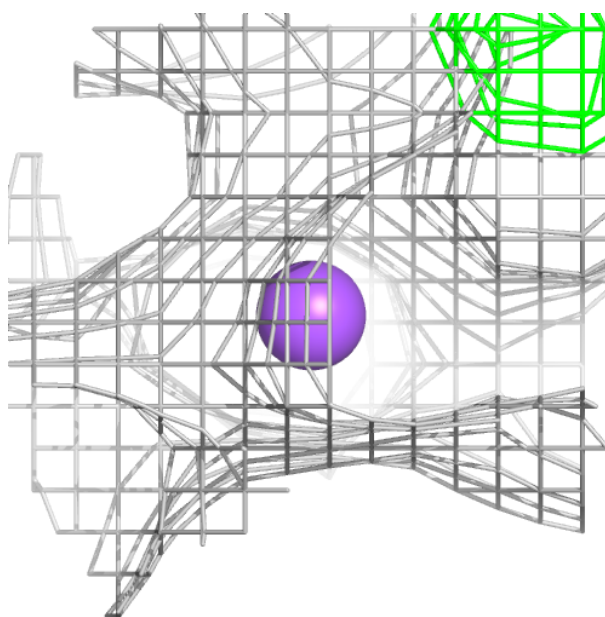
Electron density around EDO F 706:

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



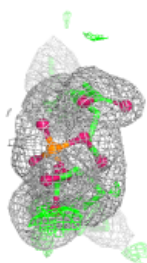
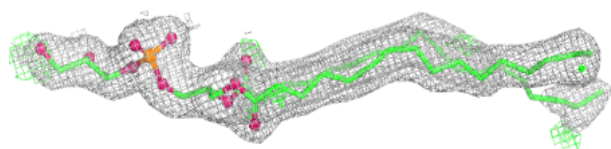
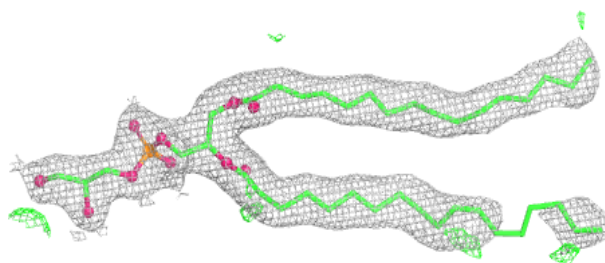
Electron density around NA N 603:

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

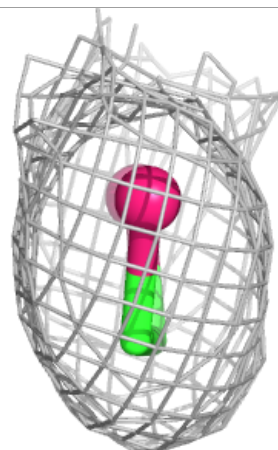
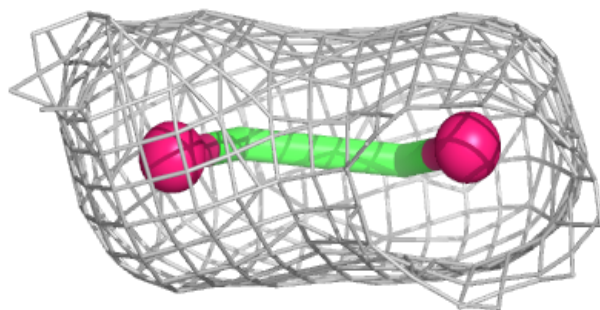
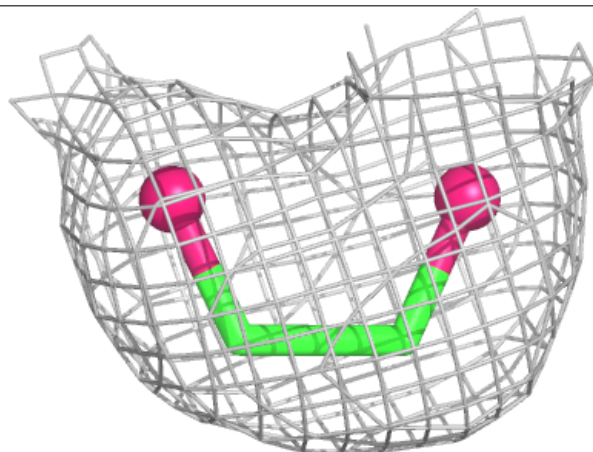


Electron density around PGV C 304:

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

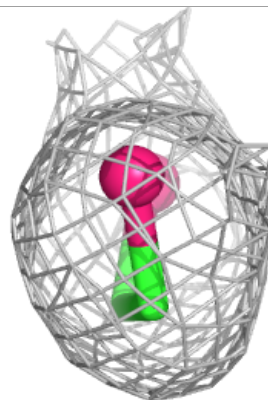
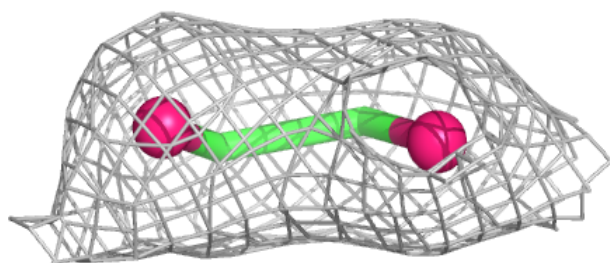
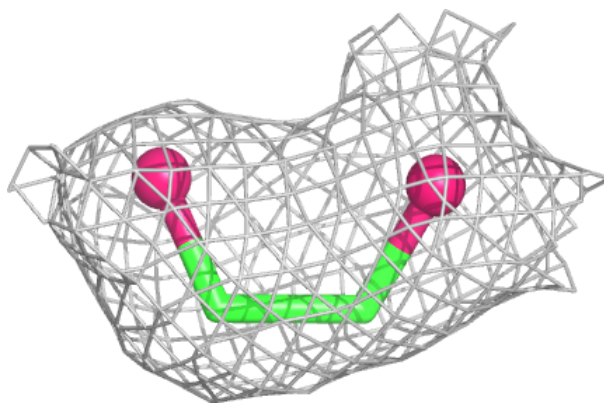
**Electron density around EDO N 607:**

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

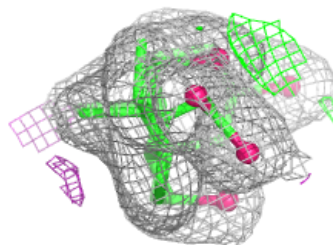
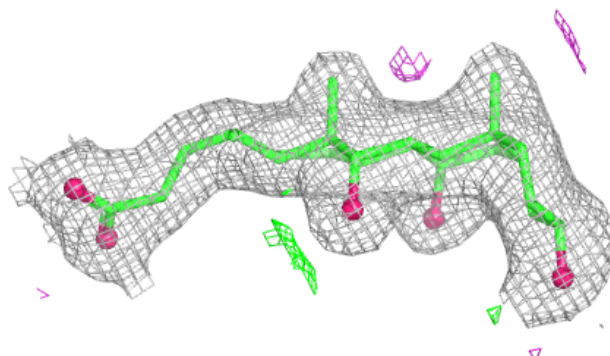
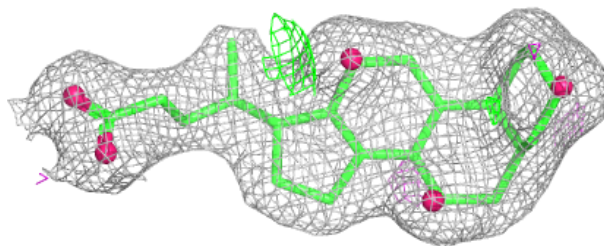


Electron density around EDO F 701:

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

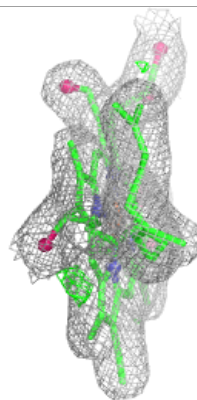
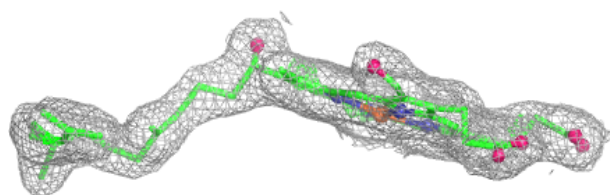
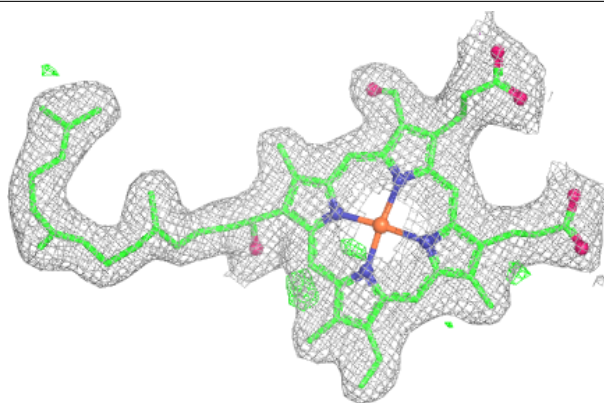
**Electron density around CHD G 106:**

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

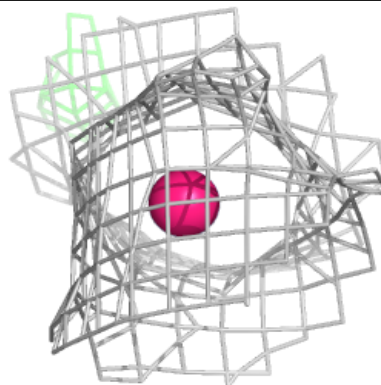
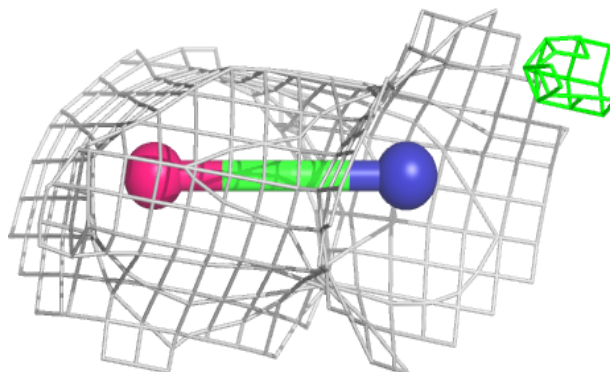
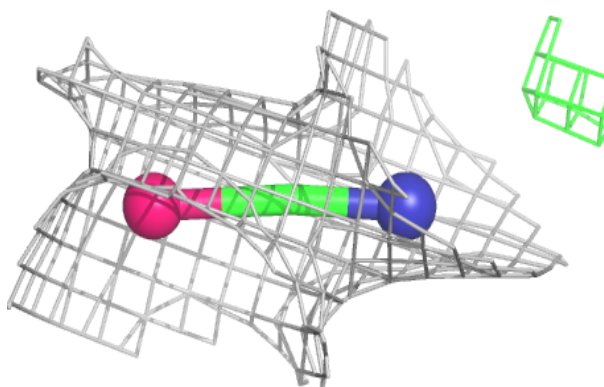


Electron density around HEA N 605:

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

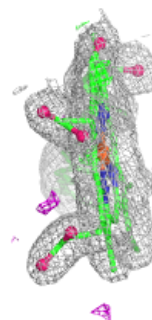
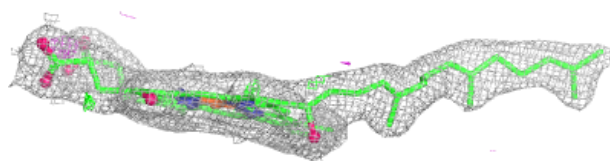
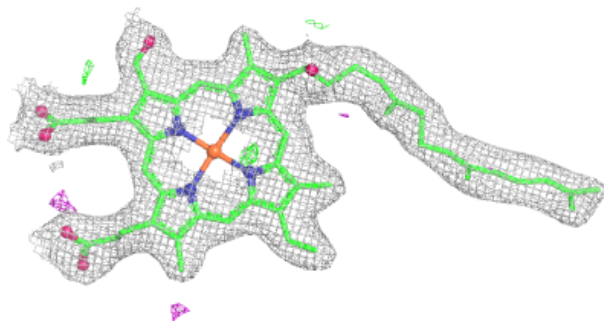
**Electron density around 0NM N 615:**

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



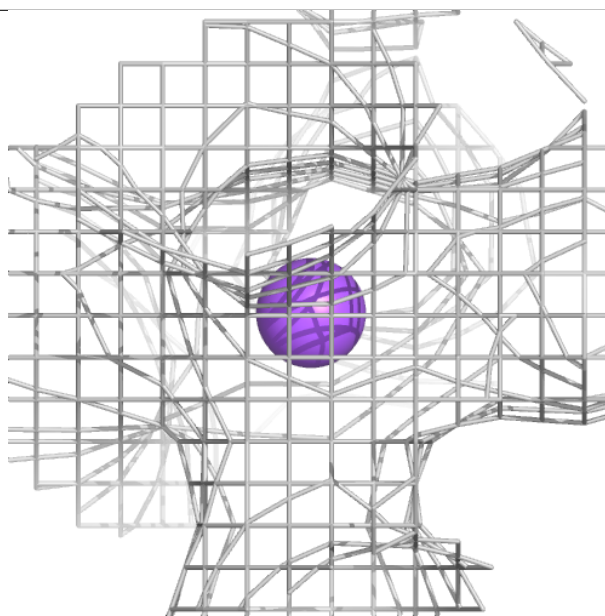
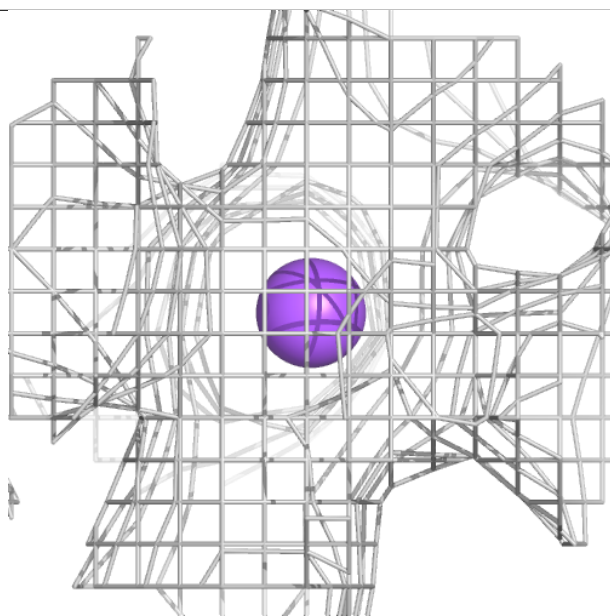
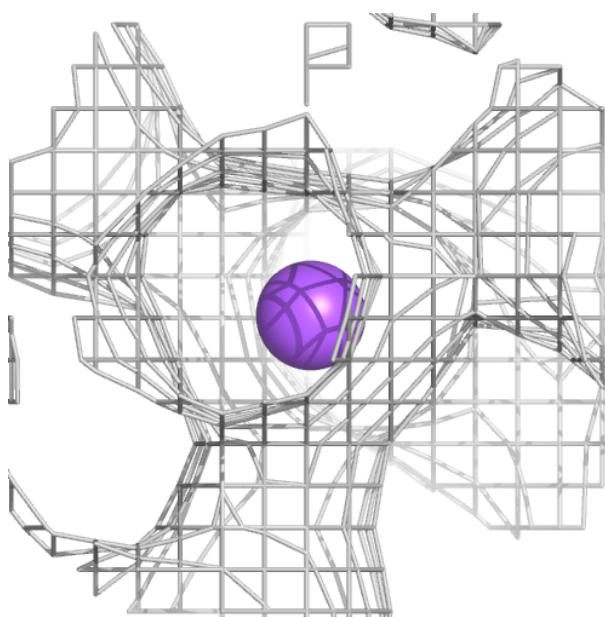
Electron density around HEA N 606:

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



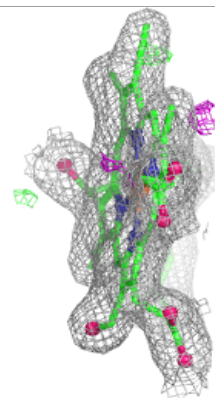
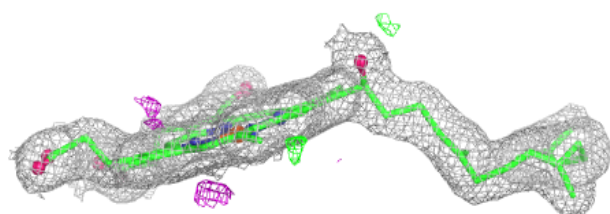
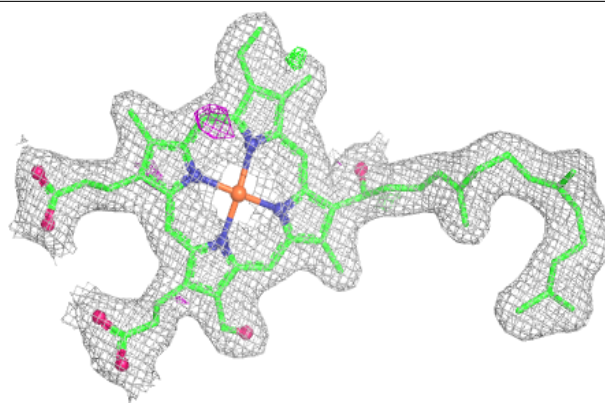
Electron density around NA A 603:

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

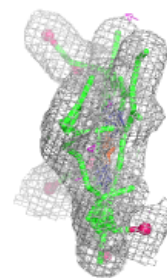
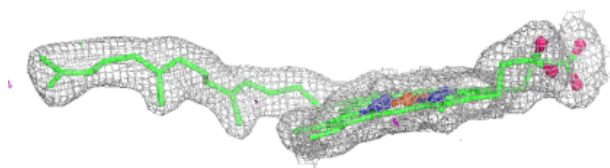
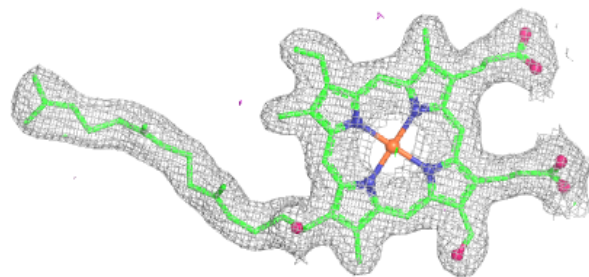


Electron density around HEA A 605:

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

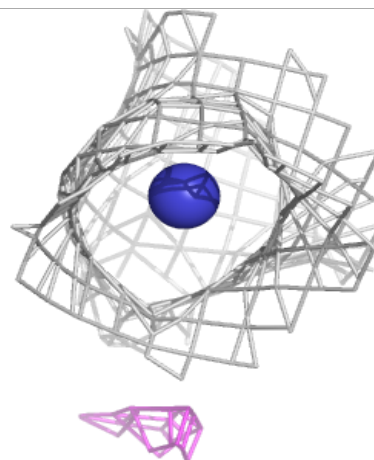
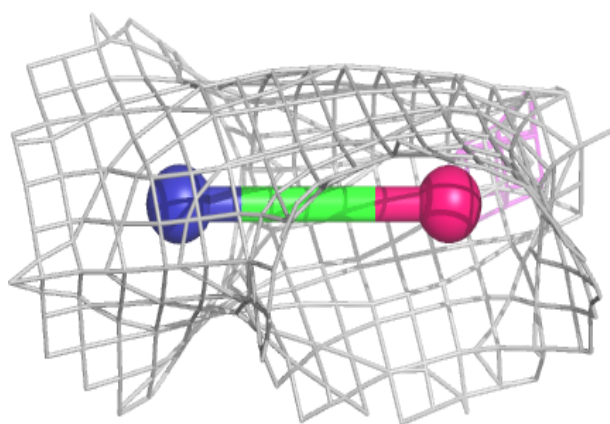
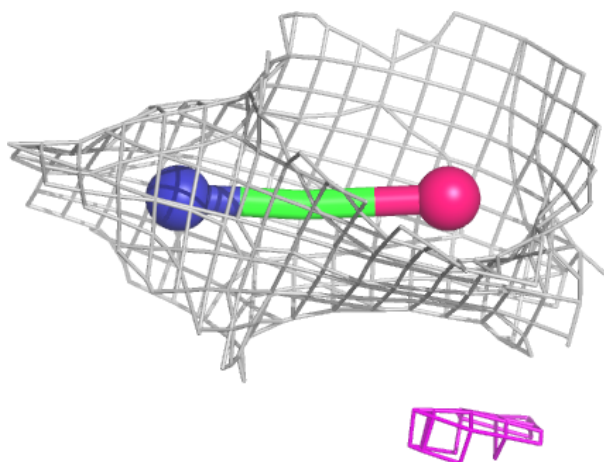
**Electron density around HEA A 606:**

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



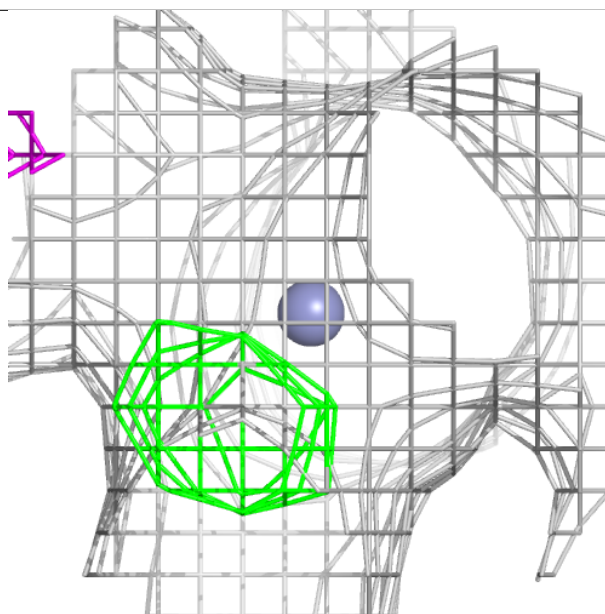
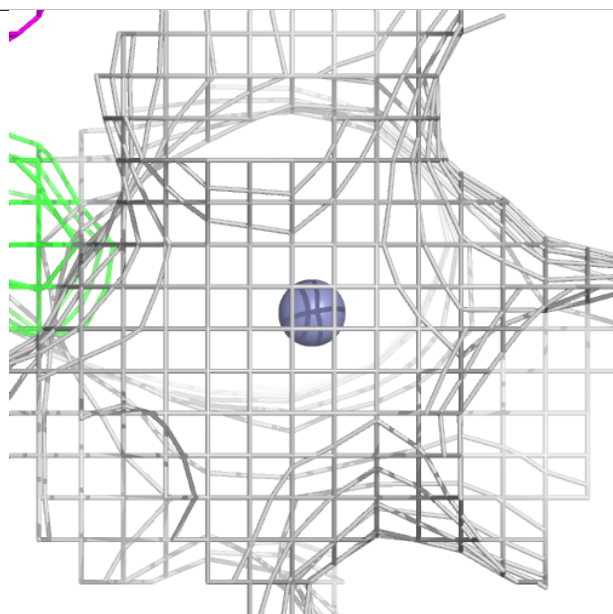
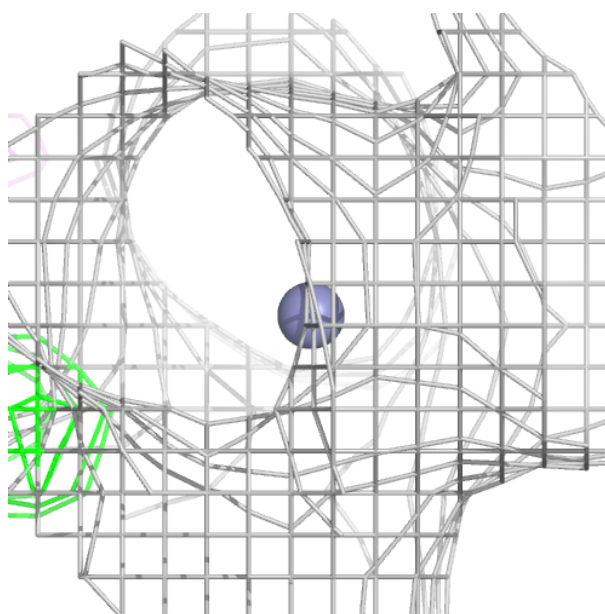
Electron density around 0NM A 613:

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



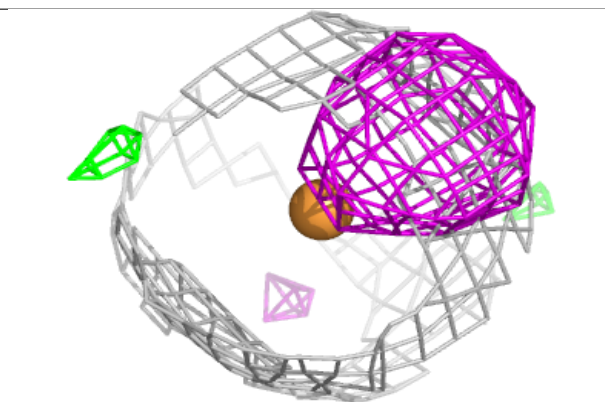
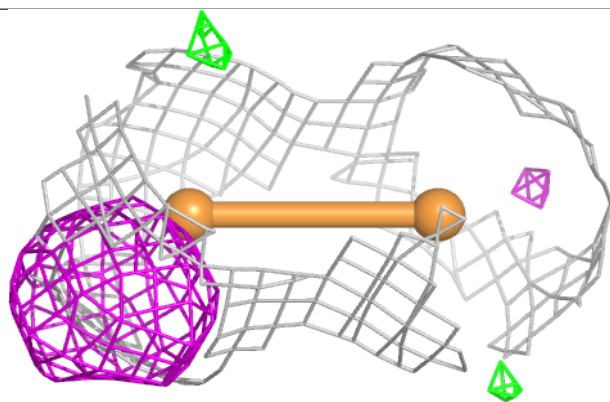
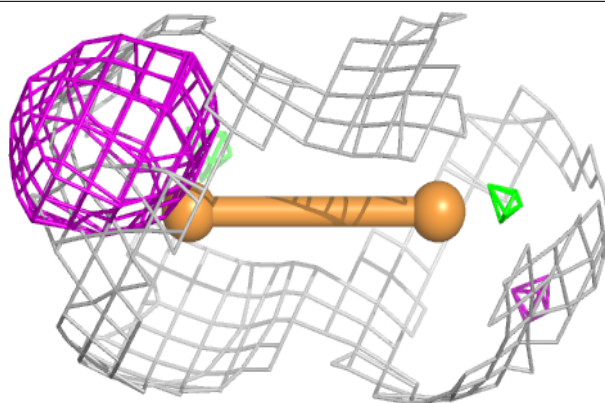
Electron density around ZN S 1602:

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

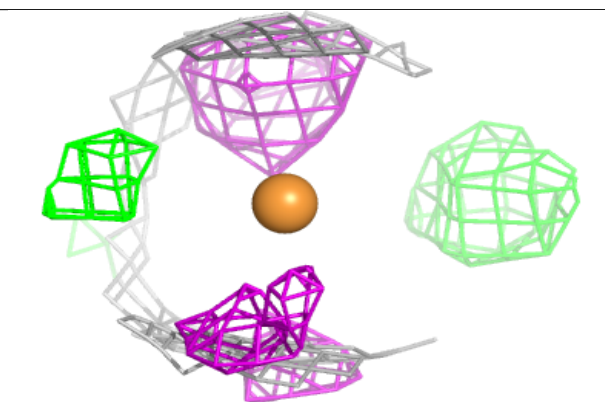
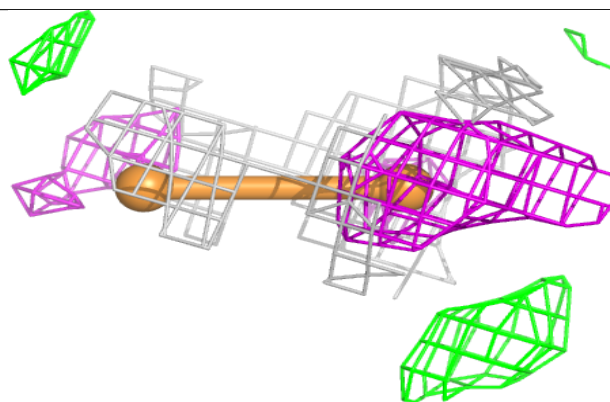
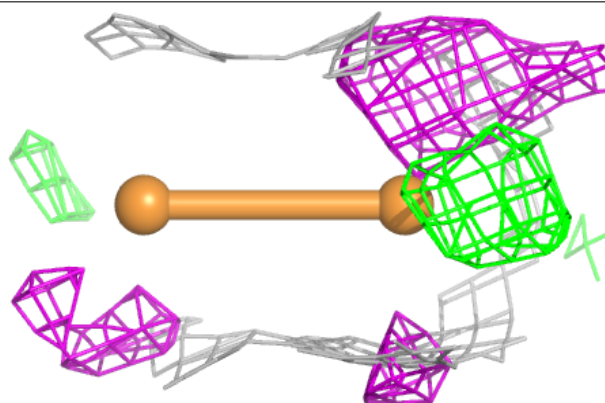


Electron density around CUA B 301:

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

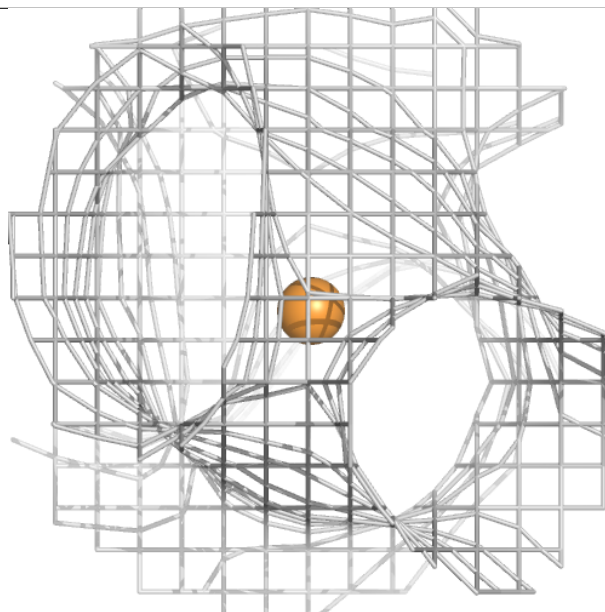
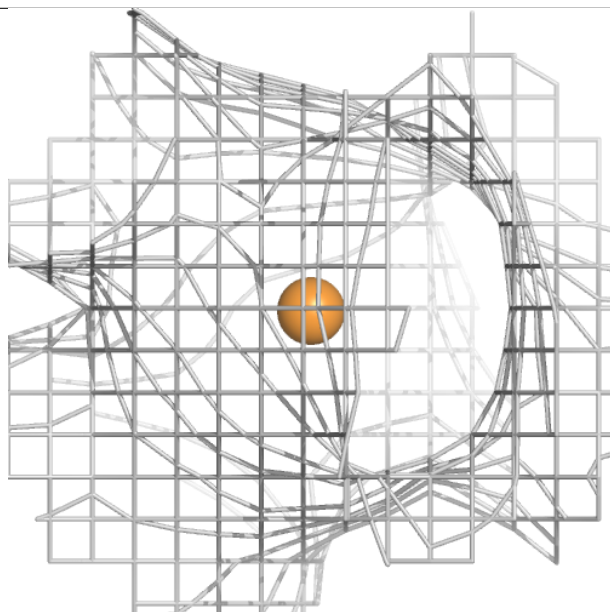
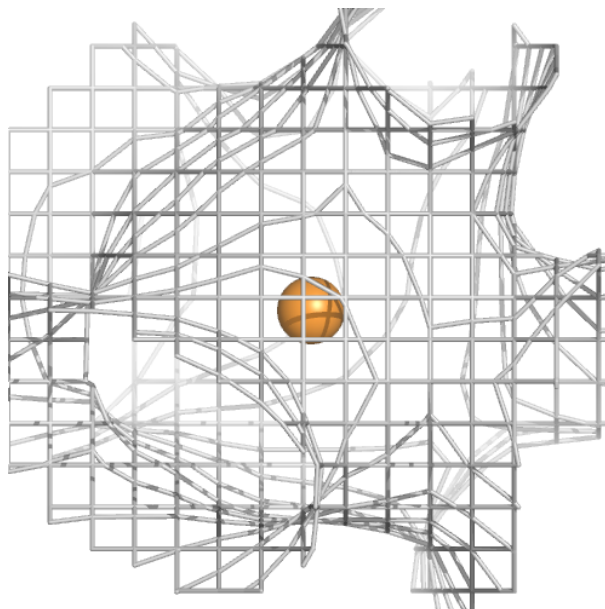
**Electron density around CUA O 301:**

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



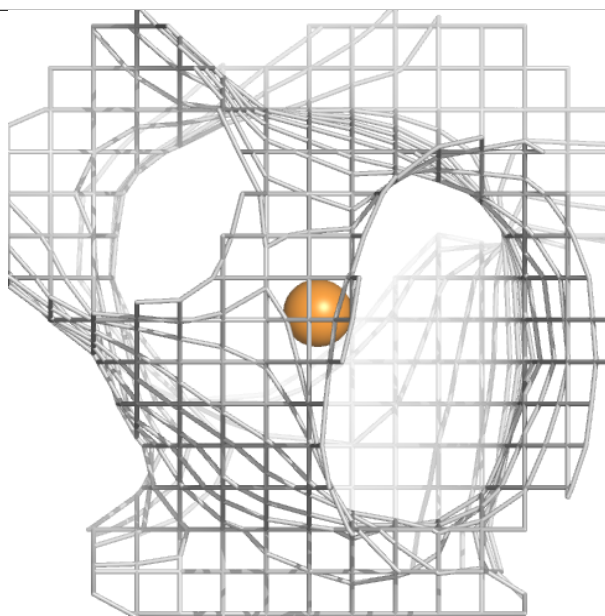
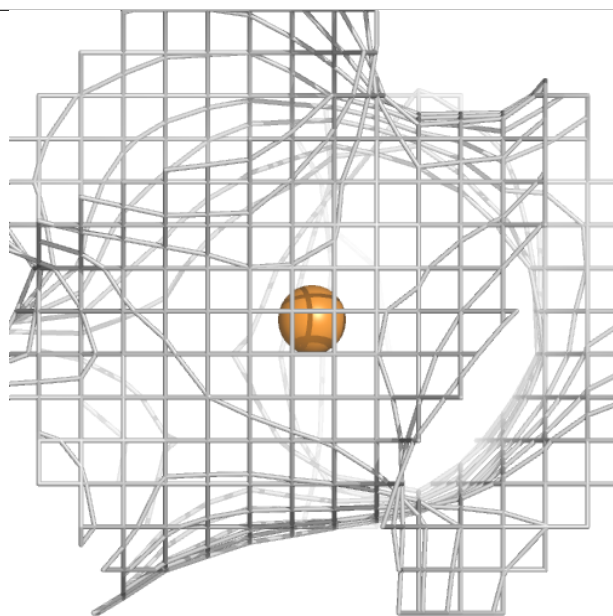
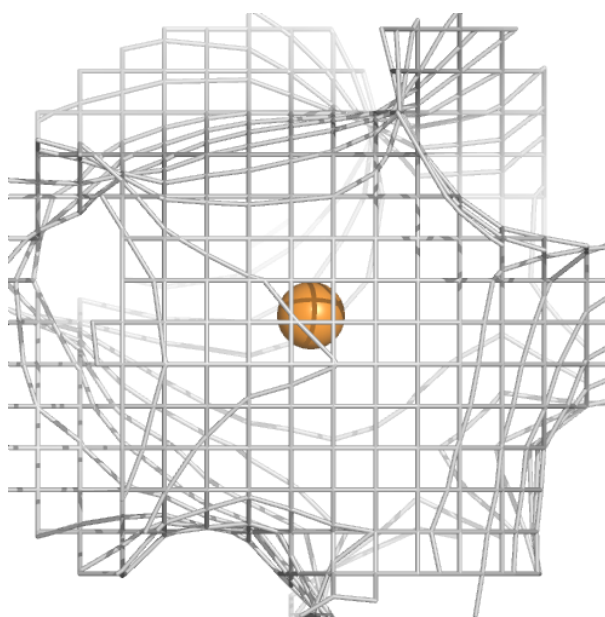
Electron density around CU A 601:

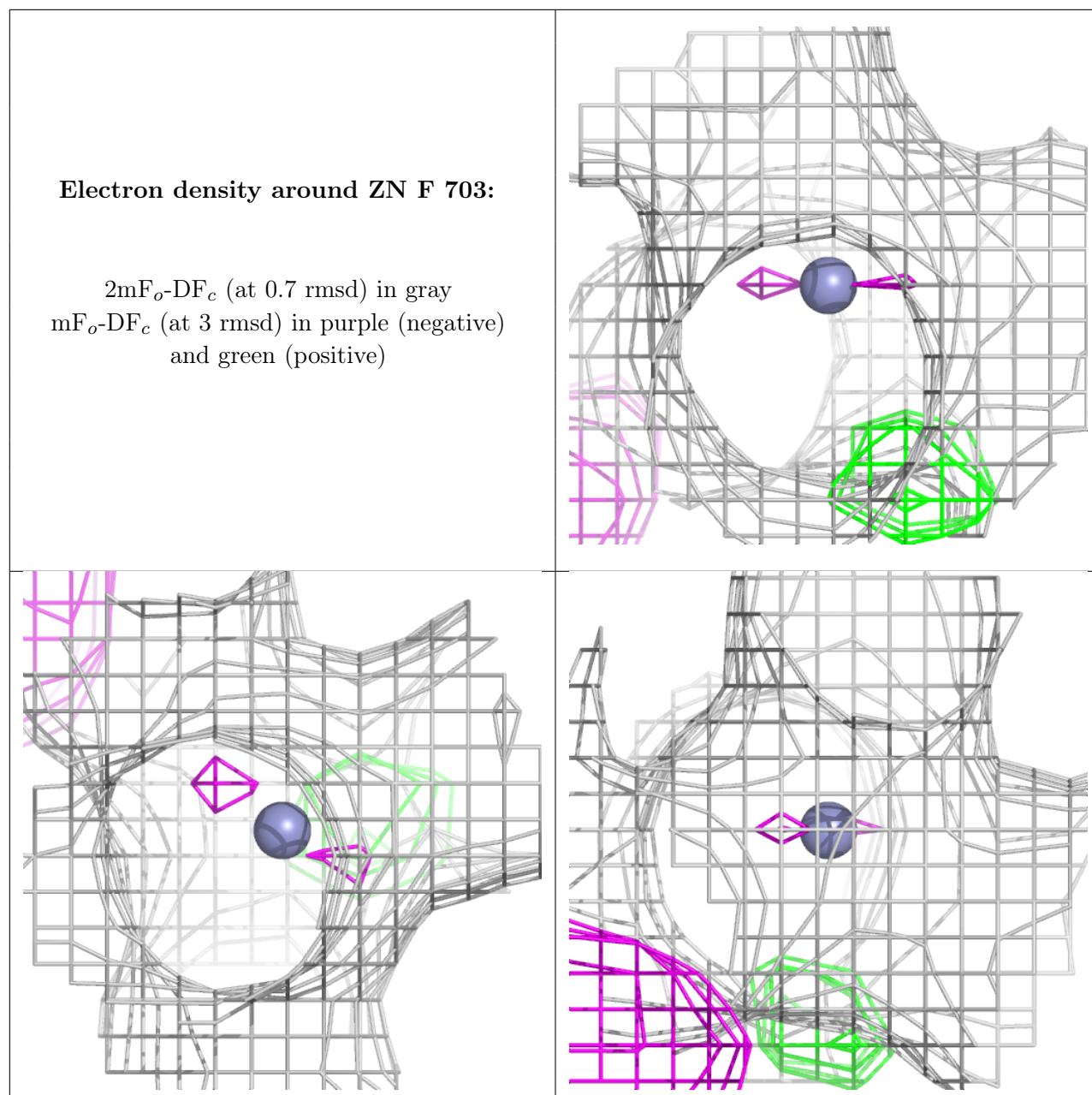
$2mF_o-DF_c$ (at 0.7 rmsd) in gray
 mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



Electron density around CU N 601:

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





6.5 Other polymers ⓘ

There are no such residues in this entry.