



Full wwPDB X-ray Structure Validation Report ⓘ

Sep 24, 2025 – 05:06 am BST

PDB ID : 6HIF / pdb_00006hif
Title : Kuenenia stuttgartiensis hydrazine dehydrogenase complex
Authors : Akram, M.; Dietl, A.; Mersdorf, U.; Prinz, S.; Maalcke, W.; Keltjens, J.; Ferousi, C.; de Almeida, N.M.; Reimann, J.; Kartal, B.; Jetten, M.S.M.; Parey, K.; Barends, T.R.M.
Deposited on : 2018-08-29
Resolution : 2.80 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:

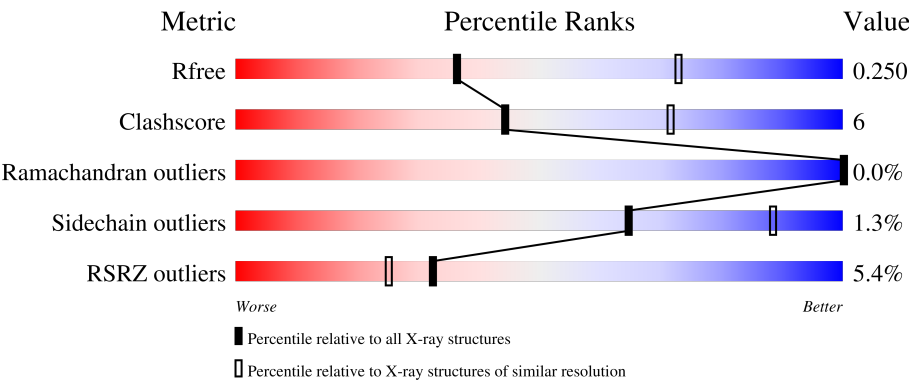
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.46

1 Overall quality at a glance i

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

The reported resolution of this entry is 2.80 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	164625	3657 (2.80-2.80)
Clashscore	180529	4123 (2.80-2.80)
Ramachandran outliers	177936	4071 (2.80-2.80)
Sidechain outliers	177891	4073 (2.80-2.80)
RSRZ outliers	164620	3659 (2.80-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments 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	582	3% 79% 12% 9%
1	B	582	% 80% 11% 9%
1	C	582	% 81% 11% 9%
1	D	582	4% 73% 18% 9%

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Mol	Chain	Length	Quality of chain
1	E	582	5% 81% 10% 9%
1	F	582	12% 80% 11% 9%
1	G	582	% 78% 13% 9%
1	H	582	% 78% 13% 9%
1	I	582	% 70% 19% 9%
1	J	582	% 79% 12% 9%
1	K	582	% 79% 13% 9%
1	L	582	% 80% 11% 9%
1	M	582	% 82% 9% 9%
1	N	582	2% 80% 11% 9%
1	O	582	% 80% 11% 9%
1	P	582	% 80% 11% 9%
1	Q	582	2% 79% 13% 9%
1	R	582	2% 78% 13% 9%
1	S	582	10% 80% 11% 9%
1	T	582	6% 80% 11% 9%
1	U	582	10% 82% 9% 9%
1	V	582	11% 81% 10% 9%
1	W	582	14% 79% 12% 9%
1	X	582	16% 80% 12% 9%
2	Y	114	4% 68% 8% 25%
2	Z	114	13% 69% 5% 25%
2	a	114	8% 68% 5% 25%
2	b	114	7% 67% 7% 25%
2	c	114	5% 68% 5% 25%

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Mol	Chain	Length	Quality of chain
2	d	114	
2	e	114	
2	f	114	
2	g	114	
2	h	114	
2	i	114	
2	j	114	

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
4	SO4	G	610	-	-	X	-
4	SO4	J	611	-	-	X	-
5	GOL	H	614	-	-	X	-
5	GOL	H	615	-	-	X	-
5	GOL	I	614	-	-	X	-
5	GOL	K	614	-	-	X	-

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 118753 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 Hydrazine dehydrogenase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	G	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	A	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	B	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	C	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	D	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	E	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	F	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	H	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	I	527	Total	C	N	O	S	0	0	0
			4201	2633	739	793	36			
1	J	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	K	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	L	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	M	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	N	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	O	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	P	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	Q	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	R	531	Total	C	N	O	S	0	1	0
			4237	2653	749	799	36			
1	S	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	T	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	U	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	V	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	W	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			
1	X	531	Total	C	N	O	S	0	0	0
			4226	2647	745	798	36			

- Molecule 2 is a protein called hdh assembly factor Kustc1130.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	Y	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	Z	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	a	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	b	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	c	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	d	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	e	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	f	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	g	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	h	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			
2	i	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	j	86	Total	C	N	O	S	0	0	0
			640	403	110	125	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	G	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0



WORLD WIDE
PDB
PROTEIN DATA BANK

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	A	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	B	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	C	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	D	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	E	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	F	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	H	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	I	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	I	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	I	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	I	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	I	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	I	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	I	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	J	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	K	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	L	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	M	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	N	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	O	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	P	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	Q	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	R	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	S	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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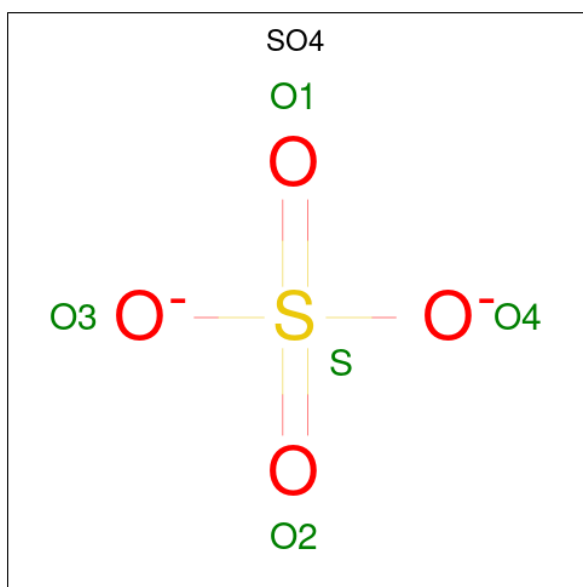
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	T	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	U	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	V	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	W	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0
3	X	1	Total 43	C 34	Fe 1	N 4	O 4	0	0

- Molecule 4 is SULFATE ION (CCD ID: SO4) (formula: O₄S).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	G	1	Total	O	S	0	0
			5	4	1		
4	G	1	Total	O	S	0	0
			5	4	1		
4	G	1	Total	O	S	0	0
			5	4	1		
4	G	1	Total	O	S	0	0
			5	4	1		
4	G	1	Total	O	S	0	0
			5	4	1		
4	A	1	Total	O	S	0	0
			5	4	1		
4	A	1	Total	O	S	0	0
			5	4	1		
4	A	1	Total	O	S	0	0
			5	4	1		
4	B	1	Total	O	S	0	0
			5	4	1		
4	B	1	Total	O	S	0	0
			5	4	1		
4	C	1	Total	O	S	0	0
			5	4	1		
4	C	1	Total	O	S	0	0
			5	4	1		
4	C	1	Total	O	S	0	0
			5	4	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	D	1	Total	O	S	0	0
			5	4	1		
4	E	1	Total	O	S	0	0
			5	4	1		
4	E	1	Total	O	S	0	0
			5	4	1		
4	F	1	Total	O	S	0	0
			5	4	1		
4	F	1	Total	O	S	0	0
			5	4	1		
4	H	1	Total	O	S	0	0
			5	4	1		
4	H	1	Total	O	S	0	0
			5	4	1		
4	H	1	Total	O	S	0	0
			5	4	1		
4	H	1	Total	O	S	0	0
			5	4	1		
4	H	1	Total	O	S	0	0
			5	4	1		
4	I	1	Total	O	S	0	0
			5	4	1		
4	I	1	Total	O	S	0	0
			5	4	1		
4	I	1	Total	O	S	0	0
			5	4	1		
4	I	1	Total	O	S	0	0
			5	4	1		
4	J	1	Total	O	S	0	0
			5	4	1		
4	J	1	Total	O	S	0	0
			5	4	1		
4	J	1	Total	O	S	0	0
			5	4	1		
4	K	1	Total	O	S	0	0
			5	4	1		
4	K	1	Total	O	S	0	0
			5	4	1		
4	K	1	Total	O	S	0	0
			5	4	1		
4	L	1	Total	O	S	0	0
			5	4	1		

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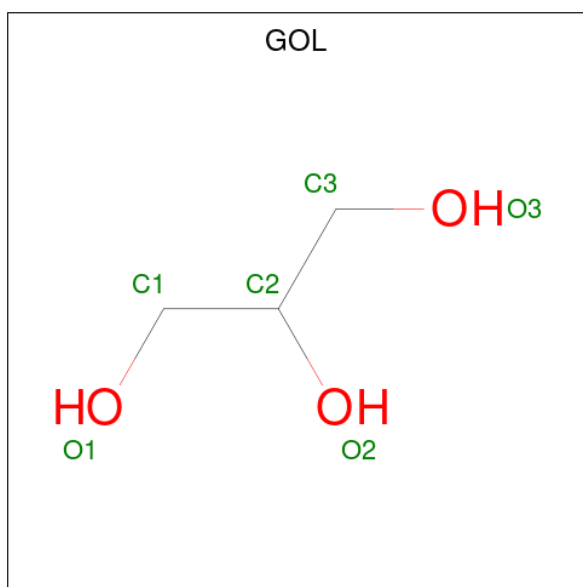
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	L	1	Total	O	S	0	0
			5	4	1		
4	L	1	Total	O	S	0	0
			5	4	1		
4	L	1	Total	O	S	0	0
			5	4	1		
4	M	1	Total	O	S	0	0
			5	4	1		
4	M	1	Total	O	S	0	0
			5	4	1		
4	M	1	Total	O	S	0	0
			5	4	1		
4	M	1	Total	O	S	0	0
			5	4	1		
4	N	1	Total	O	S	0	0
			5	4	1		
4	N	1	Total	O	S	0	0
			5	4	1		
4	N	1	Total	O	S	0	0
			5	4	1		
4	O	1	Total	O	S	0	0
			5	4	1		
4	O	1	Total	O	S	0	0
			5	4	1		
4	O	1	Total	O	S	0	0
			5	4	1		
4	P	1	Total	O	S	0	0
			5	4	1		
4	Q	1	Total	O	S	0	0
			5	4	1		
4	Q	1	Total	O	S	0	0
			5	4	1		
4	Q	1	Total	O	S	0	0
			5	4	1		
4	R	1	Total	O	S	0	0
			5	4	1		
4	R	1	Total	O	S	0	0
			5	4	1		
4	R	1	Total	O	S	0	0
			5	4	1		
4	S	1	Total	O	S	0	0
			5	4	1		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	S	1	Total	O	S	0	0
			5	4	1		
4	T	1	Total	O	S	0	0
			5	4	1		
4	U	1	Total	O	S	0	0
			5	4	1		
4	U	1	Total	O	S	0	0
			5	4	1		
4	U	1	Total	O	S	0	0
			5	4	1		
4	V	1	Total	O	S	0	0
			5	4	1		
4	V	1	Total	O	S	0	0
			5	4	1		
4	V	1	Total	O	S	0	0
			5	4	1		
4	W	1	Total	O	S	0	0
			5	4	1		
4	X	1	Total	O	S	0	0
			5	4	1		
4	X	1	Total	O	S	0	0
			5	4	1		
4	X	1	Total	O	S	0	0
			5	4	1		
4	Y	1	Total	O	S	0	0
			5	4	1		
4	Y	1	Total	O	S	0	0
			5	4	1		
4	a	1	Total	O	S	0	0
			5	4	1		
4	c	1	Total	O	S	0	0
			5	4	1		

- Molecule 5 is GLYCEROL (CCD ID: GOL) (formula: $C_3H_8O_3$).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	G	1	Total	C	O	0	0
			6	3	3		
5	G	1	Total	C	O	0	0
			6	3	3		
5	A	1	Total	C	O	0	0
			6	3	3		
5	A	1	Total	C	O	0	0
			6	3	3		
5	A	1	Total	C	O	0	0
			6	3	3		
5	D	1	Total	C	O	0	0
			6	3	3		
5	H	1	Total	C	O	0	0
			6	3	3		
5	H	1	Total	C	O	0	0
			6	3	3		
5	I	1	Total	C	O	0	0
			6	3	3		
5	I	1	Total	C	O	0	0
			6	3	3		
5	I	1	Total	C	O	0	0
			6	3	3		
5	J	1	Total	C	O	0	0
			6	3	3		
5	J	1	Total	C	O	0	0
			6	3	3		
5	K	1	Total	C	O	0	0
			6	3	3		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	K	1	Total	C	O	0	0
			6	3	3		
5	K	1	Total	C	O	0	0
			6	3	3		
5	K	1	Total	C	O	0	0
			6	3	3		
5	L	1	Total	C	O	0	0
			6	3	3		

- Molecule 6 is POTASSIUM ION (CCD ID: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	H	1	Total	K	0	0
			1	1		
6	K	1	Total	K	0	0
			1	1		
6	Q	1	Total	K	0	0
			1	1		
6	X	1	Total	K	0	0
			1	1		

- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	G	78	Total	O	0	0
			78	78		
7	A	33	Total	O	0	0
			33	33		
7	B	40	Total	O	0	0
			40	40		
7	C	36	Total	O	0	0
			36	36		
7	D	21	Total	O	0	0
			21	21		
7	E	21	Total	O	0	0
			21	21		
7	F	24	Total	O	0	0
			24	24		
7	H	70	Total	O	0	0
			70	70		
7	I	62	Total	O	0	0
			62	62		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	J	78	Total O 78 78	0	0
7	K	57	Total O 57 57	0	0
7	L	69	Total O 69 69	0	0
7	M	27	Total O 27 27	0	0
7	N	37	Total O 37 37	0	0
7	O	40	Total O 40 40	0	0
7	P	50	Total O 50 50	0	0
7	Q	48	Total O 48 48	0	0
7	R	49	Total O 49 49	0	0
7	S	4	Total O 4 4	0	0
7	T	15	Total O 15 15	0	0
7	U	15	Total O 15 15	0	0
7	V	17	Total O 17 17	0	0
7	W	12	Total O 12 12	0	0
7	X	13	Total O 13 13	0	0
7	Y	2	Total O 2 2	0	0
7	Z	1	Total O 1 1	0	0
7	a	2	Total O 2 2	0	0
7	b	2	Total O 2 2	0	0
7	c	2	Total O 2 2	0	0
7	d	2	Total O 2 2	0	0

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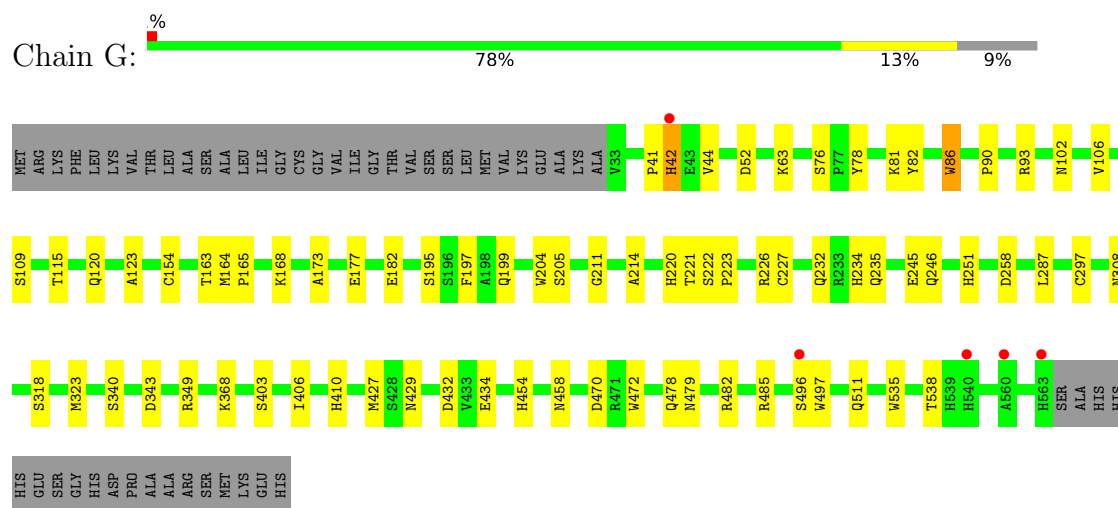
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	e	2	Total 2	O 2	0	0
7	f	2	Total 2	O 2	0	0
7	g	1	Total 1	O 1	0	0
7	i	2	Total 2	O 2	0	0
7	j	1	Total 1	O 1	0	0

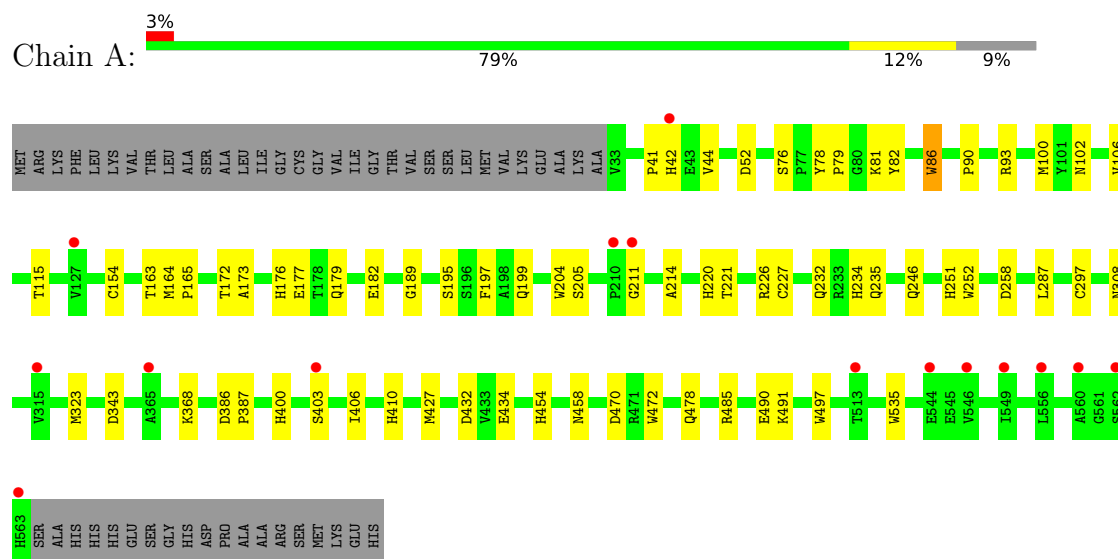
3 Residue-property plots [i](#)

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

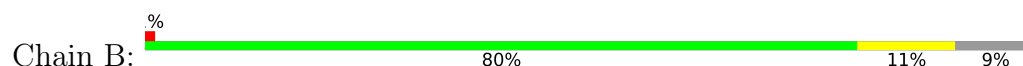
• Molecule 1: Hydrazine dehydrogenase

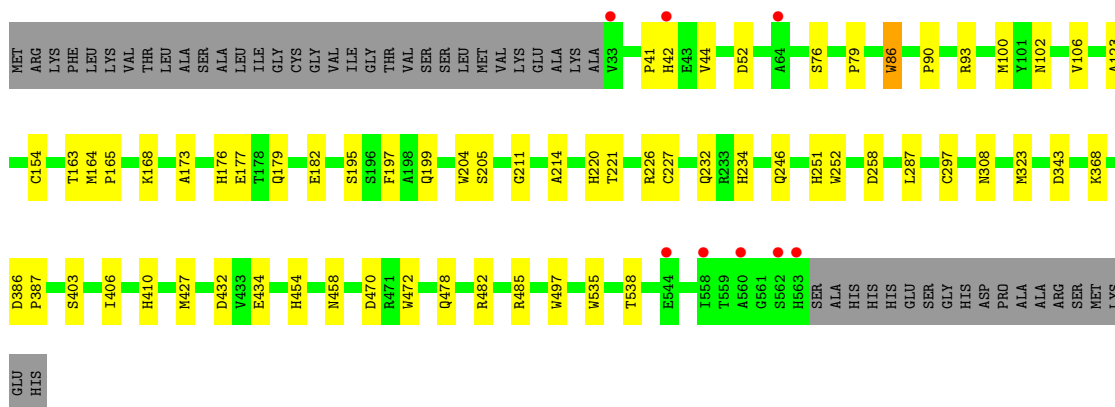


• Molecule 1: Hydrazine dehydrogenase

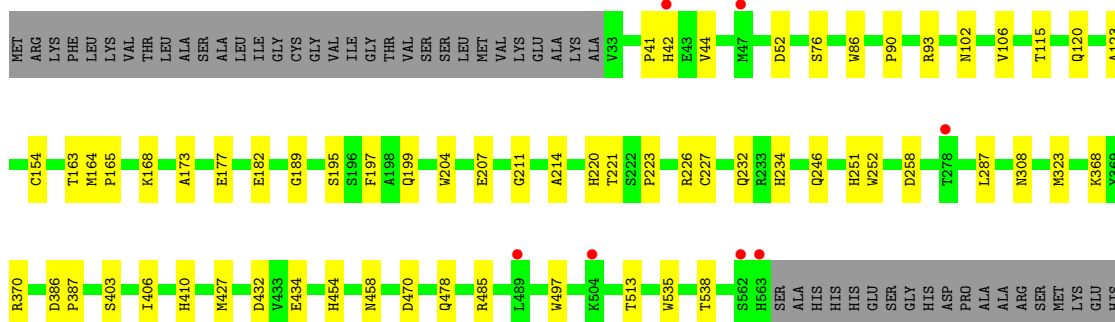
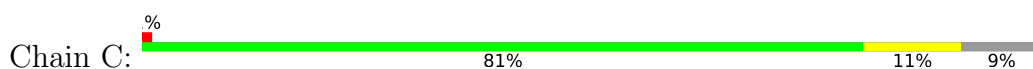


• Molecule 1: Hydrazine dehydrogenase

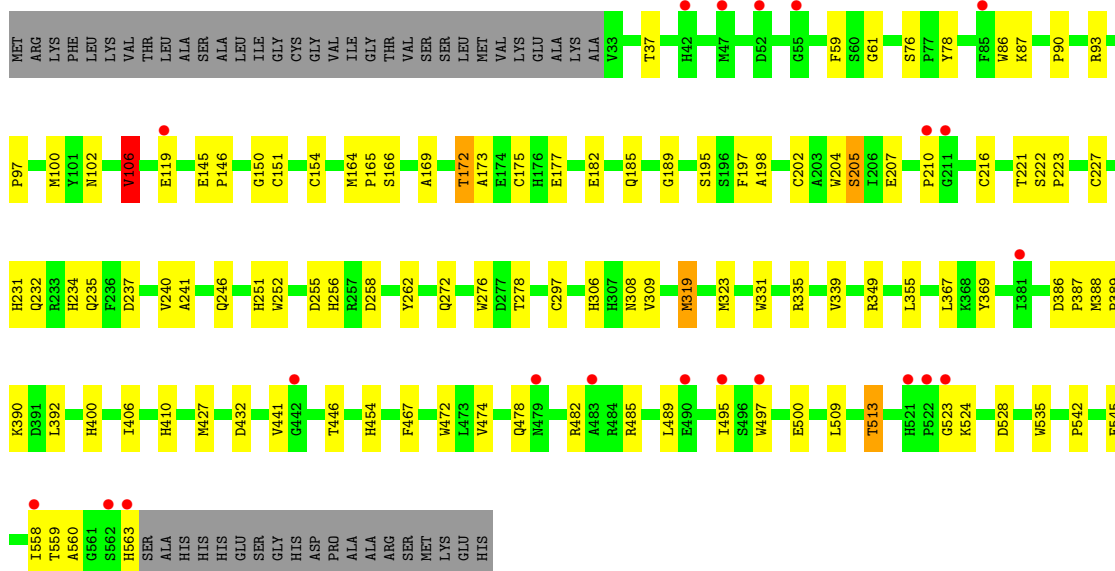
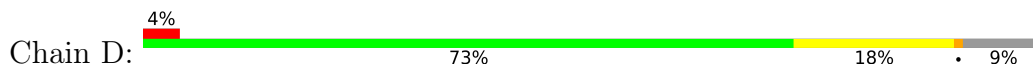




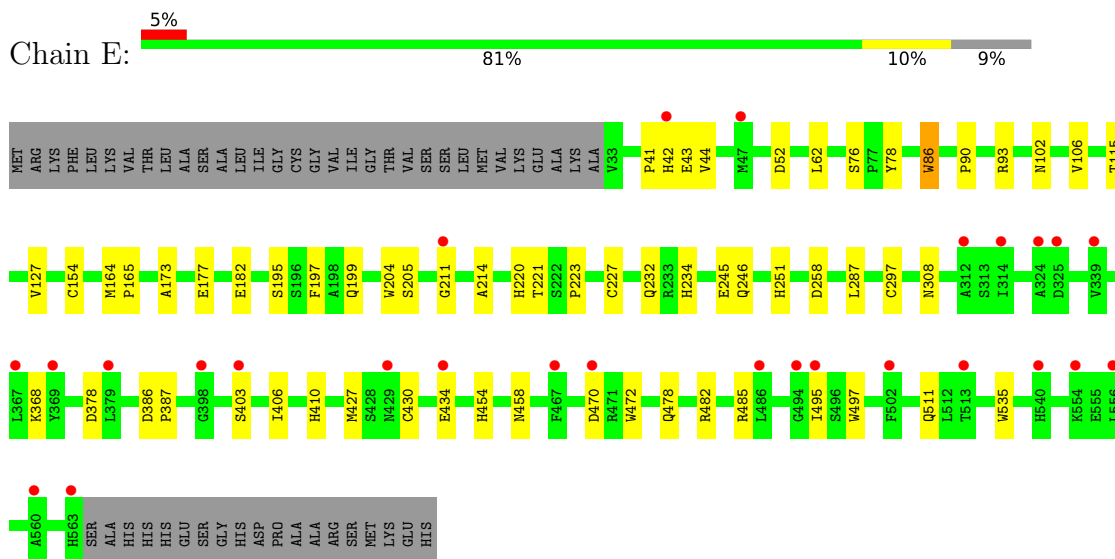
- Molecule 1: Hydrazine dehydrogenase



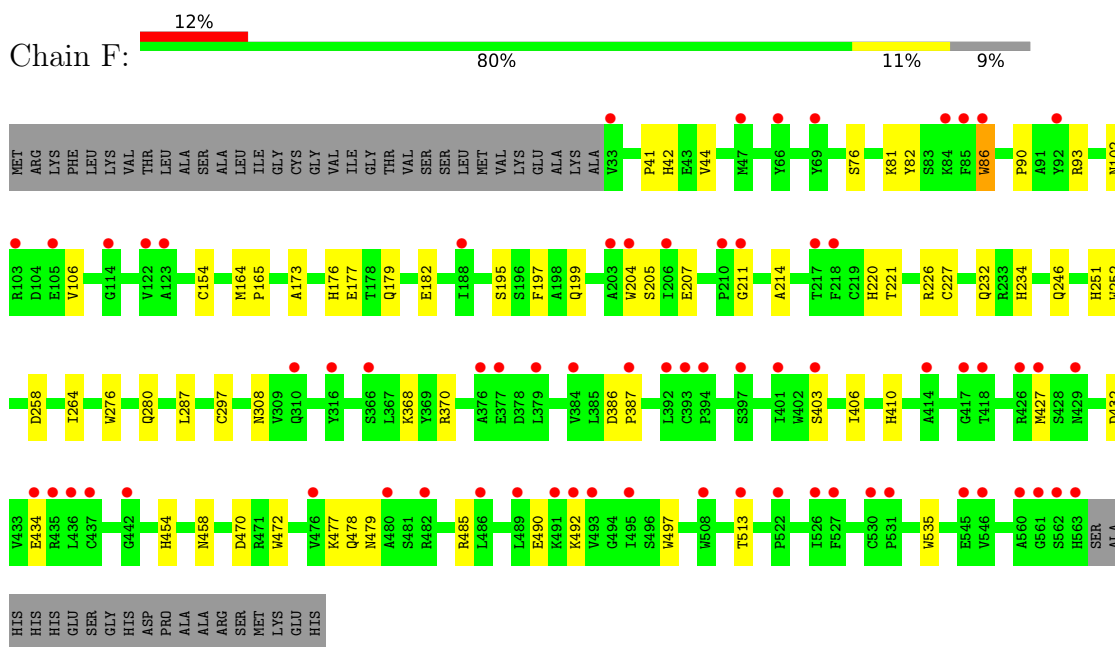
- Molecule 1: Hydrazine dehydrogenase



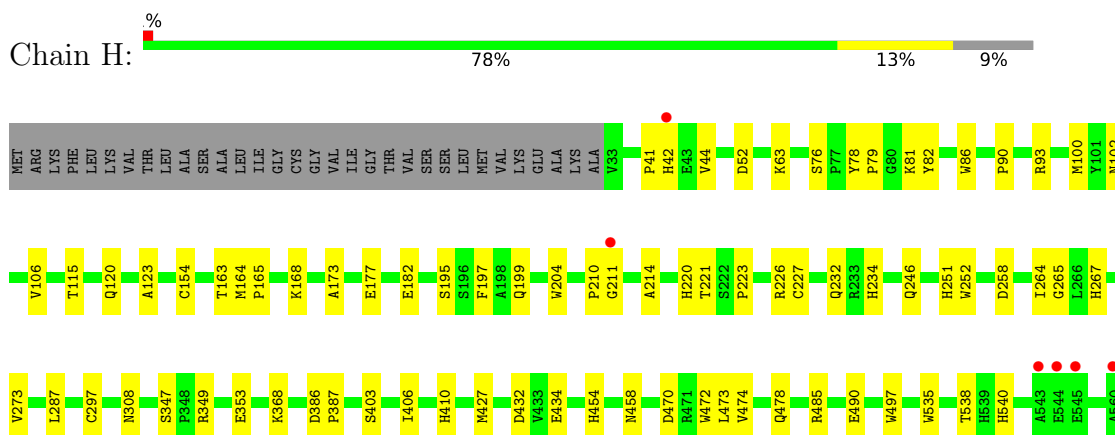
- Molecule 1: Hydrazine dehydrogenase

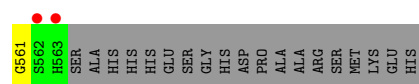


- Molecule 1: Hydrazine dehydrogenase



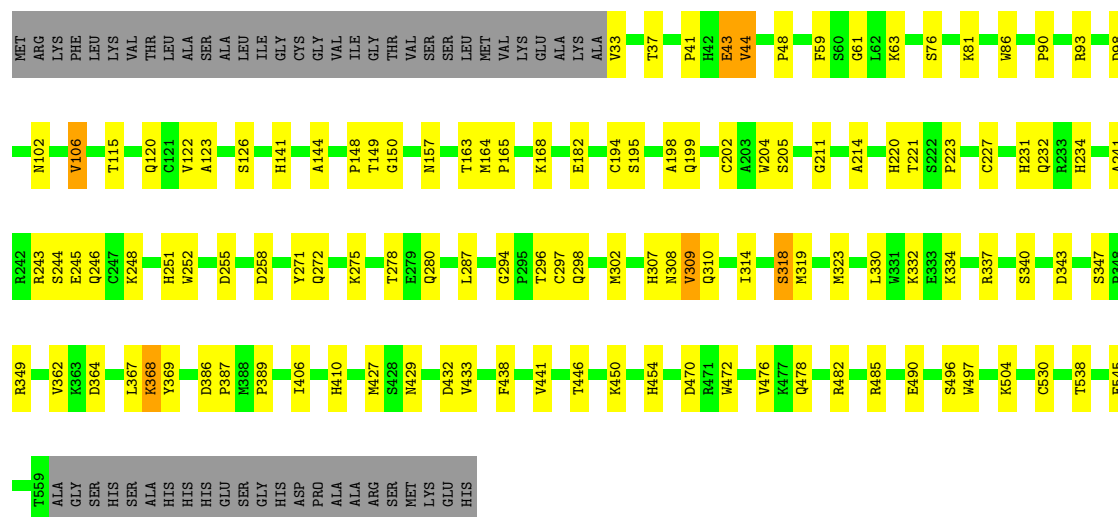
- Molecule 1: Hydrazine dehydrogenase





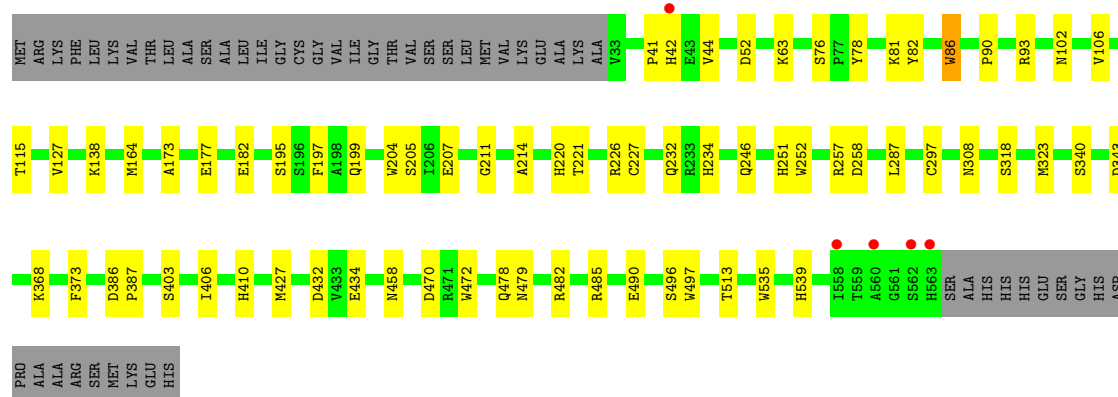
• Molecule 1: Hydrazine dehydrogenase

Chain I: 70% 19% 9%



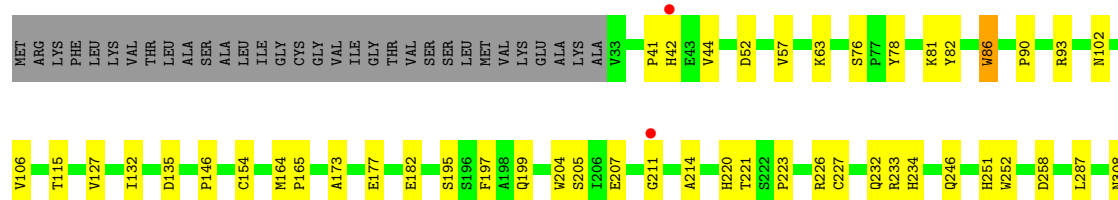
• Molecule 1: Hydrazine dehydrogenase

Chain J: 79% 12% 9%



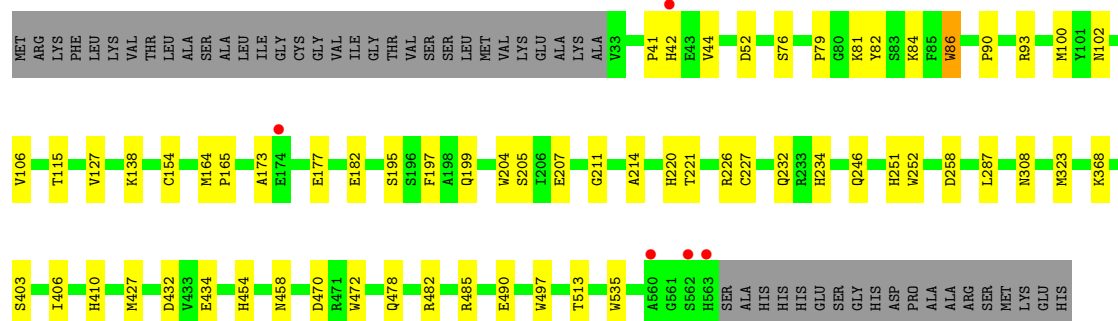
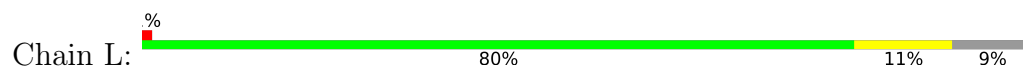
• Molecule 1: Hydrazine dehydrogenase

Chain K: 79% 13% 9%

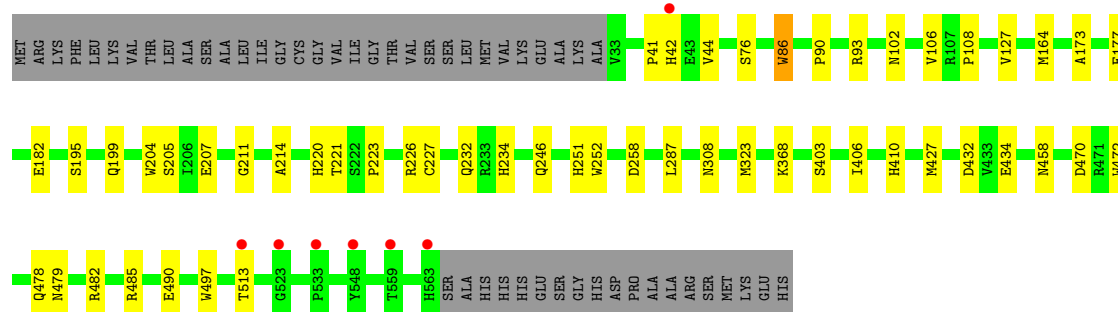
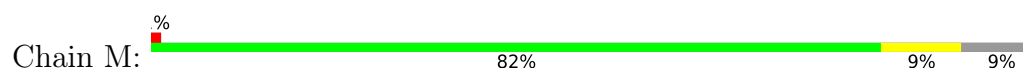




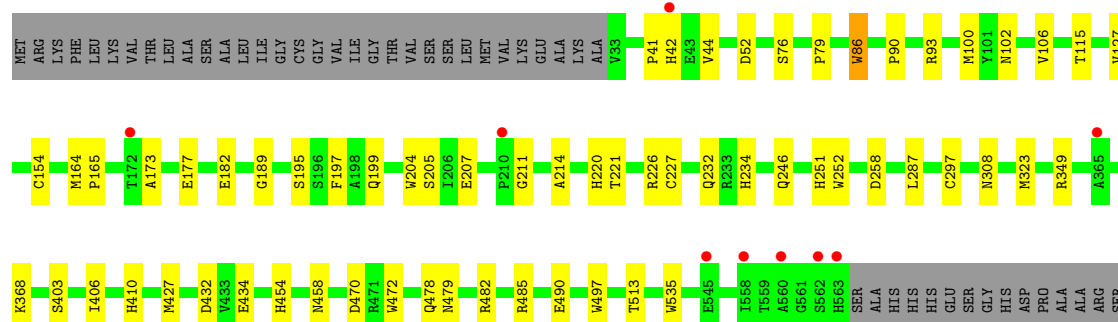
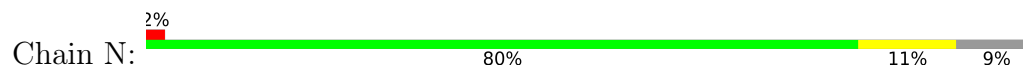
• Molecule 1: Hydrazine dehydrogenase



• Molecule 1: Hydrazine dehydrogenase

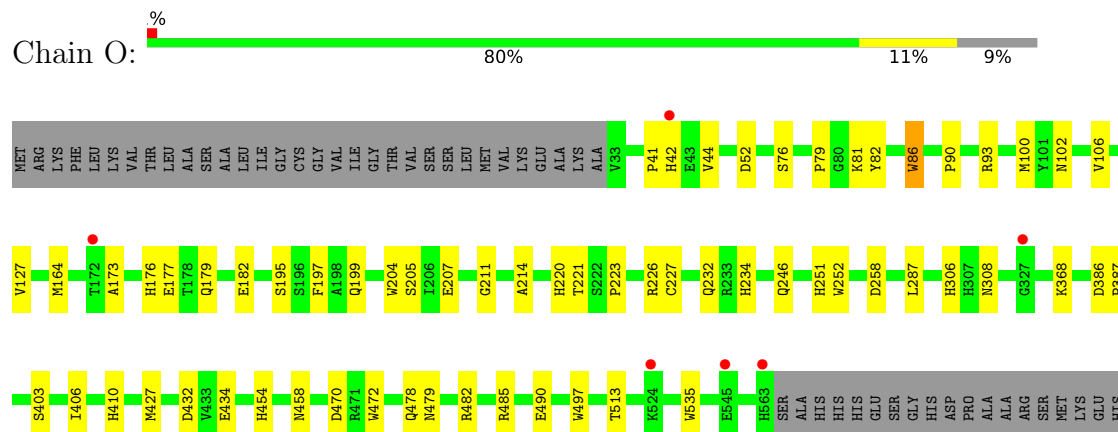


• Molecule 1: Hydrazine dehydrogenase

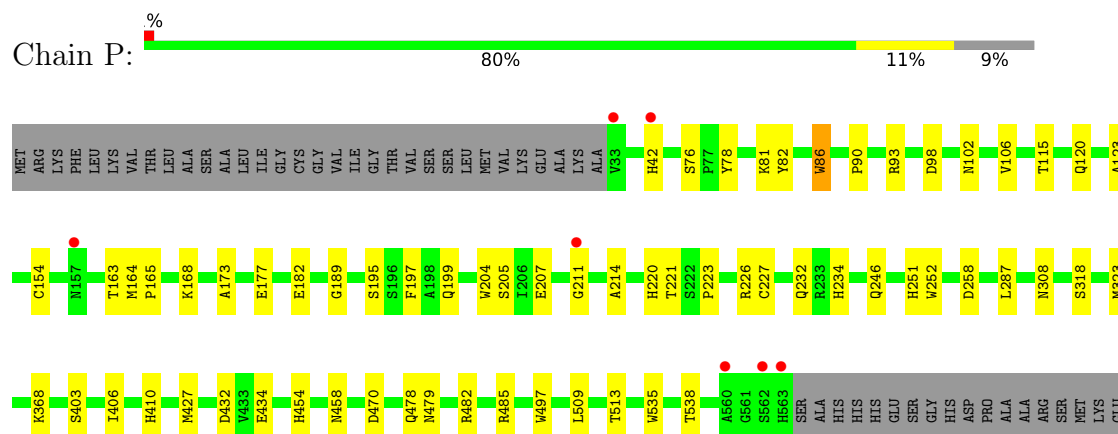


MET
LYS
GLU
HIS

● Molecule 1: Hydrazine dehydrogenase

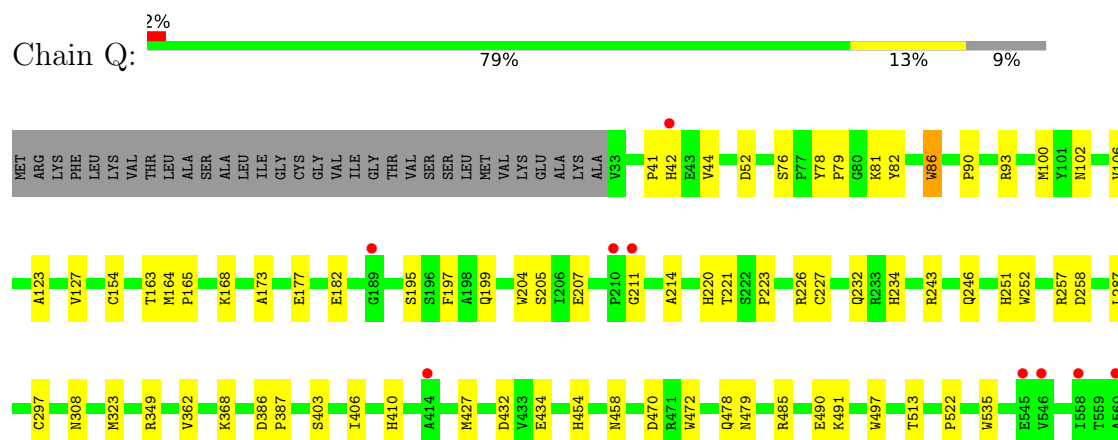


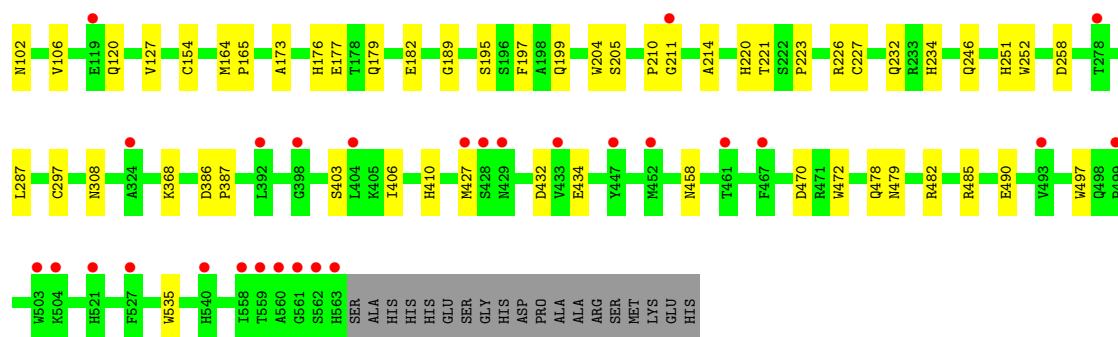
● Molecule 1: Hydrazine dehydrogenase



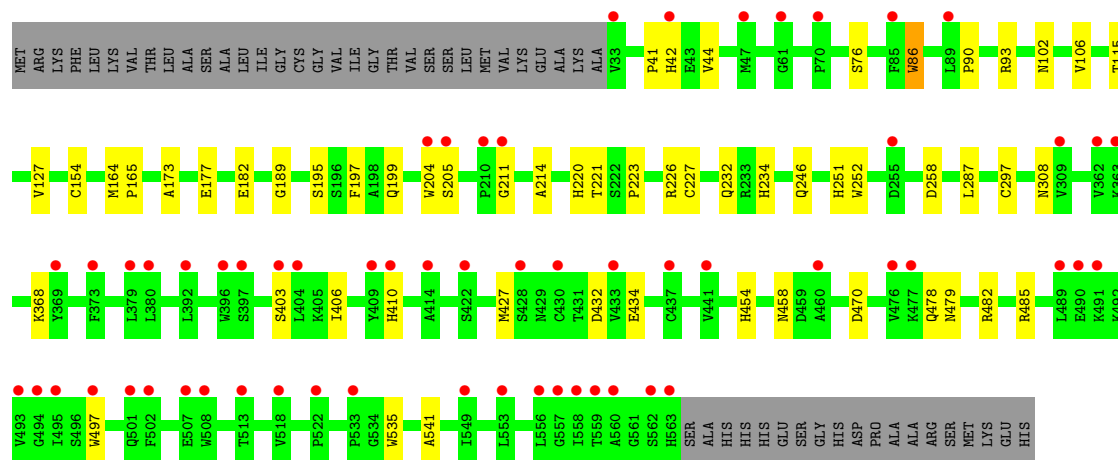
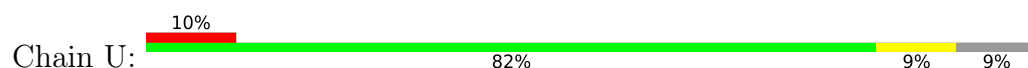
HIS

● Molecule 1: Hydrazine dehydrogenase

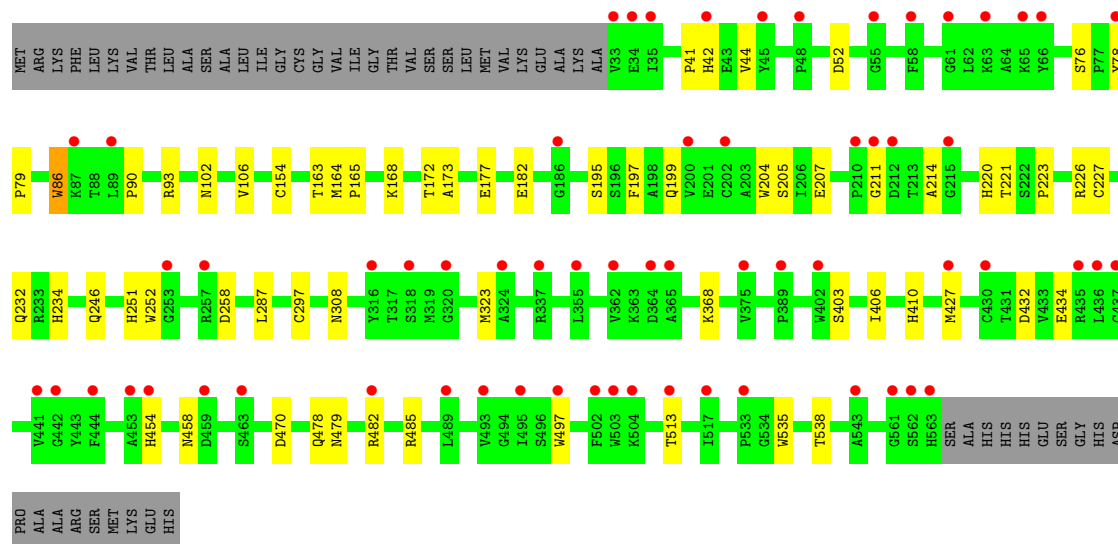
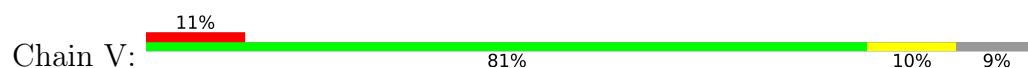




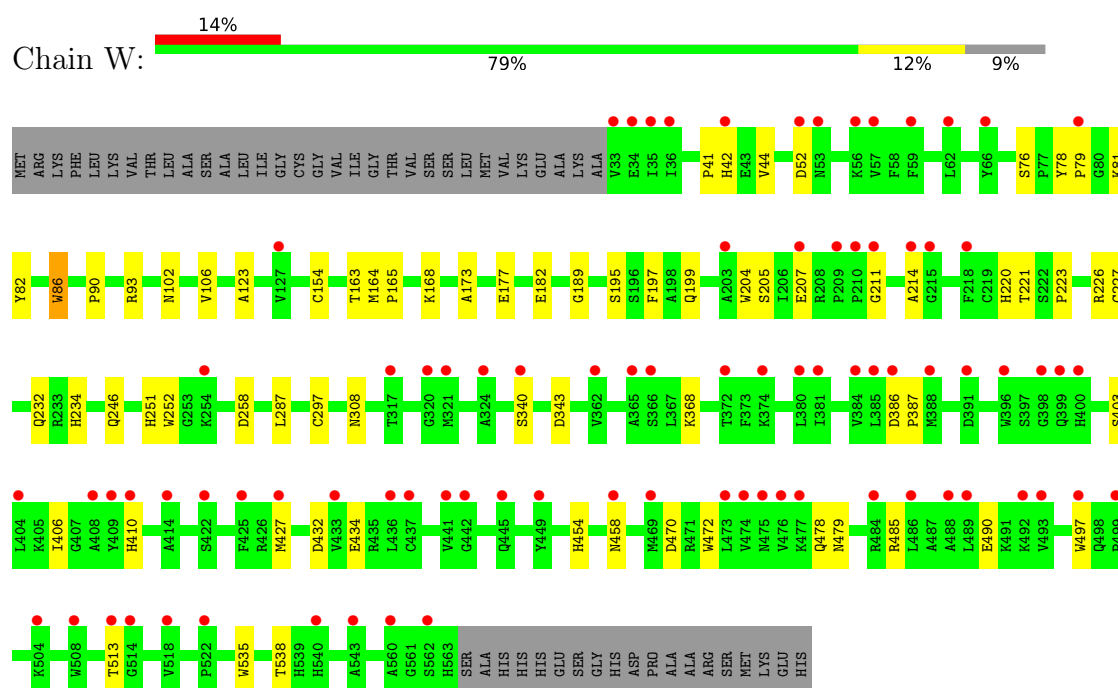
• Molecule 1: Hydrazine dehydrogenase



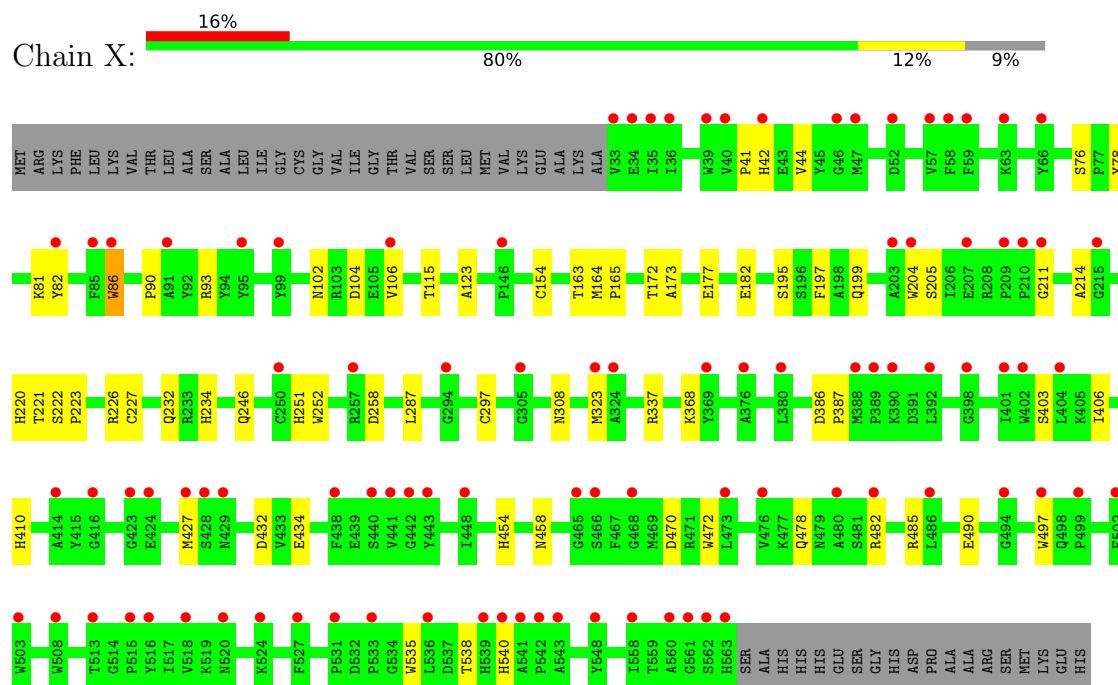
• Molecule 1: Hydrazine dehydrogenase



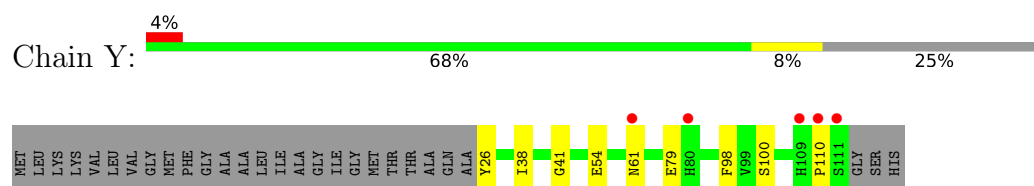
• Molecule 1: Hydrazine dehydrogenase



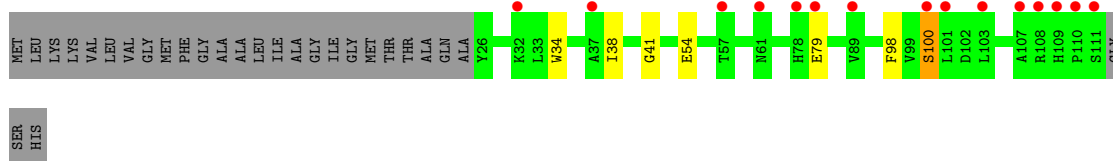
• Molecule 1: Hydrazine dehydrogenase



• Molecule 2: hdh assembly factor Kustc1130



• Molecule 2: hdh assembly factor Kustc1130



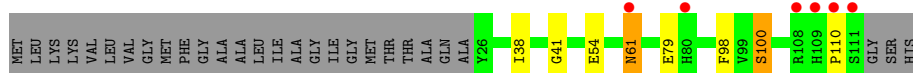
- Molecule 2: hdh assembly factor Kustc1130



- Molecule 2: hdh assembly factor Kustc1130



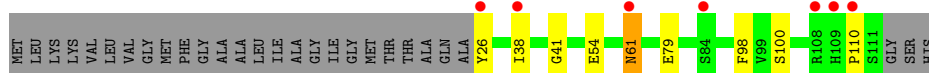
- Molecule 2: hdh assembly factor Kustc1130



- Molecule 2: hdh assembly factor Kustc1130

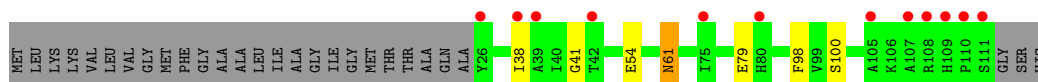


- Molecule 2: hdh assembly factor Kustc1130



- Molecule 2: hdh assembly factor Kustc1130





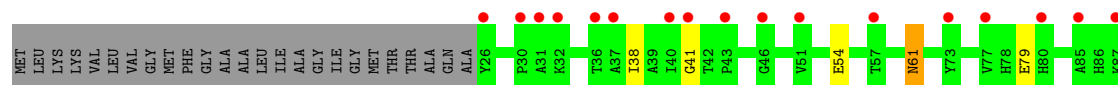
• Molecule 2: hdh assembly factor Kustc1130



• Molecule 2: hdh assembly factor Kustc1130



• Molecule 2: hdh assembly factor Kustc1130



• Molecule 2: hdh assembly factor Kustc1130



4 Data and refinement statistics

Property	Value	Source
Space group	P 31	Depositor
Cell constants a, b, c, α , β , γ	211.86Å 211.86Å 398.57Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	93.71 – 2.80 93.71 – 2.80	Depositor EDS
% Data completeness (in resolution range)	96.6 (93.71-2.80) 96.6 (93.71-2.80)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.44 (at 2.82Å)	Xtriage
Refinement program	REFMAC 5.8.0222	Depositor
R, R_{free}	0.221 , 0.238 0.220 , 0.250	Depositor DCC
R_{free} test set	30022 reflections (6.09%)	wwPDB-VP
Wilson B-factor (Å ²)	58.7	Xtriage
Anisotropy	0.123	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.37 , 54.5	EDS
L-test for twinning ²	$\langle L \rangle = 0.50$, $\langle L^2 \rangle = 0.33$	Xtriage
Estimated twinning fraction	0.000 for -h,-k,l 0.000 for h,-h-k,-l 0.000 for -k,-h,-l	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	118753	wwPDB-VP
Average B, all atoms (Å ²)	63.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.12% 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: K, GOL, HEC, SO4

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.44	0/4355	0.91	0/5901
1	B	0.45	0/4355	0.90	0/5901
1	C	0.45	0/4355	0.92	0/5901
1	D	0.44	0/4355	0.95	0/5901
1	E	0.44	0/4355	0.91	0/5901
1	F	0.44	0/4355	0.91	0/5901
1	G	0.45	0/4355	0.91	0/5901
1	H	0.45	0/4355	0.91	0/5901
1	I	0.46	0/4329	0.95	0/5866
1	J	0.45	0/4355	0.90	0/5901
1	K	0.45	0/4355	0.90	0/5901
1	L	0.45	0/4355	0.91	0/5901
1	M	0.44	0/4355	0.91	0/5901
1	N	0.44	0/4355	0.91	0/5901
1	O	0.45	0/4355	0.90	0/5901
1	P	0.45	0/4355	0.91	0/5901
1	Q	0.45	0/4355	0.91	0/5901
1	R	0.45	0/4366	0.90	0/5915
1	S	0.44	0/4355	0.91	0/5901
1	T	0.44	0/4355	0.91	0/5901
1	U	0.44	0/4355	0.91	0/5901
1	V	0.44	0/4355	0.91	0/5901
1	W	0.44	0/4355	0.91	0/5901
1	X	0.44	0/4355	0.91	0/5901
2	Y	0.47	0/653	0.77	1/887 (0.1%)
2	Z	0.47	0/653	0.78	0/887
2	a	0.47	0/653	0.78	1/887 (0.1%)
2	b	0.47	0/653	0.77	1/887 (0.1%)
2	c	0.47	0/653	0.78	1/887 (0.1%)
2	d	0.48	0/653	0.78	1/887 (0.1%)
2	e	0.48	0/653	0.78	1/887 (0.1%)
2	f	0.47	0/653	0.78	1/887 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
2	g	0.47	0/653	0.78	1/887 (0.1%)
2	h	0.47	0/653	0.77	1/887 (0.1%)
2	i	0.48	0/653	0.77	1/887 (0.1%)
2	j	0.47	0/653	0.77	0/887
All	All	0.45	0/112341	0.90	10/152247 (0.0%)

There are no bond length outliers.

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	c	61	ASN	CB-CA-C	-5.58	101.53	110.79
2	e	61	ASN	CB-CA-C	-5.47	101.70	110.79
2	Y	61	ASN	CB-CA-C	-5.40	101.82	110.79
2	h	61	ASN	CB-CA-C	-5.36	101.89	110.79
2	d	61	ASN	CB-CA-C	-5.34	101.93	110.79
2	a	61	ASN	CB-CA-C	-5.25	102.07	110.79
2	g	61	ASN	CB-CA-C	-5.20	102.16	110.79
2	f	61	ASN	CB-CA-C	-5.17	102.22	110.79
2	i	61	ASN	CB-CA-C	-5.09	102.34	110.79
2	b	61	ASN	CB-CA-C	-5.05	102.40	110.79

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	4226	0	3941	52	1
1	B	4226	0	3941	51	0
1	C	4226	0	3941	52	0
1	D	4226	0	3941	75	0
1	E	4226	0	3941	49	0
1	F	4226	0	3941	46	0
1	G	4226	0	3941	71	2
1	H	4226	0	3941	80	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	I	4201	0	3921	101	0
1	J	4226	0	3941	62	1
1	K	4226	0	3941	70	0
1	L	4226	0	3941	53	0
1	M	4226	0	3941	44	0
1	N	4226	0	3941	51	0
1	O	4226	0	3941	51	0
1	P	4226	0	3941	55	0
1	Q	4226	0	3941	58	1
1	R	4237	0	3953	59	1
1	S	4226	0	3941	44	0
1	T	4226	0	3941	45	0
1	U	4226	0	3941	41	0
1	V	4226	0	3941	47	0
1	W	4226	0	3941	52	0
1	X	4226	0	3941	52	0
2	Y	640	0	627	5	0
2	Z	640	0	627	4	0
2	a	640	0	627	5	0
2	b	640	0	627	7	0
2	c	640	0	627	6	0
2	d	640	0	627	6	0
2	e	640	0	627	6	0
2	f	640	0	627	4	0
2	g	640	0	627	6	0
2	h	640	0	627	7	0
2	i	640	0	627	6	0
2	j	640	0	627	10	0
3	A	344	0	236	11	0
3	B	344	0	236	12	0
3	C	344	0	236	12	0
3	D	344	0	237	14	0
3	E	344	0	236	13	0
3	F	344	0	236	12	0
3	G	344	0	236	15	0
3	H	344	0	236	11	0
3	I	344	0	237	24	0
3	J	344	0	236	12	0
3	K	344	0	236	15	0
3	L	344	0	236	14	0
3	M	344	0	236	11	0
3	N	344	0	236	14	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	O	344	0	236	11	0
3	P	344	0	236	13	0
3	Q	344	0	236	17	0
3	R	344	0	236	14	0
3	S	344	0	236	14	0
3	T	344	0	236	11	0
3	U	344	0	236	14	0
3	V	344	0	236	14	0
3	W	344	0	236	17	0
3	X	344	0	236	14	0
4	A	15	0	0	0	0
4	B	10	0	0	1	0
4	C	15	0	0	0	0
4	D	5	0	0	0	0
4	E	10	0	0	0	0
4	F	10	0	0	0	0
4	G	30	0	0	3	0
4	H	25	0	0	1	0
4	I	20	0	0	0	0
4	J	15	0	0	2	0
4	K	15	0	0	0	0
4	L	20	0	0	1	0
4	M	20	0	0	0	0
4	N	15	0	0	1	0
4	O	15	0	0	0	0
4	P	5	0	0	0	0
4	Q	15	0	0	1	0
4	R	15	0	0	0	0
4	S	10	0	0	0	0
4	T	5	0	0	0	0
4	U	15	0	0	0	0
4	V	15	0	0	0	0
4	W	5	0	0	0	0
4	X	15	0	0	1	0
4	Y	10	0	0	0	0
4	a	5	0	0	0	0
4	c	5	0	0	0	0
5	A	18	0	24	2	0
5	D	6	0	8	0	0
5	G	12	0	16	2	0
5	H	12	0	16	20	0
5	I	18	0	24	5	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	J	12	0	16	3	0
5	K	24	0	32	14	0
5	L	6	0	8	1	0
6	H	1	0	0	0	0
6	K	1	0	0	0	0
6	Q	1	0	0	0	0
6	X	1	0	0	0	0
7	A	33	0	0	3	0
7	B	40	0	0	2	0
7	C	36	0	0	0	0
7	D	21	0	0	0	0
7	E	21	0	0	2	0
7	F	24	0	0	0	0
7	G	78	0	0	8	0
7	H	70	0	0	4	0
7	I	62	0	0	1	0
7	J	78	0	0	4	0
7	K	57	0	0	5	0
7	L	69	0	0	1	0
7	M	27	0	0	1	0
7	N	37	0	0	0	0
7	O	40	0	0	0	0
7	P	50	0	0	3	0
7	Q	48	0	0	4	0
7	R	49	0	0	5	0
7	S	4	0	0	0	0
7	T	15	0	0	1	0
7	U	15	0	0	0	0
7	V	17	0	0	0	0
7	W	12	0	0	0	0
7	X	13	0	0	0	0
7	Y	2	0	0	0	0
7	Z	1	0	0	0	0
7	a	2	0	0	0	0
7	b	2	0	0	0	0
7	c	2	0	0	1	0
7	d	2	0	0	0	0
7	e	2	0	0	0	0
7	f	2	0	0	0	0
7	g	1	0	0	0	0
7	i	2	0	0	0	0
7	j	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	118753	0	107910	1326	3

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 6.

All (1326) 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)
1:H:267:HIS:HD1	5:H:614:GOL:H11	1.06	1.14
1:H:267:HIS:ND1	5:H:614:GOL:H11	1.65	1.12
1:H:267:HIS:HD1	5:H:614:GOL:C1	1.74	1.01
1:H:267:HIS:CE1	5:H:614:GOL:H31	2.01	0.96
1:I:406:ILE:H	1:I:410:HIS:HD2	1.14	0.95
1:B:406:ILE:H	1:B:410:HIS:HD2	1.16	0.93
5:H:615:GOL:H12	1:I:429:ASN:H	1.32	0.93
1:R:406:ILE:H	1:R:410:HIS:HD2	1.17	0.93
1:H:267:HIS:HE1	5:H:614:GOL:H31	1.32	0.92
1:N:406:ILE:H	1:N:410:HIS:HD2	1.17	0.92
1:G:406:ILE:H	1:G:410:HIS:HD2	1.16	0.92
1:Q:406:ILE:H	1:Q:410:HIS:HD2	1.17	0.92
1:A:406:ILE:H	1:A:410:HIS:HD2	1.16	0.91
1:H:474:VAL:HG22	5:H:615:GOL:H32	1.49	0.91
1:J:406:ILE:H	1:J:410:HIS:HD2	1.18	0.91
1:M:406:ILE:H	1:M:410:HIS:HD2	1.18	0.91
1:D:232:GLN:HE22	1:D:246:GLN:HE22	1.13	0.90
1:H:406:ILE:H	1:H:410:HIS:HD2	1.17	0.90
1:G:410:HIS:HA	5:G:616:GOL:H31	1.54	0.89
1:T:406:ILE:H	1:T:410:HIS:HD2	1.19	0.89
1:L:406:ILE:H	1:L:410:HIS:HD2	1.17	0.89
1:J:138:LYS:HE3	7:L:724:HOH:O	1.72	0.88
1:K:406:ILE:H	1:K:410:HIS:HD2	1.18	0.88
1:U:406:ILE:H	1:U:410:HIS:HD2	1.19	0.88
1:S:406:ILE:H	1:S:410:HIS:HD2	1.19	0.88
1:C:406:ILE:H	1:C:410:HIS:HD2	1.19	0.88
1:X:406:ILE:H	1:X:410:HIS:HD2	1.19	0.87
1:E:406:ILE:H	1:E:410:HIS:HD2	1.20	0.87
1:W:406:ILE:H	1:W:410:HIS:HD2	1.20	0.86
1:V:406:ILE:H	1:V:410:HIS:HD2	1.18	0.86
1:K:232:GLN:HE22	1:K:246:GLN:HE22	1.24	0.86
1:P:406:ILE:H	1:P:410:HIS:HD2	1.19	0.85
1:F:406:ILE:H	1:F:410:HIS:HD2	1.19	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:211:GLY:HA2	1:I:214:ALA:HB2	1.56	0.85
1:I:438:PHE:HZ	5:I:614:GOL:H31	1.41	0.84
1:O:406:ILE:H	1:O:410:HIS:HD2	1.18	0.84
1:L:232:GLN:HE22	1:L:246:GLN:HE22	1.26	0.84
1:W:232:GLN:HE22	1:W:246:GLN:HE22	1.27	0.82
1:R:232:GLN:HE22	1:R:246:GLN:HE22	1.27	0.81
1:E:232:GLN:HE22	1:E:246:GLN:HE22	1.27	0.81
1:J:232:GLN:HE22	1:J:246:GLN:HE22	1.27	0.81
1:X:232:GLN:HE22	1:X:246:GLN:HE22	1.29	0.81
1:D:207:GLU:HA	1:D:513:THR:OG1	1.79	0.81
1:J:76:SER:HB2	1:J:106:VAL:HG11	1.62	0.81
1:P:232:GLN:HE22	1:P:246:GLN:HE22	1.29	0.81
1:G:232:GLN:HE22	1:G:246:GLN:HE22	1.29	0.80
1:U:232:GLN:HE22	1:U:246:GLN:HE22	1.29	0.80
1:D:497:TRP:CD1	1:F:485:ARG:HD3	2.15	0.80
1:F:232:GLN:HE22	1:F:246:GLN:HE22	1.29	0.80
1:T:232:GLN:HE22	1:T:246:GLN:HE22	1.29	0.80
1:S:232:GLN:HE22	1:S:246:GLN:HE22	1.27	0.80
1:V:232:GLN:HE22	1:V:246:GLN:HE22	1.28	0.80
1:G:76:SER:HB2	1:G:106:VAL:HG11	1.64	0.80
1:Q:232:GLN:HE22	1:Q:246:GLN:HE22	1.30	0.80
1:B:76:SER:HB2	1:B:106:VAL:HG11	1.63	0.79
1:D:102:ASN:HD21	1:D:164:MET:H	1.27	0.79
1:N:232:GLN:HE22	1:N:246:GLN:HE22	1.30	0.79
1:C:163:THR:HG21	2:b:98:PHE:HB2	1.64	0.79
1:E:76:SER:HB2	1:E:106:VAL:HG11	1.64	0.79
1:H:454:HIS:HA	5:H:614:GOL:H2	1.61	0.79
1:C:232:GLN:HE22	1:C:246:GLN:HE22	1.31	0.79
1:C:76:SER:HB2	1:C:106:VAL:HG11	1.65	0.79
7:K:721:HOH:O	1:L:138:LYS:HE3	1.82	0.78
1:K:76:SER:HB2	1:K:106:VAL:HG11	1.65	0.78
1:O:232:GLN:HE22	1:O:246:GLN:HE22	1.32	0.78
1:N:76:SER:HB2	1:N:106:VAL:HG11	1.65	0.78
1:D:323:MET:HE1	1:E:52:ASP:HB2	1.66	0.78
1:H:76:SER:HB2	1:H:106:VAL:HG11	1.65	0.78
1:B:232:GLN:HE22	1:B:246:GLN:HE22	1.30	0.78
1:X:76:SER:HB2	1:X:106:VAL:HG11	1.66	0.77
1:F:76:SER:HB2	1:F:106:VAL:HG11	1.65	0.77
1:L:76:SER:HB2	1:L:106:VAL:HG11	1.63	0.77
1:S:76:SER:HB2	1:S:106:VAL:HG11	1.64	0.77
1:H:474:VAL:HG23	5:H:615:GOL:H11	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:232:GLN:HE22	1:M:246:GLN:HE22	1.29	0.77
1:G:235:GLN:HE22	1:I:280:GLN:HE22	1.31	0.77
1:O:76:SER:HB2	1:O:106:VAL:HG11	1.65	0.77
1:W:163:THR:HG21	2:i:98:PHE:HB2	1.66	0.77
1:D:232:GLN:NE2	1:D:246:GLN:HE22	1.83	0.77
1:U:76:SER:HB2	1:U:106:VAL:HG11	1.67	0.77
1:M:76:SER:HB2	1:M:106:VAL:HG11	1.65	0.77
1:H:232:GLN:HE22	1:H:246:GLN:HE22	1.31	0.76
1:G:432:ASP:H	1:I:478:GLN:HE21	1.32	0.76
2:c:110:PRO:HG3	7:c:302:HOH:O	1.86	0.76
1:P:76:SER:HB2	1:P:106:VAL:HG11	1.67	0.76
1:H:267:HIS:CE1	5:H:614:GOL:H11	2.21	0.75
1:T:76:SER:HB2	1:T:106:VAL:HG11	1.65	0.75
1:I:102:ASN:HD21	1:I:164:MET:H	1.32	0.75
1:G:235:GLN:HE22	1:I:280:GLN:NE2	1.85	0.75
1:W:76:SER:HB2	1:W:106:VAL:HG11	1.68	0.75
1:I:232:GLN:HE22	1:I:246:GLN:HE22	1.33	0.75
1:A:76:SER:HB2	1:A:106:VAL:HG11	1.68	0.74
1:C:123:ALA:HB2	1:L:127:VAL:HG21	1.69	0.74
1:Q:76:SER:HB2	1:Q:106:VAL:HG11	1.67	0.74
1:R:76:SER:HB2	1:R:106:VAL:HG11	1.68	0.74
1:V:102:ASN:HD21	1:V:164:MET:H	1.36	0.74
1:A:232:GLN:HE22	1:A:246:GLN:HE22	1.33	0.74
1:H:540:HIS:HB2	7:H:770:HOH:O	1.87	0.74
1:G:163:THR:HG21	2:c:98:PHE:HB2	1.70	0.74
1:V:76:SER:HB2	1:V:106:VAL:HG11	1.67	0.74
1:A:400:HIS:H	5:A:613:GOL:H2	1.53	0.73
1:J:102:ASN:HD21	1:J:164:MET:H	1.34	0.73
1:P:102:ASN:HD21	1:P:164:MET:H	1.36	0.73
1:R:102:ASN:HD21	1:R:164:MET:H	1.36	0.73
1:O:102:ASN:HD21	1:O:164:MET:H	1.36	0.73
1:D:232:GLN:HE22	1:D:246:GLN:NE2	1.87	0.73
1:K:102:ASN:HD21	1:K:164:MET:H	1.35	0.73
1:K:132:ILE:HG12	5:K:614:GOL:H31	1.70	0.73
1:Q:102:ASN:HD21	1:Q:164:MET:H	1.36	0.73
1:G:343:ASP:HB2	7:G:701:HOH:O	1.89	0.72
1:R:163:THR:HG21	2:g:98:PHE:HB2	1.71	0.72
1:H:123:ALA:HB2	1:K:127:VAL:HG21	1.71	0.72
1:C:102:ASN:HD21	1:C:164:MET:H	1.36	0.72
1:M:102:ASN:HD21	1:M:164:MET:H	1.37	0.71
1:H:102:ASN:HD21	1:H:164:MET:H	1.35	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:318:SER:HB2	7:P:717:HOH:O	1.91	0.71
1:S:102:ASN:HD21	1:S:164:MET:H	1.38	0.71
1:N:127:VAL:HG21	1:R:123:ALA:HB2	1.71	0.71
1:I:163:THR:HG21	2:Y:98:PHE:HB2	1.73	0.70
1:G:102:ASN:HD21	1:G:164:MET:H	1.39	0.70
1:T:102:ASN:HD21	1:T:164:MET:H	1.37	0.70
1:I:406:ILE:H	1:I:410:HIS:CD2	2.04	0.70
1:I:438:PHE:CZ	5:I:614:GOL:H31	2.26	0.70
1:F:102:ASN:HD21	1:F:164:MET:H	1.37	0.70
1:J:127:VAL:HG21	1:P:123:ALA:HB2	1.73	0.70
1:G:343:ASP:CB	7:G:701:HOH:O	2.40	0.70
1:B:163:THR:HG21	2:a:98:PHE:HB2	1.74	0.70
1:A:102:ASN:HD21	1:A:164:MET:H	1.39	0.70
1:P:163:THR:HG21	2:e:98:PHE:HB2	1.74	0.70
1:L:102:ASN:HD21	1:L:164:MET:H	1.40	0.70
1:G:340:SER:O	7:G:701:HOH:O	2.10	0.69
1:E:102:ASN:HD21	1:E:164:MET:H	1.40	0.69
1:B:102:ASN:HD21	1:B:164:MET:H	1.39	0.69
1:X:163:THR:HG21	2:j:98:PHE:HB2	1.73	0.69
1:U:102:ASN:HD21	1:U:164:MET:H	1.39	0.69
3:O:600:HEC:HBC3	3:O:600:HEC:HHD	1.75	0.68
1:J:76:SER:HB2	1:J:106:VAL:CG1	2.23	0.68
1:X:102:ASN:HD21	1:X:164:MET:H	1.39	0.68
1:H:474:VAL:CG2	5:H:615:GOL:H32	2.22	0.68
3:I:600:HEC:HBC3	3:I:600:HEC:HHD	1.75	0.68
1:H:163:THR:HG21	2:d:98:PHE:HB2	1.76	0.68
1:G:76:SER:HB2	1:G:106:VAL:CG1	2.24	0.68
3:I:604:HEC:HBC1	3:I:605:HEC:HBB2	1.76	0.67
1:D:272:GLN:OE1	1:E:245:GLU:HG2	1.93	0.67
1:W:102:ASN:HD21	1:W:164:MET:H	1.40	0.67
1:B:76:SER:HB2	1:B:106:VAL:CG1	2.25	0.67
5:H:615:GOL:H12	1:I:429:ASN:N	2.08	0.67
1:W:168:LYS:HD3	2:i:61:ASN:O	1.93	0.67
3:F:600:HEC:HBC3	3:F:600:HEC:HHD	1.77	0.67
1:L:76:SER:HB2	1:L:106:VAL:CG1	2.24	0.67
3:G:600:HEC:HBC3	3:G:600:HEC:HHD	1.76	0.66
1:N:102:ASN:HD21	1:N:164:MET:H	1.41	0.66
3:D:604:HEC:HBC1	3:D:605:HEC:HBB2	1.76	0.66
1:D:172:THR:HG23	1:D:175:CYS:HB2	1.77	0.66
1:C:76:SER:HB2	1:C:106:VAL:CG1	2.26	0.66
1:K:234:HIS:HD1	5:K:614:GOL:H11	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:604:HEC:HBC1	3:J:605:HEC:HBB2	1.78	0.66
1:T:76:SER:HB2	1:T:106:VAL:CG1	2.26	0.66
1:V:76:SER:HB2	1:V:106:VAL:CG1	2.26	0.66
3:L:600:HEC:HBC3	3:L:600:HEC:HHD	1.78	0.66
3:V:604:HEC:HBC1	3:V:605:HEC:HBB2	1.78	0.66
1:D:234:HIS:HD2	3:D:601:HEC:NC	1.93	0.65
1:D:182:GLU:O	1:D:308:ASN:HB2	1.97	0.65
1:G:235:GLN:NE2	1:I:280:GLN:HE22	1.94	0.65
1:M:76:SER:HB2	1:M:106:VAL:CG1	2.26	0.65
1:N:76:SER:HB2	1:N:106:VAL:CG1	2.27	0.65
2:Y:38:ILE:HD11	2:Y:100:SER:OG	1.97	0.65
2:d:38:ILE:HD11	2:d:100:SER:OG	1.97	0.65
1:F:76:SER:HB2	1:F:106:VAL:CG1	2.26	0.65
1:J:539:HIS:HE1	7:J:774:HOH:O	1.80	0.65
1:S:76:SER:HB2	1:S:106:VAL:CG1	2.26	0.65
3:W:604:HEC:HBC1	3:W:605:HEC:HBB2	1.79	0.65
1:G:226:ARG:NH2	3:I:607:HEC:O2A	2.30	0.65
1:H:76:SER:HB2	1:H:106:VAL:CG1	2.26	0.65
3:H:600:HEC:HBC3	3:H:600:HEC:HHD	1.79	0.65
3:K:600:HEC:HBC3	3:K:600:HEC:HHD	1.77	0.65
1:I:271:TYR:O	1:I:275:LYS:HB3	1.97	0.65
3:M:600:HEC:HBC3	3:M:600:HEC:HHD	1.80	0.64
1:O:76:SER:HB2	1:O:106:VAL:CG1	2.26	0.64
3:J:600:HEC:HBC3	3:J:600:HEC:HHD	1.79	0.64
1:R:76:SER:HB2	1:R:106:VAL:CG1	2.27	0.64
3:U:604:HEC:HBC1	3:U:605:HEC:HBB2	1.79	0.64
1:Q:76:SER:HB2	1:Q:106:VAL:CG1	2.27	0.64
1:G:123:ALA:HB2	1:E:127:VAL:HG21	1.80	0.64
1:E:76:SER:HB2	1:E:106:VAL:CG1	2.26	0.64
3:R:604:HEC:HBC1	3:R:605:HEC:HBB2	1.80	0.64
1:K:76:SER:HB2	1:K:106:VAL:CG1	2.26	0.64
1:K:411:ASP:H	5:K:613:GOL:H31	1.62	0.64
1:P:76:SER:HB2	1:P:106:VAL:CG1	2.27	0.64
3:B:604:HEC:HBC1	3:B:605:HEC:HBB2	1.79	0.64
1:V:163:THR:HG21	2:h:98:PHE:HB2	1.80	0.64
1:W:76:SER:HB2	1:W:106:VAL:CG1	2.28	0.64
3:X:600:HEC:HHD	3:X:600:HEC:HBC3	1.78	0.64
1:D:454:HIS:CD2	3:D:606:HEC:NC	2.66	0.64
1:A:76:SER:HB2	1:A:106:VAL:CG1	2.28	0.64
2:f:38:ILE:HD11	2:f:100:SER:OG	1.97	0.63
3:F:604:HEC:HBC1	3:F:605:HEC:HBB2	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:T:600:HEC:HBC3	3:T:600:HEC:HHD	1.81	0.63
3:W:600:HEC:HBC3	3:W:600:HEC:HHD	1.81	0.63
1:X:76:SER:HB2	1:X:106:VAL:CG1	2.27	0.63
1:G:432:ASP:H	1:I:478:GLN:NE2	1.96	0.63
1:U:76:SER:HB2	1:U:106:VAL:CG1	2.28	0.63
2:i:38:ILE:HD11	2:i:100:SER:OG	1.99	0.63
3:A:600:HEC:HBC3	3:A:600:HEC:HHD	1.81	0.63
1:J:226:ARG:HD3	7:J:708:HOH:O	1.99	0.63
3:V:600:HEC:HBC3	3:V:600:HEC:HHD	1.81	0.63
3:L:604:HEC:HBC1	3:L:605:HEC:HBB2	1.81	0.63
1:G:226:ARG:HH22	3:I:607:HEC:CGA	2.11	0.63
3:B:600:HEC:HBC3	3:B:600:HEC:HHD	1.80	0.63
1:I:340:SER:O	1:I:343:ASP:HB2	1.99	0.63
1:G:497:TRP:CD1	1:I:485:ARG:HD3	2.34	0.63
3:X:604:HEC:HBC1	3:X:605:HEC:HBB2	1.79	0.63
3:Q:600:HEC:HBC3	3:Q:600:HEC:HHD	1.81	0.63
3:S:600:HEC:HHD	3:S:600:HEC:HBC3	1.80	0.62
2:a:38:ILE:HD11	2:a:100:SER:OG	1.99	0.62
1:H:406:ILE:H	1:H:410:HIS:CD2	2.09	0.62
3:T:604:HEC:HBC1	3:T:605:HEC:HBB2	1.81	0.62
1:V:406:ILE:H	1:V:410:HIS:CD2	2.10	0.62
2:Z:38:ILE:HD11	2:Z:100:SER:OG	1.98	0.62
3:C:600:HEC:HBC3	3:C:600:HEC:HHD	1.80	0.62
1:I:182:GLU:O	1:I:308:ASN:HB2	1.99	0.62
3:R:600:HEC:HBC3	3:R:600:HEC:HHD	1.81	0.62
3:U:600:HEC:HBC3	3:U:600:HEC:HHD	1.81	0.62
1:B:406:ILE:H	1:B:410:HIS:CD2	2.09	0.62
1:Q:163:THR:HG21	2:f:98:PHE:HB2	1.80	0.62
1:R:168:LYS:HD3	2:g:61:ASN:O	2.00	0.62
3:D:600:HEC:HBC3	3:D:600:HEC:HHD	1.82	0.62
3:E:604:HEC:HBC1	3:E:605:HEC:HBB2	1.81	0.62
2:c:38:ILE:HD11	2:c:100:SER:OG	1.99	0.62
3:C:604:HEC:HBC1	3:C:605:HEC:HBB2	1.80	0.62
3:N:600:HEC:HHD	3:N:600:HEC:HBC3	1.82	0.61
1:H:474:VAL:HG22	5:H:615:GOL:C3	2.24	0.61
3:E:600:HEC:HBC3	3:E:600:HEC:HHD	1.81	0.61
1:H:454:HIS:CA	5:H:614:GOL:H2	2.29	0.61
1:I:98:ASP:OD2	1:I:168:LYS:HD2	2.00	0.61
1:L:84:LYS:HE2	4:L:610:SO4:S	2.41	0.61
2:e:38:ILE:HD11	2:e:100:SER:OG	2.00	0.61
2:h:38:ILE:HD11	2:h:100:SER:OG	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:406:ILE:H	1:L:410:HIS:CD2	2.09	0.61
1:R:406:ILE:H	1:R:410:HIS:CD2	2.09	0.61
3:P:604:HEC:HBC1	3:P:605:HEC:HBB2	1.82	0.60
3:S:604:HEC:HBC1	3:S:605:HEC:HBB2	1.81	0.60
1:I:251:HIS:HB3	1:I:258:ASP:HB2	1.81	0.60
1:X:234:HIS:HD2	3:X:601:HEC:NC	1.99	0.60
3:A:604:HEC:HBC1	3:A:605:HEC:HBB2	1.83	0.60
3:P:600:HEC:HBC3	3:P:600:HEC:HH2	1.81	0.60
3:Q:604:HEC:HBC1	3:Q:605:HEC:HBB2	1.81	0.60
1:T:210:PRO:HA	7:T:707:HOH:O	2.01	0.60
1:V:168:LYS:HD3	2:h:61:ASN:O	2.01	0.60
1:U:234:HIS:HD2	3:U:601:HEC:NC	2.00	0.60
1:W:234:HIS:HD2	3:W:601:HEC:NC	1.99	0.60
1:G:479:ASN:HD22	1:I:482:ARG:HH12	1.50	0.60
1:G:485:ARG:HD3	1:H:497:TRP:CD1	2.37	0.60
1:D:251:HIS:HB3	1:D:258:ASP:HB2	1.83	0.60
1:D:478:GLN:O	1:D:482:ARG:HG2	2.02	0.60
2:b:38:ILE:HD11	2:b:100:SER:OG	2.02	0.60
1:C:120:GLN:HA	1:L:127:VAL:HG11	1.82	0.59
1:N:211:GLY:HA2	1:N:214:ALA:HB2	1.84	0.59
1:N:234:HIS:HD2	3:N:601:HEC:NC	2.00	0.59
1:A:211:GLY:HA2	1:A:214:ALA:HB2	1.84	0.59
3:K:604:HEC:HBC1	3:K:605:HEC:HBB2	1.82	0.59
1:P:234:HIS:HD2	3:P:601:HEC:NC	2.00	0.59
1:G:182:GLU:O	1:G:308:ASN:HB2	2.03	0.59
1:I:165:PRO:HG2	3:I:601:HEC:HMD2	1.84	0.59
3:N:604:HEC:HBC1	3:N:605:HEC:HBB2	1.84	0.59
1:E:234:HIS:HD2	3:E:601:HEC:NC	2.00	0.59
1:H:168:LYS:HD3	2:d:61:ASN:O	2.03	0.59
1:G:234:HIS:HD2	3:G:601:HEC:NC	2.00	0.59
1:D:102:ASN:ND2	1:D:164:MET:H	1.99	0.59
1:P:211:GLY:HA2	1:P:214:ALA:HB2	1.84	0.59
1:X:406:ILE:H	1:X:410:HIS:CD2	2.11	0.59
1:F:406:ILE:H	1:F:410:HIS:CD2	2.11	0.59
1:J:482:ARG:NH1	4:J:611:SO4:O3	2.36	0.59
1:J:234:HIS:HD2	3:J:601:HEC:NC	2.00	0.59
1:T:234:HIS:HD2	3:T:601:HEC:NC	1.99	0.59
2:g:38:ILE:HD11	2:g:100:SER:OG	2.03	0.59
1:H:234:HIS:HD2	3:H:601:HEC:NC	2.01	0.59
1:K:406:ILE:H	1:K:410:HIS:CD2	2.10	0.59
1:L:234:HIS:HD2	3:L:601:HEC:NC	2.00	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:406:ILE:H	1:A:410:HIS:CD2	2.09	0.58
1:X:211:GLY:HA2	1:X:214:ALA:HB2	1.84	0.58
1:Q:234:HIS:HD2	3:Q:601:HEC:NC	2.00	0.58
1:V:234:HIS:HD2	3:V:601:HEC:NC	1.98	0.58
1:M:234:HIS:HD2	3:M:601:HEC:NC	1.99	0.58
1:B:538:THR:HA	2:a:110:PRO:HA	1.85	0.58
1:C:406:ILE:H	1:C:410:HIS:CD2	2.11	0.58
1:Q:406:ILE:H	1:Q:410:HIS:CD2	2.09	0.58
1:W:211:GLY:HA2	1:W:214:ALA:HB2	1.86	0.58
1:I:211:GLY:HA2	1:I:214:ALA:CB	2.30	0.58
1:A:343:ASP:HB3	7:A:715:HOH:O	2.02	0.58
1:B:211:GLY:HA2	1:B:214:ALA:HB2	1.86	0.58
1:S:211:GLY:HA2	1:S:214:ALA:HB2	1.85	0.58
1:F:234:HIS:HD2	3:F:601:HEC:NC	2.01	0.58
1:C:168:LYS:HD3	2:b:61:ASN:O	2.04	0.58
1:J:211:GLY:HA2	1:J:214:ALA:HB2	1.86	0.58
1:U:182:GLU:O	1:U:308:ASN:HB2	2.03	0.58
1:D:297:CYS:HB3	3:D:605:HEC:HMB1	1.85	0.58
3:H:604:HEC:HBC1	3:H:605:HEC:HBB2	1.84	0.58
1:K:234:HIS:HD2	3:K:601:HEC:NC	2.02	0.58
1:W:406:ILE:H	1:W:410:HIS:CD2	2.12	0.58
1:R:211:GLY:HA2	1:R:214:ALA:HB2	1.86	0.57
1:C:538:THR:HA	2:b:110:PRO:HA	1.86	0.57
1:K:211:GLY:HA2	1:K:214:ALA:HB2	1.85	0.57
1:U:211:GLY:HA2	1:U:214:ALA:HB2	1.85	0.57
1:C:211:GLY:HA2	1:C:214:ALA:HB2	1.87	0.57
1:E:211:GLY:HA2	1:E:214:ALA:HB2	1.86	0.57
1:H:182:GLU:O	1:H:308:ASN:HB2	2.03	0.57
1:S:234:HIS:HD2	3:S:601:HEC:NC	2.01	0.57
1:A:182:GLU:O	1:A:308:ASN:HB2	2.04	0.57
1:B:123:ALA:HB2	1:U:127:VAL:HG21	1.86	0.57
1:H:273:VAL:HG13	1:I:243:ARG:HG3	1.87	0.57
1:R:538:THR:HA	2:g:110:PRO:HA	1.87	0.57
1:B:234:HIS:HD2	3:B:601:HEC:NC	2.02	0.57
1:O:211:GLY:HA2	1:O:214:ALA:HB2	1.86	0.57
1:A:234:HIS:HD2	3:A:601:HEC:NC	2.01	0.57
1:D:237:ASP:HB3	1:D:240:VAL:HG22	1.85	0.57
1:F:211:GLY:HA2	1:F:214:ALA:HB2	1.86	0.57
1:A:226:ARG:HD3	7:A:702:HOH:O	2.04	0.57
1:R:234:HIS:HD2	3:R:601:HEC:NC	2.02	0.57
1:E:182:GLU:O	1:E:308:ASN:HB2	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:182:GLU:O	1:W:308:ASN:HB2	2.04	0.57
1:C:234:HIS:HD2	3:C:601:HEC:NC	2.00	0.56
1:I:245:GLU:O	1:I:248:LYS:HG2	2.05	0.56
1:S:182:GLU:O	1:S:308:ASN:HB2	2.05	0.56
1:G:406:ILE:H	1:G:410:HIS:CD2	2.09	0.56
1:N:406:ILE:H	1:N:410:HIS:CD2	2.09	0.56
1:O:234:HIS:HD2	3:O:601:HEC:NC	2.02	0.56
1:P:406:ILE:H	1:P:410:HIS:CD2	2.11	0.56
1:Q:182:GLU:O	1:Q:308:ASN:HB2	2.05	0.56
1:G:251:HIS:HB3	1:G:258:ASP:HB2	1.88	0.56
1:H:195:SER:HB2	1:H:221:THR:HA	1.87	0.56
1:J:251:HIS:HB3	1:J:258:ASP:HB2	1.87	0.56
1:K:182:GLU:O	1:K:308:ASN:HB2	2.05	0.56
1:M:211:GLY:HA2	1:M:214:ALA:HB2	1.87	0.56
1:Q:211:GLY:HA2	1:Q:214:ALA:HB2	1.87	0.56
1:V:211:GLY:HA2	1:V:214:ALA:HB2	1.86	0.56
1:B:168:LYS:HD3	2:a:61:ASN:O	2.06	0.56
1:U:251:HIS:HB3	1:U:258:ASP:HB2	1.88	0.56
1:H:211:GLY:HA2	1:H:214:ALA:HB2	1.86	0.56
1:J:127:VAL:HG11	1:P:120:GLN:HA	1.87	0.56
1:L:182:GLU:OE1	2:e:26:TYR:HB3	2.05	0.56
1:R:195:SER:HB2	1:R:221:THR:HA	1.88	0.56
3:G:604:HEC:HBC1	3:G:605:HEC:HBB2	1.88	0.56
1:I:81:LYS:NZ	1:I:530:CYS:O	2.36	0.56
1:J:182:GLU:O	1:J:308:ASN:HB2	2.05	0.56
1:L:182:GLU:O	1:L:308:ASN:HB2	2.05	0.56
1:V:182:GLU:O	1:V:308:ASN:HB2	2.05	0.56
1:X:251:HIS:HB3	1:X:258:ASP:HB2	1.88	0.56
1:N:182:GLU:O	1:N:308:ASN:HB2	2.06	0.56
1:J:368:LYS:HE2	1:J:470:ASP:OD1	2.06	0.56
3:O:604:HEC:HBC1	3:O:605:HEC:HBB2	1.86	0.56
1:S:251:HIS:HB3	1:S:258:ASP:HB2	1.88	0.56
1:G:211:GLY:HA2	1:G:214:ALA:HB2	1.86	0.56
1:G:226:ARG:HD3	7:G:724:HOH:O	2.05	0.55
1:L:251:HIS:HB3	1:L:258:ASP:HB2	1.89	0.55
1:O:406:ILE:H	1:O:410:HIS:CD2	2.10	0.55
1:T:182:GLU:O	1:T:308:ASN:HB2	2.06	0.55
1:E:368:LYS:HE2	1:E:470:ASP:OD1	2.07	0.55
1:W:251:HIS:HB3	1:W:258:ASP:HB2	1.87	0.55
1:K:485:ARG:HD3	1:L:497:TRP:CD1	2.42	0.55
1:O:251:HIS:HB3	1:O:258:ASP:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:306:HIS:HD2	2:Y:26:TYR:CD2	2.25	0.55
1:W:538:THR:HA	2:i:110:PRO:HA	1.87	0.55
1:X:182:GLU:O	1:X:308:ASN:HB2	2.07	0.55
1:K:251:HIS:HB3	1:K:258:ASP:HB2	1.88	0.55
1:G:479:ASN:ND2	1:I:482:ARG:HH12	2.04	0.55
1:C:182:GLU:O	1:C:308:ASN:HB2	2.07	0.55
1:F:182:GLU:O	1:F:308:ASN:HB2	2.06	0.55
3:K:601:HEC:O1A	5:K:614:GOL:H32	2.06	0.55
1:L:211:GLY:HA2	1:L:214:ALA:HB2	1.87	0.55
1:M:182:GLU:O	1:M:308:ASN:HB2	2.07	0.55
1:P:168:LYS:HD3	2:e:61:ASN:O	2.06	0.55
1:R:182:GLU:O	1:R:308:ASN:HB2	2.07	0.55
1:B:485:ARG:HD3	1:C:497:TRP:CD1	2.42	0.55
1:K:132:ILE:HG12	5:K:614:GOL:H11	1.88	0.55
1:Q:251:HIS:HB3	1:Q:258:ASP:HB2	1.89	0.55
1:X:540:HIS:HD2	2:j:111:SER:HB3	1.71	0.55
1:I:195:SER:HB2	1:I:221:THR:HA	1.89	0.55
1:T:251:HIS:HB3	1:T:258:ASP:HB2	1.88	0.55
1:V:251:HIS:HB3	1:V:258:ASP:HB2	1.89	0.55
1:I:232:GLN:HE22	1:I:246:GLN:NE2	2.02	0.55
1:Q:123:ALA:HB2	1:T:127:VAL:HG21	1.89	0.55
1:T:406:ILE:H	1:T:410:HIS:CD2	2.11	0.55
1:I:504:LYS:HG3	7:I:734:HOH:O	2.05	0.54
1:P:182:GLU:O	1:P:308:ASN:HB2	2.07	0.54
1:P:251:HIS:HB3	1:P:258:ASP:HB2	1.89	0.54
1:B:251:HIS:HB3	1:B:258:ASP:HB2	1.90	0.54
1:M:251:HIS:HB3	1:M:258:ASP:HB2	1.88	0.54
1:N:251:HIS:HB3	1:N:258:ASP:HB2	1.90	0.54
1:A:163:THR:HG21	2:Z:98:PHE:HB2	1.89	0.54
1:H:251:HIS:HB3	1:H:258:ASP:HB2	1.90	0.54
1:I:337:ARG:O	1:I:340:SER:HB2	2.07	0.54
1:P:195:SER:HB2	1:P:221:THR:HA	1.90	0.54
1:W:195:SER:HB2	1:W:221:THR:HA	1.90	0.54
1:F:251:HIS:HB3	1:F:258:ASP:HB2	1.89	0.54
3:K:607:HEC:CGA	1:L:226:ARG:HH22	2.21	0.54
1:X:540:HIS:CD2	2:j:111:SER:HB3	2.43	0.54
3:I:601:HEC:HBA1	3:I:601:HEC:HHA	1.90	0.54
1:O:182:GLU:O	1:O:308:ASN:HB2	2.08	0.54
1:R:251:HIS:HB3	1:R:258:ASP:HB2	1.89	0.54
3:V:607:HEC:CGA	1:W:226:ARG:HH22	2.21	0.54
1:X:538:THR:HA	2:j:110:PRO:HA	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:251:HIS:HB3	1:E:258:ASP:HB2	1.90	0.53
1:A:368:LYS:HE2	1:A:470:ASP:OD1	2.07	0.53
1:K:132:ILE:CG1	5:K:614:GOL:H31	2.38	0.53
1:R:368:LYS:HE2	1:R:470:ASP:OD1	2.08	0.53
1:D:255:ASP:HB2	1:D:319:MET:HE3	1.90	0.53
1:J:485:ARG:HD3	1:K:497:TRP:CD1	2.43	0.53
3:M:604:HEC:HBC1	3:M:605:HEC:HBB2	1.89	0.53
1:T:211:GLY:HA2	1:T:214:ALA:HB2	1.89	0.53
1:B:195:SER:HB2	1:B:221:THR:HA	1.91	0.53
1:J:497:TRP:CD1	1:L:485:ARG:HD3	2.43	0.53
3:I:600:HEC:HHH	3:I:600:HEC:CBC	2.39	0.53
1:U:406:ILE:H	1:U:410:HIS:CD2	2.11	0.53
1:P:485:ARG:HD3	1:Q:497:TRP:CD1	2.44	0.53
1:S:406:ILE:H	1:S:410:HIS:CD2	2.11	0.53
1:V:195:SER:HB2	1:V:221:THR:HA	1.91	0.53
1:G:195:SER:HB2	1:G:221:THR:HA	1.91	0.53
1:K:146:PRO:HD2	7:K:735:HOH:O	2.09	0.53
1:M:485:ARG:HD3	1:N:497:TRP:CD1	2.44	0.53
1:T:368:LYS:HE2	1:T:470:ASP:OD1	2.09	0.53
1:T:478:GLN:HE21	1:U:432:ASP:HB2	1.74	0.53
1:G:168:LYS:HD3	2:c:61:ASN:O	2.09	0.53
1:C:251:HIS:HB3	1:C:258:ASP:HB2	1.91	0.53
1:J:226:ARG:HH22	3:L:607:HEC:CGA	2.22	0.53
1:Q:485:ARG:HD3	1:R:497:TRP:CD1	2.44	0.53
1:R:343:ASP:CB	7:R:701:HOH:O	2.57	0.53
1:A:497:TRP:CD1	1:C:485:ARG:HD3	2.44	0.52
1:I:255:ASP:HB3	5:I:614:GOL:H2	1.91	0.52
1:K:234:HIS:HE1	5:K:614:GOL:O3	1.92	0.52
1:M:406:ILE:H	1:M:410:HIS:CD2	2.10	0.52
1:T:195:SER:HB2	1:T:221:THR:HA	1.91	0.52
1:V:368:LYS:HE2	1:V:470:ASP:OD1	2.09	0.52
1:A:251:HIS:HB3	1:A:258:ASP:HB2	1.90	0.52
1:D:173:ALA:HA	1:D:177:GLU:HB2	1.90	0.52
1:D:406:ILE:H	1:D:410:HIS:HD2	1.57	0.52
1:H:368:LYS:HE2	1:H:470:ASP:OD1	2.08	0.52
1:X:368:LYS:HE2	1:X:470:ASP:OD1	2.09	0.52
1:D:90:PRO:O	1:D:93:ARG:HG2	2.09	0.52
1:N:485:ARG:HD3	1:O:497:TRP:CD1	2.44	0.52
1:J:406:ILE:H	1:J:410:HIS:CD2	2.10	0.52
1:W:368:LYS:HE2	1:W:470:ASP:OD1	2.09	0.52
1:B:182:GLU:O	1:B:308:ASN:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:607:HEC:CGA	1:K:226:ARG:HH22	2.22	0.52
1:G:204:TRP:CZ3	1:G:427:MET:HE1	2.45	0.52
1:M:497:TRP:CD1	1:O:485:ARG:HD3	2.45	0.52
1:I:368:LYS:HE2	1:I:470:ASP:OD1	2.10	0.52
1:J:90:PRO:O	1:J:93:ARG:HG2	2.10	0.52
1:P:368:LYS:HE2	1:P:470:ASP:OD1	2.09	0.52
1:V:485:ARG:HD3	1:W:497:TRP:CD1	2.45	0.52
1:G:485:ARG:HD3	1:H:497:TRP:CG	2.45	0.52
1:M:195:SER:HB2	1:M:221:THR:HA	1.92	0.52
1:D:406:ILE:HD12	1:E:62:LEU:HD12	1.91	0.52
3:I:605:HEC:HMD1	3:I:605:HEC:HBD1	1.92	0.52
1:N:368:LYS:HE2	1:N:470:ASP:OD1	2.09	0.52
1:D:154:CYS:HB3	1:D:165:PRO:HG3	1.91	0.51
1:I:318:SER:O	1:I:319:MET:HB2	2.09	0.51
1:V:432:ASP:HB2	1:X:478:GLN:HE21	1.76	0.51
1:G:497:TRP:CG	1:I:485:ARG:HD3	2.46	0.51
1:Q:368:LYS:HE2	1:Q:470:ASP:OD1	2.10	0.51
1:V:538:THR:HA	2:h:110:PRO:HA	1.92	0.51
3:D:604:HEC:CBC	3:D:605:HEC:HBB2	2.40	0.51
1:M:287:LEU:HD12	3:M:604:HEC:HBD2	1.92	0.51
1:Q:287:LEU:HD12	3:Q:604:HEC:HBD2	1.92	0.51
3:D:601:HEC:HBA1	3:D:601:HEC:HHA	1.91	0.51
1:I:199:GLN:HB2	1:I:220:HIS:HB3	1.93	0.51
1:K:195:SER:HB2	1:K:221:THR:HA	1.93	0.51
1:F:287:LEU:HD12	3:F:604:HEC:HBD2	1.91	0.51
3:N:607:HEC:CGA	1:O:226:ARG:HH22	2.23	0.51
1:P:497:TRP:CD1	1:R:485:ARG:HD3	2.46	0.51
1:Q:257:ARG:HD3	7:Q:729:HOH:O	2.08	0.51
3:A:607:HEC:CGA	1:B:226:ARG:HH22	2.24	0.51
1:K:135:ASP:OD2	5:K:614:GOL:O1	2.28	0.51
1:K:374:LYS:NZ	7:K:701:HOH:O	2.25	0.51
1:V:287:LEU:HD12	3:V:604:HEC:HBD2	1.93	0.51
3:G:607:HEC:CGA	1:H:226:ARG:HH22	2.24	0.51
1:A:485:ARG:HD3	1:B:497:TRP:CD1	2.45	0.51
1:F:195:SER:HB2	1:F:221:THR:HA	1.92	0.51
1:J:182:GLU:OE1	2:d:26:TYR:HB3	2.11	0.51
1:O:368:LYS:HE2	1:O:470:ASP:OD1	2.10	0.51
1:C:368:LYS:HE2	1:C:470:ASP:OD1	2.11	0.51
1:D:195:SER:HB2	1:D:221:THR:HA	1.93	0.51
1:L:195:SER:HB2	1:L:221:THR:HA	1.93	0.51
1:L:368:LYS:HE2	1:L:470:ASP:OD1	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:195:SER:HB2	1:E:221:THR:HA	1.92	0.51
1:I:433:VAL:HG13	1:I:476:VAL:HG13	1.92	0.51
1:S:485:ARG:HD3	1:T:497:TRP:CD1	2.46	0.50
1:H:63:LYS:NZ	7:H:703:HOH:O	2.43	0.50
1:D:388:MET:HB3	1:D:389:PRO:HD2	1.93	0.50
1:S:368:LYS:HE2	1:S:470:ASP:OD1	2.11	0.50
1:W:79:PRO:HB2	2:i:41:GLY:HA3	1.93	0.50
1:D:331:TRP:CZ2	1:E:44:VAL:HG21	2.46	0.50
1:I:234:HIS:HD2	3:I:601:HEC:NC	2.06	0.50
3:M:607:HEC:CGA	1:N:226:ARG:HH22	2.23	0.50
1:A:195:SER:HB2	1:A:221:THR:HA	1.93	0.50
1:I:302:MET:HE3	1:I:307:HIS:HA	1.93	0.50
3:Q:607:HEC:CGA	1:R:226:ARG:HH22	2.24	0.50
1:W:287:LEU:HD12	3:W:604:HEC:HBD2	1.94	0.50
1:C:123:ALA:HB2	1:L:127:VAL:CG2	2.41	0.50
1:O:127:VAL:HG21	1:W:123:ALA:HB2	1.93	0.50
1:P:226:ARG:HD3	7:P:718:HOH:O	2.09	0.50
1:X:287:LEU:HD12	3:X:604:HEC:HBD2	1.92	0.50
1:I:48:PRO:HG3	1:I:63:LYS:HD2	1.92	0.50
1:V:226:ARG:HH22	3:X:607:HEC:CGA	2.24	0.50
1:C:195:SER:HB2	1:C:221:THR:HA	1.93	0.50
1:D:197:PHE:HB2	1:D:535:TRP:CD2	2.46	0.50
1:E:406:ILE:H	1:E:410:HIS:CD2	2.12	0.50
1:H:210:PRO:HA	7:H:709:HOH:O	2.12	0.50
1:P:287:LEU:HD12	3:P:604:HEC:HBD2	1.94	0.50
1:G:287:LEU:HD12	3:G:604:HEC:HBD2	1.93	0.50
1:S:432:ASP:HB2	1:U:478:GLN:HE21	1.77	0.50
1:I:194:CYS:HA	3:I:605:HEC:O1D	2.12	0.49
1:J:63:LYS:HD3	5:L:613:GOL:H12	1.94	0.49
1:K:234:HIS:CE1	5:K:614:GOL:O3	2.65	0.49
1:U:287:LEU:HD12	3:U:604:HEC:HBD2	1.93	0.49
1:D:495:ILE:HG12	1:F:492:LYS:HD3	1.93	0.49
1:I:144:ALA:HB3	1:I:148:PRO:HA	1.95	0.49
1:D:182:GLU:O	1:D:185:GLN:HB2	2.12	0.49
1:Q:195:SER:HB2	1:Q:221:THR:HA	1.95	0.49
1:Q:204:TRP:CZ3	1:Q:427:MET:HE1	2.47	0.49
1:G:429:ASN:ND2	7:G:706:HOH:O	2.46	0.49
1:K:204:TRP:CZ3	1:K:427:MET:HE1	2.48	0.49
1:K:368:LYS:HE2	1:K:470:ASP:OD1	2.12	0.49
1:O:195:SER:HB2	1:O:221:THR:HA	1.94	0.49
1:G:343:ASP:HB3	7:G:701:HOH:O	2.09	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:310:GLN:O	1:I:310:GLN:HG2	2.12	0.49
2:Y:38:ILE:HG22	2:Y:41:GLY:H	1.77	0.49
1:G:368:LYS:HE2	1:G:470:ASP:OD1	2.13	0.49
1:B:343:ASP:HB3	7:B:709:HOH:O	2.12	0.49
3:I:603:HEC:HMC1	3:I:603:HEC:HBC3	1.95	0.49
1:B:368:LYS:HE2	1:B:470:ASP:OD1	2.13	0.49
1:K:232:GLN:HE22	1:K:246:GLN:NE2	2.03	0.49
1:U:195:SER:HB2	1:U:221:THR:HA	1.94	0.49
3:W:607:HEC:CGA	1:X:226:ARG:HH22	2.25	0.49
1:L:204:TRP:CZ3	1:L:427:MET:HE1	2.47	0.49
1:A:497:TRP:CG	1:C:485:ARG:HD3	2.48	0.49
1:I:227:CYS:HB3	3:I:602:HEC:HMB2	1.95	0.49
1:I:538:THR:HA	2:Y:110:PRO:HA	1.94	0.49
1:N:287:LEU:HD12	3:N:604:HEC:HBD2	1.94	0.49
1:Q:522:PRO:HD2	7:Q:728:HOH:O	2.12	0.49
1:S:195:SER:HB2	1:S:221:THR:HA	1.94	0.49
2:a:38:ILE:HG22	2:a:41:GLY:H	1.78	0.49
1:I:59:PHE:C	1:I:61:GLY:H	2.20	0.48
1:S:90:PRO:O	1:S:93:ARG:HG2	2.13	0.48
1:H:349:ARG:NH2	4:H:609:SO4:O2	2.46	0.48
1:H:485:ARG:NH1	1:I:490:GLU:OE1	2.46	0.48
1:J:287:LEU:HD12	3:J:604:HEC:HBD2	1.95	0.48
1:K:233:ARG:NE	5:K:614:GOL:O3	2.43	0.48
1:P:226:ARG:HH22	3:R:607:HEC:CGA	2.26	0.48
2:d:38:ILE:HG22	2:d:41:GLY:H	1.78	0.48
1:D:560:ALA:HB1	1:E:43:GLU:HA	1.93	0.48
1:I:389:PRO:HB2	5:I:615:GOL:H32	1.95	0.48
1:P:432:ASP:HB2	1:R:478:GLN:HE21	1.78	0.48
1:V:479:ASN:HD22	1:X:482:ARG:HH22	1.60	0.48
1:C:287:LEU:HD12	3:C:604:HEC:HBD2	1.95	0.48
1:D:216:CYS:HA	3:D:603:HEC:HMC3	1.94	0.48
1:I:76:SER:HB2	1:I:106:VAL:CG1	2.43	0.48
1:J:497:TRP:CG	1:L:485:ARG:HD3	2.48	0.48
1:K:485:ARG:HD3	1:L:497:TRP:CG	2.48	0.48
1:N:127:VAL:HG11	1:R:120:GLN:HA	1.95	0.48
1:A:226:ARG:HH22	3:C:607:HEC:CGA	2.27	0.48
1:A:287:LEU:HD12	3:A:604:HEC:HBD2	1.93	0.48
1:B:485:ARG:HD3	1:C:497:TRP:CG	2.48	0.48
1:E:478:GLN:HE21	1:F:432:ASP:HB2	1.79	0.48
1:L:199:GLN:HB2	1:L:220:HIS:HB3	1.96	0.48
1:M:368:LYS:HE2	1:M:470:ASP:OD1	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:485:ARG:HD3	1:X:497:TRP:CD1	2.48	0.48
1:B:227:CYS:HB3	3:B:602:HEC:HMB2	1.95	0.48
1:H:123:ALA:HB2	1:K:127:VAL:CG2	2.40	0.48
1:H:454:HIS:C	5:H:614:GOL:H2	2.39	0.48
1:I:76:SER:HB2	1:I:106:VAL:HG13	1.96	0.48
1:V:90:PRO:O	1:V:93:ARG:HG2	2.14	0.48
3:B:607:HEC:CGA	1:C:226:ARG:HH22	2.27	0.48
1:D:37:THR:HA	1:D:59:PHE:CE1	2.49	0.48
1:N:195:SER:HB2	1:N:221:THR:HA	1.96	0.48
1:X:195:SER:HB2	1:X:221:THR:HA	1.96	0.48
1:E:199:GLN:HB2	1:E:220:HIS:HB3	1.95	0.48
1:I:120:GLN:HA	1:M:127:VAL:HG11	1.96	0.48
1:C:90:PRO:O	1:C:93:ARG:HG2	2.13	0.48
1:K:478:GLN:HE21	1:L:432:ASP:HB2	1.79	0.48
1:J:204:TRP:CZ3	1:J:427:MET:HE1	2.48	0.48
1:S:479:ASN:HD22	1:U:482:ARG:HH22	1.62	0.48
1:T:485:ARG:HD3	1:U:497:TRP:CD1	2.49	0.48
1:I:90:PRO:O	1:I:93:ARG:HG2	2.14	0.47
1:J:195:SER:HB2	1:J:221:THR:HA	1.95	0.47
2:e:38:ILE:HG22	2:e:41:GLY:H	1.79	0.47
1:G:204:TRP:CH2	1:G:427:MET:HE1	2.49	0.47
1:G:454:HIS:HD2	3:G:606:HEC:NC	2.12	0.47
1:A:478:GLN:HE21	1:B:432:ASP:HB2	1.79	0.47
1:D:231:HIS:HB3	1:D:241:ALA:HB2	1.96	0.47
1:F:227:CYS:HB3	3:F:602:HEC:HMB2	1.95	0.47
1:S:458:ASN:HB3	1:T:252:TRP:CZ2	2.49	0.47
1:U:368:LYS:HE2	1:U:470:ASP:OD1	2.13	0.47
1:X:90:PRO:O	1:X:93:ARG:HG2	2.14	0.47
1:A:227:CYS:HB3	3:A:602:HEC:HMB2	1.96	0.47
1:D:524:LYS:HG2	1:D:528:ASP:HB3	1.96	0.47
1:N:478:GLN:HE21	1:O:432:ASP:HB2	1.79	0.47
1:P:509:LEU:HD11	1:R:477:LYS:HZ3	1.79	0.47
1:G:44:VAL:HG23	1:I:330:LEU:HD21	1.96	0.47
1:G:120:GLN:HA	1:E:127:VAL:HG11	1.96	0.47
4:G:610:SO4:O4	1:I:482:ARG:HG3	2.15	0.47
1:D:390:LYS:HA	1:D:400:HIS:HB3	1.96	0.47
1:J:199:GLN:HB2	1:J:220:HIS:HB3	1.96	0.47
1:M:226:ARG:HH22	3:O:607:HEC:CGA	2.27	0.47
2:g:38:ILE:HG22	2:g:41:GLY:H	1.79	0.47
1:D:145:GLU:HA	1:D:146:PRO:C	2.39	0.47
1:D:198:ALA:O	3:D:603:HEC:HHB	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:538:THR:HA	2:e:110:PRO:HA	1.95	0.47
1:S:287:LEU:HD12	3:S:604:HEC:HBD2	1.96	0.47
1:U:90:PRO:O	1:U:93:ARG:HG2	2.14	0.47
1:D:500:GLU:N	1:D:500:GLU:OE1	2.46	0.47
3:E:607:HEC:CGA	1:F:226:ARG:HH22	2.27	0.47
1:P:223:PRO:HG3	3:P:605:HEC:HBC2	1.97	0.47
1:R:287:LEU:HD12	3:R:604:HEC:HBD2	1.97	0.47
1:R:343:ASP:HB2	7:R:701:HOH:O	2.15	0.47
1:G:199:GLN:HB2	1:G:220:HIS:HB3	1.97	0.47
1:A:172:THR:HG21	2:Z:34:TRP:CH2	2.50	0.47
1:B:287:LEU:HD12	3:B:604:HEC:HBD2	1.96	0.47
1:D:97:PRO:HG2	1:D:166:SER:HB3	1.96	0.47
1:D:542:PRO:HG2	1:D:545:GLU:HB2	1.96	0.47
1:E:287:LEU:HD12	3:E:604:HEC:HBD2	1.95	0.47
1:F:204:TRP:CZ3	1:F:427:MET:HE1	2.50	0.47
1:J:485:ARG:HD3	1:K:497:TRP:CG	2.49	0.47
4:J:611:SO4:O2	1:K:482:ARG:NH1	2.48	0.47
1:K:204:TRP:CH2	1:K:427:MET:HE1	2.50	0.47
1:M:432:ASP:HB2	1:O:478:GLN:HE21	1.80	0.47
1:P:227:CYS:HB3	3:P:602:HEC:HMB2	1.96	0.47
1:R:199:GLN:HB2	1:R:220:HIS:HB3	1.97	0.47
3:X:604:HEC:CBC	3:X:605:HEC:HBB2	2.45	0.47
1:G:227:CYS:HB3	3:G:602:HEC:HMB2	1.97	0.47
1:C:207:GLU:HA	1:C:513:THR:OG1	2.15	0.47
1:D:523:GLY:O	1:D:524:LYS:HG3	2.14	0.47
1:Q:168:LYS:HD3	2:f:61:ASN:O	2.15	0.47
1:S:485:ARG:HD2	1:T:490:GLU:OE2	2.13	0.47
1:V:204:TRP:CZ3	1:V:427:MET:HE1	2.50	0.47
1:G:109:SER:HA	7:G:745:HOH:O	2.15	0.47
1:H:90:PRO:O	1:H:93:ARG:HG2	2.15	0.47
1:W:204:TRP:CZ3	1:W:427:MET:HE1	2.49	0.47
1:X:386:ASP:HA	1:X:387:PRO:HA	1.73	0.47
1:A:204:TRP:CZ3	1:A:427:MET:HE1	2.49	0.47
1:C:232:GLN:HE22	1:C:246:GLN:NE2	2.07	0.47
1:D:61:GLY:O	1:F:370:ARG:NH1	2.46	0.47
1:H:485:ARG:HD2	1:I:490:GLU:OE2	2.14	0.47
1:M:252:TRP:CZ2	1:O:458:ASN:HB3	2.50	0.47
1:O:287:LEU:HD12	3:O:604:HEC:HBD2	1.96	0.47
1:U:199:GLN:HB2	1:U:220:HIS:HB3	1.97	0.47
1:D:87:LYS:HB2	1:D:210:PRO:HD3	1.97	0.46
1:J:403:SER:HB3	1:J:434:GLU:OE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:343:ASP:HB3	7:R:701:HOH:O	2.15	0.46
1:F:173:ALA:HA	1:F:177:GLU:HB2	1.97	0.46
1:P:165:PRO:HG2	3:P:601:HEC:HMD2	1.97	0.46
1:Q:386:ASP:HA	1:Q:387:PRO:HA	1.73	0.46
1:R:204:TRP:CZ3	1:R:427:MET:HE1	2.50	0.46
1:S:199:GLN:HB2	1:S:220:HIS:HB3	1.98	0.46
1:S:252:TRP:CZ2	1:U:458:ASN:HB3	2.50	0.46
1:T:90:PRO:O	1:T:93:ARG:HG2	2.15	0.46
1:T:287:LEU:HD12	3:T:604:HEC:HBD2	1.96	0.46
1:T:482:ARG:HH22	1:U:479:ASN:HD22	1.62	0.46
1:W:199:GLN:HB2	1:W:220:HIS:HB3	1.97	0.46
1:X:204:TRP:CZ3	1:X:427:MET:HE1	2.51	0.46
2:h:38:ILE:HG22	2:h:41:GLY:H	1.81	0.46
1:G:323:MET:HE1	1:H:52:ASP:HB2	1.98	0.46
1:A:485:ARG:HD3	1:B:497:TRP:CG	2.50	0.46
1:K:403:SER:HB3	1:K:434:GLU:OE2	2.15	0.46
1:Q:173:ALA:HA	1:Q:177:GLU:HB2	1.97	0.46
2:f:38:ILE:HG22	2:f:41:GLY:H	1.81	0.46
1:G:349:ARG:NH2	4:G:609:SO4:O3	2.48	0.46
1:G:511:GLN:HG3	1:I:367:LEU:HD21	1.98	0.46
1:D:306:HIS:CE1	1:D:308:ASN:HB3	2.50	0.46
1:H:199:GLN:HB2	1:H:220:HIS:HB3	1.98	0.46
1:H:473:LEU:HG	5:H:615:GOL:H2	1.97	0.46
1:N:199:GLN:HB2	1:N:220:HIS:HB3	1.96	0.46
1:P:478:GLN:HE21	1:Q:432:ASP:HB2	1.80	0.46
1:Q:485:ARG:HD3	1:R:497:TRP:CG	2.50	0.46
1:S:204:TRP:CZ3	1:S:427:MET:HE1	2.49	0.46
1:A:432:ASP:H	1:C:478:GLN:NE2	2.14	0.46
1:B:482:ARG:HG3	4:B:609:SO4:O1	2.16	0.46
1:D:432:ASP:HB2	1:F:478:GLN:HE21	1.81	0.46
3:D:600:HEC:HAA2	3:D:601:HEC:HMA3	1.98	0.46
1:F:368:LYS:HE2	1:F:470:ASP:OD1	2.15	0.46
1:S:226:ARG:HH22	3:U:607:HEC:CGA	2.28	0.46
1:V:199:GLN:HB2	1:V:220:HIS:HB3	1.98	0.46
1:A:199:GLN:HB2	1:A:220:HIS:HB3	1.97	0.46
1:C:227:CYS:HB3	3:C:602:HEC:HMB2	1.97	0.46
1:J:318:SER:HB2	5:K:615:GOL:O3	2.15	0.46
1:P:252:TRP:CZ2	1:R:458:ASN:HB3	2.51	0.46
3:U:604:HEC:CBC	3:U:605:HEC:HBB2	2.45	0.46
1:V:252:TRP:CZ2	1:X:458:ASN:HB3	2.51	0.46
1:X:227:CYS:HB3	3:X:602:HEC:HMB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:b:38:ILE:HG22	2:b:41:GLY:H	1.79	0.46
1:B:204:TRP:CZ3	1:B:427:MET:HE1	2.51	0.46
1:C:199:GLN:HB2	1:C:220:HIS:HB3	1.97	0.46
1:F:199:GLN:HB2	1:F:220:HIS:HB3	1.98	0.46
1:I:123:ALA:HB2	1:M:127:VAL:HG21	1.98	0.46
1:I:255:ASP:HB2	1:I:319:MET:CE	2.46	0.46
3:P:607:HEC:CGA	1:Q:226:ARG:HH22	2.27	0.46
1:S:127:VAL:HG21	1:X:123:ALA:HB2	1.97	0.46
1:H:123:ALA:CB	1:K:127:VAL:HB	2.46	0.46
1:H:458:ASN:HB3	1:I:252:TRP:CZ2	2.51	0.46
1:O:227:CYS:HB3	3:O:602:HEC:HMB2	1.97	0.46
1:T:204:TRP:CZ3	1:T:427:MET:HE1	2.51	0.46
2:Z:38:ILE:HG22	2:Z:41:GLY:H	1.81	0.46
2:i:38:ILE:HG22	2:i:41:GLY:H	1.80	0.46
1:H:173:ALA:HA	1:H:177:GLU:HB2	1.98	0.46
1:I:255:ASP:HB2	1:I:319:MET:HE1	1.98	0.46
3:I:604:HEC:CBC	3:I:605:HEC:HBB2	2.45	0.46
1:K:90:PRO:O	1:K:93:ARG:HG2	2.16	0.46
1:M:485:ARG:HD3	1:N:497:TRP:CG	2.51	0.46
1:N:227:CYS:HB3	3:N:602:HEC:HMB2	1.97	0.46
1:H:485:ARG:HD3	1:I:497:TRP:CG	2.51	0.46
1:K:223:PRO:HG3	3:K:605:HEC:HBC2	1.98	0.46
1:M:497:TRP:CG	1:O:485:ARG:HD3	2.51	0.46
1:N:485:ARG:HD3	1:O:497:TRP:CG	2.51	0.46
1:O:207:GLU:HA	1:O:513:THR:OG1	2.16	0.46
1:O:386:ASP:HA	1:O:387:PRO:HA	1.73	0.46
1:O:403:SER:HB3	1:O:434:GLU:OE2	2.16	0.46
1:S:497:TRP:CD1	1:U:485:ARG:HD3	2.50	0.46
1:T:458:ASN:HB3	1:U:252:TRP:CZ2	2.51	0.46
1:G:63:LYS:NZ	5:G:615:GOL:O3	2.49	0.45
1:A:432:ASP:HB2	1:C:478:GLN:HE21	1.81	0.45
1:D:367:LEU:HD21	1:E:511:GLN:HG3	1.97	0.45
1:H:386:ASP:HA	1:H:387:PRO:HA	1.74	0.45
1:O:199:GLN:HB2	1:O:220:HIS:HB3	1.97	0.45
1:R:257:ARG:HD3	7:R:720:HOH:O	2.16	0.45
1:T:199:GLN:HB2	1:T:220:HIS:HB3	1.98	0.45
1:W:485:ARG:HD2	1:X:490:GLU:OE2	2.16	0.45
1:G:403:SER:HB3	1:G:434:GLU:OE2	2.16	0.45
1:D:252:TRP:CZ2	1:F:458:ASN:HB3	2.51	0.45
1:E:90:PRO:O	1:E:93:ARG:HG2	2.15	0.45
1:H:454:HIS:HA	5:H:614:GOL:C2	2.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:127:VAL:CG2	1:P:123:ALA:HB2	2.45	0.45
1:K:173:ALA:HA	1:K:177:GLU:HB2	1.98	0.45
1:V:173:ALA:HA	1:V:177:GLU:HB2	1.98	0.45
1:E:482:ARG:HH22	1:F:479:ASN:HD22	1.65	0.45
3:J:604:HEC:CBC	3:J:605:HEC:HBB2	2.46	0.45
1:K:227:CYS:HB3	3:K:602:HEC:HMB2	1.98	0.45
1:K:478:GLN:NE2	1:L:432:ASP:H	2.13	0.45
1:M:199:GLN:HB2	1:M:220:HIS:HB3	1.97	0.45
1:M:204:TRP:CZ3	1:M:427:MET:HE1	2.51	0.45
1:P:90:PRO:O	1:P:93:ARG:HG2	2.17	0.45
1:P:199:GLN:HB2	1:P:220:HIS:HB3	1.97	0.45
1:Q:227:CYS:HB3	3:Q:602:HEC:HMB2	1.99	0.45
1:S:227:CYS:HB3	3:S:602:HEC:HMB2	1.99	0.45
3:T:607:HEC:CGA	1:U:226:ARG:HH22	2.30	0.45
1:G:478:GLN:NE2	1:H:432:ASP:H	2.13	0.45
1:G:482:ARG:HG3	4:G:610:SO4:O1	2.15	0.45
1:E:227:CYS:HB3	3:E:602:HEC:HMB2	1.98	0.45
1:Q:204:TRP:CH2	1:Q:427:MET:HE1	2.52	0.45
1:W:90:PRO:O	1:W:93:ARG:HG2	2.17	0.45
1:C:204:TRP:CZ3	1:C:427:MET:HE1	2.51	0.45
3:K:606:HEC:HBC1	3:K:607:HEC:HHC	1.99	0.45
1:L:287:LEU:HD12	3:L:604:HEC:HBD2	1.98	0.45
1:P:204:TRP:CZ3	1:P:427:MET:HE1	2.51	0.45
1:P:458:ASN:HB3	1:Q:252:TRP:CZ2	2.51	0.45
1:G:245:GLU:HG2	1:I:272:GLN:OE1	2.17	0.45
1:A:403:SER:HB3	1:A:434:GLU:OE2	2.16	0.45
1:J:432:ASP:HB2	1:L:478:GLN:HE21	1.81	0.45
1:L:227:CYS:HB3	3:L:602:HEC:HMB2	1.99	0.45
3:T:606:HEC:HBC1	3:T:607:HEC:HHC	1.99	0.45
1:V:454:HIS:HD2	3:V:606:HEC:NC	2.13	0.45
1:X:173:ALA:HA	1:X:177:GLU:HB2	1.98	0.45
1:G:90:PRO:O	1:G:93:ARG:HG2	2.16	0.45
1:A:490:GLU:OE2	1:C:485:ARG:HD2	2.17	0.45
1:E:204:TRP:CZ3	1:E:427:MET:HE1	2.52	0.45
5:J:613:GOL:O1	1:K:63:LYS:NZ	2.49	0.45
1:N:90:PRO:O	1:N:93:ARG:HG2	2.16	0.45
3:R:604:HEC:CBC	3:R:605:HEC:HBB2	2.47	0.45
3:S:607:HEC:CGA	1:T:226:ARG:HH22	2.29	0.45
1:U:173:ALA:HA	1:U:177:GLU:HB2	1.99	0.45
1:U:204:TRP:CZ3	1:U:427:MET:HE1	2.51	0.45
1:V:478:GLN:HE21	1:W:432:ASP:HB2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:90:PRO:O	1:A:93:ARG:HG2	2.17	0.45
1:A:252:TRP:CZ2	1:C:458:ASN:HB3	2.52	0.45
1:B:199:GLN:HB2	1:B:220:HIS:HB3	1.98	0.45
1:D:489:LEU:HD23	1:E:495:ILE:HD12	1.99	0.45
1:E:485:ARG:HD3	1:F:497:TRP:CD1	2.52	0.45
3:F:604:HEC:CBC	3:F:605:HEC:HBB2	2.46	0.45
1:I:369:TYR:CE1	1:I:441:VAL:HB	2.52	0.45
1:J:386:ASP:HA	1:J:387:PRO:HA	1.73	0.45
1:N:154:CYS:HB3	1:N:165:PRO:HG3	1.98	0.45
1:O:204:TRP:CZ3	1:O:427:MET:HE1	2.51	0.45
1:Q:199:GLN:HB2	1:Q:220:HIS:HB3	1.98	0.45
1:Q:478:GLN:HE21	1:R:432:ASP:HB2	1.82	0.45
3:R:606:HEC:HBC1	3:R:607:HEC:HHC	1.99	0.45
1:V:227:CYS:HB3	3:V:602:HEC:HMB2	1.99	0.45
1:V:497:TRP:CD1	1:X:485:ARG:HD3	2.52	0.45
3:V:604:HEC:CBC	3:V:605:HEC:HBB2	2.46	0.45
1:G:41:PRO:O	1:G:44:VAL:HG12	2.17	0.45
1:B:458:ASN:HB3	1:C:252:TRP:CZ2	2.52	0.45
1:E:458:ASN:HB3	1:F:252:TRP:CZ2	2.52	0.45
1:F:90:PRO:O	1:F:93:ARG:HG2	2.16	0.45
1:H:204:TRP:CZ3	1:H:427:MET:HE1	2.52	0.45
1:J:323:MET:HE1	1:K:52:ASP:HB2	1.99	0.45
1:K:199:GLN:HB2	1:K:220:HIS:HB3	1.98	0.45
1:M:403:SER:HB3	1:M:434:GLU:OE2	2.17	0.45
1:P:432:ASP:H	1:R:478:GLN:NE2	2.15	0.45
3:W:604:HEC:CBC	3:W:605:HEC:HBB2	2.46	0.45
1:X:104:ASP:CG	2:j:87:LYS:NZ	2.75	0.45
1:X:199:GLN:HB2	1:X:220:HIS:HB3	1.98	0.45
1:B:343:ASP:CB	7:B:709:HOH:O	2.64	0.45
1:M:478:GLN:HE21	1:N:432:ASP:HB2	1.82	0.45
1:M:490:GLU:OE2	1:O:485:ARG:HD2	2.17	0.45
1:N:403:SER:HB3	1:N:434:GLU:OE2	2.16	0.45
1:P:403:SER:HB3	1:P:434:GLU:OE2	2.17	0.45
1:Q:90:PRO:O	1:Q:93:ARG:HG2	2.16	0.45
1:A:458:ASN:HB3	1:B:252:TRP:CZ2	2.52	0.44
3:F:606:HEC:HBC1	3:F:607:HEC:HHC	2.00	0.44
1:I:241:ALA:O	1:I:298:GLN:NE2	2.50	0.44
1:J:227:CYS:HB3	3:J:602:HEC:HMB2	1.97	0.44
1:L:90:PRO:O	1:L:93:ARG:HG2	2.17	0.44
1:M:432:ASP:H	1:O:478:GLN:NE2	2.16	0.44
1:N:204:TRP:CZ3	1:N:427:MET:HE1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:41:PRO:O	1:S:44:VAL:HG12	2.17	0.44
1:C:403:SER:HB3	1:C:434:GLU:OE2	2.17	0.44
1:E:173:ALA:HA	1:E:177:GLU:HB2	2.00	0.44
1:J:340:SER:O	1:J:343:ASP:HB2	2.17	0.44
1:N:454:HIS:HD2	3:N:606:HEC:NC	2.15	0.44
1:T:227:CYS:HB3	3:T:602:HEC:HMB2	1.98	0.44
3:V:606:HEC:HBC1	3:V:607:HEC:HHC	1.99	0.44
1:A:154:CYS:HB3	1:A:165:PRO:HG3	2.00	0.44
1:E:154:CYS:HB3	1:E:165:PRO:HG3	1.98	0.44
1:H:287:LEU:HD12	3:H:604:HEC:HBD2	1.98	0.44
1:J:318:SER:HB2	5:K:615:GOL:C3	2.48	0.44
1:J:485:ARG:HD2	1:K:490:GLU:OE2	2.17	0.44
1:K:287:LEU:HD12	3:K:604:HEC:HBD2	1.98	0.44
1:M:323:MET:HE1	1:N:52:ASP:HB2	1.99	0.44
1:P:485:ARG:HD3	1:Q:497:TRP:CG	2.51	0.44
1:T:173:ALA:HA	1:T:177:GLU:HB2	1.97	0.44
2:j:50:LYS:HG3	2:j:55:GLU:HG2	1.99	0.44
1:B:154:CYS:HB3	1:B:165:PRO:HG3	1.99	0.44
3:B:606:HEC:HBC1	3:B:607:HEC:HHC	2.00	0.44
3:E:605:HEC:CBD	3:E:605:HEC:HMD1	2.48	0.44
1:H:223:PRO:HG3	3:H:605:HEC:HBC2	1.99	0.44
1:L:204:TRP:CH2	1:L:427:MET:HE1	2.52	0.44
1:G:478:GLN:HE21	1:H:432:ASP:HB2	1.81	0.44
1:D:222:SER:HB2	1:D:223:PRO:HD3	1.99	0.44
1:F:154:CYS:HB3	1:F:165:PRO:HG3	2.00	0.44
1:H:120:GLN:HA	1:K:127:VAL:HG11	1.99	0.44
1:J:197:PHE:HB2	1:J:535:TRP:CD2	2.53	0.44
1:J:490:GLU:OE2	1:L:485:ARG:HD2	2.17	0.44
1:S:403:SER:HB3	1:S:434:GLU:OE2	2.18	0.44
1:U:403:SER:HB3	1:U:434:GLU:OE2	2.17	0.44
1:B:173:ALA:HA	1:B:177:GLU:HB2	2.00	0.44
1:D:119:GLU:CD	1:D:119:GLU:H	2.26	0.44
1:D:204:TRP:CZ3	1:D:427:MET:HE1	2.52	0.44
1:K:323:MET:HE1	1:L:52:ASP:HB2	2.00	0.44
3:K:607:HEC:O2A	1:L:226:ARG:NH2	2.51	0.44
1:L:403:SER:HB3	1:L:434:GLU:OE2	2.18	0.44
1:M:227:CYS:HB3	3:M:602:HEC:HMB2	1.98	0.44
1:Q:458:ASN:HB3	1:R:252:TRP:CZ2	2.53	0.44
3:R:605:HEC:HMD1	3:R:605:HEC:HBD1	2.00	0.44
1:V:165:PRO:HG2	3:V:601:HEC:HMD2	1.99	0.44
1:V:223:PRO:HG3	3:V:605:HEC:HBC2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:403:SER:HB3	1:W:434:GLU:OE2	2.17	0.44
1:G:197:PHE:HB2	1:G:535:TRP:CD2	2.53	0.44
1:D:331:TRP:HZ2	1:E:44:VAL:HG21	1.83	0.44
1:E:386:ASP:HA	1:E:387:PRO:HA	1.73	0.44
1:H:474:VAL:CG2	5:H:615:GOL:C3	2.93	0.44
1:J:478:GLN:HE21	1:K:432:ASP:HB2	1.83	0.44
1:T:197:PHE:HB2	1:T:535:TRP:CD2	2.53	0.44
1:W:223:PRO:HG3	3:W:605:HEC:HBC2	1.99	0.44
1:W:386:ASP:HA	1:W:387:PRO:HA	1.73	0.44
2:c:38:ILE:HG22	2:c:41:GLY:H	1.82	0.44
1:B:86:TRP:CH2	1:B:205:SER:HB3	2.53	0.44
1:B:90:PRO:O	1:B:93:ARG:HG2	2.17	0.44
1:B:403:SER:HB3	1:B:434:GLU:OE2	2.17	0.44
1:I:204:TRP:CH2	1:I:427:MET:HE1	2.53	0.44
1:I:241:ALA:HA	1:I:246:GLN:HG3	1.99	0.44
1:J:204:TRP:CH2	1:J:427:MET:HE1	2.52	0.44
1:J:373:PHE:CD1	5:J:613:GOL:H11	2.52	0.44
3:V:607:HEC:O2A	1:W:226:ARG:NH2	2.51	0.44
1:W:207:GLU:HA	1:W:513:THR:OG1	2.18	0.44
1:A:173:ALA:HA	1:A:177:GLU:HB2	1.98	0.44
1:D:389:PRO:HA	1:D:392:LEU:HD12	1.99	0.44
1:E:223:PRO:HG3	3:E:605:HEC:HBC2	2.00	0.44
1:H:154:CYS:HB3	1:H:165:PRO:HG3	2.00	0.44
1:H:227:CYS:HB3	3:H:602:HEC:HMB2	2.00	0.44
1:H:403:SER:HB3	1:H:434:GLU:OE2	2.17	0.44
1:J:173:ALA:HA	1:J:177:GLU:HB2	1.99	0.44
1:J:297:CYS:HB3	3:J:605:HEC:HMB1	2.00	0.44
1:L:81:LYS:HD3	1:L:82:TYR:CZ	2.53	0.44
1:O:90:PRO:O	1:O:93:ARG:HG2	2.17	0.44
1:Q:485:ARG:HD2	1:R:490:GLU:OE2	2.18	0.44
3:Q:604:HEC:CBC	3:Q:605:HEC:HBB2	2.48	0.44
1:R:403:SER:HB3	1:R:434:GLU:OE2	2.18	0.44
1:W:227:CYS:HB3	3:W:602:HEC:HMB2	1.99	0.44
1:W:478:GLN:HE21	1:X:432:ASP:HB2	1.83	0.44
1:G:538:THR:HA	2:c:110:PRO:HA	1.99	0.43
1:A:204:TRP:CH2	1:A:427:MET:HE1	2.53	0.43
1:H:265:GLY:HA3	7:H:732:HOH:O	2.18	0.43
1:P:497:TRP:CG	1:R:485:ARG:HD3	2.52	0.43
1:Q:41:PRO:O	1:Q:44:VAL:HG12	2.18	0.43
1:W:165:PRO:HG2	3:W:601:HEC:HMD2	1.99	0.43
1:B:41:PRO:O	1:B:44:VAL:HG12	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:207:GLU:HA	1:D:513:THR:HG1	1.81	0.43
1:L:173:ALA:HA	1:L:177:GLU:HB2	2.00	0.43
3:M:606:HEC:HBC1	3:M:607:HEC:HHC	2.00	0.43
1:N:173:ALA:HA	1:N:177:GLU:HB2	2.00	0.43
1:U:86:TRP:CH2	1:U:205:SER:HB3	2.54	0.43
3:U:606:HEC:HBC1	3:U:607:HEC:HHC	2.00	0.43
1:V:458:ASN:HB3	1:W:252:TRP:CZ2	2.53	0.43
1:X:232:GLN:HE22	1:X:246:GLN:NE2	2.07	0.43
1:G:458:ASN:HB3	1:H:252:TRP:CZ2	2.53	0.43
1:D:76:SER:HB2	1:D:106:VAL:HG13	2.00	0.43
1:F:41:PRO:O	1:F:44:VAL:HG12	2.18	0.43
1:I:150:GLY:C	3:I:601:HEC:HMC3	2.42	0.43
1:I:309:VAL:HG13	3:I:605:HEC:C3A	2.48	0.43
1:J:478:GLN:NE2	1:K:432:ASP:H	2.16	0.43
3:L:604:HEC:CBC	3:L:605:HEC:HBB2	2.47	0.43
1:P:485:ARG:HD2	1:Q:490:GLU:OE2	2.18	0.43
1:Q:362:VAL:HG13	7:Q:736:HOH:O	2.17	0.43
1:T:478:GLN:NE2	1:U:432:ASP:H	2.15	0.43
1:V:485:ARG:HD2	1:W:490:GLU:OE2	2.17	0.43
1:G:297:CYS:HB3	3:G:605:HEC:HMB1	2.00	0.43
1:E:86:TRP:CH2	1:E:205:SER:HB3	2.54	0.43
3:E:605:HEC:HMD1	3:E:605:HEC:HBD1	2.00	0.43
1:I:244:SER:OG	1:I:296:THR:HB	2.18	0.43
1:Q:127:VAL:HG13	1:T:120:GLN:NE2	2.33	0.43
1:R:204:TRP:CH2	1:R:427:MET:HE1	2.53	0.43
1:U:165:PRO:HG2	3:U:601:HEC:HMD2	2.00	0.43
1:W:297:CYS:HB3	3:W:605:HEC:HMB1	2.00	0.43
1:X:86:TRP:CH2	1:X:205:SER:HB3	2.53	0.43
1:X:223:PRO:HG3	3:X:605:HEC:HBC2	2.01	0.43
1:G:173:ALA:HA	1:G:177:GLU:HB2	2.00	0.43
1:E:197:PHE:HB2	1:E:535:TRP:CD2	2.53	0.43
3:H:606:HEC:HBC1	3:H:607:HEC:HHC	1.99	0.43
1:J:432:ASP:H	1:L:478:GLN:NE2	2.16	0.43
1:N:485:ARG:HD2	1:O:490:GLU:OE2	2.19	0.43
1:G:318:SER:HB2	7:G:703:HOH:O	2.18	0.43
1:D:204:TRP:CH2	1:D:427:MET:HE1	2.54	0.43
1:D:467:PHE:N	1:D:467:PHE:CD1	2.86	0.43
3:J:606:HEC:HBC1	3:J:607:HEC:HHC	2.00	0.43
1:K:76:SER:CB	1:K:106:VAL:HG11	2.44	0.43
1:M:173:ALA:HA	1:M:177:GLU:HB2	1.99	0.43
1:T:403:SER:HB3	1:T:434:GLU:OE2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:173:ALA:HA	1:W:177:GLU:HB2	1.99	0.43
1:X:197:PHE:HB2	1:X:535:TRP:CD2	2.54	0.43
1:G:165:PRO:HG2	3:G:601:HEC:HMD2	2.00	0.43
1:B:478:GLN:HE21	1:C:432:ASP:HB2	1.83	0.43
1:E:454:HIS:HD2	3:E:606:HEC:NC	2.16	0.43
1:J:41:PRO:O	1:J:44:VAL:HG12	2.19	0.43
3:J:607:HEC:O2A	1:K:226:ARG:NH2	2.52	0.43
3:L:606:HEC:HBC1	3:L:607:HEC:HHC	2.01	0.43
3:P:604:HEC:CBC	3:P:605:HEC:HBB2	2.49	0.43
1:Q:165:PRO:HG2	3:Q:601:HEC:HMD2	2.00	0.43
1:Q:297:CYS:HB3	3:Q:605:HEC:HMB1	2.00	0.43
1:S:207:GLU:HA	1:S:513:THR:OG1	2.19	0.43
1:V:323:MET:HE1	1:W:52:ASP:HB2	2.01	0.43
1:W:204:TRP:CH2	1:W:427:MET:HE1	2.54	0.43
3:W:606:HEC:HBC1	3:W:607:HEC:HHC	2.00	0.43
2:j:79:GLU:HG2	2:j:80:HIS:N	2.34	0.43
1:E:403:SER:HB3	1:E:434:GLU:OE2	2.17	0.43
1:H:538:THR:HA	2:d:110:PRO:HA	2.01	0.43
1:I:204:TRP:HH2	5:I:614:GOL:H31	1.84	0.43
1:J:226:ARG:NH2	3:L:607:HEC:O2A	2.52	0.43
1:K:197:PHE:HB2	1:K:535:TRP:CD2	2.54	0.43
3:Q:605:HEC:HMD1	3:Q:605:HEC:HBD1	2.00	0.43
3:Q:606:HEC:HBC1	3:Q:607:HEC:HHC	1.99	0.43
1:S:86:TRP:CH2	1:S:205:SER:HB3	2.53	0.43
1:S:173:ALA:HA	1:S:177:GLU:HB2	2.00	0.43
1:W:454:HIS:HD2	3:W:606:HEC:NC	2.14	0.43
1:C:223:PRO:HG3	3:C:605:HEC:HBC2	2.00	0.43
1:C:454:HIS:HD2	3:C:606:HEC:NC	2.16	0.43
1:D:509:LEU:HD11	1:F:477:LYS:NZ	2.34	0.43
1:E:41:PRO:O	1:E:44:VAL:HG12	2.19	0.43
1:F:86:TRP:CH2	1:F:205:SER:HB3	2.54	0.43
1:H:232:GLN:HE22	1:H:246:GLN:NE2	2.08	0.43
1:K:458:ASN:HB3	1:L:252:TRP:CZ2	2.54	0.43
1:L:41:PRO:O	1:L:44:VAL:HG12	2.19	0.43
1:L:197:PHE:HB2	1:L:535:TRP:CD2	2.54	0.43
1:M:223:PRO:HG3	3:M:605:HEC:HBC2	2.00	0.43
1:Q:79:PRO:HD3	1:Q:100:MET:HE2	2.01	0.43
1:R:41:PRO:O	1:R:44:VAL:HG12	2.18	0.43
3:G:601:HEC:HMA3	1:I:347:SER:HB3	2.00	0.43
1:A:297:CYS:HB3	3:A:605:HEC:HMB1	2.01	0.43
1:C:41:PRO:O	1:C:44:VAL:HG12	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:227:CYS:HB3	3:D:602:HEC:HMB1	1.99	0.43
3:Q:607:HEC:O2A	1:R:226:ARG:NH2	2.51	0.43
1:R:297:CYS:HB3	3:R:605:HEC:HMB1	2.01	0.43
1:S:478:GLN:HE21	1:T:432:ASP:HB2	1.83	0.43
1:T:297:CYS:HB3	3:T:605:HEC:HMB1	2.01	0.43
1:U:197:PHE:HB2	1:U:535:TRP:CD2	2.54	0.43
1:V:79:PRO:HB2	2:h:41:GLY:HA3	2.01	0.43
1:G:81:LYS:HD3	1:G:82:TYR:CZ	2.54	0.42
1:A:197:PHE:HB2	1:A:535:TRP:CD2	2.54	0.42
1:B:232:GLN:HE22	1:B:246:GLN:NE2	2.09	0.42
3:B:605:HEC:HMD1	3:B:605:HEC:CBD	2.49	0.42
3:B:605:HEC:HMD1	3:B:605:HEC:HBD1	2.00	0.42
1:C:538:THR:HG21	2:b:108:ARG:HG2	2.00	0.42
1:D:276:TRP:CE2	1:F:276:TRP:HB2	2.54	0.42
1:F:197:PHE:HB2	1:F:535:TRP:CD2	2.54	0.42
1:I:454:HIS:HD2	3:I:606:HEC:C1C	2.32	0.42
1:J:81:LYS:HD3	1:J:82:TYR:CZ	2.53	0.42
1:K:454:HIS:HD2	3:K:606:HEC:NC	2.14	0.42
1:O:173:ALA:HA	1:O:177:GLU:HB2	2.00	0.42
3:T:604:HEC:CBC	3:T:605:HEC:HBB2	2.47	0.42
1:U:227:CYS:HB3	3:U:602:HEC:HMB2	2.01	0.42
1:V:297:CYS:HB3	3:V:605:HEC:HMB1	2.01	0.42
1:B:197:PHE:HB2	1:B:535:TRP:CD2	2.54	0.42
1:B:297:CYS:HB3	3:B:605:HEC:HMB1	2.00	0.42
1:C:173:ALA:HA	1:C:177:GLU:HB2	2.00	0.42
1:F:297:CYS:HB3	3:F:605:HEC:HMB1	2.01	0.42
1:I:122:VAL:O	1:I:126:SER:HB3	2.19	0.42
1:I:287:LEU:HD12	3:I:604:HEC:HBD2	2.01	0.42
1:I:386:ASP:HA	1:I:387:PRO:HA	1.68	0.42
3:I:603:HEC:HHA	3:I:603:HEC:HAD2	1.89	0.42
1:M:90:PRO:O	1:M:93:ARG:HG2	2.19	0.42
1:M:182:GLU:OE1	2:g:26:TYR:HB3	2.18	0.42
1:M:458:ASN:HB3	1:N:252:TRP:CZ2	2.53	0.42
1:Q:223:PRO:HG3	3:Q:605:HEC:HBC2	2.01	0.42
1:R:86:TRP:CH2	1:R:205:SER:HB3	2.54	0.42
1:R:173:ALA:HA	1:R:177:GLU:HB2	1.99	0.42
3:G:607:HEC:O2A	1:H:226:ARG:NH2	2.52	0.42
1:A:41:PRO:O	1:A:44:VAL:HG12	2.20	0.42
3:E:604:HEC:CBC	3:E:605:HEC:HBB2	2.47	0.42
1:K:41:PRO:O	1:K:44:VAL:HG12	2.19	0.42
1:O:79:PRO:HD3	1:O:100:MET:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:173:ALA:HA	1:P:177:GLU:HB2	2.00	0.42
3:C:606:HEC:HBC1	3:C:607:HEC:HHC	2.01	0.42
1:F:81:LYS:HD3	1:F:82:TYR:CZ	2.55	0.42
1:K:207:GLU:HA	1:K:513:THR:OG1	2.20	0.42
1:M:204:TRP:CH2	1:M:427:MET:HE1	2.54	0.42
1:R:386:ASP:HA	1:R:387:PRO:HA	1.73	0.42
1:S:197:PHE:HB2	1:S:535:TRP:CD2	2.54	0.42
1:S:297:CYS:HB3	3:S:605:HEC:HMB1	2.01	0.42
1:U:297:CYS:HB3	3:U:605:HEC:HMB1	2.01	0.42
3:U:601:HEC:HBA1	3:U:601:HEC:HHA	2.02	0.42
1:V:482:ARG:HH22	1:W:479:ASN:HD22	1.67	0.42
1:X:297:CYS:HB3	3:X:605:HEC:HMB1	2.00	0.42
3:X:605:HEC:HBD1	3:X:605:HEC:HMD1	2.02	0.42
1:G:232:GLN:HE22	1:G:246:GLN:NE2	2.07	0.42
1:F:386:ASP:HA	1:F:387:PRO:HA	1.73	0.42
1:F:403:SER:HB3	1:F:434:GLU:OE2	2.18	0.42
1:H:264:ILE:HG12	1:I:252:TRP:CE2	2.54	0.42
1:T:86:TRP:CH2	1:T:205:SER:HB3	2.54	0.42
1:T:204:TRP:CH2	1:T:427:MET:HE1	2.55	0.42
1:V:172:THR:HG21	2:h:34:TRP:CH2	2.54	0.42
1:V:403:SER:HB3	1:V:434:GLU:OE2	2.20	0.42
3:X:606:HEC:HBC1	3:X:607:HEC:HHC	2.02	0.42
3:A:607:HEC:O2A	1:B:226:ARG:NH2	2.53	0.42
1:B:478:GLN:NE2	1:C:432:ASP:H	2.18	0.42
1:C:189:GLY:HA2	3:C:605:HEC:CGD	2.50	0.42
1:D:485:ARG:HD3	1:E:497:TRP:CD2	2.55	0.42
1:F:454:HIS:HD2	3:F:606:HEC:NC	2.14	0.42
1:H:353:GLU:OE2	1:I:93:ARG:NH1	2.53	0.42
1:I:37:THR:HA	1:I:59:PHE:CE1	2.55	0.42
1:I:364:ASP:O	1:I:367:LEU:HB3	2.20	0.42
1:K:429:ASN:ND2	7:K:706:HOH:O	2.50	0.42
1:P:454:HIS:HD2	3:P:606:HEC:NC	2.14	0.42
1:R:189:GLY:HA2	3:R:605:HEC:CGD	2.50	0.42
1:S:165:PRO:HG2	3:S:601:HEC:HMD2	2.00	0.42
1:X:222:SER:HB2	1:X:223:PRO:HD3	2.02	0.42
3:A:606:HEC:HBC1	3:A:607:HEC:HHC	2.01	0.42
3:C:604:HEC:CBC	3:C:605:HEC:HBB2	2.48	0.42
1:E:297:CYS:HB3	3:E:605:HEC:HMB1	2.02	0.42
1:I:227:CYS:CB	3:I:602:HEC:HMB2	2.48	0.42
1:J:52:ASP:HB2	1:L:323:MET:HE1	2.02	0.42
1:L:86:TRP:CH2	1:L:205:SER:HB3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:41:PRO:O	1:M:44:VAL:HG12	2.19	0.42
1:M:482:ARG:HH22	1:N:479:ASN:HD22	1.67	0.42
1:M:485:ARG:HD2	1:N:490:GLU:OE2	2.19	0.42
1:N:127:VAL:CG2	1:R:123:ALA:HB2	2.43	0.42
1:N:197:PHE:HB2	1:N:535:TRP:CD2	2.55	0.42
3:O:606:HEC:HBC1	3:O:607:HEC:HHC	2.01	0.42
3:S:605:HEC:HMD1	3:S:605:HEC:HBD1	2.02	0.42
1:W:197:PHE:HB2	1:W:535:TRP:CD2	2.55	0.42
1:H:478:GLN:NE2	1:I:432:ASP:H	2.18	0.42
3:H:604:HEC:CBC	3:H:605:HEC:HBB2	2.49	0.42
1:N:458:ASN:HB3	1:O:252:TRP:CZ2	2.55	0.42
3:N:607:HEC:O2A	1:O:226:ARG:NH2	2.52	0.42
1:O:454:HIS:HD2	3:O:606:HEC:NC	2.17	0.42
1:Q:403:SER:HB3	1:Q:434:GLU:OE2	2.19	0.42
1:R:197:PHE:HB2	1:R:535:TRP:CD2	2.55	0.42
1:W:86:TRP:CH2	1:W:205:SER:HB3	2.55	0.42
1:W:189:GLY:HA2	3:W:605:HEC:CGD	2.50	0.42
1:X:41:PRO:O	1:X:44:VAL:HG12	2.19	0.42
1:B:204:TRP:CH2	1:B:427:MET:HE1	2.55	0.42
1:E:76:SER:CB	1:E:106:VAL:HG11	2.43	0.42
3:F:605:HEC:HBD1	3:F:605:HEC:HMD1	2.02	0.42
1:H:561:GLY:H	1:I:43:GLU:HA	1.85	0.42
1:I:204:TRP:CZ3	1:I:427:MET:HE1	2.55	0.42
1:K:505:THR:HG22	7:K:707:HOH:O	2.18	0.42
1:N:79:PRO:HD3	1:N:100:MET:HE2	2.01	0.42
1:P:86:TRP:CH2	1:P:205:SER:HB3	2.55	0.42
1:Q:81:LYS:HD3	1:Q:82:TYR:CZ	2.55	0.42
1:S:454:HIS:HD2	3:S:606:HEC:NC	2.15	0.42
1:S:482:ARG:HH22	1:T:479:ASN:HD22	1.68	0.42
1:U:454:HIS:HD2	3:U:606:HEC:NC	2.14	0.42
3:G:606:HEC:HBC1	3:G:607:HEC:HHC	2.01	0.42
1:A:235:GLN:HG2	7:A:723:HOH:O	2.19	0.42
1:C:386:ASP:HA	1:C:387:PRO:HA	1.73	0.42
1:J:482:ARG:HH22	1:K:479:ASN:HD22	1.68	0.42
1:N:207:GLU:HA	1:N:513:THR:OG1	2.20	0.42
1:O:86:TRP:CH2	1:O:205:SER:HB3	2.55	0.42
1:O:223:PRO:HG3	3:O:605:HEC:HBC2	2.01	0.42
1:P:197:PHE:HB2	1:P:535:TRP:CD2	2.55	0.42
1:Q:154:CYS:HB3	1:Q:165:PRO:HG3	2.02	0.42
1:S:204:TRP:CH2	1:S:427:MET:HE1	2.54	0.42
1:S:223:PRO:HG3	3:S:605:HEC:HBC2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:490:GLU:OE2	1:U:485:ARG:HD2	2.20	0.42
1:V:204:TRP:CH2	1:V:427:MET:HE1	2.55	0.42
2:j:34:TRP:HB2	2:j:98:PHE:HA	2.01	0.42
1:G:485:ARG:HD2	1:H:490:GLU:OE2	2.20	0.41
1:D:235:GLN:HE22	1:F:280:GLN:NE2	2.18	0.41
1:D:262:TYR:CB	3:D:606:HEC:HBB2	2.50	0.41
1:H:41:PRO:O	1:H:44:VAL:HG12	2.19	0.41
1:I:450:LYS:HE2	3:I:606:HEC:HAA1	2.01	0.41
1:J:458:ASN:HB3	1:K:252:TRP:CZ2	2.54	0.41
1:N:41:PRO:O	1:N:44:VAL:HG12	2.20	0.41
1:N:86:TRP:CH2	1:N:205:SER:HB3	2.55	0.41
1:O:41:PRO:O	1:O:44:VAL:HG12	2.20	0.41
1:O:176:HIS:HB3	1:O:179:GLN:HE21	1.85	0.41
1:O:197:PHE:HB2	1:O:535:TRP:CD2	2.55	0.41
1:Q:86:TRP:CH2	1:Q:205:SER:HB3	2.54	0.41
3:Q:605:HEC:HMD1	3:Q:605:HEC:CBD	2.50	0.41
1:R:90:PRO:O	1:R:93:ARG:HG2	2.19	0.41
1:R:223:PRO:HG3	3:R:605:HEC:HBC2	2.02	0.41
3:S:605:HEC:HMD1	3:S:605:HEC:CBD	2.50	0.41
1:T:189:GLY:HA2	3:T:605:HEC:CGD	2.50	0.41
3:G:605:HEC:HBD1	3:G:605:HEC:HMD1	2.02	0.41
1:B:79:PRO:HD3	1:B:100:MET:HE2	2.01	0.41
1:E:378:ASP:HB2	7:E:711:HOH:O	2.20	0.41
1:F:232:GLN:HE22	1:F:246:GLN:NE2	2.08	0.41
1:H:197:PHE:HB2	1:H:535:TRP:CD2	2.55	0.41
3:K:604:HEC:CBC	3:K:605:HEC:HBB2	2.48	0.41
1:O:204:TRP:CH2	1:O:427:MET:HE1	2.55	0.41
1:R:81:LYS:HD3	1:R:82:TYR:CZ	2.55	0.41
3:R:605:HEC:HMD1	3:R:605:HEC:CBD	2.50	0.41
1:T:386:ASP:HA	1:T:387:PRO:HA	1.73	0.41
1:V:52:ASP:HB2	1:X:323:MET:HE1	2.02	0.41
3:W:605:HEC:HBD1	3:W:605:HEC:HMD1	2.02	0.41
1:G:52:ASP:HB2	1:I:323:MET:HE1	2.02	0.41
1:G:223:PRO:HG3	3:G:605:HEC:HBC2	2.02	0.41
1:A:323:MET:HE1	1:B:52:ASP:HB2	2.01	0.41
1:A:478:GLN:NE2	1:B:432:ASP:H	2.18	0.41
3:E:601:HEC:HBA1	3:E:601:HEC:HHA	2.02	0.41
1:H:81:LYS:HD3	1:H:82:TYR:CZ	2.55	0.41
1:H:485:ARG:HD3	1:I:497:TRP:CD1	2.55	0.41
1:K:57:VAL:HG11	5:K:615:GOL:O2	2.21	0.41
1:K:81:LYS:HD3	1:K:82:TYR:CZ	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:601:HEC:HBC1	3:K:602:HEC:CHC	2.50	0.41
1:L:154:CYS:HB3	1:L:165:PRO:HG3	2.02	0.41
1:N:323:MET:HE1	1:O:52:ASP:HB2	2.02	0.41
1:P:204:TRP:CH2	1:P:427:MET:HE1	2.55	0.41
3:P:601:HEC:HMA3	1:R:347:SER:HB3	2.03	0.41
1:R:433:VAL:HG23	7:R:709:HOH:O	2.19	0.41
1:R:454:HIS:HD2	3:R:606:HEC:NC	2.15	0.41
1:S:154:CYS:HB3	1:S:165:PRO:HG3	2.02	0.41
1:V:86:TRP:CH2	1:V:205:SER:HB3	2.55	0.41
1:V:197:PHE:HB2	1:V:535:TRP:CD2	2.55	0.41
1:A:81:LYS:HD3	1:A:82:TYR:CZ	2.56	0.41
1:B:323:MET:HE1	1:C:52:ASP:HB2	2.01	0.41
1:D:355:LEU:HD23	1:D:355:LEU:HA	1.92	0.41
1:H:79:PRO:HD3	1:H:100:MET:HE2	2.02	0.41
1:H:204:TRP:CH2	1:H:427:MET:HE1	2.55	0.41
1:I:141:HIS:CD2	1:I:149:THR:HB	2.56	0.41
1:L:165:PRO:HG2	3:L:601:HEC:HMD2	2.02	0.41
1:M:86:TRP:CH2	1:M:205:SER:HB3	2.55	0.41
1:O:232:GLN:HE22	1:O:246:GLN:NE2	2.10	0.41
1:Q:197:PHE:HB2	1:Q:535:TRP:CD2	2.55	0.41
1:T:154:CYS:HB3	1:T:165:PRO:HG3	2.01	0.41
1:X:154:CYS:HB3	1:X:165:PRO:HG3	2.02	0.41
3:G:605:HEC:HMD1	3:G:605:HEC:CBD	2.50	0.41
1:A:86:TRP:CH2	1:A:205:SER:HB3	2.54	0.41
1:A:226:ARG:NH2	3:C:607:HEC:O2A	2.53	0.41
1:A:386:ASP:HA	1:A:387:PRO:HA	1.74	0.41
1:B:454:HIS:HD2	3:B:606:HEC:NC	2.13	0.41
1:C:154:CYS:HB3	1:C:165:PRO:HG3	2.03	0.41
1:C:197:PHE:HB2	1:C:535:TRP:CD2	2.55	0.41
1:D:335:ARG:O	1:D:339:VAL:HG23	2.21	0.41
1:J:479:ASN:HD22	1:L:482:ARG:HH22	1.69	0.41
1:K:132:ILE:HG12	5:K:614:GOL:C1	2.50	0.41
1:M:479:ASN:HD22	1:O:482:ARG:HH22	1.69	0.41
1:T:81:LYS:HD3	1:T:82:TYR:CZ	2.55	0.41
1:U:223:PRO:HG3	3:U:605:HEC:HBC2	2.01	0.41
1:V:41:PRO:O	1:V:44:VAL:HG12	2.20	0.41
1:V:485:ARG:HD3	1:W:497:TRP:CG	2.55	0.41
3:W:607:HEC:O2A	1:X:226:ARG:NH2	2.54	0.41
1:G:154:CYS:HB3	1:G:165:PRO:HG3	2.02	0.41
1:A:454:HIS:HD2	3:A:606:HEC:NC	2.14	0.41
1:D:474:VAL:HG13	1:E:430:CYS:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:378:ASP:CB	7:E:711:HOH:O	2.69	0.41
1:I:41:PRO:O	1:I:44:VAL:HG12	2.20	0.41
1:I:198:ALA:O	1:I:202:CYS:HB2	2.20	0.41
1:J:76:SER:CB	1:J:106:VAL:HG11	2.43	0.41
1:L:454:HIS:HD2	3:L:606:HEC:NC	2.15	0.41
3:M:607:HEC:O2A	1:N:226:ARG:NH2	2.53	0.41
1:N:349:ARG:NH2	4:N:610:SO4:S	2.94	0.41
1:P:207:GLU:HA	1:P:513:THR:OG1	2.20	0.41
1:Q:207:GLU:HA	1:Q:513:THR:OG1	2.20	0.41
1:R:207:GLU:HA	1:R:513:THR:OG1	2.21	0.41
3:S:601:HEC:HBA1	3:S:601:HEC:HHA	2.02	0.41
3:V:605:HEC:HBD1	3:V:605:HEC:HMD1	2.01	0.41
1:W:41:PRO:O	1:W:44:VAL:HG12	2.20	0.41
1:W:340:SER:O	1:W:343:ASP:HB2	2.20	0.41
1:X:454:HIS:HD2	3:X:606:HEC:NC	2.15	0.41
1:C:204:TRP:CH2	1:C:427:MET:HE1	2.56	0.41
1:I:48:PRO:HA	1:I:63:LYS:HB3	2.02	0.41
3:K:601:HEC:HHA	3:K:601:HEC:HBA1	2.03	0.41
3:M:605:HEC:HBD1	3:M:605:HEC:HMD1	2.03	0.41
3:O:601:HEC:HBA1	3:O:601:HEC:HHA	2.02	0.41
1:P:154:CYS:HB3	1:P:165:PRO:HG3	2.03	0.41
1:P:479:ASN:HD22	1:R:482:ARG:HH22	1.68	0.41
1:W:458:ASN:HB3	1:X:252:TRP:CZ2	2.56	0.41
1:X:104:ASP:CG	2:j:87:LYS:HZ3	2.29	0.41
1:X:204:TRP:CH2	1:X:427:MET:HE1	2.56	0.41
1:D:485:ARG:HD3	1:E:497:TRP:CE2	2.56	0.41
1:J:207:GLU:HA	1:J:513:THR:OG1	2.21	0.41
3:J:605:HEC:HMD1	3:J:605:HEC:HBD1	2.03	0.41
1:K:86:TRP:CH2	1:K:205:SER:HB3	2.55	0.41
1:K:182:GLU:OE1	2:b:26:TYR:HB3	2.21	0.41
1:L:79:PRO:HD3	1:L:100:MET:HE2	2.02	0.41
3:L:605:HEC:CBD	3:L:605:HEC:HMD1	2.51	0.41
1:M:108:PRO:HD3	7:M:712:HOH:O	2.19	0.41
1:P:98:ASP:HB2	7:P:701:HOH:O	2.20	0.41
1:P:323:MET:HE1	1:Q:52:ASP:HB2	2.03	0.41
1:U:41:PRO:O	1:U:44:VAL:HG12	2.20	0.41
1:U:154:CYS:HB3	1:U:165:PRO:HG3	2.02	0.41
1:G:86:TRP:CH2	1:G:205:SER:HB3	2.56	0.41
1:D:169:ALA:O	1:D:172:THR:HG22	2.21	0.41
1:D:202:CYS:HB3	1:D:205:SER:HB2	2.01	0.41
1:D:223:PRO:HG3	3:D:605:HEC:HBC2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:204:TRP:CH2	1:E:427:MET:HE1	2.56	0.41
1:E:485:ARG:HD2	1:F:490:GLU:OE2	2.20	0.41
3:F:600:HEC:HHH	3:F:600:HEC:CBC	2.49	0.41
3:F:605:HEC:HMD1	3:F:605:HEC:CBD	2.50	0.41
1:I:59:PHE:C	1:I:61:GLY:N	2.76	0.41
1:I:232:GLN:NE2	1:I:246:GLN:HE22	2.10	0.41
1:I:319:MET:SD	3:I:603:HEC:HBA1	2.61	0.41
1:J:252:TRP:CZ2	1:L:458:ASN:HB3	2.56	0.41
1:J:410:HIS:HE1	5:J:613:GOL:O1	2.04	0.41
1:K:386:ASP:HA	1:K:387:PRO:HA	1.72	0.41
1:L:232:GLN:HE22	1:L:246:GLN:NE2	2.04	0.41
1:M:478:GLN:NE2	1:N:432:ASP:H	2.18	0.41
3:M:605:HEC:HMD1	3:M:605:HEC:CBD	2.51	0.41
1:N:204:TRP:CH2	1:N:427:MET:HE1	2.55	0.41
1:N:482:ARG:HH22	1:O:479:ASN:HD22	1.68	0.41
3:O:600:HEC:HHH	3:O:600:HEC:CBC	2.48	0.41
1:Q:127:VAL:HG13	1:T:120:GLN:HE21	1.85	0.41
1:Q:323:MET:HE1	1:R:52:ASP:HB2	2.03	0.41
1:Q:349:ARG:NH2	4:Q:609:SO4:O1	2.53	0.41
1:S:81:LYS:HD3	1:S:82:TYR:CZ	2.56	0.41
1:S:386:ASP:HA	1:S:387:PRO:HA	1.73	0.41
1:T:176:HIS:HB3	1:T:179:GLN:HE21	1.86	0.41
1:T:223:PRO:HG3	3:T:605:HEC:HBC2	2.02	0.41
3:X:601:HEC:HBA1	3:X:601:HEC:HHA	2.03	0.41
1:D:386:ASP:HA	1:D:387:PRO:HA	1.76	0.41
1:F:204:TRP:CH2	1:F:427:MET:HE1	2.56	0.41
1:H:297:CYS:HB3	3:H:605:HEC:HMB1	2.03	0.41
1:H:347:SER:HB3	3:I:601:HEC:HMA3	2.03	0.41
3:H:606:HEC:CBC	5:H:614:GOL:H12	2.51	0.41
1:I:296:THR:O	1:I:297:CYS:C	2.64	0.41
1:N:478:GLN:NE2	1:O:432:ASP:H	2.19	0.41
1:O:76:SER:CB	1:O:106:VAL:HG11	2.44	0.41
1:Q:243:ARG:NH1	7:Q:702:HOH:O	2.47	0.41
3:Q:600:HEC:HAA2	3:Q:601:HEC:HMA3	2.03	0.41
3:Q:601:HEC:HBA1	3:Q:601:HEC:HHA	2.02	0.41
1:R:154:CYS:HB3	1:R:165:PRO:HG3	2.03	0.41
1:S:39:TRP:CZ2	1:U:541:ALA:HA	2.56	0.41
3:S:604:HEC:CBC	3:S:605:HEC:HBB2	2.48	0.41
1:V:154:CYS:HB3	1:V:165:PRO:HG3	2.02	0.41
1:X:172:THR:HG21	2:j:34:TRP:CH2	2.56	0.41
1:G:222:SER:HB2	1:G:223:PRO:HD3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:PRO:HD3	1:A:100:MET:HE2	2.03	0.40
1:A:176:HIS:HB3	1:A:179:GLN:HE21	1.86	0.40
3:B:604:HEC:CBC	3:B:605:HEC:HBB2	2.46	0.40
1:D:150:GLY:O	1:D:151:CYS:C	2.64	0.40
1:H:454:HIS:HD2	3:H:606:HEC:NC	2.15	0.40
1:I:314:ILE:HA	1:I:334:LYS:HD3	2.03	0.40
1:M:207:GLU:HA	1:M:513:THR:OG1	2.21	0.40
1:O:81:LYS:HD3	1:O:82:TYR:CZ	2.56	0.40
1:P:189:GLY:HA2	3:P:605:HEC:CGD	2.51	0.40
1:P:478:GLN:NE2	1:Q:432:ASP:H	2.18	0.40
1:P:482:ARG:HH22	1:Q:479:ASN:HD22	1.69	0.40
1:R:368:LYS:NZ	1:R:466:SER:OG	2.54	0.40
1:V:207:GLU:HA	1:V:513:THR:OG1	2.21	0.40
1:W:154:CYS:HB3	1:W:165:PRO:HG3	2.02	0.40
1:W:485:ARG:HD3	1:X:497:TRP:CG	2.56	0.40
3:W:601:HEC:HHA	3:W:601:HEC:HBA1	2.02	0.40
1:X:81:LYS:HD3	1:X:82:TYR:CZ	2.56	0.40
1:X:337:ARG:NH2	4:X:610:SO4:S	2.91	0.40
1:X:403:SER:HB3	1:X:434:GLU:OE2	2.20	0.40
1:B:386:ASP:HA	1:B:387:PRO:HA	1.72	0.40
1:D:369:TYR:CE1	1:D:441:VAL:HB	2.56	0.40
1:F:176:HIS:HB3	1:F:179:GLN:HE21	1.86	0.40
1:H:353:GLU:CD	1:I:93:ARG:HH11	2.29	0.40
3:J:605:HEC:HMD1	3:J:605:HEC:CBD	2.51	0.40
1:K:485:ARG:HD2	1:L:490:GLU:OE2	2.21	0.40
3:N:604:HEC:CBC	3:N:605:HEC:HBB2	2.50	0.40
3:N:605:HEC:HBD1	3:N:605:HEC:HMD1	2.03	0.40
1:Q:79:PRO:CD	1:Q:100:MET:HE2	2.51	0.40
1:R:79:PRO:HD3	1:R:100:MET:HE2	2.03	0.40
1:U:189:GLY:HA2	3:U:605:HEC:CGD	2.50	0.40
1:D:189:GLY:HA2	3:D:605:HEC:O2D	2.22	0.40
1:F:207:GLU:HA	1:F:513:THR:OG1	2.21	0.40
1:H:473:LEU:HD23	5:H:615:GOL:O1	2.21	0.40
1:I:220:HIS:O	1:I:223:PRO:HD2	2.21	0.40
1:I:314:ILE:HD12	3:I:606:HEC:O2D	2.21	0.40
1:J:86:TRP:CH2	1:J:205:SER:HB3	2.56	0.40
1:J:257:ARG:HD3	7:J:763:HOH:O	2.20	0.40
1:K:154:CYS:HB3	1:K:165:PRO:HG3	2.03	0.40
1:L:207:GLU:HA	1:L:513:THR:OG1	2.22	0.40
3:L:605:HEC:HMD1	3:L:605:HEC:HBD1	2.02	0.40
1:N:297:CYS:HB3	3:N:605:HEC:HMB1	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:81:LYS:HD3	1:P:82:TYR:CZ	2.56	0.40
1:P:226:ARG:NH2	3:R:607:HEC:O2A	2.55	0.40
3:P:606:HEC:HBC1	3:P:607:HEC:HHC	2.02	0.40
1:T:41:PRO:O	1:T:44:VAL:HG12	2.21	0.40
3:W:605:HEC:HMD1	3:W:605:HEC:CBD	2.51	0.40
3:X:605:HEC:HMD1	3:X:605:HEC:CBD	2.51	0.40
1:G:235:GLN:NE2	1:I:280:GLN:NE2	2.60	0.40
5:A:612:GOL:H11	1:C:370:ARG:HG2	2.03	0.40
1:D:252:TRP:CE2	1:F:264:ILE:HG12	2.57	0.40
1:J:427:MET:CE	7:J:747:HOH:O	2.70	0.40
3:K:600:HEC:HAA2	3:K:601:HEC:HMA3	2.03	0.40
1:N:189:GLY:HA2	3:N:605:HEC:CGD	2.51	0.40
1:A:52:ASP:HB2	1:C:323:MET:HE1	2.03	0.40
1:A:189:GLY:HA2	3:A:605:HEC:CGD	2.51	0.40
1:B:176:HIS:HB3	1:B:179:GLN:HE21	1.85	0.40
1:C:76:SER:CB	1:C:106:VAL:HG11	2.44	0.40
1:I:294:GLY:C	3:I:607:HEC:HBC2	2.47	0.40
3:L:600:HEC:HAA2	3:L:601:HEC:HMA3	2.04	0.40
3:N:605:HEC:HMD1	3:N:605:HEC:CBD	2.52	0.40
3:N:606:HEC:HBC1	3:N:607:HEC:HHC	2.03	0.40
1:Q:454:HIS:HD2	3:Q:606:HEC:NC	2.14	0.40
1:W:81:LYS:HD3	1:W:82:TYR:CZ	2.56	0.40

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

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:491:LYS:O	1:R:496:SER:OG[1_545]	1.83	0.37
1:G:42:HIS:NE2	1:J:496:SER:CB[2_555]	2.03	0.17
1:G:496:SER:OG	1:Q:491:LYS:O[1_655]	2.18	0.02

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	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	B	529/582 (91%)	514 (97%)	15 (3%)	0	100	100
1	C	529/582 (91%)	512 (97%)	17 (3%)	0	100	100
1	D	529/582 (91%)	491 (93%)	36 (7%)	2 (0%)	30	61
1	E	529/582 (91%)	512 (97%)	17 (3%)	0	100	100
1	F	529/582 (91%)	515 (97%)	14 (3%)	0	100	100
1	G	529/582 (91%)	516 (98%)	13 (2%)	0	100	100
1	H	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	I	525/582 (90%)	502 (96%)	23 (4%)	0	100	100
1	J	529/582 (91%)	516 (98%)	13 (2%)	0	100	100
1	K	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	L	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	M	529/582 (91%)	515 (97%)	14 (3%)	0	100	100
1	N	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	O	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	P	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	Q	529/582 (91%)	514 (97%)	15 (3%)	0	100	100
1	R	530/582 (91%)	515 (97%)	15 (3%)	0	100	100
1	S	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	T	529/582 (91%)	511 (97%)	18 (3%)	0	100	100
1	U	529/582 (91%)	513 (97%)	16 (3%)	0	100	100
1	V	529/582 (91%)	512 (97%)	17 (3%)	0	100	100
1	W	529/582 (91%)	512 (97%)	17 (3%)	0	100	100
1	X	529/582 (91%)	515 (97%)	14 (3%)	0	100	100
2	Y	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	Z	84/114 (74%)	82 (98%)	2 (2%)	0	100	100
2	a	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	b	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	c	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	d	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	e	84/114 (74%)	82 (98%)	2 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	f	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	g	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	h	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	i	84/114 (74%)	83 (99%)	1 (1%)	0	100	100
2	j	84/114 (74%)	79 (94%)	5 (6%)	0	100	100
All	All	13701/15336 (89%)	13279 (97%)	420 (3%)	2 (0%)	100	100

All (2) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	D	256	HIS
1	D	106	VAL

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	451/491 (92%)	446 (99%)	5 (1%)	70	90
1	B	451/491 (92%)	448 (99%)	3 (1%)	81	94
1	C	451/491 (92%)	448 (99%)	3 (1%)	81	94
1	D	451/491 (92%)	435 (96%)	16 (4%)	31	65
1	E	451/491 (92%)	446 (99%)	5 (1%)	70	90
1	F	451/491 (92%)	448 (99%)	3 (1%)	81	94
1	G	451/491 (92%)	446 (99%)	5 (1%)	70	90
1	H	451/491 (92%)	446 (99%)	5 (1%)	70	90
1	I	449/491 (91%)	429 (96%)	20 (4%)	23	55
1	J	451/491 (92%)	446 (99%)	5 (1%)	70	90
1	K	451/491 (92%)	446 (99%)	5 (1%)	70	90
1	L	451/491 (92%)	447 (99%)	4 (1%)	75	92
1	M	451/491 (92%)	448 (99%)	3 (1%)	81	94

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	N	451/491 (92%)	447 (99%)	4 (1%)	75	92
1	O	451/491 (92%)	448 (99%)	3 (1%)	81	94
1	P	451/491 (92%)	447 (99%)	4 (1%)	75	92
1	Q	451/491 (92%)	447 (99%)	4 (1%)	75	92
1	R	452/491 (92%)	448 (99%)	4 (1%)	75	92
1	S	451/491 (92%)	447 (99%)	4 (1%)	75	92
1	T	451/491 (92%)	447 (99%)	4 (1%)	75	92
1	U	451/491 (92%)	448 (99%)	3 (1%)	81	94
1	V	451/491 (92%)	448 (99%)	3 (1%)	81	94
1	W	451/491 (92%)	447 (99%)	4 (1%)	75	92
1	X	451/491 (92%)	446 (99%)	5 (1%)	70	90
2	Y	68/86 (79%)	66 (97%)	2 (3%)	37	71
2	Z	68/86 (79%)	65 (96%)	3 (4%)	24	56
2	a	68/86 (79%)	65 (96%)	3 (4%)	24	56
2	b	68/86 (79%)	65 (96%)	3 (4%)	24	56
2	c	68/86 (79%)	65 (96%)	3 (4%)	24	56
2	d	68/86 (79%)	66 (97%)	2 (3%)	37	71
2	e	68/86 (79%)	66 (97%)	2 (3%)	37	71
2	f	68/86 (79%)	66 (97%)	2 (3%)	37	71
2	g	68/86 (79%)	65 (96%)	3 (4%)	24	56
2	h	68/86 (79%)	65 (96%)	3 (4%)	24	56
2	i	68/86 (79%)	65 (96%)	3 (4%)	24	56
2	j	68/86 (79%)	67 (98%)	1 (2%)	60	86
All	All	11639/12816 (91%)	11485 (99%)	154 (1%)	65	88

All (154) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	G	42	HIS
1	G	78	TYR
1	G	86	TRP
1	G	115	THR
1	G	472	TRP
1	A	42	HIS

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Mol	Chain	Res	Type
1	A	78	TYR
1	A	86	TRP
1	A	115	THR
1	A	472	TRP
1	B	42	HIS
1	B	86	TRP
1	B	472	TRP
1	C	42	HIS
1	C	86	TRP
1	C	115	THR
1	D	78	TYR
1	D	86	TRP
1	D	100	MET
1	D	106	VAL
1	D	172	THR
1	D	205	SER
1	D	278	THR
1	D	309	VAL
1	D	319	MET
1	D	349	ARG
1	D	446	THR
1	D	472	TRP
1	D	513	THR
1	D	558	ILE
1	D	559	THR
1	D	563	HIS
1	E	42	HIS
1	E	78	TYR
1	E	86	TRP
1	E	115	THR
1	E	472	TRP
1	F	42	HIS
1	F	86	TRP
1	F	472	TRP
1	H	42	HIS
1	H	78	TYR
1	H	86	TRP
1	H	115	THR
1	H	472	TRP
1	I	33	VAL
1	I	43	GLU
1	I	44	VAL

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Mol	Chain	Res	Type
1	I	86	TRP
1	I	106	VAL
1	I	115	THR
1	I	157	ASN
1	I	205	SER
1	I	231	HIS
1	I	278	THR
1	I	309	VAL
1	I	318	SER
1	I	332	LYS
1	I	349	ARG
1	I	362	VAL
1	I	368	LYS
1	I	446	THR
1	I	472	TRP
1	I	496	SER
1	I	545	GLU
1	J	42	HIS
1	J	78	TYR
1	J	86	TRP
1	J	115	THR
1	J	472	TRP
1	K	42	HIS
1	K	78	TYR
1	K	86	TRP
1	K	115	THR
1	K	472	TRP
1	L	42	HIS
1	L	86	TRP
1	L	115	THR
1	L	472	TRP
1	M	42	HIS
1	M	86	TRP
1	M	472	TRP
1	N	42	HIS
1	N	86	TRP
1	N	115	THR
1	N	472	TRP
1	O	42	HIS
1	O	86	TRP
1	O	472	TRP
1	P	42	HIS

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Mol	Chain	Res	Type
1	P	78	TYR
1	P	86	TRP
1	P	115	THR
1	Q	42	HIS
1	Q	78	TYR
1	Q	86	TRP
1	Q	472	TRP
1	R	42	HIS
1	R	78	TYR
1	R	86	TRP
1	R	472	TRP
1	S	42	HIS
1	S	78	TYR
1	S	86	TRP
1	S	472	TRP
1	T	42	HIS
1	T	78	TYR
1	T	86	TRP
1	T	472	TRP
1	U	42	HIS
1	U	86	TRP
1	U	115	THR
1	V	42	HIS
1	V	78	TYR
1	V	86	TRP
1	W	42	HIS
1	W	78	TYR
1	W	86	TRP
1	W	472	TRP
1	X	42	HIS
1	X	78	TYR
1	X	86	TRP
1	X	115	THR
1	X	472	TRP
2	Y	54	GLU
2	Y	79	GLU
2	Z	54	GLU
2	Z	79	GLU
2	Z	100	SER
2	a	54	GLU
2	a	79	GLU
2	a	100	SER

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Mol	Chain	Res	Type
2	b	54	GLU
2	b	79	GLU
2	b	100	SER
2	c	54	GLU
2	c	79	GLU
2	c	100	SER
2	d	54	GLU
2	d	79	GLU
2	e	54	GLU
2	e	79	GLU
2	f	54	GLU
2	f	79	GLU
2	g	54	GLU
2	g	79	GLU
2	g	100	SER
2	h	54	GLU
2	h	79	GLU
2	h	100	SER
2	i	54	GLU
2	i	79	GLU
2	i	100	SER
2	j	61	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (233) such sidechains are listed below:

Mol	Chain	Res	Type
1	G	102	ASN
1	G	179	GLN
1	G	235	GLN
1	G	246	GLN
1	G	410	HIS
1	G	429	ASN
1	G	478	GLN
1	G	479	ASN
1	G	520	ASN
1	G	563	HIS
1	A	102	ASN
1	A	179	GLN
1	A	235	GLN
1	A	246	GLN
1	A	354	ASN
1	A	410	HIS

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Mol	Chain	Res	Type
1	A	478	GLN
1	A	479	ASN
1	A	520	ASN
1	B	102	ASN
1	B	179	GLN
1	B	235	GLN
1	B	246	GLN
1	B	410	HIS
1	B	478	GLN
1	B	479	ASN
1	B	520	ASN
1	B	563	HIS
1	C	102	ASN
1	C	179	GLN
1	C	235	GLN
1	C	246	GLN
1	C	354	ASN
1	C	410	HIS
1	C	478	GLN
1	C	479	ASN
1	C	520	ASN
1	D	102	ASN
1	D	157	ASN
1	D	179	GLN
1	D	185	GLN
1	D	235	GLN
1	D	246	GLN
1	D	410	HIS
1	D	429	ASN
1	D	478	GLN
1	D	498	GLN
1	E	102	ASN
1	E	179	GLN
1	E	235	GLN
1	E	246	GLN
1	E	410	HIS
1	E	478	GLN
1	E	520	ASN
1	F	102	ASN
1	F	179	GLN
1	F	235	GLN
1	F	246	GLN

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Mol	Chain	Res	Type
1	F	280	GLN
1	F	354	ASN
1	F	410	HIS
1	F	478	GLN
1	F	479	ASN
1	F	520	ASN
1	H	102	ASN
1	H	179	GLN
1	H	183	GLN
1	H	235	GLN
1	H	246	GLN
1	H	354	ASN
1	H	410	HIS
1	H	429	ASN
1	H	478	GLN
1	H	479	ASN
1	H	520	ASN
1	I	102	ASN
1	I	179	GLN
1	I	185	GLN
1	I	199	GLN
1	I	235	GLN
1	I	246	GLN
1	I	354	ASN
1	I	399	GLN
1	I	410	HIS
1	I	429	ASN
1	I	478	GLN
1	I	479	ASN
1	J	102	ASN
1	J	179	GLN
1	J	235	GLN
1	J	246	GLN
1	J	354	ASN
1	J	399	GLN
1	J	410	HIS
1	J	478	GLN
1	J	479	ASN
1	J	520	ASN
1	J	539	HIS
1	K	102	ASN
1	K	179	GLN

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Mol	Chain	Res	Type
1	K	235	GLN
1	K	246	GLN
1	K	410	HIS
1	K	429	ASN
1	K	478	GLN
1	K	479	ASN
1	K	520	ASN
1	L	42	HIS
1	L	102	ASN
1	L	179	GLN
1	L	235	GLN
1	L	246	GLN
1	L	354	ASN
1	L	410	HIS
1	L	429	ASN
1	L	478	GLN
1	L	479	ASN
1	L	520	ASN
1	M	102	ASN
1	M	179	GLN
1	M	235	GLN
1	M	246	GLN
1	M	410	HIS
1	M	478	GLN
1	M	479	ASN
1	M	520	ASN
1	N	102	ASN
1	N	179	GLN
1	N	235	GLN
1	N	246	GLN
1	N	410	HIS
1	N	429	ASN
1	N	478	GLN
1	N	479	ASN
1	N	520	ASN
1	O	102	ASN
1	O	179	GLN
1	O	235	GLN
1	O	246	GLN
1	O	410	HIS
1	O	478	GLN
1	O	479	ASN

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Mol	Chain	Res	Type
1	O	520	ASN
1	P	102	ASN
1	P	179	GLN
1	P	235	GLN
1	P	246	GLN
1	P	354	ASN
1	P	410	HIS
1	P	429	ASN
1	P	478	GLN
1	P	479	ASN
1	P	520	ASN
1	Q	102	ASN
1	Q	179	GLN
1	Q	235	GLN
1	Q	246	GLN
1	Q	354	ASN
1	Q	410	HIS
1	Q	478	GLN
1	Q	479	ASN
1	Q	520	ASN
1	R	102	ASN
1	R	179	GLN
1	R	235	GLN
1	R	246	GLN
1	R	410	HIS
1	R	429	ASN
1	R	478	GLN
1	R	479	ASN
1	R	520	ASN
1	R	563	HIS
1	S	102	ASN
1	S	179	GLN
1	S	235	GLN
1	S	246	GLN
1	S	354	ASN
1	S	410	HIS
1	S	429	ASN
1	S	478	GLN
1	S	479	ASN
1	S	520	ASN
1	T	102	ASN
1	T	179	GLN

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Mol	Chain	Res	Type
1	T	235	GLN
1	T	246	GLN
1	T	410	HIS
1	T	478	GLN
1	T	479	ASN
1	T	520	ASN
1	U	42	HIS
1	U	102	ASN
1	U	179	GLN
1	U	235	GLN
1	U	246	GLN
1	U	354	ASN
1	U	410	HIS
1	U	478	GLN
1	U	479	ASN
1	U	520	ASN
1	V	102	ASN
1	V	179	GLN
1	V	235	GLN
1	V	246	GLN
1	V	354	ASN
1	V	410	HIS
1	V	478	GLN
1	V	479	ASN
1	V	520	ASN
1	W	102	ASN
1	W	179	GLN
1	W	235	GLN
1	W	246	GLN
1	W	354	ASN
1	W	410	HIS
1	W	478	GLN
1	W	479	ASN
1	W	520	ASN
1	X	102	ASN
1	X	179	GLN
1	X	235	GLN
1	X	246	GLN
1	X	410	HIS
1	X	478	GLN
1	X	479	ASN
1	X	520	ASN

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Mol	Chain	Res	Type
1	X	540	HIS
1	X	563	HIS
2	Y	95	ASN
2	a	95	ASN
2	d	95	ASN
2	e	95	ASN
2	g	95	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 286 ligands modelled in this entry, 4 are monoatomic - leaving 282 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	$\# Z > 2$
4	SO4	S	610	-	4,4,4	0.35	0	6,6,6	0.08	0
4	SO4	K	610	-	4,4,4	0.34	0	6,6,6	0.10	0
5	GOL	D	610	-	5,5,5	0.29	0	5,5,5	0.23	0
3	HEC	G	600	1	32,50,50	1.48	4 (12%)	24,82,82	1.26	1 (4%)
3	HEC	X	601	1	32,50,50	1.52	4 (12%)	24,82,82	1.40	3 (12%)
3	HEC	E	603	1,7	32,50,50	2.55	10 (31%)	24,82,82	2.10	7 (29%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	HEC	U	602	1	32,50,50	1.49	4 (12%)	24,82,82	1.38	3 (12%)
4	SO4	R	611	-	4,4,4	0.31	0	6,6,6	0.06	0
5	GOL	I	615	-	5,5,5	0.33	0	5,5,5	0.36	0
3	HEC	W	601	1	32,50,50	1.57	4 (12%)	24,82,82	1.34	3 (12%)
4	SO4	W	609	-	4,4,4	0.35	0	6,6,6	0.10	0
3	HEC	S	603	1,7	32,50,50	2.56	12 (37%)	24,82,82	2.12	10 (41%)
3	HEC	S	605	1	32,50,50	1.50	4 (12%)	24,82,82	1.59	4 (16%)
3	HEC	I	602	1	32,50,50	1.50	4 (12%)	24,82,82	1.35	4 (16%)
4	SO4	V	611	-	4,4,4	0.34	0	6,6,6	0.05	0
5	GOL	I	613	-	5,5,5	0.26	0	5,5,5	0.24	0
4	SO4	D	609	-	4,4,4	0.35	0	6,6,6	0.11	0
3	HEC	B	600	1	32,50,50	1.49	4 (12%)	24,82,82	1.23	1 (4%)
3	HEC	I	603	1,7	32,50,50	2.48	10 (31%)	24,82,82	4.07	8 (33%)
4	SO4	G	612	-	4,4,4	0.34	0	6,6,6	0.12	0
4	SO4	C	611	-	4,4,4	0.34	0	6,6,6	0.16	0
4	SO4	N	611	-	4,4,4	0.33	0	6,6,6	0.09	0
3	HEC	P	603	1,7	32,50,50	2.49	10 (31%)	24,82,82	2.14	11 (45%)
3	HEC	H	600	1	32,50,50	1.49	4 (12%)	24,82,82	1.22	0
4	SO4	L	612	-	4,4,4	0.36	0	6,6,6	0.10	0
3	HEC	B	602	1	32,50,50	1.50	4 (12%)	24,82,82	1.40	3 (12%)
4	SO4	M	612	-	4,4,4	0.34	0	6,6,6	0.14	0
3	HEC	G	602	1	32,50,50	1.49	4 (12%)	24,82,82	1.38	3 (12%)
3	HEC	Q	603	1,7	32,50,50	2.53	12 (37%)	24,82,82	2.18	9 (37%)
3	HEC	G	601	1	32,50,50	1.53	4 (12%)	24,82,82	1.39	2 (8%)
4	SO4	G	609	-	4,4,4	0.35	0	6,6,6	0.08	0
3	HEC	T	605	1	32,50,50	1.47	4 (12%)	24,82,82	1.64	5 (20%)
4	SO4	K	609	-	4,4,4	0.21	0	6,6,6	0.34	0
3	HEC	W	603	1,7	32,50,50	2.48	10 (31%)	24,82,82	2.03	7 (29%)
4	SO4	X	609	-	4,4,4	0.33	0	6,6,6	0.14	0
3	HEC	L	607	1	32,50,50	1.47	4 (12%)	24,82,82	1.15	0
3	HEC	C	600	1	32,50,50	1.49	4 (12%)	24,82,82	1.24	1 (4%)
5	GOL	K	613	-	5,5,5	0.23	0	5,5,5	0.34	0
3	HEC	N	600	1	32,50,50	1.51	4 (12%)	24,82,82	1.23	1 (4%)
3	HEC	R	606	1	32,50,50	1.45	4 (12%)	24,82,82	1.45	3 (12%)
4	SO4	Y	201	-	4,4,4	0.32	0	6,6,6	0.11	0
5	GOL	H	614	-	5,5,5	0.41	0	5,5,5	0.77	0
3	HEC	O	605	1	32,50,50	1.50	4 (12%)	24,82,82	1.59	5 (20%)
3	HEC	P	606	1	32,50,50	1.49	4 (12%)	24,82,82	1.37	3 (12%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	HEC	X	604	1	32,50,50	1.52	4 (12%)	24,82,82	1.71	2 (8%)
4	SO4	G	611	-	4,4,4	0.34	0	6,6,6	0.10	0
4	SO4	Q	609	-	4,4,4	0.34	0	6,6,6	0.14	0
3	HEC	B	601	1	32,50,50	1.54	4 (12%)	24,82,82	1.42	2 (8%)
3	HEC	J	600	1	32,50,50	1.51	4 (12%)	24,82,82	1.20	1 (4%)
3	HEC	V	607	1	32,50,50	1.49	4 (12%)	24,82,82	1.15	1 (4%)
3	HEC	I	607	1	32,50,50	1.50	4 (12%)	24,82,82	1.13	0
3	HEC	B	607	1	32,50,50	1.47	4 (12%)	24,82,82	1.27	2 (8%)
3	HEC	E	607	1	32,50,50	1.53	4 (12%)	24,82,82	1.21	1 (4%)
3	HEC	J	606	1	32,50,50	1.48	4 (12%)	24,82,82	1.38	2 (8%)
3	HEC	X	606	1	32,50,50	1.52	4 (12%)	24,82,82	1.40	2 (8%)
3	HEC	X	607	1	32,50,50	1.49	4 (12%)	24,82,82	1.21	1 (4%)
4	SO4	O	609	-	4,4,4	0.36	0	6,6,6	0.08	0
3	HEC	O	606	1	32,50,50	1.44	4 (12%)	24,82,82	1.46	2 (8%)
3	HEC	F	606	1	32,50,50	1.48	4 (12%)	24,82,82	1.39	2 (8%)
5	GOL	L	613	-	5,5,5	0.25	0	5,5,5	0.35	0
3	HEC	N	602	1	32,50,50	1.54	4 (12%)	24,82,82	1.37	2 (8%)
3	HEC	U	604	1	32,50,50	1.50	4 (12%)	24,82,82	1.73	2 (8%)
4	SO4	a	201	-	4,4,4	0.34	0	6,6,6	0.08	0
4	SO4	F	610	-	4,4,4	0.33	0	6,6,6	0.08	0
3	HEC	L	605	1	32,50,50	1.45	4 (12%)	24,82,82	1.61	6 (25%)
4	SO4	H	611	-	4,4,4	0.32	0	6,6,6	0.21	0
3	HEC	S	607	1	32,50,50	1.50	4 (12%)	24,82,82	1.18	2 (8%)
4	SO4	U	609	-	4,4,4	0.32	0	6,6,6	0.26	0
3	HEC	I	604	1	32,50,50	1.59	4 (12%)	24,82,82	1.61	2 (8%)
3	HEC	G	605	1	32,50,50	1.49	4 (12%)	24,82,82	1.66	5 (20%)
3	HEC	B	605	1	32,50,50	1.52	4 (12%)	24,82,82	1.54	3 (12%)
3	HEC	X	605	1	32,50,50	1.50	4 (12%)	24,82,82	1.60	4 (16%)
4	SO4	O	611	-	4,4,4	0.32	0	6,6,6	0.08	0
3	HEC	A	602	1	32,50,50	1.51	4 (12%)	24,82,82	1.38	3 (12%)
4	SO4	Y	202	-	4,4,4	0.33	0	6,6,6	0.11	0
5	GOL	K	614	-	5,5,5	0.18	0	5,5,5	0.37	0
4	SO4	A	609	-	4,4,4	0.30	0	6,6,6	0.12	0
3	HEC	D	600	1	32,50,50	1.52	4 (12%)	24,82,82	1.28	3 (12%)
3	HEC	C	602	1	32,50,50	1.52	4 (12%)	24,82,82	1.39	3 (12%)
4	SO4	T	609	-	4,4,4	0.35	0	6,6,6	0.08	0
5	GOL	A	613	-	5,5,5	0.41	0	5,5,5	0.35	0
4	SO4	V	609	-	4,4,4	0.40	0	6,6,6	0.28	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	HEC	B	604	1	32,50,50	1.50	4 (12%)	24,82,82	1.75	2 (8%)
3	HEC	E	604	1	32,50,50	1.57	4 (12%)	24,82,82	1.76	2 (8%)
3	HEC	T	602	1	32,50,50	1.52	4 (12%)	24,82,82	1.39	3 (12%)
3	HEC	J	601	1	32,50,50	1.57	4 (12%)	24,82,82	1.32	2 (8%)
3	HEC	T	607	1	32,50,50	1.49	4 (12%)	24,82,82	1.20	1 (4%)
3	HEC	K	604	1	32,50,50	1.52	4 (12%)	24,82,82	1.76	2 (8%)
4	SO4	L	610	-	4,4,4	0.30	0	6,6,6	0.16	0
3	HEC	K	600	1	32,50,50	1.47	4 (12%)	24,82,82	1.28	1 (4%)
3	HEC	U	601	1	32,50,50	1.53	4 (12%)	24,82,82	1.41	3 (12%)
4	SO4	X	610	-	4,4,4	0.33	0	6,6,6	0.05	0
3	HEC	C	601	1	32,50,50	1.53	4 (12%)	24,82,82	1.39	3 (12%)
3	HEC	K	606	1	32,50,50	1.47	4 (12%)	24,82,82	1.46	3 (12%)
3	HEC	W	604	1	32,50,50	1.52	4 (12%)	24,82,82	1.75	2 (8%)
4	SO4	H	613	-	4,4,4	0.33	0	6,6,6	0.23	0
4	SO4	I	609	-	4,4,4	0.35	0	6,6,6	0.34	0
4	SO4	L	611	-	4,4,4	0.33	0	6,6,6	0.09	0
3	HEC	D	602	1	32,50,50	1.51	4 (12%)	24,82,82	1.40	4 (16%)
3	HEC	T	601	1	32,50,50	1.57	4 (12%)	24,82,82	1.36	3 (12%)
3	HEC	U	600	1	32,50,50	1.49	4 (12%)	24,82,82	1.22	2 (8%)
3	HEC	M	601	1	32,50,50	1.56	4 (12%)	24,82,82	1.37	2 (8%)
3	HEC	N	601	1	32,50,50	1.55	4 (12%)	24,82,82	1.37	2 (8%)
4	SO4	M	611	-	4,4,4	0.35	0	6,6,6	0.11	0
3	HEC	V	600	1	32,50,50	1.52	4 (12%)	24,82,82	1.20	1 (4%)
3	HEC	S	606	1	32,50,50	1.50	4 (12%)	24,82,82	1.39	2 (8%)
5	GOL	H	615	-	5,5,5	0.46	0	5,5,5	0.57	0
3	HEC	D	607	1	32,50,50	1.51	4 (12%)	24,82,82	1.19	1 (4%)
4	SO4	A	610	-	4,4,4	0.32	0	6,6,6	0.14	0
3	HEC	K	601	1	32,50,50	1.56	4 (12%)	24,82,82	1.44	3 (12%)
4	SO4	M	609	-	4,4,4	0.35	0	6,6,6	0.09	0
3	HEC	G	604	1	32,50,50	1.57	4 (12%)	24,82,82	1.72	2 (8%)
3	HEC	D	601	1	32,50,50	1.55	4 (12%)	24,82,82	1.32	3 (12%)
3	HEC	X	600	1	32,50,50	1.52	4 (12%)	24,82,82	1.23	1 (4%)
3	HEC	M	602	1	32,50,50	1.50	4 (12%)	24,82,82	1.38	3 (12%)
3	HEC	M	607	1	32,50,50	1.52	4 (12%)	24,82,82	1.13	0
3	HEC	J	604	1	32,50,50	1.49	4 (12%)	24,82,82	1.76	2 (8%)
5	GOL	G	615	-	5,5,5	0.45	0	5,5,5	0.34	0
3	HEC	Q	606	1	32,50,50	1.45	4 (12%)	24,82,82	1.41	2 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	SO4	E	610	-	4,4,4	0.35	0	6,6,6	0.10	0
3	HEC	A	603	1,7	32,50,50	2.51	10 (31%)	24,82,82	2.16	10 (41%)
3	HEC	A	605	1	32,50,50	1.49	4 (12%)	24,82,82	1.61	5 (20%)
3	HEC	M	605	1	32,50,50	1.46	4 (12%)	24,82,82	1.56	4 (16%)
5	GOL	K	612	-	5,5,5	0.39	0	5,5,5	0.33	0
4	SO4	I	611	-	4,4,4	0.34	0	6,6,6	0.07	0
3	HEC	J	605	1	32,50,50	1.50	4 (12%)	24,82,82	1.62	5 (20%)
3	HEC	E	600	1	32,50,50	1.53	4 (12%)	24,82,82	1.18	0
3	HEC	L	600	1	32,50,50	1.45	4 (12%)	24,82,82	1.19	1 (4%)
3	HEC	T	604	1	32,50,50	1.51	4 (12%)	24,82,82	1.78	2 (8%)
4	SO4	E	609	-	4,4,4	0.38	0	6,6,6	0.36	0
3	HEC	S	600	1	32,50,50	1.55	4 (12%)	24,82,82	1.20	2 (8%)
3	HEC	N	604	1	32,50,50	1.54	4 (12%)	24,82,82	1.74	2 (8%)
3	HEC	W	607	1	32,50,50	1.49	4 (12%)	24,82,82	1.22	1 (4%)
3	HEC	Q	601	1	32,50,50	1.54	4 (12%)	24,82,82	1.39	3 (12%)
5	GOL	J	613	-	5,5,5	0.27	0	5,5,5	0.49	0
4	SO4	H	610	-	4,4,4	0.36	0	6,6,6	0.05	0
3	HEC	D	605	1	32,50,50	1.49	4 (12%)	24,82,82	1.70	5 (20%)
3	HEC	Q	605	1	32,50,50	1.48	4 (12%)	24,82,82	1.59	4 (16%)
3	HEC	S	602	1	32,50,50	1.49	4 (12%)	24,82,82	1.39	3 (12%)
5	GOL	A	614	-	5,5,5	0.35	0	5,5,5	0.18	0
3	HEC	I	605	1	32,50,50	1.51	4 (12%)	24,82,82	1.65	6 (25%)
3	HEC	O	604	1	32,50,50	1.54	4 (12%)	24,82,82	1.76	2 (8%)
3	HEC	Q	600	1	32,50,50	1.53	4 (12%)	24,82,82	1.15	0
3	HEC	K	605	1	32,50,50	1.51	4 (12%)	24,82,82	1.66	5 (20%)
3	HEC	C	607	1	32,50,50	1.51	4 (12%)	24,82,82	1.16	1 (4%)
3	HEC	D	604	1	32,50,50	1.52	5 (15%)	24,82,82	1.68	2 (8%)
3	HEC	F	605	1	32,50,50	1.50	4 (12%)	24,82,82	1.60	4 (16%)
3	HEC	H	603	1,7	32,50,50	2.52	11 (34%)	24,82,82	2.07	9 (37%)
3	HEC	H	605	1	32,50,50	1.51	4 (12%)	24,82,82	1.64	6 (25%)
3	HEC	L	602	1	32,50,50	1.53	4 (12%)	24,82,82	1.37	3 (12%)
3	HEC	N	607	1	32,50,50	1.50	4 (12%)	24,82,82	1.15	0
3	HEC	E	601	1	32,50,50	1.52	4 (12%)	24,82,82	1.39	3 (12%)
4	SO4	A	611	-	4,4,4	0.32	0	6,6,6	0.16	0
4	SO4	C	609	-	4,4,4	0.32	0	6,6,6	0.14	0
3	HEC	A	601	1	32,50,50	1.56	4 (12%)	24,82,82	1.39	3 (12%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	HEC	S	601	1	32,50,50	1.57	4 (12%)	24,82,82	1.40	3 (12%)
5	GOL	G	616	-	5,5,5	0.19	0	5,5,5	0.42	0
3	HEC	I	606	1	32,50,50	1.42	4 (12%)	24,82,82	1.42	3 (12%)
4	SO4	Q	610	-	4,4,4	0.33	0	6,6,6	0.11	0
4	SO4	I	610	-	4,4,4	0.35	0	6,6,6	0.05	0
4	SO4	B	610	-	4,4,4	0.37	0	6,6,6	0.09	0
3	HEC	W	605	1	32,50,50	1.49	4 (12%)	24,82,82	1.60	4 (16%)
3	HEC	U	603	1,7	32,50,50	2.50	11 (34%)	24,82,82	2.10	9 (37%)
3	HEC	L	601	1	32,50,50	1.51	4 (12%)	24,82,82	1.36	3 (12%)
3	HEC	M	604	1	32,50,50	1.53	4 (12%)	24,82,82	1.72	2 (8%)
3	HEC	G	607	1	32,50,50	1.53	4 (12%)	24,82,82	1.18	1 (4%)
3	HEC	G	606	1	32,50,50	1.49	4 (12%)	24,82,82	1.43	4 (16%)
4	SO4	O	610	-	4,4,4	0.35	0	6,6,6	0.10	0
3	HEC	E	602	1	32,50,50	1.50	4 (12%)	24,82,82	1.35	2 (8%)
3	HEC	Q	604	1	32,50,50	1.49	4 (12%)	24,82,82	1.77	2 (8%)
4	SO4	I	612	-	4,4,4	0.36	0	6,6,6	0.06	0
3	HEC	V	605	1	32,50,50	1.48	4 (12%)	24,82,82	1.60	4 (16%)
3	HEC	E	605	1	32,50,50	1.48	4 (12%)	24,82,82	1.57	4 (16%)
3	HEC	F	600	1	32,50,50	1.53	4 (12%)	24,82,82	1.17	0
5	GOL	A	612	-	5,5,5	0.28	0	5,5,5	0.28	0
3	HEC	W	606	1	32,50,50	1.51	4 (12%)	24,82,82	1.38	2 (8%)
3	HEC	R	602	1	32,50,50	1.48	4 (12%)	24,82,82	1.31	3 (12%)
4	SO4	P	609	-	4,4,4	0.33	0	6,6,6	0.14	0
3	HEC	Q	607	1	32,50,50	1.47	4 (12%)	24,82,82	1.28	2 (8%)
3	HEC	X	603	1,7	32,50,50	2.51	10 (31%)	24,82,82	2.10	8 (33%)
3	HEC	A	606	1	32,50,50	1.46	4 (12%)	24,82,82	1.41	2 (8%)
4	SO4	C	610	-	4,4,4	0.34	0	6,6,6	0.12	0
5	GOL	K	615	-	5,5,5	0.33	0	5,5,5	0.20	0
3	HEC	P	605	1	32,50,50	1.46	4 (12%)	24,82,82	1.63	5 (20%)
3	HEC	X	602	1	32,50,50	1.46	4 (12%)	24,82,82	1.40	3 (12%)
3	HEC	J	602	1	32,50,50	1.54	4 (12%)	24,82,82	1.35	3 (12%)
4	SO4	J	610	-	4,4,4	0.32	0	6,6,6	0.13	0
4	SO4	V	610	-	4,4,4	0.35	0	6,6,6	0.12	0
5	GOL	J	612	-	5,5,5	0.50	0	5,5,5	0.57	0
3	HEC	C	606	1	32,50,50	1.50	4 (12%)	24,82,82	1.38	3 (12%)
3	HEC	E	606	1	32,50,50	1.48	4 (12%)	24,82,82	1.41	4 (16%)
3	HEC	B	603	1	32,50,50	2.49	11 (34%)	24,82,82	2.03	9 (37%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	HEC	F	602	1	32,50,50	1.51	4 (12%)	24,82,82	1.37	3 (12%)
3	HEC	F	607	1	32,50,50	1.46	4 (12%)	24,82,82	1.19	0
3	HEC	H	607	1	32,50,50	1.51	4 (12%)	24,82,82	1.20	1 (4%)
3	HEC	N	606	1	32,50,50	1.49	4 (12%)	24,82,82	1.38	2 (8%)
3	HEC	H	602	1	32,50,50	1.54	4 (12%)	24,82,82	1.38	3 (12%)
3	HEC	O	602	1	32,50,50	1.46	4 (12%)	24,82,82	1.39	2 (8%)
3	HEC	L	604	1	32,50,50	1.53	4 (12%)	24,82,82	1.74	2 (8%)
4	SO4	G	613	-	4,4,4	0.29	0	6,6,6	0.37	0
3	HEC	V	601	1	32,50,50	1.51	4 (12%)	24,82,82	1.42	3 (12%)
4	SO4	G	610	-	4,4,4	0.29	0	6,6,6	0.09	0
3	HEC	V	603	1,7	32,50,50	2.50	11 (34%)	24,82,82	2.09	10 (41%)
3	HEC	C	604	1	32,50,50	1.53	4 (12%)	24,82,82	1.77	2 (8%)
3	HEC	I	601	1	32,50,50	1.58	4 (12%)	24,82,82	1.38	3 (12%)
3	HEC	W	600	1	32,50,50	1.53	4 (12%)	24,82,82	1.24	1 (4%)
4	SO4	X	611	-	4,4,4	0.34	0	6,6,6	0.07	0
3	HEC	U	607	1	32,50,50	1.51	4 (12%)	24,82,82	1.22	1 (4%)
4	SO4	B	609	-	4,4,4	0.30	0	6,6,6	0.13	0
3	HEC	O	600	1	32,50,50	1.52	4 (12%)	24,82,82	1.25	1 (4%)
3	HEC	R	607	1	32,50,50	1.51	4 (12%)	24,82,82	1.17	1 (4%)
3	HEC	H	601	1	32,50,50	1.52	4 (12%)	24,82,82	1.39	3 (12%)
4	SO4	S	609	-	4,4,4	0.34	0	6,6,6	0.05	0
3	HEC	G	603	1,7	32,50,50	2.55	10 (31%)	24,82,82	2.02	8 (33%)
3	HEC	P	607	1	32,50,50	1.53	4 (12%)	24,82,82	1.19	1 (4%)
4	SO4	U	611	-	4,4,4	0.32	0	6,6,6	0.08	0
3	HEC	T	606	1	32,50,50	1.49	4 (12%)	24,82,82	1.41	2 (8%)
3	HEC	M	606	1	32,50,50	1.50	4 (12%)	24,82,82	1.42	3 (12%)
3	HEC	V	602	1	32,50,50	1.49	4 (12%)	24,82,82	1.38	3 (12%)
3	HEC	A	604	1	32,50,50	1.54	4 (12%)	24,82,82	1.73	2 (8%)
4	SO4	L	609	-	4,4,4	0.34	0	6,6,6	0.13	0
4	SO4	G	614	-	4,4,4	0.37	0	6,6,6	0.15	0
3	HEC	R	604	1	32,50,50	1.52	4 (12%)	24,82,82	1.66	2 (8%)
3	HEC	O	607	1	32,50,50	1.46	4 (12%)	24,82,82	1.21	1 (4%)
3	HEC	R	600	1	32,50,50	1.46	4 (12%)	24,82,82	1.23	1 (4%)
3	HEC	W	602	1	32,50,50	1.53	4 (12%)	24,82,82	1.35	3 (12%)
4	SO4	J	611	-	4,4,4	0.29	0	6,6,6	0.09	0
3	HEC	C	603	1	32,50,50	2.50	13 (40%)	24,82,82	2.03	9 (37%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	HEC	K	607	1	32,50,50	1.51	4 (12%)	24,82,82	1.19	2 (8%)
3	HEC	K	602	1	32,50,50	1.47	4 (12%)	24,82,82	1.36	2 (8%)
3	HEC	P	600	1	32,50,50	1.49	4 (12%)	24,82,82	1.22	2 (8%)
3	HEC	D	606	1	32,50,50	1.47	4 (12%)	24,82,82	1.31	2 (8%)
3	HEC	D	603	1,7	32,50,50	2.51	11 (34%)	24,82,82	2.25	10 (41%)
3	HEC	P	604	1	32,50,50	1.51	4 (12%)	24,82,82	1.76	2 (8%)
3	HEC	H	606	1	32,50,50	1.58	4 (12%)	24,82,82	1.34	1 (4%)
3	HEC	T	600	1	32,50,50	1.52	4 (12%)	24,82,82	1.19	1 (4%)
3	HEC	U	605	1	32,50,50	1.45	4 (12%)	24,82,82	1.64	4 (16%)
4	SO4	K	611	-	4,4,4	0.36	0	6,6,6	0.06	0
3	HEC	R	603	1	32,50,50	2.54	11 (34%)	24,82,82	2.01	11 (45%)
3	HEC	R	605	1	32,50,50	1.47	4 (12%)	24,82,82	1.62	5 (20%)
4	SO4	Q	611	-	4,4,4	0.35	0	6,6,6	0.14	0
3	HEC	O	603	1,7	32,50,50	2.53	11 (34%)	24,82,82	2.11	9 (37%)
3	HEC	A	600	1	32,50,50	1.49	4 (12%)	24,82,82	1.26	2 (8%)
3	HEC	F	603	1,7	32,50,50	2.49	11 (34%)	24,82,82	2.20	8 (33%)
3	HEC	V	606	1	32,50,50	1.53	4 (12%)	24,82,82	1.38	4 (16%)
3	HEC	F	604	1	32,50,50	1.49	4 (12%)	24,82,82	1.76	2 (8%)
3	HEC	H	604	1	32,50,50	1.50	4 (12%)	24,82,82	1.77	2 (8%)
3	HEC	U	606	1	32,50,50	1.48	4 (12%)	24,82,82	1.40	3 (12%)
4	SO4	F	609	-	4,4,4	0.34	0	6,6,6	0.13	0
3	HEC	J	603	1,7	32,50,50	2.46	10 (31%)	24,82,82	2.11	10 (41%)
4	SO4	R	609	-	4,4,4	0.32	0	6,6,6	0.25	0
3	HEC	P	602	1	32,50,50	1.54	4 (12%)	24,82,82	1.33	2 (8%)
3	HEC	P	601	1	32,50,50	1.51	4 (12%)	24,82,82	1.40	2 (8%)
4	SO4	M	610	-	4,4,4	0.32	0	6,6,6	0.09	0
4	SO4	U	610	-	4,4,4	0.33	0	6,6,6	0.07	0
3	HEC	Q	602	1	32,50,50	1.49	4 (12%)	24,82,82	1.35	3 (12%)
4	SO4	N	610	-	4,4,4	0.35	0	6,6,6	0.13	0
3	HEC	J	607	1	32,50,50	1.55	4 (12%)	24,82,82	1.17	2 (8%)
3	HEC	K	603	1,7	32,50,50	2.53	10 (31%)	24,82,82	2.03	9 (37%)
4	SO4	N	609	-	4,4,4	0.37	0	6,6,6	0.13	0
4	SO4	R	610	-	4,4,4	0.35	0	6,6,6	0.10	0
4	SO4	H	612	-	4,4,4	0.35	0	6,6,6	0.07	0
5	GOL	I	614	-	5,5,5	0.23	0	5,5,5	0.19	0
3	HEC	V	604	1	32,50,50	1.53	4 (12%)	24,82,82	1.78	2 (8%)
3	HEC	S	604	1	32,50,50	1.51	4 (12%)	24,82,82	1.77	2 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	HEC	L	603	1,7	32,50,50	2.51	10 (31%)	24,82,82	2.11	10 (41%)
3	HEC	L	606	1	32,50,50	1.46	4 (12%)	24,82,82	1.44	3 (12%)
3	HEC	T	603	1	32,50,50	2.58	11 (34%)	24,82,82	2.14	9 (37%)
3	HEC	C	605	1	32,50,50	1.49	4 (12%)	24,82,82	1.59	5 (20%)
3	HEC	M	603	1,7	32,50,50	2.54	12 (37%)	24,82,82	2.05	7 (29%)
4	SO4	J	609	-	4,4,4	0.36	0	6,6,6	0.09	0
3	HEC	N	603	1,7	32,50,50	2.53	11 (34%)	24,82,82	2.11	9 (37%)
3	HEC	N	605	1	32,50,50	1.49	4 (12%)	24,82,82	1.60	5 (20%)
3	HEC	O	601	1	32,50,50	1.59	4 (12%)	24,82,82	1.38	2 (8%)
3	HEC	B	606	1	32,50,50	1.47	4 (12%)	24,82,82	1.48	3 (12%)
3	HEC	F	601	1	32,50,50	1.56	4 (12%)	24,82,82	1.39	3 (12%)
3	HEC	I	600	1	32,50,50	1.41	4 (12%)	24,82,82	1.41	5 (20%)
3	HEC	R	601	1	32,50,50	1.57	4 (12%)	24,82,82	1.38	3 (12%)
4	SO4	H	609	-	4,4,4	0.36	0	6,6,6	0.10	0
4	SO4	c	201	-	4,4,4	0.35	0	6,6,6	0.09	0
3	HEC	A	607	1	32,50,50	1.51	4 (12%)	24,82,82	1.15	0
3	HEC	M	600	1	32,50,50	1.50	4 (12%)	24,82,82	1.23	1 (4%)

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
5	GOL	D	610	-	-	2/4/4/4	-
3	HEC	G	600	1	-	4/10/54/54	-
3	HEC	X	601	1	-	5/10/54/54	-
3	HEC	E	603	1,7	-	2/10/54/54	-
3	HEC	U	602	1	-	5/10/54/54	-
5	GOL	I	615	-	-	2/4/4/4	-
3	HEC	W	601	1	-	5/10/54/54	-
3	HEC	S	603	1,7	-	2/10/54/54	-
3	HEC	S	605	1	-	4/10/54/54	-
3	HEC	I	602	1	-	5/10/54/54	-
5	GOL	I	613	-	-	4/4/4/4	-
3	HEC	B	600	1	-	4/10/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	HEC	I	603	1,7	-	2/10/54/54	-
3	HEC	P	603	1,7	-	0/10/54/54	-
3	HEC	H	600	1	-	4/10/54/54	-
3	HEC	B	602	1	-	5/10/54/54	-
3	HEC	G	602	1	-	5/10/54/54	-
3	HEC	Q	603	1,7	-	1/10/54/54	-
3	HEC	G	601	1	-	4/10/54/54	-
3	HEC	T	605	1	-	4/10/54/54	-
3	HEC	W	603	1,7	-	2/10/54/54	-
3	HEC	L	607	1	-	3/10/54/54	-
3	HEC	C	600	1	-	4/10/54/54	-
5	GOL	K	613	-	-	2/4/4/4	-
3	HEC	N	600	1	-	4/10/54/54	-
3	HEC	R	606	1	-	2/10/54/54	-
5	GOL	H	614	-	-	4/4/4/4	-
3	HEC	O	605	1	-	4/10/54/54	-
3	HEC	P	606	1	-	2/10/54/54	-
3	HEC	X	604	1	-	4/10/54/54	-
3	HEC	B	601	1	-	4/10/54/54	-
3	HEC	J	600	1	-	4/10/54/54	-
3	HEC	V	607	1	-	3/10/54/54	-
3	HEC	I	607	1	-	4/10/54/54	-
3	HEC	B	607	1	-	3/10/54/54	-
3	HEC	E	607	1	-	3/10/54/54	-
3	HEC	J	606	1	-	2/10/54/54	-
3	HEC	X	606	1	-	2/10/54/54	-
3	HEC	X	607	1	-	3/10/54/54	-
3	HEC	O	606	1	-	2/10/54/54	-
3	HEC	F	606	1	-	2/10/54/54	-
5	GOL	L	613	-	-	2/4/4/4	-
3	HEC	N	602	1	-	5/10/54/54	-
3	HEC	U	604	1	-	4/10/54/54	-
3	HEC	L	605	1	-	4/10/54/54	-
3	HEC	S	607	1	-	3/10/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	HEC	I	604	1	-	5/10/54/54	-
3	HEC	G	605	1	-	4/10/54/54	-
3	HEC	B	605	1	-	4/10/54/54	-
3	HEC	X	605	1	-	4/10/54/54	-
3	HEC	A	602	1	-	5/10/54/54	-
5	GOL	K	614	-	-	4/4/4/4	-
3	HEC	D	600	1	-	2/10/54/54	-
3	HEC	C	602	1	-	5/10/54/54	-
5	GOL	A	613	-	-	2/4/4/4	-
3	HEC	B	604	1	-	4/10/54/54	-
3	HEC	E	604	1	-	4/10/54/54	-
3	HEC	T	602	1	-	5/10/54/54	-
3	HEC	J	601	1	-	6/10/54/54	-
3	HEC	T	607	1	-	3/10/54/54	-
3	HEC	K	604	1	-	4/10/54/54	-
3	HEC	K	600	1	-	4/10/54/54	-
3	HEC	U	601	1	-	5/10/54/54	-
3	HEC	C	601	1	-	4/10/54/54	-
3	HEC	K	606	1	-	3/10/54/54	-
3	HEC	W	604	1	-	4/10/54/54	-
3	HEC	D	602	1	-	2/10/54/54	-
3	HEC	T	601	1	-	4/10/54/54	-
3	HEC	U	600	1	-	4/10/54/54	-
3	HEC	M	601	1	-	4/10/54/54	-
3	HEC	N	601	1	-	3/10/54/54	-
3	HEC	V	600	1	-	4/10/54/54	-
3	HEC	S	606	1	-	2/10/54/54	-
3	HEC	D	607	1	-	5/10/54/54	-
3	HEC	K	601	1	-	4/10/54/54	-
3	HEC	G	604	1	-	4/10/54/54	-
3	HEC	D	601	1	-	3/10/54/54	-
3	HEC	X	600	1	-	4/10/54/54	-
3	HEC	M	602	1	-	5/10/54/54	-
3	HEC	M	607	1	-	3/10/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	HEC	J	604	1	-	4/10/54/54	-
5	GOL	G	615	-	-	2/4/4/4	-
3	HEC	Q	606	1	-	2/10/54/54	-
3	HEC	A	603	1,7	-	1/10/54/54	-
3	HEC	A	605	1	-	4/10/54/54	-
3	HEC	M	605	1	-	4/10/54/54	-
5	GOL	K	612	-	-	2/4/4/4	-
3	HEC	J	605	1	-	4/10/54/54	-
3	HEC	E	600	1	-	4/10/54/54	-
3	HEC	L	600	1	-	4/10/54/54	-
3	HEC	T	604	1	-	4/10/54/54	-
3	HEC	S	600	1	-	4/10/54/54	-
3	HEC	N	604	1	-	4/10/54/54	-
3	HEC	W	607	1	-	3/10/54/54	-
3	HEC	Q	601	1	-	5/10/54/54	-
5	GOL	J	613	-	-	2/4/4/4	-
3	HEC	D	605	1	-	4/10/54/54	-
3	HEC	Q	605	1	-	4/10/54/54	-
3	HEC	S	602	1	-	5/10/54/54	-
5	GOL	A	614	-	-	4/4/4/4	-
3	HEC	I	605	1	-	5/10/54/54	-
3	HEC	O	604	1	-	4/10/54/54	-
3	HEC	Q	600	1	-	4/10/54/54	-
3	HEC	K	605	1	-	4/10/54/54	-
3	HEC	C	607	1	-	3/10/54/54	-
3	HEC	D	604	1	-	3/10/54/54	-
3	HEC	F	605	1	-	4/10/54/54	-
3	HEC	H	603	1,7	-	2/10/54/54	-
3	HEC	H	605	1	-	4/10/54/54	-
3	HEC	L	602	1	-	5/10/54/54	-
3	HEC	N	607	1	-	3/10/54/54	-
3	HEC	E	601	1	-	5/10/54/54	-
3	HEC	A	601	1	-	5/10/54/54	-
3	HEC	S	601	1	-	4/10/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	GOL	G	616	-	-	2/4/4/4	-
3	HEC	I	606	1	-	3/10/54/54	-
3	HEC	W	605	1	-	4/10/54/54	-
3	HEC	U	603	1,7	-	0/10/54/54	-
3	HEC	L	601	1	-	3/10/54/54	-
3	HEC	M	604	1	-	4/10/54/54	-
3	HEC	G	607	1	-	3/10/54/54	-
3	HEC	G	606	1	-	2/10/54/54	-
3	HEC	E	602	1	-	5/10/54/54	-
3	HEC	Q	604	1	-	4/10/54/54	-
3	HEC	V	605	1	-	4/10/54/54	-
3	HEC	E	605	1	-	4/10/54/54	-
3	HEC	F	600	1	-	4/10/54/54	-
5	GOL	A	612	-	-	0/4/4/4	-
3	HEC	W	606	1	-	2/10/54/54	-
3	HEC	R	602	1	-	5/10/54/54	-
3	HEC	Q	607	1	-	3/10/54/54	-
3	HEC	X	603	1,7	-	2/10/54/54	-
3	HEC	A	606	1	-	2/10/54/54	-
5	GOL	K	615	-	-	4/4/4/4	-
3	HEC	P	605	1	-	4/10/54/54	-
3	HEC	X	602	1	-	5/10/54/54	-
3	HEC	J	602	1	-	5/10/54/54	-
5	GOL	J	612	-	-	4/4/4/4	-
3	HEC	C	606	1	-	2/10/54/54	-
3	HEC	E	606	1	-	2/10/54/54	-
3	HEC	B	603	1	-	0/10/54/54	-
3	HEC	F	602	1	-	5/10/54/54	-
3	HEC	F	607	1	-	3/10/54/54	-
3	HEC	H	607	1	-	3/10/54/54	-
3	HEC	N	606	1	-	3/10/54/54	-
3	HEC	H	602	1	-	5/10/54/54	-
3	HEC	O	602	1	-	5/10/54/54	-
3	HEC	L	604	1	-	4/10/54/54	-
3	HEC	V	601	1	-	4/10/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	HEC	V	603	1,7	-	0/10/54/54	-
3	HEC	C	604	1	-	4/10/54/54	-
3	HEC	I	601	1	-	6/10/54/54	-
3	HEC	W	600	1	-	4/10/54/54	-
3	HEC	U	607	1	-	3/10/54/54	-
3	HEC	O	600	1	-	4/10/54/54	-
3	HEC	R	607	1	-	3/10/54/54	-
3	HEC	H	601	1	-	5/10/54/54	-
3	HEC	G	603	1,7	-	2/10/54/54	-
3	HEC	P	607	1	-	3/10/54/54	-
3	HEC	T	606	1	-	2/10/54/54	-
3	HEC	M	606	1	-	2/10/54/54	-
3	HEC	V	602	1	-	5/10/54/54	-
3	HEC	A	604	1	-	4/10/54/54	-
3	HEC	R	604	1	-	4/10/54/54	-
3	HEC	O	607	1	-	3/10/54/54	-
3	HEC	R	600	1	-	4/10/54/54	-
3	HEC	W	602	1	-	5/10/54/54	-
3	HEC	C	603	1	-	0/10/54/54	-
3	HEC	K	607	1	-	3/10/54/54	-
3	HEC	K	602	1	-	5/10/54/54	-
3	HEC	P	600	1	-	4/10/54/54	-
3	HEC	D	606	1	-	2/10/54/54	-
3	HEC	D	603	1,7	-	3/10/54/54	-
3	HEC	P	604	1	-	4/10/54/54	-
3	HEC	H	606	1	-	2/10/54/54	-
3	HEC	T	600	1	-	4/10/54/54	-
3	HEC	U	605	1	-	4/10/54/54	-
3	HEC	R	603	1	-	0/10/54/54	-
3	HEC	R	605	1	-	4/10/54/54	-
3	HEC	O	603	1,7	-	1/10/54/54	-
3	HEC	A	600	1	-	4/10/54/54	-
3	HEC	F	603	1,7	-	0/10/54/54	-
3	HEC	V	606	1	-	2/10/54/54	-
3	HEC	F	604	1	-	4/10/54/54	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	HEC	H	604	1	-	4/10/54/54	-
3	HEC	U	606	1	-	2/10/54/54	-
3	HEC	J	603	1,7	-	1/10/54/54	-
3	HEC	P	602	1	-	5/10/54/54	-
3	HEC	P	601	1	-	5/10/54/54	-
3	HEC	Q	602	1	-	5/10/54/54	-
3	HEC	J	607	1	-	3/10/54/54	-
3	HEC	K	603	1,7	-	1/10/54/54	-
5	GOL	I	614	-	-	2/4/4/4	-
3	HEC	V	604	1	-	4/10/54/54	-
3	HEC	S	604	1	-	4/10/54/54	-
3	HEC	L	603	1,7	-	0/10/54/54	-
3	HEC	L	606	1	-	2/10/54/54	-
3	HEC	T	603	1	-	0/10/54/54	-
3	HEC	C	605	1	-	4/10/54/54	-
3	HEC	M	603	1,7	-	2/10/54/54	-
5	GOL	H	615	-	-	2/4/4/4	-
3	HEC	N	603	1,7	-	2/10/54/54	-
3	HEC	N	605	1	-	4/10/54/54	-
3	HEC	O	601	1	-	5/10/54/54	-
3	HEC	B	606	1	-	3/10/54/54	-
3	HEC	F	601	1	-	3/10/54/54	-
3	HEC	I	600	1	-	2/10/54/54	-
3	HEC	R	601	1	-	4/10/54/54	-
3	HEC	A	607	1	-	3/10/54/54	-
3	HEC	M	600	1	-	4/10/54/54	-

All (932) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	T	603	HEC	C4B-C3B	6.59	1.55	1.43
3	X	603	HEC	C4B-C3B	6.38	1.54	1.43
3	O	603	HEC	C4B-C3B	6.35	1.54	1.43
3	A	603	HEC	C4B-C3B	6.33	1.54	1.43
3	E	603	HEC	C4B-C3B	6.32	1.54	1.43
3	Q	603	HEC	C4B-C3B	6.27	1.54	1.43
3	N	603	HEC	C4B-C3B	6.27	1.54	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	S	603	HEC	C4B-C3B	6.26	1.54	1.43
3	G	603	HEC	C4B-C3B	6.24	1.54	1.43
3	M	603	HEC	C4B-C3B	6.20	1.54	1.43
3	C	603	HEC	C4B-C3B	6.15	1.54	1.43
3	B	603	HEC	C4B-C3B	6.13	1.54	1.43
3	F	603	HEC	C4B-C3B	6.11	1.54	1.43
3	D	603	HEC	C4B-C3B	6.07	1.54	1.43
3	R	603	HEC	C4B-C3B	6.02	1.54	1.43
3	V	603	HEC	C4B-C3B	5.97	1.53	1.43
3	H	603	HEC	C4B-C3B	5.96	1.53	1.43
3	U	603	HEC	C4B-C3B	5.91	1.53	1.43
3	W	603	HEC	C4B-C3B	5.91	1.53	1.43
3	L	603	HEC	C4B-C3B	5.89	1.53	1.43
3	I	603	HEC	C4B-C3B	5.88	1.53	1.43
3	P	603	HEC	C4B-C3B	5.88	1.53	1.43
3	J	603	HEC	C4B-C3B	5.85	1.53	1.43
3	K	603	HEC	C4B-C3B	5.84	1.53	1.43
3	K	603	HEC	C3C-C4C	5.61	1.53	1.43
3	I	603	HEC	C3C-C4C	5.46	1.53	1.43
3	P	603	HEC	C3C-C4C	5.44	1.52	1.43
3	U	603	HEC	C3C-C4C	5.43	1.52	1.43
3	D	603	HEC	C2A-C1A	5.42	1.54	1.42
3	S	603	HEC	C3C-C4C	5.39	1.52	1.43
3	L	603	HEC	C3C-C4C	5.38	1.52	1.43
3	W	603	HEC	C3C-C4C	5.37	1.52	1.43
3	Q	603	HEC	C2A-C1A	5.36	1.54	1.42
3	H	603	HEC	C2A-C1A	5.36	1.54	1.42
3	S	603	HEC	C2A-C1A	5.34	1.54	1.42
3	A	603	HEC	C3C-C4C	5.31	1.52	1.43
3	X	603	HEC	C3C-C4C	5.31	1.52	1.43
3	E	603	HEC	C2A-C1A	5.31	1.54	1.42
3	T	603	HEC	C2A-C1A	5.29	1.54	1.42
3	H	603	HEC	C3C-C4C	5.29	1.52	1.43
3	C	603	HEC	C3C-C4C	5.28	1.52	1.43
3	B	603	HEC	C2A-C1A	5.27	1.54	1.42
3	N	603	HEC	C2A-C1A	5.27	1.54	1.42
3	U	603	HEC	C2A-C1A	5.27	1.54	1.42
3	N	603	HEC	C3C-C4C	5.26	1.52	1.43
3	A	603	HEC	C2A-C1A	5.25	1.54	1.42
3	E	603	HEC	C3C-C4C	5.24	1.52	1.43
3	F	603	HEC	C2A-C1A	5.24	1.54	1.42
3	M	603	HEC	C2A-C1A	5.23	1.54	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	K	603	HEC	C2A-C1A	5.22	1.54	1.42
3	W	603	HEC	C2A-C1A	5.22	1.54	1.42
3	R	603	HEC	C2A-C1A	5.22	1.54	1.42
3	P	603	HEC	C2A-C1A	5.21	1.54	1.42
3	C	603	HEC	C2A-C1A	5.21	1.54	1.42
3	Q	603	HEC	C3C-C4C	5.19	1.52	1.43
3	J	603	HEC	C2A-C1A	5.17	1.54	1.42
3	X	603	HEC	C2A-C1A	5.15	1.54	1.42
3	R	603	HEC	C3C-C4C	5.15	1.52	1.43
3	B	603	HEC	C3C-C4C	5.15	1.52	1.43
3	I	603	HEC	C2A-C1A	5.14	1.54	1.42
3	V	603	HEC	C3C-C4C	5.14	1.52	1.43
3	M	603	HEC	C3C-C4C	5.13	1.52	1.43
3	T	603	HEC	C3C-C4C	5.13	1.52	1.43
3	V	603	HEC	C2A-C1A	5.12	1.54	1.42
3	G	603	HEC	C3C-C4C	5.12	1.52	1.43
3	D	603	HEC	C3C-C4C	5.11	1.52	1.43
3	O	603	HEC	C2A-C1A	5.11	1.54	1.42
3	J	603	HEC	C3C-C4C	5.09	1.52	1.43
3	G	603	HEC	C2A-C1A	5.08	1.54	1.42
3	L	603	HEC	C2A-C1A	5.07	1.54	1.42
3	O	603	HEC	C3C-C4C	5.01	1.52	1.43
3	F	603	HEC	C3C-C4C	4.92	1.52	1.43
3	O	601	HEC	C2B-C3B	-4.78	1.35	1.40
3	L	603	HEC	C3C-C2C	-4.63	1.35	1.40
3	A	601	HEC	C2B-C3B	-4.60	1.35	1.40
3	T	601	HEC	C2B-C3B	-4.60	1.35	1.40
3	K	603	HEC	C3C-C2C	-4.56	1.36	1.40
3	J	601	HEC	C2B-C3B	-4.53	1.36	1.40
3	H	606	HEC	CBC-CAC	-4.50	1.32	1.49
3	R	601	HEC	C2B-C3B	-4.49	1.36	1.40
3	I	603	HEC	C3C-C2C	-4.49	1.36	1.40
3	J	607	HEC	CBB-CAB	-4.46	1.32	1.49
3	E	605	HEC	CBC-CAC	-4.44	1.32	1.49
3	N	606	HEC	CBC-CAC	-4.44	1.32	1.49
3	L	603	HEC	C2B-C3B	-4.44	1.36	1.40
3	K	601	HEC	C2B-C3B	-4.43	1.36	1.40
3	K	605	HEC	CBB-CAB	-4.43	1.32	1.49
3	S	601	HEC	C2B-C3B	-4.43	1.36	1.40
3	I	604	HEC	C2B-C3B	-4.42	1.36	1.40
3	G	603	HEC	C3C-C2C	-4.42	1.36	1.40
3	L	607	HEC	CBB-CAB	-4.41	1.32	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	K	607	HEC	CBB-CAB	-4.41	1.32	1.49
3	A	606	HEC	CBC-CAC	-4.41	1.32	1.49
3	W	604	HEC	CBB-CAB	-4.41	1.32	1.49
3	H	602	HEC	CBB-CAB	-4.41	1.32	1.49
3	K	602	HEC	CBB-CAB	-4.40	1.33	1.49
3	N	602	HEC	CBC-CAC	-4.40	1.33	1.49
3	I	607	HEC	CBC-CAC	-4.40	1.33	1.49
3	J	600	HEC	CBC-CAC	-4.39	1.33	1.49
3	H	606	HEC	CBB-CAB	-4.39	1.33	1.49
3	F	606	HEC	CBC-CAC	-4.39	1.33	1.49
3	D	605	HEC	CBB-CAB	-4.39	1.33	1.49
3	I	601	HEC	CBB-CAB	-4.38	1.33	1.49
3	E	606	HEC	CBC-CAC	-4.38	1.33	1.49
3	M	603	HEC	C3C-C2C	-4.38	1.36	1.40
3	G	600	HEC	CBC-CAC	-4.38	1.33	1.49
3	W	606	HEC	CBC-CAC	-4.38	1.33	1.49
3	J	607	HEC	CBC-CAC	-4.38	1.33	1.49
3	K	601	HEC	CBC-CAC	-4.38	1.33	1.49
3	B	606	HEC	CBC-CAC	-4.38	1.33	1.49
3	L	604	HEC	CBB-CAB	-4.38	1.33	1.49
3	W	602	HEC	CBC-CAC	-4.38	1.33	1.49
3	S	606	HEC	CBC-CAC	-4.38	1.33	1.49
3	O	603	HEC	C3C-C2C	-4.37	1.36	1.40
3	I	605	HEC	CBC-CAC	-4.37	1.33	1.49
3	M	601	HEC	C2B-C3B	-4.37	1.36	1.40
3	F	601	HEC	C2B-C3B	-4.37	1.36	1.40
3	E	602	HEC	CBB-CAB	-4.37	1.33	1.49
3	T	602	HEC	CBC-CAC	-4.37	1.33	1.49
3	R	606	HEC	CBC-CAC	-4.37	1.33	1.49
3	H	607	HEC	CBC-CAC	-4.36	1.33	1.49
3	V	604	HEC	CBC-CAC	-4.36	1.33	1.49
3	T	602	HEC	CBB-CAB	-4.36	1.33	1.49
3	K	604	HEC	CBC-CAC	-4.36	1.33	1.49
3	J	604	HEC	CBC-CAC	-4.36	1.33	1.49
3	H	602	HEC	CBC-CAC	-4.36	1.33	1.49
3	A	602	HEC	CBB-CAB	-4.35	1.33	1.49
3	P	602	HEC	CBC-CAC	-4.35	1.33	1.49
3	R	602	HEC	CBB-CAB	-4.35	1.33	1.49
3	A	602	HEC	CBC-CAC	-4.35	1.33	1.49
3	P	607	HEC	CBC-CAC	-4.35	1.33	1.49
3	L	602	HEC	CBB-CAB	-4.35	1.33	1.49
3	O	602	HEC	CBB-CAB	-4.35	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	605	HEC	CBC-CAC	-4.35	1.33	1.49
3	E	604	HEC	CBC-CAC	-4.35	1.33	1.49
3	V	606	HEC	CBC-CAC	-4.35	1.33	1.49
3	B	602	HEC	CBC-CAC	-4.35	1.33	1.49
3	M	601	HEC	CBB-CAB	-4.35	1.33	1.49
3	O	607	HEC	CBC-CAC	-4.35	1.33	1.49
3	C	605	HEC	CBC-CAC	-4.34	1.33	1.49
3	I	607	HEC	CBB-CAB	-4.34	1.33	1.49
3	N	601	HEC	C2B-C3B	-4.34	1.36	1.40
3	O	604	HEC	CBB-CAB	-4.34	1.33	1.49
3	G	604	HEC	CBB-CAB	-4.34	1.33	1.49
3	P	607	HEC	CBB-CAB	-4.34	1.33	1.49
3	C	602	HEC	CBC-CAC	-4.34	1.33	1.49
3	S	601	HEC	CBC-CAC	-4.34	1.33	1.49
3	P	604	HEC	CBC-CAC	-4.34	1.33	1.49
3	O	604	HEC	CBC-CAC	-4.34	1.33	1.49
3	U	606	HEC	CBC-CAC	-4.33	1.33	1.49
3	N	604	HEC	CBB-CAB	-4.33	1.33	1.49
3	E	602	HEC	CBC-CAC	-4.33	1.33	1.49
3	N	600	HEC	CBC-CAC	-4.33	1.33	1.49
3	H	605	HEC	CBC-CAC	-4.33	1.33	1.49
3	G	607	HEC	CBB-CAB	-4.33	1.33	1.49
3	G	602	HEC	CBC-CAC	-4.33	1.33	1.49
3	F	604	HEC	CBB-CAB	-4.33	1.33	1.49
3	M	606	HEC	CBC-CAC	-4.33	1.33	1.49
3	R	607	HEC	CBB-CAB	-4.33	1.33	1.49
3	S	600	HEC	CBC-CAC	-4.33	1.33	1.49
3	C	601	HEC	C2B-C3B	-4.33	1.36	1.40
3	D	607	HEC	CBC-CAC	-4.33	1.33	1.49
3	M	607	HEC	CBC-CAC	-4.33	1.33	1.49
3	L	601	HEC	CBB-CAB	-4.33	1.33	1.49
3	B	603	HEC	C3C-C2C	-4.32	1.36	1.40
3	U	600	HEC	CBC-CAC	-4.32	1.33	1.49
3	D	601	HEC	CBC-CAC	-4.32	1.33	1.49
3	X	602	HEC	CBC-CAC	-4.32	1.33	1.49
3	C	604	HEC	CBC-CAC	-4.32	1.33	1.49
3	T	606	HEC	CBC-CAC	-4.32	1.33	1.49
3	P	602	HEC	CBB-CAB	-4.32	1.33	1.49
3	W	601	HEC	CBC-CAC	-4.32	1.33	1.49
3	K	607	HEC	CBC-CAC	-4.32	1.33	1.49
3	X	606	HEC	CBC-CAC	-4.32	1.33	1.49
3	E	607	HEC	CBC-CAC	-4.32	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	V	602	HEC	CBB-CAB	-4.32	1.33	1.49
3	S	603	HEC	C3C-C2C	-4.32	1.36	1.40
3	I	602	HEC	CBB-CAB	-4.32	1.33	1.49
3	M	600	HEC	CBB-CAB	-4.31	1.33	1.49
3	I	602	HEC	CBC-CAC	-4.31	1.33	1.49
3	Q	607	HEC	CBB-CAB	-4.31	1.33	1.49
3	K	602	HEC	CBC-CAC	-4.31	1.33	1.49
3	G	604	HEC	CBC-CAC	-4.31	1.33	1.49
3	O	607	HEC	CBB-CAB	-4.31	1.33	1.49
3	V	602	HEC	CBC-CAC	-4.31	1.33	1.49
3	C	607	HEC	CBB-CAB	-4.31	1.33	1.49
3	B	602	HEC	CBB-CAB	-4.31	1.33	1.49
3	I	601	HEC	CBC-CAC	-4.31	1.33	1.49
3	Q	601	HEC	CBC-CAC	-4.31	1.33	1.49
3	F	600	HEC	CBB-CAB	-4.31	1.33	1.49
3	D	605	HEC	CBC-CAC	-4.31	1.33	1.49
3	S	605	HEC	CBB-CAB	-4.31	1.33	1.49
3	K	605	HEC	CBC-CAC	-4.31	1.33	1.49
3	Q	607	HEC	CBC-CAC	-4.31	1.33	1.49
3	S	602	HEC	CBB-CAB	-4.31	1.33	1.49
3	A	601	HEC	CBC-CAC	-4.31	1.33	1.49
3	S	604	HEC	CBC-CAC	-4.31	1.33	1.49
3	F	601	HEC	CBC-CAC	-4.31	1.33	1.49
3	P	600	HEC	CBC-CAC	-4.31	1.33	1.49
3	H	600	HEC	CBC-CAC	-4.30	1.33	1.49
3	V	601	HEC	CBC-CAC	-4.30	1.33	1.49
3	J	602	HEC	CBC-CAC	-4.30	1.33	1.49
3	O	605	HEC	CBB-CAB	-4.30	1.33	1.49
3	X	607	HEC	CBB-CAB	-4.30	1.33	1.49
3	B	600	HEC	CBC-CAC	-4.30	1.33	1.49
3	C	606	HEC	CBC-CAC	-4.30	1.33	1.49
3	X	605	HEC	CBB-CAB	-4.30	1.33	1.49
3	O	600	HEC	CBC-CAC	-4.30	1.33	1.49
3	U	607	HEC	CBC-CAC	-4.30	1.33	1.49
3	W	604	HEC	CBC-CAC	-4.30	1.33	1.49
3	E	600	HEC	CBC-CAC	-4.30	1.33	1.49
3	U	605	HEC	CBC-CAC	-4.30	1.33	1.49
3	Q	606	HEC	CBC-CAC	-4.30	1.33	1.49
3	R	601	HEC	CBC-CAC	-4.30	1.33	1.49
3	P	606	HEC	CBC-CAC	-4.30	1.33	1.49
3	H	607	HEC	CBB-CAB	-4.30	1.33	1.49
3	S	607	HEC	CBC-CAC	-4.30	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	F	602	HEC	CBB-CAB	-4.30	1.33	1.49
3	F	604	HEC	CBC-CAC	-4.30	1.33	1.49
3	V	600	HEC	CBC-CAC	-4.30	1.33	1.49
3	T	603	HEC	C3C-C2C	-4.30	1.36	1.40
3	N	607	HEC	CBB-CAB	-4.30	1.33	1.49
3	P	606	HEC	CBB-CAB	-4.29	1.33	1.49
3	T	605	HEC	CBC-CAC	-4.29	1.33	1.49
3	G	603	HEC	C2B-C3B	-4.29	1.36	1.40
3	P	601	HEC	CBB-CAB	-4.29	1.33	1.49
3	S	607	HEC	CBB-CAB	-4.29	1.33	1.49
3	M	600	HEC	CBC-CAC	-4.29	1.33	1.49
3	R	607	HEC	CBC-CAC	-4.29	1.33	1.49
3	N	603	HEC	C3C-C2C	-4.29	1.36	1.40
3	X	607	HEC	CBC-CAC	-4.29	1.33	1.49
3	Q	602	HEC	CBC-CAC	-4.29	1.33	1.49
3	O	606	HEC	CBC-CAC	-4.29	1.33	1.49
3	R	603	HEC	C2B-C3B	-4.29	1.36	1.40
3	B	605	HEC	CBC-CAC	-4.29	1.33	1.49
3	G	601	HEC	CBC-CAC	-4.29	1.33	1.49
3	F	606	HEC	CBB-CAB	-4.29	1.33	1.49
3	S	601	HEC	CBB-CAB	-4.29	1.33	1.49
3	N	602	HEC	CBB-CAB	-4.29	1.33	1.49
3	R	600	HEC	CBC-CAC	-4.29	1.33	1.49
3	R	601	HEC	CBB-CAB	-4.29	1.33	1.49
3	T	600	HEC	CBC-CAC	-4.29	1.33	1.49
3	Q	604	HEC	CBC-CAC	-4.29	1.33	1.49
3	F	602	HEC	CBC-CAC	-4.28	1.33	1.49
3	U	602	HEC	CBB-CAB	-4.28	1.33	1.49
3	H	602	HEC	C2B-C3B	-4.28	1.36	1.40
3	N	607	HEC	CBC-CAC	-4.28	1.33	1.49
3	W	600	HEC	CBB-CAB	-4.28	1.33	1.49
3	L	600	HEC	CBC-CAC	-4.28	1.33	1.49
3	L	604	HEC	CBC-CAC	-4.28	1.33	1.49
3	T	601	HEC	CBC-CAC	-4.28	1.33	1.49
3	X	600	HEC	CBC-CAC	-4.28	1.33	1.49
3	X	606	HEC	CBB-CAB	-4.28	1.33	1.49
3	A	604	HEC	CBC-CAC	-4.28	1.33	1.49
3	I	604	HEC	CBC-CAC	-4.28	1.33	1.49
3	V	606	HEC	CBB-CAB	-4.28	1.33	1.49
3	C	602	HEC	CBB-CAB	-4.28	1.33	1.49
3	D	601	HEC	C2B-C3B	-4.28	1.36	1.40
3	J	602	HEC	CBB-CAB	-4.28	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	T	604	HEC	CBC-CAC	-4.28	1.33	1.49
3	D	601	HEC	CBB-CAB	-4.28	1.33	1.49
3	E	601	HEC	CBC-CAC	-4.28	1.33	1.49
3	N	601	HEC	CBC-CAC	-4.28	1.33	1.49
3	N	605	HEC	CBC-CAC	-4.28	1.33	1.49
3	E	603	HEC	C3C-C2C	-4.28	1.36	1.40
3	H	603	HEC	C3C-C2C	-4.28	1.36	1.40
3	Q	605	HEC	CBB-CAB	-4.28	1.33	1.49
3	L	606	HEC	CBC-CAC	-4.28	1.33	1.49
3	L	606	HEC	CBB-CAB	-4.27	1.33	1.49
3	B	607	HEC	CBB-CAB	-4.27	1.33	1.49
3	M	607	HEC	CBB-CAB	-4.27	1.33	1.49
3	R	606	HEC	CBB-CAB	-4.27	1.33	1.49
3	M	604	HEC	CBC-CAC	-4.27	1.33	1.49
3	E	604	HEC	CBB-CAB	-4.27	1.33	1.49
3	X	601	HEC	CBB-CAB	-4.27	1.33	1.49
3	Q	600	HEC	CBB-CAB	-4.27	1.33	1.49
3	B	600	HEC	CBB-CAB	-4.27	1.33	1.49
3	G	601	HEC	CBB-CAB	-4.27	1.33	1.49
3	I	600	HEC	CBC-CAC	-4.27	1.33	1.49
3	P	601	HEC	CBC-CAC	-4.27	1.33	1.49
3	N	604	HEC	CBC-CAC	-4.27	1.33	1.49
3	W	605	HEC	CBC-CAC	-4.27	1.33	1.49
3	X	604	HEC	CBC-CAC	-4.27	1.33	1.49
3	V	607	HEC	CBC-CAC	-4.27	1.33	1.49
3	M	604	HEC	CBB-CAB	-4.27	1.33	1.49
3	J	605	HEC	CBB-CAB	-4.27	1.33	1.49
3	X	602	HEC	CBB-CAB	-4.27	1.33	1.49
3	G	605	HEC	CBB-CAB	-4.27	1.33	1.49
3	G	606	HEC	CBB-CAB	-4.27	1.33	1.49
3	J	601	HEC	CBC-CAC	-4.27	1.33	1.49
3	M	602	HEC	CBB-CAB	-4.27	1.33	1.49
3	W	601	HEC	CBB-CAB	-4.27	1.33	1.49
3	P	600	HEC	CBB-CAB	-4.27	1.33	1.49
3	H	606	HEC	C2B-C3B	-4.27	1.36	1.40
3	L	605	HEC	CBB-CAB	-4.27	1.33	1.49
3	I	606	HEC	CBC-CAC	-4.27	1.33	1.49
3	W	607	HEC	CBC-CAC	-4.27	1.33	1.49
3	B	601	HEC	CBC-CAC	-4.27	1.33	1.49
3	D	606	HEC	CBB-CAB	-4.27	1.33	1.49
3	S	604	HEC	CBB-CAB	-4.26	1.33	1.49
3	F	605	HEC	CBB-CAB	-4.26	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	601	HEC	CBB-CAB	-4.26	1.33	1.49
3	U	604	HEC	CBB-CAB	-4.26	1.33	1.49
3	G	606	HEC	CBC-CAC	-4.26	1.33	1.49
3	J	606	HEC	CBC-CAC	-4.26	1.33	1.49
3	R	602	HEC	CBC-CAC	-4.26	1.33	1.49
3	U	601	HEC	CBC-CAC	-4.26	1.33	1.49
3	D	600	HEC	CBC-CAC	-4.26	1.33	1.49
3	C	600	HEC	CBC-CAC	-4.26	1.33	1.49
3	W	602	HEC	CBB-CAB	-4.26	1.33	1.49
3	W	607	HEC	CBB-CAB	-4.26	1.33	1.49
3	S	600	HEC	CBB-CAB	-4.26	1.33	1.49
3	T	600	HEC	CBB-CAB	-4.26	1.33	1.49
3	C	605	HEC	CBB-CAB	-4.26	1.33	1.49
3	C	601	HEC	CBC-CAC	-4.26	1.33	1.49
3	K	600	HEC	CBC-CAC	-4.26	1.33	1.49
3	D	602	HEC	CBC-CAC	-4.26	1.33	1.49
3	W	601	HEC	C2B-C3B	-4.26	1.36	1.40
3	L	602	HEC	C2B-C3B	-4.26	1.36	1.40
3	B	605	HEC	CBB-CAB	-4.26	1.33	1.49
3	M	601	HEC	CBC-CAC	-4.26	1.33	1.49
3	F	600	HEC	CBC-CAC	-4.26	1.33	1.49
3	U	606	HEC	CBB-CAB	-4.26	1.33	1.49
3	D	606	HEC	CBC-CAC	-4.25	1.33	1.49
3	F	607	HEC	CBC-CAC	-4.25	1.33	1.49
3	C	604	HEC	CBB-CAB	-4.25	1.33	1.49
3	L	607	HEC	CBC-CAC	-4.25	1.33	1.49
3	M	605	HEC	CBB-CAB	-4.25	1.33	1.49
3	U	607	HEC	CBB-CAB	-4.25	1.33	1.49
3	X	601	HEC	CBC-CAC	-4.25	1.33	1.49
3	G	604	HEC	C2B-C3B	-4.25	1.36	1.40
3	W	600	HEC	CBC-CAC	-4.25	1.33	1.49
3	D	604	HEC	CBB-CAB	-4.25	1.33	1.49
3	V	604	HEC	CBB-CAB	-4.25	1.33	1.49
3	J	606	HEC	CBB-CAB	-4.25	1.33	1.49
3	U	602	HEC	CBC-CAC	-4.25	1.33	1.49
3	Q	602	HEC	CBB-CAB	-4.25	1.33	1.49
3	Q	604	HEC	CBB-CAB	-4.25	1.33	1.49
3	A	601	HEC	CBB-CAB	-4.25	1.33	1.49
3	A	607	HEC	CBC-CAC	-4.25	1.33	1.49
3	A	605	HEC	CBB-CAB	-4.25	1.33	1.49
3	K	606	HEC	CBC-CAC	-4.24	1.33	1.49
3	T	607	HEC	CBB-CAB	-4.24	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	600	HEC	CBB-CAB	-4.24	1.33	1.49
3	R	605	HEC	CBC-CAC	-4.24	1.33	1.49
3	V	607	HEC	CBB-CAB	-4.24	1.33	1.49
3	R	604	HEC	CBC-CAC	-4.24	1.33	1.49
3	T	606	HEC	CBB-CAB	-4.24	1.33	1.49
3	E	605	HEC	CBB-CAB	-4.24	1.33	1.49
3	G	607	HEC	CBC-CAC	-4.24	1.33	1.49
3	R	600	HEC	CBB-CAB	-4.24	1.33	1.49
3	M	602	HEC	CBC-CAC	-4.24	1.33	1.49
3	T	607	HEC	CBC-CAC	-4.24	1.33	1.49
3	B	604	HEC	CBB-CAB	-4.24	1.33	1.49
3	T	604	HEC	CBB-CAB	-4.24	1.33	1.49
3	J	601	HEC	CBB-CAB	-4.24	1.33	1.49
3	O	601	HEC	CBC-CAC	-4.24	1.33	1.49
3	C	600	HEC	CBB-CAB	-4.24	1.33	1.49
3	V	601	HEC	CBB-CAB	-4.24	1.33	1.49
3	H	601	HEC	C2B-C3B	-4.23	1.36	1.40
3	W	606	HEC	CBB-CAB	-4.23	1.33	1.49
3	T	605	HEC	CBB-CAB	-4.23	1.33	1.49
3	O	602	HEC	CBC-CAC	-4.23	1.33	1.49
3	J	603	HEC	C3C-C2C	-4.23	1.36	1.40
3	Q	601	HEC	CBB-CAB	-4.23	1.33	1.49
3	F	605	HEC	CBC-CAC	-4.23	1.33	1.49
3	O	600	HEC	CBB-CAB	-4.23	1.33	1.49
3	P	604	HEC	CBB-CAB	-4.23	1.33	1.49
3	D	604	HEC	CBC-CAC	-4.23	1.33	1.49
3	C	601	HEC	CBB-CAB	-4.23	1.33	1.49
3	U	600	HEC	CBB-CAB	-4.23	1.33	1.49
3	E	606	HEC	CBB-CAB	-4.22	1.33	1.49
3	V	605	HEC	CBC-CAC	-4.22	1.33	1.49
3	Q	600	HEC	CBC-CAC	-4.22	1.33	1.49
3	R	605	HEC	CBB-CAB	-4.22	1.33	1.49
3	H	600	HEC	CBB-CAB	-4.22	1.33	1.49
3	E	601	HEC	CBB-CAB	-4.22	1.33	1.49
3	W	605	HEC	CBB-CAB	-4.22	1.33	1.49
3	V	605	HEC	CBB-CAB	-4.22	1.33	1.49
3	A	605	HEC	CBC-CAC	-4.22	1.33	1.49
3	I	604	HEC	CBB-CAB	-4.22	1.33	1.49
3	B	607	HEC	CBC-CAC	-4.22	1.33	1.49
3	U	601	HEC	CBB-CAB	-4.21	1.33	1.49
3	X	605	HEC	CBC-CAC	-4.21	1.33	1.49
3	H	604	HEC	CBC-CAC	-4.21	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	604	HEC	CBB-CAB	-4.21	1.33	1.49
3	X	604	HEC	CBB-CAB	-4.21	1.33	1.49
3	X	600	HEC	CBB-CAB	-4.21	1.33	1.49
3	J	604	HEC	CBB-CAB	-4.21	1.33	1.49
3	N	601	HEC	CBB-CAB	-4.21	1.33	1.49
3	I	600	HEC	CBB-CAB	-4.21	1.33	1.49
3	G	605	HEC	CBC-CAC	-4.21	1.33	1.49
3	U	604	HEC	CBC-CAC	-4.21	1.33	1.49
3	B	606	HEC	CBB-CAB	-4.21	1.33	1.49
3	Q	606	HEC	CBB-CAB	-4.20	1.33	1.49
3	O	601	HEC	CBB-CAB	-4.20	1.33	1.49
3	M	606	HEC	CBB-CAB	-4.20	1.33	1.49
3	H	601	HEC	CBC-CAC	-4.20	1.33	1.49
3	K	604	HEC	CBB-CAB	-4.20	1.33	1.49
3	D	607	HEC	CBB-CAB	-4.20	1.33	1.49
3	B	604	HEC	CBC-CAC	-4.20	1.33	1.49
3	R	604	HEC	CBB-CAB	-4.20	1.33	1.49
3	T	601	HEC	CBB-CAB	-4.20	1.33	1.49
3	L	605	HEC	CBC-CAC	-4.20	1.33	1.49
3	S	605	HEC	CBC-CAC	-4.20	1.33	1.49
3	C	607	HEC	CBC-CAC	-4.20	1.33	1.49
3	F	601	HEC	CBB-CAB	-4.20	1.33	1.49
3	D	602	HEC	CBB-CAB	-4.20	1.33	1.49
3	K	600	HEC	CBB-CAB	-4.20	1.33	1.49
3	J	605	HEC	CBC-CAC	-4.20	1.33	1.49
3	A	600	HEC	CBC-CAC	-4.20	1.33	1.49
3	P	603	HEC	C2B-C3B	-4.19	1.36	1.40
3	I	605	HEC	CBB-CAB	-4.19	1.33	1.49
3	D	600	HEC	CBB-CAB	-4.19	1.33	1.49
3	S	606	HEC	CBB-CAB	-4.19	1.33	1.49
3	E	607	HEC	CBB-CAB	-4.19	1.33	1.49
3	V	600	HEC	CBB-CAB	-4.19	1.33	1.49
3	O	606	HEC	CBB-CAB	-4.18	1.33	1.49
3	N	605	HEC	CBB-CAB	-4.18	1.33	1.49
3	G	602	HEC	CBB-CAB	-4.18	1.33	1.49
3	S	602	HEC	CBC-CAC	-4.18	1.33	1.49
3	F	607	HEC	CBB-CAB	-4.18	1.33	1.49
3	Q	605	HEC	CBC-CAC	-4.18	1.33	1.49
3	P	605	HEC	CBB-CAB	-4.18	1.33	1.49
3	K	606	HEC	CBB-CAB	-4.17	1.33	1.49
3	M	605	HEC	CBC-CAC	-4.17	1.33	1.49
3	H	604	HEC	CBB-CAB	-4.17	1.33	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L	601	HEC	CBC-CAC	-4.17	1.33	1.49
3	N	606	HEC	CBB-CAB	-4.17	1.33	1.49
3	C	603	HEC	C3C-C2C	-4.17	1.36	1.40
3	E	600	HEC	CBB-CAB	-4.17	1.33	1.49
3	O	605	HEC	CBC-CAC	-4.16	1.33	1.49
3	L	602	HEC	CBC-CAC	-4.16	1.33	1.49
3	G	600	HEC	CBB-CAB	-4.16	1.33	1.49
3	Q	601	HEC	C2B-C3B	-4.16	1.36	1.40
3	J	600	HEC	CBB-CAB	-4.16	1.33	1.49
3	H	605	HEC	CBB-CAB	-4.16	1.33	1.49
3	U	605	HEC	CBB-CAB	-4.15	1.33	1.49
3	U	603	HEC	C3C-C2C	-4.15	1.36	1.40
3	I	606	HEC	CBB-CAB	-4.14	1.33	1.49
3	C	606	HEC	CBB-CAB	-4.14	1.33	1.49
3	C	604	HEC	C2B-C3B	-4.14	1.36	1.40
3	K	601	HEC	CBB-CAB	-4.14	1.34	1.49
3	N	602	HEC	C2B-C3B	-4.13	1.36	1.40
3	A	607	HEC	CBB-CAB	-4.13	1.34	1.49
3	F	603	HEC	C3C-C2C	-4.13	1.36	1.40
3	J	602	HEC	C2B-C3B	-4.13	1.36	1.40
3	L	600	HEC	CBB-CAB	-4.13	1.34	1.49
3	H	601	HEC	CBB-CAB	-4.13	1.34	1.49
3	E	603	HEC	C2B-C3B	-4.12	1.36	1.40
3	P	602	HEC	C2B-C3B	-4.12	1.36	1.40
3	E	604	HEC	C2B-C3B	-4.11	1.36	1.40
3	R	603	HEC	C3C-C2C	-4.10	1.36	1.40
3	N	600	HEC	CBB-CAB	-4.10	1.34	1.49
3	D	603	HEC	C3C-C2C	-4.10	1.36	1.40
3	A	606	HEC	CBB-CAB	-4.09	1.34	1.49
3	U	601	HEC	C2B-C3B	-4.09	1.36	1.40
3	C	602	HEC	C2B-C3B	-4.09	1.36	1.40
3	V	603	HEC	C2B-C3B	-4.09	1.36	1.40
3	X	603	HEC	C3C-C2C	-4.09	1.36	1.40
3	V	603	HEC	C3C-C2C	-4.08	1.36	1.40
3	B	601	HEC	C2B-C3B	-4.07	1.36	1.40
3	F	602	HEC	C2B-C3B	-4.07	1.36	1.40
3	X	601	HEC	C2B-C3B	-4.06	1.36	1.40
3	F	600	HEC	C2B-C3B	-4.05	1.36	1.40
3	Q	603	HEC	C3C-C2C	-4.02	1.36	1.40
3	X	600	HEC	C2B-C3B	-4.01	1.36	1.40
3	V	606	HEC	C2B-C3B	-4.00	1.36	1.40
3	X	606	HEC	C2B-C3B	-3.99	1.36	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	V	601	HEC	C2B-C3B	-3.98	1.36	1.40
3	W	602	HEC	C2B-C3B	-3.98	1.36	1.40
3	I	601	HEC	C2B-C3B	-3.97	1.36	1.40
3	D	603	HEC	C2B-C3B	-3.95	1.36	1.40
3	W	603	HEC	C3C-C2C	-3.95	1.36	1.40
3	P	603	HEC	C3C-C2C	-3.94	1.36	1.40
3	C	606	HEC	C2B-C3B	-3.94	1.36	1.40
3	W	603	HEC	C2B-C3B	-3.94	1.36	1.40
3	M	604	HEC	C2B-C3B	-3.93	1.36	1.40
3	E	600	HEC	C2B-C3B	-3.92	1.36	1.40
3	E	601	HEC	C2B-C3B	-3.91	1.36	1.40
3	O	604	HEC	C2B-C3B	-3.91	1.36	1.40
3	G	601	HEC	C2B-C3B	-3.91	1.36	1.40
3	N	604	HEC	C2B-C3B	-3.90	1.36	1.40
3	L	601	HEC	C2B-C3B	-3.90	1.36	1.40
3	C	603	HEC	C2B-C3B	-3.89	1.36	1.40
3	M	603	HEC	C2B-C3B	-3.89	1.36	1.40
3	W	600	HEC	C2B-C3B	-3.87	1.36	1.40
3	P	601	HEC	C2B-C3B	-3.87	1.36	1.40
3	G	607	HEC	C2B-C3B	-3.86	1.36	1.40
3	S	600	HEC	C2B-C3B	-3.86	1.36	1.40
3	B	602	HEC	C2B-C3B	-3.86	1.36	1.40
3	H	604	HEC	C2B-C3B	-3.85	1.36	1.40
3	I	602	HEC	C2B-C3B	-3.84	1.36	1.40
3	S	605	HEC	C2B-C3B	-3.84	1.36	1.40
3	E	602	HEC	C2B-C3B	-3.82	1.36	1.40
3	V	600	HEC	C2B-C3B	-3.82	1.36	1.40
3	V	604	HEC	C2B-C3B	-3.82	1.36	1.40
3	A	603	HEC	C3C-C2C	-3.82	1.36	1.40
3	B	605	HEC	C2B-C3B	-3.81	1.36	1.40
3	J	603	HEC	C2B-C3B	-3.81	1.36	1.40
3	H	603	HEC	C2B-C3B	-3.80	1.36	1.40
3	J	606	HEC	C2B-C3B	-3.80	1.36	1.40
3	Q	600	HEC	C2B-C3B	-3.80	1.36	1.40
3	D	602	HEC	C2B-C3B	-3.80	1.36	1.40
3	M	606	HEC	C2B-C3B	-3.80	1.36	1.40
3	G	602	HEC	C2B-C3B	-3.79	1.36	1.40
3	Q	602	HEC	C2B-C3B	-3.79	1.36	1.40
3	O	600	HEC	C2B-C3B	-3.79	1.36	1.40
3	R	604	HEC	C2B-C3B	-3.79	1.36	1.40
3	W	606	HEC	C2B-C3B	-3.78	1.36	1.40
3	T	602	HEC	C2B-C3B	-3.78	1.36	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	P	604	HEC	C2B-C3B	-3.78	1.36	1.40
3	W	604	HEC	C2B-C3B	-3.77	1.36	1.40
3	K	604	HEC	C2B-C3B	-3.77	1.36	1.40
3	S	602	HEC	C2B-C3B	-3.77	1.36	1.40
3	E	607	HEC	C2B-C3B	-3.76	1.36	1.40
3	S	606	HEC	C2B-C3B	-3.76	1.36	1.40
3	D	606	HEC	C2B-C3B	-3.75	1.36	1.40
3	V	602	HEC	C2B-C3B	-3.75	1.36	1.40
3	T	606	HEC	C2B-C3B	-3.75	1.36	1.40
3	A	604	HEC	C2B-C3B	-3.74	1.36	1.40
3	K	606	HEC	C2B-C3B	-3.74	1.36	1.40
3	J	607	HEC	C2B-C3B	-3.73	1.36	1.40
3	J	605	HEC	C2B-C3B	-3.73	1.36	1.40
3	T	600	HEC	C2B-C3B	-3.73	1.36	1.40
3	X	604	HEC	C2B-C3B	-3.73	1.36	1.40
3	K	603	HEC	C2B-C3B	-3.72	1.36	1.40
3	M	602	HEC	C2B-C3B	-3.71	1.36	1.40
3	H	605	HEC	C2B-C3B	-3.71	1.36	1.40
3	S	603	HEC	C2B-C3B	-3.70	1.36	1.40
3	Q	603	HEC	C2B-C3B	-3.70	1.36	1.40
3	N	603	HEC	C2B-C3B	-3.69	1.36	1.40
3	R	607	HEC	C2B-C3B	-3.68	1.36	1.40
3	B	604	HEC	C2B-C3B	-3.67	1.36	1.40
3	L	604	HEC	C2B-C3B	-3.65	1.36	1.40
3	O	603	HEC	C2B-C3B	-3.65	1.36	1.40
3	U	602	HEC	C2B-C3B	-3.64	1.36	1.40
3	N	600	HEC	C2B-C3B	-3.62	1.37	1.40
3	G	605	HEC	C2B-C3B	-3.62	1.37	1.40
3	T	604	HEC	C2B-C3B	-3.62	1.37	1.40
3	R	602	HEC	C2B-C3B	-3.62	1.37	1.40
3	G	606	HEC	C2B-C3B	-3.61	1.37	1.40
3	X	603	HEC	C2B-C3B	-3.61	1.37	1.40
3	X	605	HEC	C2B-C3B	-3.60	1.37	1.40
3	F	606	HEC	C2B-C3B	-3.60	1.37	1.40
3	T	603	HEC	C2B-C3B	-3.60	1.37	1.40
3	A	602	HEC	C2B-C3B	-3.59	1.37	1.40
3	C	600	HEC	C2B-C3B	-3.59	1.37	1.40
3	A	603	HEC	C2B-C3B	-3.58	1.37	1.40
3	O	605	HEC	C2B-C3B	-3.57	1.37	1.40
3	F	603	HEC	C2B-C3B	-3.57	1.37	1.40
3	H	600	HEC	C2B-C3B	-3.57	1.37	1.40
3	A	600	HEC	C2B-C3B	-3.57	1.37	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	D	605	HEC	C2B-C3B	-3.57	1.37	1.40
3	J	600	HEC	C2B-C3B	-3.56	1.37	1.40
3	I	605	HEC	C4B-C3B	3.56	1.49	1.43
3	P	606	HEC	C2B-C3B	-3.56	1.37	1.40
3	S	603	HEC	CBD-CGD	3.56	1.58	1.50
3	E	606	HEC	C2B-C3B	-3.55	1.37	1.40
3	P	607	HEC	C4B-C3B	3.53	1.49	1.43
3	K	600	HEC	C2B-C3B	-3.53	1.37	1.40
3	S	604	HEC	C2B-C3B	-3.53	1.37	1.40
3	X	607	HEC	C4B-C3B	3.52	1.49	1.43
3	D	607	HEC	C4B-C3B	3.52	1.49	1.43
3	G	603	HEC	CBD-CGD	3.52	1.58	1.50
3	A	603	HEC	CBD-CGD	3.52	1.58	1.50
3	C	607	HEC	C2B-C3B	-3.51	1.37	1.40
3	D	604	HEC	C2B-C3B	-3.51	1.37	1.40
3	N	606	HEC	C2B-C3B	-3.51	1.37	1.40
3	U	604	HEC	C2B-C3B	-3.51	1.37	1.40
3	U	607	HEC	C2B-C3B	-3.51	1.37	1.40
3	D	600	HEC	C4B-C3B	3.50	1.49	1.43
3	A	606	HEC	C2B-C3B	-3.50	1.37	1.40
3	O	602	HEC	C2B-C3B	-3.50	1.37	1.40
3	Q	605	HEC	C2B-C3B	-3.50	1.37	1.40
3	M	600	HEC	C2B-C3B	-3.50	1.37	1.40
3	T	607	HEC	C2B-C3B	-3.50	1.37	1.40
3	R	603	HEC	CBD-CGD	3.49	1.58	1.50
3	U	603	HEC	C2B-C3B	-3.49	1.37	1.40
3	J	604	HEC	C2B-C3B	-3.49	1.37	1.40
3	U	600	HEC	C2B-C3B	-3.49	1.37	1.40
3	V	605	HEC	C2B-C3B	-3.48	1.37	1.40
3	M	607	HEC	C4B-C3B	3.48	1.49	1.43
3	A	607	HEC	C2B-C3B	-3.48	1.37	1.40
3	M	607	HEC	C2B-C3B	-3.47	1.37	1.40
3	N	607	HEC	C2B-C3B	-3.47	1.37	1.40
3	K	607	HEC	C2B-C3B	-3.46	1.37	1.40
3	O	603	HEC	C4D-ND	3.45	1.43	1.36
3	F	604	HEC	C2B-C3B	-3.45	1.37	1.40
3	R	600	HEC	C2B-C3B	-3.44	1.37	1.40
3	X	603	HEC	CBD-CGD	3.44	1.58	1.50
3	U	607	HEC	C4B-C3B	3.43	1.49	1.43
3	E	605	HEC	C2B-C3B	-3.43	1.37	1.40
3	L	606	HEC	C2B-C3B	-3.43	1.37	1.40
3	U	603	HEC	CBD-CGD	3.43	1.58	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	R	605	HEC	C2B-C3B	-3.43	1.37	1.40
3	X	602	HEC	C2B-C3B	-3.42	1.37	1.40
3	S	607	HEC	C4B-C3B	3.42	1.49	1.43
3	N	605	HEC	C2B-C3B	-3.42	1.37	1.40
3	C	605	HEC	C4B-C3B	3.41	1.49	1.43
3	B	600	HEC	C2B-C3B	-3.41	1.37	1.40
3	B	606	HEC	C2B-C3B	-3.40	1.37	1.40
3	V	603	HEC	CBD-CGD	3.40	1.58	1.50
3	H	607	HEC	C2B-C3B	-3.39	1.37	1.40
3	A	605	HEC	C4B-C3B	3.38	1.49	1.43
3	F	607	HEC	C4B-C3B	3.38	1.49	1.43
3	D	607	HEC	C2B-C3B	-3.38	1.37	1.40
3	G	600	HEC	C2B-C3B	-3.37	1.37	1.40
3	O	603	HEC	CBD-CGD	3.37	1.58	1.50
3	P	603	HEC	CBD-CGD	3.37	1.58	1.50
3	O	606	HEC	C2B-C3B	-3.37	1.37	1.40
3	F	605	HEC	C4B-C3B	3.37	1.49	1.43
3	P	607	HEC	C2B-C3B	-3.37	1.37	1.40
3	W	605	HEC	C2B-C3B	-3.37	1.37	1.40
3	B	603	HEC	C2B-C3B	-3.37	1.37	1.40
3	C	603	HEC	CBD-CGD	3.36	1.58	1.50
3	M	603	HEC	CBD-CGD	3.36	1.58	1.50
3	Q	603	HEC	C4D-ND	3.36	1.43	1.36
3	Q	604	HEC	C2B-C3B	-3.36	1.37	1.40
3	F	605	HEC	C2B-C3B	-3.36	1.37	1.40
3	J	607	HEC	C4B-C3B	3.35	1.49	1.43
3	C	607	HEC	C4B-C3B	3.35	1.49	1.43
3	H	603	HEC	CBD-CGD	3.35	1.58	1.50
3	K	603	HEC	CBD-CGD	3.35	1.58	1.50
3	K	605	HEC	C2B-C3B	-3.35	1.37	1.40
3	F	603	HEC	CBD-CGD	3.35	1.58	1.50
3	P	600	HEC	C2B-C3B	-3.35	1.37	1.40
3	M	605	HEC	C4B-C3B	3.34	1.49	1.43
3	N	607	HEC	C4B-C3B	3.34	1.49	1.43
3	K	602	HEC	C2B-C3B	-3.34	1.37	1.40
3	W	607	HEC	C2B-C3B	-3.34	1.37	1.40
3	D	603	HEC	CBD-CGD	3.33	1.58	1.50
3	T	603	HEC	CBD-CGD	3.33	1.58	1.50
3	W	607	HEC	C4B-C3B	3.32	1.49	1.43
3	T	605	HEC	C2B-C3B	-3.32	1.37	1.40
3	H	607	HEC	C4B-C3B	3.32	1.49	1.43
3	A	607	HEC	C4B-C3B	3.31	1.49	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	607	HEC	C4B-C3B	3.31	1.49	1.43
3	D	600	HEC	C2B-C3B	-3.31	1.37	1.40
3	S	607	HEC	C2B-C3B	-3.31	1.37	1.40
3	P	605	HEC	C4B-C3B	3.31	1.49	1.43
3	V	605	HEC	C4B-C3B	3.31	1.49	1.43
3	Q	605	HEC	C4B-C3B	3.30	1.49	1.43
3	I	601	HEC	C4B-C3B	3.30	1.49	1.43
3	L	605	HEC	C2B-C3B	-3.29	1.37	1.40
3	G	603	HEC	C4D-ND	3.29	1.42	1.36
3	B	607	HEC	C2B-C3B	-3.29	1.37	1.40
3	O	607	HEC	C2B-C3B	-3.29	1.37	1.40
3	A	605	HEC	C2B-C3B	-3.28	1.37	1.40
3	Q	607	HEC	C4B-C3B	3.28	1.49	1.43
3	N	603	HEC	CBD-CGD	3.28	1.58	1.50
3	V	607	HEC	C4B-C3B	3.28	1.49	1.43
3	S	603	HEC	C4D-ND	3.28	1.42	1.36
3	U	606	HEC	C2B-C3B	-3.27	1.37	1.40
3	G	607	HEC	C4B-C3B	3.27	1.49	1.43
3	L	607	HEC	C2B-C3B	-3.26	1.37	1.40
3	X	605	HEC	C4B-C3B	3.26	1.49	1.43
3	I	606	HEC	C2B-C3B	-3.26	1.37	1.40
3	W	605	HEC	C4B-C3B	3.26	1.49	1.43
3	Q	607	HEC	C2B-C3B	-3.26	1.37	1.40
3	O	605	HEC	C4B-C3B	3.25	1.49	1.43
3	W	603	HEC	CBD-CGD	3.25	1.58	1.50
3	I	603	HEC	CBD-CGD	3.24	1.58	1.50
3	X	607	HEC	C2B-C3B	-3.24	1.37	1.40
3	E	603	HEC	CBD-CGD	3.24	1.58	1.50
3	V	607	HEC	C2B-C3B	-3.24	1.37	1.40
3	T	607	HEC	C4B-C3B	3.24	1.48	1.43
3	T	603	HEC	C4D-ND	3.23	1.42	1.36
3	T	603	HEC	C1C-CHC	3.23	1.50	1.41
3	C	605	HEC	C2B-C3B	-3.23	1.37	1.40
3	I	605	HEC	C2B-C3B	-3.22	1.37	1.40
3	V	603	HEC	C4D-ND	3.22	1.42	1.36
3	K	607	HEC	C4B-C3B	3.22	1.48	1.43
3	Q	603	HEC	CBD-CGD	3.21	1.58	1.50
3	M	603	HEC	C4D-ND	3.21	1.42	1.36
3	B	605	HEC	C4B-C3B	3.21	1.48	1.43
3	A	604	HEC	C4B-C3B	3.21	1.48	1.43
3	Q	606	HEC	C2B-C3B	-3.21	1.37	1.40
3	R	603	HEC	C4D-ND	3.21	1.42	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	F	603	HEC	C4D-ND	3.21	1.42	1.36
3	M	603	HEC	C1D-ND	3.20	1.42	1.36
3	L	600	HEC	C2B-C3B	-3.20	1.37	1.40
3	E	603	HEC	C4D-ND	3.20	1.42	1.36
3	R	605	HEC	C4B-C3B	3.20	1.48	1.43
3	S	600	HEC	C4B-C3B	3.19	1.48	1.43
3	K	605	HEC	C4B-C3B	3.19	1.48	1.43
3	J	605	HEC	C4B-C3B	3.18	1.48	1.43
3	T	605	HEC	C4B-C3B	3.18	1.48	1.43
3	U	605	HEC	C2B-C3B	-3.17	1.37	1.40
3	B	603	HEC	CBD-CGD	3.17	1.58	1.50
3	U	603	HEC	C4D-ND	3.17	1.42	1.36
3	S	605	HEC	C4B-C3B	3.17	1.48	1.43
3	Q	600	HEC	C4B-C3B	3.16	1.48	1.43
3	N	604	HEC	C4B-C3B	3.16	1.48	1.43
3	J	603	HEC	C4D-ND	3.16	1.42	1.36
3	N	603	HEC	C4D-ND	3.15	1.42	1.36
3	J	603	HEC	CBD-CGD	3.15	1.57	1.50
3	W	601	HEC	C4B-C3B	3.15	1.48	1.43
3	D	602	HEC	C4B-C3B	3.15	1.48	1.43
3	W	600	HEC	C4B-C3B	3.15	1.48	1.43
3	J	600	HEC	C4B-C3B	3.14	1.48	1.43
3	E	604	HEC	C4B-C3B	3.14	1.48	1.43
3	G	605	HEC	C4B-C3B	3.13	1.48	1.43
3	I	607	HEC	C4B-C3B	3.13	1.48	1.43
3	U	605	HEC	C4B-C3B	3.13	1.48	1.43
3	K	604	HEC	C4B-C3B	3.12	1.48	1.43
3	B	607	HEC	C4B-C3B	3.12	1.48	1.43
3	M	602	HEC	C4B-C3B	3.12	1.48	1.43
3	O	603	HEC	C1D-ND	3.12	1.42	1.36
3	O	600	HEC	C4B-C3B	3.12	1.48	1.43
3	T	604	HEC	C4B-C3B	3.12	1.48	1.43
3	A	603	HEC	C1D-ND	3.11	1.42	1.36
3	V	603	HEC	C1D-ND	3.10	1.42	1.36
3	W	602	HEC	C4B-C3B	3.10	1.48	1.43
3	H	603	HEC	C4D-ND	3.10	1.42	1.36
3	F	603	HEC	C1D-ND	3.10	1.42	1.36
3	V	604	HEC	C4B-C3B	3.10	1.48	1.43
3	H	605	HEC	C4B-C3B	3.10	1.48	1.43
3	K	603	HEC	C4D-ND	3.10	1.42	1.36
3	I	603	HEC	C4D-ND	3.09	1.42	1.36
3	B	604	HEC	C4B-C3B	3.09	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A	603	HEC	C4D-ND	3.09	1.42	1.36
3	S	604	HEC	C4B-C3B	3.09	1.48	1.43
3	U	600	HEC	C4B-C3B	3.09	1.48	1.43
3	R	606	HEC	C2B-C3B	-3.09	1.37	1.40
3	N	605	HEC	C4B-C3B	3.08	1.48	1.43
3	P	603	HEC	C4D-ND	3.08	1.42	1.36
3	X	604	HEC	C4B-C3B	3.08	1.48	1.43
3	T	600	HEC	C4B-C3B	3.07	1.48	1.43
3	P	602	HEC	C4B-C3B	3.07	1.48	1.43
3	K	601	HEC	C4B-C3B	3.07	1.48	1.43
3	D	603	HEC	C1D-ND	3.07	1.42	1.36
3	B	603	HEC	C4D-ND	3.07	1.42	1.36
3	I	607	HEC	C2B-C3B	-3.06	1.37	1.40
3	D	603	HEC	C4D-ND	3.06	1.42	1.36
3	L	603	HEC	CBD-CGD	3.06	1.57	1.50
3	G	603	HEC	C1C-CHC	3.05	1.49	1.41
3	A	602	HEC	C4B-C3B	3.05	1.48	1.43
3	R	603	HEC	C1D-ND	3.05	1.42	1.36
3	R	607	HEC	C4B-C3B	3.05	1.48	1.43
3	U	604	HEC	C4B-C3B	3.04	1.48	1.43
3	N	606	HEC	C4B-C3B	3.04	1.48	1.43
3	E	605	HEC	C4B-C3B	3.04	1.48	1.43
3	X	603	HEC	C4D-ND	3.03	1.42	1.36
3	G	602	HEC	C4B-C3B	3.03	1.48	1.43
3	E	603	HEC	C1D-ND	3.03	1.42	1.36
3	H	603	HEC	C1D-ND	3.03	1.42	1.36
3	B	600	HEC	C4B-C3B	3.03	1.48	1.43
3	L	607	HEC	C4B-C3B	3.02	1.48	1.43
3	I	600	HEC	C4B-C3B	3.02	1.48	1.43
3	N	600	HEC	C4B-C3B	3.02	1.48	1.43
3	R	604	HEC	C4B-C3B	3.02	1.48	1.43
3	M	605	HEC	C2B-C3B	-3.02	1.37	1.40
3	Q	606	HEC	C4B-C3B	3.02	1.48	1.43
3	Q	603	HEC	C1D-ND	3.01	1.42	1.36
3	H	604	HEC	C4B-C3B	3.00	1.48	1.43
3	S	603	HEC	C1D-ND	3.00	1.42	1.36
3	T	603	HEC	C1D-ND	3.00	1.42	1.36
3	O	604	HEC	C4B-C3B	3.00	1.48	1.43
3	U	602	HEC	C4B-C3B	3.00	1.48	1.43
3	D	603	HEC	C1C-CHC	2.99	1.49	1.41
3	E	601	HEC	C4B-C3B	2.99	1.48	1.43
3	U	601	HEC	C4B-C3B	2.99	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	H	606	HEC	C4B-C3B	2.98	1.48	1.43
3	I	603	HEC	C2B-C3B	-2.98	1.37	1.40
3	G	601	HEC	C4B-C3B	2.98	1.48	1.43
3	V	600	HEC	C4B-C3B	2.98	1.48	1.43
3	N	603	HEC	C1D-ND	2.97	1.42	1.36
3	G	606	HEC	C4B-C3B	2.97	1.48	1.43
3	P	606	HEC	C4B-C3B	2.97	1.48	1.43
3	F	607	HEC	C2B-C3B	-2.97	1.37	1.40
3	F	603	HEC	C1C-CHC	2.97	1.49	1.41
3	J	603	HEC	C1C-CHC	2.97	1.49	1.41
3	G	604	HEC	C4B-C3B	2.97	1.48	1.43
3	L	604	HEC	C4B-C3B	2.97	1.48	1.43
3	T	602	HEC	C4B-C3B	2.96	1.48	1.43
3	I	604	HEC	C4B-C3B	2.96	1.48	1.43
3	M	606	HEC	C4B-C3B	2.96	1.48	1.43
3	W	604	HEC	C4B-C3B	2.96	1.48	1.43
3	W	603	HEC	C1D-ND	2.96	1.42	1.36
3	Q	604	HEC	C4B-C3B	2.96	1.48	1.43
3	P	600	HEC	C4B-C3B	2.96	1.48	1.43
3	U	606	HEC	C4B-C3B	2.96	1.48	1.43
3	E	600	HEC	C4B-C3B	2.95	1.48	1.43
3	L	602	HEC	C4B-C3B	2.95	1.48	1.43
3	T	606	HEC	C4B-C3B	2.95	1.48	1.43
3	K	603	HEC	C1D-ND	2.95	1.42	1.36
3	A	600	HEC	C4B-C3B	2.95	1.48	1.43
3	H	601	HEC	C4B-C3B	2.95	1.48	1.43
3	W	606	HEC	C4B-C3B	2.95	1.48	1.43
3	R	603	HEC	C1C-CHC	2.95	1.49	1.41
3	G	603	HEC	C1D-ND	2.94	1.42	1.36
3	V	602	HEC	C4B-C3B	2.94	1.48	1.43
3	W	603	HEC	C4D-ND	2.94	1.42	1.36
3	G	600	HEC	C4B-C3B	2.94	1.48	1.43
3	L	601	HEC	C4B-C3B	2.94	1.48	1.43
3	S	603	HEC	C1C-CHC	2.94	1.49	1.41
3	J	603	HEC	C1D-ND	2.93	1.42	1.36
3	Q	603	HEC	C1C-CHC	2.93	1.49	1.41
3	V	601	HEC	C4B-C3B	2.93	1.48	1.43
3	X	603	HEC	C1C-CHC	2.92	1.49	1.41
3	M	604	HEC	C4B-C3B	2.92	1.48	1.43
3	K	602	HEC	C4B-C3B	2.92	1.48	1.43
3	X	600	HEC	C4B-C3B	2.92	1.48	1.43
3	C	604	HEC	C4B-C3B	2.92	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	602	HEC	C4B-C3B	2.91	1.48	1.43
3	U	603	HEC	C1D-ND	2.91	1.42	1.36
3	F	600	HEC	C4B-C3B	2.91	1.48	1.43
3	H	600	HEC	C4B-C3B	2.91	1.48	1.43
3	J	601	HEC	C4B-C3B	2.91	1.48	1.43
3	M	603	HEC	C1C-CHC	2.90	1.49	1.41
3	S	602	HEC	C4B-C3B	2.90	1.48	1.43
3	X	601	HEC	C4B-C3B	2.90	1.48	1.43
3	Q	601	HEC	C4B-C3B	2.89	1.48	1.43
3	B	602	HEC	C4B-C3B	2.89	1.48	1.43
3	X	603	HEC	C1D-ND	2.89	1.42	1.36
3	O	607	HEC	C4B-C3B	2.89	1.48	1.43
3	V	606	HEC	C4B-C3B	2.89	1.48	1.43
3	F	604	HEC	C4B-C3B	2.89	1.48	1.43
3	L	605	HEC	C4B-C3B	2.89	1.48	1.43
3	R	602	HEC	C4B-C3B	2.88	1.48	1.43
3	H	602	HEC	C4B-C3B	2.88	1.48	1.43
3	D	605	HEC	C4B-C3B	2.88	1.48	1.43
3	W	603	HEC	C1C-CHC	2.87	1.49	1.41
3	A	606	HEC	C4B-C3B	2.87	1.48	1.43
3	B	603	HEC	C1D-ND	2.87	1.42	1.36
3	S	601	HEC	C4B-C3B	2.86	1.48	1.43
3	C	606	HEC	C4B-C3B	2.86	1.48	1.43
3	F	602	HEC	C4B-C3B	2.85	1.48	1.43
3	D	604	HEC	C4B-C3B	2.85	1.48	1.43
3	Q	602	HEC	C4B-C3B	2.85	1.48	1.43
3	J	602	HEC	C4B-C3B	2.85	1.48	1.43
3	O	601	HEC	C4B-C3B	2.84	1.48	1.43
3	N	602	HEC	C4B-C3B	2.84	1.48	1.43
3	K	606	HEC	C4B-C3B	2.84	1.48	1.43
3	C	603	HEC	C4D-ND	2.84	1.42	1.36
3	N	601	HEC	C4B-C3B	2.83	1.48	1.43
3	R	606	HEC	C4B-C3B	2.83	1.48	1.43
3	P	604	HEC	C4B-C3B	2.83	1.48	1.43
3	X	602	HEC	C4B-C3B	2.82	1.48	1.43
3	P	605	HEC	C2B-C3B	-2.82	1.37	1.40
3	A	601	HEC	C4B-C3B	2.82	1.48	1.43
3	M	600	HEC	C4B-C3B	2.82	1.48	1.43
3	O	606	HEC	C4B-C3B	2.81	1.48	1.43
3	P	603	HEC	C1D-ND	2.81	1.42	1.36
3	I	602	HEC	C4B-C3B	2.81	1.48	1.43
3	X	606	HEC	C4B-C3B	2.81	1.48	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	E	603	HEC	C1C-CHC	2.80	1.48	1.41
3	L	600	HEC	C4B-C3B	2.80	1.48	1.43
3	L	603	HEC	C4D-ND	2.80	1.41	1.36
3	B	603	HEC	C1C-CHC	2.80	1.48	1.41
3	J	606	HEC	C4B-C3B	2.80	1.48	1.43
3	F	601	HEC	C4B-C3B	2.79	1.48	1.43
3	R	601	HEC	C4B-C3B	2.79	1.48	1.43
3	S	606	HEC	C4B-C3B	2.79	1.48	1.43
3	R	600	HEC	C4B-C3B	2.79	1.48	1.43
3	C	600	HEC	C4B-C3B	2.78	1.48	1.43
3	K	603	HEC	C1C-CHC	2.77	1.48	1.41
3	D	601	HEC	C4B-C3B	2.77	1.48	1.43
3	B	601	HEC	C4B-C3B	2.77	1.48	1.43
3	I	603	HEC	C1C-CHC	2.76	1.48	1.41
3	E	606	HEC	C4B-C3B	2.76	1.48	1.43
3	V	603	HEC	C1C-CHC	2.76	1.48	1.41
3	N	603	HEC	C1C-CHC	2.76	1.48	1.41
3	O	602	HEC	C4B-C3B	2.75	1.48	1.43
3	B	606	HEC	C4B-C3B	2.75	1.48	1.43
3	I	603	HEC	C1D-ND	2.74	1.41	1.36
3	I	606	HEC	C4B-C3B	2.74	1.48	1.43
3	O	603	HEC	C1C-CHC	2.74	1.48	1.41
3	L	606	HEC	C4B-C3B	2.73	1.48	1.43
3	P	601	HEC	C4B-C3B	2.73	1.48	1.43
3	L	603	HEC	C1C-CHC	2.72	1.48	1.41
3	U	603	HEC	C1C-CHC	2.71	1.48	1.41
3	E	602	HEC	C4B-C3B	2.71	1.48	1.43
3	M	601	HEC	C4B-C3B	2.71	1.48	1.43
3	A	603	HEC	C1C-CHC	2.69	1.48	1.41
3	C	603	HEC	C1D-ND	2.67	1.41	1.36
3	H	603	HEC	C1C-CHC	2.66	1.48	1.41
3	J	604	HEC	C4B-C3B	2.66	1.47	1.43
3	P	603	HEC	C1C-CHC	2.66	1.48	1.41
3	T	601	HEC	C4B-C3B	2.65	1.47	1.43
3	C	603	HEC	C1C-CHC	2.65	1.48	1.41
3	I	603	HEC	C3A-C4A	2.64	1.48	1.42
3	K	600	HEC	C4B-C3B	2.62	1.47	1.43
3	T	603	HEC	C3A-C4A	2.60	1.48	1.42
3	I	600	HEC	C2B-C3B	-2.59	1.38	1.40
3	C	601	HEC	C4B-C3B	2.58	1.47	1.43
3	L	603	HEC	C1D-ND	2.57	1.41	1.36
3	B	603	HEC	C3A-C4A	2.50	1.48	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	Q	603	HEC	C3A-C4A	2.50	1.48	1.42
3	L	603	HEC	C3A-C4A	2.50	1.48	1.42
3	E	603	HEC	C3A-C4A	2.49	1.48	1.42
3	A	603	HEC	C3A-C4A	2.47	1.48	1.42
3	P	603	HEC	C3A-C4A	2.47	1.48	1.42
3	D	606	HEC	C4B-C3B	2.47	1.47	1.43
3	N	603	HEC	C3A-C4A	2.46	1.48	1.42
3	W	603	HEC	C3A-C4A	2.45	1.48	1.42
3	U	603	HEC	C3A-C4A	2.45	1.48	1.42
3	R	603	HEC	C3A-C4A	2.43	1.48	1.42
3	F	603	HEC	C3A-C4A	2.42	1.48	1.42
3	S	603	HEC	C3A-C4A	2.42	1.48	1.42
3	F	606	HEC	C4B-C3B	2.41	1.47	1.43
3	V	603	HEC	C3A-C4A	2.41	1.48	1.42
3	J	603	HEC	C3A-C4A	2.40	1.48	1.42
3	C	603	HEC	C3A-C4A	2.39	1.48	1.42
3	H	603	HEC	C3A-C4A	2.38	1.48	1.42
3	X	603	HEC	C3A-C4A	2.36	1.47	1.42
3	K	603	HEC	C3A-C4A	2.34	1.47	1.42
3	D	603	HEC	C3A-C4A	2.33	1.47	1.42
3	H	603	HEC	CAD-C3D	-2.32	1.48	1.52
3	O	603	HEC	C3A-C4A	2.32	1.47	1.42
3	M	603	HEC	C3A-C4A	2.25	1.47	1.42
3	C	603	HEC	CAD-C3D	-2.22	1.48	1.52
3	T	603	HEC	C1B-NB	2.21	1.40	1.36
3	G	603	HEC	C3A-C4A	2.17	1.47	1.42
3	M	603	HEC	CAD-C3D	-2.15	1.48	1.52
3	C	603	HEC	C1B-NB	2.12	1.40	1.36
3	U	603	HEC	CAD-C3D	-2.12	1.48	1.52
3	D	604	HEC	C3C-C2C	-2.11	1.38	1.40
3	N	603	HEC	CAD-C3D	-2.09	1.49	1.52
3	F	603	HEC	CAD-C3D	-2.07	1.49	1.52
3	R	603	HEC	O1D-CGD	2.07	1.29	1.22
3	C	603	HEC	O1D-CGD	2.07	1.29	1.22
3	B	603	HEC	C1B-NB	2.06	1.40	1.36
3	S	603	HEC	CAD-C3D	-2.06	1.49	1.52
3	D	603	HEC	CAD-C3D	-2.04	1.49	1.52
3	M	603	HEC	O1D-CGD	2.04	1.28	1.22
3	Q	603	HEC	CAD-C3D	-2.03	1.49	1.52
3	O	603	HEC	CAD-C3D	-2.02	1.49	1.52
3	S	603	HEC	C1B-NB	2.02	1.40	1.36
3	Q	603	HEC	C1B-NB	2.01	1.40	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	V	603	HEC	CAD-C3D	-2.00	1.49	1.52

All (625) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	I	603	HEC	CBA-CAA-C2A	17.66	142.36	112.60
3	D	604	HEC	CBD-CAD-C3D	-5.86	102.61	112.62
3	I	604	HEC	CBD-CAD-C3D	-5.59	103.08	112.62
3	H	604	HEC	CBD-CAD-C3D	-5.41	103.39	112.62
3	K	604	HEC	CBD-CAD-C3D	-5.41	103.39	112.62
3	W	604	HEC	CBD-CAD-C3D	-5.34	103.51	112.62
3	N	604	HEC	CBD-CAD-C3D	-5.28	103.60	112.62
3	V	604	HEC	CBD-CAD-C3D	-5.28	103.61	112.62
3	T	604	HEC	CBD-CAD-C3D	-5.27	103.63	112.62
3	O	604	HEC	CBD-CAD-C3D	-5.25	103.65	112.62
3	A	604	HEC	CBD-CAD-C3D	-5.24	103.68	112.62
3	B	604	HEC	CBD-CAD-C3D	-5.24	103.69	112.62
3	L	604	HEC	CBD-CAD-C3D	-5.23	103.69	112.62
3	M	604	HEC	CBD-CAD-C3D	-5.21	103.72	112.62
3	E	604	HEC	CBD-CAD-C3D	-5.21	103.73	112.62
3	S	604	HEC	CBD-CAD-C3D	-5.20	103.74	112.62
3	P	604	HEC	CBD-CAD-C3D	-5.18	103.78	112.62
3	F	604	HEC	CBD-CAD-C3D	-5.16	103.81	112.62
3	J	604	HEC	CBD-CAD-C3D	-5.13	103.87	112.62
3	U	604	HEC	CBD-CAD-C3D	-5.13	103.87	112.62
3	Q	604	HEC	CBD-CAD-C3D	-5.02	104.05	112.62
3	G	604	HEC	CBD-CAD-C3D	-5.00	104.08	112.62
3	C	604	HEC	CBD-CAD-C3D	-5.00	104.08	112.62
3	X	604	HEC	CBD-CAD-C3D	-4.99	104.10	112.62
3	R	604	HEC	CBD-CAD-C3D	-4.94	104.20	112.62
3	F	603	HEC	CAA-CBA-CGA	4.78	127.17	113.76
3	A	603	HEC	CAA-CBA-CGA	4.76	127.09	113.76
3	E	603	HEC	CAA-CBA-CGA	4.73	127.03	113.76
3	L	603	HEC	CAA-CBA-CGA	4.66	126.82	113.76
3	M	603	HEC	CAA-CBA-CGA	4.63	126.75	113.76
3	D	603	HEC	CMC-C2C-C1C	-4.54	121.49	128.46
3	Q	603	HEC	CAA-CBA-CGA	4.53	126.45	113.76
3	X	603	HEC	CAA-CBA-CGA	4.50	126.36	113.76
3	P	603	HEC	CAA-CBA-CGA	4.49	126.33	113.76
3	U	603	HEC	CAA-CBA-CGA	4.41	126.13	113.76
3	J	603	HEC	CAA-CBA-CGA	4.37	126.02	113.76
3	T	603	HEC	CAA-CBA-CGA	4.33	125.90	113.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	S	603	HEC	CAA-CBA-CGA	4.32	125.87	113.76
3	T	603	HEC	C3B-C4B-NB	-4.31	102.80	110.94
3	G	604	HEC	CBA-CAA-C2A	-4.28	105.39	112.60
3	O	603	HEC	CAA-CBA-CGA	4.25	125.66	113.76
3	D	603	HEC	CAA-CBA-CGA	4.21	125.57	113.76
3	N	603	HEC	CAA-CBA-CGA	4.20	125.54	113.76
3	G	603	HEC	C3B-C4B-NB	-4.20	103.01	110.94
3	K	604	HEC	CBA-CAA-C2A	-4.20	105.52	112.60
3	V	603	HEC	CAA-CBA-CGA	4.20	125.53	113.76
3	E	604	HEC	CBA-CAA-C2A	-4.19	105.53	112.60
3	J	604	HEC	CBA-CAA-C2A	-4.19	105.55	112.60
3	W	603	HEC	CAA-CBA-CGA	4.18	125.47	113.76
3	O	604	HEC	CBA-CAA-C2A	-4.18	105.56	112.60
3	B	603	HEC	CAA-CBA-CGA	4.14	125.37	113.76
3	N	603	HEC	C3B-C4B-NB	-4.14	103.13	110.94
3	X	603	HEC	C3B-C4B-NB	-4.13	103.15	110.94
3	U	604	HEC	CBA-CAA-C2A	-4.08	105.73	112.60
3	D	605	HEC	CBD-CAD-C3D	4.07	119.57	112.62
3	S	603	HEC	C3B-C4B-NB	-4.07	103.25	110.94
3	Q	603	HEC	C3B-C4B-NB	-4.06	103.27	110.94
3	F	604	HEC	CBA-CAA-C2A	-4.06	105.77	112.60
3	J	603	HEC	C3B-C4B-NB	-4.06	103.28	110.94
3	H	603	HEC	C3B-C4B-NB	-4.06	103.29	110.94
3	V	604	HEC	CBA-CAA-C2A	-4.05	105.78	112.60
3	C	603	HEC	CAA-CBA-CGA	4.04	125.07	113.76
3	L	604	HEC	CBA-CAA-C2A	-4.03	105.81	112.60
3	Q	604	HEC	CBA-CAA-C2A	-4.02	105.83	112.60
3	N	604	HEC	CBA-CAA-C2A	-4.01	105.85	112.60
3	H	603	HEC	CAA-CBA-CGA	4.00	124.98	113.76
3	D	603	HEC	C3B-C4B-NB	-4.00	103.39	110.94
3	A	603	HEC	C3B-C4B-NB	-3.99	103.40	110.94
3	E	603	HEC	C3B-C4B-NB	-3.98	103.42	110.94
3	F	603	HEC	C3B-C4B-NB	-3.96	103.46	110.94
3	T	604	HEC	CBA-CAA-C2A	-3.96	105.93	112.60
3	K	603	HEC	C3B-C4B-NB	-3.96	103.47	110.94
3	S	604	HEC	CBA-CAA-C2A	-3.95	105.94	112.60
3	I	603	HEC	CMC-C2C-C1C	-3.95	122.39	128.46
3	W	603	HEC	C3B-C4B-NB	-3.95	103.48	110.94
3	M	604	HEC	CBA-CAA-C2A	-3.95	105.95	112.60
3	O	603	HEC	C3B-C4B-NB	-3.94	103.50	110.94
3	H	604	HEC	CBA-CAA-C2A	-3.94	105.97	112.60
3	K	601	HEC	CBD-CAD-C3D	-3.92	105.93	112.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	V	603	HEC	C3B-C4B-NB	-3.91	103.56	110.94
3	G	603	HEC	CAA-CBA-CGA	3.90	124.68	113.76
3	C	604	HEC	CBA-CAA-C2A	-3.90	106.04	112.60
3	M	603	HEC	C3B-C4B-NB	-3.89	103.61	110.94
3	R	603	HEC	C3B-C4B-NB	-3.88	103.61	110.94
3	U	601	HEC	CBD-CAD-C3D	-3.88	106.00	112.62
3	A	601	HEC	CBD-CAD-C3D	-3.87	106.01	112.62
3	P	603	HEC	C3B-C4B-NB	-3.87	103.64	110.94
3	B	601	HEC	CBD-CAD-C3D	-3.85	106.05	112.62
3	P	601	HEC	CBD-CAD-C3D	-3.84	106.07	112.62
3	O	601	HEC	CBD-CAD-C3D	-3.83	106.08	112.62
3	B	603	HEC	C3B-C4B-NB	-3.82	103.73	110.94
3	K	603	HEC	CAA-CBA-CGA	3.82	124.46	113.76
3	R	601	HEC	CBD-CAD-C3D	-3.81	106.11	112.62
3	C	601	HEC	CBD-CAD-C3D	-3.81	106.12	112.62
3	W	604	HEC	CBA-CAA-C2A	-3.80	106.19	112.60
3	S	601	HEC	CBD-CAD-C3D	-3.80	106.13	112.62
3	R	604	HEC	CBA-CAA-C2A	-3.80	106.20	112.60
3	X	604	HEC	CBA-CAA-C2A	-3.79	106.22	112.60
3	T	601	HEC	CBD-CAD-C3D	-3.78	106.16	112.62
3	W	601	HEC	CBD-CAD-C3D	-3.78	106.16	112.62
3	H	601	HEC	CBD-CAD-C3D	-3.78	106.18	112.62
3	J	605	HEC	CBD-CAD-C3D	3.76	119.04	112.62
3	L	601	HEC	CBD-CAD-C3D	-3.76	106.21	112.62
3	U	603	HEC	C3B-C4B-NB	-3.75	103.86	110.94
3	F	603	HEC	CMC-C2C-C1C	-3.75	122.71	128.46
3	Q	603	HEC	CMC-C2C-C1C	-3.74	122.71	128.46
3	B	604	HEC	CBA-CAA-C2A	-3.74	106.31	112.60
3	G	601	HEC	CBD-CAD-C3D	-3.72	106.27	112.62
3	A	604	HEC	CBA-CAA-C2A	-3.72	106.34	112.60
3	R	603	HEC	CAA-CBA-CGA	3.67	124.05	113.76
3	C	603	HEC	C3B-C4B-NB	-3.67	104.01	110.94
3	E	601	HEC	CBD-CAD-C3D	-3.67	106.36	112.62
3	P	604	HEC	CBA-CAA-C2A	-3.67	106.43	112.60
3	J	601	HEC	CBD-CAD-C3D	-3.66	106.37	112.62
3	A	606	HEC	CBA-CAA-C2A	-3.65	106.45	112.60
3	K	603	HEC	CMC-C2C-C1C	-3.65	122.85	128.46
3	A	603	HEC	CMC-C2C-C1C	-3.64	122.87	128.46
3	O	603	HEC	CMC-C2C-C1C	-3.62	122.89	128.46
3	Q	601	HEC	CBD-CAD-C3D	-3.61	106.47	112.62
3	L	603	HEC	C3B-C4B-NB	-3.60	104.14	110.94
3	U	603	HEC	CMC-C2C-C1C	-3.59	122.95	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	F	601	HEC	CBD-CAD-C3D	-3.58	106.50	112.62
3	N	601	HEC	CBD-CAD-C3D	-3.58	106.51	112.62
3	K	606	HEC	CBA-CAA-C2A	-3.58	106.58	112.60
3	P	603	HEC	CMC-C2C-C1C	-3.58	122.97	128.46
3	V	601	HEC	CBD-CAD-C3D	-3.57	106.52	112.62
3	X	601	HEC	CBD-CAD-C3D	-3.57	106.53	112.62
3	X	603	HEC	CMC-C2C-C1C	-3.56	123.00	128.46
3	T	603	HEC	CMC-C2C-C1C	-3.55	123.00	128.46
3	H	603	HEC	CMC-C2C-C1C	-3.55	123.01	128.46
3	M	603	HEC	CMC-C2C-C1C	-3.54	123.03	128.46
3	I	603	HEC	C3B-C4B-NB	-3.53	104.28	110.94
3	W	603	HEC	CMC-C2C-C1C	-3.50	123.08	128.46
3	A	605	HEC	CBD-CAD-C3D	3.49	118.57	112.62
3	L	606	HEC	CBA-CAA-C2A	-3.49	106.73	112.60
3	T	605	HEC	CBD-CAD-C3D	3.48	118.56	112.62
3	K	605	HEC	CBD-CAD-C3D	3.47	118.55	112.62
3	J	603	HEC	CMC-C2C-C1C	-3.47	123.13	128.46
3	V	603	HEC	CMC-C2C-C1C	-3.46	123.14	128.46
3	G	605	HEC	CBD-CAD-C3D	3.45	118.51	112.62
3	M	601	HEC	CBD-CAD-C3D	-3.45	106.73	112.62
3	S	603	HEC	CMC-C2C-C1C	-3.45	123.17	128.46
3	F	605	HEC	CBD-CAD-C3D	3.45	118.50	112.62
3	S	605	HEC	CBD-CAD-C3D	3.44	118.48	112.62
3	E	603	HEC	CMC-C2C-C1C	-3.43	123.19	128.46
3	B	603	HEC	CMC-C2C-C1C	-3.43	123.19	128.46
3	B	606	HEC	CBA-CAA-C2A	-3.42	106.84	112.60
3	L	603	HEC	CMC-C2C-C1C	-3.41	123.22	128.46
3	W	605	HEC	CBD-CAD-C3D	3.40	118.42	112.62
3	C	603	HEC	CMC-C2C-C1C	-3.39	123.25	128.46
3	N	603	HEC	CMC-C2C-C1C	-3.39	123.25	128.46
3	R	606	HEC	CBA-CAA-C2A	-3.38	106.91	112.60
3	N	605	HEC	CBD-CAD-C3D	3.38	118.39	112.62
3	H	606	HEC	CBA-CAA-C2A	-3.38	106.92	112.60
3	P	606	HEC	CBA-CAA-C2A	-3.37	106.92	112.60
3	R	603	HEC	CMC-C2C-C1C	-3.36	123.30	128.46
3	X	606	HEC	CBA-CAA-C2A	-3.35	106.96	112.60
3	C	605	HEC	CBD-CAD-C3D	3.33	118.31	112.62
3	D	603	HEC	C3C-C4C-NC	-3.33	104.66	110.94
3	G	606	HEC	CBA-CAA-C2A	-3.31	107.02	112.60
3	O	606	HEC	CBA-CAA-C2A	-3.30	107.04	112.60
3	I	601	HEC	CBD-CAD-C3D	-3.30	107.00	112.62
3	U	605	HEC	CBD-CAD-C3D	3.29	118.23	112.62

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	O	605	HEC	CBD-CAD-C3D	3.29	118.23	112.62
3	F	603	HEC	CBA-CAA-C2A	-3.27	107.09	112.60
3	J	606	HEC	CBA-CAA-C2A	-3.27	107.09	112.60
3	H	605	HEC	CBD-CAD-C3D	3.27	118.20	112.62
3	G	603	HEC	CMC-C2C-C1C	-3.27	123.44	128.46
3	I	606	HEC	CBA-CAA-C2A	-3.26	107.11	112.60
3	T	606	HEC	CBA-CAA-C2A	-3.26	107.11	112.60
3	N	606	HEC	CBA-CAA-C2A	-3.22	107.18	112.60
3	P	605	HEC	CBD-CAD-C3D	3.21	118.11	112.62
3	V	606	HEC	CBA-CAA-C2A	-3.21	107.19	112.60
3	S	606	HEC	CBA-CAA-C2A	-3.20	107.21	112.60
3	E	606	HEC	CBA-CAA-C2A	-3.19	107.22	112.60
3	C	606	HEC	CBA-CAA-C2A	-3.19	107.23	112.60
3	X	603	HEC	C2B-C3B-C4B	3.18	109.79	106.35
3	E	605	HEC	CBD-CAD-C3D	3.18	118.05	112.62
3	M	606	HEC	CBA-CAA-C2A	-3.18	107.24	112.60
3	Q	606	HEC	CBA-CAA-C2A	-3.17	107.27	112.60
3	M	605	HEC	CBD-CAD-C3D	3.16	118.02	112.62
3	T	603	HEC	C3C-C4C-NC	-3.16	104.97	110.94
3	N	602	HEC	CBA-CAA-C2A	-3.16	107.28	112.60
3	V	605	HEC	CBD-CAD-C3D	3.14	117.97	112.62
3	X	605	HEC	CBD-CAD-C3D	3.14	117.97	112.62
3	T	603	HEC	C2B-C3B-C4B	3.13	109.73	106.35
3	Q	605	HEC	CBD-CAD-C3D	3.12	117.94	112.62
3	V	603	HEC	C2B-C3B-C4B	3.11	109.71	106.35
3	N	603	HEC	C2B-C3B-C4B	3.10	109.70	106.35
3	W	606	HEC	CBA-CAA-C2A	-3.10	107.38	112.60
3	U	606	HEC	CBA-CAA-C2A	-3.09	107.39	112.60
3	S	603	HEC	C3C-C4C-NC	-3.09	105.11	110.94
3	F	606	HEC	CBA-CAA-C2A	-3.09	107.40	112.60
3	D	606	HEC	CBA-CAA-C2A	-3.09	107.40	112.60
3	J	603	HEC	C3C-C4C-NC	-3.07	105.15	110.94
3	B	603	HEC	C3C-C4C-NC	-3.06	105.16	110.94
3	H	603	HEC	C2B-C3B-C4B	3.06	109.66	106.35
3	I	605	HEC	CBD-CAD-C3D	3.05	117.83	112.62
3	C	603	HEC	C3C-C4C-NC	-3.05	105.19	110.94
3	G	603	HEC	C2B-C3B-C4B	3.05	109.64	106.35
3	L	605	HEC	CBD-CAD-C3D	3.04	117.80	112.62
3	A	603	HEC	CMB-C2B-C1B	-3.03	123.81	128.46
3	N	603	HEC	CMB-C2B-C1B	-3.02	123.82	128.46
3	Q	603	HEC	C3C-C4C-NC	-3.01	105.26	110.94
3	R	603	HEC	C3C-C4C-NC	-3.01	105.26	110.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	R	605	HEC	CBD-CAD-C3D	3.00	117.74	112.62
3	S	603	HEC	C2B-C3B-C4B	2.99	109.58	106.35
3	V	603	HEC	C3C-C4C-NC	-2.99	105.30	110.94
3	P	603	HEC	CMB-C2B-C1B	-2.99	123.87	128.46
3	I	603	HEC	CMB-C2B-C1B	-2.97	123.89	128.46
3	O	603	HEC	C3C-C4C-NC	-2.97	105.33	110.94
3	B	605	HEC	CBD-CAD-C3D	2.96	117.67	112.62
3	P	603	HEC	C3C-C4C-NC	-2.96	105.36	110.94
3	N	603	HEC	C3C-C4C-NC	-2.95	105.37	110.94
3	B	603	HEC	CMB-C2B-C1B	-2.95	123.94	128.46
3	U	603	HEC	C3C-C4C-NC	-2.94	105.39	110.94
3	D	601	HEC	CBD-CAD-C3D	-2.94	107.60	112.62
3	E	603	HEC	C2B-C3B-C4B	2.94	109.53	106.35
3	H	603	HEC	C3C-C4C-NC	-2.92	105.42	110.94
3	L	603	HEC	C3C-C4C-NC	-2.92	105.42	110.94
3	D	603	HEC	CBA-CAA-C2A	-2.92	107.68	112.60
3	E	603	HEC	C3C-C4C-NC	-2.92	105.44	110.94
3	Q	603	HEC	C2B-C3B-C4B	2.91	109.49	106.35
3	K	603	HEC	C3C-C4C-NC	-2.90	105.46	110.94
3	T	603	HEC	CMB-C2B-C1B	-2.90	124.01	128.46
3	W	603	HEC	CMB-C2B-C1B	-2.89	124.02	128.46
3	F	603	HEC	C3C-C4C-NC	-2.88	105.50	110.94
3	A	603	HEC	C3C-C4C-NC	-2.88	105.51	110.94
3	B	603	HEC	C2B-C3B-C4B	2.88	109.46	106.35
3	O	603	HEC	CMB-C2B-C1B	-2.87	124.05	128.46
3	F	603	HEC	C2B-C3B-C4B	2.87	109.45	106.35
3	U	603	HEC	CMB-C2B-C1B	-2.87	124.06	128.46
3	J	603	HEC	CMB-C2B-C1B	-2.87	124.06	128.46
3	C	603	HEC	C2B-C3B-C4B	2.86	109.44	106.35
3	G	603	HEC	C3C-C4C-NC	-2.86	105.54	110.94
3	F	603	HEC	CMB-C2B-C1B	-2.86	124.07	128.46
3	X	603	HEC	C3C-C4C-NC	-2.86	105.55	110.94
3	M	603	HEC	C3C-C4C-NC	-2.82	105.61	110.94
3	H	603	HEC	CMB-C2B-C1B	-2.82	124.13	128.46
3	D	603	HEC	CMB-C2B-C1B	-2.82	124.13	128.46
3	P	602	HEC	CBA-CAA-C2A	-2.82	107.86	112.60
3	B	602	HEC	CBA-CAA-C2A	-2.82	107.86	112.60
3	S	603	HEC	CMB-C2B-C1B	-2.81	124.14	128.46
3	K	603	HEC	C2B-C3B-C4B	2.81	109.39	106.35
3	I	603	HEC	C3C-C4C-NC	-2.80	105.65	110.94
3	L	603	HEC	CMB-C2B-C1B	-2.80	124.16	128.46
3	K	603	HEC	CMB-C2B-C1B	-2.77	124.20	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Q	603	HEC	CMB-C2B-C1B	-2.77	124.20	128.46
3	I	604	HEC	CBA-CAA-C2A	-2.77	107.93	112.60
3	O	603	HEC	CBA-CAA-C2A	-2.77	107.94	112.60
3	U	603	HEC	CBA-CAA-C2A	-2.76	107.95	112.60
3	H	605	HEC	CMD-C2D-C1D	-2.76	124.22	128.46
3	E	603	HEC	CMB-C2B-C1B	-2.76	124.22	128.46
3	S	602	HEC	CBA-CAA-C2A	-2.75	107.97	112.60
3	W	602	HEC	CBA-CAA-C2A	-2.75	107.97	112.60
3	R	603	HEC	C2B-C3B-C4B	2.74	109.31	106.35
3	X	602	HEC	CBA-CAA-C2A	-2.74	107.99	112.60
3	C	603	HEC	CMB-C2B-C1B	-2.74	124.25	128.46
3	H	602	HEC	CBA-CAA-C2A	-2.73	108.00	112.60
3	W	603	HEC	C2B-C3B-C4B	2.73	109.30	106.35
3	T	602	HEC	CBA-CAA-C2A	-2.72	108.02	112.60
3	K	602	HEC	CBA-CAA-C2A	-2.72	108.02	112.60
3	D	601	HEC	O2D-CGD-CBD	2.72	122.77	114.03
3	D	603	HEC	CAA-C2A-C3A	-2.72	119.43	127.25
3	W	603	HEC	C3C-C4C-NC	-2.72	105.81	110.94
3	X	603	HEC	CMB-C2B-C1B	-2.71	124.30	128.46
3	J	602	HEC	CBA-CAA-C2A	-2.71	108.04	112.60
3	A	603	HEC	C2B-C3B-C4B	2.71	109.27	106.35
3	O	602	HEC	CBA-CAA-C2A	-2.68	108.08	112.60
3	J	603	HEC	C2B-C3B-C4B	2.67	109.23	106.35
3	Q	603	HEC	CBA-CAA-C2A	-2.67	108.11	112.60
3	D	603	HEC	C2B-C3B-C4B	2.66	109.23	106.35
3	L	602	HEC	CBA-CAA-C2A	-2.65	108.13	112.60
3	P	603	HEC	C2B-C3B-C4B	2.65	109.21	106.35
3	V	603	HEC	CMB-C2B-C1B	-2.64	124.40	128.46
3	A	602	HEC	CBA-CAA-C2A	-2.64	108.15	112.60
3	L	603	HEC	CBA-CAA-C2A	-2.62	108.19	112.60
3	L	603	HEC	C2B-C3B-C4B	2.62	109.18	106.35
3	M	603	HEC	C2B-C3B-C4B	2.62	109.18	106.35
3	U	603	HEC	C2B-C3B-C4B	2.62	109.18	106.35
3	G	603	HEC	CMB-C2B-C1B	-2.61	124.44	128.46
3	R	603	HEC	CMB-C2B-C1B	-2.61	124.45	128.46
3	M	601	HEC	O2D-CGD-CBD	2.59	122.34	114.03
3	O	603	HEC	C2B-C3B-C4B	2.58	109.13	106.35
3	M	603	HEC	CMB-C2B-C1B	-2.57	124.51	128.46
3	C	602	HEC	CBA-CAA-C2A	-2.56	108.29	112.60
3	V	602	HEC	CBA-CAA-C2A	-2.56	108.29	112.60
3	O	603	HEC	CMC-C2C-C3C	2.55	128.82	125.82
3	U	602	HEC	CBA-CAA-C2A	-2.55	108.31	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	E	602	HEC	CBA-CAA-C2A	-2.55	108.31	112.60
3	P	601	HEC	O2D-CGD-CBD	2.54	122.20	114.03
3	I	601	HEC	O2D-CGD-CBD	2.54	122.19	114.03
3	Q	602	HEC	CBA-CAA-C2A	-2.54	108.32	112.60
3	V	601	HEC	O2D-CGD-CBD	2.54	122.18	114.03
3	G	601	HEC	O2D-CGD-CBD	2.53	122.17	114.03
3	R	602	HEC	CBA-CAA-C2A	-2.53	108.34	112.60
3	N	601	HEC	O2D-CGD-CBD	2.53	122.16	114.03
3	V	605	HEC	CMD-C2D-C1D	-2.52	124.59	128.46
3	Q	601	HEC	O2D-CGD-CBD	2.51	122.08	114.03
3	X	601	HEC	O2D-CGD-CBD	2.50	122.07	114.03
3	P	605	HEC	CMD-C2D-C1D	-2.50	124.63	128.46
3	O	605	HEC	CMD-C2D-C1D	-2.49	124.63	128.46
3	A	603	HEC	CBA-CAA-C2A	-2.49	108.41	112.60
3	V	603	HEC	CBA-CAA-C2A	-2.49	108.41	112.60
3	G	602	HEC	CBA-CAA-C2A	-2.48	108.42	112.60
3	L	605	HEC	CMD-C2D-C1D	-2.48	124.66	128.46
3	F	601	HEC	O2D-CGD-CBD	2.47	121.97	114.03
3	K	601	HEC	O2D-CGD-CBD	2.47	121.97	114.03
3	F	602	HEC	CBA-CAA-C2A	-2.47	108.45	112.60
3	A	605	HEC	CMD-C2D-C1D	-2.46	124.69	128.46
3	I	602	HEC	CAD-CBD-CGD	-2.44	106.91	113.76
3	S	601	HEC	O2D-CGD-CBD	2.43	121.85	114.03
3	B	601	HEC	O2D-CGD-CBD	2.43	121.85	114.03
3	X	605	HEC	CMD-C2D-C1D	-2.42	124.74	128.46
3	W	606	HEC	O2A-CGA-CBA	2.42	121.81	114.03
3	B	602	HEC	CAD-CBD-CGD	-2.41	106.99	113.76
3	H	601	HEC	O2D-CGD-CBD	2.41	121.76	114.03
3	K	605	HEC	CMD-C2D-C1D	-2.40	124.77	128.46
3	R	605	HEC	O2A-CGA-CBA	2.40	121.75	114.03
3	Q	603	HEC	CMC-C2C-C3C	2.39	128.63	125.82
3	C	603	HEC	CBA-CAA-C2A	-2.39	108.58	112.60
3	U	601	HEC	O2D-CGD-CBD	2.39	121.70	114.03
3	A	601	HEC	O2D-CGD-CBD	2.38	121.68	114.03
3	C	601	HEC	O2D-CGD-CBD	2.38	121.66	114.03
3	R	606	HEC	O2A-CGA-CBA	2.37	121.66	114.03
3	D	605	HEC	CMD-C2D-C1D	-2.37	124.82	128.46
3	P	605	HEC	O2A-CGA-CBA	2.37	121.64	114.03
3	D	601	HEC	O2A-CGA-CBA	2.37	121.63	114.03
3	N	602	HEC	CAD-CBD-CGD	-2.36	107.13	113.76
3	U	605	HEC	O2A-CGA-CBA	2.36	121.62	114.03
3	I	605	HEC	CMD-C2D-C1D	-2.36	124.84	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	Q	605	HEC	CMD-C2D-C1D	-2.35	124.85	128.46
3	L	601	HEC	O2D-CGD-CBD	2.35	121.57	114.03
3	O	605	HEC	O2D-CGD-CBD	2.34	121.56	114.03
3	A	602	HEC	CAD-CBD-CGD	-2.34	107.19	113.76
3	C	605	HEC	CMD-C2D-C1D	-2.34	124.86	128.46
3	O	601	HEC	O2D-CGD-CBD	2.34	121.56	114.03
3	M	602	HEC	CBA-CAA-C2A	-2.34	108.66	112.60
3	O	600	HEC	O2A-CGA-CBA	2.34	121.55	114.03
3	G	605	HEC	O2A-CGA-CBA	2.34	121.54	114.03
3	U	602	HEC	CAD-CBD-CGD	-2.34	107.21	113.76
3	D	604	HEC	CBA-CAA-C2A	-2.34	108.67	112.60
3	I	605	HEC	CMD-C2D-C3D	2.33	129.34	124.94
3	M	606	HEC	O2A-CGA-CBA	2.33	121.52	114.03
3	Q	606	HEC	O2A-CGA-CBA	2.33	121.50	114.03
3	Q	605	HEC	O2A-CGA-CBA	2.32	121.50	114.03
3	E	606	HEC	O2A-CGA-CBA	2.32	121.49	114.03
3	G	603	HEC	CMA-C3A-C2A	2.32	129.31	124.94
3	R	605	HEC	O2D-CGD-CBD	2.31	121.45	114.03
3	T	601	HEC	O2D-CGD-CBD	2.31	121.45	114.03
3	F	605	HEC	O2A-CGA-CBA	2.31	121.44	114.03
3	L	603	HEC	CMA-C3A-C2A	2.30	129.28	124.94
3	J	602	HEC	CAD-CBD-CGD	-2.30	107.31	113.76
3	D	605	HEC	CAD-CBD-CGD	-2.30	107.31	113.76
3	U	605	HEC	CMD-C2D-C1D	-2.30	124.93	128.46
3	T	603	HEC	CBA-CAA-C2A	-2.29	108.74	112.60
3	O	602	HEC	CAD-CBD-CGD	-2.29	107.34	113.76
3	W	601	HEC	O2D-CGD-CBD	2.29	121.39	114.03
3	I	605	HEC	O2A-CGA-CBA	2.29	121.38	114.03
3	B	605	HEC	O2A-CGA-CBA	2.28	121.37	114.03
3	O	607	HEC	O2D-CGD-O1D	-2.28	117.61	123.30
3	O	606	HEC	O2A-CGA-CBA	2.28	121.36	114.03
3	T	606	HEC	O2A-CGA-CBA	2.28	121.36	114.03
3	V	602	HEC	O2A-CGA-CBA	2.28	121.36	114.03
3	T	605	HEC	CMD-C2D-C1D	-2.28	124.96	128.46
3	D	602	HEC	CMC-C2C-C1C	-2.27	124.97	128.46
3	X	607	HEC	CBD-CAD-C3D	-2.27	108.74	112.62
3	K	601	HEC	O2A-CGA-CBA	2.27	121.33	114.03
3	V	601	HEC	O2A-CGA-CBA	2.27	121.33	114.03
3	W	602	HEC	O2A-CGA-CBA	2.27	121.33	114.03
3	U	606	HEC	O2A-CGA-CBA	2.27	121.31	114.03
3	E	601	HEC	O2D-CGD-CBD	2.26	121.30	114.03
3	M	602	HEC	CAD-CBD-CGD	-2.26	107.42	113.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	P	603	HEC	O1A-CGA-CBA	-2.26	115.82	123.08
3	F	605	HEC	CMD-C2D-C1D	-2.26	125.00	128.46
3	L	602	HEC	CAD-CBD-CGD	-2.26	107.43	113.76
3	W	605	HEC	CMD-C2D-C1D	-2.25	125.00	128.46
3	D	605	HEC	CMD-C2D-C3D	2.25	129.19	124.94
3	D	603	HEC	CMA-C3A-C2A	2.25	129.18	124.94
3	F	606	HEC	O2A-CGA-CBA	2.25	121.25	114.03
3	H	603	HEC	CMA-C3A-C2A	2.25	129.18	124.94
3	J	607	HEC	O2D-CGD-O1D	-2.24	117.70	123.30
3	X	605	HEC	O2A-CGA-CBA	2.24	121.23	114.03
3	L	603	HEC	CMC-C2C-C3C	2.24	128.45	125.82
3	I	600	HEC	CMB-C2B-C3B	2.24	128.45	125.82
3	R	601	HEC	O2D-CGD-CBD	2.23	121.21	114.03
3	W	605	HEC	O2A-CGA-CBA	2.23	121.20	114.03
3	M	602	HEC	O2A-CGA-CBA	2.23	121.20	114.03
3	U	602	HEC	O2A-CGA-CBA	2.23	121.20	114.03
3	C	603	HEC	CMC-C2C-C3C	2.23	128.44	125.82
3	H	605	HEC	O2A-CGA-CBA	2.23	121.20	114.03
3	H	605	HEC	O2D-CGD-CBD	2.23	121.19	114.03
3	B	606	HEC	O2A-CGA-CBA	2.23	121.19	114.03
3	J	601	HEC	O2D-CGD-CBD	2.23	121.19	114.03
3	J	600	HEC	O2A-CGA-CBA	2.22	121.17	114.03
3	H	605	HEC	O2D-CGD-O1D	-2.22	117.76	123.30
3	P	603	HEC	CMA-C3A-C2A	2.22	129.13	124.94
3	K	605	HEC	O2D-CGD-CBD	2.22	121.17	114.03
3	K	605	HEC	O2A-CGA-CBA	2.22	121.16	114.03
3	S	603	HEC	O1A-CGA-CBA	-2.22	115.96	123.08
3	O	605	HEC	CMD-C2D-C3D	2.22	129.12	124.94
3	S	605	HEC	O2A-CGA-CBA	2.21	121.14	114.03
3	P	605	HEC	CMD-C2D-C3D	2.21	129.11	124.94
3	E	602	HEC	CAD-CBD-CGD	-2.21	107.56	113.76
3	S	606	HEC	O2A-CGA-CBA	2.21	121.13	114.03
3	P	602	HEC	CAD-CBD-CGD	-2.21	107.57	113.76
3	L	606	HEC	O2A-CGA-CBA	2.21	121.13	114.03
3	F	602	HEC	CAD-CBD-CGD	-2.20	107.58	113.76
3	J	606	HEC	O2A-CGA-CBA	2.20	121.11	114.03
3	S	605	HEC	CMD-C2D-C1D	-2.20	125.08	128.46
3	Q	602	HEC	O2A-CGA-CBA	2.20	121.10	114.03
3	A	600	HEC	CAD-CBD-CGD	-2.20	107.59	113.76
3	C	606	HEC	O2A-CGA-CBA	2.19	121.08	114.03
3	N	603	HEC	O1A-CGA-CBA	-2.19	116.03	123.08
3	I	602	HEC	CMB-C2B-C1B	-2.19	125.09	128.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	X	602	HEC	CAD-CBD-CGD	-2.19	107.61	113.76
3	I	600	HEC	CMB-C2B-C1B	-2.19	125.10	128.46
3	X	602	HEC	O2A-CGA-CBA	2.19	121.06	114.03
3	G	606	HEC	O2D-CGD-CBD	2.19	121.06	114.03
3	J	605	HEC	O2A-CGA-CBA	2.19	121.05	114.03
3	K	602	HEC	CAD-CBD-CGD	-2.19	107.63	113.76
3	G	606	HEC	O2A-CGA-CBA	2.19	121.05	114.03
3	U	600	HEC	O2A-CGA-CBA	2.19	121.05	114.03
3	H	605	HEC	CMD-C2D-C3D	2.19	129.06	124.94
3	I	603	HEC	O1D-CGD-CBD	-2.18	116.07	123.08
3	B	602	HEC	O2A-CGA-CBA	2.18	121.04	114.03
3	C	602	HEC	CAD-CBD-CGD	-2.18	107.64	113.76
3	W	603	HEC	O1A-CGA-CBA	-2.18	116.08	123.08
3	V	605	HEC	O2A-CGA-CBA	2.18	121.03	114.03
3	N	605	HEC	CMD-C2D-C1D	-2.18	125.11	128.46
3	I	602	HEC	CAA-CBA-CGA	-2.18	107.65	113.76
3	X	603	HEC	CBA-CAA-C2A	-2.18	108.93	112.60
3	U	603	HEC	CMC-C2C-C3C	2.18	128.38	125.82
3	I	600	HEC	O2A-CGA-O1A	-2.17	117.88	123.30
3	B	603	HEC	CMA-C3A-C2A	2.17	129.04	124.94
3	P	606	HEC	C3B-C4B-NB	-2.17	106.84	110.94
3	S	603	HEC	CBA-CAA-C2A	-2.17	108.95	112.60
3	C	606	HEC	C3B-C4B-NB	-2.17	106.85	110.94
3	Q	603	HEC	CMA-C3A-C2A	2.17	129.03	124.94
3	X	605	HEC	CMD-C2D-C3D	2.17	129.03	124.94
3	K	606	HEC	O2A-CGA-CBA	2.17	120.99	114.03
3	A	603	HEC	CMC-C2C-C3C	2.16	128.36	125.82
3	I	606	HEC	O2A-CGA-CBA	2.16	120.98	114.03
3	K	603	HEC	O1A-CGA-CBA	-2.16	116.14	123.08
3	N	606	HEC	O2A-CGA-CBA	2.16	120.97	114.03
3	N	600	HEC	O2A-CGA-CBA	2.16	120.97	114.03
3	Q	602	HEC	CAD-CBD-CGD	-2.16	107.71	113.76
3	B	603	HEC	CBA-CAA-C2A	-2.16	108.97	112.60
3	R	605	HEC	CMD-C2D-C1D	-2.16	125.15	128.46
3	G	602	HEC	CAD-CBD-CGD	-2.16	107.71	113.76
3	T	602	HEC	CAD-CBD-CGD	-2.16	107.72	113.76
3	V	603	HEC	CMC-C2C-C3C	2.15	128.35	125.82
3	F	602	HEC	O2A-CGA-CBA	2.15	120.94	114.03
3	K	607	HEC	O2D-CGD-O1D	-2.15	117.94	123.30
3	R	603	HEC	CBA-CAA-C2A	-2.15	108.98	112.60
3	Q	601	HEC	O2A-CGA-CBA	2.15	120.93	114.03
3	R	605	HEC	O2A-CGA-O1A	-2.14	117.96	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	W	607	HEC	CBD-CAD-C3D	-2.14	108.97	112.62
3	C	603	HEC	O1A-CGA-CBA	-2.14	116.20	123.08
3	P	603	HEC	O2A-CGA-CBA	2.14	120.91	114.03
3	V	602	HEC	CAD-CBD-CGD	-2.14	107.76	113.76
3	C	605	HEC	CMD-C2D-C3D	2.14	128.98	124.94
3	R	602	HEC	CAD-CBD-CGD	-2.14	107.76	113.76
3	K	605	HEC	CMD-C2D-C3D	2.14	128.97	124.94
3	R	603	HEC	O1A-CGA-CBA	-2.14	116.22	123.08
3	J	603	HEC	CMA-C3A-C2A	2.13	128.97	124.94
3	L	605	HEC	CMB-C2B-C1B	-2.13	125.19	128.46
3	T	605	HEC	CMC-C2C-C1C	-2.13	125.19	128.46
3	G	607	HEC	O2D-CGD-O1D	-2.13	117.99	123.30
3	E	605	HEC	O2A-CGA-CBA	2.13	120.87	114.03
3	R	606	HEC	O2D-CGD-CBD	2.13	120.87	114.03
3	I	601	HEC	O2A-CGA-CBA	2.13	120.87	114.03
3	D	600	HEC	CBD-CAD-C3D	2.13	116.25	112.62
3	T	601	HEC	O2A-CGA-CBA	2.13	120.86	114.03
3	H	602	HEC	O2A-CGA-CBA	2.12	120.86	114.03
3	K	600	HEC	O2A-CGA-CBA	2.12	120.86	114.03
3	N	603	HEC	CBA-CAA-C2A	-2.12	109.02	112.60
3	A	605	HEC	O2D-CGD-CBD	2.12	120.84	114.03
3	H	601	HEC	O2A-CGA-CBA	2.12	120.84	114.03
3	U	605	HEC	CMD-C2D-C3D	2.12	128.94	124.94
3	P	603	HEC	CMC-C2C-C3C	2.12	128.31	125.82
3	A	603	HEC	O2A-CGA-CBA	2.12	120.84	114.03
3	N	605	HEC	O2A-CGA-CBA	2.12	120.83	114.03
3	T	600	HEC	O2A-CGA-CBA	2.12	120.83	114.03
3	C	601	HEC	O2A-CGA-CBA	2.12	120.83	114.03
3	W	601	HEC	O2A-CGA-CBA	2.12	120.83	114.03
3	E	601	HEC	O2A-CGA-CBA	2.11	120.82	114.03
3	V	605	HEC	CMD-C2D-C3D	2.11	128.93	124.94
3	S	602	HEC	CAD-CBD-CGD	-2.11	107.83	113.76
3	D	606	HEC	O2A-CGA-CBA	2.11	120.82	114.03
3	I	600	HEC	O2A-CGA-CBA	2.11	120.81	114.03
3	A	605	HEC	O2A-CGA-CBA	2.11	120.80	114.03
3	I	605	HEC	O2D-CGD-CBD	2.11	120.80	114.03
3	B	607	HEC	CBD-CAD-C3D	-2.11	109.03	112.62
3	S	600	HEC	O2A-CGA-CBA	2.11	120.80	114.03
3	V	603	HEC	CMA-C3A-C2A	2.10	128.91	124.94
3	J	603	HEC	CMC-C2C-C3C	2.10	128.29	125.82
3	G	605	HEC	O2D-CGD-CBD	2.10	120.78	114.03
3	C	602	HEC	O2A-CGA-CBA	2.10	120.78	114.03

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	X	606	HEC	O2A-CGA-CBA	2.10	120.77	114.03
3	O	603	HEC	O1A-CGA-CBA	-2.10	116.34	123.08
3	D	602	HEC	CMB-C2B-C1B	-2.10	125.24	128.46
3	C	605	HEC	O2D-CGD-CBD	2.10	120.77	114.03
3	U	607	HEC	CBD-CAD-C3D	-2.10	109.04	112.62
3	T	602	HEC	O2A-CGA-CBA	2.10	120.76	114.03
3	E	606	HEC	CBD-CAD-C3D	-2.10	109.04	112.62
3	E	605	HEC	CMC-C2C-C1C	-2.09	125.24	128.46
3	F	601	HEC	O2A-CGA-CBA	2.09	120.76	114.03
3	R	602	HEC	O2A-CGA-CBA	2.09	120.75	114.03
3	I	603	HEC	O1A-CGA-CBA	-2.09	116.36	123.08
3	B	600	HEC	O2A-CGA-CBA	2.09	120.75	114.03
3	F	605	HEC	O2D-CGD-CBD	2.09	120.75	114.03
3	W	600	HEC	O2A-CGA-CBA	2.09	120.75	114.03
3	P	606	HEC	O2A-CGA-CBA	2.09	120.75	114.03
3	L	606	HEC	C3B-C4B-NB	-2.09	107.00	110.94
3	J	605	HEC	CMD-C2D-C1D	-2.09	125.25	128.46
3	S	607	HEC	O2D-CGD-O1D	-2.09	118.10	123.30
3	G	606	HEC	C3B-C4B-NB	-2.09	107.01	110.94
3	L	601	HEC	O2A-CGA-CBA	2.08	120.72	114.03
3	U	606	HEC	C3B-C4B-NB	-2.08	107.01	110.94
3	B	607	HEC	O2D-CGD-O1D	-2.08	118.11	123.30
3	P	607	HEC	CBD-CAD-C3D	-2.08	109.07	112.62
3	C	600	HEC	O2A-CGA-CBA	2.08	120.71	114.03
3	L	605	HEC	CMD-C2D-C3D	2.08	128.86	124.94
3	R	607	HEC	CBD-CAD-C3D	-2.08	109.07	112.62
3	D	602	HEC	O2A-CGA-CBA	2.08	120.71	114.03
3	V	606	HEC	O2A-CGA-CBA	2.08	120.70	114.03
3	O	605	HEC	O2A-CGA-CBA	2.08	120.70	114.03
3	D	607	HEC	O2D-CGD-CBD	2.08	120.70	114.03
3	C	605	HEC	O2A-CGA-CBA	2.07	120.69	114.03
3	M	605	HEC	CMD-C2D-C1D	-2.07	125.28	128.46
3	E	607	HEC	O2D-CGD-O1D	-2.07	118.14	123.30
3	A	605	HEC	CMD-C2D-C3D	2.07	128.84	124.94
3	S	602	HEC	O2A-CGA-CBA	2.07	120.67	114.03
3	P	605	HEC	O2D-CGD-CBD	2.07	120.67	114.03
3	A	600	HEC	O2A-CGA-CBA	2.07	120.67	114.03
3	E	605	HEC	O2D-CGD-CBD	2.07	120.67	114.03
3	S	601	HEC	O2A-CGA-CBA	2.07	120.67	114.03
3	H	603	HEC	CMC-C2C-C3C	2.06	128.25	125.82
3	M	606	HEC	C3B-C4B-NB	-2.06	107.05	110.94
3	H	602	HEC	CAD-CBD-CGD	-2.06	107.97	113.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	L	605	HEC	O2D-CGD-CBD	2.06	120.66	114.03
3	T	605	HEC	CMD-C2D-C3D	2.06	128.83	124.94
3	V	600	HEC	O2A-CGA-CBA	2.06	120.66	114.03
3	G	605	HEC	CMD-C2D-C1D	-2.06	125.30	128.46
3	R	600	HEC	O2D-CGD-CBD	2.06	120.65	114.03
3	Q	607	HEC	CMC-C2C-C1C	-2.06	125.30	128.46
3	I	606	HEC	C3B-C4B-NB	-2.06	107.06	110.94
3	K	607	HEC	CBD-CAD-C3D	-2.06	109.11	112.62
3	L	603	HEC	O1A-CGA-CBA	-2.06	116.47	123.08
3	I	600	HEC	CMC-C2C-C1C	-2.06	125.30	128.46
3	D	600	HEC	O2A-CGA-CBA	2.06	120.63	114.03
3	J	603	HEC	O1A-CGA-CBA	-2.05	116.48	123.08
3	L	605	HEC	O2A-CGA-CBA	2.05	120.63	114.03
3	B	606	HEC	C3B-C4B-NB	-2.05	107.06	110.94
3	V	607	HEC	O2D-CGD-O1D	-2.05	118.18	123.30
3	X	603	HEC	O1A-CGA-CBA	-2.05	116.49	123.08
3	X	601	HEC	O2A-CGA-CBA	2.05	120.62	114.03
3	U	603	HEC	O1A-CGA-CBA	-2.05	116.49	123.08
3	T	605	HEC	O2A-CGA-CBA	2.05	120.61	114.03
3	W	605	HEC	CMD-C2D-C3D	2.05	128.81	124.94
3	P	600	HEC	O2D-CGD-CBD	2.05	120.61	114.03
3	N	603	HEC	CMA-C3A-C2A	2.05	128.80	124.94
3	J	602	HEC	O2A-CGA-CBA	2.05	120.61	114.03
3	F	603	HEC	CMC-C2C-C3C	2.05	128.23	125.82
3	M	603	HEC	CMA-C3A-C2A	2.05	128.80	124.94
3	A	603	HEC	O1A-CGA-CBA	-2.05	116.51	123.08
3	J	605	HEC	O2D-CGD-CBD	2.04	120.60	114.03
3	T	607	HEC	O2D-CGD-O1D	-2.04	118.20	123.30
3	I	605	HEC	CAD-CBD-CGD	-2.04	108.03	113.76
3	N	605	HEC	CMD-C2D-C3D	2.04	128.80	124.94
3	L	600	HEC	O2A-CGA-CBA	2.04	120.60	114.03
3	I	603	HEC	CMD-C2D-C1D	-2.04	125.32	128.46
3	E	603	HEC	O1A-CGA-CBA	-2.04	116.52	123.08
3	C	607	HEC	CBD-CAD-C3D	-2.04	109.13	112.62
3	I	602	HEC	O2A-CGA-CBA	2.04	120.59	114.03
3	D	605	HEC	O2A-CGA-CBA	2.04	120.59	114.03
3	R	603	HEC	CMA-C3A-C2A	2.04	128.79	124.94
3	Q	605	HEC	CMC-C2C-C1C	-2.04	125.33	128.46
3	D	603	HEC	CMC-C2C-C3C	2.04	128.22	125.82
3	K	603	HEC	CMC-C2C-C3C	2.04	128.22	125.82
3	R	601	HEC	O2A-CGA-CBA	2.04	120.58	114.03
3	G	605	HEC	CMD-C2D-C3D	2.04	128.78	124.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	R	603	HEC	CMC-C2C-C3C	2.04	128.22	125.82
3	A	601	HEC	O2A-CGA-CBA	2.04	120.57	114.03
3	L	602	HEC	O2A-CGA-CBA	2.04	120.57	114.03
3	S	600	HEC	O2D-CGD-CBD	2.03	120.56	114.03
3	P	603	HEC	O1D-CGD-CBD	-2.03	116.56	123.08
3	G	602	HEC	O2D-CGD-CBD	2.03	120.56	114.03
3	X	600	HEC	O2A-CGA-CBA	2.03	120.55	114.03
3	H	607	HEC	CBD-CAD-C3D	-2.03	109.16	112.62
3	G	603	HEC	O1A-CGA-CBA	-2.03	116.57	123.08
3	M	605	HEC	CMD-C2D-C3D	2.03	128.76	124.94
3	M	605	HEC	O2D-CGD-CBD	2.03	120.54	114.03
3	D	600	HEC	O2D-CGD-CBD	2.02	120.53	114.03
3	V	606	HEC	O2D-CGD-CBD	2.02	120.53	114.03
3	M	600	HEC	O2A-CGA-CBA	2.02	120.53	114.03
3	A	602	HEC	O2A-CGA-CBA	2.02	120.53	114.03
3	S	607	HEC	CBD-CAD-C3D	-2.02	109.17	112.62
3	D	602	HEC	CBA-CAA-C2A	-2.02	109.20	112.60
3	U	601	HEC	O2A-CGA-CBA	2.02	120.52	114.03
3	A	606	HEC	O2A-CGA-CBA	2.02	120.52	114.03
3	K	603	HEC	CMA-C3A-C2A	2.02	128.75	124.94
3	K	606	HEC	O2D-CGD-CBD	2.02	120.52	114.03
3	B	605	HEC	O2D-CGD-CBD	2.02	120.51	114.03
3	B	603	HEC	CMC-C2C-C3C	2.01	128.19	125.82
3	Q	607	HEC	O2D-CGD-O1D	-2.01	118.28	123.30
3	J	603	HEC	O1D-CGD-CBD	-2.01	116.61	123.08
3	H	603	HEC	O2A-CGA-CBA	2.01	120.50	114.03
3	E	606	HEC	C3B-C4B-NB	-2.01	107.14	110.94
3	G	600	HEC	O2D-CGD-CBD	2.01	120.49	114.03
3	S	605	HEC	CMD-C2D-C3D	2.01	128.73	124.94
3	J	607	HEC	CBD-CAD-C3D	-2.01	109.19	112.62
3	S	603	HEC	O2D-CGD-CBD	2.01	120.49	114.03
3	S	603	HEC	O2A-CGA-CBA	2.01	120.49	114.03
3	U	600	HEC	O2D-CGD-CBD	2.01	120.49	114.03
3	N	605	HEC	O2D-CGD-CBD	2.01	120.48	114.03
3	R	603	HEC	O2A-CGA-CBA	2.01	120.48	114.03
3	W	602	HEC	C3B-C4B-NB	-2.00	107.16	110.94
3	J	605	HEC	CMD-C2D-C3D	2.00	128.72	124.94
3	T	603	HEC	O1A-CGA-CBA	-2.00	116.64	123.08
3	T	603	HEC	CMC-C2C-C3C	2.00	128.18	125.82
3	V	603	HEC	O1A-CGA-CBA	-2.00	116.65	123.08
3	P	600	HEC	O2A-CGA-CBA	2.00	120.46	114.03
3	V	606	HEC	C3B-C4B-NB	-2.00	107.17	110.94

There are no chirality outliers.

All (706) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	G	605	HEC	C2D-C3D-CAD-CBD
3	G	605	HEC	C4D-C3D-CAD-CBD
3	A	605	HEC	C2D-C3D-CAD-CBD
3	A	605	HEC	C4D-C3D-CAD-CBD
3	B	605	HEC	C2D-C3D-CAD-CBD
3	B	605	HEC	C4D-C3D-CAD-CBD
3	C	605	HEC	C2D-C3D-CAD-CBD
3	C	605	HEC	C4D-C3D-CAD-CBD
3	D	601	HEC	C1A-C2A-CAA-CBA
3	D	601	HEC	C3A-C2A-CAA-CBA
3	D	604	HEC	C2A-CAA-CBA-CGA
3	D	605	HEC	C2D-C3D-CAD-CBD
3	D	605	HEC	C4D-C3D-CAD-CBD
3	E	605	HEC	C2D-C3D-CAD-CBD
3	E	605	HEC	C4D-C3D-CAD-CBD
3	F	605	HEC	C2D-C3D-CAD-CBD
3	F	605	HEC	C4D-C3D-CAD-CBD
3	H	605	HEC	C2D-C3D-CAD-CBD
3	H	605	HEC	C4D-C3D-CAD-CBD
3	I	603	HEC	C1A-C2A-CAA-CBA
3	I	603	HEC	C4D-C3D-CAD-CBD
3	I	601	HEC	C1A-C2A-CAA-CBA
3	I	601	HEC	C3A-C2A-CAA-CBA
3	I	605	HEC	C2D-C3D-CAD-CBD
3	I	605	HEC	C4D-C3D-CAD-CBD
3	J	605	HEC	C2D-C3D-CAD-CBD
3	J	605	HEC	C4D-C3D-CAD-CBD
3	K	605	HEC	C2D-C3D-CAD-CBD
3	K	605	HEC	C4D-C3D-CAD-CBD
3	L	605	HEC	C2D-C3D-CAD-CBD
3	L	605	HEC	C4D-C3D-CAD-CBD
3	M	605	HEC	C2D-C3D-CAD-CBD
3	M	605	HEC	C4D-C3D-CAD-CBD
3	N	605	HEC	C2D-C3D-CAD-CBD
3	N	605	HEC	C4D-C3D-CAD-CBD
3	O	605	HEC	C2D-C3D-CAD-CBD
3	O	605	HEC	C4D-C3D-CAD-CBD
3	P	605	HEC	C2D-C3D-CAD-CBD
3	P	605	HEC	C4D-C3D-CAD-CBD
3	Q	605	HEC	C2D-C3D-CAD-CBD

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Mol	Chain	Res	Type	Atoms
3	Q	605	HEC	C4D-C3D-CAD-CBD
3	R	605	HEC	C2D-C3D-CAD-CBD
3	R	605	HEC	C4D-C3D-CAD-CBD
3	S	605	HEC	C2D-C3D-CAD-CBD
3	S	605	HEC	C4D-C3D-CAD-CBD
3	T	605	HEC	C2D-C3D-CAD-CBD
3	T	605	HEC	C4D-C3D-CAD-CBD
3	U	605	HEC	C2D-C3D-CAD-CBD
3	U	605	HEC	C4D-C3D-CAD-CBD
3	V	605	HEC	C2D-C3D-CAD-CBD
3	V	605	HEC	C4D-C3D-CAD-CBD
3	W	605	HEC	C2D-C3D-CAD-CBD
3	W	605	HEC	C4D-C3D-CAD-CBD
3	X	605	HEC	C2D-C3D-CAD-CBD
3	X	605	HEC	C4D-C3D-CAD-CBD
5	G	615	GOL	C1-C2-C3-O3
5	G	616	GOL	O1-C1-C2-C3
5	A	613	GOL	C1-C2-C3-O3
5	A	614	GOL	O1-C1-C2-C3
5	A	614	GOL	C1-C2-C3-O3
5	A	614	GOL	O2-C2-C3-O3
5	D	610	GOL	O1-C1-C2-C3
5	H	614	GOL	O1-C1-C2-C3
5	H	615	GOL	C1-C2-C3-O3
5	I	613	GOL	O1-C1-C2-C3
5	I	613	GOL	C1-C2-C3-O3
5	I	614	GOL	C1-C2-C3-O3
5	I	615	GOL	C1-C2-C3-O3
5	J	612	GOL	O1-C1-C2-C3
5	J	613	GOL	C1-C2-C3-O3
5	J	613	GOL	O2-C2-C3-O3
5	K	613	GOL	O1-C1-C2-C3
5	K	615	GOL	O1-C1-C2-O2
5	K	615	GOL	O1-C1-C2-C3
5	L	613	GOL	C1-C2-C3-O3
3	G	602	HEC	C3D-CAD-CBD-CGD
3	G	607	HEC	C2A-CAA-CBA-CGA
3	A	602	HEC	C3D-CAD-CBD-CGD
3	A	607	HEC	C2A-CAA-CBA-CGA
3	B	602	HEC	C3D-CAD-CBD-CGD
3	B	607	HEC	C2A-CAA-CBA-CGA
3	C	602	HEC	C3D-CAD-CBD-CGD

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Mol	Chain	Res	Type	Atoms
3	C	607	HEC	C2A-CAA-CBA-CGA
3	E	602	HEC	C3D-CAD-CBD-CGD
3	E	607	HEC	C2A-CAA-CBA-CGA
3	F	602	HEC	C3D-CAD-CBD-CGD
3	F	607	HEC	C2A-CAA-CBA-CGA
3	H	602	HEC	C3D-CAD-CBD-CGD
3	I	607	HEC	C2A-CAA-CBA-CGA
3	J	602	HEC	C3D-CAD-CBD-CGD
3	K	602	HEC	C3D-CAD-CBD-CGD
3	L	602	HEC	C3D-CAD-CBD-CGD
3	L	607	HEC	C2A-CAA-CBA-CGA
3	M	602	HEC	C3D-CAD-CBD-CGD
3	M	607	HEC	C2A-CAA-CBA-CGA
3	N	602	HEC	C3D-CAD-CBD-CGD
3	O	602	HEC	C3D-CAD-CBD-CGD
3	O	607	HEC	C2A-CAA-CBA-CGA
3	P	602	HEC	C3D-CAD-CBD-CGD
3	P	607	HEC	C2A-CAA-CBA-CGA
3	Q	602	HEC	C3D-CAD-CBD-CGD
3	R	602	HEC	C3D-CAD-CBD-CGD
3	S	602	HEC	C3D-CAD-CBD-CGD
3	S	607	HEC	C2A-CAA-CBA-CGA
3	T	602	HEC	C3D-CAD-CBD-CGD
3	U	602	HEC	C3D-CAD-CBD-CGD
3	U	607	HEC	C2A-CAA-CBA-CGA
3	V	602	HEC	C3D-CAD-CBD-CGD
3	V	607	HEC	C2A-CAA-CBA-CGA
3	W	602	HEC	C3D-CAD-CBD-CGD
3	W	607	HEC	C2A-CAA-CBA-CGA
3	X	602	HEC	C3D-CAD-CBD-CGD
3	X	607	HEC	C2A-CAA-CBA-CGA
5	G	615	GOL	O2-C2-C3-O3
5	A	614	GOL	O1-C1-C2-O2
5	J	612	GOL	O1-C1-C2-O2
5	K	614	GOL	O2-C2-C3-O3
5	L	613	GOL	O2-C2-C3-O3
5	H	614	GOL	C1-C2-C3-O3
5	J	612	GOL	C1-C2-C3-O3
5	K	612	GOL	O1-C1-C2-C3
5	K	614	GOL	C1-C2-C3-O3
5	K	615	GOL	C1-C2-C3-O3
3	D	603	HEC	C2A-CAA-CBA-CGA

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Mol	Chain	Res	Type	Atoms
3	N	607	HEC	C2A-CAA-CBA-CGA
3	Q	607	HEC	C2A-CAA-CBA-CGA
5	G	616	GOL	O1-C1-C2-O2
5	A	613	GOL	O2-C2-C3-O3
5	D	610	GOL	O1-C1-C2-O2
5	H	614	GOL	O1-C1-C2-O2
5	H	614	GOL	O2-C2-C3-O3
5	I	613	GOL	O1-C1-C2-O2
5	I	613	GOL	O2-C2-C3-O3
5	I	614	GOL	O2-C2-C3-O3
5	I	615	GOL	O2-C2-C3-O3
3	H	607	HEC	C2A-CAA-CBA-CGA
3	K	607	HEC	C2A-CAA-CBA-CGA
3	R	607	HEC	C2A-CAA-CBA-CGA
3	T	607	HEC	C2A-CAA-CBA-CGA
5	H	615	GOL	O2-C2-C3-O3
5	J	612	GOL	O2-C2-C3-O3
3	D	607	HEC	C2A-CAA-CBA-CGA
3	J	607	HEC	C2A-CAA-CBA-CGA
5	K	615	GOL	O2-C2-C3-O3
3	I	602	HEC	C3D-CAD-CBD-CGD
3	I	604	HEC	C2A-CAA-CBA-CGA
3	G	601	HEC	C1A-C2A-CAA-CBA
3	G	601	HEC	C3A-C2A-CAA-CBA
3	A	601	HEC	C1A-C2A-CAA-CBA
3	A	601	HEC	C3A-C2A-CAA-CBA
3	B	601	HEC	C3A-C2A-CAA-CBA
3	D	607	HEC	C3A-C2A-CAA-CBA
3	D	603	HEC	C1A-C2A-CAA-CBA
3	E	601	HEC	C1A-C2A-CAA-CBA
3	E	601	HEC	C3A-C2A-CAA-CBA
3	F	601	HEC	C3A-C2A-CAA-CBA
3	H	601	HEC	C3A-C2A-CAA-CBA
3	J	601	HEC	C1A-C2A-CAA-CBA
3	J	601	HEC	C3A-C2A-CAA-CBA
3	K	601	HEC	C3A-C2A-CAA-CBA
3	L	601	HEC	C3A-C2A-CAA-CBA
3	M	601	HEC	C3A-C2A-CAA-CBA
3	N	601	HEC	C3A-C2A-CAA-CBA
3	O	601	HEC	C1A-C2A-CAA-CBA
3	O	601	HEC	C3A-C2A-CAA-CBA
3	P	601	HEC	C3A-C2A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
3	Q	601	HEC	C1A-C2A-CAA-CBA
3	Q	601	HEC	C3A-C2A-CAA-CBA
3	R	601	HEC	C1A-C2A-CAA-CBA
3	R	601	HEC	C3A-C2A-CAA-CBA
3	S	601	HEC	C1A-C2A-CAA-CBA
3	S	601	HEC	C3A-C2A-CAA-CBA
3	T	601	HEC	C3A-C2A-CAA-CBA
3	U	601	HEC	C1A-C2A-CAA-CBA
3	U	601	HEC	C3A-C2A-CAA-CBA
3	V	601	HEC	C3A-C2A-CAA-CBA
3	W	601	HEC	C1A-C2A-CAA-CBA
3	W	601	HEC	C3A-C2A-CAA-CBA
3	X	601	HEC	C1A-C2A-CAA-CBA
3	X	601	HEC	C3A-C2A-CAA-CBA
5	K	613	GOL	O1-C1-C2-O2
5	K	614	GOL	O1-C1-C2-O2
3	I	601	HEC	CAD-CBD-CGD-O1D
3	I	600	HEC	CAD-CBD-CGD-O1D
3	M	601	HEC	CAA-CBA-CGA-O1A
3	A	600	HEC	CAD-CBD-CGD-O1D
3	E	600	HEC	CAD-CBD-CGD-O1D
3	M	606	HEC	CAD-CBD-CGD-O1D
3	W	606	HEC	CAD-CBD-CGD-O1D
3	M	600	HEC	CAD-CBD-CGD-O1D
3	B	601	HEC	CAA-CBA-CGA-O1A
3	J	606	HEC	CAD-CBD-CGD-O1D
3	L	601	HEC	CAA-CBA-CGA-O1A
3	M	602	HEC	CAD-CBD-CGD-O1D
3	N	601	HEC	CAA-CBA-CGA-O1A
3	P	600	HEC	CAD-CBD-CGD-O1D
3	X	602	HEC	CAD-CBD-CGD-O1D
3	B	606	HEC	CAD-CBD-CGD-O2D
3	C	601	HEC	CAA-CBA-CGA-O1A
3	C	606	HEC	CAD-CBD-CGD-O2D
3	E	606	HEC	CAD-CBD-CGD-O2D
3	F	606	HEC	CAD-CBD-CGD-O2D
3	I	606	HEC	CAD-CBD-CGD-O2D
3	L	600	HEC	CAD-CBD-CGD-O1D
3	L	606	HEC	CAD-CBD-CGD-O2D
3	O	602	HEC	CAD-CBD-CGD-O1D
3	P	606	HEC	CAD-CBD-CGD-O2D
3	R	606	HEC	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
3	T	606	HEC	CAD-CBD-CGD-O2D
3	V	600	HEC	CAD-CBD-CGD-O1D
3	A	606	HEC	CAD-CBD-CGD-O2D
3	B	600	HEC	CAD-CBD-CGD-O1D
3	K	606	HEC	CAD-CBD-CGD-O2D
3	N	600	HEC	CAD-CBD-CGD-O1D
3	O	600	HEC	CAD-CBD-CGD-O1D
3	Q	606	HEC	CAD-CBD-CGD-O2D
3	S	606	HEC	CAD-CBD-CGD-O2D
3	V	606	HEC	CAD-CBD-CGD-O1D
3	X	606	HEC	CAD-CBD-CGD-O2D
3	G	602	HEC	CAD-CBD-CGD-O1D
3	G	606	HEC	CAD-CBD-CGD-O2D
3	A	600	HEC	CAD-CBD-CGD-O2D
3	D	600	HEC	CAD-CBD-CGD-O2D
3	E	600	HEC	CAD-CBD-CGD-O2D
3	E	601	HEC	CAA-CBA-CGA-O1A
3	H	606	HEC	CAD-CBD-CGD-O2D
3	I	600	HEC	CAD-CBD-CGD-O2D
3	J	601	HEC	CAA-CBA-CGA-O1A
3	J	606	HEC	CAD-CBD-CGD-O2D
3	N	600	HEC	CAD-CBD-CGD-O2D
3	P	601	HEC	CAA-CBA-CGA-O1A
3	S	600	HEC	CAD-CBD-CGD-O1D
3	U	600	HEC	CAD-CBD-CGD-O1D
3	U	606	HEC	CAD-CBD-CGD-O2D
3	V	600	HEC	CAD-CBD-CGD-O2D
3	C	600	HEC	CAD-CBD-CGD-O2D
3	E	606	HEC	CAD-CBD-CGD-O1D
3	I	602	HEC	CAD-CBD-CGD-O1D
3	J	600	HEC	CAD-CBD-CGD-O1D
3	J	600	HEC	CAD-CBD-CGD-O2D
3	K	600	HEC	CAD-CBD-CGD-O1D
3	K	602	HEC	CAD-CBD-CGD-O1D
3	M	606	HEC	CAD-CBD-CGD-O2D
3	N	606	HEC	CAD-CBD-CGD-O2D
3	Q	606	HEC	CAD-CBD-CGD-O1D
3	T	600	HEC	CAD-CBD-CGD-O2D
3	U	606	HEC	CAD-CBD-CGD-O1D
3	W	600	HEC	CAD-CBD-CGD-O1D
3	X	606	HEC	CAD-CBD-CGD-O1D
3	G	600	HEC	CAD-CBD-CGD-O1D

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Mol	Chain	Res	Type	Atoms
3	A	606	HEC	CAD-CBD-CGD-O1D
3	B	600	HEC	CAD-CBD-CGD-O2D
3	C	600	HEC	CAD-CBD-CGD-O1D
3	C	606	HEC	CAD-CBD-CGD-O1D
3	F	600	HEC	CAD-CBD-CGD-O2D
3	H	600	HEC	CAD-CBD-CGD-O1D
3	H	600	HEC	CAD-CBD-CGD-O2D
3	K	600	HEC	CAD-CBD-CGD-O2D
3	M	600	HEC	CAD-CBD-CGD-O2D
3	O	606	HEC	CAD-CBD-CGD-O1D
3	P	600	HEC	CAD-CBD-CGD-O2D
3	P	606	HEC	CAD-CBD-CGD-O1D
3	Q	600	HEC	CAD-CBD-CGD-O2D
3	R	600	HEC	CAD-CBD-CGD-O1D
3	R	600	HEC	CAD-CBD-CGD-O2D
3	S	600	HEC	CAD-CBD-CGD-O2D
3	S	606	HEC	CAD-CBD-CGD-O1D
3	T	600	HEC	CAD-CBD-CGD-O1D
3	U	600	HEC	CAD-CBD-CGD-O2D
3	V	606	HEC	CAD-CBD-CGD-O2D
3	W	600	HEC	CAD-CBD-CGD-O2D
3	X	600	HEC	CAD-CBD-CGD-O1D
3	X	600	HEC	CAD-CBD-CGD-O2D
3	G	600	HEC	CAD-CBD-CGD-O2D
3	G	606	HEC	CAD-CBD-CGD-O1D
3	D	600	HEC	CAD-CBD-CGD-O1D
3	D	606	HEC	CAD-CBD-CGD-O1D
3	F	600	HEC	CAD-CBD-CGD-O1D
3	I	606	HEC	CAD-CBD-CGD-O1D
3	K	606	HEC	CAD-CBD-CGD-O1D
3	L	600	HEC	CAD-CBD-CGD-O2D
3	N	606	HEC	CAD-CBD-CGD-O1D
3	O	600	HEC	CAD-CBD-CGD-O2D
3	O	606	HEC	CAD-CBD-CGD-O2D
3	B	602	HEC	CAD-CBD-CGD-O1D
3	B	606	HEC	CAD-CBD-CGD-O1D
3	D	604	HEC	CAA-CBA-CGA-O1A
3	E	602	HEC	CAD-CBD-CGD-O1D
3	F	602	HEC	CAD-CBD-CGD-O1D
3	F	606	HEC	CAD-CBD-CGD-O1D
3	H	606	HEC	CAD-CBD-CGD-O1D
3	I	602	HEC	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
3	J	602	HEC	CAD-CBD-CGD-O1D
3	L	602	HEC	CAD-CBD-CGD-O1D
3	L	606	HEC	CAD-CBD-CGD-O1D
3	P	602	HEC	CAD-CBD-CGD-O1D
3	Q	600	HEC	CAD-CBD-CGD-O1D
3	R	606	HEC	CAD-CBD-CGD-O1D
3	T	606	HEC	CAD-CBD-CGD-O1D
3	V	602	HEC	CAD-CBD-CGD-O1D
3	A	601	HEC	CAA-CBA-CGA-O1A
3	I	601	HEC	CAD-CBD-CGD-O2D
3	P	605	HEC	CAD-CBD-CGD-O2D
3	S	602	HEC	CAD-CBD-CGD-O1D
3	U	602	HEC	CAD-CBD-CGD-O1D
3	W	605	HEC	CAD-CBD-CGD-O2D
3	W	606	HEC	CAD-CBD-CGD-O2D
3	A	602	HEC	CAD-CBD-CGD-O1D
3	C	602	HEC	CAD-CBD-CGD-O1D
3	C	605	HEC	CAD-CBD-CGD-O2D
3	H	602	HEC	CAD-CBD-CGD-O1D
3	J	605	HEC	CAD-CBD-CGD-O2D
3	O	605	HEC	CAD-CBD-CGD-O2D
3	Q	602	HEC	CAD-CBD-CGD-O1D
3	T	602	HEC	CAD-CBD-CGD-O1D
3	C	602	HEC	CAA-CBA-CGA-O2A
3	E	602	HEC	CAA-CBA-CGA-O2A
3	N	602	HEC	CAA-CBA-CGA-O2A
3	N	602	HEC	CAD-CBD-CGD-O1D
3	P	602	HEC	CAA-CBA-CGA-O2A
3	Q	602	HEC	CAA-CBA-CGA-O2A
3	R	602	HEC	CAD-CBD-CGD-O1D
3	V	602	HEC	CAA-CBA-CGA-O2A
3	W	602	HEC	CAD-CBD-CGD-O1D
3	H	601	HEC	CAA-CBA-CGA-O1A
3	K	605	HEC	CAD-CBD-CGD-O2D
3	L	605	HEC	CAD-CBD-CGD-O2D
3	M	602	HEC	CAD-CBD-CGD-O2D
3	R	605	HEC	CAD-CBD-CGD-O2D
3	X	602	HEC	CAD-CBD-CGD-O2D
3	G	605	HEC	CAD-CBD-CGD-O2D
3	A	602	HEC	CAA-CBA-CGA-O2A
3	B	602	HEC	CAA-CBA-CGA-O2A
3	B	605	HEC	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
3	F	605	HEC	CAD-CBD-CGD-O2D
3	M	601	HEC	CAA-CBA-CGA-O2A
3	M	605	HEC	CAD-CBD-CGD-O2D
3	O	602	HEC	CAD-CBD-CGD-O2D
3	U	605	HEC	CAD-CBD-CGD-O2D
3	X	602	HEC	CAA-CBA-CGA-O2A
3	G	602	HEC	CAD-CBD-CGD-O2D
3	D	606	HEC	CAD-CBD-CGD-O2D
3	F	601	HEC	CAA-CBA-CGA-O1A
3	F	602	HEC	CAA-CBA-CGA-O2A
3	V	602	HEC	CAD-CBD-CGD-O2D
3	G	601	HEC	CAA-CBA-CGA-O1A
3	A	602	HEC	CAD-CBD-CGD-O2D
3	D	604	HEC	CAA-CBA-CGA-O2A
3	E	602	HEC	CAD-CBD-CGD-O2D
3	F	602	HEC	CAD-CBD-CGD-O2D
3	J	602	HEC	CAD-CBD-CGD-O2D
3	K	602	HEC	CAD-CBD-CGD-O2D
3	M	602	HEC	CAA-CBA-CGA-O2A
3	O	601	HEC	CAA-CBA-CGA-O1A
3	T	602	HEC	CAA-CBA-CGA-O2A
3	B	602	HEC	CAD-CBD-CGD-O2D
3	K	601	HEC	CAA-CBA-CGA-O1A
3	P	602	HEC	CAD-CBD-CGD-O2D
3	R	602	HEC	CAD-CBD-CGD-O2D
3	U	602	HEC	CAD-CBD-CGD-O2D
5	K	614	GOL	O1-C1-C2-C3
3	C	605	HEC	CAD-CBD-CGD-O1D
3	H	602	HEC	CAD-CBD-CGD-O2D
3	I	604	HEC	CAA-CBA-CGA-O2A
3	I	604	HEC	CAD-CBD-CGD-O2D
3	L	602	HEC	CAD-CBD-CGD-O2D
3	O	605	HEC	CAD-CBD-CGD-O1D
3	S	601	HEC	CAA-CBA-CGA-O1A
3	S	602	HEC	CAD-CBD-CGD-O2D
3	U	601	HEC	CAA-CBA-CGA-O1A
3	U	602	HEC	CAA-CBA-CGA-O2A
3	V	601	HEC	CAA-CBA-CGA-O1A
3	V	605	HEC	CAD-CBD-CGD-O2D
3	W	602	HEC	CAA-CBA-CGA-O2A
3	B	604	HEC	CAA-CBA-CGA-O2A
3	E	604	HEC	CAA-CBA-CGA-O2A

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Mol	Chain	Res	Type	Atoms
3	J	604	HEC	CAA-CBA-CGA-O2A
3	K	602	HEC	CAA-CBA-CGA-O2A
3	L	604	HEC	CAA-CBA-CGA-O2A
3	N	602	HEC	CAD-CBD-CGD-O2D
3	N	604	HEC	CAA-CBA-CGA-O2A
3	P	604	HEC	CAA-CBA-CGA-O2A
3	Q	601	HEC	CAA-CBA-CGA-O1A
3	T	601	HEC	CAA-CBA-CGA-O1A
3	T	602	HEC	CAD-CBD-CGD-O2D
3	W	602	HEC	CAD-CBD-CGD-O2D
3	X	604	HEC	CAA-CBA-CGA-O2A
3	G	602	HEC	CAA-CBA-CGA-O2A
3	A	604	HEC	CAA-CBA-CGA-O2A
3	C	602	HEC	CAD-CBD-CGD-O2D
3	H	604	HEC	CAA-CBA-CGA-O2A
3	J	605	HEC	CAD-CBD-CGD-O1D
3	Q	602	HEC	CAD-CBD-CGD-O2D
3	T	604	HEC	CAA-CBA-CGA-O2A
3	U	604	HEC	CAA-CBA-CGA-O2A
3	W	604	HEC	CAA-CBA-CGA-O2A
3	G	604	HEC	CAA-CBA-CGA-O2A
3	C	604	HEC	CAA-CBA-CGA-O1A
3	E	602	HEC	CAA-CBA-CGA-O1A
3	K	604	HEC	CAA-CBA-CGA-O1A
3	M	604	HEC	CAA-CBA-CGA-O2A
3	N	604	HEC	CAA-CBA-CGA-O1A
3	P	602	HEC	CAA-CBA-CGA-O1A
3	P	605	HEC	CAD-CBD-CGD-O1D
3	S	604	HEC	CAA-CBA-CGA-O1A
3	S	605	HEC	CAD-CBD-CGD-O2D
3	V	604	HEC	CAA-CBA-CGA-O2A
3	W	605	HEC	CAD-CBD-CGD-O1D
3	X	601	HEC	CAA-CBA-CGA-O1A
3	G	604	HEC	CAA-CBA-CGA-O1A
3	B	604	HEC	CAA-CBA-CGA-O1A
3	F	604	HEC	CAA-CBA-CGA-O1A
3	F	604	HEC	CAA-CBA-CGA-O2A
3	I	605	HEC	CAD-CBD-CGD-O1D
3	I	605	HEC	CAD-CBD-CGD-O2D
3	M	604	HEC	CAA-CBA-CGA-O1A
3	M	604	HEC	CAD-CBD-CGD-O2D
3	O	602	HEC	CAA-CBA-CGA-O2A

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Mol	Chain	Res	Type	Atoms
3	O	604	HEC	CAA-CBA-CGA-O1A
3	Q	604	HEC	CAA-CBA-CGA-O1A
3	R	601	HEC	CAA-CBA-CGA-O1A
3	R	604	HEC	CAA-CBA-CGA-O1A
3	U	604	HEC	CAA-CBA-CGA-O1A
3	U	604	HEC	CAD-CBD-CGD-O2D
3	V	602	HEC	CAA-CBA-CGA-O1A
3	V	604	HEC	CAA-CBA-CGA-O1A
3	N	602	HEC	CAA-CBA-CGA-O1A
3	O	604	HEC	CAA-CBA-CGA-O2A
3	Q	604	HEC	CAA-CBA-CGA-O2A
3	W	601	HEC	CAA-CBA-CGA-O1A
3	E	604	HEC	CAA-CBA-CGA-O1A
3	H	604	HEC	CAA-CBA-CGA-O1A
3	H	607	HEC	CAA-CBA-CGA-O2A
3	I	601	HEC	CAA-CBA-CGA-O1A
3	K	604	HEC	CAA-CBA-CGA-O2A
3	K	607	HEC	CAA-CBA-CGA-O2A
3	M	607	HEC	CAA-CBA-CGA-O2A
3	N	607	HEC	CAA-CBA-CGA-O2A
3	R	604	HEC	CAA-CBA-CGA-O2A
3	S	604	HEC	CAA-CBA-CGA-O2A
3	T	607	HEC	CAA-CBA-CGA-O2A
3	V	607	HEC	CAA-CBA-CGA-O2A
3	W	607	HEC	CAA-CBA-CGA-O2A
3	X	604	HEC	CAA-CBA-CGA-O1A
3	A	604	HEC	CAA-CBA-CGA-O1A
3	C	604	HEC	CAA-CBA-CGA-O2A
3	J	602	HEC	CAA-CBA-CGA-O2A
3	L	604	HEC	CAA-CBA-CGA-O1A
3	P	604	HEC	CAA-CBA-CGA-O1A
3	R	605	HEC	CAD-CBD-CGD-O1D
3	T	604	HEC	CAA-CBA-CGA-O1A
3	W	604	HEC	CAA-CBA-CGA-O1A
3	A	604	HEC	CAD-CBD-CGD-O2D
3	C	602	HEC	CAA-CBA-CGA-O1A
3	E	605	HEC	CAD-CBD-CGD-O2D
3	I	607	HEC	CAD-CBD-CGD-O2D
3	J	604	HEC	CAA-CBA-CGA-O1A
3	K	605	HEC	CAD-CBD-CGD-O1D
3	Q	602	HEC	CAA-CBA-CGA-O1A
3	T	605	HEC	CAD-CBD-CGD-O2D

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Mol	Chain	Res	Type	Atoms
3	X	607	HEC	CAA-CBA-CGA-O2A
3	B	605	HEC	CAD-CBD-CGD-O1D
3	M	605	HEC	CAD-CBD-CGD-O1D
3	N	600	HEC	CAA-CBA-CGA-O2A
3	R	600	HEC	CAA-CBA-CGA-O2A
3	S	602	HEC	CAA-CBA-CGA-O2A
3	U	607	HEC	CAA-CBA-CGA-O2A
3	W	600	HEC	CAA-CBA-CGA-O2A
3	X	604	HEC	CAD-CBD-CGD-O2D
3	D	607	HEC	C3D-CAD-CBD-CGD
3	G	600	HEC	CAA-CBA-CGA-O2A
3	A	600	HEC	CAA-CBA-CGA-O2A
3	A	607	HEC	CAA-CBA-CGA-O2A
3	B	607	HEC	CAA-CBA-CGA-O2A
3	C	600	HEC	CAA-CBA-CGA-O2A
3	C	601	HEC	CAA-CBA-CGA-O2A
3	C	607	HEC	CAA-CBA-CGA-O2A
3	E	600	HEC	CAA-CBA-CGA-O2A
3	E	607	HEC	CAA-CBA-CGA-O2A
3	F	604	HEC	CAD-CBD-CGD-O2D
3	F	605	HEC	CAD-CBD-CGD-O1D
3	H	605	HEC	CAD-CBD-CGD-O2D
3	J	607	HEC	CAA-CBA-CGA-O2A
3	L	604	HEC	CAD-CBD-CGD-O2D
3	L	605	HEC	CAD-CBD-CGD-O1D
3	N	601	HEC	CAA-CBA-CGA-O2A
3	O	600	HEC	CAA-CBA-CGA-O2A
3	O	604	HEC	CAD-CBD-CGD-O2D
3	O	607	HEC	CAA-CBA-CGA-O2A
3	P	604	HEC	CAD-CBD-CGD-O2D
3	Q	600	HEC	CAA-CBA-CGA-O2A
3	Q	604	HEC	CAD-CBD-CGD-O2D
3	R	604	HEC	CAD-CBD-CGD-O2D
3	S	600	HEC	CAA-CBA-CGA-O2A
3	V	604	HEC	CAD-CBD-CGD-O2D
3	G	607	HEC	CAA-CBA-CGA-O2A
3	B	600	HEC	CAA-CBA-CGA-O2A
3	B	601	HEC	CAA-CBA-CGA-O2A
3	B	604	HEC	CAD-CBD-CGD-O2D
3	D	602	HEC	CAD-CBD-CGD-O2D
3	F	600	HEC	CAA-CBA-CGA-O2A
3	F	607	HEC	CAA-CBA-CGA-O2A

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Mol	Chain	Res	Type	Atoms
3	H	600	HEC	CAA-CBA-CGA-O2A
3	H	604	HEC	CAD-CBD-CGD-O2D
3	J	600	HEC	CAA-CBA-CGA-O2A
3	K	604	HEC	CAD-CBD-CGD-O2D
3	L	602	HEC	CAA-CBA-CGA-O2A
3	M	600	HEC	CAA-CBA-CGA-O2A
3	P	607	HEC	CAA-CBA-CGA-O2A
3	Q	605	HEC	CAD-CBD-CGD-O2D
3	R	607	HEC	CAA-CBA-CGA-O2A
3	S	607	HEC	CAA-CBA-CGA-O2A
3	U	600	HEC	CAA-CBA-CGA-O2A
3	U	605	HEC	CAD-CBD-CGD-O1D
3	W	604	HEC	CAD-CBD-CGD-O2D
3	X	600	HEC	CAA-CBA-CGA-O2A
3	G	604	HEC	CAD-CBD-CGD-O2D
3	A	602	HEC	CAA-CBA-CGA-O1A
3	D	605	HEC	CAD-CBD-CGD-O2D
3	F	600	HEC	CAA-CBA-CGA-O1A
3	F	604	HEC	CAD-CBD-CGD-O1D
3	I	604	HEC	CAA-CBA-CGA-O1A
3	L	600	HEC	CAA-CBA-CGA-O2A
3	N	604	HEC	CAD-CBD-CGD-O2D
3	N	605	HEC	CAD-CBD-CGD-O2D
3	N	607	HEC	CAA-CBA-CGA-O1A
3	P	604	HEC	CAD-CBD-CGD-O1D
3	Q	604	HEC	CAD-CBD-CGD-O1D
3	Q	607	HEC	CAA-CBA-CGA-O2A
3	T	600	HEC	CAA-CBA-CGA-O2A
3	V	600	HEC	CAA-CBA-CGA-O2A
3	V	604	HEC	CAD-CBD-CGD-O1D
3	X	602	HEC	CAA-CBA-CGA-O1A
3	X	604	HEC	CAD-CBD-CGD-O1D
3	X	605	HEC	CAD-CBD-CGD-O2D
3	A	604	HEC	CAD-CBD-CGD-O1D
3	A	607	HEC	CAA-CBA-CGA-O1A
3	J	604	HEC	CAD-CBD-CGD-O2D
3	L	604	HEC	CAD-CBD-CGD-O1D
3	L	607	HEC	CAA-CBA-CGA-O2A
3	M	604	HEC	CAD-CBD-CGD-O1D
3	M	607	HEC	CAA-CBA-CGA-O1A
3	S	604	HEC	CAD-CBD-CGD-O2D
3	V	607	HEC	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
3	X	605	HEC	CAD-CBD-CGD-O1D
3	X	607	HEC	CAA-CBA-CGA-O1A
3	A	605	HEC	CAD-CBD-CGD-O2D
3	B	602	HEC	CAA-CBA-CGA-O1A
3	C	604	HEC	CAD-CBD-CGD-O1D
3	C	604	HEC	CAD-CBD-CGD-O2D
3	D	605	HEC	CAD-CBD-CGD-O1D
3	E	601	HEC	CAA-CBA-CGA-O2A
3	E	604	HEC	CAD-CBD-CGD-O1D
3	E	604	HEC	CAD-CBD-CGD-O2D
3	I	604	HEC	CAD-CBD-CGD-O1D
3	J	601	HEC	CAA-CBA-CGA-O2A
3	J	604	HEC	CAD-CBD-CGD-O1D
3	K	600	HEC	CAA-CBA-CGA-O2A
3	K	607	HEC	CAA-CBA-CGA-O1A
3	L	601	HEC	CAA-CBA-CGA-O2A
3	N	605	HEC	CAD-CBD-CGD-O1D
3	P	601	HEC	CAA-CBA-CGA-O2A
3	P	607	HEC	CAA-CBA-CGA-O1A
3	S	604	HEC	CAD-CBD-CGD-O1D
3	T	604	HEC	CAD-CBD-CGD-O2D
3	T	605	HEC	CAD-CBD-CGD-O1D
3	T	607	HEC	CAA-CBA-CGA-O1A
3	U	604	HEC	CAD-CBD-CGD-O1D
3	U	607	HEC	CAA-CBA-CGA-O1A
3	G	605	HEC	CAD-CBD-CGD-O1D
3	B	600	HEC	CAA-CBA-CGA-O1A
3	C	607	HEC	CAA-CBA-CGA-O1A
3	D	607	HEC	CAA-CBA-CGA-O2A
3	E	605	HEC	CAD-CBD-CGD-O1D
3	H	604	HEC	CAD-CBD-CGD-O1D
3	H	605	HEC	CAD-CBD-CGD-O1D
3	H	607	HEC	CAA-CBA-CGA-O1A
3	I	602	HEC	CAA-CBA-CGA-O1A
3	I	607	HEC	CAD-CBD-CGD-O1D
3	O	604	HEC	CAD-CBD-CGD-O1D
3	O	607	HEC	CAA-CBA-CGA-O1A
3	Q	605	HEC	CAD-CBD-CGD-O1D
3	R	602	HEC	CAA-CBA-CGA-O2A
3	R	607	HEC	CAA-CBA-CGA-O1A
3	S	605	HEC	CAD-CBD-CGD-O1D
3	W	607	HEC	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
3	X	600	HEC	CAA-CBA-CGA-O1A
3	U	600	HEC	CAA-CBA-CGA-O1A
3	V	605	HEC	CAD-CBD-CGD-O1D
3	H	601	HEC	CAD-CBD-CGD-O1D
3	L	607	HEC	CAA-CBA-CGA-O1A
3	M	602	HEC	CAA-CBA-CGA-O1A
3	P	600	HEC	CAA-CBA-CGA-O2A
3	R	604	HEC	CAD-CBD-CGD-O1D
3	V	600	HEC	CAA-CBA-CGA-O1A
3	G	607	HEC	CAA-CBA-CGA-O1A
3	B	604	HEC	CAD-CBD-CGD-O1D
3	B	607	HEC	CAA-CBA-CGA-O1A
3	E	607	HEC	CAA-CBA-CGA-O1A
3	F	607	HEC	CAA-CBA-CGA-O1A
3	J	607	HEC	CAA-CBA-CGA-O1A
3	K	604	HEC	CAD-CBD-CGD-O1D
3	N	604	HEC	CAD-CBD-CGD-O1D
3	Q	600	HEC	CAA-CBA-CGA-O1A
3	Q	607	HEC	CAA-CBA-CGA-O1A
3	S	607	HEC	CAA-CBA-CGA-O1A
3	T	602	HEC	CAA-CBA-CGA-O1A
3	T	604	HEC	CAD-CBD-CGD-O1D
3	W	604	HEC	CAD-CBD-CGD-O1D
3	G	600	HEC	CAA-CBA-CGA-O1A
3	G	604	HEC	CAD-CBD-CGD-O1D
3	A	601	HEC	CAA-CBA-CGA-O2A
3	A	605	HEC	CAD-CBD-CGD-O1D
3	E	603	HEC	CAA-CBA-CGA-O2A
3	F	602	HEC	CAA-CBA-CGA-O1A
3	H	603	HEC	CAA-CBA-CGA-O2A
3	H	601	HEC	CAA-CBA-CGA-O2A
3	K	601	HEC	CAA-CBA-CGA-O2A
3	O	600	HEC	CAA-CBA-CGA-O1A
3	H	602	HEC	CAA-CBA-CGA-O2A
3	G	601	HEC	CAA-CBA-CGA-O2A
3	D	607	HEC	CAA-CBA-CGA-O1A
3	N	600	HEC	CAA-CBA-CGA-O1A
3	R	600	HEC	CAA-CBA-CGA-O1A
3	E	600	HEC	CAA-CBA-CGA-O1A
3	F	601	HEC	CAA-CBA-CGA-O2A
3	H	600	HEC	CAA-CBA-CGA-O1A
3	S	600	HEC	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
3	X	603	HEC	CAA-CBA-CGA-O2A
3	A	600	HEC	CAA-CBA-CGA-O1A
3	D	602	HEC	CAD-CBD-CGD-O1D
3	L	600	HEC	CAA-CBA-CGA-O1A
3	M	603	HEC	CAA-CBA-CGA-O2A
3	O	601	HEC	CAA-CBA-CGA-O2A
3	T	600	HEC	CAA-CBA-CGA-O1A
3	T	601	HEC	CAA-CBA-CGA-O2A
3	W	600	HEC	CAA-CBA-CGA-O1A
3	W	602	HEC	CAA-CBA-CGA-O1A
3	G	602	HEC	CAA-CBA-CGA-O1A
3	C	600	HEC	CAA-CBA-CGA-O1A
3	J	600	HEC	CAA-CBA-CGA-O1A
3	K	600	HEC	CAA-CBA-CGA-O1A
3	S	601	HEC	CAA-CBA-CGA-O2A
3	S	603	HEC	CAA-CBA-CGA-O2A
3	V	601	HEC	CAA-CBA-CGA-O2A
3	W	603	HEC	CAA-CBA-CGA-O2A
3	K	602	HEC	CAA-CBA-CGA-O1A
3	M	600	HEC	CAA-CBA-CGA-O1A
3	N	603	HEC	CAA-CBA-CGA-O2A
3	U	601	HEC	CAA-CBA-CGA-O2A
3	U	602	HEC	CAA-CBA-CGA-O1A
3	W	601	HEC	CAA-CBA-CGA-O2A
3	X	601	HEC	CAA-CBA-CGA-O2A
3	G	603	HEC	CAA-CBA-CGA-O2A
3	I	602	HEC	CAA-CBA-CGA-O2A
3	J	602	HEC	CAA-CBA-CGA-O1A
3	R	601	HEC	CAA-CBA-CGA-O2A
3	H	601	HEC	CAD-CBD-CGD-O2D
3	Q	601	HEC	CAA-CBA-CGA-O2A
3	I	601	HEC	CAA-CBA-CGA-O2A
3	L	602	HEC	CAA-CBA-CGA-O1A
3	O	602	HEC	CAA-CBA-CGA-O1A
3	S	602	HEC	CAA-CBA-CGA-O1A
3	P	600	HEC	CAA-CBA-CGA-O1A
3	R	602	HEC	CAA-CBA-CGA-O1A
3	H	603	HEC	CAA-CBA-CGA-O1A
5	K	612	GOL	O1-C1-C2-O2
3	A	603	HEC	CAA-CBA-CGA-O2A
3	E	603	HEC	CAA-CBA-CGA-O1A
3	M	603	HEC	CAA-CBA-CGA-O1A

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Mol	Chain	Res	Type	Atoms
3	X	603	HEC	CAA-CBA-CGA-O1A
3	C	601	HEC	CAD-CBD-CGD-O1D
3	H	602	HEC	CAA-CBA-CGA-O1A
3	J	601	HEC	CAD-CBD-CGD-O1D
3	P	601	HEC	CAD-CBD-CGD-O1D
3	I	605	HEC	CAA-CBA-CGA-O2A
3	G	603	HEC	CAA-CBA-CGA-O1A
3	J	603	HEC	CAA-CBA-CGA-O2A
3	N	603	HEC	CAA-CBA-CGA-O1A
3	O	603	HEC	CAA-CBA-CGA-O2A
3	Q	603	HEC	CAA-CBA-CGA-O2A
3	W	603	HEC	CAA-CBA-CGA-O1A
3	B	601	HEC	CAD-CBD-CGD-O1D
3	C	601	HEC	CAD-CBD-CGD-O2D
3	D	603	HEC	CAA-CBA-CGA-O1A
3	K	601	HEC	CAD-CBD-CGD-O1D
3	P	601	HEC	CAD-CBD-CGD-O2D
3	U	601	HEC	CAD-CBD-CGD-O1D
3	M	601	HEC	CAD-CBD-CGD-O1D
3	Q	601	HEC	CAD-CBD-CGD-O1D
3	S	603	HEC	CAA-CBA-CGA-O1A
3	T	601	HEC	CAD-CBD-CGD-O1D
3	X	601	HEC	CAD-CBD-CGD-O1D
3	B	606	HEC	CAA-CBA-CGA-O2A
3	D	601	HEC	CAD-CBD-CGD-O2D
3	N	606	HEC	CAA-CBA-CGA-O2A
3	O	601	HEC	CAD-CBD-CGD-O1D
3	W	601	HEC	CAD-CBD-CGD-O1D
3	A	601	HEC	CAD-CBD-CGD-O1D
3	E	601	HEC	CAD-CBD-CGD-O1D
3	I	606	HEC	CAA-CBA-CGA-O1A
3	I	607	HEC	CAA-CBA-CGA-O2A
3	J	601	HEC	CAD-CBD-CGD-O2D
3	K	603	HEC	CAA-CBA-CGA-O2A
3	K	606	HEC	CAA-CBA-CGA-O2A
3	V	601	HEC	CAD-CBD-CGD-O1D

There are no ring outliers.

190 monomers are involved in 385 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	G	600	HEC	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	X	601	HEC	2	0
3	U	602	HEC	1	0
5	I	615	GOL	1	0
3	W	601	HEC	3	0
3	S	605	HEC	6	0
3	I	602	HEC	2	0
3	B	600	HEC	1	0
3	I	603	HEC	3	0
3	H	600	HEC	1	0
3	B	602	HEC	1	0
3	G	602	HEC	1	0
3	G	601	HEC	3	0
4	G	609	SO4	1	0
3	T	605	HEC	5	0
3	L	607	HEC	3	0
3	C	600	HEC	1	0
5	K	613	GOL	1	0
3	N	600	HEC	1	0
3	R	606	HEC	2	0
5	H	614	GOL	11	0
3	O	605	HEC	2	0
3	P	606	HEC	2	0
3	X	604	HEC	3	0
4	Q	609	SO4	1	0
3	B	601	HEC	1	0
3	J	600	HEC	1	0
3	V	607	HEC	3	0
3	I	607	HEC	3	0
3	B	607	HEC	2	0
3	E	607	HEC	1	0
3	J	606	HEC	1	0
3	X	606	HEC	2	0
3	X	607	HEC	2	0
3	O	606	HEC	2	0
3	F	606	HEC	2	0
5	L	613	GOL	1	0
3	N	602	HEC	1	0
3	U	604	HEC	3	0
3	L	605	HEC	4	0
3	S	607	HEC	1	0
3	I	604	HEC	3	0
3	G	605	HEC	5	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	605	HEC	5	0
3	X	605	HEC	6	0
3	A	602	HEC	1	0
5	K	614	GOL	10	0
3	D	600	HEC	2	0
3	C	602	HEC	1	0
5	A	613	GOL	1	0
3	B	604	HEC	3	0
3	E	604	HEC	3	0
3	T	602	HEC	1	0
3	J	601	HEC	1	0
3	T	607	HEC	2	0
3	K	604	HEC	3	0
4	L	610	SO4	1	0
3	K	600	HEC	2	0
3	U	601	HEC	3	0
4	X	610	SO4	1	0
3	C	601	HEC	1	0
3	K	606	HEC	2	0
3	W	604	HEC	3	0
3	D	602	HEC	1	0
3	T	601	HEC	1	0
3	U	600	HEC	1	0
3	M	601	HEC	1	0
3	N	601	HEC	1	0
3	V	600	HEC	1	0
3	S	606	HEC	1	0
5	H	615	GOL	9	0
3	K	601	HEC	5	0
3	G	604	HEC	2	0
3	D	601	HEC	3	0
3	X	600	HEC	1	0
3	M	602	HEC	1	0
3	M	607	HEC	3	0
3	J	604	HEC	3	0
5	G	615	GOL	1	0
3	Q	606	HEC	2	0
3	A	605	HEC	3	0
3	M	605	HEC	4	0
3	J	605	HEC	5	0
3	E	600	HEC	1	0
3	L	600	HEC	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	T	604	HEC	3	0
3	S	600	HEC	1	0
3	N	604	HEC	3	0
3	W	607	HEC	3	0
3	Q	601	HEC	4	0
5	J	613	GOL	3	0
3	D	605	HEC	5	0
3	Q	605	HEC	6	0
3	S	602	HEC	1	0
3	I	605	HEC	5	0
3	O	604	HEC	2	0
3	Q	600	HEC	2	0
3	K	605	HEC	3	0
3	C	607	HEC	3	0
3	D	604	HEC	2	0
3	F	605	HEC	5	0
3	H	605	HEC	4	0
3	L	602	HEC	1	0
3	N	607	HEC	3	0
3	E	601	HEC	2	0
3	A	601	HEC	1	0
3	S	601	HEC	3	0
5	G	616	GOL	1	0
3	I	606	HEC	3	0
3	W	605	HEC	7	0
3	L	601	HEC	3	0
3	M	604	HEC	2	0
3	G	607	HEC	3	0
3	G	606	HEC	2	0
3	E	602	HEC	1	0
3	Q	604	HEC	3	0
3	V	605	HEC	5	0
3	E	605	HEC	6	0
3	F	600	HEC	2	0
5	A	612	GOL	1	0
3	W	606	HEC	2	0
3	Q	607	HEC	3	0
3	A	606	HEC	2	0
5	K	615	GOL	3	0
3	P	605	HEC	4	0
3	X	602	HEC	1	0
3	J	602	HEC	1	0

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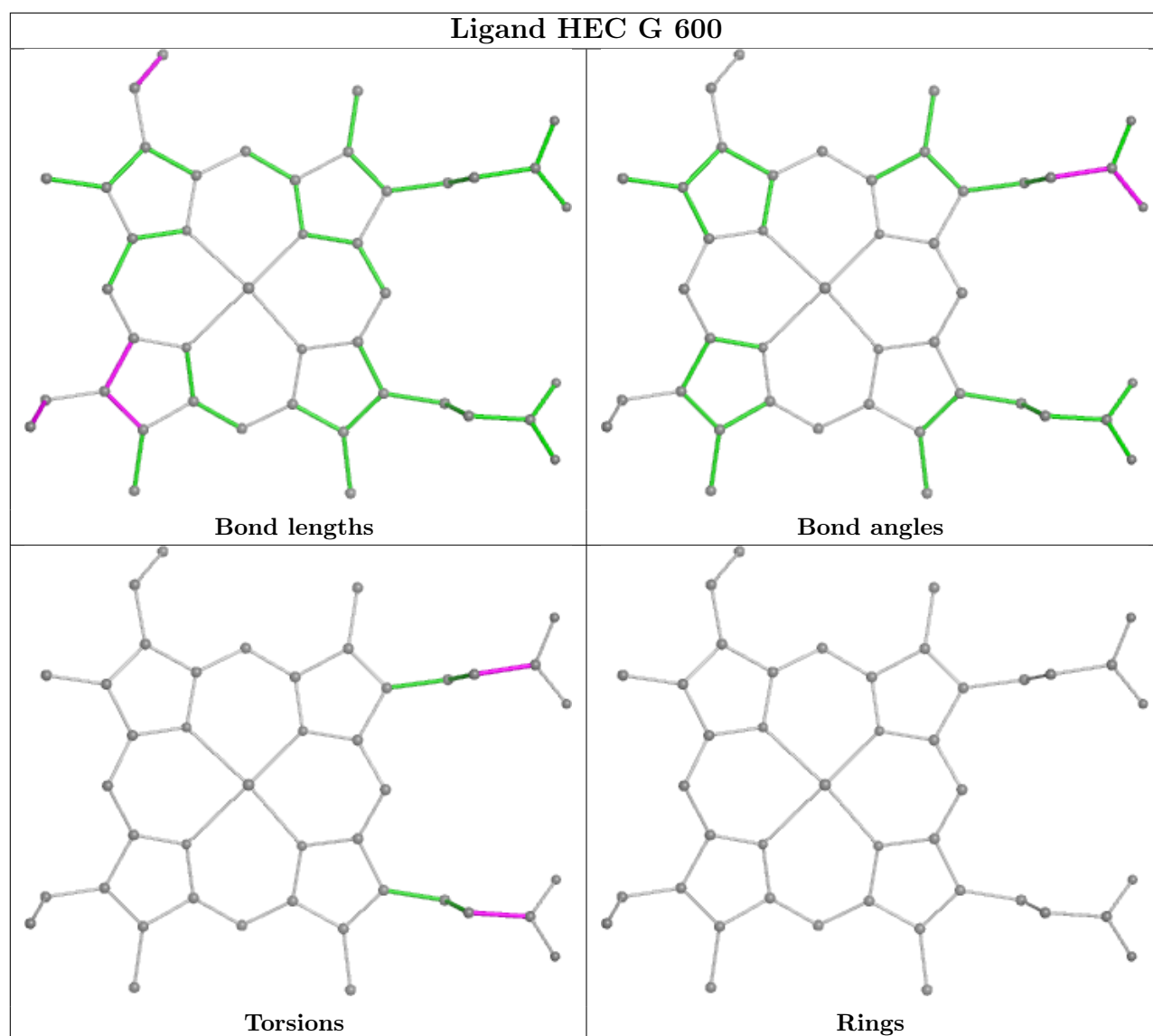
Mol	Chain	Res	Type	Clashes	Symm-Clashes
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3	E	606	HEC	1	0
3	F	602	HEC	1	0
3	F	607	HEC	1	0
3	H	607	HEC	1	0
3	N	606	HEC	2	0
3	H	602	HEC	1	0
3	O	602	HEC	1	0
3	L	604	HEC	3	0
3	V	601	HEC	2	0
4	G	610	SO4	2	0
3	C	604	HEC	3	0
3	I	601	HEC	5	0
3	W	600	HEC	1	0
3	U	607	HEC	2	0
4	B	609	SO4	1	0
3	O	600	HEC	2	0
3	R	607	HEC	3	0
3	H	601	HEC	1	0
3	P	607	HEC	2	0
3	T	606	HEC	1	0
3	M	606	HEC	1	0
3	V	602	HEC	1	0
3	A	604	HEC	2	0
3	R	604	HEC	3	0
3	O	607	HEC	2	0
3	R	600	HEC	1	0
3	W	602	HEC	1	0
4	J	611	SO4	2	0
3	K	607	HEC	3	0
3	K	602	HEC	2	0
3	P	600	HEC	1	0
3	D	606	HEC	2	0
3	D	603	HEC	2	0
3	P	604	HEC	3	0
3	H	606	HEC	3	0
3	T	600	HEC	1	0
3	U	605	HEC	5	0
3	R	605	HEC	7	0
3	A	600	HEC	1	0
3	V	606	HEC	2	0
3	F	604	HEC	3	0

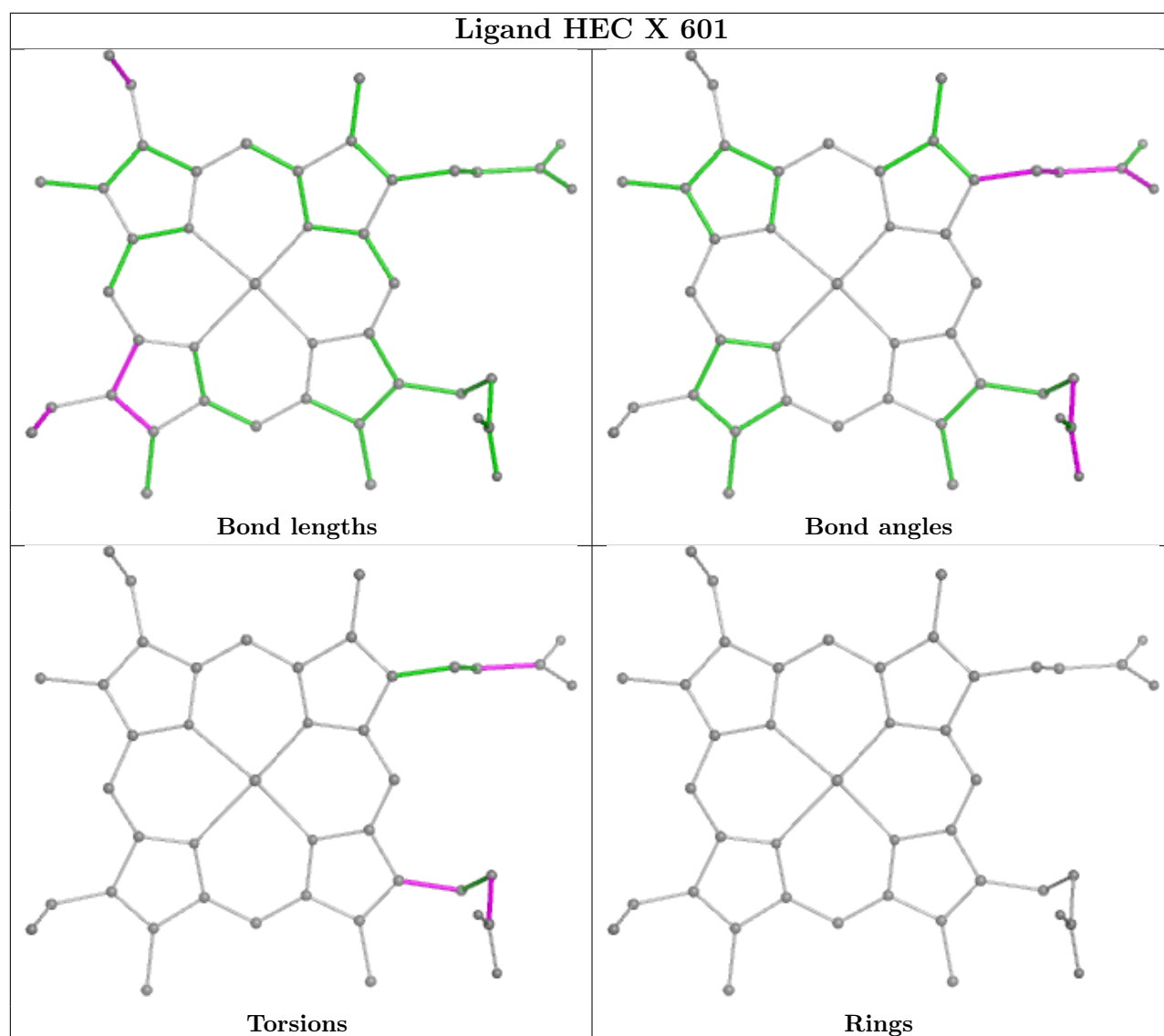
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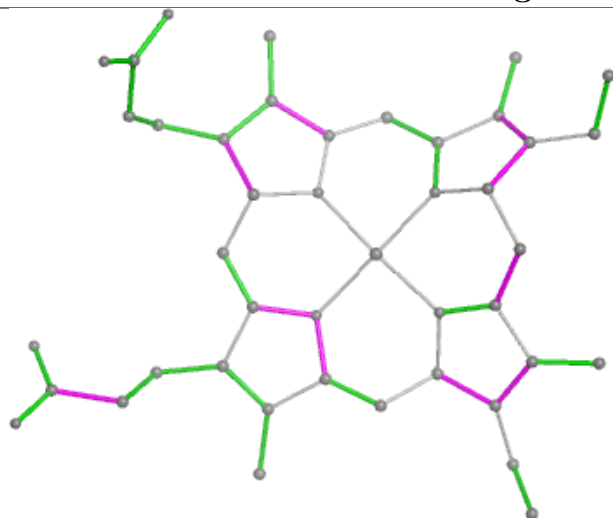
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	H	604	HEC	3	0
3	U	606	HEC	2	0
3	P	602	HEC	1	0
3	P	601	HEC	3	0
3	Q	602	HEC	1	0
4	N	610	SO4	1	0
3	J	607	HEC	3	0
5	I	614	GOL	4	0
3	V	604	HEC	3	0
3	S	604	HEC	3	0
3	L	606	HEC	2	0
3	C	605	HEC	4	0
3	N	605	HEC	6	0
3	O	601	HEC	2	0
3	B	606	HEC	2	0
3	F	601	HEC	1	0
3	I	600	HEC	2	0
3	R	601	HEC	1	0
4	H	609	SO4	1	0
3	A	607	HEC	3	0
3	M	600	HEC	1	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.

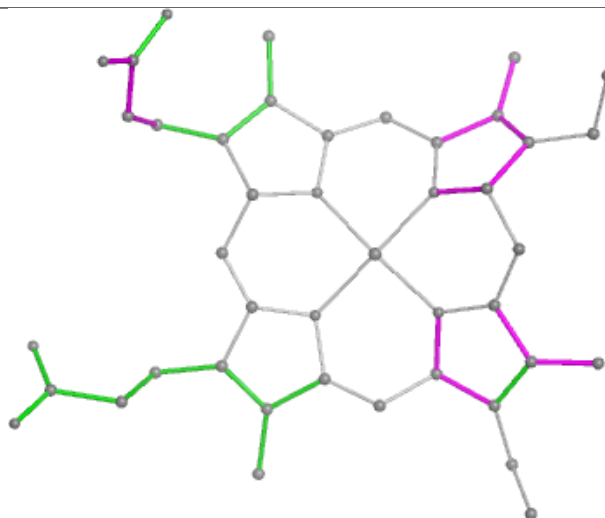




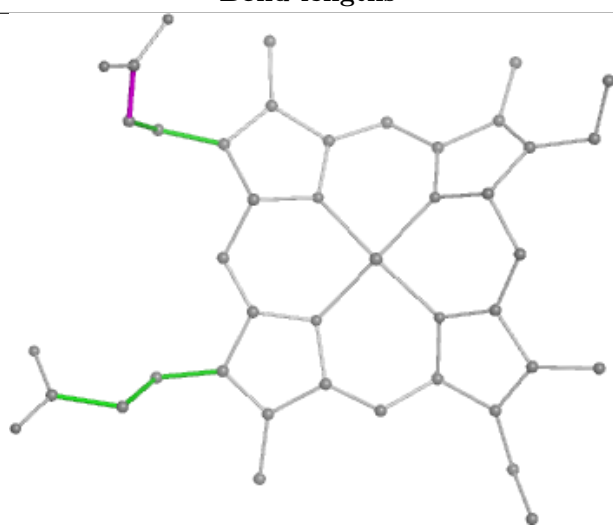
Ligand HEC E 603



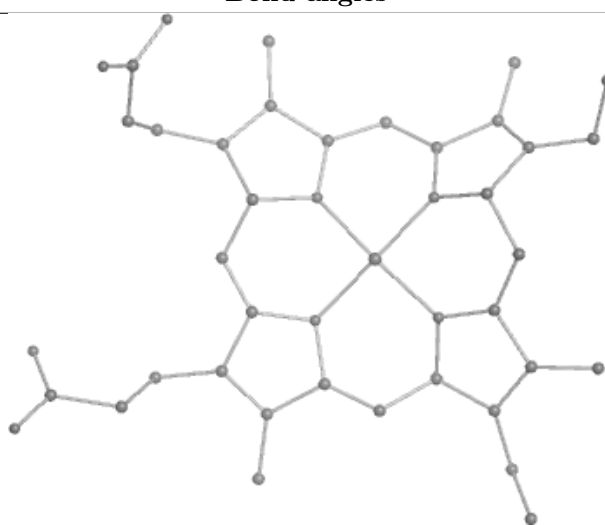
Bond lengths



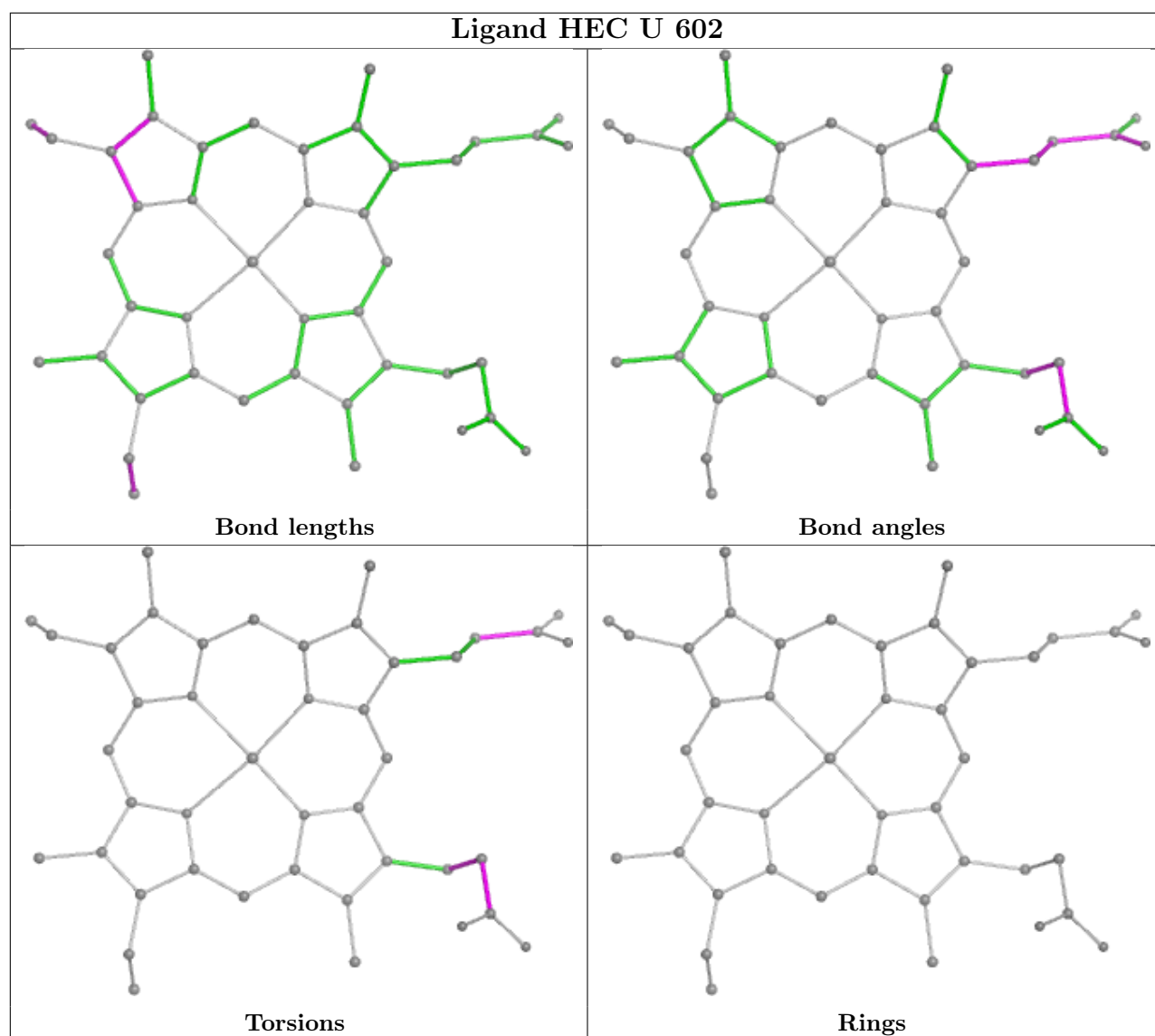
Bond angles

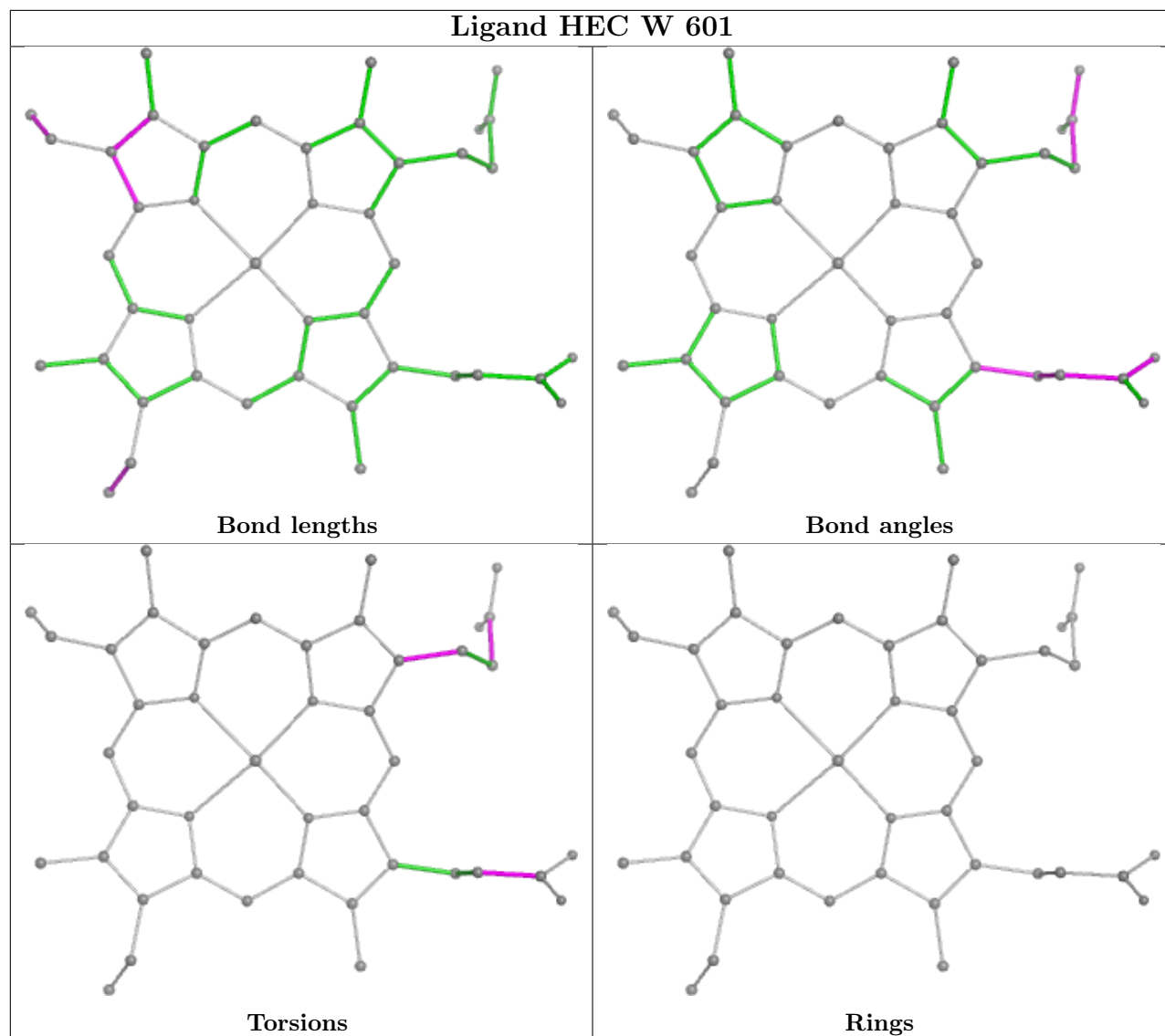


Torsions

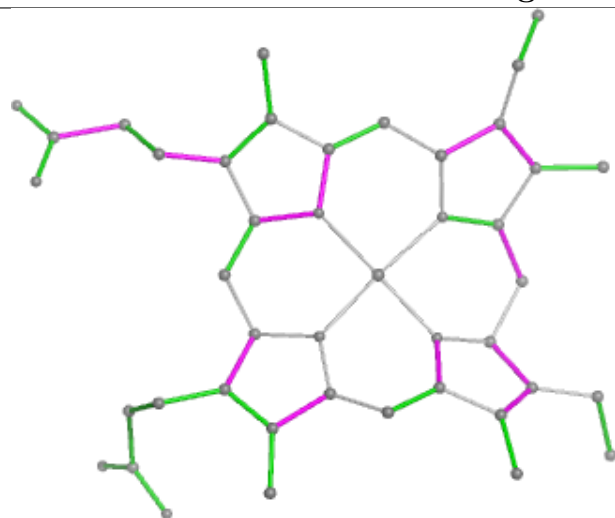


Rings

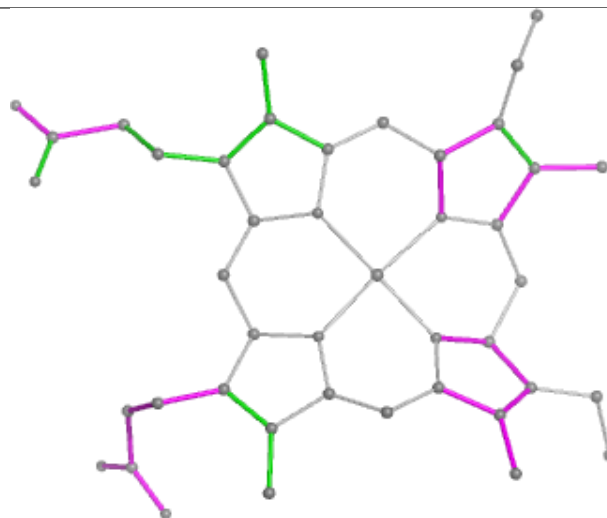




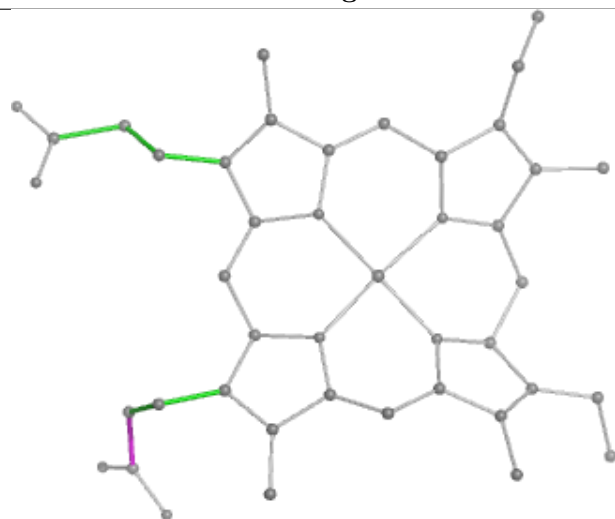
Ligand HEC S 603



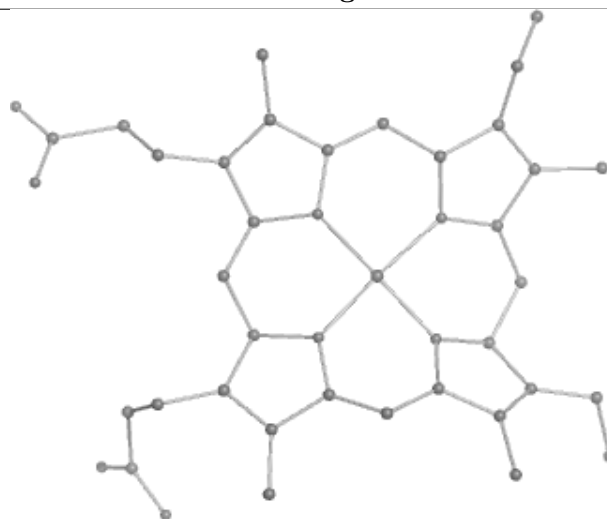
Bond lengths



Bond angles

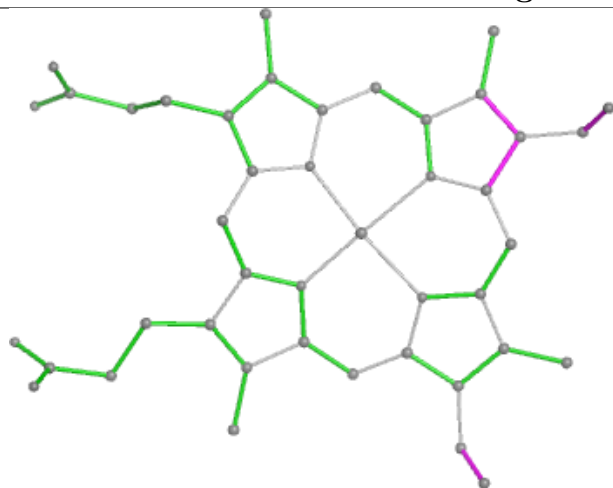


Torsions

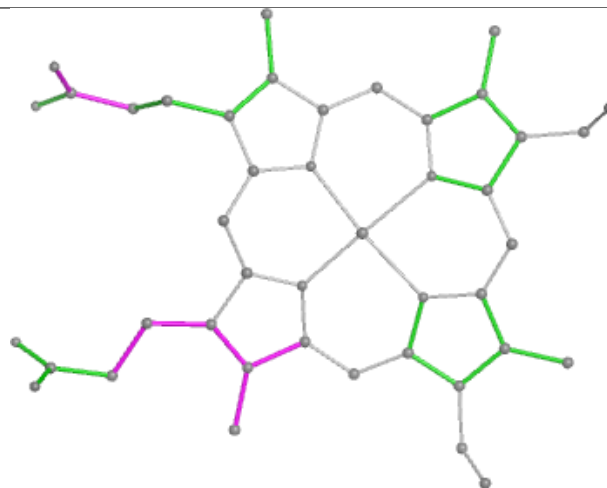


Rings

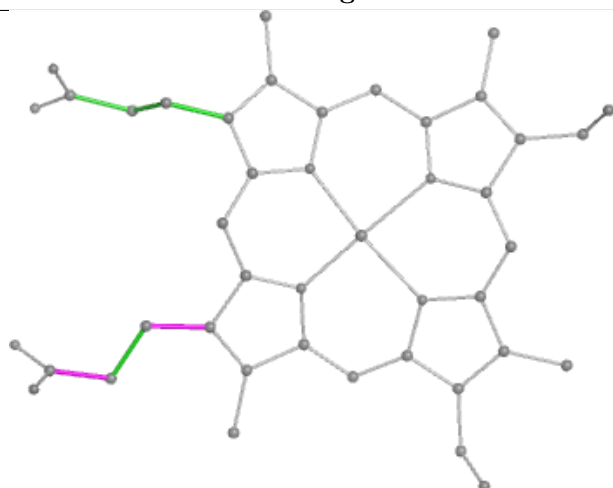
Ligand HEC S 605



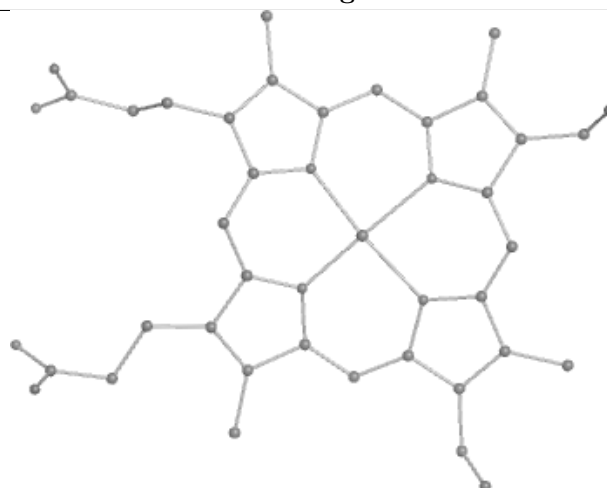
Bond lengths



Bond angles

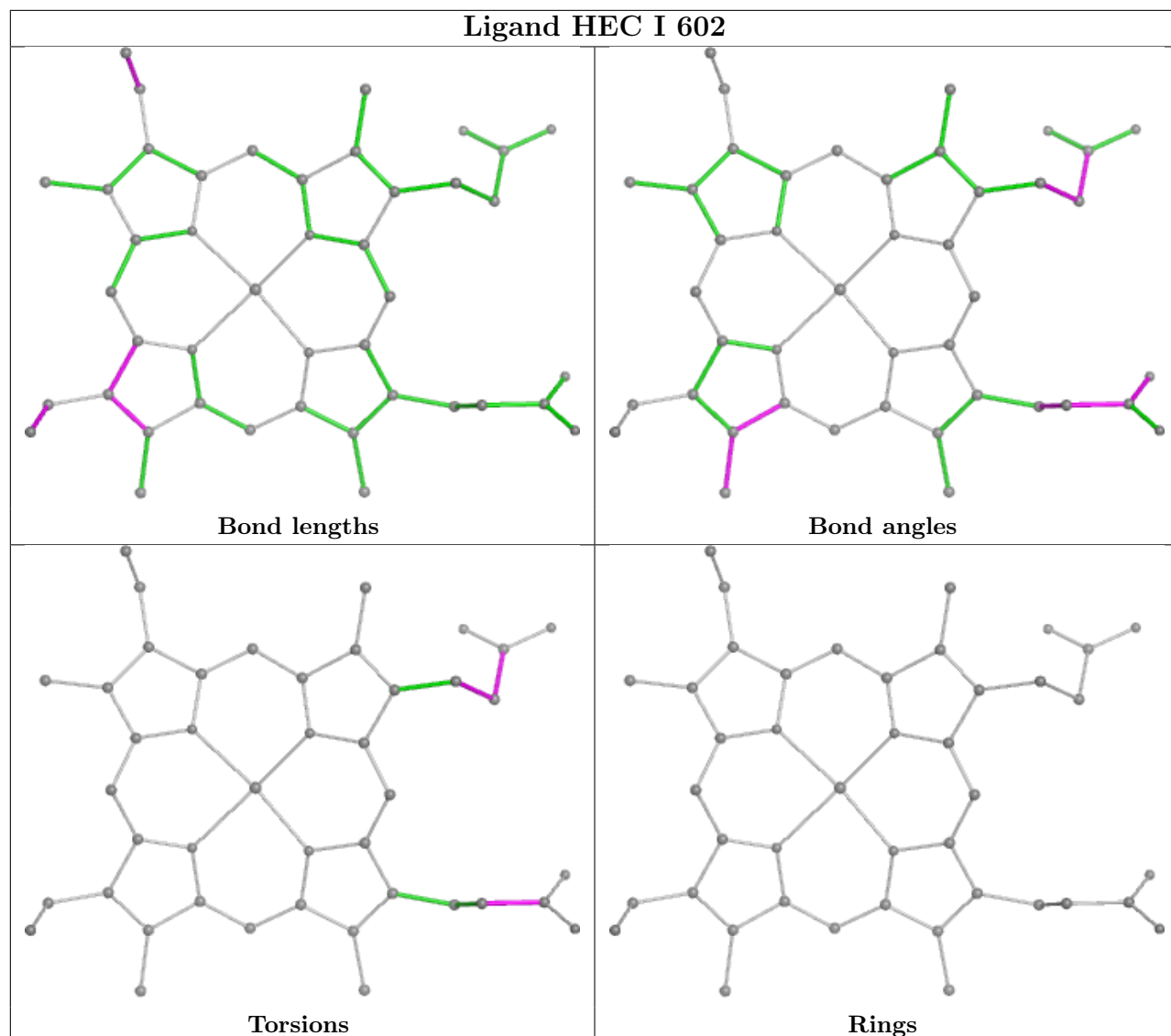


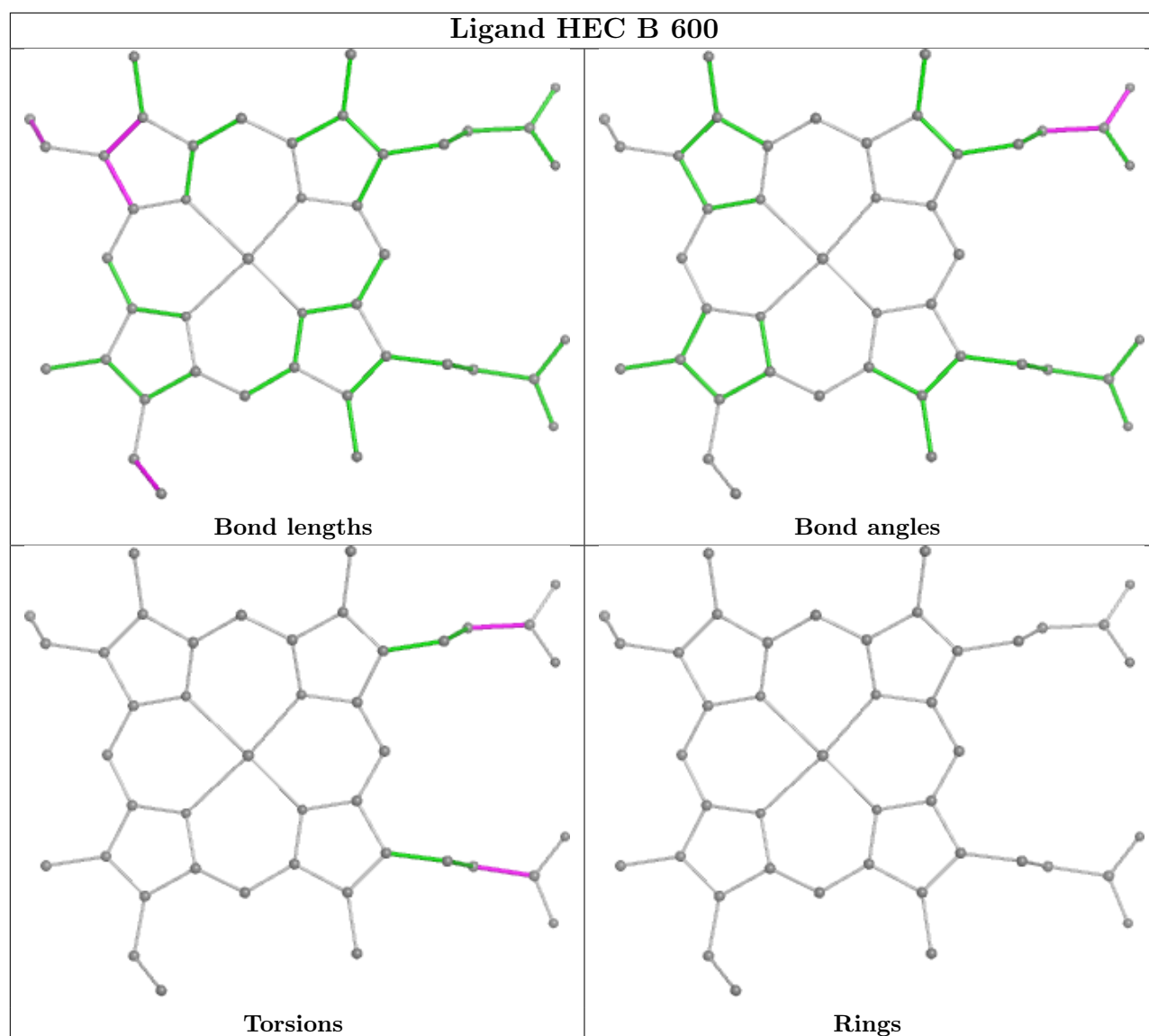
Torsions



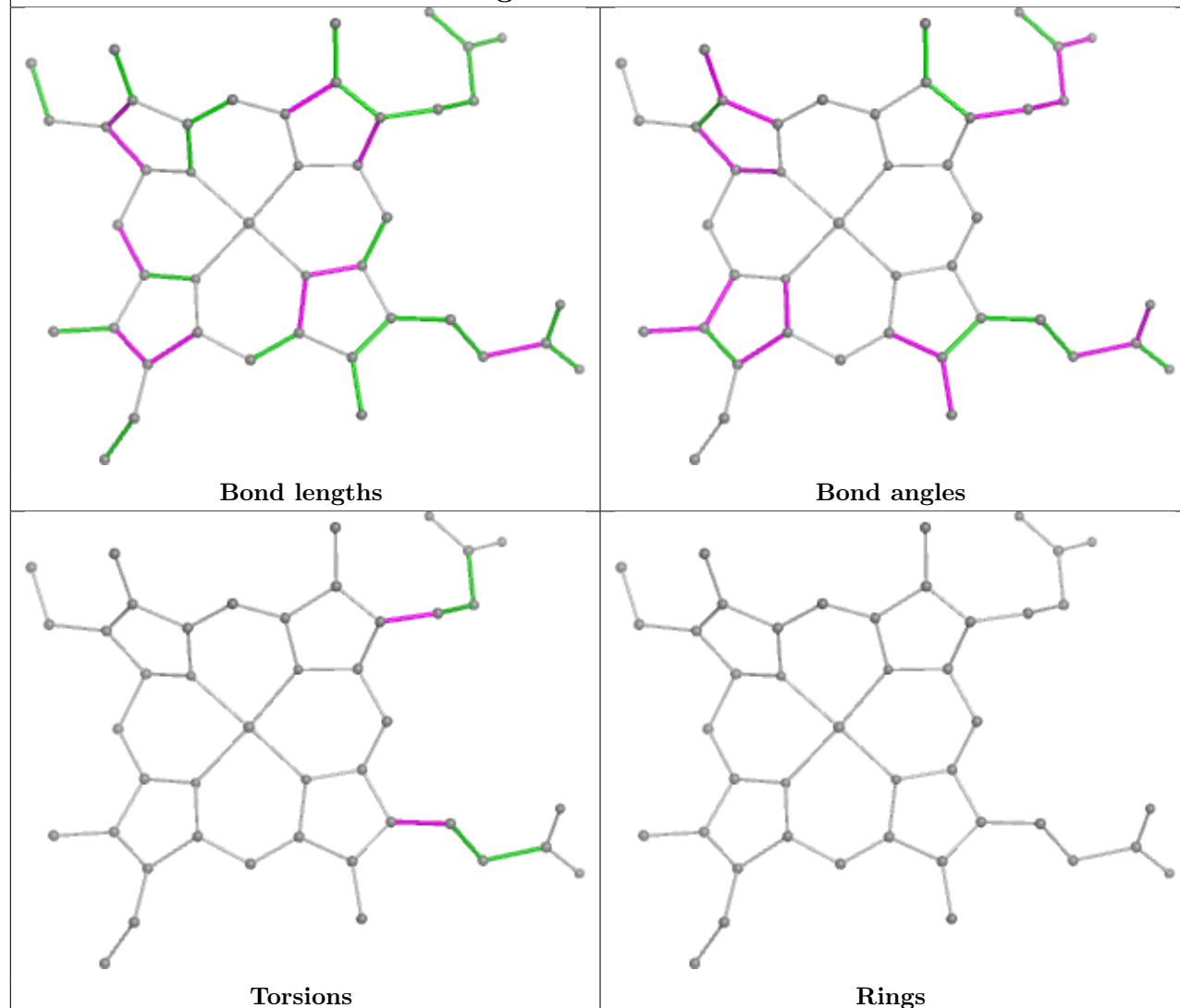
Rings

Ligand HEC I 602

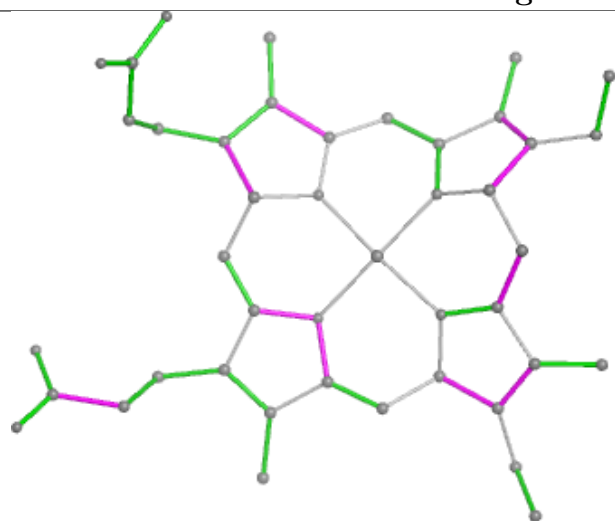




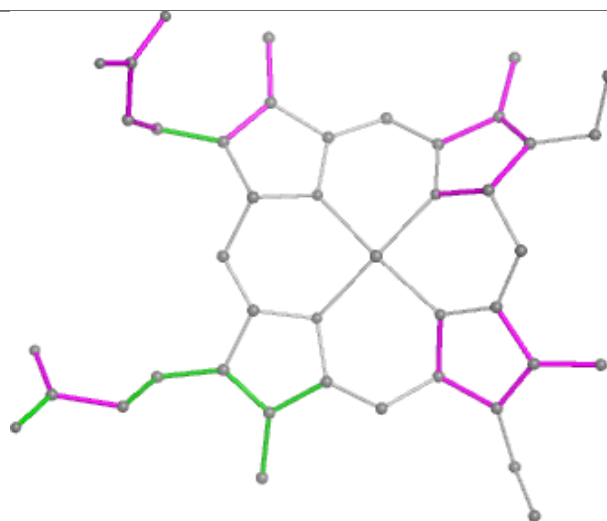
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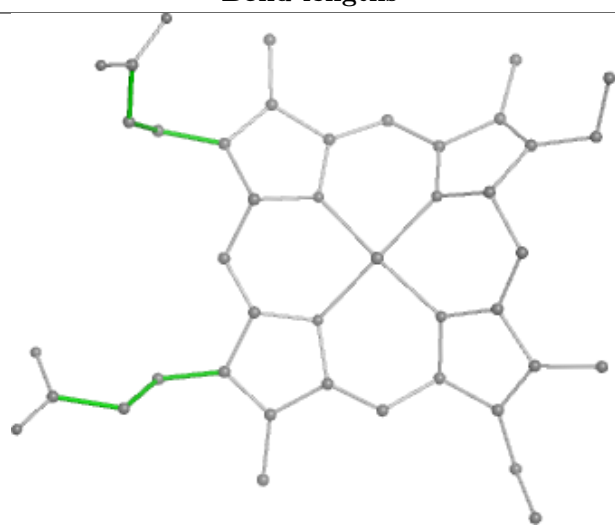
Ligand HEC P 603



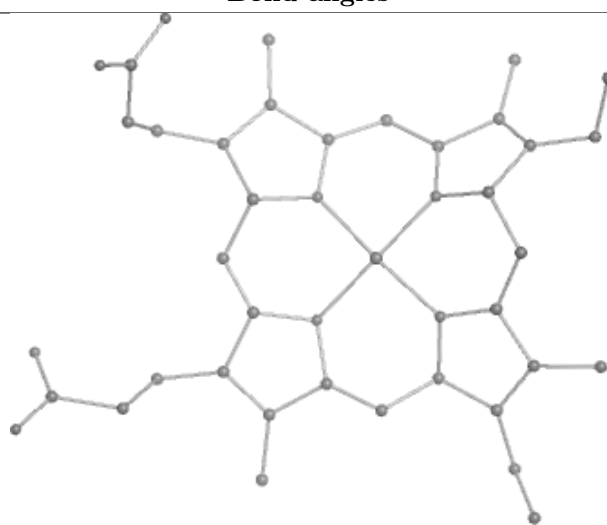
Bond lengths



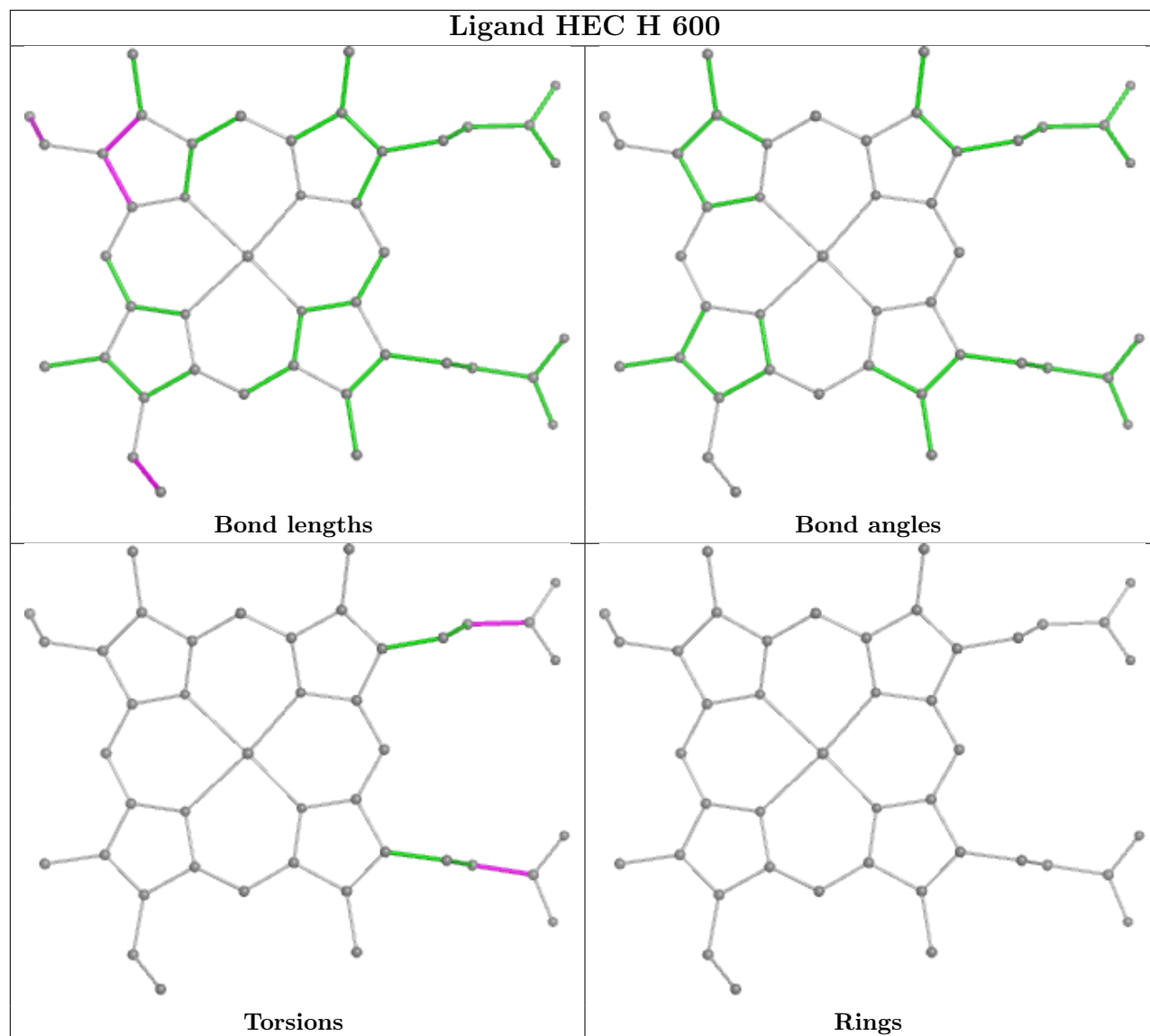
Bond angles



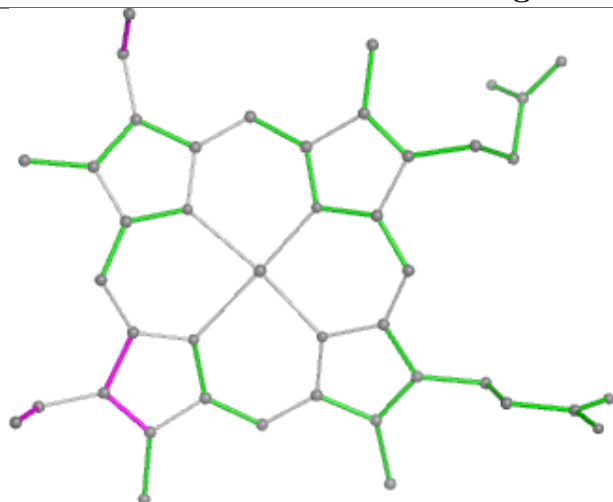
Torsions



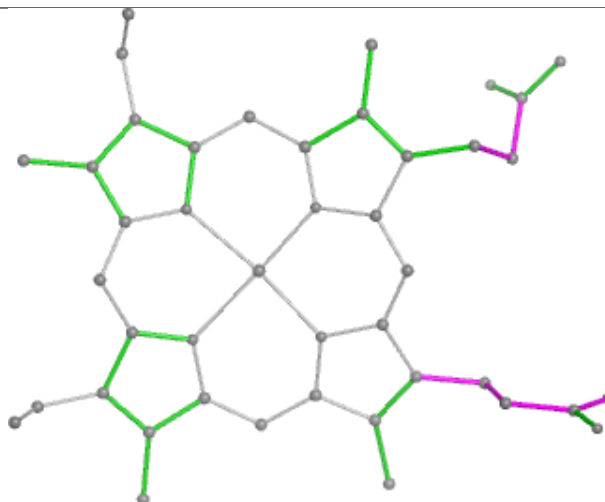
Rings



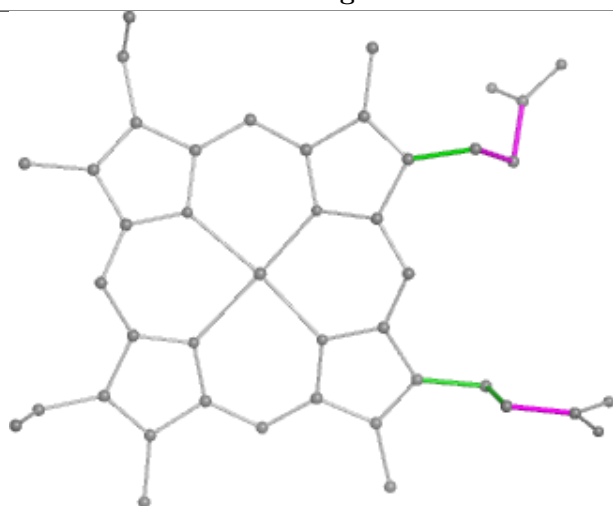
Ligand HEC B 602



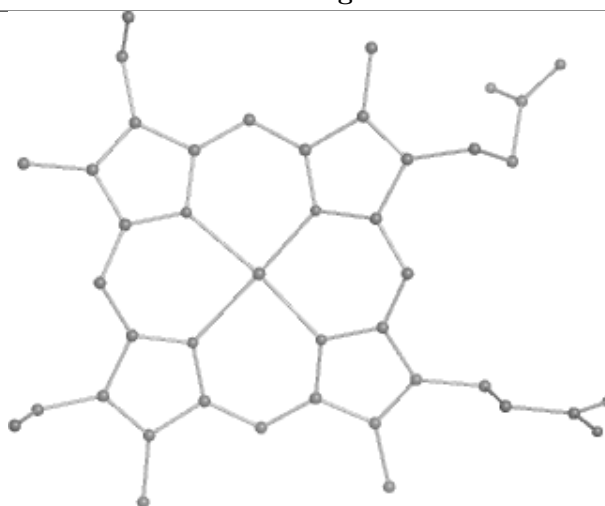
Bond lengths



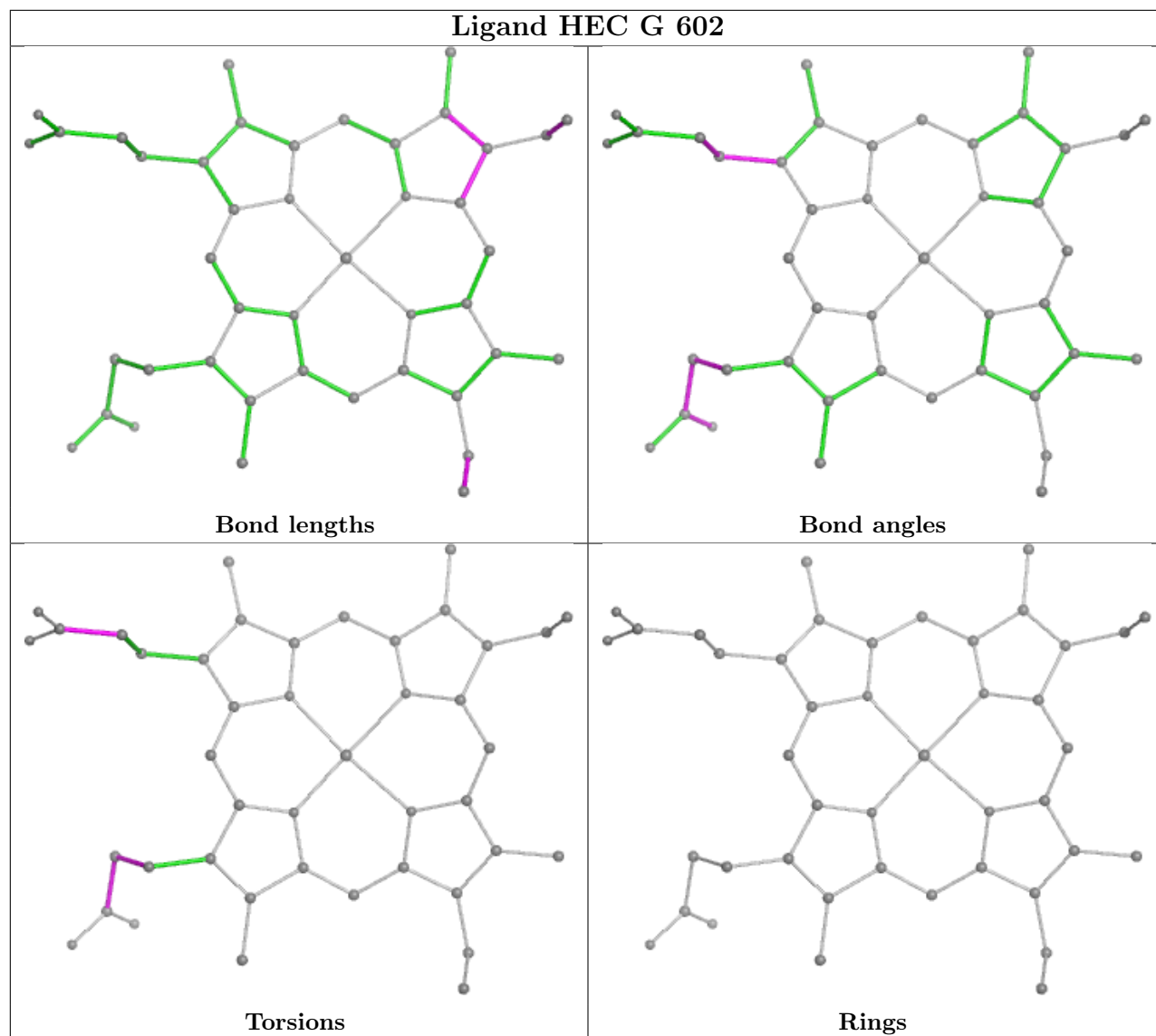
Bond angles

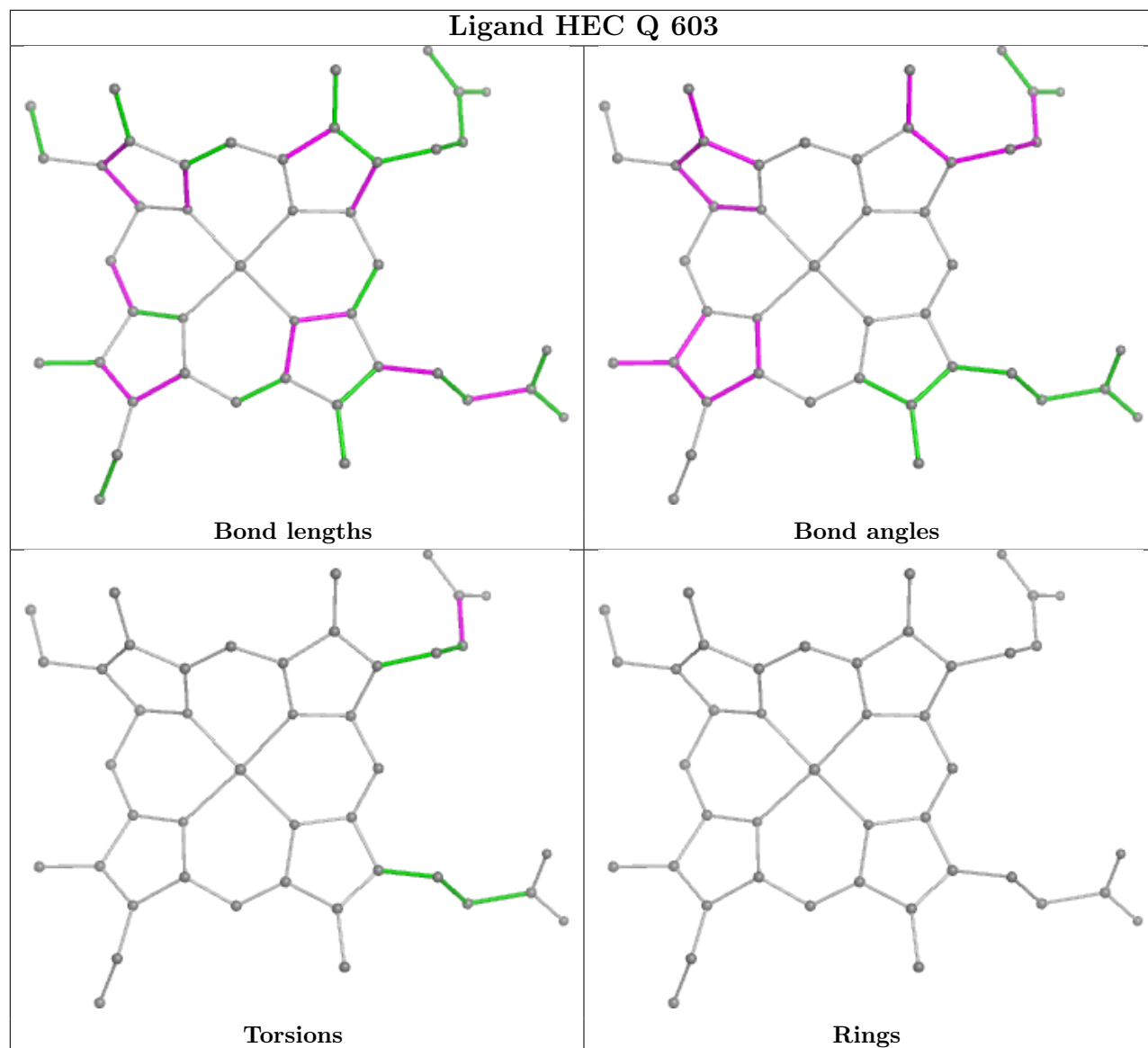


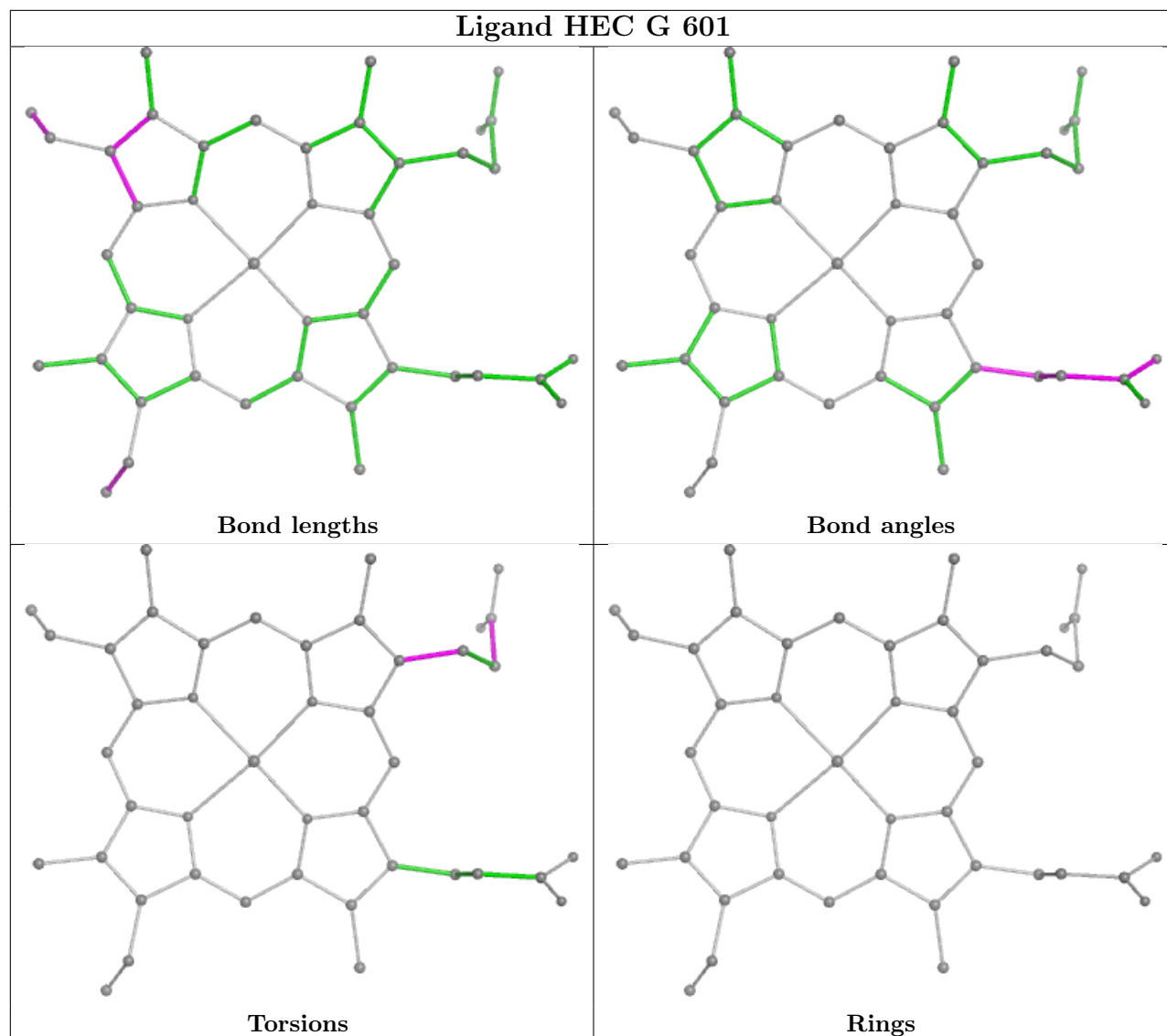
Torsions

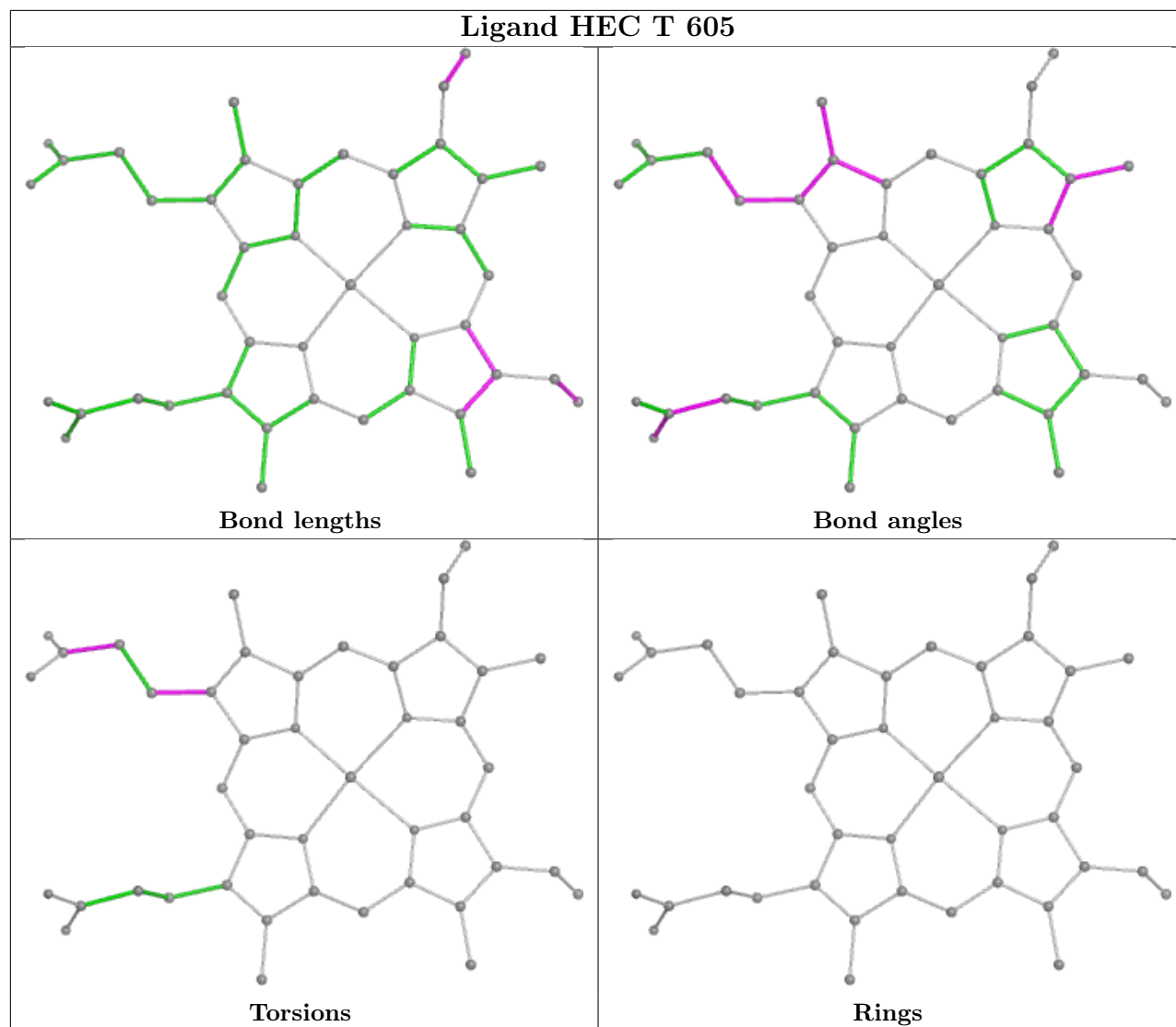


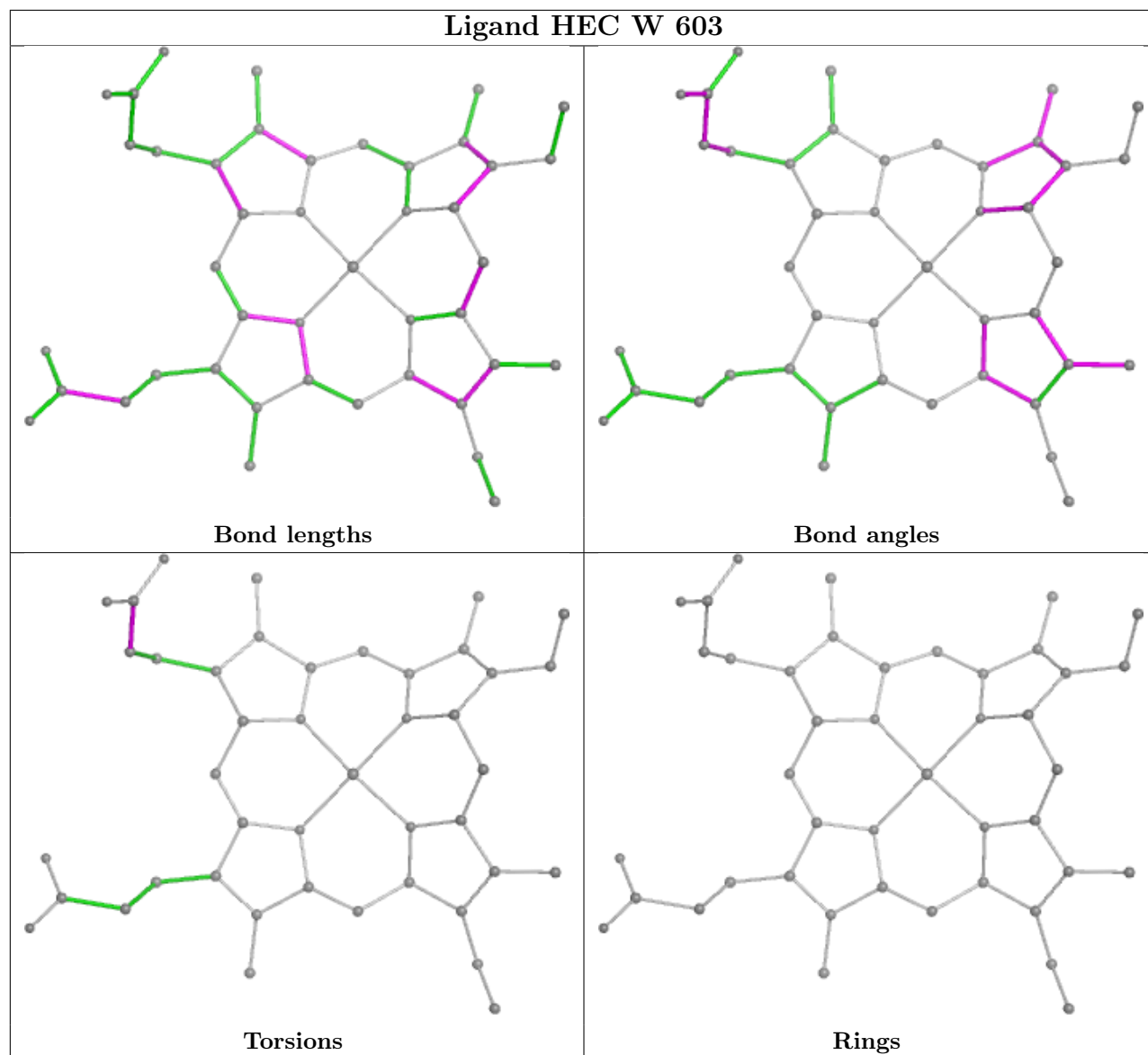
Rings



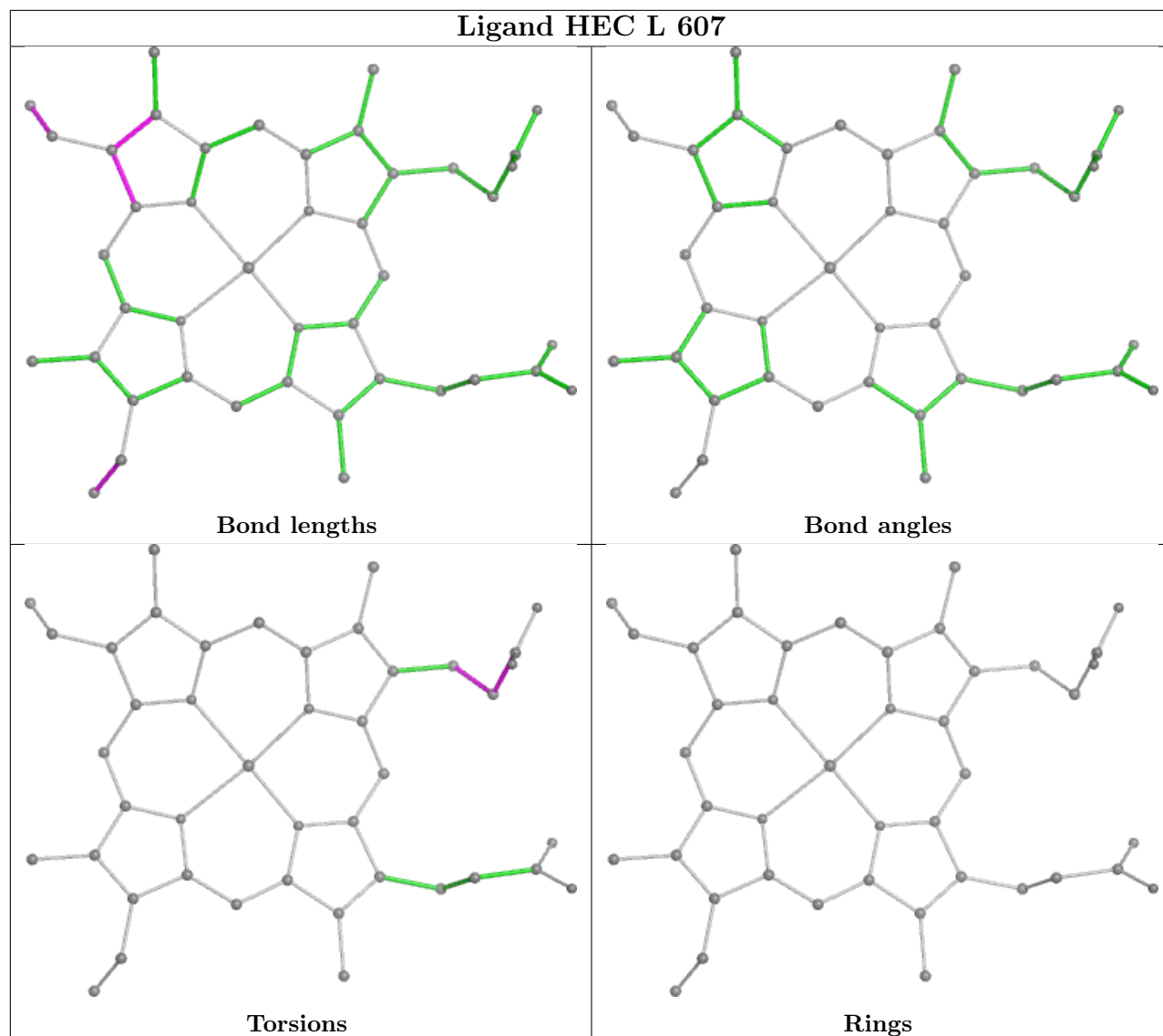


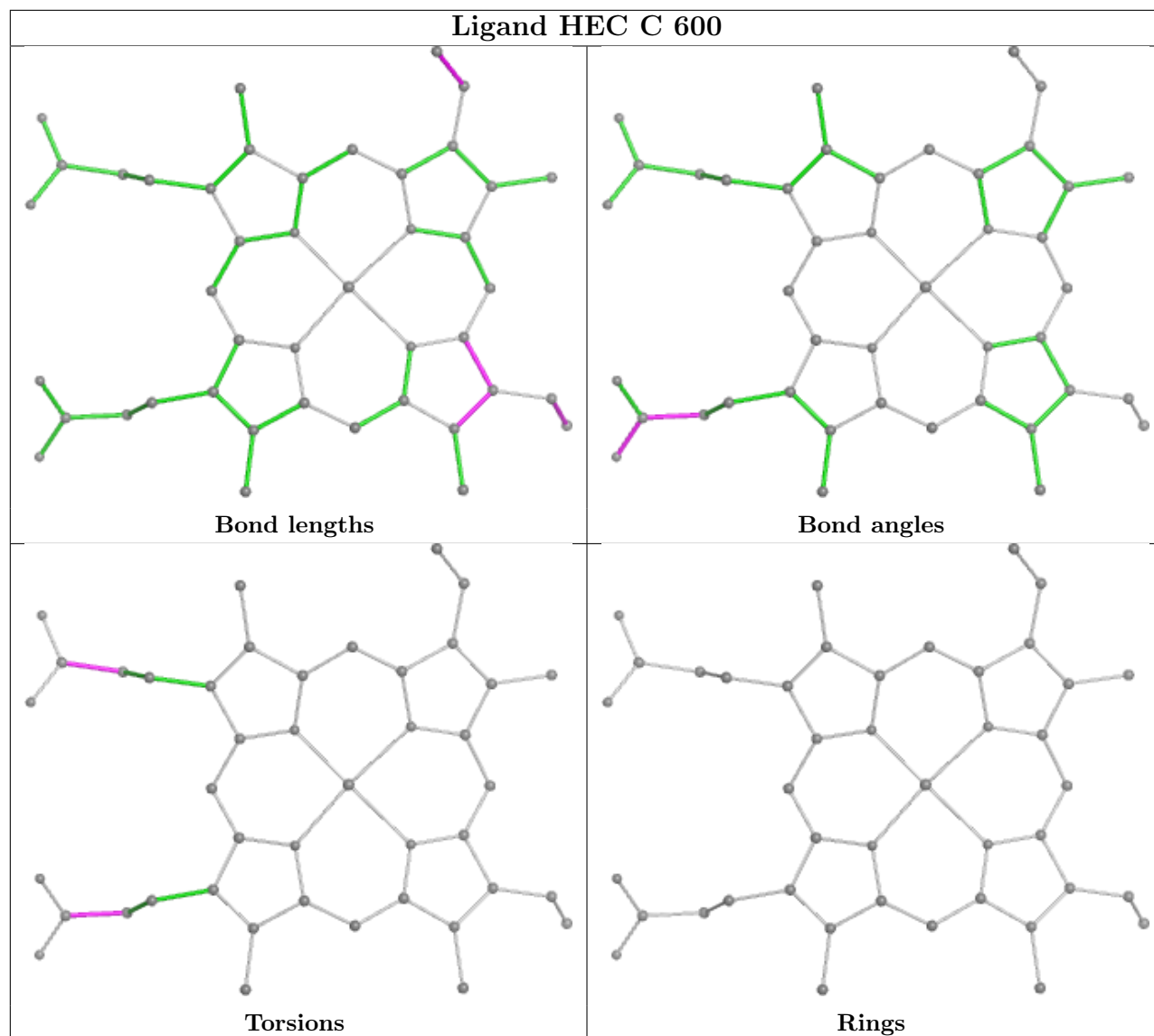


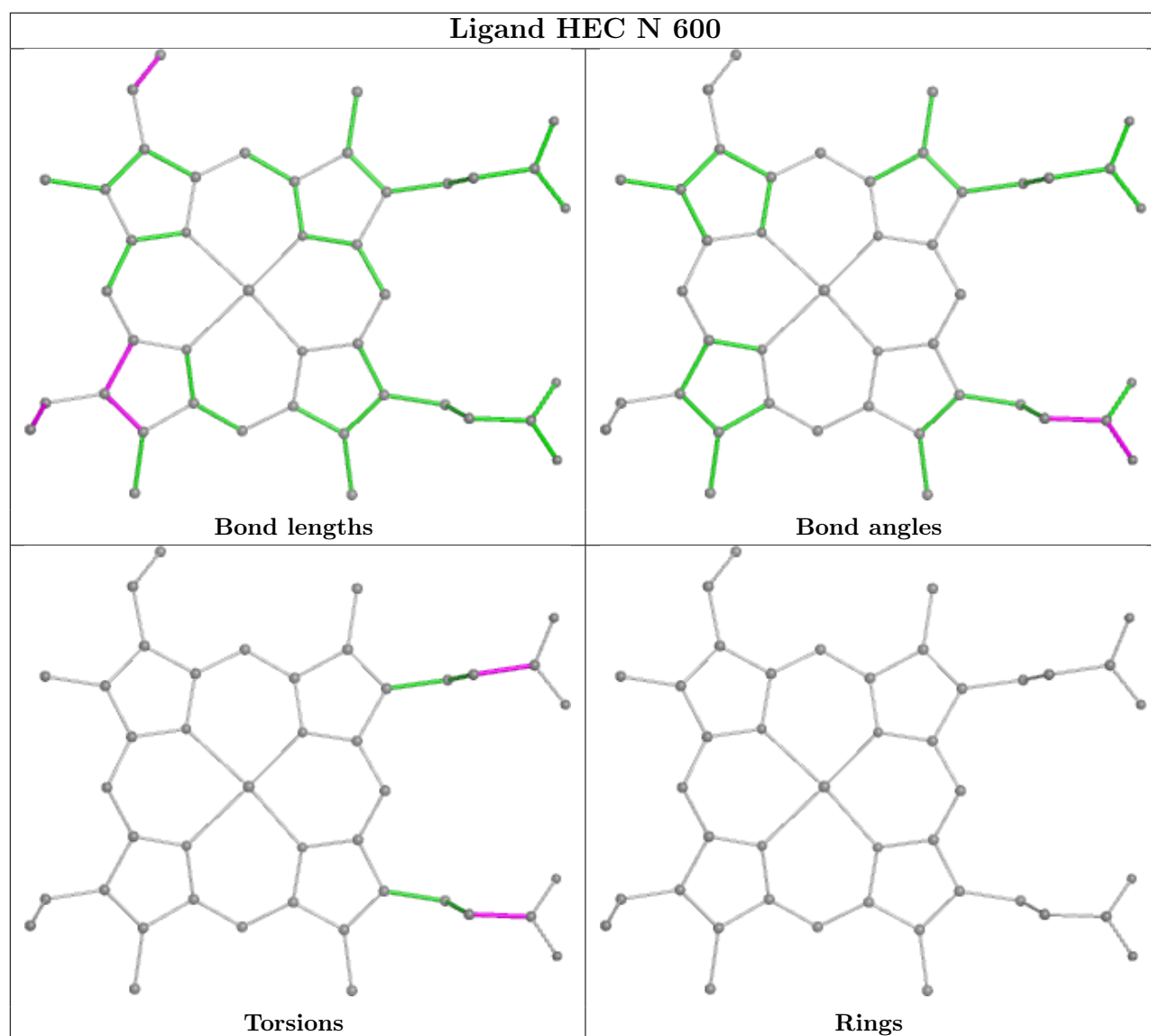




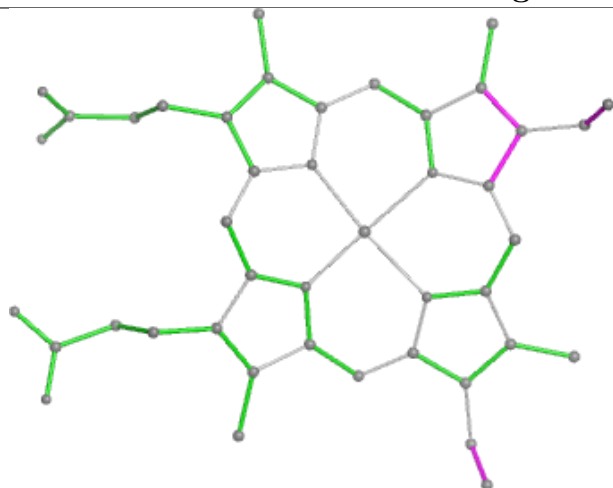
Ligand HEC L 607



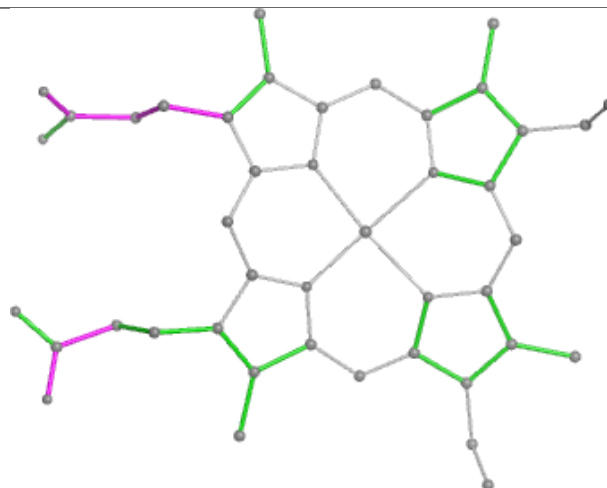




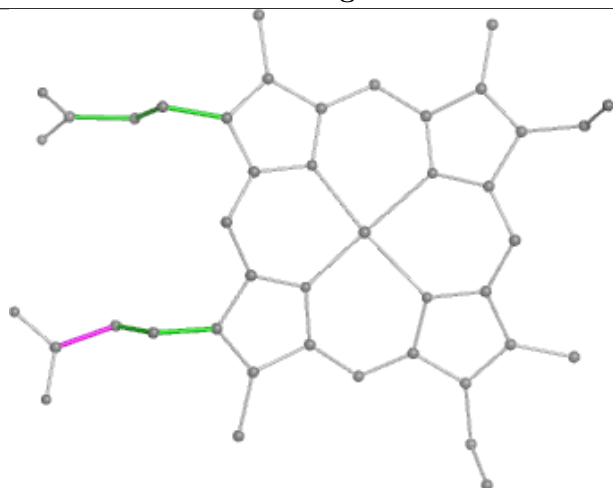
Ligand HEC R 606



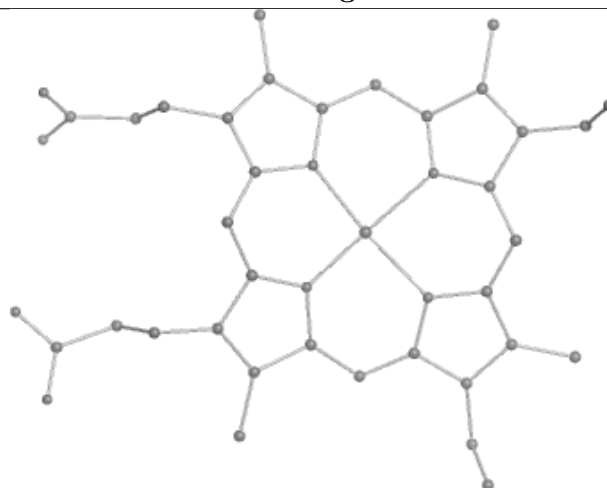
Bond lengths



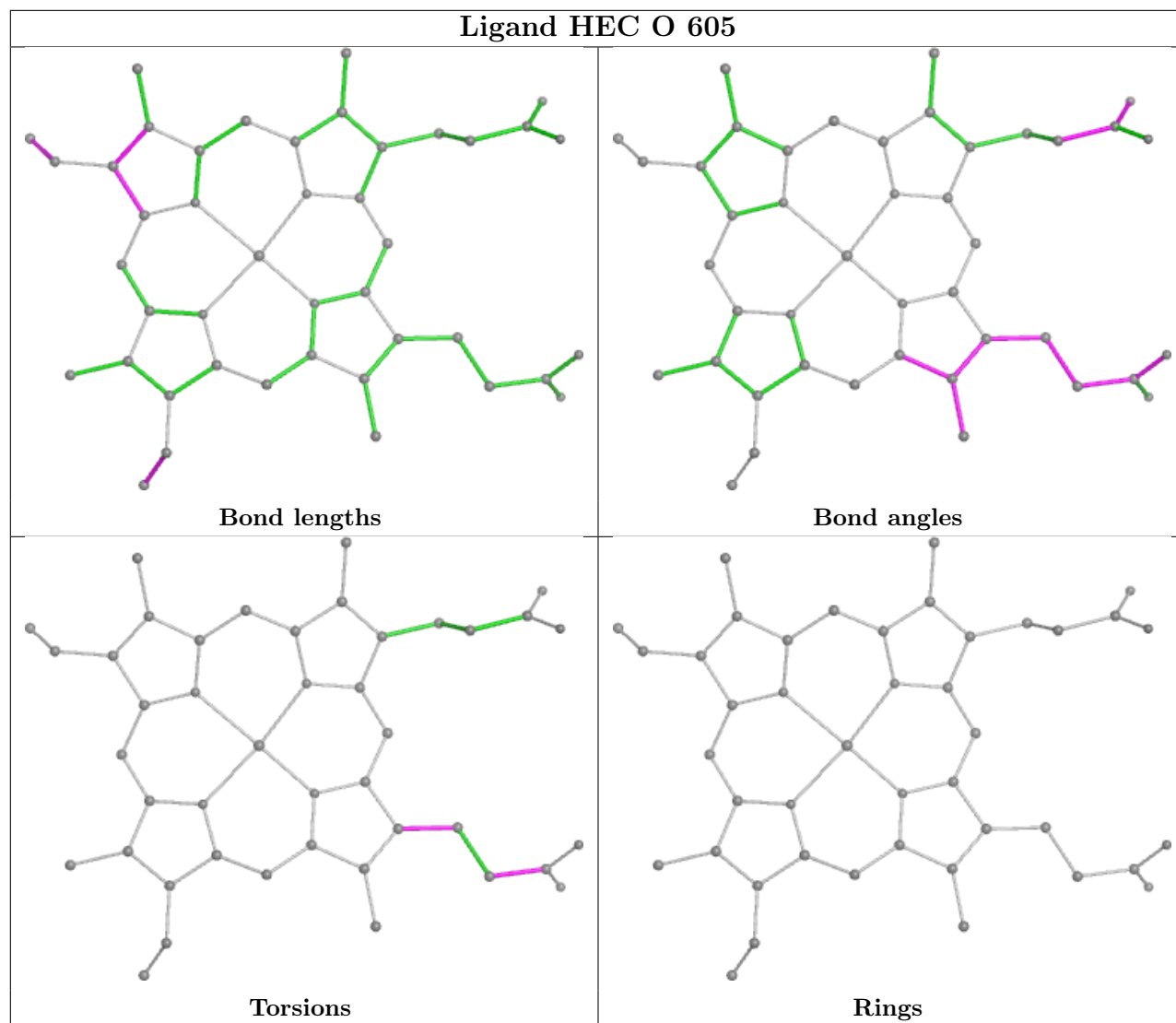
Bond angles



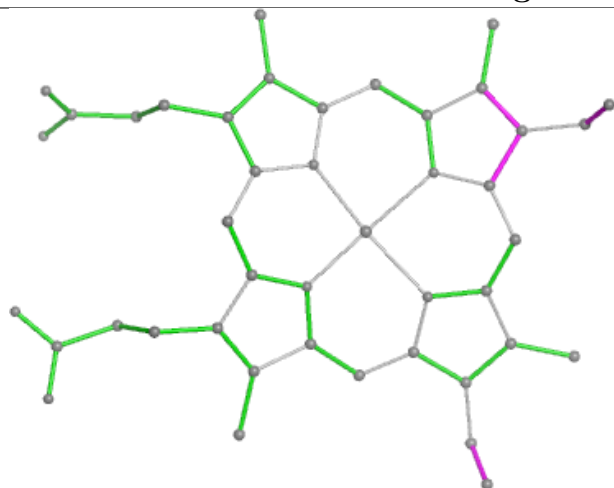
Torsions



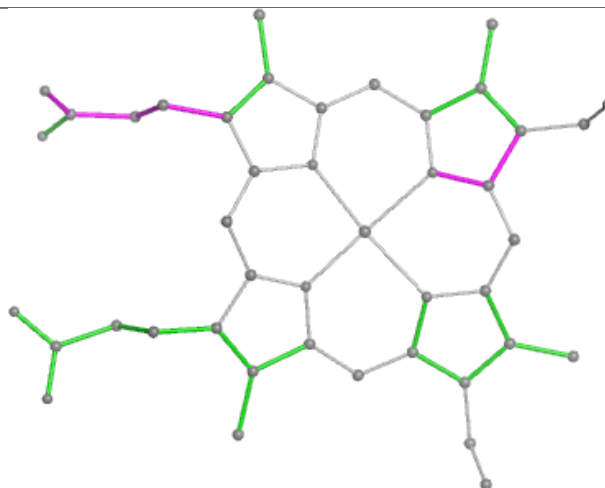
Rings



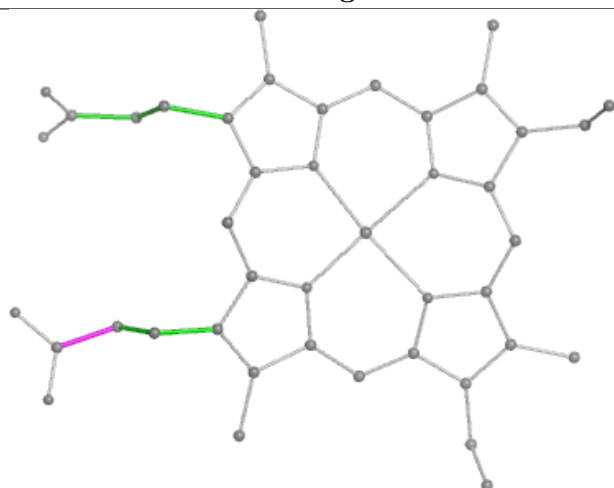
Ligand HEC P 606



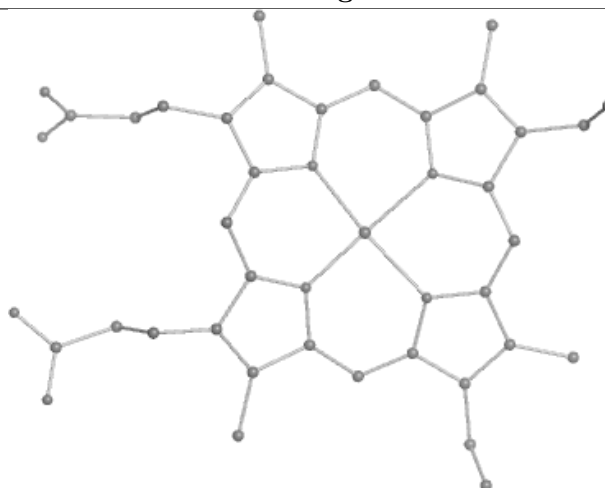
Bond lengths



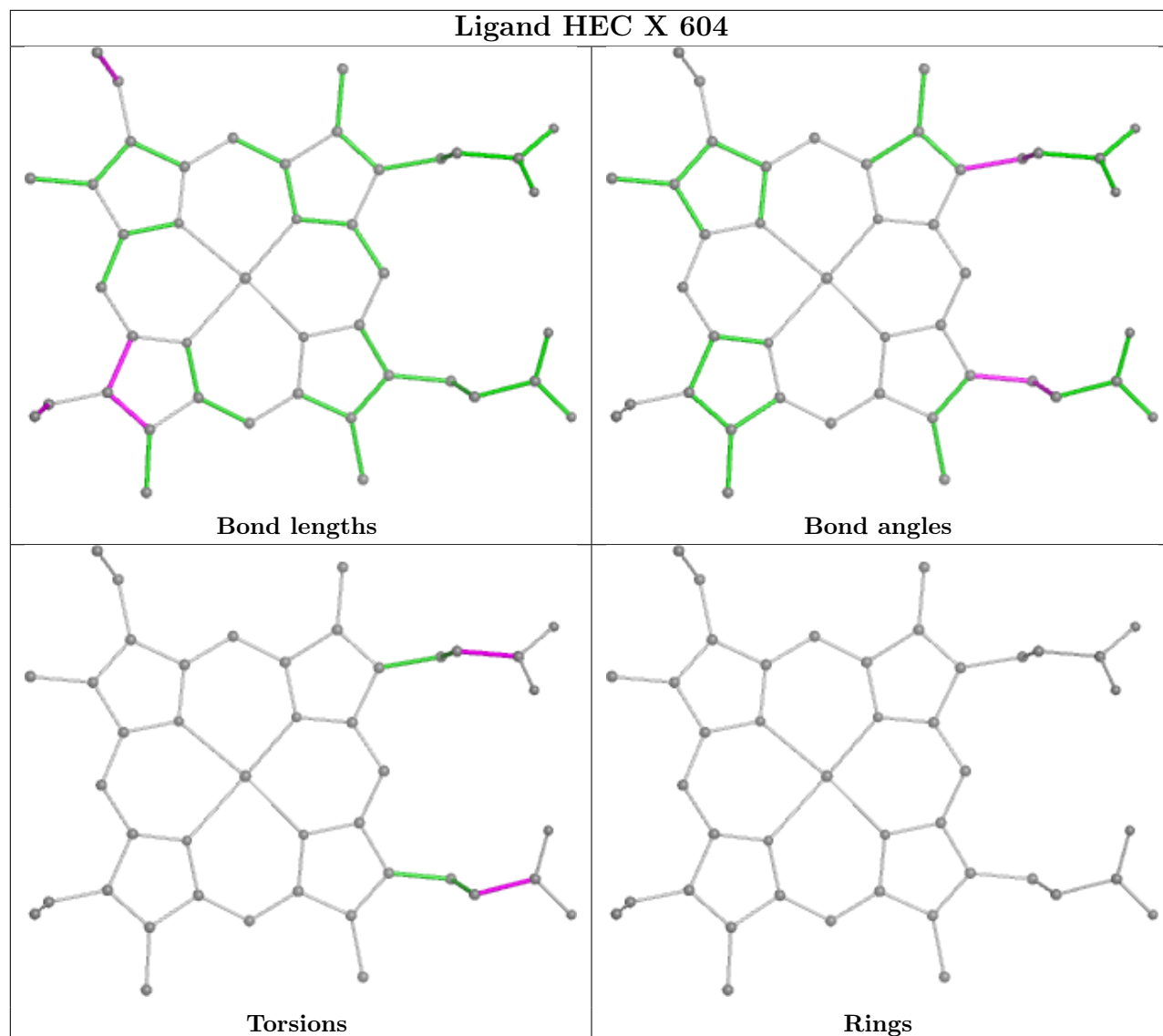
Bond angles

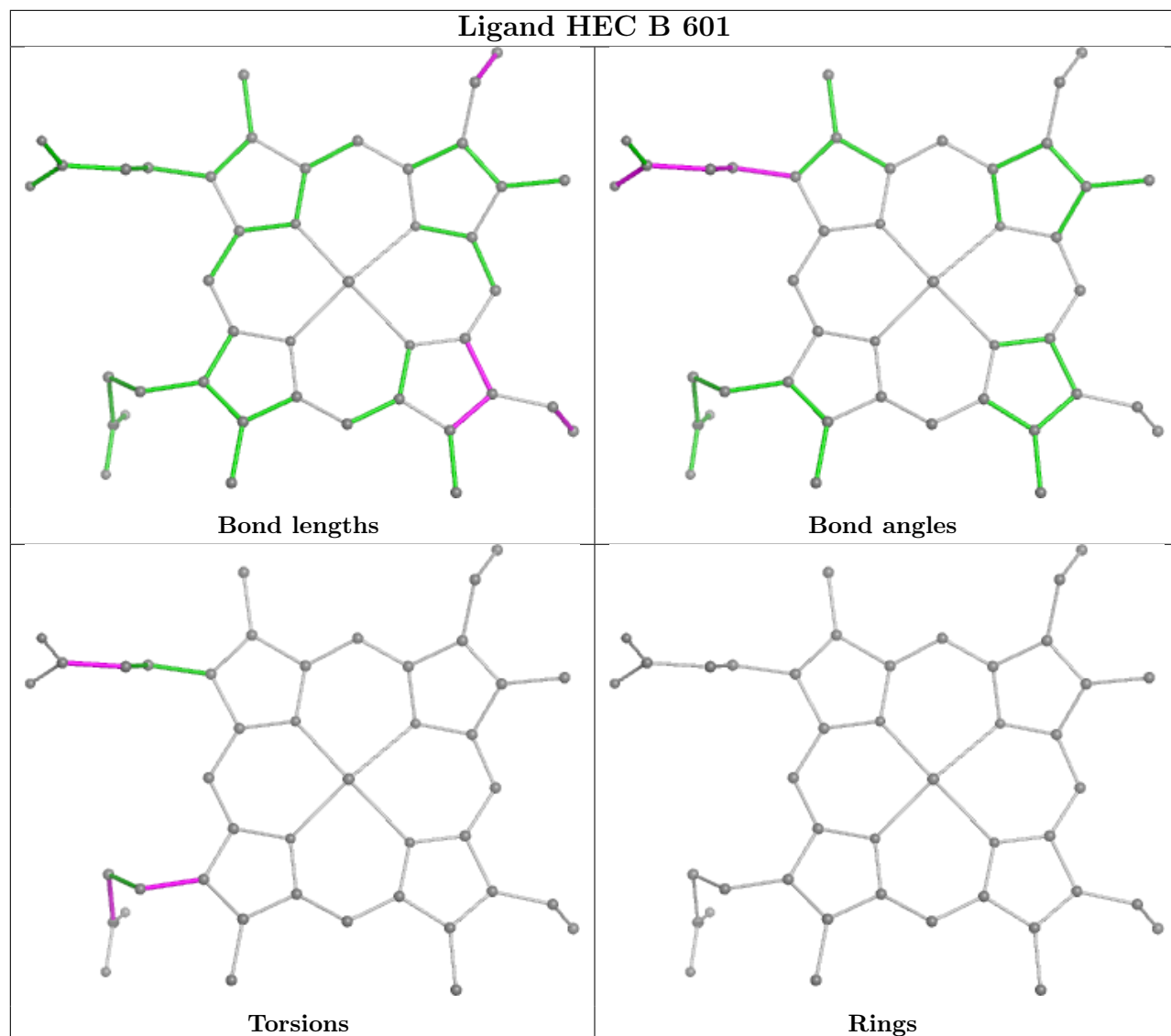


Torsions

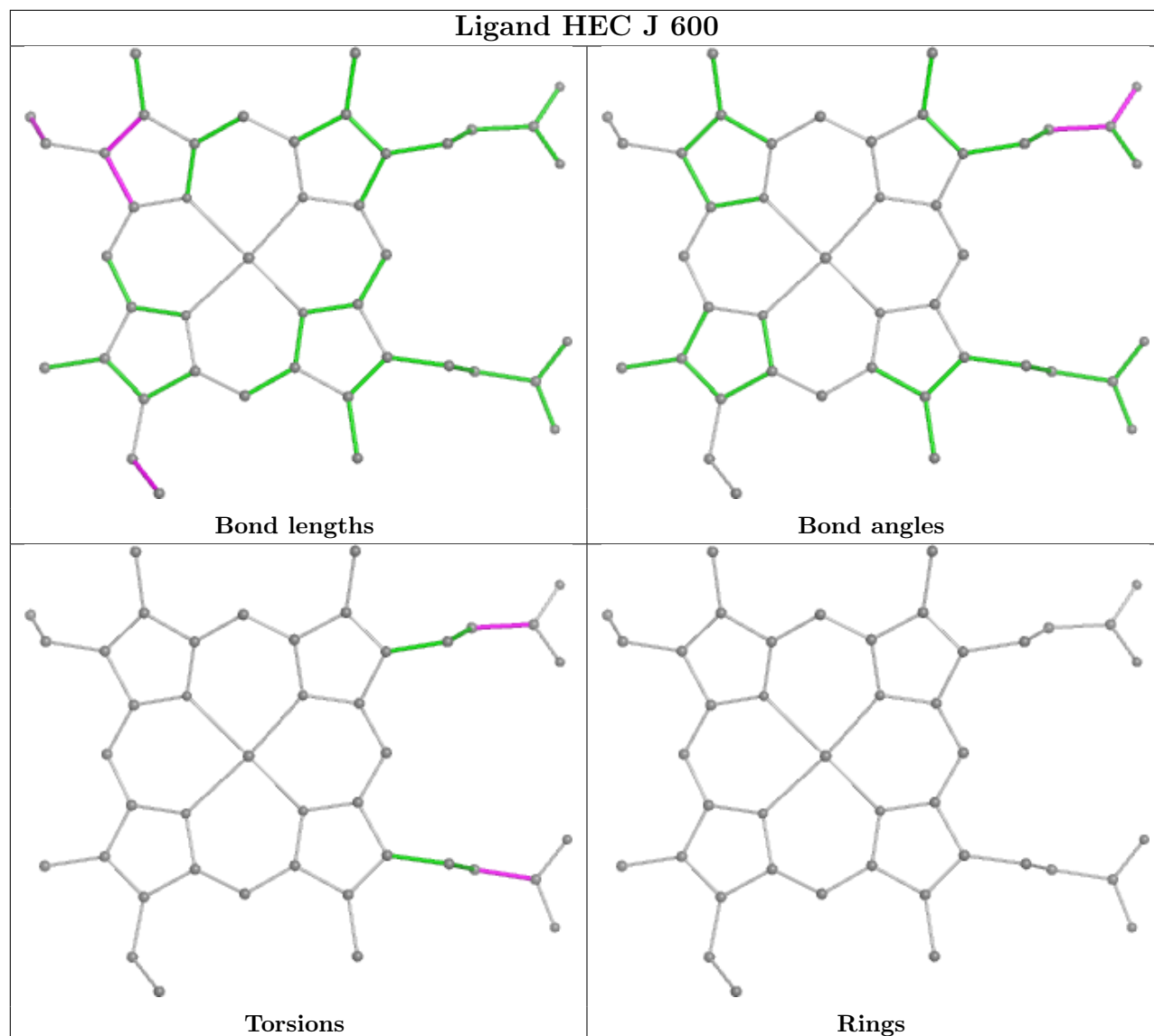


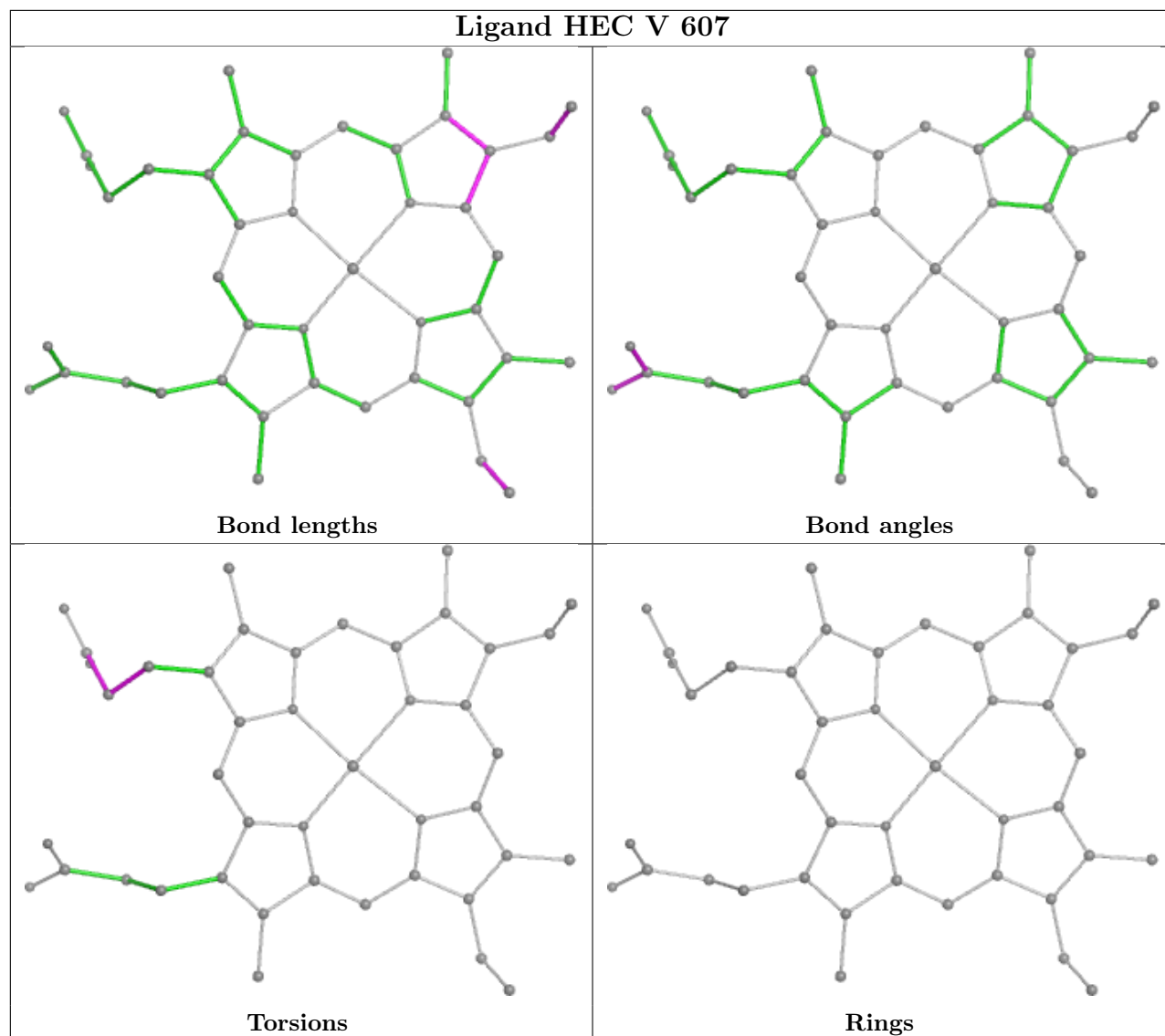
Rings



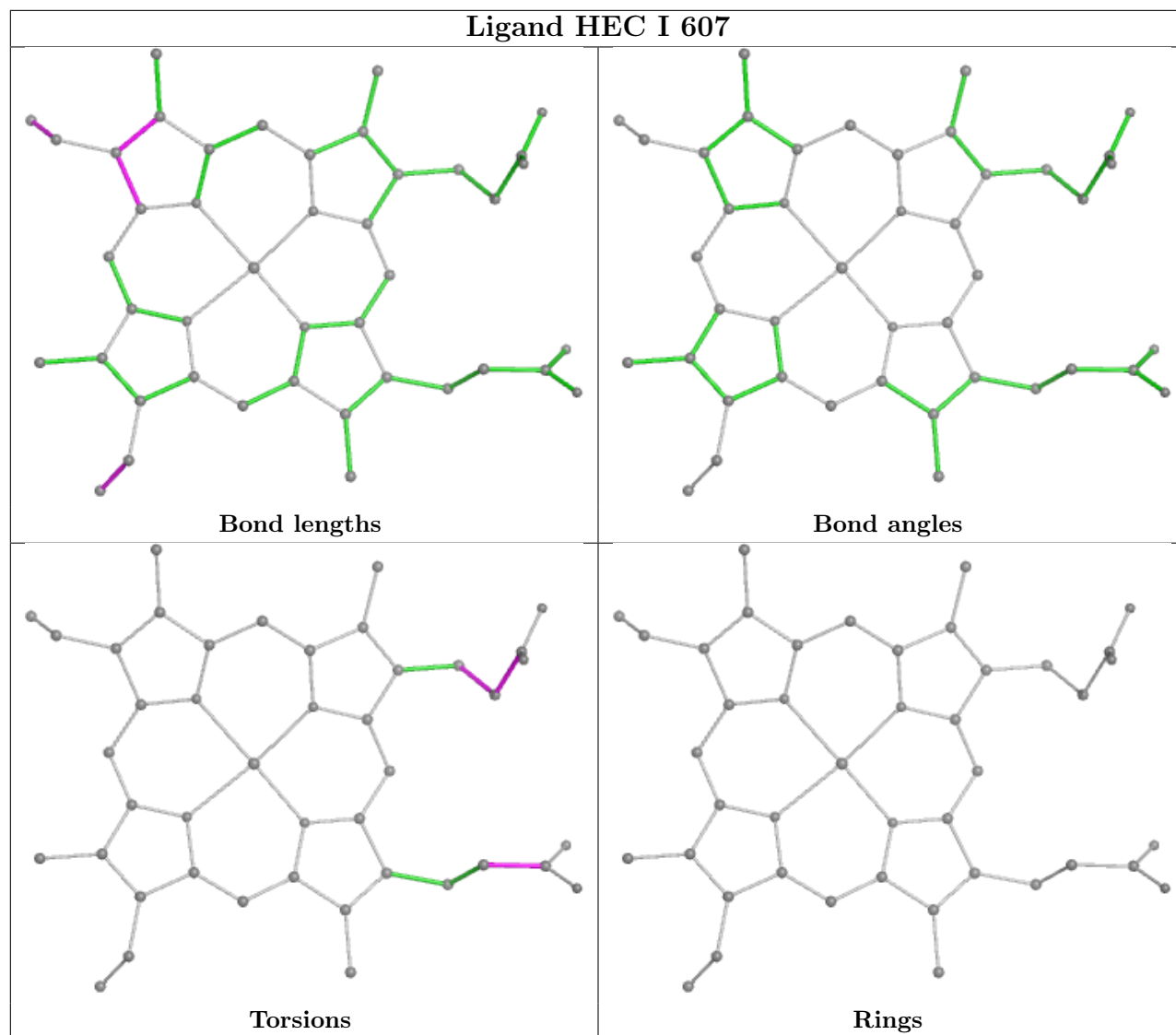


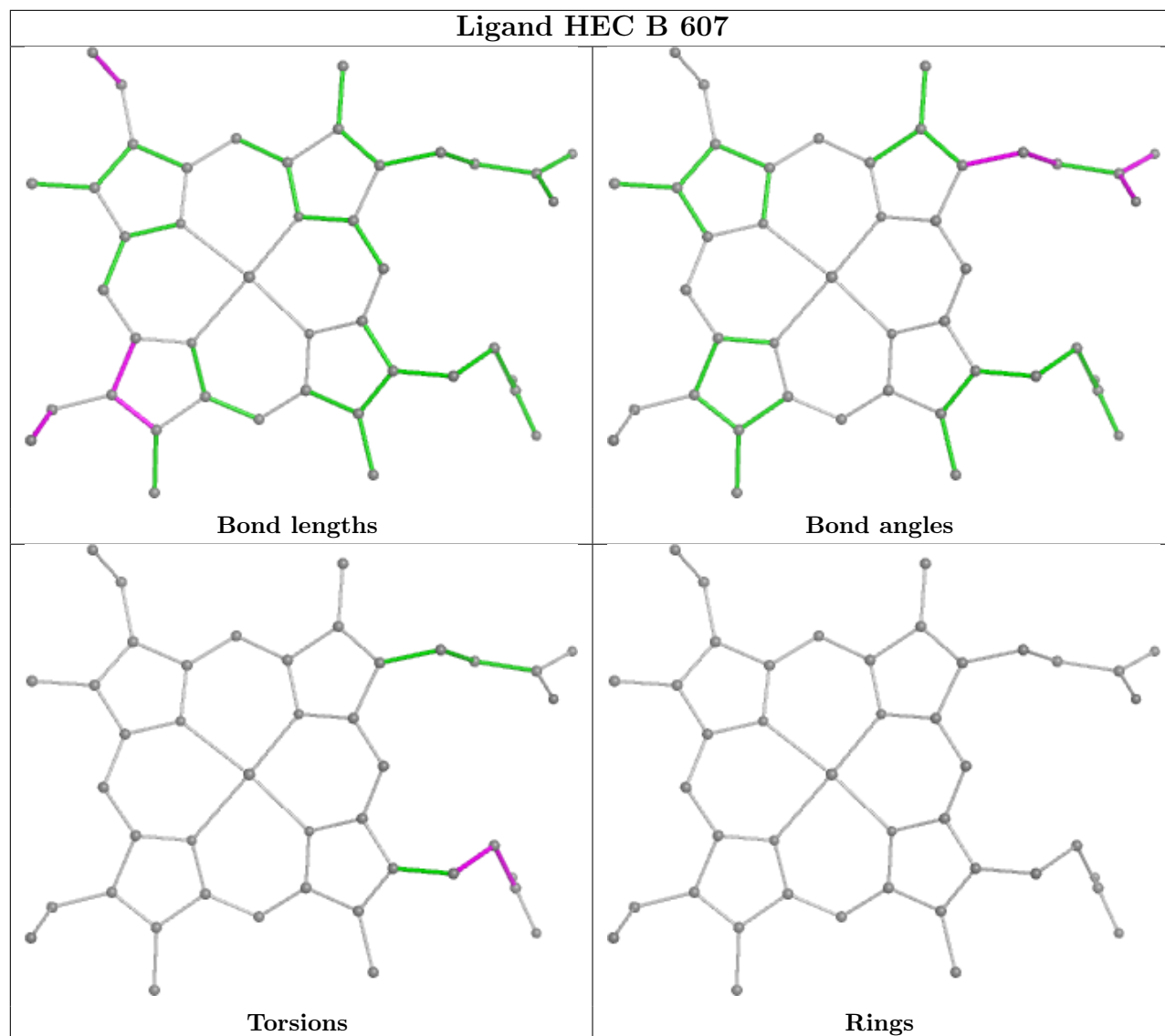
Ligand HEC J 600



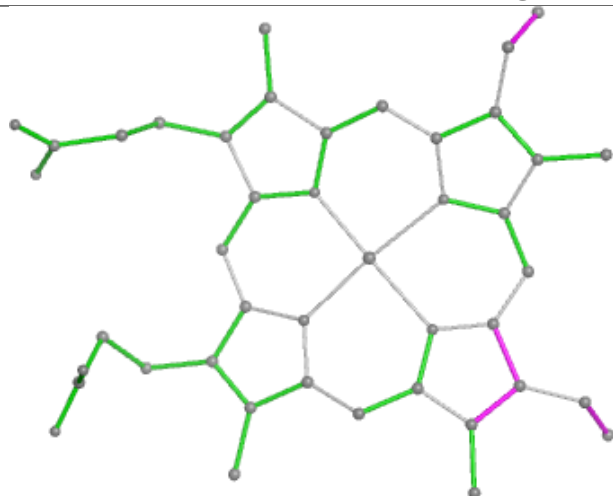


Ligand HEC I 607

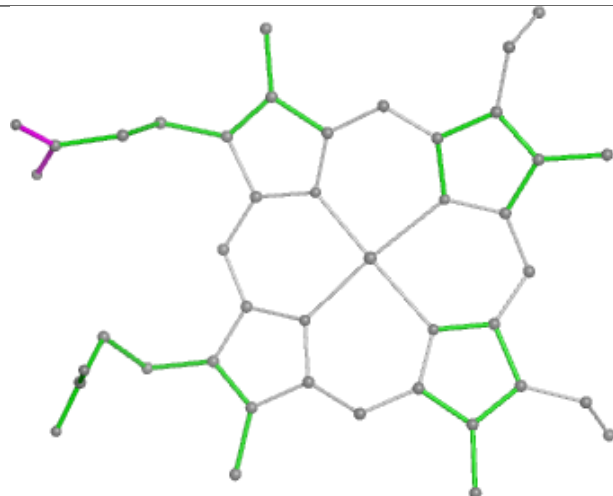




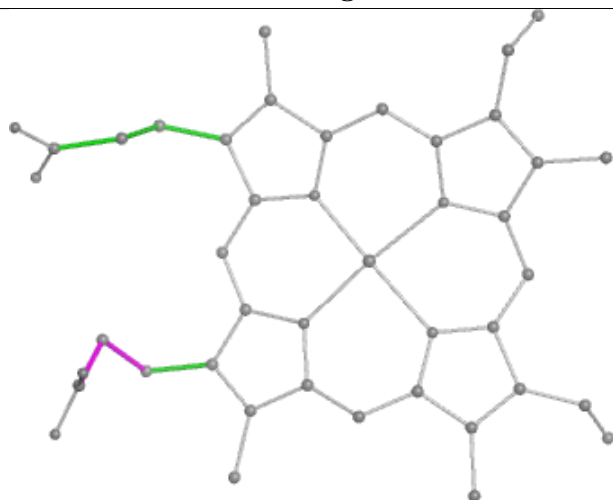
Ligand HEC E 607



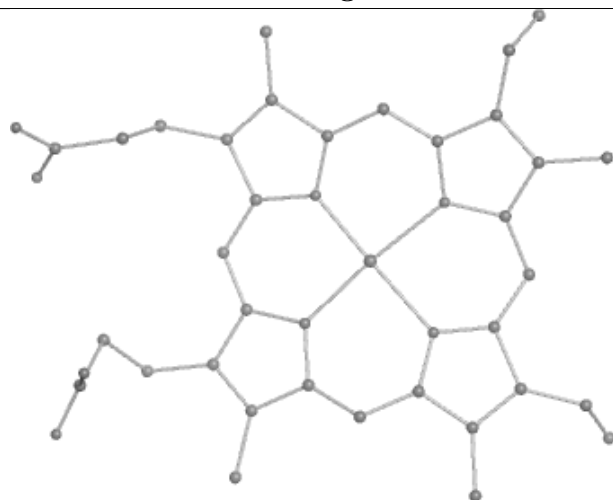
Bond lengths



Bond angles

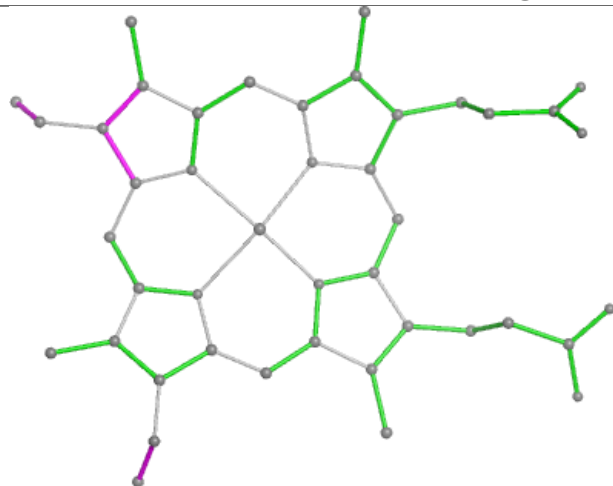


Torsions

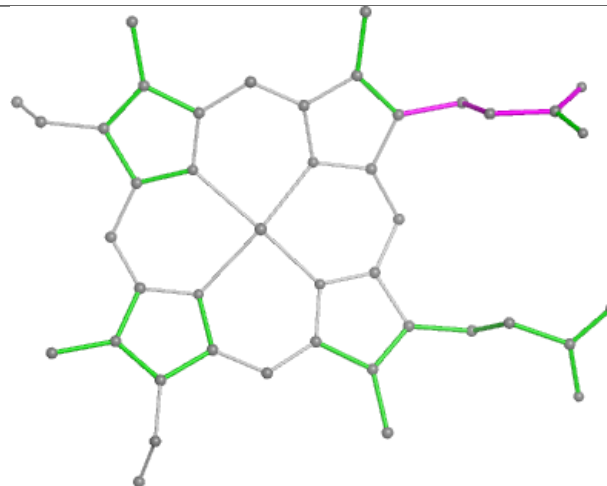


Rings

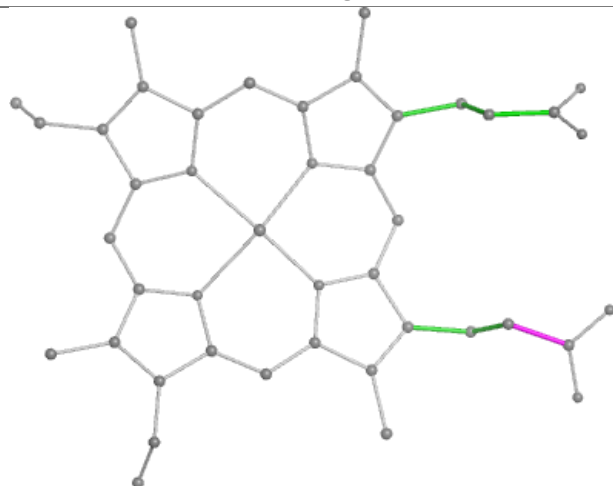
Ligand HEC J 606



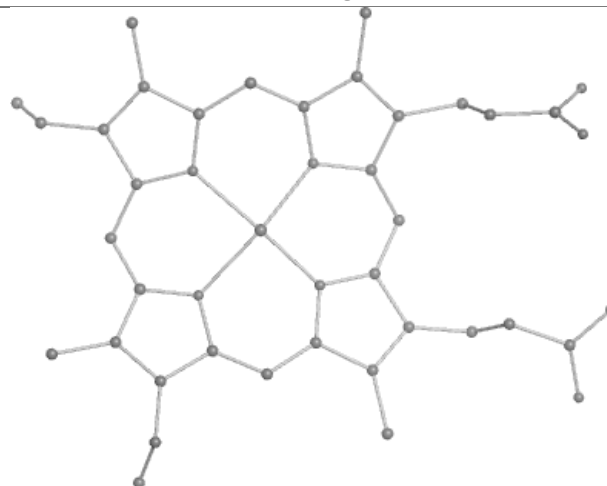
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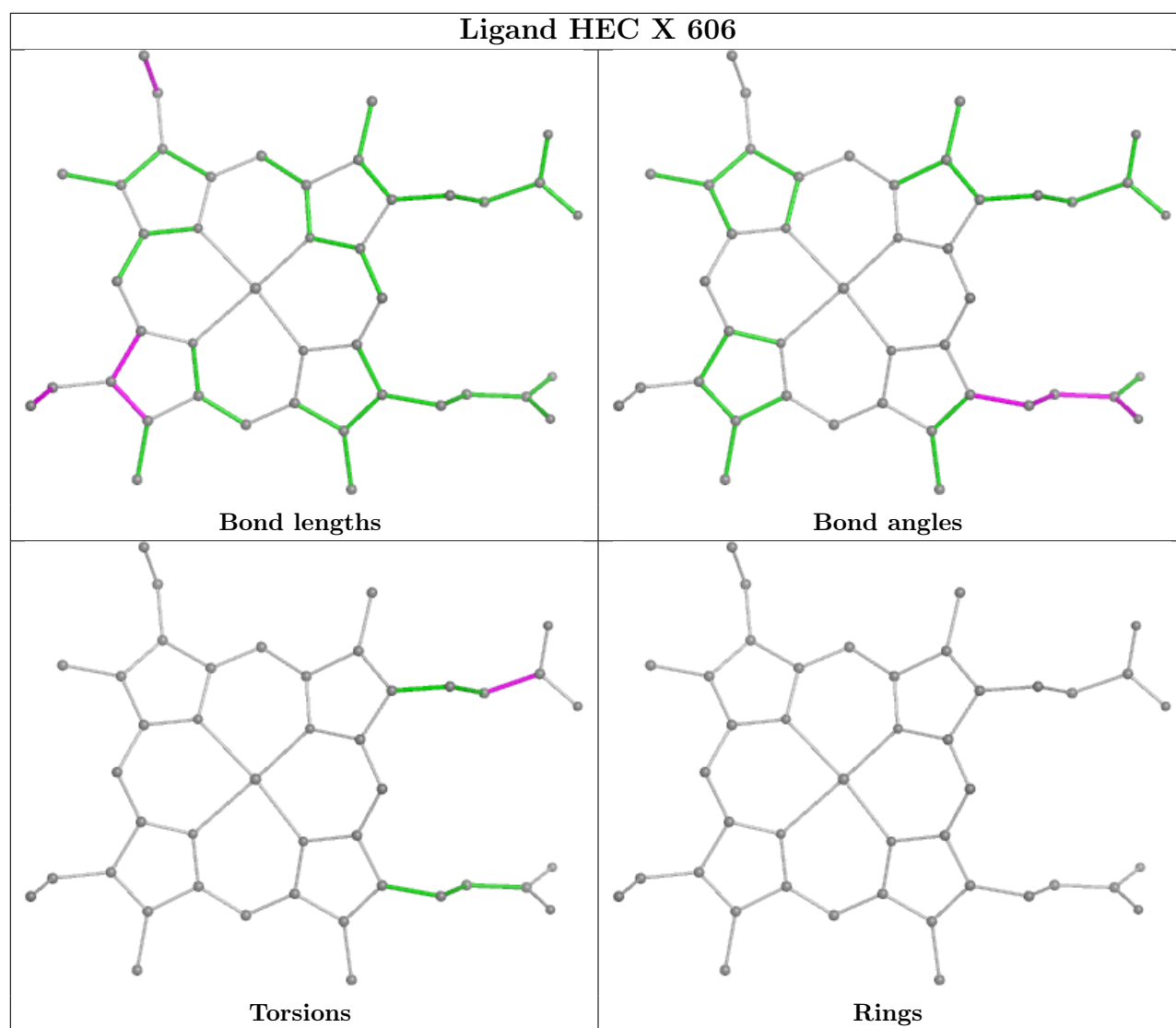
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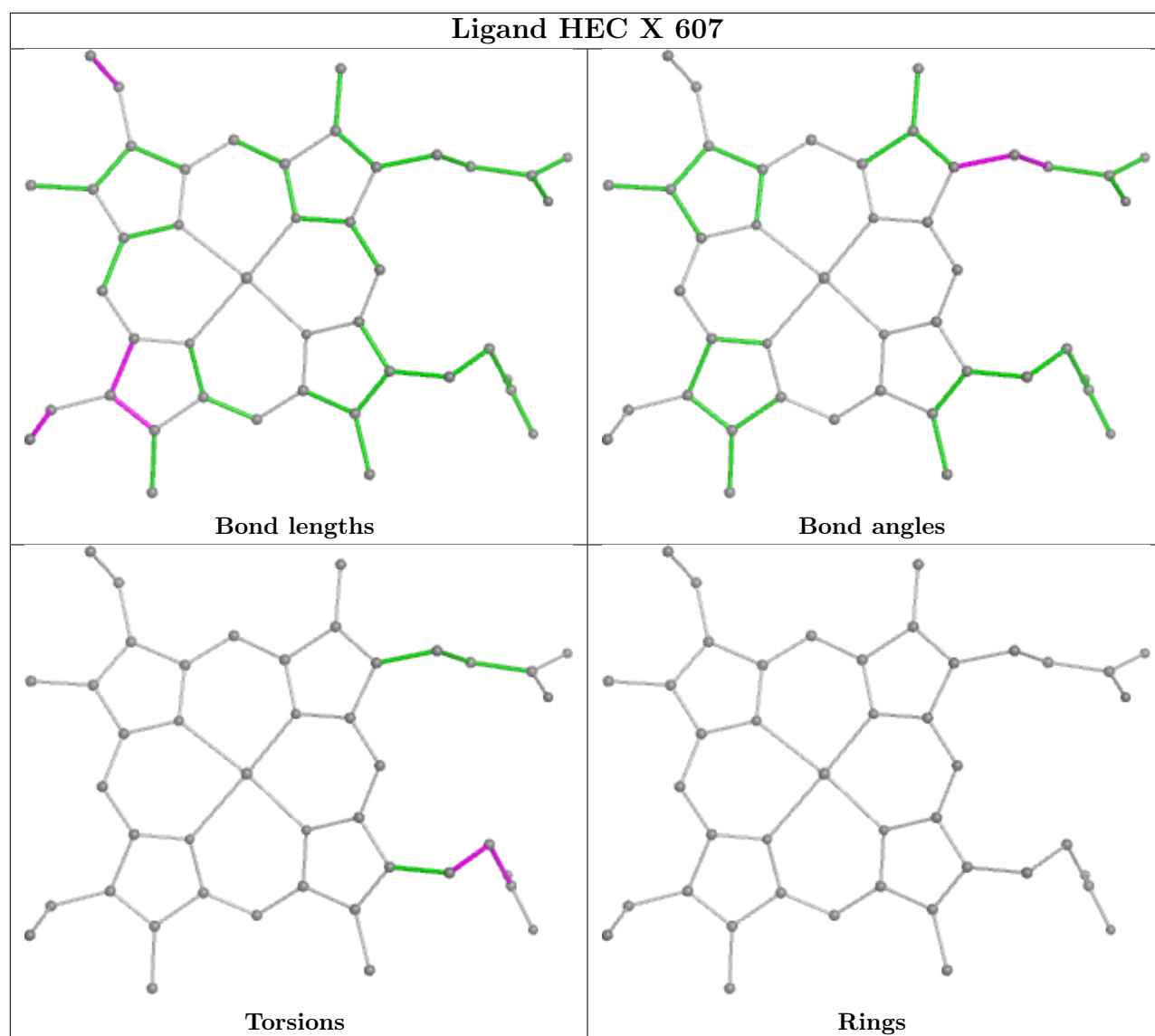


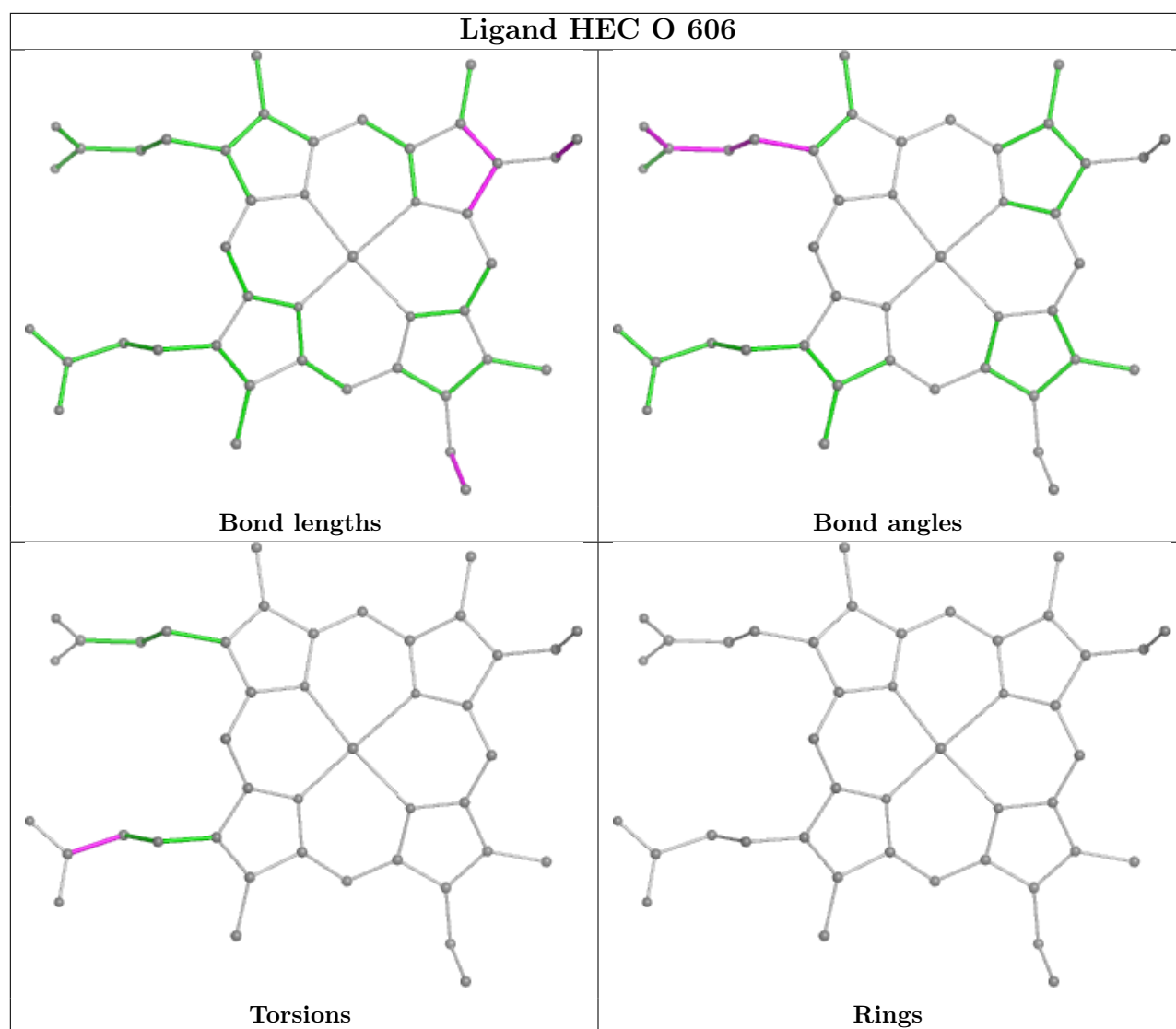
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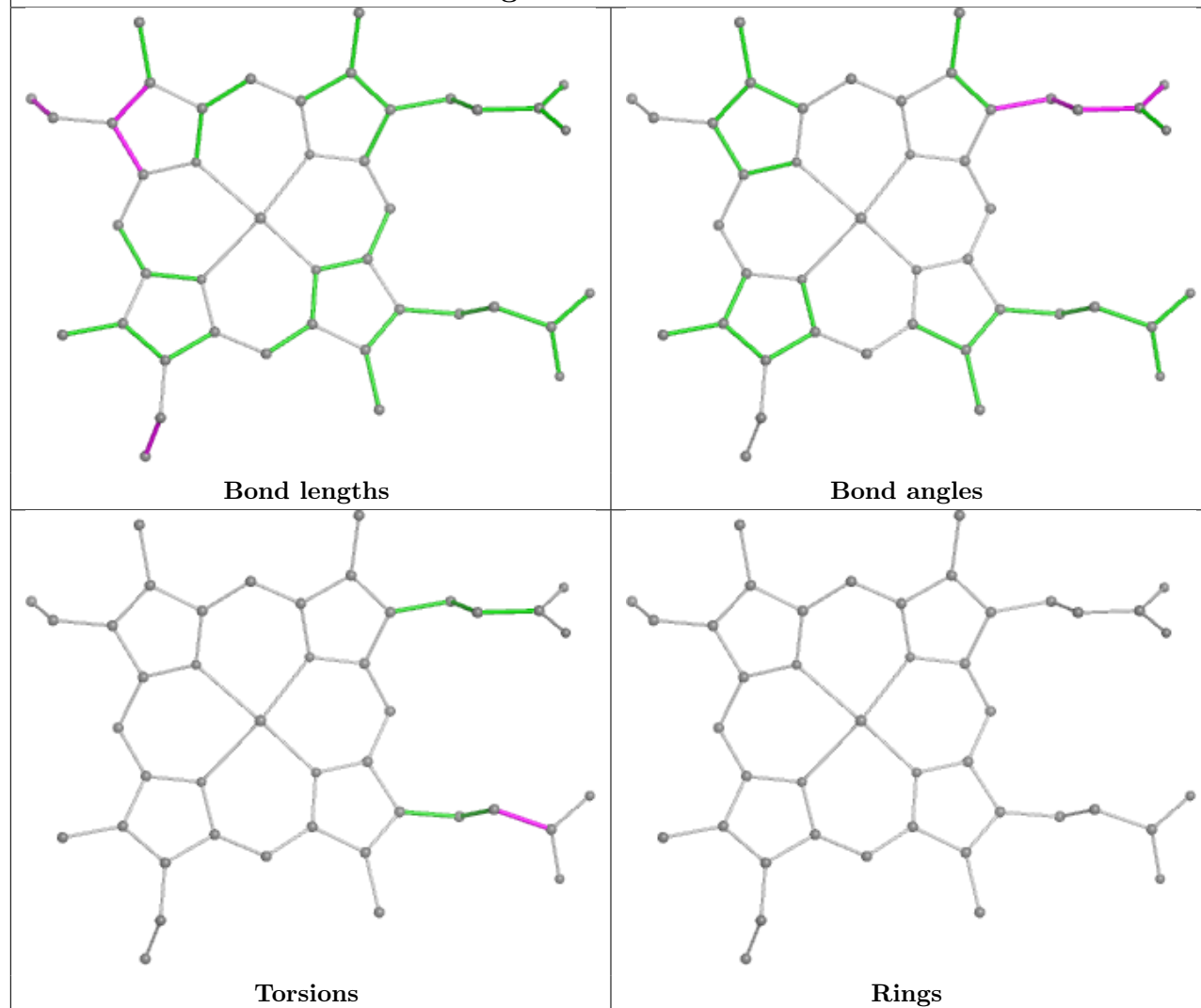
Rings

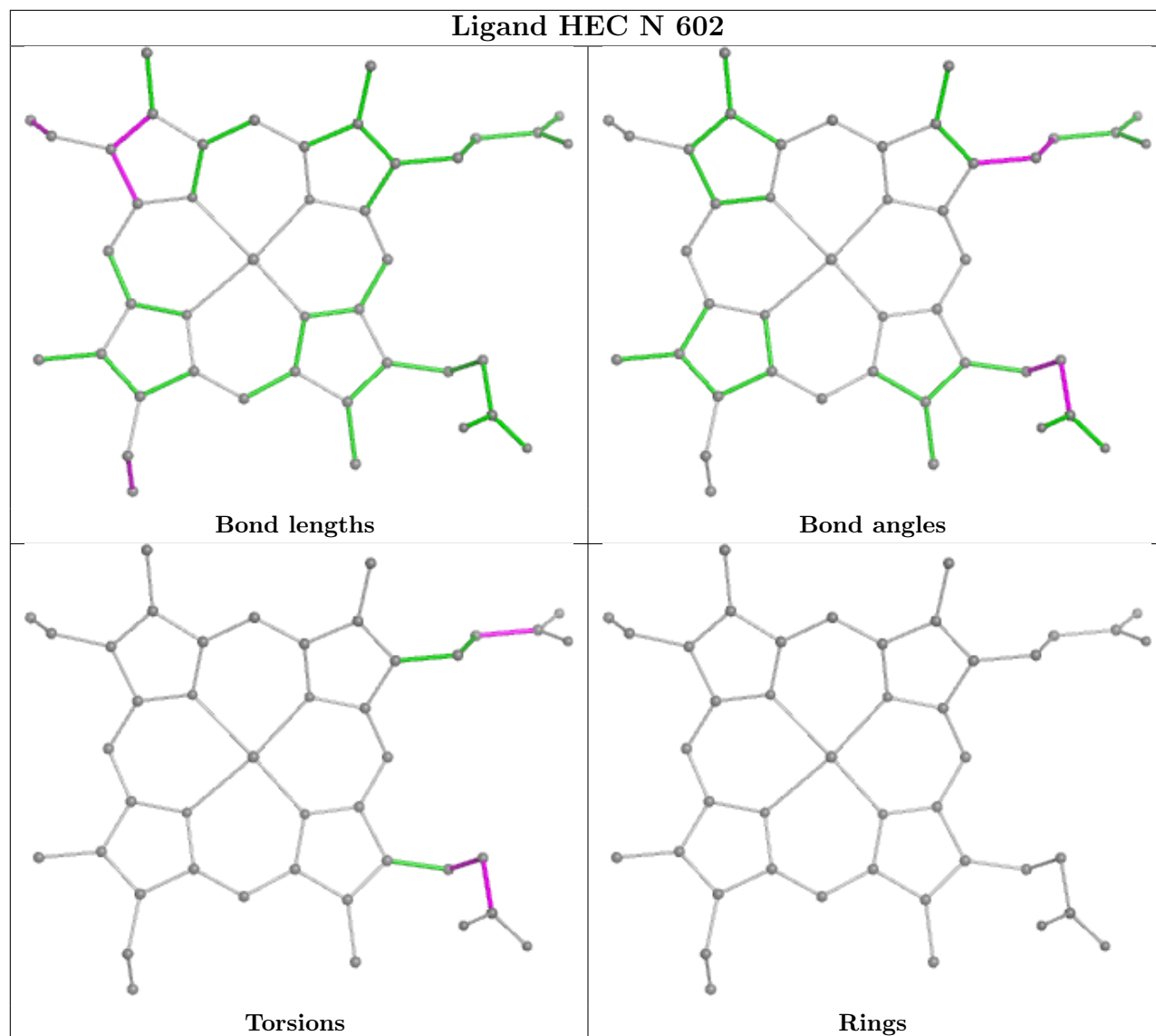


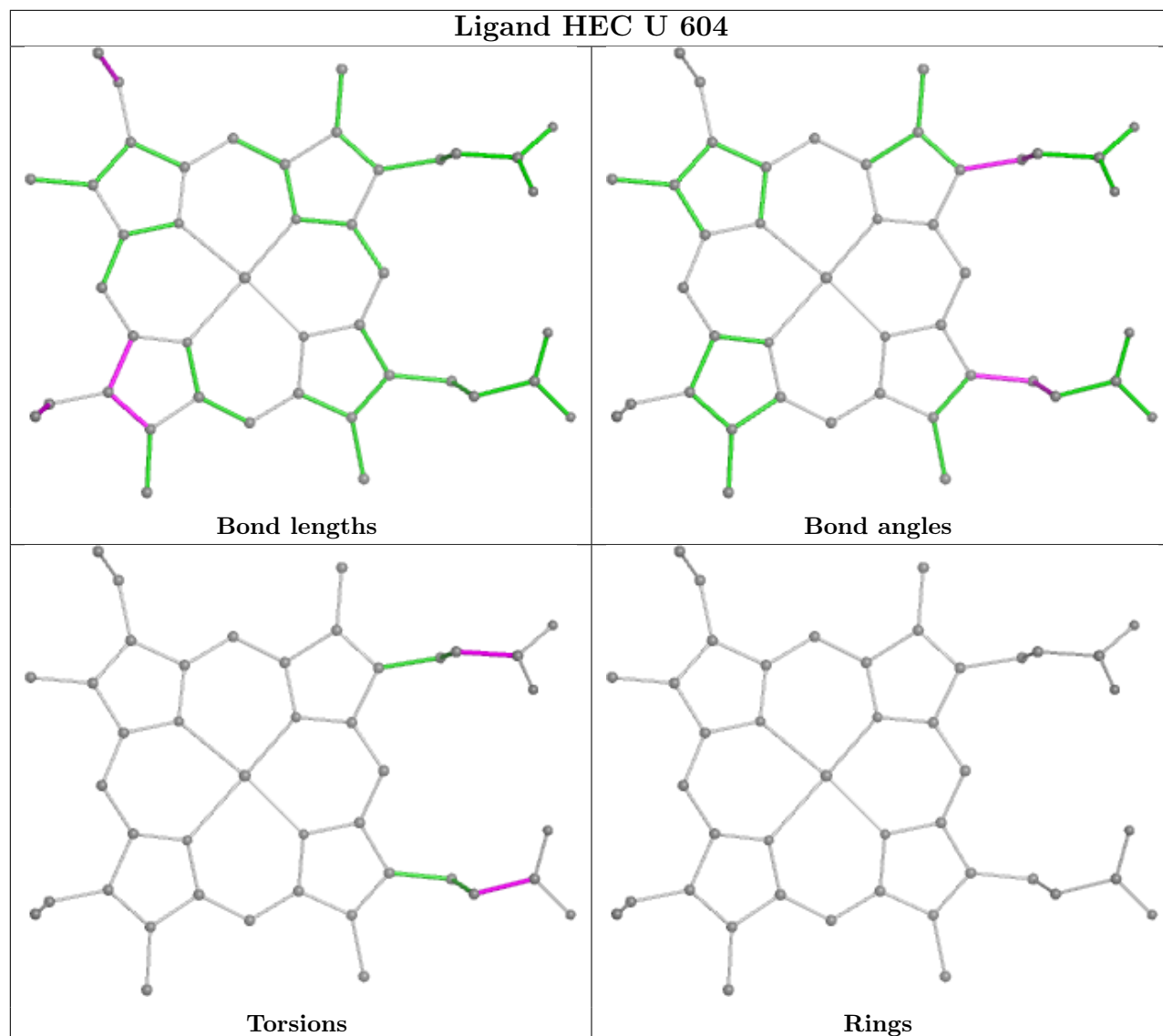




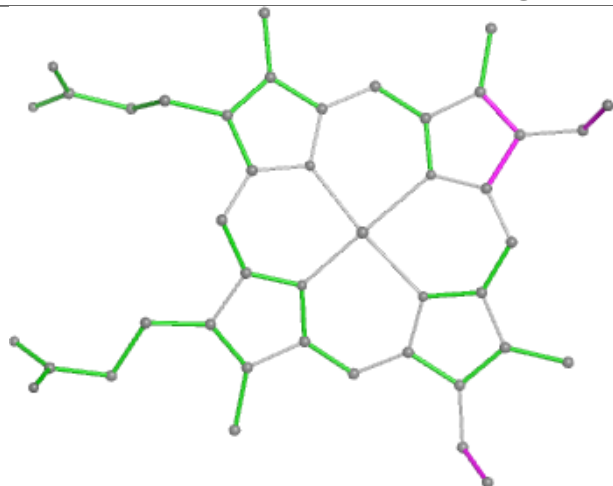
Ligand HEC F 606



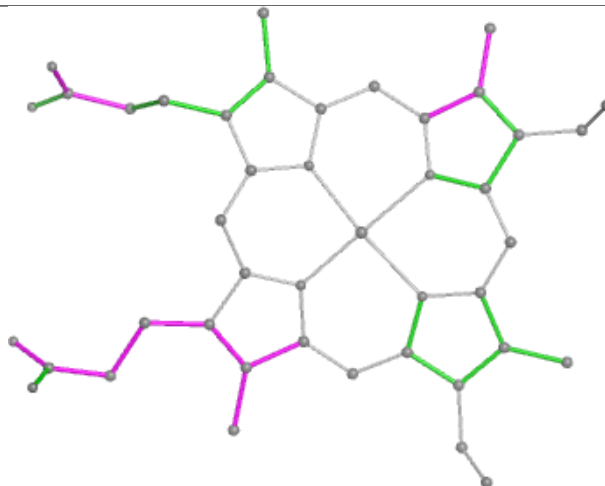




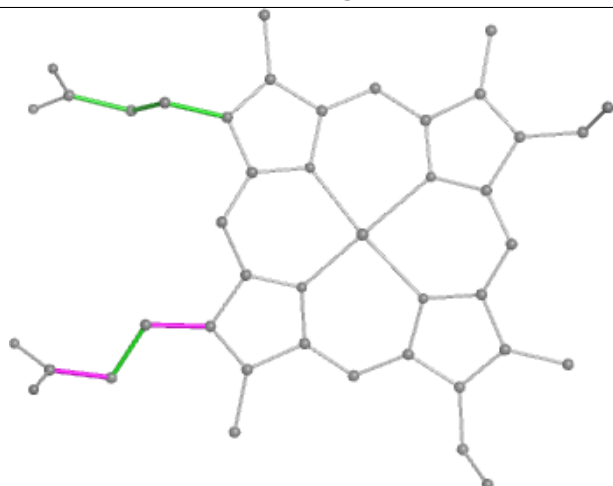
Ligand HEC L 605



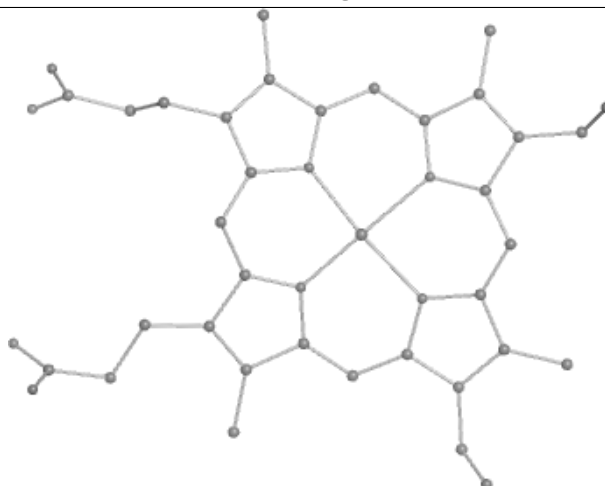
Bond lengths



Bond angles

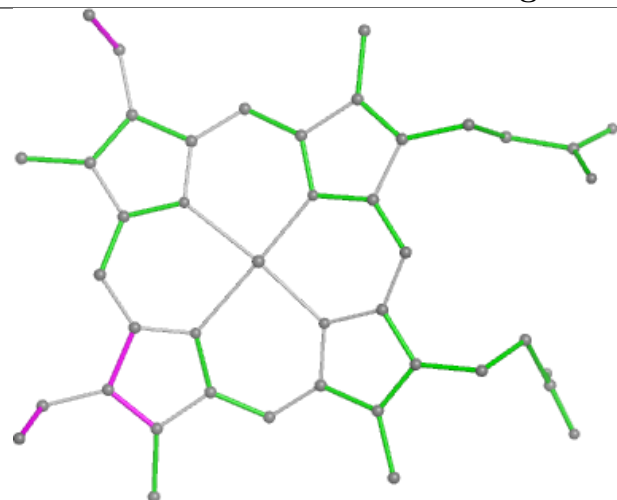


Torsions

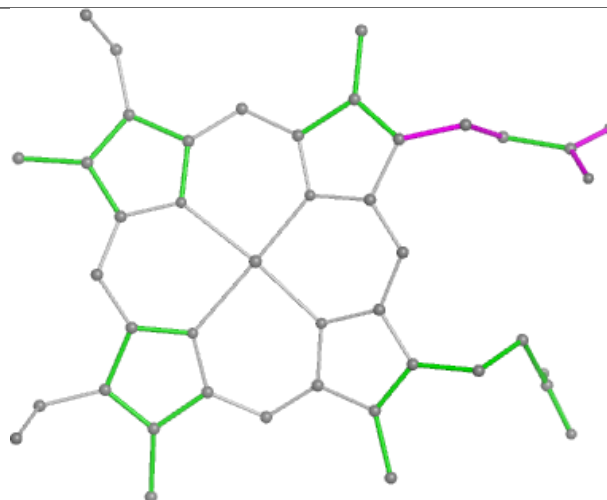


Rings

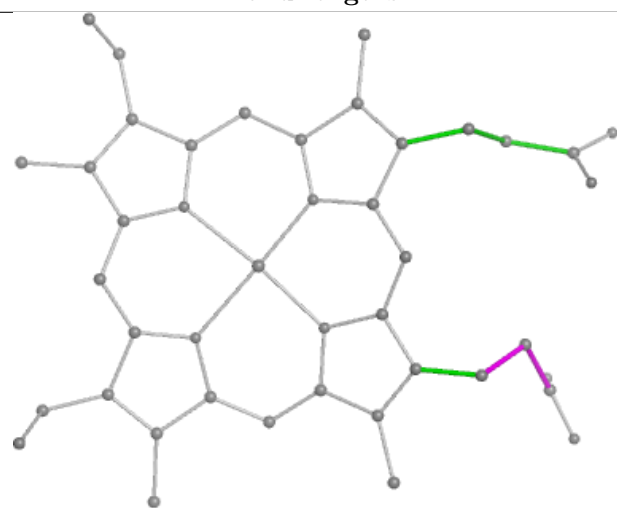
Ligand HEC S 607



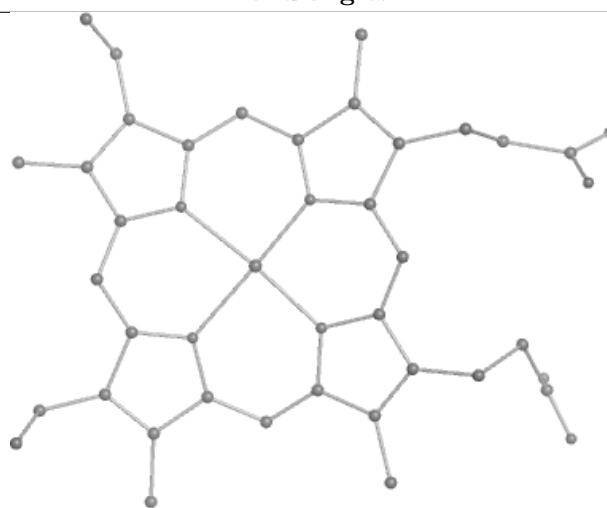
Bond lengths



Bond angles

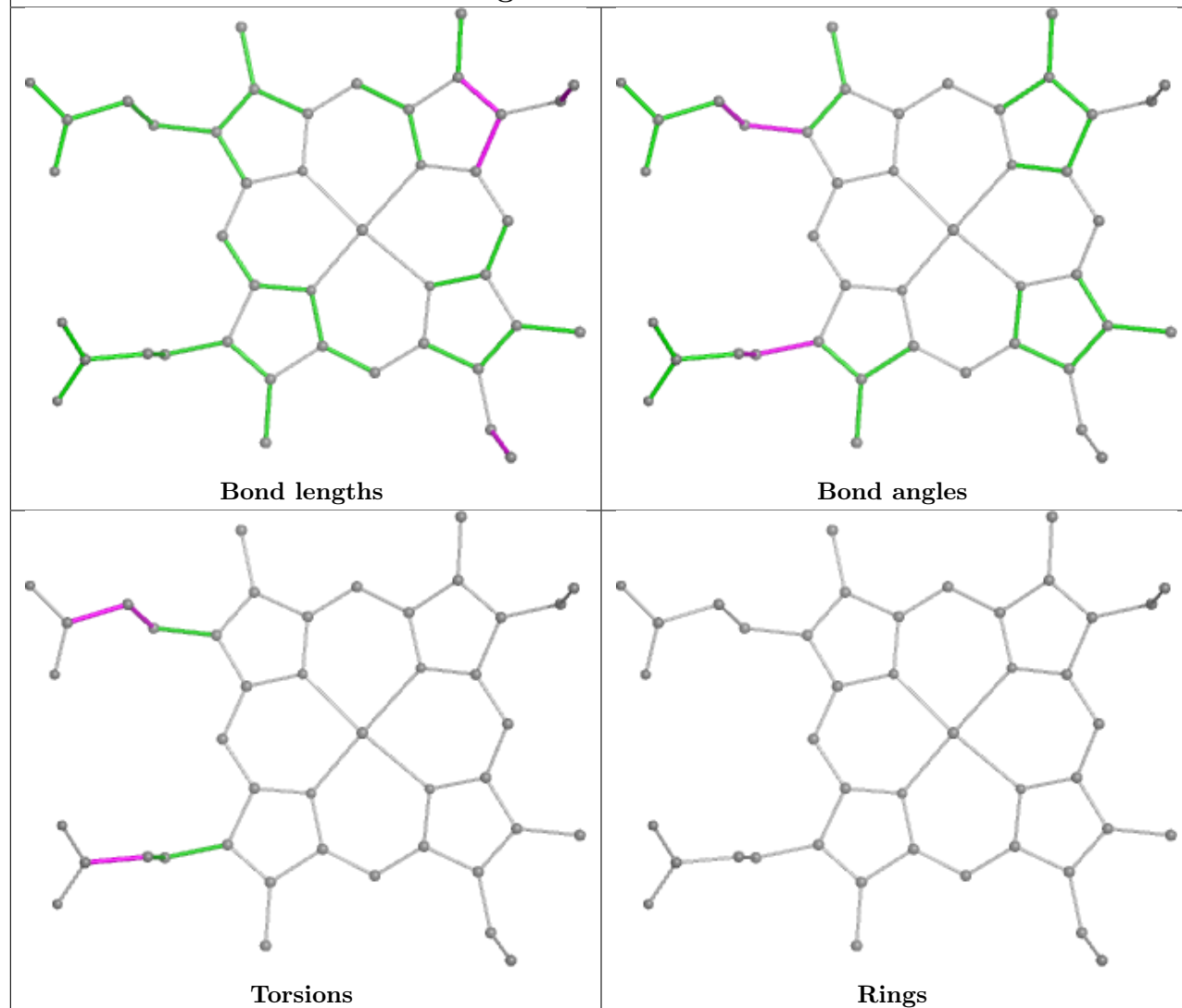


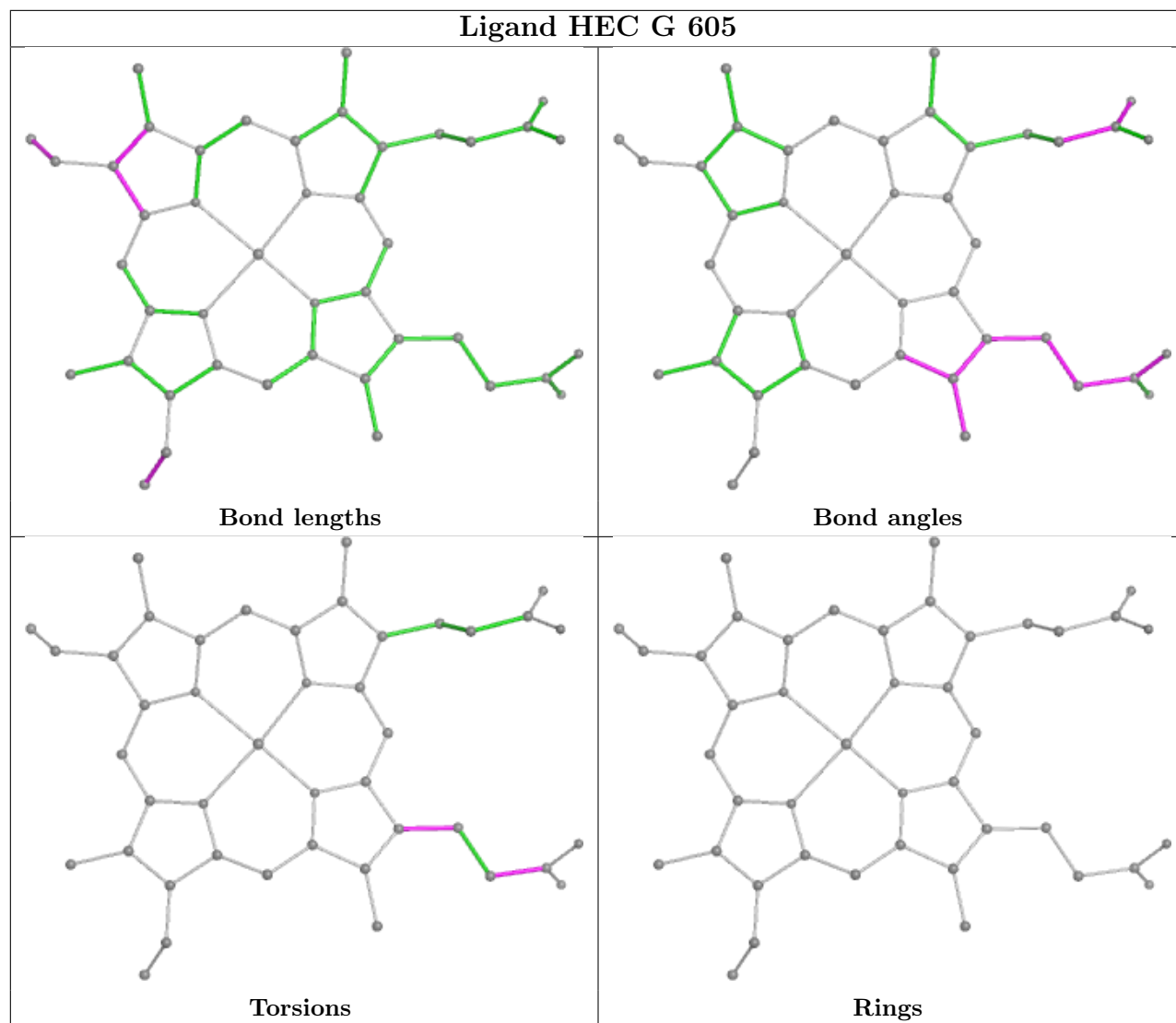
Torsions

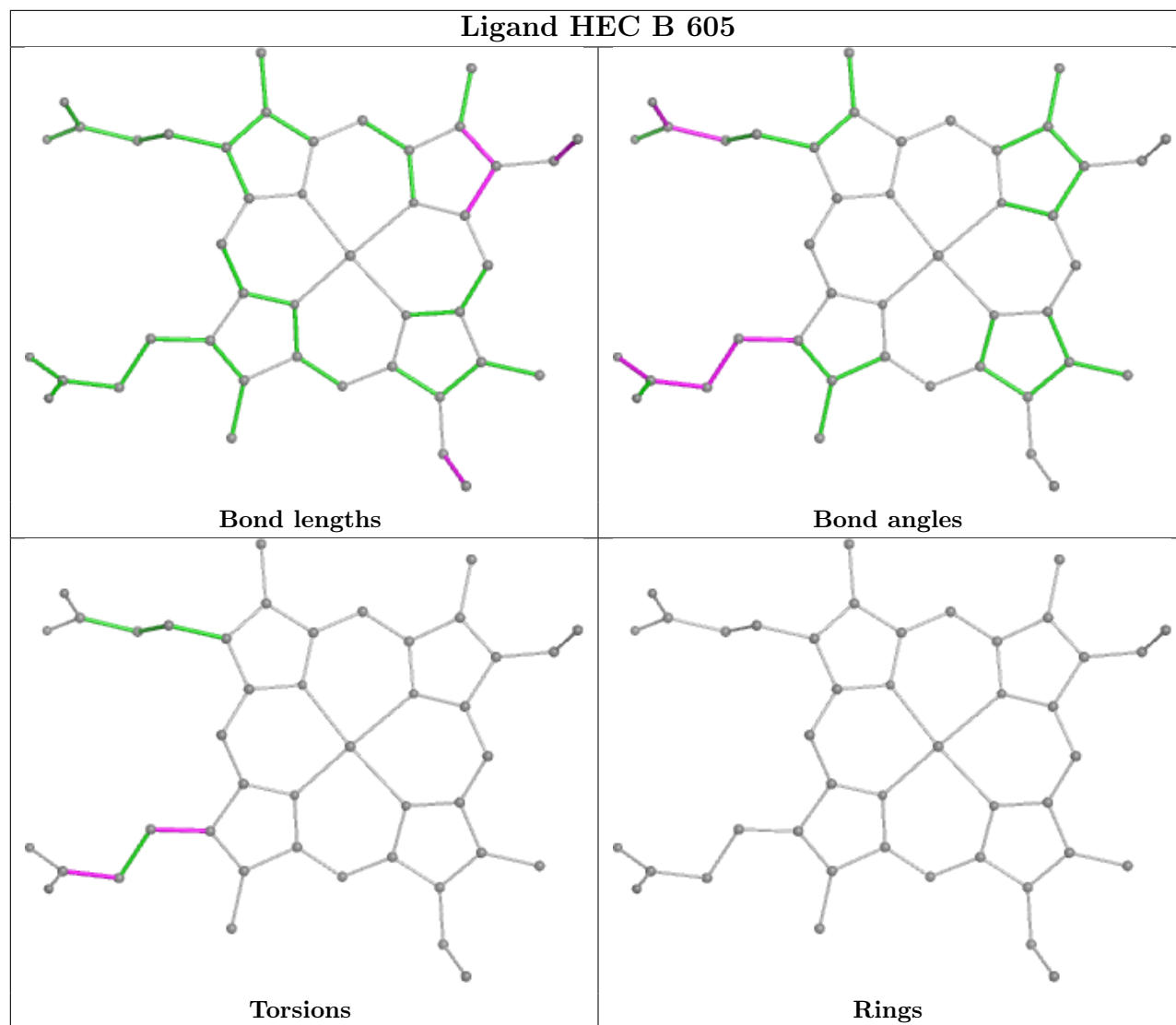


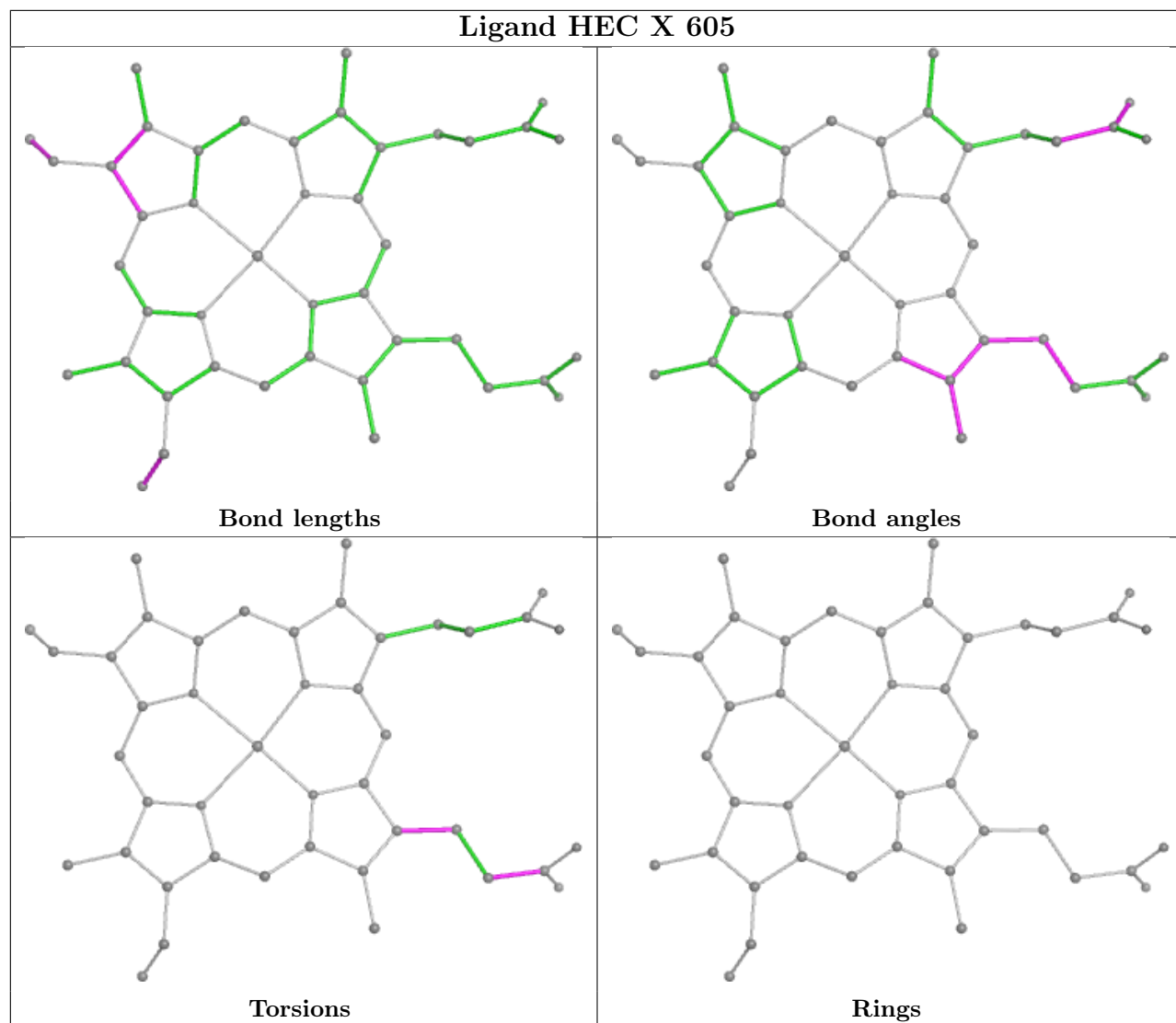
Rings

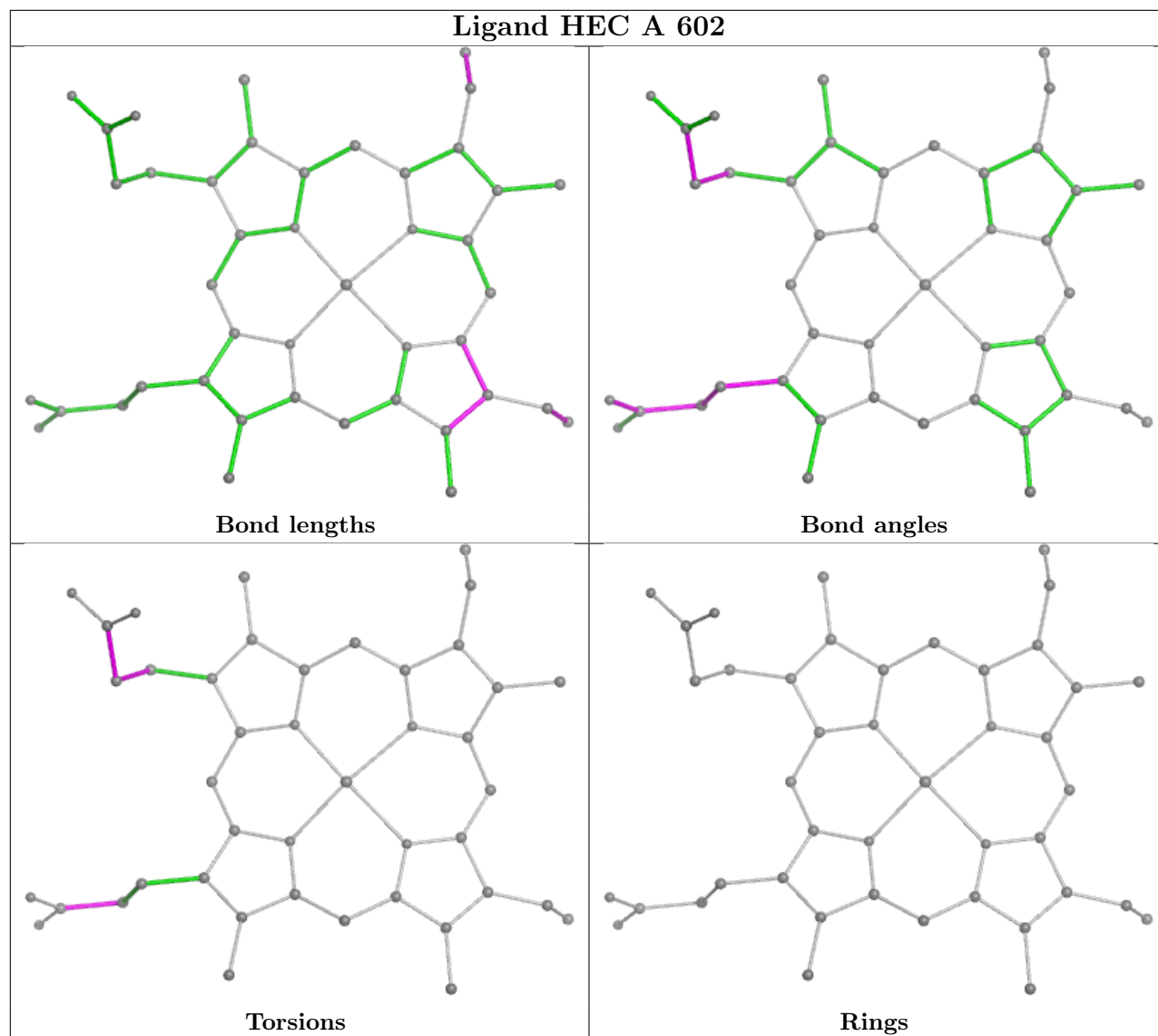
Ligand HEC I 604

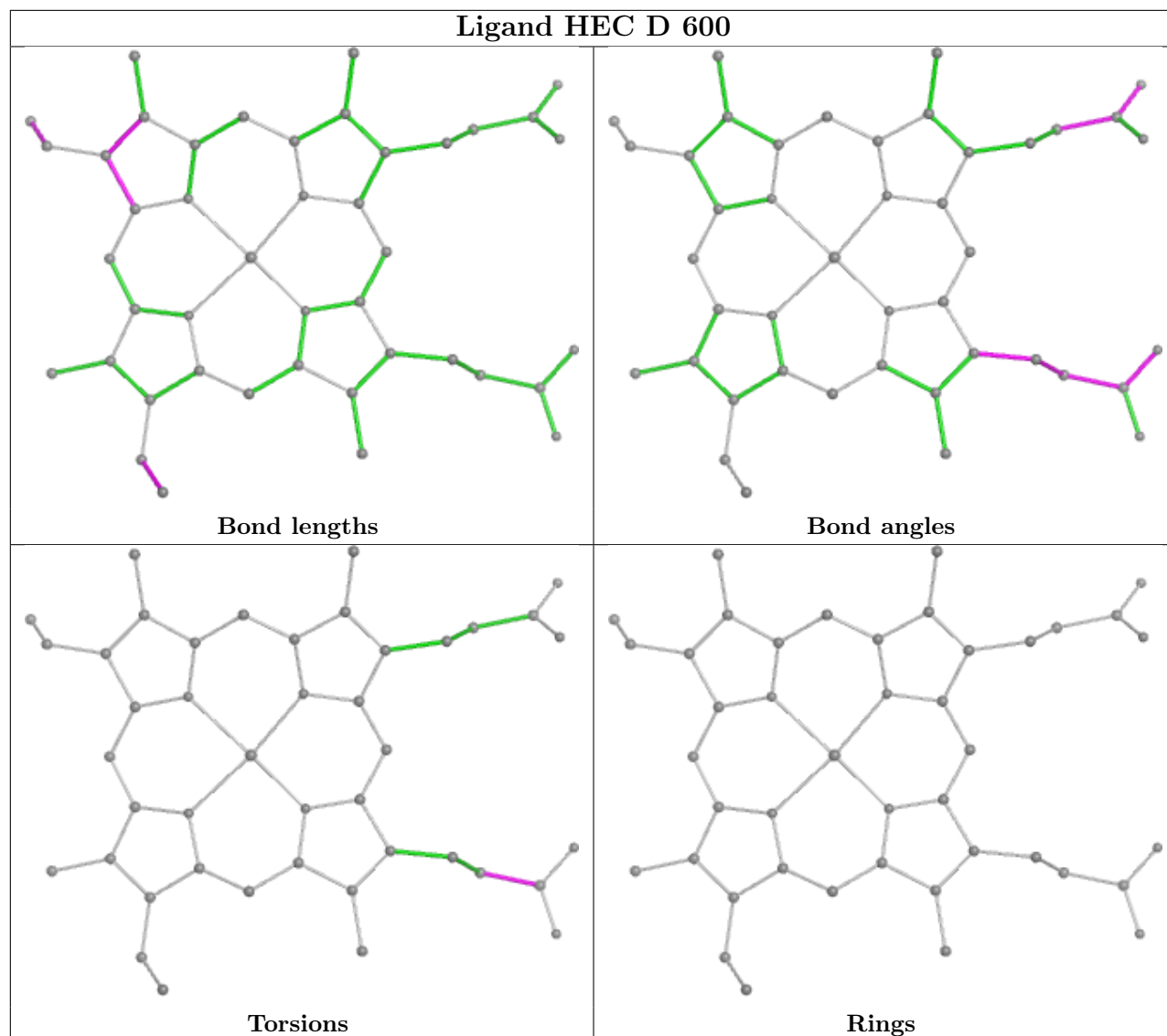




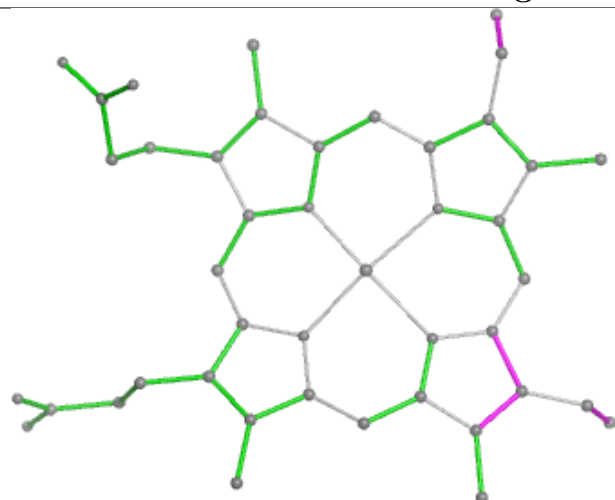




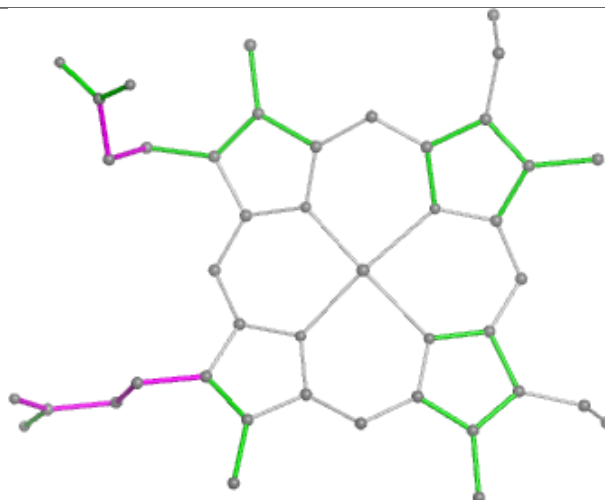




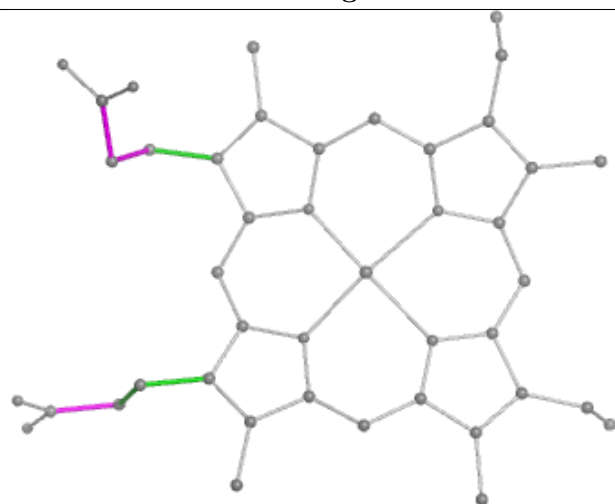
Ligand HEC C 602



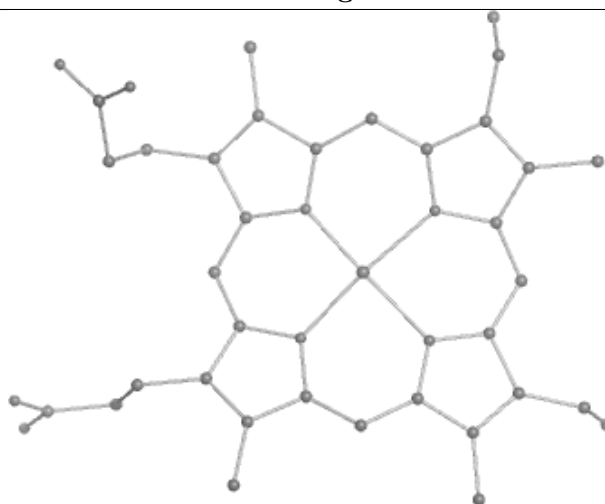
Bond lengths



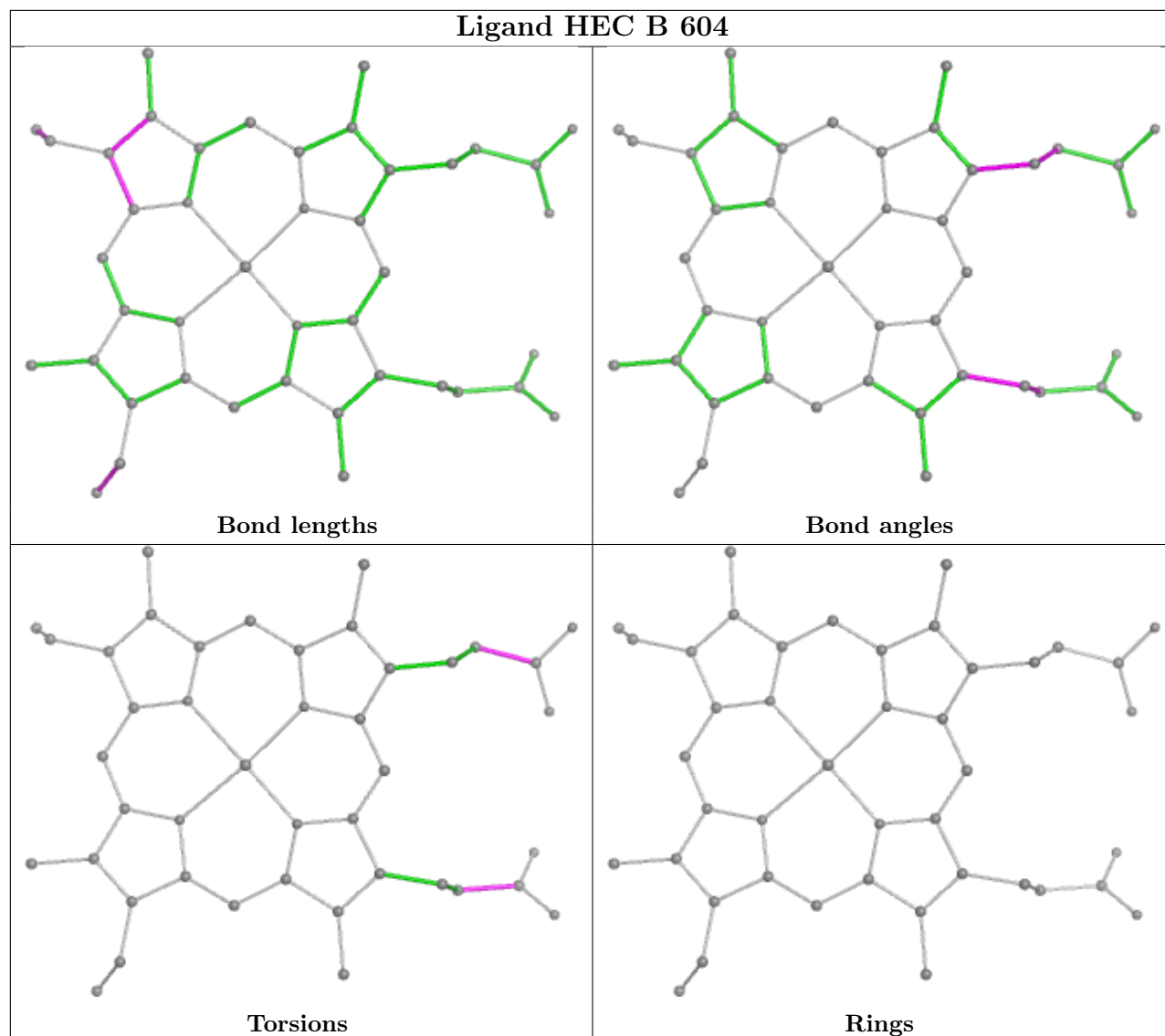
Bond angles

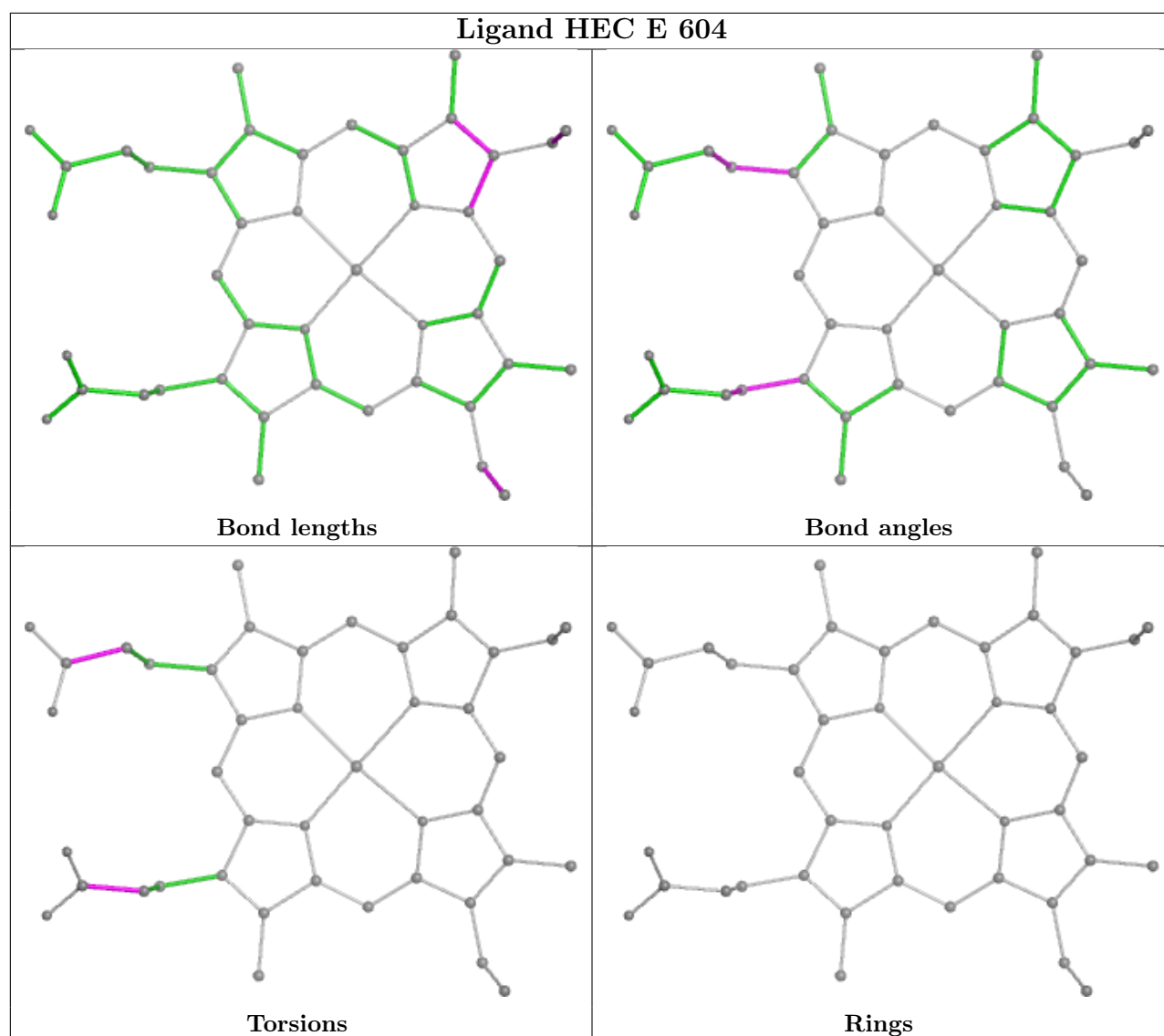


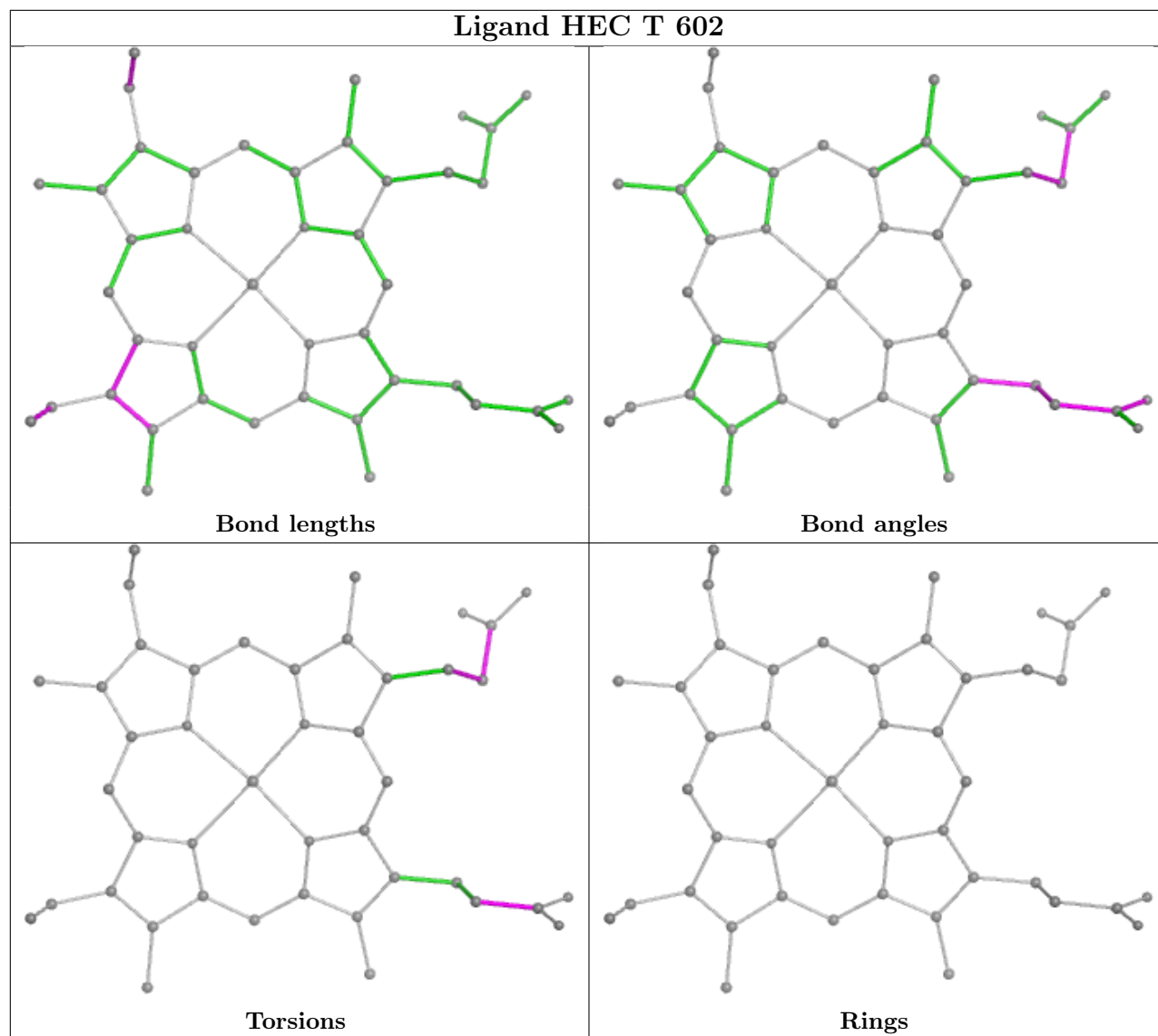
Torsions



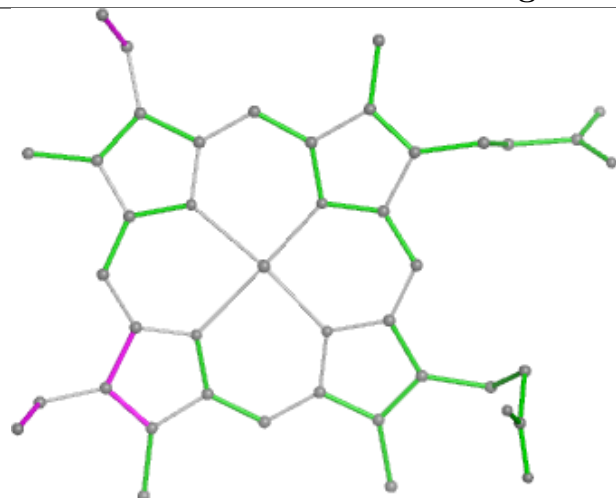
Rings



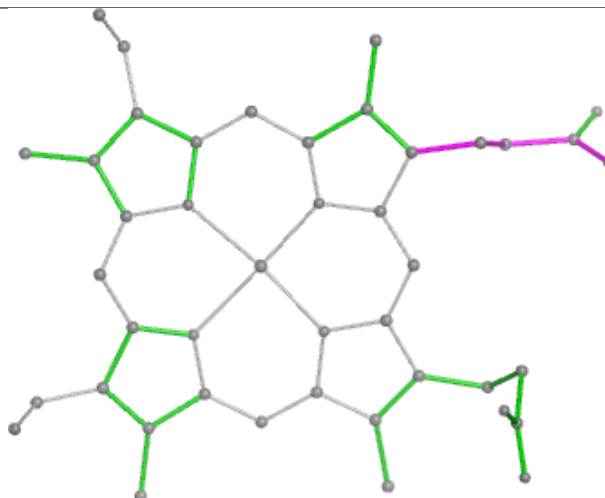




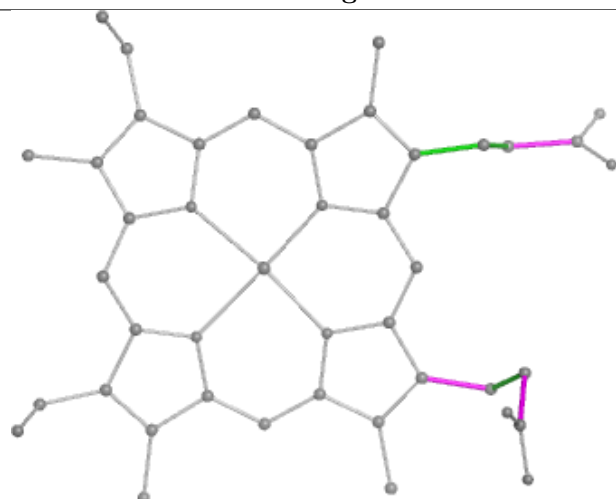
Ligand HEC J 601



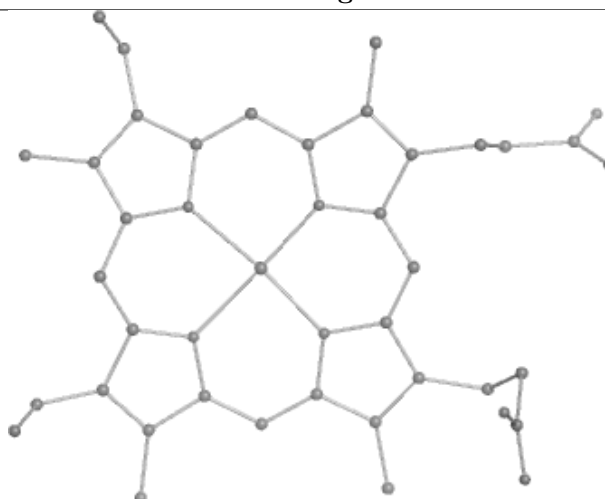
Bond lengths



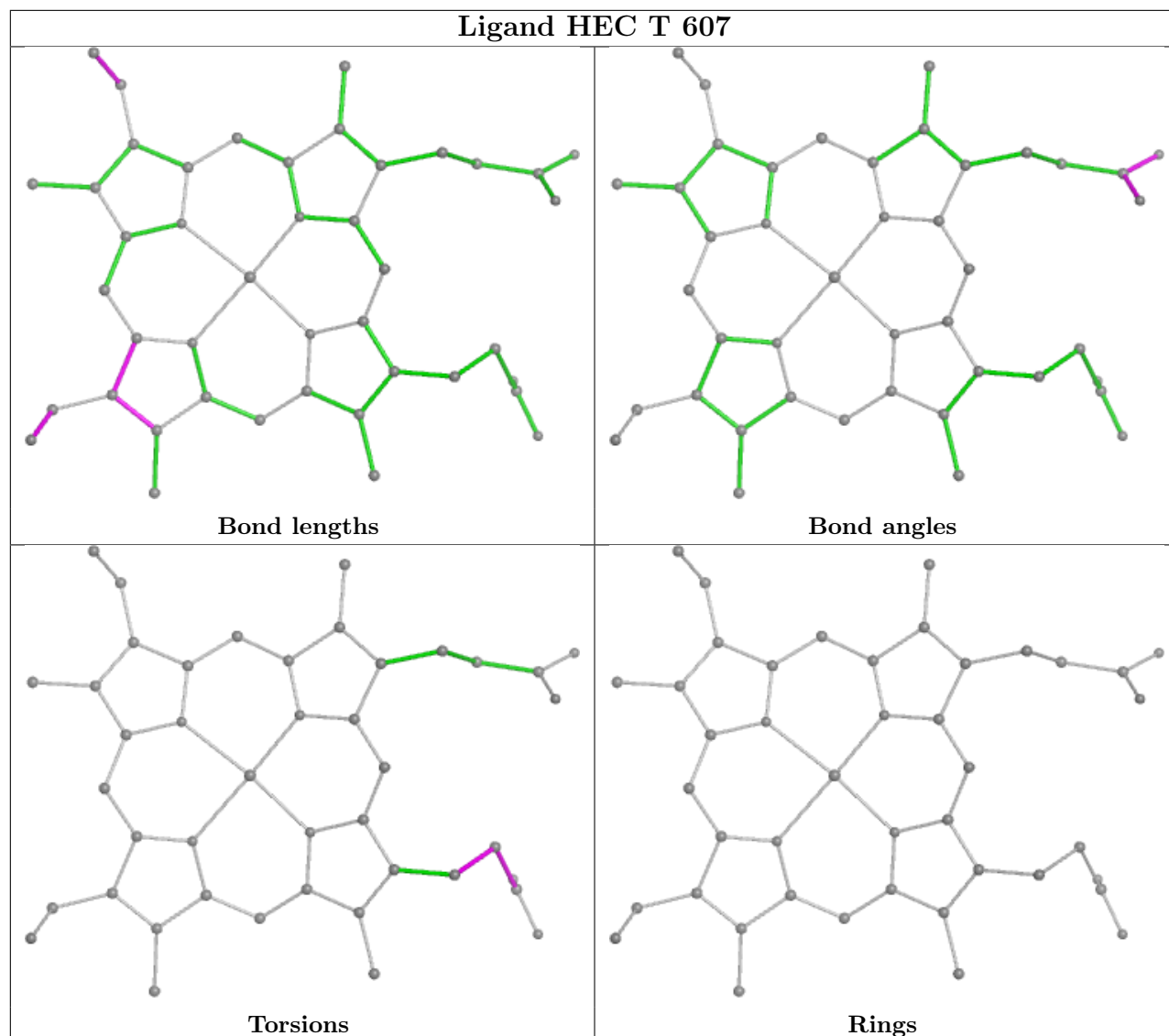
Bond angles

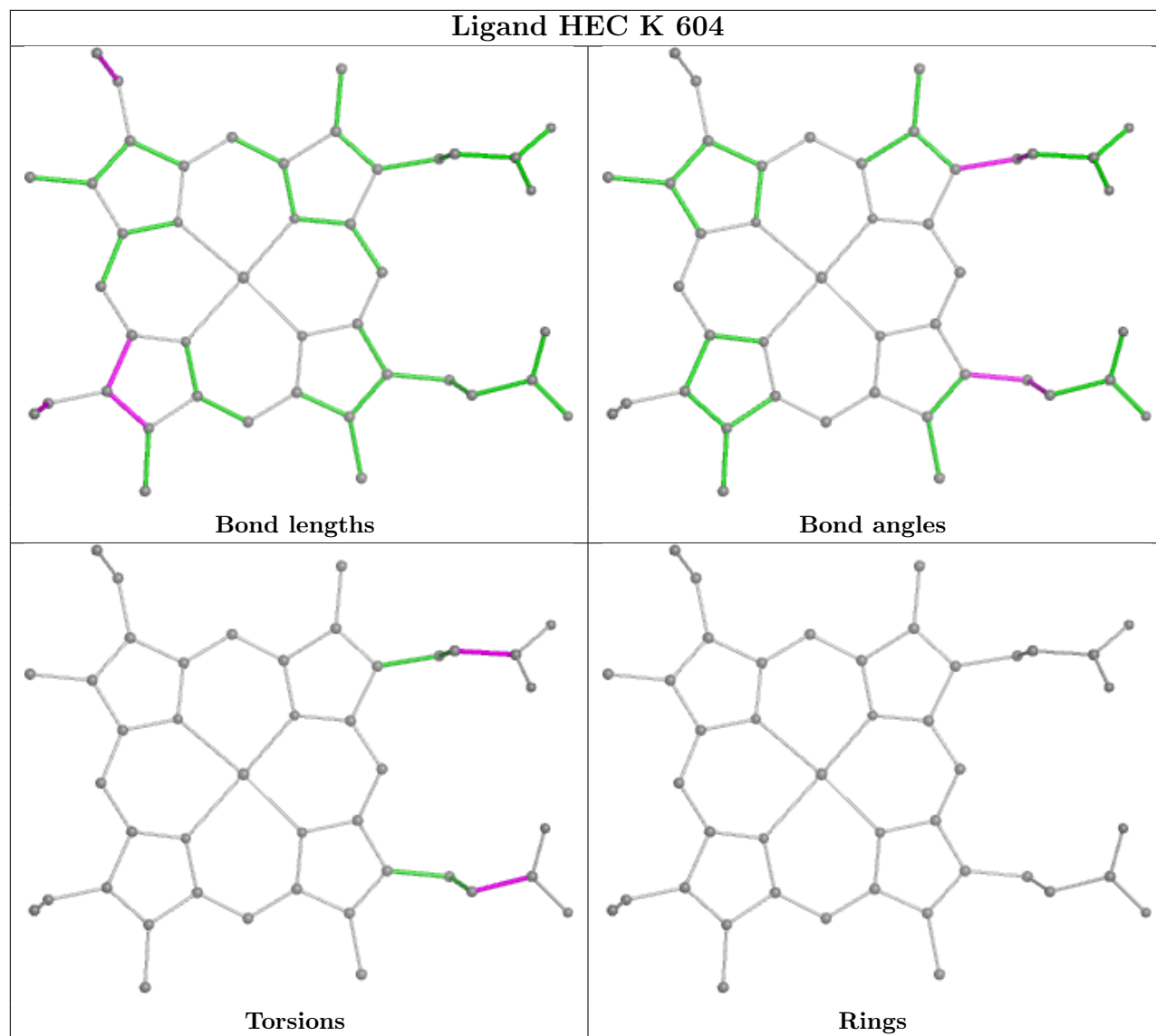


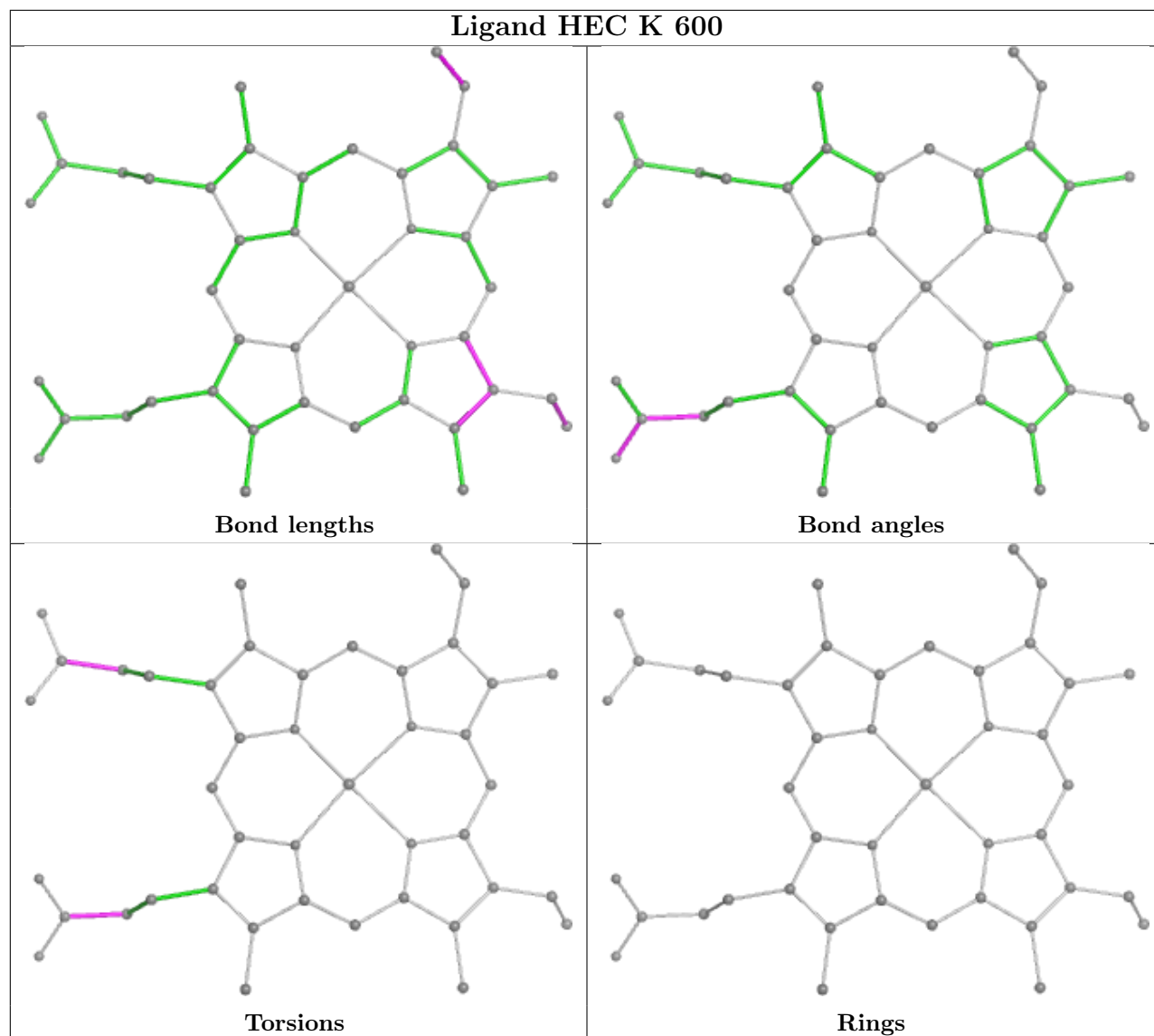
Torsions

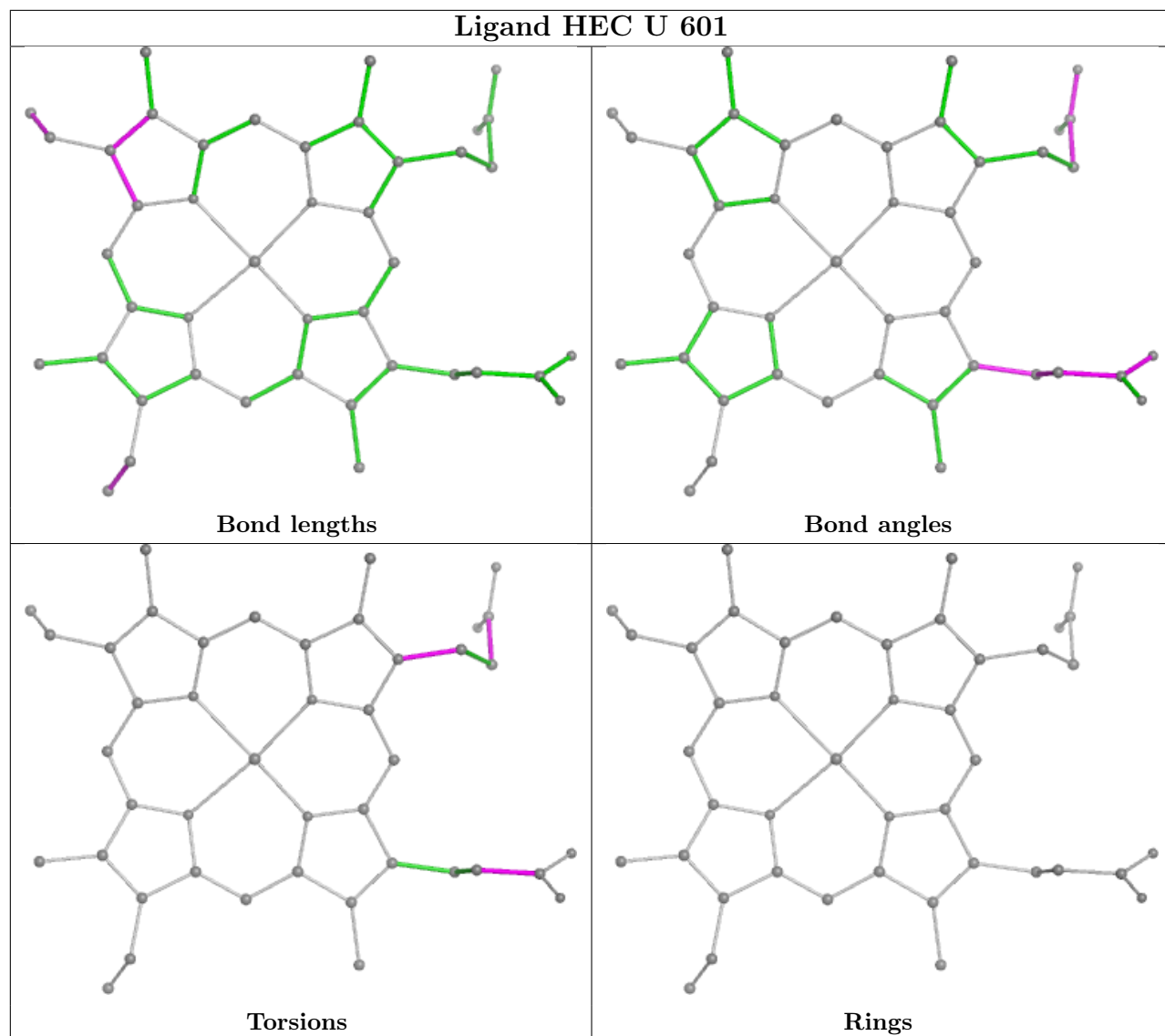


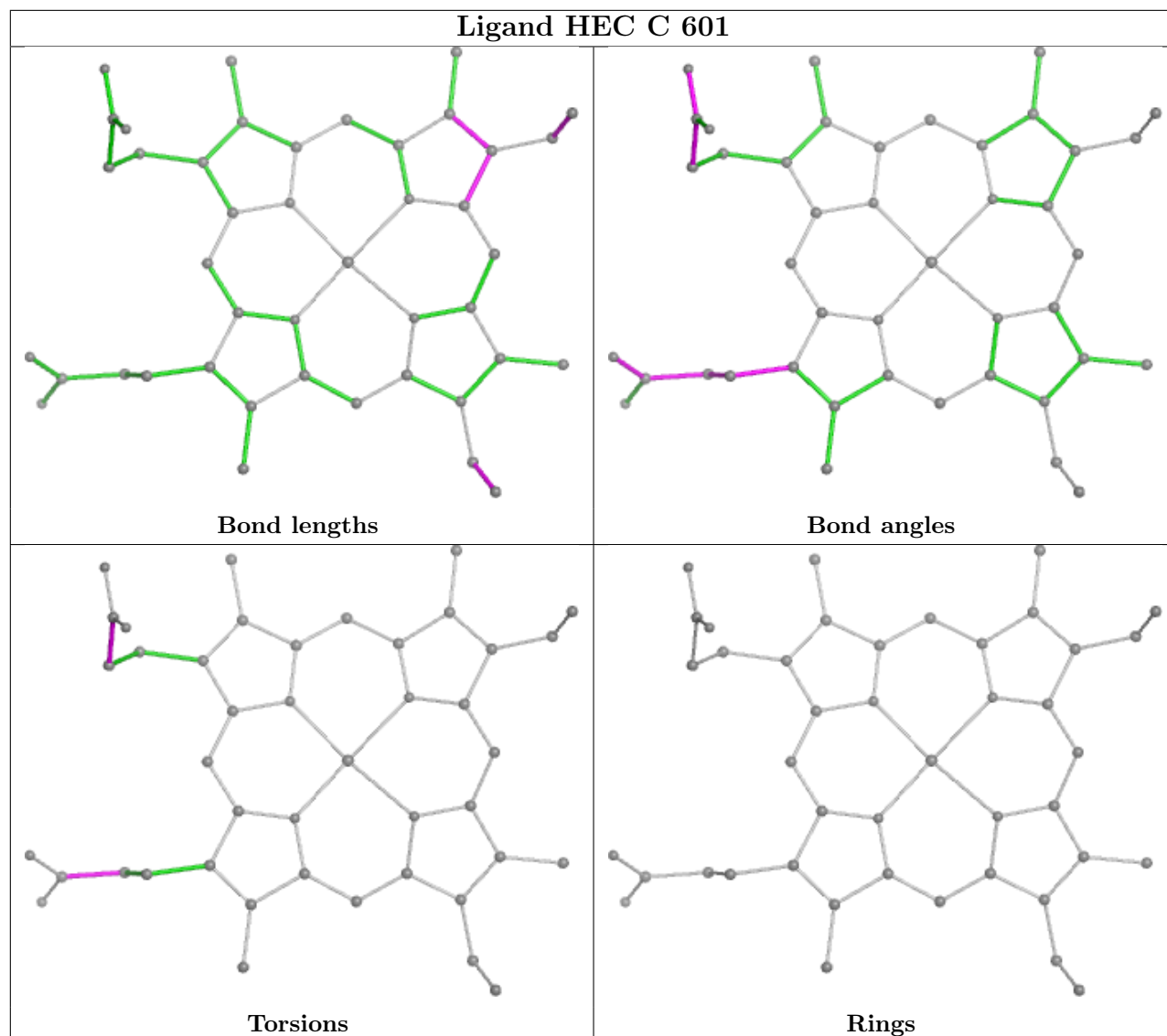
Rings

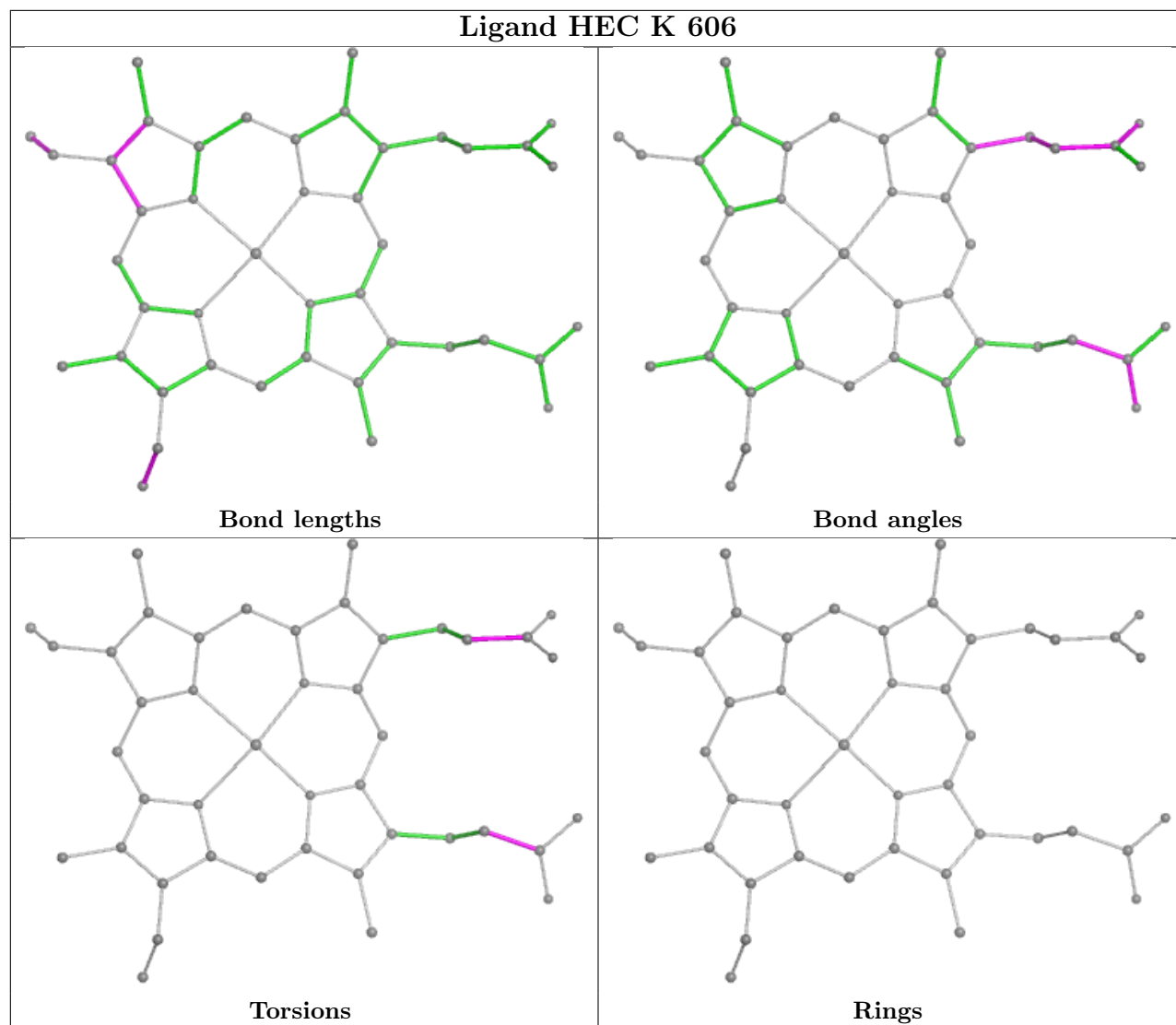


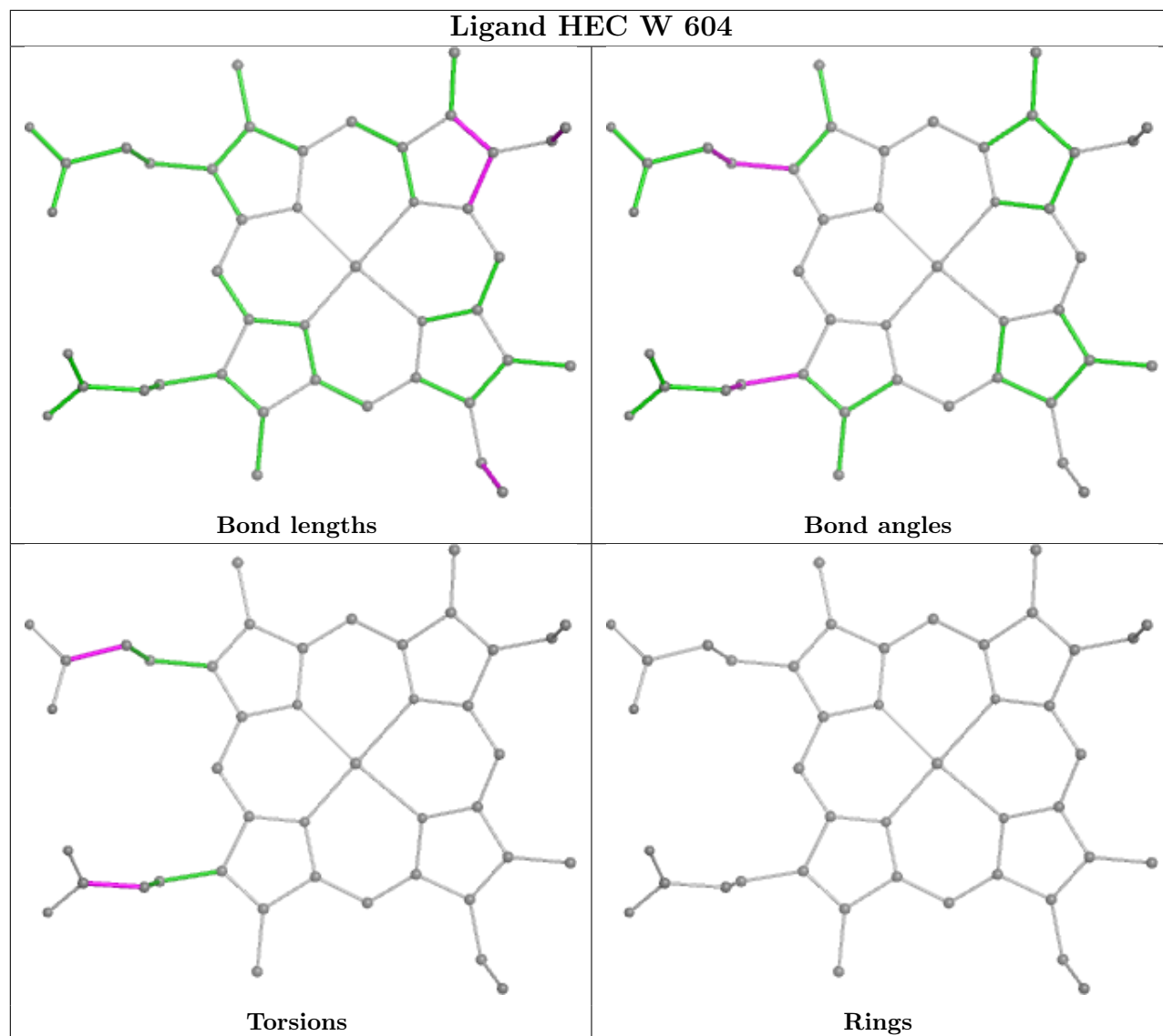


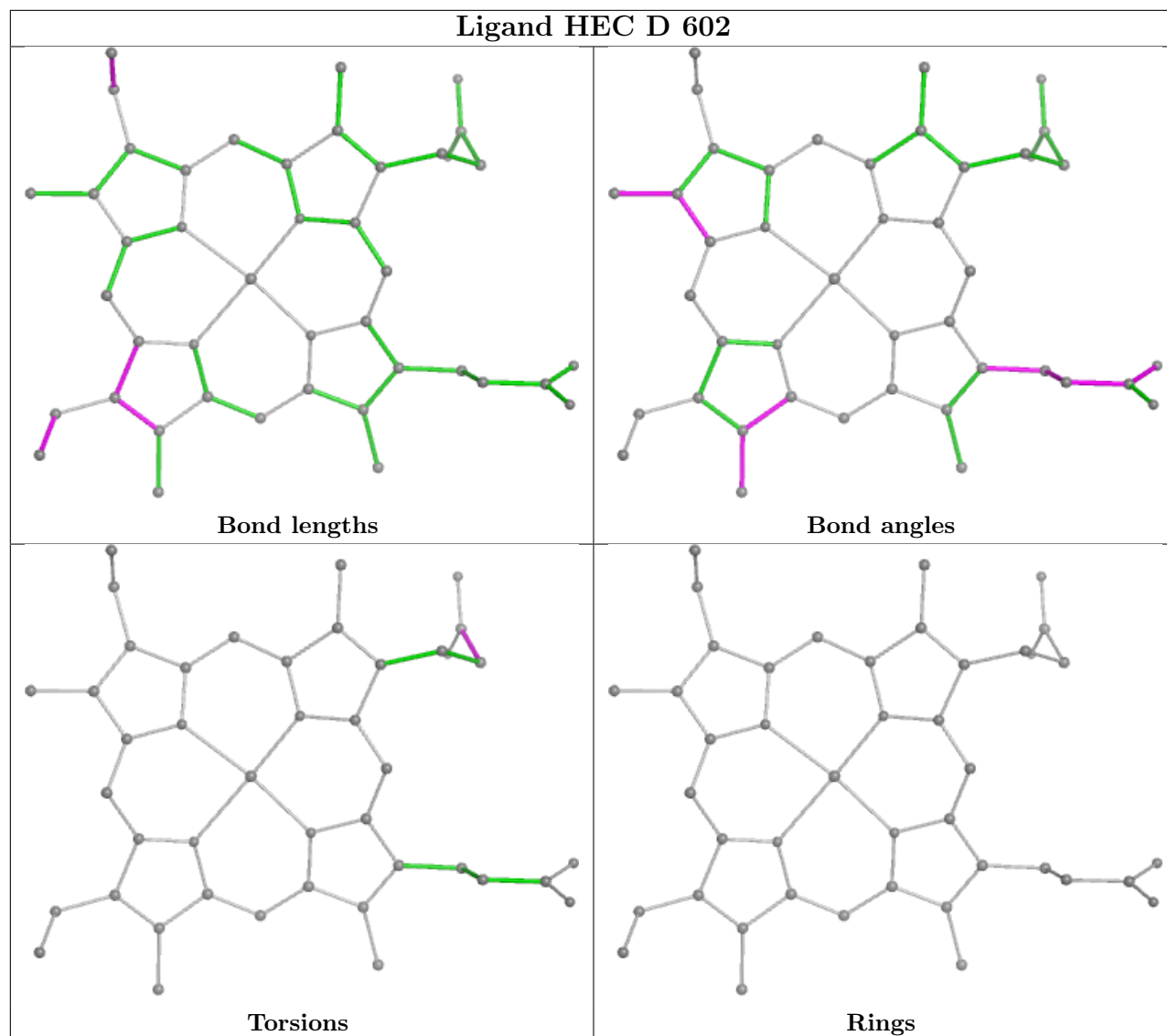


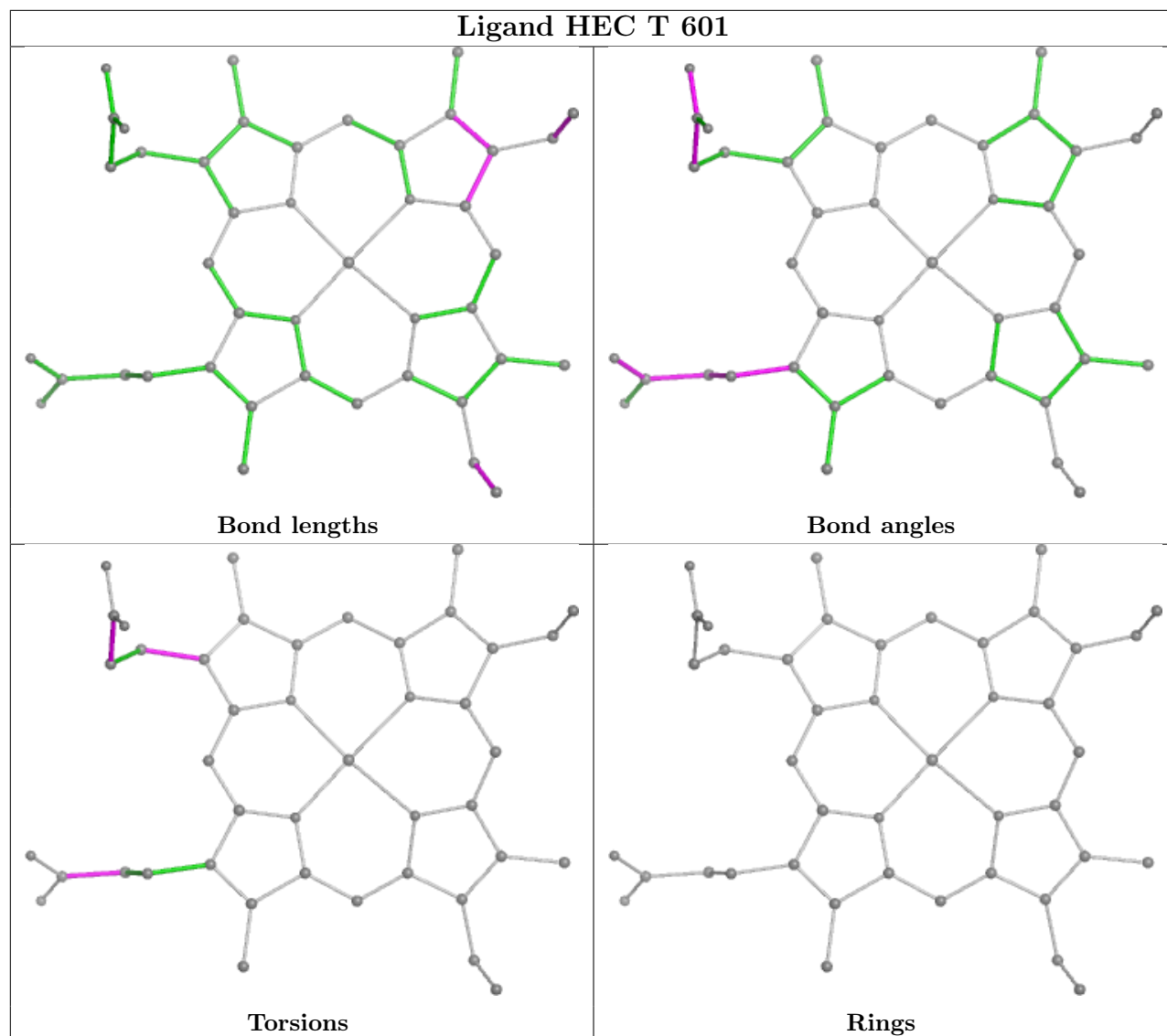


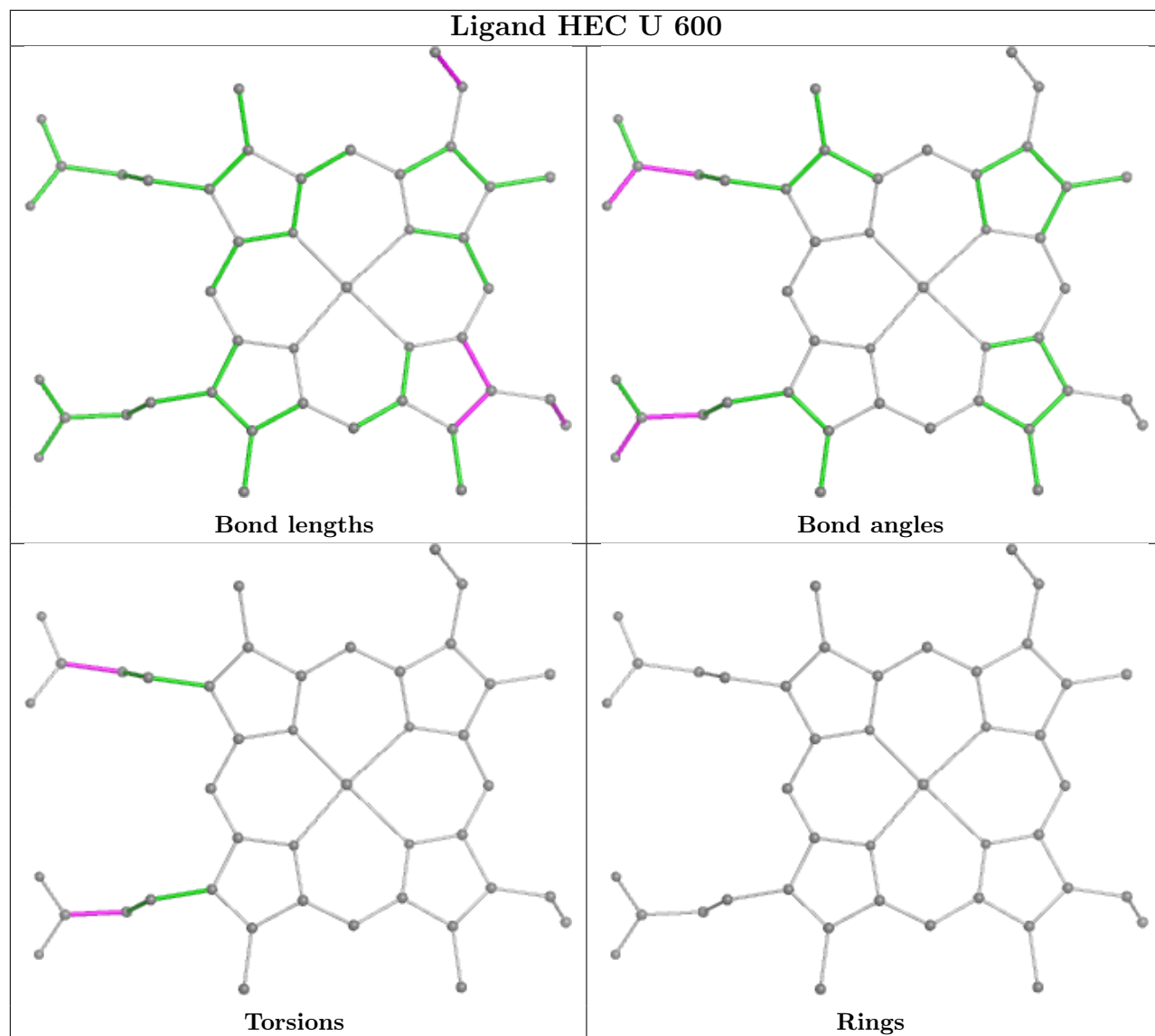


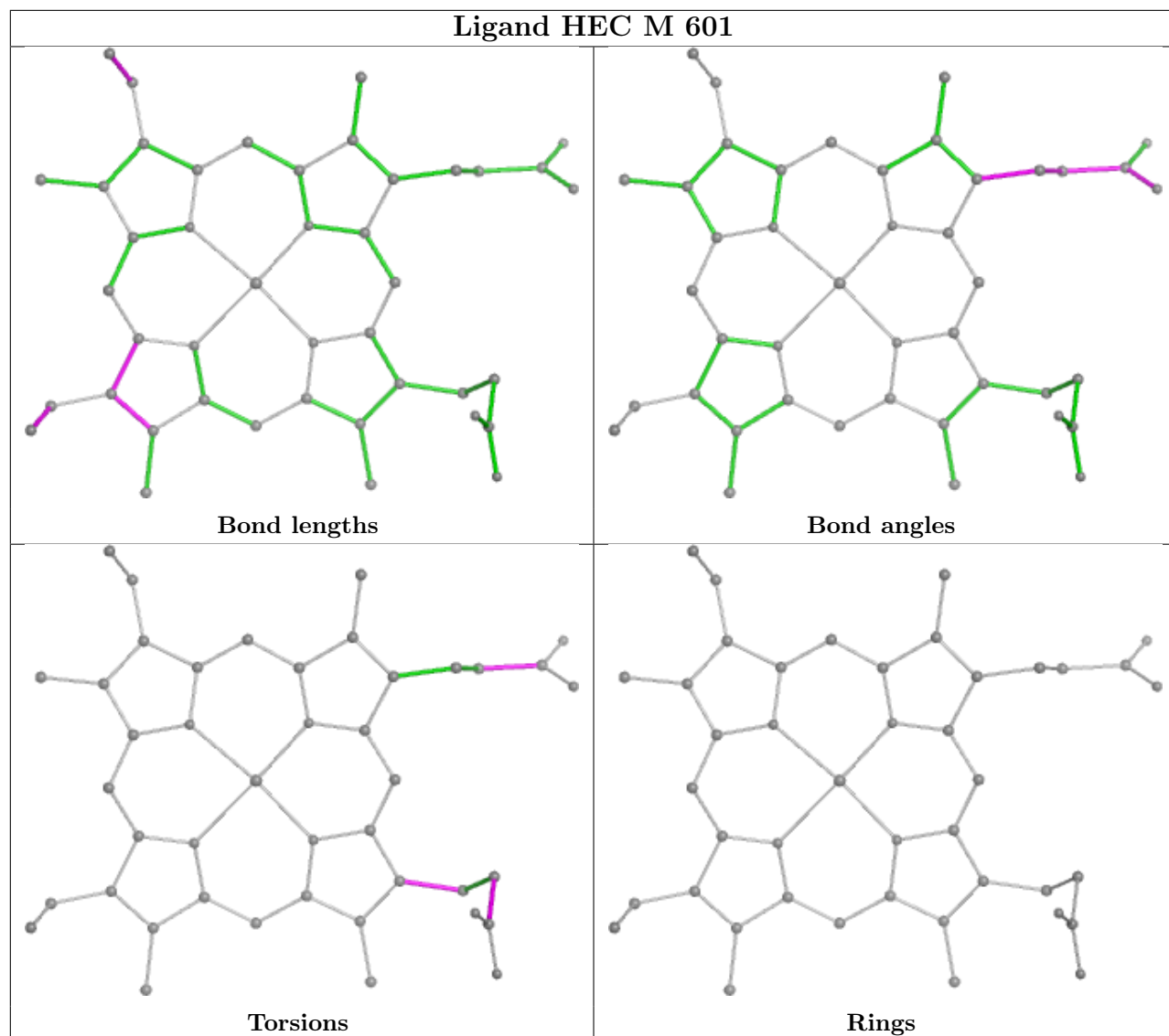


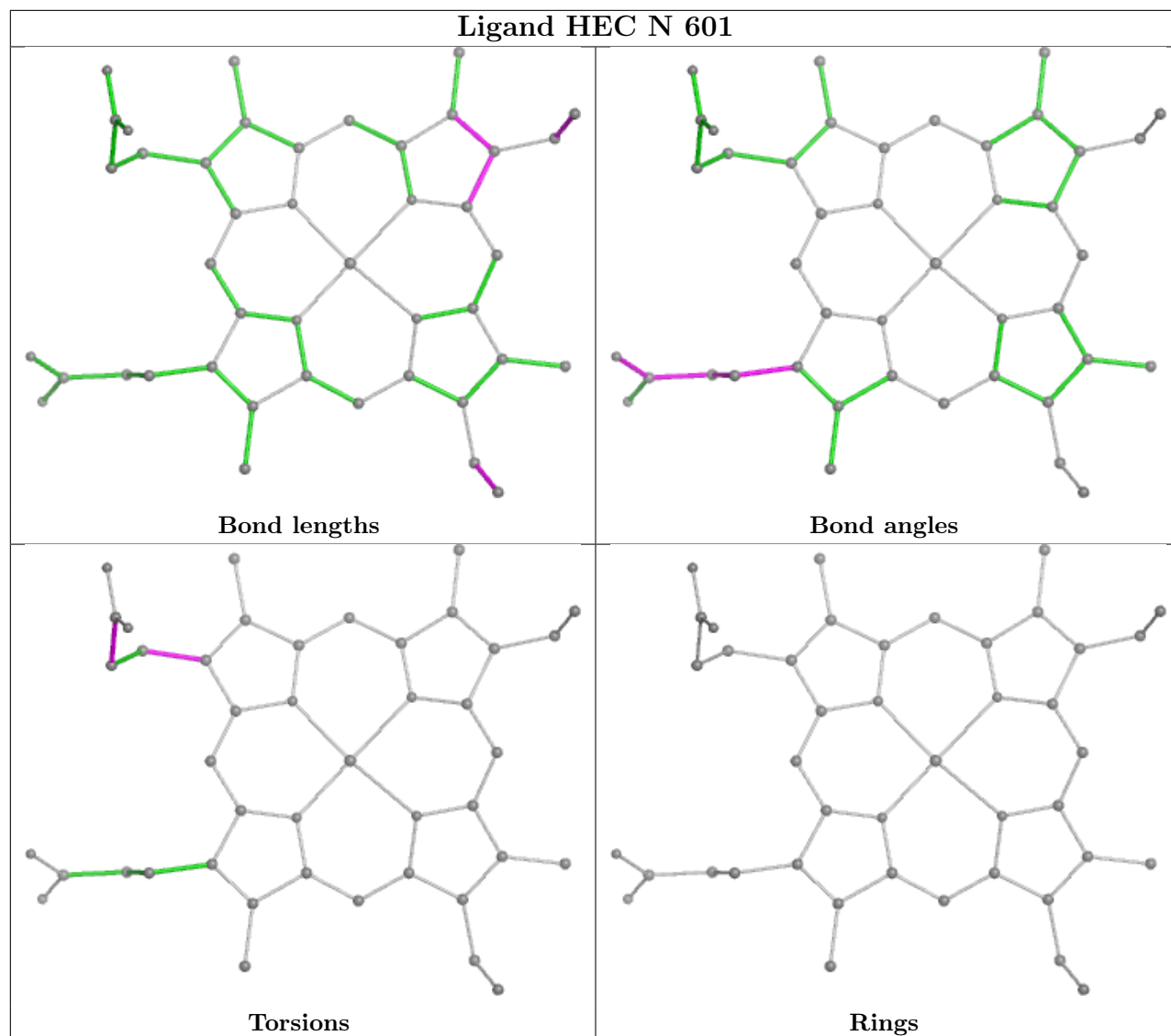


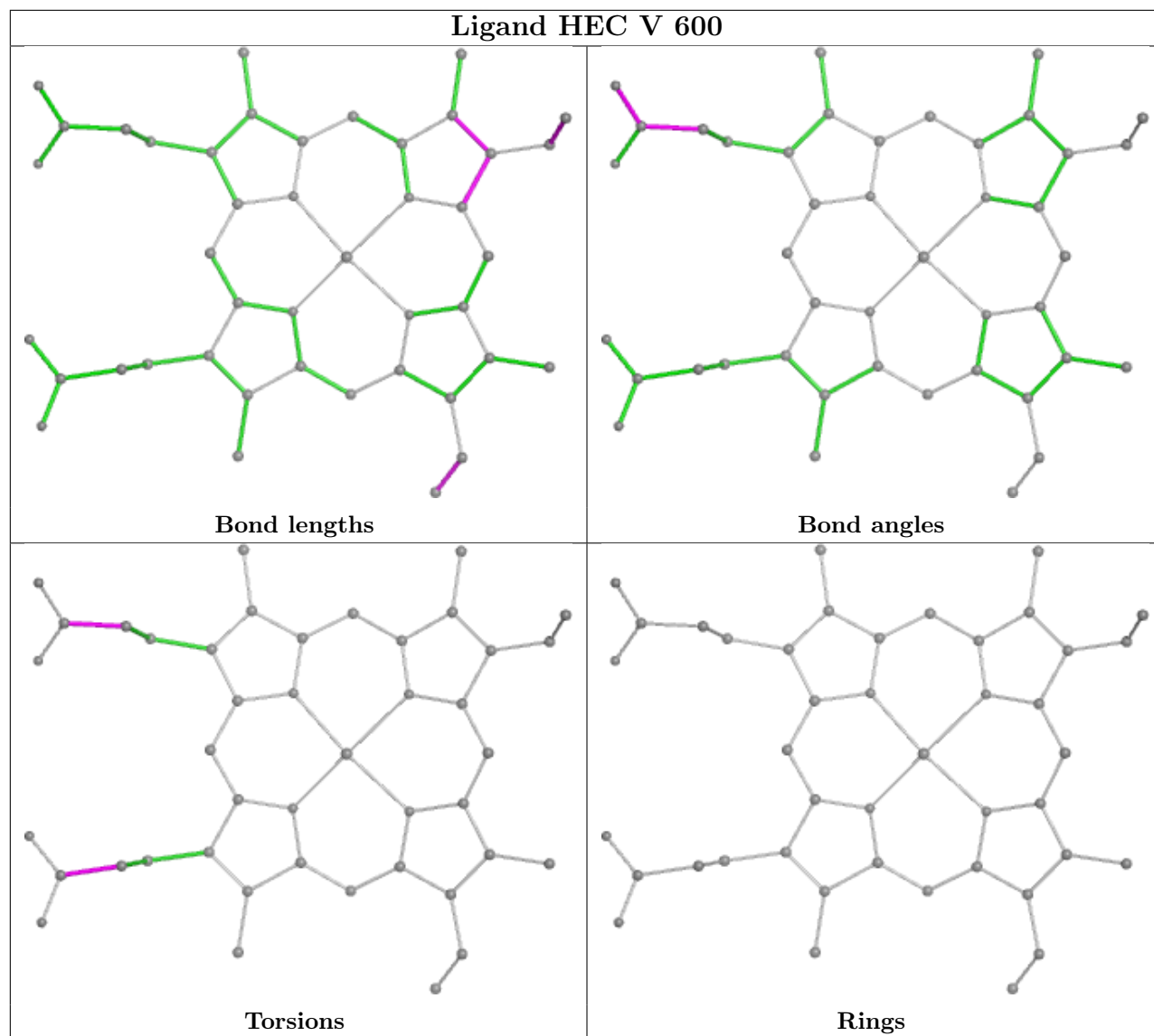




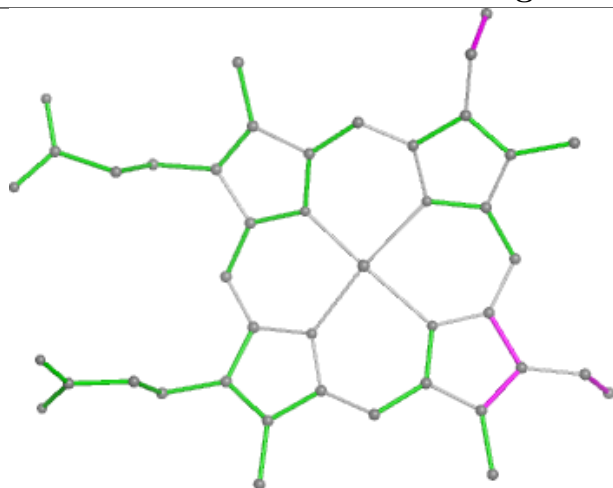




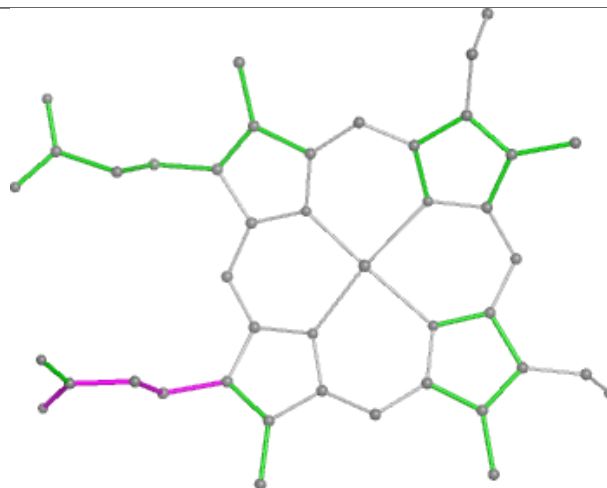




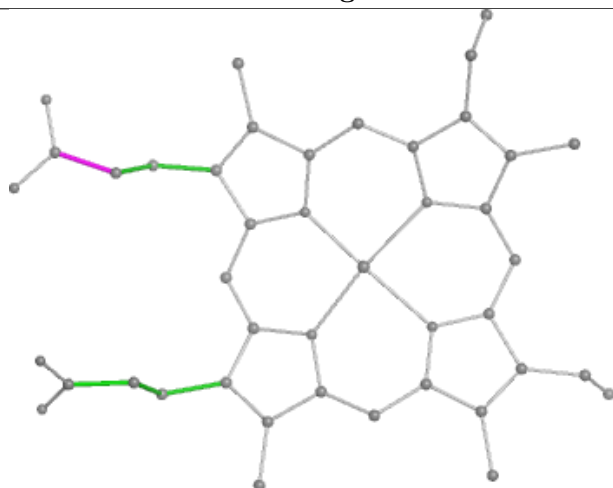
Ligand HEC S 606



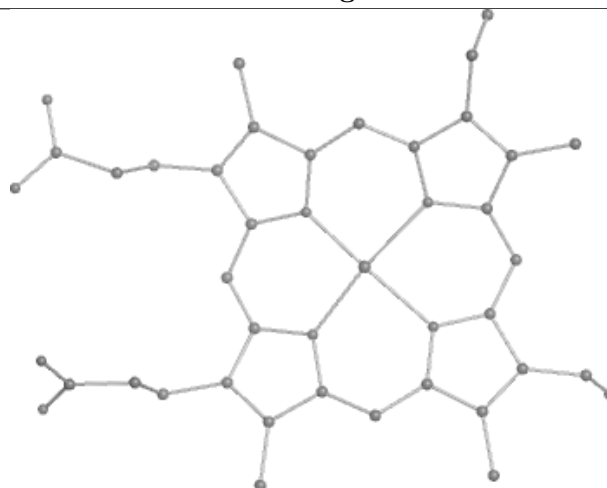
Bond lengths



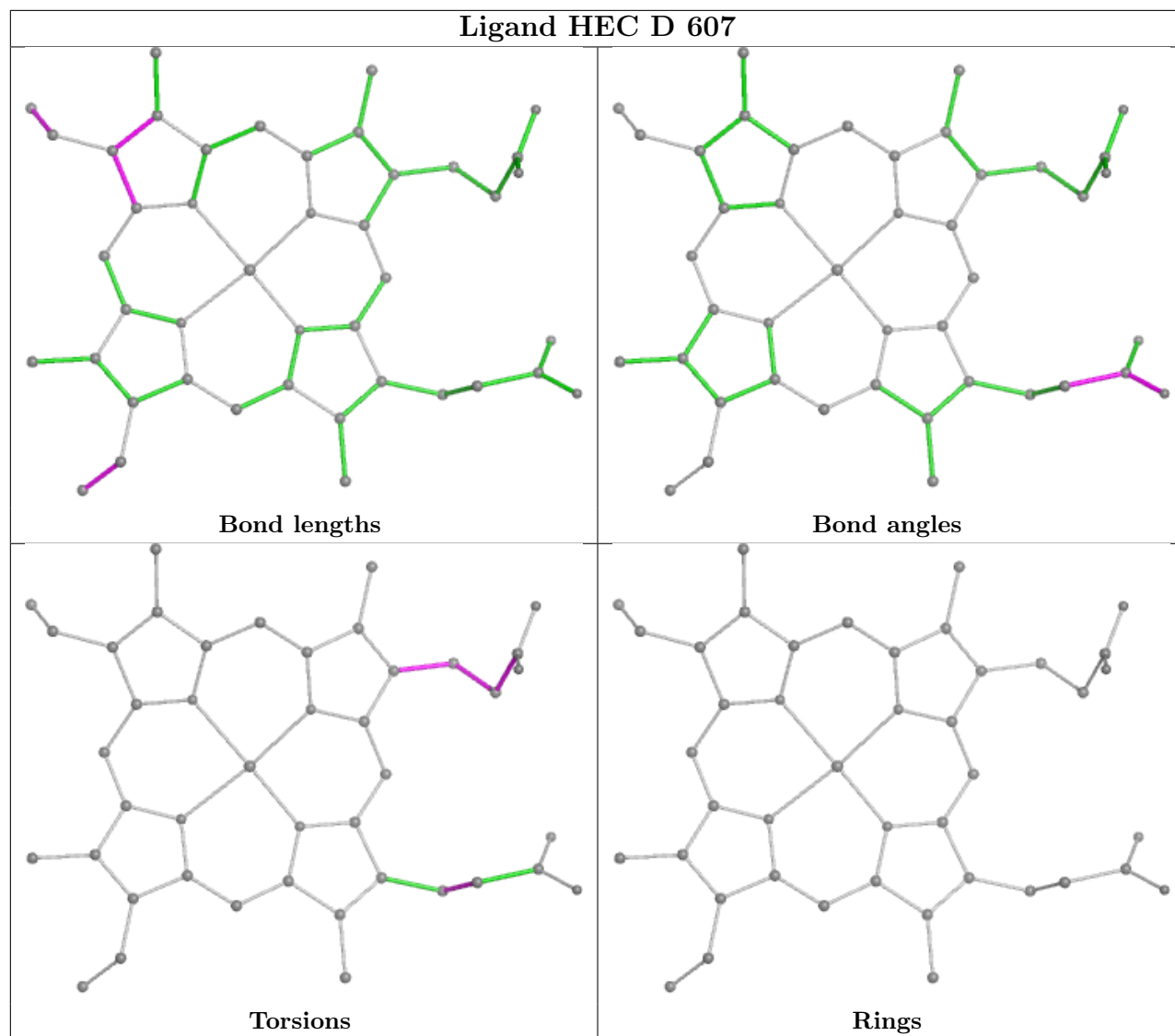
Bond angles

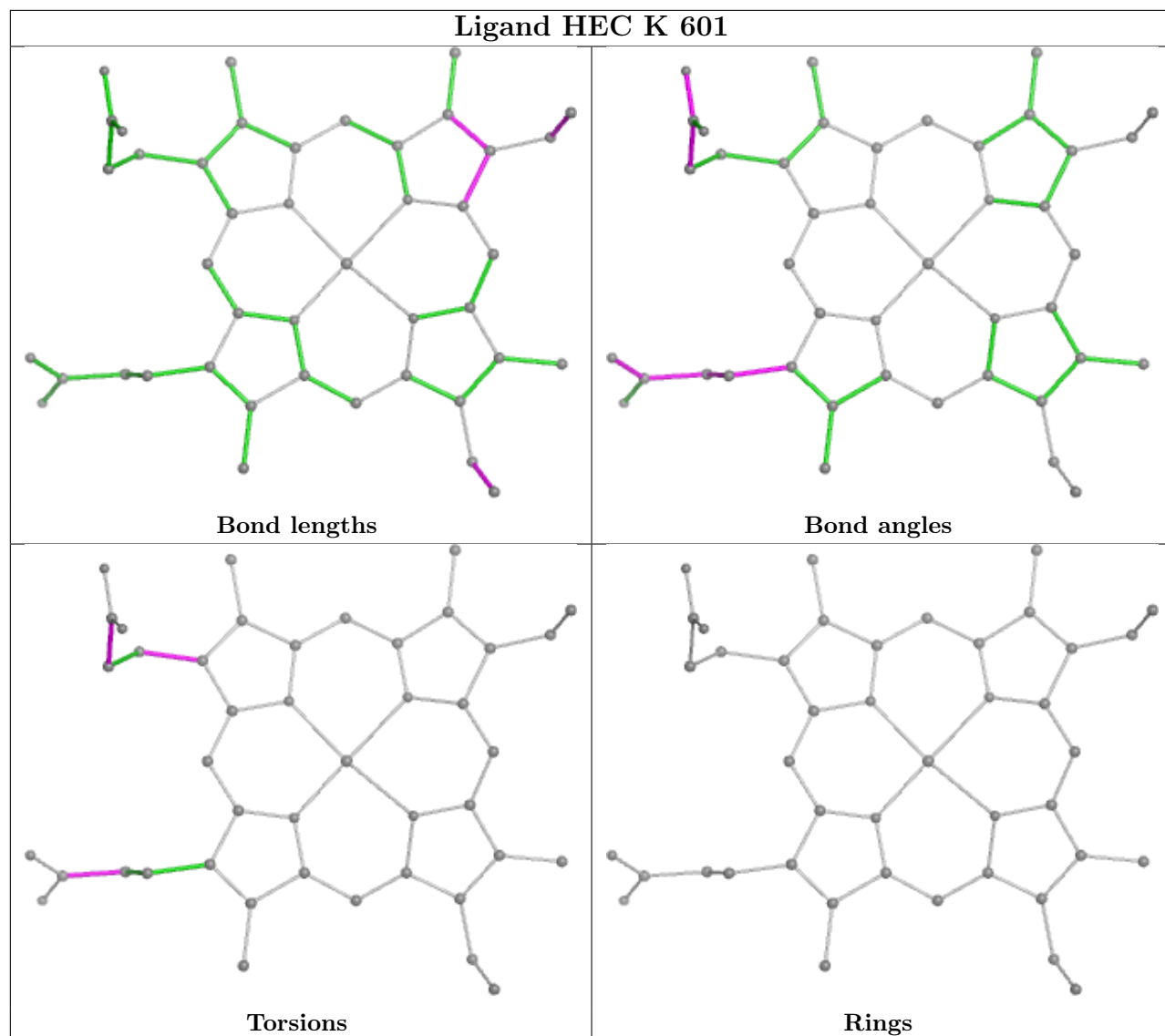


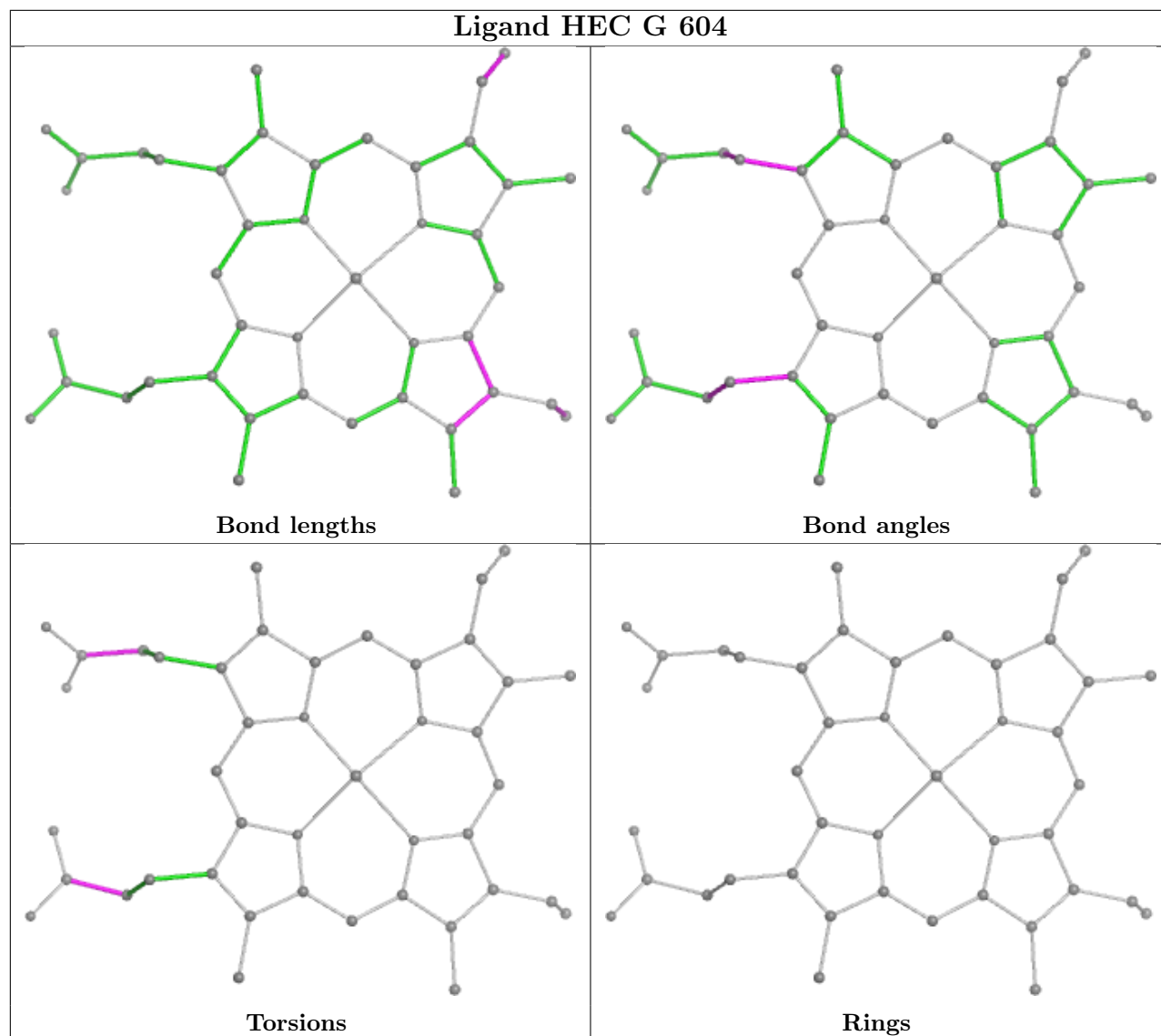
Torsions

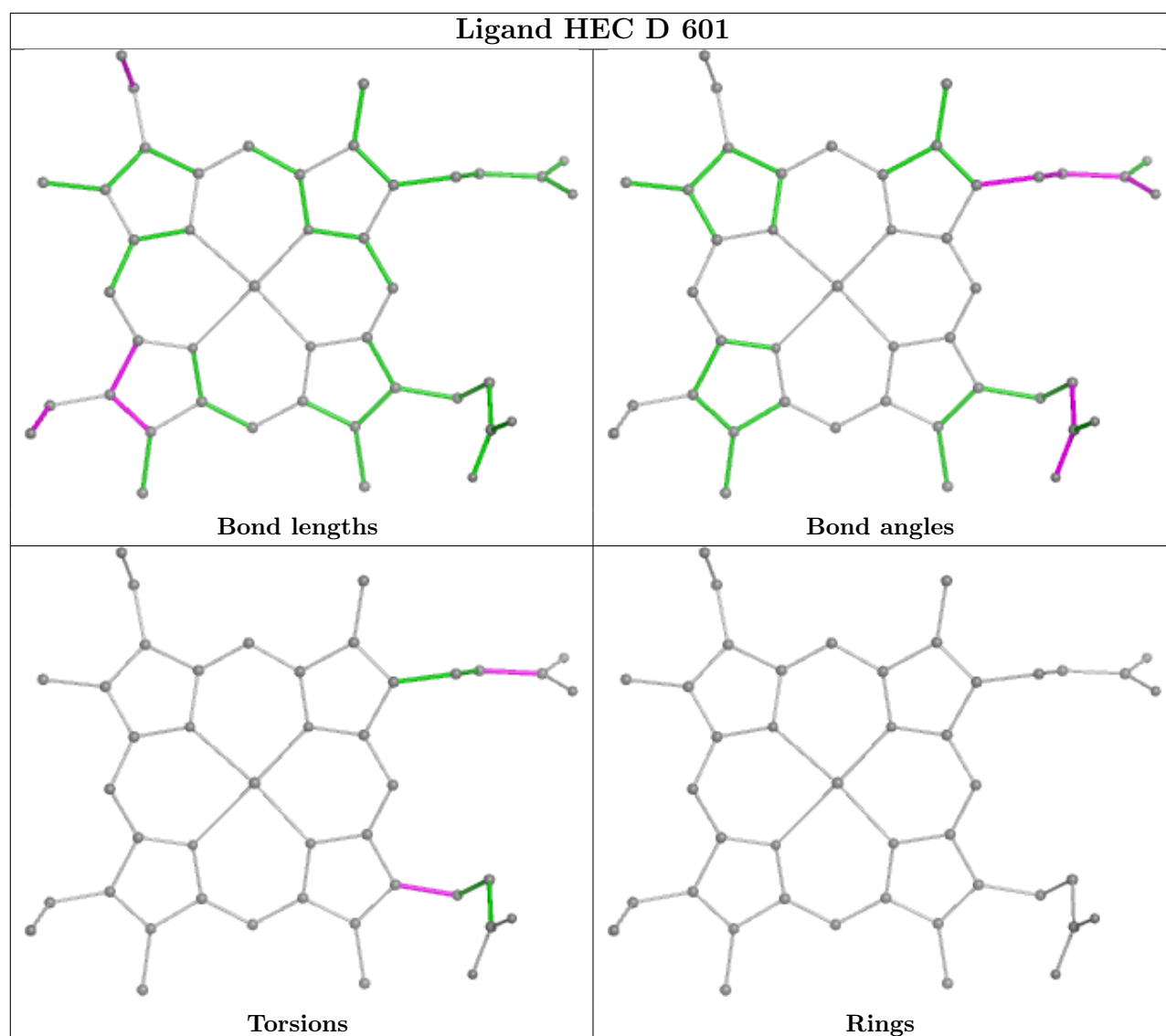


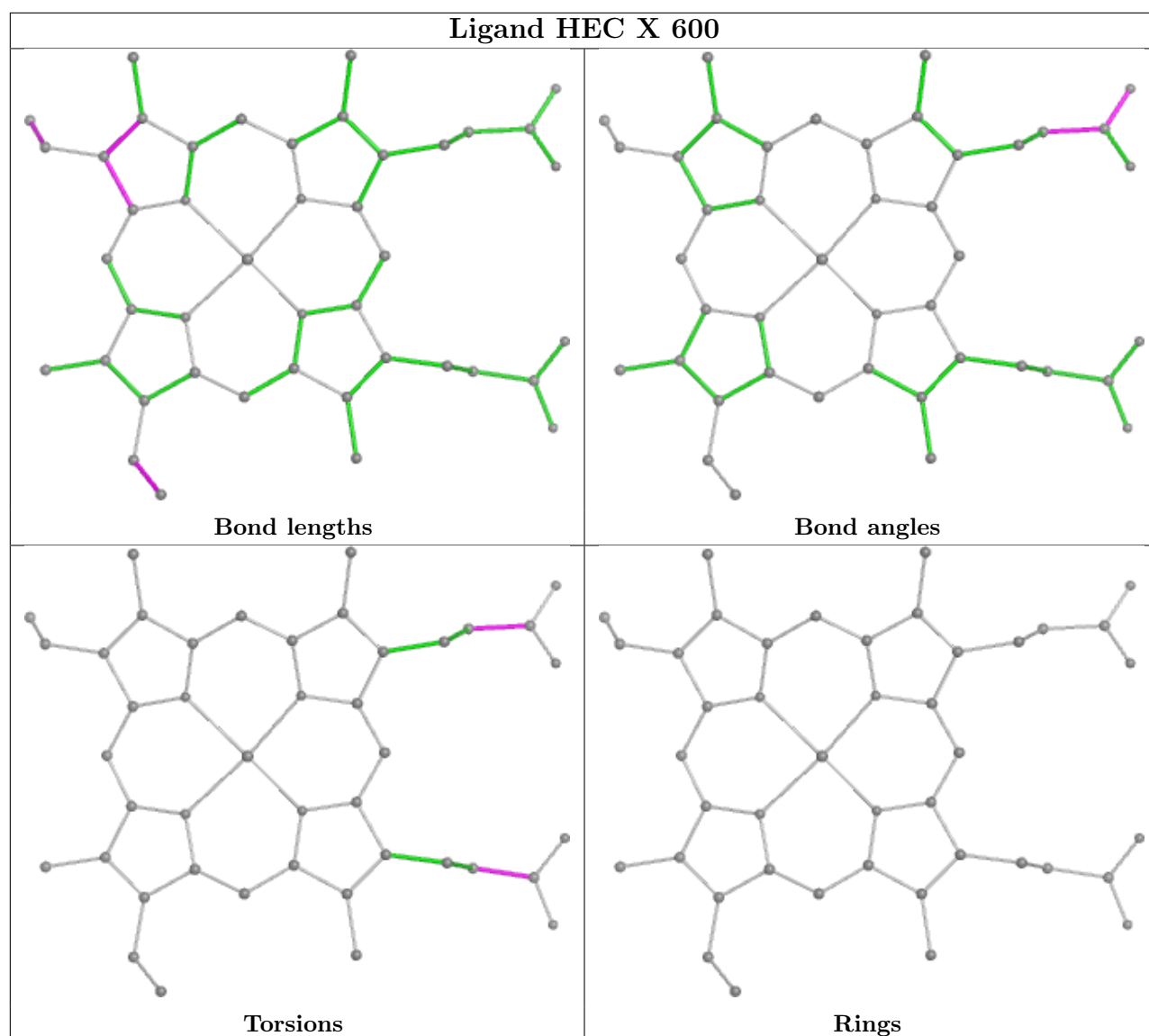
Rings

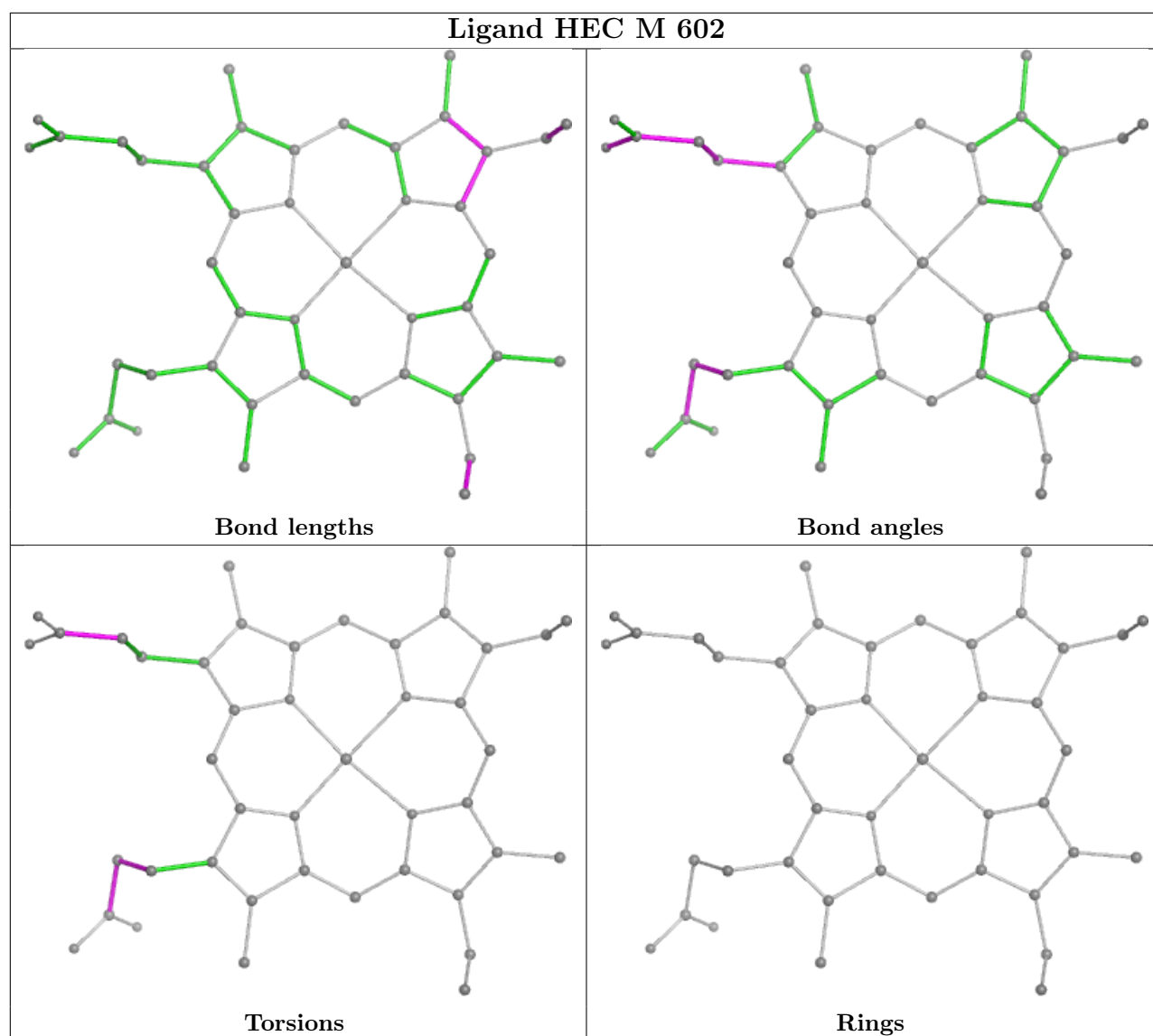


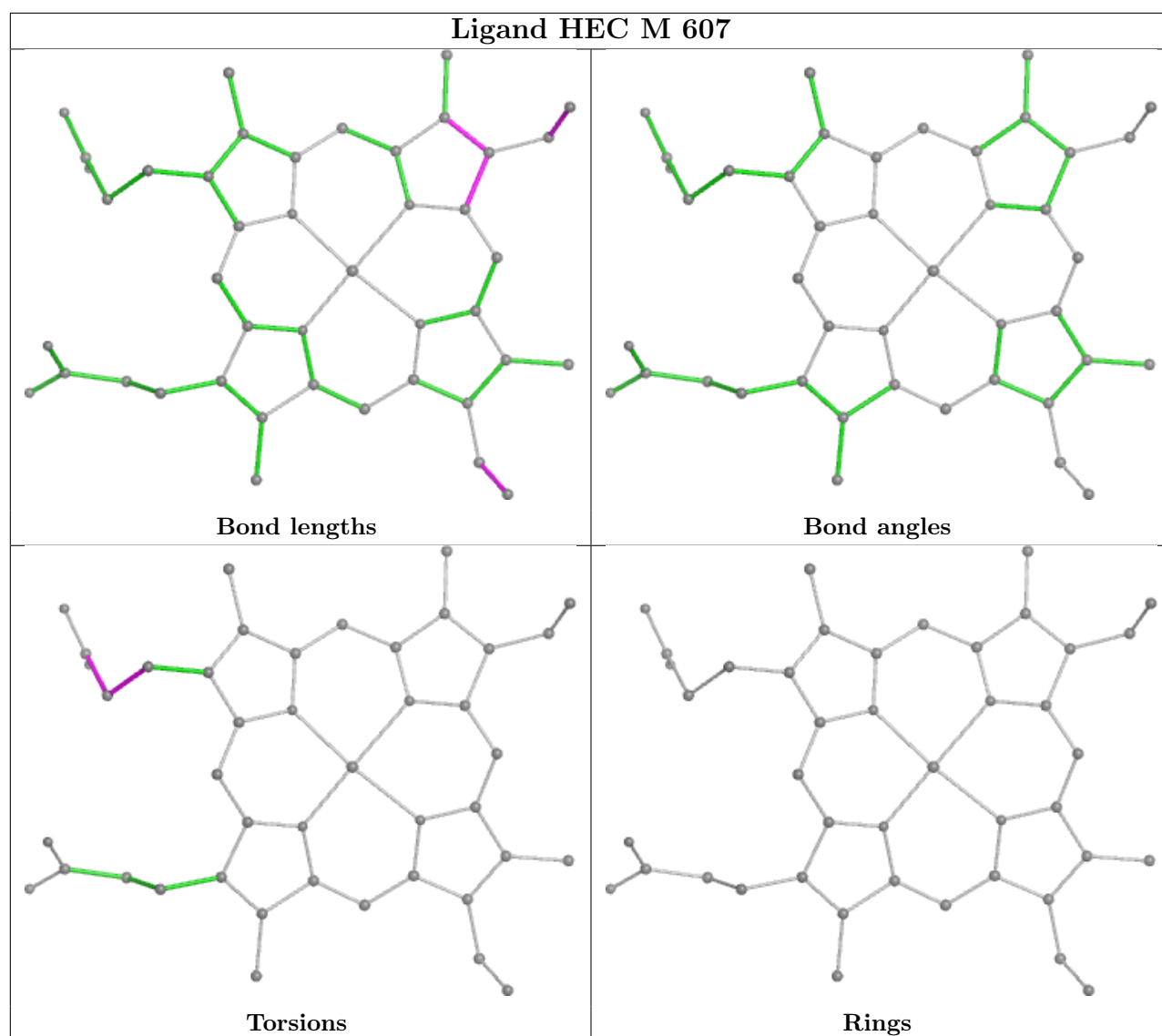




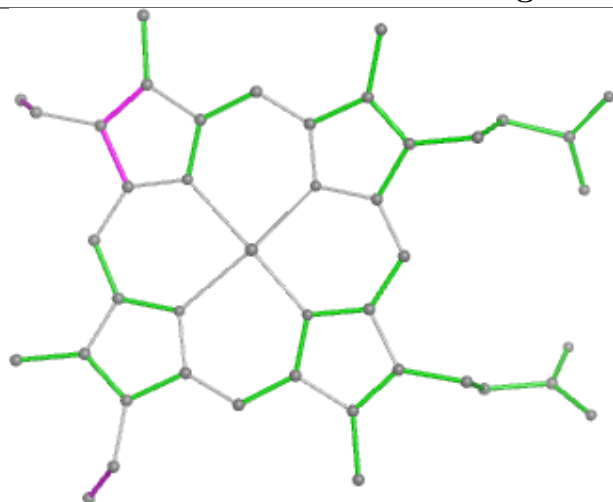




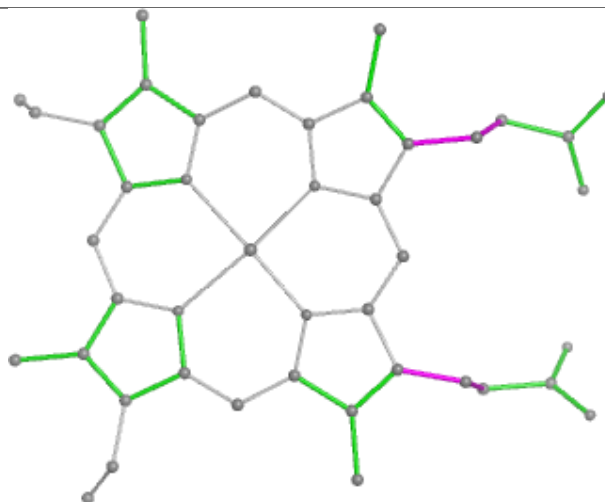




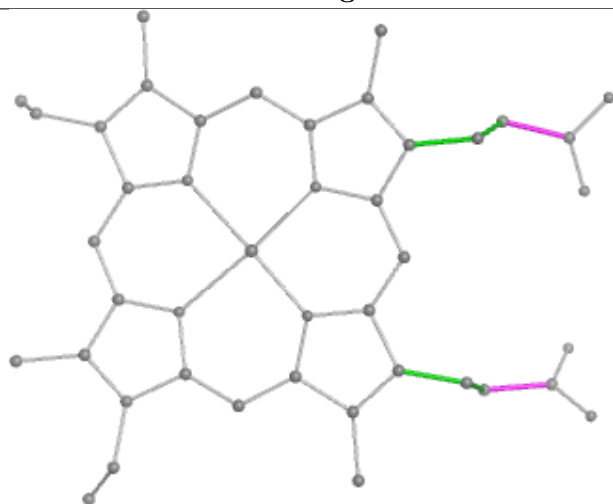
Ligand HEC J 604



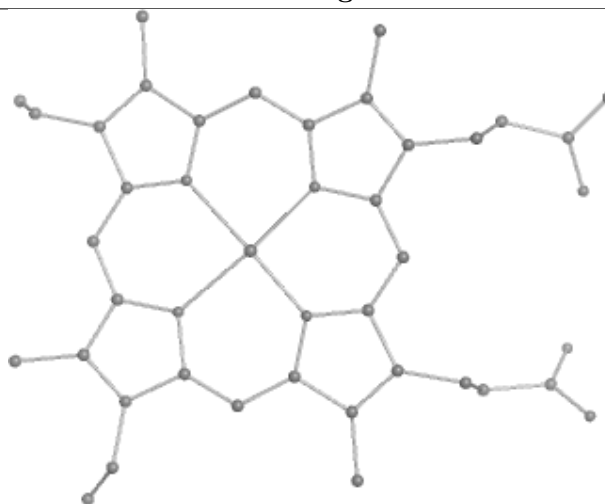
Bond lengths



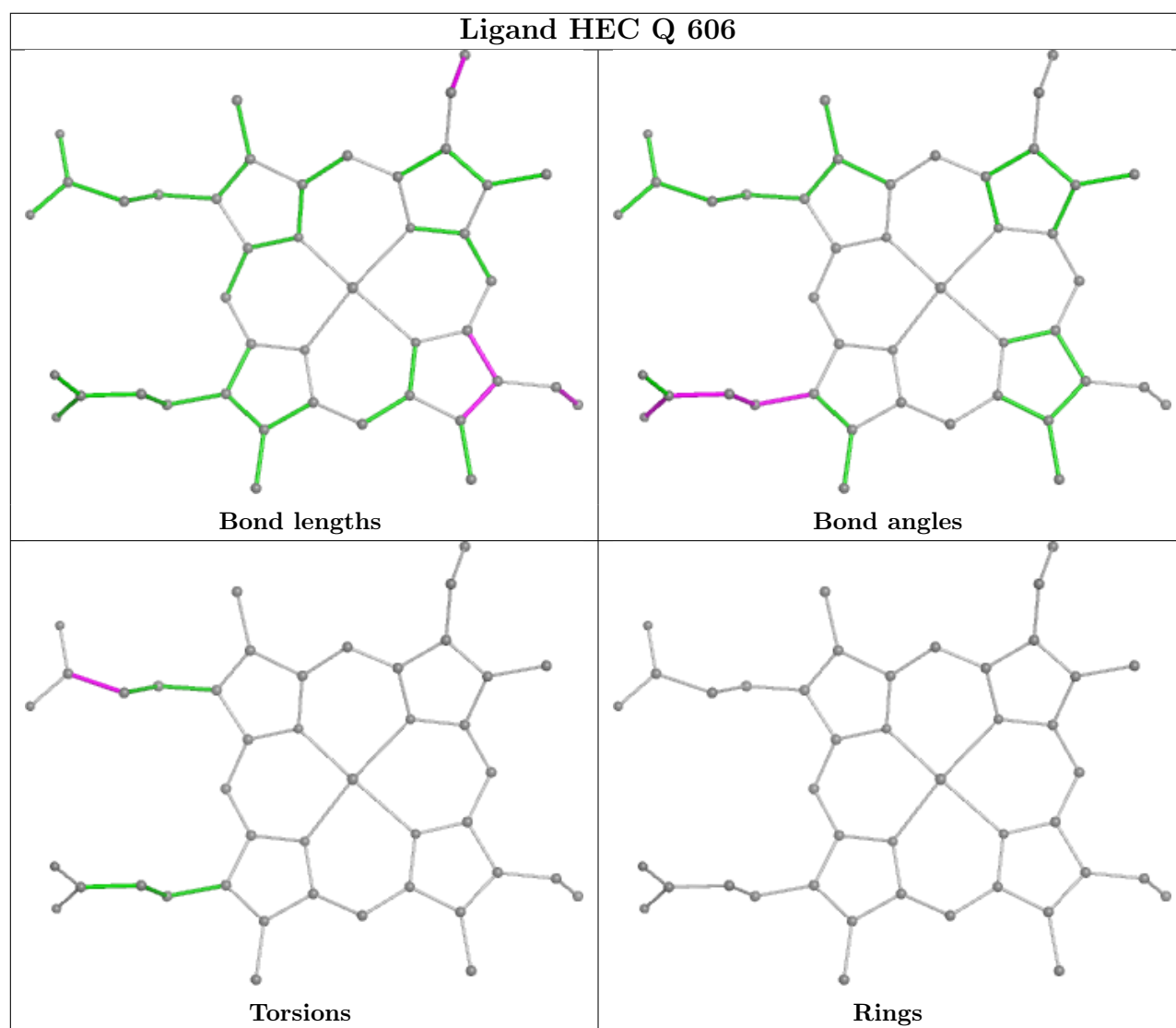
Bond angles

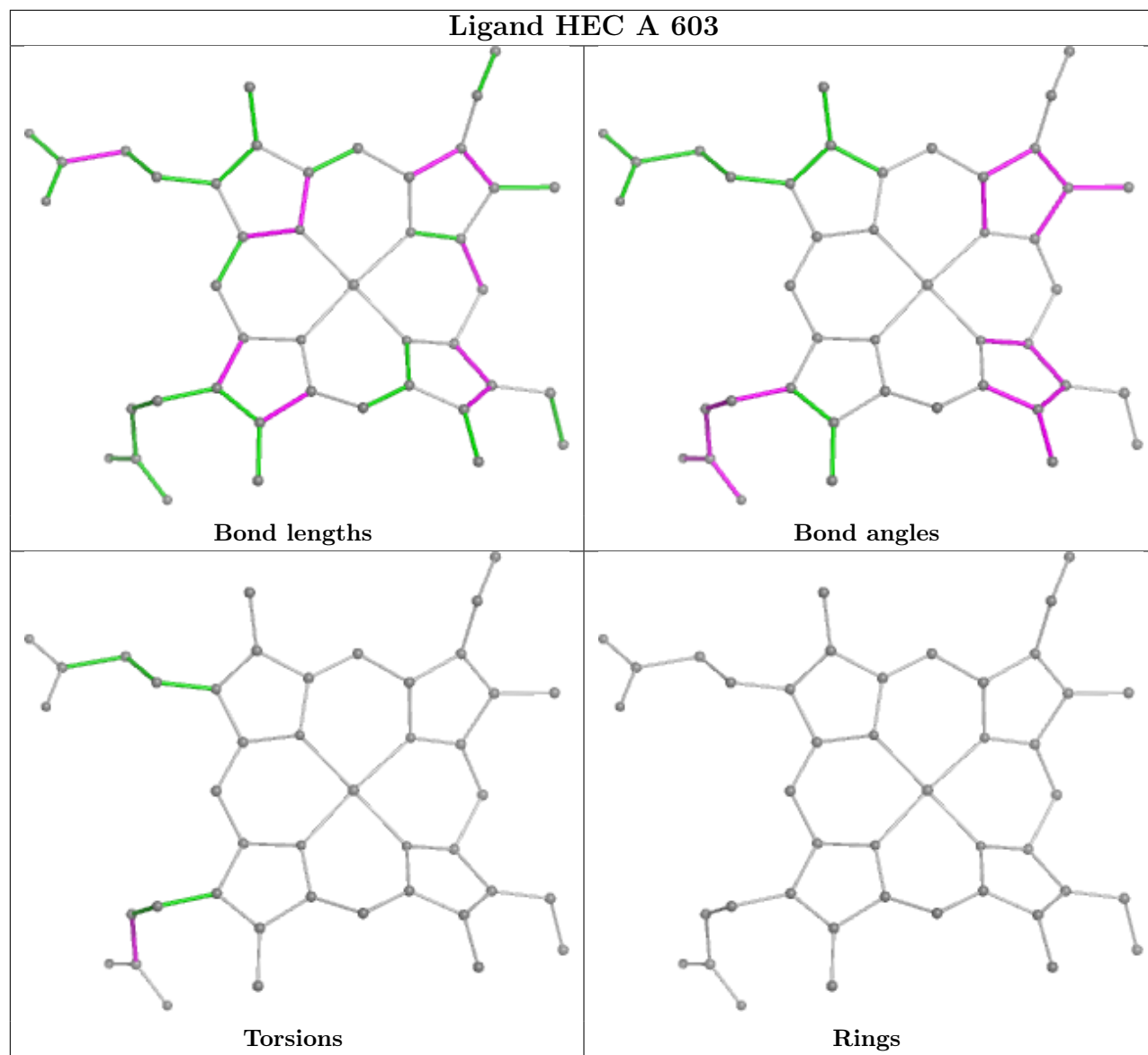


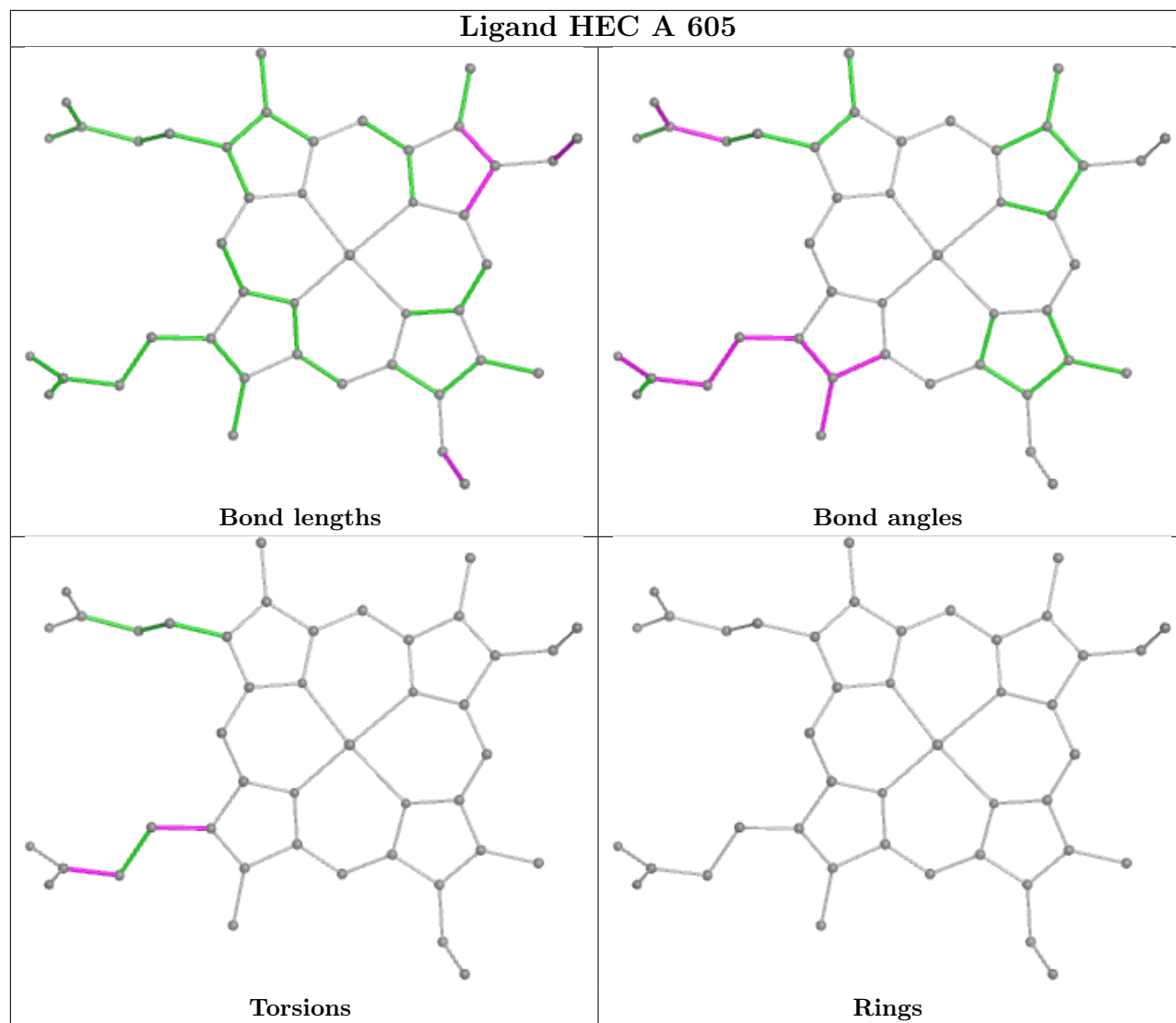
Torsions

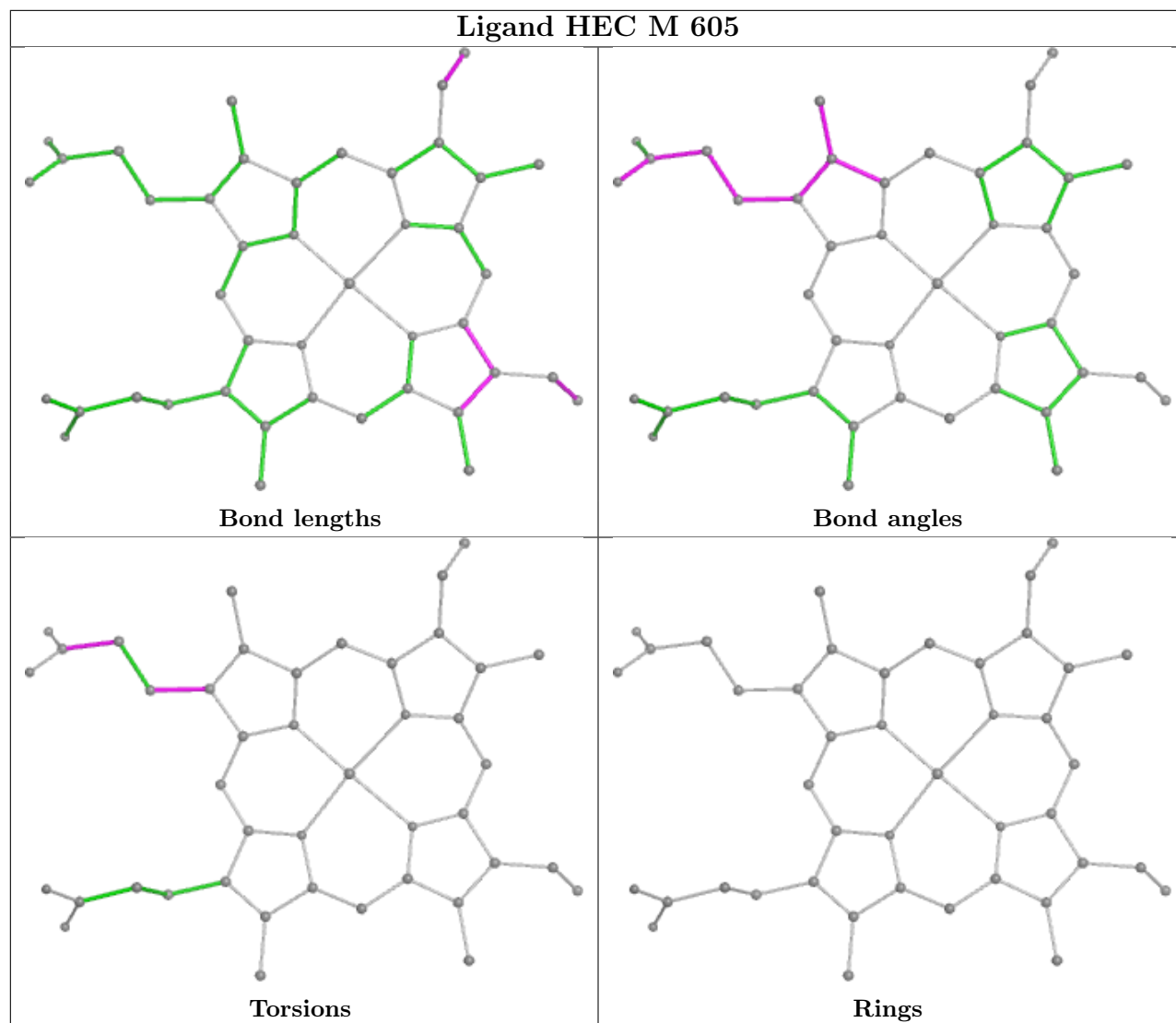


Rings

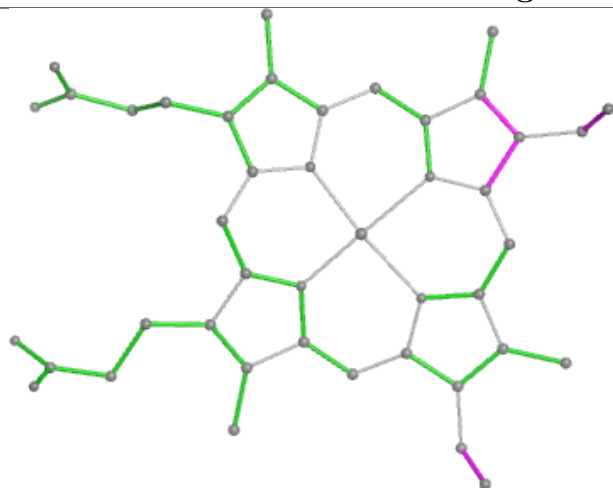




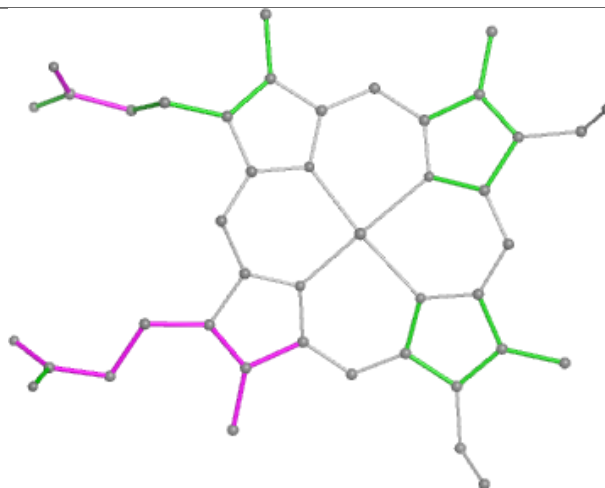




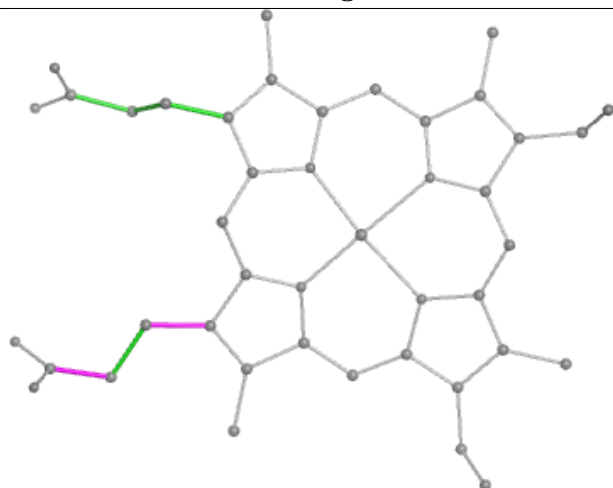
Ligand HEC J 605



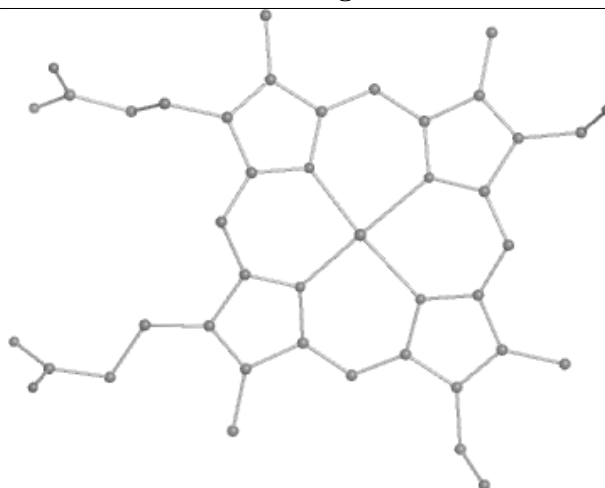
Bond lengths



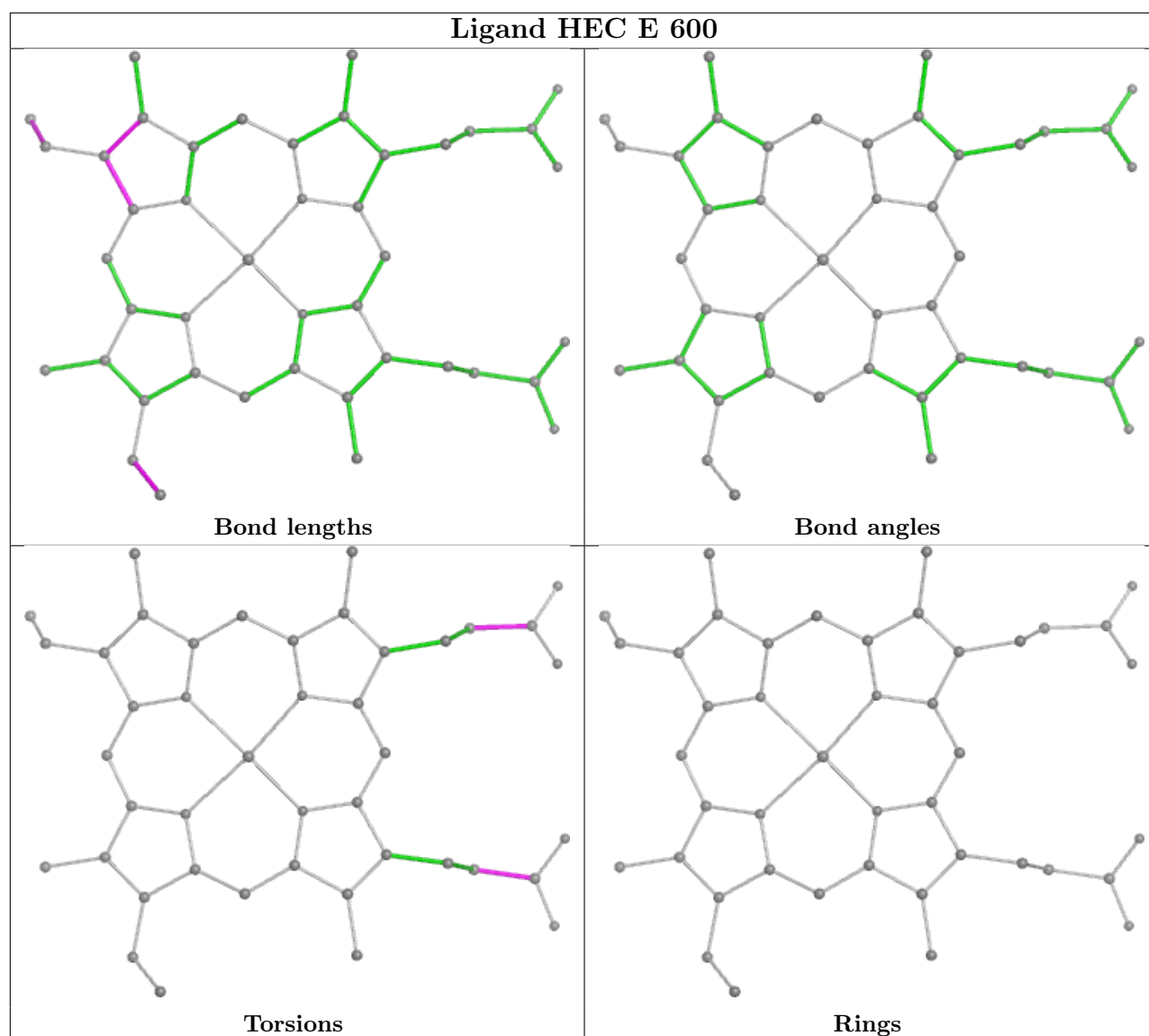
Bond angles

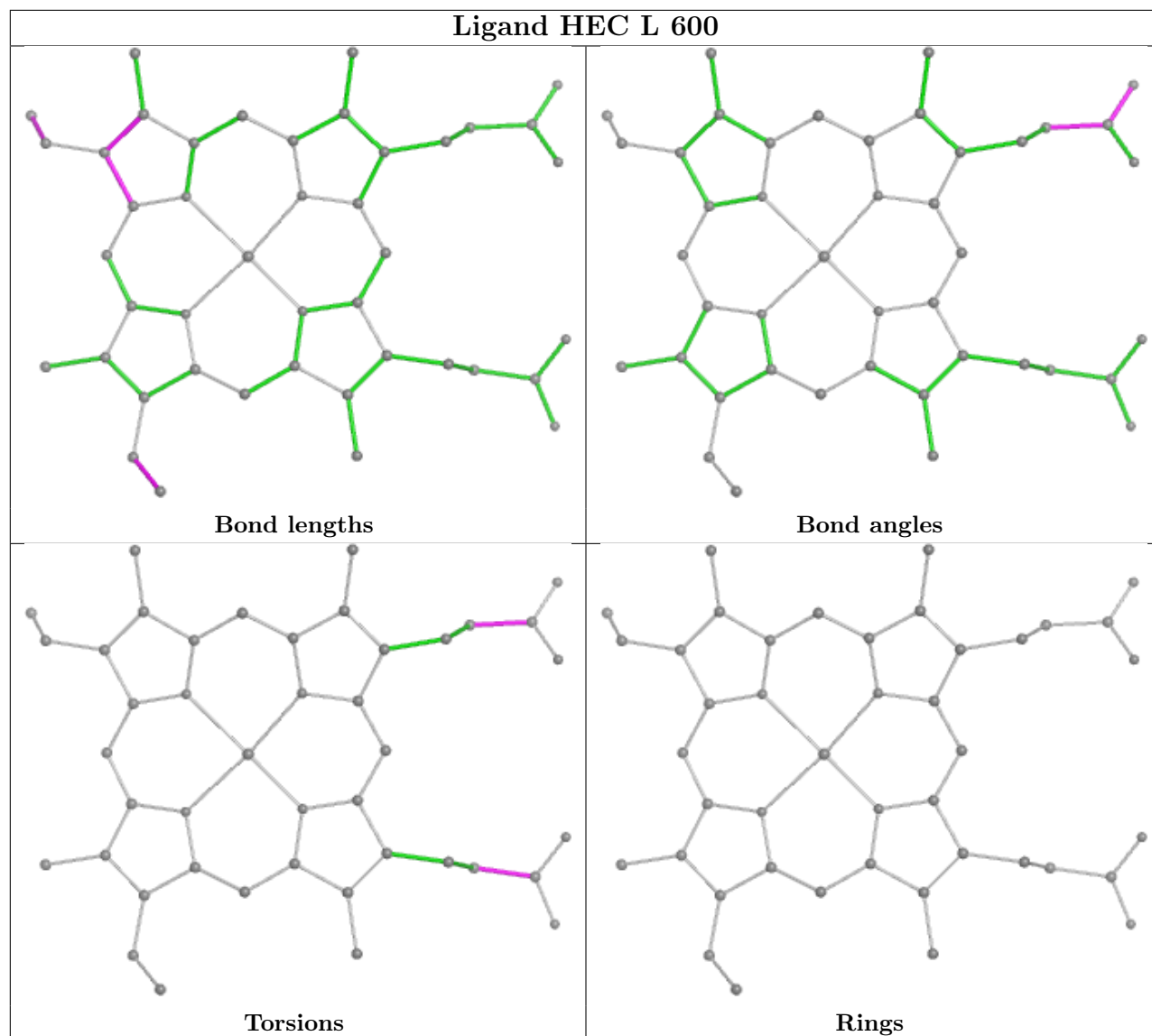


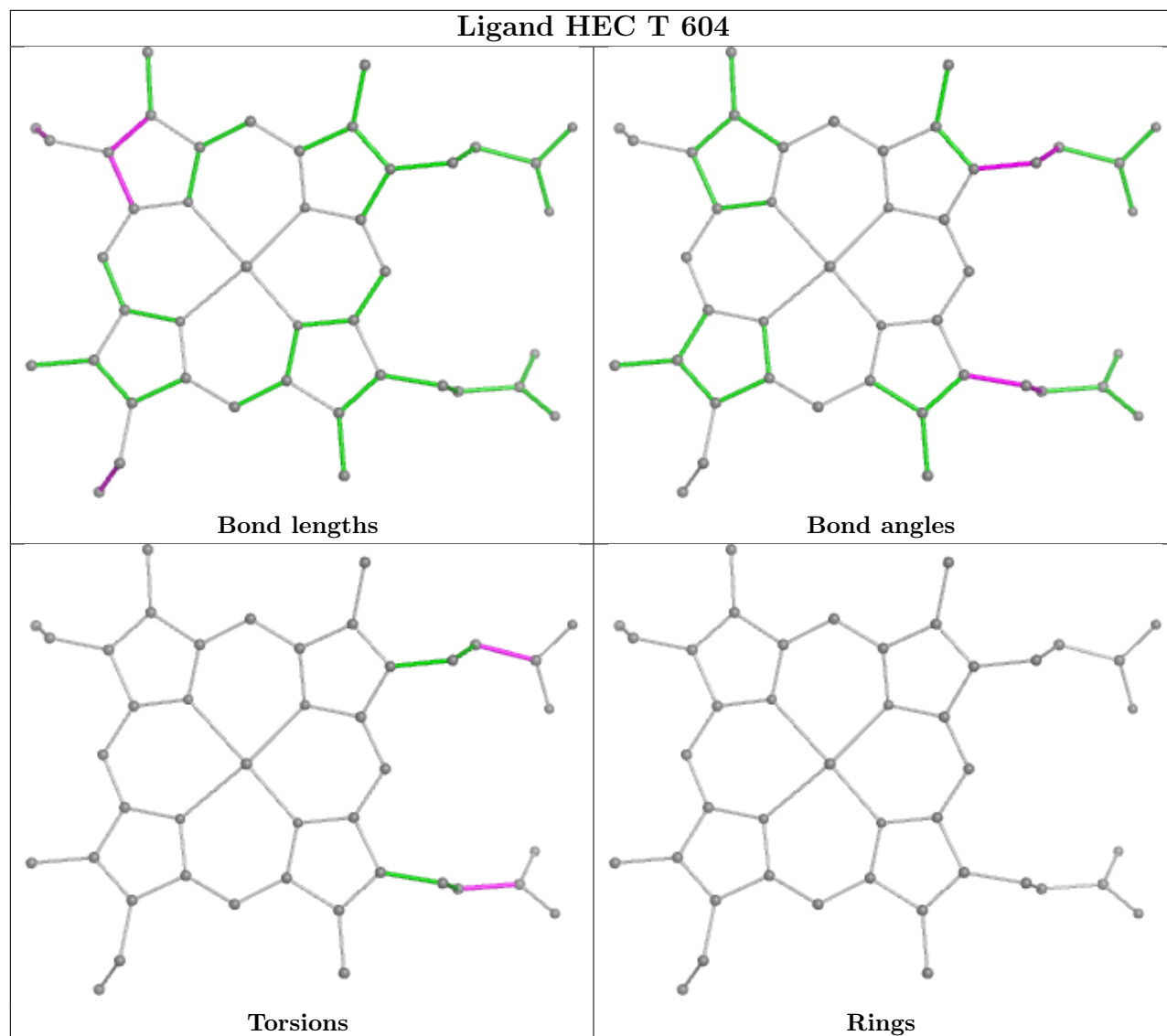
Torsions

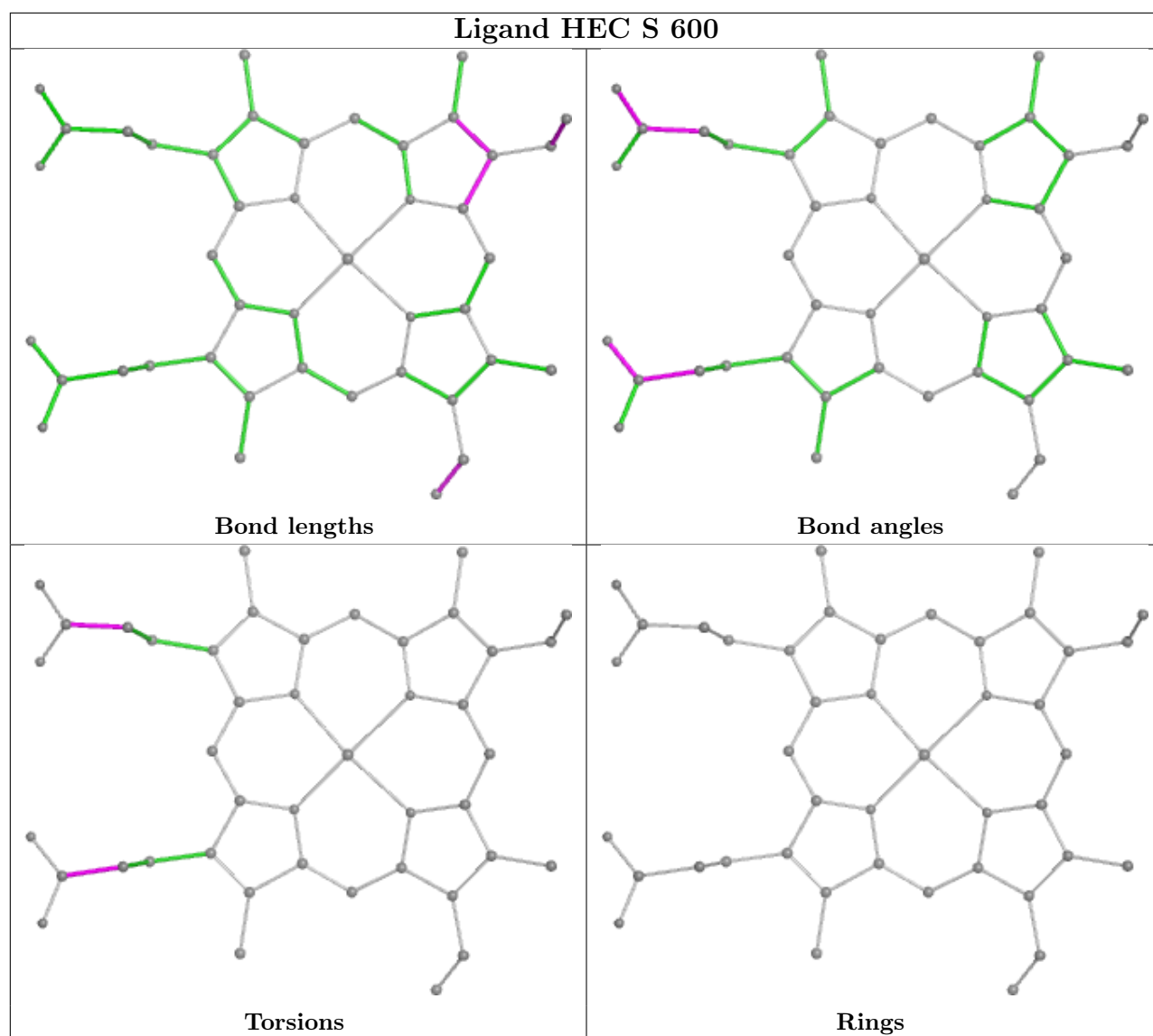


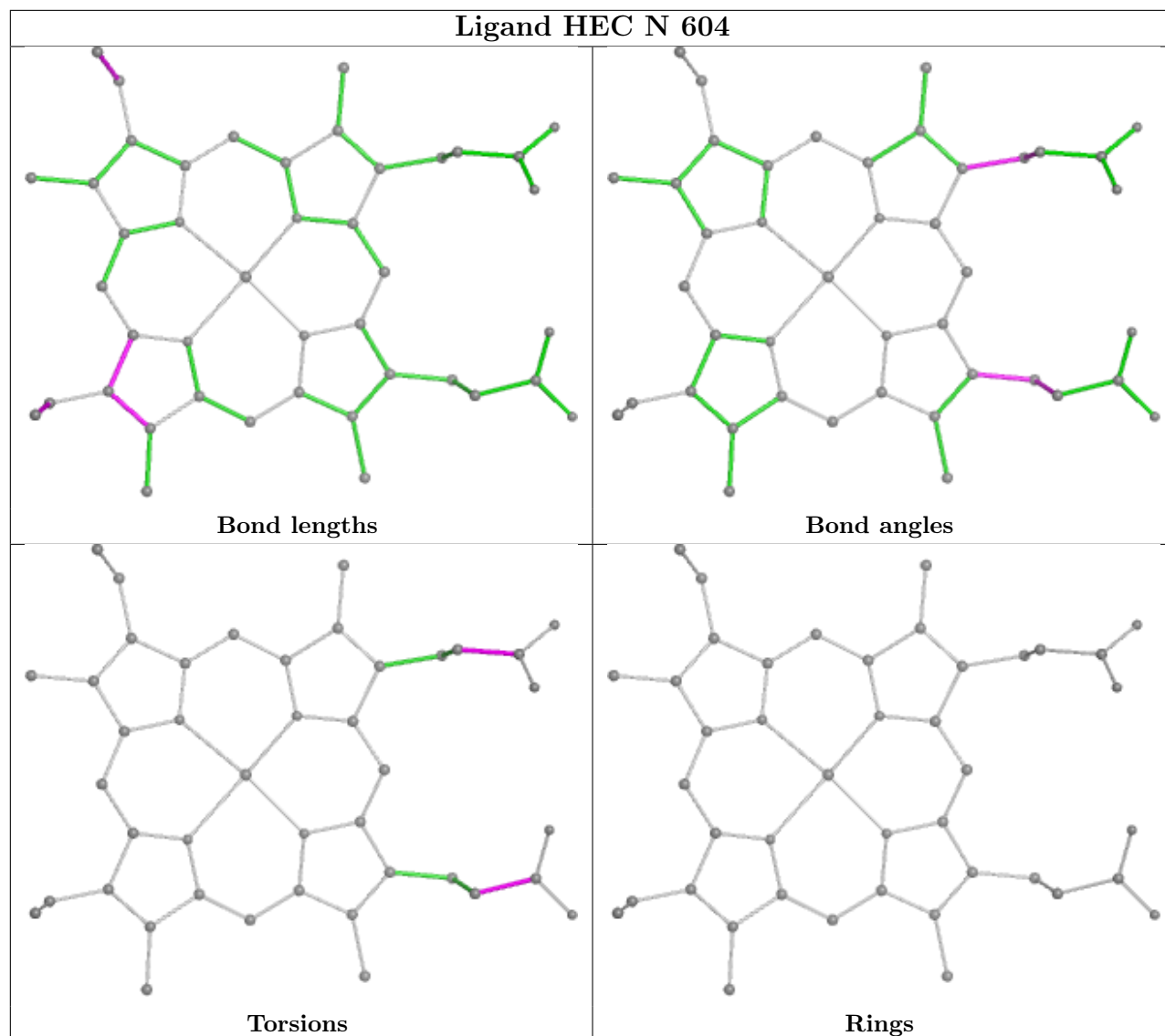
Rings

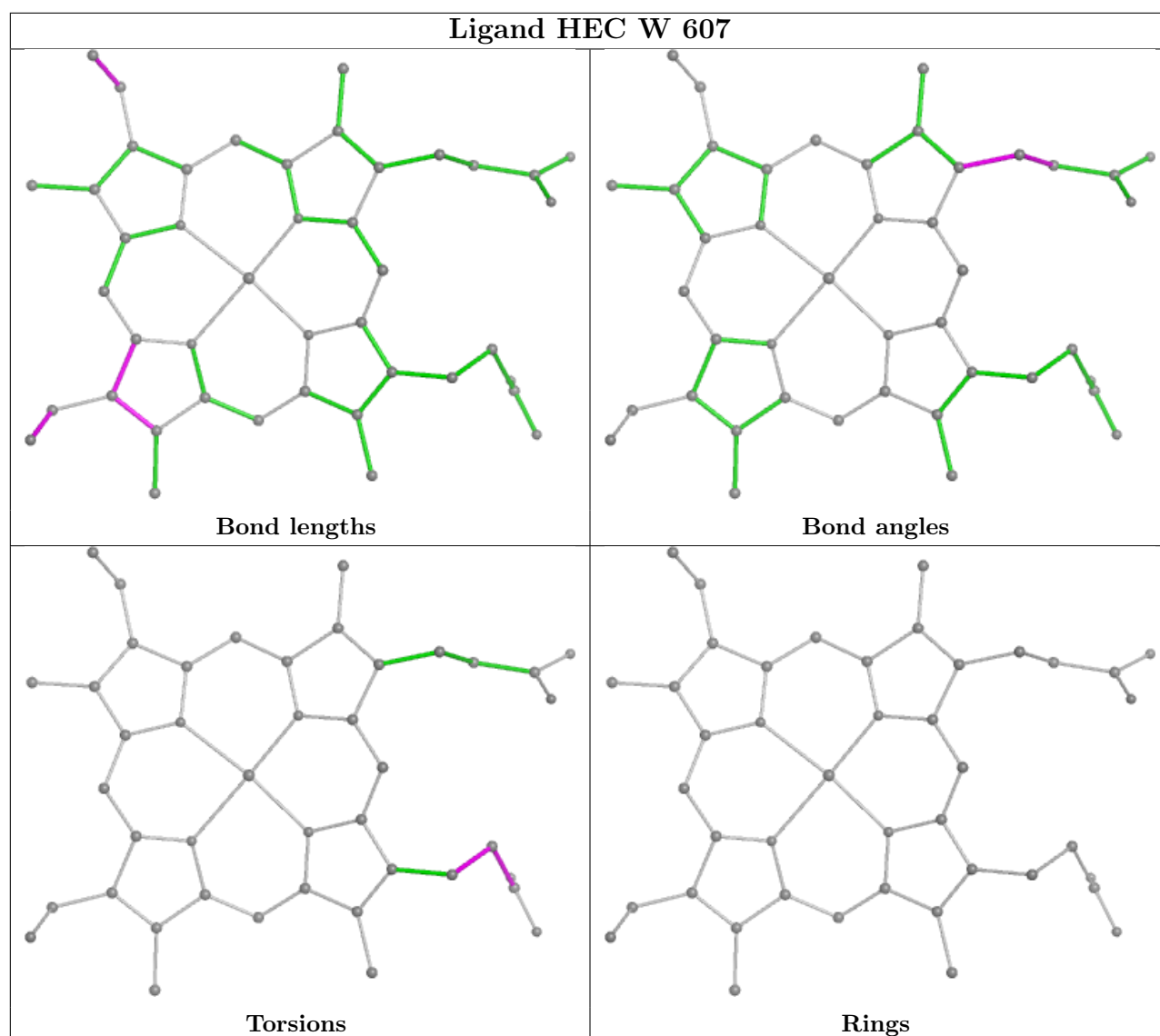


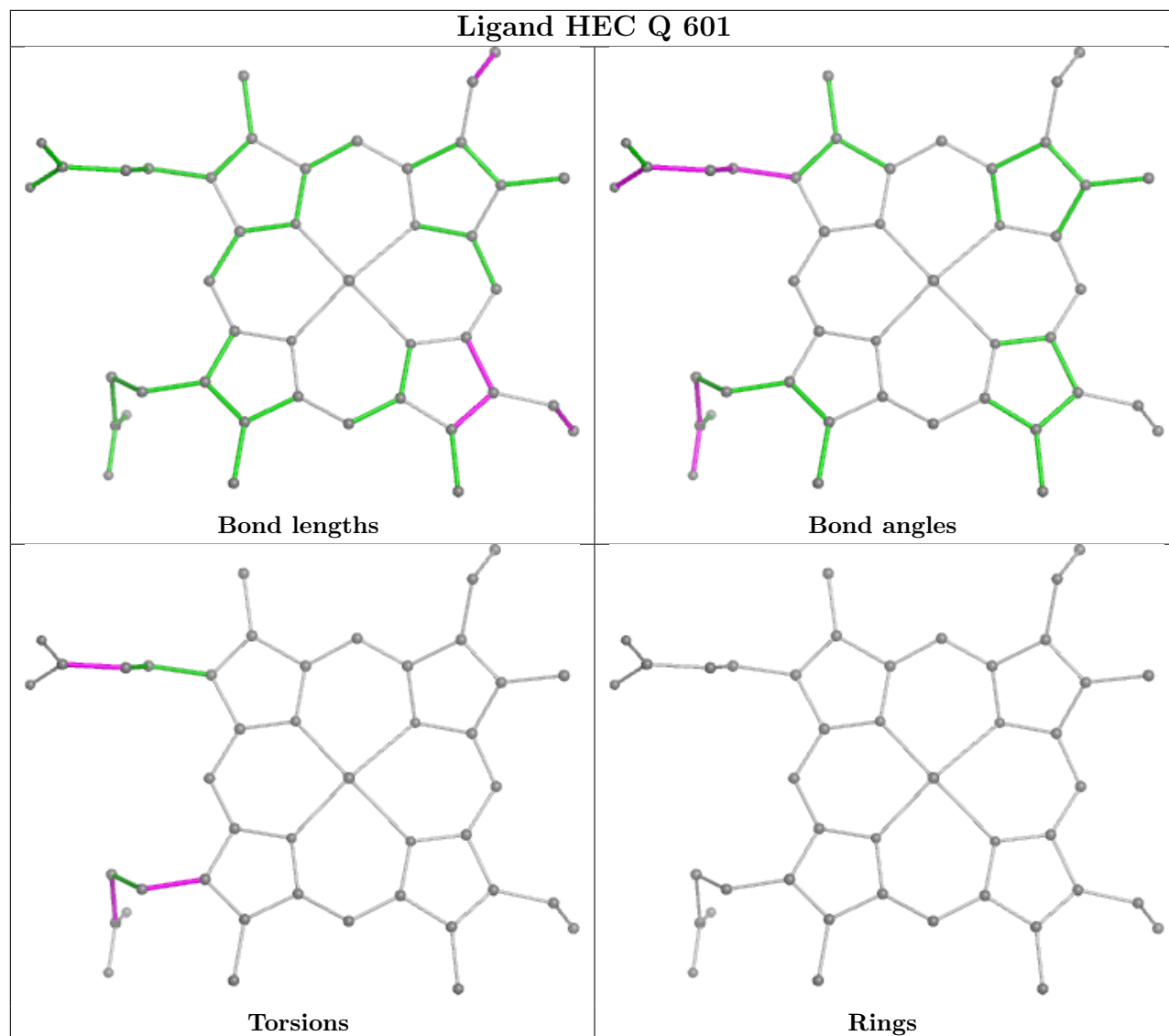


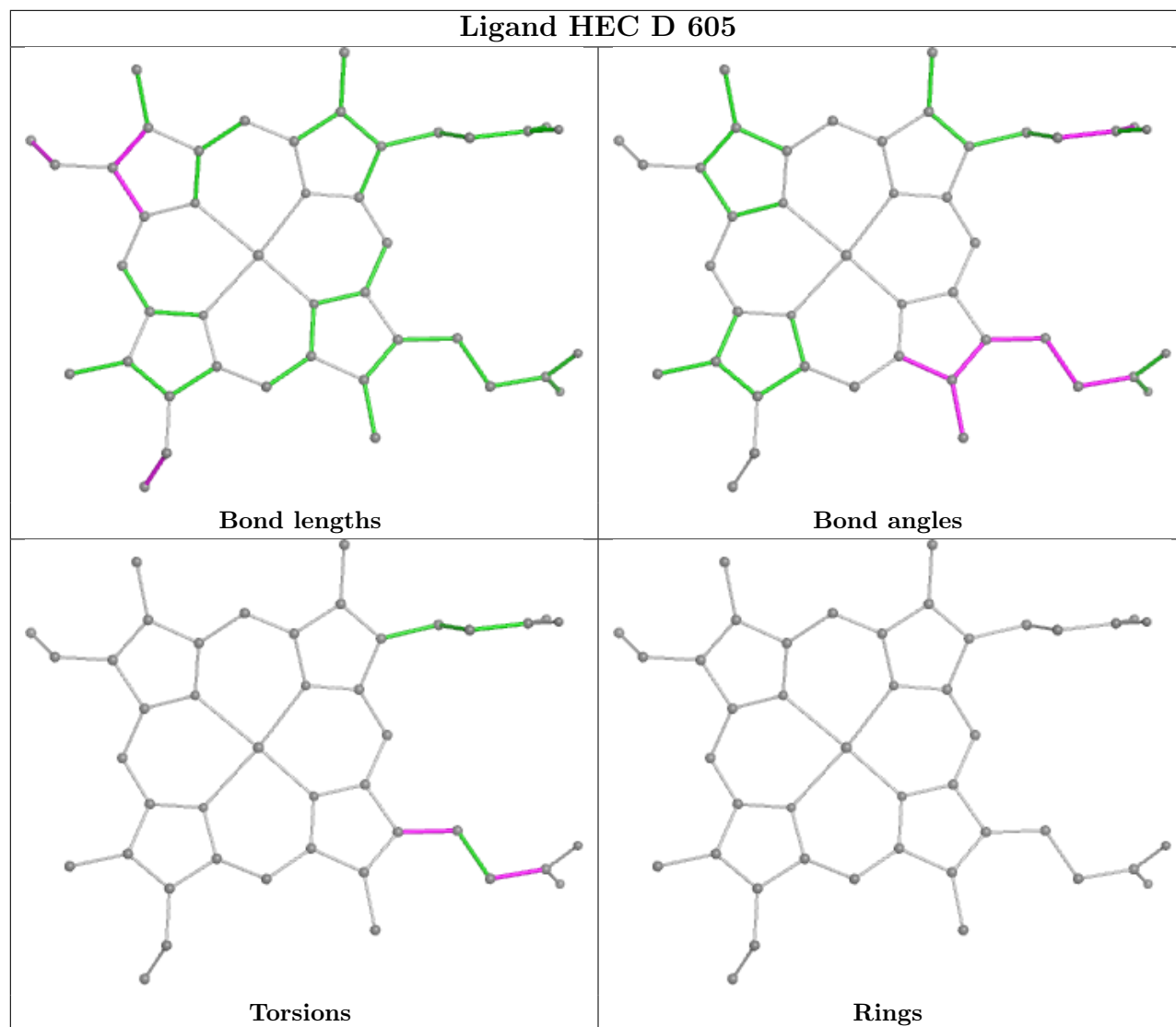


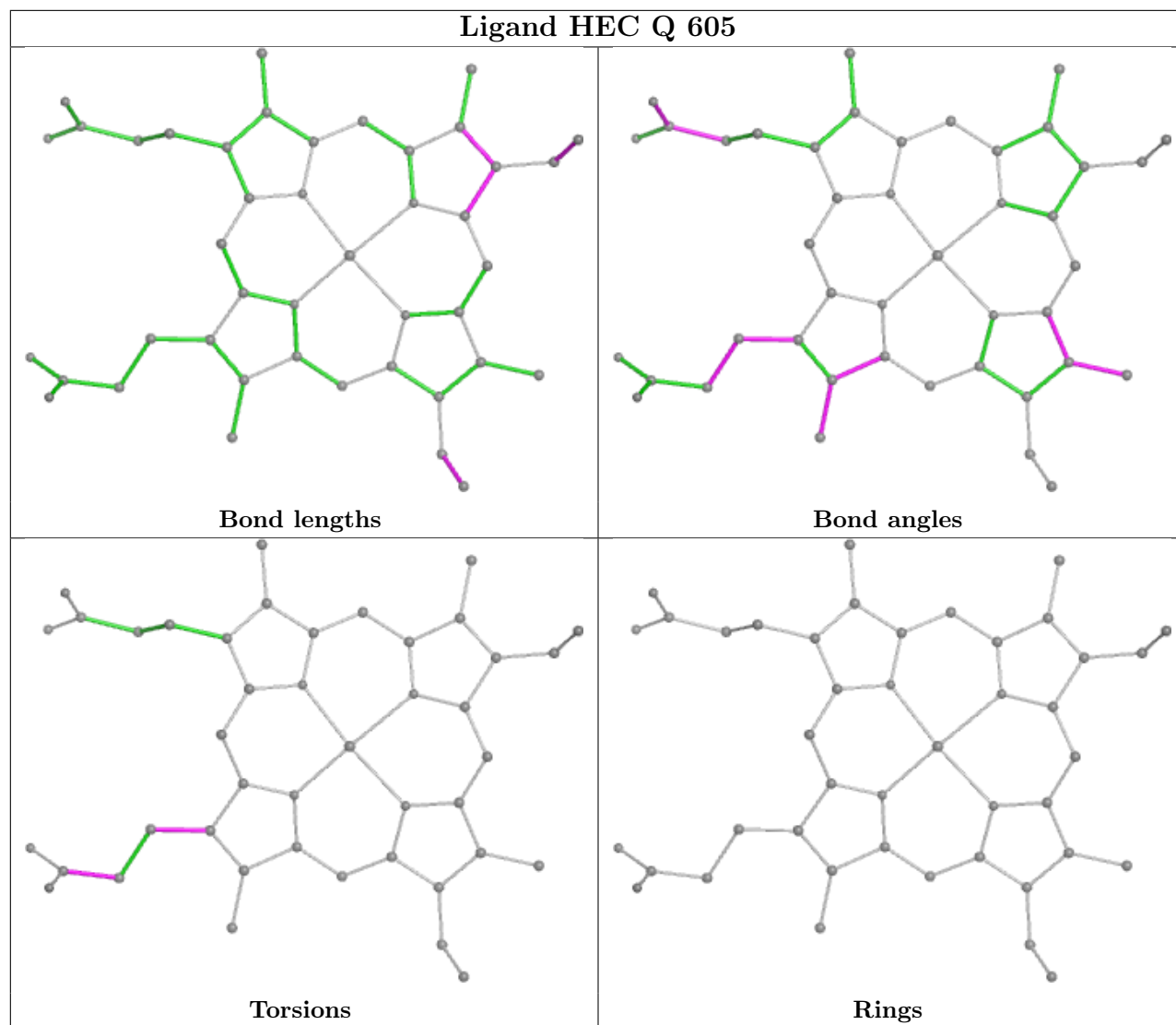




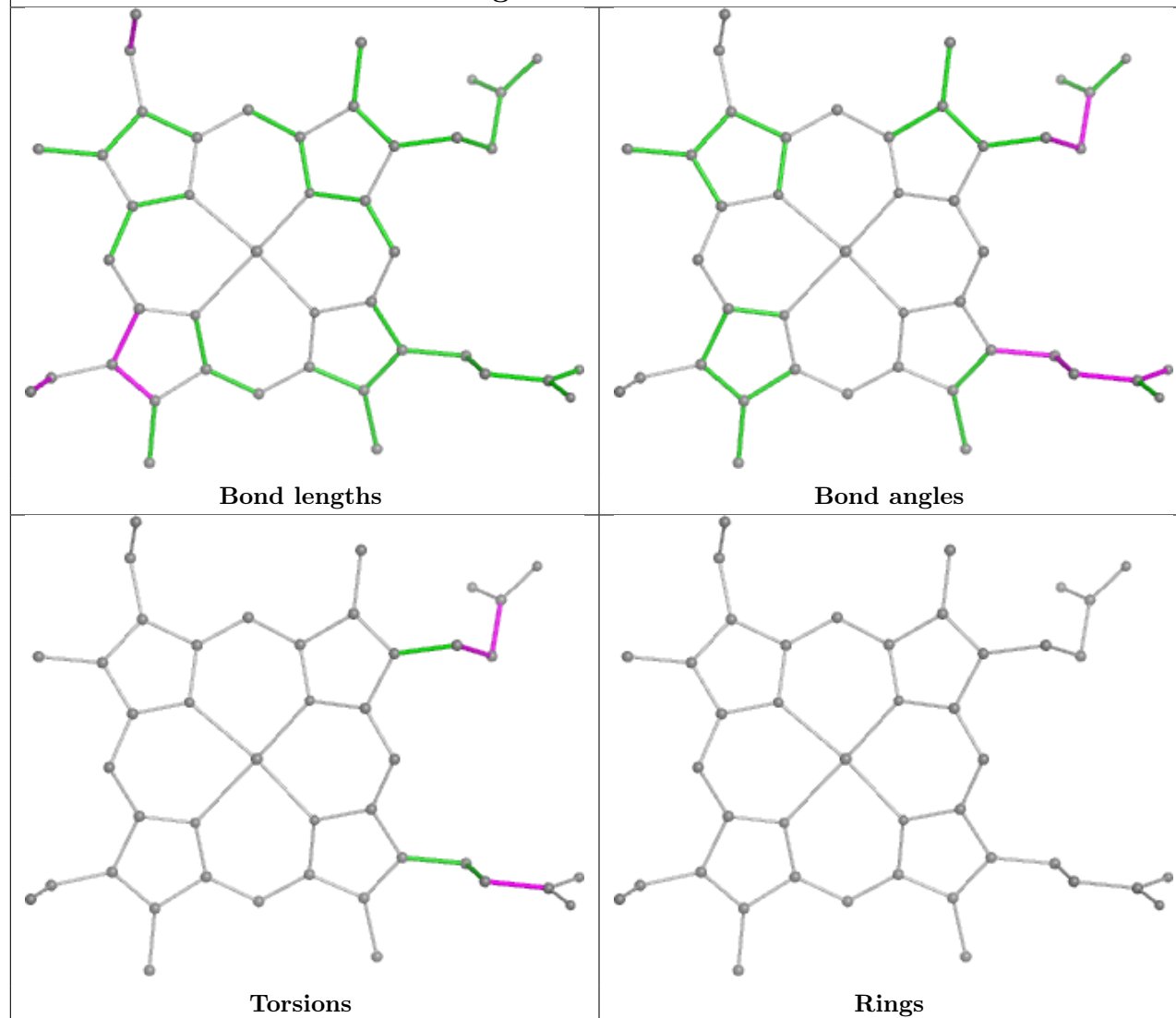




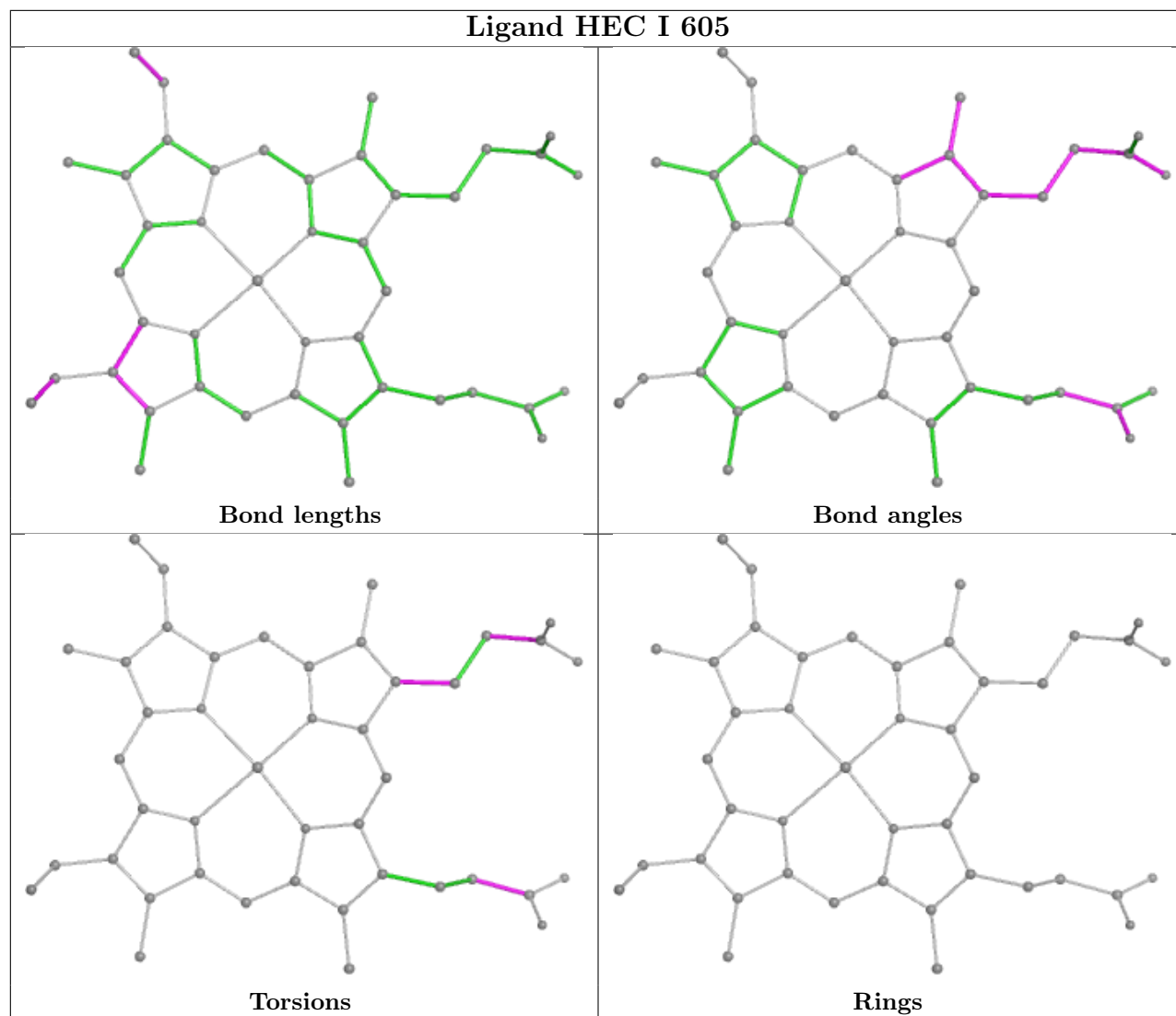


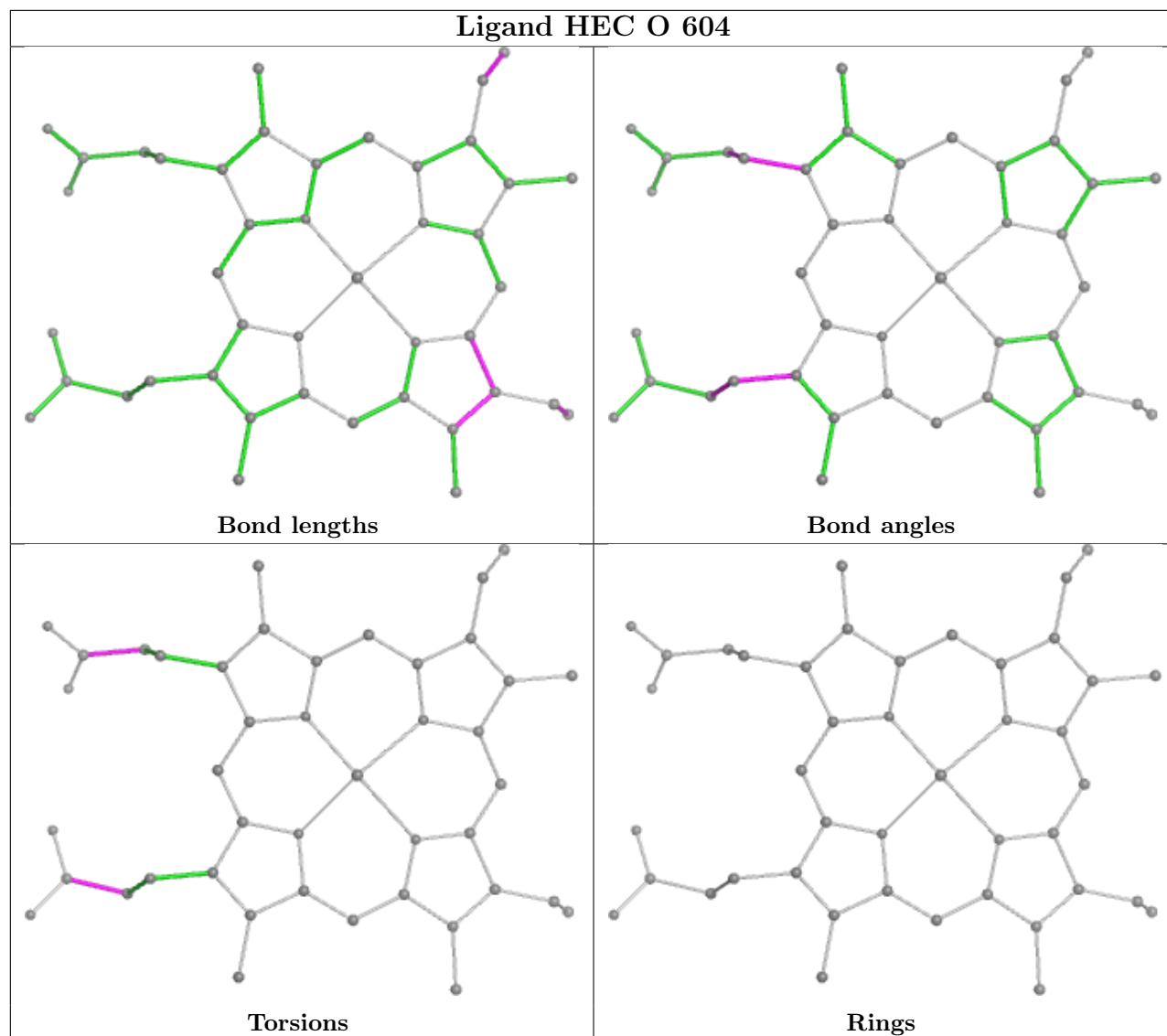


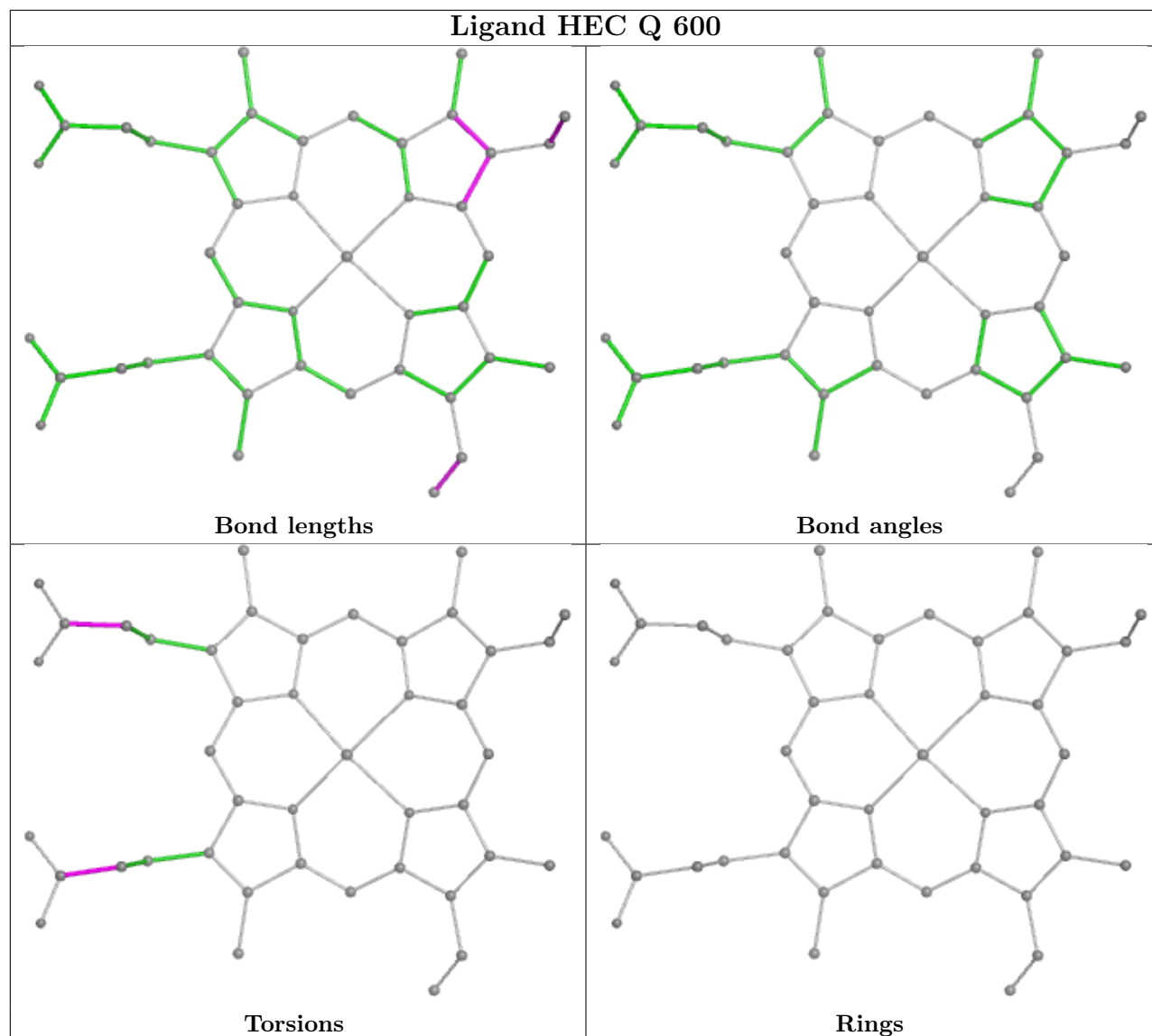
Ligand HEC S 602

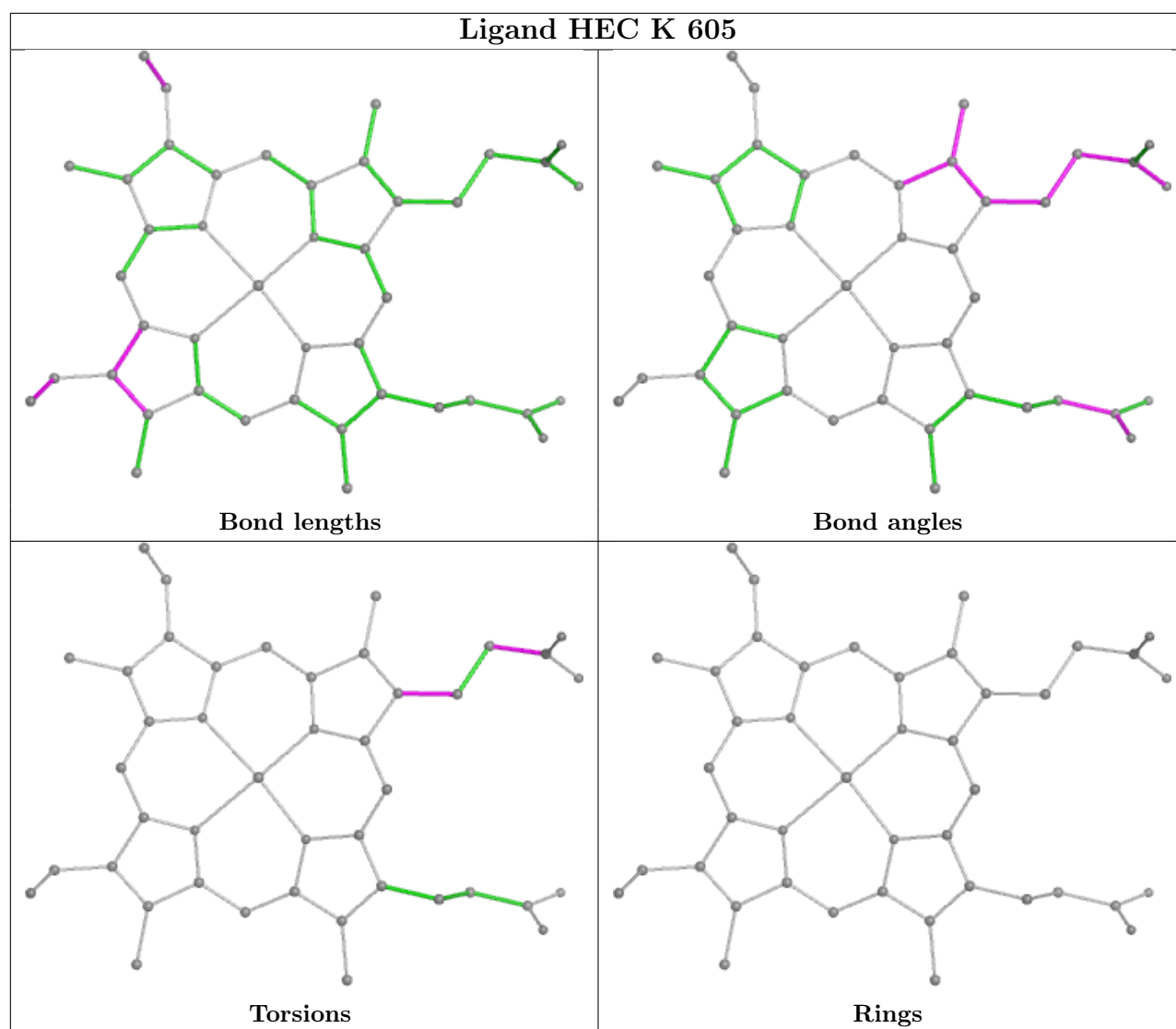


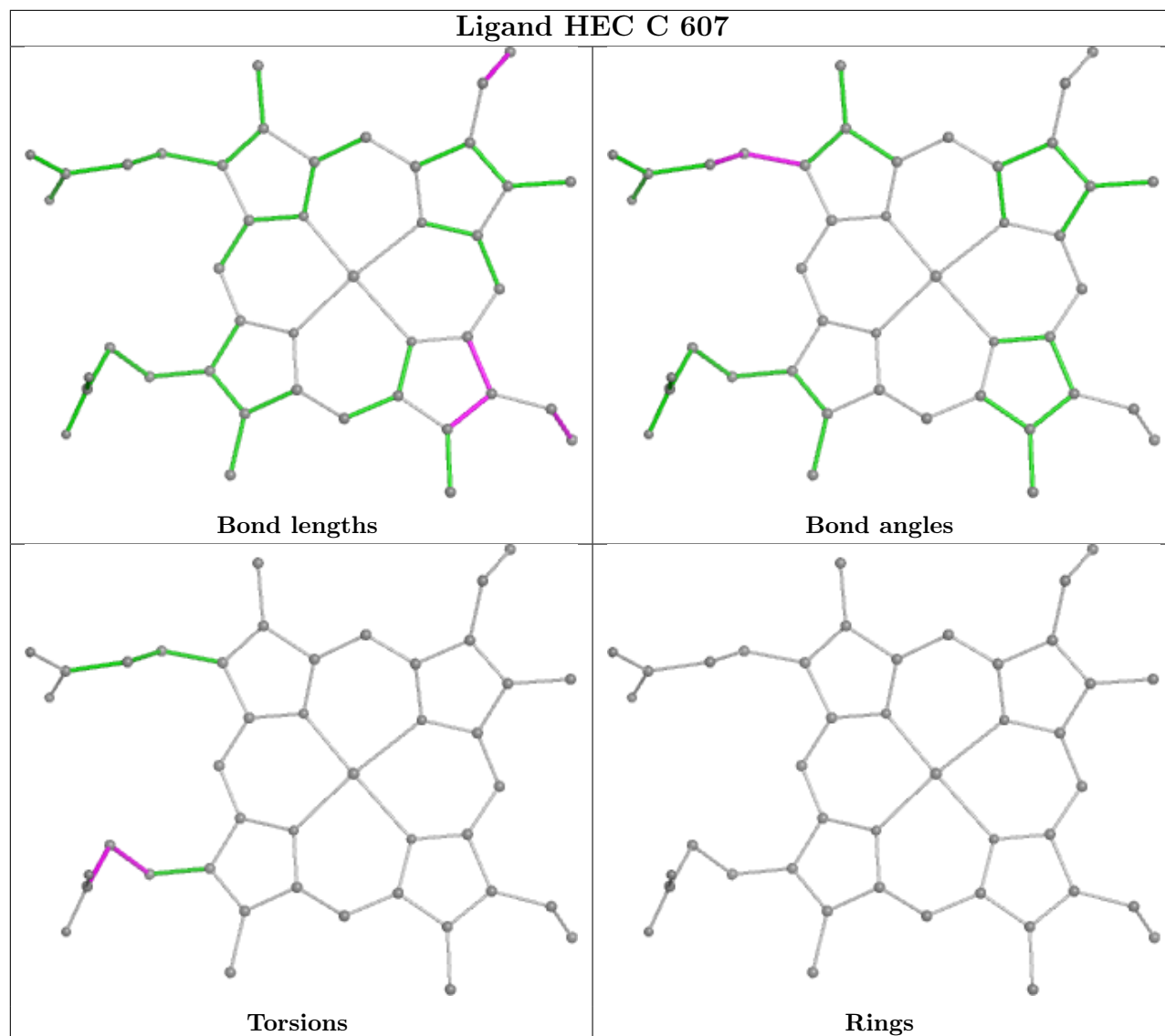
Ligand HEC I 605

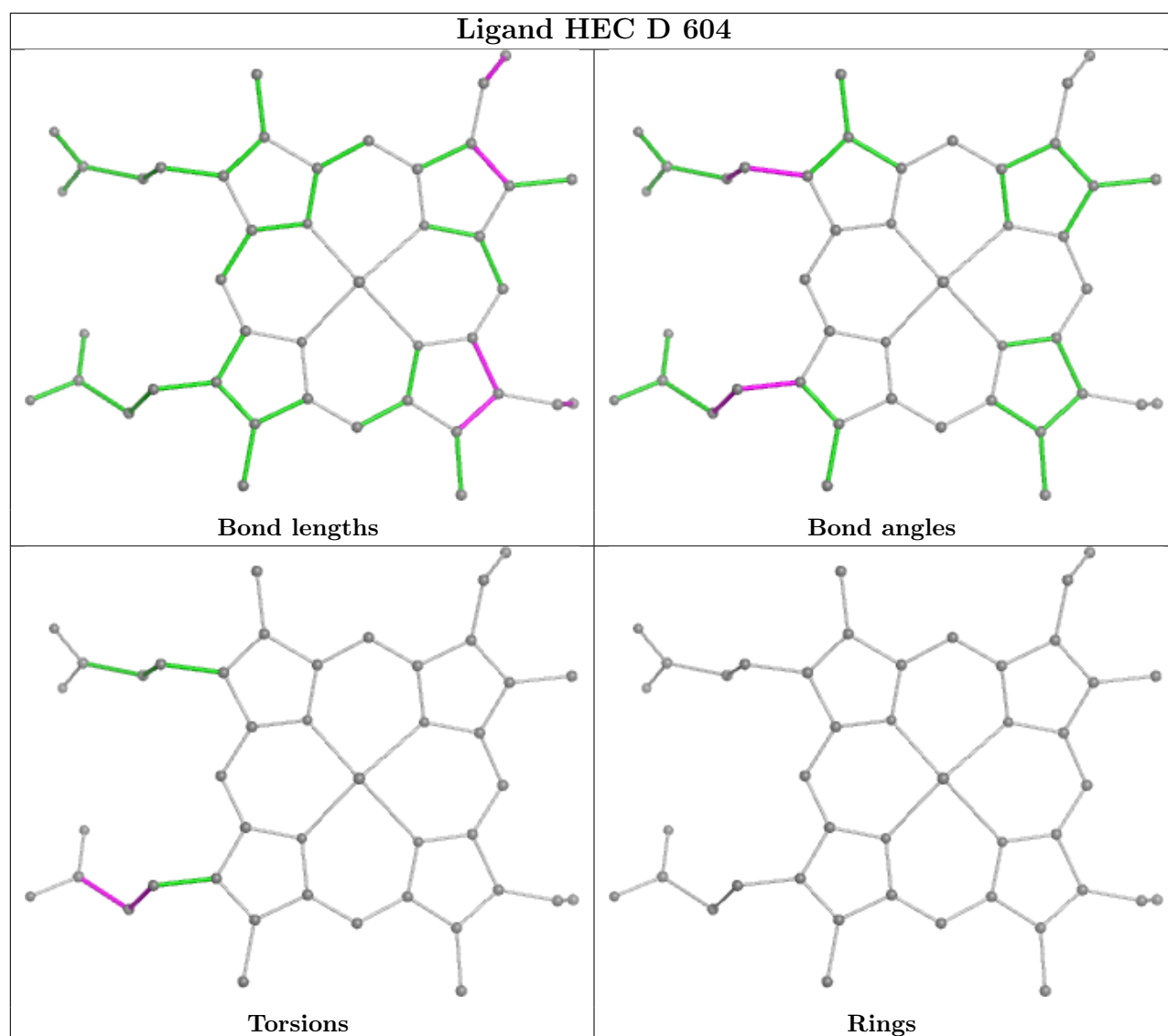




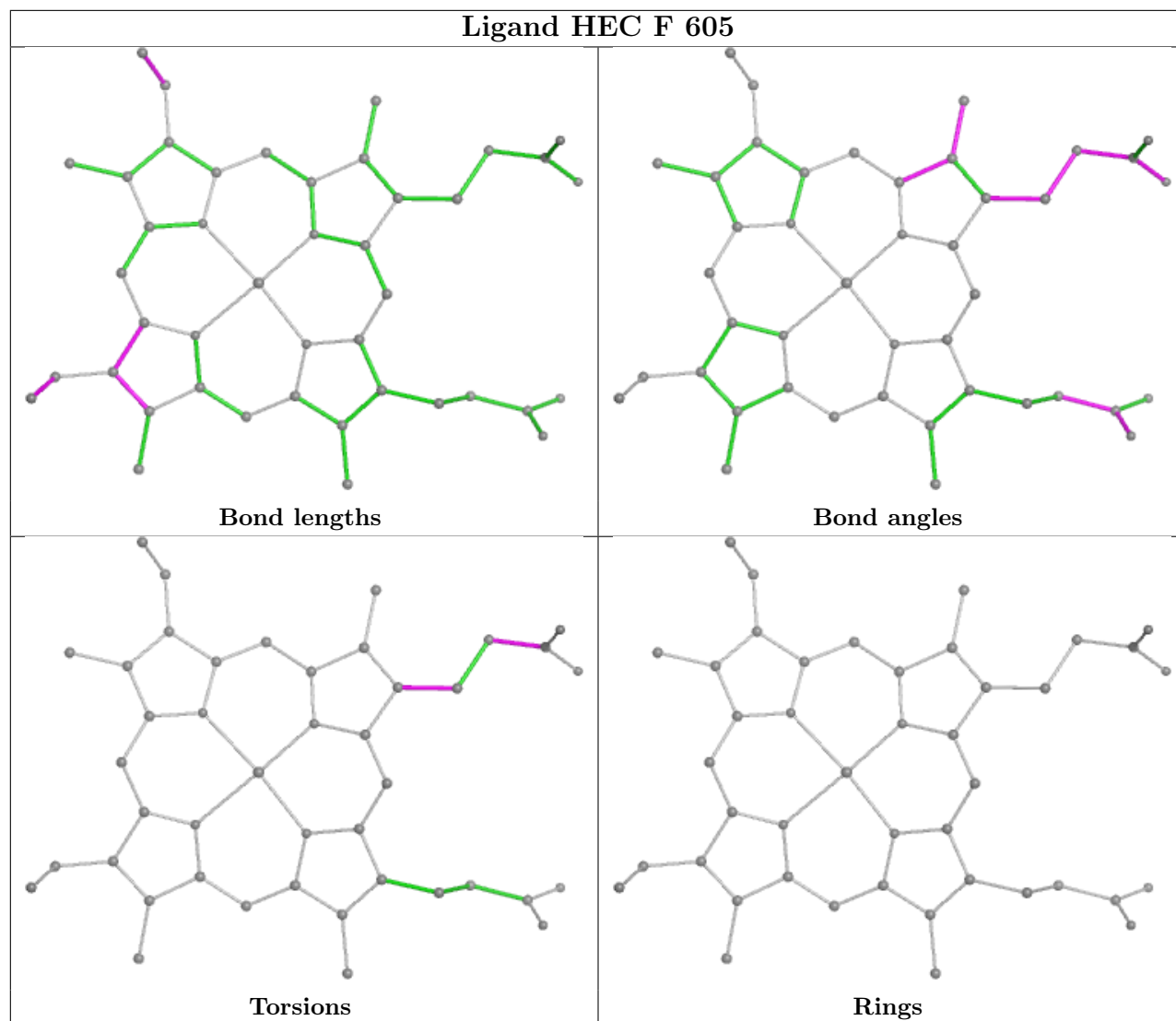


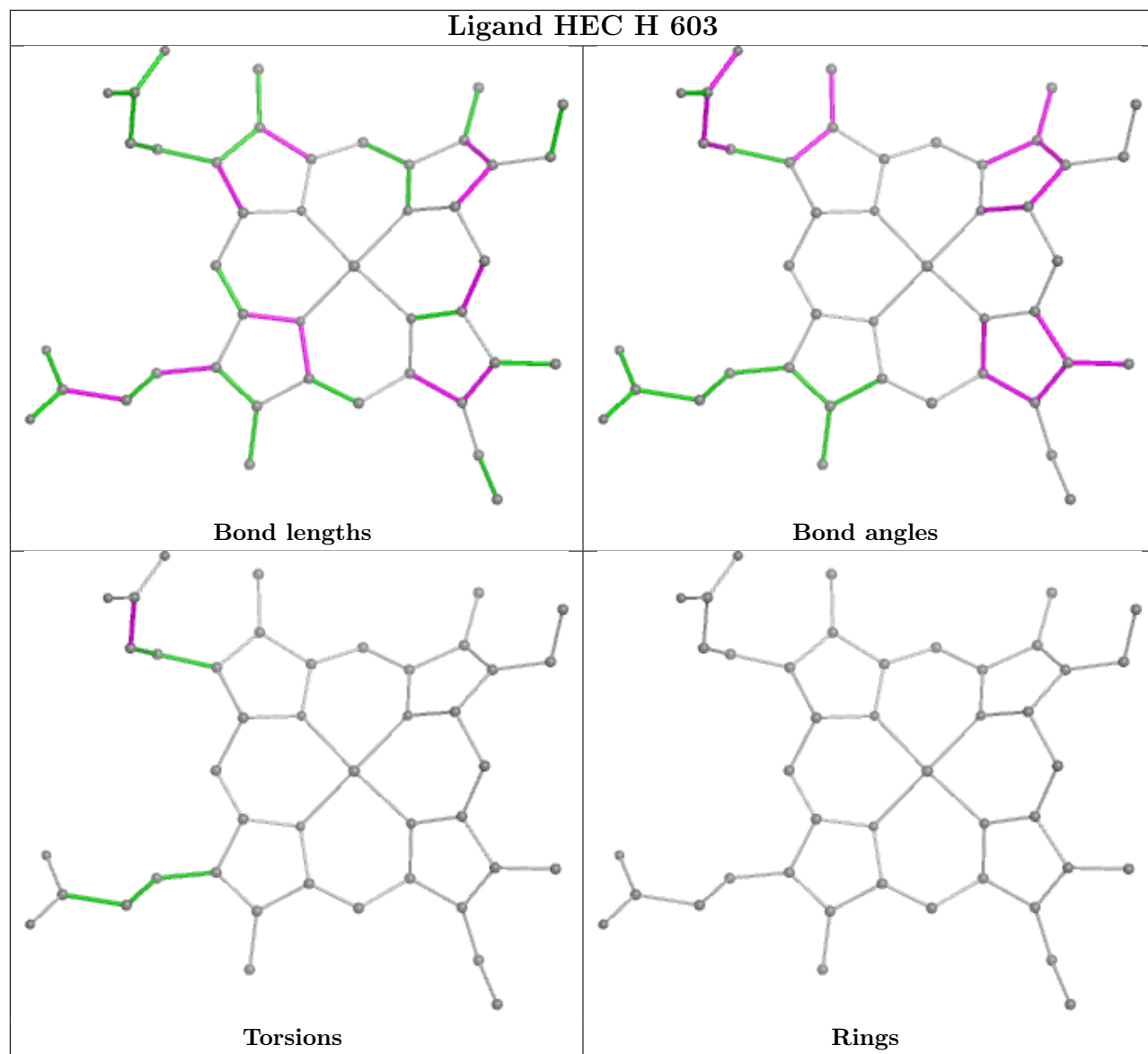


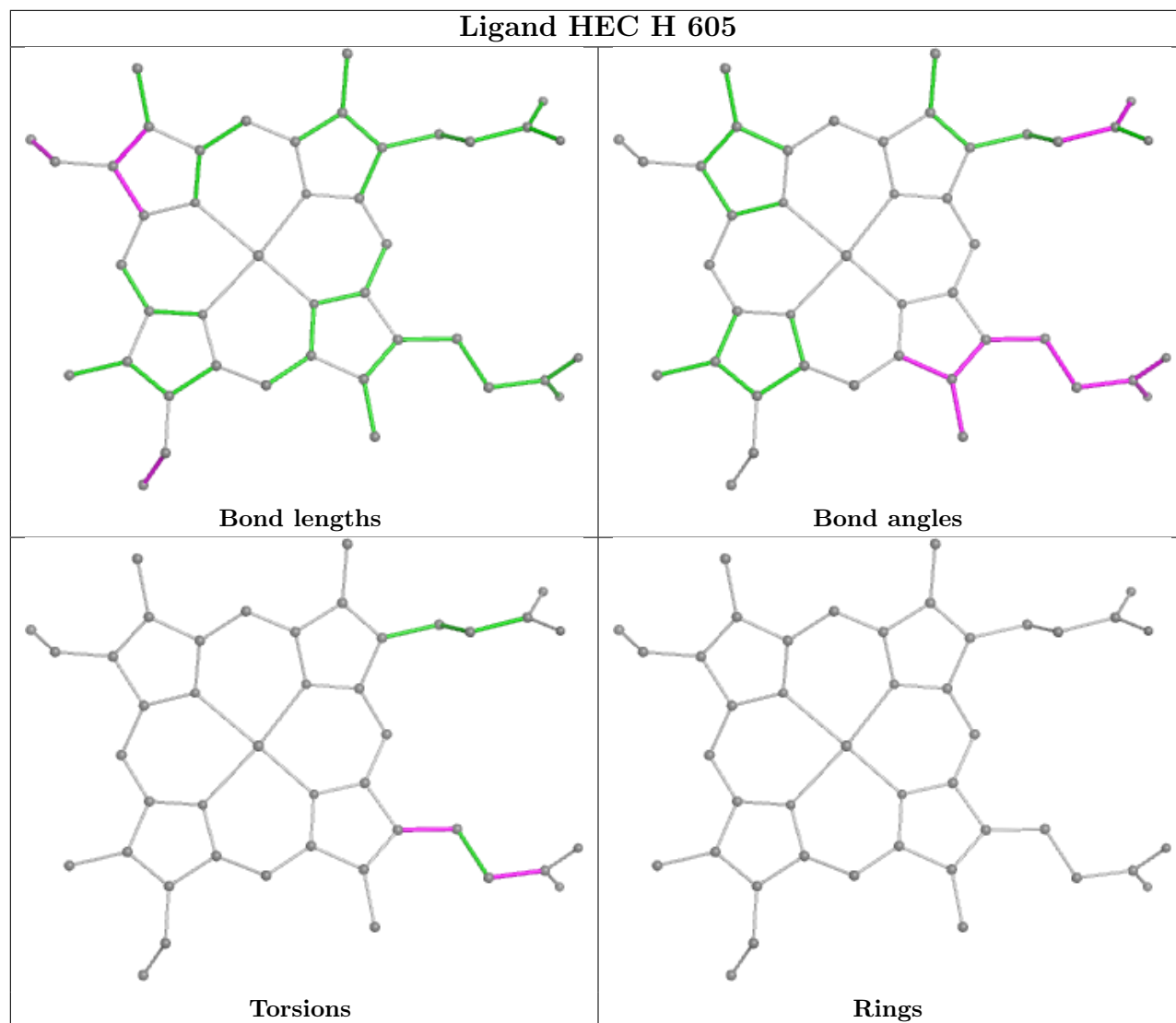




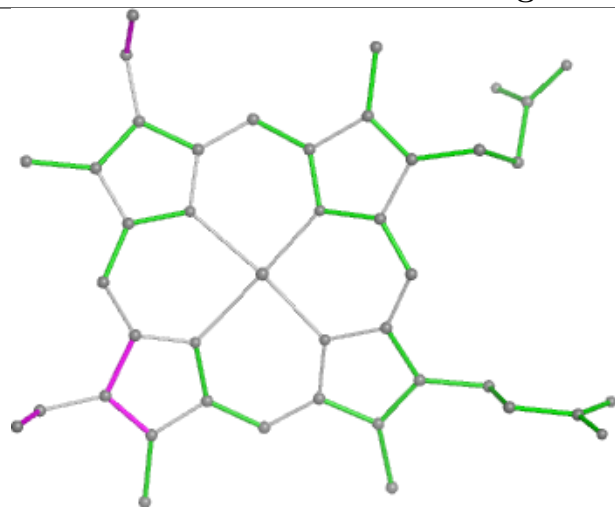
Ligand HEC F 605



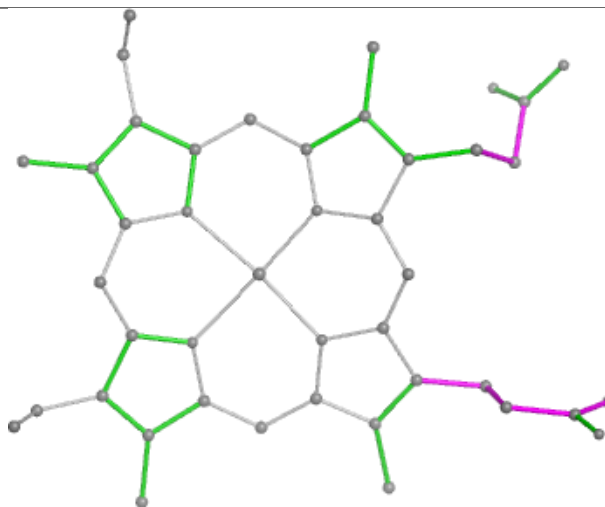




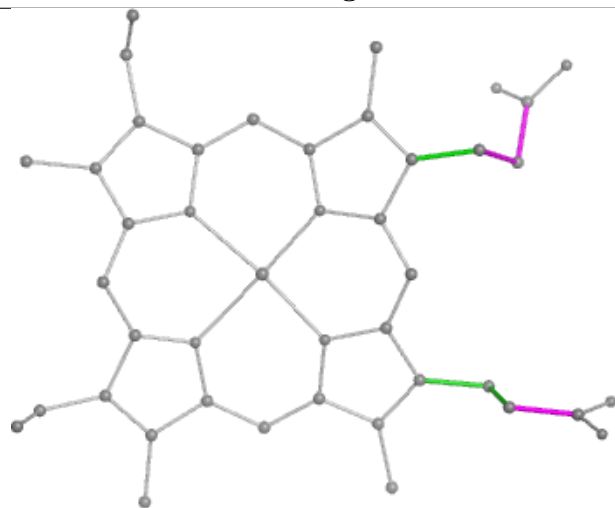
Ligand HEC L 602



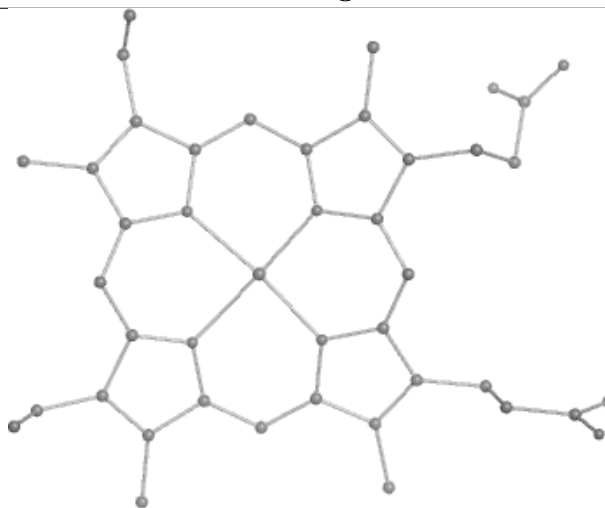
Bond lengths



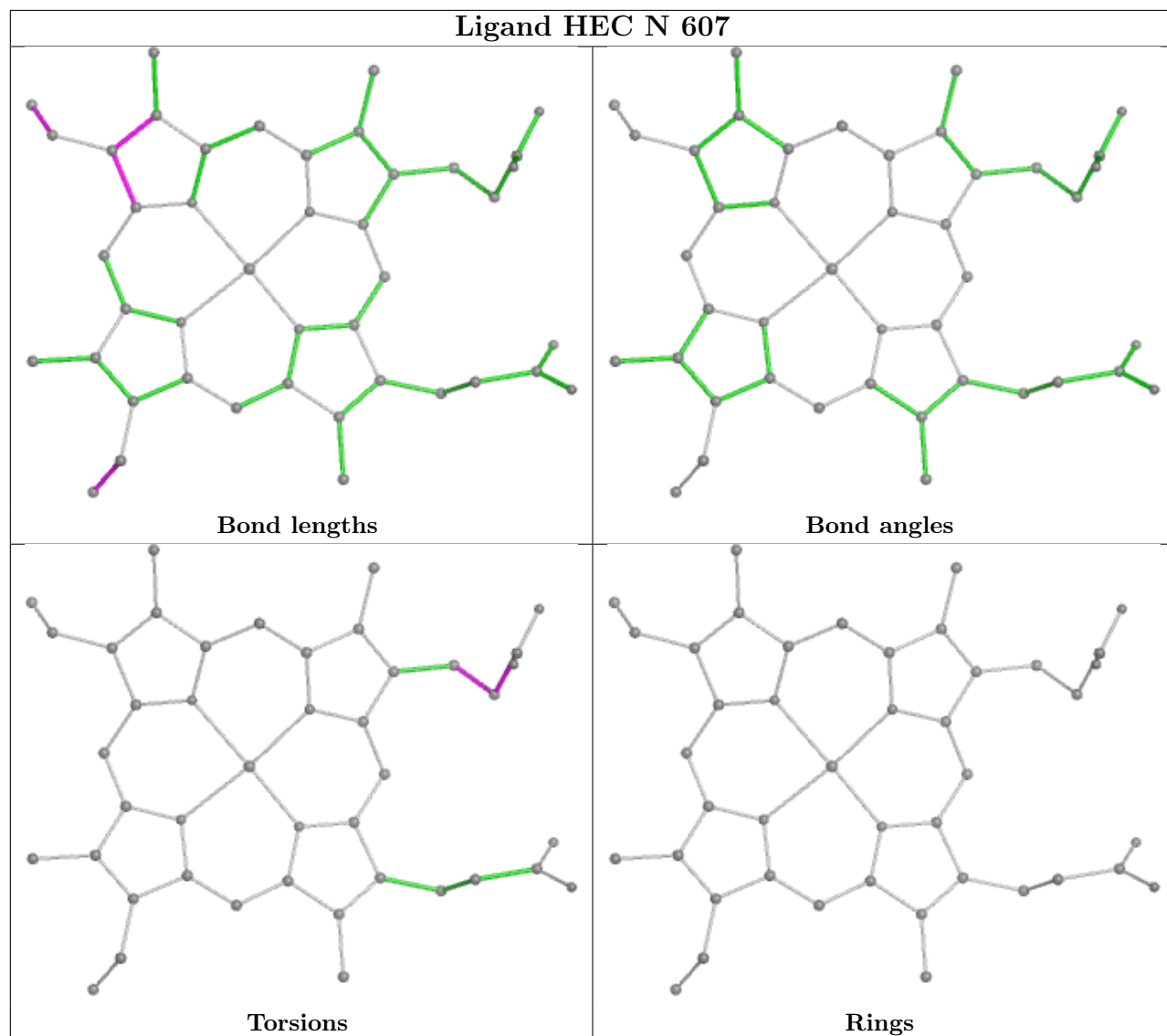
Bond angles

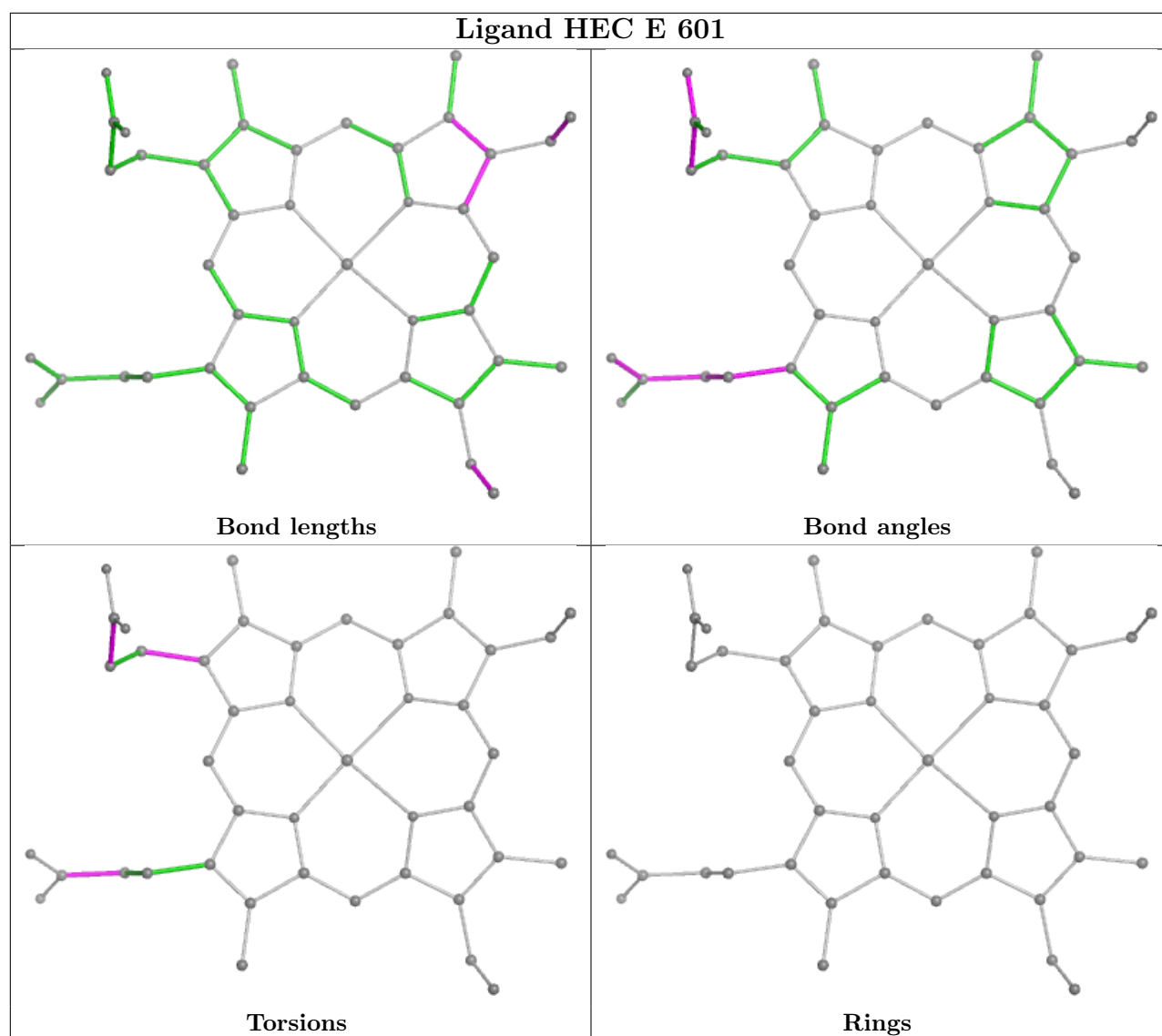


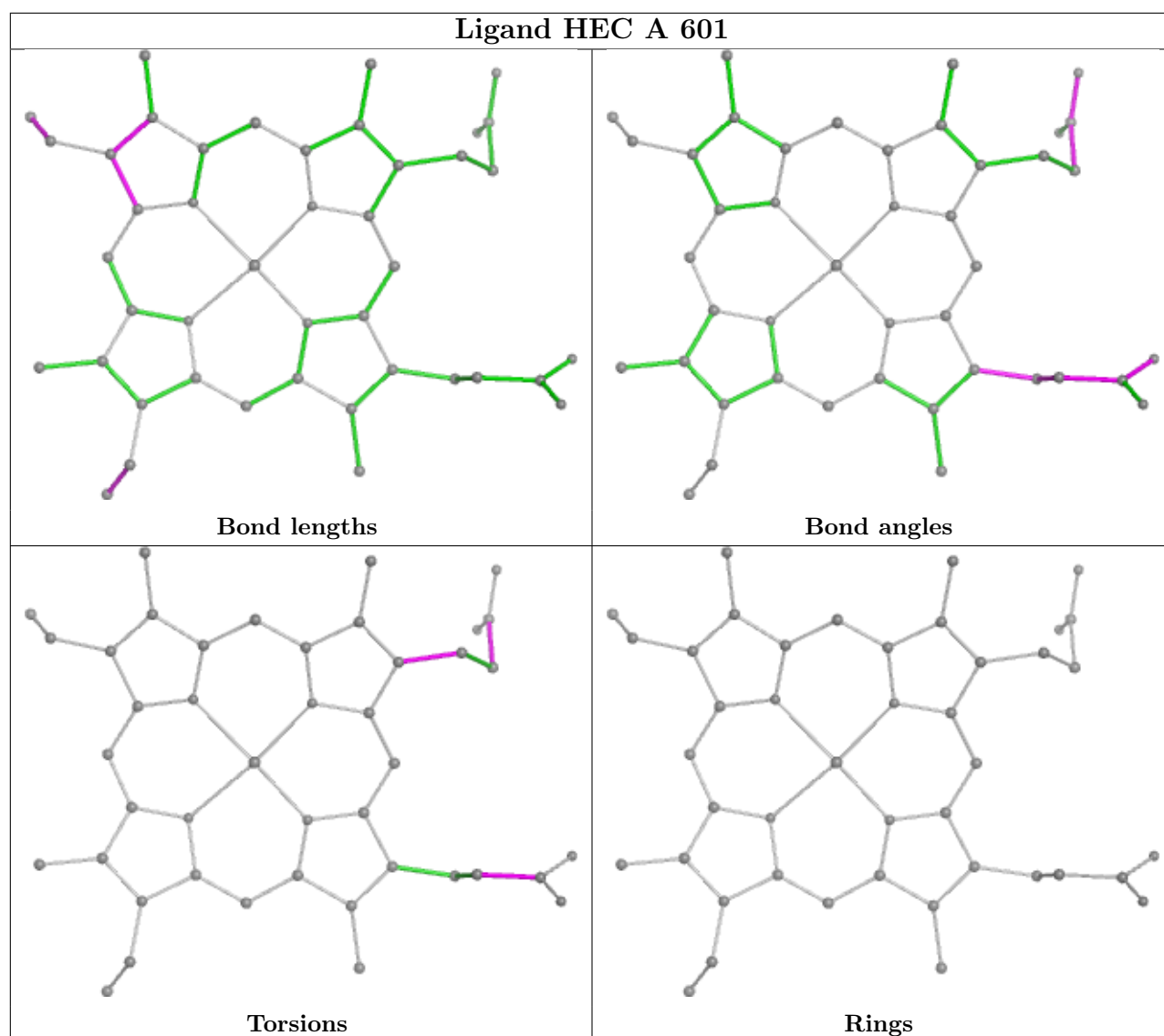
Torsions



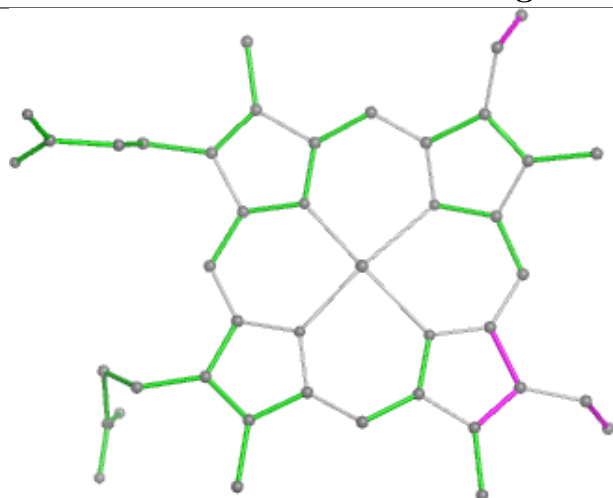
Rings



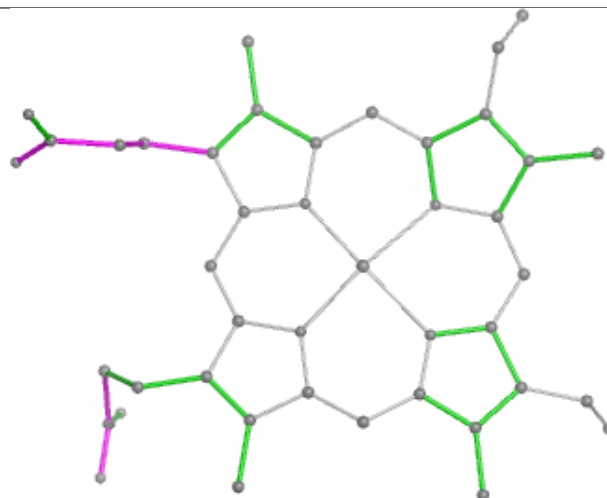




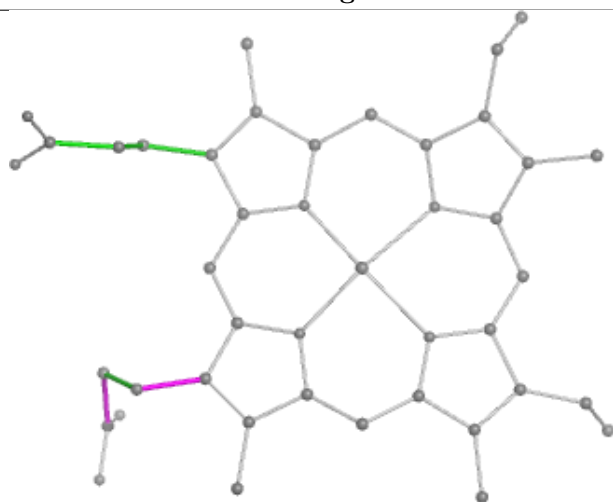
Ligand HEC S 601



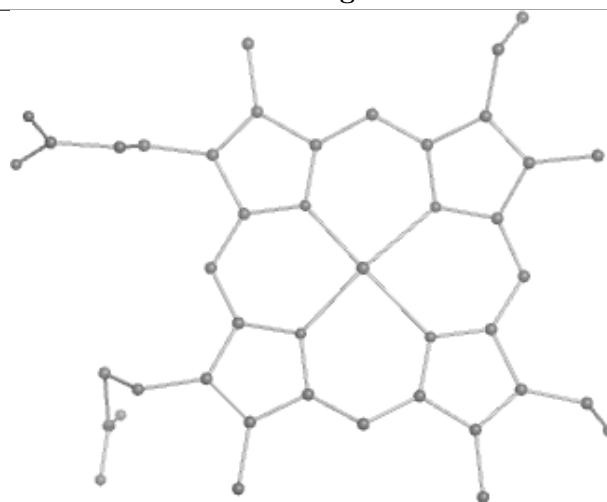
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Bond angles

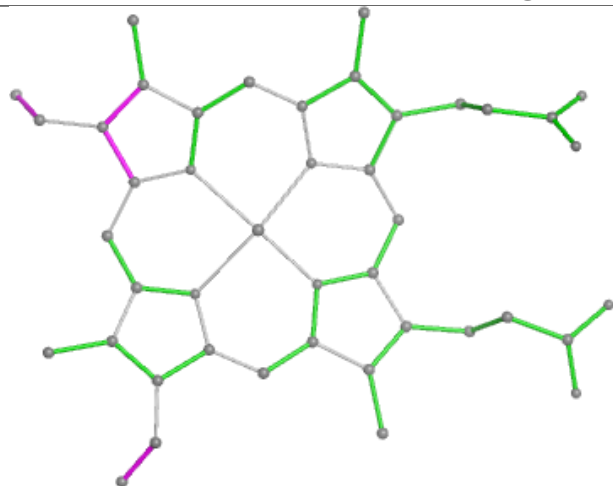


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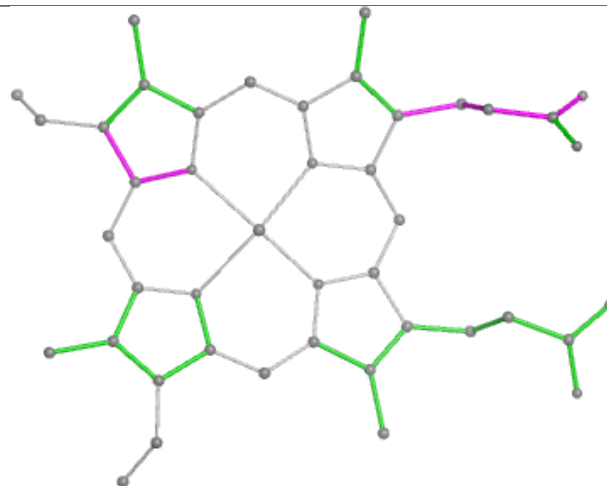


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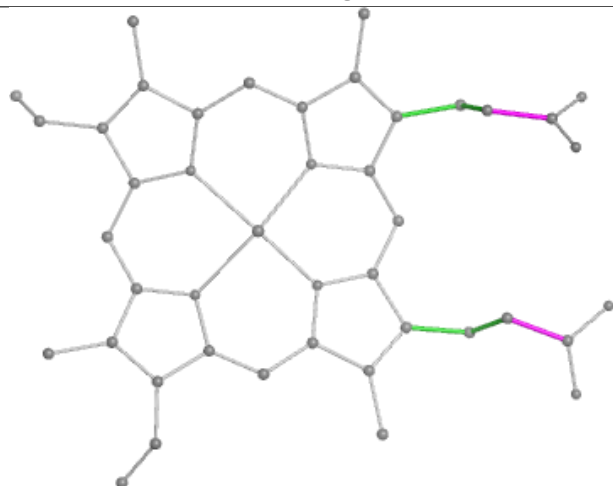
Ligand HEC I 606



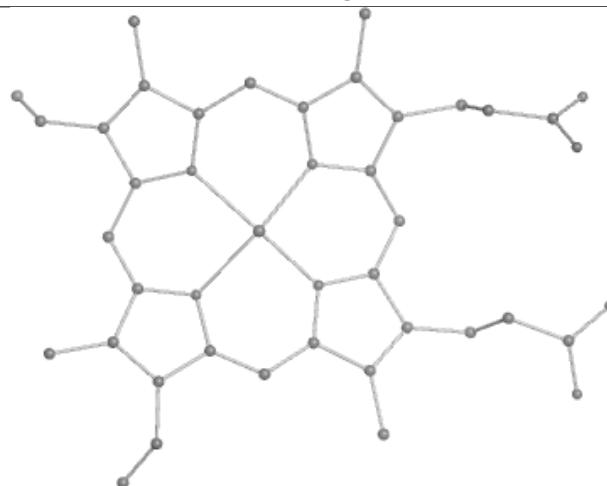
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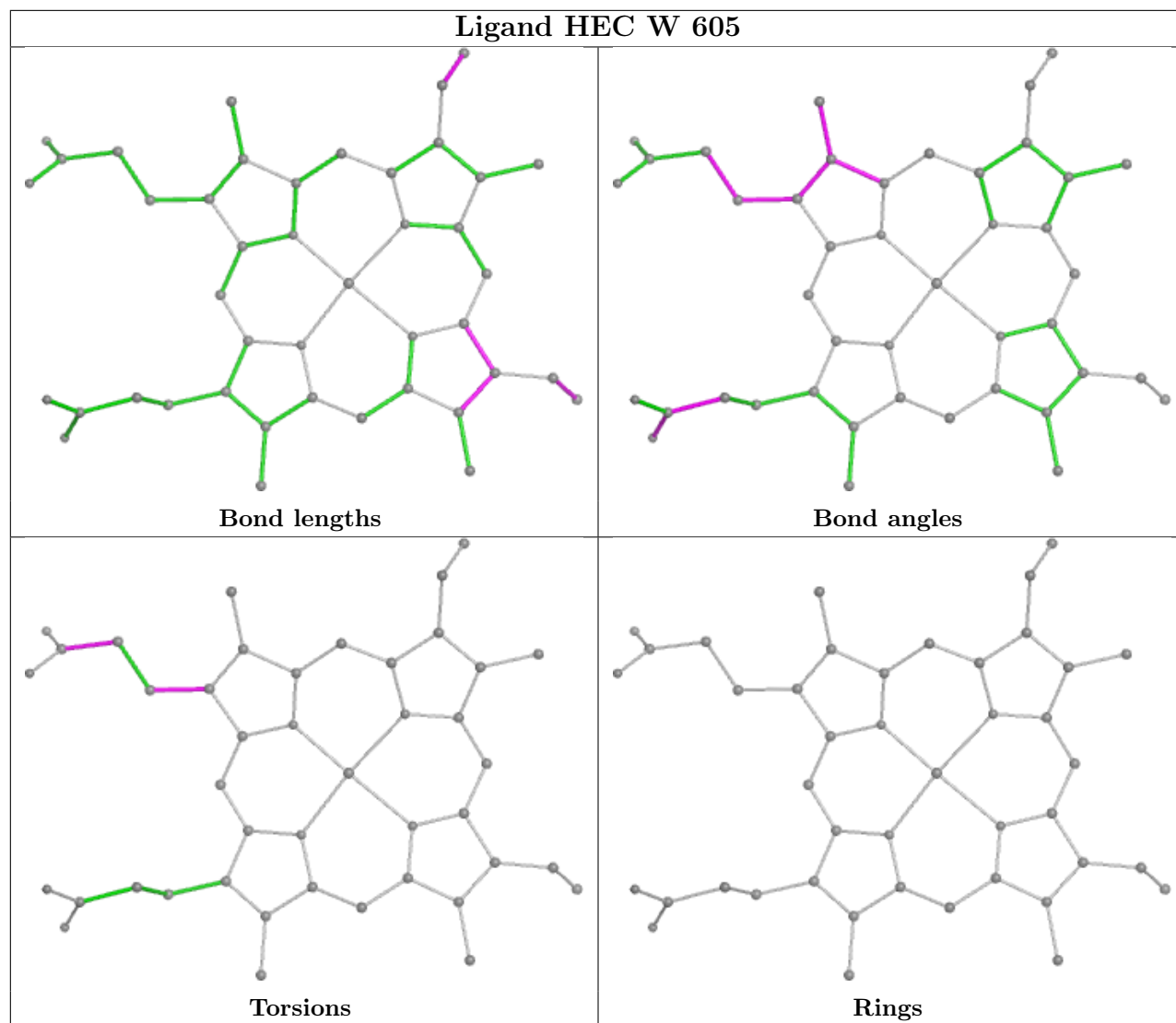
Bond angles

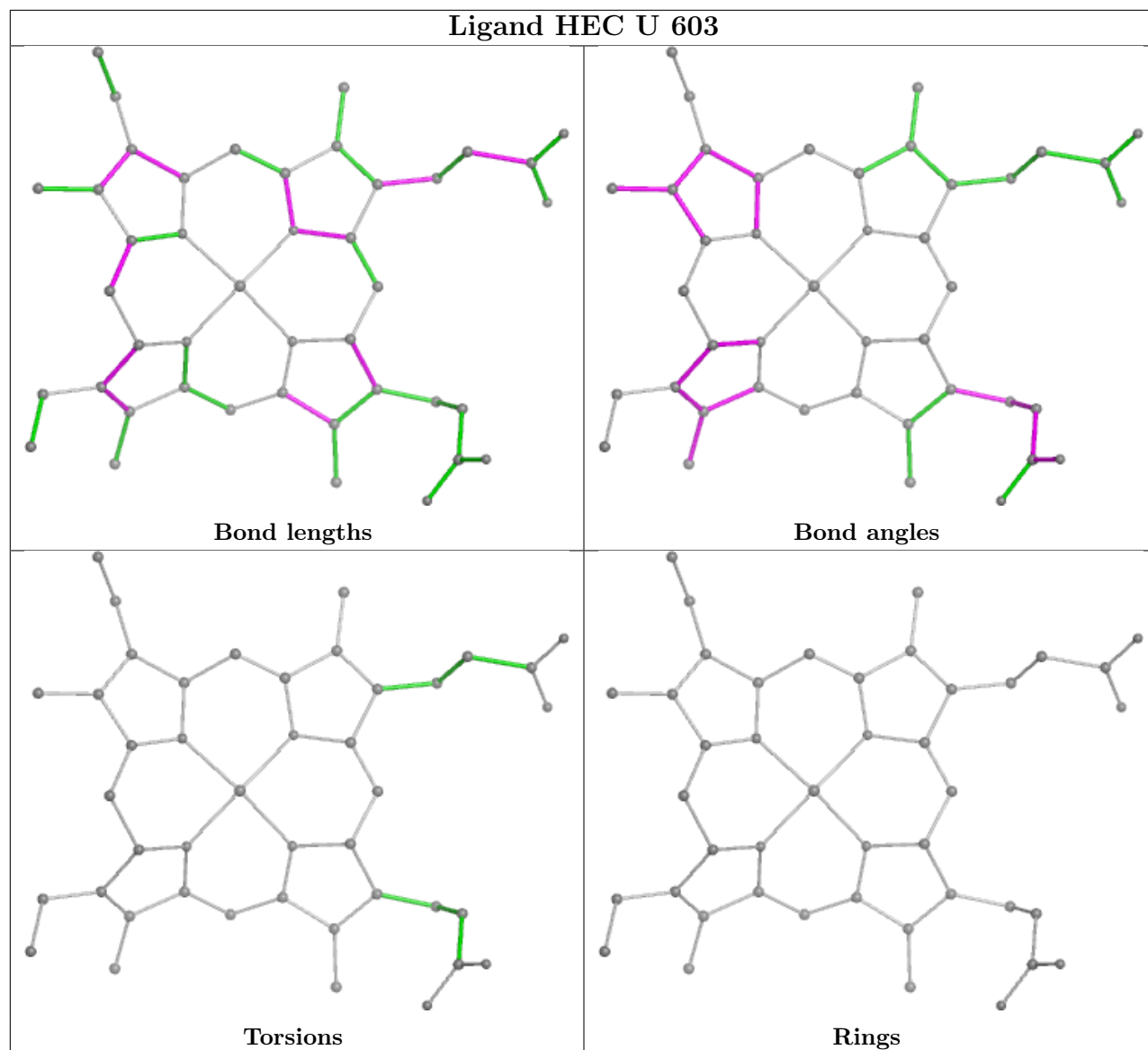


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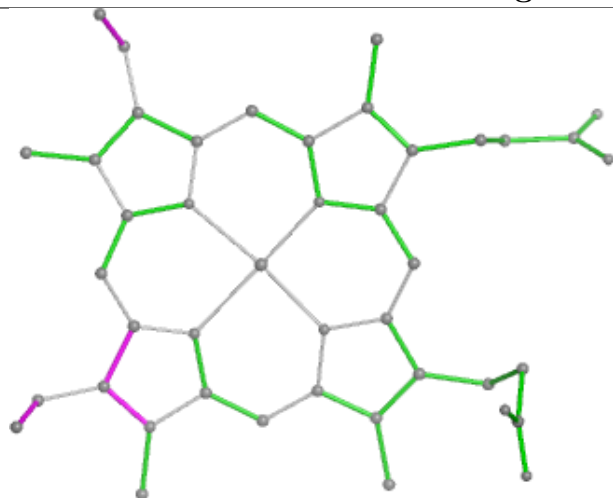


Rings

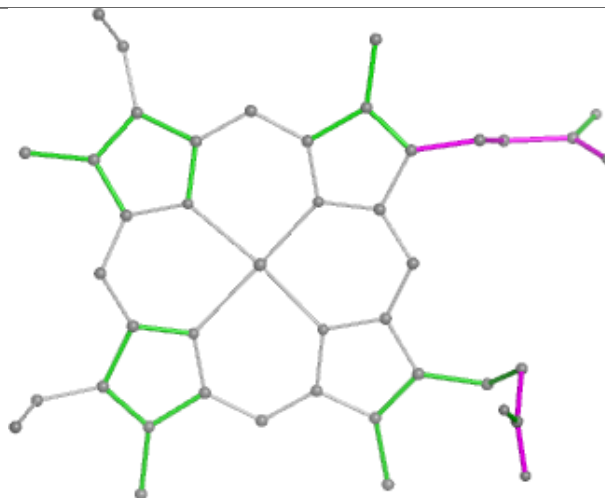




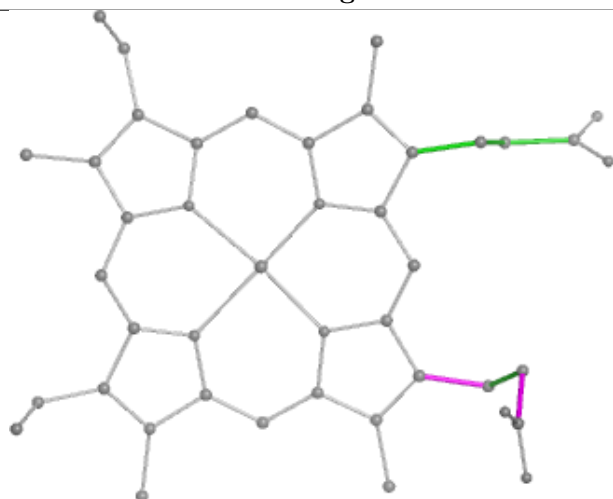
Ligand HEC L 601



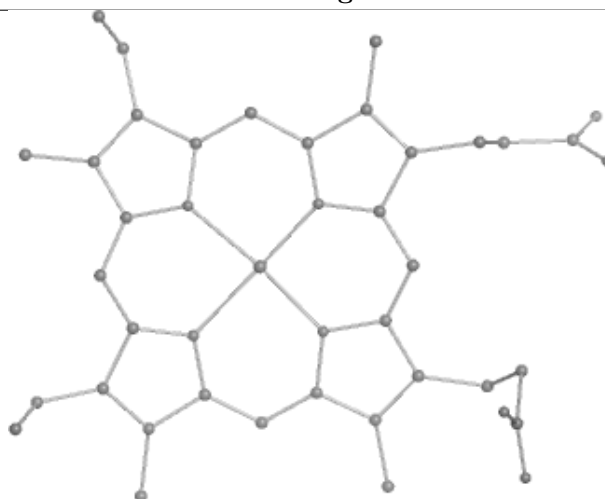
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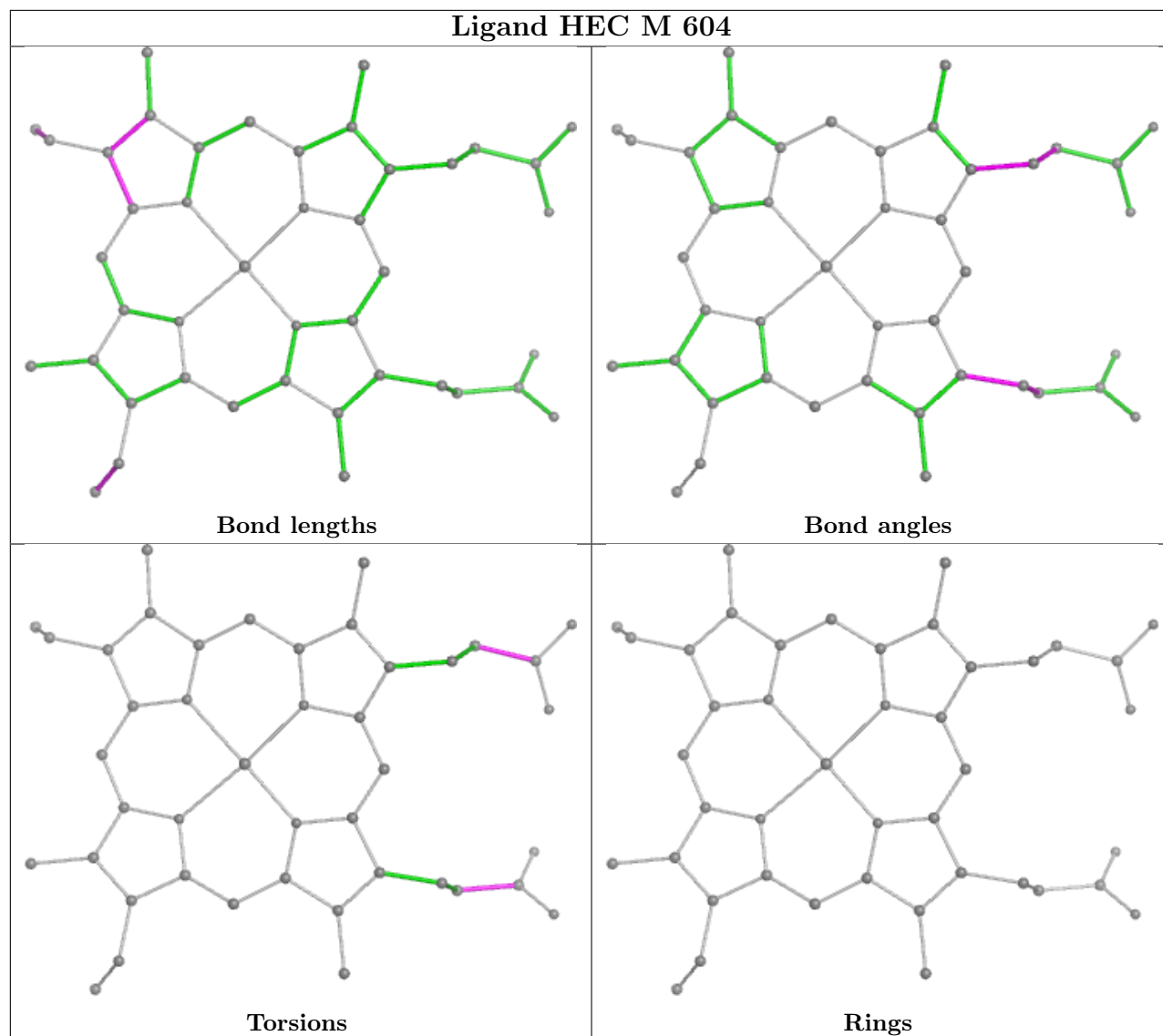
Bond angles

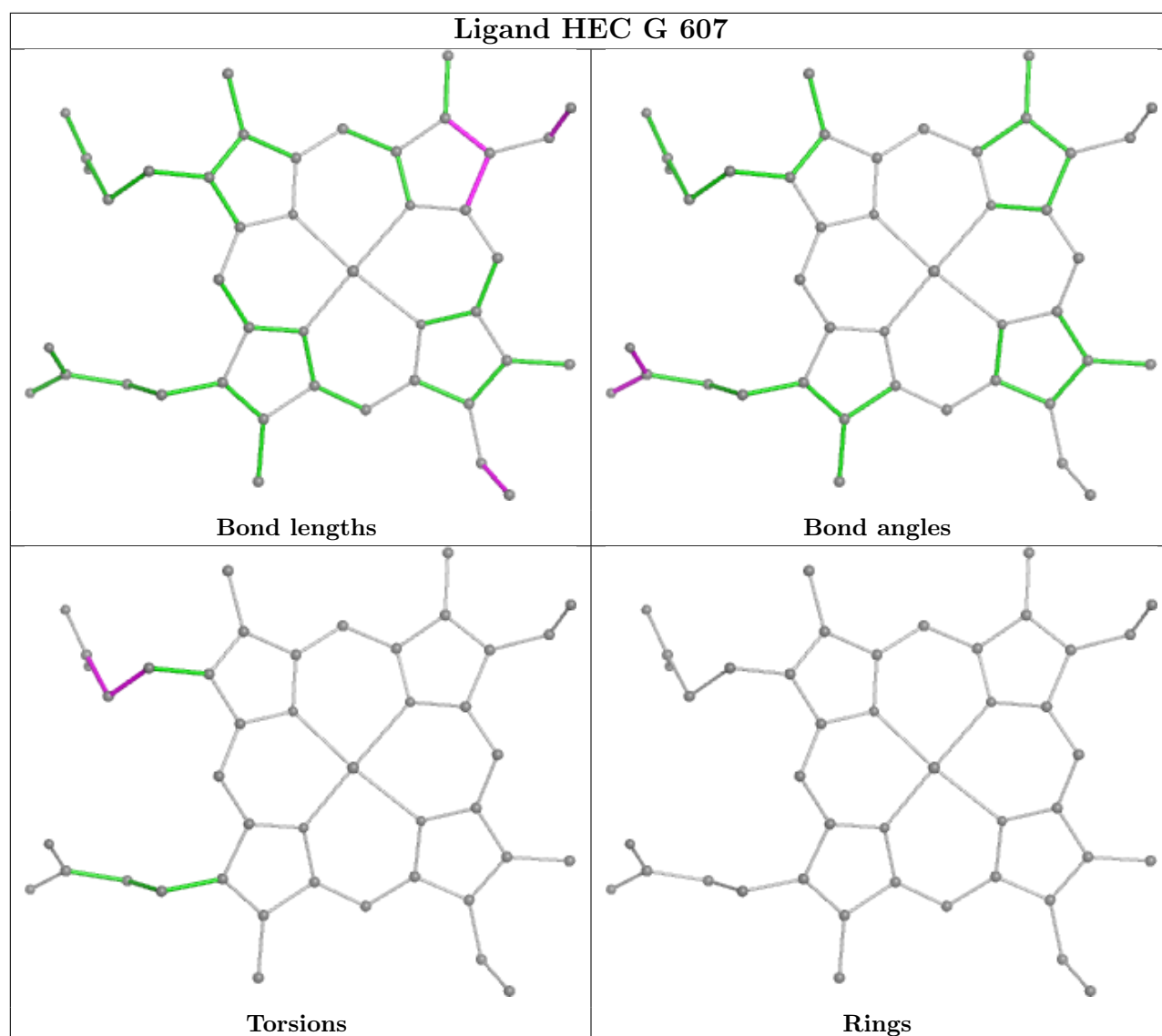


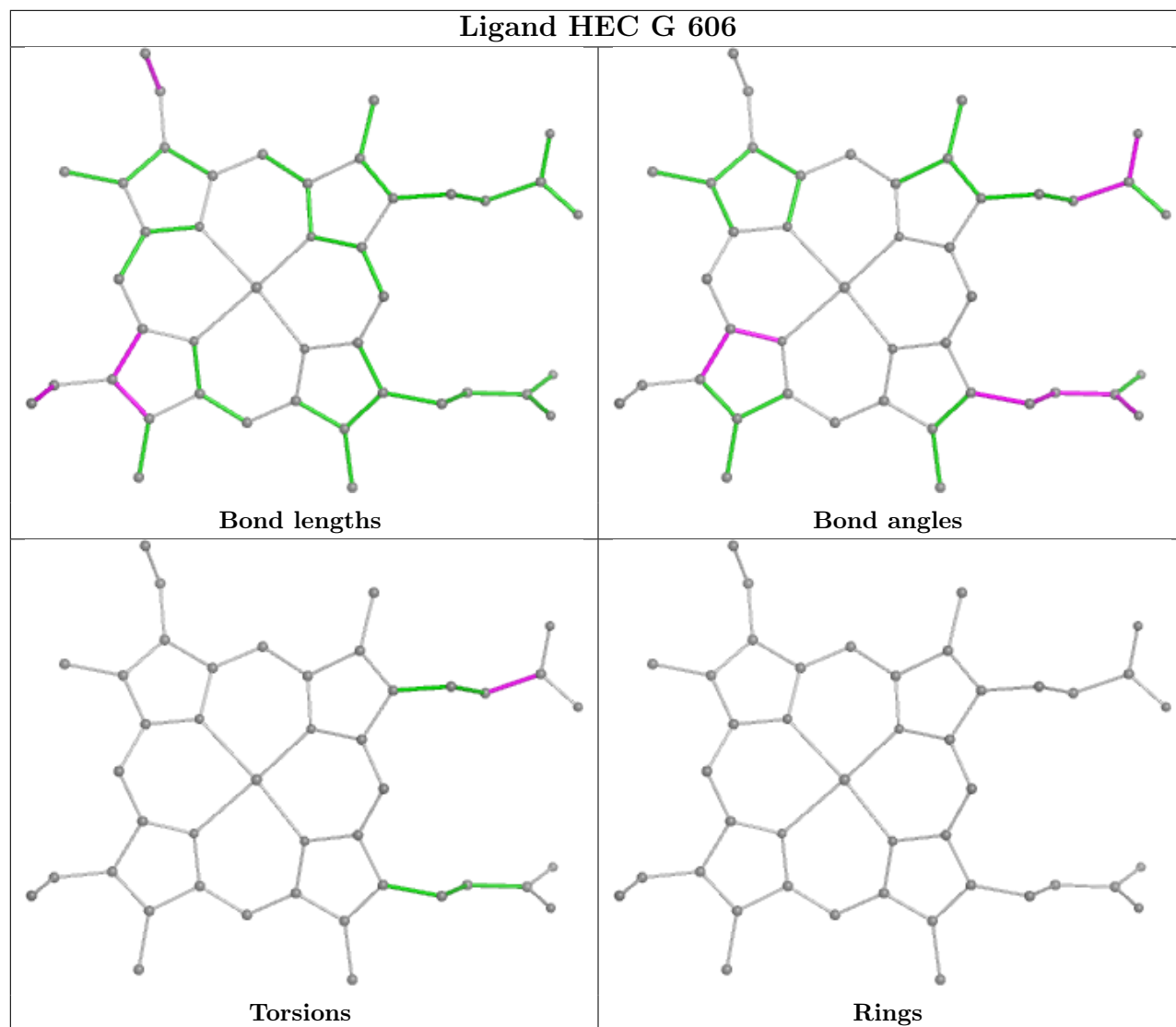
Torsions



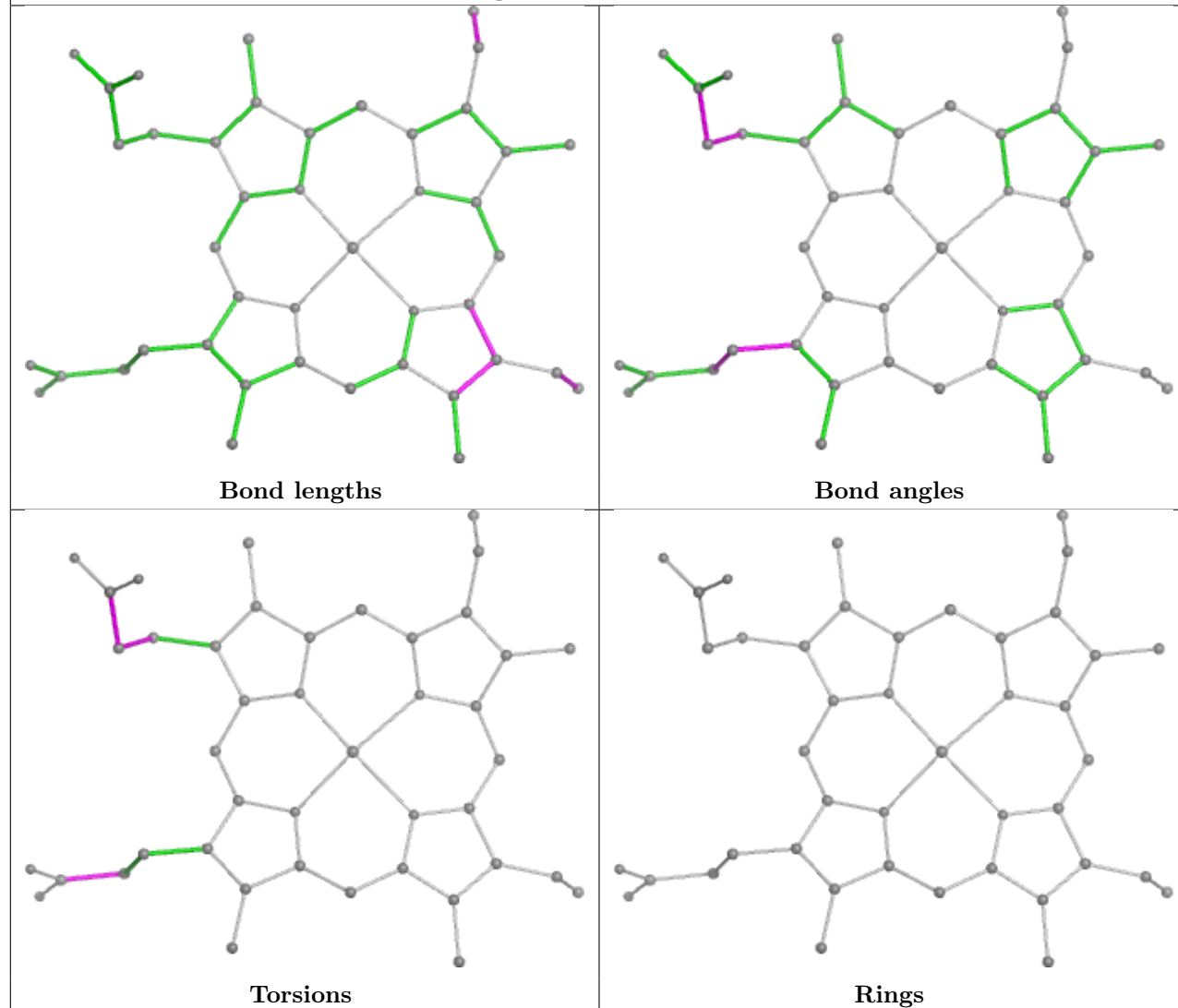
Rings

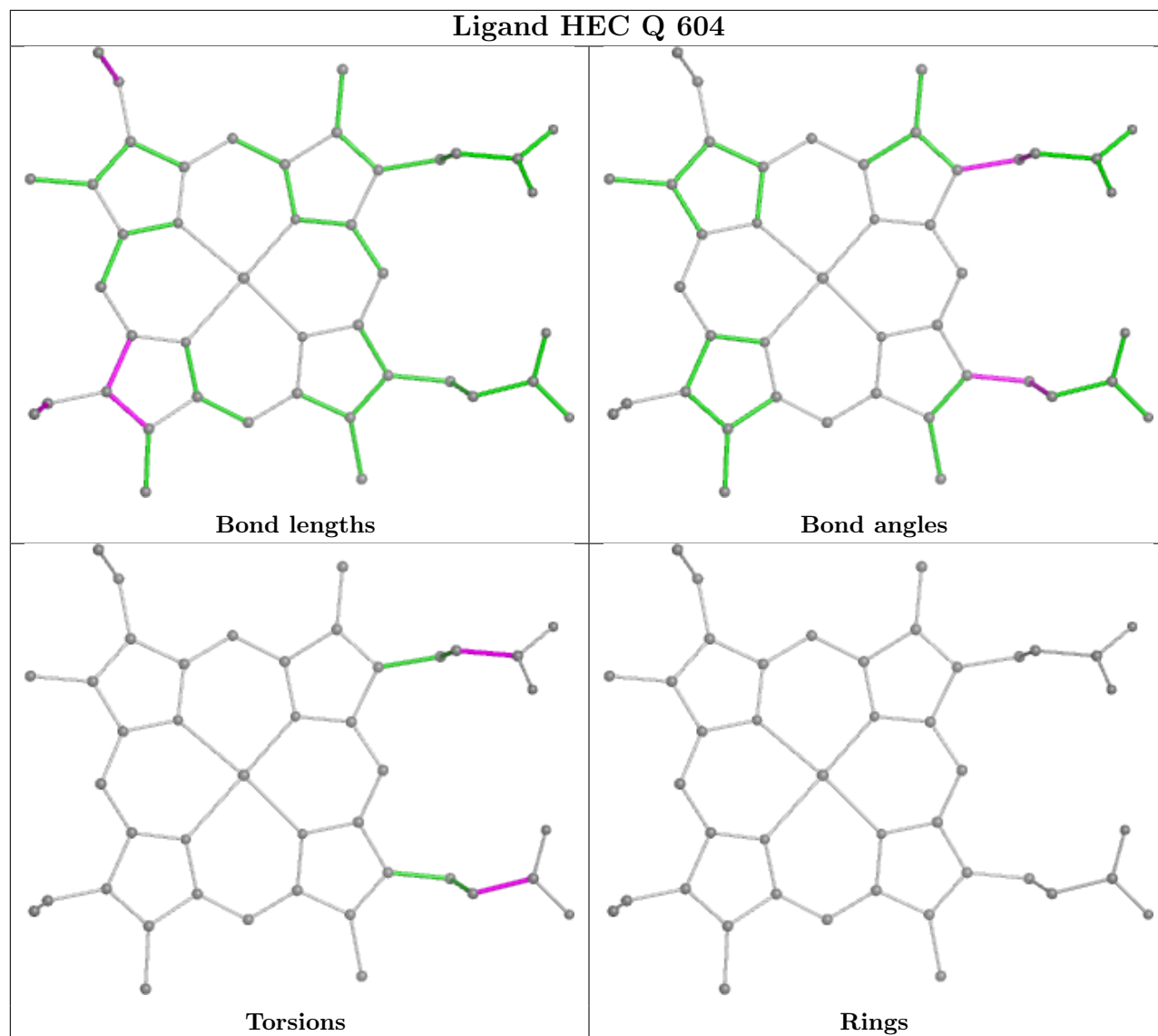


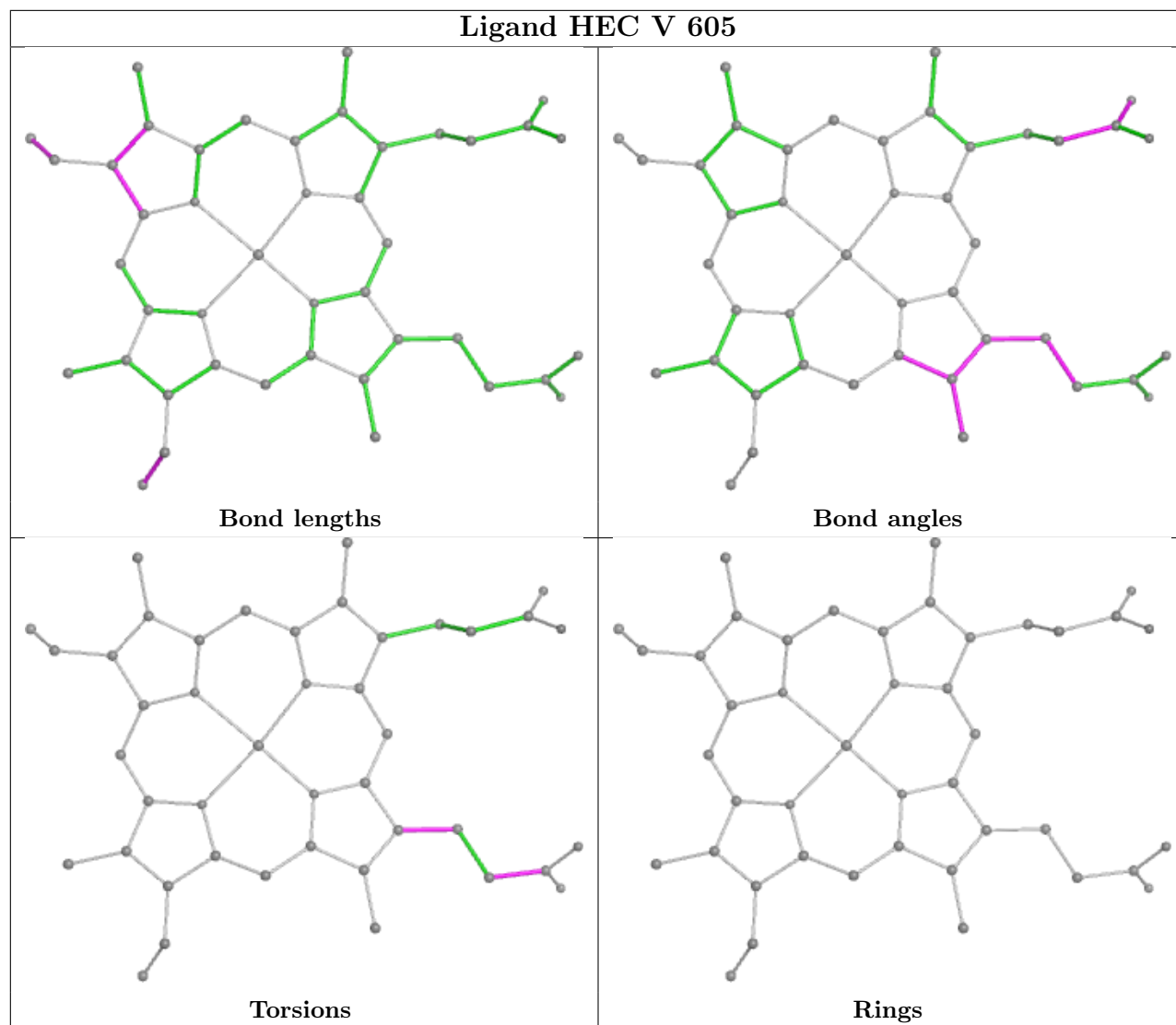




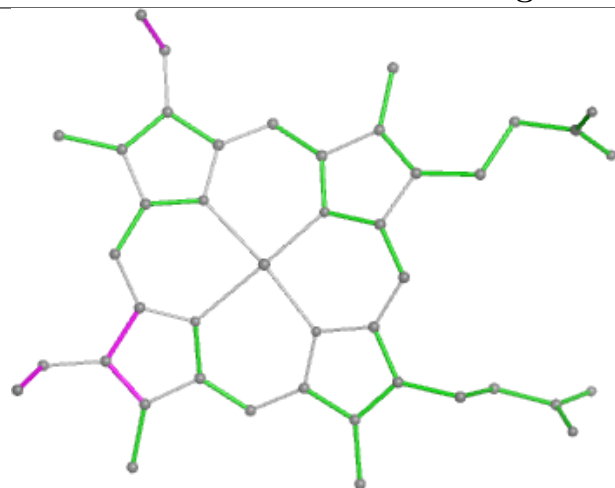
Ligand HEC E 602



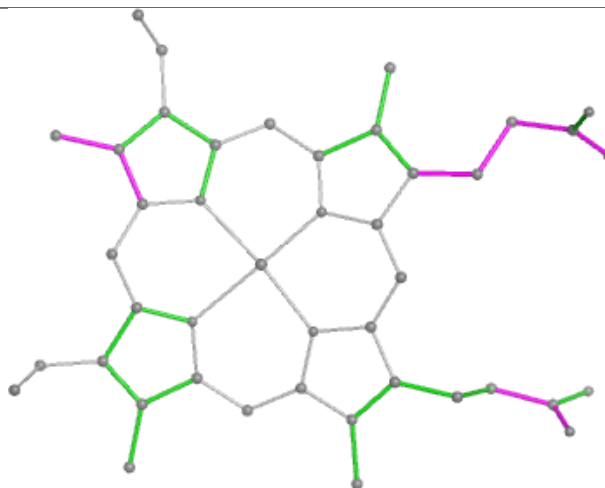




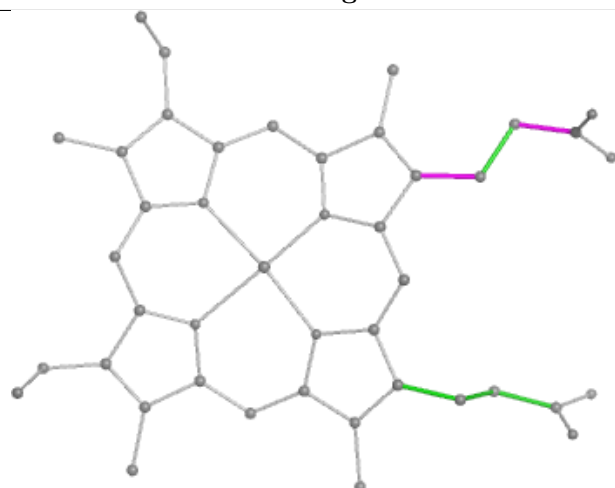
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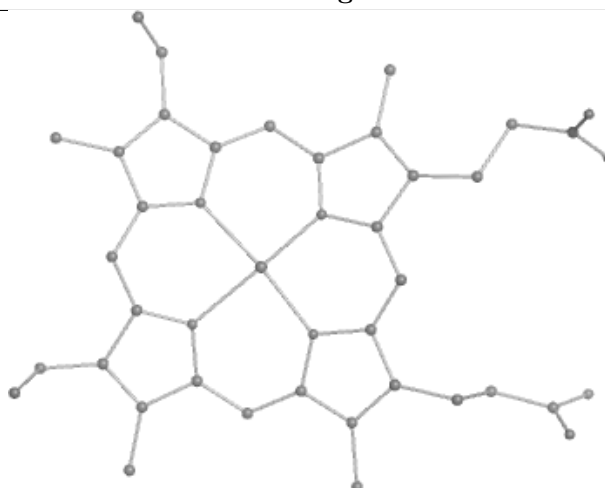
Bond lengths



Bond angles

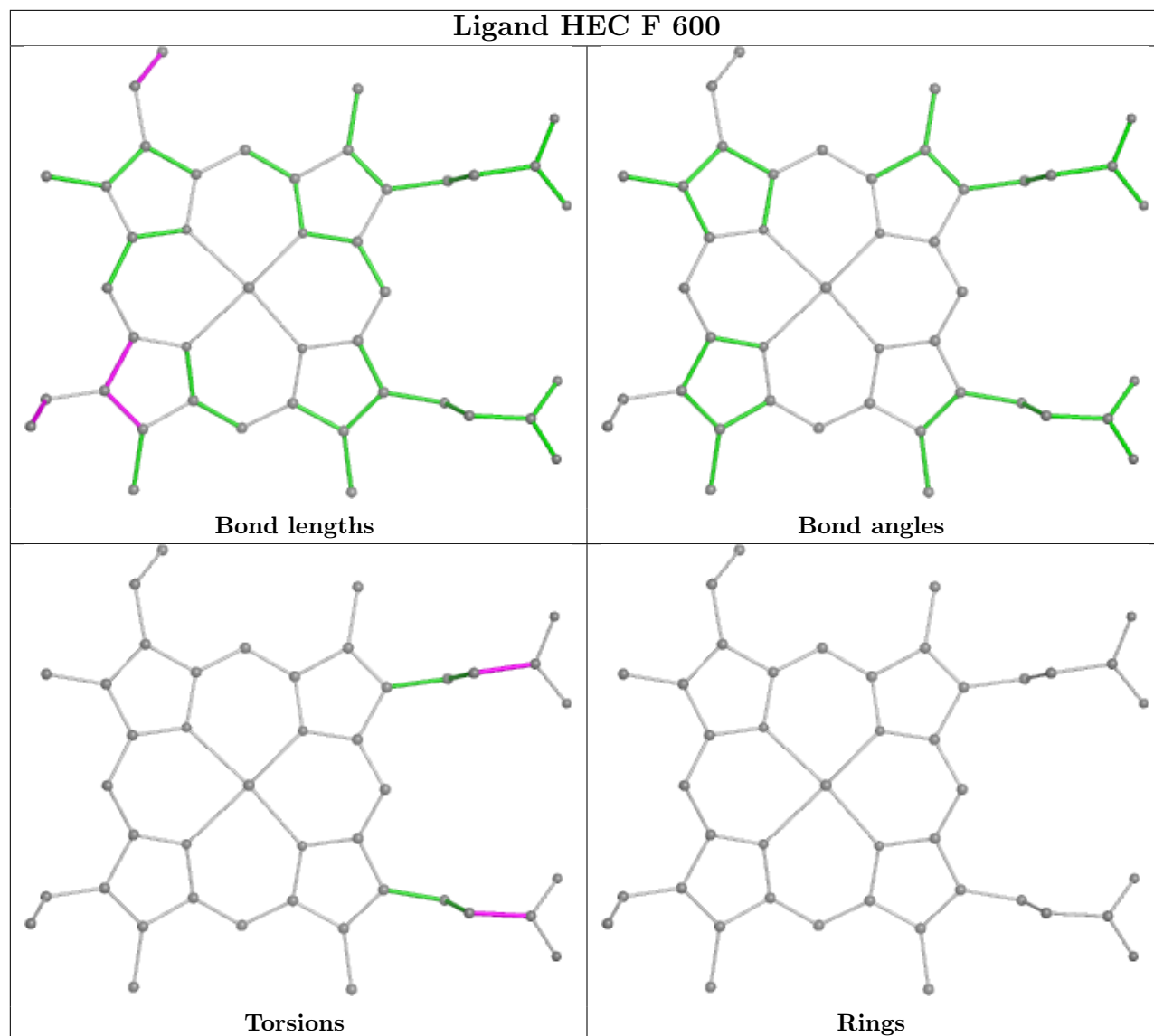


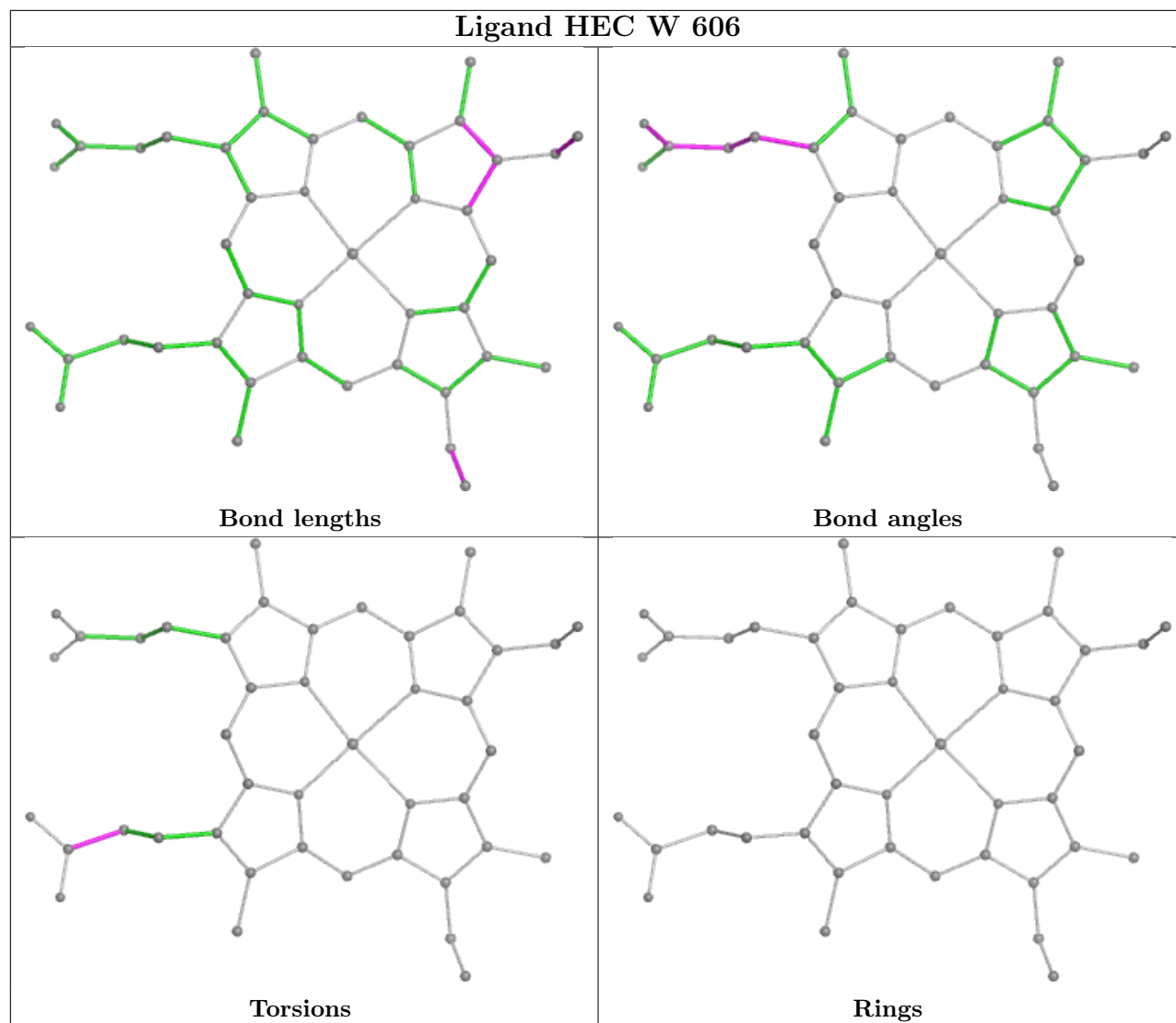
Torsions

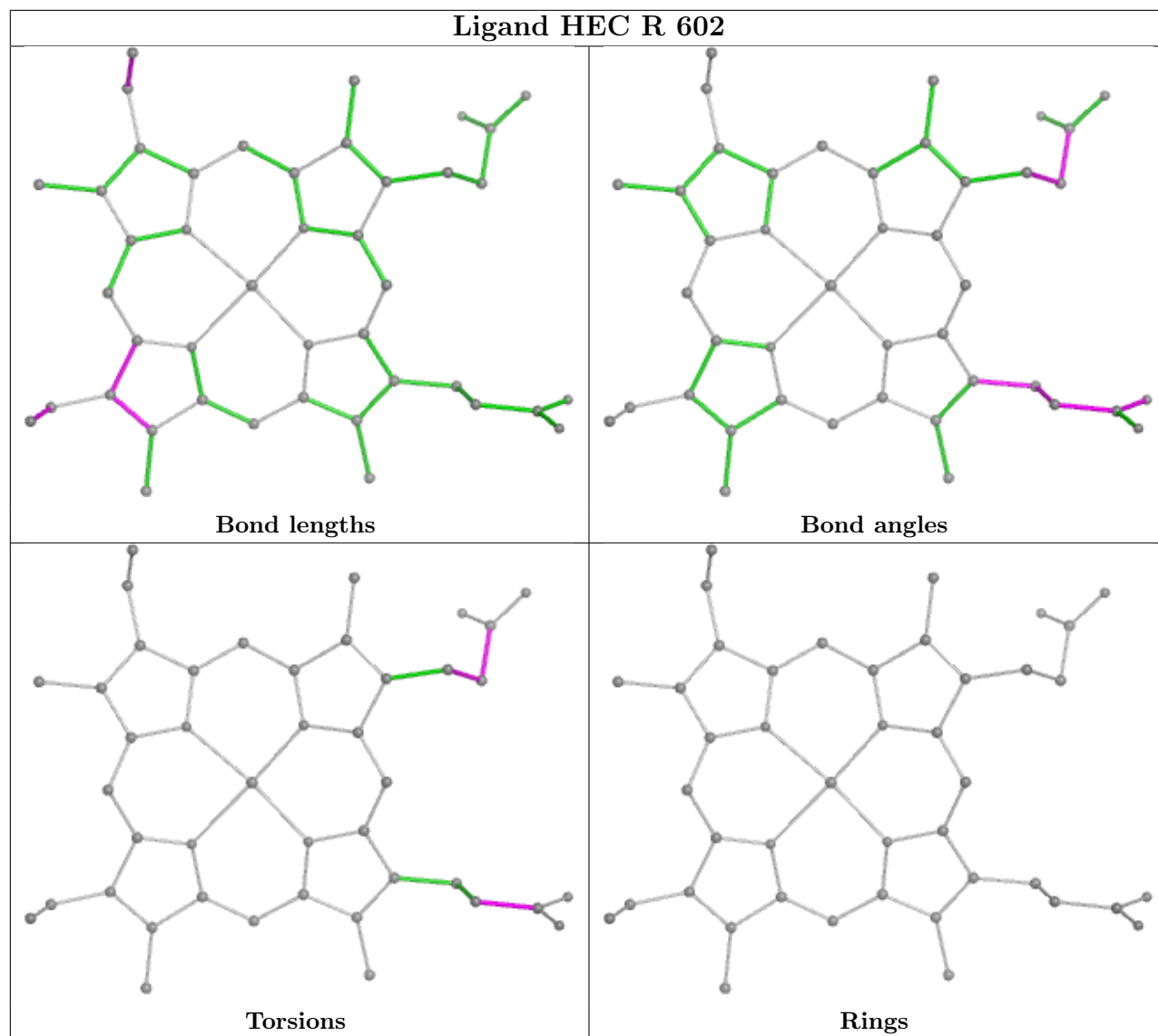


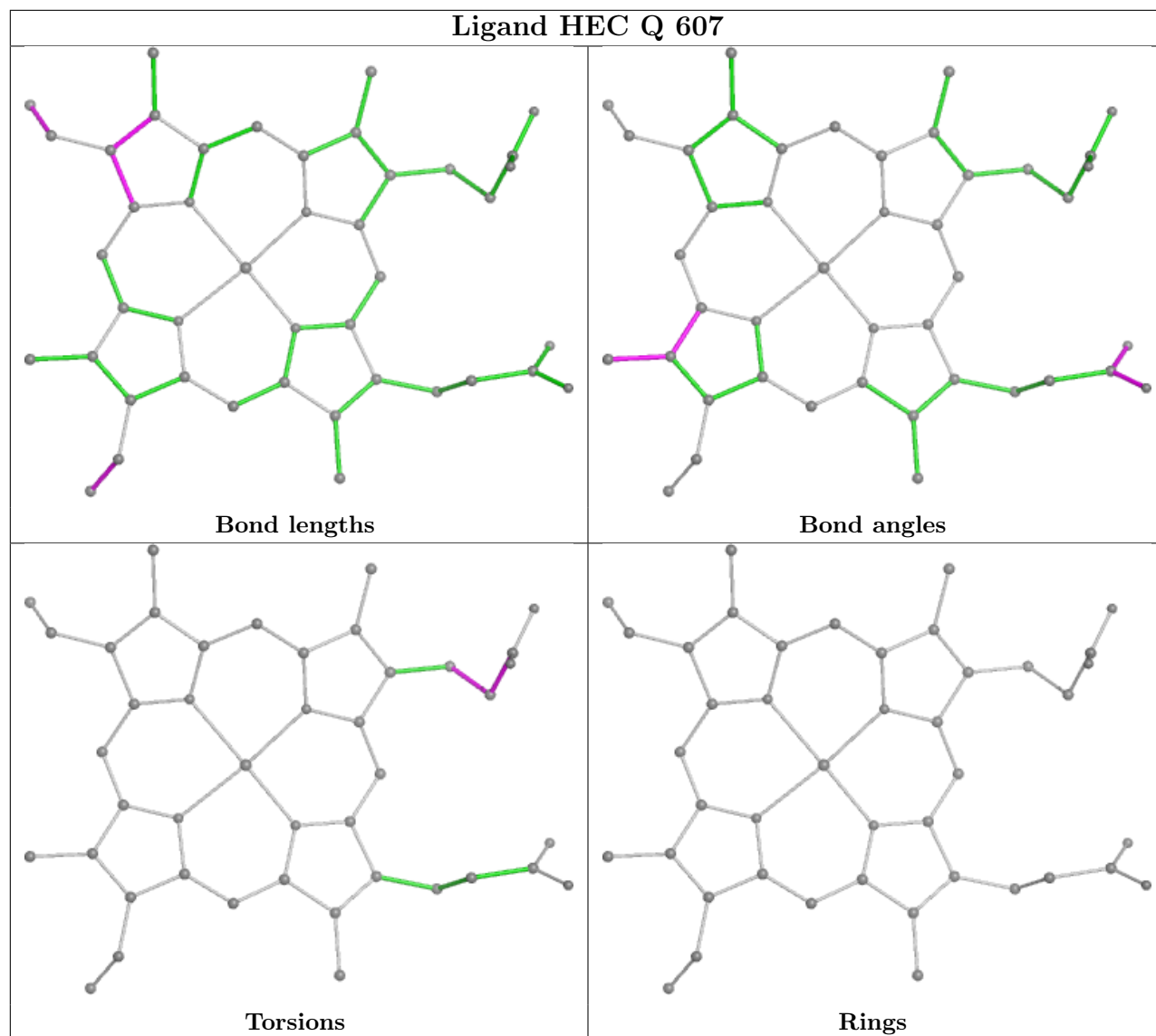
Rings

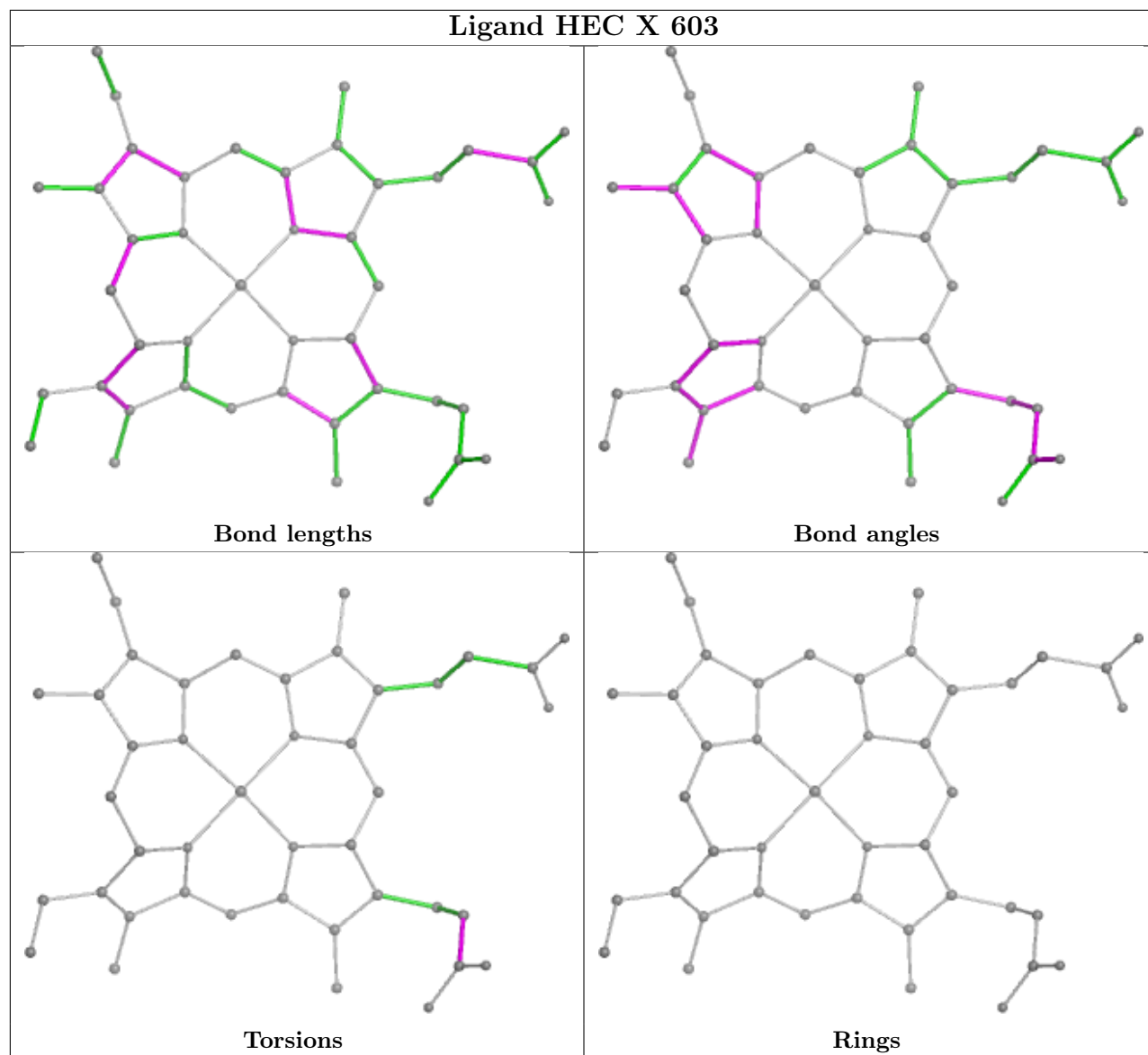
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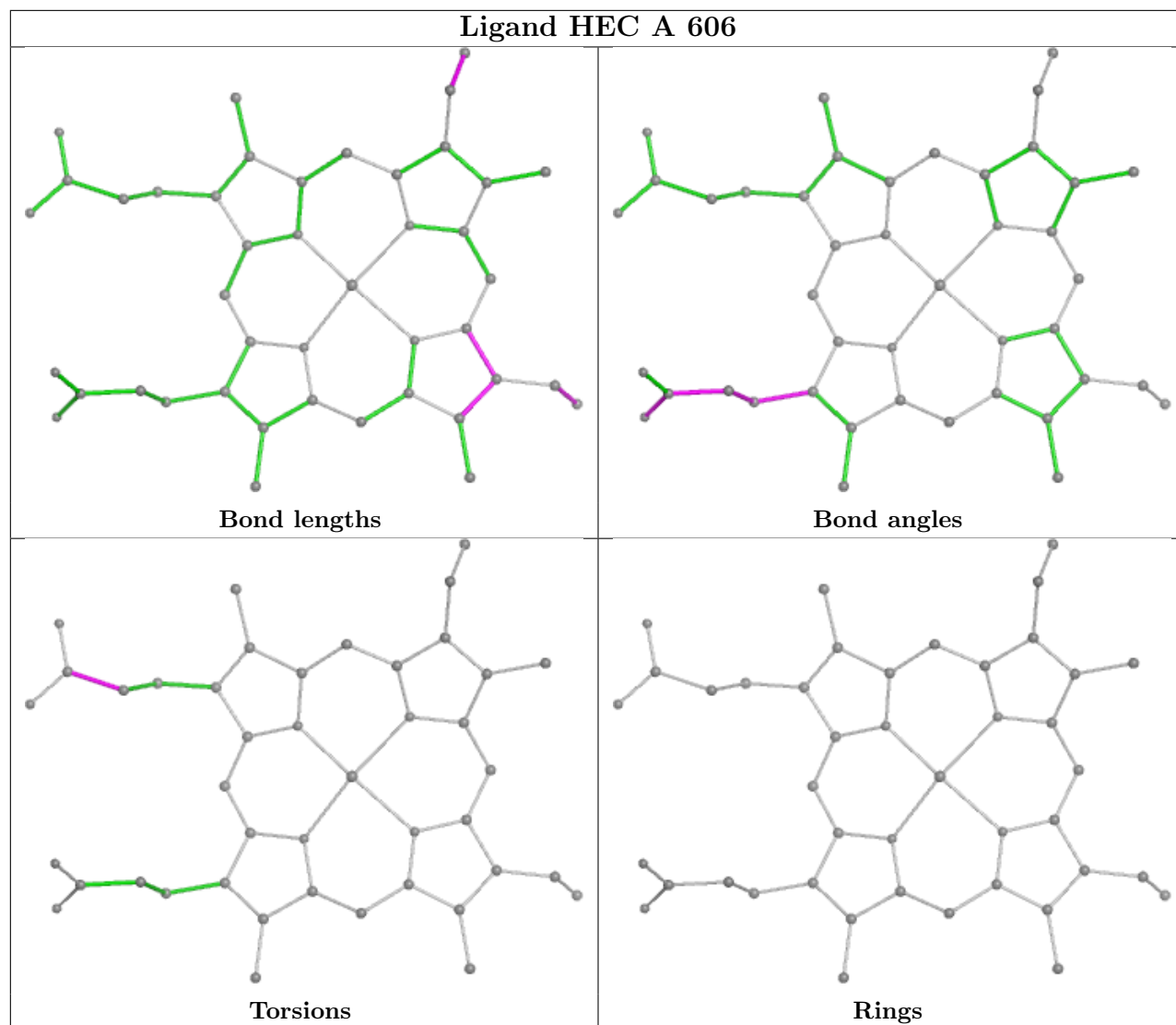


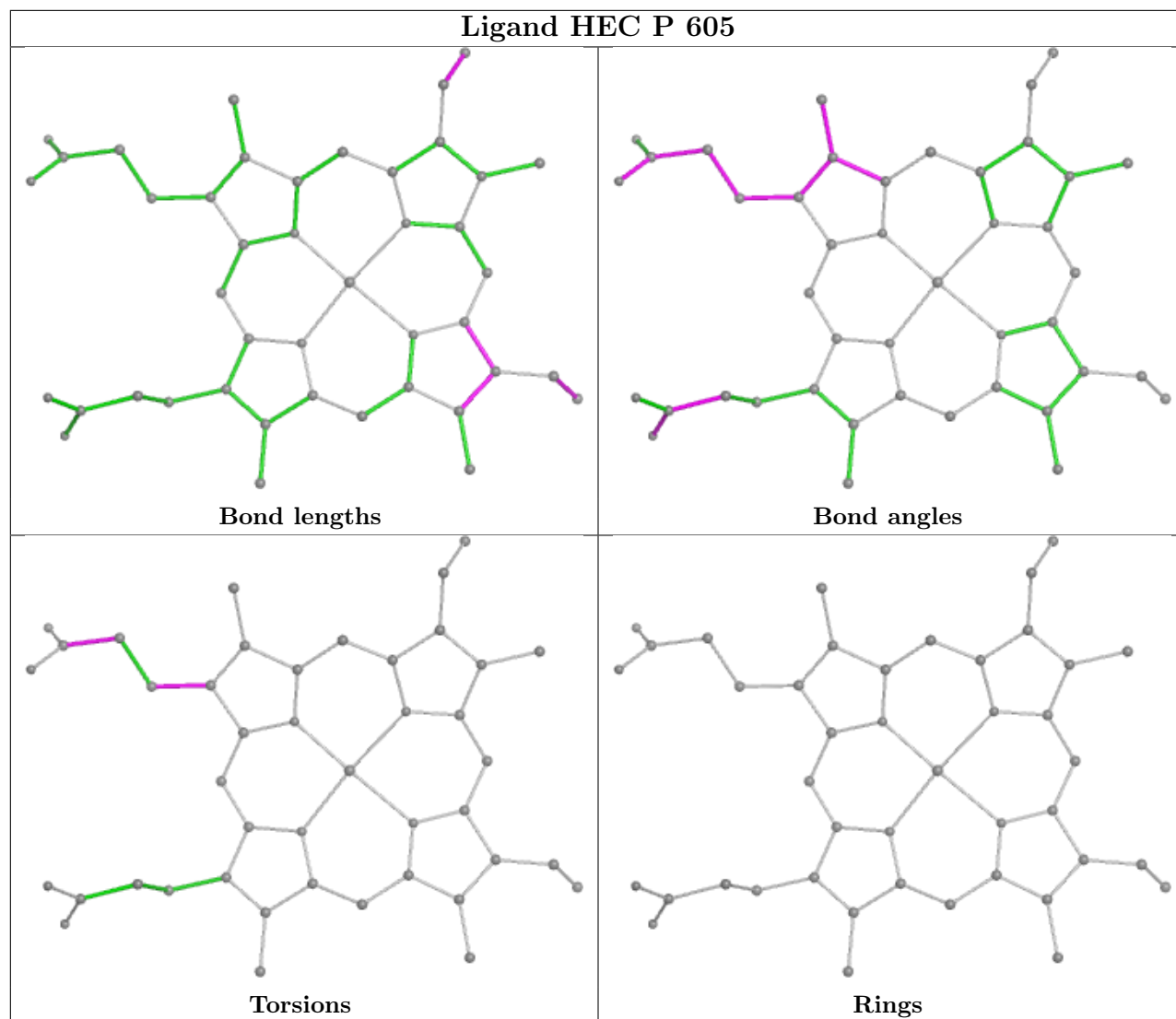


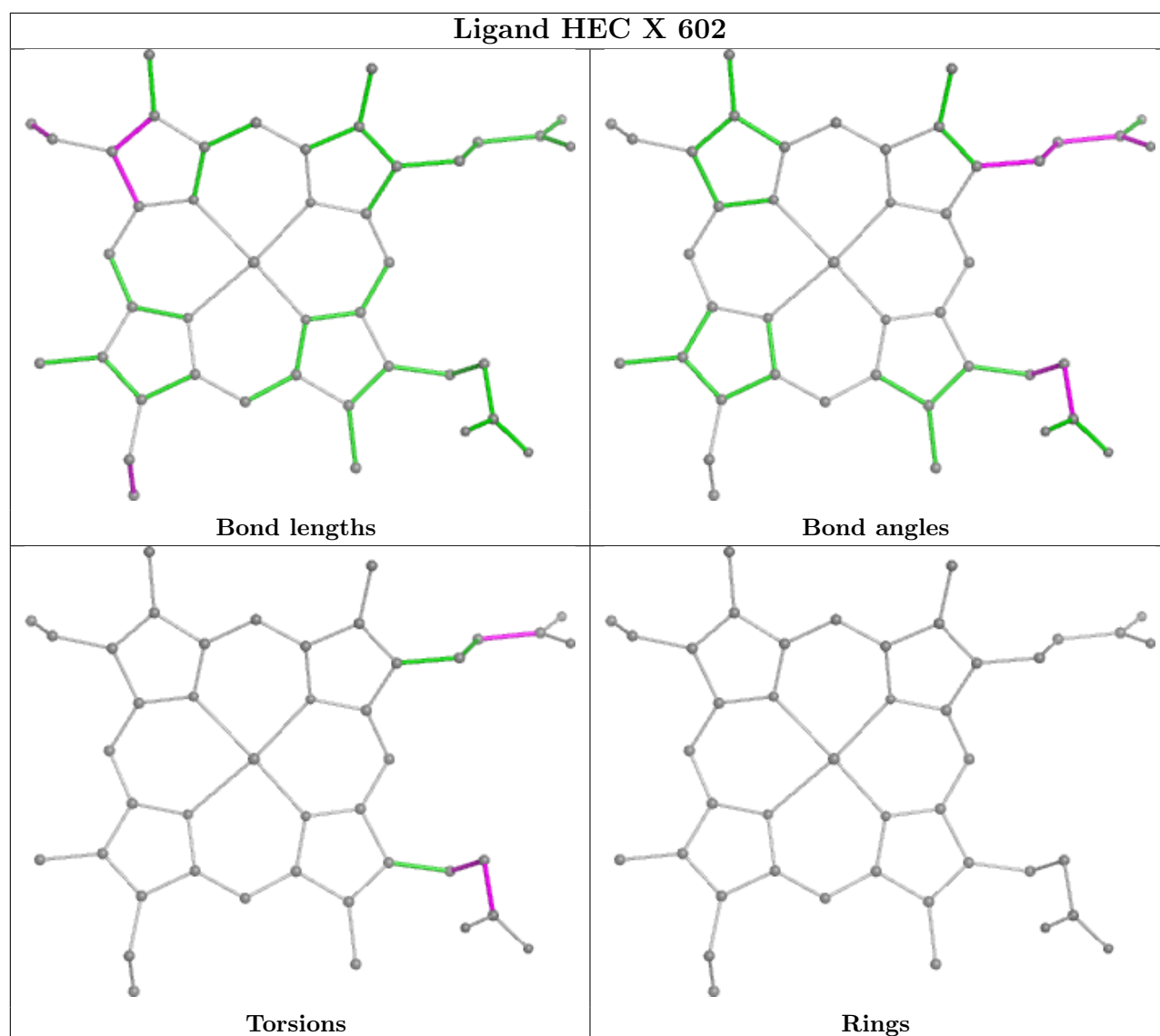




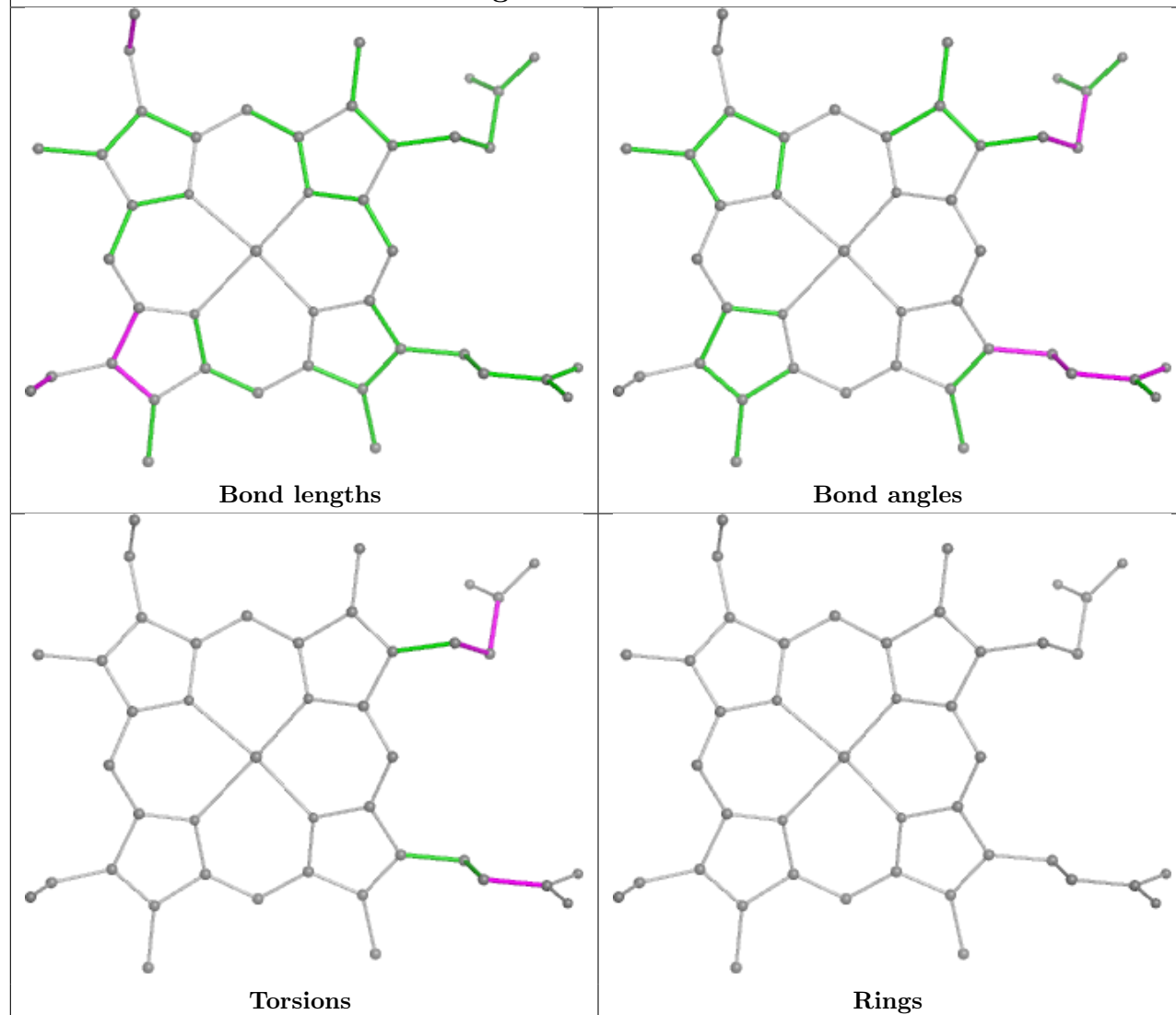




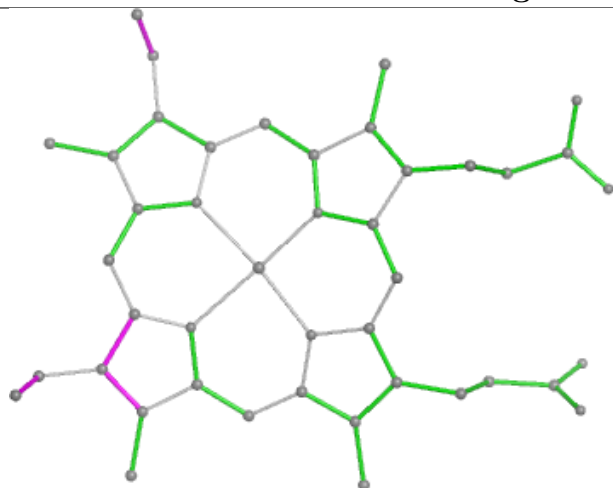




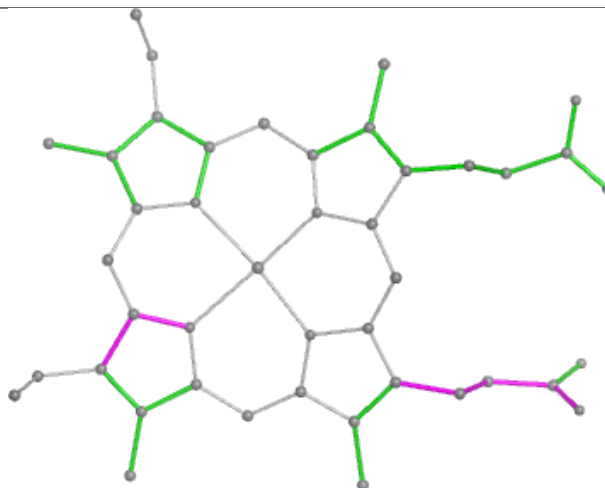
Ligand HEC J 602



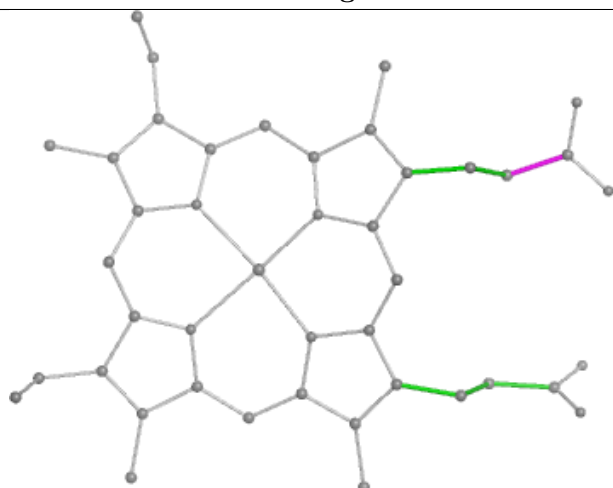
Ligand HEC C 606



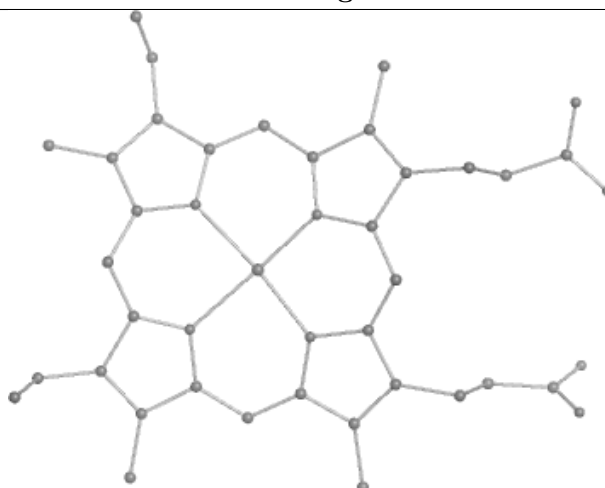
Bond lengths



Bond angles

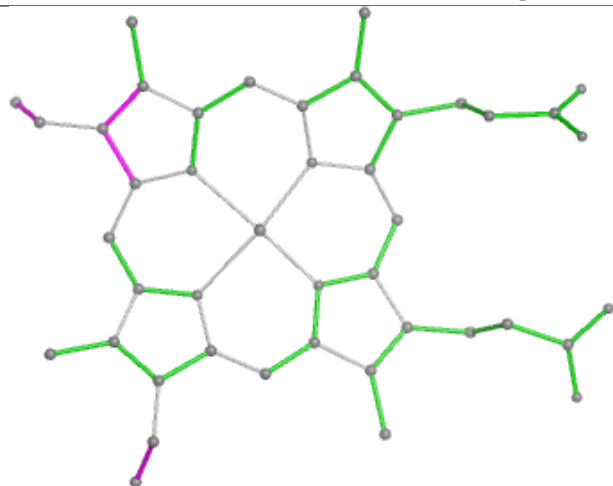


Torsions

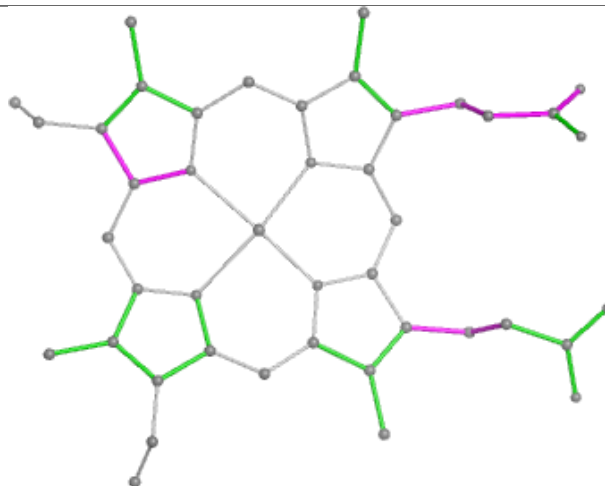


Rings

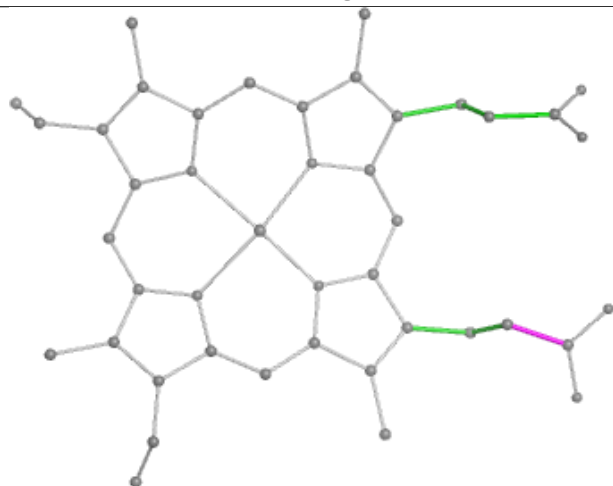
Ligand HEC E 606



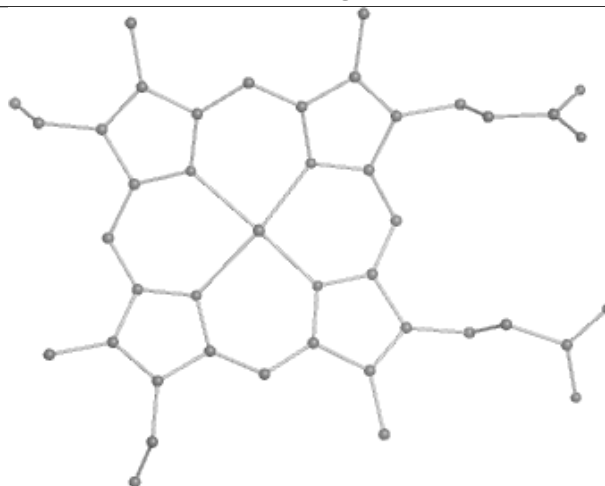
Bond lengths



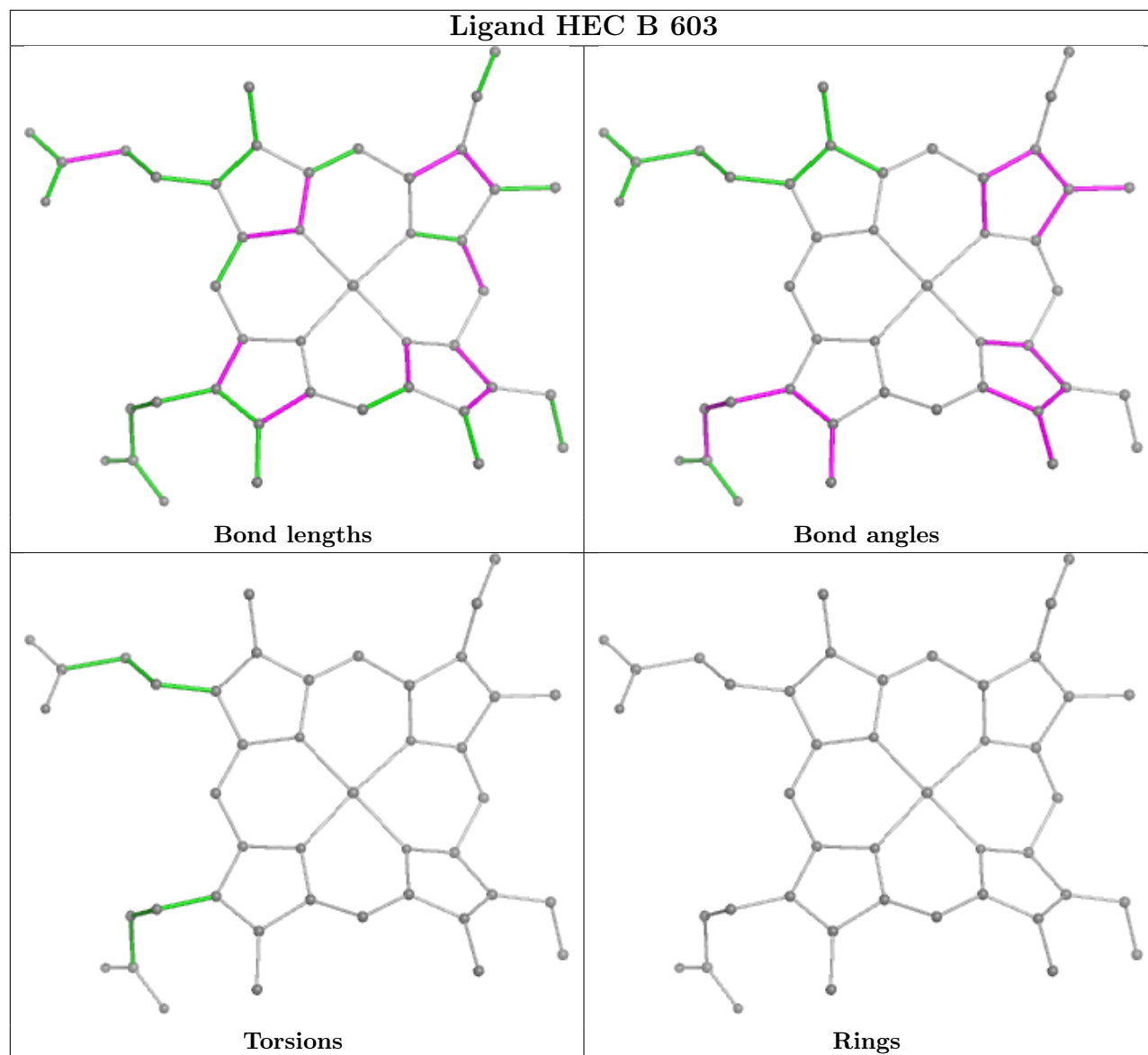
Bond angles

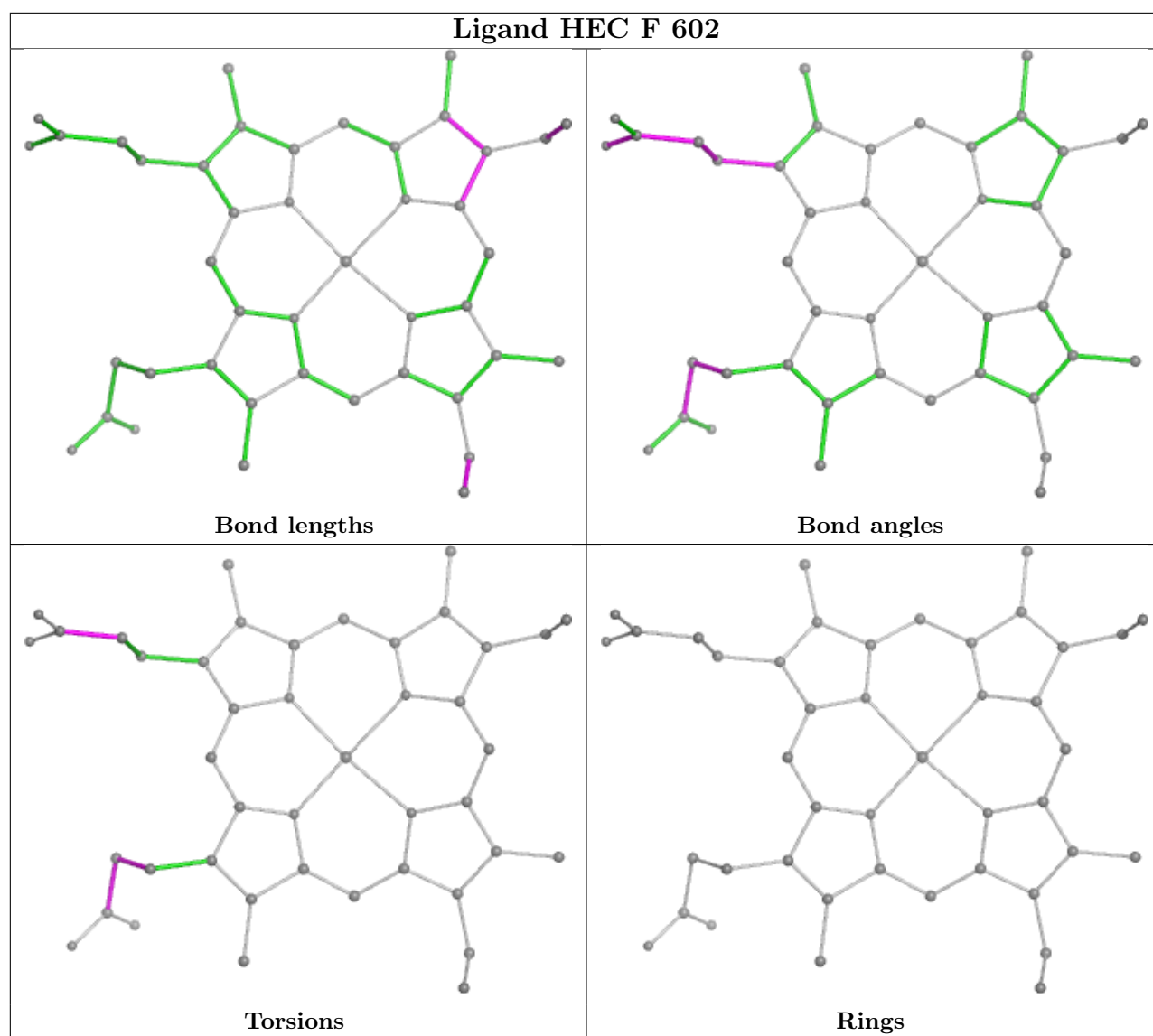


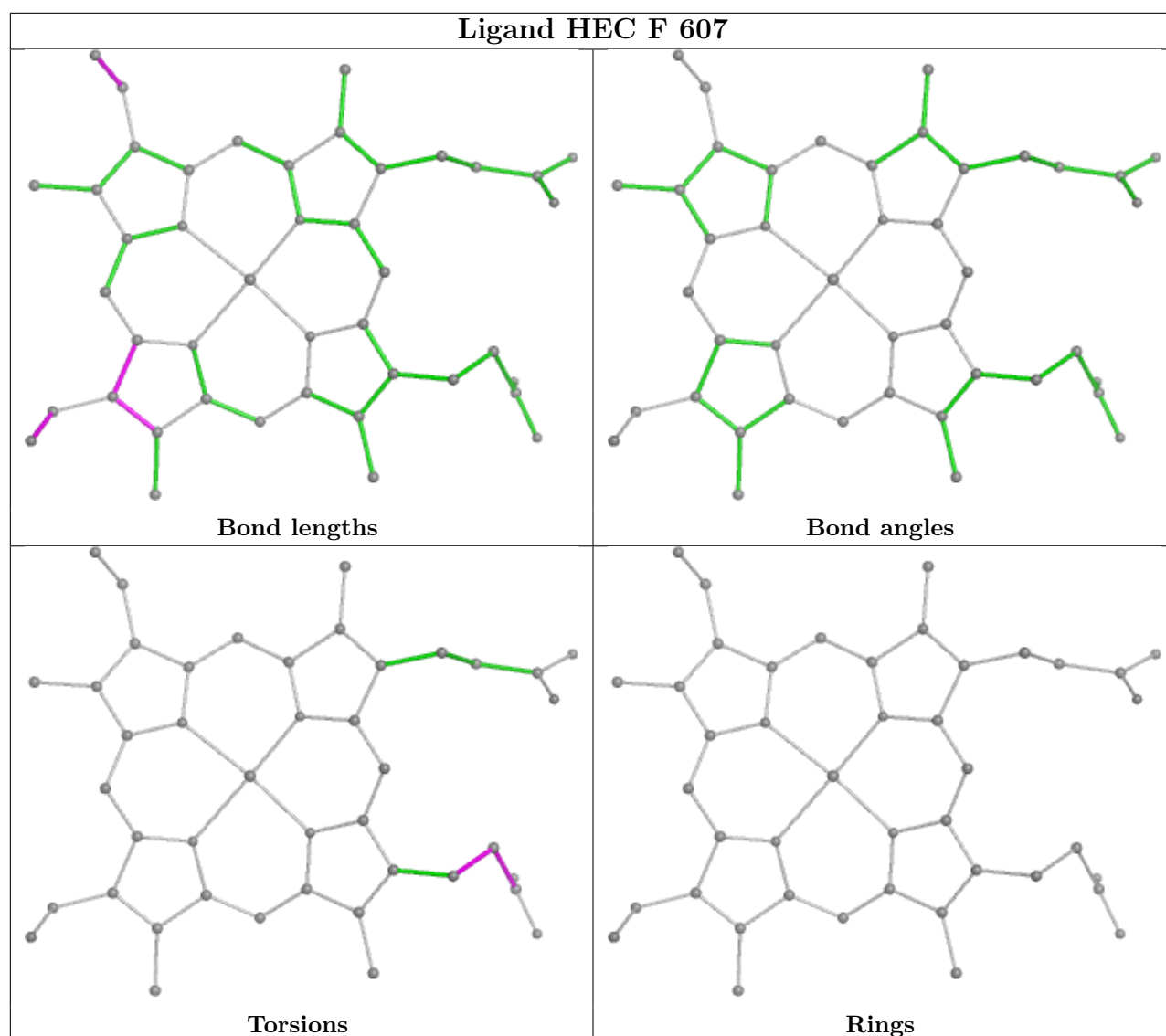
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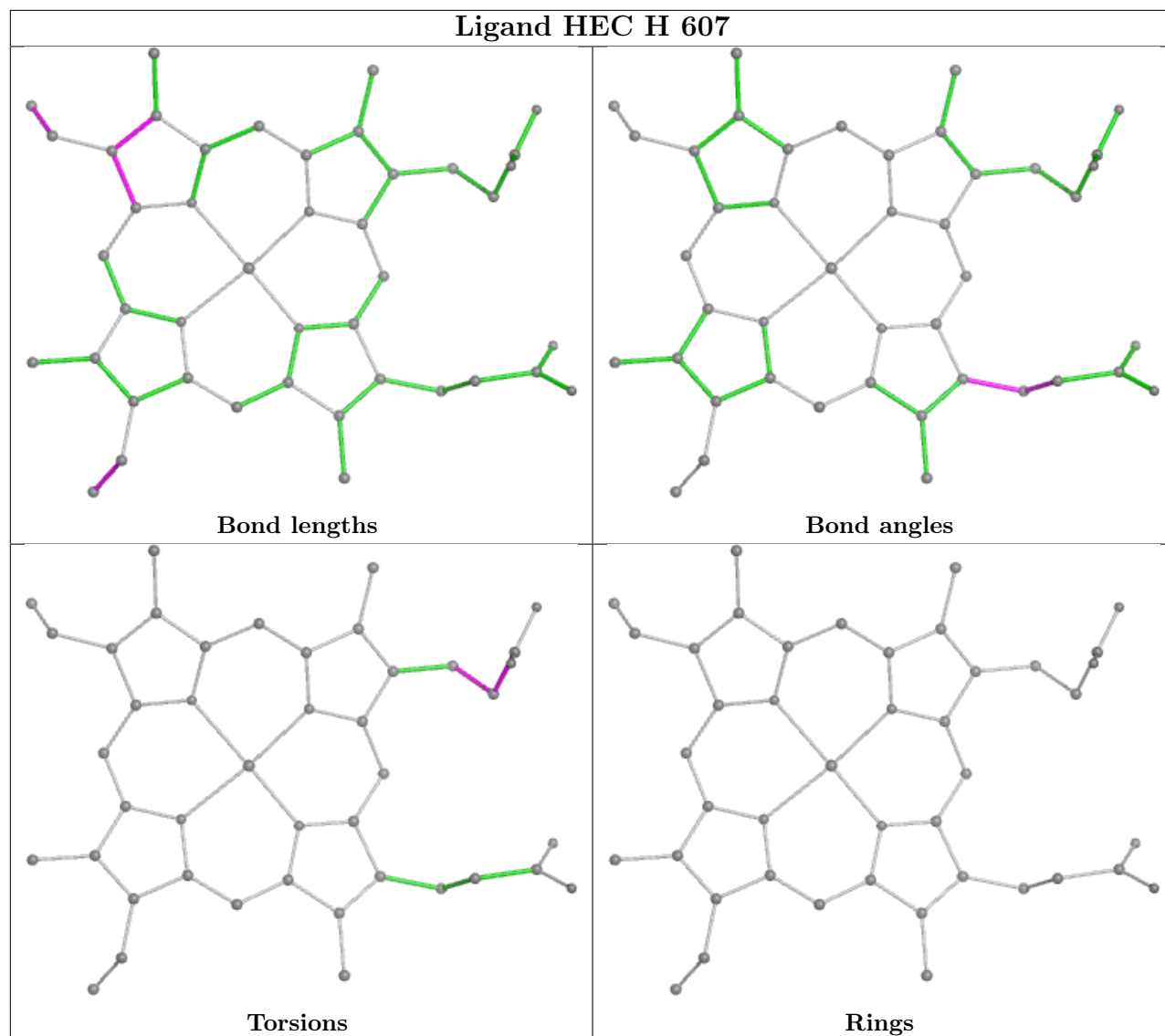


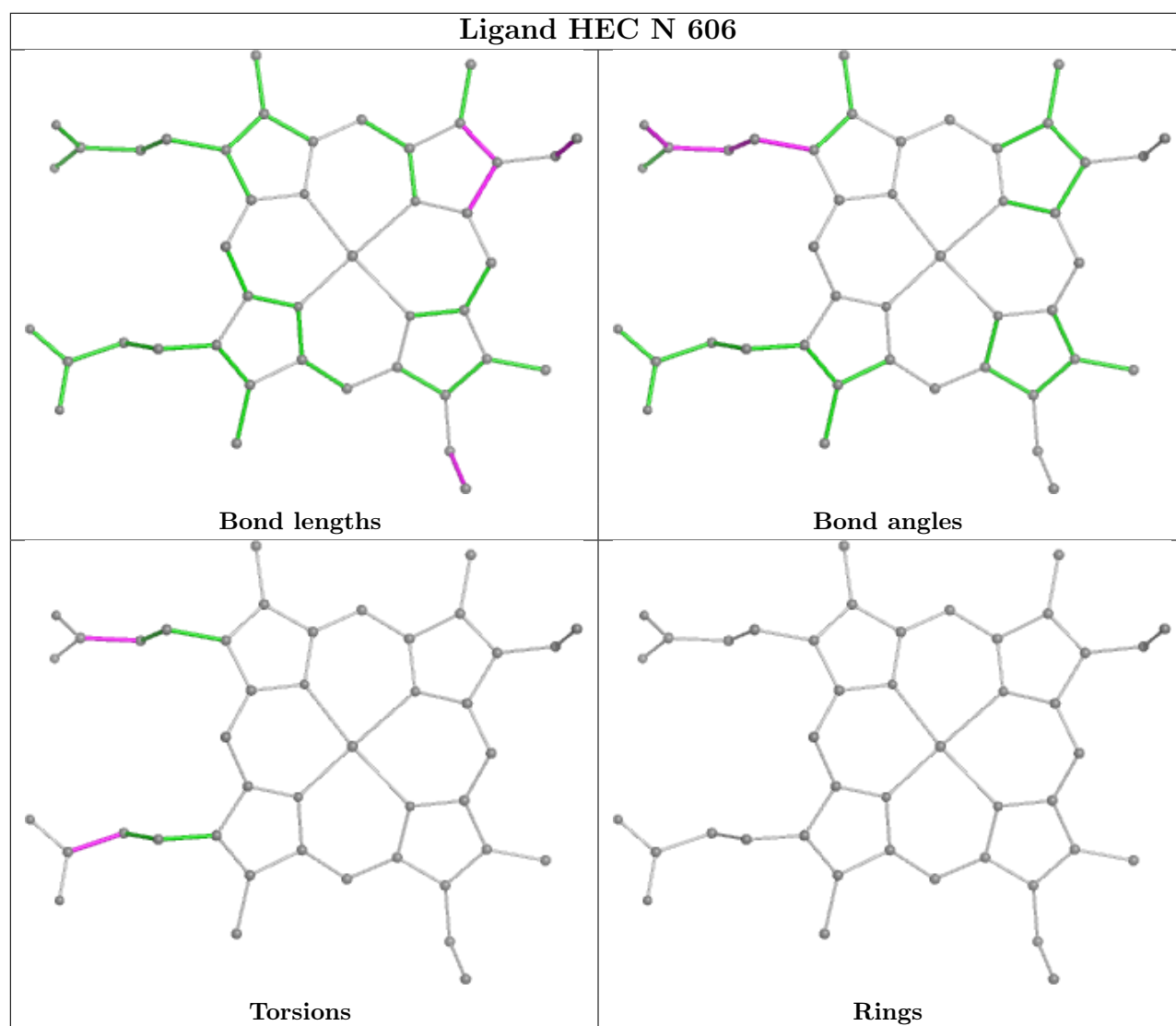
Rings

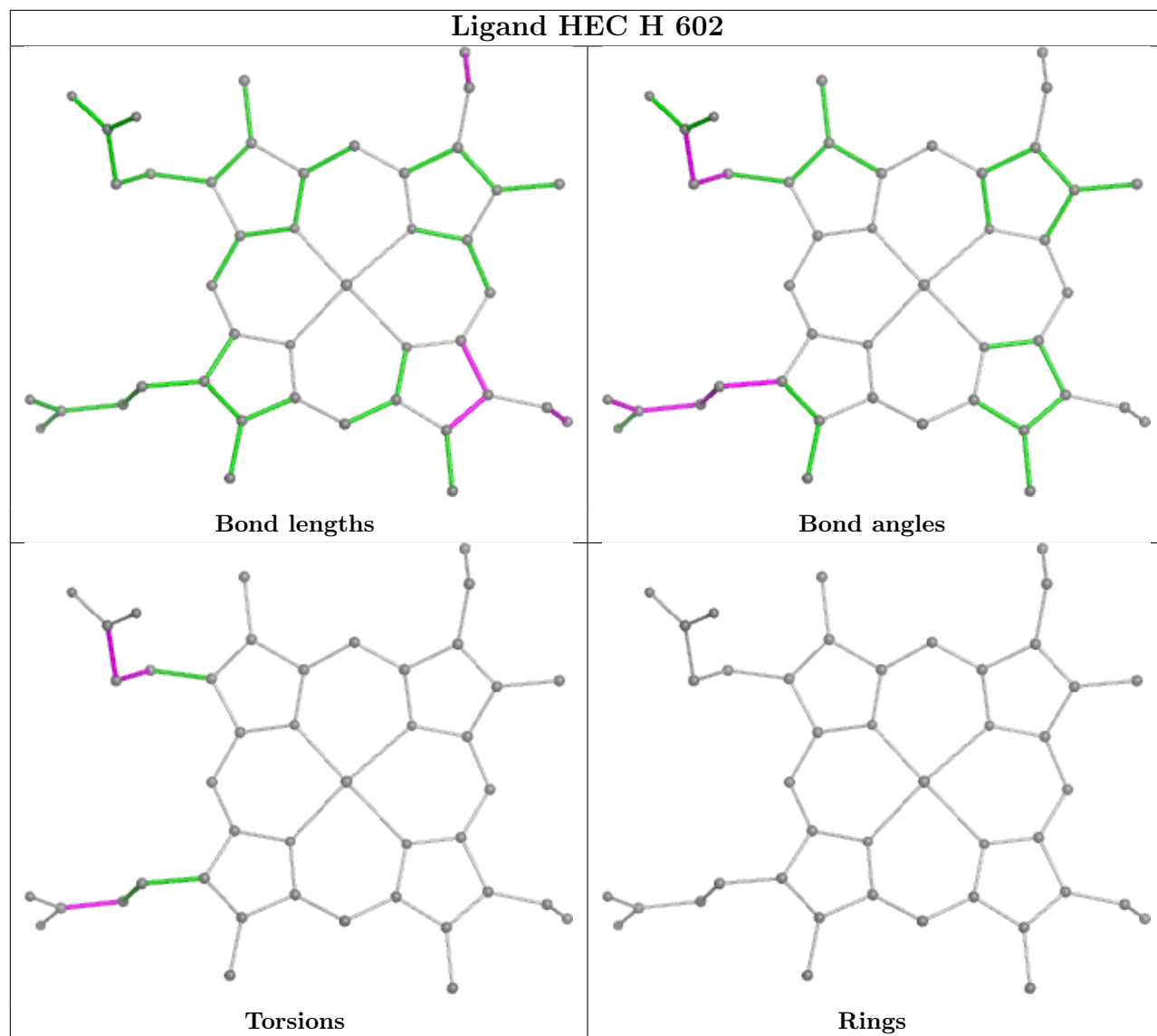


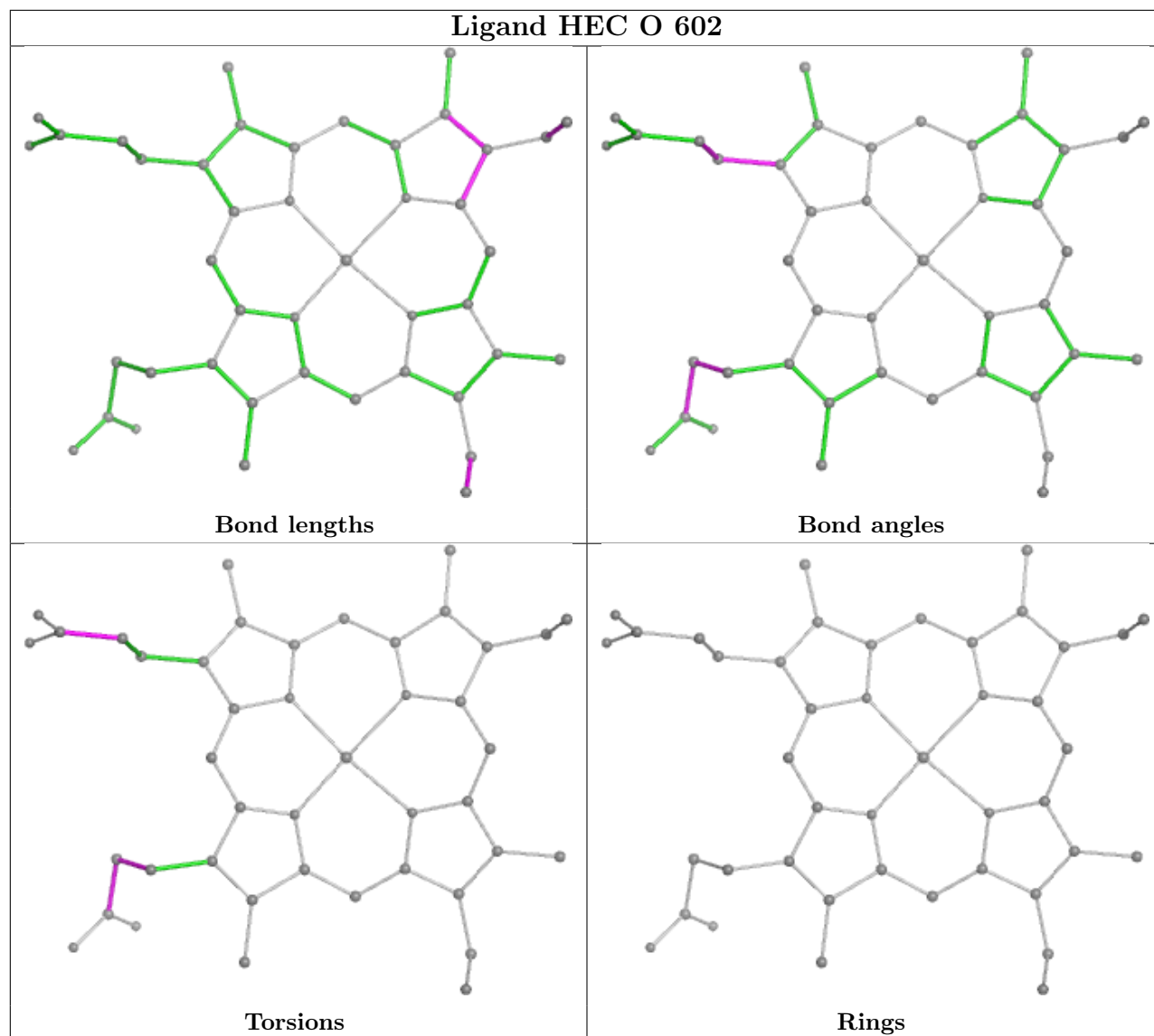




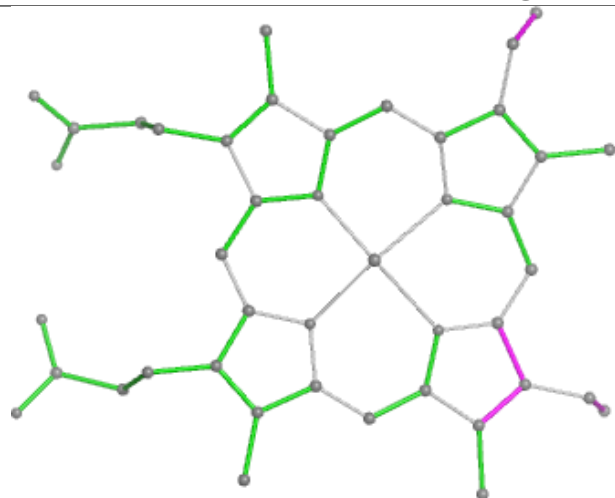




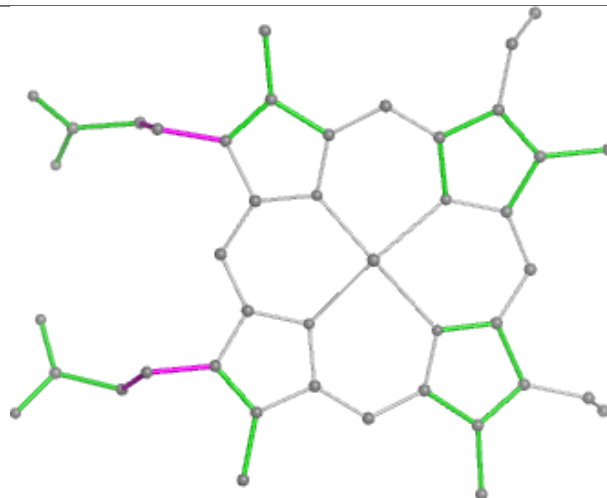




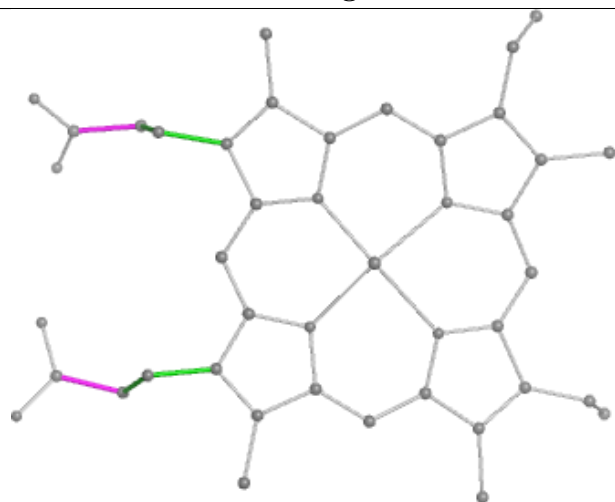
Ligand HEC L 604



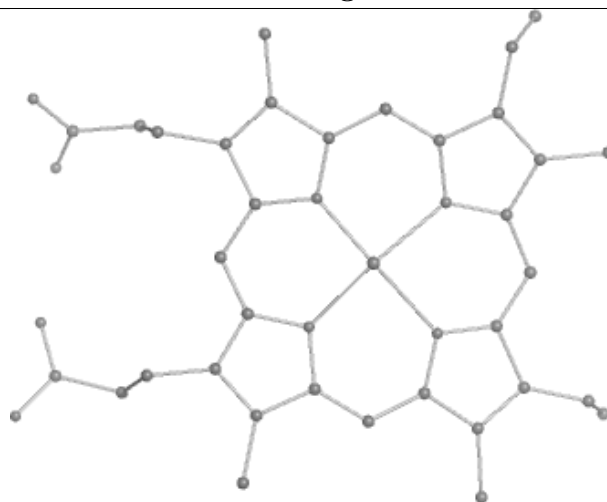
Bond lengths



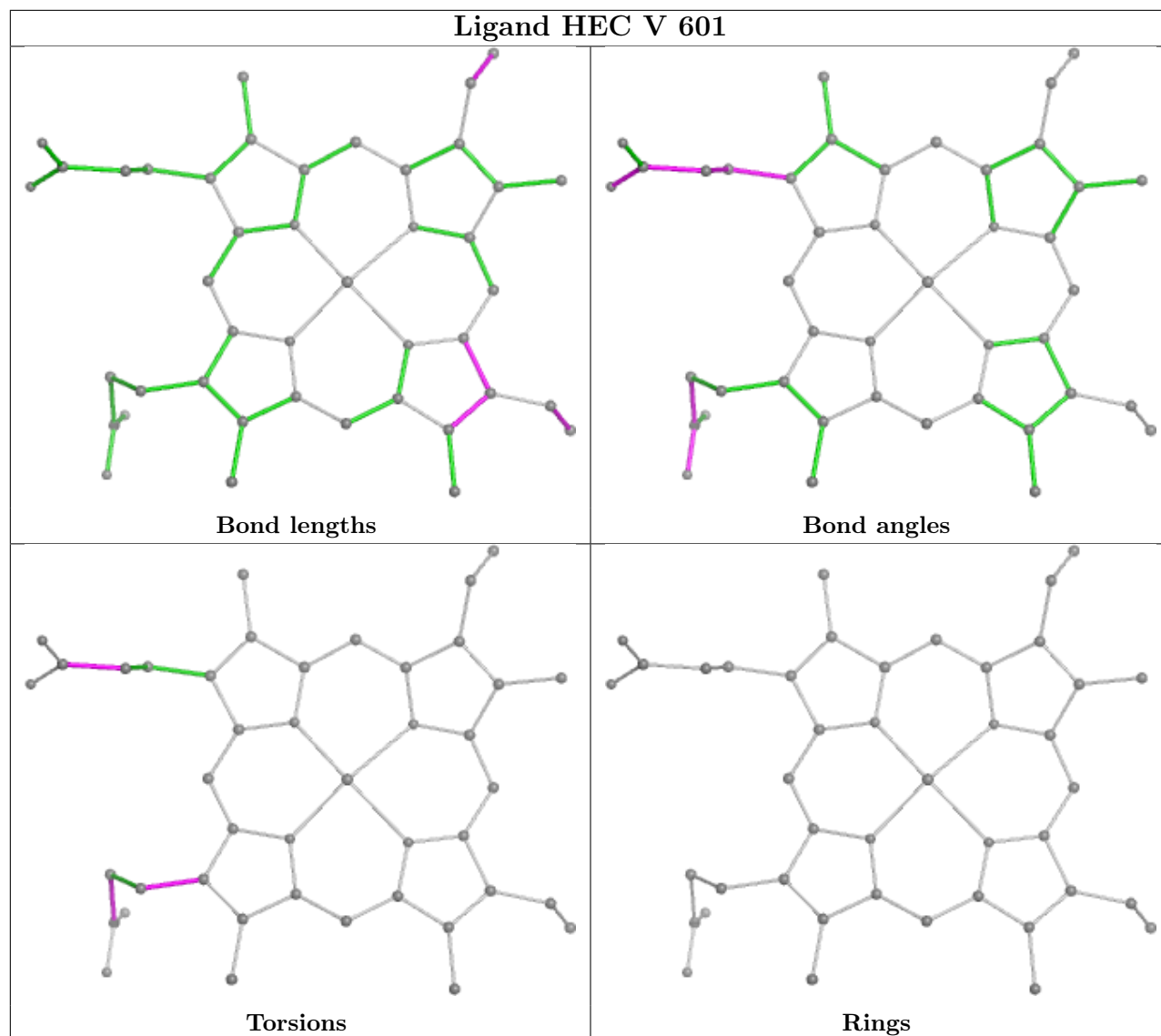
Bond angles

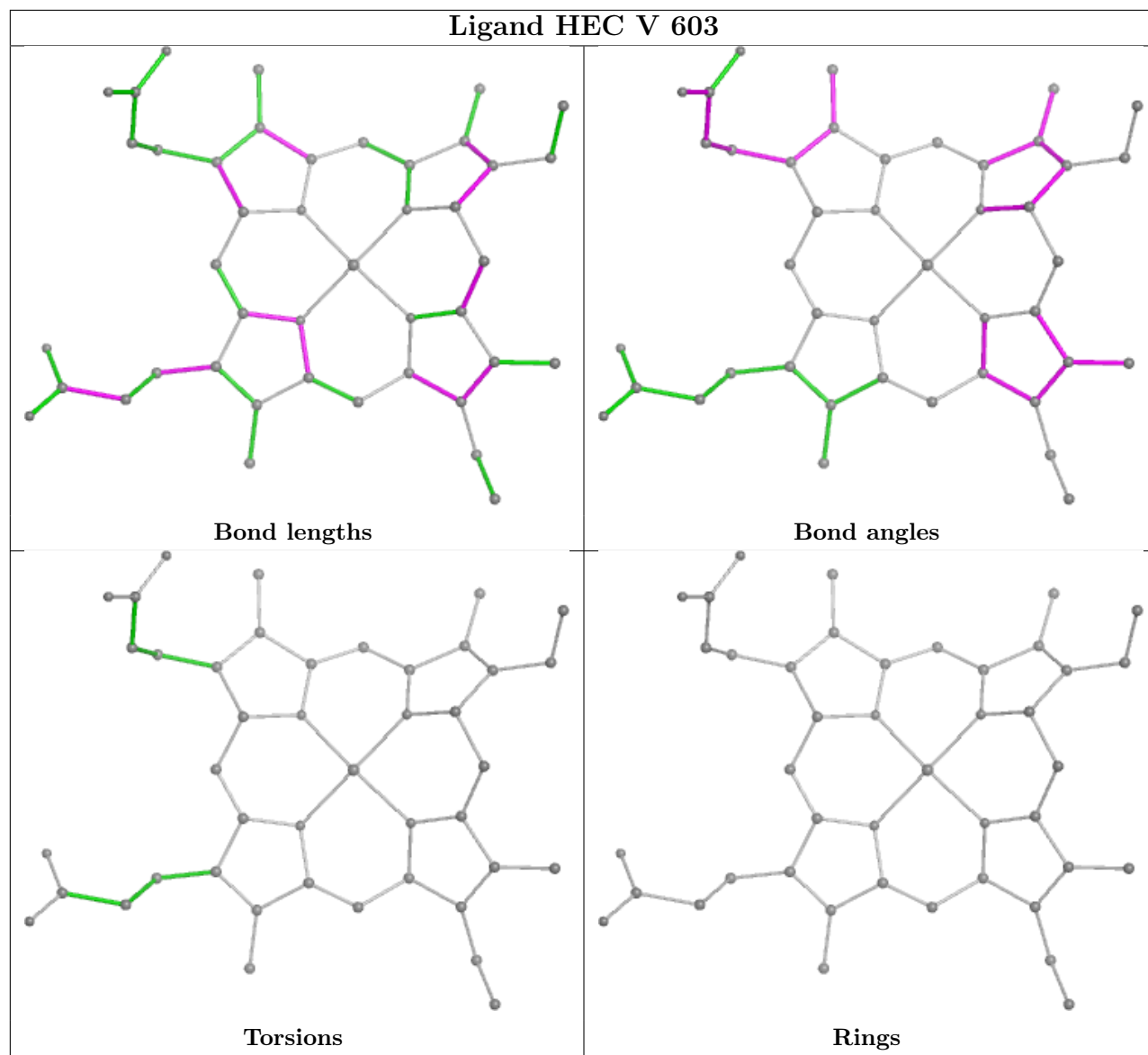


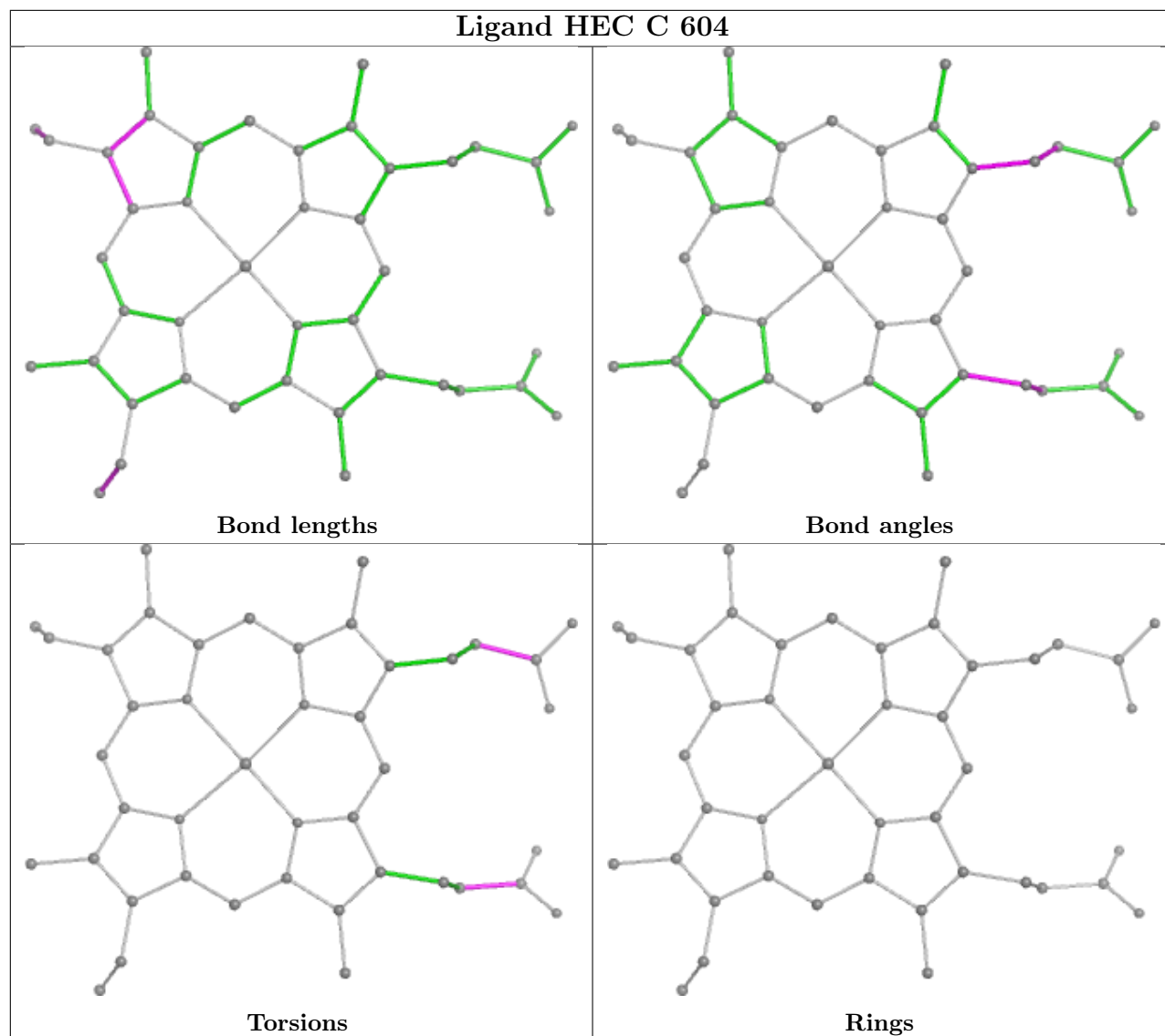
Torsions



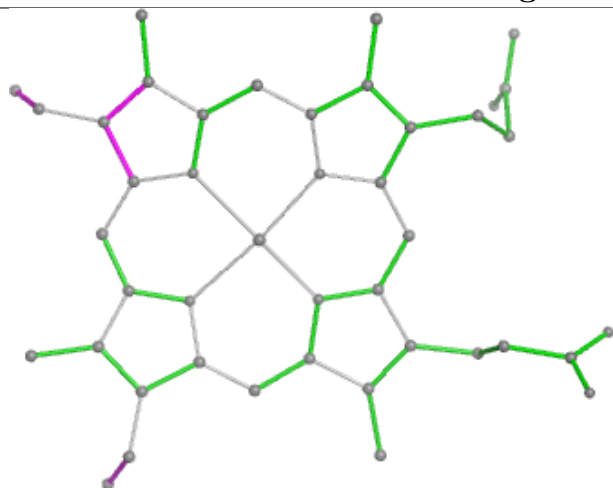
Rings



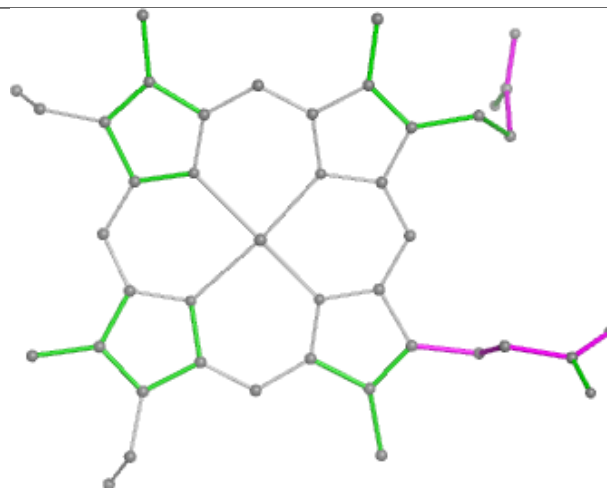




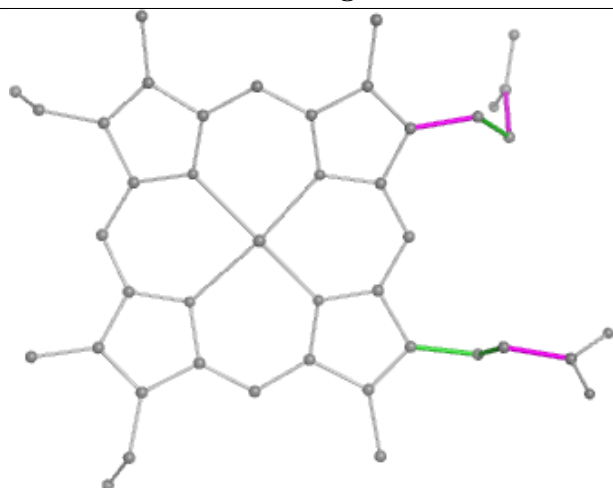
Ligand HEC I 601



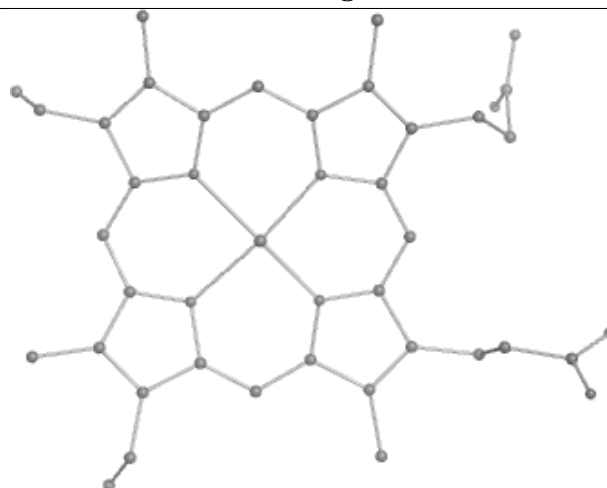
Bond lengths



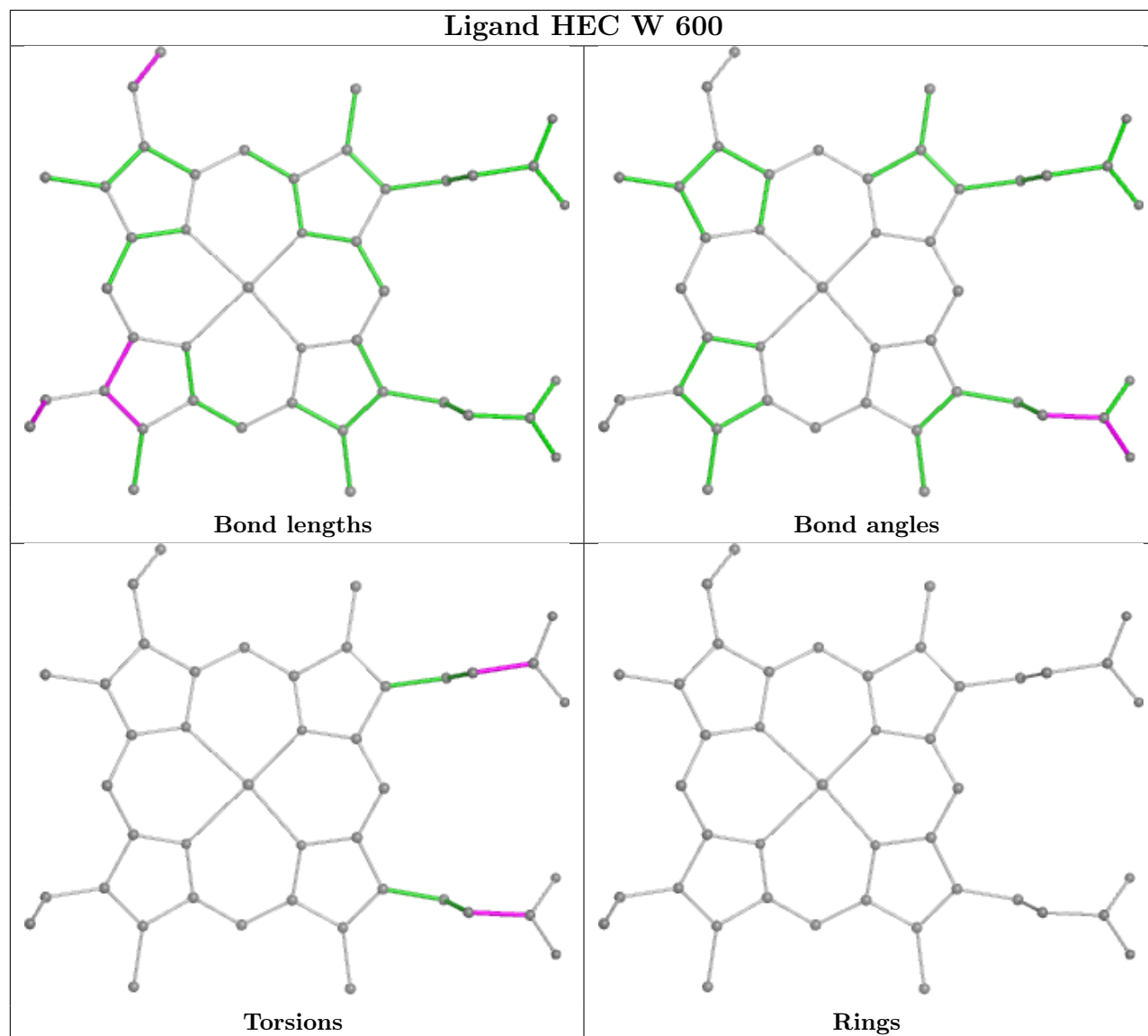
Bond angles

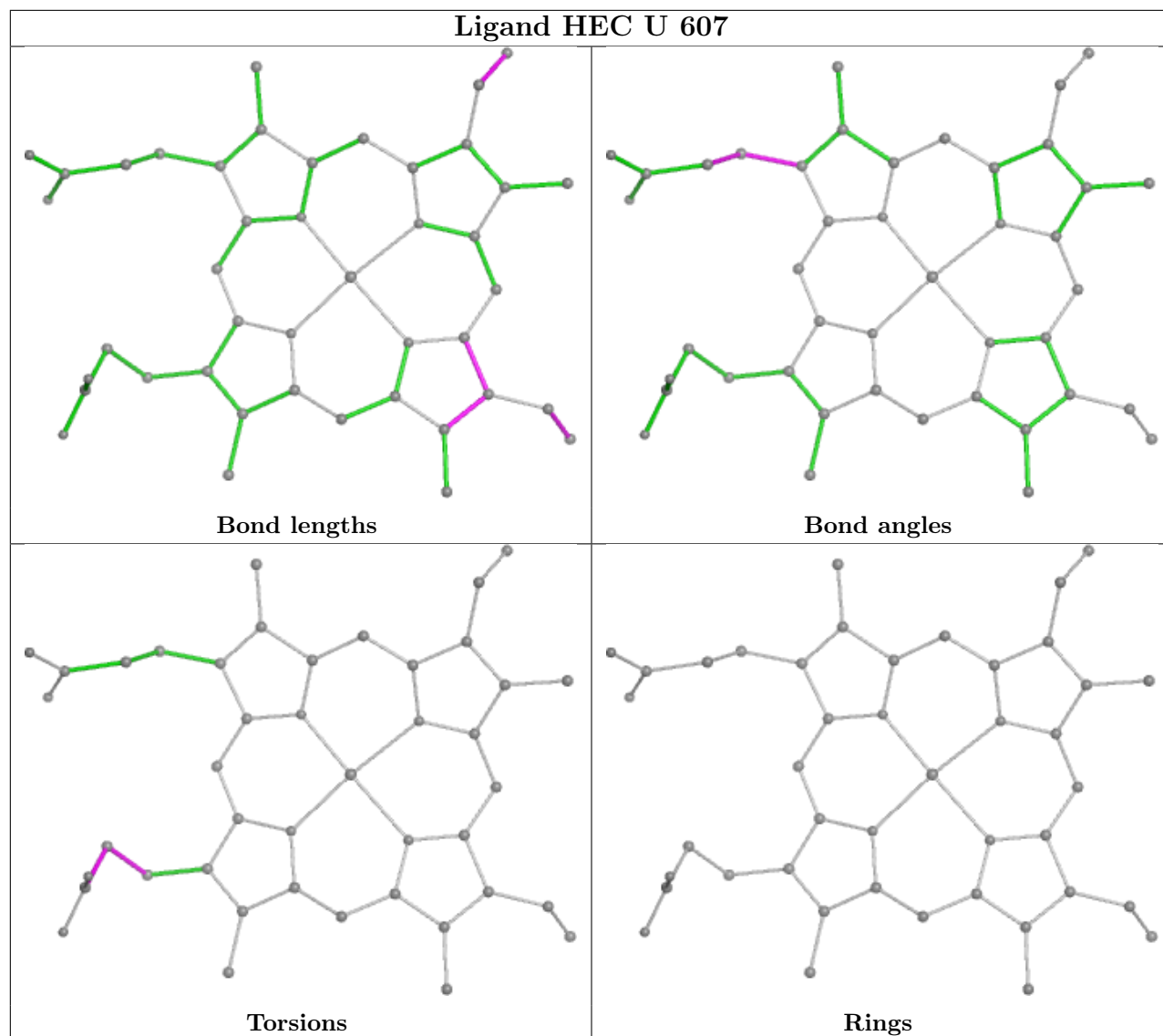


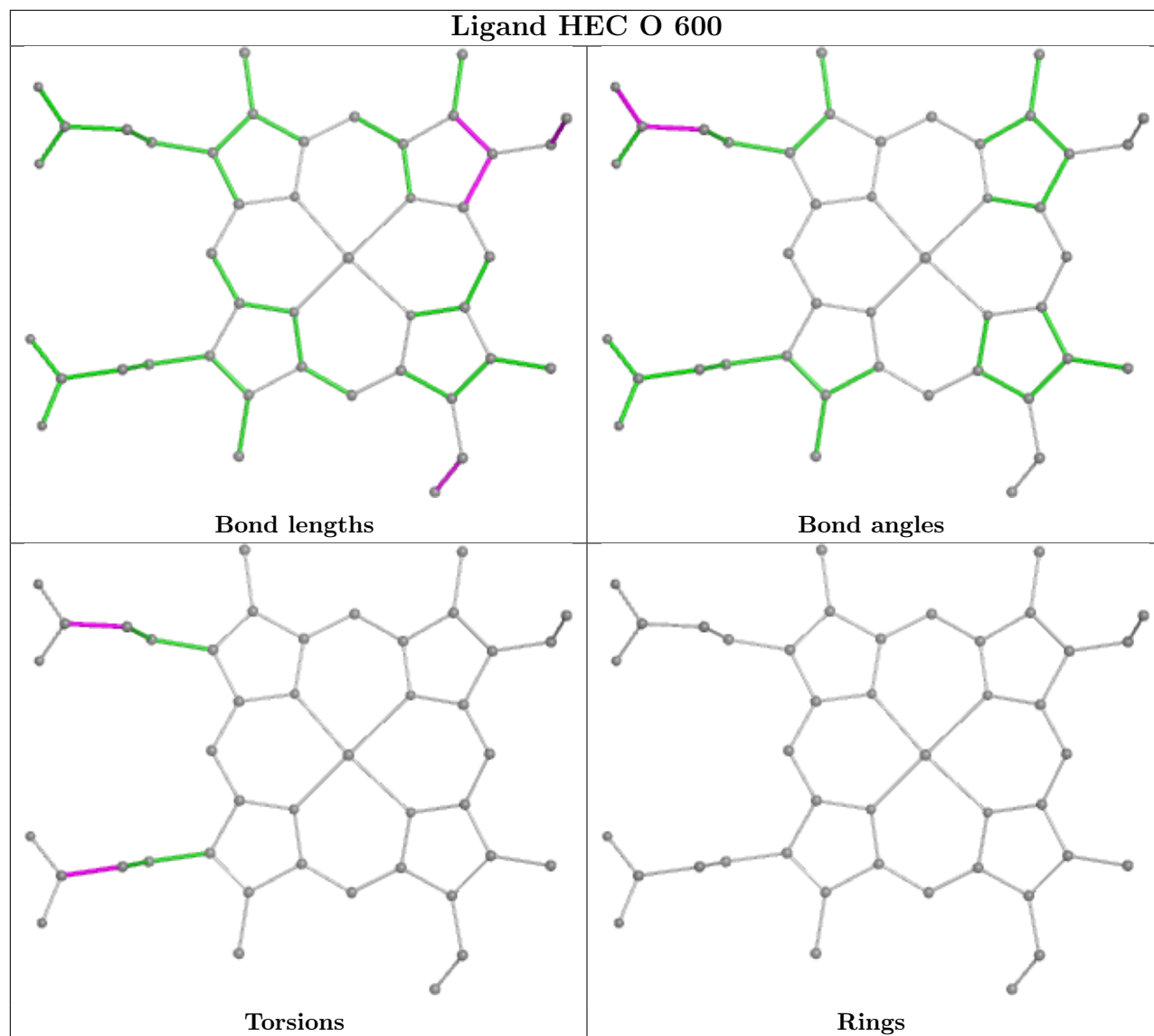
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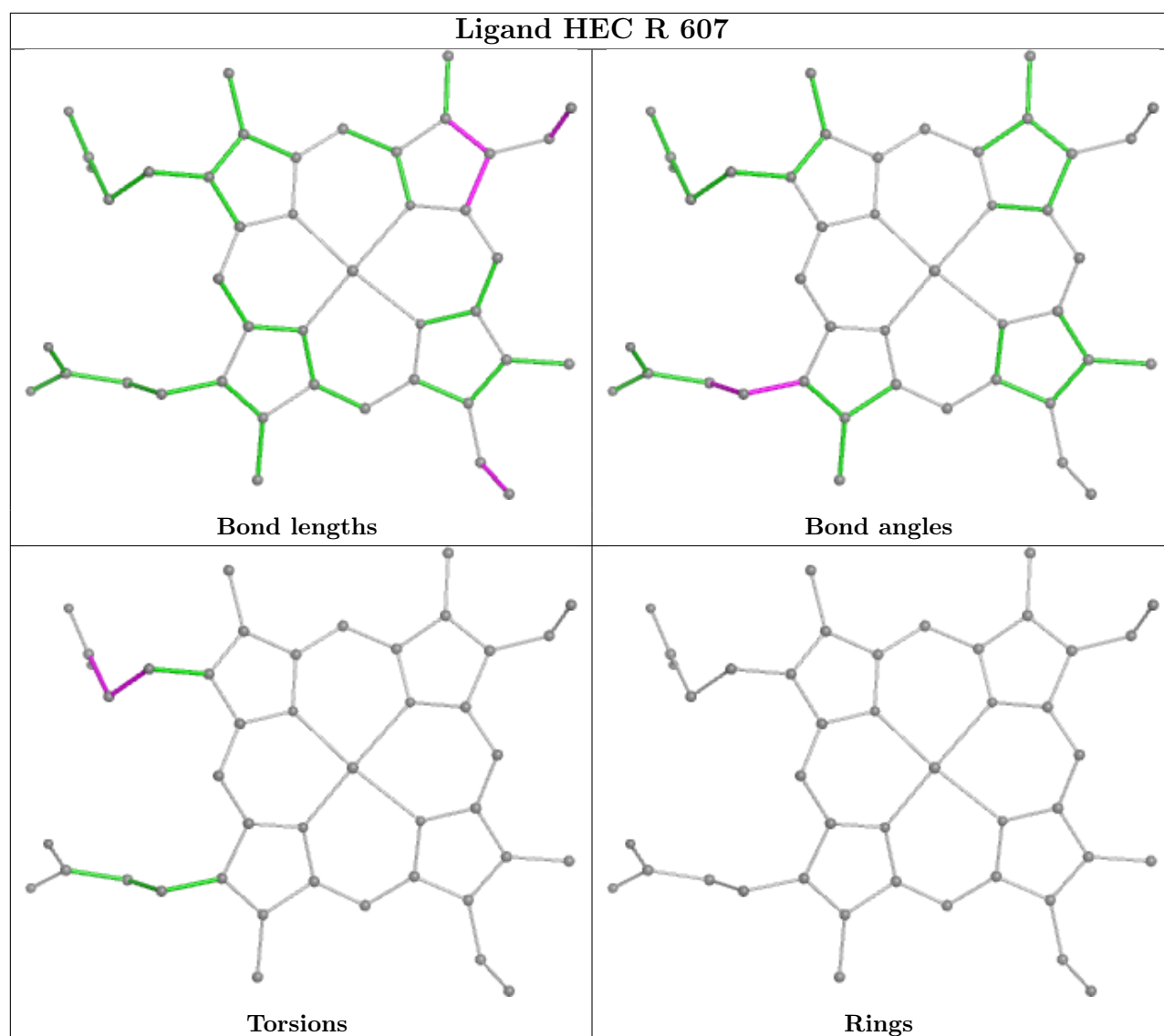


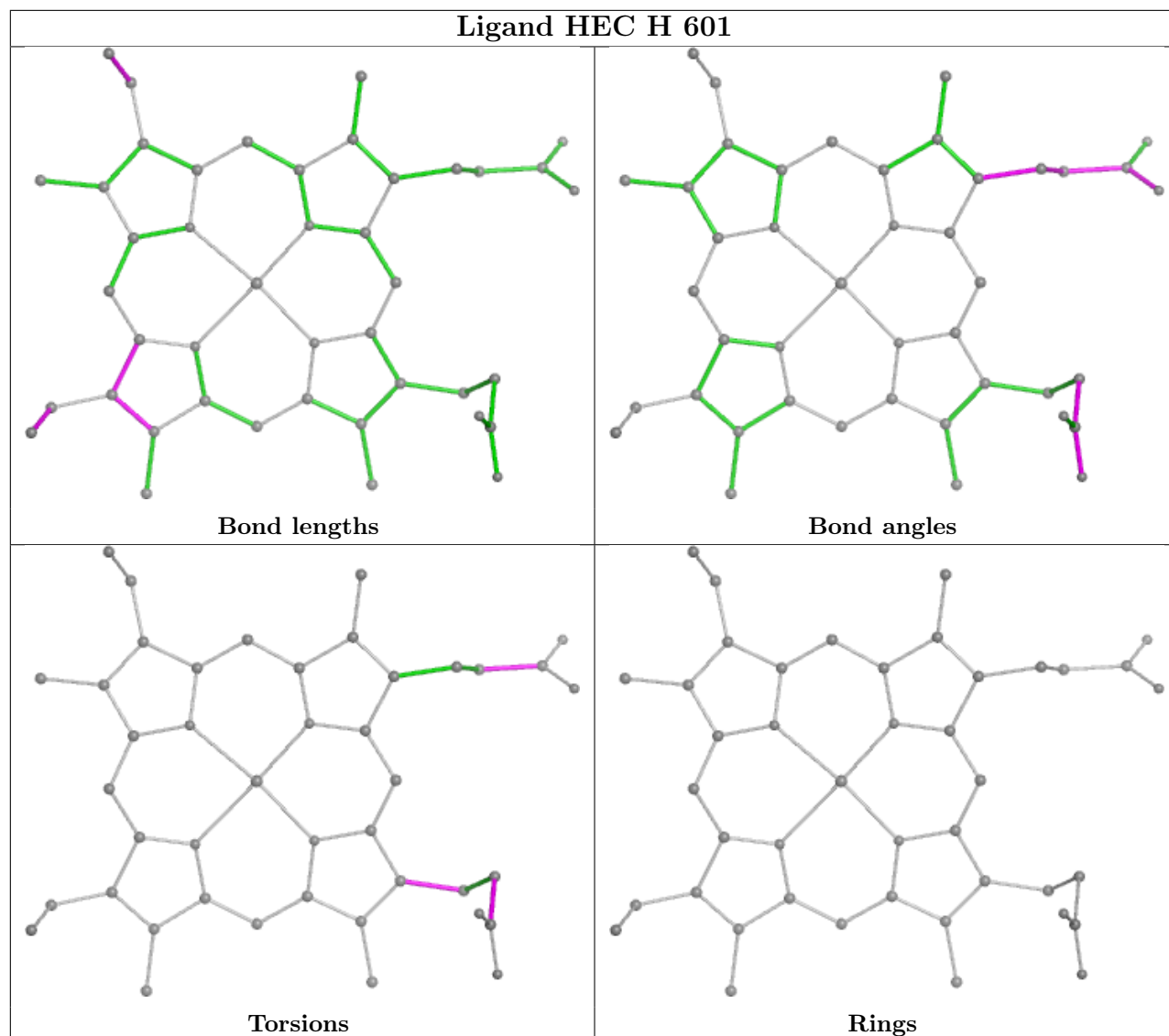
Rings

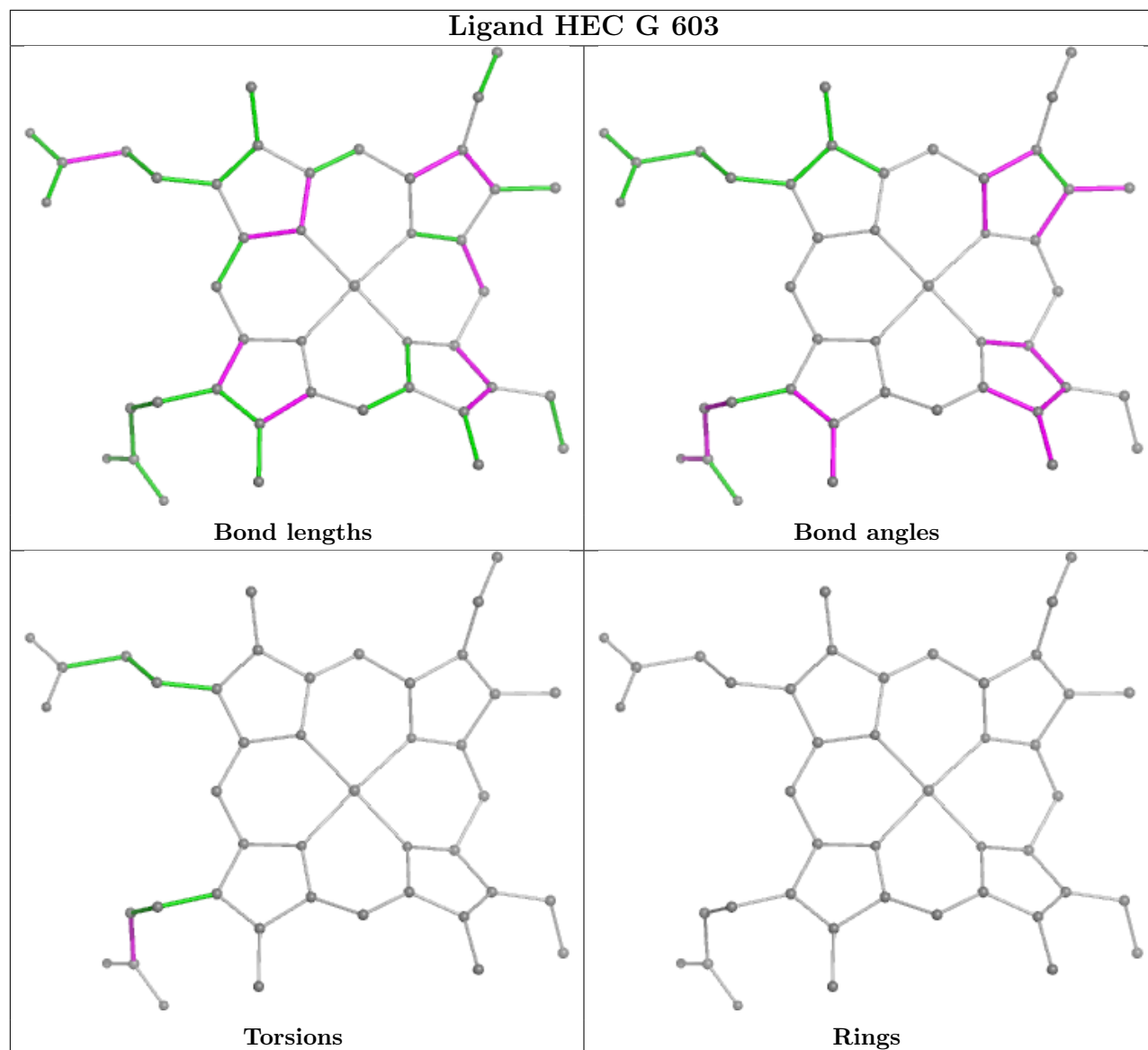


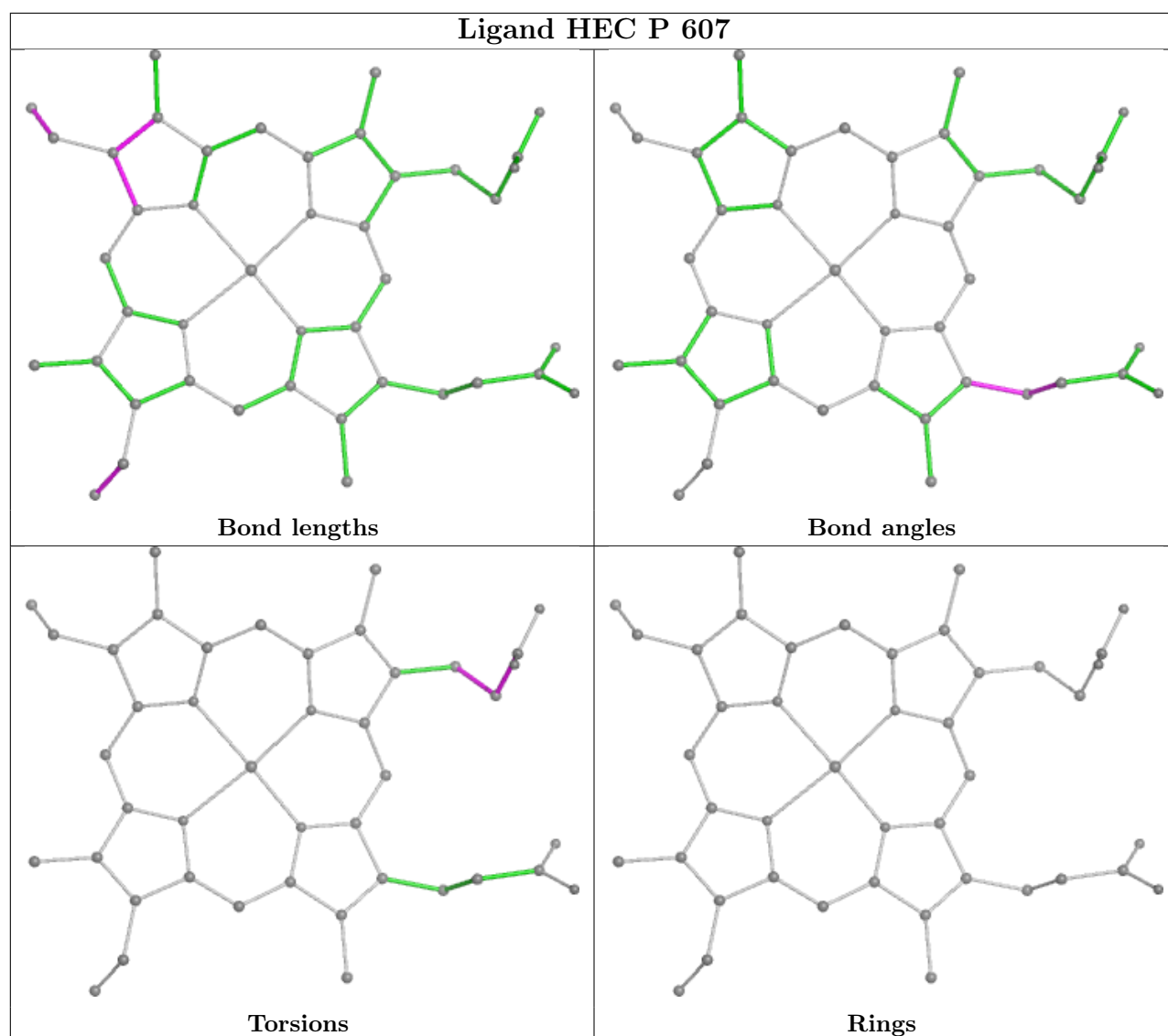


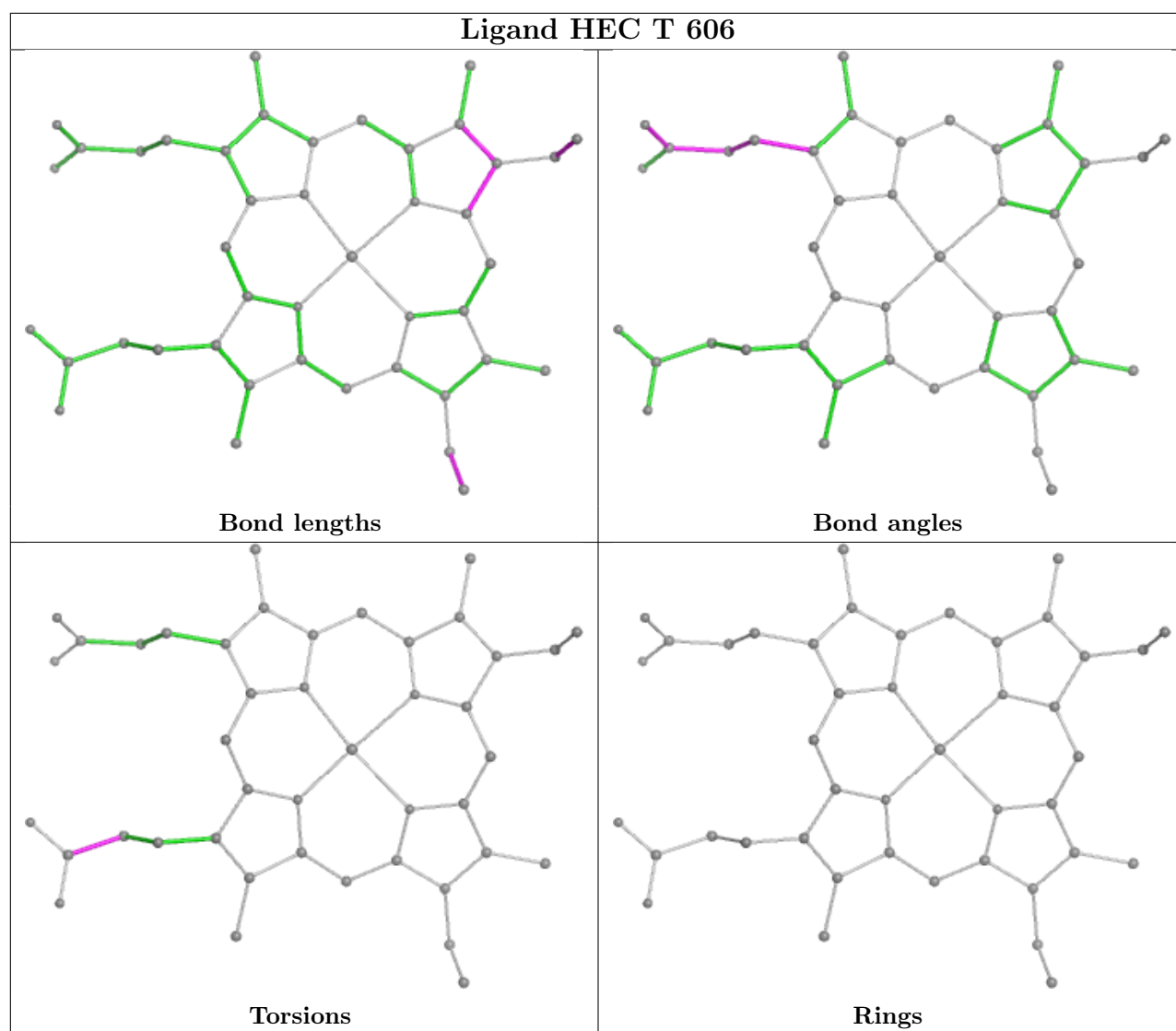


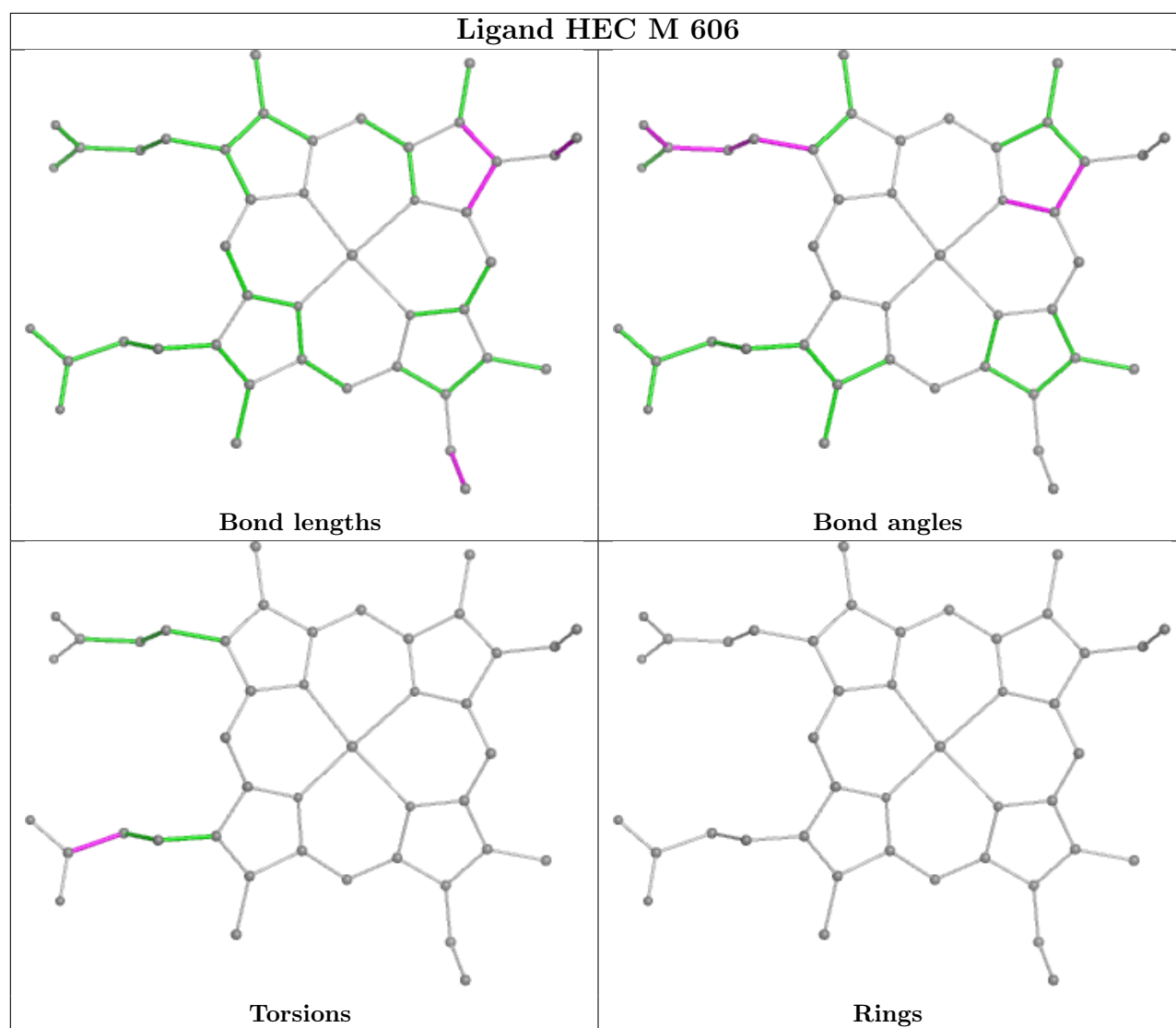


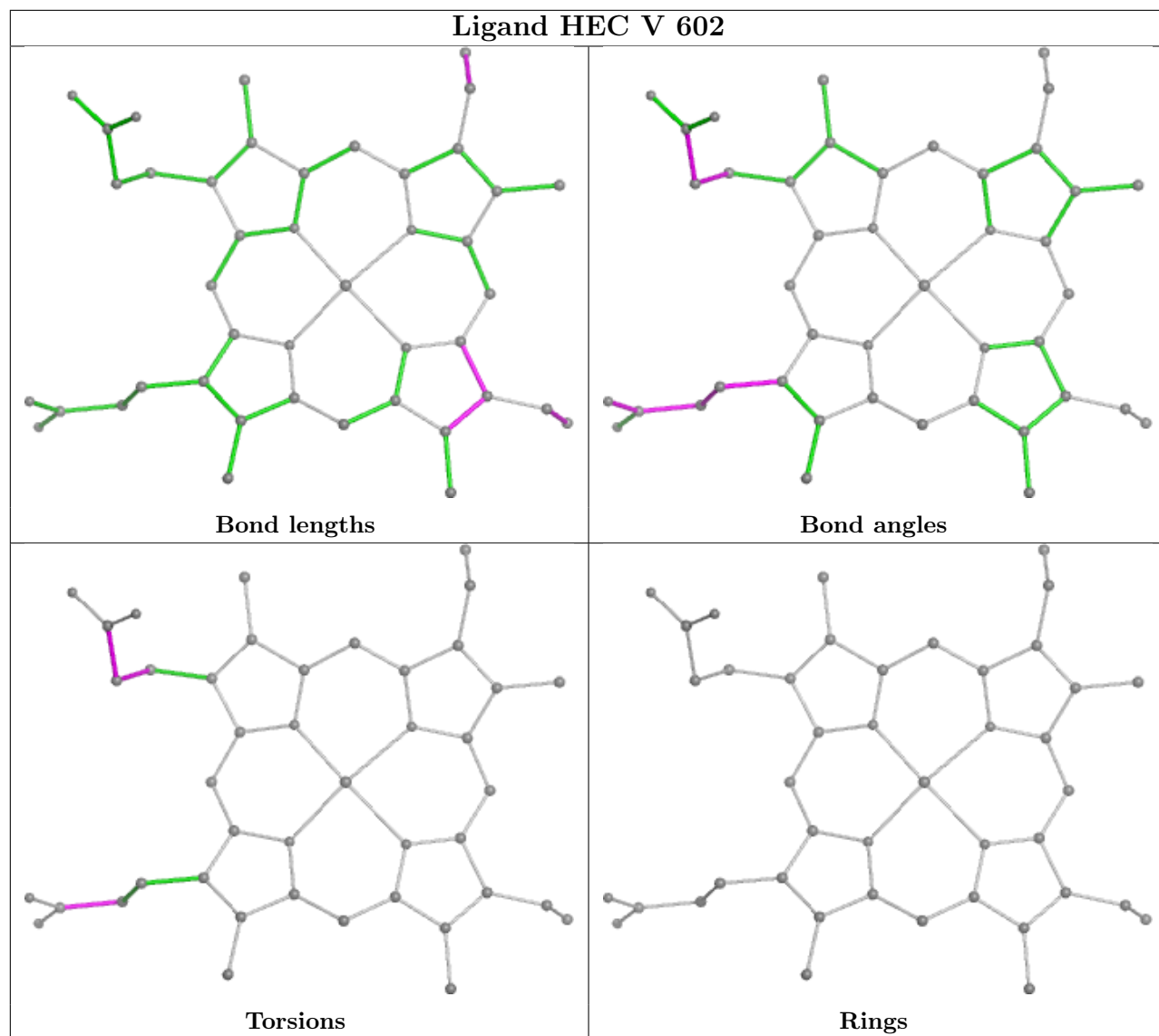


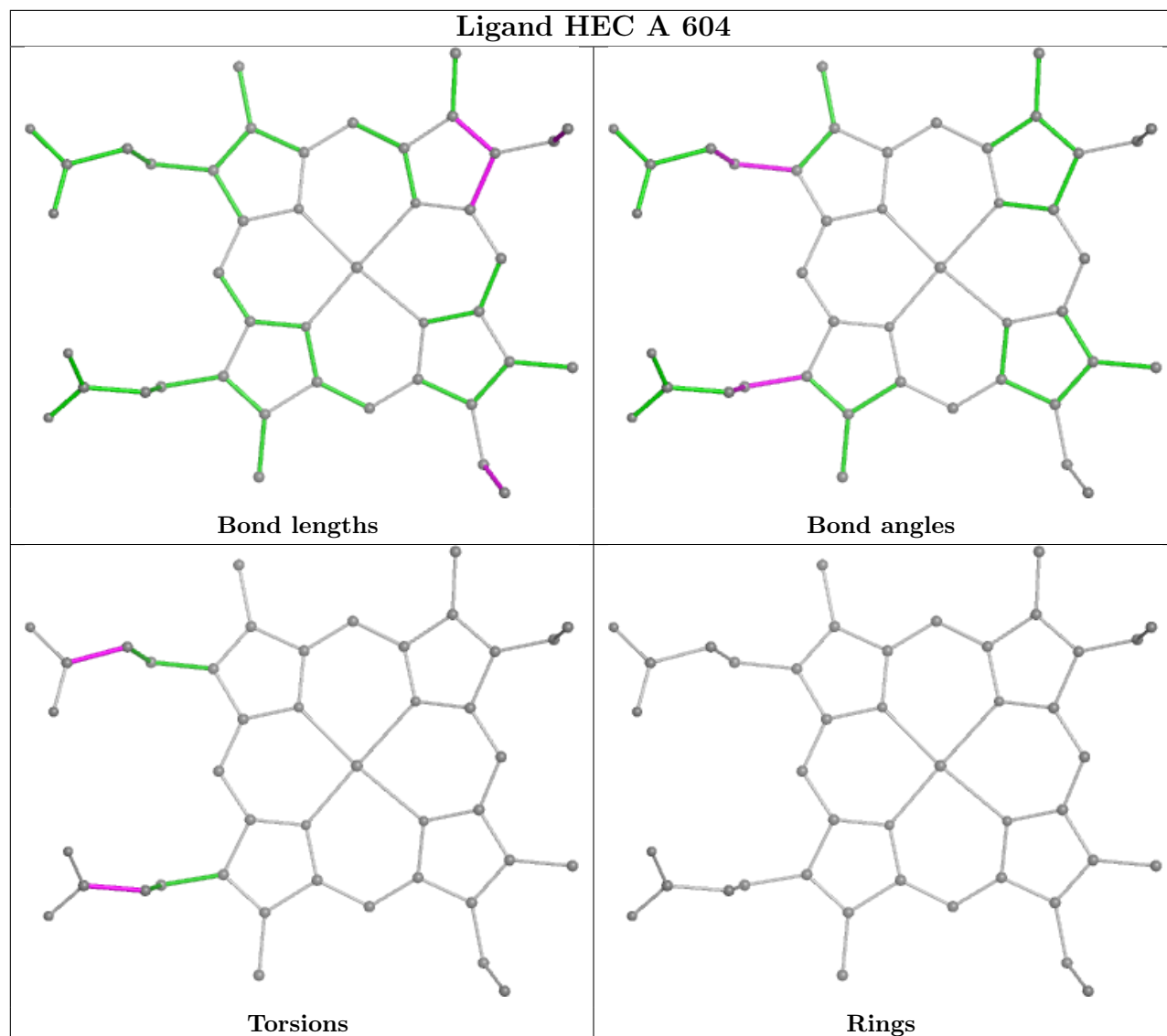


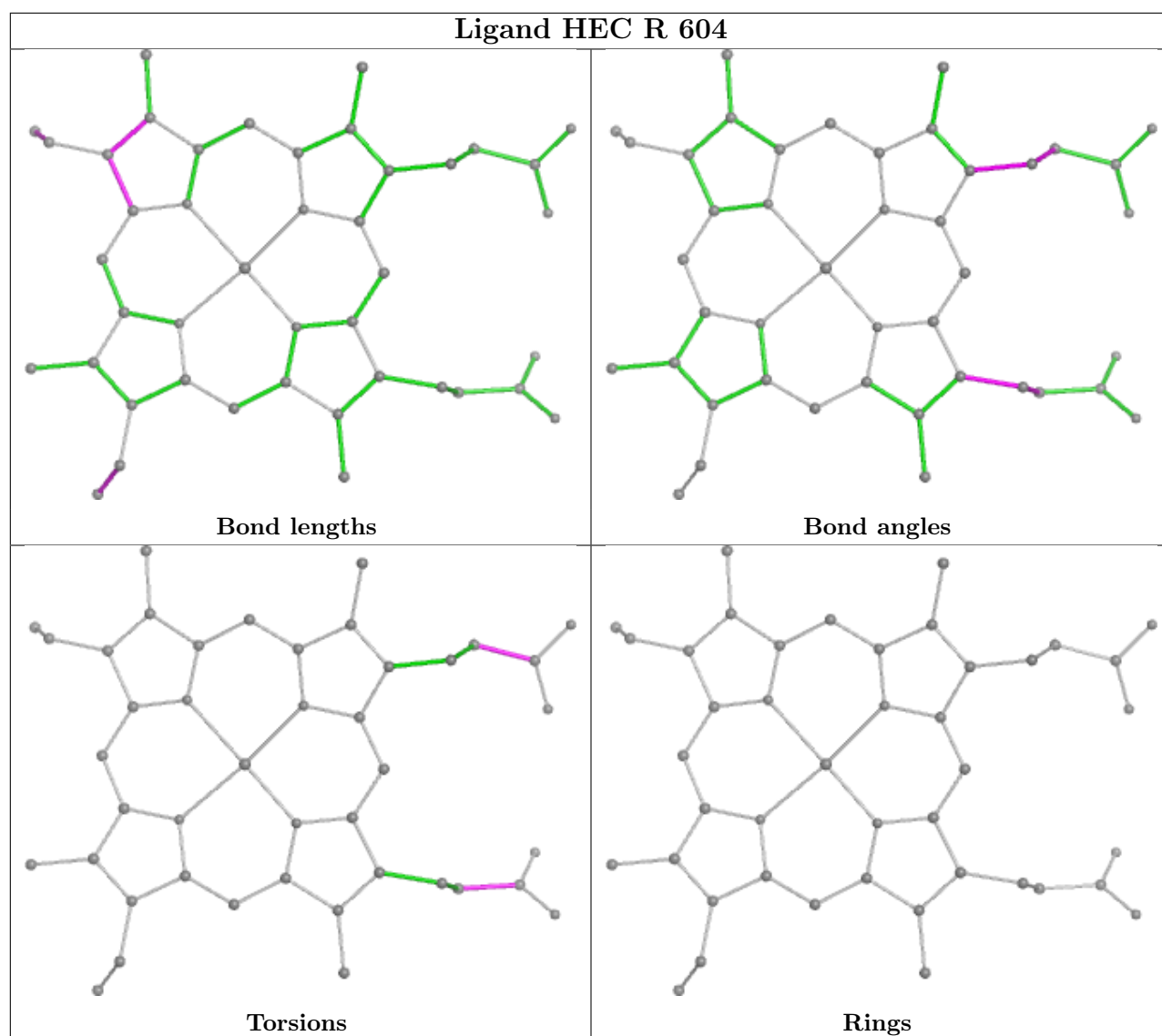


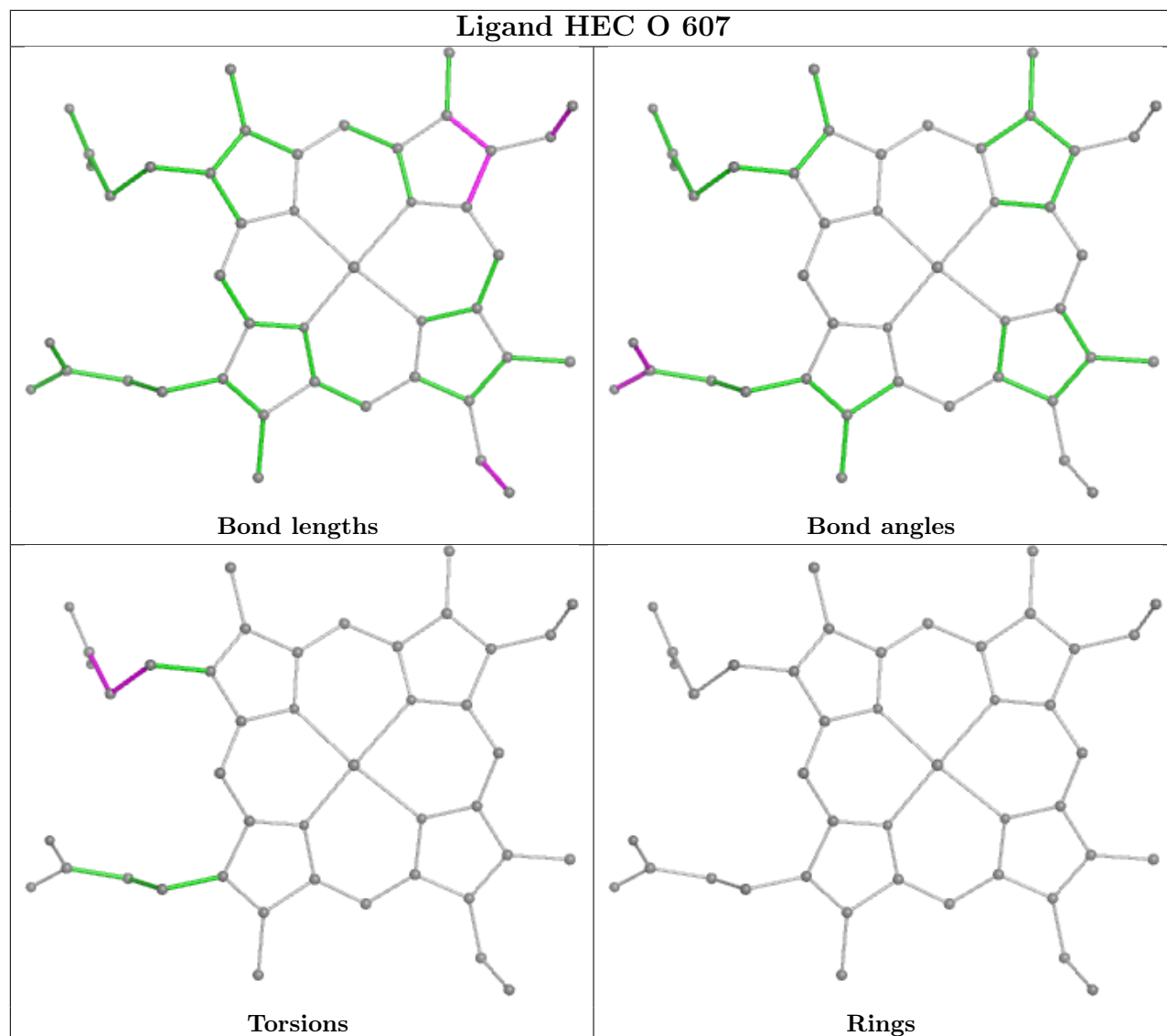


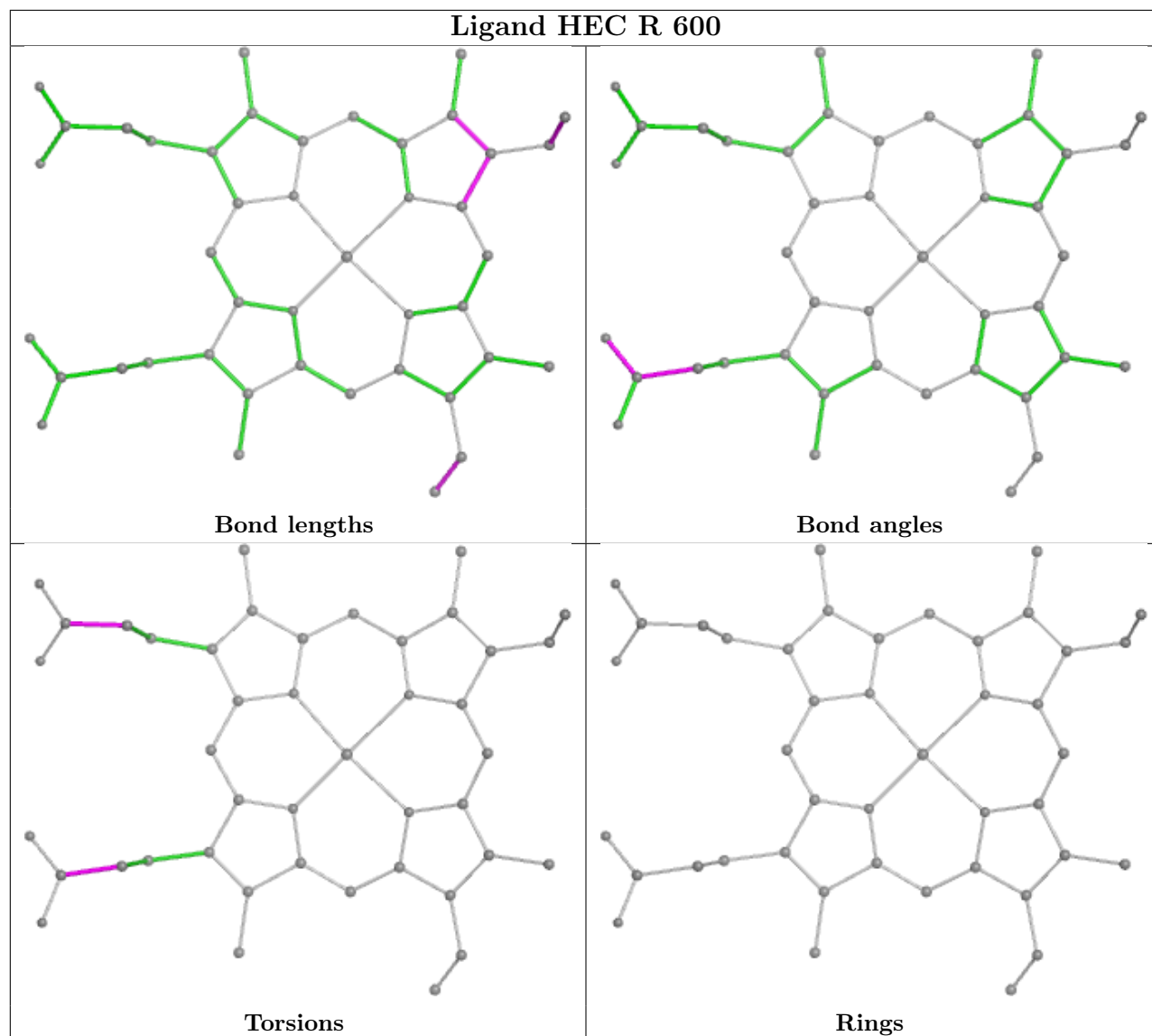


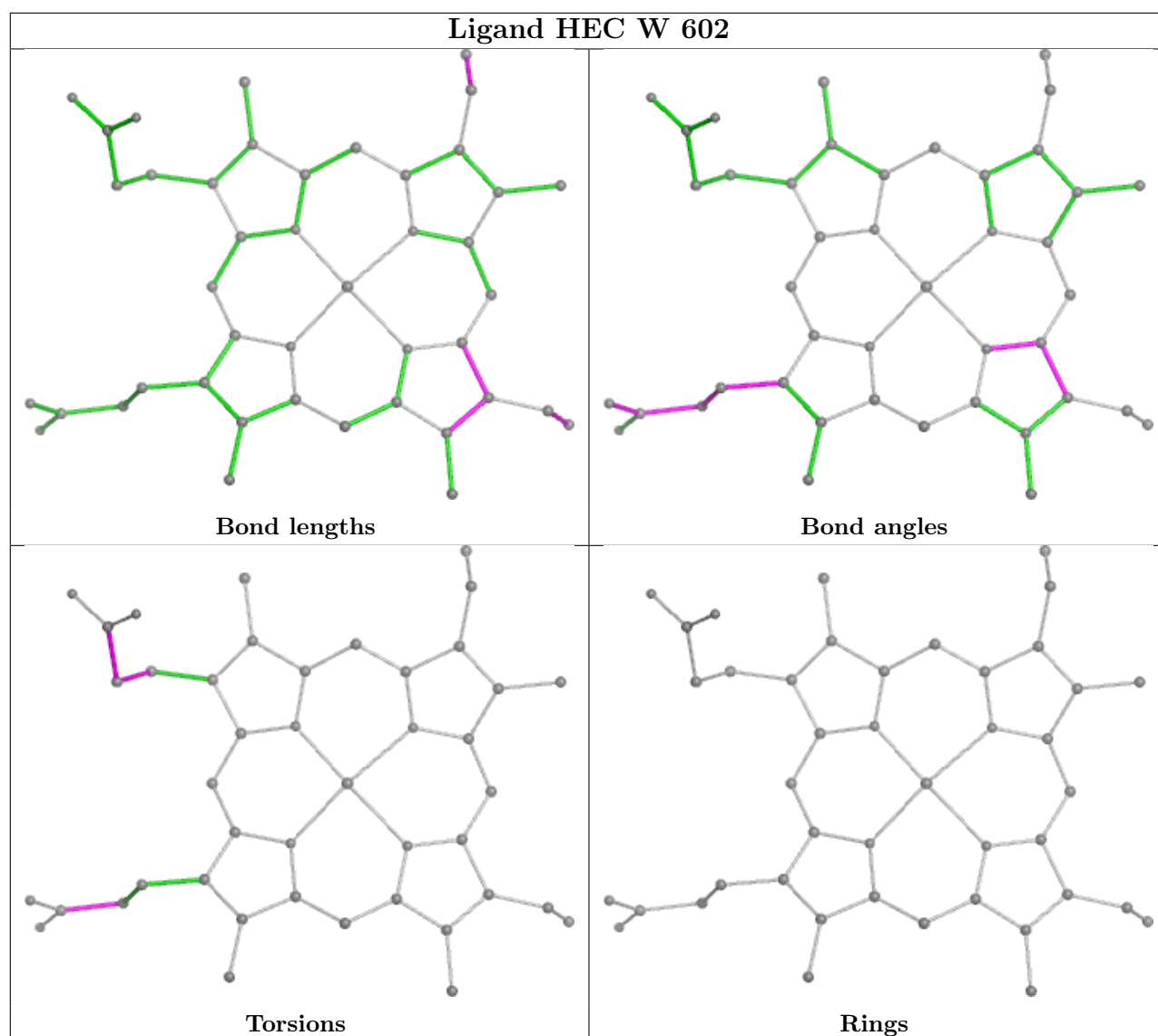


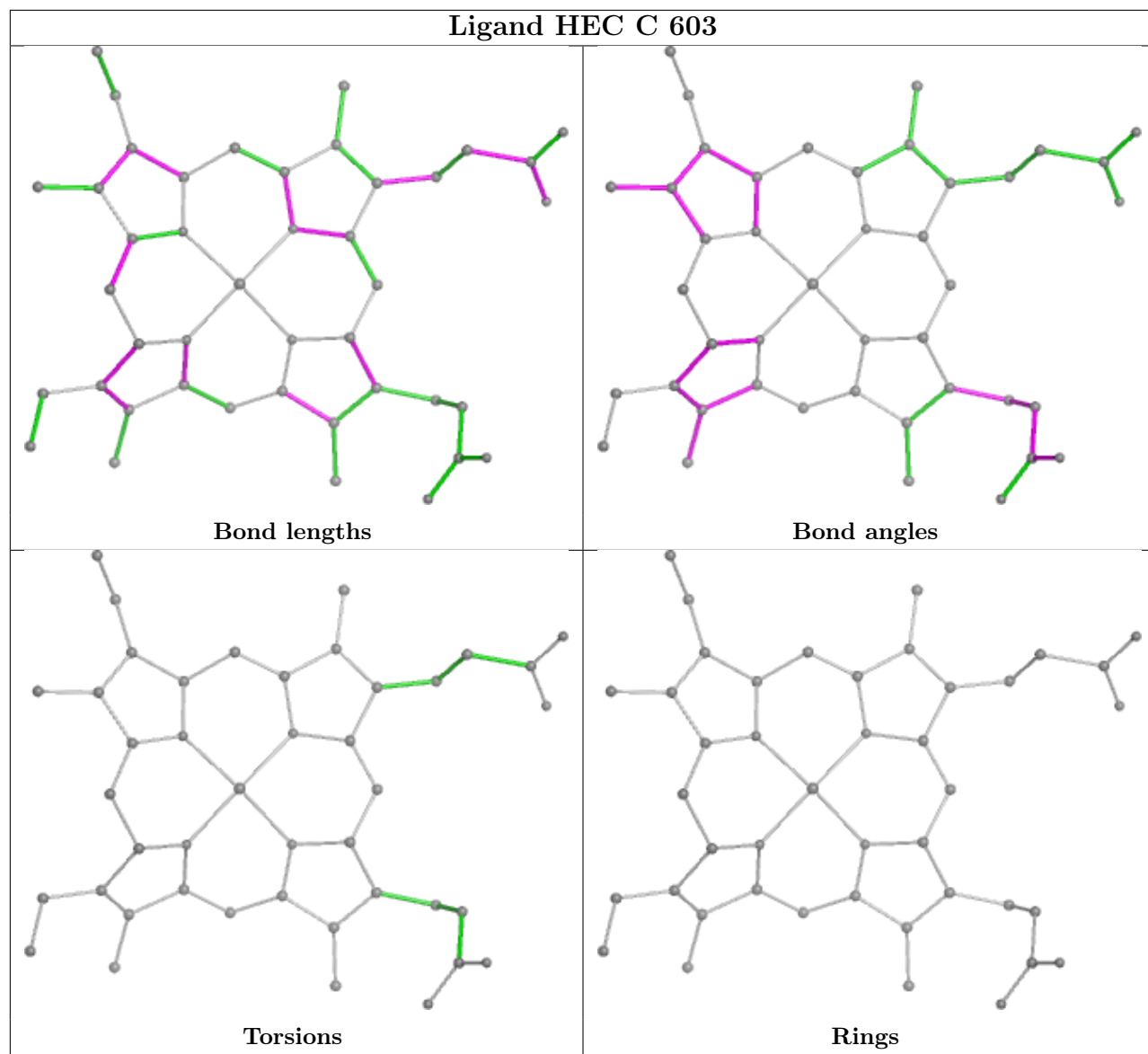


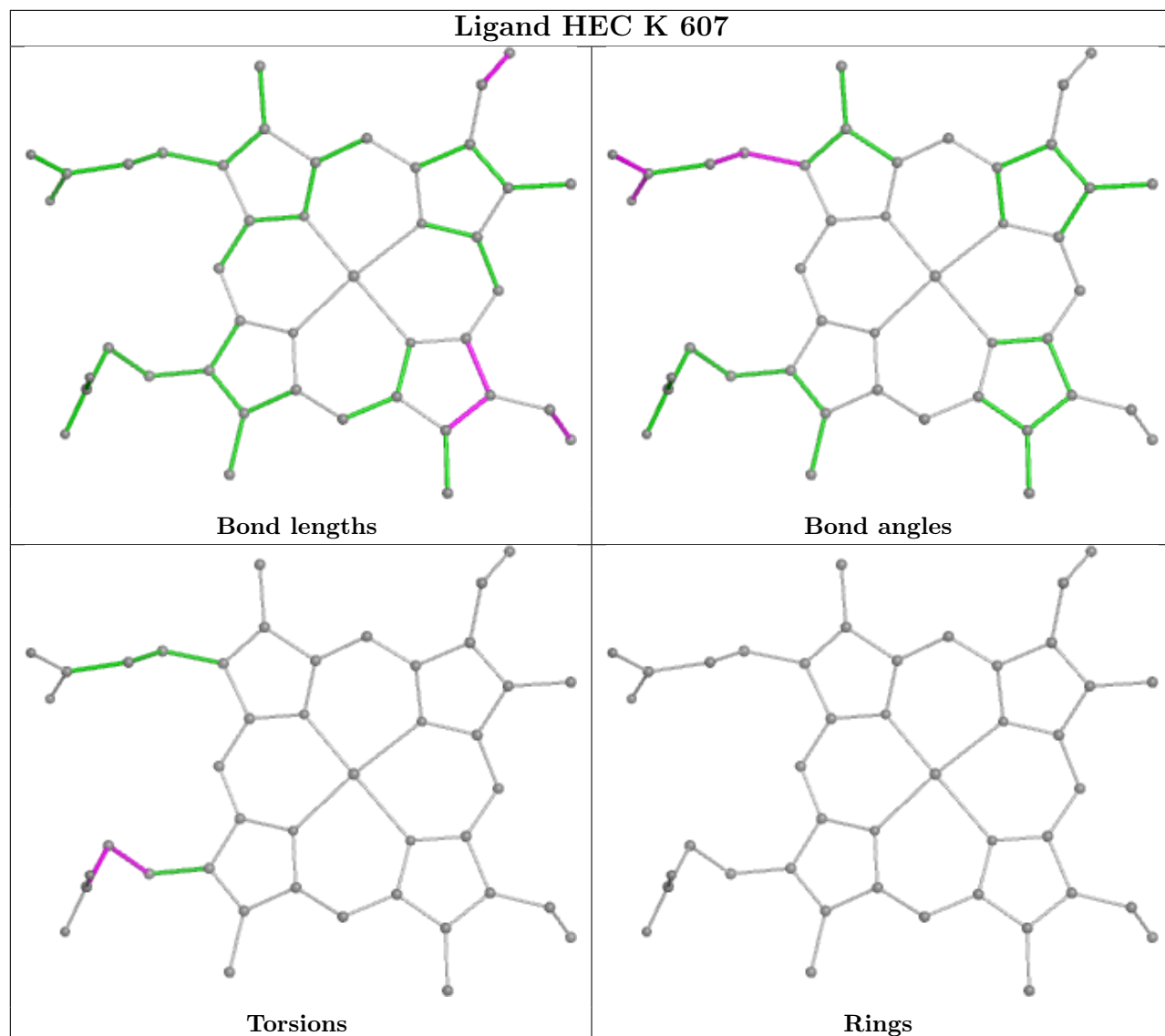


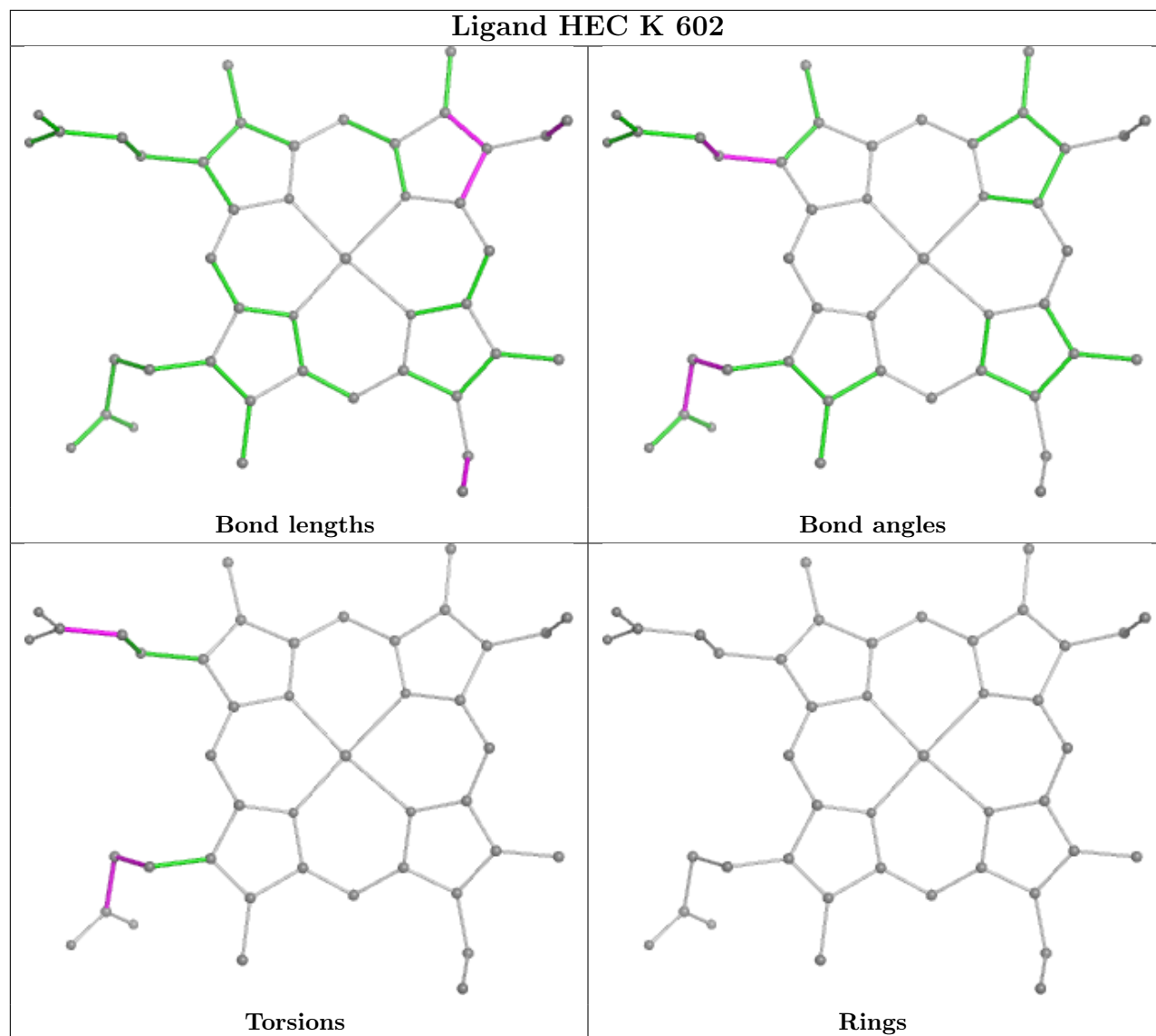


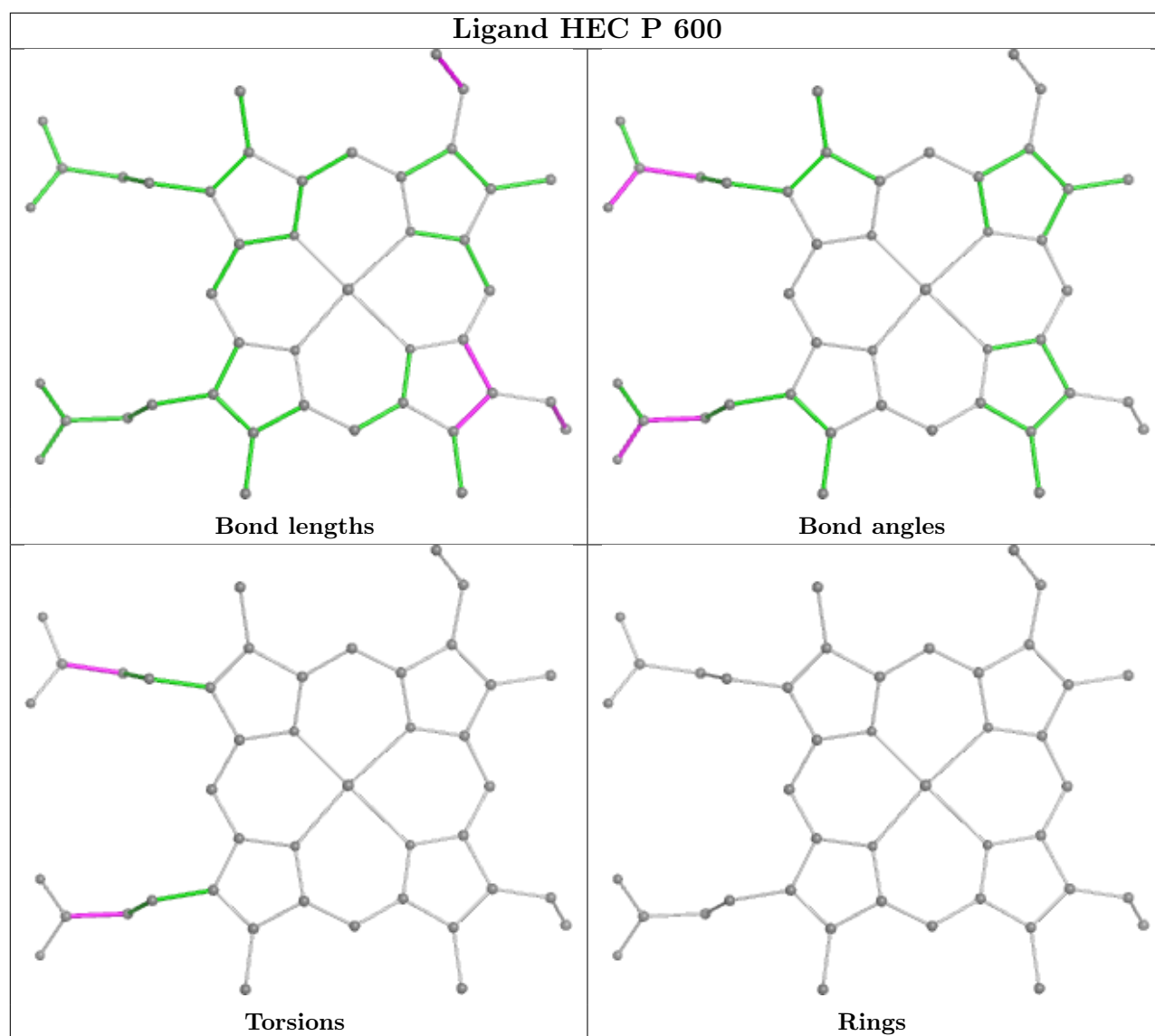


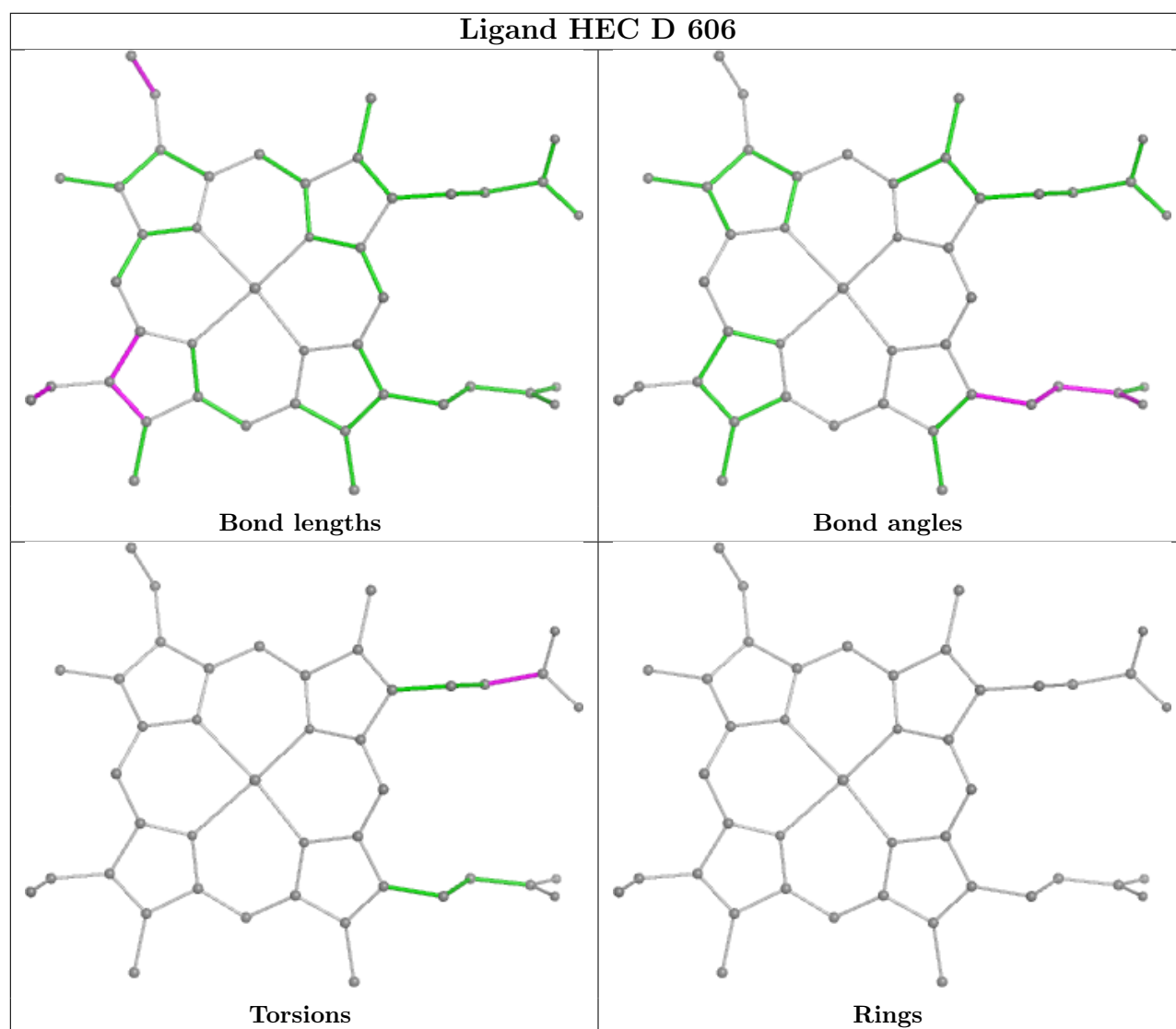


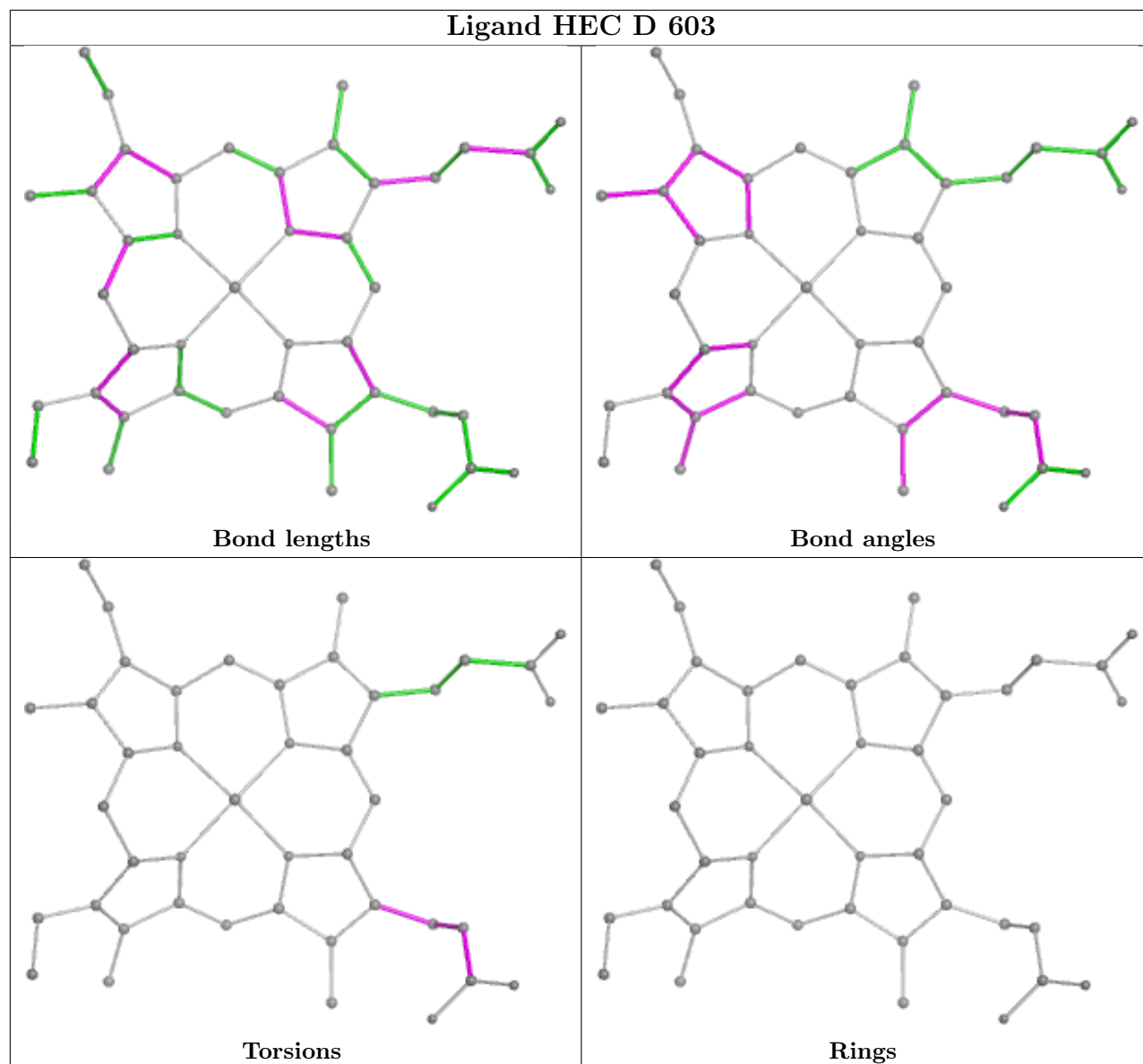




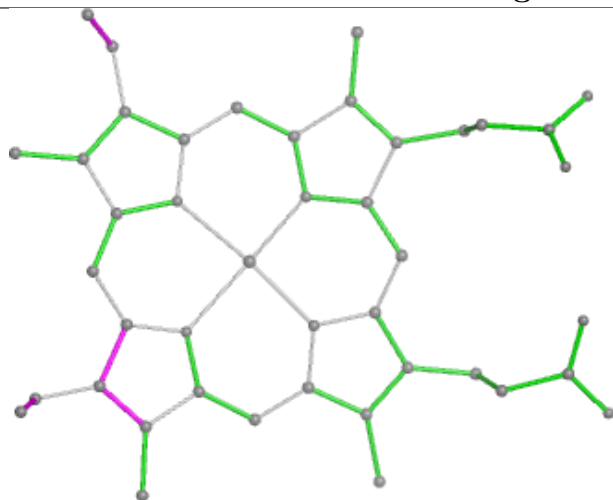




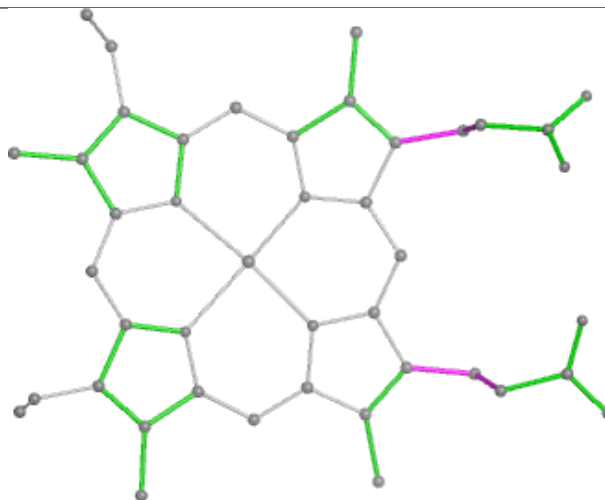




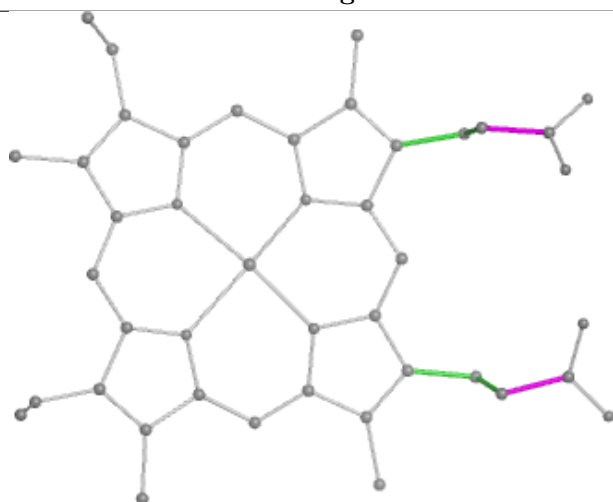
Ligand HEC P 604



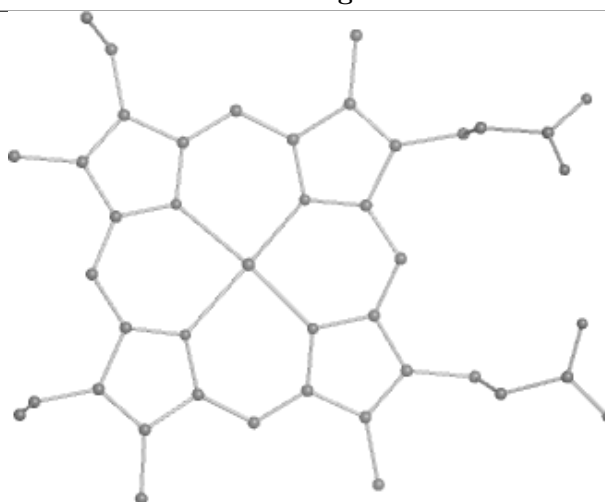
Bond lengths



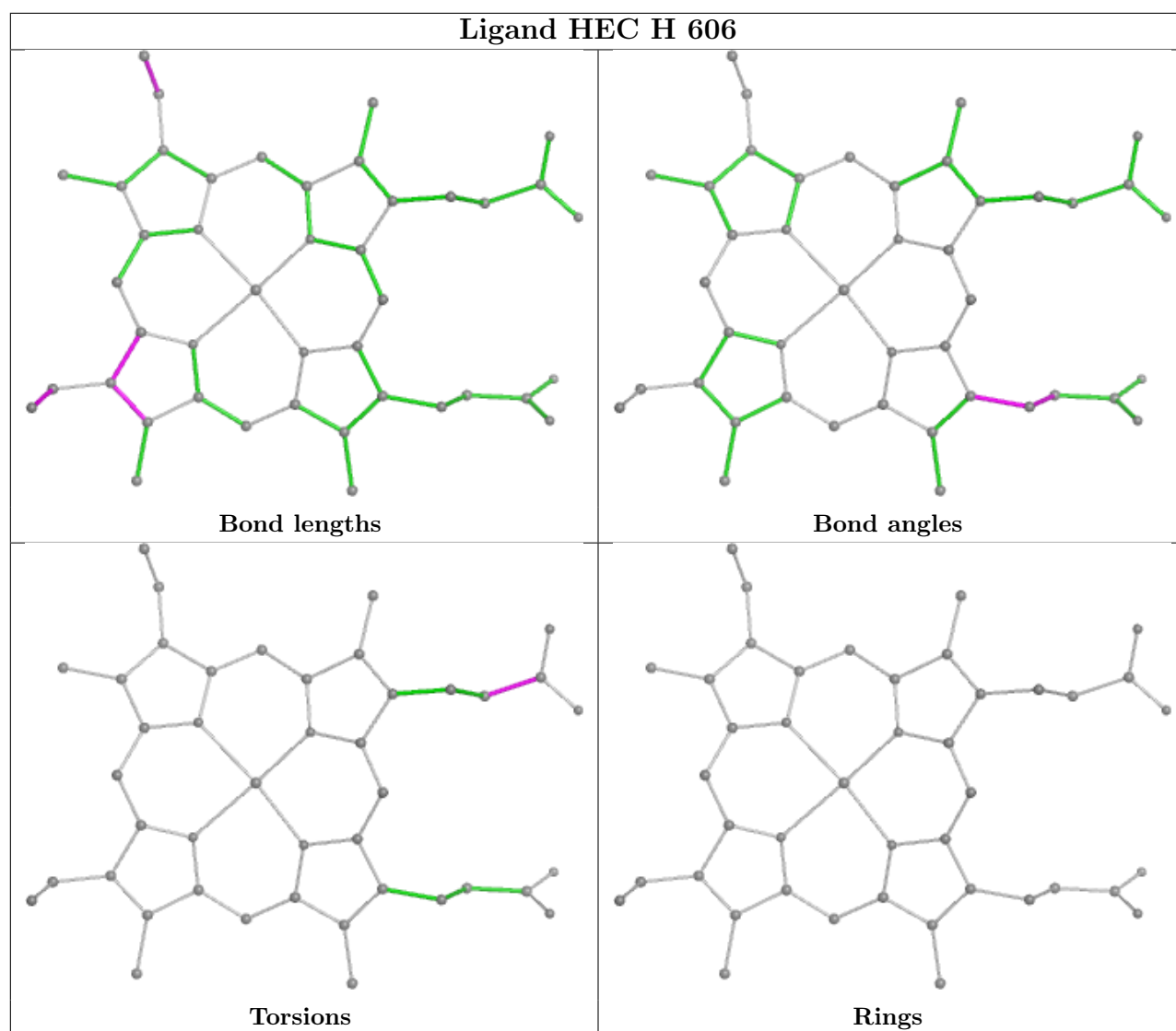
Bond angles

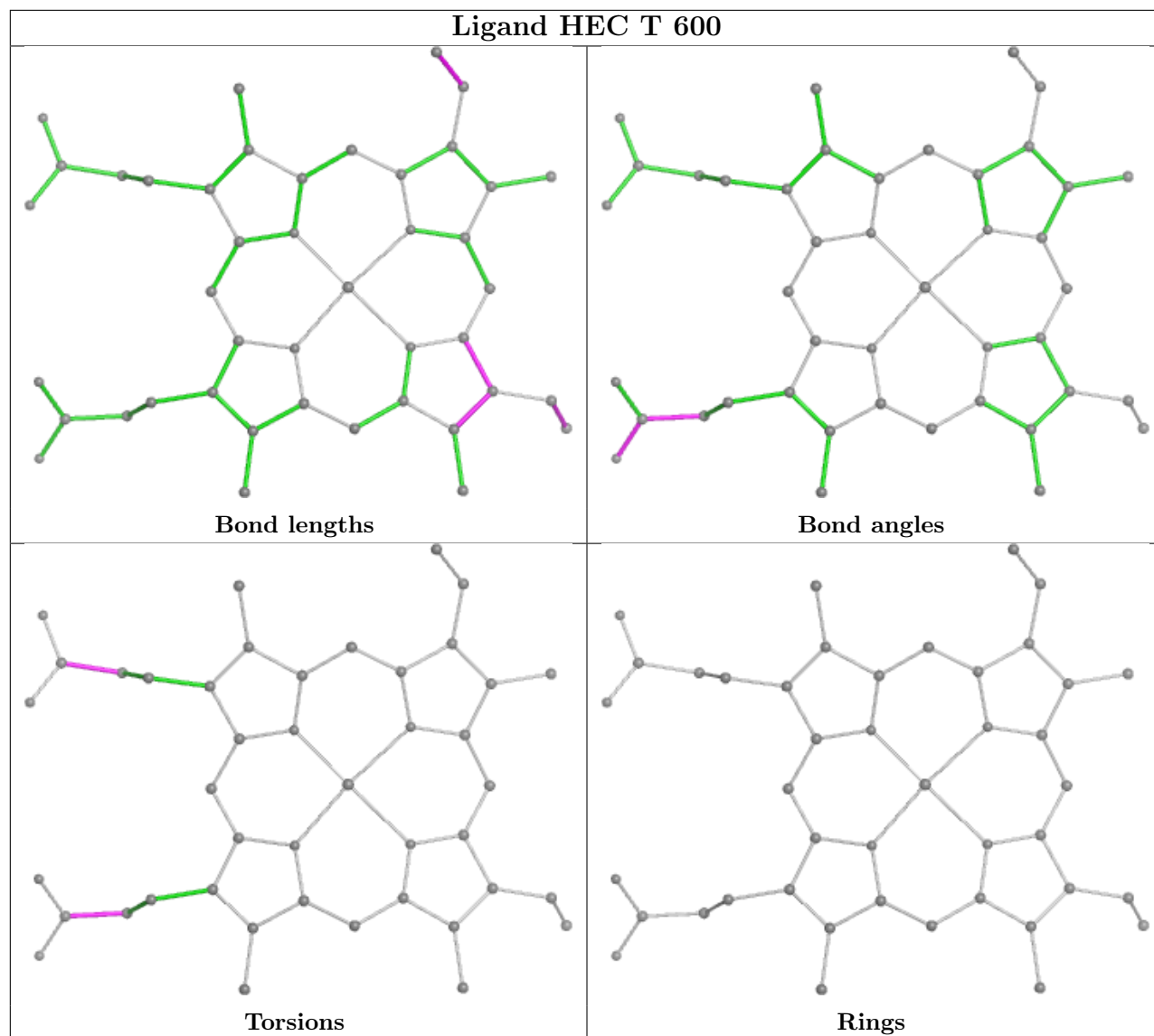


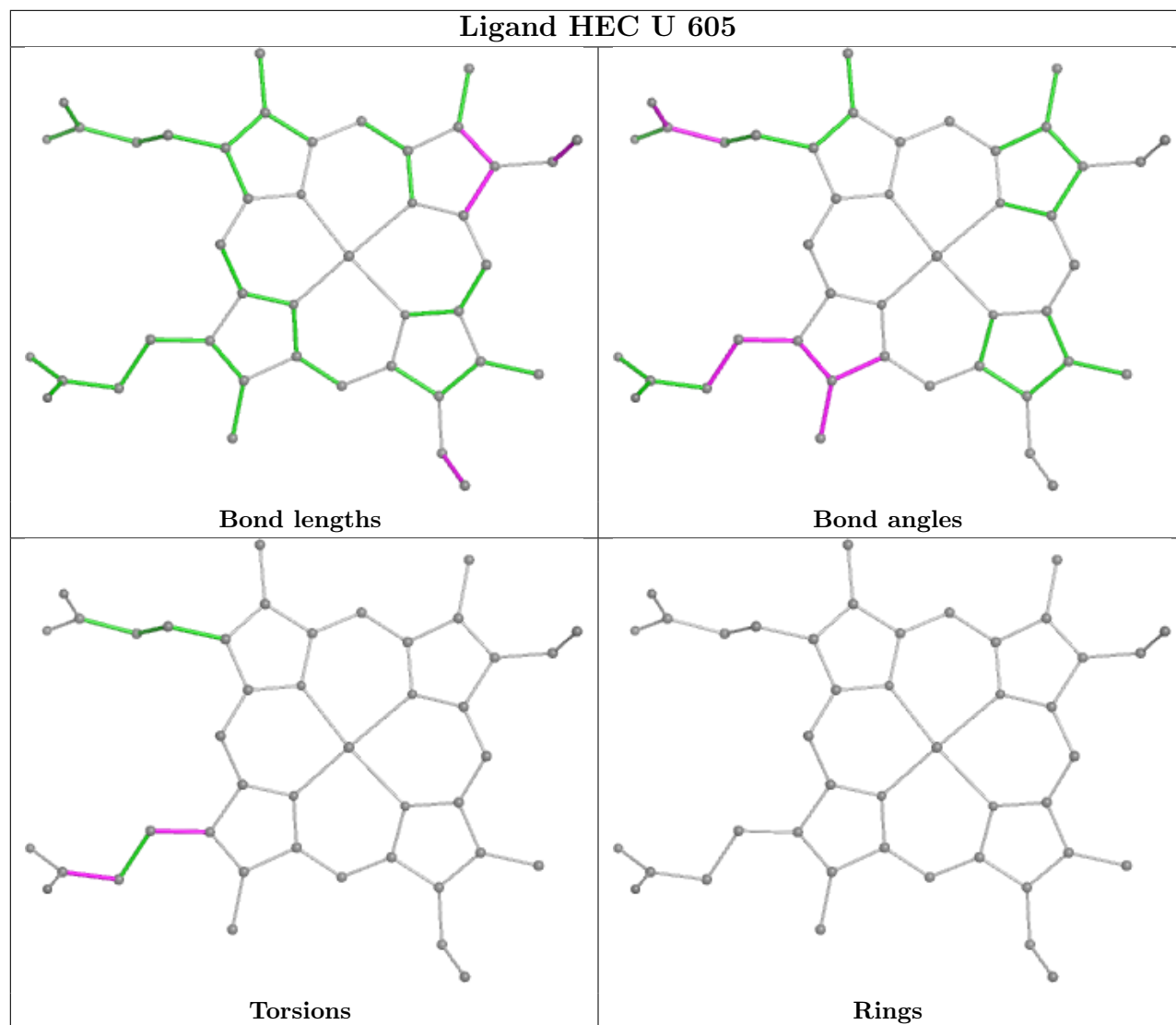
Torsions

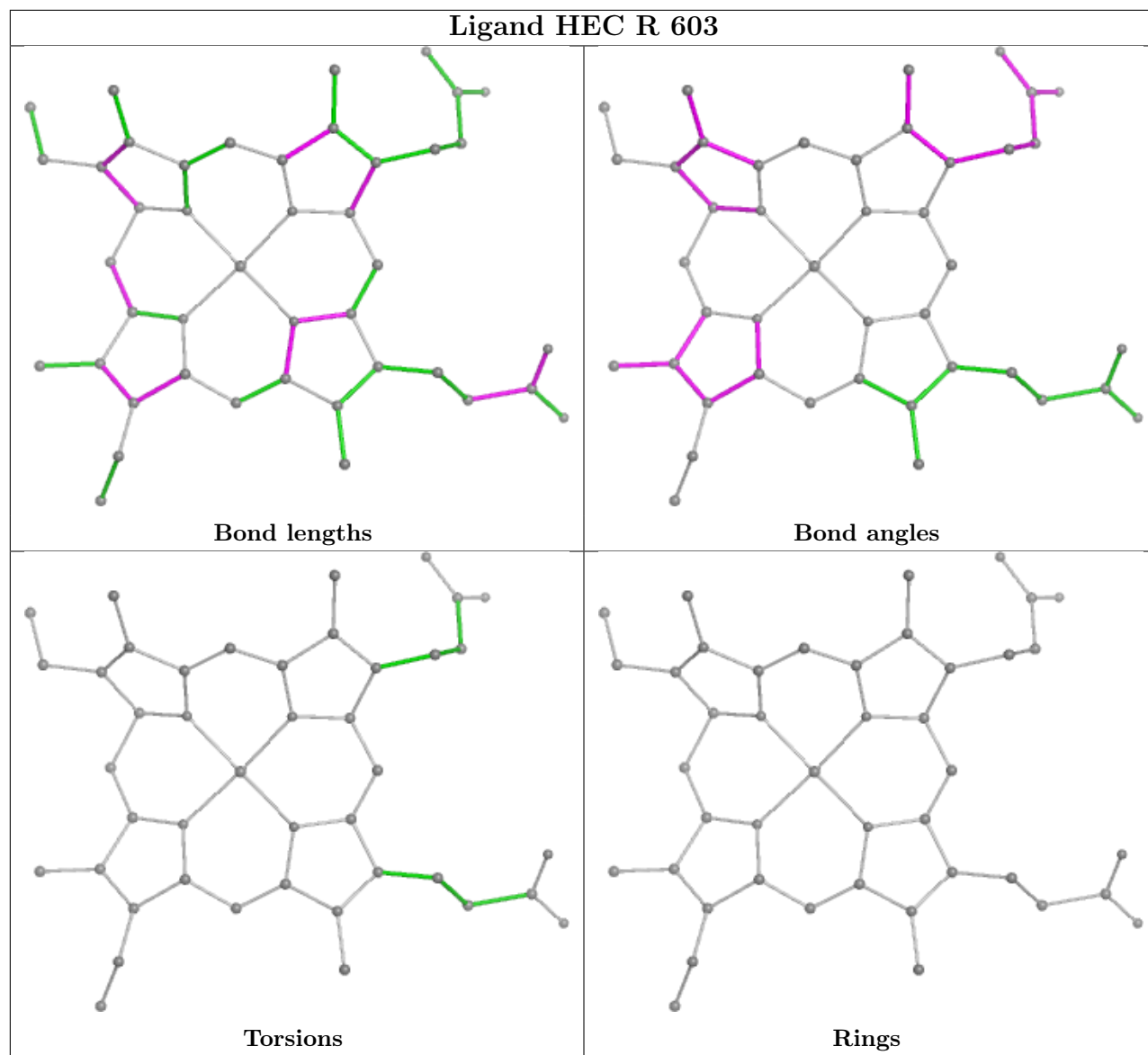


Rings

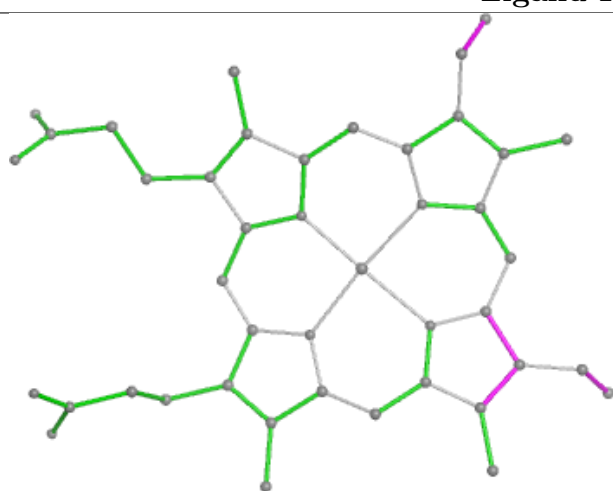




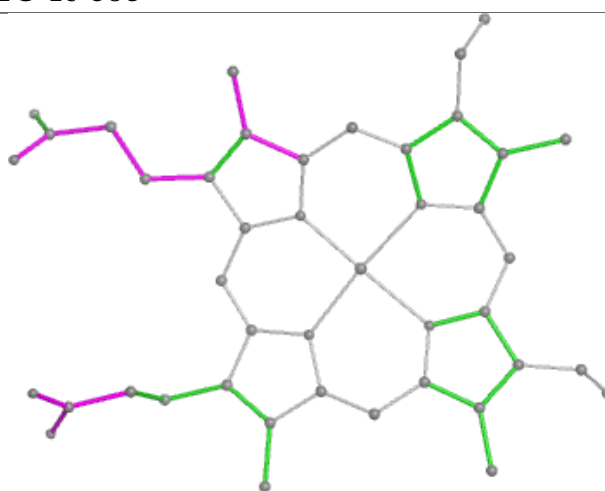




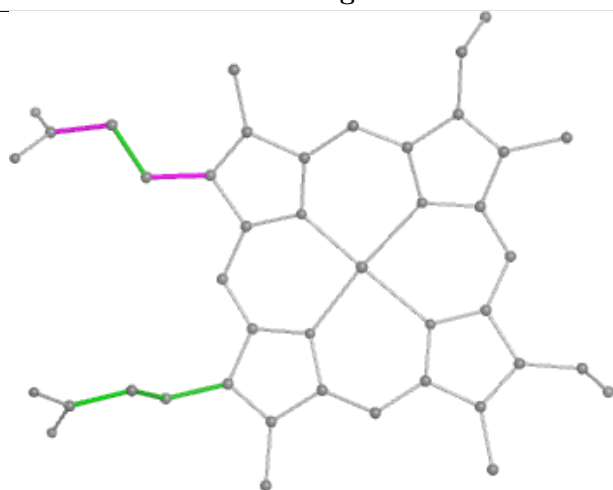
Ligand HEC R 605



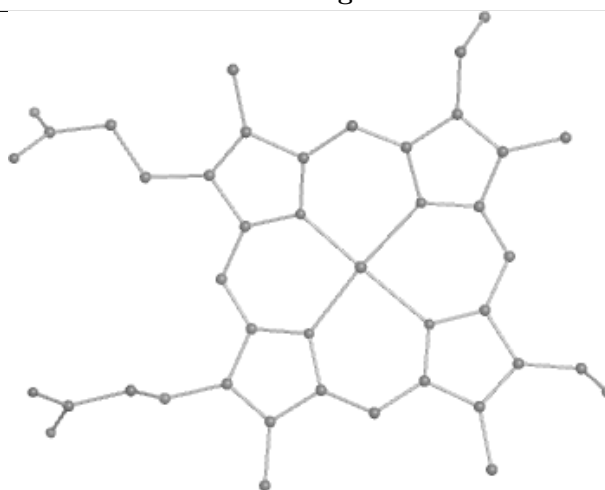
Bond lengths



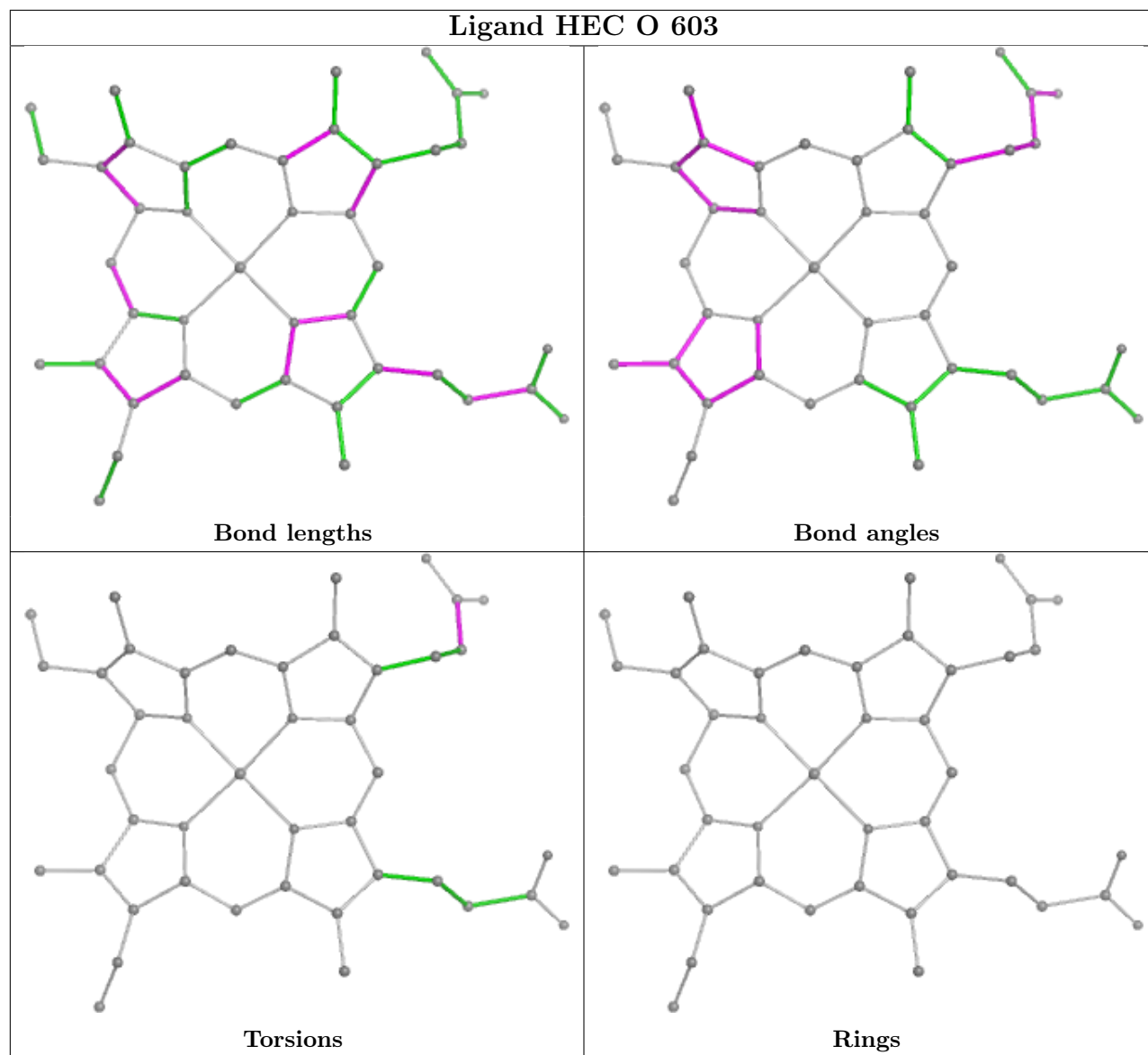
Bond angles

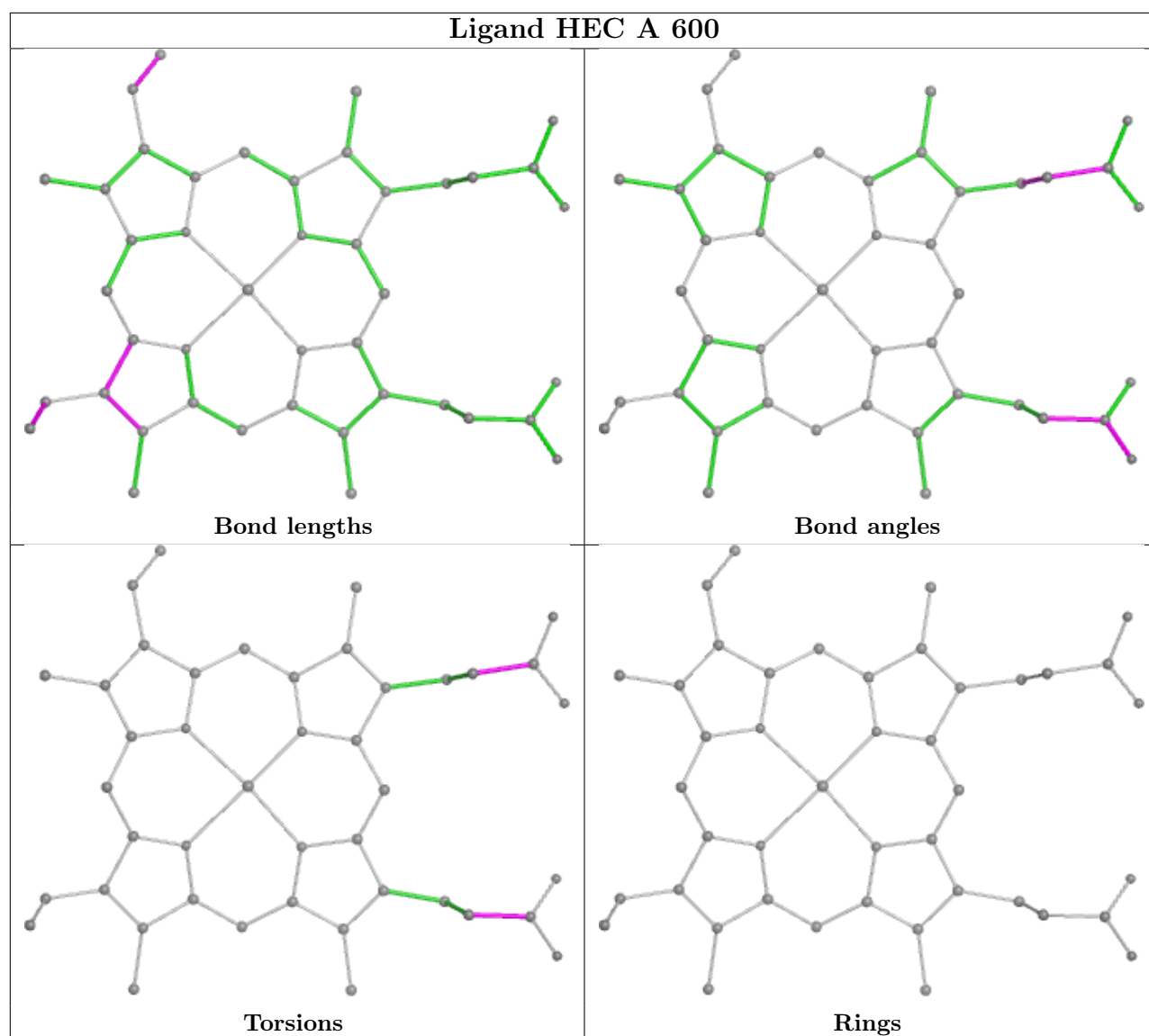


Torsions

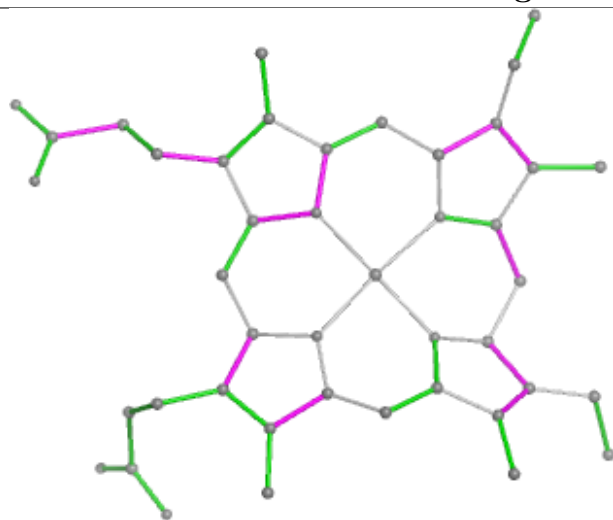


Rings

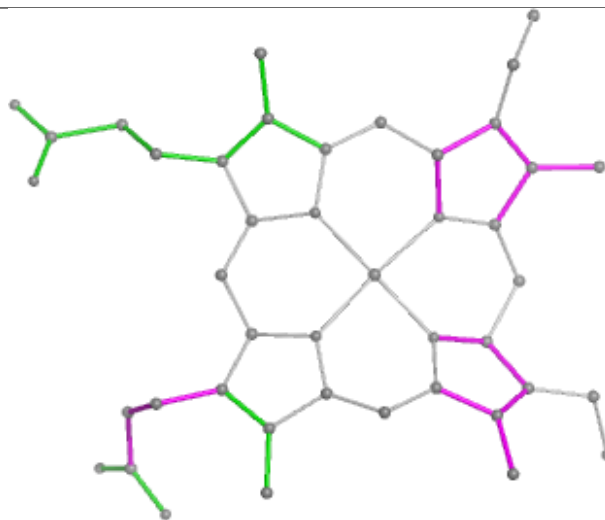




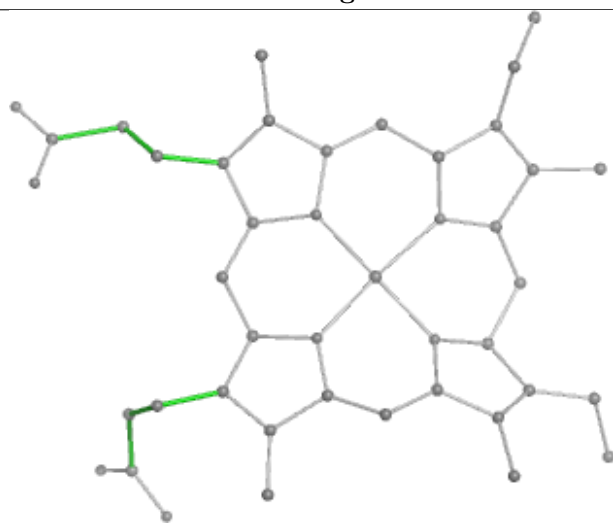
Ligand HEC F 603



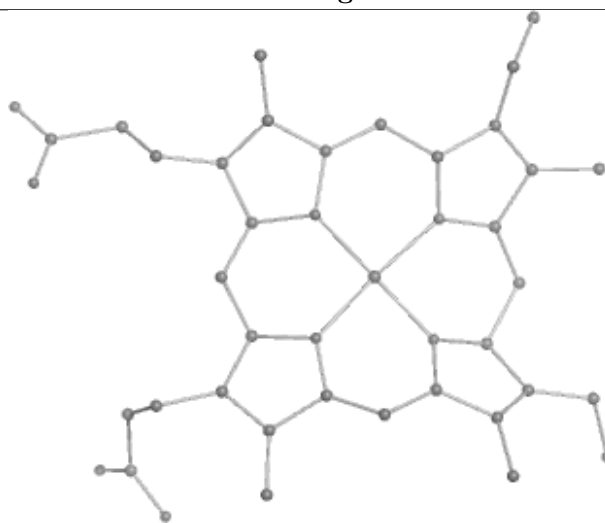
Bond lengths



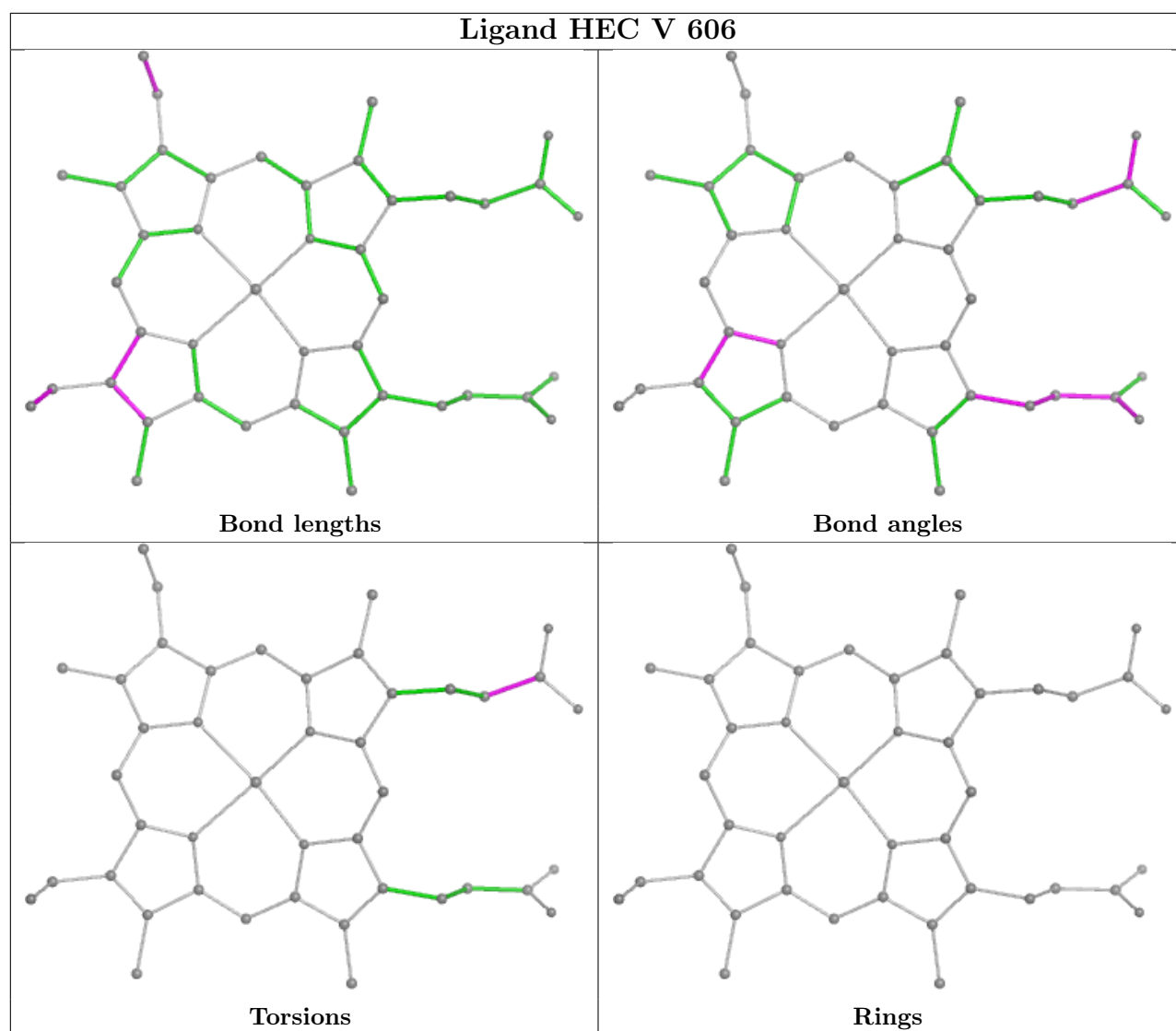
Bond angles



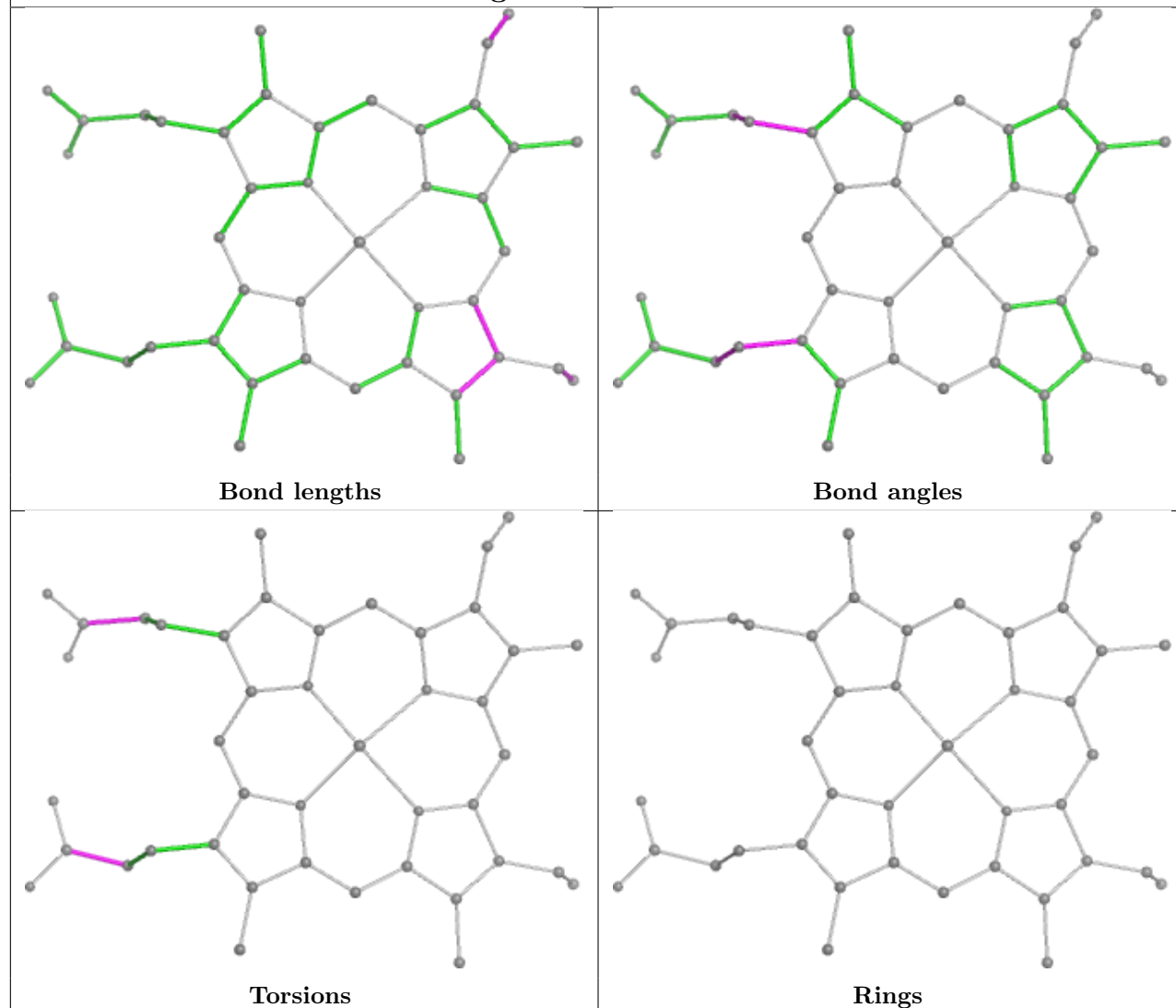
Torsions

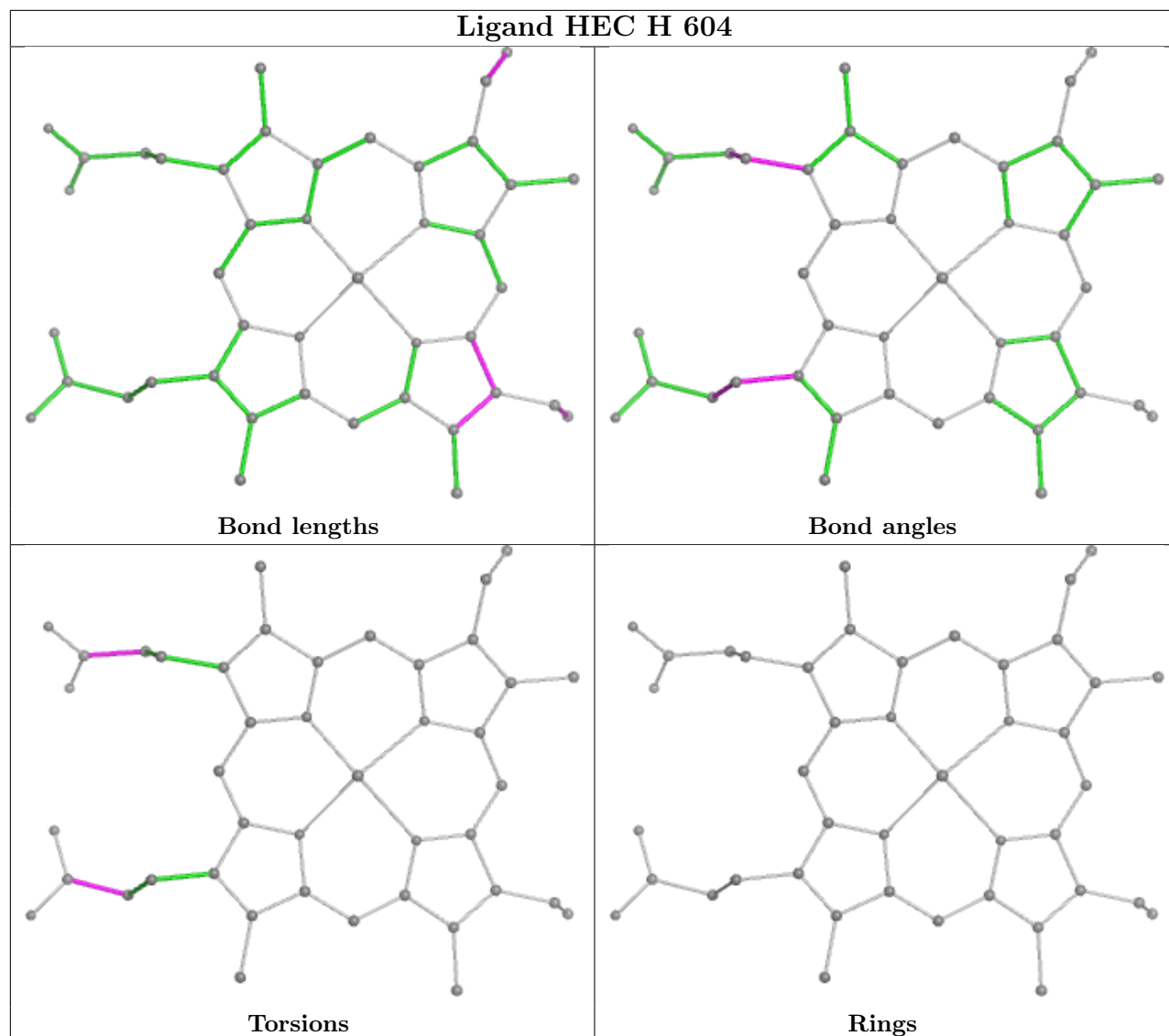


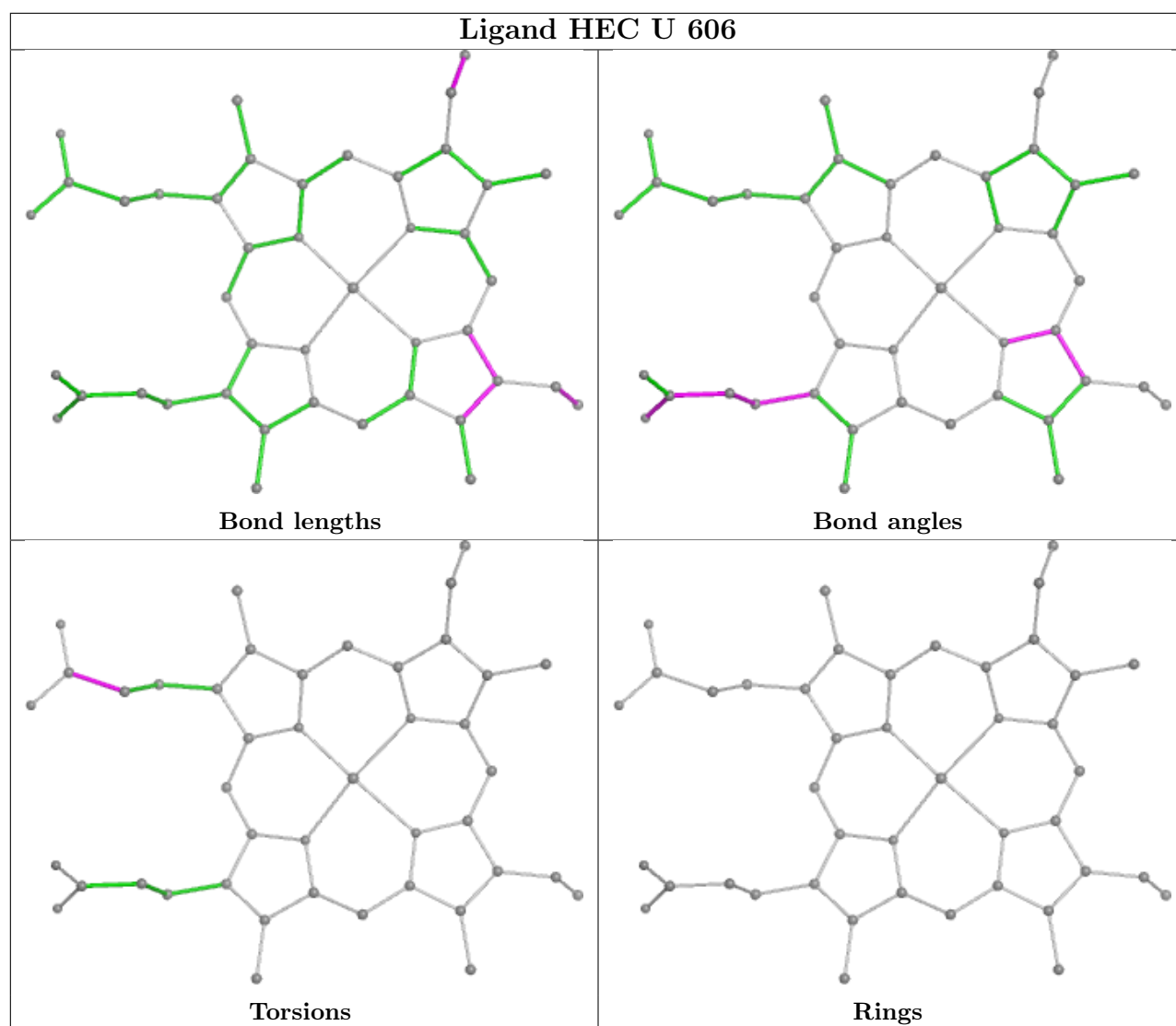
Rings



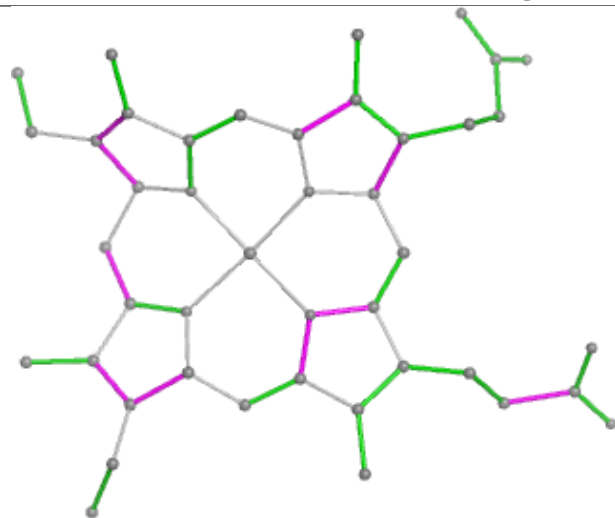
Ligand HEC F 604



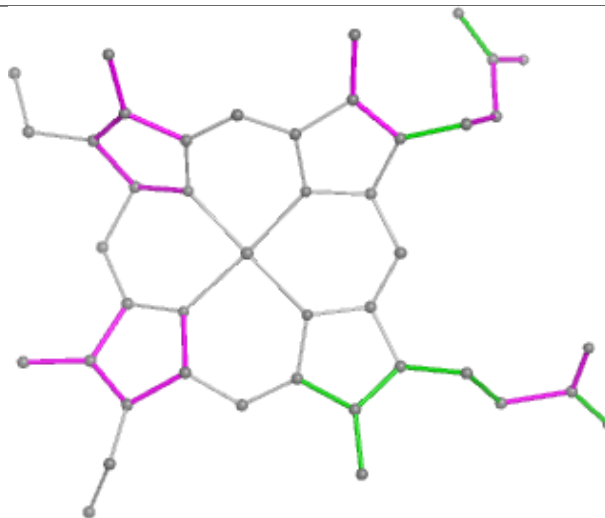




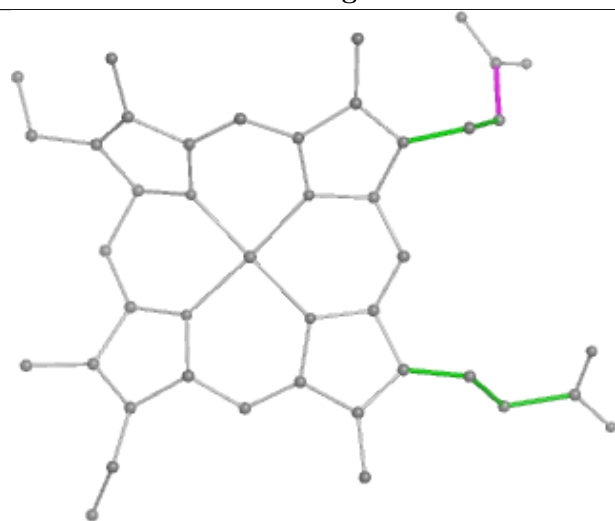
Ligand HEC J 603



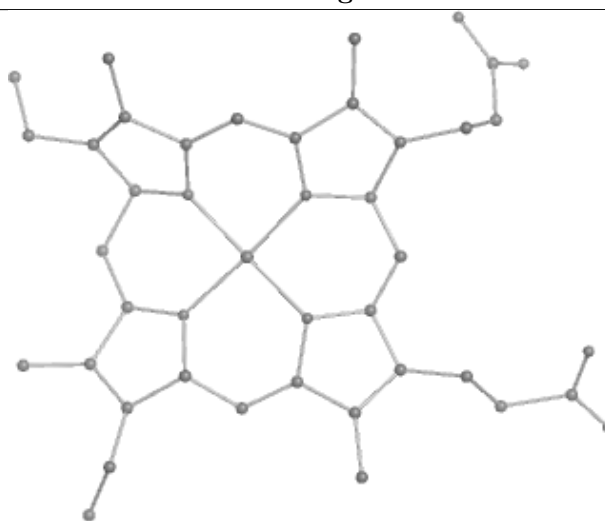
Bond lengths



Bond angles

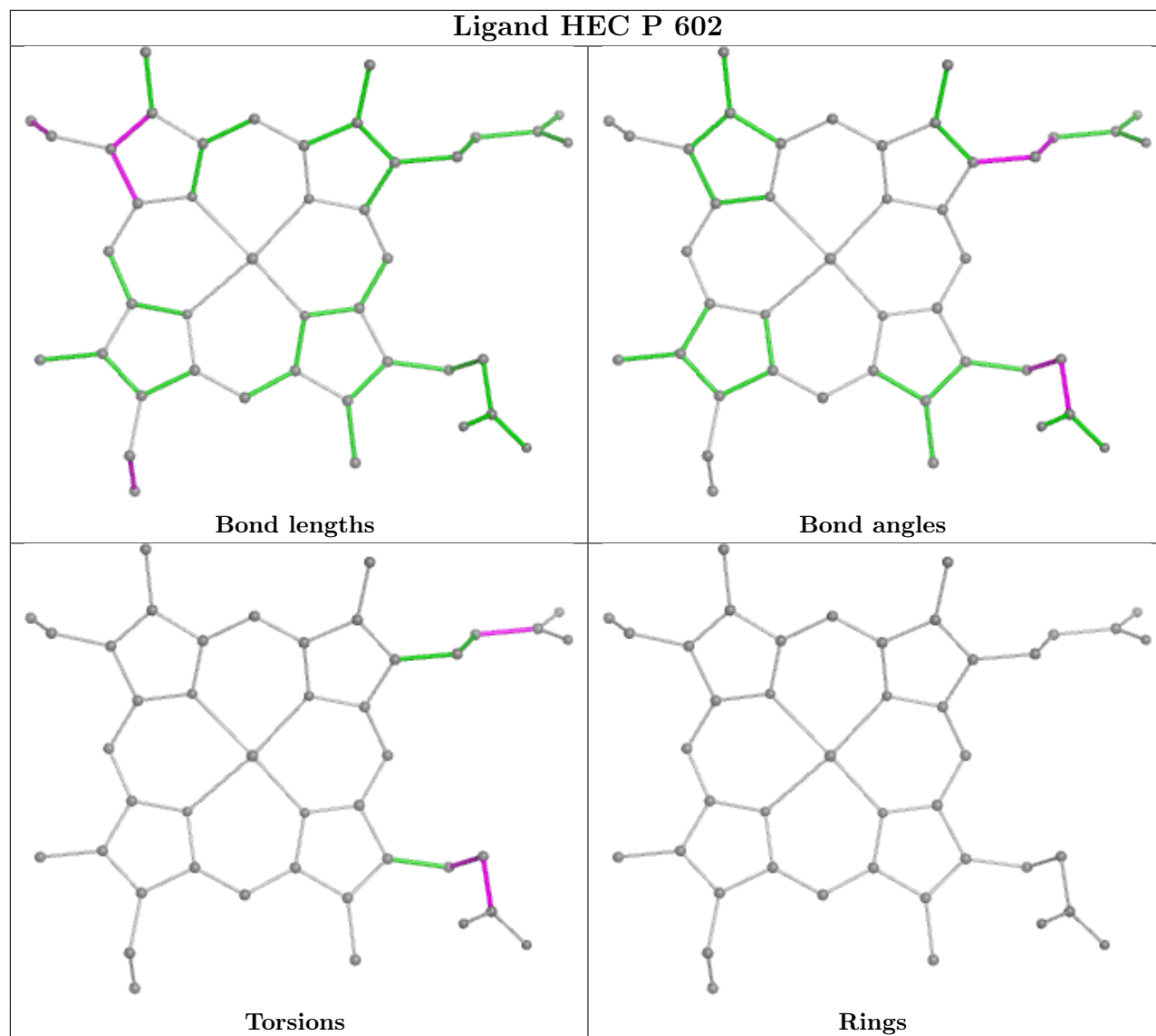


Torsions

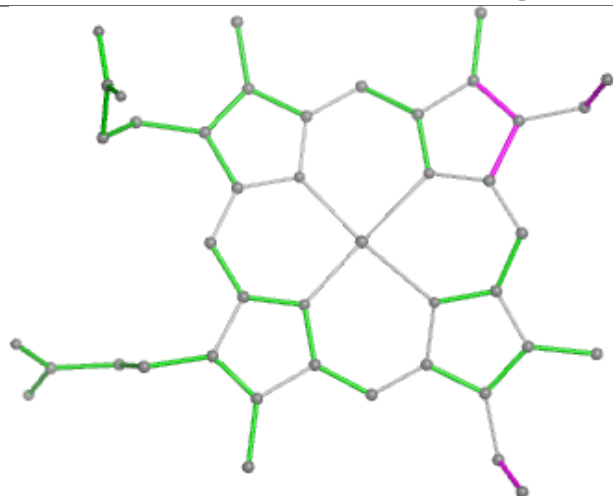


Rings

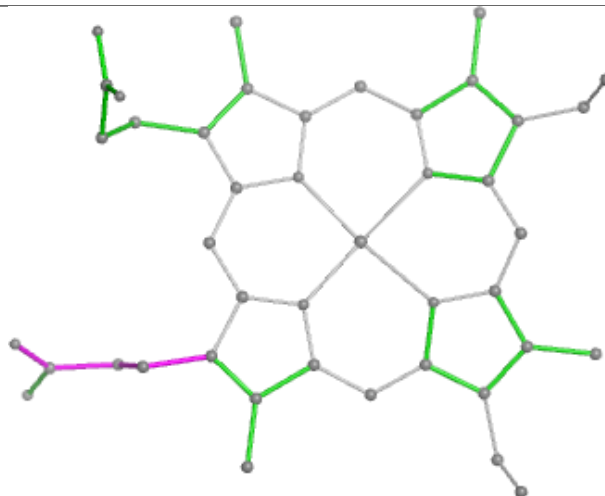
Ligand HEC P 602



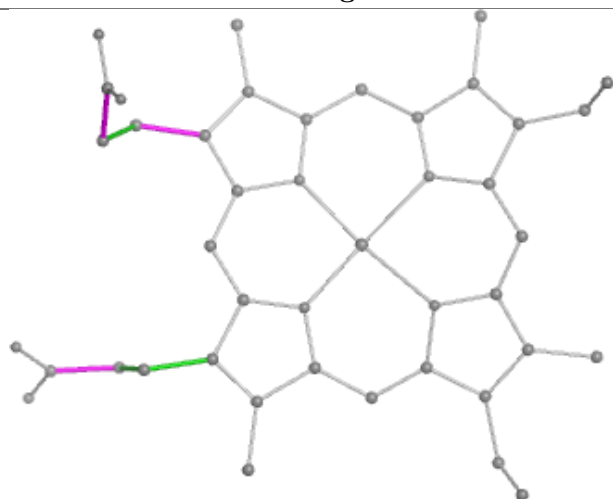
Ligand HEC P 601



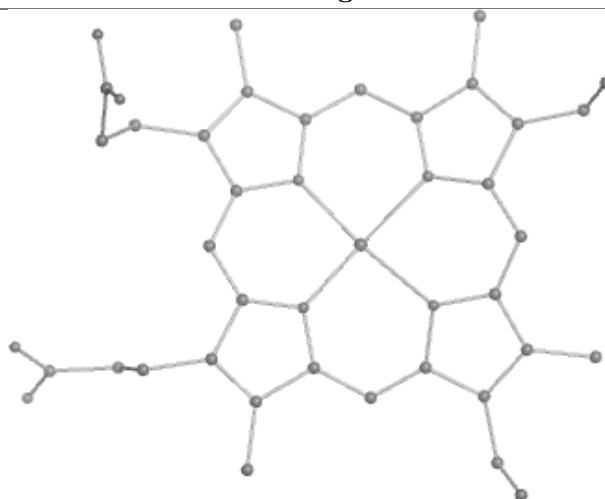
Bond lengths



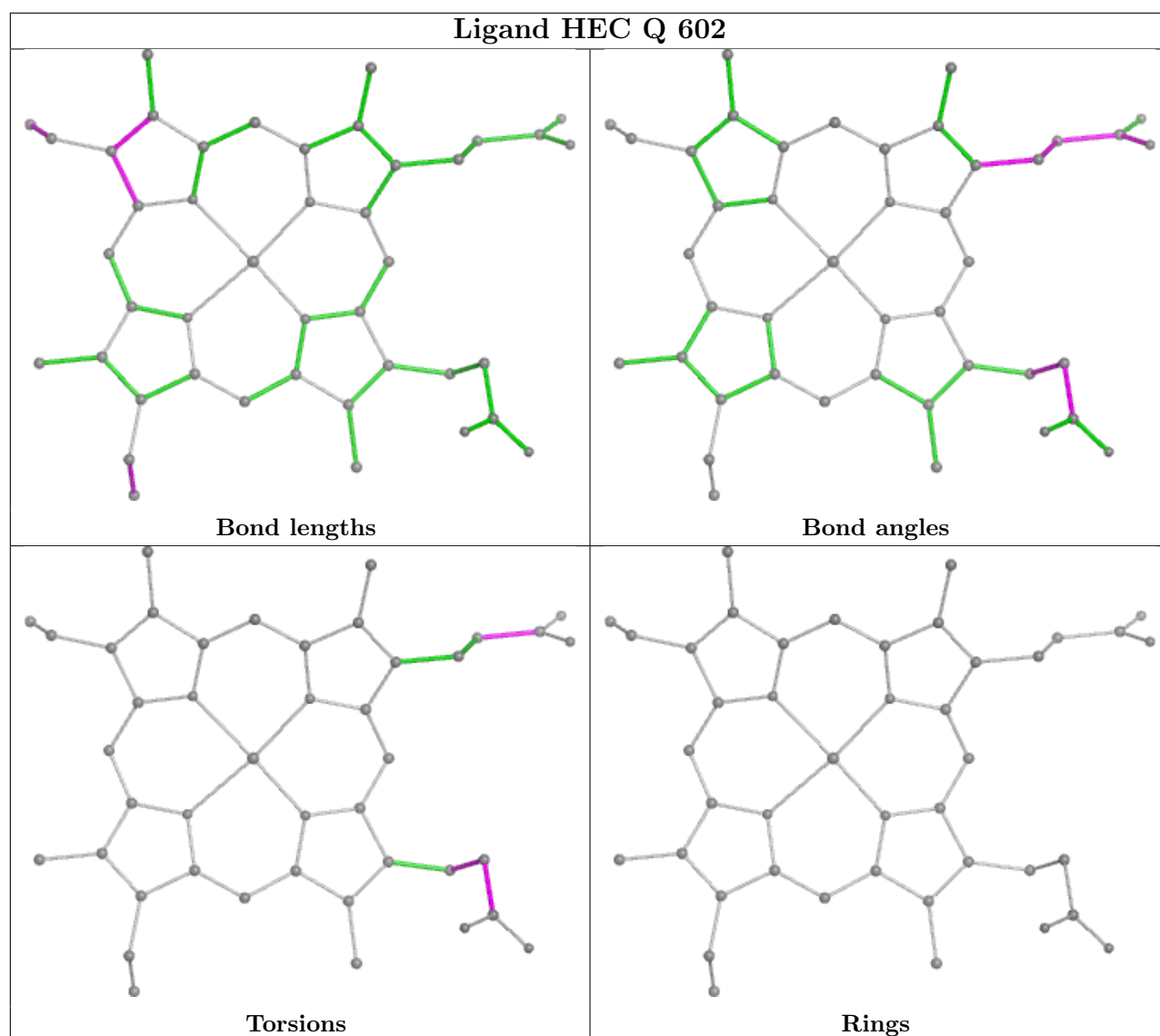
Bond angles



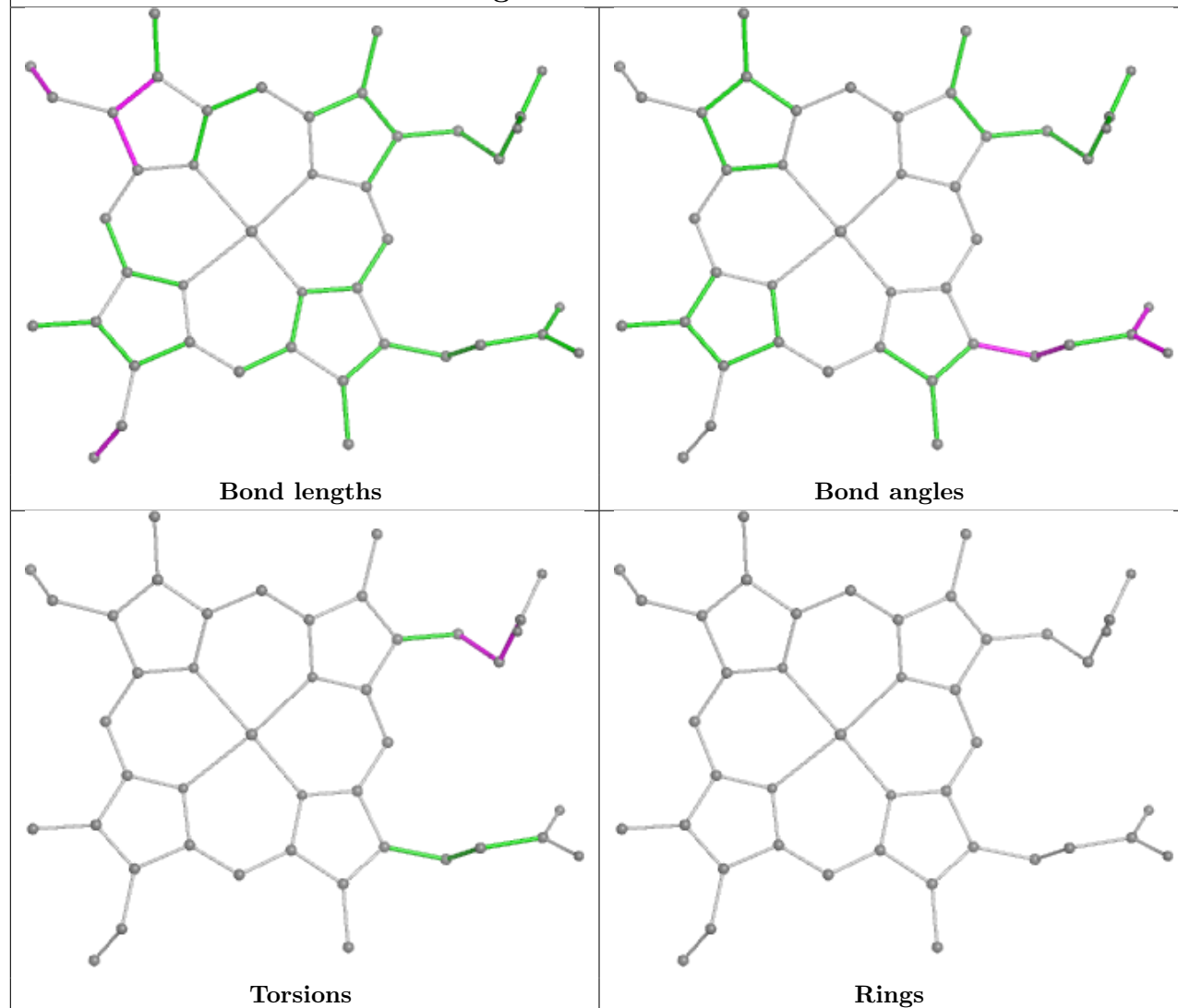
Torsions

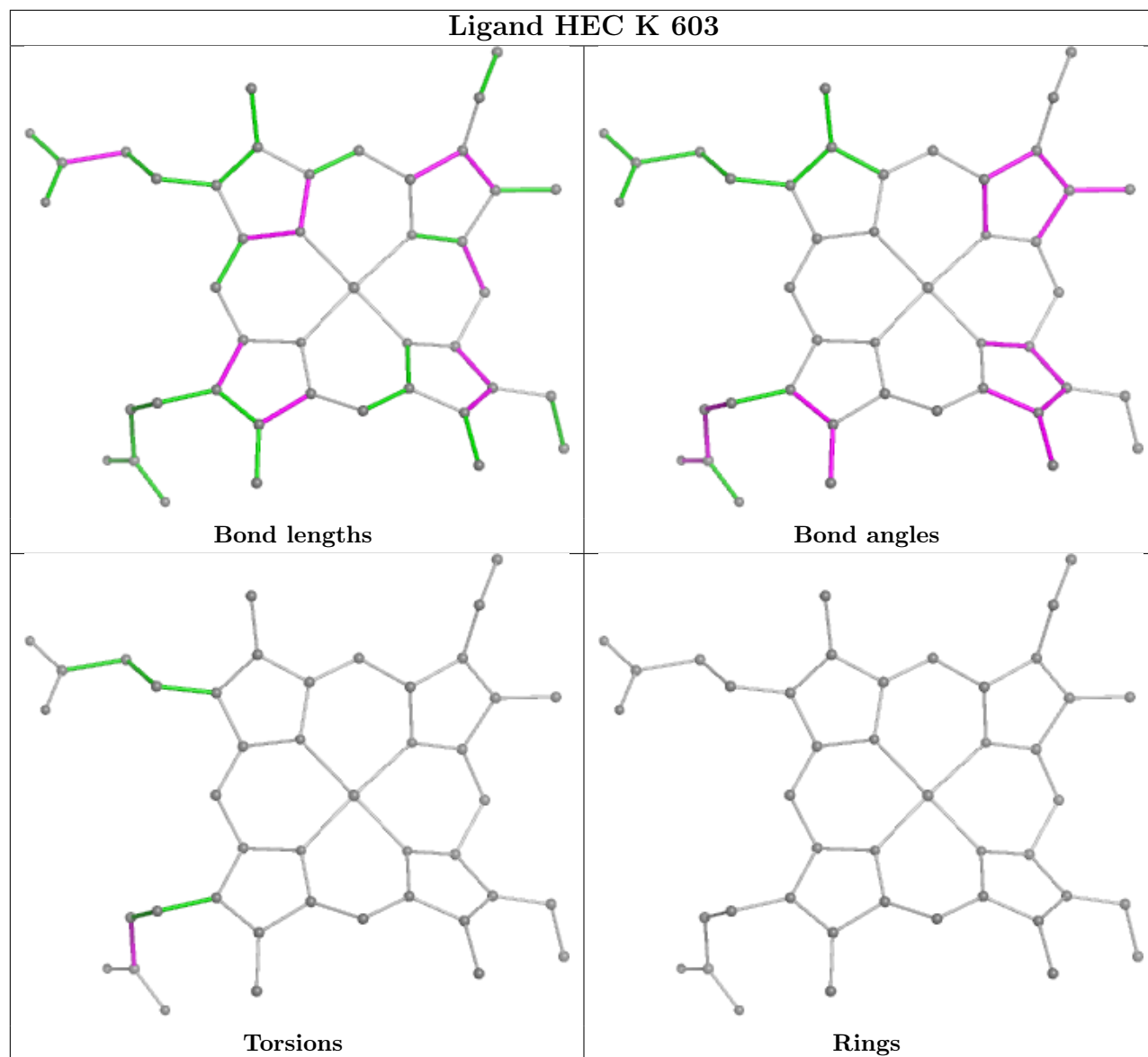


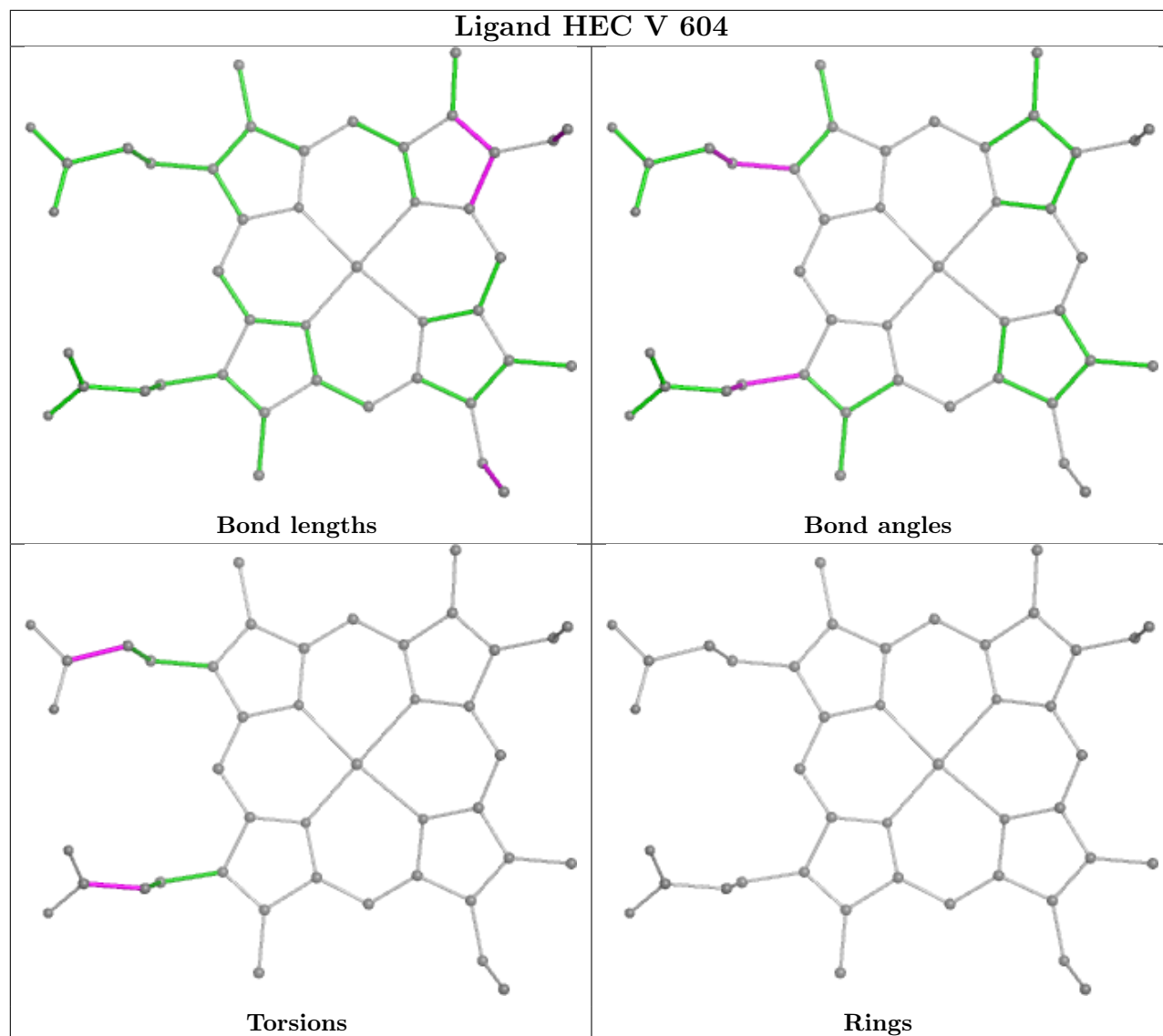
Rings



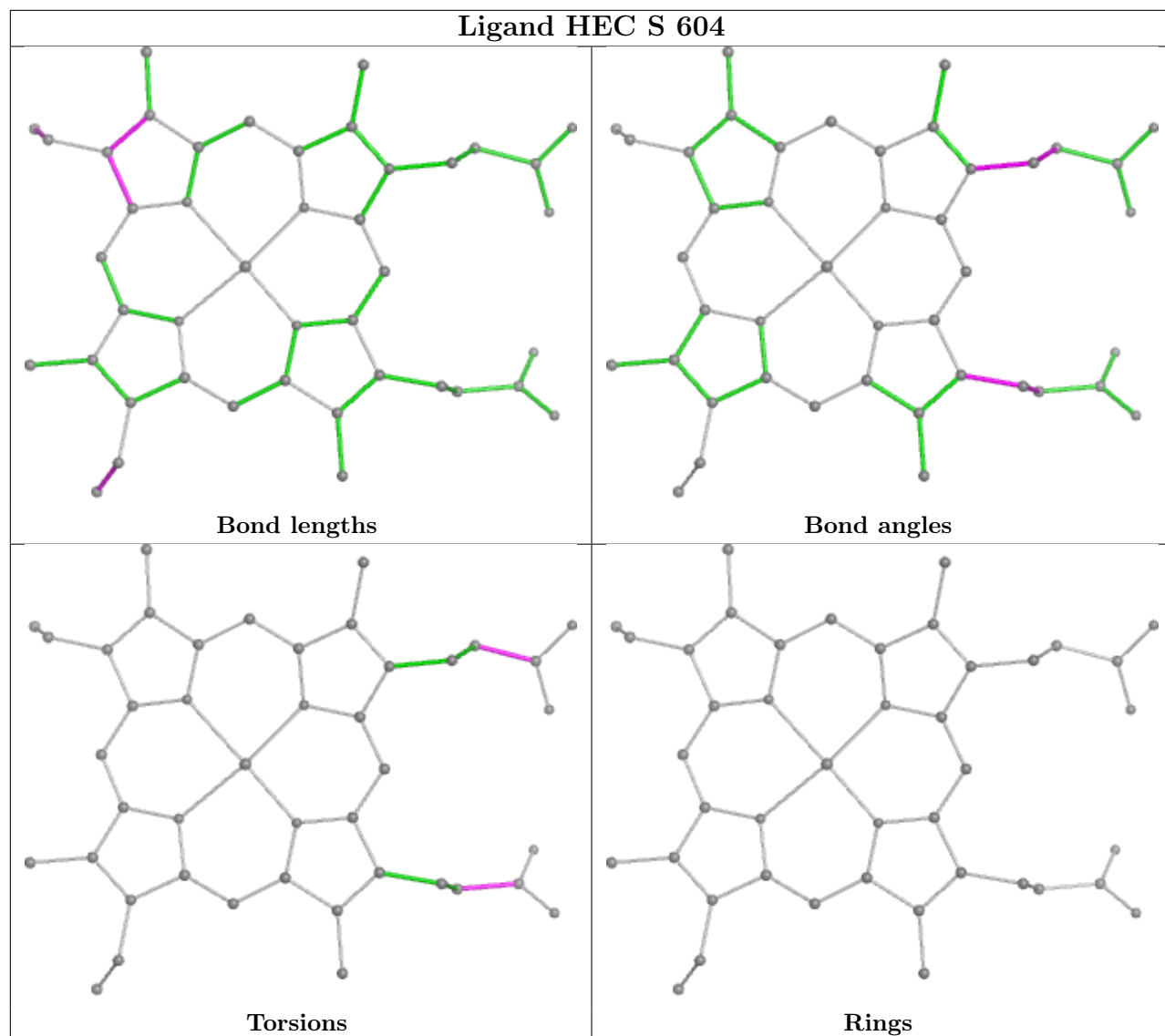
Ligand HEC J 607



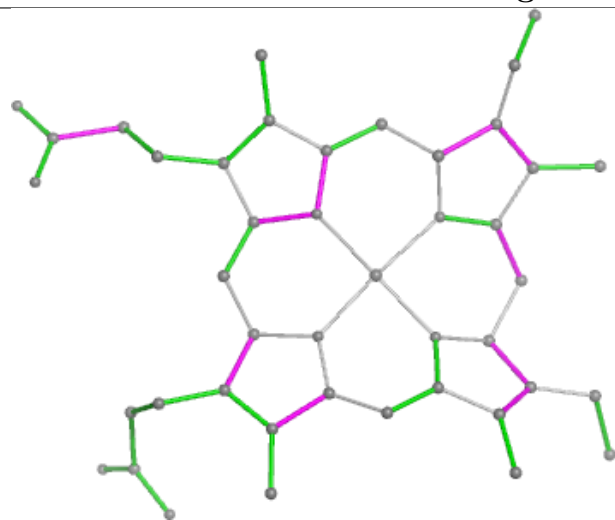




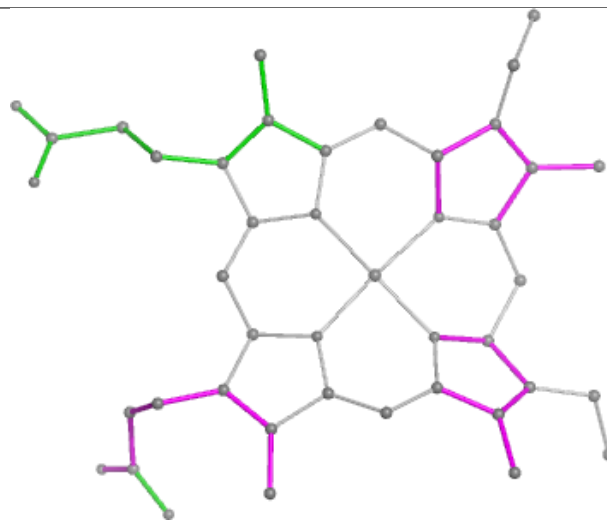
Ligand HEC S 604



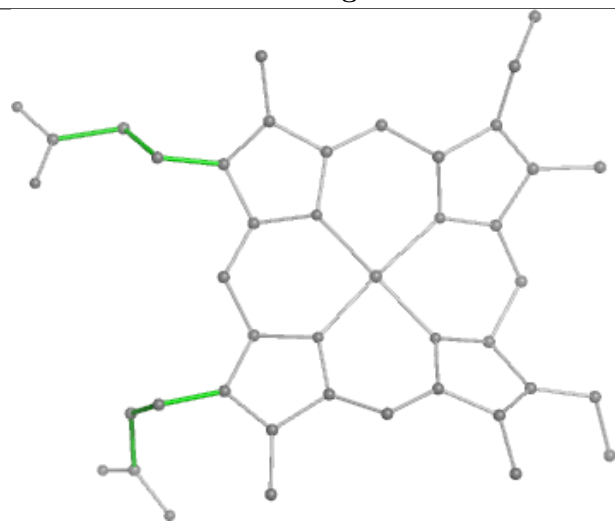
Ligand HEC L 603



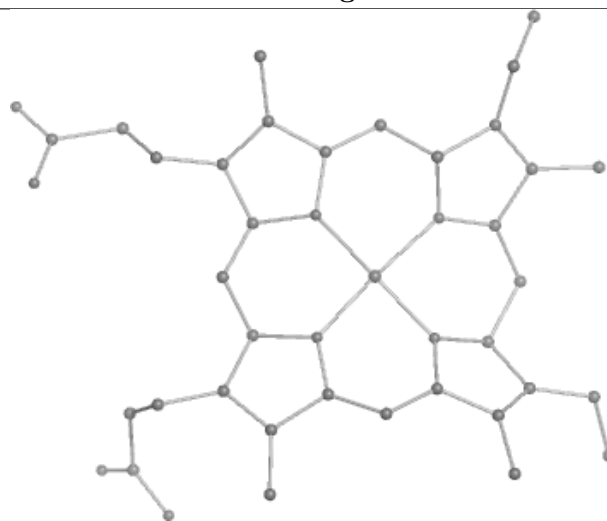
Bond lengths



Bond angles

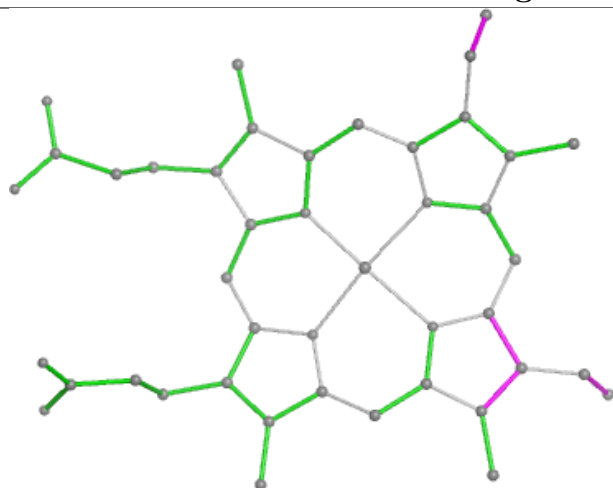


Torsions

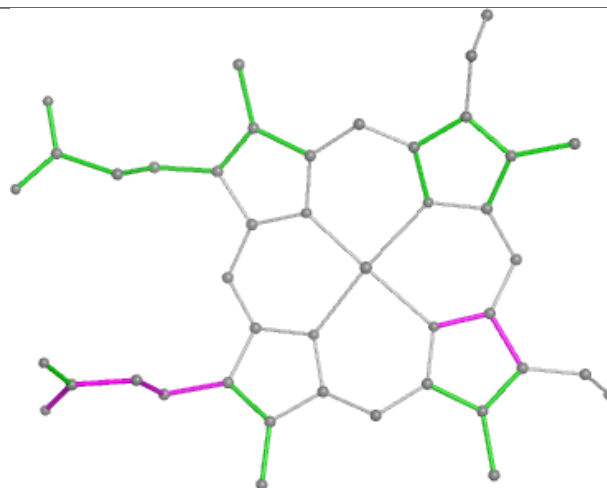


Rings

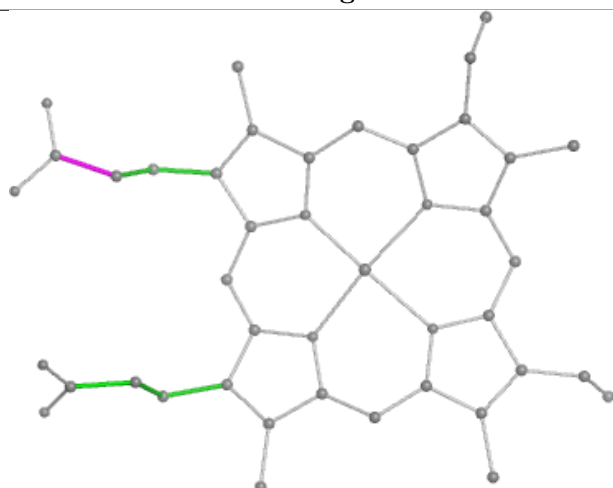
Ligand HEC L 606



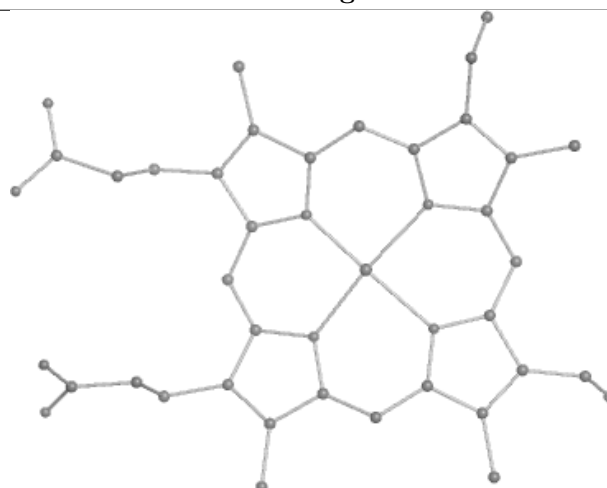
Bond lengths



Bond angles

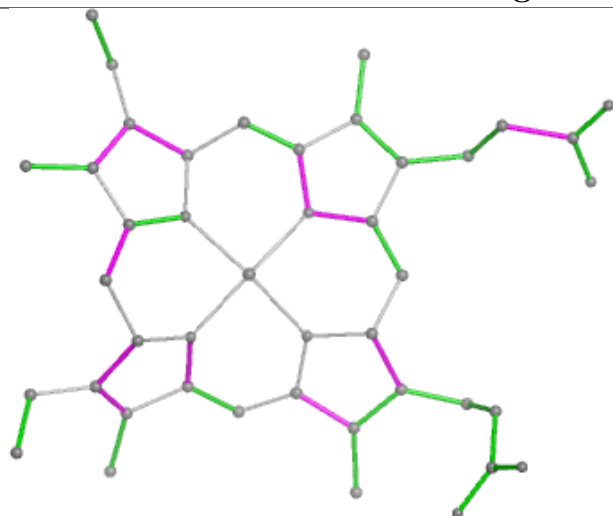


Torsions

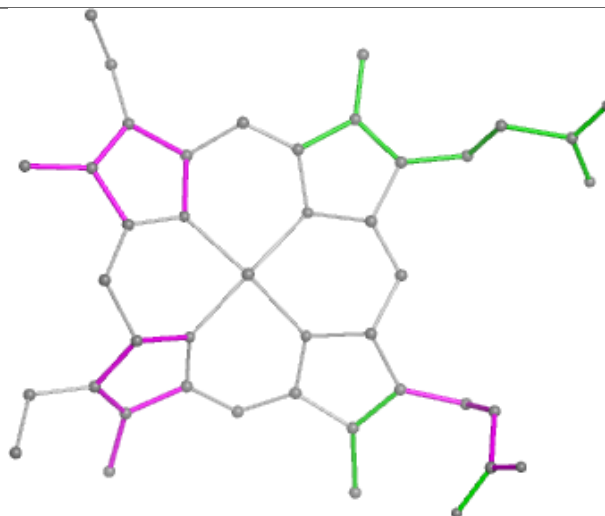


Rings

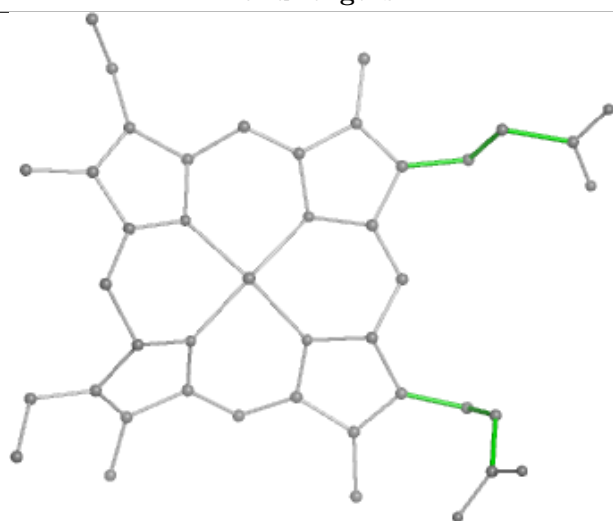
Ligand HEC T 603



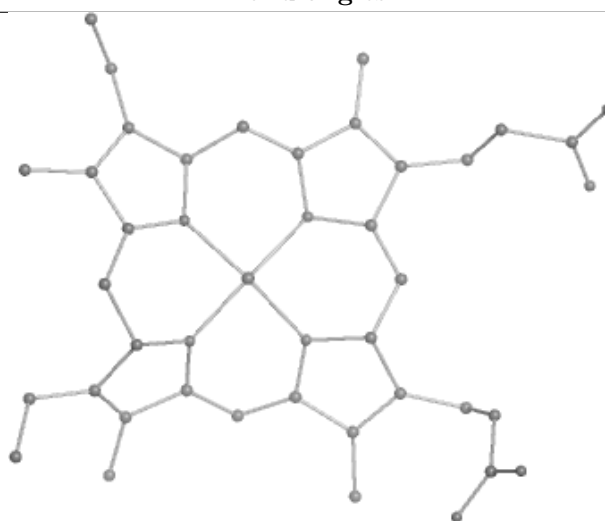
Bond lengths



Bond angles

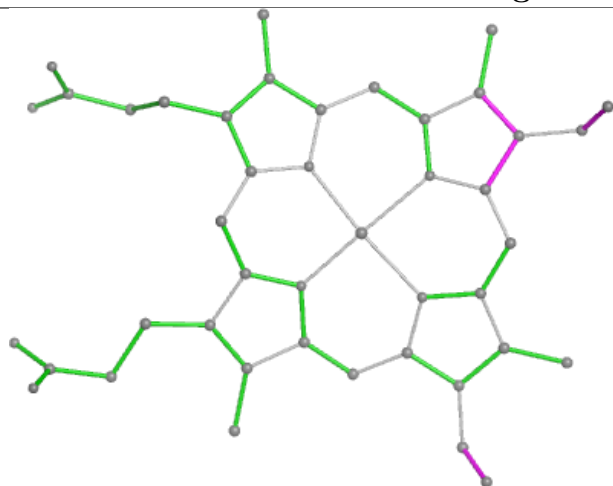


Torsions

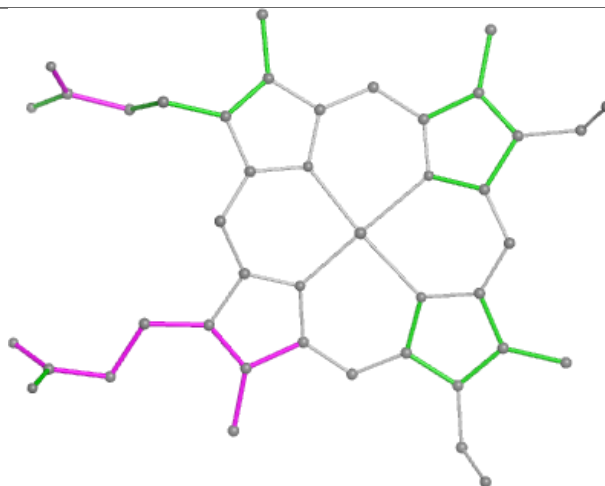


Rings

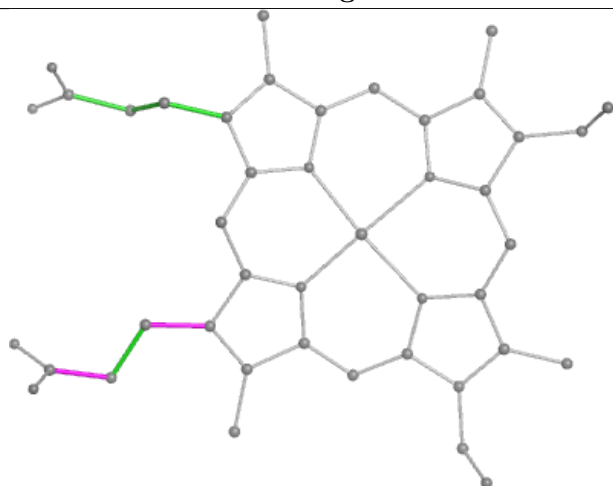
Ligand HEC C 605



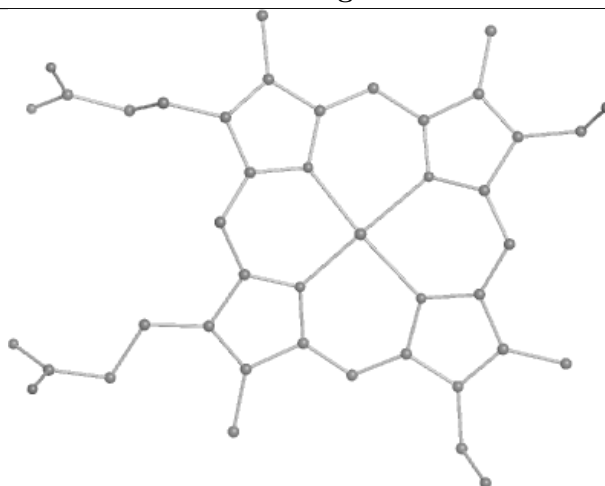
Bond lengths



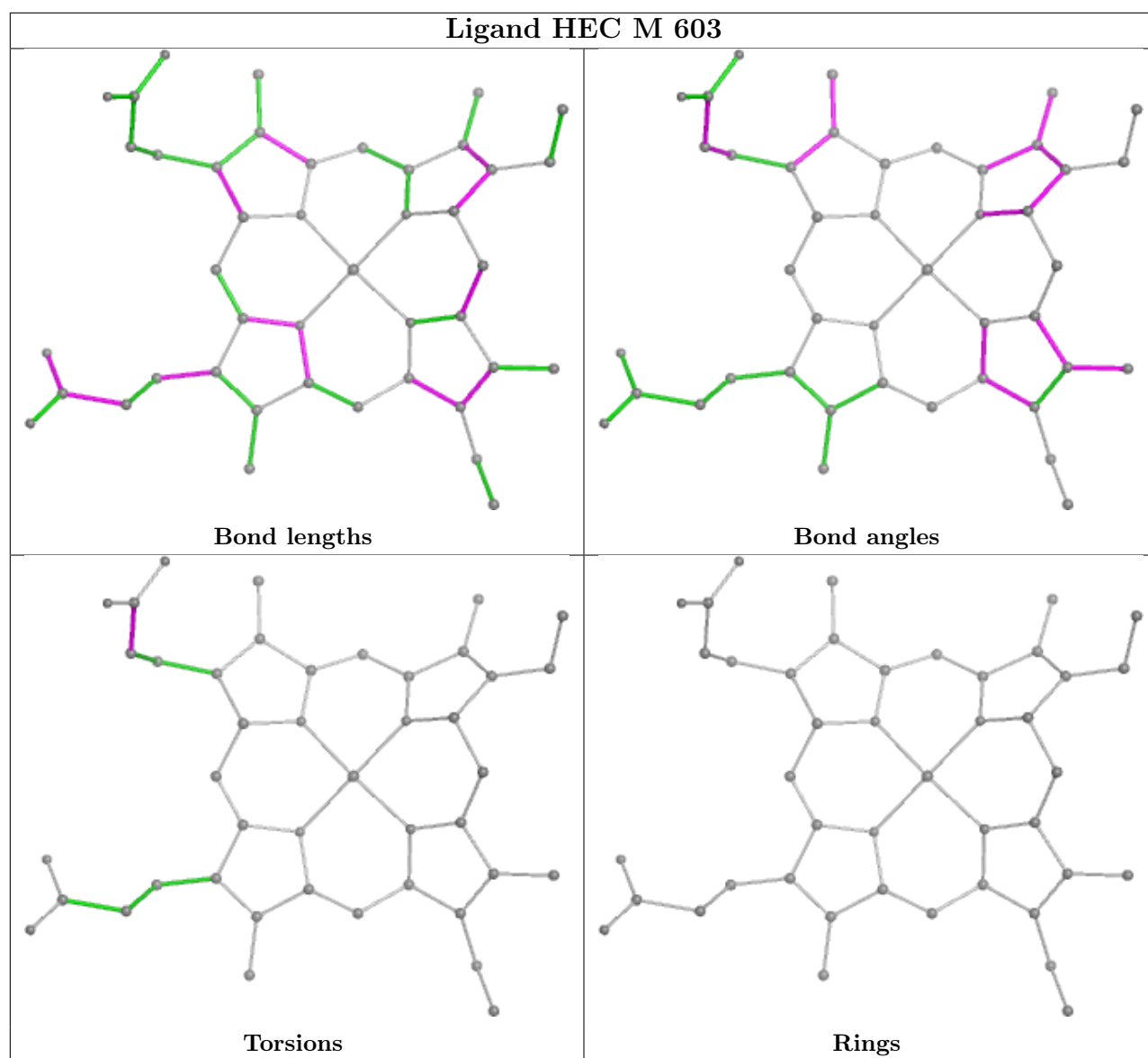
Bond angles

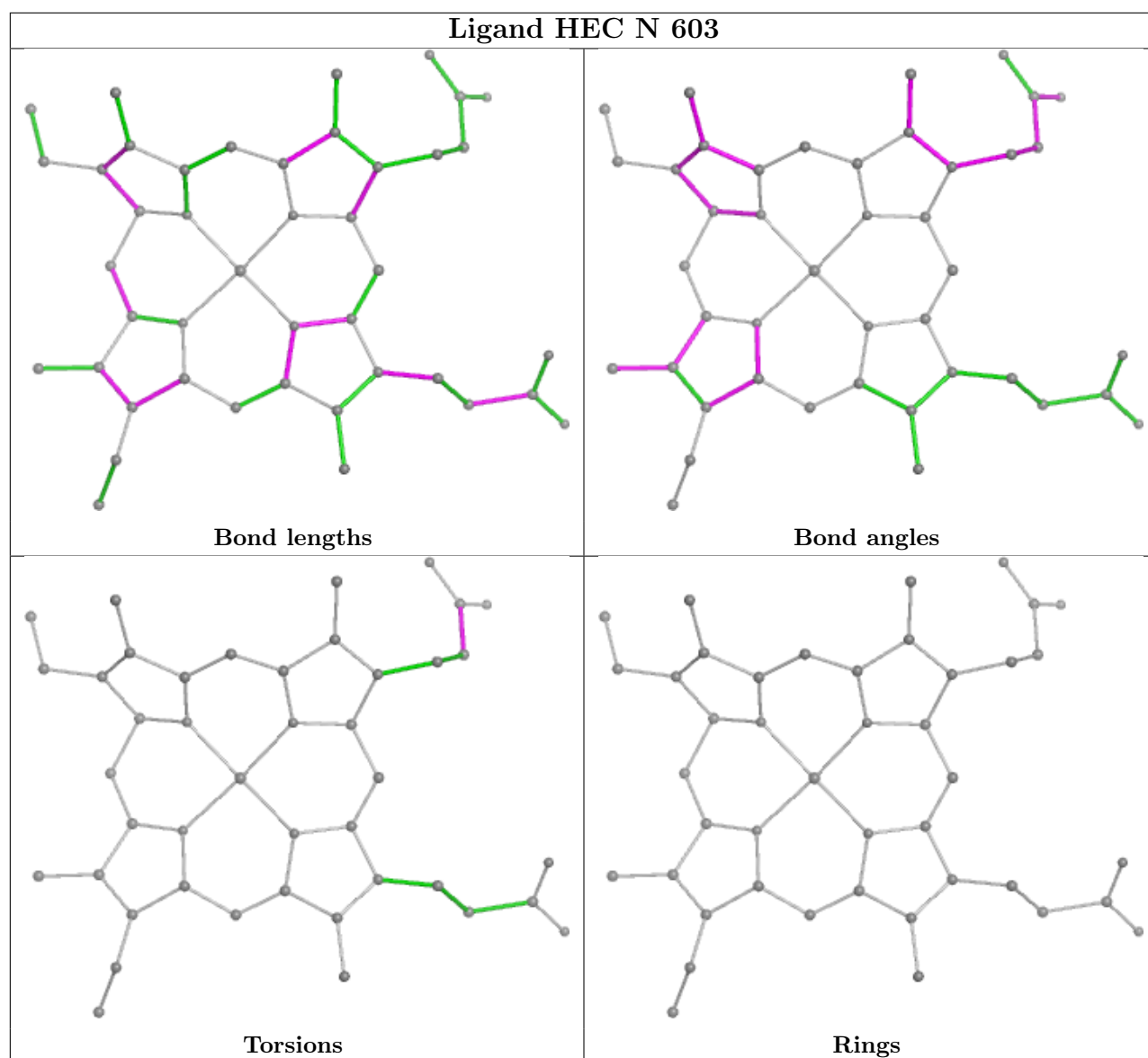


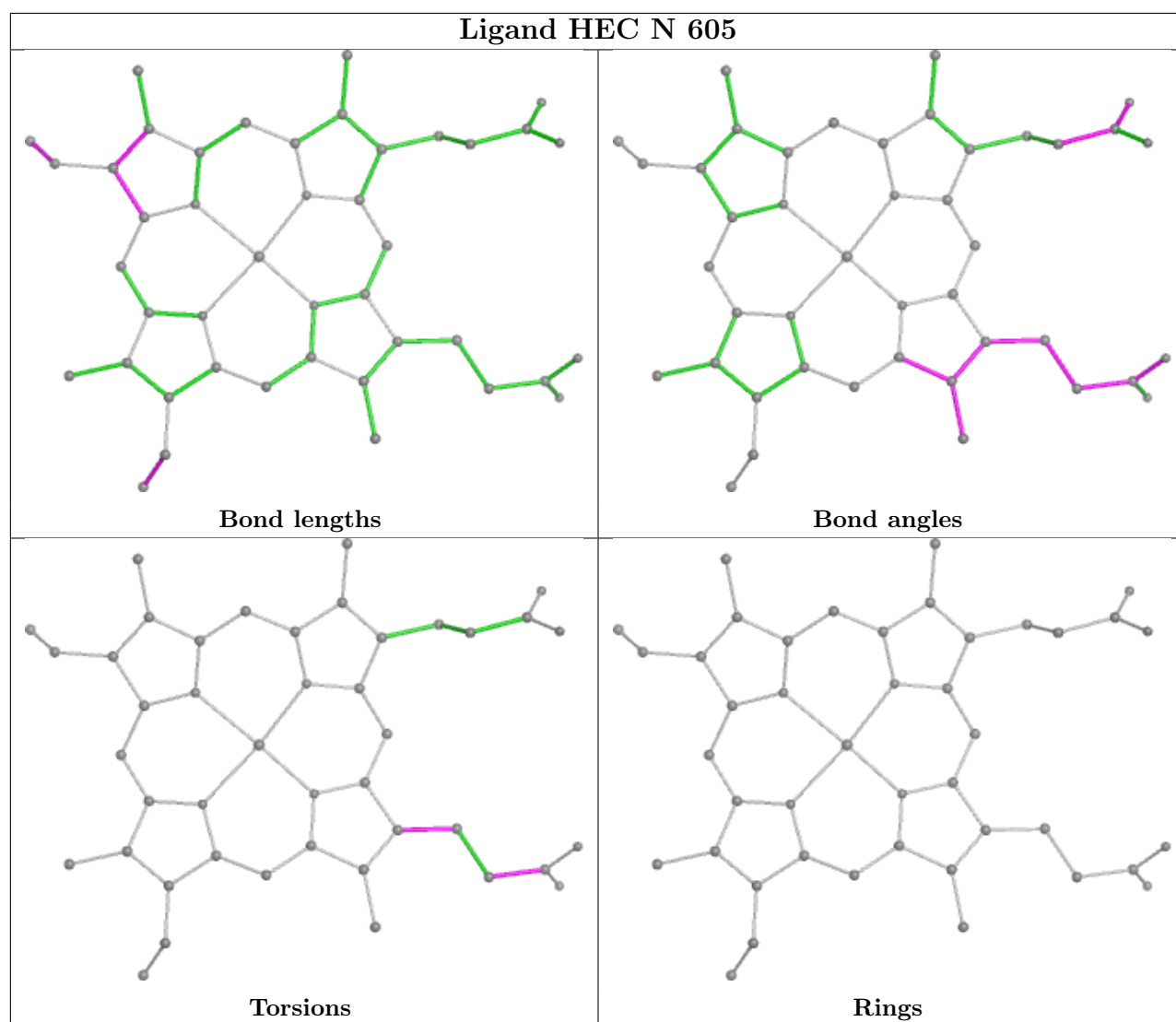
Torsions

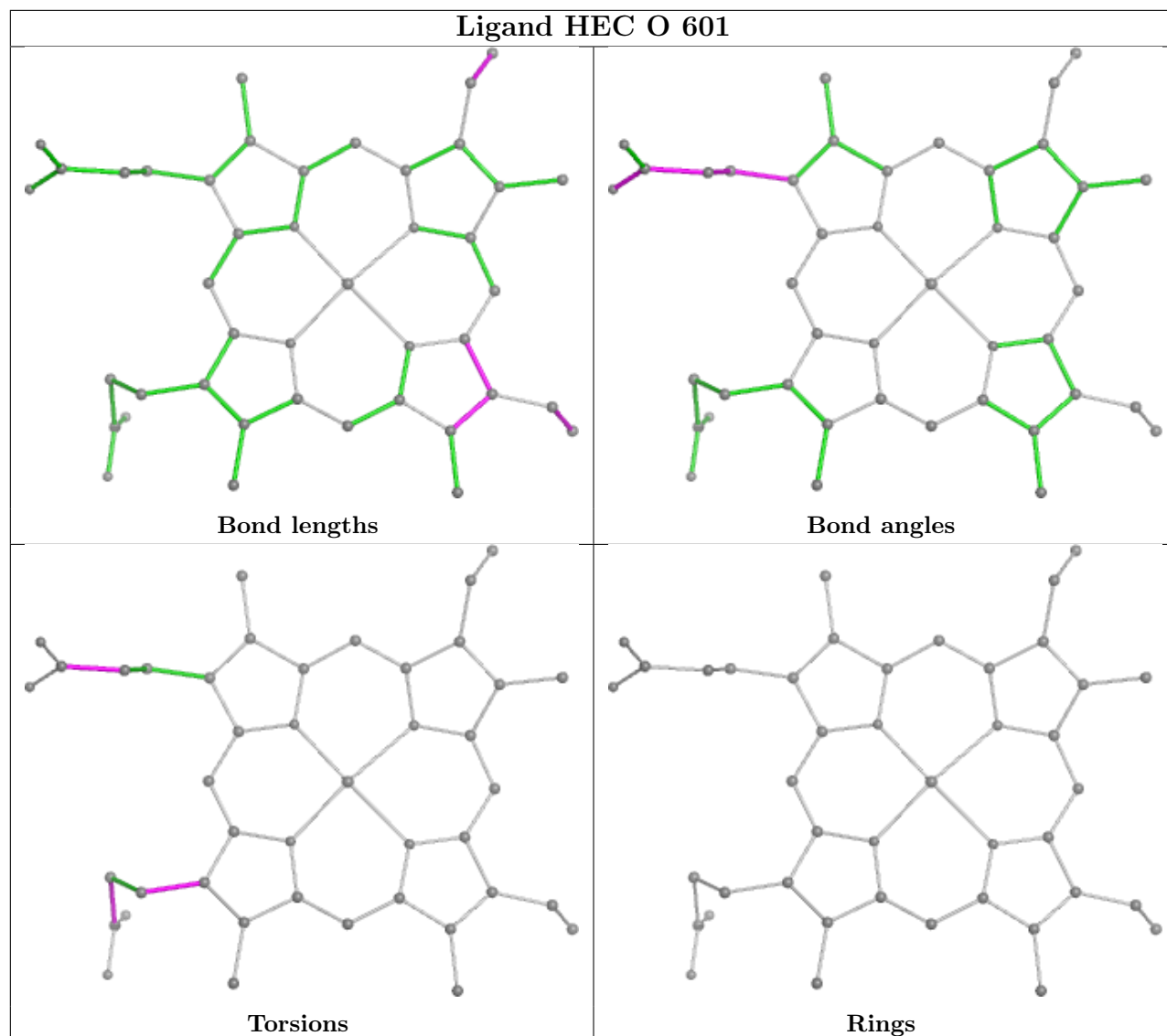


Rings

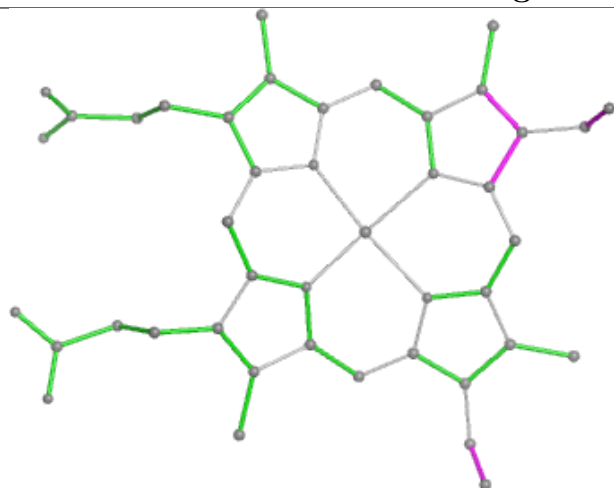




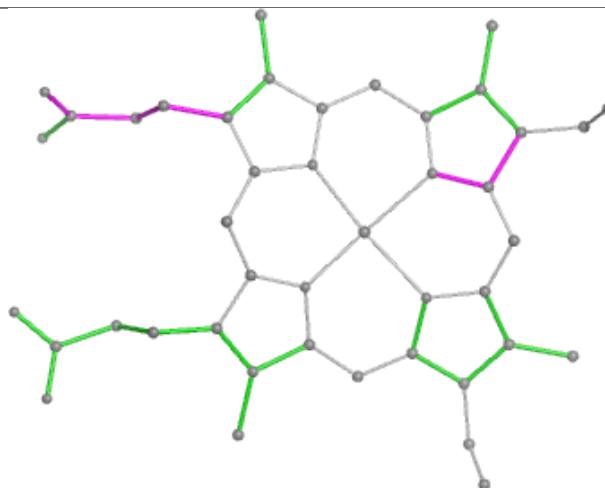




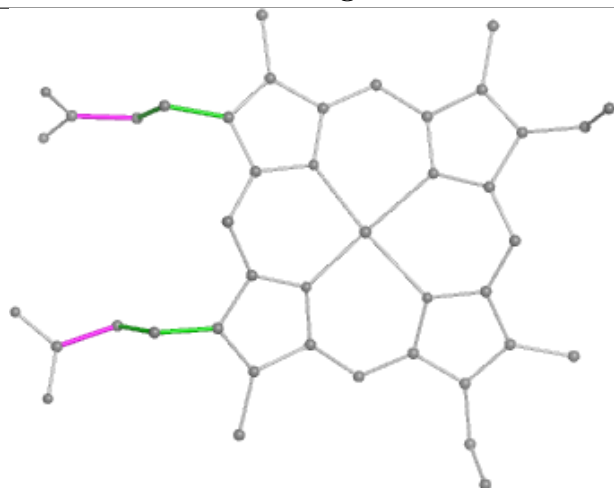
Ligand HEC B 606



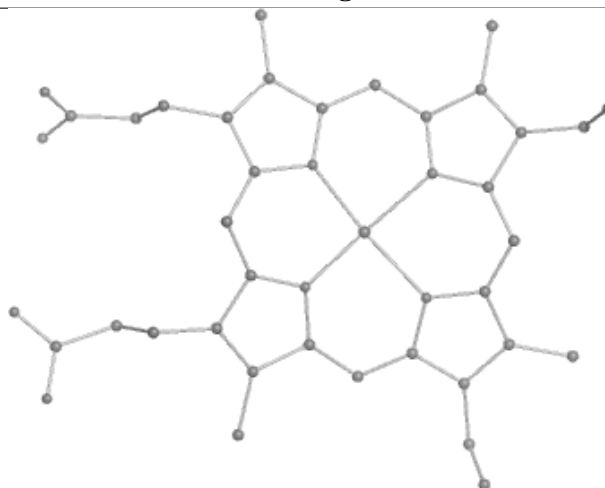
Bond lengths



Bond angles

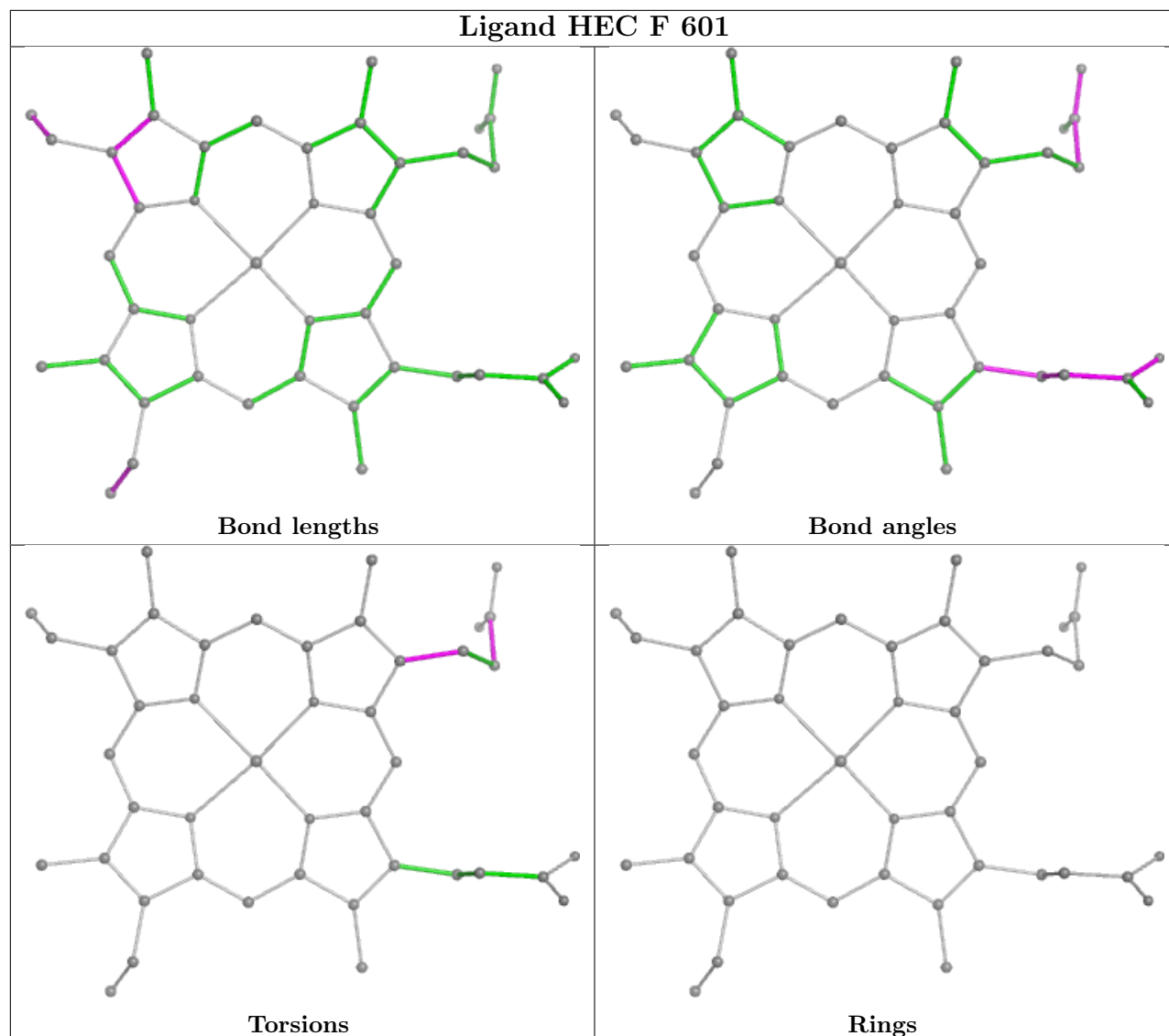


Torsions

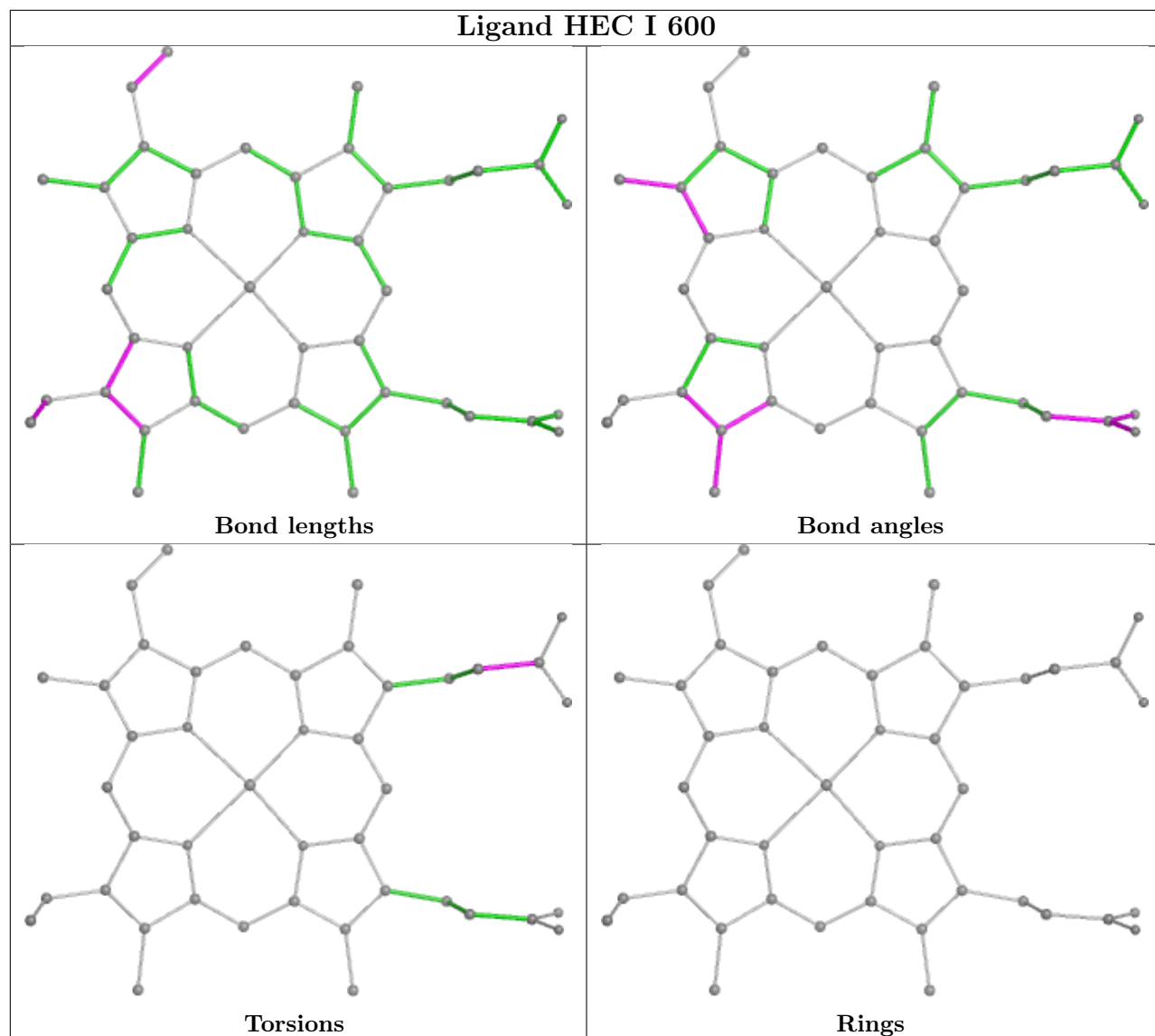


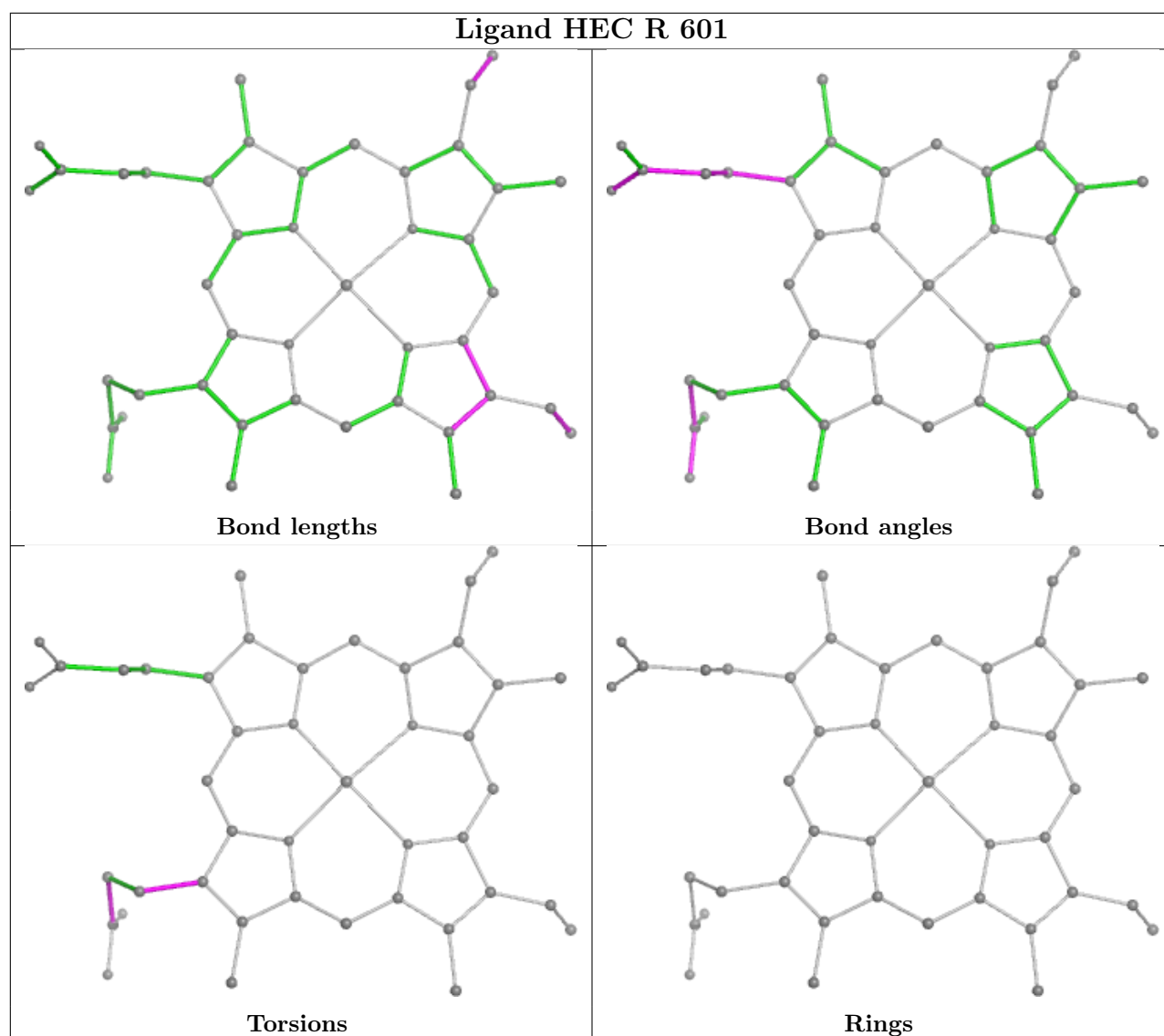
Rings

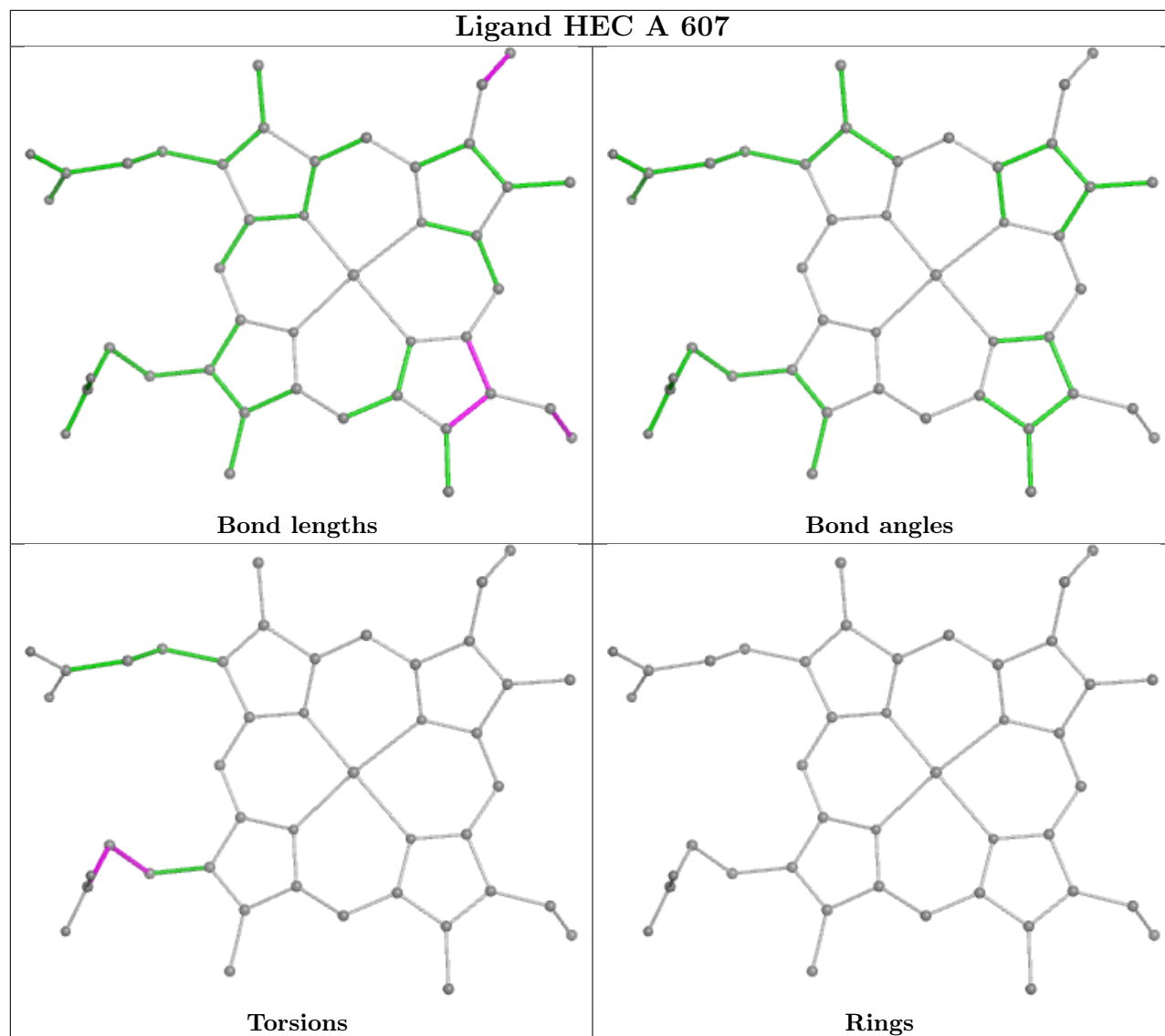
Ligand HEC F 601

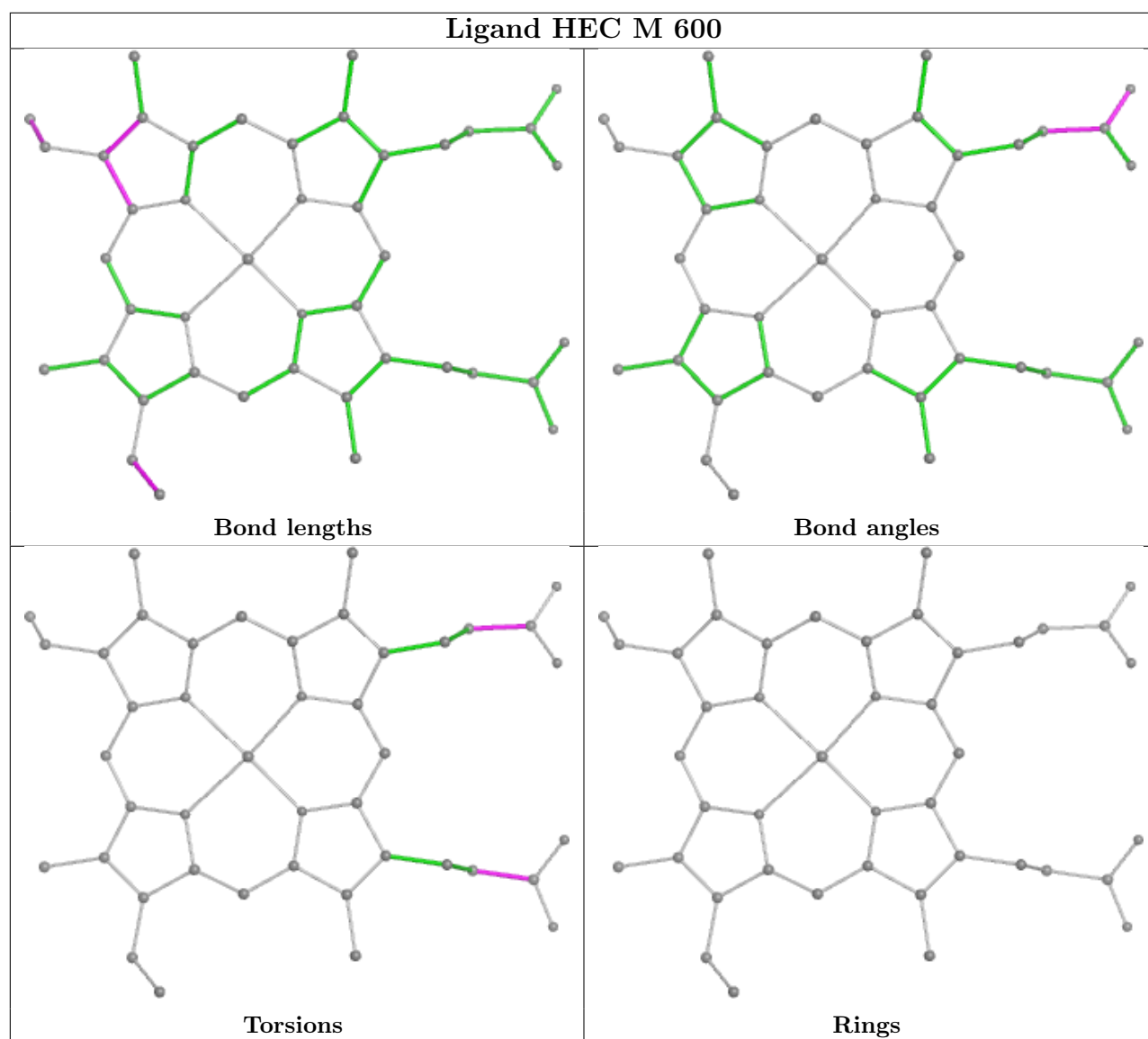


Ligand HEC I 600









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	531/582 (91%)	0.45	15 (2%) 55 46	39, 59, 87, 153	0
1	B	531/582 (91%)	0.29	8 (1%) 71 64	39, 57, 81, 173	0
1	C	531/582 (91%)	0.17	7 (1%) 74 67	40, 54, 84, 123	0
1	D	531/582 (91%)	0.37	21 (3%) 43 35	42, 68, 100, 140	0
1	E	531/582 (91%)	0.67	27 (5%) 34 27	39, 69, 104, 165	0
1	F	531/582 (91%)	1.05	68 (12%) 9 8	43, 76, 108, 158	0
1	G	531/582 (91%)	-0.23	5 (0%) 81 75	29, 41, 64, 139	0
1	H	531/582 (91%)	-0.23	8 (1%) 71 64	29, 39, 63, 156	0
1	I	527/582 (90%)	-0.50	0 100 100	27, 38, 57, 104	0
1	J	531/582 (91%)	-0.17	5 (0%) 81 75	29, 42, 66, 166	0
1	K	531/582 (91%)	-0.11	8 (1%) 71 64	32, 44, 70, 159	0
1	L	531/582 (91%)	-0.06	5 (0%) 81 75	32, 45, 73, 157	0
1	M	531/582 (91%)	0.16	7 (1%) 74 67	37, 54, 84, 150	0
1	N	531/582 (91%)	0.33	9 (1%) 69 61	37, 58, 85, 157	0
1	O	531/582 (91%)	0.06	6 (1%) 77 71	37, 51, 77, 133	0
1	P	531/582 (91%)	0.03	7 (1%) 74 67	37, 51, 72, 124	0
1	Q	531/582 (91%)	0.30	11 (2%) 63 55	34, 57, 82, 124	0
1	R	531/582 (91%)	0.13	9 (1%) 69 61	20, 52, 78, 142	1 (0%)
1	S	531/582 (91%)	0.94	57 (10%) 12 10	51, 80, 111, 158	0
1	T	531/582 (91%)	0.74	36 (6%) 25 19	50, 74, 107, 184	0
1	U	531/582 (91%)	0.93	60 (11%) 11 9	50, 80, 111, 150	0
1	V	531/582 (91%)	1.04	63 (11%) 10 8	52, 79, 108, 161	0
1	W	531/582 (91%)	1.05	84 (15%) 6 5	50, 80, 105, 163	0
1	X	531/582 (91%)	1.21	95 (17%) 4 4	56, 83, 111, 160	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
2	Y	86/114 (75%)	0.53	5 (5%) 30 23	38, 54, 76, 105	0
2	Z	86/114 (75%)	1.31	15 (17%) 5 4	76, 96, 128, 192	0
2	a	86/114 (75%)	0.97	9 (10%) 13 10	64, 87, 116, 166	0
2	b	86/114 (75%)	0.95	8 (9%) 16 12	61, 83, 118, 167	0
2	c	86/114 (75%)	0.81	6 (6%) 24 18	58, 76, 101, 166	0
2	d	86/114 (75%)	0.80	9 (10%) 13 10	54, 68, 107, 152	0
2	e	86/114 (75%)	0.77	7 (8%) 19 15	57, 76, 109, 155	0
2	f	86/114 (75%)	1.22	12 (13%) 7 7	71, 96, 131, 168	0
2	g	86/114 (75%)	0.98	7 (8%) 19 15	68, 82, 114, 179	0
2	h	86/114 (75%)	1.30	15 (17%) 5 4	82, 96, 130, 166	0
2	i	86/114 (75%)	1.66	24 (27%) 2 2	85, 107, 137, 185	0
2	j	86/114 (75%)	1.26	12 (13%) 7 7	96, 109, 147, 178	0
All	All	13772/15336 (89%)	0.41	750 (5%) 32 25	20, 60, 104, 192	1 (0%)

All (750) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	h	110	PRO	6.9
2	Y	111	SER	6.4
2	c	110	PRO	6.1
2	d	110	PRO	6.0
2	a	110	PRO	5.3
2	e	110	PRO	5.2
2	d	111	SER	4.7
2	g	110	PRO	4.7
1	H	563	HIS	4.6
1	X	562	SER	4.6
1	V	362	VAL	4.5
2	Z	110	PRO	4.5
2	a	108	ARG	4.4
2	f	110	PRO	4.4
2	j	110	PRO	4.4
1	K	563	HIS	4.4
1	X	429	ASN	4.3
1	W	209	PRO	4.3
1	R	42	HIS	4.3
2	Y	110	PRO	4.3
1	O	563	HIS	4.2

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Mol	Chain	Res	Type	RSRZ
2	b	110	PRO	4.1
1	J	562	SER	4.1
1	X	323	MET	4.1
1	W	441	VAL	4.0
1	V	513	THR	4.0
1	X	210	PRO	4.0
1	X	448	ILE	4.0
1	L	562	SER	4.0
1	W	445	GLN	4.0
1	X	531	PRO	4.0
1	S	508	TRP	3.9
1	D	562	SER	3.9
2	i	110	PRO	3.9
1	W	211	GLY	3.9
1	X	442	GLY	3.9
1	J	42	HIS	3.8
1	T	211	GLY	3.8
1	X	211	GLY	3.8
1	S	414	ALA	3.7
1	W	488	ALA	3.7
1	T	429	ASN	3.7
1	C	563	HIS	3.7
2	j	41	GLY	3.7
1	V	89	LEU	3.7
1	U	476	VAL	3.7
1	H	562	SER	3.7
1	A	211	GLY	3.7
1	V	34	GLU	3.6
1	Q	560	ALA	3.6
1	G	563	HIS	3.6
1	F	392	LEU	3.6
1	L	563	HIS	3.6
1	G	42	HIS	3.6
1	T	563	HIS	3.6
1	N	562	SER	3.5
1	V	563	HIS	3.5
2	i	111	SER	3.5
1	L	560	ALA	3.5
2	f	107	ALA	3.5
1	V	253	GLY	3.5
2	g	41	GLY	3.5
1	V	459	ASP	3.4

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Mol	Chain	Res	Type	RSRZ
1	T	36	ILE	3.4
1	B	42	HIS	3.4
1	K	211	GLY	3.4
1	X	57	VAL	3.4
1	U	61	GLY	3.4
1	C	47	MET	3.4
2	Z	37	ALA	3.4
1	F	394	PRO	3.4
1	F	211	GLY	3.4
1	N	563	HIS	3.3
1	U	513	THR	3.3
1	W	433	VAL	3.3
1	F	562	SER	3.3
1	K	562	SER	3.3
2	Z	107	ALA	3.3
1	A	42	HIS	3.3
2	b	109	HIS	3.3
1	X	441	VAL	3.3
1	Q	545	GLU	3.3
2	c	108	ARG	3.3
1	X	34	GLU	3.3
1	F	426	ARG	3.2
1	S	560	ALA	3.2
1	B	563	HIS	3.2
1	F	476	VAL	3.2
1	T	34	GLU	3.2
1	X	85	PHE	3.2
1	E	429	ASN	3.2
1	V	318	SER	3.2
1	D	563	HIS	3.2
1	R	211	GLY	3.2
1	X	508	TRP	3.2
1	F	66	TYR	3.2
1	V	437	CYS	3.2
1	F	513	THR	3.2
2	Z	108	ARG	3.2
1	S	376	ALA	3.2
1	X	543	ALA	3.2
1	F	33	VAL	3.2
2	Z	109	HIS	3.2
1	W	320	GLY	3.2
2	f	108	ARG	3.2

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Mol	Chain	Res	Type	RSRZ
2	j	108	ARG	3.2
1	F	563	HIS	3.1
2	Y	80	HIS	3.1
2	b	80	HIS	3.1
1	B	562	SER	3.1
2	h	111	SER	3.1
1	U	560	ALA	3.1
1	W	518	VAL	3.1
1	F	427	MET	3.1
2	f	38	ILE	3.1
1	X	392	LEU	3.1
1	N	42	HIS	3.1
2	e	108	ARG	3.1
1	W	324	ALA	3.1
1	X	33	VAL	3.1
1	F	429	ASN	3.1
2	e	61	ASN	3.1
1	A	560	ALA	3.1
1	S	210	PRO	3.0
1	W	366	SER	3.0
1	G	560	ALA	3.0
1	W	543	ALA	3.0
1	U	489	LEU	3.0
1	X	497	TRP	3.0
1	U	493	VAL	3.0
1	O	42	HIS	3.0
1	P	563	HIS	3.0
1	U	373	PHE	3.0
1	T	562	SER	3.0
1	W	34	GLU	3.0
2	e	84	SER	3.0
1	S	33	VAL	3.0
2	b	108	ARG	3.0
2	h	108	ARG	3.0
1	X	46	GLY	3.0
1	S	403	SER	3.0
1	J	563	HIS	3.0
1	T	558	ILE	3.0
2	i	40	ILE	3.0
1	W	493	VAL	3.0
1	H	42	HIS	2.9
1	S	55	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
1	X	561	GLY	2.9
1	V	33	VAL	2.9
1	D	42	HIS	2.9
1	K	42	HIS	2.9
1	W	400	HIS	2.9
2	Z	101	LEU	2.9
1	F	47	MET	2.9
1	X	47	MET	2.9
1	P	562	SER	2.9
1	X	66	TYR	2.9
1	X	82	TYR	2.9
1	T	560	ALA	2.9
1	V	324	ALA	2.9
2	i	37	ALA	2.9
1	W	540	HIS	2.9
1	X	204	TRP	2.9
2	c	80	HIS	2.9
2	f	111	SER	2.9
1	N	210	PRO	2.9
1	X	486	LEU	2.9
1	W	365	ALA	2.9
2	j	105	ALA	2.9
1	S	372	THR	2.9
1	R	504	LYS	2.8
1	V	442	GLY	2.8
2	a	111	SER	2.8
1	A	210	PRO	2.8
1	F	560	ALA	2.8
1	F	69	TYR	2.8
1	F	493	VAL	2.8
1	X	518	VAL	2.8
2	Y	109	HIS	2.8
1	D	523	GLY	2.8
1	S	380	LEU	2.8
1	V	186	GLY	2.8
1	V	320	GLY	2.8
1	Q	210	PRO	2.8
2	i	108	ARG	2.8
1	W	513	THR	2.8
1	X	207	GLU	2.8
1	A	563	HIS	2.8
1	X	563	HIS	2.8

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Mol	Chain	Res	Type	RSRZ
2	h	84	SER	2.8
1	X	63	LYS	2.8
1	G	540	HIS	2.8
1	Q	563	HIS	2.8
1	V	436	LEU	2.8
1	X	540	HIS	2.8
1	S	533	PRO	2.8
1	B	560	ALA	2.8
1	X	440	SER	2.8
2	j	111	SER	2.8
2	Z	89	VAL	2.8
1	F	105	GLU	2.8
2	a	80	HIS	2.8
2	e	109	HIS	2.8
1	Q	189	GLY	2.8
1	U	494	GLY	2.8
1	X	468	GLY	2.8
1	F	387	PRO	2.7
1	S	387	PRO	2.7
1	X	209	PRO	2.7
1	X	91	ALA	2.7
2	g	108	ARG	2.7
2	i	77	VAL	2.7
2	i	85	ALA	2.7
1	X	428	SER	2.7
1	F	489	LEU	2.7
1	U	495	ILE	2.7
1	V	430	CYS	2.7
2	a	109	HIS	2.7
2	f	109	HIS	2.7
1	F	435	ARG	2.7
1	S	324	ALA	2.7
2	c	111	SER	2.7
1	V	364	ASP	2.7
1	A	544	GLU	2.7
1	V	502	PHE	2.7
1	E	495	ILE	2.7
1	U	369	TYR	2.7
1	W	409	TYR	2.7
2	h	26	TYR	2.7
1	M	559	THR	2.7
1	M	563	HIS	2.7

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Mol	Chain	Res	Type	RSRZ
1	T	42	HIS	2.7
1	F	414	ALA	2.7
1	H	560	ALA	2.7
1	T	433	VAL	2.7
1	V	200	VAL	2.7
1	F	316	TYR	2.7
1	C	42	HIS	2.7
1	T	559	THR	2.7
2	d	109	HIS	2.7
1	D	211	GLY	2.7
1	F	114	GLY	2.7
1	T	561	GLY	2.7
1	V	427	MET	2.7
2	i	30	PRO	2.7
2	i	41	GLY	2.7
1	B	33	VAL	2.7
1	W	62	LEU	2.7
1	F	206	ILE	2.7
1	U	558	ILE	2.7
1	V	495	ILE	2.7
1	X	443	TYR	2.7
2	d	80	HIS	2.7
1	E	211	GLY	2.7
1	S	211	GLY	2.7
1	W	442	GLY	2.7
1	X	203	ALA	2.6
1	E	367	LEU	2.6
1	W	489	LEU	2.6
1	F	495	ILE	2.6
1	N	545	GLU	2.6
1	W	427	MET	2.6
1	V	463	SER	2.6
1	V	61	GLY	2.6
1	X	99	TYR	2.6
1	D	52	ASP	2.6
1	U	460	ALA	2.6
1	U	380	LEU	2.6
2	d	61	ASN	2.6
1	H	545	GLU	2.6
1	P	42	HIS	2.6
1	T	521	HIS	2.6
1	V	42	HIS	2.6

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Mol	Chain	Res	Type	RSRZ
2	d	78	HIS	2.6
1	D	210	PRO	2.6
1	K	561	GLY	2.6
1	X	389	PRO	2.6
1	W	422	SER	2.6
1	V	257	ARG	2.6
1	W	374	LYS	2.6
1	U	33	VAL	2.6
1	E	560	ALA	2.6
1	W	214	ALA	2.6
1	X	560	ALA	2.6
1	D	558	ILE	2.6
1	X	427	MET	2.6
1	M	42	HIS	2.6
1	U	490	GLU	2.6
1	S	522	PRO	2.6
1	T	398	GLY	2.6
2	d	108	ARG	2.6
1	S	76	SER	2.6
1	X	40	VAL	2.6
1	X	106	VAL	2.6
1	E	486	LEU	2.6
1	U	379	LEU	2.6
1	W	385	LEU	2.6
1	E	502	PHE	2.6
1	U	396	TRP	2.6
1	U	430	CYS	2.6
1	U	507	GLU	2.6
1	Q	211	GLY	2.6
1	F	217	THR	2.6
1	U	559	THR	2.6
1	S	433	VAL	2.6
1	V	493	VAL	2.6
1	W	562	SER	2.6
1	S	404	LEU	2.6
1	U	556	LEU	2.6
2	i	97	LEU	2.6
1	F	522	PRO	2.5
1	W	42	HIS	2.5
2	i	80	HIS	2.5
2	j	80	HIS	2.5
1	S	534	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
1	T	33	VAL	2.5
1	U	441	VAL	2.5
1	Q	562	SER	2.5
1	U	422	SER	2.5
1	W	469	MET	2.5
1	E	467	PHE	2.5
1	F	491	LYS	2.5
1	W	492	LYS	2.5
1	D	522	PRO	2.5
1	X	482	ARG	2.5
1	E	42	HIS	2.5
1	O	327	GLY	2.5
1	X	380	LEU	2.5
1	W	254	LYS	2.5
2	Z	32	LYS	2.5
1	X	257	ARG	2.5
1	U	410	HIS	2.5
1	X	42	HIS	2.5
1	X	398	GLY	2.5
1	T	392	LEU	2.5
1	X	516	TYR	2.5
2	i	31	ALA	2.5
1	F	403	SER	2.5
2	b	111	SER	2.5
1	U	210	PRO	2.5
2	i	43	PRO	2.5
1	D	55	GLY	2.5
1	R	563	HIS	2.5
1	X	416	GLY	2.5
2	h	80	HIS	2.5
1	L	174	GLU	2.5
2	Z	103	LEU	2.5
1	A	315	VAL	2.5
1	U	47	MET	2.5
1	D	495	ILE	2.5
1	T	461	THR	2.5
1	F	92	TYR	2.5
1	U	85	PHE	2.5
1	F	84	LYS	2.4
1	W	52	ASP	2.4
1	X	423	GLY	2.4
1	S	89	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
1	X	250	CYS	2.4
1	T	324	ALA	2.4
2	a	47	ALA	2.4
1	U	397	SER	2.4
1	U	403	SER	2.4
1	S	556	LEU	2.4
1	V	489	LEU	2.4
1	W	404	LEU	2.4
1	H	544	GLU	2.4
1	W	33	VAL	2.4
1	W	57	VAL	2.4
1	W	384	VAL	2.4
1	D	479	ASN	2.4
1	D	483	ALA	2.4
1	H	543	ALA	2.4
1	P	157	ASN	2.4
2	f	39	ALA	2.4
2	h	85	ALA	2.4
1	S	513	THR	2.4
1	C	562	SER	2.4
1	U	89	LEU	2.4
1	F	417	GLY	2.4
1	Q	42	HIS	2.4
1	S	563	HIS	2.4
1	T	452	MET	2.4
1	V	211	GLY	2.4
1	X	539	HIS	2.4
2	h	52	GLY	2.4
2	j	109	HIS	2.4
1	U	518	VAL	2.4
1	W	476	VAL	2.4
1	E	554	LYS	2.4
1	S	558	ILE	2.4
1	W	477	LYS	2.4
2	h	32	LYS	2.4
1	P	560	ALA	2.4
1	W	436	LEU	2.4
1	R	47	MET	2.4
1	T	427	MET	2.4
1	D	497	TRP	2.4
1	U	211	GLY	2.4
1	X	52	ASP	2.4

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Mol	Chain	Res	Type	RSRZ
2	Z	78	HIS	2.4
2	d	41	GLY	2.4
2	i	51	VAL	2.4
1	B	544	GLU	2.4
1	F	434	GLU	2.4
1	D	381	ILE	2.4
1	W	504	LYS	2.4
1	X	390	LYS	2.4
2	e	38	ILE	2.4
2	j	98	PHE	2.4
2	Y	61	ASN	2.4
1	M	548	TYR	2.3
1	U	409	TYR	2.3
1	F	486	LEU	2.3
1	M	533	PRO	2.3
1	S	427	MET	2.3
1	S	501	GLN	2.3
2	g	109	HIS	2.3
1	F	397	SER	2.3
1	W	340	SER	2.3
1	W	396	TRP	2.3
1	X	402	TRP	2.3
1	D	490	GLU	2.3
2	h	96	ILE	2.3
1	E	324	ALA	2.3
1	Q	414	ALA	2.3
1	W	425	PHE	2.3
1	V	389	PRO	2.3
1	C	504	LYS	2.3
1	F	122	VAL	2.3
1	S	476	VAL	2.3
1	T	493	VAL	2.3
1	V	441	VAL	2.3
1	W	127	VAL	2.3
1	W	508	TRP	2.3
2	Z	111	SER	2.3
1	B	64	ALA	2.3
1	F	203	ALA	2.3
1	N	560	ALA	2.3
1	S	59	PHE	2.3
1	T	467	PHE	2.3
1	V	365	ALA	2.3

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Mol	Chain	Res	Type	RSRZ
1	X	513	THR	2.3
2	a	57	THR	2.3
1	D	47	MET	2.3
1	X	520	ASN	2.3
1	T	41	PRO	2.3
1	W	522	PRO	2.3
1	F	310	GLN	2.3
1	F	492	LYS	2.3
1	U	477	LYS	2.3
1	V	63	LYS	2.3
1	X	524	LYS	2.3
1	F	442	GLY	2.3
1	P	211	GLY	2.3
1	Q	546	VAL	2.3
1	R	494	GLY	2.3
2	i	46	GLY	2.3
1	S	401	ILE	2.3
1	X	503	TRP	2.3
1	A	365	ALA	2.3
1	K	560	ALA	2.3
1	U	255	ASP	2.3
1	X	438	PHE	2.3
1	U	414	ALA	2.3
2	a	107	ALA	2.3
1	V	435	ARG	2.3
1	C	489	LEU	2.3
1	C	278	THR	2.3
1	W	317	THR	2.3
2	i	57	THR	2.3
1	S	429	ASN	2.3
1	F	530	CYS	2.3
1	U	491	LYS	2.3
2	i	32	LYS	2.3
1	S	82	TYR	2.3
1	F	384	VAL	2.3
1	F	526	ILE	2.3
1	T	40	VAL	2.3
1	U	309	VAL	2.3
1	U	362	VAL	2.3
1	X	494	GLY	2.3
2	f	75	ILE	2.3
2	f	80	HIS	2.3

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Mol	Chain	Res	Type	RSRZ
2	g	80	HIS	2.3
2	i	89	VAL	2.3
1	S	279	GLU	2.3
1	W	203	ALA	2.3
2	Z	79	GLU	2.3
1	G	496	SER	2.3
1	S	562	SER	2.3
1	U	205	SER	2.3
1	F	210	PRO	2.3
1	F	531	PRO	2.3
1	N	172	THR	2.3
1	O	172	THR	2.3
1	S	531	PRO	2.3
1	E	563	HIS	2.2
1	F	401	ILE	2.2
1	F	437	CYS	2.2
1	H	211	GLY	2.2
1	W	437	CYS	2.2
1	X	305	GLY	2.2
2	h	83	GLN	2.2
2	h	109	HIS	2.2
1	D	85	PHE	2.2
1	F	218	PHE	2.2
1	F	204	TRP	2.2
1	V	497	TRP	2.2
2	j	107	ALA	2.2
1	E	470	ASP	2.2
1	W	321	MET	2.2
1	S	54	SER	2.2
1	S	428	SER	2.2
1	U	392	LEU	2.2
1	V	562	SER	2.2
1	U	363	LYS	2.2
1	V	533	PRO	2.2
1	E	513	THR	2.2
1	S	505	THR	2.2
1	J	558	ILE	2.2
1	Q	558	ILE	2.2
1	S	35	ILE	2.2
2	c	61	ASN	2.2
2	d	38	ILE	2.2
1	D	521	HIS	2.2

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Mol	Chain	Res	Type	RSRZ
1	L	42	HIS	2.2
1	R	540	HIS	2.2
1	U	42	HIS	2.2
2	c	109	HIS	2.2
1	F	85	PHE	2.2
1	T	527	PHE	2.2
1	U	502	PHE	2.2
1	E	312	ALA	2.2
1	X	376	ALA	2.2
1	X	424	GLU	2.2
1	U	204	TRP	2.2
1	W	380	LEU	2.2
1	X	473	LEU	2.2
1	E	325	ASP	2.2
1	S	374	LYS	2.2
1	F	366	SER	2.2
1	A	127	VAL	2.2
1	B	558	ILE	2.2
1	S	546	VAL	2.2
1	V	55	GLY	2.2
2	h	28	VAL	2.2
1	E	540	HIS	2.2
1	E	369	TYR	2.2
1	W	458	ASN	2.2
1	F	482	ARG	2.2
1	U	437	CYS	2.2
1	W	207	GLU	2.2
1	W	388	MET	2.2
1	X	388	MET	2.2
1	T	503	TRP	2.2
1	U	508	TRP	2.2
1	X	86	TRP	2.2
1	X	404	LEU	2.2
1	T	504	LYS	2.2
1	U	70	PRO	2.2
1	W	79	PRO	2.2
1	X	146	PRO	2.2
1	X	515	PRO	2.2
1	A	513	THR	2.2
1	S	525	THR	2.2
1	S	559	THR	2.2
1	U	433	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
2	j	45	VAL	2.2
1	W	215	GLY	2.2
1	X	215	GLY	2.2
1	S	527	PHE	2.2
1	V	45	TYR	2.2
1	V	316	TYR	2.2
1	V	444	PHE	2.2
1	E	556	LEU	2.2
1	V	202	CYS	2.2
1	O	545	GLU	2.2
1	V	87	LYS	2.2
1	V	402	TRP	2.2
1	T	499	PRO	2.2
1	E	314	ILE	2.2
1	F	188	ILE	2.2
1	N	558	ILE	2.2
1	R	562	SER	2.2
1	U	549	ILE	2.2
2	Z	100	SER	2.2
2	j	40	ILE	2.2
1	P	33	VAL	2.2
1	W	362	VAL	2.2
2	b	51	VAL	2.2
1	V	215	GLY	2.1
2	Z	57	THR	2.1
2	j	52	GLY	2.1
1	W	484	ARG	2.1
1	X	527	PHE	2.1
2	e	26	TYR	2.1
2	i	26	TYR	2.1
1	F	436	LEU	2.1
1	J	560	ALA	2.1
1	S	477	LYS	2.1
1	W	414	ALA	2.1
1	W	560	ALA	2.1
1	R	105	GLU	2.1
1	X	39	TRP	2.1
1	V	48	PRO	2.1
1	V	210	PRO	2.1
1	X	499	PRO	2.1
1	X	533	PRO	2.1
1	W	35	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
1	X	36	ILE	2.1
1	V	212	ASP	2.1
1	W	514	GLY	2.1
1	X	465	GLY	2.1
1	X	466	SER	2.1
2	g	111	SER	2.1
2	h	82	GLY	2.1
1	S	99	TYR	2.1
1	S	316	TYR	2.1
1	W	408	ALA	2.1
1	W	486	LEU	2.1
2	f	105	ALA	2.1
1	W	475	ASN	2.1
1	D	119	GLU	2.1
1	F	86	TRP	2.1
1	F	393	CYS	2.1
1	S	77	PRO	2.1
1	F	546	VAL	2.1
1	D	442	GLY	2.1
1	E	47	MET	2.1
1	E	494	GLY	2.1
1	T	52	ASP	2.1
1	W	386	ASP	2.1
1	W	391	ASP	2.1
1	A	562	SER	2.1
1	F	418	THR	2.1
1	F	527	PHE	2.1
1	K	540	HIS	2.1
1	T	428	SER	2.1
1	U	428	SER	2.1
1	U	563	HIS	2.1
1	V	58	PHE	2.1
1	W	410	HIS	2.1
1	X	59	PHE	2.1
2	b	78	HIS	2.1
1	U	501	GLN	2.1
1	V	65	LYS	2.1
1	T	404	LEU	2.1
1	W	473	LEU	2.1
2	i	103	LEU	2.1
1	F	123	ALA	2.1
1	N	365	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
1	X	414	ALA	2.1
1	V	66	TYR	2.1
1	W	66	TYR	2.1
1	W	449	TYR	2.1
1	X	95	TYR	2.1
2	i	73	TYR	2.1
1	F	377	GLU	2.1
1	S	174	GLU	2.1
1	W	53	ASN	2.1
2	Z	61	ASN	2.1
1	U	533	PRO	2.1
1	W	210	PRO	2.1
1	W	499	PRO	2.1
1	X	542	PRO	2.1
1	U	497	TRP	2.1
1	V	35	ILE	2.1
1	X	35	ILE	2.1
2	h	38	ILE	2.1
1	X	476	VAL	2.1
1	M	523	GLY	2.1
1	V	337	ARG	2.1
1	X	58	PHE	2.1
1	E	379	LEU	2.1
1	M	513	THR	2.1
1	T	278	THR	2.1
1	V	355	LEU	2.1
2	f	42	THR	2.1
1	W	399	GLN	2.1
1	F	376	ALA	2.1
1	F	480	ALA	2.1
1	V	453	ALA	2.1
1	T	447	TYR	2.1
1	V	78	TYR	2.1
2	f	26	TYR	2.1
1	T	119	GLU	2.1
1	F	508	TRP	2.1
1	A	546	VAL	2.1
1	E	339	VAL	2.1
1	W	474	VAL	2.1
1	F	103	ARG	2.1
1	S	557	GLY	2.1
1	V	504	LYS	2.1

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Mol	Chain	Res	Type	RSRZ
1	S	521	HIS	2.1
1	V	454	HIS	2.1
1	W	372	THR	2.0
1	E	403	SER	2.0
1	U	562	SER	2.0
1	V	543	ALA	2.0
1	X	369	TYR	2.0
1	X	548	TYR	2.0
1	E	434	GLU	2.0
1	S	119	GLU	2.0
1	W	36	ILE	2.0
1	X	401	ILE	2.0
2	a	61	ASN	2.0
1	S	362	VAL	2.0
1	S	503	TRP	2.0
1	V	375	VAL	2.0
1	O	524	LYS	2.0
2	g	32	LYS	2.0
2	i	87	LYS	2.0
1	E	398	GLY	2.0
1	F	561	GLY	2.0
1	U	557	GLY	2.0
1	W	59	PHE	2.0
1	W	398	GLY	2.0
1	X	294	GLY	2.0
1	A	556	LEU	2.0
1	T	540	HIS	2.0
1	X	536	LEU	2.0
2	i	109	HIS	2.0
1	K	559	THR	2.0
2	i	36	THR	2.0
1	X	324	ALA	2.0
1	X	480	ALA	2.0
1	X	541	ALA	2.0
1	A	403	SER	2.0
1	A	549	ILE	2.0
1	F	545	GLU	2.0
1	S	70	PRO	2.0
1	U	522	PRO	2.0
1	V	517	ILE	2.0
1	W	381	ILE	2.0
1	X	558	ILE	2.0

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Mol	Chain	Res	Type	RSRZ
1	S	47	MET	2.0
1	S	524	LYS	2.0
1	T	63	LYS	2.0
1	V	482	ARG	2.0
1	W	56	LYS	2.0
1	V	503	TRP	2.0
1	W	497	TRP	2.0
1	F	379	LEU	2.0
1	S	85	PHE	2.0
1	U	404	LEU	2.0
1	U	553	LEU	2.0
1	V	561	GLY	2.0
1	W	218	PHE	2.0
1	X	502	PHE	2.0
2	b	82	GLY	2.0

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

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

6.3 Carbohydrates [i](#)

There are no 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
4	SO4	X	610	5/5	0.31	0.13	158,161,161,162	0
6	K	X	612	1/1	0.44	0.20	93,93,93,93	0
6	K	K	616	1/1	0.46	0.17	85,85,85,85	0
4	SO4	c	201	5/5	0.54	0.12	132,133,135,135	0
6	K	H	616	1/1	0.54	0.17	82,82,82,82	0
4	SO4	X	611	5/5	0.55	0.12	139,139,141,144	0
4	SO4	a	201	5/5	0.63	0.11	139,139,140,140	0
4	SO4	X	609	5/5	0.64	0.11	107,108,110,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
4	SO4	O	610	5/5	0.66	0.12	109,111,112,112	0
4	SO4	S	609	5/5	0.66	0.11	129,133,135,135	0
4	SO4	Q	611	5/5	0.67	0.12	112,118,119,119	0
4	SO4	A	611	5/5	0.68	0.14	117,118,119,120	0
4	SO4	H	610	5/5	0.69	0.14	106,111,113,114	0
4	SO4	H	613	5/5	0.70	0.17	116,120,125,127	0
4	SO4	U	611	5/5	0.70	0.12	127,130,131,133	0
4	SO4	L	612	5/5	0.71	0.14	110,112,115,115	0
4	SO4	V	611	5/5	0.71	0.11	131,133,134,135	0
4	SO4	C	609	5/5	0.72	0.14	96,102,106,108	0
5	GOL	A	614	6/6	0.73	0.21	82,89,90,91	0
6	K	Q	612	1/1	0.73	0.10	96,96,96,96	0
4	SO4	I	612	5/5	0.73	0.13	120,121,124,125	0
4	SO4	C	610	5/5	0.74	0.27	143,145,147,149	0
4	SO4	C	611	5/5	0.74	0.13	111,111,114,116	0
4	SO4	M	610	5/5	0.74	0.23	134,135,138,139	0
4	SO4	Y	202	5/5	0.75	0.09	130,130,132,136	0
4	SO4	M	612	5/5	0.75	0.14	121,122,123,125	0
4	SO4	G	611	5/5	0.77	0.12	139,139,143,149	0
4	SO4	N	610	5/5	0.77	0.16	101,105,107,109	0
4	SO4	H	612	5/5	0.78	0.14	110,113,116,118	0
5	GOL	J	612	6/6	0.78	0.18	58,64,67,67	0
4	SO4	K	611	5/5	0.79	0.15	102,104,105,105	0
4	SO4	I	611	5/5	0.79	0.11	115,115,116,117	0
4	SO4	J	611	5/5	0.79	0.21	118,118,120,123	0
4	SO4	Q	609	5/5	0.79	0.11	84,87,88,89	0
5	GOL	I	615	6/6	0.80	0.15	51,55,56,57	0
4	SO4	W	609	5/5	0.80	0.09	114,118,119,124	0
4	SO4	M	611	5/5	0.80	0.20	129,131,136,137	0
4	SO4	F	610	5/5	0.80	0.10	135,136,139,139	0
5	GOL	G	615	6/6	0.80	0.20	61,67,68,68	0
4	SO4	E	610	5/5	0.80	0.09	103,105,106,109	0
4	SO4	L	610	5/5	0.81	0.13	142,143,145,150	0
5	GOL	H	615	6/6	0.81	0.37	78,86,90,100	0
4	SO4	U	610	5/5	0.81	0.11	99,101,103,104	0
4	SO4	Y	201	5/5	0.81	0.11	136,136,137,141	0
4	SO4	L	611	5/5	0.81	0.10	116,119,121,122	0
4	SO4	G	612	5/5	0.81	0.16	120,124,126,126	0
4	SO4	H	609	5/5	0.81	0.17	78,81,82,83	0
4	SO4	B	609	5/5	0.81	0.18	116,117,119,124	0
5	GOL	A	612	6/6	0.82	0.17	76,78,79,81	0
4	SO4	O	611	5/5	0.82	0.10	114,114,119,120	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
5	GOL	D	610	6/6	0.82	0.15	86,88,88,89	0
5	GOL	K	612	6/6	0.82	0.24	76,80,86,90	0
4	SO4	Q	610	5/5	0.83	0.20	133,136,137,137	0
4	SO4	T	609	5/5	0.84	0.10	98,100,102,102	0
4	SO4	B	610	5/5	0.84	0.14	88,89,91,91	0
4	SO4	P	609	5/5	0.84	0.19	95,95,96,98	0
4	SO4	F	609	5/5	0.85	0.08	95,99,102,104	0
4	SO4	N	611	5/5	0.85	0.10	123,126,127,129	0
4	SO4	A	610	5/5	0.85	0.13	73,77,79,80	0
5	GOL	A	613	6/6	0.85	0.14	74,77,78,79	0
4	SO4	H	611	5/5	0.85	0.13	97,100,101,105	0
4	SO4	R	610	5/5	0.85	0.15	75,77,79,79	0
4	SO4	R	611	5/5	0.85	0.21	142,143,145,147	0
4	SO4	K	610	5/5	0.86	0.15	84,84,86,88	0
4	SO4	L	609	5/5	0.87	0.10	91,94,94,97	0
4	SO4	J	610	5/5	0.87	0.13	99,100,101,103	0
5	GOL	I	613	6/6	0.87	0.13	59,64,66,73	0
4	SO4	G	610	5/5	0.87	0.24	104,106,107,108	0
4	SO4	S	610	5/5	0.87	0.13	92,93,94,95	0
4	SO4	V	610	5/5	0.88	0.12	94,97,98,99	0
4	SO4	D	609	5/5	0.89	0.10	82,82,84,87	0
4	SO4	G	614	5/5	0.89	0.14	91,94,95,95	0
4	SO4	O	609	5/5	0.89	0.11	77,78,80,82	0
5	GOL	L	613	6/6	0.89	0.17	56,59,60,61	0
5	GOL	J	613	6/6	0.90	0.16	58,61,62,63	0
4	SO4	J	609	5/5	0.90	0.11	77,79,80,80	0
5	GOL	K	615	6/6	0.90	0.33	53,55,58,59	0
5	GOL	H	614	6/6	0.90	0.30	56,63,64,68	0
4	SO4	M	609	5/5	0.91	0.12	89,90,91,92	0
4	SO4	V	609	5/5	0.91	0.10	56,59,60,62	0
5	GOL	K	613	6/6	0.91	0.09	45,51,52,53	0
5	GOL	I	614	6/6	0.92	0.33	67,78,80,83	0
4	SO4	E	609	5/5	0.92	0.10	50,51,53,53	0
4	SO4	G	613	5/5	0.93	0.10	63,63,64,66	0
3	HEC	V	602	43/43	0.93	0.14	68,73,87,100	0
3	HEC	W	606	43/43	0.93	0.14	64,76,88,96	0
3	HEC	X	606	43/43	0.93	0.15	69,83,87,90	0
5	GOL	G	616	6/6	0.93	0.10	37,40,41,41	0
4	SO4	U	609	5/5	0.93	0.10	57,58,60,64	0
3	HEC	V	603	43/43	0.94	0.12	51,65,82,86	0
3	HEC	W	603	43/43	0.94	0.13	67,77,85,89	0
5	GOL	K	614	6/6	0.94	0.20	49,56,57,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	HEC	W	605	43/43	0.94	0.13	74,81,87,89	0
3	HEC	S	603	43/43	0.94	0.13	72,77,88,94	0
3	HEC	U	606	43/43	0.94	0.13	65,72,88,96	0
4	SO4	G	609	5/5	0.94	0.10	72,72,74,74	0
3	HEC	S	605	43/43	0.94	0.13	63,72,82,83	0
4	SO4	I	610	5/5	0.94	0.10	67,67,69,69	0
3	HEC	V	606	43/43	0.95	0.11	57,60,76,81	0
3	HEC	V	607	43/43	0.95	0.11	54,66,69,70	0
3	HEC	E	605	43/43	0.95	0.12	53,63,75,82	0
3	HEC	E	606	43/43	0.95	0.13	55,60,68,75	0
3	HEC	F	603	43/43	0.95	0.12	62,70,74,79	0
3	HEC	F	605	43/43	0.95	0.11	54,60,69,78	0
3	HEC	X	603	43/43	0.95	0.12	70,80,103,109	0
3	HEC	X	601	43/43	0.95	0.11	62,69,78,82	0
3	HEC	X	602	43/43	0.95	0.12	69,75,91,106	0
3	HEC	X	605	43/43	0.95	0.15	79,86,97,100	0
3	HEC	N	601	43/43	0.95	0.11	41,44,55,65	0
3	HEC	Q	602	43/43	0.95	0.13	64,68,88,97	0
3	HEC	S	602	43/43	0.95	0.13	63,71,86,104	0
3	HEC	S	604	43/43	0.95	0.12	59,66,75,86	0
3	HEC	A	604	43/43	0.95	0.11	47,50,61,73	0
3	HEC	S	606	43/43	0.95	0.11	61,69,74,79	0
3	HEC	A	606	43/43	0.95	0.12	45,60,73,78	0
3	HEC	T	602	43/43	0.95	0.12	59,68,83,97	0
3	HEC	T	607	43/43	0.95	0.11	49,57,60,62	0
3	HEC	U	603	43/43	0.95	0.11	61,72,83,85	0
3	HEC	U	600	43/43	0.95	0.11	58,64,71,72	0
3	HEC	U	605	43/43	0.95	0.12	62,68,80,87	0
3	HEC	D	600	43/43	0.95	0.10	54,60,68,74	0
3	HEC	E	603	43/43	0.95	0.11	56,66,92,96	0
3	HEC	V	605	43/43	0.95	0.12	56,65,73,76	0
4	SO4	I	609	5/5	0.96	0.08	28,28,29,30	0
3	HEC	S	607	43/43	0.96	0.11	51,57,59,60	0
3	HEC	E	602	43/43	0.96	0.11	48,53,73,94	0
3	HEC	T	603	43/43	0.96	0.10	60,66,71,73	0
3	HEC	T	600	43/43	0.96	0.10	53,60,68,69	0
3	HEC	T	601	43/43	0.96	0.10	55,58,61,63	0
3	HEC	E	604	43/43	0.96	0.10	40,45,53,63	0
3	HEC	T	604	43/43	0.96	0.10	59,65,70,80	0
3	HEC	T	605	43/43	0.96	0.11	54,60,74,76	0
3	HEC	T	606	43/43	0.96	0.10	52,56,65,74	0
3	HEC	A	605	43/43	0.96	0.11	50,59,63,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	HEC	A	600	43/43	0.96	0.10	47,49,56,59	0
3	HEC	E	607	43/43	0.96	0.10	47,54,60,62	0
3	HEC	U	601	43/43	0.96	0.11	54,57,67,73	0
3	HEC	U	602	43/43	0.96	0.11	60,69,94,116	0
3	HEC	U	604	43/43	0.96	0.11	52,60,72,81	0
3	HEC	A	607	43/43	0.96	0.10	41,45,50,53	0
3	HEC	F	600	43/43	0.96	0.10	46,52,62,68	0
3	HEC	U	607	43/43	0.96	0.11	53,70,73,74	0
3	HEC	V	600	43/43	0.96	0.11	67,70,84,91	0
3	HEC	V	601	43/43	0.96	0.10	52,63,65,67	0
3	HEC	F	601	43/43	0.96	0.12	51,55,68,70	0
3	HEC	V	604	43/43	0.96	0.11	59,71,81,85	0
3	HEC	F	602	43/43	0.96	0.12	64,75,85,96	0
3	HEC	F	604	43/43	0.96	0.10	58,65,74,84	0
3	HEC	A	603	43/43	0.96	0.11	54,66,71,73	0
4	SO4	R	609	5/5	0.96	0.08	36,39,40,40	0
3	HEC	F	606	43/43	0.96	0.11	50,56,67,76	0
3	HEC	F	607	43/43	0.96	0.11	49,56,57,60	0
3	HEC	W	600	43/43	0.96	0.10	61,68,74,77	0
3	HEC	W	601	43/43	0.96	0.11	61,70,77,80	0
3	HEC	W	602	43/43	0.96	0.11	54,58,83,99	0
3	HEC	W	604	43/43	0.96	0.10	50,57,67,74	0
3	HEC	H	602	43/43	0.96	0.10	35,44,64,77	0
3	HEC	I	602	43/43	0.96	0.10	37,42,59,70	0
3	HEC	W	607	43/43	0.96	0.11	63,68,71,71	0
3	HEC	J	600	43/43	0.96	0.10	37,41,52,60	0
3	HEC	X	600	43/43	0.96	0.10	57,63,75,81	0
3	HEC	J	602	43/43	0.96	0.11	38,41,67,86	0
3	HEC	K	600	43/43	0.96	0.10	38,40,46,55	0
3	HEC	X	604	43/43	0.96	0.10	63,73,78,80	0
3	HEC	L	600	43/43	0.96	0.10	41,44,50,51	0
3	HEC	M	600	43/43	0.96	0.10	44,48,56,62	0
3	HEC	X	607	43/43	0.96	0.11	57,61,65,67	0
3	HEC	N	600	43/43	0.96	0.10	46,49,57,63	0
3	HEC	B	602	43/43	0.96	0.10	49,56,80,99	0
3	HEC	N	602	43/43	0.96	0.11	48,52,75,92	0
3	HEC	N	605	43/43	0.96	0.10	48,52,66,73	0
3	HEC	N	606	43/43	0.96	0.11	47,51,60,64	0
3	HEC	O	600	43/43	0.96	0.09	44,48,58,60	0
4	SO4	A	609	5/5	0.96	0.07	47,49,49,52	0
3	HEC	O	602	43/43	0.96	0.10	47,51,72,91	0
3	HEC	P	601	43/43	0.96	0.10	39,44,46,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	HEC	P	602	43/43	0.96	0.09	41,45,63,76	0
3	HEC	Q	603	43/43	0.96	0.09	52,55,58,59	0
3	HEC	Q	600	43/43	0.96	0.10	47,52,59,65	0
3	HEC	Q	601	43/43	0.96	0.11	46,50,54,56	0
3	HEC	B	604	43/43	0.96	0.10	44,51,62,67	0
3	HEC	Q	604	43/43	0.96	0.11	54,60,68,76	0
3	HEC	Q	606	43/43	0.96	0.11	44,55,65,69	0
3	HEC	R	603	43/43	0.96	0.09	37,43,48,52	0
3	HEC	R	600	43/43	0.96	0.10	49,54,62,64	0
3	HEC	S	600	43/43	0.96	0.10	60,65,73,75	0
3	HEC	S	601	43/43	0.96	0.12	67,70,81,85	0
3	HEC	C	606	43/43	0.96	0.10	41,43,59,65	0
3	HEC	C	607	43/43	0.96	0.10	44,48,49,52	0
3	HEC	A	602	43/43	0.96	0.10	51,56,79,99	0
3	HEC	G	602	43/43	0.96	0.10	34,38,59,77	0
3	HEC	B	603	43/43	0.97	0.08	45,49,53,54	0
3	HEC	H	604	43/43	0.97	0.08	38,43,53,64	0
3	HEC	H	606	43/43	0.97	0.08	32,34,39,44	0
3	HEC	I	600	43/43	0.97	0.08	39,43,50,52	0
3	HEC	I	601	43/43	0.97	0.08	35,37,41,44	0
3	HEC	D	601	43/43	0.97	0.10	51,59,61,62	0
3	HEC	D	602	43/43	0.97	0.10	45,48,65,79	0
3	HEC	D	605	43/43	0.97	0.10	48,53,61,66	0
3	HEC	J	604	43/43	0.97	0.09	32,35,44,55	0
3	HEC	J	605	43/43	0.97	0.09	32,38,43,47	0
3	HEC	J	606	43/43	0.97	0.09	33,39,41,46	0
3	HEC	D	606	43/43	0.97	0.09	46,51,62,66	0
3	HEC	K	601	43/43	0.97	0.08	33,34,38,43	0
3	HEC	K	602	43/43	0.97	0.10	44,47,65,81	0
3	HEC	K	604	43/43	0.97	0.09	36,41,49,57	0
3	HEC	K	605	43/43	0.97	0.09	35,38,43,48	0
3	HEC	K	606	43/43	0.97	0.09	33,39,42,46	0
3	HEC	L	603	43/43	0.97	0.08	35,41,50,52	0
3	HEC	D	603	43/43	0.97	0.09	54,66,69,72	0
4	SO4	N	609	5/5	0.97	0.07	40,40,41,42	0
3	HEC	L	601	43/43	0.97	0.09	36,40,45,46	0
3	HEC	L	602	43/43	0.97	0.10	42,45,57,72	0
3	HEC	L	604	43/43	0.97	0.09	35,41,48,58	0
3	HEC	L	605	43/43	0.97	0.09	35,37,41,45	0
3	HEC	L	606	43/43	0.97	0.08	35,37,43,47	0
3	HEC	B	600	43/43	0.97	0.10	48,52,59,61	0
3	HEC	M	601	43/43	0.97	0.09	41,44,47,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	HEC	M	602	43/43	0.97	0.10	44,48,72,89	0
3	HEC	M	604	43/43	0.97	0.09	40,43,51,62	0
3	HEC	M	605	43/43	0.97	0.10	36,38,46,51	0
3	HEC	M	606	43/43	0.97	0.10	37,40,50,55	0
3	HEC	M	607	43/43	0.97	0.09	36,39,52,62	0
3	HEC	M	603	43/43	0.97	0.09	42,46,49,50	0
3	HEC	N	603	43/43	0.97	0.08	47,56,60,62	0
3	HEC	E	600	43/43	0.97	0.09	39,41,53,55	0
3	HEC	E	601	43/43	0.97	0.09	39,43,47,55	0
3	HEC	B	601	43/43	0.97	0.09	43,47,56,68	0
3	HEC	N	604	43/43	0.97	0.08	42,47,56,59	0
3	HEC	G	601	43/43	0.97	0.09	37,41,43,48	0
3	HEC	A	601	43/43	0.97	0.09	44,47,53,54	0
3	HEC	N	607	43/43	0.97	0.09	37,41,44,46	0
3	HEC	O	603	43/43	0.97	0.09	40,44,49,51	0
3	HEC	B	605	43/43	0.97	0.09	42,45,53,59	0
3	HEC	B	607	43/43	0.97	0.07	37,40,45,47	0
3	HEC	O	604	43/43	0.97	0.10	34,41,50,60	0
3	HEC	O	605	43/43	0.97	0.09	36,41,49,52	0
3	HEC	O	606	43/43	0.97	0.09	37,41,49,52	0
3	HEC	O	607	43/43	0.97	0.08	34,37,38,39	0
3	HEC	P	600	43/43	0.97	0.09	44,46,51,53	0
3	HEC	C	603	43/43	0.97	0.10	44,48,58,63	0
3	HEC	C	600	43/43	0.97	0.09	49,52,56,58	0
3	HEC	P	604	43/43	0.97	0.08	36,40,52,63	0
3	HEC	P	605	43/43	0.97	0.08	43,46,49,50	0
3	HEC	P	606	43/43	0.97	0.09	43,47,48,49	0
3	HEC	P	607	43/43	0.97	0.09	38,48,52,54	0
3	HEC	P	603	43/43	0.97	0.10	40,49,56,62	0
3	HEC	C	601	43/43	0.97	0.09	41,45,50,51	0
3	HEC	C	602	43/43	0.97	0.09	45,48,66,80	0
3	HEC	C	604	43/43	0.97	0.09	42,47,53,60	0
3	HEC	C	605	43/43	0.97	0.09	38,43,53,57	0
3	HEC	G	600	43/43	0.97	0.09	40,42,45,49	0
3	HEC	Q	605	43/43	0.97	0.09	45,51,57,60	0
3	HEC	G	604	43/43	0.97	0.08	31,34,49,57	0
3	HEC	Q	607	43/43	0.97	0.08	36,40,44,46	0
3	HEC	H	600	43/43	0.97	0.07	32,37,42,44	0
3	HEC	H	601	43/43	0.97	0.09	34,36,41,47	0
3	HEC	R	601	43/43	0.97	0.09	43,48,50,50	0
3	HEC	R	602	43/43	0.97	0.10	45,48,74,89	0
3	HEC	R	604	43/43	0.97	0.09	38,43,53,61	0

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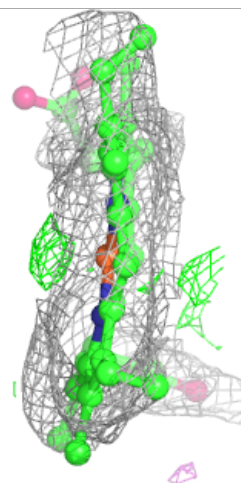
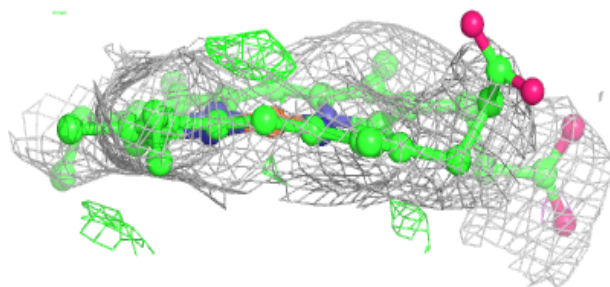
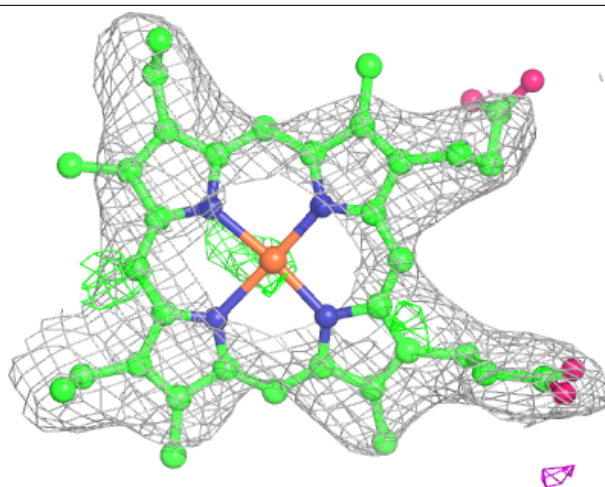
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
3	HEC	R	606	43/43	0.97	0.09	37,43,59,63	0
3	HEC	R	607	43/43	0.97	0.08	37,38,43,48	0
3	HEC	J	603	43/43	0.98	0.07	37,39,44,46	0
3	HEC	K	603	43/43	0.98	0.07	37,39,42,44	0
3	HEC	B	606	43/43	0.98	0.09	39,42,50,57	0
3	HEC	H	607	43/43	0.98	0.07	28,30,32,35	0
3	HEC	I	603	43/43	0.98	0.06	30,33,37,39	0
3	HEC	G	607	43/43	0.98	0.07	30,31,34,34	0
3	HEC	G	603	43/43	0.98	0.07	34,36,39,42	0
3	HEC	H	603	43/43	0.98	0.07	31,34,42,48	0
3	HEC	K	607	43/43	0.98	0.07	30,32,34,36	0
4	SO4	K	609	5/5	0.98	0.06	28,28,29,30	0
3	HEC	I	604	43/43	0.98	0.07	36,38,51,58	0
3	HEC	I	605	43/43	0.98	0.07	29,33,38,40	0
3	HEC	I	606	43/43	0.98	0.07	34,35,44,47	0
3	HEC	I	607	43/43	0.98	0.07	32,34,36,38	0
3	HEC	D	604	43/43	0.98	0.08	44,47,54,60	0
3	HEC	O	601	43/43	0.98	0.09	40,44,49,56	0
3	HEC	J	601	43/43	0.98	0.08	34,37,41,47	0
3	HEC	G	605	43/43	0.98	0.08	33,36,41,43	0
3	HEC	L	607	43/43	0.98	0.07	32,34,35,36	0
3	HEC	G	606	43/43	0.98	0.08	35,37,42,46	0
3	HEC	R	605	43/43	0.98	0.07	35,40,45,46	0
3	HEC	D	607	43/43	0.98	0.08	40,45,55,61	0
3	HEC	H	605	43/43	0.98	0.07	28,32,34,35	0
3	HEC	J	607	43/43	0.98	0.08	28,30,33,37	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.

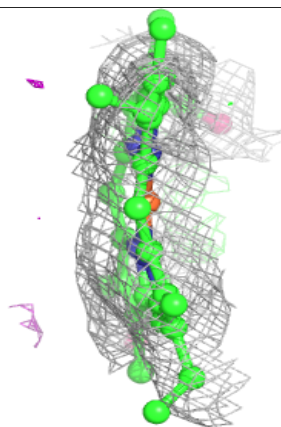
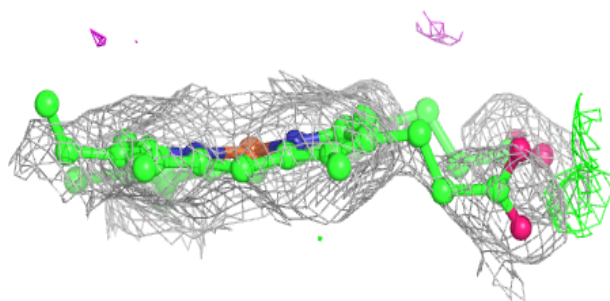
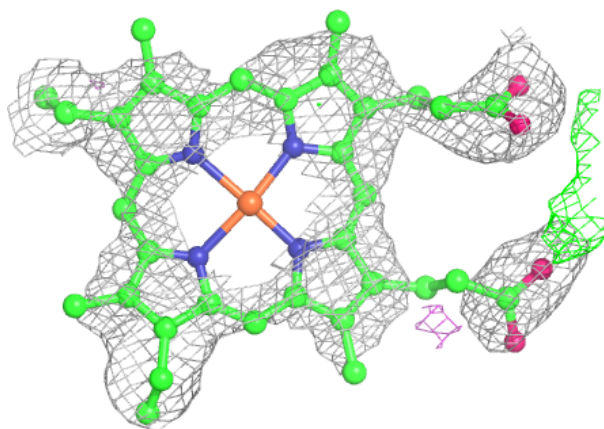
Electron density around HEC V 602:

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



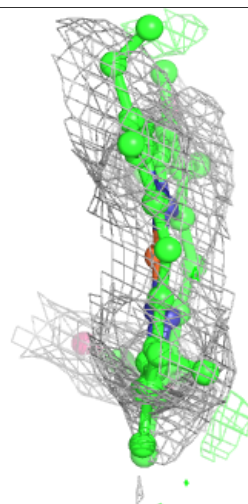
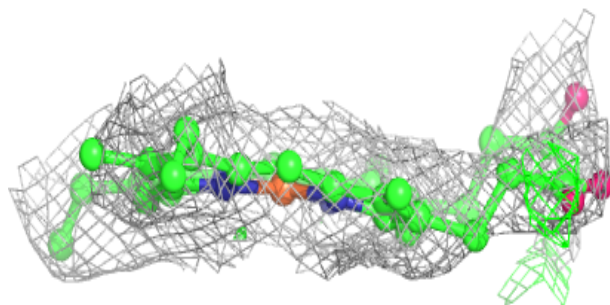
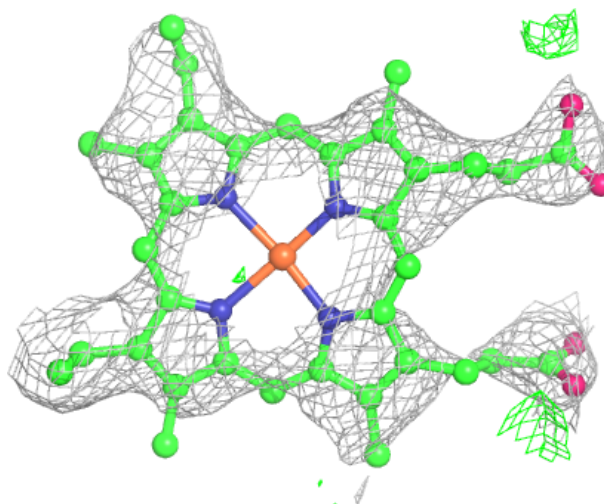
Electron density around HEC W 606:

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



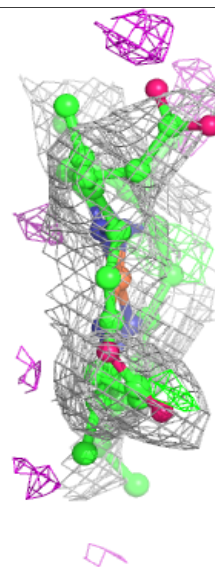
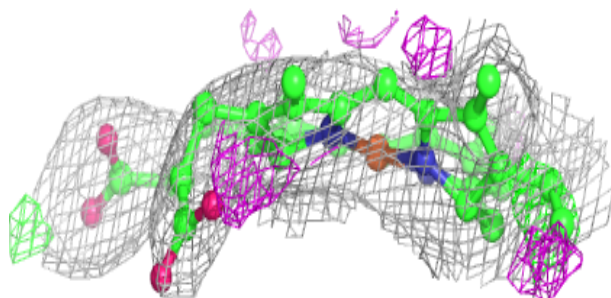
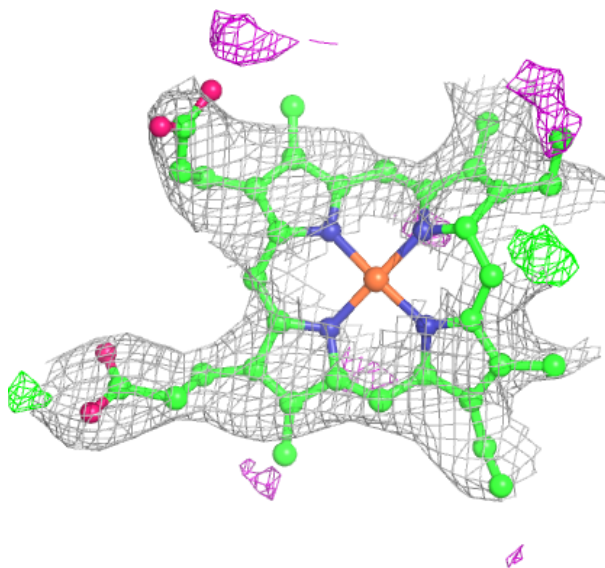
Electron density around HEC X 606:

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



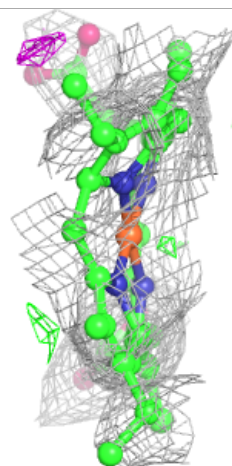
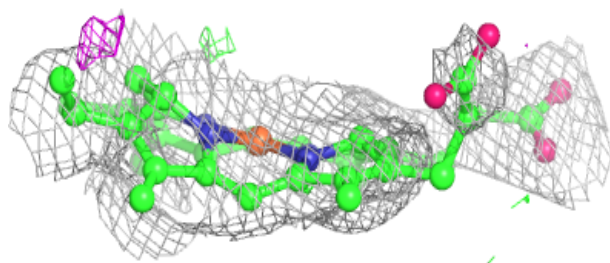
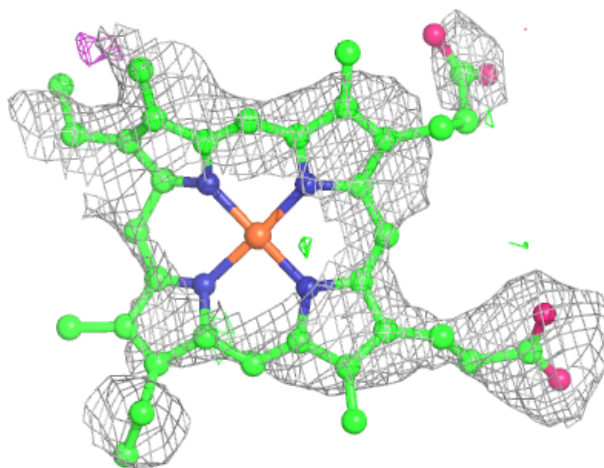
Electron density around HEC V 603:

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



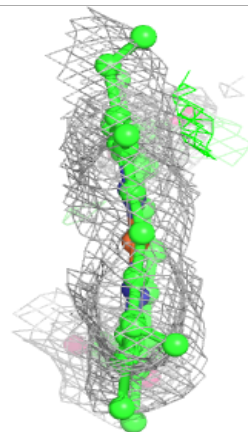
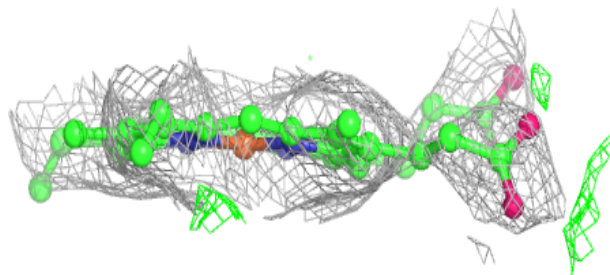
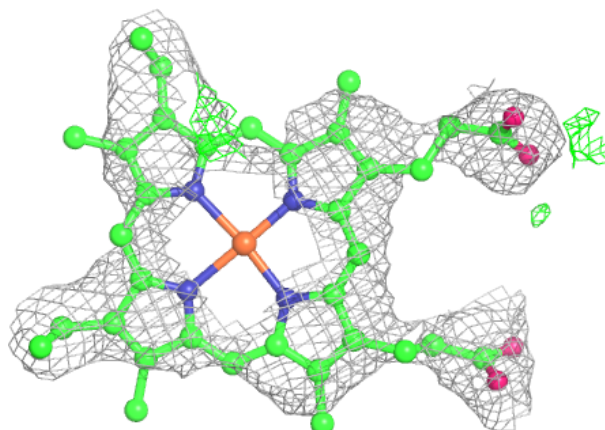
Electron density around HEC W 603:

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



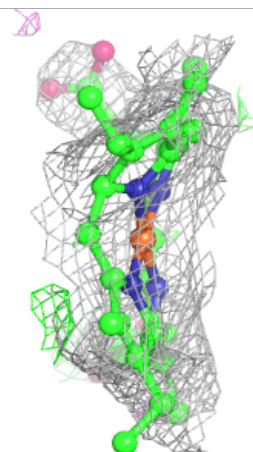
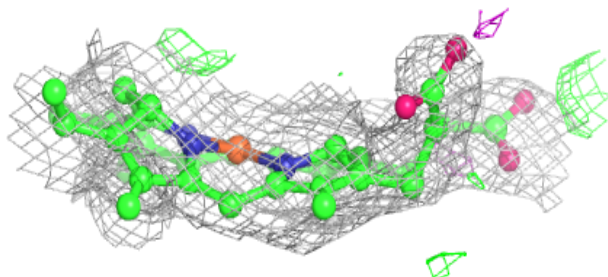
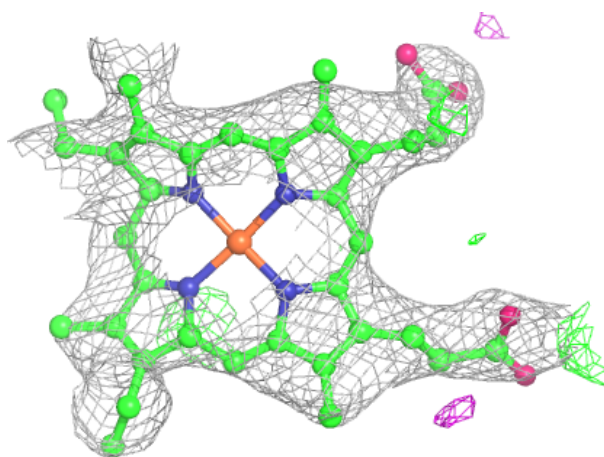
Electron density around HEC W 605:

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



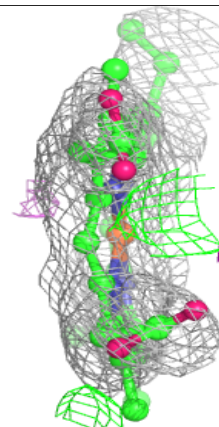
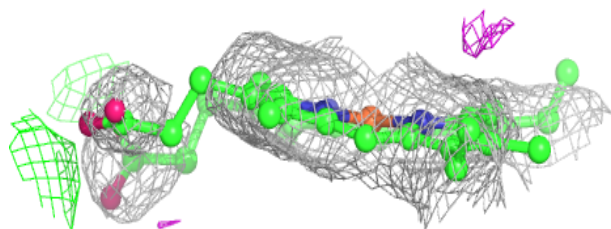
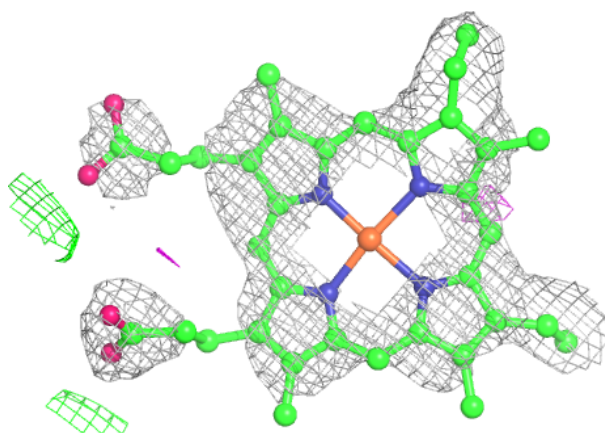
Electron density around HEC S 603:

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



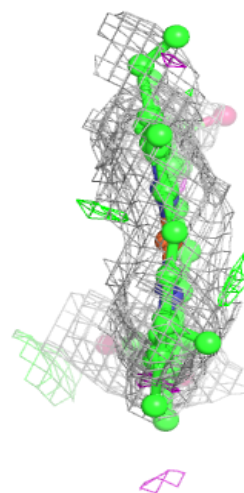
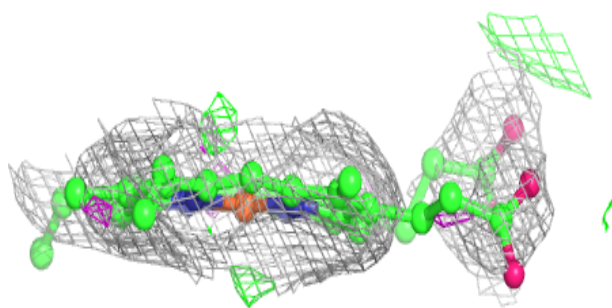
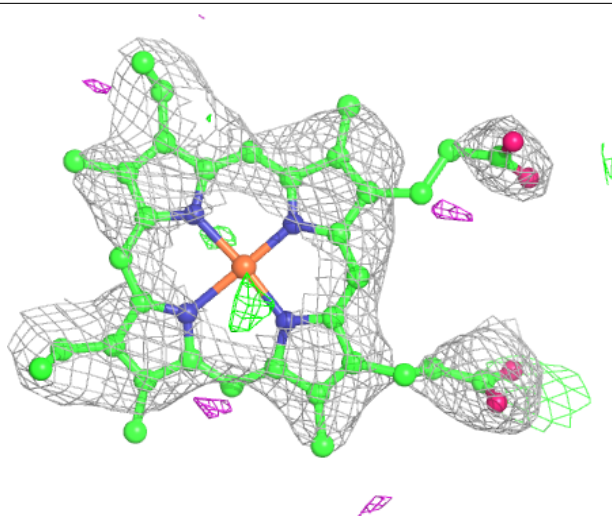
Electron density around HEC U 606:

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and green (positive)



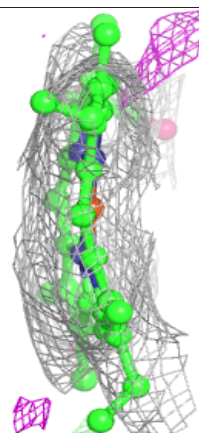
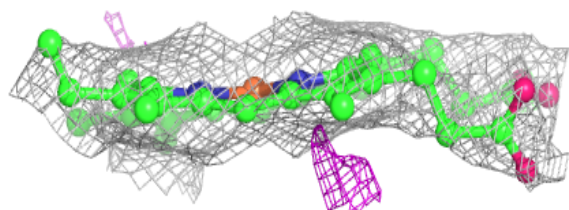
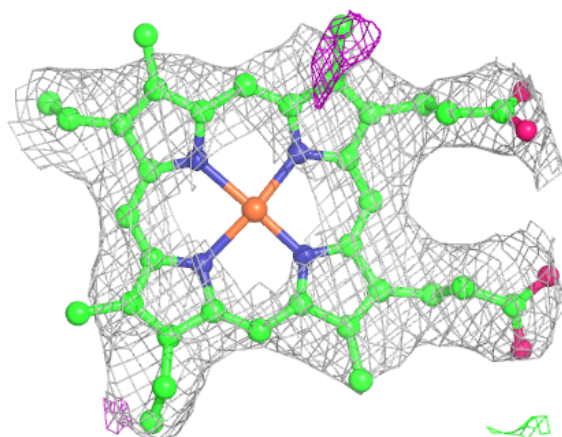
Electron density around HEC S 605:

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and green (positive)



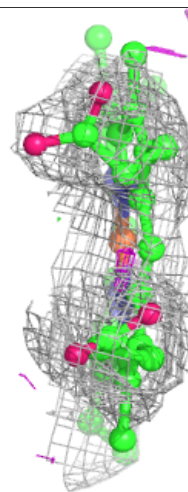
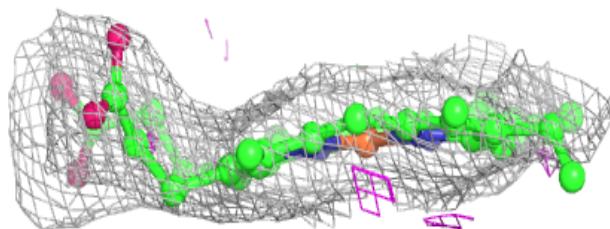
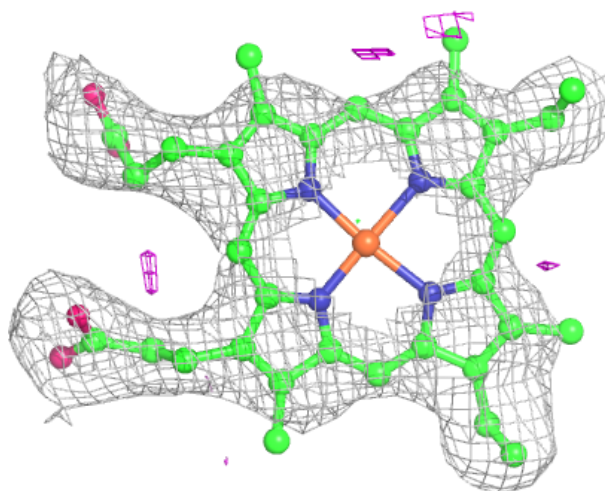
Electron density around HEC V 606:

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and green (positive)



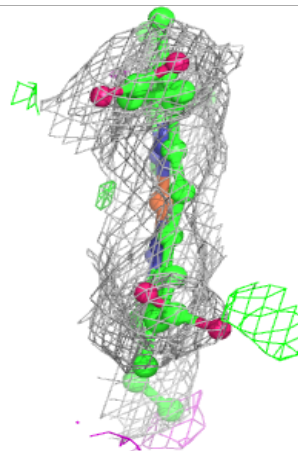
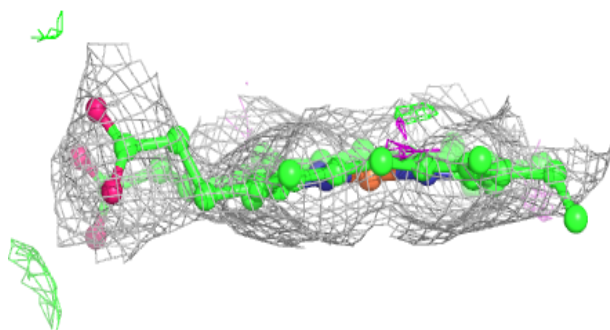
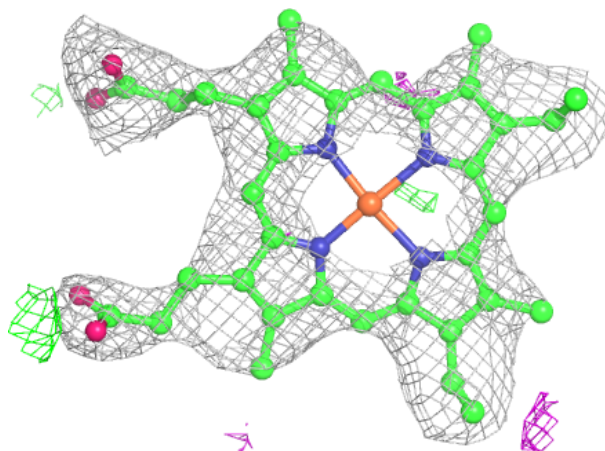
Electron density around HEC V 607:

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and green (positive)



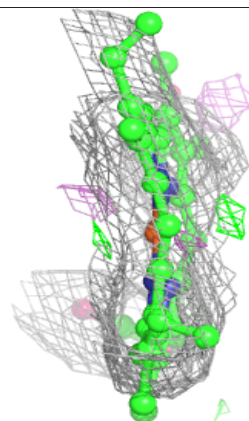
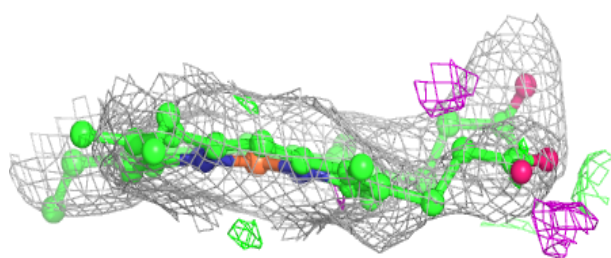
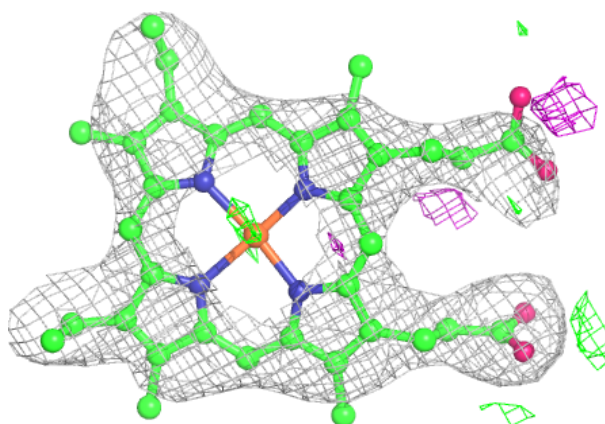
Electron density around HEC E 605:

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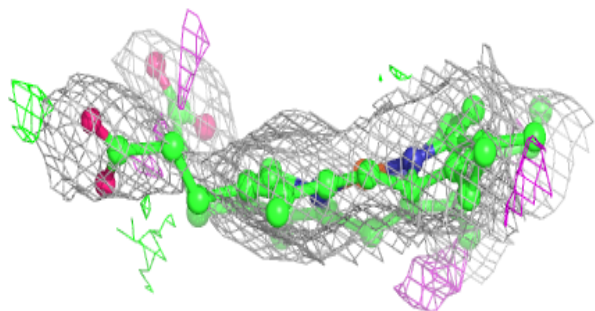
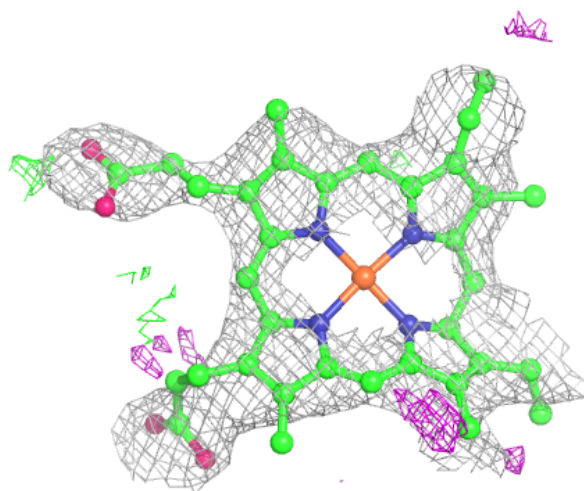
Electron density around HEC E 606:

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and green (positive)



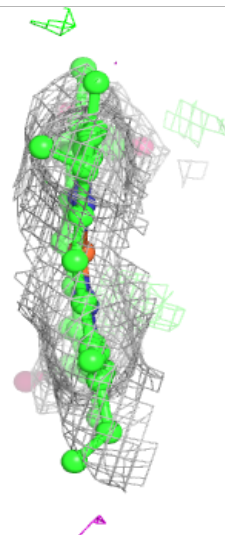
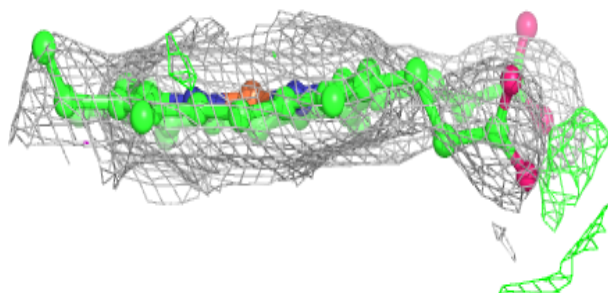
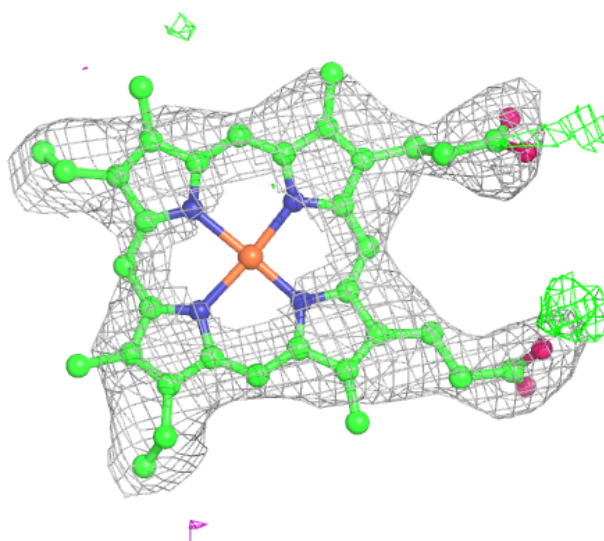
Electron density around HEC F 603:

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and green (positive)



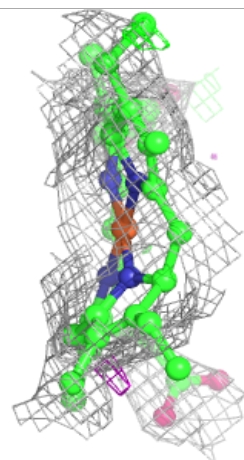
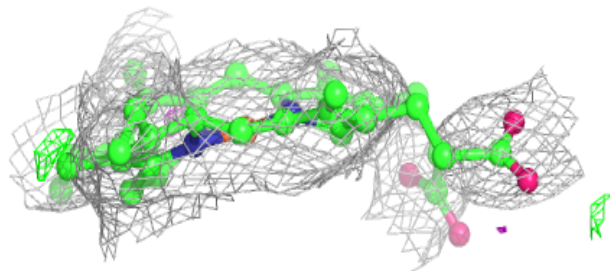
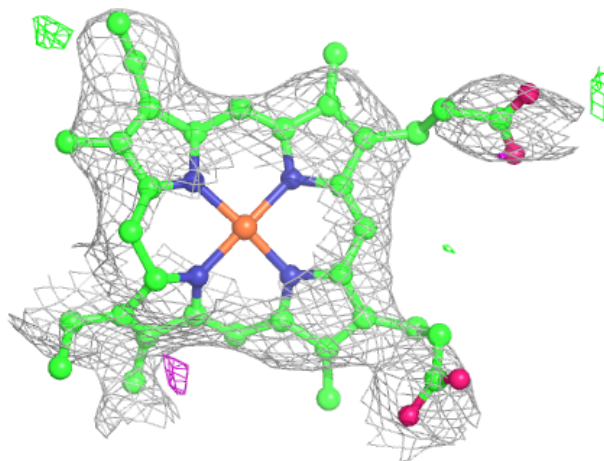
Electron density around HEC F 605:

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and green (positive)



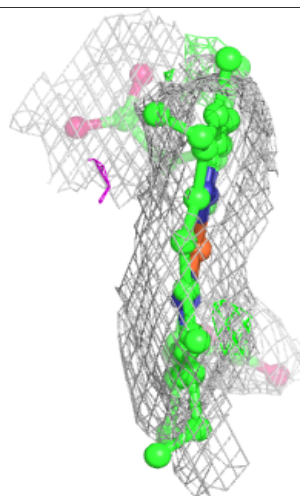
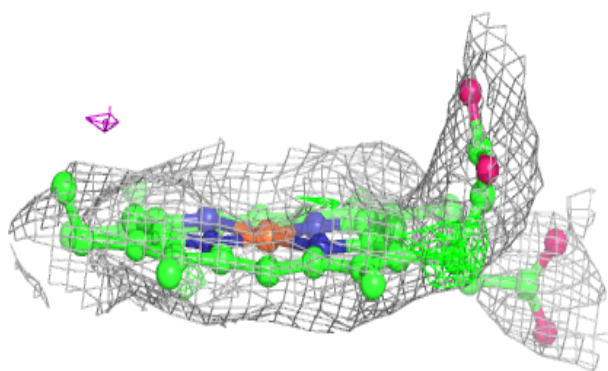
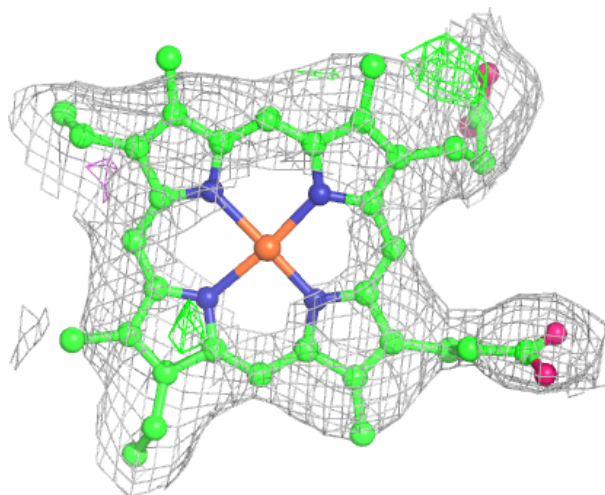
Electron density around HEC X 603:

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and green (positive)



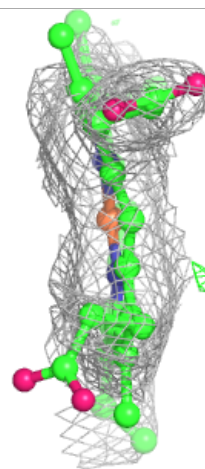
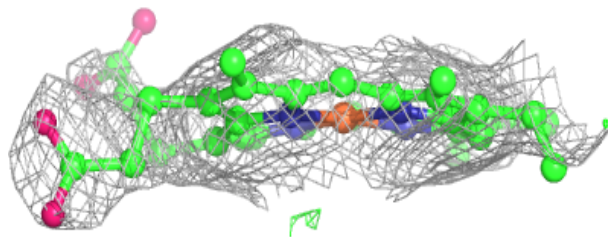
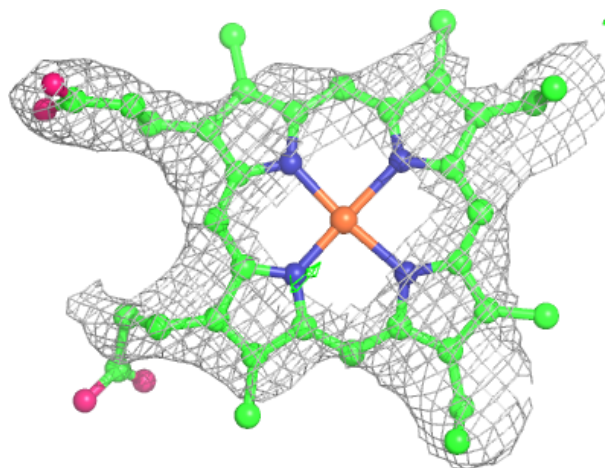
Electron density around HEC X 601:

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



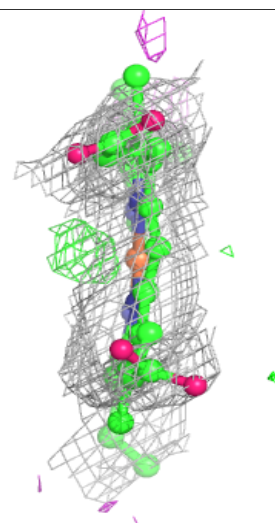
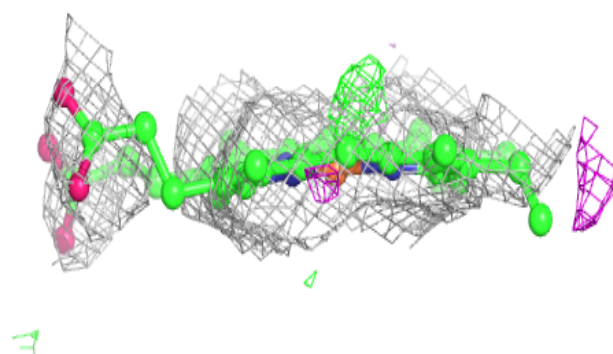
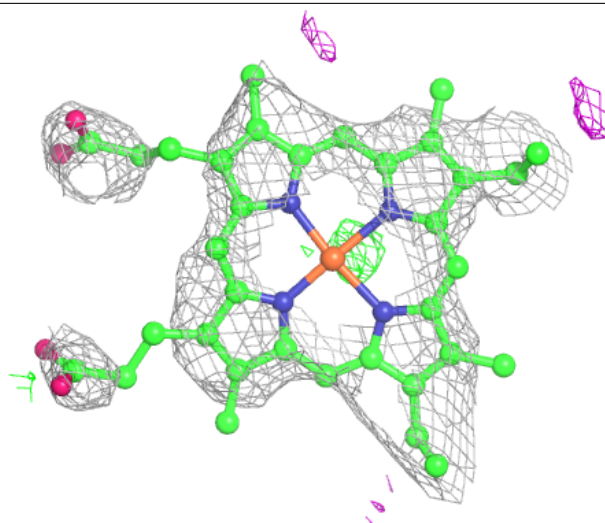
Electron density around HEC X 602:

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



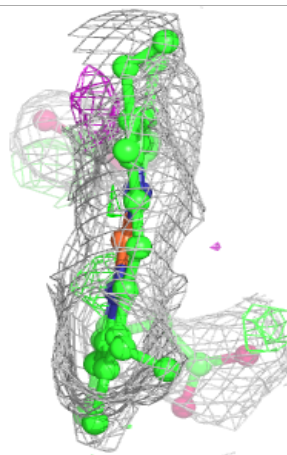
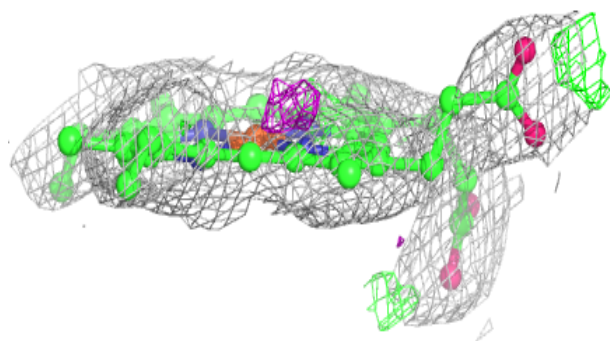
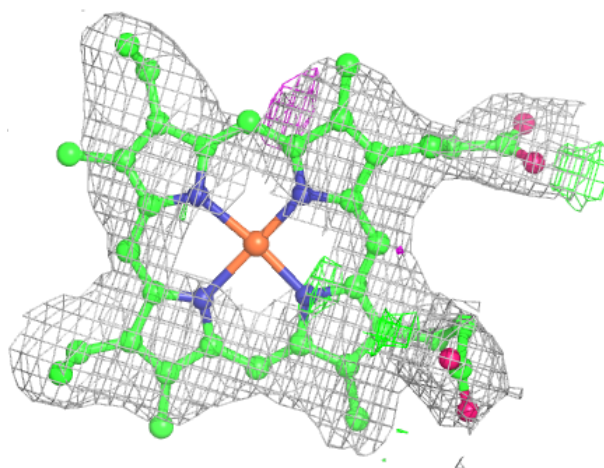
Electron density around HEC X 605:

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



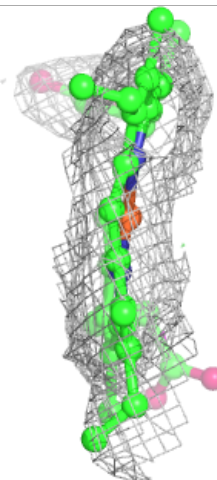
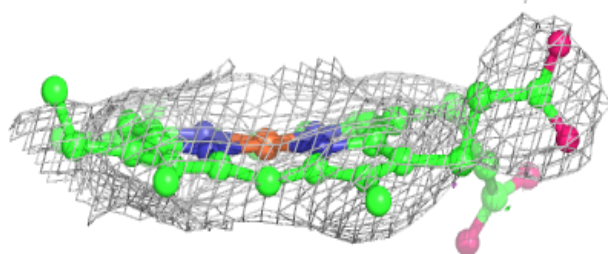
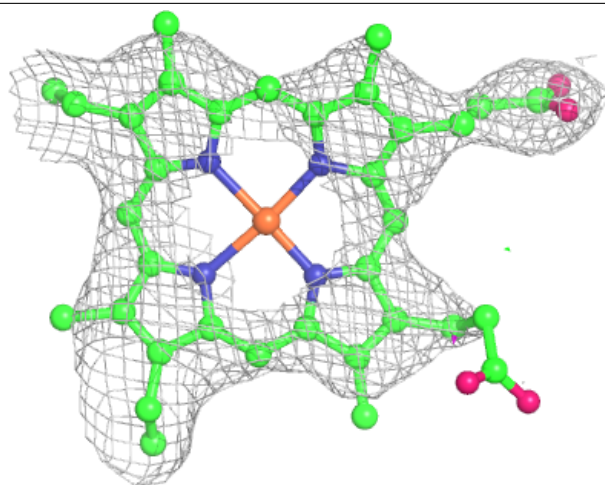
Electron density around HEC N 601:

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



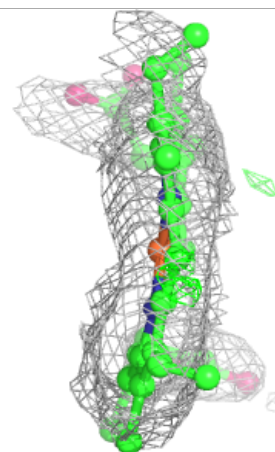
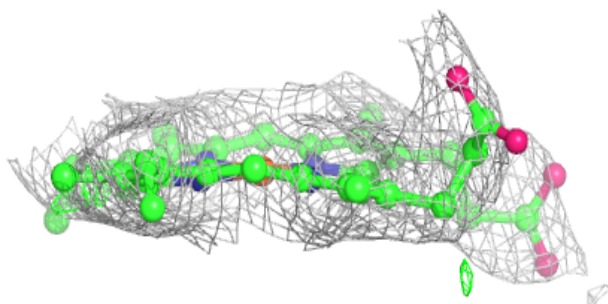
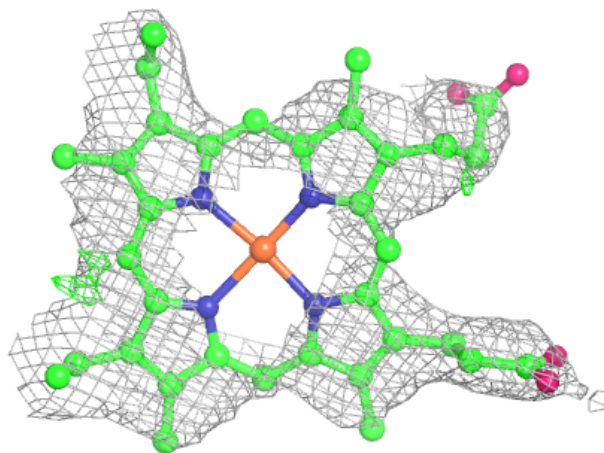
Electron density around HEC Q 602:

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



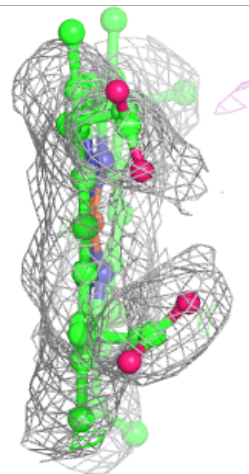
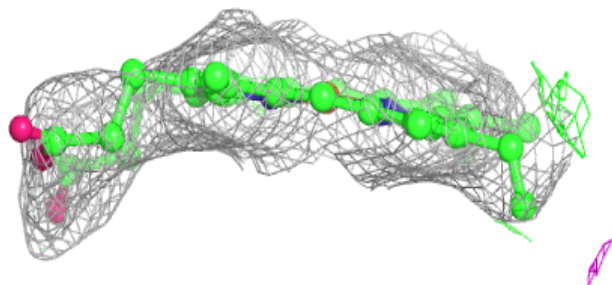
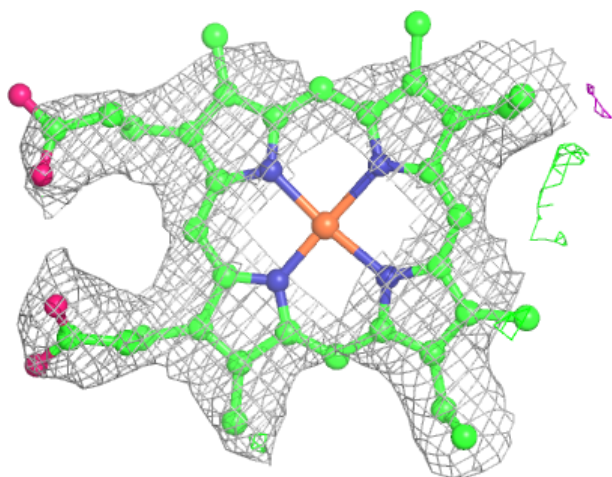
Electron density around HEC S 602:

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



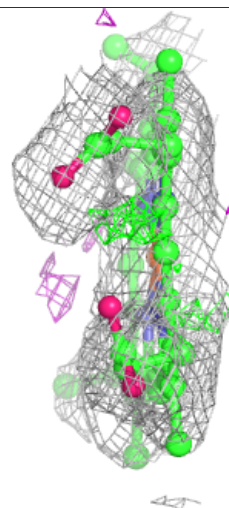
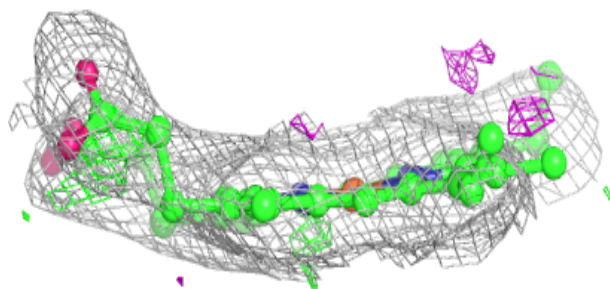
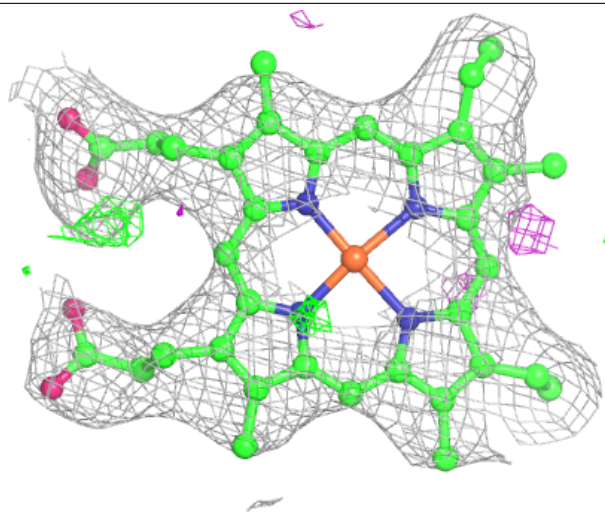
Electron density around HEC S 604:

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



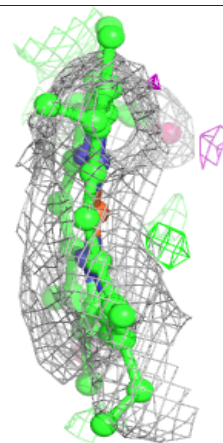
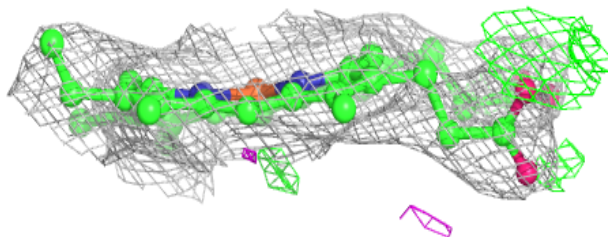
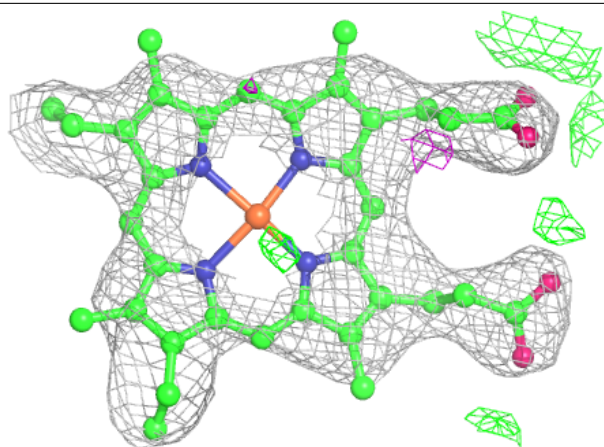
Electron density around HEC A 604:

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



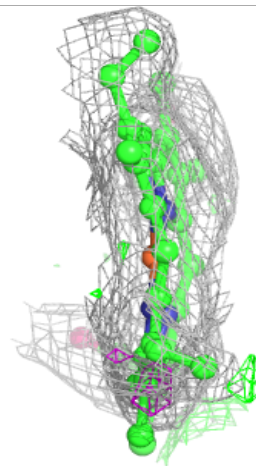
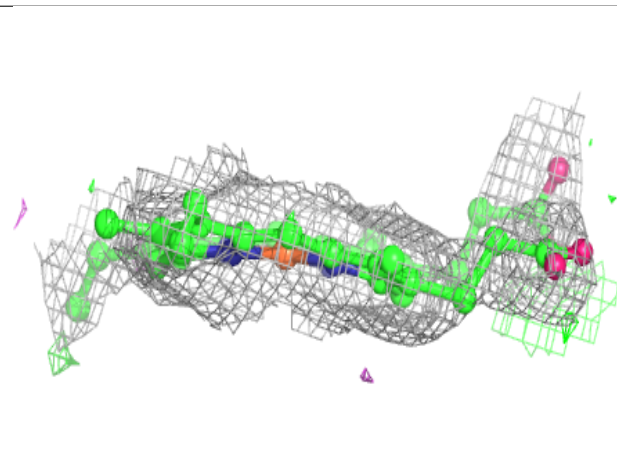
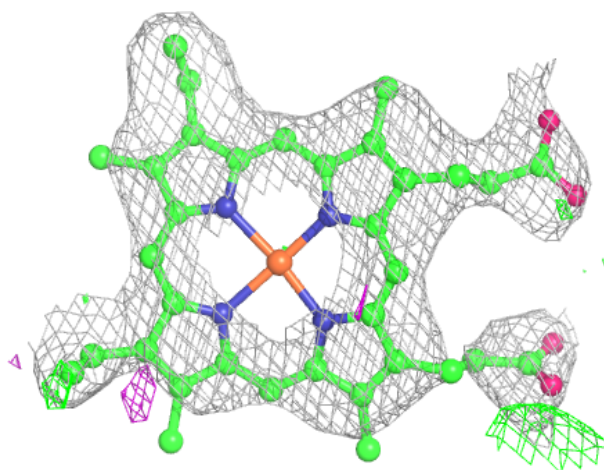
Electron density around HEC S 606:

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



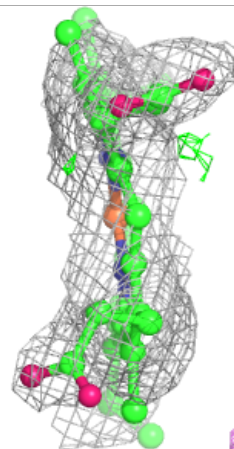
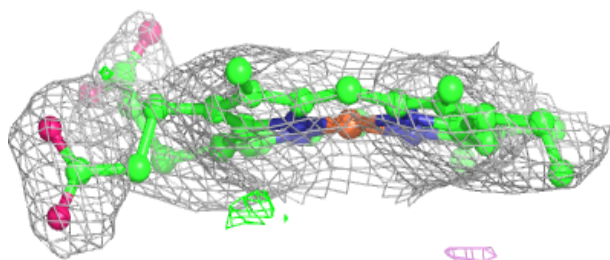
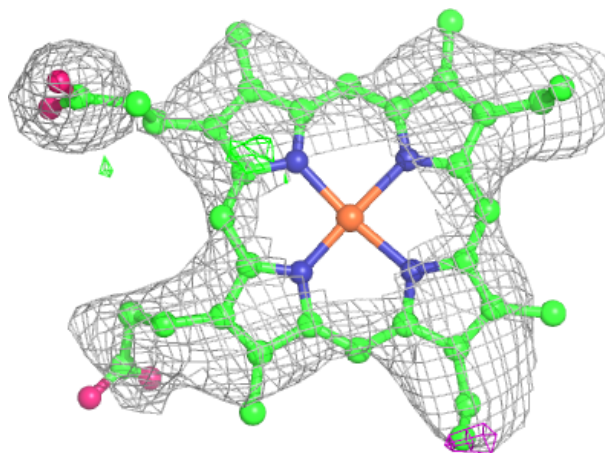
Electron density around HEC A 606:

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



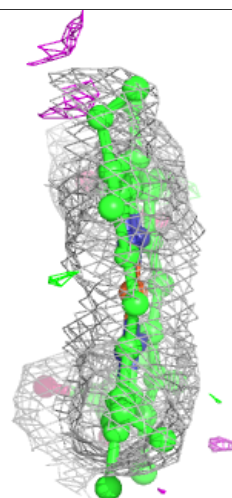
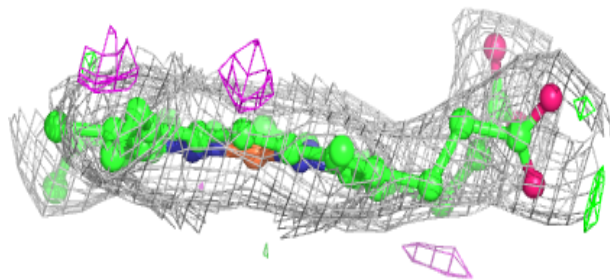
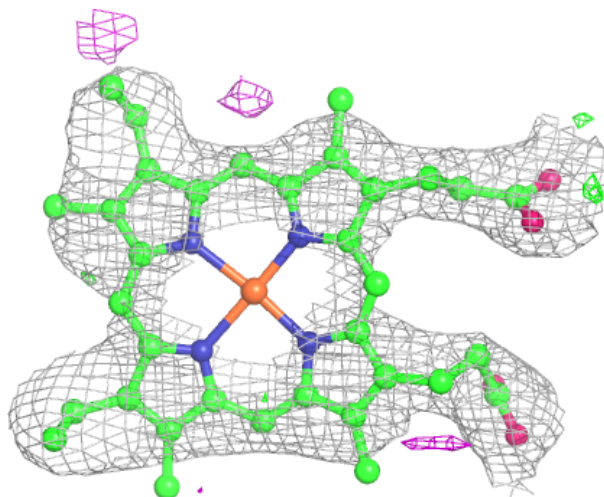
Electron density around HEC T 602:

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



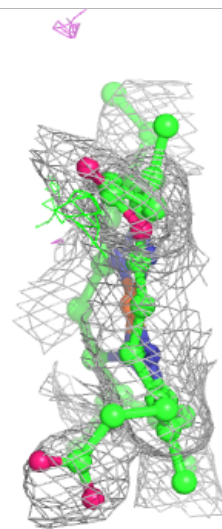
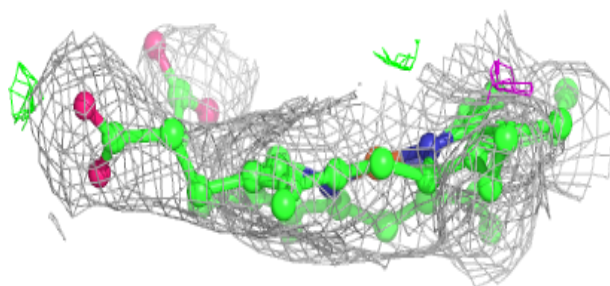
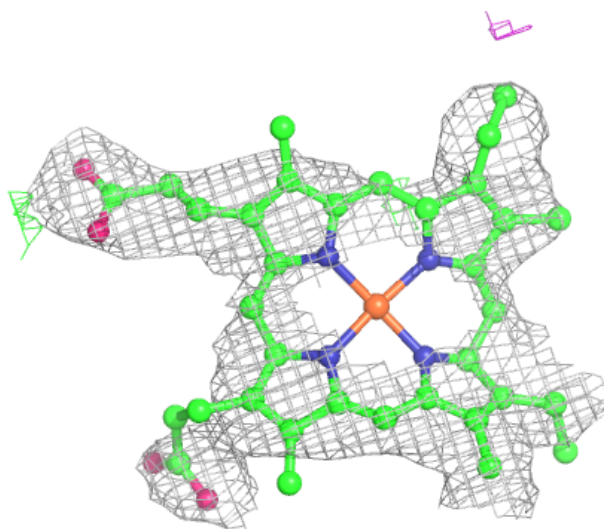
Electron density around HEC T 607:

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



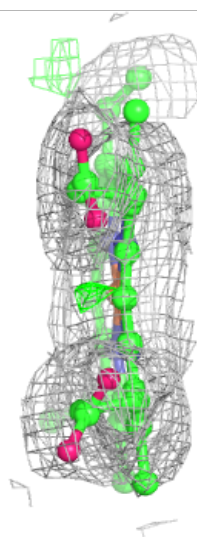
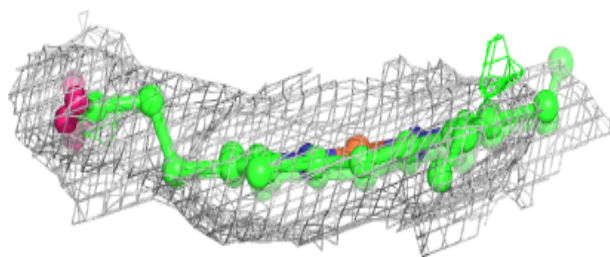
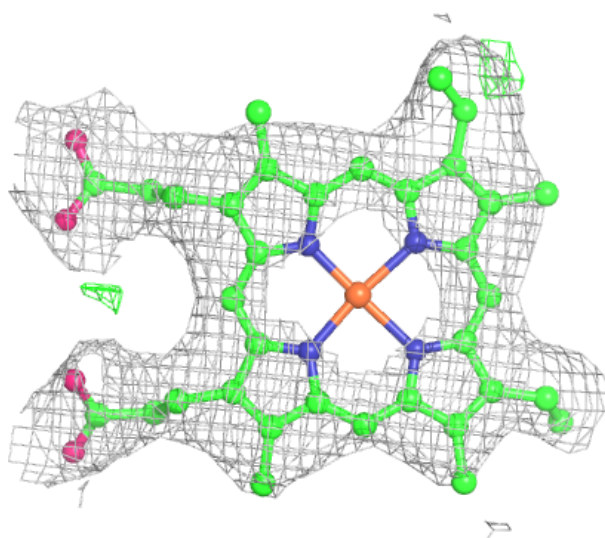
Electron density around HEC U 603:

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



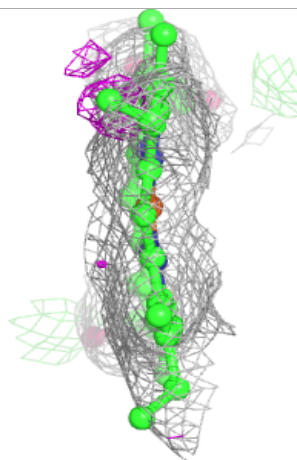
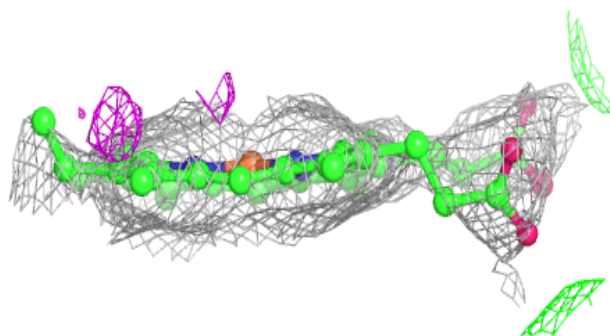
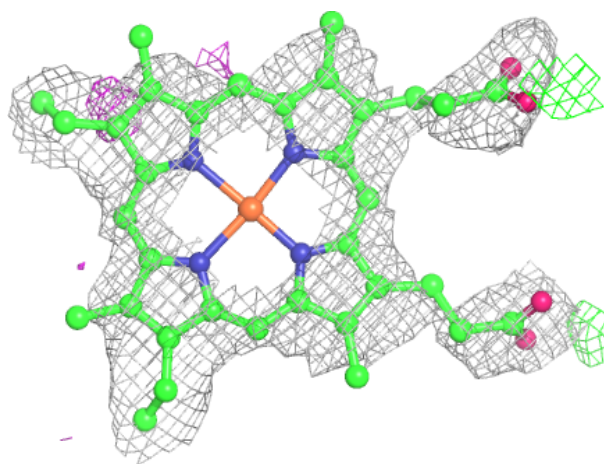
Electron density around HEC U 600:

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



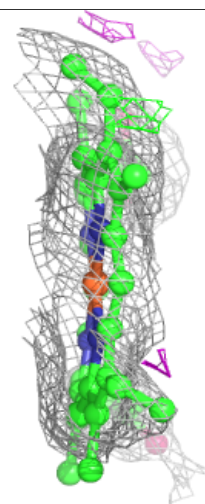
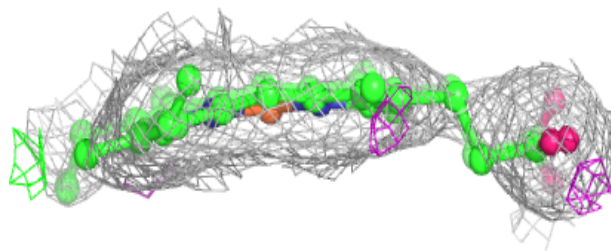
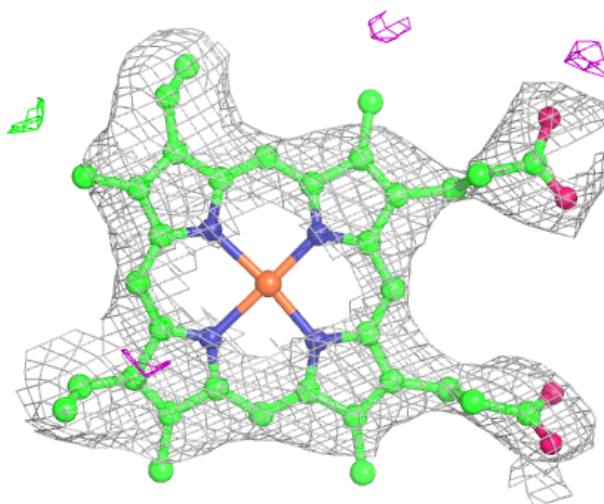
Electron density around HEC U 605:

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



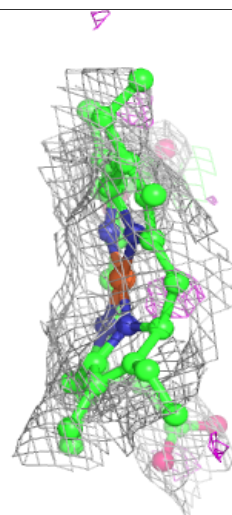
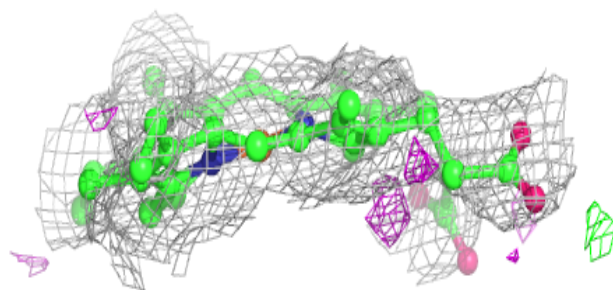
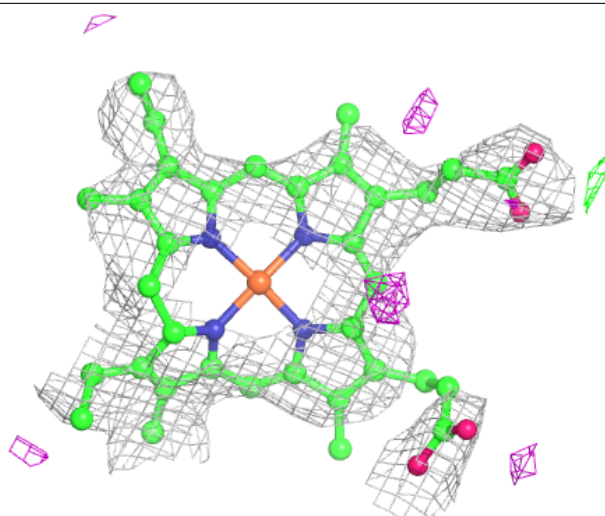
Electron density around HEC D 600:

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



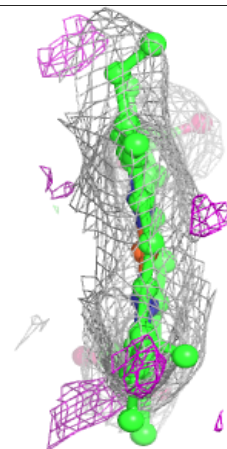
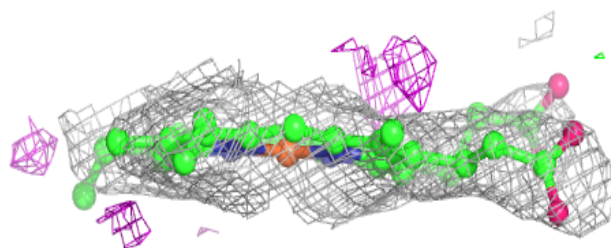
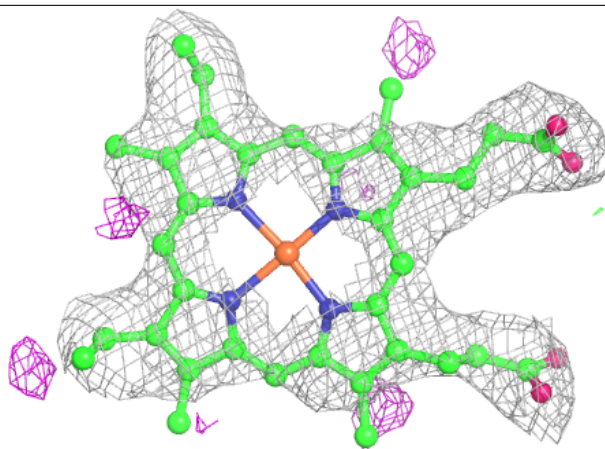
Electron density around HEC E 603:

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



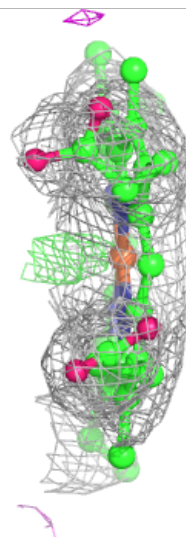
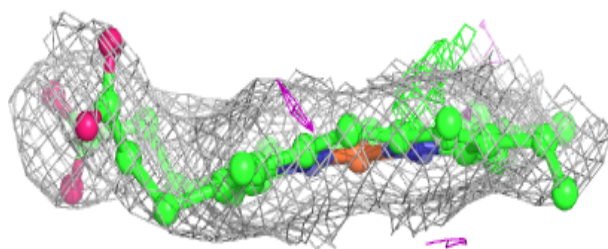
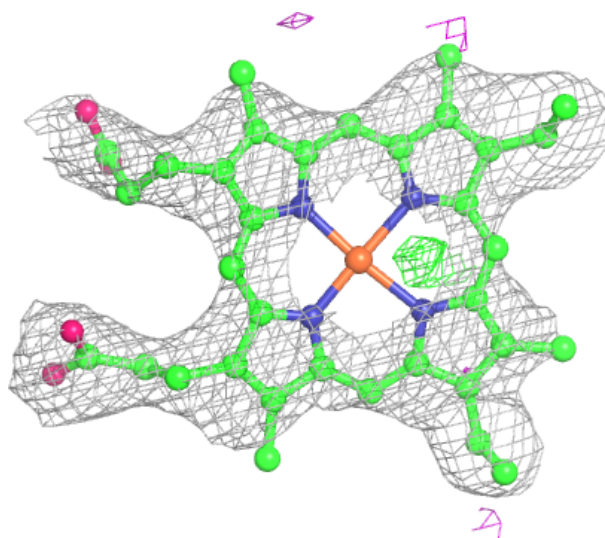
Electron density around HEC V 605:

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



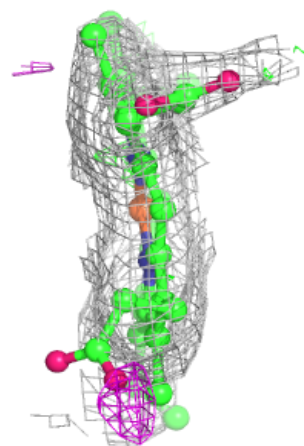
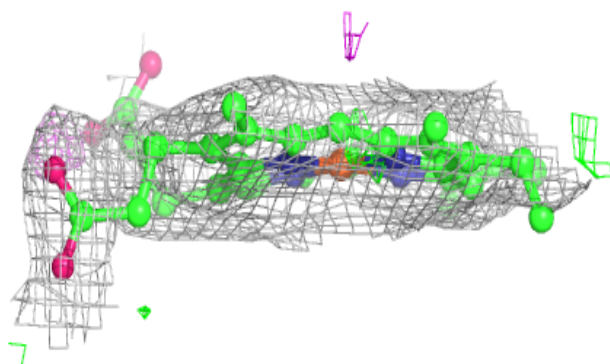
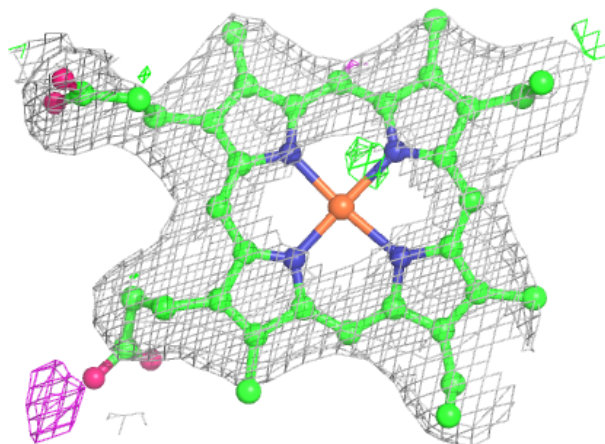
Electron density around HEC S 607:

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



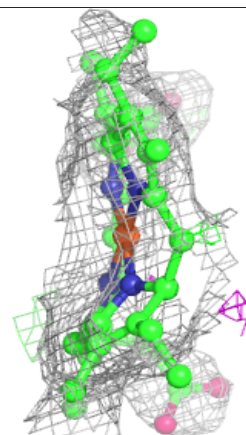
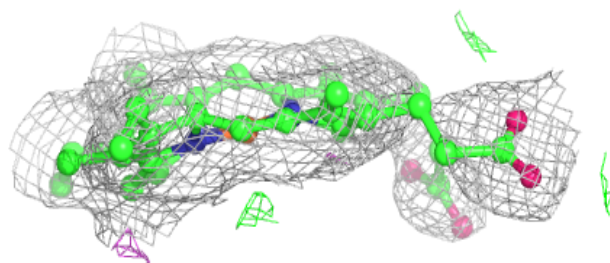
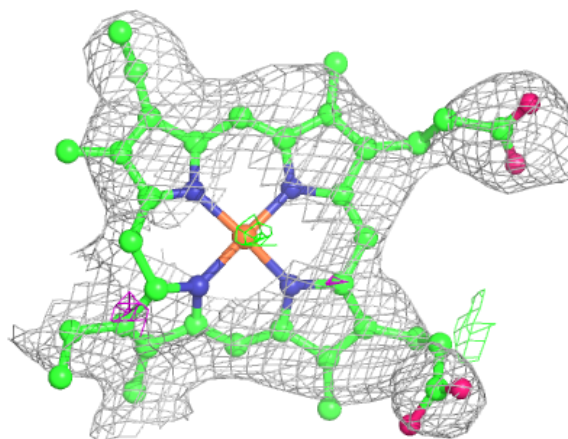
Electron density around HEC E 602:

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



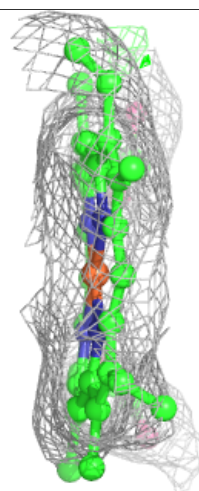
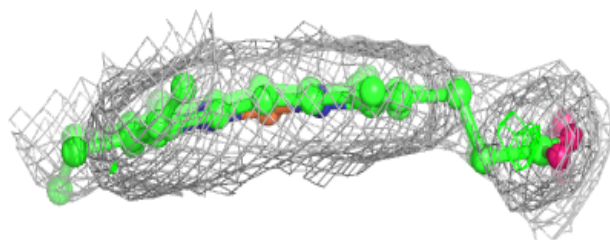
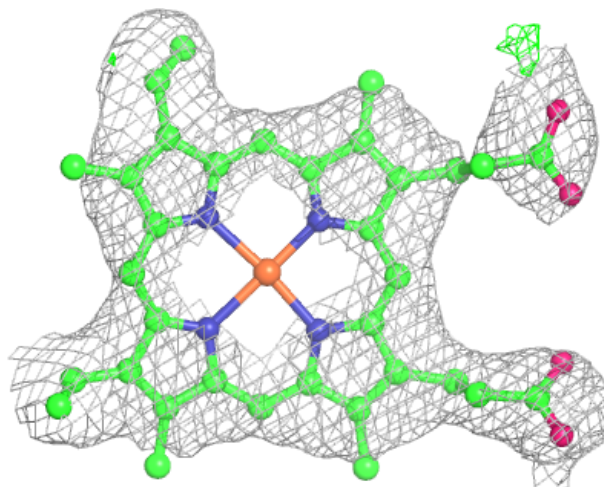
Electron density around HEC T 603:

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



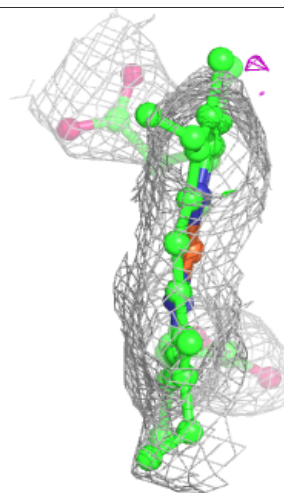
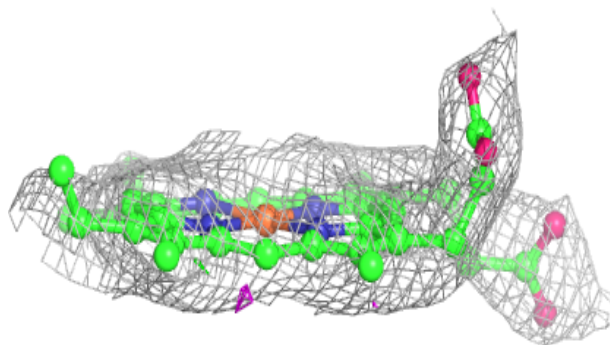
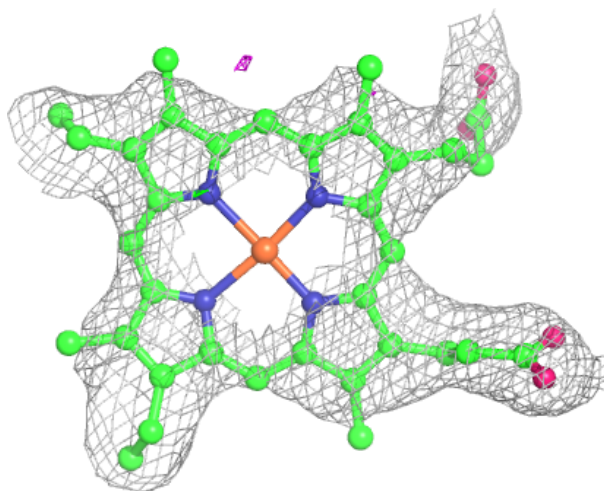
Electron density around HEC T 600:

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



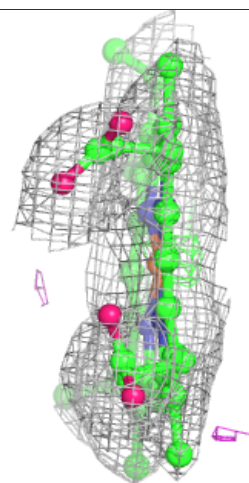
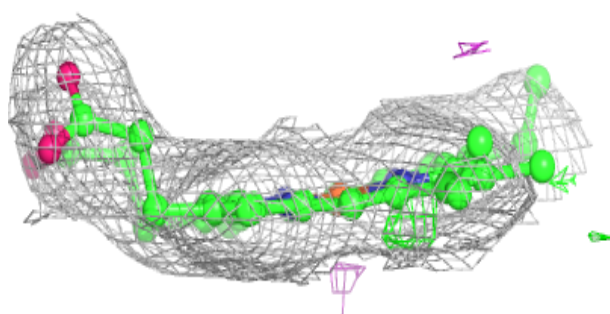
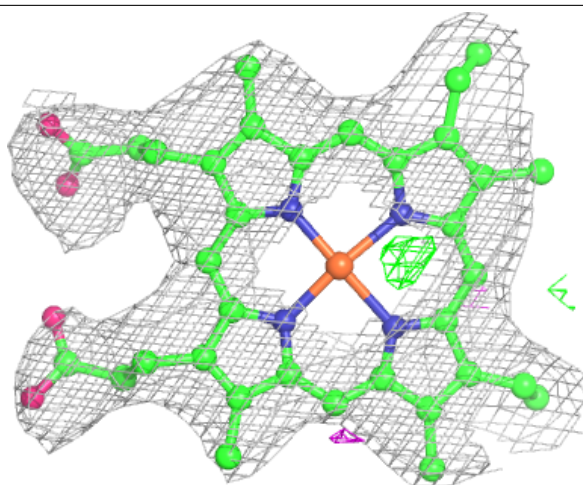
Electron density around HEC T 601:

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



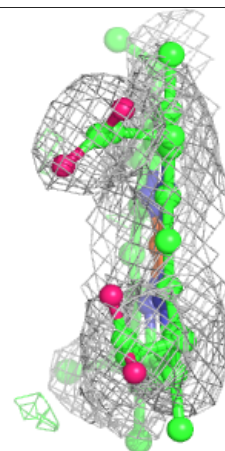
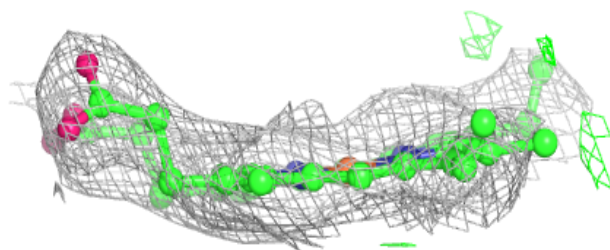
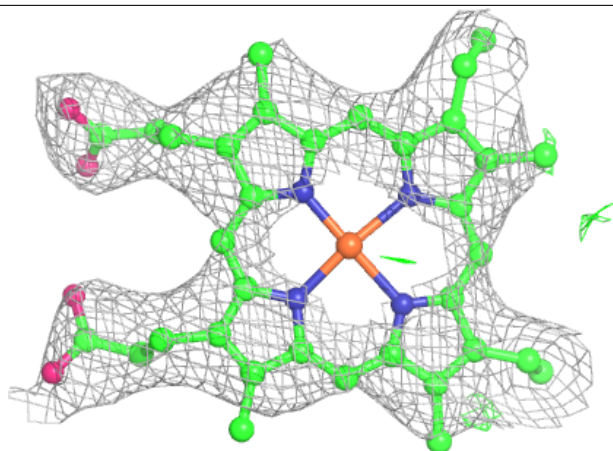
Electron density around HEC E 604:

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

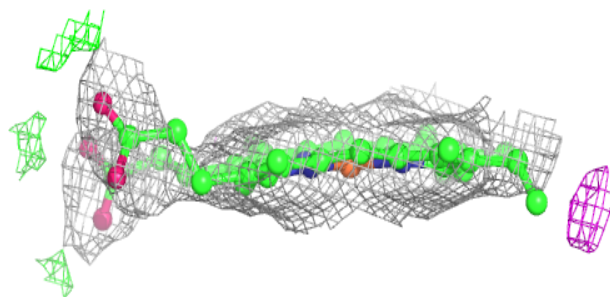
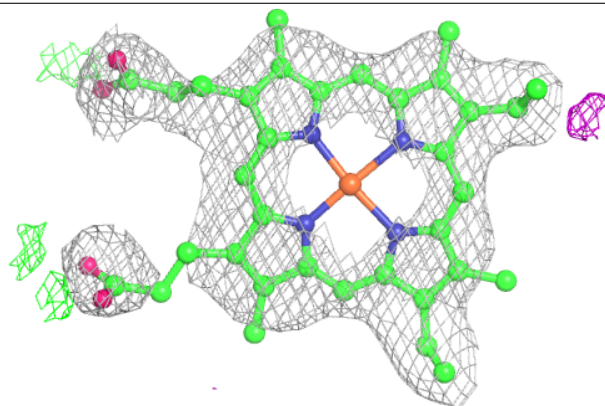


Electron density around HEC T 604:

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

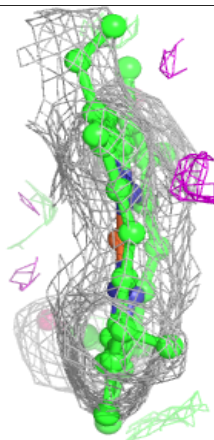
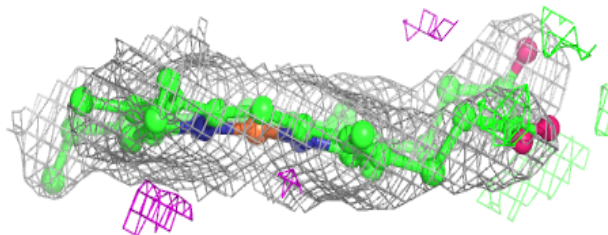
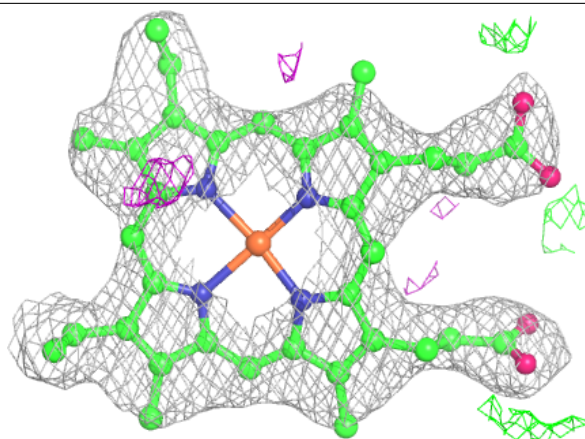
**Electron density around HEC T 605:**

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



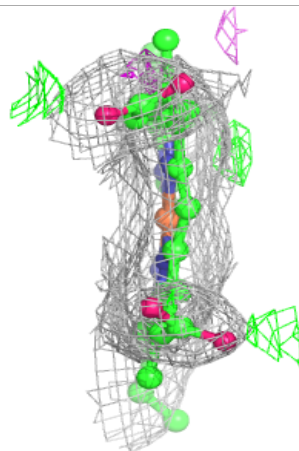
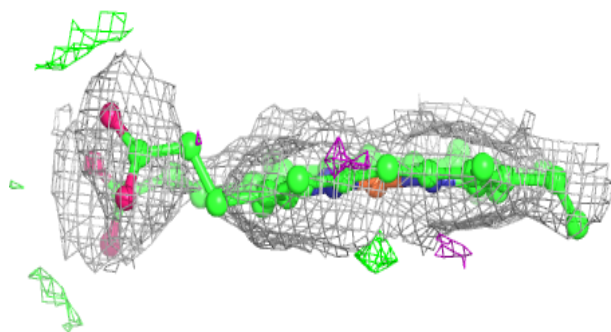
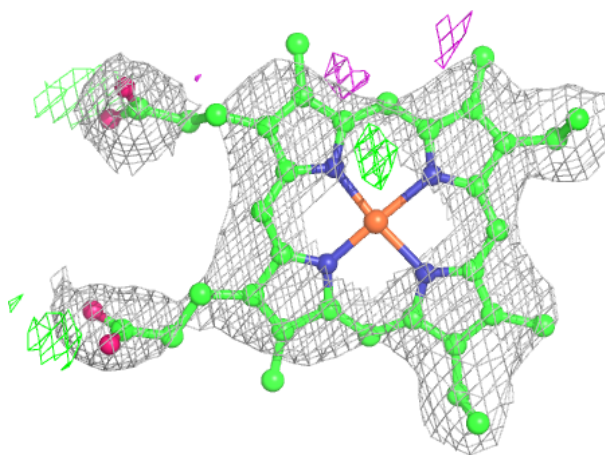
Electron density around HEC T 606:

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



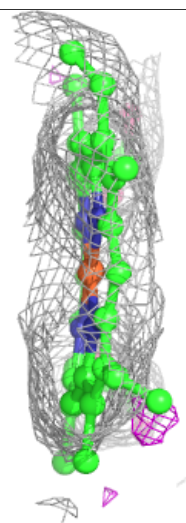
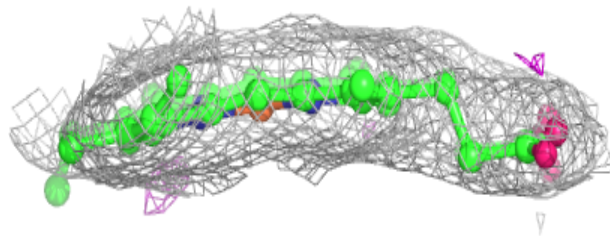
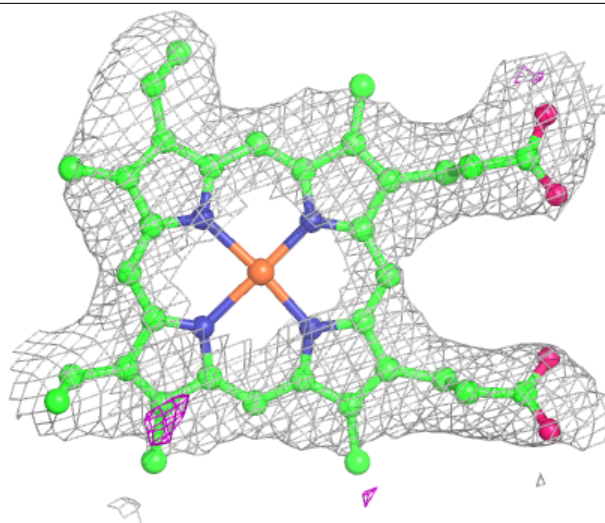
Electron density around HEC A 605:

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



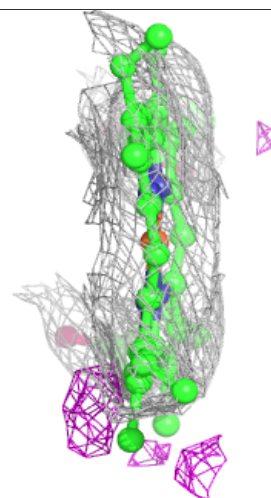
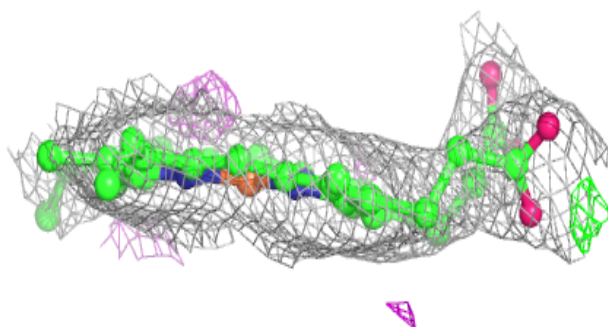
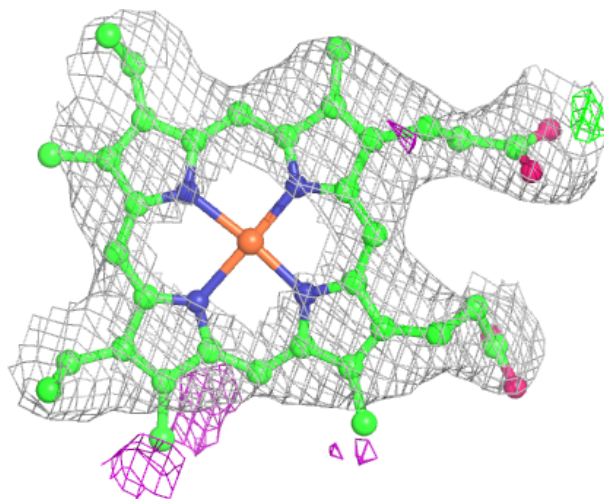
Electron density around HEC A 600:

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



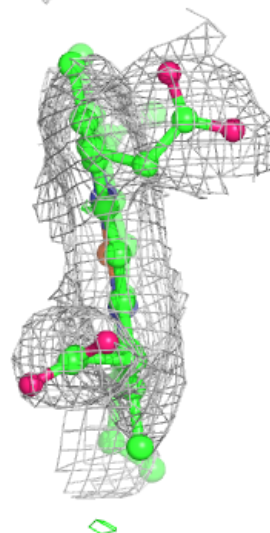
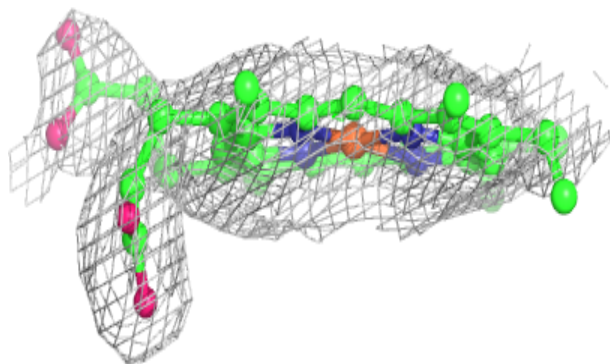
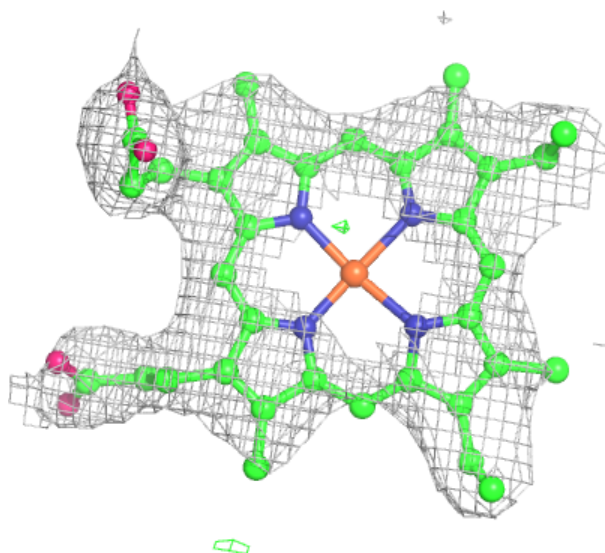
Electron density around HEC E 607:

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



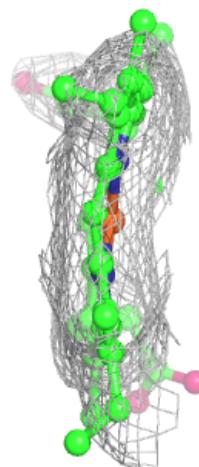
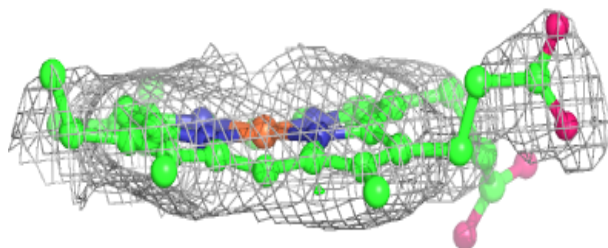
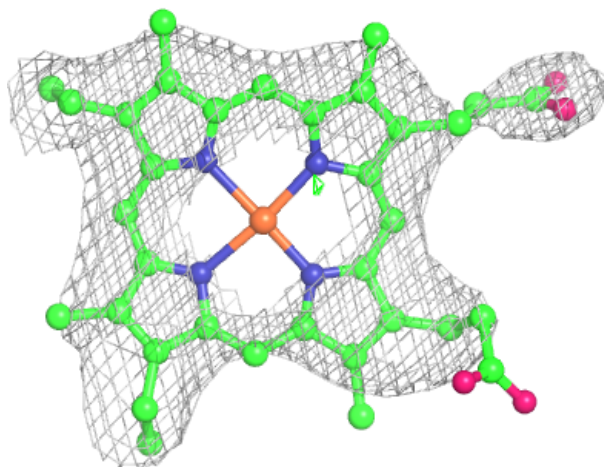
Electron density around HEC U 601:

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



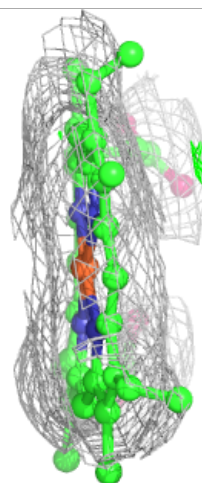
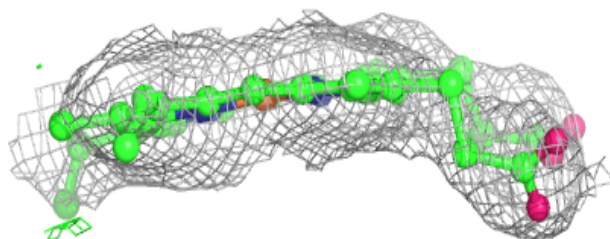
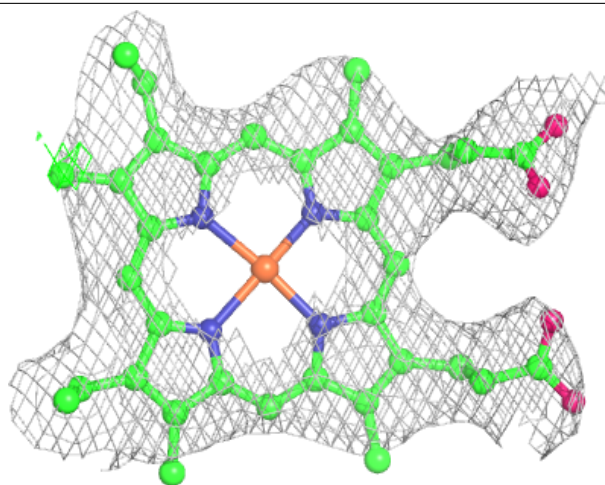
Electron density around HEC U 602:

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



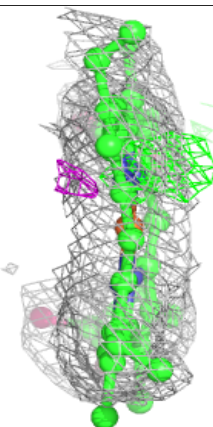
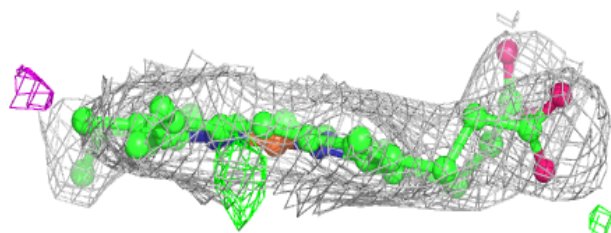
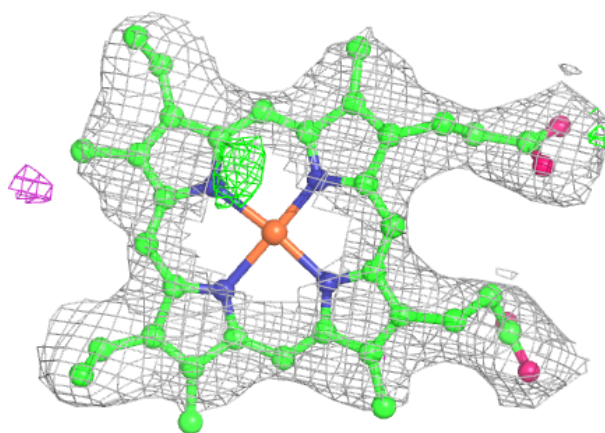
Electron density around HEC U 604:

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



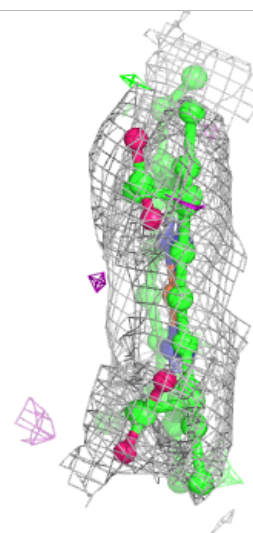
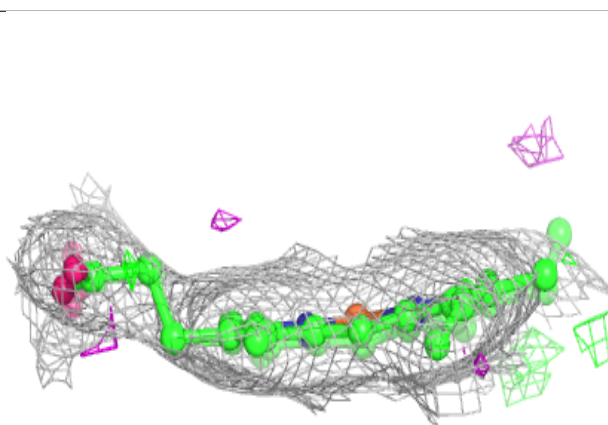
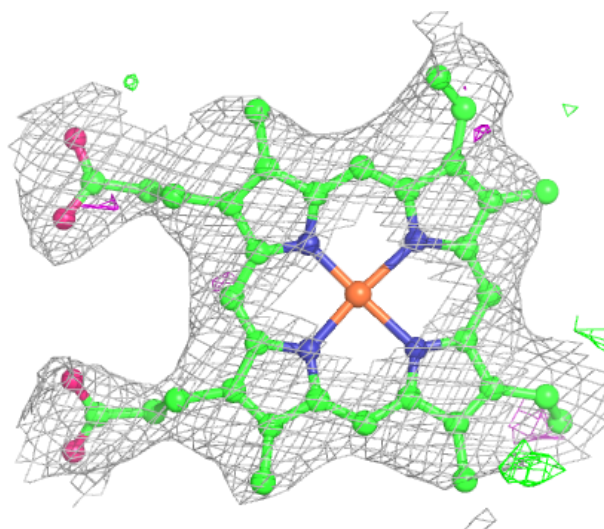
Electron density around HEC A 607:

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



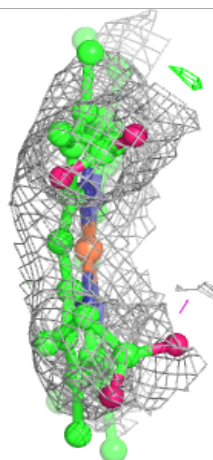
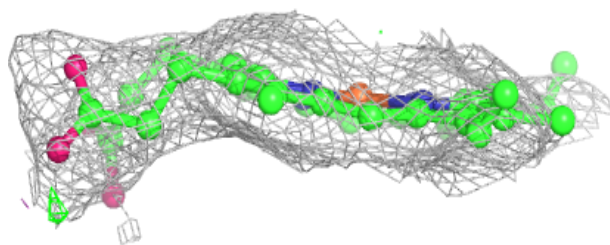
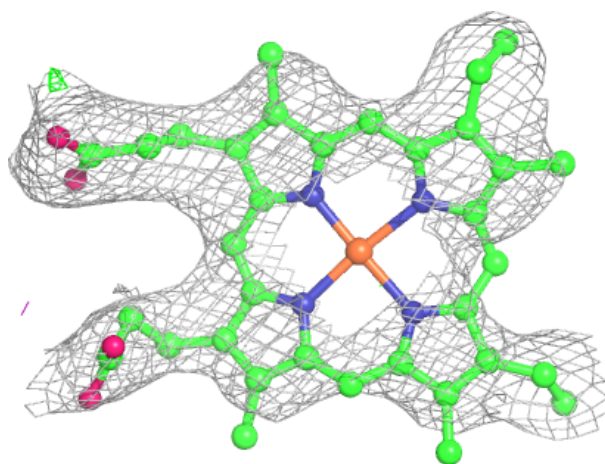
Electron density around HEC F 600:

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



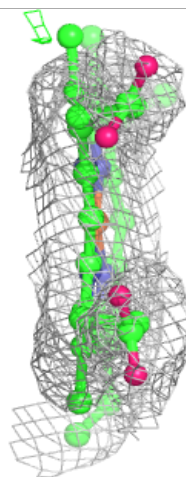
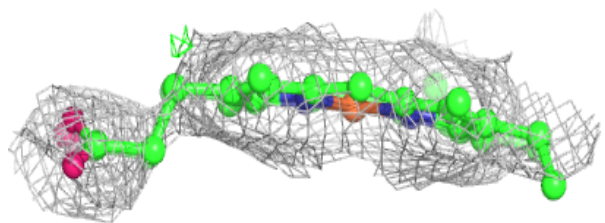
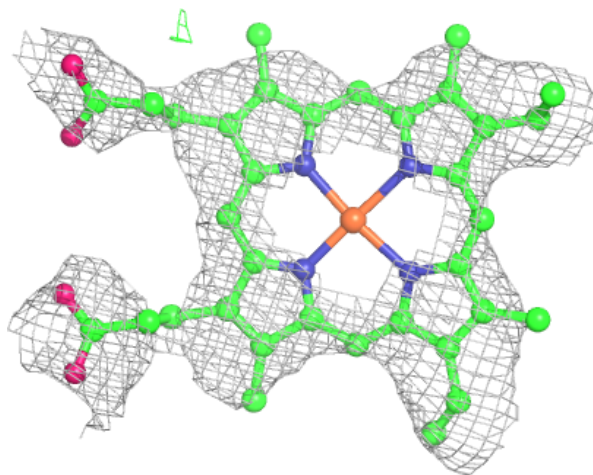
Electron density around HEC U 607:

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



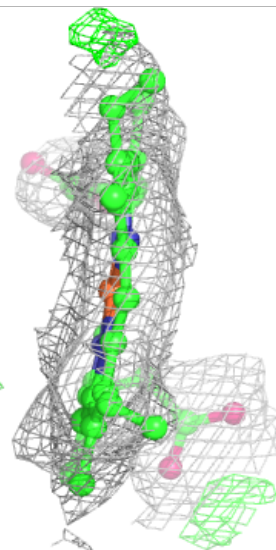
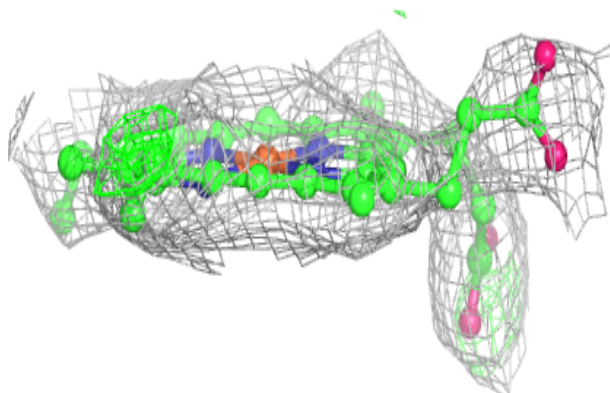
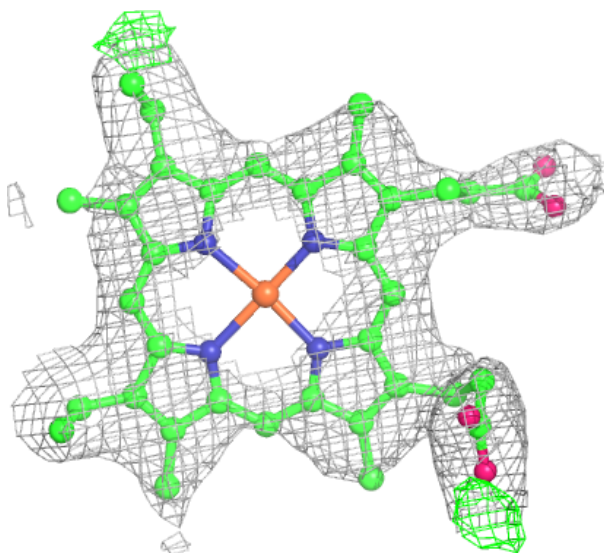
Electron density around HEC V 600:

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



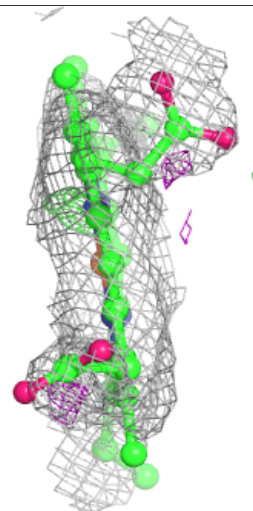
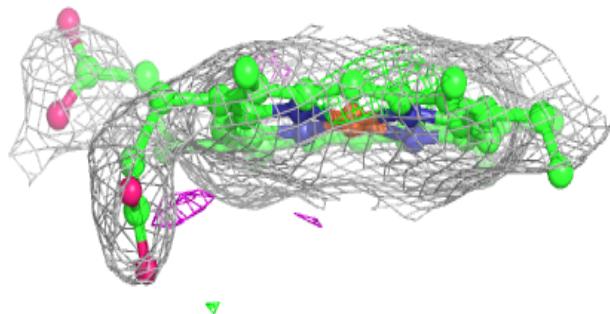
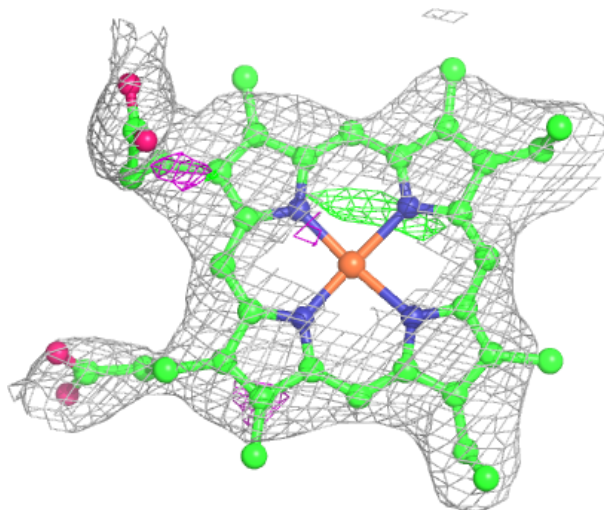
Electron density around HEC V 601:

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



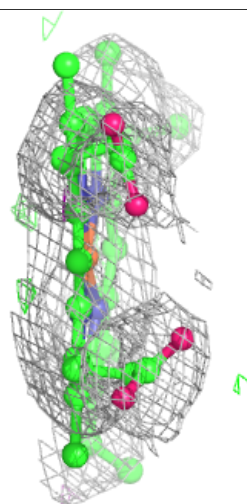
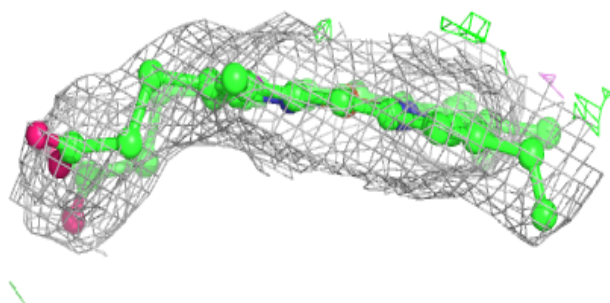
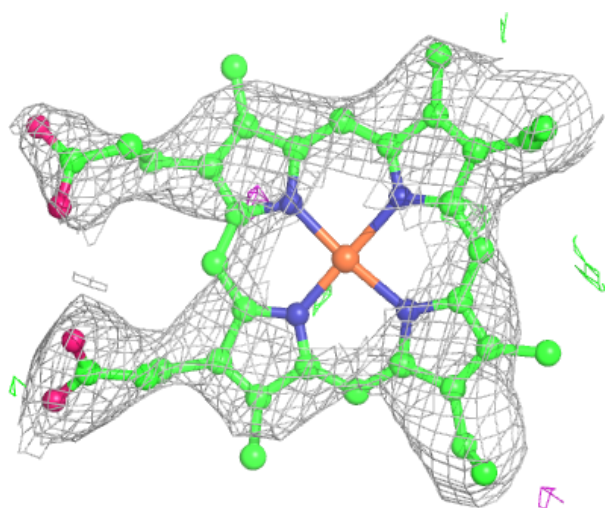
Electron density around HEC F 601:

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



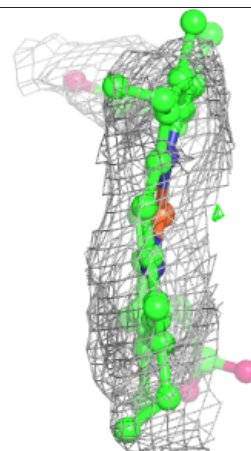
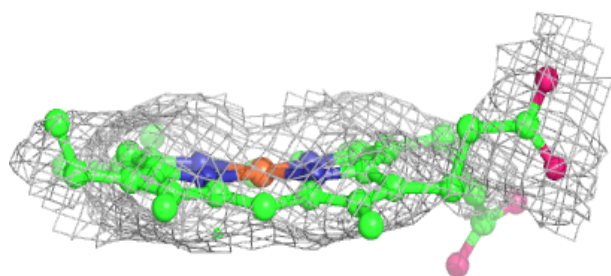
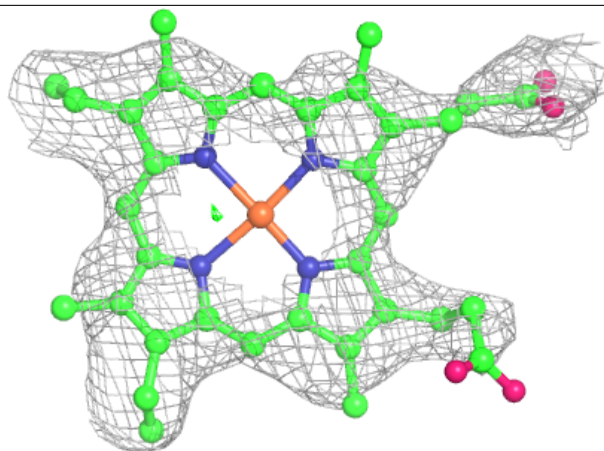
Electron density around HEC V 604:

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



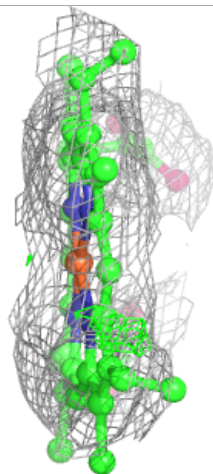
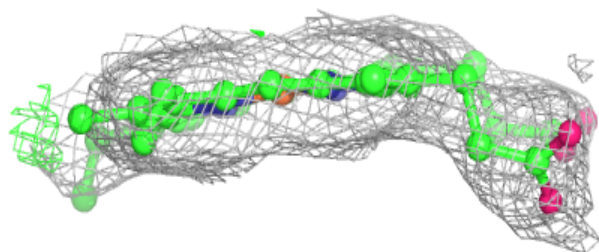
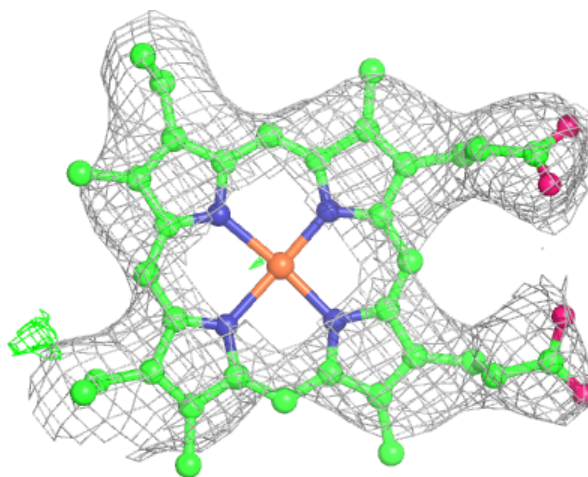
Electron density around HEC F 602:

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



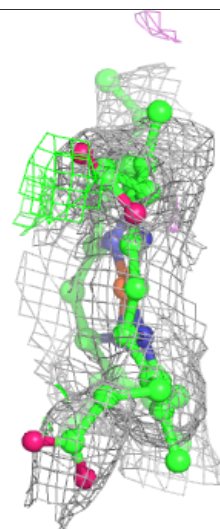
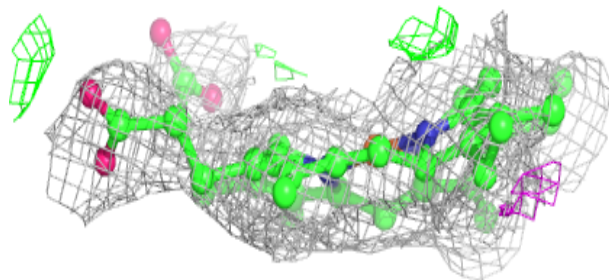
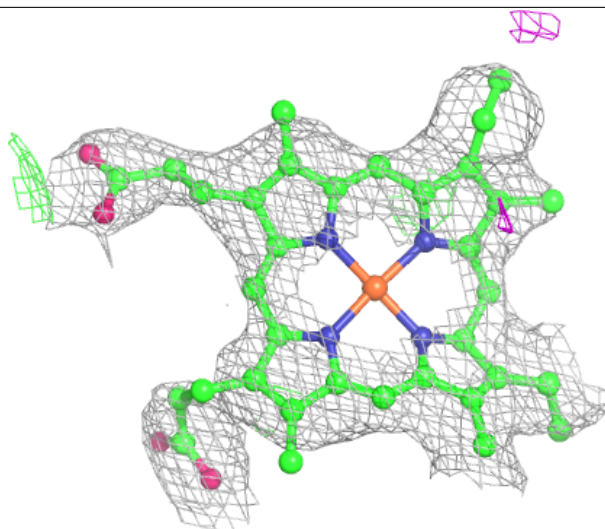
Electron density around HEC F 604:

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



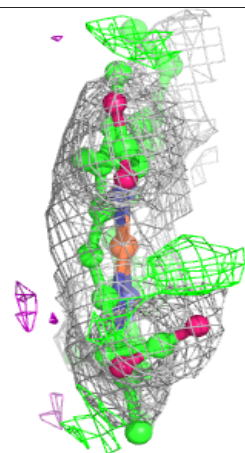
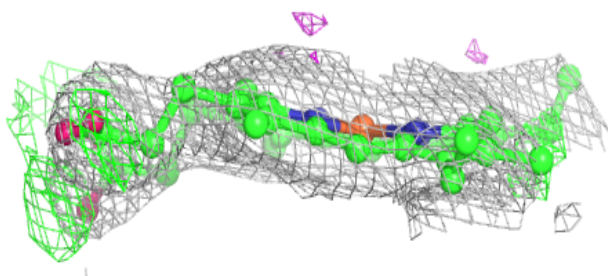
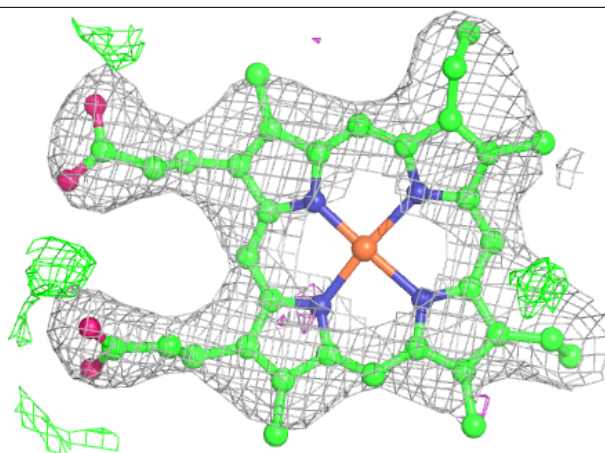
Electron density around HEC A 603:

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



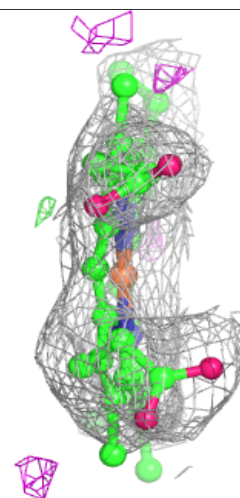
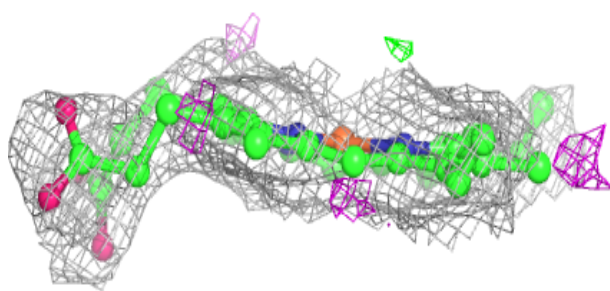
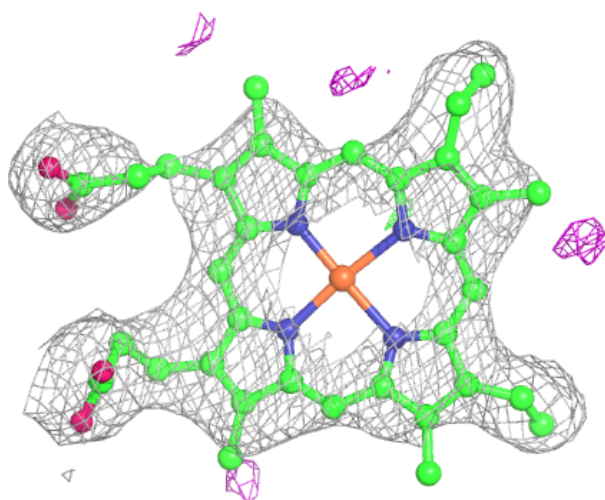
Electron density around HEC F 606:

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



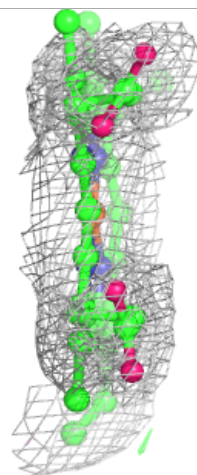
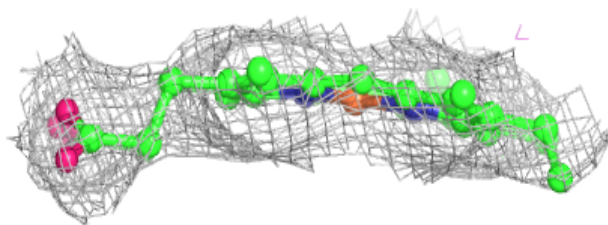
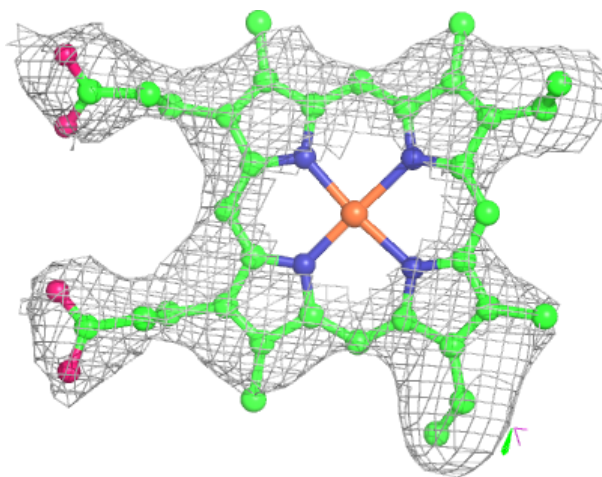
Electron density around HEC F 607:

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



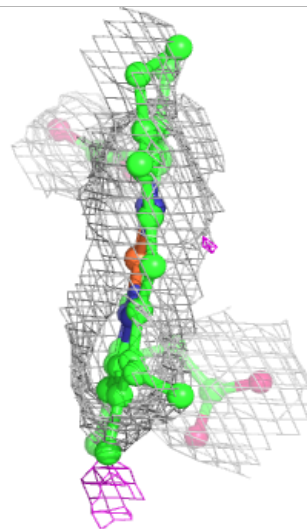
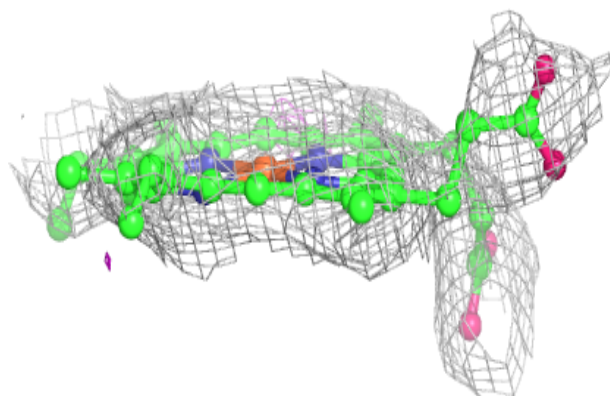
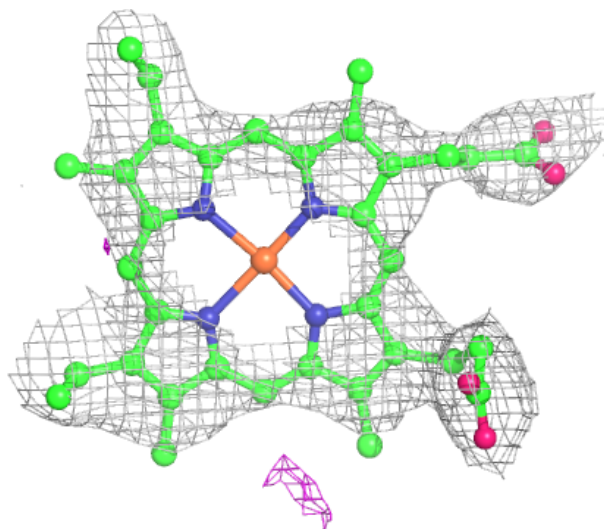
Electron density around HEC W 600:

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



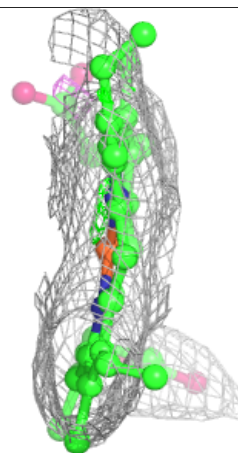
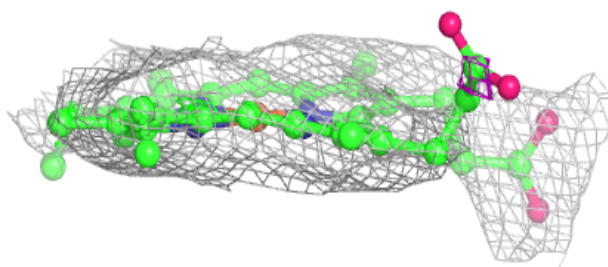
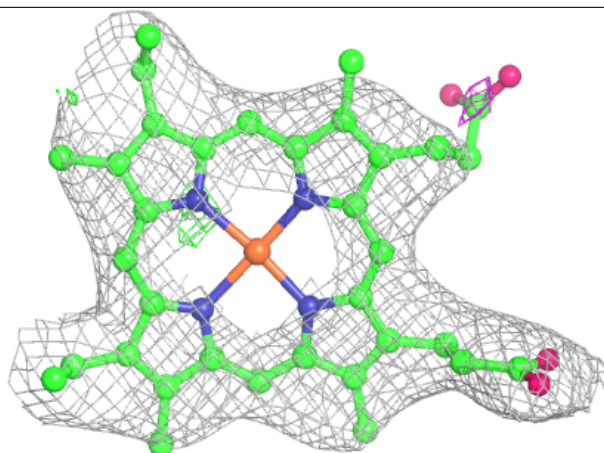
Electron density around HEC W 601:

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



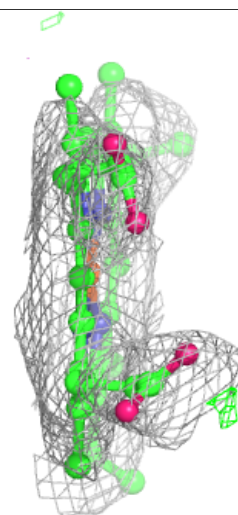
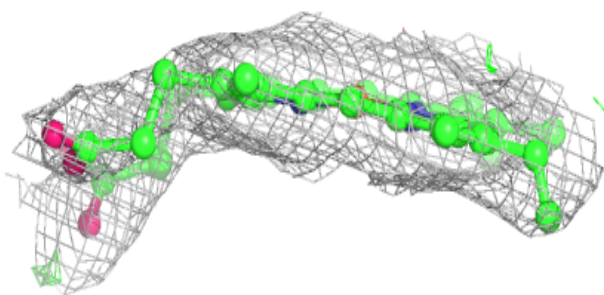
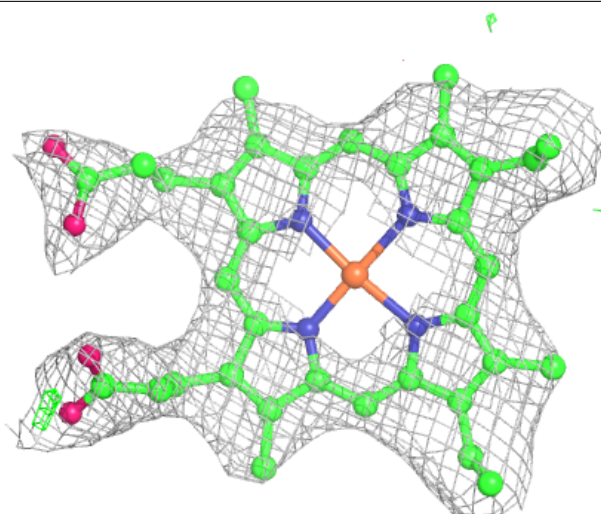
Electron density around HEC W 602:

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



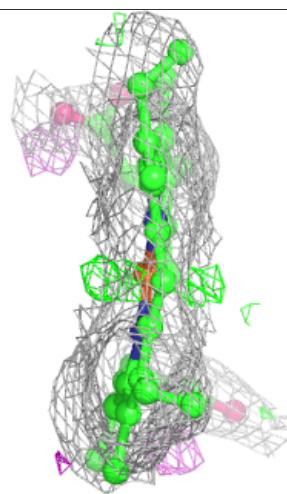
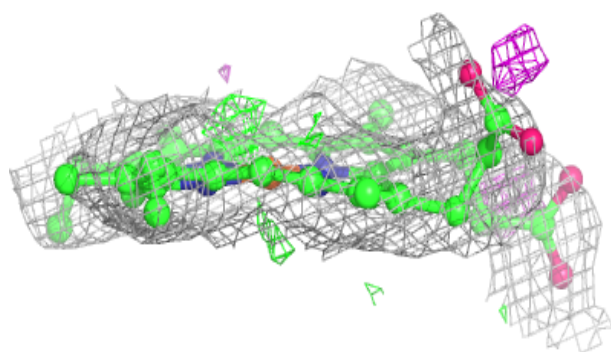
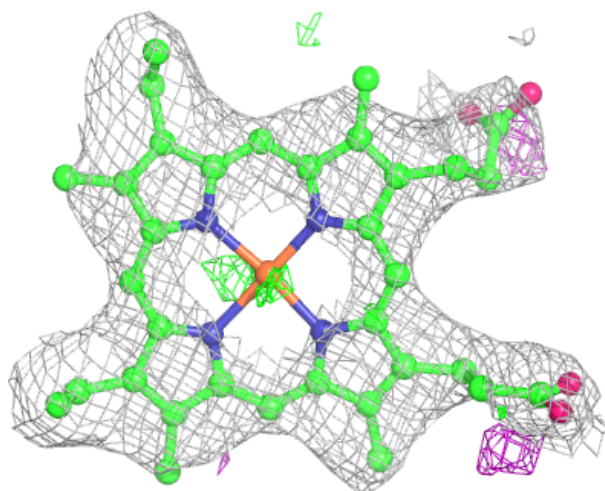
Electron density around HEC W 604:

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



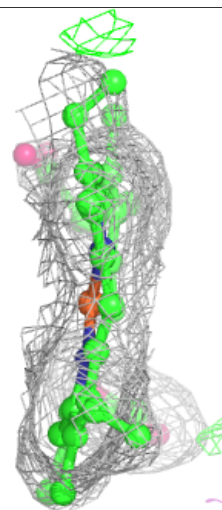
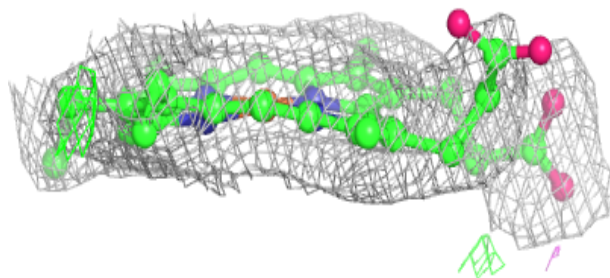
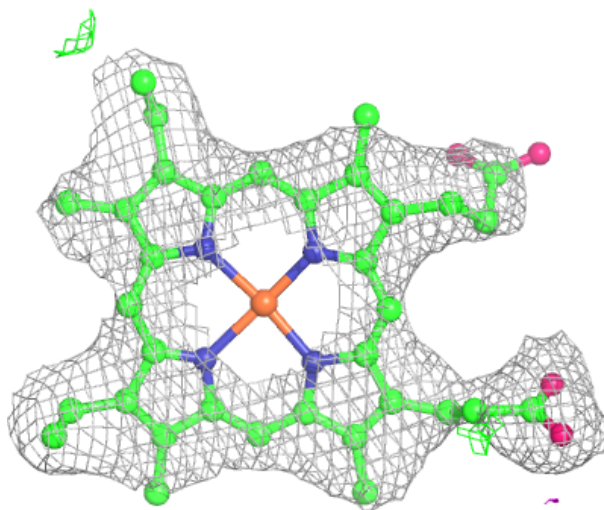
Electron density around HEC H 602:

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



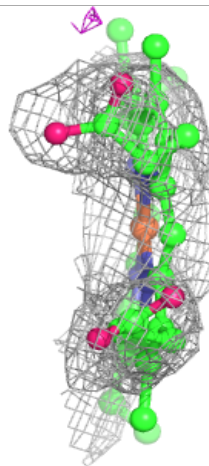
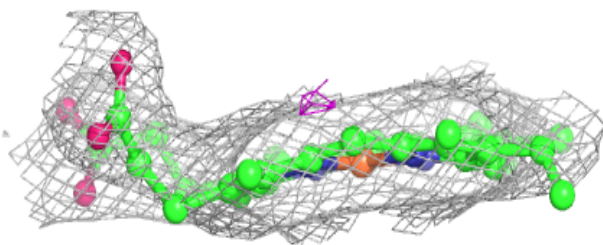
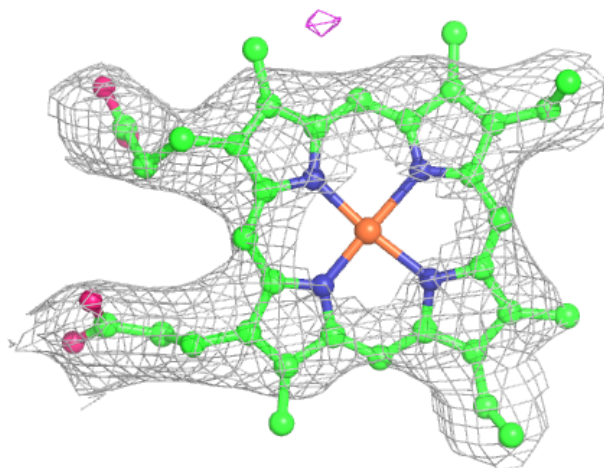
Electron density around HEC I 602:

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



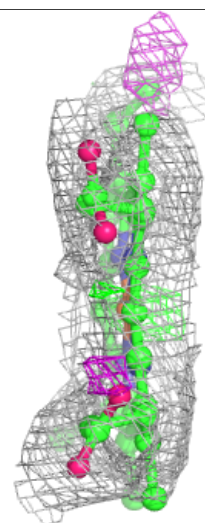
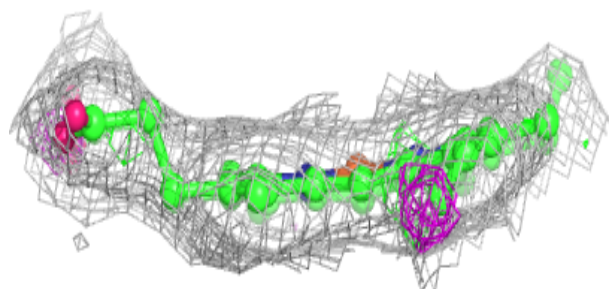
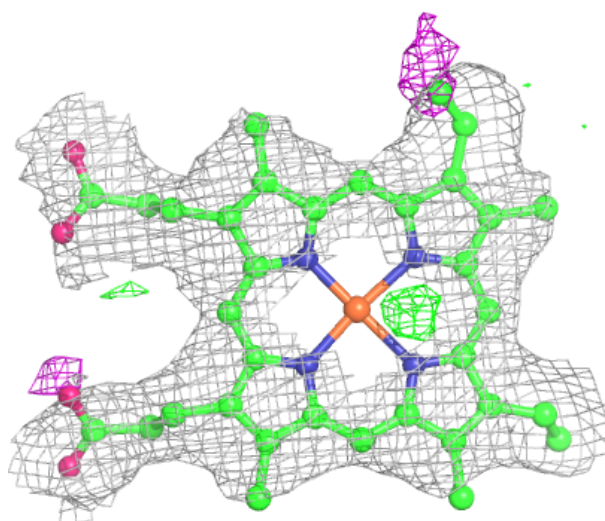
Electron density around HEC W 607:

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



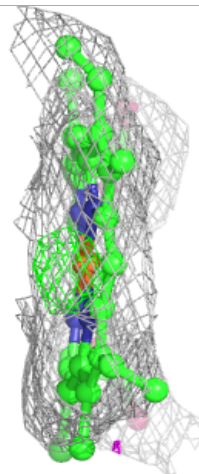
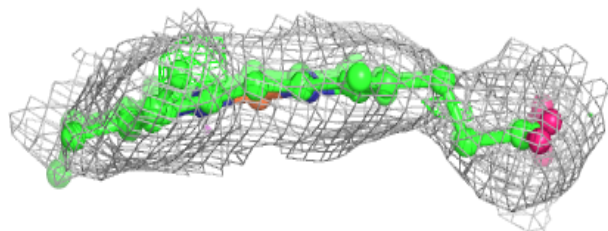
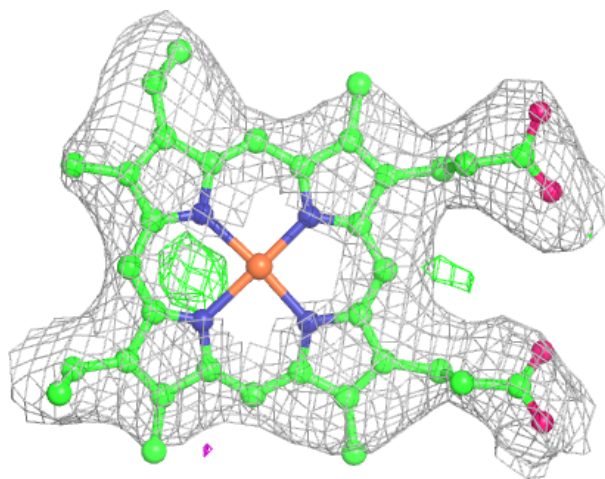
Electron density around HEC J 600:

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



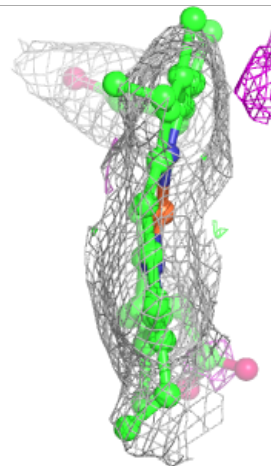
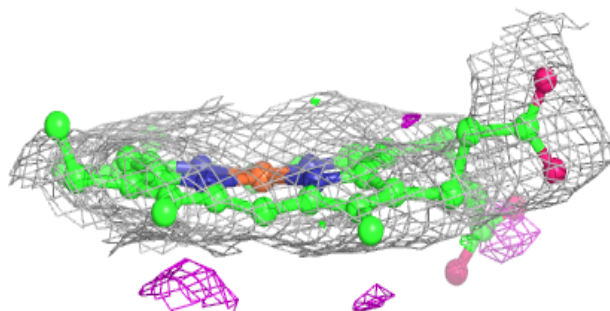
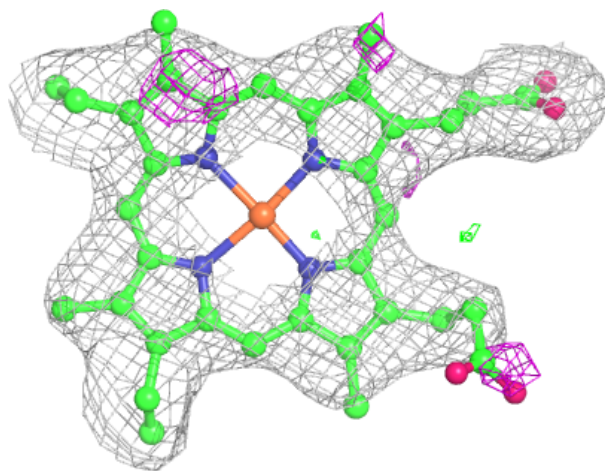
Electron density around HEC X 600:

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



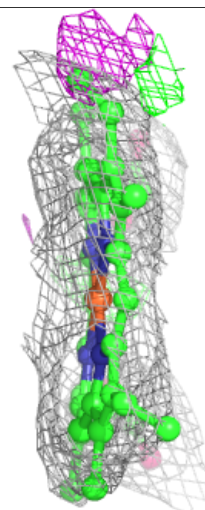
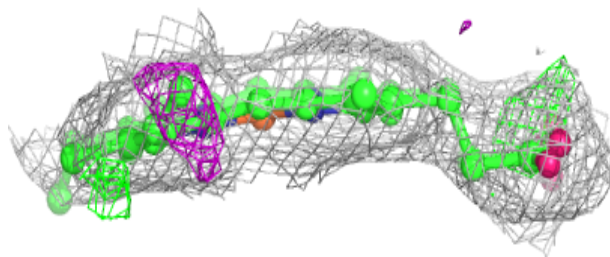
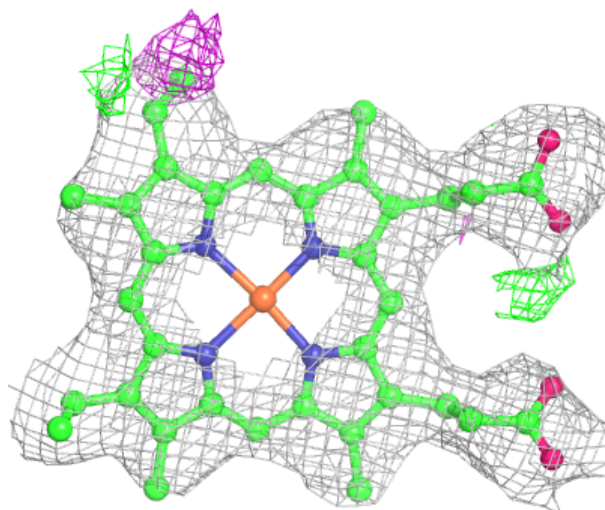
Electron density around HEC J 602:

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



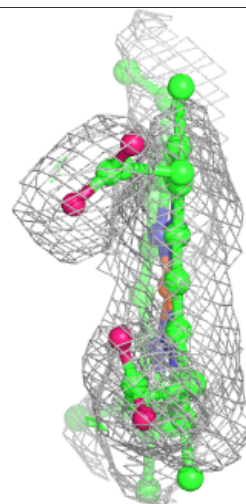
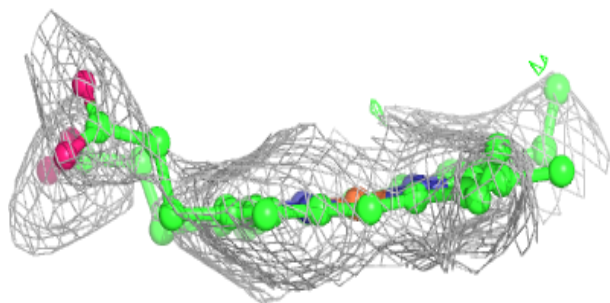
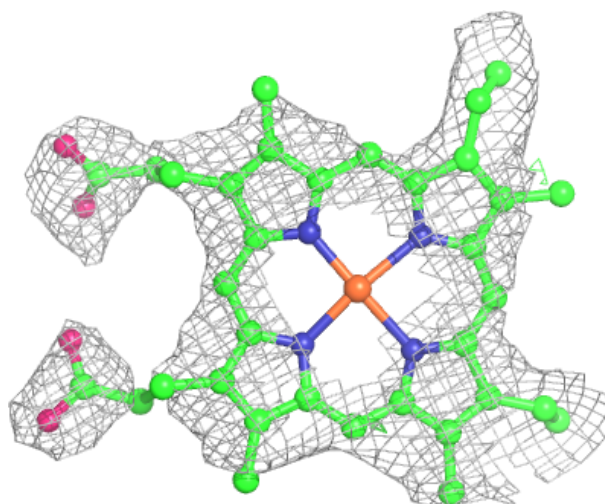
Electron density around HEC K 600:

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



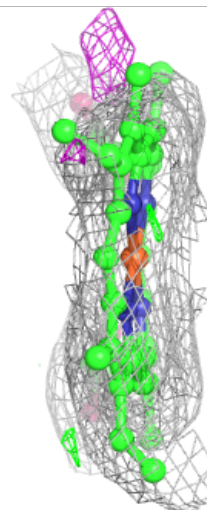
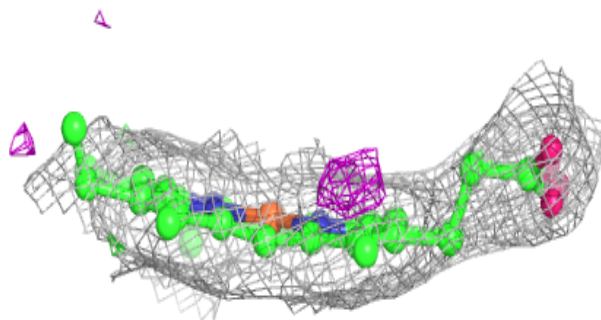
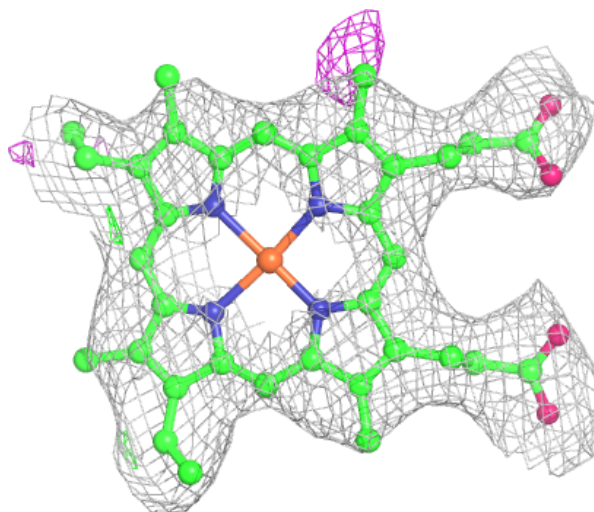
Electron density around HEC X 604:

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



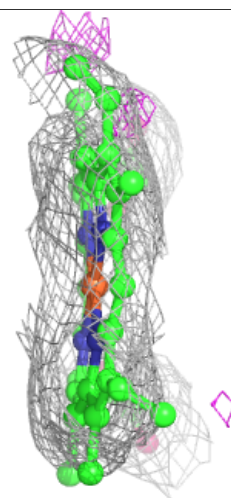
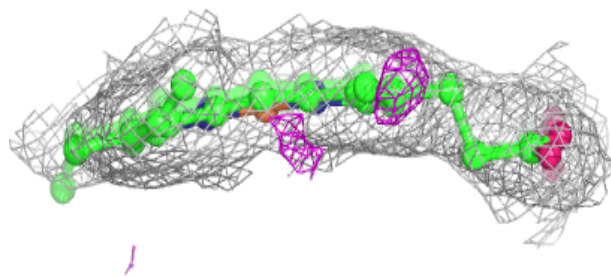
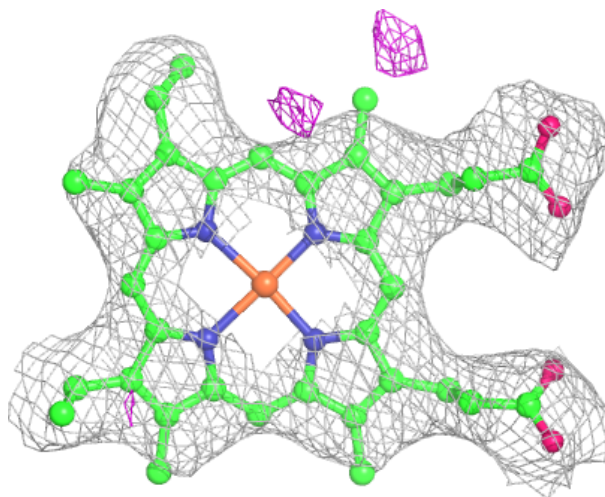
Electron density around HEC L 600:

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



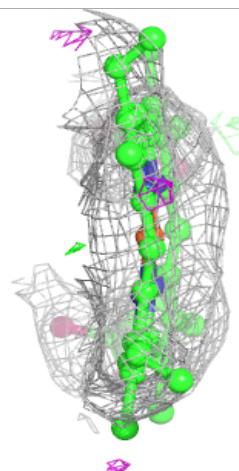
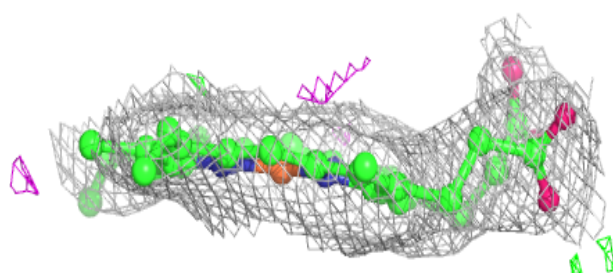
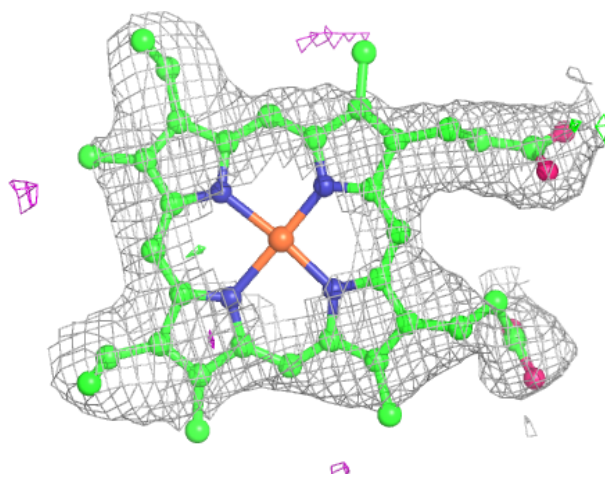
Electron density around HEC M 600:

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



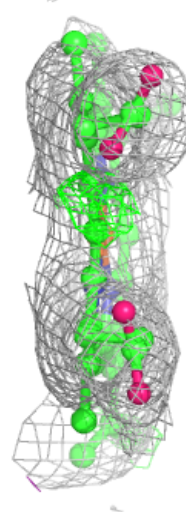
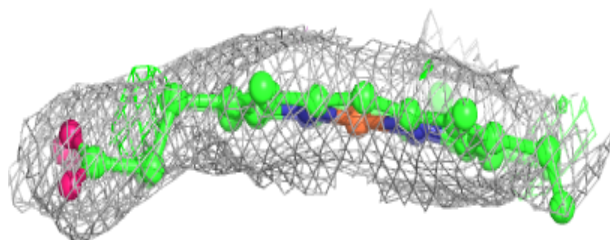
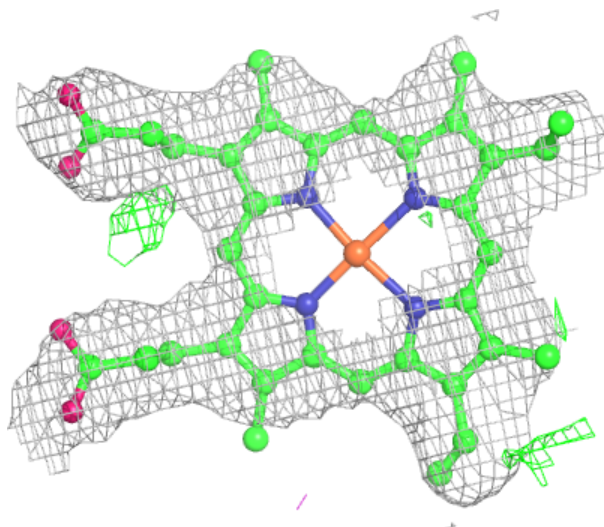
Electron density around HEC X 607:

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



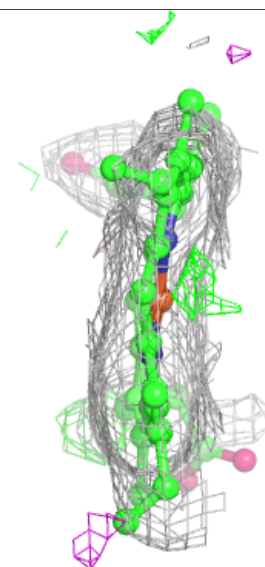
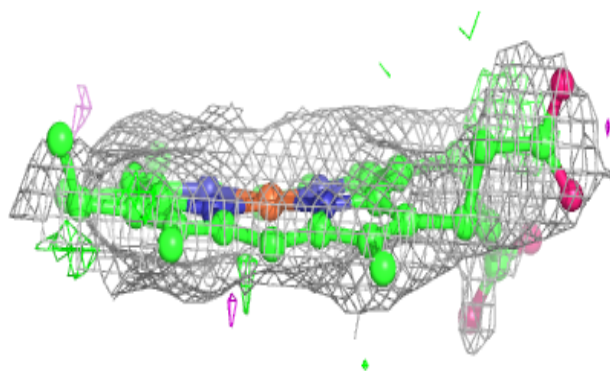
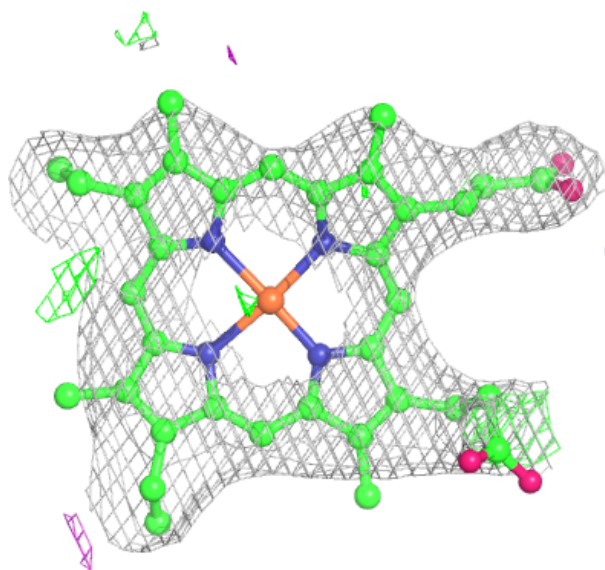
Electron density around HEC N 600:

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



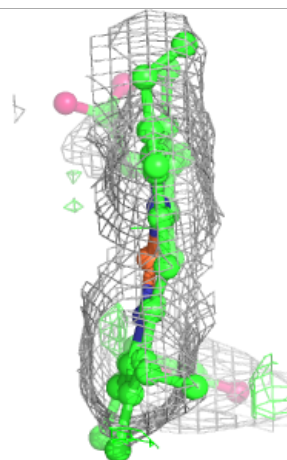
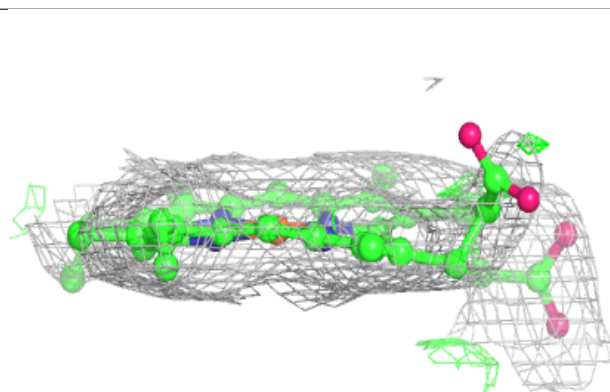
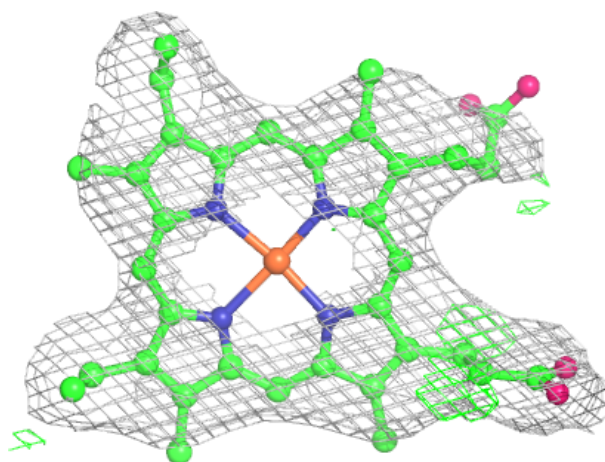
Electron density around HEC B 602:

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



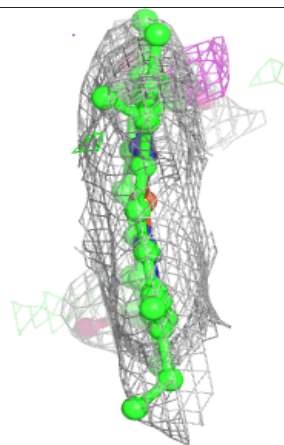
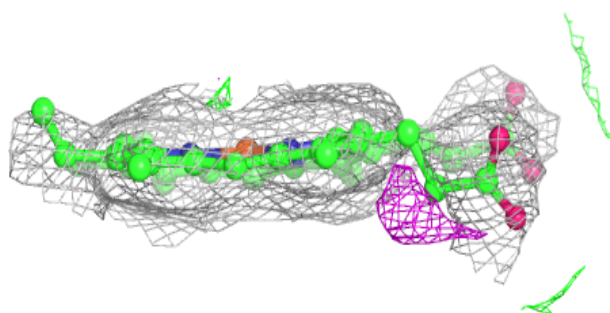
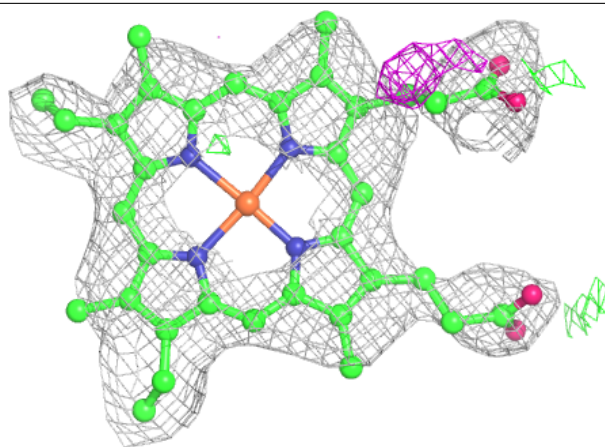
Electron density around HEC N 602:

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



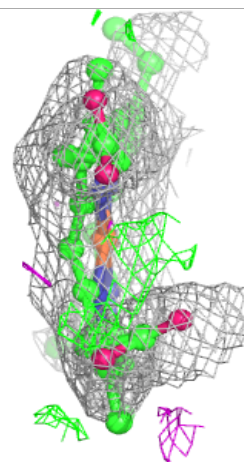
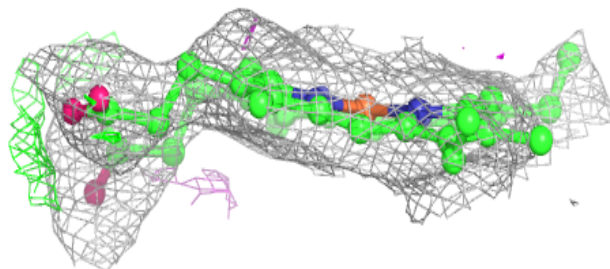
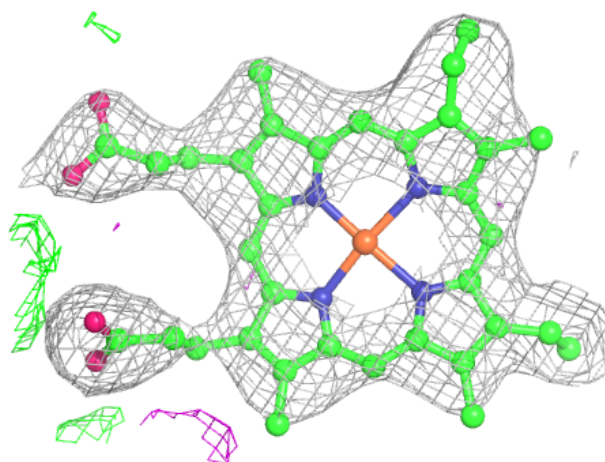
Electron density around HEC N 605:

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



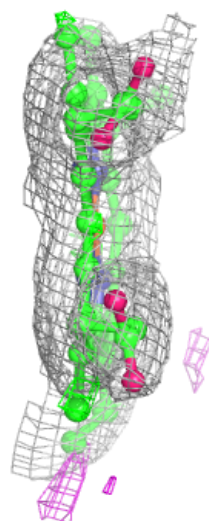
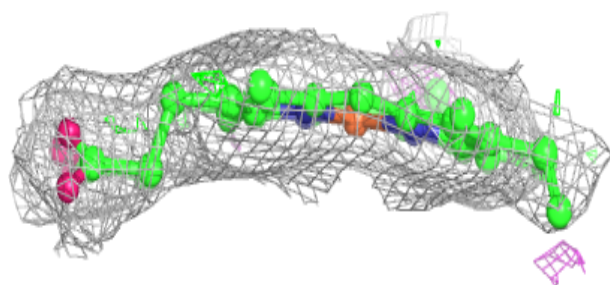
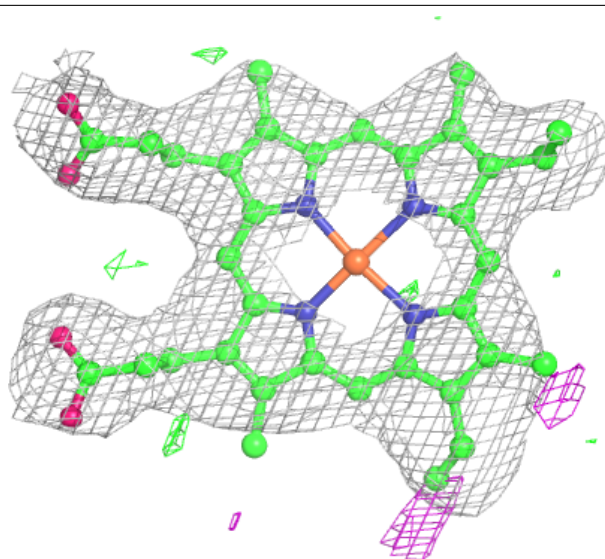
Electron density around HEC N 606:

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



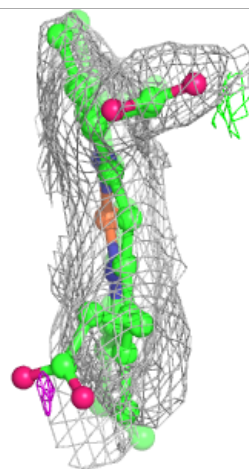
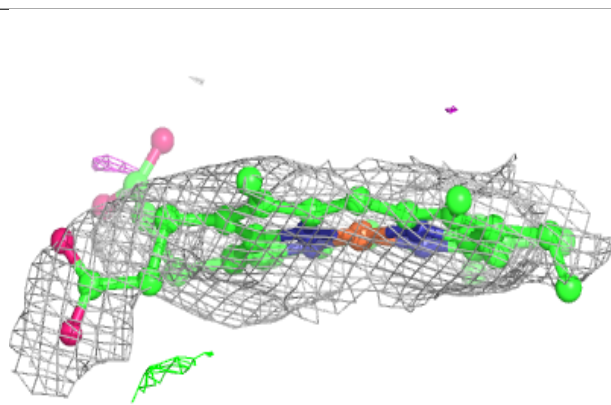
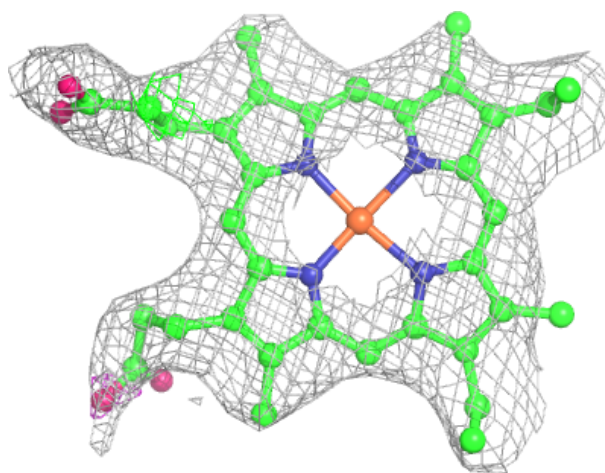
Electron density around HEC O 600:

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



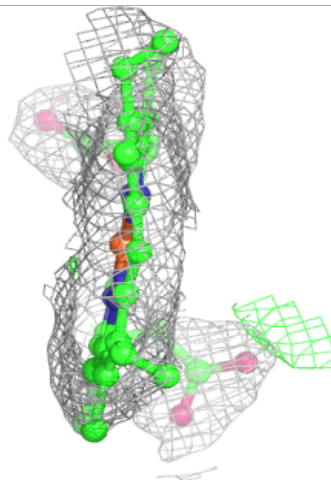
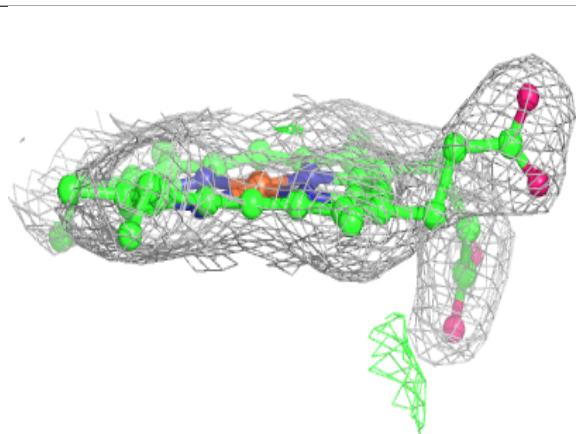
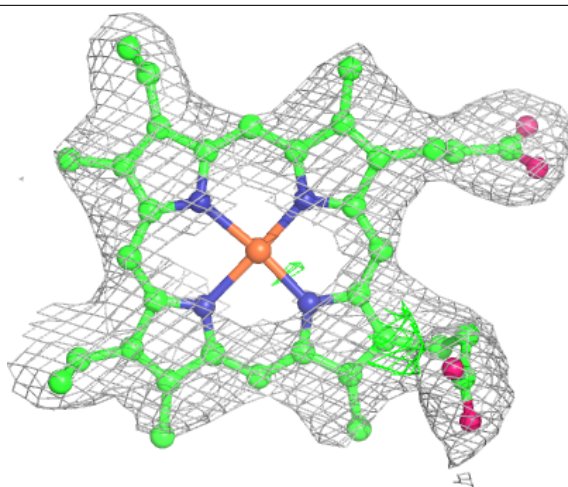
Electron density around HEC O 602:

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



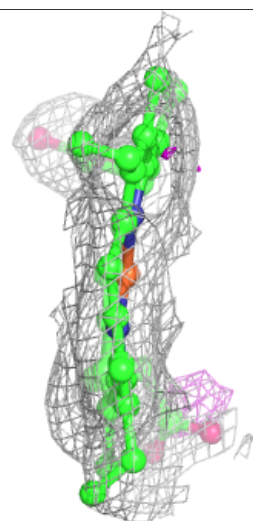
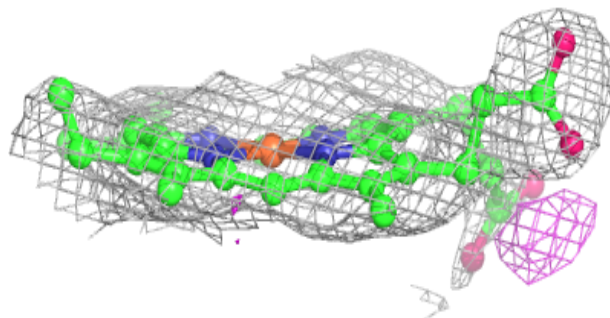
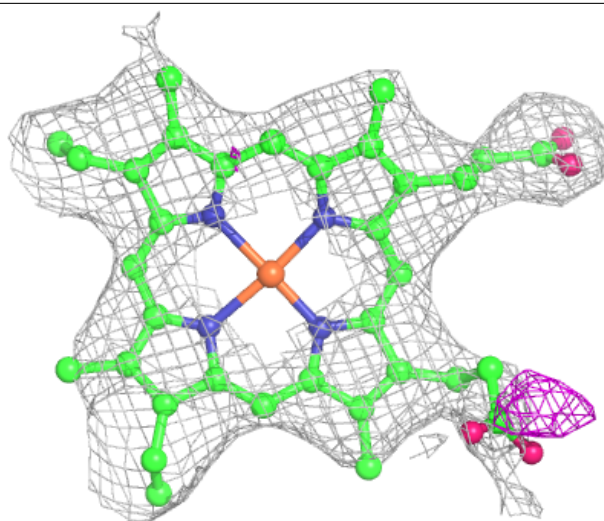
Electron density around HEC P 601:

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



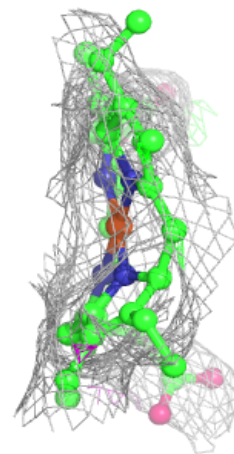
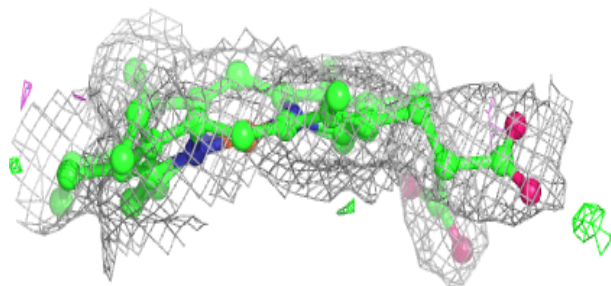
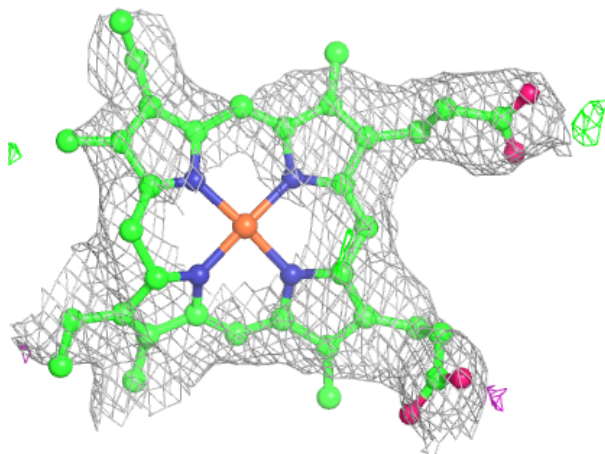
Electron density around HEC P 602:

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



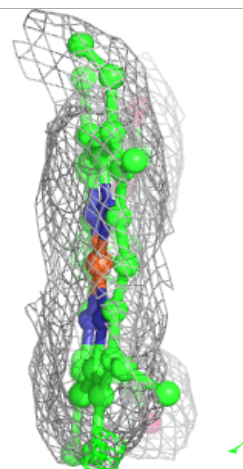
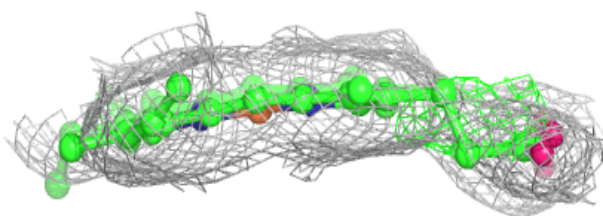
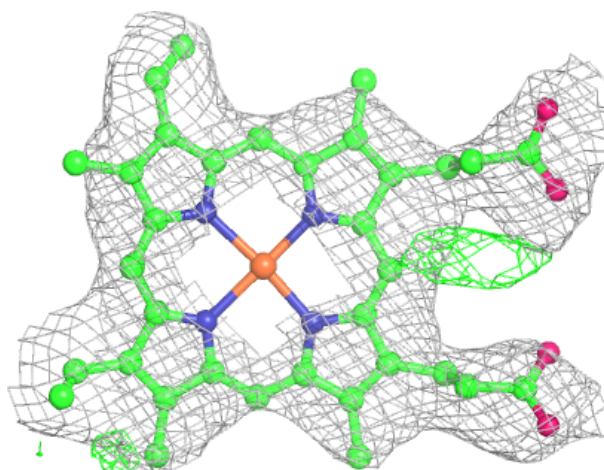
Electron density around HEC Q 603:

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



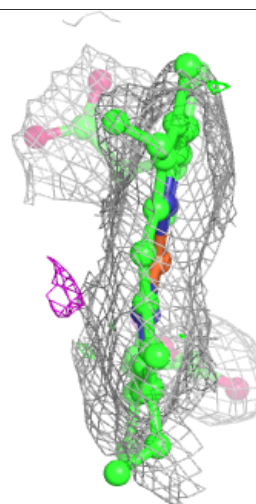
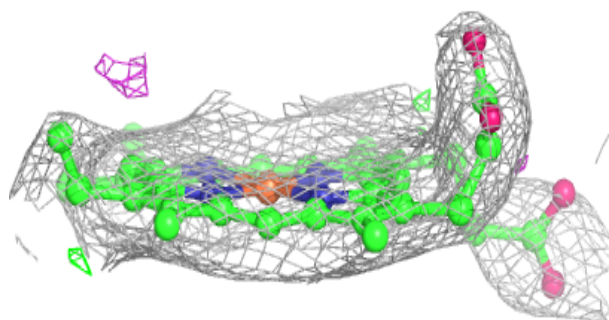
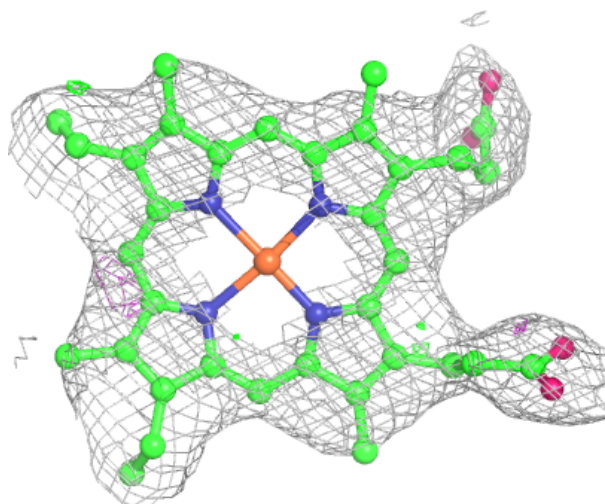
Electron density around HEC Q 600:

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



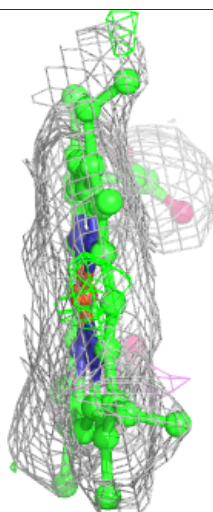
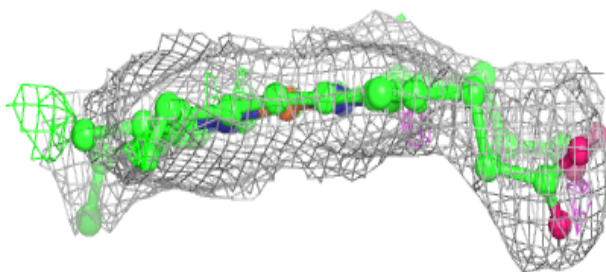
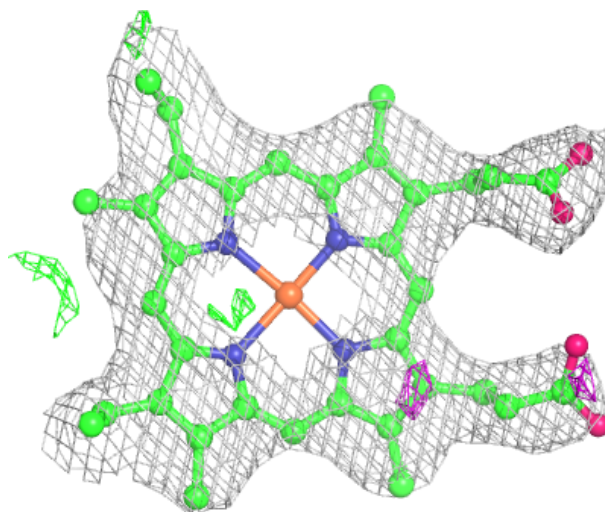
Electron density around HEC Q 601:

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



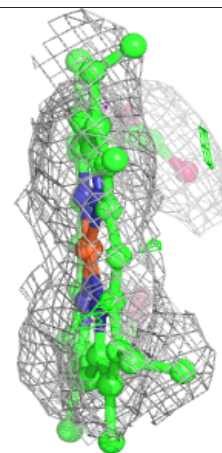
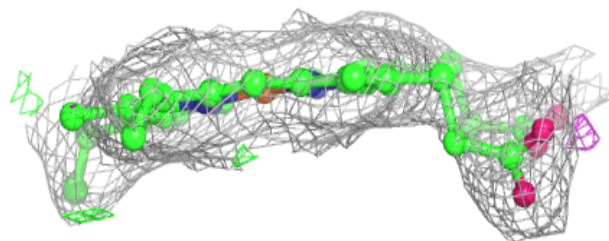
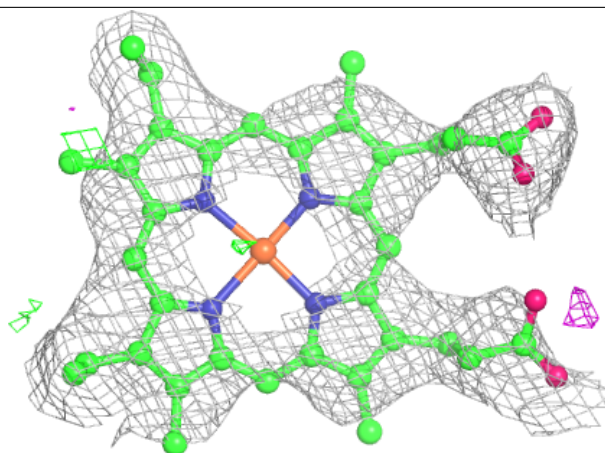
Electron density around HEC B 604:

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



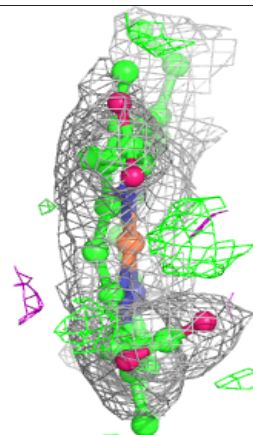
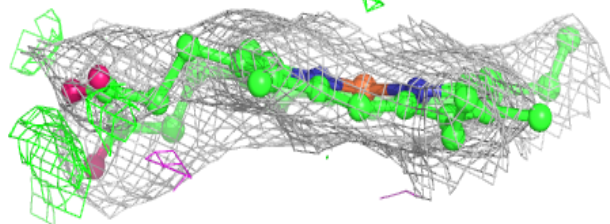
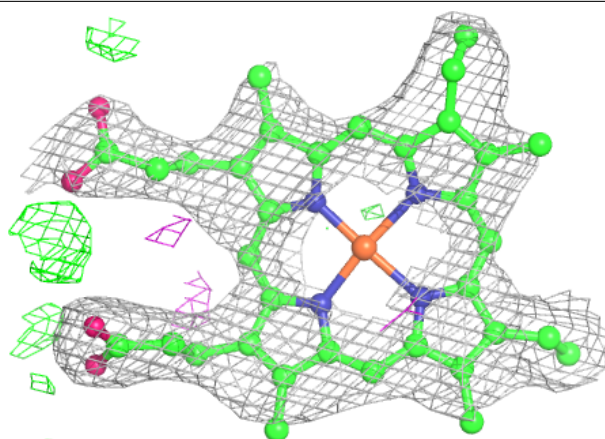
Electron density around HEC Q 604:

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



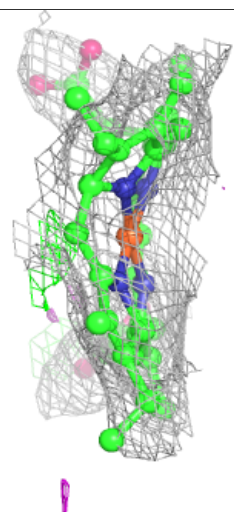
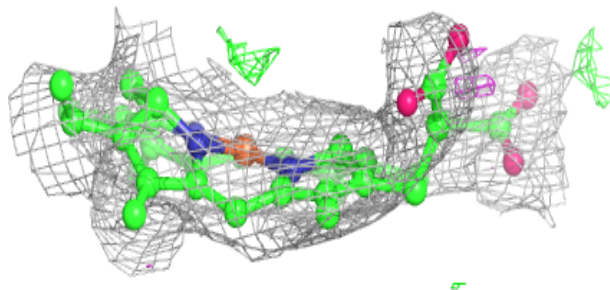
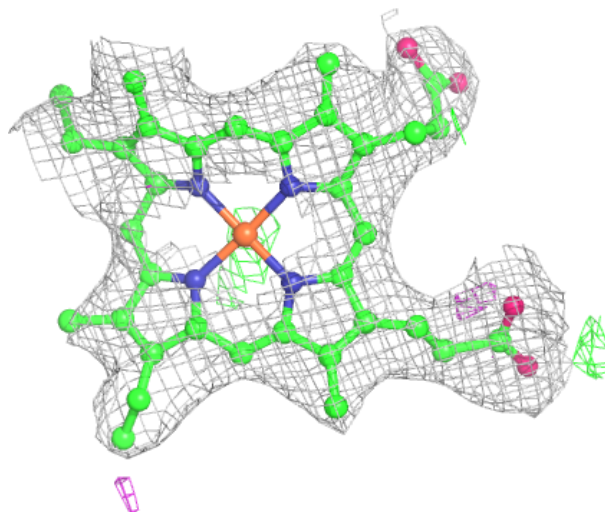
Electron density around HEC Q 606:

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



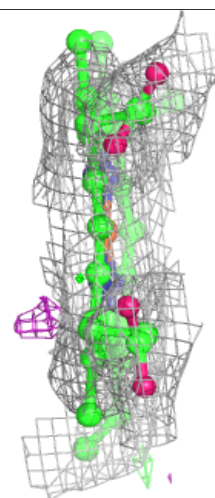
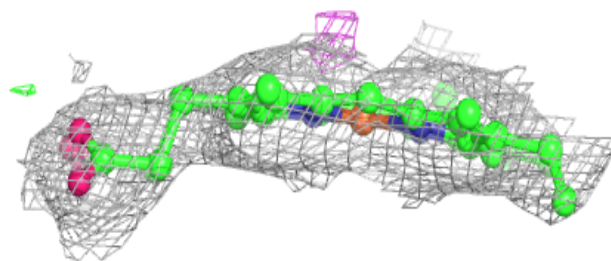
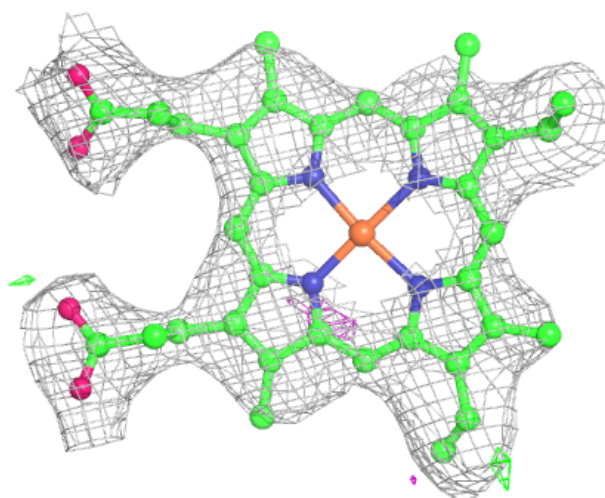
Electron density around HEC R 603:

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



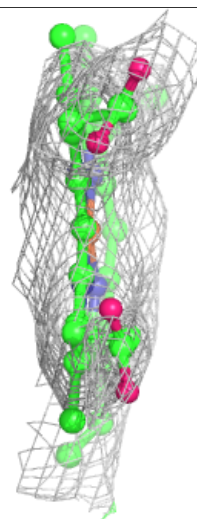
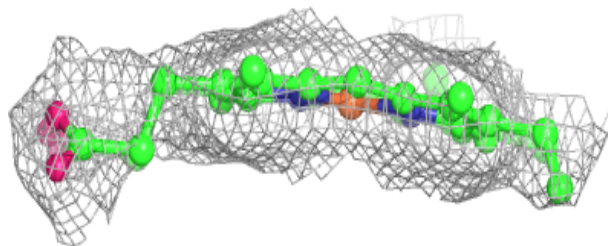
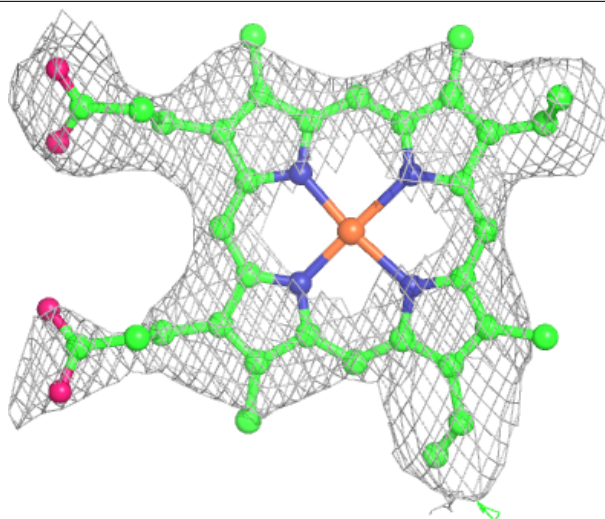
Electron density around HEC R 600:

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



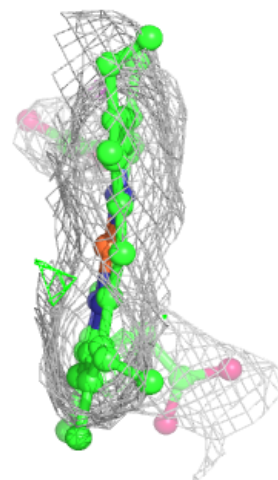
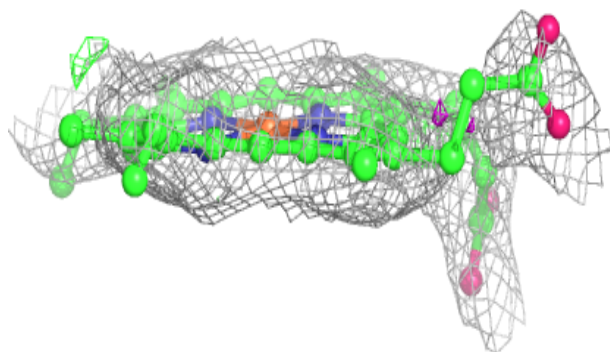
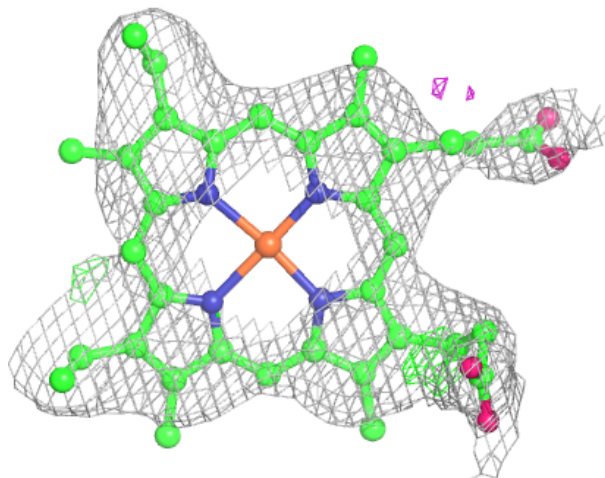
Electron density around HEC S 600:

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



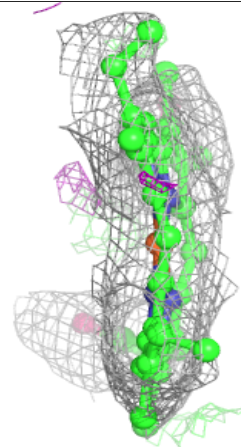
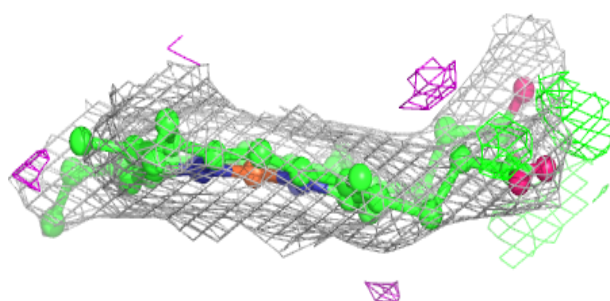
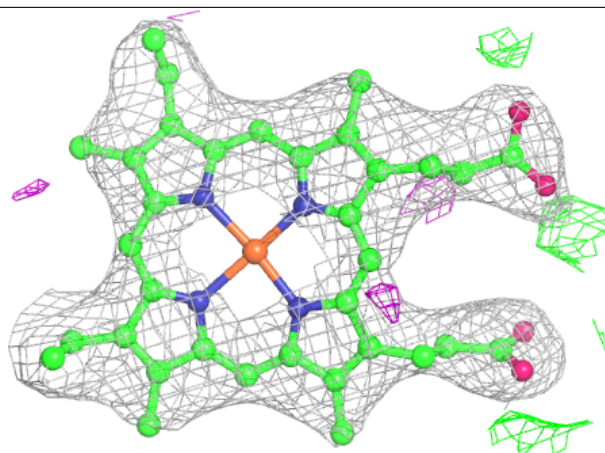
Electron density around HEC S 601:

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



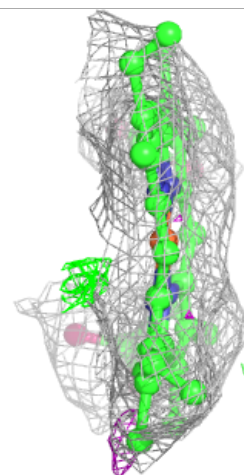
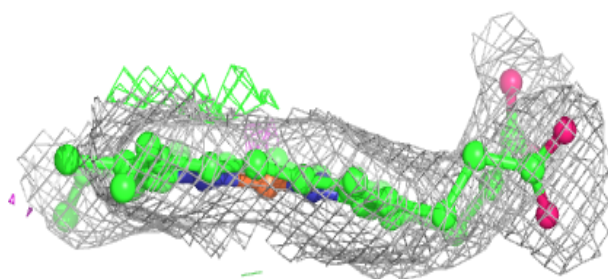
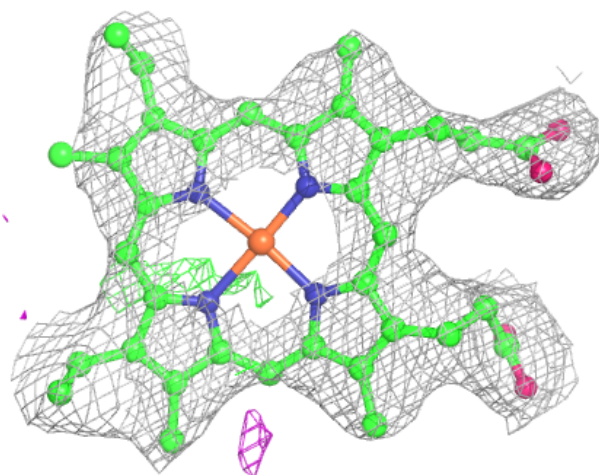
Electron density around HEC C 606:

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



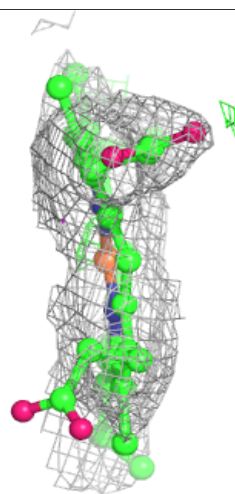
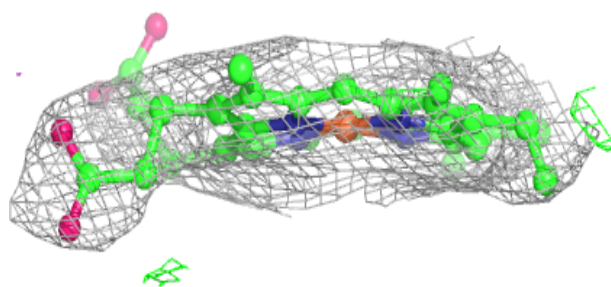
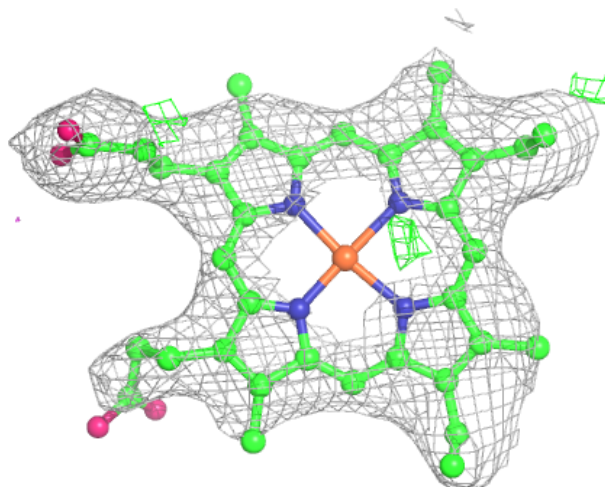
Electron density around HEC C 607:

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



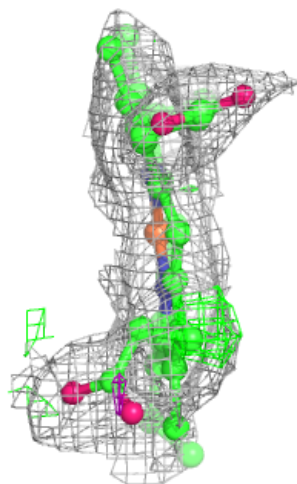
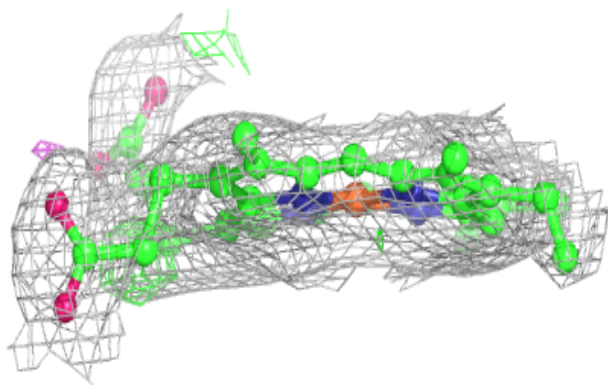
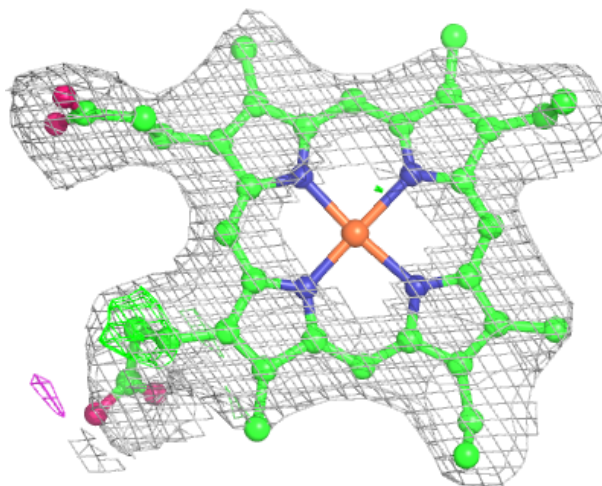
Electron density around HEC A 602:

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



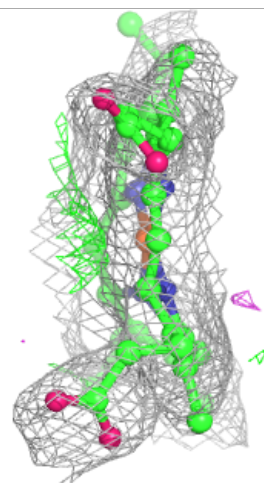
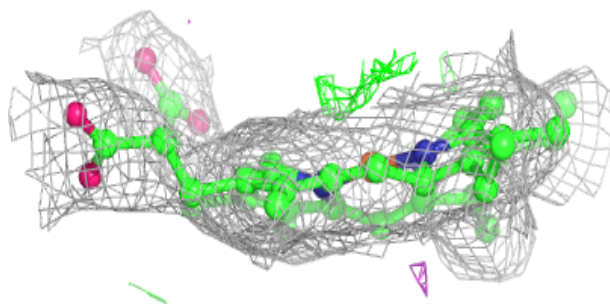
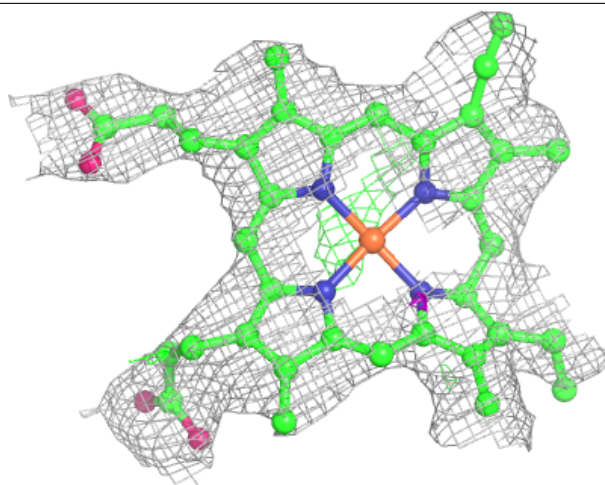
Electron density around HEC G 602:

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



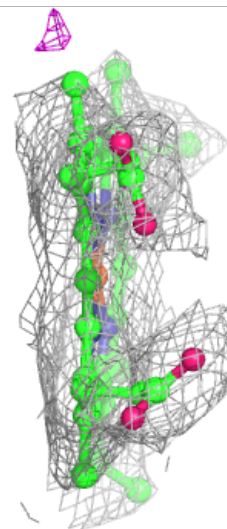
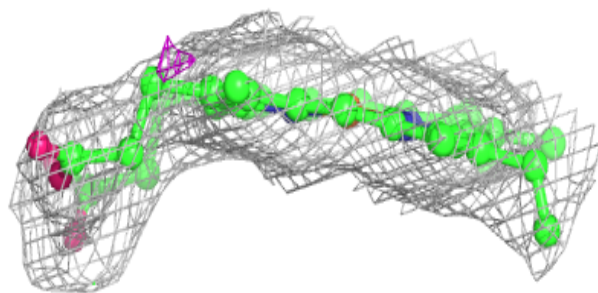
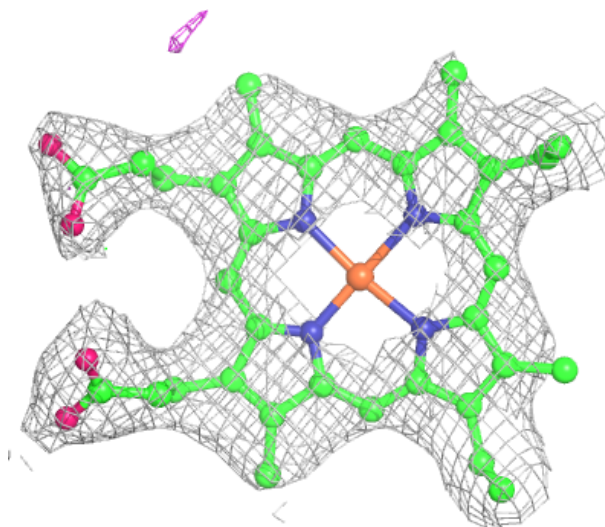
Electron density around HEC B 603:

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



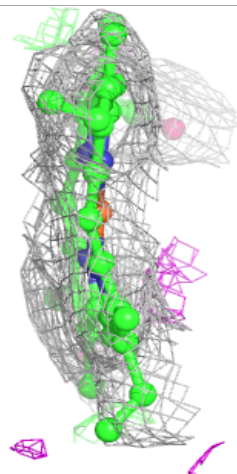
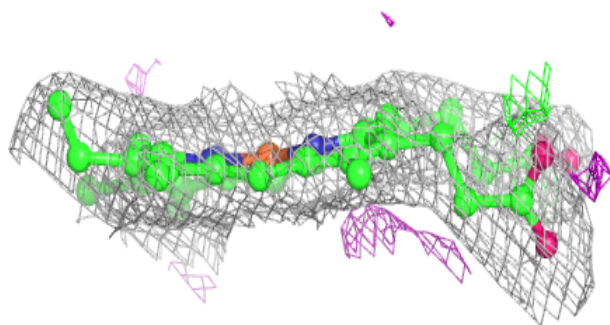
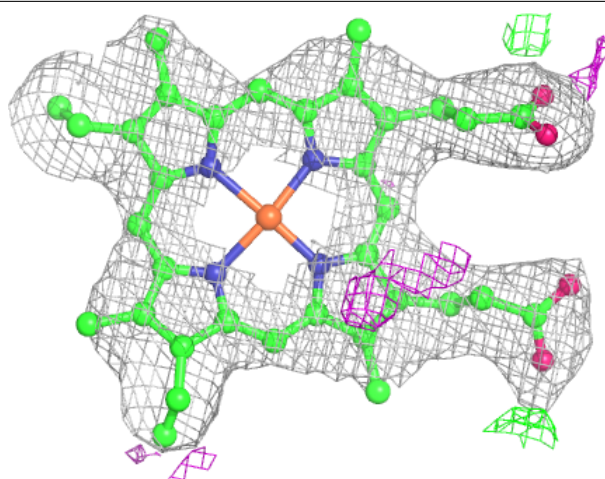
Electron density around HEC H 604:

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



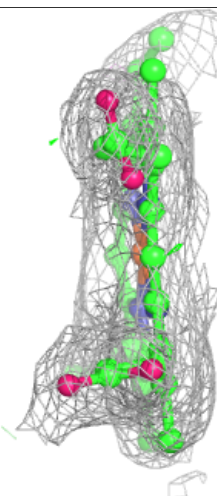
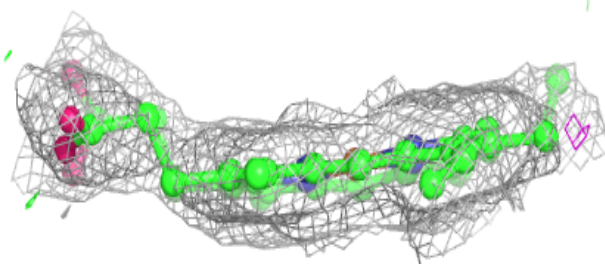
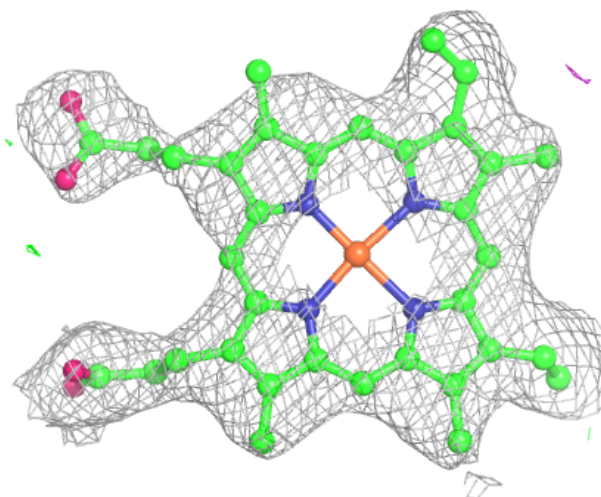
Electron density around HEC H 606:

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



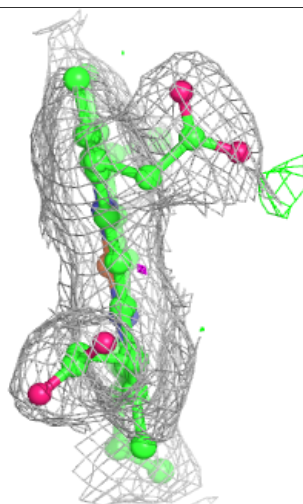
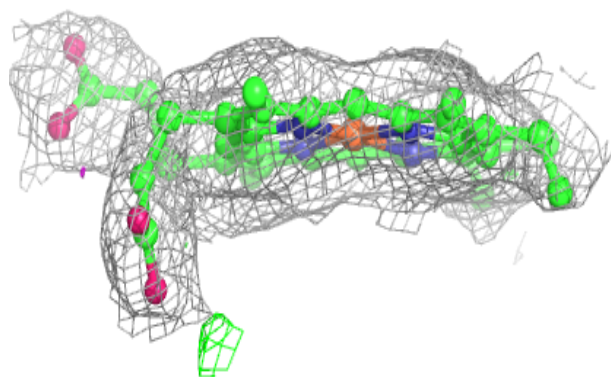
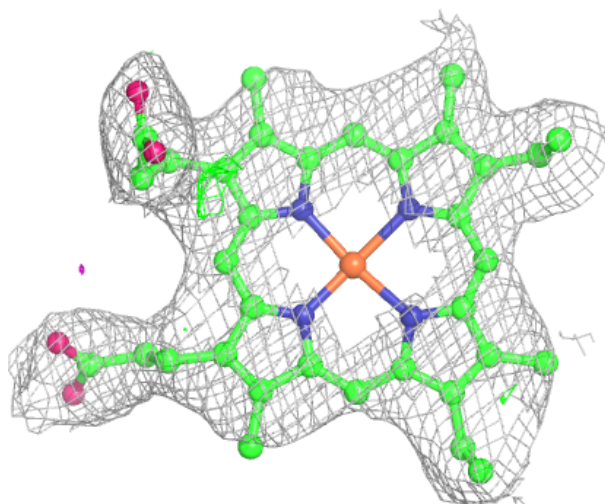
Electron density around HEC I 600:

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



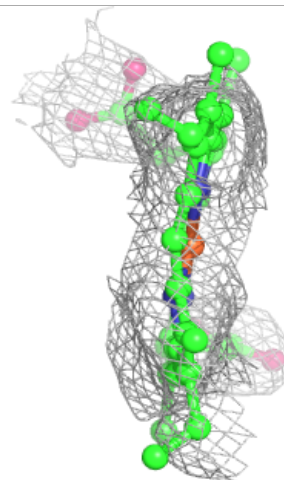
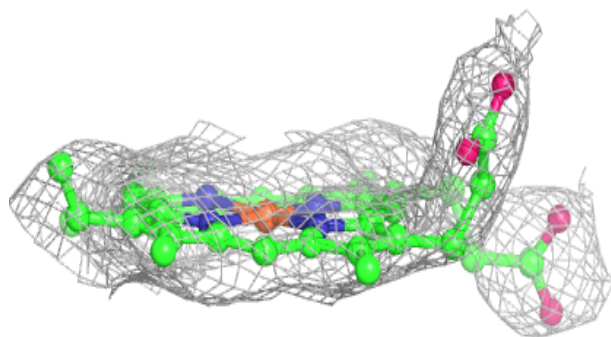
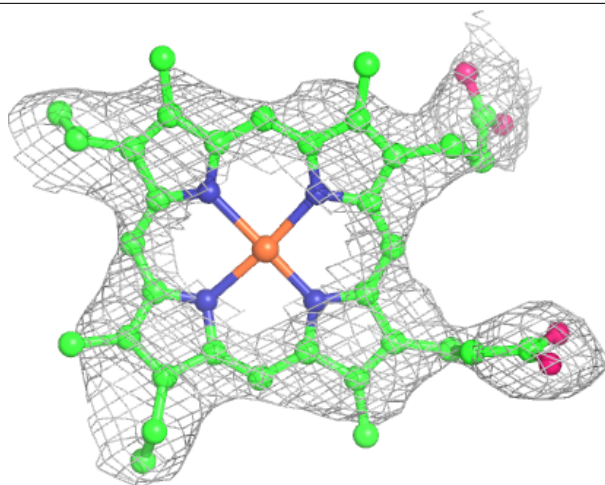
Electron density around HEC I 601:

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



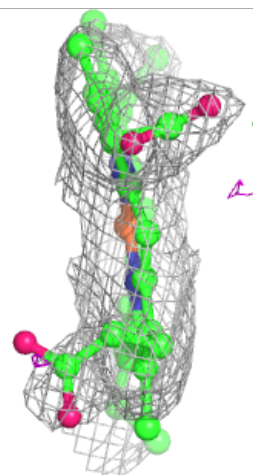
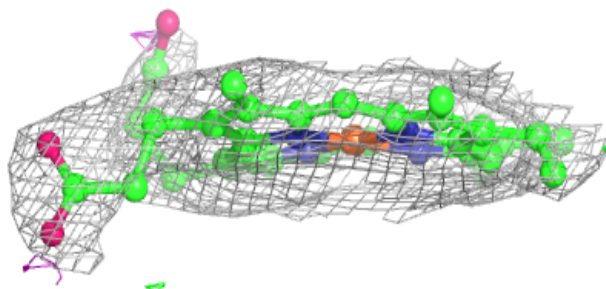
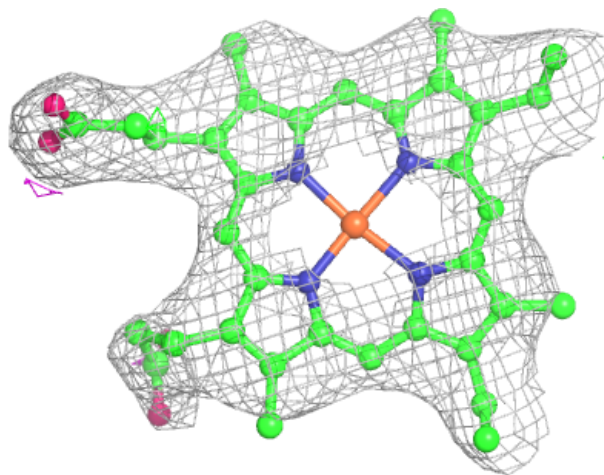
Electron density around HEC D 601:

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



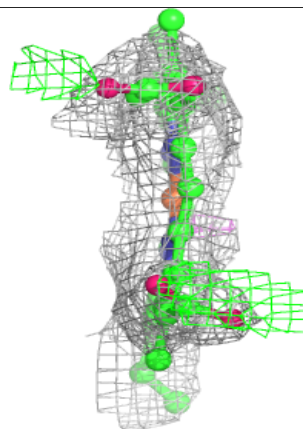
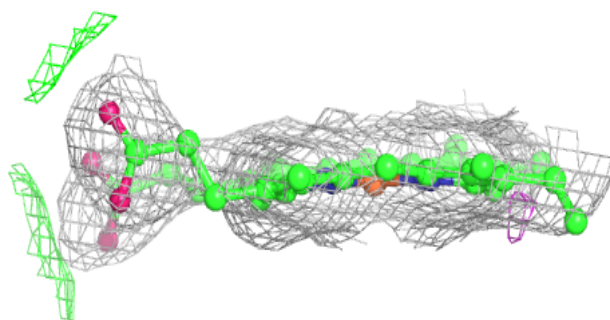
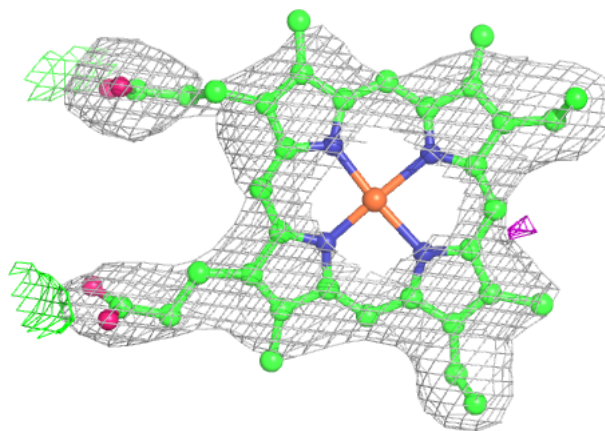
Electron density around HEC D 602:

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



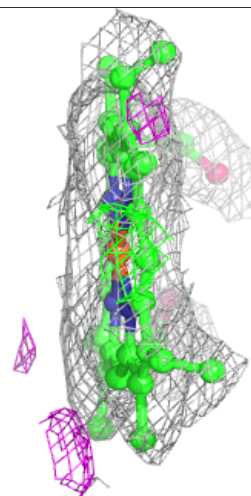
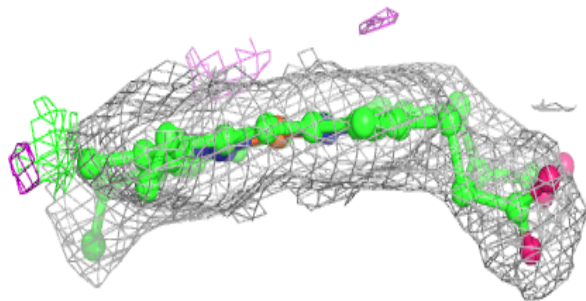
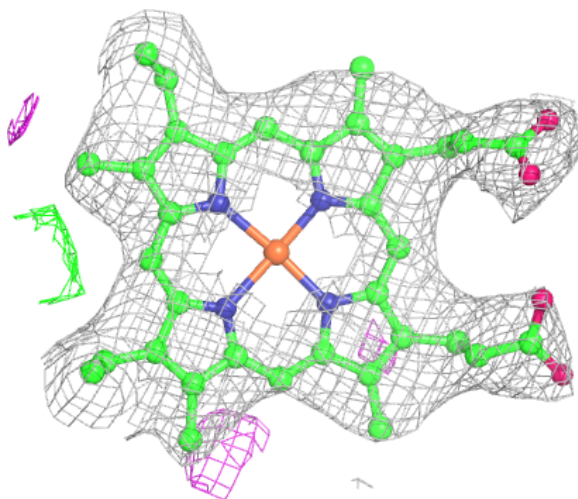
Electron density around HEC D 605:

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



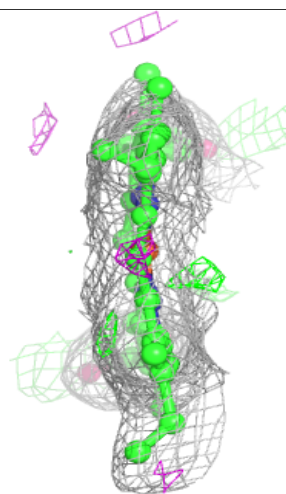
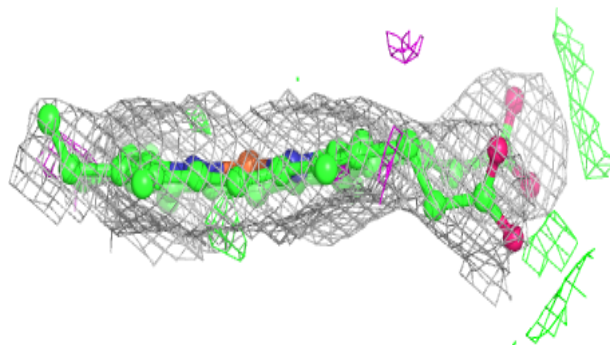
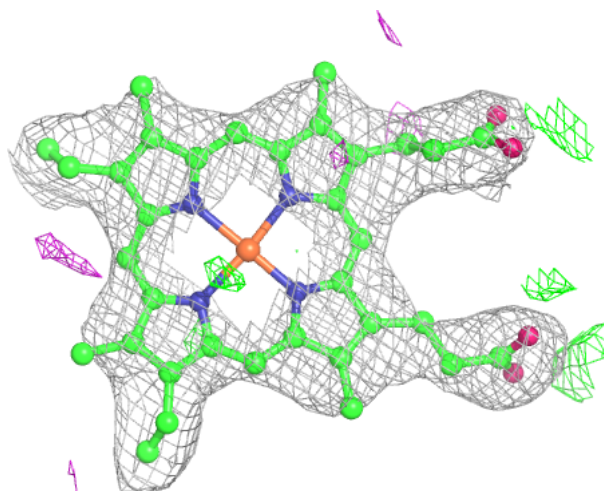
Electron density around HEC J 604:

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



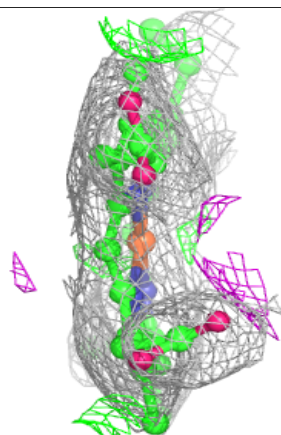
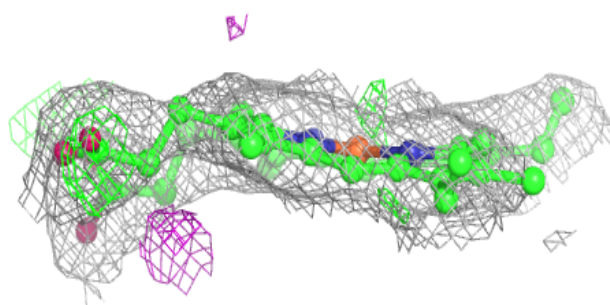
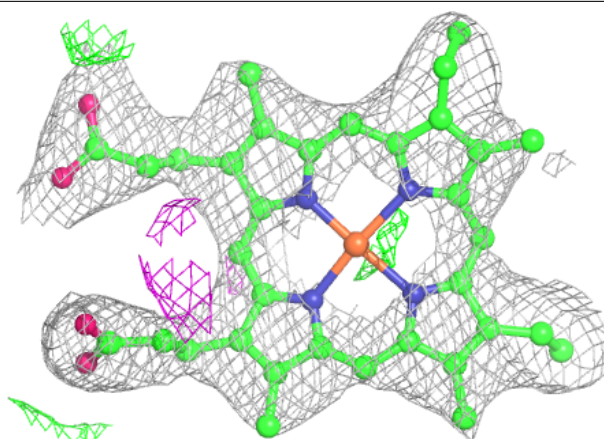
Electron density around HEC J 605:

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



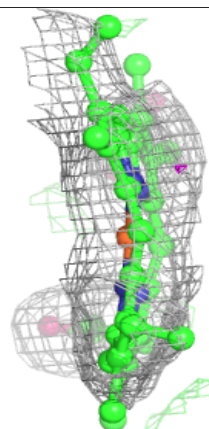
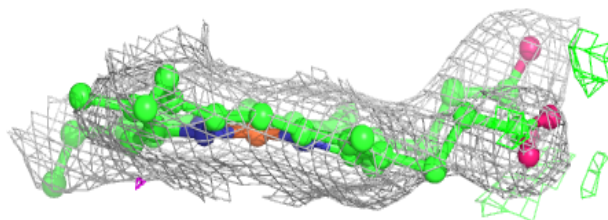
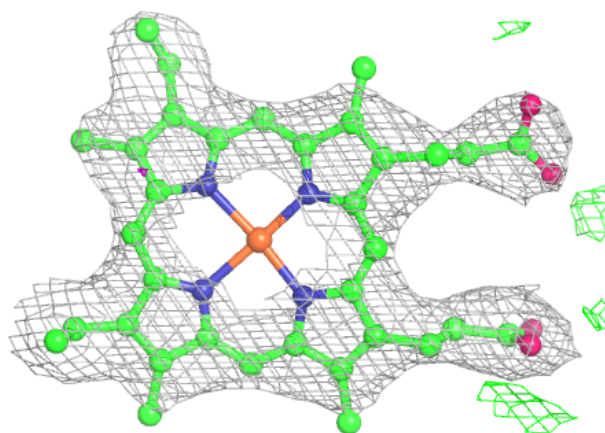
Electron density around HEC J 606:

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



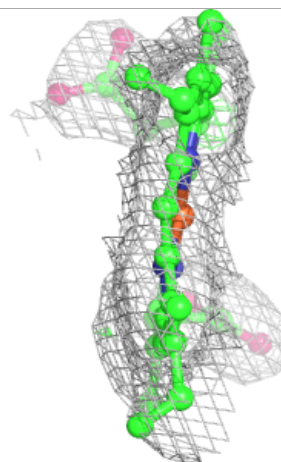
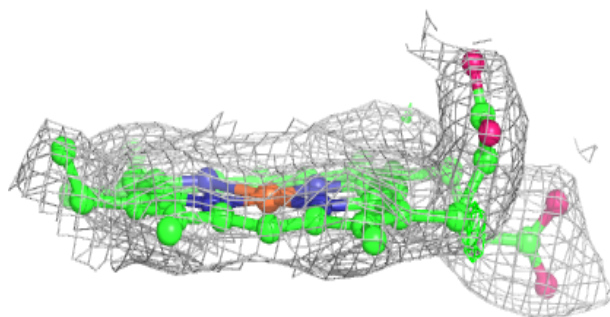
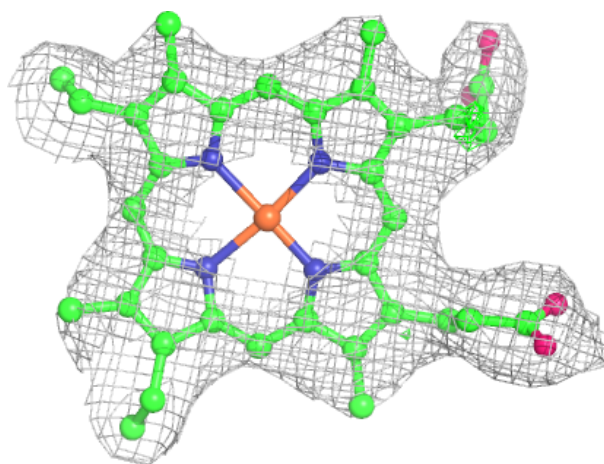
Electron density around HEC D 606:

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



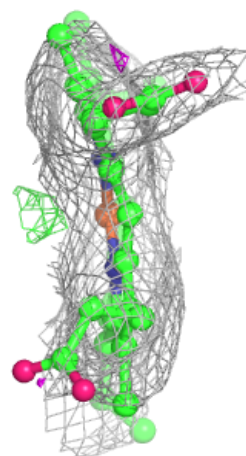
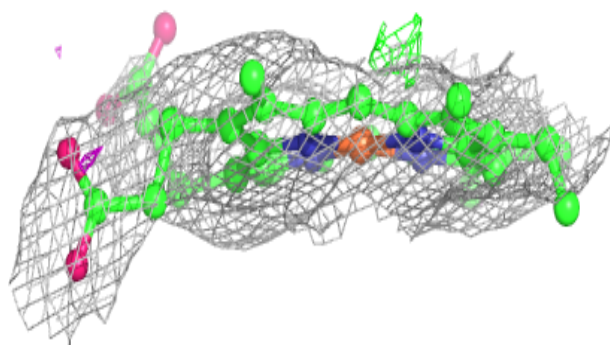
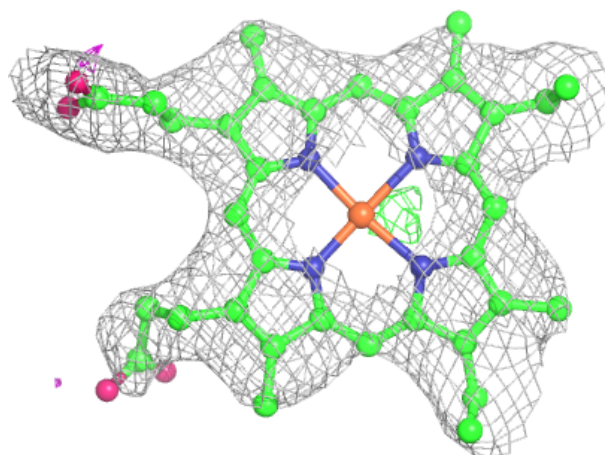
Electron density around HEC K 601:

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



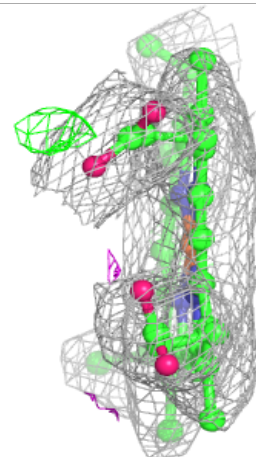
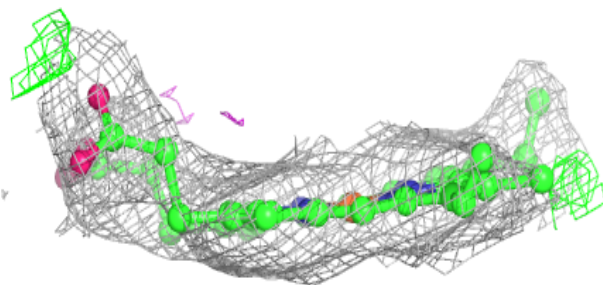
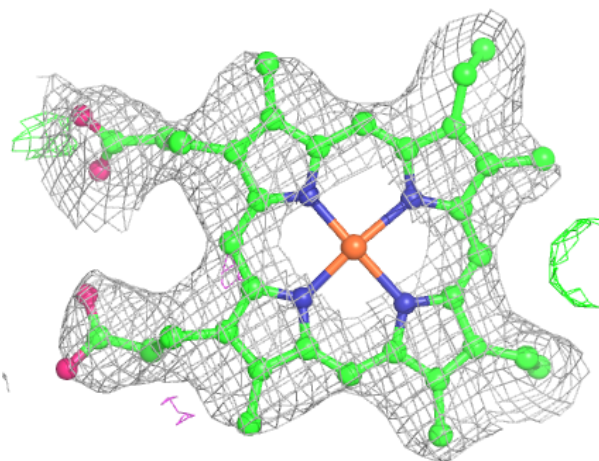
Electron density around HEC K 602:

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



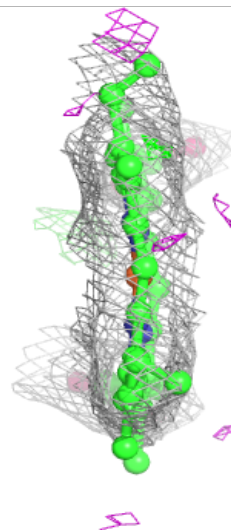
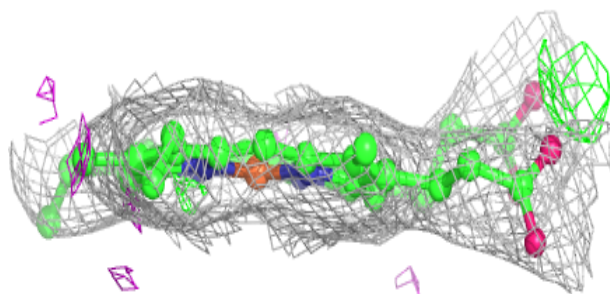
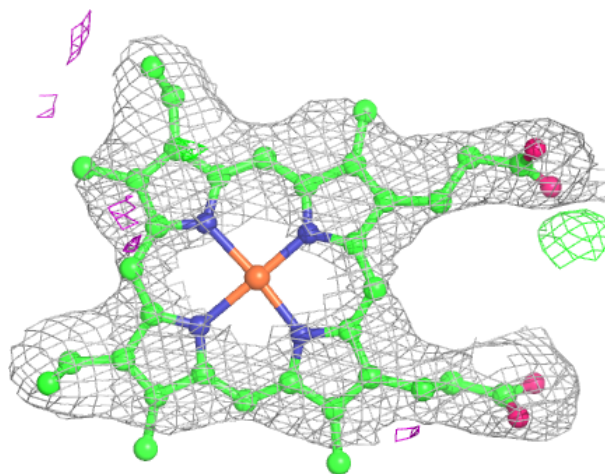
Electron density around HEC K 604:

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



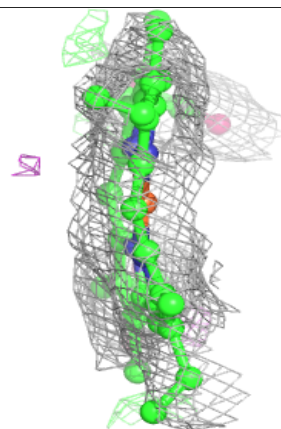
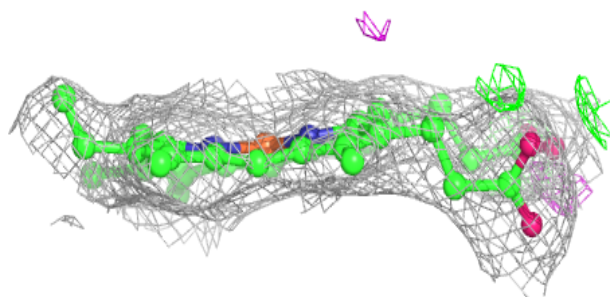
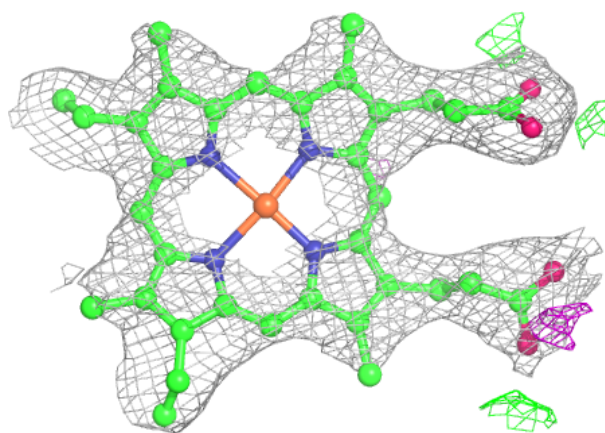
Electron density around HEC K 605:

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



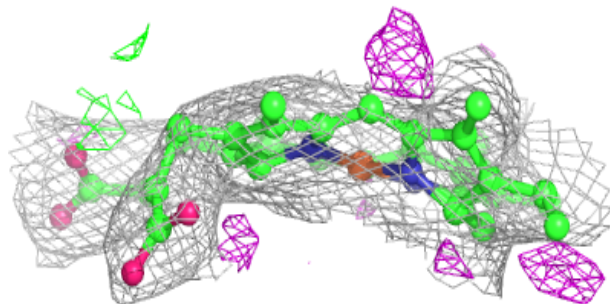
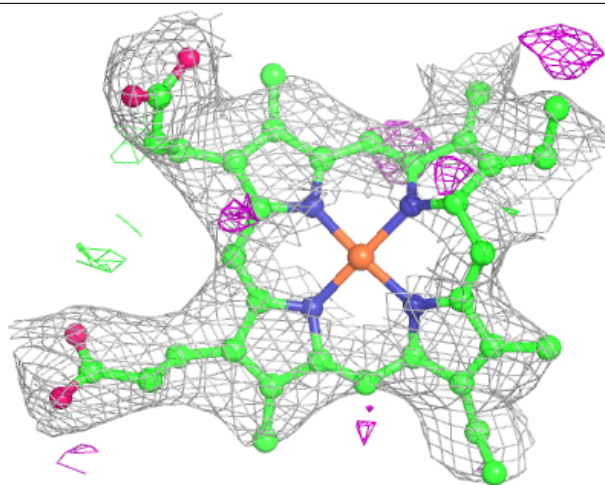
Electron density around HEC K 606:

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



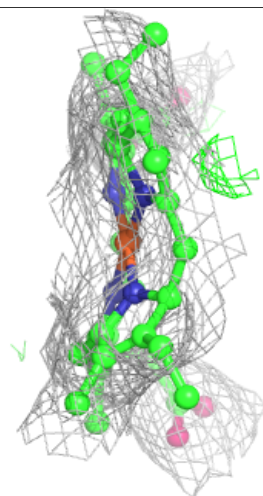
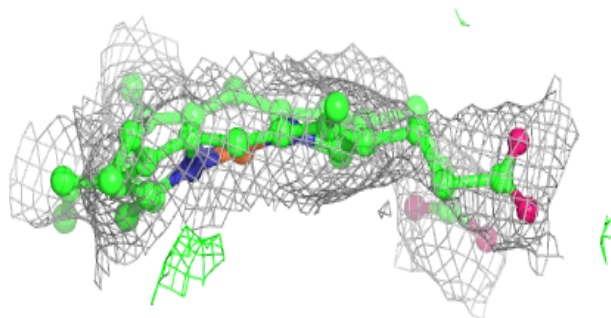
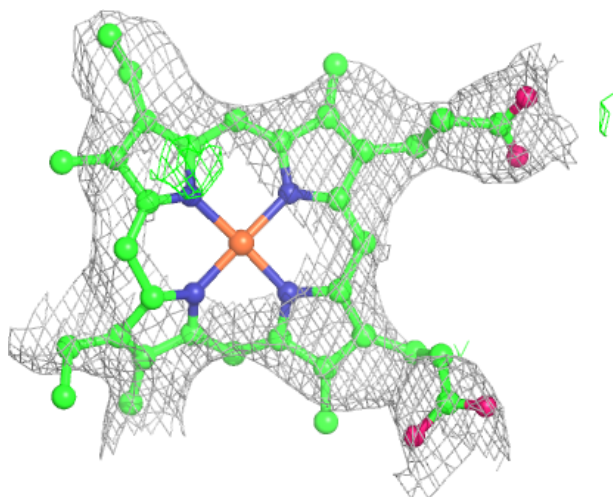
Electron density around HEC L 603:

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



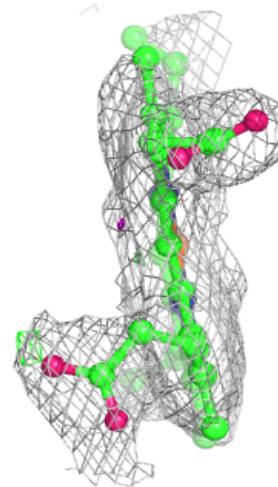
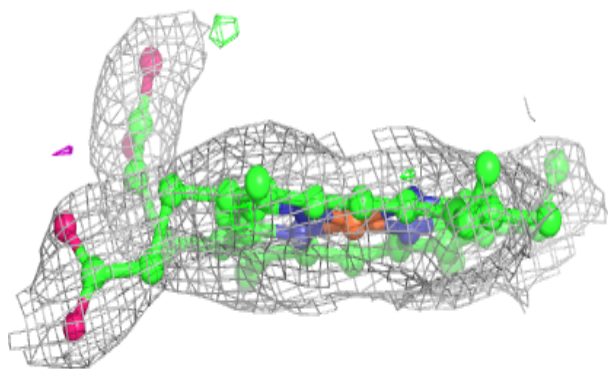
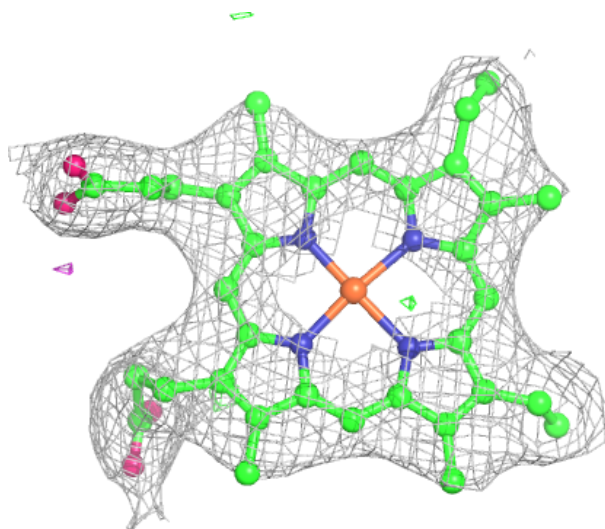
Electron density around HEC D 603:

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



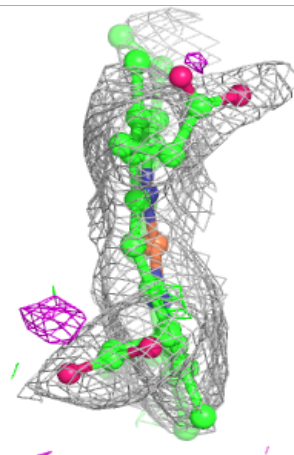
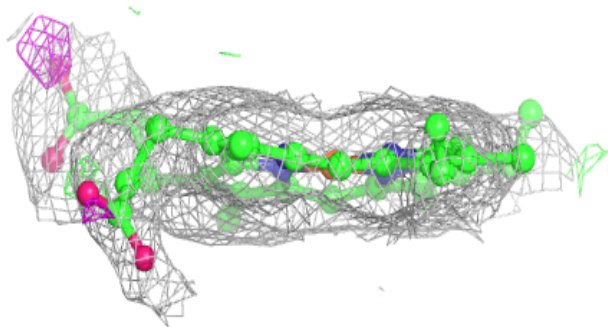
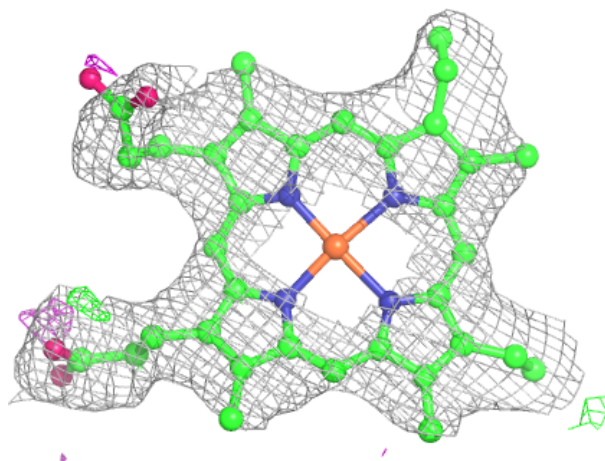
Electron density around HEC L 601:

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



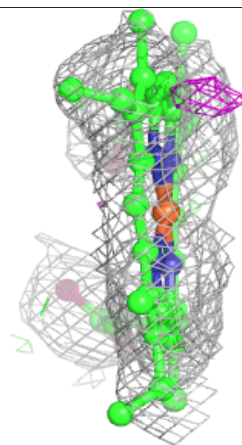
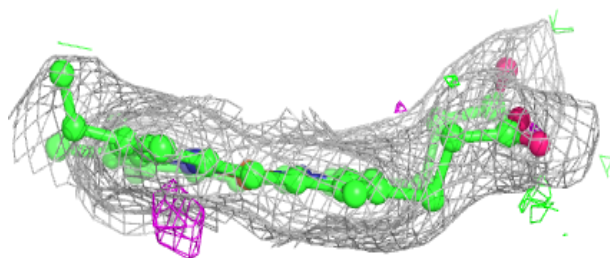
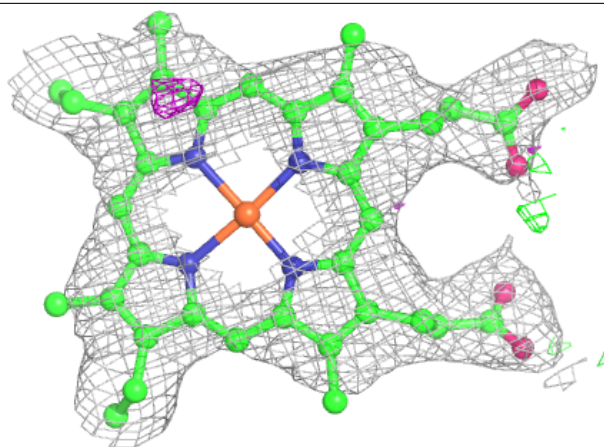
Electron density around HEC L 602:

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



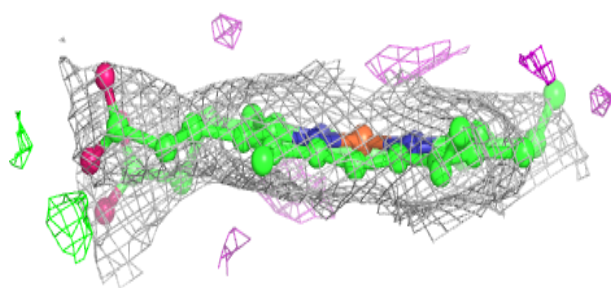
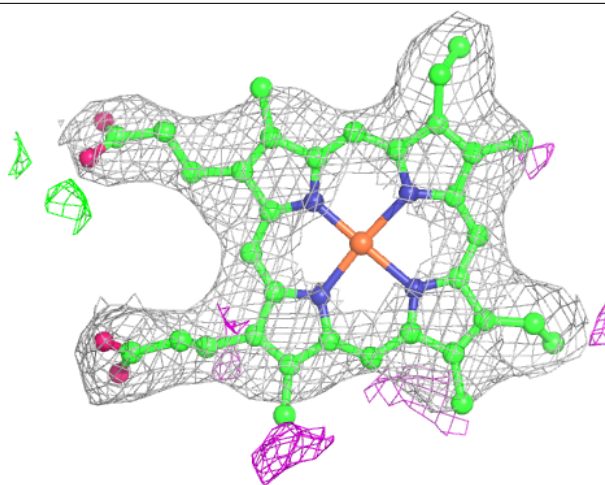
Electron density around HEC L 604:

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



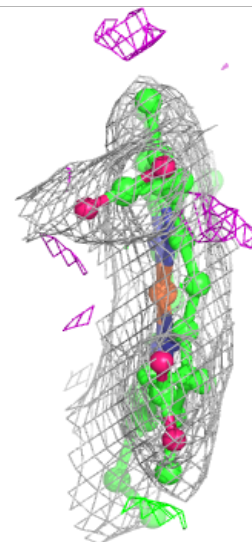
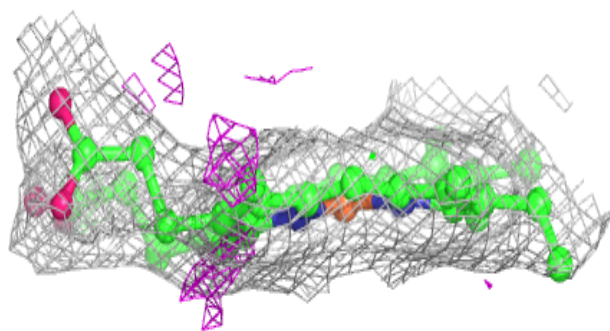
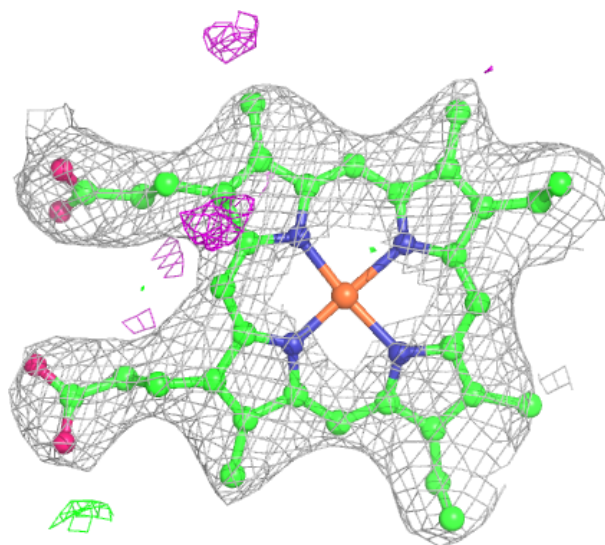
Electron density around HEC L 605:

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



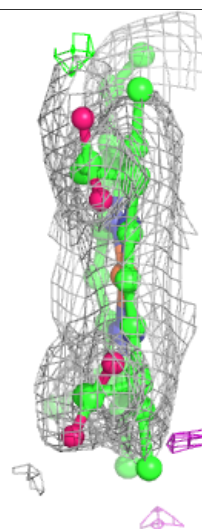
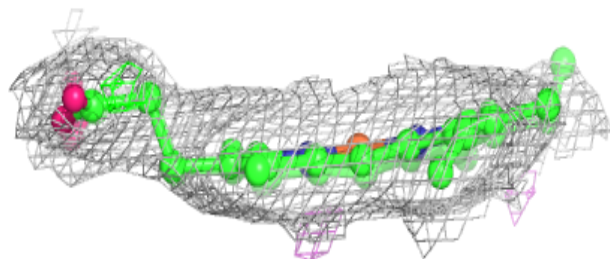
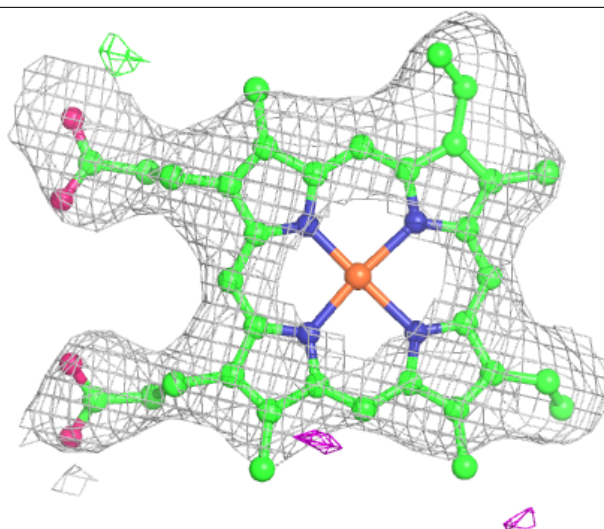
Electron density around HEC L 606:

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



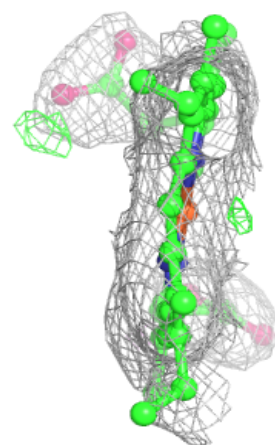
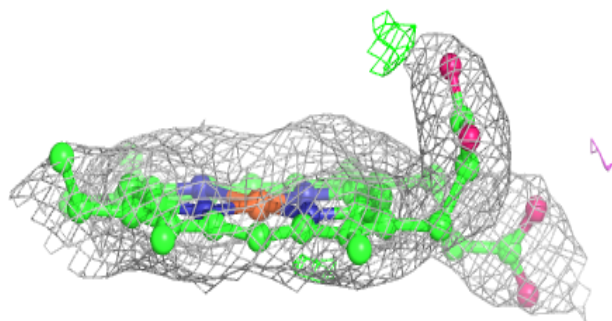
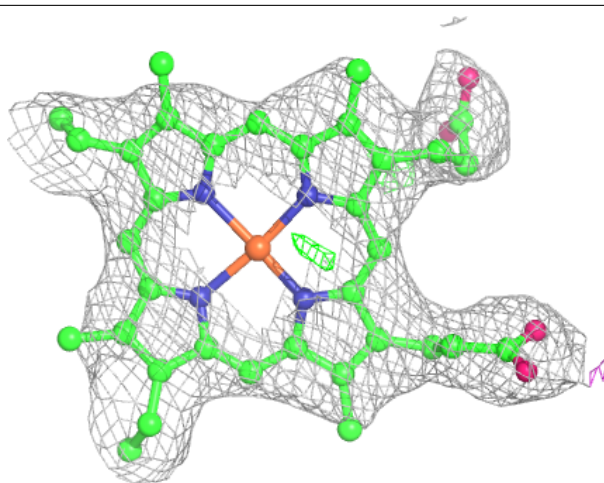
Electron density around HEC B 600:

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



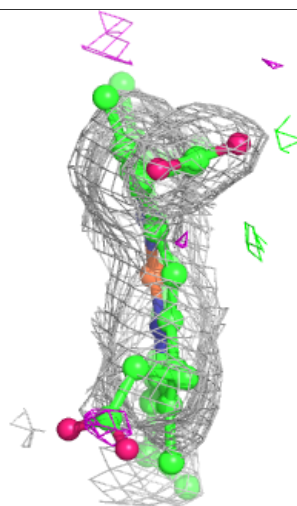
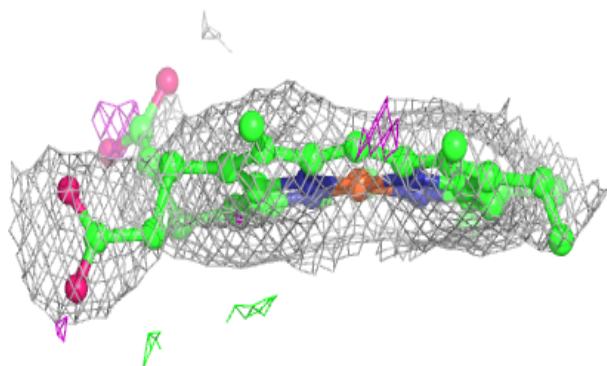
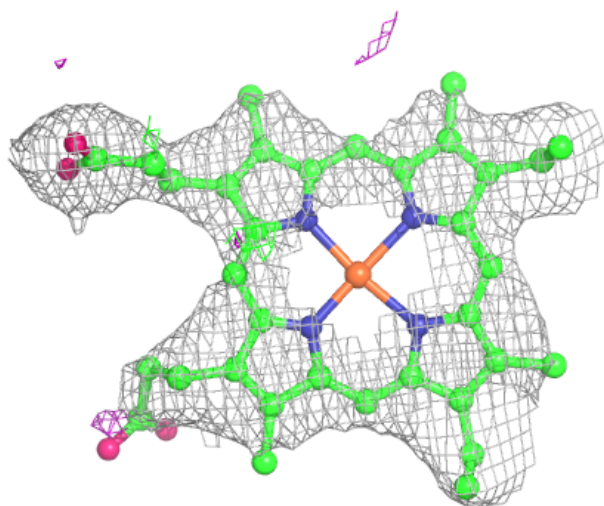
Electron density around HEC M 601:

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



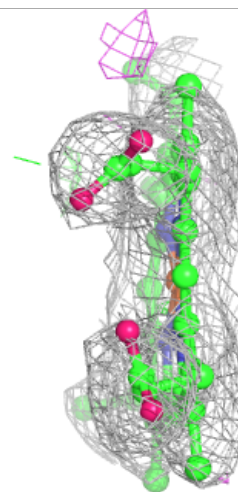
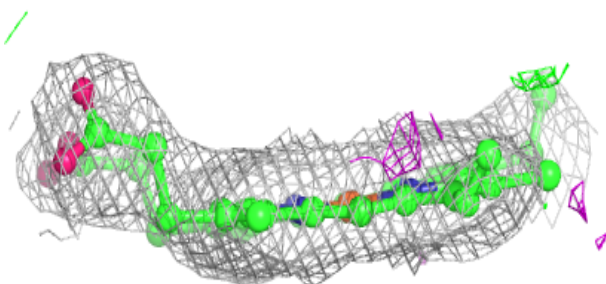
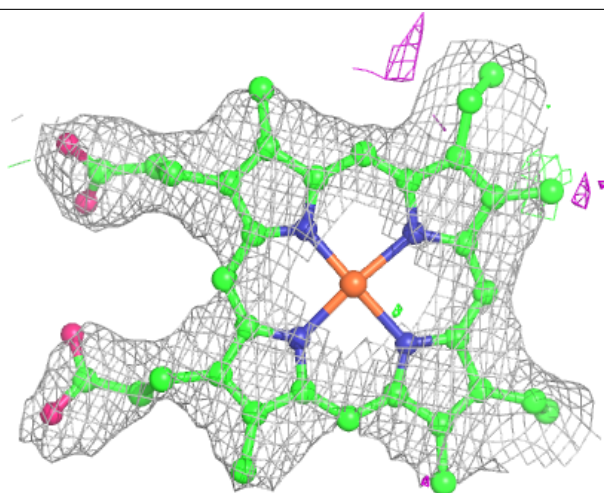
Electron density around HEC M 602:

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



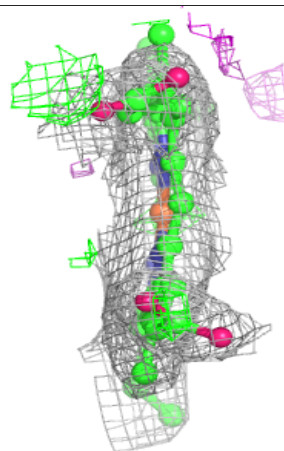
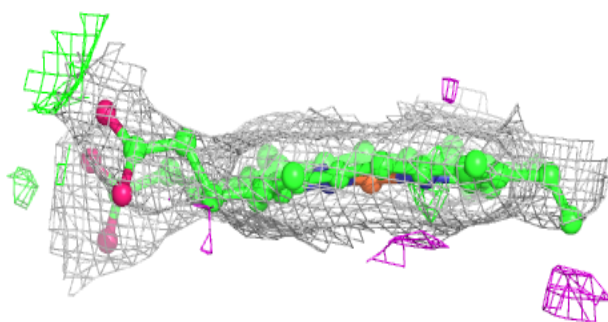
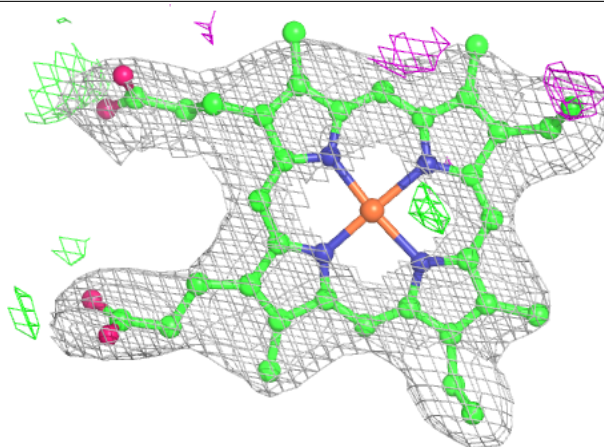
Electron density around HEC M 604:

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



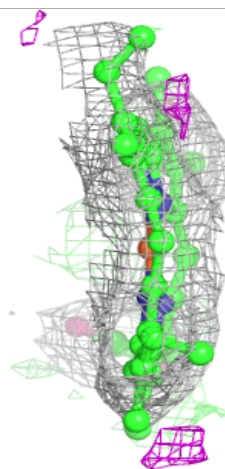
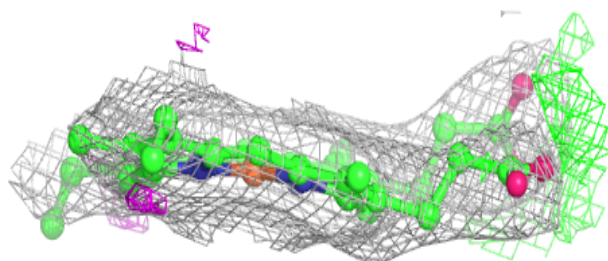
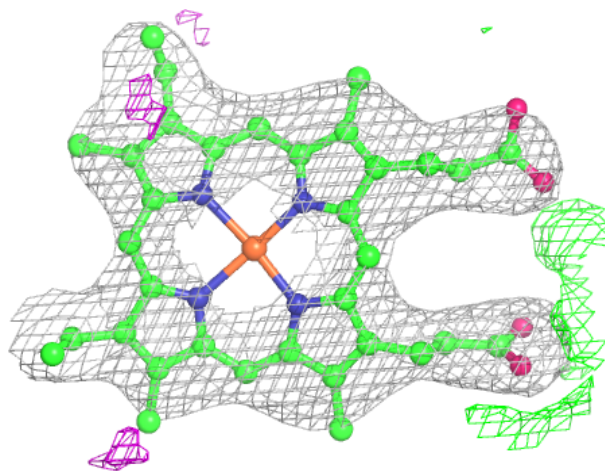
Electron density around HEC M 605:

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



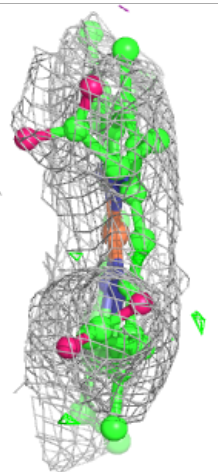
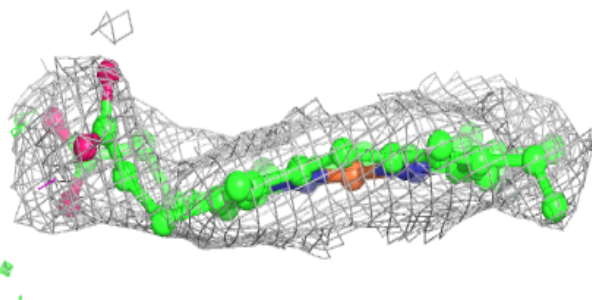
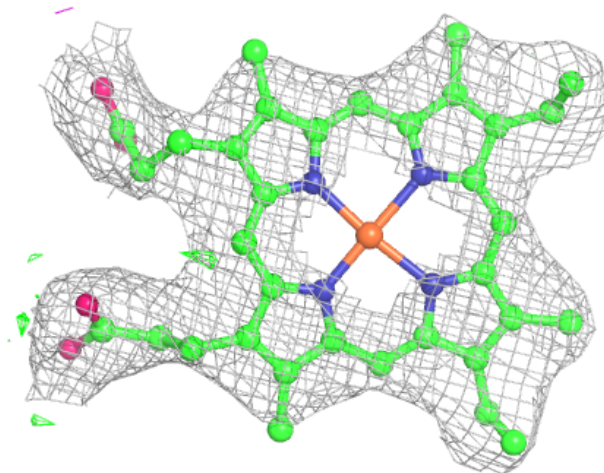
Electron density around HEC M 606:

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



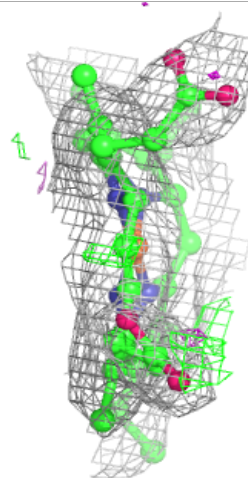
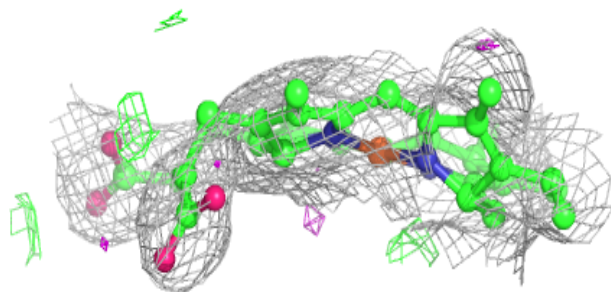
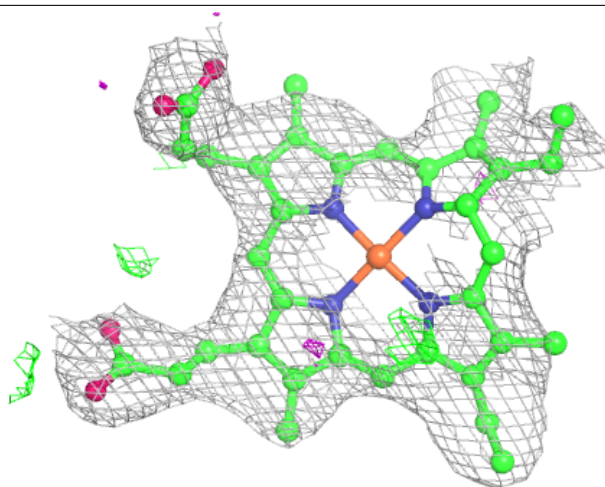
Electron density around HEC M 607:

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



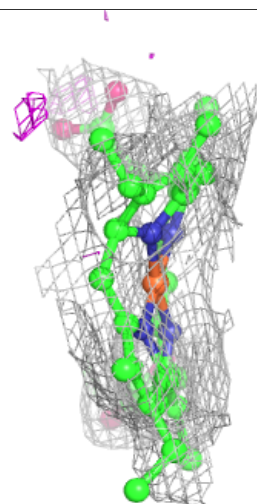
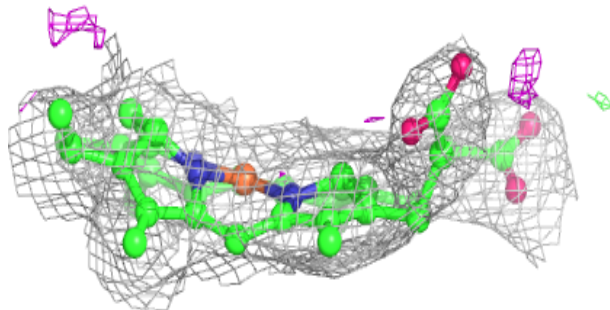
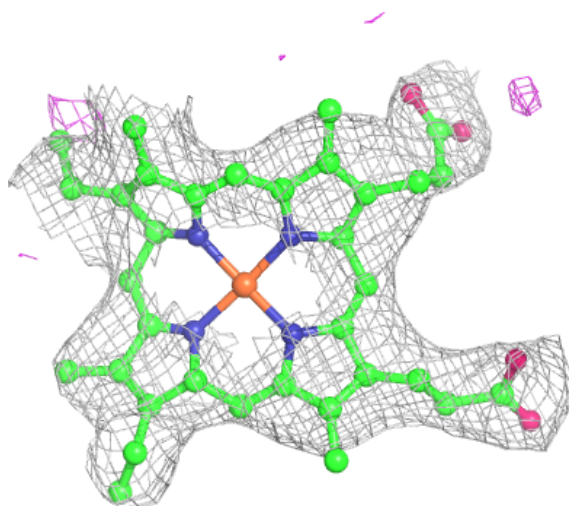
Electron density around HEC M 603:

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



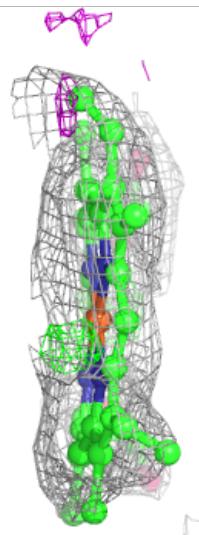
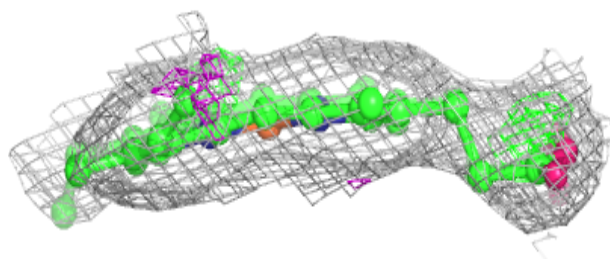
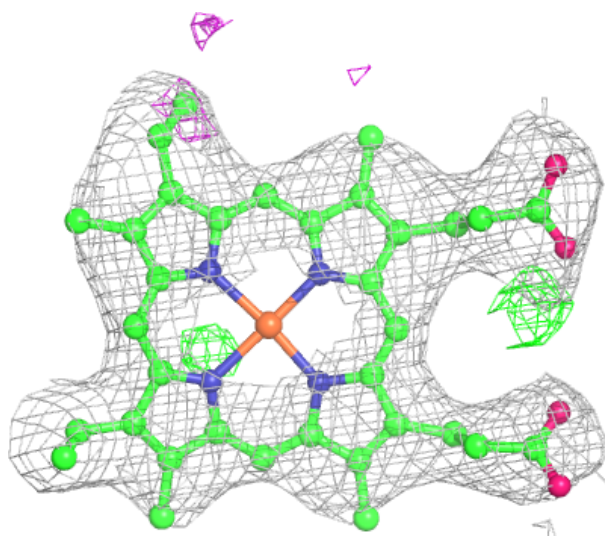
Electron density around HEC N 603:

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



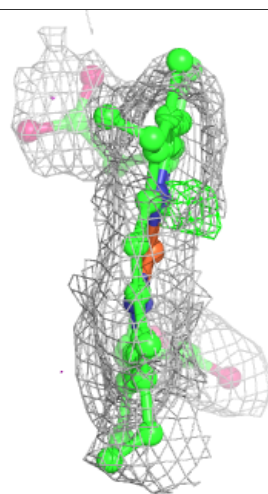
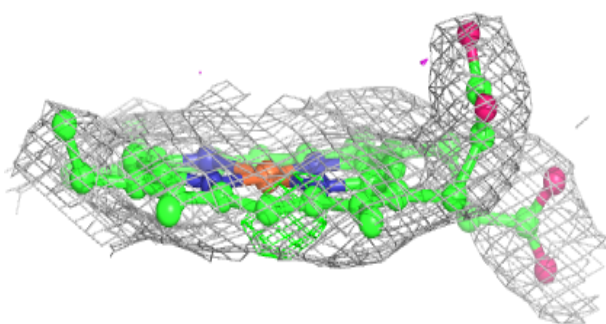
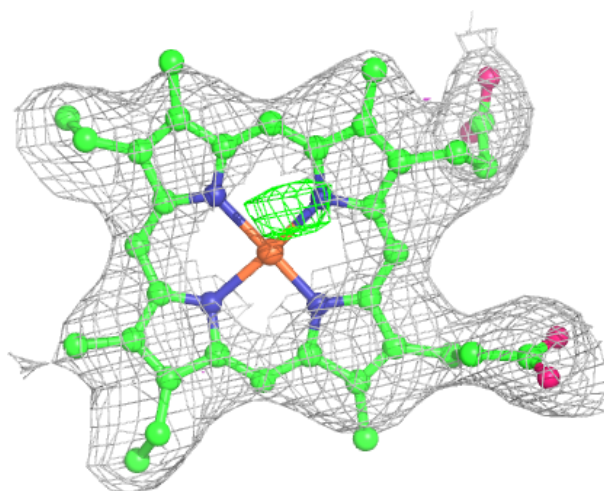
Electron density around HEC E 600:

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



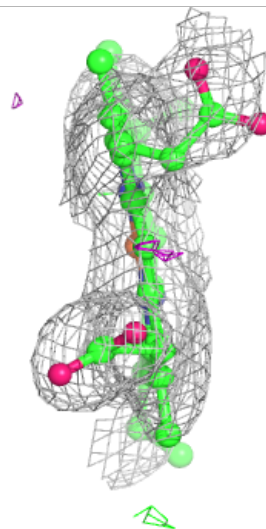
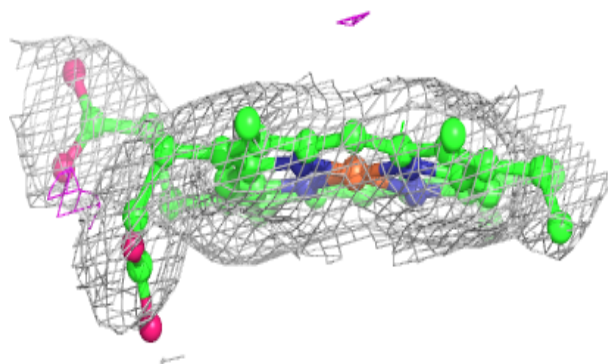
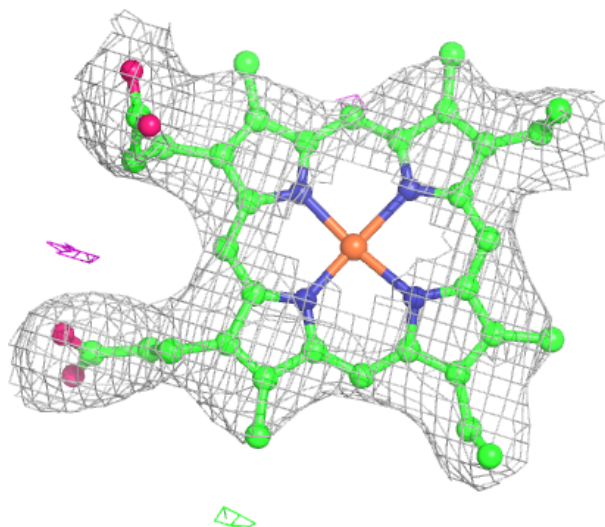
Electron density around HEC E 601:

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



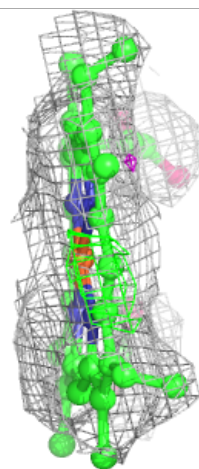
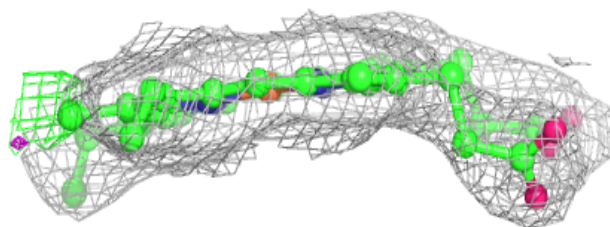
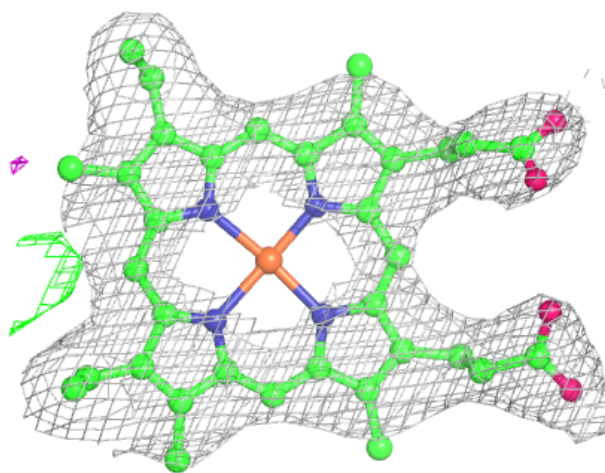
Electron density around HEC B 601:

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



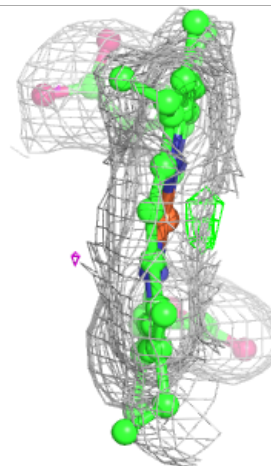
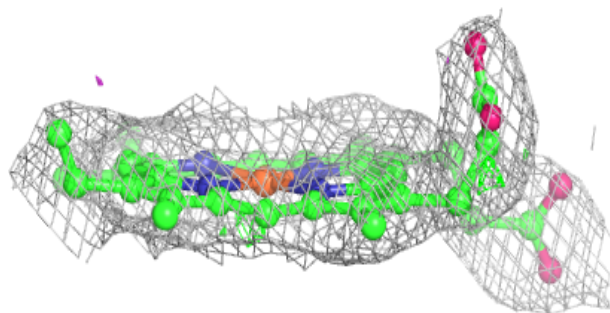
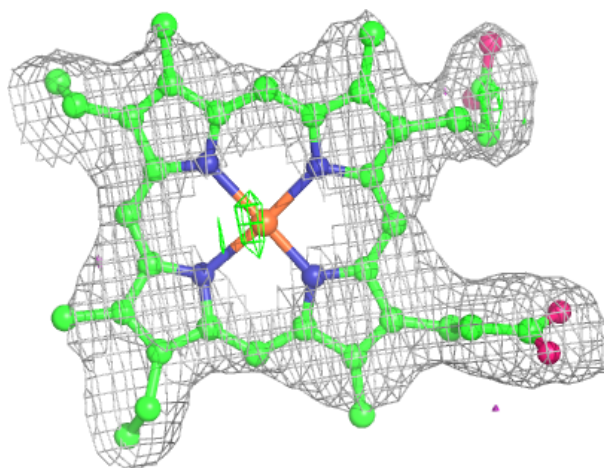
Electron density around HEC N 604:

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



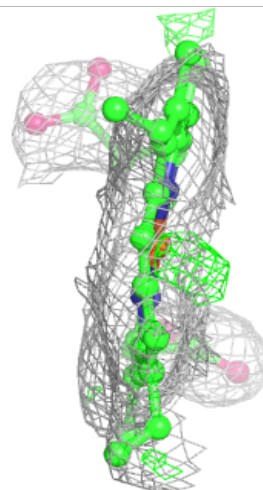
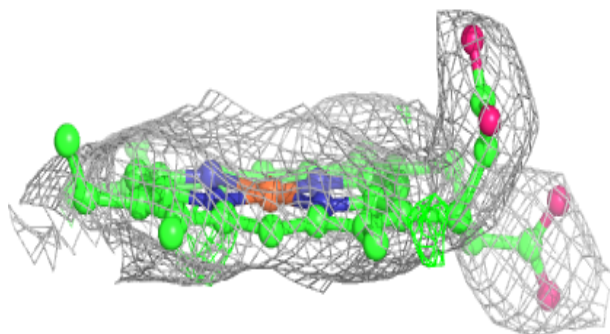
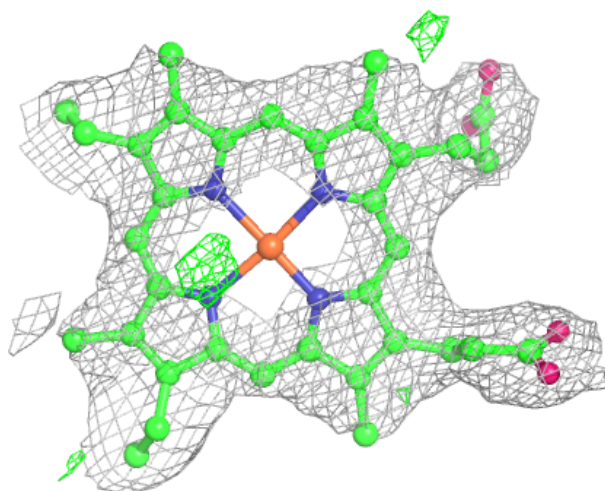
Electron density around HEC G 601:

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



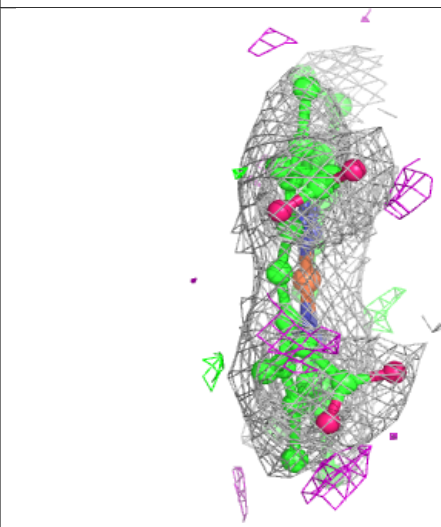
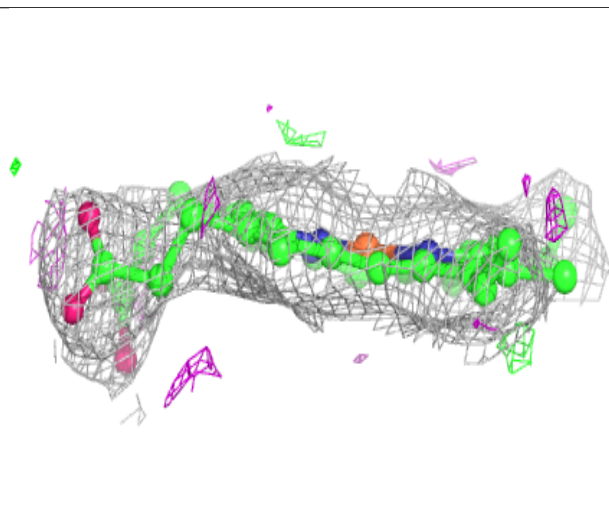
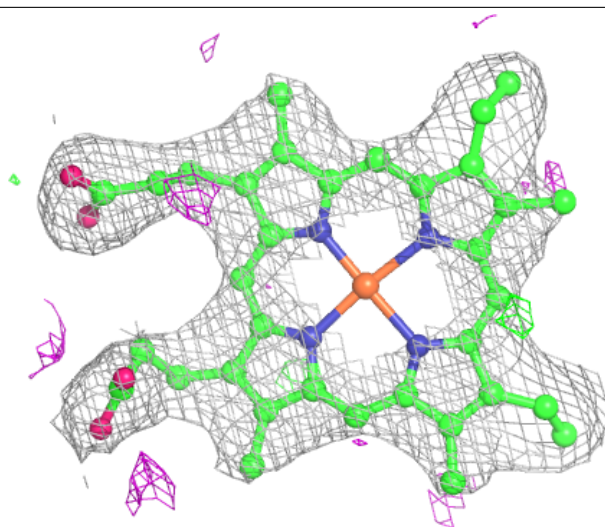
Electron density around HEC A 601:

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



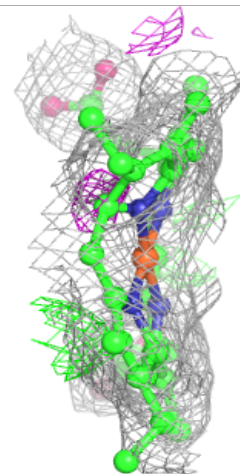
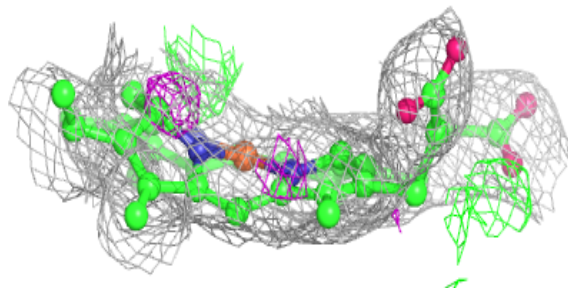
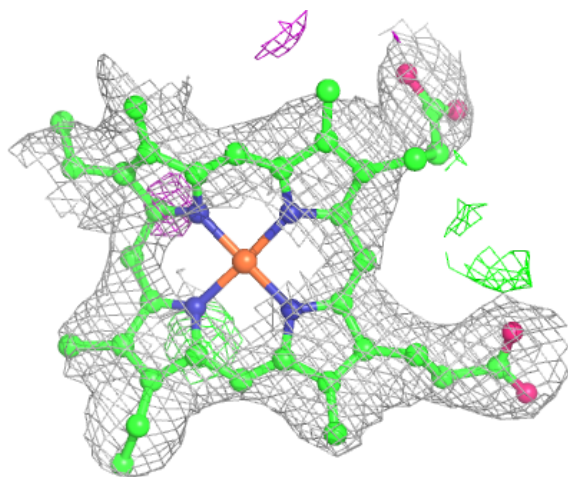
Electron density around HEC N 607:

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



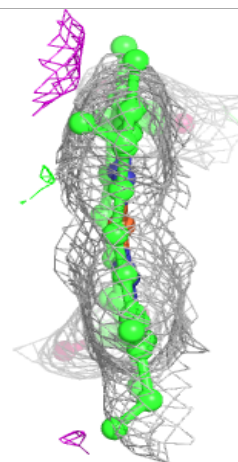
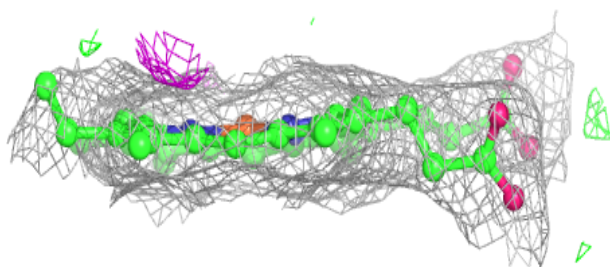
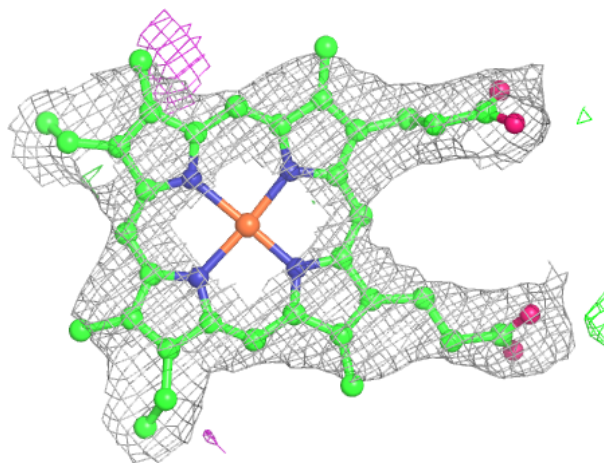
Electron density around HEC O 603:

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



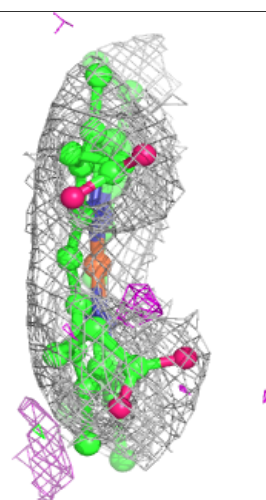
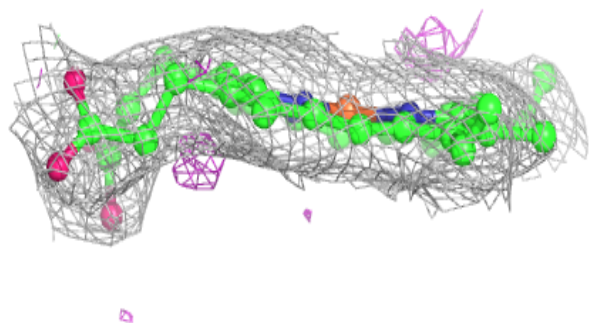
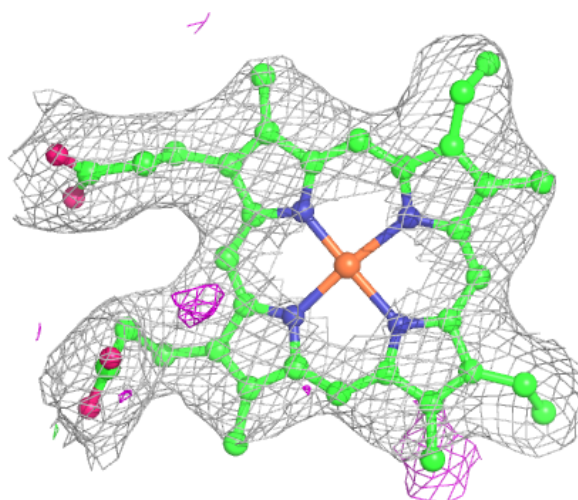
Electron density around HEC B 605:

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



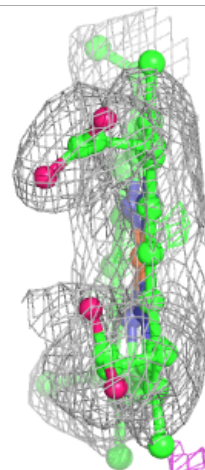
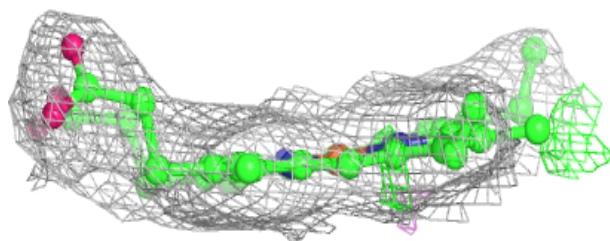
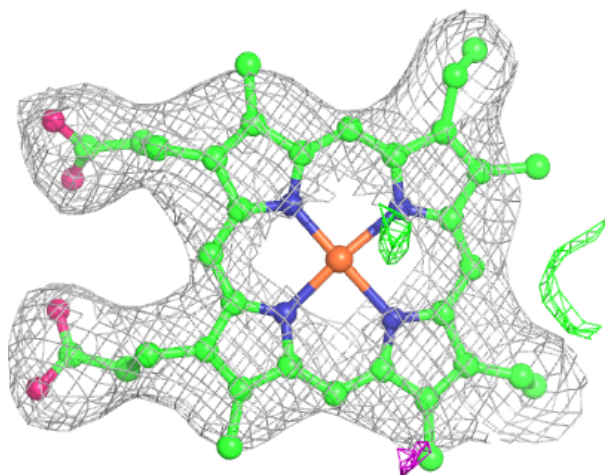
Electron density around HEC B 607:

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



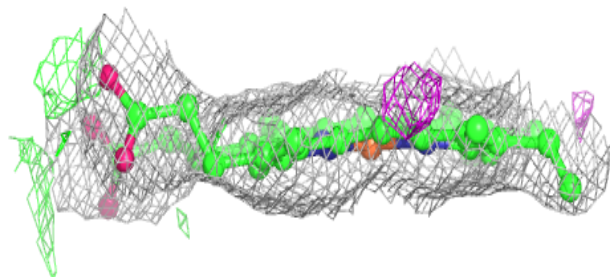
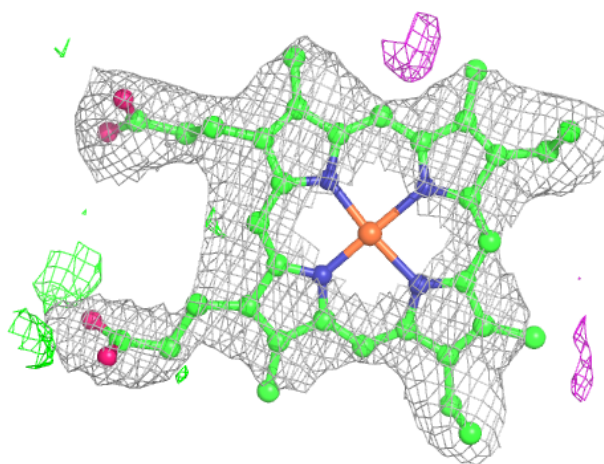
Electron density around HEC O 604:

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



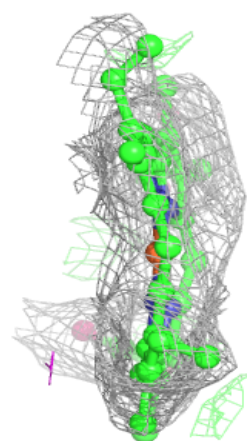
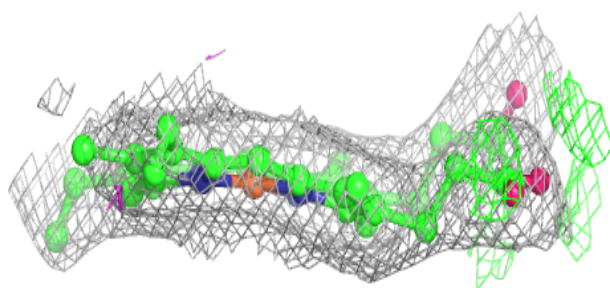
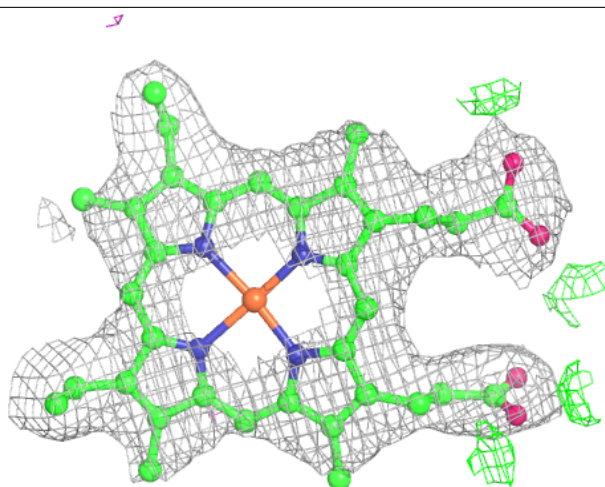
Electron density around HEC O 605:

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



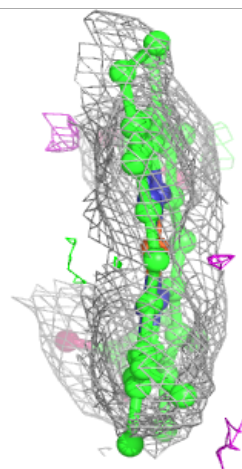
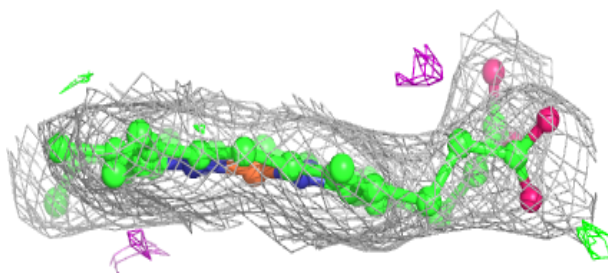
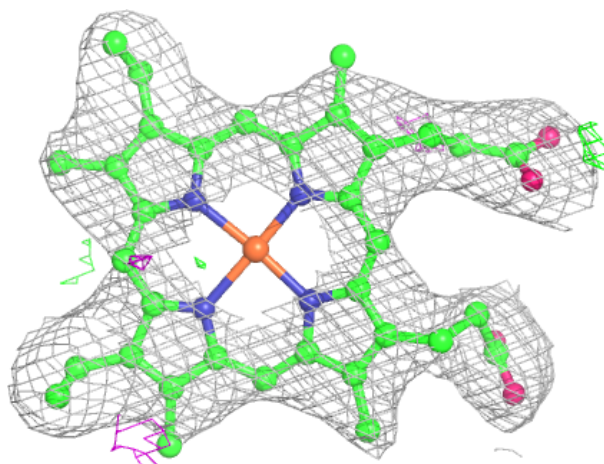
Electron density around HEC O 606:

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



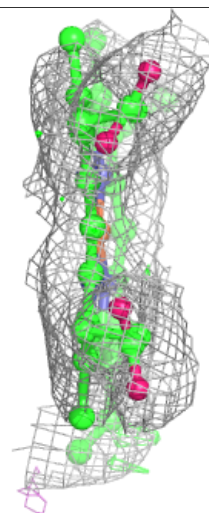
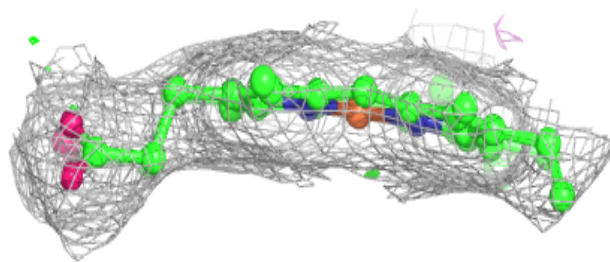
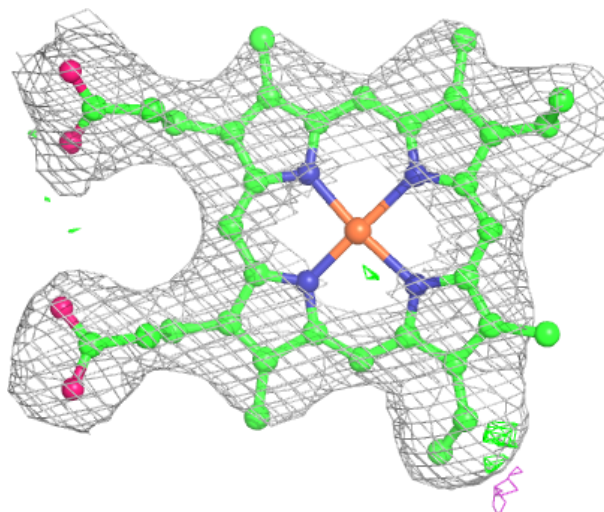
Electron density around HEC O 607:

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



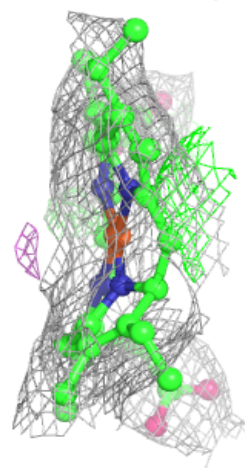
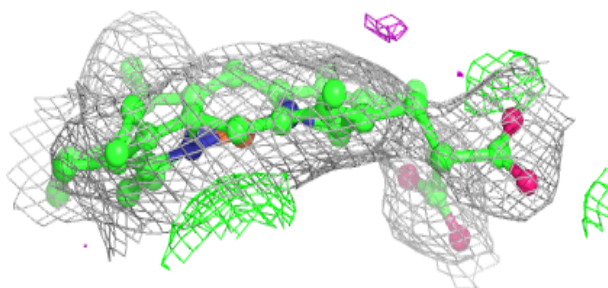
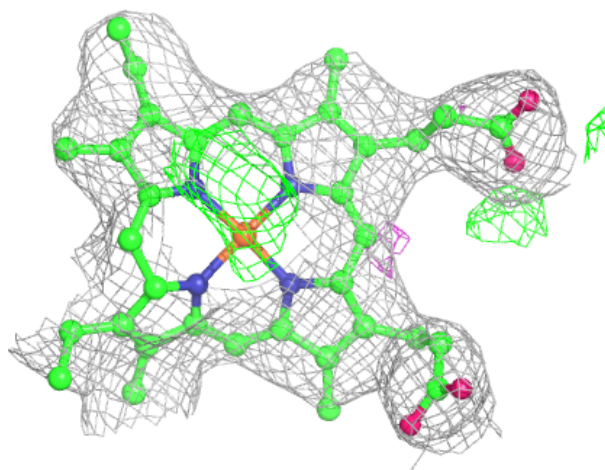
Electron density around HEC P 600:

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



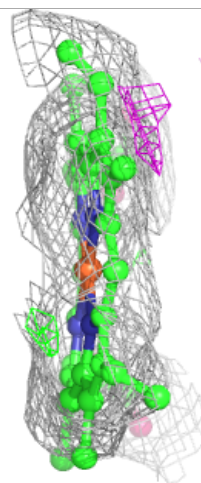
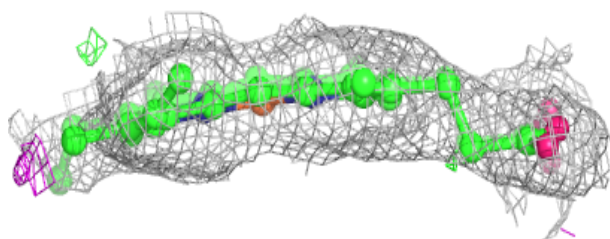
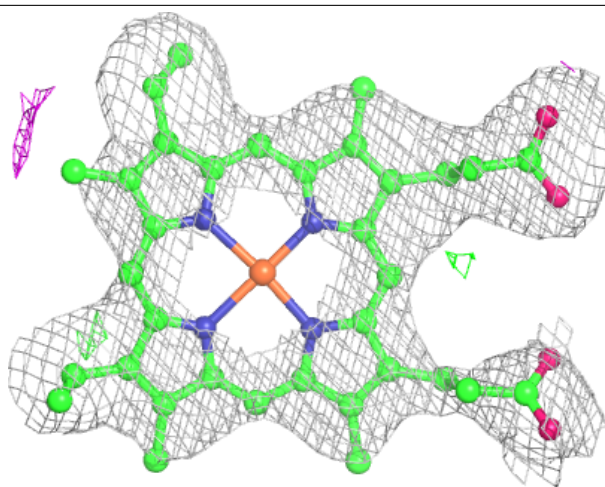
Electron density around HEC C 603:

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



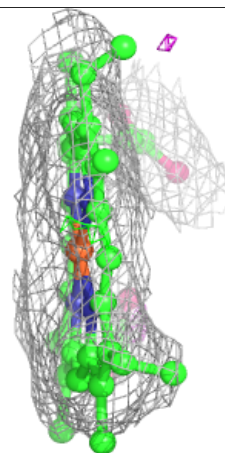
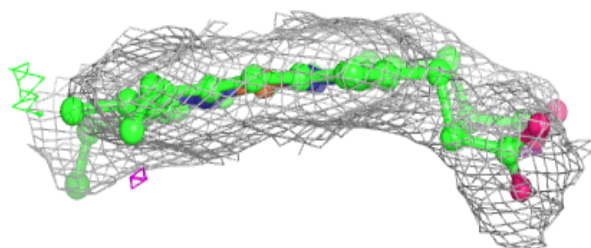
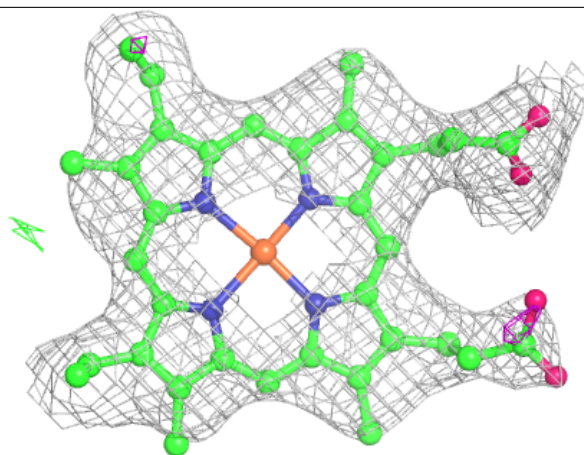
Electron density around HEC C 600:

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



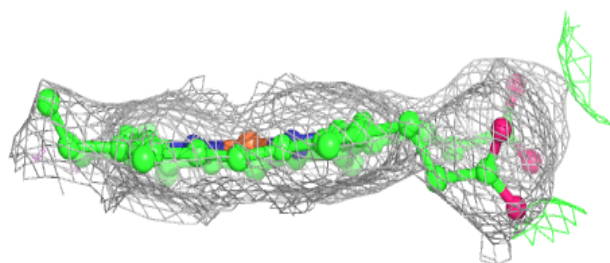
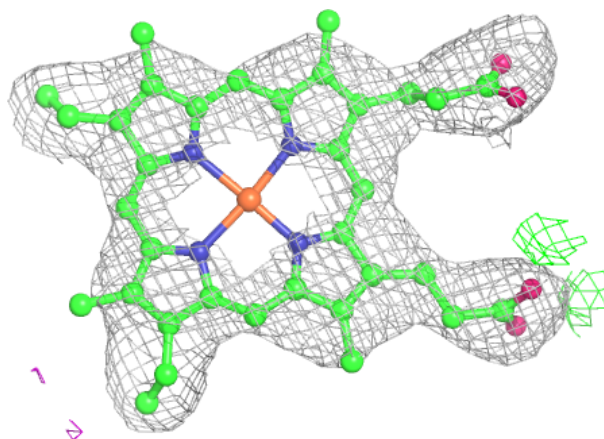
Electron density around HEC P 604:

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



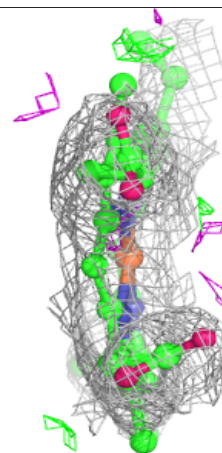
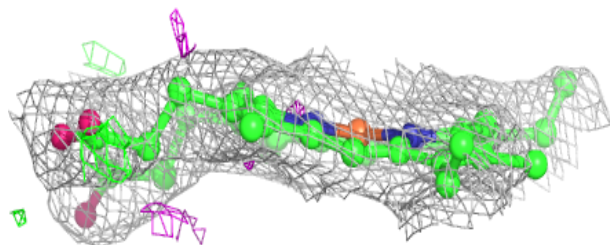
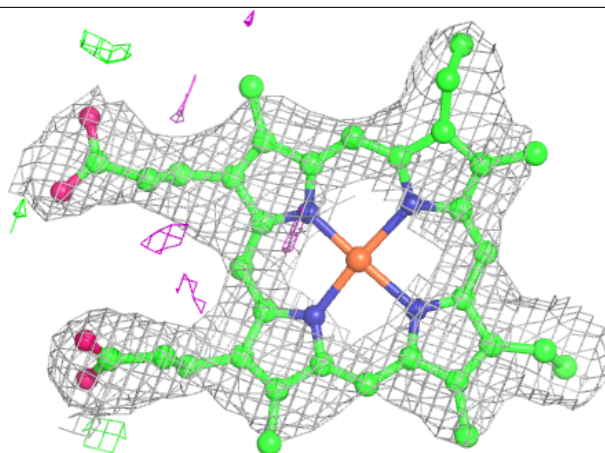
Electron density around HEC P 605:

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



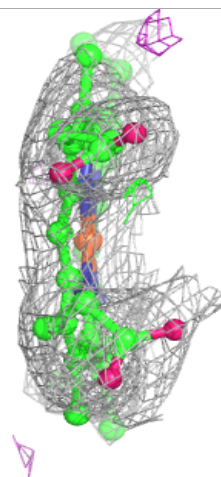
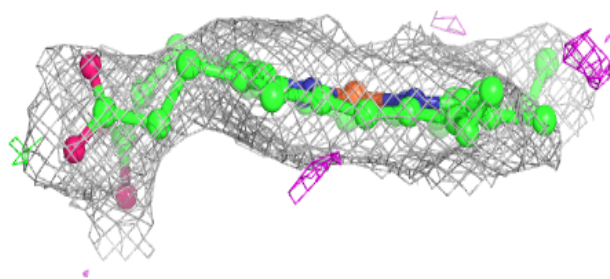
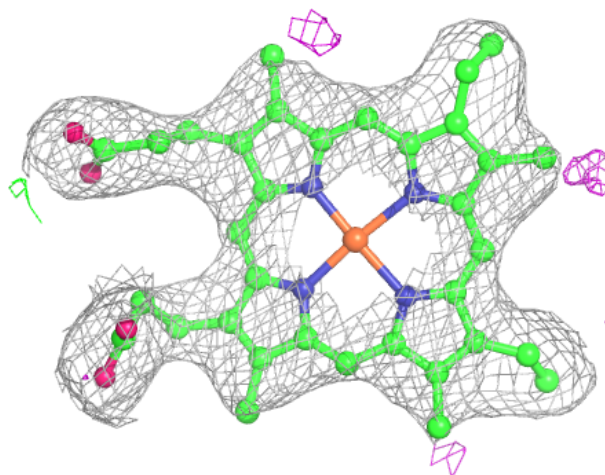
Electron density around HEC P 606:

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



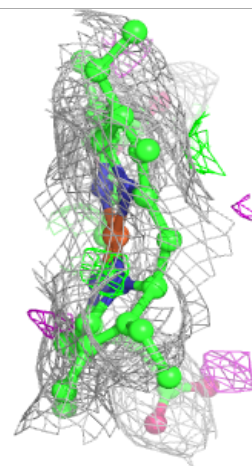
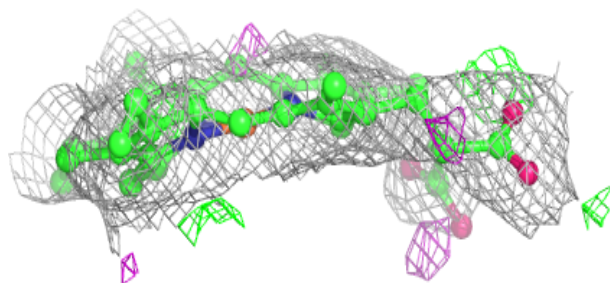
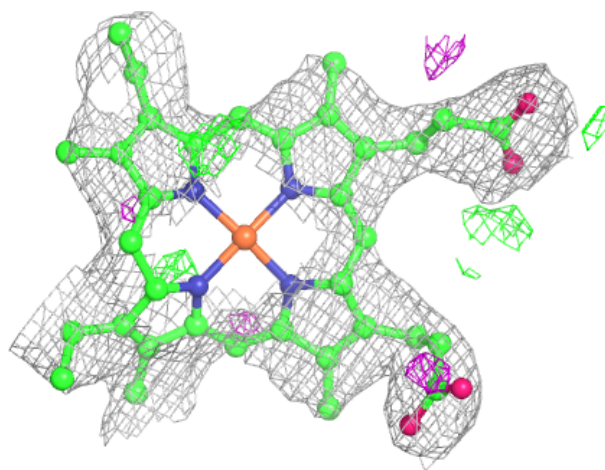
Electron density around HEC P 607:

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



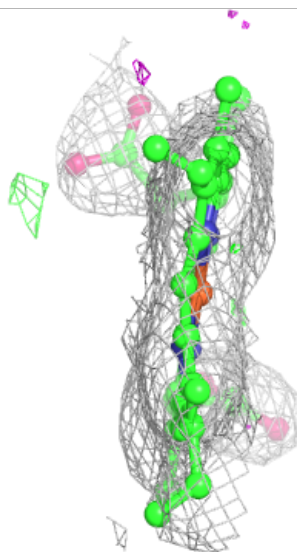
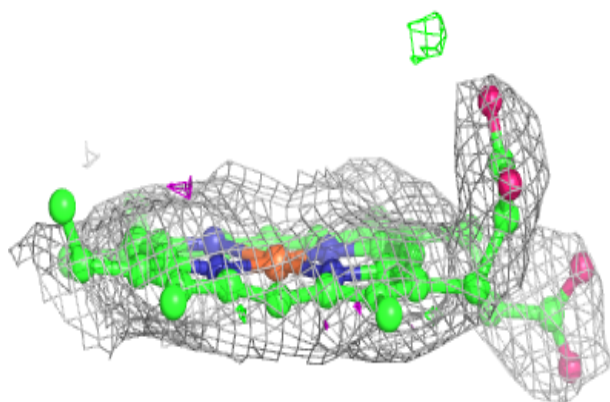
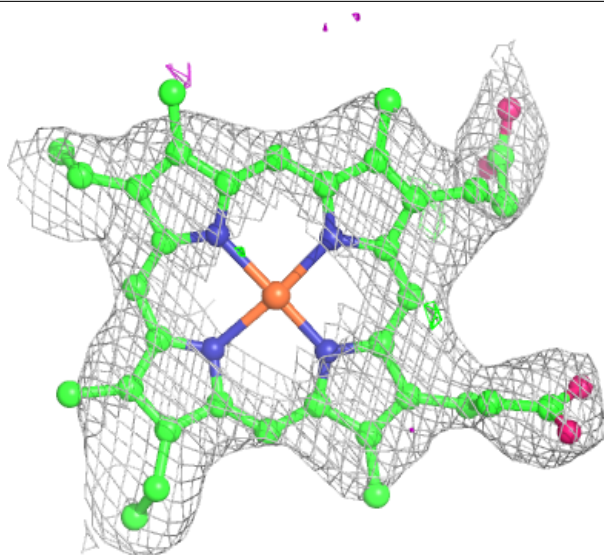
Electron density around HEC P 603:

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



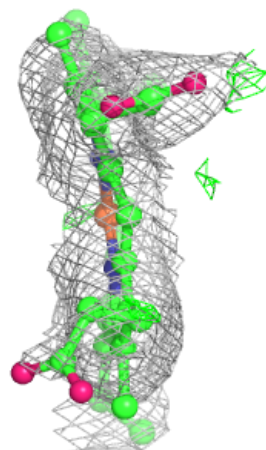
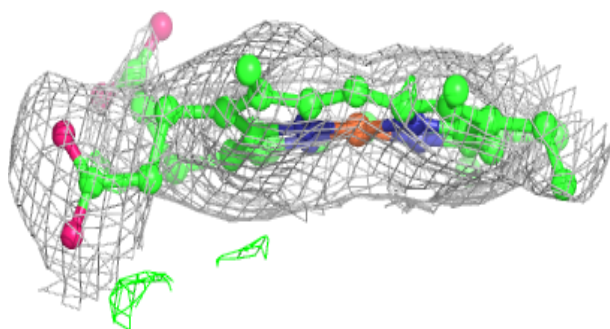
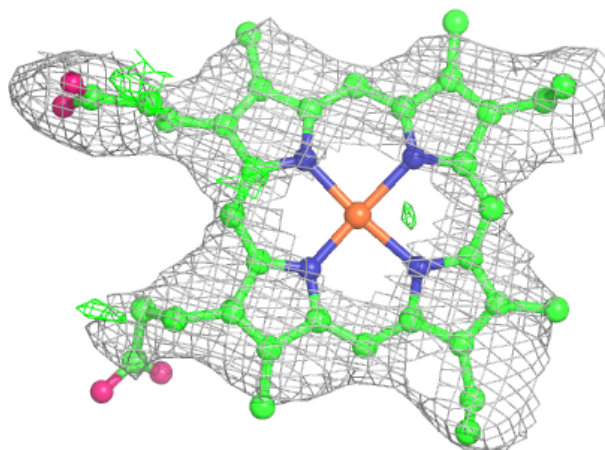
Electron density around HEC C 601:

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



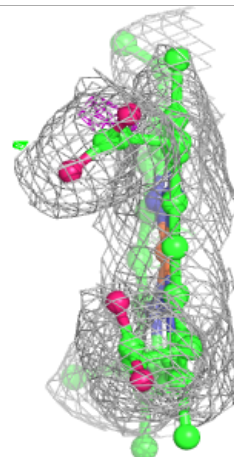
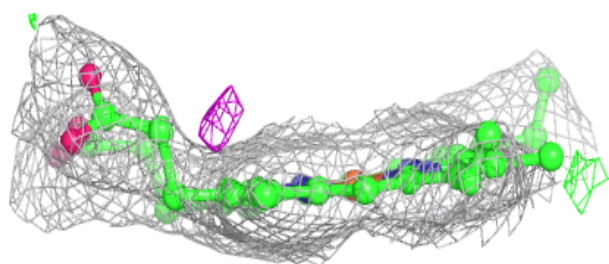
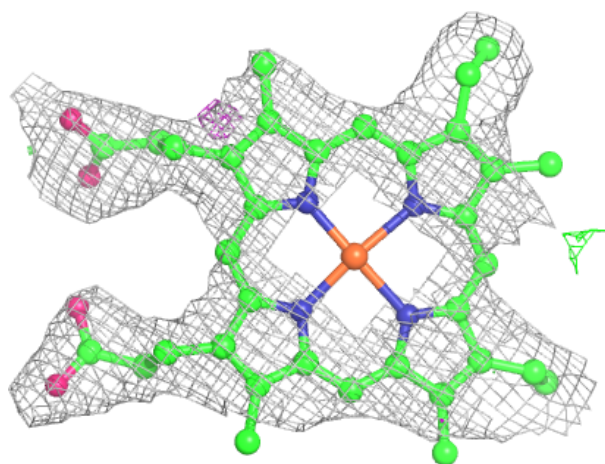
Electron density around HEC C 602:

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



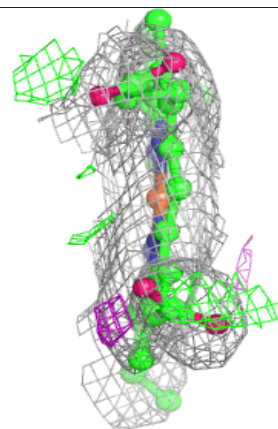
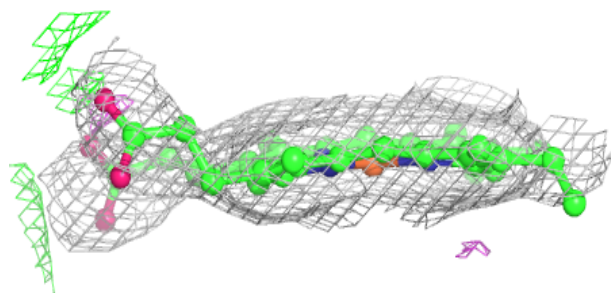
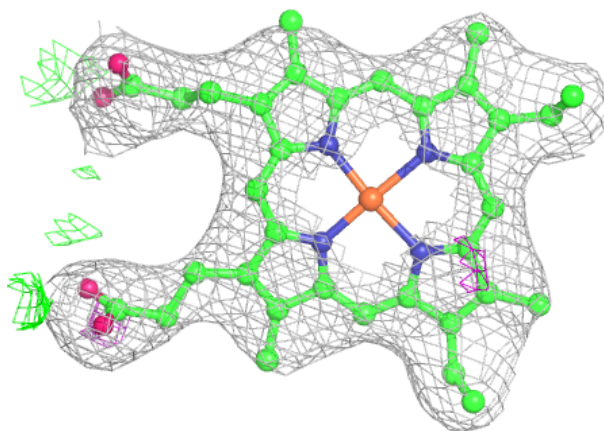
Electron density around HEC C 604:

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



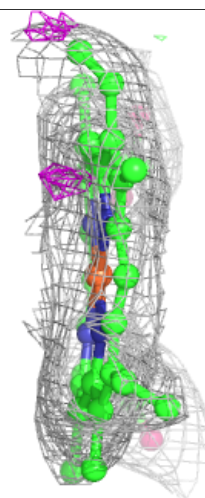
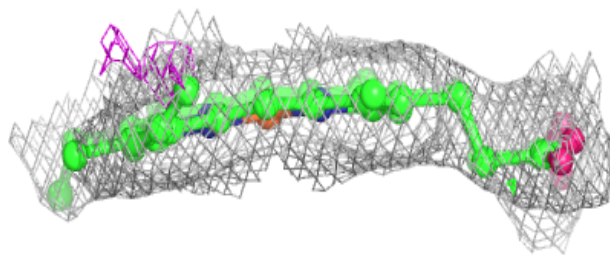
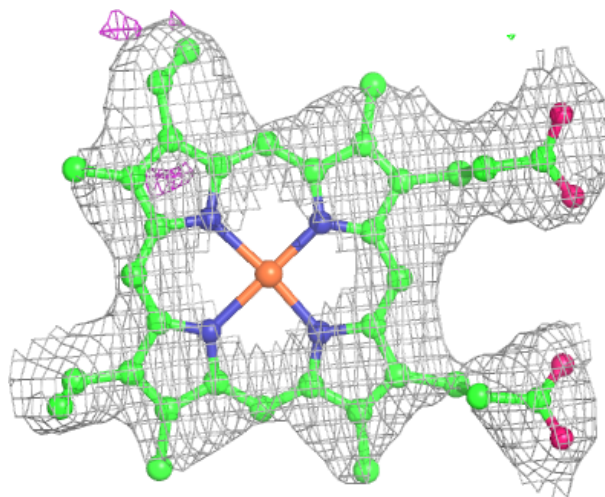
Electron density around HEC C 605:

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



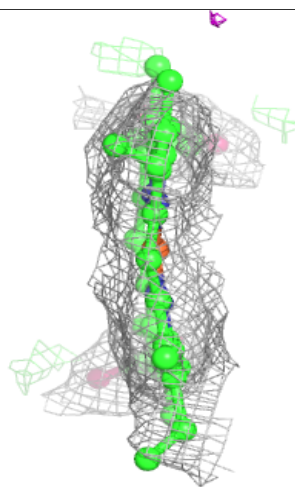
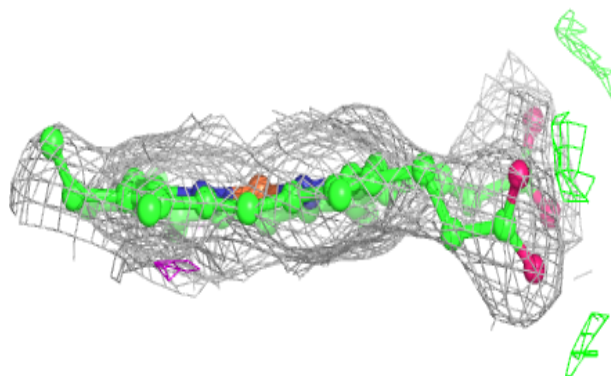
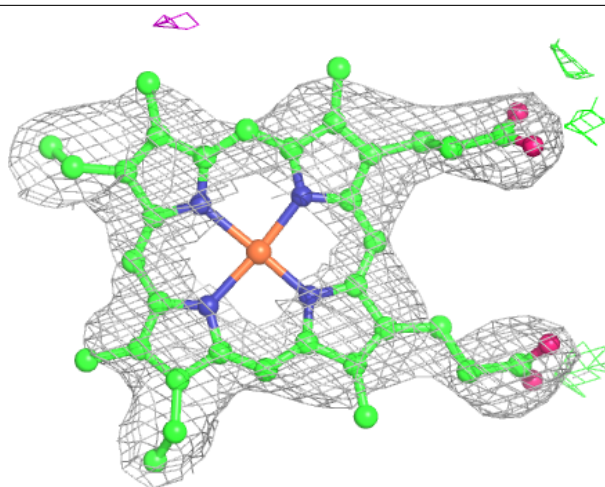
Electron density around HEC G 600:

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



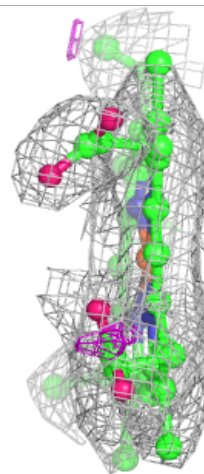
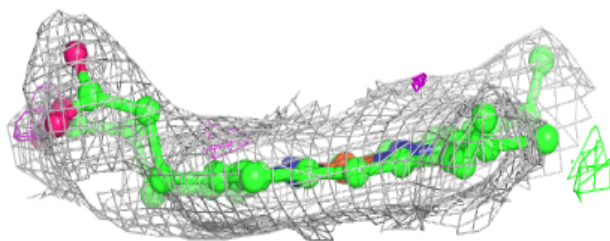
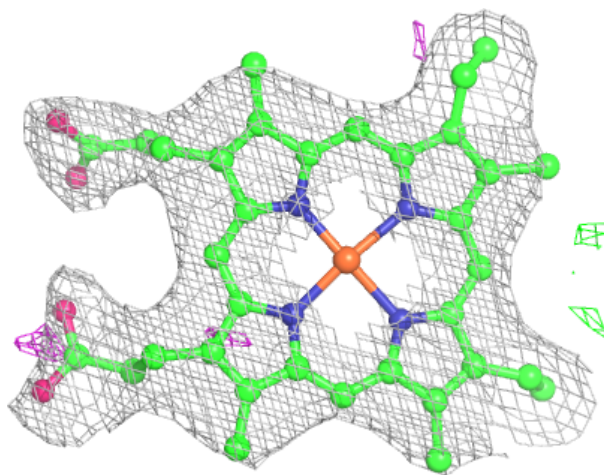
Electron density around HEC Q 605:

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



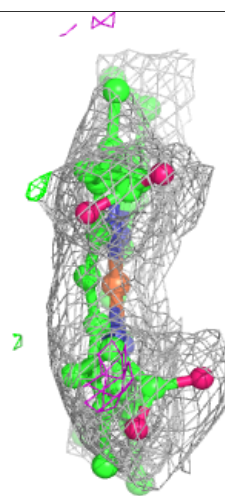
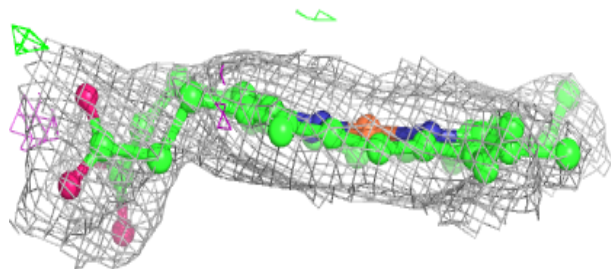
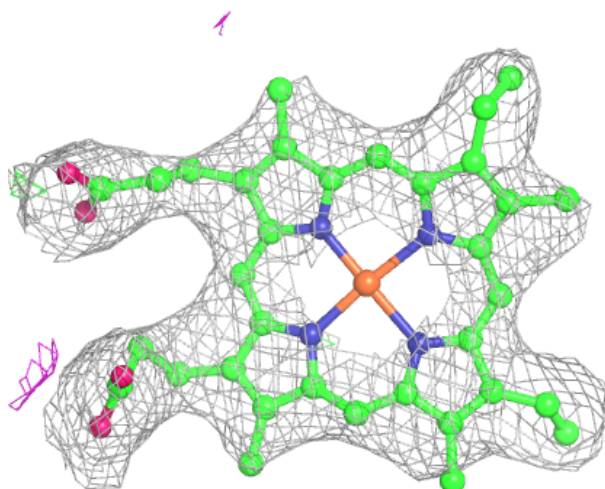
Electron density around HEC G 604:

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



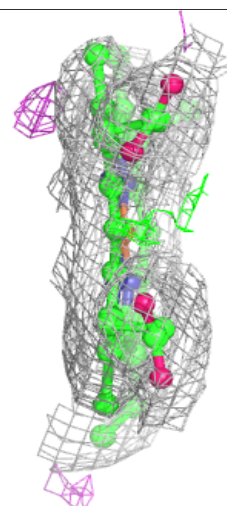
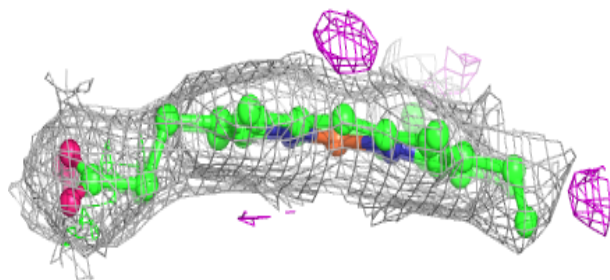
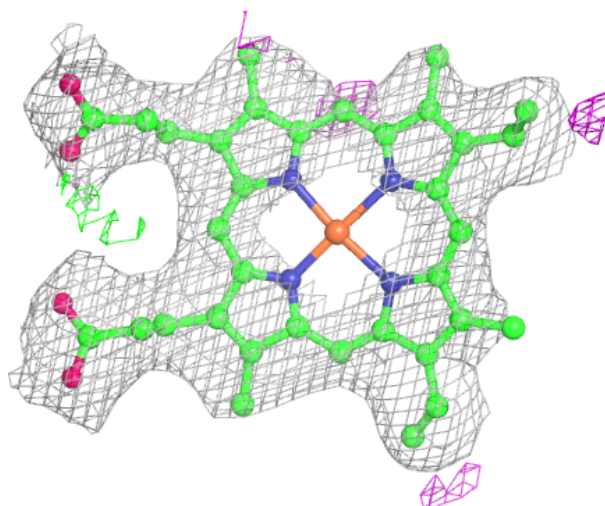
Electron density around HEC Q 607:

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



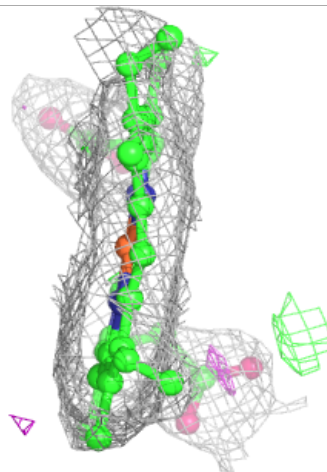
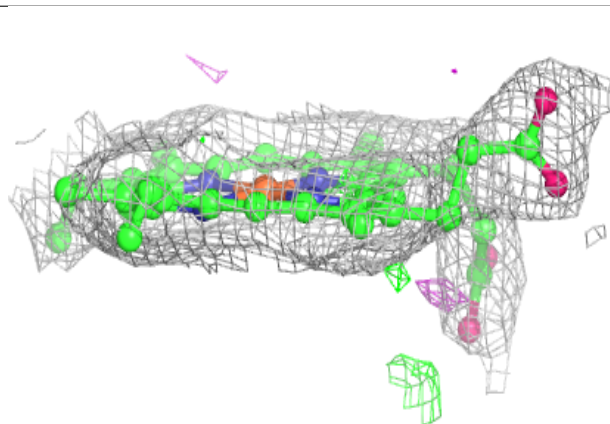
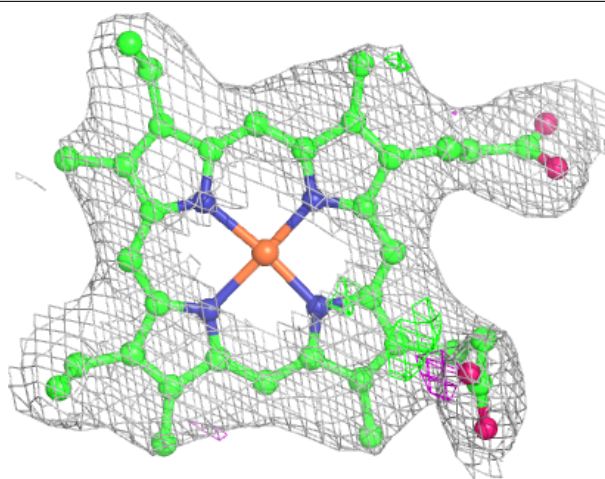
Electron density around HEC H 600:

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



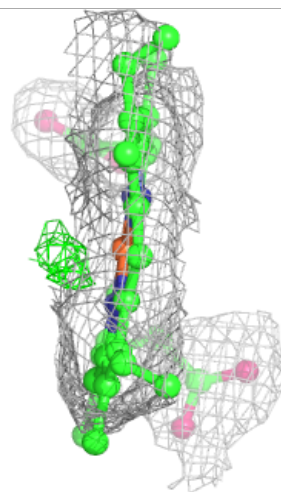
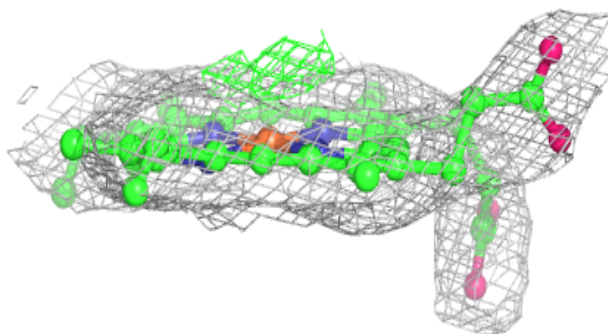
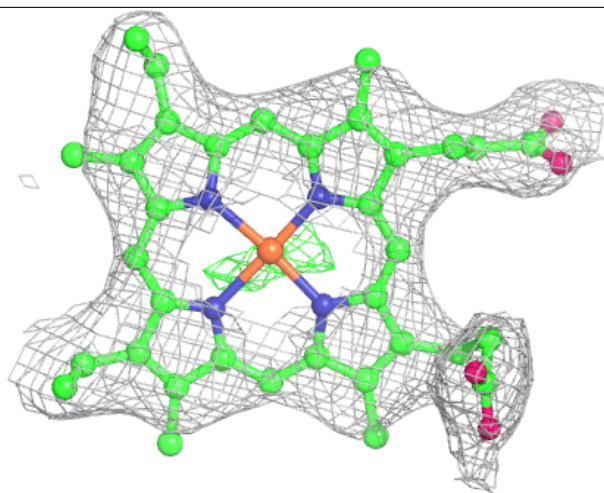
Electron density around HEC H 601:

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



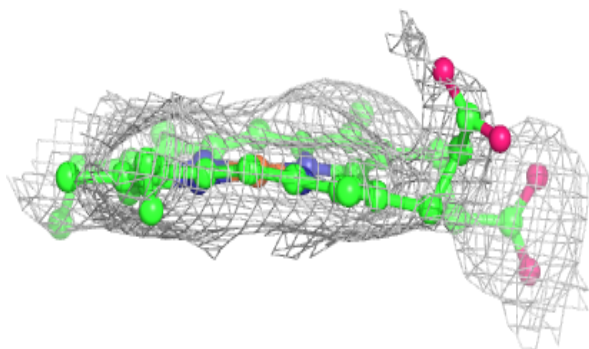
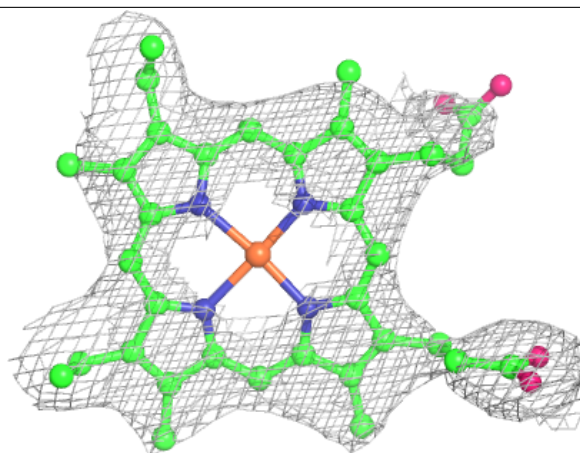
Electron density around HEC R 601:

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



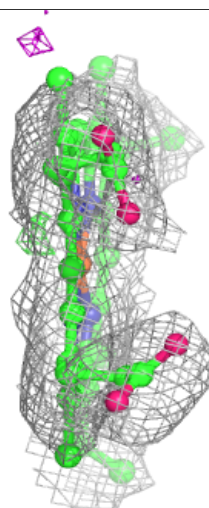
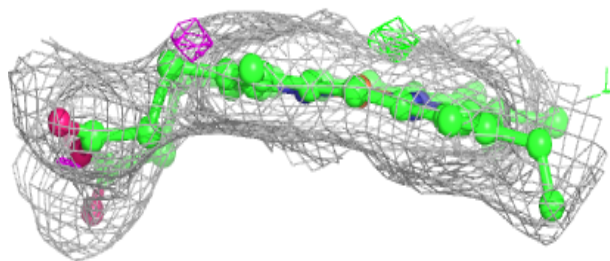
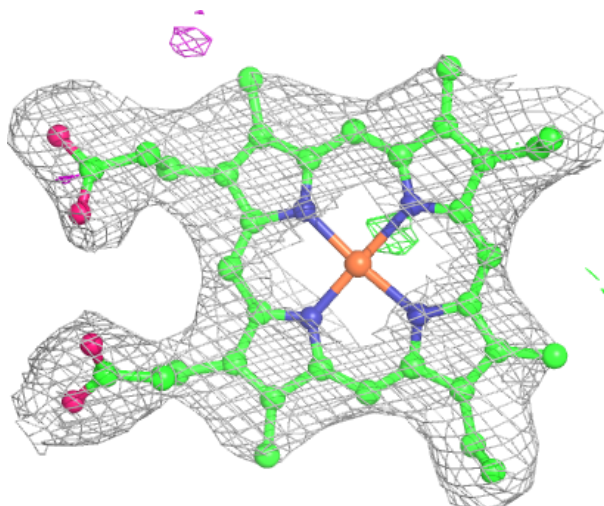
Electron density around HEC R 602:

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



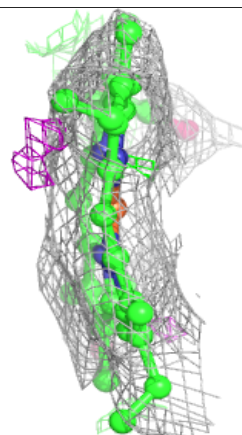
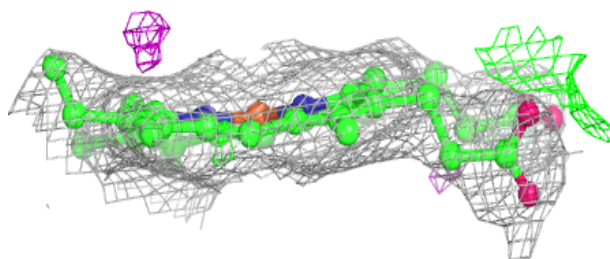
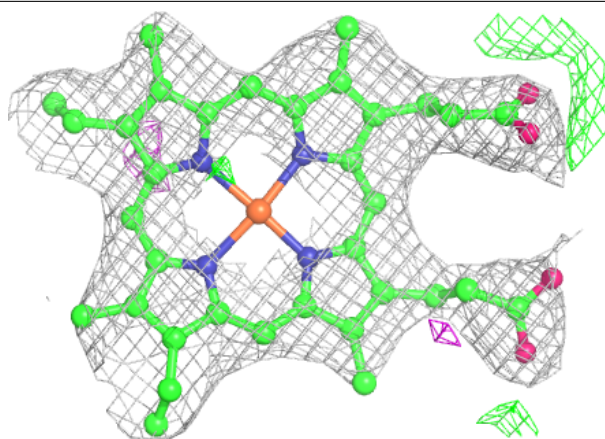
Electron density around HEC R 604:

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



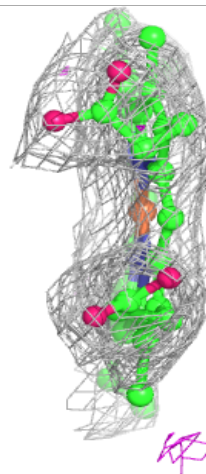
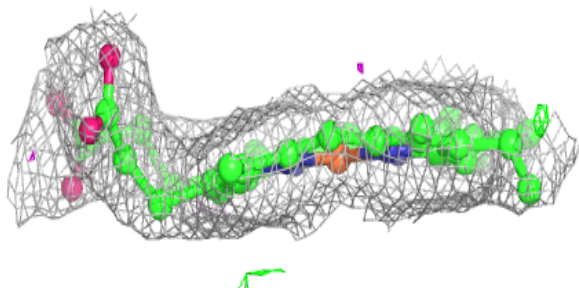
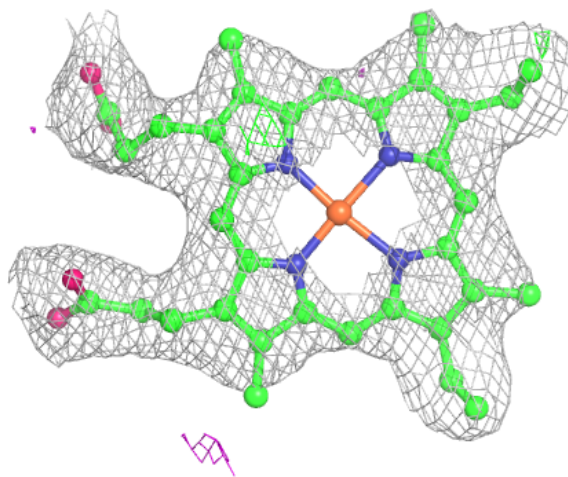
Electron density around HEC R 606:

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



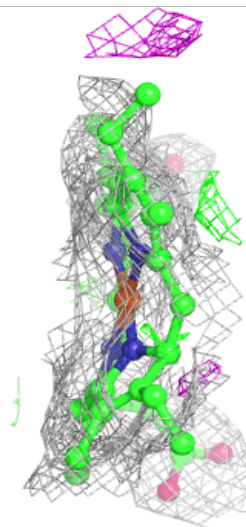
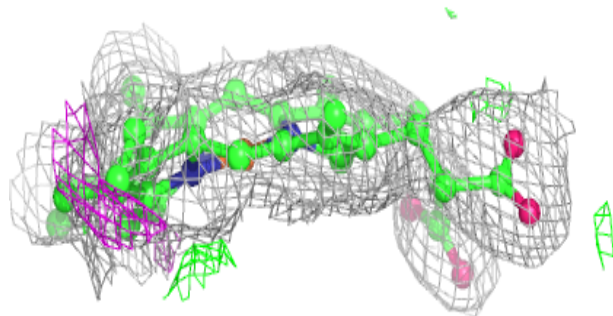
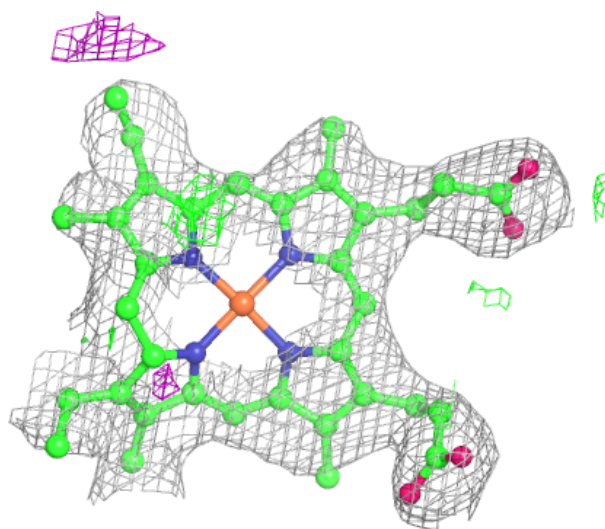
Electron density around HEC R 607:

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



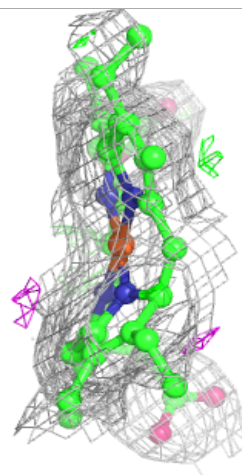
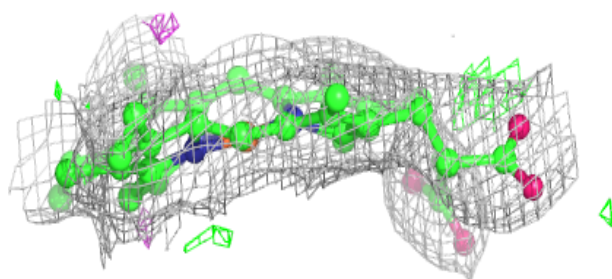
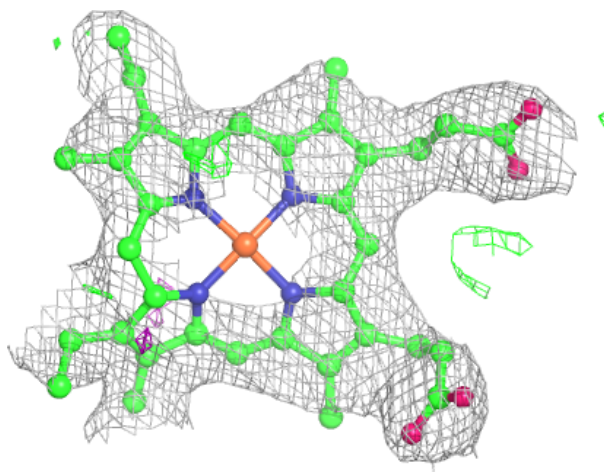
Electron density around HEC J 603:

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



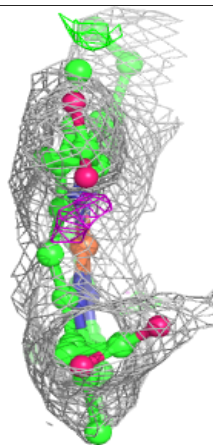
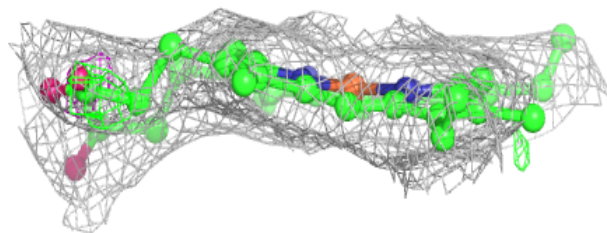
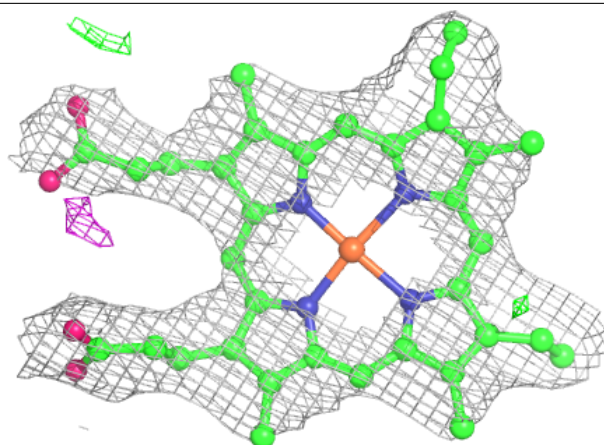
Electron density around HEC K 603:

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



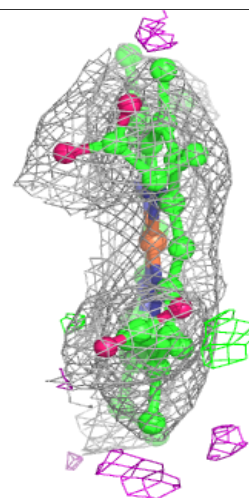
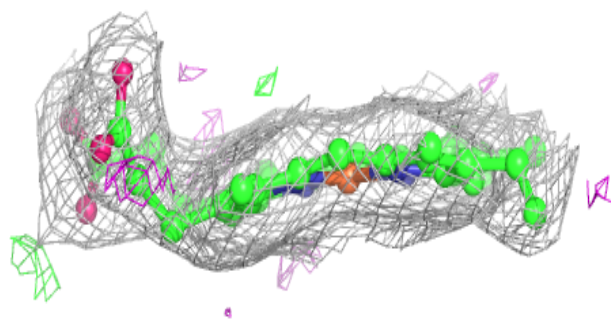
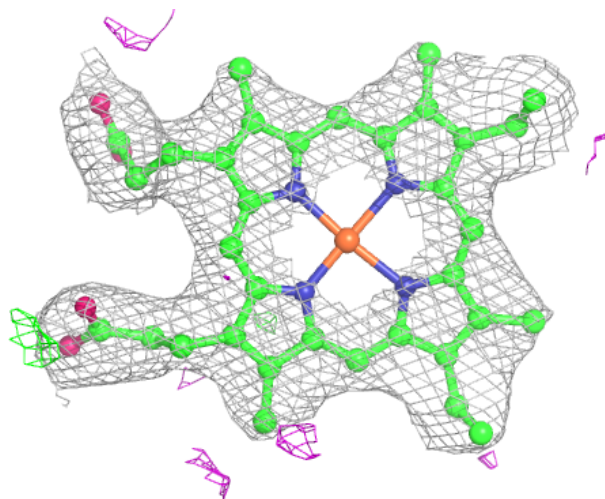
Electron density around HEC B 606:

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



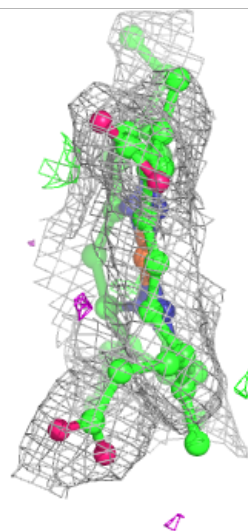
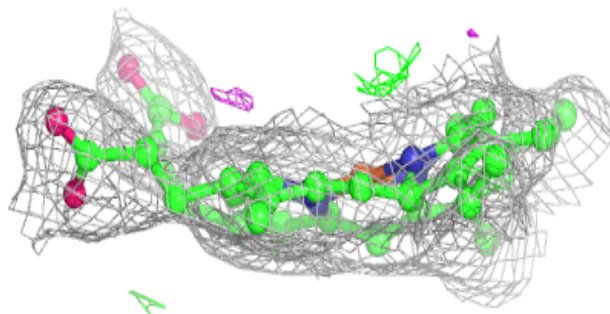
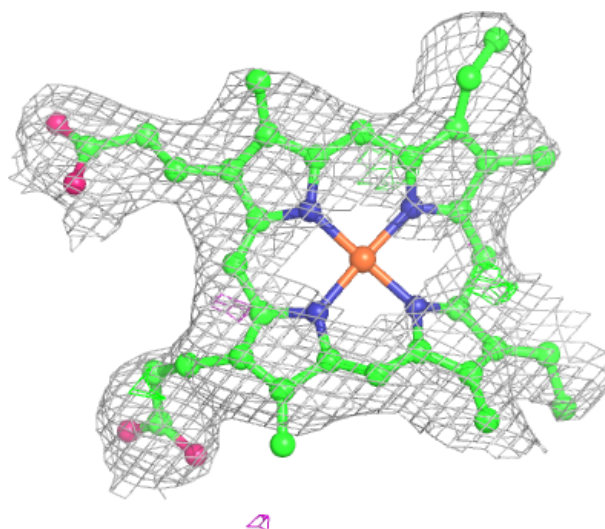
Electron density around HEC H 607:

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



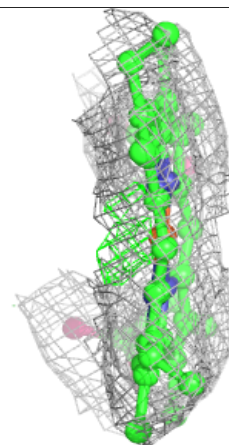
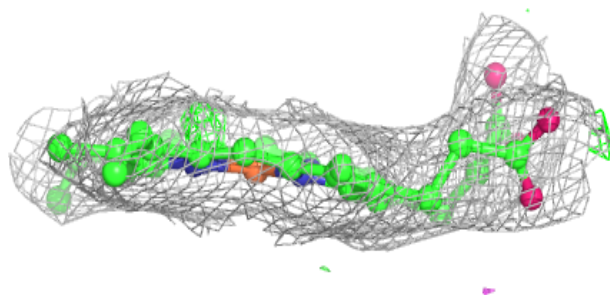
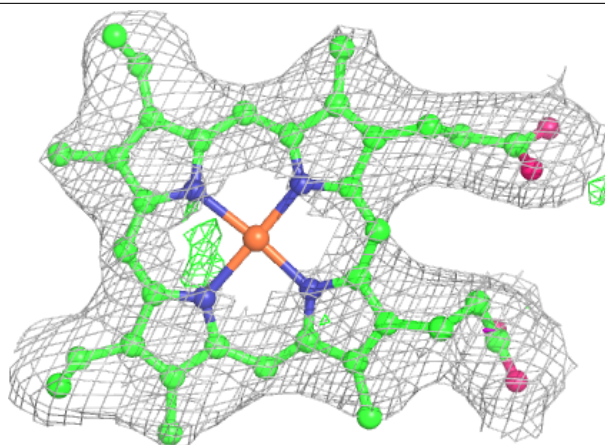
Electron density around HEC I 603:

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



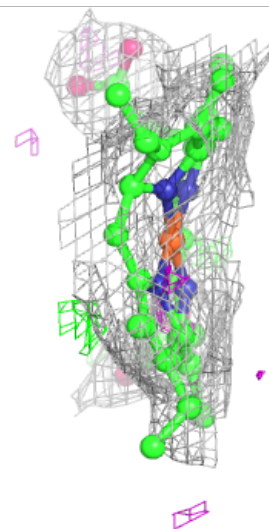
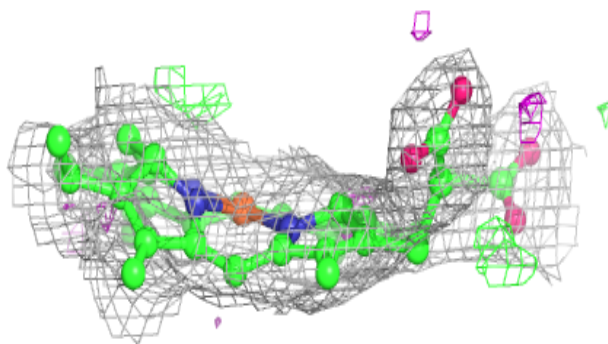
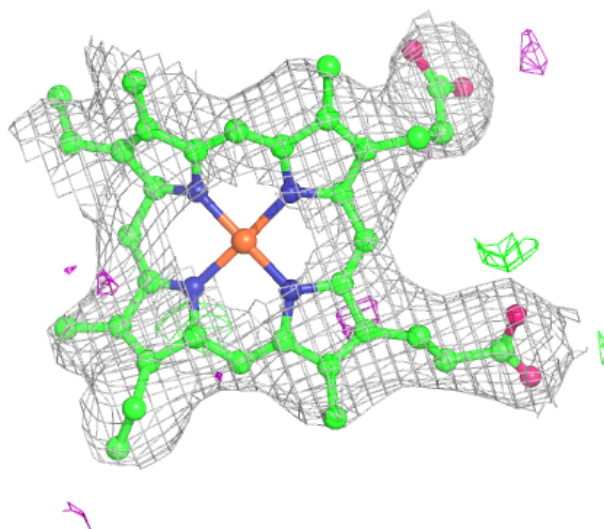
Electron density around HEC G 607:

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



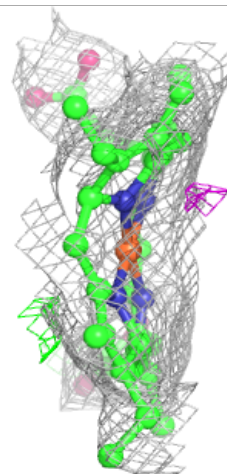
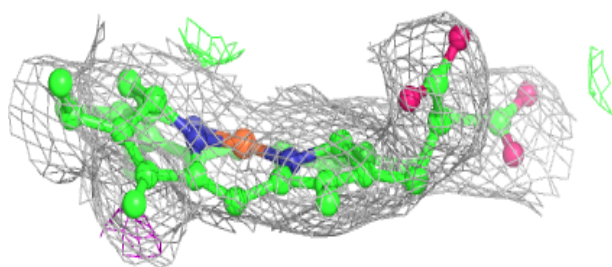
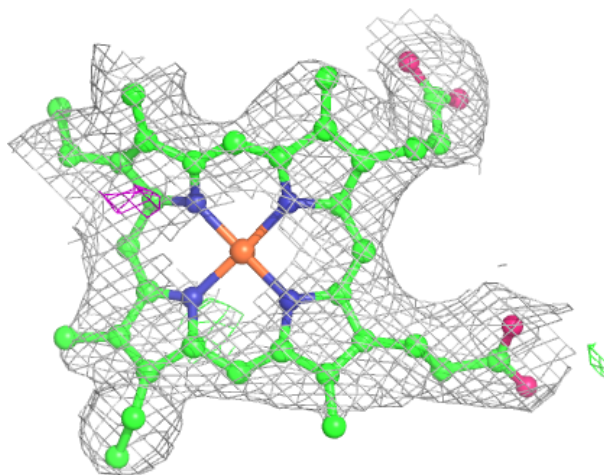
Electron density around HEC G 603:

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



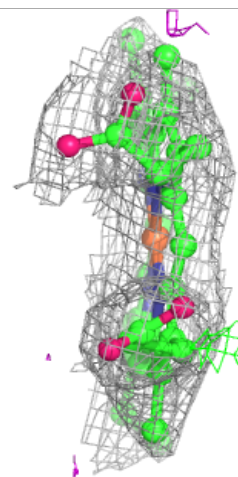
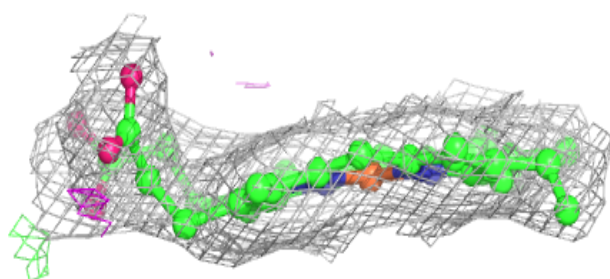
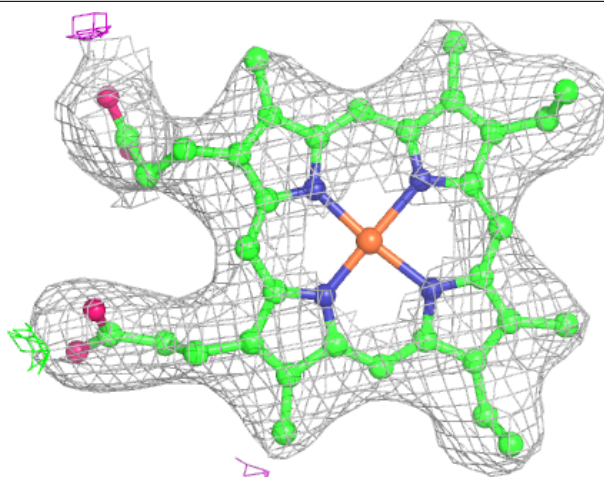
Electron density around HEC H 603:

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



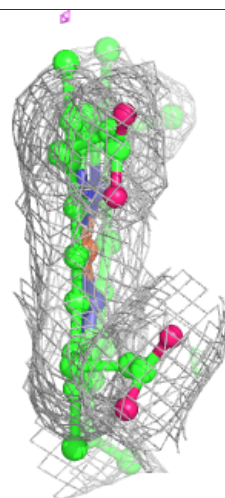
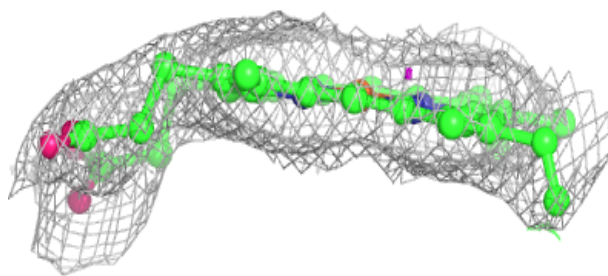
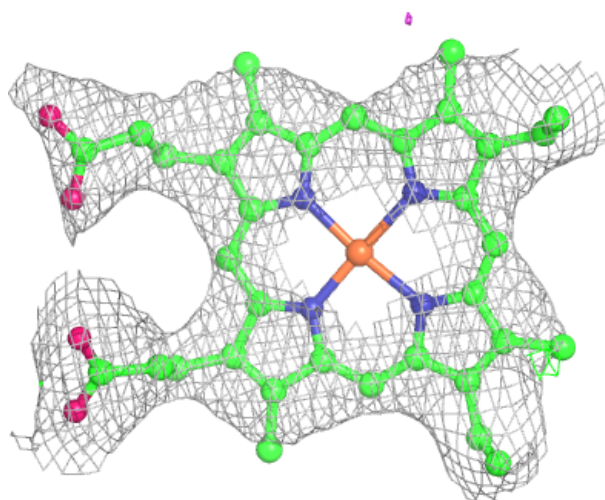
Electron density around HEC K 607:

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



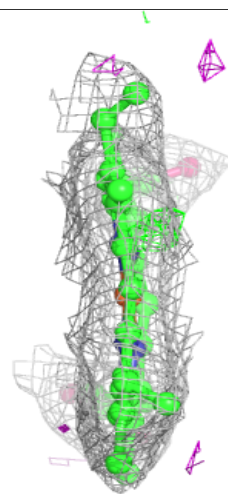
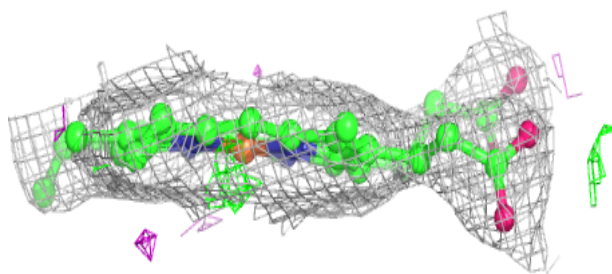
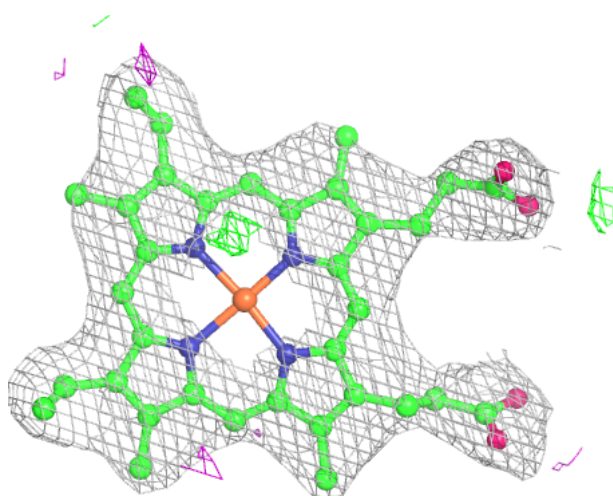
Electron density around HEC I 604:

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



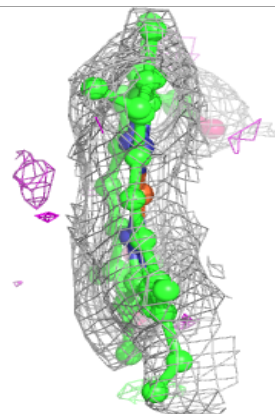
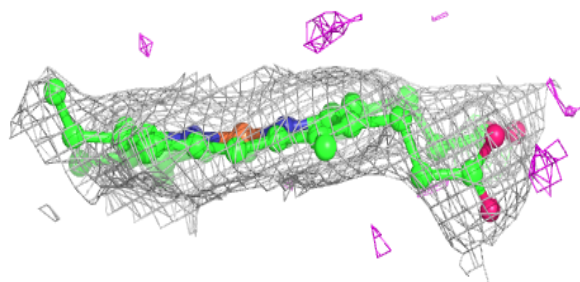
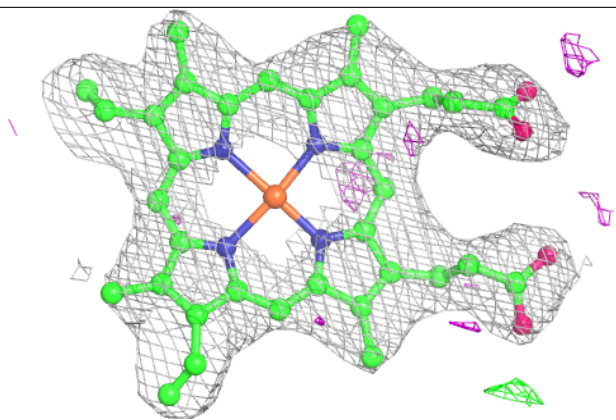
Electron density around HEC I 605:

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

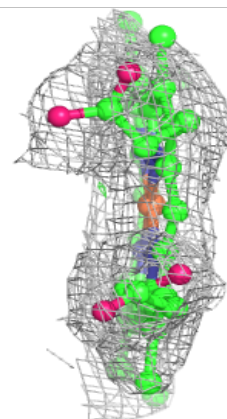
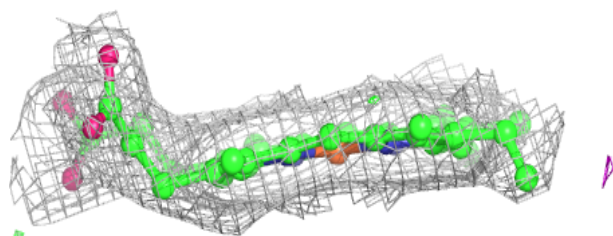
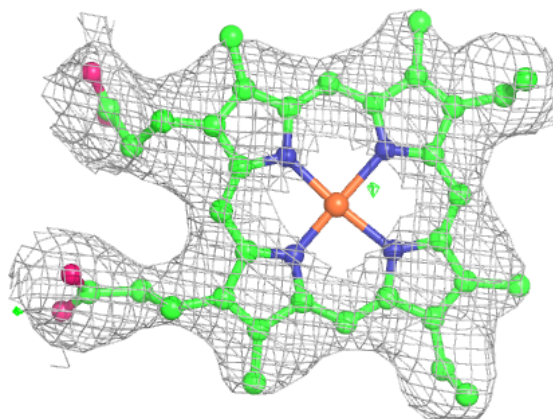


Electron density around HEC I 606:

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

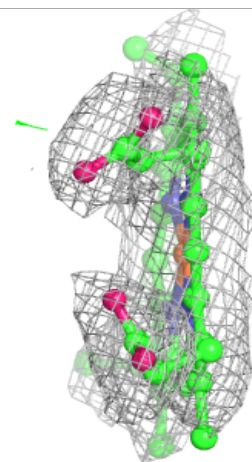
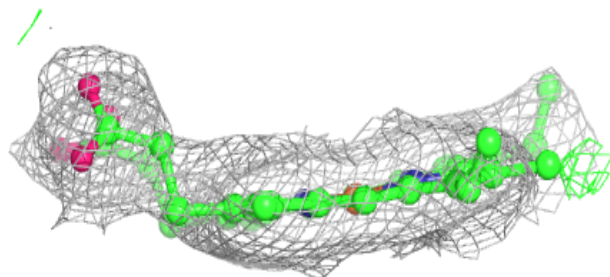
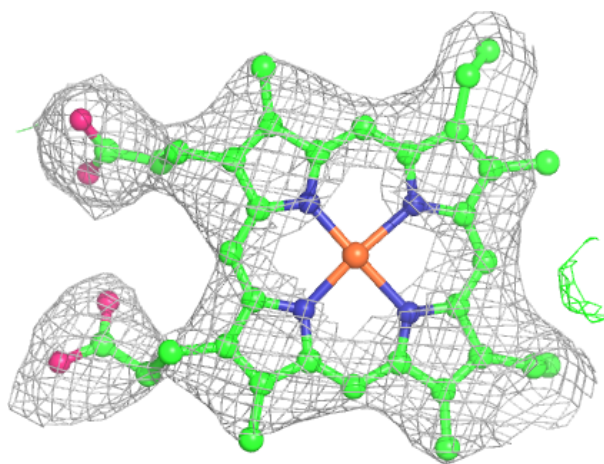
**Electron density around HEC I 607:**

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



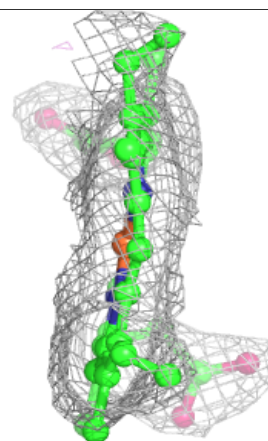
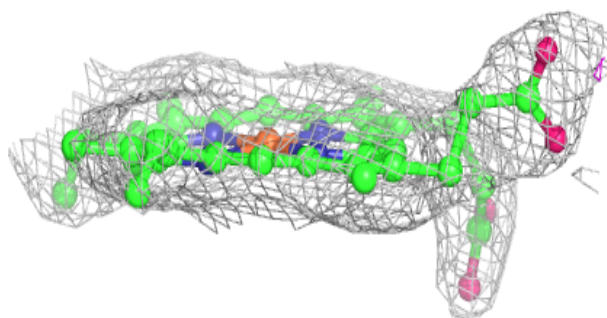
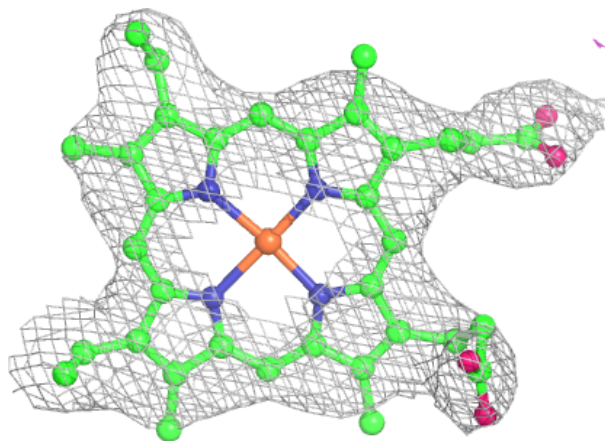
Electron density around HEC D 604:

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



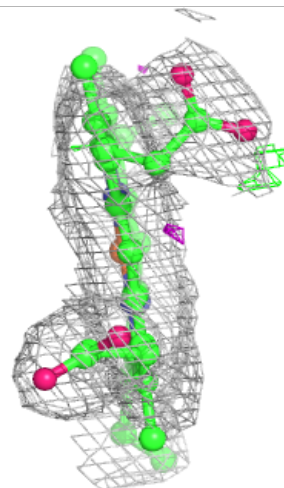
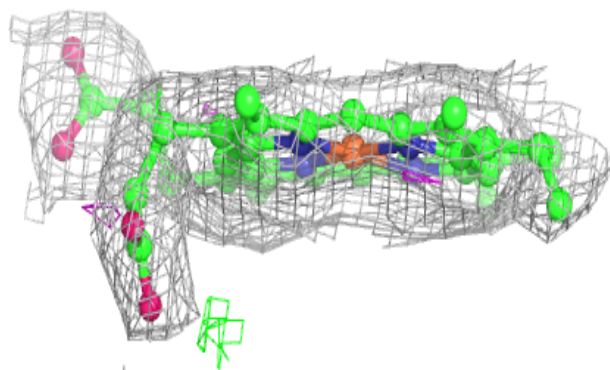
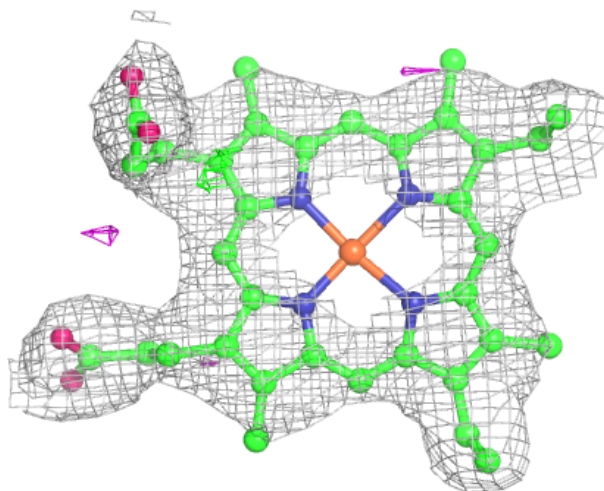
Electron density around HEC O 601:

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



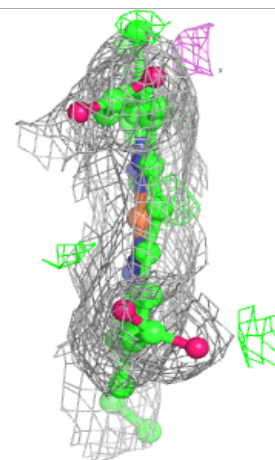
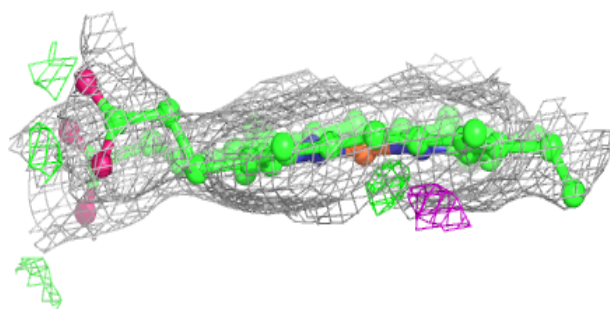
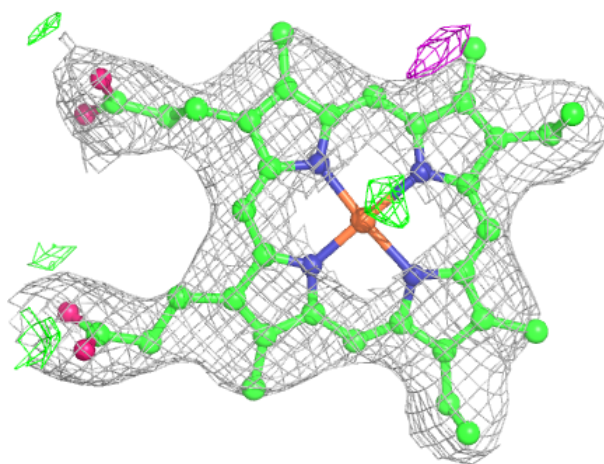
Electron density around HEC J 601:

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



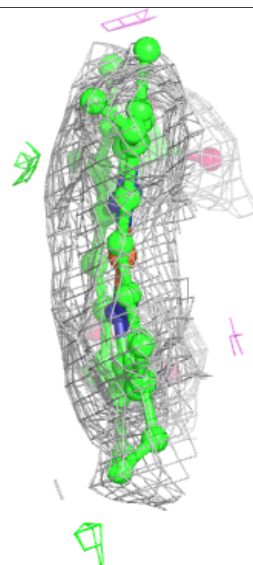
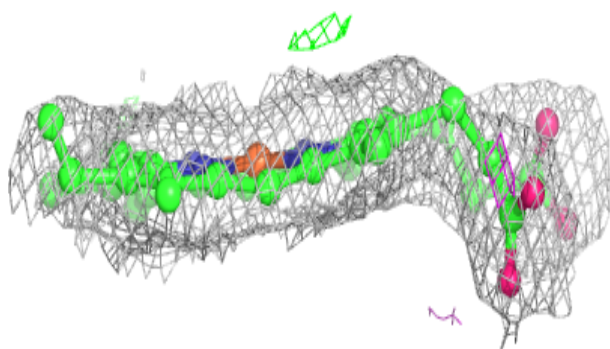
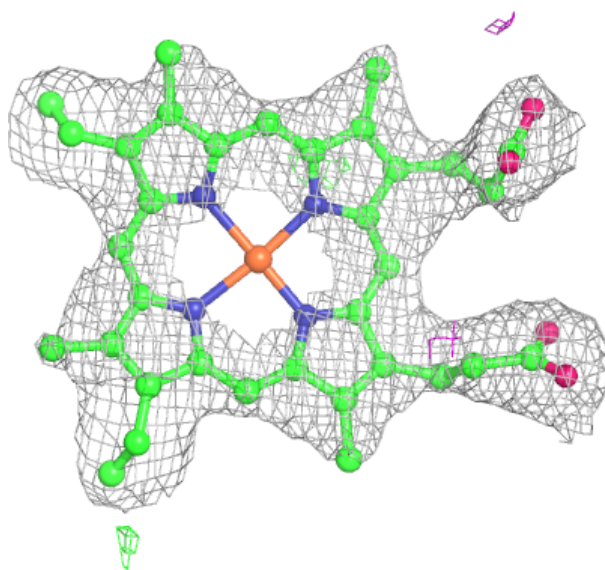
Electron density around HEC G 605:

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



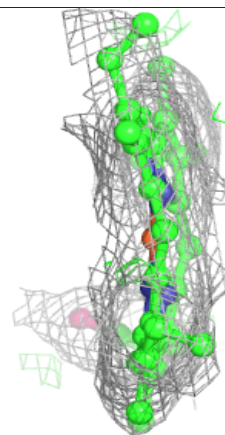
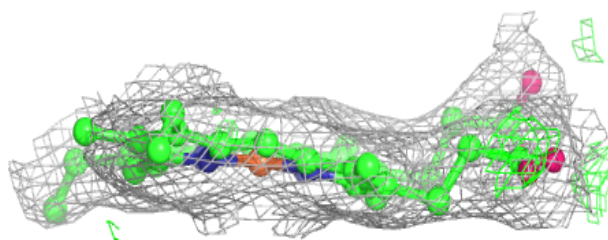
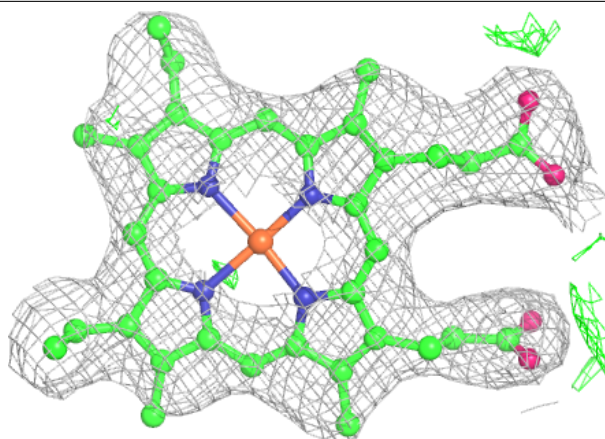
Electron density around HEC L 607:

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



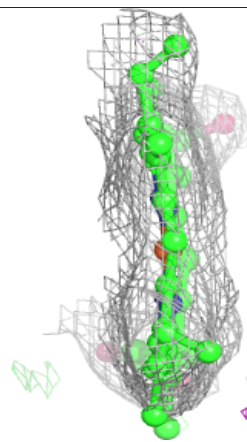
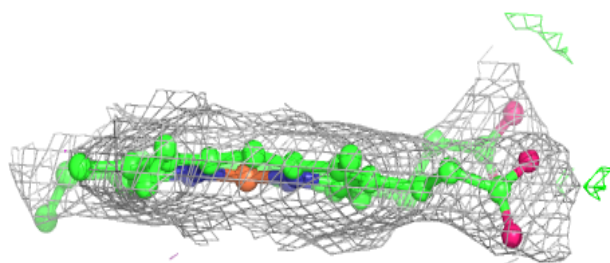
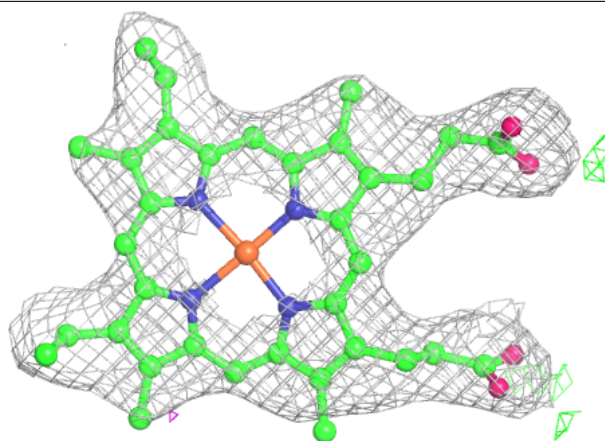
Electron density around HEC G 606:

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



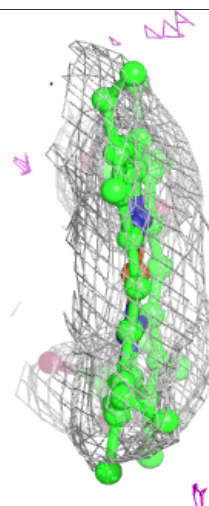
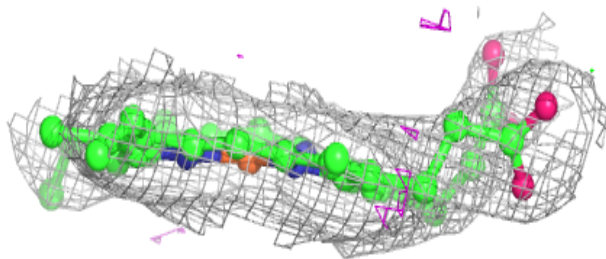
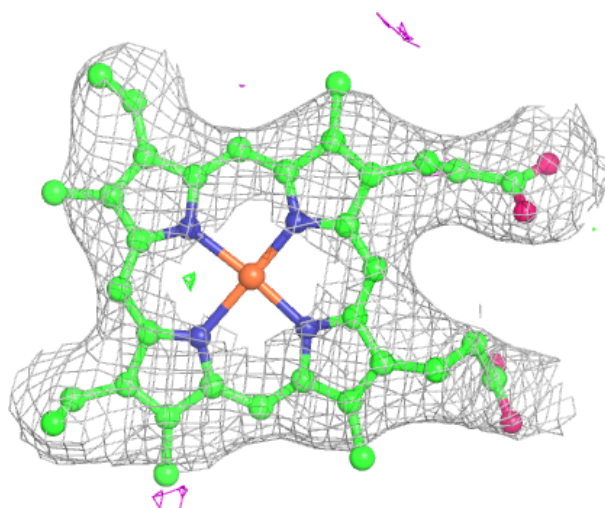
Electron density around HEC R 605:

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



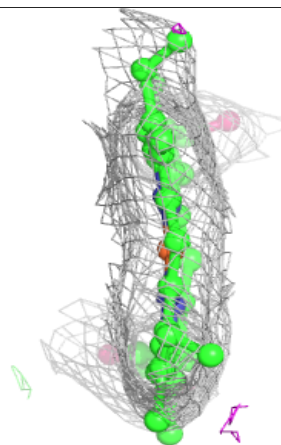
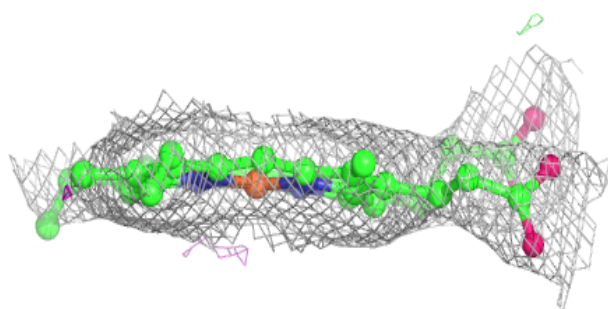
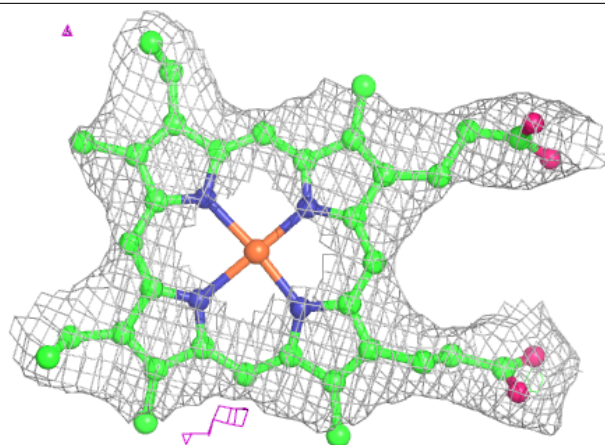
Electron density around HEC D 607:

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



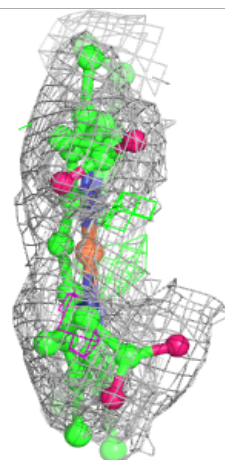
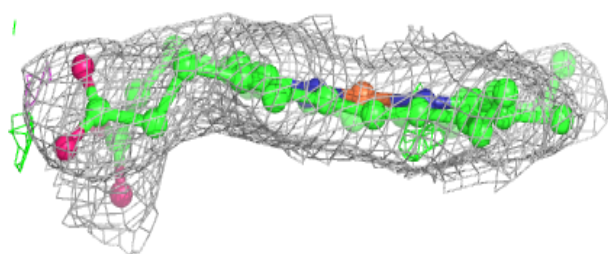
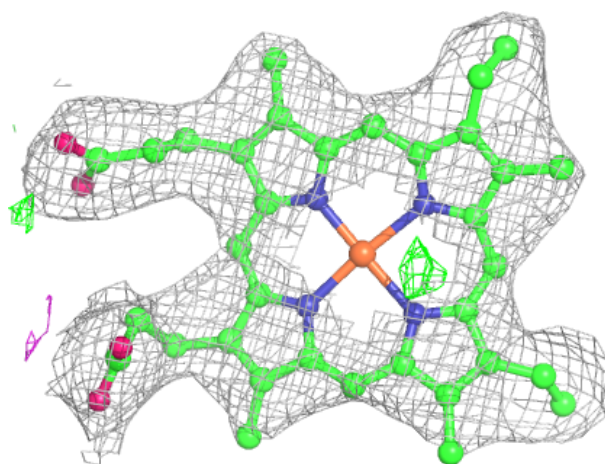
Electron density around HEC H 605:

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



Electron density around HEC J 607:

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



6.5 Other polymers [i](#)

There are no such residues in this entry.