Full wwPDB X-ray Structure Validation Report (i)

Oct 11, 2023 – 01:30 PM EDT

PDB ID	:	7TJA
Title	:	Structure of the Light Harvesting Complex PE545 from Proteomonas sulcata
Authors	:	Jeffrey, P.D.; Spangler, L.C.; Scholes, G.D.
Deposited on	:	2022-01-15
Resolution	:	1.96 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 (i) symbol.

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

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

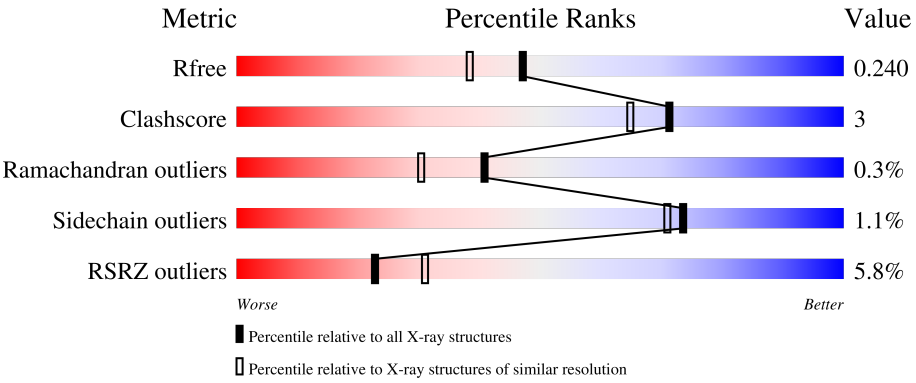
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 1.96 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	2580 (1.96-1.96)
Clashscore	141614	2705 (1.96-1.96)
Ramachandran outliers	138981	2678 (1.96-1.96)
Sidechain outliers	138945	2678 (1.96-1.96)
RSRZ outliers	127900	2539 (1.96-1.96)

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

Mol	Chain	Length	Quality of chain
1	A	76	11% 82% 13% 5%
1	E	76	4% 95%
1	I	76	4% 99%
1	M	76	96%
1	R	76	14% 84% 7% 8%

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Mol	Chain	Length	Quality of chain
2	C	67	13% 85% 10%
2	G	67	3% 88% 12%
2	K	67	% 96%
2	O	67	94% 6%
2	Q	67	7% 79% 10% 9%
3	B	177	8% 86% 8% 6%
3	D	177	12% 84% 13%
3	F	177	3% 89% 5% 6%
3	H	177	6% 93% 5%
3	J	177	3% 93% 5%
3	L	177	4% 95%
3	N	177	2% 91% 5%
3	P	177	6% 93% 5%

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
6	MG	J	204	-	-	-	X

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 18079 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 Phycoerythrin alpha-subunit 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	72	Total	C	N	O	S	0	72	0
			531	328	92	108	3			
1	R	70	Total	C	N	O	S	0	70	0
			515	320	89	104	2			
1	E	74	Total	C	N	O	S	0	0	0
			544	337	94	110	3			
1	I	75	Total	C	N	O	S	0	0	0
			553	343	96	111	3			
1	M	74	Total	C	N	O	S	0	0	0
			544	337	94	110	3			

- Molecule 2 is a protein called Phycoerythrin alpha-subunit 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	Q	61	Total	C	N	O	S	0	61	0
			446	274	77	91	4			
2	C	60	Total	C	N	O	S	0	60	0
			445	274	78	89	4			
2	G	67	Total	C	N	O	S	0	0	0
			496	304	87	100	5			
2	K	67	Total	C	N	O	S	0	0	0
			496	304	87	100	5			
2	O	67	Total	C	N	O	S	0	0	0
			496	304	87	100	5			

- Molecule 3 is a protein called Phycoerythrin beta-subunit.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	B	167	Total	C	N	O	S	0	1	0
			1220	753	213	244	10			
3	D	174	Total	C	N	O	S	0	0	0
			1270	782	221	257	10			

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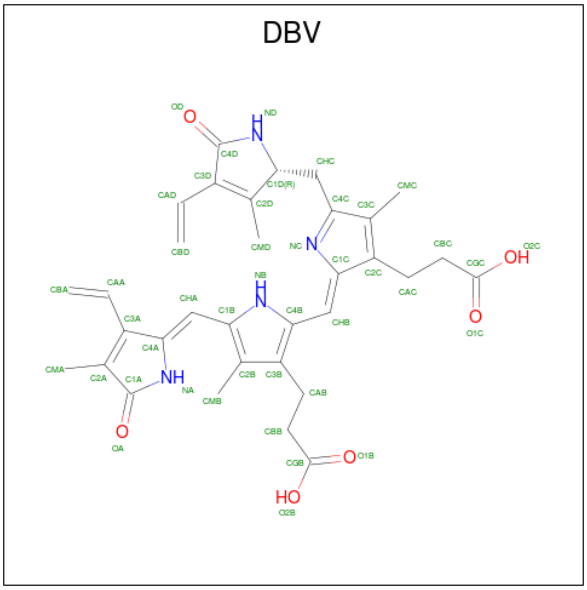
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	F	166	Total	C	N	O	S	0	1	0
			1211	746	210	245	10			
3	H	173	Total	C	N	O	S	0	0	0
			1263	776	221	256	10			
3	J	173	Total	C	N	O	S	0	0	0
			1263	776	220	257	10			
3	L	173	Total	C	N	O	S	0	0	0
			1260	775	220	255	10			
3	N	170	Total	C	N	O	S	0	0	0
			1239	765	217	247	10			
3	P	173	Total	C	N	O	S	0	1	0
			1261	777	220	254	10			

- Molecule 4 is 15,16-DIHYDROBILIVERDIN (three-letter code: DBV) (formula: $C_{33}H_{36}N_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
4	A	1	Total	C	N	O	0	1
			43	33	4	6		
4	Q	1	Total	C	N	O	0	1
			43	33	4	6		
4	C	1	Total	C	N	O	0	1
			43	33	4	6		
4	R	1	Total	C	N	O	0	1
			43	33	4	6		
4	E	1	Total	C	N	O	0	0
			43	33	4	6		

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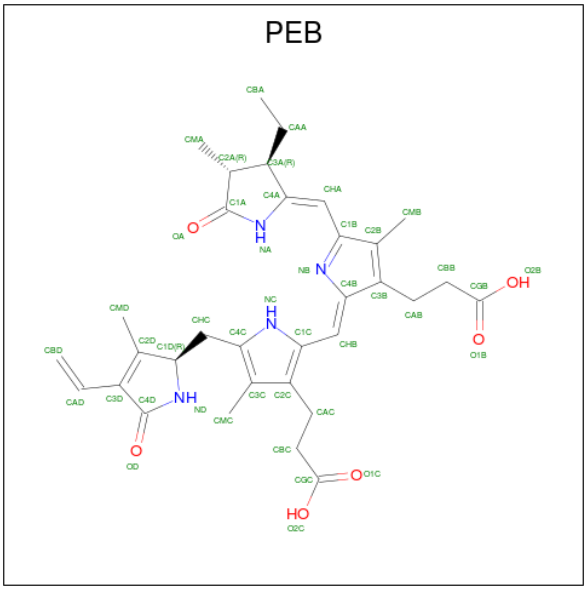
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
4	G	1	Total C N O 43 33 4 6	0	0
4	I	1	Total C N O 43 33 4 6	0	0
4	K	1	Total C N O 43 33 4 6	0	0
4	M	1	Total C N O 43 33 4 6	0	0
4	O	1	Total C N O 43 33 4 6	0	0

- Molecule 5 is PHYCOERYTHROBILIN (three-letter code: PEB) (formula: $C_{33}H_{40}N_4O_6$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	B	1	Total C N O 43 33 4 6	0	0
5	B	1	Total C N O 43 33 4 6	0	0
5	B	1	Total C N O 43 33 4 6	0	0
5	D	1	Total C N O 43 33 4 6	0	0
5	D	1	Total C N O 43 33 4 6	0	0
5	D	1	Total C N O 43 33 4 6	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
5	F	1	Total	C	N	O	0	0
			43	33	4	6		
5	F	1	Total	C	N	O	0	0
			43	33	4	6		
5	F	1	Total	C	N	O	0	0
			43	33	4	6		
5	H	1	Total	C	N	O	0	0
			43	33	4	6		
5	H	1	Total	C	N	O	0	0
			43	33	4	6		
5	H	1	Total	C	N	O	0	0
			43	33	4	6		
5	J	1	Total	C	N	O	0	0
			43	33	4	6		
5	J	1	Total	C	N	O	0	0
			43	33	4	6		
5	J	1	Total	C	N	O	0	0
			43	33	4	6		
5	L	1	Total	C	N	O	0	0
			43	33	4	6		
5	L	1	Total	C	N	O	0	0
			43	33	4	6		
5	L	1	Total	C	N	O	0	0
			43	33	4	6		
5	N	1	Total	C	N	O	0	0
			43	33	4	6		
5	N	1	Total	C	N	O	0	0
			43	33	4	6		
5	N	1	Total	C	N	O	0	0
			43	33	4	6		
5	P	1	Total	C	N	O	0	0
			43	33	4	6		
5	P	1	Total	C	N	O	0	0
			43	33	4	6		
5	P	1	Total	C	N	O	0	0
			43	33	4	6		

- Molecule 6 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
6	J	1	Total	Mg	0	0
			1	1		

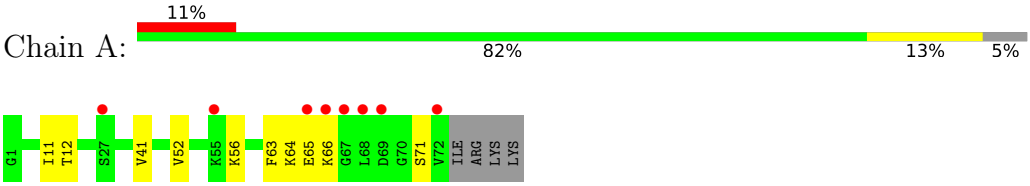
- Molecule 7 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	A	29	Total O 29 29	0	0
7	Q	21	Total O 21 21	0	0
7	B	82	Total O 82 82	0	0
7	C	17	Total O 17 17	0	0
7	R	16	Total O 16 16	0	0
7	D	101	Total O 101 101	0	0
7	E	75	Total O 75 75	0	0
7	G	84	Total O 84 84	0	0
7	F	154	Total O 154 154	0	0
7	H	160	Total O 160 160	0	0
7	I	74	Total O 74 74	0	0
7	K	92	Total O 92 92	0	0
7	J	155	Total O 155 155	0	0
7	L	106	Total O 106 106	0	0
7	M	60	Total O 60 60	0	0
7	O	72	Total O 72 72	0	0
7	N	126	Total O 126 126	0	0
7	P	139	Total O 139 139	0	0

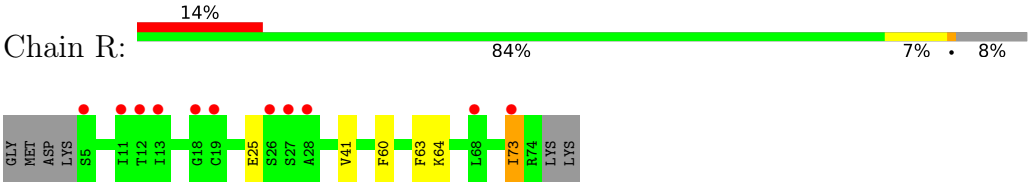
3 Residue-property plots (i)

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.

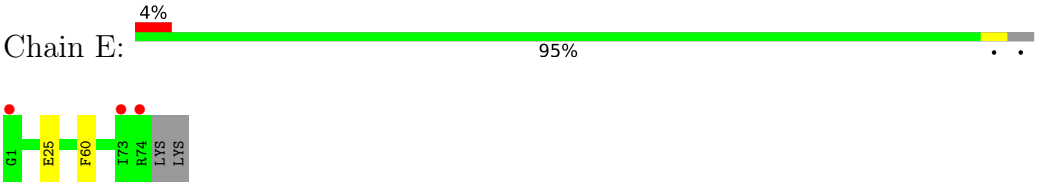
• Molecule 1: Phycoerythrin alpha-subunit 1



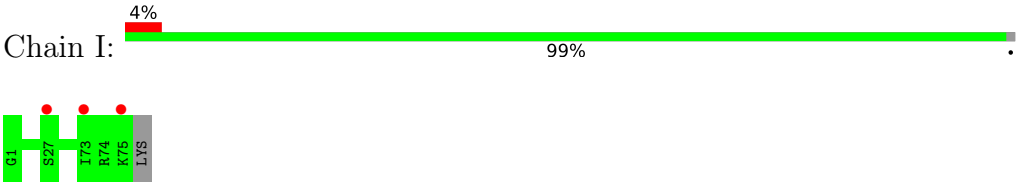
• Molecule 1: Phycoerythrin alpha-subunit 1



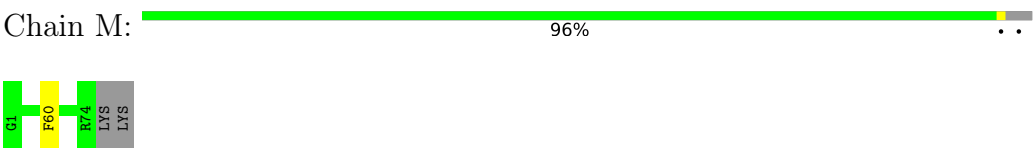
• Molecule 1: Phycoerythrin alpha-subunit 1



• Molecule 1: Phycoerythrin alpha-subunit 1

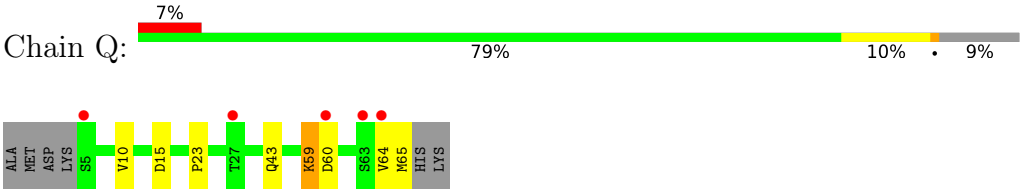


• Molecule 1: Phycoerythrin alpha-subunit 1



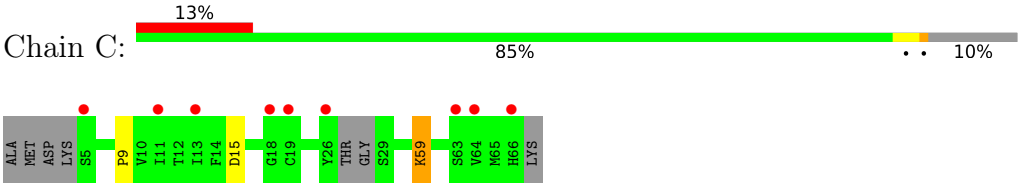
• Molecule 2: Phycoerythrin alpha-subunit 2

Chain Q:



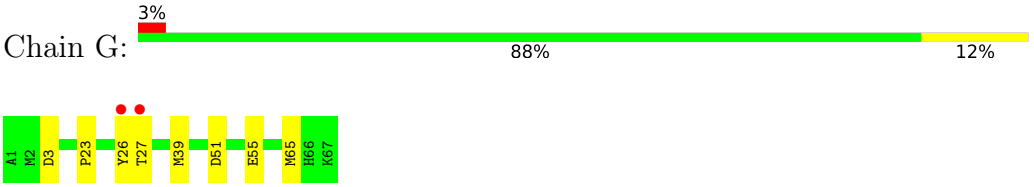
• Molecule 2: Phycoerythrin alpha-subunit 2

Chain C:



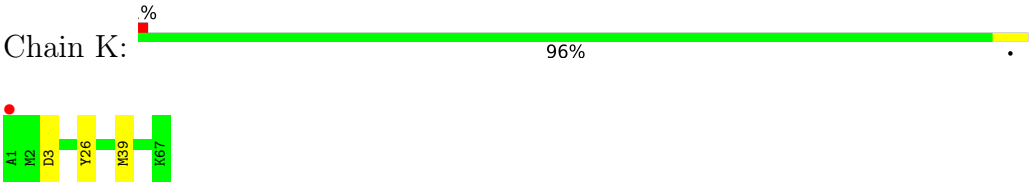
• Molecule 2: Phycoerythrin alpha-subunit 2

Chain G:



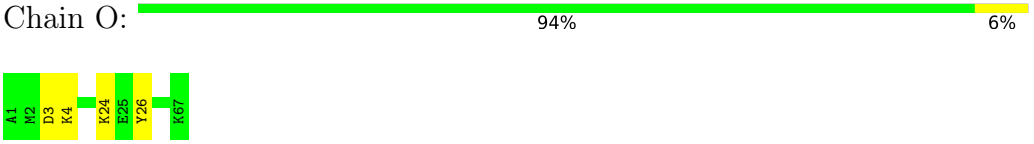
• Molecule 2: Phycoerythrin alpha-subunit 2

Chain K:



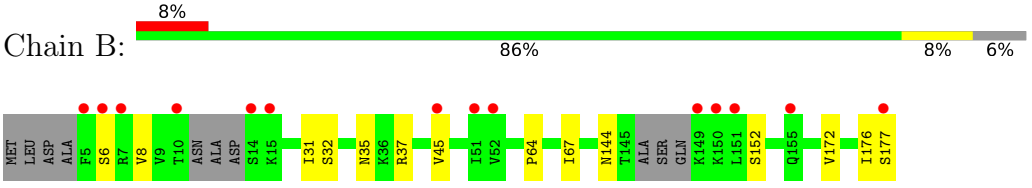
• Molecule 2: Phycoerythrin alpha-subunit 2

Chain O:



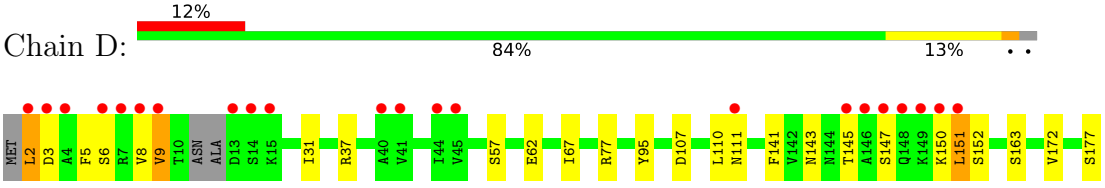
• Molecule 3: Phycoerythrin beta-subunit

Chain B:



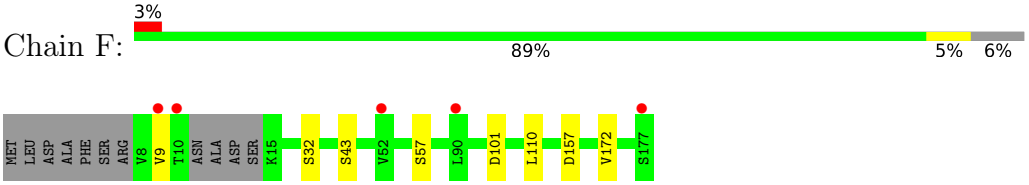
• Molecule 3: Phycoerythrin beta-subunit

Chain D:



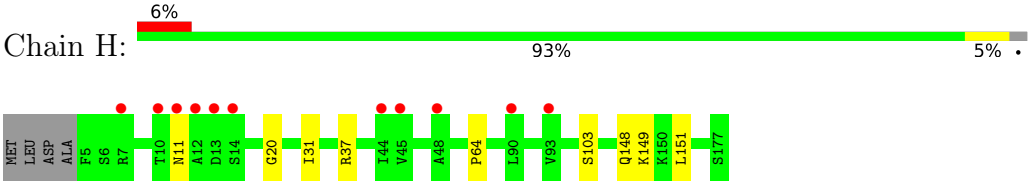
• Molecule 3: Phycoerythrin beta-subunit

Chain F:



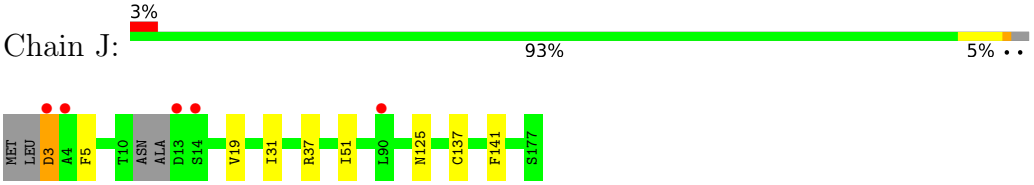
• Molecule 3: Phycoerythrin beta-subunit

Chain H:



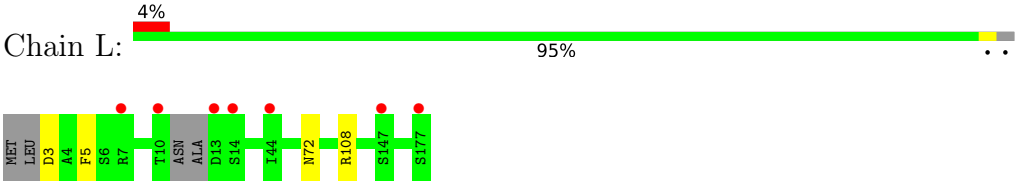
• Molecule 3: Phycoerythrin beta-subunit

Chain J:



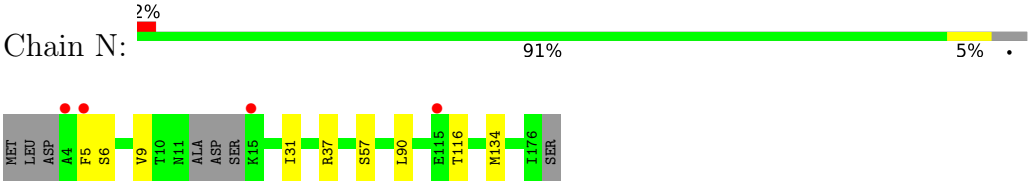
• Molecule 3: Phycoerythrin beta-subunit

Chain L:



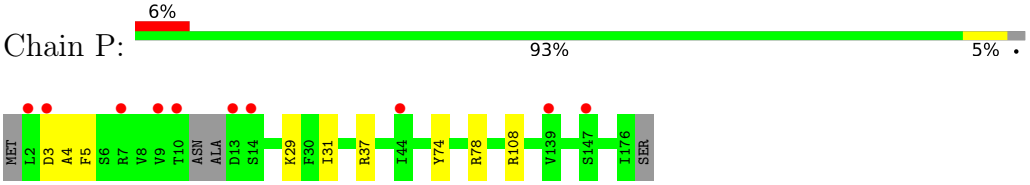
• Molecule 3: Phycoerythrin beta-subunit

Chain N:



• Molecule 3: Phycoerythrin beta-subunit

Chain P:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	88.22Å 132.48Å 93.89Å 90.00° 117.35° 90.00°	Depositor
Resolution (Å)	29.38 – 1.96 29.38 – 1.96	Depositor EDS
% Data completeness (in resolution range)	99.0 (29.38-1.96) 99.1 (29.38-1.96)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.68 (at 1.96Å)	Xtriage
Refinement program	PHENIX 1.17_3644	Depositor
R, R_{free}	0.176 , 0.240 0.176 , 0.240	Depositor DCC
R_{free} test set	6949 reflections (5.12%)	wwPDB-VP
Wilson B-factor (Å^2)	27.5	Xtriage
Anisotropy	0.530	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 49.2	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.000 for h,-k,-h-l	Xtriage
F_o,F_c correlation	0.96	EDS
Total number of atoms	18079	wwPDB-VP
Average B, all atoms (Å^2)	37.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 43.81 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 1.6707e-04. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: DBV, PEB, MG

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	0.35	0/536	0.55	0/714
1	E	0.45	0/549	0.59	0/732
1	I	0.36	0/558	0.59	0/743
1	M	0.34	0/549	0.54	0/732
1	R	0.29	0/520	0.55	0/695
2	C	0.29	0/449	0.44	0/600
2	G	0.36	0/501	0.54	0/668
2	K	0.35	0/501	0.51	0/668
2	O	0.34	0/501	0.52	0/668
2	Q	0.28	0/450	0.45	0/603
3	B	0.34	0/1231	0.46	0/1658
3	D	0.32	0/1282	0.47	0/1731
3	F	0.39	0/1225	0.47	0/1653
3	H	0.37	0/1276	0.48	0/1723
3	J	0.37	0/1275	0.48	0/1720
3	L	0.32	0/1272	0.45	0/1716
3	N	0.35	0/1251	0.46	0/1689
3	P	0.34	0/1276	0.45	0/1723
All	All	0.35	0/15202	0.49	0/20436

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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	531	0	507	12	0
1	E	544	0	555	2	0
1	I	553	0	568	0	0
1	M	544	0	555	1	0
1	R	515	0	485	12	0
2	C	445	0	403	4	0
2	G	496	0	505	7	0
2	K	496	0	505	4	0
2	O	496	0	505	3	0
2	Q	446	0	414	6	0
3	B	1220	0	1220	9	0
3	D	1270	0	1268	23	0
3	F	1211	0	1217	2	0
3	H	1263	0	1260	6	0
3	J	1263	0	1257	6	0
3	L	1260	0	1255	3	0
3	N	1239	0	1241	6	0
3	P	1261	0	1257	5	0
4	A	43	0	27	1	0
4	C	43	0	23	0	0
4	E	43	0	33	3	0
4	G	43	0	33	3	0
4	I	43	0	33	2	0
4	K	43	0	33	3	0
4	M	43	0	33	2	0
4	O	43	0	33	3	0
4	Q	43	0	24	2	0
4	R	43	0	21	1	0
5	B	129	0	110	3	0
5	D	129	0	109	5	0
5	F	129	0	110	1	0
5	H	129	0	110	2	0
5	J	129	0	110	2	0
5	L	129	0	110	3	0
5	N	129	0	109	3	0
5	P	129	0	110	2	0
6	J	1	0	0	0	0
7	A	29	0	0	1	0
7	B	82	0	0	0	0
7	C	17	0	0	1	0
7	D	101	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	E	75	0	0	0	0
7	F	154	0	0	0	0
7	G	84	0	0	0	0
7	H	160	0	0	1	0
7	I	74	0	0	0	0
7	J	155	0	0	2	0
7	K	92	0	0	0	0
7	L	106	0	0	0	0
7	M	60	0	0	0	0
7	N	126	0	0	0	0
7	O	72	0	0	1	0
7	P	139	0	0	1	0
7	Q	21	0	0	0	0
7	R	16	0	0	0	0
All	All	18079	0	16148	114	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 3.

All (114) 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)
3:B:31:ILE:HD12	3:B:37:ARG:HD2	1.67	0.74
3:D:31:ILE:HD12	3:D:37:ARG:HD2	1.73	0.71
4:G:101:DBV:HNA	4:G:101:DBV:HMB3	1.56	0.70
4:E:101:DBV:HNA	4:E:101:DBV:HMB3	1.57	0.70
4:M:101:DBV:HNA	4:M:101:DBV:HMB3	1.56	0.69
1:A:66[A]:LYS:NZ	7:A:201:HOH:O	2.26	0.69
4:K:101:DBV:HNA	4:K:101:DBV:HMB3	1.59	0.67
4:O:101:DBV:HNA	4:O:101:DBV:HMB3	1.59	0.67
5:J:203:PEB:HNA	5:J:203:PEB:HMB2	1.60	0.65
1:R:25[B]:GLU:HG2	4:R:101[B]:DBV:HMC3	1.78	0.65
3:H:31:ILE:HD12	3:H:37:ARG:HD2	1.78	0.65
4:Q:101[B]:DBV:HNA	4:Q:101[B]:DBV:HMB3	1.59	0.64
5:P:203:PEB:HMB2	5:P:203:PEB:HNA	1.62	0.63
1:A:11[A]:ILE:HG12	1:A:41[A]:VAL:HG22	1.80	0.63
4:I:101:DBV:HNA	4:I:101:DBV:HMB3	1.64	0.62
2:C:9[A]:PRO:HB3	3:D:9:VAL:HG12	1.82	0.61
3:N:90:LEU:HB2	3:N:134:MET:HE2	1.82	0.60
3:D:141:PHE:HZ	5:D:201:PEB:HMA3	1.66	0.60
1:A:71[A]:SER:HA	3:D:150:LYS:HG2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:D:203:PEB:HMB2	5:D:203:PEB:HNA	1.67	0.59
1:R:73[B]:ILE:HD11	5:D:201:PEB:HMC1	1.84	0.58
5:H:203:PEB:HMB2	5:H:203:PEB:HNA	1.69	0.58
3:J:3:ASP:N	7:J:303:HOH:O	2.37	0.57
3:F:110:LEU:HD21	3:F:172:VAL:HG22	1.84	0.57
1:R:41[B]:VAL:HG12	3:D:8:VAL:HG11	1.86	0.57
5:B:203:PEB:HNA	5:B:203:PEB:HMB2	1.70	0.57
3:H:149:LYS:NZ	7:H:304:HOH:O	2.37	0.56
1:A:41[A]:VAL:HG12	3:B:8:VAL:HG11	1.87	0.56
3:B:32:SER:HB3	3:B:37:ARG:HH21	1.71	0.56
3:D:2:LEU:HB3	3:D:5:PHE:HB2	1.88	0.56
3:J:125:ASN:ND2	7:J:304:HOH:O	2.38	0.56
3:D:177:SER:HB2	7:D:329:HOH:O	2.05	0.56
3:N:90:LEU:HB2	3:N:134:MET:CE	2.35	0.56
5:L:203:PEB:HMB2	5:L:203:PEB:HNA	1.70	0.55
2:K:26:TYR:HB2	2:K:39:MET:HE2	1.88	0.55
2:O:26:TYR:HB3	4:O:101:DBV:HBD1	1.88	0.55
1:A:63[A]:PHE:CZ	3:B:67:ILE:HD11	2.42	0.55
5:F:203:PEB:HNA	5:F:203:PEB:HMB2	1.73	0.54
1:M:60:PHE:CE1	3:N:57:SER:HB2	2.43	0.54
3:L:3:ASP:O	3:L:5:PHE:N	2.39	0.52
3:J:31:ILE:HD12	3:J:37:ARG:HD2	1.92	0.52
5:D:202:PEB:HMB2	5:D:202:PEB:HNA	1.75	0.52
1:R:60[B]:PHE:CE1	3:D:57:SER:HB2	2.45	0.52
2:O:3:ASP:OD2	3:P:108:ARG:NH2	2.43	0.51
1:E:60:PHE:CE1	3:F:57:SER:HB2	2.45	0.51
1:A:65[A]:GLU:OE1	3:D:152:SER:OG	2.25	0.51
3:D:3:ASP:HA	3:D:6:SER:HB3	1.92	0.51
5:N:203:PEB:HMB2	5:N:203:PEB:HNA	1.76	0.51
3:D:110:LEU:HD21	3:D:172:VAL:HG22	1.93	0.50
5:H:202:PEB:HMB2	5:H:202:PEB:HNA	1.76	0.50
2:Q:59[B]:LYS:HZ2	2:Q:59[B]:LYS:HB3	1.76	0.50
2:Q:10[B]:VAL:HG22	2:Q:43[B]:GLN:O	2.12	0.50
1:R:73[B]:ILE:HD12	1:R:73[B]:ILE:H	1.75	0.50
4:M:101:DBV:HMB3	4:M:101:DBV:NA	2.24	0.49
3:N:31:ILE:HD12	3:N:37:ARG:HD2	1.94	0.49
2:Q:65[B]:MET:SD	3:B:64:PRO:HB3	2.52	0.49
3:D:77:ARG:HH11	3:D:77:ARG:HB3	1.78	0.49
3:P:31:ILE:HD12	3:P:37:ARG:HD2	1.94	0.49
2:O:4:LYS:NZ	7:O:202:HOH:O	2.46	0.49
2:Q:15[B]:ASP:OD2	1:R:64[B]:LYS:NZ	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:39:MET:HE3	4:K:101:DBV:C4D	2.43	0.48
1:A:64[A]:LYS:HE2	3:D:152:SER:O	2.14	0.48
3:D:5:PHE:HB3	3:D:95:TYR:OH	2.14	0.48
2:G:65:MET:SD	3:H:64:PRO:HB3	2.54	0.47
5:L:201:PEB:HNA	5:L:201:PEB:HMB3	1.78	0.47
2:G:3:ASP:OD2	3:H:11:ASN:ND2	2.47	0.47
3:P:74:TYR:O	3:P:78:ARG:NH1	2.48	0.47
3:P:29:LYS:NZ	7:P:304:HOH:O	2.44	0.47
3:D:143:ASN:ND2	7:D:303:HOH:O	2.41	0.46
3:D:107:ASP:HA	3:D:111:ASN:ND2	2.31	0.46
2:K:3:ASP:OD2	3:L:108:ARG:NH2	2.48	0.46
3:D:147:SER:O	3:D:151:LEU:HB2	2.16	0.46
3:J:51:ILE:HG12	3:J:137:CYS:HB3	1.98	0.46
1:A:11[A]:ILE:O	3:B:45:VAL:HG11	2.16	0.45
1:A:64[A]:LYS:HD2	2:C:15[A]:ASP:HB3	1.97	0.45
2:G:51:ASP:O	2:G:55:GLU:HG3	2.17	0.45
3:N:6:SER:HA	3:N:9:VAL:HG22	1.98	0.45
2:G:26:TYR:HB2	2:G:39:MET:CE	2.46	0.45
4:Q:101[B]:DBV:HMB3	4:Q:101[B]:DBV:NA	2.29	0.45
2:K:26:TYR:HB2	2:K:39:MET:CE	2.47	0.44
3:P:3:ASP:O	3:P:5:PHE:N	2.50	0.44
5:N:201:PEB:HMB3	5:N:201:PEB:HNA	1.82	0.44
4:K:101:DBV:HMB3	4:K:101:DBV:NA	2.30	0.44
4:O:101:DBV:HMB3	4:O:101:DBV:NA	2.30	0.44
1:R:73[B]:ILE:HD12	1:R:73[B]:ILE:N	2.33	0.44
2:C:59[A]:LYS:NZ	7:C:205:HOH:O	2.47	0.43
4:E:101:DBV:HMB3	4:E:101:DBV:NA	2.30	0.43
1:R:63[B]:PHE:CE1	3:D:67:ILE:HD11	2.53	0.43
1:A:52[A]:VAL:O	1:A:56[A]:LYS:HG2	2.19	0.43
1:A:12[A]:THR:OG1	2:C:59[A]:LYS:HD3	2.19	0.43
1:R:73[B]:ILE:HD13	3:D:62:GLU:CG	2.48	0.43
5:P:202:PEB:HMB2	5:P:202:PEB:HNA	1.84	0.43
3:D:2:LEU:HD23	3:D:5:PHE:H	1.83	0.43
2:G:26:TYR:CZ	3:H:20:GLY:O	2.72	0.43
3:L:72:ASN:OD1	5:L:203:PEB:HMB2	2.19	0.43
1:R:73[B]:ILE:HD13	3:D:62:GLU:OE2	2.19	0.42
2:G:26:TYR:HB2	2:G:39:MET:HE1	2.01	0.42
4:A:101[A]:DBV:HMB3	4:A:101[A]:DBV:NA	2.34	0.42
3:J:5:PHE:HE2	3:J:19:VAL:HG21	1.85	0.42
3:J:141:PHE:HZ	5:J:201:PEB:HMA3	1.85	0.42
2:Q:23[B]:PRO:O	3:H:148:GLN:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:35:ASN:HB3	5:B:202:PEB:C1C	2.50	0.41
3:D:77:ARG:HB3	3:D:77:ARG:NH1	2.35	0.41
2:G:23:PRO:HB3	4:G:101:DBV:C3D	2.51	0.41
4:G:101:DBV:HMB3	4:G:101:DBV:NA	2.29	0.41
3:N:116:THR:HG21	5:N:203:PEB:HMC2	2.02	0.41
4:I:101:DBV:HMB3	4:I:101:DBV:NA	2.33	0.41
3:B:172:VAL:O	3:B:176:ILE:HG12	2.20	0.41
1:R:63[B]:PHE:CZ	3:D:67:ILE:HD11	2.55	0.41
1:E:25:GLU:HG2	4:E:101:DBV:HMC3	2.03	0.41
1:A:41[A]:VAL:HG12	3:B:8:VAL:HG21	2.04	0.40
1:R:73[B]:ILE:HD11	5:D:201:PEB:CMC	2.50	0.40
2:Q:60[B]:ASP:O	2:Q:64[B]:VAL:HG22	2.22	0.40
5:B:202:PEB:HMB2	5:B:202:PEB:HNA	1.87	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
1	A	70/76 (92%)	67 (96%)	3 (4%)	0	100 100
1	E	72/76 (95%)	70 (97%)	2 (3%)	0	100 100
1	I	73/76 (96%)	69 (94%)	4 (6%)	0	100 100
1	M	72/76 (95%)	70 (97%)	2 (3%)	0	100 100
1	R	68/76 (90%)	62 (91%)	6 (9%)	0	100 100
2	C	56/67 (84%)	54 (96%)	2 (4%)	0	100 100
2	G	65/67 (97%)	63 (97%)	2 (3%)	0	100 100
2	K	65/67 (97%)	63 (97%)	2 (3%)	0	100 100
2	O	65/67 (97%)	63 (97%)	1 (2%)	1 (2%)	10 3
2	Q	59/67 (88%)	56 (95%)	3 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
3	B	161/177 (91%)	156 (97%)	3 (2%)	2 (1%)	13 4
3	D	170/177 (96%)	162 (95%)	7 (4%)	1 (1%)	25 14
3	F	163/177 (92%)	161 (99%)	1 (1%)	1 (1%)	25 14
3	H	171/177 (97%)	167 (98%)	4 (2%)	0	100 100
3	J	169/177 (96%)	166 (98%)	3 (2%)	0	100 100
3	L	169/177 (96%)	167 (99%)	2 (1%)	0	100 100
3	N	166/177 (94%)	161 (97%)	5 (3%)	0	100 100
3	P	170/177 (96%)	167 (98%)	2 (1%)	1 (1%)	25 14
All	All	2004/2131 (94%)	1944 (97%)	54 (3%)	6 (0%)	41 30

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	B	6	SER
2	O	24	LYS
3	B	144	ASN
3	D	9	VAL
3	P	4	ALA
3	F	9	VAL

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	58/62 (94%)	58 (100%)	0	100 100
1	E	59/62 (95%)	59 (100%)	0	100 100
1	I	60/62 (97%)	60 (100%)	0	100 100
1	M	59/62 (95%)	59 (100%)	0	100 100
1	R	56/62 (90%)	55 (98%)	1 (2%)	59 53
2	C	50/55 (91%)	49 (98%)	1 (2%)	55 48
2	G	55/55 (100%)	54 (98%)	1 (2%)	59 53

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	K	55/55 (100%)	55 (100%)	0	100 100
2	O	55/55 (100%)	55 (100%)	0	100 100
2	Q	50/55 (91%)	49 (98%)	1 (2%)	55 48
3	B	135/143 (94%)	133 (98%)	2 (2%)	65 60
3	D	141/143 (99%)	137 (97%)	4 (3%)	43 33
3	F	135/143 (94%)	131 (97%)	4 (3%)	41 30
3	H	140/143 (98%)	138 (99%)	2 (1%)	67 62
3	J	140/143 (98%)	139 (99%)	1 (1%)	84 82
3	L	139/143 (97%)	139 (100%)	0	100 100
3	N	136/143 (95%)	135 (99%)	1 (1%)	84 82
3	P	139/143 (97%)	139 (100%)	0	100 100
All	All	1662/1729 (96%)	1644 (99%)	18 (1%)	73 71

All (18) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	Q	59[B]	LYS
3	B	152	SER
3	B	177	SER
2	C	59[A]	LYS
1	R	73[B]	ILE
3	D	2	LEU
3	D	145	THR
3	D	151	LEU
3	D	163	SER
2	G	27	THR
3	F	32	SER
3	F	43	SER
3	F	101	ASP
3	F	157	ASP
3	H	103	SER
3	H	151	LEU
3	J	3	ASP
3	N	5	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
2	Q	34[B]	GLN
2	C	34[A]	GLN
2	C	66[A]	HIS

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 35 ligands modelled in this entry, 1 is monoatomic - leaving 34 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	$\#\|Z\| > 2$
5	PEB	P	203	3	43,46,46	1.17	3 (6%)	45,67,67	1.43	8 (17%)
5	PEB	H	201	3	43,46,46	1.17	2 (4%)	45,67,67	1.40	9 (20%)
4	DBV	I	101	1	42,46,46	1.58	9 (21%)	42,67,67	1.68	11 (26%)
4	DBV	Q	101[B]	2	42,46,46	1.62	8 (19%)	42,67,67	1.58	10 (23%)
5	PEB	F	201	3	43,46,46	1.29	5 (11%)	45,67,67	1.51	10 (22%)
5	PEB	P	202	3	43,46,46	1.31	5 (11%)	45,67,67	1.49	8 (17%)
5	PEB	D	201	3	43,46,46	1.44	7 (16%)	45,67,67	1.61	10 (22%)
5	PEB	N	202	3	43,46,46	1.32	7 (16%)	45,67,67	1.42	8 (17%)
4	DBV	O	101	2	42,46,46	1.60	8 (19%)	42,67,67	1.74	13 (30%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
5	PEB	J	201	3	43,46,46	1.31	4 (9%)	45,67,67	1.66	9 (20%)
4	DBV	G	101	2	42,46,46	1.73	8 (19%)	42,67,67	1.70	11 (26%)
5	PEB	H	202	3	43,46,46	1.40	5 (11%)	45,67,67	1.57	6 (13%)
5	PEB	F	202	3	43,46,46	1.21	4 (9%)	45,67,67	1.56	9 (20%)
5	PEB	J	203	3	43,46,46	1.19	3 (6%)	45,67,67	1.33	8 (17%)
5	PEB	L	203	3	43,46,46	1.27	4 (9%)	45,67,67	1.61	9 (20%)
5	PEB	B	201	3	43,46,46	1.29	5 (11%)	45,67,67	1.45	9 (20%)
4	DBV	K	101	2	42,46,46	1.63	9 (21%)	42,67,67	1.62	10 (23%)
5	PEB	B	202	3	43,46,46	1.21	4 (9%)	45,67,67	1.65	9 (20%)
4	DBV	A	101[A]	1	42,46,46	1.69	9 (21%)	42,67,67	1.64	13 (30%)
5	PEB	F	203	3	43,46,46	1.24	3 (6%)	45,67,67	1.48	7 (15%)
5	PEB	D	202	3	43,46,46	1.12	4 (9%)	45,67,67	1.52	9 (20%)
5	PEB	N	201	3	43,46,46	1.42	4 (9%)	45,67,67	1.61	8 (17%)
4	DBV	C	101[A]	2	42,46,46	1.63	8 (19%)	42,67,67	1.63	9 (21%)
5	PEB	H	203	3	43,46,46	1.23	4 (9%)	45,67,67	1.49	8 (17%)
5	PEB	B	203	3	43,46,46	1.27	4 (9%)	45,67,67	1.56	9 (20%)
5	PEB	L	202	3	43,46,46	1.24	4 (9%)	45,67,67	1.46	9 (20%)
5	PEB	P	201	3	43,46,46	1.27	5 (11%)	45,67,67	1.62	13 (28%)
4	DBV	R	101[B]	1	42,46,46	1.66	7 (16%)	42,67,67	1.79	12 (28%)
5	PEB	L	201	3	43,46,46	1.21	5 (11%)	45,67,67	1.50	9 (20%)
5	PEB	J	202	3	43,46,46	1.21	4 (9%)	45,67,67	1.41	7 (15%)
4	DBV	M	101	1	42,46,46	1.39	7 (16%)	42,67,67	1.73	12 (28%)
5	PEB	N	203	3	43,46,46	1.19	3 (6%)	45,67,67	1.56	12 (26%)
5	PEB	D	203	3	43,46,46	1.30	5 (11%)	45,67,67	1.49	11 (24%)
4	DBV	E	101	1	42,46,46	1.51	7 (16%)	42,67,67	1.70	13 (30%)

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	PEB	P	203	3	-	5/24/74/74	0/4/4/4
5	PEB	H	201	3	-	6/24/74/74	0/4/4/4
4	DBV	I	101	1	-	11/26/74/74	0/4/4/4
4	DBV	Q	101[B]	2	-	11/26/74/74	0/4/4/4

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	PEB	F	201	3	-	5/24/74/74	0/4/4/4
5	PEB	P	202	3	-	6/24/74/74	0/4/4/4
5	PEB	D	201	3	-	5/24/74/74	0/4/4/4
5	PEB	N	202	3	-	8/24/74/74	0/4/4/4
4	DBV	O	101	2	-	7/26/74/74	0/4/4/4
5	PEB	J	201	3	-	7/24/74/74	0/4/4/4
4	DBV	G	101	2	-	8/26/74/74	0/4/4/4
5	PEB	H	202	3	-	7/24/74/74	0/4/4/4
5	PEB	F	202	3	-	6/24/74/74	0/4/4/4
5	PEB	J	203	3	-	6/24/74/74	0/4/4/4
5	PEB	L	203	3	-	5/24/74/74	0/4/4/4
5	PEB	B	201	3	-	8/24/74/74	0/4/4/4
4	DBV	K	101	2	-	8/26/74/74	0/4/4/4
5	PEB	B	202	3	-	9/24/74/74	0/4/4/4
4	DBV	A	101[A]	1	-	10/26/74/74	0/4/4/4
5	PEB	F	203	3	-	7/24/74/74	0/4/4/4
5	PEB	D	202	3	-	9/24/74/74	0/4/4/4
5	PEB	N	201	3	-	4/24/74/74	0/4/4/4
4	DBV	C	101[A]	2	-	14/26/74/74	0/4/4/4
5	PEB	H	203	3	-	2/24/74/74	0/4/4/4
5	PEB	B	203	3	-	6/24/74/74	0/4/4/4
5	PEB	L	202	3	-	11/24/74/74	0/4/4/4
5	PEB	P	201	3	-	5/24/74/74	0/4/4/4
4	DBV	R	101[B]	1	-	10/26/74/74	0/4/4/4
5	PEB	L	201	3	-	6/24/74/74	0/4/4/4
5	PEB	J	202	3	-	7/24/74/74	0/4/4/4
4	DBV	M	101	1	-	8/26/74/74	0/4/4/4
5	PEB	N	203	3	-	4/24/74/74	0/4/4/4
5	PEB	D	203	3	-	4/24/74/74	0/4/4/4
4	DBV	E	101	1	-	8/26/74/74	0/4/4/4

All (183) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	G	101	DBV	CBB-CGB	5.83	1.64	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	101[A]	DBV	CAB-C3B	-4.64	1.45	1.52
4	R	101[B]	DBV	CBB-CGB	4.42	1.60	1.50
4	O	101	DBV	CBB-CGB	4.39	1.60	1.50
5	N	201	PEB	CHB-C4B	4.26	1.38	1.35
4	R	101[B]	DBV	CBC-CGC	4.19	1.60	1.50
4	C	101[A]	DBV	CBC-CGC	4.19	1.60	1.50
4	C	101[A]	DBV	CBB-CGB	4.17	1.60	1.50
4	G	101	DBV	CBC-CGC	4.16	1.60	1.50
4	E	101	DBV	CBC-CGC	3.94	1.59	1.50
4	I	101	DBV	CBB-CGB	3.88	1.59	1.50
4	Q	101[B]	DBV	CBB-CGB	3.83	1.59	1.50
5	H	202	PEB	CHB-C4B	3.78	1.38	1.35
4	Q	101[B]	DBV	CAB-C3B	-3.67	1.46	1.52
4	E	101	DBV	CAB-C3B	-3.66	1.46	1.52
4	C	101[A]	DBV	C1B-CHA	3.62	1.55	1.41
4	K	101	DBV	CBC-CGC	3.57	1.58	1.50
4	R	101[B]	DBV	C1B-CHA	3.56	1.54	1.41
5	H	202	PEB	CBC-CGC	-3.55	1.42	1.50
5	D	203	PEB	CHB-C4B	3.46	1.38	1.35
4	Q	101[B]	DBV	CBC-CGC	3.40	1.58	1.50
4	K	101	DBV	CBB-CGB	3.34	1.58	1.50
4	A	101[A]	DBV	CBB-CGB	3.27	1.58	1.50
5	J	201	PEB	CHB-C4B	3.27	1.37	1.35
4	A	101[A]	DBV	CBC-CGC	3.26	1.58	1.50
5	L	201	PEB	CHB-C4B	3.21	1.37	1.35
4	I	101	DBV	CBC-CGC	3.19	1.58	1.50
4	E	101	DBV	C4B-CHB	3.18	1.53	1.41
5	L	202	PEB	CBB-CGB	-3.17	1.43	1.50
4	O	101	DBV	CAB-C3B	-3.15	1.47	1.52
4	K	101	DBV	C3A-C2A	3.13	1.43	1.37
5	D	201	PEB	C4B-NB	-3.12	1.31	1.38
5	L	202	PEB	C3C-C4C	3.12	1.46	1.42
5	P	202	PEB	CHB-C4B	3.09	1.37	1.35
5	B	201	PEB	CBB-CGB	-3.08	1.43	1.50
4	Q	101[B]	DBV	C1B-CHA	3.07	1.53	1.41
4	Q	101[B]	DBV	C4B-CHB	3.06	1.53	1.41
4	C	101[A]	DBV	C4B-CHB	3.06	1.53	1.41
5	J	203	PEB	CHB-C4B	3.05	1.37	1.35
4	M	101	DBV	C1C-NC	-3.04	1.32	1.38
4	O	101	DBV	C1C-NC	-3.00	1.32	1.38
5	P	201	PEB	CHA-C4A	-2.99	1.31	1.36
4	A	101[A]	DBV	C4B-CHB	2.95	1.52	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	I	101	DBV	C4D-ND	2.93	1.39	1.35
4	G	101	DBV	C3A-C2A	2.93	1.43	1.37
5	J	201	PEB	CAC-C2C	-2.93	1.47	1.52
5	D	201	PEB	CBC-CGC	-2.92	1.43	1.50
5	P	201	PEB	C3C-C4C	2.92	1.46	1.42
4	M	101	DBV	CBB-CGB	2.91	1.57	1.50
4	O	101	DBV	CBC-CGC	2.91	1.57	1.50
5	B	201	PEB	C3C-C4C	2.91	1.46	1.42
5	N	202	PEB	CHB-C4B	2.90	1.37	1.35
4	R	101[B]	DBV	C1C-NC	-2.88	1.32	1.38
4	C	101[A]	DBV	C3A-C2A	2.87	1.43	1.37
4	R	101[B]	DBV	C4B-CHB	2.86	1.52	1.41
4	A	101[A]	DBV	C1C-NC	-2.85	1.32	1.38
5	D	201	PEB	C1D-ND	-2.83	1.41	1.45
4	G	101	DBV	CAB-C3B	-2.80	1.47	1.52
5	J	202	PEB	CHB-C4B	2.80	1.37	1.35
4	E	101	DBV	CBB-CGB	2.79	1.57	1.50
4	I	101	DBV	C3A-C2A	2.76	1.42	1.37
4	I	101	DBV	C4B-CHB	2.75	1.51	1.41
5	H	202	PEB	C3C-C4C	2.75	1.46	1.42
5	F	202	PEB	C3C-C4C	2.74	1.46	1.42
5	P	201	PEB	CHB-C4B	2.74	1.37	1.35
4	G	101	DBV	C2C-C3C	2.70	1.42	1.36
4	R	101[B]	DBV	C3A-C2A	2.70	1.42	1.37
5	F	201	PEB	CHB-C4B	2.69	1.37	1.35
4	C	101[A]	DBV	C1C-NC	-2.69	1.32	1.38
5	B	203	PEB	C3C-C4C	2.67	1.46	1.42
4	Q	101[B]	DBV	C3A-C2A	2.65	1.42	1.37
5	B	202	PEB	C3C-C4C	2.64	1.46	1.42
4	M	101	DBV	CBC-CGC	2.63	1.56	1.50
4	O	101	DBV	C1B-CHA	2.62	1.51	1.41
5	P	202	PEB	C1C-CHB	2.62	1.51	1.41
4	I	101	DBV	C1B-CHA	2.61	1.51	1.41
5	H	203	PEB	CMC-C3C	-2.61	1.46	1.51
5	N	201	PEB	CMC-C3C	-2.60	1.46	1.51
4	I	101	DBV	CAB-C3B	-2.60	1.48	1.52
4	Q	101[B]	DBV	C1C-NC	-2.57	1.33	1.38
5	B	202	PEB	CBC-CGC	-2.57	1.44	1.50
4	A	101[A]	DBV	C1B-CHA	2.56	1.51	1.41
4	A	101[A]	DBV	C3A-C2A	2.54	1.42	1.37
5	H	202	PEB	CBB-CGB	-2.54	1.44	1.50
5	D	201	PEB	C3C-C4C	2.53	1.46	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	101[A]	DBV	CMB-C2B	-2.53	1.46	1.51
5	H	201	PEB	CBB-CGB	-2.52	1.44	1.50
4	K	101	DBV	C1C-NC	-2.51	1.33	1.38
5	B	202	PEB	CMC-C3C	-2.51	1.46	1.51
5	L	203	PEB	C4B-C3B	-2.51	1.41	1.45
4	K	101	DBV	CAB-C3B	-2.50	1.48	1.52
5	N	201	PEB	CBB-CGB	-2.50	1.44	1.50
5	B	201	PEB	CAC-C2C	-2.47	1.48	1.52
4	O	101	DBV	C3A-C2A	2.47	1.42	1.37
5	H	203	PEB	C3C-C4C	2.46	1.45	1.42
4	E	101	DBV	C1C-NC	-2.44	1.33	1.38
5	H	201	PEB	CHB-C4B	2.43	1.37	1.35
4	I	101	DBV	C1C-NC	-2.43	1.33	1.38
5	J	202	PEB	CMD-C2D	-2.42	1.46	1.50
4	K	101	DBV	C4B-CHB	2.42	1.50	1.41
4	K	101	DBV	C1B-CHA	2.42	1.50	1.41
5	D	203	PEB	C3C-C4C	2.41	1.45	1.42
5	F	203	PEB	CMD-C2D	-2.41	1.46	1.50
4	G	101	DBV	CMB-C2B	-2.40	1.46	1.51
4	O	101	DBV	C4B-CHB	2.39	1.50	1.41
5	B	203	PEB	C4B-C3B	-2.39	1.41	1.45
5	L	201	PEB	CHA-C1B	2.39	1.46	1.40
4	E	101	DBV	C1B-CHA	2.38	1.50	1.41
5	B	203	PEB	CMD-C2D	-2.38	1.46	1.50
4	G	101	DBV	C4B-CHB	2.37	1.50	1.41
4	M	101	DBV	C3A-C2A	2.37	1.42	1.37
4	G	101	DBV	C1B-CHA	2.36	1.50	1.41
4	O	101	DBV	CHB-C1C	-2.36	1.33	1.35
5	F	201	PEB	C1C-CHB	2.35	1.50	1.41
5	L	201	PEB	C3C-C4C	2.35	1.45	1.42
5	H	203	PEB	CBB-CGB	-2.34	1.45	1.50
4	R	101[B]	DBV	CAB-C3B	-2.33	1.48	1.52
5	N	203	PEB	CBB-CGB	-2.32	1.45	1.50
5	D	201	PEB	CMD-C2D	-2.32	1.46	1.50
4	K	101	DBV	CHB-C1C	-2.31	1.33	1.35
5	P	202	PEB	CBC-CGC	-2.30	1.45	1.50
5	J	202	PEB	CBB-CGB	-2.30	1.45	1.50
5	H	202	PEB	C4B-NB	-2.30	1.33	1.38
4	E	101	DBV	C3A-C2A	2.29	1.41	1.37
5	L	203	PEB	CBB-CGB	-2.29	1.45	1.50
5	F	203	PEB	C4B-C3B	-2.28	1.42	1.45
5	D	201	PEB	CMC-C3C	-2.28	1.46	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	N	202	PEB	CAC-C2C	-2.27	1.48	1.52
5	D	201	PEB	CAC-C2C	-2.26	1.48	1.52
5	N	202	PEB	CMD-C2D	-2.26	1.46	1.50
5	F	202	PEB	CMC-C3C	-2.26	1.46	1.51
5	F	201	PEB	C3C-C4C	2.26	1.45	1.42
5	P	203	PEB	C3C-C4C	2.26	1.45	1.42
5	P	203	PEB	CBB-CGB	-2.26	1.45	1.50
5	N	203	PEB	C3C-C4C	2.24	1.45	1.42
5	J	201	PEB	C3C-C4C	2.24	1.45	1.42
5	B	201	PEB	CMC-C3C	-2.23	1.47	1.51
5	D	202	PEB	C4B-NB	-2.23	1.33	1.38
5	D	202	PEB	CBB-CGB	-2.21	1.45	1.50
4	Q	101[B]	DBV	CMB-C2B	-2.20	1.47	1.51
5	D	203	PEB	CBB-CGB	-2.20	1.45	1.50
4	M	101	DBV	CMB-C2B	-2.19	1.47	1.51
5	F	201	PEB	C2D-C3D	2.18	1.37	1.34
4	C	101[A]	DBV	CAB-C3B	-2.17	1.48	1.52
5	D	202	PEB	C3C-C4C	2.16	1.45	1.42
5	N	202	PEB	CBC-CGC	-2.16	1.45	1.50
5	P	203	PEB	CHB-C4B	2.16	1.36	1.35
5	D	203	PEB	CAC-C2C	-2.15	1.48	1.52
4	K	101	DBV	CMC-C3C	-2.15	1.46	1.50
5	F	201	PEB	C4B-NB	-2.15	1.34	1.38
5	N	202	PEB	O2C-CGC	-2.15	1.23	1.30
5	J	202	PEB	CMB-C2B	-2.15	1.46	1.50
5	D	203	PEB	CMC-C3C	-2.15	1.47	1.51
4	I	101	DBV	CMB-C2B	-2.14	1.47	1.51
5	H	203	PEB	CMD-C2D	-2.14	1.47	1.50
4	M	101	DBV	C1B-CHA	2.14	1.49	1.41
5	N	202	PEB	CBB-CGB	-2.13	1.45	1.50
5	L	202	PEB	C4B-C3B	-2.13	1.42	1.45
5	P	202	PEB	C4B-NB	-2.12	1.34	1.38
5	L	202	PEB	CBC-CGC	-2.12	1.45	1.50
5	J	203	PEB	C2D-C3D	2.11	1.37	1.34
5	L	203	PEB	C4B-NB	-2.11	1.34	1.38
5	B	203	PEB	CHC-C1D	-2.10	1.48	1.54
5	J	201	PEB	CMC-C3C	-2.10	1.47	1.51
5	P	201	PEB	C2A-C1A	2.10	1.54	1.52
5	N	201	PEB	C3C-C4C	2.10	1.45	1.42
5	L	203	PEB	C2D-C3D	2.09	1.37	1.34
5	F	202	PEB	CBB-CGB	-2.09	1.45	1.50
5	N	203	PEB	CMC-C3C	-2.09	1.47	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	M	101	DBV	C4B-CHB	2.08	1.49	1.41
5	P	202	PEB	C3C-C4C	2.08	1.45	1.42
5	F	202	PEB	C4B-NB	-2.07	1.34	1.38
5	L	201	PEB	C1A-NA	-2.06	1.34	1.37
5	D	202	PEB	CMC-C3C	-2.06	1.47	1.51
4	C	101[A]	DBV	CMB-C2B	-2.05	1.47	1.51
5	J	203	PEB	C1B-NB	2.04	1.41	1.36
5	L	201	PEB	C1C-CHB	2.04	1.49	1.41
5	P	201	PEB	C1C-CHB	2.04	1.49	1.41
5	B	202	PEB	CHB-C4B	2.03	1.36	1.35
5	N	202	PEB	CAA-C3A	-2.03	1.50	1.54
4	A	101[A]	DBV	C2D-C3D	2.02	1.37	1.34
5	F	203	PEB	C4D-ND	2.02	1.37	1.35
5	B	201	PEB	C4B-NB	-2.01	1.34	1.38

All (328) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	N	201	PEB	C1C-CHB-C4B	5.35	135.20	128.81
5	F	202	PEB	C1C-CHB-C4B	5.14	134.95	128.81
5	H	202	PEB	C1C-CHB-C4B	4.88	134.64	128.81
5	B	202	PEB	C1C-CHB-C4B	4.86	134.62	128.81
5	J	201	PEB	C1C-CHB-C4B	4.82	134.57	128.81
5	H	202	PEB	CBC-CAC-C2C	4.66	120.58	112.62
5	N	203	PEB	C2A-C1A-NA	4.25	111.94	108.27
5	F	201	PEB	C1C-CHB-C4B	4.04	133.64	128.81
5	P	202	PEB	C1C-CHB-C4B	4.02	133.61	128.81
5	L	203	PEB	C2A-C3A-C4A	3.97	107.28	101.34
5	N	202	PEB	C1C-CHB-C4B	3.93	133.51	128.81
4	A	101[A]	DBV	C4A-NA-C1A	-3.93	105.66	110.67
5	D	201	PEB	CMA-C2A-C1A	3.89	120.80	112.40
4	I	101	DBV	C4A-NA-C1A	-3.81	105.82	110.67
5	L	203	PEB	C2A-C1A-NA	3.76	111.52	108.27
4	E	101	DBV	C4A-NA-C1A	-3.76	105.89	110.67
4	R	101[B]	DBV	C1C-C2C-C3C	-3.72	102.67	106.78
4	K	101	DBV	C1C-C2C-C3C	-3.71	102.67	106.78
4	K	101	DBV	C4A-NA-C1A	-3.71	105.94	110.67
5	L	202	PEB	C1C-CHB-C4B	3.65	133.17	128.81
5	P	201	PEB	C1C-CHB-C4B	3.65	133.17	128.81
4	O	101	DBV	C4A-NA-C1A	-3.65	106.03	110.67
5	P	201	PEB	C2A-C1A-NA	3.63	111.40	108.27
5	D	201	PEB	C1C-CHB-C4B	3.61	133.12	128.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	A	101[A]	DBV	C1D-CHC-C4C	3.61	121.22	113.37
4	O	101	DBV	C1C-C2C-C3C	-3.52	102.89	106.78
5	D	203	PEB	C2A-C1A-NA	3.50	111.29	108.27
4	Q	101[B]	DBV	C4A-NA-C1A	-3.48	106.23	110.67
5	J	202	PEB	C1C-CHB-C4B	3.44	132.92	128.81
5	B	203	PEB	C2A-C3A-C4A	3.43	106.48	101.34
4	R	101[B]	DBV	CHA-C4A-NA	-3.42	118.92	130.40
4	G	101	DBV	C4A-NA-C1A	-3.40	106.34	110.67
5	H	203	PEB	C2A-C3A-C4A	3.38	106.40	101.34
4	G	101	DBV	C1C-C2C-C3C	-3.36	103.06	106.78
5	D	202	PEB	C2A-C1A-NA	3.35	111.17	108.27
5	B	201	PEB	C2A-C1A-NA	3.35	111.16	108.27
5	B	202	PEB	C2A-C1A-NA	3.30	111.12	108.27
4	M	101	DBV	C3D-C4D-ND	3.28	113.70	107.26
4	M	101	DBV	C1C-C2C-C3C	-3.26	103.18	106.78
4	C	101[A]	DBV	C3D-C4D-ND	3.25	113.63	107.26
5	L	201	PEB	C2A-C1A-NA	3.25	111.07	108.27
4	C	101[A]	DBV	C4A-NA-C1A	-3.24	106.55	110.67
5	D	203	PEB	C2A-C3A-C4A	3.23	106.17	101.34
4	O	101	DBV	C1D-CHC-C4C	3.22	120.38	113.37
4	O	101	DBV	CMD-C2D-C3D	-3.21	125.54	130.06
4	R	101[B]	DBV	C3D-C4D-ND	3.21	113.55	107.26
5	H	203	PEB	C2A-C1A-NA	3.18	111.01	108.27
5	B	202	PEB	C2A-C3A-C4A	3.18	106.10	101.34
4	C	101[A]	DBV	C1D-CHC-C4C	3.16	120.24	113.37
4	R	101[B]	DBV	C4A-NA-C1A	-3.15	106.66	110.67
5	P	203	PEB	C1C-CHB-C4B	3.15	132.57	128.81
5	P	202	PEB	C2A-C1A-NA	3.12	110.97	108.27
4	M	101	DBV	C4A-NA-C1A	-3.11	106.72	110.67
4	E	101	DBV	C1C-C2C-C3C	-3.10	103.35	106.78
5	P	203	PEB	C2A-C3A-C4A	3.09	105.97	101.34
4	G	101	DBV	CMD-C2D-C3D	-3.07	125.74	130.06
5	F	203	PEB	CHA-C1B-C2B	3.05	132.75	124.90
5	F	202	PEB	CMC-C3C-C2C	3.05	130.69	124.94
4	E	101	DBV	C1D-CHC-C4C	3.05	120.00	113.37
5	H	202	PEB	C2A-C1A-NA	3.05	110.90	108.27
5	D	202	PEB	CHB-C4B-NB	-3.03	124.62	128.83
4	I	101	DBV	CMD-C2D-C3D	-3.02	125.80	130.06
5	P	201	PEB	CHA-C1B-C2B	3.02	132.67	124.90
4	I	101	DBV	C1C-C2C-C3C	-3.02	103.44	106.78
5	J	203	PEB	C2A-C3A-C4A	3.01	105.85	101.34
4	C	101[A]	DBV	C1C-C2C-C3C	-3.00	103.46	106.78

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	F	203	PEB	C2A-C1A-NA	2.99	110.85	108.27
4	O	101	DBV	CHA-C4A-NA	-2.99	120.36	130.40
4	Q	101[B]	DBV	CHA-C4A-NA	-2.98	120.39	130.40
4	Q	101[B]	DBV	C3D-C4D-ND	2.98	113.10	107.26
4	K	101	DBV	C3D-C4D-ND	2.97	113.09	107.26
5	H	202	PEB	C2A-C3A-C4A	2.97	105.78	101.34
4	I	101	DBV	C3D-C4D-ND	2.95	113.05	107.26
5	L	201	PEB	C1C-CHB-C4B	2.94	132.33	128.81
4	M	101	DBV	CMD-C2D-C3D	-2.94	125.91	130.06
5	H	203	PEB	CHA-C1B-C2B	2.94	132.45	124.90
5	P	202	PEB	CHB-C4B-NB	-2.93	124.76	128.83
5	L	202	PEB	C2A-C1A-NA	2.93	110.80	108.27
5	N	202	PEB	CBC-CAC-C2C	2.93	117.62	112.62
5	J	201	PEB	CHB-C4B-NB	-2.92	124.77	128.83
5	J	201	PEB	CMA-C2A-C1A	2.92	118.69	112.40
5	J	203	PEB	C2A-C1A-NA	2.91	110.78	108.27
5	J	201	PEB	C2A-C1A-NA	2.91	110.78	108.27
5	N	201	PEB	C2A-C3A-C4A	2.91	105.70	101.34
4	E	101	DBV	C3D-C4D-ND	2.91	112.96	107.26
5	B	203	PEB	C2A-C1A-NA	2.90	110.78	108.27
5	D	201	PEB	CHB-C4B-NB	-2.90	124.80	128.83
4	M	101	DBV	CHA-C4A-NA	-2.89	120.68	130.40
5	P	201	PEB	CHB-C4B-NB	-2.89	124.81	128.83
5	J	201	PEB	C2A-C3A-C4A	2.89	105.66	101.34
5	L	203	PEB	CMC-C3C-C2C	2.89	130.38	124.94
5	B	203	PEB	CHA-C1B-C2B	2.88	132.32	124.90
5	P	201	PEB	CHC-C1D-ND	-2.88	110.60	113.95
4	I	101	DBV	OD-C4D-C3D	-2.88	122.93	129.46
5	D	202	PEB	CMC-C3C-C2C	2.88	130.37	124.94
5	L	203	PEB	CHA-C1B-C2B	2.87	132.27	124.90
5	N	203	PEB	CHA-C1B-C2B	2.87	132.27	124.90
4	C	101[A]	DBV	OD-C4D-C3D	-2.85	123.00	129.46
5	L	203	PEB	C1C-CHB-C4B	2.84	132.20	128.81
4	G	101	DBV	CBB-CAB-C3B	-2.84	107.78	112.62
5	N	203	PEB	C2A-C3A-C4A	2.82	105.56	101.34
5	N	201	PEB	C2A-C1A-NA	2.82	110.70	108.27
4	C	101[A]	DBV	CHA-C4A-NA	-2.81	120.95	130.40
5	B	202	PEB	CHA-C1B-C2B	2.81	132.12	124.90
5	D	202	PEB	C2A-C3A-C4A	2.80	105.54	101.34
4	M	101	DBV	C1D-CHC-C4C	2.80	119.45	113.37
5	P	201	PEB	CHA-C1B-NB	-2.79	119.10	124.93
5	B	203	PEB	C1C-CHB-C4B	2.78	132.13	128.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	R	101[B]	DBV	C1D-CHC-C4C	2.77	119.40	113.37
4	M	101	DBV	OD-C4D-C3D	-2.77	123.18	129.46
5	B	201	PEB	CHB-C4B-NB	-2.77	124.99	128.83
5	H	201	PEB	C2A-C3A-C4A	2.76	105.47	101.34
5	N	202	PEB	CMC-C3C-C2C	2.76	130.14	124.94
5	D	202	PEB	C1C-CHB-C4B	2.75	132.09	128.81
4	R	101[B]	DBV	C4B-CHB-C1C	-2.75	125.53	128.81
5	L	201	PEB	C2A-C3A-C4A	2.74	105.44	101.34
4	M	101	DBV	CHC-C1D-ND	-2.72	110.28	113.72
4	E	101	DBV	CMD-C2D-C3D	-2.71	126.24	130.06
5	F	201	PEB	OD-C4D-C3D	-2.70	123.34	129.46
5	D	203	PEB	CHA-C4A-NA	2.70	128.42	125.20
4	O	101	DBV	C3D-C4D-ND	2.70	112.56	107.26
5	L	201	PEB	OD-C4D-C3D	-2.70	123.35	129.46
5	J	202	PEB	CMC-C3C-C2C	2.69	130.01	124.94
5	D	201	PEB	C2A-C3A-C4A	2.69	105.37	101.34
5	L	202	PEB	C2A-C3A-C4A	2.68	105.36	101.34
5	N	203	PEB	C1C-CHB-C4B	2.67	132.00	128.81
4	Q	101[B]	DBV	OD-C4D-C3D	-2.67	123.41	129.46
4	G	101	DBV	C3D-C4D-ND	2.67	112.50	107.26
4	K	101	DBV	CHA-C4A-NA	-2.67	121.44	130.40
5	H	201	PEB	OD-C4D-C3D	-2.67	123.42	129.46
4	E	101	DBV	CBA-CAA-C3A	-2.65	114.44	127.62
4	G	101	DBV	CHA-C4A-NA	-2.65	121.51	130.40
4	Q	101[B]	DBV	C1C-C2C-C3C	-2.64	103.86	106.78
4	I	101	DBV	C1D-CHC-C4C	2.64	119.11	113.37
5	J	202	PEB	C2A-C3A-C4A	2.64	105.30	101.34
5	F	201	PEB	CMA-C2A-C1A	2.64	118.09	112.40
4	A	101[A]	DBV	C3D-C4D-ND	2.64	112.44	107.26
5	F	202	PEB	C2A-C3A-C4A	2.63	105.27	101.34
4	A	101[A]	DBV	C1C-C2C-C3C	-2.63	103.88	106.78
4	R	101[B]	DBV	OD-C4D-C3D	-2.63	123.51	129.46
5	H	203	PEB	OA-C1A-C2A	-2.62	124.09	126.17
5	F	202	PEB	C2A-C1A-NA	2.62	110.53	108.27
5	P	203	PEB	CHA-C1B-C2B	2.62	131.63	124.90
5	D	201	PEB	OD-C4D-C3D	-2.61	123.55	129.46
5	L	203	PEB	OA-C1A-C2A	-2.60	124.10	126.17
4	Q	101[B]	DBV	C1D-CHC-C4C	2.60	119.03	113.37
5	F	202	PEB	CBC-CAC-C2C	2.60	117.05	112.62
5	F	201	PEB	C2A-C3A-C4A	2.59	105.21	101.34
5	F	203	PEB	C2A-C3A-C4A	2.59	105.21	101.34
5	B	203	PEB	CAA-C3A-C2A	-2.56	107.86	114.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	P	203	PEB	CMC-C3C-C2C	2.56	129.76	124.94
5	B	201	PEB	OD-C4D-C3D	-2.56	123.67	129.46
5	J	203	PEB	CMC-C3C-C2C	2.55	129.76	124.94
5	L	202	PEB	CHA-C1B-C2B	2.55	131.45	124.90
5	P	202	PEB	CHA-C1B-C2B	2.54	131.44	124.90
5	L	201	PEB	CHA-C1B-C2B	2.54	131.44	124.90
5	P	201	PEB	C2A-C3A-C4A	2.54	105.14	101.34
5	D	202	PEB	CHA-C1B-C2B	2.54	131.42	124.90
4	A	101[A]	DBV	C2A-C1A-NA	2.54	113.23	106.45
5	D	201	PEB	CHC-C1D-ND	-2.52	111.02	113.95
5	H	203	PEB	C1C-CHB-C4B	2.52	131.82	128.81
5	F	201	PEB	CBD-CAD-C3D	-2.51	115.11	127.62
5	B	203	PEB	OA-C1A-C2A	-2.51	124.17	126.17
5	P	202	PEB	O1C-CGC-CBC	-2.51	115.01	123.08
4	K	101	DBV	C3A-C4A-NA	2.51	110.72	106.80
4	A	101[A]	DBV	CHA-C4A-NA	-2.51	121.98	130.40
4	G	101	DBV	OD-C4D-ND	-2.50	122.22	125.93
4	R	101[B]	DBV	CHB-C1C-NC	-2.49	125.37	128.83
5	B	201	PEB	CMA-C2A-C1A	2.49	117.76	112.40
5	H	201	PEB	CHA-C1B-C2B	2.48	131.29	124.90
4	M	101	DBV	C2A-C1A-NA	2.47	113.05	106.45
4	I	101	DBV	CBA-CAA-C3A	-2.47	115.35	127.62
5	D	203	PEB	CHA-C1B-C2B	2.46	131.22	124.90
5	N	203	PEB	CHC-C1D-ND	-2.46	111.09	113.95
5	B	203	PEB	CHA-C4A-NA	2.44	128.11	125.20
5	B	201	PEB	CHC-C1D-ND	-2.44	111.11	113.95
5	J	201	PEB	OD-C4D-C3D	-2.44	123.93	129.46
4	I	101	DBV	CHA-C4A-NA	-2.43	122.22	130.40
4	E	101	DBV	C3A-C4A-NA	2.43	110.61	106.80
5	D	203	PEB	O1B-CGB-CBB	-2.43	115.26	123.08
5	F	201	PEB	C3D-C4D-ND	2.43	112.03	107.26
4	C	101[A]	DBV	C2A-C1A-NA	2.43	112.94	106.45
4	I	101	DBV	C2A-C1A-NA	2.42	112.93	106.45
4	O	101	DBV	C3A-C4A-NA	2.42	110.58	106.80
4	R	101[B]	DBV	C2A-C1A-NA	2.42	112.92	106.45
5	F	203	PEB	CBC-CAC-C2C	2.42	116.75	112.62
5	B	201	PEB	CHA-C1B-C2B	2.41	131.10	124.90
5	F	202	PEB	O1B-CGB-CBB	-2.41	115.34	123.08
5	J	203	PEB	CHA-C1B-C2B	2.41	131.09	124.90
5	B	201	PEB	C2A-C3A-C4A	2.40	104.94	101.34
5	L	202	PEB	O1C-CGC-CBC	-2.40	115.36	123.08
5	D	201	PEB	O1C-CGC-CBC	-2.39	115.41	123.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	E	101	DBV	C2A-C1A-NA	2.39	112.83	106.45
5	B	202	PEB	CMD-C2D-C3D	-2.38	126.70	130.06
4	K	101	DBV	OD-C4D-ND	-2.37	122.42	125.93
5	L	202	PEB	CBC-CAC-C2C	2.37	116.66	112.62
5	N	201	PEB	CMA-C2A-C1A	2.36	117.50	112.40
4	G	101	DBV	C3A-C4A-NA	2.36	110.49	106.80
5	J	202	PEB	CBC-CAC-C2C	2.36	116.64	112.62
5	P	203	PEB	C2A-C1A-NA	2.36	110.31	108.27
4	M	101	DBV	CBA-CAA-C3A	-2.36	115.90	127.62
5	J	201	PEB	O1B-CGB-CBB	-2.35	115.54	123.08
5	N	201	PEB	OD-C4D-C3D	-2.34	124.15	129.46
4	E	101	DBV	CHA-C4A-NA	-2.34	122.53	130.40
4	Q	101[B]	DBV	C2A-C1A-NA	2.33	112.69	106.45
5	L	202	PEB	O1B-CGB-CBB	-2.33	115.59	123.08
5	D	202	PEB	OD-C4D-C3D	-2.33	124.18	129.46
5	B	202	PEB	O1B-CGB-CBB	-2.33	115.61	123.08
4	I	101	DBV	C3A-C4A-NA	2.32	110.43	106.80
4	O	101	DBV	C2A-C1A-NA	2.32	112.65	106.45
5	F	202	PEB	CHA-C1B-C2B	2.31	130.85	124.90
5	H	201	PEB	C2A-C1A-NA	2.30	110.26	108.27
5	D	202	PEB	O1B-CGB-CBB	-2.30	115.69	123.08
4	E	101	DBV	CAC-CBC-CGC	2.30	118.55	113.60
5	D	203	PEB	CHC-C1D-ND	-2.29	111.28	113.95
4	A	101[A]	DBV	CBA-CAA-C3A	-2.29	116.23	127.62
5	P	203	PEB	O1C-CGC-CBC	-2.28	115.74	123.08
5	N	203	PEB	CHA-C1B-NB	-2.28	120.16	124.93
4	A	101[A]	DBV	C3A-C4A-NA	2.28	110.36	106.80
5	P	202	PEB	C2A-C3A-C4A	2.27	104.74	101.34
5	F	202	PEB	O1C-CGC-CBC	-2.27	115.78	123.08
4	E	101	DBV	OD-C4D-C3D	-2.27	124.32	129.46
4	O	101	DBV	O1C-CGC-CBC	-2.27	115.80	123.08
5	N	201	PEB	CHA-C1B-C2B	2.27	130.73	124.90
5	J	202	PEB	CAA-C3A-C4A	2.26	118.48	112.67
5	N	203	PEB	OA-C1A-C2A	-2.26	124.38	126.17
5	P	201	PEB	CMC-C3C-C2C	2.26	129.20	124.94
5	P	201	PEB	CBC-CAC-C2C	2.26	116.47	112.62
5	L	203	PEB	CHA-C4A-NA	2.25	127.89	125.20
5	H	203	PEB	O1C-CGC-CBC	-2.25	115.86	123.08
5	N	202	PEB	C2A-C1A-NA	2.24	110.21	108.27
5	J	201	PEB	O1C-CGC-CBC	-2.24	115.90	123.08
5	J	201	PEB	C3D-C4D-ND	2.23	111.64	107.26
5	H	201	PEB	C1C-CHB-C4B	2.23	131.47	128.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	B	202	PEB	O1C-CGC-CBC	-2.23	115.92	123.08
4	Q	101[B]	DBV	CBA-CAA-C3A	-2.23	116.55	127.62
5	D	201	PEB	CBD-CAD-C3D	-2.22	116.57	127.62
5	F	202	PEB	CHB-C4B-NB	-2.21	125.76	128.83
5	J	202	PEB	C2A-C1A-NA	2.21	110.18	108.27
5	N	203	PEB	CMC-C3C-C2C	2.21	129.10	124.94
5	D	203	PEB	CBC-CAC-C2C	2.20	116.38	112.62
5	L	201	PEB	O1B-CGB-CBB	-2.20	116.00	123.08
4	K	101	DBV	OD-C4D-C3D	-2.20	124.47	129.46
5	B	203	PEB	O1C-CGC-CBC	-2.20	116.02	123.08
5	H	202	PEB	CHA-C1B-C2B	2.20	130.54	124.90
4	M	101	DBV	CAC-C2C-C3C	2.20	131.97	127.88
4	A	101[A]	DBV	CBB-CAB-C3B	-2.19	108.88	112.62
4	Q	101[B]	DBV	CMD-C2D-C3D	-2.19	126.97	130.06
4	A	101[A]	DBV	CMD-C2D-C3D	-2.19	126.97	130.06
5	N	202	PEB	CAA-C3A-C4A	2.19	118.30	112.67
5	N	202	PEB	C2A-C3A-C4A	2.19	104.61	101.34
4	G	101	DBV	O1C-CGC-CBC	-2.18	116.06	123.08
4	O	101	DBV	OD-C4D-ND	-2.18	122.70	125.93
4	Q	101[B]	DBV	C3A-C4A-NA	2.17	110.19	106.80
4	E	101	DBV	O1B-CGB-CBB	-2.17	116.11	123.08
5	D	203	PEB	CMC-C3C-C2C	2.17	129.03	124.94
4	G	101	DBV	C2A-C1A-NA	2.17	112.25	106.45
5	P	202	PEB	O1B-CGB-CBB	-2.17	116.12	123.08
4	O	101	DBV	CHB-C1C-NC	-2.17	125.82	128.83
5	P	203	PEB	CHA-C4A-NA	2.17	127.78	125.20
5	D	201	PEB	C2A-C1A-NA	2.16	110.14	108.27
4	E	101	DBV	OD-C4D-ND	-2.16	122.72	125.93
5	N	203	PEB	OD-C4D-ND	-2.16	122.72	125.93
5	J	203	PEB	O1B-CGB-CBB	-2.16	116.14	123.08
5	F	201	PEB	O1B-CGB-CBB	-2.16	116.16	123.08
5	P	201	PEB	OD-C4D-C3D	-2.15	124.59	129.46
5	J	203	PEB	CHA-C4A-NA	2.15	127.76	125.20
5	B	203	PEB	O1B-CGB-CBB	-2.14	116.19	123.08
5	P	202	PEB	CMC-C3C-C2C	2.14	128.98	124.94
5	D	202	PEB	CBC-CAC-C2C	2.14	116.26	112.62
4	A	101[A]	DBV	OD-C4D-C3D	-2.13	124.64	129.46
4	C	101[A]	DBV	CBA-CAA-C3A	-2.12	117.07	127.62
4	C	101[A]	DBV	CMD-C2D-C3D	-2.12	127.08	130.06
5	D	203	PEB	CHB-C4B-NB	-2.11	125.89	128.83
4	O	101	DBV	CBA-CAA-C3A	-2.11	117.11	127.62
5	H	203	PEB	CHB-C4B-NB	-2.11	125.90	128.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	H	202	PEB	O1B-CGB-CBB	-2.11	116.30	123.08
5	L	201	PEB	CMC-C3C-C2C	2.11	128.91	124.94
5	N	203	PEB	CMB-C2B-C1B	2.11	128.31	125.06
5	J	203	PEB	CHB-C4B-NB	-2.10	125.92	128.83
5	F	201	PEB	CHA-C1B-C2B	2.10	130.29	124.90
5	P	201	PEB	CBD-CAD-C3D	-2.10	117.20	127.62
4	K	101	DBV	CAC-C2C-C3C	2.09	131.77	127.88
4	K	101	DBV	C2A-C1A-NA	2.09	112.03	106.45
4	K	101	DBV	CBA-CAA-C3A	-2.08	117.27	127.62
4	O	101	DBV	OD-C4D-C3D	-2.08	124.75	129.46
5	H	201	PEB	CHB-C4B-NB	-2.08	125.94	128.83
5	N	202	PEB	O1B-CGB-CBB	-2.08	116.41	123.08
5	L	201	PEB	CBD-CAD-C3D	-2.08	117.28	127.62
5	P	203	PEB	O1B-CGB-CBB	-2.08	116.41	123.08
5	L	202	PEB	CMD-C2D-C3D	-2.07	127.14	130.06
5	N	201	PEB	O1B-CGB-CBB	-2.07	116.42	123.08
4	I	101	DBV	O1C-CGC-CBC	-2.07	116.43	123.08
5	L	202	PEB	OD-C4D-C3D	-2.07	124.78	129.46
5	N	202	PEB	CHA-C1B-C2B	2.07	130.21	124.90
5	L	203	PEB	O1B-CGB-CBB	-2.06	116.45	123.08
5	N	203	PEB	O1B-CGB-CBB	-2.06	116.45	123.08
5	L	203	PEB	O1C-CGC-CBC	-2.06	116.46	123.08
5	F	203	PEB	CHC-C1D-ND	-2.06	111.55	113.95
5	H	201	PEB	O1C-CGC-CBC	-2.06	116.46	123.08
5	L	201	PEB	C3D-C4D-ND	2.06	111.30	107.26
5	H	201	PEB	C3D-C4D-ND	2.06	111.29	107.26
5	B	201	PEB	O1C-CGC-CBC	-2.05	116.48	123.08
4	G	101	DBV	C1D-CHC-C4C	2.04	117.81	113.37
5	D	201	PEB	CAA-C3A-C4A	2.04	117.91	112.67
5	D	203	PEB	O1C-CGC-CBC	-2.04	116.54	123.08
4	A	101[A]	DBV	OD-C4D-ND	-2.03	122.92	125.93
5	N	203	PEB	O1C-CGC-CBC	-2.03	116.55	123.08
5	J	202	PEB	O1C-CGC-CBC	-2.03	116.55	123.08
5	N	201	PEB	CMA-C2A-C3A	2.03	122.00	113.83
5	D	203	PEB	OA-C1A-C2A	-2.03	124.56	126.17
5	F	201	PEB	O1C-CGC-CBC	-2.02	116.58	123.08
4	R	101[B]	DBV	OD-C4D-ND	-2.02	122.94	125.93
5	B	202	PEB	CHA-C1B-NB	-2.02	120.71	124.93
5	F	203	PEB	OD-C4D-ND	-2.02	122.94	125.93
5	P	201	PEB	C3D-C4D-ND	2.02	111.22	107.26
4	A	101[A]	DBV	O1C-CGC-CBC	-2.02	116.60	123.08
4	R	101[B]	DBV	O1C-CGC-CBC	-2.02	116.60	123.08

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	R	101[B]	DBV	CBA-CAA-C3A	-2.01	117.60	127.62
5	J	203	PEB	O1C-CGC-CBC	-2.01	116.61	123.08
5	F	203	PEB	CHA-C1B-NB	-2.01	120.72	124.93
5	B	202	PEB	CMC-C3C-C2C	2.01	128.73	124.94
5	P	201	PEB	O1C-CGC-CBC	-2.01	116.62	123.08
5	B	201	PEB	C3D-C4D-ND	2.01	111.20	107.26
5	H	201	PEB	CMC-C3C-C2C	2.00	128.72	124.94
5	F	201	PEB	C2A-C1A-NA	2.00	110.00	108.27
4	M	101	DBV	C3A-C4A-NA	2.00	109.93	106.80
5	H	203	PEB	CMC-C3C-C2C	2.00	128.71	124.94

There are no chirality outliers.

All (243) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	101[A]	DBV	C2A-C3A-CAA-CBA
4	A	101[A]	DBV	C4A-C3A-CAA-CBA
4	A	101[A]	DBV	NB-C1B-CHA-C4A
4	A	101[A]	DBV	C2B-C1B-CHA-C4A
4	A	101[A]	DBV	NB-C4B-CHB-C1C
4	A	101[A]	DBV	C3B-C4B-CHB-C1C
4	Q	101[B]	DBV	C2A-C3A-CAA-CBA
4	Q	101[B]	DBV	C4A-C3A-CAA-CBA
4	Q	101[B]	DBV	NB-C1B-CHA-C4A
4	Q	101[B]	DBV	NB-C4B-CHB-C1C
4	Q	101[B]	DBV	C3B-C4B-CHB-C1C
4	C	101[A]	DBV	C2A-C3A-CAA-CBA
4	C	101[A]	DBV	C4A-C3A-CAA-CBA
4	C	101[A]	DBV	NB-C1B-CHA-C4A
4	C	101[A]	DBV	C2B-C1B-CHA-C4A
4	C	101[A]	DBV	NB-C4B-CHB-C1C
4	C	101[A]	DBV	NC-C4C-CHC-C1D
4	R	101[B]	DBV	C4A-C3A-CAA-CBA
4	R	101[B]	DBV	NB-C4B-CHB-C1C
4	R	101[B]	DBV	C3B-C4B-CHB-C1C
4	R	101[B]	DBV	NC-C4C-CHC-C1D
4	E	101	DBV	C2A-C3A-CAA-CBA
4	E	101	DBV	C4A-C3A-CAA-CBA
4	E	101	DBV	NB-C1B-CHA-C4A
4	E	101	DBV	NB-C4B-CHB-C1C
4	E	101	DBV	C3B-C4B-CHB-C1C
4	G	101	DBV	C4A-C3A-CAA-CBA

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Mol	Chain	Res	Type	Atoms
4	G	101	DBV	NB-C1B-CHA-C4A
4	G	101	DBV	NB-C4B-CHB-C1C
4	G	101	DBV	C3B-C4B-CHB-C1C
4	I	101	DBV	C2A-C3A-CAA-CBA
4	I	101	DBV	C4A-C3A-CAA-CBA
4	I	101	DBV	NB-C1B-CHA-C4A
4	I	101	DBV	NB-C4B-CHB-C1C
4	I	101	DBV	C3B-C4B-CHB-C1C
4	I	101	DBV	NC-C4C-CHC-C1D
4	K	101	DBV	C2A-C3A-CAA-CBA
4	K	101	DBV	C4A-C3A-CAA-CBA
4	K	101	DBV	NB-C1B-CHA-C4A
4	K	101	DBV	C2B-C1B-CHA-C4A
4	K	101	DBV	NB-C4B-CHB-C1C
4	K	101	DBV	C3B-C4B-CHB-C1C
4	M	101	DBV	C2A-C3A-CAA-CBA
4	M	101	DBV	C4A-C3A-CAA-CBA
4	M	101	DBV	NB-C1B-CHA-C4A
4	M	101	DBV	C2B-C1B-CHA-C4A
4	M	101	DBV	C3B-C4B-CHB-C1C
4	O	101	DBV	C2A-C3A-CAA-CBA
4	O	101	DBV	C4A-C3A-CAA-CBA
4	O	101	DBV	NB-C1B-CHA-C4A
4	O	101	DBV	C2B-C1B-CHA-C4A
5	B	201	PEB	C2D-C3D-CAD-CBD
5	B	201	PEB	C4D-C3D-CAD-CBD
5	B	201	PEB	NB-C1B-CHA-C4A
5	B	201	PEB	C2B-C1B-CHA-C4A
5	B	202	PEB	C2A-C3A-CAA-CBA
5	B	202	PEB	C3A-C4A-CHA-C1B
5	B	203	PEB	NB-C1B-CHA-C4A
5	D	201	PEB	C2D-C3D-CAD-CBD
5	D	201	PEB	C4D-C3D-CAD-CBD
5	D	201	PEB	NB-C1B-CHA-C4A
5	D	201	PEB	C2B-C1B-CHA-C4A
5	D	202	PEB	C2A-C3A-CAA-CBA
5	D	202	PEB	C4A-C3A-CAA-CBA
5	D	202	PEB	NB-C1B-CHA-C4A
5	D	202	PEB	C2B-C1B-CHA-C4A
5	D	203	PEB	NB-C1B-CHA-C4A
5	D	203	PEB	C2B-C1B-CHA-C4A
5	F	201	PEB	C2D-C3D-CAD-CBD

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Mol	Chain	Res	Type	Atoms
5	F	201	PEB	C4D-C3D-CAD-CBD
5	F	201	PEB	NB-C1B-CHA-C4A
5	F	201	PEB	C2B-C1B-CHA-C4A
5	F	202	PEB	C2A-C3A-CAA-CBA
5	F	202	PEB	NB-C1B-CHA-C4A
5	F	202	PEB	C2B-C1B-CHA-C4A
5	F	203	PEB	NB-C1B-CHA-C4A
5	F	203	PEB	C2B-C1B-CHA-C4A
5	H	201	PEB	NB-C1B-CHA-C4A
5	H	201	PEB	C2B-C1B-CHA-C4A
5	H	202	PEB	C2C-CAC-CBC-CGC
5	H	202	PEB	C2A-C3A-CAA-CBA
5	H	202	PEB	C4A-C3A-CAA-CBA
5	H	202	PEB	NB-C1B-CHA-C4A
5	H	202	PEB	C2B-C1B-CHA-C4A
5	H	203	PEB	NB-C1B-CHA-C4A
5	H	203	PEB	C2B-C1B-CHA-C4A
5	J	201	PEB	C2D-C3D-CAD-CBD
5	J	201	PEB	C4D-C3D-CAD-CBD
5	J	201	PEB	NB-C1B-CHA-C4A
5	J	201	PEB	C2B-C1B-CHA-C4A
5	J	202	PEB	NB-C1B-CHA-C4A
5	J	202	PEB	C2B-C1B-CHA-C4A
5	J	203	PEB	NB-C1B-CHA-C4A
5	L	201	PEB	C2D-C3D-CAD-CBD
5	L	201	PEB	C4D-C3D-CAD-CBD
5	L	201	PEB	NB-C1B-CHA-C4A
5	L	201	PEB	C2B-C1B-CHA-C4A
5	L	202	PEB	C2A-C3A-CAA-CBA
5	L	202	PEB	C3A-C4A-CHA-C1B
5	L	202	PEB	NB-C1B-CHA-C4A
5	L	203	PEB	NB-C1B-CHA-C4A
5	L	203	PEB	C2B-C1B-CHA-C4A
5	N	201	PEB	C2D-C3D-CAD-CBD
5	N	201	PEB	C4D-C3D-CAD-CBD
5	N	201	PEB	NB-C1B-CHA-C4A
5	N	201	PEB	C2B-C1B-CHA-C4A
5	N	202	PEB	C2A-C3A-CAA-CBA
5	N	202	PEB	NB-C1B-CHA-C4A
5	N	202	PEB	C2B-C1B-CHA-C4A
5	N	203	PEB	NB-C1B-CHA-C4A
5	N	203	PEB	C2B-C1B-CHA-C4A

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Mol	Chain	Res	Type	Atoms
5	P	201	PEB	NB-C1B-CHA-C4A
5	P	201	PEB	C2B-C1B-CHA-C4A
5	P	202	PEB	C2A-C3A-CAA-CBA
5	P	202	PEB	NB-C1B-CHA-C4A
5	P	203	PEB	NB-C1B-CHA-C4A
5	P	203	PEB	C2B-C1B-CHA-C4A
5	B	203	PEB	C2B-C1B-CHA-C4A
5	J	203	PEB	C2B-C1B-CHA-C4A
5	P	202	PEB	C2B-C1B-CHA-C4A
4	C	101[A]	DBV	C3B-CAB-CBB-CGB
4	R	101[B]	DBV	C3B-CAB-CBB-CGB
5	B	202	PEB	NB-C1B-CHA-C4A
5	B	202	PEB	C2B-C1B-CHA-C4A
5	L	202	PEB	C2B-C1B-CHA-C4A
5	B	202	PEB	NA-C4A-CHA-C1B
4	M	101	DBV	C3B-CAB-CBB-CGB
4	C	101[A]	DBV	C4D-C3D-CAD-CBD
5	H	201	PEB	C4D-C3D-CAD-CBD
5	P	201	PEB	C4D-C3D-CAD-CBD
5	B	201	PEB	C3B-CAB-CBB-CGB
4	C	101[A]	DBV	C2D-C3D-CAD-CBD
4	R	101[B]	DBV	C2A-C3A-CAA-CBA
4	G	101	DBV	C2A-C3A-CAA-CBA
5	H	201	PEB	C2D-C3D-CAD-CBD
5	P	201	PEB	C2D-C3D-CAD-CBD
4	R	101[B]	DBV	C2C-CAC-CBC-CGC
5	D	201	PEB	C3B-CAB-CBB-CGB
5	L	202	PEB	C3B-CAB-CBB-CGB
5	B	201	PEB	C4A-C3A-CAA-CBA
5	B	202	PEB	C4A-C3A-CAA-CBA
5	F	202	PEB	C4A-C3A-CAA-CBA
5	L	202	PEB	C4A-C3A-CAA-CBA
5	N	202	PEB	C4A-C3A-CAA-CBA
5	P	201	PEB	C4A-C3A-CAA-CBA
5	P	202	PEB	C4A-C3A-CAA-CBA
4	I	101	DBV	NC-C1C-CHB-C4B
4	I	101	DBV	C3B-CAB-CBB-CGB
4	I	101	DBV	C2C-CAC-CBC-CGC
5	D	202	PEB	C2B-C3B-CAB-CBB
5	D	202	PEB	C4B-C3B-CAB-CBB
5	L	202	PEB	NA-C4A-CHA-C1B
4	Q	101[B]	DBV	C2D-C3D-CAD-CBD

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Mol	Chain	Res	Type	Atoms
5	B	202	PEB	C3B-CAB-CBB-CGB
5	J	202	PEB	CAC-CBC-CGC-O2C
5	D	202	PEB	C2C-CAC-CBC-CGC
5	D	202	PEB	CAC-CBC-CGC-O2C
5	J	202	PEB	CAB-CBB-CGB-O1B
4	R	101[B]	DBV	NC-C1C-CHB-C4B
4	I	101	DBV	CAB-CBB-CGB-O1B
5	J	202	PEB	CAB-CBB-CGB-O2B
4	E	101	DBV	CAB-CBB-CGB-O1B
5	N	202	PEB	CAB-CBB-CGB-O1B
5	N	202	PEB	CAB-CBB-CGB-O2B
4	I	101	DBV	CAB-CBB-CGB-O2B
5	D	202	PEB	CAC-CBC-CGC-O1C
5	F	202	PEB	CAC-CBC-CGC-O1C
4	A	101[A]	DBV	CAB-CBB-CGB-O1B
4	G	101	DBV	CAB-CBB-CGB-O1B
5	B	202	PEB	CAC-CBC-CGC-O1C
5	B	202	PEB	CAC-CBC-CGC-O2C
5	F	201	PEB	C3B-CAB-CBB-CGB
4	O	101	DBV	CAB-CBB-CGB-O1B
4	K	101	DBV	CAB-CBB-CGB-O1B
5	L	202	PEB	CAC-CBC-CGC-O2C
4	G	101	DBV	CAB-CBB-CGB-O2B
4	M	101	DBV	CAB-CBB-CGB-O1B
4	M	101	DBV	CAB-CBB-CGB-O2B
4	K	101	DBV	CAB-CBB-CGB-O2B
4	G	101	DBV	C3B-CAB-CBB-CGB
5	L	203	PEB	C2C-CAC-CBC-CGC
5	J	202	PEB	CAC-CBC-CGC-O1C
4	E	101	DBV	CAB-CBB-CGB-O2B
5	J	201	PEB	CAB-CBB-CGB-O1B
5	L	202	PEB	CAC-CBC-CGC-O1C
4	A	101[A]	DBV	NC-C1C-CHB-C4B
4	A	101[A]	DBV	CAB-CBB-CGB-O2B
5	P	202	PEB	CAC-CBC-CGC-O2C
5	J	201	PEB	C4A-C3A-CAA-CBA
5	F	202	PEB	CAC-CBC-CGC-O2C
4	O	101	DBV	CAB-CBB-CGB-O2B
5	J	203	PEB	CAB-CBB-CGB-O2B
5	H	202	PEB	CAC-CBC-CGC-O2C
5	P	203	PEB	CAC-CBC-CGC-O2C
4	Q	101[B]	DBV	CAB-CBB-CGB-O1B

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Mol	Chain	Res	Type	Atoms
5	F	203	PEB	CAB-CBB-CGB-O2B
5	H	202	PEB	CAC-CBC-CGC-O1C
5	P	202	PEB	CAC-CBC-CGC-O1C
4	Q	101[B]	DBV	CAB-CBB-CGB-O2B
4	C	101[A]	DBV	CAC-CBC-CGC-O2C
5	B	203	PEB	CAB-CBB-CGB-O2B
4	R	101[B]	DBV	CAB-CBB-CGB-O2B
5	J	203	PEB	CAB-CBB-CGB-O1B
5	N	203	PEB	CAB-CBB-CGB-O2B
4	Q	101[B]	DBV	CAC-CBC-CGC-O2C
5	L	202	PEB	CAB-CBB-CGB-O2B
5	P	203	PEB	CAC-CBC-CGC-O1C
5	J	203	PEB	CAC-CBC-CGC-O2C
5	L	201	PEB	CAB-CBB-CGB-O2B
5	F	203	PEB	CAC-CBC-CGC-O2C
5	N	202	PEB	CAC-CBC-CGC-O1C
5	B	201	PEB	C2B-C3B-CAB-CBB
4	C	101[A]	DBV	CAB-CBB-CGB-O1B
5	N	202	PEB	CAC-CBC-CGC-O2C
4	C	101[A]	DBV	CAB-CBB-CGB-O2B
4	R	101[B]	DBV	CAB-CBB-CGB-O1B
5	D	203	PEB	CAC-CBC-CGC-O1C
5	F	203	PEB	CAB-CBB-CGB-O1B
5	J	201	PEB	CAB-CBB-CGB-O2B
4	Q	101[B]	DBV	CAC-CBC-CGC-O1C
5	B	203	PEB	CAB-CBB-CGB-O1B
5	D	203	PEB	CAC-CBC-CGC-O2C
5	F	203	PEB	CAC-CBC-CGC-O1C
5	L	202	PEB	CAB-CBB-CGB-O1B
5	L	203	PEB	CAC-CBC-CGC-O1C
5	L	203	PEB	CAC-CBC-CGC-O2C
5	N	203	PEB	CAB-CBB-CGB-O1B
5	B	203	PEB	CAC-CBC-CGC-O2C
4	C	101[A]	DBV	CAC-CBC-CGC-O1C
4	A	101[A]	DBV	C3B-CAB-CBB-CGB
4	Q	101[B]	DBV	C3B-CAB-CBB-CGB
4	E	101	DBV	C3B-CAB-CBB-CGB
4	O	101	DBV	C3B-CAB-CBB-CGB
5	F	203	PEB	C2C-CAC-CBC-CGC
5	P	203	PEB	C2C-CAC-CBC-CGC
5	L	201	PEB	CAB-CBB-CGB-O1B
5	H	201	PEB	CAC-CBC-CGC-O2C

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Mol	Chain	Res	Type	Atoms
5	J	203	PEB	CAC-CBC-CGC-O1C
5	B	201	PEB	C4B-C3B-CAB-CBB
4	C	101[A]	DBV	C2C-CAC-CBC-CGC
5	J	202	PEB	C2A-C3A-CAA-CBA
5	H	201	PEB	CAC-CBC-CGC-O1C
5	B	203	PEB	CAC-CBC-CGC-O1C

There are no ring outliers.

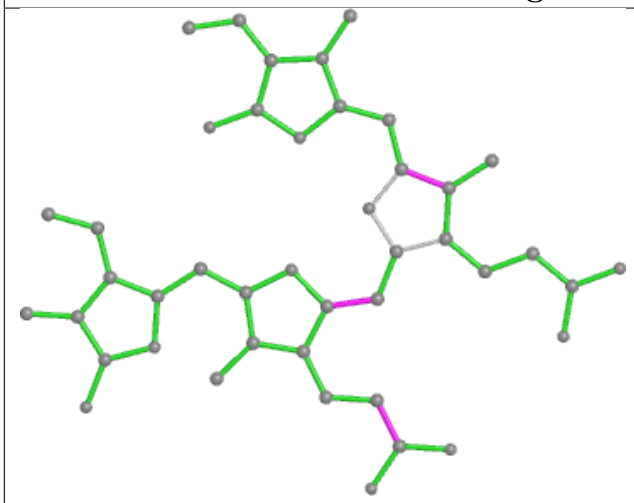
25 monomers are involved in 41 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	P	203	PEB	1	0
4	I	101	DBV	2	0
4	Q	101[B]	DBV	2	0
5	P	202	PEB	1	0
5	D	201	PEB	3	0
4	O	101	DBV	3	0
5	J	201	PEB	1	0
4	G	101	DBV	3	0
5	H	202	PEB	1	0
5	J	203	PEB	1	0
5	L	203	PEB	2	0
4	K	101	DBV	3	0
5	B	202	PEB	2	0
4	A	101[A]	DBV	1	0
5	F	203	PEB	1	0
5	D	202	PEB	1	0
5	N	201	PEB	1	0
5	H	203	PEB	1	0
5	B	203	PEB	1	0
4	R	101[B]	DBV	1	0
5	L	201	PEB	1	0
4	M	101	DBV	2	0
5	N	203	PEB	2	0
5	D	203	PEB	1	0
4	E	101	DBV	3	0

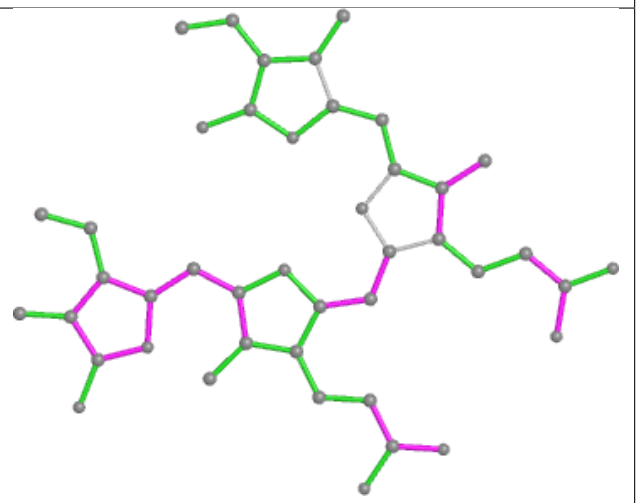
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier.

Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

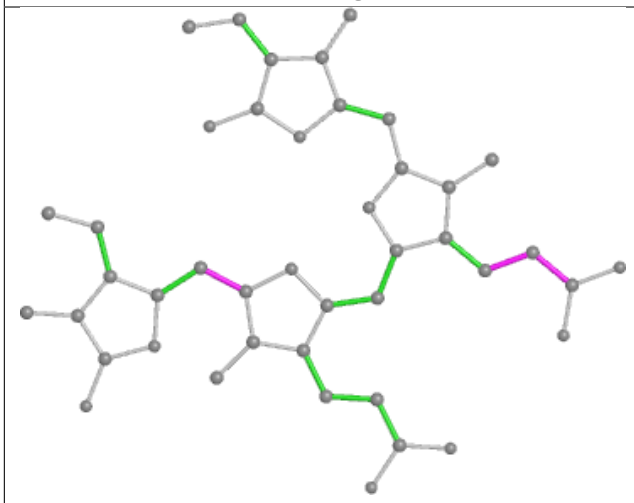
Ligand PEB P 203



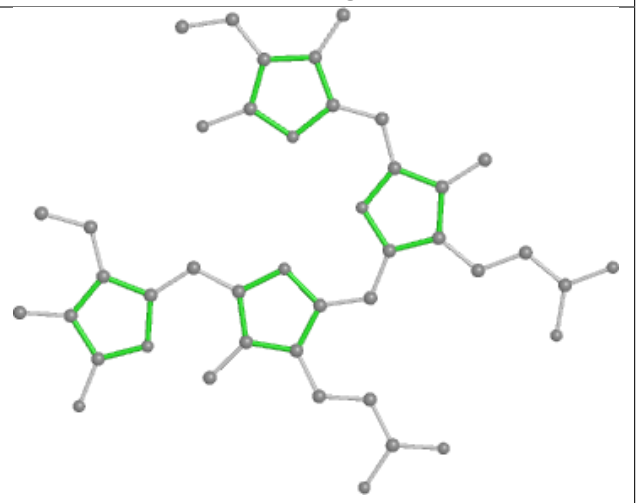
Bond lengths



Bond angles

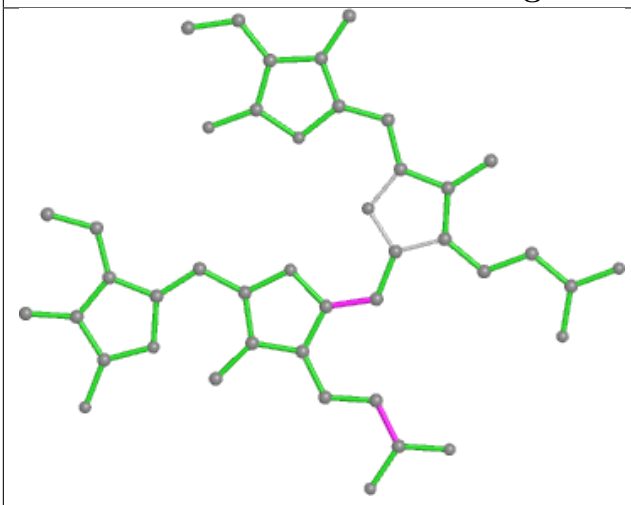


Torsions

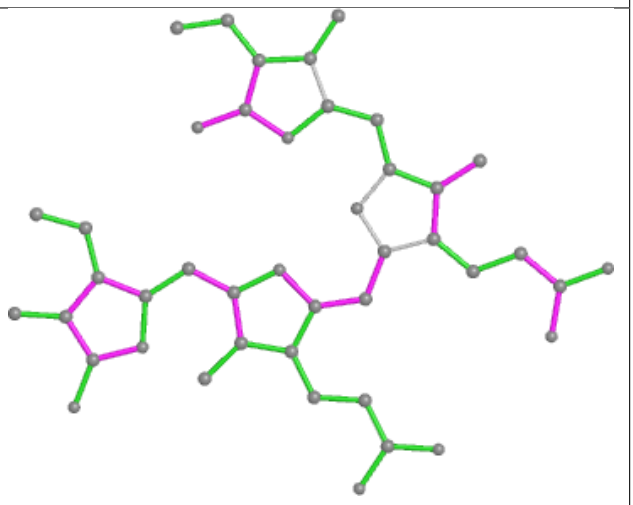


Rings

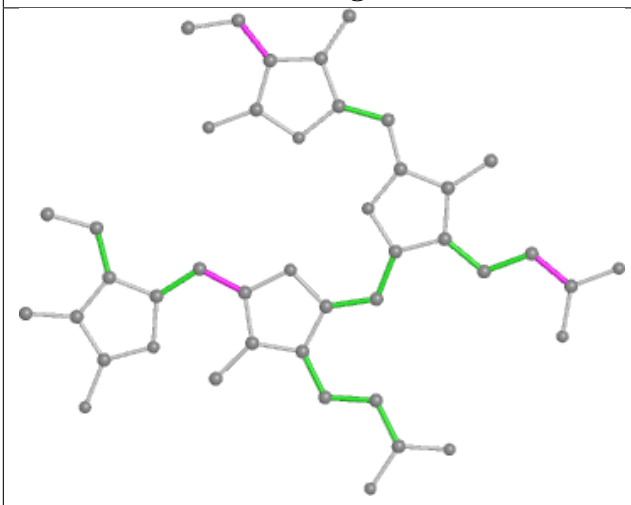
Ligand PEB H 201



Bond lengths



Bond angles



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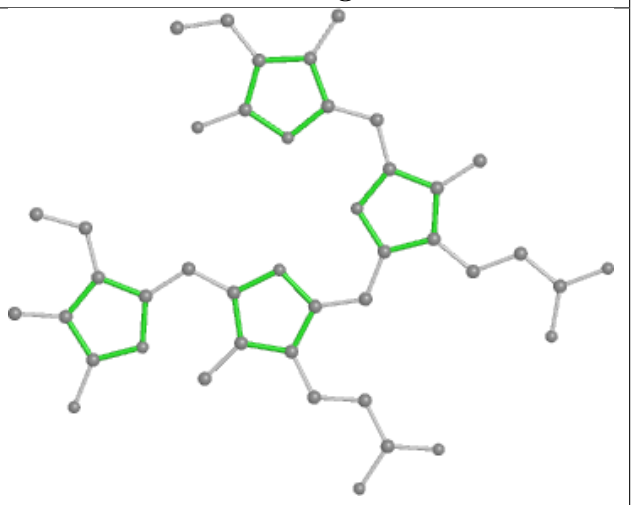
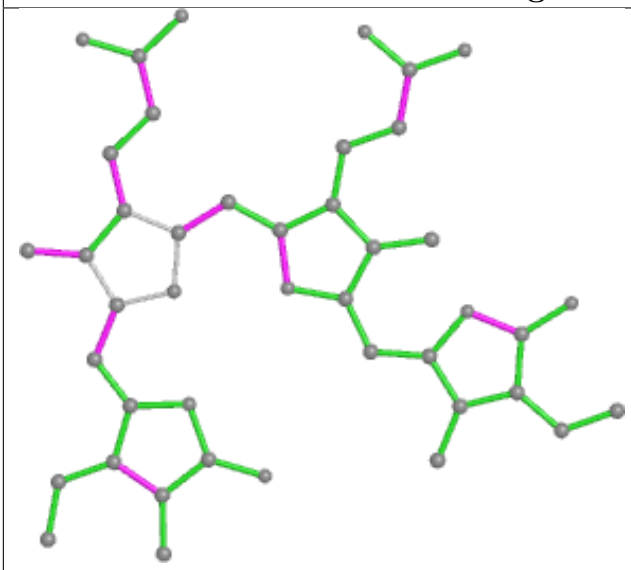
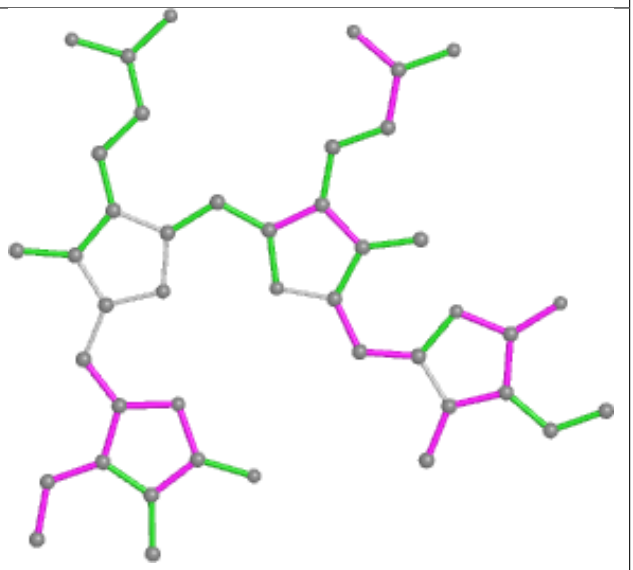


Rings

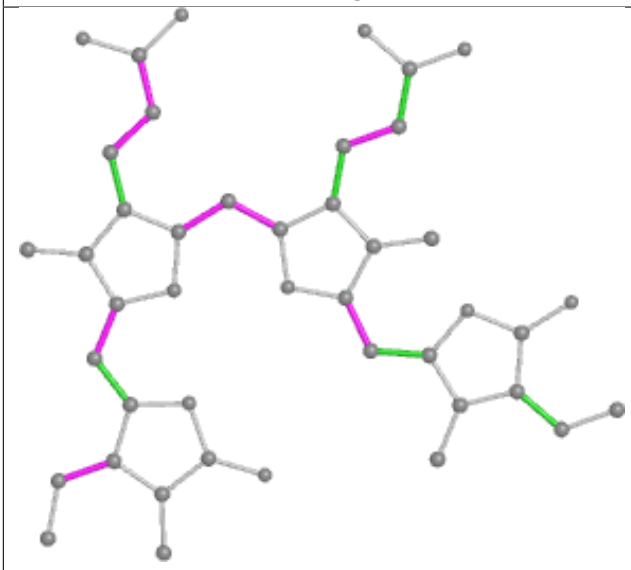
Ligand DBV I 101



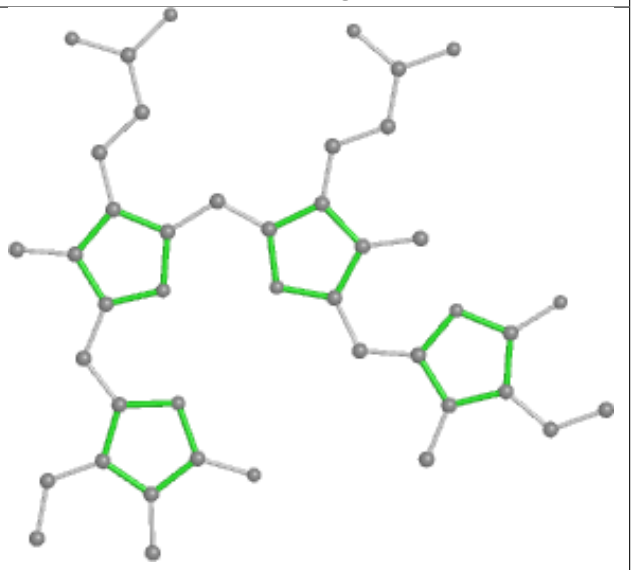
Bond lengths



Bond angles

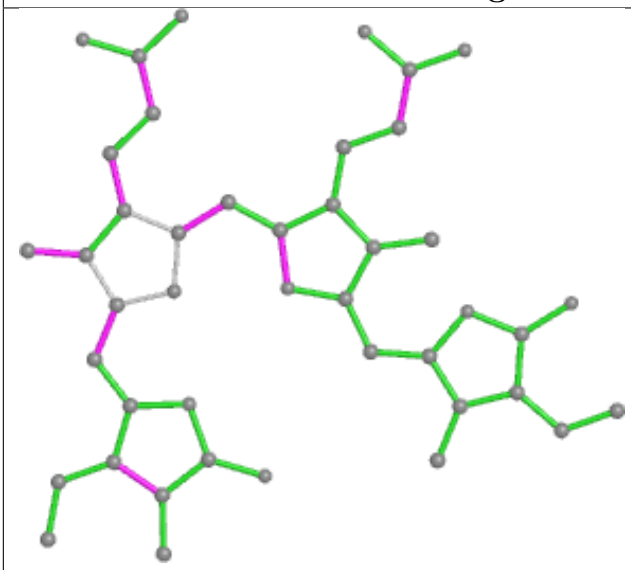


Torsions



Rings

Ligand DBV Q 101 (B)



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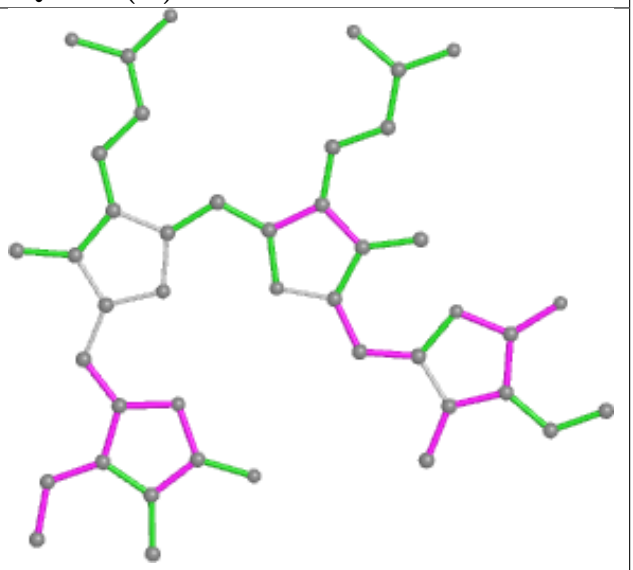
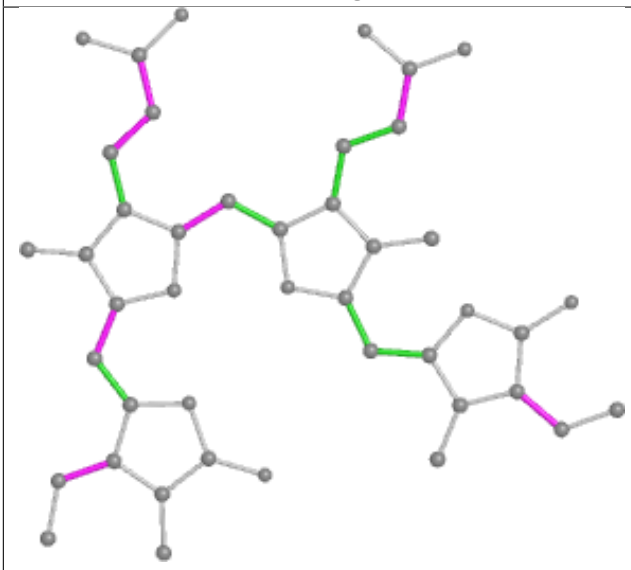
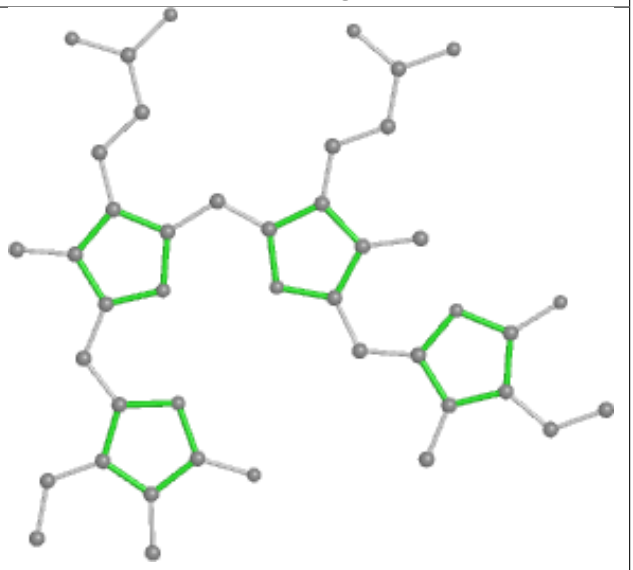


Bond angles

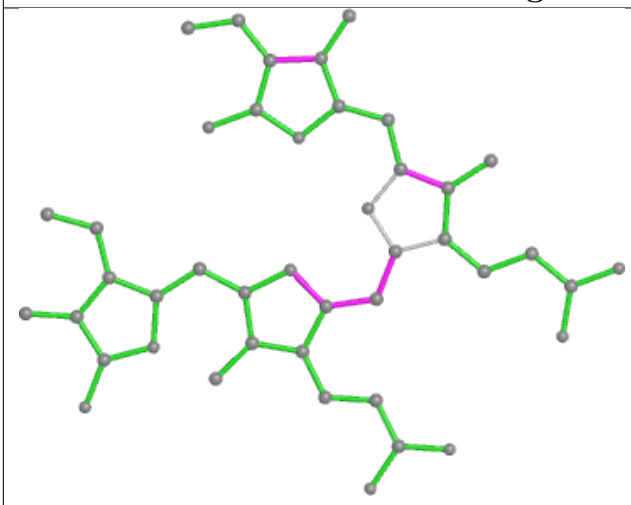


Torsions



Rings

Ligand PEB F 201



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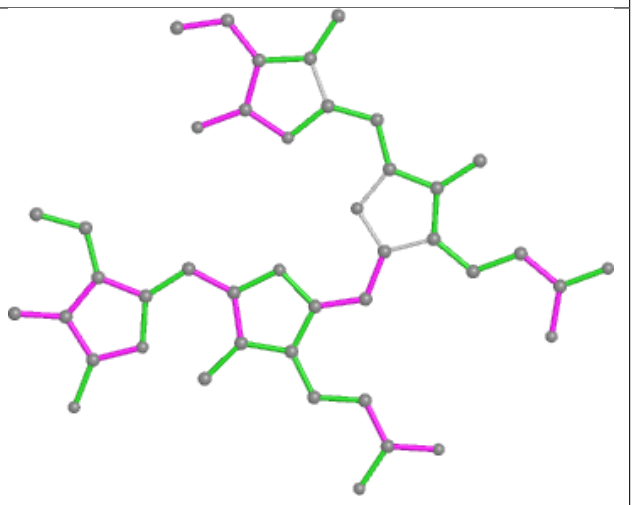
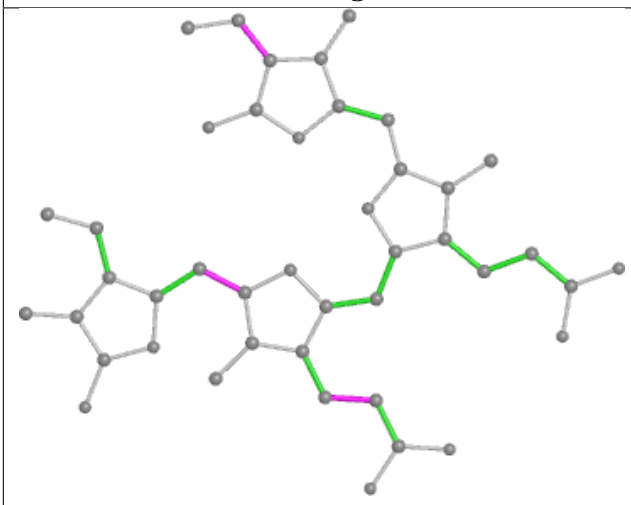


Bond angles



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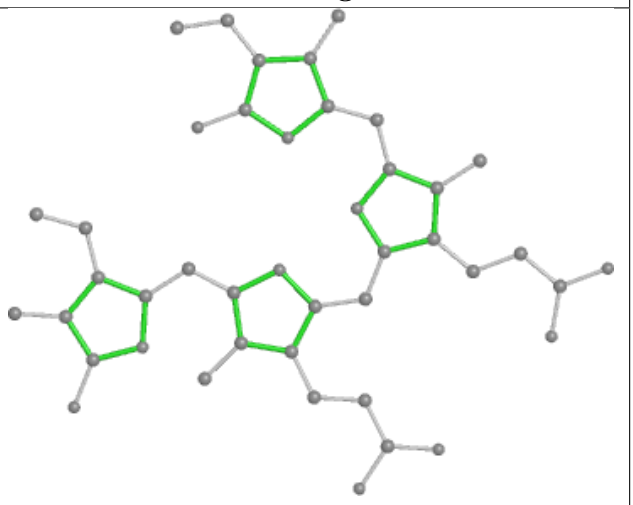
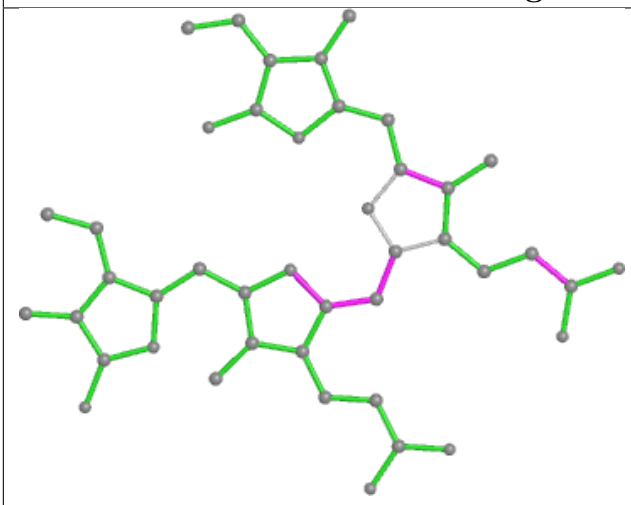


Rings

Ligand PEB P 202



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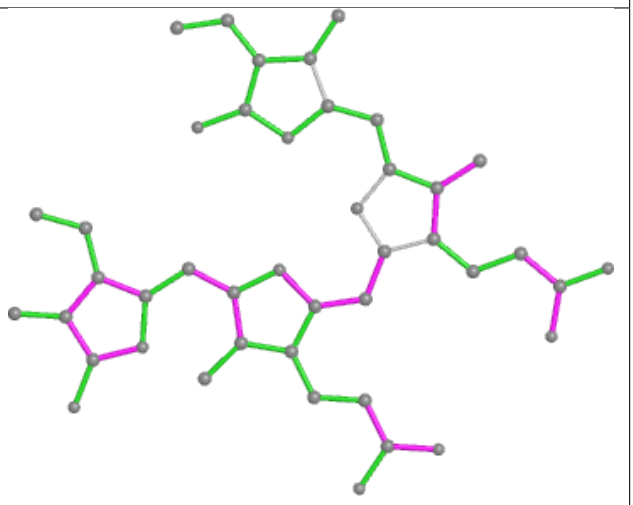
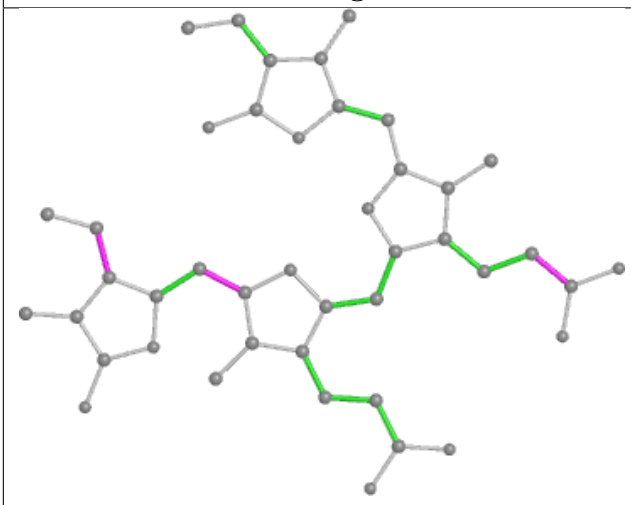


Bond angles



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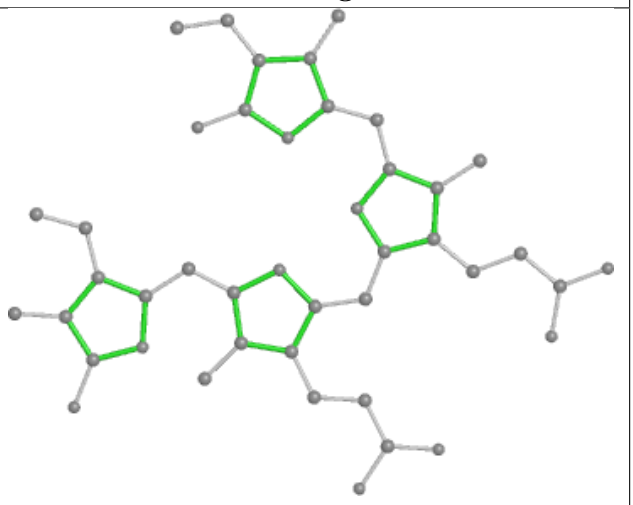
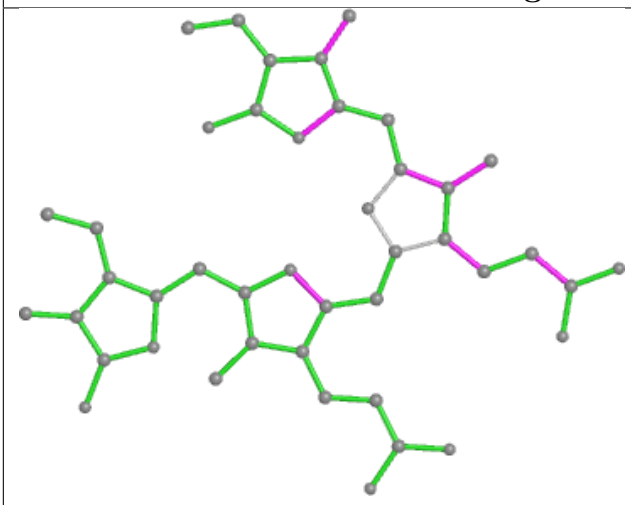


Rings

Ligand PEB D 201



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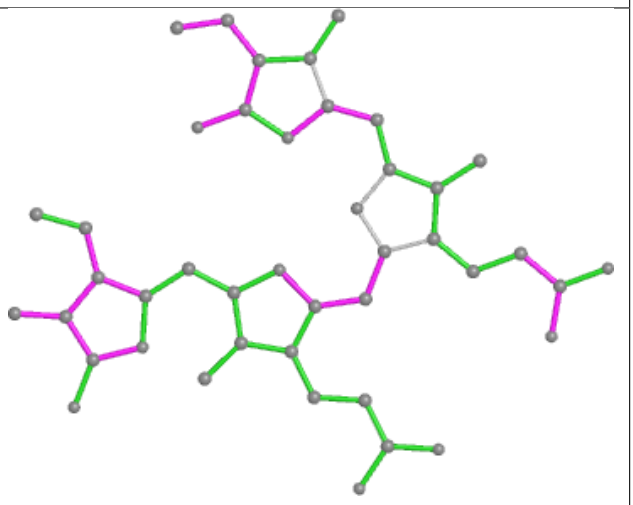

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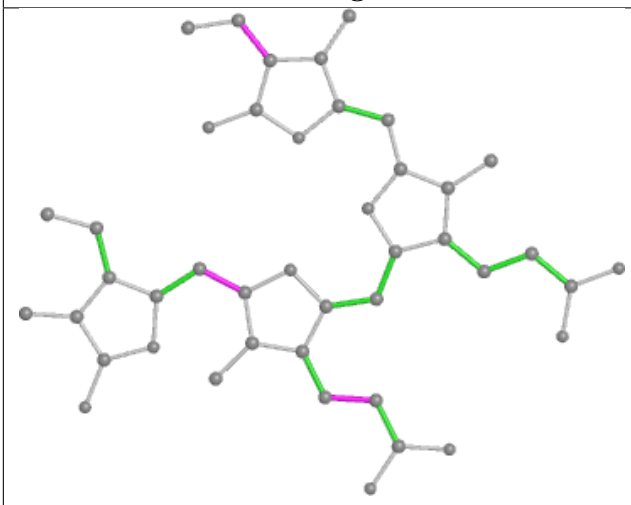

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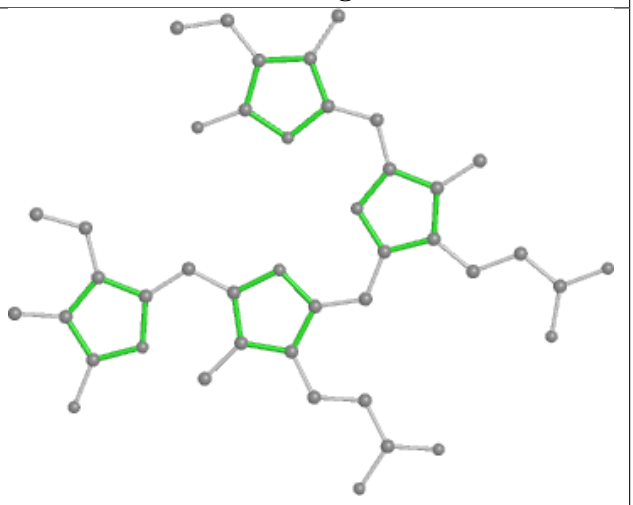

Rings

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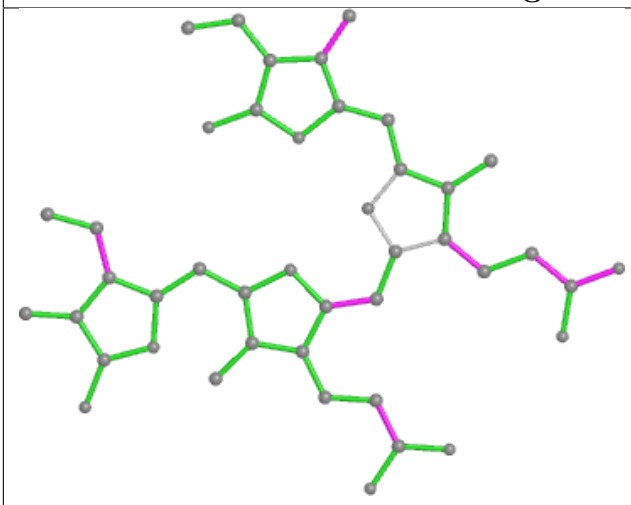

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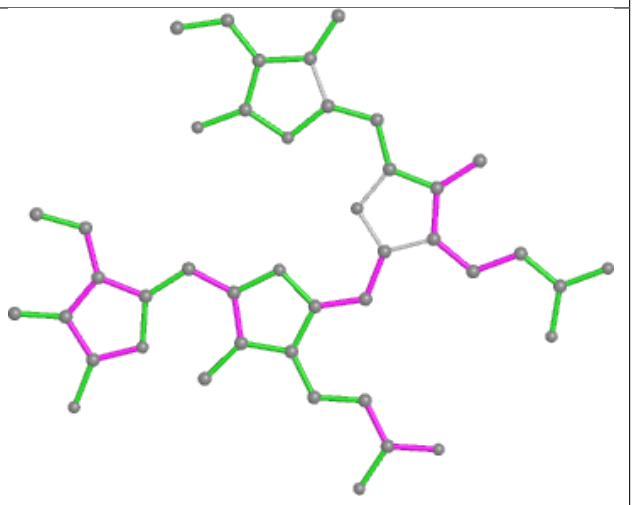

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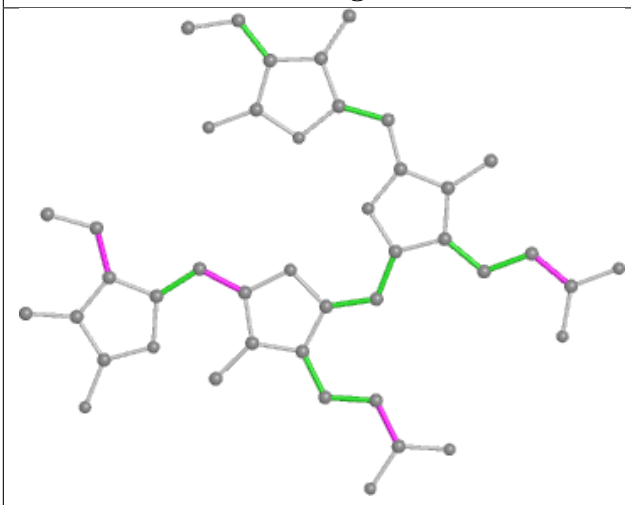

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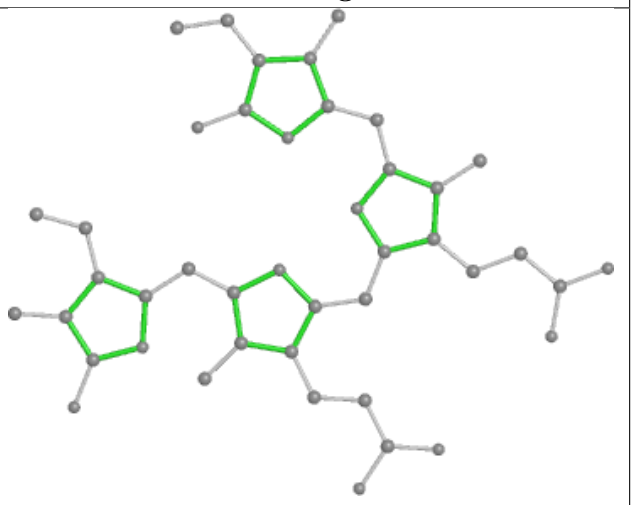
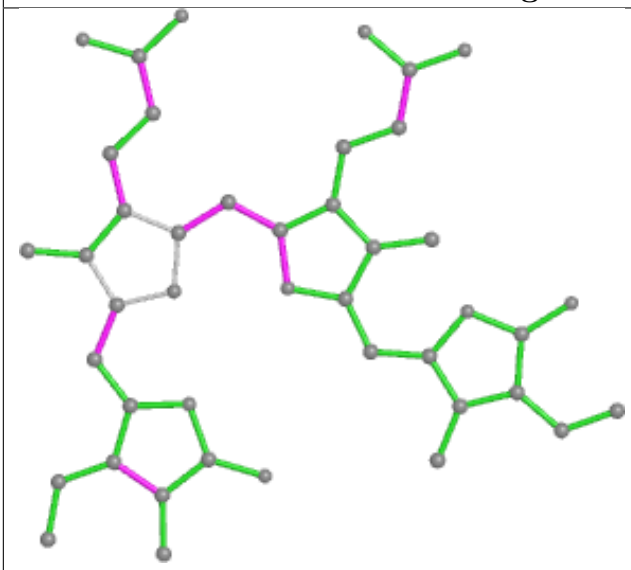


Rings

Ligand DBV O 101



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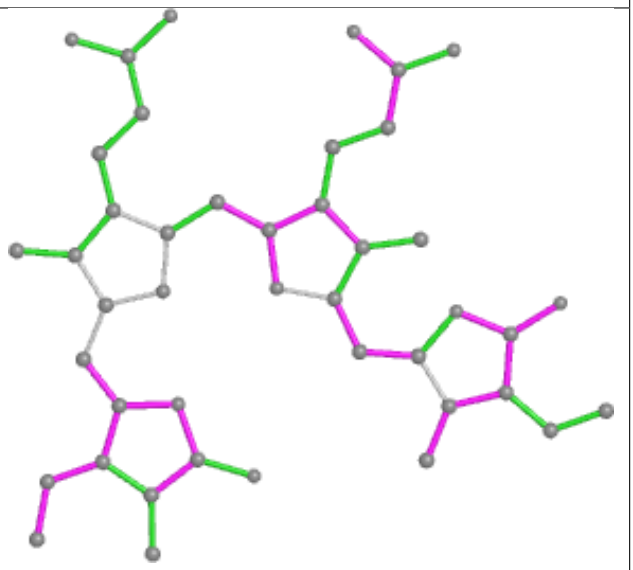
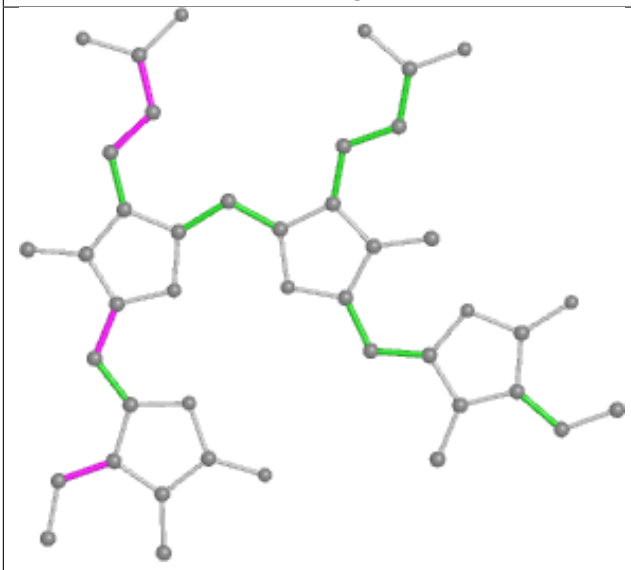
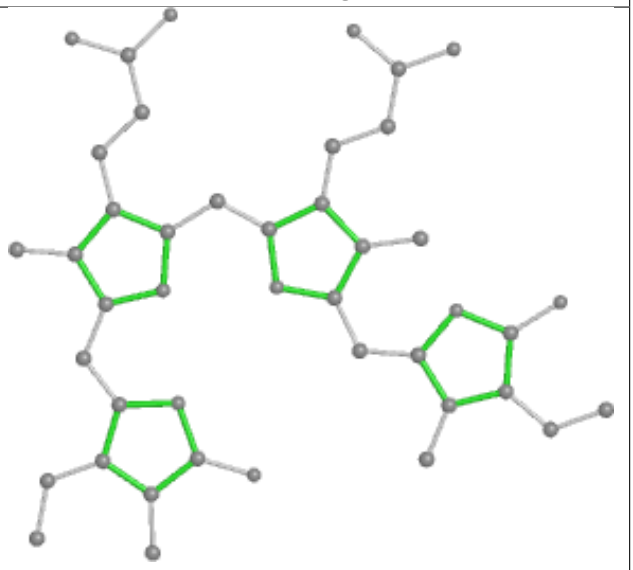


Bond angles

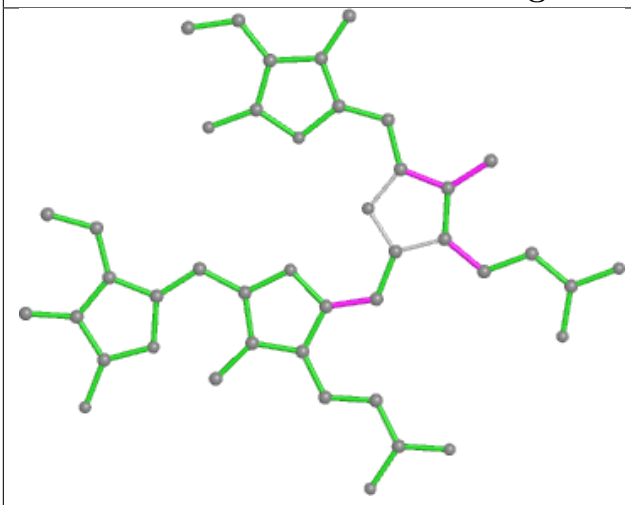


Torsions



Rings

Ligand PEB J 201



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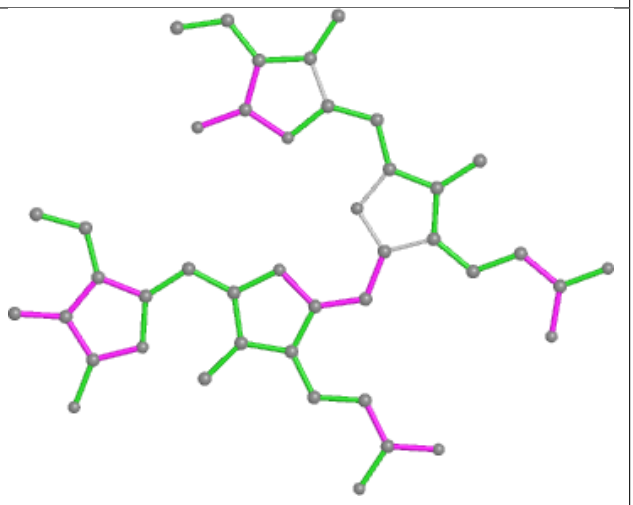

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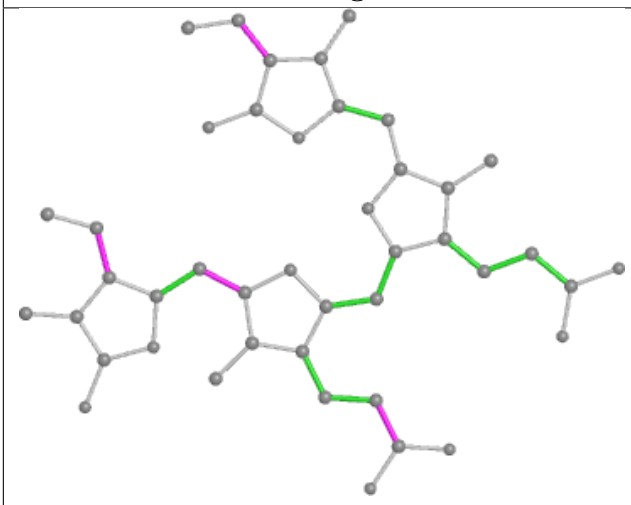

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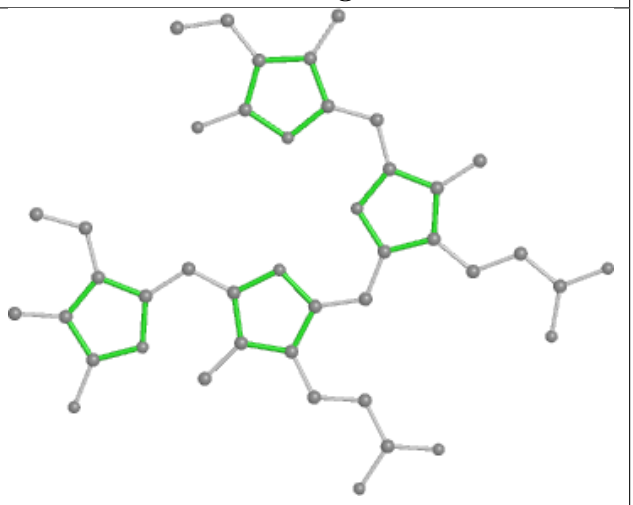
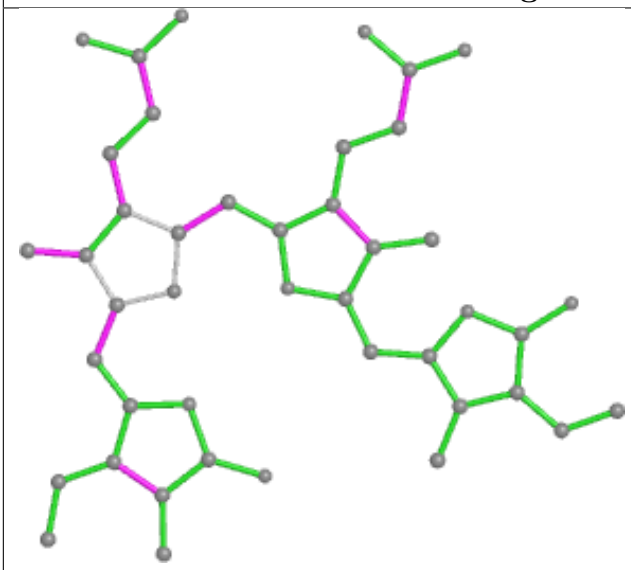


Rings

Ligand DBV G 101



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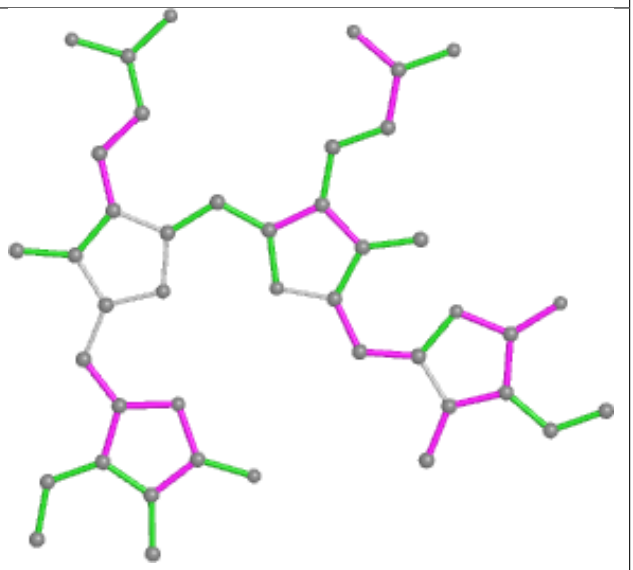

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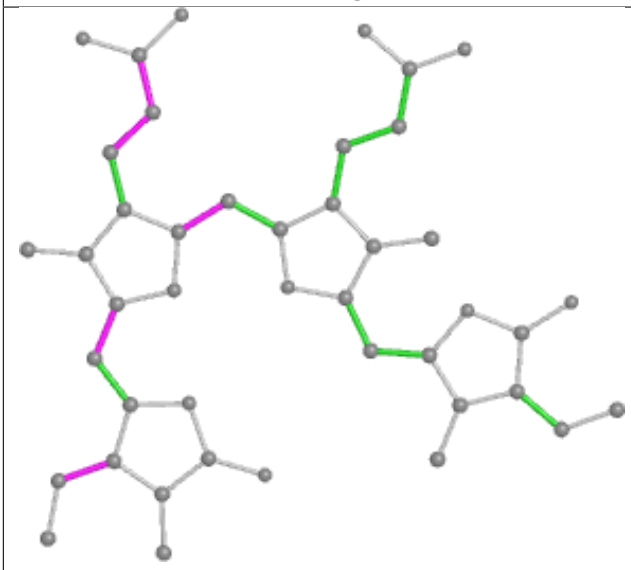

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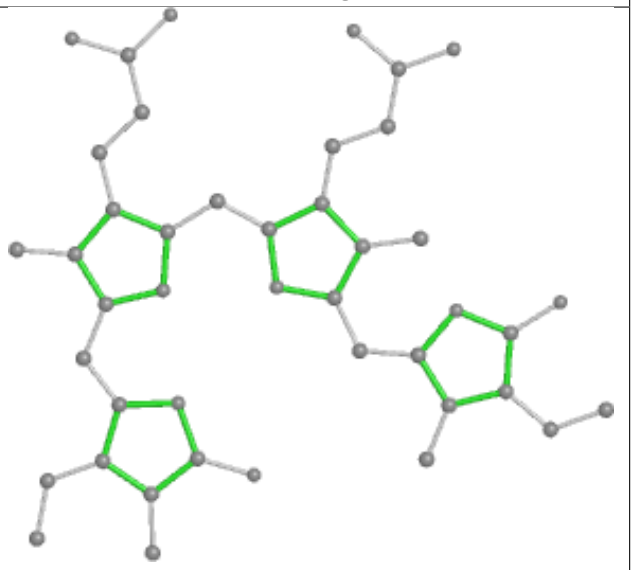
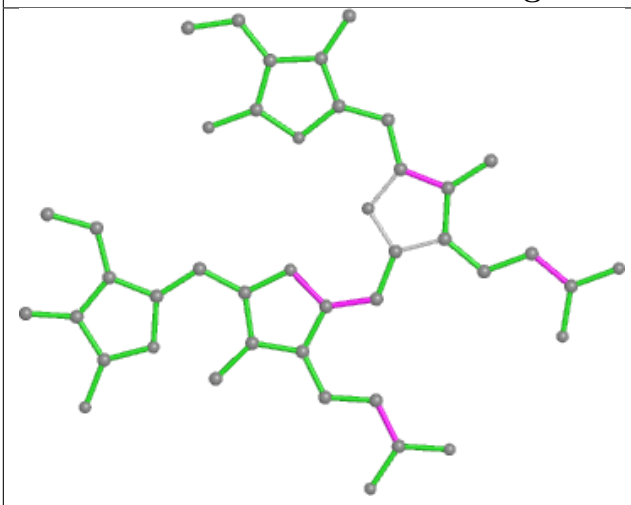


Rings

Ligand PEB H 202



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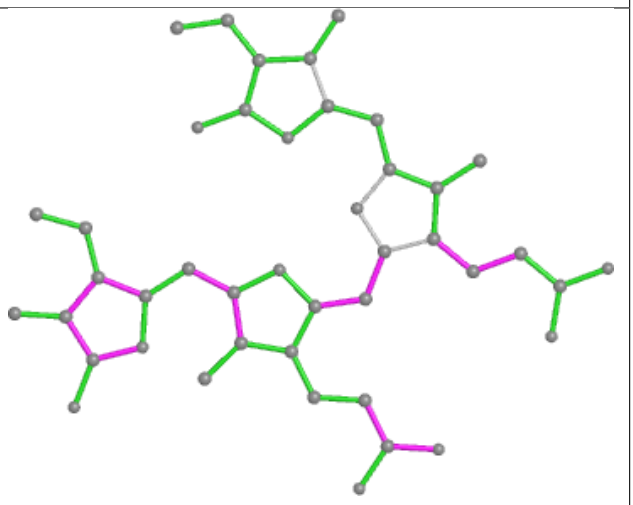
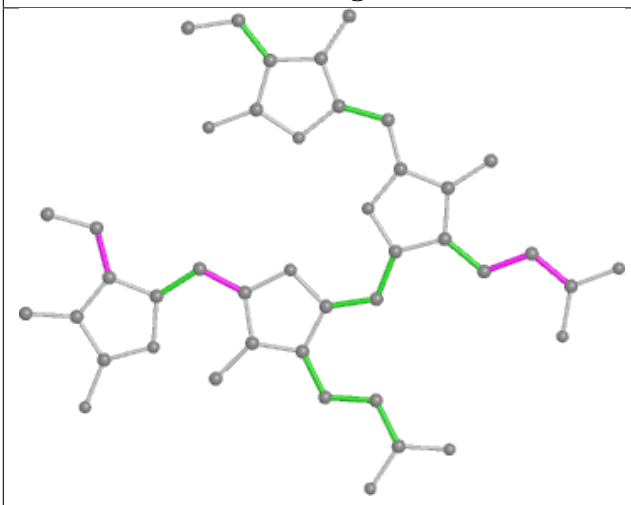


Bond angles



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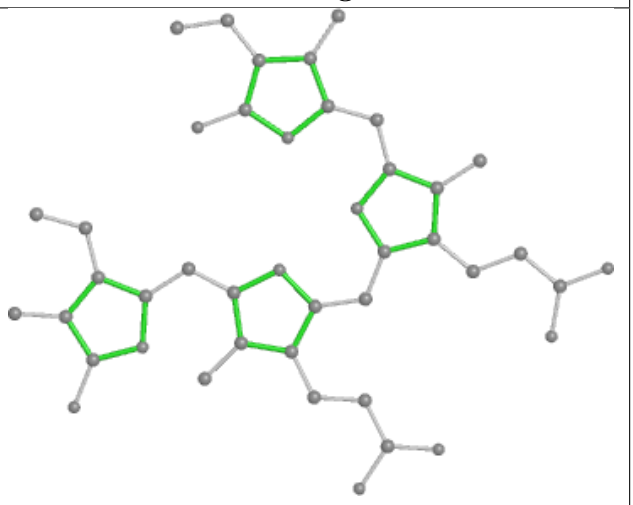
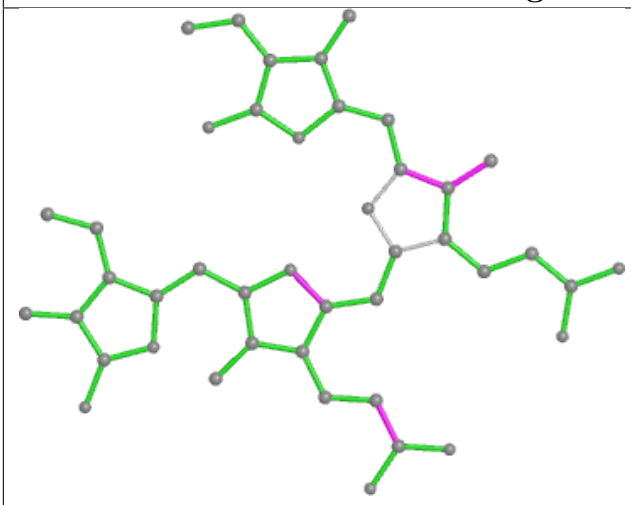


Rings

Ligand PEB F 202



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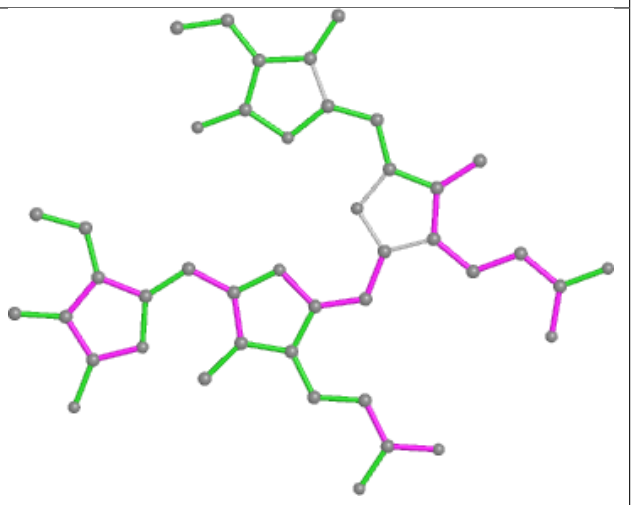
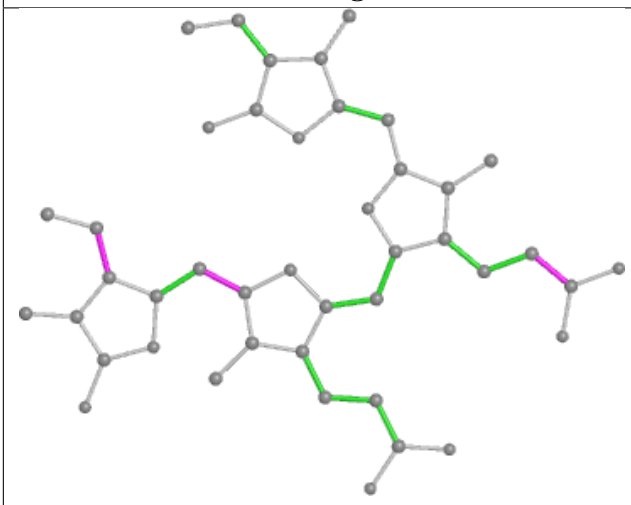
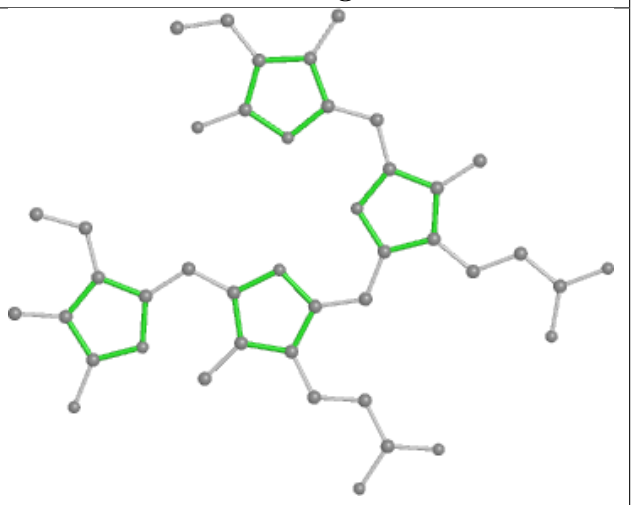


Bond angles

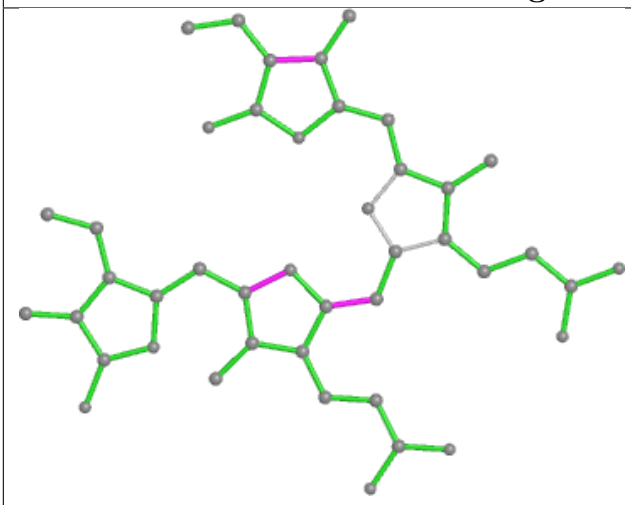


Torsions

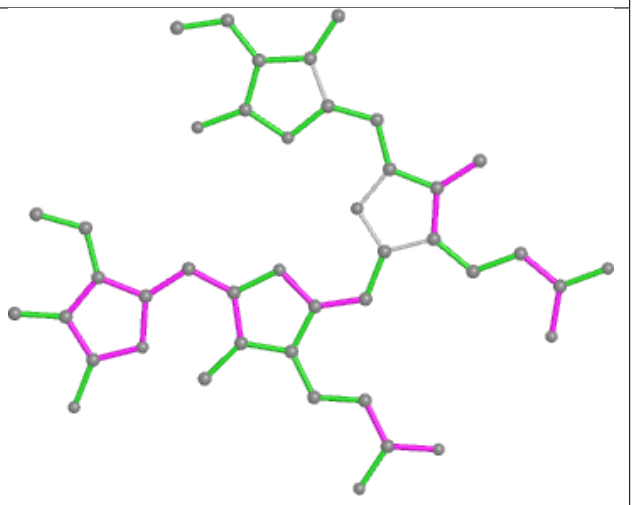


Rings

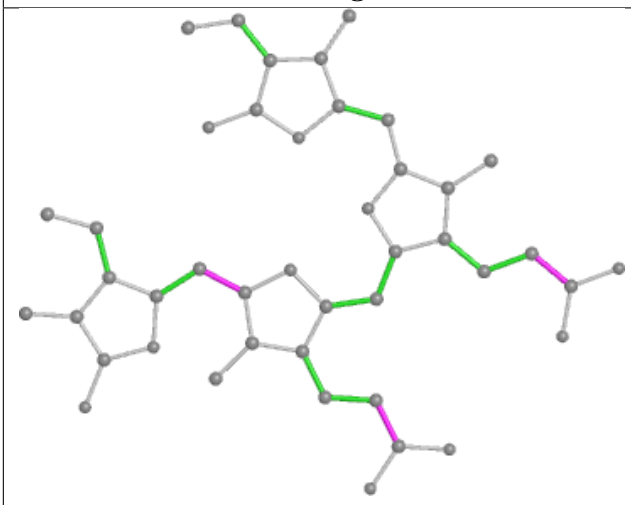
Ligand PEB J 203



Bond lengths



Bond angles



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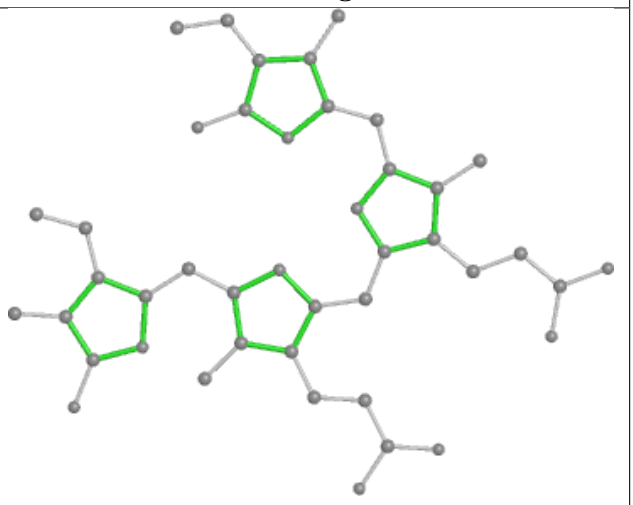
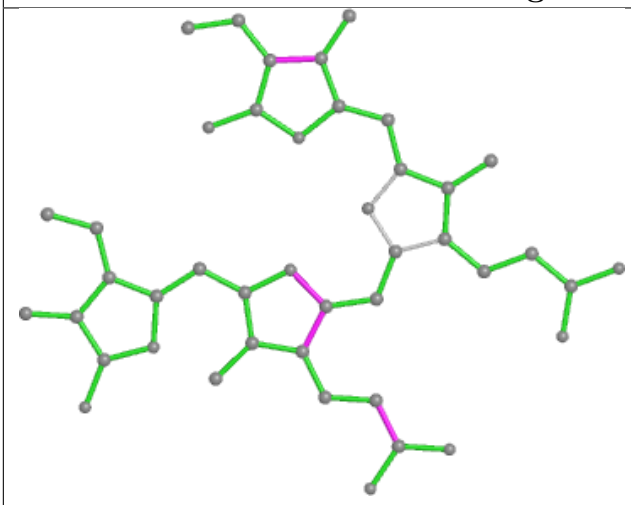
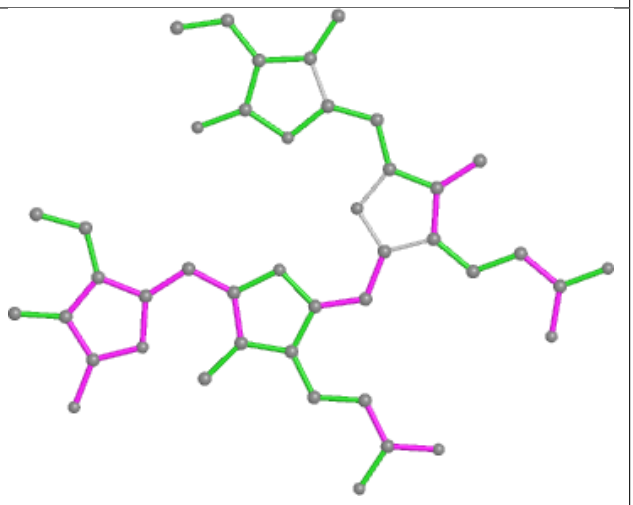


Rings

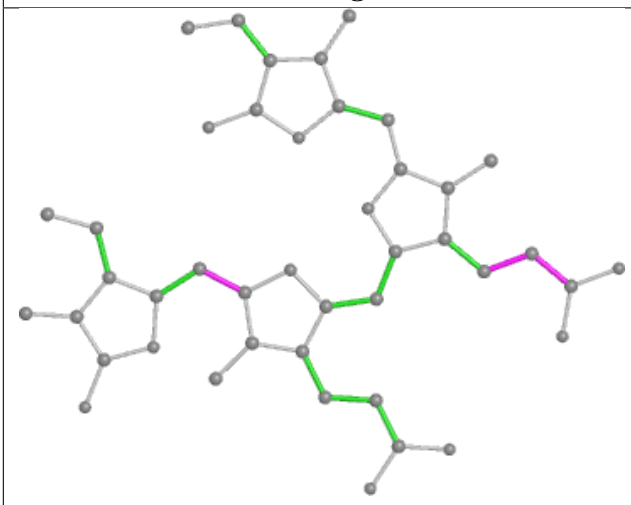
Ligand PEB L 203



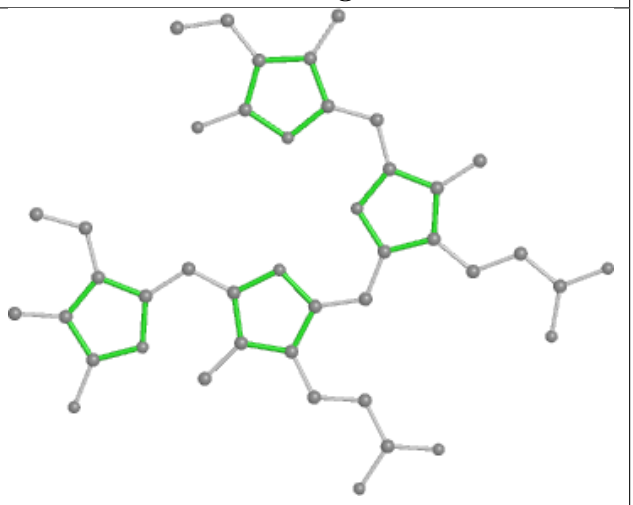
Bond lengths



Bond angles

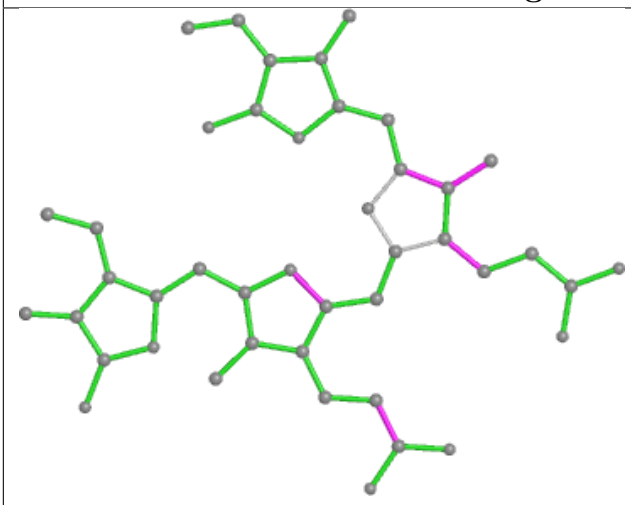


Torsions



Rings

Ligand PEB B 201



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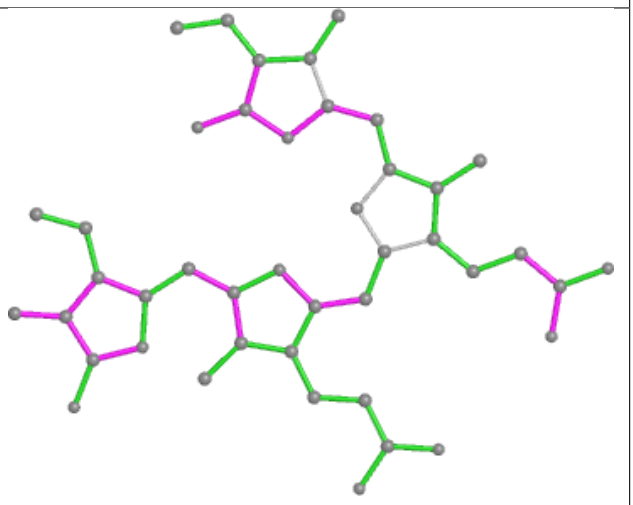
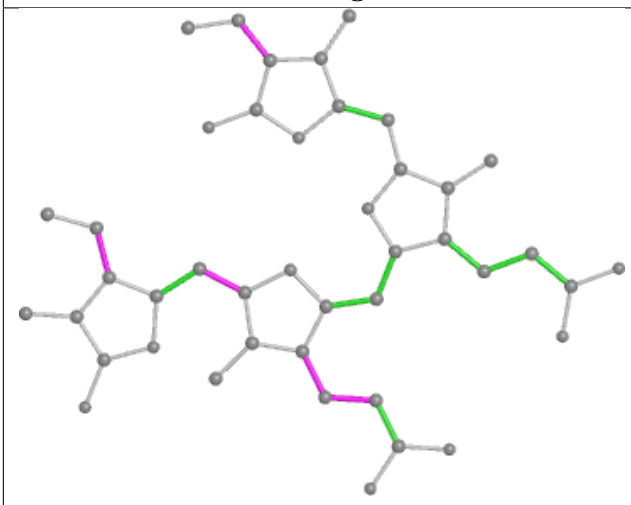


Bond angles



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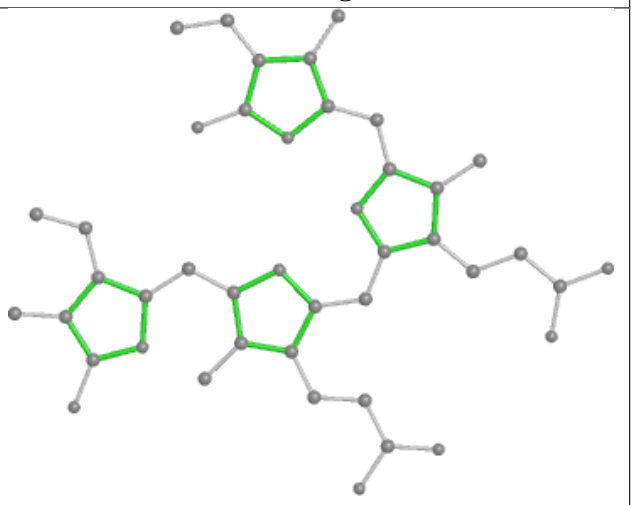
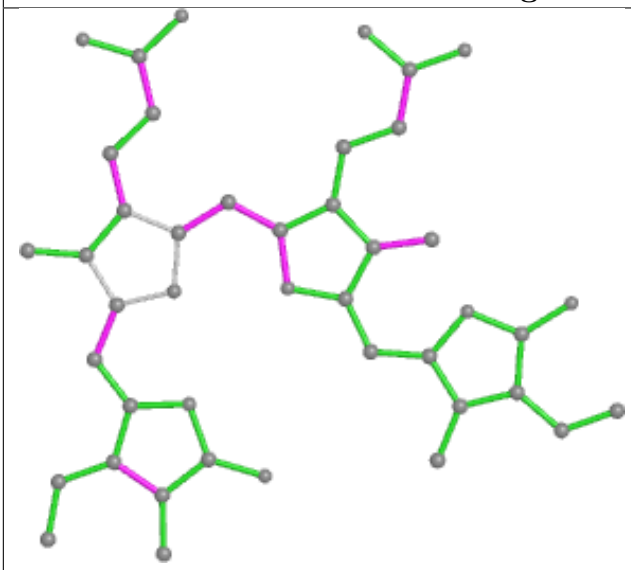


Rings

Ligand DBV K 101



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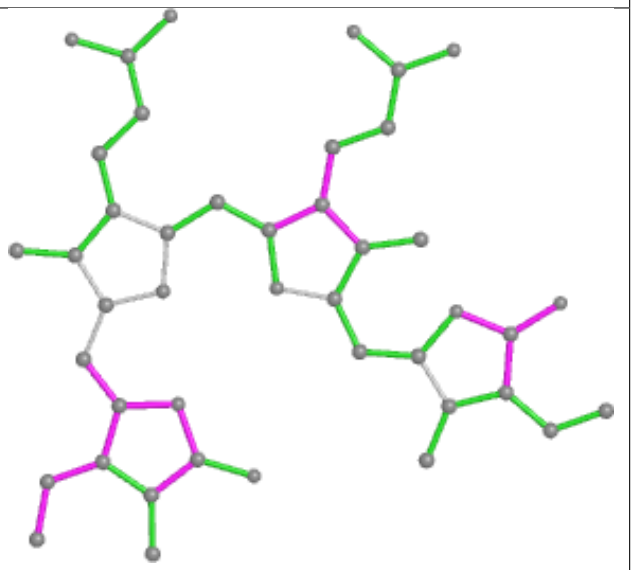

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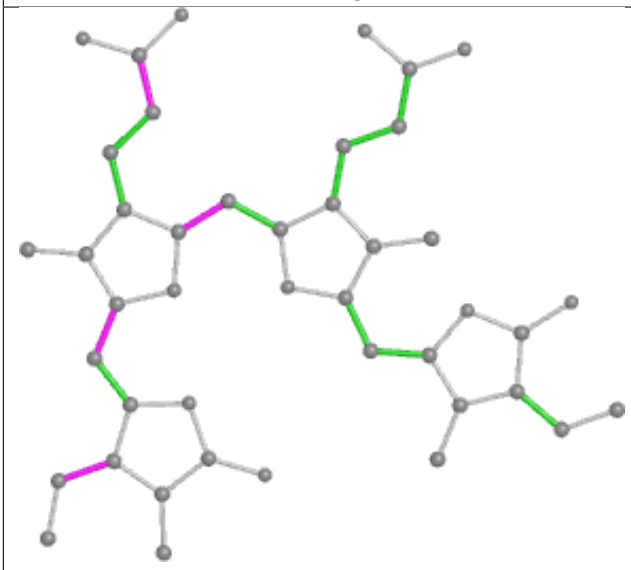

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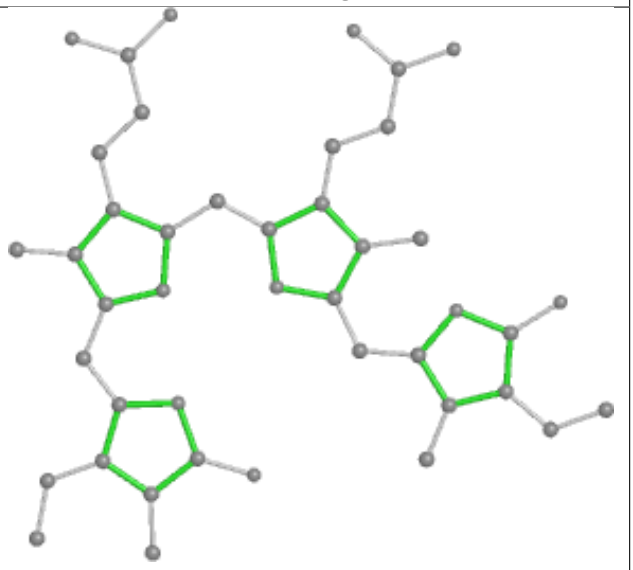
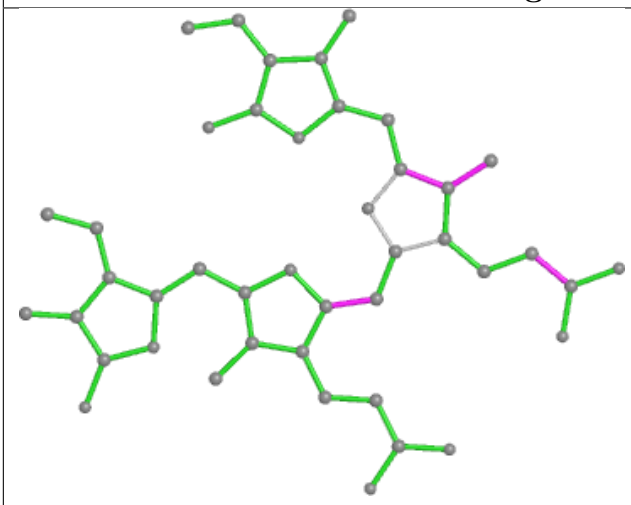


Rings

Ligand PEB B 202



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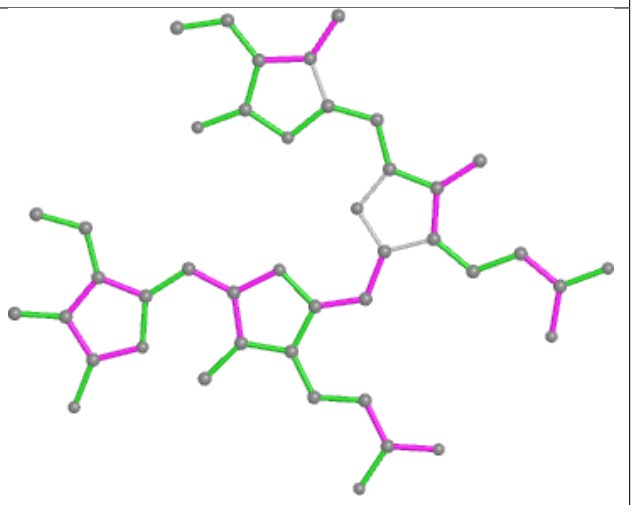

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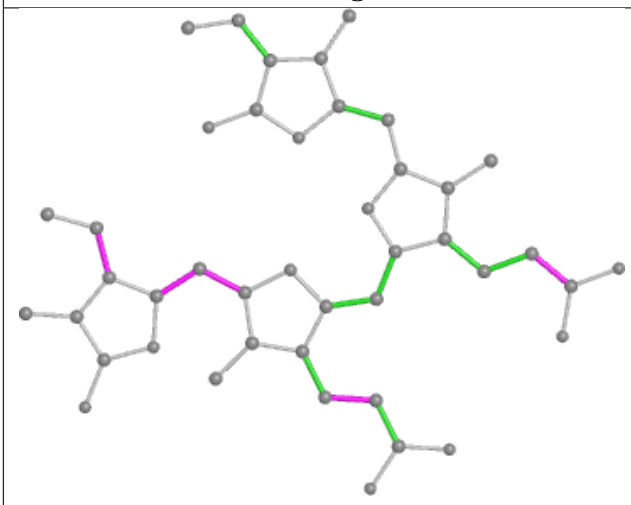

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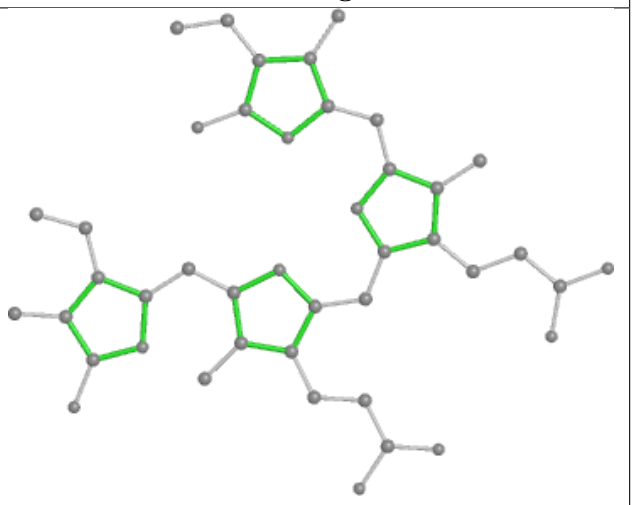
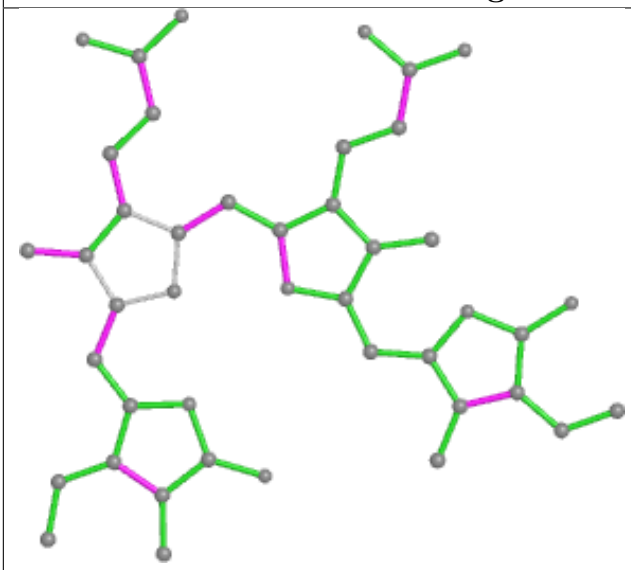


Rings

Ligand DBV A 101 (A)



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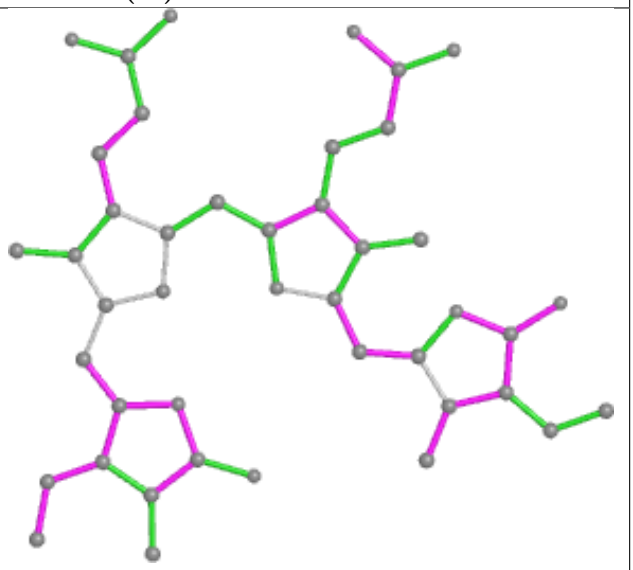

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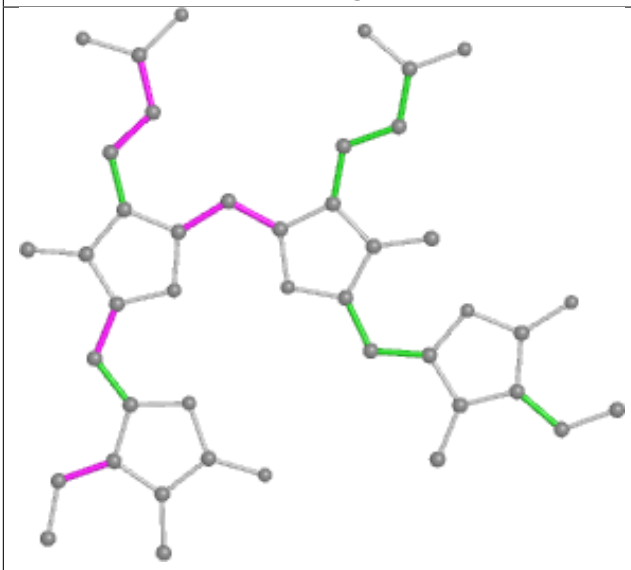

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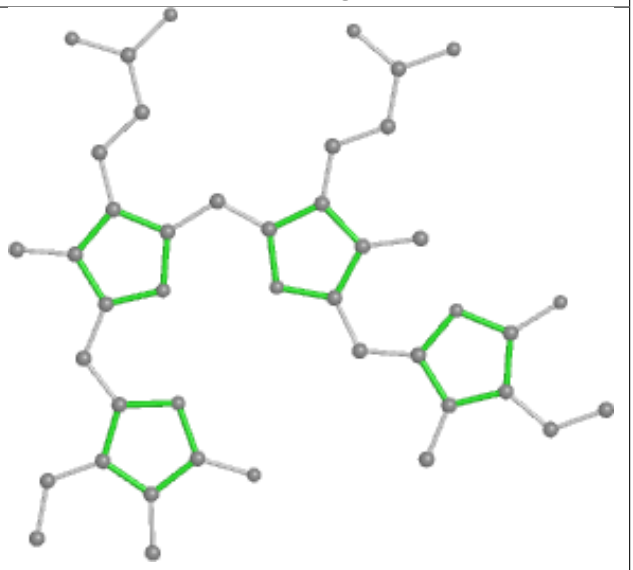
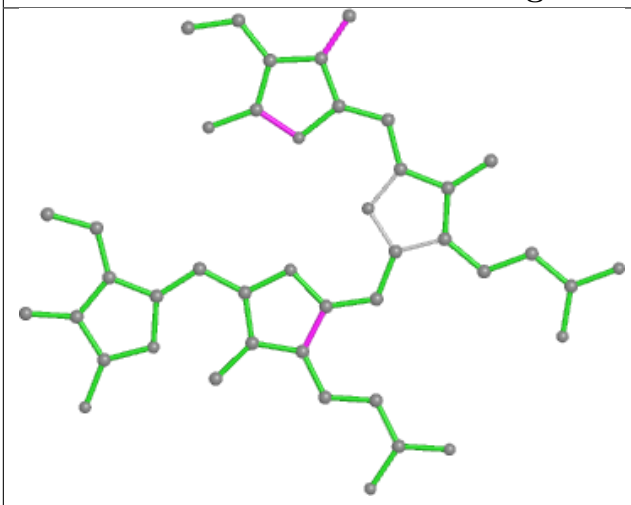


Rings

Ligand PEB F 203



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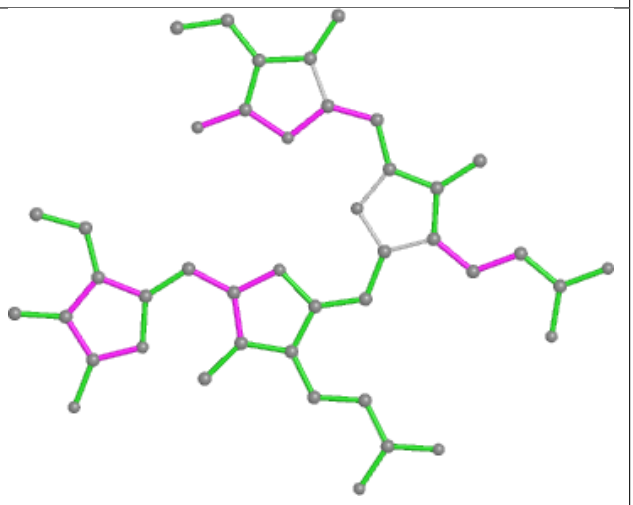
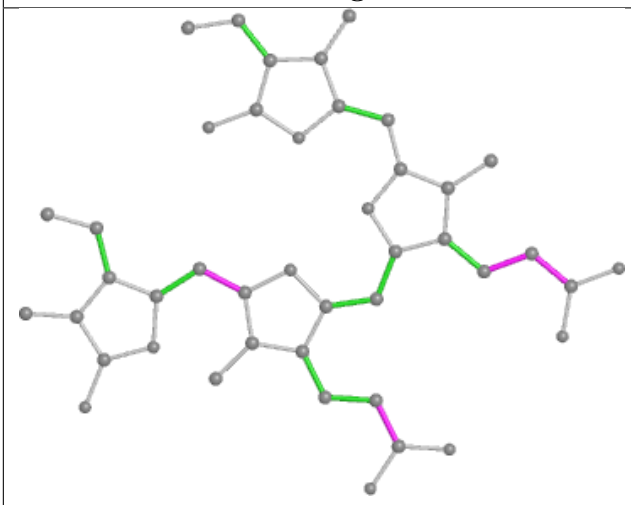


Bond angles



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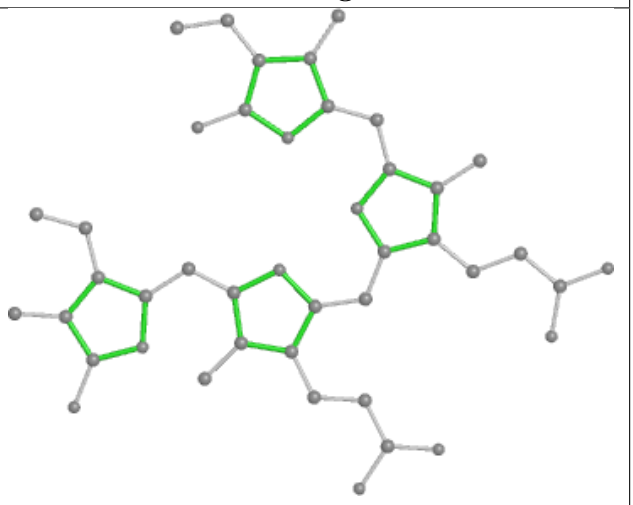
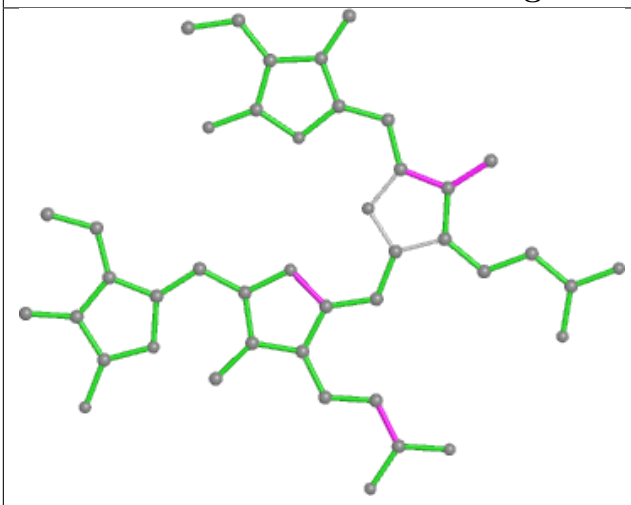


Rings

Ligand PEB D 202



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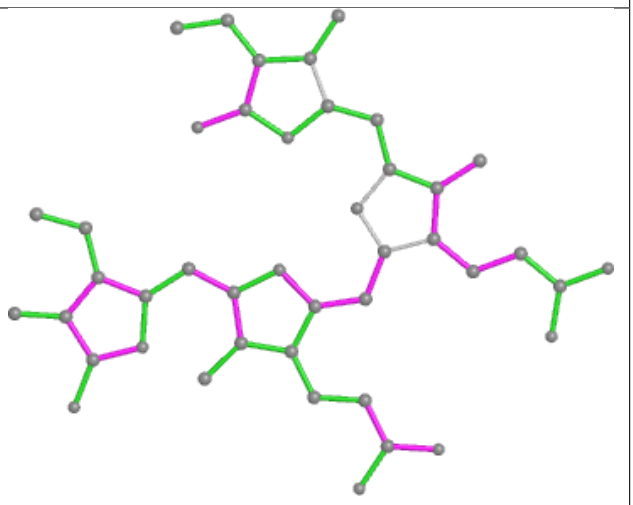

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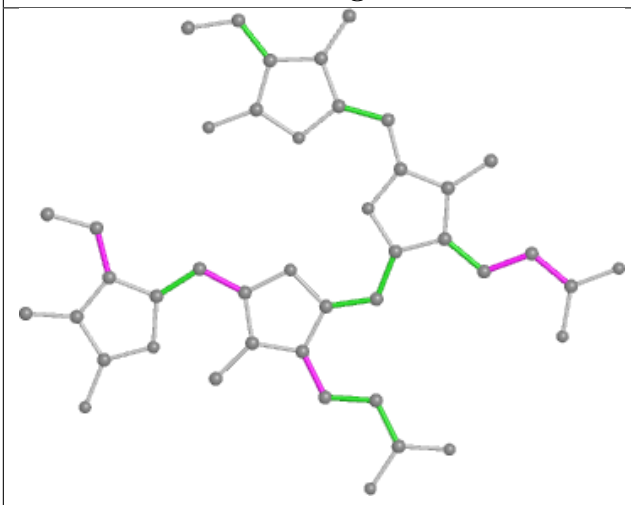

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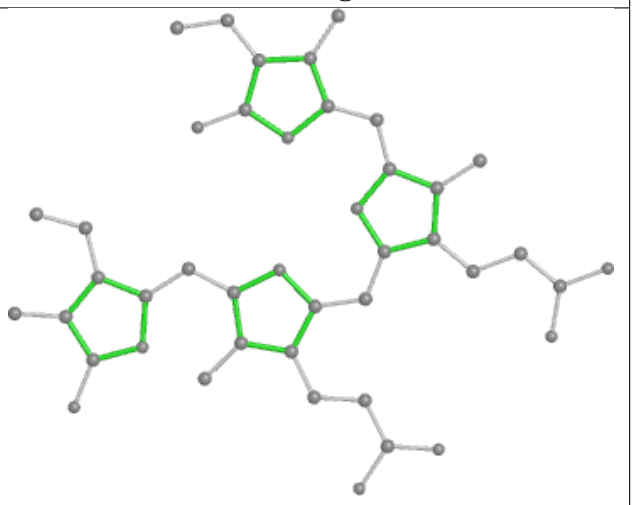
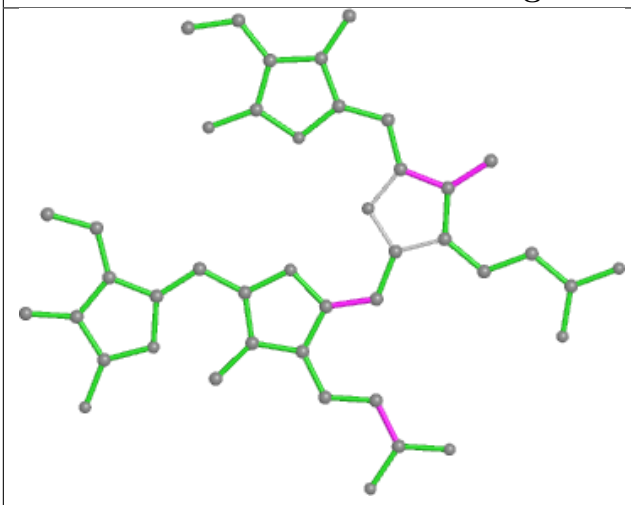


Rings

Ligand PEB N 201



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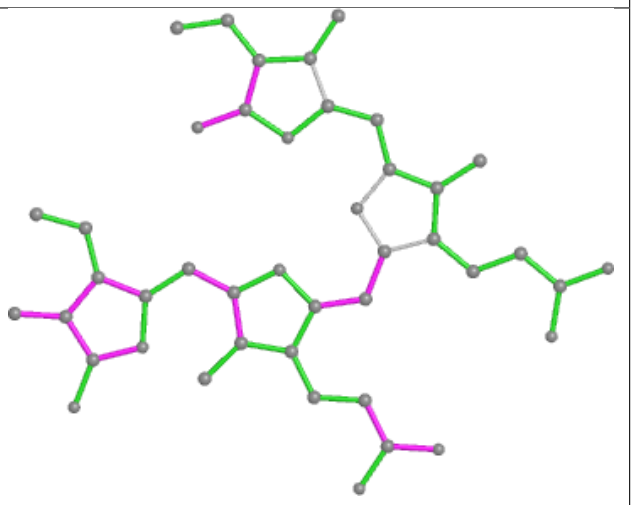
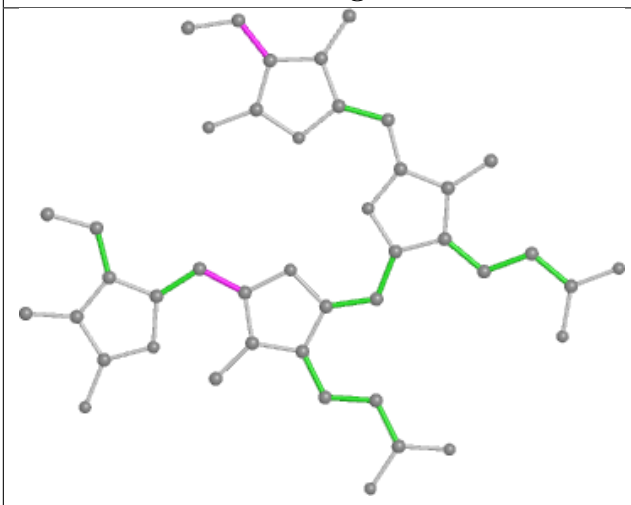


Bond angles



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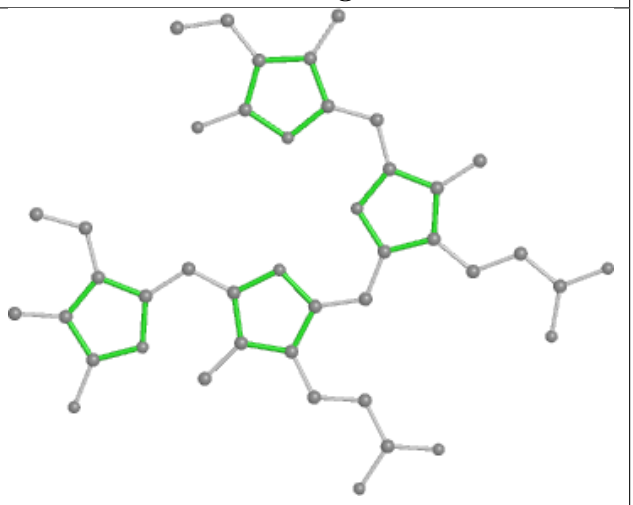
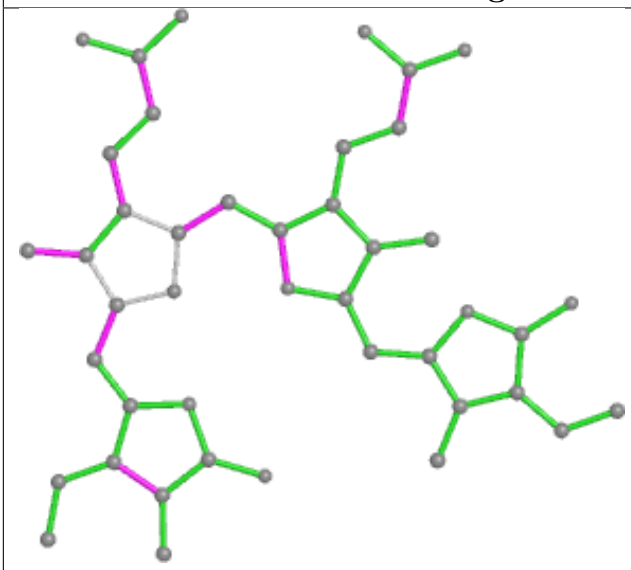


Rings

Ligand DBV C 101 (A)



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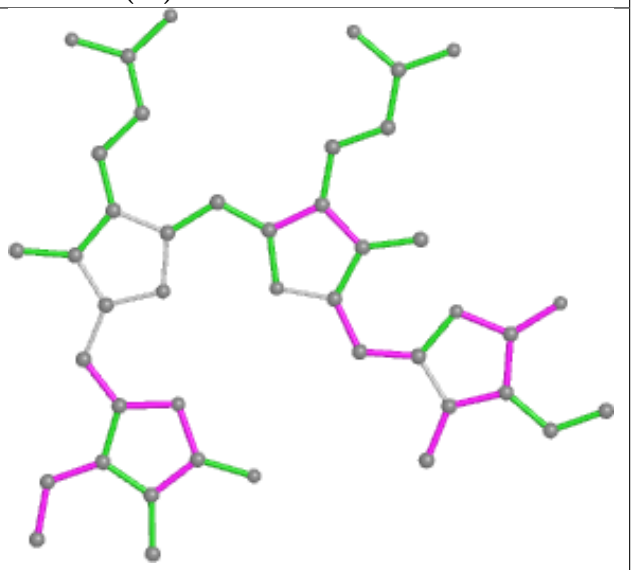

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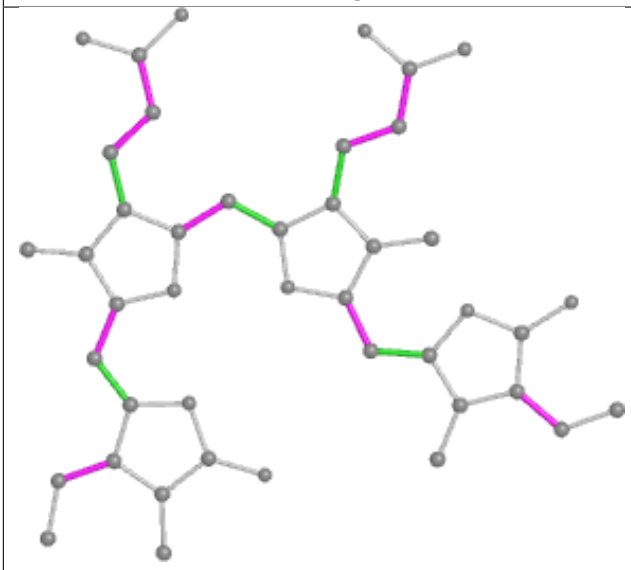

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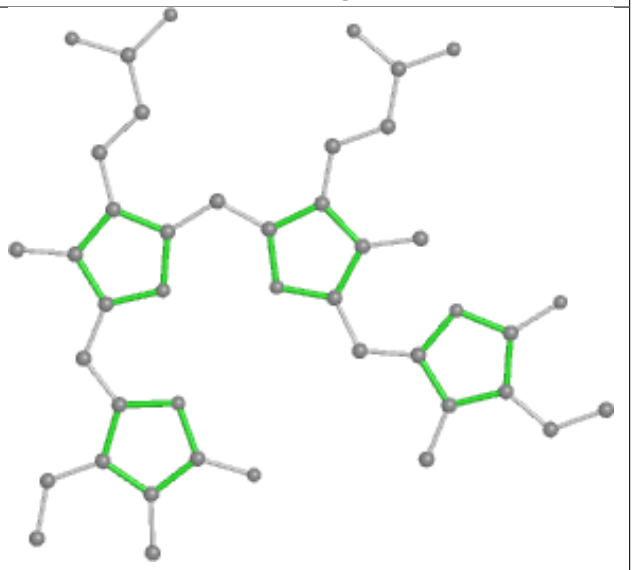
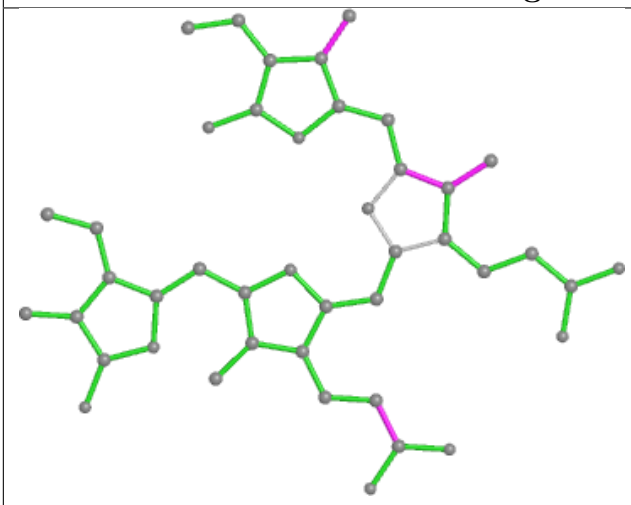


Rings

Ligand PEB H 203



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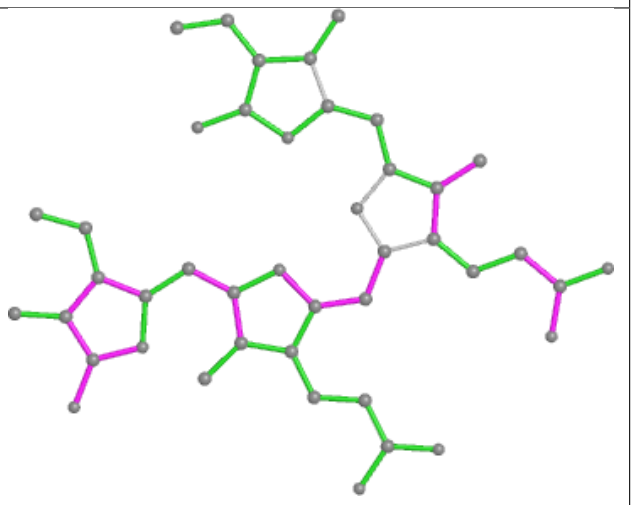

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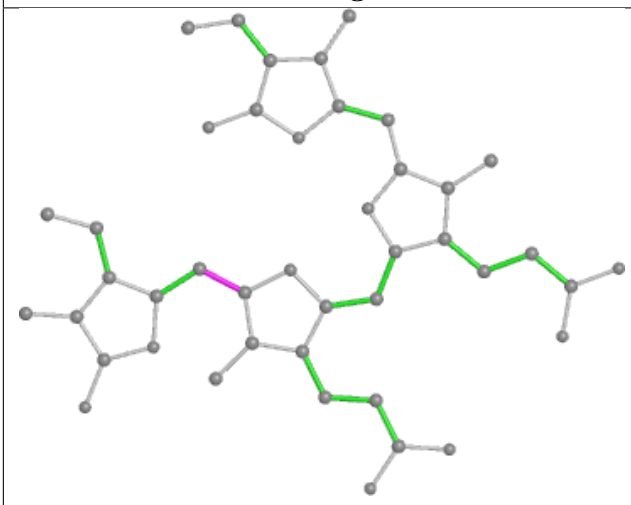

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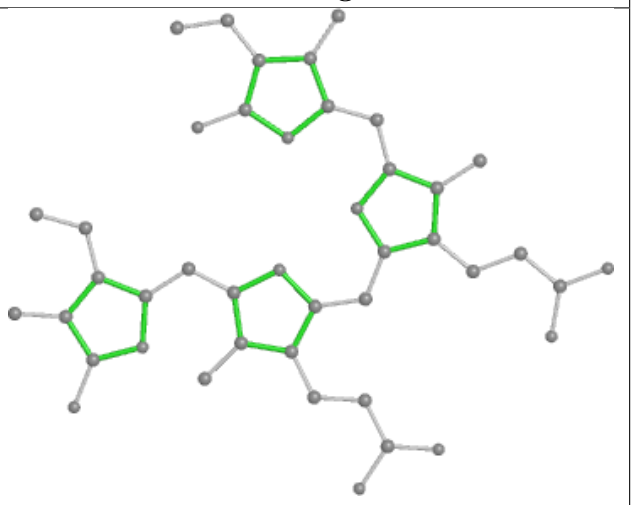
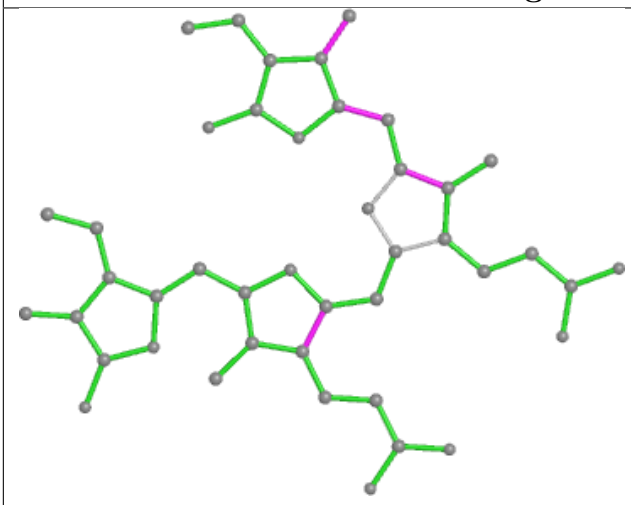


Rings

Ligand PEB B 203



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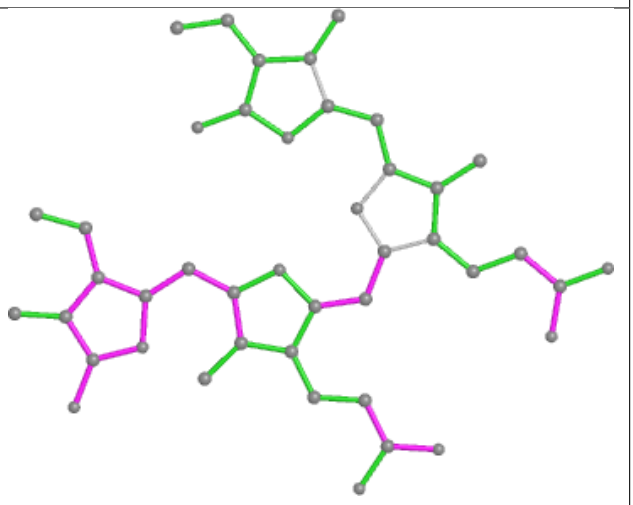
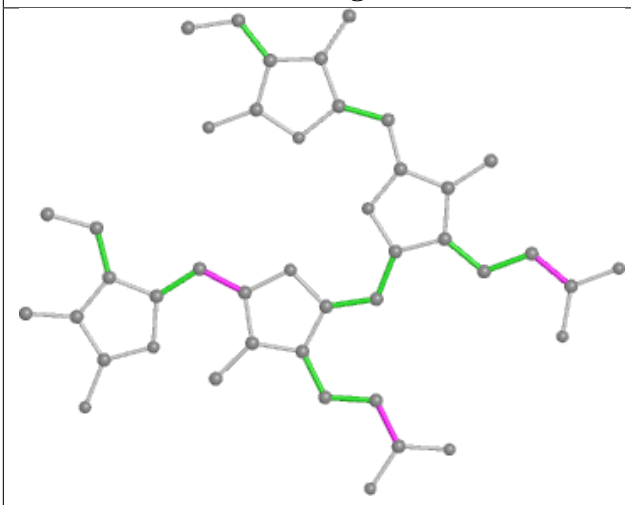


Bond angles



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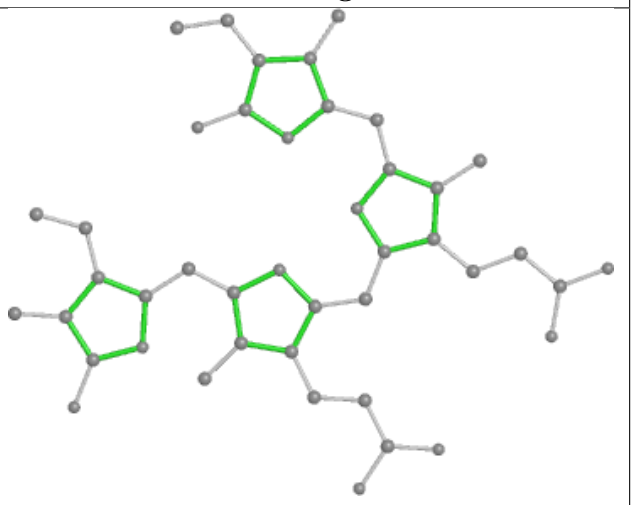
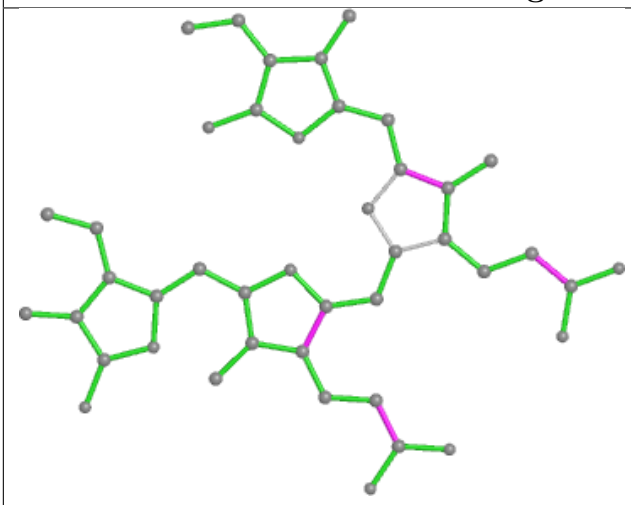


Rings

Ligand PEB L 202



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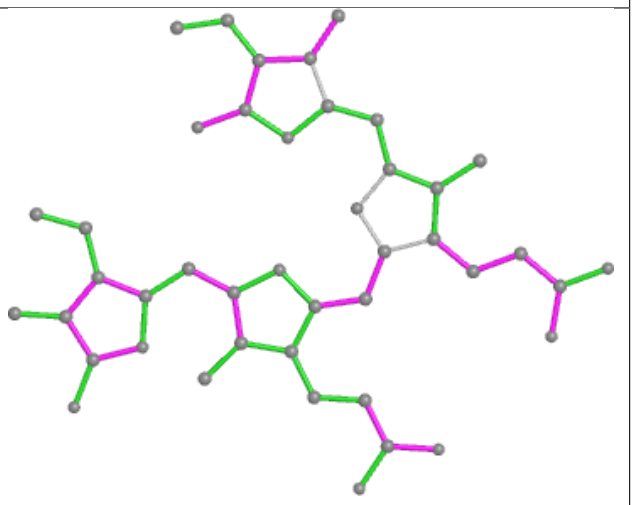
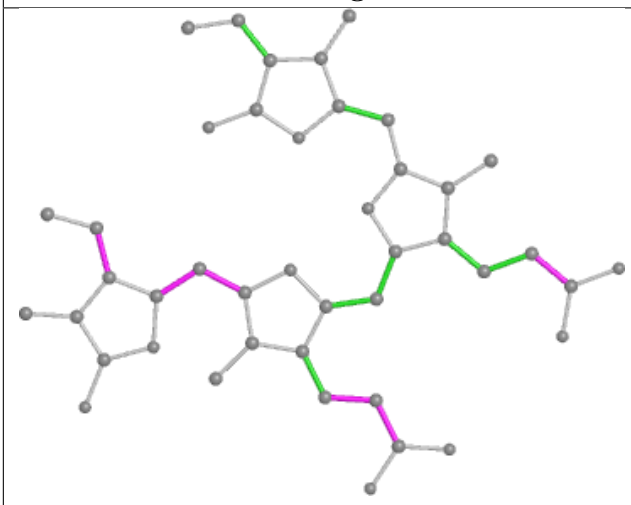


Bond angles



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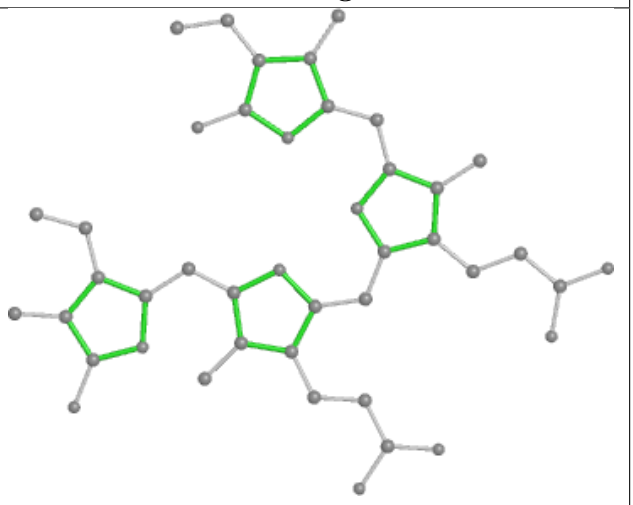
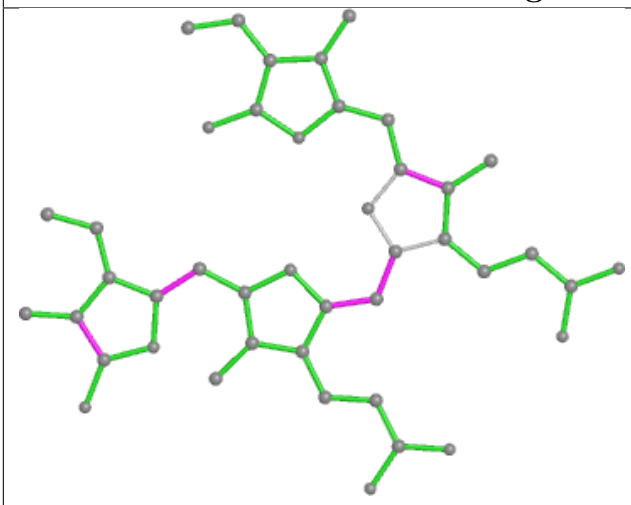


Rings

Ligand PEB P 201



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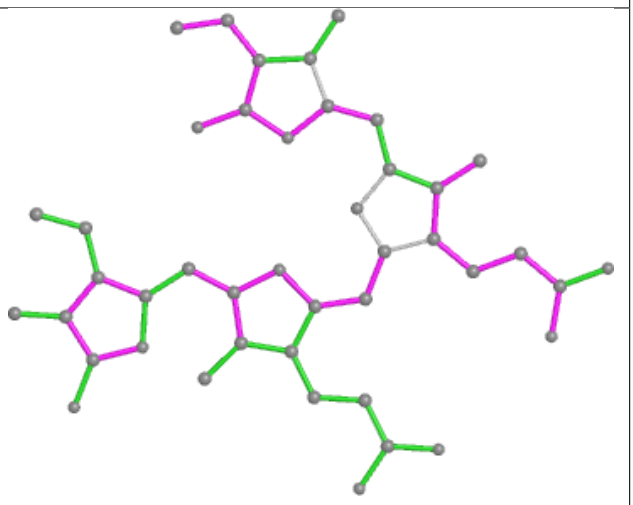
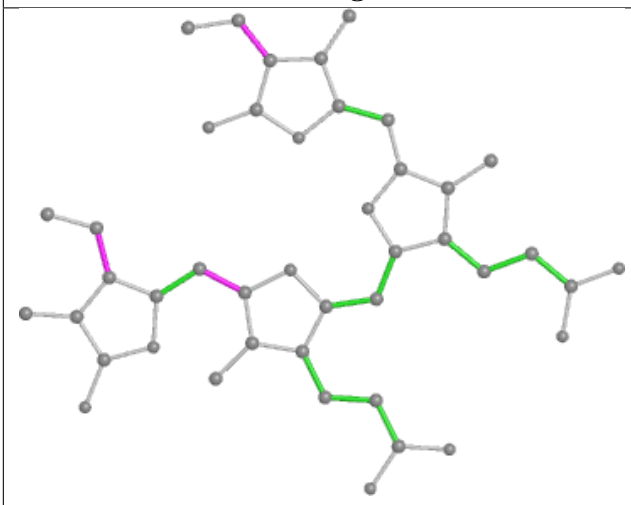


Bond angles



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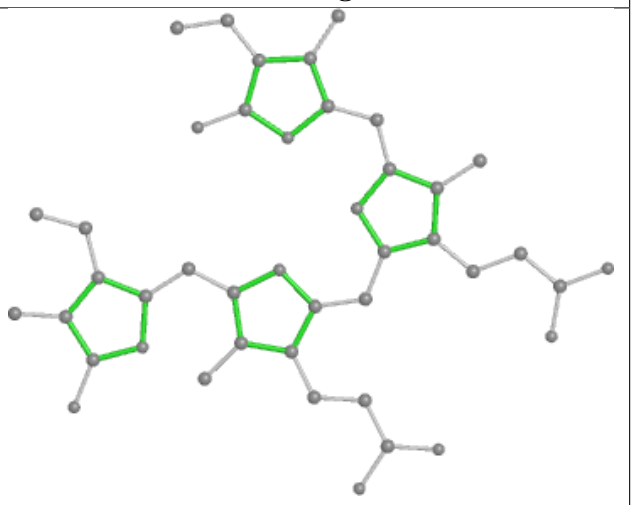
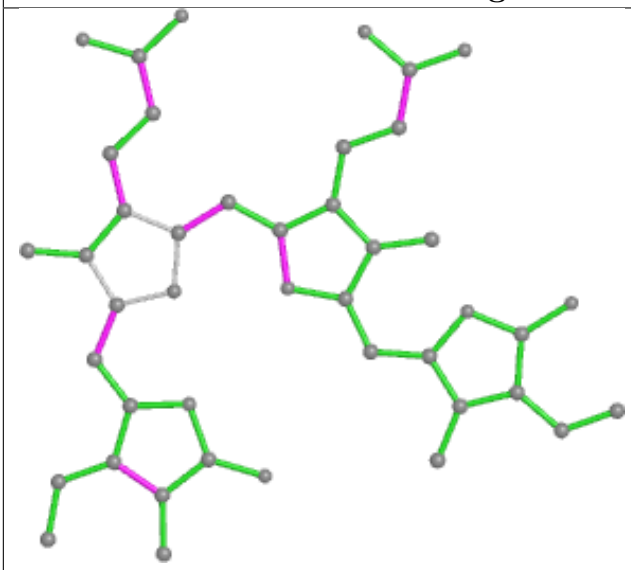


Rings

Ligand DBV R 101 (B)



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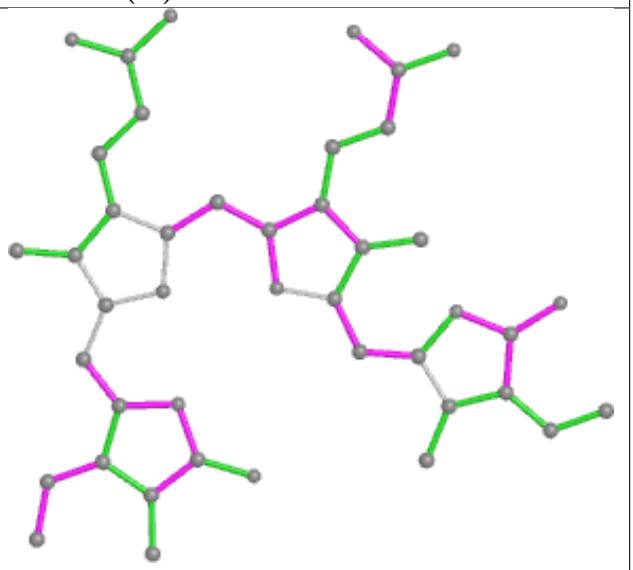
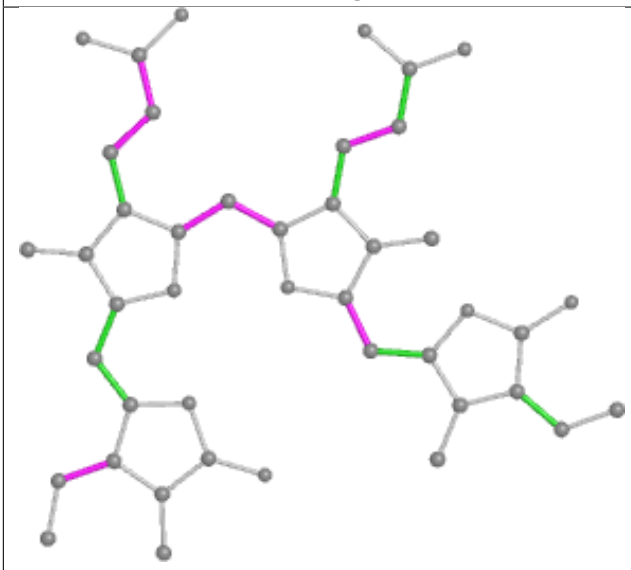


Bond angles



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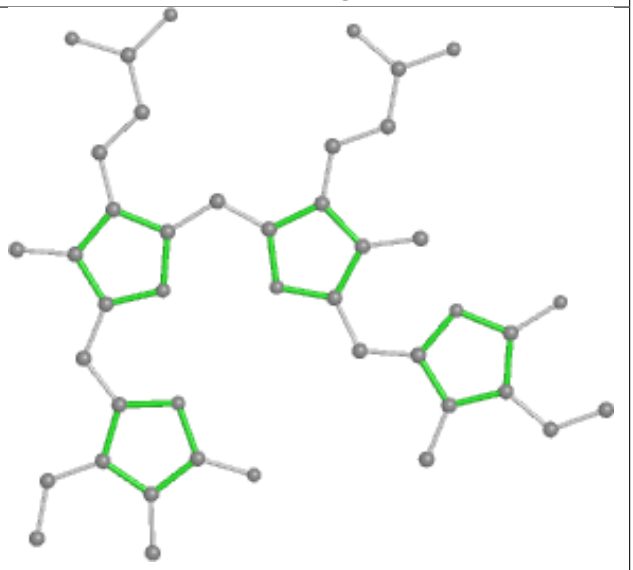
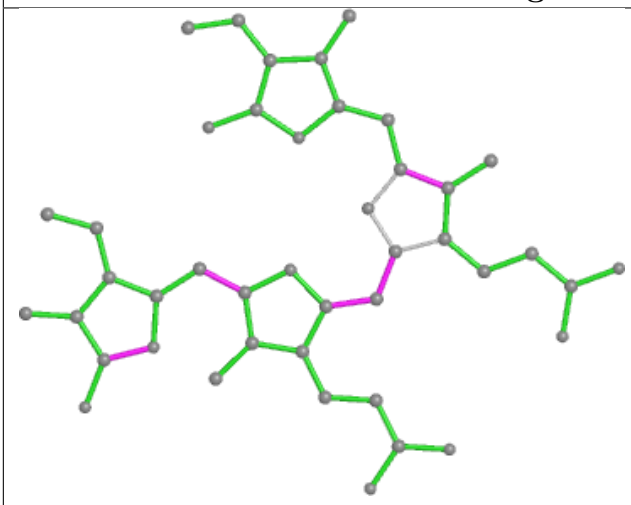


Rings

Ligand PEB L 201



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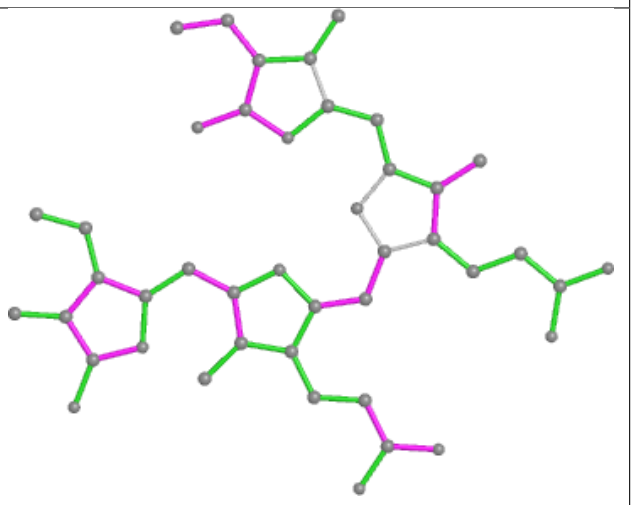
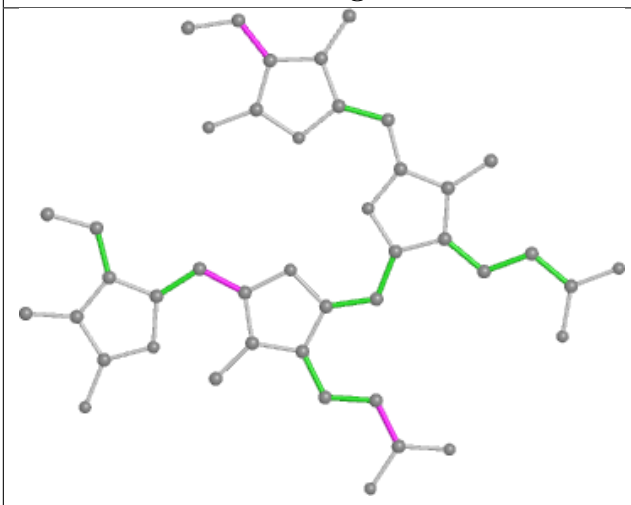
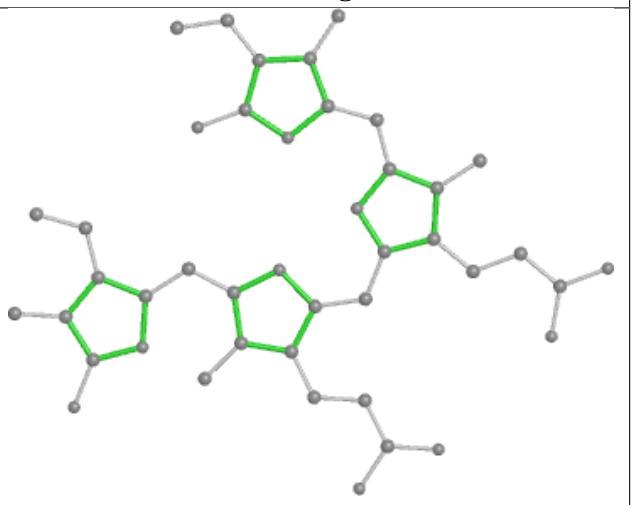


Bond angles

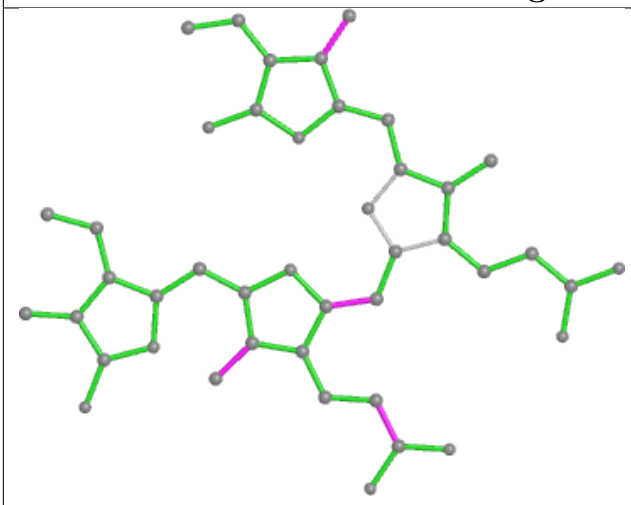


Torsions



Rings

Ligand PEB J 202



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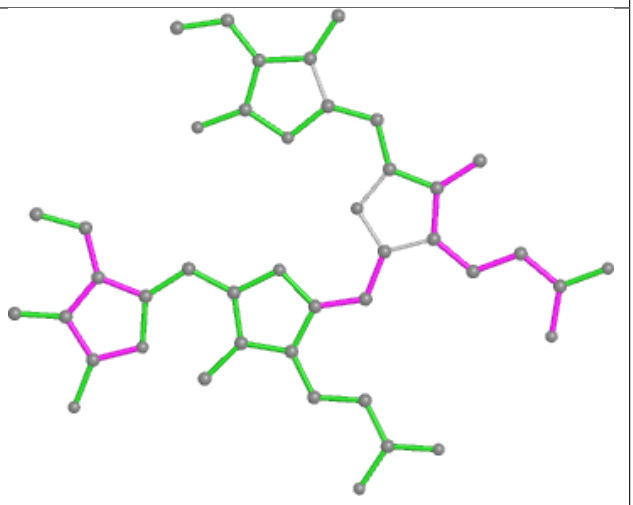
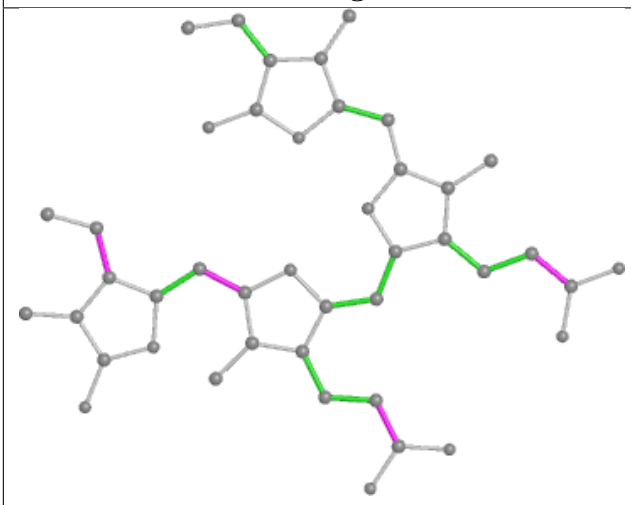
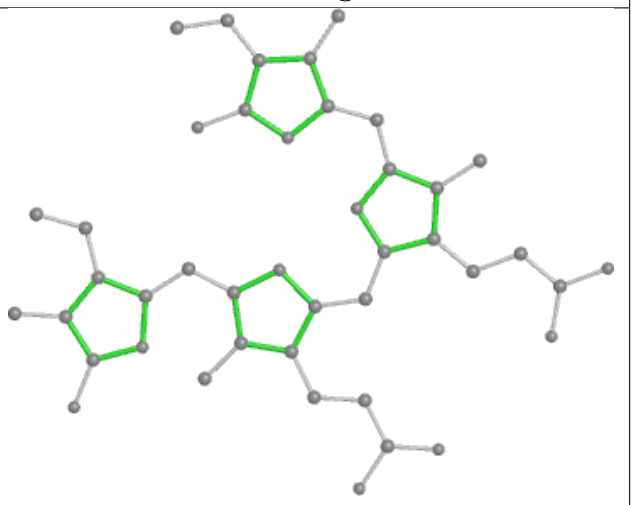


Bond angles

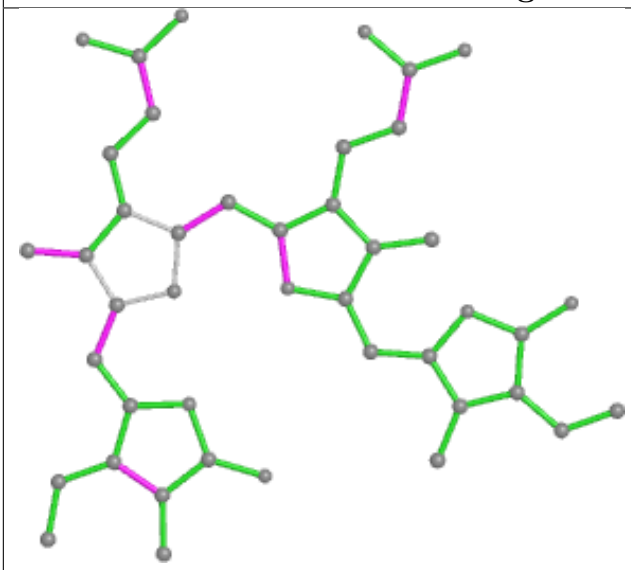


Torsions

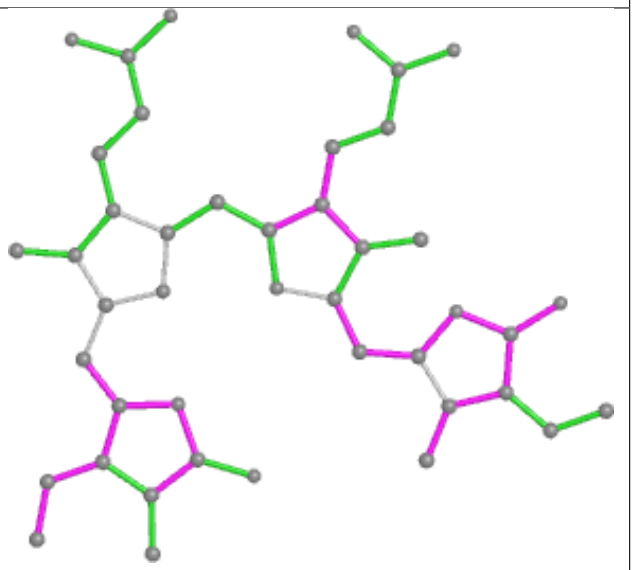


Rings

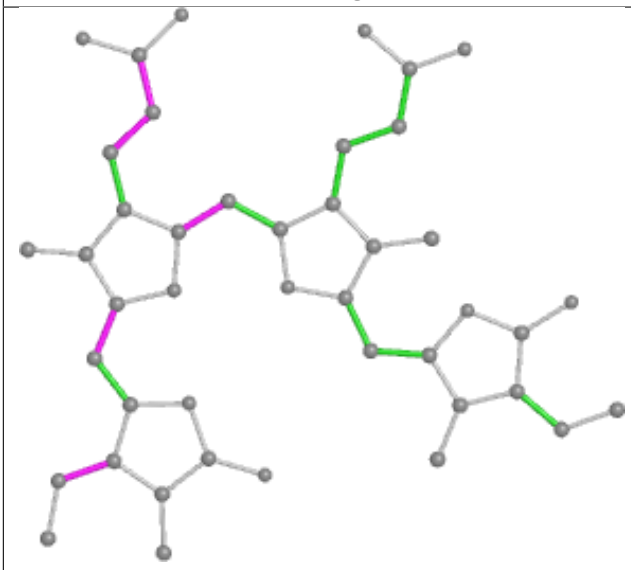
Ligand DBV M 101



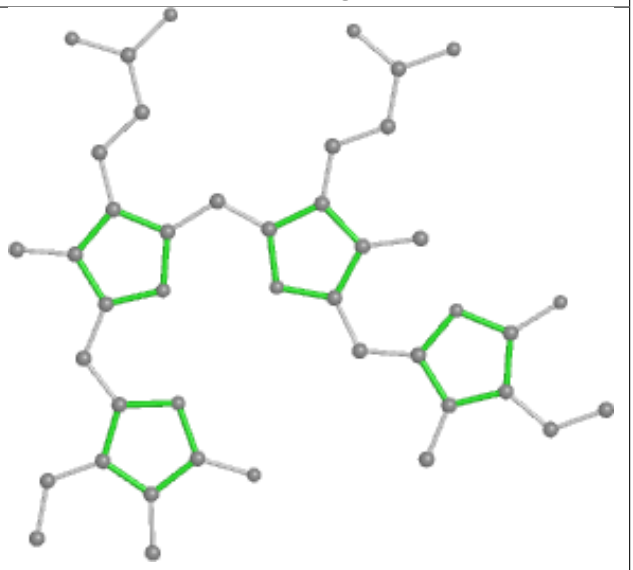
Bond lengths



Bond angles

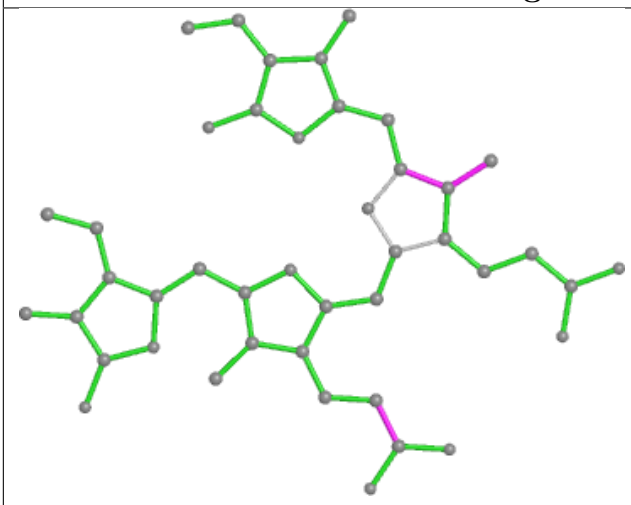


Torsions

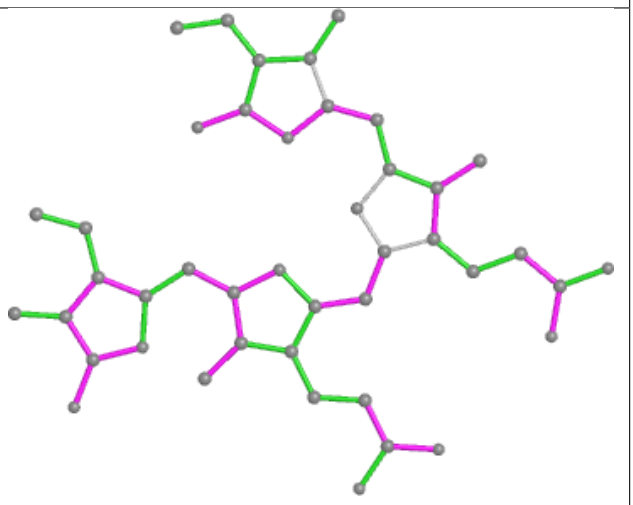


Rings

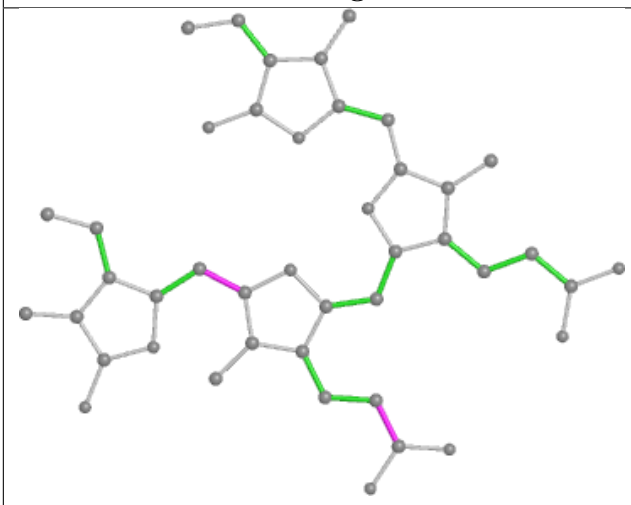
Ligand PEB N 203



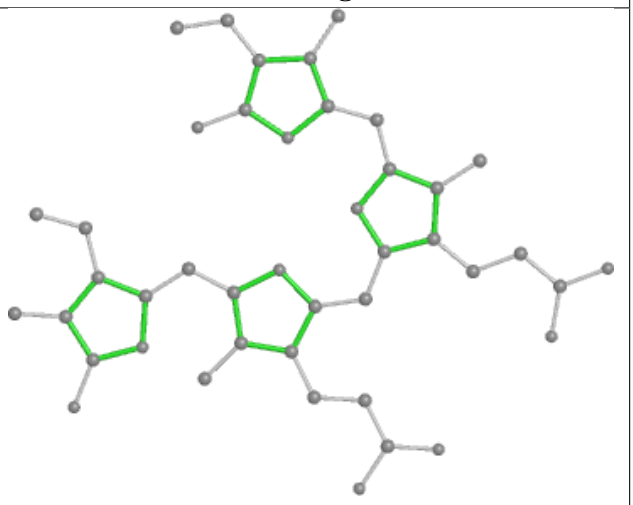
Bond lengths



Bond angles

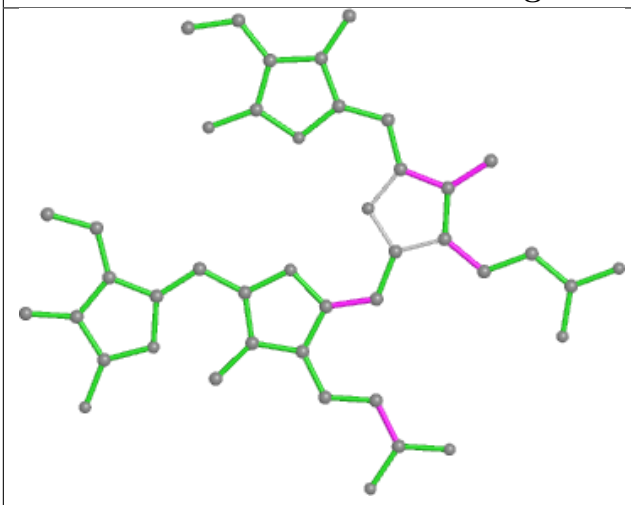


Torsions

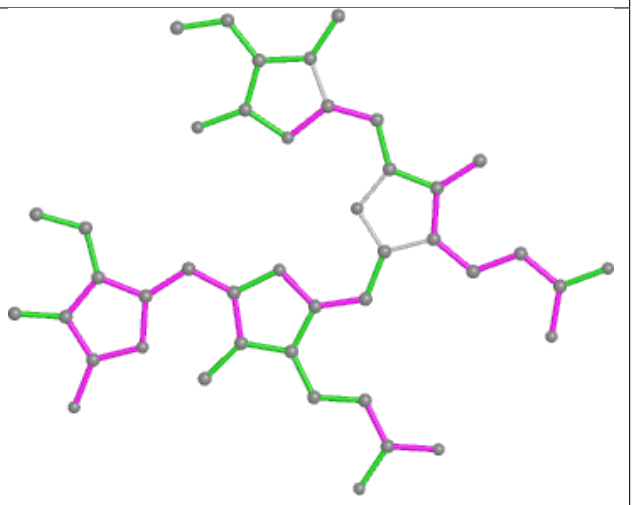


Rings

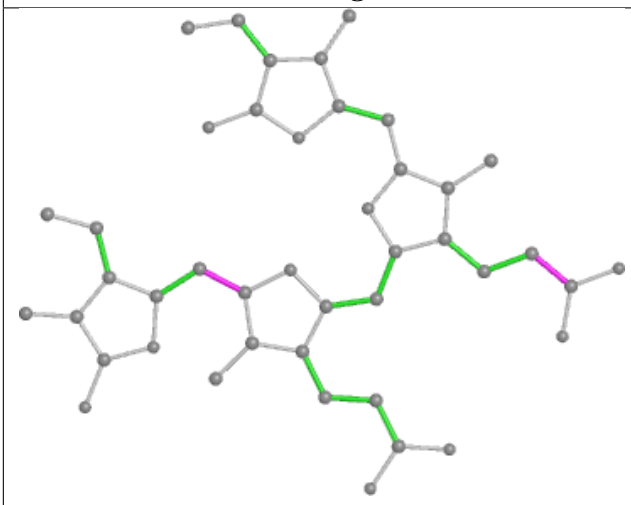
Ligand PEB D 203



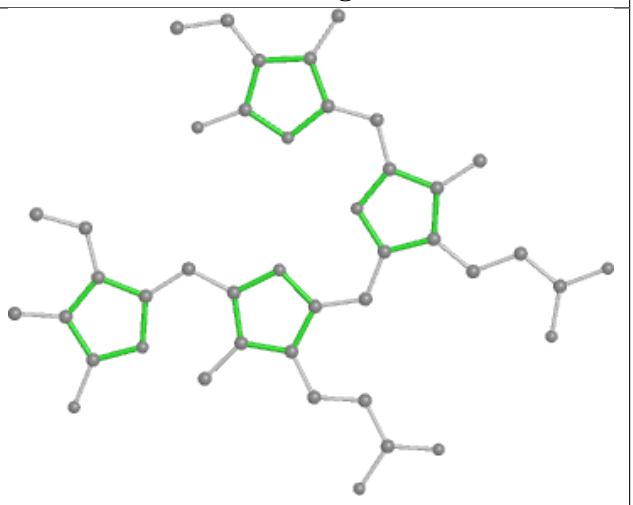
Bond lengths



Bond angles

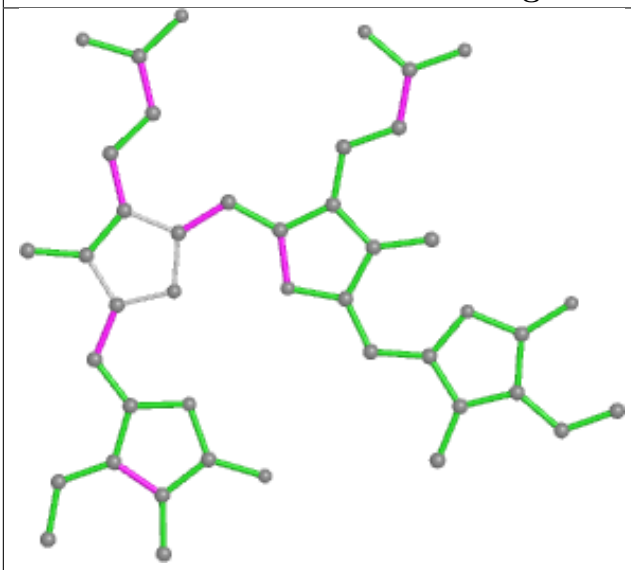


Torsions

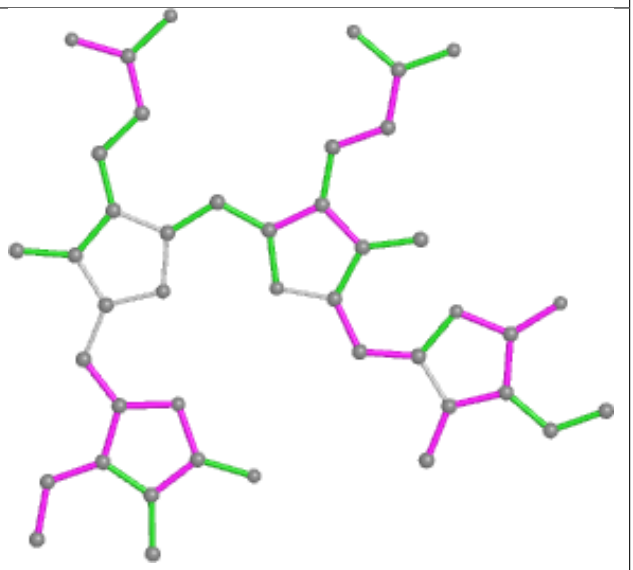


Rings

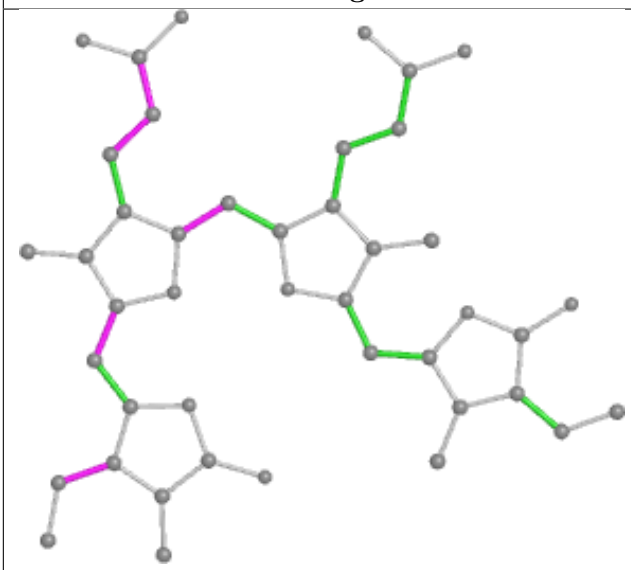
Ligand DBV E 101



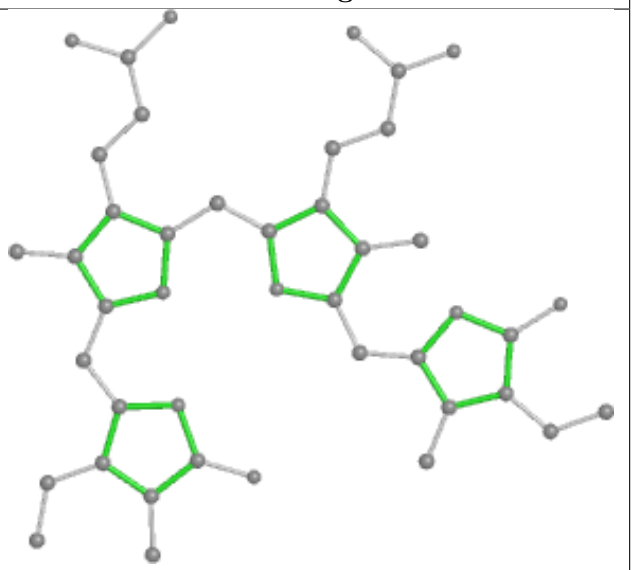
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
1	A	72/76 (94%)	0.58	8 (11%) 5 8	18, 39, 70, 103	72 (100%)
1	E	74/76 (97%)	-0.10	3 (4%) 37 46	20, 28, 52, 62	0
1	I	75/76 (98%)	-0.08	3 (4%) 38 48	22, 33, 59, 102	0
1	M	74/76 (97%)	-0.08	0 100 100	25, 36, 60, 74	0
1	R	70/76 (92%)	0.84	11 (15%) 2 3	20, 44, 81, 101	70 (100%)
2	C	60/67 (89%)	0.82	9 (15%) 2 3	21, 48, 80, 86	60 (100%)
2	G	67/67 (100%)	-0.06	2 (2%) 50 59	22, 32, 46, 87	0
2	K	67/67 (100%)	-0.30	1 (1%) 73 81	23, 32, 48, 55	0
2	O	67/67 (100%)	-0.22	0 100 100	24, 33, 46, 51	0
2	Q	61/67 (91%)	0.47	5 (8%) 11 18	18, 30, 49, 55	61 (100%)
3	B	167/177 (94%)	0.23	14 (8%) 11 17	23, 39, 73, 105	0
3	D	174/177 (98%)	0.41	22 (12%) 3 6	19, 37, 99, 115	0
3	F	166/177 (93%)	-0.07	5 (3%) 50 59	20, 29, 53, 79	0
3	H	173/177 (97%)	0.12	11 (6%) 19 28	20, 29, 61, 120	0
3	J	173/177 (97%)	-0.10	5 (2%) 51 60	20, 29, 62, 117	0
3	L	173/177 (97%)	0.03	7 (4%) 38 48	25, 34, 58, 94	0
3	N	170/177 (96%)	-0.23	4 (2%) 59 68	21, 32, 64, 100	0
3	P	173/177 (97%)	0.06	10 (5%) 23 31	22, 33, 66, 117	0
All	All	2056/2131 (96%)	0.10	120 (5%) 23 31	18, 33, 69, 120	263 (12%)

All (120) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	Q	63[B]	SER	9.2
1	A	68[A]	LEU	7.0
3	J	13	ASP	6.2

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Mol	Chain	Res	Type	RSRZ
3	H	11	ASN	5.8
2	C	63[A]	SER	5.5
3	D	147	SER	5.3
3	H	12	ALA	5.3
3	D	145	THR	5.3
3	B	6	SER	5.2
3	D	14	SER	4.9
3	H	10	THR	4.7
3	D	3	ASP	4.6
2	C	66[A]	HIS	4.6
3	L	10	THR	4.5
1	R	26[B]	SER	4.5
3	B	14	SER	4.4
1	A	72[A]	VAL	4.4
2	Q	64[B]	VAL	4.3
3	J	14	SER	4.3
3	B	5	PHE	4.3
1	R	68[B]	LEU	4.2
3	B	151	LEU	4.2
3	B	177	SER	4.2
2	G	27	THR	4.1
3	B	7	ARG	4.1
3	D	150	LYS	4.1
3	J	3	ASP	4.1
1	A	66[A]	LYS	4.0
3	D	7	ARG	4.0
3	D	15	LYS	4.0
3	D	2	LEU	3.9
1	I	75	LYS	3.9
1	R	13[B]	ILE	3.9
3	H	14	SER	3.9
1	A	67[A]	GLY	3.8
3	D	13	ASP	3.7
1	A	65[A]	GLU	3.7
3	D	149	LYS	3.7
3	D	148	GLN	3.6
3	B	150	LYS	3.6
3	D	41	VAL	3.6
3	H	7	ARG	3.5
3	H	93	VAL	3.5
1	A	27[A]	SER	3.5
1	E	74	ARG	3.4

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Mol	Chain	Res	Type	RSRZ
2	C	13[A]	ILE	3.4
2	C	18[A]	GLY	3.4
3	D	45	VAL	3.4
3	H	45	VAL	3.4
1	I	27	SER	3.3
1	R	18[B]	GLY	3.3
3	B	10	THR	3.2
3	P	2	LEU	3.2
2	Q	5[B]	SER	3.2
2	C	5[A]	SER	3.2
3	H	90	LEU	3.1
3	D	4	ALA	3.1
1	R	73[B]	ILE	3.1
1	R	27[B]	SER	3.1
1	E	1	GLY	3.1
3	J	4	ALA	3.1
3	P	10	THR	3.1
3	B	15	LYS	3.0
3	D	6	SER	3.0
3	H	13	ASP	2.9
3	B	149	LYS	2.9
2	C	26[A]	TYR	2.9
3	L	13	ASP	2.9
3	N	115	GLU	2.8
3	D	146	ALA	2.8
3	F	9	VAL	2.7
1	E	73	ILE	2.7
3	D	151	LEU	2.7
1	R	5[B]	SER	2.7
3	F	10	THR	2.7
3	H	44	ILE	2.7
2	K	1	ALA	2.6
3	D	44	ILE	2.6
3	P	147	SER	2.6
3	D	8	VAL	2.6
3	P	3	ASP	2.5
3	B	45	VAL	2.5
3	P	7	ARG	2.5
3	P	9	VAL	2.5
3	H	48	ALA	2.5
2	C	11[A]	ILE	2.5
3	L	44	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
3	P	13	ASP	2.5
3	B	155	GLN	2.4
1	R	11[B]	ILE	2.4
3	F	177	SER	2.4
1	R	19[B]	CYS	2.4
3	B	51	ILE	2.4
3	P	139	VAL	2.3
3	F	90	LEU	2.3
3	F	52	VAL	2.3
2	C	19[A]	CYS	2.3
3	D	9	VAL	2.3
2	Q	27[B]	THR	2.2
3	N	4	ALA	2.2
1	I	73	ILE	2.2
3	J	90	LEU	2.2
2	Q	60[B]	ASP	2.2
1	A	55[A]	LYS	2.2
3	P	44	ILE	2.1
3	D	111	ASN	2.1
3	L	14	SER	2.1
3	L	7	ARG	2.1
1	R	12[B]	THR	2.1
2	C	64[A]	VAL	2.1
3	N	15	LYS	2.1
1	R	28[B]	ALA	2.1
2	G	26	TYR	2.1
3	B	52	VAL	2.1
3	L	147	SER	2.0
3	L	177	SER	2.0
3	P	14	SER	2.0
3	N	5	PHE	2.0
1	A	69[A]	ASP	2.0
3	D	40	ALA	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 monosaccharides in this entry.

6.4 Ligands (i)

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

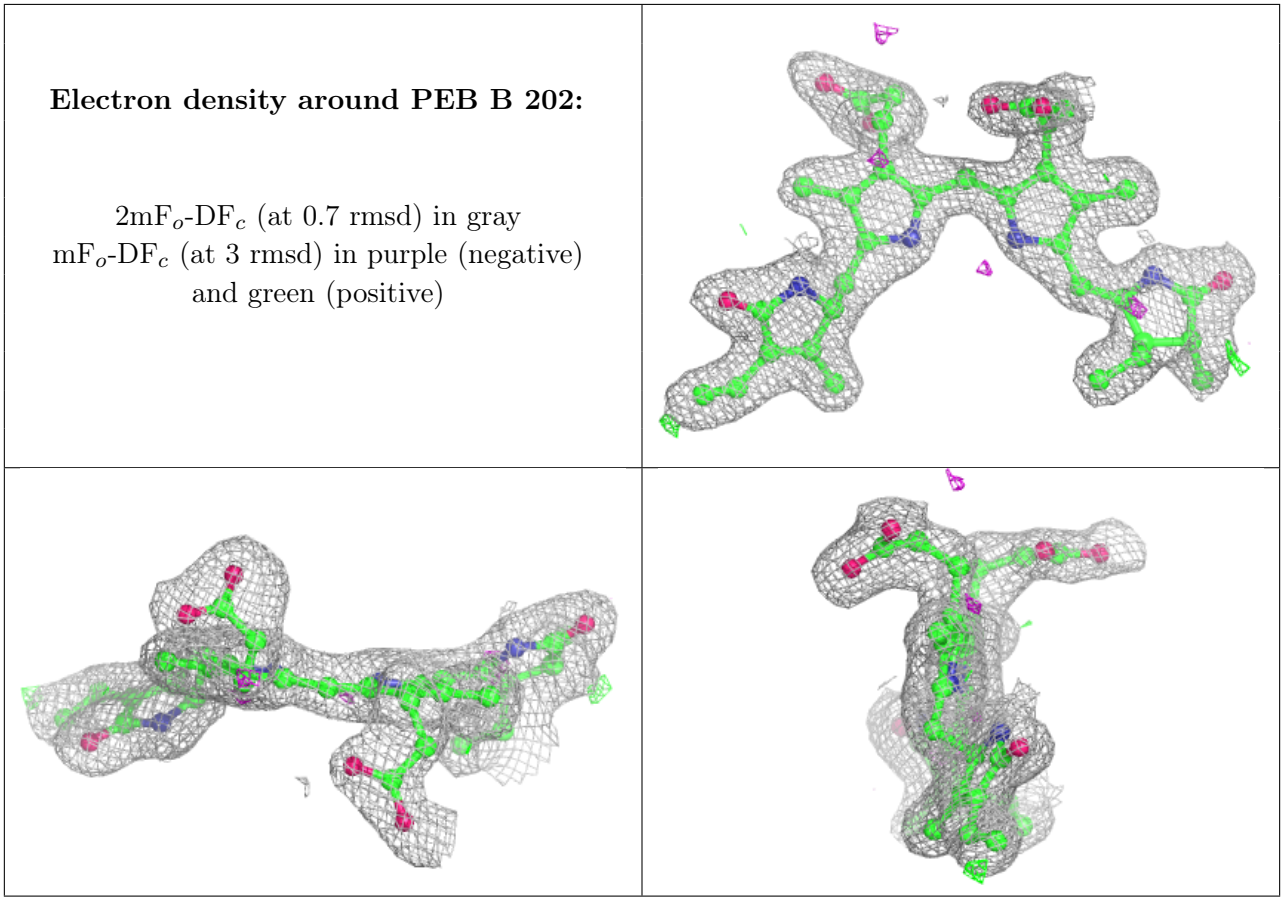
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
6	MG	J	204	1/1	0.63	0.63	67,67,67,67	0
5	PEB	B	202	43/43	0.86	0.16	19,34,45,64	0
5	PEB	D	202	43/43	0.88	0.14	30,46,61,67	0
5	PEB	N	203	43/43	0.89	0.12	22,34,43,48	0
4	DBV	R	101[B]	43/43	0.90	0.14	29,41,52,57	43
5	PEB	D	201	43/43	0.91	0.12	21,33,50,51	0
5	PEB	P	202	43/43	0.91	0.10	17,27,36,43	0
4	DBV	C	101[A]	43/43	0.91	0.14	26,41,52,56	43
5	PEB	B	201	43/43	0.92	0.12	22,32,58,82	0
5	PEB	F	201	43/43	0.92	0.10	15,21,35,46	0
5	PEB	H	201	43/43	0.92	0.09	15,23,33,44	0
5	PEB	L	201	43/43	0.93	0.10	17,26,46,60	0
5	PEB	L	202	43/43	0.93	0.10	19,29,56,64	0
5	PEB	N	202	43/43	0.93	0.09	17,26,35,40	0
4	DBV	O	101	43/43	0.93	0.10	16,26,34,36	0
5	PEB	P	201	43/43	0.93	0.11	17,25,51,53	0
5	PEB	H	203	43/43	0.93	0.09	22,34,47,61	0
5	PEB	P	203	43/43	0.93	0.10	21,36,51,73	0
5	PEB	J	201	43/43	0.93	0.09	16,24,34,42	0
4	DBV	M	101	43/43	0.94	0.09	20,31,39,46	0
5	PEB	F	202	43/43	0.94	0.08	16,24,34,43	0
5	PEB	J	203	43/43	0.94	0.08	15,24,31,37	0
4	DBV	K	101	43/43	0.94	0.08	18,24,32,37	0
5	PEB	H	202	43/43	0.94	0.10	19,25,58,64	0
5	PEB	N	201	43/43	0.94	0.09	15,23,33,39	0
5	PEB	L	203	43/43	0.95	0.08	22,32,44,52	0
4	DBV	A	101[A]	43/43	0.95	0.09	17,22,30,36	43
5	PEB	D	203	43/43	0.95	0.08	18,27,50,55	0
4	DBV	Q	101[B]	43/43	0.95	0.10	16,22,32,34	43
5	PEB	J	202	43/43	0.95	0.07	15,26,33,38	0
5	PEB	B	203	43/43	0.95	0.09	20,30,38,44	0
5	PEB	F	203	43/43	0.95	0.08	18,24,34,42	0
4	DBV	G	101	43/43	0.95	0.07	18,24,32,32	0
4	DBV	E	101	43/43	0.96	0.08	16,23,34,54	0
4	DBV	I	101	43/43	0.96	0.07	26,33,42,49	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.

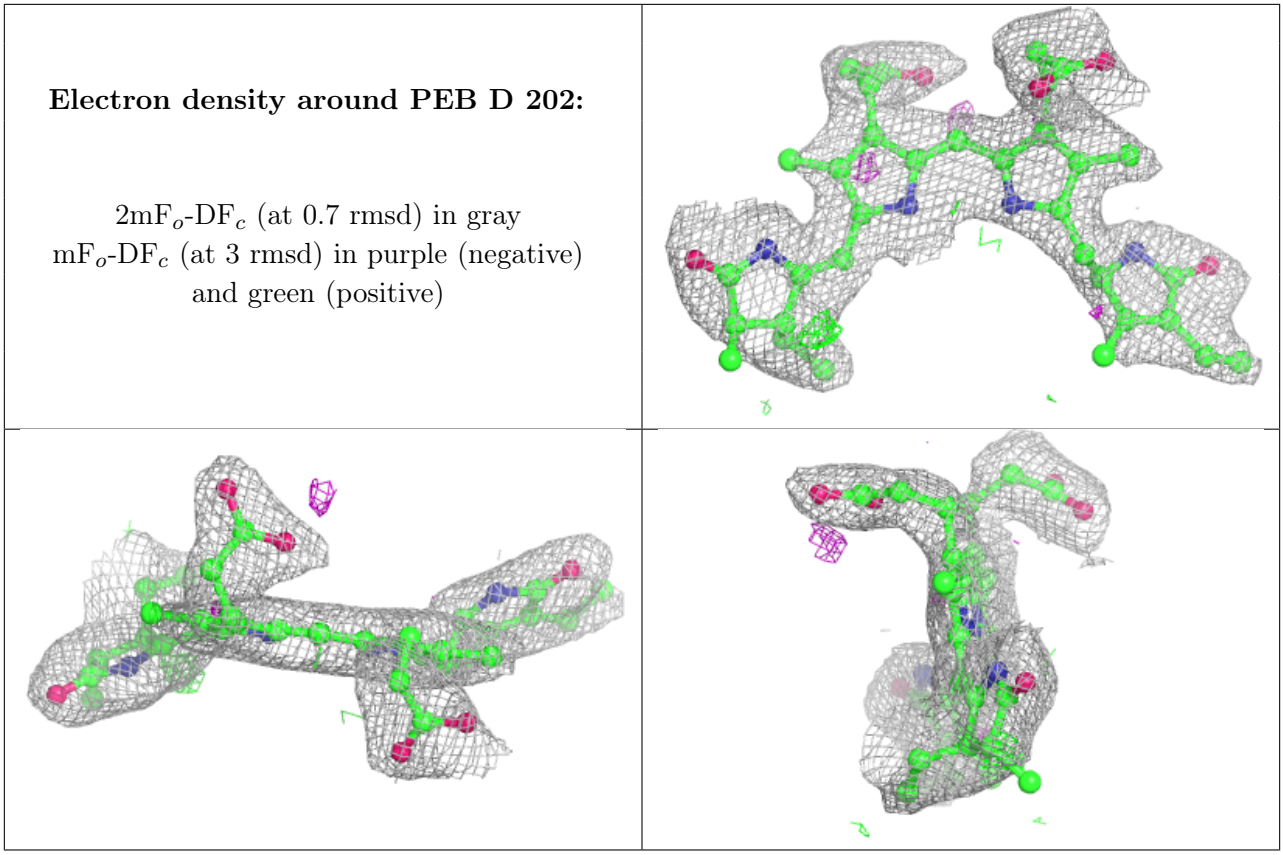
Electron density around PEB B 202:

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



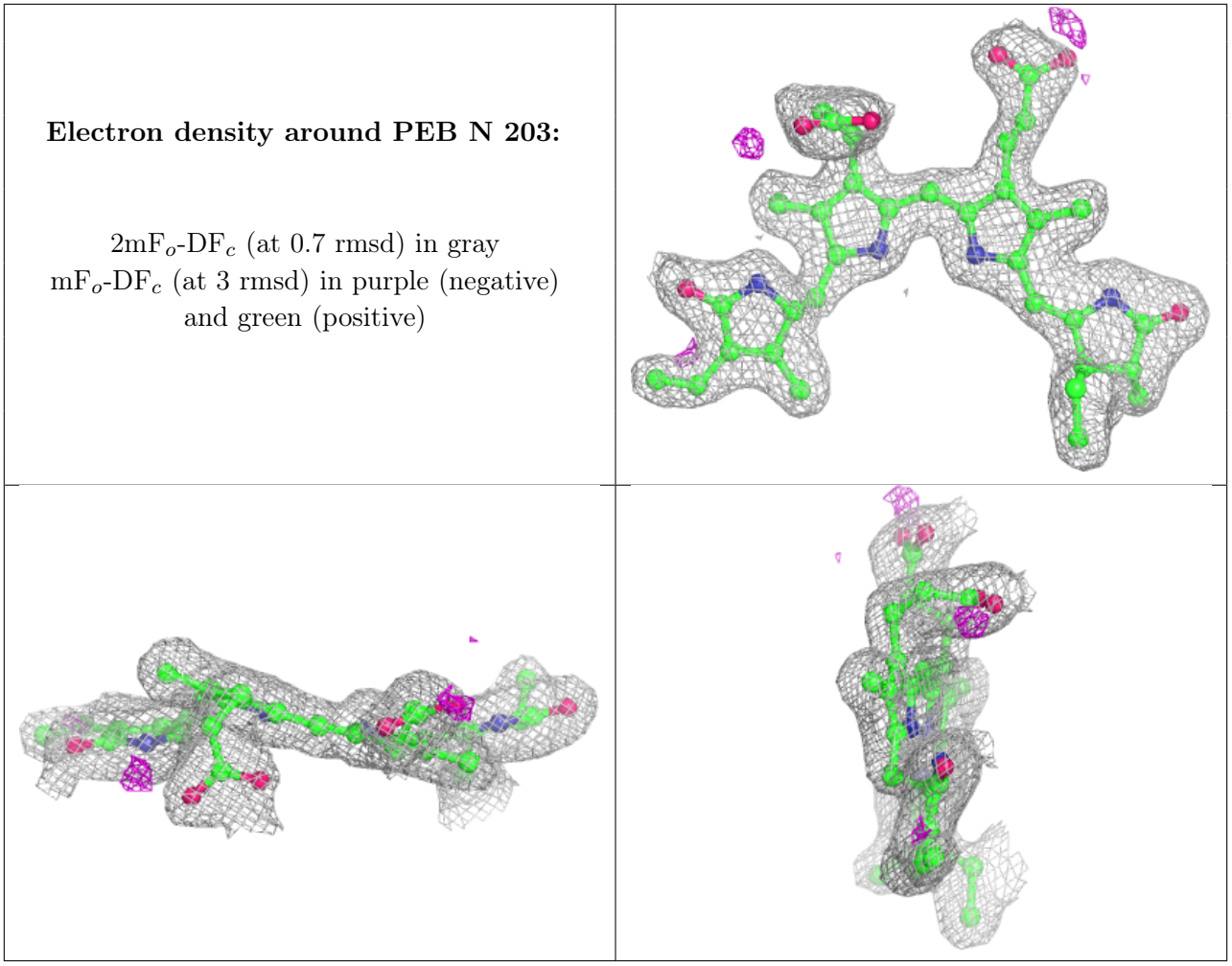
Electron density around PEB D 202:

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



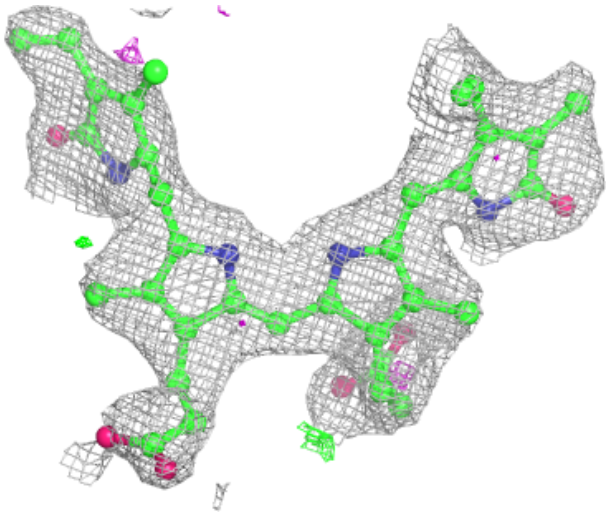
Electron density around PEB N 203:

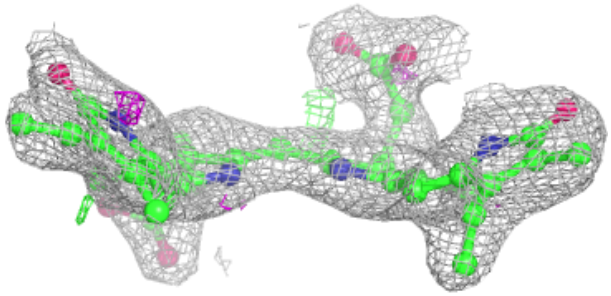
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

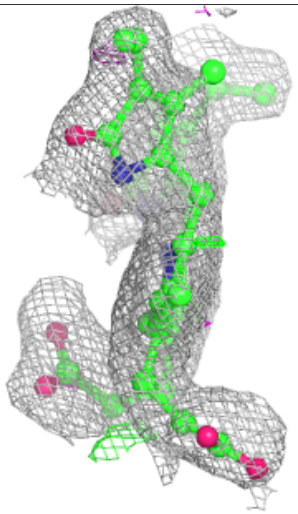


Electron density around DBV R 101 (B):

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

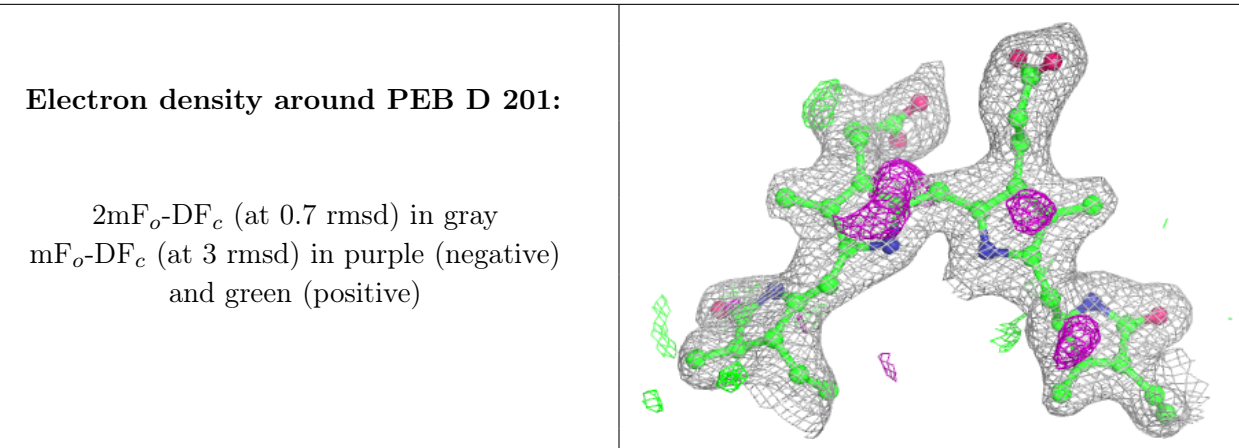






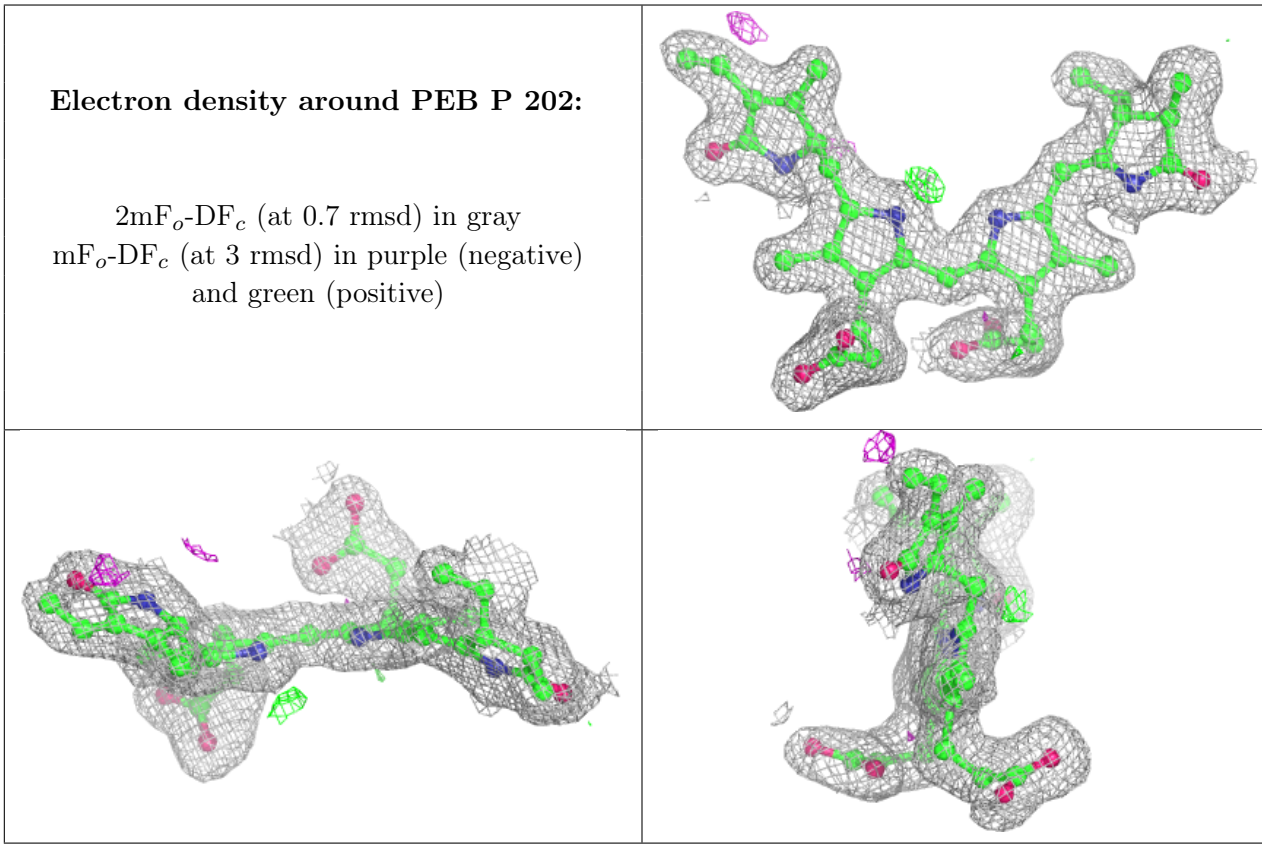
Electron density around PEB D 201:

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



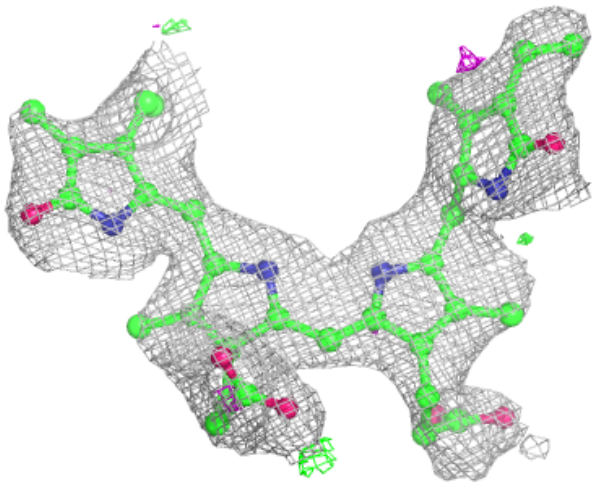
Electron density around PEB P 202:

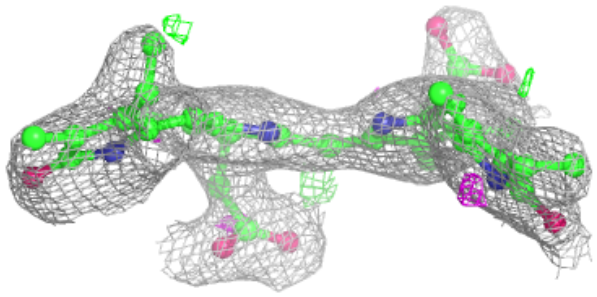
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

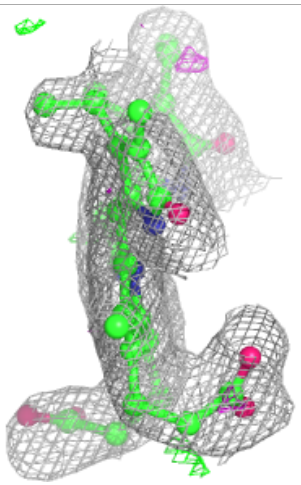


Electron density around DBV C 101 (A):

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

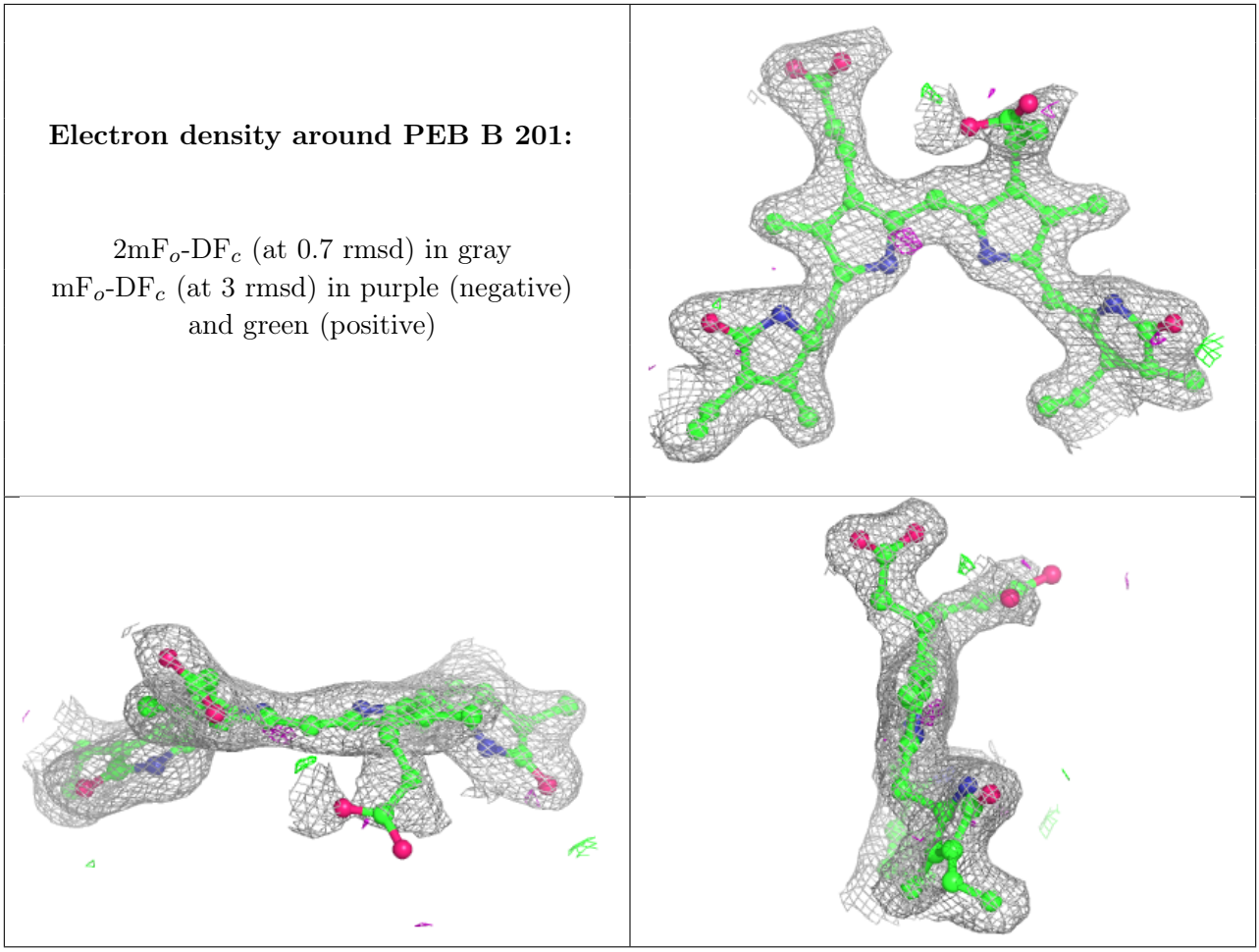






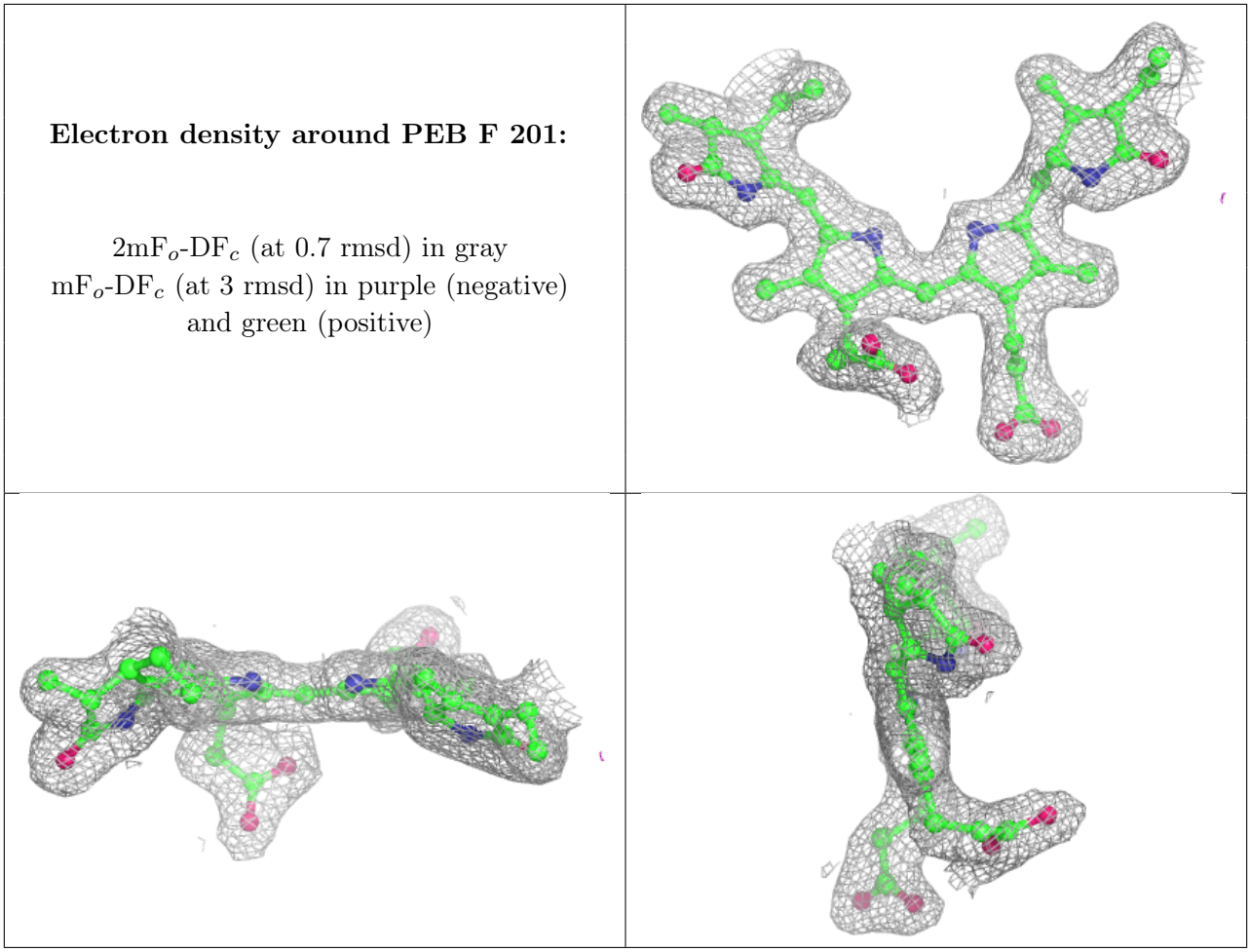
Electron density around PEB B 201:

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



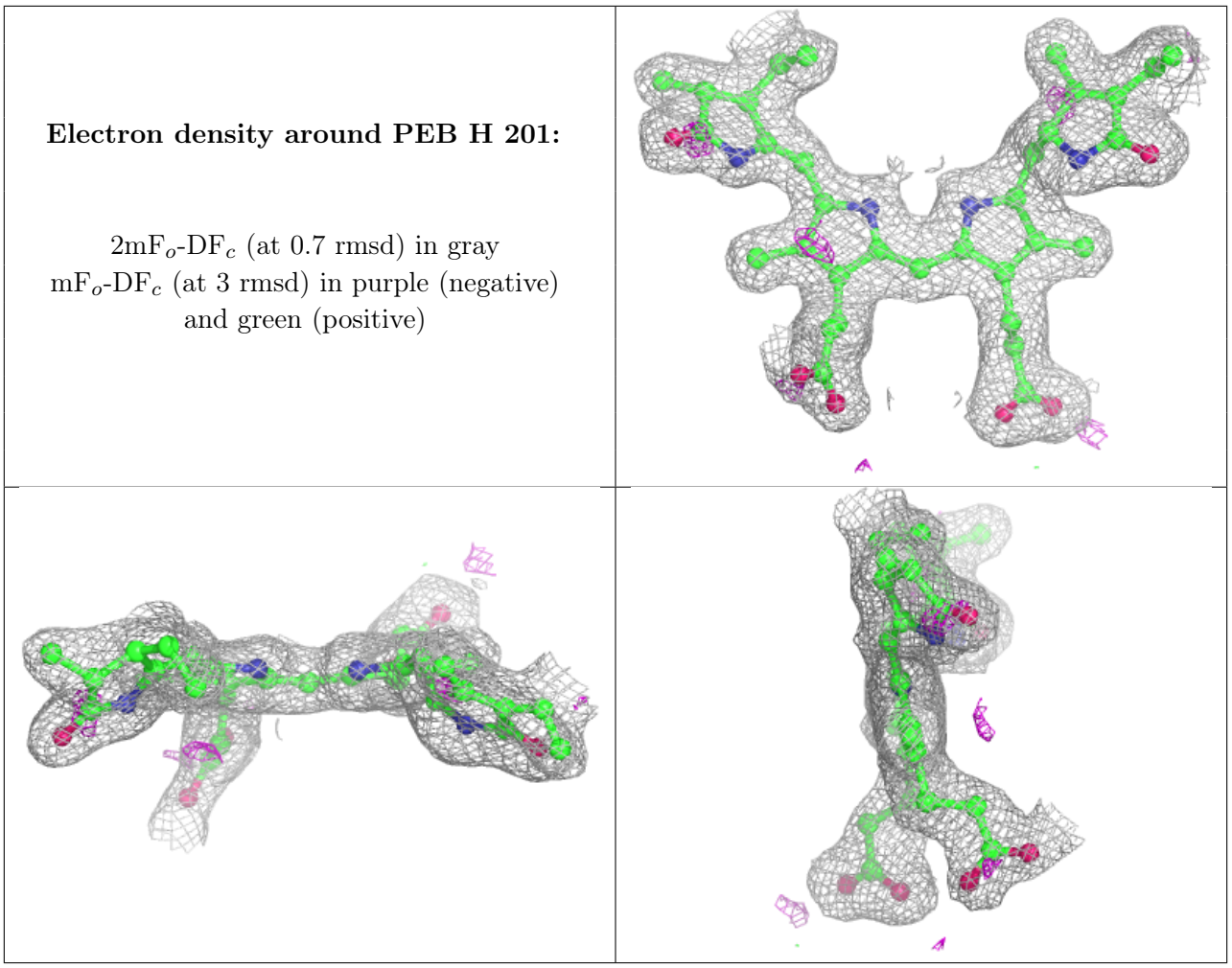
Electron density around PEB F 201:

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



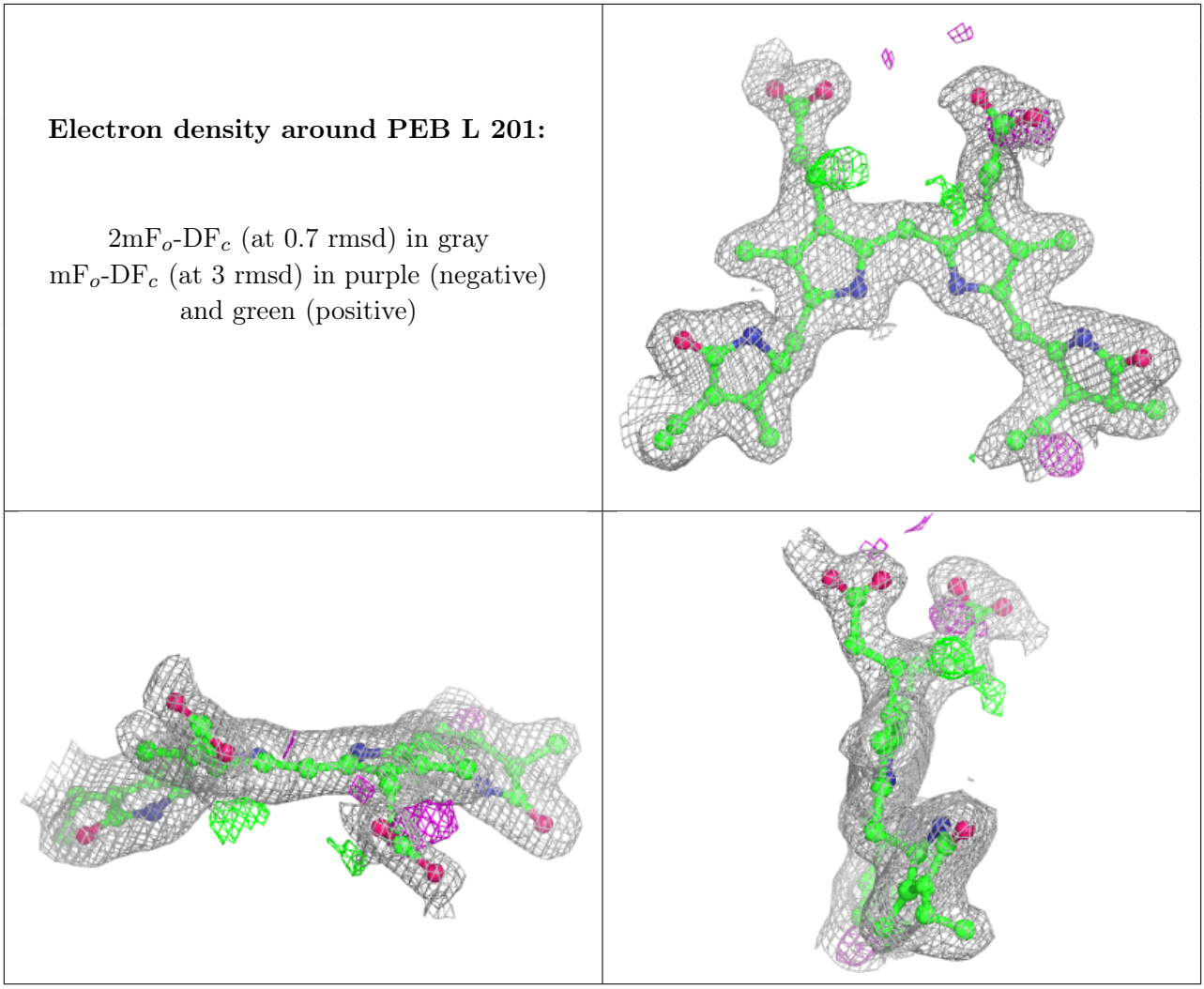
Electron density around PEB H 201:

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



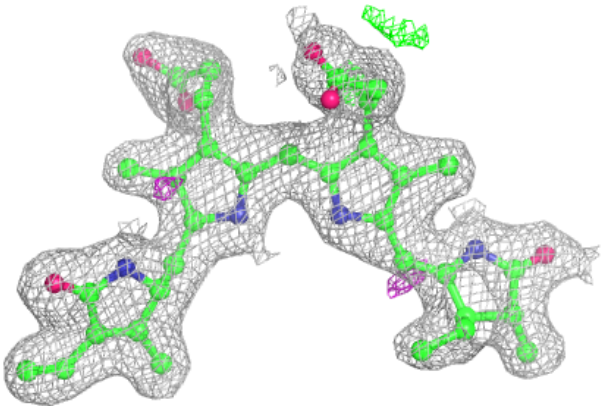
Electron density around PEB L 201:

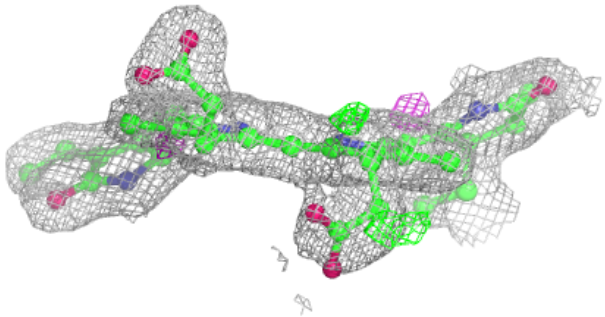
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

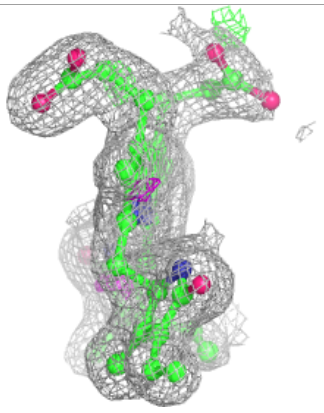


Electron density around PEB L 202:

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

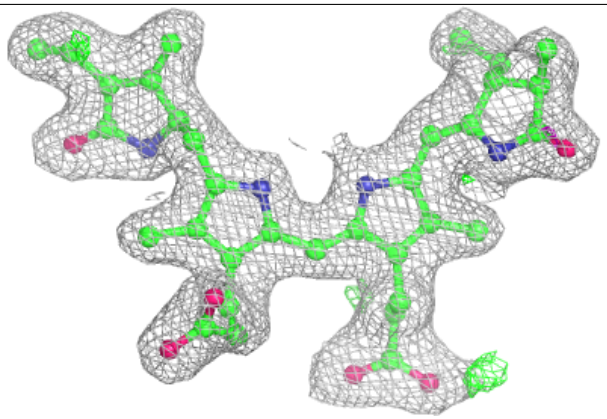


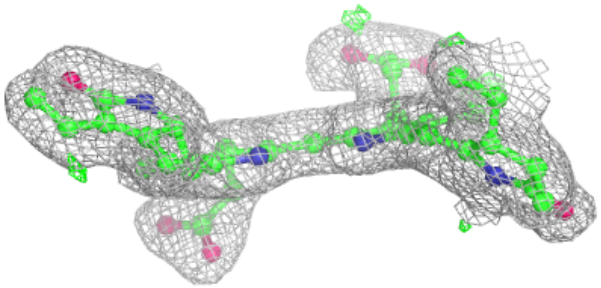


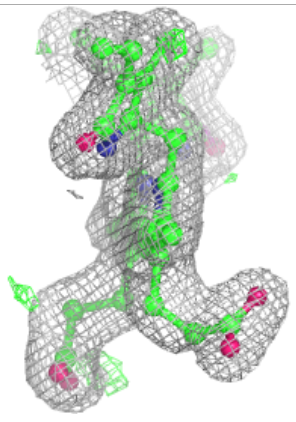


Electron density around PEB N 202:

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

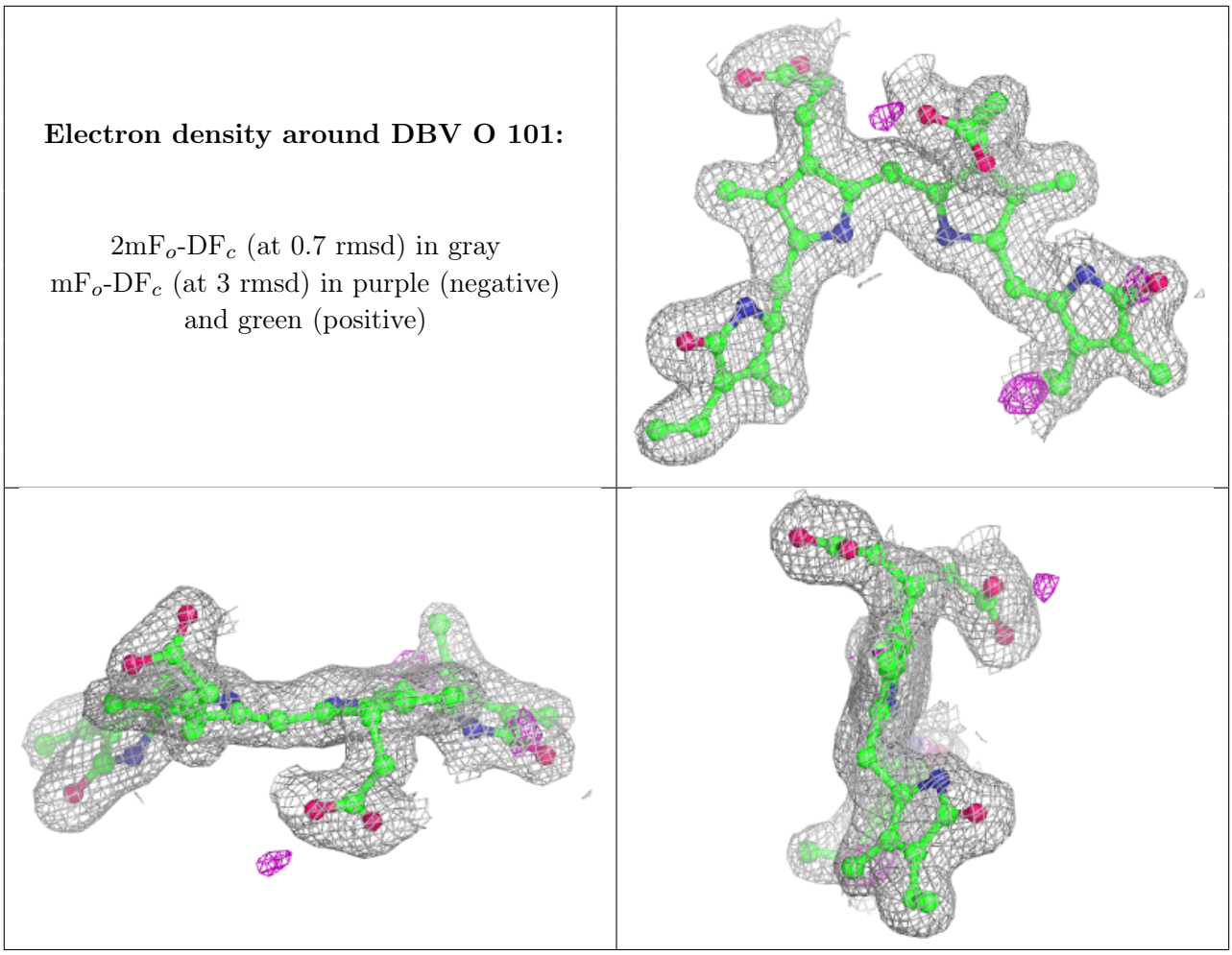






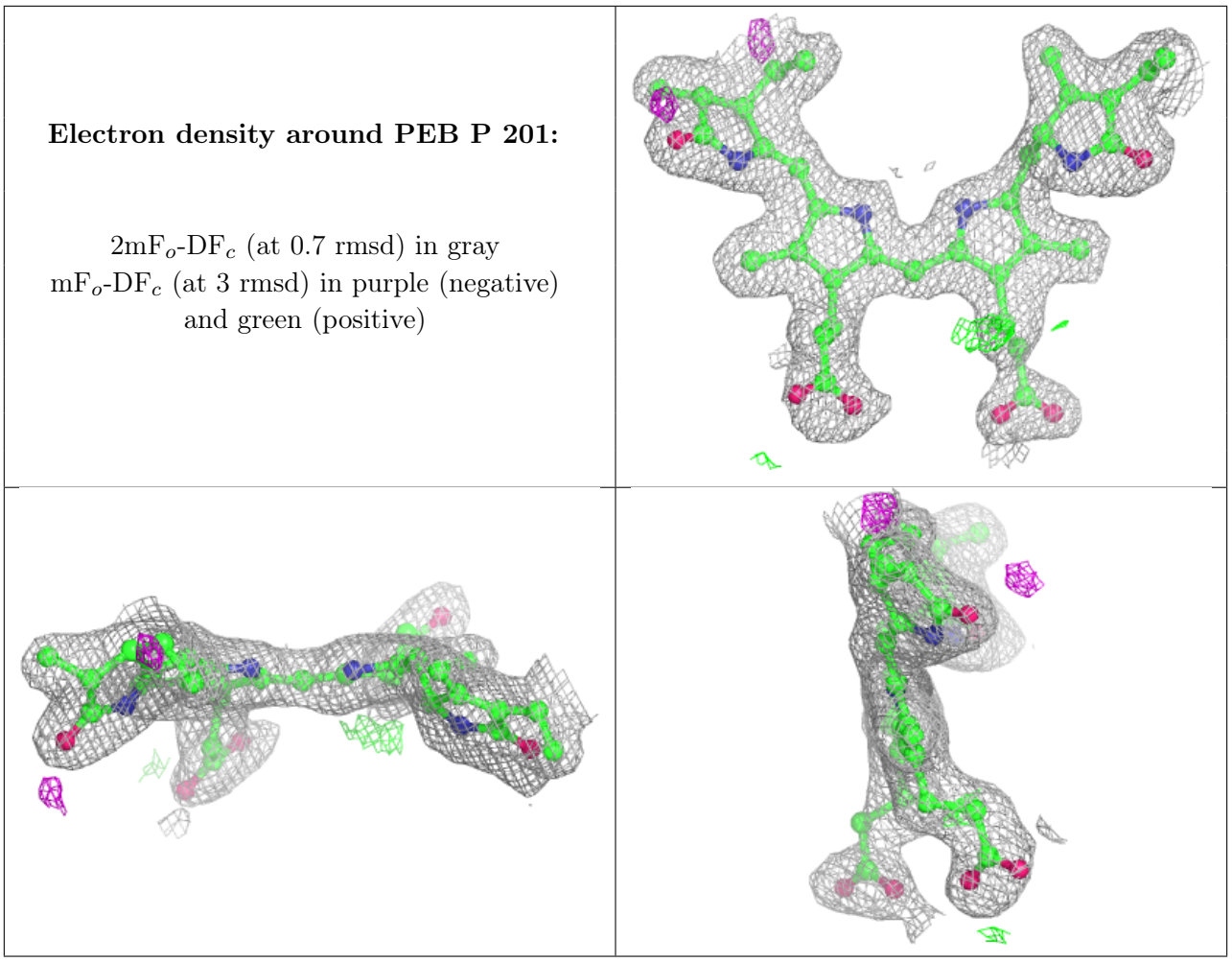
Electron density around DBV O 101:

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



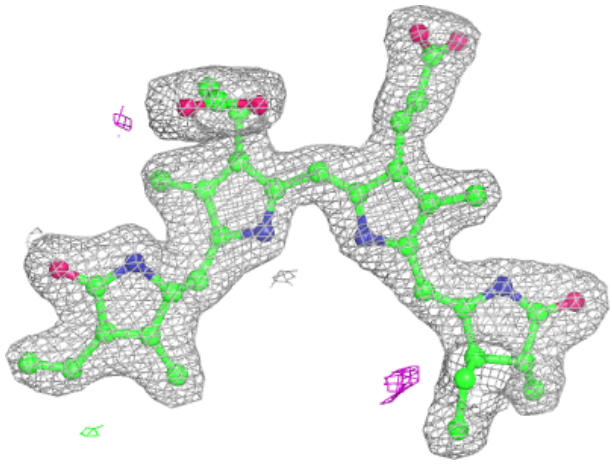
Electron density around PEB P 201:

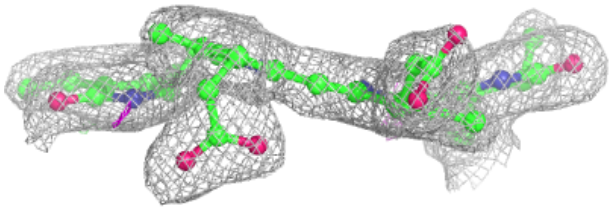
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

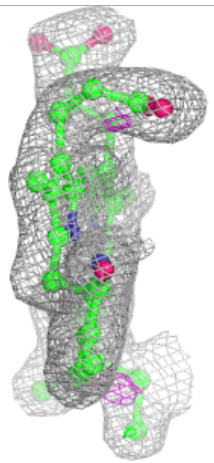


Electron density around PEB H 203:

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

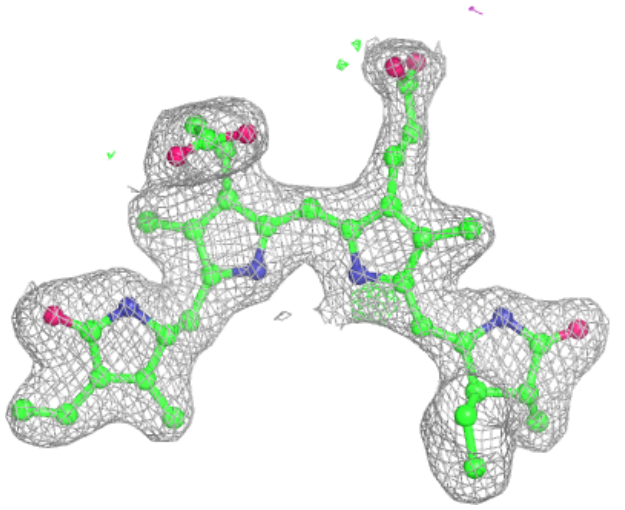


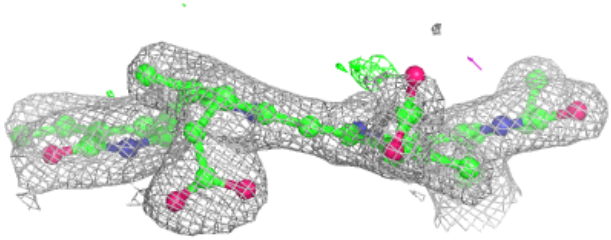


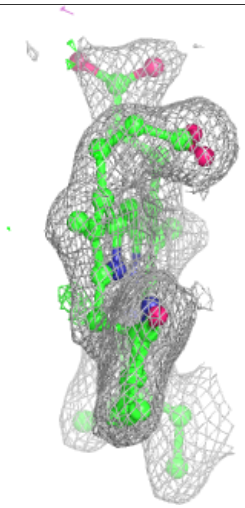


Electron density around PEB P 203:

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

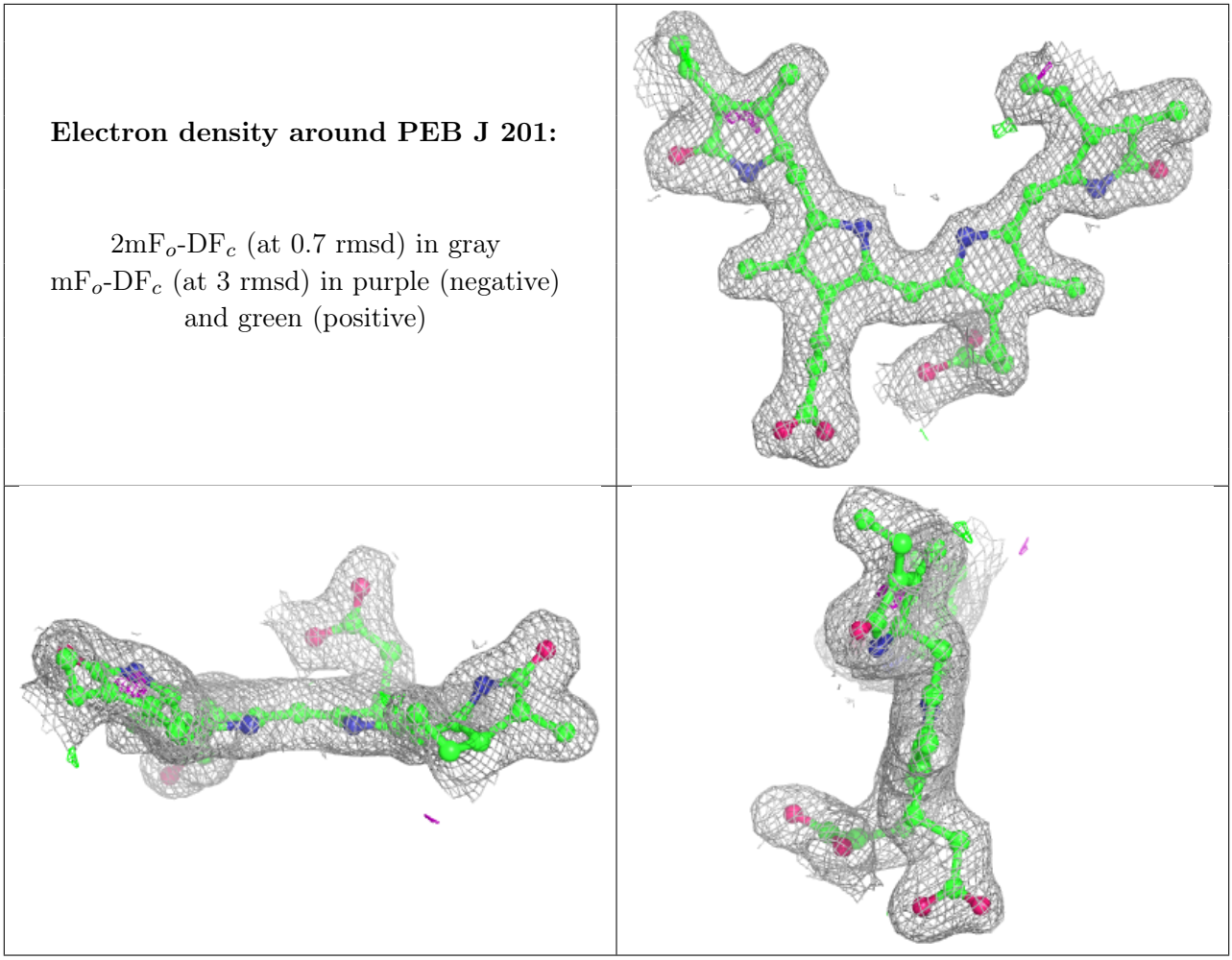






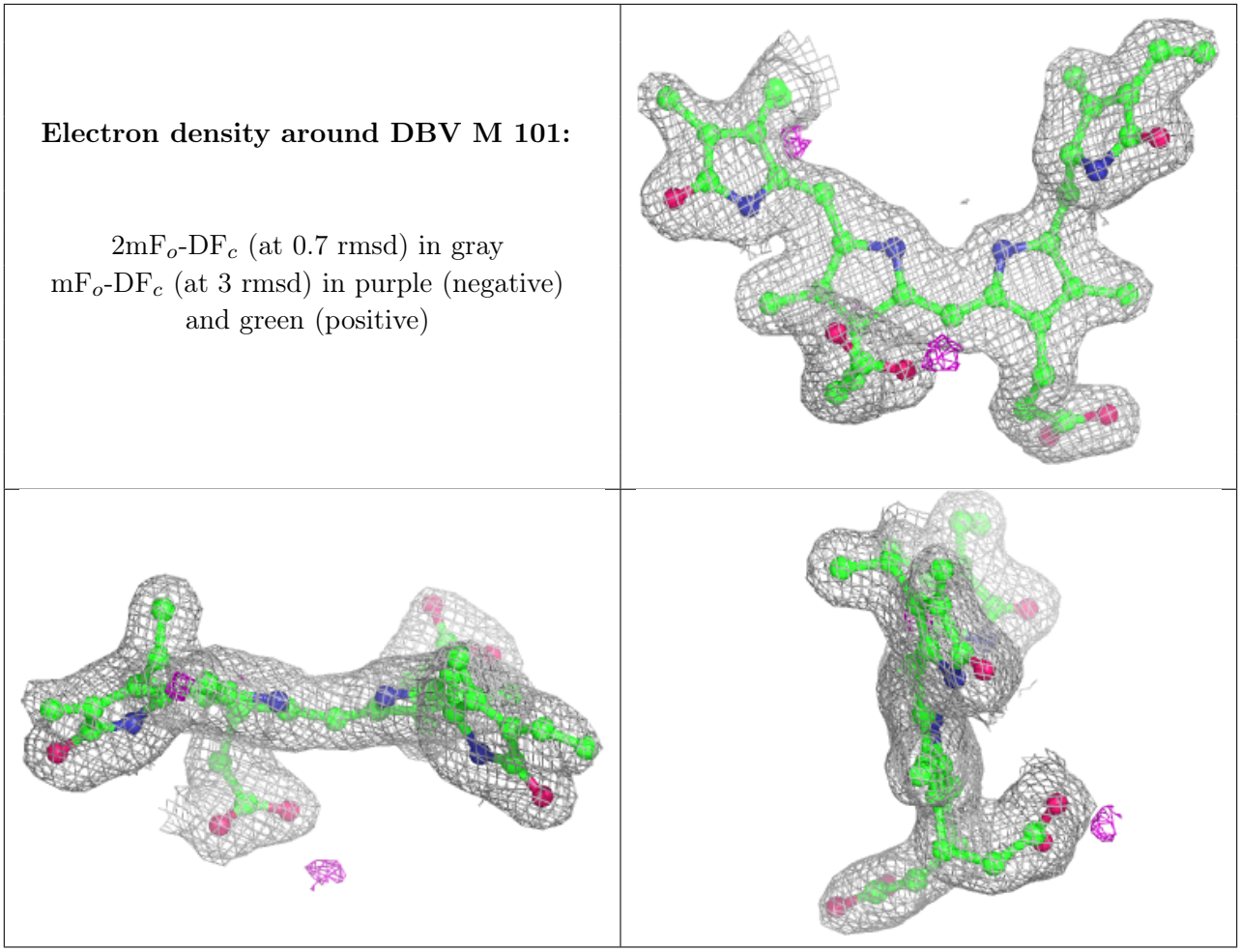
Electron density around PEB J 201:

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



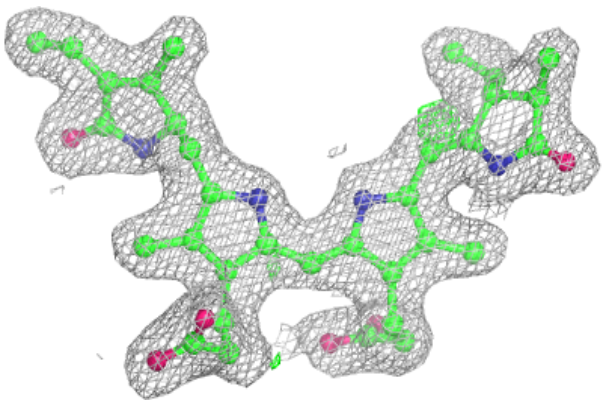
Electron density around DBV M 101:

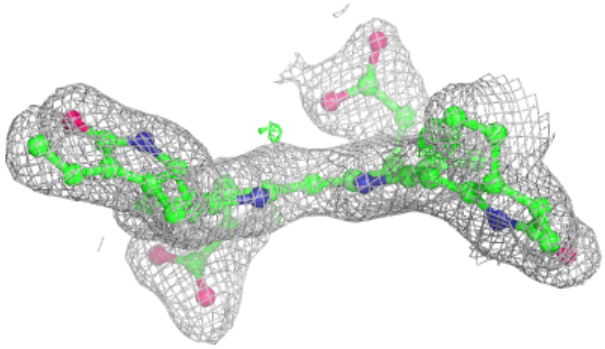
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

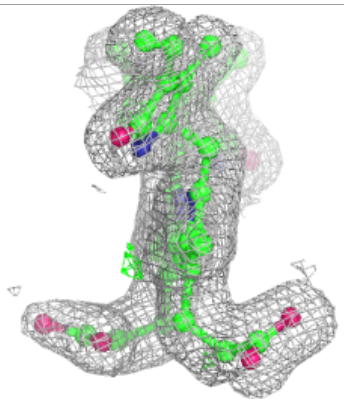


Electron density around PEB F 202:

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

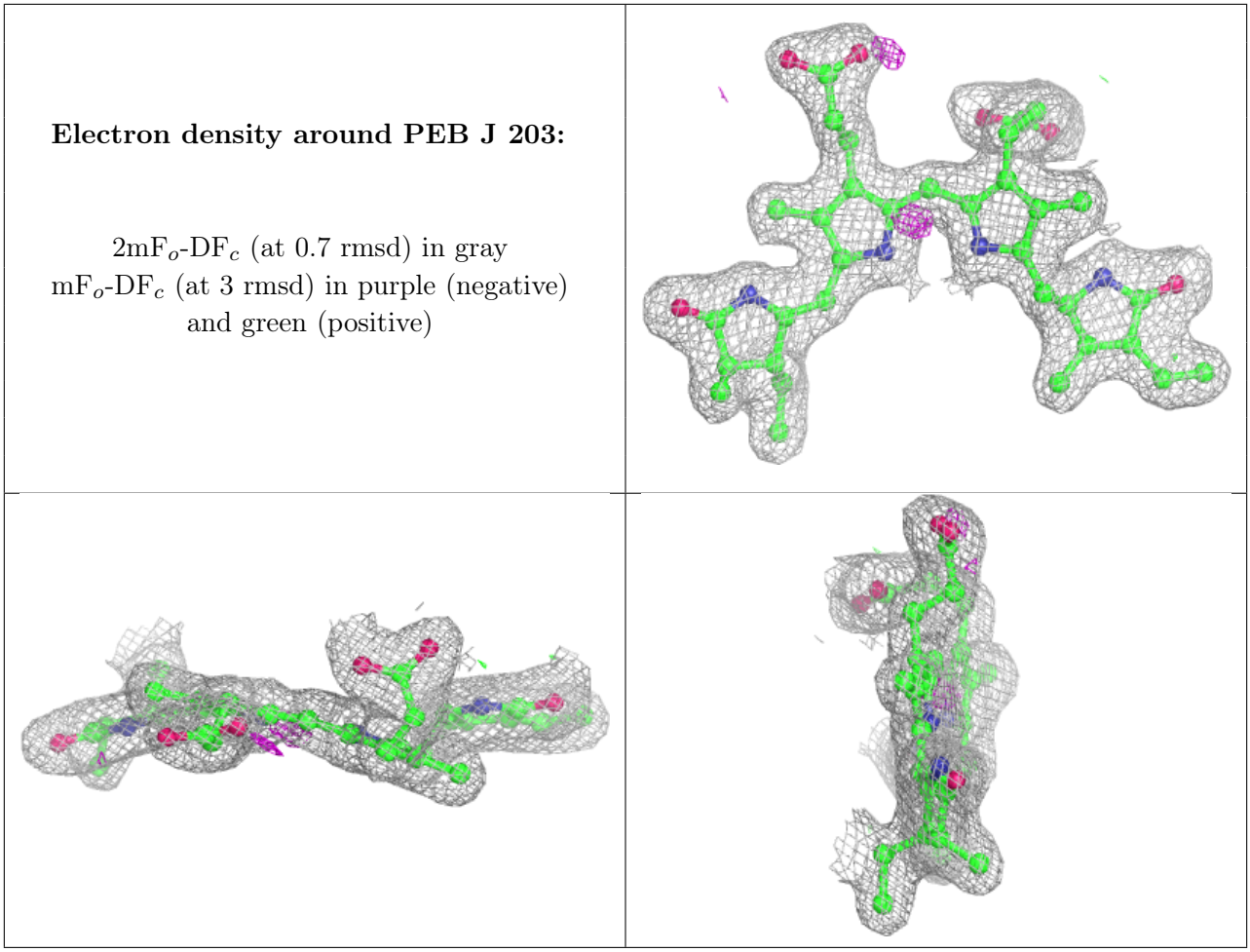






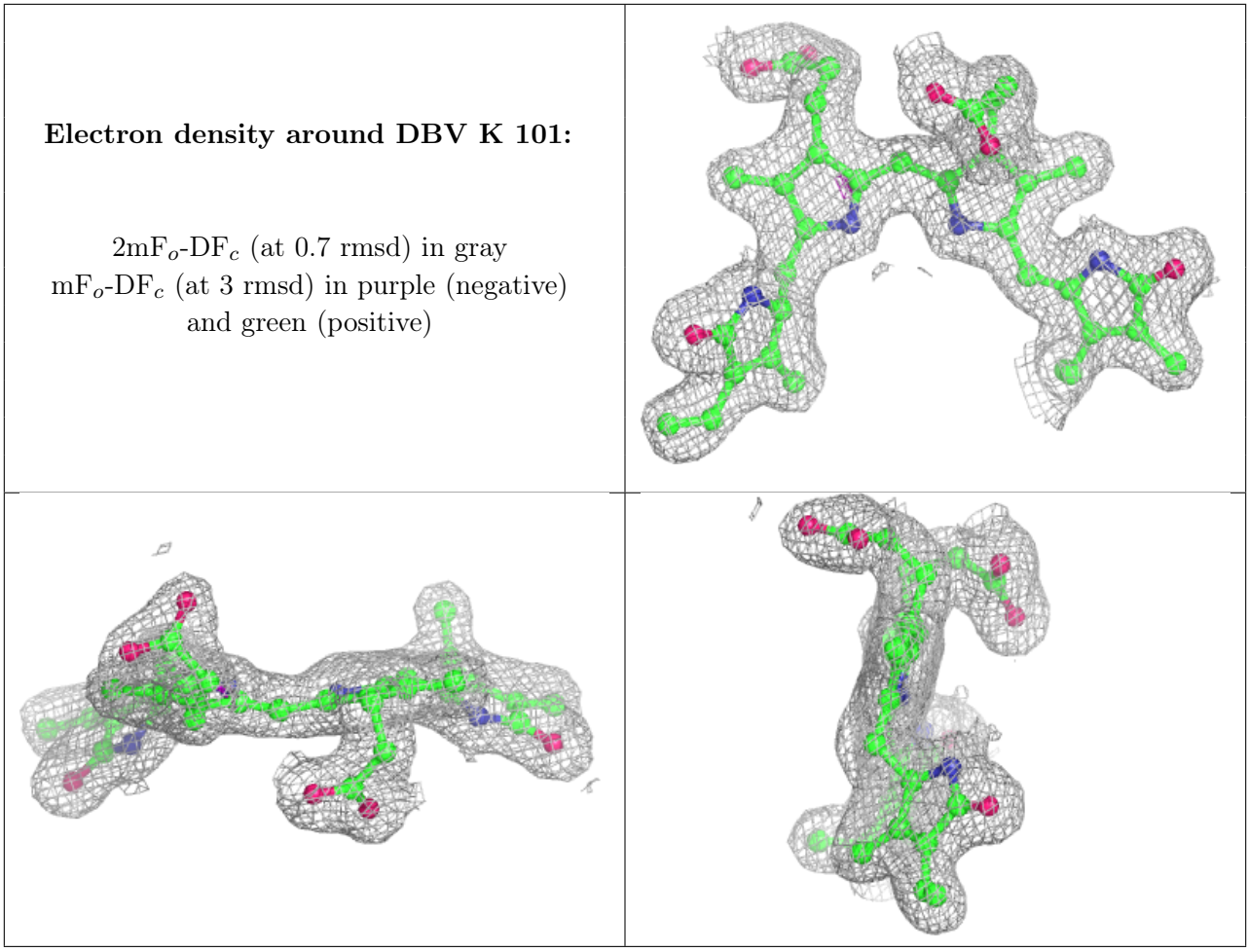
Electron density around PEB J 203:

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



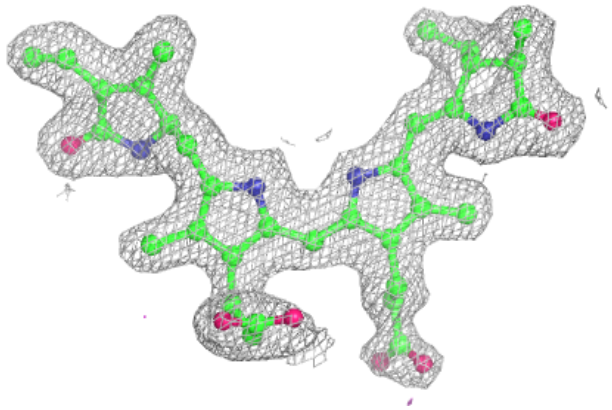
Electron density around DBV K 101:

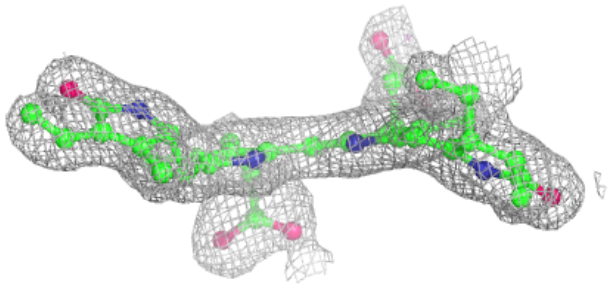
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

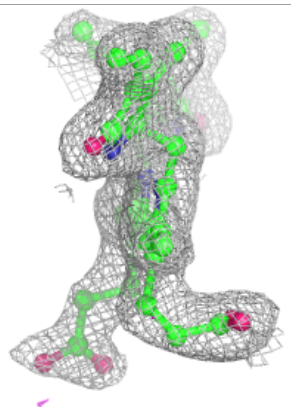


Electron density around PEB H 202:

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

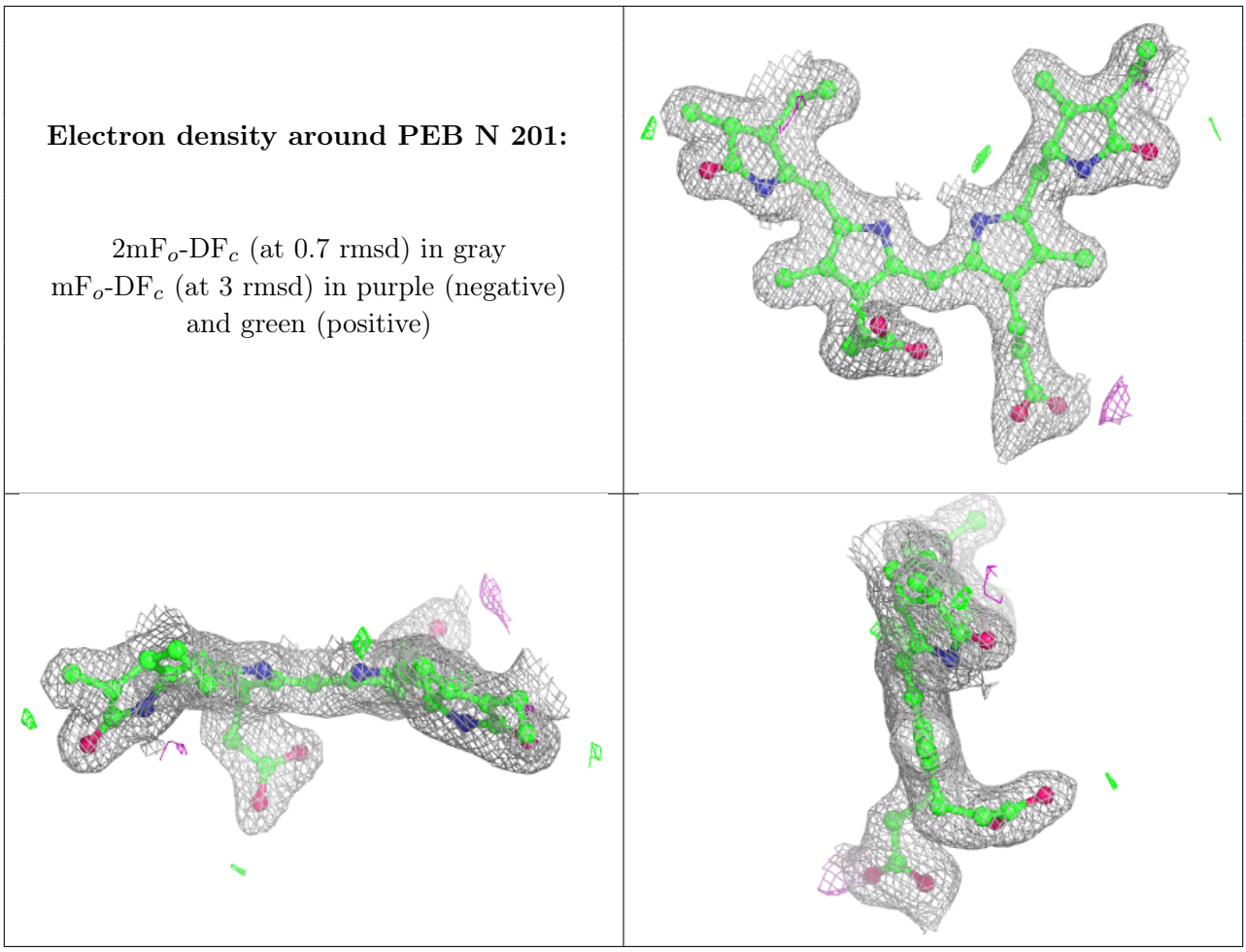






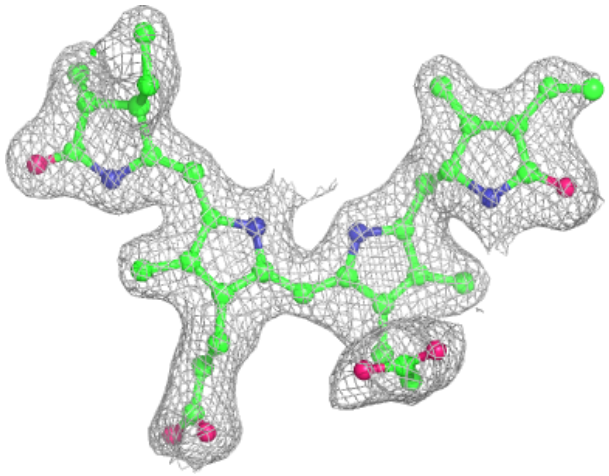
Electron density around PEB N 201:

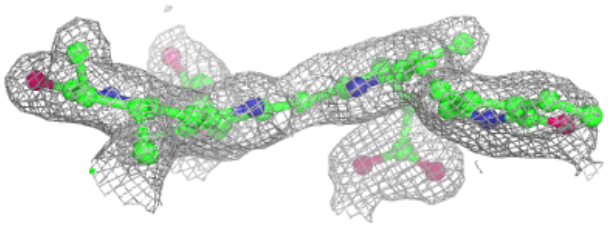
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

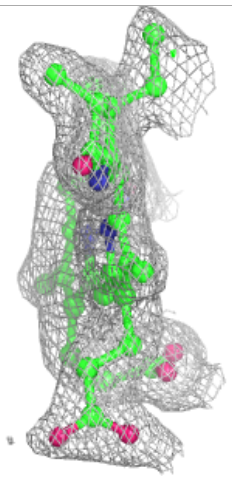


Electron density around PEB L 203:

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

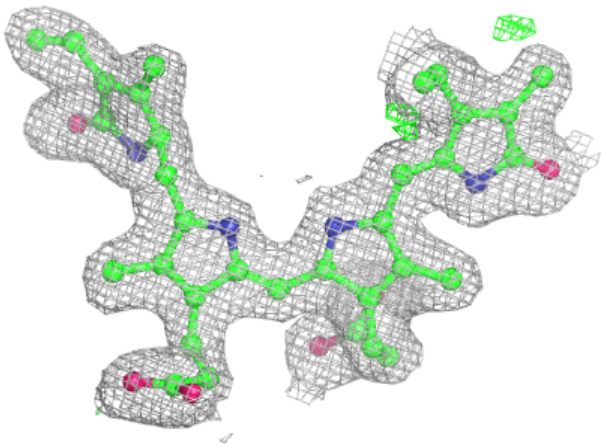


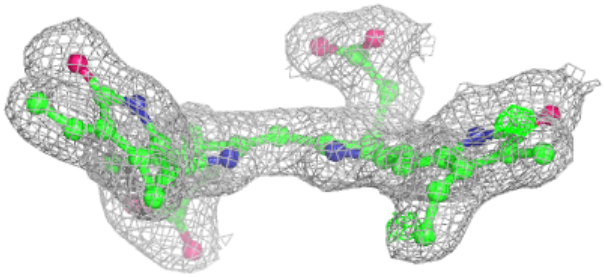


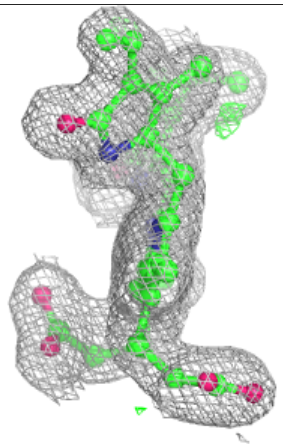


Electron density around DBV A 101 (A):

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

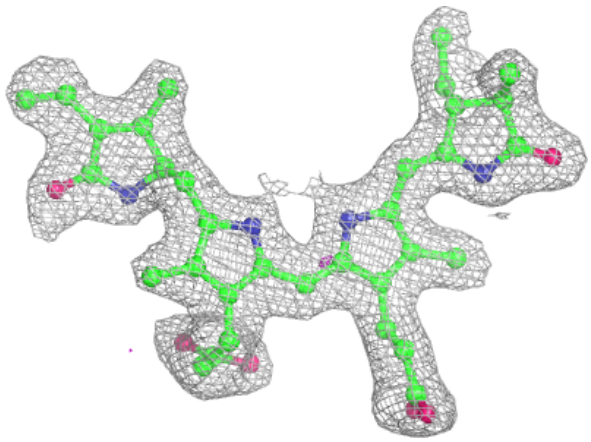


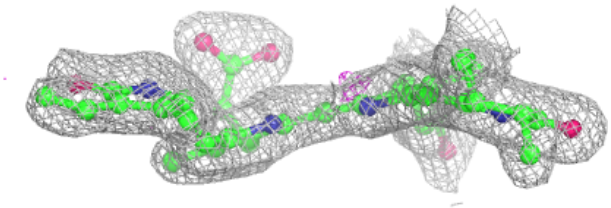


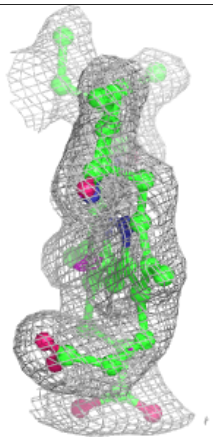


Electron density around PEB D 203:

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

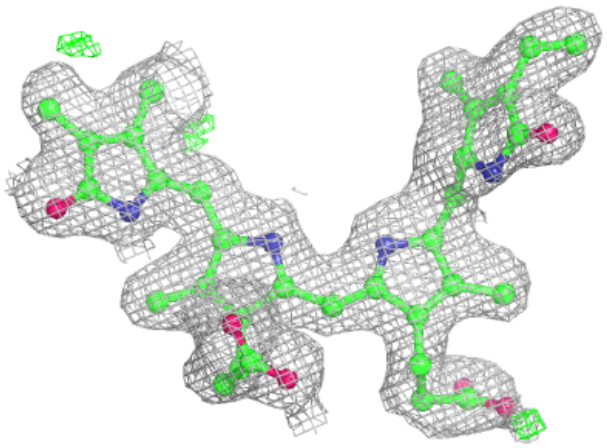


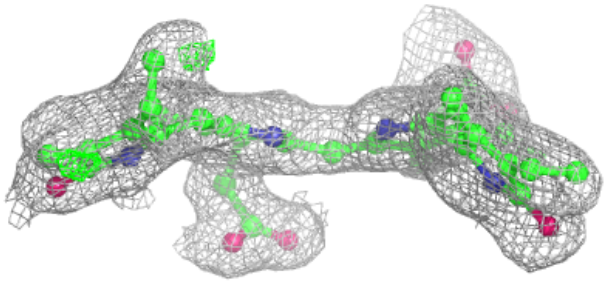


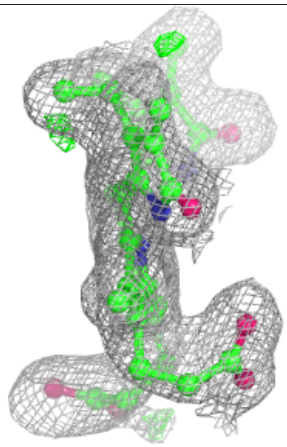


Electron density around DBV Q 101 (B):

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

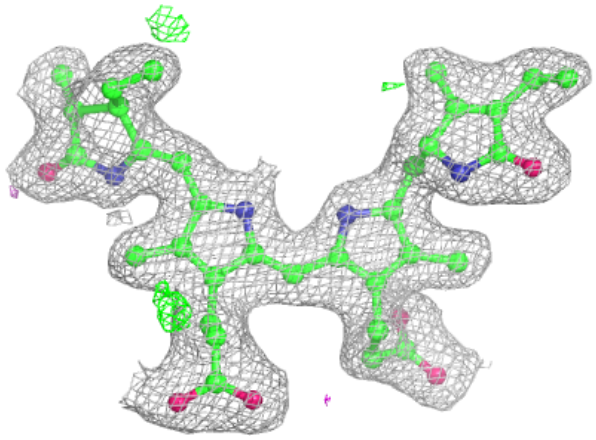


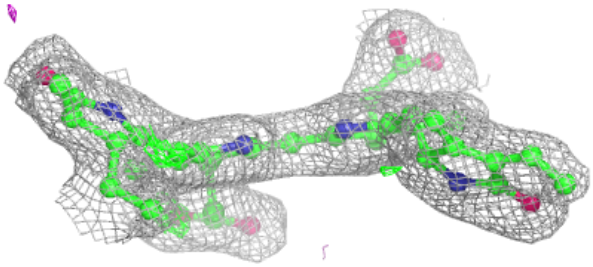


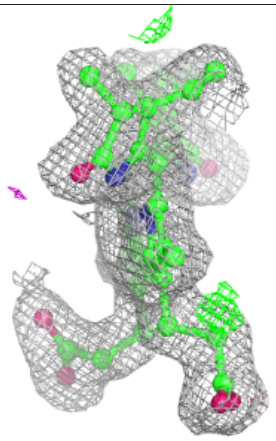


Electron density around PEB J 202:

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

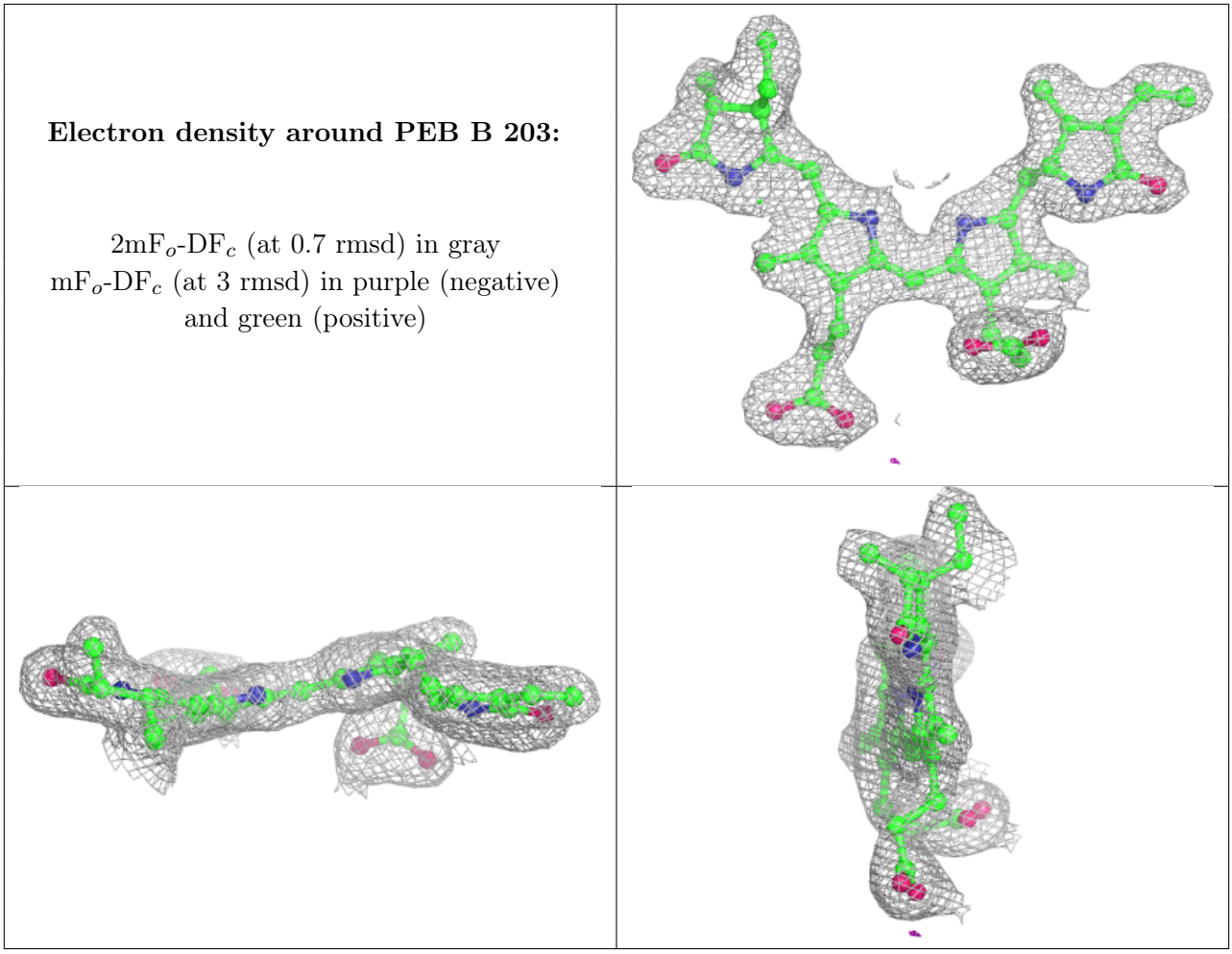






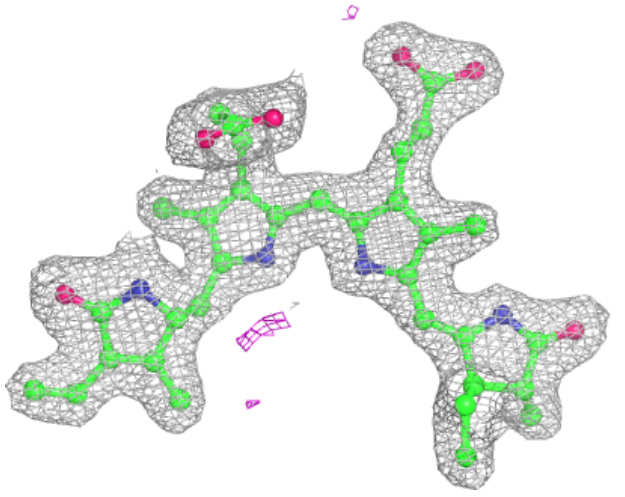
Electron density around PEB B 203:

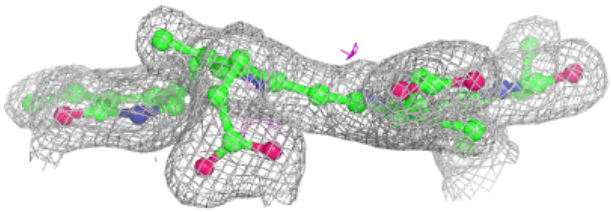
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

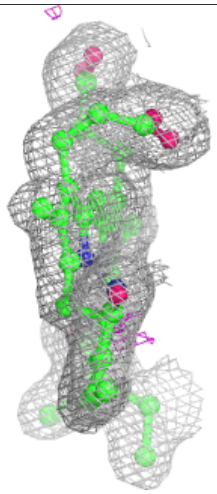


Electron density around PEB F 203:

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

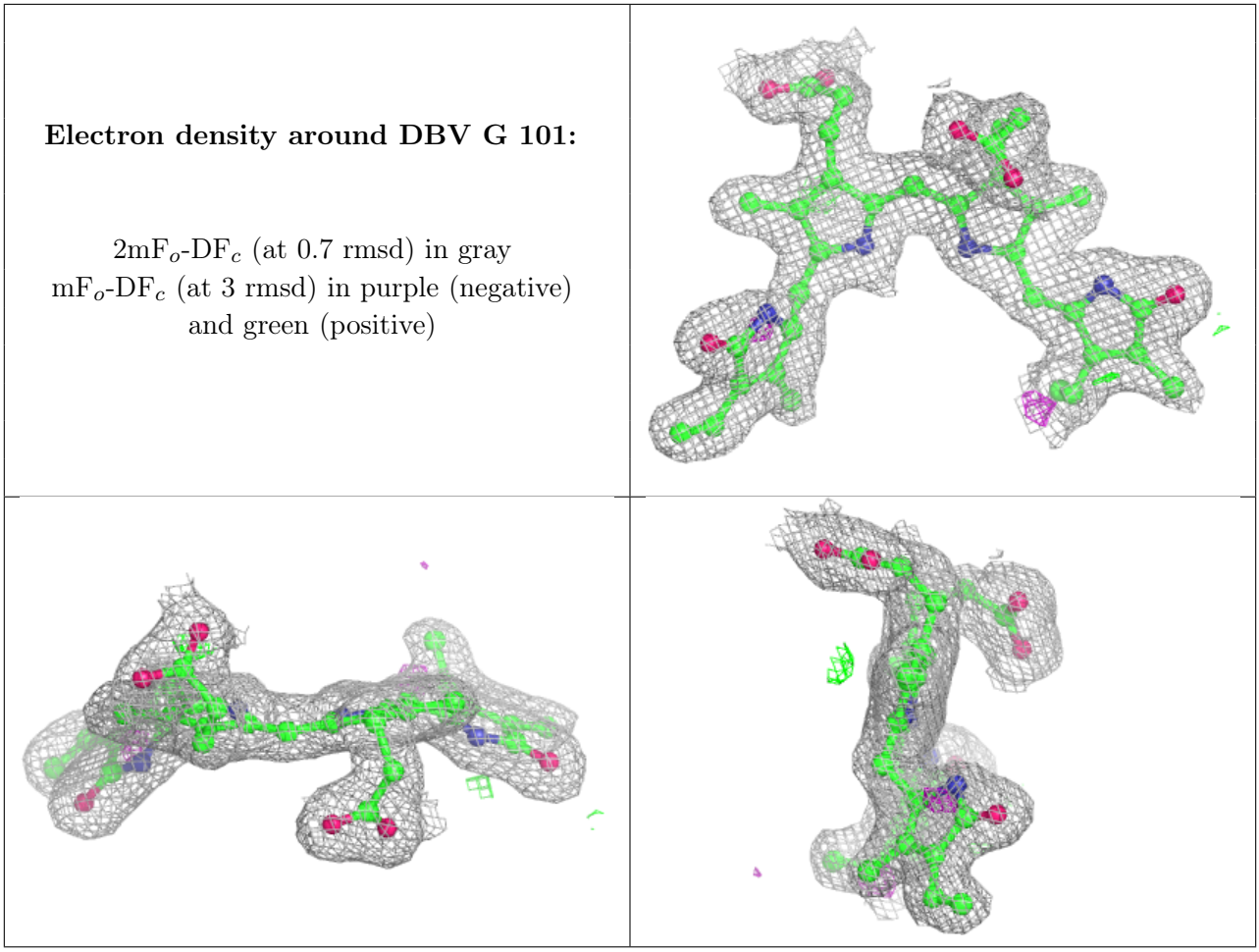






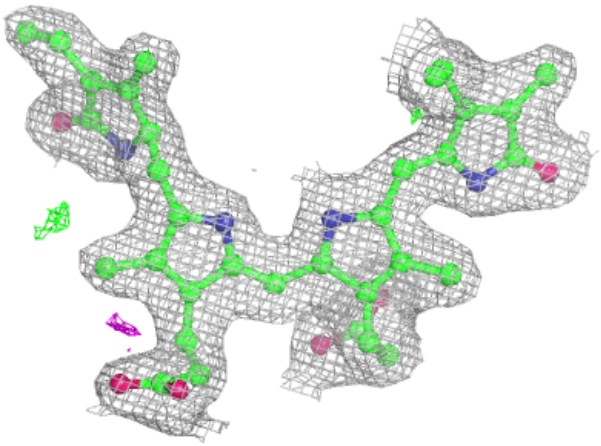
Electron density around DBV G 101:

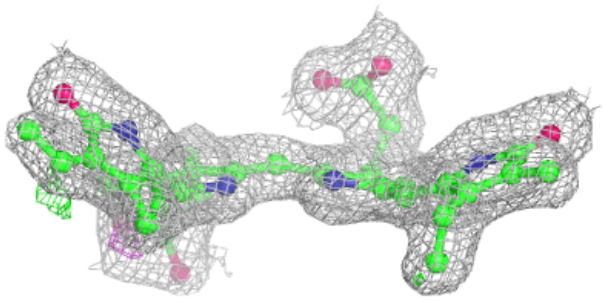
$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

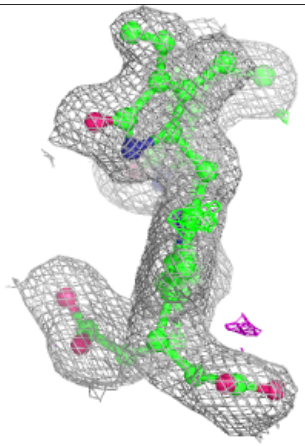


Electron density around DBV E 101:

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

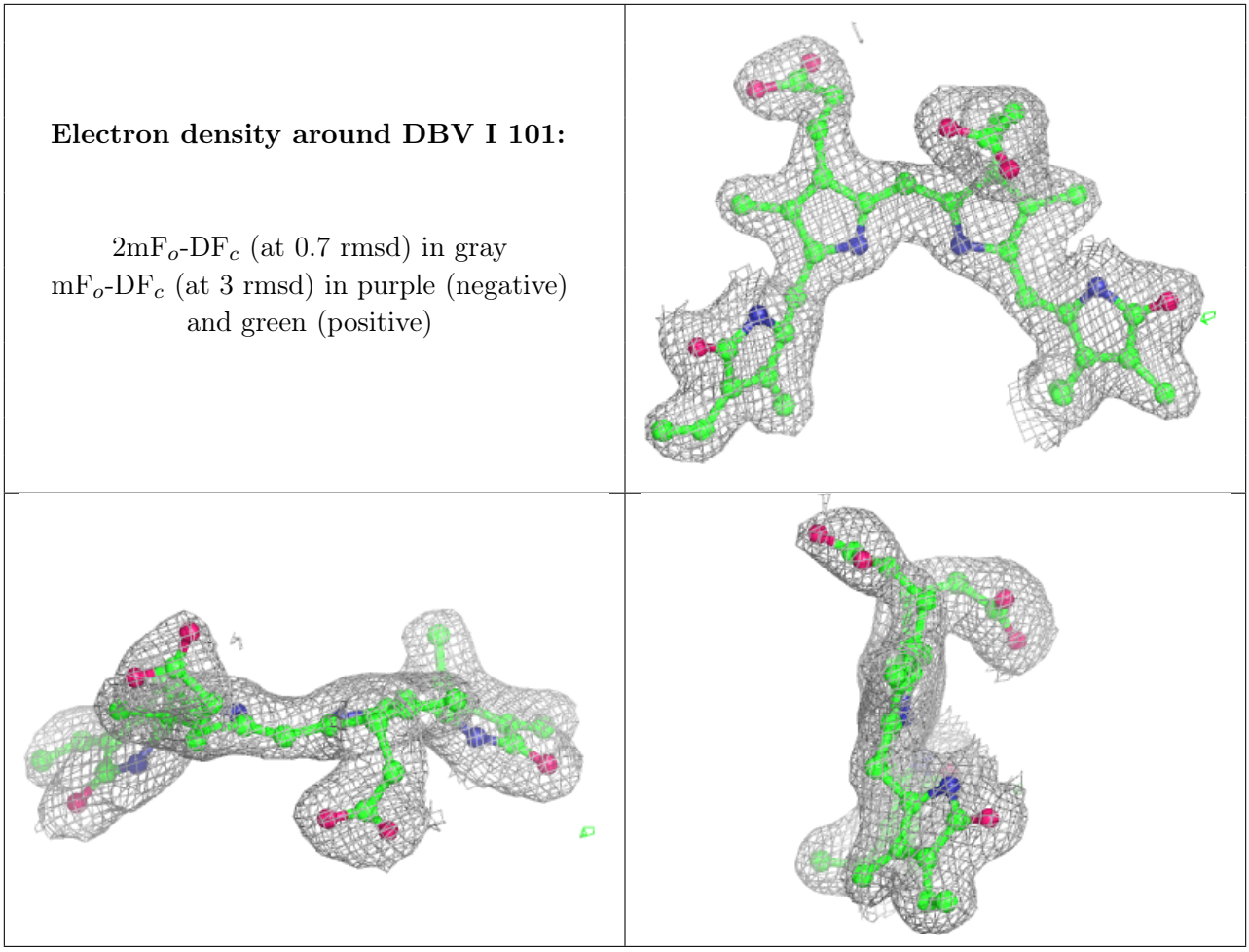






Electron density around DBV I 101:

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



6.5 Other polymers

There are no such residues in this entry.