



# wwPDB X-ray Structure Validation Summary Report ⓘ

Feb 11, 2024 – 10:52 PM EST

PDB ID : 3E6L  
Title : Structure of murine INOS oxygenase domain with inhibitor AR-C132283  
Authors : Garcin, E.D.; Arvai, A.S.; Rosenfeld, R.J.; Kroeger, M.D.; Crane, B.R.; Anderson, G.; Andrews, G.; Hamley, P.J.; Mallinder, P.R.; Nicholls, D.J.; St-Gallay, S.A.; Tinker, A.C.; Gensmantel, N.P.; Mete, A.; Cheshire, D.R.; Connolly, S.; Stueh, D.J.; Aberg, A.; Wallace, A.V.; Tainer, J.A.; Getzoff, E.D.  
Deposited on : 2008-08-15  
Resolution : 2.30 Å(reported)

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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The following versions of software and data (see [references](#) ①) were used in the production of this report:

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

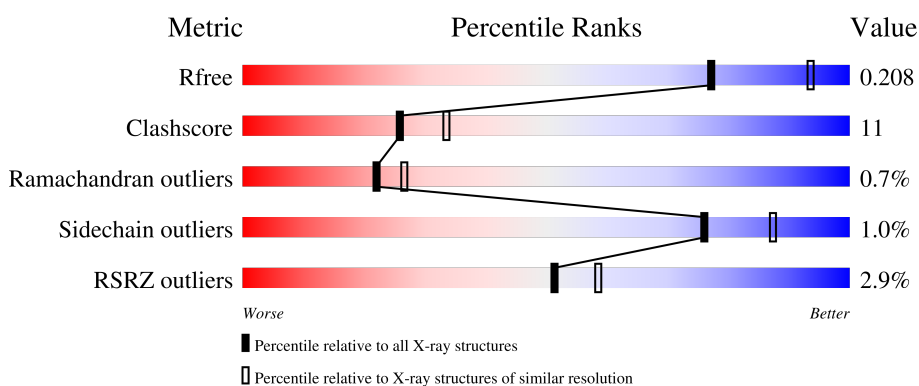
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.30 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	5042 (2.30-2.30)
Clashscore	141614	5643 (2.30-2.30)
Ramachandran outliers	138981	5575 (2.30-2.30)
Sidechain outliers	138945	5575 (2.30-2.30)
RSRZ outliers	127900	4938 (2.30-2.30)

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

Mol	Chain	Length	Quality of chain
1	A	433	<div style="display: flex; align-items: center;"> <div style="width: 3%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 72%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 22%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 10px;">3%      72%      22%      • 5%</p>
1	B	433	<div style="display: flex; align-items: center;"> <div style="width: 3%; height: 10px; background-color: red; margin-right: 5px;"></div> <div style="width: 74%; height: 10px; background-color: green; margin-right: 5px;"></div> <div style="width: 21%; height: 10px; background-color: yellow; margin-right: 5px;"></div> <div style="width: 5%; height: 10px; background-color: grey; margin-right: 5px;"></div> </div> <p style="margin-left: 10px;">3%      74%      21%      • 5%</p>

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
2	BOG	A	4001	-	-	-	X
5	H4B	A	902	X	-	-	-
5	H4B	B	1902	X	-	-	-

## 2 Entry composition [i](#)

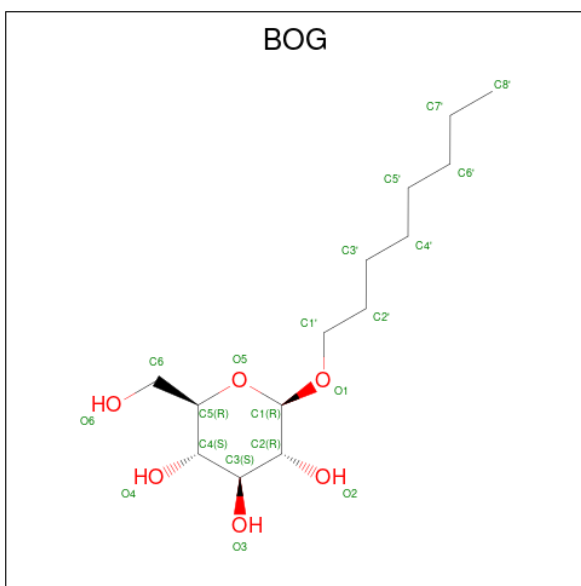
There are 7 unique types of molecules in this entry. The entry contains 7512 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Nitric oxide synthase, inducible.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	413	Total 3364	C 2157	N 580	O 607	S 20	0	0	0
1	B	413	Total 3360	C 2155	N 579	O 606	S 20	0	0	0

- Molecule 2 is octyl beta-D-glucopyranoside (three-letter code: BOG) (formula:  $C_{14}H_{28}O_6$ ).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	C	O		
2	A	1	Total 20	C 14	O 6	0	0
2	B	1	Total 20	C 14	O 6	0	0

- Molecule 3 is SULFATE ION (three-letter code: SO4) (formula:  $O_4S$ ).



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

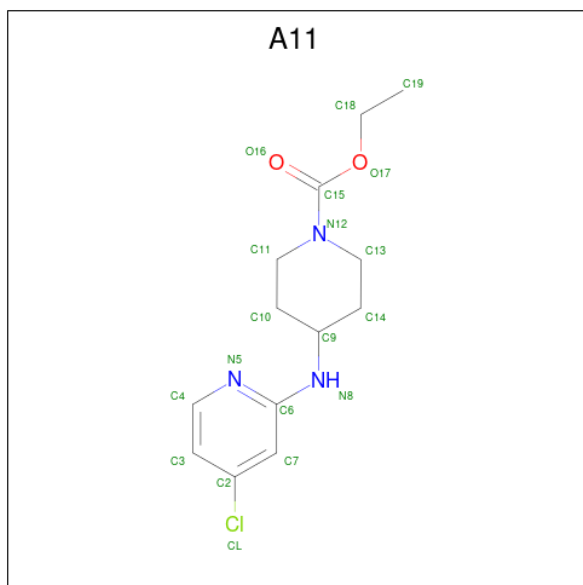
- Molecule 4 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula:  $C_{34}H_{32}FeN_4O_4$ ).



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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
5	B	1	Total	C	N	O	0	0
			17	9	5	3		

- Molecule 6 is ETHYL 4-[(4-CHLOROPYRIDIN-2-YL)AMINO]PIPERIDINE-1-CARBOXYLATE (three-letter code: A11) (formula: C<sub>13</sub>H<sub>18</sub>ClN<sub>3</sub>O<sub>2</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
6	A	1	Total	C	Cl	N	O	0	0
			19	13	1	3	2		
6	B	1	Total	C	Cl	N	O	0	0
			19	13	1	3	2		

- Molecule 7 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
7	A	274	Total	O	0	0
			274	274		
7	B	271	Total	O	0	0
			271	271		





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 61 2 2	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	213.90Å 213.90Å 116.15Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	29.98 – 2.30 29.98 – 2.30	Depositor EDS
% Data completeness (in resolution range)	92.5 (29.98-2.30) 92.5 (29.98-2.30)	Depositor EDS
$R_{merge}$	0.04	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	0.50 (at 2.29Å)	Xtrriage
Refinement program	CNS 1.1	Depositor
R, $R_{free}$	0.219 , 0.244 0.205 , 0.208	Depositor DCC
$R_{free}$ test set	3464 reflections (5.09%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	36.2	Xtrriage
Anisotropy	0.725	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.33 , 52.4	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.49$ , $\langle L^2 \rangle = 0.33$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
$F_o, F_c$ correlation	0.95	EDS
Total number of atoms	7512	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	46.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.98% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

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

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: H4B, A11, HEM, SO4, BOG

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	0.39	0/3462	0.63	1/4707 (0.0%)
1	B	0.39	0/3458	0.64	0/4702
All	All	0.39	0/6920	0.64	1/9409 (0.0%)

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	365	GLY	N-CA-C	-5.05	100.48	113.10

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	3364	0	3259	76	0
1	B	3360	0	3253	67	0
2	A	20	0	28	1	0
2	B	20	0	28	0	0
3	A	30	0	0	0	0
3	B	15	0	0	0	0
4	A	43	0	30	1	0
4	B	43	0	30	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	A	17	0	14	0	0
5	B	17	0	14	0	0
6	A	19	0	18	0	0
6	B	19	0	18	1	0
7	A	274	0	0	7	0
7	B	271	0	0	2	1
All	All	7512	0	6692	144	1

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 11.

The worst 5 of 144 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:81:ILE:HD11	1:B:475:LEU:HD13	1.37	1.05
1:A:83:ASN:ND2	1:A:85:GLY:H	1.82	0.78
1:A:83:ASN:HD22	1:A:85:GLY:H	1.31	0.77
1:A:215:GLN:O	1:A:219:GLN:HG3	1.83	0.77
1:B:125:ASP:O	1:B:126:LYS:HD2	1.84	0.77

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:B:2227:HOH:O	7:B:2259:HOH:O[9_766]	2.13	0.07

## 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	409/433 (94%)	379 (93%)	28 (7%)	2 (0%)	29 35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	409/433 (94%)	375 (92%)	30 (7%)	4 (1%)	15	17
All	All	818/866 (94%)	754 (92%)	58 (7%)	6 (1%)	22	26

5 of 6 Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	99	THR
1	B	110	LEU
1	B	111	GLY
1	A	172	THR
1	B	384	ASN

### 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	360/381 (94%)	357 (99%)	3 (1%)	81	91
1	B	359/381 (94%)	355 (99%)	4 (1%)	73	86
All	All	719/762 (94%)	712 (99%)	7 (1%)	76	87

5 of 7 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	223	ARG
1	B	334	GLN
1	B	475	LEU
1	B	348	ASN
1	A	223	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 13 such sidechains are listed below:

Mol	Chain	Res	Type
1	A	471	HIS
1	B	96	HIS

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Mol	Chain	Res	Type
1	B	421	GLN
1	B	334	GLN
1	B	348	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

17 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
5	H4B	A	902	-	16,18,18	1.81	3 (18%)	11,26,26	1.98	5 (45%)
6	A11	A	906	-	20,20,20	1.63	3 (15%)	24,26,26	1.49	6 (25%)
3	SO4	A	3007	-	4,4,4	0.35	0	6,6,6	0.07	0
5	H4B	B	1902	-	16,18,18	2.05	3 (18%)	11,26,26	1.98	5 (45%)
3	SO4	A	3001	-	4,4,4	0.30	0	6,6,6	0.07	0
3	SO4	B	3005	-	4,4,4	0.30	0	6,6,6	0.08	0
3	SO4	B	3009	-	4,4,4	0.32	0	6,6,6	0.07	0
3	SO4	A	3008	-	4,4,4	0.38	0	6,6,6	0.08	0
3	SO4	A	3003	-	4,4,4	0.29	0	6,6,6	0.07	0
4	HEM	B	1901	1	41,50,50	1.23	4 (9%)	45,82,82	1.54	7 (15%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
6	A11	B	1906	-	20,20,20	1.67	3 (15%)	24,26,26	1.43	5 (20%)
4	HEM	A	901	-	41,50,50	1.21	3 (7%)	45,82,82	1.54	7 (15%)
2	BOG	B	4002	-	20,20,20	1.49	3 (15%)	25,25,25	0.78	1 (4%)
3	SO4	A	3006	-	4,4,4	0.28	0	6,6,6	0.09	0
3	SO4	B	3004	-	4,4,4	0.36	0	6,6,6	0.07	0
3	SO4	A	3002	-	4,4,4	0.32	0	6,6,6	0.07	0
2	BOG	A	4001	-	20,20,20	1.53	4 (20%)	25,25,25	0.78	1 (4%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	H4B	A	902	-	1/1/3/5	3/8/17/17	0/2/2/2
6	A11	A	906	-	-	0/11/21/21	0/2/2/2
5	H4B	B	1902	-	1/1/3/5	4/8/17/17	0/2/2/2
6	A11	B	1906	-	-	0/11/21/21	0/2/2/2
4	HEM	B	1901	1	-	1/12/54/54	-
4	HEM	A	901	-	-	1/12/54/54	-
2	BOG	B	4002	-	-	2/11/31/31	0/1/1/1
2	BOG	A	4001	-	-	4/11/31/31	0/1/1/1

The worst 5 of 26 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1902	H4B	C7-C6	-6.58	1.45	1.52
5	A	902	H4B	C7-C6	-5.57	1.46	1.52
2	B	4002	BOG	C3-C2	-4.37	1.41	1.52
6	A	906	A11	O16-C15	4.21	1.27	1.21
6	B	1906	A11	O16-C15	4.10	1.27	1.21

The worst 5 of 37 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	1901	HEM	C4B-CHC-C1C	4.48	128.47	122.56
4	A	901	HEM	C4B-C3B-C2B	-4.10	103.86	107.11
4	A	901	HEM	C4C-CHD-C1D	3.85	127.64	122.56
4	A	901	HEM	C4B-CHC-C1C	3.71	127.45	122.56
6	A	906	A11	C3-C4-N5	-3.28	119.89	123.96

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
5	A	902	H4B	C6
5	B	1902	H4B	C6

5 of 15 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	901	HEM	C1A-C2A-CAA-CBA
5	A	902	H4B	C7-C6-C9-O9
5	A	902	H4B	C7-C6-C9-C10
5	B	1902	H4B	N5-C6-C9-O9
5	B	1902	H4B	C7-C6-C9-O9

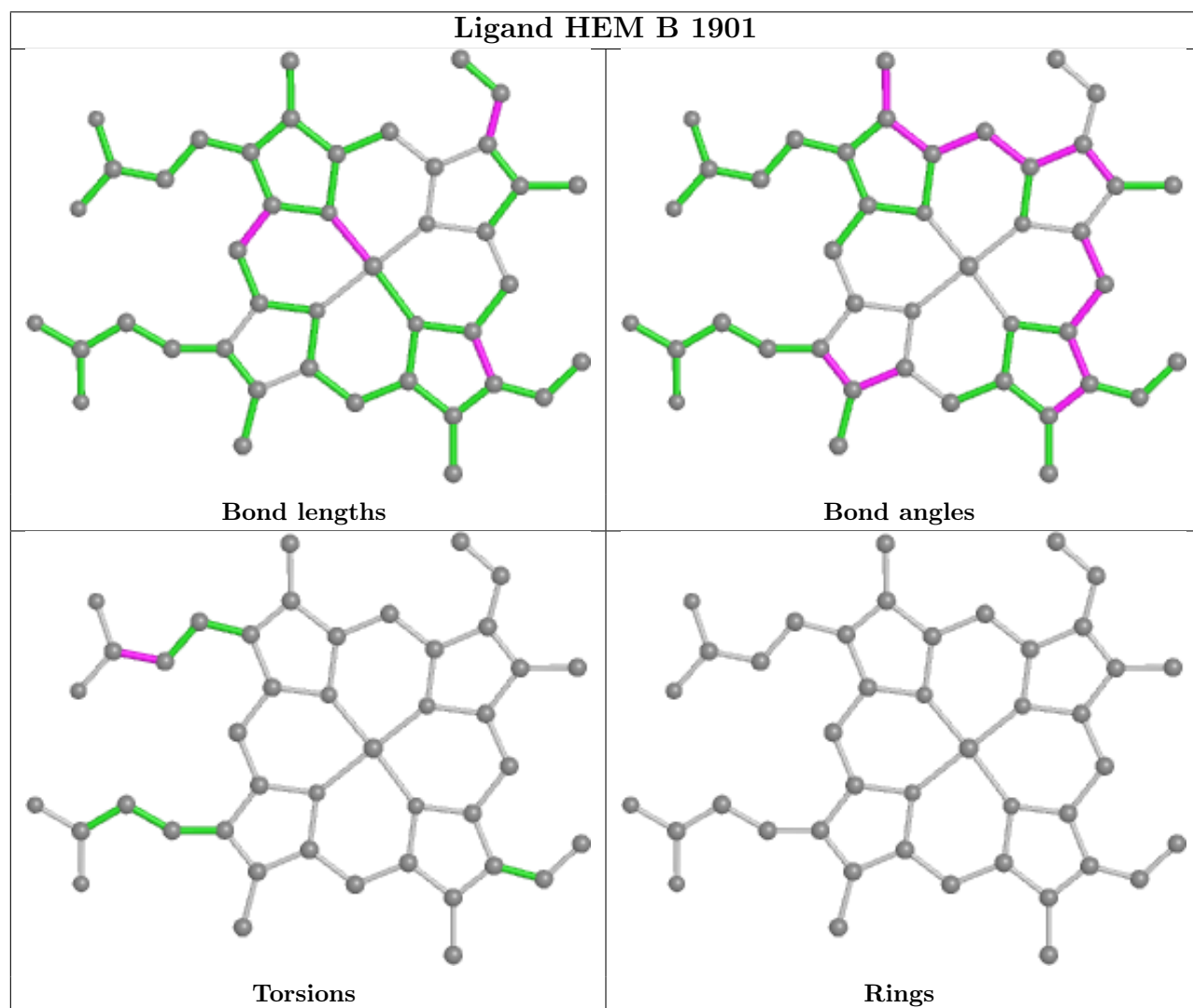
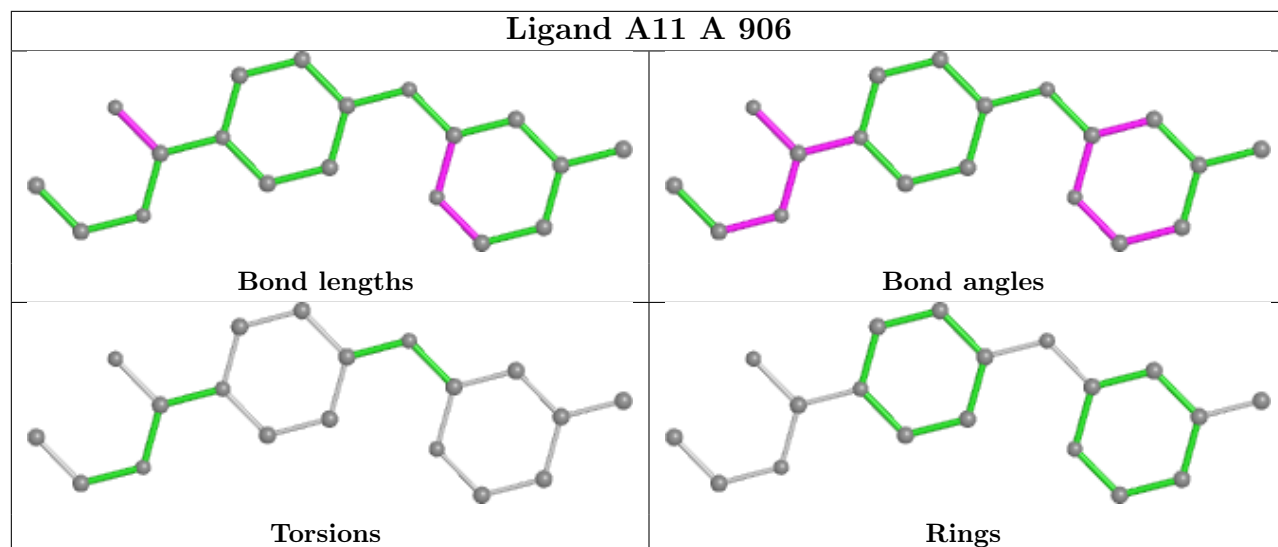
There are no ring outliers.

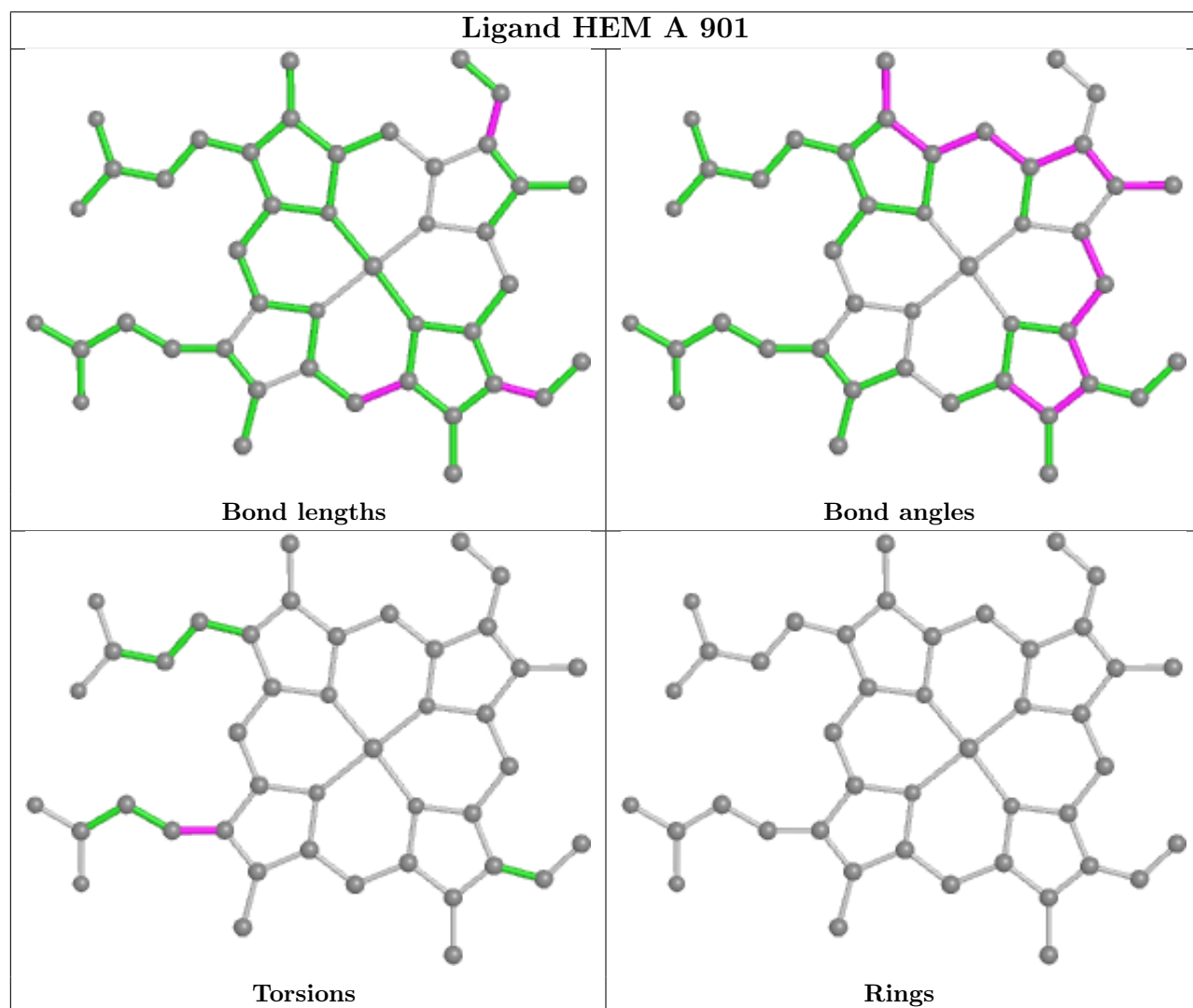
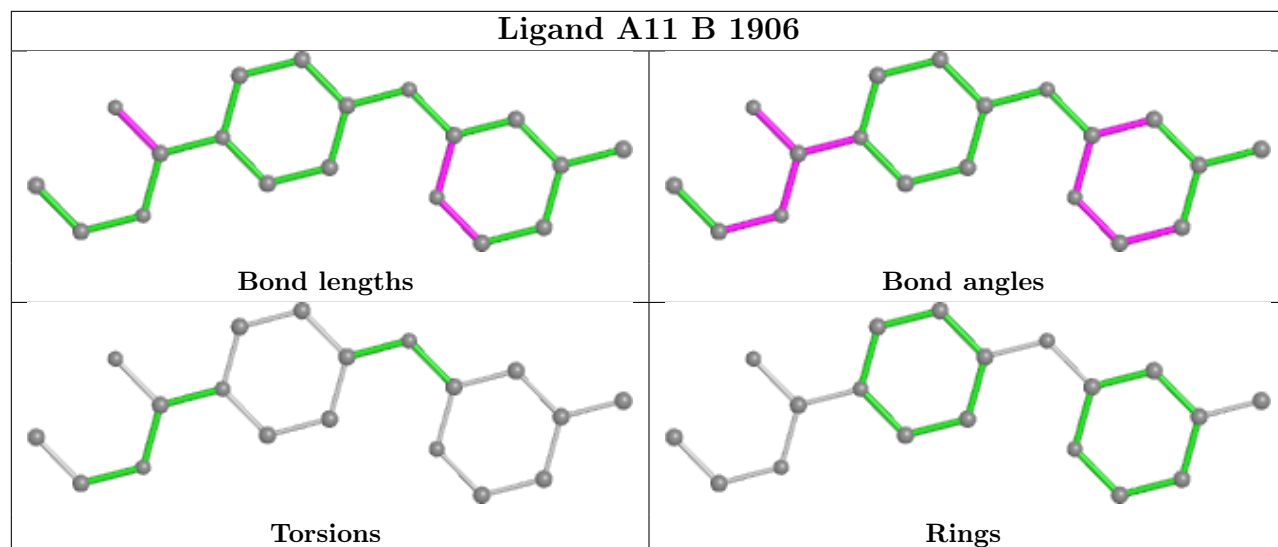
3 monomers are involved in 3 short contacts:

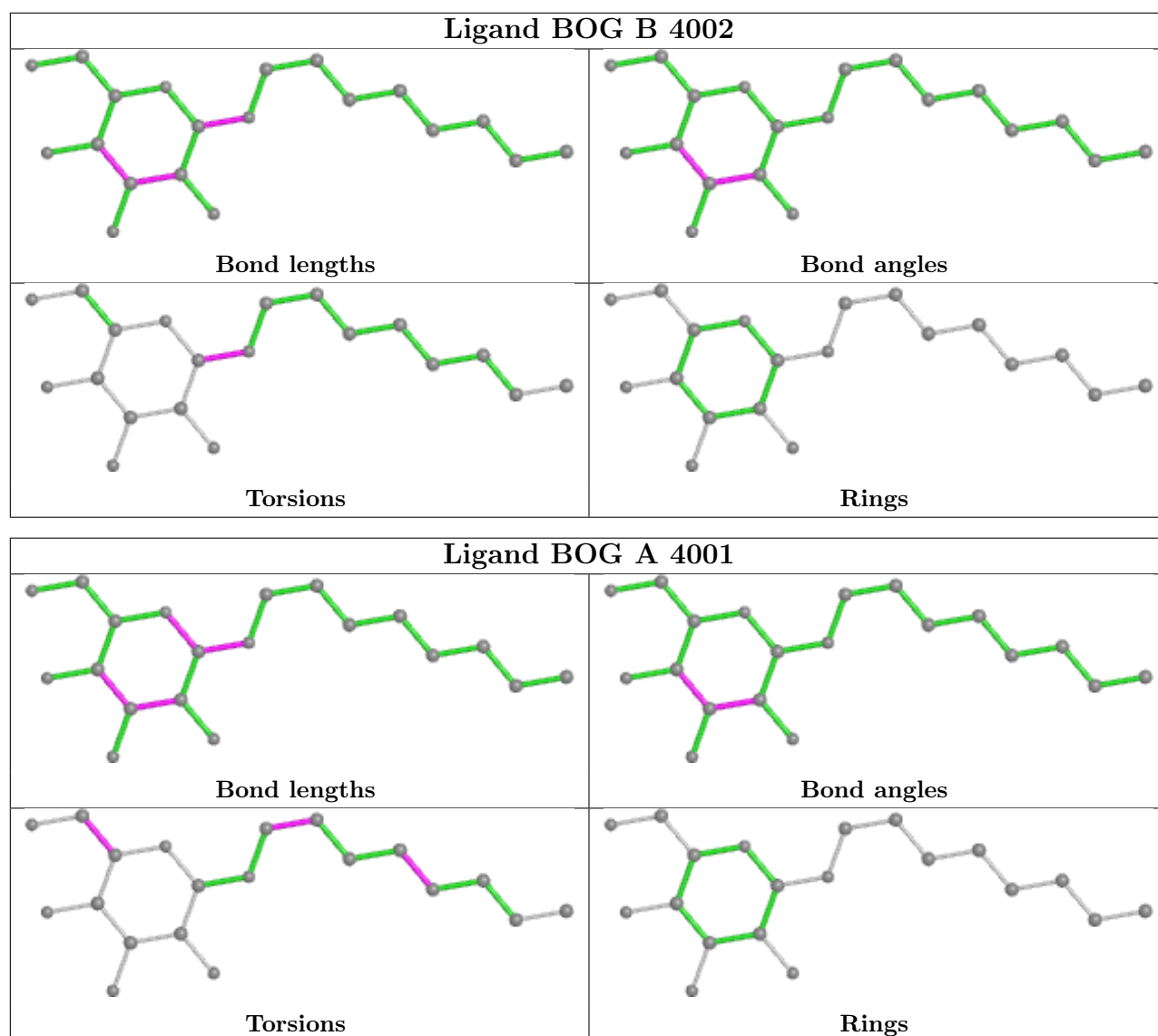
Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	B	1906	A11	1	0
4	A	901	HEM	1	0
2	A	4001	BOG	1	0

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









## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	413/433 (95%)	-0.01	13 (3%) 49 56	28, 44, 70, 95	0
1	B	413/433 (95%)	-0.05	11 (2%) 54 62	26, 42, 67, 98	0
All	All	826/866 (95%)	-0.03	24 (2%) 51 58	26, 43, 69, 98	0

The worst 5 of 24 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	108	SER	6.9
1	A	110	LEU	5.5
1	A	494	ILE	4.2
1	B	100	SER	4.2
1	B	109	CYS	4.1

### 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](#)

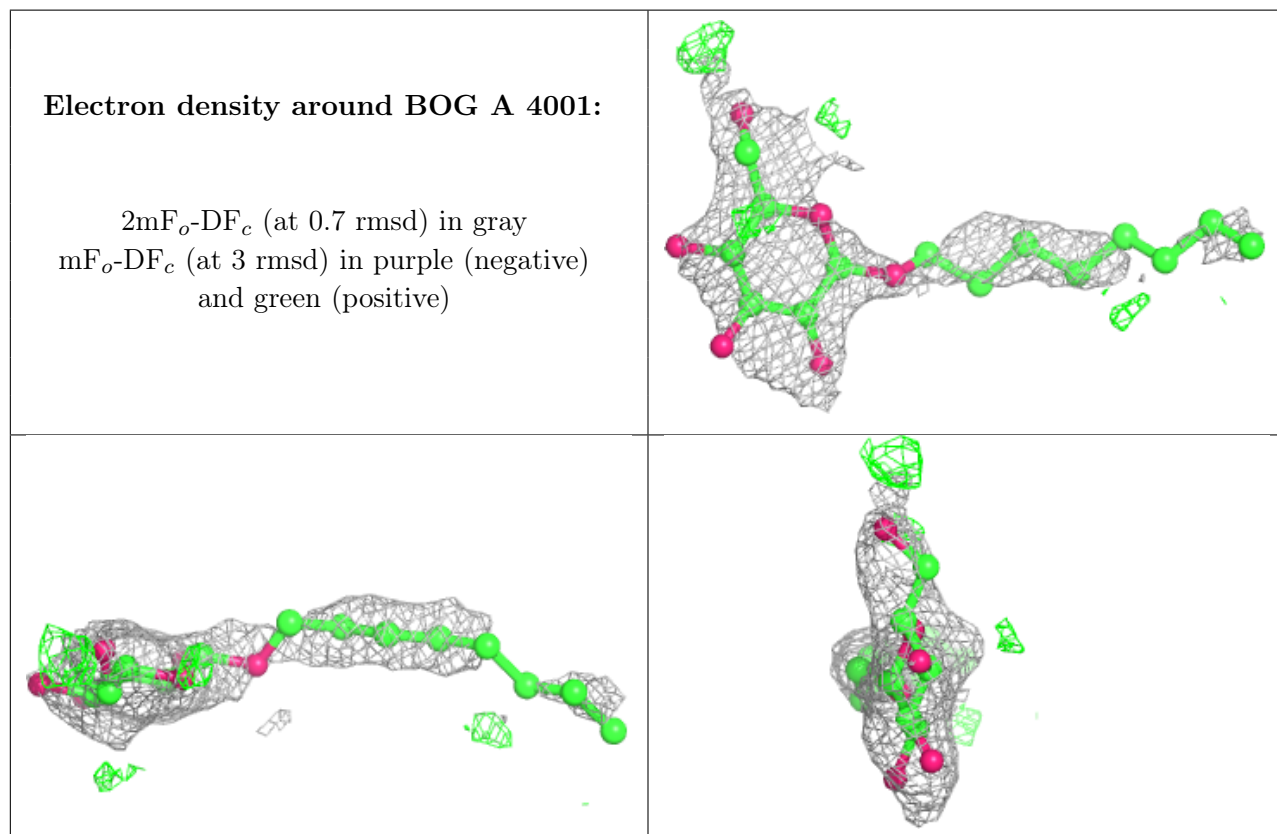
There are no monosaccharides in this entry.

### 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<sup>th</sup> 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.

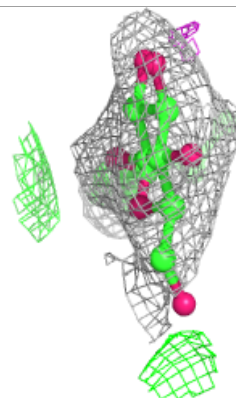
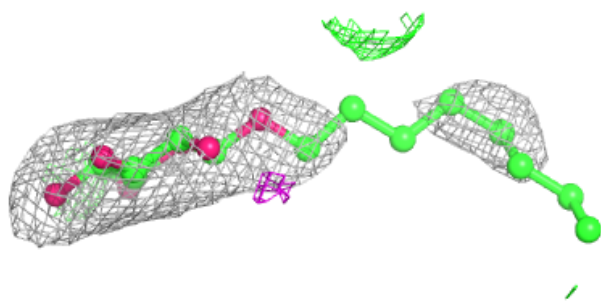
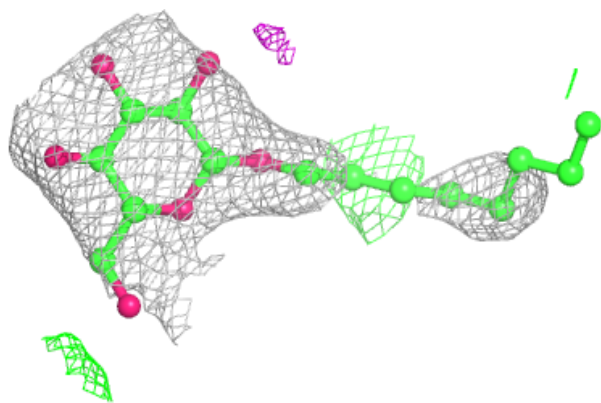
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
3	SO4	A	3008	5/5	0.71	0.29	123,123,124,124	0
2	BOG	A	4001	20/20	0.77	0.47	84,95,97,98	0
3	SO4	A	3006	5/5	0.81	0.35	104,104,105,106	0
3	SO4	B	3009	5/5	0.83	0.24	118,119,119,120	0
3	SO4	A	3002	5/5	0.86	0.27	112,112,113,113	0
2	BOG	B	4002	20/20	0.86	0.31	83,87,88,89	0
3	SO4	A	3007	5/5	0.88	0.20	115,115,116,116	0
3	SO4	B	3004	5/5	0.89	0.20	117,118,118,118	0
3	SO4	A	3001	5/5	0.90	0.18	102,103,103,103	0
3	SO4	B	3005	5/5	0.92	0.17	97,97,98,99	0
3	SO4	A	3003	5/5	0.95	0.13	99,99,99,100	0
5	H4B	B	1902	17/17	0.96	0.17	30,32,38,40	0
5	H4B	A	902	17/17	0.97	0.12	31,32,37,37	0
6	A11	A	906	19/19	0.97	0.15	26,28,34,35	0
6	A11	B	1906	19/19	0.97	0.15	27,29,31,37	0
4	HEM	A	901	43/43	0.99	0.14	24,27,30,34	0
4	HEM	B	1901	43/43	0.99	0.15	22,27,29,29	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.

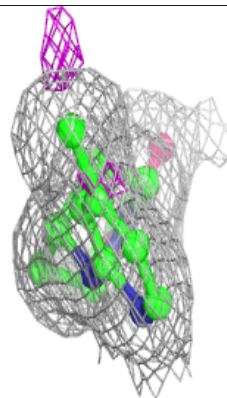
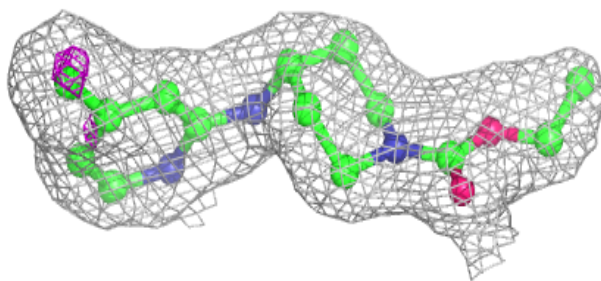
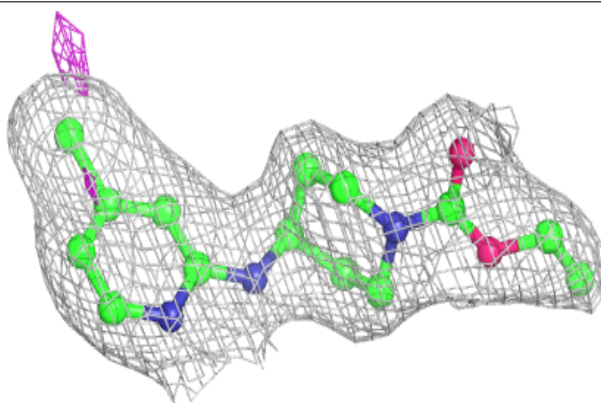


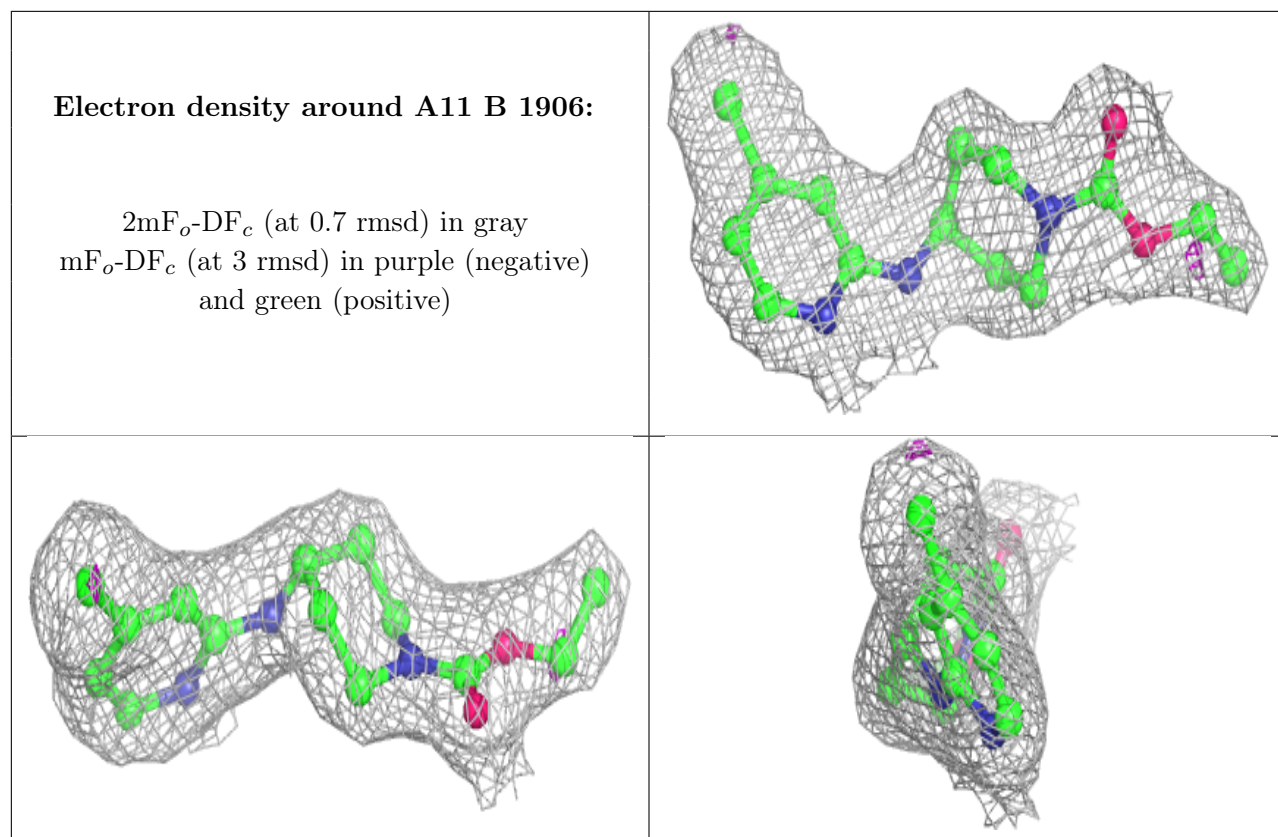
**Electron density around BOG B 4002:**

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

**Electron density around A11 A 906:**

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

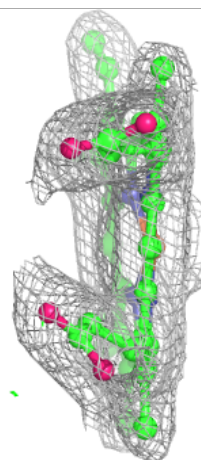
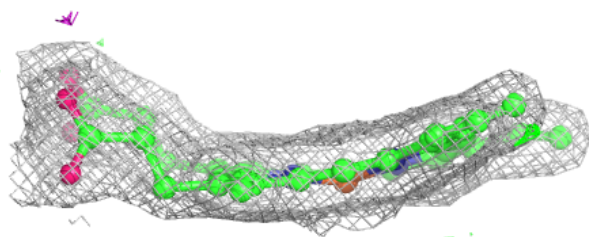
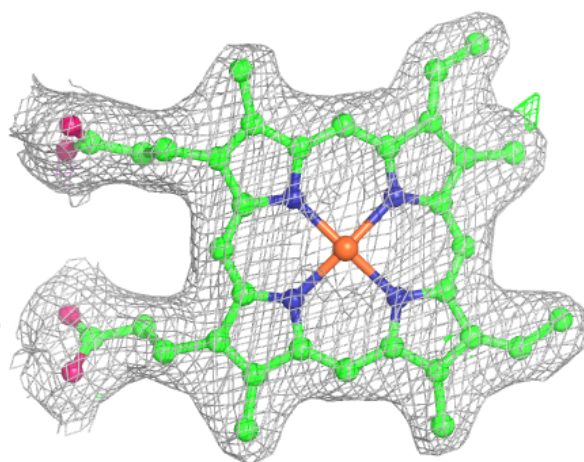




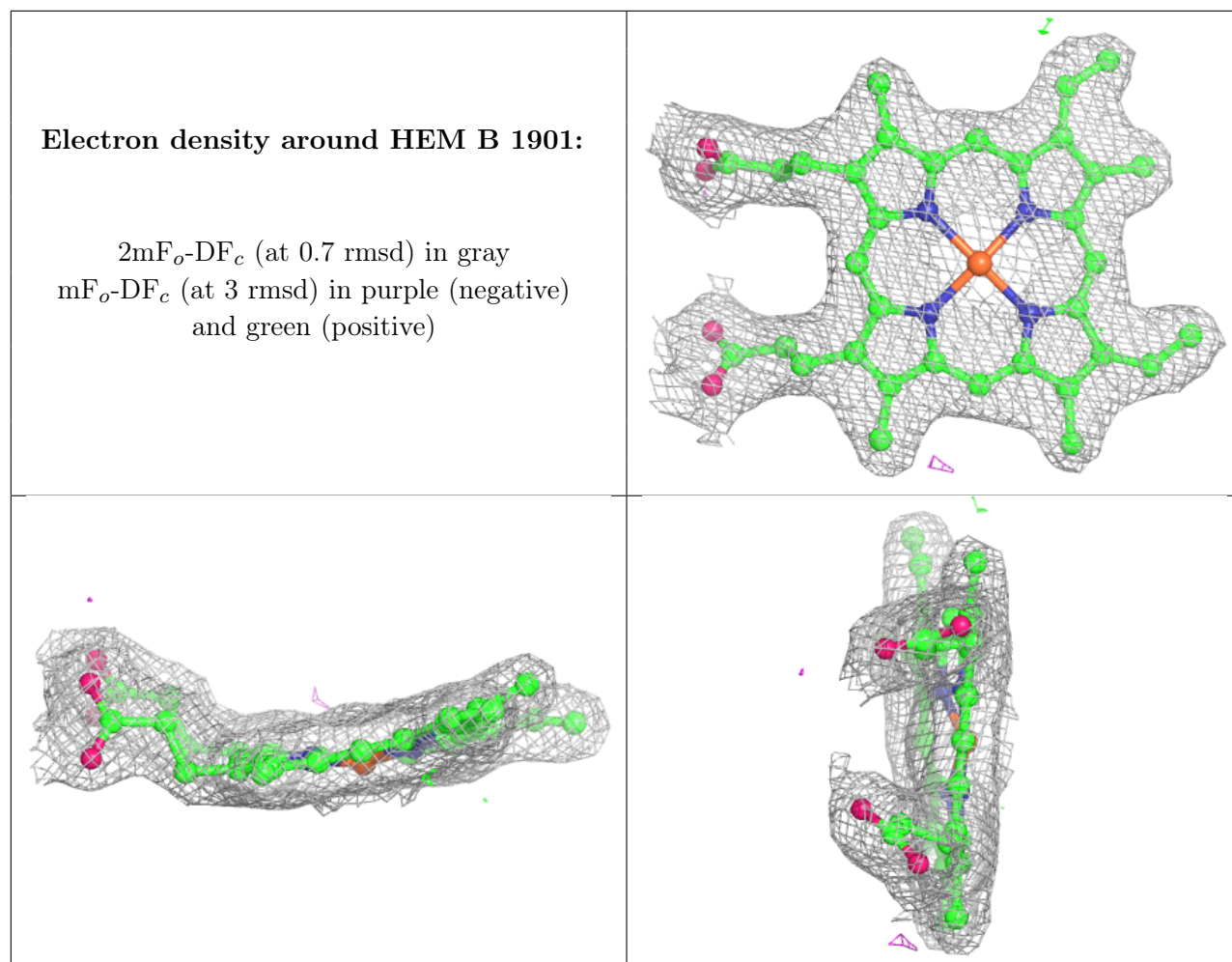


**Electron density around HEM A 901:**

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







## 6.5 Other polymers [i](#)

There are no such residues in this entry.