



# Full wwPDB X-ray Structure Validation Report ⓘ

Jun 1, 2026 – 10:34 PM EDT

PDB ID : 9YSN / pdb\_00009ysn  
Title : Human DCTP1 bound to a Class I inhibitor  
Authors : Hauk, G.; Berger, J.M.  
Deposited on : 2025-10-19  
Resolution : 2.30 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](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 ⓘ](#)) were used in the production of this report:

MolProbity : 4-5-2 with Phenix2.0  
Mogul : 2022.3.0, CSD as543be (2022)  
Xtriage (Phenix) : 2.0  
EDS : 3.0  
Buster-report : wwPDB partial adaption of 1.1.7 (2018)  
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)  
CCP4 : 9.0.010 (Gargrove)  
Density-Fitness : 1.0.12  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.49

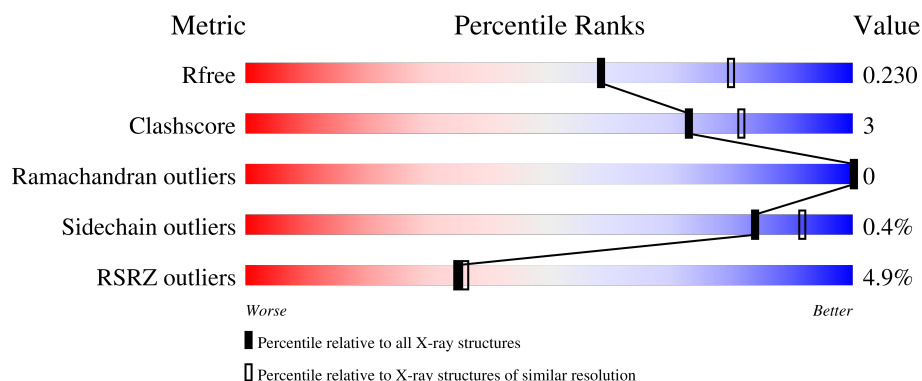
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.30 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))
$R_{free}$	180053	6319 (2.30-2.30)
Clashscore	190562	6919 (2.30-2.30)
Ramachandran outliers	187476	6854 (2.30-2.30)
Sidechain outliers	187428	6854 (2.30-2.30)
RSRZ outliers	180081	6325 (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	110	<div> <div>0%</div> <div>95%</div> <div>5%</div> <div>0%</div> </div>
1	B	110	<div> <div>3%</div> <div>88%</div> <div>10%</div> <div>0%</div> </div>
1	C	110	<div> <div>5%</div> <div>95%</div> <div>0%</div> <div>0%</div> </div>
1	D	110	<div> <div>3%</div> <div>91%</div> <div>5%</div> <div>5%</div> </div>
1	E	110	<div> <div>2%</div> <div>87%</div> <div>9%</div> <div>0%</div> </div>

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Mol	Chain	Length	Quality of chain
1	F	110	<div><div></div><div>9%</div><div>77%</div><div>17%</div><div>• 5%</div></div>
1	G	110	<div><div></div><div>5%</div><div>84%</div><div>11%</div><div>5%</div></div>
1	H	110	<div><div></div><div>11%</div><div>83%</div><div>13%</div><div>5%</div></div>

## 2 Entry composition

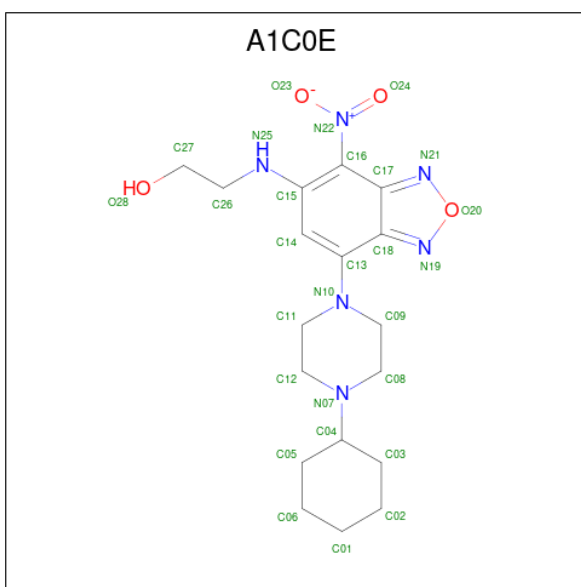
There are 4 unique types of molecules in this entry. The entry contains 14097 atoms, of which 6906 are hydrogens and 0 are deuteriums.

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 dCTP pyrophosphatase 1.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	108	Total	C	H	N	O	S	0	0	0
			1748	560	867	160	159	2			
1	B	108	Total	C	H	N	O	S	0	0	0
			1698	551	837	151	157	2			
1	C	108	Total	C	H	N	O	S	0	0	0
			1686	549	829	150	156	2			
1	D	105	Total	C	H	N	O	S	0	0	0
			1683	545	831	150	155	2			
1	E	106	Total	C	H	N	O	S	0	0	0
			1708	549	846	155	156	2			
1	F	105	Total	C	H	N	O	S	0	0	0
			1699	547	844	154	152	2			
1	G	104	Total	C	H	N	O	S	0	0	0
			1672	540	829	150	151	2			
1	H	105	Total	C	H	N	O	S	0	0	0
			1655	539	815	145	154	2			

- Molecule 2 is 2-{[7-(4-cyclohexylpiperazin-1-yl)-4-nitro-2,1,3-benzoxadiazol-5-yl]amino}ethan-1-ol (CCD ID: A1C0E) (formula: C<sub>18</sub>H<sub>26</sub>N<sub>6</sub>O<sub>4</sub>) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	
2	A	1	Total 54	C 18	H 26	N 6	O 4	0	0
2	B	1	Total 54	C 18	H 26	N 6	O 4	0	0
2	C	1	Total 54	C 18	H 26	N 6	O 4	0	0
2	D	1	Total 54	C 18	H 26	N 6	O 4	0	0
2	F	1	Total 54	C 18	H 26	N 6	O 4	0	0
2	G	1	Total 54	C 18	H 26	N 6	O 4	0	0
2	G	1	Total 54	C 18	H 26	N 6	O 4	0	0
2	H	1	Total 54	C 18	H 26	N 6	O 4	0	0

- Molecule 3 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	1	Total Mg 1 1	0	0
3	B	1	Total Mg 1 1	0	0
3	C	1	Total Mg 1 1	0	0
3	D	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	E	1	Total 1	Mg 1	0	0
3	G	1	Total 1	Mg 1	0	0

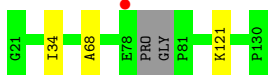
- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	13	Total 13	O 13	0	0
4	B	31	Total 31	O 31	0	0
4	C	15	Total 15	O 15	0	0
4	D	12	Total 12	O 12	0	0
4	E	13	Total 13	O 13	0	0
4	F	10	Total 10	O 10	0	0
4	G	7	Total 7	O 7	0	0
4	H	9	Total 9	O 9	0	0

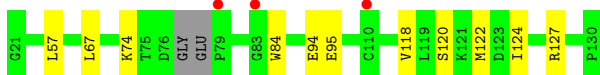
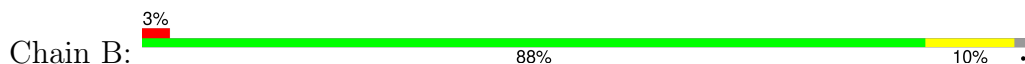
### 3 Residue-property plots [i](#)

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.

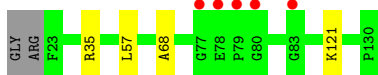
- Molecule 1: dCTP pyrophosphatase 1



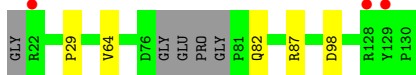
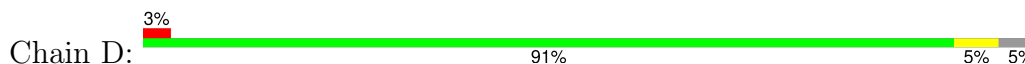
- Molecule 1: dCTP pyrophosphatase 1



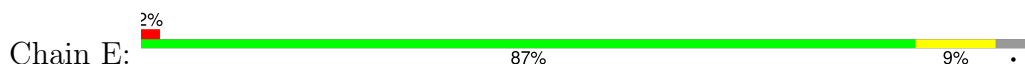
- Molecule 1: dCTP pyrophosphatase 1




- Molecule 1: dCTP pyrophosphatase 1

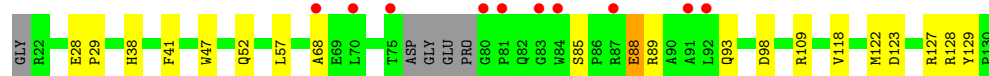


- Molecule 1: dCTP pyrophosphatase 1




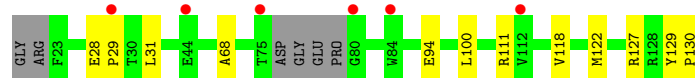
- Molecule 1: dCTP pyrophosphatase 1

Chain F: 




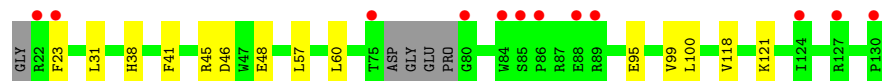
• Molecule 1: dCTP pyrophosphatase 1

Chain G: 



• Molecule 1: dCTP pyrophosphatase 1

Chain H: 





## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	61.64Å 63.73Å 67.63Å 78.44° 78.10° 64.71°	Depositor
Resolution (Å)	26.66 – 2.30 26.66 – 2.30	Depositor EDS
% Data completeness (in resolution range)	97.7 (26.66-2.30) 97.7 (26.66-2.30)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.60 (at 2.31Å)	Xtriage
Refinement program	PHENIX 1.20.1_4487	Depositor
R, $R_{free}$	0.211 , 0.228 0.211 , 0.230	Depositor DCC
$R_{free}$ test set	2268 reflections (4.31%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	47.1	Xtriage
Anisotropy	0.223	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.39 , 40.3	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.51$ , $\langle L^2 \rangle = 0.35$	Xtriage
Estimated twinning fraction	0.004 for -k,-h,-l	Xtriage
$F_o, F_c$ correlation	0.95	EDS
Total number of atoms	14097	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	69.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.98% 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

### 5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: A1C0E, 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	0.17	0/901	0.28	0/1218
1	B	0.27	0/882	0.41	0/1197
1	C	0.18	0/879	0.35	0/1196
1	D	0.24	0/872	0.47	0/1182
1	E	0.11	0/881	0.26	0/1193
1	F	0.35	0/875	0.60	0/1185
1	G	0.15	0/863	0.26	0/1170
1	H	0.12	0/860	0.26	0/1168
All	All	0.21	0/7013	0.38	0/9509

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	1
1	C	0	1
1	F	0	1
All	All	0	3

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (3) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	127	ARG	Sidechain
1	C	35	ARG	Sidechain

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Mol	Chain	Res	Type	Group
1	F	89	ARG	Sidechain

## 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	881	867	867	3	0
1	B	861	837	835	7	0
1	C	857	829	829	4	0
1	D	852	831	831	4	0
1	E	862	846	846	7	0
1	F	855	844	844	13	0
1	G	843	829	829	12	0
1	H	840	815	813	14	0
2	A	28	26	0	0	0
2	B	28	26	0	0	0
2	C	28	26	0	0	0
2	D	28	26	0	0	0
2	F	28	26	0	1	0
2	G	56	52	0	0	0
2	H	28	26	0	0	0
3	A	1	0	0	0	0
3	B	1	0	0	0	0
3	C	1	0	0	0	0
3	D	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
4	A	13	0	0	0	0
4	B	31	0	0	0	0
4	C	15	0	0	0	0
4	D	12	0	0	0	0
4	E	13	0	0	0	0
4	F	10	0	0	0	0
4	G	7	0	0	0	0
4	H	9	0	0	0	0
All	All	7191	6906	6694	44	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 (44) 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:F:118:VAL:HG22	1:F:122:MET:HE2	1.62	0.80
1:E:113:ASP:OD2	1:E:116:LEU:HD22	1.97	0.65
1:B:122:MET:HE3	1:B:122:MET:HA	1.79	0.63
1:G:100:LEU:HD23	1:H:118:VAL:HG21	1.85	0.58
1:G:122:MET:HE1	1:H:38:HIS:CA	2.33	0.58
1:G:111:ARG:HD2	1:H:23:PHE:CD1	2.38	0.57
1:G:118:VAL:HG21	1:H:100:LEU:HD23	1.86	0.57
1:G:31:LEU:HD21	1:H:31:LEU:HD21	1.86	0.57
1:C:121:LYS:HE2	1:F:98:ASP:OD2	2.05	0.56
1:H:46:ASP:OD1	1:H:48:GLU:OE1	2.25	0.55
1:G:127:ARG:O	1:G:130:PRO:HD3	2.07	0.54
1:G:129:TYR:N	1:G:130:PRO:HD3	2.25	0.52
1:H:41:PHE:O	1:H:45:ARG:NH1	2.43	0.52
1:H:60:LEU:CD1	1:H:99:VAL:HG13	2.41	0.51
1:D:82:GLN:CD	1:E:111:ARG:HD3	2.35	0.51
1:A:68:ALA:HA	1:B:57:LEU:HD21	1.95	0.49
1:C:68:ALA:HA	1:F:57:LEU:HD21	1.93	0.49
1:E:123:ASP:OD2	1:E:127:ARG:NH1	2.46	0.48
1:G:122:MET:HE1	1:H:38:HIS:HA	1.96	0.48
1:B:74:LYS:HE3	1:B:84:TRP:CE2	2.49	0.47
1:D:98:ASP:OD2	1:E:121:LYS:HE3	2.15	0.47
1:E:74:LYS:HD2	1:E:84:TRP:CZ2	2.50	0.47
1:G:122:MET:HE1	1:H:38:HIS:HB2	1.97	0.47
1:F:28:GLU:HB2	1:F:29:PRO:HA	1.98	0.46
1:F:123:ASP:O	1:F:127:ARG:HG2	2.17	0.45
1:F:118:VAL:CG2	1:F:122:MET:HE2	2.42	0.45
1:H:60:LEU:HD11	1:H:99:VAL:HG13	1.98	0.45
1:B:120:SER:O	1:B:124:ILE:HD12	2.17	0.44
1:F:38:HIS:NE2	2:F:201:A1C0E:O23	2.46	0.44
1:G:68:ALA:HA	1:H:57:LEU:HD21	1.99	0.44
1:G:94:GLU:HG2	1:H:121:LYS:HE2	2.00	0.43
1:A:34:ILE:HG12	1:B:118:VAL:HG11	2.00	0.43
1:F:52:GLN:OE1	1:F:109:ARG:NH2	2.53	0.42
1:C:57:LEU:HD21	1:F:68:ALA:HA	2.01	0.42
1:F:85:SER:HB3	1:F:88:GLU:HB2	2.02	0.42
1:H:95:GLU:HA	1:H:95:GLU:OE1	2.20	0.42
1:A:121:LYS:HE2	1:B:94:GLU:HG2	2.01	0.41
1:B:67:LEU:HD13	1:B:95:GLU:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:128:ARG:HD2	1:F:129:TYR:HE1	1.85	0.41
1:G:28:GLU:HG2	1:G:29:PRO:HA	2.01	0.41
1:D:29:PRO:HG3	1:E:119:LEU:HD13	2.03	0.41
1:D:64:VAL:HG21	1:E:64:VAL:HG21	2.03	0.41
1:C:121:LYS:HE2	1:F:98:ASP:CG	2.46	0.41
1:F:41:PHE:CE1	1:F:47:TRP:CZ3	3.09	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	104/110 (94%)	101 (97%)	3 (3%)	0	100	100
1	B	104/110 (94%)	104 (100%)	0	0	100	100
1	C	106/110 (96%)	104 (98%)	2 (2%)	0	100	100
1	D	101/110 (92%)	99 (98%)	2 (2%)	0	100	100
1	E	102/110 (93%)	102 (100%)	0	0	100	100
1	F	101/110 (92%)	100 (99%)	1 (1%)	0	100	100
1	G	100/110 (91%)	100 (100%)	0	0	100	100
1	H	101/110 (92%)	98 (97%)	3 (3%)	0	100	100
All	All	819/880 (93%)	808 (99%)	11 (1%)	0	100	100

There are no Ramachandran outliers to report.

### 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	91/93 (98%)	91 (100%)	0	100	100
1	B	88/93 (95%)	88 (100%)	0	100	100
1	C	87/93 (94%)	87 (100%)	0	100	100
1	D	88/93 (95%)	87 (99%)	1 (1%)	65	81
1	E	89/93 (96%)	89 (100%)	0	100	100
1	F	88/93 (95%)	86 (98%)	2 (2%)	44	63
1	G	87/93 (94%)	87 (100%)	0	100	100
1	H	86/93 (92%)	86 (100%)	0	100	100
All	All	704/744 (95%)	701 (100%)	3 (0%)	84	92

All (3) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	D	87	ARG
1	F	88	GLU
1	F	93	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry ⓘ

Of 14 ligands modelled in this entry, 6 are monoatomic - leaving 8 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
2	A1C0E	A	201	-	31,31,31	2.34	12 (38%)	31,43,43	2.40	11 (35%)
2	A1C0E	H	201	-	31,31,31	2.14	9 (29%)	31,43,43	2.29	10 (32%)
2	A1C0E	B	201	-	31,31,31	2.30	13 (41%)	31,43,43	2.39	11 (35%)
2	A1C0E	C	201	-	31,31,31	2.37	13 (41%)	31,43,43	2.37	11 (35%)
2	A1C0E	G	202	-	31,31,31	2.38	13 (41%)	31,43,43	2.39	10 (32%)
2	A1C0E	G	201	-	31,31,31	2.43	13 (41%)	31,43,43	2.39	11 (35%)
2	A1C0E	F	201	-	31,31,31	2.13	9 (29%)	31,43,43	2.29	10 (32%)
2	A1C0E	D	201	-	31,31,31	1.98	9 (29%)	31,43,43	2.44	14 (45%)

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
2	A1C0E	A	201	-	-	7/12/34/34	0/4/4/4
2	A1C0E	H	201	-	-	7/12/34/34	0/4/4/4
2	A1C0E	B	201	-	-	7/12/34/34	0/4/4/4
2	A1C0E	C	201	-	-	6/12/34/34	0/4/4/4
2	A1C0E	G	202	-	-	7/12/34/34	0/4/4/4
2	A1C0E	G	201	-	-	7/12/34/34	0/4/4/4
2	A1C0E	F	201	-	-	7/12/34/34	0/4/4/4
2	A1C0E	D	201	-	-	6/12/34/34	0/4/4/4

All (91) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	G	201	A1C0E	C14-C15	7.88	1.51	1.39
2	C	201	A1C0E	C14-C15	7.87	1.51	1.39
2	B	201	A1C0E	C14-C15	7.60	1.51	1.39
2	G	202	A1C0E	C14-C15	7.56	1.51	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	201	A1C0E	C14-C15	7.20	1.50	1.39
2	H	201	A1C0E	C14-C15	7.17	1.50	1.39
2	F	201	A1C0E	C14-C15	7.12	1.50	1.39
2	D	201	A1C0E	C14-C15	5.93	1.48	1.39
2	A	201	A1C0E	C15-N25	3.95	1.47	1.37
2	D	201	A1C0E	O20-N19	-3.93	1.30	1.39
2	H	201	A1C0E	C15-N25	3.81	1.47	1.37
2	C	201	A1C0E	C15-N25	3.80	1.47	1.37
2	F	201	A1C0E	C15-N25	3.80	1.47	1.37
2	D	201	A1C0E	O20-N21	-3.74	1.30	1.39
2	G	201	A1C0E	C15-N25	3.74	1.47	1.37
2	B	201	A1C0E	C15-N25	3.69	1.47	1.37
2	G	201	A1C0E	C17-N21	3.65	1.37	1.31
2	G	202	A1C0E	C15-N25	3.60	1.47	1.37
2	G	202	A1C0E	C17-N21	3.53	1.36	1.31
2	A	201	A1C0E	C17-N21	3.52	1.36	1.31
2	C	201	A1C0E	C17-N21	3.40	1.36	1.31
2	A	201	A1C0E	C26-N25	3.35	1.52	1.45
2	A	201	A1C0E	C26-C27	3.33	1.61	1.50
2	G	201	A1C0E	C18-N19	3.32	1.36	1.31
2	B	201	A1C0E	C17-N21	3.30	1.36	1.31
2	G	201	A1C0E	C26-N25	3.27	1.52	1.45
2	G	201	A1C0E	C26-C27	3.23	1.61	1.50
2	A	201	A1C0E	C18-N19	3.22	1.36	1.31
2	C	201	A1C0E	C26-C27	3.17	1.61	1.50
2	B	201	A1C0E	C26-C27	3.16	1.61	1.50
2	F	201	A1C0E	O20-N19	-3.15	1.32	1.39
2	H	201	A1C0E	O20-N19	-3.15	1.32	1.39
2	F	201	A1C0E	C26-C27	3.13	1.61	1.50
2	H	201	A1C0E	C26-C27	3.13	1.61	1.50
2	G	202	A1C0E	C26-C27	3.12	1.61	1.50
2	C	201	A1C0E	C18-N19	3.09	1.36	1.31
2	D	201	A1C0E	C15-N25	3.09	1.45	1.37
2	C	201	A1C0E	C26-N25	3.07	1.52	1.45
2	G	202	A1C0E	C18-N19	3.07	1.36	1.31
2	F	201	A1C0E	C26-N25	3.06	1.52	1.45
2	H	201	A1C0E	C26-N25	3.05	1.51	1.45
2	G	202	A1C0E	C26-N25	3.05	1.51	1.45
2	G	201	A1C0E	C16-N22	2.99	1.51	1.45
2	D	201	A1C0E	C26-C27	2.97	1.60	1.50
2	H	201	A1C0E	C18-N19	2.94	1.36	1.31
2	F	201	A1C0E	C18-N19	2.93	1.36	1.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	201	A1C0E	C18-N19	2.79	1.35	1.31
2	G	202	A1C0E	C13-C18	2.74	1.47	1.41
2	G	202	A1C0E	C11-N10	2.74	1.51	1.46
2	G	202	A1C0E	C16-N22	2.68	1.50	1.45
2	C	201	A1C0E	C16-N22	2.68	1.50	1.45
2	D	201	A1C0E	O23-N22	-2.65	1.17	1.35
2	A	201	A1C0E	C16-N22	2.63	1.50	1.45
2	H	201	A1C0E	O23-N22	-2.62	1.17	1.35
2	C	201	A1C0E	O23-N22	-2.62	1.17	1.35
2	F	201	A1C0E	O23-N22	-2.61	1.17	1.35
2	B	201	A1C0E	O23-N22	-2.61	1.17	1.35
2	G	202	A1C0E	O23-N22	-2.60	1.17	1.35
2	G	201	A1C0E	O23-N22	-2.60	1.17	1.35
2	A	201	A1C0E	O23-N22	-2.59	1.18	1.35
2	B	201	A1C0E	C26-N25	2.58	1.51	1.45
2	G	201	A1C0E	C13-C18	2.52	1.47	1.41
2	B	201	A1C0E	C16-N22	2.51	1.50	1.45
2	B	201	A1C0E	O20-N21	-2.49	1.33	1.39
2	A	201	A1C0E	C13-C18	2.45	1.46	1.41
2	G	202	A1C0E	O20-N19	-2.44	1.33	1.39
2	B	201	A1C0E	O20-N19	-2.44	1.33	1.39
2	A	201	A1C0E	O20-N19	-2.44	1.33	1.39
2	H	201	A1C0E	C17-N21	2.40	1.35	1.31
2	C	201	A1C0E	C13-C18	2.39	1.46	1.41
2	A	201	A1C0E	C11-N10	2.38	1.50	1.46
2	C	201	A1C0E	O20-N19	-2.37	1.33	1.39
2	F	201	A1C0E	C17-N21	2.36	1.35	1.31
2	C	201	A1C0E	C11-N10	2.36	1.50	1.46
2	G	201	A1C0E	O20-N19	-2.34	1.33	1.39
2	B	201	A1C0E	C13-C18	2.33	1.46	1.41
2	B	201	A1C0E	C11-N10	2.32	1.50	1.46
2	D	201	A1C0E	C17-N21	2.31	1.35	1.31
2	H	201	A1C0E	O20-N21	-2.27	1.34	1.39
2	F	201	A1C0E	O20-N21	-2.26	1.34	1.39
2	D	201	A1C0E	C18-N19	2.25	1.35	1.31
2	G	202	A1C0E	O20-N21	-2.25	1.34	1.39
2	A	201	A1C0E	O20-N21	-2.20	1.34	1.39
2	G	201	A1C0E	C11-N10	2.20	1.50	1.46
2	G	201	A1C0E	C13-N10	2.19	1.50	1.41
2	G	201	A1C0E	O20-N21	-2.19	1.34	1.39
2	C	201	A1C0E	O20-N21	-2.18	1.34	1.39
2	C	201	A1C0E	C13-N10	2.06	1.49	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	201	A1C0E	C13-N10	2.06	1.49	1.41
2	D	201	A1C0E	C06-C05	-2.05	1.48	1.53
2	G	202	A1C0E	C13-N10	2.02	1.49	1.41

All (88) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	201	A1C0E	C05-C04-N07	-7.72	92.86	112.66
2	G	201	A1C0E	C05-C04-N07	-7.71	92.89	112.66
2	G	202	A1C0E	C05-C04-N07	-7.69	92.96	112.66
2	C	201	A1C0E	C05-C04-N07	-7.68	92.97	112.66
2	B	201	A1C0E	C05-C04-N07	-7.67	93.01	112.66
2	H	201	A1C0E	C05-C04-N07	-7.56	93.28	112.66
2	F	201	A1C0E	C05-C04-N07	-7.56	93.30	112.66
2	D	201	A1C0E	C05-C04-N07	-6.65	95.62	112.66
2	D	201	A1C0E	C12-N07-C08	4.87	118.40	109.13
2	G	202	A1C0E	C12-N07-C08	4.14	117.01	109.13
2	A	201	A1C0E	C12-N07-C08	4.12	116.98	109.13
2	C	201	A1C0E	C12-N07-C08	4.00	116.75	109.13
2	B	201	A1C0E	C12-N07-C08	3.99	116.74	109.13
2	G	201	A1C0E	C12-N07-C08	3.95	116.65	109.13
2	B	201	A1C0E	O24-N22-C16	-3.70	112.98	119.02
2	D	201	A1C0E	C03-C04-N07	3.70	122.14	112.66
2	A	201	A1C0E	O24-N22-C16	-3.69	113.01	119.02
2	G	202	A1C0E	C03-C04-N07	3.66	122.04	112.66
2	B	201	A1C0E	C03-C04-N07	3.62	121.95	112.66
2	C	201	A1C0E	O24-N22-C16	-3.60	113.14	119.02
2	G	202	A1C0E	O24-N22-C16	-3.60	113.16	119.02
2	A	201	A1C0E	C03-C04-N07	3.57	121.82	112.66
2	F	201	A1C0E	C03-C04-N07	3.56	121.80	112.66
2	H	201	A1C0E	C03-C04-N07	3.56	121.78	112.66
2	G	201	A1C0E	O24-N22-C16	-3.55	113.23	119.02
2	G	201	A1C0E	C03-C04-N07	3.53	121.70	112.66
2	C	201	A1C0E	C03-C04-N07	3.52	121.68	112.66
2	F	201	A1C0E	O24-N22-C16	-3.43	113.42	119.02
2	H	201	A1C0E	O24-N22-C16	-3.43	113.43	119.02
2	D	201	A1C0E	C26-N25-C15	3.22	131.15	123.35
2	B	201	A1C0E	C26-N25-C15	3.21	131.14	123.35
2	D	201	A1C0E	O24-N22-C16	-3.20	113.80	119.02
2	H	201	A1C0E	C12-N07-C08	3.19	115.21	109.13
2	F	201	A1C0E	C12-N07-C08	3.18	115.19	109.13
2	A	201	A1C0E	C15-C14-C13	3.18	127.16	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	G	201	A1C0E	C15-C14-C13	3.15	127.11	120.80
2	C	201	A1C0E	C15-C14-C13	3.13	127.06	120.80
2	G	202	A1C0E	C15-C14-C13	3.12	127.04	120.80
2	B	201	A1C0E	C15-C14-C13	3.06	126.93	120.80
2	H	201	A1C0E	C15-C14-C13	3.02	126.84	120.80
2	F	201	A1C0E	C15-C14-C13	3.02	126.84	120.80
2	D	201	A1C0E	C15-C14-C13	3.00	126.80	120.80
2	D	201	A1C0E	C02-C03-C04	-3.00	105.11	110.81
2	D	201	A1C0E	C11-N10-C09	-2.95	104.93	111.57
2	A	201	A1C0E	C11-N10-C09	-2.94	104.95	111.57
2	G	201	A1C0E	C11-N10-C09	-2.93	104.96	111.57
2	G	202	A1C0E	C11-N10-C09	-2.85	105.16	111.57
2	C	201	A1C0E	C11-N10-C09	-2.80	105.27	111.57
2	H	201	A1C0E	C26-N25-C15	2.78	130.09	123.35
2	C	201	A1C0E	C26-N25-C15	2.76	130.04	123.35
2	F	201	A1C0E	C26-N25-C15	2.76	130.04	123.35
2	A	201	A1C0E	C26-N25-C15	2.65	129.78	123.35
2	B	201	A1C0E	C11-N10-C09	-2.64	105.62	111.57
2	D	201	A1C0E	C17-C16-N22	-2.63	112.54	117.84
2	D	201	A1C0E	C08-N07-C04	2.63	119.48	112.79
2	F	201	A1C0E	C17-C16-N22	-2.60	112.60	117.84
2	H	201	A1C0E	C17-C16-N22	-2.59	112.63	117.84
2	B	201	A1C0E	C12-C11-N10	2.57	116.20	110.78
2	G	202	A1C0E	C12-C11-N10	2.49	116.02	110.78
2	G	201	A1C0E	C12-C11-N10	2.46	115.97	110.78
2	G	202	A1C0E	C26-N25-C15	2.42	129.22	123.35
2	G	202	A1C0E	C08-N07-C04	2.42	118.94	112.79
2	C	201	A1C0E	C12-C11-N10	2.42	115.87	110.78
2	A	201	A1C0E	C12-C11-N10	2.41	115.86	110.78
2	G	201	A1C0E	C17-C16-N22	-2.41	112.99	117.84
2	F	201	A1C0E	C11-C12-N07	2.40	114.84	110.61
2	B	201	A1C0E	C17-C16-N22	-2.39	113.03	117.84
2	H	201	A1C0E	C11-C12-N07	2.39	114.81	110.61
2	B	201	A1C0E	C08-C09-N10	2.38	115.79	110.78
2	G	202	A1C0E	C17-C16-N22	-2.38	113.05	117.84
2	C	201	A1C0E	C17-C16-N22	-2.36	113.09	117.84
2	B	201	A1C0E	C08-N07-C04	2.35	118.77	112.79
2	A	201	A1C0E	C08-N07-C04	2.35	118.76	112.79
2	F	201	A1C0E	C08-N07-C04	2.35	118.76	112.79
2	H	201	A1C0E	C08-N07-C04	2.34	118.74	112.79
2	G	201	A1C0E	C08-C09-N10	2.32	115.67	110.78
2	A	201	A1C0E	C17-C16-N22	-2.31	113.19	117.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	201	A1C0E	C08-N07-C04	2.30	118.65	112.79
2	G	201	A1C0E	C08-N07-C04	2.27	118.58	112.79
2	A	201	A1C0E	C08-C09-N10	2.26	115.54	110.78
2	D	201	A1C0E	C12-C11-N10	2.25	115.52	110.78
2	G	201	A1C0E	C26-N25-C15	2.23	128.75	123.35
2	C	201	A1C0E	C08-C09-N10	2.22	115.46	110.78
2	D	201	A1C0E	C11-C12-N07	2.15	114.40	110.61
2	D	201	A1C0E	C11-N10-C13	2.15	121.30	116.19
2	D	201	A1C0E	C12-N07-C04	-2.14	107.35	112.79
2	H	201	A1C0E	C12-C11-N10	2.07	115.15	110.78
2	F	201	A1C0E	C12-C11-N10	2.07	115.14	110.78

There are no chirality outliers.

All (54) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	201	A1C0E	C03-C04-N07-C08
2	A	201	A1C0E	C03-C04-N07-C12
2	A	201	A1C0E	C05-C04-N07-C12
2	A	201	A1C0E	C16-C15-N25-C26
2	A	201	A1C0E	N25-C26-C27-O28
2	B	201	A1C0E	C03-C04-N07-C08
2	B	201	A1C0E	C03-C04-N07-C12
2	B	201	A1C0E	C05-C04-N07-C08
2	B	201	A1C0E	C05-C04-N07-C12
2	B	201	A1C0E	C16-C15-N25-C26
2	B	201	A1C0E	N25-C26-C27-O28
2	C	201	A1C0E	C03-C04-N07-C08
2	C	201	A1C0E	C03-C04-N07-C12
2	C	201	A1C0E	C05-C04-N07-C08
2	C	201	A1C0E	C05-C04-N07-C12
2	C	201	A1C0E	C16-C15-N25-C26
2	D	201	A1C0E	C16-C15-N25-C26
2	F	201	A1C0E	C03-C04-N07-C08
2	F	201	A1C0E	C03-C04-N07-C12
2	F	201	A1C0E	C05-C04-N07-C08
2	F	201	A1C0E	C05-C04-N07-C12
2	F	201	A1C0E	N25-C26-C27-O28
2	G	201	A1C0E	C03-C04-N07-C08
2	G	201	A1C0E	C03-C04-N07-C12
2	G	201	A1C0E	C05-C04-N07-C08
2	G	201	A1C0E	C05-C04-N07-C12

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Mol	Chain	Res	Type	Atoms
2	G	201	A1C0E	C16-C15-N25-C26
2	G	201	A1C0E	N25-C26-C27-O28
2	G	202	A1C0E	C03-C04-N07-C12
2	G	202	A1C0E	C05-C04-N07-C12
2	G	202	A1C0E	C16-C15-N25-C26
2	H	201	A1C0E	C03-C04-N07-C08
2	H	201	A1C0E	C03-C04-N07-C12
2	H	201	A1C0E	C05-C04-N07-C08
2	H	201	A1C0E	C05-C04-N07-C12
2	H	201	A1C0E	N25-C26-C27-O28
2	C	201	A1C0E	C14-C15-N25-C26
2	G	201	A1C0E	C14-C15-N25-C26
2	F	201	A1C0E	C16-C15-N25-C26
2	H	201	A1C0E	C16-C15-N25-C26
2	A	201	A1C0E	C05-C04-N07-C08
2	G	202	A1C0E	C03-C04-N07-C08
2	D	201	A1C0E	C14-C15-N25-C26
2	G	202	A1C0E	C14-C15-N25-C26
2	B	201	A1C0E	C14-C15-N25-C26
2	A	201	A1C0E	C14-C15-N25-C26
2	D	201	A1C0E	N25-C26-C27-O28
2	F	201	A1C0E	C14-C15-N25-C26
2	H	201	A1C0E	C14-C15-N25-C26
2	D	201	A1C0E	C03-C04-N07-C12
2	G	202	A1C0E	C05-C04-N07-C08
2	D	201	A1C0E	C05-C04-N07-C12
2	D	201	A1C0E	C18-C13-N10-C11
2	G	202	A1C0E	N25-C26-C27-O28

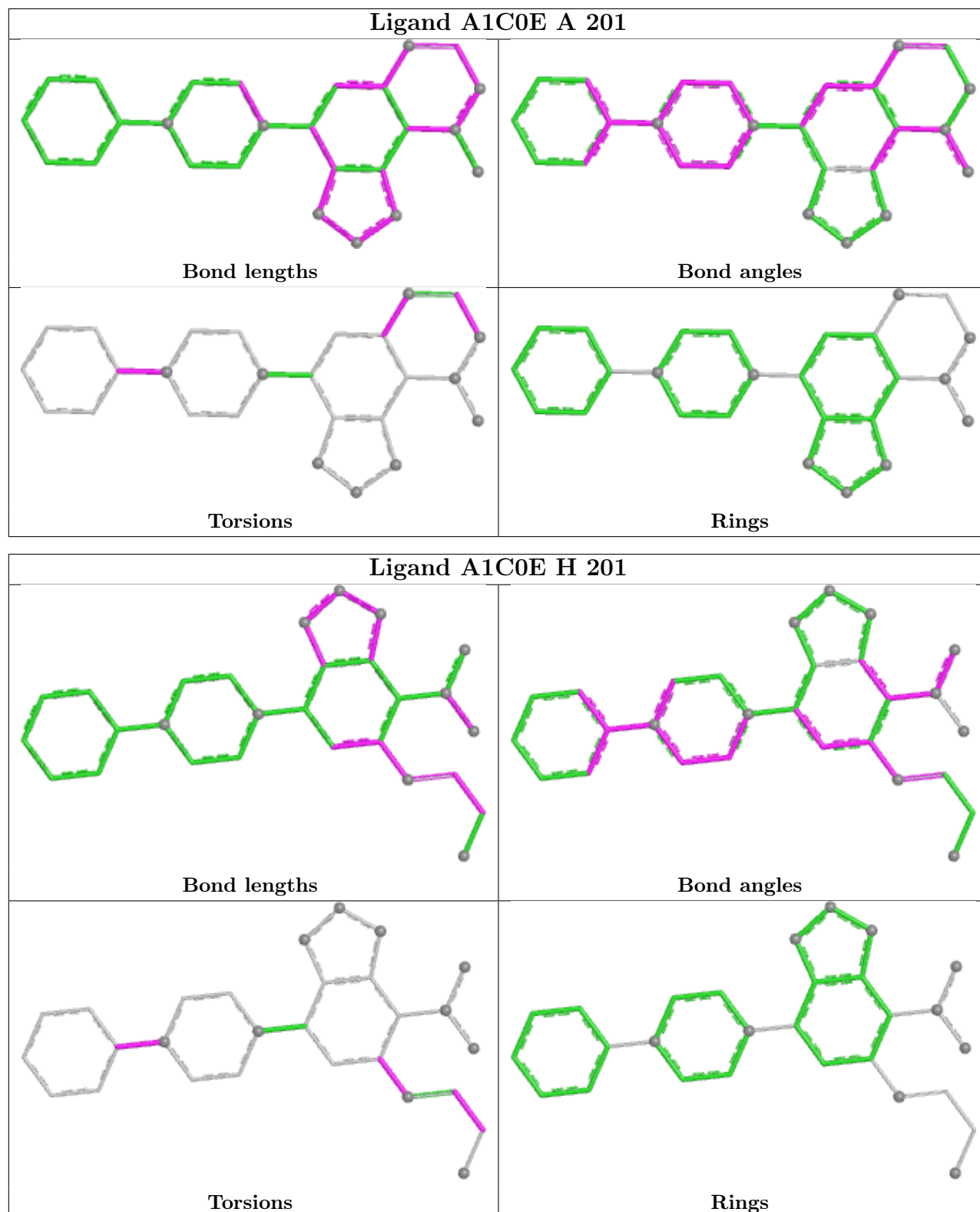
There are no ring outliers.

1 monomer is involved in 1 short contact:

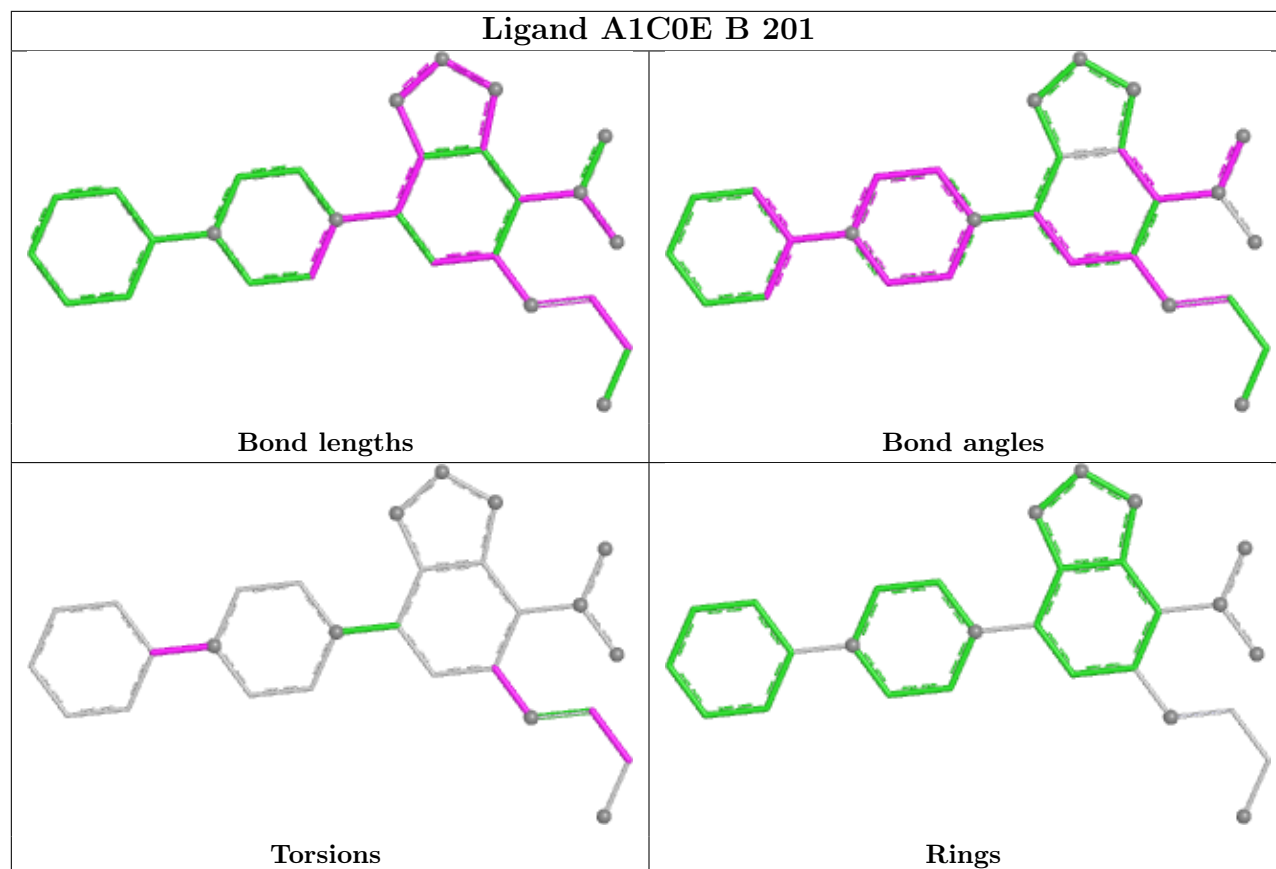
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	F	201	A1C0E	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring

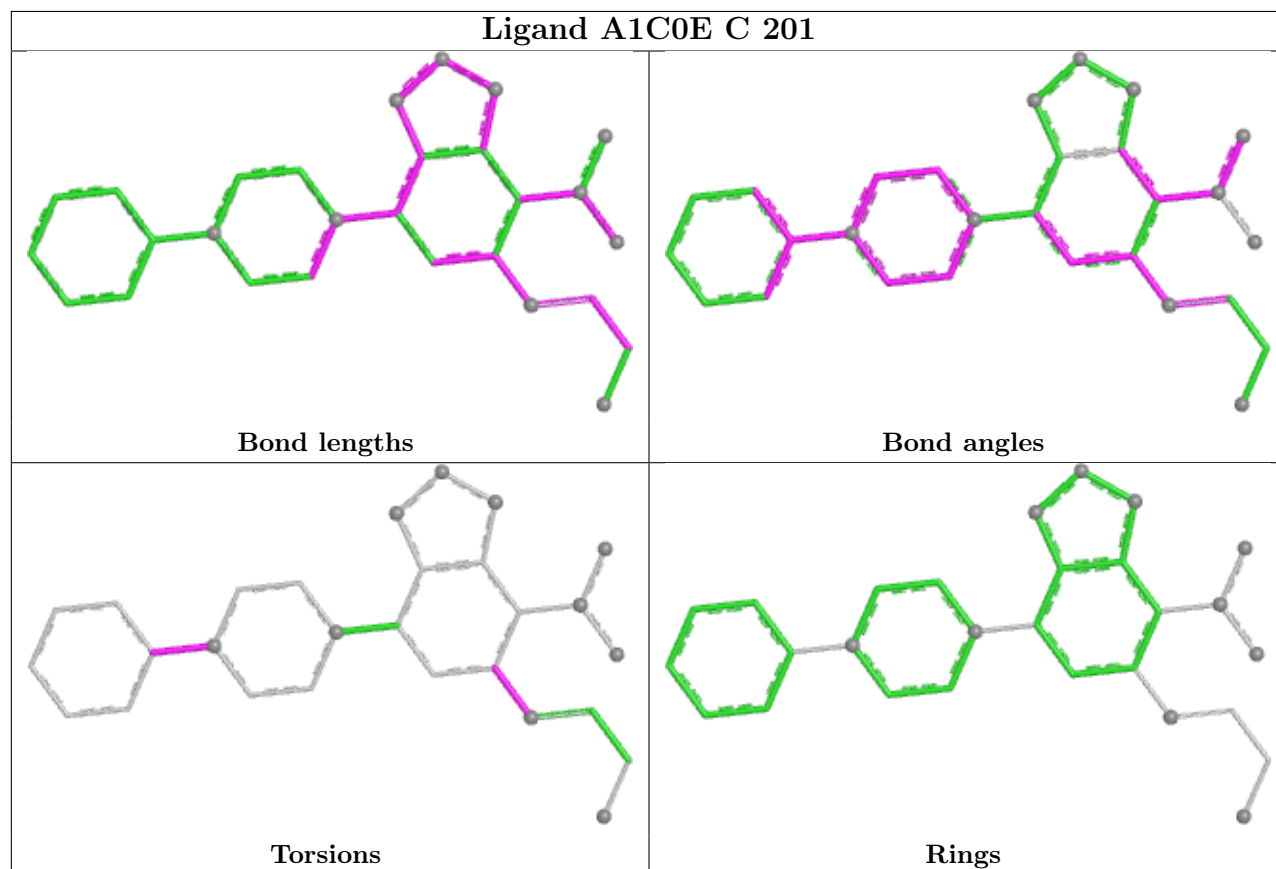
in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



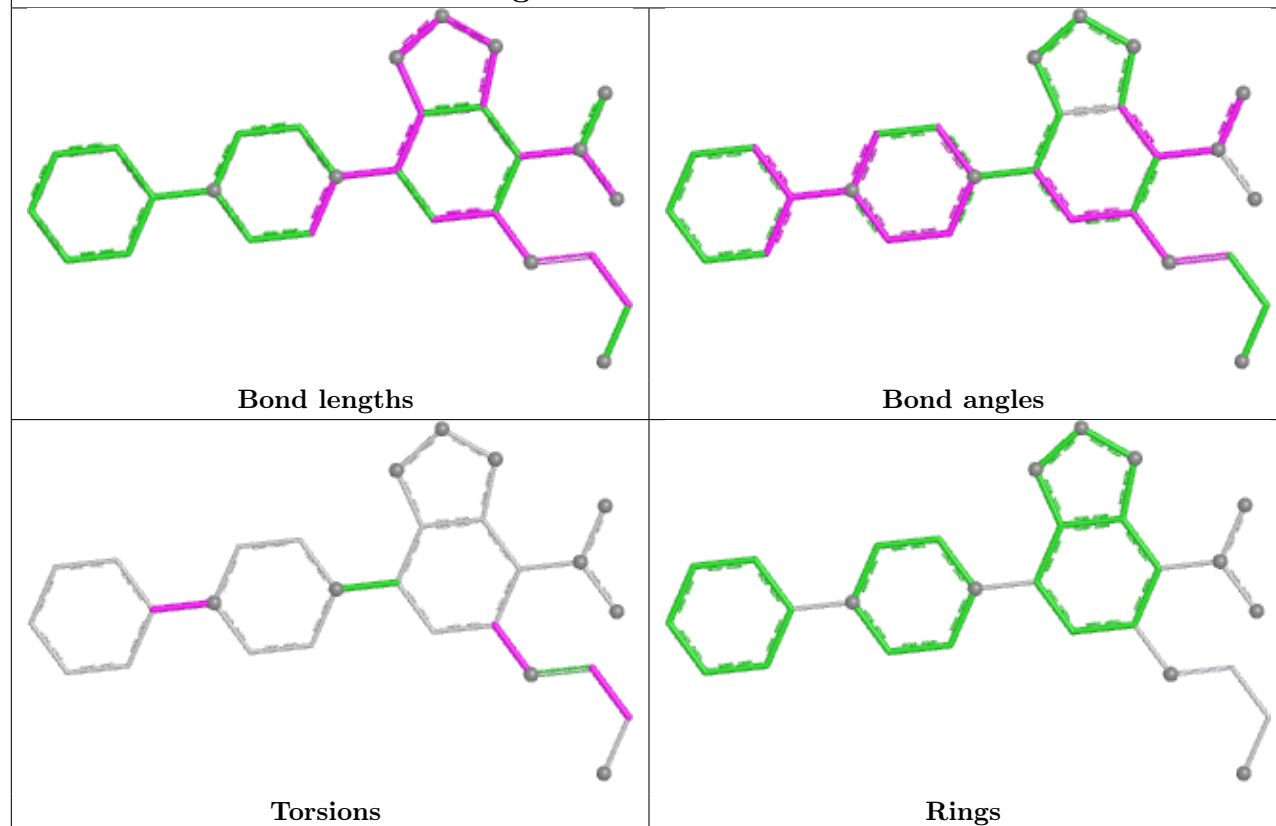
## Ligand A1C0E B 201



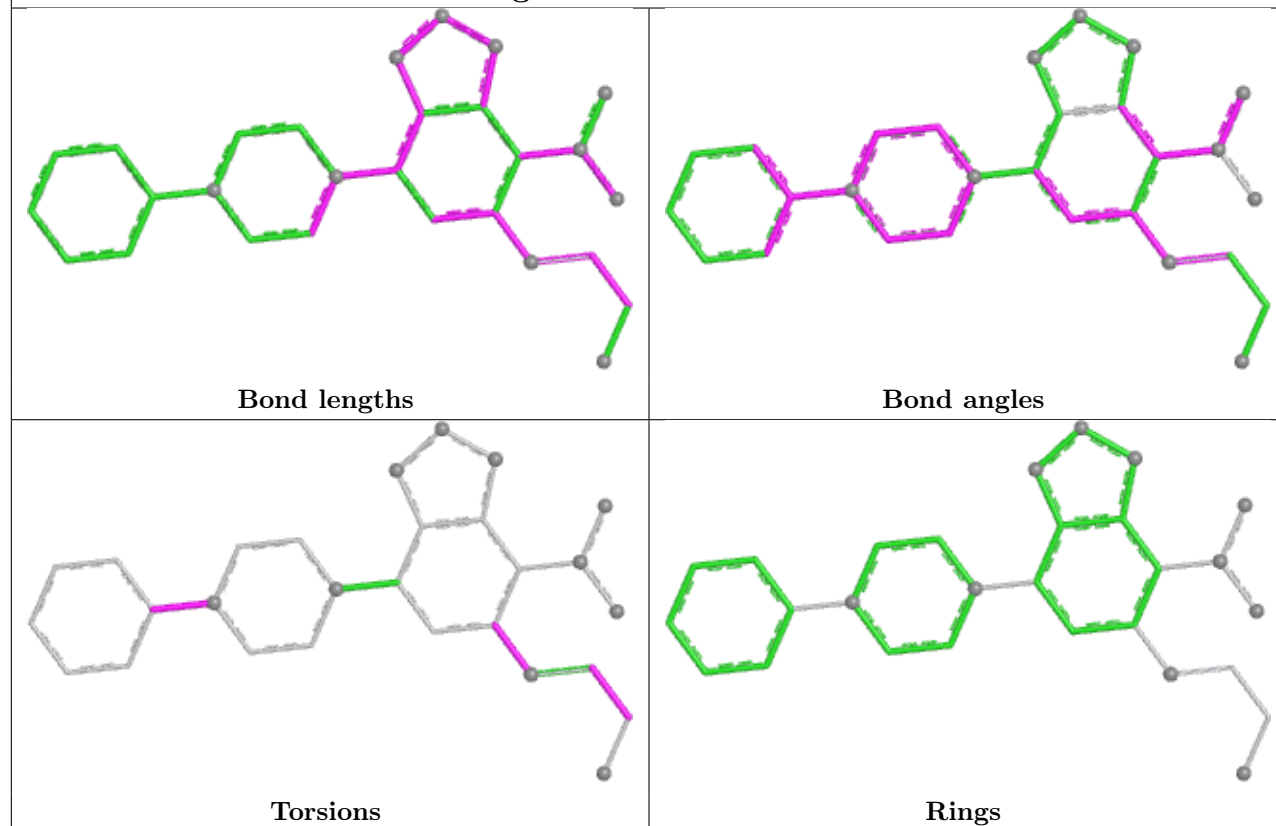
## Ligand A1C0E C 201



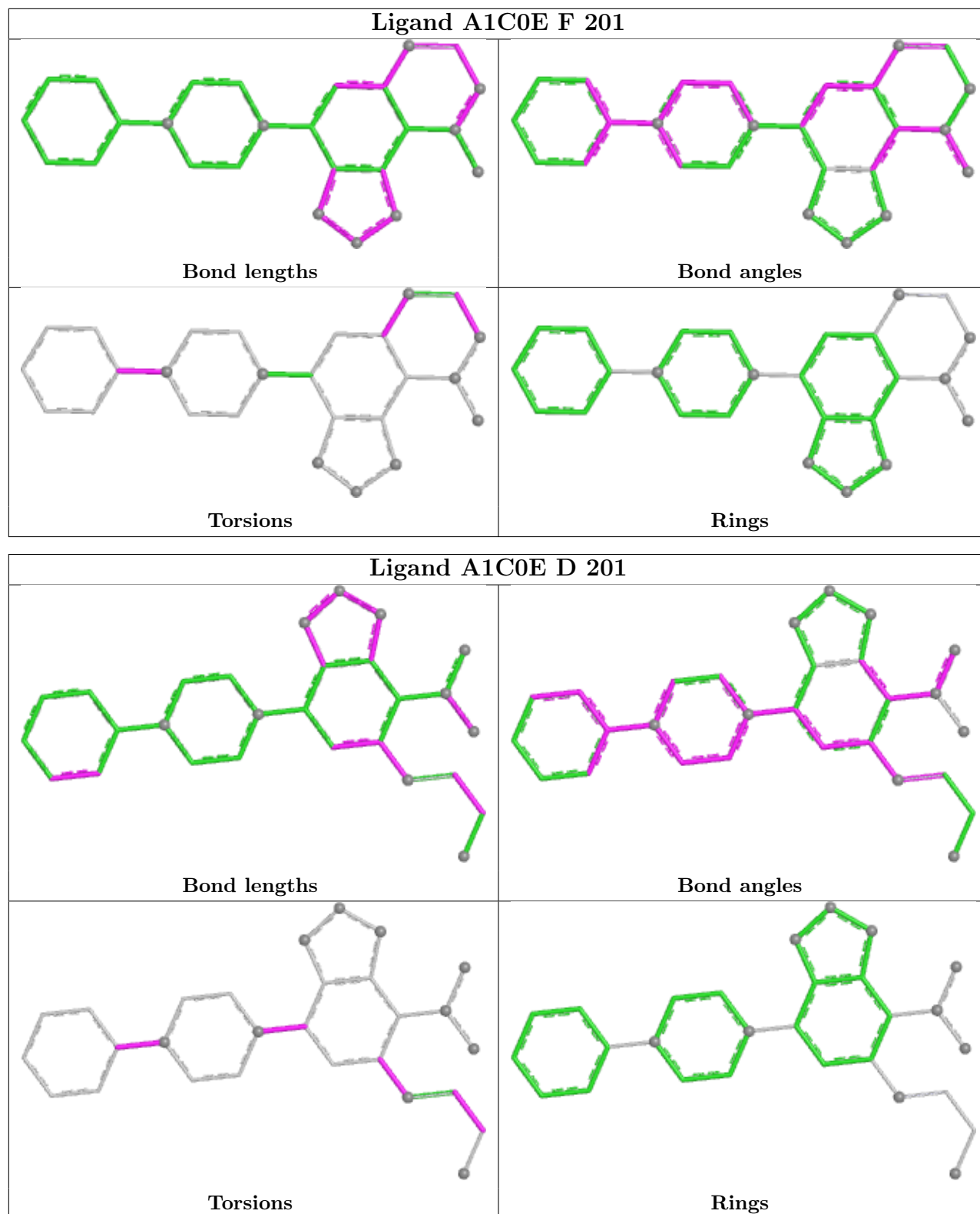
## Ligand A1C0E G 202



## Ligand A1C0E G 201







## 5.7 Other polymers [i](#)

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<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	108/110 (98%)	0.08	1 (0%) 81 82	37, 57, 96, 112	0
1	B	108/110 (98%)	0.19	3 (2%) 55 57	35, 57, 99, 170	0
1	C	108/110 (98%)	0.20	5 (4%) 37 39	38, 58, 113, 189	0
1	D	105/110 (95%)	0.22	3 (2%) 53 56	39, 60, 99, 130	0
1	E	106/110 (96%)	0.20	2 (1%) 66 68	43, 62, 93, 116	0
1	F	105/110 (95%)	0.50	10 (9%) 14 15	39, 62, 117, 146	0
1	G	104/110 (94%)	0.45	6 (5%) 29 31	43, 81, 108, 162	0
1	H	105/110 (95%)	0.77	12 (11%) 10 11	45, 78, 140, 166	0
All	All	849/880 (96%)	0.32	42 (4%) 35 36	35, 63, 114, 189	0

All (42) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	H	127	ARG	4.9
1	B	79	PRO	4.5
1	G	80	GLY	4.4
1	C	83	GLY	3.9
1	D	128	ARG	3.7
1	H	85	SER	3.7
1	B	83	GLY	3.6
1	C	77	GLY	3.6
1	E	77	GLY	3.5
1	E	22	ARG	3.5
1	G	112	VAL	3.4
1	A	78	GLU	3.4
1	B	110	CYS	3.3
1	F	81	PRO	3.2
1	H	89	ARG	3.0
1	F	87	ARG	2.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	G	75	THR	2.9
1	C	78	GLU	2.9
1	F	80	GLY	2.8
1	C	79	PRO	2.8
1	F	75	THR	2.7
1	H	124	ILE	2.7
1	H	130	PRO	2.6
1	F	92	LEU	2.6
1	H	23	PHE	2.6
1	F	70	LEU	2.6
1	G	29	PRO	2.5
1	H	22	ARG	2.5
1	F	91	ALA	2.5
1	G	44	GLU	2.4
1	G	84	TRP	2.4
1	H	84	TRP	2.4
1	H	75	THR	2.3
1	C	80	GLY	2.3
1	D	129	TYR	2.3
1	H	80	GLY	2.3
1	H	88	GLU	2.2
1	F	83	GLY	2.1
1	D	22	ARG	2.1
1	F	84	TRP	2.1
1	H	86	PRO	2.0
1	F	68	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](#)

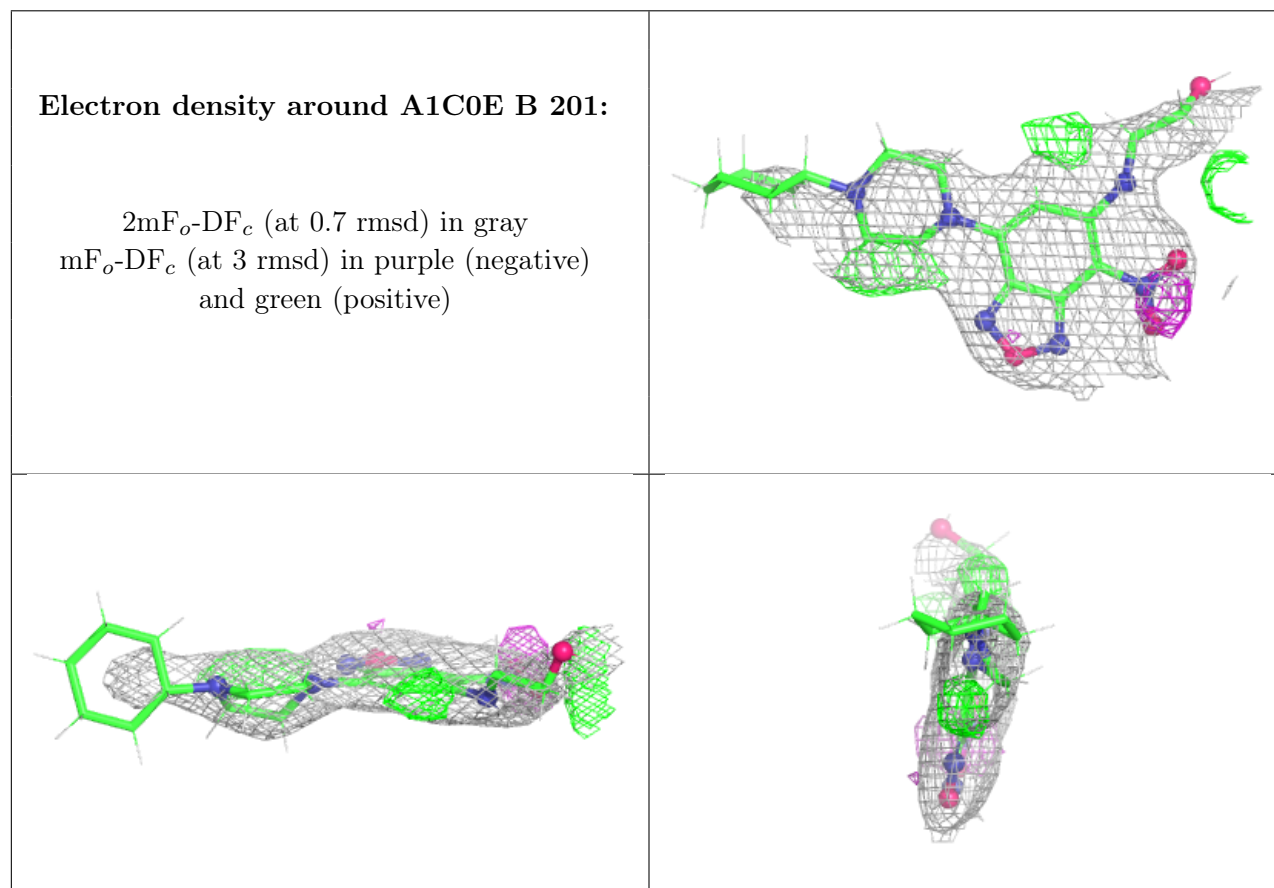
There are no oligosaccharides in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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.

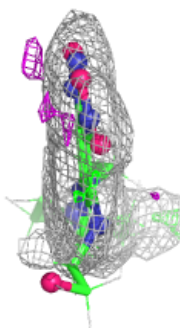
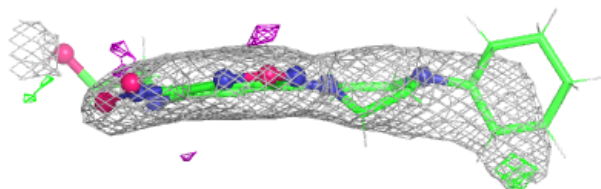
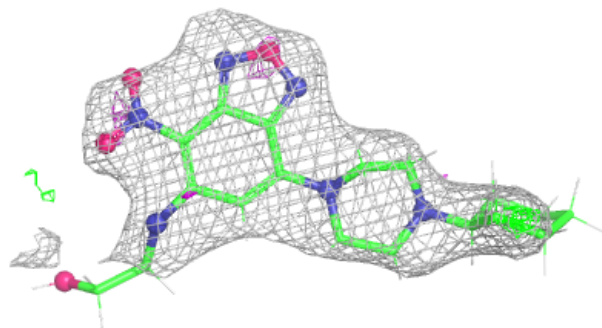
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
2	A1C0E	B	201	28/28	0.76	0.16	55,94,146,157	0
2	A1C0E	D	201	28/28	0.79	0.15	57,94,145,157	0
2	A1C0E	G	201	28/28	0.81	0.15	60,95,131,136	0
2	A1C0E	C	201	28/28	0.83	0.15	60,93,122,155	0
2	A1C0E	G	202	28/28	0.83	0.14	73,95,146,151	0
2	A1C0E	A	201	28/28	0.84	0.14	55,93,151,155	0
2	A1C0E	F	201	28/28	0.87	0.13	55,69,86,100	0
2	A1C0E	H	201	28/28	0.89	0.12	56,68,81,95	0
3	MG	C	202	1/1	0.89	0.09	46,46,46,46	0
3	MG	B	202	1/1	0.91	0.06	58,58,58,58	0
3	MG	D	202	1/1	0.94	0.07	67,67,67,67	0
3	MG	G	203	1/1	0.96	0.09	49,49,49,49	0
3	MG	A	202	1/1	0.97	0.04	46,46,46,46	0
3	MG	E	201	1/1	0.98	0.09	49,49,49,49	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.

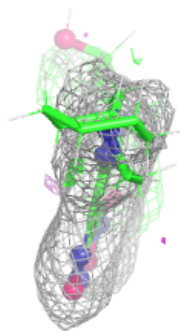
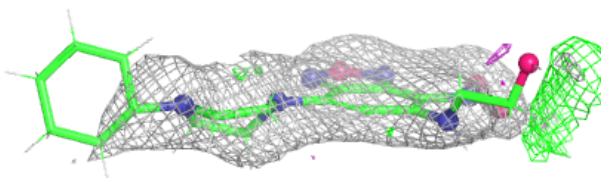
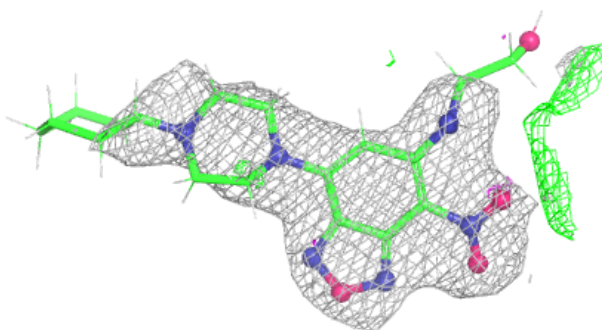


**Electron density around A1C0E D 201:**

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

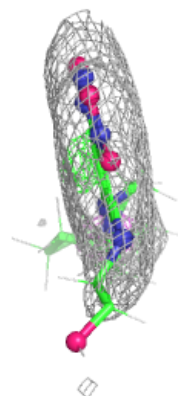
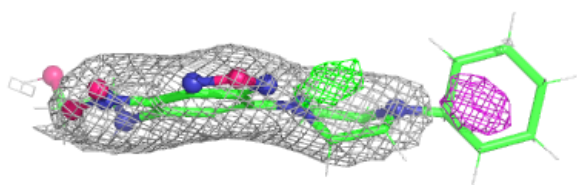
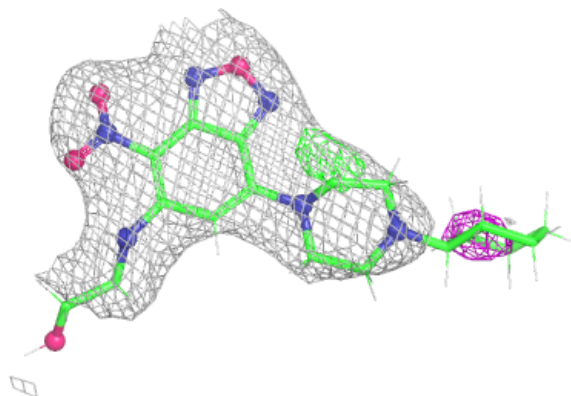
**Electron density around A1C0E G 201:**

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

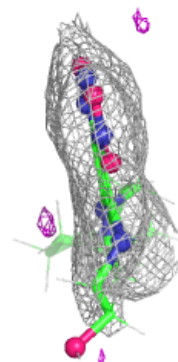
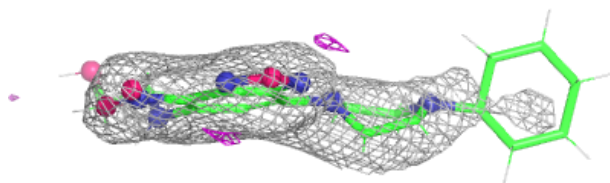
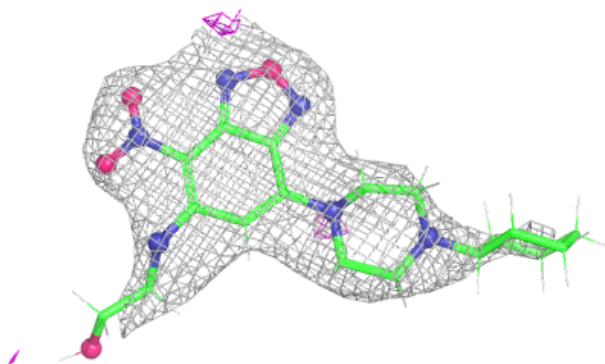


**Electron density around A1C0E C 201:**

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

**Electron density around A1C0E G 202:**

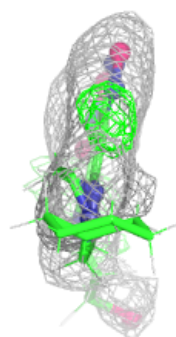
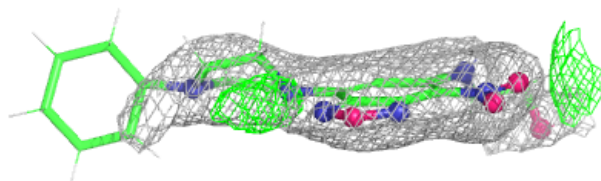
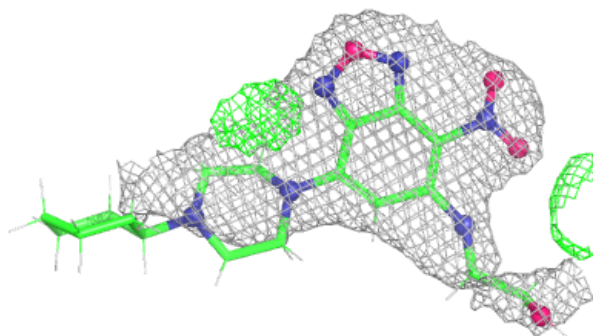
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



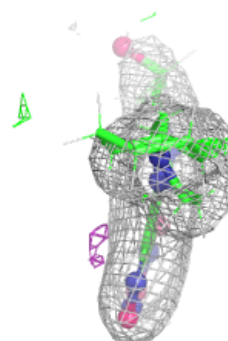
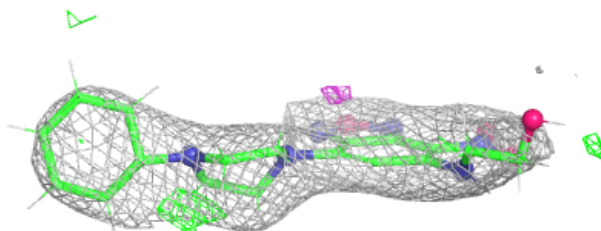
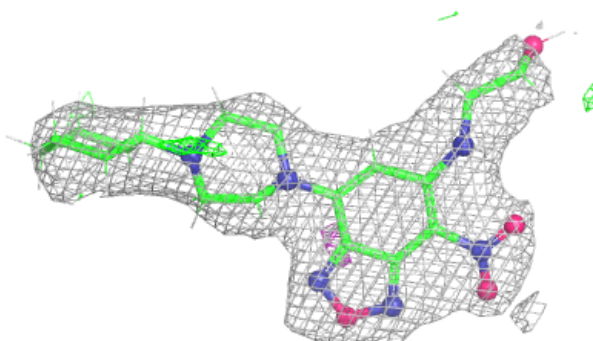


**Electron density around A1C0E A 201:**

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

**Electron density around A1C0E F 201:**

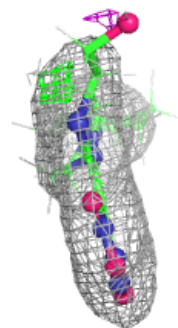
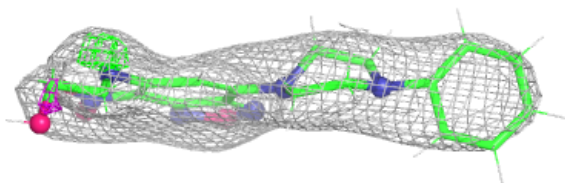
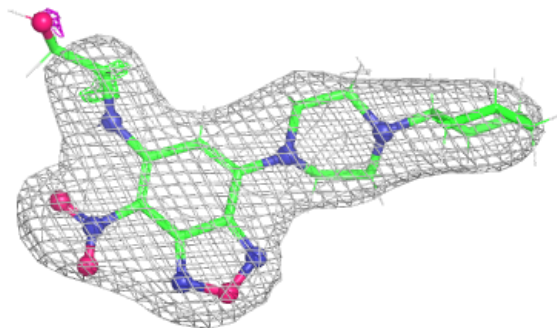
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





**Electron density around A1C0E 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)



## 6.5 Other polymers [i](#)

There are no such residues in this entry.