



wwPDB X-ray Structure Validation Summary Report ⓘ

Mar 19, 2025 – 06:08 pm GMT

PDB ID : 9EWL
Title : The sTeLIC pentameric Ligand-Gated Ion Channel (wild-type) in complex with 4-bromoamphetamine
Authors : Fourati, Z.; Delarue, M.
Deposited on : 2024-04-04
Resolution : 3.20 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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Mogul : 1.8.4, CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 3.0
buster-report : 1.1.7 (2018)
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4 : 9.0.003 (Gargrove)
Density-Fitness : 1.0.11
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.41.5

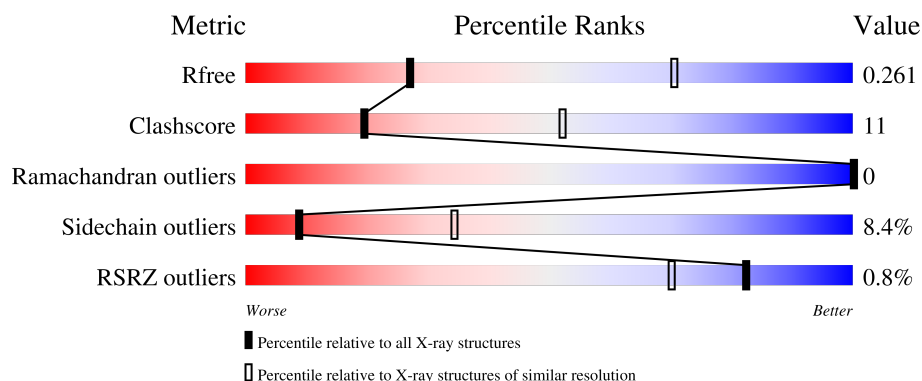
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION





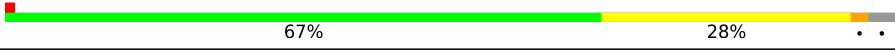
The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	1370 (3.20-3.20)
Clashscore	180529	1497 (3.20-3.20)
Ramachandran outliers	177936	1479 (3.20-3.20)
Sidechain outliers	177891	1478 (3.20-3.20)
RSRZ outliers	164620	1371 (3.20-3.20)

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

Mol	Chain	Length	Quality of chain
1	AAA	320	
1	BBB	320	
1	CCC	320	
1	DDD	320	
1	EEE	320	

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	BNG	CCC	402	-	-	X	-

2 Entry composition [i](#)

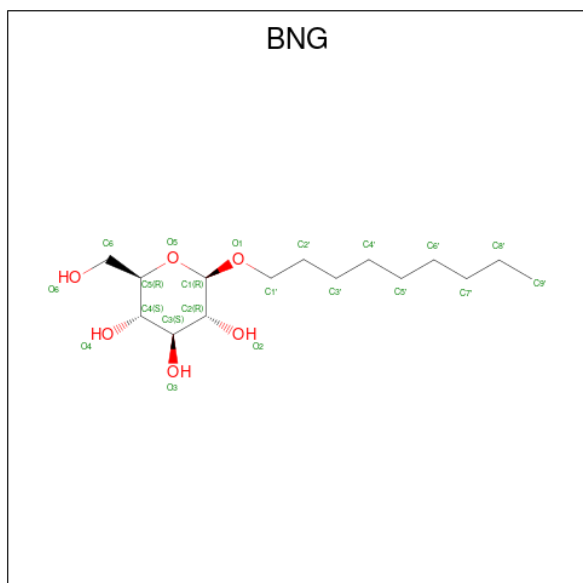
There are 4 unique types of molecules in this entry. The entry contains 13005 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 Cys-loop ligand-gated ion channel.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AAA	310	Total	C	N	O	S	0	0	0
			2566	1690	423	448	5			
1	BBB	310	Total	C	N	O	S	0	0	0
			2566	1690	423	448	5			
1	CCC	310	Total	C	N	O	S	0	0	0
			2566	1690	423	448	5			
1	DDD	310	Total	C	N	O	S	0	0	0
			2566	1690	423	448	5			
1	EEE	310	Total	C	N	O	S	0	0	0
			2566	1690	423	448	5			

- Molecule 2 is nonyl beta-D-glucopyranoside (three-letter code: BNG) (formula: C₁₅H₃₀O₆).



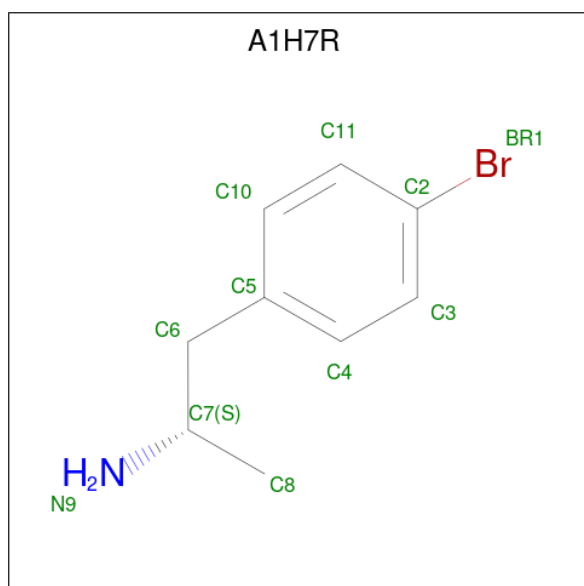
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	AAA	1	Total	C	O	0	0
			21	15	6		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	CCC	1	Total	C	O	0	0
			21	15	6		
2	DDD	1	Total	C	O	0	0
			21	15	6		
2	DDD	1	Total	C	O	0	0
			21	15	6		

- Molecule 3 is (2S)-1-(4-bromophenyl)propan-2-amine (three-letter code: A1H7R) (formula: C₉H₁₂BrN) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	AAA	1	Total	Br	C	N	0	0
			11	1	9	1		
3	BBB	1	Total	Br	C	N	0	0
			11	1	9	1		
3	CCC	1	Total	Br	C	N	0	0
			11	1	9	1		
3	DDD	1	Total	Br	C	N	0	0
			11	1	9	1		
3	EEE	1	Total	Br	C	N	0	0
			11	1	9	1		

- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	AAA	7	Total	O	0	0
			7	7		

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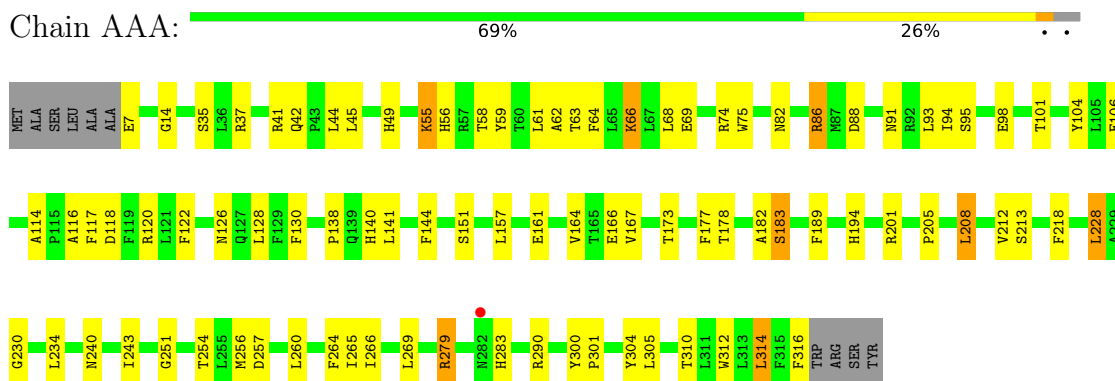
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	BBB	7	Total 7	O 7	0	0
4	CCC	7	Total 7	O 7	0	0
4	DDD	7	Total 7	O 7	0	0
4	EEE	8	Total 8	O 8	0	0

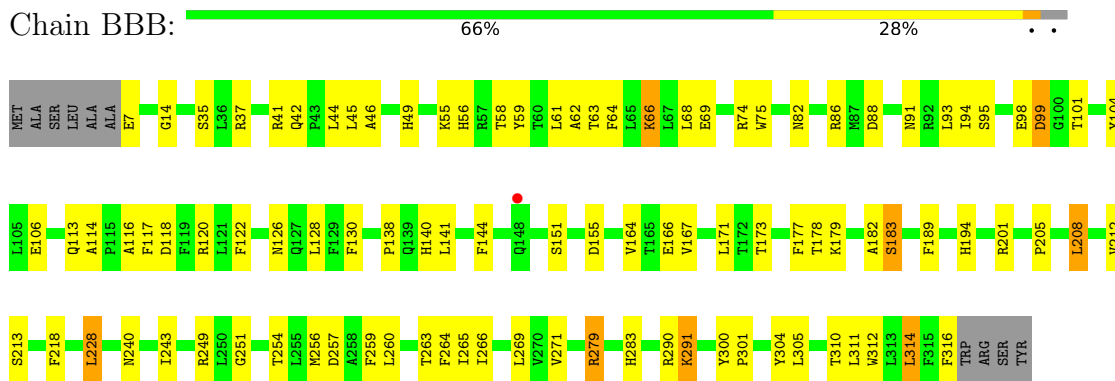
3 Residue-property plots

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

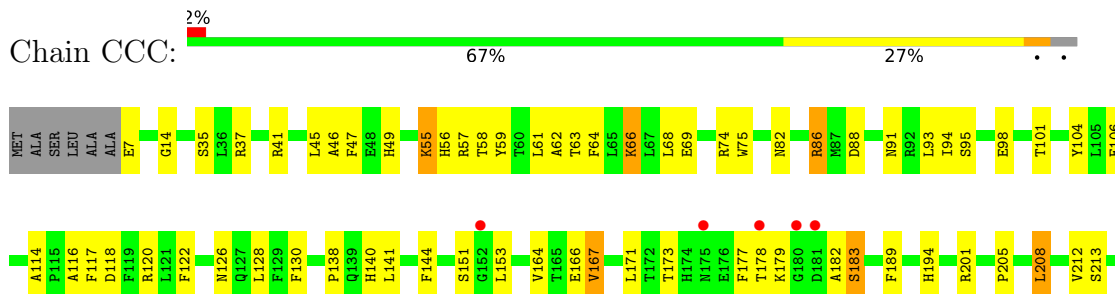
• Molecule 1: Cys-loop ligand-gated ion channel



• Molecule 1: Cys-loop ligand-gated ion channel

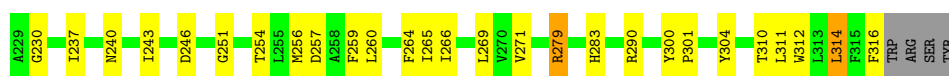
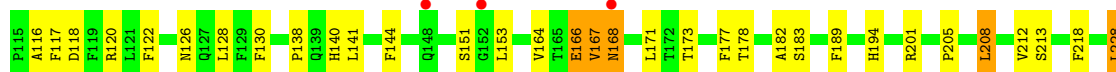
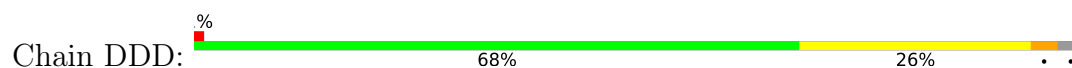


• Molecule 1: Cys-loop ligand-gated ion channel

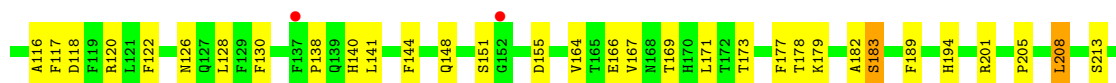
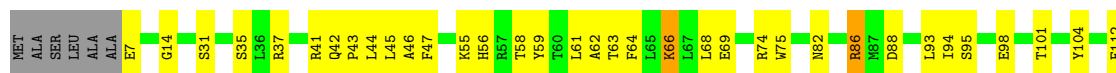




- Molecule 1: Cys-loop ligand-gated ion channel



- Molecule 1: Cys-loop ligand-gated ion channel



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	218.38Å 114.32Å 142.44Å 90.00° 113.05° 90.00°	Depositor
Resolution (Å)	24.00 – 3.20 24.00 – 3.20	Depositor EDS
% Data completeness (in resolution range)	62.1 (24.00-3.20) 62.1 (24.00-3.20)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	3.76 (at 3.17Å)	Xtriage
Refinement program	REFMAC 5.8.0258	Depositor
R, R_{free}	0.215 , 0.260 0.223 , 0.261	Depositor DCC
R_{free} test set	2650 reflections (4.85%)	wwPDB-VP
Wilson B-factor (Å ²)	82.2	Xtriage
Anisotropy	0.092	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 47.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	13005	wwPDB-VP
Average B, all atoms (Å ²)	81.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.64% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: BNG, A1H7R

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	AAA	0.64	0/2639	0.82	0/3583
1	BBB	0.63	0/2639	0.83	0/3583
1	CCC	0.64	0/2639	0.84	0/3583
1	DDD	0.64	0/2639	0.82	0/3583
1	EEE	0.64	0/2639	0.83	0/3583
All	All	0.63	0/13195	0.82	0/17915

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 [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	AAA	2566	0	2539	64	7
1	BBB	2566	0	2539	71	0
1	CCC	2566	0	2539	74	7
1	DDD	2566	0	2539	62	0
1	EEE	2566	0	2539	67	0
2	AAA	21	0	30	5	0
2	CCC	21	0	30	9	0
2	DDD	42	0	60	5	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	AAA	11	0	0	0	0
3	BBB	11	0	0	0	0
3	CCC	11	0	0	1	0
3	DDD	11	0	0	0	0
3	EEE	11	0	0	0	0
4	AAA	7	0	0	1	0
4	BBB	7	0	0	1	0
4	CCC	7	0	0	3	0
4	DDD	7	0	0	1	0
4	EEE	8	0	0	2	0
All	All	13005	0	12815	294	7

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 294 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:BBB:49:HIS:CD2	1:BBB:98:GLU:OE2	2.00	1.15
1:BBB:49:HIS:NE2	1:BBB:98:GLU:OE2	1.98	0.95
2:CCC:402:BNG:H9'2	2:CCC:402:BNG:H3'1	1.53	0.91
1:CCC:57:ARG:NE	1:DDD:72:GLN:OE1	2.07	0.87
1:EEE:42:GLN:OE1	1:EEE:43:PRO:HD2	1.76	0.85

The worst 5 of 7 symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AAA:98:GLU:OE2	1:CCC:49:HIS:NE2[4_456]	1.22	0.98
1:AAA:49:HIS:NE2	1:CCC:49:HIS:ND1[4_456]	1.51	0.69
1:AAA:49:HIS:NE2	1:CCC:49:HIS:CE1[4_456]	1.67	0.53
1:AAA:98:GLU:CD	1:CCC:49:HIS:NE2[4_456]	1.73	0.47
1:AAA:49:HIS:CE1	1:CCC:49:HIS:ND1[4_456]	1.97	0.23

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	AAA	308/320 (96%)	290 (94%)	18 (6%)	0	100	100
1	BBB	308/320 (96%)	290 (94%)	18 (6%)	0	100	100
1	CCC	308/320 (96%)	290 (94%)	18 (6%)	0	100	100
1	DDD	308/320 (96%)	289 (94%)	19 (6%)	0	100	100
1	EEE	308/320 (96%)	291 (94%)	17 (6%)	0	100	100
All	All	1540/1600 (96%)	1450 (94%)	90 (6%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	AAA	275/282 (98%)	254 (92%)	21 (8%)	11	39
1	BBB	275/282 (98%)	252 (92%)	23 (8%)	9	34
1	CCC	275/282 (98%)	251 (91%)	24 (9%)	8	32
1	DDD	275/282 (98%)	253 (92%)	22 (8%)	10	37
1	EEE	275/282 (98%)	249 (90%)	26 (10%)	7	28
All	All	1375/1410 (98%)	1259 (92%)	116 (8%)	9	34

5 of 116 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	CCC	177	PHE
1	EEE	246	ASP
1	DDD	86	ARG
1	EEE	235	LEU
1	EEE	141	LEU

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

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

9 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$
2	BNG	AAA	401	-	21,21,21	0.80	1 (4%)	26,26,26	1.00	2 (7%)
3	A1H7R	DDD	403	-	11,11,11	0.28	0	12,14,14	0.34	0
3	A1H7R	CCC	401	-	11,11,11	0.24	0	12,14,14	0.39	0
3	A1H7R	BBB	401	-	11,11,11	0.36	0	12,14,14	0.24	0
3	A1H7R	AAA	402	-	11,11,11	0.28	0	12,14,14	0.36	0
2	BNG	DDD	401	-	21,21,21	0.82	1 (4%)	26,26,26	1.54	7 (26%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
3	A1H7R	EEE	401	-	11,11,11	0.30	0	12,14,14	0.66	0
2	BNG	CCC	402	-	21,21,21	0.83	1 (4%)	26,26,26	1.65	3 (11%)
2	BNG	DDD	402	-	21,21,21	1.04	1 (4%)	26,26,26	1.41	4 (15%)

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	BNG	AAA	401	-	-	11/12/32/32	0/1/1/1
3	A1H7R	DDD	403	-	-	3/4/4/4	0/1/1/1
3	A1H7R	CCC	401	-	-	4/4/4/4	0/1/1/1
3	A1H7R	BBB	401	-	-	2/4/4/4	0/1/1/1
3	A1H7R	AAA	402	-	-	2/4/4/4	0/1/1/1
2	BNG	DDD	401	-	-	7/12/32/32	0/1/1/1
3	A1H7R	EEE	401	-	-	2/4/4/4	0/1/1/1
2	BNG	CCC	402	-	-	8/12/32/32	0/1/1/1
2	BNG	DDD	402	-	-	8/12/32/32	0/1/1/1

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	DDD	402	BNG	O1-C1	3.65	1.46	1.40
2	DDD	401	BNG	O1-C1	3.04	1.45	1.40
2	CCC	402	BNG	O1-C1	2.39	1.44	1.40
2	AAA	401	BNG	O1-C1	2.19	1.43	1.40

The worst 5 of 16 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	CCC	402	BNG	C1-O5-C5	4.74	122.99	113.69
2	CCC	402	BNG	O5-C5-C4	4.00	116.96	109.69
2	DDD	402	BNG	O1-C1-C2	3.95	114.47	108.30
2	DDD	401	BNG	C1-O5-C5	3.67	120.90	113.69
2	CCC	402	BNG	C4-C3-C2	-3.13	105.36	110.82

There are no chirality outliers.

5 of 47 torsion outliers are listed below:

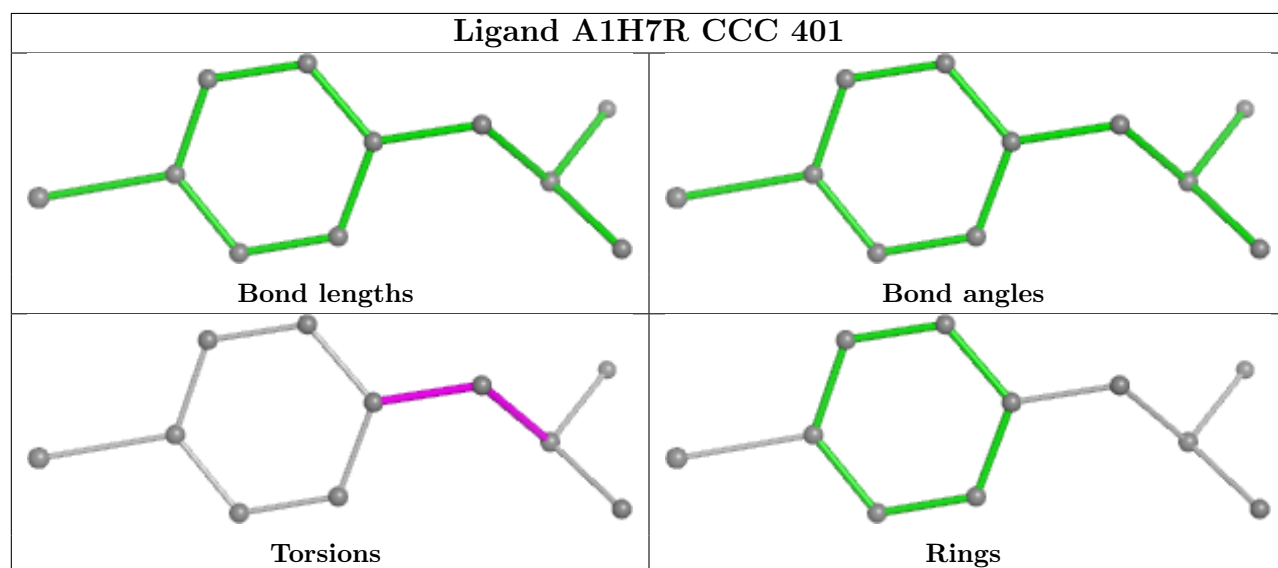
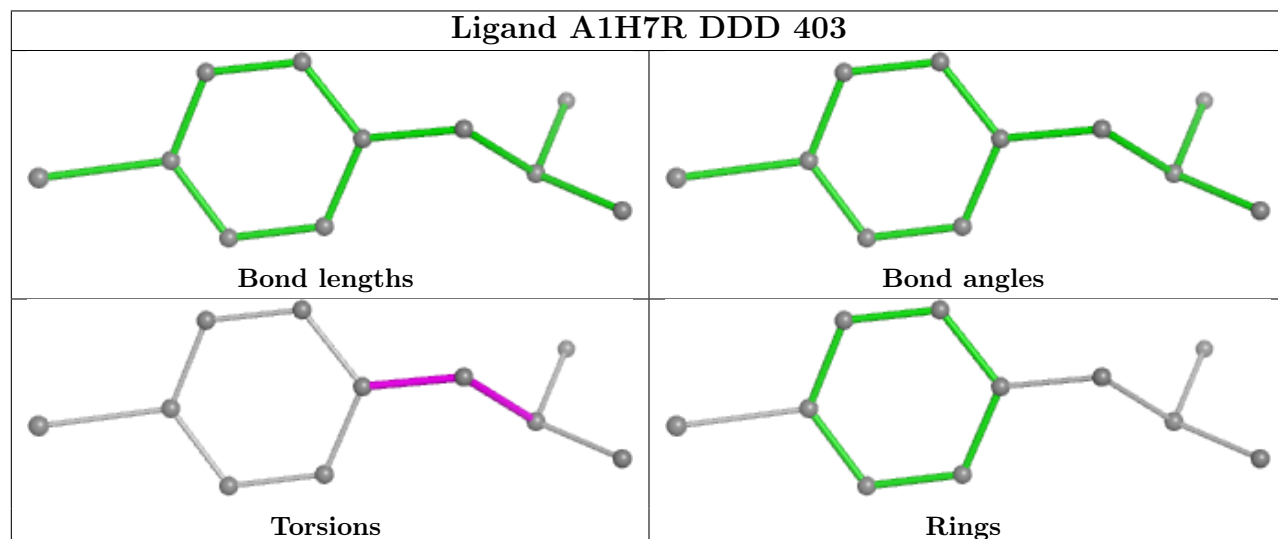
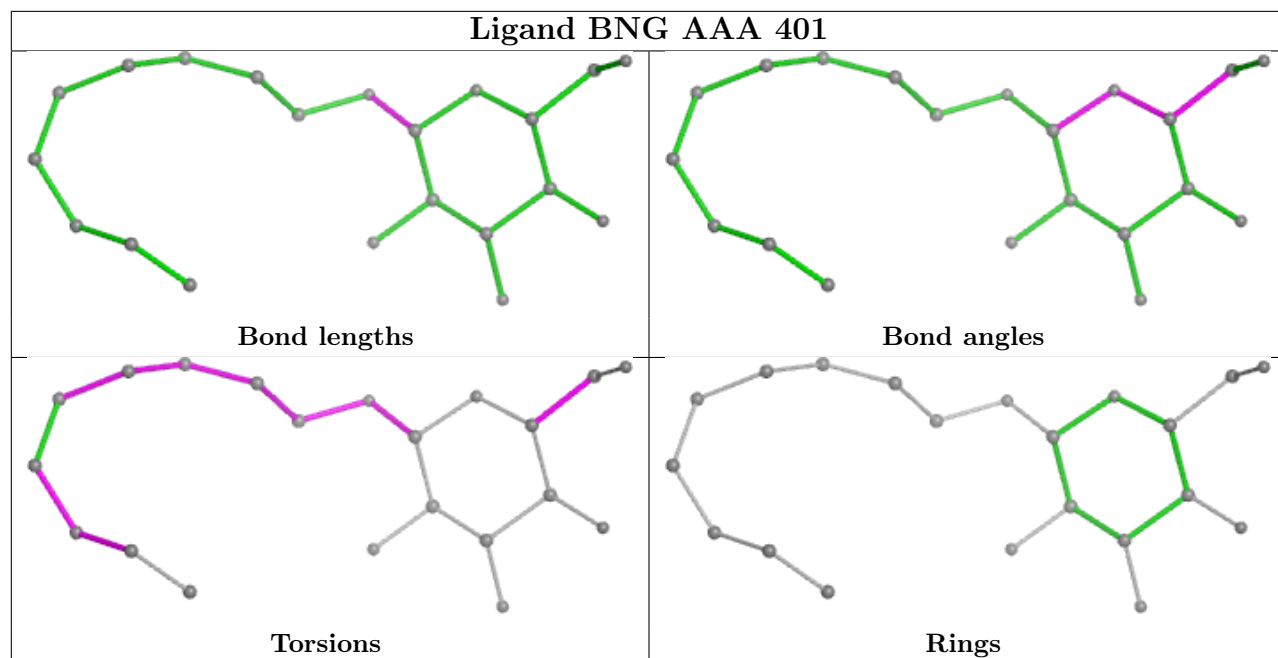
Mol	Chain	Res	Type	Atoms
2	AAA	401	BNG	O5-C1-O1-C1'
2	CCC	402	BNG	C2-C1-O1-C1'
2	CCC	402	BNG	O5-C1-O1-C1'
2	DDD	401	BNG	C2-C1-O1-C1'
2	DDD	401	BNG	O5-C1-O1-C1'

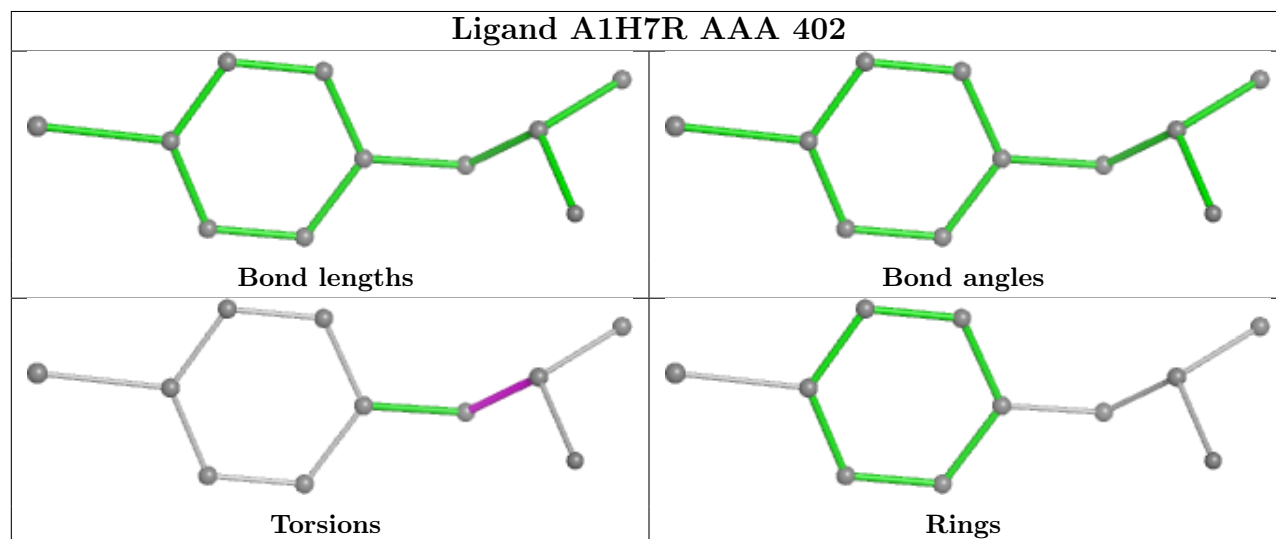
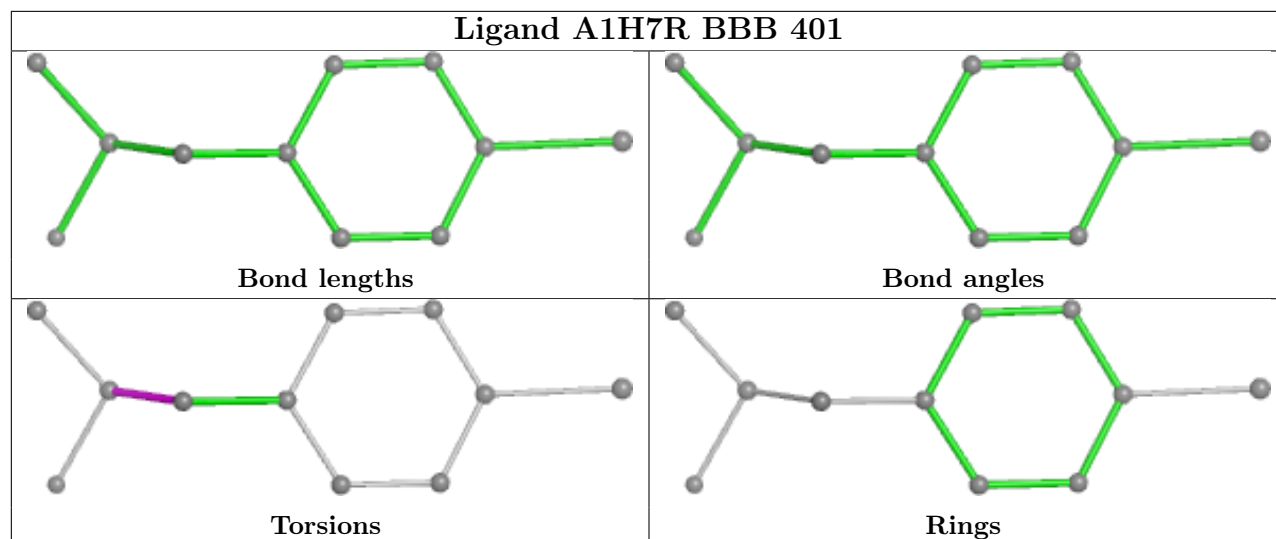
There are no ring outliers.

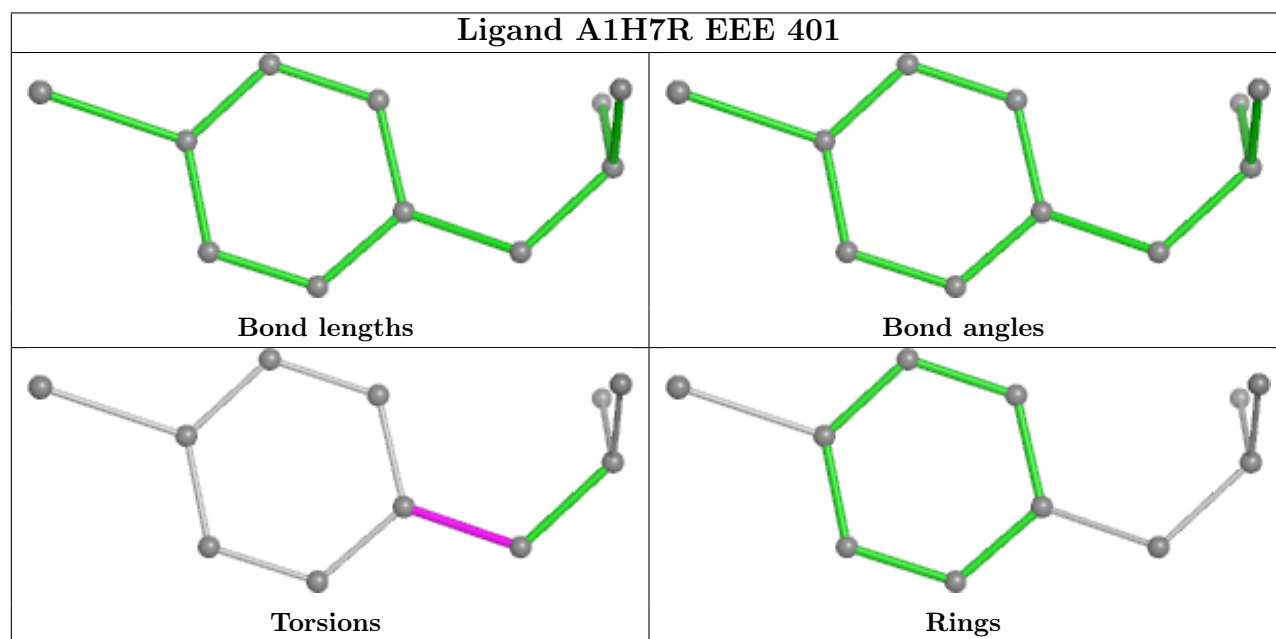
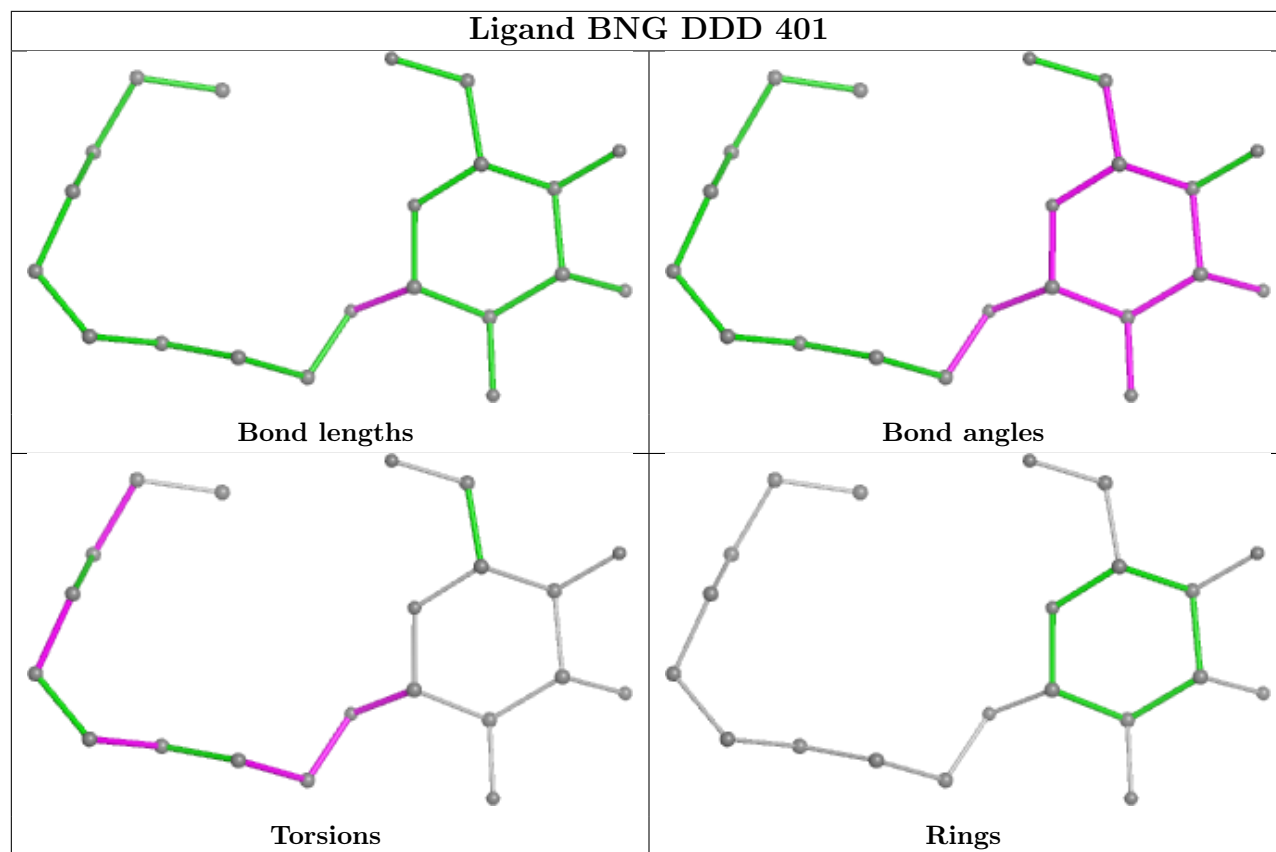
5 monomers are involved in 19 short contacts:

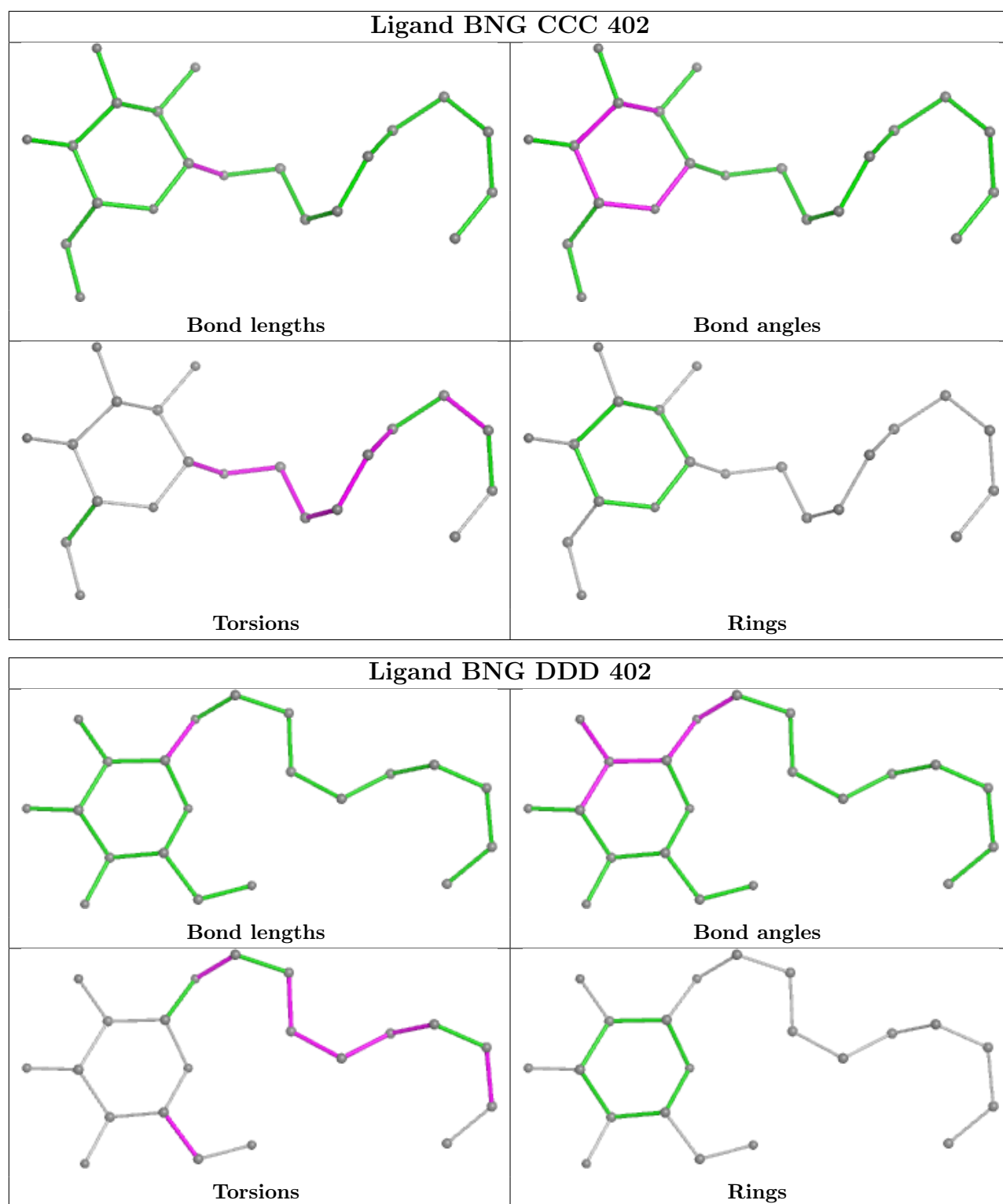
Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	AAA	401	BNG	5	0
3	CCC	401	A1H7R	1	0
2	DDD	401	BNG	2	0
2	CCC	402	BNG	9	0
2	DDD	402	BNG	3	0

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









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 [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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	AAA	310/320 (96%)	-0.28	1 (0%) 90 84	45, 76, 112, 145	0
1	BBB	310/320 (96%)	-0.39	1 (0%) 90 84	43, 71, 108, 177	0
1	CCC	310/320 (96%)	-0.28	6 (1%) 66 50	39, 74, 105, 140	0
1	DDD	310/320 (96%)	-0.14	3 (0%) 79 66	42, 79, 121, 172	0
1	EEE	310/320 (96%)	-0.11	2 (0%) 85 76	50, 87, 132, 167	0
All	All	1550/1600 (96%)	-0.24	13 (0%) 82 70	39, 77, 120, 177	0

The worst 5 of 13 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	CCC	152	GLY	3.4
1	CCC	175	ASN	3.3
1	DDD	148	GLN	3.3
1	CCC	220	GLN	3.2
1	EEE	152	GLY	3.0

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,

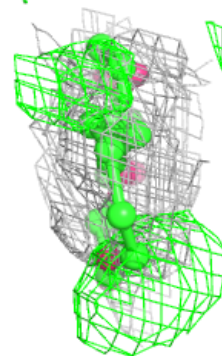
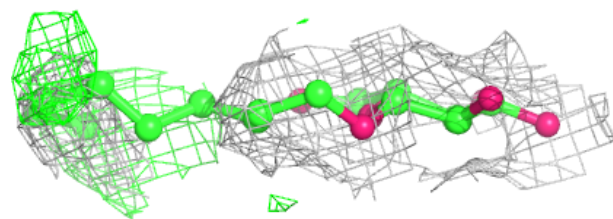
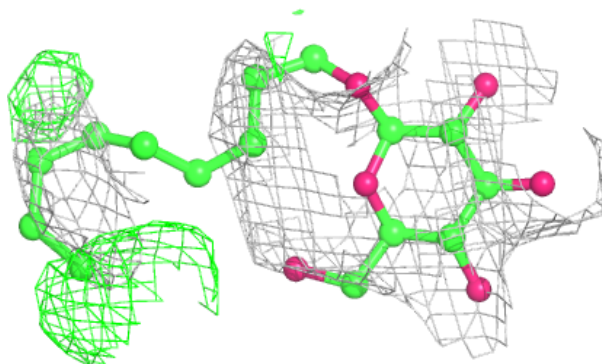
median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
2	BNG	DDD	402	21/21	0.80	0.19	67,128,149,154	0
2	BNG	CCC	402	21/21	0.82	0.18	74,117,137,141	0
3	A1H7R	DDD	403	11/11	0.83	0.28	112,133,144,147	0
3	A1H7R	AAA	402	11/11	0.86	0.20	97,121,133,139	0
2	BNG	AAA	401	21/21	0.88	0.18	64,140,156,169	0
2	BNG	DDD	401	21/21	0.89	0.17	52,128,155,169	0
3	A1H7R	CCC	401	11/11	0.91	0.19	99,105,115,120	0
3	A1H7R	EEE	401	11/11	0.94	0.16	116,136,144,146	0
3	A1H7R	BBB	401	11/11	0.95	0.14	85,105,114,116	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.

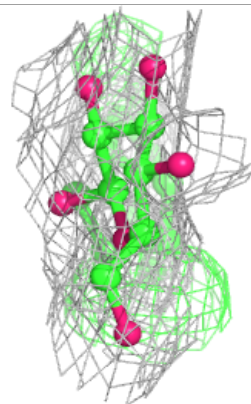
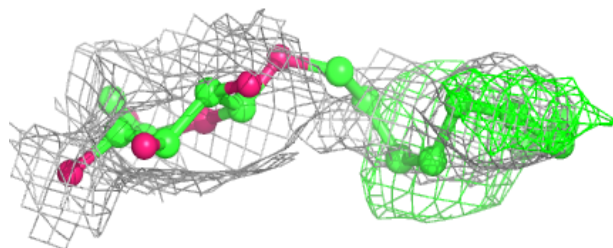
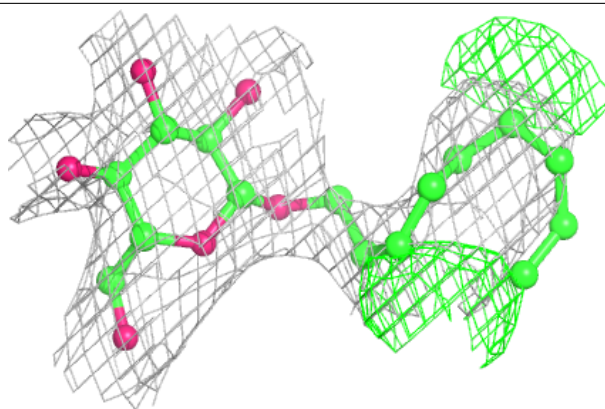
Electron density around BNG DDD 402:

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

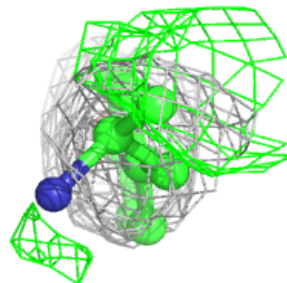
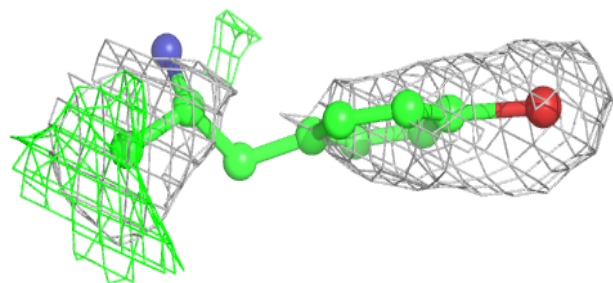
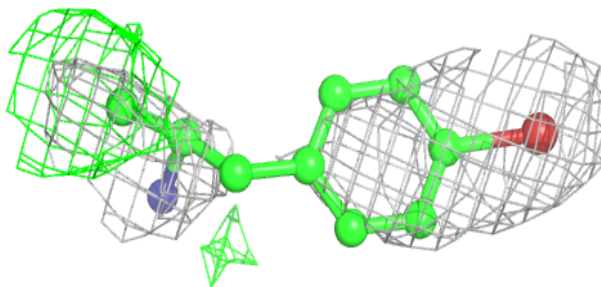


Electron density around BNG CCC 402:

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

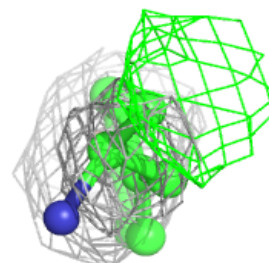
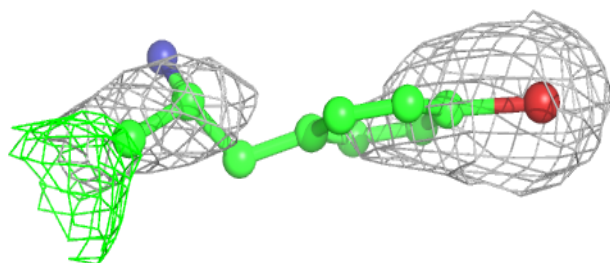
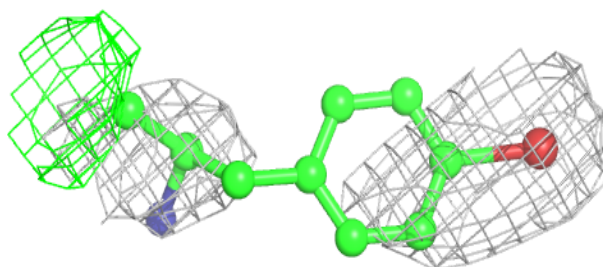
**Electron density around A1H7R DDD 403:**

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

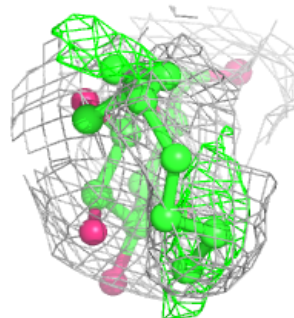
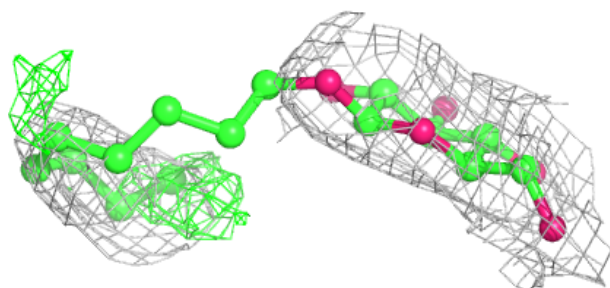
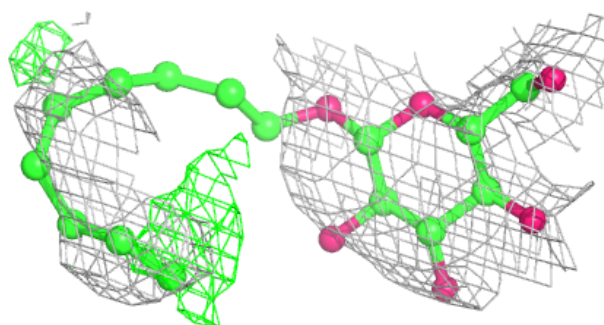


Electron density around A1H7R AAA 402:

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

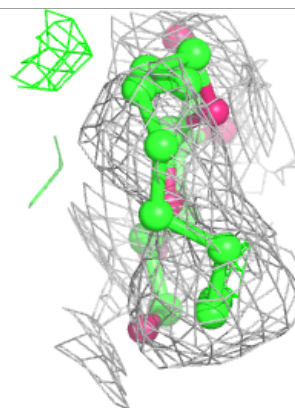
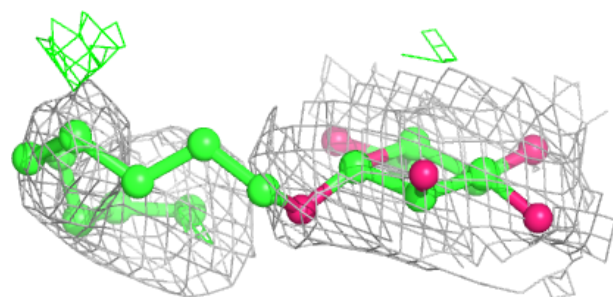
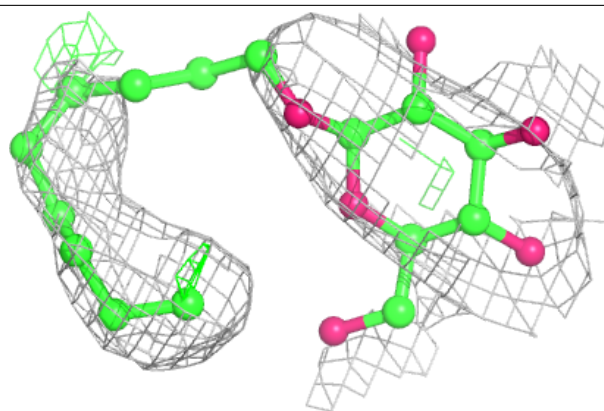
**Electron density around BNG AAA 401:**

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

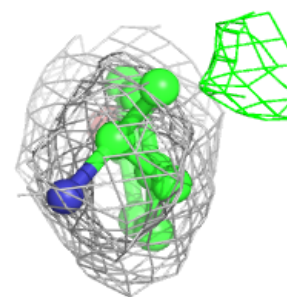
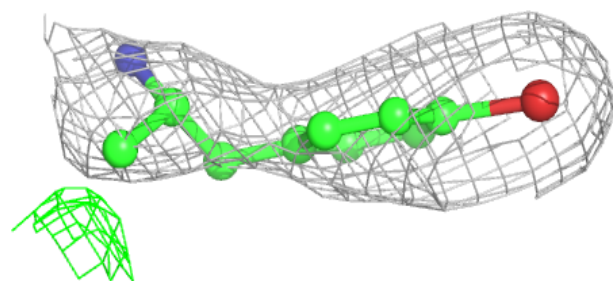
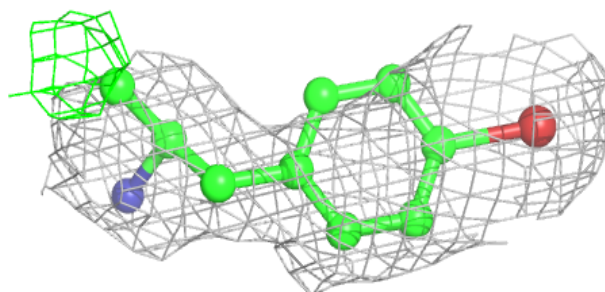


Electron density around BNG DDD 401:

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

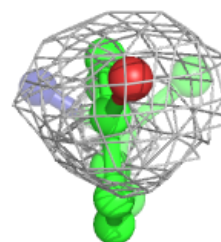
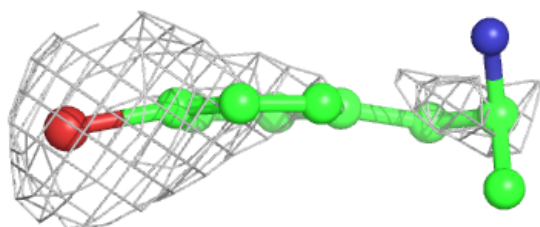
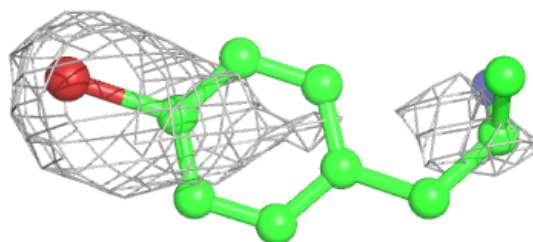
**Electron density around A1H7R CCC 401:**

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

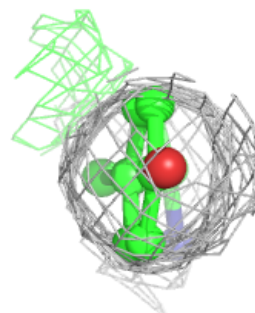
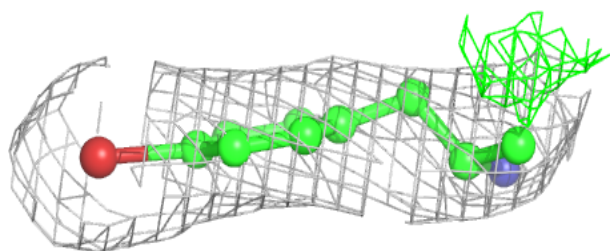
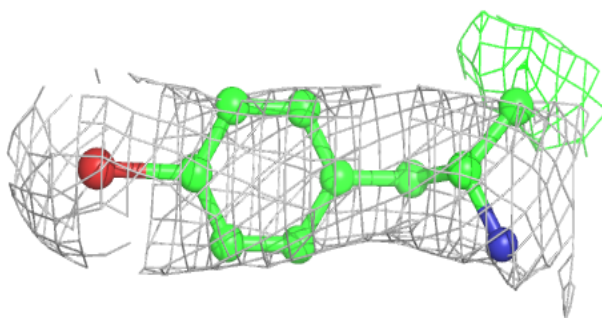


Electron density around A1H7R EEE 401:

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

**Electron density around A1H7R BBB 401:**

$2mF_o - DF_c$ (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.