Full wwPDB X-ray Structure Validation Report (i)

Feb 23, 2026 – 02:19 pm GMT

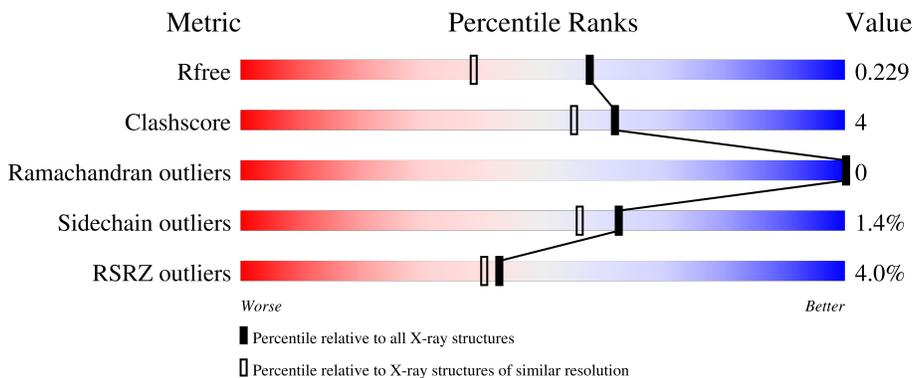|		
PDB ID	:	9RBZ / pdb_00009rbz
Title	:	DvhD, HD-GYP domain, c-di-GMP-bound
Authors	:	Font, M.E.; Sondermann, H.
Deposited on	:	2025-05-27
Resolution	:	1.80 Å(reported)

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 1.80 Å.

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

Metric	Percentile Ranks	Value
Rfree		0.229
Clashscore		4
Ramachandran outliers		0
Sidechain outliers		1.4%
RSRZ outliers		4.0%

Worse   *Better*

▮ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	164625	7108 (1.80-1.80)
Clashscore	180529	8162 (1.80-1.80)
Ramachandran outliers	177936	8077 (1.80-1.80)
Sidechain outliers	177891	8076 (1.80-1.80)
RSRZ outliers	164620	7108 (1.80-1.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	211	5% / 89% / 10% ·
1	B	211	3% / 91% / 7% ··
1	C	211	2% / 84% / 12% ·
1	D	211	5% / 91% / 7% ·

2 Entry composition ⓘ

There are 3 unique types of molecules in this entry. The entry contains 7215 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 HD domain/sensory box protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	208	Total	C	N	O	S	0	5	0
			1610	1013	293	299	5			
1	B	207	Total	C	N	O	S	0	3	0
			1592	1001	286	300	5			
1	C	202	Total	C	N	O	S	0	3	0
			1542	972	278	286	6			
1	D	206	Total	C	N	O	S	0	0	0
			1560	979	282	294	5			

- Molecule 2 is 9,9'-[(2R,3R,3aS,5S,7aR,9R,10R,10aS,12S,14aR)-3,5,10,12-tetrahydroxy-5,12-dioxidooctahydro-2H,7H-difuro[3,2-d:3',2'-j][1,3,7,9,2,8]tetraoxadiphosphacyclododecine-2,9-diyl]bis(2-amino-1,9-dihydro-6H-purin-6-one) (CCD ID: C2E) (formula: $C_{20}H_{24}N_{10}O_{14}P_2$) (labeled as "Ligand of Interest" by depositor).

C2E
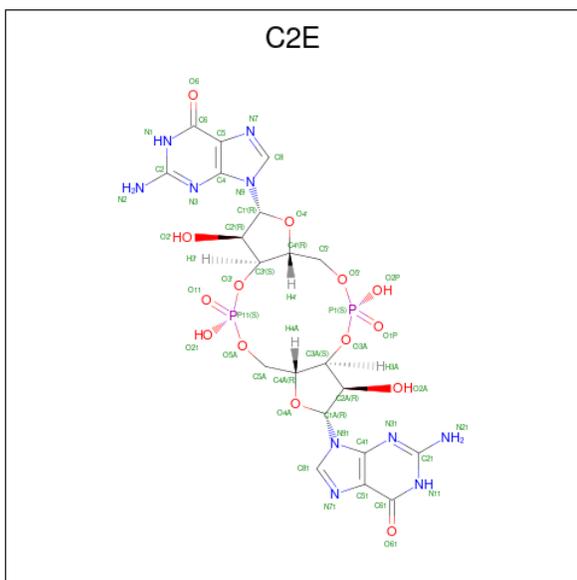
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			46	20	10	14	2		

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	P	0	0
			46	20	10	14	2		
2	B	1	Total	C	N	O	P	0	0
			46	20	10	14	2		
2	C	1	Total	C	N	O	P	0	0
			46	20	10	14	2		
2	C	1	Total	C	N	O	P	0	0
			46	20	10	14	2		
2	D	1	Total	C	N	O	P	0	0
			46	20	10	14	2		

• Molecule 3 is water.

| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	170	Total	O	0	0
			170	170		
3	B	171	Total	O	0	0
			171	171		
3	C	173	Total	O	0	0
			173	173		
3	D	121	Total	O	0	0
			121	121		

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.
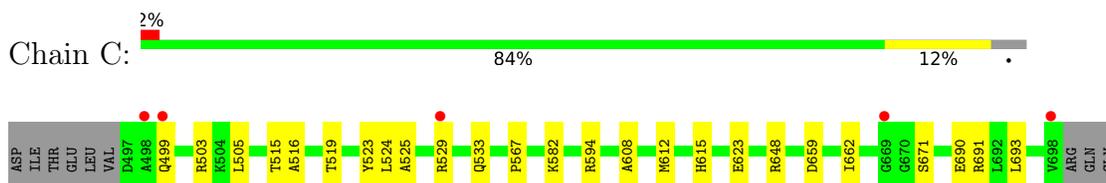
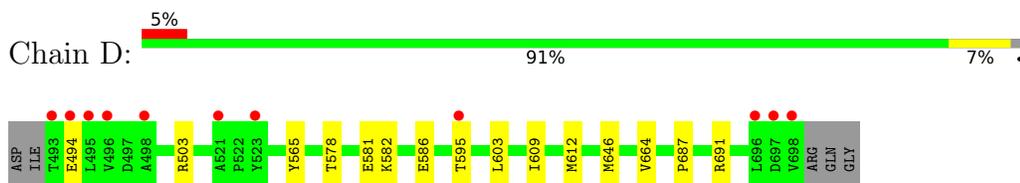- Molecule 1: HD domain/sensory box protein
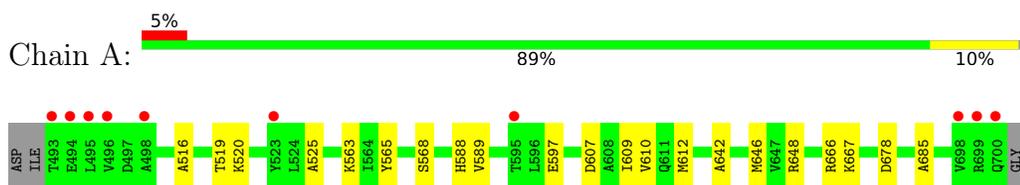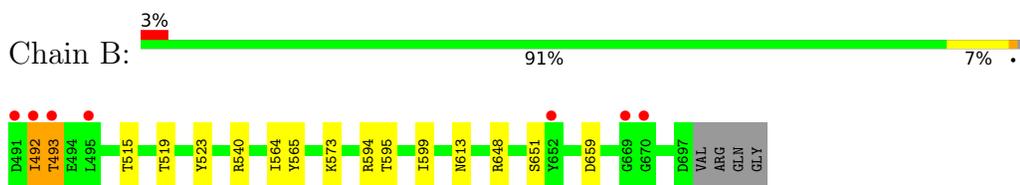
Chain A:

- Molecule 1: HD domain/sensory box protein

Chain B:

- Molecule 1: HD domain/sensory box protein

Chain C:

- Molecule 1: HD domain/sensory box protein

Chain D:

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α, β, γ	44.93Å 44.94Å 115.61Å 89.89° 101.41° 96.21°	Depositor
Resolution (Å)	43.77 – 1.80 43.77 – 1.80	Depositor EDS
% Data completeness (in resolution range)	84.0 (43.77-1.80) 83.4 (43.77-1.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	2.17 (at 1.81Å)	Xtriage
Refinement program	PHENIX 1.21.2_5419	Depositor
R, R_{free}	0.191 , 0.229 0.191 , 0.229	Depositor DCC
R_{free} test set	1962 reflections (2.77%)	wwPDB-VP
Wilson B-factor (Å^2)	27.6	Xtriage
Anisotropy	0.419	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.34 , 44.8	EDS
L-test for twinning[2]	$< |L| > = 0.49, < L^2 > = 0.32$	Xtriage
Estimated twinning fraction	0.008 for -h,-k,h+l	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	7215	wwPDB-VP
Average B, all atoms (Å^2)	35.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.17% of the height of the origin peak. No significant pseudotranslation is detected.*

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: C2E

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	0.13	0/1650	0.30	0/2234
1	B	0.14	0/1626	0.30	0/2203
1	C	0.14	0/1576	0.29	0/2135
1	D	0.13	0/1584	0.30	0/2147
All	All	0.14	0/6436	0.30	0/8719

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	1610	0	1650	14	0
1	B	1592	0	1620	14	0
1	C	1542	0	1571	17	0
1	D	1560	0	1586	9	0
2	A	92	0	44	3	0
2	B	46	0	22	0	0
2	C	92	0	44	4	0
2	D	46	0	22	0	0
3	A	170	0	0	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	B	171	0	0	4	0
3	C	173	0	0	3	0
3	D	121	0	0	1	0
All	All	7215	0	6559	52	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 4.

All (52) 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)
2:A:801:C2E:H81	2:A:801:C2E:H512	1.42	1.02
2:C:801:C2E:H81	2:C:801:C2E:H511	1.69	0.74
2:A:801:C2E:H3'	2:A:801:C2E:H511	1.78	0.66
1:A:525:ALA:O	1:A:648:ARG:NH1	2.24	0.66
1:A:666:ARG:NH1	1:A:678:ASP:OD1	2.28	0.65
1:C:525:ALA:O	1:C:648:ARG:NH1	2.26	0.63
1:B:594[A]:ARG:NH1	3:B:906:HOH:O	2.33	0.62
1:D:646:MET:HE1	1:D:664:VAL:HG11	1.84	0.59
2:A:801:C2E:H81	2:A:801:C2E:C5A	2.29	0.55
1:B:540:ARG:NH1	3:B:901:HOH:O	2.27	0.55
1:A:519:THR:HB	1:B:594[B]:ARG:HH12	1.74	0.52
1:A:609:ILE:O	1:A:612:MET:HG2	2.09	0.52
1:B:515:THR:O	1:B:519:THR:HG23	2.09	0.52
1:C:516:ALA:HB2	1:D:595:THR:HG21	1.93	0.51
1:C:659:ASP:OD2	1:C:659:ASP:N	2.45	0.50
1:C:567:PRO:HG3	2:C:802:C2E:C8	2.43	0.48
1:D:582:LYS:O	1:D:586:GLU:HG3	2.13	0.48
1:C:529:ARG:HE	1:C:533:GLN:HG3	1.78	0.48
1:C:608:ALA:O	1:C:612:MET:HG3	2.15	0.47
1:D:578:THR:HG23	1:D:581:GLU:OE2	2.15	0.46
1:A:642:ALA:HB1	1:A:646:MET:HE2	1.98	0.46
1:B:613:ASN:ND2	3:B:917:HOH:O	2.47	0.46
1:C:499:GLN:O	1:C:503:ARG:HG3	2.16	0.46
1:A:520[B]:LYS:NZ	1:A:563:LYS:O	2.48	0.45
1:C:662:ILE:HD13	1:C:662:ILE:HA	1.81	0.45
1:A:516:ALA:HB2	1:B:595:THR:HG21	1.98	0.45
1:C:529:ARG:NH1	3:C:920:HOH:O	2.50	0.45
1:B:659:ASP:OD2	1:B:659:ASP:N	2.50	0.44
1:A:565:TYR:OH	1:B:519:THR:OG1	2.33	0.44
1:B:573:LYS:NZ	3:C:911:HOH:O	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:582:LYS:NZ	3:C:905:HOH:O	2.50	0.44
1:A:685:ALA:O	3:A:901:HOH:O	2.21	0.43
1:B:648:ARG:NH1	3:B:920:HOH:O	2.51	0.43
1:D:609:ILE:O	1:D:612:MET:HG2	2.18	0.43
1:D:503:ARG:NH2	3:D:915:HOH:O	2.50	0.43
1:C:519:THR:HG1	1:D:565:TYR:HH	1.64	0.43
1:C:515:THR:O	1:C:519:THR:HG23	2.17	0.42
1:B:523[B]:TYR:CE2	1:B:651:SER:HB3	2.55	0.42
1:C:505:LEU:HD11	1:D:603:LEU:HD12	2.01	0.42
1:A:520[B]:LYS:HG2	1:A:568:SER:HB3	2.01	0.42
1:B:492:ILE:HD12	1:B:493:THR:N	2.35	0.42
1:C:615:HIS:CG	1:C:671:SER:HB2	2.55	0.41
1:A:667:LYS:NZ	3:A:921:HOH:O	2.53	0.41
1:A:519:THR:HB	1:B:594[B]:ARG:NH1	2.34	0.41
1:C:693:LEU:HD23	1:C:693:LEU:HA	1.93	0.41
2:C:801:C2E:H81	2:C:801:C2E:C5A	2.46	0.41
1:C:523[A]:TYR:CE1	1:C:524:LEU:HG	2.55	0.41
1:A:607:ASP:HA	1:A:610:VAL:HG22	2.03	0.41
1:A:588:HIS:CE1	1:A:589:VAL:HG22	2.56	0.41
1:B:564:ILE:HG13	1:B:565:TYR:CD2	2.56	0.40
1:C:567:PRO:HG3	2:C:802:C2E:C5	2.50	0.40
1:D:687:PRO:O	1:D:691:ARG:HG3	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	211/211 (100%)	211 (100%)	0	0	100	100
1	B	208/211 (99%)	207 (100%)	1 (0%)	0	100	100
1	C	203/211 (96%)	202 (100%)	1 (0%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	D	204/211 (97%)	204 (100%)	0	0	100	100
All	All	826/844 (98%)	824 (100%)	2 (0%)	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	A	167/165 (101%)	166 (99%)	1 (1%)	84	82
1	B	165/165 (100%)	162 (98%)	3 (2%)	54	45
1	C	158/165 (96%)	153 (97%)	5 (3%)	34	22
1	D	161/165 (98%)	160 (99%)	1 (1%)	84	82
All	All	651/660 (99%)	641 (98%)	10 (2%)	62	53

All (10) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	597	GLU
1	B	492	ILE
1	B	493	THR
1	B	599	ILE
1	C	594	ARG
1	C	623	GLU
1	C	690[A]	GLU
1	C	690[B]	GLU
1	C	691	ARG
1	D	494	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (8) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	508	GLN

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Mol	Chain	Res	Type
1	A	624	HIS
1	B	508	GLN
1	B	588	HIS
1	B	613	ASN
1	C	598	HIS
1	D	508	GLN
1	D	613	ASN

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 ⓘ

6 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	C2E	B	801	-	44,52,52	0.94	4 (9%)	52,82,82	0.73	1 (1%)
2	C2E	A	801	-	44,52,52	0.95	4 (9%)	52,82,82	0.80	1 (1%)
2	C2E	C	802	-	44,52,52	0.93	3 (6%)	52,82,82	0.83	2 (3%)
2	C2E	A	802	-	44,52,52	0.92	4 (9%)	52,82,82	0.80	1 (1%)
2	C2E	D	801	-	44,52,52	0.94	4 (9%)	52,82,82	0.75	1 (1%)
2	C2E	C	801	-	44,52,52	0.95	3 (6%)	52,82,82	0.78	1 (1%)

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	C2E	B	801	-	-	0/22/62/62	0/6/7/7
2	C2E	A	801	-	-	4/22/62/62	0/6/7/7
2	C2E	C	802	-	-	0/22/62/62	0/6/7/7
2	C2E	A	802	-	-	0/22/62/62	0/6/7/7
2	C2E	D	801	-	-	0/22/62/62	0/6/7/7
2	C2E	C	801	-	-	2/22/62/62	0/6/7/7

All (22) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	801	C2E	C51-C61	-2.68	1.42	1.47
2	A	801	C2E	C51-C61	-2.64	1.42	1.47
2	C	802	C2E	C51-C61	-2.60	1.42	1.47
2	A	801	C2E	C5-C6	-2.60	1.42	1.47
2	B	801	C2E	C5-C6	-2.60	1.42	1.47
2	D	801	C2E	C51-C61	-2.60	1.42	1.47
2	A	802	C2E	C5-C6	-2.59	1.42	1.47
2	C	801	C2E	C5-C6	-2.58	1.42	1.47
2	B	801	C2E	C51-C61	-2.57	1.42	1.47
2	C	802	C2E	C5-C6	-2.57	1.42	1.47
2	D	801	C2E	C5-C6	-2.56	1.42	1.47
2	A	802	C2E	C51-C61	-2.56	1.42	1.47
2	A	801	C2E	C81-N71	-2.10	1.31	1.35
2	D	801	C2E	C8-N7	-2.09	1.31	1.35
2	A	801	C2E	C8-N7	-2.05	1.31	1.35
2	B	801	C2E	C8-N7	-2.03	1.31	1.35
2	D	801	C2E	C81-N71	-2.03	1.31	1.35
2	B	801	C2E	C81-N71	-2.02	1.31	1.35
2	C	802	C2E	C81-N71	-2.01	1.31	1.35
2	C	801	C2E	C8-N7	-2.01	1.31	1.35
2	A	802	C2E	C8-N7	-2.00	1.31	1.35
2	A	802	C2E	C81-N71	-2.00	1.31	1.35

All (7) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	801	C2E	P1-O3A-C3A	-2.44	110.51	119.41
2	C	802	C2E	C2A-C3A-C4A	-2.12	99.47	103.22

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	B	801	C2E	O61-C61-C51	2.03	128.34	124.37
2	A	802	C2E	O6-C6-C5	2.01	128.31	124.37
2	C	802	C2E	O6-C6-C5	2.01	128.30	124.37
2	D	801	C2E	O61-C61-C51	2.01	128.29	124.37
2	C	801	C2E	P11-O3'-C3'	-2.00	112.11	119.41

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	801	C2E	C3A-C4A-C5A-O5A
2	A	801	C2E	C3'-O3'-P11-O21
2	C	801	C2E	C5A-O5A-P11-O3'
2	C	801	C2E	O4A-C4A-C5A-O5A
2	A	801	C2E	C3'-O3'-P11-O5A
2	A	801	C2E	O4A-C4A-C5A-O5A

There are no ring outliers.

3 monomers are involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	801	C2E	3	0
2	C	802	C2E	2	0
2	C	801	C2E	2	0

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

Ligand C2E B 801

Bond lengths

Bond angles

Torsions

Rings

Ligand C2E A 801

Bond lengths

Bond angles

Torsions

Rings

Ligand C2E C 802

Bond lengths

Bond angles

Torsions

Rings

Ligand C2E A 802

Bond lengths

Bond angles

Torsions

Rings

Ligand C2E D 801

Bond lengths

Bond angles

Torsions

Rings

Ligand C2E C 801

Bond lengths

Bond angles

Torsions

Rings
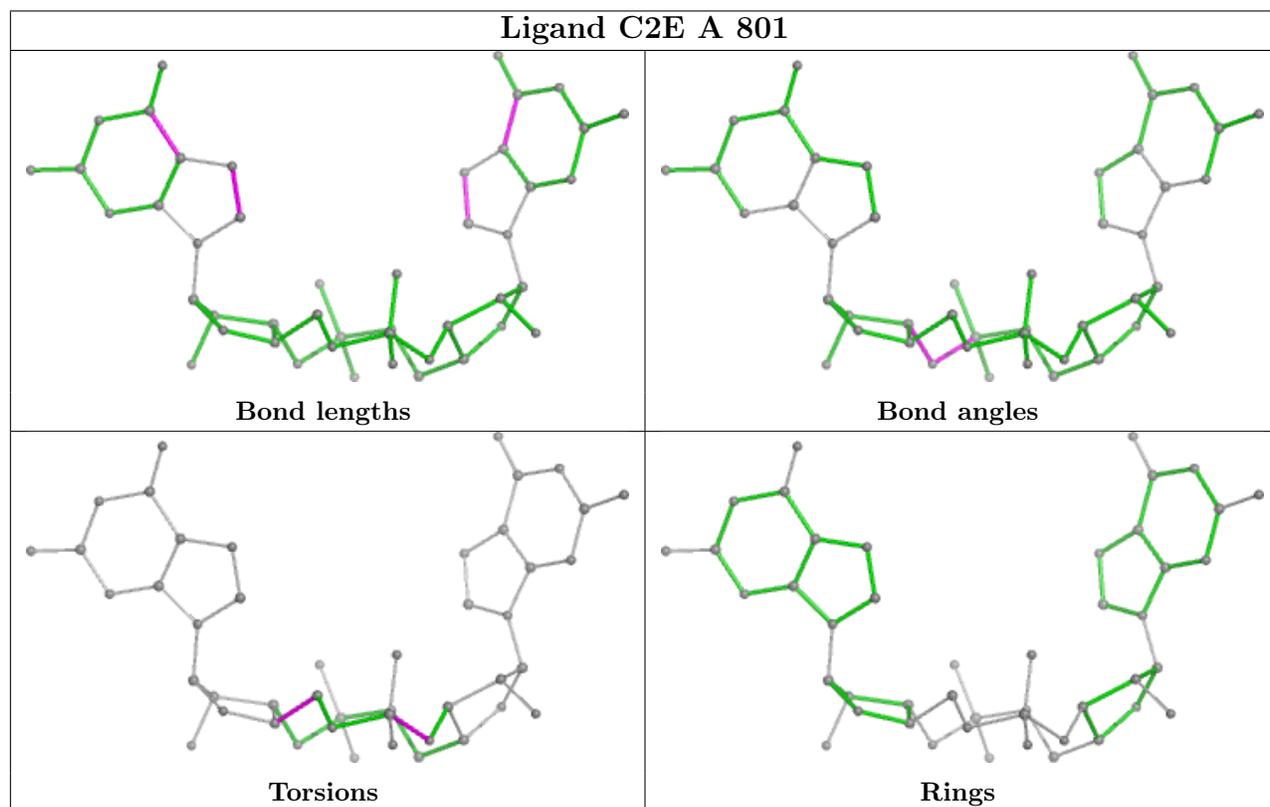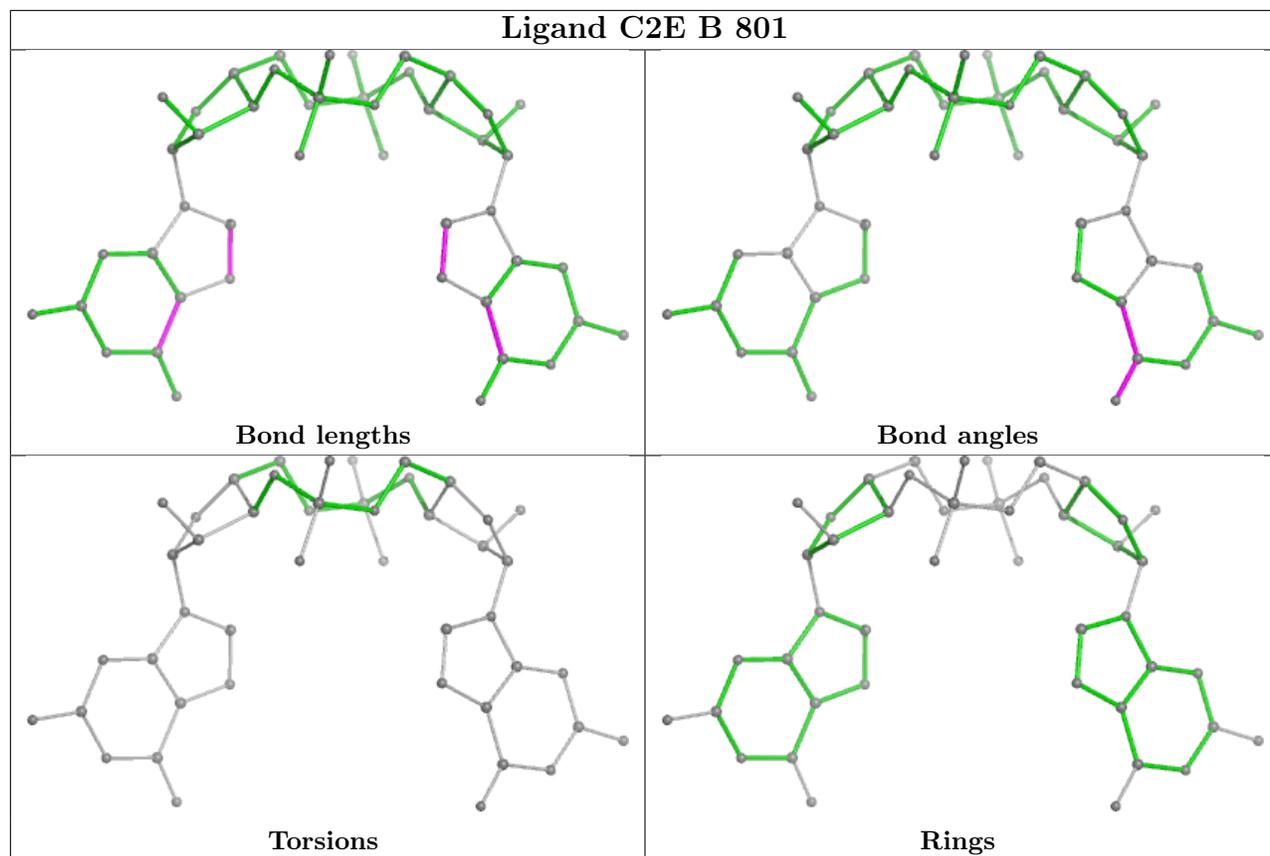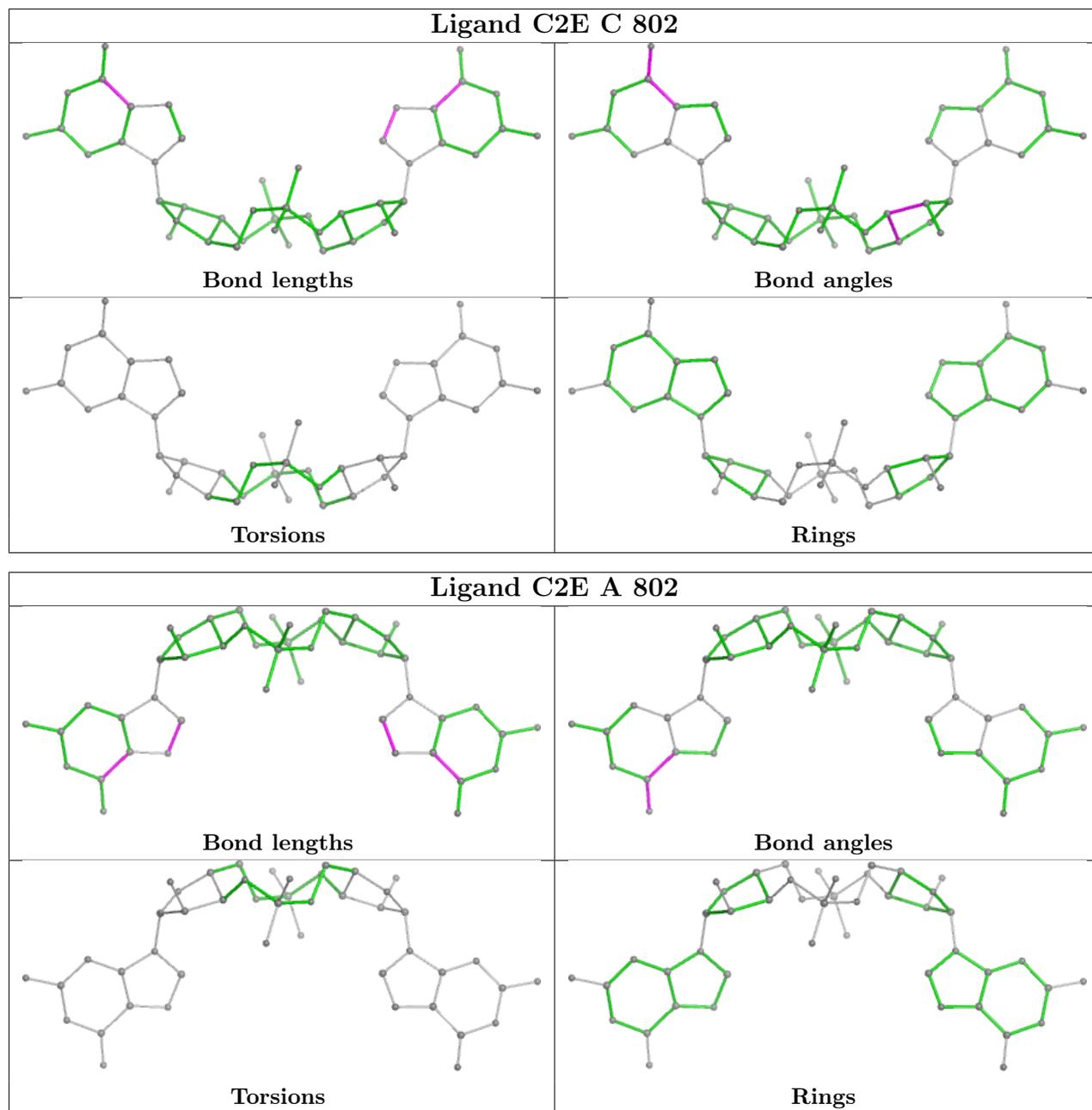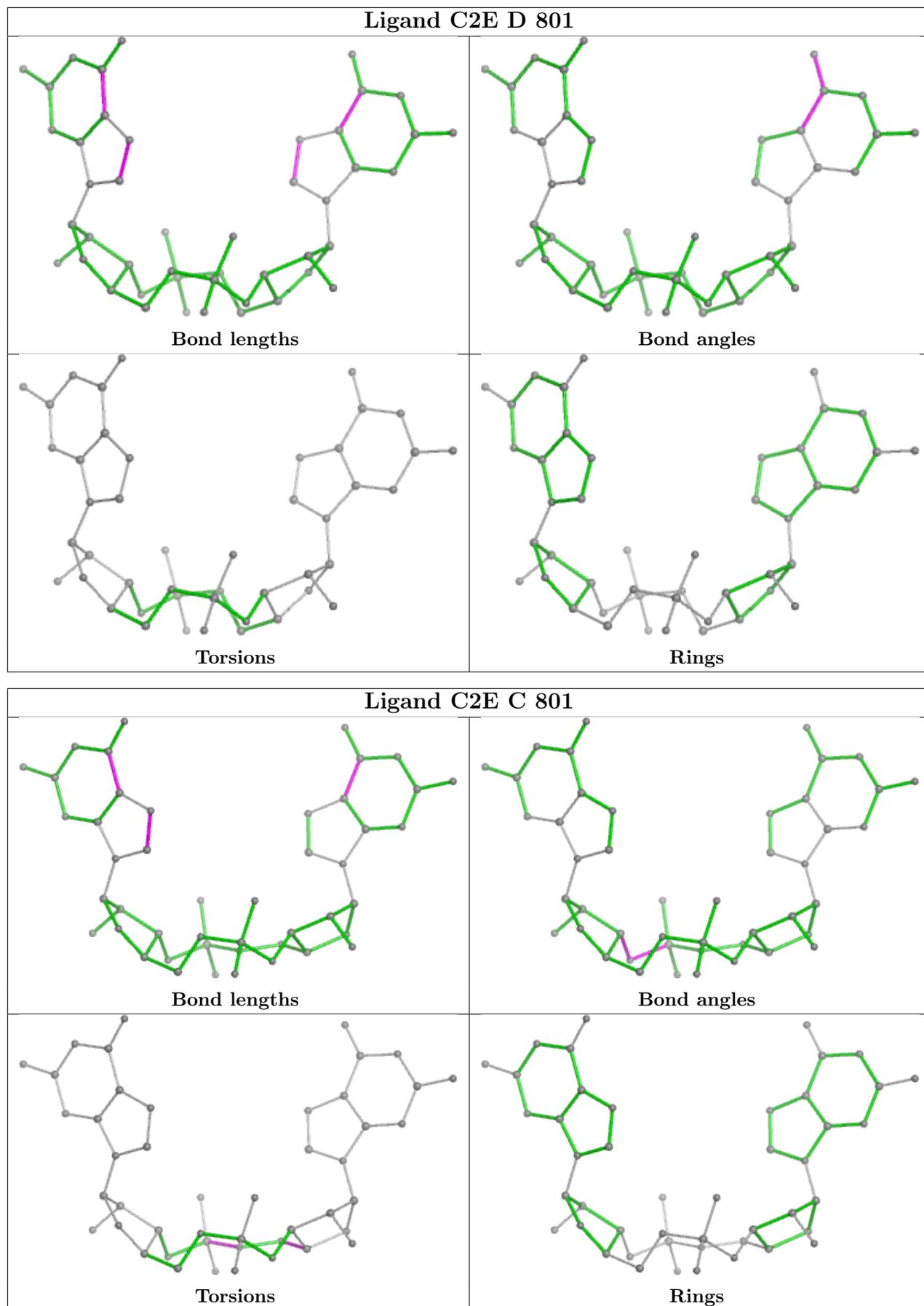
5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å²)	Q<0.9
1	A	208/211 (98%)	0.18	10 (4%)	36	34	16, 31, 61, 104	5 (2%)
1	B	207/211 (98%)	0.23	7 (3%)	48	46	19, 30, 53, 79	3 (1%)
1	C	202/211 (95%)	0.23	5 (2%)	58	57	15, 31, 56, 86	3 (1%)
1	D	206/211 (97%)	0.35	11 (5%)	33	30	19, 35, 62, 100	0
All	All	823/844 (97%)	0.25	33 (4%)	43	40	15, 32, 58, 104	11 (1%)

All (33) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	495	LEU	4.9
1	A	698	VAL	4.4
1	D	698	VAL	4.4
1	A	496	VAL	4.3
1	B	492	ILE	4.1
1	D	496	VAL	3.9
1	B	669	GLY	3.8
1	B	670	GLY	3.6
1	C	499	GLN	3.5
1	A	700	GLN	3.4
1	B	493	THR	3.3
1	D	523	TYR	3.2
1	B	491	ASP	3.2
1	A	699	ARG	3.1
1	D	495	LEU	2.9
1	A	498	ALA	2.9
1	C	698	VAL	2.8
1	B	652	TYR	2.7
1	A	493	THR	2.7
1	C	498	ALA	2.7
1	A	523[A]	TYR	2.6

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Mol	Chain	Res	Type	RSRZ
1	D	493	THR	2.6
1	D	521	ALA	2.6
1	D	494	GLU	2.5
1	C	669	GLY	2.5
1	D	696	LEU	2.4
1	C	529	ARG	2.3
1	D	595	THR	2.2
1	A	494	GLU	2.1
1	D	498	ALA	2.1
1	B	495	LEU	2.1
1	A	595	THR	2.0
1	D	697	ASP	2.0

6.2 Non-standard residues in protein, DNA, RNA chains ⓘ

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

6.3 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

6.4 Ligands ⓘ

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	C2E	A	801	46/46	0.94	0.09	26,33,40,44	0
2	C2E	D	801	46/46	0.94	0.09	25,37,47,49	0
2	C2E	C	801	46/46	0.95	0.08	18,25,32,36	0
2	C2E	B	801	46/46	0.95	0.07	19,24,30,34	0
2	C2E	C	802	46/46	0.97	0.06	19,27,34,44	0
2	C2E	A	802	46/46	0.97	0.06	20,25,37,46	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.
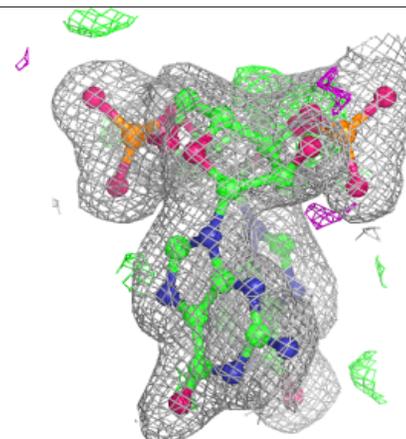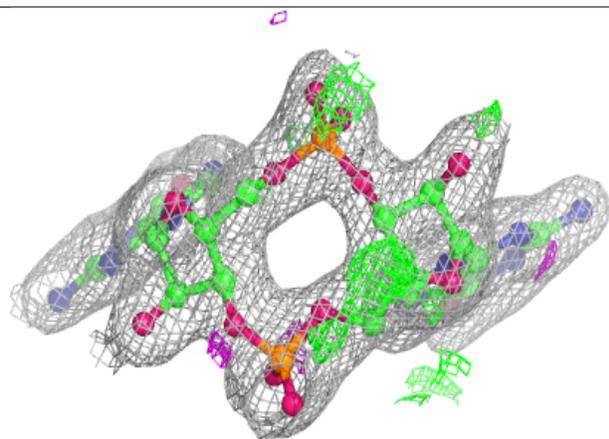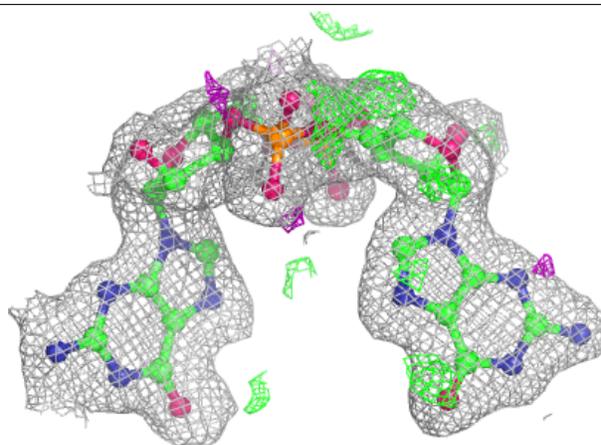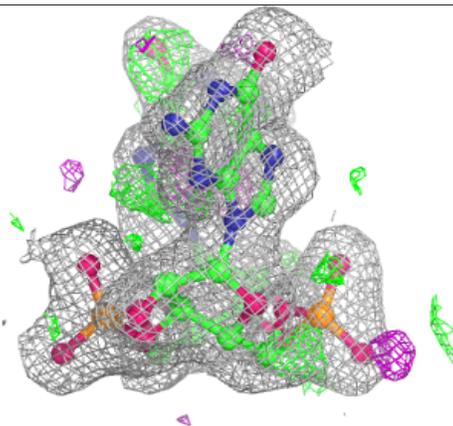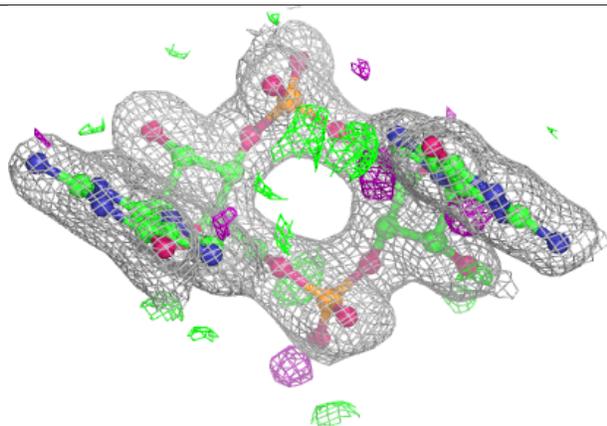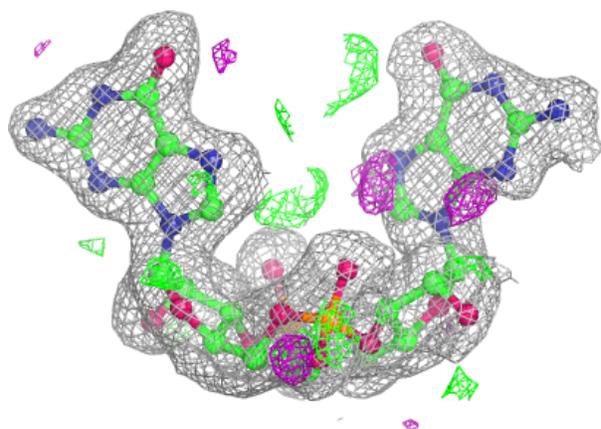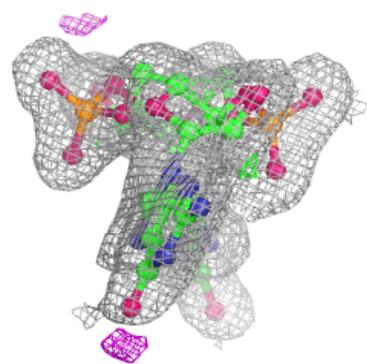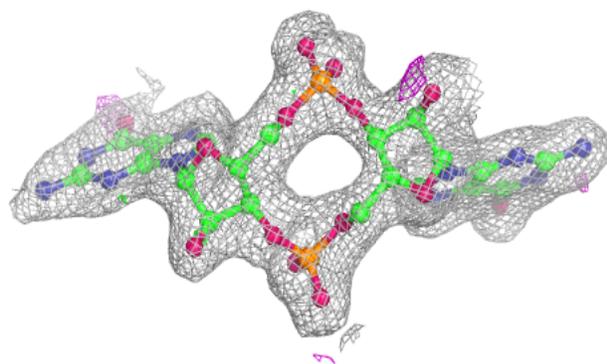
Electron density around C2E A 801:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
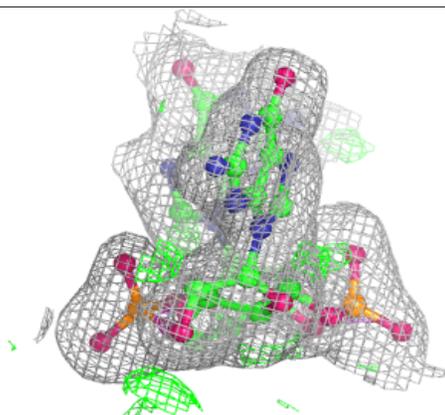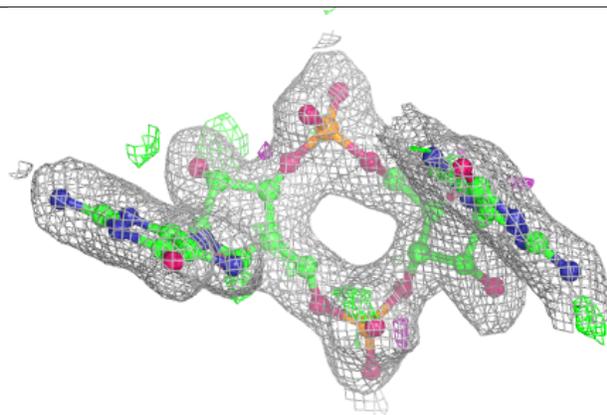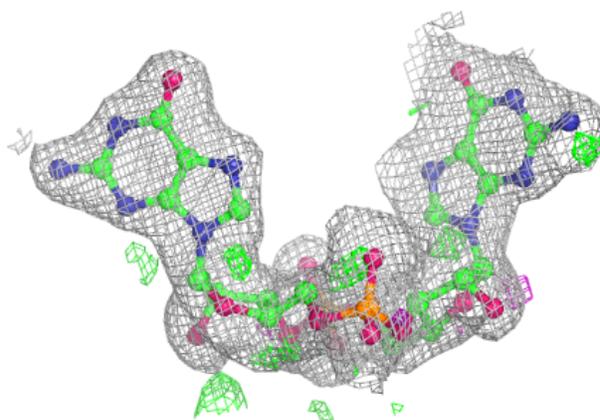
Electron density around C2E D 801:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
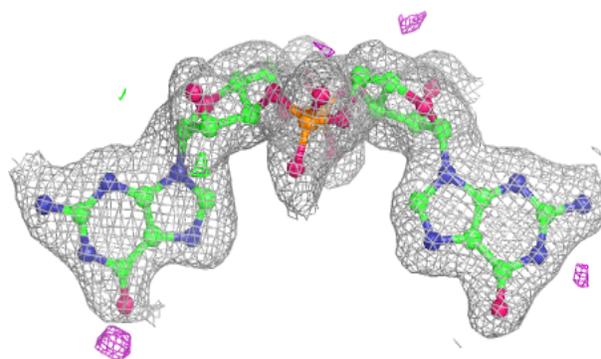and green (positive)
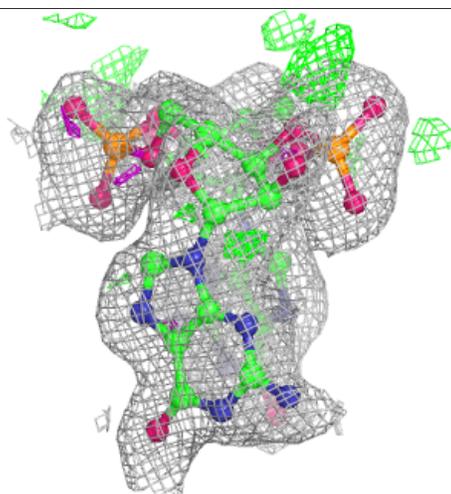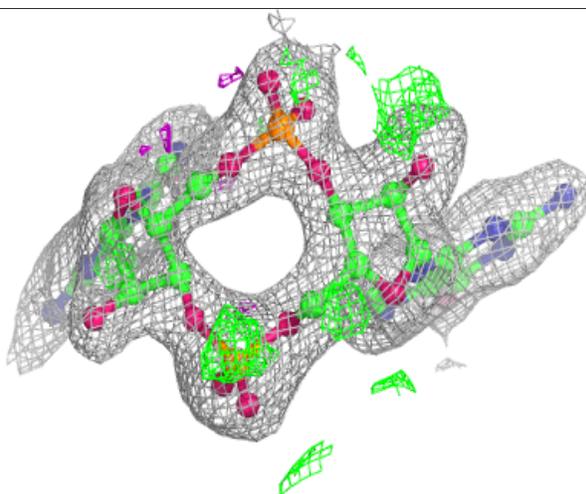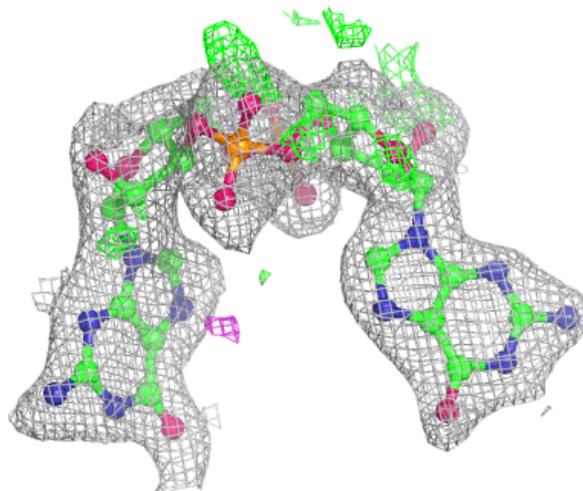
Electron density around C2E C 801:

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

Electron density around C2E B 801:

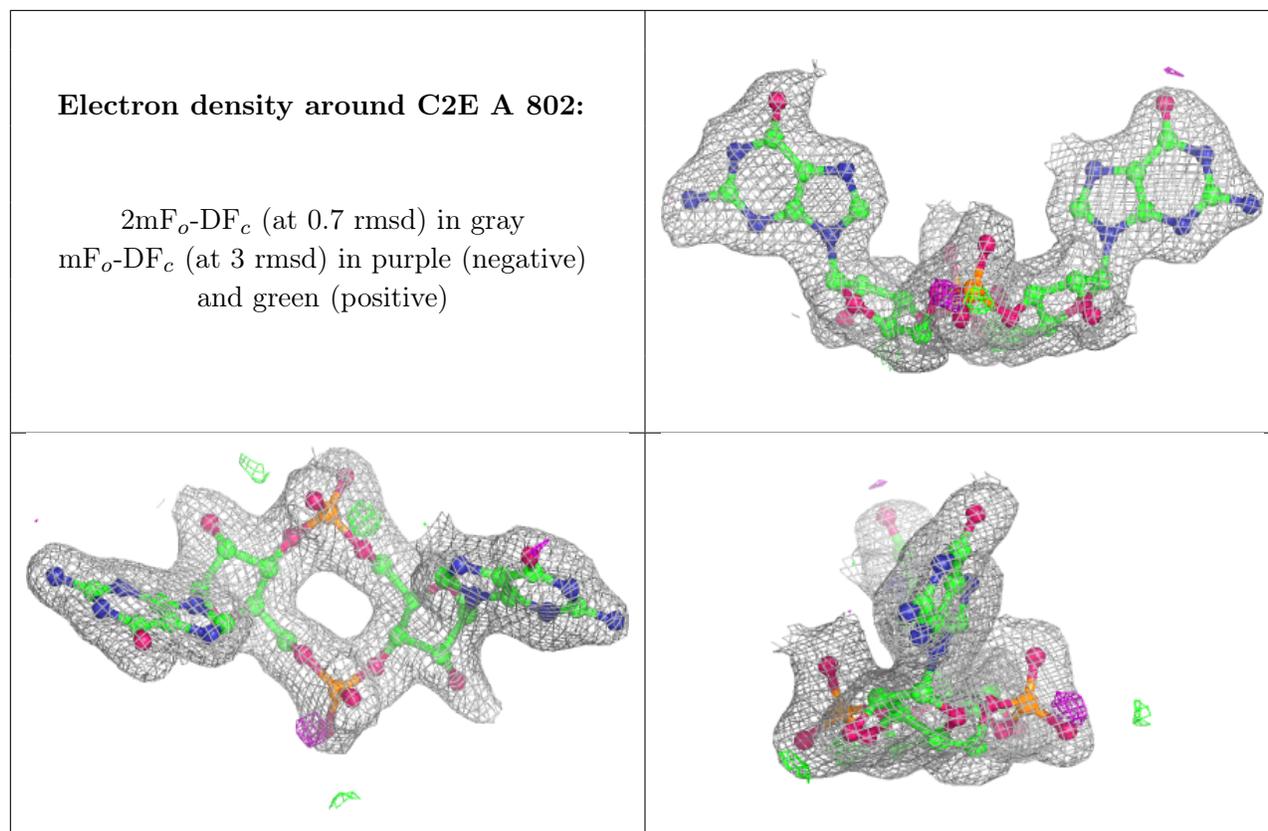2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

Electron density around C2E C 802:

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 C2E A 802:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)

6.5 Other polymers ⓘ

There are no such residues in this entry.