WORLDWIDE PDB
PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report ⓘ

Mar 3, 2024 – 05:58 PM EST

PDB ID	:	6D7F
Title	:	Bacteroides uniformis beta-glucuronidase 1 bound to thiophenyl-beta-D-gluc uronide
Authors	:	Walton, W.G.; Pellock, S.J.; Redinbo, M.R.
Deposited on	:	2018-04-24
Resolution	:	2.40 Å(reported)

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

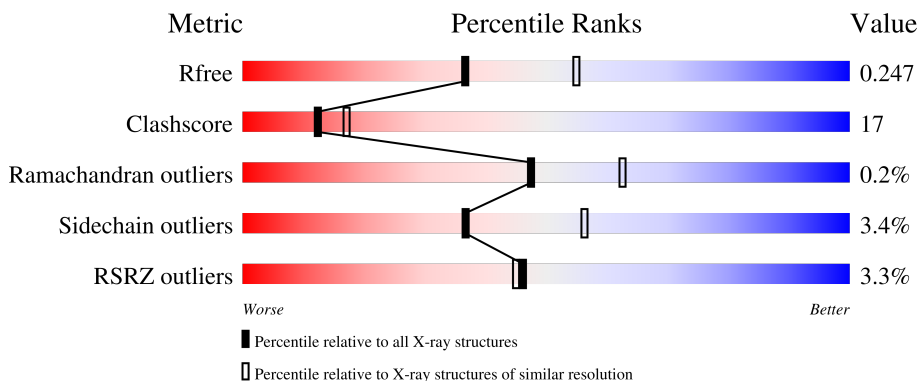|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh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

1 Overall quality at a glance ⓘ

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

The reported resolution of this entry is 2.40 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.
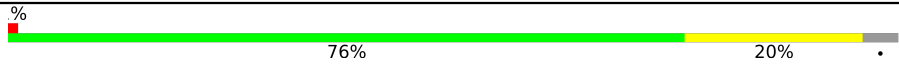
Metric	Percentile Ranks	Value
Rfree		0.247
Clashscore		17
Ramachandran outliers		0.2%
Sidechain outliers		3.4%
RSRZ outliers		3.3%

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}	130704	3907 (2.40-2.40)
Clashscore	141614	4398 (2.40-2.40)
Ramachandran outliers	138981	4318 (2.40-2.40)
Sidechain outliers	138945	4319 (2.40-2.40)
RSRZ outliers	127900	3811 (2.40-2.40)

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	603	81% 15% ·
1	B	603	9% 44% 46% 6% ·
1	C	603	% 79% 16% · ·
1	D	603	% 72% 23% · ·
1	E	603	7% 53% 41% · ·

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Mol	Chain	Length	Quality of chain
1	F	603	

2 Entry composition ⓘ

There are 5 unique types of molecules in this entry. The entry contains 30584 atoms, of which 230 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 Beta-galactosidase/beta-glucuronidase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	579	Total	C	N	O	S	0	0	0
			4760	3053	808	886	13			
1	B	579	Total	C	N	O	S	0	0	0
			4760	3053	808	886	13			
1	C	579	Total	C	N	O	S	0	0	0
			4760	3053	808	886	13			
1	D	579	Total	C	N	O	S	0	0	0
			4760	3053	808	886	13			
1	E	579	Total	C	N	O	S	0	0	0
			4760	3053	808	886	13			
1	F	579	Total	C	N	O	S	0	0	0
			4760	3053	808	886	13			

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	426	LYS	GLU	conflict	UNP A0A174CQK8
A	517	HIS	ARG	conflict	UNP A0A174CQK8
B	426	LYS	GLU	conflict	UNP A0A174CQK8
B	517	HIS	ARG	conflict	UNP A0A174CQK8
C	426	LYS	GLU	conflict	UNP A0A174CQK8
C	517	HIS	ARG	conflict	UNP A0A174CQK8
D	426	LYS	GLU	conflict	UNP A0A174CQK8
D	517	HIS	ARG	conflict	UNP A0A174CQK8
E	426	LYS	GLU	conflict	UNP A0A174CQK8
E	517	HIS	ARG	conflict	UNP A0A174CQK8
F	426	LYS	GLU	conflict	UNP A0A174CQK8
F	517	HIS	ARG	conflict	UNP A0A174CQK8

- Molecule 2 is phenyl 1-thio-beta-D-glucopyranosiduronic acid (three-letter code: FYJ) (formula: $C_{12}H_{14}O_6S$).
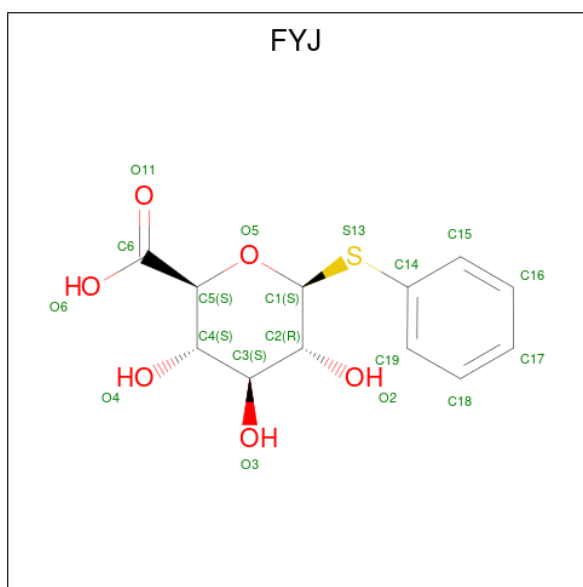
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	H	O	S	0	0
			32	12	13	6	1		
2	B	1	Total	C	H	O	S	0	0
			32	12	13	6	1		
2	C	1	Total	C	H	O	S	0	0
			32	12	13	6	1		
2	D	1	Total	C	H	O	S	0	0
			32	12	13	6	1		
2	E	1	Total	C	H	O	S	0	0
			32	12	13	6	1		
2	F	1	Total	C	H	O	S	0	0
			32	12	13	6	1		

- Molecule 3 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

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

- Molecule 4 is GLYCEROL (three-letter code: GOL) (formula: $C_3H_8O_3$).

GOL

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
4	A	1	Total 14	C 3	H 8	O 3	0	0
4	A	1	Total 14	C 3	H 8	O 3	0	0
4	A	1	Total 14	C 3	H 8	O 3	0	0
4	A	1	Total 14	C 3	H 8	O 3	0	0
4	B	1	Total 14	C 3	H 8	O 3	0	0
4	B	1	Total 14	C 3	H 8	O 3	0	0
4	B	1	Total 14	C 3	H 8	O 3	0	0
4	C	1	Total 14	C 3	H 8	O 3	0	0
4	C	1	Total 14	C 3	H 8	O 3	0	0
4	C	1	Total 14	C 3	H 8	O 3	0	0
4	D	1	Total 14	C 3	H 8	O 3	0	0
4	D	1	Total 14	C 3	H 8	O 3	0	0
4	D	1	Total 14	C 3	H 8	O 3	0	0
4	E	1	Total 14	C 3	H 8	O 3	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
4	E	1	Total 14	C 3	H 8	O 3	0	0
4	E	1	Total 14	C 3	H 8	O 3	0	0
4	F	1	Total 14	C 3	H 8	O 3	0	0
4	F	1	Total 14	C 3	H 8	O 3	0	0
4	F	1	Total 14	C 3	H 8	O 3	0	0

• Molecule 5 is water.

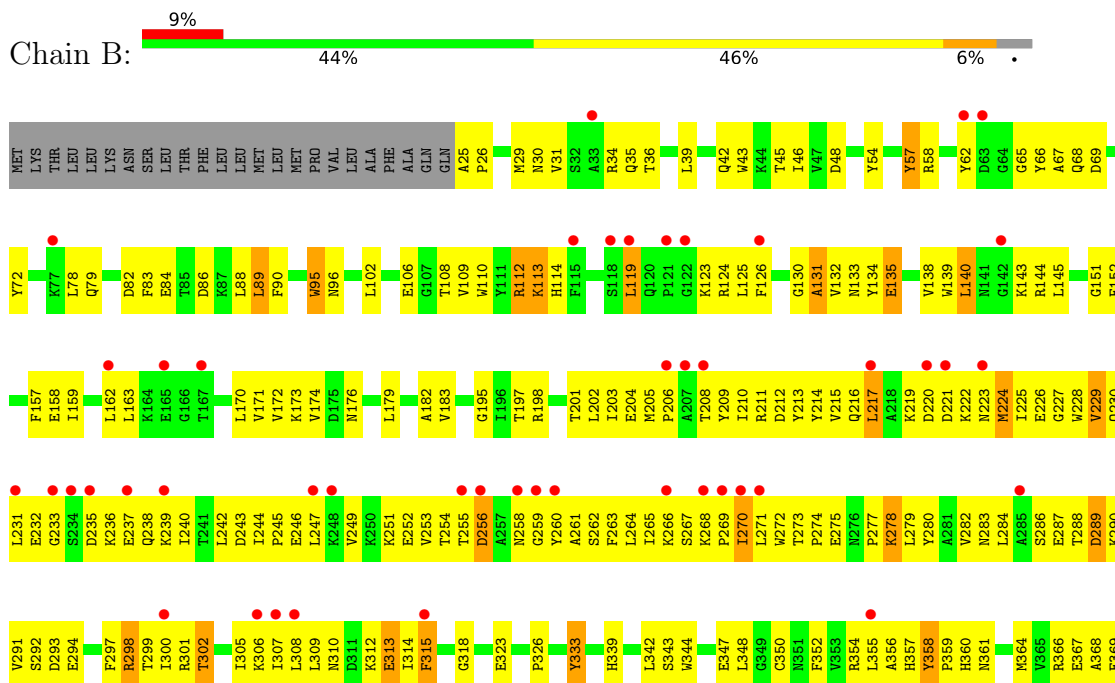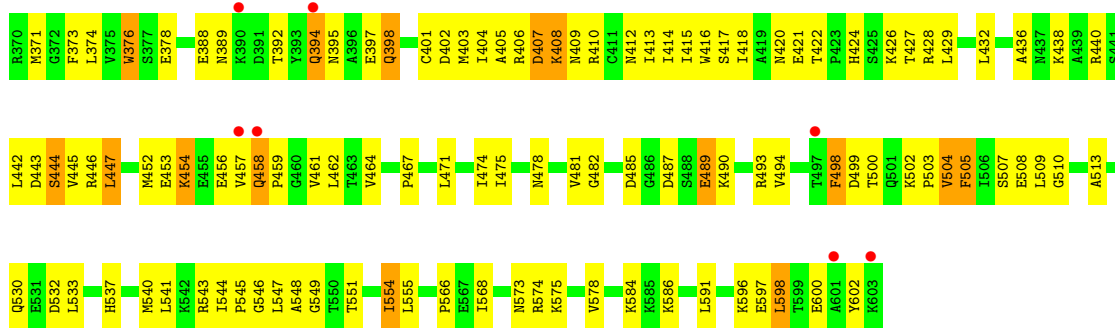| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	376	Total 376	O 376	0	0
5	B	97	Total 97	O 97	0	0
5	C	354	Total 354	O 354	0	0
5	D	290	Total 290	O 290	0	0
5	E	116	Total 116	O 116	0	0
5	F	328	Total 328	O 328	0	0

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.
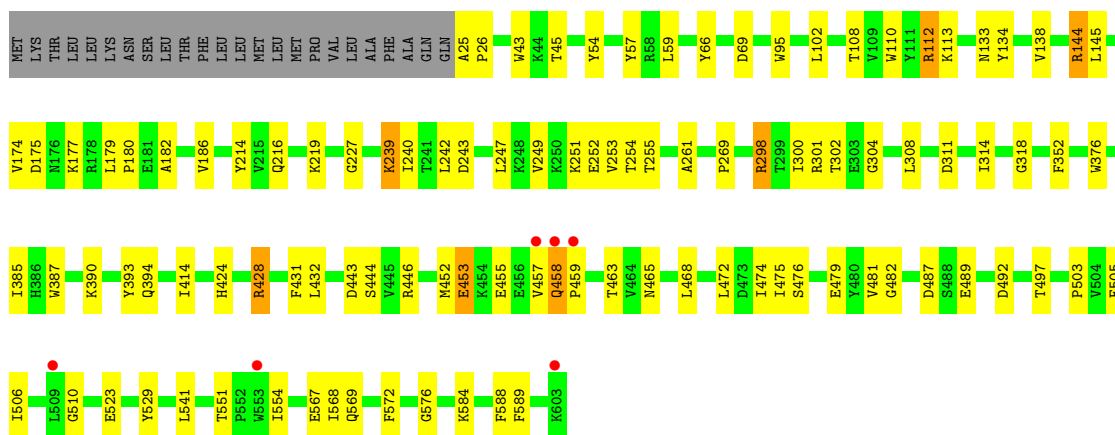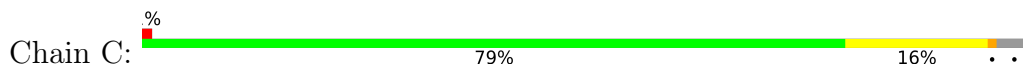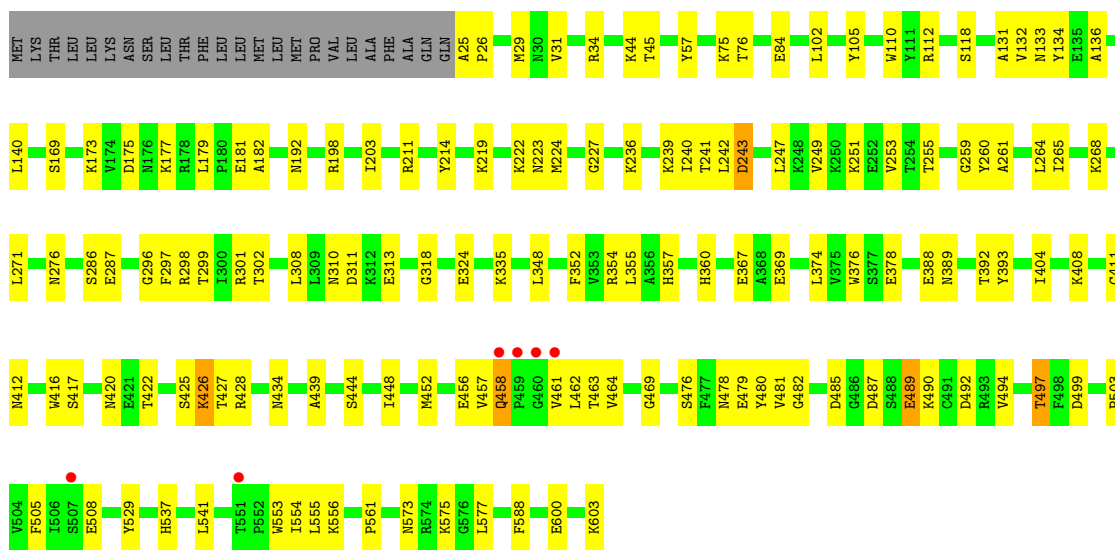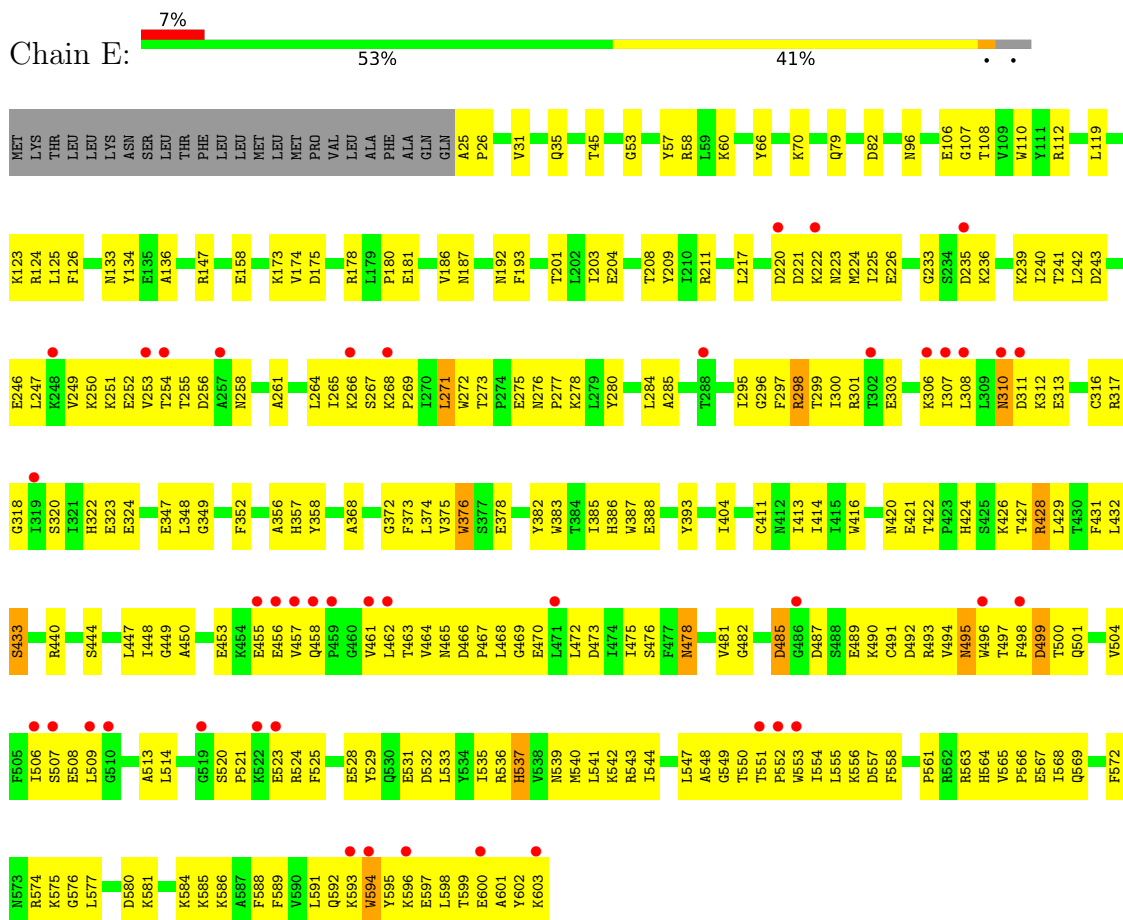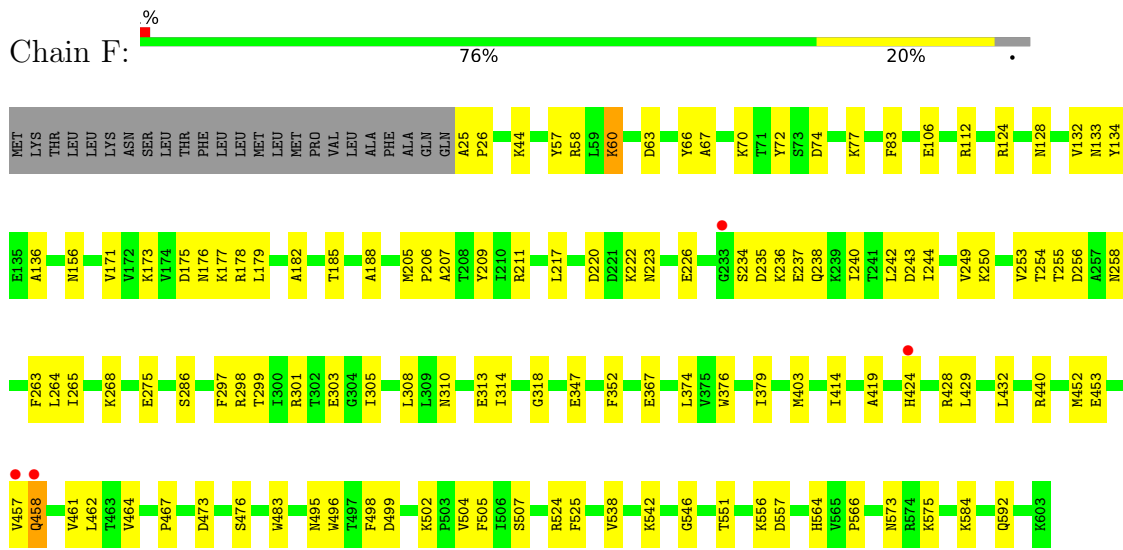
• Molecule 1: Beta-galactosidase/beta-glucuronidase
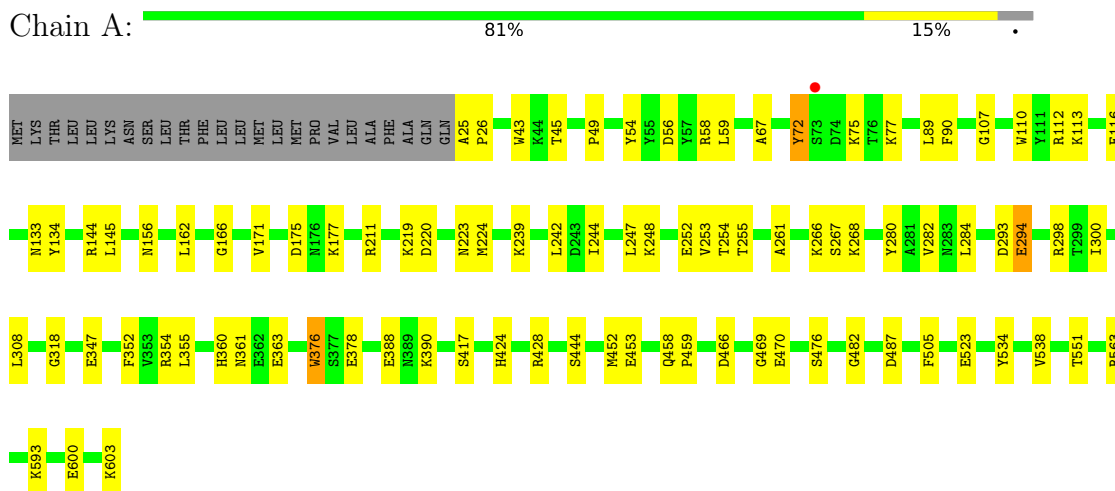
• Molecule 1: Beta-galactosidase/beta-glucuronidase

● Molecule 1: Beta-galactosidase/beta-glucuronidase

Chain C:

● Molecule 1: Beta-galactosidase/beta-glucuronidase

Chain D:

● Molecule 1: Beta-galactosidase/beta-glucuronidase

Chain E:

• Molecule 1: Beta-galactosidase/beta-glucuronidase

Chain F:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 32 2 1	Depositor
Cell constants a, b, c, α, β, γ	252.18Å 252.18Å 107.29Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	29.30 – 2.40 29.30 – 2.40	Depositor EDS
% Data completeness (in resolution range)	99.8 (29.30-2.40) 99.8 (29.30-2.40)	Depositor EDS
R_{merge}	0.11	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	6.15 (at 2.39Å)	Xtriage
Refinement program	PHENIX (1.11.1_2575)	Depositor
R, R_{free}	0.174 , 0.247 0.174 , 0.247	Depositor DCC
R_{free} test set	2001 reflections (1.32%)	wwPDB-VP
Wilson B-factor (Å^2)	33.1	Xtriage
Anisotropy	0.331	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 49.8	EDS
L-test for twinning[2]	$< |L| > = 0.46, < L^2 > = 0.29$	Xtriage
Estimated twinning fraction	0.029 for -h,-k,l	Xtriage
F_o,F_c correlation	0.95	EDS
Total number of atoms	30584	wwPDB-VP
Average B, all atoms (Å^2)	37.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 12.38% 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: FYJ, GOL, CL

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	0.44	0/4888	0.58	0/6627
1	B	0.36	0/4888	0.55	1/6627 (0.0%)
1	C	0.43	0/4888	0.59	1/6627 (0.0%)
1	D	0.41	0/4888	0.57	0/6627
1	E	0.35	0/4888	0.53	0/6627
1	F	0.43	0/4888	0.59	0/6627
All	All	0.40	0/29328	0.57	2/39762 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	119	LEU	C-N-CA	-7.23	103.62	121.70
1	C	112	ARG	NE-CZ-NH1	-6.33	117.13	120.30

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	4760	0	4649	63	0
1	B	4760	0	4649	384	0
1	C	4760	0	4649	77	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	4760	0	4649	105	0
1	E	4760	0	4649	252	0
1	F	4760	0	4649	81	0
2	A	19	13	0	0	0
2	B	19	13	0	1	0
2	C	19	13	0	0	0
2	D	19	13	0	2	0
2	E	19	13	0	2	0
2	F	19	13	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	F	1	0	0	0	0
4	A	24	32	32	1	0
4	B	18	24	24	0	0
4	C	18	24	24	1	0
4	D	18	24	24	3	0
4	E	18	24	24	1	0
4	F	18	24	24	2	0
5	A	376	0	0	6	1
5	B	97	0	0	20	1
5	C	354	0	0	2	1
5	D	290	0	0	4	2
5	E	116	0	0	7	0
5	F	328	0	0	6	2
All	All	30354	230	28046	958	4

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 17.

All (958) 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:E:478:ASN:HB3	1:E:508:GLU:HB2	1.28	1.09
1:B:39:LEU:HD11	1:B:202:LEU:HG	1.33	1.05
1:E:271:LEU:HD13	1:E:298:ARG:HA	1.38	1.05
1:F:299:THR:HG22	1:F:310:ASN:HA	1.41	1.01
1:E:595:TYR:O	1:E:599:THR:OG1	1.80	0.99
1:E:478:ASN:ND2	1:E:507:SER:OG	1.94	0.99
1:F:374:LEU:HD22	1:F:414:ILE:HD13	1.41	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:247:LEU:HD11	1:B:269:PRO:HB3	1.43	0.97
1:B:267:SER:HB2	1:B:269:PRO:HD3	1.47	0.96
1:E:307:ILE:HD11	1:E:548:ALA:HB1	1.52	0.92
1:B:254:THR:HA	5:B:1503:HOH:O	1.68	0.91
1:B:541:LEU:HA	1:B:544:ILE:HD13	1.53	0.91
1:C:452:MET:CE	1:C:475:ILE:HA	2.01	0.91
1:E:491:CYS:HA	1:E:540:MET:HE3	1.52	0.90
1:B:233:GLY:O	1:B:236:LYS:HG3	1.70	0.90
1:B:251:LYS:HG3	1:B:265:ILE:HD12	1.51	0.89
1:B:489:GLU:OE1	1:B:493:ARG:NE	2.05	0.88
1:E:273:THR:HG22	1:E:275:GLU:H	1.36	0.87
1:E:374:LEU:HD22	1:E:414:ILE:HD13	1.55	0.87
1:B:457:VAL:HG12	1:B:458:GLN:HG2	1.56	0.85
1:E:491:CYS:HB2	1:E:536:ARG:HB3	1.59	0.84
1:B:315:PHE:HB2	1:B:602:TYR:CE2	2.13	0.84
1:E:429:LEU:O	1:E:433:SER:OG	1.96	0.84
1:B:140:LEU:HB2	1:B:145:LEU:HD11	1.58	0.83
1:B:270:ILE:N	1:B:280:TYR:OH	2.09	0.83
1:E:242:LEU:HD23	1:E:243:ASP:N	1.93	0.83
1:B:179:LEU:HB2	1:B:182:ALA:HB2	1.61	0.82
1:E:317:ARG:HB3	1:E:595:TYR:CD2	2.14	0.82
1:B:504:VAL:HG13	1:B:546:GLY:O	1.79	0.82
1:D:426:LYS:HB2	1:E:465:ASN:ND2	1.95	0.81
1:E:217:LEU:HD12	1:E:298:ARG:O	1.81	0.81
1:B:224:MET:HB2	1:B:266:LYS:CE	2.10	0.81
1:B:244:ILE:HG22	1:B:247:LEU:HB2	1.62	0.80
1:E:494:VAL:O	1:E:543:ARG:NH2	2.13	0.80
1:E:594:TRP:O	1:E:598:LEU:HG	1.81	0.80
1:C:452:MET:HE3	1:C:475:ILE:HA	1.62	0.80
1:B:224:MET:CE	1:B:264:LEU:HD13	2.12	0.79
1:D:224:MET:CE	1:D:264:LEU:HB3	2.10	0.79
1:B:429:LEU:HD13	1:B:467:PRO:HG2	1.63	0.79
1:E:554:ILE:O	1:E:576:GLY:HA2	1.82	0.79
1:E:499:ASP:OD1	1:E:499:ASP:N	2.17	0.78
1:B:125:LEU:HD23	1:B:163:LEU:HD21	1.65	0.78
1:D:224:MET:HE3	1:D:264:LEU:HB3	1.66	0.78
1:B:238:GLN:HE22	1:B:288:THR:HG22	1.48	0.78
1:E:375:VAL:CG1	1:E:413:ILE:HG12	2.14	0.77
1:C:390:LYS:H	1:C:390:LYS:HD2	1.49	0.77
1:B:421:GLU:OE2	1:B:454:LYS:NZ	2.16	0.77
1:B:247:LEU:HD11	1:B:269:PRO:CB	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:592:GLN:OE1	5:F:801:HOH:O	2.02	0.77
1:B:231:LEU:HD23	1:B:232:GLU:N	1.99	0.77
1:B:224:MET:HE3	1:B:264:LEU:HD13	1.66	0.77
1:E:424:HIS:HB2	1:E:453:GLU:OE2	1.85	0.77
1:B:374:LEU:HD13	1:B:414:ILE:HD13	1.66	0.76
1:C:219:LYS:HE2	1:C:444:SER:O	1.86	0.76
1:E:318:GLY:HA2	1:E:352:PHE:O	1.85	0.76
1:B:39:LEU:HD11	1:B:202:LEU:CG	2.15	0.76
1:B:267:SER:CB	1:B:269:PRO:HD3	2.15	0.75
1:B:586:LYS:O	5:B:1501:HOH:O	2.03	0.75
1:B:124:ARG:N	1:B:205:MET:O	2.15	0.75
1:E:375:VAL:HG11	1:E:413:ILE:HG12	1.67	0.75
1:C:455:GLU:OE2	1:C:465:ASN:ND2	2.19	0.75
1:B:217:LEU:HD22	1:B:221:ASP:O	1.86	0.75
1:B:264:LEU:O	1:B:265:ILE:HD13	1.87	0.75
1:B:229:VAL:O	5:B:1502:HOH:O	2.04	0.75
1:E:542:LYS:HE3	1:E:594:TRP:HE1	1.50	0.75
1:B:43:TRP:HB3	1:B:112:ARG:O	1.87	0.74
1:D:223:ASN:OD1	1:D:268:LYS:HD3	1.86	0.74
1:E:591:LEU:HD23	1:E:591:LEU:O	1.87	0.74
1:B:315:PHE:CE1	1:B:549:GLY:HA2	2.23	0.74
1:E:440:ARG:NH1	1:E:444:SER:O	2.21	0.74
1:B:333:TYR:HA	1:B:361:ASN:ND2	2.02	0.74
1:D:219:LYS:HE2	1:D:444:SER:O	1.85	0.74
1:B:367:GLU:O	1:B:371:MET:HG3	1.87	0.74
1:F:424:HIS:ND1	1:F:453:GLU:HG3	2.03	0.74
1:A:347:GLU:OE1	5:A:801:HOH:O	2.05	0.74
1:B:30:ASN:ND2	1:B:293:ASP:OD1	2.21	0.74
1:E:492:ASP:HA	1:E:543:ARG:HH12	1.53	0.73
1:B:239:LYS:HA	5:B:1503:HOH:O	1.87	0.73
1:E:509:LEU:HD12	1:E:509:LEU:O	1.89	0.73
1:E:564:HIS:O	5:E:801:HOH:O	2.05	0.73
1:C:452:MET:HE1	1:C:475:ILE:HA	1.70	0.73
1:B:259:GLY:O	5:B:1502:HOH:O	2.06	0.73
1:E:561:PRO:O	1:E:564:HIS:NE2	2.21	0.73
1:B:243:ASP:HB3	1:B:283:ASN:HB2	1.71	0.72
1:E:457:VAL:HG23	1:E:461:VAL:HG13	1.72	0.72
1:B:270:ILE:HB	1:B:278:LYS:HD3	1.72	0.72
1:B:84:GLU:OE1	1:B:84:GLU:HA	1.89	0.72
1:E:267:SER:OG	1:E:269:PRO:HD3	1.90	0.72
1:B:573:ASN:OD1	1:B:575:LYS:HG3	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:279:LEU:HD23	1:B:294:GLU:HB2	1.72	0.71
1:E:382:TYR:H	1:E:385:ILE:HD11	1.54	0.71
1:E:498:PHE:CE2	1:E:504:VAL:HG21	2.26	0.71
1:E:552:PRO:HG2	1:E:591:LEU:HD11	1.71	0.71
1:B:131:ALA:CB	1:B:198:ARG:HD2	2.20	0.71
1:B:143:LYS:CE	1:B:162:LEU:HD22	2.20	0.71
1:B:301:ARG:NH1	1:B:308:LEU:HD12	2.05	0.70
1:B:29:MET:HG3	1:B:30:ASN:N	2.05	0.70
1:B:211:ARG:NH1	5:B:1507:HOH:O	2.23	0.70
1:E:347:GLU:OE2	1:E:584:LYS:HD3	1.92	0.70
1:B:352:PHE:CZ	1:B:376:TRP:HB2	2.26	0.70
1:C:255:THR:HA	1:C:261:ALA:HB2	1.74	0.70
1:B:135:GLU:HG2	5:B:1535:HOH:O	1.92	0.70
1:B:256:ASP:OD1	1:B:258:ASN:HB2	1.92	0.70
1:B:499:ASP:OD1	1:B:500:THR:N	2.24	0.70
1:A:239:LYS:HE3	1:A:252:GLU:OE1	1.90	0.70
1:B:339:HIS:O	1:B:343:SER:OG	2.05	0.69
1:E:506:ILE:HD12	1:E:541:LEU:HD21	1.74	0.69
1:E:246:GLU:OE1	1:E:278:LYS:NZ	2.17	0.69
1:E:482:GLY:HA2	1:E:487:ASP:O	1.91	0.69
1:C:482:GLY:HA2	1:C:487:ASP:O	1.91	0.69
1:E:585:LYS:HD3	5:E:802:HOH:O	1.92	0.69
1:F:458:GLN:NE2	5:F:806:HOH:O	2.23	0.69
1:B:541:LEU:HA	1:B:544:ILE:CD1	2.22	0.69
1:B:404:ILE:HG12	1:B:416:TRP:CZ3	2.27	0.69
1:D:388:GLU:HG2	1:D:427:THR:HG21	1.75	0.69
1:E:226:GLU:HB3	1:E:264:LEU:HD23	1.74	0.69
1:B:208:THR:HG23	1:B:231:LEU:HD21	1.74	0.69
1:B:244:ILE:HB	1:B:249:VAL:HB	1.73	0.69
1:E:221:ASP:OD2	1:E:224:MET:N	2.26	0.69
1:E:241:THR:HG21	1:E:250:LYS:HE2	1.75	0.69
1:F:264:LEU:C	1:F:265:ILE:HD12	2.13	0.69
1:B:554:ILE:HG12	1:B:555:LEU:H	1.56	0.69
1:B:253:VAL:O	5:B:1503:HOH:O	2.11	0.68
1:B:239:LYS:HE2	1:B:252:GLU:OE1	1.92	0.68
1:B:420:ASN:O	1:B:422:THR:HG23	1.93	0.68
1:E:541:LEU:HD22	1:E:547:LEU:HD21	1.76	0.68
1:B:475:ILE:HG21	1:B:498:PHE:CE2	2.29	0.68
1:B:210:ILE:HD13	1:B:284:LEU:CD2	2.23	0.68
1:B:398:GLN:O	1:B:401:CYS:N	2.27	0.68
1:B:267:SER:HB2	1:B:269:PRO:CD	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:584:LYS:NZ	5:F:807:HOH:O	2.26	0.68
1:A:220:ASP:OD2	5:A:802:HOH:O	2.11	0.67
1:B:170:LEU:HD12	1:B:171:VAL:H	1.58	0.67
1:B:83:PHE:CE2	1:B:112:ARG:HB2	2.29	0.67
1:B:208:THR:CG2	1:B:231:LEU:HD21	2.25	0.67
1:E:271:LEU:HD12	1:E:310:ASN:CG	2.14	0.67
1:B:170:LEU:HD12	1:B:171:VAL:N	2.08	0.67
1:B:224:MET:HA	1:B:266:LYS:HD3	1.75	0.67
1:D:458:GLN:O	1:D:461:VAL:HG12	1.95	0.67
1:D:301:ARG:NH1	1:D:308:LEU:HD12	2.10	0.67
1:E:485:ASP:OD1	1:E:490:LYS:NZ	2.25	0.66
1:F:205:MET:CE	1:F:206:PRO:HD2	2.26	0.66
1:B:275:GLU:N	1:B:275:GLU:OE2	2.28	0.66
1:D:481:VAL:HA	1:D:485:ASP:HB3	1.76	0.66
1:E:316:CYS:HB2	1:E:549:GLY:HA3	1.77	0.66
1:D:490:LYS:O	1:D:494:VAL:HG23	1.95	0.66
1:E:271:LEU:HD12	1:E:310:ASN:OD1	1.95	0.66
1:E:316:CYS:HB2	1:E:549:GLY:CA	2.25	0.66
1:E:464:VAL:HG21	1:E:475:ILE:CG2	2.25	0.66
1:B:429:LEU:CD1	1:B:467:PRO:HG2	2.25	0.66
1:E:239:LYS:HD3	1:E:252:GLU:OE2	1.95	0.66
1:E:469:GLY:HA2	1:E:472:LEU:HD12	1.77	0.66
1:B:145:LEU:HD21	1:B:159:ILE:HG22	1.78	0.66
1:E:470:GLU:O	5:E:803:HOH:O	2.14	0.66
1:E:513:ALA:O	5:E:802:HOH:O	2.13	0.66
1:B:239:LYS:C	1:B:240:ILE:HD12	2.16	0.66
1:E:242:LEU:HD23	1:E:243:ASP:H	1.60	0.66
1:B:145:LEU:HB3	1:B:157:PHE:CD2	2.30	0.66
1:B:407:ASP:HB3	1:B:413:ILE:HD12	1.77	0.66
1:B:544:ILE:HG23	1:B:545:PRO:HD2	1.76	0.66
1:C:567:GLU:O	1:C:568:ILE:HD13	1.95	0.65
1:D:241:THR:HG22	1:D:243:ASP:OD1	1.95	0.65
1:E:554:ILE:HD13	1:E:558:PHE:CE1	2.31	0.65
1:B:57:TYR:HE2	1:B:58:ARG:HE	1.42	0.65
1:B:113:LYS:HD3	1:B:114:HIS:N	2.11	0.65
1:B:239:LYS:HE2	1:B:252:GLU:CD	2.17	0.65
1:B:347:GLU:OE1	1:B:584:LYS:HE2	1.96	0.65
1:B:223:ASN:OD1	1:B:268:LYS:HG2	1.97	0.65
1:B:318:GLY:HA2	1:B:352:PHE:O	1.95	0.65
1:F:299:THR:HG22	1:F:310:ASN:CA	2.21	0.65
1:B:29:MET:CE	1:B:408:LYS:HE2	2.26	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:238:GLN:HE22	1:B:288:THR:CG2	2.08	0.65
1:B:482:GLY:HA2	1:B:487:ASP:O	1.96	0.65
1:B:368:ALA:HB1	1:B:373:PHE:HB2	1.79	0.65
1:A:470:GLU:OE2	1:F:502:LYS:NZ	2.23	0.65
1:B:224:MET:HB2	1:B:266:LYS:HE2	1.77	0.65
1:E:220:ASP:HA	1:E:299:THR:CG2	2.27	0.65
1:F:253:VAL:HG22	1:F:254:THR:H	1.61	0.65
1:B:500:THR:HG21	1:B:502:LYS:HD2	1.78	0.65
1:F:458:GLN:H	1:F:461:VAL:HG13	1.62	0.64
1:B:110:TRP:CZ3	1:B:173:LYS:HB2	2.32	0.64
1:B:352:PHE:CE1	1:B:376:TRP:HB2	2.32	0.64
1:B:416:TRP:HE1	1:B:446:ARG:HD2	1.62	0.64
1:B:260:TYR:HA	5:B:1502:HOH:O	1.96	0.64
1:C:69:ASP:OD1	1:C:112:ARG:HD2	1.96	0.64
1:F:205:MET:HE2	1:F:206:PRO:HD2	1.79	0.64
1:B:305:ILE:HG23	1:B:546:GLY:HA3	1.79	0.64
1:C:214:TYR:O	1:C:227:GLY:HA3	1.97	0.64
1:D:251:LYS:HG2	1:D:265:ILE:HD11	1.79	0.64
1:B:230:GLN:HA	5:B:1502:HOH:O	1.98	0.64
1:E:307:ILE:CD1	1:E:548:ALA:HB1	2.27	0.64
1:E:591:LEU:HD21	1:E:595:TYR:CZ	2.32	0.64
1:B:326:PRO:HB3	1:B:344:TRP:HH2	1.62	0.63
1:B:220:ASP:OD2	1:B:301:ARG:HD3	1.98	0.63
1:B:211:ARG:HH22	1:B:230:GLN:HG2	1.63	0.63
1:E:541:LEU:HD22	1:E:547:LEU:CD2	2.28	0.63
1:B:443:ASP:OD1	1:B:444:SER:N	2.31	0.63
1:B:454:LYS:HA	1:B:464:VAL:HA	1.81	0.63
1:B:113:LYS:HD3	1:B:113:LYS:C	2.19	0.63
1:E:542:LYS:HE3	1:E:594:TRP:NE1	2.14	0.63
1:B:244:ILE:HG22	1:B:244:ILE:O	1.98	0.62
1:E:253:VAL:HG12	1:E:254:THR:H	1.64	0.62
1:B:143:LYS:NZ	1:B:162:LEU:HB3	2.14	0.62
1:B:240:ILE:HG13	1:B:286:SER:HA	1.81	0.62
1:E:528:GLU:OE2	1:E:586:LYS:NZ	2.33	0.62
1:E:536:ARG:O	1:E:539:ASN:HB2	1.99	0.62
1:F:70:LYS:HZ2	1:F:77:LYS:HE2	1.65	0.62
1:B:307:ILE:O	1:B:308:LEU:HD23	1.99	0.62
1:E:224:MET:CE	1:E:266:LYS:HG2	2.30	0.62
1:E:225:ILE:HB	1:E:265:ILE:HG23	1.81	0.62
1:E:273:THR:HG22	1:E:275:GLU:N	2.13	0.62
1:B:42:GLN:HB3	1:B:88:LEU:HD22	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:491:CYS:O	1:E:540:MET:HB2	2.00	0.61
1:B:471:LEU:H	1:B:471:LEU:HD12	1.64	0.61
1:E:481:VAL:HG11	1:E:540:MET:CE	2.30	0.61
1:B:237:GLU:HA	1:B:255:THR:OG1	2.00	0.61
1:D:31:VAL:HG13	1:D:203:ILE:HD11	1.81	0.61
1:D:302:THR:HG22	1:D:503:PRO:HG2	1.82	0.61
1:D:299:THR:OG1	1:D:310:ASN:HA	2.01	0.61
1:D:301:ARG:HG3	1:D:302:THR:O	2.01	0.61
1:D:457:VAL:HG23	1:D:461:VAL:HG13	1.81	0.61
1:E:217:LEU:HG	1:E:297:PHE:HB3	1.83	0.61
1:E:247:LEU:HD21	1:E:280:TYR:CE1	2.36	0.61
1:E:450:ALA:O	1:E:476:SER:HB2	2.00	0.61
1:B:131:ALA:HB3	1:B:198:ARG:HD2	1.82	0.60
1:B:210:ILE:HD13	1:B:284:LEU:HD23	1.83	0.60
1:B:401:CYS:SG	1:B:442:LEU:HD11	2.41	0.60
1:E:456:GLU:HA	1:E:462:LEU:HD23	1.83	0.60
1:B:217:LEU:HD13	1:B:299:THR:HG22	1.83	0.60
1:D:240:ILE:HD13	1:D:286:SER:HA	1.82	0.60
1:B:88:LEU:O	1:B:89:LEU:HD12	2.01	0.60
1:B:326:PRO:HB3	1:B:344:TRP:CH2	2.35	0.60
1:C:453:GLU:HG2	1:C:465:ASN:O	2.00	0.60
1:E:507:SER:O	1:E:508:GLU:HG3	2.01	0.60
1:D:426:LYS:HE2	1:D:427:THR:HG23	1.83	0.60
1:B:407:ASP:HB3	1:B:413:ILE:CD1	2.32	0.60
1:D:537:HIS:O	1:D:541:LEU:HG	2.02	0.60
1:B:95:TRP:CZ3	1:B:109:VAL:HB	2.36	0.60
1:B:35:GLN:HG2	1:B:204:GLU:HB3	1.84	0.60
1:B:143:LYS:HD2	1:B:162:LEU:HD13	1.84	0.60
1:B:152:PHE:O	1:B:359:PRO:HB2	2.00	0.60
1:B:307:ILE:CD1	1:B:548:ALA:HB1	2.32	0.60
1:C:390:LYS:HD2	1:C:390:LYS:N	2.16	0.60
1:D:31:VAL:HG13	1:D:203:ILE:CD1	2.32	0.60
1:E:463:THR:HG22	1:E:497:THR:O	2.02	0.59
1:C:247:LEU:HD11	1:C:269:PRO:HB3	1.84	0.59
1:B:195:GLY:O	1:B:197:THR:HG23	2.02	0.59
1:B:354:ARG:HA	1:B:376:TRP:HB3	1.83	0.59
1:D:222:LYS:HD2	1:D:311:ASP:OD2	2.02	0.59
1:E:225:ILE:HB	1:E:265:ILE:CG2	2.33	0.59
1:B:198:ARG:NH2	1:B:359:PRO:O	2.32	0.59
1:B:230:GLN:HG3	1:B:231:LEU:H	1.67	0.59
1:C:253:VAL:HG12	1:C:254:THR:N	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:215:VAL:O	1:B:216:GLN:NE2	2.36	0.59
1:B:273:THR:HG22	1:B:275:GLU:H	1.68	0.59
1:B:374:LEU:HD13	1:B:414:ILE:CD1	2.33	0.59
1:C:584:LYS:HD2	1:C:588:PHE:CE1	2.37	0.59
1:E:356:ALA:HB1	1:E:357:HIS:ND1	2.17	0.59
1:B:323:GLU:HB2	1:B:360:HIS:CD2	2.37	0.58
1:B:35:GLN:HG2	1:B:204:GLU:CB	2.34	0.58
1:B:217:LEU:HD23	1:B:224:MET:O	2.02	0.58
1:D:175:ASP:OD1	1:D:177:LYS:HE2	2.02	0.58
1:F:476:SER:HA	1:F:505:PHE:O	2.03	0.58
1:B:493:ARG:NH1	5:B:1516:HOH:O	2.36	0.58
1:F:132:VAL:HG11	1:F:136:ALA:HB2	1.84	0.58
1:B:209:TYR:HD1	1:B:210:ILE:O	1.85	0.58
1:B:224:MET:SD	1:B:266:LYS:HE3	2.42	0.58
1:A:476:SER:HA	1:A:505:PHE:O	2.04	0.58
1:A:482:GLY:HA2	1:A:487:ASP:O	2.03	0.58
1:B:443:ASP:OD2	1:B:446:ARG:HG3	2.04	0.58
1:E:224:MET:HE2	1:E:266:LYS:HG2	1.85	0.58
1:E:357:HIS:HA	1:E:378:GLU:OE2	2.03	0.58
1:E:494:VAL:HB	1:E:540:MET:CE	2.34	0.58
1:A:45:THR:HA	1:A:110:TRP:O	2.04	0.58
1:B:25:ALA:HB3	1:B:26:PRO:HD3	1.85	0.58
1:B:212:ASP:HB2	5:B:1507:HOH:O	2.03	0.58
1:B:307:ILE:N	1:B:307:ILE:HD12	2.19	0.58
1:B:131:ALA:HB2	1:B:198:ARG:HD2	1.84	0.58
1:A:223:ASN:OD1	1:A:268:LYS:HG3	2.04	0.57
1:E:26:PRO:HB2	1:E:211:ARG:HD2	1.84	0.57
1:E:233:GLY:O	1:E:236:LYS:HE3	2.04	0.57
1:F:173:LYS:HG2	5:F:931:HOH:O	2.04	0.57
1:B:265:ILE:HG22	1:B:266:LYS:H	1.69	0.57
1:D:239:LYS:HG2	1:D:287:GLU:OE2	2.04	0.57
1:A:458:GLN:HB2	1:A:459:PRO:CD	2.35	0.57
1:B:251:LYS:HG3	1:B:265:ILE:CD1	2.30	0.57
1:D:214:TYR:O	1:D:227:GLY:HA3	2.05	0.57
1:F:299:THR:CG2	1:F:310:ASN:HA	2.25	0.57
1:E:241:THR:CG2	1:E:250:LYS:HE2	2.34	0.57
1:F:429:LEU:HD22	1:F:467:PRO:HG2	1.85	0.57
1:D:479:GLU:OE1	1:D:537:HIS:NE2	2.34	0.57
1:A:223:ASN:OD1	1:A:268:LYS:HE2	2.04	0.57
1:B:238:GLN:NE2	1:B:288:THR:HG22	2.18	0.57
1:D:181:GLU:OE1	1:D:181:GLU:N	2.34	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:219:LYS:HE2	1:A:444:SER:O	2.05	0.57
1:B:35:GLN:HB3	1:B:204:GLU:H	1.69	0.57
1:B:226:GLU:HG2	1:B:227:GLY:N	2.20	0.57
1:E:276:ASN:HB2	5:E:862:HOH:O	2.05	0.57
1:B:355:LEU:HB3	1:B:360:HIS:ND1	2.19	0.56
1:B:438:LYS:HD2	1:B:438:LYS:O	2.05	0.56
1:B:478:ASN:OD1	1:B:508:GLU:HB2	2.05	0.56
1:D:352:PHE:CD2	1:D:374:LEU:HB2	2.40	0.56
1:F:263:PHE:HB2	1:F:265:ILE:HD11	1.86	0.56
1:E:181:GLU:OE1	1:E:181:GLU:N	2.29	0.56
1:D:452:MET:CE	1:D:469:GLY:HA3	2.36	0.56
1:B:139:TRP:NE1	1:B:144:ARG:HG2	2.21	0.56
1:B:224:MET:HE1	1:B:264:LEU:HD13	1.87	0.56
1:E:500:THR:HG22	1:E:501:GLN:N	2.20	0.56
1:A:253:VAL:HG22	1:A:254:THR:H	1.70	0.56
1:B:45:THR:HG21	1:B:89:LEU:HB2	1.86	0.56
1:E:447:LEU:O	1:E:448:ILE:HD13	2.06	0.56
1:B:293:ASP:OD2	1:B:294:GLU:N	2.38	0.56
1:B:404:ILE:HG12	1:B:416:TRP:CH2	2.40	0.56
1:E:447:LEU:N	1:E:447:LEU:HD12	2.21	0.56
1:B:29:MET:HE2	1:B:408:LYS:HE2	1.88	0.56
1:B:54:TYR:OH	5:B:1504:HOH:O	2.14	0.56
1:B:143:LYS:HZ2	1:B:162:LEU:HB3	1.71	0.56
1:B:273:THR:H	1:B:277:PRO:HA	1.71	0.56
1:B:541:LEU:CA	1:B:544:ILE:HD13	2.32	0.56
1:E:320:SER:O	1:E:554:ILE:HG13	2.06	0.56
1:E:507:SER:HA	1:E:551:THR:OG1	2.05	0.56
1:B:201:THR:HG22	1:B:202:LEU:N	2.21	0.56
1:B:224:MET:HB2	1:B:266:LYS:HE3	1.86	0.55
1:B:284:LEU:O	1:B:290:LYS:HB2	2.07	0.55
1:C:463:THR:OG1	1:C:497:THR:O	2.11	0.55
1:F:58:ARG:NH1	1:F:60:LYS:HE2	2.22	0.55
1:D:31:VAL:CG1	1:D:203:ILE:HD11	2.37	0.55
1:D:308:LEU:HD23	1:D:313:GLU:HA	1.88	0.55
1:E:429:LEU:HD13	1:E:467:PRO:HG2	1.88	0.55
1:E:594:TRP:CD2	1:E:598:LEU:HD11	2.42	0.55
1:F:223:ASN:OD1	1:F:268:LYS:HG2	2.06	0.55
1:A:77:LYS:HD3	5:D:803:HOH:O	2.06	0.55
1:B:205:MET:HE3	1:B:209:TYR:CG	2.42	0.55
1:B:302:THR:HB	5:B:1534:HOH:O	2.06	0.55
1:B:342:LEU:HD21	1:B:364:MET:HE3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:541:LEU:HD13	1:E:594:TRP:CH2	2.42	0.55
1:E:577:LEU:HD11	1:E:591:LEU:HD13	1.88	0.55
1:A:453:GLU:HG2	1:A:466:ASP:OD2	2.07	0.55
1:B:119:LEU:HD12	1:B:204:GLU:OE2	2.07	0.55
1:B:143:LYS:O	1:B:145:LEU:HD12	2.07	0.55
1:A:378:GLU:HB3	1:A:417:SER:HB3	1.88	0.55
1:E:226:GLU:HB3	1:E:264:LEU:CD2	2.37	0.55
1:B:280:TYR:O	1:B:282:VAL:HG23	2.07	0.54
1:E:536:ARG:O	1:E:539:ASN:N	2.39	0.54
1:B:490:LYS:HG3	1:B:493:ARG:NH2	2.23	0.54
1:B:205:MET:HE3	1:B:209:TYR:CD1	2.42	0.54
1:A:452:MET:HE2	1:A:466:ASP:HB3	1.89	0.54
1:B:124:ARG:O	1:B:205:MET:N	2.36	0.54
1:B:309:LEU:HB3	1:B:314:ILE:HG21	1.88	0.54
1:A:247:LEU:HD21	1:A:280:TYR:CE1	2.43	0.54
1:B:183:VAL:HB	1:B:395:ASN:ND2	2.22	0.54
1:B:447:LEU:HD23	1:B:447:LEU:N	2.21	0.54
1:E:520:SER:OG	1:E:521:PRO:HD2	2.07	0.54
1:E:565:VAL:HG23	1:E:569:GLN:OE1	2.06	0.54
1:E:178:ARG:HA	4:E:703:GOL:O1	2.08	0.54
1:B:217:LEU:HB2	5:B:1521:HOH:O	2.07	0.54
1:B:231:LEU:HD23	1:B:232:GLU:H	1.71	0.54
1:B:307:ILE:HD13	1:B:548:ALA:HB1	1.89	0.54
1:A:107:GLY:O	1:A:175:ASP:HA	2.08	0.54
1:A:293:ASP:OD2	1:A:294:GLU:N	2.40	0.54
1:A:300:ILE:HD12	1:A:308:LEU:O	2.08	0.54
1:B:211:ARG:HG2	1:B:211:ARG:HH11	1.72	0.54
1:E:388:GLU:CG	1:E:427:THR:HG21	2.38	0.54
1:A:318:GLY:HA3	1:A:551:THR:HG22	1.90	0.53
1:A:523:GLU:HG3	1:D:75:LYS:HB2	1.89	0.53
1:B:342:LEU:HG	1:B:364:MET:HE1	1.89	0.53
1:B:544:ILE:HB	1:B:547:LEU:HB2	1.89	0.53
1:D:324:GLU:OE2	1:D:556:LYS:NZ	2.39	0.53
1:B:205:MET:HE3	1:B:209:TYR:HB2	1.89	0.53
1:D:140:LEU:HD12	1:D:169:SER:O	2.08	0.53
1:E:428:ARG:NH1	1:E:432:LEU:HD12	2.23	0.53
1:C:302:THR:HG22	1:C:503:PRO:HG2	1.89	0.53
1:D:29:MET:CE	1:D:408:LYS:HE2	2.38	0.53
1:E:187:ASN:HD22	1:E:383:TRP:HZ3	1.57	0.53
1:E:253:VAL:HG12	1:E:254:THR:N	2.22	0.53
1:E:523:GLU:O	1:E:529:TYR:HB2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:532:ASP:HA	1:E:535:ILE:HD12	1.91	0.53
1:E:126:PHE:CE2	1:E:158:GLU:HB2	2.43	0.53
1:E:594:TRP:CE3	1:E:598:LEU:HD11	2.44	0.53
1:B:106:GLU:HA	1:B:176:ASN:OD1	2.09	0.53
1:E:504:VAL:O	1:E:548:ALA:HB3	2.09	0.53
1:C:25:ALA:N	1:C:26:PRO:CD	2.72	0.52
1:B:35:GLN:NE2	1:B:204:GLU:OE1	2.42	0.52
1:B:219:LYS:HE3	1:B:220:ASP:CG	2.30	0.52
1:C:253:VAL:HG12	1:C:254:THR:H	1.73	0.52
1:D:348:LEU:HD13	1:D:588:PHE:CE2	2.44	0.52
1:D:478:ASN:OD1	1:D:508:GLU:HB2	2.09	0.52
1:E:357:HIS:NE2	2:E:701:FYJ:O3	2.37	0.52
1:D:26:PRO:HB2	1:D:211:ARG:HD2	1.91	0.52
1:E:449:GLY:O	1:E:450:ALA:HB2	2.09	0.52
1:B:239:LYS:O	1:B:240:ILE:HD12	2.09	0.52
1:C:452:MET:HE3	1:C:475:ILE:CA	2.39	0.52
1:D:388:GLU:CG	1:D:427:THR:HG21	2.40	0.52
1:C:452:MET:HE3	1:C:476:SER:H	1.75	0.52
1:E:255:THR:HA	1:E:261:ALA:HB2	1.92	0.52
1:E:307:ILE:C	1:E:308:LEU:HD12	2.30	0.52
1:E:348:LEU:CD2	1:E:577:LEU:HD12	2.40	0.52
1:B:348:LEU:HD23	1:B:350:CYS:SG	2.49	0.52
1:B:500:THR:HG22	1:B:502:LYS:H	1.75	0.52
1:E:404:ILE:HG12	1:E:416:TRP:CE2	2.44	0.52
1:C:301:ARG:NH2	1:C:311:ASP:OD1	2.43	0.52
1:D:45:THR:HA	1:D:110:TRP:O	2.10	0.52
1:B:145:LEU:HB3	1:B:157:PHE:HD2	1.73	0.51
1:C:318:GLY:HA3	1:C:551:THR:HG22	1.91	0.51
1:B:355:LEU:HB3	1:B:360:HIS:CE1	2.46	0.51
1:B:376:TRP:HZ3	1:B:505:PHE:CD2	2.28	0.51
1:B:474:ILE:HA	1:B:503:PRO:HD2	1.92	0.51
1:E:45:THR:HA	1:E:110:TRP:O	2.10	0.51
1:B:265:ILE:HG22	1:B:266:LYS:N	2.26	0.51
1:E:491:CYS:HB2	1:E:536:ARG:CB	2.34	0.51
1:A:452:MET:HE1	1:A:469:GLY:HA3	1.92	0.51
1:D:476:SER:HA	1:D:505:PHE:O	2.10	0.51
1:D:354:ARG:HA	1:D:376:TRP:HB3	1.92	0.51
1:F:240:ILE:HD13	1:F:286:SER:CB	2.41	0.51
1:B:30:ASN:ND2	1:B:293:ASP:HB2	2.26	0.51
1:E:124:ARG:NH1	1:E:209:TYR:HE2	2.09	0.51
1:B:119:LEU:CD1	1:B:123:LYS:HB2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:374:LEU:HD22	1:B:414:ILE:CG2	2.41	0.51
1:D:110:TRP:CZ2	1:D:173:LYS:HD2	2.45	0.51
1:E:589:PHE:HA	1:E:592:GLN:HB3	1.93	0.51
1:B:230:GLN:HG3	1:B:231:LEU:N	2.25	0.51
1:E:70:LYS:HD3	1:E:79:GLN:OE1	2.10	0.51
1:E:96:ASN:OD1	1:E:193:PHE:HA	2.11	0.51
1:E:308:LEU:HA	1:E:312:LYS:O	2.11	0.51
1:E:348:LEU:HD21	1:E:577:LEU:HD12	1.93	0.51
1:E:555:LEU:HD12	1:E:555:LEU:O	2.11	0.51
1:B:119:LEU:HD11	1:B:123:LYS:HB2	1.93	0.51
1:D:457:VAL:HG23	1:D:461:VAL:CG1	2.41	0.51
1:E:593:LYS:O	1:E:596:LYS:HB3	2.11	0.51
1:F:179:LEU:HB2	1:F:182:ALA:HB2	1.93	0.51
1:F:188:ALA:HB3	4:F:704:GOL:H31	1.93	0.51
1:B:210:ILE:HG13	1:B:289:ASP:HB3	1.93	0.50
1:B:253:VAL:HG22	1:B:254:THR:H	1.76	0.50
1:B:452:MET:CE	1:B:475:ILE:HA	2.41	0.50
1:E:566:PRO:C	1:E:568:ILE:H	2.14	0.50
1:F:205:MET:HE1	1:F:209:TYR:HB2	1.91	0.50
1:F:244:ILE:HB	1:F:249:VAL:HB	1.93	0.50
1:A:247:LEU:HD21	1:A:280:TYR:CZ	2.45	0.50
1:B:272:TRP:CZ2	1:B:412:ASN:HB3	2.47	0.50
1:C:393:TYR:HA	1:C:431:PHE:CZ	2.46	0.50
1:E:494:VAL:HB	1:E:540:MET:HE1	1.93	0.50
1:B:26:PRO:HB2	1:B:211:ARG:HD2	1.94	0.50
1:B:231:LEU:HD22	1:B:236:LYS:HA	1.93	0.50
1:B:291:VAL:HG12	1:B:292:SER:N	2.26	0.50
1:B:406:ARG:NE	1:B:407:ASP:OD1	2.35	0.50
1:E:603:LYS:HD3	1:E:603:LYS:C	2.32	0.50
1:F:205:MET:CE	1:F:209:TYR:HB2	2.41	0.50
1:D:224:MET:HE1	1:D:264:LEU:HB3	1.90	0.50
1:D:420:ASN:O	1:D:422:THR:HG23	2.12	0.50
1:B:31:VAL:HG11	1:B:203:ILE:HD11	1.93	0.50
1:B:424:HIS:HB3	1:B:453:GLU:OE2	2.12	0.50
1:B:475:ILE:HG21	1:B:498:PHE:HE2	1.74	0.50
1:E:240:ILE:O	1:E:252:GLU:HA	2.12	0.50
1:B:300:ILE:HG23	1:B:300:ILE:O	2.11	0.50
1:C:304:GLY:O	1:C:503:PRO:HD3	2.12	0.50
1:F:457:VAL:HG12	1:F:458:GLN:HG3	1.94	0.50
1:B:143:LYS:HE2	1:B:162:LEU:HD22	1.92	0.50
1:E:316:CYS:HB2	1:E:549:GLY:HA2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:453:GLU:HG2	1:E:466:ASP:OD2	2.11	0.50
1:A:354:ARG:HA	1:A:376:TRP:HB3	1.93	0.50
1:B:278:LYS:HE3	1:B:279:LEU:O	2.12	0.50
1:D:76:THR:O	5:D:802:HOH:O	2.20	0.50
1:D:378:GLU:HB3	1:D:417:SER:HB3	1.94	0.50
1:E:463:THR:HG22	1:E:497:THR:OG1	2.12	0.50
1:E:495:ASN:HD21	1:E:543:ARG:HE	1.60	0.50
1:E:528:GLU:O	1:E:531:GLU:N	2.45	0.50
1:F:419:ALA:HB2	1:F:432:LEU:HD22	1.94	0.50
1:B:143:LYS:CD	1:B:162:LEU:HD22	2.41	0.49
1:B:209:TYR:CE1	1:B:211:ARG:HB2	2.46	0.49
1:B:226:GLU:HG2	1:B:227:GLY:H	1.77	0.49
1:B:300:ILE:HG12	1:B:414:ILE:HB	1.93	0.49
1:D:367:GLU:OE1	1:D:367:GLU:HA	2.12	0.49
1:D:335:LYS:HE2	5:D:914:HOH:O	2.11	0.49
1:E:553:TRP:NE1	2:E:701:FYJ:O4	2.45	0.49
1:D:268:LYS:O	1:D:268:LYS:HG3	2.13	0.49
1:F:217:LEU:HG	1:F:297:PHE:HB3	1.93	0.49
1:B:239:LYS:HE2	1:B:252:GLU:HG3	1.94	0.49
1:C:138:VAL:HG12	1:C:145:LEU:HD12	1.93	0.49
1:E:226:GLU:CB	1:E:264:LEU:HD23	2.40	0.49
1:C:300:ILE:HD12	1:C:308:LEU:O	2.12	0.49
1:B:145:LEU:C	1:B:157:PHE:HE2	2.16	0.49
1:E:393:TYR:HA	1:E:431:PHE:CZ	2.47	0.49
1:E:220:ASP:HA	1:E:299:THR:HG23	1.93	0.49
1:E:556:LYS:HG2	1:E:557:ASP:O	2.12	0.49
1:B:132:VAL:O	1:B:151:GLY:HA2	2.11	0.49
1:B:243:ASP:OD2	1:B:245:PRO:HG3	2.12	0.49
1:B:410:ARG:HA	1:B:410:ARG:NE	2.27	0.49
1:E:426:LYS:HD3	1:E:427:THR:N	2.28	0.49
1:B:45:THR:HA	1:B:110:TRP:O	2.13	0.49
1:B:452:MET:HE3	1:B:464:VAL:HG21	1.95	0.49
1:E:223:ASN:HA	1:E:267:SER:O	2.12	0.49
1:E:306:LYS:HE3	1:E:313:GLU:CD	2.34	0.49
1:E:458:GLN:HG2	1:E:461:VAL:HG12	1.95	0.49
1:E:481:VAL:HG11	1:E:540:MET:HE3	1.93	0.49
1:F:185:THR:HG22	5:F:851:HOH:O	2.13	0.49
1:A:244:ILE:HG12	1:A:282:VAL:HG22	1.95	0.48
1:B:240:ILE:HG13	1:B:286:SER:CA	2.43	0.48
1:B:374:LEU:HD22	1:B:414:ILE:HG23	1.95	0.48
1:C:54:TYR:OH	1:C:144:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:554:ILE:HG12	1:B:555:LEU:N	2.25	0.48
1:E:256:ASP:OD1	1:E:258:ASN:N	2.43	0.48
1:E:524:ARG:O	1:E:525:PHE:HB2	2.13	0.48
1:B:239:LYS:HE2	1:B:252:GLU:CG	2.43	0.48
1:B:305:ILE:HG22	1:B:305:ILE:O	2.12	0.48
1:E:31:VAL:HG13	1:E:203:ILE:CD1	2.43	0.48
1:E:440:ARG:NH2	1:E:473:ASP:OD1	2.46	0.48
1:E:554:ILE:HD13	1:E:558:PHE:HE1	1.77	0.48
1:F:263:PHE:HB2	1:F:265:ILE:CD1	2.44	0.48
1:A:242:LEU:HD13	1:A:284:LEU:HD21	1.95	0.48
1:B:34:ARG:NE	1:B:291:VAL:HG21	2.28	0.48
1:E:251:LYS:NZ	1:E:264:LEU:O	2.47	0.48
1:B:307:ILE:HD11	1:B:548:ALA:CB	2.43	0.48
1:B:358:TYR:HB2	1:B:359:PRO:HD2	1.95	0.48
1:C:452:MET:HE3	1:C:476:SER:N	2.29	0.48
1:D:34:ARG:HD2	5:D:1021:HOH:O	2.14	0.48
1:F:235:ASP:HB3	1:F:238:GLN:HE21	1.79	0.48
1:A:470:GLU:HB2	5:A:828:HOH:O	2.13	0.48
1:B:140:LEU:O	1:B:143:LYS:HG2	2.13	0.48
1:B:179:LEU:HB2	1:B:182:ALA:CB	2.39	0.48
1:B:240:ILE:HD11	1:B:286:SER:HB2	1.94	0.48
1:B:254:THR:HG22	1:B:255:THR:H	1.78	0.48
1:C:298:ARG:HD2	1:C:298:ARG:C	2.34	0.48
1:E:317:ARG:NH1	1:E:349:GLY:O	2.47	0.48
1:E:500:THR:HG22	1:E:501:GLN:H	1.79	0.48
1:E:563:ARG:HB3	1:E:569:GLN:CD	2.34	0.48
1:A:56:ASP:OD2	1:A:58:ARG:NH1	2.38	0.48
1:B:356:ALA:HB1	1:B:357:HIS:CG	2.49	0.48
1:B:358:TYR:HB2	1:B:359:PRO:CD	2.43	0.48
1:E:348:LEU:HD13	1:E:588:PHE:CE2	2.48	0.48
1:E:495:ASN:ND2	1:E:543:ARG:HE	2.12	0.48
1:A:45:THR:HG21	1:A:89:LEU:HD12	1.96	0.48
1:B:369:GLU:OE2	1:B:410:ARG:NE	2.47	0.48
1:B:505:PHE:CZ	1:B:551:THR:HG23	2.49	0.48
1:C:428:ARG:NE	1:C:432:LEU:HD12	2.29	0.48
1:B:244:ILE:CG2	1:B:247:LEU:HB2	2.39	0.47
1:B:596:LYS:HG2	1:B:597:GLU:N	2.29	0.47
1:A:54:TYR:OH	1:A:144:ARG:NH2	2.47	0.47
1:B:57:TYR:CD2	1:B:58:ARG:HG3	2.50	0.47
1:B:305:ILE:HG23	1:B:546:GLY:CA	2.44	0.47
1:C:25:ALA:N	1:C:26:PRO:HD3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:264:LEU:C	1:D:265:ILE:HD12	2.35	0.47
1:D:354:ARG:HG3	1:D:376:TRP:CD1	2.49	0.47
2:D:701:FYJ:O6	4:D:703:GOL:H12	2.14	0.47
1:B:36:THR:HA	1:B:202:LEU:O	2.14	0.47
1:B:273:THR:HG22	1:B:275:GLU:N	2.30	0.47
1:B:315:PHE:CD1	1:B:315:PHE:C	2.86	0.47
1:C:59:LEU:HD12	1:C:59:LEU:HA	1.75	0.47
1:D:600:GLU:O	1:D:603:LYS:HG2	2.14	0.47
1:F:106:GLU:HA	1:F:176:ASN:OD1	2.14	0.47
1:B:140:LEU:HD23	1:B:140:LEU:HA	1.63	0.47
1:E:58:ARG:NH1	1:E:60:LYS:HD3	2.29	0.47
1:F:25:ALA:HB3	1:F:26:PRO:HD3	1.97	0.47
1:B:208:THR:HG21	1:B:235:ASP:O	2.14	0.47
1:B:307:ILE:HD11	1:B:548:ALA:HB1	1.96	0.47
1:C:567:GLU:C	1:C:568:ILE:HD13	2.35	0.47
1:E:25:ALA:N	1:E:26:PRO:CD	2.77	0.47
1:F:217:LEU:HD13	1:F:222:LYS:HA	1.95	0.47
1:D:456:GLU:HA	1:D:462:LEU:HD23	1.97	0.47
1:F:220:ASP:HA	1:F:299:THR:OG1	2.14	0.47
1:B:138:VAL:HG12	1:B:139:TRP:N	2.30	0.47
1:B:219:LYS:HE3	1:B:220:ASP:OD1	2.14	0.47
1:B:403:MET:HG2	1:B:416:TRP:HZ3	1.79	0.47
1:B:474:ILE:HG22	1:B:503:PRO:HB2	1.97	0.47
1:E:255:THR:HG22	1:E:261:ALA:CB	2.45	0.47
1:E:272:TRP:O	1:E:273:THR:OG1	2.30	0.47
1:E:478:ASN:CB	1:E:508:GLU:HB2	2.20	0.47
1:E:569:GLN:O	1:E:572:PHE:HB2	2.15	0.47
1:F:498:PHE:CE2	1:F:504:VAL:HG21	2.50	0.47
1:B:139:TRP:C	1:B:145:LEU:HD13	2.35	0.47
1:C:452:MET:HE1	1:C:474:ILE:O	2.14	0.47
4:C:704:GOL:O3	4:C:705:GOL:H2	2.15	0.47
1:E:133:ASN:HA	1:E:134:TYR:HA	1.62	0.47
1:F:44:LYS:HD2	1:F:83:PHE:O	2.15	0.47
1:B:90:PHE:CD1	1:E:581:LYS:HE3	2.50	0.47
1:F:175:ASP:OD2	1:F:177:LYS:HE3	2.15	0.47
1:F:462:LEU:O	1:F:496:TRP:HA	2.15	0.47
1:B:452:MET:HE2	1:B:475:ILE:HA	1.97	0.47
1:D:452:MET:HE1	1:D:469:GLY:HA3	1.96	0.47
1:F:440:ARG:NH2	1:F:473:ASP:OD1	2.48	0.47
1:B:318:GLY:HA3	1:B:551:THR:HG22	1.97	0.46
1:B:481:VAL:HA	1:B:485:ASP:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:543:ARG:HG3	5:B:1523:HOH:O	2.14	0.46
1:C:352:PHE:HE2	1:C:414:ILE:HD11	1.79	0.46
1:B:426:LYS:HB2	5:B:1526:HOH:O	2.15	0.46
1:E:564:HIS:O	1:E:566:PRO:HD3	2.15	0.46
1:A:145:LEU:HD21	1:A:162:LEU:HD12	1.96	0.46
1:B:110:TRP:CZ2	1:B:173:LYS:HD2	2.50	0.46
1:B:240:ILE:HG13	1:B:286:SER:CB	2.45	0.46
1:D:253:VAL:HG11	1:D:261:ALA:HB1	1.97	0.46
1:B:226:GLU:HA	1:B:264:LEU:HD22	1.96	0.46
1:B:238:GLN:CD	1:B:287:GLU:HB2	2.35	0.46
1:B:271:LEU:HA	1:B:297:PHE:O	2.14	0.46
1:B:513:ALA:HB2	1:B:530:GLN:HB2	1.98	0.46
1:C:506:ILE:HD12	1:C:541:LEU:CD2	2.46	0.46
1:D:452:MET:HE3	1:D:469:GLY:CA	2.46	0.46
1:E:496:TRP:HB2	1:E:544:ILE:HG12	1.97	0.46
1:F:70:LYS:NZ	1:F:77:LYS:HE2	2.28	0.46
1:B:143:LYS:O	1:B:143:LYS:HG3	2.15	0.46
1:B:205:MET:HE3	1:B:209:TYR:CB	2.45	0.46
1:B:211:ARG:NH2	1:B:230:GLN:HG2	2.29	0.46
1:B:315:PHE:CE2	1:B:598:LEU:HD11	2.51	0.46
1:B:475:ILE:HB	1:B:504:VAL:HA	1.98	0.46
1:A:388:GLU:HG3	5:A:809:HOH:O	2.16	0.46
1:E:224:MET:HE1	1:E:266:LYS:HG2	1.98	0.46
1:E:352:PHE:HZ	1:E:376:TRP:HB2	1.80	0.46
1:E:387:TRP:HA	1:E:431:PHE:CD2	2.50	0.46
1:E:481:VAL:HG11	1:E:540:MET:HE1	1.98	0.46
1:A:253:VAL:HG22	1:A:254:THR:N	2.31	0.46
1:B:413:ILE:O	1:B:446:ARG:NE	2.49	0.46
1:B:544:ILE:CG2	1:B:547:LEU:HB2	2.45	0.46
1:E:301:ARG:NH1	1:E:308:LEU:HD23	2.30	0.46
1:A:116:GLU:HG2	1:A:166:GLY:O	2.16	0.46
1:B:388:GLU:CD	1:B:427:THR:HG21	2.35	0.46
1:C:69:ASP:CG	1:C:112:ARG:HD2	2.36	0.46
1:D:452:MET:HE3	1:D:469:GLY:HA3	1.97	0.46
1:E:108:THR:HA	1:E:174:VAL:O	2.16	0.46
1:E:542:LYS:O	5:E:804:HOH:O	2.20	0.46
1:B:298:ARG:HA	1:B:310:ASN:OD1	2.16	0.46
1:B:457:VAL:HG12	1:B:458:GLN:CG	2.39	0.46
1:C:452:MET:CE	1:C:476:SER:H	2.29	0.46
1:D:25:ALA:N	1:D:26:PRO:CD	2.79	0.46
1:E:498:PHE:CD2	1:E:504:VAL:HG21	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:507:SER:O	1:E:508:GLU:CG	2.63	0.46
1:F:205:MET:HE2	1:F:205:MET:HB3	1.74	0.46
1:F:226:GLU:HB2	1:F:264:LEU:HD23	1.97	0.46
1:B:145:LEU:CD2	1:B:159:ILE:HG22	2.45	0.46
1:B:530:GLN:HB3	5:B:1511:HOH:O	2.16	0.46
1:C:584:LYS:HD2	1:C:588:PHE:CD1	2.51	0.46
1:B:57:TYR:HE2	1:B:58:ARG:NE	2.10	0.45
1:B:544:ILE:N	1:B:544:ILE:HD12	2.31	0.45
1:C:239:LYS:C	1:C:240:ILE:HD13	2.36	0.45
1:D:318:GLY:HA2	1:D:352:PHE:O	2.16	0.45
1:E:603:LYS:HD3	1:E:603:LYS:O	2.16	0.45
1:B:254:THR:HG22	1:B:255:THR:N	2.32	0.45
1:B:398:GLN:O	1:B:402:ASP:N	2.49	0.45
1:B:500:THR:HG22	1:B:502:LYS:N	2.31	0.45
1:E:539:ASN:O	1:E:542:LYS:N	2.46	0.45
1:A:133:ASN:HA	1:A:134:TYR:HA	1.75	0.45
1:B:48:ASP:O	1:B:108:THR:HB	2.15	0.45
1:B:498:PHE:CD1	1:B:498:PHE:N	2.84	0.45
1:B:507:SER:O	1:B:508:GLU:HG3	2.16	0.45
1:E:307:ILE:O	1:E:313:GLU:HA	2.16	0.45
1:A:223:ASN:O	1:A:266:LYS:HE3	2.17	0.45
1:B:239:LYS:H	1:B:287:GLU:HG3	1.81	0.45
1:C:45:THR:HA	1:C:110:TRP:O	2.17	0.45
1:C:390:LYS:H	1:C:390:LYS:CD	2.23	0.45
1:C:476:SER:HA	1:C:505:PHE:O	2.16	0.45
1:D:192:ASN:HB2	4:D:705:GOL:H12	1.98	0.45
1:D:461:VAL:CG1	1:D:461:VAL:O	2.65	0.45
1:E:187:ASN:ND2	1:E:383:TRP:HZ3	2.14	0.45
1:E:482:GLY:HA3	1:E:533:LEU:HD11	1.99	0.45
1:A:25:ALA:HA	1:A:156:ASN:O	2.16	0.45
1:B:68:GLN:OE1	1:B:68:GLN:HA	2.17	0.45
1:B:230:GLN:CG	1:B:231:LEU:H	2.29	0.45
1:C:175:ASP:OD2	1:C:177:LYS:NZ	2.37	0.45
1:B:299:THR:O	1:B:310:ASN:N	2.42	0.45
1:B:475:ILE:HD13	1:B:498:PHE:CD2	2.51	0.45
1:D:426:LYS:HB3	1:E:455:GLU:OE1	2.16	0.45
1:E:180:PRO:HA	1:E:186:VAL:HG13	1.97	0.45
1:A:90:PHE:HB2	4:A:704:GOL:H31	1.99	0.45
1:B:352:PHE:HZ	1:B:376:TRP:HB2	1.74	0.45
1:B:440:ARG:HA	1:B:440:ARG:HD3	1.46	0.45
1:E:447:LEU:N	1:E:447:LEU:CD1	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:303:GLU:HB2	1:F:308:LEU:CD1	2.46	0.45
1:A:318:GLY:HA2	1:A:352:PHE:O	2.16	0.45
1:B:307:ILE:C	1:B:308:LEU:HD23	2.37	0.45
1:C:66:TYR:N	1:C:66:TYR:CD1	2.84	0.45
1:C:584:LYS:HE2	1:C:589:PHE:CZ	2.51	0.45
1:E:481:VAL:O	1:E:537:HIS:NE2	2.50	0.45
1:E:569:GLN:HG2	1:E:572:PHE:O	2.17	0.45
1:B:312:LYS:HA	5:B:1545:HOH:O	2.16	0.45
1:F:205:MET:HE3	1:F:206:PRO:HD2	1.99	0.45
1:C:479:GLU:OE2	1:C:481:VAL:HG23	2.16	0.45
1:D:133:ASN:HA	1:D:134:TYR:HA	1.61	0.45
1:D:179:LEU:HB2	1:D:182:ALA:HB2	1.98	0.45
1:E:60:LYS:HE3	5:E:850:HOH:O	2.16	0.45
1:E:554:ILE:HD13	1:E:558:PHE:CD1	2.50	0.45
1:E:601:ALA:O	1:E:603:LYS:N	2.50	0.45
1:F:133:ASN:HA	1:F:134:TYR:HA	1.68	0.45
1:B:268:LYS:N	1:B:269:PRO:CD	2.80	0.44
1:D:554:ILE:HG12	1:D:555:LEU:H	1.82	0.44
1:B:238:GLN:HB3	1:B:287:GLU:HG3	1.99	0.44
1:F:256:ASP:OD1	1:F:258:ASN:N	2.46	0.44
1:F:507:SER:HA	1:F:551:THR:OG1	2.17	0.44
1:B:279:LEU:HD23	1:B:294:GLU:CB	2.43	0.44
1:E:494:VAL:HB	1:E:540:MET:HE2	2.00	0.44
1:E:514:LEU:HD22	1:E:568:ILE:HA	1.99	0.44
1:F:308:LEU:HD23	1:F:313:GLU:HA	1.98	0.44
1:B:90:PHE:CE1	1:E:581:LYS:HE2	2.53	0.44
1:B:298:ARG:HD2	1:B:298:ARG:C	2.38	0.44
1:C:443:ASP:OD2	1:C:446:ARG:HD2	2.17	0.44
1:E:255:THR:HG22	1:E:261:ALA:HB2	2.00	0.44
1:E:453:GLU:O	1:E:464:VAL:HA	2.16	0.44
1:B:145:LEU:HB3	1:B:157:PHE:CE2	2.52	0.44
1:B:206:PRO:HG3	1:B:289:ASP:OD1	2.16	0.44
1:D:247:LEU:O	1:D:249:VAL:HG23	2.18	0.44
1:B:226:GLU:HA	1:B:264:LEU:CD2	2.48	0.44
1:B:315:PHE:C	1:B:315:PHE:HD1	2.20	0.44
1:B:494:VAL:O	1:B:543:ARG:NH2	2.49	0.44
1:C:318:GLY:HA2	1:C:352:PHE:O	2.17	0.44
1:E:566:PRO:O	1:E:568:ILE:N	2.51	0.44
1:B:504:VAL:HG22	1:B:504:VAL:O	2.17	0.44
1:F:25:ALA:HA	1:F:156:ASN:O	2.17	0.44
1:B:224:MET:HG3	1:B:225:ILE:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:378:GLU:HG3	1:B:417:SER:HB3	2.00	0.44
1:B:459:PRO:O	1:B:461:VAL:HG23	2.18	0.44
1:B:513:ALA:O	1:B:574:ARG:HB3	2.18	0.44
1:C:43:TRP:CD2	1:C:113:LYS:HB2	2.53	0.44
1:D:29:MET:HE3	1:D:408:LYS:HE2	1.99	0.44
1:E:31:VAL:CG1	1:E:203:ILE:HD11	2.47	0.44
1:F:26:PRO:HB2	1:F:211:ARG:HD2	1.99	0.44
1:F:124:ARG:HD2	1:F:207:ALA:HA	2.00	0.44
1:D:247:LEU:CB	1:D:249:VAL:HG23	2.48	0.44
1:D:389:ASN:HB3	1:D:392:THR:HB	2.00	0.44
1:E:107:GLY:O	1:E:175:ASP:HA	2.17	0.44
1:E:348:LEU:HD21	1:E:577:LEU:CD1	2.48	0.44
1:F:314:ILE:HG22	5:F:1013:HOH:O	2.18	0.44
1:C:457:VAL:HG23	1:C:463:THR:CG2	2.47	0.43
1:E:247:LEU:O	1:E:249:VAL:HG23	2.16	0.43
1:E:295:ILE:HG22	1:E:296:GLY:N	2.31	0.43
1:E:491:CYS:HA	1:E:540:MET:CE	2.36	0.43
1:B:342:LEU:HD21	1:B:364:MET:CE	2.47	0.43
1:B:404:ILE:C	1:B:406:ARG:H	2.20	0.43
1:B:490:LYS:HG3	1:B:493:ARG:CZ	2.48	0.43
1:C:247:LEU:O	1:C:249:VAL:HG23	2.18	0.43
1:C:385:ILE:HB	1:C:387:TRP:CH2	2.53	0.43
1:D:352:PHE:HD2	1:D:374:LEU:HB2	1.81	0.43
1:E:119:LEU:HD21	1:E:123:LYS:O	2.17	0.43
1:E:217:LEU:HD12	1:E:298:ARG:C	2.37	0.43
1:E:313:GLU:OE2	1:E:602:TYR:HE2	2.01	0.43
1:B:62:TYR:N	5:B:1512:HOH:O	2.49	0.43
1:B:300:ILE:HG22	1:B:445:VAL:HG12	2.01	0.43
1:B:357:HIS:HA	1:B:378:GLU:OE2	2.18	0.43
1:E:300:ILE:HG13	1:E:301:ARG:N	2.32	0.43
1:B:533:LEU:O	1:B:537:HIS:HB2	2.19	0.43
1:D:355:LEU:HB3	1:D:360:HIS:CD2	2.53	0.43
1:D:461:VAL:HG22	1:D:497:THR:HG22	2.00	0.43
1:D:480:TYR:OH	1:D:508:GLU:OE2	2.25	0.43
1:E:468:LEU:HG	1:E:472:LEU:HD11	2.00	0.43
1:B:224:MET:CA	1:B:266:LYS:HD3	2.46	0.43
1:B:600:GLU:HA	1:B:600:GLU:OE1	2.19	0.43
1:C:251:LYS:HD2	1:C:252:GLU:H	1.83	0.43
1:C:251:LYS:HD2	1:C:252:GLU:N	2.34	0.43
1:F:128:ASN:ND2	1:F:156:ASN:OD1	2.38	0.43
1:B:305:ILE:O	1:B:305:ILE:CG2	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:408:LYS:HA	1:B:446:ARG:HH12	1.84	0.43
1:C:133:ASN:HA	1:C:134:TYR:HA	1.62	0.43
1:C:458:GLN:HB2	1:C:459:PRO:CD	2.49	0.43
1:D:452:MET:HE2	1:D:464:VAL:CG1	2.48	0.43
1:E:532:ASP:O	1:E:535:ILE:N	2.46	0.43
1:B:471:LEU:HD12	1:B:471:LEU:N	2.30	0.43
1:C:95:TRP:HB2	1:C:102:LEU:HD13	1.99	0.43
1:E:323:GLU:O	1:E:323:GLU:HG2	2.17	0.43
1:F:367:GLU:OE1	1:F:367:GLU:HA	2.19	0.43
1:A:242:LEU:CD1	1:A:284:LEU:HD21	2.49	0.43
1:B:133:ASN:HA	1:B:134:TYR:HA	1.63	0.43
1:B:172:VAL:HG12	1:B:174:VAL:HG23	2.01	0.43
1:B:300:ILE:CG2	1:B:445:VAL:HG12	2.48	0.43
1:C:69:ASP:OD1	1:C:112:ARG:CD	2.67	0.43
1:C:394:GLN:HA	1:C:394:GLN:OE1	2.17	0.43
1:C:489:GLU:O	1:C:492:ASP:HB2	2.19	0.43
1:D:44:LYS:NZ	1:D:84:GLU:O	2.38	0.43
1:D:132:VAL:HG11	1:D:136:ALA:HB2	2.01	0.43
1:D:175:ASP:CG	1:D:177:LYS:HE2	2.38	0.43
1:D:499:ASP:OD1	1:D:499:ASP:N	2.50	0.43
4:D:704:GOL:H2	4:D:705:GOL:O3	2.19	0.43
1:E:303:GLU:O	1:E:306:LYS:HB2	2.19	0.43
1:E:600:GLU:OE1	1:E:600:GLU:HA	2.19	0.43
1:D:461:VAL:HG13	1:D:461:VAL:O	2.19	0.43
1:E:580:ASP:OD2	1:E:580:ASP:N	2.50	0.43
1:F:275:GLU:CD	1:F:275:GLU:H	2.22	0.43
1:F:318:GLY:HA2	1:F:352:PHE:O	2.18	0.43
1:A:361:ASN:OD1	1:A:363:GLU:HB2	2.18	0.43
1:B:31:VAL:CG1	1:B:203:ILE:HD11	2.48	0.43
1:B:227:GLY:O	1:B:228:TRP:HB3	2.19	0.43
1:B:252:GLU:HG2	1:B:253:VAL:N	2.33	0.43
1:B:354:ARG:NH1	1:B:508:GLU:HG3	2.34	0.43
1:B:366:ARG:O	1:B:369:GLU:HB3	2.19	0.43
1:B:394:GLN:O	1:B:395:ASN:C	2.56	0.43
1:E:35:GLN:OE1	1:E:204:GLU:HB3	2.19	0.43
1:E:531:GLU:O	1:E:535:ILE:HG13	2.19	0.43
1:F:347:GLU:OE2	1:F:584:LYS:HE3	2.19	0.43
1:B:68:GLN:O	1:B:69:ASP:HB3	2.19	0.42
1:B:96:ASN:HA	1:B:102:LEU:O	2.18	0.42
1:D:357:HIS:HA	1:D:378:GLU:OE2	2.19	0.42
1:E:426:LYS:HD3	1:E:426:LYS:C	2.40	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:524:ARG:O	1:F:525:PHE:HB2	2.19	0.42
1:F:556:LYS:HG2	1:F:557:ASP:O	2.19	0.42
1:A:25:ALA:HB2	5:A:1148:HOH:O	2.19	0.42
1:C:180:PRO:HA	1:C:186:VAL:HG13	2.01	0.42
1:D:301:ARG:HG3	1:D:302:THR:N	2.34	0.42
1:E:277:PRO:HG3	1:E:372:GLY:N	2.34	0.42
1:A:211:ARG:HG2	1:A:211:ARG:HH11	1.84	0.42
1:A:600:GLU:O	1:A:603:LYS:HB2	2.19	0.42
1:C:510:GLY:HA3	5:C:824:HOH:O	2.20	0.42
1:D:458:GLN:N	1:D:461:VAL:HG12	2.34	0.42
1:D:573:ASN:OD1	1:D:575:LYS:HG3	2.19	0.42
1:E:110:TRP:CZ3	1:E:173:LYS:HB2	2.54	0.42
1:E:268:LYS:HG3	1:E:268:LYS:O	2.19	0.42
1:E:597:GLU:O	1:E:600:GLU:CB	2.67	0.42
1:B:247:LEU:CD1	1:B:269:PRO:HB3	2.32	0.42
1:B:575:LYS:NZ	2:B:701:FYJ:O11	2.48	0.42
1:D:404:ILE:HG12	1:D:416:TRP:CE2	2.54	0.42
1:B:78:LEU:HG	1:B:79:GLN:N	2.35	0.42
1:B:214:TYR:HA	1:B:409:ASN:OD1	2.20	0.42
1:B:299:THR:O	1:B:309:LEU:HA	2.20	0.42
1:B:456:GLU:HG3	1:B:458:GLN:O	2.20	0.42
1:B:475:ILE:HG21	1:B:498:PHE:CD2	2.54	0.42
1:C:214:TYR:CZ	1:C:216:GLN:HB2	2.54	0.42
1:A:45:THR:HG21	1:A:89:LEU:HB2	2.02	0.42
1:B:532:ASP:O	1:B:533:LEU:C	2.57	0.42
1:B:591:LEU:HD12	1:B:591:LEU:HA	1.70	0.42
1:C:108:THR:HA	1:C:174:VAL:O	2.20	0.42
1:B:242:LEU:N	1:B:251:LYS:O	2.53	0.42
1:B:308:LEU:HA	1:B:312:LYS:O	2.20	0.42
1:B:394:GLN:O	1:B:397:GLU:N	2.52	0.42
1:B:452:MET:CE	1:B:464:VAL:HG21	2.50	0.42
1:D:296:GLY:HA3	1:D:411:CYS:SG	2.60	0.42
1:D:393:TYR:OH	1:D:434:ASN:HB3	2.18	0.42
1:D:452:MET:HE2	1:D:464:VAL:HG11	2.02	0.42
1:E:222:LYS:O	1:E:222:LYS:HG3	2.18	0.42
1:B:66:TYR:N	1:B:66:TYR:CD1	2.86	0.42
1:B:171:VAL:HG12	1:B:172:VAL:N	2.35	0.42
1:B:213:TYR:HA	1:B:229:VAL:HA	2.01	0.42
1:B:214:TYR:HD2	1:B:228:TRP:CD1	2.38	0.42
1:C:523:GLU:O	1:C:529:TYR:HB2	2.20	0.42
1:E:201:THR:HG22	1:E:203:ILE:HG13	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:271:LEU:N	1:E:271:LEU:HD23	2.34	0.42
1:E:300:ILE:O	1:E:301:ARG:HB3	2.19	0.42
1:F:265:ILE:HD12	1:F:265:ILE:N	2.35	0.42
1:F:461:VAL:HA	1:F:495:ASN:O	2.18	0.42
1:A:175:ASP:OD1	1:A:177:LYS:HB2	2.18	0.42
1:B:143:LYS:NZ	1:B:162:LEU:HD22	2.35	0.42
1:B:220:ASP:OD1	1:B:301:ARG:HB3	2.19	0.42
1:B:389:ASN:HB3	1:B:392:THR:HB	2.02	0.42
1:C:216:GLN:HA	1:C:216:GLN:NE2	2.35	0.42
1:D:255:THR:HA	1:D:260:TYR:O	2.20	0.42
1:E:247:LEU:HB2	1:E:249:VAL:HG23	2.01	0.42
1:E:296:GLY:O	1:E:411:CYS:HB3	2.20	0.42
1:E:303:GLU:HB3	1:E:306:LYS:HB3	2.00	0.42
1:E:306:LYS:HE3	1:E:313:GLU:OE1	2.19	0.42
1:A:59:LEU:HD12	1:A:59:LEU:HA	1.89	0.42
1:A:255:THR:HA	1:A:261:ALA:HB2	2.02	0.42
1:B:112:ARG:CD	1:B:113:LYS:N	2.83	0.42
1:D:236:LYS:O	1:D:259:GLY:HA2	2.20	0.42
1:E:220:ASP:HA	1:E:299:THR:HG21	2.02	0.42
1:E:554:ILE:N	1:E:575:LYS:O	2.49	0.42
1:B:131:ALA:HB2	1:B:198:ARG:HH11	1.85	0.41
1:B:208:THR:O	1:B:288:THR:HG23	2.20	0.41
1:B:280:TYR:O	1:B:294:GLU:HA	2.20	0.41
1:B:306:LYS:HG3	1:B:313:GLU:OE1	2.20	0.41
1:C:314:ILE:HG22	5:C:877:HOH:O	2.19	0.41
1:D:131:ALA:CB	1:D:198:ARG:HD2	2.50	0.41
1:E:31:VAL:HG13	1:E:203:ILE:HD13	2.01	0.41
1:E:447:LEU:C	1:E:448:ILE:HD13	2.40	0.41
1:F:178:ARG:HG2	4:F:704:GOL:H12	2.01	0.41
1:F:573:ASN:OD1	1:F:575:LYS:HG3	2.19	0.41
1:A:452:MET:HE1	1:A:469:GLY:CA	2.50	0.41
1:B:145:LEU:HD21	1:B:159:ILE:CG2	2.47	0.41
1:B:145:LEU:O	1:B:157:PHE:CE2	2.73	0.41
1:D:255:THR:HA	1:D:261:ALA:HB2	2.01	0.41
1:E:457:VAL:HG13	1:E:463:THR:HG23	2.02	0.41
1:F:234:SER:O	1:F:236:LYS:N	2.53	0.41
1:A:25:ALA:N	1:A:26:PRO:CD	2.83	0.41
1:C:468:LEU:O	1:C:472:LEU:HG	2.20	0.41
1:E:306:LYS:HG3	1:E:313:GLU:HG3	2.01	0.41
1:E:420:ASN:O	1:E:421:GLU:C	2.58	0.41
1:F:305:ILE:HD12	1:F:546:GLY:HA2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:458:GLN:HB2	1:A:459:PRO:HD2	2.01	0.41
1:C:240:ILE:HD13	1:C:240:ILE:N	2.36	0.41
1:C:569:GLN:O	1:C:572:PHE:HB2	2.20	0.41
1:D:489:GLU:O	1:D:492:ASP:HB2	2.21	0.41
1:E:136:ALA:O	1:E:147:ARG:HA	2.21	0.41
1:E:387:TRP:HE3	1:E:431:PHE:CG	2.37	0.41
1:A:145:LEU:CD2	1:A:162:LEU:HD12	2.50	0.41
1:B:143:LYS:HD2	1:B:162:LEU:HD22	2.03	0.41
1:B:211:ARG:HG2	1:B:211:ARG:O	2.20	0.41
1:E:557:ASP:OD1	1:E:574:ARG:CD	2.69	0.41
1:E:591:LEU:HD21	1:E:595:TYR:CE1	2.55	0.41
1:F:483:TRP:HA	1:F:524:ARG:HH12	1.86	0.41
1:B:272:TRP:CZ3	1:B:274:PRO:HD3	2.56	0.41
1:B:416:TRP:HE1	1:B:446:ARG:CD	2.33	0.41
1:D:102:LEU:HA	1:D:105:TYR:HB2	2.03	0.41
1:E:352:PHE:HE1	1:E:551:THR:HG21	1.85	0.41
1:E:464:VAL:O	1:E:464:VAL:HG23	2.21	0.41
1:E:557:ASP:OD1	1:E:574:ARG:HD2	2.20	0.41
1:E:591:LEU:HD23	1:E:591:LEU:C	2.39	0.41
1:F:66:TYR:N	1:F:66:TYR:CD1	2.89	0.41
1:F:67:ALA:HA	1:F:171:VAL:HG11	2.03	0.41
1:A:49:PRO:HG2	1:D:561:PRO:HB2	2.03	0.41
1:A:223:ASN:HA	1:A:267:SER:O	2.21	0.41
1:B:65:GLY:C	1:B:67:ALA:H	2.23	0.41
1:B:356:ALA:HA	1:B:357:HIS:HA	1.80	0.41
1:B:540:MET:O	1:B:544:ILE:CD1	2.68	0.41
1:E:240:ILE:HA	1:E:285:ALA:O	2.21	0.41
1:F:452:MET:HE2	1:F:464:VAL:CG1	2.50	0.41
1:A:355:LEU:HB3	1:A:360:HIS:CD2	2.55	0.41
1:B:214:TYR:CD2	1:B:228:TRP:CD1	3.09	0.41
1:B:428:ARG:NE	1:B:432:LEU:HD12	2.35	0.41
1:C:301:ARG:NH1	1:C:308:LEU:HD12	2.36	0.41
1:E:53:GLY:HA3	1:E:66:TYR:CD2	2.56	0.41
1:E:597:GLU:O	1:E:600:GLU:N	2.47	0.41
1:F:379:ILE:HG23	1:F:403:MET:HE2	2.03	0.41
1:A:67:ALA:HA	1:A:171:VAL:HG11	2.03	0.41
1:B:46:ILE:HG12	1:B:86:ASP:OD2	2.20	0.41
1:B:125:LEU:HD12	1:B:203:ILE:O	2.21	0.41
1:B:214:TYR:HB3	1:B:228:TRP:NE1	2.36	0.41
1:B:509:LEU:HD12	1:B:510:GLY:N	2.36	0.41
1:B:578:VAL:HG22	1:B:584:LYS:HG2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:179:LEU:HB2	1:C:182:ALA:HB2	2.02	0.41
1:D:271:LEU:HA	1:D:297:PHE:O	2.21	0.41
1:D:463:THR:OG1	1:D:464:VAL:N	2.53	0.41
1:E:318:GLY:O	1:E:552:PRO:HD2	2.21	0.41
1:E:458:GLN:HG2	1:E:461:VAL:CG1	2.51	0.41
1:E:504:VAL:O	1:E:548:ALA:N	2.46	0.41
1:E:576:GLY:O	1:E:585:LYS:HD2	2.21	0.41
1:F:243:ASP:OD1	1:F:250:LYS:HG3	2.21	0.41
1:A:224:MET:CE	1:A:266:LYS:HD2	2.51	0.41
1:A:534:TYR:O	1:A:538:VAL:HG23	2.21	0.41
1:C:554:ILE:O	1:C:576:GLY:HA2	2.21	0.41
1:C:584:LYS:HD2	1:C:588:PHE:CZ	2.56	0.41
1:E:125:LEU:HD12	1:E:203:ILE:O	2.20	0.41
1:E:208:THR:HG21	1:E:235:ASP:O	2.21	0.41
1:E:310:ASN:O	1:E:311:ASP:HB2	2.21	0.41
1:F:242:LEU:O	1:F:250:LYS:HA	2.21	0.41
1:B:34:ARG:NH1	1:B:205:MET:CE	2.84	0.40
1:B:35:GLN:HG2	1:B:204:GLU:HB2	2.03	0.40
1:D:482:GLY:HA2	1:D:487:ASP:O	2.21	0.40
1:E:124:ARG:HH12	1:E:209:TYR:HE2	1.69	0.40
1:F:237:GLU:HA	1:F:255:THR:OG1	2.21	0.40
1:B:262:SER:O	1:B:263:PHE:HB3	2.21	0.40
1:B:566:PRO:C	1:B:568:ILE:H	2.25	0.40
1:E:106:GLU:HG2	1:E:192:ASN:ND2	2.36	0.40
1:F:77:LYS:H	1:F:77:LYS:HG2	1.76	0.40
1:A:563:ARG:HA	1:A:563:ARG:HD3	1.91	0.40
1:B:260:TYR:CD2	1:B:261:ALA:N	2.90	0.40
1:D:439:ALA:HB1	1:D:448:ILE:HD12	2.04	0.40
1:D:529:TYR:CD1	1:D:529:TYR:C	2.94	0.40
1:D:553:TRP:NE1	2:D:701:FYJ:O4	2.53	0.40
1:F:74:ASP:O	1:F:77:LYS:HG2	2.22	0.40
1:F:564:HIS:O	1:F:566:PRO:HD3	2.21	0.40
1:A:72:TYR:CE1	1:A:75:LYS:HD3	2.57	0.40
1:B:152:PHE:HB2	1:B:359:PRO:HD2	2.03	0.40
1:B:212:ASP:OD2	1:B:408:LYS:NZ	2.55	0.40
1:B:414:ILE:O	1:B:415:ILE:HG13	2.22	0.40
1:B:418:ILE:CD1	1:B:436:ALA:HB2	2.50	0.40
1:B:533:LEU:O	1:B:537:HIS:CB	2.69	0.40
1:D:577:LEU:HD23	1:D:577:LEU:HA	1.93	0.40
1:E:500:THR:CG2	1:E:501:GLN:N	2.85	0.40
1:F:538:VAL:HG12	1:F:542:LYS:HD2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:43:TRP:CD2	1:A:113:LYS:HB2	2.57	0.40
1:A:266:LYS:NZ	5:A:838:HOH:O	2.55	0.40
1:B:126:PHE:CD2	1:B:158:GLU:HB2	2.56	0.40
1:B:130:GLY:O	1:B:131:ALA:HB2	2.22	0.40
1:B:212:ASP:OD1	1:B:213:TYR:N	2.47	0.40
1:D:369:GLU:HB2	1:D:412:ASN:OD1	2.22	0.40
1:E:368:ALA:HB1	1:E:373:PHE:HB2	2.03	0.40
1:E:458:GLN:NE2	1:E:461:VAL:HG11	2.37	0.40

All (4) 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)
5:D:1054:HOH:O	5:F:1090:HOH:O[1_554]	1.94	0.26
5:A:1090:HOH:O	5:C:1095:HOH:O[2_544]	2.07	0.13
5:B:1523:HOH:O	5:B:1523:HOH:O[5_555]	2.12	0.08
5:D:948:HOH:O	5:F:1082:HOH:O[1_554]	2.12	0.08

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	577/603 (96%)	553 (96%)	24 (4%)	0	100	100
1	B	577/603 (96%)	484 (84%)	88 (15%)	5 (1%)	17	25
1	C	577/603 (96%)	548 (95%)	29 (5%)	0	100	100
1	D	577/603 (96%)	550 (95%)	27 (5%)	0	100	100
1	E	577/603 (96%)	516 (89%)	59 (10%)	2 (0%)	41	55
1	F	577/603 (96%)	542 (94%)	35 (6%)	0	100	100
All	All	3462/3618 (96%)	3193 (92%)	262 (8%)	7 (0%)	47	62

All (7) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	333	TYR
1	B	405	ALA
1	B	82	ASP
1	B	131	ALA
1	E	82	ASP
1	E	567	GLU
1	B	554	ILE

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	512/534 (96%)	502 (98%)	10 (2%)	55	74
1	B	512/534 (96%)	475 (93%)	37 (7%)	14	23
1	C	512/534 (96%)	501 (98%)	11 (2%)	53	72
1	D	512/534 (96%)	499 (98%)	13 (2%)	47	67
1	E	512/534 (96%)	489 (96%)	23 (4%)	27	44
1	F	512/534 (96%)	501 (98%)	11 (2%)	53	72
All	All	3072/3204 (96%)	2967 (97%)	105 (3%)	37	56

All (105) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	72	TYR
1	A	112	ARG
1	A	248	LYS
1	A	294	GLU
1	A	298	ARG
1	A	376	TRP
1	A	390	LYS
1	A	424	HIS
1	A	428	ARG
1	A	593	LYS

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Mol	Chain	Res	Type
1	B	57	TYR
1	B	72	TYR
1	B	89	LEU
1	B	95	TRP
1	B	112	ARG
1	B	113	LYS
1	B	135	GLU
1	B	140	LEU
1	B	217	LEU
1	B	222	LYS
1	B	224	MET
1	B	229	VAL
1	B	246	GLU
1	B	256	ASP
1	B	270	ILE
1	B	278	LYS
1	B	289	ASP
1	B	298	ARG
1	B	302	THR
1	B	313	GLU
1	B	315	PHE
1	B	358	TYR
1	B	376	TRP
1	B	394	GLN
1	B	398	GLN
1	B	407	ASP
1	B	408	LYS
1	B	444	SER
1	B	447	LEU
1	B	454	LYS
1	B	458	GLN
1	B	462	LEU
1	B	489	GLU
1	B	498	PHE
1	B	504	VAL
1	B	505	PHE
1	B	598	LEU
1	C	57	TYR
1	C	144	ARG
1	C	239	LYS
1	C	242	LEU
1	C	243	ASP

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Mol	Chain	Res	Type
1	C	298	ARG
1	C	376	TRP
1	C	424	HIS
1	C	428	ARG
1	C	453	GLU
1	C	458	GLN
1	D	57	TYR
1	D	112	ARG
1	D	118	SER
1	D	242	LEU
1	D	243	ASP
1	D	276	ASN
1	D	298	ARG
1	D	425	SER
1	D	426	LYS
1	D	428	ARG
1	D	458	GLN
1	D	489	GLU
1	D	497	THR
1	E	57	TYR
1	E	112	ARG
1	E	271	LEU
1	E	284	LEU
1	E	298	ARG
1	E	310	ASN
1	E	322	HIS
1	E	324	GLU
1	E	358	TYR
1	E	376	TRP
1	E	386	HIS
1	E	422	THR
1	E	428	ARG
1	E	433	SER
1	E	478	ASN
1	E	485	ASP
1	E	489	GLU
1	E	493	ARG
1	E	495	ASN
1	E	499	ASP
1	E	537	HIS
1	E	550	THR
1	E	594	TRP

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Mol	Chain	Res	Type
1	F	57	TYR
1	F	60	LYS
1	F	63	ASP
1	F	72	TYR
1	F	112	ARG
1	F	298	ARG
1	F	301	ARG
1	F	376	TRP
1	F	428	ARG
1	F	458	GLN
1	F	499	ASP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (5) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	216	GLN
1	B	276	ASN
1	B	399	GLN
1	E	465	ASN
1	E	478	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 monosaccharides in this entry.

5.6 Ligand geometry ⓘ

Of 30 ligands modelled in this entry, 5 are monoatomic - leaving 25 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
4	GOL	B	704	-	5,5,5	0.29	0	5,5,5	0.51	0
4	GOL	A	703	-	5,5,5	0.43	0	5,5,5	0.14	0
4	GOL	F	705	-	5,5,5	0.48	0	5,5,5	0.37	0
4	GOL	F	704	-	5,5,5	0.44	0	5,5,5	0.30	0
2	FYJ	B	701	-	20,20,20	1.76	2 (10%)	27,28,28	1.31	5 (18%)
4	GOL	E	704	-	5,5,5	0.30	0	5,5,5	0.35	0
2	FYJ	C	701	-	20,20,20	1.75	3 (15%)	27,28,28	1.19	5 (18%)
2	FYJ	E	701	-	20,20,20	1.63	2 (10%)	27,28,28	1.15	1 (3%)
2	FYJ	D	701	-	20,20,20	1.67	3 (15%)	27,28,28	1.12	2 (7%)
4	GOL	E	702	-	5,5,5	0.37	0	5,5,5	0.19	0
4	GOL	A	706	-	5,5,5	0.60	0	5,5,5	0.40	0
4	GOL	B	703	-	5,5,5	0.38	0	5,5,5	0.49	0
4	GOL	F	703	-	5,5,5	0.56	0	5,5,5	0.35	0
4	GOL	D	705	-	5,5,5	0.31	0	5,5,5	0.60	0
4	GOL	C	705	-	5,5,5	0.25	0	5,5,5	0.75	0
4	GOL	D	703	-	5,5,5	0.44	0	5,5,5	0.53	0
2	FYJ	A	701	-	20,20,20	1.45	2 (10%)	27,28,28	1.49	4 (14%)
4	GOL	A	705	-	5,5,5	0.32	0	5,5,5	0.55	0
2	FYJ	F	701	-	20,20,20	1.75	3 (15%)	27,28,28	1.28	2 (7%)
4	GOL	E	703	-	5,5,5	0.37	0	5,5,5	0.41	0
4	GOL	C	704	-	5,5,5	0.52	0	5,5,5	0.52	0
4	GOL	D	704	-	5,5,5	0.41	0	5,5,5	0.60	0
4	GOL	C	703	-	5,5,5	0.33	0	5,5,5	0.43	0
4	GOL	B	705	-	5,5,5	0.37	0	5,5,5	0.31	0
4	GOL	A	704	-	5,5,5	0.43	0	5,5,5	0.40	0

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
4	GOL	B	704	-	-	0/4/4/4	-
4	GOL	A	703	-	-	0/4/4/4	-
4	GOL	F	705	-	-	4/4/4/4	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	GOL	F	704	-	-	4/4/4/4	-
2	FYJ	B	701	-	-	1/8/28/28	0/2/2/2
4	GOL	E	704	-	-	4/4/4/4	-
2	FYJ	C	701	-	-	0/8/28/28	0/2/2/2
2	FYJ	E	701	-	-	0/8/28/28	0/2/2/2
2	FYJ	D	701	-	-	0/8/28/28	0/2/2/2
4	GOL	E	702	-	-	2/4/4/4	-
4	GOL	A	706	-	-	2/4/4/4	-
4	GOL	B	703	-	-	0/4/4/4	-
4	GOL	F	703	-	-	2/4/4/4	-
4	GOL	D	705	-	-	3/4/4/4	-
4	GOL	C	705	-	-	2/4/4/4	-
4	GOL	D	703	-	-	4/4/4/4	-
2	FYJ	A	701	-	-	0/8/28/28	0/2/2/2
4	GOL	A	705	-	-	1/4/4/4	-
2	FYJ	F	701	-	-	0/8/28/28	0/2/2/2
4	GOL	E	703	-	-	2/4/4/4	-
4	GOL	C	704	-	-	3/4/4/4	-
4	GOL	D	704	-	-	3/4/4/4	-
4	GOL	C	703	-	-	1/4/4/4	-
4	GOL	B	705	-	-	2/4/4/4	-
4	GOL	A	704	-	-	4/4/4/4	-

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	701	FYJ	O5-C1	5.09	1.50	1.42
2	D	701	FYJ	O5-C1	4.84	1.49	1.42
2	B	701	FYJ	O5-C1	4.82	1.49	1.42
2	B	701	FYJ	C14-S13	4.54	1.86	1.77
2	F	701	FYJ	O5-C1	4.48	1.49	1.42
2	E	701	FYJ	O5-C1	4.42	1.49	1.42
2	F	701	FYJ	C14-S13	4.36	1.85	1.77
2	E	701	FYJ	C14-S13	4.11	1.85	1.77
2	C	701	FYJ	C14-S13	3.93	1.84	1.77
2	D	701	FYJ	C14-S13	3.74	1.84	1.77
2	A	701	FYJ	C14-S13	3.69	1.84	1.77
2	A	701	FYJ	O5-C1	3.23	1.47	1.42
2	C	701	FYJ	C16-C15	2.07	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	F	701	FYJ	C16-C15	2.01	1.43	1.38
2	D	701	FYJ	C16-C15	2.00	1.43	1.38

All (19) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	A	701	FYJ	C14-S13-C1	5.26	112.06	101.54
2	F	701	FYJ	C14-S13-C1	3.62	108.79	101.54
2	C	701	FYJ	O5-C1-C2	3.35	114.53	110.31
2	E	701	FYJ	O5-C1-C2	3.19	114.32	110.31
2	D	701	FYJ	O5-C1-C2	3.07	114.17	110.31
2	D	701	FYJ	C14-S13-C1	2.99	107.52	101.54
2	F	701	FYJ	C1-C2-C3	2.88	116.28	110.59
2	B	701	FYJ	C14-S13-C1	2.62	106.78	101.54
2	A	701	FYJ	C1-C2-C3	2.30	115.13	110.59
2	A	701	FYJ	O4-C4-C3	2.26	115.57	110.35
2	C	701	FYJ	O2-C2-C1	-2.25	106.13	110.27
2	C	701	FYJ	C14-S13-C1	2.23	106.00	101.54
2	A	701	FYJ	O5-C1-C2	2.22	113.11	110.31
2	C	701	FYJ	C1-C2-C3	2.21	114.96	110.59
2	B	701	FYJ	O5-C5-C6	2.11	111.54	105.88
2	B	701	FYJ	C1-C2-C3	2.10	114.73	110.59
2	B	701	FYJ	O5-C1-C2	2.09	112.94	110.31
2	C	701	FYJ	O5-C5-C6	2.05	111.38	105.88
2	B	701	FYJ	O4-C4-C5	-2.03	105.19	109.74

There are no chirality outliers.

All (44) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	704	GOL	O1-C1-C2-O2
4	A	704	GOL	O1-C1-C2-C3
4	A	706	GOL	O1-C1-C2-C3
4	C	704	GOL	O1-C1-C2-C3
4	C	705	GOL	O1-C1-C2-O2
4	C	705	GOL	O1-C1-C2-C3
4	D	703	GOL	O1-C1-C2-C3
4	D	703	GOL	C1-C2-C3-O3
4	D	704	GOL	O1-C1-C2-O2
4	D	704	GOL	O1-C1-C2-C3
4	D	705	GOL	O1-C1-C2-O2
4	D	705	GOL	O1-C1-C2-C3

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Mol	Chain	Res	Type	Atoms
4	E	703	GOL	C1-C2-C3-O3
4	F	703	GOL	C1-C2-C3-O3
4	F	704	GOL	O1-C1-C2-O2
4	F	704	GOL	O1-C1-C2-C3
4	F	705	GOL	O1-C1-C2-C3
4	D	703	GOL	O2-C2-C3-O3
4	A	704	GOL	C1-C2-C3-O3
4	C	703	GOL	O1-C1-C2-C3
4	E	702	GOL	C1-C2-C3-O3
4	E	704	GOL	O1-C1-C2-C3
4	E	704	GOL	C1-C2-C3-O3
4	F	704	GOL	C1-C2-C3-O3
4	F	705	GOL	C1-C2-C3-O3
4	D	703	GOL	O1-C1-C2-O2
4	E	703	GOL	O2-C2-C3-O3
4	E	704	GOL	O2-C2-C3-O3
4	F	703	GOL	O2-C2-C3-O3
4	F	705	GOL	O1-C1-C2-O2
4	F	705	GOL	O2-C2-C3-O3
4	C	704	GOL	O1-C1-C2-O2
4	E	702	GOL	O2-C2-C3-O3
4	A	706	GOL	O1-C1-C2-O2
4	A	704	GOL	O2-C2-C3-O3
4	B	705	GOL	O1-C1-C2-O2
4	D	704	GOL	O2-C2-C3-O3
4	F	704	GOL	O2-C2-C3-O3
4	A	705	GOL	C1-C2-C3-O3
4	B	705	GOL	O1-C1-C2-C3
4	C	704	GOL	C1-C2-C3-O3
4	E	704	GOL	O1-C1-C2-O2
4	D	705	GOL	C1-C2-C3-O3
2	B	701	FYJ	O5-C5-C6-O6

There are no ring outliers.

11 monomers are involved in 12 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	F	704	GOL	2	0
2	B	701	FYJ	1	0
2	E	701	FYJ	2	0
2	D	701	FYJ	2	0
4	D	705	GOL	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	C	705	GOL	1	0
4	D	703	GOL	1	0
4	E	703	GOL	1	0
4	C	704	GOL	1	0
4	D	704	GOL	1	0
4	A	704	GOL	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 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 FYJ B 701

Bond lengths

Bond angles

Torsions

Rings

Ligand FYJ C 701

Bond lengths

Bond angles

Torsions

Rings

Ligand FYJ E 701

Bond lengths

Bond angles

Torsions

Rings

Ligand FYJ D 701

Bond lengths

Bond angles

Torsions

Rings

Ligand FYJ A 701

Bond lengths

Bond angles

Torsions

Rings

Ligand FYJ F 701

Bond lengths

Bond angles

Torsions

Rings
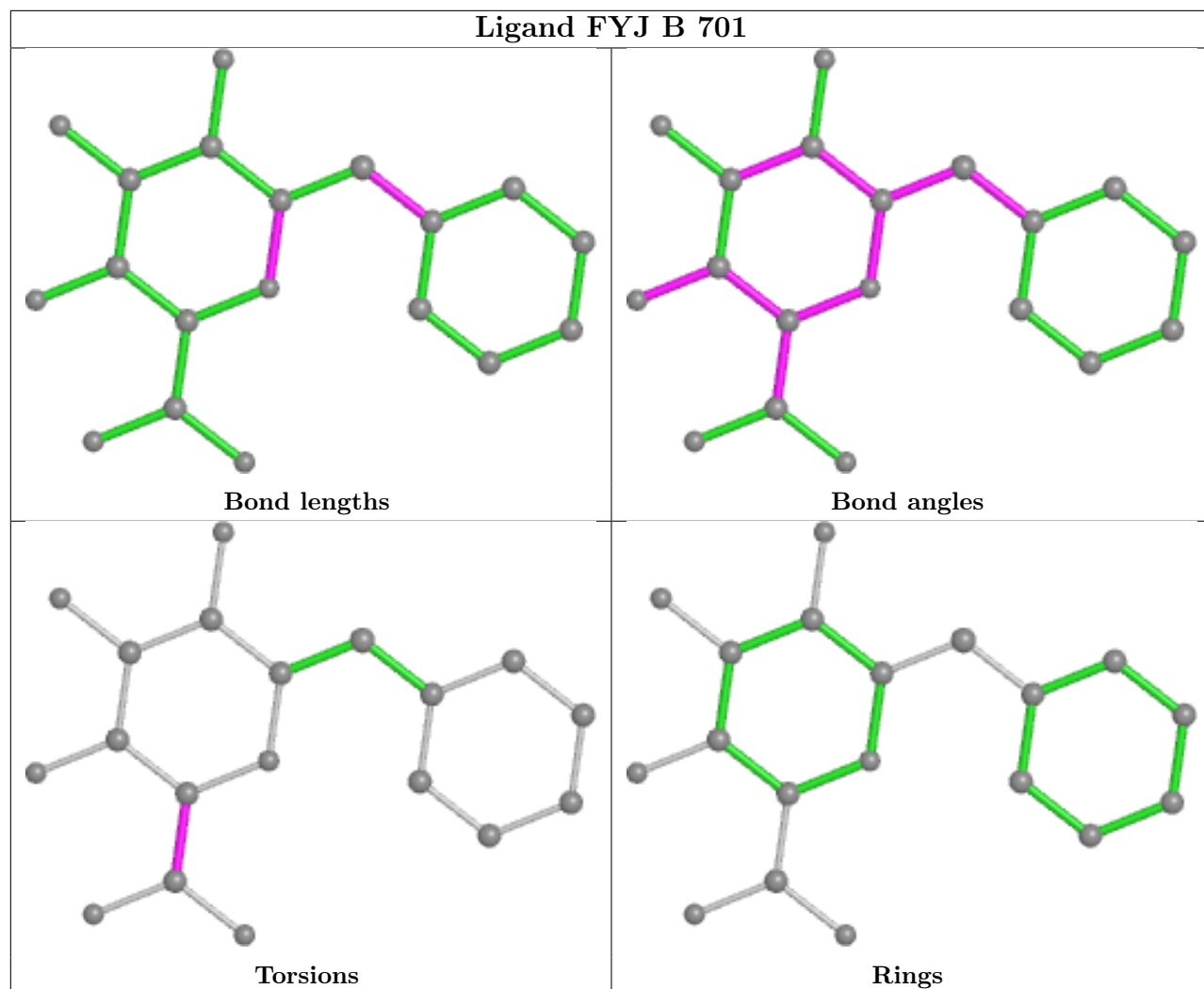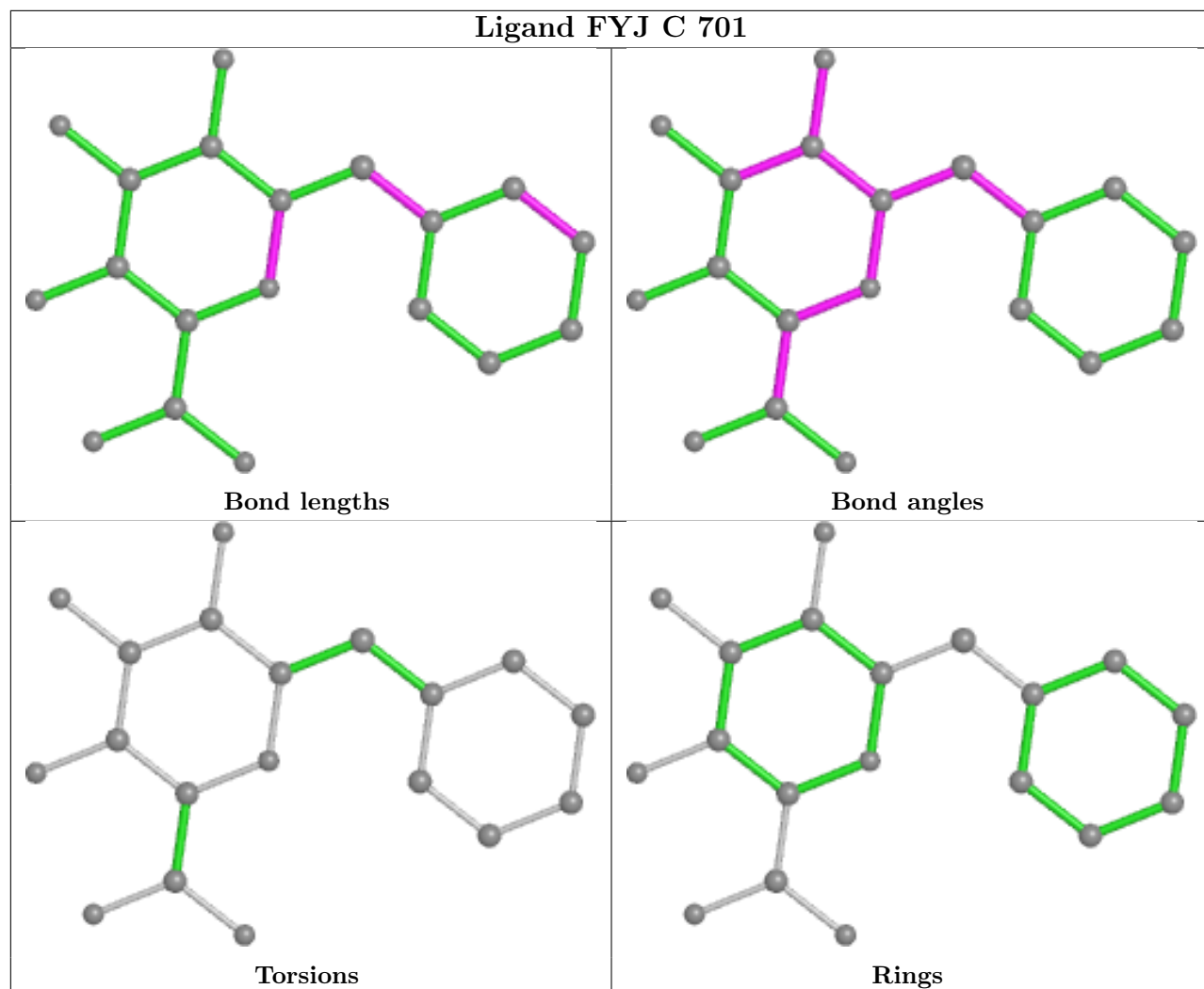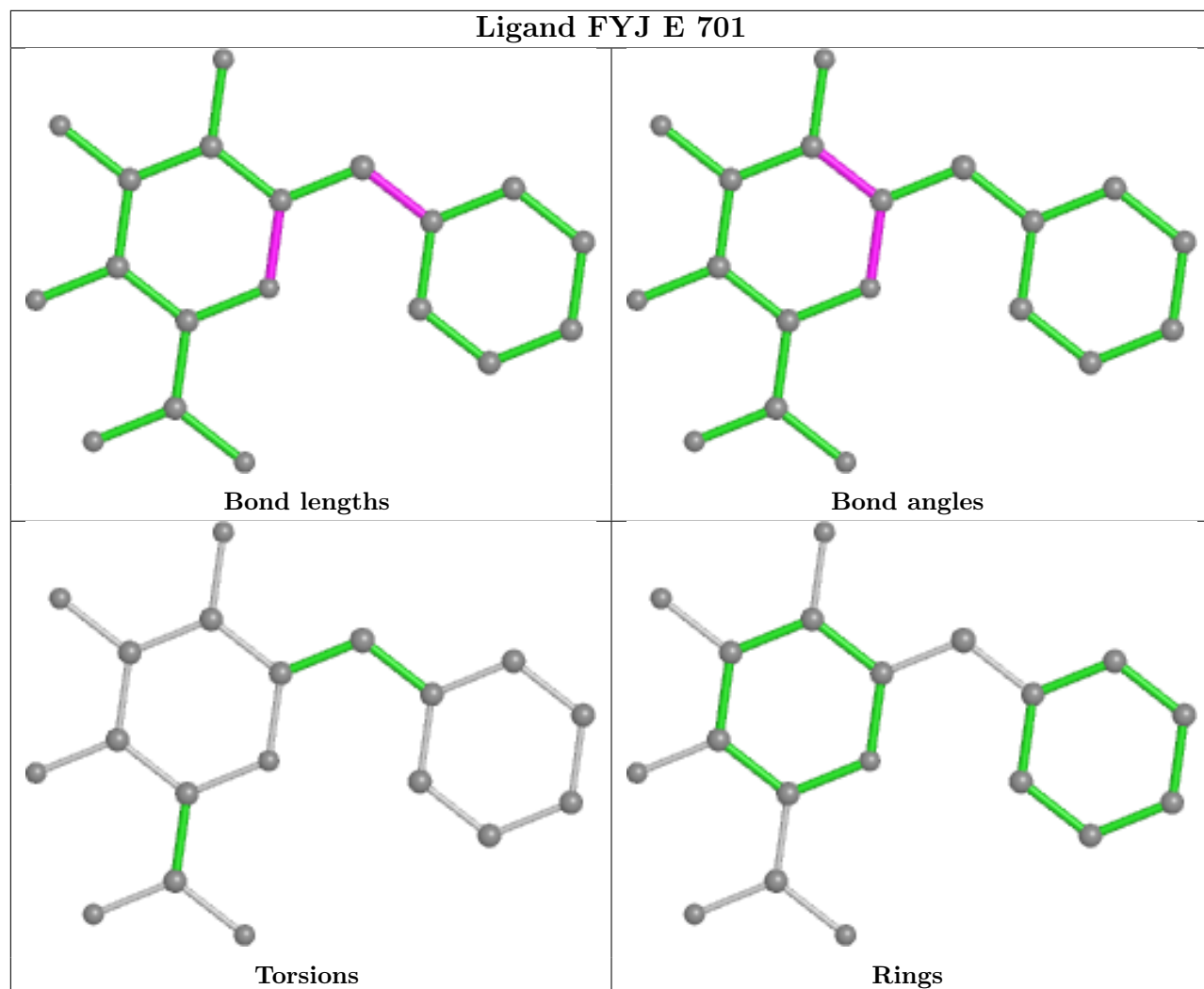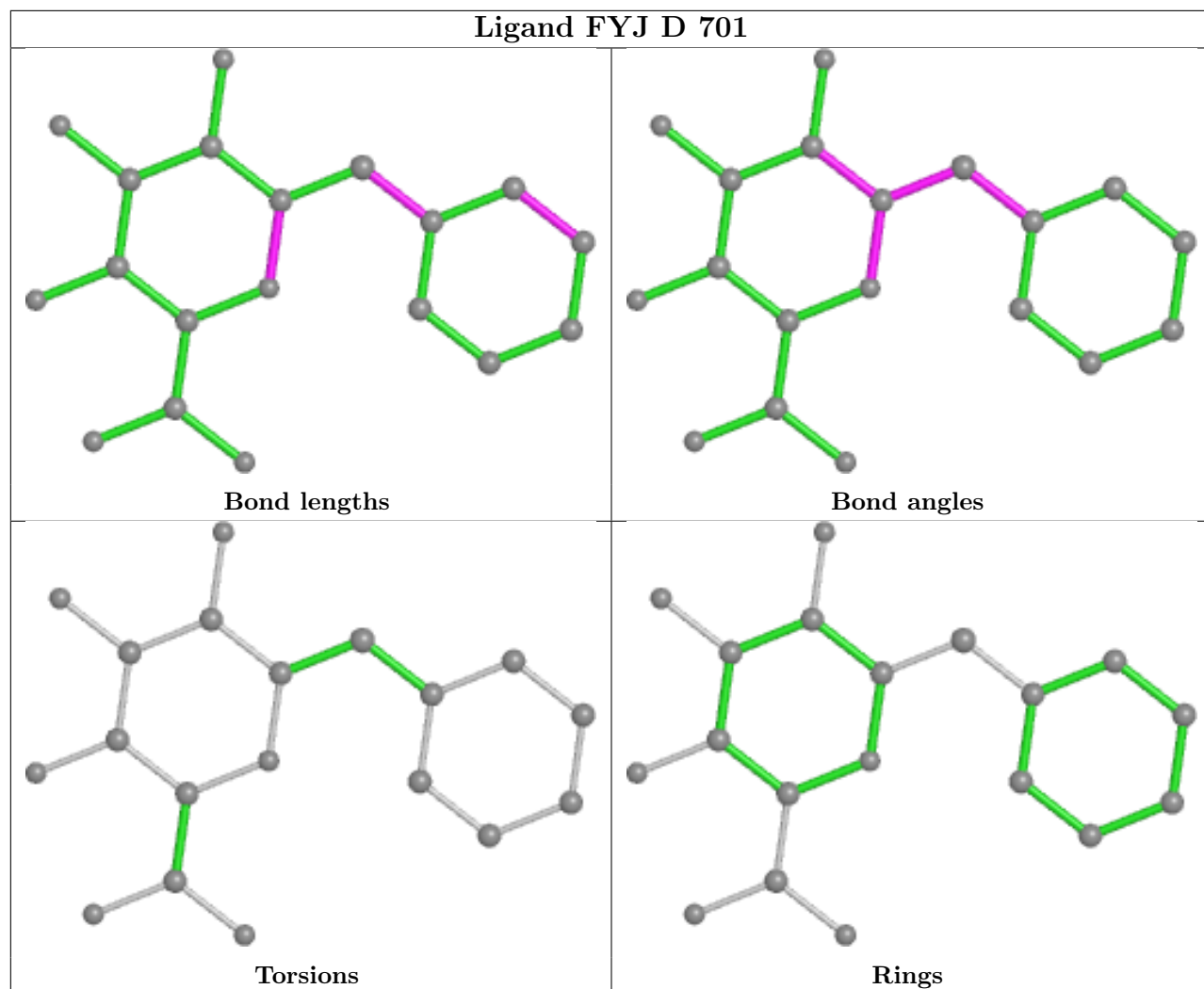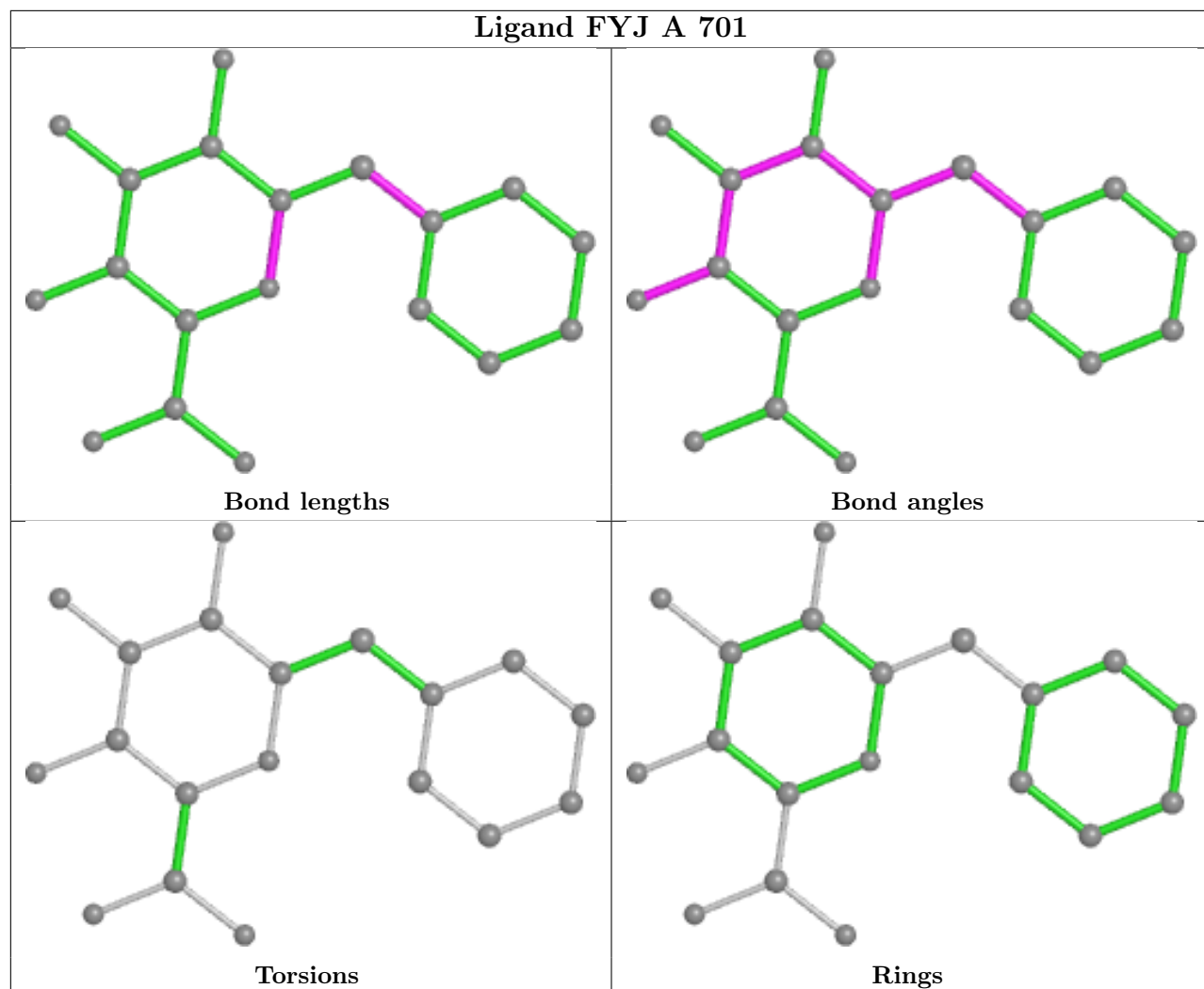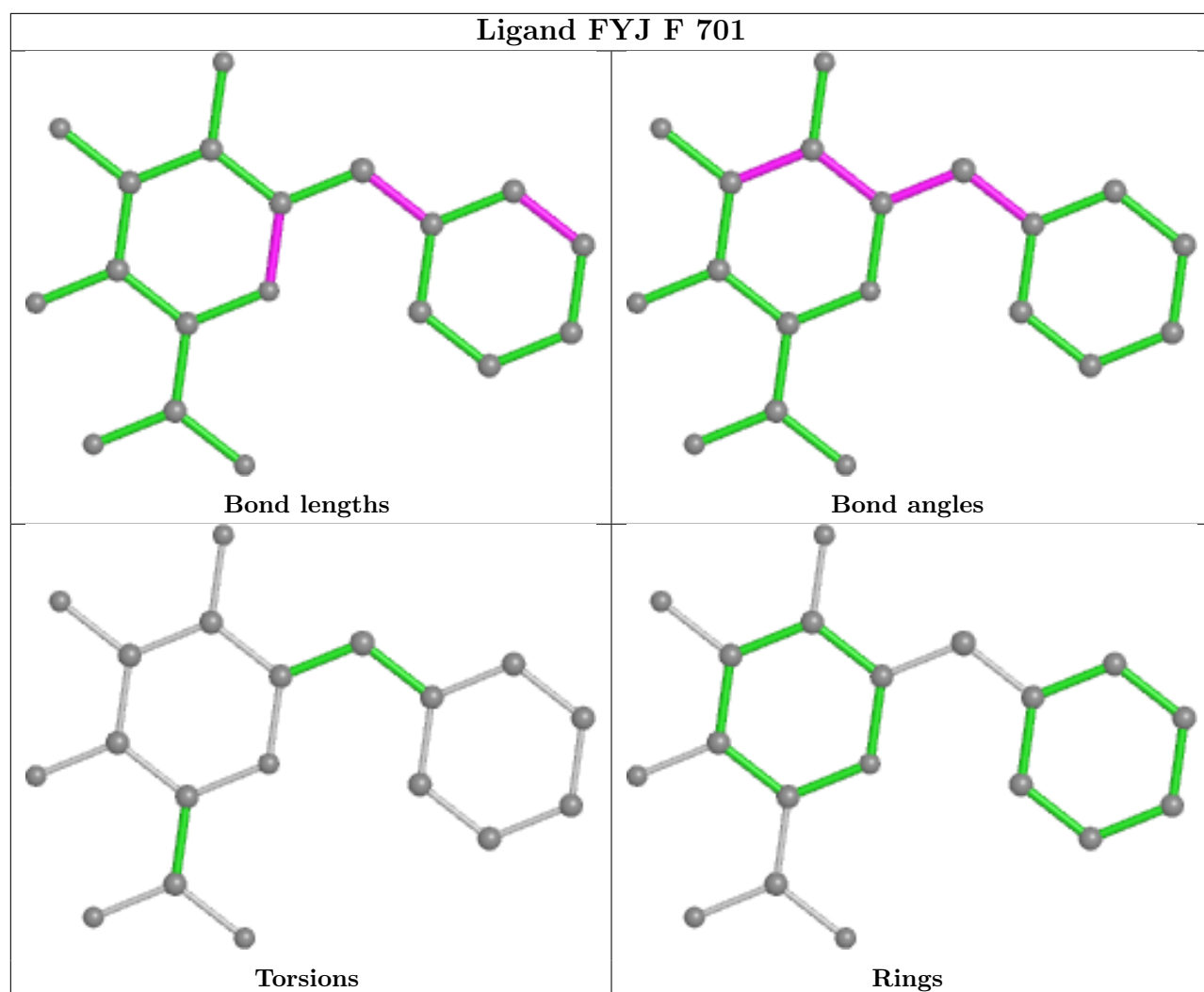
5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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	A	579/603 (96%)	-0.51	1 (0%)	95	94	15, 24, 39, 55	0
1	B	579/603 (96%)	0.51	53 (9%)	9	8	24, 55, 81, 92	0
1	C	579/603 (96%)	-0.41	6 (1%)	82	80	16, 29, 47, 65	0
1	D	579/603 (96%)	-0.27	6 (1%)	82	80	17, 33, 53, 67	0
1	E	579/603 (96%)	0.26	43 (7%)	14	13	23, 52, 80, 92	0
1	F	579/603 (96%)	-0.40	4 (0%)	87	86	18, 28, 46, 61	0
All	All	3474/3618 (96%)	-0.14	113 (3%)	46	45	15, 34, 73, 92	0

All (113) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	B	233	GLY	5.9
1	E	498	PHE	4.2
1	E	306	LYS	4.2
1	E	459	PRO	4.1
1	B	248	LYS	4.0
1	E	266	LYS	4.0
1	B	269	PRO	3.9
1	E	457	VAL	3.8
1	B	457	VAL	3.8
1	B	165	GLU	3.8
1	E	456	GLU	3.8
1	B	258	ASN	3.6
1	E	462	LEU	3.5
1	E	458	GLN	3.5
1	D	459	PRO	3.4
1	F	457	VAL	3.4
1	B	259	GLY	3.4
1	B	255	THR	3.4
1	E	593	LYS	3.3

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Mol	Chain	Res	Type	RSRZ
1	B	118	SER	3.3
1	B	237	GLU	3.2
1	D	461	VAL	3.2
1	B	115	PHE	3.2
1	B	270	ILE	3.2
1	B	119	LEU	3.2
1	E	235	ASP	3.1
1	B	601	ALA	3.1
1	E	510	GLY	3.0
1	E	461	VAL	3.0
1	C	457	VAL	2.9
1	B	268	LYS	2.9
1	F	233	GLY	2.9
1	E	496	TRP	2.9
1	E	311	ASP	2.9
1	E	594	TRP	2.9
1	B	285	ALA	2.9
1	B	497	THR	2.9
1	E	551	THR	2.9
1	B	162	LEU	2.8
1	C	459	PRO	2.8
1	B	167	THR	2.8
1	E	553	TRP	2.8
1	B	63	ASP	2.7
1	B	77	LYS	2.7
1	B	121	PRO	2.7
1	B	62	TYR	2.7
1	E	519	GLY	2.7
1	B	247	LEU	2.7
1	B	206	PRO	2.7
1	B	126	PHE	2.6
1	B	235	ASP	2.6
1	B	234	SER	2.6
1	C	458	GLN	2.6
1	B	231	LEU	2.6
1	E	308	LEU	2.6
1	B	315	PHE	2.6
1	B	266	LYS	2.6
1	B	207	ALA	2.5
1	C	603	LYS	2.5
1	E	603	LYS	2.5
1	B	33	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
1	B	256	ASP	2.5
1	B	603	LYS	2.5
1	C	509	LEU	2.5
1	B	306	LYS	2.5
1	E	254	THR	2.5
1	D	458	GLN	2.5
1	B	239	LYS	2.5
1	E	596	LYS	2.5
1	E	486	GLY	2.4
1	E	248	LYS	2.4
1	B	458	GLN	2.4
1	F	458	GLN	2.4
1	B	122	GLY	2.4
1	E	307	ILE	2.3
1	E	552	PRO	2.3
1	B	394	GLN	2.3
1	E	455	GLU	2.3
1	F	424	HIS	2.3
1	E	268	LYS	2.3
1	B	271	LEU	2.3
1	D	551	THR	2.3
1	E	222	LYS	2.3
1	E	257	ALA	2.3
1	E	319	ILE	2.3
1	E	253	VAL	2.2
1	E	507	SER	2.2
1	C	553	TRP	2.2
1	E	310	ASN	2.2
1	B	221	ASP	2.2
1	B	308	LEU	2.2
1	B	355	LEU	2.2
1	B	223	ASN	2.2
1	A	73	SER	2.2
1	B	220	ASP	2.2
1	D	507	SER	2.2
1	B	208	THR	2.2
1	B	217	LEU	2.2
1	E	302	THR	2.1
1	B	260	TYR	2.1
1	E	220	ASP	2.1
1	B	142	GLY	2.1
1	D	460	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
1	E	522	LYS	2.1
1	E	600	GLU	2.1
1	B	300	ILE	2.1
1	E	506	ILE	2.1
1	E	471	LEU	2.1
1	E	523	GLU	2.1
1	B	390	LYS	2.1
1	E	509	LEU	2.0
1	E	288	THR	2.0
1	B	307	ILE	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 monosaccharides 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	FYJ	E	701	19/19	0.85	0.18	52,64,78,80	0
4	GOL	D	705	6/6	0.88	0.16	27,34,41,48	0
4	GOL	E	704	6/6	0.88	0.16	42,50,55,55	0
4	GOL	D	703	6/6	0.89	0.19	37,46,55,56	0
4	GOL	F	703	6/6	0.90	0.16	21,33,39,47	0
2	FYJ	B	701	19/19	0.91	0.14	35,45,54,61	0
4	GOL	B	703	6/6	0.92	0.15	40,50,60,60	0
4	GOL	A	703	6/6	0.94	0.13	24,29,37,45	0
4	GOL	B	705	6/6	0.94	0.12	35,45,47,54	0
2	FYJ	D	701	19/19	0.95	0.16	23,34,47,51	0
4	GOL	E	702	6/6	0.95	0.10	34,46,55,61	0
4	GOL	E	703	6/6	0.95	0.11	34,41,49,53	0
4	GOL	C	703	6/6	0.95	0.10	35,44,52,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	GOL	B	704	6/6	0.95	0.14	37,44,51,52	0
2	FYJ	F	701	19/19	0.96	0.10	21,30,41,47	0
4	GOL	C	704	6/6	0.96	0.12	27,32,36,38	0
4	GOL	A	704	6/6	0.96	0.17	26,33,39,40	0
4	GOL	A	705	6/6	0.96	0.10	20,24,26,29	0
4	GOL	F	705	6/6	0.96	0.11	24,29,31,36	0
4	GOL	C	705	6/6	0.97	0.11	25,31,39,39	0
4	GOL	A	706	6/6	0.97	0.14	19,22,26,29	0
2	FYJ	A	701	19/19	0.97	0.11	17,25,33,34	0
4	GOL	F	704	6/6	0.97	0.14	24,29,33,38	0
2	FYJ	C	701	19/19	0.97	0.14	25,33,48,51	0
4	GOL	D	704	6/6	0.98	0.08	22,27,32,34	0
3	CL	D	702	1/1	0.99	0.16	30,30,30,30	0
3	CL	A	702	1/1	0.99	0.13	18,18,18,18	0
3	CL	B	702	1/1	0.99	0.13	27,27,27,27	0
3	CL	C	702	1/1	0.99	0.15	28,28,28,28	0
3	CL	F	702	1/1	1.00	0.15	22,22,22,22	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 FYJ E 701:

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$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
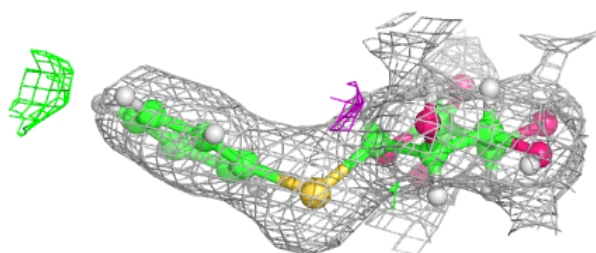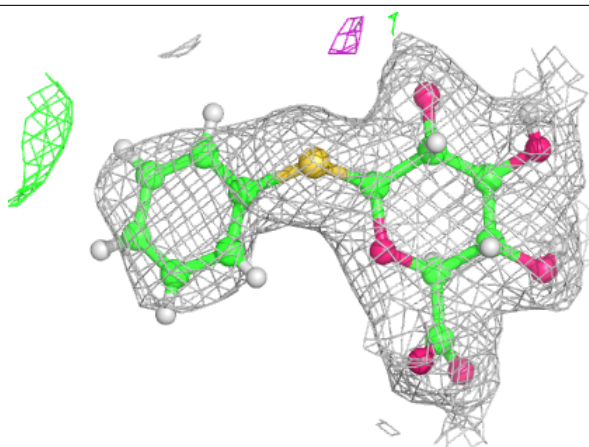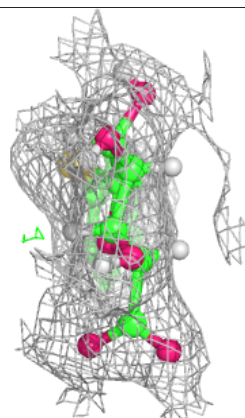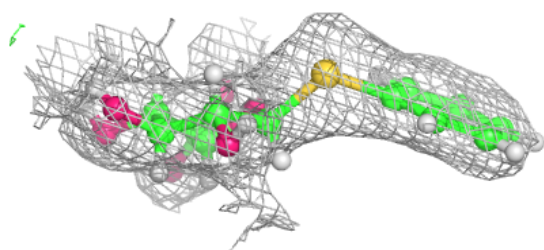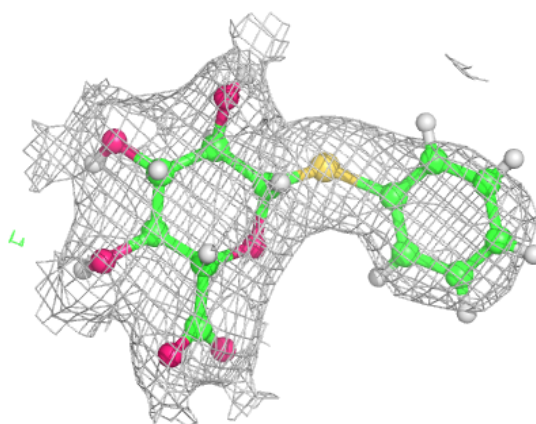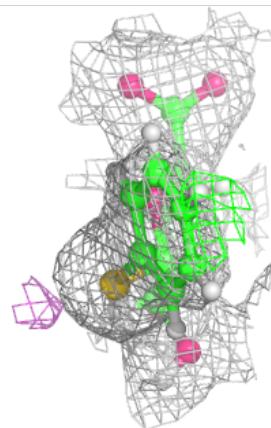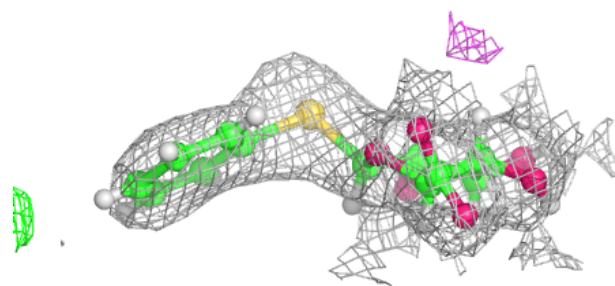and green (positive)
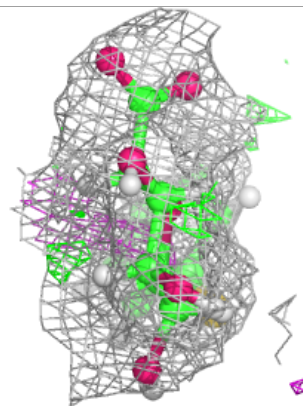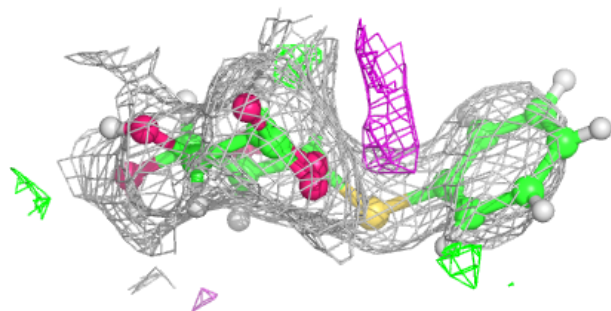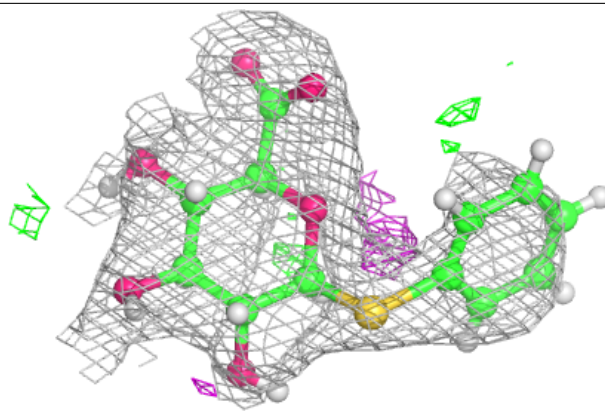
Electron density around FYJ B 701:

2mF$_o$-DF$_c$ (at 0.7 rmsd) in gray
mF$_o$-DF$_c$ (at 3 rmsd) in purple (negative)
and green (positive)
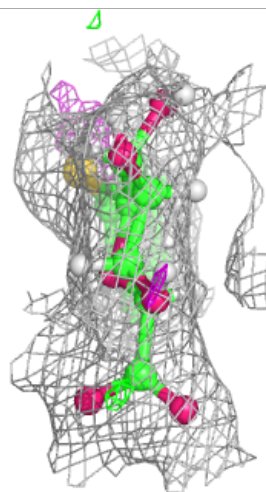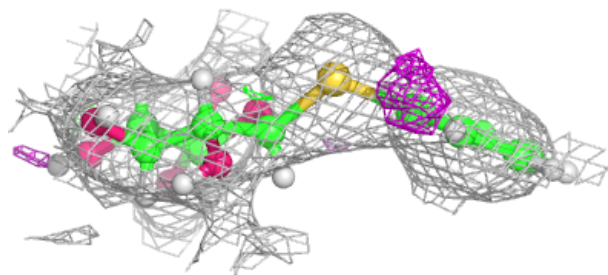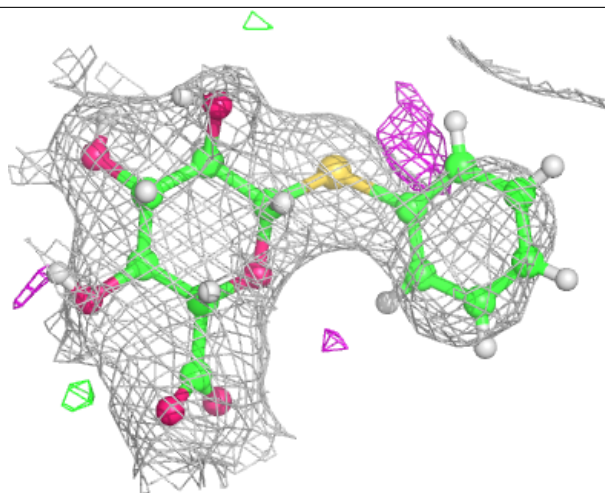
Electron density around FYJ D 701:

$2mF_o\text{-}DF_c$ (at 0.7 rmsd) in gray
$mF_o\text{-}DF_c$ (at 3 rmsd) in purple (negative)
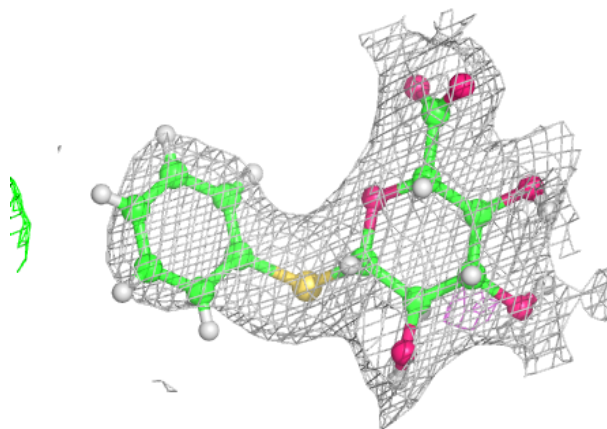and green (positive)
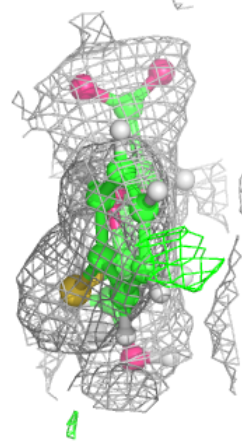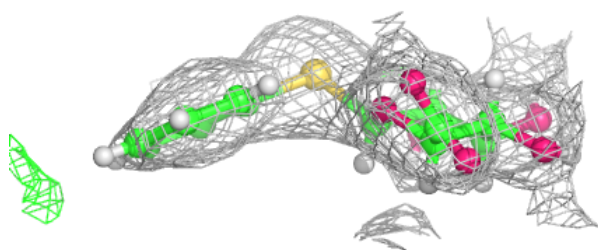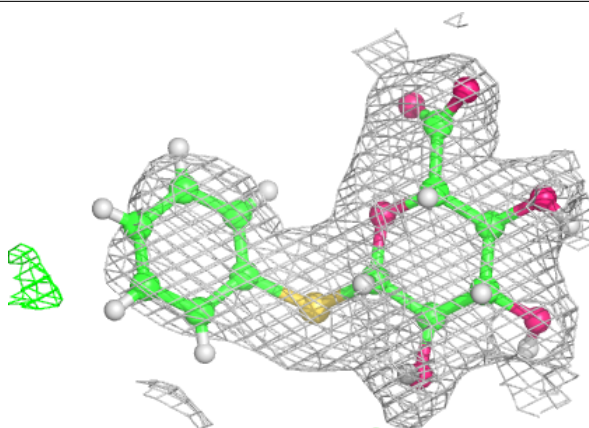
Electron density around FYJ F 701:

$2mF_o-DF_c$ (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)
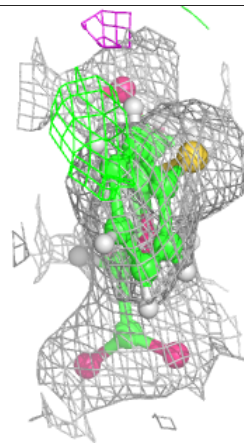
Electron density around FYJ A 701:

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

Electron density around FYJ C 701:

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

6.5 Other polymers ⓘ

There are no such residues in this entry.