Full wwPDB X-ray Structure Validation Report (i)

Nov 19, 2023 – 05:01 PM JST

PDB ID	:	6LVV
Title	:	N, N-dimethylformamidase
Authors	:	Arya, C.K.; Ramaswamy, S.; Kutti, R.V.; Gurunath, R.
Deposited on	:	2020-02-05
Resolution	:	2.80 Å(reported)

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

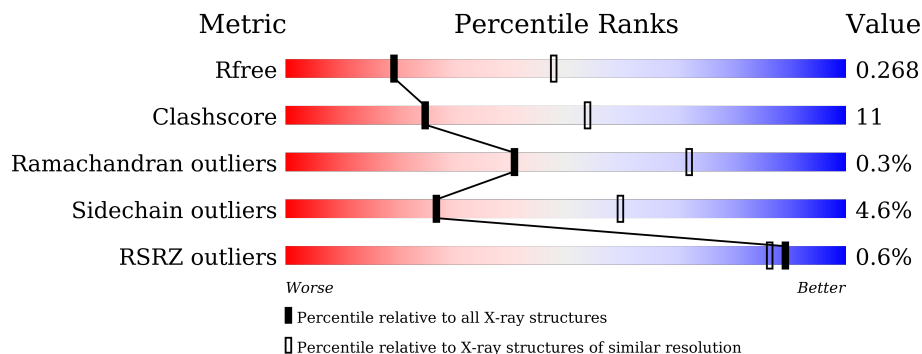|		
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & 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 2.80 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		0.268
Clashscore		11
Ramachandran outliers		0.3%
Sidechain outliers		4.6%
RSRZ outliers		0.6%

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	3140 (2.80-2.80)
Clashscore	141614	3569 (2.80-2.80)
Ramachandran outliers	138981	3498 (2.80-2.80)
Sidechain outliers	138945	3500 (2.80-2.80)
RSRZ outliers	127900	3078 (2.80-2.80)

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	775	76% 21% ••
1	C	775	% 77% 20% ••
1	E	775	% 77% 20% ••
1	G	775	75% 22% ••
1	I	775	76% 21% ••
1	K	775	% 76% 21% ••

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Mol	Chain	Length	Quality of chain
1	M	775	77% 20%
1	O	775	76% 22%
2	B	132	3% 72% 20% 5%
2	D	132	78% 14% 5%
2	F	132	75% 17% 5%
2	H	132	70% 21% 5%
2	J	132	71% 19% 5% 5%
2	L	132	79% 14% 5%
2	N	132	77% 16% 5%
2	P	132	71% 20% 5%

2 Entry composition ⓘ

There are 5 unique types of molecules in this entry. The entry contains 56839 atoms, of which 48 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 N,N-dimethylformamidase large subunit.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			
1	C	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			
1	E	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			
1	G	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			
1	I	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			
1	K	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			
1	M	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			
1	O	762	Total	C	N	O	S	0	0	0
			5987	3774	1047	1145	21			

There are 104 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	763	LYS	-	expression tag	UNP I6NT79
A	764	LEU	-	expression tag	UNP I6NT79
A	765	ALA	-	expression tag	UNP I6NT79
A	766	ALA	-	expression tag	UNP I6NT79
A	767	ALA	-	expression tag	UNP I6NT79
A	768	LEU	-	expression tag	UNP I6NT79
A	769	GLU	-	expression tag	UNP I6NT79
A	770	HIS	-	expression tag	UNP I6NT79
A	771	HIS	-	expression tag	UNP I6NT79
A	772	HIS	-	expression tag	UNP I6NT79
A	773	HIS	-	expression tag	UNP I6NT79
A	774	HIS	-	expression tag	UNP I6NT79
A	775	HIS	-	expression tag	UNP I6NT79

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Chain	Residue	Modelled	Actual	Comment	Reference
C	763	LYS	-	expression tag	UNP I6NT79
C	764	LEU	-	expression tag	UNP I6NT79
C	765	ALA	-	expression tag	UNP I6NT79
C	766	ALA	-	expression tag	UNP I6NT79
C	767	ALA	-	expression tag	UNP I6NT79
C	768	LEU	-	expression tag	UNP I6NT79
C	769	GLU	-	expression tag	UNP I6NT79
C	770	HIS	-	expression tag	UNP I6NT79
C	771	HIS	-	expression tag	UNP I6NT79
C	772	HIS	-	expression tag	UNP I6NT79
C	773	HIS	-	expression tag	UNP I6NT79
C	774	HIS	-	expression tag	UNP I6NT79
C	775	HIS	-	expression tag	UNP I6NT79
E	763	LYS	-	expression tag	UNP I6NT79
E	764	LEU	-	expression tag	UNP I6NT79
E	765	ALA	-	expression tag	UNP I6NT79
E	766	ALA	-	expression tag	UNP I6NT79
E	767	ALA	-	expression tag	UNP I6NT79
E	768	LEU	-	expression tag	UNP I6NT79
E	769	GLU	-	expression tag	UNP I6NT79
E	770	HIS	-	expression tag	UNP I6NT79
E	771	HIS	-	expression tag	UNP I6NT79
E	772	HIS	-	expression tag	UNP I6NT79
E	773	HIS	-	expression tag	UNP I6NT79
E	774	HIS	-	expression tag	UNP I6NT79
E	775	HIS	-	expression tag	UNP I6NT79
G	763	LYS	-	expression tag	UNP I6NT79
G	764	LEU	-	expression tag	UNP I6NT79
G	765	ALA	-	expression tag	UNP I6NT79
G	766	ALA	-	expression tag	UNP I6NT79
G	767	ALA	-	expression tag	UNP I6NT79
G	768	LEU	-	expression tag	UNP I6NT79
G	769	GLU	-	expression tag	UNP I6NT79
G	770	HIS	-	expression tag	UNP I6NT79
G	771	HIS	-	expression tag	UNP I6NT79
G	772	HIS	-	expression tag	UNP I6NT79
G	773	HIS	-	expression tag	UNP I6NT79
G	774	HIS	-	expression tag	UNP I6NT79
G	775	HIS	-	expression tag	UNP I6NT79
I	763	LYS	-	expression tag	UNP I6NT79
I	764	LEU	-	expression tag	UNP I6NT79
I	765	ALA	-	expression tag	UNP I6NT79

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Chain	Residue	Modelled	Actual	Comment	Reference
I	766	ALA	-	expression tag	UNP I6NT79
I	767	ALA	-	expression tag	UNP I6NT79
I	768	LEU	-	expression tag	UNP I6NT79
I	769	GLU	-	expression tag	UNP I6NT79
I	770	HIS	-	expression tag	UNP I6NT79
I	771	HIS	-	expression tag	UNP I6NT79
I	772	HIS	-	expression tag	UNP I6NT79
I	773	HIS	-	expression tag	UNP I6NT79
I	774	HIS	-	expression tag	UNP I6NT79
I	775	HIS	-	expression tag	UNP I6NT79
K	763	LYS	-	expression tag	UNP I6NT79
K	764	LEU	-	expression tag	UNP I6NT79
K	765	ALA	-	expression tag	UNP I6NT79
K	766	ALA	-	expression tag	UNP I6NT79
K	767	ALA	-	expression tag	UNP I6NT79
K	768	LEU	-	expression tag	UNP I6NT79
K	769	GLU	-	expression tag	UNP I6NT79
K	770	HIS	-	expression tag	UNP I6NT79
K	771	HIS	-	expression tag	UNP I6NT79
K	772	HIS	-	expression tag	UNP I6NT79
K	773	HIS	-	expression tag	UNP I6NT79
K	774	HIS	-	expression tag	UNP I6NT79
K	775	HIS	-	expression tag	UNP I6NT79
M	763	LYS	-	expression tag	UNP I6NT79
M	764	LEU	-	expression tag	UNP I6NT79
M	765	ALA	-	expression tag	UNP I6NT79
M	766	ALA	-	expression tag	UNP I6NT79
M	767	ALA	-	expression tag	UNP I6NT79
M	768	LEU	-	expression tag	UNP I6NT79
M	769	GLU	-	expression tag	UNP I6NT79
M	770	HIS	-	expression tag	UNP I6NT79
M	771	HIS	-	expression tag	UNP I6NT79
M	772	HIS	-	expression tag	UNP I6NT79
M	773	HIS	-	expression tag	UNP I6NT79
M	774	HIS	-	expression tag	UNP I6NT79
M	775	HIS	-	expression tag	UNP I6NT79
O	763	LYS	-	expression tag	UNP I6NT79
O	764	LEU	-	expression tag	UNP I6NT79
O	765	ALA	-	expression tag	UNP I6NT79
O	766	ALA	-	expression tag	UNP I6NT79
O	767	ALA	-	expression tag	UNP I6NT79
O	768	LEU	-	expression tag	UNP I6NT79

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Chain	Residue	Modelled	Actual	Comment	Reference
O	769	GLU	-	expression tag	UNP I6NT79
O	770	HIS	-	expression tag	UNP I6NT79
O	771	HIS	-	expression tag	UNP I6NT79
O	772	HIS	-	expression tag	UNP I6NT79
O	773	HIS	-	expression tag	UNP I6NT79
O	774	HIS	-	expression tag	UNP I6NT79
O	775	HIS	-	expression tag	UNP I6NT79

- Molecule 2 is a protein called N,N-dimethylformamidase small subunit.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	B	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0
2	D	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0
2	F	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0
2	H	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0
2	J	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0
2	L	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0
2	N	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0
2	P	125	Total 1085	C 687	N 196	O 199	S 3	0	0	0

- Molecule 3 is FE (III) ION (three-letter code: FE) (formula: Fe) (labeled as "Ligand of Interest" by depositor).

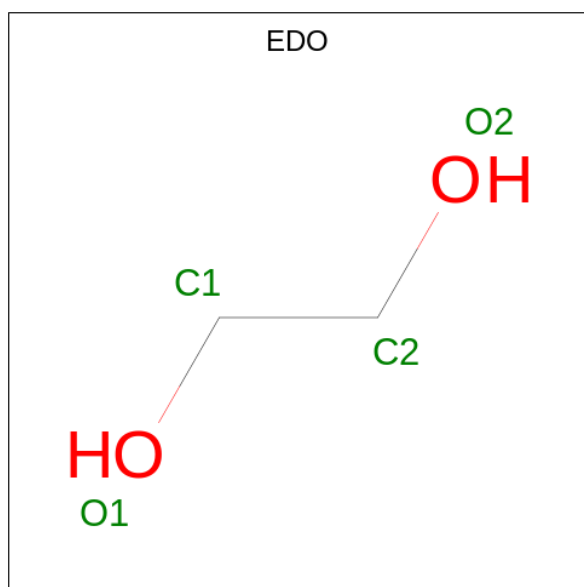| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	1	Total 1	Fe 1	0	0
3	C	1	Total 1	Fe 1	0	0
3	E	1	Total 1	Fe 1	0	0
3	G	1	Total 1	Fe 1	0	0
3	I	1	Total 1	Fe 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	K	1	Total Fe 1 1		0	0
3	M	1	Total Fe 1 1		0	0
3	O	1	Total Fe 1 1		0	0

- Molecule 4 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
4	B	1	Total C H O 10 2 6 2				0	0
4	D	1	Total C H O 10 2 6 2				0	0
4	F	1	Total C H O 10 2 6 2				0	0
4	H	1	Total C H O 10 2 6 2				0	0
4	J	1	Total C H O 10 2 6 2				0	0
4	L	1	Total C H O 10 2 6 2				0	0
4	N	1	Total C H O 10 2 6 2				0	0
4	P	1	Total C H O 10 2 6 2				0	0

- Molecule 5 is water.

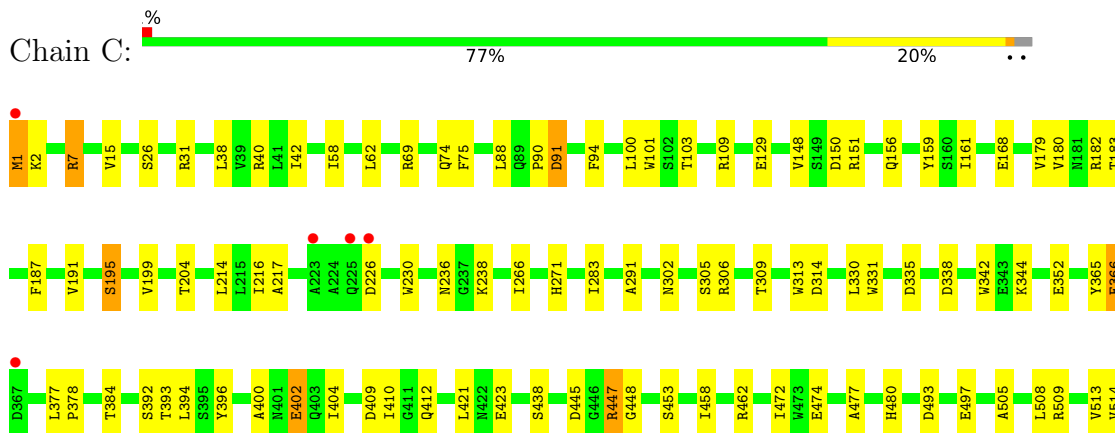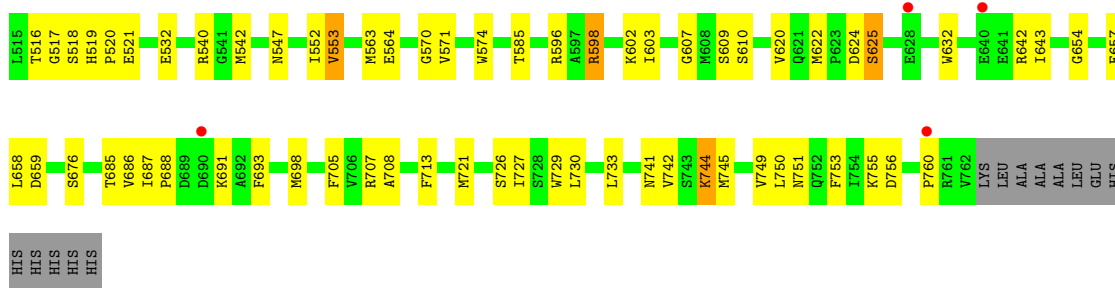| Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	22	Total 22	O 22	0	0
5	B	1	Total 1	O 1	0	0
5	C	21	Total 21	O 21	0	0
5	E	21	Total 21	O 21	0	0
5	G	22	Total 22	O 22	0	0
5	H	1	Total 1	O 1	0	0
5	I	20	Total 20	O 20	0	0
5	J	1	Total 1	O 1	0	0
5	K	21	Total 21	O 21	0	0
5	M	22	Total 22	O 22	0	0
5	O	23	Total 23	O 23	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.

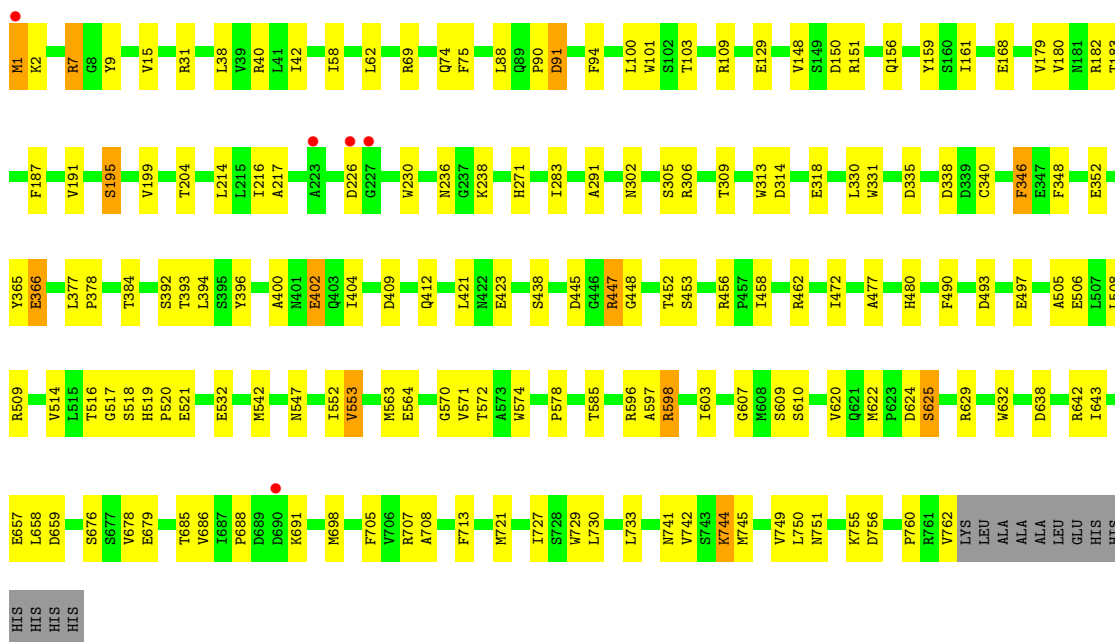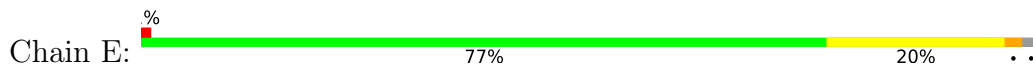• Molecule 1: N,N-dimethylformamidase large subunit

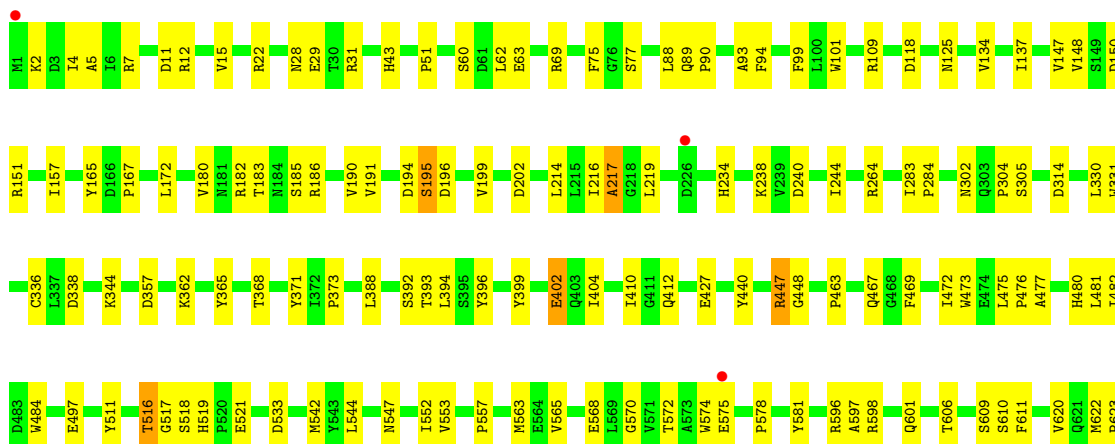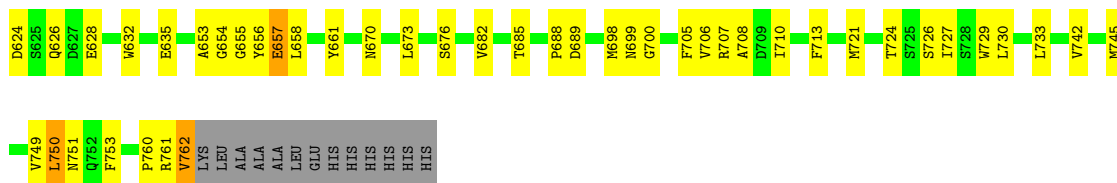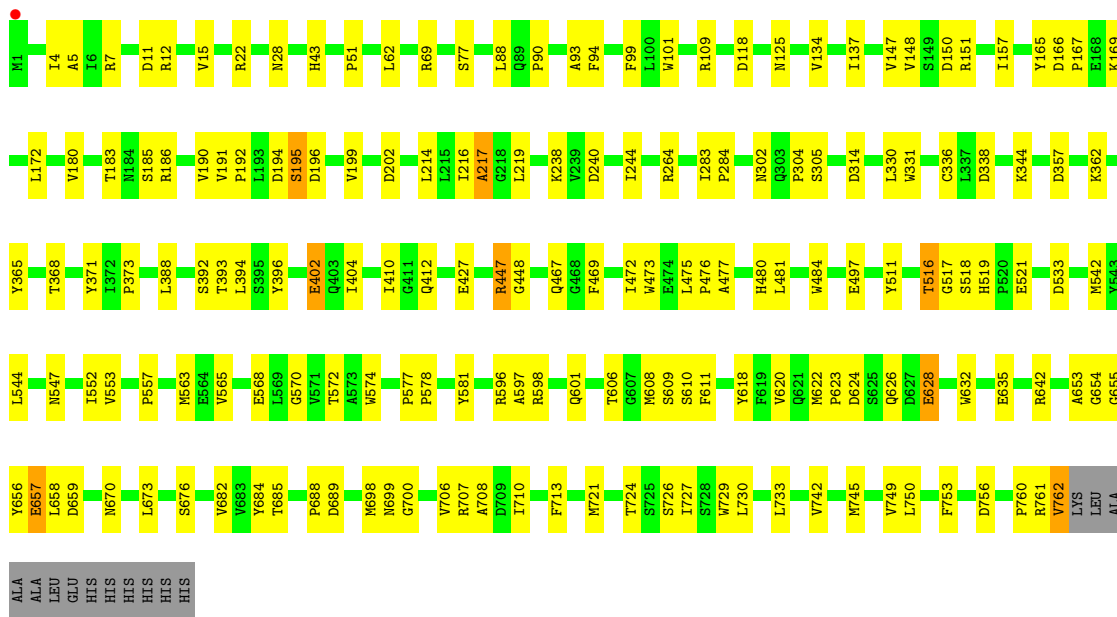Chain A:

• Molecule 1: N,N-dimethylformamidase large subunit

Chain C:

L515 T516 G517 S518 H519 P520 E521 E532 R540 G541 M542 N547 I552 V553 M563 E564 G570 V571 W574 T585 R596 A597 R598 K602 I603 G607 M608 S609 S610 V620 Q621 M622 P623 D624 S625 E628 W632 E640 E641 R642 I643 G654 E657

L658 D659 S676 T685 V686 I687 P688 D689 D690 K691 A692 F693 M698 F705 V706 R707 A708 F713 M721 S726 I727 S728 W729 L730 L733 N741 V742 S743 K744 M745 V749 L750 N751 Q752 F753 I754 K755 D756 P760 R761 V762 LYS LEU ALA ALA LEU GLU HIS

HIS HIS HIS HIS

• Molecule 1: N,N-dimethylformamidase large subunit

%

Chain E:

77% 20%

M1 K2 R7 G8 Y9 V15 R31 L38 V39 R40 L41 I42 I58 L62 R69 Q74 F75 L88 Q89 P90 D91 F94 L100 W101 S102 T103 R109 E129 V148 S149 D150 R151 Q156 Y159 S160 I161 E168 V179 V180 N181 R182 T183

F187 V191 S195 V199 T204 L214 L215 I216 A217 A223 D226 G227 W230 N236 G237 K238 H271 I283 A291 N302 S305 R306 T309 W313 D314 E318 L330 W331 D335 D338 D339 C340 F346 E347 F348 E352

Y365 E366 L377 P378 T384 S392 T393 L394 S395 Y396 A400 N401 E402 Q403 I404 D409 Q412 L421 N422 E423 S438 D445 G446 R447 G448 T452 S453 R456 P457 I458 R462 I472 A477 H480 F490 D493 E497 A505 E506 L507 L508

R509 V514 L515 T516 G517 S518 H519 P520 E521 E532 M542 N547 I552 V553 M563 E564 G570 V571 T572 A573 W574 P578 T585 R596 A597 R598 I603 G607 M608 S609 S610 V620 Q621 M622 P623 D624 S625 R629 W632 D638 R642 I643

E657 L658 D659 S676 S677 V678 E679 T685 V686 I687 P688 D689 D690 K691 M698 F705 V706 R707 A708 F713 M721 I727 S728 W729 L730 L733 N741 V742 S743 K744 M745 V749 L750 N751 K755 D756 P760 R761 V762 LYS LEU ALA ALA LEU GLU HIS HIS

HIS HIS HIS HIS

• Molecule 1: N,N-dimethylformamidase large subunit

Chain G:

75% 22%

M1 K2 D3 I4 A5 I6 R7 D11 R12 V15 R22 N28 E29 T30 R31 H43 P51 S60 D61 L62 E63 R69 F75 G76 S77 L88 Q89 P90 A93 F94 F99 L100 W101 R109 D118 N125 V134 I137 V147 V148 S149 D150

R151 I157 Y165 D166 P167 L172 V180 N181 R182 T183 N184 S185 R186 V190 V191 D194 S195 D196 V199 D202 L214 L215 I216 A217 G218 L219 D226 H234 K238 V239 D240 I244 R264 I283 P284 N302 Q303 P304 S305 D314 L330 W331

C336 L337 D338 K344 D357 K362 Y365 T368 Y371 I372 P373 L388 S392 T393 L394 S395 Y396 Y399 E402 Q403 I404 I410 G411 Q412 E427 Y440 R447 G448 P463 Q467 G468 F469 I472 W473 E474 L475 P476 A477 H480 L481 I482

D483 W484 E497 Y511 T516 G517 S518 H519 P520 E521 D533 M542 V543 L544 N547 I552 V553 P557 M563 E564 V565 E568 L569 G570 V571 T572 A573 W574 E575 P578 Y581 R596 A597 R598 Q601 T606 S609 S610 F611 V620 Q621 M622 P623
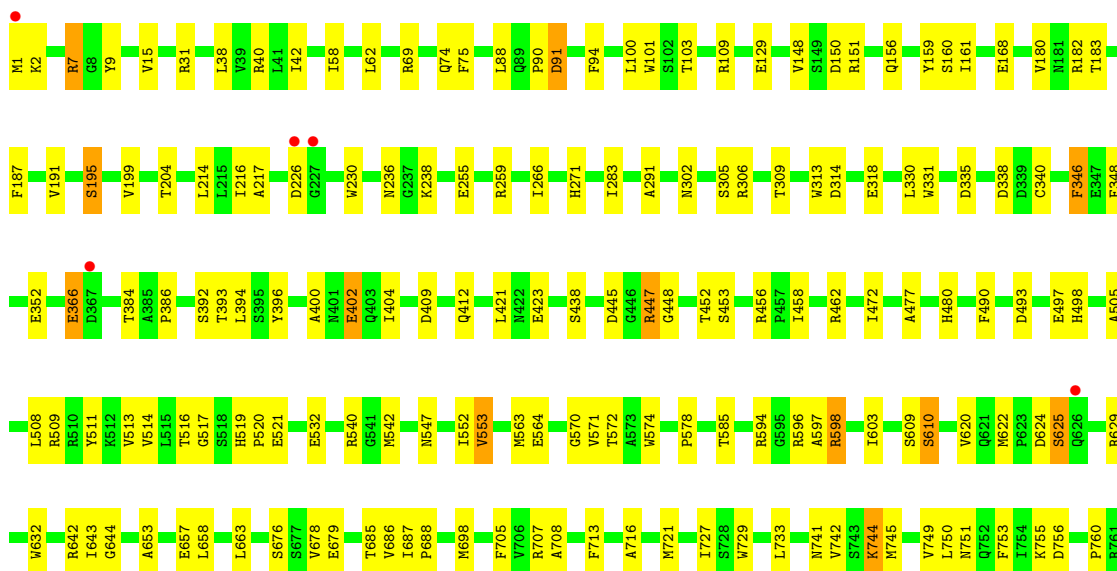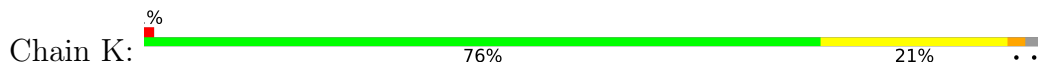
• Molecule 1: N,N-dimethylformamidase large subunit

Chain I:

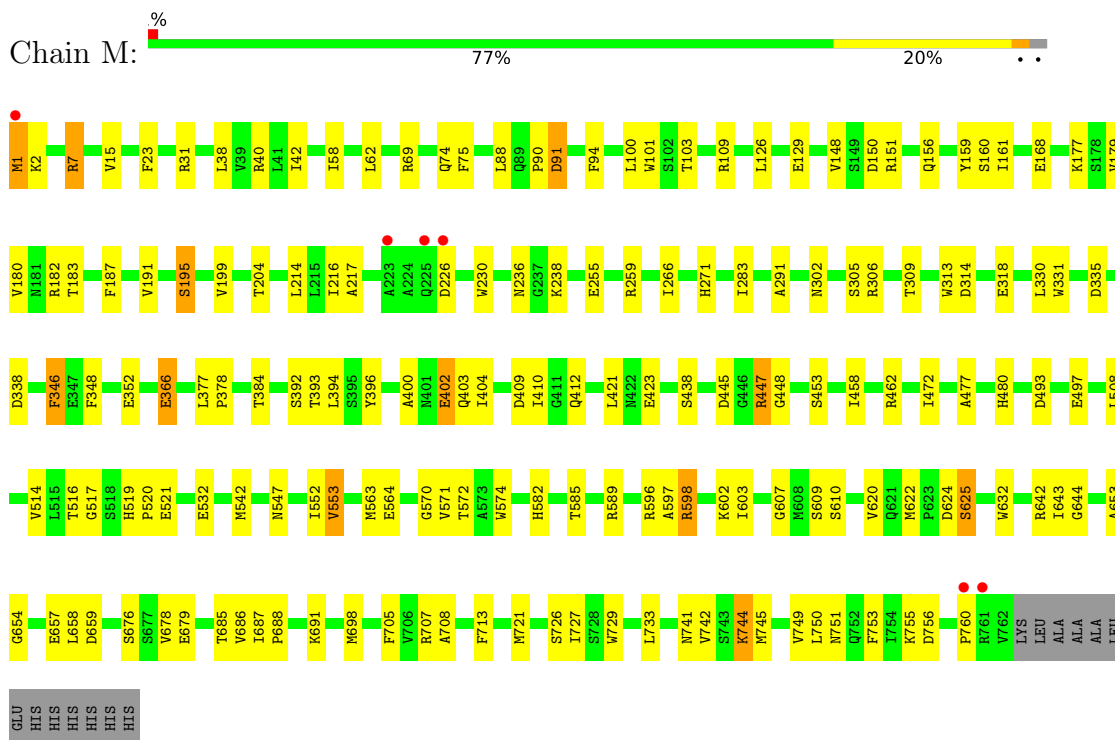
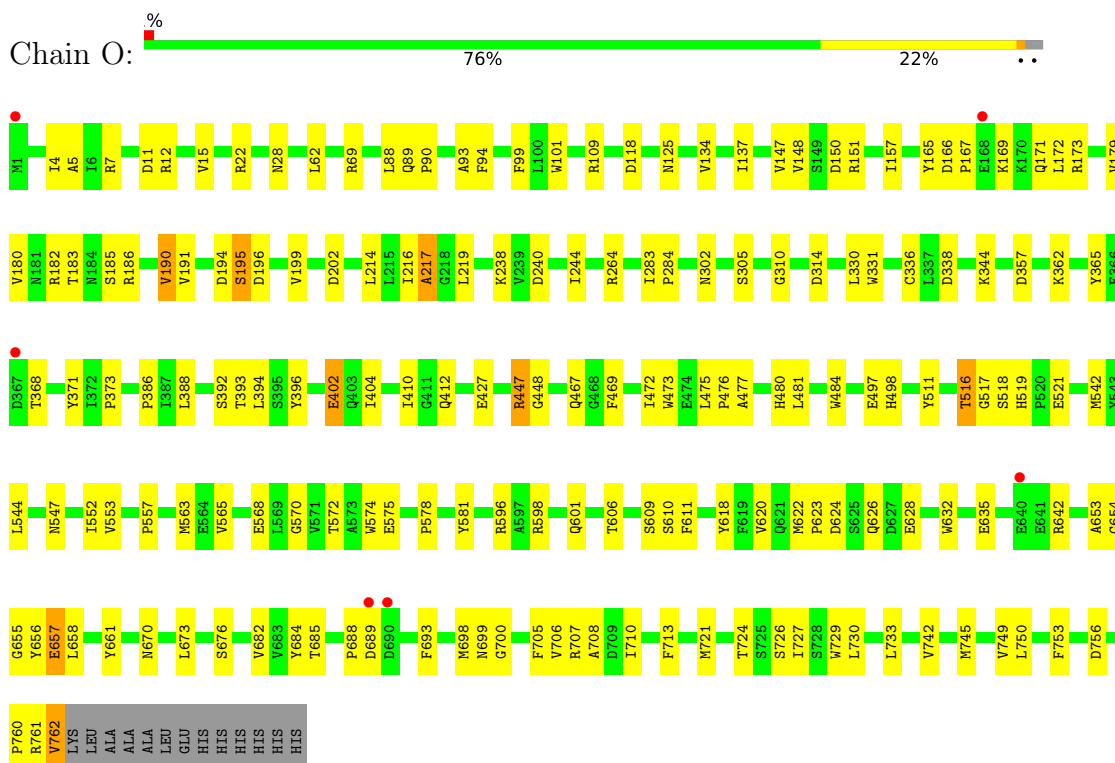• Molecule 1: N,N-dimethylformamidase large subunit

Chain K:

V762 LYS LEU ALA ALA GLU HIS HIS HIS HIS HIS HIS

● Molecule 1: N,N-dimethylformamidase large subunit

Chain M:

● Molecule 1: N,N-dimethylformamidase large subunit

Chain O:

● Molecule 2: N,N-dimethylformamidase small subunit

Chain B:

3%

72% 20% · 5%

• Molecule 2: N,N-dimethylformamidase small subunit

Chain D:

%

78% 14% · 5%

• Molecule 2: N,N-dimethylformamidase small subunit

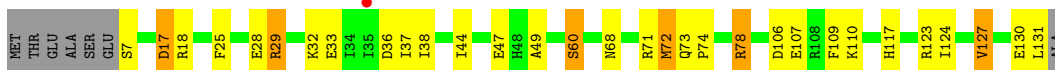Chain F:

75% 17% · 5%

• Molecule 2: N,N-dimethylformamidase small subunit

Chain H:

70% 21% · 5%

• Molecule 2: N,N-dimethylformamidase small subunit

Chain J:

%

71% 19% 5% 5%

• Molecule 2: N,N-dimethylformamidase small subunit

Chain L:
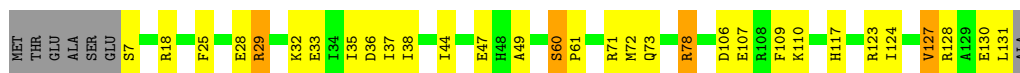
79% 14% · 5%

• Molecule 2: N,N-dimethylformamidase small subunit

Chain N:

77% 16% · 5%

• Molecule 2: N,N-dimethylformamidase small subunit

Chain P:

4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α, β, γ	160.51Å 142.55Å 181.49Å 90.00° 92.92° 90.00°	Depositor
Resolution (Å)	49.47 – 2.80 49.47 – 2.80	Depositor EDS
% Data completeness (in resolution range)	99.8 (49.47-2.80) 99.9 (49.47-2.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.76 (at 2.81Å)	Xtriage
Refinement program	PHENIX 1.18rc6_3830	Depositor
R, R_{free}	0.227 , 0.267 0.230 , 0.268	Depositor DCC
R_{free} test set	1923 reflections (0.96%)	wwPDB-VP
Wilson B-factor (Å^2)	19.8	Xtriage
Anisotropy	0.550	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 22.7	EDS
L-test for twinning [2]	$< |L| > = 0.47, < L^2 > = 0.30$	Xtriage
Estimated twinning fraction	0.029 for h,-k,-l	Xtriage
F_o,F_c correlation	0.86	EDS
Total number of atoms	56839	wwPDB-VP
Average B, all atoms (Å^2)	30.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The analyses of the Patterson function reveals a significant off-origin peak that is 32.38 % of the origin peak, indicating pseudo-translational symmetry. The chance of finding a peak of this or larger height randomly in a structure without pseudo-translational symmetry is equal to 9.4942e-04. The detected translational NCS is most likely also responsible for the elevated intensity ratio.*

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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: FE, EDO

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	0.30	0/6157	0.48	0/8375
1	C	0.34	0/6157	0.49	0/8375
1	E	0.36	0/6157	0.49	0/8375
1	G	0.31	0/6157	0.48	0/8375
1	I	0.31	0/6157	0.48	0/8375
1	K	0.33	0/6157	0.48	0/8375
1	M	0.33	0/6157	0.49	0/8375
1	O	0.32	0/6157	0.48	0/8375
2	B	0.30	0/1117	0.43	0/1509
2	D	0.29	0/1117	0.41	0/1509
2	F	0.48	0/1117	0.44	0/1509
2	H	0.37	0/1117	0.46	0/1509
2	J	0.42	0/1117	0.48	0/1509
2	L	0.28	0/1117	0.41	0/1509
2	N	0.28	0/1117	0.42	0/1509
2	P	0.44	0/1117	0.49	0/1509
All	All	0.33	0/58192	0.48	0/79072

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	5987	0	5637	139	0
1	C	5987	0	5637	133	0
1	E	5987	0	5637	150	0
1	G	5987	0	5637	143	0
1	I	5987	0	5637	148	0
1	K	5987	0	5637	142	0
1	M	5987	0	5637	142	0
1	O	5987	0	5637	147	0
2	B	1085	0	1010	18	0
2	D	1085	0	1010	16	0
2	F	1085	0	1010	25	0
2	H	1085	0	1010	23	0
2	J	1085	0	1010	22	0
2	L	1085	0	1010	13	0
2	N	1085	0	1010	15	0
2	P	1085	0	1010	22	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
3	I	1	0	0	0	0
3	K	1	0	0	0	0
3	M	1	0	0	0	0
3	O	1	0	0	0	0
4	B	4	6	6	0	0
4	D	4	6	6	0	0
4	F	4	6	6	0	0
4	H	4	6	6	0	0
4	J	4	6	6	0	0
4	L	4	6	6	0	0
4	N	4	6	6	0	0
4	P	4	6	6	0	0
5	A	22	0	0	0	0
5	B	1	0	0	0	0
5	C	21	0	0	1	0
5	E	21	0	0	0	0
5	G	22	0	0	0	0
5	H	1	0	0	1	0
5	I	20	0	0	0	0
5	J	1	0	0	0	0
5	K	21	0	0	4	0
5	M	22	0	0	1	0
5	O	23	0	0	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
All	All	56791	48	53224	1185	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 11.

All (1185) 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:I:362:LYS:HE3	1:I:371:TYR:OH	1.44	1.16
1:I:688:PRO:HG2	1:K:688:PRO:HG2	1.28	1.15
1:E:506:GLU:HG3	1:I:756:ASP:HB2	1.39	1.05
1:E:688:PRO:HG2	1:G:688:PRO:HG2	1.35	1.03
1:M:688:PRO:HG2	1:O:688:PRO:HG2	1.41	0.99
1:A:688:PRO:HG2	1:C:688:PRO:HG2	1.40	0.98
1:E:598:ARG:HH11	1:E:598:ARG:HG3	1.29	0.95
1:C:598:ARG:HG3	1:C:598:ARG:HH11	1.29	0.95
1:K:598:ARG:HG3	1:K:598:ARG:HH11	1.30	0.95
1:M:598:ARG:HG3	1:M:598:ARG:HH11	1.29	0.93
1:E:412:GLN:HB3	2:F:78:ARG:NH2	1.84	0.91
1:G:412:GLN:HB3	2:H:78:ARG:HH21	1.38	0.89
1:G:412:GLN:HB3	2:H:78:ARG:NH2	1.88	0.89
1:E:412:GLN:HB3	2:F:78:ARG:HH22	1.35	0.89
1:O:412:GLN:HB3	2:P:78:ARG:HH21	1.39	0.88
1:I:412:GLN:HB3	2:J:78:ARG:NH2	1.89	0.88
1:O:412:GLN:HB3	2:P:78:ARG:NH2	1.89	0.86
1:I:412:GLN:HB3	2:J:78:ARG:HH21	1.39	0.86
1:E:506:GLU:CG	1:I:756:ASP:HB2	2.06	0.85
1:G:670:ASN:HB2	1:G:762:VAL:HG11	1.63	0.81
1:K:472:ILE:HD11	1:K:480:HIS:CE1	2.15	0.81
1:O:670:ASN:HB2	1:O:762:VAL:HG11	1.63	0.81
1:I:670:ASN:HB2	1:I:762:VAL:HG11	1.62	0.80
1:E:472:ILE:HD11	1:E:480:HIS:CE1	2.16	0.80
1:M:472:ILE:HD11	1:M:480:HIS:CE1	2.17	0.80
1:O:386:PRO:HA	5:O:917:HOH:O	1.81	0.80
1:I:412:GLN:HE22	2:J:123:ARG:HH22	1.30	0.80
1:G:412:GLN:HE22	2:H:123:ARG:HH22	1.30	0.79
1:A:670:ASN:HB2	1:A:762:VAL:HG11	1.63	0.79
1:E:744:LYS:HA	1:E:744:LYS:HE3	1.65	0.79
1:C:472:ILE:HD11	1:C:480:HIS:CE1	2.17	0.79
1:A:412:GLN:HE22	2:B:123:ARG:HH22	1.31	0.78
1:K:183:THR:HG21	1:K:314:ASP:HA	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:744:LYS:HE3	1:M:744:LYS:HA	1.66	0.77
1:C:744:LYS:HE3	1:C:744:LYS:HA	1.67	0.76
1:O:412:GLN:HE22	2:P:123:ARG:HH22	1.31	0.76
1:I:688:PRO:HG2	1:K:688:PRO:CG	2.12	0.76
1:M:516:THR:HG22	1:M:517:GLY:O	1.86	0.76
1:K:744:LYS:HE3	1:K:744:LYS:HA	1.67	0.76
1:E:516:THR:HG22	1:E:517:GLY:O	1.87	0.75
1:C:598:ARG:HG3	1:C:598:ARG:NH1	2.00	0.75
1:E:688:PRO:CG	1:G:688:PRO:HG2	2.16	0.75
1:O:394:LEU:HB3	1:O:563:MET:HE1	1.69	0.75
1:O:610:SER:HB2	1:O:685:THR:O	1.86	0.75
1:K:598:ARG:HG3	1:K:598:ARG:NH1	2.00	0.74
1:C:101:TRP:CZ2	1:C:156:GLN:HG2	2.22	0.74
1:G:610:SER:HB2	1:G:685:THR:O	1.87	0.74
1:M:183:THR:HG21	1:M:314:ASP:HA	1.70	0.74
1:C:183:THR:HG21	1:C:314:ASP:HA	1.70	0.74
1:C:516:THR:HG22	1:C:517:GLY:O	1.88	0.74
1:E:101:TRP:CZ2	1:E:156:GLN:HG2	2.23	0.74
1:M:101:TRP:CZ2	1:M:156:GLN:HG2	2.23	0.74
1:K:101:TRP:CZ2	1:K:156:GLN:HG2	2.23	0.73
1:K:516:THR:HG22	1:K:517:GLY:O	1.87	0.73
1:G:472:ILE:HD11	1:G:480:HIS:CE1	2.23	0.73
1:M:394:LEU:HB3	1:M:563:MET:HE1	1.69	0.73
2:J:73:GLN:O	2:J:78:ARG:NH1	2.20	0.73
1:I:394:LEU:HB3	1:I:563:MET:HE1	1.69	0.73
2:J:68:ASN:O	2:J:72:MET:HG2	1.88	0.73
1:E:183:THR:HG21	1:E:314:ASP:HA	1.71	0.73
1:A:516:THR:HG23	1:A:517:GLY:O	1.89	0.73
1:A:610:SER:HB2	1:A:685:THR:O	1.88	0.73
1:K:409:ASP:OD2	2:L:74:PRO:HA	1.89	0.73
1:K:386:PRO:HA	5:K:907:HOH:O	1.89	0.72
1:K:394:LEU:HB3	1:K:563:MET:HE1	1.70	0.72
1:I:688:PRO:CG	1:K:688:PRO:HG2	2.15	0.72
1:I:610:SER:HB2	1:I:685:THR:O	1.89	0.72
1:G:516:THR:HG23	1:G:517:GLY:O	1.90	0.72
2:N:35:ILE:HD11	2:N:127:VAL:HG13	1.72	0.72
1:A:394:LEU:HB3	1:A:563:MET:HE1	1.71	0.72
2:F:35:ILE:HD11	2:F:127:VAL:HG13	1.72	0.72
1:I:516:THR:HG23	1:I:517:GLY:O	1.90	0.72
1:M:409:ASP:OD2	2:N:74:PRO:HA	1.90	0.71
1:G:553:VAL:HG13	1:G:563:MET:HG3	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:68:ASN:O	2:F:72:MET:HG2	1.91	0.71
1:C:409:ASP:OD2	2:D:74:PRO:HA	1.91	0.71
1:I:4:ILE:HB	1:I:427:GLU:HG3	1.72	0.71
1:O:472:ILE:HD11	1:O:480:HIS:CE1	2.25	0.71
1:A:5:ALA:HA	1:A:28:ASN:ND2	2.06	0.71
1:O:516:THR:HG23	1:O:517:GLY:O	1.91	0.71
1:M:23:PHE:HB2	1:M:346:PHE:CE1	2.25	0.71
1:C:394:LEU:HB3	1:C:563:MET:HE1	1.71	0.70
1:K:394:LEU:HD22	1:K:563:MET:HE2	1.72	0.70
1:G:394:LEU:HB3	1:G:563:MET:HE1	1.74	0.70
1:I:371:TYR:O	1:I:373:PRO:HD3	1.92	0.70
1:I:362:LYS:CE	1:I:371:TYR:OH	2.33	0.70
1:A:4:ILE:HB	1:A:427:GLU:HG3	1.74	0.70
1:I:5:ALA:HA	1:I:28:ASN:ND2	2.07	0.70
1:A:552:ILE:CD1	1:A:596:ARG:HG3	2.22	0.70
1:E:542:MET:HE1	1:E:750:LEU:CA	2.22	0.70
1:O:553:VAL:HG13	1:O:563:MET:HG3	1.74	0.70
2:D:35:ILE:HD11	2:D:127:VAL:HG13	1.73	0.70
1:O:4:ILE:HB	1:O:427:GLU:HG3	1.72	0.70
1:M:394:LEU:HD22	1:M:563:MET:HE2	1.73	0.69
1:E:542:MET:HE1	1:E:750:LEU:HA	1.75	0.69
1:O:88:LEU:HD13	1:O:214:LEU:HD13	1.73	0.69
1:A:472:ILE:HD11	1:A:480:HIS:CE1	2.28	0.69
1:G:5:ALA:HA	1:G:28:ASN:ND2	2.07	0.69
1:I:472:ILE:HD11	1:I:480:HIS:CE1	2.28	0.69
1:M:598:ARG:HG3	1:M:598:ARG:NH1	2.00	0.69
2:L:35:ILE:HD11	2:L:127:VAL:HG13	1.73	0.69
1:A:553:VAL:HG13	1:A:563:MET:HG3	1.75	0.68
1:E:412:GLN:CB	2:F:78:ARG:NH2	2.56	0.68
1:E:394:LEU:HB3	1:E:563:MET:HE1	1.75	0.68
1:I:553:VAL:HG13	1:I:563:MET:HG3	1.74	0.68
1:G:4:ILE:HB	1:G:427:GLU:HG3	1.73	0.68
1:I:552:ILE:CD1	1:I:596:ARG:HG3	2.23	0.68
1:A:542:MET:HE2	1:A:749:VAL:HG12	1.75	0.68
1:O:5:ALA:HA	1:O:28:ASN:ND2	2.07	0.68
1:O:552:ILE:CD1	1:O:596:ARG:HG3	2.23	0.68
1:A:88:LEU:HD13	1:A:214:LEU:HD13	1.74	0.67
1:C:642:ARG:O	1:C:741:ASN:ND2	2.27	0.67
1:I:88:LEU:HD13	1:I:214:LEU:HD13	1.75	0.67
1:A:632:TRP:CE2	1:A:760:PRO:HG2	2.29	0.67
1:E:394:LEU:HD22	1:E:563:MET:CE	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:598:ARG:HG3	1:E:598:ARG:NH1	1.99	0.67
1:G:552:ILE:CD1	1:G:596:ARG:HG3	2.24	0.67
1:G:632:TRP:CE2	1:G:760:PRO:HG2	2.29	0.67
1:I:632:TRP:CE2	1:I:760:PRO:HG2	2.30	0.67
1:K:642:ARG:O	1:K:741:ASN:ND2	2.28	0.67
1:O:710:ILE:HD13	1:O:745:MET:HE1	1.77	0.67
1:G:412:GLN:HG2	2:H:71:ARG:HG2	1.77	0.66
1:E:688:PRO:HG2	1:G:688:PRO:CG	2.19	0.66
1:O:632:TRP:CE2	1:O:760:PRO:HG2	2.30	0.66
1:G:88:LEU:HD13	1:G:214:LEU:HD13	1.75	0.66
1:C:542:MET:HE1	1:C:750:LEU:CA	2.26	0.66
1:K:412:GLN:HE22	2:L:123:ARG:HH22	1.44	0.66
1:A:542:MET:CE	1:A:749:VAL:HG12	2.26	0.66
1:M:91:ASP:OD1	1:M:91:ASP:N	2.25	0.66
1:O:394:LEU:HD22	1:O:563:MET:CE	2.25	0.66
1:I:552:ILE:HD11	1:I:596:ARG:HG3	1.78	0.66
1:K:542:MET:HE1	1:K:750:LEU:CA	2.26	0.66
1:E:744:LYS:HE3	1:E:744:LYS:CA	2.26	0.65
1:E:283:ILE:HG23	1:E:283:ILE:O	1.96	0.65
1:E:394:LEU:HD22	1:E:563:MET:HE2	1.77	0.65
1:G:542:MET:CE	1:G:749:VAL:HG12	2.26	0.65
1:M:409:ASP:O	2:N:78:ARG:NH2	2.30	0.65
1:M:412:GLN:HE22	2:N:123:ARG:HH22	1.43	0.65
1:A:394:LEU:HD22	1:A:563:MET:CE	2.27	0.65
2:H:33:GLU:O	2:H:37:ILE:HG13	1.97	0.65
1:K:394:LEU:HD22	1:K:563:MET:CE	2.26	0.65
1:C:412:GLN:HE22	2:D:123:ARG:HH22	1.45	0.64
1:E:542:MET:HE2	1:E:749:VAL:HG12	1.79	0.64
1:E:642:ARG:O	1:E:741:ASN:ND2	2.30	0.64
1:O:542:MET:CE	1:O:749:VAL:HG12	2.26	0.64
1:A:552:ILE:HD11	1:A:596:ARG:HG3	1.79	0.64
1:M:394:LEU:HD22	1:M:563:MET:CE	2.28	0.64
1:M:642:ARG:O	1:M:741:ASN:ND2	2.30	0.64
1:M:744:LYS:HE3	1:M:744:LYS:CA	2.27	0.64
1:C:519:HIS:HE1	1:C:547:ASN:HD22	1.46	0.64
1:K:519:HIS:HE1	1:K:547:ASN:HD22	1.46	0.64
1:G:516:THR:HG22	1:G:544:LEU:H	1.63	0.64
2:J:33:GLU:O	2:J:37:ILE:HG13	1.97	0.64
1:K:542:MET:HE1	1:K:750:LEU:HA	1.79	0.64
1:O:151:ARG:HG2	1:O:195:SER:HA	1.79	0.64
1:K:409:ASP:O	2:L:78:ARG:NH2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:P:33:GLU:O	2:P:37:ILE:HG13	1.98	0.64
1:C:283:ILE:HG23	1:C:283:ILE:O	1.97	0.64
1:C:394:LEU:HD22	1:C:563:MET:CE	2.27	0.64
1:O:516:THR:HG22	1:O:544:LEU:H	1.63	0.64
2:B:33:GLU:O	2:B:37:ILE:HG13	1.97	0.64
1:A:394:LEU:CB	1:A:563:MET:HE1	2.28	0.63
1:A:710:ILE:HD13	1:A:745:MET:HE1	1.79	0.63
1:M:302:ASN:HA	1:M:338:ASP:OD1	1.97	0.63
1:C:409:ASP:O	2:D:78:ARG:NH2	2.31	0.63
1:C:552:ILE:CD1	1:C:596:ARG:HG3	2.28	0.63
1:I:519:HIS:HE1	1:I:547:ASN:HD22	1.44	0.63
1:O:552:ILE:HD11	1:O:596:ARG:HG3	1.80	0.63
1:E:91:ASP:OD1	1:E:91:ASP:N	2.26	0.63
1:C:302:ASN:HA	1:C:338:ASP:OD1	1.98	0.63
1:G:412:GLN:CB	2:H:78:ARG:HH21	2.12	0.63
1:I:394:LEU:CB	1:I:563:MET:HE1	2.28	0.63
1:C:744:LYS:HE3	1:C:744:LYS:CA	2.28	0.63
1:G:552:ILE:HD11	1:G:596:ARG:HG3	1.81	0.63
1:I:542:MET:CE	1:I:749:VAL:HG12	2.28	0.63
1:K:283:ILE:O	1:K:283:ILE:HG23	1.98	0.63
1:K:744:LYS:HE3	1:K:744:LYS:CA	2.28	0.63
1:O:412:GLN:HG2	2:P:71:ARG:HG2	1.80	0.63
1:G:542:MET:HE3	1:G:750:LEU:HA	1.80	0.63
1:I:151:ARG:HG2	1:I:195:SER:HA	1.81	0.63
1:O:412:GLN:CB	2:P:78:ARG:HH21	2.12	0.63
1:M:283:ILE:HG23	1:M:283:ILE:O	1.99	0.62
1:C:542:MET:HE1	1:C:750:LEU:HA	1.80	0.62
1:E:519:HIS:HE1	1:E:547:ASN:HD22	1.45	0.62
1:O:519:HIS:HE1	1:O:547:ASN:HD22	1.45	0.62
1:I:157:ILE:HD13	1:I:185:SER:HB3	1.80	0.62
1:I:412:GLN:HG2	2:J:71:ARG:HG2	1.82	0.62
1:A:598:ARG:HG3	1:A:598:ARG:HH11	1.64	0.62
1:K:75:PHE:CE2	1:K:335:ASP:HA	2.35	0.62
1:I:394:LEU:HD22	1:I:563:MET:CE	2.30	0.62
1:G:519:HIS:HE1	1:G:547:ASN:HD22	1.46	0.62
1:I:542:MET:HE2	1:I:749:VAL:HG12	1.81	0.62
1:K:305:SER:HB2	1:K:331:TRP:HB3	1.82	0.62
1:K:552:ILE:CD1	1:K:596:ARG:HG3	2.29	0.62
1:A:412:GLN:HG2	2:B:71:ARG:HG2	1.81	0.62
1:E:75:PHE:CE2	1:E:335:ASP:HA	2.34	0.62
1:G:394:LEU:HD22	1:G:563:MET:CE	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:511:TYR:HA	5:K:907:HOH:O	2.00	0.62
1:G:151:ARG:HG2	1:G:195:SER:HA	1.81	0.62
1:I:710:ILE:HD13	1:I:745:MET:CE	2.30	0.62
1:A:676:SER:HA	1:A:708:ALA:O	2.00	0.61
1:K:183:THR:CG2	1:K:314:ASP:HA	2.28	0.61
1:O:394:LEU:CB	1:O:563:MET:HE1	2.29	0.61
1:C:542:MET:CE	1:C:750:LEU:HA	2.30	0.61
1:G:284:PRO:HB2	1:G:557:PRO:HG2	1.81	0.61
1:G:710:ILE:HD13	1:G:745:MET:CE	2.30	0.61
1:O:169:LYS:HE3	1:O:173:ARG:HH12	1.64	0.61
1:A:598:ARG:HD3	1:C:182:ARG:O	2.01	0.61
1:O:394:LEU:HA	1:O:563:MET:HE3	1.82	0.61
1:A:519:HIS:HE1	1:A:547:ASN:HD22	1.47	0.61
1:I:284:PRO:HB2	1:I:557:PRO:HG2	1.81	0.61
1:K:751:ASN:O	1:K:755:LYS:HG3	1.99	0.61
1:A:151:ARG:HG2	1:A:195:SER:HA	1.82	0.61
1:C:305:SER:HB2	1:C:331:TRP:HB3	1.83	0.61
1:G:598:ARG:HG3	1:G:598:ARG:HH11	1.64	0.61
1:K:302:ASN:HA	1:K:338:ASP:OD1	2.00	0.61
1:C:394:LEU:HD22	1:C:563:MET:HE2	1.83	0.61
1:C:75:PHE:CE2	1:C:335:ASP:HA	2.36	0.61
1:G:654:GLY:HA2	1:G:726:SER:OG	2.01	0.61
1:I:412:GLN:CB	2:J:78:ARG:HH21	2.11	0.61
1:M:751:ASN:O	1:M:755:LYS:HG3	2.00	0.61
1:A:99:PHE:HB2	1:A:240:ASP:HB3	1.83	0.60
1:E:751:ASN:O	1:E:755:LYS:HG3	2.00	0.60
1:I:99:PHE:HB2	1:I:240:ASP:HB3	1.83	0.60
1:M:183:THR:CG2	1:M:314:ASP:HA	2.30	0.60
1:G:542:MET:CE	1:G:750:LEU:HA	2.31	0.60
1:I:598:ARG:HG3	1:I:598:ARG:HH11	1.64	0.60
1:M:394:LEU:CB	1:M:563:MET:HE1	2.30	0.60
2:P:72:MET:HG3	2:P:72:MET:O	2.00	0.60
1:K:394:LEU:CB	1:K:563:MET:HE1	2.31	0.60
1:K:542:MET:CE	1:K:750:LEU:HA	2.30	0.60
1:O:598:ARG:HG3	1:O:598:ARG:HH11	1.65	0.60
1:A:516:THR:HG22	1:A:544:LEU:H	1.66	0.60
1:G:676:SER:HA	1:G:708:ALA:O	2.00	0.60
1:I:676:SER:HA	1:I:708:ALA:O	2.01	0.60
1:M:542:MET:CE	1:M:750:LEU:HA	2.31	0.60
1:K:266:ILE:HD13	1:O:12:ARG:CB	2.32	0.60
1:M:519:HIS:HE1	1:M:547:ASN:HD22	1.47	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:542:MET:HE1	1:M:750:LEU:CA	2.31	0.60
1:M:552:ILE:CD1	1:M:596:ARG:HG3	2.30	0.60
1:A:284:PRO:HB2	1:A:557:PRO:HG2	1.83	0.60
1:E:183:THR:CG2	1:E:314:ASP:HA	2.31	0.60
1:G:542:MET:HE1	1:G:750:LEU:N	2.16	0.60
1:E:542:MET:CE	1:E:750:LEU:HA	2.31	0.60
1:E:552:ILE:CD1	1:E:596:ARG:HG3	2.31	0.60
1:G:729:TRP:HH2	1:G:745:MET:HE2	1.65	0.60
1:A:157:ILE:HD13	1:A:185:SER:HB3	1.82	0.60
1:E:305:SER:HB2	1:E:331:TRP:HB3	1.84	0.60
1:M:75:PHE:CE2	1:M:335:ASP:HA	2.37	0.60
1:C:91:ASP:OD1	1:C:91:ASP:N	2.25	0.60
1:C:394:LEU:CB	1:C:563:MET:HE1	2.32	0.60
1:I:729:TRP:HH2	1:I:745:MET:HE2	1.67	0.60
1:G:93:ALA:HB2	1:G:167:PRO:HD2	1.83	0.59
1:I:516:THR:HG22	1:I:544:LEU:H	1.66	0.59
1:M:182:ARG:O	1:O:598:ARG:HD3	2.02	0.59
1:A:394:LEU:HD22	1:A:563:MET:HE2	1.84	0.59
1:C:542:MET:HE1	1:C:750:LEU:N	2.17	0.59
1:O:676:SER:HA	1:O:708:ALA:O	2.01	0.59
1:M:305:SER:HB2	1:M:331:TRP:HB3	1.84	0.59
1:G:710:ILE:HD13	1:G:745:MET:HE1	1.83	0.59
1:C:183:THR:CG2	1:C:314:ASP:HA	2.31	0.59
1:G:542:MET:HE2	1:G:749:VAL:HG12	1.83	0.59
2:H:73:GLN:O	2:H:78:ARG:NH1	2.34	0.59
1:O:655:GLY:O	1:O:656:TYR:HB2	2.03	0.59
1:A:93:ALA:HB2	1:A:167:PRO:HD2	1.85	0.59
2:F:72:MET:HG3	2:F:72:MET:O	2.02	0.59
1:C:751:ASN:O	1:C:755:LYS:HG3	2.02	0.59
1:O:157:ILE:HD13	1:O:185:SER:HB3	1.85	0.59
1:C:216:ILE:O	1:C:217:ALA:HB3	2.03	0.59
2:H:123:ARG:O	2:H:127:VAL:HG12	2.03	0.59
2:D:25:PHE:CZ	2:D:29:ARG:HD2	2.37	0.59
1:G:157:ILE:HD13	1:G:185:SER:HB3	1.85	0.59
1:M:542:MET:HE1	1:M:750:LEU:N	2.18	0.59
1:M:688:PRO:CG	1:O:688:PRO:HG2	2.25	0.59
1:C:657:GLU:HG3	1:C:727:ILE:HD12	1.85	0.58
1:K:609:SER:OG	1:K:705:PHE:O	2.21	0.58
1:A:568:GLU:HG3	1:A:581:TYR:CE1	2.39	0.58
1:E:302:ASN:HA	1:E:338:ASP:OD1	2.02	0.58
1:I:654:GLY:HA2	1:I:726:SER:OG	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2:LYS:HD3	1:E:423:GLU:OE1	2.04	0.58
1:K:542:MET:HE1	1:K:750:LEU:N	2.18	0.58
1:O:710:ILE:HD13	1:O:745:MET:CE	2.34	0.58
2:B:123:ARG:O	2:B:127:VAL:HG12	2.04	0.58
1:G:394:LEU:CB	1:G:563:MET:HE1	2.32	0.58
1:O:542:MET:CE	1:O:750:LEU:HA	2.34	0.58
2:P:123:ARG:O	2:P:127:VAL:HG12	2.04	0.58
1:A:624:ASP:OD2	2:D:18:ARG:HD3	2.04	0.58
1:K:657:GLU:HG3	1:K:727:ILE:HD12	1.86	0.58
1:M:542:MET:HE1	1:M:750:LEU:HA	1.86	0.58
1:A:394:LEU:HA	1:A:563:MET:HE3	1.85	0.58
1:O:284:PRO:HB2	1:O:557:PRO:HG2	1.84	0.58
1:I:362:LYS:HE3	1:I:371:TYR:CZ	2.38	0.58
1:I:394:LEU:HD22	1:I:563:MET:HE2	1.85	0.58
1:C:552:ILE:HD11	1:C:596:ARG:HG3	1.84	0.58
2:N:25:PHE:CZ	2:N:29:ARG:HD2	2.39	0.58
1:O:93:ALA:HB2	1:O:167:PRO:HD2	1.85	0.58
1:O:394:LEU:HD22	1:O:563:MET:HE2	1.86	0.58
1:G:394:LEU:HA	1:G:563:MET:HE3	1.86	0.57
1:I:710:ILE:HD13	1:I:745:MET:HE1	1.86	0.57
1:E:657:GLU:HG3	1:E:727:ILE:HD12	1.85	0.57
1:O:542:MET:HE2	1:O:749:VAL:HG12	1.84	0.57
1:A:542:MET:CE	1:A:750:LEU:HA	2.34	0.57
1:A:542:MET:HE1	1:A:750:LEU:N	2.20	0.57
1:G:655:GLY:O	1:G:656:TYR:HB2	2.04	0.57
1:I:655:GLY:O	1:I:656:TYR:HB2	2.04	0.57
1:K:552:ILE:HD11	1:K:596:ARG:HG3	1.85	0.57
1:A:710:ILE:HD13	1:A:745:MET:CE	2.34	0.57
1:I:542:MET:HE3	1:I:750:LEU:HA	1.86	0.57
1:M:552:ILE:HD11	1:M:596:ARG:HG3	1.85	0.57
2:F:25:PHE:CZ	2:F:29:ARG:HD2	2.39	0.57
1:I:542:MET:HE1	1:I:750:LEU:N	2.20	0.57
1:K:2:LYS:HD3	1:K:423:GLU:OE1	2.04	0.57
1:G:99:PHE:HB2	1:G:240:ASP:HB3	1.86	0.57
1:I:542:MET:CE	1:I:750:LEU:HA	2.34	0.57
1:O:99:PHE:HB2	1:O:240:ASP:HB3	1.86	0.57
1:A:194:ASP:HB2	2:B:7:SER:N	2.20	0.57
1:K:183:THR:HG21	1:K:314:ASP:CA	2.35	0.57
1:O:542:MET:HE3	1:O:750:LEU:HA	1.85	0.57
1:O:729:TRP:CZ2	1:O:742:VAL:HG13	2.40	0.57
1:A:654:GLY:HA2	1:A:726:SER:OG	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2:LYS:HD3	1:C:423:GLU:OE1	2.04	0.57
1:I:518:SER:HB3	1:I:730:LEU:HD12	1.86	0.57
1:M:2:LYS:HD3	1:M:423:GLU:OE1	2.05	0.57
1:A:394:LEU:HA	1:A:563:MET:CE	2.35	0.56
1:A:729:TRP:HH2	1:A:745:MET:HE2	1.70	0.56
1:E:609:SER:OG	1:E:705:PHE:O	2.22	0.56
2:J:123:ARG:O	2:J:127:VAL:HG12	2.05	0.56
1:M:676:SER:HA	1:M:708:ALA:O	2.05	0.56
1:C:609:SER:OG	1:C:705:PHE:O	2.22	0.56
1:E:109:ARG:HG3	1:E:129:GLU:HG2	1.87	0.56
1:O:654:GLY:HA2	1:O:726:SER:OG	2.05	0.56
1:G:362:LYS:HG3	1:G:371:TYR:CE1	2.39	0.56
1:A:653:ALA:HB2	1:A:742:VAL:HG21	1.87	0.56
1:A:655:GLY:O	1:A:656:TYR:HB2	2.05	0.56
1:E:542:MET:HE1	1:E:750:LEU:N	2.21	0.56
1:A:568:GLU:HG3	1:A:581:TYR:HE1	1.70	0.56
1:E:182:ARG:O	1:G:598:ARG:HD3	2.06	0.56
1:I:93:ALA:HB2	1:I:167:PRO:HD2	1.88	0.56
2:N:18:ARG:HD3	1:O:624:ASP:OD2	2.05	0.56
1:A:572:THR:HB	1:A:574:TRP:CD1	2.41	0.56
1:I:568:GLU:HG3	1:I:581:TYR:CE1	2.40	0.56
1:O:542:MET:HE1	1:O:750:LEU:N	2.21	0.56
1:A:362:LYS:HG3	1:A:371:TYR:CE1	2.40	0.56
1:A:542:MET:HE3	1:A:750:LEU:HA	1.87	0.56
1:A:216:ILE:O	1:A:217:ALA:HB3	2.05	0.56
1:G:568:GLU:HG3	1:G:581:TYR:CE1	2.39	0.56
1:I:216:ILE:O	1:I:217:ALA:HB3	2.05	0.56
1:O:518:SER:HB3	1:O:730:LEU:HD12	1.87	0.56
1:O:568:GLU:HG3	1:O:581:TYR:CE1	2.41	0.56
1:E:394:LEU:HA	1:E:563:MET:HE3	1.88	0.55
1:E:542:MET:CE	1:E:749:VAL:HG12	2.36	0.55
1:A:688:PRO:HG2	1:C:688:PRO:CG	2.25	0.55
1:G:568:GLU:HG3	1:G:581:TYR:HE1	1.72	0.55
1:O:362:LYS:HG3	1:O:371:TYR:CE1	2.40	0.55
1:C:394:LEU:HA	1:C:563:MET:HE3	1.89	0.55
1:C:542:MET:CE	1:C:749:VAL:HG12	2.37	0.55
2:J:18:ARG:HD3	1:K:624:ASP:OD2	2.06	0.55
1:G:518:SER:HB3	1:G:730:LEU:HD12	1.88	0.55
1:C:676:SER:HA	1:C:708:ALA:O	2.07	0.55
1:M:609:SER:OG	1:M:705:PHE:O	2.24	0.55
1:M:688:PRO:HG2	1:O:688:PRO:CG	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:729:TRP:CE2	1:O:742:VAL:HG13	2.41	0.55
1:A:283:ILE:HG23	1:A:283:ILE:O	2.06	0.55
1:K:216:ILE:O	1:K:217:ALA:HB3	2.07	0.55
1:O:568:GLU:HG3	1:O:581:TYR:HE1	1.72	0.55
1:A:302:ASN:HA	1:A:338:ASP:OD1	2.07	0.55
1:A:598:ARG:HG3	1:A:598:ARG:NH1	2.21	0.55
1:I:283:ILE:HG23	1:I:283:ILE:O	2.06	0.55
1:K:38:LEU:HD23	1:K:58:ILE:CG2	2.37	0.55
1:G:194:ASP:HB2	2:H:7:SER:N	2.21	0.55
1:K:676:SER:HA	1:K:708:ALA:O	2.07	0.55
1:G:572:THR:HB	1:G:574:TRP:CD1	2.43	0.54
1:I:362:LYS:HE3	1:I:371:TYR:HH	1.63	0.54
1:M:216:ILE:O	1:M:217:ALA:HB3	2.07	0.54
1:C:88:LEU:HD13	1:C:214:LEU:HD13	1.87	0.54
1:C:183:THR:HG21	1:C:314:ASP:CA	2.38	0.54
1:E:216:ILE:O	1:E:217:ALA:HB3	2.07	0.54
1:M:657:GLU:HG3	1:M:727:ILE:HD12	1.88	0.54
1:O:194:ASP:HB2	2:P:7:SER:N	2.22	0.54
1:A:518:SER:HB3	1:A:730:LEU:HD12	1.89	0.54
1:C:643:ILE:HD13	1:C:745:MET:HE2	1.90	0.54
1:E:552:ILE:HD11	1:E:596:ARG:HG3	1.88	0.54
1:I:394:LEU:HA	1:I:563:MET:HE3	1.89	0.54
1:I:598:ARG:HG3	1:I:598:ARG:NH1	2.21	0.54
1:I:653:ALA:HB2	1:I:742:VAL:HG21	1.89	0.54
1:K:687:ILE:HD12	5:K:911:HOH:O	2.05	0.54
1:O:572:THR:HB	1:O:574:TRP:CD1	2.43	0.54
1:A:134:VAL:HG22	1:A:148:VAL:HG22	1.88	0.54
1:G:653:ALA:HB2	1:G:742:VAL:HG21	1.89	0.54
1:I:572:THR:HB	1:I:574:TRP:CD1	2.43	0.54
1:O:394:LEU:HA	1:O:563:MET:CE	2.38	0.54
1:A:729:TRP:CE2	1:A:742:VAL:HG13	2.43	0.54
1:G:392:SER:HA	1:G:497:GLU:CD	2.27	0.54
1:I:392:SER:HA	1:I:497:GLU:CD	2.28	0.54
1:A:553:VAL:CG1	1:A:563:MET:HG3	2.37	0.54
1:C:632:TRP:CE2	1:C:760:PRO:HG2	2.43	0.54
1:K:594:ARG:NH1	5:K:903:HOH:O	2.40	0.54
1:O:216:ILE:O	1:O:217:ALA:HB3	2.06	0.54
1:E:88:LEU:HD13	1:E:214:LEU:HD13	1.88	0.54
1:C:447:ARG:HD3	1:C:448:GLY:O	2.07	0.54
1:G:394:LEU:HA	1:G:563:MET:CE	2.38	0.54
1:I:194:ASP:HB2	2:J:7:SER:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:611:PHE:HB3	1:I:657:GLU:HG3	1.90	0.54
1:I:729:TRP:CZ2	1:I:742:VAL:HG13	2.42	0.54
1:E:183:THR:HG21	1:E:314:ASP:CA	2.38	0.54
1:A:305:SER:HB2	1:A:331:TRP:HB3	1.89	0.54
1:A:729:TRP:CZ2	1:A:742:VAL:HG13	2.42	0.54
1:E:412:GLN:CB	2:F:78:ARG:HH22	2.13	0.54
1:G:302:ASN:HA	1:G:338:ASP:OD1	2.08	0.54
2:L:25:PHE:CZ	2:L:29:ARG:HD2	2.42	0.54
1:M:183:THR:HG21	1:M:314:ASP:CA	2.37	0.54
1:I:134:VAL:HG22	1:I:148:VAL:HG22	1.89	0.53
1:I:568:GLU:HG3	1:I:581:TYR:HE1	1.73	0.53
1:I:729:TRP:CE2	1:I:742:VAL:HG13	2.43	0.53
1:M:542:MET:CE	1:M:749:VAL:HG12	2.38	0.53
1:E:412:GLN:NE2	2:F:78:ARG:HH21	2.05	0.53
1:E:676:SER:HA	1:E:708:ALA:O	2.08	0.53
1:G:724:THR:HG21	1:G:729:TRP:CE2	2.43	0.53
1:C:159:TYR:HE1	1:C:195:SER:HB3	1.73	0.53
1:G:216:ILE:O	1:G:217:ALA:HB3	2.07	0.53
1:G:394:LEU:HD22	1:G:563:MET:HE2	1.91	0.53
1:G:729:TRP:CZ2	1:G:742:VAL:HG13	2.44	0.53
2:H:72:MET:O	2:H:72:MET:HG3	2.08	0.53
1:E:394:LEU:CB	1:E:563:MET:HE1	2.37	0.53
2:F:18:ARG:HD3	1:G:624:ASP:OD2	2.07	0.53
1:I:578:PRO:HG2	1:K:597:ALA:HB2	1.90	0.53
1:O:392:SER:HA	1:O:497:GLU:CD	2.28	0.53
2:F:51:ASN:HD21	2:F:55:TYR:N	2.06	0.53
1:G:598:ARG:HG3	1:G:598:ARG:NH1	2.21	0.53
1:I:12:ARG:CB	1:M:266:ILE:HD13	2.38	0.53
1:I:394:LEU:HA	1:I:563:MET:CE	2.38	0.53
1:K:88:LEU:HD13	1:K:214:LEU:HD13	1.90	0.53
1:K:109:ARG:HG3	1:K:129:GLU:HG2	1.91	0.53
1:M:159:TYR:HE1	1:M:195:SER:HB3	1.74	0.53
1:O:134:VAL:HG22	1:O:148:VAL:HG22	1.90	0.53
1:I:624:ASP:OD2	2:L:18:ARG:HD3	2.09	0.53
1:K:159:TYR:HE1	1:K:195:SER:HB3	1.74	0.53
1:M:624:ASP:OD2	2:P:18:ARG:HD3	2.09	0.53
1:O:22:ARG:HD2	1:O:344:LYS:HD3	1.90	0.53
1:O:653:ALA:HB2	1:O:742:VAL:HG21	1.90	0.53
1:I:553:VAL:CG1	1:I:563:MET:HG3	2.39	0.53
1:K:632:TRP:CE2	1:K:760:PRO:HG2	2.44	0.53
1:O:283:ILE:HG23	1:O:283:ILE:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:392:SER:HA	1:A:497:GLU:CD	2.29	0.53
1:C:7:ARG:N	1:C:7:ARG:HD2	2.24	0.53
1:O:724:THR:HG21	1:O:729:TRP:CE2	2.43	0.53
1:E:622:MET:HE2	1:E:622:MET:HA	1.91	0.53
1:G:134:VAL:HG22	1:G:148:VAL:HG22	1.91	0.53
1:I:302:ASN:HA	1:I:338:ASP:OD1	2.09	0.53
1:O:394:LEU:HD22	1:O:563:MET:HE1	1.91	0.53
1:O:624:ASP:HB2	1:O:673:LEU:O	2.09	0.53
1:A:611:PHE:HB3	1:A:657:GLU:HG3	1.91	0.52
1:E:409:ASP:OD2	2:F:74:PRO:HA	2.09	0.52
1:G:729:TRP:CE2	1:G:742:VAL:HG13	2.44	0.52
1:K:570:GLY:HA3	1:K:574:TRP:CZ2	2.44	0.52
1:A:137:ILE:HD13	1:A:172:LEU:HD21	1.91	0.52
1:C:38:LEU:HD23	1:C:58:ILE:CG2	2.38	0.52
1:C:609:SER:HB3	1:C:658:LEU:O	2.09	0.52
1:I:624:ASP:HB2	1:I:673:LEU:O	2.09	0.52
1:K:148:VAL:O	1:K:199:VAL:HG21	2.09	0.52
1:O:302:ASN:HA	1:O:338:ASP:OD1	2.08	0.52
2:H:28:GLU:OE2	2:H:32:LYS:HE3	2.10	0.52
1:K:7:ARG:HD2	1:K:7:ARG:N	2.25	0.52
1:K:542:MET:CE	1:K:749:VAL:HG12	2.39	0.52
1:C:542:MET:HE2	1:C:749:VAL:HG12	1.91	0.52
1:E:447:ARG:HD3	1:E:448:GLY:O	2.08	0.52
1:E:519:HIS:CE1	1:E:547:ASN:HD22	2.27	0.52
1:G:611:PHE:HB3	1:G:657:GLU:HG3	1.90	0.52
1:C:109:ARG:HG3	1:C:129:GLU:HG2	1.91	0.52
1:G:283:ILE:HG23	1:G:283:ILE:O	2.08	0.52
1:K:447:ARG:HD3	1:K:448:GLY:O	2.09	0.52
1:C:598:ARG:HH11	1:C:598:ARG:CG	2.12	0.52
1:M:109:ARG:HG3	1:M:129:GLU:HG2	1.91	0.52
1:M:521:GLU:HA	1:M:547:ASN:O	2.10	0.52
1:O:519:HIS:CE1	1:O:547:ASN:HD22	2.27	0.52
1:O:598:ARG:HG3	1:O:598:ARG:NH1	2.21	0.52
1:A:724:THR:HG21	1:A:729:TRP:CE2	2.44	0.52
1:C:90:PRO:HG2	1:C:94:PHE:HB3	1.92	0.52
1:O:611:PHE:HB3	1:O:657:GLU:HG3	1.91	0.52
1:A:109:ARG:NH2	1:A:118:ASP:OD2	2.43	0.52
2:B:28:GLU:OE2	2:B:32:LYS:HE3	2.10	0.52
1:C:687:ILE:HD12	5:C:906:HOH:O	2.10	0.52
1:E:159:TYR:HE1	1:E:195:SER:HB3	1.75	0.52
1:C:394:LEU:HA	1:C:563:MET:CE	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:657:GLU:HB2	1:G:727:ILE:HD12	1.91	0.51
1:K:598:ARG:HH11	1:K:598:ARG:CG	2.13	0.51
1:O:475:LEU:HB3	1:O:476:PRO:HD3	1.91	0.51
2:P:28:GLU:OE2	2:P:32:LYS:HE3	2.10	0.51
1:G:519:HIS:CE1	1:G:547:ASN:HD22	2.27	0.51
1:I:518:SER:CB	1:I:730:LEU:HD12	2.41	0.51
1:O:183:THR:HG21	1:O:314:ASP:C	2.31	0.51
1:C:271:HIS:O	1:C:291:ALA:N	2.43	0.51
1:E:101:TRP:HB3	1:E:238:LYS:HB2	1.93	0.51
1:G:553:VAL:HG22	1:G:565:VAL:HB	1.93	0.51
1:I:724:THR:HG21	1:I:729:TRP:CE2	2.45	0.51
2:L:30:ARG:O	2:L:34:ILE:HG12	2.11	0.51
1:M:632:TRP:CE2	1:M:760:PRO:HG2	2.45	0.51
1:C:103:THR:HG22	1:C:156:GLN:HG3	1.92	0.51
1:E:90:PRO:HG2	1:E:94:PHE:HB3	1.92	0.51
1:G:553:VAL:CG1	1:G:563:MET:HG3	2.38	0.51
1:I:519:HIS:CE1	1:I:547:ASN:HD22	2.26	0.51
1:M:148:VAL:O	1:M:199:VAL:HG21	2.11	0.51
1:K:90:PRO:HG2	1:K:94:PHE:HB3	1.93	0.51
1:M:729:TRP:CE2	1:M:742:VAL:HG13	2.46	0.51
1:A:302:ASN:O	1:A:336:CYS:HB3	2.10	0.51
1:E:729:TRP:CE2	1:E:742:VAL:HG13	2.45	0.51
1:G:22:ARG:HD2	1:G:344:LYS:HD3	1.93	0.51
1:M:7:ARG:HD2	1:M:7:ARG:N	2.25	0.51
1:M:88:LEU:HD13	1:M:214:LEU:HD13	1.92	0.51
1:E:38:LEU:HD23	1:E:58:ILE:CG2	2.40	0.51
1:E:103:THR:HG22	1:E:156:GLN:HG3	1.93	0.51
1:G:302:ASN:O	1:G:336:CYS:HB3	2.10	0.51
1:I:388:LEU:HD13	1:I:511:TYR:CZ	2.46	0.51
1:K:519:HIS:CE1	1:K:521:GLU:HB2	2.45	0.51
1:O:305:SER:HB2	1:O:331:TRP:HB3	1.91	0.51
1:C:109:ARG:HG3	1:C:129:GLU:CG	2.41	0.51
1:E:521:GLU:HA	1:E:547:ASN:O	2.11	0.51
2:L:51:ASN:HD21	2:L:55:TYR:N	2.08	0.51
2:B:75:THR:O	2:B:78:ARG:HB2	2.09	0.51
1:C:570:GLY:HA3	1:C:574:TRP:CZ2	2.46	0.51
2:D:30:ARG:O	2:D:34:ILE:HG12	2.11	0.51
1:E:412:GLN:HE22	2:F:123:ARG:HH22	1.58	0.51
1:E:570:GLY:HA3	1:E:574:TRP:CZ2	2.46	0.51
1:E:685:THR:HG22	1:E:686:VAL:N	2.26	0.51
1:G:109:ARG:NH2	1:G:118:ASP:OD2	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:266:ILE:HD13	1:O:12:ARG:HB2	1.92	0.51
1:K:519:HIS:CE1	1:K:547:ASN:HD22	2.27	0.51
1:A:183:THR:HG21	1:A:314:ASP:C	2.30	0.51
1:C:685:THR:HG22	1:C:686:VAL:N	2.26	0.51
1:E:109:ARG:HG3	1:E:129:GLU:CG	2.40	0.51
2:J:130:GLU:O	2:J:131:LEU:HD23	2.11	0.51
1:K:151:ARG:HG2	1:K:195:SER:HA	1.92	0.51
1:M:394:LEU:HA	1:M:563:MET:CE	2.41	0.51
1:M:472:ILE:HD12	1:M:477:ALA:HA	1.93	0.51
1:E:409:ASP:O	2:F:78:ARG:NH1	2.44	0.50
1:G:388:LEU:HD13	1:G:511:TYR:CZ	2.46	0.50
1:G:402:GLU:HG2	1:G:404:ILE:HG13	1.93	0.50
1:I:481:LEU:HB2	1:I:730:LEU:HD22	1.94	0.50
2:J:49:ALA:HB2	2:J:117:HIS:CE1	2.46	0.50
1:M:23:PHE:CB	1:M:346:PHE:CE1	2.94	0.50
1:M:402:GLU:HG2	1:M:404:ILE:H	1.76	0.50
1:O:553:VAL:HG22	1:O:565:VAL:HB	1.94	0.50
1:O:622:MET:HB3	1:O:623:PRO:CD	2.41	0.50
1:A:553:VAL:HG22	1:A:565:VAL:HB	1.92	0.50
1:E:624:ASP:OD2	2:H:18:ARG:HD3	2.11	0.50
1:E:632:TRP:CE2	1:E:760:PRO:HG2	2.46	0.50
1:E:638:ASP:OD2	1:O:756:ASP:O	2.29	0.50
1:G:394:LEU:HD22	1:G:563:MET:HE1	1.93	0.50
1:M:447:ARG:HD3	1:M:448:GLY:O	2.09	0.50
1:C:729:TRP:CE2	1:C:742:VAL:HG13	2.46	0.50
2:D:51:ASN:HD21	2:D:55:TYR:N	2.09	0.50
1:K:109:ARG:HG3	1:K:129:GLU:CG	2.41	0.50
1:K:643:ILE:HD13	1:K:745:MET:HE2	1.94	0.50
1:K:685:THR:HG22	1:K:686:VAL:N	2.26	0.50
2:N:51:ASN:HD21	2:N:55:TYR:N	2.09	0.50
1:O:729:TRP:HH2	1:O:745:MET:HE2	1.76	0.50
1:A:22:ARG:HD2	1:A:344:LYS:HD3	1.92	0.50
1:E:578:PRO:HG2	1:G:597:ALA:HB2	1.92	0.50
1:I:302:ASN:O	1:I:336:CYS:HB3	2.11	0.50
1:E:148:VAL:O	1:E:199:VAL:HG21	2.11	0.50
1:E:151:ARG:HG2	1:E:195:SER:HA	1.94	0.50
1:G:183:THR:HG21	1:G:314:ASP:C	2.32	0.50
1:M:519:HIS:CE1	1:M:547:ASN:HD22	2.29	0.50
2:P:38:ILE:HD13	2:P:44:ILE:HD11	1.93	0.50
1:A:475:LEU:HB3	1:A:476:PRO:HD3	1.93	0.50
1:O:657:GLU:HB2	1:O:727:ILE:HD12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:130:GLU:O	2:B:131:LEU:HD23	2.12	0.50
1:C:519:HIS:CE1	1:C:547:ASN:HD22	2.28	0.50
1:M:687:ILE:HD12	5:M:902:HOH:O	2.12	0.50
1:C:101:TRP:HB3	1:C:238:LYS:HB2	1.93	0.50
1:G:475:LEU:HB3	1:G:476:PRO:HD3	1.92	0.50
1:I:22:ARG:HD2	1:I:344:LYS:HD3	1.92	0.50
1:I:183:THR:HG21	1:I:314:ASP:C	2.31	0.50
2:J:38:ILE:HD13	2:J:44:ILE:HD11	1.94	0.50
1:K:609:SER:HB3	1:K:658:LEU:O	2.11	0.50
1:M:570:GLY:HA3	1:M:574:TRP:CZ2	2.47	0.50
1:M:643:ILE:HD13	1:M:745:MET:HE2	1.94	0.50
1:O:553:VAL:CG1	1:O:563:MET:HG3	2.40	0.50
1:G:305:SER:HB2	1:G:331:TRP:HB3	1.92	0.50
1:I:305:SER:HB2	1:I:331:TRP:HB3	1.94	0.50
1:M:109:ARG:HG3	1:M:129:GLU:CG	2.41	0.50
1:M:609:SER:HB3	1:M:658:LEU:O	2.11	0.50
2:N:30:ARG:O	2:N:34:ILE:HG12	2.11	0.50
1:O:447:ARG:HD3	1:O:448:GLY:O	2.12	0.50
1:C:151:ARG:HG2	1:C:195:SER:HA	1.92	0.49
1:G:165:TYR:CE2	1:G:167:PRO:HG3	2.47	0.49
1:G:601:GLN:HG3	1:G:606:THR:HA	1.94	0.49
1:I:137:ILE:HD13	1:I:172:LEU:HD21	1.93	0.49
1:I:521:GLU:HA	1:I:547:ASN:O	2.12	0.49
1:M:394:LEU:HA	1:M:563:MET:HE3	1.93	0.49
2:P:130:GLU:O	2:P:131:LEU:HD23	2.12	0.49
1:A:147:VAL:HG22	1:A:199:VAL:HG23	1.94	0.49
1:E:472:ILE:HD12	1:E:477:ALA:HA	1.94	0.49
1:I:5:ALA:HB3	1:I:368:THR:HG21	1.94	0.49
1:I:109:ARG:NH2	1:I:118:ASP:OD2	2.45	0.49
1:M:90:PRO:HG2	1:M:94:PHE:HB3	1.93	0.49
1:A:518:SER:CB	1:A:730:LEU:HD12	2.42	0.49
1:I:147:VAL:HG22	1:I:199:VAL:HG23	1.95	0.49
1:K:394:LEU:HA	1:K:563:MET:HE3	1.94	0.49
1:K:729:TRP:CE2	1:K:742:VAL:HG13	2.47	0.49
1:A:622:MET:HB3	1:A:623:PRO:CD	2.42	0.49
1:G:147:VAL:HG22	1:G:199:VAL:HG23	1.94	0.49
1:K:412:GLN:HG2	2:L:71:ARG:HG2	1.94	0.49
1:A:447:ARG:HD3	1:A:448:GLY:O	2.12	0.49
1:E:400:ALA:O	1:E:438:SER:HB3	2.12	0.49
1:I:11:ASP:OD2	1:I:22:ARG:NH1	2.46	0.49
1:I:12:ARG:HB3	1:M:266:ILE:HD13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:165:TYR:CE2	1:I:167:PRO:HG3	2.47	0.49
1:I:553:VAL:HG22	1:I:565:VAL:HB	1.93	0.49
1:I:622:MET:HB3	1:I:623:PRO:CD	2.43	0.49
1:K:553:VAL:HG13	1:K:563:MET:HG3	1.94	0.49
1:E:7:ARG:N	1:E:7:ARG:HD2	2.27	0.49
1:M:685:THR:HG22	1:M:686:VAL:N	2.28	0.49
1:O:518:SER:CB	1:O:730:LEU:HD12	2.41	0.49
1:G:518:SER:CB	1:G:730:LEU:HD12	2.42	0.49
1:I:402:GLU:HG2	1:I:404:ILE:HG13	1.94	0.49
1:K:271:HIS:O	1:K:291:ALA:N	2.44	0.49
1:M:38:LEU:HD23	1:M:58:ILE:CG2	2.43	0.49
1:M:151:ARG:HG2	1:M:195:SER:HA	1.94	0.49
1:M:542:MET:HE2	1:M:749:VAL:HG12	1.94	0.49
1:C:521:GLU:HA	1:C:547:ASN:O	2.13	0.49
2:F:30:ARG:O	2:F:34:ILE:HG12	2.12	0.49
1:K:394:LEU:HA	1:K:563:MET:CE	2.43	0.49
1:O:147:VAL:HG22	1:O:199:VAL:HG23	1.94	0.49
1:O:402:GLU:HG2	1:O:404:ILE:HG13	1.95	0.49
1:A:519:HIS:CE1	1:A:521:GLU:HB2	2.48	0.49
1:E:609:SER:HB3	1:E:658:LEU:O	2.11	0.49
1:C:338:ASP:HA	1:C:453:SER:HB2	1.95	0.49
1:M:103:THR:HG22	1:M:156:GLN:HG3	1.95	0.48
1:O:302:ASN:O	1:O:336:CYS:HB3	2.13	0.48
1:C:400:ALA:O	1:C:438:SER:HB3	2.13	0.48
1:M:410:ILE:HD11	1:O:693:PHE:HB3	1.95	0.48
2:N:33:GLU:O	2:N:37:ILE:HG13	2.13	0.48
1:O:109:ARG:NH2	1:O:118:ASP:OD2	2.45	0.48
1:O:521:GLU:HA	1:O:547:ASN:O	2.13	0.48
1:C:148:VAL:O	1:C:199:VAL:HG21	2.13	0.48
1:G:101:TRP:HB3	1:G:238:LYS:HB2	1.96	0.48
1:I:475:LEU:HB3	1:I:476:PRO:HD3	1.94	0.48
1:M:183:THR:HG23	1:M:313:TRP:O	2.13	0.48
1:M:622:MET:HA	1:M:622:MET:CE	2.43	0.48
1:A:521:GLU:HA	1:A:547:ASN:O	2.14	0.48
1:A:601:GLN:HG3	1:A:606:THR:HA	1.95	0.48
1:E:306:ARG:HG2	1:E:330:LEU:CD2	2.43	0.48
1:E:394:LEU:HA	1:E:563:MET:CE	2.43	0.48
1:G:137:ILE:HD13	1:G:172:LEU:HD21	1.94	0.48
1:K:542:MET:HE2	1:K:749:VAL:HG12	1.94	0.48
1:O:601:GLN:HG3	1:O:606:THR:HA	1.94	0.48
1:I:62:LEU:HD12	1:I:62:LEU:C	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:519:HIS:HE1	1:K:547:ASN:ND2	2.11	0.48
1:O:90:PRO:HG2	1:O:94:PHE:HB3	1.95	0.48
1:E:519:HIS:CE1	1:E:521:GLU:HB2	2.49	0.48
1:G:521:GLU:HA	1:G:547:ASN:O	2.14	0.48
1:G:542:MET:HE1	1:G:749:VAL:HG12	1.95	0.48
1:K:472:ILE:HD12	1:K:477:ALA:HA	1.94	0.48
1:K:521:GLU:HA	1:K:547:ASN:O	2.14	0.48
1:O:388:LEU:HD13	1:O:511:TYR:CZ	2.49	0.48
1:A:5:ALA:HB3	1:A:368:THR:HG21	1.95	0.48
1:A:388:LEU:HD13	1:A:511:TYR:CZ	2.48	0.48
1:A:624:ASP:HB2	1:A:673:LEU:O	2.14	0.48
1:E:622:MET:O	1:E:625:SER:HB2	2.13	0.48
1:M:101:TRP:HB3	1:M:238:LYS:HB2	1.96	0.48
1:O:165:TYR:CE2	1:O:167:PRO:HG3	2.49	0.48
1:A:11:ASP:OD2	1:A:22:ARG:NH1	2.47	0.48
1:G:481:LEU:HB2	1:G:730:LEU:HD22	1.96	0.48
1:I:90:PRO:HG2	1:I:94:PHE:HB3	1.96	0.48
1:K:101:TRP:HB3	1:K:238:LYS:HB2	1.95	0.48
1:M:519:HIS:CE1	1:M:521:GLU:HB2	2.49	0.48
1:A:628:GLU:H	1:A:628:GLU:HG3	1.37	0.48
1:C:519:HIS:CE1	1:C:521:GLU:HB2	2.49	0.48
2:J:28:GLU:OE2	2:J:32:LYS:HE3	2.14	0.48
1:K:338:ASP:HA	1:K:453:SER:HB2	1.96	0.48
1:O:101:TRP:HB3	1:O:238:LYS:HB2	1.96	0.48
1:E:183:THR:HG21	1:E:314:ASP:C	2.35	0.48
1:E:402:GLU:HG2	1:E:404:ILE:H	1.79	0.48
1:G:62:LEU:C	1:G:62:LEU:HD12	2.35	0.48
1:O:481:LEU:HB2	1:O:730:LEU:HD22	1.96	0.48
1:G:622:MET:HB3	1:G:623:PRO:CD	2.43	0.47
2:H:130:GLU:O	2:H:131:LEU:HD23	2.14	0.47
1:K:101:TRP:CH2	1:K:156:GLN:HG2	2.49	0.47
1:C:168:GLU:HA	1:C:168:GLU:OE1	2.14	0.47
1:G:624:ASP:HB2	1:G:673:LEU:O	2.14	0.47
1:K:622:MET:O	1:K:625:SER:HB2	2.13	0.47
1:M:392:SER:HA	1:M:497:GLU:CD	2.35	0.47
1:A:165:TYR:CE2	1:A:167:PRO:HG3	2.48	0.47
1:A:190:VAL:HG21	1:C:602:LYS:O	2.13	0.47
1:A:467:GLN:OE1	1:A:469:PHE:HB2	2.15	0.47
1:C:472:ILE:HD12	1:C:477:ALA:HA	1.95	0.47
1:C:519:HIS:HE1	1:C:547:ASN:ND2	2.12	0.47
1:C:643:ILE:HG21	1:C:745:MET:CE	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:402:GLU:HG2	1:G:404:ILE:H	1.79	0.47
1:I:601:GLN:HG3	1:I:606:THR:HA	1.96	0.47
1:K:38:LEU:HD23	1:K:58:ILE:HG21	1.96	0.47
1:M:400:ALA:O	1:M:438:SER:HB3	2.13	0.47
2:P:25:PHE:CZ	2:P:29:ARG:HD2	2.50	0.47
1:E:597:ALA:HB2	1:G:578:PRO:HG2	1.96	0.47
1:G:5:ALA:HA	1:G:28:ASN:HD21	1.80	0.47
1:G:447:ARG:HD3	1:G:448:GLY:O	2.15	0.47
2:H:25:PHE:CZ	2:H:29:ARG:HD2	2.50	0.47
1:M:622:MET:O	1:M:625:SER:HB2	2.15	0.47
1:A:572:THR:HB	1:A:574:TRP:HD1	1.78	0.47
1:A:693:PHE:HB3	1:C:410:ILE:HD11	1.96	0.47
1:C:101:TRP:CH2	1:C:156:GLN:HG2	2.50	0.47
1:C:622:MET:HA	1:C:622:MET:CE	2.43	0.47
1:E:236:ASN:HB3	1:E:445:ASP:OD1	2.15	0.47
2:F:71:ARG:O	2:F:78:ARG:NH2	2.47	0.47
1:K:622:MET:HA	1:K:622:MET:HE2	1.95	0.47
1:A:519:HIS:CE1	1:A:547:ASN:HD22	2.29	0.47
1:E:402:GLU:CG	1:E:404:ILE:HG13	2.44	0.47
1:I:447:ARG:HD3	1:I:448:GLY:O	2.14	0.47
1:K:103:THR:HG22	1:K:156:GLN:HG3	1.96	0.47
1:K:421:LEU:HD12	2:L:80:TYR:CD2	2.50	0.47
1:O:166:ASP:OD2	1:O:169:LYS:HE3	2.15	0.47
1:C:393:THR:HA	1:C:396:TYR:CD2	2.49	0.47
1:C:394:LEU:HD22	1:C:563:MET:HE1	1.96	0.47
1:E:643:ILE:HG21	1:E:745:MET:CE	2.44	0.47
1:G:11:ASP:OD2	1:G:22:ARG:NH1	2.48	0.47
1:G:467:GLN:OE1	1:G:469:PHE:HB2	2.14	0.47
1:G:519:HIS:CE1	1:G:521:GLU:HB2	2.50	0.47
1:I:402:GLU:HG2	1:I:404:ILE:H	1.80	0.47
1:I:710:ILE:HD13	1:I:745:MET:HE3	1.97	0.47
1:M:421:LEU:HD12	2:N:80:TYR:CD2	2.50	0.47
1:O:137:ILE:HD13	1:O:172:LEU:HD21	1.94	0.47
1:O:169:LYS:HB2	1:O:171:GLN:HB3	1.97	0.47
1:E:643:ILE:HD13	1:E:745:MET:HE2	1.96	0.47
1:G:2:LYS:HB3	5:H:301:HOH:O	2.14	0.47
1:E:393:THR:HA	1:E:396:TYR:CD2	2.50	0.47
1:O:467:GLN:OE1	1:O:469:PHE:HB2	2.15	0.47
1:G:365:TYR:O	1:G:368:THR:HG22	2.15	0.47
2:H:38:ILE:HD13	2:H:44:ILE:HD11	1.96	0.47
1:I:183:THR:HG21	1:I:314:ASP:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:519:HIS:CE1	1:I:521:GLU:HB2	2.50	0.47
2:J:49:ALA:HB2	2:J:117:HIS:NE2	2.29	0.47
1:K:183:THR:HG23	1:K:313:TRP:O	2.15	0.47
1:M:183:THR:HG21	1:M:314:ASP:C	2.36	0.47
1:E:109:ARG:HD2	1:E:129:GLU:OE2	2.15	0.46
1:E:516:THR:CG2	1:E:520:PRO:HG3	2.45	0.46
1:G:90:PRO:HG2	1:G:94:PHE:HB3	1.97	0.46
1:K:393:THR:HA	1:K:396:TYR:CD2	2.50	0.46
1:A:62:LEU:HD12	1:A:62:LEU:C	2.35	0.46
1:A:182:ARG:HD3	1:C:598:ARG:NH2	2.30	0.46
1:C:306:ARG:HG2	1:C:330:LEU:CD2	2.45	0.46
1:C:474:GLU:HA	1:C:474:GLU:OE1	2.15	0.46
1:C:516:THR:CG2	1:C:520:PRO:HG3	2.46	0.46
1:E:519:HIS:HE1	1:E:547:ASN:ND2	2.12	0.46
1:I:472:ILE:CD1	1:I:477:ALA:HA	2.45	0.46
1:I:572:THR:HB	1:I:574:TRP:HD1	1.79	0.46
1:M:271:HIS:O	1:M:291:ALA:N	2.43	0.46
1:M:598:ARG:HH11	1:M:598:ARG:CG	2.13	0.46
1:O:283:ILE:O	5:O:901:HOH:O	2.21	0.46
1:O:519:HIS:CE1	1:O:521:GLU:HB2	2.49	0.46
2:B:18:ARG:HD3	1:C:624:ASP:OD2	2.14	0.46
1:C:183:THR:HG23	1:C:313:TRP:O	2.15	0.46
1:E:338:ASP:HA	1:E:453:SER:HB2	1.97	0.46
1:G:89:GLN:O	1:G:89:GLN:HG3	2.15	0.46
1:K:266:ILE:HD13	1:O:12:ARG:HB3	1.98	0.46
1:O:402:GLU:HG2	1:O:404:ILE:H	1.80	0.46
2:D:33:GLU:O	2:D:37:ILE:HG13	2.15	0.46
1:E:101:TRP:CH2	1:E:156:GLN:HG2	2.50	0.46
1:E:168:GLU:OE1	1:E:168:GLU:HA	2.15	0.46
1:G:5:ALA:HB3	1:G:368:THR:HG21	1.97	0.46
2:H:124:ILE:O	2:H:127:VAL:HG13	2.16	0.46
1:K:402:GLU:HG2	1:K:404:ILE:H	1.79	0.46
1:C:622:MET:O	1:C:625:SER:HB2	2.15	0.46
1:E:271:HIS:O	1:E:291:ALA:N	2.44	0.46
1:G:371:TYR:O	1:G:373:PRO:HD3	2.15	0.46
1:M:338:ASP:HA	1:M:453:SER:HB2	1.96	0.46
1:A:90:PRO:HG2	1:A:94:PHE:HB3	1.97	0.46
1:A:125:ASN:HB2	1:A:219:LEU:CD2	2.46	0.46
1:A:657:GLU:HB2	1:A:727:ILE:HD12	1.97	0.46
1:I:657:GLU:HB2	1:I:727:ILE:HD12	1.97	0.46
1:K:168:GLU:HA	1:K:168:GLU:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:393:THR:HA	1:M:396:TYR:CD2	2.50	0.46
1:A:409:ASP:OD1	2:B:74:PRO:HA	2.16	0.46
2:D:104:LEU:HD12	2:D:104:LEU:HA	1.81	0.46
1:E:412:GLN:NE2	2:F:78:ARG:NH2	2.63	0.46
1:K:622:MET:HA	1:K:622:MET:CE	2.45	0.46
1:A:183:THR:HG21	1:A:314:ASP:HA	1.97	0.46
1:A:481:LEU:HB2	1:A:730:LEU:HD22	1.98	0.46
1:E:412:GLN:HG2	2:F:71:ARG:HG2	1.98	0.46
1:K:109:ARG:HD2	1:K:129:GLU:OE2	2.16	0.46
1:O:183:THR:HG21	1:O:314:ASP:HA	1.98	0.46
1:C:532:GLU:HB2	1:C:603:ILE:CD1	2.46	0.46
1:E:183:THR:HG23	1:E:313:TRP:O	2.16	0.46
1:E:346:PHE:CD1	1:E:346:PHE:N	2.83	0.46
1:E:394:LEU:HD22	1:E:563:MET:HE1	1.98	0.46
1:G:598:ARG:HH11	1:G:598:ARG:CG	2.29	0.46
1:K:384:THR:OG1	1:K:493:ASP:OD1	2.31	0.46
1:K:542:MET:HE2	1:K:753:PHE:CD2	2.51	0.46
1:M:101:TRP:CH2	1:M:156:GLN:HG2	2.50	0.46
1:M:306:ARG:HG2	1:M:330:LEU:CD2	2.46	0.46
2:P:49:ALA:HB2	2:P:117:HIS:NE2	2.31	0.46
1:A:101:TRP:HB3	1:A:238:LYS:HB2	1.98	0.46
1:A:371:TYR:O	1:A:373:PRO:HD3	2.16	0.46
1:A:394:LEU:HD22	1:A:563:MET:HE1	1.96	0.46
1:A:553:VAL:HG13	1:A:563:MET:CG	2.45	0.46
2:B:38:ILE:HD13	2:B:44:ILE:HD11	1.97	0.46
1:E:458:ILE:O	1:E:462:ARG:NH1	2.48	0.46
1:I:365:TYR:O	1:I:368:THR:HG22	2.16	0.46
1:I:467:GLN:OE1	1:I:469:PHE:HB2	2.17	0.46
1:I:598:ARG:HH11	1:I:598:ARG:CG	2.29	0.46
1:M:516:THR:CG2	1:M:520:PRO:HG3	2.46	0.46
1:M:553:VAL:HG13	1:M:563:MET:HG3	1.98	0.46
1:O:62:LEU:C	1:O:62:LEU:HD12	2.36	0.46
2:P:49:ALA:HB2	2:P:117:HIS:CE1	2.51	0.46
1:C:38:LEU:HD23	1:C:58:ILE:HG21	1.98	0.45
1:C:266:ILE:HD13	1:G:12:ARG:CB	2.46	0.45
1:C:505:ALA:O	1:C:509:ARG:HG3	2.16	0.45
1:E:100:LEU:HG	1:E:161:ILE:HD13	1.98	0.45
1:M:236:ASN:HB3	1:M:445:ASP:OD1	2.17	0.45
1:M:346:PHE:CD1	1:M:346:PHE:C	2.89	0.45
1:A:542:MET:HE1	1:A:750:LEU:CA	2.47	0.45
2:B:107:GLU:HG3	2:B:109:PHE:CZ	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:33:GLU:O	2:F:37:ILE:HG13	2.16	0.45
1:K:392:SER:HA	1:K:497:GLU:CD	2.37	0.45
1:O:89:GLN:O	1:O:89:GLN:HG3	2.16	0.45
1:E:622:MET:HA	1:E:622:MET:CE	2.46	0.45
1:M:384:THR:OG1	1:M:493:ASP:OD1	2.33	0.45
1:O:572:THR:HB	1:O:574:TRP:HD1	1.80	0.45
1:A:402:GLU:HG2	1:A:404:ILE:H	1.82	0.45
1:I:596:ARG:NE	1:K:318:GLU:OE2	2.49	0.45
2:L:33:GLU:O	2:L:37:ILE:HG13	2.17	0.45
2:N:35:ILE:HD11	2:N:127:VAL:CG1	2.45	0.45
2:N:78:ARG:HD3	2:N:123:ARG:NH2	2.32	0.45
1:A:402:GLU:HG2	1:A:404:ILE:HG13	1.97	0.45
1:E:598:ARG:HH11	1:E:598:ARG:CG	2.12	0.45
1:I:147:VAL:CG2	1:I:199:VAL:HG23	2.47	0.45
1:M:678:VAL:O	1:M:679:GLU:HB2	2.15	0.45
1:O:11:ASP:OD2	1:O:22:ARG:NH1	2.50	0.45
1:O:394:LEU:CD2	1:O:563:MET:CE	2.93	0.45
1:C:183:THR:HG21	1:C:314:ASP:C	2.37	0.45
1:C:402:GLU:CG	1:C:404:ILE:HG13	2.47	0.45
1:I:101:TRP:HB3	1:I:238:LYS:HB2	1.99	0.45
2:J:25:PHE:CZ	2:J:29:ARG:HD2	2.52	0.45
1:K:458:ILE:O	1:K:462:ARG:NH1	2.49	0.45
1:M:62:LEU:HD23	1:M:348:PHE:CD1	2.51	0.45
1:M:643:ILE:HG21	1:M:745:MET:CE	2.47	0.45
1:O:609:SER:HB3	1:O:658:LEU:O	2.16	0.45
1:E:74:GLN:HB2	1:E:230:TRP:CZ3	2.52	0.45
1:G:570:GLY:HA3	1:G:574:TRP:CZ2	2.52	0.45
1:A:4:ILE:HB	1:A:427:GLU:CG	2.44	0.45
1:A:365:TYR:O	1:A:368:THR:HG22	2.17	0.45
1:A:394:LEU:CD2	1:A:563:MET:CE	2.94	0.45
1:E:62:LEU:HD23	1:E:348:PHE:CD1	2.51	0.45
2:H:49:ALA:HB2	2:H:117:HIS:CE1	2.52	0.45
1:K:643:ILE:HG21	1:K:745:MET:CE	2.46	0.45
1:O:371:TYR:O	1:O:373:PRO:HD3	2.16	0.45
1:A:147:VAL:CG2	1:A:199:VAL:HG23	2.47	0.45
1:A:598:ARG:HH11	1:A:598:ARG:CG	2.30	0.45
1:A:688:PRO:CG	1:C:688:PRO:HG2	2.28	0.45
1:K:40:ARG:NH2	1:K:42:ILE:HD11	2.32	0.45
1:K:62:LEU:HD12	1:K:62:LEU:C	2.38	0.45
1:K:183:THR:HG21	1:K:314:ASP:C	2.36	0.45
1:M:74:GLN:HB2	1:M:230:TRP:CZ3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:5:ALA:HB3	1:O:368:THR:HG21	1.99	0.45
1:O:365:TYR:O	1:O:368:THR:HG22	2.17	0.45
2:B:25:PHE:CZ	2:B:29:ARG:HD2	2.52	0.45
1:C:458:ILE:O	1:C:462:ARG:NH1	2.49	0.45
1:C:542:MET:HE2	1:C:753:PHE:CD2	2.52	0.45
1:K:187:PHE:CD1	1:K:191:VAL:HG11	2.52	0.45
1:K:713:PHE:CZ	1:K:721:MET:HB3	2.52	0.45
1:C:553:VAL:HG13	1:C:563:MET:HG3	1.98	0.44
1:G:553:VAL:HG13	1:G:563:MET:CG	2.45	0.44
1:I:4:ILE:HB	1:I:427:GLU:CG	2.44	0.44
1:I:183:THR:CG2	1:I:314:ASP:HA	2.47	0.44
1:I:214:LEU:HD11	1:I:244:ILE:HD11	1.99	0.44
1:I:628:GLU:H	1:I:628:GLU:HG3	1.38	0.44
1:O:331:TRP:CH2	1:O:447:ARG:HG3	2.52	0.44
1:A:331:TRP:CH2	1:A:447:ARG:HG3	2.53	0.44
1:G:519:HIS:HE1	1:G:547:ASN:ND2	2.15	0.44
1:K:402:GLU:CG	1:K:404:ILE:HG13	2.47	0.44
1:K:516:THR:CG2	1:K:520:PRO:HG3	2.47	0.44
1:M:23:PHE:CG	1:M:346:PHE:HE1	2.35	0.44
1:M:346:PHE:C	1:M:346:PHE:HD1	2.21	0.44
1:M:542:MET:HE2	1:M:753:PHE:CD2	2.52	0.44
2:B:124:ILE:O	2:B:127:VAL:HG13	2.18	0.44
1:C:214:LEU:HD23	1:C:214:LEU:C	2.38	0.44
1:C:654:GLY:HA2	1:C:726:SER:OG	2.18	0.44
1:E:691:LYS:NZ	1:G:575:GLU:HG2	2.33	0.44
1:G:472:ILE:CD1	1:G:477:ALA:HA	2.47	0.44
1:I:331:TRP:CH2	1:I:447:ARG:HG3	2.52	0.44
1:I:473:TRP:CE3	1:I:473:TRP:HA	2.52	0.44
1:M:168:GLU:HA	1:M:168:GLU:OE1	2.17	0.44
1:M:519:HIS:HE1	1:M:547:ASN:ND2	2.13	0.44
1:M:713:PHE:CZ	1:M:721:MET:HB3	2.52	0.44
1:O:472:ILE:CD1	1:O:477:ALA:HA	2.47	0.44
1:A:214:LEU:HD11	1:A:244:ILE:HD11	2.00	0.44
1:G:43:HIS:CE1	1:G:51:PRO:HG2	2.53	0.44
2:H:49:ALA:HB2	2:H:117:HIS:NE2	2.32	0.44
1:O:542:MET:HE1	1:O:749:VAL:HG12	1.95	0.44
1:C:412:GLN:HG2	2:D:71:ARG:HG2	2.00	0.44
1:E:421:LEU:HD12	2:F:80:TYR:CD2	2.52	0.44
1:E:506:GLU:CG	1:I:756:ASP:CB	2.89	0.44
2:F:35:ILE:HD11	2:F:127:VAL:CG1	2.46	0.44
1:G:183:THR:HG21	1:G:314:ASP:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:214:LEU:HD11	1:G:244:ILE:HD11	1.99	0.44
1:G:572:THR:HB	1:G:574:TRP:HD1	1.79	0.44
2:J:72:MET:HE2	2:J:72:MET:HB2	1.73	0.44
1:M:62:LEU:C	1:M:62:LEU:HD12	2.38	0.44
1:O:553:VAL:HG13	1:O:563:MET:CG	2.46	0.44
1:A:5:ALA:HA	1:A:28:ASN:HD21	1.82	0.44
1:A:570:GLY:HA3	1:A:574:TRP:CZ2	2.53	0.44
1:A:575:GLU:HG2	1:C:691:LYS:NZ	2.32	0.44
1:A:609:SER:HB3	1:A:658:LEU:O	2.17	0.44
1:E:564:GLU:OE1	1:E:585:THR:HG23	2.17	0.44
1:K:346:PHE:N	1:K:346:PHE:CD1	2.82	0.44
1:M:377:LEU:HB3	1:M:378:PRO:HD2	1.98	0.44
1:A:183:THR:CG2	1:A:314:ASP:HA	2.48	0.44
1:C:40:ARG:NH2	1:C:42:ILE:HD11	2.33	0.44
1:C:365:TYR:O	1:C:366:GLU:HB2	2.17	0.44
1:C:713:PHE:CZ	1:C:721:MET:HB3	2.52	0.44
1:E:392:SER:HA	1:E:497:GLU:CD	2.38	0.44
1:G:147:VAL:CG2	1:G:199:VAL:HG23	2.48	0.44
1:G:700:GLY:HA2	1:G:706:VAL:HG11	2.00	0.44
1:I:394:LEU:HD22	1:I:563:MET:HE1	1.98	0.44
1:K:508:LEU:HD22	1:K:514:VAL:HG21	1.99	0.44
1:K:532:GLU:HB2	1:K:603:ILE:CD1	2.48	0.44
1:M:100:LEU:HG	1:M:161:ILE:HD13	2.00	0.44
1:O:214:LEU:HD11	1:O:244:ILE:HD11	1.99	0.44
1:C:421:LEU:HD12	2:D:80:TYR:CD2	2.53	0.44
2:J:47:GLU:OE1	2:J:60:SER:HB3	2.18	0.44
1:K:91:ASP:OD1	1:K:91:ASP:N	2.26	0.44
1:M:508:LEU:HD22	1:M:514:VAL:HG21	1.99	0.44
1:C:109:ARG:HD2	1:C:129:GLU:OE2	2.18	0.44
1:C:518:SER:HB3	1:C:730:LEU:HD12	1.99	0.44
1:E:532:GLU:HB2	1:E:603:ILE:CD1	2.48	0.44
1:I:484:TRP:CG	1:I:733:LEU:HD13	2.53	0.44
1:I:519:HIS:HE1	1:I:547:ASN:ND2	2.13	0.44
1:M:109:ARG:HD2	1:M:129:GLU:OE2	2.17	0.44
1:A:569:LEU:HG	1:C:693:PHE:HD2	1.83	0.43
2:B:47:GLU:OE1	2:B:60:SER:HB3	2.18	0.43
1:E:518:SER:HB3	1:E:730:LEU:HD12	1.99	0.43
1:I:394:LEU:CD2	1:I:563:MET:CE	2.96	0.43
1:K:400:ALA:O	1:K:438:SER:HB3	2.18	0.43
1:K:516:THR:HG21	1:K:520:PRO:HG3	2.00	0.43
1:K:678:VAL:O	1:K:679:GLU:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:602:LYS:O	1:O:190:VAL:HG21	2.17	0.43
1:O:183:THR:CG2	1:O:314:ASP:HA	2.48	0.43
1:O:598:ARG:HH11	1:O:598:ARG:CG	2.31	0.43
1:A:484:TRP:CG	1:A:733:LEU:HD13	2.53	0.43
1:A:693:PHE:HB3	1:C:410:ILE:CD1	2.48	0.43
1:A:700:GLY:HA2	1:A:706:VAL:HG11	1.99	0.43
1:C:564:GLU:OE1	1:C:585:THR:HG23	2.18	0.43
1:E:9:TYR:CE2	1:E:340:CYS:HB2	2.53	0.43
1:E:90:PRO:HG2	1:E:94:PHE:CB	2.49	0.43
1:E:214:LEU:C	1:E:214:LEU:HD23	2.39	0.43
1:C:516:THR:HG21	1:C:520:PRO:HG3	2.01	0.43
1:E:553:VAL:HG13	1:E:563:MET:HG3	1.99	0.43
1:G:484:TRP:CG	1:G:733:LEU:HD13	2.53	0.43
1:G:657:GLU:HB2	1:G:727:ILE:CD1	2.49	0.43
2:H:107:GLU:HG3	2:H:109:PHE:CZ	2.52	0.43
1:I:284:PRO:HB2	1:I:557:PRO:CG	2.48	0.43
1:O:238:LYS:HA	1:O:330:LEU:O	2.19	0.43
1:C:377:LEU:HB3	1:C:378:PRO:HD2	2.00	0.43
1:C:384:THR:OG1	1:C:493:ASP:OD1	2.34	0.43
1:E:38:LEU:HD23	1:E:58:ILE:HG21	2.00	0.43
1:E:394:LEU:CD2	1:E:563:MET:CE	2.96	0.43
1:O:609:SER:OG	1:O:705:PHE:O	2.36	0.43
1:E:2:LYS:HE2	1:E:2:LYS:HB2	1.85	0.43
1:I:542:MET:HE1	1:I:750:LEU:CA	2.49	0.43
1:K:62:LEU:HD23	1:K:348:PHE:CD1	2.53	0.43
1:K:733:LEU:HD23	1:K:742:VAL:HG12	2.00	0.43
1:O:622:MET:HB3	1:O:623:PRO:HD2	2.00	0.43
1:A:393:THR:HA	1:A:396:TYR:CD2	2.54	0.43
1:C:62:LEU:C	1:C:62:LEU:HD12	2.39	0.43
1:C:100:LEU:HG	1:C:161:ILE:HD13	2.00	0.43
1:C:733:LEU:HD23	1:C:742:VAL:HG12	2.00	0.43
1:I:598:ARG:HD3	1:K:182:ARG:O	2.18	0.43
1:I:622:MET:HB3	1:I:623:PRO:HD2	2.00	0.43
1:M:187:PHE:CD1	1:M:191:VAL:HG11	2.53	0.43
1:M:214:LEU:HD23	1:M:214:LEU:C	2.39	0.43
1:M:412:GLN:HG2	2:N:71:ARG:HG2	1.99	0.43
1:O:147:VAL:CG2	1:O:199:VAL:HG23	2.49	0.43
2:P:47:GLU:OE1	2:P:60:SER:HB3	2.19	0.43
1:A:577:PRO:HA	1:A:578:PRO:HD3	1.87	0.43
2:D:35:ILE:HD11	2:D:127:VAL:CG1	2.46	0.43
2:H:47:GLU:OE1	2:H:60:SER:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:597:ALA:HB2	1:K:578:PRO:HG2	2.01	0.43
1:K:564:GLU:OE1	1:K:585:THR:HG23	2.18	0.43
1:M:126:LEU:HD12	1:M:126:LEU:HA	1.89	0.43
1:M:410:ILE:CD1	1:O:693:PHE:HB3	2.48	0.43
1:M:532:GLU:HB2	1:M:603:ILE:CD1	2.48	0.43
1:M:643:ILE:HD13	1:M:745:MET:CE	2.49	0.43
1:A:611:PHE:O	1:A:684:TYR:HA	2.19	0.43
1:A:622:MET:HB3	1:A:623:PRO:HD2	2.00	0.43
1:C:402:GLU:HG2	1:C:404:ILE:H	1.84	0.43
1:E:516:THR:HG21	1:E:520:PRO:HG3	1.99	0.43
1:G:473:TRP:HA	1:G:473:TRP:CE3	2.54	0.43
1:K:346:PHE:N	1:K:346:PHE:HD1	2.16	0.43
1:M:654:GLY:HA2	1:M:726:SER:OG	2.18	0.43
1:O:393:THR:HA	1:O:396:TYR:CD2	2.53	0.43
1:A:238:LYS:HA	1:A:330:LEU:O	2.18	0.43
1:C:74:GLN:HB2	1:C:230:TRP:CZ3	2.54	0.43
1:I:238:LYS:HA	1:I:330:LEU:O	2.18	0.43
1:I:362:LYS:HG3	1:I:371:TYR:CZ	2.54	0.43
1:K:255:GLU:OE1	1:K:259:ARG:NH1	2.45	0.43
1:O:618:TYR:CE2	1:O:642:ARG:HD3	2.54	0.43
1:A:89:GLN:HG3	1:A:89:GLN:O	2.18	0.43
1:C:643:ILE:HD13	1:C:745:MET:CE	2.48	0.43
1:E:40:ARG:NH2	1:E:42:ILE:HD11	2.33	0.43
1:E:377:LEU:HB3	1:E:378:PRO:HD2	2.00	0.43
1:I:125:ASN:HB2	1:I:219:LEU:CD2	2.49	0.43
2:L:104:LEU:HD12	2:L:104:LEU:HA	1.83	0.43
1:O:657:GLU:HB2	1:O:727:ILE:CD1	2.49	0.43
1:O:713:PHE:CE2	1:O:721:MET:HB3	2.54	0.43
2:D:78:ARG:HD3	2:D:123:ARG:NH2	2.34	0.42
1:E:365:TYR:O	1:E:366:GLU:HB2	2.19	0.42
1:E:713:PHE:CZ	1:E:721:MET:HB3	2.54	0.42
1:K:306:ARG:HG2	1:K:330:LEU:CD2	2.49	0.42
2:P:73:GLN:O	2:P:78:ARG:NH1	2.50	0.42
1:E:505:ALA:O	1:E:509:ARG:HG3	2.19	0.42
1:E:678:VAL:O	1:E:679:GLU:HB2	2.18	0.42
1:G:371:TYR:CD2	1:G:463:PRO:HD2	2.54	0.42
1:I:192:PRO:HB3	1:K:716:ALA:HB2	2.01	0.42
2:J:124:ILE:O	2:J:127:VAL:HG13	2.19	0.42
1:O:484:TRP:CG	1:O:733:LEU:HD13	2.54	0.42
1:O:570:GLY:HA3	1:O:574:TRP:CZ2	2.54	0.42
1:C:90:PRO:HG2	1:C:94:PHE:CB	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:643:ILE:HD13	1:E:745:MET:CE	2.49	0.42
1:K:74:GLN:HB2	1:K:230:TRP:CZ3	2.55	0.42
1:M:2:LYS:HE2	1:M:2:LYS:HB2	1.86	0.42
1:M:23:PHE:HB2	1:M:346:PHE:CD1	2.54	0.42
1:M:318:GLU:OE2	1:O:596:ARG:NE	2.51	0.42
1:M:598:ARG:NH2	1:O:182:ARG:HD3	2.34	0.42
1:O:394:LEU:HD23	1:O:498:HIS:CE1	2.54	0.42
2:P:35:ILE:HD11	2:P:128:ARG:HG2	2.01	0.42
1:A:472:ILE:CD1	1:A:477:ALA:HA	2.50	0.42
1:A:608:MET:HA	1:A:659:ASP:OD1	2.19	0.42
1:A:659:ASP:HB2	1:A:725:SER:HB3	2.01	0.42
1:C:392:SER:HA	1:C:497:GLU:CD	2.40	0.42
1:E:283:ILE:O	1:E:283:ILE:CG2	2.67	0.42
1:E:508:LEU:HD22	1:E:514:VAL:HG21	2.00	0.42
1:G:609:SER:HB3	1:G:658:LEU:O	2.19	0.42
2:H:35:ILE:HD11	2:H:128:ARG:HG2	2.01	0.42
1:C:187:PHE:CD1	1:C:191:VAL:HG11	2.54	0.42
1:E:384:THR:OG1	1:E:493:ASP:OD1	2.36	0.42
1:E:402:GLU:HG2	1:E:404:ILE:HG13	2.00	0.42
1:G:93:ALA:HB2	1:G:167:PRO:CD	2.48	0.42
1:I:43:HIS:CE1	1:I:51:PRO:HG2	2.54	0.42
1:I:700:GLY:HA2	1:I:706:VAL:HG11	2.01	0.42
1:K:629:ARG:HE	1:K:762:VAL:HG13	1.85	0.42
1:M:40:ARG:NH2	1:M:42:ILE:HD11	2.34	0.42
1:A:93:ALA:HB2	1:A:167:PRO:CD	2.49	0.42
2:B:49:ALA:HB2	2:B:117:HIS:CE1	2.54	0.42
1:C:179:VAL:O	1:C:179:VAL:HG23	2.19	0.42
1:E:151:ARG:CG	1:E:195:SER:HA	2.50	0.42
1:E:182:ARG:HH22	1:G:533:ASP:CG	2.22	0.42
2:F:61:PRO:HB2	2:H:61:PRO:HB3	2.01	0.42
1:G:284:PRO:HB2	1:G:557:PRO:CG	2.48	0.42
1:I:393:THR:HA	1:I:396:TYR:CD2	2.55	0.42
1:I:609:SER:HB3	1:I:658:LEU:O	2.19	0.42
1:K:100:LEU:HG	1:K:161:ILE:HD13	2.00	0.42
1:O:542:MET:HE2	1:O:753:PHE:CD2	2.54	0.42
1:A:75:PHE:O	1:A:234:HIS:NE2	2.53	0.42
1:A:618:TYR:CE2	1:A:642:ARG:HD3	2.55	0.42
1:E:62:LEU:C	1:E:62:LEU:HD12	2.39	0.42
1:G:125:ASN:HB2	1:G:219:LEU:CD2	2.50	0.42
1:I:542:MET:HE2	1:I:753:PHE:CD2	2.54	0.42
1:A:43:HIS:CE1	1:A:51:PRO:HG2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:284:PRO:HB2	1:A:557:PRO:CG	2.50	0.42
1:C:236:ASN:HB3	1:C:445:ASP:OD1	2.18	0.42
1:E:733:LEU:HD23	1:E:742:VAL:HG12	2.01	0.42
2:F:73:GLN:HB3	2:F:74:PRO:HD2	2.02	0.42
1:G:238:LYS:HA	1:G:330:LEU:O	2.20	0.42
1:G:393:THR:HA	1:G:396:TYR:CD2	2.55	0.42
2:J:17:ASP:HA	1:K:663:LEU:HD11	2.02	0.42
1:M:38:LEU:HD23	1:M:58:ILE:HG21	2.01	0.42
1:M:402:GLU:CG	1:M:404:ILE:HG13	2.49	0.42
1:O:542:MET:HE1	1:O:750:LEU:CA	2.50	0.42
1:E:572:THR:HB	1:E:574:TRP:HD1	1.84	0.42
1:K:90:PRO:HG2	1:K:94:PHE:CB	2.49	0.42
1:K:572:THR:HB	1:K:574:TRP:HD1	1.85	0.42
1:A:473:TRP:HA	1:A:473:TRP:CE3	2.55	0.42
2:B:120:PHE:CE2	2:B:124:ILE:HD11	2.55	0.42
1:E:452:THR:OG1	1:E:456:ARG:NH2	2.49	0.42
1:G:331:TRP:CH2	1:G:447:ARG:HG3	2.55	0.42
1:I:533:ASP:CG	1:K:182:ARG:HH22	2.23	0.42
1:I:577:PRO:HA	1:I:578:PRO:HD3	1.89	0.42
1:M:458:ILE:O	1:M:462:ARG:NH1	2.53	0.42
2:P:107:GLU:HG3	2:P:109:PHE:CZ	2.54	0.42
1:C:513:VAL:HA	1:C:540:ARG:O	2.20	0.41
1:I:611:PHE:O	1:I:684:TYR:HA	2.20	0.41
1:I:618:TYR:CE2	1:I:642:ARG:HD3	2.55	0.41
1:K:505:ALA:O	1:K:509:ARG:HG3	2.20	0.41
1:K:513:VAL:HA	1:K:540:ARG:O	2.20	0.41
1:M:691:LYS:NZ	1:O:575:GLU:HG2	2.35	0.41
1:O:125:ASN:HB2	1:O:219:LEU:CD2	2.50	0.41
1:G:75:PHE:O	1:G:234:HIS:NE2	2.53	0.41
1:G:713:PHE:CE2	1:G:721:MET:HB3	2.55	0.41
1:K:452:THR:OG1	1:K:456:ARG:NH2	2.53	0.41
1:O:310:GLY:HA3	5:O:903:HOH:O	2.19	0.41
1:A:394:LEU:HD23	1:A:498:HIS:CE1	2.55	0.41
1:E:179:VAL:HG23	1:E:179:VAL:O	2.20	0.41
1:E:643:ILE:HG21	1:E:745:MET:HE3	2.02	0.41
1:G:60:SER:O	1:G:63:GLU:HG2	2.20	0.41
1:G:622:MET:HB3	1:G:623:PRO:HD2	2.02	0.41
1:M:597:ALA:HB2	1:O:578:PRO:HG2	2.01	0.41
2:P:124:ILE:O	2:P:127:VAL:HG13	2.20	0.41
1:C:508:LEU:HD22	1:C:514:VAL:HG21	2.01	0.41
1:G:632:TRP:NE1	1:G:760:PRO:HG2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:236:ASN:HB3	1:K:445:ASP:OD1	2.20	0.41
1:K:490:PHE:CE2	1:K:750:LEU:HD23	2.54	0.41
1:M:90:PRO:HG2	1:M:94:PHE:CB	2.51	0.41
1:O:4:ILE:HB	1:O:427:GLU:CG	2.43	0.41
2:B:49:ALA:HB2	2:B:117:HIS:NE2	2.35	0.41
1:G:394:LEU:CD2	1:G:563:MET:CE	2.96	0.41
1:G:399:TYR:CZ	1:G:440:TYR:CZ	3.09	0.41
1:G:542:MET:HE2	1:G:753:PHE:CD2	2.55	0.41
1:K:394:LEU:CD2	1:K:563:MET:CE	2.97	0.41
1:M:151:ARG:CG	1:M:195:SER:HA	2.51	0.41
1:O:473:TRP:HA	1:O:473:TRP:CE3	2.56	0.41
1:A:519:HIS:HE1	1:A:547:ASN:ND2	2.15	0.41
1:G:183:THR:CG2	1:G:314:ASP:HA	2.51	0.41
1:M:607:GLY:O	1:M:659:ASP:HA	2.21	0.41
1:M:644:GLY:HA3	1:M:653:ALA:HB3	2.02	0.41
1:O:601:GLN:HG3	1:O:606:THR:CA	2.51	0.41
1:C:26:SER:HB3	1:C:342:TRP:CH2	2.56	0.41
1:E:629:ARG:HE	1:E:762:VAL:HG13	1.86	0.41
1:K:187:PHE:CE1	1:K:191:VAL:HG21	2.56	0.41
1:M:1:MET:CE	2:N:91:ARG:HH12	2.33	0.41
1:A:216:ILE:O	1:A:217:ALA:CB	2.69	0.41
1:E:490:PHE:CE2	1:E:750:LEU:HD23	2.55	0.41
1:I:216:ILE:O	1:I:217:ALA:CB	2.68	0.41
1:I:553:VAL:HG13	1:I:563:MET:CG	2.47	0.41
2:J:107:GLU:HG3	2:J:109:PHE:CZ	2.56	0.41
2:L:78:ARG:HD3	2:L:123:ARG:NH2	2.35	0.41
1:M:733:LEU:HD23	1:M:742:VAL:HG12	2.03	0.41
1:O:179:VAL:HG23	1:O:179:VAL:O	2.21	0.41
1:O:216:ILE:O	1:O:217:ALA:CB	2.69	0.41
1:O:700:GLY:HA2	1:O:706:VAL:HG11	2.03	0.41
2:D:35:ILE:HD13	2:D:35:ILE:HA	1.91	0.41
1:E:1:MET:HE2	2:F:91:ARG:HH12	1.86	0.41
1:E:607:GLY:O	1:E:659:ASP:HA	2.21	0.41
1:G:609:SER:OG	1:G:705:PHE:O	2.37	0.41
1:I:519:HIS:CE1	1:I:547:ASN:HB3	2.56	0.41
1:I:570:GLY:HA3	1:I:574:TRP:CZ2	2.56	0.41
1:I:713:PHE:CE2	1:I:721:MET:HB3	2.56	0.41
1:K:160:SER:C	1:K:161:ILE:HD12	2.41	0.41
1:K:394:LEU:HD23	1:K:498:HIS:CE1	2.56	0.41
1:K:644:GLY:HA3	1:K:653:ALA:CB	2.50	0.41
1:M:255:GLU:OE1	1:M:259:ARG:NH1	2.43	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:564:GLU:OE1	1:M:585:THR:HG23	2.20	0.41
1:O:611:PHE:O	1:O:684:TYR:HA	2.20	0.41
1:C:685:THR:CG2	1:C:686:VAL:N	2.84	0.41
1:E:187:PHE:CD1	1:E:191:VAL:HG11	2.56	0.41
1:I:608:MET:HA	1:I:659:ASP:OD1	2.21	0.41
1:M:31:ARG:NH1	1:M:366:GLU:OE2	2.54	0.41
1:C:1:MET:CE	2:D:91:ARG:HH12	2.34	0.40
1:I:166:ASP:OD2	1:I:169:LYS:HE3	2.21	0.40
1:K:151:ARG:CG	1:K:195:SER:HA	2.50	0.40
1:M:572:THR:HB	1:M:574:TRP:HD1	1.85	0.40
2:N:61:PRO:HB2	2:P:61:PRO:HB3	2.03	0.40
1:A:125:ASN:HB2	1:A:219:LEU:HD21	2.03	0.40
1:A:371:TYR:CD2	1:A:463:PRO:HD2	2.56	0.40
1:E:318:GLU:OE2	1:G:596:ARG:NE	2.53	0.40
1:E:638:ASP:CG	1:O:756:ASP:O	2.59	0.40
1:E:685:THR:CG2	1:E:686:VAL:N	2.84	0.40
1:G:77:SER:HB2	1:G:304:PRO:HD3	2.03	0.40
2:H:35:ILE:HD11	2:H:128:ARG:CG	2.52	0.40
1:I:77:SER:HB2	1:I:304:PRO:HD3	2.04	0.40
1:I:632:TRP:NE1	1:I:760:PRO:HG2	2.35	0.40
1:K:31:ARG:NH1	1:K:366:GLU:OE2	2.53	0.40
1:M:179:VAL:O	1:M:179:VAL:HG23	2.22	0.40
1:K:9:TYR:CE2	1:K:340:CYS:HB2	2.57	0.40
1:K:516:THR:CG2	1:K:517:GLY:N	2.84	0.40
1:K:610:SER:HB2	1:K:685:THR:O	2.22	0.40
1:K:643:ILE:HD13	1:K:745:MET:CE	2.51	0.40
1:M:160:SER:C	1:M:161:ILE:HD12	2.41	0.40
1:M:402:GLU:HG2	1:M:403:GLN:N	2.36	0.40
1:A:632:TRP:NE1	1:A:760:PRO:HG2	2.36	0.40
1:C:31:ARG:NH1	1:C:366:GLU:OE2	2.54	0.40
1:C:607:GLY:O	1:C:659:ASP:HA	2.21	0.40
1:G:4:ILE:HB	1:G:427:GLU:CG	2.44	0.40
1:G:482:ILE:HD13	1:G:482:ILE:HA	1.91	0.40
1:M:394:LEU:CD2	1:M:563:MET:CE	2.97	0.40
1:M:582:HIS:ND1	1:M:589:ARG:HA	2.36	0.40
1:C:151:ARG:CG	1:C:195:SER:HA	2.51	0.40
1:C:216:ILE:O	1:C:217:ALA:CB	2.67	0.40
1:C:402:GLU:HG2	1:C:404:ILE:HG13	2.02	0.40
1:E:31:ARG:NH1	1:E:366:GLU:OE2	2.55	0.40
1:E:100:LEU:C	1:E:100:LEU:HD12	2.41	0.40
1:E:598:ARG:NH2	1:G:182:ARG:HD3	2.35	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:104:LEU:HA	2:F:104:LEU:HD12	1.80	0.40
1:G:29:GLU:HG3	1:G:31:ARG:HH11	1.86	0.40
1:I:657:GLU:HB2	1:I:727:ILE:CD1	2.52	0.40
1:M:516:THR:HG21	1:M:520:PRO:HG3	2.02	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	760/775 (98%)	715 (94%)	43 (6%)	2 (0%)	41	72
1	C	760/775 (98%)	715 (94%)	44 (6%)	1 (0%)	51	81
1	E	760/775 (98%)	717 (94%)	42 (6%)	1 (0%)	51	81
1	G	760/775 (98%)	716 (94%)	41 (5%)	3 (0%)	34	66
1	I	760/775 (98%)	716 (94%)	41 (5%)	3 (0%)	34	66
1	K	760/775 (98%)	713 (94%)	46 (6%)	1 (0%)	51	81
1	M	760/775 (98%)	718 (94%)	41 (5%)	1 (0%)	51	81
1	O	760/775 (98%)	718 (94%)	39 (5%)	3 (0%)	34	66
2	B	123/132 (93%)	114 (93%)	8 (6%)	1 (1%)	19	49
2	D	123/132 (93%)	118 (96%)	5 (4%)	0	100	100
2	F	123/132 (93%)	117 (95%)	6 (5%)	0	100	100
2	H	123/132 (93%)	114 (93%)	8 (6%)	1 (1%)	19	49
2	J	123/132 (93%)	114 (93%)	8 (6%)	1 (1%)	19	49
2	L	123/132 (93%)	118 (96%)	5 (4%)	0	100	100
2	N	123/132 (93%)	118 (96%)	5 (4%)	0	100	100
2	P	123/132 (93%)	113 (92%)	10 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	7064/7256 (97%)	6654 (94%)	392 (6%)	18 (0%)	41 72

All (18) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	635	GLU
1	G	635	GLU
1	I	635	GLU
1	O	635	GLU
1	A	761	ARG
1	C	366	GLU
1	E	366	GLU
1	G	761	ARG
1	I	217	ALA
1	I	761	ARG
1	O	761	ARG
2	B	17	ASP
1	G	217	ALA
2	J	17	ASP
1	K	366	GLU
1	M	366	GLU
1	O	217	ALA
2	H	17	ASP

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	621/631 (98%)	594 (96%)	27 (4%)	29 62
1	C	621/631 (98%)	596 (96%)	25 (4%)	31 65
1	E	621/631 (98%)	596 (96%)	25 (4%)	31 65
1	G	621/631 (98%)	591 (95%)	30 (5%)	25 58
1	I	621/631 (98%)	594 (96%)	27 (4%)	29 62
1	K	621/631 (98%)	596 (96%)	25 (4%)	31 65

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles		
1	M	621/631 (98%)	595 (96%)	26 (4%)		30	63
1	O	621/631 (98%)	593 (96%)	28 (4%)		27	60
2	B	111/117 (95%)	105 (95%)	6 (5%)		22	53
2	D	111/117 (95%)	104 (94%)	7 (6%)		18	46
2	F	111/117 (95%)	104 (94%)	7 (6%)		18	46
2	H	111/117 (95%)	104 (94%)	7 (6%)		18	46
2	J	111/117 (95%)	102 (92%)	9 (8%)		11	33
2	L	111/117 (95%)	104 (94%)	7 (6%)		18	46
2	N	111/117 (95%)	104 (94%)	7 (6%)		18	46
2	P	111/117 (95%)	104 (94%)	7 (6%)		18	46
All	All	5856/5984 (98%)	5586 (95%)	270 (5%)		27	60

All (270) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	7	ARG
1	A	15	VAL
1	A	69	ARG
1	A	150	ASP
1	A	180	VAL
1	A	186	ARG
1	A	190	VAL
1	A	191	VAL
1	A	195	SER
1	A	196	ASP
1	A	202	ASP
1	A	264	ARG
1	A	357	ASP
1	A	402	GLU
1	A	410	ILE
1	A	447	ARG
1	A	516	THR
1	A	620	VAL
1	A	626	GLN
1	A	628	GLU
1	A	657	GLU
1	A	682	VAL
1	A	689	ASP

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Mol	Chain	Res	Type
1	A	698	MET
1	A	699	ASN
1	A	707	ARG
1	A	762	VAL
2	B	29	ARG
2	B	36	ASP
2	B	60	SER
2	B	106	ASP
2	B	110	LYS
2	B	127	VAL
1	C	1	MET
1	C	7	ARG
1	C	15	VAL
1	C	69	ARG
1	C	91	ASP
1	C	150	ASP
1	C	180	VAL
1	C	195	SER
1	C	204	THR
1	C	226	ASP
1	C	309	THR
1	C	344	LYS
1	C	352	GLU
1	C	402	GLU
1	C	447	ARG
1	C	553	VAL
1	C	571	VAL
1	C	598	ARG
1	C	610	SER
1	C	620	VAL
1	C	625	SER
1	C	698	MET
1	C	707	ARG
1	C	744	LYS
1	C	756	ASP
2	D	8	CYS
2	D	29	ARG
2	D	36	ASP
2	D	78	ARG
2	D	104	LEU
2	D	112	GLU
2	D	125	GLU

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Mol	Chain	Res	Type
1	E	1	MET
1	E	7	ARG
1	E	15	VAL
1	E	69	ARG
1	E	91	ASP
1	E	150	ASP
1	E	180	VAL
1	E	195	SER
1	E	204	THR
1	E	226	ASP
1	E	309	THR
1	E	346	PHE
1	E	352	GLU
1	E	402	GLU
1	E	447	ARG
1	E	553	VAL
1	E	571	VAL
1	E	598	ARG
1	E	610	SER
1	E	620	VAL
1	E	625	SER
1	E	698	MET
1	E	707	ARG
1	E	744	LYS
1	E	756	ASP
2	F	8	CYS
2	F	29	ARG
2	F	36	ASP
2	F	78	ARG
2	F	104	LEU
2	F	112	GLU
2	F	125	GLU
1	G	7	ARG
1	G	15	VAL
1	G	69	ARG
1	G	150	ASP
1	G	180	VAL
1	G	186	ARG
1	G	190	VAL
1	G	191	VAL
1	G	195	SER
1	G	196	ASP

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Mol	Chain	Res	Type
1	G	202	ASP
1	G	264	ARG
1	G	357	ASP
1	G	402	GLU
1	G	410	ILE
1	G	447	ARG
1	G	516	THR
1	G	620	VAL
1	G	626	GLN
1	G	628	GLU
1	G	657	GLU
1	G	661	TYR
1	G	682	VAL
1	G	689	ASP
1	G	698	MET
1	G	699	ASN
1	G	707	ARG
1	G	750	LEU
1	G	751	ASN
1	G	762	VAL
2	H	29	ARG
2	H	36	ASP
2	H	60	SER
2	H	78	ARG
2	H	106	ASP
2	H	110	LYS
2	H	127	VAL
1	I	7	ARG
1	I	15	VAL
1	I	69	ARG
1	I	150	ASP
1	I	180	VAL
1	I	186	ARG
1	I	190	VAL
1	I	191	VAL
1	I	195	SER
1	I	196	ASP
1	I	202	ASP
1	I	264	ARG
1	I	357	ASP
1	I	402	GLU
1	I	410	ILE

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Mol	Chain	Res	Type
1	I	447	ARG
1	I	516	THR
1	I	620	VAL
1	I	626	GLN
1	I	628	GLU
1	I	657	GLU
1	I	682	VAL
1	I	689	ASP
1	I	698	MET
1	I	699	ASN
1	I	707	ARG
1	I	762	VAL
2	J	29	ARG
2	J	36	ASP
2	J	60	SER
2	J	72	MET
2	J	74	PRO
2	J	78	ARG
2	J	106	ASP
2	J	110	LYS
2	J	127	VAL
1	K	1	MET
1	K	7	ARG
1	K	15	VAL
1	K	69	ARG
1	K	91	ASP
1	K	150	ASP
1	K	180	VAL
1	K	195	SER
1	K	204	THR
1	K	226	ASP
1	K	309	THR
1	K	346	PHE
1	K	352	GLU
1	K	402	GLU
1	K	447	ARG
1	K	553	VAL
1	K	571	VAL
1	K	598	ARG
1	K	610	SER
1	K	620	VAL
1	K	625	SER

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Mol	Chain	Res	Type
1	K	698	MET
1	K	707	ARG
1	K	744	LYS
1	K	756	ASP
2	L	8	CYS
2	L	29	ARG
2	L	36	ASP
2	L	78	ARG
2	L	104	LEU
2	L	112	GLU
2	L	125	GLU
1	M	1	MET
1	M	7	ARG
1	M	15	VAL
1	M	69	ARG
1	M	91	ASP
1	M	150	ASP
1	M	177	LYS
1	M	180	VAL
1	M	195	SER
1	M	204	THR
1	M	226	ASP
1	M	309	THR
1	M	346	PHE
1	M	352	GLU
1	M	402	GLU
1	M	447	ARG
1	M	553	VAL
1	M	571	VAL
1	M	598	ARG
1	M	610	SER
1	M	620	VAL
1	M	625	SER
1	M	698	MET
1	M	707	ARG
1	M	744	LYS
1	M	756	ASP
2	N	8	CYS
2	N	29	ARG
2	N	36	ASP
2	N	78	ARG
2	N	104	LEU

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Mol	Chain	Res	Type
2	N	112	GLU
2	N	125	GLU
1	O	7	ARG
1	O	15	VAL
1	O	69	ARG
1	O	150	ASP
1	O	180	VAL
1	O	186	ARG
1	O	190	VAL
1	O	191	VAL
1	O	195	SER
1	O	196	ASP
1	O	202	ASP
1	O	264	ARG
1	O	357	ASP
1	O	402	GLU
1	O	410	ILE
1	O	447	ARG
1	O	516	THR
1	O	620	VAL
1	O	626	GLN
1	O	628	GLU
1	O	657	GLU
1	O	661	TYR
1	O	682	VAL
1	O	689	ASP
1	O	698	MET
1	O	699	ASN
1	O	707	ARG
1	O	762	VAL
2	P	29	ARG
2	P	36	ASP
2	P	60	SER
2	P	78	ARG
2	P	106	ASP
2	P	110	LYS
2	P	127	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (27) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	480	HIS

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Mol	Chain	Res	Type
1	A	519	HIS
2	B	48	HIS
1	C	403	GLN
1	C	465	HIS
1	C	480	HIS
1	C	519	HIS
2	D	51	ASN
1	E	412	GLN
1	E	480	HIS
1	E	519	HIS
2	F	51	ASN
1	G	480	HIS
1	G	519	HIS
2	H	48	HIS
1	I	480	HIS
1	I	519	HIS
2	J	48	HIS
1	K	465	HIS
1	K	480	HIS
1	K	519	HIS
1	M	480	HIS
1	M	519	HIS
2	N	51	ASN
1	O	480	HIS
1	O	519	HIS
2	P	48	HIS

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 16 ligands modelled in this entry, 8 are monoatomic - leaving 8 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
4	EDO	D	201	-	3,3,3	0.57	0	2,2,2	0.12	0
4	EDO	L	201	-	3,3,3	0.53	0	2,2,2	0.15	0
4	EDO	H	201	-	3,3,3	0.52	0	2,2,2	0.26	0
4	EDO	B	201	-	3,3,3	0.58	0	2,2,2	0.17	0
4	EDO	P	201	-	3,3,3	0.50	0	2,2,2	0.18	0
4	EDO	F	201	-	3,3,3	0.59	0	2,2,2	0.12	0
4	EDO	N	201	-	3,3,3	0.58	0	2,2,2	0.15	0
4	EDO	J	201	-	3,3,3	0.56	0	2,2,2	0.19	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	EDO	D	201	-	-	0/1/1/1	-
4	EDO	L	201	-	-	0/1/1/1	-
4	EDO	H	201	-	-	0/1/1/1	-
4	EDO	B	201	-	-	0/1/1/1	-
4	EDO	P	201	-	-	0/1/1/1	-
4	EDO	F	201	-	-	0/1/1/1	-
4	EDO	N	201	-	-	0/1/1/1	-
4	EDO	J	201	-	-	0/1/1/1	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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	762/775 (98%)	-0.33	1 (0%)	95	95	13, 25, 49, 76	0
1	C	762/775 (98%)	-0.19	9 (1%)	79	73	15, 28, 51, 87	0
1	E	762/775 (98%)	-0.31	5 (0%)	87	84	13, 26, 49, 81	0
1	G	762/775 (98%)	-0.22	3 (0%)	92	91	13, 30, 56, 76	0
1	I	762/775 (98%)	-0.30	1 (0%)	95	95	14, 25, 48, 75	0
1	K	762/775 (98%)	-0.31	5 (0%)	87	84	13, 26, 49, 81	0
1	M	762/775 (98%)	-0.27	6 (0%)	86	81	13, 26, 49, 85	0
1	O	762/775 (98%)	-0.34	6 (0%)	86	81	14, 25, 49, 76	0
2	B	125/132 (94%)	0.17	4 (3%)	47	37	24, 33, 53, 62	0
2	D	125/132 (94%)	0.15	1 (0%)	86	81	27, 39, 54, 74	0
2	F	125/132 (94%)	0.06	0	100	100	27, 38, 54, 72	0
2	H	125/132 (94%)	0.28	0	100	100	28, 36, 57, 65	0
2	J	125/132 (94%)	0.10	1 (0%)	86	81	24, 33, 52, 63	0
2	L	125/132 (94%)	0.00	0	100	100	25, 36, 56, 63	0
2	N	125/132 (94%)	-0.03	0	100	100	23, 36, 54, 70	0
2	P	125/132 (94%)	0.10	0	100	100	20, 34, 53, 62	0
All	All	7096/7256 (97%)	-0.23	42 (0%)	89	86	13, 28, 52, 87	0

All (42) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	K	1	MET	4.2
1	E	1	MET	4.1
1	C	226	ASP	3.7
1	C	1	MET	3.4
1	K	367	ASP	3.2

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Mol	Chain	Res	Type	RSRZ
1	I	1	MET	3.0
1	E	227	GLY	3.0
1	O	1	MET	3.0
1	C	367	ASP	3.0
1	M	1	MET	2.9
1	M	226	ASP	2.9
1	O	690	ASP	2.6
1	G	1	MET	2.6
1	C	690	ASP	2.6
2	B	42	PRO	2.5
1	O	168	GLU	2.5
1	E	690	ASP	2.5
1	C	225	GLN	2.5
1	M	223	ALA	2.4
2	B	46	GLU	2.4
1	M	761	ARG	2.4
1	G	226	ASP	2.4
1	C	223	ALA	2.4
2	J	35	ILE	2.4
1	C	628	GLU	2.3
1	M	225	GLN	2.3
1	O	689	ASP	2.3
1	K	226	ASP	2.3
1	C	760	PRO	2.3
2	B	131	LEU	2.3
1	M	760	PRO	2.2
1	K	227	GLY	2.2
2	D	36	ASP	2.2
2	B	38	ILE	2.2
1	E	223	ALA	2.1
1	C	640	GLU	2.1
1	O	367	ASP	2.1
1	G	575	GLU	2.1
1	O	640	GLU	2.0
1	K	626	GLN	2.0
1	A	640	GLU	2.0
1	E	226	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 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
4	EDO	F	201	4/4	0.76	0.22	24,31,37,37	0
4	EDO	D	201	4/4	0.83	0.20	18,29,35,35	0
4	EDO	J	201	4/4	0.85	0.19	15,24,30,36	0
4	EDO	N	201	4/4	0.85	0.17	18,24,30,30	0
4	EDO	B	201	4/4	0.89	0.21	19,24,32,32	0
4	EDO	L	201	4/4	0.90	0.16	16,29,36,36	0
4	EDO	P	201	4/4	0.92	0.14	15,21,26,26	0
4	EDO	H	201	4/4	0.94	0.15	19,23,30,36	0
3	FE	K	801	1/1	0.97	0.05	17,17,17,17	0
3	FE	O	801	1/1	0.98	0.09	23,23,23,23	0
3	FE	G	801	1/1	0.98	0.09	23,23,23,23	0
3	FE	A	801	1/1	0.98	0.08	24,24,24,24	0
3	FE	I	801	1/1	0.99	0.13	21,21,21,21	0
3	FE	E	801	1/1	0.99	0.08	17,17,17,17	0
3	FE	M	801	1/1	0.99	0.10	20,20,20,20	0
3	FE	C	801	1/1	0.99	0.07	17,17,17,17	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.
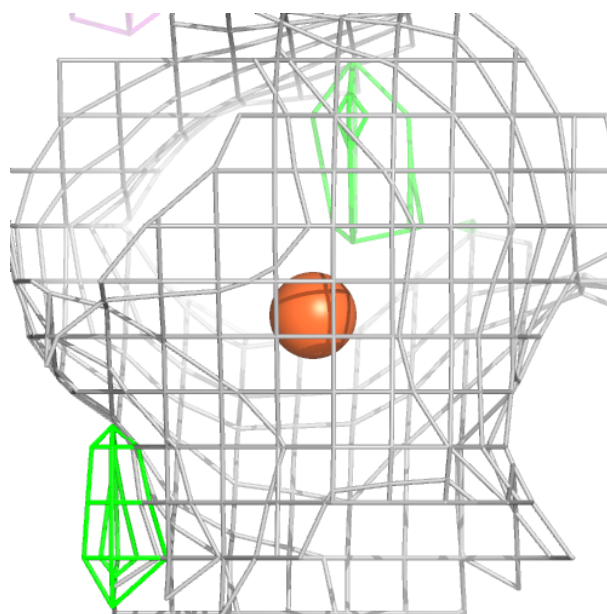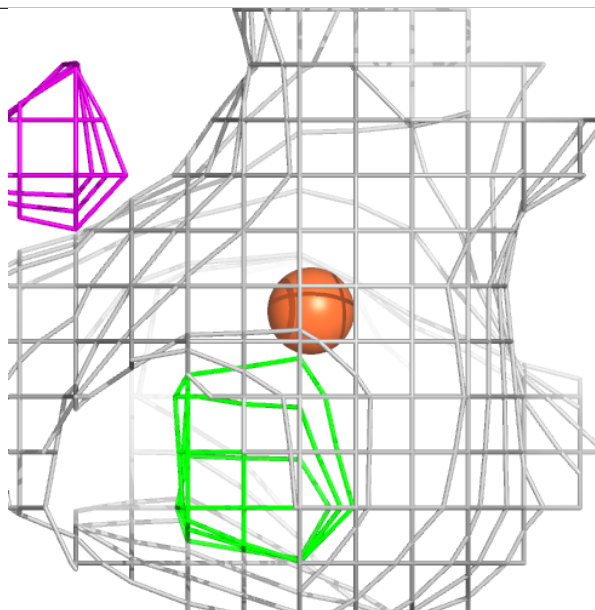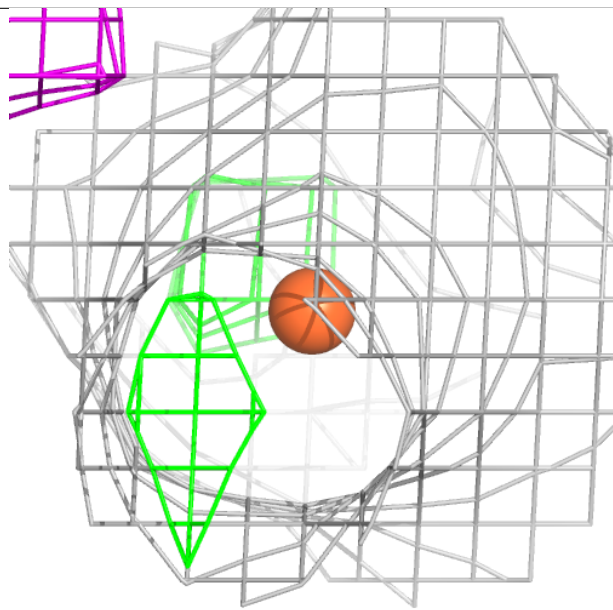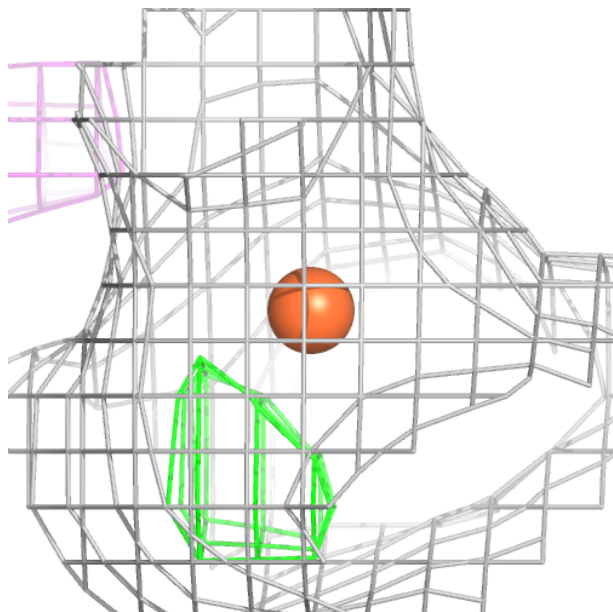
Electron density around FE K 801:

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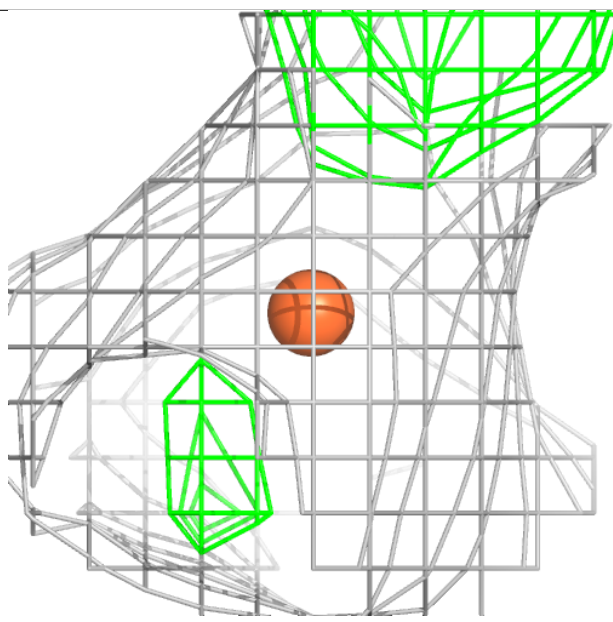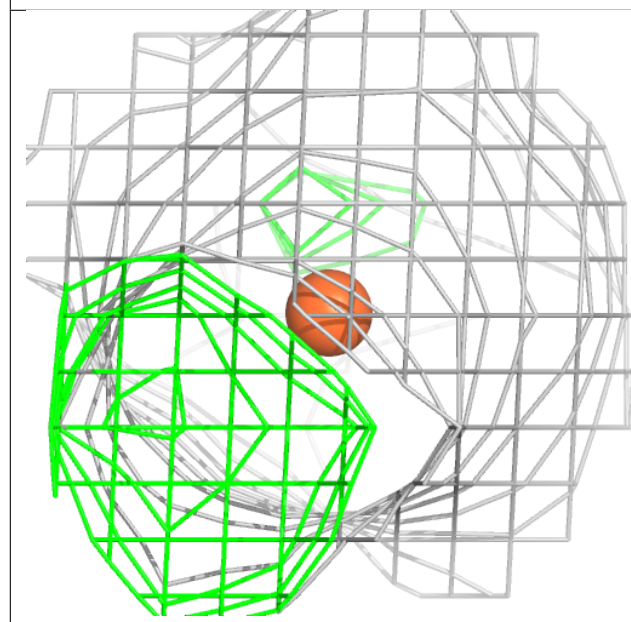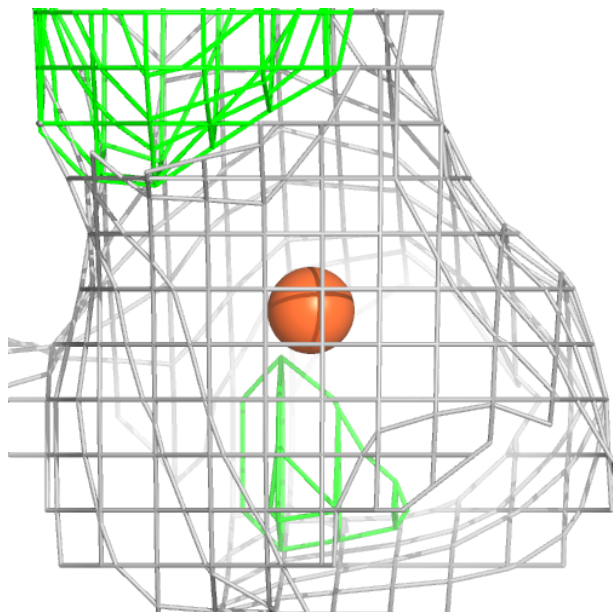and green (positive)
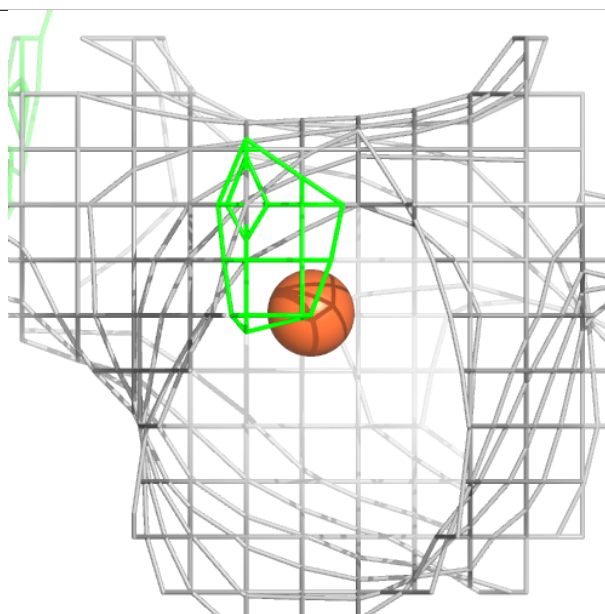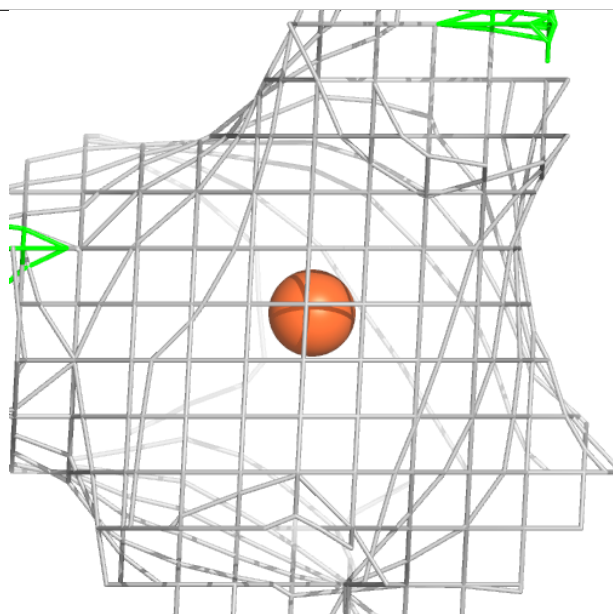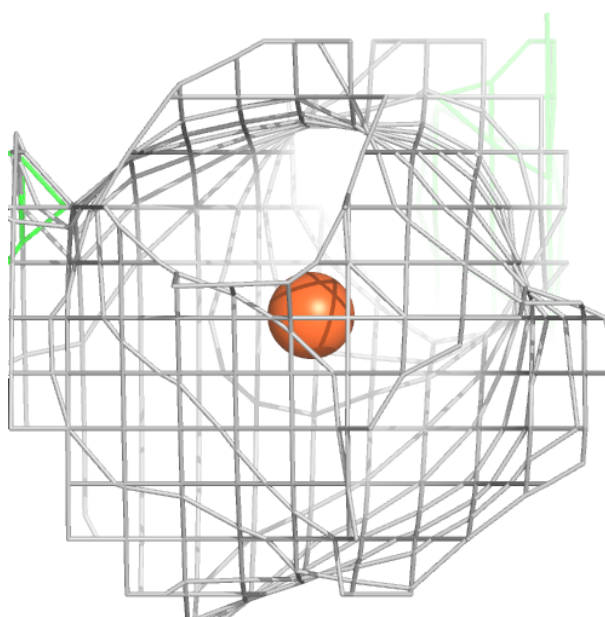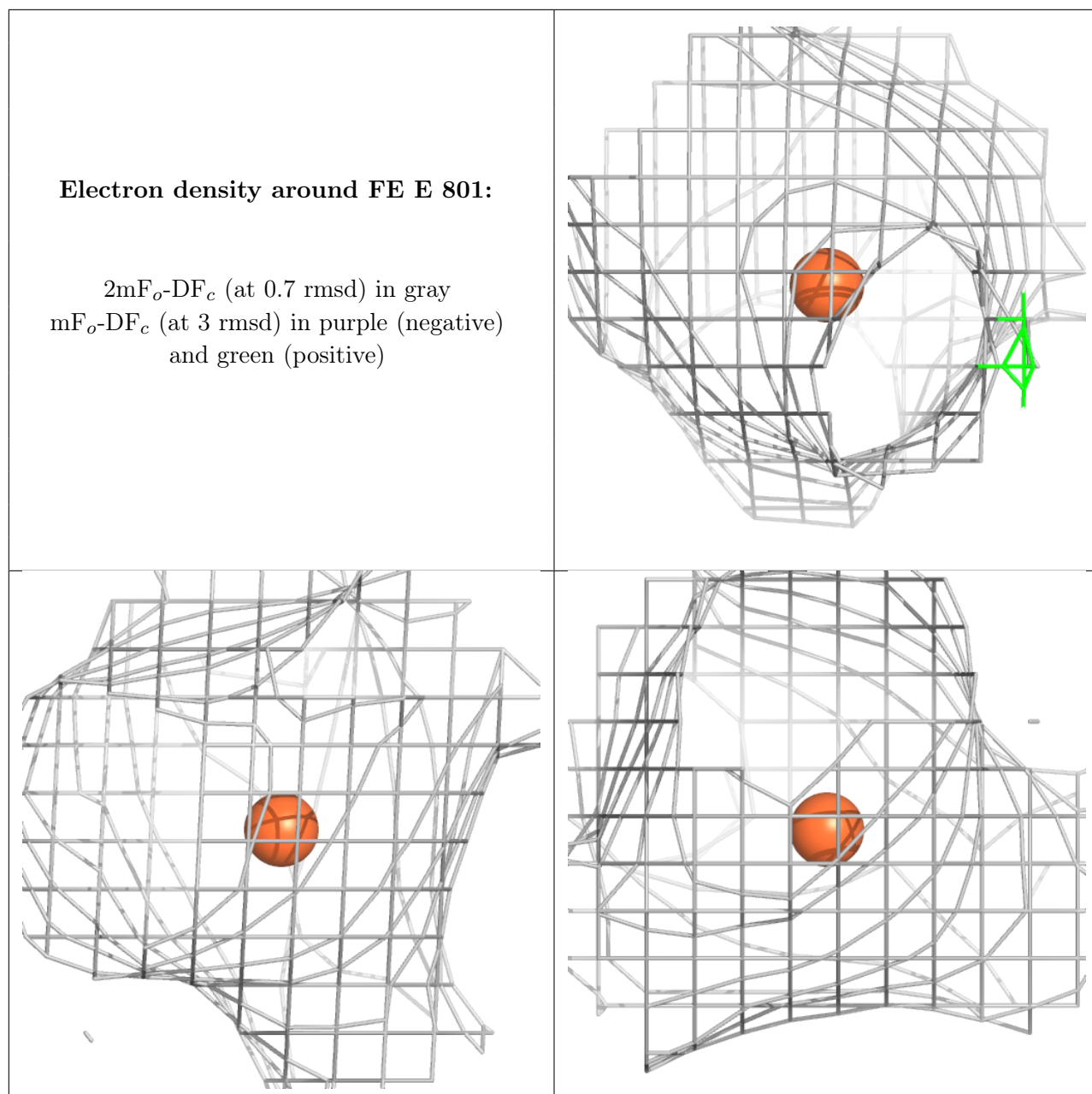
Electron density around FE O 801:

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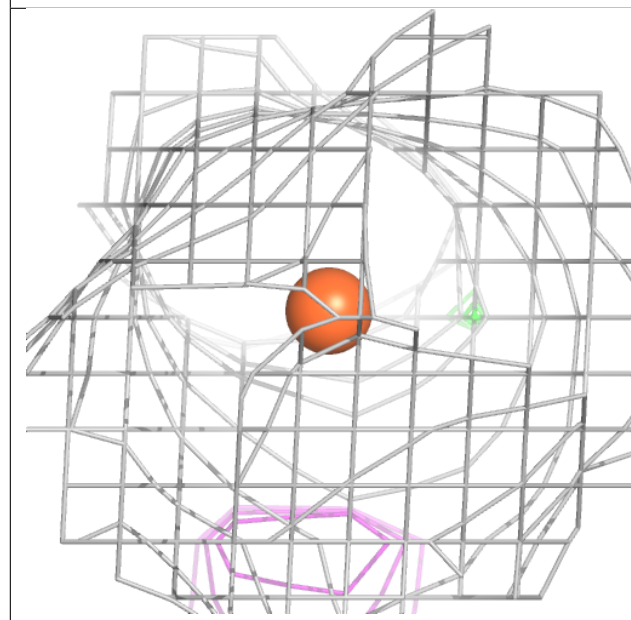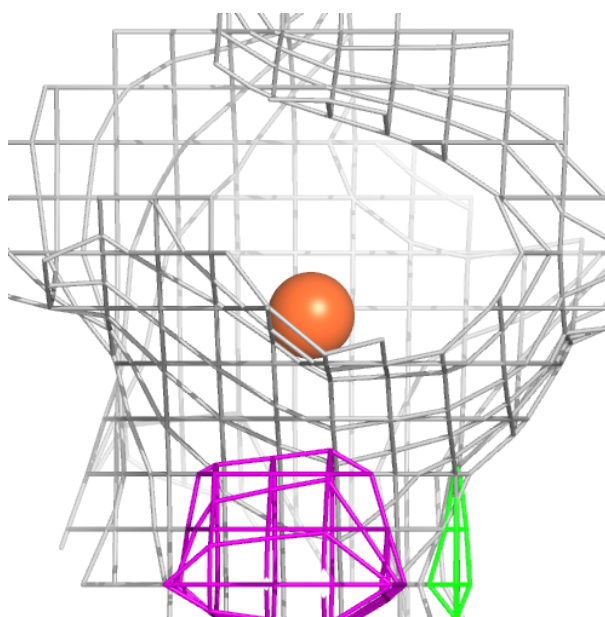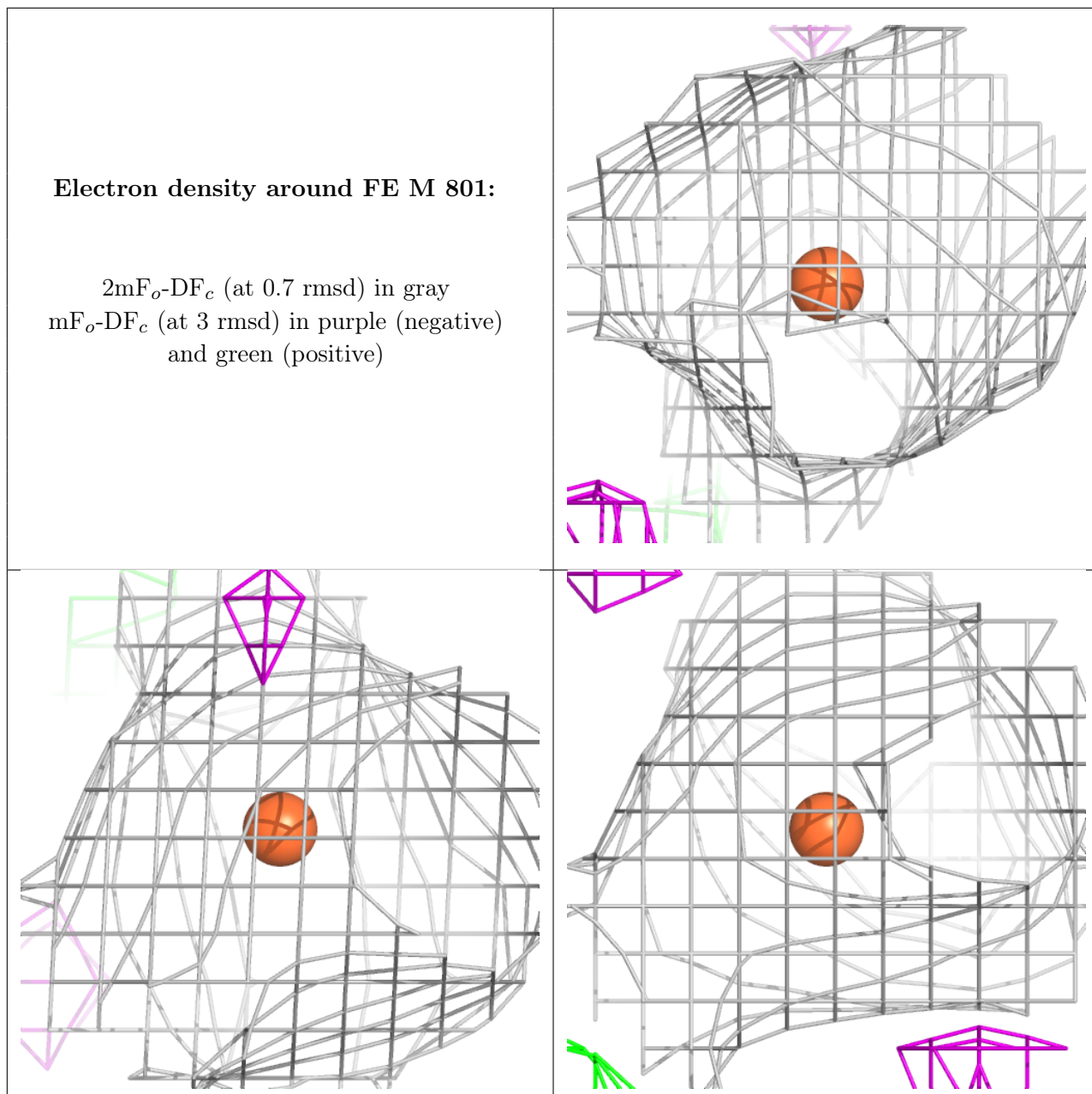
Electron density around FE G 801:

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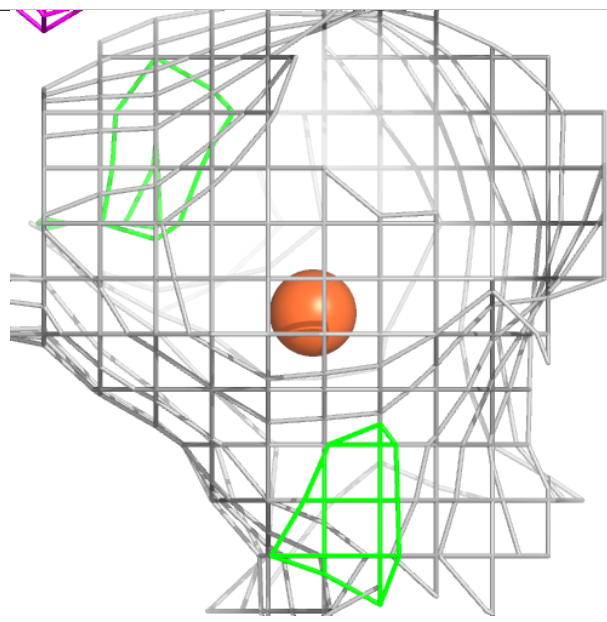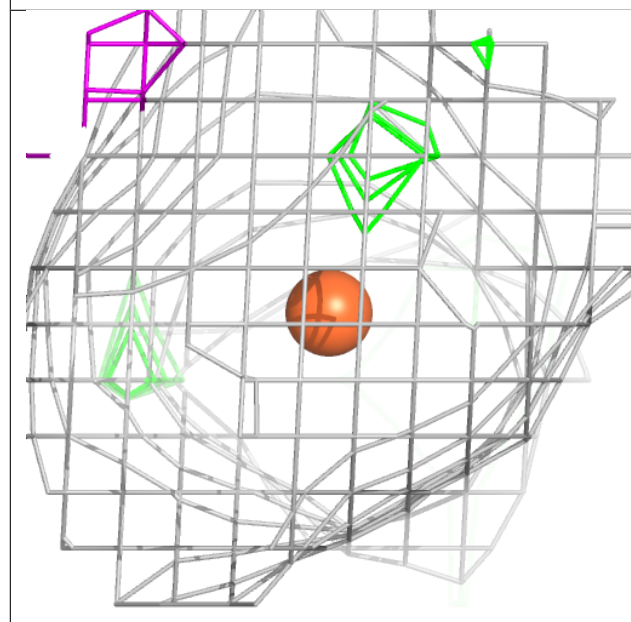
Electron density around FE A 801:

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

Electron density around FE I 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 FE E 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 FE M 801:

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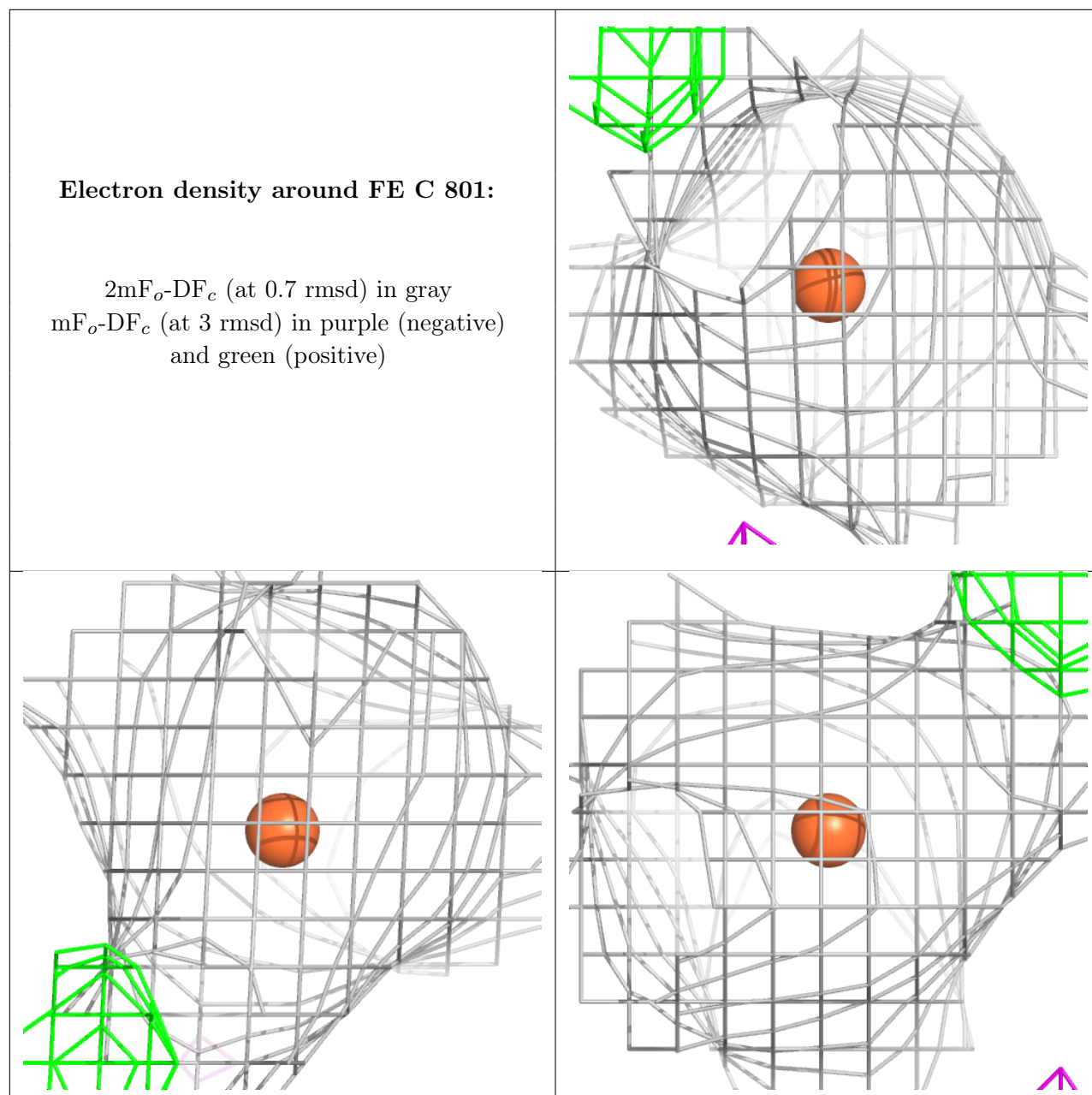and green (positive)

Electron density around FE 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)

6.5 Other polymers ⓘ

There are no such residues in this entry.