



Full wwPDB EM Validation Report ⓘ

Nov 9, 2024 – 11:19 pm GMT

PDB ID : 8RRT
EMDB ID : EMD-19464
Title : Structure of rabbit RyR1 reconstituted into lipid liposomes in open state in complex with FKBP and Nb9657
Authors : Li, C.; Efremov, R.G.
Deposited on : 2024-01-23
Resolution : 4.60 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev113
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.39

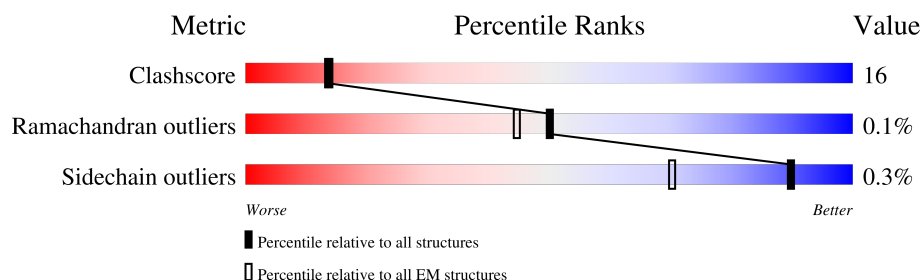
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.60 Å.

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







Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	B	5027	58% 28% 14%
1	E	5027	57% 28% 14%
1	G	5027	57% 29% 14%
1	J	5027	57% 28% 14%
2	A	107	64% 36%
2	D	107	63% 37%
2	H	107	62% 37% .
2	I	107	61% 39%

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Mol	Chain	Length	Quality of chain
3	C	137	 51%40%8%
3	F	137	 51%40%8%
3	K	137	 53%38%8%
3	M	137	 57%34%8%

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 143740 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	B	4319	Total	C	N	O	S	1	0
			34103	21737	5881	6261	224		
1	E	4319	Total	C	N	O	S	1	0
			34103	21737	5881	6261	224		
1	G	4319	Total	C	N	O	S	1	0
			34103	21737	5881	6261	224		
1	J	4319	Total	C	N	O	S	1	0
			34103	21737	5881	6261	224		

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	A	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	D	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	H	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	I	107	Total	C	N	O	S	0	0
			818	516	144	154	4		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	100	ASP	GLY	conflict	UNP Q8HYX6
D	100	ASP	GLY	conflict	UNP Q8HYX6
H	100	ASP	GLY	conflict	UNP Q8HYX6
I	100	ASP	GLY	conflict	UNP Q8HYX6

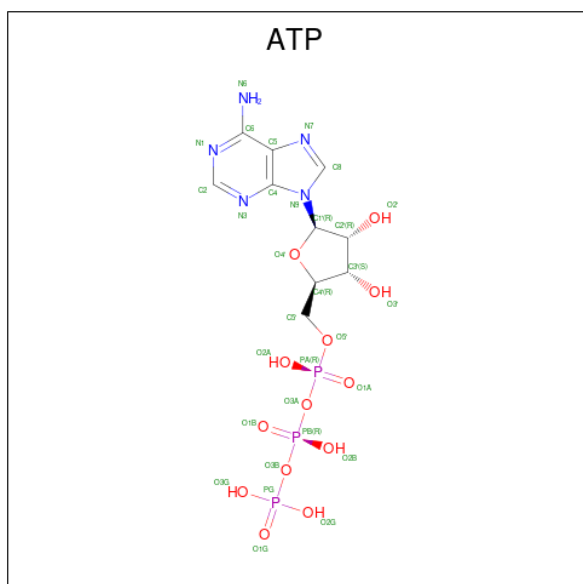
- Molecule 3 is a protein called Nanobody 9657.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	F	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	K	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	M	126	Total	C	N	O	S	0	0
			967	597	170	195	5		

- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
4	B	1	Total	Zn	0
			1	1	
4	E	1	Total	Zn	0
			1	1	
4	G	1	Total	Zn	0
			1	1	
4	J	1	Total	Zn	0
			1	1	

- Molecule 5 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃) (labeled as "Ligand of Interest" by depositor).



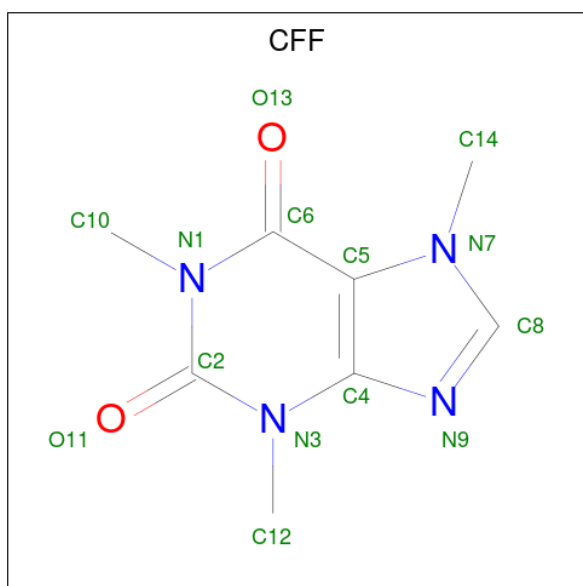
Mol	Chain	Residues	Atoms					AltConf
5	B	1	Total	C	N	O	P	0
			31	10	5	13	3	

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Mol	Chain	Residues	Atoms					AltConf
5	E	1	Total	C	N	O	P	0
			31	10	5	13	3	
5	G	1	Total	C	N	O	P	0
			31	10	5	13	3	
5	J	1	Total	C	N	O	P	0
			31	10	5	13	3	

- Molecule 6 is CAFFEINE (three-letter code: CFF) (formula: $C_8H_{10}N_4O_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
6	B	1	Total	C	N	O	0
			14	8	4	2	
6	E	1	Total	C	N	O	0
			14	8	4	2	
6	G	1	Total	C	N	O	0
			14	8	4	2	
6	J	1	Total	C	N	O	0
			14	8	4	2	

- Molecule 7 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
7	B	1	Total	Ca	0
			1	1	

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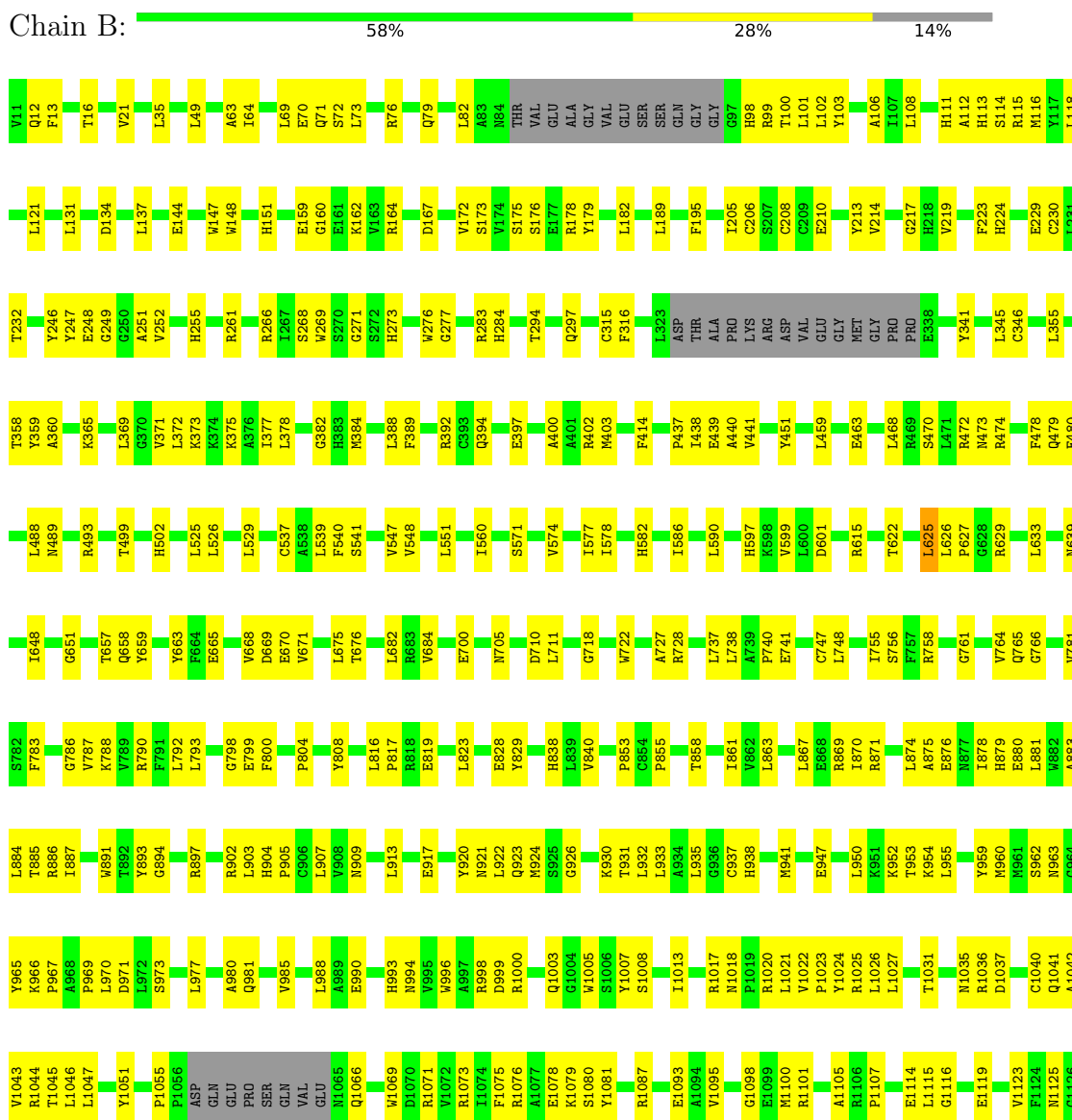
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Mol	Chain	Residues	Atoms		AltConf
7	E	1	Total 1	Ca 1	0
7	G	1	Total 1	Ca 1	0
7	J	1	Total 1	Ca 1	0

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 atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: Ryanodine receptor 1



S9581	R2454	F2364	Q2247	L2138	SER	GLU	M1494	L1615	M1730	V1615	M1494	L1232	H1127
H2582	R2458	G2365	F2251	A2141	SER	GLU	G1497	V1616	L1731	D1616	G1497	R1240	R1128
T2585	L2463	L2368	Y2242	Y2142	LEU	GLU	V1845	T1617	L1731	T1617	G1498	Q1241	Q1130
R2588	L2469	R2369	Y2256	M2153	ARG	ALA	Y1734	R1623	Y1734	R1623	D1499	L1242	R1131
R2591	L2472	G2372	L2257	R2163	SER	PRO	M1851	E1741	E1741	E1741	F1500	P1243	W1132
Q2592	L2472	L2376	L2263	R2163	LEU	GLU	G1852	T1742	T1742	G1825	S1502	Q1244	H1133
R2593	L2472	L2265	G2264	L2166	LEU	GLY	F1854	R1743	R1743	W1626	F1501	F1245	L1134
S2594	L2479	L2380	G2266	L2167	THR	LYS	F1854	A1744	A1744	V1628	S1502	GLN	GLY
L2595	L2479	E2381	G2267	E2175	VAL	ASP	E1857	I1745	I1745	Q1629	G1504	P1249	P1138
A2598	K2489	Q2268	Q2268	E2175	ARG	ASP	D1858	F1748	F1748	C1630	GLN	V1143	W1143
Q2599	K2490	G2269	G2269	E2175	LEU	L1922	W1859	P1749	P1749	Q1631	R1508	H1252	V1148
R2600	S2491	S2270	S2270	M2178	VAL	L1926	K1860	R1758	R1758	L1639	I1509	E1256	V1148
D2601	F2494	P2271	P2271	I2179	LYS	L1931	Q1861	P1758	P1758	L1639	I1509	E1256	M1152
I2603	V2495	P2272	P2272	I2179	LYS	L1931	I1862	P1758	P1758	L1639	I1509	E1256	M1152
E2604	V2495	L2273	L2273	I2182	GLU	M1939	K1863	P1763	P1763	R1646	D1513	M1260	D1154
D2605	D2497	S2279	S2279	V2190	GLY	M1939	M1865	R1772	R1772	C1647	L1514	Q1269	L1155
C2606	F2505	L2286	L2286	Q2193	PRO	L1942	I1866	R1772	R1772	M1648	C1518	L1270	T1159
L2607	ASP	Q2193	Q2193	H2194	GLU	Y1945	F1870	P1774	P1774	D1649	L1518	R1271	T1161
M2608	ARG	Q2292	Q2292	H2194	GLU	Y1945	F1870	H1775	H1775	I1650	D1521	H1274	I1161
A2609	L2506	Q2293	Q2293	L2197	LEU	Q1949	E1874	S1778	S1778	D1658	L1522	R1275	T1177
L2610	R2508	E2296	E2296	M2198	PRO	Q1949	E1874	S1778	S1778	H1663	L1526	R1290	A1178
V2509	V2509	G2202	G2202	G2202	ALA	R1954	GLU	L1786	L1786	S1664	M1527	F1179	F1179
R2615	G2511	C2305	C2305	H2204	GLU	R1964	GLU	ALA	ALA	T1666	F1540	S1291	R1180
P2616	L2512	G2310	G2310	E2209	GLU	K1968	GLU	ALA	ALA	L1667	F1540	L1293	E1181
L2619	Q2515	T2206	T2206	T2206	GLU	K1968	GLU	VAL	VAL	R1668	F1549	F1297	I1182
Q2620	D2516	G2095	G2095	G2095	GLU	Q1973	GLU	ALA	ALA	Y1670	F1550	GLN	F1183
H2621	F2517	E2096	E2096	E2096	GLU	Q1973	GLU	E1793	E1793	L1676	T1557	PRO	T1184
L2623	L2518	L2097	L2097	L2097	GLU	P2001	GLU	R1797	R1797	L1676	H1558	GLY	L1189
R2624	L2519	H2100	H2100	H2100	GLU	Q2005	GLU	L1798	L1798	M1679	Q1559	ALA	P1190
R2625	L2522	Q2107	Q2107	Q2107	GLU	F2012	GLU	I1802	I1802	Q1691	N1560	THR	V1191
L2626	F2526	V2110	V2110	V2110	GLU	K2013	GLU	P1803	P1803	L1695	V1561	ALA	C1192
V2630	F2541	G2216	G2216	G2216	GLU	L2031	GLU	L1804	L1804	L1695	I1562	PRO	S1193
P2631	L2550	GLY	GLY	GLY	GLY	D2037	GLU	R1808	R1808	L1698	F1564	LEU	L1194
L2633	L2550	GLY	GLY	GLY	GLY	D2037	GLU	R1808	R1808	L1698	E1565	PRO	G1195
F2636	V2558	THR	THR	THR	THR	Q2045	GLU	R1813	R1813	L1703	Q1569	ALA	P1196
L2640	T2562	L2335	L2335	L2335	LYS	Q2045	GLU	M1814	M1814	P1704	T1572	GLN	GLY
L2641	T2563	L2336	L2336	L2336	LYS	Q2045	GLU	L1815	L1815	P1704	M1573	LEU	H1201
L2642	K2564	R2337	R2337	R2337	GLU	Q2045	GLU	G1816	G1816	R1708	P1574	ALA	V1208
L2643	K2564	V2352	V2352	V2352	GLU	Q2045	GLU	R1820	R1820	Y1712	L1575	THR	A1215
L2644	T2563	V2353	V2353	V2353	GLU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
T2645	T2572	R2354	R2354	R2354	GLU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
N2646	T2572	R2355	R2355	R2355	GLU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
H2647	H2573	R2356	R2356	R2356	GLU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
Y2648	H2574	R2357	R2357	R2357	GLU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
C2651	R2575	R2358	R2358	R2358	GLU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
W2652	V2579	R2359	R2359	R2359	GLU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
		E2362	E2362	E2362	THR	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215
		C2363	C2363	C2363	LEU	Q2045	GLU	D1821	D1821	Y1712	L1575	THR	A1215



Y3937	L4019	D4118	LEU	VAL	GLU	L4573	L4648	K4774	R4913	W5019
D3941	Q4020	M4122	ARG	ALA	ALA	L4577	L4652	Q4775	V4914	D5020
Y3942	D4021	T4123	ASP	GLY	ASP	L4580	L4653	Y4776	Y4918	P5023
T3943	D4022	T4124	THR	GLY	GLY	Y4581	A4654	Q4777	I4918	S5037
E3944	M4023	F4125	ALA	PRO	PRO	V4582	F4655	K4779	I4927	
F3945	V4024	E4126	ARG	PHE	ASN	D4583	L4656	V4782	I4931	
Q3946	V4025	E4127	GLU	ARG	GLY	S4584	C4657	I4783	L4935	
G3947	M4026	F4128	THR	THR	THR	P4587	L4658	S4788	L4939	
K3948	L4027	N4129	ALA	GLY	LYS	GLY	L4659	Y4796	E4942	
R3949	L4031	N4130	THR	GLY	GLY	GLU	Y4661	L4800	L4943	
K3955	M4039	R4131	ALA	VAL	VAL	ASP	L4664	L4803	E4946	
K3958	I4040	F4132	LEU	GLY	PRO	ASP	L4666	F4807	Q4948	
X3959	Q4043	Q4133	ALA	GLY	PRO	GLY	L4667	L4821	Q4949	
Q3960	M4044	E4134	LEU	GLY	GLY	GLY	L4668	T4822	V4950	
Y3961	V4045	P4135	LEU	GLN	ALA	GLY	L4669	L4823	K4951	
F3962	M4046	N4142	TRP	ASP	PRO	GLY	L4670	L4824	E4952	
L3965	M4047	T4148	VAL	ASP	PRO	ALA	L4671	L4825	D4953	
T3966	L4048	M4149	GLY	THR	PRO	ALA	L4672	L4826	K4954	
E3967	V4049	L4150	ALA	THR	PRO	GLY	L4673	L4827	E4955	
Y3968	Q4061	S4151	ALA	PRO	GLY	GLY	L4674	L4828	T4956	
T3969	F4062	E4152	GLY	ALA	ALA	GLY	L4675	L4829	K4957	
Q3970	D4063	Y4177	ALA	PRO	PRO	GLY	L4676	L4830	C4958	
C3973	K4067	R4180	ALA	GLY	GLY	GLY	L4677	L4833	F4959	
T3974	V4072	N4184	THR	GLY	GLY	GLY	L4678	L4836	I4960	
X3975	V4077	R4192	VAL	GLY	LYS	GLY	L4679	L4841	E4981	
Q3977	F4077	E4199	ALA	ALA	LYS	GLY	L4680	F4356	E4982	
Q4078	Q4078	E4199	GLY	GLY	GLY	GLY	L4681	F4859	H4983	
Y4080	D4079	I4218	ALA	GLY	GLY	GLY	L4682	R4860	F4991	
V4081	V4081	F4219	LEU	VAL	GLY	GLY	L4683	L4704	L4992	
K3982	L4088	R4202	ARG	ARG	ALA	GLY	L4684	Y4863	I4996	
R3984	S4089	E4206	LEU	LEU	GLY	GLY	L4685	N4864	T4997	
L3985	K4090	I4218	LEU	PHE	GLY	GLY	L4686	K4865	K4998	
D3987	K4091	F4219	ALA	GLY	VAL	GLY	L4687	C4876	D4999	
H3994	D4092	E4229	ALA	GLY	GLY	GLY	L4688	D4877	E5002	
F3996	A4096	E4232	ARG	GLY	GLY	GLY	L4689	M4879	H5003	
X3997	M4097	D4240	LEU	GLY	GLY	GLY	L4690	M4880	E5007	
H3998	D4098	D4240	GLY	GLY	GLY	GLY	L4691	Y4888	S5008	
M3999	S4099	F4243	LEU	HIS	LEU	GLY	L4692	R4892	Y5009	
M4000	Q4100	I4247	VAL	VAL	VAL	GLY	L4693	L4901	V5010	
L4003	F4103	I4251	GLY	GLY	GLY	GLY	L4694	T4766	K5012	
Q4009	T4104	E4253	TYR	GLY	GLY	GLY	L4695	W4767	H5013	
L4013	G4105	L4251	ARG	PRO	PRO	GLY	L4696	Y4771	E5016	
K4014	I4108	S4252	LEU	LYS	GLY	GLY	L4697			
E4015	L4112	E4253	ARG	VAL	VAL	GLY	L4698			
L4016	GLU	PRD	THR	THR	THR	GLY	L4699			
L4017	S4115	GLU	VAL	VAL	VAL	GLY	L4700			
D4018	ARG	ARG	ARG	ARG	ALA	GLY	L4701			

• Molecule 1: Ryanodine receptor 1

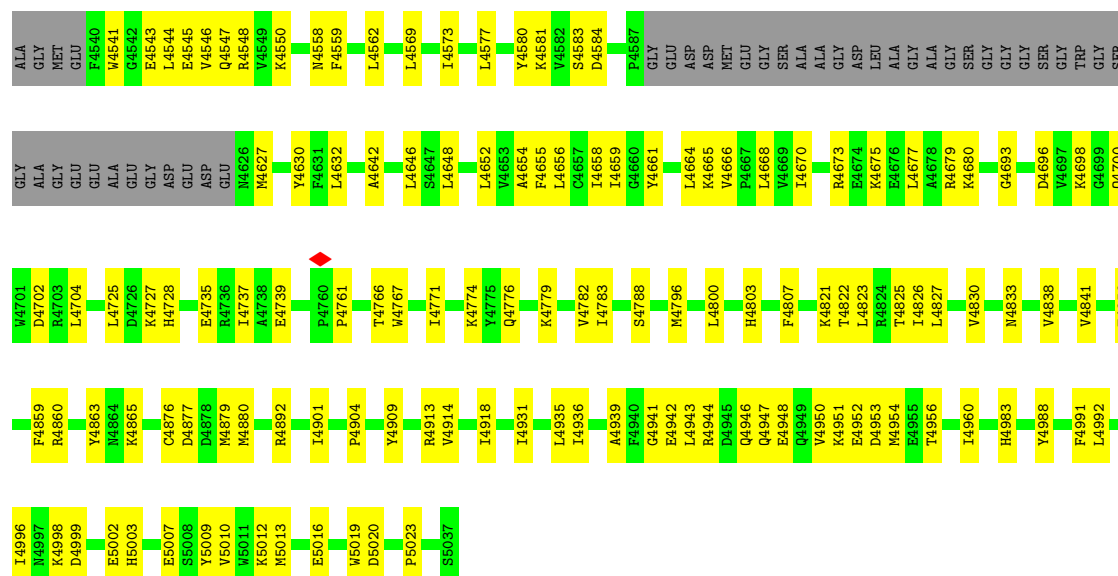


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I1716	P1587	L1487	PHE	I1228	N1125	Q1041	N963	E882	V761	N639	M489	T358	Y246
R1594	R1594	K1488	LEU	M1229	G1126	A1042	G964	A883	S762	L648	R493	Y359	Y247
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G1724	P1598	D1499	ASN	S1241	Q1130	T1045	P967	T887	G787	T657	H502	K365	G250
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	V1628	ASP	GLY	R1271	L1155	GLY	E990	P908	E799	T676	L388	L626	L626

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A3031	S2950	L2878	R2806	LYS	P2631	L2550	I2430	R2330	GLY	V2111	L2031	L1804
S3032		L2878		ALA	L2632	L2550	D2431	D2333	GLY	Q2112	D2037	R1808
K3033	R2954	A2879	K2810	THR	L2633	L2559	R2435	D2333	THR	Q2113		
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	Q2962	L2885	L2816	GLY	K2643	L2559	L2443	V2354	GLY	L2123	GLY	R1820
	Q2963	L2886	L2817		L2644	L2559	L2443	R2355	GLY	G1822	GLY	G1822
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K3045	L2965	R2888	K2819	P2739	N2646	L2559	G2448	L2357	PRO	Q2127	PRO	R1827
L3046	L2966		E2820	T2742	H2647	L2559	E2449	L2358	GLY	Y2128	GLY	D1828
A3047	Q2892	Q2892	L2822	T2742	H2648	L2559	E2449	R2359	GLY		GLY	
A3048	E2893	E2893	L2823	L2746	Y2648	L2559	L2451	R2359	GLY	L2131	GLY	F1836
L3049	L2894	L2894		L2747	C2651	L2559	R2452	E2362	THR	L2134	ALA	Q1837
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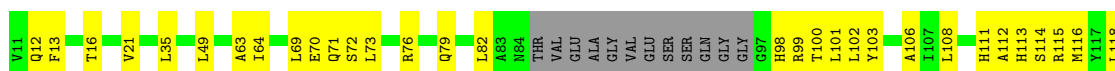


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GLU	F2299	ALA	R1954	GLU	L1786	L1676	Q1559	E1444	ARG	P1196	GLU	N1019
PHE	E2296	GLU	R1964	GLU	P1787	L1676	N1560	P1445	ALA	GLU	GLU	R1020
GLY	C2305	GLU	ALA	GLU	ALA	N1679	V1561	W1449	ASN	V1199	GLU	M100
GLU	C2310	GLU	GLY	GLU	GLY	N1679	Q1563	V1450	GLU	G1200	GLU	L1021
PRO	C2310	GLU	VAL	GLU	VAL	H1683	Q1563	P1455	PRO	H1201	GLN	V1022
PRO	L2313	GLU	E1793	GLU	ALA	Q1691	E1565	P1455	ASP	V1208	ASP	P1023
GLU	L2313	GLU	E1793	GLU	ALA	Q1691	E1565	P1455	ALA	A1215	ALA	R1025
GLU	Y2318	GLU	R1797	GLU	L1798	L1695	Q1569	H1458	THR	A1215	THR	L1026
N2414	I2321	V2210	Q2005	GLU	L1798	L1695	Q1569	H1458	THR	A1215	THR	L1027
L2418	I2321	V2210	Q2005	GLU	L1798	L1695	Q1569	H1458	THR	A1215	THR	T1031
I2422	N2324	P2325	F2012	GLU	L1802	L1698	M1573	G1477	LYS	Q1220	ALA	N1035
L2429	P2325	Y2110	K2013	GLU	P1803	L1703	P1574	D1478	ASN	G1221	ALA	R1036
I2430	N2213	V2111	L2031	ASP	L1804	P1704	L1575	N1482	LYS	G1222	ALA	D1037
D2431	L2215	Q2112	L2031	GLU	R1808	R1708	L1581	N1482	ARG	F1223	GLU	C1040
R2435	G2216	S2113	D2037	GLU	R1808	R1708	L1581	N1482	GLY	E1224	ASP	Q1041
E2439	V2117	V2117	Q2045	GLU	R1813	Y1712	R1584	S1485	PHE	I1228	PRO	A1042
N2440	GLY	GLY	GLU	GLU	M1814	Y1712	P1587	S1486	PHE	N1229	LEU	V1043
H2441	GLU	THR	GLU	LYS	L1815	I1716	P1587	L1487	LYS	R1232	TYR	R1044
L2442	L2335	L2335	GLY	GLU	G1816	I1716	P1587	L1487	ALA	R1232	GLU	T1045
I2443	L2335	L2335	GLY	GLU	G1816	I1716	P1587	L1487	ALA	R1232	GLU	L1046
K2447	V2352	V2352	GLU	GLU	R1820	E1721	R1594	C1489	LYS	K1240	ASN	L1047
G2448	V2352	V2352	GLU	GLU	R1820	S1722	E1586	M1494	LYS	S1241	LEU	Y1051
A2450	L2442	V2354	GLU	GLU	G1822	C1724	V1597	G1497	ALA	L1242	ARG	P1055
R2452	R2355	R2355	GLU	GLU	G1822	Q1598	M1599	G1498	ALA	P1243	ARG	P1056
I2453	L2356	L2356	PRO	GLU	R1827	S1726	M1599	G1499	MET	Q1244	SER	GLN
G2454	L2356	L2356	GLU	LYS	D1828	R1727	M1613	F1500	THR	F1245	ALA	PRO
E2459	L2357	L2357	GLU	ASP	F1836	M1730	Q1614	V1501	GLN	V1248	GLY	GLN
A2459	L2358	L2358	GLU	ASP	Q1837	L1731	V1615	S1502	PRO	P1249	TRP	VAL
R2454	R2359	R2359	THR	ALA	F1838	L1731	E1616	P1503	PRO	H1252	GLY	GLU
E2458	E2362	E2362	LEU	LYS	V1839	Y1734	T1617	G1504	ALA	H1252	GLY	PRO
L2463	F2364	F2364	SER	GLU	K1843	E1741	R1623	GLN	PRO	E1256	GLY	GLN
I2469	G2365	G2365	SER	GLU	L1844	T1742	L1624	GLY	ALA	M1260	GLY	VAL
L2472	Q2247	Q2247	ARG	GLU	V1845	R1742	V1628	R1508	LEU	M1260	GLY	GLU
L2479	F2251	F2251	ARG	ALA	A1744	R1743	Q1629	I1509	PRO	C1269	THR	GLU
K2489	Y2256	Y2256	SER	GLU	M1851	I1745	C1630	D1513	ARG	L1270	GLY	N1065
N2490	L2257	L2257	LEU	GLU	G1852	I1745	Q1631	L1514	LEU	R1271	THR	Q1066
S2491	L2257	L2257	LEU	GLY	I1853	F1748	L1639	C1518	HTS	H1274	ALA	H1069
F2494	L2263	L2263	THR	LYS	F1854	P1749	L1639	L1518	ASP	H1274	GLY	D1070
V2495	G2264	G2264	VAL	GLU	E1857	R1758	R1646	L1519	VAL	R1275	GLY	R1071
P2496	L2265	L2265	ARG	GLU	V1858	R1758	R1646	V1520	VAL	T1177	THR	V1072
D2497	G2266	G2266	LEU	ASP	V1859	L1771	C1647	D1521	PRO	R1290	PRO	R1073
H2498	N2267	N2267	VAL	L1922	K1860	R1772	M1648	L1522	ALA	L1291	THR	I1074
F2505	Q2268	Q2268	LYS	L1926	Q1861	P1773	D1649	L1522	ASP	S1292	GLY	F1075
	Q2269	Q2269	LYS	L1931	I1862	P1774	I1650	L1526	GLY	L1293	GLY	A1077
	S2270	S2270	LYS	L1931	I1863	H1775	D1658	M1527	THR	F1297	THR	E1078
V2496	L2271	L2271	GLU	L1931	K1864	H1775	D1658	F1540	GLN	T1297	GLN	S1080
P2496	P2272	P2272	GLU	M1939	M1865	S1778	H1663	F1549	PRO	T1304	PRO	Y1081
D2497	L2273	L2273	LYS	L1942	I1866	P1780	H1663	P1550	GLY	ALA	GLY	R1087
H2498	V2190	V2190	PRO	L1942	I1866	C1781	H1665	A1551	VAL	GLY	VAL	E1093
F2505	S2279	S2279	GLU	Y1945	V1870	V1783	L1667	V1552	GLU	ALA	GLU	
	L2286	L2286	GLU	Y1945	V1870	V1783	L1667	V1552	THR	PRO	THR	





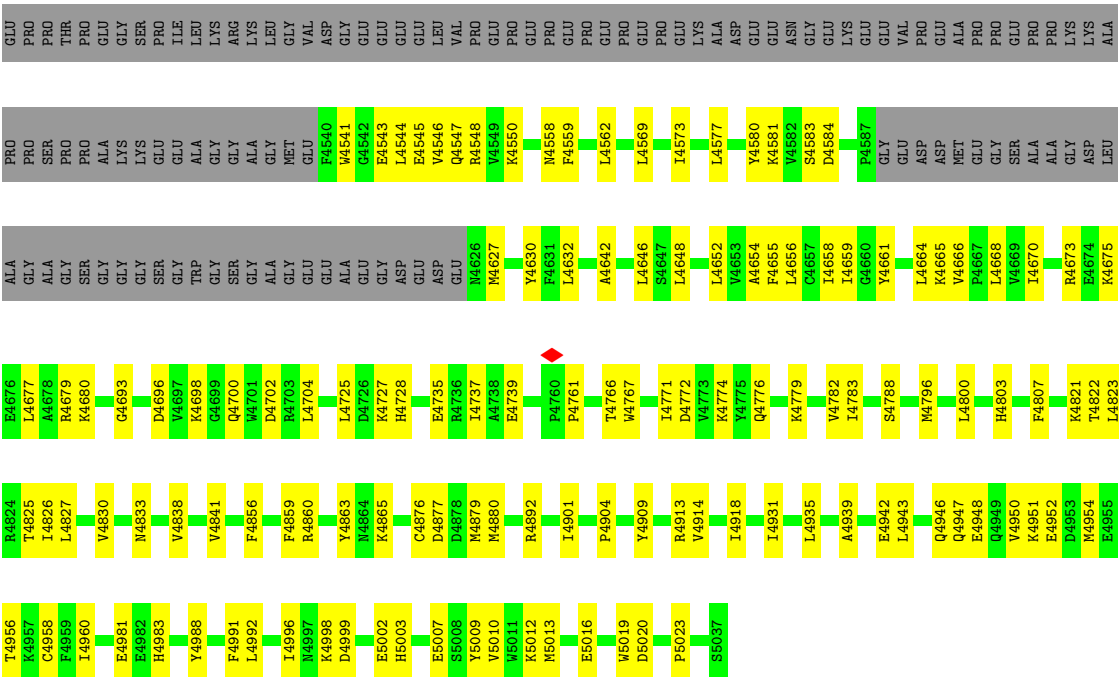
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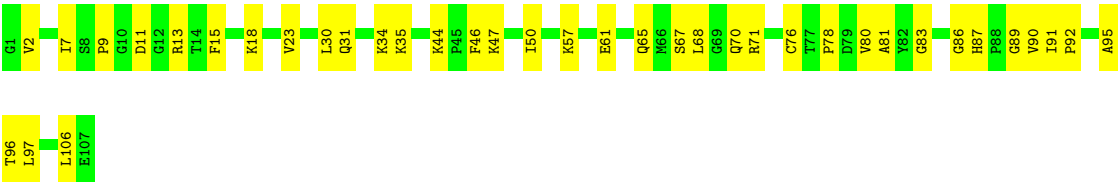
WORLDWIDE
PDB
PROTEIN DATA BANK



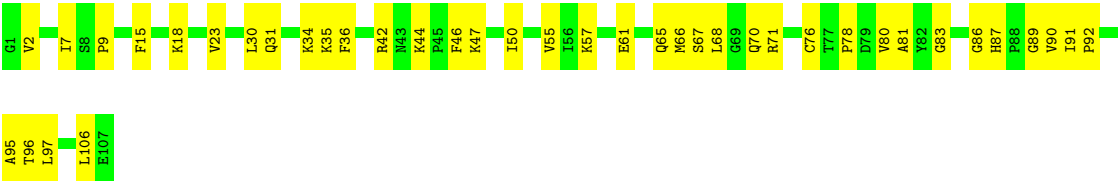




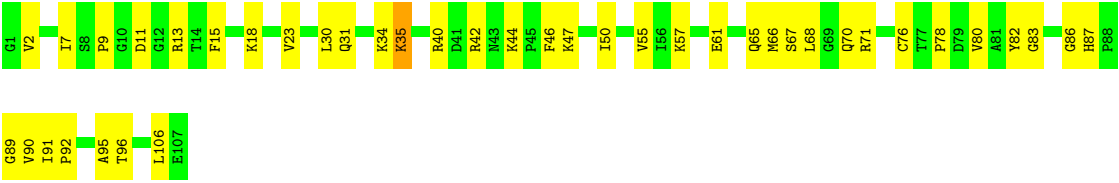
● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



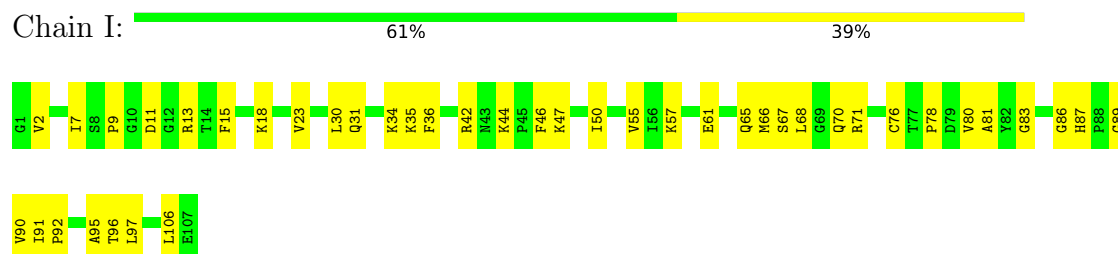
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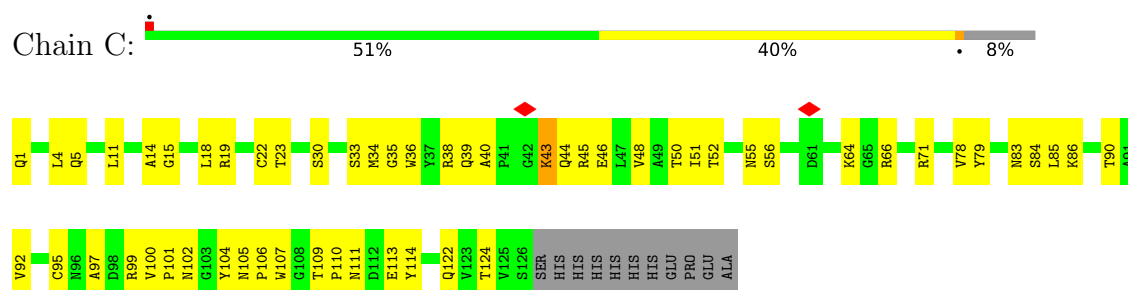
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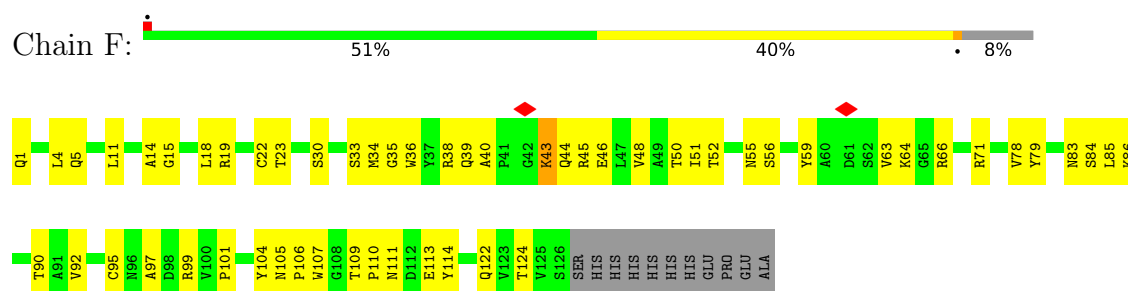
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



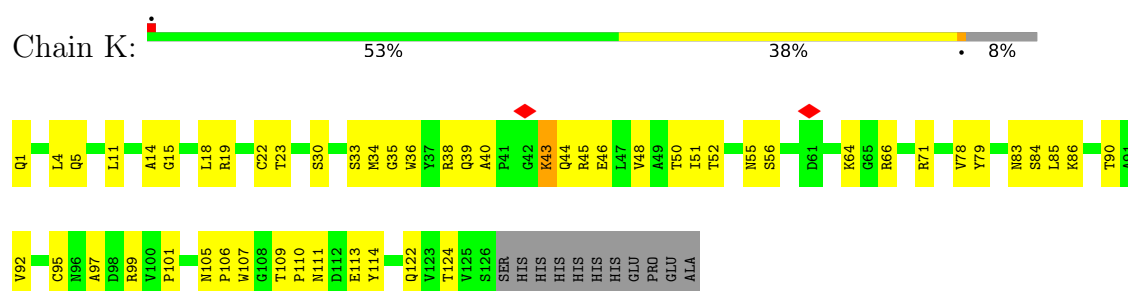
- Molecule 3: Nanobody 9657



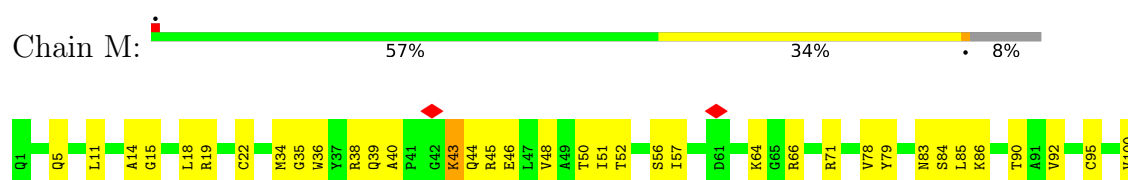
- Molecule 3: Nanobody 9657



- Molecule 3: Nanobody 9657



- Molecule 3: Nanobody 9657



P101	M102	G103	N105	P106	W107	G108	T109	P110	N111	Y114	Q122	V123	T124	V125	S126	SER	HIS	HIS	HIS	HIS	HIS	HIS	HIS	GLU	PRO	GLU	ALA
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	26815	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	JEOL CRYO ARM 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	5.503	Depositor
Minimum map value	-0.105	Depositor
Average map value	0.053	Depositor
Map value standard deviation	0.121	Depositor
Recommended contour level	0.2	Depositor
Map size (Å)	504.0, 504.0, 504.0	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.5, 1.5, 1.5	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ATP, CFF, CA, ZN

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	B	0.25	0/34879	0.51	3/47280 (0.0%)
1	E	0.25	0/34879	0.51	3/47280 (0.0%)
1	G	0.25	0/34879	0.51	3/47280 (0.0%)
1	J	0.25	0/34879	0.51	3/47280 (0.0%)
2	A	0.29	0/834	0.57	0/1123
2	D	0.29	0/834	0.57	0/1123
2	H	0.29	0/834	0.57	0/1123
2	I	0.29	0/834	0.57	0/1123
3	C	0.25	0/987	0.54	0/1340
3	F	0.25	0/987	0.54	0/1340
3	K	0.25	0/987	0.54	0/1340
3	M	0.25	0/987	0.54	0/1340
All	All	0.25	0/146800	0.51	12/198972 (0.0%)

There are no bond length outliers.

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	2905	LEU	CA-CB-CG	6.09	129.32	115.30
1	J	2905	LEU	CA-CB-CG	6.09	129.32	115.30
1	E	2905	LEU	CA-CB-CG	6.09	129.31	115.30
1	G	2905	LEU	CA-CB-CG	6.08	129.28	115.30
1	E	1503	PRO	N-CA-CB	5.66	110.09	103.30
1	J	1503	PRO	N-CA-CB	5.64	110.07	103.30
1	G	1503	PRO	N-CA-CB	5.61	110.04	103.30
1	B	1503	PRO	N-CA-CB	5.59	110.01	103.30
1	E	625	LEU	CA-CB-CG	5.06	126.94	115.30
1	B	625	LEU	CA-CB-CG	5.06	126.94	115.30
1	G	625	LEU	CA-CB-CG	5.06	126.94	115.30
1	J	625	LEU	CA-CB-CG	5.04	126.90	115.30

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	B	34103	0	33491	1051	0
1	E	34103	0	33491	1054	0
1	G	34103	0	33491	1068	0
1	J	34103	0	33491	1061	0
2	A	818	0	824	25	0
2	D	818	0	824	29	0
2	H	818	0	824	33	0
2	I	818	0	824	30	0
3	C	967	0	916	51	0
3	F	967	0	916	53	0
3	K	967	0	916	48	0
3	M	967	0	916	44	0
4	B	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
4	J	1	0	0	0	0
5	B	31	0	12	2	0
5	E	31	0	12	1	0
5	G	31	0	12	1	0
5	J	31	0	12	2	0
6	B	14	0	10	1	0
6	E	14	0	10	1	0
6	G	14	0	10	1	0
6	J	14	0	10	1	0
7	B	1	0	0	0	0
7	E	1	0	0	0	0
7	G	1	0	0	0	0
7	J	1	0	0	0	0
All	All	143740	0	141012	4460	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 16.

All (4460) 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:G:1616:GLU:HG3	1:G:1629:GLN:HG3	1.58	0.86
1:E:1008:SER:HB2	1:E:1017:ARG:HE	1.41	0.85
1:J:1616:GLU:HG3	1:J:1629:GLN:HG3	1.58	0.85
1:E:2214:VAL:HG13	1:E:2215:LEU:HD12	1.58	0.85
1:J:2214:VAL:HG13	1:J:2215:LEU:HD12	1.58	0.85
1:B:2214:VAL:HG13	1:B:2215:LEU:HD12	1.59	0.85
1:G:2214:VAL:HG13	1:G:2215:LEU:HD12	1.58	0.85
1:G:1008:SER:HB2	1:G:1017:ARG:HE	1.41	0.85
1:G:897:ARG:HD3	1:G:905:PRO:HD3	1.57	0.84
1:B:3315:LEU:HD22	1:B:3345:ILE:HG12	1.60	0.84
1:B:1008:SER:HB2	1:B:1017:ARG:HE	1.41	0.84
1:E:1616:GLU:HG3	1:E:1629:GLN:HG3	1.58	0.83
1:E:3315:LEU:HD22	1:E:3345:ILE:HG12	1.60	0.83
1:J:1008:SER:HB2	1:J:1017:ARG:HE	1.41	0.83
1:B:1616:GLU:HG3	1:B:1629:GLN:HG3	1.58	0.83
1:G:3315:LEU:HD22	1:G:3345:ILE:HG12	1.60	0.83
1:J:223:PHE:HA	1:J:230:CYS:HA	1.61	0.82
1:G:1154:ASP:HB3	1:G:1223:PHE:HE1	1.44	0.82
1:J:3315:LEU:HD22	1:J:3345:ILE:HG12	1.60	0.82
1:G:223:PHE:HA	1:G:230:CYS:HA	1.61	0.82
1:B:1154:ASP:HB3	1:B:1223:PHE:HE1	1.44	0.82
1:B:248:GLU:HB3	1:B:373:LYS:HA	1.61	0.81
1:E:1154:ASP:HB3	1:E:1223:PHE:HE1	1.44	0.81
1:J:1154:ASP:HB3	1:J:1223:PHE:HE1	1.44	0.81
1:E:223:PHE:HA	1:E:230:CYS:HA	1.61	0.81
1:B:223:PHE:HA	1:B:230:CYS:HA	1.61	0.80
1:E:2755:ILE:HD12	1:E:2813:LEU:HG	1.64	0.80
1:B:2755:ILE:HD12	1:B:2813:LEU:HG	1.64	0.80
3:F:111:ASN:HA	3:F:114:TYR:HD2	1.47	0.79
1:J:2755:ILE:HD12	1:J:2813:LEU:HG	1.64	0.79
3:K:111:ASN:HA	3:K:114:TYR:HD2	1.48	0.79
1:G:2755:ILE:HD12	1:G:2813:LEU:HG	1.64	0.79
1:J:880:GLU:HG2	1:J:967:PRO:HB2	1.65	0.79
1:E:3967:GLU:HA	1:E:3970:GLN:HG2	1.64	0.78
1:E:208:CYS:HG	1:E:273:HIS:HD1	1.30	0.78
1:J:3967:GLU:HA	1:J:3970:GLN:HG2	1.64	0.78
1:B:3967:GLU:HA	1:B:3970:GLN:HG2	1.64	0.78
3:M:105:ASN:HD21	3:M:111:ASN:HB2	1.49	0.78
1:G:3967:GLU:HA	1:G:3970:GLN:HG2	1.64	0.78
1:G:880:GLU:HG2	1:G:967:PRO:HB2	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:880:GLU:HG2	1:E:967:PRO:HB2	1.65	0.77
3:C:111:ASN:HA	3:C:114:TYR:HD2	1.48	0.77
1:J:116:MET:HG2	1:J:137:LEU:HB3	1.67	0.77
1:G:116:MET:HG2	1:G:137:LEU:HB3	1.67	0.77
1:B:1215:ALA:HA	1:B:1219:LEU:HB3	1.67	0.77
1:B:116:MET:HG2	1:B:137:LEU:HB3	1.67	0.76
1:E:2788:HIS:HB3	1:E:2791:LEU:HB2	1.67	0.76
1:B:208:CYS:HG	1:B:273:HIS:HD1	1.30	0.76
1:G:1215:ALA:HA	1:G:1219:LEU:HB3	1.67	0.76
1:G:1527:MET:HB3	1:G:1540:PHE:HB2	1.68	0.76
1:B:880:GLU:HG2	1:B:967:PRO:HB2	1.65	0.76
1:B:1527:MET:HB3	1:B:1540:PHE:HB2	1.68	0.76
1:E:1527:MET:HB3	1:E:1540:PHE:HB2	1.68	0.76
1:J:1215:ALA:HA	1:J:1219:LEU:HB3	1.67	0.76
1:E:1215:ALA:HA	1:E:1219:LEU:HB3	1.67	0.76
1:E:116:MET:HG2	1:E:137:LEU:HB3	1.67	0.76
1:G:2788:HIS:HB3	1:G:2791:LEU:HB2	1.67	0.76
1:B:2788:HIS:HB3	1:B:2791:LEU:HB2	1.67	0.76
3:F:40:ALA:H	3:F:43:LYS:HE3	1.51	0.76
1:J:980:ALA:HB1	1:J:1055:PRO:HG2	1.68	0.75
1:J:1527:MET:HB3	1:J:1540:PHE:HB2	1.68	0.75
1:G:950:LEU:HD13	1:G:970:LEU:HD21	1.69	0.75
1:J:2788:HIS:HB3	1:J:2791:LEU:HB2	1.67	0.75
1:E:950:LEU:HD13	1:E:970:LEU:HD21	1.69	0.75
1:J:950:LEU:HD13	1:J:970:LEU:HD21	1.69	0.75
3:K:40:ALA:H	3:K:43:LYS:HE3	1.51	0.75
1:E:247:TYR:HB2	1:E:374:LYS:HD2	1.69	0.75
1:E:980:ALA:HB1	1:E:1055:PRO:HG2	1.68	0.75
1:B:950:LEU:HD13	1:B:970:LEU:HD21	1.69	0.75
1:B:980:ALA:HB1	1:B:1055:PRO:HG2	1.68	0.75
1:E:251:ALA:O	1:E:255:HIS:ND1	2.20	0.75
1:J:1079:LYS:NZ	1:J:1107:PRO:O	2.20	0.75
3:C:40:ALA:H	3:C:43:LYS:HE3	1.51	0.75
1:J:251:ALA:O	1:J:255:HIS:ND1	2.20	0.74
1:G:1079:LYS:NZ	1:G:1107:PRO:O	2.20	0.74
1:B:1079:LYS:NZ	1:B:1107:PRO:O	2.20	0.74
3:M:40:ALA:H	3:M:43:LYS:HE3	1.51	0.74
3:K:122:GLN:NE2	3:K:124:THR:OG1	2.21	0.74
1:G:980:ALA:HB1	1:G:1055:PRO:HG2	1.68	0.74
3:M:122:GLN:NE2	3:M:124:THR:OG1	2.21	0.74
1:B:2768:PHE:HB2	1:B:2857:PRO:HD2	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2768:PHE:HB2	1:E:2857:PRO:HD2	1.70	0.74
1:G:251:ALA:O	1:G:255:HIS:ND1	2.20	0.74
1:J:2768:PHE:HB2	1:J:2857:PRO:HD2	1.70	0.74
1:G:2768:PHE:HB2	1:G:2857:PRO:HD2	1.70	0.74
1:B:2496:PRO:HG3	1:B:2550:LEU:HD23	1.70	0.74
1:E:1079:LYS:NZ	1:E:1107:PRO:O	2.20	0.73
1:G:973:SER:HA	1:G:1044:ARG:HH21	1.54	0.73
1:B:251:ALA:O	1:B:255:HIS:ND1	2.20	0.73
3:F:122:GLN:NE2	3:F:124:THR:OG1	2.21	0.73
1:E:897:ARG:HD3	1:E:905:PRO:HD3	1.70	0.73
1:E:2496:PRO:HG3	1:E:2550:LEU:HD23	1.70	0.73
1:J:35:LEU:HD22	1:J:189:LEU:HD22	1.71	0.73
1:E:112:ALA:O	1:E:115:ARG:NH1	2.22	0.73
1:E:973:SER:HA	1:E:1044:ARG:HH21	1.53	0.73
1:J:2496:PRO:HG3	1:J:2550:LEU:HD23	1.70	0.73
1:B:35:LEU:HD22	1:B:189:LEU:HD22	1.71	0.73
1:B:112:ALA:O	1:B:115:ARG:NH1	2.22	0.72
1:B:1708:ARG:NH1	1:B:1836:PHE:O	2.22	0.72
1:G:2496:PRO:HG3	1:G:2550:LEU:HD23	1.70	0.72
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.22	0.72
3:C:122:GLN:NE2	3:C:124:THR:OG1	2.21	0.72
1:E:3324:VAL:HA	1:E:3327:LEU:HD23	1.72	0.72
1:G:35:LEU:HD22	1:G:189:LEU:HD22	1.71	0.72
1:G:2310:CYS:HB3	1:G:2313:LEU:HD23	1.71	0.72
1:J:2310:CYS:HB3	1:J:2313:LEU:HD23	1.71	0.72
1:J:3324:VAL:HA	1:J:3327:LEU:HD23	1.72	0.72
3:K:55:ASN:OD1	3:K:71:ARG:NH1	2.23	0.72
1:J:897:ARG:HD3	1:J:905:PRO:HD3	1.71	0.72
1:B:371:VAL:HG12	1:B:373:LYS:H	1.55	0.72
1:B:897:ARG:HD3	1:B:905:PRO:HD3	1.70	0.72
1:J:1708:ARG:NH1	1:J:1836:PHE:O	2.22	0.72
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.22	0.72
1:J:973:SER:HA	1:J:1044:ARG:HH21	1.53	0.72
1:B:164:ARG:HB2	1:B:167:ASP:HB2	1.72	0.71
1:B:3324:VAL:HA	1:B:3327:LEU:HD23	1.72	0.71
1:E:35:LEU:HD22	1:E:189:LEU:HD22	1.71	0.71
1:J:112:ALA:O	1:J:115:ARG:NH1	2.22	0.71
1:G:112:ALA:O	1:G:115:ARG:NH1	2.22	0.71
1:J:164:ARG:HB2	1:J:167:ASP:HB2	1.72	0.71
1:J:1095:VAL:HB	1:J:1199:VAL:HG23	1.73	0.71
1:B:973:SER:HA	1:B:1044:ARG:HH21	1.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3934:TYR:HE1	1:B:3999:MET:SD	2.14	0.71
1:G:164:ARG:HB2	1:G:167:ASP:HB2	1.72	0.71
1:G:1095:VAL:HB	1:G:1199:VAL:HG23	1.73	0.71
1:J:718:GLY:HA3	1:J:737:LEU:HA	1.72	0.71
1:B:1007:TYR:O	1:B:1017:ARG:NH2	2.24	0.71
3:F:55:ASN:OD1	3:F:71:ARG:NH1	2.23	0.71
1:E:164:ARG:HB2	1:E:167:ASP:HB2	1.72	0.71
1:G:2595:LEU:HB2	1:G:2600:ARG:HE	1.55	0.71
1:B:891:TRP:HA	1:B:902:ARG:HB3	1.72	0.71
1:B:1095:VAL:HB	1:B:1199:VAL:HG23	1.73	0.71
1:E:1095:VAL:HB	1:E:1199:VAL:HG23	1.73	0.71
1:G:246:TYR:CG	1:G:373:LYS:HG3	2.25	0.71
1:E:1007:TYR:O	1:E:1017:ARG:NH2	2.24	0.71
1:E:4673:ARG:HH12	1:E:4698:LYS:HB2	1.55	0.71
1:B:4673:ARG:HH12	1:B:4698:LYS:HB2	1.55	0.71
1:E:3934:TYR:HE1	1:E:3999:MET:SD	2.14	0.71
1:E:3981:ALA:HA	1:E:3986:TRP:HZ2	1.55	0.71
1:G:3324:VAL:HA	1:G:3327:LEU:HD23	1.72	0.71
1:B:3695:PRO:HG2	1:B:3700:GLN:HG2	1.73	0.70
1:E:718:GLY:HA3	1:E:737:LEU:HA	1.72	0.70
1:J:2595:LEU:HB2	1:J:2600:ARG:HE	1.55	0.70
1:B:2310:CYS:HB3	1:B:2313:LEU:HD23	1.71	0.70
1:E:3695:PRO:HG2	1:E:3700:GLN:HG2	1.74	0.70
1:G:3156:VAL:HG23	1:G:3157:ILE:HG13	1.73	0.70
1:B:718:GLY:HA3	1:B:737:LEU:HA	1.72	0.70
1:B:3981:ALA:HA	1:B:3986:TRP:HZ2	1.56	0.70
1:G:718:GLY:HA3	1:G:737:LEU:HA	1.72	0.70
1:G:4673:ARG:HH12	1:G:4698:LYS:HB2	1.55	0.70
1:J:891:TRP:HA	1:J:902:ARG:HB3	1.72	0.70
1:J:1020:ARG:HG2	1:J:1031:THR:HG21	1.74	0.70
1:J:2970:SER:HA	1:J:2973:PHE:CE2	2.26	0.70
3:C:55:ASN:OD1	3:C:71:ARG:NH1	2.23	0.70
1:E:2310:CYS:HB3	1:E:2313:LEU:HD23	1.71	0.70
1:J:1727:ARG:HH12	1:J:1851:MET:HE1	1.57	0.70
1:E:891:TRP:HA	1:E:902:ARG:HB3	1.72	0.70
1:G:3934:TYR:HE1	1:G:3999:MET:SD	2.14	0.70
1:G:3981:ALA:HA	1:G:3986:TRP:HZ2	1.55	0.70
1:J:1444:GLU:HG3	1:J:1557:THR:HG21	1.73	0.70
1:B:2970:SER:HA	1:B:2973:PHE:CE2	2.26	0.70
1:G:1020:ARG:HG2	1:G:1031:THR:HG21	1.73	0.70
1:J:3156:VAL:HG23	1:J:3157:ILE:HG13	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:3695:PRO:HG2	1:J:3700:GLN:HG2	1.73	0.70
1:B:1444:GLU:HG3	1:B:1557:THR:HG21	1.73	0.70
1:G:1007:TYR:O	1:G:1017:ARG:NH2	2.24	0.70
1:G:3695:PRO:HG2	1:G:3700:GLN:HG2	1.73	0.70
1:J:1007:TYR:O	1:J:1017:ARG:NH2	2.24	0.70
1:J:2673:HIS:HE1	1:J:2677:LYS:HE2	1.56	0.70
1:J:3934:TYR:HE1	1:J:3999:MET:SD	2.14	0.70
1:E:2673:HIS:HE1	1:E:2677:LYS:HE2	1.56	0.69
1:E:2970:SER:HA	1:E:2973:PHE:CE2	2.26	0.69
1:E:3162:GLN:HE21	1:E:3218:VAL:HG13	1.58	0.69
1:G:2970:SER:HA	1:G:2973:PHE:CE2	2.26	0.69
1:G:891:TRP:HA	1:G:902:ARG:HB3	1.72	0.69
1:B:1020:ARG:HG2	1:B:1031:THR:HG21	1.74	0.69
1:B:1870:VAL:HG21	1:B:2097:LEU:HD13	1.75	0.69
1:B:3162:GLN:HE21	1:B:3218:VAL:HG13	1.58	0.69
1:J:3766:GLN:HA	1:J:3769:ARG:HE	1.58	0.69
1:E:102:LEU:HD12	1:E:160:GLY:HA2	1.75	0.69
1:G:1444:GLU:HG3	1:G:1557:THR:HG21	1.73	0.69
1:J:2454:ARG:HD2	1:J:2458:ARG:HH21	1.58	0.69
1:J:4673:ARG:HH12	1:J:4698:LYS:HB2	1.55	0.69
1:E:2754:PHE:HE1	1:E:2933:ASN:HD21	1.41	0.69
1:B:2668:SER:HB3	1:B:2671:GLU:HG3	1.75	0.69
1:E:1727:ARG:HH12	1:E:1851:MET:HE1	1.58	0.69
1:E:2454:ARG:HD2	1:E:2458:ARG:HH21	1.58	0.69
1:B:102:LEU:HD12	1:B:160:GLY:HA2	1.75	0.69
1:B:924:MET:HE1	3:C:106:PRO:HG2	1.75	0.69
1:B:2595:LEU:HB2	1:B:2600:ARG:HE	1.55	0.69
1:B:3413:ILE:HG23	1:B:3516:LYS:HE2	1.75	0.69
1:E:1020:ARG:HG2	1:E:1031:THR:HG21	1.73	0.69
1:E:1444:GLU:HG3	1:E:1557:THR:HG21	1.73	0.69
1:E:2595:LEU:HB2	1:E:2600:ARG:HE	1.56	0.69
1:E:3413:ILE:HG23	1:E:3516:LYS:HE2	1.75	0.69
1:G:2668:SER:HB3	1:G:2671:GLU:HG3	1.75	0.69
1:J:3162:GLN:HE21	1:J:3218:VAL:HG13	1.58	0.69
1:J:3981:ALA:HA	1:J:3986:TRP:HZ2	1.56	0.69
1:B:229:GLU:HA	1:B:249:GLY:HA3	1.75	0.69
1:B:1727:ARG:HH12	1:B:1851:MET:HE1	1.57	0.69
1:G:2754:PHE:HE1	1:G:2933:ASN:HD21	1.41	0.69
1:J:70:GLU:O	1:J:108:LEU:HB3	1.93	0.69
1:B:633:LEU:HB3	1:B:1639:LEU:HD11	1.75	0.69
1:B:2673:HIS:HE1	1:B:2677:LYS:HE2	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2454:ARG:HD2	1:G:2458:ARG:HH21	1.58	0.69
1:G:2673:HIS:HE1	1:G:2677:LYS:HE2	1.56	0.69
1:G:3162:GLN:HE21	1:G:3218:VAL:HG13	1.58	0.69
1:B:3156:VAL:HG23	1:B:3157:ILE:HG13	1.73	0.68
1:E:70:GLU:O	1:E:108:LEU:HB3	1.93	0.68
3:C:105:ASN:HD21	3:C:111:ASN:HB2	1.58	0.68
1:B:2454:ARG:HD2	1:B:2458:ARG:HH21	1.58	0.68
1:E:2668:SER:HB3	1:E:2671:GLU:HG3	1.75	0.68
1:G:102:LEU:HD12	1:G:160:GLY:HA2	1.75	0.68
1:G:633:LEU:HB3	1:G:1639:LEU:HD11	1.75	0.68
1:G:758:ARG:HH11	1:G:761:GLY:HA2	1.59	0.68
1:B:1229:ASN:HB3	1:B:1827:ARG:HG3	1.75	0.68
1:G:1870:VAL:HG21	1:G:2097:LEU:HD13	1.75	0.68
1:J:2754:PHE:HE1	1:J:2933:ASN:HD21	1.41	0.68
1:B:758:ARG:HH11	1:B:761:GLY:HA2	1.59	0.68
1:E:3766:GLN:HA	1:E:3769:ARG:HE	1.58	0.68
1:G:229:GLU:HA	1:G:249:GLY:HA3	1.75	0.68
1:G:3413:ILE:HG23	1:G:3516:LYS:HE2	1.75	0.68
1:G:3416:VAL:O	1:G:3420:ARG:HB2	1.94	0.68
1:J:855:PRO:HG3	1:J:998:ARG:HD2	1.76	0.68
1:J:2668:SER:HB3	1:J:2671:GLU:HG3	1.75	0.68
1:E:3156:VAL:HG23	1:E:3157:ILE:HG13	1.73	0.68
1:G:855:PRO:HG3	1:G:998:ARG:HD2	1.76	0.68
1:G:3766:GLN:HA	1:G:3769:ARG:HE	1.58	0.68
1:J:102:LEU:HD12	1:J:160:GLY:HA2	1.75	0.68
3:K:105:ASN:HD21	3:K:111:ASN:HB2	1.59	0.68
1:B:2616:PRO:HA	1:B:2619:LEU:HB3	1.75	0.68
1:G:70:GLU:O	1:G:108:LEU:HB3	1.93	0.68
1:G:371:VAL:HG12	1:G:373:LYS:H	1.59	0.68
1:G:1727:ARG:HH12	1:G:1851:MET:HE1	1.58	0.68
1:J:758:ARG:HH11	1:J:761:GLY:HA2	1.59	0.68
1:E:223:PHE:HB2	1:E:389:PHE:HB3	1.76	0.68
1:G:2620:GLN:HA	1:G:2623:LEU:HD12	1.76	0.68
1:J:1870:VAL:HG21	1:J:2097:LEU:HD13	1.75	0.68
1:J:2616:PRO:HA	1:J:2619:LEU:HB3	1.75	0.68
1:J:3416:VAL:O	1:J:3420:ARG:HB2	1.94	0.68
1:B:670:GLU:HB2	1:B:788:LYS:HB3	1.76	0.68
1:J:247:TYR:HE2	1:J:359:TYR:HA	1.58	0.68
3:F:105:ASN:HD21	3:F:111:ASN:HB2	1.59	0.68
1:B:2620:GLN:HA	1:B:2623:LEU:HD12	1.76	0.68
1:E:2620:GLN:HA	1:E:2623:LEU:HD12	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:223:PHE:HB2	1:G:389:PHE:HB3	1.76	0.68
1:G:959:TYR:HB2	1:G:966:LYS:HD3	1.76	0.68
1:J:1229:ASN:HB3	1:J:1827:ARG:HG3	1.75	0.68
1:B:2754:PHE:HE1	1:B:2933:ASN:HD21	1.41	0.67
1:E:229:GLU:HA	1:E:249:GLY:HA3	1.75	0.67
1:E:2616:PRO:HA	1:E:2619:LEU:HB3	1.75	0.67
1:G:670:GLU:HB2	1:G:788:LYS:HB3	1.76	0.67
1:J:3413:ILE:HG23	1:J:3516:LYS:HE2	1.75	0.67
1:B:70:GLU:O	1:B:108:LEU:HB3	1.93	0.67
1:B:223:PHE:HB2	1:B:389:PHE:HB3	1.76	0.67
1:J:670:GLU:HB2	1:J:788:LYS:HB3	1.76	0.67
1:E:1229:ASN:HB3	1:E:1827:ARG:HG3	1.75	0.67
1:J:223:PHE:HB2	1:J:389:PHE:HB3	1.76	0.67
1:E:633:LEU:HB3	1:E:1639:LEU:HD11	1.75	0.67
1:E:1870:VAL:HG21	1:E:2097:LEU:HD13	1.75	0.67
1:J:248:GLU:HB3	1:J:373:LYS:HA	1.75	0.67
1:J:959:TYR:HB2	1:J:966:LYS:HD3	1.76	0.67
3:K:15:GLY:H	3:K:85:LEU:HB2	1.60	0.67
1:B:3766:GLN:HA	1:B:3769:ARG:HE	1.58	0.67
1:E:758:ARG:HH11	1:E:761:GLY:HA2	1.59	0.67
1:B:799:GLU:HB2	1:B:1623:ARG:HH12	1.60	0.67
1:G:1023:PRO:HD2	1:G:1026:LEU:HD22	1.77	0.67
1:G:2616:PRO:HA	1:G:2619:LEU:HB3	1.75	0.67
1:B:959:TYR:HB2	1:B:966:LYS:HD3	1.76	0.67
1:J:1023:PRO:HD2	1:J:1026:LEU:HD22	1.77	0.67
1:B:1023:PRO:HD2	1:B:1026:LEU:HD22	1.77	0.67
1:G:1229:ASN:HB3	1:G:1827:ARG:HG3	1.75	0.67
1:J:229:GLU:HA	1:J:249:GLY:HA3	1.75	0.67
1:J:633:LEU:HB3	1:J:1639:LEU:HD11	1.75	0.67
1:J:3962:PHE:HA	1:J:3965:LEU:HD12	1.76	0.67
1:B:3416:VAL:O	1:B:3420:ARG:HB2	1.94	0.67
1:E:1023:PRO:HD2	1:E:1026:LEU:HD22	1.77	0.67
3:F:15:GLY:H	3:F:85:LEU:HB2	1.60	0.67
1:E:855:PRO:HG3	1:E:998:ARG:HD2	1.76	0.66
1:E:2673:HIS:CE1	1:E:2677:LYS:HE2	2.31	0.66
1:E:3416:VAL:O	1:E:3420:ARG:HB2	1.94	0.66
1:J:247:TYR:HB2	1:J:374:LYS:HB2	1.77	0.66
1:E:670:GLU:HB2	1:E:788:LYS:HB3	1.76	0.66
1:G:4003:LEU:HD13	1:G:4013:LEU:HA	1.78	0.66
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.28	0.66
1:J:2620:GLN:HA	1:J:2623:LEU:HD12	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4003:LEU:HD13	1:B:4013:LEU:HA	1.78	0.66
1:E:3962:PHE:HA	1:E:3965:LEU:HD12	1.78	0.66
3:C:15:GLY:H	3:C:85:LEU:HB2	1.60	0.66
1:G:799:GLU:HB2	1:G:1623:ARG:HH12	1.60	0.66
3:C:34:MET:HG2	3:C:78:VAL:HG21	1.78	0.66
1:B:855:PRO:HG3	1:B:998:ARG:HD2	1.76	0.66
1:B:2673:HIS:CE1	1:B:2677:LYS:HE2	2.31	0.66
1:G:2673:HIS:CE1	1:G:2677:LYS:HE2	2.31	0.66
1:G:3594:ARG:NH2	1:G:3597:GLN:OE1	2.29	0.66
1:B:1519:LEU:HD11	1:B:1572:ILE:HD13	1.78	0.66
1:E:799:GLU:HB2	1:E:1623:ARG:HH12	1.60	0.66
1:J:1256:GLU:HB2	1:J:1275:ARG:HE	1.61	0.66
1:B:548:VAL:HG21	1:B:582:HIS:HD2	1.61	0.66
1:J:799:GLU:HB2	1:J:1623:ARG:HH12	1.60	0.66
1:J:2673:HIS:CE1	1:J:2677:LYS:HE2	2.31	0.66
1:B:3962:PHE:HA	1:B:3965:LEU:HD12	1.77	0.66
1:E:195:PHE:HZ	1:J:2359:ARG:HG3	1.61	0.66
1:E:959:TYR:HB2	1:E:966:LYS:HD3	1.76	0.66
1:G:1679:ASN:ND2	1:G:1797:ARG:O	2.29	0.66
1:G:2624:ARG:NH1	1:G:2910:THR:O	2.29	0.66
1:E:548:VAL:HG21	1:E:582:HIS:HD2	1.61	0.66
1:G:858:THR:HG21	1:G:931:THR:HG22	1.78	0.66
1:J:3923:LEU:HD22	1:J:3965:LEU:HD11	1.79	0.66
1:G:3962:PHE:HA	1:G:3965:LEU:HD12	1.77	0.65
1:B:246:TYR:HB3	1:B:373:LYS:O	1.95	0.65
1:B:2359:ARG:HG3	1:G:195:PHE:HZ	1.62	0.65
1:G:1256:GLU:HB2	1:G:1275:ARG:HE	1.61	0.65
1:J:663:TYR:OH	1:J:758:ARG:NH2	2.30	0.65
3:M:15:GLY:H	3:M:85:LEU:HB2	1.60	0.65
1:E:2624:ARG:NH1	1:E:2910:THR:O	2.29	0.65
1:G:590:LEU:O	1:G:1594:ARG:NH2	2.29	0.65
1:G:663:TYR:OH	1:G:758:ARG:NH2	2.30	0.65
1:J:4003:LEU:HD13	1:J:4013:LEU:HA	1.78	0.65
1:B:3923:LEU:HD22	1:B:3965:LEU:HD11	1.79	0.65
1:E:479:GLN:HE21	1:E:539:LEU:HD11	1.62	0.65
1:E:953:THR:HB	1:E:969:PRO:HG2	1.78	0.65
1:G:548:VAL:HG21	1:G:582:HIS:HD2	1.61	0.65
1:G:1519:LEU:HD11	1:G:1572:ILE:HD13	1.78	0.65
1:E:3965:LEU:HA	1:E:3968:TYR:CD2	2.31	0.65
1:G:3923:LEU:HD22	1:G:3965:LEU:HD11	1.79	0.65
1:E:858:THR:HG21	1:E:931:THR:HG22	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:904:HIS:HD2	1:E:907:LEU:H	1.45	0.65
1:E:4003:LEU:HD13	1:E:4013:LEU:HA	1.78	0.65
1:G:144:GLU:HG3	1:G:175:SER:HB3	1.79	0.65
1:J:2519:LEU:HA	1:J:2522:LEU:HD12	1.79	0.65
1:J:3594:ARG:NH2	1:J:3597:GLN:OE1	2.29	0.65
1:B:4546:VAL:HG22	1:B:4550:LYS:HE3	1.78	0.65
1:E:3594:ARG:NH2	1:E:3597:GLN:OE1	2.29	0.65
1:G:3965:LEU:HA	1:G:3968:TYR:CD2	2.31	0.65
1:J:590:LEU:O	1:J:1594:ARG:NH2	2.29	0.65
1:J:924:MET:HE1	3:K:106:PRO:HG2	1.78	0.65
1:J:2624:ARG:NH1	1:J:2910:THR:O	2.29	0.65
2:I:68:LEU:HD13	2:I:106:LEU:HG	1.79	0.65
1:B:479:GLN:HE21	1:B:539:LEU:HD11	1.62	0.65
1:E:590:LEU:O	1:E:1594:ARG:NH2	2.29	0.65
1:E:663:TYR:OH	1:E:758:ARG:NH2	2.29	0.65
1:J:2883:HIS:NE2	1:J:2906:VAL:O	2.28	0.65
2:H:68:LEU:HD13	2:H:106:LEU:HG	1.79	0.65
3:K:34:MET:HG2	3:K:78:VAL:HG21	1.77	0.65
1:B:663:TYR:OH	1:B:758:ARG:NH2	2.30	0.65
1:B:2883:HIS:NE2	1:B:2906:VAL:O	2.28	0.65
1:E:1679:ASN:ND2	1:E:1797:ARG:O	2.29	0.65
1:G:479:GLN:HE21	1:G:539:LEU:HD11	1.62	0.65
1:J:904:HIS:HD2	1:J:907:LEU:H	1.45	0.65
2:A:68:LEU:HD13	2:A:106:LEU:HG	1.79	0.65
1:B:246:TYR:CD1	1:B:375:LYS:HA	2.31	0.65
1:B:590:LEU:O	1:B:1594:ARG:NH2	2.29	0.65
1:B:2128:TYR:OH	1:B:3672:ARG:NH1	2.30	0.65
1:B:3594:ARG:NH2	1:B:3597:GLN:OE1	2.29	0.65
1:G:4546:VAL:HG22	1:G:4550:LYS:HE3	1.78	0.65
1:J:1519:LEU:HD11	1:J:1572:ILE:HD13	1.78	0.65
1:J:3965:LEU:HA	1:J:3968:TYR:CD2	2.32	0.65
1:E:1154:ASP:HB3	1:E:1223:PHE:CE1	2.31	0.64
1:G:1617:THR:HG22	1:G:1628:VAL:HG13	1.79	0.64
1:J:858:THR:HG21	1:J:931:THR:HG22	1.78	0.64
1:J:1679:ASN:ND2	1:J:1797:ARG:O	2.29	0.64
1:J:2746:ILE:HA	1:J:2814:LYS:HE3	1.79	0.64
1:B:953:THR:HB	1:B:969:PRO:HG2	1.78	0.64
1:B:1256:GLU:HB2	1:B:1275:ARG:HE	1.61	0.64
1:E:1256:GLU:HB2	1:E:1275:ARG:HE	1.61	0.64
1:E:2519:LEU:HA	1:E:2522:LEU:HD12	1.79	0.64
1:J:2128:TYR:OH	1:J:3672:ARG:NH1	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4546:VAL:HG22	1:J:4550:LYS:HE3	1.78	0.64
2:D:68:LEU:HD13	2:D:106:LEU:HG	1.79	0.64
1:B:1804:LEU:HD12	1:B:1853:ILE:HG13	1.80	0.64
1:E:601:ASP:OD1	1:E:1668:ARG:NH2	2.30	0.64
1:E:1617:THR:HG22	1:E:1628:VAL:HG13	1.79	0.64
1:G:601:ASP:OD1	1:G:1668:ARG:NH2	2.31	0.64
1:G:2519:LEU:HA	1:G:2522:LEU:HD12	1.79	0.64
1:G:2624:ARG:HG3	1:G:2625:ARG:HE	1.62	0.64
1:J:479:GLN:HE21	1:J:539:LEU:HD11	1.62	0.64
1:J:548:VAL:HG21	1:J:582:HIS:HD2	1.61	0.64
1:B:144:GLU:HG3	1:B:175:SER:HB3	1.79	0.64
1:B:365:LYS:HE2	1:B:369:LEU:HD21	1.79	0.64
1:E:2128:TYR:OH	1:E:3672:ARG:NH1	2.30	0.64
1:E:2883:HIS:NE2	1:E:2906:VAL:O	2.28	0.64
2:A:30:LEU:HD11	2:A:92:PRO:HD2	1.79	0.64
1:B:669:ASP:HA	1:B:741:GLU:H	1.63	0.64
1:E:2591:ARG:NH1	1:E:2636:PHE:HB2	2.13	0.64
1:G:2746:ILE:HA	1:G:2814:LYS:HE3	1.79	0.64
2:I:30:LEU:HD11	2:I:92:PRO:HD2	1.79	0.64
1:B:1679:ASN:ND2	1:B:1797:ARG:O	2.29	0.64
1:E:400:ALA:HA	1:E:403:MET:SD	2.38	0.64
1:E:669:ASP:HA	1:E:741:GLU:H	1.63	0.64
1:E:2624:ARG:HG3	1:E:2625:ARG:HE	1.62	0.64
1:E:4546:VAL:HG22	1:E:4550:LYS:HE3	1.78	0.64
1:G:365:LYS:HE2	1:G:369:LEU:HD21	1.80	0.64
1:G:1804:LEU:HD12	1:G:1853:ILE:HG13	1.80	0.64
2:H:30:LEU:HD11	2:H:92:PRO:HD2	1.79	0.64
1:B:858:THR:HG21	1:B:931:THR:HG22	1.78	0.64
1:B:2591:ARG:NH1	1:B:2636:PHE:HB2	2.13	0.64
1:B:2710:LEU:HD12	1:B:2711:PRO:HD2	1.80	0.64
1:B:4072:VAL:O	1:B:4078:GLN:NE2	2.31	0.64
1:E:788:LYS:HD3	1:E:1629:GLN:HB3	1.80	0.64
1:G:400:ALA:HA	1:G:403:MET:SD	2.38	0.64
1:G:1101:ARG:HH12	1:G:1114:GLU:HB3	1.63	0.64
1:G:2591:ARG:HH11	1:G:2636:PHE:HB2	1.63	0.64
1:J:144:GLU:HG3	1:J:175:SER:HB3	1.79	0.64
1:J:601:ASP:OD1	1:J:1668:ARG:NH2	2.31	0.64
1:J:953:THR:HB	1:J:969:PRO:HG2	1.78	0.64
1:J:2624:ARG:HG3	1:J:2625:ARG:HE	1.62	0.64
1:J:4545:GLU:OE1	1:J:4548:ARG:NE	2.27	0.64
1:B:601:ASP:OD1	1:B:1668:ARG:NH2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:788:LYS:HD3	1:B:1629:GLN:HB3	1.80	0.64
1:E:144:GLU:HG3	1:E:175:SER:HB3	1.79	0.64
1:G:953:THR:HB	1:G:969:PRO:HG2	1.78	0.64
1:J:294:THR:HG23	1:J:297:GLN:H	1.63	0.64
3:M:34:MET:HG2	3:M:78:VAL:HG21	1.79	0.64
1:B:195:PHE:HZ	1:E:2359:ARG:HG3	1.63	0.64
1:B:904:HIS:HD2	1:B:907:LEU:H	1.45	0.64
1:B:2624:ARG:HG3	1:B:2625:ARG:HE	1.62	0.64
1:B:3965:LEU:HA	1:B:3968:TYR:CD2	2.32	0.64
1:E:3048:ALA:O	1:E:3052:HIS:ND1	2.31	0.64
1:G:669:ASP:HA	1:G:741:GLU:H	1.63	0.64
1:G:1249:PRO:HG2	1:G:1252:HIS:HB2	1.80	0.64
1:J:360:ALA:HA	1:J:377:ILE:HD13	1.78	0.64
1:B:3048:ALA:O	1:B:3052:HIS:ND1	2.31	0.64
1:E:247:TYR:HE2	1:E:359:TYR:HA	1.62	0.64
1:E:3923:LEU:HD22	1:E:3965:LEU:HD11	1.80	0.64
1:G:788:LYS:HD3	1:G:1629:GLN:HB3	1.80	0.64
2:D:30:LEU:HD11	2:D:92:PRO:HD2	1.79	0.64
1:B:675:LEU:HG	1:B:676:THR:HG23	1.80	0.63
1:B:2624:ARG:NH1	1:B:2910:THR:O	2.29	0.63
1:B:2746:ILE:HA	1:B:2814:LYS:HE3	1.79	0.63
1:E:924:MET:HE1	3:F:106:PRO:HG2	1.80	0.63
1:G:1154:ASP:HB3	1:G:1223:PHE:CE1	2.31	0.63
1:J:1617:THR:HG22	1:J:1628:VAL:HG13	1.79	0.63
1:J:2813:LEU:HA	1:J:2816:MET:HG3	1.80	0.63
1:B:659:TYR:HB2	1:B:1017:ARG:HH22	1.63	0.63
1:B:2684:ASP:O	1:B:2688:HIS:ND1	2.31	0.63
1:E:2684:ASP:O	1:E:2688:HIS:ND1	2.31	0.63
1:J:669:ASP:HA	1:J:741:GLU:H	1.63	0.63
1:J:2591:ARG:HH11	1:J:2636:PHE:HB2	1.63	0.63
1:B:294:THR:HG23	1:B:297:GLN:H	1.63	0.63
1:B:2591:ARG:HH11	1:B:2636:PHE:HB2	1.63	0.63
1:E:1519:LEU:HD11	1:E:1572:ILE:HD13	1.78	0.63
1:G:2128:TYR:OH	1:G:3672:ARG:NH1	2.30	0.63
1:G:2813:LEU:HA	1:G:2816:MET:HG3	1.80	0.63
1:J:1154:ASP:HB3	1:J:1223:PHE:CE1	2.31	0.63
3:C:30:SER:HB3	3:C:99:ARG:HB3	1.79	0.63
3:F:34:MET:HG2	3:F:78:VAL:HG21	1.79	0.63
1:B:952:LYS:HA	1:B:970:LEU:HA	1.81	0.63
1:B:1617:THR:HG22	1:B:1628:VAL:HG13	1.79	0.63
1:B:2519:LEU:HA	1:B:2522:LEU:HD12	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:294:THR:HG23	1:E:297:GLN:H	1.63	0.63
1:G:294:THR:HG23	1:G:297:GLN:H	1.63	0.63
1:G:2710:LEU:HD12	1:G:2711:PRO:HD2	1.80	0.63
1:J:2651:CYS:HB3	1:J:2654:TYR:HB3	1.81	0.63
1:E:82:LEU:HD11	1:E:144:GLU:HB3	1.81	0.63
1:E:659:TYR:HB2	1:E:1017:ARG:HH22	1.63	0.63
1:E:2591:ARG:HH11	1:E:2636:PHE:HB2	1.63	0.63
1:E:2651:CYS:HB3	1:E:2654:TYR:HB3	1.81	0.63
1:J:246:TYR:CD1	1:J:375:LYS:HA	2.33	0.63
1:J:952:LYS:HA	1:J:970:LEU:HA	1.81	0.63
1:J:2642:LYS:HE3	1:J:2646:ASN:HD21	1.63	0.63
1:J:2684:ASP:O	1:J:2688:HIS:ND1	2.31	0.63
1:B:246:TYR:HD1	1:B:375:LYS:HA	1.63	0.63
1:B:400:ALA:HA	1:B:403:MET:SD	2.38	0.63
1:B:1101:ARG:HH12	1:B:1114:GLU:HB3	1.63	0.63
1:E:248:GLU:HB3	1:E:373:LYS:HA	1.79	0.63
1:E:952:LYS:HA	1:E:970:LEU:HA	1.81	0.63
1:E:2642:LYS:HE3	1:E:2646:ASN:HD21	1.64	0.63
1:E:2710:LEU:HD12	1:E:2711:PRO:HD2	1.80	0.63
1:J:82:LEU:HD11	1:J:144:GLU:HB3	1.81	0.63
1:J:659:TYR:HB2	1:J:1017:ARG:HH22	1.63	0.63
1:J:788:LYS:HD3	1:J:1629:GLN:HB3	1.80	0.63
1:J:4072:VAL:O	1:J:4078:GLN:NE2	2.31	0.63
1:G:2591:ARG:NH1	1:G:2636:PHE:HB2	2.13	0.63
1:G:3048:ALA:O	1:G:3052:HIS:ND1	2.31	0.63
1:J:4023:MET:O	1:J:4027:LEU:HG	1.99	0.63
1:E:1087:ARG:HB3	1:E:1223:PHE:CD1	2.34	0.63
1:E:1179:PHE:HB2	1:E:1182:ILE:HD11	1.81	0.63
1:G:952:LYS:HA	1:G:970:LEU:HA	1.81	0.63
1:G:2359:ARG:HG3	1:J:195:PHE:HZ	1.62	0.63
1:G:4072:VAL:O	1:G:4078:GLN:NE2	2.31	0.63
1:J:400:ALA:HA	1:J:403:MET:SD	2.38	0.63
1:J:1249:PRO:HG2	1:J:1252:HIS:HB2	1.80	0.63
1:J:2591:ARG:NH1	1:J:2636:PHE:HB2	2.13	0.63
1:G:659:TYR:HB2	1:G:1017:ARG:HH22	1.63	0.63
1:G:2684:ASP:O	1:G:2688:HIS:ND1	2.31	0.63
1:J:1101:ARG:HH12	1:J:1114:GLU:HB3	1.63	0.63
1:J:1804:LEU:HD12	1:J:1853:ILE:HG13	1.80	0.63
1:J:3645:PRO:HD2	1:J:3648:ARG:HE	1.64	0.63
1:E:1249:PRO:HG2	1:E:1252:HIS:HB2	1.80	0.62
1:E:1804:LEU:HD12	1:E:1853:ILE:HG13	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4127:GLU:OE1	1:E:4131:ARG:NH2	2.32	0.62
1:G:4023:MET:O	1:G:4027:LEU:HG	1.99	0.62
1:J:365:LYS:HE2	1:J:369:LEU:HD21	1.79	0.62
1:J:1155:LEU:HD22	1:J:1184:ILE:HG12	1.81	0.62
1:B:1087:ARG:HB3	1:B:1223:PHE:CD1	2.34	0.62
1:B:4545:GLU:OE1	1:B:4548:ARG:NE	2.27	0.62
1:G:629:ARG:HH21	2:H:90:VAL:HG13	1.63	0.62
1:G:897:ARG:HH22	3:M:104:TYR:HB3	1.63	0.62
1:J:675:LEU:HG	1:J:676:THR:HG23	1.80	0.62
1:J:1179:PHE:HB2	1:J:1182:ILE:HD11	1.80	0.62
3:C:11:LEU:HD13	3:C:124:THR:HB	1.81	0.62
3:M:11:LEU:HD13	3:M:124:THR:HB	1.81	0.62
1:B:2651:CYS:HB3	1:B:2654:TYR:HB3	1.81	0.62
1:E:2746:ILE:HA	1:E:2814:LYS:HE3	1.79	0.62
1:J:2710:LEU:HD12	1:J:2711:PRO:HD2	1.80	0.62
1:B:629:ARG:HH21	2:A:90:VAL:HG13	1.65	0.62
1:E:3645:PRO:HD2	1:E:3648:ARG:HE	1.64	0.62
1:G:3645:PRO:HD2	1:G:3648:ARG:HE	1.64	0.62
1:J:1087:ARG:HB3	1:J:1223:PHE:CD1	2.34	0.62
1:J:2599:GLN:O	1:J:2603:ILE:HG12	2.00	0.62
1:J:3048:ALA:O	1:J:3052:HIS:ND1	2.31	0.62
1:B:1179:PHE:HB2	1:B:1182:ILE:HD11	1.81	0.62
1:B:1249:PRO:HG2	1:B:1252:HIS:HB2	1.80	0.62
1:E:1101:ARG:HH12	1:E:1114:GLU:HB3	1.63	0.62
1:E:1155:LEU:HD22	1:E:1184:ILE:HG12	1.81	0.62
1:E:2599:GLN:O	1:E:2603:ILE:HG12	2.00	0.62
1:E:4072:VAL:O	1:E:4078:GLN:NE2	2.31	0.62
1:E:675:LEU:HG	1:E:676:THR:HG23	1.80	0.62
1:G:182:LEU:HD11	1:G:189:LEU:HB3	1.82	0.62
1:G:1155:LEU:HD22	1:G:1184:ILE:HG12	1.81	0.62
1:G:1179:PHE:HB2	1:G:1182:ILE:HD11	1.80	0.62
1:G:2642:LYS:HE3	1:G:2646:ASN:HD21	1.64	0.62
3:F:11:LEU:HD13	3:F:124:THR:HB	1.81	0.62
1:E:2813:LEU:HA	1:E:2816:MET:HG3	1.80	0.62
1:E:4023:MET:O	1:E:4027:LEU:HG	1.99	0.62
3:M:51:ILE:HD13	3:M:71:ARG:HG2	1.81	0.62
1:G:2599:GLN:O	1:G:2603:ILE:HG12	2.00	0.62
1:B:2599:GLN:O	1:B:2603:ILE:HG12	2.00	0.62
1:B:2642:LYS:HE3	1:B:2646:ASN:HD21	1.64	0.62
1:B:3414:ARG:NH1	1:B:3418:ASN:OD1	2.32	0.62
1:E:2747:ILE:HD12	1:E:2817:ILE:HD13	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1087:ARG:HB3	1:G:1223:PHE:CD1	2.34	0.62
1:G:2651:CYS:HB3	1:G:2654:TYR:HB3	1.81	0.62
1:B:2813:LEU:HA	1:B:2816:MET:HG3	1.80	0.62
1:B:3645:PRO:HD2	1:B:3648:ARG:HE	1.64	0.62
1:B:4023:MET:O	1:B:4027:LEU:HG	1.99	0.62
1:G:675:LEU:HG	1:G:676:THR:HG23	1.80	0.62
1:B:4090:LYS:HE2	1:B:4112:LEU:HD22	1.82	0.61
1:E:3457:ASN:HA	1:E:3460:VAL:HG12	1.82	0.61
1:G:2580:ASP:OD2	1:G:2621:HIS:ND1	2.33	0.61
1:J:182:LEU:HD11	1:J:189:LEU:HB3	1.82	0.61
1:J:2747:ILE:HD12	1:J:2817:ILE:HD13	1.82	0.61
3:F:30:SER:HB3	3:F:99:ARG:HB3	1.82	0.61
1:B:1154:ASP:HB3	1:B:1223:PHE:CE1	2.31	0.61
1:B:3187:ARG:HG3	1:B:3188:PRO:HD3	1.82	0.61
1:G:3457:ASN:HA	1:G:3460:VAL:HG12	1.82	0.61
1:J:2580:ASP:OD2	1:J:2621:HIS:ND1	2.33	0.61
1:B:21:VAL:HG13	1:B:205:ILE:HB	1.83	0.61
1:B:3145:GLN:HB3	1:B:3196:ARG:HD2	1.83	0.61
3:K:11:LEU:HD13	3:K:124:THR:HB	1.81	0.61
3:K:30:SER:HB3	3:K:99:ARG:HB3	1.81	0.61
1:B:1155:LEU:HD22	1:B:1184:ILE:HG12	1.81	0.61
1:B:2202:GLY:HA2	1:B:2204:HIS:CE1	2.36	0.61
1:E:3187:ARG:HG3	1:E:3188:PRO:HD3	1.82	0.61
1:E:3877:ASP:HB3	1:E:3880:PHE:HB3	1.82	0.61
1:E:4823:LEU:HD23	1:E:4826:ILE:HD12	1.82	0.61
1:G:21:VAL:HG13	1:G:205:ILE:HB	1.83	0.61
1:G:2202:GLY:HA2	1:G:2204:HIS:CE1	2.36	0.61
1:G:4088:ILE:O	1:G:4122:MET:HB3	2.01	0.61
1:B:182:LEU:HD11	1:B:189:LEU:HB3	1.82	0.61
1:B:3457:ASN:HA	1:B:3460:VAL:HG12	1.82	0.61
1:E:3414:ARG:NH1	1:E:3418:ASN:OD1	2.32	0.61
1:G:4090:LYS:HE2	1:G:4112:LEU:HD22	1.82	0.61
1:J:1442:GLY:H	1:J:1509:ILE:HG12	1.66	0.61
1:B:4823:LEU:HD23	1:B:4826:ILE:HD12	1.82	0.61
1:B:4892:ARG:NH2	1:G:4918:ILE:HD13	2.16	0.61
1:E:365:LYS:HE2	1:E:369:LEU:HD21	1.82	0.61
1:E:2580:ASP:OD2	1:E:2621:HIS:ND1	2.33	0.61
1:G:82:LEU:HD11	1:G:144:GLU:HB3	1.81	0.61
1:G:3145:GLN:HB3	1:G:3196:ARG:HD2	1.83	0.61
1:G:3877:ASP:HB3	1:G:3880:PHE:HB3	1.82	0.61
1:B:2964:LEU:O	1:B:2967:MET:HG3	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4545:GLU:OE1	1:G:4548:ARG:NE	2.27	0.61
1:J:3414:ARG:NH1	1:J:3418:ASN:OD1	2.32	0.61
1:B:82:LEU:HD11	1:B:144:GLU:HB3	1.81	0.61
1:E:21:VAL:HG13	1:E:205:ILE:HB	1.83	0.61
1:J:3457:ASN:HA	1:J:3460:VAL:HG12	1.82	0.61
1:J:4127:GLU:OE1	1:J:4131:ARG:NH2	2.32	0.61
1:B:2793:PRO:HA	1:B:2855:TYR:HB2	1.83	0.61
1:B:4088:ILE:O	1:B:4122:MET:HB3	2.01	0.61
1:E:2418:LEU:O	1:E:2422:ILE:HG12	2.01	0.61
1:G:246:TYR:CD1	1:G:375:LYS:HA	2.36	0.61
1:J:21:VAL:HG13	1:J:205:ILE:HB	1.83	0.61
1:J:3187:ARG:HG3	1:J:3188:PRO:HD3	1.82	0.61
1:B:2881:ASN:HA	1:B:2884:ASN:ND2	2.16	0.60
1:E:2793:PRO:HA	1:E:2855:TYR:HB2	1.83	0.60
1:E:3147:ILE:HG23	1:E:3152:PHE:HB2	1.83	0.60
1:G:2418:LEU:O	1:G:2422:ILE:HG12	2.01	0.60
2:I:57:LYS:HE3	2:I:80:VAL:HG12	1.83	0.60
1:B:1442:GLY:H	1:B:1509:ILE:HG12	1.66	0.60
1:B:3147:ILE:HG23	1:B:3152:PHE:HB2	1.83	0.60
1:B:4942:GLU:OE1	1:B:4946:GLN:NE2	2.34	0.60
1:G:1442:GLY:H	1:G:1509:ILE:HG12	1.66	0.60
1:G:2747:ILE:HD12	1:G:2817:ILE:HD13	1.82	0.60
1:J:4088:ILE:O	1:J:4122:MET:HB3	2.01	0.60
1:G:2881:ASN:HA	1:G:2884:ASN:ND2	2.16	0.60
1:G:3414:ARG:NH1	1:G:3418:ASN:OD1	2.32	0.60
1:J:4823:LEU:HD23	1:J:4826:ILE:HD12	1.82	0.60
1:B:2580:ASP:OD2	1:B:2621:HIS:ND1	2.33	0.60
1:B:2747:ILE:HD12	1:B:2817:ILE:HD13	1.82	0.60
1:B:3877:ASP:HB3	1:B:3880:PHE:HB3	1.82	0.60
1:B:4127:GLU:OE1	1:B:4131:ARG:NH2	2.32	0.60
1:E:182:LEU:HD11	1:E:189:LEU:HB3	1.82	0.60
1:G:4942:GLU:OE1	1:G:4946:GLN:NE2	2.34	0.60
2:D:57:LYS:HE3	2:D:80:VAL:HG12	1.83	0.60
3:M:105:ASN:ND2	3:M:111:ASN:HB2	2.16	0.60
1:B:2418:LEU:O	1:B:2422:ILE:HG12	2.01	0.60
1:E:2881:ASN:HA	1:E:2884:ASN:ND2	2.16	0.60
1:G:2964:LEU:O	1:G:2967:MET:HG3	2.01	0.60
1:G:4127:GLU:OE1	1:G:4131:ARG:NH2	2.32	0.60
1:G:4823:LEU:HD23	1:G:4826:ILE:HD12	1.82	0.60
1:J:4090:LYS:HE2	1:J:4112:LEU:HD22	1.82	0.60
1:J:4942:GLU:OE1	1:J:4946:GLN:NE2	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2369:ARG:HG2	1:B:2372:GLY:H	1.67	0.60
1:E:3145:GLN:HB3	1:E:3196:ARG:HD2	1.83	0.60
1:G:2621:HIS:O	1:G:2624:ARG:HG2	2.02	0.60
1:J:2621:HIS:O	1:J:2624:ARG:HG2	2.01	0.60
1:J:4118:ASP:HB3	1:J:4122:MET:HA	1.84	0.60
3:C:105:ASN:ND2	3:C:111:ASN:HB2	2.16	0.60
1:B:1018:ASN:HB2	1:B:1021:LEU:HG	1.84	0.60
1:B:1161:ILE:HG12	1:B:1177:THR:HA	1.84	0.60
1:E:4088:ILE:O	1:E:4122:MET:HB3	2.01	0.60
1:E:4090:LYS:HE2	1:E:4112:LEU:HD22	1.82	0.60
1:E:4918:ILE:HD13	1:J:4892:ARG:NH2	2.16	0.60
1:G:2369:ARG:HG2	1:G:2372:GLY:H	1.67	0.60
1:G:3187:ARG:HG3	1:G:3188:PRO:HD3	1.82	0.60
1:J:629:ARG:HH21	2:I:90:VAL:HG13	1.66	0.60
1:J:904:HIS:CD2	1:J:907:LEU:H	2.19	0.60
1:J:1161:ILE:HG12	1:J:1177:THR:HA	1.84	0.60
1:J:1293:LEU:HD11	1:J:1594:ARG:HG2	1.84	0.60
1:J:2202:GLY:HA2	1:J:2204:HIS:CE1	2.36	0.60
2:H:57:LYS:HE3	2:H:80:VAL:HG12	1.83	0.60
3:F:90:THR:HG23	3:F:124:THR:HA	1.84	0.60
3:K:90:THR:HG23	3:K:124:THR:HA	1.84	0.60
1:B:1035:ASN:OD1	3:C:109:THR:OG1	2.19	0.60
1:E:2964:LEU:O	1:E:2967:MET:HG3	2.01	0.60
1:J:2418:LEU:O	1:J:2422:ILE:HG12	2.01	0.60
1:J:2881:ASN:HA	1:J:2884:ASN:ND2	2.16	0.60
1:J:3145:GLN:HB3	1:J:3196:ARG:HD2	1.83	0.60
1:B:1727:ARG:NH2	1:B:1775:HIS:HA	2.17	0.60
1:E:904:HIS:CD2	1:E:907:LEU:H	2.19	0.60
1:G:360:ALA:HA	1:G:377:ILE:HD13	1.84	0.60
2:A:57:LYS:HE3	2:A:80:VAL:HG12	1.83	0.60
3:K:105:ASN:ND2	3:K:111:ASN:HB2	2.17	0.60
1:B:904:HIS:CD2	1:B:907:LEU:H	2.19	0.60
1:B:3100:SER:HB3	1:B:3167:ARG:HD3	1.84	0.60
1:E:4118:ASP:HB3	1:E:4122:MET:HA	1.84	0.60
1:E:4983:HIS:O	5:E:5102:ATP:N6	2.35	0.60
1:G:2265:LEU:HD21	1:G:2272:PRO:HG2	1.84	0.60
1:J:2751:LEU:O	1:J:2755:ILE:HG12	2.02	0.60
1:J:3081:MET:HG3	1:J:3156:VAL:HA	1.84	0.60
1:J:4863:TYR:HB2	1:J:4876:CYS:HB2	1.84	0.60
1:E:3100:SER:HB3	1:E:3167:ARG:HD3	1.84	0.59
1:E:4942:GLU:OE1	1:E:4946:GLN:NE2	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:924:MET:HB2	3:M:107:TRP:CE3	2.37	0.59
1:J:2369:ARG:HG2	1:J:2372:GLY:H	1.67	0.59
1:J:2779:GLU:HG3	1:J:2792:ARG:HG2	1.84	0.59
1:E:2621:HIS:O	1:E:2624:ARG:HG2	2.02	0.59
1:E:2816:MET:HB3	1:E:2878:LEU:HD13	1.84	0.59
1:G:917:GLU:OE1	3:M:101:PRO:HB2	2.01	0.59
1:E:2369:ARG:HG2	1:E:2372:GLY:H	1.67	0.59
1:E:4863:TYR:HB2	1:E:4876:CYS:HB2	1.84	0.59
1:G:1018:ASN:HB2	1:G:1021:LEU:HG	1.84	0.59
1:G:1161:ILE:HG12	1:G:1177:THR:HA	1.84	0.59
1:G:1727:ARG:NH2	1:G:1775:HIS:HA	2.17	0.59
1:G:4118:ASP:HB3	1:G:4122:MET:HA	1.84	0.59
1:J:35:LEU:HD23	1:J:49:LEU:HB3	1.85	0.59
1:J:1727:ARG:NH2	1:J:1775:HIS:HA	2.17	0.59
1:J:2265:LEU:HD21	1:J:2272:PRO:HG2	1.84	0.59
1:J:3877:ASP:HB3	1:J:3880:PHE:HB3	1.82	0.59
1:J:4983:HIS:O	5:J:5102:ATP:N6	2.35	0.59
1:B:2816:MET:HB3	1:B:2878:LEU:HD13	1.84	0.59
1:E:765:GLN:OE1	1:E:765:GLN:N	2.35	0.59
1:E:2202:GLY:HA2	1:E:2204:HIS:CE1	2.36	0.59
1:E:3757:GLU:O	1:E:3761:GLN:HG2	2.02	0.59
1:G:3147:ILE:HG23	1:G:3152:PHE:HB2	1.83	0.59
1:J:3100:SER:HB3	1:J:3167:ARG:HD3	1.84	0.59
1:J:3391:GLU:O	1:J:3395:ARG:HG3	2.03	0.59
3:M:90:THR:HG23	3:M:124:THR:HA	1.84	0.59
1:B:867:LEU:HD12	1:B:871:ARG:HE	1.68	0.59
1:B:1476:MET:HB3	1:B:1485:SER:HB2	1.84	0.59
1:B:2163:ARG:HA	1:B:2166:LEU:HG	1.85	0.59
1:B:4983:HIS:O	5:B:5102:ATP:N6	2.35	0.59
1:E:1293:LEU:HD11	1:E:1594:ARG:HG2	1.84	0.59
1:E:1442:GLY:H	1:E:1509:ILE:HG12	1.66	0.59
1:E:1727:ARG:NH2	1:E:1775:HIS:HA	2.17	0.59
1:E:1808:ARG:NH1	1:E:1853:ILE:O	2.34	0.59
1:G:2751:LEU:O	1:G:2755:ILE:HG12	2.02	0.59
1:G:2779:GLU:HG3	1:G:2792:ARG:HG2	1.84	0.59
1:G:3967:GLU:HA	1:G:3970:GLN:CG	2.33	0.59
1:J:2964:LEU:O	1:J:2967:MET:HG3	2.01	0.59
1:J:3147:ILE:HG23	1:J:3152:PHE:HB2	1.83	0.59
1:E:35:LEU:HD23	1:E:49:LEU:HB3	1.85	0.59
1:E:3391:GLU:O	1:E:3395:ARG:HG3	2.03	0.59
1:G:2793:PRO:HA	1:G:2855:TYR:HB2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3100:SER:HB3	1:G:3167:ARG:HD3	1.84	0.59
3:C:90:THR:HG23	3:C:124:THR:HA	1.84	0.59
1:B:2674:LEU:HD11	1:B:2910:THR:OG1	2.03	0.59
1:E:246:TYR:CG	1:E:373:LYS:HB3	2.37	0.59
1:E:2674:LEU:HD11	1:E:2910:THR:OG1	2.03	0.59
1:E:2779:GLU:HG3	1:E:2792:ARG:HG2	1.84	0.59
1:G:2674:LEU:HD11	1:G:2910:THR:OG1	2.03	0.59
1:J:1839:VAL:HG12	1:J:1843:LYS:HE2	1.85	0.59
1:B:2621:HIS:O	1:B:2624:ARG:HG2	2.02	0.59
1:B:2747:ILE:HG12	1:B:2755:ILE:HG13	1.85	0.59
1:E:629:ARG:HH21	2:D:90:VAL:HG13	1.66	0.59
1:E:1161:ILE:HG12	1:E:1177:THR:HA	1.84	0.59
1:G:765:GLN:OE1	1:G:765:GLN:N	2.35	0.59
1:J:224:HIS:HA	1:J:388:LEU:HD22	1.85	0.59
1:B:224:HIS:HA	1:B:388:LEU:HD22	1.85	0.59
1:B:2265:LEU:HD21	1:B:2272:PRO:HG2	1.84	0.59
1:E:3081:MET:HG3	1:E:3156:VAL:HA	1.84	0.59
1:G:1808:ARG:NH1	1:G:1853:ILE:O	2.34	0.59
1:G:3081:MET:HG3	1:G:3156:VAL:HA	1.84	0.59
1:G:4693:GLY:O	1:G:4700:GLN:NE2	2.36	0.59
1:J:1018:ASN:HB2	1:J:1021:LEU:HG	1.84	0.59
1:J:2674:LEU:HD11	1:J:2910:THR:OG1	2.03	0.59
1:J:2793:PRO:HA	1:J:2855:TYR:HB2	1.83	0.59
1:B:3132:THR:HA	1:B:3136:LEU:HB2	1.85	0.59
1:E:1839:VAL:HG12	1:E:1843:LYS:HE2	1.85	0.59
1:E:2163:ARG:HA	1:E:2166:LEU:HG	1.85	0.59
1:G:1024:TYR:HE1	1:G:1035:ASN:HB2	1.67	0.59
1:G:3132:THR:HA	1:G:3136:LEU:HB2	1.85	0.59
1:G:4892:ARG:NH2	1:J:4918:ILE:HD13	2.17	0.59
1:J:1024:TYR:HE1	1:J:1035:ASN:HB2	1.67	0.59
3:F:105:ASN:ND2	3:F:111:ASN:HB2	2.17	0.59
1:B:1024:TYR:HE1	1:B:1035:ASN:HB2	1.67	0.58
1:B:1822:GLY:HA3	1:B:1838:PHE:HZ	1.68	0.58
1:B:1839:VAL:HG12	1:B:1843:LYS:HE2	1.85	0.58
1:B:2751:LEU:O	1:B:2755:ILE:HG12	2.02	0.58
1:B:3757:GLU:O	1:B:3761:GLN:HG2	2.02	0.58
1:B:3981:ALA:HA	1:B:3986:TRP:CZ2	2.38	0.58
1:B:4693:GLY:O	1:B:4700:GLN:NE2	2.36	0.58
1:G:2163:ARG:HA	1:G:2166:LEU:HG	1.85	0.58
1:J:1476:MET:HB3	1:J:1485:SER:HB2	1.84	0.58
1:B:829:TYR:HB3	1:B:1073:ARG:HH11	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4693:GLY:O	1:E:4700:GLN:NE2	2.36	0.58
1:G:35:LEU:HD23	1:G:49:LEU:HB3	1.85	0.58
1:G:224:HIS:HA	1:G:388:LEU:HD22	1.85	0.58
1:G:1839:VAL:HG12	1:G:1843:LYS:HE2	1.85	0.58
1:G:4983:HIS:O	5:G:5102:ATP:N6	2.35	0.58
1:J:3981:ALA:HA	1:J:3986:TRP:CZ2	2.38	0.58
1:B:1293:LEU:HD11	1:B:1594:ARG:HG2	1.84	0.58
1:E:2265:LEU:HD21	1:E:2272:PRO:HG2	1.84	0.58
1:E:2751:LEU:O	1:E:2755:ILE:HG12	2.02	0.58
1:G:3813:GLN:NE2	1:G:3890:LEU:O	2.36	0.58
1:J:3757:GLU:O	1:J:3761:GLN:HG2	2.02	0.58
1:B:2123:LEU:O	1:B:2127:GLN:HG2	2.04	0.58
1:B:4118:ASP:HB3	1:B:4122:MET:HA	1.84	0.58
1:E:224:HIS:HA	1:E:388:LEU:HD22	1.85	0.58
1:E:924:MET:HB2	3:F:107:TRP:CE3	2.38	0.58
1:E:1018:ASN:HB2	1:E:1021:LEU:HG	1.84	0.58
1:G:2123:LEU:O	1:G:2127:GLN:HG2	2.04	0.58
1:J:829:TYR:HB3	1:J:1073:ARG:HH11	1.68	0.58
1:B:993:HIS:HB3	1:B:1024:TYR:HB2	1.85	0.58
1:B:1808:ARG:HD3	1:B:1853:ILE:HG22	1.85	0.58
1:E:663:TYR:HD1	1:E:747:CYS:HB3	1.69	0.58
1:E:1024:TYR:HE1	1:E:1035:ASN:HB2	1.67	0.58
1:E:3132:THR:HA	1:E:3136:LEU:HB2	1.85	0.58
1:E:3981:ALA:HA	1:E:3986:TRP:CZ2	2.38	0.58
1:J:2747:ILE:HG12	1:J:2755:ILE:HG13	1.85	0.58
1:J:3967:GLU:HA	1:J:3970:GLN:CG	2.33	0.58
1:B:4863:TYR:HB2	1:B:4876:CYS:HB2	1.84	0.58
1:E:615:ARG:NH2	1:E:1676:LEU:O	2.37	0.58
1:E:1822:GLY:HA3	1:E:1838:PHE:HZ	1.68	0.58
1:E:3967:GLU:HA	1:E:3970:GLN:CG	2.33	0.58
1:G:1822:GLY:HA3	1:G:1838:PHE:HZ	1.69	0.58
1:G:3757:GLU:O	1:G:3761:GLN:HG2	2.02	0.58
1:J:867:LEU:HD12	1:J:871:ARG:HE	1.68	0.58
1:J:924:MET:HB2	3:K:107:TRP:CE3	2.38	0.58
1:J:935:LEU:HD12	1:J:988:LEU:HD23	1.85	0.58
1:J:1808:ARG:HD3	1:J:1853:ILE:HG22	1.85	0.58
1:J:2163:ARG:HA	1:J:2166:LEU:HG	1.85	0.58
1:J:2816:MET:HB3	1:J:2878:LEU:HD13	1.84	0.58
1:J:3813:GLN:NE2	1:J:3890:LEU:O	2.36	0.58
1:E:3813:GLN:NE2	1:E:3890:LEU:O	2.36	0.58
1:G:867:LEU:HD12	1:G:871:ARG:HE	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1293:LEU:HD11	1:G:1594:ARG:HG2	1.84	0.58
1:G:4863:TYR:HB2	1:G:4876:CYS:HB2	1.84	0.58
1:J:1703:LEU:HD23	1:J:1708:ARG:HB3	1.86	0.58
1:G:1476:MET:HB3	1:G:1485:SER:HB2	1.84	0.58
1:G:3227:ARG:HB3	1:G:3232:LEU:HB2	1.85	0.58
1:J:1822:GLY:HA3	1:J:1838:PHE:HZ	1.69	0.58
1:J:2123:LEU:O	1:J:2127:GLN:HG2	2.04	0.58
1:J:4693:GLY:O	1:J:4700:GLN:NE2	2.36	0.58
1:B:935:LEU:HD12	1:B:988:LEU:HD23	1.85	0.58
1:B:1808:ARG:HD2	1:B:1854:PHE:HA	1.86	0.58
1:B:3081:MET:HG3	1:B:3156:VAL:HA	1.84	0.58
1:B:3391:GLU:O	1:B:3395:ARG:HG3	2.03	0.58
1:E:867:LEU:HD12	1:E:871:ARG:HE	1.68	0.58
1:E:3227:ARG:HB3	1:E:3232:LEU:HB2	1.85	0.58
1:G:993:HIS:HB3	1:G:1024:TYR:HB2	1.85	0.58
2:I:87:HIS:CD2	2:I:91:ILE:HD12	2.39	0.58
1:B:913:LEU:HB3	1:B:917:GLU:HB2	1.86	0.58
1:B:1152:MET:SD	1:B:1161:ILE:HB	2.44	0.58
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.04	0.58
1:G:2448:GLY:O	1:G:2452:ARG:HG2	2.04	0.58
1:G:3391:GLU:O	1:G:3395:ARG:HG3	2.03	0.58
1:J:1152:MET:SD	1:J:1161:ILE:HB	2.44	0.58
1:J:3263:TYR:HE1	1:J:3326:ASN:HD22	1.52	0.58
2:D:87:HIS:CD2	2:D:91:ILE:HD12	2.39	0.58
1:B:35:LEU:HD23	1:B:49:LEU:HB3	1.85	0.57
1:B:70:GLU:HG2	1:B:71:GLN:HG3	1.86	0.57
1:B:2779:GLU:HG3	1:B:2792:ARG:HG2	1.84	0.57
1:B:3813:GLN:NE2	1:B:3890:LEU:O	2.36	0.57
1:E:993:HIS:HB3	1:E:1024:TYR:HB2	1.85	0.57
1:E:2747:ILE:HG12	1:E:2755:ILE:HG13	1.85	0.57
1:E:4673:ARG:NH2	1:E:4702:ASP:OD1	2.37	0.57
1:G:70:GLU:HG2	1:G:71:GLN:HG3	1.86	0.57
1:G:657:THR:O	1:G:1007:TYR:N	2.34	0.57
1:G:913:LEU:HB3	1:G:917:GLU:HB2	1.86	0.57
1:J:3224:PRO:HA	1:J:3227:ARG:HD2	1.86	0.57
2:A:87:HIS:CD2	2:A:91:ILE:HD12	2.39	0.57
1:E:786:GLY:H	1:E:1631:GLN:HA	1.69	0.57
1:E:1476:MET:HB3	1:E:1485:SER:HB2	1.84	0.57
1:G:786:GLY:H	1:G:1631:GLN:HA	1.69	0.57
1:G:829:TYR:HB3	1:G:1073:ARG:HH11	1.68	0.57
1:G:1152:MET:SD	1:G:1161:ILE:HB	2.44	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2747:ILE:HG12	1:G:2755:ILE:HG13	1.85	0.57
1:G:3224:PRO:HA	1:G:3227:ARG:HD2	1.86	0.57
1:J:913:LEU:HB3	1:J:917:GLU:HB2	1.86	0.57
1:J:2238:TYR:O	1:J:2242:ILE:HG12	2.04	0.57
1:B:663:TYR:HD1	1:B:747:CYS:HB3	1.69	0.57
1:B:4918:ILE:HD13	1:E:4892:ARG:NH2	2.19	0.57
1:E:935:LEU:HD12	1:E:988:LEU:HD23	1.85	0.57
1:E:2880:GLU:OE1	1:E:2881:ASN:ND2	2.37	0.57
1:J:663:TYR:HD1	1:J:747:CYS:HB3	1.69	0.57
1:J:1808:ARG:NH1	1:J:1853:ILE:O	2.34	0.57
1:J:4673:ARG:NH2	1:J:4702:ASP:OD1	2.37	0.57
1:B:2238:TYR:O	1:B:2242:ILE:HG12	2.04	0.57
1:E:394:GLN:N	1:E:397:GLU:OE2	2.38	0.57
1:E:1808:ARG:HD3	1:E:1853:ILE:HG22	1.85	0.57
1:E:3793:MET:SD	1:E:3793:MET:N	2.78	0.57
1:G:917:GLU:HB3	3:M:104:TYR:OH	2.03	0.57
1:G:1808:ARG:HD2	1:G:1854:PHE:HA	1.86	0.57
1:G:2816:MET:HB3	1:G:2878:LEU:HD13	1.84	0.57
1:G:2880:GLU:OE1	1:G:2881:ASN:ND2	2.38	0.57
1:G:3793:MET:N	1:G:3793:MET:SD	2.78	0.57
1:G:4673:ARG:NH2	1:G:4702:ASP:OD1	2.37	0.57
1:J:615:ARG:NH2	1:J:1676:LEU:O	2.37	0.57
1:J:657:THR:O	1:J:1007:TYR:N	2.34	0.57
3:M:107:TRP:HE1	3:M:110:PRO:HB2	1.69	0.57
1:B:3018:LEU:HB2	1:B:3074:SER:HA	1.85	0.57
1:B:3967:GLU:HA	1:B:3970:GLN:CG	2.33	0.57
1:E:1703:LEU:HD23	1:E:1708:ARG:HB3	1.86	0.57
1:E:2111:VAL:HG12	1:E:2113:SER:H	1.69	0.57
1:E:2238:TYR:O	1:E:2242:ILE:HG12	2.04	0.57
1:G:615:ARG:NH2	1:G:1676:LEU:O	2.37	0.57
1:G:1159:THR:HG22	1:G:1180:ARG:HA	1.86	0.57
1:G:2111:VAL:HG12	1:G:2113:SER:H	1.69	0.57
1:J:2448:GLY:O	1:J:2452:ARG:HG2	2.04	0.57
1:J:2880:GLU:OE1	1:J:2881:ASN:ND2	2.37	0.57
1:J:3132:THR:HA	1:J:3136:LEU:HB2	1.85	0.57
1:E:1119:GLU:HB3	1:E:1134:LEU:HD22	1.86	0.57
1:E:1159:THR:HG22	1:E:1180:ARG:HA	1.86	0.57
1:E:1730:MET:O	1:E:1772:ARG:NH1	2.38	0.57
1:E:4545:GLU:OE1	1:E:4548:ARG:NE	2.27	0.57
1:G:935:LEU:HD12	1:G:988:LEU:HD23	1.85	0.57
1:G:2238:TYR:O	1:G:2242:ILE:HG12	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2768:PHE:O	1:G:2772:GLN:HG2	2.05	0.57
1:G:3263:TYR:HE1	1:G:3326:ASN:HD22	1.52	0.57
1:J:2111:VAL:HG12	1:J:2113:SER:H	1.69	0.57
1:J:2768:PHE:O	1:J:2772:GLN:HG2	2.05	0.57
1:J:3018:LEU:HB2	1:J:3074:SER:HA	1.85	0.57
1:E:917:GLU:CD	3:F:101:PRO:HB2	2.25	0.57
1:G:1119:GLU:HB3	1:G:1134:LEU:HD22	1.86	0.57
1:J:2305:CYS:HB2	1:J:2324:ASN:HB3	1.87	0.57
1:J:2325:PRO:O	1:J:2329:GLU:HG2	2.05	0.57
1:B:394:GLN:N	1:B:397:GLU:OE2	2.38	0.57
1:B:1730:MET:O	1:B:1772:ARG:NH1	2.38	0.57
1:B:2325:PRO:O	1:B:2329:GLU:HG2	2.05	0.57
1:B:2880:GLU:OE1	1:B:2881:ASN:ND2	2.37	0.57
1:B:4673:ARG:NH2	1:B:4702:ASP:OD1	2.37	0.57
1:E:1152:MET:SD	1:E:1161:ILE:HB	2.44	0.57
1:J:861:ILE:HG21	1:J:933:LEU:HD22	1.87	0.57
1:B:786:GLY:H	1:B:1631:GLN:HA	1.69	0.57
1:E:981:GLN:O	1:E:985:VAL:HG23	2.05	0.57
1:E:4122:MET:HE1	1:E:4123:ILE:HG12	1.86	0.57
1:G:219:VAL:HG12	1:G:261:ARG:HB2	1.87	0.57
1:G:1808:ARG:HD3	1:G:1853:ILE:HG22	1.85	0.57
1:G:2970:SER:HB3	1:G:2998:PHE:HE2	1.70	0.57
1:J:993:HIS:HB3	1:J:1024:TYR:HB2	1.85	0.57
1:J:1730:MET:O	1:J:1772:ARG:NH1	2.38	0.57
1:J:3227:ARG:HB3	1:J:3232:LEU:HB2	1.85	0.57
1:J:4860:ARG:HG3	1:J:4876:CYS:SG	2.45	0.57
1:B:1862:ILE:O	1:B:1866:ILE:HG13	2.05	0.57
1:B:3224:PRO:HA	1:B:3227:ARG:HD2	1.86	0.57
1:B:3227:ARG:HB3	1:B:3232:LEU:HB2	1.85	0.57
1:E:219:VAL:HG12	1:E:261:ARG:HB2	1.87	0.57
1:E:4865:LYS:HD2	1:E:4901:ILE:HA	1.87	0.57
1:J:394:GLN:N	1:J:397:GLU:OE2	2.38	0.57
1:J:1786:LEU:HD12	1:J:1787:PRO:HD2	1.87	0.57
1:J:1808:ARG:HD2	1:J:1854:PHE:HA	1.86	0.57
1:J:2970:SER:HB3	1:J:2998:PHE:HE2	1.70	0.57
1:J:3793:MET:N	1:J:3793:MET:SD	2.78	0.57
1:J:4865:LYS:HD2	1:J:4901:ILE:HA	1.87	0.57
1:B:615:ARG:NH2	1:B:1676:LEU:O	2.37	0.56
1:B:2653:LYS:HE2	1:B:2661:TRP:HA	1.87	0.56
1:B:3793:MET:N	1:B:3793:MET:SD	2.78	0.56
1:B:4243:PHE:CE2	1:B:4247:ILE:HD11	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1862:ILE:O	1:E:1866:ILE:HG13	2.05	0.56
1:E:2325:PRO:O	1:E:2329:GLU:HG2	2.05	0.56
1:G:663:TYR:HD1	1:G:747:CYS:HB3	1.69	0.56
1:B:360:ALA:HA	1:B:377:ILE:HD13	1.87	0.56
1:E:2305:CYS:HB2	1:E:2324:ASN:HB3	1.87	0.56
1:E:2448:GLY:O	1:E:2452:ARG:HG2	2.04	0.56
1:E:2653:LYS:HE2	1:E:2661:TRP:HA	1.87	0.56
1:E:3263:TYR:HE1	1:E:3326:ASN:HD22	1.52	0.56
1:G:369:LEU:HB3	1:G:371:VAL:HG23	1.86	0.56
1:G:394:GLN:N	1:G:397:GLU:OE2	2.38	0.56
1:G:1703:LEU:HD23	1:G:1708:ARG:HB3	1.86	0.56
1:J:245:VAL:HG23	1:J:376:ALA:HB3	1.88	0.56
1:J:1159:THR:HG22	1:J:1180:ARG:HA	1.86	0.56
2:H:87:HIS:CD2	2:H:91:ILE:HD12	2.39	0.56
3:F:4:LEU:HD21	3:F:97:ALA:HB2	1.87	0.56
1:B:1786:LEU:HD12	1:B:1787:PRO:HD2	1.87	0.56
1:B:2230:THR:HA	1:B:2270:SER:HB2	1.87	0.56
1:B:2440:MET:N	1:B:2440:MET:SD	2.78	0.56
1:B:2479:LEU:HA	1:B:2541:PHE:HZ	1.70	0.56
1:B:2768:PHE:O	1:B:2772:GLN:HG2	2.05	0.56
1:B:2970:SER:HB3	1:B:2998:PHE:HE2	1.70	0.56
1:B:4904:PRO:HB3	1:B:4913:ARG:HD3	1.87	0.56
1:E:574:VAL:HA	1:E:577:ILE:HG22	1.87	0.56
1:E:829:TYR:HB3	1:E:1073:ARG:HH11	1.68	0.56
1:E:913:LEU:HB3	1:E:917:GLU:HB2	1.86	0.56
1:E:2479:LEU:HA	1:E:2541:PHE:HZ	1.71	0.56
1:E:2633:LEU:HD21	1:E:2682:ILE:HD12	1.87	0.56
1:E:3018:LEU:HB2	1:E:3074:SER:HA	1.85	0.56
1:G:574:VAL:HA	1:G:577:ILE:HG22	1.87	0.56
1:G:861:ILE:HG21	1:G:933:LEU:HD22	1.87	0.56
1:G:981:GLN:O	1:G:985:VAL:HG23	2.05	0.56
1:G:1730:MET:O	1:G:1772:ARG:NH1	2.38	0.56
1:G:1815:LEU:HD22	1:G:1845:VAL:HG21	1.87	0.56
1:G:1862:ILE:O	1:G:1866:ILE:HG13	2.05	0.56
1:G:2230:THR:HA	1:G:2270:SER:HB2	1.87	0.56
1:G:2449:GLU:O	1:G:2453:ILE:HG12	2.06	0.56
1:G:2902:HIS:CE1	1:G:2904:LEU:HB2	2.41	0.56
1:G:5009:TYR:HA	1:G:5012:LYS:HE3	1.88	0.56
1:J:70:GLU:HG2	1:J:71:GLN:HG3	1.86	0.56
1:J:247:TYR:HB2	1:J:374:LYS:HD2	1.86	0.56
1:J:574:VAL:HA	1:J:577:ILE:HG22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:981:GLN:O	1:J:985:VAL:HG23	2.05	0.56
1:J:1119:GLU:HB3	1:J:1134:LEU:HD22	1.86	0.56
1:J:2440:MET:N	1:J:2440:MET:SD	2.78	0.56
1:J:4128:PHE:HA	1:J:4131:ARG:HE	1.70	0.56
1:J:4243:PHE:CE2	1:J:4247:ILE:HD11	2.40	0.56
1:B:765:GLN:OE1	1:B:765:GLN:N	2.35	0.56
1:B:2111:VAL:HG12	1:B:2113:SER:H	1.69	0.56
1:B:2449:GLU:O	1:B:2453:ILE:HG12	2.06	0.56
1:B:4177:TYR:HE1	1:B:4199:GLU:HB2	1.70	0.56
1:E:70:GLU:HG2	1:E:71:GLN:HG3	1.86	0.56
1:E:1808:ARG:HD2	1:E:1854:PHE:HA	1.86	0.56
1:E:3874:VAL:HG23	1:E:3875:MET:H	1.71	0.56
1:G:2624:ARG:HD2	1:G:2910:THR:HG23	1.88	0.56
1:G:2653:LYS:HE2	1:G:2661:TRP:HA	1.87	0.56
1:G:4860:ARG:HG3	1:G:4876:CYS:SG	2.45	0.56
1:J:219:VAL:HG12	1:J:261:ARG:HB2	1.87	0.56
1:J:786:GLY:H	1:J:1631:GLN:HA	1.69	0.56
1:J:1260:MET:SD	1:J:1260:MET:N	2.77	0.56
1:J:2479:LEU:HA	1:J:2541:PHE:HZ	1.70	0.56
1:J:3874:VAL:HG23	1:J:3875:MET:H	1.71	0.56
1:J:4177:TYR:HE1	1:J:4199:GLU:HB2	1.70	0.56
1:B:2633:LEU:HD21	1:B:2682:ILE:HD12	1.87	0.56
1:E:2522:LEU:HD23	1:E:2526:PHE:HD2	1.71	0.56
1:E:2768:PHE:O	1:E:2772:GLN:HG2	2.05	0.56
1:E:2970:SER:HB3	1:E:2998:PHE:HE2	1.70	0.56
1:E:3224:PRO:HA	1:E:3227:ARG:HD2	1.86	0.56
1:E:4243:PHE:CE2	1:E:4247:ILE:HD11	2.40	0.56
1:E:4761:PRO:HB2	1:E:4766:THR:HG21	1.88	0.56
1:G:3018:LEU:HB2	1:G:3074:SER:HA	1.85	0.56
1:G:4865:LYS:HD2	1:G:4901:ILE:HA	1.86	0.56
1:J:1243:PRO:O	1:J:1458:HIS:ND1	2.31	0.56
1:J:2522:LEU:HD23	1:J:2526:PHE:HD2	1.71	0.56
1:J:2624:ARG:HD2	1:J:2910:THR:HG23	1.88	0.56
1:B:219:VAL:HG12	1:B:261:ARG:HB2	1.87	0.56
1:B:574:VAL:HA	1:B:577:ILE:HG22	1.87	0.56
1:B:1119:GLU:HB3	1:B:1134:LEU:HD22	1.86	0.56
1:B:3036:LYS:HD2	1:B:3079:THR:HG21	1.88	0.56
1:B:4761:PRO:HB2	1:B:4766:THR:HG21	1.88	0.56
1:B:5009:TYR:HA	1:B:5012:LYS:HE3	1.88	0.56
1:E:246:TYR:CD1	1:E:375:LYS:HA	2.40	0.56
1:E:1432:THR:HG23	1:E:1572:ILE:HG23	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1786:LEU:HD12	1:G:1787:PRO:HD2	1.88	0.56
1:G:2305:CYS:HB2	1:G:2324:ASN:HB3	1.87	0.56
1:G:2479:LEU:HA	1:G:2541:PHE:HZ	1.70	0.56
1:G:4243:PHE:CE2	1:G:4247:ILE:HD11	2.40	0.56
1:G:4833:ASN:HD21	1:G:4935:LEU:HB3	1.71	0.56
3:C:4:LEU:HD21	3:C:97:ALA:HB2	1.87	0.56
1:B:1432:THR:HG23	1:B:1572:ILE:HG23	1.87	0.56
1:B:2522:LEU:HD23	1:B:2526:PHE:HD2	1.71	0.56
1:E:917:GLU:OE2	3:F:101:PRO:HB2	2.04	0.56
1:E:4128:PHE:HA	1:E:4131:ARG:HE	1.70	0.56
1:G:12:GLN:NE2	1:G:13:PHE:O	2.39	0.56
1:G:1734:TYR:HB2	1:G:2141:ALA:HA	1.88	0.56
1:J:2230:THR:HA	1:J:2270:SER:HB2	1.87	0.56
1:J:2633:LEU:HD21	1:J:2682:ILE:HD12	1.87	0.56
3:K:51:ILE:HD13	3:K:71:ARG:HG2	1.88	0.56
1:B:861:ILE:HG21	1:B:933:LEU:HD22	1.87	0.56
1:B:1703:LEU:HD23	1:B:1708:ARG:HB3	1.86	0.56
1:B:2448:GLY:O	1:B:2452:ARG:HG2	2.04	0.56
1:E:69:LEU:HD21	1:E:101:LEU:HD11	1.88	0.56
1:E:1786:LEU:HD12	1:E:1787:PRO:HD2	1.87	0.56
1:E:2230:THR:HA	1:E:2270:SER:HB2	1.87	0.56
1:E:2449:GLU:O	1:E:2453:ILE:HG12	2.06	0.56
1:E:3800:LEU:O	1:E:3804:ILE:HG12	2.06	0.56
1:E:4177:TYR:HE1	1:E:4199:GLU:HB2	1.70	0.56
1:G:3670:GLU:HG3	1:G:3728:ILE:HG23	1.88	0.56
1:J:765:GLN:OE1	1:J:765:GLN:N	2.35	0.56
1:J:1727:ARG:HG3	1:J:1773:PRO:HG2	1.88	0.56
3:M:18:LEU:HD22	3:M:85:LEU:HD21	1.88	0.56
1:B:69:LEU:HD21	1:B:101:LEU:HD11	1.88	0.56
1:B:2902:HIS:CE1	1:B:2904:LEU:HB2	2.41	0.56
1:B:3263:TYR:HE1	1:B:3326:ASN:HD22	1.52	0.56
1:B:4860:ARG:HG3	1:B:4876:CYS:SG	2.45	0.56
1:E:574:VAL:O	1:E:578:ILE:HG12	2.06	0.56
1:E:4904:PRO:HB3	1:E:4913:ARG:HD3	1.87	0.56
1:G:69:LEU:HD21	1:G:101:LEU:HD11	1.88	0.56
1:G:2522:LEU:HD23	1:G:2526:PHE:HD2	1.71	0.56
1:G:4904:PRO:HB3	1:G:4913:ARG:HD3	1.87	0.56
1:J:1240:LYS:HE3	1:J:1242:LEU:HB3	1.88	0.56
1:J:3036:LYS:HD2	1:J:3079:THR:HG21	1.88	0.56
1:J:4761:PRO:HB2	1:J:4766:THR:HG21	1.88	0.56
3:F:18:LEU:HD22	3:F:85:LEU:HD21	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:18:LEU:HD22	3:K:85:LEU:HD21	1.88	0.56
1:B:590:LEU:HG	1:B:599:VAL:HG11	1.88	0.56
1:B:838:HIS:CD2	1:B:1201:HIS:HB2	2.41	0.56
1:B:4833:ASN:HD21	1:B:4935:LEU:HB3	1.71	0.56
1:E:3036:LYS:HD2	1:E:3079:THR:HG21	1.88	0.56
1:G:2325:PRO:O	1:G:2329:GLU:HG2	2.05	0.56
3:C:18:LEU:HD22	3:C:85:LEU:HD21	1.88	0.56
3:M:34:MET:HE3	3:M:95:CYS:HB2	1.88	0.56
1:B:574:VAL:O	1:B:578:ILE:HG12	2.06	0.55
1:B:1734:TYR:HB2	1:B:2141:ALA:HA	1.88	0.55
1:B:2305:CYS:HB2	1:B:2324:ASN:HB3	1.87	0.55
1:E:590:LEU:HG	1:E:599:VAL:HG11	1.89	0.55
1:E:1240:LYS:HE3	1:E:1242:LEU:HB3	1.88	0.55
1:E:2454:ARG:HG2	1:E:2458:ARG:HE	1.71	0.55
1:E:2624:ARG:HD2	1:E:2910:THR:HG23	1.88	0.55
1:E:4860:ARG:HG3	1:E:4876:CYS:SG	2.45	0.55
1:G:590:LEU:HG	1:G:599:VAL:HG11	1.88	0.55
1:J:622:THR:HA	1:J:626:LEU:HD13	1.88	0.55
3:K:107:TRP:HE1	3:K:110:PRO:HB2	1.71	0.55
1:B:111:HIS:HB3	1:B:114:SER:HB2	1.88	0.55
1:B:3800:LEU:O	1:B:3804:ILE:HG12	2.06	0.55
1:B:4865:LYS:HD2	1:B:4901:ILE:HA	1.86	0.55
1:E:1727:ARG:HG3	1:E:1773:PRO:HG2	1.88	0.55
1:G:2633:LEU:HD21	1:G:2682:ILE:HD12	1.87	0.55
1:G:4761:PRO:HB2	1:G:4766:THR:HG21	1.88	0.55
1:J:69:LEU:HD21	1:J:101:LEU:HD11	1.88	0.55
1:J:1866:ILE:HG12	1:J:1939:MET:HE1	1.88	0.55
1:J:2902:HIS:CE1	1:J:2904:LEU:HB2	2.41	0.55
1:J:3065:VAL:O	1:J:3069:HIS:ND1	2.40	0.55
1:J:3800:LEU:O	1:J:3804:ILE:HG12	2.06	0.55
1:J:5009:TYR:HA	1:J:5012:LYS:HE3	1.88	0.55
3:F:51:ILE:HD13	3:F:71:ARG:HG2	1.88	0.55
1:B:880:GLU:HA	1:B:967:PRO:HG2	1.88	0.55
1:B:1727:ARG:HG3	1:B:1773:PRO:HG2	1.88	0.55
1:B:2624:ARG:HD2	1:B:2910:THR:HG23	1.88	0.55
1:E:2902:HIS:CE1	1:E:2904:LEU:HB2	2.41	0.55
1:E:3670:GLU:HG3	1:E:3728:ILE:HG23	1.88	0.55
1:G:1727:ARG:HG3	1:G:1773:PRO:HG2	1.88	0.55
1:G:3036:LYS:HD2	1:G:3079:THR:HG21	1.88	0.55
1:G:3690:VAL:HB	1:G:3693:LYS:HE3	1.89	0.55
1:G:4952:GLU:O	1:G:4956:THR:HG23	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1815:LEU:HD22	1:J:1845:VAL:HG21	1.88	0.55
1:J:2449:GLU:O	1:J:2453:ILE:HG12	2.06	0.55
1:B:12:GLN:NE2	1:B:13:PHE:O	2.39	0.55
1:B:981:GLN:O	1:B:985:VAL:HG23	2.05	0.55
1:B:2454:ARG:HG2	1:B:2458:ARG:HE	1.71	0.55
1:B:3065:VAL:O	1:B:3069:HIS:ND1	2.40	0.55
1:B:3874:VAL:HG23	1:B:3875:MET:H	1.71	0.55
1:E:838:HIS:CD2	1:E:1201:HIS:HB2	2.41	0.55
1:G:111:HIS:HB3	1:G:114:SER:HB2	1.88	0.55
1:G:2490:MET:SD	1:G:2490:MET:N	2.80	0.55
1:J:3246:LEU:HA	1:J:3249:LEU:HD12	1.89	0.55
3:C:51:ILE:HD13	3:C:71:ARG:HG2	1.88	0.55
1:B:1159:THR:HG22	1:B:1180:ARG:HA	1.86	0.55
1:B:1808:ARG:NH1	1:B:1853:ILE:O	2.34	0.55
1:G:574:VAL:O	1:G:578:ILE:HG12	2.06	0.55
1:G:838:HIS:CD2	1:G:1201:HIS:HB2	2.42	0.55
1:G:3334:TRP:HE1	1:G:3337:ARG:HD2	1.72	0.55
1:G:3440:GLU:HA	1:G:3443:ILE:HG12	1.89	0.55
1:G:3800:LEU:O	1:G:3804:ILE:HG12	2.06	0.55
1:J:574:VAL:O	1:J:578:ILE:HG12	2.06	0.55
1:J:2454:ARG:HG2	1:J:2458:ARG:HE	1.71	0.55
1:J:2490:MET:SD	1:J:2490:MET:N	2.80	0.55
1:J:4904:PRO:HB3	1:J:4913:ARG:HD3	1.87	0.55
3:C:107:TRP:HE1	3:C:110:PRO:HB2	1.71	0.55
1:B:369:LEU:HB3	1:B:371:VAL:HG23	1.89	0.55
1:B:3699:HIS:HA	1:B:3702:VAL:HG12	1.89	0.55
1:E:111:HIS:HB3	1:E:114:SER:HB2	1.87	0.55
1:E:684:VAL:HG22	1:E:781:VAL:HG12	1.89	0.55
1:E:4240:ASP:OD1	1:E:4668:LEU:HD11	2.07	0.55
1:G:2440:MET:N	1:G:2440:MET:SD	2.78	0.55
1:G:3065:VAL:O	1:G:3069:HIS:ND1	2.40	0.55
1:G:3699:HIS:HA	1:G:3702:VAL:HG12	1.89	0.55
1:J:4833:ASN:HD21	1:J:4935:LEU:HB3	1.71	0.55
3:K:4:LEU:HD21	3:K:97:ALA:HB2	1.88	0.55
1:B:3670:GLU:HG3	1:B:3728:ILE:HG23	1.88	0.55
1:E:622:THR:HA	1:E:626:LEU:HD13	1.88	0.55
1:E:3246:LEU:HA	1:E:3249:LEU:HD12	1.89	0.55
1:E:5009:TYR:HA	1:E:5012:LYS:HE3	1.88	0.55
1:G:1432:THR:HG23	1:G:1572:ILE:HG23	1.88	0.55
1:G:1866:ILE:HG12	1:G:1939:MET:HE1	1.88	0.55
1:G:2454:ARG:HG2	1:G:2458:ARG:HE	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4128:PHE:HA	1:G:4131:ARG:HE	1.70	0.55
1:G:4177:TYR:HE1	1:G:4199:GLU:HB2	1.70	0.55
1:J:172:VAL:HG22	1:J:179:TYR:HA	1.89	0.55
1:J:2653:LYS:HE2	1:J:2661:TRP:HA	1.87	0.55
1:J:3334:TRP:HE1	1:J:3337:ARG:HD2	1.71	0.55
1:J:4122:MET:HE1	1:J:4123:ILE:HG12	1.88	0.55
1:B:817:PRO:HD3	1:B:1007:TYR:OH	2.07	0.55
1:B:4128:PHE:HA	1:B:4131:ARG:HE	1.70	0.55
1:E:861:ILE:HG21	1:E:933:LEU:HD22	1.87	0.55
1:E:1734:TYR:HB2	1:E:2141:ALA:HA	1.88	0.55
1:G:817:PRO:HD3	1:G:1007:TYR:OH	2.07	0.55
1:G:1773:PRO:HA	1:G:2153:MET:HE1	1.87	0.55
1:J:12:GLN:NE2	1:J:13:PHE:O	2.39	0.55
1:J:590:LEU:HG	1:J:599:VAL:HG11	1.89	0.55
1:J:838:HIS:CD2	1:J:1201:HIS:HB2	2.41	0.55
1:J:2633:LEU:HB2	1:J:2689:LYS:HE2	1.89	0.55
2:D:78:PRO:HD3	2:D:96:THR:HG22	1.89	0.55
2:I:78:PRO:HD3	2:I:96:THR:HG22	1.89	0.55
1:B:684:VAL:HG22	1:B:781:VAL:HG12	1.88	0.55
1:B:4654:ALA:O	1:B:4658:ILE:HG12	2.07	0.55
1:E:172:VAL:HG22	1:E:179:TYR:HA	1.89	0.55
1:E:2490:MET:N	1:E:2490:MET:SD	2.80	0.55
1:G:1240:LYS:HE3	1:G:1242:LEU:HB3	1.88	0.55
1:G:2633:LEU:HB2	1:G:2689:LYS:HE2	1.89	0.55
1:G:4240:ASP:OD1	1:G:4668:LEU:HD11	2.07	0.55
1:J:817:PRO:HD3	1:J:1007:TYR:OH	2.07	0.55
1:J:1734:TYR:HB2	1:J:2141:ALA:HA	1.88	0.55
1:J:4654:ALA:O	1:J:4658:ILE:HG12	2.07	0.55
1:B:622:THR:HA	1:B:626:LEU:HD13	1.88	0.55
1:B:1773:PRO:HA	1:B:2153:MET:HE1	1.89	0.55
1:E:3065:VAL:O	1:E:3069:HIS:ND1	2.40	0.55
1:G:172:VAL:HG22	1:G:179:TYR:HA	1.89	0.55
1:G:360:ALA:HA	1:G:377:ILE:CD1	2.37	0.55
1:G:880:GLU:HA	1:G:967:PRO:HG2	1.88	0.55
1:G:3874:VAL:HG23	1:G:3875:MET:H	1.71	0.55
1:G:4583:SER:HB3	1:G:4630:TYR:HE1	1.72	0.55
1:G:4735:GLU:O	1:G:4739:GLU:HG2	2.07	0.55
1:J:3690:VAL:HB	1:J:3693:LYS:HE3	1.89	0.55
1:J:4952:GLU:O	1:J:4956:THR:HG23	2.06	0.55
1:B:172:VAL:HG22	1:B:179:TYR:HA	1.89	0.54
1:B:1815:LEU:HD22	1:B:1845:VAL:HG21	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3955:MET:HB2	1:B:4019:LEU:HD22	1.90	0.54
1:B:4735:GLU:O	1:B:4739:GLU:HG2	2.07	0.54
1:E:1497:GLY:HA2	1:E:1500:PHE:HD2	1.73	0.54
1:E:1815:LEU:HD22	1:E:1845:VAL:HG21	1.88	0.54
1:E:4833:ASN:HD21	1:E:4935:LEU:HB3	1.71	0.54
1:G:2755:ILE:HG22	1:G:2810:LYS:HZ2	1.71	0.54
1:G:4654:ALA:O	1:G:4658:ILE:HG12	2.07	0.54
1:J:917:GLU:CD	3:K:101:PRO:HB2	2.28	0.54
1:J:1497:GLY:HA2	1:J:1500:PHE:HD2	1.72	0.54
3:F:122:GLN:HE21	3:F:124:THR:HG1	1.50	0.54
1:B:728:ARG:NH2	1:B:1489:CYS:SG	2.81	0.54
1:B:1623:ARG:NH1	1:B:1623:ARG:HA	2.23	0.54
1:B:3334:TRP:HE1	1:B:3337:ARG:HD2	1.71	0.54
1:E:748:LEU:HD13	1:E:755:ILE:HG12	1.89	0.54
1:E:3440:GLU:HA	1:E:3443:ILE:HG12	1.89	0.54
1:G:2352:VAL:O	1:G:2356:LEU:HG	2.08	0.54
1:J:1432:THR:HG23	1:J:1572:ILE:HG23	1.88	0.54
1:J:1862:ILE:O	1:J:1866:ILE:HG13	2.05	0.54
3:F:39:GLN:HB3	3:F:45:ARG:HB3	1.89	0.54
1:B:3440:GLU:HA	1:B:3443:ILE:HG12	1.89	0.54
1:B:4583:SER:HB3	1:B:4630:TYR:HE1	1.72	0.54
1:E:12:GLN:NE2	1:E:13:PHE:O	2.39	0.54
1:E:548:VAL:HG21	1:E:582:HIS:CD2	2.42	0.54
1:E:1000:ARG:NH2	1:E:1003:GLN:HE22	2.06	0.54
1:E:3334:TRP:HE1	1:E:3337:ARG:HD2	1.71	0.54
1:G:684:VAL:HG22	1:G:781:VAL:HG12	1.89	0.54
1:J:2352:VAL:O	1:J:2356:LEU:HG	2.08	0.54
1:J:3670:GLU:HG3	1:J:3728:ILE:HG23	1.88	0.54
1:J:4240:ASP:OD1	1:J:4668:LEU:HD11	2.07	0.54
3:K:39:GLN:HB3	3:K:45:ARG:HB3	1.89	0.54
1:B:1240:LYS:HE3	1:B:1242:LEU:HB3	1.88	0.54
1:B:4240:ASP:OD1	1:B:4668:LEU:HD11	2.07	0.54
1:E:1445:PRO:HG2	1:E:1501:VAL:HG23	1.90	0.54
1:E:1623:ARG:NH1	1:E:1623:ARG:HA	2.23	0.54
1:E:4583:SER:HB3	1:E:4630:TYR:HE1	1.72	0.54
1:G:1623:ARG:HA	1:G:1623:ARG:NH1	2.23	0.54
1:J:111:HIS:HB3	1:J:114:SER:HB2	1.88	0.54
1:J:4767:TRP:O	1:J:4771:ILE:HG12	2.08	0.54
2:H:78:PRO:HD3	2:H:96:THR:HG22	1.89	0.54
3:M:39:GLN:HB3	3:M:45:ARG:HB3	1.89	0.54
1:B:907:LEU:O	1:B:963:ASN:ND2	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2490:MET:SD	1:B:2490:MET:N	2.80	0.54
1:E:499:THR:HG23	1:E:502:HIS:H	1.73	0.54
1:E:728:ARG:NH2	1:E:1489:CYS:SG	2.81	0.54
1:E:3955:MET:HB2	1:E:4019:LEU:HD22	1.90	0.54
1:G:1497:GLY:HA2	1:G:1500:PHE:HD2	1.73	0.54
1:G:3246:LEU:HA	1:G:3249:LEU:HD12	1.89	0.54
1:G:4942:GLU:O	1:G:4946:GLN:HG3	2.08	0.54
1:J:1000:ARG:NH2	1:J:1003:GLN:HE22	2.06	0.54
1:J:1445:PRO:HG2	1:J:1501:VAL:HG23	1.90	0.54
3:F:107:TRP:HE1	3:F:110:PRO:HB2	1.73	0.54
1:B:206:CYS:HB3	1:B:271:GLY:H	1.73	0.54
1:B:3690:VAL:HB	1:B:3693:LYS:HE3	1.89	0.54
1:B:4115:SER:HB3	1:B:4122:MET:HE2	1.90	0.54
1:E:2440:MET:N	1:E:2440:MET:SD	2.78	0.54
1:E:4077:PHE:O	1:E:4081:VAL:HG23	2.08	0.54
1:G:247:TYR:HB2	1:G:374:LYS:HB2	1.90	0.54
1:G:2970:SER:HB3	1:G:2998:PHE:CE2	2.42	0.54
1:G:3981:ALA:HA	1:G:3986:TRP:CZ2	2.38	0.54
1:J:2970:SER:HB3	1:J:2998:PHE:CE2	2.42	0.54
1:J:3955:MET:HB2	1:J:4019:LEU:HD22	1.89	0.54
1:J:4077:PHE:O	1:J:4081:VAL:HG23	2.08	0.54
2:A:78:PRO:HD3	2:A:96:THR:HG22	1.89	0.54
1:B:1866:ILE:HG12	1:B:1939:MET:HE1	1.88	0.54
1:B:4952:GLU:O	1:B:4956:THR:HG23	2.06	0.54
1:E:4654:ALA:O	1:E:4658:ILE:HG12	2.07	0.54
1:E:4767:TRP:O	1:E:4771:ILE:HG12	2.08	0.54
1:E:4942:GLU:O	1:E:4946:GLN:HG3	2.08	0.54
1:E:4952:GLU:O	1:E:4956:THR:HG23	2.06	0.54
1:G:622:THR:HA	1:G:626:LEU:HD13	1.88	0.54
1:G:1000:ARG:NH2	1:G:1003:GLN:HE22	2.06	0.54
1:G:3955:MET:HB2	1:G:4019:LEU:HD22	1.89	0.54
1:J:3699:HIS:HA	1:J:3702:VAL:HG12	1.89	0.54
1:J:4942:GLU:O	1:J:4946:GLN:HG3	2.08	0.54
3:C:39:GLN:HB3	3:C:45:ARG:HB3	1.89	0.54
1:B:4077:PHE:O	1:B:4081:VAL:HG23	2.08	0.54
1:E:206:CYS:HB3	1:E:271:GLY:H	1.73	0.54
1:E:817:PRO:HD3	1:E:1007:TYR:OH	2.07	0.54
1:E:880:GLU:HA	1:E:967:PRO:HG2	1.88	0.54
1:E:2352:VAL:O	1:E:2356:LEU:HG	2.08	0.54
1:J:206:CYS:HB3	1:J:271:GLY:H	1.73	0.54
1:J:880:GLU:HA	1:J:967:PRO:HG2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:34:MET:CE	3:C:95:CYS:HB2	2.38	0.54
1:B:548:VAL:HG21	1:B:582:HIS:CD2	2.42	0.54
1:B:4942:GLU:O	1:B:4946:GLN:HG3	2.08	0.54
1:E:1498:GLY:HA2	1:E:1501:VAL:HG12	1.90	0.54
1:E:3690:VAL:HB	1:E:3693:LYS:HE3	1.89	0.54
1:J:684:VAL:HG22	1:J:781:VAL:HG12	1.89	0.54
1:J:748:LEU:HD13	1:J:755:ILE:HG12	1.89	0.54
1:J:917:GLU:OE2	3:K:101:PRO:HB2	2.08	0.54
1:J:4735:GLU:O	1:J:4739:GLU:HG2	2.07	0.54
1:B:917:GLU:OE2	3:C:101:PRO:HB2	2.08	0.54
1:B:3021:PRO:HD3	1:B:3036:LYS:HZ3	1.72	0.54
1:G:626:LEU:HB3	2:H:89:GLY:O	2.08	0.54
1:G:1445:PRO:HG2	1:G:1501:VAL:HG23	1.90	0.54
1:G:4077:PHE:O	1:G:4081:VAL:HG23	2.08	0.54
1:B:728:ARG:HE	1:B:1487:LEU:HD12	1.73	0.53
1:B:1497:GLY:HA2	1:B:1500:PHE:HD2	1.72	0.53
1:B:4767:TRP:O	1:B:4771:ILE:HG12	2.08	0.53
1:E:728:ARG:HE	1:E:1487:LEU:HD12	1.73	0.53
1:E:1866:ILE:HG12	1:E:1939:MET:HE1	1.89	0.53
1:E:4735:GLU:O	1:E:4739:GLU:HG2	2.07	0.53
1:G:1498:GLY:HA2	1:G:1501:VAL:HG12	1.90	0.53
1:J:3440:GLU:HA	1:J:3443:ILE:HG12	1.89	0.53
1:B:2352:VAL:O	1:B:2356:LEU:HG	2.08	0.53
1:G:907:LEU:O	1:G:963:ASN:ND2	2.41	0.53
1:G:3766:GLN:HA	1:G:3769:ARG:NE	2.24	0.53
1:J:3695:PRO:HB2	1:J:3699:HIS:HB3	1.91	0.53
1:J:4583:SER:HB3	1:J:4630:TYR:HE1	1.72	0.53
1:B:248:GLU:HA	1:B:372:LEU:O	2.08	0.53
1:B:1445:PRO:HG2	1:B:1501:VAL:HG23	1.90	0.53
1:B:3069:HIS:O	1:B:3073:ARG:HG3	2.08	0.53
1:B:3246:LEU:HA	1:B:3249:LEU:HD12	1.89	0.53
1:B:4943:LEU:O	1:B:4947:GLN:HG2	2.09	0.53
1:E:248:GLU:HG3	1:E:252:VAL:HG11	1.91	0.53
1:E:2970:SER:HB3	1:E:2998:PHE:CE2	2.42	0.53
1:E:3069:HIS:O	1:E:3073:ARG:HG3	2.08	0.53
1:E:3776:ALA:HB2	1:E:3812:VAL:HG23	1.90	0.53
1:G:206:CYS:HB3	1:G:271:GLY:H	1.73	0.53
1:G:728:ARG:NH2	1:G:1489:CYS:SG	2.81	0.53
1:G:1758:ARG:NH1	1:G:2037:ASP:OD1	2.42	0.53
1:G:1820:ARG:HH12	1:G:1865:MET:HE3	1.74	0.53
1:G:3069:HIS:O	1:G:3073:ARG:HG3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4767:TRP:O	1:G:4771:ILE:HG12	2.08	0.53
1:G:4943:LEU:O	1:G:4947:GLN:HG2	2.08	0.53
1:J:1042:ALA:O	1:J:1045:THR:OG1	2.20	0.53
1:J:2381:GLU:O	1:J:2385:ARG:HG2	2.08	0.53
1:J:2924:GLN:O	1:J:2928:LYS:HG2	2.09	0.53
3:C:44:GLN:HE22	3:C:46:GLU:HB3	1.74	0.53
3:C:111:ASN:HA	3:C:114:TYR:CD2	2.37	0.53
1:B:1000:ARG:NH2	1:B:1003:GLN:HE22	2.06	0.53
1:B:1498:GLY:HA2	1:B:1501:VAL:HG12	1.90	0.53
1:B:2381:GLU:O	1:B:2385:ARG:HG2	2.08	0.53
1:E:248:GLU:HB3	1:E:373:LYS:CA	2.38	0.53
1:E:1758:ARG:NH1	1:E:2037:ASP:OD1	2.42	0.53
1:E:2978:GLU:HB2	1:E:3053:ARG:HE	1.74	0.53
1:E:3695:PRO:HB2	1:E:3699:HIS:HB3	1.91	0.53
1:E:3699:HIS:HA	1:E:3702:VAL:HG12	1.89	0.53
1:G:499:THR:HG23	1:G:502:HIS:H	1.73	0.53
1:G:1433:TYR:HB3	1:G:1575:LEU:HD23	1.90	0.53
1:J:1433:TYR:HB3	1:J:1575:LEU:HD23	1.90	0.53
1:J:1820:ARG:HH12	1:J:1865:MET:HE3	1.74	0.53
1:J:3766:GLN:HA	1:J:3769:ARG:NE	2.24	0.53
3:K:34:MET:CE	3:K:95:CYS:HB2	2.39	0.53
1:B:3695:PRO:HB2	1:B:3699:HIS:HB3	1.91	0.53
1:G:748:LEU:HD13	1:G:755:ILE:HG12	1.89	0.53
1:J:499:THR:HG23	1:J:502:HIS:H	1.73	0.53
1:J:2978:GLU:HB2	1:J:3053:ARG:HE	1.74	0.53
1:J:4943:LEU:O	1:J:4947:GLN:HG2	2.08	0.53
1:B:748:LEU:HD13	1:B:755:ILE:HG12	1.89	0.53
1:B:1449:TRP:HB3	1:B:1494:MET:SD	2.49	0.53
1:B:1820:ARG:HH12	1:B:1865:MET:HE3	1.74	0.53
1:B:2633:LEU:HB2	1:B:2689:LYS:HE2	1.89	0.53
1:J:131:LEU:HD11	1:J:178:ARG:HH11	1.74	0.53
1:J:907:LEU:O	1:J:963:ASN:ND2	2.41	0.53
1:J:1623:ARG:NH1	1:J:1623:ARG:HA	2.22	0.53
1:B:917:GLU:CD	3:C:101:PRO:HB2	2.28	0.53
1:B:1221:GLU:HB2	1:B:1223:PHE:HD2	1.74	0.53
1:B:2970:SER:HB3	1:B:2998:PHE:CE2	2.43	0.53
1:E:131:LEU:HD11	1:E:178:ARG:HH11	1.74	0.53
1:J:1291:LEU:HD12	1:J:1550:PRO:HG2	1.91	0.53
1:J:2096:GLU:O	1:J:2100:HIS:ND1	2.42	0.53
1:J:3776:ALA:HB2	1:J:3812:VAL:HG23	1.91	0.53
1:B:499:THR:HG23	1:B:502:HIS:H	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2978:GLU:HB2	1:B:3053:ARG:HE	1.74	0.53
1:E:907:LEU:O	1:E:963:ASN:ND2	2.41	0.53
1:E:1449:TRP:HB3	1:E:1494:MET:SD	2.49	0.53
1:E:2096:GLU:O	1:E:2100:HIS:ND1	2.42	0.53
1:E:2924:GLN:O	1:E:2928:LYS:HG2	2.09	0.53
1:E:3768:SER:HA	1:E:3771:HIS:CD2	2.44	0.53
1:G:1449:TRP:HB3	1:G:1494:MET:SD	2.49	0.53
1:G:2096:GLU:O	1:G:2100:HIS:ND1	2.42	0.53
1:G:3188:PRO:HB3	1:G:3334:TRP:CZ3	2.44	0.53
1:G:3768:SER:HA	1:G:3771:HIS:CD2	2.44	0.53
1:J:2689:LYS:O	1:J:2993:GLN:NE2	2.42	0.53
1:J:3188:PRO:HB3	1:J:3334:TRP:CZ3	2.44	0.53
2:A:78:PRO:O	2:A:83:GLY:N	2.40	0.53
3:F:34:MET:CE	3:F:95:CYS:HB2	2.39	0.53
1:B:248:GLU:HG3	1:B:252:VAL:HG11	1.91	0.53
1:B:1433:TYR:HB3	1:B:1575:LEU:HD23	1.90	0.53
1:B:2588:ARG:HH12	1:B:2734:ASN:HD21	1.57	0.53
1:E:103:TYR:HB2	1:E:159:GLU:HA	1.91	0.53
1:E:2273:LEU:HD11	1:E:2334:PHE:HB2	1.91	0.53
1:E:2588:ARG:HH12	1:E:2734:ASN:HD21	1.57	0.53
1:E:2633:LEU:HB2	1:E:2689:LYS:HE2	1.89	0.53
1:G:1221:GLU:HB2	1:G:1223:PHE:HD2	1.74	0.53
1:G:3695:PRO:HB2	1:G:3699:HIS:HB3	1.91	0.53
1:J:248:GLU:HG3	1:J:252:VAL:HG11	1.91	0.53
1:J:728:ARG:NH2	1:J:1489:CYS:SG	2.81	0.53
1:J:1449:TRP:HB3	1:J:1494:MET:SD	2.48	0.53
1:J:1498:GLY:HA2	1:J:1501:VAL:HG12	1.90	0.53
1:J:1758:ARG:NH1	1:J:2037:ASP:OD1	2.42	0.53
1:J:1773:PRO:HA	1:J:2153:MET:HE1	1.90	0.53
1:J:3208:PRO:HB3	1:J:3236:VAL:HB	1.91	0.53
1:J:3399:SER:O	1:J:3403:ARG:HG3	2.09	0.53
3:C:105:ASN:OD1	3:C:107:TRP:HB3	2.09	0.53
3:K:44:GLN:HE22	3:K:46:GLU:HB3	1.74	0.53
1:B:648:ILE:HD11	1:B:793:LEU:HD13	1.91	0.53
1:B:2096:GLU:O	1:B:2100:HIS:ND1	2.42	0.53
1:B:2689:LYS:O	1:B:2993:GLN:NE2	2.42	0.53
1:B:2924:GLN:O	1:B:2928:LYS:HG2	2.09	0.53
1:E:1221:GLU:HB2	1:E:1223:PHE:HD2	1.74	0.53
1:G:131:LEU:HD11	1:G:178:ARG:HH11	1.74	0.53
1:G:648:ILE:HD11	1:G:793:LEU:HD13	1.91	0.53
1:G:1291:LEU:HD12	1:G:1550:PRO:HG2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2689:LYS:O	1:G:2993:GLN:NE2	2.42	0.53
1:G:2924:GLN:O	1:G:2928:LYS:HG2	2.09	0.53
1:G:2978:GLU:HB2	1:G:3053:ARG:HE	1.74	0.53
1:G:2997:PHE:O	1:G:3001:ILE:HG22	2.10	0.53
1:J:548:VAL:HG21	1:J:582:HIS:CD2	2.42	0.53
1:J:728:ARG:HE	1:J:1487:LEU:HD12	1.73	0.53
1:J:2902:HIS:HB3	1:J:2905:LEU:HB2	1.91	0.53
1:E:1773:PRO:HA	1:E:2153:MET:HE1	1.90	0.52
1:E:3841:VAL:HG22	1:E:3842:LEU:HD23	1.91	0.52
1:G:3399:SER:O	1:G:3403:ARG:HG3	2.09	0.52
1:J:648:ILE:HD11	1:J:793:LEU:HD13	1.91	0.52
2:H:23:VAL:HG12	2:H:47:LYS:HG3	1.91	0.52
1:B:103:TYR:HB2	1:B:159:GLU:HA	1.91	0.52
1:B:3766:GLN:HA	1:B:3769:ARG:NE	2.24	0.52
1:E:247:TYR:CD2	1:E:374:LYS:HB2	2.44	0.52
1:E:870:ILE:O	1:E:874:LEU:HG	2.09	0.52
1:E:3208:PRO:HB3	1:E:3236:VAL:HB	1.91	0.52
1:E:4943:LEU:O	1:E:4947:GLN:HG2	2.09	0.52
1:G:728:ARG:HE	1:G:1487:LEU:HD12	1.73	0.52
1:G:993:HIS:HE1	1:G:1020:ARG:HB3	1.75	0.52
1:G:2273:LEU:HD11	1:G:2334:PHE:HB2	1.91	0.52
1:G:2381:GLU:O	1:G:2385:ARG:HG2	2.08	0.52
1:J:1221:GLU:HB2	1:J:1223:PHE:HD2	1.74	0.52
1:J:2273:LEU:HD11	1:J:2334:PHE:HB2	1.91	0.52
2:A:23:VAL:HG12	2:A:47:LYS:HG3	1.91	0.52
1:B:131:LEU:HD11	1:B:178:ARG:HH11	1.74	0.52
1:B:3768:SER:HA	1:B:3771:HIS:CD2	2.44	0.52
1:E:921:ASN:O	1:E:924:MET:HG2	2.10	0.52
1:E:3036:LYS:HD3	1:E:3076:ASP:HB3	1.92	0.52
1:E:3188:PRO:HB3	1:E:3334:TRP:CZ3	2.44	0.52
1:J:993:HIS:HE1	1:J:1020:ARG:HB3	1.75	0.52
1:J:2588:ARG:HH12	1:J:2734:ASN:HD21	1.57	0.52
1:J:3270:ILE:H	1:J:3270:ILE:HD12	1.74	0.52
3:F:105:ASN:OD1	3:F:107:TRP:HB3	2.09	0.52
3:K:105:ASN:OD1	3:K:107:TRP:HB3	2.09	0.52
1:B:870:ILE:O	1:B:874:LEU:HG	2.09	0.52
1:B:993:HIS:HE1	1:B:1020:ARG:HB3	1.75	0.52
1:B:1758:ARG:NH1	1:B:2037:ASP:OD1	2.42	0.52
1:B:3034:LYS:HA	1:B:3037:GLU:HG3	1.91	0.52
1:E:648:ILE:HD11	1:E:793:LEU:HD13	1.91	0.52
1:E:747:CYS:HB2	1:E:808:TYR:CE2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3034:LYS:HA	1:E:3037:GLU:HG3	1.91	0.52
1:E:3766:GLN:HA	1:E:3769:ARG:NE	2.24	0.52
1:G:248:GLU:HB3	1:G:373:LYS:HA	1.92	0.52
1:G:1691:GLN:HE22	1:G:1803:PRO:HD2	1.75	0.52
1:G:2588:ARG:HH12	1:G:2734:ASN:HD21	1.57	0.52
1:G:2627:VAL:HG22	1:G:2678:LEU:HD22	1.90	0.52
1:G:2902:HIS:HB3	1:G:2905:LEU:HB2	1.91	0.52
2:H:78:PRO:O	2:H:83:GLY:N	2.40	0.52
3:F:44:GLN:HE22	3:F:46:GLU:HB3	1.74	0.52
1:B:1291:LEU:HD12	1:B:1550:PRO:HG2	1.91	0.52
1:B:2273:LEU:HD11	1:B:2334:PHE:HB2	1.91	0.52
1:B:3036:LYS:HD3	1:B:3076:ASP:HB3	1.92	0.52
1:B:3548:GLU:HG2	1:B:3552:PHE:CE2	2.45	0.52
1:E:437:PRO:HB2	1:E:440:ALA:HB3	1.91	0.52
1:E:625:LEU:HD12	1:E:626:LEU:HD12	1.92	0.52
1:E:1291:LEU:HD12	1:E:1550:PRO:HG2	1.91	0.52
1:E:1691:GLN:HE22	1:E:1803:PRO:HD2	1.75	0.52
1:G:747:CYS:HB2	1:G:808:TYR:CE2	2.45	0.52
1:J:747:CYS:SG	1:J:756:SER:HB2	2.50	0.52
1:J:1130:GLN:HG2	1:J:1138:PRO:HA	1.91	0.52
1:J:1232:ARG:NH2	1:J:1828:ASP:O	2.43	0.52
1:J:2627:VAL:HG22	1:J:2678:LEU:HD22	1.90	0.52
1:B:1130:GLN:HG2	1:B:1138:PRO:HA	1.91	0.52
1:B:1691:GLN:HE22	1:B:1803:PRO:HD2	1.75	0.52
1:B:1870:VAL:HG11	1:B:2097:LEU:HD22	1.92	0.52
1:B:2997:PHE:O	1:B:3001:ILE:HG22	2.10	0.52
1:E:266:ARG:HG2	1:E:268:SER:H	1.74	0.52
1:E:1433:TYR:HB3	1:E:1575:LEU:HD23	1.90	0.52
1:E:2381:GLU:O	1:E:2385:ARG:HG2	2.08	0.52
1:E:2997:PHE:O	1:E:3001:ILE:HG22	2.10	0.52
1:J:365:LYS:O	1:J:369:LEU:HG	2.09	0.52
3:M:44:GLN:HE22	3:M:46:GLU:HB3	1.74	0.52
3:M:102:ASN:HB2	3:M:104:TYR:CE2	2.45	0.52
1:B:341:TYR:CE2	1:B:392:ARG:HB2	2.45	0.52
1:B:622:THR:HG23	1:B:626:LEU:HD22	1.92	0.52
1:E:341:TYR:CE2	1:E:392:ARG:HB2	2.45	0.52
1:E:993:HIS:HE1	1:E:1020:ARG:HB3	1.75	0.52
1:E:1042:ALA:O	1:E:1045:THR:OG1	2.20	0.52
1:E:3270:ILE:H	1:E:3270:ILE:HD12	1.74	0.52
1:G:634:GLN:HG3	2:H:34:LYS:NZ	2.25	0.52
1:G:870:ILE:O	1:G:874:LEU:HG	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3841:VAL:HG22	1:G:3842:LEU:HD23	1.92	0.52
1:J:792:LEU:HA	1:J:798:GLY:HA3	1.92	0.52
1:J:1439:VAL:HB	1:J:1514:LEU:HB3	1.92	0.52
1:J:3069:HIS:O	1:J:3073:ARG:HG3	2.08	0.52
1:B:883:ALA:HA	1:B:886:ARG:HE	1.74	0.52
1:B:3511:VAL:HG23	1:B:3515:LYS:HE2	1.92	0.52
1:B:3841:VAL:HG22	1:B:3842:LEU:HD23	1.91	0.52
1:E:1035:ASN:OD1	3:F:109:THR:OG1	2.26	0.52
1:E:2627:VAL:HG22	1:E:2678:LEU:HD22	1.90	0.52
1:E:3511:VAL:HG23	1:E:3515:LYS:HE2	1.92	0.52
1:E:4020:GLN:HA	1:E:4023:MET:HG3	1.91	0.52
1:G:622:THR:HG23	1:G:626:LEU:HD22	1.92	0.52
1:G:4020:GLN:HA	1:G:4023:MET:HG3	1.91	0.52
1:J:76:ARG:O	1:J:79:GLN:HG3	2.10	0.52
1:J:266:ARG:HG2	1:J:268:SER:H	1.74	0.52
1:J:3316:LEU:HD22	1:J:3353:LEU:HD13	1.92	0.52
1:J:3548:GLU:HG2	1:J:3552:PHE:CE2	2.45	0.52
1:B:881:LEU:O	1:B:885:THR:HG23	2.10	0.52
1:B:920:TYR:O	1:B:923:GLN:HG2	2.10	0.52
1:B:3188:PRO:HB3	1:B:3334:TRP:CZ3	2.44	0.52
1:E:76:ARG:O	1:E:79:GLN:HG3	2.10	0.52
1:E:792:LEU:HA	1:E:798:GLY:HA3	1.91	0.52
1:E:3031:ALA:O	1:E:3036:LYS:NZ	2.37	0.52
1:E:3592:ILE:HG12	1:E:3595:ARG:HH21	1.74	0.52
1:G:248:GLU:HG3	1:G:252:VAL:HG11	1.91	0.52
1:G:548:VAL:HG21	1:G:582:HIS:CD2	2.42	0.52
1:J:883:ALA:HA	1:J:886:ARG:HE	1.74	0.52
1:J:960:MET:HG3	1:J:966:LYS:HE3	1.92	0.52
1:J:2997:PHE:O	1:J:3001:ILE:HG22	2.10	0.52
1:J:3051:ARG:HH22	1:J:3102:ASP:HB2	1.75	0.52
1:J:4229:GLU:OE1	1:J:4229:GLU:N	2.37	0.52
2:D:78:PRO:O	2:D:83:GLY:N	2.40	0.52
3:M:111:ASN:HA	3:M:114:TYR:HD2	1.75	0.52
1:B:625:LEU:HD12	1:B:626:LEU:HD12	1.92	0.52
1:B:1232:ARG:NH2	1:B:1828:ASP:O	2.43	0.52
1:B:3270:ILE:H	1:B:3270:ILE:HD12	1.74	0.52
1:B:3592:ILE:HG12	1:B:3595:ARG:HH21	1.74	0.52
1:B:3756:LYS:O	1:B:3760:LYS:HG2	2.10	0.52
1:E:1128:ARG:HH12	1:E:1132:TRP:HZ2	1.58	0.52
1:E:3548:GLU:HG2	1:E:3552:PHE:CE2	2.45	0.52
1:G:76:ARG:O	1:G:79:GLN:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:747:CYS:SG	1:G:756:SER:HB2	2.50	0.52
1:G:1232:ARG:NH2	1:G:1828:ASP:O	2.43	0.52
1:G:3051:ARG:HH22	1:G:3102:ASP:HB2	1.75	0.52
1:G:3270:ILE:H	1:G:3270:ILE:HD12	1.74	0.52
1:J:246:TYR:CG	1:J:373:LYS:HB3	2.45	0.52
1:J:625:LEU:HD12	1:J:626:LEU:HD12	1.92	0.52
1:J:1128:ARG:HH12	1:J:1132:TRP:HZ2	1.58	0.52
1:J:3946:GLN:OE1	1:J:3949:ARG:NH2	2.43	0.52
1:J:4020:GLN:HA	1:J:4023:MET:HG3	1.91	0.52
1:B:276:TRP:HZ3	1:B:346:CYS:HA	1.75	0.51
1:B:747:CYS:SG	1:B:756:SER:HB2	2.50	0.51
1:B:985:VAL:HG22	1:B:1043:VAL:HG21	1.93	0.51
1:B:1243:PRO:O	1:B:1458:HIS:ND1	2.31	0.51
1:B:2902:HIS:HB3	1:B:2905:LEU:HB2	1.91	0.51
1:B:3405:LEU:HG	1:B:3409:TYR:CE1	2.45	0.51
1:E:3399:SER:O	1:E:3403:ARG:HG3	2.09	0.51
1:G:920:TYR:O	1:G:923:GLN:HG2	2.10	0.51
1:G:3208:PRO:HB3	1:G:3236:VAL:HB	1.91	0.51
1:G:3405:LEU:HG	1:G:3409:TYR:CE1	2.46	0.51
1:G:4115:SER:HB3	1:G:4122:MET:HE2	1.92	0.51
1:J:547:VAL:HB	1:J:560:ILE:HD11	1.93	0.51
1:J:747:CYS:HB2	1:J:808:TYR:CE2	2.45	0.51
1:J:2142:TYR:CG	1:J:2197:LEU:HD13	2.45	0.51
1:J:3768:SER:HA	1:J:3771:HIS:CD2	2.44	0.51
3:M:19:ARG:HE	3:M:79:TYR:HB3	1.75	0.51
1:B:921:ASN:O	1:B:924:MET:HG2	2.10	0.51
1:B:2574:HIS:CD2	1:B:2575:ARG:HG2	2.46	0.51
1:B:3208:PRO:HB3	1:B:3236:VAL:HB	1.91	0.51
1:E:1232:ARG:NH2	1:E:1828:ASP:O	2.43	0.51
1:E:2689:LYS:O	1:E:2993:GLN:NE2	2.42	0.51
1:E:3341:PHE:O	1:E:3344:PRO:HD2	2.11	0.51
1:E:3536:ALA:HB2	1:E:3553:LEU:HD21	1.92	0.51
1:G:547:VAL:HB	1:G:560:ILE:HD11	1.92	0.51
1:G:883:ALA:HA	1:G:886:ARG:HE	1.74	0.51
1:G:2574:HIS:CD2	1:G:2575:ARG:HG2	2.46	0.51
1:J:921:ASN:O	1:J:924:MET:HG2	2.10	0.51
1:J:1778:SER:HB2	1:J:1798:LEU:HB2	1.92	0.51
1:J:1870:VAL:HG11	1:J:2097:LEU:HD22	1.92	0.51
1:J:3536:ALA:HB2	1:J:3553:LEU:HD21	1.92	0.51
1:B:1439:VAL:HB	1:B:1514:LEU:HB3	1.92	0.51
1:B:3776:ALA:HB2	1:B:3812:VAL:HG23	1.90	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4020:GLN:HA	1:B:4023:MET:HG3	1.91	0.51
1:E:626:LEU:HB3	2:D:89:GLY:O	2.10	0.51
1:E:881:LEU:O	1:E:885:THR:HG23	2.10	0.51
1:E:920:TYR:O	1:E:923:GLN:HG2	2.10	0.51
1:E:2362:GLU:HA	1:E:2369:ARG:HH22	1.75	0.51
1:G:3034:LYS:HA	1:G:3037:GLU:HG3	1.91	0.51
1:G:4999:ASP:HB2	1:G:5002:GLU:HG2	1.93	0.51
1:J:965:TYR:O	1:J:967:PRO:HD3	2.11	0.51
1:J:3036:LYS:HD3	1:J:3076:ASP:HB3	1.92	0.51
1:J:3841:VAL:HG22	1:J:3842:LEU:HD23	1.92	0.51
1:B:76:ARG:O	1:B:79:GLN:HG3	2.10	0.51
1:B:246:TYR:HE1	1:B:375:LYS:HZ3	1.58	0.51
1:B:547:VAL:HB	1:B:560:ILE:HD11	1.93	0.51
1:B:792:LEU:HA	1:B:798:GLY:HA3	1.92	0.51
1:B:960:MET:HG3	1:B:966:LYS:HE3	1.92	0.51
1:B:2893:GLU:O	1:B:2897:LYS:HG2	2.11	0.51
1:B:3341:PHE:O	1:B:3344:PRO:HD2	2.11	0.51
1:B:3547:GLU:O	1:B:3551:GLU:HG2	2.11	0.51
1:E:747:CYS:SG	1:E:756:SER:HB2	2.50	0.51
1:E:1130:GLN:HG2	1:E:1138:PRO:HA	1.91	0.51
1:E:4999:ASP:HB2	1:E:5002:GLU:HG2	1.93	0.51
1:G:276:TRP:HZ3	1:G:346:CYS:HA	1.75	0.51
1:G:874:LEU:O	1:G:878:ILE:HG12	2.11	0.51
1:G:3592:ILE:HG12	1:G:3595:ARG:HH21	1.74	0.51
1:G:3776:ALA:HB2	1:G:3812:VAL:HG23	1.90	0.51
1:J:870:ILE:O	1:J:874:LEU:HG	2.09	0.51
1:J:985:VAL:HG22	1:J:1043:VAL:HG21	1.93	0.51
1:J:2362:GLU:HA	1:J:2369:ARG:HH22	1.75	0.51
1:J:2574:HIS:CD2	1:J:2575:ARG:HG2	2.46	0.51
1:J:3341:PHE:O	1:J:3344:PRO:HD2	2.11	0.51
1:J:3511:VAL:HG23	1:J:3515:LYS:HE2	1.92	0.51
1:J:3592:ILE:HG12	1:J:3595:ARG:HH21	1.74	0.51
1:J:3756:LYS:O	1:J:3760:LYS:HG2	2.10	0.51
1:J:3775:ALA:HA	1:J:3778:MET:HG3	1.93	0.51
1:B:747:CYS:HB2	1:B:808:TYR:CE2	2.45	0.51
1:B:3973:CYS:SG	1:B:3976:ASN:HB2	2.51	0.51
1:E:276:TRP:HZ3	1:E:346:CYS:HA	1.75	0.51
1:E:1748:PHE:HD1	1:E:1749:PRO:HD2	1.75	0.51
1:E:2233:CYS:HB2	1:E:2270:SER:HB3	1.93	0.51
1:E:2793:PRO:O	1:E:2797:PHE:N	2.44	0.51
1:G:266:ARG:HG2	1:G:268:SER:H	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:341:TYR:CE2	1:G:392:ARG:HB2	2.45	0.51
1:G:437:PRO:HB2	1:G:440:ALA:HB3	1.91	0.51
1:G:960:MET:HG3	1:G:966:LYS:HE3	1.92	0.51
1:G:2793:PRO:O	1:G:2797:PHE:N	2.44	0.51
1:J:626:LEU:HB3	2:I:89:GLY:O	2.10	0.51
1:J:1691:GLN:HE22	1:J:1803:PRO:HD2	1.75	0.51
1:J:3405:LEU:HG	1:J:3409:TYR:CE1	2.45	0.51
1:J:3547:GLU:O	1:J:3551:GLU:HG2	2.11	0.51
1:B:437:PRO:HB2	1:B:440:ALA:HB3	1.91	0.51
1:B:470:SER:HA	1:B:473:ASN:HD21	1.76	0.51
1:B:870:ILE:HD12	1:B:1051:TYR:CZ	2.46	0.51
1:B:1748:PHE:HD1	1:B:1749:PRO:HD2	1.75	0.51
1:B:2362:GLU:HA	1:B:2369:ARG:HH22	1.76	0.51
1:B:2627:VAL:HG22	1:B:2678:LEU:HD22	1.91	0.51
1:B:2630:VAL:HG13	1:B:2682:ILE:HD11	1.93	0.51
1:B:3316:LEU:HD22	1:B:3353:LEU:HD13	1.92	0.51
1:B:4999:ASP:HB2	1:B:5002:GLU:HG2	1.93	0.51
1:E:909:ASN:HA	1:E:965:TYR:HA	1.92	0.51
1:E:1439:VAL:HB	1:E:1514:LEU:HB3	1.92	0.51
1:E:1964:ARG:O	1:E:1968:LYS:HG3	2.11	0.51
1:E:2902:HIS:HB3	1:E:2905:LEU:HB2	1.91	0.51
1:E:3051:ARG:HH22	1:E:3102:ASP:HB2	1.75	0.51
1:E:3547:GLU:O	1:E:3551:GLU:HG2	2.11	0.51
1:E:3756:LYS:O	1:E:3760:LYS:HG2	2.11	0.51
1:G:103:TYR:HB2	1:G:159:GLU:HA	1.91	0.51
1:G:921:ASN:O	1:G:924:MET:HG2	2.10	0.51
1:J:103:TYR:HB2	1:J:159:GLU:HA	1.91	0.51
1:J:437:PRO:HB2	1:J:440:ALA:HB3	1.91	0.51
1:J:881:LEU:O	1:J:885:THR:HG23	2.10	0.51
1:J:909:ASN:HA	1:J:965:TYR:HA	1.92	0.51
1:J:920:TYR:O	1:J:923:GLN:HG2	2.10	0.51
1:J:2793:PRO:O	1:J:2797:PHE:N	2.44	0.51
1:J:4999:ASP:HB2	1:J:5002:GLU:HG2	1.93	0.51
2:D:23:VAL:HG12	2:D:47:LYS:HG3	1.91	0.51
1:B:874:LEU:O	1:B:878:ILE:HG12	2.11	0.51
1:B:3018:LEU:HD21	1:B:3150:HIS:CE1	2.46	0.51
1:E:870:ILE:HD12	1:E:1051:TYR:CZ	2.46	0.51
1:E:883:ALA:HA	1:E:886:ARG:HE	1.74	0.51
1:E:965:TYR:O	1:E:967:PRO:HD3	2.11	0.51
1:E:1243:PRO:O	1:E:1458:HIS:ND1	2.31	0.51
1:E:1778:SER:HB2	1:E:1798:LEU:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1870:VAL:HG11	1:E:2097:LEU:HD22	1.91	0.51
1:E:2630:VAL:HG13	1:E:2682:ILE:HD11	1.93	0.51
1:E:3775:ALA:HA	1:E:3778:MET:HG3	1.93	0.51
1:G:1748:PHE:HD1	1:G:1749:PRO:HD2	1.75	0.51
1:G:3036:LYS:HD3	1:G:3076:ASP:HB3	1.92	0.51
1:G:3341:PHE:O	1:G:3344:PRO:HD2	2.11	0.51
1:G:3548:GLU:HG2	1:G:3552:PHE:CE2	2.45	0.51
1:J:3194:LEU:HA	1:J:3197:LEU:HG	1.93	0.51
1:B:1778:SER:HB2	1:B:1798:LEU:HB2	1.92	0.51
1:B:4080:TYR:CG	1:B:4096:ALA:HB2	2.46	0.51
1:E:547:VAL:HB	1:E:560:ILE:HD11	1.92	0.51
1:E:874:LEU:O	1:E:878:ILE:HG12	2.11	0.51
1:E:1438:ARG:HG3	1:E:1513:ASP:HB3	1.93	0.51
1:E:1945:TYR:O	1:E:1949:GLN:HG2	2.11	0.51
1:E:3194:LEU:HA	1:E:3197:LEU:HG	1.93	0.51
1:E:3316:LEU:HD22	1:E:3353:LEU:HD13	1.92	0.51
1:E:3400:VAL:HG23	1:E:3403:ARG:HE	1.76	0.51
1:E:3445:TRP:CD1	1:E:3509:LEU:HD22	2.46	0.51
1:G:625:LEU:HD12	1:G:626:LEU:HD12	1.92	0.51
1:G:3511:VAL:HG23	1:G:3515:LYS:HE2	1.92	0.51
1:G:3996:PHE:HZ	1:G:4019:LEU:HG	1.76	0.51
1:G:4080:TYR:CG	1:G:4096:ALA:HB2	2.46	0.51
1:J:341:TYR:CE2	1:J:392:ARG:HB2	2.45	0.51
1:J:622:THR:HG23	1:J:626:LEU:HD22	1.92	0.51
1:J:874:LEU:O	1:J:878:ILE:HG12	2.11	0.51
1:J:2175:GLU:O	1:J:2179:ILE:HG12	2.11	0.51
1:J:3034:LYS:HA	1:J:3037:GLU:HG3	1.91	0.51
1:J:3400:VAL:HG23	1:J:3403:ARG:HE	1.76	0.51
1:J:3996:PHE:HZ	1:J:4019:LEU:HG	1.76	0.51
1:J:4243:PHE:O	1:J:4247:ILE:HG13	2.11	0.51
2:D:31:GLN:OE1	2:D:96:THR:N	2.44	0.51
3:F:19:ARG:HE	3:F:79:TYR:HB3	1.75	0.51
3:K:19:ARG:HE	3:K:79:TYR:HB3	1.75	0.51
1:B:365:LYS:O	1:B:369:LEU:HG	2.10	0.51
1:B:909:ASN:HA	1:B:965:TYR:HA	1.92	0.51
1:B:1128:ARG:HH12	1:B:1132:TRP:HZ2	1.58	0.51
1:B:1964:ARG:O	1:B:1968:LYS:HG3	2.11	0.51
1:B:2321:ILE:HD11	1:B:2418:LEU:HB2	1.93	0.51
1:B:3051:ARG:HH22	1:B:3102:ASP:HB2	1.75	0.51
1:E:622:THR:HG23	1:E:626:LEU:HD22	1.92	0.51
1:E:2760:GLU:HA	1:E:2802:LYS:NZ	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2893:GLU:O	1:E:2897:LYS:HG2	2.11	0.51
1:G:470:SER:HA	1:G:473:ASN:HD21	1.76	0.51
1:G:489:ASN:OD1	1:G:493:ARG:NH1	2.44	0.51
1:G:881:LEU:O	1:G:885:THR:HG23	2.10	0.51
1:G:1128:ARG:HH12	1:G:1132:TRP:HZ2	1.58	0.51
1:G:1130:GLN:HG2	1:G:1138:PRO:HA	1.91	0.51
1:G:2142:TYR:CG	1:G:2197:LEU:HD13	2.45	0.51
1:G:2198:MET:HA	1:G:2203:MET:HE1	1.93	0.51
1:G:3018:LEU:HD21	1:G:3150:HIS:CE1	2.46	0.51
1:G:3946:GLN:OE1	1:G:3949:ARG:NH2	2.43	0.51
1:J:1035:ASN:OD1	3:K:109:THR:OG1	2.26	0.51
1:J:3442:PHE:HE1	1:J:3510:ILE:HG22	1.76	0.51
1:J:3986:TRP:HB3	1:J:4047:MET:SD	2.51	0.51
2:I:31:GLN:OE1	2:I:96:THR:N	2.44	0.51
1:B:355:LEU:HB3	1:B:378:LEU:HB3	1.93	0.51
1:B:1615:VAL:HG13	1:B:1630:CYS:HB2	1.94	0.51
1:B:2793:PRO:O	1:B:2797:PHE:N	2.44	0.51
1:B:3442:PHE:HE1	1:B:3510:ILE:HG22	1.76	0.51
1:B:3946:GLN:OE1	1:B:3949:ARG:NH2	2.43	0.51
1:E:355:LEU:HB3	1:E:378:LEU:HB3	1.93	0.51
1:E:470:SER:HA	1:E:473:ASN:HD21	1.76	0.51
1:E:3051:ARG:HA	1:E:3131:TYR:CZ	2.46	0.51
1:E:3996:PHE:HZ	1:E:4019:LEU:HG	1.76	0.51
1:G:1439:VAL:HB	1:G:1514:LEU:HB3	1.92	0.51
1:G:1870:VAL:HG11	1:G:2097:LEU:HD22	1.92	0.51
1:G:2321:ILE:HD11	1:G:2418:LEU:HB2	1.93	0.51
1:G:2362:GLU:HA	1:G:2369:ARG:HH22	1.76	0.51
1:G:2893:GLU:O	1:G:2897:LYS:HG2	2.11	0.51
1:G:3021:PRO:HD3	1:G:3036:LYS:HZ3	1.75	0.51
1:G:3051:ARG:HA	1:G:3131:TYR:CZ	2.46	0.51
1:G:4243:PHE:O	1:G:4247:ILE:HG13	2.11	0.51
2:I:23:VAL:HG12	2:I:47:LYS:HG3	1.91	0.51
1:B:764:VAL:HG12	1:B:766:GLY:H	1.77	0.50
1:B:965:TYR:O	1:B:967:PRO:HD3	2.11	0.50
1:B:1945:TYR:O	1:B:1949:GLN:HG2	2.11	0.50
1:B:2233:CYS:HB2	1:B:2270:SER:HB3	1.93	0.50
1:B:3399:SER:O	1:B:3403:ARG:HG3	2.09	0.50
1:B:3889:GLN:HB2	1:B:3967:GLU:HG2	1.93	0.50
1:E:1820:ARG:HH12	1:E:1865:MET:HE3	1.75	0.50
1:E:2321:ILE:HD11	1:E:2418:LEU:HB2	1.93	0.50
1:E:3967:GLU:CA	1:E:3970:GLN:HG2	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4090:LYS:HD3	1:E:4112:LEU:HD13	1.93	0.50
1:G:2257:LEU:HD22	1:G:2272:PRO:HB3	1.93	0.50
1:G:3316:LEU:HD22	1:G:3353:LEU:HD13	1.92	0.50
1:G:3442:PHE:HE1	1:G:3510:ILE:HG22	1.76	0.50
1:G:3973:CYS:SG	1:G:3976:ASN:HB2	2.51	0.50
1:J:870:ILE:HD12	1:J:1051:TYR:CZ	2.46	0.50
1:J:1748:PHE:HD1	1:J:1749:PRO:HD2	1.75	0.50
1:J:1813:ARG:HH22	1:J:1814:MET:HE2	1.75	0.50
1:J:2321:ILE:HD11	1:J:2418:LEU:HB2	1.93	0.50
1:J:4090:LYS:HD3	1:J:4112:LEU:HD13	1.93	0.50
2:H:31:GLN:OE1	2:H:96:THR:N	2.44	0.50
1:B:2175:GLU:O	1:B:2179:ILE:HG12	2.11	0.50
1:B:3317:GLY:O	1:B:3321:ARG:HG2	2.11	0.50
1:E:960:MET:HG3	1:E:966:LYS:HE3	1.92	0.50
1:E:2142:TYR:CG	1:E:2197:LEU:HD13	2.46	0.50
1:E:2206:THR:O	1:E:2210:VAL:HG23	2.12	0.50
1:E:2574:HIS:CD2	1:E:2575:ARG:HG2	2.46	0.50
1:E:2902:HIS:O	1:E:2905:LEU:HB3	2.11	0.50
1:E:3405:LEU:HG	1:E:3409:TYR:CE1	2.45	0.50
1:G:792:LEU:HA	1:G:798:GLY:HA3	1.92	0.50
1:G:1438:ARG:HG3	1:G:1513:ASP:HB3	1.93	0.50
1:G:2175:GLU:O	1:G:2179:ILE:HG12	2.11	0.50
1:G:2463:LEU:HD21	1:G:2517:PHE:HE1	1.77	0.50
1:G:3756:LYS:O	1:G:3760:LYS:HG2	2.10	0.50
1:J:276:TRP:HZ3	1:J:346:CYS:HA	1.75	0.50
1:J:1615:VAL:HG13	1:J:1630:CYS:HB2	1.93	0.50
1:J:2902:HIS:O	1:J:2905:LEU:HB3	2.12	0.50
1:J:3445:TRP:CD1	1:J:3509:LEU:HD22	2.46	0.50
3:C:19:ARG:HE	3:C:79:TYR:HB3	1.76	0.50
3:M:34:MET:CE	3:M:95:CYS:HB2	2.40	0.50
1:B:2142:TYR:CG	1:B:2197:LEU:HD13	2.45	0.50
1:B:2257:LEU:HD22	1:B:2272:PRO:HB3	1.93	0.50
1:B:3400:VAL:HG23	1:B:3403:ARG:HE	1.76	0.50
1:B:3445:TRP:CD1	1:B:3509:LEU:HD22	2.46	0.50
1:B:3996:PHE:HZ	1:B:4019:LEU:HG	1.76	0.50
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.47	0.50
1:E:2755:ILE:HG22	1:E:2810:LYS:HZ1	1.76	0.50
1:G:355:LEU:HB3	1:G:378:LEU:HB3	1.93	0.50
1:G:1778:SER:HB2	1:G:1798:LEU:HB2	1.92	0.50
1:G:2902:HIS:O	1:G:2905:LEU:HB3	2.11	0.50
1:G:3445:TRP:CD1	1:G:3509:LEU:HD22	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3775:ALA:HA	1:G:3778:MET:HG3	1.93	0.50
1:G:3986:TRP:HB3	1:G:4047:MET:SD	2.51	0.50
1:J:489:ASN:OD1	1:J:493:ARG:NH1	2.44	0.50
1:J:2463:LEU:HD21	1:J:2517:PHE:HE1	1.77	0.50
3:K:111:ASN:HA	3:K:114:TYR:CD2	2.38	0.50
1:B:247:TYR:HE2	1:B:359:TYR:HA	1.76	0.50
1:B:2902:HIS:O	1:B:2905:LEU:HB3	2.11	0.50
1:B:3986:TRP:HB3	1:B:4047:MET:SD	2.51	0.50
1:E:937:CYS:SG	1:E:938:HIS:N	2.85	0.50
1:E:3889:GLN:HB2	1:E:3967:GLU:HG2	1.94	0.50
1:E:3973:CYS:SG	1:E:3976:ASN:HB2	2.51	0.50
1:E:4918:ILE:HA	1:J:4892:ARG:HH22	1.76	0.50
1:G:1581:LEU:HA	1:G:1584:ARG:HE	1.77	0.50
1:G:3536:ALA:HB2	1:G:3553:LEU:HD21	1.92	0.50
1:G:4063:ASP:HB2	1:G:4067:LYS:HE3	1.94	0.50
1:G:4122:MET:HE1	1:G:4123:ILE:HG12	1.92	0.50
1:J:937:CYS:SG	1:J:938:HIS:N	2.85	0.50
1:J:1964:ARG:O	1:J:1968:LYS:HG3	2.11	0.50
1:J:2630:VAL:HG13	1:J:2682:ILE:HD11	1.93	0.50
1:J:2760:GLU:HA	1:J:2802:LYS:NZ	2.26	0.50
1:J:3973:CYS:SG	1:J:3976:ASN:HB2	2.51	0.50
1:B:937:CYS:SG	1:B:938:HIS:N	2.85	0.50
1:B:2463:LEU:HD21	1:B:2517:PHE:HE1	1.77	0.50
1:B:3332:ALA:HB1	1:B:3335:MET:HE3	1.93	0.50
1:B:3775:ALA:HA	1:B:3778:MET:HG3	1.93	0.50
1:E:764:VAL:HG12	1:E:766:GLY:H	1.77	0.50
1:E:985:VAL:HG22	1:E:1043:VAL:HG21	1.93	0.50
1:E:2814:LYS:HA	1:E:2817:ILE:HG12	1.93	0.50
1:E:3018:LEU:HD21	1:E:3150:HIS:CE1	2.46	0.50
1:G:1973:GLN:HE22	1:G:3641:LEU:H	1.59	0.50
1:J:2893:GLU:O	1:J:2897:LYS:HG2	2.11	0.50
1:J:4080:TYR:CG	1:J:4096:ALA:HB2	2.46	0.50
1:J:4096:ALA:O	1:J:4099:SER:OG	2.23	0.50
2:A:31:GLN:OE1	2:A:96:THR:N	2.44	0.50
1:B:360:ALA:HA	1:B:377:ILE:CD1	2.41	0.50
1:B:1860:LYS:O	1:B:1864:LYS:HG2	2.12	0.50
1:B:2755:ILE:HG22	1:B:2810:LYS:HZ1	1.76	0.50
1:B:2760:GLU:HA	1:B:2802:LYS:NZ	2.26	0.50
1:E:360:ALA:HA	1:E:377:ILE:CD1	2.41	0.50
1:E:1860:LYS:O	1:E:1864:LYS:HG2	2.12	0.50
1:E:2198:MET:HA	1:E:2203:MET:HE1	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3442:PHE:HE1	1:E:3510:ILE:HG22	1.76	0.50
1:G:909:ASN:HA	1:G:965:TYR:HA	1.92	0.50
1:G:1615:VAL:HG13	1:G:1630:CYS:HB2	1.94	0.50
1:G:2760:GLU:HA	1:G:2802:LYS:NZ	2.26	0.50
1:G:3317:GLY:O	1:G:3321:ARG:HG2	2.11	0.50
1:J:470:SER:HA	1:J:473:ASN:HD21	1.76	0.50
1:J:3018:LEU:HD21	1:J:3150:HIS:CE1	2.46	0.50
1:J:3021:PRO:HD3	1:J:3036:LYS:HZ3	1.76	0.50
3:K:38:ARG:O	3:K:45:ARG:HA	2.12	0.50
1:B:932:LEU:HD13	1:B:988:LEU:HD11	1.94	0.50
1:B:4063:ASP:HB2	1:B:4067:LYS:HE3	1.94	0.50
1:B:4779:LYS:HA	1:B:4782:VAL:HG22	1.94	0.50
1:E:932:LEU:HD13	1:E:988:LEU:HD11	1.94	0.50
1:G:985:VAL:HG22	1:G:1043:VAL:HG21	1.93	0.50
1:G:1860:LYS:O	1:G:1864:LYS:HG2	2.12	0.50
1:G:4577:LEU:O	1:G:4580:TYR:HD1	1.95	0.50
1:J:144:GLU:HA	1:J:147:TRP:HD1	1.77	0.50
1:J:2206:THR:O	1:J:2210:VAL:HG23	2.12	0.50
1:J:2814:LYS:HA	1:J:2817:ILE:HG12	1.93	0.50
1:B:526:LEU:HD11	1:B:540:PHE:CZ	2.47	0.50
1:E:144:GLU:HA	1:E:147:TRP:HD1	1.77	0.50
1:E:823:LEU:HD12	1:E:1617:THR:HB	1.94	0.50
1:E:2764:GLU:HG2	1:E:2857:PRO:HD3	1.94	0.50
1:E:4779:LYS:HA	1:E:4782:VAL:HG22	1.94	0.50
1:G:891:TRP:HE1	1:G:904:HIS:HB2	1.76	0.50
1:G:1964:ARG:O	1:G:1968:LYS:HG3	2.11	0.50
1:G:3547:GLU:O	1:G:3551:GLU:HG2	2.11	0.50
1:G:3641:LEU:HD12	1:G:3644:LEU:HD12	1.94	0.50
1:J:1438:ARG:HG3	1:J:1513:ASP:HB3	1.93	0.50
1:J:1581:LEU:HA	1:J:1584:ARG:HE	1.77	0.50
1:J:2764:GLU:HG2	1:J:2857:PRO:HD3	1.94	0.50
1:J:2883:HIS:CE1	1:J:2911:LEU:HD21	2.47	0.50
1:J:3403:ARG:HG2	1:J:3458:PHE:CD1	2.47	0.50
1:J:4577:LEU:O	1:J:4580:TYR:HD1	1.95	0.50
1:B:823:LEU:HD12	1:B:1617:THR:HB	1.94	0.50
1:B:1438:ARG:HG3	1:B:1513:ASP:HB3	1.93	0.50
1:B:2198:MET:HA	1:B:2203:MET:HE1	1.93	0.50
1:B:2883:HIS:CE1	1:B:2911:LEU:HD21	2.47	0.50
1:B:3967:GLU:CA	1:B:3970:GLN:HG2	2.39	0.50
1:B:4229:GLU:OE1	1:B:4229:GLU:N	2.37	0.50
1:E:73:LEU:O	1:E:106:ALA:N	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1024:TYR:HA	1:E:1027:LEU:HG	1.94	0.50
1:E:2463:LEU:HD21	1:E:2517:PHE:HE1	1.77	0.50
1:E:2692:ASP:HB3	1:E:2695:LEU:HB3	1.94	0.50
1:G:965:TYR:O	1:G:967:PRO:HD3	2.11	0.50
1:G:1243:PRO:O	1:G:1458:HIS:ND1	2.31	0.50
1:G:2233:CYS:HB2	1:G:2270:SER:HB3	1.93	0.50
1:G:2559:LEU:O	1:G:2563:THR:HG23	2.12	0.50
1:G:4090:LYS:HD3	1:G:4112:LEU:HD13	1.93	0.50
1:G:4725:LEU:HA	1:G:4737:ILE:HG21	1.93	0.50
1:G:4892:ARG:HH22	1:J:4918:ILE:HA	1.77	0.50
1:J:355:LEU:HB3	1:J:378:LEU:HB3	1.93	0.50
1:J:1862:ILE:HA	1:J:1865:MET:HG2	1.93	0.50
1:J:3051:ARG:HA	1:J:3131:TYR:CZ	2.46	0.50
1:B:470:SER:HA	1:B:473:ASN:ND2	2.27	0.49
1:B:682:LEU:HD23	1:B:738:LEU:HB3	1.94	0.49
1:B:2206:THR:O	1:B:2210:VAL:HG23	2.12	0.49
1:B:3051:ARG:HA	1:B:3131:TYR:CZ	2.46	0.49
1:B:3536:ALA:HB2	1:B:3553:LEU:HD21	1.92	0.49
1:E:657:THR:O	1:E:1007:TYR:N	2.34	0.49
1:E:3047:ALA:HB1	1:E:3095:PHE:CE1	2.47	0.49
1:E:4080:TYR:CG	1:E:4096:ALA:HB2	2.46	0.49
1:E:4577:LEU:O	1:E:4580:TYR:HD1	1.95	0.49
1:G:73:LEU:O	1:G:106:ALA:N	2.45	0.49
1:G:247:TYR:HE2	1:G:359:TYR:HA	1.77	0.49
1:G:537:CYS:HB3	1:G:571:SER:OG	2.12	0.49
1:G:764:VAL:HG12	1:G:766:GLY:H	1.76	0.49
1:G:2630:VAL:HG13	1:G:2682:ILE:HD11	1.93	0.49
1:G:3332:ALA:HB1	1:G:3335:MET:HE3	1.93	0.49
1:J:823:LEU:HD12	1:J:1617:THR:HB	1.94	0.49
1:J:1860:LYS:O	1:J:1864:LYS:HG2	2.12	0.49
1:J:2233:CYS:HB2	1:J:2270:SER:HB3	1.93	0.49
1:J:2692:ASP:HB3	1:J:2695:LEU:HB3	1.94	0.49
3:M:38:ARG:O	3:M:45:ARG:HA	2.11	0.49
1:B:451:TYR:CZ	1:B:474:ARG:HD2	2.47	0.49
1:B:1973:GLN:HE22	1:B:3641:LEU:H	1.59	0.49
1:B:2814:LYS:HA	1:B:2817:ILE:HG12	1.93	0.49
1:B:3047:ALA:HB1	1:B:3095:PHE:CE1	2.47	0.49
1:B:3974:THR:O	1:B:3978:GLN:HG2	2.12	0.49
1:B:4090:LYS:HD3	1:B:4112:LEU:HD13	1.93	0.49
1:B:4096:ALA:O	1:B:4099:SER:OG	2.23	0.49
1:B:4865:LYS:HZ2	1:B:4901:ILE:HG22	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:526:LEU:HD11	1:E:540:PHE:CZ	2.47	0.49
1:E:1615:VAL:HG13	1:E:1630:CYS:HB2	1.93	0.49
1:E:1862:ILE:HA	1:E:1865:MET:HG2	1.93	0.49
1:E:2175:GLU:O	1:E:2179:ILE:HG12	2.11	0.49
1:E:3974:THR:O	1:E:3978:GLN:HG2	2.12	0.49
1:G:886:ARG:HB3	1:G:891:TRP:HB3	1.94	0.49
1:G:932:LEU:HD13	1:G:988:LEU:HD11	1.94	0.49
1:G:1862:ILE:HA	1:G:1865:MET:HG2	1.93	0.49
1:G:2823:ILE:HD12	1:G:2935:TYR:CD1	2.47	0.49
1:G:3337:ARG:HD3	1:G:3337:ARG:C	2.32	0.49
1:J:451:TYR:CZ	1:J:474:ARG:HD2	2.47	0.49
1:J:682:LEU:HD23	1:J:738:LEU:HB3	1.94	0.49
1:J:932:LEU:HD13	1:J:988:LEU:HD11	1.94	0.49
1:J:2823:ILE:HD12	1:J:2935:TYR:CD1	2.47	0.49
1:J:4063:ASP:HB2	1:J:4067:LYS:HE3	1.94	0.49
3:F:38:ARG:O	3:F:45:ARG:HA	2.11	0.49
3:F:111:ASN:HA	3:F:114:TYR:CD2	2.37	0.49
1:B:73:LEU:O	1:B:106:ALA:N	2.45	0.49
1:B:266:ARG:HG2	1:B:268:SER:H	1.74	0.49
1:B:1024:TYR:HA	1:B:1027:LEU:HG	1.94	0.49
1:E:470:SER:HA	1:E:473:ASN:ND2	2.27	0.49
1:E:1973:GLN:HE22	1:E:3641:LEU:H	1.59	0.49
1:E:2823:ILE:HD12	1:E:2935:TYR:CD1	2.47	0.49
1:E:4821:LYS:O	1:E:4825:THR:HG23	2.13	0.49
1:G:470:SER:HA	1:G:473:ASN:ND2	2.27	0.49
1:G:870:ILE:HD12	1:G:1051:TYR:CZ	2.46	0.49
1:G:3194:LEU:HA	1:G:3197:LEU:HG	1.93	0.49
1:J:537:CYS:HB3	1:J:571:SER:OG	2.12	0.49
1:J:2266:GLY:HA2	1:J:2271:THR:HG21	1.95	0.49
1:J:3317:GLY:O	1:J:3321:ARG:HG2	2.11	0.49
1:J:3923:LEU:HD22	1:J:3965:LEU:CD1	2.42	0.49
1:J:4115:SER:HB3	1:J:4122:MET:HE2	1.94	0.49
3:C:33:SER:OG	3:C:101:PRO:HA	2.12	0.49
3:C:38:ARG:O	3:C:45:ARG:HA	2.12	0.49
1:B:489:ASN:OD1	1:B:493:ARG:NH1	2.44	0.49
1:B:1477:GLY:HA2	1:B:1483:VAL:HA	1.94	0.49
1:B:4232:GLU:OE1	1:B:5019:TRP:NE1	2.45	0.49
1:B:4243:PHE:O	1:B:4247:ILE:HG13	2.11	0.49
1:B:4892:ARG:HH22	1:G:4918:ILE:HA	1.77	0.49
1:E:365:LYS:O	1:E:369:LEU:HG	2.12	0.49
1:E:2257:LEU:HD22	1:E:2272:PRO:HB3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3403:ARG:HG2	1:E:3458:PHE:CD1	2.47	0.49
1:G:906:CYS:O	1:G:908:VAL:HG23	2.11	0.49
1:G:2692:ASP:HB3	1:G:2695:LEU:HB3	1.94	0.49
1:J:886:ARG:HB3	1:J:891:TRP:HB3	1.94	0.49
1:J:2142:TYR:CZ	1:J:2197:LEU:HB2	2.48	0.49
1:J:4725:LEU:HA	1:J:4737:ILE:HG21	1.93	0.49
2:A:18:LYS:HA	2:A:50:ILE:HG23	1.95	0.49
1:B:144:GLU:HA	1:B:147:TRP:HD1	1.77	0.49
1:B:2823:ILE:HD12	1:B:2935:TYR:CD1	2.47	0.49
1:B:3194:LEU:HA	1:B:3197:LEU:HG	1.93	0.49
1:B:4577:LEU:O	1:B:4580:TYR:HD1	1.95	0.49
1:B:4725:LEU:HA	1:B:4737:ILE:HG21	1.93	0.49
1:E:247:TYR:HB2	1:E:374:LYS:HB2	1.95	0.49
1:E:489:ASN:OD1	1:E:493:ARG:NH1	2.44	0.49
1:E:3317:GLY:O	1:E:3321:ARG:HG2	2.11	0.49
1:E:4243:PHE:O	1:E:4247:ILE:HG13	2.11	0.49
1:G:937:CYS:SG	1:G:938:HIS:N	2.85	0.49
1:G:2206:THR:O	1:G:2210:VAL:HG23	2.12	0.49
1:G:2764:GLU:HG2	1:G:2857:PRO:HD3	1.94	0.49
1:G:3403:ARG:HG2	1:G:3458:PHE:CD1	2.47	0.49
1:G:3974:THR:O	1:G:3978:GLN:HG2	2.12	0.49
1:G:4229:GLU:OE1	1:G:4229:GLU:N	2.37	0.49
1:G:4779:LYS:HA	1:G:4782:VAL:HG22	1.94	0.49
1:J:1945:TYR:O	1:J:1949:GLN:HG2	2.11	0.49
1:J:3047:ALA:HB1	1:J:3095:PHE:CE1	2.47	0.49
2:I:78:PRO:O	2:I:83:GLY:N	2.40	0.49
1:B:358:THR:HG21	1:B:382:GLY:HA2	1.95	0.49
1:B:537:CYS:HB3	1:B:571:SER:OG	2.12	0.49
1:B:886:ARG:HB3	1:B:891:TRP:HB3	1.94	0.49
1:B:2559:LEU:O	1:B:2563:THR:HG23	2.12	0.49
1:B:3403:ARG:HG2	1:B:3458:PHE:CD1	2.47	0.49
1:B:3457:ASN:O	1:B:3461:GLN:HG2	2.13	0.49
1:E:195:PHE:CE2	1:J:2359:ARG:HA	2.47	0.49
1:E:1708:ARG:O	1:E:1712:TYR:HD1	1.96	0.49
1:E:3986:TRP:HB3	1:E:4047:MET:SD	2.51	0.49
1:G:1035:ASN:OD1	3:M:109:THR:OG1	2.26	0.49
1:G:1477:GLY:HA2	1:G:1483:VAL:HA	1.94	0.49
1:G:3400:VAL:HG23	1:G:3403:ARG:HE	1.76	0.49
1:G:3889:GLN:HB2	1:G:3967:GLU:HG2	1.93	0.49
1:G:4821:LYS:O	1:G:4825:THR:HG23	2.13	0.49
1:J:526:LEU:HD11	1:J:540:PHE:CZ	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:5012:LYS:O	1:J:5016:GLU:HG2	2.13	0.49
1:B:2973:PHE:CD1	1:B:2995:ILE:HG12	2.48	0.49
1:E:886:ARG:HB3	1:E:891:TRP:HB3	1.94	0.49
1:E:4725:LEU:HA	1:E:4737:ILE:HG21	1.93	0.49
1:G:144:GLU:HA	1:G:147:TRP:HD1	1.77	0.49
1:G:636:ASN:ND2	2:H:35:LYS:HG2	2.28	0.49
1:G:3676:ASP:HA	1:G:3679:LYS:HE2	1.95	0.49
1:J:2198:MET:HA	1:J:2203:MET:HE1	1.93	0.49
1:J:2431:ASP:O	1:J:2435:ARG:HG3	2.13	0.49
1:J:2755:ILE:HG22	1:J:2810:LYS:HZ1	1.76	0.49
2:D:18:LYS:HA	2:D:50:ILE:HG23	1.95	0.49
1:B:657:THR:O	1:B:1007:TYR:N	2.34	0.49
1:B:1816:GLY:O	1:B:1820:ARG:HG2	2.13	0.49
1:B:2142:TYR:CZ	1:B:2197:LEU:HB2	2.48	0.49
1:B:2266:GLY:HA2	1:B:2271:THR:HG21	1.95	0.49
1:B:2359:ARG:HA	1:G:195:PHE:CE2	2.48	0.49
1:B:2582:MET:HA	1:B:2585:THR:HG22	1.95	0.49
1:B:3337:ARG:HD3	1:B:3337:ARG:C	2.32	0.49
1:B:4821:LYS:O	1:B:4825:THR:HG23	2.13	0.49
1:E:4063:ASP:HB2	1:E:4067:LYS:HE3	1.94	0.49
1:E:4860:ARG:HD2	1:E:4877:ASP:OD1	2.13	0.49
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.47	0.49
1:G:526:LEU:HD11	1:G:540:PHE:HZ	1.78	0.49
1:G:2142:TYR:CZ	1:G:2197:LEU:HB2	2.48	0.49
1:G:2359:ARG:HA	1:J:195:PHE:CE2	2.48	0.49
1:J:671:VAL:HB	1:J:740:PRO:HD3	1.95	0.49
1:J:764:VAL:HG12	1:J:766:GLY:H	1.76	0.49
1:J:1024:TYR:HA	1:J:1027:LEU:HG	1.94	0.49
1:J:3889:GLN:HB2	1:J:3967:GLU:HG2	1.94	0.49
1:B:195:PHE:CE2	1:E:2359:ARG:HA	2.48	0.49
1:B:924:MET:HB2	3:C:107:TRP:CE3	2.47	0.49
1:B:993:HIS:CE1	1:B:1027:LEU:HD11	2.48	0.49
1:B:1862:ILE:HA	1:B:1865:MET:HG2	1.93	0.49
1:E:232:THR:HG21	1:E:252:VAL:HG11	1.95	0.49
1:E:993:HIS:CE1	1:E:1027:LEU:HD11	2.48	0.49
1:E:2559:LEU:O	1:E:2563:THR:HG23	2.12	0.49
1:E:2883:HIS:CE1	1:E:2911:LEU:HD21	2.47	0.49
1:E:3337:ARG:HD3	1:E:3337:ARG:C	2.33	0.49
1:G:823:LEU:HD12	1:G:1617:THR:HB	1.94	0.49
1:G:924:MET:HE1	3:M:106:PRO:HG2	1.95	0.49
1:G:2814:LYS:HA	1:G:2817:ILE:HG12	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2883:HIS:CE1	1:G:2911:LEU:HD21	2.47	0.49
1:G:3457:ASN:O	1:G:3461:GLN:HG2	2.13	0.49
1:G:3812:VAL:HG22	1:G:3816:MET:HE2	1.95	0.49
1:G:3919:THR:HG21	1:G:3968:TYR:HE2	1.78	0.49
1:J:470:SER:HA	1:J:473:ASN:ND2	2.27	0.49
1:J:526:LEU:HD11	1:J:540:PHE:HZ	1.77	0.49
1:J:952:LYS:HA	1:J:971:ASP:H	1.77	0.49
1:J:2364:PHE:HD1	1:J:2429:LEU:HD21	1.78	0.49
1:J:2973:PHE:CD1	1:J:2995:ILE:HG12	2.48	0.49
1:J:4184:MET:HB2	1:J:5023:PRO:HA	1.95	0.49
1:B:996:TRP:CZ2	3:C:113:GLU:HB3	2.48	0.49
1:B:1708:ARG:O	1:B:1712:TYR:HD1	1.95	0.49
1:B:2619:LEU:HG	1:B:2623:LEU:HG	1.95	0.49
1:B:2764:GLU:HG2	1:B:2857:PRO:HD3	1.94	0.49
1:B:2880:GLU:HA	1:B:2908:TYR:CG	2.48	0.49
1:E:875:ALA:O	1:E:879:HIS:ND1	2.46	0.49
1:E:1816:GLY:O	1:E:1820:ARG:HG2	2.13	0.49
1:E:2431:ASP:O	1:E:2435:ARG:HG3	2.13	0.49
1:E:2619:LEU:HG	1:E:2623:LEU:HG	1.95	0.49
1:G:993:HIS:CE1	1:G:1027:LEU:HD11	2.48	0.49
1:G:1816:GLY:O	1:G:1820:ARG:HG2	2.13	0.49
1:G:2266:GLY:HA2	1:G:2271:THR:HG21	1.95	0.49
1:G:2973:PHE:CD1	1:G:2995:ILE:HG12	2.48	0.49
1:G:3047:ALA:HB1	1:G:3095:PHE:CE1	2.47	0.49
1:G:5012:LYS:O	1:G:5016:GLU:HG2	2.13	0.49
1:J:1973:GLN:HE22	1:J:3641:LEU:H	1.59	0.49
1:B:232:THR:HG21	1:B:252:VAL:HG11	1.95	0.48
1:B:3641:LEU:HD12	1:B:3644:LEU:HD12	1.94	0.48
1:B:4541:TRP:O	1:B:4545:GLU:HG2	2.13	0.48
1:E:2881:ASN:HA	1:E:2884:ASN:HD21	1.77	0.48
1:E:2973:PHE:CD1	1:E:2995:ILE:HG12	2.48	0.48
1:E:3249:LEU:O	1:E:3253:ILE:HG12	2.13	0.48
1:E:3812:VAL:HG22	1:E:3816:MET:HE2	1.95	0.48
1:G:246:TYR:CD1	1:G:373:LYS:HG3	2.48	0.48
1:G:1042:ALA:O	1:G:1045:THR:OG1	2.20	0.48
1:G:1945:TYR:O	1:G:1949:GLN:HG2	2.11	0.48
1:G:2880:GLU:HA	1:G:2908:TYR:CG	2.48	0.48
1:G:4104:THR:O	1:G:4108:ILE:HG12	2.13	0.48
1:G:4860:ARG:HD2	1:G:4877:ASP:OD1	2.13	0.48
1:J:1477:GLY:HA2	1:J:1483:VAL:HA	1.94	0.48
1:J:1816:GLY:O	1:J:1820:ARG:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2439:GLU:HB2	1:J:2442:LEU:HG	1.95	0.48
1:J:2559:LEU:O	1:J:2563:THR:HG23	2.12	0.48
1:J:2806:ARG:HG3	1:J:2810:LYS:HZ3	1.78	0.48
1:J:3337:ARG:HD3	1:J:3337:ARG:C	2.32	0.48
1:J:3811:GLU:O	1:J:3814:GLN:HG3	2.13	0.48
1:J:4865:LYS:HZ2	1:J:4901:ILE:HG22	1.78	0.48
1:B:488:LEU:HD11	1:B:540:PHE:CE1	2.48	0.48
1:B:665:GLU:HB3	1:B:792:LEU:HB2	1.95	0.48
1:B:2806:ARG:HG3	1:B:2810:LYS:HZ3	1.78	0.48
1:B:5012:LYS:O	1:B:5016:GLU:HG2	2.13	0.48
1:E:526:LEU:HD11	1:E:540:PHE:HZ	1.77	0.48
1:E:682:LEU:HD23	1:E:738:LEU:HB3	1.94	0.48
1:G:358:THR:HG21	1:G:382:GLY:HA2	1.95	0.48
1:G:526:LEU:HD11	1:G:540:PHE:CZ	2.47	0.48
1:G:904:HIS:CD2	1:G:907:LEU:H	2.31	0.48
1:G:2582:MET:HA	1:G:2585:THR:HG22	1.95	0.48
1:G:2673:HIS:HD2	1:G:2716:ASP:HB2	1.78	0.48
1:G:2823:ILE:HB	1:G:2935:TYR:HD1	1.79	0.48
1:J:665:GLU:HB3	1:J:792:LEU:HB2	1.95	0.48
1:J:875:ALA:O	1:J:879:HIS:ND1	2.46	0.48
1:J:1708:ARG:O	1:J:1712:TYR:HD1	1.96	0.48
1:J:2673:HIS:HD2	1:J:2716:ASP:HB2	1.78	0.48
1:J:2823:ILE:HB	1:J:2935:TYR:HD1	1.78	0.48
1:J:3641:LEU:HD12	1:J:3644:LEU:HD12	1.94	0.48
1:J:3974:THR:O	1:J:3978:GLN:HG2	2.12	0.48
1:J:4779:LYS:HA	1:J:4782:VAL:HG22	1.94	0.48
1:J:4821:LYS:O	1:J:4825:THR:HG23	2.13	0.48
2:A:7:ILE:HG22	2:A:71:ARG:O	2.14	0.48
3:M:105:ASN:OD1	3:M:107:TRP:HB3	2.13	0.48
1:B:1581:LEU:HA	1:B:1584:ARG:HE	1.77	0.48
1:B:2431:ASP:O	1:B:2435:ARG:HG3	2.13	0.48
1:B:2692:ASP:HB3	1:B:2695:LEU:HB3	1.94	0.48
1:B:2819:TRP:NE1	1:B:2881:ASN:OD1	2.36	0.48
1:B:3812:VAL:HG22	1:B:3816:MET:HE2	1.96	0.48
1:E:223:PHE:CD1	1:E:230:CYS:HB3	2.49	0.48
1:E:1256:GLU:OE1	1:E:1275:ARG:NH2	2.47	0.48
1:E:1581:LEU:HA	1:E:1584:ARG:HE	1.77	0.48
1:E:2582:MET:HA	1:E:2585:THR:HG22	1.95	0.48
1:E:2673:HIS:HD2	1:E:2716:ASP:HB2	1.78	0.48
1:E:3676:ASP:HA	1:E:3679:LYS:HE2	1.95	0.48
1:E:3923:LEU:HD22	1:E:3965:LEU:CD1	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3946:GLN:OE1	1:E:3949:ARG:NH2	2.43	0.48
1:G:671:VAL:HB	1:G:740:PRO:HD3	1.95	0.48
1:G:869:ARG:HE	1:G:941:MET:HE3	1.78	0.48
1:G:875:ALA:O	1:G:879:HIS:ND1	2.46	0.48
1:G:1100:MET:SD	1:G:1194:LEU:HG	2.54	0.48
1:G:3249:LEU:O	1:G:3253:ILE:HG12	2.13	0.48
1:G:3923:LEU:HD22	1:G:3965:LEU:CD1	2.42	0.48
1:G:4865:LYS:HZ2	1:G:4901:ILE:HG22	1.77	0.48
1:J:2257:LEU:HD22	1:J:2272:PRO:HB3	1.94	0.48
1:J:2881:ASN:HA	1:J:2884:ASN:HD21	1.77	0.48
1:J:3093:ARG:O	1:J:3097:GLU:HG2	2.13	0.48
1:J:3144:PHE:CD2	1:J:3197:LEU:HB3	2.48	0.48
1:J:3416:VAL:HG23	1:J:3423:TRP:HZ3	1.79	0.48
3:M:66:ARG:HG2	3:M:84:SER:HB3	1.95	0.48
1:B:2673:HIS:HD2	1:B:2716:ASP:HB2	1.78	0.48
1:B:3093:ARG:O	1:B:3097:GLU:HG2	2.14	0.48
1:B:3847:PHE:HZ	1:B:3937:TYR:HH	1.62	0.48
1:E:2142:TYR:CZ	1:E:2197:LEU:HB2	2.48	0.48
1:E:3144:PHE:CD2	1:E:3197:LEU:HB3	2.49	0.48
1:G:2439:GLU:HB2	1:G:2442:LEU:HG	1.95	0.48
1:G:3539:ARG:HD3	1:G:3542:LEU:HD12	1.96	0.48
1:G:4031:LEU:HD13	1:G:4044:MET:HG3	1.95	0.48
1:J:73:LEU:O	1:J:106:ALA:N	2.45	0.48
1:J:1858:ASP:O	1:J:1862:ILE:HG13	2.14	0.48
1:J:3539:ARG:HD3	1:J:3542:LEU:HD12	1.96	0.48
2:D:7:ILE:HG22	2:D:71:ARG:O	2.14	0.48
2:I:7:ILE:HG22	2:I:71:ARG:O	2.14	0.48
1:B:223:PHE:CD1	1:B:230:CYS:HB3	2.48	0.48
1:B:2364:PHE:HD1	1:B:2429:LEU:HD21	1.78	0.48
1:B:3144:PHE:CD2	1:B:3197:LEU:HB3	2.48	0.48
1:B:3919:THR:HG21	1:B:3968:TYR:HE2	1.79	0.48
1:B:4860:ARG:HD2	1:B:4877:ASP:OD1	2.13	0.48
1:E:360:ALA:HA	1:E:377:ILE:HD13	1.94	0.48
1:E:2364:PHE:HD1	1:E:2429:LEU:HD21	1.78	0.48
1:E:2883:HIS:HE1	1:E:2904:LEU:O	1.97	0.48
1:E:3641:LEU:HD12	1:E:3644:LEU:HD12	1.94	0.48
1:E:4096:ALA:O	1:E:4099:SER:OG	2.23	0.48
1:E:4232:GLU:OE1	1:E:5019:TRP:NE1	2.45	0.48
1:E:4541:TRP:O	1:E:4545:GLU:HG2	2.13	0.48
1:E:5012:LYS:O	1:E:5016:GLU:HG2	2.13	0.48
1:G:952:LYS:HA	1:G:971:ASP:H	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1858:ASP:O	1:G:1862:ILE:HG13	2.13	0.48
1:G:2128:TYR:CE2	1:G:3673:MET:HB3	2.49	0.48
1:G:2431:ASP:O	1:G:2435:ARG:HG3	2.13	0.48
1:G:2619:LEU:HG	1:G:2623:LEU:HG	1.95	0.48
1:J:213:TYR:C	1:J:341:TYR:HB2	2.34	0.48
1:J:3457:ASN:O	1:J:3461:GLN:HG2	2.13	0.48
1:J:3812:VAL:HG22	1:J:3816:MET:HE2	1.96	0.48
1:J:4948:GLU:HA	1:J:4951:LYS:HZ3	1.78	0.48
3:C:52:THR:O	3:C:55:ASN:N	2.46	0.48
1:B:277:GLY:N	1:B:316:PHE:O	2.45	0.48
1:B:526:LEU:HD11	1:B:540:PHE:HZ	1.78	0.48
1:B:671:VAL:HB	1:B:740:PRO:HD3	1.95	0.48
1:B:1271:ARG:HH21	1:B:1560:ASN:ND2	2.11	0.48
1:B:3416:VAL:HG23	1:B:3423:TRP:HZ3	1.79	0.48
1:B:4124:ASN:OD1	1:B:4125:PHE:N	2.47	0.48
1:B:4939:ALA:O	1:B:4943:LEU:HG	2.14	0.48
1:E:213:TYR:C	1:E:341:TYR:HB2	2.34	0.48
1:E:952:LYS:HA	1:E:971:ASP:H	1.78	0.48
1:E:1208:VAL:HG21	1:J:3575:LEU:HD21	1.95	0.48
1:E:1260:MET:SD	1:E:1260:MET:N	2.77	0.48
1:E:2880:GLU:HA	1:E:2908:TYR:CG	2.48	0.48
1:E:3416:VAL:HG23	1:E:3423:TRP:HZ3	1.79	0.48
1:E:4115:SER:HB3	1:E:4122:MET:HE2	1.96	0.48
1:E:4865:LYS:HZ2	1:E:4901:ILE:HG22	1.78	0.48
1:G:384:MET:SD	1:G:384:MET:N	2.85	0.48
1:G:682:LEU:HD23	1:G:738:LEU:HB3	1.94	0.48
1:G:1708:ARG:O	1:G:1712:TYR:HD1	1.95	0.48
1:J:384:MET:SD	1:J:384:MET:N	2.85	0.48
1:J:525:LEU:O	1:J:529:LEU:HG	2.14	0.48
1:J:799:GLU:HG3	1:J:1623:ARG:HH22	1.79	0.48
1:J:993:HIS:CE1	1:J:1027:LEU:HD11	2.48	0.48
1:J:1269:CYS:HA	1:J:1564:PHE:O	2.14	0.48
1:J:2128:TYR:CE2	1:J:3673:MET:HB3	2.49	0.48
1:J:2880:GLU:HA	1:J:2908:TYR:CG	2.48	0.48
1:J:3540:TYR:CZ	1:J:3549:VAL:HG21	2.49	0.48
3:K:38:ARG:CZ	3:K:48:VAL:HG22	2.44	0.48
1:B:1926:LEU:O	1:B:1931:LEU:HD11	2.14	0.48
1:B:3639:THR:N	1:B:3640:PRO:HD2	2.29	0.48
1:E:488:LEU:HD11	1:E:540:PHE:CE1	2.48	0.48
1:E:913:LEU:HB3	1:E:917:GLU:CB	2.44	0.48
1:E:1858:ASP:O	1:E:1862:ILE:HG13	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3078:ARG:O	1:E:3082:LYS:HG2	2.14	0.48
1:E:3919:THR:HG21	1:E:3968:TYR:HE2	1.78	0.48
1:E:4031:LEU:HD13	1:E:4044:MET:HG3	1.95	0.48
1:E:4184:MET:HB2	1:E:5023:PRO:HA	1.95	0.48
1:G:799:GLU:HG3	1:G:1623:ARG:HH22	1.79	0.48
1:G:3320:LEU:HD21	1:G:3361:THR:HG21	1.95	0.48
1:G:3416:VAL:HG23	1:G:3423:TRP:HZ3	1.79	0.48
1:G:4184:MET:HB2	1:G:5023:PRO:HA	1.95	0.48
1:J:996:TRP:CZ2	3:K:113:GLU:HB3	2.49	0.48
1:J:1248:VAL:HG23	1:J:1597:VAL:O	2.14	0.48
1:J:1727:ARG:O	1:J:1731:LEU:HG	2.14	0.48
1:J:3639:THR:N	1:J:3640:PRO:HD2	2.29	0.48
1:J:4104:THR:O	1:J:4108:ILE:HG12	2.14	0.48
1:J:4914:VAL:O	1:J:4918:ILE:HG12	2.14	0.48
2:H:7:ILE:HG22	2:H:71:ARG:O	2.14	0.48
3:C:34:MET:HE3	3:C:95:CYS:HB2	1.96	0.48
3:M:38:ARG:CZ	3:M:48:VAL:HG22	2.44	0.48
1:B:913:LEU:HB3	1:B:917:GLU:CB	2.44	0.48
1:B:1100:MET:SD	1:B:1194:LEU:HG	2.54	0.48
1:B:1858:ASP:O	1:B:1862:ILE:HG13	2.13	0.48
1:B:2823:ILE:HB	1:B:2935:TYR:HD1	1.79	0.48
1:B:4031:LEU:HD13	1:B:4044:MET:HG3	1.95	0.48
1:E:537:CYS:HB3	1:E:571:SER:OG	2.12	0.48
1:E:1727:ARG:O	1:E:1731:LEU:HG	2.14	0.48
1:E:2989:SER:HB2	1:E:2992:GLU:HB3	1.95	0.48
1:E:3320:LEU:HD21	1:E:3361:THR:HG21	1.95	0.48
1:E:3457:ASN:O	1:E:3461:GLN:HG2	2.13	0.48
1:G:1248:VAL:HG23	1:G:1597:VAL:O	2.14	0.48
1:G:3078:ARG:O	1:G:3082:LYS:HG2	2.14	0.48
1:G:3334:TRP:NE1	1:G:3337:ARG:HD2	2.29	0.48
1:J:488:LEU:HD11	1:J:540:PHE:CE1	2.48	0.48
1:J:2619:LEU:HG	1:J:2623:LEU:HG	1.95	0.48
3:F:52:THR:O	3:F:55:ASN:N	2.46	0.48
1:B:470:SER:O	1:B:474:ARG:HG3	2.14	0.48
1:B:952:LYS:HA	1:B:971:ASP:H	1.77	0.48
1:B:2821:TRP:HB3	1:B:2937:VAL:HB	1.96	0.48
1:B:2989:SER:HB2	1:B:2992:GLU:HB3	1.95	0.48
1:B:3923:LEU:HD22	1:B:3965:LEU:CD1	2.42	0.48
1:E:372:LEU:H	1:E:372:LEU:HD22	1.79	0.48
1:E:869:ARG:HE	1:E:941:MET:HE3	1.79	0.48
1:E:2819:TRP:NE1	1:E:2881:ASN:OD1	2.36	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2823:ILE:HB	1:E:2935:TYR:HD1	1.79	0.48
1:E:4124:ASN:OD1	1:E:4125:PHE:N	2.47	0.48
1:E:5013:MET:CE	1:E:5020:ASP:H	2.27	0.48
1:G:365:LYS:O	1:G:369:LEU:HG	2.13	0.48
1:G:1024:TYR:HA	1:G:1027:LEU:HG	1.94	0.48
1:G:2364:PHE:HD1	1:G:2429:LEU:HD21	1.78	0.48
1:G:2821:TRP:HB3	1:G:2937:VAL:HB	1.96	0.48
1:G:2989:SER:HB2	1:G:2992:GLU:HB3	1.95	0.48
1:G:3639:THR:N	1:G:3640:PRO:HD2	2.29	0.48
1:G:3811:GLU:O	1:G:3814:GLN:HG3	2.13	0.48
1:G:3874:VAL:HG23	1:G:3875:MET:SD	2.54	0.48
1:G:4826:ILE:O	1:G:4830:VAL:HG23	2.14	0.48
1:J:1100:MET:SD	1:J:1194:LEU:HG	2.54	0.48
1:J:3676:ASP:HA	1:J:3679:LYS:HE2	1.95	0.48
1:J:4860:ARG:HD2	1:J:4877:ASP:OD1	2.13	0.48
3:F:33:SER:OG	3:F:101:PRO:HA	2.14	0.48
1:B:541:SER:HA	1:B:574:VAL:HG12	1.96	0.48
1:B:582:HIS:O	1:B:586:ILE:HG13	2.14	0.48
1:B:1521:ASP:HB2	1:B:1526:LEU:HD23	1.96	0.48
1:B:2128:TYR:CE2	1:B:3673:MET:HB3	2.49	0.48
1:B:2883:HIS:HE1	1:B:2904:LEU:O	1.97	0.48
1:B:3078:ARG:O	1:B:3082:LYS:HG2	2.14	0.48
1:B:3534:MET:O	1:B:3537:LYS:HG2	2.14	0.48
1:E:470:SER:O	1:E:474:ARG:HG3	2.14	0.48
1:E:1248:VAL:HG23	1:E:1597:VAL:O	2.14	0.48
1:E:1477:GLY:HA2	1:E:1483:VAL:HA	1.94	0.48
1:E:2806:ARG:HG3	1:E:2810:LYS:HZ3	1.78	0.48
1:E:3395:ARG:HG2	1:E:3450:ASN:OD1	2.14	0.48
1:G:488:LEU:HD11	1:G:540:PHE:CE1	2.48	0.48
1:G:1274:HIS:O	1:G:1559:GLN:NE2	2.47	0.48
1:G:1727:ARG:O	1:G:1731:LEU:HG	2.14	0.48
1:G:3099:ALA:O	1:G:3103:ILE:HG12	2.14	0.48
1:G:3144:PHE:CD2	1:G:3197:LEU:HB3	2.49	0.48
1:G:4677:LEU:HA	1:G:4680:LYS:HZ3	1.78	0.48
1:G:4948:GLU:HA	1:G:4951:LYS:HZ3	1.79	0.48
1:J:913:LEU:HB3	1:J:917:GLU:CB	2.44	0.48
1:J:2443:ILE:HD12	1:J:2454:ARG:NH1	2.29	0.48
1:J:2989:SER:HB2	1:J:2992:GLU:HB3	1.95	0.48
1:J:3099:ALA:O	1:J:3103:ILE:HG12	2.14	0.48
1:J:3249:LEU:O	1:J:3253:ILE:HG12	2.13	0.48
1:J:4031:LEU:HD13	1:J:4044:MET:HG3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:18:LYS:HA	2:I:50:ILE:HG23	1.95	0.48
3:K:52:THR:O	3:K:55:ASN:N	2.47	0.48
3:K:66:ARG:HG2	3:K:84:SER:HB3	1.95	0.48
3:M:101:PRO:HD2	3:M:104:TYR:O	2.14	0.48
1:B:875:ALA:O	1:B:879:HIS:ND1	2.46	0.47
1:B:2443:ILE:HD12	1:B:2454:ARG:NH1	2.29	0.47
1:B:3249:LEU:O	1:B:3253:ILE:HG12	2.13	0.47
1:B:4584:ASP:HA	1:B:4627:MET:HA	1.96	0.47
1:E:525:LEU:O	1:E:529:LEU:HG	2.14	0.47
1:E:1100:MET:SD	1:E:1194:LEU:HG	2.54	0.47
1:E:1269:CYS:HA	1:E:1564:PHE:O	2.14	0.47
1:E:1274:HIS:O	1:E:1559:GLN:NE2	2.47	0.47
1:E:2266:GLY:HA2	1:E:2271:THR:HG21	1.95	0.47
1:E:3093:ARG:O	1:E:3097:GLU:HG2	2.14	0.47
1:E:3811:GLU:O	1:E:3814:GLN:HG3	2.13	0.47
1:E:4914:VAL:O	1:E:4918:ILE:HG12	2.14	0.47
1:E:4939:ALA:O	1:E:4943:LEU:HG	2.14	0.47
1:G:1271:ARG:HH21	1:G:1560:ASN:ND2	2.11	0.47
1:G:5013:MET:CE	1:G:5020:ASP:H	2.27	0.47
1:J:223:PHE:CD1	1:J:230:CYS:HB3	2.49	0.47
1:J:3153:GLY:O	1:J:3202:PRO:HG3	2.14	0.47
1:J:3395:ARG:HG2	1:J:3450:ASN:OD1	2.14	0.47
1:J:4992:LEU:O	1:J:4996:ILE:HG13	2.14	0.47
1:J:5013:MET:CE	1:J:5020:ASP:H	2.27	0.47
2:H:18:LYS:HA	2:H:50:ILE:HG23	1.95	0.47
3:F:66:ARG:HG2	3:F:84:SER:HB3	1.95	0.47
1:B:213:TYR:C	1:B:341:TYR:HB2	2.34	0.47
1:B:799:GLU:HG3	1:B:1623:ARG:HH22	1.79	0.47
1:B:1042:ALA:O	1:B:1045:THR:OG1	2.20	0.47
1:B:1274:HIS:O	1:B:1559:GLN:NE2	2.47	0.47
1:B:1727:ARG:O	1:B:1731:LEU:HG	2.14	0.47
1:B:2656:CYS:HA	1:B:2711:PRO:HD3	1.97	0.47
1:B:2792:ARG:H	1:B:2797:PHE:HD2	1.62	0.47
1:B:3676:ASP:HA	1:B:3679:LYS:HE2	1.95	0.47
1:B:4826:ILE:O	1:B:4830:VAL:HG23	2.14	0.47
1:E:671:VAL:HB	1:E:740:PRO:HD3	1.95	0.47
1:E:2656:CYS:HA	1:E:2711:PRO:HD3	1.97	0.47
1:E:3099:ALA:O	1:E:3103:ILE:HG12	2.14	0.47
1:E:3282:PRO:HG3	1:E:3345:ILE:HD13	1.97	0.47
1:E:3534:MET:O	1:E:3537:LYS:HG2	2.14	0.47
1:G:213:TYR:C	1:G:341:TYR:HB2	2.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:897:ARG:HH12	3:M:104:TYR:HD2	1.61	0.47
1:G:1256:GLU:OE1	1:G:1275:ARG:NH2	2.47	0.47
1:G:3395:ARG:HG2	1:G:3450:ASN:OD1	2.14	0.47
1:G:3575:LEU:HD21	1:J:1208:VAL:HG21	1.96	0.47
1:G:3889:GLN:NE2	1:G:3960:GLN:HE22	2.12	0.47
1:G:4584:ASP:HA	1:G:4627:MET:HA	1.96	0.47
1:J:277:GLY:N	1:J:316:PHE:O	2.45	0.47
1:J:1926:LEU:O	1:J:1931:LEU:HD11	2.14	0.47
1:J:2582:MET:HA	1:J:2585:THR:HG22	1.95	0.47
1:J:3261:ALA:HB1	1:J:3265:GLU:HG3	1.97	0.47
1:J:3320:LEU:HD21	1:J:3361:THR:HG21	1.95	0.47
1:B:1208:VAL:HG21	1:E:3575:LEU:HD21	1.96	0.47
1:B:4104:THR:O	1:B:4108:ILE:HG12	2.13	0.47
1:B:5013:MET:CE	1:B:5020:ASP:H	2.27	0.47
1:E:996:TRP:CZ2	3:F:113:GLU:HB3	2.49	0.47
1:E:1271:ARG:HH21	1:E:1560:ASN:ND2	2.11	0.47
1:E:2593:ARG:HA	1:E:2600:ARG:NH2	2.29	0.47
1:E:3540:TYR:CZ	1:E:3549:VAL:HG21	2.49	0.47
1:G:223:PHE:CD1	1:G:230:CYS:HB3	2.48	0.47
1:G:470:SER:O	1:G:474:ARG:HG3	2.14	0.47
1:G:582:HIS:O	1:G:586:ILE:HG13	2.14	0.47
1:G:2980:VAL:HB	1:G:2986:VAL:HB	1.96	0.47
1:G:3093:ARG:O	1:G:3097:GLU:HG2	2.13	0.47
1:G:3153:GLY:O	1:G:3202:PRO:HG3	2.14	0.47
1:G:3534:MET:O	1:G:3537:LYS:HG2	2.14	0.47
1:G:4124:ASN:OD1	1:G:4125:PHE:N	2.47	0.47
1:J:582:HIS:O	1:J:586:ILE:HG13	2.14	0.47
1:J:3078:ARG:O	1:J:3082:LYS:HG2	2.14	0.47
1:J:3919:THR:HG21	1:J:3968:TYR:HE2	1.79	0.47
3:C:38:ARG:CZ	3:C:48:VAL:HG22	2.44	0.47
1:B:2439:GLU:O	1:B:2443:ILE:HG12	2.15	0.47
1:B:3282:PRO:HG3	1:B:3345:ILE:HD13	1.96	0.47
1:B:3334:TRP:NE1	1:B:3337:ARG:HD2	2.29	0.47
1:B:3539:ARG:HD3	1:B:3542:LEU:HD12	1.96	0.47
1:B:4184:MET:HB2	1:B:5023:PRO:HA	1.95	0.47
1:E:4826:ILE:O	1:E:4830:VAL:HG23	2.14	0.47
1:G:2439:GLU:O	1:G:2443:ILE:HG12	2.15	0.47
1:G:4541:TRP:O	1:G:4545:GLU:HG2	2.13	0.47
1:J:72:SER:HB2	1:J:99:ARG:HH11	1.79	0.47
1:J:3032:SER:O	1:J:3036:LYS:HG3	2.14	0.47
1:J:4541:TRP:O	1:J:4545:GLU:HG2	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4826:ILE:O	1:J:4830:VAL:HG23	2.14	0.47
3:K:36:TRP:HB2	3:K:48:VAL:HB	1.96	0.47
1:B:3153:GLY:O	1:B:3202:PRO:HG3	2.14	0.47
1:B:3157:ILE:HG22	1:B:3157:ILE:O	2.15	0.47
1:B:4655:PHE:O	1:B:4659:ILE:HG12	2.15	0.47
1:B:4666:VAL:O	1:B:4670:ILE:HG12	2.15	0.47
1:E:173:SER:HB3	1:E:176:SER:HB2	1.96	0.47
1:E:2702:CYS:O	1:E:2706:ILE:HG13	2.15	0.47
1:E:2792:ARG:H	1:E:2797:PHE:HD2	1.63	0.47
1:E:3261:ALA:HB1	1:E:3265:GLU:HG3	1.97	0.47
1:E:4992:LEU:O	1:E:4996:ILE:HG13	2.14	0.47
1:G:63:ALA:HB3	1:G:402:ARG:NH2	2.30	0.47
1:J:1721:GLU:O	1:J:1725:ARG:HG3	2.15	0.47
1:J:2702:CYS:O	1:J:2706:ILE:HG13	2.15	0.47
1:J:4124:ASN:OD1	1:J:4125:PHE:N	2.47	0.47
1:J:4543:GLU:O	1:J:4547:GLN:HG2	2.14	0.47
3:F:38:ARG:CZ	3:F:48:VAL:HG22	2.43	0.47
1:B:72:SER:HB2	1:B:99:ARG:HH11	1.80	0.47
1:B:173:SER:HB3	1:B:176:SER:HB2	1.96	0.47
1:B:3320:LEU:HD21	1:B:3361:THR:HG21	1.95	0.47
1:B:3575:LEU:HD21	1:G:1208:VAL:HG21	1.96	0.47
1:B:3811:GLU:O	1:B:3814:GLN:HG3	2.13	0.47
1:E:1721:GLU:O	1:E:1725:ARG:HG3	2.15	0.47
1:E:2443:ILE:HD12	1:E:2454:ARG:NH1	2.29	0.47
1:E:3157:ILE:O	1:E:3157:ILE:HG22	2.15	0.47
1:E:3874:VAL:HG23	1:E:3875:MET:SD	2.54	0.47
1:E:4104:THR:O	1:E:4108:ILE:HG12	2.14	0.47
1:G:665:GLU:HB3	1:G:792:LEU:HB2	1.95	0.47
1:G:2443:ILE:HD12	1:G:2454:ARG:NH1	2.29	0.47
1:G:2792:ARG:H	1:G:2797:PHE:HD2	1.62	0.47
1:G:2958:GLY:O	1:G:2962:GLN:HG2	2.15	0.47
1:G:4939:ALA:O	1:G:4943:LEU:HG	2.14	0.47
1:J:232:THR:HG21	1:J:252:VAL:HG11	1.95	0.47
1:J:470:SER:O	1:J:474:ARG:HG3	2.14	0.47
1:J:1271:ARG:HH21	1:J:1560:ASN:ND2	2.11	0.47
1:J:2674:LEU:HD21	1:J:2910:THR:HB	1.96	0.47
1:J:2792:ARG:H	1:J:2797:PHE:HD2	1.62	0.47
1:J:2883:HIS:HE1	1:J:2904:LEU:O	1.97	0.47
1:J:3282:PRO:HG3	1:J:3345:ILE:HD13	1.96	0.47
1:J:3874:VAL:HG23	1:J:3875:MET:SD	2.54	0.47
1:J:3889:GLN:NE2	1:J:3960:GLN:HE22	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4232:GLU:OE1	1:J:5019:TRP:NE1	2.45	0.47
1:B:63:ALA:HB3	1:B:402:ARG:NH2	2.30	0.47
1:B:525:LEU:O	1:B:529:LEU:HG	2.14	0.47
1:B:920:TYR:CG	3:C:101:PRO:HG3	2.50	0.47
1:B:1248:VAL:HG23	1:B:1597:VAL:O	2.14	0.47
1:B:2131:LEU:HD11	1:B:3662:ILE:HG12	1.97	0.47
1:B:2881:ASN:HA	1:B:2884:ASN:HD21	1.78	0.47
1:B:2958:GLY:O	1:B:2962:GLN:HG2	2.15	0.47
1:B:2980:VAL:HB	1:B:2986:VAL:HB	1.96	0.47
1:B:3261:ALA:HB1	1:B:3265:GLU:HG3	1.97	0.47
1:B:3540:TYR:CZ	1:B:3549:VAL:HG21	2.49	0.47
1:B:4673:ARG:NH1	1:B:4698:LYS:HE2	2.30	0.47
1:B:4914:VAL:O	1:B:4918:ILE:HG12	2.14	0.47
1:B:4918:ILE:HA	1:E:4892:ARG:HH22	1.79	0.47
1:E:1521:ASP:HB2	1:E:1526:LEU:HD23	1.96	0.47
1:E:2128:TYR:CE2	1:E:3673:MET:HB3	2.49	0.47
1:E:2190:VAL:HA	1:E:2193:GLN:HB3	1.97	0.47
1:E:2442:LEU:HA	1:E:2447:LYS:HZ2	1.79	0.47
1:E:2674:LEU:HD21	1:E:2910:THR:HB	1.97	0.47
1:E:2821:TRP:HB3	1:E:2937:VAL:HB	1.96	0.47
1:E:3639:THR:N	1:E:3640:PRO:HD2	2.29	0.47
1:E:4953:ASP:O	1:E:4956:THR:OG1	2.29	0.47
1:G:232:THR:HG21	1:G:252:VAL:HG11	1.95	0.47
1:G:1521:ASP:HB2	1:G:1526:LEU:HD23	1.96	0.47
1:G:1926:LEU:O	1:G:1931:LEU:HD11	2.14	0.47
1:G:2593:ARG:HA	1:G:2600:ARG:NH2	2.29	0.47
1:G:2656:CYS:HA	1:G:2711:PRO:HD3	1.97	0.47
1:G:2881:ASN:HA	1:G:2884:ASN:HD21	1.78	0.47
1:G:3433:GLU:HA	1:G:3436:ARG:HD2	1.97	0.47
1:G:3540:TYR:CZ	1:G:3549:VAL:HG21	2.49	0.47
1:G:4543:GLU:O	1:G:4547:GLN:HG2	2.14	0.47
1:G:4914:VAL:O	1:G:4918:ILE:HG12	2.14	0.47
1:J:669:ASP:O	1:J:740:PRO:HB3	2.15	0.47
1:J:1274:HIS:O	1:J:1559:GLN:NE2	2.47	0.47
1:J:1521:ASP:HB2	1:J:1526:LEU:HD23	1.96	0.47
1:J:2131:LEU:HD11	1:J:3662:ILE:HG12	1.97	0.47
1:J:2821:TRP:HB3	1:J:2937:VAL:HB	1.96	0.47
1:J:3157:ILE:HG22	1:J:3157:ILE:O	2.15	0.47
3:K:33:SER:OG	3:K:101:PRO:HA	2.14	0.47
3:M:36:TRP:HB2	3:M:48:VAL:HB	1.96	0.47
1:B:932:LEU:HA	1:B:988:LEU:HD21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2674:LEU:HD21	1:B:2910:THR:HB	1.96	0.47
1:B:3032:SER:O	1:B:3036:LYS:HG3	2.14	0.47
1:B:3384:LYS:NZ	1:B:3386:GLU:OE1	2.48	0.47
1:B:4948:GLU:HA	1:B:4951:LYS:HZ3	1.80	0.47
1:E:63:ALA:HB3	1:E:402:ARG:NH2	2.30	0.47
1:E:582:HIS:O	1:E:586:ILE:HG13	2.14	0.47
1:E:1573:MET:SD	1:E:1574:PRO:HD2	2.55	0.47
1:E:1926:LEU:O	1:E:1931:LEU:HD11	2.14	0.47
1:E:2439:GLU:HB2	1:E:2442:LEU:HG	1.95	0.47
1:E:4673:ARG:NH1	1:E:4698:LYS:HE2	2.30	0.47
1:G:173:SER:HB3	1:G:176:SER:HB2	1.96	0.47
1:G:1075:PHE:HB2	1:G:1192:CYS:SG	2.55	0.47
1:G:1269:CYS:HA	1:G:1564:PHE:O	2.14	0.47
1:G:2013:LYS:NZ	1:G:3664:THR:OG1	2.38	0.47
1:G:2883:HIS:HE1	1:G:2904:LEU:O	1.97	0.47
1:G:3670:GLU:O	1:G:3674:ILE:HG12	2.15	0.47
1:G:4983:HIS:HA	1:G:4988:TYR:HE2	1.80	0.47
1:J:2190:VAL:HA	1:J:2193:GLN:HB3	1.97	0.47
1:J:2442:LEU:HA	1:J:2447:LYS:HZ2	1.79	0.47
1:J:3334:TRP:NE1	1:J:3337:ARG:HD2	2.29	0.47
1:J:4152:GLU:OE1	1:J:4192:ARG:NH1	2.48	0.47
1:J:4983:HIS:HA	1:J:4988:TYR:HE2	1.80	0.47
1:B:669:ASP:O	1:B:740:PRO:HB3	2.15	0.47
1:B:2439:GLU:HB2	1:B:2442:LEU:HG	1.95	0.47
1:B:2575:ARG:NH1	1:B:2575:ARG:HA	2.30	0.47
1:B:3099:ALA:O	1:B:3103:ILE:HG12	2.14	0.47
1:B:3103:ILE:O	1:B:3107:VAL:HG13	2.15	0.47
1:B:3204:ALA:HB1	1:B:3207:GLU:HB2	1.97	0.47
1:B:3943:ILE:HG12	1:B:4009:GLN:HE22	1.80	0.47
1:B:4543:GLU:O	1:B:4547:GLN:HG2	2.14	0.47
1:E:2575:ARG:NH1	1:E:2575:ARG:HA	2.30	0.47
1:E:2760:GLU:HA	1:E:2802:LYS:HZ1	1.79	0.47
1:E:3192:GLU:O	1:E:3196:ARG:HG2	2.15	0.47
1:E:3539:ARG:HD3	1:E:3542:LEU:HD12	1.96	0.47
1:G:208:CYS:HG	1:G:273:HIS:CE1	2.29	0.47
1:G:1024:TYR:OH	1:G:1036:ARG:HG3	2.15	0.47
1:G:1871:PHE:HZ	1:G:2094:LEU:HD13	1.80	0.47
1:G:2702:CYS:O	1:G:2706:ILE:HG13	2.15	0.47
1:G:3282:PRO:HG3	1:G:3345:ILE:HD13	1.97	0.47
1:G:4152:GLU:OE1	1:G:4192:ARG:NH1	2.48	0.47
1:G:4666:VAL:O	1:G:4670:ILE:HG12	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:790:ARG:HD2	1:J:1624:LEU:HB3	1.97	0.47
1:J:2656:CYS:HA	1:J:2711:PRO:HD3	1.97	0.47
1:J:3103:ILE:O	1:J:3107:VAL:HG13	2.15	0.47
1:J:3270:ILE:HG23	1:J:3274:LEU:HD12	1.97	0.47
1:J:4939:ALA:O	1:J:4943:LEU:HG	2.14	0.47
3:C:66:ARG:HG2	3:C:84:SER:HB3	1.95	0.47
1:B:4021:LYS:O	1:B:4025:VAL:HG23	2.15	0.47
1:B:4983:HIS:HA	1:B:4988:TYR:HE2	1.80	0.47
1:E:932:LEU:HA	1:E:988:LEU:HD21	1.97	0.47
1:E:2439:GLU:O	1:E:2443:ILE:HG12	2.15	0.47
1:E:4152:GLU:OE1	1:E:4192:ARG:NH1	2.48	0.47
1:E:4675:LYS:O	1:E:4679:ARG:HG2	2.15	0.47
1:E:4983:HIS:HA	1:E:4988:TYR:HE2	1.80	0.47
1:G:3103:ILE:O	1:G:3107:VAL:HG13	2.15	0.47
1:G:3261:ALA:HB1	1:G:3265:GLU:HG3	1.97	0.47
1:G:3941:ASP:OD1	1:G:3942:VAL:N	2.48	0.47
1:J:173:SER:HB3	1:J:176:SER:HB2	1.95	0.47
1:J:597:HIS:HB2	1:J:1665:HIS:CG	2.50	0.47
1:J:1573:MET:SD	1:J:1574:PRO:HD2	2.55	0.47
1:J:2439:GLU:O	1:J:2443:ILE:HG12	2.15	0.47
1:J:2980:VAL:HB	1:J:2986:VAL:HB	1.96	0.47
1:J:3192:GLU:O	1:J:3196:ARG:HG2	2.15	0.47
1:J:3339:ALA:O	1:J:3343:GLN:HG2	2.15	0.47
1:J:3534:MET:O	1:J:3537:LYS:HG2	2.14	0.47
1:J:4096:ALA:O	1:J:4100:GLN:HG2	2.15	0.47
3:F:111:ASN:O	3:F:114:TYR:HB2	2.15	0.47
1:B:2442:LEU:HA	1:B:2447:LYS:HZ2	1.80	0.46
1:B:3198:ALA:HA	1:B:3201:MET:HG3	1.97	0.46
1:E:1075:PHE:HB2	1:E:1192:CYS:SG	2.55	0.46
1:E:1871:PHE:HZ	1:E:2094:LEU:HD13	1.80	0.46
1:E:2131:LEU:HD11	1:E:3662:ILE:HG12	1.97	0.46
1:E:3103:ILE:O	1:E:3107:VAL:HG13	2.15	0.46
1:E:3270:ILE:HG23	1:E:3274:LEU:HD12	1.97	0.46
1:E:3334:TRP:NE1	1:E:3337:ARG:HD2	2.29	0.46
1:E:3384:LYS:NZ	1:E:3386:GLU:OE1	2.48	0.46
1:E:3670:GLU:O	1:E:3674:ILE:HG12	2.15	0.46
1:E:4655:PHE:O	1:E:4659:ILE:HG12	2.15	0.46
1:G:525:LEU:O	1:G:529:LEU:HG	2.14	0.46
1:G:597:HIS:HB2	1:G:1665:HIS:CG	2.50	0.46
1:G:1573:MET:SD	1:G:1574:PRO:HD2	2.55	0.46
1:G:2131:LEU:HD11	1:G:3662:ILE:HG12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2293:GLN:HA	1:G:2296:GLU:HG3	1.98	0.46
1:G:3204:ALA:HB1	1:G:3207:GLU:HB2	1.97	0.46
1:G:3943:ILE:HG12	1:G:4009:GLN:HE22	1.80	0.46
1:G:4021:LYS:O	1:G:4025:VAL:HG23	2.15	0.46
1:G:4992:LEU:O	1:G:4996:ILE:HG13	2.14	0.46
1:J:829:TYR:HB2	1:J:1075:PHE:CE1	2.50	0.46
1:J:1256:GLU:OE1	1:J:1275:ARG:NH2	2.46	0.46
1:J:3433:GLU:HA	1:J:3436:ARG:HD2	1.97	0.46
1:J:4021:LYS:O	1:J:4025:VAL:HG23	2.15	0.46
1:J:4675:LYS:O	1:J:4679:ARG:HG2	2.15	0.46
1:B:869:ARG:HE	1:B:941:MET:HE3	1.80	0.46
1:B:1093:GLU:HB2	1:B:1148:VAL:HG12	1.98	0.46
1:B:1721:GLU:O	1:B:1725:ARG:HG3	2.15	0.46
1:B:2012:PHE:CZ	1:B:2031:LEU:HD23	2.51	0.46
1:B:2494:PHE:HE1	1:B:2498:HIS:HB2	1.79	0.46
1:B:4152:GLU:OE1	1:B:4192:ARG:NH1	2.48	0.46
1:E:790:ARG:HD2	1:E:1624:LEU:HB3	1.97	0.46
1:E:1024:TYR:OH	1:E:1036:ARG:HG3	2.15	0.46
1:E:2739:PRO:HG3	1:E:2888:ARG:HG2	1.97	0.46
1:E:3032:SER:O	1:E:3036:LYS:HG3	2.14	0.46
1:E:3198:ALA:HA	1:E:3201:MET:HG3	1.97	0.46
1:E:3941:ASP:OD1	1:E:3942:VAL:N	2.48	0.46
1:E:4543:GLU:O	1:E:4547:GLN:HG2	2.14	0.46
1:E:4664:LEU:HD12	1:E:4665:LYS:HB2	1.98	0.46
1:G:669:ASP:O	1:G:740:PRO:HB3	2.15	0.46
1:G:2012:PHE:CZ	1:G:2031:LEU:HD23	2.51	0.46
1:G:2190:VAL:HA	1:G:2193:GLN:HB3	1.97	0.46
1:J:63:ALA:HB3	1:J:402:ARG:NH2	2.30	0.46
1:J:1704:PRO:O	1:J:1708:ARG:HG2	2.16	0.46
1:J:2494:PHE:HE1	1:J:2498:HIS:HB2	1.79	0.46
1:J:2593:ARG:HA	1:J:2600:ARG:NH2	2.29	0.46
1:J:2958:GLY:O	1:J:2962:GLN:HG2	2.15	0.46
1:J:4584:ASP:HA	1:J:4627:MET:HA	1.96	0.46
2:D:15:PHE:CE1	2:D:67:SER:HB3	2.50	0.46
3:C:111:ASN:O	3:C:114:TYR:HB2	2.15	0.46
1:B:2117:VAL:HA	1:B:2120:MET:HG2	1.98	0.46
1:B:3270:ILE:HG23	1:B:3274:LEU:HD12	1.97	0.46
1:B:3433:GLU:HA	1:B:3436:ARG:HD2	1.96	0.46
1:B:3670:GLU:O	1:B:3674:ILE:HG12	2.15	0.46
1:B:3874:VAL:HG23	1:B:3875:MET:SD	2.54	0.46
1:B:3893:GLU:HA	1:B:3967:GLU:OE2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:799:GLU:HG3	1:E:1623:ARG:HH22	1.79	0.46
1:E:3153:GLY:O	1:E:3202:PRO:HG3	2.14	0.46
1:E:3433:GLU:HA	1:E:3436:ARG:HD2	1.97	0.46
1:E:4229:GLU:OE1	1:E:4229:GLU:N	2.37	0.46
1:E:4666:VAL:O	1:E:4670:ILE:HG12	2.15	0.46
1:G:954:LYS:HA	1:G:954:LYS:HD2	1.77	0.46
1:G:2588:ARG:NH1	1:G:2901:THR:HB	2.31	0.46
1:G:3936:TYR:O	1:G:3940:LYS:NZ	2.40	0.46
1:J:541:SER:HA	1:J:574:VAL:HG12	1.96	0.46
1:J:1871:PHE:HZ	1:J:2094:LEU:HD13	1.80	0.46
1:J:2117:VAL:HA	1:J:2120:MET:HG2	1.98	0.46
1:J:3176:GLY:HA2	1:J:3187:ARG:HH22	1.81	0.46
2:A:15:PHE:CE1	2:A:67:SER:HB3	2.50	0.46
2:I:15:PHE:CE1	2:I:67:SER:HB3	2.50	0.46
2:I:30:LEU:HB2	2:I:34:LYS:HB2	1.98	0.46
3:C:36:TRP:HB2	3:C:48:VAL:HB	1.96	0.46
1:B:597:HIS:HB2	1:B:1665:HIS:CG	2.50	0.46
1:B:2013:LYS:NZ	1:B:3664:THR:OG1	2.38	0.46
1:B:2588:ARG:NH1	1:B:2901:THR:HB	2.31	0.46
1:B:2593:ARG:HA	1:B:2600:ARG:NH2	2.29	0.46
1:B:4664:LEU:HD12	1:B:4665:LYS:HB2	1.98	0.46
1:E:2013:LYS:NZ	1:E:3664:THR:OG1	2.38	0.46
1:E:2380:ILE:O	1:E:2384:ILE:HG13	2.15	0.46
1:E:3176:GLY:HA2	1:E:3187:ARG:HH22	1.80	0.46
1:E:3332:ALA:HB1	1:E:3335:MET:HE3	1.97	0.46
1:E:4584:ASP:HA	1:E:4627:MET:HA	1.96	0.46
1:G:1721:GLU:O	1:G:1725:ARG:HG3	2.15	0.46
1:G:3019:SER:OG	1:G:3023:LYS:O	2.26	0.46
1:G:4096:ALA:O	1:G:4099:SER:OG	2.23	0.46
1:G:4655:PHE:O	1:G:4659:ILE:HG12	2.15	0.46
1:G:4772:ASP:OD1	1:G:4772:ASP:N	2.49	0.46
3:K:34:MET:HE1	3:K:95:CYS:HB2	1.96	0.46
1:B:1024:TYR:OH	1:B:1036:ARG:HG3	2.15	0.46
1:B:1075:PHE:HB2	1:B:1192:CYS:SG	2.55	0.46
1:B:1269:CYS:HA	1:B:1564:PHE:O	2.14	0.46
1:B:1712:TYR:O	1:B:1716:ILE:HG13	2.16	0.46
1:B:2376:LEU:O	1:B:2380:ILE:HG12	2.15	0.46
1:B:2926:LEU:O	1:B:2930:LEU:HG	2.15	0.46
1:B:3889:GLN:NE2	1:B:3960:GLN:HE22	2.12	0.46
1:E:792:LEU:HD22	1:E:799:GLU:H	1.81	0.46
1:E:1704:PRO:O	1:E:1708:ARG:HG2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3164:SER:O	1:E:3168:THR:HG23	2.16	0.46
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.15	0.46
1:G:72:SER:HB2	1:G:99:ARG:HH11	1.79	0.46
1:G:541:SER:HA	1:G:574:VAL:HG12	1.96	0.46
1:G:917:GLU:CD	3:M:101:PRO:HB2	2.36	0.46
1:G:1704:PRO:O	1:G:1708:ARG:HG2	2.16	0.46
1:G:1784:ALA:HA	2:H:55:VAL:HA	1.96	0.46
1:G:2494:PHE:HE1	1:G:2498:HIS:HB2	1.79	0.46
1:G:3032:SER:O	1:G:3036:LYS:HG3	2.14	0.46
1:G:3266:MET:O	1:G:3266:MET:HG2	2.16	0.46
1:G:3967:GLU:CA	1:G:3970:GLN:HG2	2.39	0.46
1:J:245:VAL:HG23	1:J:376:ALA:CB	2.46	0.46
1:J:3164:SER:O	1:J:3168:THR:HG23	2.16	0.46
1:J:3198:ALA:HA	1:J:3201:MET:HG3	1.97	0.46
1:J:3776:ALA:HB1	1:J:3816:MET:HG3	1.98	0.46
1:J:4673:ARG:NH1	1:J:4698:LYS:HE2	2.30	0.46
3:K:66:ARG:HE	3:K:83:ASN:HB2	1.80	0.46
1:B:800:PHE:HD2	1:B:804:PRO:HG3	1.81	0.46
1:B:2190:VAL:HA	1:B:2193:GLN:HB3	1.97	0.46
1:B:2624:ARG:HG3	1:B:2625:ARG:HH21	1.81	0.46
1:B:2739:PRO:HG3	1:B:2888:ARG:HG2	1.97	0.46
1:B:3176:GLY:HA2	1:B:3187:ARG:HH22	1.80	0.46
1:B:3192:GLU:O	1:B:3196:ARG:HG2	2.15	0.46
1:B:3395:ARG:HG2	1:B:3450:ASN:OD1	2.14	0.46
1:B:4953:ASP:O	1:B:4956:THR:OG1	2.29	0.46
1:B:4992:LEU:O	1:B:4996:ILE:HG13	2.15	0.46
1:E:214:VAL:HG22	1:E:341:TYR:HD1	1.81	0.46
1:E:665:GLU:HB3	1:E:792:LEU:HB2	1.95	0.46
1:E:800:PHE:HD2	1:E:804:PRO:HG3	1.81	0.46
1:E:1712:TYR:O	1:E:1716:ILE:HG13	2.16	0.46
1:E:2494:PHE:HE1	1:E:2498:HIS:HB2	1.79	0.46
1:E:3889:GLN:NE2	1:E:3960:GLN:HE22	2.12	0.46
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	2.15	0.46
1:G:459:LEU:HB3	1:G:463:GLU:HG3	1.98	0.46
1:G:2575:ARG:NH1	1:G:2575:ARG:HA	2.30	0.46
1:G:4677:LEU:HA	1:G:4680:LYS:NZ	2.31	0.46
1:J:932:LEU:HA	1:J:988:LEU:HD21	1.97	0.46
2:A:30:LEU:HB2	2:A:34:LYS:HB2	1.98	0.46
2:D:30:LEU:HB2	2:D:34:LYS:HB2	1.98	0.46
1:B:214:VAL:HG22	1:B:341:TYR:HD1	1.81	0.46
1:B:459:LEU:HB3	1:B:463:GLU:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:710:ASP:OD1	1:B:711:LEU:N	2.49	0.46
1:B:4122:MET:HE1	1:B:4123:ILE:HG12	1.98	0.46
1:B:4675:LYS:O	1:B:4679:ARG:HG2	2.15	0.46
1:E:829:TYR:HB2	1:E:1075:PHE:CE1	2.50	0.46
1:E:2806:ARG:HH11	1:E:2810:LYS:HG3	1.81	0.46
1:E:2957:PHE:HE2	1:E:3034:LYS:HG3	1.81	0.46
1:E:3266:MET:HG2	1:E:3266:MET:O	2.16	0.46
1:E:3339:ALA:O	1:E:3343:GLN:HG2	2.15	0.46
1:E:3981:ALA:O	1:E:3986:TRP:NE1	2.49	0.46
1:G:710:ASP:OD1	1:G:711:LEU:N	2.49	0.46
1:G:829:TYR:HB2	1:G:1075:PHE:CE1	2.50	0.46
1:G:1573:MET:HE1	1:G:1587:PRO:HA	1.97	0.46
1:G:2376:LEU:O	1:G:2380:ILE:HG12	2.15	0.46
1:G:2806:ARG:HH11	1:G:2810:LYS:HG3	1.81	0.46
1:G:3176:GLY:HA2	1:G:3187:ARG:HH22	1.81	0.46
1:G:4048:LEU:HD11	1:G:4150:LEU:HD13	1.98	0.46
1:J:214:VAL:HG22	1:J:341:TYR:HD1	1.81	0.46
1:J:710:ASP:OD1	1:J:711:LEU:N	2.49	0.46
1:J:1066:GLN:HA	1:J:1069:TRP:HE3	1.81	0.46
1:J:4652:LEU:O	1:J:4656:LEU:HG	2.16	0.46
2:H:30:LEU:HB2	2:H:34:LYS:HB2	1.98	0.46
1:B:1573:MET:SD	1:B:1574:PRO:HD2	2.55	0.46
1:B:1813:ARG:HH22	1:B:1814:MET:HE2	1.80	0.46
1:B:3164:SER:O	1:B:3168:THR:HG23	2.16	0.46
1:B:3845:ASN:O	1:B:3848:GLU:HG2	2.16	0.46
1:B:3941:ASP:OD1	1:B:3942:VAL:N	2.48	0.46
1:B:4096:ALA:O	1:B:4100:GLN:HG2	2.15	0.46
1:B:4652:LEU:O	1:B:4656:LEU:HG	2.16	0.46
1:E:669:ASP:O	1:E:740:PRO:HB3	2.15	0.46
1:E:2376:LEU:O	1:E:2380:ILE:HG12	2.15	0.46
1:E:2624:ARG:HG3	1:E:2625:ARG:HH21	1.81	0.46
1:E:2980:VAL:HB	1:E:2986:VAL:HB	1.96	0.46
1:E:3225:ARG:O	1:E:3229:ILE:HG23	2.16	0.46
1:E:4856:PHE:HA	1:E:4876:CYS:SG	2.56	0.46
1:G:4096:ALA:O	1:G:4100:GLN:HG2	2.15	0.46
1:J:248:GLU:HB3	1:J:373:LYS:CA	2.45	0.46
1:J:869:ARG:HE	1:J:941:MET:HE3	1.80	0.46
1:J:1075:PHE:HB2	1:J:1192:CYS:SG	2.55	0.46
1:J:2957:PHE:HE2	1:J:3034:LYS:HG3	1.81	0.46
1:J:3384:LYS:NZ	1:J:3386:GLU:OE1	2.48	0.46
1:J:3943:ILE:HG12	1:J:4009:GLN:HE22	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:4048:LEU:HD11	1:J:4150:LEU:HD13	1.98	0.46
1:J:4655:PHE:O	1:J:4659:ILE:HG12	2.15	0.46
1:J:4664:LEU:HD12	1:J:4665:LYS:HB2	1.98	0.46
3:F:36:TRP:HB2	3:F:48:VAL:HB	1.96	0.46
1:B:1871:PHE:HZ	1:B:2094:LEU:HD13	1.80	0.46
1:B:2293:GLN:HA	1:B:2296:GLU:HG3	1.98	0.46
1:B:3266:MET:HG2	1:B:3266:MET:O	2.16	0.46
1:E:1093:GLU:HB2	1:E:1148:VAL:HG12	1.98	0.46
1:E:2958:GLY:O	1:E:2962:GLN:HG2	2.15	0.46
1:G:214:VAL:HG22	1:G:341:TYR:HD1	1.81	0.46
1:G:914:PRO:HG2	1:G:917:GLU:HG2	1.98	0.46
1:G:1712:TYR:O	1:G:1716:ILE:HG13	2.16	0.46
1:G:2674:LEU:HD21	1:G:2910:THR:HB	1.97	0.46
1:G:2827:ARG:NE	1:G:2935:TYR:OH	2.28	0.46
1:G:3270:ILE:HG23	1:G:3274:LEU:HD12	1.97	0.46
1:J:659:TYR:OH	1:J:807:GLY:O	2.28	0.46
1:J:792:LEU:HD22	1:J:799:GLU:H	1.81	0.46
1:J:920:TYR:CG	3:K:101:PRO:HG3	2.50	0.46
1:J:1093:GLU:HB2	1:J:1148:VAL:HG12	1.98	0.46
1:J:2012:PHE:CZ	1:J:2031:LEU:HD23	2.51	0.46
1:J:2376:LEU:O	1:J:2380:ILE:HG12	2.15	0.46
1:J:2926:LEU:O	1:J:2930:LEU:HG	2.15	0.46
1:J:3941:ASP:OD1	1:J:3942:VAL:N	2.48	0.46
1:J:4648:LEU:HD12	1:J:4803:HIS:CE1	2.51	0.46
1:J:4677:LEU:HA	1:J:4680:LYS:NZ	2.31	0.46
1:B:2702:CYS:O	1:B:2706:ILE:HG13	2.15	0.46
1:B:3981:ALA:O	1:B:3986:TRP:NE1	2.49	0.46
1:E:72:SER:HB2	1:E:99:ARG:HH11	1.80	0.46
1:E:783:PHE:CZ	1:E:1615:VAL:HG11	2.51	0.46
1:E:3204:ALA:HB1	1:E:3207:GLU:HB2	1.97	0.46
1:E:3524:MET:HA	1:E:3582:ARG:HH22	1.81	0.46
1:E:3776:ALA:HB1	1:E:3816:MET:HG3	1.98	0.46
1:E:3943:ILE:HG12	1:E:4009:GLN:HE22	1.80	0.46
1:E:4652:LEU:O	1:E:4656:LEU:HG	2.16	0.46
1:G:932:LEU:HA	1:G:988:LEU:HD21	1.97	0.46
1:G:1297:PHE:CD2	1:G:1522:LEU:HA	2.51	0.46
1:G:2759:ALA:HB1	1:G:2806:ARG:HA	1.98	0.46
1:G:2806:ARG:HG3	1:G:2810:LYS:HZ1	1.81	0.46
1:G:3192:GLU:O	1:G:3196:ARG:HG2	2.15	0.46
1:G:3845:ASN:O	1:G:3848:GLU:HG2	2.16	0.46
1:G:4673:ARG:NH1	1:G:4698:LYS:HE2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1712:TYR:O	1:J:1716:ILE:HG13	2.16	0.46
1:J:2380:ILE:O	1:J:2384:ILE:HG13	2.15	0.46
1:J:2624:ARG:HG3	1:J:2625:ARG:HH21	1.81	0.46
1:J:3225:ARG:O	1:J:3229:ILE:HG23	2.16	0.46
1:J:3670:GLU:O	1:J:3674:ILE:HG12	2.15	0.46
3:C:66:ARG:HE	3:C:83:ASN:HB2	1.80	0.46
3:M:43:LYS:HD2	3:M:44:GLN:O	2.16	0.46
1:B:121:LEU:HB2	1:B:134:ASP:HB2	1.98	0.45
1:B:783:PHE:CZ	1:B:1615:VAL:HG11	2.51	0.45
1:B:792:LEU:HD22	1:B:799:GLU:H	1.81	0.45
1:B:2380:ILE:O	1:B:2384:ILE:HG13	2.15	0.45
1:B:2489:LYS:HE3	1:B:2491:SER:HB3	1.98	0.45
1:B:2505:PHE:O	1:B:2509:VAL:HG22	2.16	0.45
1:B:2874:MET:HG2	1:B:2937:VAL:HG21	1.98	0.45
1:B:3524:MET:HA	1:B:3582:ARG:HH22	1.81	0.45
1:B:4219:PHE:HD1	1:B:4950:VAL:HG11	1.81	0.45
1:E:459:LEU:HB3	1:E:463:GLU:HG3	1.98	0.45
1:E:541:SER:HA	1:E:574:VAL:HG12	1.96	0.45
1:E:1115:LEU:HD13	1:E:1193:SER:HB2	1.98	0.45
1:E:3003:LEU:HB2	1:E:3004:PRO:HD3	1.98	0.45
1:E:4096:ALA:O	1:E:4100:GLN:HG2	2.15	0.45
1:G:121:LEU:HB2	1:G:134:ASP:HB2	1.98	0.45
1:G:2512:ILE:HG13	1:G:2565:CYS:SG	2.57	0.45
1:G:2623:LEU:O	1:G:2627:VAL:HG23	2.16	0.45
1:G:4648:LEU:HD12	1:G:4803:HIS:CE1	2.51	0.45
1:G:4652:LEU:O	1:G:4656:LEU:HG	2.16	0.45
1:G:4822:THR:O	1:G:4825:THR:OG1	2.22	0.45
1:J:358:THR:HG21	1:J:382:GLY:HA2	1.98	0.45
1:J:459:LEU:HB3	1:J:463:GLU:HG3	1.98	0.45
1:J:800:PHE:HD2	1:J:804:PRO:HG3	1.81	0.45
1:J:1297:PHE:CD2	1:J:1522:LEU:HA	2.51	0.45
1:J:3524:MET:HA	1:J:3582:ARG:HH22	1.81	0.45
1:J:3906:GLN:HB2	1:J:3912:THR:HA	1.98	0.45
3:C:43:LYS:HD2	3:C:44:GLN:O	2.16	0.45
3:K:43:LYS:HD2	3:K:44:GLN:O	2.16	0.45
1:B:1256:GLU:OE1	1:B:1275:ARG:NH2	2.47	0.45
1:B:1297:PHE:CD2	1:B:1522:LEU:HA	2.51	0.45
1:B:2623:LEU:O	1:B:2627:VAL:HG23	2.16	0.45
1:B:3885:PHE:HE1	1:B:3919:THR:HG23	1.81	0.45
1:E:840:VAL:HG12	1:E:1199:VAL:HG12	1.99	0.45
1:E:2012:PHE:CZ	1:E:2031:LEU:HD23	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2489:LYS:HE3	1:E:2491:SER:HB3	1.98	0.45
1:E:2505:PHE:O	1:E:2509:VAL:HG22	2.16	0.45
1:E:2623:LEU:O	1:E:2627:VAL:HG23	2.16	0.45
1:E:4105:GLY:HA2	1:E:4108:ILE:HG12	1.98	0.45
1:G:790:ARG:HD2	1:G:1624:LEU:HB3	1.97	0.45
1:G:1093:GLU:HB2	1:G:1148:VAL:HG12	1.98	0.45
1:G:2624:ARG:HG3	1:G:2625:ARG:HH21	1.81	0.45
1:G:2874:MET:HG2	1:G:2937:VAL:HG21	1.98	0.45
1:G:2926:LEU:O	1:G:2930:LEU:HG	2.16	0.45
1:G:3157:ILE:HG22	1:G:3157:ILE:O	2.15	0.45
1:G:3198:ALA:HA	1:G:3201:MET:HG3	1.97	0.45
1:G:3702:VAL:HG11	1:G:3773:ARG:HB3	1.98	0.45
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	2.16	0.45
1:J:840:VAL:HG12	1:J:1199:VAL:HG12	1.99	0.45
1:J:1024:TYR:OH	1:J:1036:ARG:HG3	2.15	0.45
1:J:1115:LEU:HD13	1:J:1193:SER:HB2	1.98	0.45
1:J:2588:ARG:NH1	1:J:2901:THR:HB	2.31	0.45
1:J:2874:MET:HG2	1:J:2937:VAL:HG21	1.98	0.45
1:J:3057:PHE:HB2	1:J:3060:ASP:HB2	1.98	0.45
1:J:3658:LYS:HB2	1:J:3658:LYS:HE3	1.79	0.45
1:J:4000:MET:HE1	1:J:4061:PHE:HB2	1.99	0.45
1:J:4105:GLY:HA2	1:J:4108:ILE:HG12	1.98	0.45
2:H:78:PRO:HG3	2:H:95:ALA:H	1.81	0.45
2:I:78:PRO:HG3	2:I:95:ALA:H	1.81	0.45
3:K:111:ASN:O	3:K:114:TYR:HB2	2.16	0.45
1:B:118:LEU:HA	1:B:137:LEU:HD23	1.99	0.45
1:B:1561:VAL:HG23	1:B:1562:ILE:N	2.32	0.45
1:B:1704:PRO:O	1:B:1708:ARG:HG2	2.16	0.45
1:B:3319:ILE:O	1:B:3322:ILE:HG22	2.16	0.45
1:E:597:HIS:HB2	1:E:1665:HIS:CG	2.50	0.45
1:E:4219:PHE:HD1	1:E:4950:VAL:HG11	1.81	0.45
1:G:1066:GLN:HA	1:G:1069:TRP:HE3	1.81	0.45
1:G:2992:GLU:O	1:G:2996:LYS:HG2	2.16	0.45
1:G:4675:LYS:O	1:G:4679:ARG:HG2	2.15	0.45
1:J:2623:LEU:O	1:J:2627:VAL:HG23	2.16	0.45
1:J:2625:ARG:HH22	1:J:2907:PRO:HD2	1.82	0.45
2:H:15:PHE:CE1	2:H:67:SER:HB3	2.50	0.45
3:F:66:ARG:HE	3:F:83:ASN:HB2	1.80	0.45
1:B:790:ARG:HD2	1:B:1624:LEU:HB3	1.97	0.45
1:B:2759:ALA:HB1	1:B:2806:ARG:HA	1.98	0.45
1:B:3057:PHE:HB2	1:B:3060:ASP:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3225:ARG:O	1:B:3229:ILE:HG23	2.16	0.45
1:B:3511:VAL:O	1:B:3516:LYS:HG2	2.17	0.45
1:B:3828:PHE:O	1:B:3832:ILE:HG12	2.17	0.45
1:E:358:THR:HG21	1:E:382:GLY:HA2	1.98	0.45
1:E:1802:ILE:O	1:E:1804:LEU:HD22	2.17	0.45
1:E:2293:GLN:HA	1:E:2296:GLU:HG3	1.98	0.45
1:E:2874:MET:HG2	1:E:2937:VAL:HG21	1.98	0.45
1:E:2992:GLU:O	1:E:2996:LYS:HG2	2.16	0.45
1:E:3163:VAL:HA	1:E:3166:TYR:HD2	1.82	0.45
1:G:2117:VAL:HA	1:G:2120:MET:HG2	1.98	0.45
1:G:3776:ALA:HB1	1:G:3816:MET:HG3	1.98	0.45
1:G:4664:LEU:HD12	1:G:4665:LYS:HB2	1.98	0.45
1:J:1000:ARG:HB3	1:J:1005:TRP:HB2	1.97	0.45
1:J:1802:ILE:O	1:J:1804:LEU:HD22	2.17	0.45
1:J:2739:PRO:HG3	1:J:2888:ARG:HG2	1.97	0.45
1:J:2806:ARG:HH11	1:J:2810:LYS:HG3	1.81	0.45
1:J:2992:GLU:O	1:J:2996:LYS:HG2	2.16	0.45
1:J:3163:VAL:HA	1:J:3166:TYR:HD2	1.82	0.45
1:J:3384:LYS:HG2	1:J:3386:GLU:H	1.82	0.45
1:J:3702:VAL:HG11	1:J:3773:ARG:HB3	1.98	0.45
1:J:3893:GLU:HA	1:J:3967:GLU:OE2	2.16	0.45
1:J:4024:VAL:HA	1:J:4027:LEU:HD12	1.99	0.45
1:J:4772:ASP:OD1	1:J:4772:ASP:N	2.49	0.45
3:C:64:LYS:HG3	3:C:86:LYS:NZ	2.31	0.45
3:F:64:LYS:HG3	3:F:86:LYS:NZ	2.32	0.45
3:M:66:ARG:HE	3:M:83:ASN:HB2	1.80	0.45
1:B:829:TYR:HB2	1:B:1075:PHE:CE1	2.50	0.45
1:B:1000:ARG:HB3	1:B:1005:TRP:HB2	1.97	0.45
1:B:3339:ALA:O	1:B:3343:GLN:HG2	2.15	0.45
1:E:2588:ARG:NH1	1:E:2901:THR:HB	2.31	0.45
1:E:4677:LEU:HA	1:E:4680:LYS:NZ	2.31	0.45
1:E:4704:LEU:HA	1:E:4774:LYS:HE2	1.99	0.45
1:G:783:PHE:CZ	1:G:1615:VAL:HG11	2.51	0.45
1:G:1741:GLU:O	1:G:1745:ILE:HG13	2.17	0.45
1:G:2587:TYR:OH	1:G:2629:ASP:OD2	2.27	0.45
1:G:3339:ALA:O	1:G:3343:GLN:HG2	2.15	0.45
1:G:3511:VAL:O	1:G:3516:LYS:HG2	2.17	0.45
1:J:251:ALA:C	1:J:255:HIS:HD1	2.19	0.45
1:J:1547:LYS:HZ1	1:J:1645:ASN:HB2	1.80	0.45
1:J:2110:TYR:HB2	1:J:3694:LYS:HB2	1.99	0.45
1:J:2512:ILE:HG13	1:J:2565:CYS:SG	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2575:ARG:NH1	1:J:2575:ARG:HA	2.30	0.45
1:J:3204:ALA:HB1	1:J:3207:GLU:HB2	1.97	0.45
1:J:4856:PHE:HA	1:J:4876:CYS:SG	2.56	0.45
3:C:33:SER:HG	3:C:101:PRO:HA	1.82	0.45
1:B:1037:ASP:O	1:B:1041:GLN:HG2	2.17	0.45
1:B:2439:GLU:CD	1:B:2508:ARG:HH22	2.20	0.45
1:B:2625:ARG:HH22	1:B:2907:PRO:HD2	1.82	0.45
1:B:2806:ARG:HH11	1:B:2810:LYS:HG3	1.81	0.45
1:B:3906:GLN:HB2	1:B:3912:THR:HA	1.98	0.45
1:B:4048:LEU:HD11	1:B:4150:LEU:HD13	1.98	0.45
1:B:4131:ARG:HG3	1:B:4132:PHE:CD1	2.52	0.45
1:B:4648:LEU:HD12	1:B:4803:HIS:CE1	2.51	0.45
1:B:4704:LEU:HA	1:B:4774:LYS:HE2	1.99	0.45
1:B:4856:PHE:HA	1:B:4876:CYS:SG	2.56	0.45
1:B:5003:HIS:HD2	1:B:5007:GLU:HB3	1.82	0.45
1:E:710:ASP:OD1	1:E:711:LEU:N	2.49	0.45
1:E:920:TYR:CG	3:F:101:PRO:HG3	2.51	0.45
1:E:1000:ARG:HB3	1:E:1005:TRP:HB2	1.97	0.45
1:E:2512:ILE:HG13	1:E:2565:CYS:SG	2.57	0.45
1:E:2627:VAL:O	1:E:2631:PRO:HD3	2.17	0.45
1:E:3319:ILE:O	1:E:3322:ILE:HG22	2.16	0.45
1:E:3906:GLN:HB2	1:E:3912:THR:HA	1.98	0.45
1:G:2739:PRO:HG3	1:G:2888:ARG:HG2	1.98	0.45
1:G:3937:TYR:OH	1:G:3944:GLU:HG2	2.17	0.45
1:G:4105:GLY:HA2	1:G:4108:ILE:HG12	1.99	0.45
1:G:4838:VAL:HA	1:G:4841:VAL:HG22	1.99	0.45
1:G:4856:PHE:HA	1:G:4876:CYS:SG	2.56	0.45
1:J:783:PHE:CZ	1:J:1615:VAL:HG11	2.51	0.45
1:J:2355:ARG:HD3	1:J:2358:ILE:HD11	1.99	0.45
1:J:2694:GLU:O	1:J:2698:MET:HG3	2.17	0.45
1:J:2892:GLN:O	1:J:2895:GLU:HG2	2.16	0.45
1:J:3266:MET:HG2	1:J:3266:MET:O	2.16	0.45
1:J:3828:PHE:O	1:J:3832:ILE:HG12	2.17	0.45
1:J:4648:LEU:HD12	1:J:4803:HIS:HE1	1.81	0.45
1:J:4666:VAL:O	1:J:4670:ILE:HG12	2.15	0.45
1:B:1115:LEU:HD13	1:B:1193:SER:HB2	1.98	0.45
1:B:3003:LEU:HB2	1:B:3004:PRO:HD3	1.98	0.45
1:B:3163:VAL:HA	1:B:3166:TYR:HD2	1.82	0.45
1:B:4105:GLY:HA2	1:B:4108:ILE:HG12	1.99	0.45
1:B:4648:LEU:HD12	1:B:4803:HIS:HE1	1.81	0.45
1:E:114:SER:HB3	1:E:116:MET:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1066:GLN:HA	1:E:1069:TRP:HE3	1.81	0.45
1:E:1297:PHE:CD2	1:E:1522:LEU:HA	2.51	0.45
1:E:1561:VAL:HG23	1:E:1562:ILE:HG12	1.99	0.45
1:E:2110:TYR:HB2	1:E:3694:LYS:HB2	1.99	0.45
1:E:2215:LEU:HD11	1:E:2229:VAL:HG22	1.99	0.45
1:E:2625:ARG:HH22	1:E:2907:PRO:HD2	1.82	0.45
1:E:2751:LEU:HD12	1:E:2823:ILE:HD11	1.99	0.45
1:E:4024:VAL:HA	1:E:4027:LEU:HD12	1.99	0.45
1:G:1115:LEU:HD13	1:G:1193:SER:HB2	1.99	0.45
1:G:2247:GLN:HG3	1:G:2279:SER:HA	1.99	0.45
1:G:2380:ILE:O	1:G:2384:ILE:HG13	2.15	0.45
1:G:2505:PHE:O	1:G:2509:VAL:HG22	2.16	0.45
1:G:2751:LEU:HD12	1:G:2823:ILE:HD11	1.99	0.45
1:G:2957:PHE:HE2	1:G:3034:LYS:HG3	1.81	0.45
1:G:3524:MET:HA	1:G:3582:ARG:HH22	1.81	0.45
1:G:3828:PHE:O	1:G:3832:ILE:HG12	2.17	0.45
1:G:4648:LEU:HD12	1:G:4803:HIS:HE1	1.81	0.45
1:J:118:LEU:HA	1:J:137:LEU:HD23	1.99	0.45
1:J:247:TYR:CD2	1:J:374:LYS:HB2	2.52	0.45
1:J:990:GLU:O	1:J:994:ASN:HB2	2.17	0.45
1:J:1561:VAL:HG23	1:J:1562:ILE:N	2.32	0.45
2:I:9:PRO:HA	2:I:70:GLN:HE22	1.82	0.45
1:B:840:VAL:HG12	1:B:1199:VAL:HG12	1.99	0.45
1:B:1078:GLU:HG2	1:B:1080:SER:H	1.82	0.45
1:B:2957:PHE:HE2	1:B:3034:LYS:HG3	1.81	0.45
1:B:3384:LYS:HG2	1:B:3386:GLU:H	1.82	0.45
1:B:3719:ASP:HB2	1:B:3722:TYR:HB3	1.98	0.45
1:B:4677:LEU:HA	1:B:4680:LYS:NZ	2.31	0.45
1:E:1561:VAL:HG23	1:E:1562:ILE:N	2.32	0.45
1:E:2117:VAL:HA	1:E:2120:MET:HG2	1.98	0.45
1:E:2368:LEU:HD11	1:E:2376:LEU:HB2	1.98	0.45
1:E:2747:ILE:H	1:E:2814:LYS:HZ2	1.64	0.45
1:E:2759:ALA:HB1	1:E:2806:ARG:HA	1.98	0.45
1:E:2926:LEU:O	1:E:2930:LEU:HG	2.15	0.45
1:E:3172:ILE:O	1:E:3175:LEU:HG	2.17	0.45
1:E:3384:LYS:HG2	1:E:3386:GLU:H	1.82	0.45
1:E:3845:ASN:O	1:E:3848:GLU:HG2	2.16	0.45
1:E:4000:MET:HE3	1:E:4061:PHE:HB2	1.99	0.45
1:E:5003:HIS:HD2	1:E:5007:GLU:HB3	1.82	0.45
1:G:248:GLU:HA	1:G:372:LEU:O	2.17	0.45
1:G:895:PRO:HA	1:G:905:PRO:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1802:ILE:O	1:G:1804:LEU:HD22	2.17	0.45
1:G:2747:ILE:HD11	1:G:2751:LEU:HD11	1.99	0.45
1:G:3384:LYS:NZ	1:G:3386:GLU:OE1	2.48	0.45
1:G:5003:HIS:HD2	1:G:5007:GLU:HB3	1.82	0.45
1:J:3319:ILE:O	1:J:3322:ILE:HG22	2.16	0.45
1:J:4838:VAL:HA	1:J:4841:VAL:HG22	1.99	0.45
2:D:9:PRO:HA	2:D:70:GLN:HE22	1.82	0.45
1:B:1802:ILE:O	1:B:1804:LEU:HD22	2.17	0.45
1:B:2512:ILE:HG13	1:B:2565:CYS:SG	2.57	0.45
1:B:2694:GLU:O	1:B:2698:MET:HG3	2.16	0.45
1:B:3776:ALA:HB1	1:B:3816:MET:HG3	1.98	0.45
1:B:3961:VAL:O	1:B:3965:LEU:HG	2.17	0.45
1:E:2892:GLN:O	1:E:2895:GLU:HG2	2.16	0.45
1:E:3828:PHE:O	1:E:3832:ILE:HG12	2.17	0.45
1:E:3885:PHE:HE1	1:E:3919:THR:HG23	1.81	0.45
1:E:4648:LEU:HD12	1:E:4803:HIS:CE1	2.51	0.45
1:G:1037:ASP:O	1:G:1041:GLN:HG2	2.17	0.45
1:G:2694:GLU:O	1:G:2698:MET:HG3	2.16	0.45
1:G:3319:ILE:O	1:G:3322:ILE:HG22	2.16	0.45
1:J:1741:GLU:O	1:J:1745:ILE:HG13	2.17	0.45
1:J:2247:GLN:HG3	1:J:2279:SER:HA	1.99	0.45
1:J:2505:PHE:O	1:J:2509:VAL:HG22	2.16	0.45
1:J:3037:GLU:HB2	1:J:3085:PRO:HG2	1.99	0.45
1:J:3343:GLN:O	1:J:3346:VAL:HG12	2.17	0.45
1:J:3445:TRP:HD1	1:J:3451:PHE:CE2	2.35	0.45
1:J:3511:VAL:O	1:J:3516:LYS:HG2	2.17	0.45
1:J:4219:PHE:HD1	1:J:4950:VAL:HG11	1.81	0.45
2:A:78:PRO:HG3	2:A:95:ALA:H	1.81	0.45
1:B:871:ARG:NH1	1:B:922:LEU:HD22	2.32	0.45
1:B:3752:SER:HB2	1:B:3755:GLU:HG3	1.99	0.45
1:E:1078:GLU:HG2	1:E:1080:SER:H	1.82	0.45
1:E:2747:ILE:HD11	1:E:2751:LEU:HD11	1.99	0.45
1:E:2788:HIS:CD2	1:E:2789:PRO:HD2	2.52	0.45
1:E:3937:TYR:OH	1:E:3944:GLU:HG2	2.17	0.45
1:G:800:PHE:HD2	1:G:804:PRO:HG3	1.81	0.45
1:G:2506:LEU:HD12	1:G:2510:TYR:HB2	1.99	0.45
1:G:2627:VAL:O	1:G:2631:PRO:HD3	2.17	0.45
1:G:2812:SER:HG	1:G:2882:TYR:HE1	1.63	0.45
1:G:3172:ILE:O	1:G:3175:LEU:HG	2.17	0.45
1:G:3445:TRP:HD1	1:G:3451:PHE:CE2	2.35	0.45
1:G:3752:SER:HB2	1:G:3755:GLU:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3961:VAL:O	1:G:3965:LEU:HG	2.17	0.45
1:G:3981:ALA:O	1:G:3986:TRP:NE1	2.49	0.45
1:J:2627:VAL:O	1:J:2631:PRO:HD3	2.17	0.45
1:J:2754:PHE:HE1	1:J:2933:ASN:ND2	2.13	0.45
1:J:3206:LEU:HD11	1:J:3276:MET:SD	2.57	0.45
1:J:3752:SER:O	1:J:3756:LYS:HG3	2.17	0.45
1:J:3961:VAL:O	1:J:3965:LEU:HG	2.17	0.45
3:C:14:ALA:HA	3:C:85:LEU:HB2	1.98	0.45
3:F:43:LYS:HD2	3:F:44:GLN:O	2.16	0.45
3:M:64:LYS:HG3	3:M:86:LYS:NZ	2.31	0.45
1:B:1455:PRO:HG3	1:B:1549:PHE:HE1	1.82	0.44
1:B:1508:ARG:HH21	1:E:2773:ASN:HA	1.82	0.44
1:B:2215:LEU:HD11	1:B:2229:VAL:HG22	1.99	0.44
1:E:251:ALA:C	1:E:255:HIS:HD1	2.19	0.44
1:E:277:GLY:N	1:E:316:PHE:O	2.45	0.44
1:E:2694:GLU:O	1:E:2698:MET:HG3	2.17	0.44
1:E:3719:ASP:HB2	1:E:3722:TYR:HB3	1.98	0.44
1:E:4048:LEU:HD11	1:E:4150:LEU:HD13	1.98	0.44
1:E:4838:VAL:HA	1:E:4841:VAL:HG22	1.99	0.44
1:G:840:VAL:HG12	1:G:1199:VAL:HG12	1.99	0.44
1:G:880:GLU:O	1:G:884:LEU:HG	2.17	0.44
1:G:990:GLU:O	1:G:994:ASN:HB2	2.17	0.44
1:G:2442:LEU:HA	1:G:2447:LYS:HZ2	1.82	0.44
1:G:2489:LYS:HE3	1:G:2491:SER:HB3	1.98	0.44
1:G:2773:ASN:HA	1:J:1508:ARG:HH21	1.82	0.44
1:G:3057:PHE:HB2	1:G:3060:ASP:HB2	1.98	0.44
1:G:3321:ARG:HA	1:G:3324:VAL:HG12	2.00	0.44
1:G:3367:LYS:O	1:G:3371:LYS:HG2	2.17	0.44
1:G:4232:GLU:OE1	1:G:5019:TRP:NE1	2.45	0.44
1:G:4953:ASP:O	1:G:4956:THR:OG1	2.29	0.44
1:J:1042:ALA:O	1:J:1046:LEU:HG	2.17	0.44
1:J:1623:ARG:HA	1:J:1623:ARG:HH11	1.82	0.44
1:J:2439:GLU:CD	1:J:2508:ARG:HH22	2.20	0.44
1:J:2759:ALA:HB1	1:J:2806:ARG:HA	1.98	0.44
1:J:2788:HIS:CD2	1:J:2789:PRO:HD2	2.52	0.44
1:J:2911:LEU:HD22	1:J:2915:GLU:OE2	2.17	0.44
1:J:3172:ILE:O	1:J:3175:LEU:HG	2.17	0.44
1:J:3332:ALA:HB1	1:J:3335:MET:HE3	1.99	0.44
3:K:14:ALA:HA	3:K:85:LEU:HB2	1.98	0.44
3:M:14:ALA:HA	3:M:85:LEU:HB2	1.98	0.44
1:B:954:LYS:HA	1:B:954:LYS:HD2	1.77	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1291:LEU:HB3	1:B:1595:LEU:HD11	2.00	0.44
1:B:2820:GLU:HG3	1:B:2821:TRP:CD1	2.53	0.44
1:B:3172:ILE:O	1:B:3175:LEU:HG	2.17	0.44
1:B:3884:LEU:O	1:B:3888:LEU:HG	2.18	0.44
1:E:121:LEU:HB2	1:E:134:ASP:HB2	1.98	0.44
1:E:2355:ARG:HD3	1:E:2358:ILE:HD11	1.99	0.44
1:E:2506:LEU:HD12	1:E:2510:TYR:HB2	1.99	0.44
1:G:1105:ALA:O	1:G:1189:LEU:N	2.46	0.44
1:G:1723:ALA:O	1:G:1727:ARG:HD3	2.18	0.44
1:G:2110:TYR:HB2	1:G:3694:LYS:HB2	1.99	0.44
1:G:3003:LEU:HB2	1:G:3004:PRO:HD3	1.98	0.44
1:G:3037:GLU:HB2	1:G:3085:PRO:HG2	1.99	0.44
1:G:3225:ARG:O	1:G:3229:ILE:HG23	2.16	0.44
1:G:4000:MET:HE3	1:G:4061:PHE:HB2	1.98	0.44
1:G:4131:ARG:HG3	1:G:4132:PHE:CD1	2.52	0.44
1:G:4704:LEU:HA	1:G:4774:LYS:HE2	1.99	0.44
1:J:114:SER:HB3	1:J:116:MET:HB3	1.98	0.44
1:J:2368:LEU:HD11	1:J:2376:LEU:HB2	1.98	0.44
1:J:3884:LEU:O	1:J:3888:LEU:HG	2.17	0.44
1:J:4013:LEU:O	1:J:4017:LEU:HG	2.17	0.44
1:J:4581:LYS:HG2	1:J:4632:LEU:HB2	2.00	0.44
2:D:78:PRO:HG3	2:D:95:ALA:H	1.81	0.44
2:H:9:PRO:HA	2:H:70:GLN:HE22	1.82	0.44
1:B:880:GLU:O	1:B:884:LEU:HG	2.17	0.44
1:B:1042:ALA:O	1:B:1046:LEU:HG	2.17	0.44
1:B:2318:TYR:HA	1:B:2395:PRO:HA	1.99	0.44
1:B:2495:VAL:HG22	1:B:2497:ASP:H	1.83	0.44
1:B:4559:PHE:CE1	1:B:4661:TYR:HB2	2.53	0.44
1:B:4838:VAL:HA	1:B:4841:VAL:HG22	1.99	0.44
1:E:871:ARG:NH1	1:E:922:LEU:HD22	2.32	0.44
1:E:1245:PHE:CD2	1:E:1290:ARG:HG2	2.52	0.44
1:E:2495:VAL:HG22	1:E:2497:ASP:H	1.83	0.44
1:E:3057:PHE:HB2	1:E:3060:ASP:HB2	1.98	0.44
1:E:3672:ARG:NH1	1:E:3676:ASP:OD2	2.51	0.44
1:E:4948:GLU:HA	1:E:4951:LYS:NZ	2.32	0.44
1:G:2439:GLU:CD	1:G:2508:ARG:HH22	2.20	0.44
1:G:2610:LEU:O	1:G:2614:ILE:HG12	2.18	0.44
1:G:2625:ARG:HH22	1:G:2907:PRO:HD2	1.82	0.44
1:G:2820:GLU:HG3	1:G:2821:TRP:CD1	2.53	0.44
1:G:2892:GLN:O	1:G:2895:GLU:HG2	2.16	0.44
1:G:3164:SER:O	1:G:3168:THR:HG23	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3343:GLN:O	1:G:3346:VAL:HG12	2.17	0.44
1:G:3752:SER:O	1:G:3756:LYS:HG3	2.17	0.44
1:G:3906:GLN:HB2	1:G:3912:THR:HA	1.98	0.44
1:J:1723:ALA:O	1:J:1727:ARG:HD3	2.18	0.44
1:J:2747:ILE:HD11	1:J:2751:LEU:HD11	1.99	0.44
1:J:3439:GLY:O	1:J:3443:ILE:HG23	2.18	0.44
1:J:3724:ALA:O	1:J:3728:ILE:HG13	2.17	0.44
1:B:384:MET:SD	1:B:384:MET:N	2.85	0.44
1:B:626:LEU:HB3	2:A:89:GLY:O	2.17	0.44
1:B:947:GLU:HA	1:B:950:LEU:HD12	2.00	0.44
1:B:2563:THR:HG22	1:B:2606:CYS:HA	2.00	0.44
1:B:2892:GLN:O	1:B:2895:GLU:HG2	2.16	0.44
1:B:2992:GLU:O	1:B:2996:LYS:HG2	2.16	0.44
1:B:3263:TYR:HE1	1:B:3326:ASN:ND2	2.16	0.44
1:B:3343:GLN:O	1:B:3346:VAL:HG12	2.17	0.44
1:B:3367:LYS:O	1:B:3371:LYS:HG2	2.17	0.44
1:B:3702:VAL:HG11	1:B:3773:ARG:HB3	1.98	0.44
1:B:4128:PHE:HA	1:B:4131:ARG:NE	2.32	0.44
1:E:118:LEU:HA	1:E:137:LEU:HD23	1.99	0.44
1:E:947:GLU:HA	1:E:950:LEU:HD12	2.00	0.44
1:E:1041:GLN:O	1:E:1045:THR:HG23	2.17	0.44
1:E:3445:TRP:HD1	1:E:3451:PHE:CE2	2.35	0.44
1:E:3724:ALA:O	1:E:3728:ILE:HG13	2.17	0.44
1:E:3884:LEU:O	1:E:3888:LEU:HG	2.18	0.44
1:E:4573:ILE:HG12	1:E:4646:LEU:HB3	1.99	0.44
1:E:4648:LEU:HD12	1:E:4803:HIS:HE1	1.81	0.44
1:G:414:PHE:CD1	1:G:441:VAL:HG21	2.53	0.44
1:G:792:LEU:HD22	1:G:799:GLU:H	1.81	0.44
1:G:920:TYR:CD2	3:M:101:PRO:HG3	2.53	0.44
1:G:1561:VAL:HG23	1:G:1562:ILE:N	2.32	0.44
1:G:2911:LEU:HD22	1:G:2915:GLU:OE2	2.17	0.44
1:G:3021:PRO:HD3	1:G:3036:LYS:NZ	2.32	0.44
1:G:3180:ASN:OD1	1:G:3181:THR:N	2.51	0.44
1:G:4024:VAL:HA	1:G:4027:LEU:HD12	1.99	0.44
1:G:4219:PHE:HD1	1:G:4950:VAL:HG11	1.81	0.44
1:G:4581:LYS:HG2	1:G:4632:LEU:HB2	2.00	0.44
1:G:4948:GLU:HA	1:G:4951:LYS:NZ	2.32	0.44
1:J:121:LEU:HB2	1:J:134:ASP:HB2	1.98	0.44
1:J:880:GLU:O	1:J:884:LEU:HG	2.17	0.44
1:J:947:GLU:HA	1:J:950:LEU:HD12	2.00	0.44
1:J:2489:LYS:HE3	1:J:2491:SER:HB3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2610:LEU:O	1:J:2614:ILE:HG12	2.18	0.44
1:J:3003:LEU:HB2	1:J:3004:PRO:HD3	1.98	0.44
1:J:3719:ASP:HB2	1:J:3722:TYR:HB3	1.98	0.44
1:J:3842:LEU:HA	1:J:3874:VAL:C	2.37	0.44
1:J:3937:TYR:OH	1:J:3944:GLU:HG2	2.17	0.44
1:J:3955:MET:CE	1:J:4015:GLU:HG2	2.48	0.44
1:J:4580:TYR:CE2	1:J:4807:PHE:HE1	2.36	0.44
1:J:4704:LEU:HA	1:J:4774:LYS:HE2	1.99	0.44
2:A:9:PRO:HA	2:A:70:GLN:HE22	1.82	0.44
1:B:1041:GLN:O	1:B:1045:THR:HG23	2.17	0.44
1:B:1561:VAL:HG23	1:B:1562:ILE:HG12	1.99	0.44
1:B:2230:THR:O	1:B:2234:ARG:HG3	2.18	0.44
1:B:2368:LEU:HD11	1:B:2376:LEU:HB2	1.98	0.44
1:B:2911:LEU:HD22	1:B:2915:GLU:OE2	2.17	0.44
1:B:3021:PRO:HD3	1:B:3036:LYS:NZ	2.32	0.44
1:B:3192:GLU:OE1	1:B:3196:ARG:NH2	2.51	0.44
1:B:3937:TYR:OH	1:B:3944:GLU:HG2	2.17	0.44
1:E:1042:ALA:O	1:E:1046:LEU:HG	2.17	0.44
1:E:1547:LYS:HZ1	1:E:1645:ASN:HB2	1.81	0.44
1:E:2911:LEU:HD22	1:E:2915:GLU:OE2	2.17	0.44
1:E:3511:VAL:O	1:E:3516:LYS:HG2	2.17	0.44
1:E:3730:ALA:O	1:E:3734:HIS:CD2	2.71	0.44
1:E:3842:LEU:HA	1:E:3874:VAL:C	2.37	0.44
1:E:4558:ASN:O	1:E:4562:LEU:HG	2.17	0.44
1:E:4559:PHE:CE1	1:E:4661:TYR:HB2	2.52	0.44
1:G:1042:ALA:O	1:G:1046:LEU:HG	2.17	0.44
1:G:1245:PHE:CD2	1:G:1290:ARG:HG2	2.52	0.44
1:G:1623:ARG:HA	1:G:1623:ARG:HH11	1.82	0.44
1:G:1813:ARG:HH22	1:G:1814:MET:HE2	1.81	0.44
1:G:2368:LEU:HD11	1:G:2376:LEU:HB2	1.98	0.44
1:G:2867:LEU:HG	1:G:2868:SER:H	1.83	0.44
1:G:3163:VAL:HA	1:G:3166:TYR:HD2	1.82	0.44
1:G:3439:GLY:O	1:G:3443:ILE:HG23	2.18	0.44
1:G:3730:ALA:O	1:G:3734:HIS:CD2	2.71	0.44
1:G:3885:PHE:HE1	1:G:3919:THR:HG23	1.81	0.44
1:G:4580:TYR:CE2	1:G:4807:PHE:HE1	2.36	0.44
1:J:2293:GLN:HA	1:J:2296:GLU:HG3	1.98	0.44
1:J:2563:THR:HG22	1:J:2606:CYS:HA	2.00	0.44
1:J:3885:PHE:HE1	1:J:3919:THR:HG23	1.82	0.44
1:B:414:PHE:CD1	1:B:441:VAL:HG21	2.53	0.44
1:B:2747:ILE:HD11	1:B:2751:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3321:ARG:HA	1:B:3324:VAL:HG12	2.00	0.44
1:B:3439:GLY:O	1:B:3443:ILE:HG23	2.18	0.44
1:B:3760:LYS:HA	1:B:3760:LYS:HD3	1.86	0.44
1:B:3842:LEU:HA	1:B:3874:VAL:C	2.38	0.44
1:E:100:THR:HG21	1:E:162:LYS:HD3	2.00	0.44
1:E:148:TRP:HA	1:E:173:SER:HA	2.00	0.44
1:E:210:GLU:HG3	1:E:213:TYR:HB2	1.99	0.44
1:E:990:GLU:O	1:E:994:ASN:HB2	2.17	0.44
1:E:1455:PRO:HG3	1:E:1549:PHE:HE1	1.82	0.44
1:E:2439:GLU:CD	1:E:2508:ARG:HH22	2.20	0.44
1:E:2820:GLU:HG3	1:E:2821:TRP:CD1	2.53	0.44
1:E:3343:GLN:O	1:E:3346:VAL:HG12	2.17	0.44
1:E:3702:VAL:HG11	1:E:3773:ARG:HB3	1.98	0.44
1:E:3752:SER:O	1:E:3756:LYS:HG3	2.17	0.44
1:E:3934:TYR:CE1	1:E:3999:MET:HB2	2.53	0.44
1:G:114:SER:HB3	1:G:116:MET:HB3	1.98	0.44
1:G:1000:ARG:HB3	1:G:1005:TRP:HB2	1.97	0.44
1:G:1116:GLY:HA3	1:G:1132:TRP:HB3	2.00	0.44
1:G:1291:LEU:HB3	1:G:1595:LEU:HD11	2.00	0.44
1:G:2230:THR:O	1:G:2234:ARG:HG3	2.18	0.44
1:G:3842:LEU:HA	1:G:3874:VAL:C	2.37	0.44
1:G:4558:ASN:O	1:G:4562:LEU:HG	2.17	0.44
1:J:871:ARG:NH1	1:J:922:LEU:HD22	2.33	0.44
1:J:2263:ILE:HA	1:J:2330:ARG:HH12	1.83	0.44
1:J:2593:ARG:H	1:J:2593:ARG:HD3	1.82	0.44
1:J:3019:SER:OG	1:J:3023:LYS:O	2.26	0.44
1:J:3320:LEU:HD22	1:J:3357:HIS:HB3	2.00	0.44
1:J:3321:ARG:HA	1:J:3324:VAL:HG12	1.99	0.44
1:J:3845:ASN:O	1:J:3848:GLU:HG2	2.16	0.44
1:B:114:SER:HB3	1:B:116:MET:HB3	1.98	0.44
1:B:990:GLU:O	1:B:994:ASN:HB2	2.17	0.44
1:B:1066:GLN:HA	1:B:1069:TRP:HE3	1.81	0.44
1:B:1727:ARG:HH21	1:B:1775:HIS:HA	1.82	0.44
1:B:2110:TYR:HB2	1:B:3694:LYS:HB2	1.99	0.44
1:B:2247:GLN:HG3	1:B:2279:SER:HA	1.99	0.44
1:B:2751:LEU:HD12	1:B:2823:ILE:HD11	1.99	0.44
1:B:3955:MET:CE	1:B:4015:GLU:HG2	2.48	0.44
1:B:4581:LYS:HG2	1:B:4632:LEU:HB2	2.00	0.44
1:B:4931:ILE:O	1:B:4935:LEU:HG	2.18	0.44
1:E:283:ARG:HG2	1:E:284:HIS:N	2.33	0.44
1:E:3019:SER:OG	1:E:3023:LYS:O	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3192:GLU:OE1	1:E:3196:ARG:NH2	2.51	0.44
1:E:3263:TYR:HE1	1:E:3326:ASN:ND2	2.16	0.44
1:E:3320:LEU:HD22	1:E:3357:HIS:HB3	2.00	0.44
1:E:3752:SER:HB2	1:E:3755:GLU:HG3	1.99	0.44
1:G:1518:CYS:HB3	1:G:1527:MET:HE1	2.00	0.44
1:G:3192:GLU:OE1	1:G:3196:ARG:NH2	2.51	0.44
1:G:3320:LEU:HD22	1:G:3357:HIS:HB3	2.00	0.44
1:J:148:TRP:HA	1:J:173:SER:HA	2.00	0.44
1:J:1041:GLN:O	1:J:1045:THR:HG23	2.17	0.44
1:J:1780:PRO:HG2	2:I:42:ARG:HD3	2.00	0.44
1:J:5003:HIS:HD2	1:J:5007:GLU:HB3	1.82	0.44
3:F:14:ALA:HA	3:F:85:LEU:HB2	1.98	0.44
3:F:34:MET:HE1	3:F:95:CYS:HB2	1.98	0.44
3:K:64:LYS:HG3	3:K:86:LYS:NZ	2.31	0.44
1:B:100:THR:HG21	1:B:162:LYS:HD3	2.00	0.44
1:B:1741:GLU:O	1:B:1745:ILE:HG13	2.17	0.44
1:B:2506:LEU:HD12	1:B:2510:TYR:HB2	1.99	0.44
1:B:2610:LEU:O	1:B:2614:ILE:HG12	2.18	0.44
1:B:2627:VAL:O	1:B:2631:PRO:HD3	2.17	0.44
1:B:4013:LEU:O	1:B:4017:LEU:HG	2.17	0.44
1:B:4024:VAL:HA	1:B:4027:LEU:HD12	1.99	0.44
1:B:4573:ILE:HG12	1:B:4646:LEU:HB3	2.00	0.44
1:B:4580:TYR:CE2	1:B:4807:PHE:HE1	2.36	0.44
1:E:1573:MET:HE1	1:E:1587:PRO:HA	2.00	0.44
1:E:1691:GLN:NE2	1:E:1803:PRO:HD2	2.33	0.44
1:E:2593:ARG:H	1:E:2593:ARG:HD3	1.82	0.44
1:E:4131:ARG:HG3	1:E:4132:PHE:CD1	2.52	0.44
1:E:4998:LYS:HG3	1:E:5003:HIS:CE1	2.53	0.44
1:G:947:GLU:HA	1:G:950:LEU:HD12	2.00	0.44
1:G:981:GLN:HG3	1:G:1047:LEU:HD21	2.00	0.44
1:G:1078:GLU:HG2	1:G:1080:SER:H	1.82	0.44
1:G:3934:TYR:CE1	1:G:3999:MET:HB2	2.53	0.44
1:J:179:TYR:H	1:J:195:PHE:HA	1.83	0.44
1:J:981:GLN:HG3	1:J:1047:LEU:HD21	2.00	0.44
1:J:1245:PHE:CD2	1:J:1290:ARG:HG2	2.52	0.44
1:J:1455:PRO:HG3	1:J:1549:PHE:HE1	1.82	0.44
1:J:1743:ARG:O	1:J:1964:ARG:NH1	2.51	0.44
1:J:2318:TYR:HA	1:J:2395:PRO:HA	1.99	0.44
1:J:2742:THR:HG21	1:J:2815:ALA:N	2.33	0.44
1:J:3367:LYS:O	1:J:3371:LYS:HG2	2.17	0.44
1:J:3994:HIS:O	1:J:3998:HIS:ND1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:668:VAL:O	1:B:741:GLU:N	2.51	0.44
1:B:1723:ALA:O	1:B:1727:ARG:HD3	2.18	0.44
1:B:1743:ARG:O	1:B:1964:ARG:NH1	2.51	0.44
1:B:2107:GLN:HA	1:B:3694:LYS:NZ	2.33	0.44
1:B:2624:ARG:HD2	1:B:2910:THR:CG2	2.48	0.44
1:B:2965:ARG:HA	1:B:2968:ASP:OD2	2.18	0.44
1:B:3037:GLU:HB2	1:B:3085:PRO:HG2	1.99	0.44
1:B:3042:LEU:HA	1:B:3045:LYS:HD2	2.00	0.44
1:B:3127:GLN:HB2	1:B:3130:THR:HG22	2.00	0.44
1:B:3730:ALA:O	1:B:3734:HIS:CD2	2.71	0.44
1:B:3934:TYR:CE1	1:B:3999:MET:HB2	2.53	0.44
1:E:179:TYR:H	1:E:195:PHE:HA	1.83	0.44
1:E:1291:LEU:HB3	1:E:1595:LEU:HD11	2.00	0.44
1:E:1741:GLU:O	1:E:1745:ILE:HG13	2.17	0.44
1:E:2563:THR:HG22	1:E:2606:CYS:HA	2.00	0.44
1:E:2610:LEU:O	1:E:2614:ILE:HG12	2.18	0.44
1:E:3127:GLN:HB2	1:E:3130:THR:HG22	2.00	0.44
1:E:3206:LEU:HD11	1:E:3276:MET:SD	2.58	0.44
1:E:4931:ILE:O	1:E:4935:LEU:HG	2.18	0.44
1:G:246:TYR:HA	1:G:374:LYS:O	2.18	0.44
1:G:548:VAL:HA	1:G:551:LEU:HG	2.00	0.44
1:G:678:GLN:HA	2:H:40:ARG:NH2	2.32	0.44
1:G:871:ARG:NH1	1:G:922:LEU:HD22	2.32	0.44
1:G:1041:GLN:O	1:G:1045:THR:HG23	2.17	0.44
1:G:1561:VAL:HG23	1:G:1562:ILE:HG12	1.99	0.44
1:G:1698:LEU:HG	1:G:1712:TYR:CE1	2.53	0.44
1:G:2215:LEU:HD11	1:G:2229:VAL:HG22	1.99	0.44
1:G:2563:THR:HG22	1:G:2606:CYS:HA	2.00	0.44
1:G:2788:HIS:CD2	1:G:2789:PRO:HD2	2.52	0.44
1:G:3719:ASP:HB2	1:G:3722:TYR:HB3	1.98	0.44
1:J:217:GLY:O	1:J:261:ARG:NH1	2.51	0.44
1:J:414:PHE:CD1	1:J:441:VAL:HG21	2.53	0.44
1:J:1291:LEU:HB3	1:J:1595:LEU:HD11	2.00	0.44
1:J:2107:GLN:HA	1:J:3694:LYS:NZ	2.33	0.44
1:J:3021:PRO:HD3	1:J:3036:LYS:NZ	2.32	0.44
1:J:3042:LEU:HA	1:J:3045:LYS:HD2	2.00	0.44
1:J:3730:ALA:O	1:J:3734:HIS:CD2	2.71	0.44
1:J:4148:THR:O	1:J:4152:GLU:HG3	2.18	0.44
1:J:4998:LYS:HG3	1:J:5003:HIS:CE1	2.53	0.44
1:B:1245:PHE:CD2	1:B:1290:ARG:HG2	2.52	0.43
1:B:2355:ARG:HD3	1:B:2358:ILE:HD11	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2773:ASN:HA	1:G:1508:ARG:HH21	1.83	0.43
1:B:2788:HIS:CD2	1:B:2789:PRO:HD2	2.52	0.43
1:B:2827:ARG:NE	1:B:2935:TYR:OH	2.28	0.43
1:B:3445:TRP:HD1	1:B:3451:PHE:CE2	2.35	0.43
1:B:3752:SER:O	1:B:3756:LYS:HG3	2.17	0.43
1:B:4948:GLU:HA	1:B:4951:LYS:NZ	2.32	0.43
1:E:248:GLU:HB3	1:E:373:LYS:N	2.33	0.43
1:E:266:ARG:NH2	1:E:269:TRP:O	2.51	0.43
1:E:659:TYR:HB2	1:E:1017:ARG:NH2	2.32	0.43
1:E:1161:ILE:HD11	1:E:1177:THR:HG22	2.00	0.43
1:E:2230:THR:O	1:E:2234:ARG:HG3	2.18	0.43
1:E:2318:TYR:HA	1:E:2395:PRO:HA	1.99	0.43
1:E:3999:MET:HG3	1:E:4003:LEU:HG	2.00	0.43
1:E:4581:LYS:HG2	1:E:4632:LEU:HB2	2.00	0.43
1:G:996:TRP:O	1:G:1000:ARG:HG2	2.18	0.43
1:G:1727:ARG:HH21	1:G:1775:HIS:HA	1.82	0.43
1:G:2355:ARG:HD3	1:G:2358:ILE:HD11	1.99	0.43
1:G:2950:SER:O	1:G:2954:ARG:HG3	2.18	0.43
1:G:3384:LYS:HG2	1:G:3386:GLU:H	1.82	0.43
1:J:266:ARG:NH2	1:J:269:TRP:O	2.51	0.43
1:J:1561:VAL:HG23	1:J:1562:ILE:HG12	1.99	0.43
1:J:1691:GLN:NE2	1:J:1803:PRO:HD2	2.33	0.43
1:J:1698:LEU:HG	1:J:1712:TYR:CE1	2.53	0.43
1:J:2230:THR:O	1:J:2234:ARG:HG3	2.18	0.43
1:J:2755:ILE:HG22	1:J:2810:LYS:NZ	2.33	0.43
1:J:3967:GLU:CA	1:J:3970:GLN:HG2	2.39	0.43
1:J:4559:PHE:CE1	1:J:4661:TYR:HB2	2.53	0.43
3:F:52:THR:OG1	3:F:56:SER:HB2	2.18	0.43
1:B:981:GLN:HG3	1:B:1047:LEU:HD21	2.00	0.43
1:B:1623:ARG:HA	1:B:1623:ARG:HH11	1.83	0.43
1:B:4998:LYS:HG3	1:B:5003:HIS:CE1	2.53	0.43
1:E:1116:GLY:HA3	1:E:1132:TRP:HB3	2.00	0.43
1:E:1508:ARG:HH21	1:J:2773:ASN:HA	1.82	0.43
1:E:1723:ALA:O	1:E:1727:ARG:HD3	2.18	0.43
1:E:2867:LEU:HG	1:E:2868:SER:H	1.83	0.43
1:E:2967:MET:O	1:E:2970:SER:OG	2.27	0.43
1:E:3181:THR:O	1:E:3185:LYS:HG2	2.18	0.43
1:E:3367:LYS:O	1:E:3371:LYS:HG2	2.17	0.43
1:E:4727:LYS:HD3	1:E:4728:HIS:CE1	2.53	0.43
1:G:113:HIS:NE2	1:G:402:ARG:HB3	2.33	0.43
1:G:1455:PRO:HG3	1:G:1549:PHE:HE1	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2107:GLN:HA	1:G:3694:LYS:NZ	2.33	0.43
1:G:2495:VAL:HG22	1:G:2497:ASP:H	1.83	0.43
1:G:3206:LEU:HD11	1:G:3276:MET:SD	2.58	0.43
1:G:4559:PHE:CE1	1:G:4661:TYR:HB2	2.53	0.43
1:J:210:GLU:HG3	1:J:213:TYR:HB2	1.99	0.43
1:J:1037:ASP:O	1:J:1041:GLN:HG2	2.17	0.43
1:J:1646:ARG:NH1	1:J:1648:MET:SD	2.90	0.43
1:J:2867:LEU:HG	1:J:2868:SER:H	1.83	0.43
1:J:3180:ASN:OD1	1:J:3181:THR:N	2.51	0.43
1:J:3192:GLU:OE1	1:J:3196:ARG:NH2	2.51	0.43
1:J:4131:ARG:HG3	1:J:4132:PHE:CD1	2.52	0.43
3:F:39:GLN:HE21	3:F:92:VAL:HB	1.84	0.43
3:K:52:THR:OG1	3:K:56:SER:HB2	2.18	0.43
1:B:217:GLY:O	1:B:261:ARG:NH1	2.51	0.43
1:B:1161:ILE:HD11	1:B:1177:THR:HG22	2.00	0.43
1:B:1658:ASP:OD1	1:B:1658:ASP:N	2.51	0.43
1:B:2572:THR:O	1:B:2572:THR:HG22	2.19	0.43
1:B:2593:ARG:H	1:B:2593:ARG:HD3	1.82	0.43
1:B:3180:ASN:OD1	1:B:3181:THR:N	2.51	0.43
1:B:3337:ARG:HG2	1:B:3341:PHE:CD1	2.54	0.43
1:B:3672:ARG:NH1	1:B:3676:ASP:OD2	2.51	0.43
1:B:3724:ALA:O	1:B:3728:ILE:HG13	2.17	0.43
1:B:3994:HIS:O	1:B:3998:HIS:ND1	2.51	0.43
1:B:4000:MET:HE3	1:B:4061:PHE:HB2	1.99	0.43
1:B:4148:THR:O	1:B:4152:GLU:HG3	2.18	0.43
1:E:414:PHE:CD1	1:E:441:VAL:HG21	2.53	0.43
1:E:516:LYS:HE2	1:E:516:LYS:HB2	1.82	0.43
1:E:880:GLU:O	1:E:884:LEU:HG	2.17	0.43
1:E:1743:ARG:O	1:E:1964:ARG:NH1	2.51	0.43
1:E:2742:THR:HG21	1:E:2815:ALA:N	2.33	0.43
1:E:3104:GLU:O	1:E:3107:VAL:HG22	2.18	0.43
1:E:3180:ASN:OD1	1:E:3181:THR:N	2.51	0.43
1:E:3955:MET:CE	1:E:4015:GLU:HG2	2.48	0.43
1:E:4247:ILE:O	1:E:4251:ILE:HG13	2.18	0.43
1:G:228:ASP:O	1:G:250:GLY:N	2.51	0.43
1:G:1098:GLY:O	1:G:1127:HIS:HB2	2.19	0.43
1:G:1270:LEU:O	1:G:1563:GLN:HA	2.18	0.43
1:G:2230:THR:HG22	1:G:2234:ARG:HH11	1.82	0.43
1:G:2263:ILE:HA	1:G:2330:ARG:HH12	1.83	0.43
1:G:2447:LYS:O	1:G:2451:LEU:HG	2.19	0.43
1:G:3073:ARG:HA	1:G:3146:HIS:CE1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3263:TYR:HE1	1:G:3326:ASN:ND2	2.16	0.43
1:G:3765:TYR:CE2	1:G:3769:ARG:HD3	2.54	0.43
1:G:4931:ILE:O	1:G:4935:LEU:HG	2.18	0.43
1:J:1727:ARG:HH21	1:J:1775:HIS:HA	1.82	0.43
1:J:2230:THR:HG22	1:J:2234:ARG:HH11	1.83	0.43
1:J:3934:TYR:CE1	1:J:3999:MET:HB2	2.52	0.43
1:J:4727:LYS:HD3	1:J:4728:HIS:CE1	2.53	0.43
1:B:2755:ILE:HG22	1:B:2810:LYS:NZ	2.33	0.43
1:B:3073:ARG:HA	1:B:3146:HIS:CE1	2.54	0.43
1:B:3206:LEU:HD11	1:B:3276:MET:SD	2.58	0.43
1:B:3320:LEU:HD22	1:B:3357:HIS:HB3	2.00	0.43
1:E:113:HIS:NE2	1:E:402:ARG:HB3	2.34	0.43
1:E:1270:LEU:O	1:E:1563:GLN:HA	2.18	0.43
1:E:1698:LEU:HG	1:E:1712:TYR:CE1	2.53	0.43
1:E:1699:GLU:HA	1:E:1814:MET:HE1	2.00	0.43
1:E:2965:ARG:HA	1:E:2968:ASP:OD2	2.18	0.43
1:E:3037:GLU:HB2	1:E:3085:PRO:HG2	1.99	0.43
1:E:3042:LEU:HA	1:E:3045:LYS:HD2	2.00	0.43
1:E:4996:ILE:HD13	6:E:5103:CFF:C8	2.49	0.43
1:G:700:GLU:N	1:G:705:ASN:OD1	2.52	0.43
1:G:1161:ILE:HD11	1:G:1177:THR:HG22	2.00	0.43
1:G:1857:GLU:O	1:G:1861:GLN:HG3	2.18	0.43
1:G:3337:ARG:HG2	1:G:3341:PHE:CD1	2.54	0.43
1:G:3724:ALA:O	1:G:3728:ILE:HG13	2.17	0.43
1:G:3884:LEU:O	1:G:3888:LEU:HG	2.18	0.43
1:G:4148:THR:O	1:G:4152:GLU:HG3	2.18	0.43
1:G:4727:LYS:HD3	1:G:4728:HIS:CE1	2.53	0.43
1:G:4823:LEU:O	1:G:4827:LEU:HG	2.19	0.43
1:J:488:LEU:HD11	1:J:540:PHE:CZ	2.54	0.43
1:J:1098:GLY:O	1:J:1127:HIS:HB2	2.19	0.43
1:J:2447:LYS:O	1:J:2451:LEU:HG	2.19	0.43
1:J:2558:VAL:O	1:J:2562:ILE:HG12	2.18	0.43
1:J:2691:TYR:HA	1:J:2696:TYR:CE1	2.54	0.43
1:J:2751:LEU:HD12	1:J:2823:ILE:HD11	1.99	0.43
1:J:3752:SER:HB2	1:J:3755:GLU:HG3	1.99	0.43
3:C:52:THR:OG1	3:C:56:SER:HB2	2.18	0.43
1:B:468:LEU:O	1:B:472:ARG:HG2	2.19	0.43
1:B:548:VAL:HA	1:B:551:LEU:HG	2.00	0.43
1:B:985:VAL:HG11	1:B:1040:CYS:SG	2.58	0.43
1:B:3104:GLU:O	1:B:3107:VAL:HG22	2.18	0.43
1:B:3568:SER:O	1:B:3571:TRP:NE1	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1101:ARG:HB3	1:E:1123:VAL:HG21	2.01	0.43
1:E:2558:VAL:O	1:E:2562:ILE:HG12	2.18	0.43
1:E:3958:ALA:HA	1:E:3961:VAL:HG12	2.01	0.43
1:E:4148:THR:O	1:E:4152:GLU:HG3	2.18	0.43
1:G:100:THR:HG21	1:G:162:LYS:HD3	2.00	0.43
1:G:179:TYR:H	1:G:195:PHE:HA	1.83	0.43
1:G:283:ARG:HG2	1:G:284:HIS:N	2.33	0.43
1:G:2819:TRP:NE1	1:G:2881:ASN:OD1	2.36	0.43
1:G:4998:LYS:HG3	1:G:5003:HIS:CE1	2.53	0.43
1:J:985:VAL:HG11	1:J:1040:CYS:SG	2.58	0.43
1:J:996:TRP:O	1:J:1000:ARG:HG2	2.18	0.43
1:J:1101:ARG:HB3	1:J:1123:VAL:HG21	2.01	0.43
1:J:1161:ILE:HD11	1:J:1177:THR:HG22	2.00	0.43
1:J:3086:GLU:HA	1:J:3089:LYS:HE3	2.00	0.43
1:J:3104:GLU:O	1:J:3107:VAL:HG22	2.18	0.43
1:J:4558:ASN:O	1:J:4562:LEU:HG	2.17	0.43
1:J:4931:ILE:O	1:J:4935:LEU:HG	2.18	0.43
1:J:4996:ILE:HD13	6:J:5103:CFF:C8	2.49	0.43
1:B:210:GLU:HG3	1:B:213:TYR:HB2	1.99	0.43
1:B:1116:GLY:HA3	1:B:1132:TRP:HB3	1.99	0.43
1:B:1270:LEU:O	1:B:1563:GLN:HA	2.18	0.43
1:B:2950:SER:O	1:B:2954:ARG:HG3	2.18	0.43
1:B:4558:ASN:O	1:B:4562:LEU:HG	2.18	0.43
1:B:4727:LYS:HD3	1:B:4728:HIS:CE1	2.53	0.43
1:B:4823:LEU:O	1:B:4827:LEU:HG	2.19	0.43
1:E:1037:ASP:O	1:E:1041:GLN:HG2	2.17	0.43
1:E:1105:ALA:O	1:E:1189:LEU:N	2.46	0.43
1:E:2247:GLN:HG3	1:E:2279:SER:HA	1.99	0.43
1:E:2624:ARG:HD2	1:E:2910:THR:CG2	2.48	0.43
1:E:3765:TYR:CE2	1:E:3769:ARG:HD3	2.54	0.43
1:G:277:GLY:N	1:G:316:PHE:O	2.45	0.43
1:G:363:ASP:HB3	1:G:366:ALA:HB3	2.01	0.43
1:G:659:TYR:HB2	1:G:1017:ARG:NH2	2.32	0.43
1:G:870:ILE:HD12	1:G:1051:TYR:CE1	2.54	0.43
1:G:1743:ARG:O	1:G:1964:ARG:NH1	2.51	0.43
1:G:2212:VAL:HG22	1:G:2256:TYR:OH	2.19	0.43
1:G:2716:ASP:N	1:G:2716:ASP:OD1	2.52	0.43
1:G:3514:LEU:HD11	1:G:3606:LEU:HB2	2.00	0.43
1:G:3955:MET:CE	1:G:4015:GLU:HG2	2.48	0.43
1:G:4128:PHE:HA	1:G:4131:ARG:NE	2.33	0.43
1:G:4247:ILE:O	1:G:4251:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4996:ILE:HD13	6:G:5103:CFF:C8	2.49	0.43
1:J:668:VAL:O	1:J:741:GLU:N	2.51	0.43
1:J:1078:GLU:HG2	1:J:1080:SER:H	1.82	0.43
1:J:3672:ARG:NH1	1:J:3676:ASP:OD2	2.51	0.43
2:I:2:VAL:HG21	2:I:61:GLU:OE2	2.19	0.43
1:B:179:TYR:H	1:B:195:PHE:HA	1.83	0.43
1:B:627:PRO:HG3	2:A:89:GLY:H	1.84	0.43
1:B:1698:LEU:HG	1:B:1712:TYR:CE1	2.53	0.43
1:B:2210:VAL:O	1:B:2214:VAL:HG12	2.19	0.43
1:B:2230:THR:HG22	1:B:2234:ARG:HH11	1.83	0.43
1:B:2469:ILE:HD12	1:B:2472:LEU:HD12	2.01	0.43
1:B:2754:PHE:HE1	1:B:2933:ASN:ND2	2.13	0.43
1:B:3847:PHE:HD1	1:B:3850:GLN:HE21	1.67	0.43
1:B:3874:VAL:HG23	1:B:3875:MET:N	2.34	0.43
1:B:4664:LEU:HD12	1:B:4665:LYS:N	2.34	0.43
1:E:1780:PRO:HG2	2:D:42:ARG:HD3	2.00	0.43
1:E:2230:THR:HG22	1:E:2234:ARG:HH11	1.82	0.43
1:E:2572:THR:O	1:E:2572:THR:HG22	2.19	0.43
1:E:4128:PHE:HA	1:E:4131:ARG:NE	2.33	0.43
1:G:217:GLY:O	1:G:261:ARG:NH1	2.51	0.43
1:G:516:LYS:HE2	1:G:516:LYS:HB2	1.82	0.43
1:G:2558:VAL:O	1:G:2562:ILE:HG12	2.18	0.43
1:G:2572:THR:O	1:G:2572:THR:HG22	2.19	0.43
1:G:2624:ARG:HD2	1:G:2910:THR:CG2	2.48	0.43
1:G:2755:ILE:HG22	1:G:2810:LYS:NZ	2.33	0.43
1:G:3127:GLN:HB2	1:G:3130:THR:HG22	2.00	0.43
1:G:4013:LEU:O	1:G:4017:LEU:HG	2.18	0.43
1:J:468:LEU:O	1:J:472:ARG:HG2	2.19	0.43
1:J:1569:GLN:HB2	1:J:1572:ILE:HD12	2.00	0.43
1:J:1857:GLU:O	1:J:1861:GLN:HG3	2.18	0.43
1:J:2820:GLU:HG3	1:J:2821:TRP:CD1	2.53	0.43
3:M:39:GLN:HE21	3:M:92:VAL:HB	1.83	0.43
1:B:870:ILE:HD12	1:B:1051:TYR:CE1	2.54	0.43
1:B:883:ALA:HA	1:B:886:ARG:HH21	1.83	0.43
1:B:1599:MET:SD	1:B:1599:MET:N	2.92	0.43
1:B:2447:LYS:O	1:B:2451:LEU:HG	2.19	0.43
1:B:3051:ARG:HD2	1:B:3131:TYR:CE2	2.54	0.43
1:E:1839:VAL:O	1:E:1843:LYS:HG3	2.19	0.43
1:E:3051:ARG:HD2	1:E:3131:TYR:CE2	2.54	0.43
1:E:3086:GLU:HA	1:E:3089:LYS:HE3	2.00	0.43
1:E:3321:ARG:HA	1:E:3324:VAL:HG12	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3514:LEU:HD21	1:E:3606:LEU:HD22	2.00	0.43
1:E:3568:SER:O	1:E:3571:TRP:NE1	2.51	0.43
1:E:3961:VAL:O	1:E:3965:LEU:HG	2.18	0.43
1:E:4580:TYR:CE2	1:E:4807:PHE:HE1	2.36	0.43
1:G:118:LEU:HA	1:G:137:LEU:HD23	1.99	0.43
1:G:827:LYS:HE2	1:G:827:LYS:HB2	1.83	0.43
1:G:1839:VAL:O	1:G:1843:LYS:HG3	2.19	0.43
1:G:2957:PHE:HE1	1:G:2961:GLN:HE21	1.67	0.43
1:G:4045:VAL:O	1:G:4049:VAL:HG13	2.19	0.43
1:G:4573:ILE:HG12	1:G:4646:LEU:HB3	2.00	0.43
1:G:4664:LEU:HD12	1:G:4665:LYS:N	2.34	0.43
1:J:100:THR:HG21	1:J:162:LYS:HD3	2.00	0.43
1:J:113:HIS:NE2	1:J:402:ARG:HB3	2.34	0.43
1:J:257:ARG:O	1:J:284:HIS:NE2	2.34	0.43
1:J:1007:TYR:CD1	1:J:1022:VAL:HG13	2.54	0.43
1:J:1116:GLY:HA3	1:J:1132:TRP:HB3	2.00	0.43
1:J:1154:ASP:OD1	1:J:1159:THR:OG1	2.30	0.43
1:J:1839:VAL:O	1:J:1843:LYS:HG3	2.19	0.43
1:J:2013:LYS:NZ	1:J:3664:THR:OG1	2.38	0.43
1:J:2624:ARG:HD2	1:J:2910:THR:CG2	2.48	0.43
1:J:2716:ASP:N	1:J:2716:ASP:OD1	2.52	0.43
1:J:2965:ARG:HA	1:J:2968:ASP:OD2	2.18	0.43
1:J:3765:TYR:CE2	1:J:3769:ARG:HD3	2.54	0.43
2:A:7:ILE:HG21	2:A:71:ARG:HE	1.84	0.43
1:B:816:LEU:HB2	1:B:819:GLU:HB2	2.01	0.43
1:B:1691:GLN:NE2	1:B:1803:PRO:HD2	2.33	0.43
1:B:1857:GLU:O	1:B:1861:GLN:HG3	2.18	0.43
1:B:2748:PRO:HB2	1:B:2750:LYS:HG2	2.01	0.43
1:B:2957:PHE:HE1	1:B:2961:GLN:HE21	1.67	0.43
1:B:4088:ILE:HD12	1:B:4093:PHE:HD2	1.84	0.43
1:E:883:ALA:HA	1:E:886:ARG:HH21	1.83	0.43
1:E:981:GLN:HG3	1:E:1047:LEU:HD21	2.00	0.43
1:E:1098:GLY:O	1:E:1127:HIS:HB2	2.18	0.43
1:E:1623:ARG:HA	1:E:1623:ARG:HH11	1.82	0.43
1:E:2767:ALA:HB2	1:E:2791:LEU:HD21	2.01	0.43
1:E:2961:GLN:HA	1:E:2964:LEU:HD12	2.01	0.43
1:E:3233:PRO:HB2	1:E:3238:GLU:OE2	2.19	0.43
1:E:3994:HIS:O	1:E:3998:HIS:ND1	2.51	0.43
1:E:4013:LEU:O	1:E:4017:LEU:HG	2.17	0.43
1:G:148:TRP:HA	1:G:173:SER:HA	2.00	0.43
1:G:488:LEU:HD11	1:G:540:PHE:CZ	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2593:ARG:H	1:G:2593:ARG:HD3	1.82	0.43
1:G:3086:GLU:HA	1:G:3089:LYS:HE3	2.00	0.43
1:J:548:VAL:HA	1:J:551:LEU:HG	2.00	0.43
1:J:634:GLN:HG3	2:I:34:LYS:NZ	2.34	0.43
1:J:1105:ALA:O	1:J:1189:LEU:N	2.46	0.43
1:J:1518:CYS:HB3	1:J:1527:MET:HE1	2.00	0.43
1:J:2215:LEU:HD11	1:J:2229:VAL:HG22	1.99	0.43
1:J:2506:LEU:HD12	1:J:2510:TYR:HB2	1.99	0.43
1:J:2515:GLN:O	1:J:2519:LEU:HG	2.19	0.43
1:J:3683:GLN:H	1:J:3683:GLN:CD	2.22	0.43
1:J:4247:ILE:O	1:J:4251:ILE:HG13	2.18	0.43
1:J:4664:LEU:HD12	1:J:4665:LYS:N	2.34	0.43
1:J:4823:LEU:O	1:J:4827:LEU:HG	2.19	0.43
2:A:2:VAL:HG21	2:A:61:GLU:OE2	2.19	0.43
2:D:7:ILE:HG21	2:D:71:ARG:HE	1.84	0.43
3:C:39:GLN:HE21	3:C:92:VAL:HB	1.84	0.43
1:B:2263:ILE:HA	1:B:2330:ARG:HH12	1.83	0.43
1:B:2292:GLU:OE1	1:B:2292:GLU:N	2.42	0.43
1:B:2515:GLN:O	1:B:2519:LEU:HG	2.19	0.43
1:B:2742:THR:HG21	1:B:2815:ALA:N	2.33	0.43
1:B:2867:LEU:HG	1:B:2868:SER:H	1.83	0.43
1:B:3765:TYR:CE2	1:B:3769:ARG:HD3	2.54	0.43
1:B:4247:ILE:O	1:B:4251:ILE:HG13	2.18	0.43
1:B:4996:ILE:HD13	6:B:5103:CFF:C8	2.49	0.43
1:E:488:LEU:HD11	1:E:540:PHE:CZ	2.54	0.43
1:E:668:VAL:O	1:E:741:GLU:N	2.51	0.43
1:E:2716:ASP:OD1	1:E:2716:ASP:N	2.52	0.43
1:E:2827:ARG:NE	1:E:2935:TYR:OH	2.28	0.43
1:E:3439:GLY:O	1:E:3443:ILE:HG23	2.18	0.43
1:E:3514:LEU:HD11	1:E:3606:LEU:HB2	2.00	0.43
1:G:246:TYR:HB3	1:G:374:LYS:H	1.84	0.43
1:G:634:GLN:HG3	2:H:34:LYS:HZ2	1.84	0.43
1:G:2318:TYR:HA	1:G:2395:PRO:HA	1.99	0.43
1:G:2469:ILE:HD12	1:G:2472:LEU:HD12	2.01	0.43
1:G:3672:ARG:NH1	1:G:3676:ASP:OD2	2.51	0.43
1:J:283:ARG:HG2	1:J:284:HIS:N	2.33	0.43
1:J:1615:VAL:HG22	1:J:1630:CYS:SG	2.59	0.43
1:J:1658:ASP:OD1	1:J:1658:ASP:N	2.51	0.43
1:J:2495:VAL:HG22	1:J:2497:ASP:H	1.83	0.43
1:J:2748:PRO:HB2	1:J:2750:LYS:HG2	2.01	0.43
1:J:2909:ASP:C	1:J:2911:LEU:H	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2950:SER:O	1:J:2954:ARG:HG3	2.18	0.43
1:J:3263:TYR:HE1	1:J:3326:ASN:ND2	2.16	0.43
1:J:3999:MET:HG3	1:J:4003:LEU:HG	2.01	0.43
1:J:4088:ILE:HD12	1:J:4093:PHE:HD2	1.84	0.43
1:J:4573:ILE:HG12	1:J:4646:LEU:HB3	2.00	0.43
1:J:4948:GLU:HA	1:J:4951:LYS:NZ	2.32	0.43
3:F:34:MET:HE3	3:F:95:CYS:HB2	2.01	0.43
1:B:1098:GLY:O	1:B:1127:HIS:HB2	2.19	0.42
1:B:2212:VAL:HG22	1:B:2256:TYR:OH	2.19	0.42
1:B:2558:VAL:O	1:B:2562:ILE:HG12	2.18	0.42
1:B:2961:GLN:HA	1:B:2964:LEU:HD12	2.01	0.42
1:B:3514:LEU:HD21	1:B:3606:LEU:HD22	2.00	0.42
1:E:816:LEU:HB2	1:E:819:GLU:HB2	2.01	0.42
1:E:1658:ASP:OD1	1:E:1658:ASP:N	2.51	0.42
1:E:2107:GLN:HA	1:E:3694:LYS:NZ	2.33	0.42
1:E:2263:ILE:HA	1:E:2330:ARG:HH12	1.83	0.42
1:E:2748:PRO:HB2	1:E:2750:LYS:HG2	2.01	0.42
1:E:2754:PHE:HE1	1:E:2933:ASN:ND2	2.13	0.42
1:E:2888:ARG:O	1:E:2892:GLN:HG2	2.19	0.42
1:E:3886:ARG:HD2	1:E:3889:GLN:HE21	1.84	0.42
1:E:4823:LEU:O	1:E:4827:LEU:HG	2.19	0.42
1:G:210:GLU:HG3	1:G:213:TYR:HB2	1.99	0.42
1:G:266:ARG:NH2	1:G:269:TRP:O	2.51	0.42
1:G:887:ILE:HD13	1:G:959:TYR:HB3	2.01	0.42
1:G:985:VAL:HG11	1:G:1040:CYS:SG	2.58	0.42
1:G:1000:ARG:NH2	3:M:114:TYR:HA	2.34	0.42
1:G:1101:ARG:HB3	1:G:1123:VAL:HG21	2.01	0.42
1:G:3104:GLU:O	1:G:3107:VAL:HG22	2.18	0.42
1:G:3568:SER:O	1:G:3571:TRP:NE1	2.51	0.42
1:G:4088:ILE:HD12	1:G:4093:PHE:HD2	1.84	0.42
1:J:816:LEU:HB2	1:J:819:GLU:HB2	2.01	0.42
1:J:2210:VAL:O	1:J:2214:VAL:HG12	2.19	0.42
1:J:3127:GLN:HB2	1:J:3130:THR:HG22	2.00	0.42
1:J:3568:SER:O	1:J:3571:TRP:NE1	2.51	0.42
1:J:3870:ASN:O	1:J:3873:LYS:HG2	2.19	0.42
1:J:4088:ILE:O	1:J:4088:ILE:HG13	2.19	0.42
2:H:2:VAL:HG21	2:H:61:GLU:OE2	2.19	0.42
3:F:33:SER:HG	3:F:101:PRO:HA	1.84	0.42
1:B:926:GLY:O	1:B:930:LYS:HG3	2.19	0.42
1:B:996:TRP:O	1:B:1000:ARG:HG2	2.18	0.42
1:B:1224:GLU:OE2	1:B:1228:ILE:HG21	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1698:LEU:HG	1:B:1712:TYR:CZ	2.54	0.42
1:B:2211:MET:HE2	1:B:2272:PRO:HG3	2.02	0.42
1:B:3181:THR:O	1:B:3185:LYS:HG2	2.18	0.42
1:B:3233:PRO:HB2	1:B:3238:GLU:OE2	2.19	0.42
1:B:3886:ARG:HD2	1:B:3889:GLN:HE21	1.84	0.42
1:E:217:GLY:O	1:E:261:ARG:NH1	2.51	0.42
1:E:468:LEU:O	1:E:472:ARG:HG2	2.19	0.42
1:E:985:VAL:HG11	1:E:1040:CYS:SG	2.58	0.42
1:E:1224:GLU:OE2	1:E:1228:ILE:HG21	2.19	0.42
1:E:1698:LEU:HG	1:E:1712:TYR:CZ	2.54	0.42
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.19	0.42
1:E:2212:VAL:HG22	1:E:2256:TYR:OH	2.19	0.42
1:E:2447:LYS:O	1:E:2451:LEU:HG	2.19	0.42
1:E:2770:LYS:HD3	1:E:2786:LYS:HE3	2.02	0.42
1:E:2950:SER:O	1:E:2954:ARG:HG3	2.18	0.42
1:E:3073:ARG:HA	1:E:3146:HIS:CE1	2.54	0.42
1:E:3842:LEU:HA	1:E:3874:VAL:O	2.20	0.42
1:E:4088:ILE:O	1:E:4088:ILE:HG13	2.19	0.42
1:E:4541:TRP:O	1:E:4544:LEU:HG	2.19	0.42
1:G:64:ILE:HG23	1:G:402:ARG:HH21	1.84	0.42
1:G:468:LEU:O	1:G:472:ARG:HG2	2.19	0.42
1:G:668:VAL:O	1:G:741:GLU:N	2.51	0.42
1:G:926:GLY:O	1:G:930:LYS:HG3	2.19	0.42
1:G:1569:GLN:HB2	1:G:1572:ILE:HD12	2.00	0.42
1:G:1698:LEU:HG	1:G:1712:TYR:CZ	2.54	0.42
1:G:2965:ARG:HA	1:G:2968:ASP:OD2	2.18	0.42
1:G:3528:THR:OG1	1:G:3561:GLY:O	2.36	0.42
1:G:3683:GLN:H	1:G:3683:GLN:CD	2.22	0.42
1:G:3847:PHE:HD1	1:G:3850:GLN:HE21	1.67	0.42
1:J:700:GLU:N	1:J:705:ASN:OD1	2.52	0.42
1:J:2212:VAL:HG22	1:J:2256:TYR:OH	2.19	0.42
1:J:2572:THR:O	1:J:2572:THR:HG22	2.19	0.42
1:J:2819:TRP:NE1	1:J:2881:ASN:OD1	2.36	0.42
1:J:3530:GLN:NE2	1:J:3531:ASP:OD1	2.52	0.42
1:J:3958:ALA:HA	1:J:3961:VAL:HG12	2.01	0.42
1:J:4045:VAL:O	1:J:4049:VAL:HG13	2.19	0.42
2:D:2:VAL:HG21	2:D:61:GLU:OE2	2.19	0.42
3:F:35:GLY:HA2	3:F:50:THR:HG23	2.02	0.42
1:B:148:TRP:HA	1:B:173:SER:HA	2.00	0.42
1:B:266:ARG:NH2	1:B:269:TRP:O	2.51	0.42
1:B:283:ARG:HG2	1:B:284:HIS:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:488:LEU:HD11	1:B:540:PHE:CZ	2.54	0.42
1:B:700:GLU:N	1:B:705:ASN:OD1	2.52	0.42
1:B:2134:LEU:O	1:B:2138:LEU:HG	2.19	0.42
1:B:2208:MET:O	1:B:2212:VAL:HG23	2.20	0.42
1:B:2767:ALA:HB2	1:B:2791:LEU:HD21	2.01	0.42
1:B:3842:LEU:HA	1:B:3874:VAL:O	2.20	0.42
1:B:3958:ALA:HA	1:B:3961:VAL:HG12	2.01	0.42
1:B:4045:VAL:O	1:B:4049:VAL:HG13	2.19	0.42
1:E:700:GLU:N	1:E:705:ASN:OD1	2.52	0.42
1:E:1599:MET:SD	1:E:1599:MET:N	2.92	0.42
1:E:2001:PRO:O	1:E:2005:GLN:HG3	2.20	0.42
1:E:4664:LEU:HD12	1:E:4665:LYS:N	2.34	0.42
1:G:1007:TYR:CD1	1:G:1022:VAL:HG13	2.54	0.42
1:G:1599:MET:SD	1:G:1599:MET:N	2.92	0.42
1:G:2210:VAL:O	1:G:2214:VAL:HG12	2.19	0.42
1:G:2742:THR:HG21	1:G:2815:ALA:N	2.33	0.42
1:G:2754:PHE:HE1	1:G:2933:ASN:ND2	2.13	0.42
1:G:2909:ASP:C	1:G:2911:LEU:H	2.22	0.42
1:J:149:THR:N	1:J:172:VAL:O	2.29	0.42
1:J:151:HIS:NE2	1:J:172:VAL:HB	2.35	0.42
1:J:870:ILE:HD12	1:J:1051:TYR:CE1	2.54	0.42
1:J:887:ILE:HD13	1:J:959:TYR:HB3	2.01	0.42
1:J:1224:GLU:OE2	1:J:1228:ILE:HG21	2.19	0.42
1:J:1691:GLN:O	1:J:1695:LEU:HG	2.20	0.42
1:B:2770:LYS:HD3	1:B:2786:LYS:HE3	2.01	0.42
1:B:2888:ARG:O	1:B:2892:GLN:HG2	2.19	0.42
1:B:3530:GLN:NE2	1:B:3531:ASP:OD1	2.53	0.42
1:B:3683:GLN:H	1:B:3683:GLN:CD	2.22	0.42
1:B:3999:MET:HG3	1:B:4003:LEU:HG	2.00	0.42
1:B:4088:ILE:O	1:B:4088:ILE:HG13	2.19	0.42
1:E:870:ILE:HD12	1:E:1051:TYR:CE1	2.54	0.42
1:E:2755:ILE:HG22	1:E:2810:LYS:NZ	2.33	0.42
1:E:3021:PRO:HD3	1:E:3036:LYS:NZ	2.32	0.42
1:E:3337:ARG:HG2	1:E:3341:PHE:CD1	2.54	0.42
1:E:3528:THR:OG1	1:E:3561:GLY:O	2.36	0.42
1:G:783:PHE:HZ	1:G:1615:VAL:HG11	1.84	0.42
1:G:816:LEU:HB2	1:G:819:GLU:HB2	2.01	0.42
1:G:1087:ARG:HB3	1:G:1223:PHE:HD1	1.83	0.42
1:G:1224:GLU:OE2	1:G:1228:ILE:HG21	2.19	0.42
1:G:1615:VAL:HG22	1:G:1630:CYS:SG	2.59	0.42
1:G:2001:PRO:O	1:G:2005:GLN:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2691:TYR:HA	1:G:2696:TYR:CE1	2.54	0.42
1:G:2767:ALA:HB2	1:G:2791:LEU:HD21	2.01	0.42
1:G:3007:ASN:HA	1:G:3070:ILE:HD11	2.02	0.42
1:G:3051:ARG:HD2	1:G:3131:TYR:CE2	2.54	0.42
1:G:3233:PRO:HB2	1:G:3238:GLU:OE2	2.19	0.42
1:G:3886:ARG:HD2	1:G:3889:GLN:HE21	1.84	0.42
1:G:3958:ALA:HA	1:G:3961:VAL:HG12	2.01	0.42
1:G:3994:HIS:O	1:G:3998:HIS:ND1	2.51	0.42
1:G:4960:ILE:HB	1:G:4983:HIS:HB3	2.02	0.42
1:J:2961:GLN:HA	1:J:2964:LEU:HD12	2.01	0.42
1:J:4960:ILE:HB	1:J:4983:HIS:HB3	2.02	0.42
2:H:7:ILE:HG21	2:H:71:ARG:HE	1.84	0.42
3:K:39:GLN:HE21	3:K:92:VAL:HB	1.84	0.42
3:M:51:ILE:HG13	3:M:57:ILE:HG12	2.01	0.42
1:B:113:HIS:NE2	1:B:402:ARG:HB3	2.33	0.42
1:B:1003:GLN:HG3	3:C:1:GLN:HE22	1.84	0.42
1:B:1569:GLN:HB2	1:B:1572:ILE:HD12	2.00	0.42
1:B:1615:VAL:HG22	1:B:1630:CYS:SG	2.59	0.42
1:B:3050:VAL:HG22	1:B:3131:TYR:CE1	2.55	0.42
1:B:3086:GLU:HA	1:B:3089:LYS:HE3	2.00	0.42
1:B:3458:PHE:CZ	1:B:3464:ILE:HG13	2.55	0.42
1:B:3514:LEU:HD11	1:B:3606:LEU:HB2	2.00	0.42
1:B:3944:GLU:O	1:B:3948:LYS:HG3	2.20	0.42
1:E:783:PHE:HZ	1:E:1615:VAL:HG11	1.84	0.42
1:E:800:PHE:CD2	1:E:804:PRO:HG3	2.55	0.42
1:E:926:GLY:O	1:E:930:LYS:HG3	2.19	0.42
1:E:1025:ARG:HG3	1:E:1026:LEU:HD12	2.02	0.42
1:E:2469:ILE:HD12	1:E:2472:LEU:HD12	2.01	0.42
1:E:2691:TYR:HA	1:E:2696:TYR:CE1	2.54	0.42
1:E:2909:ASP:C	1:E:2911:LEU:H	2.22	0.42
1:E:3458:PHE:CZ	1:E:3464:ILE:HG13	2.55	0.42
1:E:4998:LYS:HB2	1:E:4998:LYS:HE3	1.83	0.42
1:G:151:HIS:NE2	1:G:172:VAL:HB	2.35	0.42
1:G:722:TRP:CZ2	1:G:727:ALA:HB2	2.55	0.42
1:G:2748:PRO:HB2	1:G:2750:LYS:HG2	2.01	0.42
1:G:3870:ASN:O	1:G:3873:LYS:HG2	2.19	0.42
1:G:4014:LYS:HG2	1:G:4135:PRO:HB3	2.02	0.42
1:G:4130:ASN:HA	1:G:4133:GLN:HG3	2.02	0.42
1:J:228:ASP:O	1:J:250:GLY:N	2.51	0.42
1:J:247:TYR:CB	1:J:374:LYS:HB2	2.47	0.42
1:J:883:ALA:HA	1:J:886:ARG:HH21	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:2770:LYS:HD3	1:J:2786:LYS:HE3	2.01	0.42
1:J:2888:ARG:O	1:J:2892:GLN:HG2	2.19	0.42
1:J:2957:PHE:HE1	1:J:2961:GLN:HE21	1.67	0.42
1:J:3181:THR:O	1:J:3185:LYS:HG2	2.18	0.42
1:J:3206:LEU:HD12	1:J:3280:TYR:CD2	2.55	0.42
1:J:3233:PRO:HB2	1:J:3238:GLU:OE2	2.19	0.42
1:J:3944:GLU:O	1:J:3948:LYS:HG3	2.20	0.42
1:J:4661:TYR:OH	1:J:4788:SER:HB2	2.19	0.42
2:I:7:ILE:HG21	2:I:71:ARG:HE	1.84	0.42
3:K:35:GLY:HA2	3:K:50:THR:HG23	2.01	0.42
1:B:2691:TYR:HA	1:B:2696:TYR:CE1	2.54	0.42
1:B:2996:LYS:O	1:B:3000:LYS:HG2	2.20	0.42
1:B:4960:ILE:HB	1:B:4983:HIS:HB3	2.02	0.42
1:E:548:VAL:HA	1:E:551:LEU:HG	2.00	0.42
1:E:1691:GLN:O	1:E:1695:LEU:HG	2.20	0.42
1:E:2598:ALA:O	1:E:2602:VAL:HG23	2.20	0.42
1:E:4021:LYS:HG3	1:E:4142:ASN:ND2	2.35	0.42
1:E:4045:VAL:O	1:E:4049:VAL:HG13	2.19	0.42
1:E:4088:ILE:HD12	1:E:4093:PHE:HD2	1.84	0.42
1:G:1105:ALA:HB2	1:G:1191:VAL:HG11	2.02	0.42
1:G:1782:PHE:O	2:H:82:TYR:OH	2.31	0.42
1:G:2598:ALA:O	1:G:2602:VAL:HG23	2.20	0.42
1:G:2760:GLU:HG2	1:G:2802:LYS:HE2	2.02	0.42
1:G:2770:LYS:HD3	1:G:2786:LYS:HE3	2.02	0.42
1:G:3445:TRP:HD1	1:G:3451:PHE:CD2	2.38	0.42
1:G:3842:LEU:HA	1:G:3874:VAL:O	2.19	0.42
1:J:277:GLY:HA2	1:J:315:CYS:HB2	2.02	0.42
1:J:1599:MET:SD	1:J:1599:MET:N	2.92	0.42
1:J:2001:PRO:O	1:J:2005:GLN:HG3	2.20	0.42
1:J:3073:ARG:HA	1:J:3146:HIS:CE1	2.54	0.42
1:J:4091:LYS:HD2	1:J:4092:ASP:N	2.35	0.42
1:B:151:HIS:NE2	1:B:172:VAL:HB	2.35	0.42
1:B:1518:CYS:HB3	1:B:1527:MET:HE1	2.00	0.42
1:B:2001:PRO:O	1:B:2005:GLN:HG3	2.20	0.42
1:B:3206:LEU:HD12	1:B:3280:TYR:CD2	2.55	0.42
1:B:3354:LEU:HB2	1:B:3415:TYR:CE2	2.55	0.42
1:E:1518:CYS:HB3	1:E:1527:MET:HE1	2.00	0.42
1:E:1569:GLN:HB2	1:E:1572:ILE:HD12	2.00	0.42
1:E:2957:PHE:HE1	1:E:2961:GLN:HE21	1.67	0.42
1:E:4661:TYR:OH	1:E:4788:SER:HB2	2.19	0.42
1:G:904:HIS:HD2	1:G:907:LEU:H	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2515:GLN:O	1:G:2519:LEU:HG	2.19	0.42
1:G:3089:LYS:O	1:G:3092:LEU:HG	2.20	0.42
1:G:3874:VAL:HG23	1:G:3875:MET:N	2.34	0.42
1:G:5013:MET:HE3	1:G:5018:CYS:C	2.40	0.42
1:J:1270:LEU:O	1:J:1563:GLN:HA	2.18	0.42
1:J:2469:ILE:HD12	1:J:2472:LEU:HD12	2.01	0.42
1:J:2598:ALA:O	1:J:2602:VAL:HG23	2.20	0.42
1:J:2767:ALA:HB2	1:J:2791:LEU:HD21	2.02	0.42
1:J:3337:ARG:HG2	1:J:3341:PHE:CD1	2.54	0.42
2:A:15:PHE:HE1	2:A:67:SER:HB3	1.85	0.42
1:B:1105:ALA:O	1:B:1189:LEU:N	2.46	0.42
1:B:2122:SER:O	1:B:2126:ARG:HG3	2.20	0.42
1:B:3020:THR:HA	1:B:3036:LYS:HE2	2.02	0.42
1:B:3445:TRP:HD1	1:B:3451:PHE:CD2	2.38	0.42
1:B:4021:LYS:HG3	1:B:4142:ASN:ND2	2.35	0.42
1:B:4569:LEU:O	1:B:4573:ILE:HG13	2.20	0.42
1:B:4779:LYS:O	1:B:4783:ILE:HG12	2.20	0.42
1:E:228:ASP:O	1:E:250:GLY:N	2.51	0.42
1:E:1857:GLU:O	1:E:1861:GLN:HG3	2.18	0.42
1:E:2515:GLN:O	1:E:2519:LEU:HG	2.19	0.42
1:E:2874:MET:CE	1:E:2937:VAL:HG11	2.50	0.42
1:E:4118:ASP:HB2	1:E:4123:ILE:CD1	2.50	0.42
1:E:4569:LEU:O	1:E:4573:ILE:HG13	2.20	0.42
1:E:4939:ALA:O	1:E:4942:GLU:HG3	2.20	0.42
1:G:639:ASN:ND2	1:G:676:THR:OG1	2.53	0.42
1:G:977:LEU:HD12	1:G:1044:ARG:HD3	2.02	0.42
1:G:1154:ASP:OD1	1:G:1159:THR:OG1	2.30	0.42
1:G:2863:SER:HB2	1:G:2924:GLN:HB2	2.02	0.42
1:G:2888:ARG:O	1:G:2892:GLN:HG2	2.19	0.42
1:G:2996:LYS:O	1:G:3000:LYS:HG2	2.20	0.42
1:G:3042:LEU:HA	1:G:3045:LYS:HD2	2.00	0.42
1:G:3050:VAL:HG22	1:G:3131:TYR:CE1	2.55	0.42
1:G:3181:THR:O	1:G:3185:LYS:HG2	2.18	0.42
1:G:3359:ILE:HB	1:G:3360:PRO:HD3	2.02	0.42
1:G:3458:PHE:CZ	1:G:3464:ILE:HG13	2.55	0.42
1:G:3514:LEU:HD21	1:G:3606:LEU:HD22	2.00	0.42
1:G:3841:VAL:HG21	1:G:3926:LEU:HA	2.02	0.42
1:G:4097:MET:CE	1:G:4103:PHE:HB2	2.50	0.42
1:G:4541:TRP:O	1:G:4544:LEU:HG	2.19	0.42
1:G:4779:LYS:O	1:G:4783:ILE:HG12	2.20	0.42
1:J:1025:ARG:HG3	1:J:1026:LEU:HD12	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:1105:ALA:HB2	1:J:1191:VAL:HG11	2.02	0.42
1:J:1450:VAL:HG22	1:J:1552:VAL:HG12	2.01	0.42
1:J:1698:LEU:HG	1:J:1712:TYR:CZ	2.54	0.42
1:J:1784:ALA:HA	2:I:55:VAL:HA	2.01	0.42
1:J:2863:SER:HB2	1:J:2924:GLN:HB2	2.02	0.42
1:J:3354:LEU:HB2	1:J:3415:TYR:CE2	2.55	0.42
1:J:3514:LEU:HD11	1:J:3606:LEU:HB2	2.00	0.42
1:J:3534:MET:O	1:J:3538:THR:HG23	2.20	0.42
1:J:3847:PHE:HD1	1:J:3850:GLN:HE21	1.67	0.42
1:J:4128:PHE:HA	1:J:4131:ARG:NE	2.33	0.42
1:J:4776:GLN:HA	1:J:4779:LYS:HG2	2.02	0.42
2:D:76:CYS:HB3	2:D:80:VAL:HG23	2.02	0.42
1:B:64:ILE:HG23	1:B:402:ARG:HH21	1.84	0.42
1:B:659:TYR:HB2	1:B:1017:ARG:NH2	2.32	0.42
1:B:894:GLY:H	1:B:904:HIS:H	1.68	0.42
1:B:913:LEU:HD13	3:C:104:TYR:OH	2.20	0.42
1:B:1101:ARG:HB3	1:B:1123:VAL:HG21	2.01	0.42
1:B:1939:MET:HA	1:B:1942:LEU:HD12	2.02	0.42
1:B:2640:PRO:O	1:B:2644:LEU:HD23	2.20	0.42
1:B:2909:ASP:C	1:B:2911:LEU:H	2.22	0.42
1:B:3008:GLN:O	1:B:3012:ASN:ND2	2.53	0.42
1:E:384:MET:SD	1:E:384:MET:N	2.85	0.42
1:E:954:LYS:HD2	1:E:954:LYS:HA	1.77	0.42
1:E:996:TRP:O	1:E:1000:ARG:HG2	2.18	0.42
1:E:1615:VAL:HG22	1:E:1630:CYS:SG	2.59	0.42
1:E:2210:VAL:O	1:E:2214:VAL:HG12	2.19	0.42
1:E:2863:SER:HB2	1:E:2924:GLN:HB2	2.02	0.42
1:E:3008:GLN:O	1:E:3012:ASN:ND2	2.53	0.42
1:E:3550:ARG:NH2	1:E:3594:ARG:HH22	2.18	0.42
1:G:1663:HIS:O	1:G:1667:LEU:HG	2.20	0.42
1:G:2874:MET:CE	1:G:2937:VAL:HG11	2.50	0.42
1:G:3530:GLN:O	1:G:3534:MET:HG2	2.20	0.42
1:G:4091:LYS:HD2	1:G:4092:ASP:N	2.35	0.42
1:G:4939:ALA:O	1:G:4942:GLU:HG3	2.20	0.42
1:J:2212:VAL:HG22	1:J:2256:TYR:CZ	2.55	0.42
1:J:2760:GLU:HG2	1:J:2802:LYS:HE2	2.02	0.42
1:J:2874:MET:CE	1:J:2937:VAL:HG11	2.50	0.42
1:J:3842:LEU:HA	1:J:3874:VAL:O	2.19	0.42
1:J:4014:LYS:HG2	1:J:4135:PRO:HB3	2.02	0.42
1:J:4859:PHE:CE1	1:J:4909:TYR:HB3	2.55	0.42
3:M:52:THR:OG1	3:M:56:SER:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:639:ASN:ND2	1:B:676:THR:OG1	2.53	0.42
1:B:722:TRP:CZ2	1:B:727:ALA:HB2	2.55	0.42
1:B:800:PHE:CD2	1:B:804:PRO:HG3	2.55	0.42
1:B:977:LEU:HD12	1:B:1044:ARG:HD3	2.02	0.42
1:B:1007:TYR:CD1	1:B:1022:VAL:HG13	2.54	0.42
1:B:1025:ARG:HG3	1:B:1026:LEU:HD12	2.02	0.42
1:B:1839:VAL:O	1:B:1843:LYS:HG3	2.19	0.42
1:B:3327:LEU:HD11	1:B:3365:LEU:HD11	2.02	0.42
1:B:4091:LYS:HD2	1:B:4092:ASP:N	2.35	0.42
1:E:639:ASN:ND2	1:E:676:THR:OG1	2.53	0.42
1:E:2122:SER:O	1:E:2126:ARG:HG3	2.20	0.42
1:E:2178:MET:O	1:E:2182:ILE:HG12	2.20	0.42
1:E:3847:PHE:HD1	1:E:3850:GLN:HE21	1.67	0.42
1:E:4014:LYS:HG2	1:E:4135:PRO:HB3	2.02	0.42
1:E:4097:MET:CE	1:E:4103:PHE:HB2	2.50	0.42
1:G:1101:ARG:HG2	1:G:1125:ASN:HB2	2.02	0.42
1:G:1691:GLN:NE2	1:G:1803:PRO:HD2	2.33	0.42
1:G:2961:GLN:HA	1:G:2964:LEU:HD12	2.01	0.42
1:G:3530:GLN:NE2	1:G:3531:ASP:OD1	2.53	0.42
1:G:4021:LYS:HG3	1:G:4142:ASN:ND2	2.34	0.42
1:G:4661:TYR:OH	1:G:4788:SER:HB2	2.19	0.42
1:G:4696:ASP:O	1:G:4700:GLN:HG2	2.20	0.42
1:J:800:PHE:CD2	1:J:804:PRO:HG3	2.55	0.42
1:J:2886:TRP:HH2	1:J:2902:HIS:CE1	2.38	0.42
1:J:3007:ASN:HA	1:J:3070:ILE:HD11	2.02	0.42
1:J:3051:ARG:HD2	1:J:3131:TYR:CE2	2.54	0.42
1:J:3089:LYS:O	1:J:3092:LEU:HG	2.20	0.42
1:J:3445:TRP:HD1	1:J:3451:PHE:CD2	2.38	0.42
1:J:3886:ARG:HD2	1:J:3889:GLN:HE21	1.84	0.42
1:J:3981:ALA:O	1:J:3986:TRP:NE1	2.49	0.42
2:I:76:CYS:HB3	2:I:80:VAL:HG23	2.02	0.42
3:C:34:MET:HE1	3:C:95:CYS:HB2	2.01	0.42
1:B:887:ILE:HD13	1:B:959:TYR:HB3	2.01	0.41
1:B:1013:ILE:H	1:B:1013:ILE:HD12	1.85	0.41
1:B:1663:HIS:O	1:B:1667:LEU:HG	2.20	0.41
1:B:2579:VAL:O	1:B:2582:MET:HG2	2.20	0.41
1:B:3157:ILE:HA	1:B:3161:VAL:HB	2.02	0.41
1:B:3550:ARG:NH2	1:B:3594:ARG:HH22	2.18	0.41
1:B:4998:LYS:HB2	1:B:4998:LYS:HE3	1.83	0.41
1:E:257:ARG:O	1:E:284:HIS:NE2	2.33	0.41
1:E:894:GLY:HA3	1:E:903:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1105:ALA:HB2	1:E:1191:VAL:HG11	2.02	0.41
1:E:1939:MET:HA	1:E:1942:LEU:HD12	2.02	0.41
1:E:2648:TYR:CE2	1:E:2706:ILE:HG12	2.55	0.41
1:E:2996:LYS:O	1:E:3000:LYS:HG2	2.20	0.41
1:E:3050:VAL:HG22	1:E:3131:TYR:CE1	2.55	0.41
1:E:3135:ALA:O	1:E:3139:VAL:HG23	2.20	0.41
1:E:3157:ILE:HA	1:E:3161:VAL:HB	2.02	0.41
1:E:3206:LEU:HD12	1:E:3280:TYR:CD2	2.55	0.41
1:E:3354:LEU:HB2	1:E:3415:TYR:CE2	2.55	0.41
1:E:3530:GLN:NE2	1:E:3531:ASP:OD1	2.52	0.41
1:E:3841:VAL:HG21	1:E:3926:LEU:HA	2.02	0.41
1:E:3944:GLU:O	1:E:3948:LYS:HG3	2.20	0.41
1:E:3978:GLN:O	1:E:3982:HIS:ND1	2.53	0.41
1:G:883:ALA:HA	1:G:886:ARG:HH21	1.83	0.41
1:G:2509:VAL:HG23	1:G:2510:TYR:N	2.36	0.41
1:G:2640:PRO:O	1:G:2644:LEU:HD23	2.20	0.41
1:G:2886:TRP:HH2	1:G:2902:HIS:CE1	2.38	0.41
1:G:2978:GLU:OE1	1:G:3053:ARG:NH2	2.53	0.41
1:G:3327:LEU:HD11	1:G:3365:LEU:HD11	2.02	0.41
1:G:3999:MET:HG3	1:G:4003:LEU:HG	2.01	0.41
1:J:659:TYR:HB2	1:J:1017:ARG:NH2	2.32	0.41
1:J:722:TRP:CZ2	1:J:727:ALA:HB2	2.55	0.41
1:J:783:PHE:HB2	1:J:787:VAL:HG21	2.02	0.41
1:J:996:TRP:CE2	3:K:113:GLU:HB3	2.55	0.41
1:J:2648:TYR:CE2	1:J:2706:ILE:HG12	2.55	0.41
1:J:3135:ALA:O	1:J:3139:VAL:HG23	2.20	0.41
1:J:3359:ILE:HB	1:J:3360:PRO:HD3	2.02	0.41
1:J:3514:LEU:HD21	1:J:3606:LEU:HD22	2.01	0.41
1:J:3550:ARG:NH2	1:J:3594:ARG:HH22	2.18	0.41
1:J:4130:ASN:HA	1:J:4133:GLN:HG3	2.02	0.41
1:J:4696:ASP:O	1:J:4700:GLN:HG2	2.20	0.41
1:J:4779:LYS:O	1:J:4783:ILE:HG12	2.20	0.41
3:C:35:GLY:HA2	3:C:50:THR:HG23	2.02	0.41
3:K:5:GLN:O	3:K:22:CYS:HA	2.20	0.41
1:B:874:LEU:HD21	1:B:1051:TYR:OH	2.20	0.41
1:B:893:TYR:H	1:B:962:SER:HB2	1.85	0.41
1:B:1105:ALA:HB2	1:B:1191:VAL:HG11	2.02	0.41
1:B:2716:ASP:OD1	1:B:2716:ASP:N	2.52	0.41
1:B:3007:ASN:HA	1:B:3070:ILE:HD11	2.02	0.41
1:B:3978:GLN:O	1:B:3982:HIS:ND1	2.53	0.41
1:B:4130:ASN:HA	1:B:4133:GLN:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4661:TYR:OH	1:B:4788:SER:HB2	2.19	0.41
1:B:4822:THR:O	1:B:4825:THR:OG1	2.22	0.41
1:E:1450:VAL:HG22	1:E:1552:VAL:HG12	2.02	0.41
1:E:2208:MET:O	1:E:2212:VAL:HG23	2.20	0.41
1:E:3020:THR:HA	1:E:3036:LYS:HE2	2.02	0.41
1:E:3530:GLN:O	1:E:3534:MET:HG2	2.20	0.41
1:E:3534:MET:O	1:E:3538:THR:HG23	2.20	0.41
1:E:3683:GLN:H	1:E:3683:GLN:CD	2.22	0.41
1:E:4696:ASP:O	1:E:4700:GLN:HG2	2.20	0.41
1:E:4960:ILE:HB	1:E:4983:HIS:HB3	2.02	0.41
1:E:4991:PHE:HE2	1:E:5010:VAL:HG11	1.85	0.41
1:G:800:PHE:CD2	1:G:804:PRO:HG3	2.55	0.41
1:G:2725:LYS:NZ	1:G:2736:ASP:OD2	2.41	0.41
1:G:2792:ARG:CZ	1:G:2798:SER:H	2.33	0.41
1:G:3054:VAL:HG21	1:G:3131:TYR:HB2	2.02	0.41
1:G:3218:VAL:O	1:G:3222:LYS:HG2	2.20	0.41
1:G:3398:PHE:HA	1:G:3401:LEU:HG	2.02	0.41
1:J:2354:VAL:HG11	1:J:2453:ILE:HD12	2.03	0.41
1:J:3050:VAL:HG22	1:J:3131:TYR:CE1	2.55	0.41
1:J:3530:GLN:O	1:J:3534:MET:HG2	2.20	0.41
1:J:3841:VAL:HG21	1:J:3926:LEU:HA	2.02	0.41
1:J:4021:LYS:HG3	1:J:4142:ASN:ND2	2.35	0.41
1:J:4097:MET:CE	1:J:4103:PHE:HB2	2.50	0.41
1:J:4822:THR:O	1:J:4825:THR:OG1	2.22	0.41
3:F:5:GLN:O	3:F:22:CYS:HA	2.20	0.41
1:B:783:PHE:HB2	1:B:787:VAL:HG21	2.02	0.41
1:B:2333:ASP:HA	1:B:2336:ARG:HG2	2.02	0.41
1:B:2673:HIS:CD2	1:B:2716:ASP:HB2	2.56	0.41
1:B:2886:TRP:HH2	1:B:2902:HIS:CE1	2.38	0.41
1:B:4118:ASP:HB2	1:B:4123:ILE:CD1	2.50	0.41
1:E:634:GLN:HG3	2:D:34:LYS:NZ	2.35	0.41
1:E:893:TYR:H	1:E:962:SER:HB2	1.85	0.41
1:E:1007:TYR:CD1	1:E:1022:VAL:HG13	2.54	0.41
1:E:2579:VAL:O	1:E:2582:MET:HG2	2.20	0.41
1:E:3359:ILE:HB	1:E:3360:PRO:HD3	2.02	0.41
1:E:4776:GLN:HA	1:E:4779:LYS:HG2	2.02	0.41
1:G:853:PRO:HB2	1:G:994:ASN:OD1	2.21	0.41
1:G:883:ALA:O	1:G:887:ILE:HG13	2.21	0.41
1:G:1658:ASP:N	1:G:1658:ASP:OD1	2.51	0.41
1:G:1691:GLN:O	1:G:1695:LEU:HG	2.20	0.41
1:G:3354:LEU:HB2	1:G:3415:TYR:CE2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:247:TYR:CE2	1:J:359:TYR:HA	2.45	0.41
1:J:783:PHE:HZ	1:J:1615:VAL:HG11	1.84	0.41
1:J:874:LEU:HD21	1:J:1051:TYR:OH	2.21	0.41
1:J:926:GLY:O	1:J:930:LYS:HG3	2.19	0.41
1:J:954:LYS:HE3	1:J:955:LEU:O	2.21	0.41
1:J:1076:ARG:CZ	1:J:1079:LYS:HE2	2.50	0.41
1:J:1663:HIS:O	1:J:1667:LEU:HG	2.20	0.41
1:J:2178:MET:O	1:J:2182:ILE:HG12	2.20	0.41
1:J:2268:GLN:HE21	1:J:2268:GLN:HB3	1.73	0.41
1:J:2333:ASP:HA	1:J:2336:ARG:HG2	2.02	0.41
1:J:3008:GLN:O	1:J:3012:ASN:ND2	2.53	0.41
1:J:3945:GLU:O	1:J:3949:ARG:HG3	2.20	0.41
1:J:4939:ALA:O	1:J:4942:GLU:HG3	2.20	0.41
1:B:251:ALA:C	1:B:255:HIS:HD1	2.19	0.41
1:B:277:GLY:HA2	1:B:315:CYS:HB2	2.02	0.41
1:B:894:GLY:HA3	1:B:903:LEU:HD22	2.02	0.41
1:B:954:LYS:HE3	1:B:955:LEU:O	2.21	0.41
1:B:1436:SER:OG	1:B:1565:GLU:HB2	2.21	0.41
1:B:2178:MET:O	1:B:2182:ILE:HG12	2.20	0.41
1:B:2591:ARG:O	1:B:2591:ARG:NE	2.44	0.41
1:B:2605:ASP:HA	1:B:2608:MET:HG2	2.03	0.41
1:B:2770:LYS:HB3	1:B:2787:THR:HG22	2.02	0.41
1:B:2874:MET:CE	1:B:2937:VAL:HG11	2.50	0.41
1:B:2978:GLU:OE1	1:B:3053:ARG:NH2	2.53	0.41
1:B:4097:MET:CE	1:B:4103:PHE:HB2	2.50	0.41
1:E:863:LEU:HD11	1:E:930:LYS:HG3	2.02	0.41
1:E:954:LYS:HE3	1:E:955:LEU:O	2.21	0.41
1:E:996:TRP:CE2	3:F:113:GLU:HB3	2.56	0.41
1:E:1013:ILE:HD12	1:E:1013:ILE:H	1.85	0.41
1:E:1076:ARG:CZ	1:E:1079:LYS:HE2	2.50	0.41
1:E:2212:VAL:HG22	1:E:2256:TYR:CZ	2.55	0.41
1:E:2333:ASP:HA	1:E:2336:ARG:HG2	2.02	0.41
1:E:2354:VAL:HG11	1:E:2453:ILE:HD12	2.03	0.41
1:E:2886:TRP:HH2	1:E:2902:HIS:CE1	2.38	0.41
1:E:3100:SER:OG	1:E:3164:SER:OG	2.38	0.41
1:E:3384:LYS:O	1:E:3388:GLU:HG2	2.21	0.41
1:E:3874:VAL:HG23	1:E:3875:MET:N	2.34	0.41
1:E:3945:GLU:O	1:E:3949:ARG:HG3	2.20	0.41
1:G:893:TYR:H	1:G:962:SER:HB2	1.85	0.41
1:G:1100:MET:HB2	1:G:1143:TRP:CH2	2.55	0.41
1:G:2204:HIS:HA	1:G:2207:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2627:VAL:HG13	1:G:2678:LEU:HD13	2.03	0.41
1:G:3760:LYS:HA	1:G:3760:LYS:HD3	1.86	0.41
1:G:3834:ALA:O	1:G:3838:THR:HG23	2.21	0.41
1:G:3978:GLN:O	1:G:3982:HIS:ND1	2.53	0.41
1:G:4642:ALA:O	1:G:4646:LEU:HD23	2.21	0.41
1:J:255:HIS:HD2	1:J:480:GLU:CG	2.34	0.41
1:J:2579:VAL:O	1:J:2582:MET:HG2	2.20	0.41
1:J:2640:PRO:O	1:J:2644:LEU:HD23	2.20	0.41
1:J:3054:VAL:HG21	1:J:3131:TYR:HB2	2.02	0.41
1:J:3218:VAL:O	1:J:3222:LYS:HG2	2.20	0.41
1:J:3834:ALA:O	1:J:3838:THR:HG23	2.21	0.41
1:J:4569:LEU:O	1:J:4573:ILE:HG13	2.20	0.41
2:D:61:GLU:O	2:D:65:GLN:HG3	2.21	0.41
1:B:2204:HIS:HA	1:B:2207:VAL:HG12	2.03	0.41
1:B:2598:ALA:O	1:B:2602:VAL:HG23	2.20	0.41
1:B:2760:GLU:HG2	1:B:2802:LYS:HE2	2.02	0.41
1:B:3054:VAL:HG21	1:B:3131:TYR:HB2	2.02	0.41
1:B:3100:SER:HG	1:B:3164:SER:HG	1.68	0.41
1:B:3359:ILE:HB	1:B:3360:PRO:HD3	2.02	0.41
1:B:3398:PHE:HA	1:B:3401:LEU:HG	2.02	0.41
1:B:4541:TRP:O	1:B:4544:LEU:HG	2.19	0.41
1:B:4642:ALA:O	1:B:4646:LEU:HD23	2.21	0.41
1:B:4927:ILE:HD12	1:E:4936:ILE:HD13	2.03	0.41
1:E:64:ILE:HG23	1:E:402:ARG:HH21	1.84	0.41
1:E:828:GLU:HG3	1:E:840:VAL:HG21	2.03	0.41
1:E:853:PRO:HB2	1:E:994:ASN:OD1	2.21	0.41
1:E:1649:ASP:OD1	1:E:1650:ILE:N	2.54	0.41
1:E:1784:ALA:HA	2:D:55:VAL:HA	2.02	0.41
1:E:3006:ILE:HD11	1:E:3010:PHE:CZ	2.55	0.41
1:E:3445:TRP:HD1	1:E:3451:PHE:CD2	2.38	0.41
1:E:4091:LYS:HD2	1:E:4092:ASP:N	2.35	0.41
1:E:4218:ILE:HD12	1:E:4954:MET:SD	2.60	0.41
1:E:4822:THR:O	1:E:4825:THR:OG1	2.22	0.41
1:G:783:PHE:HB2	1:G:787:VAL:HG21	2.02	0.41
1:G:874:LEU:HD21	1:G:1051:TYR:OH	2.21	0.41
1:G:954:LYS:HE3	1:G:955:LEU:O	2.21	0.41
1:G:1076:ARG:CZ	1:G:1079:LYS:HE2	2.50	0.41
1:G:1613:LEU:HD12	1:G:1613:LEU:H	1.86	0.41
1:G:1780:PRO:HG2	2:H:42:ARG:HD3	2.02	0.41
1:G:2122:SER:O	1:G:2126:ARG:HG3	2.20	0.41
1:G:2333:ASP:HA	1:G:2336:ARG:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2605:ASP:HA	1:G:2608:MET:HG2	2.03	0.41
1:G:2645:THR:HB	1:G:2702:CYS:HA	2.02	0.41
1:G:2648:TYR:CE2	1:G:2706:ILE:HG12	2.55	0.41
1:G:2673:HIS:CD2	1:G:2716:ASP:HB2	2.56	0.41
1:G:3206:LEU:HD12	1:G:3280:TYR:CD2	2.55	0.41
1:G:3534:MET:O	1:G:3538:THR:HG23	2.20	0.41
1:G:4039:MET:SD	1:G:4040:ILE:HG13	2.61	0.41
1:G:4088:ILE:O	1:G:4088:ILE:HG13	2.19	0.41
1:G:4118:ASP:HB2	1:G:4123:ILE:CD1	2.50	0.41
1:G:4243:PHE:HE2	1:G:4668:LEU:HA	1.86	0.41
1:G:4776:GLN:HA	1:G:4779:LYS:HG2	2.02	0.41
1:G:4796:MET:O	1:G:4800:LEU:HG	2.21	0.41
1:J:1100:MET:HB2	1:J:1143:TRP:CH2	2.55	0.41
1:J:2760:GLU:HA	1:J:2802:LYS:HZ1	1.85	0.41
1:J:2792:ARG:CZ	1:J:2798:SER:H	2.33	0.41
1:J:3006:ILE:HD11	1:J:3010:PHE:CZ	2.55	0.41
1:J:3978:GLN:O	1:J:3982:HIS:ND1	2.53	0.41
3:M:5:GLN:O	3:M:22:CYS:HA	2.20	0.41
1:B:1649:ASP:OD1	1:B:1650:ILE:N	2.54	0.41
1:B:1973:GLN:OE1	1:B:3641:LEU:HB3	2.21	0.41
1:B:3352:GLU:OE1	1:B:3352:GLU:N	2.48	0.41
1:B:3534:MET:O	1:B:3538:THR:HG23	2.20	0.41
1:B:4218:ILE:HD12	1:B:4954:MET:SD	2.60	0.41
1:E:883:ALA:O	1:E:887:ILE:HG13	2.21	0.41
1:E:977:LEU:HD12	1:E:1044:ARG:HD3	2.02	0.41
1:E:2365:GLY:O	1:E:2369:ARG:NH2	2.54	0.41
1:E:2770:LYS:HB3	1:E:2787:THR:HG22	2.02	0.41
1:E:3201:MET:HA	1:E:3202:PRO:HD3	1.95	0.41
1:E:3870:ASN:O	1:E:3873:LYS:HG2	2.20	0.41
1:E:4859:PHE:CE1	1:E:4909:TYR:HB3	2.55	0.41
1:G:277:GLY:HA2	1:G:315:CYS:HB2	2.02	0.41
1:G:1784:ALA:O	2:H:82:TYR:OH	2.38	0.41
1:G:1973:GLN:OE1	1:G:3641:LEU:HB3	2.21	0.41
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.19	0.41
1:G:2178:MET:O	1:G:2182:ILE:HG12	2.20	0.41
1:G:2978:GLU:HA	1:G:2981:VAL:HG12	2.03	0.41
1:G:3020:THR:HA	1:G:3036:LYS:HE2	2.02	0.41
1:G:3532:LEU:HA	1:G:3535:LEU:HG	2.03	0.41
1:G:3550:ARG:NH2	1:G:3594:ARG:HH22	2.18	0.41
1:G:3945:GLU:O	1:G:3949:ARG:HG3	2.20	0.41
1:G:3984:ARG:HG2	1:G:3987:ASP:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4569:LEU:O	1:G:4573:ILE:HG13	2.20	0.41
1:G:4859:PHE:CE1	1:G:4909:TYR:HB3	2.55	0.41
1:J:345:LEU:HD23	1:J:345:LEU:H	1.85	0.41
1:J:639:ASN:ND2	1:J:676:THR:OG1	2.53	0.41
1:J:883:ALA:O	1:J:887:ILE:HG13	2.21	0.41
1:J:894:GLY:HA3	1:J:903:LEU:HD22	2.02	0.41
1:J:1101:ARG:HG2	1:J:1125:ASN:HB2	2.02	0.41
1:J:1649:ASP:OD1	1:J:1650:ILE:N	2.54	0.41
1:J:1939:MET:HA	1:J:1942:LEU:HD12	2.02	0.41
1:J:2605:ASP:HA	1:J:2608:MET:HG2	2.03	0.41
1:J:2908:TYR:CD1	1:J:2911:LEU:HD11	2.56	0.41
1:J:2978:GLU:OE1	1:J:3053:ARG:NH2	2.53	0.41
1:J:3050:VAL:HG22	1:J:3131:TYR:HE1	1.86	0.41
1:J:3067:CYS:HA	1:J:3070:ILE:HG12	2.03	0.41
1:J:3102:ASP:HA	1:J:3105:LYS:HE2	2.02	0.41
1:J:3187:ARG:NH1	1:J:3268:HIS:HA	2.36	0.41
1:J:4796:MET:O	1:J:4800:LEU:HG	2.21	0.41
1:J:4991:PHE:HE2	1:J:5010:VAL:HG11	1.86	0.41
2:H:15:PHE:HE1	2:H:67:SER:HB3	1.85	0.41
3:C:100:VAL:HG13	3:C:104:TYR:O	2.21	0.41
1:B:853:PRO:HB2	1:B:994:ASN:OD1	2.21	0.41
1:B:1100:MET:HB2	1:B:1143:TRP:CH2	2.55	0.41
1:B:2365:GLY:O	1:B:2369:ARG:NH2	2.54	0.41
1:B:2509:VAL:HG23	1:B:2510:TYR:N	2.36	0.41
1:B:2645:THR:HB	1:B:2702:CYS:HA	2.02	0.41
1:B:3384:LYS:O	1:B:3388:GLU:HG2	2.21	0.41
1:B:3532:LEU:HA	1:B:3535:LEU:HG	2.03	0.41
1:B:3841:VAL:HG21	1:B:3926:LEU:HA	2.02	0.41
1:B:4014:LYS:HG2	1:B:4135:PRO:HB3	2.02	0.41
1:B:4796:MET:O	1:B:4800:LEU:HG	2.21	0.41
1:E:148:TRP:CH2	1:E:180:LEU:HD13	2.56	0.41
1:E:722:TRP:CZ2	1:E:727:ALA:HB2	2.55	0.41
1:E:887:ILE:HD13	1:E:959:TYR:HB3	2.01	0.41
1:E:1071:ARG:O	1:E:1196:PRO:HD3	2.20	0.41
1:E:1154:ASP:N	1:E:1154:ASP:OD1	2.54	0.41
1:E:1666:THR:HG22	1:E:1670:TYR:CE2	2.56	0.41
1:E:2292:GLU:OE1	1:E:2292:GLU:N	2.42	0.41
1:E:2640:PRO:O	1:E:2644:LEU:HD23	2.20	0.41
1:E:2975:ALA:HA	1:E:3053:ARG:NH2	2.36	0.41
1:E:4130:ASN:HA	1:E:4133:GLN:HG3	2.02	0.41
1:E:4879:MET:HG2	1:E:4880:MET:CE	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:148:TRP:CH2	1:G:180:LEU:HD13	2.56	0.41
1:G:208:CYS:O	1:G:273:HIS:ND1	2.54	0.41
1:G:251:ALA:C	1:G:255:HIS:HD1	2.19	0.41
1:G:894:GLY:HA3	1:G:903:LEU:HD22	2.02	0.41
1:G:1260:MET:SD	1:G:1260:MET:N	2.77	0.41
1:G:1666:THR:HG22	1:G:1670:TYR:CE2	2.56	0.41
1:G:2208:MET:O	1:G:2212:VAL:HG23	2.20	0.41
1:G:2354:VAL:HG11	1:G:2453:ILE:HD12	2.03	0.41
1:G:2908:TYR:CD1	1:G:2911:LEU:HD11	2.56	0.41
1:G:3006:ILE:HD11	1:G:3010:PHE:CZ	2.55	0.41
1:G:3349:ALA:HB1	1:G:3353:LEU:HD12	2.03	0.41
1:G:3944:GLU:O	1:G:3948:LYS:HG3	2.20	0.41
1:J:360:ALA:HA	1:J:377:ILE:CD1	2.47	0.41
1:J:625:LEU:CD1	1:J:626:LEU:HD12	2.51	0.41
1:J:788:LYS:CD	1:J:1629:GLN:HB3	2.50	0.41
1:J:1027:LEU:HD13	1:J:1031:THR:HG22	2.03	0.41
1:J:1071:ARG:O	1:J:1196:PRO:HD3	2.20	0.41
1:J:2204:HIS:HB2	1:J:2250:MET:HE1	2.02	0.41
1:J:2627:VAL:HG13	1:J:2678:LEU:HD13	2.03	0.41
1:J:2765:LYS:HD3	1:J:2765:LYS:HA	1.89	0.41
1:J:2975:ALA:HA	1:J:3053:ARG:NH2	2.36	0.41
1:J:2996:LYS:O	1:J:3000:LYS:HG2	2.20	0.41
1:J:3398:PHE:HA	1:J:3401:LEU:HG	2.02	0.41
1:J:4118:ASP:HB2	1:J:4123:ILE:CD1	2.50	0.41
1:J:4541:TRP:O	1:J:4544:LEU:HG	2.19	0.41
1:J:4642:ALA:O	1:J:4646:LEU:HD23	2.21	0.41
2:D:81:ALA:HB1	2:D:97:LEU:HD13	2.03	0.41
1:B:246:TYR:CD2	1:B:373:LYS:HD2	2.56	0.41
1:B:783:PHE:HZ	1:B:1615:VAL:HG11	1.84	0.41
1:B:863:LEU:HD11	1:B:930:LYS:HG3	2.02	0.41
1:B:1025:ARG:H	1:B:1025:ARG:HG2	1.73	0.41
1:B:1076:ARG:CZ	1:B:1079:LYS:HE2	2.51	0.41
1:B:1078:GLU:HB3	1:B:1081:TYR:CE2	2.56	0.41
1:B:1763:PRO:HG3	1:B:2094:LEU:HD22	2.03	0.41
1:B:2760:GLU:HA	1:B:2802:LYS:HZ1	1.85	0.41
1:B:2908:TYR:CD1	1:B:2911:LEU:HD11	2.56	0.41
1:B:3135:ALA:O	1:B:3139:VAL:HG23	2.20	0.41
1:B:3142:THR:HA	1:B:3145:GLN:CD	2.41	0.41
1:B:3196:ARG:HH12	1:B:3341:PHE:HZ	1.69	0.41
1:B:3218:VAL:O	1:B:3222:LYS:HG2	2.20	0.41
1:B:3398:PHE:CD1	1:B:3451:PHE:HD1	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3541:ALA:O	1:B:3543:LYS:HE2	2.21	0.41
1:B:3834:ALA:O	1:B:3838:THR:HG23	2.21	0.41
1:B:4939:ALA:O	1:B:4942:GLU:HG3	2.20	0.41
1:E:151:HIS:NE2	1:E:172:VAL:HB	2.35	0.41
1:E:1613:LEU:H	1:E:1613:LEU:HD12	1.86	0.41
1:E:2908:TYR:CD1	1:E:2911:LEU:HD11	2.56	0.41
1:E:2977:LEU:HD11	1:E:2995:ILE:HD13	2.03	0.41
1:E:4121:GLU:HB2	1:E:4122:MET:H	1.72	0.41
1:E:4243:PHE:HE2	1:E:4668:LEU:HA	1.86	0.41
1:E:4642:ALA:O	1:E:4646:LEU:HD23	2.21	0.41
1:E:4779:LYS:O	1:E:4783:ILE:HG12	2.20	0.41
1:G:255:HIS:HD2	1:G:480:GLU:CG	2.34	0.41
1:G:375:LYS:HE2	1:G:375:LYS:HB2	1.93	0.41
1:G:474:ARG:O	1:G:478:PHE:HD1	2.04	0.41
1:G:1012:ASP:O	1:G:1017:ARG:N	2.52	0.41
1:G:1025:ARG:HG3	1:G:1026:LEU:HD12	2.02	0.41
1:G:1078:GLU:HB3	1:G:1081:TYR:CE2	2.56	0.41
1:G:1676:LEU:HD22	1:G:2167:ILE:HD12	2.03	0.41
1:G:2212:VAL:HG22	1:G:2256:TYR:CZ	2.55	0.41
1:G:4097:MET:SD	1:G:4103:PHE:HD1	2.44	0.41
1:J:853:PRO:HB2	1:J:994:ASN:OD1	2.21	0.41
1:J:893:TYR:H	1:J:962:SER:HB2	1.85	0.41
1:J:1666:THR:HG22	1:J:1670:TYR:CE2	2.56	0.41
1:J:2194:HIS:O	1:J:2198:MET:HG2	2.21	0.41
1:J:2977:LEU:HD11	1:J:2995:ILE:HD13	2.03	0.41
1:J:3343:GLN:HB2	1:J:3344:PRO:HD3	2.03	0.41
1:J:4180:ARG:HD2	1:J:4981:GLU:HG2	2.03	0.41
2:D:15:PHE:HE1	2:D:67:SER:HB3	1.85	0.41
2:H:61:GLU:O	2:H:65:GLN:HG3	2.21	0.41
2:H:76:CYS:HB3	2:H:80:VAL:HG23	2.02	0.41
3:C:5:GLN:HG3	3:C:23:THR:HG1	1.86	0.41
1:B:828:GLU:HG3	1:B:840:VAL:HG21	2.03	0.41
1:B:876:GLU:O	1:B:880:GLU:HG3	2.21	0.41
1:B:1101:ARG:HG2	1:B:1125:ASN:HB2	2.02	0.41
1:B:1154:ASP:N	1:B:1154:ASP:OD1	2.54	0.41
1:B:1260:MET:SD	1:B:1260:MET:N	2.77	0.41
1:B:1646:ARG:NH1	1:B:1648:MET:SD	2.90	0.41
1:B:1666:THR:HG22	1:B:1670:TYR:CE2	2.56	0.41
1:B:1691:GLN:O	1:B:1695:LEU:HG	2.20	0.41
1:B:2380:ILE:HG21	1:B:2469:ILE:HD11	2.03	0.41
1:B:2627:VAL:HG13	1:B:2678:LEU:HD13	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2648:TYR:CE2	1:B:2706:ILE:HG12	2.55	0.41
1:B:2792:ARG:CZ	1:B:2798:SER:H	2.33	0.41
1:B:2863:SER:HB2	1:B:2924:GLN:HB2	2.02	0.41
1:B:2978:GLU:HA	1:B:2981:VAL:HG12	2.03	0.41
1:B:3089:LYS:O	1:B:3092:LEU:HG	2.20	0.41
1:B:3870:ASN:O	1:B:3873:LYS:HG2	2.20	0.41
1:B:3945:GLU:O	1:B:3949:ARG:HG3	2.20	0.41
1:B:3984:ARG:HG2	1:B:3987:ASP:HB2	2.02	0.41
1:B:4039:MET:SD	1:B:4040:ILE:HG13	2.61	0.41
1:B:4202:ARG:HG3	1:B:4206:GLU:OE2	2.21	0.41
1:B:4696:ASP:O	1:B:4700:GLN:HG2	2.20	0.41
1:B:4859:PHE:CE1	1:B:4909:TYR:HB3	2.55	0.41
1:B:4879:MET:HG2	1:B:4880:MET:CE	2.51	0.41
1:B:4888:TYR:OH	1:G:4917:ASP:OD2	2.29	0.41
1:E:149:THR:N	1:E:172:VAL:O	2.29	0.41
1:E:195:PHE:HE2	1:J:2359:ARG:HA	1.86	0.41
1:E:245:VAL:HG23	1:E:376:ALA:HB3	2.03	0.41
1:E:247:TYR:HD2	1:E:374:LYS:HB2	1.84	0.41
1:E:255:HIS:HD2	1:E:480:GLU:CG	2.34	0.41
1:E:345:LEU:HD23	1:E:345:LEU:H	1.85	0.41
1:E:438:ILE:HG13	1:E:439:GLU:N	2.36	0.41
1:E:1003:GLN:HG3	3:F:1:GLN:HE22	1.86	0.41
1:E:1027:LEU:HD13	1:E:1031:THR:HG22	2.03	0.41
1:E:1663:HIS:O	1:E:1667:LEU:HG	2.20	0.41
1:E:2509:VAL:HG23	1:E:2510:TYR:N	2.35	0.41
1:E:3067:CYS:HA	1:E:3070:ILE:HG12	2.03	0.41
1:E:3191:GLY:HA2	1:E:3194:LEU:HG	2.03	0.41
1:E:3327:LEU:HD11	1:E:3365:LEU:HD11	2.02	0.41
1:E:3391:GLU:HA	1:E:3394:VAL:HG22	2.03	0.41
1:E:3984:ARG:HG2	1:E:3987:ASP:HB2	2.03	0.41
1:E:4039:MET:SD	1:E:4040:ILE:HG13	2.61	0.41
1:E:4941:GLY:HA2	1:E:4944:ARG:HE	1.86	0.41
1:G:438:ILE:HG13	1:G:439:GLU:N	2.36	0.41
1:G:1013:ILE:H	1:G:1013:ILE:HD12	1.85	0.41
1:G:1071:ARG:O	1:G:1196:PRO:HD3	2.20	0.41
1:G:1450:VAL:HG22	1:G:1552:VAL:HG12	2.02	0.41
1:G:1649:ASP:OD1	1:G:1650:ILE:N	2.54	0.41
1:G:1939:MET:HA	1:G:1942:LEU:HD12	2.02	0.41
1:G:2194:HIS:O	1:G:2198:MET:HG2	2.21	0.41
1:G:2251:PHE:CD2	1:G:2286:LEU:HD22	2.56	0.41
1:G:2380:ILE:HG21	1:G:2469:ILE:HD11	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2579:VAL:O	1:G:2582:MET:HG2	2.20	0.41
1:G:2770:LYS:HB3	1:G:2787:THR:HG22	2.03	0.41
1:G:3008:GLN:O	1:G:3012:ASN:ND2	2.53	0.41
1:G:3157:ILE:HA	1:G:3161:VAL:HB	2.02	0.41
1:G:3343:GLN:HB2	1:G:3344:PRO:HD3	2.03	0.41
1:G:3384:LYS:O	1:G:3388:GLU:HG2	2.21	0.41
1:G:3398:PHE:CD1	1:G:3451:PHE:HD1	2.39	0.41
1:J:64:ILE:HG23	1:J:402:ARG:HH21	1.84	0.41
1:J:438:ILE:HG13	1:J:439:GLU:N	2.36	0.41
1:J:863:LEU:HD11	1:J:930:LYS:HG3	2.02	0.41
1:J:876:GLU:O	1:J:880:GLU:HG3	2.21	0.41
1:J:977:LEU:HD12	1:J:1044:ARG:HD3	2.02	0.41
1:J:1973:GLN:OE1	1:J:3641:LEU:HB3	2.21	0.41
1:J:2208:MET:O	1:J:2212:VAL:HG23	2.20	0.41
1:J:2365:GLY:O	1:J:2369:ARG:NH2	2.54	0.41
1:J:2509:VAL:HG23	1:J:2510:TYR:N	2.35	0.41
1:J:2645:THR:HB	1:J:2702:CYS:HA	2.02	0.41
1:J:2770:LYS:HB3	1:J:2787:THR:HG22	2.02	0.41
1:J:3020:THR:HA	1:J:3036:LYS:HE2	2.02	0.41
1:J:3261:ALA:HB3	1:J:3266:MET:CE	2.51	0.41
1:J:3352:GLU:OE1	1:J:3352:GLU:N	2.48	0.41
1:J:3384:LYS:O	1:J:3388:GLU:HG2	2.21	0.41
1:J:3458:PHE:CZ	1:J:3464:ILE:HG13	2.55	0.41
1:J:3518:LEU:HB3	1:J:3519:PRO:HD3	2.03	0.41
1:J:3532:LEU:HA	1:J:3535:LEU:HG	2.03	0.41
1:J:3874:VAL:HG23	1:J:3875:MET:N	2.34	0.41
1:J:4039:MET:SD	1:J:4040:ILE:HG13	2.61	0.41
1:J:4218:ILE:HD12	1:J:4954:MET:SD	2.60	0.41
1:J:4243:PHE:HE2	1:J:4668:LEU:HA	1.86	0.41
1:J:4998:LYS:HE3	1:J:4998:LYS:HB2	1.83	0.41
2:H:23:VAL:HA	2:H:46:PHE:O	2.21	0.41
3:C:102:ASN:HB2	3:C:104:TYR:CE2	2.56	0.41
3:F:5:GLN:NE2	3:F:23:THR:OG1	2.29	0.41
3:F:5:GLN:HG3	3:F:23:THR:HG1	1.86	0.41
3:K:5:GLN:HG3	3:K:23:THR:HG1	1.86	0.41
3:M:35:GLY:HA2	3:M:50:THR:HG23	2.01	0.41
1:B:625:LEU:CD1	1:B:626:LEU:HD12	2.51	0.41
1:B:790:ARG:HA	1:B:1626:TRP:O	2.21	0.41
1:B:1676:LEU:HD22	1:B:2167:ILE:HD12	2.03	0.41
1:B:2251:PHE:CE2	1:B:2286:LEU:HD22	2.56	0.41
1:B:2354:VAL:HG11	1:B:2453:ILE:HD12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2725:LYS:NZ	1:B:2736:ASP:OD2	2.41	0.41
1:B:2871:LEU:O	1:B:2874:MET:HG3	2.21	0.41
1:B:3052:HIS:CD2	1:B:3053:ARG:NH1	2.89	0.41
1:B:3573:MET:O	1:B:3577:ARG:HG2	2.21	0.41
1:B:4958:CYS:HA	5:B:5102:ATP:C8	2.56	0.41
1:E:625:LEU:CD1	1:E:626:LEU:HD12	2.51	0.41
1:E:1100:MET:HB2	1:E:1143:TRP:CH2	2.55	0.41
1:E:1101:ARG:HG2	1:E:1125:ASN:HB2	2.02	0.41
1:E:2251:PHE:CD2	1:E:2286:LEU:HD22	2.56	0.41
1:E:2605:ASP:HA	1:E:2608:MET:HG2	2.03	0.41
1:E:2760:GLU:HG2	1:E:2802:LYS:HE2	2.02	0.41
1:E:2792:ARG:CZ	1:E:2798:SER:H	2.33	0.41
1:E:2871:LEU:O	1:E:2874:MET:HG3	2.21	0.41
1:E:3007:ASN:HA	1:E:3070:ILE:HD11	2.02	0.41
1:E:3089:LYS:O	1:E:3092:LEU:HG	2.20	0.41
1:E:3218:VAL:O	1:E:3222:LYS:HG2	2.20	0.41
1:E:3349:ALA:HB1	1:E:3353:LEU:HD12	2.03	0.41
1:E:3398:PHE:CD1	1:E:3451:PHE:HD1	2.39	0.41
1:E:3518:LEU:HB3	1:E:3519:PRO:HD3	2.03	0.41
1:G:876:GLU:O	1:G:880:GLU:HG3	2.21	0.41
1:G:3246:LEU:O	1:G:3250:MET:HG3	2.21	0.41
1:G:3573:MET:O	1:G:3577:ARG:HG2	2.21	0.41
1:J:363:ASP:HB3	1:J:366:ALA:HB3	2.03	0.41
1:J:651:GLY:O	1:J:658:GLN:HG3	2.21	0.41
1:J:753:PRO:HB3	1:J:773:LEU:HD11	2.03	0.41
1:J:1013:ILE:H	1:J:1013:ILE:HD12	1.85	0.41
1:J:1240:LYS:HE2	1:J:1240:LYS:HB3	1.92	0.41
1:J:1436:SER:OG	1:J:1565:GLU:HB2	2.21	0.41
1:J:1573:MET:HE1	1:J:1587:PRO:HA	2.02	0.41
1:J:2204:HIS:HA	1:J:2207:VAL:HG12	2.03	0.41
1:J:2827:ARG:NE	1:J:2935:TYR:OH	2.28	0.41
1:J:3349:ALA:HB1	1:J:3353:LEU:HD12	2.03	0.41
2:A:81:ALA:HB1	2:A:97:LEU:HD13	2.03	0.41
2:D:30:LEU:HD22	2:D:36:PHE:CD1	2.56	0.41
3:C:5:GLN:O	3:C:22:CYS:HA	2.20	0.41
3:K:34:MET:HE3	3:K:95:CYS:HB2	2.01	0.41
1:B:345:LEU:HD23	1:B:345:LEU:H	1.85	0.40
1:B:438:ILE:HG13	1:B:439:GLU:N	2.36	0.40
1:B:2212:VAL:HG22	1:B:2256:TYR:CZ	2.55	0.40
1:B:2251:PHE:CD2	1:B:2286:LEU:HD22	2.56	0.40
1:B:2967:MET:O	1:B:2970:SER:OG	2.27	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3102:ASP:HA	1:B:3105:LYS:HE2	2.03	0.40
1:B:3343:GLN:HB2	1:B:3344:PRO:HD3	2.03	0.40
1:B:3414:ARG:HE	1:B:3475:LYS:C	2.25	0.40
1:B:4097:MET:SD	1:B:4103:PHE:HD1	2.44	0.40
1:E:790:ARG:HA	1:E:1626:TRP:O	2.21	0.40
1:E:2927:LEU:HA	1:E:2930:LEU:HD12	2.04	0.40
1:E:3196:ARG:HH12	1:E:3341:PHE:HZ	1.69	0.40
1:E:3261:ALA:HB3	1:E:3266:MET:CE	2.51	0.40
1:E:3261:ALA:O	1:E:3325:ASN:ND2	2.54	0.40
1:E:3516:LYS:HD3	1:E:3516:LYS:HA	1.90	0.40
1:E:3573:MET:O	1:E:3577:ARG:HG2	2.21	0.40
1:E:4796:MET:O	1:E:4800:LEU:HG	2.21	0.40
1:E:4822:THR:O	1:E:4826:ILE:HG13	2.22	0.40
1:G:625:LEU:CD1	1:G:626:LEU:HD12	2.51	0.40
1:G:1478:ASP:OD1	1:G:1482:ASN:N	2.53	0.40
1:G:1646:ARG:NH1	1:G:1648:MET:SD	2.90	0.40
1:G:1771:LEU:HD11	1:G:2144:ILE:HD11	2.03	0.40
1:G:2365:GLY:O	1:G:2369:ARG:NH2	2.54	0.40
1:G:2874:MET:HE2	1:G:2937:VAL:HG11	2.03	0.40
1:G:2875:ALA:HB2	1:G:2927:LEU:HD22	2.03	0.40
1:G:2975:ALA:HA	1:G:3053:ARG:NH2	2.36	0.40
1:G:3052:HIS:CD2	1:G:3053:ARG:NH1	2.89	0.40
1:G:3816:MET:O	1:G:3820:LEU:HG	2.22	0.40
1:J:803:LEU:HD23	1:J:803:LEU:HA	1.91	0.40
1:J:1078:GLU:HB3	1:J:1081:TYR:CE2	2.56	0.40
1:J:1613:LEU:H	1:J:1613:LEU:HD12	1.86	0.40
1:J:2380:ILE:HG21	1:J:2469:ILE:HD11	2.03	0.40
1:J:3196:ARG:HH12	1:J:3341:PHE:HZ	1.69	0.40
1:J:3391:GLU:HA	1:J:3394:VAL:HG22	2.03	0.40
1:J:4879:MET:HG2	1:J:4880:MET:CE	2.51	0.40
2:D:23:VAL:HA	2:D:46:PHE:O	2.21	0.40
2:H:11:ASP:O	2:H:13:ARG:NH1	2.54	0.40
2:I:61:GLU:O	2:I:65:GLN:HG3	2.21	0.40
2:I:66:MET:HG3	2:I:67:SER:H	1.86	0.40
1:B:16:THR:HB	1:B:98:HIS:HA	2.02	0.40
1:B:1087:ARG:HB3	1:B:1223:PHE:HD1	1.83	0.40
1:B:2194:HIS:O	1:B:2198:MET:HG2	2.21	0.40
1:B:2522:LEU:HA	1:B:2526:PHE:HB2	2.03	0.40
1:B:3008:GLN:NE2	1:B:3012:ASN:HD22	2.20	0.40
1:B:3050:VAL:HG22	1:B:3131:TYR:HE1	1.86	0.40
1:B:3437:MET:O	1:B:3441:ILE:HG13	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3530:GLN:O	1:B:3534:MET:HG2	2.20	0.40
1:B:4180:ARG:HD2	1:B:4981:GLU:HG2	2.03	0.40
1:B:4776:GLN:HA	1:B:4779:LYS:HG2	2.02	0.40
1:E:16:THR:HB	1:E:98:HIS:HA	2.02	0.40
1:E:144:GLU:HA	1:E:147:TRP:CD1	2.56	0.40
1:E:277:GLY:HA2	1:E:315:CYS:HB2	2.02	0.40
1:E:783:PHE:HB2	1:E:787:VAL:HG21	2.02	0.40
1:E:894:GLY:H	1:E:904:HIS:H	1.68	0.40
1:E:1436:SER:OG	1:E:1565:GLU:HB2	2.21	0.40
1:E:1763:PRO:HG3	1:E:2094:LEU:HD22	2.03	0.40
1:E:1973:GLN:OE1	1:E:3641:LEU:HB3	2.21	0.40
1:E:2204:HIS:HA	1:E:2207:VAL:HG12	2.02	0.40
1:E:2673:HIS:CD2	1:E:2716:ASP:HB2	2.56	0.40
1:E:3050:VAL:HG22	1:E:3131:TYR:HE1	1.86	0.40
1:E:3054:VAL:HG21	1:E:3131:TYR:HB2	2.02	0.40
1:E:3142:THR:HA	1:E:3145:GLN:CD	2.41	0.40
1:E:3398:PHE:HA	1:E:3401:LEU:HG	2.02	0.40
1:G:372:LEU:O	1:G:374:LYS:HG2	2.20	0.40
1:G:826:ILE:HG22	1:G:827:LYS:HZ2	1.86	0.40
1:G:2522:LEU:HA	1:G:2526:PHE:HB2	2.03	0.40
1:G:3135:ALA:O	1:G:3139:VAL:HG23	2.20	0.40
1:J:16:THR:HB	1:J:98:HIS:HA	2.02	0.40
1:J:208:CYS:O	1:J:273:HIS:ND1	2.54	0.40
1:J:596:ASN:OD1	1:J:596:ASN:N	2.55	0.40
1:J:1154:ASP:OD1	1:J:1154:ASP:N	2.54	0.40
1:J:2736:ASP:OD1	1:J:2736:ASP:N	2.51	0.40
1:J:3052:HIS:CD2	1:J:3053:ARG:NH1	2.89	0.40
1:J:3157:ILE:HA	1:J:3161:VAL:HB	2.02	0.40
1:J:3327:LEU:HD11	1:J:3365:LEU:HD11	2.02	0.40
1:J:3573:MET:O	1:J:3577:ARG:HG2	2.21	0.40
1:J:3604:TYR:HE1	1:J:3608:GLN:HE21	1.69	0.40
1:J:3816:MET:O	1:J:3820:LEU:HG	2.21	0.40
1:J:4202:ARG:HG3	1:J:4206:GLU:OE2	2.21	0.40
1:J:4958:CYS:HA	5:J:5102:ATP:C8	2.56	0.40
2:A:61:GLU:O	2:A:65:GLN:HG3	2.21	0.40
2:A:76:CYS:HB3	2:A:80:VAL:HG23	2.02	0.40
2:D:66:MET:HG3	2:D:67:SER:H	1.86	0.40
2:H:7:ILE:CG2	2:H:71:ARG:HE	2.35	0.40
3:F:59:TYR:HB3	3:F:63:VAL:HG21	2.03	0.40
3:F:104:TYR:CD1	3:F:104:TYR:C	2.95	0.40
1:B:1071:ARG:O	1:B:1196:PRO:HD3	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2975:ALA:HA	1:B:3053:ARG:NH2	2.36	0.40
1:B:3261:ALA:HB3	1:B:3266:MET:CE	2.51	0.40
1:B:3391:GLU:HA	1:B:3394:VAL:HG22	2.03	0.40
1:B:3457:ASN:OD1	1:B:3458:PHE:N	2.55	0.40
1:B:3518:LEU:HB3	1:B:3519:PRO:HD3	2.03	0.40
1:B:3658:LYS:HB2	1:B:3658:LYS:HE3	1.79	0.40
1:B:3842:LEU:O	1:B:3929:SER:HB3	2.21	0.40
1:B:4991:PHE:HE2	1:B:5010:VAL:HG11	1.85	0.40
1:E:2251:PHE:CE2	1:E:2286:LEU:HD22	2.56	0.40
1:E:2627:VAL:HG13	1:E:2678:LEU:HD13	2.03	0.40
1:E:2645:THR:HB	1:E:2702:CYS:HA	2.02	0.40
1:E:2978:GLU:OE1	1:E:3053:ARG:NH2	2.53	0.40
1:E:3052:HIS:CD2	1:E:3053:ARG:NH1	2.89	0.40
1:E:3187:ARG:NH1	1:E:3268:HIS:HA	2.36	0.40
1:E:3246:LEU:O	1:E:3250:MET:HG3	2.21	0.40
1:E:3816:MET:O	1:E:3820:LEU:HG	2.22	0.40
1:G:345:LEU:HD23	1:G:345:LEU:H	1.85	0.40
1:G:613:ALA:HB1	1:G:618:GLN:NE2	2.37	0.40
1:G:1436:SER:OG	1:G:1565:GLU:HB2	2.21	0.40
1:G:2927:LEU:HA	1:G:2930:LEU:HD12	2.04	0.40
1:G:3008:GLN:NE2	1:G:3012:ASN:HD22	2.20	0.40
1:G:3100:SER:OG	1:G:3164:SER:OG	2.38	0.40
1:G:3142:THR:HA	1:G:3145:GLN:CD	2.41	0.40
1:G:3261:ALA:O	1:G:3325:ASN:ND2	2.54	0.40
1:G:3391:GLU:HA	1:G:3394:VAL:HG22	2.03	0.40
1:G:3443:ILE:HG22	1:G:3605:HIS:ND1	2.37	0.40
1:J:144:GLU:HA	1:J:147:TRP:CD1	2.56	0.40
1:J:235:ALA:H	1:J:373:LYS:HE3	1.86	0.40
1:J:894:GLY:H	1:J:904:HIS:H	1.68	0.40
1:J:954:LYS:HA	1:J:954:LYS:HD2	1.77	0.40
1:J:1003:GLN:HG3	3:K:1:GLN:HE22	1.86	0.40
1:J:1763:PRO:HG3	1:J:2094:LEU:HD22	2.03	0.40
1:J:3191:GLY:HA2	1:J:3194:LEU:HG	2.03	0.40
2:A:23:VAL:HA	2:A:46:PHE:O	2.21	0.40
2:H:66:MET:HG3	2:H:67:SER:H	1.86	0.40
2:I:23:VAL:HA	2:I:46:PHE:O	2.21	0.40
2:I:30:LEU:HD22	2:I:36:PHE:CD1	2.56	0.40
2:I:81:ALA:HB1	2:I:97:LEU:HD13	2.03	0.40
3:M:100:VAL:HG13	3:M:104:TYR:O	2.21	0.40
1:B:1043:VAL:HA	1:B:1046:LEU:HD12	2.03	0.40
1:B:2790:MET:HG3	1:B:2792:ARG:CZ	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2977:LEU:HD11	1:B:2995:ILE:HD13	2.03	0.40
1:B:3006:ILE:HD11	1:B:3010:PHE:CZ	2.55	0.40
1:B:3443:ILE:HG22	1:B:3605:HIS:ND1	2.36	0.40
1:B:4043:GLN:O	1:B:4047:MET:HG2	2.22	0.40
1:E:596:ASN:OD1	1:E:596:ASN:N	2.55	0.40
1:E:651:GLY:O	1:E:658:GLN:HG3	2.21	0.40
1:E:1078:GLU:HB3	1:E:1081:TYR:CE2	2.56	0.40
1:E:2194:HIS:O	1:E:2198:MET:HG2	2.21	0.40
1:E:3102:ASP:HA	1:E:3105:LYS:HE2	2.02	0.40
1:E:3532:LEU:HA	1:E:3535:LEU:HG	2.03	0.40
1:E:3541:ALA:O	1:E:3543:LYS:HE2	2.21	0.40
1:E:3591:LYS:O	1:E:3595:ARG:HG2	2.22	0.40
1:E:3834:ALA:O	1:E:3838:THR:HG23	2.21	0.40
1:G:16:THR:HB	1:G:98:HIS:HA	2.02	0.40
1:G:487:VAL:O	1:G:491:ILE:HG13	2.22	0.40
1:G:2251:PHE:CE2	1:G:2286:LEU:HD22	2.57	0.40
1:G:2871:LEU:O	1:G:2874:MET:HG3	2.21	0.40
1:G:3067:CYS:HA	1:G:3070:ILE:HG12	2.03	0.40
1:G:3102:ASP:HA	1:G:3105:LYS:HE2	2.03	0.40
1:G:4822:THR:O	1:G:4826:ILE:HG13	2.22	0.40
1:J:148:TRP:CH2	1:J:180:LEU:HD13	2.56	0.40
1:J:487:VAL:O	1:J:491:ILE:HG13	2.22	0.40
1:J:514:SER:O	1:J:518:ILE:HG13	2.22	0.40
1:J:2122:SER:O	1:J:2126:ARG:HG3	2.20	0.40
1:J:2134:LEU:O	1:J:2138:LEU:HG	2.20	0.40
1:J:2211:MET:HE2	1:J:2272:PRO:HG3	2.02	0.40
1:J:2875:ALA:HB2	1:J:2927:LEU:HD22	2.03	0.40
1:J:3261:ALA:O	1:J:3325:ASN:ND2	2.54	0.40
1:J:3398:PHE:CD1	1:J:3451:PHE:HD1	2.39	0.40
1:J:3414:ARG:HE	1:J:3475:LYS:C	2.25	0.40
1:J:4097:MET:SD	1:J:4103:PHE:HD1	2.44	0.40
1:J:4822:THR:O	1:J:4826:ILE:HG13	2.22	0.40
2:A:11:ASP:O	2:A:13:ARG:NH1	2.54	0.40
2:D:78:PRO:HG3	2:D:95:ALA:O	2.22	0.40
2:I:15:PHE:HE1	2:I:67:SER:HB3	1.85	0.40
1:B:255:HIS:HD2	1:B:480:GLU:CG	2.34	0.40
1:B:474:ARG:O	1:B:478:PHE:HD1	2.04	0.40
1:B:651:GLY:O	1:B:658:GLN:HG3	2.21	0.40
1:B:786:GLY:N	1:B:1630:CYS:O	2.55	0.40
1:B:999:ASP:O	1:B:1003:GLN:HG3	2.22	0.40
1:B:2875:ALA:HB2	1:B:2927:LEU:HD22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2927:LEU:HA	1:B:2930:LEU:HD12	2.04	0.40
1:B:3187:ARG:NH1	1:B:3268:HIS:HA	2.36	0.40
1:B:3833:GLN:O	1:B:3836:MET:HG3	2.22	0.40
1:B:4821:LYS:O	1:B:4824:ARG:HB2	2.22	0.40
1:E:793:LEU:HD12	1:E:821:LEU:HD21	2.04	0.40
1:E:2380:ILE:HG21	1:E:2469:ILE:HD11	2.03	0.40
1:E:3008:GLN:NE2	1:E:3012:ASN:HD22	2.20	0.40
1:E:3035:GLU:HA	1:E:3038:MET:HG2	2.04	0.40
1:E:3414:ARG:HE	1:E:3475:LYS:C	2.25	0.40
1:E:3592:ILE:HA	1:E:3595:ARG:HE	1.87	0.40
1:E:3992:PHE:O	1:E:3996:PHE:HD2	2.05	0.40
1:E:4202:ARG:HG3	1:E:4206:GLU:OE2	2.21	0.40
1:G:400:ALA:O	1:G:404:ILE:HG13	2.22	0.40
1:G:786:GLY:N	1:G:1630:CYS:O	2.55	0.40
1:G:863:LEU:HD11	1:G:930:LYS:HG3	2.02	0.40
1:G:999:ASP:O	1:G:1003:GLN:HG3	2.22	0.40
1:G:1679:ASN:O	1:G:1683:HIS:ND1	2.55	0.40
1:G:2579:VAL:O	1:G:2583:LEU:HD23	2.22	0.40
1:G:3050:VAL:HG22	1:G:3131:TYR:HE1	1.86	0.40
1:G:3187:ARG:NH1	1:G:3268:HIS:HA	2.36	0.40
1:G:3261:ALA:HB3	1:G:3266:MET:CE	2.51	0.40
1:G:3518:LEU:HB3	1:G:3519:PRO:HD3	2.03	0.40
1:G:4218:ILE:HD12	1:G:4954:MET:SD	2.60	0.40
1:G:4879:MET:HG2	1:G:4880:MET:CE	2.51	0.40
1:J:786:GLY:N	1:J:1630:CYS:O	2.55	0.40
1:J:790:ARG:HA	1:J:1626:TRP:O	2.21	0.40
1:J:1043:VAL:HA	1:J:1046:LEU:HD12	2.03	0.40
1:J:2251:PHE:CE2	1:J:2286:LEU:HD22	2.57	0.40
1:J:3142:THR:HA	1:J:3145:GLN:CD	2.41	0.40
1:J:3443:ILE:HG22	1:J:3605:HIS:ND1	2.37	0.40
1:J:3842:LEU:O	1:J:3929:SER:HB3	2.22	0.40
2:I:7:ILE:CG2	2:I:71:ARG:HE	2.35	0.40
2:I:11:ASP:O	2:I:13:ARG:NH1	2.54	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 PDB entries followed by that with respect to all EM entries.

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	B	4280/5027 (85%)	4189 (98%)	89 (2%)	2 (0%)	100	100
1	E	4280/5027 (85%)	4190 (98%)	88 (2%)	2 (0%)	100	100
1	G	4280/5027 (85%)	4190 (98%)	88 (2%)	2 (0%)	100	100
1	J	4280/5027 (85%)	4190 (98%)	88 (2%)	2 (0%)	100	100
2	A	105/107 (98%)	96 (91%)	8 (8%)	1 (1%)	13	48
2	D	105/107 (98%)	96 (91%)	8 (8%)	1 (1%)	13	48
2	H	105/107 (98%)	96 (91%)	8 (8%)	1 (1%)	13	48
2	I	105/107 (98%)	96 (91%)	8 (8%)	1 (1%)	13	48
3	C	124/137 (90%)	113 (91%)	11 (9%)	0	100	100
3	F	124/137 (90%)	113 (91%)	11 (9%)	0	100	100
3	K	124/137 (90%)	113 (91%)	11 (9%)	0	100	100
3	M	124/137 (90%)	111 (90%)	13 (10%)	0	100	100
All	All	18036/21084 (86%)	17593 (98%)	431 (2%)	12 (0%)	50	83

All (12) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	A	86	GLY
2	D	86	GLY
2	H	86	GLY
2	I	86	GLY
1	B	2909	ASP
1	E	2909	ASP
1	G	2909	ASP
1	J	2909	ASP
1	B	2910	THR
1	E	2910	THR
1	G	2910	THR
1	J	2910	THR

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 PDB entries followed by that with respect to all EM entries.

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	B	3659/4270 (86%)	3650 (100%)	9 (0%)	92	93
1	E	3659/4270 (86%)	3650 (100%)	9 (0%)	92	93
1	G	3659/4270 (86%)	3650 (100%)	9 (0%)	92	93
1	J	3659/4270 (86%)	3649 (100%)	10 (0%)	91	91
2	A	88/88 (100%)	86 (98%)	2 (2%)	45	64
2	D	88/88 (100%)	86 (98%)	2 (2%)	45	64
2	H	88/88 (100%)	86 (98%)	2 (2%)	45	64
2	I	88/88 (100%)	86 (98%)	2 (2%)	45	64
3	C	104/114 (91%)	103 (99%)	1 (1%)	73	81
3	F	104/114 (91%)	103 (99%)	1 (1%)	73	81
3	K	104/114 (91%)	103 (99%)	1 (1%)	73	81
3	M	104/114 (91%)	103 (99%)	1 (1%)	73	81
All	All	15404/17888 (86%)	15355 (100%)	49 (0%)	90	91

All (49) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	1954	ARG
1	B	2268	GLN
1	B	2593	ARG
1	B	2690	LYS
1	B	2827	ARG
1	B	2914	LYS
1	B	3337	ARG
1	B	3694	LYS
1	B	4091	LYS
1	E	1954	ARG
1	E	2268	GLN
1	E	2593	ARG
1	E	2690	LYS
1	E	2827	ARG

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Mol	Chain	Res	Type
1	E	2914	LYS
1	E	3337	ARG
1	E	3694	LYS
1	E	4091	LYS
1	G	1954	ARG
1	G	2268	GLN
1	G	2593	ARG
1	G	2690	LYS
1	G	2827	ARG
1	G	2914	LYS
1	G	3337	ARG
1	G	3694	LYS
1	G	4091	LYS
1	J	372	LEU
1	J	1954	ARG
1	J	2268	GLN
1	J	2593	ARG
1	J	2690	LYS
1	J	2827	ARG
1	J	2914	LYS
1	J	3337	ARG
1	J	3694	LYS
1	J	4091	LYS
2	A	35	LYS
2	A	44	LYS
2	D	35	LYS
2	D	44	LYS
2	H	35	LYS
2	H	44	LYS
2	I	35	LYS
2	I	44	LYS
3	C	43	LYS
3	F	43	LYS
3	K	43	LYS
3	M	43	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (58) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	12	GLN
1	B	479	GLN
1	B	921	ASN

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Mol	Chain	Res	Type
1	B	1691	GLN
1	B	2204	HIS
1	B	2673	HIS
1	B	3008	GLN
1	B	3013	HIS
1	B	3162	GLN
1	B	3456	GLN
1	B	3813	GLN
1	B	3960	GLN
1	E	12	GLN
1	E	479	GLN
1	E	921	ASN
1	E	1691	GLN
1	E	2204	HIS
1	E	2673	HIS
1	E	3008	GLN
1	E	3013	HIS
1	E	3162	GLN
1	E	3456	GLN
1	E	3813	GLN
1	E	3889	GLN
1	E	3960	GLN
1	G	12	GLN
1	G	479	GLN
1	G	921	ASN
1	G	1691	GLN
1	G	2204	HIS
1	G	2673	HIS
1	G	3008	GLN
1	G	3013	HIS
1	G	3162	GLN
1	G	3456	GLN
1	G	3813	GLN
1	G	3960	GLN
1	J	12	GLN
1	J	479	GLN
1	J	904	HIS
1	J	921	ASN
1	J	1691	GLN
1	J	2204	HIS
1	J	2673	HIS
1	J	3008	GLN

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Mol	Chain	Res	Type
1	J	3013	HIS
1	J	3162	GLN
1	J	3456	GLN
1	J	3813	GLN
1	J	3960	GLN
3	C	44	GLN
3	C	122	GLN
3	F	5	GLN
3	F	44	GLN
3	F	122	GLN
3	K	44	GLN
3	K	122	GLN
3	M	122	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

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	$\# Z > 2$
5	ATP	G	5102	-	26,33,33	0.60	0	31,52,52	0.77	2 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
5	ATP	E	5102	-	26,33,33	0.60	0	31,52,52	0.77	2 (6%)
5	ATP	B	5102	-	26,33,33	0.60	0	31,52,52	0.77	2 (6%)
5	ATP	J	5102	-	26,33,33	0.60	0	31,52,52	0.77	2 (6%)
6	CFF	B	5103	-	8,15,15	1.03	0	8,23,23	2.46	2 (25%)
6	CFF	G	5103	-	8,15,15	1.02	0	8,23,23	2.45	2 (25%)
6	CFF	J	5103	-	8,15,15	1.03	0	8,23,23	2.44	2 (25%)
6	CFF	E	5103	-	8,15,15	1.01	0	8,23,23	2.45	2 (25%)

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
5	ATP	G	5102	-	-	5/18/38/38	0/3/3/3
5	ATP	E	5102	-	-	5/18/38/38	0/3/3/3
5	ATP	B	5102	-	-	5/18/38/38	0/3/3/3
5	ATP	J	5102	-	-	5/18/38/38	0/3/3/3
6	CFF	B	5103	-	-	-	0/2/2/2
6	CFF	G	5103	-	-	-	0/2/2/2
6	CFF	J	5103	-	-	-	0/2/2/2
6	CFF	E	5103	-	-	-	0/2/2/2

There are no bond length outliers.

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	B	5103	CFF	C5-C6-N1	-5.83	111.98	118.20
6	E	5103	CFF	C5-C6-N1	-5.82	111.99	118.20
6	G	5103	CFF	C5-C6-N1	-5.82	111.99	118.20
6	J	5103	CFF	C5-C6-N1	-5.82	112.00	118.20
6	E	5103	CFF	C4-C5-C6	3.47	122.19	119.96
6	B	5103	CFF	C4-C5-C6	3.47	122.19	119.96
6	G	5103	CFF	C4-C5-C6	3.44	122.17	119.96
6	J	5103	CFF	C4-C5-C6	3.40	122.14	119.96
5	B	5102	ATP	C5-C6-N6	2.29	123.84	120.35
5	J	5102	ATP	C5-C6-N6	2.29	123.83	120.35
5	E	5102	ATP	C5-C6-N6	2.27	123.81	120.35
5	G	5102	ATP	C5-C6-N6	2.27	123.80	120.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	B	5102	ATP	PB-O3B-PG	2.05	139.88	132.83
5	E	5102	ATP	PB-O3B-PG	2.05	139.86	132.83
5	J	5102	ATP	PB-O3B-PG	2.05	139.85	132.83
5	G	5102	ATP	PB-O3B-PG	2.04	139.84	132.83

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	5102	ATP	C5'-O5'-PA-O1A
5	B	5102	ATP	C5'-O5'-PA-O2A
5	E	5102	ATP	C5'-O5'-PA-O1A
5	E	5102	ATP	C5'-O5'-PA-O2A
5	G	5102	ATP	C5'-O5'-PA-O1A
5	G	5102	ATP	C5'-O5'-PA-O2A
5	J	5102	ATP	C5'-O5'-PA-O1A
5	J	5102	ATP	C5'-O5'-PA-O2A
5	B	5102	ATP	C5'-O5'-PA-O3A
5	E	5102	ATP	C5'-O5'-PA-O3A
5	G	5102	ATP	C5'-O5'-PA-O3A
5	J	5102	ATP	C5'-O5'-PA-O3A
5	B	5102	ATP	C4'-C5'-O5'-PA
5	E	5102	ATP	C4'-C5'-O5'-PA
5	G	5102	ATP	C4'-C5'-O5'-PA
5	J	5102	ATP	C4'-C5'-O5'-PA
5	B	5102	ATP	O4'-C4'-C5'-O5'
5	E	5102	ATP	O4'-C4'-C5'-O5'
5	G	5102	ATP	O4'-C4'-C5'-O5'
5	J	5102	ATP	O4'-C4'-C5'-O5'

There are no ring outliers.

8 monomers are involved in 10 short contacts:

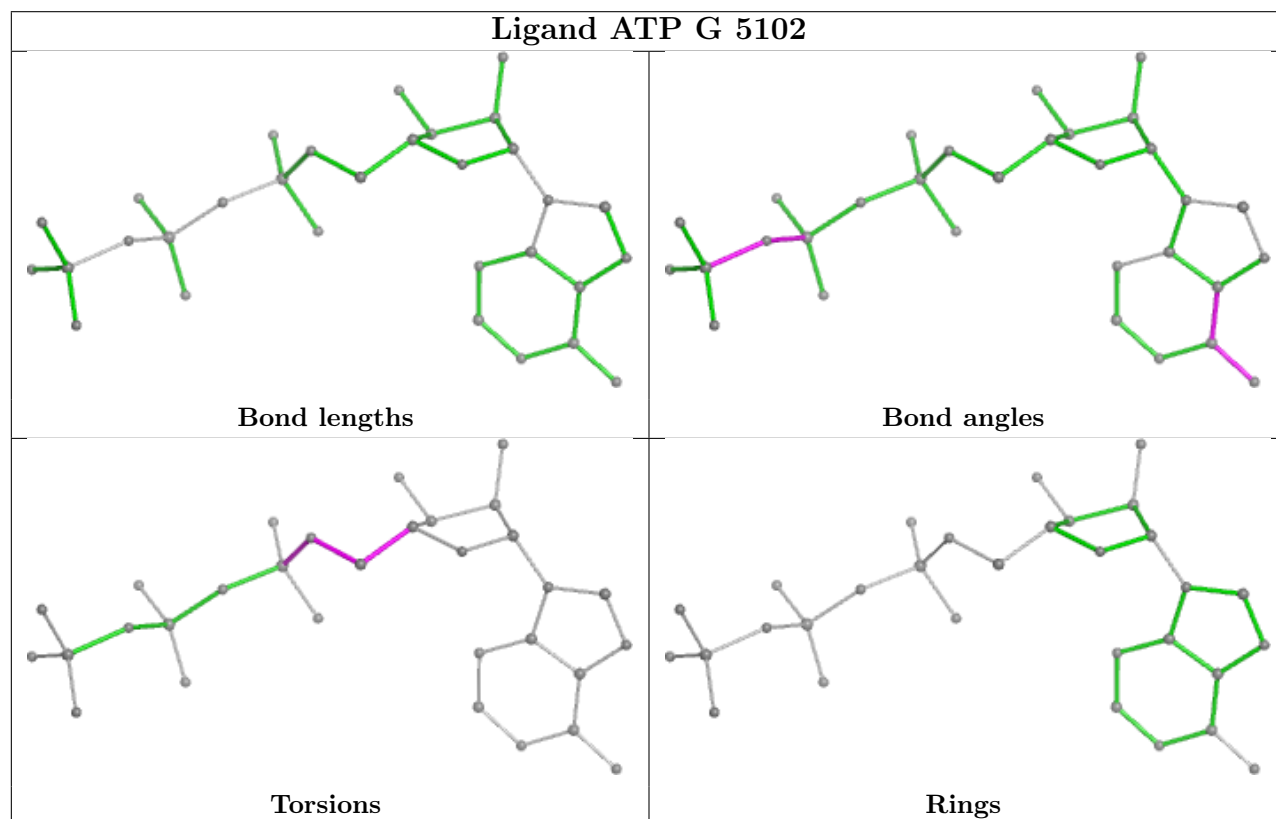
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	G	5102	ATP	1	0
5	E	5102	ATP	1	0
5	B	5102	ATP	2	0
5	J	5102	ATP	2	0
6	B	5103	CFF	1	0
6	G	5103	CFF	1	0
6	J	5103	CFF	1	0

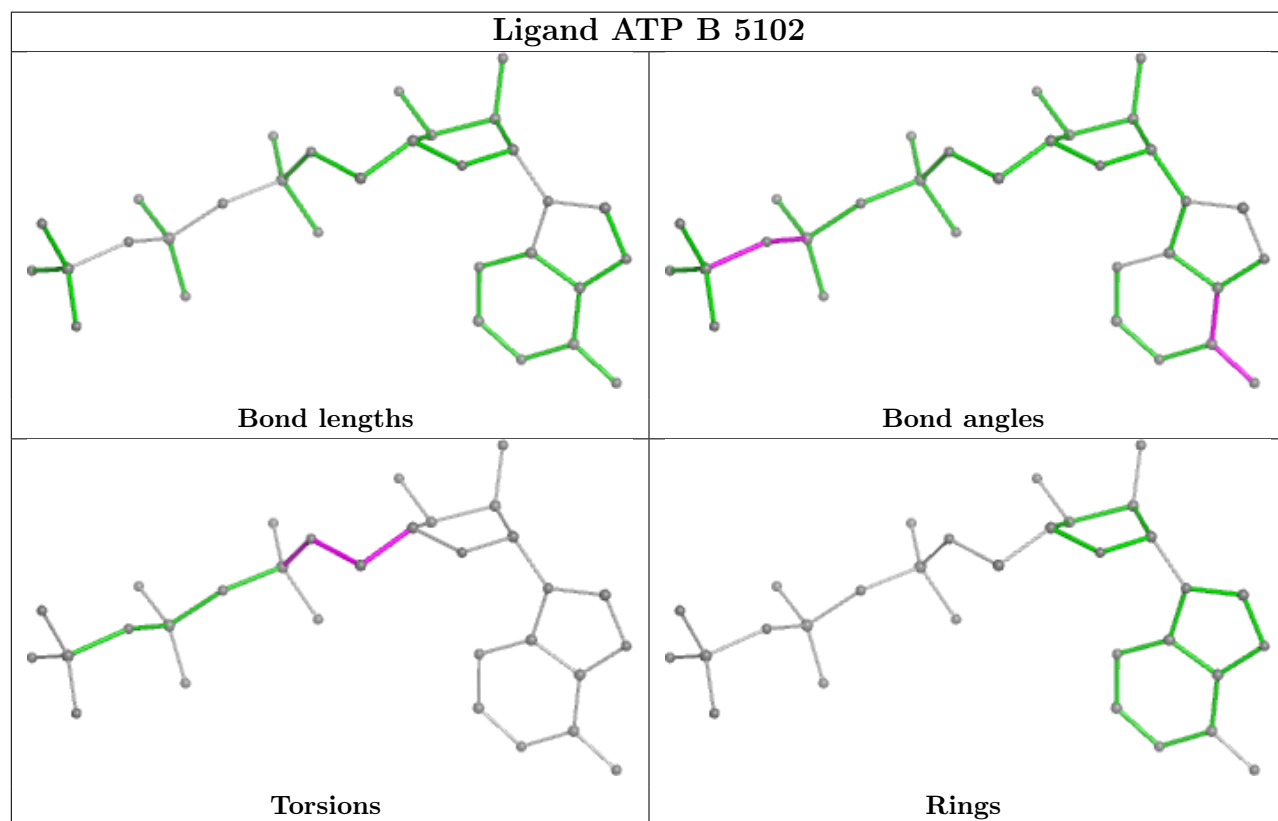
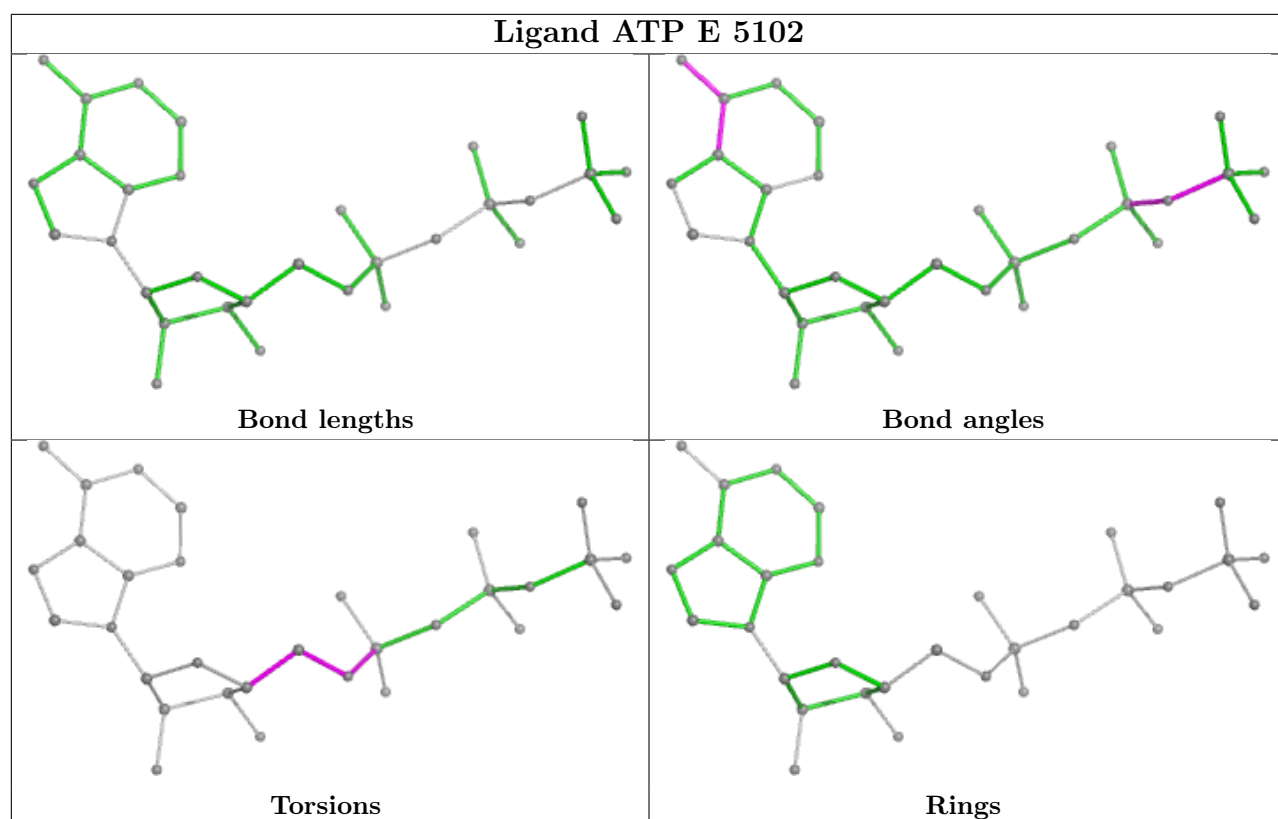
Continued on next page...

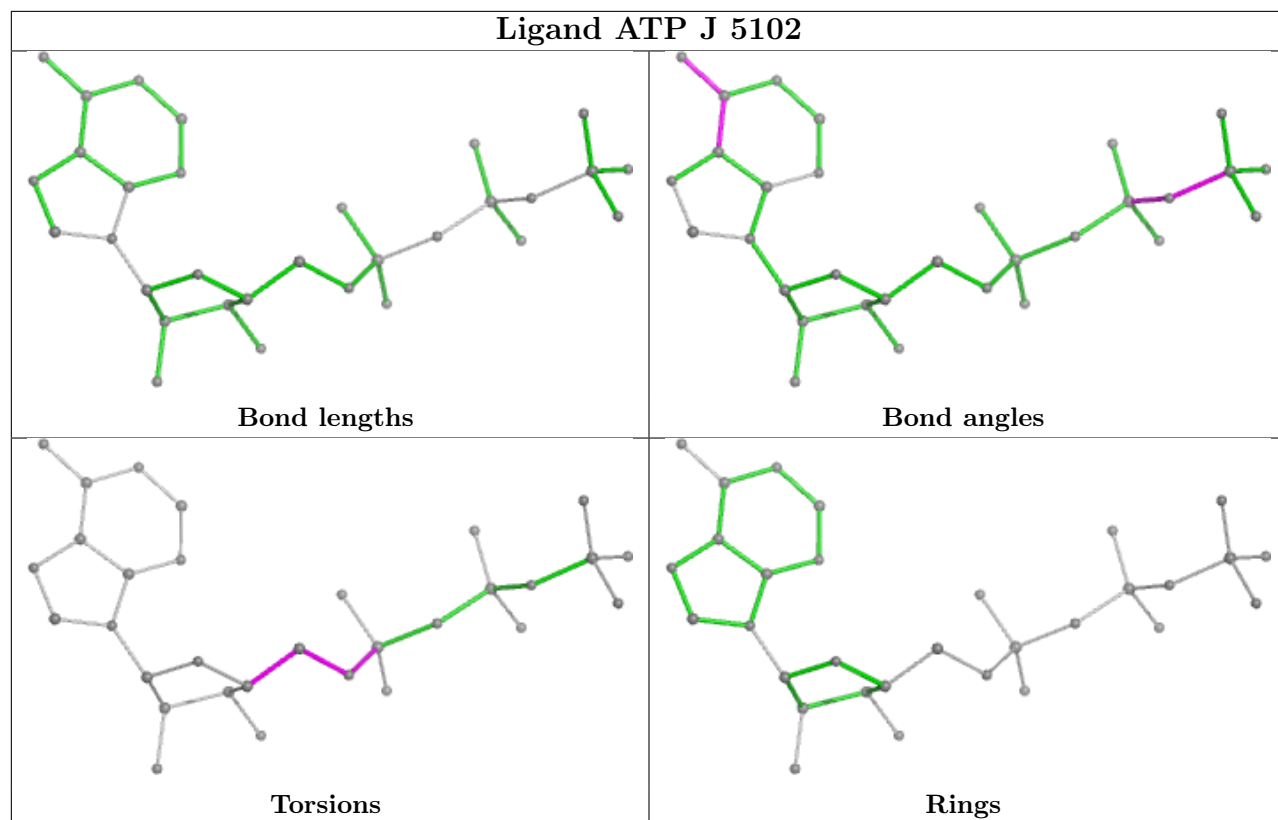
Continued from previous page...

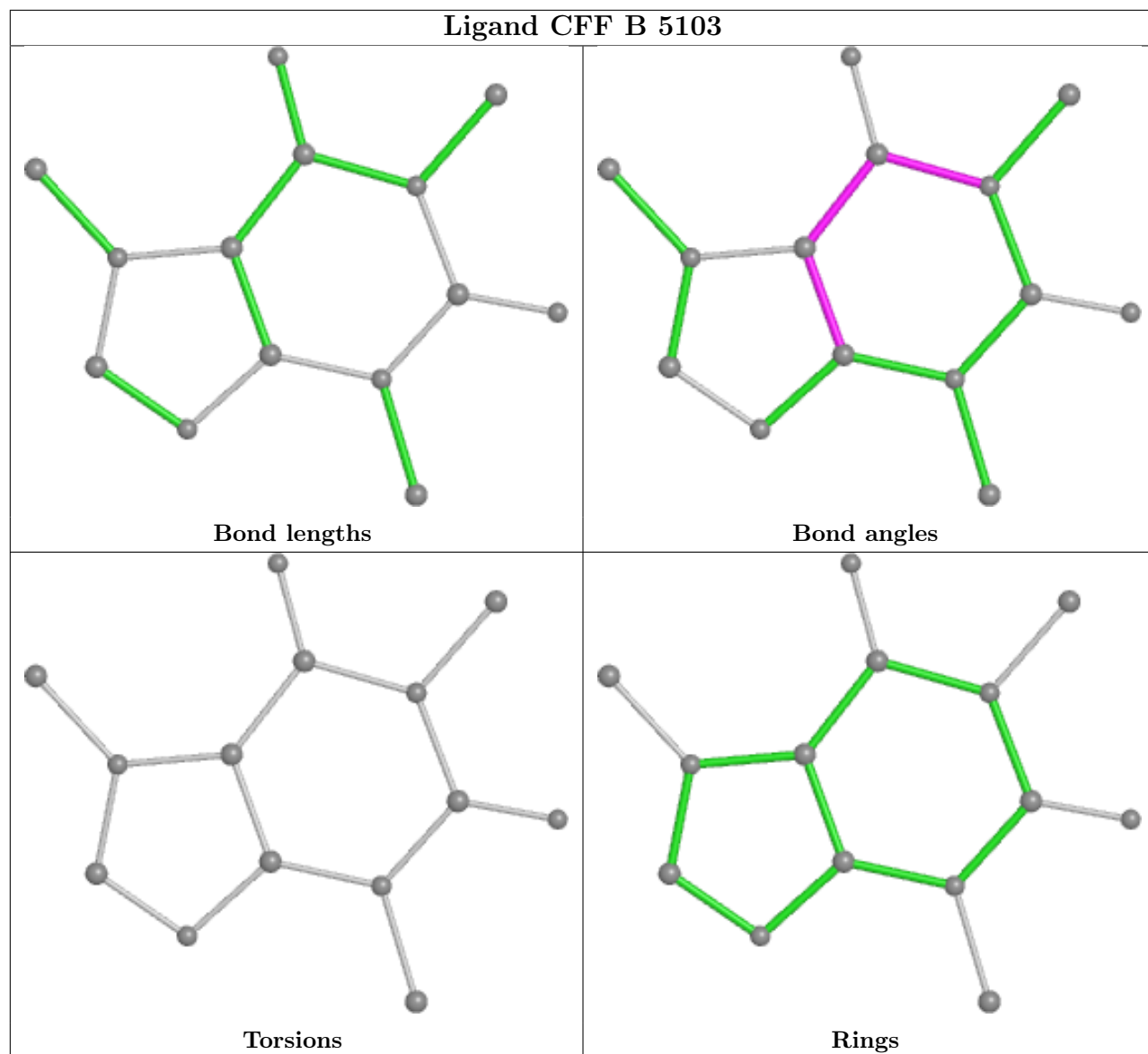
Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	E	5103	CFF	1	0

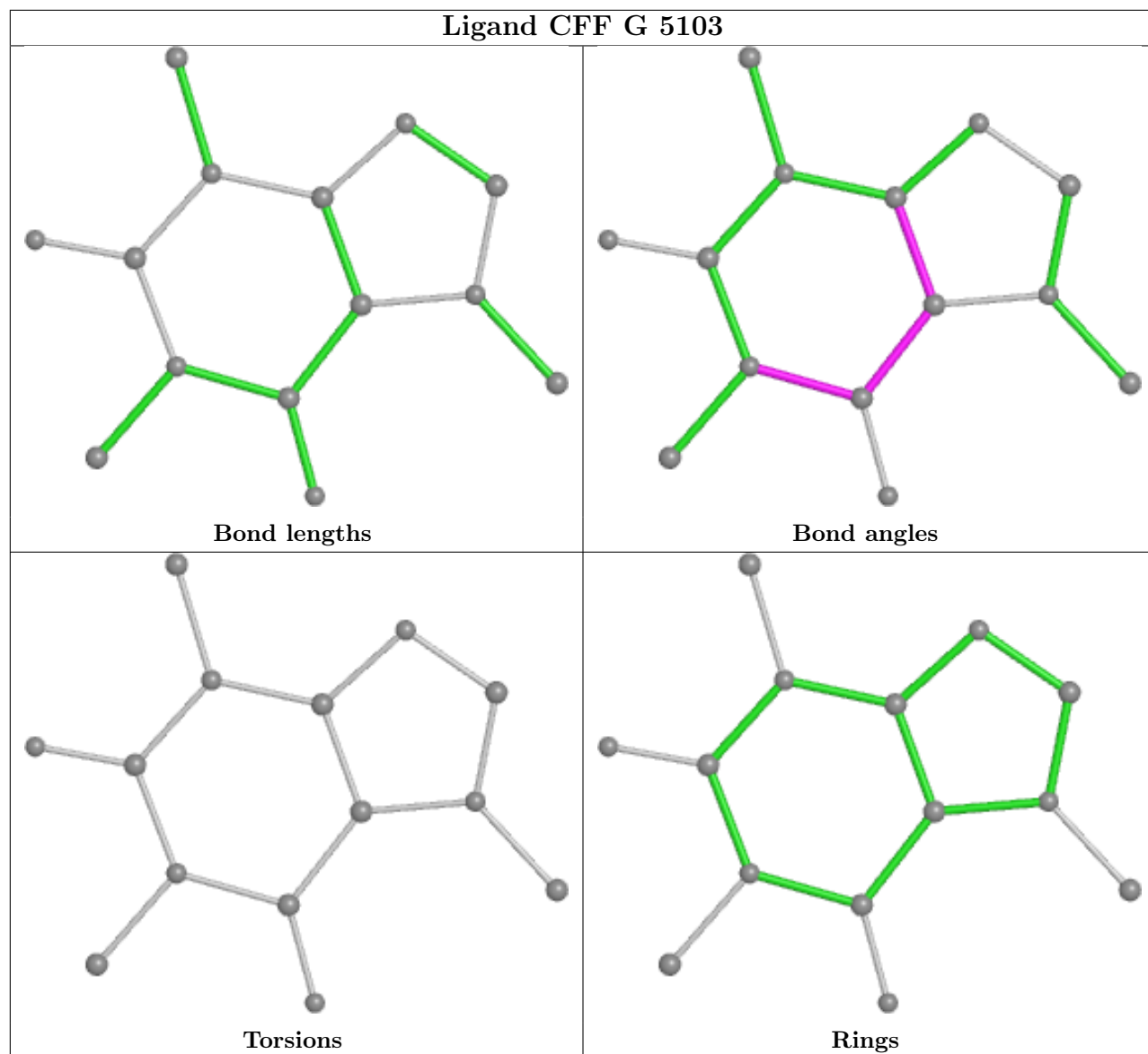
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

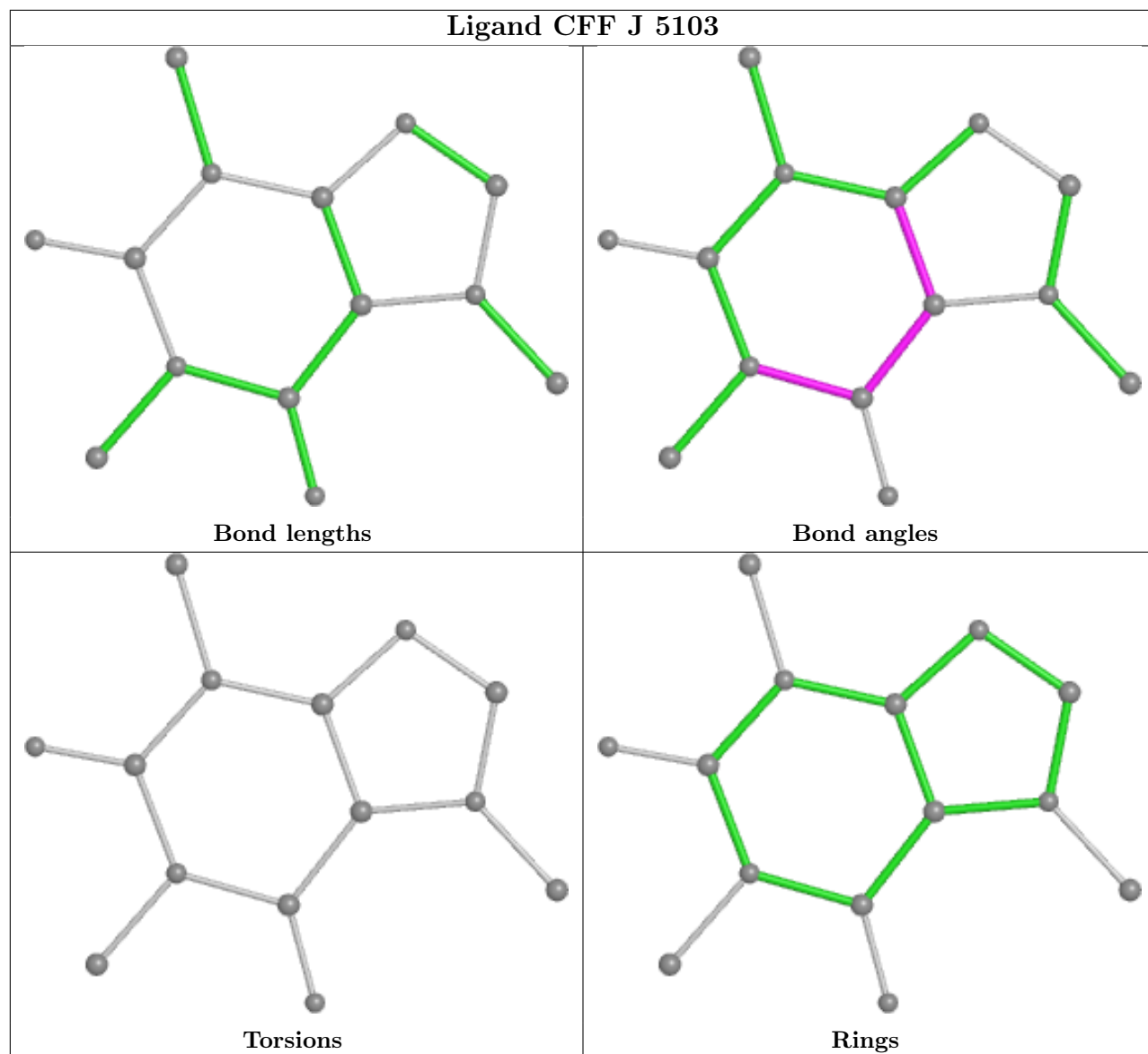


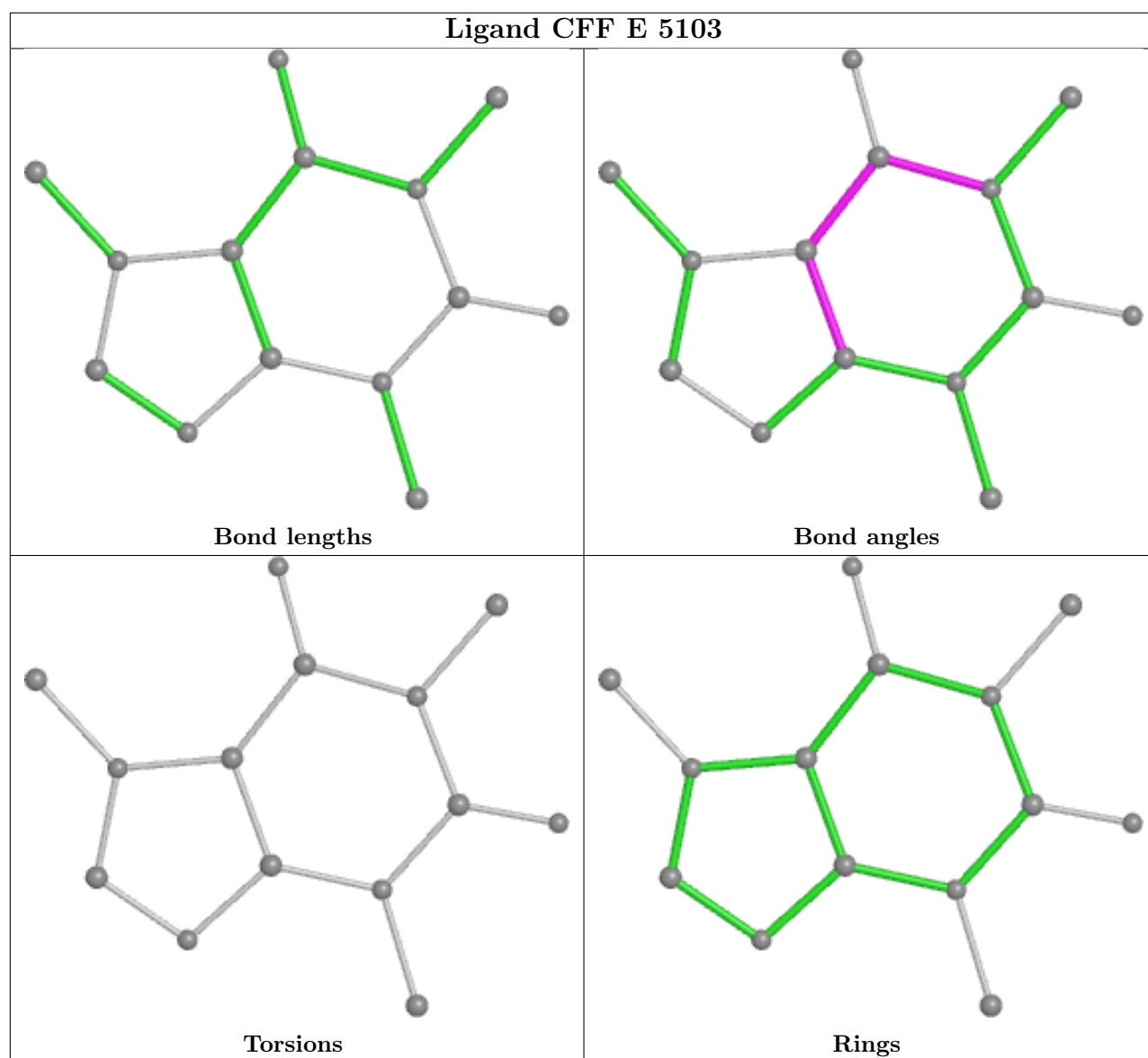












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

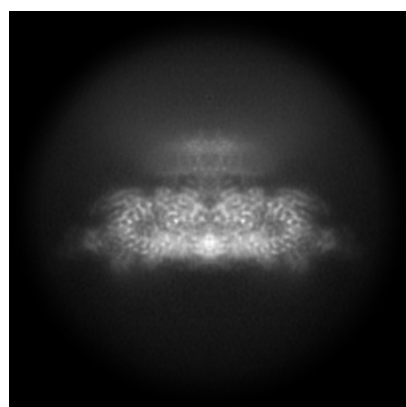
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-19464. These allow visual inspection of the internal detail of the map and identification of artifacts.

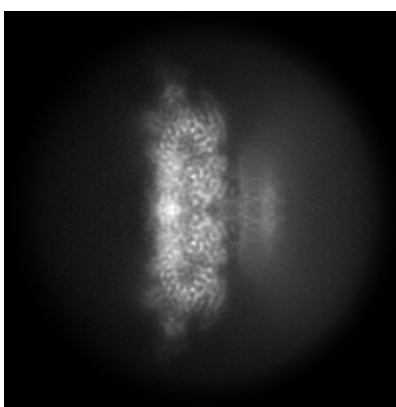
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

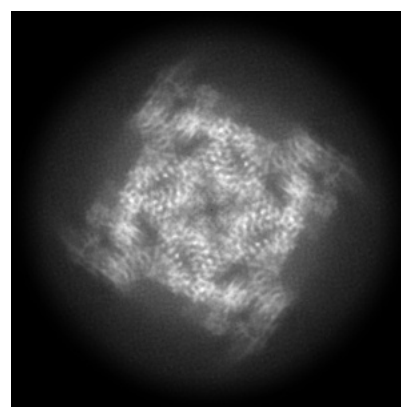
6.1.1 Primary map



X



Y

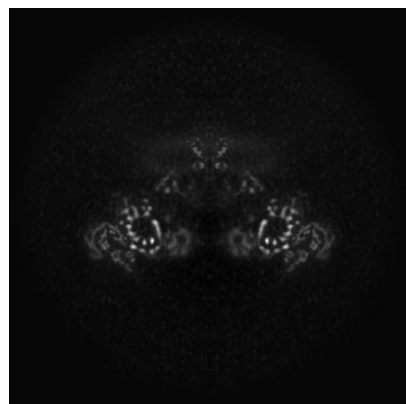


Z

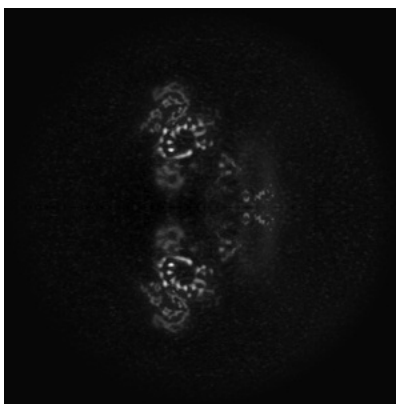
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

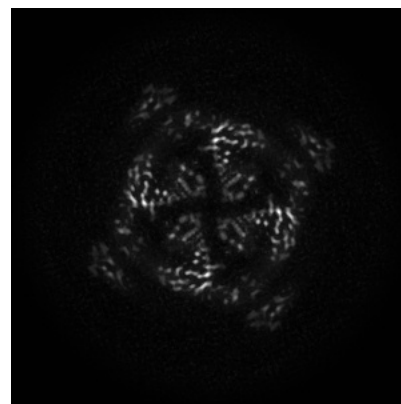
6.2.1 Primary map



X Index: 168



Y Index: 168

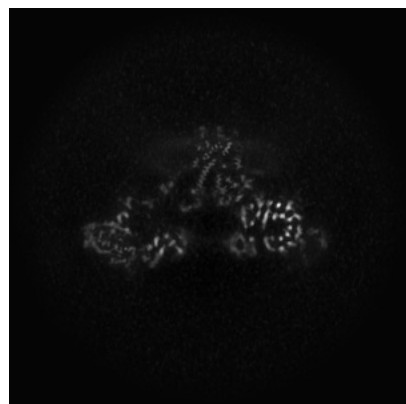


Z Index: 168

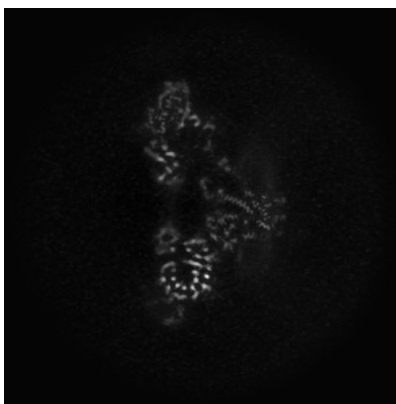
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

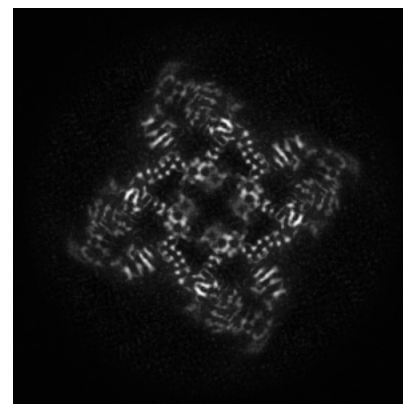
6.3.1 Primary map



X Index: 175



Y Index: 175

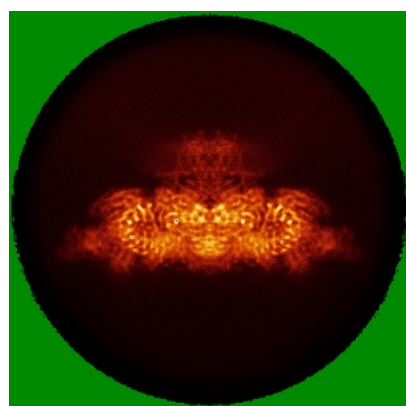


Z Index: 144

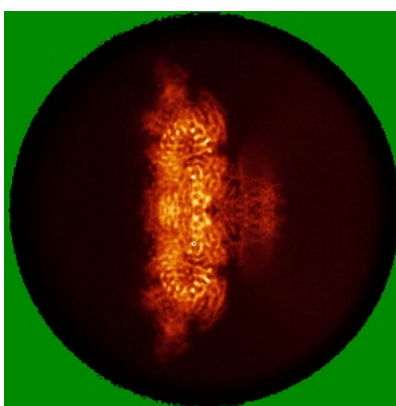
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

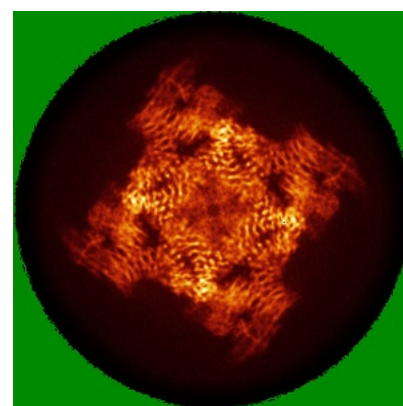
6.4.1 Primary map



X



Y

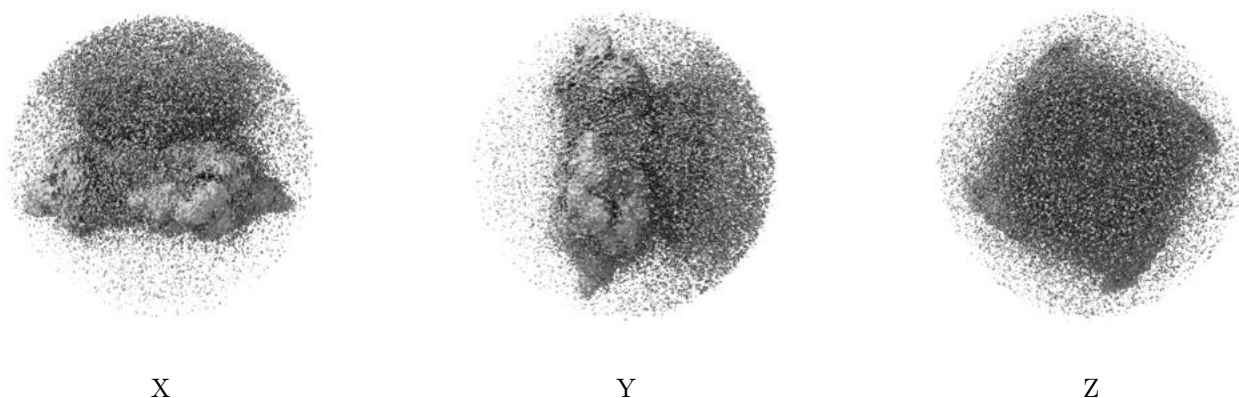


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.2. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

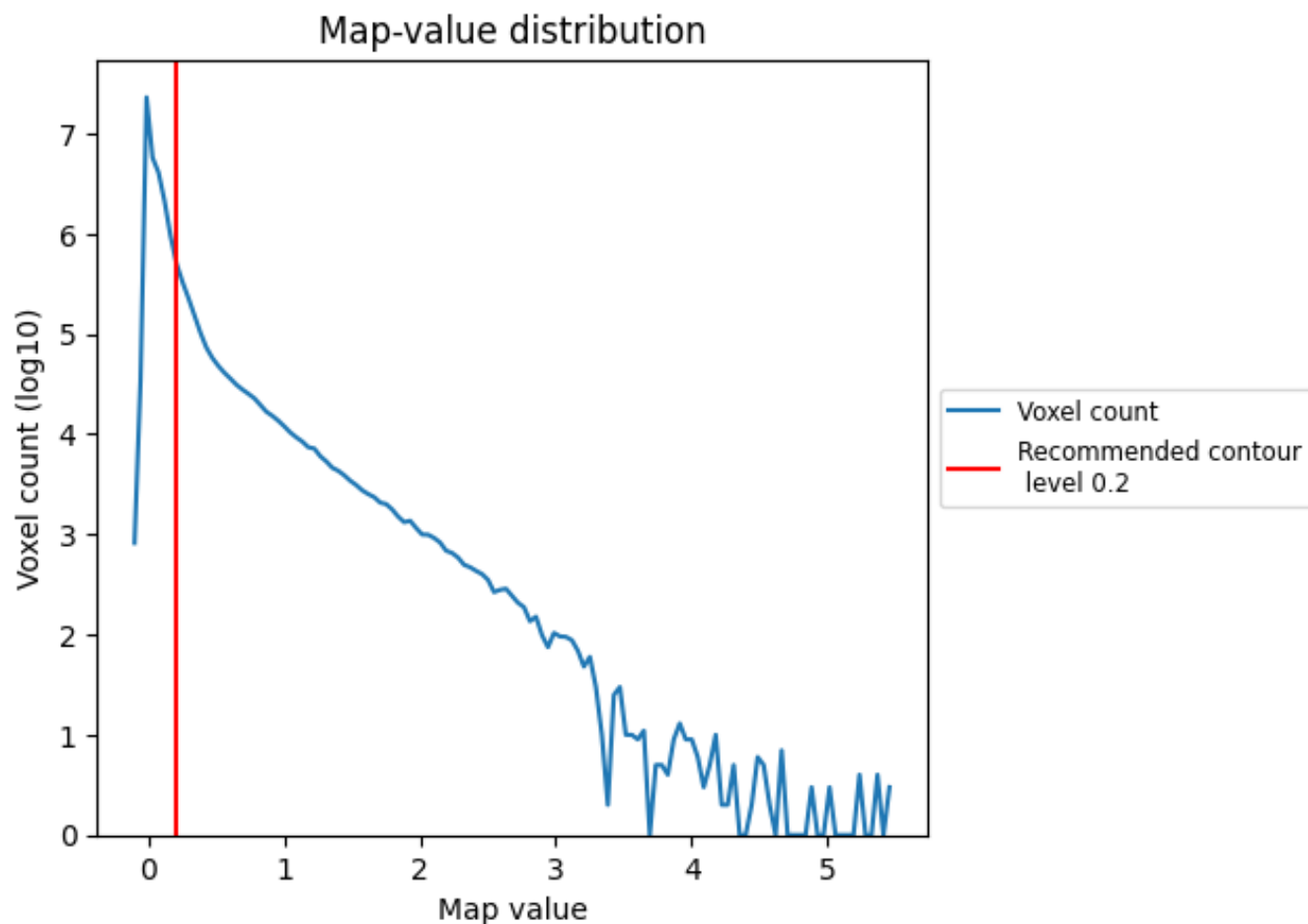
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

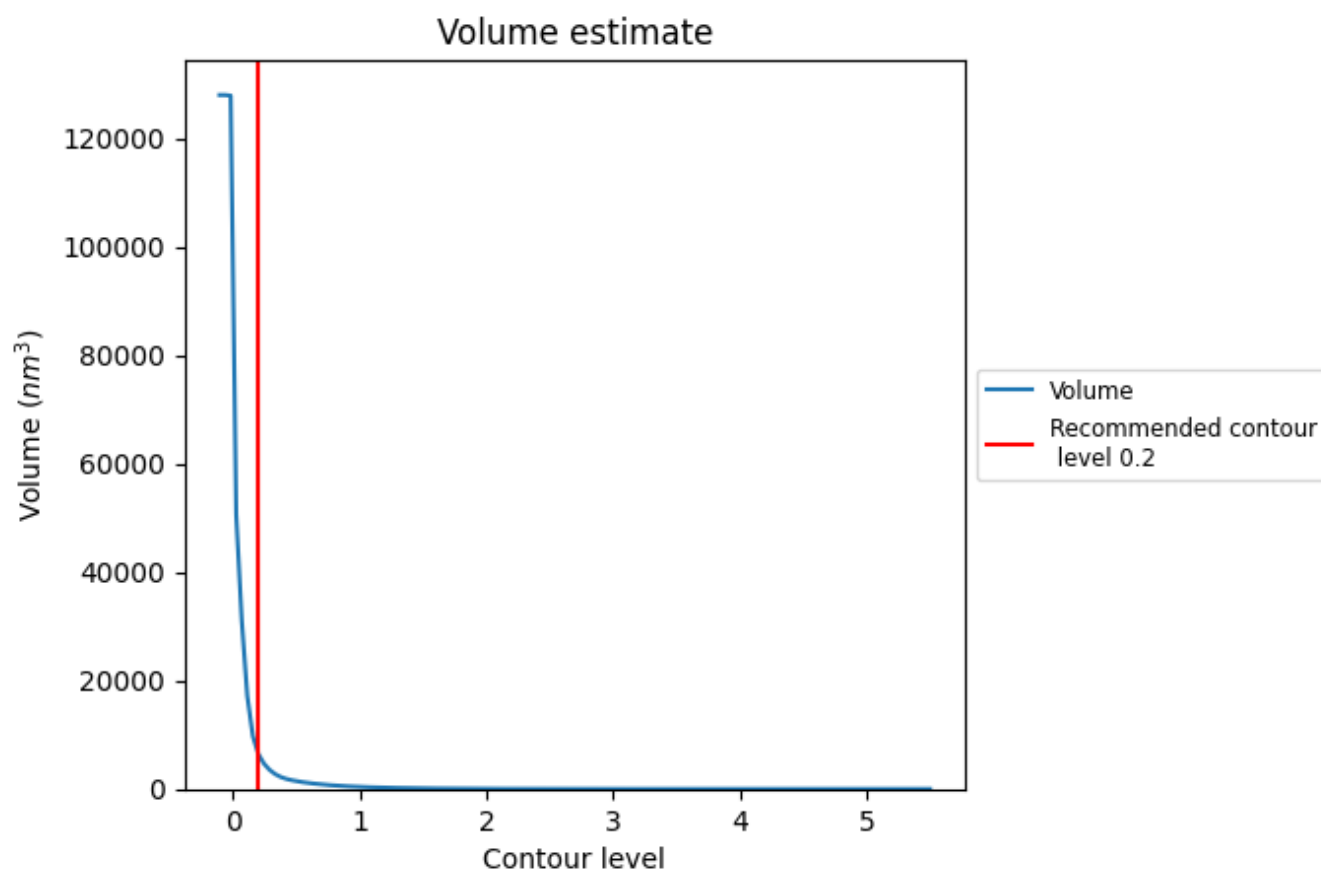
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

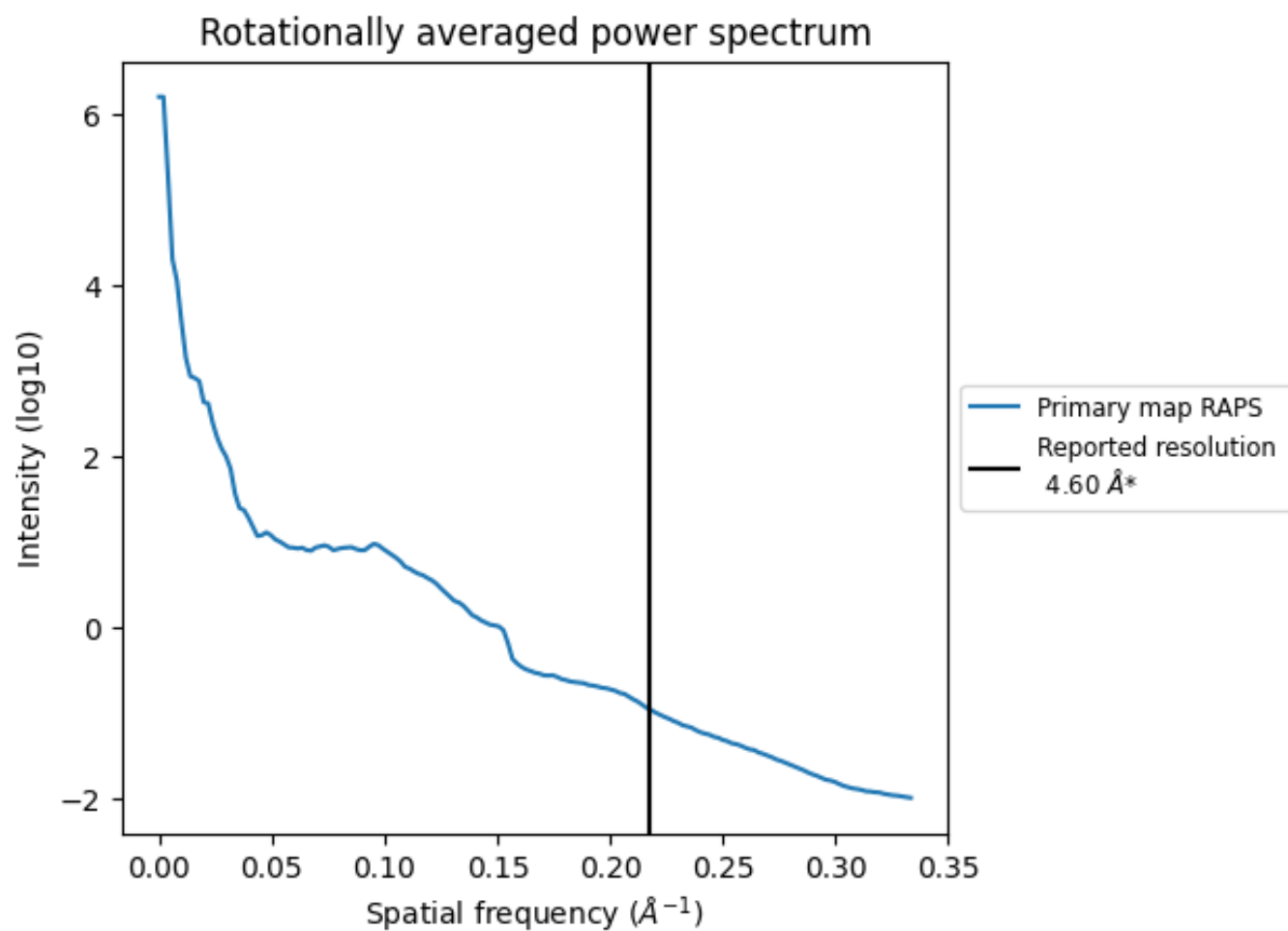
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 6569 nm^3 ; this corresponds to an approximate mass of 5934 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

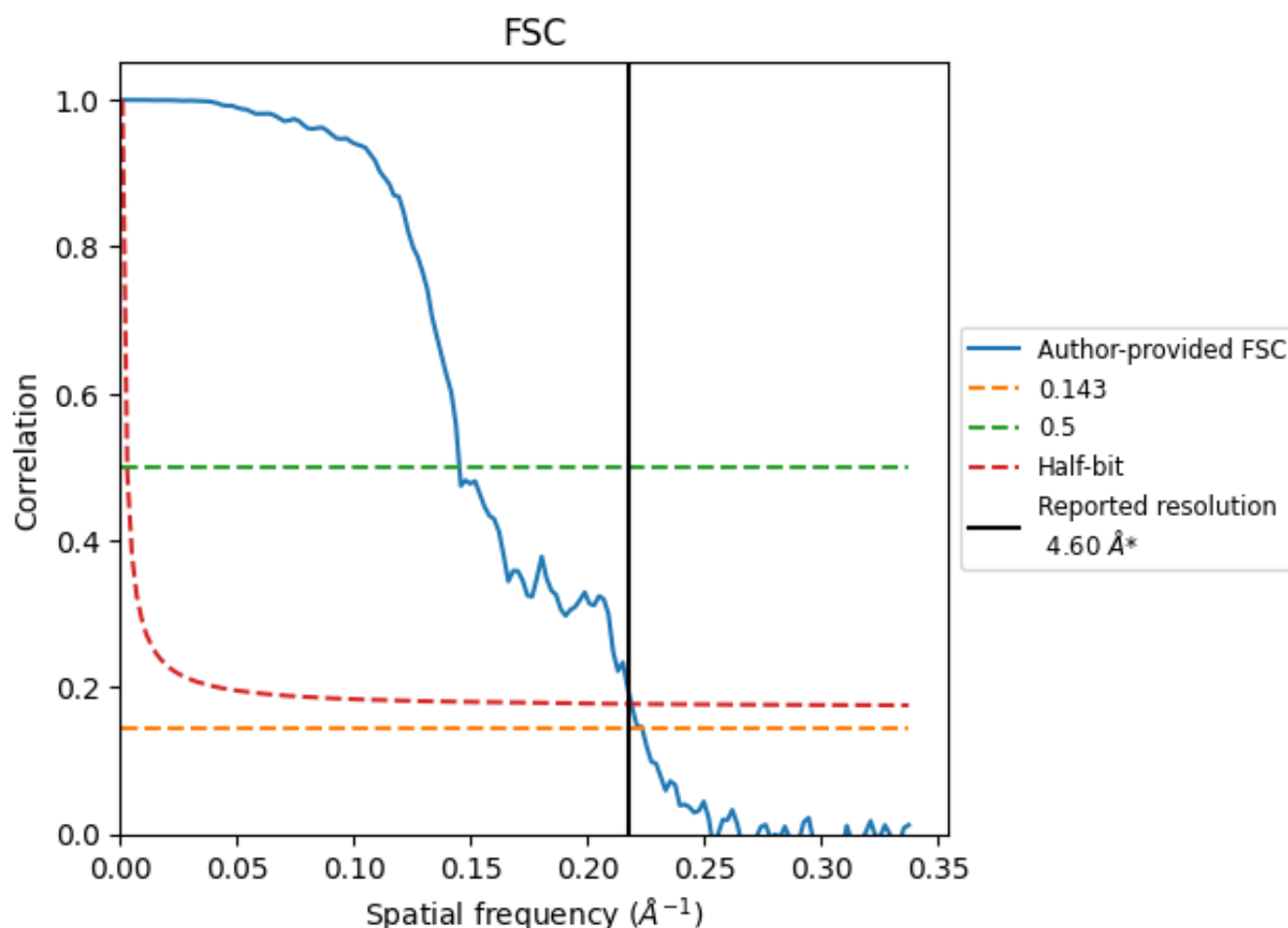


*Reported resolution corresponds to spatial frequency of 0.217 \AA^{-1}

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.217 \AA^{-1}

8.2 Resolution estimates [i](#)

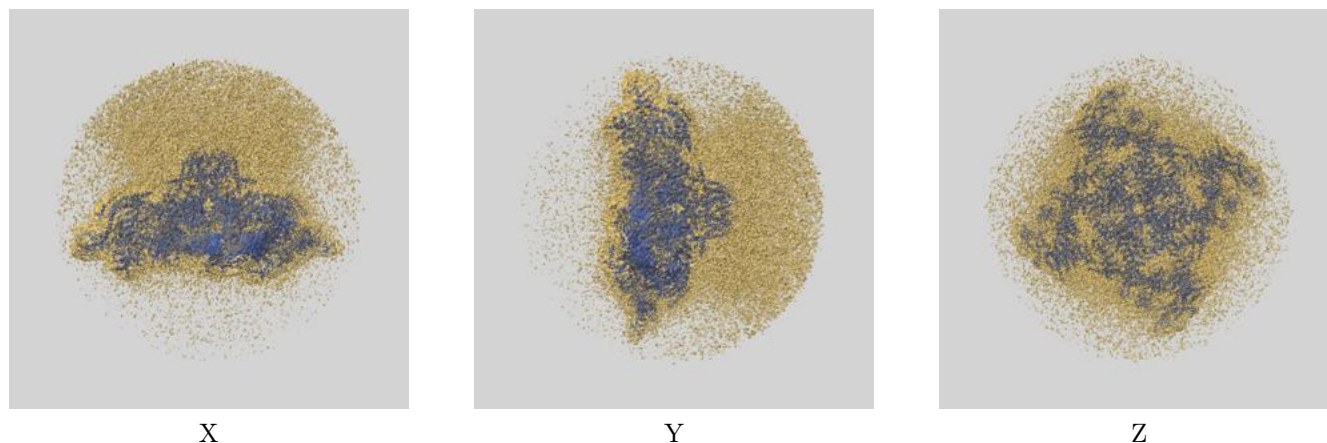
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.60	-	-
Author-provided FSC curve	4.48	6.89	4.57
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit [i](#)

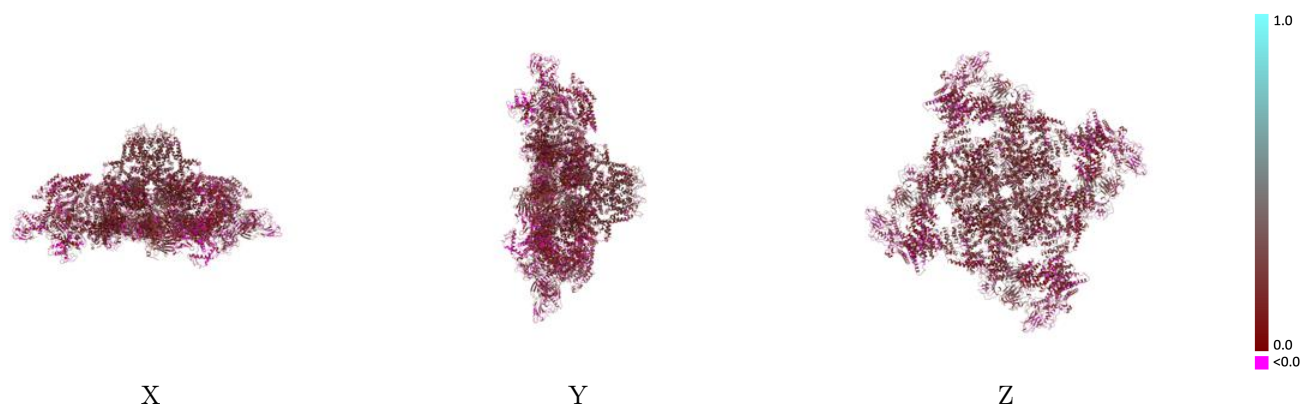
This section contains information regarding the fit between EMDB map EMD-19464 and PDB model 8RRT. Per-residue inclusion information can be found in section [3](#) on page [8](#).

9.1 Map-model overlay [i](#)



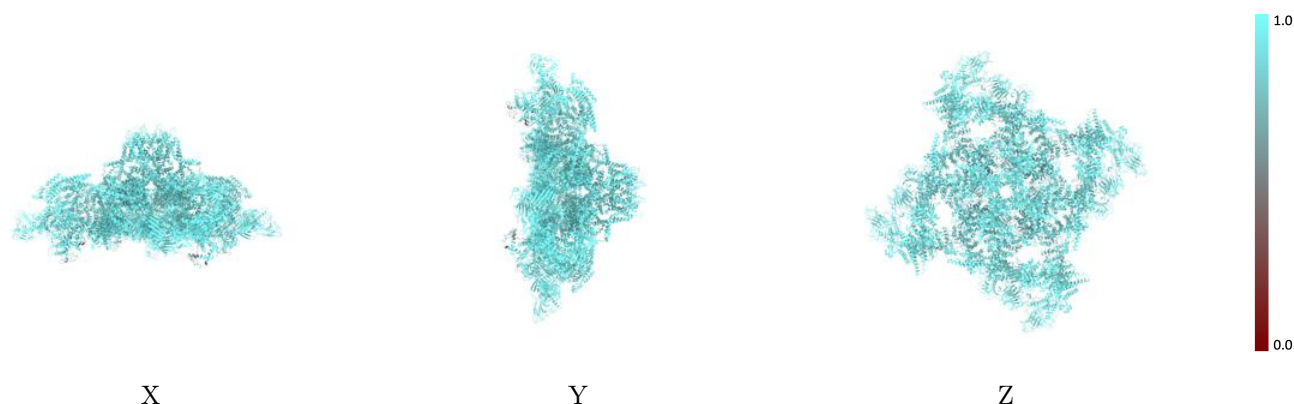
The images above show the 3D surface view of the map at the recommended contour level 0.2 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



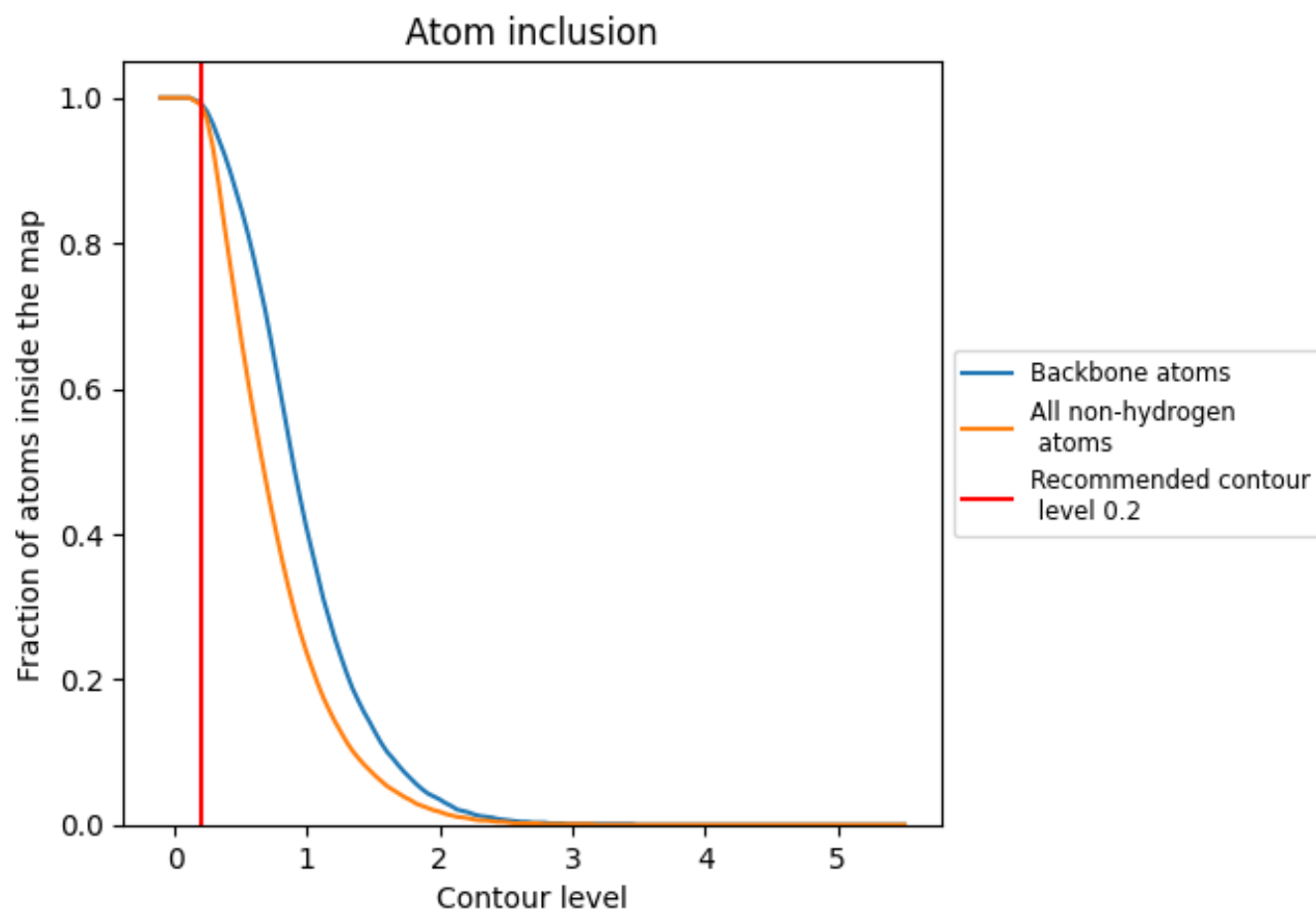
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.2).

9.4 Atom inclusion ⓘ



At the recommended contour level, 99% of all backbone atoms, 99% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.2) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	<div><div></div>0.9900</div>	<div><div></div>0.1540</div>
A	<div><div></div>0.9980</div>	<div><div></div>0.1450</div>
B	<div><div></div>0.9910</div>	<div><div></div>0.1570</div>
C	<div><div></div>0.9680</div>	<div><div></div>0.0830</div>
D	<div><div></div>0.9980</div>	<div><div></div>0.1380</div>
E	<div><div></div>0.9910</div>	<div><div></div>0.1560</div>
F	<div><div></div>0.9680</div>	<div><div></div>0.0820</div>
G	<div><div></div>0.9910</div>	<div><div></div>0.1570</div>
H	<div><div></div>0.9980</div>	<div><div></div>0.1350</div>
I	<div><div></div>0.9980</div>	<div><div></div>0.1380</div>
J	<div><div></div>0.9910</div>	<div><div></div>0.1560</div>
K	<div><div></div>0.9680</div>	<div><div></div>0.0800</div>
M	<div><div></div>0.9670</div>	<div><div></div>0.0810</div>

