



Full wwPDB NMR Structure Validation Report ⓘ

Jun 3, 2023 – 05:09 PM EDT

PDB ID : 2MTP
BMRB ID : 25176
Title : The structure of Filamin repeat 21 bound to integrin
Authors : Liu, J.; Qin, J.
Deposited on : 2014-08-28

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A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
wwPDB-RCI : v_1n_11_5_13_A (Berjanski et al., 2005)
PANAV : Wang et al. (2010)
wwPDB-ShiftChecker : v1.2
BMRB Restraints Analysis : v1.2
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.33

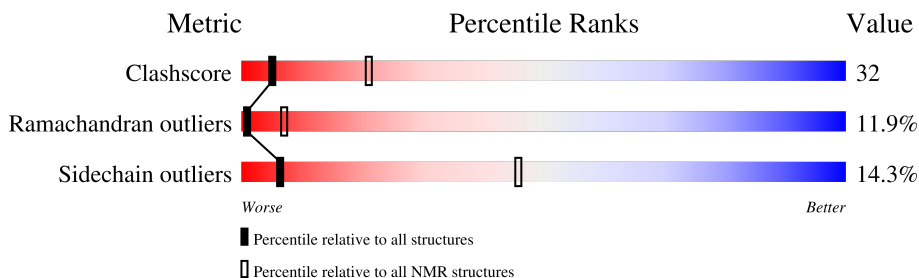
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

SOLUTION NMR

The overall completeness of chemical shifts assignment is 71%.

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) | NMR archive (#Entries) |
|-----------------------|--------------------------|------------------------|
| Clashscore | 158937 | 12864 |
| Ramachandran outliers | 154571 | 11451 |
| Sidechain outliers | 154315 | 11428 |

The table below summarises the geometric issues observed across the polymeric chains and their fit to the experimental data. The red, orange, yellow and green segments indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A cyan segment indicates the fraction of residues that are not part of the well-defined cores, and 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 $\leq 5\%$

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 1 | A | 95 | 53% (green), 40% (yellow), 6% (orange) . |
| 2 | B | 21 | 24% (yellow), 19% (orange), 5% (red), 52% (cyan) |
| 3 | C | 47 | 9% (yellow) . 87% (cyan) |

2 Ensemble composition and analysis

This entry contains 20 models. Model 17 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

The following residues are included in the computation of the global validation metrics.

| Well-defined (core) protein residues | | | |
|--------------------------------------|---|-------------------|--------------|
| Well-defined core | Residue range (total) | Backbone RMSD (Å) | Medoid model |
| 1 | A:2237-A:2330, B:988- B:997, C:746-C:751 (110) | 0.82 | 17 |

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 4 clusters and 2 single-model clusters were found.

| Cluster number | Models |
|-----------------------|-------------------------|
| 1 | 5, 6, 7, 11, 17, 18, 20 |
| 2 | 8, 9, 10, 12, 14 |
| 3 | 1, 2, 4 |
| 4 | 3, 13, 15 |
| Single-model clusters | 16; 19 |

3 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 2464 atoms, of which 1195 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Filamin-A.

| Mol | Chain | Residues | Atoms | | | | | Trace | |
|-----|-------|----------|-------|-----|-----|-----|-----|-------|---|
| | | | Total | C | H | N | O | | S |
| 1 | A | 95 | 1332 | 431 | 643 | 118 | 139 | 1 | 0 |

- Molecule 2 is a protein called Integrin alpha-IIb.

| Mol | Chain | Residues | Atoms | | | | | Trace |
|-----|-------|----------|-------|-----|-----|----|----|-------|
| | | | Total | C | H | N | O | |
| 2 | B | 21 | 347 | 115 | 164 | 31 | 37 | 0 |

- Molecule 3 is a protein called Integrin beta-3.

| Mol | Chain | Residues | Atoms | | | | | Trace |
|-----|-------|----------|-------|-----|-----|----|----|-------|
| | | | Total | C | H | N | O | |
| 3 | C | 47 | 785 | 250 | 388 | 72 | 75 | 0 |

There are 2 discrepancies between the modelled and reference sequences:

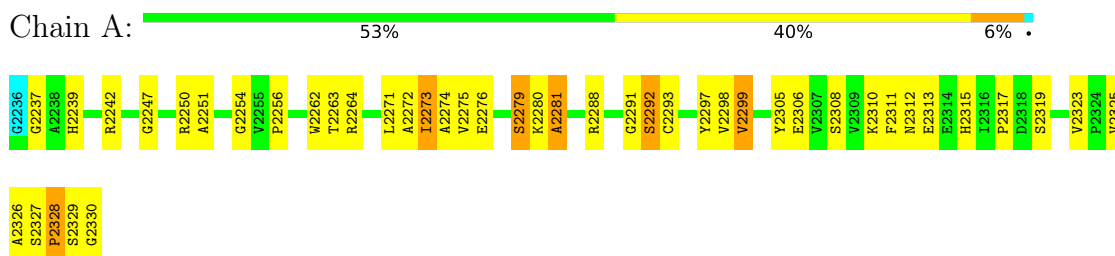
| Chain | Residue | Modelled | Actual | Comment | Reference |
|-------|---------|----------|--------|---------------------|------------|
| C | 717 | LYS | LEU | engineered mutation | UNP P05106 |
| C | 718 | LYS | LEU | engineered mutation | UNP P05106 |

4 Residue-property plots i

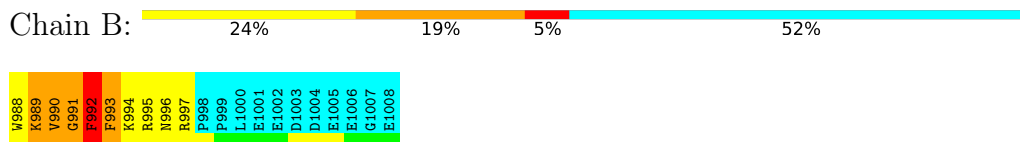
4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-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. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

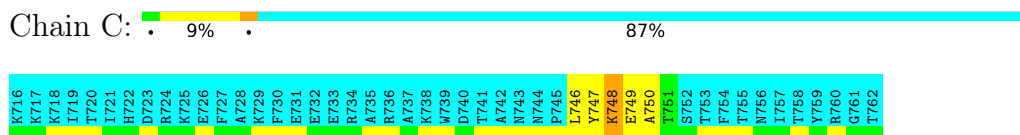
- Molecule 1: Filamin-A



- Molecule 2: Integrin alpha-IIb



- Molecule 3: Integrin beta-3



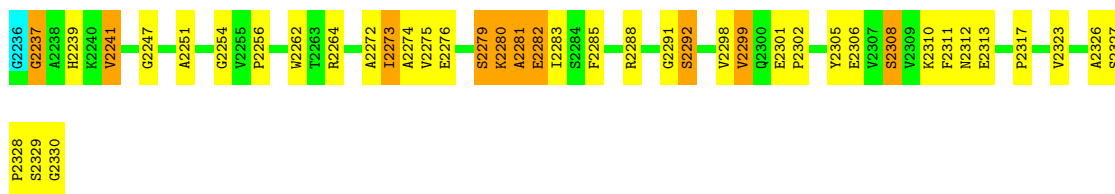
4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

4.2.1 Score per residue for model 1

- Molecule 1: Filamin-A

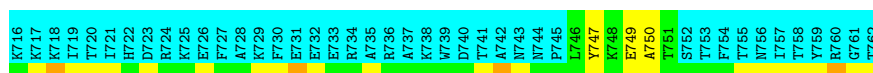




- Molecule 2: Integrin alpha-IIb



- Molecule 3: Integrin beta-3

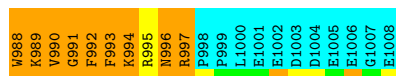


4.2.2 Score per residue for model 2

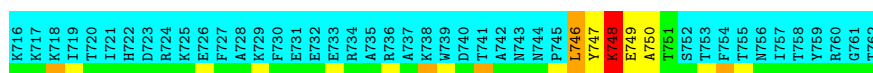
- Molecule 1: Filamin-A



- Molecule 2: Integrin alpha-IIb

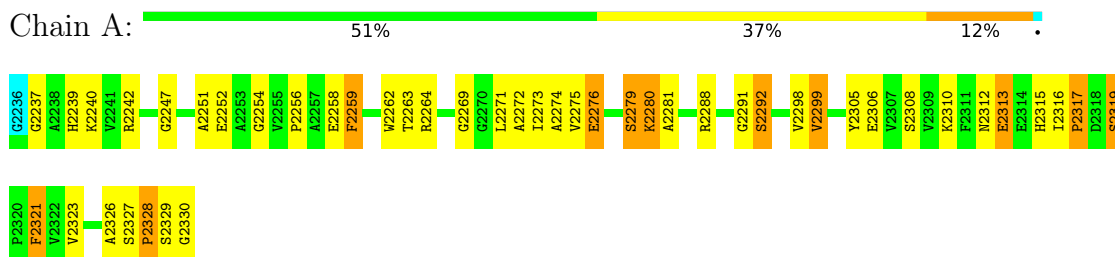


- Molecule 3: Integrin beta-3

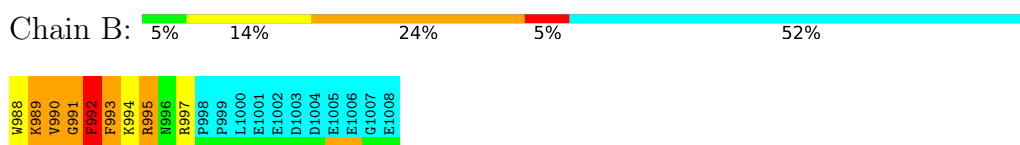


4.2.3 Score per residue for model 3

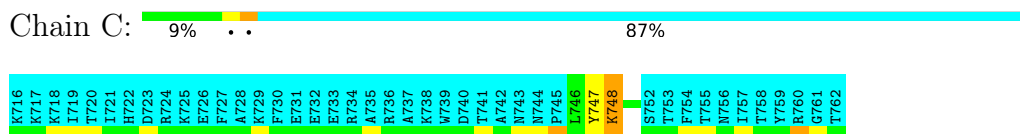
- Molecule 1: Filamin-A



- Molecule 2: Integrin alpha-IIb

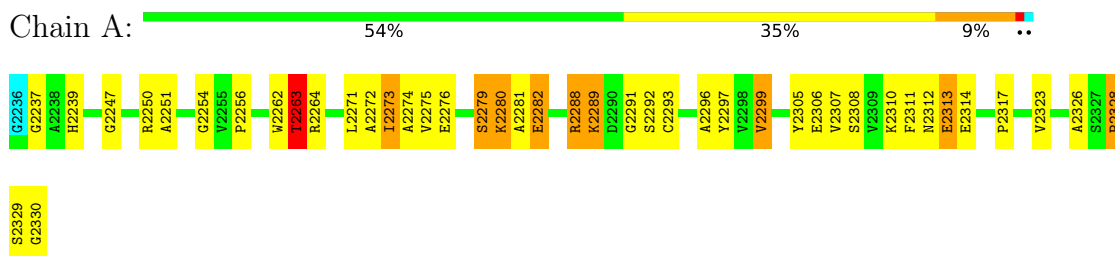


- Molecule 3: Integrin beta-3

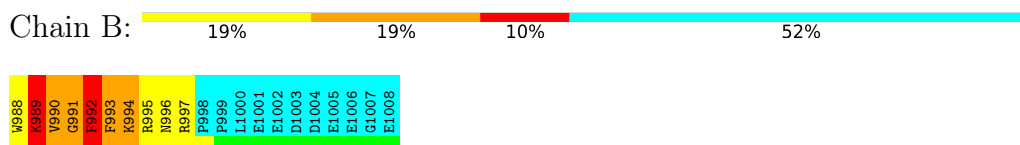


4.2.4 Score per residue for model 4

- Molecule 1: Filamin-A

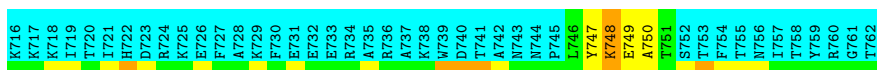


- Molecule 2: Integrin alpha-IIb



- Molecule 3: Integrin beta-3

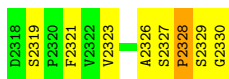
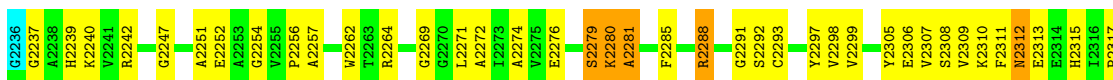




4.2.5 Score per residue for model 5

- Molecule 1: Filamin-A

Chain A: 49% 43% 6%



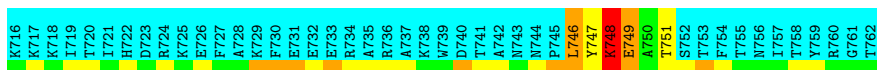
- Molecule 2: Integrin alpha-IIb

Chain B: 19% 24% 5% 52%



- Molecule 3: Integrin beta-3

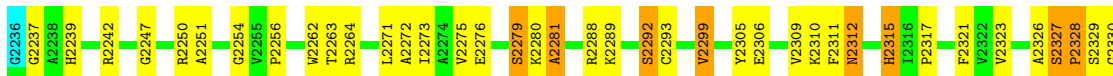
Chain C: 87%



4.2.6 Score per residue for model 6

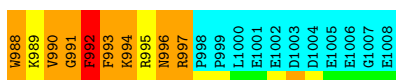
- Molecule 1: Filamin-A

Chain A: 58% 33% 8%



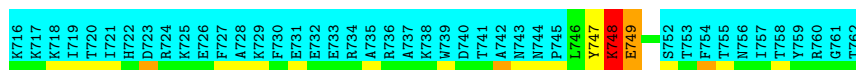
- Molecule 2: Integrin alpha-IIb

Chain B: 10% 33% 5% 52%



- Molecule 3: Integrin beta-3

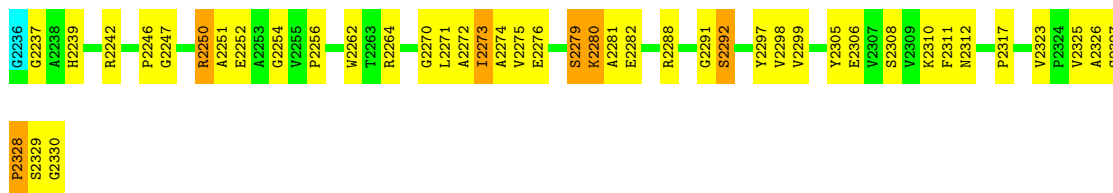
Chain C:  6% . . . 87%



4.2.7 Score per residue for model 7

- Molecule 1: Filamin-A

Chain A:  54% 39% 6%



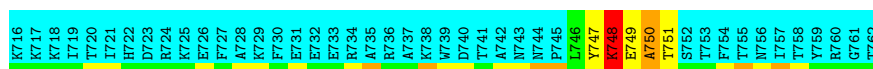
- Molecule 2: Integrin alpha-IIb

Chain B:  19% 29% 52%



- Molecule 3: Integrin beta-3

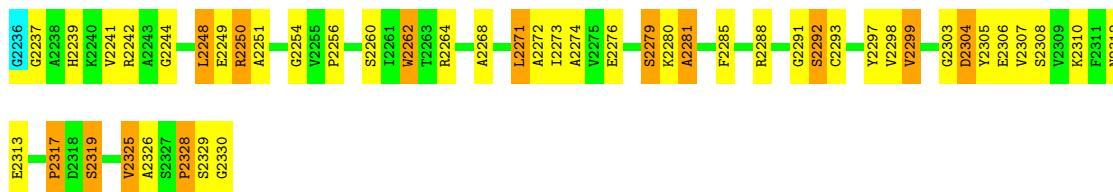
Chain C:  6% . . 87%



4.2.8 Score per residue for model 8

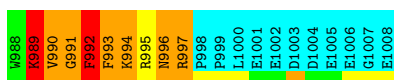
- Molecule 1: Filamin-A

Chain A:  49% 36% 14%



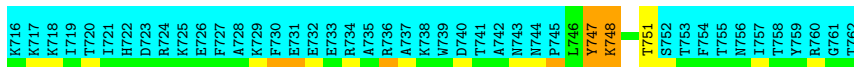
- Molecule 2: Integrin alpha-IIb

Chain B:  5% 5% 29% 10% 52%



- Molecule 3: Integrin beta-3

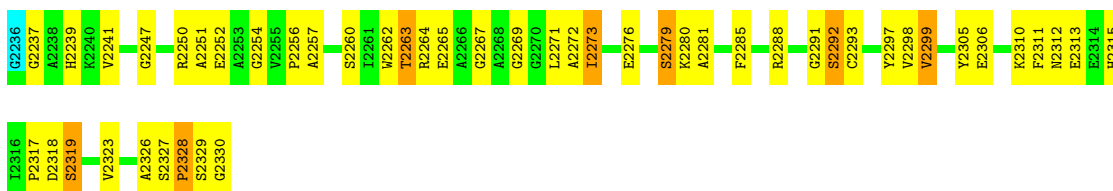
Chain C: 87%



4.2.9 Score per residue for model 9

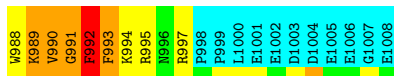
- Molecule 1: Filamin-A

Chain A: 48% 43% 7%



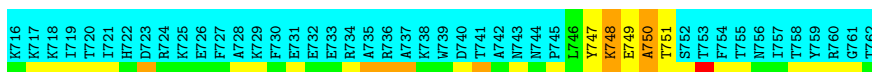
- Molecule 2: Integrin alpha-IIb

Chain B: 5% 19% 19% 5% 52%



- Molecule 3: Integrin beta-3

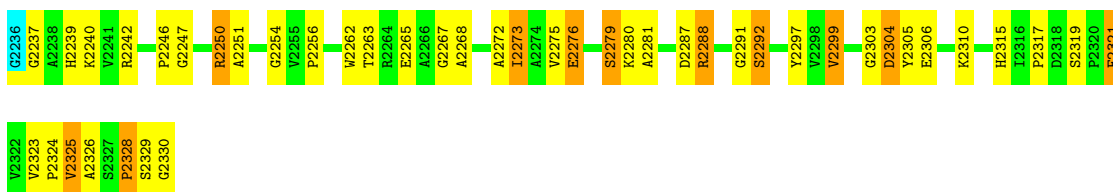
Chain C: 87%



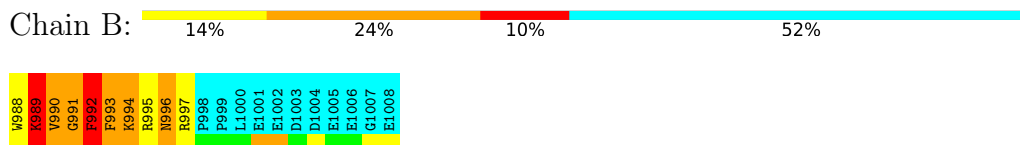
4.2.10 Score per residue for model 10

- Molecule 1: Filamin-A

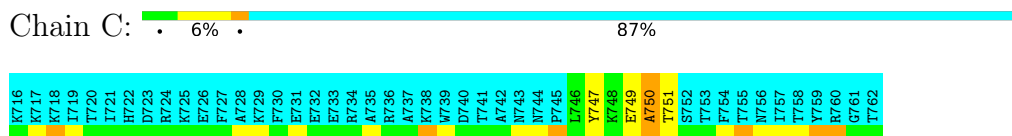
Chain A: 53% 35% 12%



- Molecule 2: Integrin alpha-IIb

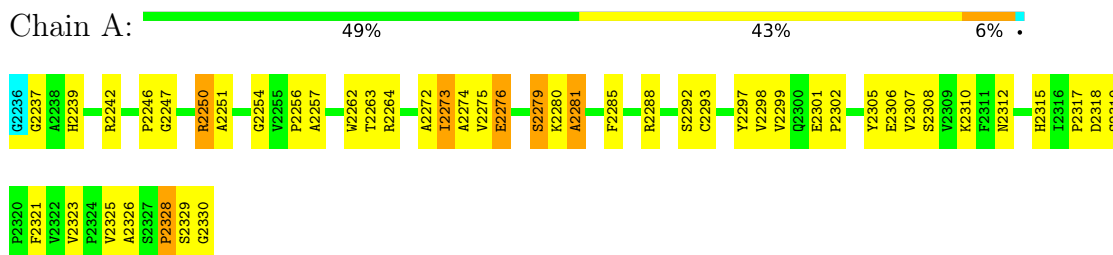


- Molecule 3: Integrin beta-3

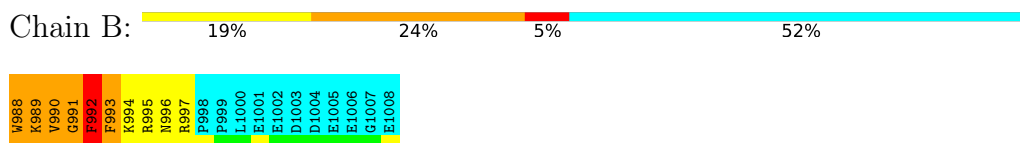


4.2.11 Score per residue for model 11

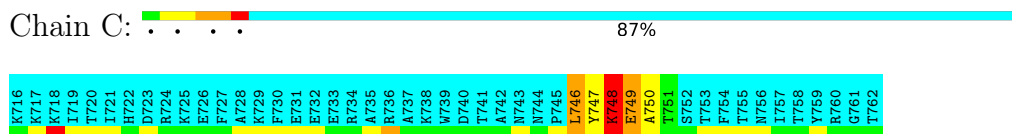
- Molecule 1: Filamin-A



- Molecule 2: Integrin alpha-IIb



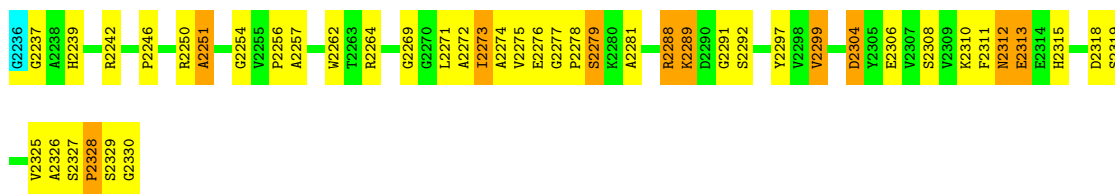
- Molecule 3: Integrin beta-3



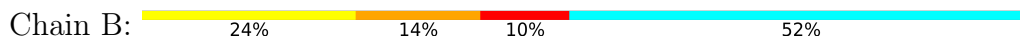
4.2.12 Score per residue for model 12

- Molecule 1: Filamin-A

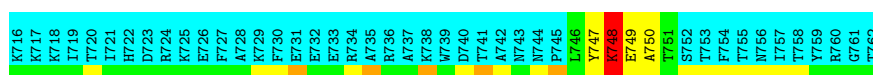




• Molecule 2: Integrin alpha-IIb

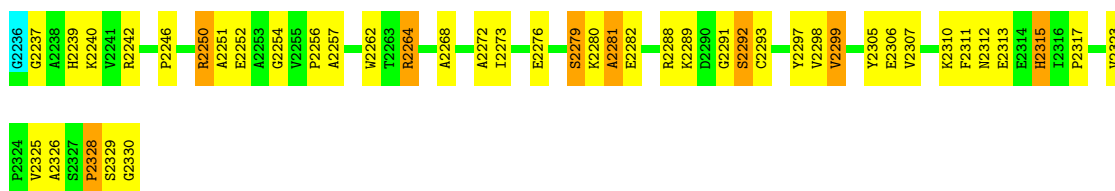


• Molecule 3: Integrin beta-3

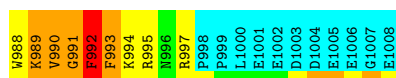


4.2.13 Score per residue for model 13

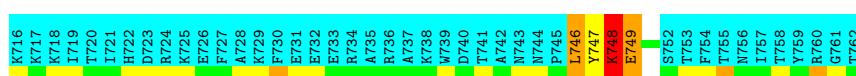
• Molecule 1: Filamin-A



• Molecule 2: Integrin alpha-IIb

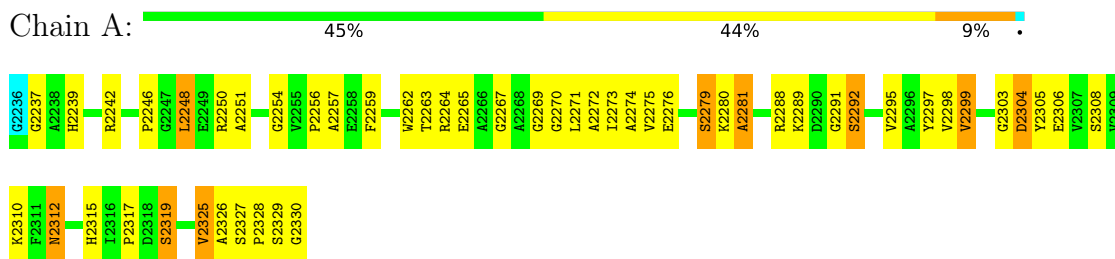


• Molecule 3: Integrin beta-3

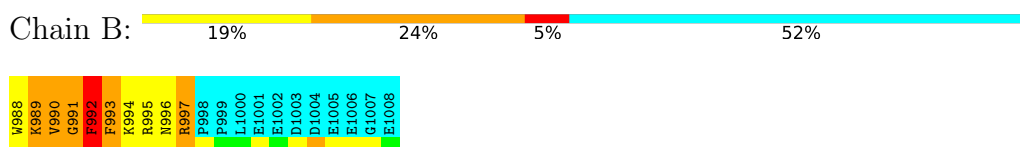


4.2.14 Score per residue for model 14

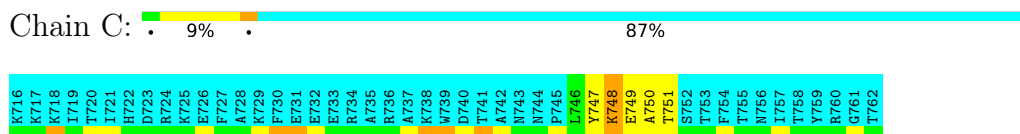
• Molecule 1: Filamin-A



• Molecule 2: Integrin alpha-IIb

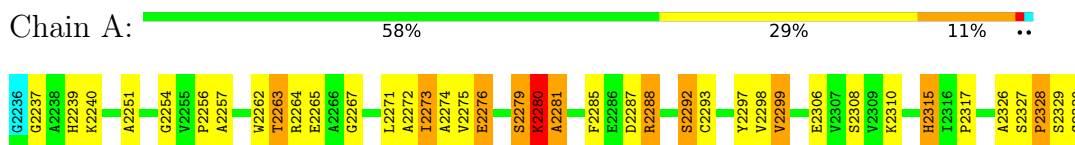


• Molecule 3: Integrin beta-3

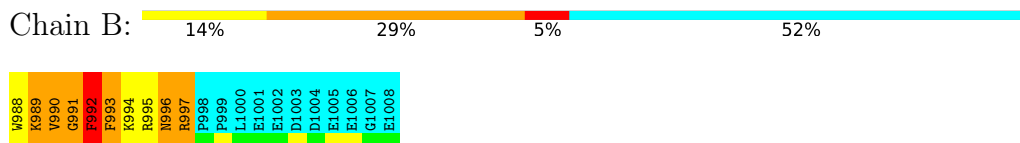


4.2.15 Score per residue for model 15

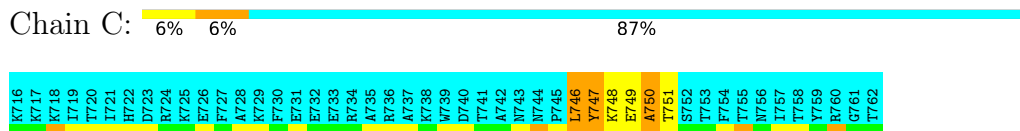
• Molecule 1: Filamin-A



• Molecule 2: Integrin alpha-IIb

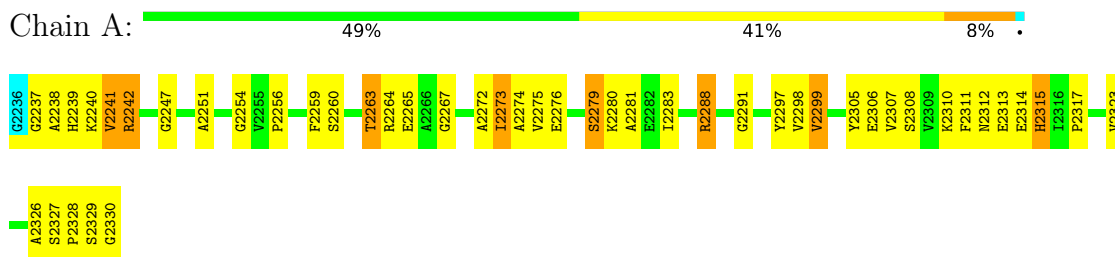


• Molecule 3: Integrin beta-3

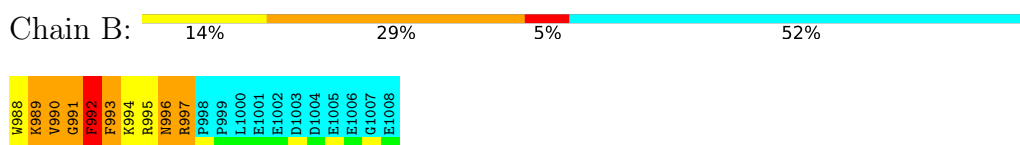


4.2.16 Score per residue for model 16

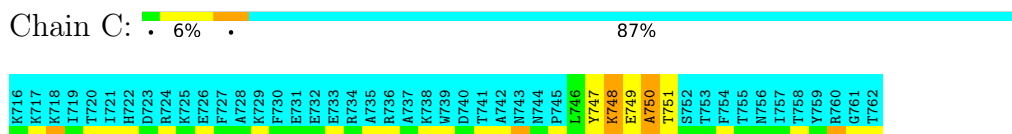
- Molecule 1: Filamin-A



- Molecule 2: Integrin alpha-IIb

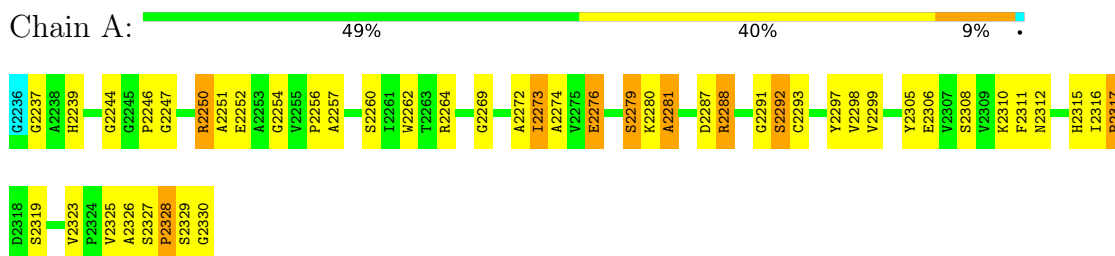


- Molecule 3: Integrin beta-3

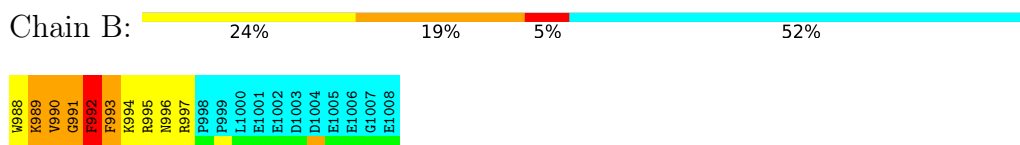


4.2.17 Score per residue for model 17 (medoid)

- Molecule 1: Filamin-A

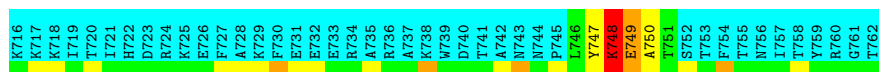


- Molecule 2: Integrin alpha-IIb



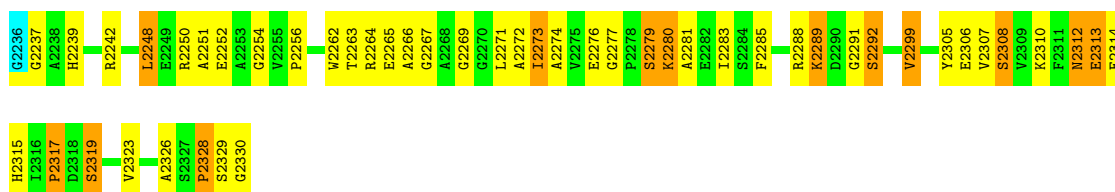
- Molecule 3: Integrin beta-3



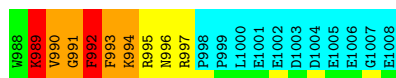
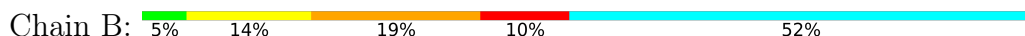


4.2.18 Score per residue for model 18

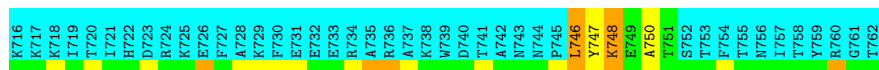
- Molecule 1: Filamin-A



- Molecule 2: Integrin alpha-IIb

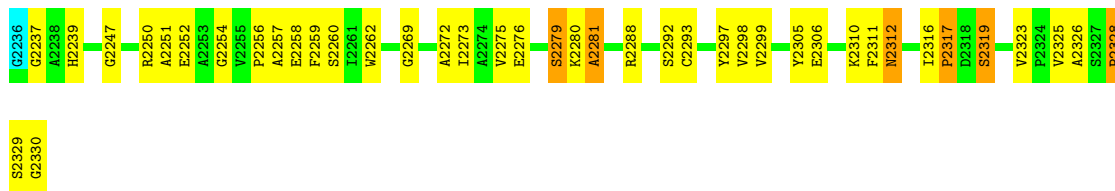


- Molecule 3: Integrin beta-3

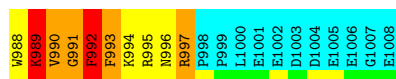


4.2.19 Score per residue for model 19

- Molecule 1: Filamin-A

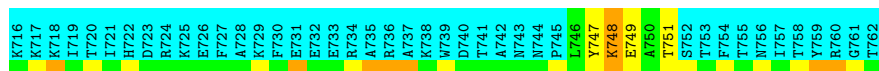


- Molecule 2: Integrin alpha-IIb



- Molecule 3: Integrin beta-3

Chain C:  6% 87%



4.2.20 Score per residue for model 20

- Molecule 1: Filamin-A

Chain A:  46% 44% 8%



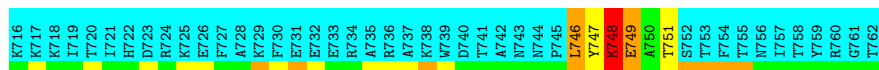
- Molecule 2: Integrin alpha-IIb

Chain B:  14% 29% 5% 52%



- Molecule 3: Integrin beta-3

Chain C:  87%



5 Refinement protocol and experimental data overview

The models were refined using the following method: *simulated annealing*.

Of the 100 calculated structures, 20 were deposited, based on the following criterion: *structures with the lowest energy*.

The following table shows the software used for structure solution, optimisation and refinement.

| Software name | Classification | Version |
|---------------|--------------------|---------|
| X-PLOR NIH | structure solution | |
| X-PLOR NIH | refinement | |

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

| | |
|--|----------------|
| Chemical shift file(s) | working_cs.cif |
| Number of chemical shift lists | 1 |
| Total number of shifts | 1430 |
| Number of shifts mapped to atoms | 1429 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 1 |
| Number of shifts with mapping warnings | 0 |
| Assignment completeness (well-defined parts) | 71% |

6 Model quality [i](#)

6.1 Standard geometry [i](#)

There are no covalent bond-length or bond-angle outliers.

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

| Mol | Chain | Chirality | Planarity |
|-----|-------|-----------|-----------|
| 1 | A | 0.0±0.0 | 3.2±0.7 |
| All | All | 0 | 65 |

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

All unique planar outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Group | Models (Total) |
|-----|-------|------|------|-----------|----------------|
| 1 | A | 2288 | ARG | Sidechain | 20 |
| 1 | A | 2264 | ARG | Sidechain | 18 |
| 1 | A | 2242 | ARG | Sidechain | 14 |
| 1 | A | 2250 | ARG | Sidechain | 13 |

6.2 Too-close contacts [i](#)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in each 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 averaged over the ensemble.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|-----|-------|-------|----------|----------|---------|
| 1 | A | 685 | 640 | 650 | 34±4 |
| 2 | B | 95 | 98 | 97 | 19±2 |
| 3 | C | 50 | 50 | 51 | 4±1 |
| All | All | 16600 | 15760 | 15960 | 1054 |

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 32.

All unique clashes are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-------------------|-------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 2:B:989:LYS:O | 2:B:991:GLY:N | 1.02 | 1.92 | 2 | 20 |
| 2:B:993:PHE:CD1 | 2:B:994:LYS:N | 0.72 | 2.58 | 15 | 20 |
| 2:B:992:PHE:CD1 | 2:B:993:PHE:N | 0.69 | 2.60 | 1 | 20 |
| 2:B:992:PHE:CE1 | 2:B:993:PHE:CD1 | 0.67 | 2.83 | 7 | 20 |
| 2:B:992:PHE:CG | 2:B:993:PHE:N | 0.66 | 2.63 | 7 | 20 |
| 2:B:990:VAL:HG13 | 2:B:991:GLY:H | 0.65 | 1.51 | 20 | 1 |
| 1:A:2283:ILE:N | 1:A:2283:ILE:HD12 | 0.64 | 2.08 | 1 | 1 |
| 1:A:2239:HIS:CD2 | 1:A:2239:HIS:H | 0.62 | 2.10 | 9 | 5 |
| 1:A:2311:PHE:CE2 | 1:A:2312:ASN:ND2 | 0.62 | 2.67 | 6 | 3 |
| 2:B:991:GLY:O | 2:B:995:ARG:N | 0.62 | 2.33 | 2 | 20 |
| 2:B:988:TRP:CE3 | 2:B:995:ARG:NH1 | 0.62 | 2.68 | 11 | 1 |
| 1:A:2321:PHE:N | 1:A:2321:PHE:CD1 | 0.62 | 2.67 | 3 | 1 |
| 1:A:2262:TRP:HE1 | 1:A:2293:CYS:N | 0.62 | 1.93 | 11 | 4 |
| 2:B:988:TRP:CZ3 | 2:B:995:ARG:NH1 | 0.61 | 2.69 | 11 | 3 |
| 1:A:2311:PHE:CE1 | 1:A:2312:ASN:ND2 | 0.61 | 2.68 | 12 | 3 |
| 1:A:2307:VAL:O | 1:A:2307:VAL:HG23 | 0.61 | 1.96 | 2 | 5 |
| 1:A:2275:VAL:O | 1:A:2275:VAL:HG23 | 0.60 | 1.96 | 2 | 5 |
| 1:A:2262:TRP:NE1 | 1:A:2293:CYS:N | 0.60 | 2.50 | 11 | 1 |
| 1:A:2254:GLY:N | 1:A:2299:VAL:O | 0.59 | 2.35 | 3 | 20 |
| 1:A:2262:TRP:CE2 | 1:A:2293:CYS:SG | 0.59 | 2.95 | 11 | 2 |
| 1:A:2262:TRP:CD1 | 1:A:2293:CYS:SG | 0.59 | 2.96 | 11 | 2 |
| 1:A:2274:ALA:H | 1:A:2308:SER:HG | 0.58 | 1.41 | 15 | 3 |
| 1:A:2275:VAL:O | 1:A:2275:VAL:HG13 | 0.58 | 1.97 | 11 | 2 |
| 1:A:2312:ASN:HD21 | 2:B:988:TRP:N | 0.57 | 1.97 | 1 | 1 |
| 2:B:991:GLY:O | 2:B:993:PHE:N | 0.57 | 2.37 | 3 | 20 |
| 1:A:2262:TRP:CZ2 | 1:A:2293:CYS:SG | 0.57 | 2.96 | 5 | 1 |
| 2:B:990:VAL:HG13 | 2:B:991:GLY:N | 0.57 | 2.15 | 20 | 4 |
| 1:A:2305:TYR:CD1 | 1:A:2323:VAL:O | 0.57 | 2.57 | 1 | 9 |
| 1:A:2305:TYR:CD2 | 1:A:2306:GLU:N | 0.57 | 2.72 | 11 | 5 |
| 1:A:2312:ASN:ND2 | 2:B:988:TRP:N | 0.57 | 2.52 | 1 | 1 |
| 1:A:2315:HIS:CD2 | 1:A:2315:HIS:O | 0.57 | 2.58 | 15 | 3 |
| 2:B:988:TRP:O | 2:B:989:LYS:O | 0.57 | 2.22 | 19 | 11 |
| 2:B:989:LYS:N | 2:B:989:LYS:CD | 0.57 | 2.68 | 4 | 5 |
| 1:A:2315:HIS:CG | 1:A:2315:HIS:O | 0.57 | 2.58 | 16 | 2 |
| 1:A:2317:PRO:O | 1:A:2319:SER:N | 0.57 | 2.37 | 19 | 5 |
| 1:A:2315:HIS:O | 1:A:2315:HIS:CD2 | 0.56 | 2.58 | 16 | 2 |
| 1:A:2262:TRP:HE1 | 1:A:2293:CYS:H | 0.56 | 1.43 | 5 | 2 |
| 1:A:2312:ASN:HD22 | 1:A:2312:ASN:N | 0.56 | 1.96 | 5 | 5 |
| 2:B:995:ARG:O | 2:B:997:ARG:N | 0.56 | 2.38 | 8 | 12 |
| 1:A:2271:LEU:HD12 | 1:A:2271:LEU:N | 0.56 | 2.16 | 4 | 7 |
| 2:B:988:TRP:CH2 | 2:B:995:ARG:NH1 | 0.56 | 2.73 | 5 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-------------------|------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:2273:ILE:O | 3:C:750:ALA:HB1 | 0.56 | 2.01 | 1 | 7 |
| 1:A:2262:TRP:CD1 | 1:A:2262:TRP:N | 0.56 | 2.72 | 2 | 13 |
| 1:A:2279:SER:OG | 1:A:2280:LYS:N | 0.56 | 2.38 | 7 | 10 |
| 1:A:2315:HIS:O | 1:A:2315:HIS:CG | 0.56 | 2.59 | 15 | 3 |
| 2:B:989:LYS:O | 2:B:990:VAL:C | 0.55 | 2.45 | 20 | 19 |
| 1:A:2251:ALA:O | 1:A:2326:ALA:N | 0.55 | 2.34 | 12 | 20 |
| 1:A:2273:ILE:O | 3:C:751:THR:N | 0.55 | 2.40 | 15 | 5 |
| 1:A:2276:GLU:O | 1:A:2306:GLU:O | 0.55 | 2.25 | 20 | 20 |
| 1:A:2312:ASN:OD1 | 1:A:2312:ASN:N | 0.55 | 2.40 | 6 | 3 |
| 2:B:988:TRP:CZ3 | 2:B:995:ARG:CZ | 0.55 | 2.89 | 11 | 1 |
| 1:A:2262:TRP:CG | 1:A:2293:CYS:SG | 0.54 | 3.00 | 15 | 2 |
| 1:A:2310:LYS:NZ | 2:B:997:ARG:NH1 | 0.54 | 2.56 | 10 | 2 |
| 1:A:2305:TYR:CE1 | 1:A:2323:VAL:O | 0.54 | 2.61 | 1 | 9 |
| 1:A:2276:GLU:OE1 | 1:A:2276:GLU:N | 0.54 | 2.41 | 10 | 14 |
| 1:A:2274:ALA:HB3 | 1:A:2308:SER:OG | 0.54 | 2.02 | 5 | 5 |
| 1:A:2279:SER:O | 3:C:747:TYR:CG | 0.54 | 2.61 | 1 | 8 |
| 1:A:2279:SER:O | 3:C:747:TYR:CD1 | 0.54 | 2.61 | 3 | 18 |
| 1:A:2271:LEU:HD23 | 1:A:2272:ALA:N | 0.54 | 2.18 | 8 | 2 |
| 1:A:2318:ASP:O | 1:A:2321:PHE:CE1 | 0.54 | 2.60 | 11 | 2 |
| 2:B:997:ARG:NE | 3:C:750:ALA:CB | 0.54 | 2.71 | 14 | 1 |
| 1:A:2264:ARG:NH2 | 1:A:2293:CYS:SG | 0.53 | 2.82 | 13 | 1 |
| 1:A:2262:TRP:CD2 | 1:A:2293:CYS:SG | 0.53 | 3.01 | 15 | 2 |
| 1:A:2282:GLU:N | 1:A:2282:GLU:OE1 | 0.53 | 2.42 | 1 | 1 |
| 1:A:2263:THR:OG1 | 1:A:2311:PHE:CZ | 0.53 | 2.62 | 4 | 1 |
| 1:A:2271:LEU:N | 1:A:2271:LEU:CD1 | 0.53 | 2.71 | 4 | 7 |
| 1:A:2292:SER:OG | 1:A:2293:CYS:N | 0.53 | 2.42 | 9 | 6 |
| 1:A:2297:TYR:OH | 1:A:2305:TYR:CE1 | 0.53 | 2.62 | 14 | 3 |
| 1:A:2271:LEU:CD2 | 1:A:2271:LEU:N | 0.53 | 2.72 | 20 | 1 |
| 1:A:2306:GLU:OE2 | 1:A:2307:VAL:N | 0.53 | 2.42 | 11 | 1 |
| 1:A:2252:GLU:OE2 | 1:A:2326:ALA:HB3 | 0.53 | 2.03 | 3 | 6 |
| 1:A:2304:ASP:N | 1:A:2304:ASP:OD1 | 0.53 | 2.42 | 10 | 4 |
| 2:B:989:LYS:C | 2:B:991:GLY:N | 0.52 | 2.61 | 3 | 16 |
| 2:B:997:ARG:NH1 | 3:C:748:LYS:O | 0.52 | 2.43 | 6 | 1 |
| 1:A:2277:GLY:O | 1:A:2279:SER:N | 0.52 | 2.42 | 12 | 1 |
| 1:A:2237:GLY:O | 1:A:2239:HIS:N | 0.52 | 2.42 | 16 | 20 |
| 1:A:2258:GLU:O | 1:A:2259:PHE:CD2 | 0.52 | 2.62 | 3 | 1 |
| 1:A:2312:ASN:ND2 | 1:A:2314:GLU:OE2 | 0.52 | 2.42 | 4 | 1 |
| 1:A:2274:ALA:N | 1:A:2308:SER:OG | 0.52 | 2.39 | 17 | 5 |
| 1:A:2257:ALA:N | 1:A:2297:TYR:O | 0.52 | 2.41 | 5 | 10 |
| 1:A:2303:GLY:O | 1:A:2325:VAL:N | 0.52 | 2.42 | 8 | 3 |
| 1:A:2273:ILE:O | 3:C:750:ALA:CB | 0.52 | 2.58 | 2 | 6 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-------------------|-------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:2274:ALA:HB3 | 1:A:2308:SER:HB2 | 0.52 | 1.80 | 1 | 5 |
| 1:A:2311:PHE:CE2 | 1:A:2312:ASN:OD1 | 0.52 | 2.62 | 13 | 2 |
| 1:A:2262:TRP:CE2 | 1:A:2292:SER:OG | 0.52 | 2.63 | 19 | 2 |
| 1:A:2280:LYS:CG | 1:A:2281:ALA:H | 0.52 | 2.18 | 11 | 10 |
| 1:A:2285:PHE:N | 1:A:2285:PHE:CD1 | 0.52 | 2.77 | 9 | 3 |
| 1:A:2328:PRO:O | 1:A:2330:GLY:N | 0.52 | 2.43 | 7 | 20 |
| 1:A:2258:GLU:C | 1:A:2259:PHE:CG | 0.52 | 2.84 | 3 | 1 |
| 3:C:746:LEU:O | 3:C:748:LYS:N | 0.52 | 2.43 | 15 | 1 |
| 1:A:2289:LYS:CB | 1:A:2289:LYS:NZ | 0.51 | 2.73 | 4 | 2 |
| 1:A:2259:PHE:CE1 | 1:A:2295:VAL:O | 0.51 | 2.63 | 14 | 1 |
| 2:B:991:GLY:O | 2:B:992:PHE:C | 0.51 | 2.49 | 2 | 20 |
| 2:B:996:ASN:HD22 | 2:B:996:ASN:N | 0.51 | 2.02 | 1 | 2 |
| 1:A:2240:LYS:NZ | 1:A:2240:LYS:CB | 0.51 | 2.73 | 10 | 1 |
| 2:B:996:ASN:N | 2:B:996:ASN:ND2 | 0.51 | 2.58 | 1 | 2 |
| 2:B:991:GLY:O | 2:B:994:LYS:N | 0.51 | 2.44 | 7 | 15 |
| 1:A:2321:PHE:CD1 | 1:A:2321:PHE:N | 0.51 | 2.77 | 10 | 1 |
| 1:A:2262:TRP:CZ2 | 1:A:2292:SER:OG | 0.51 | 2.64 | 17 | 1 |
| 1:A:2274:ALA:CB | 2:B:997:ARG:HH12 | 0.51 | 2.19 | 16 | 1 |
| 1:A:2259:PHE:CE1 | 1:A:2297:TYR:CZ | 0.51 | 2.99 | 19 | 1 |
| 1:A:2247:GLY:O | 1:A:2323:VAL:HG13 | 0.51 | 2.06 | 11 | 6 |
| 1:A:2296:ALA:O | 1:A:2297:TYR:CD1 | 0.51 | 2.64 | 20 | 2 |
| 1:A:2315:HIS:ND1 | 1:A:2319:SER:OG | 0.50 | 2.41 | 17 | 2 |
| 1:A:2311:PHE:CD2 | 1:A:2312:ASN:OD1 | 0.50 | 2.64 | 6 | 1 |
| 1:A:2293:CYS:SG | 1:A:2293:CYS:O | 0.50 | 2.69 | 11 | 4 |
| 1:A:2274:ALA:HB2 | 2:B:997:ARG:NH1 | 0.50 | 2.22 | 4 | 1 |
| 1:A:2283:ILE:N | 1:A:2283:ILE:CD1 | 0.50 | 2.74 | 1 | 1 |
| 1:A:2275:VAL:O | 1:A:2275:VAL:CG2 | 0.50 | 2.59 | 2 | 5 |
| 2:B:993:PHE:CZ | 2:B:994:LYS:CD | 0.50 | 2.94 | 7 | 9 |
| 1:A:2275:VAL:HG22 | 3:C:749:GLU:O | 0.50 | 2.06 | 2 | 1 |
| 1:A:2310:LYS:NZ | 2:B:997:ARG:HH11 | 0.50 | 2.05 | 19 | 1 |
| 1:A:2263:THR:OG1 | 1:A:2311:PHE:CE1 | 0.50 | 2.65 | 20 | 1 |
| 2:B:993:PHE:CG | 2:B:994:LYS:N | 0.49 | 2.79 | 1 | 1 |
| 1:A:2280:LYS:NZ | 1:A:2280:LYS:CB | 0.49 | 2.75 | 2 | 3 |
| 1:A:2259:PHE:CE1 | 1:A:2297:TYR:CE2 | 0.49 | 3.00 | 19 | 2 |
| 1:A:2287:ASP:C | 1:A:2288:ARG:HE | 0.49 | 2.10 | 17 | 1 |
| 1:A:2269:GLY:CA | 2:B:988:TRP:N | 0.49 | 2.75 | 14 | 2 |
| 1:A:2237:GLY:C | 1:A:2239:HIS:N | 0.49 | 2.66 | 16 | 20 |
| 1:A:2272:ALA:O | 1:A:2310:LYS:O | 0.49 | 2.31 | 4 | 20 |
| 1:A:2298:VAL:HG12 | 1:A:2299:VAL:N | 0.49 | 2.23 | 5 | 15 |
| 1:A:2310:LYS:NZ | 1:A:2313:GLU:OE1 | 0.49 | 2.43 | 3 | 2 |
| 1:A:2239:HIS:CD2 | 1:A:2239:HIS:N | 0.49 | 2.80 | 20 | 5 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-------------------|-------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:2258:GLU:C | 1:A:2259:PHE:CD1 | 0.49 | 2.86 | 19 | 1 |
| 1:A:2305:TYR:CG | 1:A:2306:GLU:N | 0.49 | 2.81 | 7 | 4 |
| 1:A:2262:TRP:HE1 | 1:A:2292:SER:CA | 0.49 | 2.20 | 11 | 1 |
| 2:B:996:ASN:H | 2:B:996:ASN:HD22 | 0.49 | 1.50 | 19 | 1 |
| 1:A:2312:ASN:O | 1:A:2313:GLU:CB | 0.49 | 2.60 | 16 | 6 |
| 1:A:2262:TRP:NE1 | 1:A:2292:SER:OG | 0.49 | 2.46 | 9 | 3 |
| 1:A:2289:LYS:H | 1:A:2289:LYS:CD | 0.49 | 2.21 | 18 | 1 |
| 1:A:2285:PHE:CD1 | 1:A:2285:PHE:N | 0.49 | 2.80 | 20 | 3 |
| 1:A:2271:LEU:N | 1:A:2271:LEU:HD22 | 0.48 | 2.23 | 20 | 1 |
| 1:A:2311:PHE:CE1 | 1:A:2312:ASN:CG | 0.48 | 2.87 | 9 | 4 |
| 2:B:996:ASN:O | 2:B:997:ARG:O | 0.48 | 2.32 | 16 | 4 |
| 1:A:2309:VAL:HG21 | 1:A:2321:PHE:CD1 | 0.48 | 2.43 | 5 | 2 |
| 1:A:2312:ASN:OD1 | 2:B:989:LYS:NZ | 0.48 | 2.41 | 19 | 1 |
| 2:B:996:ASN:H | 2:B:996:ASN:ND2 | 0.48 | 2.07 | 19 | 1 |
| 2:B:990:VAL:O | 2:B:991:GLY:O | 0.48 | 2.31 | 11 | 15 |
| 1:A:2311:PHE:CE2 | 1:A:2312:ASN:CG | 0.48 | 2.87 | 13 | 2 |
| 1:A:2275:VAL:O | 1:A:2275:VAL:CG1 | 0.48 | 2.62 | 11 | 1 |
| 1:A:2263:THR:O | 1:A:2265:GLU:N | 0.48 | 2.47 | 9 | 1 |
| 1:A:2265:GLU:C | 1:A:2267:GLY:N | 0.48 | 2.68 | 16 | 6 |
| 1:A:2270:GLY:O | 1:A:2311:PHE:CE1 | 0.47 | 2.67 | 7 | 1 |
| 1:A:2248:LEU:HD13 | 1:A:2248:LEU:O | 0.47 | 2.09 | 18 | 3 |
| 1:A:2265:GLU:O | 1:A:2267:GLY:N | 0.47 | 2.48 | 16 | 2 |
| 1:A:2239:HIS:ND1 | 1:A:2239:HIS:N | 0.47 | 2.61 | 2 | 1 |
| 1:A:2246:PRO:O | 1:A:2250:ARG:O | 0.47 | 2.33 | 13 | 7 |
| 1:A:2282:GLU:CD | 1:A:2282:GLU:N | 0.47 | 2.67 | 13 | 3 |
| 1:A:2311:PHE:CE1 | 1:A:2312:ASN:OD1 | 0.47 | 2.67 | 16 | 1 |
| 1:A:2282:GLU:N | 1:A:2282:GLU:CD | 0.47 | 2.68 | 1 | 1 |
| 2:B:988:TRP:CD1 | 2:B:989:LYS:N | 0.47 | 2.83 | 9 | 5 |
| 1:A:2311:PHE:CZ | 1:A:2312:ASN:ND2 | 0.47 | 2.83 | 17 | 1 |
| 1:A:2274:ALA:O | 1:A:2308:SER:O | 0.46 | 2.34 | 3 | 3 |
| 2:B:997:ARG:NH2 | 3:C:748:LYS:O | 0.46 | 2.46 | 12 | 1 |
| 1:A:2259:PHE:CD1 | 1:A:2295:VAL:O | 0.46 | 2.69 | 14 | 1 |
| 1:A:2310:LYS:HZ1 | 2:B:997:ARG:HH11 | 0.46 | 1.53 | 14 | 1 |
| 1:A:2288:ARG:NH2 | 1:A:2292:SER:OG | 0.46 | 2.49 | 15 | 1 |
| 1:A:2247:GLY:O | 1:A:2323:VAL:CG1 | 0.46 | 2.64 | 16 | 8 |
| 1:A:2237:GLY:O | 1:A:2240:LYS:N | 0.46 | 2.49 | 16 | 5 |
| 1:A:2263:THR:C | 1:A:2265:GLU:N | 0.46 | 2.68 | 9 | 2 |
| 1:A:2272:ALA:HB1 | 3:C:751:THR:O | 0.46 | 2.10 | 14 | 1 |
| 3:C:748:LYS:O | 3:C:749:GLU:O | 0.46 | 2.34 | 13 | 6 |
| 2:B:988:TRP:N | 2:B:992:PHE:CG | 0.46 | 2.84 | 2 | 1 |
| 2:B:990:VAL:O | 2:B:991:GLY:C | 0.46 | 2.54 | 11 | 6 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|------------------|-------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:2288:ARG:O | 1:A:2291:GLY:N | 0.46 | 2.43 | 5 | 5 |
| 1:A:2312:ASN:N | 1:A:2312:ASN:ND2 | 0.46 | 2.64 | 5 | 1 |
| 2:B:990:VAL:O | 2:B:993:PHE:CE1 | 0.46 | 2.69 | 1 | 11 |
| 1:A:2275:VAL:N | 3:C:749:GLU:O | 0.45 | 2.49 | 1 | 3 |
| 2:B:996:ASN:ND2 | 2:B:996:ASN:N | 0.45 | 2.62 | 20 | 1 |
| 1:A:2275:VAL:O | 3:C:747:TYR:O | 0.45 | 2.34 | 15 | 3 |
| 2:B:996:ASN:O | 2:B:997:ARG:C | 0.45 | 2.55 | 17 | 9 |
| 2:B:990:VAL:CG1 | 2:B:991:GLY:N | 0.45 | 2.80 | 7 | 2 |
| 1:A:2276:GLU:OE2 | 3:C:747:TYR:O | 0.45 | 2.35 | 7 | 1 |
| 1:A:2249:GLU:CD | 1:A:2250:ARG:NH2 | 0.45 | 2.70 | 8 | 1 |
| 1:A:2297:TYR:CD1 | 1:A:2297:TYR:N | 0.45 | 2.85 | 9 | 1 |
| 3:C:746:LEU:H | 3:C:746:LEU:HD23 | 0.45 | 1.72 | 13 | 3 |
| 1:A:2262:TRP:CZ3 | 1:A:2264:ARG:NE | 0.45 | 2.85 | 20 | 1 |
| 3:C:748:LYS:O | 3:C:748:LYS:CD | 0.45 | 2.65 | 13 | 1 |
| 3:C:749:GLU:O | 3:C:750:ALA:O | 0.45 | 2.35 | 7 | 5 |
| 1:A:2287:ASP:CG | 1:A:2288:ARG:N | 0.45 | 2.71 | 10 | 1 |
| 1:A:2307:VAL:O | 1:A:2307:VAL:CG2 | 0.44 | 2.65 | 2 | 1 |
| 1:A:2277:GLY:C | 1:A:2279:SER:H | 0.44 | 2.15 | 12 | 1 |
| 1:A:2291:GLY:O | 1:A:2292:SER:O | 0.44 | 2.35 | 17 | 11 |
| 1:A:2257:ALA:HB3 | 1:A:2297:TYR:CE1 | 0.44 | 2.48 | 11 | 3 |
| 1:A:2283:ILE:O | 1:A:2283:ILE:HG23 | 0.44 | 2.11 | 16 | 2 |
| 2:B:988:TRP:N | 2:B:992:PHE:CB | 0.44 | 2.80 | 2 | 1 |
| 1:A:2274:ALA:O | 1:A:2308:SER:OG | 0.44 | 2.36 | 16 | 5 |
| 1:A:2313:GLU:OE2 | 2:B:994:LYS:CB | 0.44 | 2.65 | 2 | 1 |
| 1:A:2280:LYS:CG | 1:A:2281:ALA:N | 0.44 | 2.81 | 11 | 10 |
| 2:B:991:GLY:C | 2:B:995:ARG:CB | 0.44 | 2.86 | 16 | 18 |
| 1:A:2276:GLU:OE1 | 1:A:2308:SER:OG | 0.44 | 2.36 | 8 | 1 |
| 1:A:2271:LEU:N | 1:A:2271:LEU:HD12 | 0.44 | 2.28 | 12 | 1 |
| 2:B:990:VAL:C | 2:B:994:LYS:HZ2 | 0.43 | 2.17 | 1 | 1 |
| 1:A:2263:THR:O | 1:A:2263:THR:OG1 | 0.43 | 2.35 | 9 | 2 |
| 1:A:2276:GLU:OE1 | 1:A:2276:GLU:CA | 0.43 | 2.66 | 15 | 1 |
| 1:A:2279:SER:O | 3:C:747:TYR:CB | 0.43 | 2.66 | 18 | 1 |
| 1:A:2301:GLU:OE2 | 1:A:2302:PRO:O | 0.43 | 2.37 | 1 | 3 |
| 1:A:2316:ILE:O | 1:A:2317:PRO:O | 0.43 | 2.37 | 3 | 4 |
| 1:A:2313:GLU:O | 1:A:2313:GLU:OE1 | 0.43 | 2.37 | 18 | 3 |
| 1:A:2279:SER:O | 1:A:2280:LYS:O | 0.43 | 2.37 | 18 | 1 |
| 1:A:2298:VAL:CG1 | 1:A:2299:VAL:N | 0.43 | 2.81 | 5 | 2 |
| 1:A:2312:ASN:O | 1:A:2312:ASN:OD1 | 0.43 | 2.37 | 11 | 2 |
| 1:A:2276:GLU:OE2 | 3:C:748:LYS:CB | 0.43 | 2.66 | 2 | 2 |
| 1:A:2265:GLU:C | 1:A:2267:GLY:H | 0.43 | 2.17 | 16 | 4 |
| 2:B:988:TRP:CG | 2:B:989:LYS:N | 0.43 | 2.86 | 9 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|-------------------|-------------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 1:A:2313:GLU:OE2 | 2:B:994:LYS:O | 0.43 | 2.37 | 13 | 2 |
| 1:A:2259:PHE:CZ | 1:A:2297:TYR:OH | 0.43 | 2.66 | 19 | 1 |
| 1:A:2312:ASN:OD1 | 2:B:988:TRP:O | 0.43 | 2.36 | 1 | 3 |
| 1:A:2318:ASP:O | 1:A:2318:ASP:OD1 | 0.43 | 2.37 | 9 | 2 |
| 1:A:2274:ALA:N | 1:A:2308:SER:HG | 0.43 | 2.10 | 17 | 2 |
| 1:A:2274:ALA:O | 1:A:2276:GLU:OE1 | 0.42 | 2.37 | 4 | 1 |
| 1:A:2307:VAL:CG2 | 1:A:2323:VAL:HG21 | 0.42 | 2.44 | 4 | 1 |
| 1:A:2262:TRP:NE1 | 1:A:2293:CYS:SG | 0.42 | 2.88 | 11 | 1 |
| 1:A:2280:LYS:CB | 1:A:2280:LYS:NZ | 0.42 | 2.83 | 15 | 1 |
| 1:A:2259:PHE:CZ | 1:A:2297:TYR:CZ | 0.42 | 3.07 | 19 | 1 |
| 3:C:748:LYS:CD | 3:C:748:LYS:C | 0.42 | 2.88 | 18 | 1 |
| 2:B:988:TRP:O | 2:B:989:LYS:C | 0.42 | 2.58 | 17 | 2 |
| 2:B:988:TRP:CE2 | 2:B:992:PHE:CB | 0.42 | 3.02 | 14 | 1 |
| 1:A:2280:LYS:HB2 | 1:A:2280:LYS:HZ3 | 0.42 | 1.73 | 15 | 1 |
| 1:A:2311:PHE:O | 1:A:2314:GLU:N | 0.42 | 2.46 | 16 | 1 |
| 2:B:996:ASN:ND2 | 2:B:996:ASN:H | 0.42 | 2.13 | 1 | 1 |
| 2:B:995:ARG:CG | 2:B:995:ARG:NH1 | 0.42 | 2.82 | 3 | 1 |
| 1:A:2313:GLU:OE1 | 2:B:994:LYS:O | 0.42 | 2.37 | 5 | 2 |
| 1:A:2239:HIS:H | 1:A:2239:HIS:HD1 | 0.42 | 1.58 | 4 | 1 |
| 1:A:2239:HIS:C | 1:A:2241:VAL:H | 0.42 | 2.18 | 1 | 4 |
| 1:A:2244:GLY:O | 1:A:2260:SER:OG | 0.42 | 2.36 | 17 | 2 |
| 1:A:2275:VAL:HG11 | 1:A:2297:TYR:CE2 | 0.41 | 2.50 | 7 | 1 |
| 3:C:748:LYS:CD | 3:C:748:LYS:O | 0.41 | 2.68 | 7 | 1 |
| 1:A:2327:SER:O | 1:A:2328:PRO:C | 0.41 | 2.59 | 12 | 11 |
| 1:A:2250:ARG:O | 1:A:2251:ALA:HB2 | 0.41 | 2.14 | 12 | 1 |
| 1:A:2287:ASP:O | 1:A:2287:ASP:OD1 | 0.41 | 2.37 | 17 | 1 |
| 1:A:2311:PHE:C | 1:A:2313:GLU:N | 0.41 | 2.73 | 1 | 1 |
| 1:A:2287:ASP:OD1 | 1:A:2287:ASP:N | 0.41 | 2.46 | 15 | 1 |
| 1:A:2239:HIS:N | 1:A:2239:HIS:ND1 | 0.41 | 2.61 | 8 | 1 |
| 2:B:995:ARG:O | 2:B:996:ASN:C | 0.41 | 2.59 | 20 | 3 |
| 2:B:988:TRP:N | 2:B:992:PHE:HB3 | 0.41 | 2.31 | 2 | 1 |
| 1:A:2312:ASN:OD1 | 2:B:988:TRP:N | 0.41 | 2.54 | 17 | 1 |
| 1:A:2274:ALA:O | 1:A:2308:SER:CB | 0.41 | 2.69 | 5 | 3 |
| 1:A:2270:GLY:H | 2:B:988:TRP:N | 0.41 | 2.14 | 14 | 1 |
| 3:C:748:LYS:CD | 3:C:748:LYS:N | 0.40 | 2.84 | 17 | 1 |
| 1:A:2274:ALA:N | 1:A:2308:SER:O | 0.40 | 2.54 | 8 | 1 |
| 1:A:2317:PRO:C | 1:A:2319:SER:N | 0.40 | 2.75 | 9 | 1 |
| 1:A:2315:HIS:O | 1:A:2316:ILE:C | 0.40 | 2.60 | 2 | 1 |
| 1:A:2277:GLY:O | 3:C:747:TYR:O | 0.40 | 2.39 | 18 | 1 |
| 1:A:2314:GLU:O | 1:A:2315:HIS:C | 0.40 | 2.60 | 18 | 2 |
| 1:A:2274:ALA:O | 1:A:2308:SER:N | 0.40 | 2.53 | 4 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|----------------|-----------------|----------|-------------|--------|-------|
| | | | | Worst | Total |
| 3:C:746:LEU:H | 3:C:746:LEU:CD2 | 0.40 | 2.30 | 13 | 1 |
| 1:A:2277:GLY:C | 1:A:2279:SER:N | 0.40 | 2.74 | 12 | 1 |

6.3 Torsion angles [i](#)

6.3.1 Protein backbone [i](#)

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 NMR 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 | A | 93/95 (98%) | 73±2 (79±2%) | 13±2 (14±2%) | 7±1 (7±1%) | 2 | 17 |
| 2 | B | 9/21 (43%) | 4±0 (40±5%) | 1±1 (9±8%) | 5±1 (51±9%) | 0 | 0 |
| 3 | C | 6/47 (13%) | 3±1 (47±15%) | 1±1 (24±12%) | 2±1 (29±12%) | 0 | 1 |
| All | All | 2160/3260 (66%) | 1596 (74%) | 306 (14%) | 258 (12%) | 1 | 7 |

All 25 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|------|------|----------------|
| 1 | A | 2256 | PRO | 20 |
| 1 | A | 2281 | ALA | 20 |
| 1 | A | 2329 | SER | 20 |
| 2 | B | 990 | VAL | 20 |
| 2 | B | 991 | GLY | 20 |
| 2 | B | 992 | PHE | 20 |
| 1 | A | 2292 | SER | 17 |
| 1 | A | 2317 | PRO | 17 |
| 1 | A | 2328 | PRO | 17 |
| 2 | B | 989 | LYS | 16 |
| 3 | C | 748 | LYS | 16 |
| 2 | B | 996 | ASN | 12 |
| 3 | C | 749 | GLU | 8 |
| 1 | A | 2280 | LYS | 7 |
| 3 | C | 750 | ALA | 5 |
| 2 | B | 997 | ARG | 4 |
| 3 | C | 746 | LEU | 4 |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|------|------|----------------|
| 1 | A | 2315 | HIS | 4 |
| 1 | A | 2263 | THR | 4 |
| 3 | C | 747 | TYR | 2 |
| 1 | A | 2237 | GLY | 1 |
| 1 | A | 2324 | PRO | 1 |
| 1 | A | 2251 | ALA | 1 |
| 1 | A | 2278 | PRO | 1 |
| 1 | A | 2238 | ALA | 1 |

6.3.2 Protein sidechains [i](#)

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 NMR 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 | A | 69/69 (100%) | 61±2 (89±3%) | 8±2 (11±3%) | 10 54 |
| 2 | B | 9/19 (47%) | 6±1 (64±9%) | 3±1 (36±9%) | 1 8 |
| 3 | C | 5/41 (12%) | 4±1 (80±11%) | 1±1 (20±11%) | 4 34 |
| All | All | 1660/2580 (64%) | 1423 (86%) | 237 (14%) | 6 46 |

All 37 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|------|------|----------------|
| 1 | A | 2279 | SER | 20 |
| 2 | B | 993 | PHE | 20 |
| 1 | A | 2273 | ILE | 18 |
| 2 | B | 992 | PHE | 18 |
| 3 | C | 748 | LYS | 17 |
| 1 | A | 2299 | VAL | 14 |
| 1 | A | 2319 | SER | 11 |
| 1 | A | 2325 | VAL | 10 |
| 1 | A | 2263 | THR | 8 |
| 1 | A | 2315 | HIS | 7 |
| 2 | B | 994 | LYS | 7 |
| 2 | B | 997 | ARG | 7 |
| 2 | B | 989 | LYS | 7 |
| 1 | A | 2312 | ASN | 7 |
| 1 | A | 2289 | LYS | 6 |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|------|------|----------------|
| 1 | A | 2280 | LYS | 5 |
| 2 | B | 988 | TRP | 5 |
| 1 | A | 2276 | GLU | 5 |
| 1 | A | 2241 | VAL | 4 |
| 1 | A | 2252 | GLU | 4 |
| 1 | A | 2313 | GLU | 4 |
| 1 | A | 2248 | LEU | 4 |
| 1 | A | 2304 | ASP | 4 |
| 1 | A | 2308 | SER | 3 |
| 3 | C | 746 | LEU | 3 |
| 1 | A | 2262 | TRP | 3 |
| 1 | A | 2260 | SER | 3 |
| 1 | A | 2282 | GLU | 2 |
| 1 | A | 2321 | PHE | 2 |
| 1 | A | 2327 | SER | 2 |
| 1 | A | 2259 | PHE | 1 |
| 2 | B | 995 | ARG | 1 |
| 1 | A | 2275 | VAL | 1 |
| 1 | A | 2271 | LEU | 1 |
| 1 | A | 2307 | VAL | 1 |
| 1 | A | 2242 | ARG | 1 |
| 1 | A | 2305 | TYR | 1 |

6.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

6.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

6.6 Ligand geometry [i](#)

There are no ligands in this entry.

6.7 Other polymers [i](#)

There are no such molecules in this entry.

6.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

7 Chemical shift validation [i](#)

The completeness of assignment taking into account all chemical shift lists is 71% for the well-defined parts and 67% for the entire structure.

7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chemical_shifts_1*

7.1.1 Bookkeeping [i](#)

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

| | |
|---|------|
| Total number of shifts | 1430 |
| Number of shifts mapped to atoms | 1429 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 1 |
| Number of shifts with mapping warnings | 0 |
| Number of shift outliers (ShiftChecker) | 148 |

The following assigned chemical shifts were not mapped to the molecules present in the coordinate file.

- No matching atom found in the structure. All 1 occurrences are reported below.

| List ID | Chain | Res | Type | Atom | Shift Data | | |
|---------|-------|------|------|------|------------|-------------|-----------|
| | | | | | Value | Uncertainty | Ambiguity |
| 1 | A | 2315 | HIS | HE2 | 7.103 | . | . |

7.1.2 Chemical shift referencing [i](#)

The following table shows the suggested chemical shift referencing corrections.

| Nucleus | # values | Correction \pm precision, ppm | Suggested action |
|------------------------|----------|---------------------------------|----------------------------|
| $^{13}\text{C}_\alpha$ | 142 | -0.18 ± 0.14 | None needed (< 0.5 ppm) |
| $^{13}\text{C}_\beta$ | 127 | -0.21 ± 0.11 | None needed (< 0.5 ppm) |
| $^{13}\text{C}'$ | 0 | — | None (insufficient data) |
| ^{15}N | 133 | 0.00 ± 0.00 | None needed (< 0.5 ppm) |

7.1.3 Completeness of resonance assignments [i](#)

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 71%, i.e. 1004 atoms were assigned a chemical shift out of a possible 1407. 0 out of 15 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ¹H | ¹³C | ¹⁵N |
|-----------|-----------------|----------------------|-----------------------|-----------------------|
| Backbone | 417/548 (76%) | 225/226 (100%) | 100/220 (45%) | 92/102 (90%) |
| Sidechain | 559/736 (76%) | 378/478 (79%) | 181/230 (79%) | 0/28 (0%) |
| Aromatic | 28/123 (23%) | 27/62 (44%) | 1/59 (2%) | 0/2 (0%) |
| Overall | 1004/1407 (71%) | 630/766 (82%) | 282/509 (55%) | 92/132 (70%) |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 67%, i.e. 1428 atoms were assigned a chemical shift out of a possible 2128. 0 out of 16 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | ¹H | ¹³C | ¹⁵N |
|-----------|-----------------|----------------------|-----------------------|-----------------------|
| Backbone | 598/810 (74%) | 323/332 (97%) | 142/326 (44%) | 133/152 (88%) |
| Sidechain | 798/1138 (70%) | 541/730 (74%) | 257/359 (72%) | 0/49 (0%) |
| Aromatic | 32/180 (18%) | 31/91 (34%) | 1/86 (1%) | 0/3 (0%) |
| Overall | 1428/2128 (67%) | 895/1153 (78%) | 400/771 (52%) | 133/204 (65%) |

7.1.4 Statistically unusual chemical shifts [i](#)

The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|------|------|------|------------|---------------------|---------|
| 1 | A | 2321 | PHE | CE2 | 51.05 | 124.80 – 136.72 | -66.9 |
| 1 | A | 2313 | GLU | N | 17.84 | 103.74 – 137.78 | -30.2 |
| 1 | A | 2247 | GLY | N | 12.01 | 91.59 – 127.52 | -27.1 |
| 1 | A | 2279 | SER | N | 26.47 | 99.14 – 133.45 | -26.2 |
| 1 | C | 761 | GLY | N | 17.20 | 91.59 – 127.52 | -25.7 |
| 1 | A | 2267 | GLY | N | 17.46 | 91.59 – 127.52 | -25.6 |
| 1 | A | 2270 | GLY | N | 17.79 | 91.59 – 127.52 | -25.5 |
| 1 | A | 2319 | SER | N | 29.28 | 99.14 – 133.45 | -25.4 |
| 1 | A | 2244 | GLY | N | 18.65 | 91.59 – 127.52 | -25.3 |
| 1 | A | 2303 | GLY | N | 19.32 | 91.59 – 127.52 | -25.1 |
| 1 | A | 2301 | GLU | N | 37.06 | 103.74 – 137.78 | -24.6 |
| 1 | A | 2265 | GLU | N | 37.59 | 103.74 – 137.78 | -24.4 |
| 1 | A | 2237 | GLY | N | 22.00 | 91.59 – 127.52 | -24.4 |
| 1 | A | 2254 | GLY | N | 22.89 | 91.59 – 127.52 | -24.1 |

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| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|------|------|------|------------|---------------------|---------|
| 1 | A | 2291 | GLY | N | 23.41 | 91.59 – 127.52 | -24.0 |
| 1 | A | 2236 | GLY | N | 23.65 | 91.59 – 127.52 | -23.9 |
| 1 | A | 2260 | SER | N | 35.00 | 99.14 – 133.45 | -23.7 |
| 1 | A | 2250 | ARG | N | 35.91 | 102.91 – 138.82 | -23.7 |
| 1 | A | 2269 | GLY | N | 24.73 | 91.59 – 127.52 | -23.6 |
| 1 | A | 2258 | GLU | N | 42.47 | 103.74 – 137.78 | -23.0 |
| 1 | A | 2318 | ASP | N | 35.40 | 102.08 – 139.36 | -22.9 |
| 1 | A | 2327 | SER | N | 37.84 | 99.14 – 133.45 | -22.9 |
| 1 | A | 2300 | GLN | N | 41.20 | 102.61 – 137.42 | -22.6 |
| 1 | A | 2249 | GLU | N | 44.26 | 103.74 – 137.78 | -22.5 |
| 1 | A | 2239 | HIS | N | 29.47 | 99.59 – 139.87 | -22.4 |
| 1 | A | 2329 | SER | N | 39.93 | 99.14 – 133.45 | -22.3 |
| 1 | C | 752 | SER | N | 40.29 | 99.14 – 133.45 | -22.2 |
| 1 | A | 2292 | SER | N | 40.26 | 99.14 – 133.45 | -22.2 |
| 1 | A | 2314 | GLU | N | 45.32 | 103.74 – 137.78 | -22.2 |
| 1 | A | 2248 | LEU | N | 37.83 | 102.77 – 140.89 | -22.0 |
| 1 | A | 2245 | GLY | N | 30.39 | 91.59 – 127.52 | -22.0 |
| 1 | A | 2266 | ALA | N | 47.76 | 106.13 – 140.55 | -22.0 |
| 1 | A | 2251 | ALA | N | 47.79 | 106.13 – 140.55 | -21.9 |
| 1 | A | 2277 | GLY | N | 30.98 | 91.59 – 127.52 | -21.9 |
| 1 | A | 2306 | GLU | N | 46.48 | 103.74 – 137.78 | -21.8 |
| 1 | C | 743 | ASN | N | 35.10 | 99.66 – 138.23 | -21.7 |
| 1 | A | 2290 | ASP | N | 39.77 | 102.08 – 139.36 | -21.7 |
| 1 | A | 2240 | LYS | N | 41.60 | 102.74 – 139.42 | -21.7 |
| 1 | C | 736 | ARG | N | 43.35 | 102.91 – 138.82 | -21.6 |
| 1 | A | 2252 | GLU | N | 47.30 | 103.74 – 137.78 | -21.6 |
| 1 | A | 2294 | GLY | N | 32.30 | 91.59 – 127.52 | -21.5 |
| 1 | A | 2268 | ALA | N | 50.07 | 106.13 – 140.55 | -21.3 |
| 1 | C | 732 | GLU | N | 48.46 | 103.74 – 137.78 | -21.2 |
| 1 | A | 2238 | ALA | N | 50.29 | 106.13 – 140.55 | -21.2 |
| 1 | C | 738 | LYS | N | 43.35 | 102.74 – 139.42 | -21.2 |
| 1 | C | 726 | GLU | N | 48.65 | 103.74 – 137.78 | -21.2 |
| 1 | C | 731 | GLU | N | 49.24 | 103.74 – 137.78 | -21.0 |
| 1 | C | 733 | GLU | N | 49.96 | 103.74 – 137.78 | -20.8 |
| 1 | C | 729 | LYS | N | 45.31 | 102.74 – 139.42 | -20.7 |
| 1 | A | 2282 | GLU | N | 50.59 | 103.74 – 137.78 | -20.6 |
| 1 | A | 2289 | LYS | N | 45.71 | 102.74 – 139.42 | -20.6 |
| 1 | A | 2259 | PHE | N | 36.48 | 99.93 – 140.82 | -20.5 |
| 1 | C | 734 | ARG | N | 47.85 | 102.91 – 138.82 | -20.3 |
| 1 | C | 749 | GLU | N | 51.60 | 103.74 – 137.78 | -20.3 |
| 1 | A | 2280 | LYS | N | 46.78 | 102.74 – 139.42 | -20.3 |
| 1 | C | 735 | ALA | N | 53.95 | 106.13 – 140.55 | -20.2 |

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| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|------|------|------|------------|---------------------|---------|
| 1 | A | 2243 | ALA | N | 54.00 | 106.13 – 140.55 | -20.1 |
| 1 | A | 2286 | GLU | N | 52.23 | 103.74 – 137.78 | -20.1 |
| 1 | A | 2304 | ASP | N | 46.08 | 102.08 – 139.36 | -20.0 |
| 1 | C | 746 | LEU | N | 45.76 | 102.77 – 140.89 | -20.0 |
| 1 | A | 2264 | ARG | N | 49.34 | 102.91 – 138.82 | -19.9 |
| 1 | C | 737 | ALA | N | 55.49 | 106.13 – 140.55 | -19.7 |
| 1 | C | 724 | ARG | N | 50.63 | 102.91 – 138.82 | -19.6 |
| 1 | A | 2272 | ALA | N | 56.20 | 106.13 – 140.55 | -19.5 |
| 1 | A | 2297 | TYR | N | 41.14 | 100.12 – 140.79 | -19.5 |
| 1 | A | 2330 | GLY | N | 39.48 | 91.59 – 127.52 | -19.5 |
| 1 | C | 728 | ALA | N | 57.03 | 106.13 – 140.55 | -19.3 |
| 1 | A | 2316 | ILE | N | 41.20 | 100.55 – 142.30 | -19.2 |
| 1 | A | 2242 | ARG | N | 51.90 | 102.91 – 138.82 | -19.2 |
| 1 | A | 2308 | SER | N | 50.88 | 99.14 – 133.45 | -19.1 |
| 1 | C | 723 | ASP | N | 49.65 | 102.08 – 139.36 | -19.1 |
| 1 | C | 751 | THR | N | 26.10 | 91.89 – 138.78 | -19.0 |
| 1 | C | 744 | ASN | N | 45.76 | 99.66 – 138.23 | -19.0 |
| 1 | A | 2310 | LYS | N | 51.59 | 102.74 – 139.42 | -18.9 |
| 1 | C | 725 | LYS | N | 51.71 | 102.74 – 139.42 | -18.9 |
| 1 | A | 2281 | ALA | N | 58.65 | 106.13 – 140.55 | -18.8 |
| 1 | C | 740 | ASP | N | 50.85 | 102.08 – 139.36 | -18.7 |
| 1 | C | 742 | ALA | N | 58.82 | 106.13 – 140.55 | -18.7 |
| 1 | A | 2284 | SER | N | 52.20 | 99.14 – 133.45 | -18.7 |
| 1 | C | 739 | TRP | N | 47.20 | 101.51 – 141.60 | -18.6 |
| 1 | C | 747 | TYR | N | 45.30 | 100.12 – 140.79 | -18.5 |
| 1 | A | 2288 | ARG | N | 54.62 | 102.91 – 138.82 | -18.4 |
| 1 | C | 716 | LYS | N | 53.66 | 102.74 – 139.42 | -18.4 |
| 1 | A | 2253 | ALA | N | 60.10 | 106.13 – 140.55 | -18.4 |
| 1 | A | 2296 | ALA | N | 60.10 | 106.13 – 140.55 | -18.4 |
| 1 | C | 717 | LYS | N | 53.77 | 102.74 – 139.42 | -18.4 |
| 1 | A | 2298 | VAL | N | 41.09 | 99.23 – 142.92 | -18.3 |
| 1 | A | 2276 | GLU | N | 58.49 | 103.74 – 137.78 | -18.3 |
| 1 | C | 741 | THR | N | 29.61 | 91.89 – 138.78 | -18.3 |
| 1 | C | 750 | ALA | N | 60.48 | 106.13 – 140.55 | -18.3 |
| 1 | A | 2261 | ILE | N | 45.26 | 100.55 – 142.30 | -18.2 |
| 1 | C | 748 | LYS | N | 54.75 | 102.74 – 139.42 | -18.1 |
| 1 | C | 756 | ASN | N | 49.59 | 99.66 – 138.23 | -18.0 |
| 1 | C | 727 | PHE | N | 47.07 | 99.93 – 140.82 | -17.9 |
| 1 | A | 2293 | CYS | N | 41.57 | 98.14 – 142.06 | -17.9 |
| 1 | A | 2271 | LEU | N | 53.76 | 102.77 – 140.89 | -17.9 |
| 1 | C | 730 | PHE | N | 47.72 | 99.93 – 140.82 | -17.8 |
| 1 | C | 718 | LYS | N | 56.29 | 102.74 – 139.42 | -17.7 |

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| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|------|------|------|------------|---------------------|---------|
| 1 | A | 2274 | ALA | N | 62.57 | 106.13 – 140.55 | -17.7 |
| 1 | C | 760 | ARG | N | 58.14 | 102.91 – 138.82 | -17.5 |
| 1 | A | 2321 | PHE | N | 48.97 | 99.93 – 140.82 | -17.5 |
| 1 | C | 755 | THR | N | 33.93 | 91.89 – 138.78 | -17.4 |
| 1 | C | 753 | THR | N | 34.07 | 91.89 – 138.78 | -17.3 |
| 1 | A | 2285 | PHE | N | 49.50 | 99.93 – 140.82 | -17.3 |
| 1 | A | 2311 | PHE | N | 49.73 | 99.93 – 140.82 | -17.3 |
| 1 | A | 2263 | THR | N | 34.39 | 91.89 – 138.78 | -17.3 |
| 1 | A | 2305 | TYR | N | 50.29 | 100.12 – 140.79 | -17.2 |
| 1 | C | 757 | ILE | N | 49.44 | 100.55 – 142.30 | -17.2 |
| 1 | A | 2315 | HIS | N | 51.59 | 99.59 – 139.87 | -16.9 |
| 1 | A | 2299 | VAL | N | 47.91 | 99.23 – 142.92 | -16.8 |
| 1 | C | 754 | PHE | N | 51.97 | 99.93 – 140.82 | -16.7 |
| 1 | A | 2275 | VAL | N | 48.20 | 99.23 – 142.92 | -16.7 |
| 1 | A | 2287 | ASP | N | 58.65 | 102.08 – 139.36 | -16.6 |
| 1 | A | 2257 | ALA | N | 67.07 | 106.13 – 140.55 | -16.4 |
| 1 | A | 2273 | ILE | N | 53.38 | 100.55 – 142.30 | -16.3 |
| 1 | C | 722 | HIS | N | 54.39 | 99.59 – 139.87 | -16.2 |
| 1 | A | 2326 | ALA | N | 67.77 | 106.13 – 140.55 | -16.1 |
| 1 | A | 2255 | VAL | N | 51.02 | 99.23 – 142.92 | -16.0 |
| 1 | C | 721 | ILE | N | 54.59 | 100.55 – 142.30 | -16.0 |
| 1 | C | 762 | THR | N | 41.00 | 91.89 – 138.78 | -15.8 |
| 1 | C | 758 | THR | N | 41.13 | 91.89 – 138.78 | -15.8 |
| 1 | A | 2241 | VAL | N | 51.95 | 99.23 – 142.92 | -15.8 |
| 1 | C | 759 | TYR | N | 56.19 | 100.12 – 140.79 | -15.8 |
| 1 | C | 719 | ILE | N | 55.91 | 100.55 – 142.30 | -15.7 |
| 1 | A | 2295 | VAL | N | 54.21 | 99.23 – 142.92 | -15.3 |
| 1 | A | 2283 | ILE | N | 57.63 | 100.55 – 142.30 | -15.3 |
| 1 | A | 2309 | VAL | N | 54.87 | 99.23 – 142.92 | -15.2 |
| 1 | A | 2322 | VAL | N | 55.13 | 99.23 – 142.92 | -15.1 |
| 1 | A | 2312 | ASN | N | 60.81 | 99.66 – 138.23 | -15.1 |
| 1 | A | 2262 | TRP | N | 61.30 | 101.51 – 141.60 | -15.0 |
| 1 | C | 720 | THR | N | 45.51 | 91.89 – 138.78 | -14.9 |
| 1 | A | 2325 | VAL | N | 57.87 | 99.23 – 142.92 | -14.5 |
| 1 | C | 729 | LYS | CD | 43.08 | 23.50 – 34.42 | 12.9 |
| 1 | C | 738 | LYS | CD | 43.08 | 23.50 – 34.42 | 12.9 |
| 1 | A | 2307 | VAL | N | 66.60 | 99.23 – 142.92 | -12.5 |
| 1 | A | 2323 | VAL | N | 68.80 | 99.23 – 142.92 | -12.0 |
| 1 | A | 2273 | ILE | CG2 | 29.60 | 10.93 – 24.12 | 9.2 |
| 1 | A | 2261 | ILE | CG2 | 27.81 | 10.93 – 24.12 | 7.8 |
| 1 | A | 2283 | ILE | CG2 | 27.81 | 10.93 – 24.12 | 7.8 |
| 1 | C | 719 | ILE | CG2 | 26.99 | 10.93 – 24.12 | 7.2 |

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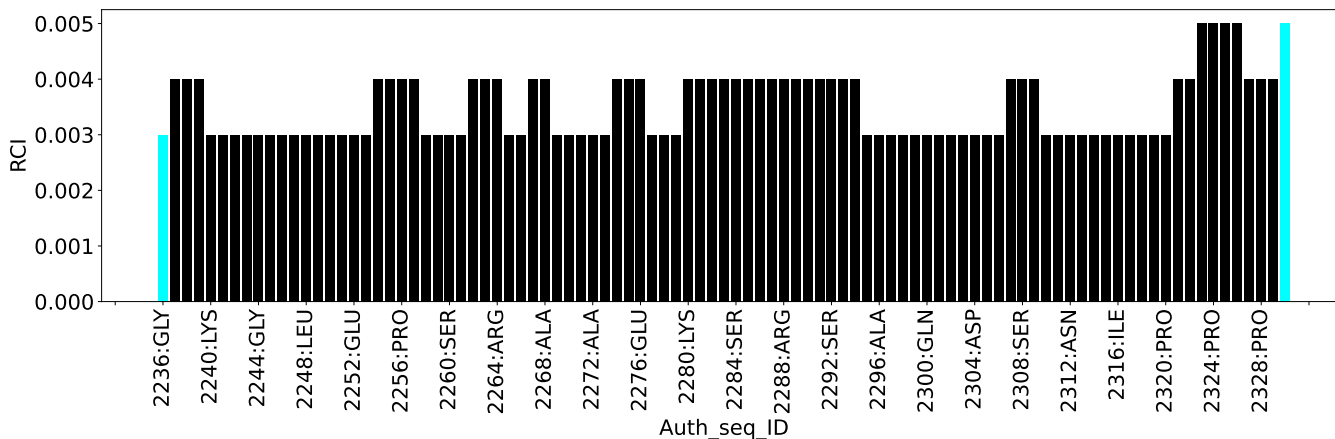
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| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|------|------|------|------------|---------------------|---------|
| 1 | C | 721 | ILE | CG2 | 26.99 | 10.93 – 24.12 | 7.2 |
| 1 | C | 757 | ILE | CG2 | 26.99 | 10.93 – 24.12 | 7.2 |
| 1 | A | 2273 | ILE | CD1 | 25.14 | 5.18 – 21.60 | 7.2 |
| 1 | A | 2264 | ARG | CD | 49.65 | 38.57 – 47.75 | 7.1 |
| 1 | A | 2278 | PRO | CD | 43.01 | 45.11 – 55.58 | -7.0 |
| 1 | A | 2310 | LYS | CG | 32.61 | 19.35 – 30.45 | 7.0 |
| 1 | C | 729 | LYS | HD2 | 3.02 | 0.58 – 2.64 | 6.9 |
| 1 | C | 738 | LYS | HD2 | 3.02 | 0.58 – 2.64 | 6.9 |

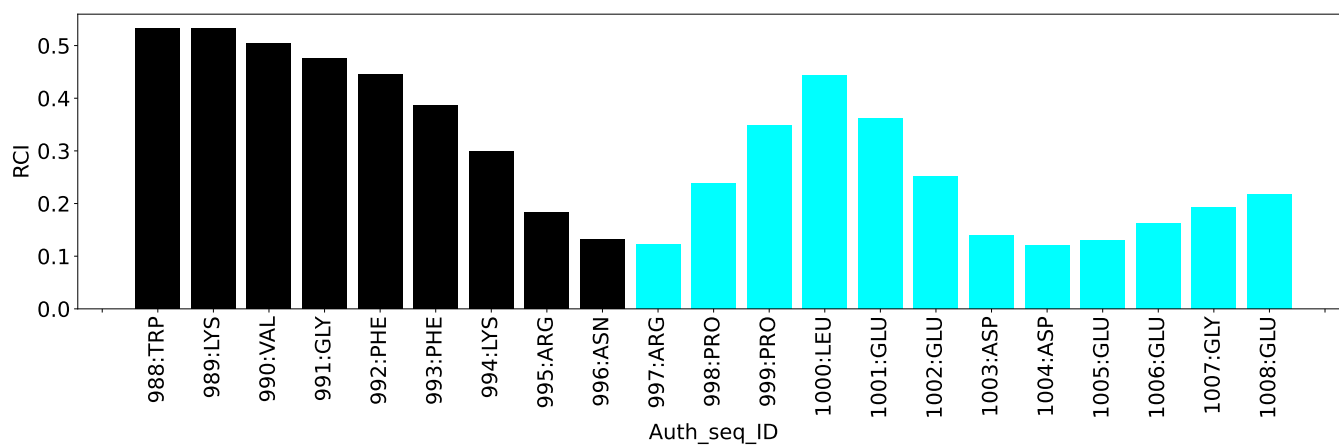
7.1.5 Random Coil Index (RCI) plots [i](#)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition. If well-defined core and ill-defined regions are not identified then it is shown as gray bars.

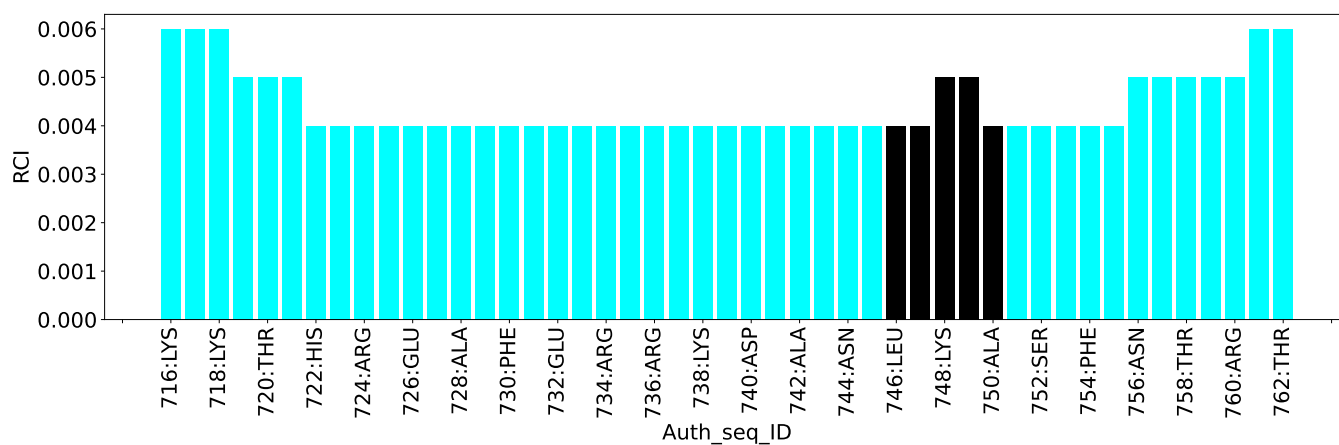
Random coil index (RCI) for chain A:



Random coil index (RCI) for chain B:



Random coil index (RCI) for chain C:



8 NMR restraints analysis

8.1 Conformationally restricting restraints

The following table provides the summary of experimentally observed NMR restraints in different categories. Restraints are classified into different categories based on the sequence separation of the atoms involved.

| Description | Value |
|--|-------|
| Total distance restraints | 1341 |
| Intra-residue ($ i-j =0$) | 425 |
| Sequential ($ i-j =1$) | 483 |
| Medium range ($ i-j >1$ and $ i-j <5$) | 172 |
| Long range ($ i-j \geq 5$) | 230 |
| Inter-chain | 31 |
| Hydrogen bond restraints | 0 |
| Disulfide bond restraints | 0 |
| Total dihedral-angle restraints | 122 |
| Number of unmapped restraints | 6 |
| Number of restraints per residue | 9.0 |
| Number of long range restraints per residue ¹ | 1.4 |

¹Long range hydrogen bonds and disulfide bonds are counted as long range restraints while calculating the number of long range restraints per residue

8.2 Residual restraint violations

This section provides the overview of the restraint violations analysis. The violations are binned as small, medium and large violations based on its absolute value. Average number of violations per model is calculated by dividing the total number of violations in each bin by the size of the ensemble.

8.2.1 Average number of distance violations per model

Distance violations less than 0.1 Å are not included in the calculation.

| Bins (Å) | Average number of violations per model | Max (Å) |
|------------------|--|---------|
| 0.1-0.2 (Small) | 48.0 | 0.2 |
| 0.2-0.5 (Medium) | 26.0 | 0.5 |
| >0.5 (Large) | 13.8 | 3.55 |

8.2.2 Average number of dihedral-angle violations per model [i](#)

Dihedral-angle violations less than 1° are not included in the calculation.

| Bins (°) | Average number of violations per model | Max (°) |
|--------------------|--|---------|
| 1.0-10.0 (Small) | 15.9 | 10.0 |
| 10.0-20.0 (Medium) | 6.4 | 19.8 |
| >20.0 (Large) | 5.3 | 87.4 |

9 Distance violation analysis i

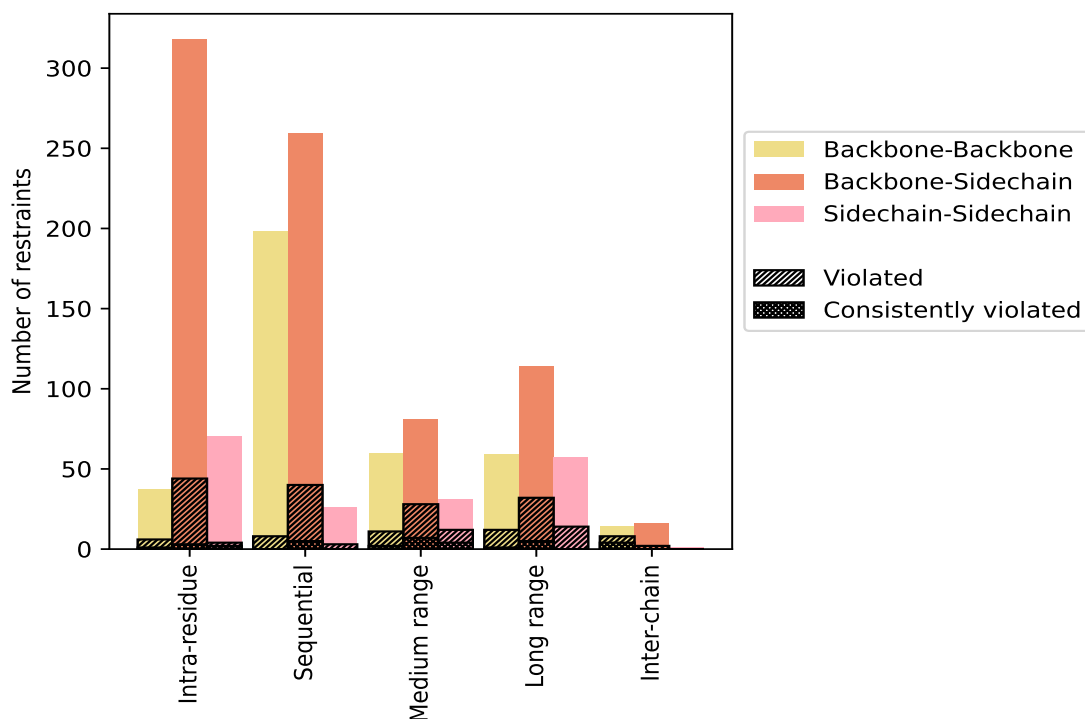
9.1 Summary of distance violations i

The following table shows the summary of distance violations in different restraint categories based on the sequence separation of the atoms involved. Each category is further sub-divided into three sub-categories based on the atoms involved. Violations less than 0.1 Å are not included in the statistics.

| Restrains type | Count | % ¹ | Violated ³ | | | Consistently Violated ⁴ | | |
|---|-------------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | | | Count | % ² | % ¹ | Count | % ² | % ¹ |
| Intra-residue ($i-j =0$) | 425 | 31.7 | 54 | 12.7 | 4.0 | 6 | 1.4 | 0.4 |
| Backbone-Backbone | 37 | 2.8 | 6 | 16.2 | 0.4 | 1 | 2.7 | 0.1 |
| Backbone-Sidechain | 318 | 23.7 | 44 | 13.8 | 3.3 | 3 | 0.9 | 0.2 |
| Sidechain-Sidechain | 70 | 5.2 | 4 | 5.7 | 0.3 | 2 | 2.9 | 0.1 |
| Sequential ($i-j =1$) | 483 | 36.0 | 51 | 10.6 | 3.8 | 5 | 1.0 | 0.4 |
| Backbone-Backbone | 198 | 14.8 | 8 | 4.0 | 0.6 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 259 | 19.3 | 40 | 15.4 | 3.0 | 5 | 1.9 | 0.4 |
| Sidechain-Sidechain | 26 | 1.9 | 3 | 11.5 | 0.2 | 0 | 0.0 | 0.0 |
| Medium range ($i-j >1$ & $i-j <5$) | 172 | 12.8 | 51 | 29.7 | 3.8 | 13 | 7.6 | 1.0 |
| Backbone-Backbone | 60 | 4.5 | 11 | 18.3 | 0.8 | 2 | 3.3 | 0.1 |
| Backbone-Sidechain | 81 | 6.0 | 28 | 34.6 | 2.1 | 7 | 8.6 | 0.5 |
| Sidechain-Sidechain | 31 | 2.3 | 12 | 38.7 | 0.9 | 4 | 12.9 | 0.3 |
| Long range ($i-j \geq 5$) | 230 | 17.2 | 58 | 25.2 | 4.3 | 6 | 2.6 | 0.4 |
| Backbone-Backbone | 59 | 4.4 | 12 | 20.3 | 0.9 | 1 | 1.7 | 0.1 |
| Backbone-Sidechain | 114 | 8.5 | 32 | 28.1 | 2.4 | 5 | 4.4 | 0.4 |
| Sidechain-Sidechain | 57 | 4.3 | 14 | 24.6 | 1.0 | 0 | 0.0 | 0.0 |
| Inter-chain | 31 | 2.3 | 10 | 32.3 | 0.7 | 4 | 12.9 | 0.3 |
| Backbone-Backbone | 14 | 1.0 | 8 | 57.1 | 0.6 | 4 | 28.6 | 0.3 |
| Backbone-Sidechain | 16 | 1.2 | 2 | 12.5 | 0.1 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 1 | 0.1 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Hydrogen bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Disulfide bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Total | 1341 | 100.0 | 224 | 16.7 | 16.7 | 34 | 2.5 | 2.5 |
| Backbone-Backbone | 368 | 27.4 | 45 | 12.2 | 3.4 | 8 | 2.2 | 0.6 |
| Backbone-Sidechain | 788 | 58.8 | 146 | 18.5 | 10.9 | 20 | 2.5 | 1.5 |
| Sidechain-Sidechain | 185 | 13.8 | 33 | 17.8 | 2.5 | 6 | 3.2 | 0.4 |

¹ percentage calculated with respect to the total number of distance restraints, ² percentage calculated with respect to the number of restraints in a particular restraint category, ³ violated in at least one model, ⁴ violated in all the models

9.1.1 Bar chart : Distribution of distance restraints and violations [i](#)



Violated and consistently violated restraints are shown using different hatch patterns in their respective categories. The hydrogen bonds and disulfid bonds are counted in their appropriate category on the x-axis

9.2 Distance violation statistics for each model [i](#)

The following table provides the distance violation statistics for each model in the ensemble. Violations less than 0.1 Å are not included in the statistics.

| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | | | | |
| 1 | 18 | 15 | 21 | 26 | 6 | 86 | 0.38 | 3.09 | 0.56 | 0.19 |
| 2 | 17 | 19 | 27 | 23 | 8 | 94 | 0.46 | 2.92 | 0.64 | 0.2 |
| 3 | 17 | 16 | 19 | 23 | 8 | 83 | 0.34 | 2.92 | 0.45 | 0.18 |
| 4 | 14 | 14 | 19 | 26 | 7 | 80 | 0.45 | 3.16 | 0.65 | 0.2 |
| 5 | 12 | 20 | 26 | 28 | 6 | 92 | 0.42 | 3.11 | 0.59 | 0.2 |
| 6 | 19 | 17 | 22 | 25 | 6 | 89 | 0.38 | 3.08 | 0.57 | 0.18 |
| 7 | 14 | 20 | 21 | 20 | 7 | 82 | 0.41 | 3.11 | 0.6 | 0.21 |
| 8 | 18 | 18 | 18 | 23 | 9 | 86 | 0.32 | 2.51 | 0.42 | 0.18 |
| 9 | 17 | 21 | 23 | 25 | 7 | 93 | 0.36 | 2.52 | 0.47 | 0.19 |
| 10 | 17 | 18 | 19 | 26 | 8 | 88 | 0.41 | 3.55 | 0.6 | 0.21 |
| 11 | 16 | 22 | 23 | 26 | 7 | 94 | 0.46 | 3.14 | 0.65 | 0.2 |

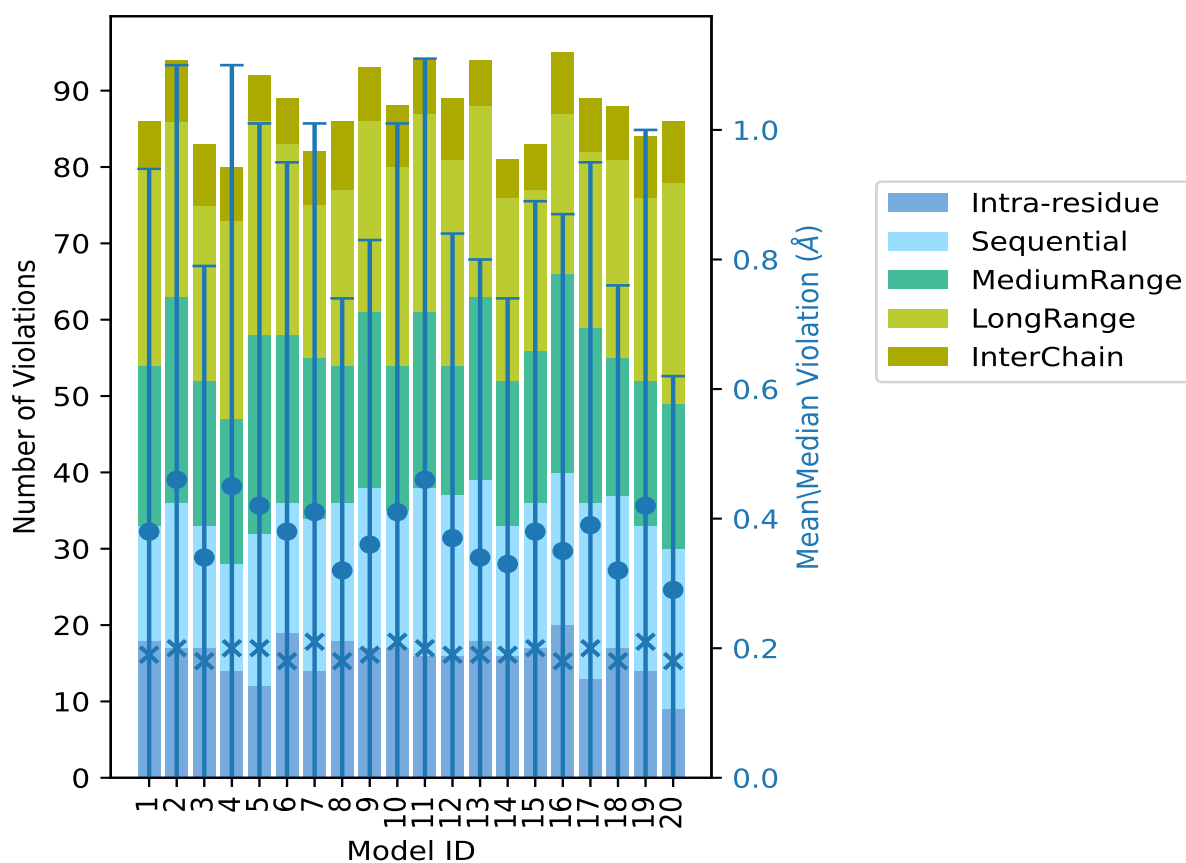
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| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD ⁶ (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
| | IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | | | | |
| 12 | 16 | 21 | 17 | 27 | 8 | 89 | 0.37 | 2.78 | 0.47 | 0.19 |
| 13 | 18 | 21 | 24 | 25 | 6 | 94 | 0.34 | 2.95 | 0.46 | 0.19 |
| 14 | 16 | 17 | 19 | 24 | 5 | 81 | 0.33 | 2.87 | 0.41 | 0.19 |
| 15 | 17 | 19 | 20 | 21 | 6 | 83 | 0.38 | 3.04 | 0.51 | 0.2 |
| 16 | 20 | 20 | 26 | 21 | 8 | 95 | 0.35 | 3.09 | 0.52 | 0.18 |
| 17 | 13 | 23 | 23 | 23 | 7 | 89 | 0.39 | 3.02 | 0.56 | 0.2 |
| 18 | 17 | 20 | 18 | 26 | 7 | 88 | 0.32 | 3.08 | 0.44 | 0.18 |
| 19 | 14 | 19 | 19 | 24 | 8 | 84 | 0.42 | 3.03 | 0.58 | 0.21 |
| 20 | 9 | 21 | 19 | 29 | 8 | 86 | 0.29 | 1.8 | 0.33 | 0.18 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints, ⁵Inter-chain restraints, ⁶Standard deviation

9.2.1 Bar graph : Distance Violation statistics for each model



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

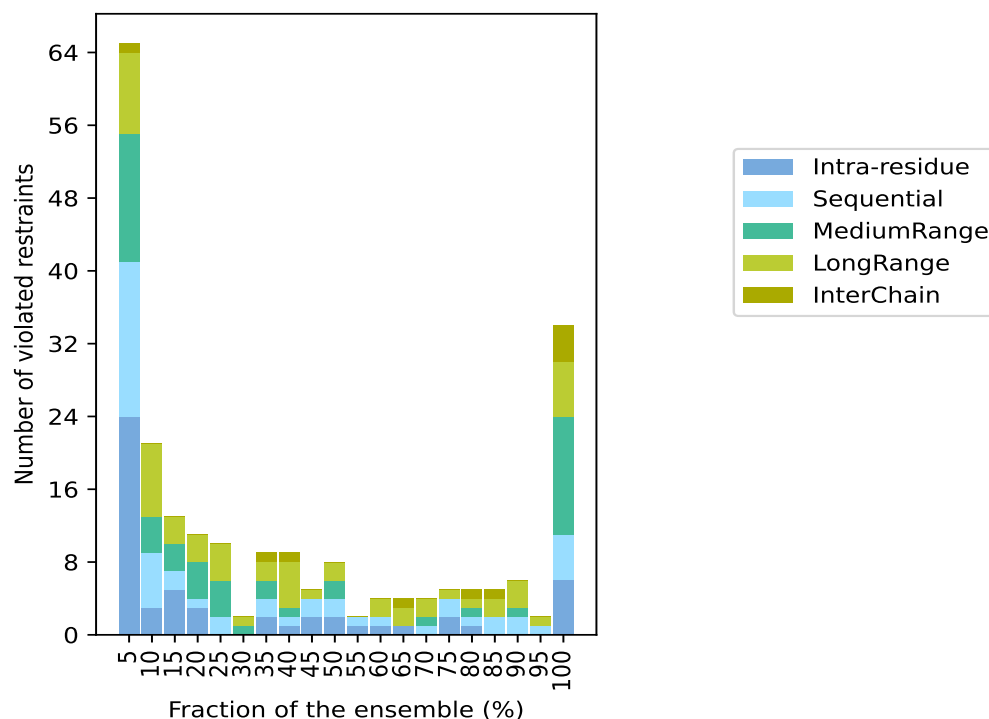
9.3 Distance violation statistics for the ensemble

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 1117(IR:371, SQ:432, MR:121, LR:172, IC:21) restraints are not violated in the ensemble.

| Number of violated restraints | | | | | | Fraction of the ensemble | |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|-------|
| IR ¹ | SQ ² | MR ³ | LR ⁴ | IC ⁵ | Total | Count ⁶ | % |
| 24 | 17 | 14 | 9 | 1 | 65 | 1 | 5.0 |
| 3 | 6 | 4 | 8 | 0 | 21 | 2 | 10.0 |
| 5 | 2 | 3 | 3 | 0 | 13 | 3 | 15.0 |
| 3 | 1 | 4 | 3 | 0 | 11 | 4 | 20.0 |
| 0 | 2 | 4 | 4 | 0 | 10 | 5 | 25.0 |
| 0 | 0 | 1 | 1 | 0 | 2 | 6 | 30.0 |
| 2 | 2 | 2 | 2 | 1 | 9 | 7 | 35.0 |
| 1 | 1 | 1 | 5 | 1 | 9 | 8 | 40.0 |
| 2 | 2 | 0 | 1 | 0 | 5 | 9 | 45.0 |
| 2 | 2 | 2 | 2 | 0 | 8 | 10 | 50.0 |
| 1 | 1 | 0 | 0 | 0 | 2 | 11 | 55.0 |
| 1 | 1 | 0 | 2 | 0 | 4 | 12 | 60.0 |
| 1 | 0 | 0 | 2 | 1 | 4 | 13 | 65.0 |
| 0 | 1 | 1 | 2 | 0 | 4 | 14 | 70.0 |
| 2 | 2 | 0 | 1 | 0 | 5 | 15 | 75.0 |
| 1 | 1 | 1 | 1 | 1 | 5 | 16 | 80.0 |
| 0 | 2 | 0 | 2 | 1 | 5 | 17 | 85.0 |
| 0 | 2 | 1 | 3 | 0 | 6 | 18 | 90.0 |
| 0 | 1 | 0 | 1 | 0 | 2 | 19 | 95.0 |
| 6 | 5 | 13 | 6 | 4 | 34 | 20 | 100.0 |

¹Intra-residue restraints, ²Sequential restraints, ³Medium range restraints, ⁴Long range restraints, ⁵Inter-chain restraints, ⁶ Number of models with violations

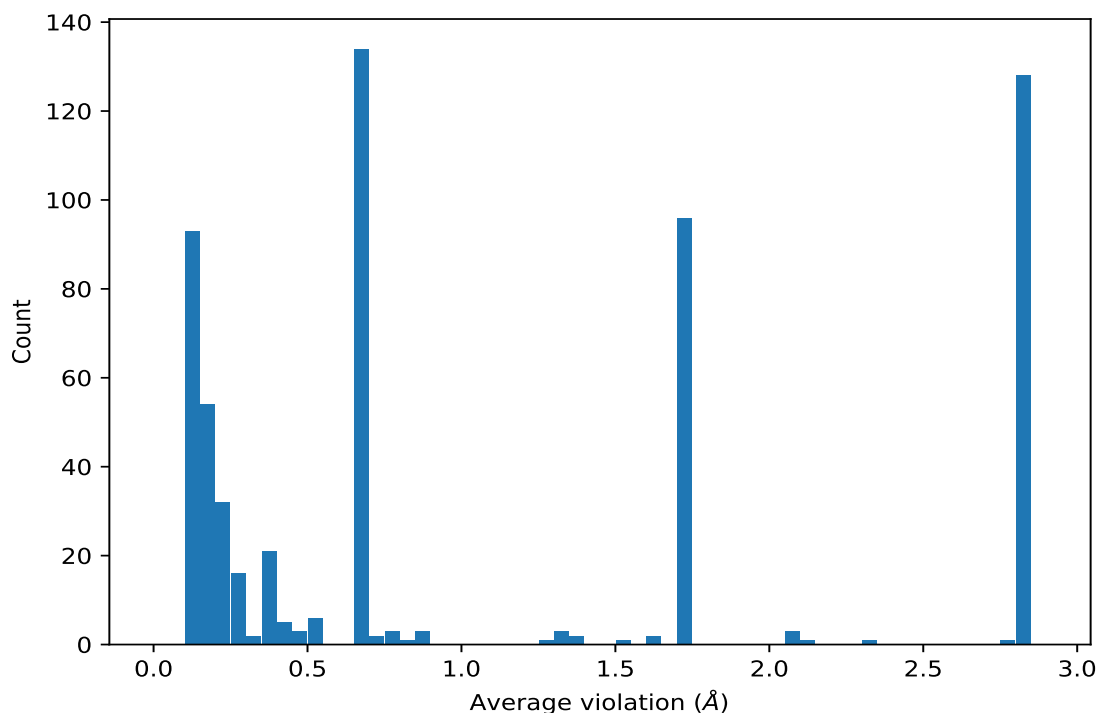
9.3.1 Bar graph : Distance violation statistics for the ensemble [i](#)



9.4 Most violated distance restraints in the ensemble [i](#)

9.4.1 Histogram : Distribution of mean distance violations [i](#)

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models in the ensemble



9.4.2 Table: Most violated distance restraints [i](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|-------|----------------|------------------|---------------------|----------|---------------------|------------|
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|-------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|-------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|---------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 20 | 2.82 | 0.31 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 20 | 2.82 | 0.31 | 2.92 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 20 | 0.85 | 0.02 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 20 | 0.85 | 0.02 | 0.85 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 20 | 0.78 | 0.1 | 0.78 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 20 | 0.78 | 0.1 | 0.78 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 20 | 0.71 | 0.05 | 0.72 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 20 | 0.51 | 0.03 | 0.5 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 20 | 0.51 | 0.03 | 0.5 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 20 | 0.5 | 0.02 | 0.51 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 20 | 0.5 | 0.02 | 0.51 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 20 | 0.5 | 0.03 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 20 | 0.5 | 0.03 | 0.5 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 20 | 0.48 | 0.04 | 0.48 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 20 | 0.48 | 0.04 | 0.48 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 20 | 0.41 | 0.04 | 0.44 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-------------------|-------------------|---------------------|----------|---------------------|------------|
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 20 | 0.41 | 0.04 | 0.42 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 20 | 0.41 | 0.04 | 0.42 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 20 | 0.37 | 0.06 | 0.38 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 20 | 0.36 | 0.02 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 20 | 0.36 | 0.02 | 0.35 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 20 | 0.31 | 0.01 | 0.31 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 20 | 0.31 | 0.01 | 0.31 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 20 | 0.28 | 0.04 | 0.29 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 20 | 0.28 | 0.1 | 0.32 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 20 | 0.27 | 0.01 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 20 | 0.27 | 0.01 | 0.27 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 20 | 0.26 | 0.04 | 0.26 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 20 | 0.25 | 0.01 | 0.25 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 20 | 0.25 | 0.04 | 0.24 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 20 | 0.25 | 0.04 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 20 | 0.24 | 0.06 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 20 | 0.24 | 0.06 | 0.24 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 20 | 0.22 | 0.02 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 20 | 0.22 | 0.04 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 20 | 0.22 | 0.04 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 20 | 0.22 | 0.04 | 0.22 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 20 | 0.22 | 0.06 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 20 | 0.22 | 0.06 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 20 | 0.22 | 0.06 | 0.2 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-------------------|---------------------|----------|---------------------|------------|
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 20 | 0.21 | 0.04 | 0.2 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 20 | 0.21 | 0.04 | 0.2 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 20 | 0.21 | 0.04 | 0.2 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 20 | 0.21 | 0.03 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 20 | 0.21 | 0.03 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 20 | 0.21 | 0.03 | 0.21 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 20 | 0.2 | 0.02 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 20 | 0.2 | 0.01 | 0.2 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 20 | 0.19 | 0.04 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 20 | 0.18 | 0.01 | 0.18 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 20 | 0.17 | 0.03 | 0.16 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 20 | 0.17 | 0.03 | 0.18 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 20 | 0.16 | 0.02 | 0.16 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 20 | 0.15 | 0.03 | 0.16 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 20 | 0.15 | 0.02 | 0.15 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 19 | 0.74 | 0.25 | 0.72 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 19 | 0.17 | 0.05 | 0.17 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 18 | 1.37 | 0.3 | 1.36 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 18 | 1.37 | 0.3 | 1.36 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 18 | 0.21 | 0.04 | 0.2 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 18 | 0.2 | 0.05 | 0.22 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 18 | 0.17 | 0.03 | 0.17 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 18 | 0.15 | 0.02 | 0.15 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 18 | 0.13 | 0.01 | 0.13 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|-------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|-------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-------------------|---------------------|----------|---------------------|------------|
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 17 | 1.72 | 0.6 | 1.77 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 17 | 1.72 | 0.6 | 1.77 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 17 | 0.17 | 0.04 | 0.18 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 17 | 0.15 | 0.04 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 17 | 0.15 | 0.04 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 17 | 0.15 | 0.04 | 0.15 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 17 | 0.15 | 0.03 | 0.14 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 17 | 0.14 | 0.03 | 0.16 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 16 | 2.3 | 0.57 | 2.45 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 16 | 0.22 | 0.07 | 0.2 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 16 | 0.22 | 0.11 | 0.18 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 16 | 0.19 | 0.05 | 0.19 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 16 | 0.14 | 0.03 | 0.13 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 15 | 1.25 | 0.83 | 0.82 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 15 | 0.18 | 0.05 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 15 | 0.17 | 0.02 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 15 | 0.17 | 0.02 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 15 | 0.17 | 0.02 | 0.17 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 15 | 0.12 | 0.01 | 0.12 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 15 | 0.12 | 0.01 | 0.12 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 14 | 0.86 | 0.25 | 0.96 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 14 | 0.17 | 0.02 | 0.18 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 14 | 0.15 | 0.03 | 0.14 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 14 | 0.12 | 0.01 | 0.12 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|-------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|-------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-------------------|------------------|---------------------|----------|---------------------|------------|
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 13 | 0.65 | 0.48 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 13 | 0.65 | 0.48 | 0.55 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 13 | 0.19 | 0.06 | 0.2 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 13 | 0.14 | 0.01 | 0.13 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 13 | 0.13 | 0.02 | 0.13 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 12 | 0.25 | 0.05 | 0.27 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 12 | 0.25 | 0.05 | 0.27 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 12 | 0.25 | 0.05 | 0.27 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 12 | 0.18 | 0.03 | 0.18 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 12 | 0.13 | 0.01 | 0.13 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 12 | 0.12 | 0.01 | 0.12 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 11 | 0.18 | 0.04 | 0.2 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 11 | 0.13 | 0.01 | 0.13 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 10 | 2.78 | 0.8 | 3.03 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 10 | 0.75 | 0.2 | 0.81 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 10 | 0.26 | 0.06 | 0.27 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 10 | 0.26 | 0.06 | 0.27 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-------------------|-------------------|---------------------|----------|---------------------|------------|
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 10 | 0.26 | 0.06 | 0.27 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 10 | 0.16 | 0.04 | 0.17 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 10 | 0.16 | 0.04 | 0.17 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 10 | 0.16 | 0.04 | 0.17 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 10 | 0.16 | 0.04 | 0.15 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 10 | 0.15 | 0.05 | 0.13 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 10 | 0.14 | 0.01 | 0.13 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 10 | 0.13 | 0.01 | 0.13 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 9 | 0.28 | 0.0 | 0.28 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 9 | 0.15 | 0.02 | 0.16 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 9 | 0.15 | 0.02 | 0.15 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 9 | 0.14 | 0.02 | 0.14 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 9 | 0.14 | 0.02 | 0.14 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 9 | 0.13 | 0.01 | 0.13 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 8 | 2.11 | 0.76 | 2.36 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 8 | 2.05 | 0.93 | 1.74 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 8 | 2.05 | 0.93 | 1.74 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 8 | 2.05 | 0.93 | 1.74 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 8 | 1.51 | 0.46 | 1.54 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 8 | 0.28 | 0.08 | 0.25 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 8 | 0.2 | 0.06 | 0.19 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 8 | 0.2 | 0.06 | 0.19 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 8 | 0.2 | 0.06 | 0.19 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 8 | 0.16 | 0.03 | 0.15 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 8 | 0.16 | 0.04 | 0.15 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 8 | 0.15 | 0.03 | 0.13 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 8 | 0.14 | 0.01 | 0.14 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 7 | 1.3 | 0.19 | 1.32 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 7 | 1.3 | 0.19 | 1.32 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 7 | 1.3 | 0.19 | 1.32 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 7 | 0.84 | 0.28 | 0.85 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 7 | 0.42 | 0.24 | 0.29 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 7 | 0.42 | 0.24 | 0.29 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 7 | 0.24 | 0.09 | 0.28 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 7 | 0.17 | 0.05 | 0.16 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 7 | 0.14 | 0.02 | 0.14 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 7 | 0.14 | 0.03 | 0.12 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 7 | 0.13 | 0.01 | 0.13 |
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 7 | 0.12 | 0.02 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 7 | 0.12 | 0.02 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 7 | 0.12 | 0.02 | 0.12 |
| (1,857) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HE1 | 6 | 1.64 | 0.23 | 1.58 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|-------------------|-------------------|---------------------|----------|---------------------|------------|
| (1,857) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HE1 | 6 | 1.64 | 0.23 | 1.58 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG21 | 6 | 0.14 | 0.02 | 0.15 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG22 | 6 | 0.14 | 0.02 | 0.15 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG23 | 6 | 0.14 | 0.02 | 0.15 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD11 | 5 | 0.67 | 0.49 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD12 | 5 | 0.67 | 0.49 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD13 | 5 | 0.67 | 0.49 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD21 | 5 | 0.67 | 0.49 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD22 | 5 | 0.67 | 0.49 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD23 | 5 | 0.67 | 0.49 | 0.55 |
| (1,766) | 1:A:2321:PHE:HD2 | 1:A:2322:VAL:H | 5 | 0.22 | 0.07 | 0.21 |
| (1,603) | 1:A:2305:TYR:HB2 | 1:A:2306:GLU:H | 5 | 0.17 | 0.04 | 0.16 |
| (1,609) | 1:A:2305:TYR:HD1 | 1:A:2325:VAL:HB | 5 | 0.16 | 0.04 | 0.17 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG11 | 5 | 0.14 | 0.02 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG12 | 5 | 0.14 | 0.02 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG13 | 5 | 0.14 | 0.02 | 0.16 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB1 | 5 | 0.14 | 0.02 | 0.14 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB2 | 5 | 0.14 | 0.02 | 0.14 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB3 | 5 | 0.14 | 0.02 | 0.14 |
| (1,719) | 1:A:2315:HIS:HE1 | 1:A:2319:SER:HA | 5 | 0.14 | 0.02 | 0.14 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB1 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB2 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB3 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB1 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB2 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB3 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB1 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB2 | 5 | 0.13 | 0.01 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB3 | 5 | 0.13 | 0.01 | 0.13 |
| (1,108) | 1:A:2246:PRO:HB3 | 1:A:2259:PHE:HA | 5 | 0.13 | 0.02 | 0.12 |
| (1,241) | 1:A:2254:GLY:H | 1:A:2300:GLN:HA | 5 | 0.13 | 0.01 | 0.13 |
| (1,587) | 1:A:2304:ASP:H | 1:A:2304:ASP:HB3 | 4 | 0.2 | 0.01 | 0.2 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD2 | 4 | 0.16 | 0.06 | 0.13 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD3 | 4 | 0.16 | 0.06 | 0.13 |
| (1,631) | 1:A:2307:VAL:HB | 1:A:2309:VAL:HA | 4 | 0.15 | 0.03 | 0.14 |
| (1,6) | 1:A:2237:GLY:HA3 | 1:A:2240:LYS:HB3 | 4 | 0.14 | 0.02 | 0.12 |
| (1,137) | 1:A:2248:LEU:HD21 | 1:A:2307:VAL:HB | 4 | 0.14 | 0.03 | 0.12 |
| (1,137) | 1:A:2248:LEU:HD22 | 1:A:2307:VAL:HB | 4 | 0.14 | 0.03 | 0.12 |
| (1,137) | 1:A:2248:LEU:HD23 | 1:A:2307:VAL:HB | 4 | 0.14 | 0.03 | 0.12 |
| (1,428) | 1:A:2279:SER:HB2 | 1:A:2280:LYS:H | 4 | 0.13 | 0.02 | 0.14 |
| (1,642) | 1:A:2308:SER:HB2 | 1:A:2310:LYS:HE3 | 4 | 0.12 | 0.01 | 0.12 |
| (1,866) | 2:B:992:PHE:HD1 | 2:B:995:ARG:HA | 4 | 0.12 | 0.01 | 0.12 |

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| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-------------------|---------------------|----------|---------------------|------------|
| (1,866) | 2:B:992:PHE:HD2 | 2:B:995:ARG:HA | 4 | 0.12 | 0.01 | 0.12 |
| (1,269) | 1:A:2257:ALA:H | 1:A:2298:VAL:HB | 4 | 0.12 | 0.02 | 0.11 |
| (1,696) | 1:A:2314:GLU:H | 1:A:2314:GLU:HB3 | 4 | 0.12 | 0.01 | 0.12 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG11 | 4 | 0.11 | 0.0 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG12 | 4 | 0.11 | 0.0 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG13 | 4 | 0.11 | 0.0 | 0.11 |
| (1,996) | 2:B:1008:GLU:H | 2:B:1006:GLU:HA | 3 | 0.49 | 0.21 | 0.63 |
| (1,1307) | 3:C:762:THR:H | 3:C:762:THR:HB | 3 | 0.23 | 0.01 | 0.23 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD11 | 3 | 0.2 | 0.0 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD12 | 3 | 0.2 | 0.0 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD13 | 3 | 0.2 | 0.0 | 0.2 |
| (1,437) | 1:A:2279:SER:HB3 | 1:A:2301:GLU:HG3 | 3 | 0.17 | 0.04 | 0.19 |
| (1,573) | 1:A:2301:GLU:H | 1:A:2301:GLU:HG3 | 3 | 0.15 | 0.0 | 0.15 |
| (1,81) | 1:A:2243:ALA:HB1 | 1:A:2248:LEU:HB2 | 3 | 0.14 | 0.01 | 0.14 |
| (1,81) | 1:A:2243:ALA:HB2 | 1:A:2248:LEU:HB2 | 3 | 0.14 | 0.01 | 0.14 |
| (1,81) | 1:A:2243:ALA:HB3 | 1:A:2248:LEU:HB2 | 3 | 0.14 | 0.01 | 0.14 |
| (1,422) | 1:A:2278:PRO:HB2 | 1:A:2305:TYR:HA | 3 | 0.14 | 0.03 | 0.12 |
| (1,9) | 1:A:2238:ALA:H | 1:A:2239:HIS:HA | 3 | 0.13 | 0.02 | 0.12 |
| (1,597) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB3 | 3 | 0.12 | 0.02 | 0.11 |
| (1,1114) | 3:C:731:GLU:HG3 | 3:C:733:GLU:H | 3 | 0.12 | 0.01 | 0.11 |
| (1,460) | 1:A:2282:GLU:H | 1:A:2282:GLU:HB3 | 3 | 0.11 | 0.0 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG21 | 3 | 0.11 | 0.0 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG22 | 3 | 0.11 | 0.0 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG23 | 3 | 0.11 | 0.0 | 0.11 |
| (1,813) | 1:A:2329:SER:HB3 | 1:A:2330:GLY:HA3 | 3 | 0.11 | 0.0 | 0.11 |
| (1,375) | 1:A:2274:ALA:HA | 1:A:2308:SER:HB3 | 2 | 0.2 | 0.0 | 0.2 |
| (1,579) | 1:A:2303:GLY:HA2 | 1:A:2324:PRO:HB3 | 2 | 0.16 | 0.0 | 0.16 |
| (1,1090) | 3:C:729:LYS:HD3 | 3:C:731:GLU:H | 2 | 0.15 | 0.0 | 0.15 |
| (1,606) | 1:A:2305:TYR:H | 1:A:2323:VAL:H | 2 | 0.14 | 0.0 | 0.14 |
| (1,1129) | 3:C:733:GLU:H | 3:C:729:LYS:HD2 | 2 | 0.14 | 0.01 | 0.14 |
| (1,1129) | 3:C:733:GLU:H | 3:C:729:LYS:HD3 | 2 | 0.14 | 0.01 | 0.14 |
| (1,429) | 1:A:2279:SER:H | 1:A:2280:LYS:HA | 2 | 0.14 | 0.01 | 0.14 |
| (1,170) | 1:A:2251:ALA:H | 1:A:2324:PRO:HA | 2 | 0.13 | 0.02 | 0.13 |
| (1,438) | 1:A:2279:SER:HB3 | 1:A:2301:GLU:HG2 | 2 | 0.13 | 0.01 | 0.13 |
| (1,1137) | 3:C:733:GLU:HA | 3:C:735:ALA:H | 2 | 0.12 | 0.02 | 0.12 |
| (1,299) | 1:A:2261:ILE:HA | 1:A:2263:THR:H | 2 | 0.12 | 0.0 | 0.12 |
| (1,426) | 1:A:2279:SER:HB3 | 1:A:2280:LYS:H | 2 | 0.12 | 0.0 | 0.12 |
| (1,566) | 1:A:2300:GLN:HB2 | 1:A:2301:GLU:H | 2 | 0.12 | 0.0 | 0.12 |
| (1,582) | 1:A:2303:GLY:H | 1:A:2325:VAL:HB | 2 | 0.12 | 0.0 | 0.12 |
| (1,851) | 2:B:991:GLY:HA3 | 2:B:992:PHE:HE1 | 2 | 0.12 | 0.0 | 0.12 |
| (1,851) | 2:B:991:GLY:HA3 | 2:B:992:PHE:HE2 | 2 | 0.12 | 0.0 | 0.12 |
| (1,1044) | 3:C:725:LYS:H | 3:C:725:LYS:HD2 | 2 | 0.12 | 0.0 | 0.12 |

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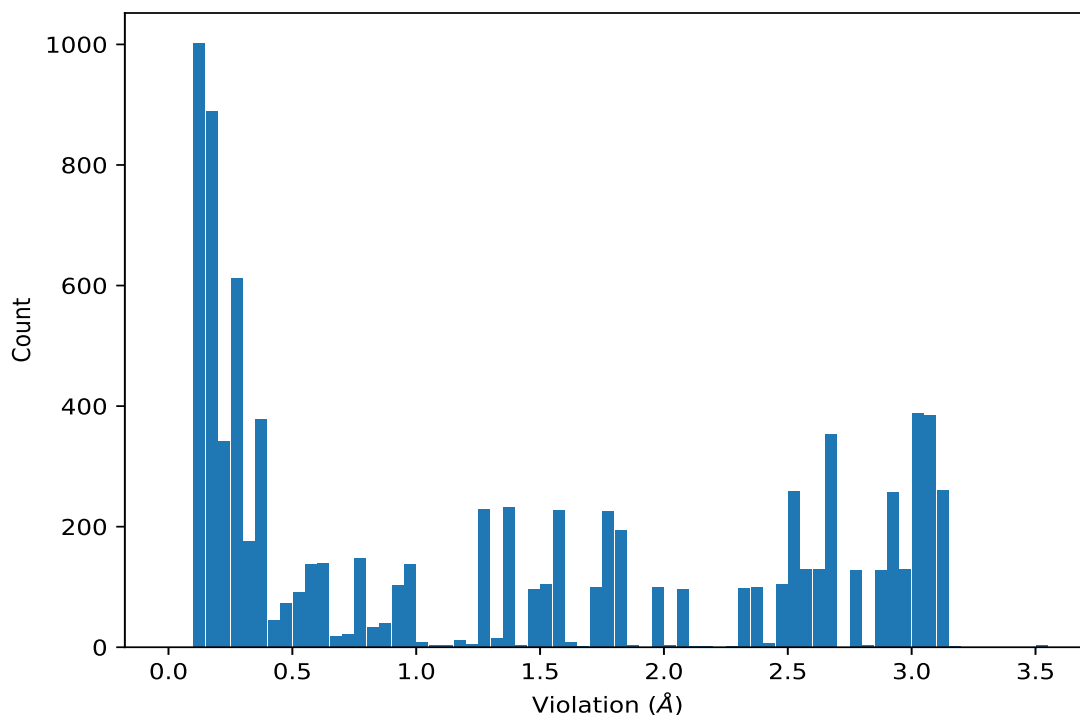
| Key | Atom-1 | Atom-2 | Models ¹ | Mean (Å) | SD ¹ (Å) | Median (Å) |
|----------|------------------|-------------------|---------------------|----------|---------------------|------------|
| (1,1044) | 3:C:725:LYS:H | 3:C:725:LYS:HD3 | 2 | 0.12 | 0.0 | 0.12 |
| (1,152) | 1:A:2250:ARG:HG3 | 1:A:2251:ALA:H | 2 | 0.11 | 0.0 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG21 | 2 | 0.11 | 0.0 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG22 | 2 | 0.11 | 0.0 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG23 | 2 | 0.11 | 0.0 | 0.11 |
| (1,399) | 1:A:2275:VAL:HA | 1:A:2308:SER:H | 2 | 0.11 | 0.0 | 0.11 |
| (1,816) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB2 | 2 | 0.11 | 0.0 | 0.11 |
| (1,997) | 2:B:1008:GLU:H | 2:B:1008:GLU:HG2 | 2 | 0.11 | 0.0 | 0.11 |
| (1,997) | 2:B:1008:GLU:H | 2:B:1008:GLU:HG3 | 2 | 0.11 | 0.0 | 0.11 |
| (1,1103) | 3:C:730:PHE:HA | 3:C:731:GLU:H | 2 | 0.11 | 0.0 | 0.11 |

¹Number of violated models, ²Standard deviation

9.5 All violated distance restraints [i](#)

9.5.1 Histogram : Distribution of distance violations [i](#)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



9.5.2 Table : All distance violations [i](#)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|------------------|----------|---------------|
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 10 | 3.55 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 10 | 3.55 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 10 | 3.55 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 4 | 3.16 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 11 | 3.14 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 11 | 3.14 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 11 | 3.14 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 10 | 3.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 10 | 3.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 10 | 3.12 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 10 | 3.12 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 7 | 3.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 7 | 3.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 7 | 3.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 7 | 3.11 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 7 | 3.11 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 5 | 3.11 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 16 | 3.09 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 16 | 3.09 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 16 | 3.09 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 16 | 3.09 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 1 | 3.09 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
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| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
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| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 6 | 3.08 |
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| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 6 | 3.08 |
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| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 6 | 3.08 |
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| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
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| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 6 | 3.08 |
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| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 6 | 3.08 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 6 | 3.08 |
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| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 6 | 3.08 |
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| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 6 | 3.08 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 6 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 6 | 3.08 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 18 | 3.08 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 18 | 3.08 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 18 | 3.08 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 18 | 3.08 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 7 | 3.04 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 15 | 3.04 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 19 | 3.03 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 19 | 3.03 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 19 | 3.03 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 19 | 3.03 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 1 | 3.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 1 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 1 | 3.02 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 17 | 3.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 17 | 3.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 17 | 3.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 17 | 3.02 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 17 | 3.02 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 6 | 3.02 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 16 | 3.02 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 17 | 2.99 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 13 | 2.95 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 13 | 2.95 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 13 | 2.95 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 13 | 2.95 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 13 | 2.95 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 11 | 2.93 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 11 | 2.93 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 11 | 2.93 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 11 | 2.93 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 3 | 2.92 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 3 | 2.92 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 3 | 2.92 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 2 | 2.92 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
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| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 14 | 2.87 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 14 | 2.87 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|------------------|----------|---------------|
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 14 | 2.87 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 14 | 2.87 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 4 | 2.82 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 4 | 2.82 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 4 | 2.82 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 12 | 2.78 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 12 | 2.78 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 12 | 2.78 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 12 | 2.78 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 4 | 2.68 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 4 | 2.68 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 4 | 2.68 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 4 | 2.68 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 2 | 2.67 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 2 | 2.67 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 2 | 2.67 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 2 | 2.67 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 2 | 2.67 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 4 | 2.66 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 4 | 2.66 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|--------|-----------------|------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 4 | 2.66 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 4 | 2.66 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 11 | 2.66 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 5 | 2.63 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 5 | 2.63 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 5 | 2.63 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|--------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 5 | 2.63 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 5 | 2.63 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 12 | 2.63 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 15 | 2.56 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 15 | 2.56 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 15 | 2.56 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 4 | 2.56 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 2 | 2.54 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 9 | 2.52 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 9 | 2.52 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 9 | 2.52 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 9 | 2.52 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 8 | 2.51 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 8 | 2.51 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 8 | 2.51 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 8 | 2.51 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 5 | 2.51 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 11 | 2.49 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 2 | 2.48 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 9 | 2.48 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 17 | 2.48 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 19 | 2.48 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 1 | 2.47 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 5 | 2.45 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 5 | 2.45 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 5 | 2.45 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 5 | 2.45 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 11 | 2.45 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 13 | 2.45 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 3 | 2.44 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 18 | 2.44 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 17 | 2.42 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 9 | 2.42 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 6 | 2.41 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 7 | 2.41 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 19 | 2.38 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 10 | 2.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 10 | 2.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 10 | 2.35 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 10 | 2.35 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 19 | 2.35 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 5 | 2.35 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 15 | 2.34 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 16 | 2.34 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 8 | 2.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 8 | 2.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 8 | 2.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 8 | 2.32 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 8 | 2.32 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 2 | 2.29 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 10 | 2.17 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 7 | 2.14 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 6 | 2.09 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 6 | 2.09 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 6 | 2.09 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 6 | 2.09 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 19 | 2.04 |
| (1,857) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HE1 | 2 | 2.01 |
| (1,857) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HE1 | 2 | 2.01 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 19 | 1.98 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 19 | 1.98 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|------------------|----------|---------------|
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 19 | 1.98 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 19 | 1.98 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 13 | 1.95 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 13 | 1.95 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 13 | 1.95 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 11 | 1.87 |
| (1,857) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HE1 | 7 | 1.85 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (1,857) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HE1 | 7 | 1.85 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 2 | 1.83 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 2 | 1.83 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-----------------|----------|---------------|
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 2 | 1.83 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 2 | 1.83 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 2 | 1.81 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 2 | 1.81 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 20 | 1.8 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 20 | 1.8 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 20 | 1.8 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 20 | 1.8 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 16 | 1.77 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 16 | 1.77 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 16 | 1.77 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 16 | 1.77 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,1) | 3:C:716:LYS:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:NZ | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:716:LYS:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:NZ | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:717:LYS:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:NZ | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:718:LYS:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:719:ILE:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:N | 20 | 1.77 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:720:THR:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:720:THR:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:720:THR:OG1 | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:721:ILE:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:ND1 | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:NE2 | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:722:HIS:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,1) | 3:C:723:ASP:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD1 | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:723:ASP:OD2 | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NE | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH1 | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:NH2 | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:724:ARG:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:N | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:NZ | 1:A:2239:HIS:O | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:N | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:ND1 | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:NE2 | 20 | 1.77 |
| (2,1) | 3:C:725:LYS:O | 1:A:2239:HIS:O | 20 | 1.77 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 6 | 1.76 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-----------------|----------|---------------|
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 6 | 1.76 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 1 | 1.73 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 1 | 1.73 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 1 | 1.73 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 1 | 1.73 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 14 | 1.73 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 12 | 1.71 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 12 | 1.71 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 20 | 1.7 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 3 | 1.65 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 3 | 1.65 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 1 | 1.64 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 1 | 1.64 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 13 | 1.62 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 13 | 1.62 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 2 | 1.6 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 11 | 1.6 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 11 | 1.6 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 11 | 1.6 |
| (1,857) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HE1 | 6 | 1.58 |
| (1,857) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HE1 | 6 | 1.58 |
| (1,857) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HE1 | 11 | 1.58 |
| (1,857) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HE1 | 11 | 1.58 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 10 | 1.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 10 | 1.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 10 | 1.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 10 | 1.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 10 | 1.55 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 7 | 1.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 7 | 1.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 7 | 1.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|-----------------|----------|---------------|
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 7 | 1.55 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 7 | 1.55 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 15 | 1.53 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 15 | 1.53 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 15 | 1.53 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 15 | 1.53 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 14 | 1.53 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 14 | 1.53 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 14 | 1.53 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 8 | 1.51 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 8 | 1.51 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 10 | 1.51 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 10 | 1.51 |
| (1,857) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HE1 | 5 | 1.51 |
| (1,857) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HE1 | 5 | 1.51 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 11 | 1.47 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 11 | 1.47 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|--------|------------------|------------------|----------|---------------|
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 11 | 1.47 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 11 | 1.47 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 2 | 1.4 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 2 | 1.4 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 2 | 1.4 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 8 | 1.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 8 | 1.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 8 | 1.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 8 | 1.39 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 8 | 1.39 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 8 | 1.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 14 | 1.38 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 14 | 1.38 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 11 | 1.37 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 9 | 1.36 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 9 | 1.36 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 9 | 1.36 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 9 | 1.36 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 17 | 1.35 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 17 | 1.35 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 9 | 1.35 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 9 | 1.35 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 9 | 1.35 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 15 | 1.33 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 15 | 1.33 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 13 | 1.33 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 10 | 1.32 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 10 | 1.32 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 10 | 1.32 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD11 | 9 | 1.31 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD12 | 9 | 1.31 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD13 | 9 | 1.31 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD21 | 9 | 1.31 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD22 | 9 | 1.31 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD23 | 9 | 1.31 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 12 | 1.31 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 12 | 1.31 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 12 | 1.31 |
| (1,857) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HE1 | 16 | 1.29 |
| (1,857) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HE1 | 16 | 1.29 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 18 | 1.29 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 18 | 1.29 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 18 | 1.29 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 12 | 1.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 12 | 1.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 12 | 1.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 12 | 1.28 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 12 | 1.28 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 2 | 1.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 2 | 1.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 2 | 1.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 2 | 1.26 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 11 | 1.22 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 11 | 1.22 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 5 | 1.21 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 5 | 1.21 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 5 | 1.21 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 12 | 1.17 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD11 | 4 | 1.16 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD12 | 4 | 1.16 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD13 | 4 | 1.16 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD21 | 4 | 1.16 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD22 | 4 | 1.16 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD23 | 4 | 1.16 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 18 | 1.16 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 18 | 1.16 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 20 | 1.15 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 20 | 1.15 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 7 | 1.13 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 7 | 1.13 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 5 | 1.1 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 5 | 1.1 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 12 | 1.09 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 12 | 1.09 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 12 | 1.09 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 4 | 1.03 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 11 | 1.03 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 1 | 1.02 |
| (1,365) | 1:A:2273:ILE:HD11 | 1:A:2285:PHE:HE2 | 17 | 1.01 |
| (1,365) | 1:A:2273:ILE:HD12 | 1:A:2285:PHE:HE2 | 17 | 1.01 |
| (1,365) | 1:A:2273:ILE:HD13 | 1:A:2285:PHE:HE2 | 17 | 1.01 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 3 | 1.01 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 9 | 1.01 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 17 | 1.01 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 11 | 0.99 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 11 | 0.99 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 11 | 0.99 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 18 | 0.98 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 12 | 0.98 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 19 | 0.97 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 19 | 0.97 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 12 | 0.97 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 4 | 0.95 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 4 | 0.95 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 5 | 0.95 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 10 | 0.95 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 13 | 0.93 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 13 | 0.93 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 13 | 0.93 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 13 | 0.93 |
| (1,23) | 1:A:2238:ALA:HB1 | 1:A:2311:PHE:HD2 | 19 | 0.93 |
| (1,23) | 1:A:2238:ALA:HB2 | 1:A:2311:PHE:HD2 | 19 | 0.93 |
| (1,23) | 1:A:2238:ALA:HB3 | 1:A:2311:PHE:HD2 | 19 | 0.93 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 16 | 0.92 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 3 | 0.91 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 3 | 0.91 |
| (1,658) | 1:A:2309:VAL:HB | 1:A:2321:PHE:HE1 | 9 | 0.89 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 14 | 0.89 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 3 | 0.88 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 3 | 0.88 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 15 | 0.88 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 15 | 0.88 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 19 | 0.88 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 19 | 0.88 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 1 | 0.87 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 1 | 0.87 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 4 | 0.87 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 4 | 0.87 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 13 | 0.87 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 13 | 0.87 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 6 | 0.87 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 6 | 0.87 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 4 | 0.87 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 15 | 0.87 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 9 | 0.86 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 9 | 0.86 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 10 | 0.86 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 10 | 0.86 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 16 | 0.86 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 16 | 0.86 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 19 | 0.86 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 5 | 0.86 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 12 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 12 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 14 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 14 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 17 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 17 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 18 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 18 | 0.85 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 13 | 0.85 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 13 | 0.85 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 20 | 0.85 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 6 | 0.85 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 4 | 0.85 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 10 | 0.85 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 5 | 0.84 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 5 | 0.84 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 6 | 0.84 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 6 | 0.84 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 8 | 0.84 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 8 | 0.84 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 11 | 0.84 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 11 | 0.84 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 1 | 0.84 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 1 | 0.84 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 9 | 0.84 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 9 | 0.84 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 12 | 0.83 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 12 | 0.83 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 15 | 0.83 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 15 | 0.83 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 1 | 0.83 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 4 | 0.83 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 16 | 0.83 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 7 | 0.82 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 7 | 0.82 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 5 | 0.82 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 15 | 0.82 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 20 | 0.81 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 20 | 0.81 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 3 | 0.8 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 3 | 0.8 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 4 | 0.8 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 4 | 0.8 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 2 | 0.8 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 15 | 0.8 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 17 | 0.8 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 1 | 0.8 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE1 | 2 | 0.79 |
| (1,927) | 2:B:995:ARG:HB2 | 2:B:992:PHE:HE2 | 2 | 0.79 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 17 | 0.79 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 17 | 0.79 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 19 | 0.78 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 5 | 0.78 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 5 | 0.78 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 7 | 0.77 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 2 | 0.77 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 7 | 0.76 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 7 | 0.76 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 7 | 0.76 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 7 | 0.76 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 7 | 0.76 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 5 | 0.76 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 5 | 0.76 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 3 | 0.76 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 2 | 0.76 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 2 | 0.76 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 6 | 0.75 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 9 | 0.75 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 12 | 0.75 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 16 | 0.75 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 16 | 0.75 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 13 | 0.74 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 15 | 0.74 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 14 | 0.74 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 14 | 0.74 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 6 | 0.74 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 18 | 0.74 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 9 | 0.74 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 17 | 0.73 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 3 | 0.73 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 1 | 0.72 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 4 | 0.72 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 10 | 0.72 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 10 | 0.72 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 11 | 0.72 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 11 | 0.72 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 9 | 0.72 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 12 | 0.72 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 5 | 0.71 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 10 | 0.7 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 16 | 0.7 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 3 | 0.7 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 2 | 0.69 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 14 | 0.69 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 15 | 0.69 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 1 | 0.68 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 18 | 0.67 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 18 | 0.67 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 18 | 0.67 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG2 | 19 | 0.66 |
| (1,932) | 2:B:996:ASN:HD21 | 2:B:995:ARG:HG3 | 19 | 0.66 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 8 | 0.66 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 11 | 0.66 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 11 | 0.66 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 14 | 0.66 |
| (1,996) | 2:B:1008:GLU:H | 2:B:1006:GLU:HA | 14 | 0.65 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 7 | 0.65 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 7 | 0.65 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 8 | 0.65 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 8 | 0.65 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 19 | 0.64 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 19 | 0.64 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 8 | 0.64 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 2 | 0.64 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|------------------|----------|---------------|
| (1,996) | 2:B:1008:GLU:H | 2:B:1006:GLU:HA | 13 | 0.63 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 10 | 0.62 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 9 | 0.62 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 1 | 0.61 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 1 | 0.61 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 7 | 0.61 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 7 | 0.61 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 18 | 0.61 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 7 | 0.6 |
| (1,928) | 2:B:995:ARG:HB3 | 2:B:996:ASN:H | 20 | 0.59 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 6 | 0.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 6 | 0.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-------------------|----------|---------------|
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 6 | 0.55 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 6 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD11 | 17 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD12 | 17 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD13 | 17 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD21 | 17 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD22 | 17 | 0.55 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD23 | 17 | 0.55 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 19 | 0.55 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 19 | 0.55 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 17 | 0.55 |
| (1,921) | 2:B:995:ARG:HG2 | 2:B:996:ASN:H | 20 | 0.54 |
| (1,921) | 2:B:995:ARG:HG3 | 2:B:996:ASN:H | 20 | 0.54 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 6 | 0.54 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 6 | 0.54 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 11 | 0.53 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 11 | 0.53 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 6 | 0.53 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 6 | 0.53 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 8 | 0.53 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 8 | 0.53 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 16 | 0.52 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 16 | 0.52 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 5 | 0.52 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 5 | 0.52 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 13 | 0.52 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 13 | 0.52 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 1 | 0.52 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 1 | 0.52 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 5 | 0.52 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 5 | 0.52 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 14 | 0.52 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 14 | 0.52 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 18 | 0.52 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 18 | 0.52 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 7 | 0.52 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 3 | 0.51 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 3 | 0.51 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 8 | 0.51 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 8 | 0.51 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 18 | 0.51 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 18 | 0.51 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 2 | 0.51 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 2 | 0.51 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 3 | 0.51 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 3 | 0.51 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 4 | 0.51 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 4 | 0.51 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 10 | 0.51 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 10 | 0.51 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 12 | 0.51 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 12 | 0.51 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 17 | 0.51 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 17 | 0.51 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 3 | 0.51 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 3 | 0.51 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 4 | 0.51 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 4 | 0.51 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 9 | 0.51 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 9 | 0.51 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 18 | 0.51 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 18 | 0.51 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 4 | 0.51 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 4 | 0.51 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 10 | 0.51 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 10 | 0.51 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 17 | 0.51 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 17 | 0.51 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 4 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 4 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 7 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 7 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 10 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 10 | 0.5 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 14 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 14 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 20 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 20 | 0.5 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 14 | 0.5 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 14 | 0.5 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 15 | 0.5 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 15 | 0.5 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 16 | 0.5 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 16 | 0.5 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 18 | 0.5 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 18 | 0.5 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 2 | 0.5 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 2 | 0.5 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 8 | 0.5 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 8 | 0.5 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 10 | 0.5 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 10 | 0.5 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 12 | 0.5 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 12 | 0.5 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 13 | 0.5 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 13 | 0.5 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 5 | 0.5 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 5 | 0.5 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 12 | 0.5 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 12 | 0.5 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 14 | 0.5 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 14 | 0.5 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 11 | 0.49 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 11 | 0.49 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 13 | 0.49 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 13 | 0.49 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 17 | 0.49 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 17 | 0.49 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 9 | 0.49 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 9 | 0.49 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 15 | 0.49 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 15 | 0.49 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 16 | 0.49 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 16 | 0.49 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 20 | 0.49 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 20 | 0.49 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-----------------|----------|---------------|
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 6 | 0.49 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 6 | 0.49 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 16 | 0.49 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 16 | 0.49 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 15 | 0.49 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 2 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 2 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 5 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 5 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 6 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 6 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 9 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 9 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 12 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 12 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 15 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 15 | 0.48 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 7 | 0.48 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 7 | 0.48 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 8 | 0.48 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 8 | 0.48 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 11 | 0.48 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 11 | 0.48 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 2 | 0.48 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 2 | 0.48 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 9 | 0.48 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 9 | 0.48 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 15 | 0.48 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 15 | 0.48 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE1 | 19 | 0.47 |
| (1,913) | 2:B:994:LYS:HA | 2:B:992:PHE:HE2 | 19 | 0.47 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 17 | 0.47 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 17 | 0.47 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 13 | 0.47 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 13 | 0.47 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 20 | 0.46 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 20 | 0.46 |
| (1,894) | 2:B:993:PHE:HE1 | 2:B:989:LYS:HA | 19 | 0.46 |
| (1,894) | 2:B:993:PHE:HE2 | 2:B:989:LYS:HA | 19 | 0.46 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 3 | 0.46 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 3 | 0.46 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 11 | 0.46 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 11 | 0.46 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 19 | 0.46 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 19 | 0.46 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 9 | 0.46 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 15 | 0.46 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 15 | 0.45 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 15 | 0.45 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 1 | 0.45 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 1 | 0.45 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 9 | 0.45 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 9 | 0.45 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 4 | 0.45 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 13 | 0.45 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 16 | 0.45 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 17 | 0.45 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 17 | 0.45 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 19 | 0.45 |
| (1,909) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB2 | 1 | 0.44 |
| (1,909) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB2 | 1 | 0.44 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 8 | 0.44 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 8 | 0.44 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 12 | 0.44 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 12 | 0.44 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 19 | 0.44 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 19 | 0.44 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 13 | 0.44 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 1 | 0.44 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 8 | 0.44 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 10 | 0.44 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 12 | 0.44 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 14 | 0.44 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 18 | 0.44 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 20 | 0.44 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 16 | 0.44 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 8 | 0.43 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 8 | 0.43 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 20 | 0.43 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 20 | 0.43 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 2 | 0.43 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 2 | 0.43 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 6 | 0.43 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 6 | 0.43 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 3 | 0.43 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 12 | 0.43 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 4 | 0.42 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 4 | 0.42 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 10 | 0.42 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 10 | 0.42 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 17 | 0.42 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 17 | 0.42 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 5 | 0.41 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 5 | 0.41 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 13 | 0.41 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 13 | 0.41 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 18 | 0.41 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 18 | 0.41 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 1 | 0.4 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 1 | 0.4 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 15 | 0.4 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 6 | 0.4 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 18 | 0.4 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 14 | 0.39 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 14 | 0.39 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 2 | 0.39 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 5 | 0.39 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 1 | 0.39 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 2 | 0.39 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 4 | 0.39 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 2 | 0.39 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 2 | 0.39 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 14 | 0.39 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 14 | 0.39 |
| (1,888) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HA | 7 | 0.38 |
| (1,888) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HA | 7 | 0.38 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 16 | 0.38 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 16 | 0.38 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 19 | 0.38 |
| (1,754) | 1:A:2319:SER:HB2 | 1:A:2321:PHE:HD2 | 9 | 0.38 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 10 | 0.38 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 11 | 0.38 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 12 | 0.38 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 20 | 0.38 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 20 | 0.38 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 20 | 0.38 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 9 | 0.37 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 3 | 0.37 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 15 | 0.37 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 13 | 0.37 |
| (1,601) | 1:A:2305:TYR:HE1 | 1:A:2306:GLU:HA | 16 | 0.37 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 19 | 0.37 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 20 | 0.37 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 10 | 0.37 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 10 | 0.37 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 3 | 0.36 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 3 | 0.36 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 5 | 0.36 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 7 | 0.36 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 5 | 0.36 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 14 | 0.36 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 13 | 0.36 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 13 | 0.36 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 17 | 0.36 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 17 | 0.36 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 11 | 0.35 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 11 | 0.35 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 13 | 0.35 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 7 | 0.35 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 7 | 0.35 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 4 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 1 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 1 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 5 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 6 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 6 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 7 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 8 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 8 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 9 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 12 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 12 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 13 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 15 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 15 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 16 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 18 | 0.35 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 19 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-------------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 19 | 0.35 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 19 | 0.35 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 18 | 0.34 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 18 | 0.34 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 2 | 0.34 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 2 | 0.34 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 16 | 0.34 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 16 | 0.34 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 7 | 0.34 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 7 | 0.34 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 7 | 0.34 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 14 | 0.34 |
| (1,21) | 1:A:2238:ALA:HA | 1:A:2311:PHE:HD2 | 19 | 0.34 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 6 | 0.34 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 2 | 0.34 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 3 | 0.34 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 4 | 0.34 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 4 | 0.34 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 11 | 0.34 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 11 | 0.34 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 14 | 0.33 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 14 | 0.33 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 16 | 0.33 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 16 | 0.33 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 6 | 0.33 |
| (1,766) | 1:A:2321:PHE:HD2 | 1:A:2322:VAL:H | 20 | 0.33 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 15 | 0.33 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 8 | 0.33 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 10 | 0.33 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 17 | 0.33 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 1 | 0.33 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|------------------|----------|---------------|
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 1 | 0.33 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 8 | 0.33 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 18 | 0.33 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HA | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HB3 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG2 | 3 | 0.33 |
| (1,1003) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HG3 | 3 | 0.33 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 8 | 0.32 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 8 | 0.32 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 10 | 0.32 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 10 | 0.32 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 12 | 0.32 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 12 | 0.32 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 13 | 0.32 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 13 | 0.32 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 17 | 0.32 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 17 | 0.32 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 1 | 0.32 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 1 | 0.32 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 20 | 0.32 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 20 | 0.32 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 17 | 0.32 |
| (1,814) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB3 | 11 | 0.32 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 11 | 0.32 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 20 | 0.32 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 20 | 0.32 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 20 | 0.32 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 19 | 0.32 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 19 | 0.32 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 19 | 0.32 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 3 | 0.32 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 1 | 0.32 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 3 | 0.31 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 3 | 0.31 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 4 | 0.31 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 4 | 0.31 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 5 | 0.31 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 5 | 0.31 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 20 | 0.31 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 20 | 0.31 |
| (1,835) | 2:B:989:LYS:HD2 | 2:B:990:VAL:H | 7 | 0.31 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 4 | 0.31 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 12 | 0.31 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 3 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 5 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 5 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 5 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 9 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 9 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 9 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 13 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 13 | 0.31 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 13 | 0.31 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 5 | 0.31 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 5 | 0.31 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 5 | 0.31 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 12 | 0.31 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 3 | 0.31 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 19 | 0.31 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 17 | 0.31 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 15 | 0.3 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 15 | 0.3 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 2 | 0.3 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 2 | 0.3 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 6 | 0.3 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 6 | 0.3 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 9 | 0.3 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 9 | 0.3 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 11 | 0.3 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 11 | 0.3 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 15 | 0.3 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 15 | 0.3 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 19 | 0.3 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 19 | 0.3 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 7 | 0.3 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 7 | 0.3 |
| (1,864) | 2:B:992:PHE:HB2 | 2:B:995:ARG:HA | 7 | 0.3 |
| (1,864) | 2:B:992:PHE:HB3 | 2:B:995:ARG:HA | 7 | 0.3 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 20 | 0.3 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 16 | 0.3 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 16 | 0.3 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 16 | 0.3 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 20 | 0.3 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 17 | 0.3 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 17 | 0.3 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 17 | 0.3 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 2 | 0.3 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 2 | 0.3 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 2 | 0.3 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 14 | 0.3 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 8 | 0.3 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 10 | 0.3 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 10 | 0.3 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 16 | 0.3 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 16 | 0.3 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 16 | 0.29 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 16 | 0.29 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 9 | 0.29 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 9 | 0.29 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 1 | 0.29 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 1 | 0.29 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 20 | 0.29 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 20 | 0.29 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 1 | 0.29 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 8 | 0.29 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 10 | 0.29 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 14 | 0.29 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 12 | 0.29 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 12 | 0.29 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 12 | 0.29 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 3 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 3 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 4 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 4 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 7 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 7 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 11 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 11 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 13 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 13 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 19 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 19 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 20 | 0.28 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 20 | 0.28 |
| (1,904) | 2:B:993:PHE:HE1 | 2:B:995:ARG:HB3 | 7 | 0.28 |
| (1,904) | 2:B:993:PHE:HE2 | 2:B:995:ARG:HB3 | 7 | 0.28 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 18 | 0.28 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 20 | 0.28 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 6 | 0.28 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 13 | 0.28 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 6 | 0.28 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 10 | 0.28 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 1 | 0.28 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 1 | 0.28 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 1 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 6 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 6 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 6 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 8 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 8 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 8 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 20 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 20 | 0.28 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 20 | 0.28 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 11 | 0.28 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 11 | 0.28 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 11 | 0.28 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 17 | 0.28 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 17 | 0.28 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 17 | 0.28 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 8 | 0.28 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 8 | 0.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 8 | 0.28 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 15 | 0.28 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 15 | 0.28 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 6 | 0.28 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 9 | 0.28 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 10 | 0.28 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 11 | 0.28 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 13 | 0.28 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 17 | 0.28 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 12 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 12 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 12 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|----------------|------------------|----------|---------------|
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 12 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 12 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 17 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 17 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 17 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 17 | 0.27 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 17 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 5 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 5 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 6 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 6 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 14 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 14 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 16 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 16 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 17 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 17 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 18 | 0.27 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 18 | 0.27 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 11 | 0.27 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 11 | 0.27 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 7 | 0.27 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 14 | 0.27 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 8 | 0.27 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 5 | 0.27 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 5 | 0.27 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 5 | 0.27 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 1 | 0.27 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 18 | 0.27 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 20 | 0.27 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 4 | 0.27 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 4 | 0.27 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 4 | 0.27 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 16 | 0.27 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 11 | 0.27 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 11 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|------------------|----------|---------------|
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 11 | 0.27 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 19 | 0.27 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 19 | 0.27 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 19 | 0.27 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 3 | 0.27 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 2 | 0.27 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 6 | 0.27 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 9 | 0.27 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 9 | 0.27 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 9 | 0.27 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 9 | 0.27 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 7 | 0.27 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 15 | 0.27 |
| (1,1111) | 3:C:731:GLU:HB3 | 3:C:732:GLU:H | 18 | 0.27 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 4 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 4 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-------------------|----------|---------------|
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 4 | 0.26 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 4 | 0.26 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 12 | 0.26 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 12 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 2 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 2 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 8 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 8 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 10 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 10 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 12 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 12 | 0.26 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 6 | 0.26 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 6 | 0.26 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 15 | 0.26 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 13 | 0.26 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 13 | 0.26 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 13 | 0.26 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 14 | 0.26 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 2 | 0.26 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 4 | 0.26 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 6 | 0.26 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 12 | 0.26 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 13 | 0.26 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 15 | 0.26 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 6 | 0.26 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 6 | 0.26 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 6 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 7 | 0.26 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 7 | 0.26 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 7 | 0.26 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 10 | 0.26 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 14 | 0.26 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 14 | 0.26 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 14 | 0.26 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 4 | 0.26 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 5 | 0.26 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 20 | 0.26 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 7 | 0.26 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 15 | 0.26 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 18 | 0.26 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 20 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 3 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 3 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 3 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 14 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 14 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 14 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 18 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 18 | 0.26 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 18 | 0.26 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 15 | 0.26 |
| (1,1332) | 3:C:750:ALA:H | 1:A:2273:ILE:H | 13 | 0.26 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 3 | 0.26 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 3 | 0.26 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 12 | 0.26 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 12 | 0.26 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD2 | 10 | 0.26 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD3 | 10 | 0.26 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE1 | 1 | 0.25 |
| (1,919) | 2:B:995:ARG:HB3 | 2:B:992:PHE:HE2 | 1 | 0.25 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 3 | 0.25 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 3 | 0.25 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 9 | 0.25 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 9 | 0.25 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 6 | 0.25 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 11 | 0.25 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 2 | 0.25 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 3 | 0.25 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 6 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 7 | 0.25 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 11 | 0.25 |
| (1,766) | 1:A:2321:PHE:HD2 | 1:A:2322:VAL:H | 12 | 0.25 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 17 | 0.25 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 13 | 0.25 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 14 | 0.25 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 14 | 0.25 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 14 | 0.25 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 11 | 0.25 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 9 | 0.25 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 9 | 0.25 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 9 | 0.25 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 11 | 0.25 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 11 | 0.25 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 11 | 0.25 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 5 | 0.25 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 7 | 0.25 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 9 | 0.25 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 16 | 0.25 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 11 | 0.25 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 17 | 0.25 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 3 | 0.25 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 7 | 0.25 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 9 | 0.25 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 11 | 0.25 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 10 | 0.25 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 10 | 0.25 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 10 | 0.25 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 18 | 0.25 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 18 | 0.25 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 18 | 0.25 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 2 | 0.25 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 1 | 0.25 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 4 | 0.25 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 13 | 0.25 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 5 | 0.25 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 16 | 0.25 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 7 | 0.25 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 15 | 0.25 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 17 | 0.25 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 10 | 0.25 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 10 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 10 | 0.25 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 13 | 0.25 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 11 | 0.25 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 11 | 0.25 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 5 | 0.25 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 15 | 0.25 |
| (1,1281) | 3:C:757:ILE:H | 3:C:757:ILE:HB | 1 | 0.25 |
| (1,1155) | 3:C:736:ARG:HB3 | 3:C:737:ALA:H | 20 | 0.25 |
| (1,1146) | 3:C:735:ALA:H | 3:C:735:ALA:HA | 11 | 0.25 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 5 | 0.24 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 5 | 0.24 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 15 | 0.24 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 15 | 0.24 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 19 | 0.24 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 19 | 0.24 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 7 | 0.24 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 5 | 0.24 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 15 | 0.24 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 19 | 0.24 |
| (1,609) | 1:A:2305:TYR:HD1 | 1:A:2325:VAL:HB | 8 | 0.24 |
| (1,603) | 1:A:2305:TYR:HB2 | 1:A:2306:GLU:H | 2 | 0.24 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 19 | 0.24 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 3 | 0.24 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 3 | 0.24 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 3 | 0.24 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 3 | 0.24 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 8 | 0.24 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 14 | 0.24 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 16 | 0.24 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 16 | 0.24 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 16 | 0.24 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 20 | 0.24 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 20 | 0.24 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 20 | 0.24 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 12 | 0.24 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 11 | 0.24 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 15 | 0.24 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 19 | 0.24 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 17 | 0.24 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 17 | 0.24 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 19 | 0.24 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 4 | 0.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 11 | 0.24 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 13 | 0.24 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 19 | 0.24 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 5 | 0.24 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 5 | 0.24 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 5 | 0.24 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 12 | 0.24 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 12 | 0.24 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 12 | 0.24 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 1 | 0.24 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 3 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 4 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 4 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 6 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 6 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 8 | 0.24 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 8 | 0.24 |
| (1,1307) | 3:C:762:THR:H | 3:C:762:THR:HB | 18 | 0.24 |
| (1,1293) | 3:C:759:TYR:H | 3:C:758:THR:HG21 | 12 | 0.24 |
| (1,1293) | 3:C:759:TYR:H | 3:C:758:THR:HG22 | 12 | 0.24 |
| (1,1293) | 3:C:759:TYR:H | 3:C:758:THR:HG23 | 12 | 0.24 |
| (1,1152) | 3:C:736:ARG:H | 3:C:732:GLU:HG2 | 16 | 0.24 |
| (1,1150) | 3:C:735:ALA:H | 3:C:736:ARG:HB3 | 18 | 0.24 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 1 | 0.23 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 4 | 0.23 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 4 | 0.23 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 13 | 0.23 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 13 | 0.23 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 16 | 0.23 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 16 | 0.23 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 11 | 0.23 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 20 | 0.23 |
| (1,815) | 2:B:988:TRP:HB2 | 2:B:988:TRP:HH2 | 19 | 0.23 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 18 | 0.23 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 12 | 0.23 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 12 | 0.23 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 12 | 0.23 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 2 | 0.23 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 11 | 0.23 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 17 | 0.23 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 19 | 0.23 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 3 | 0.23 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 3 | 0.23 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 3 | 0.23 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 2 | 0.23 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 19 | 0.23 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 18 | 0.23 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 10 | 0.23 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 10 | 0.23 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 10 | 0.23 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 10 | 0.23 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 6 | 0.23 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 5 | 0.23 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 5 | 0.23 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 5 | 0.23 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 16 | 0.23 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 19 | 0.23 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 3 | 0.23 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 18 | 0.23 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 20 | 0.23 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 8 | 0.23 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 19 | 0.23 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 13 | 0.23 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 13 | 0.23 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 16 | 0.23 |
| (1,1307) | 3:C:762:THR:H | 3:C:762:THR:HB | 7 | 0.23 |
| (1,1140) | 3:C:734:ARG:H | 3:C:733:GLU:HG3 | 5 | 0.23 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 16 | 0.22 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 18 | 0.22 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 14 | 0.22 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 14 | 0.22 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 17 | 0.22 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 17 | 0.22 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 5 | 0.22 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 19 | 0.22 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 2 | 0.22 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 5 | 0.22 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 14 | 0.22 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 16 | 0.22 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 10 | 0.22 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 10 | 0.22 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 10 | 0.22 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 7 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 2 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 2 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 2 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 8 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 8 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 8 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 10 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 10 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 10 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 13 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 13 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 13 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 15 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 15 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 15 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 18 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 18 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 18 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 19 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 19 | 0.22 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 19 | 0.22 |
| (1,568) | 1:A:2300:GLN:HB3 | 1:A:2301:GLU:H | 10 | 0.22 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 15 | 0.22 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 15 | 0.22 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 15 | 0.22 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 7 | 0.22 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 10 | 0.22 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 10 | 0.22 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 15 | 0.22 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 17 | 0.22 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 17 | 0.22 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 14 | 0.22 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 15 | 0.22 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 15 | 0.22 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 15 | 0.22 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 14 | 0.22 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 14 | 0.22 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 14 | 0.22 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 10 | 0.22 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 5 | 0.22 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 13 | 0.22 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 13 | 0.22 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 13 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|------------------|----------|---------------|
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 13 | 0.22 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 9 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 1 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 2 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 5 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 6 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 9 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 10 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 11 | 0.22 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 16 | 0.22 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 7 | 0.22 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 7 | 0.22 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 7 | 0.22 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 13 | 0.22 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 16 | 0.22 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 20 | 0.22 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 20 | 0.22 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 20 | 0.22 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 8 | 0.21 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 8 | 0.21 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 10 | 0.21 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 10 | 0.21 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 12 | 0.21 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 12 | 0.21 |
| (1,871) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HA | 18 | 0.21 |
| (1,871) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HA | 18 | 0.21 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 3 | 0.21 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 16 | 0.21 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 17 | 0.21 |
| (1,766) | 1:A:2321:PHE:HD2 | 1:A:2322:VAL:H | 18 | 0.21 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 16 | 0.21 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 20 | 0.21 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 9 | 0.21 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 10 | 0.21 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 5 | 0.21 |
| (1,587) | 1:A:2304:ASP:H | 1:A:2304:ASP:HB3 | 10 | 0.21 |
| (1,587) | 1:A:2304:ASP:H | 1:A:2304:ASP:HB3 | 14 | 0.21 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 4 | 0.21 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 4 | 0.21 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 4 | 0.21 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 20 | 0.21 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 20 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 20 | 0.21 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 14 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 5 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 5 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 5 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 17 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 17 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 17 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 18 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 18 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 18 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 19 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 19 | 0.21 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 19 | 0.21 |
| (1,437) | 1:A:2279:SER:HB3 | 1:A:2301:GLU:HG3 | 17 | 0.21 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 10 | 0.21 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 2 | 0.21 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 2 | 0.21 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 2 | 0.21 |
| (1,375) | 1:A:2274:ALA:HA | 1:A:2308:SER:HB3 | 3 | 0.21 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 1 | 0.21 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 13 | 0.21 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 5 | 0.21 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 7 | 0.21 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 10 | 0.21 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 20 | 0.21 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 20 | 0.21 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 20 | 0.21 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 7 | 0.21 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 7 | 0.21 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 7 | 0.21 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 4 | 0.21 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 11 | 0.21 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 1 | 0.21 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 3 | 0.21 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 5 | 0.21 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 7 | 0.21 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 15 | 0.21 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 4 | 0.21 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 19 | 0.21 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 19 | 0.21 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 19 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 11 | 0.21 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 9 | 0.21 |
| (1,1307) | 3:C:762:THR:H | 3:C:762:THR:HB | 2 | 0.21 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 1 | 0.21 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 12 | 0.21 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 9 | 0.2 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 17 | 0.2 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 20 | 0.2 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 6 | 0.2 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 6 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 4 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 5 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 6 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 8 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 9 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 10 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 12 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 13 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 14 | 0.2 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 18 | 0.2 |
| (1,819) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HA | 2 | 0.2 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 5 | 0.2 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 18 | 0.2 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 18 | 0.2 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 2 | 0.2 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 9 | 0.2 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 7 | 0.2 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 12 | 0.2 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 19 | 0.2 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 13 | 0.2 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 17 | 0.2 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 4 | 0.2 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 4 | 0.2 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 4 | 0.2 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 12 | 0.2 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 12 | 0.2 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 12 | 0.2 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 11 | 0.2 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 6 | 0.2 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 6 | 0.2 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 6 | 0.2 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 8 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-------------------|----------|---------------|
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 10 | 0.2 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 15 | 0.2 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 1 | 0.2 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 1 | 0.2 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 1 | 0.2 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 13 | 0.2 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 13 | 0.2 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 13 | 0.2 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 3 | 0.2 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 1 | 0.2 |
| (1,375) | 1:A:2274:ALA:HA | 1:A:2308:SER:HB3 | 8 | 0.2 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 12 | 0.2 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 16 | 0.2 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 11 | 0.2 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 9 | 0.2 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 20 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 9 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 9 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 9 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 16 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 16 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 16 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 18 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 18 | 0.2 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 18 | 0.2 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 2 | 0.2 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 2 | 0.2 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 2 | 0.2 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 17 | 0.2 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 17 | 0.2 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 17 | 0.2 |
| (1,225) | 1:A:2253:ALA:HA | 1:A:2301:GLU:HB3 | 1 | 0.2 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 2 | 0.2 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 6 | 0.2 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 8 | 0.2 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 13 | 0.2 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 14 | 0.2 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 8 | 0.2 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 9 | 0.2 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 9 | 0.2 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 9 | 0.2 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 15 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|----------------|-------------------|----------|---------------|
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 2 | 0.2 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 12 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD11 | 8 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD12 | 8 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD13 | 8 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD11 | 14 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD12 | 14 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD13 | 14 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD11 | 18 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD12 | 18 | 0.2 |
| (1,123) | 1:A:2248:LEU:H | 1:A:2248:LEU:HD13 | 18 | 0.2 |
| (1,1151) | 3:C:736:ARG:H | 3:C:736:ARG:HG2 | 4 | 0.2 |
| (1,1151) | 3:C:736:ARG:H | 3:C:736:ARG:HG3 | 4 | 0.2 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 19 | 0.2 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 5 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 5 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-------------------|----------|---------------|
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 5 | 0.19 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 5 | 0.19 |
| (1,996) | 2:B:1008:GLU:H | 2:B:1006:GLU:HA | 10 | 0.19 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 7 | 0.19 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB2 | 13 | 0.19 |
| (1,966) | 2:B:1002:GLU:H | 2:B:1000:LEU:HB3 | 13 | 0.19 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD11 | 14 | 0.19 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD12 | 14 | 0.19 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD13 | 14 | 0.19 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD21 | 14 | 0.19 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD22 | 14 | 0.19 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD23 | 14 | 0.19 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 1 | 0.19 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 19 | 0.19 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 7 | 0.19 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 13 | 0.19 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 15 | 0.19 |
| (1,766) | 1:A:2321:PHE:HD2 | 1:A:2322:VAL:H | 9 | 0.19 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 1 | 0.19 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 20 | 0.19 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 12 | 0.19 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 19 | 0.19 |
| (1,631) | 1:A:2307:VAL:HB | 1:A:2309:VAL:HA | 10 | 0.19 |
| (1,587) | 1:A:2304:ASP:H | 1:A:2304:ASP:HB3 | 8 | 0.19 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 1 | 0.19 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 1 | 0.19 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 1 | 0.19 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 9 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 9 | 0.19 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 9 | 0.19 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 2 | 0.19 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 5 | 0.19 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 9 | 0.19 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 17 | 0.19 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 1 | 0.19 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 1 | 0.19 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 1 | 0.19 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 3 | 0.19 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 18 | 0.19 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 20 | 0.19 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 2 | 0.19 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 2 | 0.19 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 2 | 0.19 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 9 | 0.19 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 9 | 0.19 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 9 | 0.19 |
| (1,437) | 1:A:2279:SER:HB3 | 1:A:2301:GLU:HG3 | 6 | 0.19 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 5 | 0.19 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 7 | 0.19 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 8 | 0.19 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 17 | 0.19 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 19 | 0.19 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 6 | 0.19 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 6 | 0.19 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 13 | 0.19 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 4 | 0.19 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 4 | 0.19 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 4 | 0.19 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 8 | 0.19 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 9 | 0.19 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 11 | 0.19 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 16 | 0.19 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 16 | 0.19 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 3 | 0.19 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 1 | 0.19 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 1 | 0.19 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 1 | 0.19 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 15 | 0.19 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 15 | 0.19 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 15 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 11 | 0.19 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 11 | 0.19 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 11 | 0.19 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 19 | 0.19 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 19 | 0.19 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 19 | 0.19 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 10 | 0.19 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 17 | 0.19 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 12 | 0.19 |
| (1,182) | 1:A:2252:GLU:H | 1:A:2252:GLU:HG3 | 14 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 2 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 2 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 2 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 6 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 6 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 6 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 11 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 11 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 11 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 13 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 13 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 13 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 16 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 16 | 0.19 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 16 | 0.19 |
| (1,137) | 1:A:2248:LEU:HD21 | 1:A:2307:VAL:HB | 18 | 0.19 |
| (1,137) | 1:A:2248:LEU:HD22 | 1:A:2307:VAL:HB | 18 | 0.19 |
| (1,137) | 1:A:2248:LEU:HD23 | 1:A:2307:VAL:HB | 18 | 0.19 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 2 | 0.19 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 2 | 0.19 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 20 | 0.19 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 8 | 0.19 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 2 | 0.19 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 14 | 0.19 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 16 | 0.19 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 2 | 0.19 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 16 | 0.19 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 13 | 0.18 |
| (1,983) | 2:B:1005:GLU:H | 2:B:1005:GLU:HB3 | 11 | 0.18 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 15 | 0.18 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 2 | 0.18 |
| (1,856) | 2:B:992:PHE:H | 2:B:992:PHE:HA | 15 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 2 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 3 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 4 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 8 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 10 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 12 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 17 | 0.18 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 19 | 0.18 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 12 | 0.18 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 14 | 0.18 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 15 | 0.18 |
| (1,6) | 1:A:2237:GLY:HA3 | 1:A:2240:LYS:HB3 | 16 | 0.18 |
| (1,587) | 1:A:2304:ASP:H | 1:A:2304:ASP:HB3 | 12 | 0.18 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 7 | 0.18 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 18 | 0.18 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 4 | 0.18 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 6 | 0.18 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 13 | 0.18 |
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 13 | 0.18 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 13 | 0.18 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 13 | 0.18 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 8 | 0.18 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 11 | 0.18 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 11 | 0.18 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 11 | 0.18 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 11 | 0.18 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 16 | 0.18 |
| (1,422) | 1:A:2278:PRO:HB2 | 1:A:2305:TYR:HA | 7 | 0.18 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 13 | 0.18 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 7 | 0.18 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 12 | 0.18 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 12 | 0.18 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 12 | 0.18 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 9 | 0.18 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 9 | 0.18 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 9 | 0.18 |
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 15 | 0.18 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 15 | 0.18 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 15 | 0.18 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 6 | 0.18 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 2 | 0.18 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 8 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-------------------|----------|---------------|
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 14 | 0.18 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 1 | 0.18 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 4 | 0.18 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 16 | 0.18 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 6 | 0.18 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 6 | 0.18 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 6 | 0.18 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 8 | 0.18 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 8 | 0.18 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 8 | 0.18 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 15 | 0.18 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 15 | 0.18 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 15 | 0.18 |
| (1,22) | 1:A:2238:ALA:H | 1:A:2311:PHE:HD2 | 16 | 0.18 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 12 | 0.18 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 20 | 0.18 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 20 | 0.18 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 20 | 0.18 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 17 | 0.18 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 18 | 0.18 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 5 | 0.18 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 5 | 0.18 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 6 | 0.18 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 2 | 0.18 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 7 | 0.18 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 7 | 0.18 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 3 | 0.18 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 8 | 0.18 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 10 | 0.18 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 11 | 0.18 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 13 | 0.18 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 17 | 0.18 |
| (1,108) | 1:A:2246:PRO:HB3 | 1:A:2259:PHE:HA | 16 | 0.18 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 4 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 4 | 0.18 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 18 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 18 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 18 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-------------------|----------|---------------|
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 18 | 0.17 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 18 | 0.17 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 4 | 0.17 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 5 | 0.17 |
| (1,968) | 2:B:1002:GLU:H | 2:B:1002:GLU:HB3 | 10 | 0.17 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 3 | 0.17 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 4 | 0.17 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 5 | 0.17 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 6 | 0.17 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 13 | 0.17 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 15 | 0.17 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 4 | 0.17 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 6 | 0.17 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 8 | 0.17 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 10 | 0.17 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 11 | 0.17 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 16 | 0.17 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 6 | 0.17 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 9 | 0.17 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 11 | 0.17 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 14 | 0.17 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 20 | 0.17 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 8 | 0.17 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 10 | 0.17 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 13 | 0.17 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 14 | 0.17 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 18 | 0.17 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 20 | 0.17 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 2 | 0.17 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 7 | 0.17 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 17 | 0.17 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 19 | 0.17 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 8 | 0.17 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 7 | 0.17 |
| (1,609) | 1:A:2305:TYR:HD1 | 1:A:2325:VAL:HB | 10 | 0.17 |
| (1,609) | 1:A:2305:TYR:HD1 | 1:A:2325:VAL:HB | 14 | 0.17 |
| (1,603) | 1:A:2305:TYR:HB2 | 1:A:2306:GLU:H | 11 | 0.17 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 11 | 0.17 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 13 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 3 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 3 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 3 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 5 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 5 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 5 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 13 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 13 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 13 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 14 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 14 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 14 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 18 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 18 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 18 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 20 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 20 | 0.17 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 20 | 0.17 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 6 | 0.17 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 19 | 0.17 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 9 | 0.17 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 16 | 0.17 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 12 | 0.17 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 12 | 0.17 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 12 | 0.17 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 14 | 0.17 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 14 | 0.17 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 14 | 0.17 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 4 | 0.17 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 8 | 0.17 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 14 | 0.17 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 2 | 0.17 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 14 | 0.17 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 14 | 0.17 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 11 | 0.17 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 12 | 0.17 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 19 | 0.17 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 19 | 0.17 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 19 | 0.17 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 7 | 0.17 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 7 | 0.17 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 7 | 0.17 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 17 | 0.17 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 17 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 17 | 0.17 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 7 | 0.17 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 3 | 0.17 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 2 | 0.17 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 10 | 0.17 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 14 | 0.17 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 14 | 0.17 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 14 | 0.17 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 18 | 0.17 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 17 | 0.17 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 17 | 0.17 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 17 | 0.17 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 12 | 0.17 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 9 | 0.17 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 17 | 0.17 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 17 | 0.17 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 16 | 0.17 |
| (1,1315) | 1:A:2273:ILE:H | 2:B:997:ARG:H | 3 | 0.17 |
| (1,1295) | 3:C:759:TYR:H | 3:C:757:ILE:HG12 | 10 | 0.17 |
| (1,1295) | 3:C:759:TYR:H | 3:C:757:ILE:HG13 | 10 | 0.17 |
| (1,1295) | 3:C:759:TYR:H | 3:C:757:ILE:HG21 | 10 | 0.17 |
| (1,1295) | 3:C:759:TYR:H | 3:C:757:ILE:HG22 | 10 | 0.17 |
| (1,1295) | 3:C:759:TYR:H | 3:C:757:ILE:HG23 | 10 | 0.17 |
| (1,114) | 1:A:2247:GLY:H | 1:A:2249:GLU:HG2 | 13 | 0.17 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB1 | 18 | 0.17 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB2 | 18 | 0.17 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB3 | 18 | 0.17 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 4 | 0.17 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 6 | 0.17 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 9 | 0.17 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 12 | 0.17 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 15 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-------------------|----------|---------------|
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 15 | 0.17 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 6 | 0.16 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 10 | 0.16 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 11 | 0.16 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 2 | 0.16 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 10 | 0.16 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 11 | 0.16 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 12 | 0.16 |
| (1,945) | 2:B:997:ARG:H | 2:B:998:PRO:HD3 | 6 | 0.16 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 3 | 0.16 |
| (1,90) | 1:A:2244:GLY:HA2 | 1:A:2260:SER:H | 2 | 0.16 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 16 | 0.16 |
| (1,720) | 1:A:2315:HIS:HB3 | 1:A:2319:SER:H | 2 | 0.16 |
| (1,719) | 1:A:2315:HIS:HE1 | 1:A:2319:SER:HA | 15 | 0.16 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 2 | 0.16 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 4 | 0.16 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 6 | 0.16 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 9 | 0.16 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 17 | 0.16 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 19 | 0.16 |
| (1,69) | 1:A:2242:ARG:HB3 | 1:A:2260:SER:HB2 | 16 | 0.16 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 3 | 0.16 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 6 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 1 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 1 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 1 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 4 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 4 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 4 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 8 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 8 | 0.16 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 8 | 0.16 |
| (1,603) | 1:A:2305:TYR:HB2 | 1:A:2306:GLU:H | 17 | 0.16 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 1 | 0.16 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 4 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG11 | 8 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG12 | 8 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG13 | 8 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG11 | 10 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG12 | 10 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG13 | 10 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG11 | 14 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG12 | 14 | 0.16 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG13 | 14 | 0.16 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 6 | 0.16 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 6 | 0.16 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 6 | 0.16 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 16 | 0.16 |
| (1,579) | 1:A:2303:GLY:HA2 | 1:A:2324:PRO:HB3 | 1 | 0.16 |
| (1,579) | 1:A:2303:GLY:HA2 | 1:A:2324:PRO:HB3 | 4 | 0.16 |
| (1,573) | 1:A:2301:GLU:H | 1:A:2301:GLU:HG3 | 11 | 0.16 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 7 | 0.16 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 7 | 0.16 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 7 | 0.16 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 5 | 0.16 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 12 | 0.16 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 11 | 0.16 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 17 | 0.16 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 8 | 0.16 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 8 | 0.16 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 8 | 0.16 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 11 | 0.16 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 17 | 0.16 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 9 | 0.16 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 12 | 0.16 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 4 | 0.16 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 1 | 0.16 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 9 | 0.16 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 20 | 0.16 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 19 | 0.16 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 19 | 0.16 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 19 | 0.16 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG21 | 1 | 0.16 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG22 | 1 | 0.16 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG23 | 1 | 0.16 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG21 | 6 | 0.16 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG22 | 6 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG23 | 6 | 0.16 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 3 | 0.16 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 15 | 0.16 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 17 | 0.16 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 2 | 0.16 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 1 | 0.16 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 13 | 0.16 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 15 | 0.16 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 6 | 0.16 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 20 | 0.16 |
| (1,25) | 1:A:2239:HIS:H | 1:A:2239:HIS:HB3 | 13 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 3 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 3 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 3 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 10 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 10 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 10 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 12 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 12 | 0.16 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 12 | 0.16 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 16 | 0.16 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 16 | 0.16 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 16 | 0.16 |
| (1,188) | 1:A:2252:GLU:HG3 | 1:A:2253:ALA:H | 20 | 0.16 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 15 | 0.16 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 15 | 0.16 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 15 | 0.16 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 11 | 0.16 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 13 | 0.16 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 19 | 0.16 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 19 | 0.16 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 12 | 0.16 |
| (1,1209) | 3:C:744:ASN:H | 3:C:744:ASN:HB3 | 13 | 0.16 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 1 | 0.16 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 8 | 0.16 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 16 | 0.16 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 18 | 0.16 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 19 | 0.16 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB1 | 19 | 0.16 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB2 | 19 | 0.16 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB3 | 19 | 0.16 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 9 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 11 | 0.16 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 7 | 0.16 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 15 | 0.16 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 18 | 0.16 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 3 | 0.16 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 10 | 0.16 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 11 | 0.16 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 13 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 13 | 0.16 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 20 | 0.16 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 5 | 0.15 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 12 | 0.15 |
| (1,9) | 1:A:2238:ALA:H | 1:A:2239:HIS:HA | 16 | 0.15 |
| (1,810) | 1:A:2328:PRO:HA | 1:A:2330:GLY:HA3 | 1 | 0.15 |
| (1,81) | 1:A:2243:ALA:HB1 | 1:A:2248:LEU:HB2 | 20 | 0.15 |
| (1,81) | 1:A:2243:ALA:HB2 | 1:A:2248:LEU:HB2 | 20 | 0.15 |
| (1,81) | 1:A:2243:ALA:HB3 | 1:A:2248:LEU:HB2 | 20 | 0.15 |
| (1,763) | 1:A:2321:PHE:H | 1:A:2321:PHE:HD2 | 3 | 0.15 |
| (1,719) | 1:A:2315:HIS:HE1 | 1:A:2319:SER:HA | 6 | 0.15 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 3 | 0.15 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 11 | 0.15 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 15 | 0.15 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 1 | 0.15 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 9 | 0.15 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 14 | 0.15 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 5 | 0.15 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 12 | 0.15 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 13 | 0.15 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 4 | 0.15 |
| (1,597) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB3 | 12 | 0.15 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 10 | 0.15 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 10 | 0.15 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 10 | 0.15 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 10 | 0.15 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 3 | 0.15 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 20 | 0.15 |
| (1,573) | 1:A:2301:GLU:H | 1:A:2301:GLU:HG3 | 1 | 0.15 |
| (1,573) | 1:A:2301:GLU:H | 1:A:2301:GLU:HG3 | 20 | 0.15 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 7 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB1 | 5 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB2 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB3 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB1 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB2 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB3 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB1 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB2 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB3 | 5 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB1 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB2 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB3 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB1 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB2 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB3 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB1 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB2 | 11 | 0.15 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB3 | 11 | 0.15 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 10 | 0.15 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 17 | 0.15 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG11 | 10 | 0.15 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG12 | 10 | 0.15 |
| (1,457) | 1:A:2281:ALA:HA | 1:A:2299:VAL:HG13 | 10 | 0.15 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 16 | 0.15 |
| (1,428) | 1:A:2279:SER:HB2 | 1:A:2280:LYS:H | 11 | 0.15 |
| (1,428) | 1:A:2279:SER:HB2 | 1:A:2280:LYS:H | 17 | 0.15 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 8 | 0.15 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 19 | 0.15 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 1 | 0.15 |
| (1,413) | 1:A:2277:GLY:HA3 | 1:A:2301:GLU:HB3 | 14 | 0.15 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 4 | 0.15 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG21 | 12 | 0.15 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG22 | 12 | 0.15 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG23 | 12 | 0.15 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 18 | 0.15 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 12 | 0.15 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 11 | 0.15 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 3 | 0.15 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 7 | 0.15 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 9 | 0.15 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 7 | 0.15 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 18 | 0.15 |
| (1,269) | 1:A:2257:ALA:H | 1:A:2298:VAL:HB | 12 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-------------------|----------|---------------|
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 18 | 0.15 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG11 | 4 | 0.15 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG12 | 4 | 0.15 |
| (1,242) | 1:A:2254:GLY:H | 1:A:2325:VAL:HG13 | 4 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 8 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 8 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 8 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 9 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 9 | 0.15 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 9 | 0.15 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 1 | 0.15 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 1 | 0.15 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 1 | 0.15 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB1 | 4 | 0.15 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB2 | 4 | 0.15 |
| (1,181) | 1:A:2251:ALA:H | 1:A:2326:ALA:HB3 | 4 | 0.15 |
| (1,170) | 1:A:2251:ALA:H | 1:A:2324:PRO:HA | 12 | 0.15 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 2 | 0.15 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 10 | 0.15 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 10 | 0.15 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 3 | 0.15 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 19 | 0.15 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 13 | 0.15 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 13 | 0.15 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 16 | 0.15 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 16 | 0.15 |
| (1,1190) | 3:C:742:ALA:H | 3:C:742:ALA:HB1 | 1 | 0.15 |
| (1,1190) | 3:C:742:ALA:H | 3:C:742:ALA:HB2 | 1 | 0.15 |
| (1,1190) | 3:C:742:ALA:H | 3:C:742:ALA:HB3 | 1 | 0.15 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 4 | 0.15 |
| (1,1129) | 3:C:733:GLU:H | 3:C:729:LYS:HD2 | 2 | 0.15 |
| (1,1129) | 3:C:733:GLU:H | 3:C:729:LYS:HD3 | 2 | 0.15 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 6 | 0.15 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 7 | 0.15 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 10 | 0.15 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 13 | 0.15 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 15 | 0.15 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 17 | 0.15 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 3 | 0.15 |
| (1,1090) | 3:C:729:LYS:HD3 | 3:C:731:GLU:H | 16 | 0.15 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 9 | 0.15 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 11 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-------------------|----------|---------------|
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 19 | 0.15 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 1 | 0.15 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 8 | 0.15 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 3 | 0.14 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 8 | 0.14 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 14 | 0.14 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 20 | 0.14 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 2 | 0.14 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 13 | 0.14 |
| (1,879) | 2:B:992:PHE:HD1 | 2:B:988:TRP:HB3 | 16 | 0.14 |
| (1,879) | 2:B:992:PHE:HD2 | 2:B:988:TRP:HB3 | 16 | 0.14 |
| (1,848) | 2:B:991:GLY:H | 2:B:990:VAL:HG11 | 20 | 0.14 |
| (1,848) | 2:B:991:GLY:H | 2:B:990:VAL:HG12 | 20 | 0.14 |
| (1,848) | 2:B:991:GLY:H | 2:B:990:VAL:HG13 | 20 | 0.14 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 15 | 0.14 |
| (1,81) | 1:A:2243:ALA:HB1 | 1:A:2248:LEU:HB2 | 3 | 0.14 |
| (1,81) | 1:A:2243:ALA:HB2 | 1:A:2248:LEU:HB2 | 3 | 0.14 |
| (1,81) | 1:A:2243:ALA:HB3 | 1:A:2248:LEU:HB2 | 3 | 0.14 |
| (1,75) | 1:A:2242:ARG:HG3 | 1:A:2263:THR:HB | 18 | 0.14 |
| (1,719) | 1:A:2315:HIS:HE1 | 1:A:2319:SER:HA | 16 | 0.14 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 1 | 0.14 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 7 | 0.14 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 15 | 0.14 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 5 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 6 | 0.14 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 8 | 0.14 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 18 | 0.14 |
| (1,696) | 1:A:2314:GLU:H | 1:A:2314:GLU:HB3 | 5 | 0.14 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 11 | 0.14 |
| (1,659) | 1:A:2310:LYS:H | 1:A:2310:LYS:HB3 | 8 | 0.14 |
| (1,631) | 1:A:2307:VAL:HB | 1:A:2309:VAL:HA | 11 | 0.14 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 1 | 0.14 |
| (1,606) | 1:A:2305:TYR:H | 1:A:2323:VAL:H | 1 | 0.14 |
| (1,606) | 1:A:2305:TYR:H | 1:A:2323:VAL:H | 4 | 0.14 |
| (1,603) | 1:A:2305:TYR:HB2 | 1:A:2306:GLU:H | 19 | 0.14 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 9 | 0.14 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 17 | 0.14 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 5 | 0.14 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 5 | 0.14 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 12 | 0.14 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 8 | 0.14 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 17 | 0.14 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 17 | 0.14 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 17 | 0.14 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 1 | 0.14 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 5 | 0.14 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 7 | 0.14 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 19 | 0.14 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 13 | 0.14 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 3 | 0.14 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 8 | 0.14 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 10 | 0.14 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 13 | 0.14 |
| (1,438) | 1:A:2279:SER:HB3 | 1:A:2301:GLU:HG2 | 11 | 0.14 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 20 | 0.14 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 4 | 0.14 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 5 | 0.14 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 18 | 0.14 |
| (1,429) | 1:A:2279:SER:H | 1:A:2280:LYS:HA | 18 | 0.14 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 2 | 0.14 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 20 | 0.14 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 5 | 0.14 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 16 | 0.14 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG21 | 19 | 0.14 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG22 | 19 | 0.14 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG23 | 19 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,359) | 1:A:2273:ILE:HD11 | 1:A:2274:ALA:H | 7 | 0.14 |
| (1,359) | 1:A:2273:ILE:HD12 | 1:A:2274:ALA:H | 7 | 0.14 |
| (1,359) | 1:A:2273:ILE:HD13 | 1:A:2274:ALA:H | 7 | 0.14 |
| (1,31) | 1:A:2239:HIS:H | 1:A:2241:VAL:HA | 20 | 0.14 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 5 | 0.14 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 8 | 0.14 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 9 | 0.14 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 13 | 0.14 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 14 | 0.14 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 12 | 0.14 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 18 | 0.14 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 12 | 0.14 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 15 | 0.14 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 18 | 0.14 |
| (1,271) | 1:A:2257:ALA:H | 1:A:2299:VAL:HB | 9 | 0.14 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 3 | 0.14 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 4 | 0.14 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 13 | 0.14 |
| (1,241) | 1:A:2254:GLY:H | 1:A:2300:GLN:HA | 17 | 0.14 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 20 | 0.14 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 20 | 0.14 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 20 | 0.14 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 19 | 0.14 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 15 | 0.14 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 14 | 0.14 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 14 | 0.14 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 7 | 0.14 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 9 | 0.14 |
| (1,1298) | 3:C:759:TYR:H | 3:C:757:ILE:HD11 | 12 | 0.14 |
| (1,1298) | 3:C:759:TYR:H | 3:C:757:ILE:HD12 | 12 | 0.14 |
| (1,1298) | 3:C:759:TYR:H | 3:C:757:ILE:HD13 | 12 | 0.14 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD2 | 9 | 0.14 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD3 | 9 | 0.14 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 6 | 0.14 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 6 | 0.14 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 8 | 0.14 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 8 | 0.14 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 12 | 0.14 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 12 | 0.14 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 2 | 0.14 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 3 | 0.14 |
| (1,1137) | 3:C:733:GLU:HA | 3:C:735:ALA:H | 11 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB1 | 6 | 0.14 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB2 | 6 | 0.14 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB3 | 6 | 0.14 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB1 | 8 | 0.14 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB2 | 8 | 0.14 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB3 | 8 | 0.14 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 18 | 0.14 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 15 | 0.14 |
| (1,1090) | 3:C:729:LYS:HD3 | 3:C:731:GLU:H | 2 | 0.14 |
| (1,108) | 1:A:2246:PRO:HB3 | 1:A:2259:PHE:HA | 9 | 0.14 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 7 | 0.14 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 17 | 0.14 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 6 | 0.14 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 13 | 0.14 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 17 | 0.14 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 10 | 0.14 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 12 | 0.14 |
| (1,1035) | 3:C:724:ARG:H | 3:C:723:ASP:HA | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 2 | 0.14 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 5 | 0.14 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 14 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-------------------|----------|---------------|
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 14 | 0.14 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 16 | 0.14 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 17 | 0.14 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 18 | 0.14 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 15 | 0.13 |
| (1,984) | 2:B:1005:GLU:H | 2:B:1005:GLU:HG2 | 11 | 0.13 |
| (1,984) | 2:B:1005:GLU:H | 2:B:1005:GLU:HG3 | 11 | 0.13 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 14 | 0.13 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 17 | 0.13 |
| (1,902) | 2:B:993:PHE:HD1 | 2:B:994:LYS:HD3 | 2 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,902) | 2:B:993:PHE:HD2 | 2:B:994:LYS:HD3 | 2 | 0.13 |
| (1,866) | 2:B:992:PHE:HD1 | 2:B:995:ARG:HA | 1 | 0.13 |
| (1,866) | 2:B:992:PHE:HD2 | 2:B:995:ARG:HA | 1 | 0.13 |
| (1,866) | 2:B:992:PHE:HD1 | 2:B:995:ARG:HA | 2 | 0.13 |
| (1,866) | 2:B:992:PHE:HD2 | 2:B:995:ARG:HA | 2 | 0.13 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 1 | 0.13 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 5 | 0.13 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 8 | 0.13 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 9 | 0.13 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 10 | 0.13 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 16 | 0.13 |
| (1,81) | 1:A:2243:ALA:HB1 | 1:A:2248:LEU:HB2 | 6 | 0.13 |
| (1,81) | 1:A:2243:ALA:HB2 | 1:A:2248:LEU:HB2 | 6 | 0.13 |
| (1,81) | 1:A:2243:ALA:HB3 | 1:A:2248:LEU:HB2 | 6 | 0.13 |
| (1,744) | 1:A:2318:ASP:HB3 | 1:A:2319:SER:HB2 | 20 | 0.13 |
| (1,642) | 1:A:2308:SER:HB2 | 1:A:2310:LYS:HE3 | 14 | 0.13 |
| (1,642) | 1:A:2308:SER:HB2 | 1:A:2310:LYS:HE3 | 17 | 0.13 |
| (1,631) | 1:A:2307:VAL:HB | 1:A:2309:VAL:HA | 17 | 0.13 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 2 | 0.13 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 12 | 0.13 |
| (1,609) | 1:A:2305:TYR:HD1 | 1:A:2325:VAL:HB | 12 | 0.13 |
| (1,603) | 1:A:2305:TYR:HB2 | 1:A:2306:GLU:H | 7 | 0.13 |
| (1,6) | 1:A:2237:GLY:HA3 | 1:A:2240:LYS:HB3 | 9 | 0.13 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 3 | 0.13 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 6 | 0.13 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 9 | 0.13 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 13 | 0.13 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 16 | 0.13 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 18 | 0.13 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 15 | 0.13 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 5 | 0.13 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 14 | 0.13 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG11 | 12 | 0.13 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG12 | 12 | 0.13 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG13 | 12 | 0.13 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 15 | 0.13 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 15 | 0.13 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 15 | 0.13 |
| (1,57) | 1:A:2241:VAL:HG11 | 1:A:2261:ILE:HA | 14 | 0.13 |
| (1,57) | 1:A:2241:VAL:HG12 | 1:A:2261:ILE:HA | 14 | 0.13 |
| (1,57) | 1:A:2241:VAL:HG13 | 1:A:2261:ILE:HA | 14 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB1 | 16 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB2 | 16 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB3 | 16 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB1 | 16 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB2 | 16 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB3 | 16 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB1 | 16 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB2 | 16 | 0.13 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB3 | 16 | 0.13 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 2 | 0.13 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 9 | 0.13 |
| (1,556) | 1:A:2299:VAL:HB | 1:A:2301:GLU:H | 20 | 0.13 |
| (1,53) | 1:A:2241:VAL:H | 1:A:2242:ARG:HD3 | 16 | 0.13 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 14 | 0.13 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 6 | 0.13 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 14 | 0.13 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 16 | 0.13 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 18 | 0.13 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 19 | 0.13 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 1 | 0.13 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 9 | 0.13 |
| (1,430) | 1:A:2279:SER:H | 1:A:2280:LYS:HB3 | 20 | 0.13 |
| (1,429) | 1:A:2279:SER:H | 1:A:2280:LYS:HA | 14 | 0.13 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 1 | 0.13 |
| (1,418) | 1:A:2277:GLY:HA2 | 1:A:2307:VAL:H | 5 | 0.13 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 5 | 0.13 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 9 | 0.13 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 20 | 0.13 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 3 | 0.13 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG21 | 10 | 0.13 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG22 | 10 | 0.13 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG23 | 10 | 0.13 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 1 | 0.13 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 6 | 0.13 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 13 | 0.13 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 15 | 0.13 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 17 | 0.13 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 18 | 0.13 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 19 | 0.13 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 9 | 0.13 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 14 | 0.13 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 20 | 0.13 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 20 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 1 | 0.13 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 5 | 0.13 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 7 | 0.13 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 16 | 0.13 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 1 | 0.13 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 5 | 0.13 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 8 | 0.13 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 10 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 1 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 2 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 3 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 4 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 6 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 11 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 15 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 16 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 17 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 18 | 0.13 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 20 | 0.13 |
| (1,241) | 1:A:2254:GLY:H | 1:A:2300:GLN:HA | 2 | 0.13 |
| (1,241) | 1:A:2254:GLY:H | 1:A:2300:GLN:HA | 11 | 0.13 |
| (1,241) | 1:A:2254:GLY:H | 1:A:2300:GLN:HA | 19 | 0.13 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 5 | 0.13 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 5 | 0.13 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 5 | 0.13 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 18 | 0.13 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 18 | 0.13 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 18 | 0.13 |
| (1,171) | 1:A:2251:ALA:H | 1:A:2324:PRO:HD3 | 3 | 0.13 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 5 | 0.13 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 6 | 0.13 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 7 | 0.13 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 19 | 0.13 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 20 | 0.13 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 3 | 0.13 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 16 | 0.13 |
| (1,137) | 1:A:2248:LEU:HD21 | 1:A:2307:VAL:HB | 5 | 0.13 |
| (1,137) | 1:A:2248:LEU:HD22 | 1:A:2307:VAL:HB | 5 | 0.13 |
| (1,137) | 1:A:2248:LEU:HD23 | 1:A:2307:VAL:HB | 5 | 0.13 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 4 | 0.13 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 10 | 0.13 |
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA2 | 18 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1329) | 3:C:748:LYS:H | 1:A:2277:GLY:HA3 | 18 | 0.13 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 17 | 0.13 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 7 | 0.13 |
| (1,1267) | 3:C:754:PHE:H | 3:C:754:PHE:HB3 | 15 | 0.13 |
| (1,1236) | 3:C:749:GLU:H | 3:C:749:GLU:HB2 | 18 | 0.13 |
| (1,1236) | 3:C:749:GLU:H | 3:C:749:GLU:HB3 | 18 | 0.13 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 11 | 0.13 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 11 | 0.13 |
| (1,1132) | 3:C:733:GLU:H | 3:C:734:ARG:HA | 5 | 0.13 |
| (1,1129) | 3:C:733:GLU:H | 3:C:729:LYS:HD2 | 16 | 0.13 |
| (1,1129) | 3:C:733:GLU:H | 3:C:729:LYS:HD3 | 16 | 0.13 |
| (1,1114) | 3:C:731:GLU:HG3 | 3:C:733:GLU:H | 5 | 0.13 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 4 | 0.13 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 8 | 0.13 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 20 | 0.13 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 4 | 0.13 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 6 | 0.13 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 7 | 0.13 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 18 | 0.13 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 10 | 0.13 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 14 | 0.13 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 18 | 0.13 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 8 | 0.13 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 12 | 0.13 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 16 | 0.13 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 6 | 0.13 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 8 | 0.13 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 13 | 0.13 |
| (1,1049) | 3:C:725:LYS:HB2 | 3:C:729:LYS:H | 17 | 0.13 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 7 | 0.13 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 19 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 19 | 0.13 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:NZ | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:716:LYS:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:NZ | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:717:LYS:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:NZ | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:O | 20 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:718:LYS:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:719:ILE:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:720:THR:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:720:THR:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:720:THR:OG1 | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:721:ILE:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:ND1 | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:NE2 | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:N | 20 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|------------------|----------|---------------|
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:722:HIS:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD1 | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:723:ASP:OD2 | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NE | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH1 | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:NH2 | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:724:ARG:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:O | 20 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-------------------|----------|---------------|
| (2,4) | 3:C:725:LYS:N | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:NZ | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:N | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:ND2 | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:O | 20 | 0.12 |
| (2,4) | 3:C:725:LYS:O | 1:A:2312:ASN:OD1 | 20 | 0.12 |
| (1,970) | 2:B:1003:ASP:H | 2:B:1003:ASP:HB2 | 6 | 0.12 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD11 | 1 | 0.12 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD12 | 1 | 0.12 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD13 | 1 | 0.12 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD21 | 1 | 0.12 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD22 | 1 | 0.12 |
| (1,964) | 2:B:1002:GLU:H | 2:B:1000:LEU:HD23 | 1 | 0.12 |
| (1,931) | 2:B:996:ASN:HD22 | 2:B:996:ASN:HA | 13 | 0.12 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 7 | 0.12 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 9 | 0.12 |
| (1,9) | 1:A:2238:ALA:H | 1:A:2239:HIS:HA | 8 | 0.12 |
| (1,870) | 2:B:992:PHE:HD1 | 2:B:994:LYS:HD3 | 7 | 0.12 |
| (1,870) | 2:B:992:PHE:HD2 | 2:B:994:LYS:HD3 | 7 | 0.12 |
| (1,866) | 2:B:992:PHE:HD1 | 2:B:995:ARG:HA | 8 | 0.12 |
| (1,866) | 2:B:992:PHE:HD2 | 2:B:995:ARG:HA | 8 | 0.12 |
| (1,851) | 2:B:991:GLY:HA3 | 2:B:992:PHE:HE1 | 3 | 0.12 |
| (1,851) | 2:B:991:GLY:HA3 | 2:B:992:PHE:HE2 | 3 | 0.12 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 4 | 0.12 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 6 | 0.12 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 12 | 0.12 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 13 | 0.12 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 14 | 0.12 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 18 | 0.12 |
| (1,719) | 1:A:2315:HIS:HE1 | 1:A:2319:SER:HA | 2 | 0.12 |
| (1,719) | 1:A:2315:HIS:HE1 | 1:A:2319:SER:HA | 13 | 0.12 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 10 | 0.12 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 13 | 0.12 |
| (1,696) | 1:A:2314:GLU:H | 1:A:2314:GLU:HB3 | 20 | 0.12 |
| (1,664) | 1:A:2310:LYS:HB3 | 1:A:2314:GLU:H | 5 | 0.12 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 17 | 0.12 |
| (1,662) | 1:A:2310:LYS:HE3 | 1:A:2311:PHE:HA | 20 | 0.12 |
| (1,642) | 1:A:2308:SER:HB2 | 1:A:2310:LYS:HE3 | 3 | 0.12 |
| (1,642) | 1:A:2308:SER:HB2 | 1:A:2310:LYS:HE3 | 19 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,631) | 1:A:2307:VAL:HB | 1:A:2309:VAL:HA | 15 | 0.12 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 3 | 0.12 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 16 | 0.12 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 18 | 0.12 |
| (1,6) | 1:A:2237:GLY:HA3 | 1:A:2240:LYS:HB3 | 3 | 0.12 |
| (1,6) | 1:A:2237:GLY:HA3 | 1:A:2240:LYS:HB3 | 13 | 0.12 |
| (1,598) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB2 | 15 | 0.12 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 9 | 0.12 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 16 | 0.12 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 18 | 0.12 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 6 | 0.12 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 8 | 0.12 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 8 | 0.12 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 8 | 0.12 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG21 | 16 | 0.12 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG22 | 16 | 0.12 |
| (1,583) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG23 | 16 | 0.12 |
| (1,582) | 1:A:2303:GLY:H | 1:A:2325:VAL:HB | 12 | 0.12 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 11 | 0.12 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 17 | 0.12 |
| (1,566) | 1:A:2300:GLN:HB2 | 1:A:2301:GLU:H | 12 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB1 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB2 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB3 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB1 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB2 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB3 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB1 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB2 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB3 | 2 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB1 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB2 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG21 | 1:A:2243:ALA:HB3 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB1 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB2 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG22 | 1:A:2243:ALA:HB3 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB1 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB2 | 15 | 0.12 |
| (1,56) | 1:A:2241:VAL:HG23 | 1:A:2243:ALA:HB3 | 15 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 5 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 5 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 5 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 6 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 6 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 6 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 9 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 9 | 0.12 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 9 | 0.12 |
| (1,528) | 1:A:2296:ALA:HA | 1:A:2307:VAL:HG11 | 9 | 0.12 |
| (1,528) | 1:A:2296:ALA:HA | 1:A:2307:VAL:HG12 | 9 | 0.12 |
| (1,528) | 1:A:2296:ALA:HA | 1:A:2307:VAL:HG13 | 9 | 0.12 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 3 | 0.12 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 1 | 0.12 |
| (1,438) | 1:A:2279:SER:HB3 | 1:A:2301:GLU:HG2 | 13 | 0.12 |
| (1,437) | 1:A:2279:SER:HB3 | 1:A:2301:GLU:HG3 | 13 | 0.12 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 3 | 0.12 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 18 | 0.12 |
| (1,428) | 1:A:2279:SER:HB2 | 1:A:2280:LYS:H | 6 | 0.12 |
| (1,426) | 1:A:2279:SER:HB3 | 1:A:2280:LYS:H | 1 | 0.12 |
| (1,422) | 1:A:2278:PRO:HB2 | 1:A:2305:TYR:HA | 10 | 0.12 |
| (1,422) | 1:A:2278:PRO:HB2 | 1:A:2305:TYR:HA | 11 | 0.12 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 12 | 0.12 |
| (1,414) | 1:A:2277:GLY:HA2 | 1:A:2306:GLU:HA | 18 | 0.12 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 18 | 0.12 |
| (1,407) | 1:A:2276:GLU:HB2 | 1:A:2277:GLY:H | 8 | 0.12 |
| (1,404) | 1:A:2276:GLU:HG3 | 1:A:2277:GLY:H | 15 | 0.12 |
| (1,391) | 1:A:2275:VAL:HG21 | 1:A:2277:GLY:H | 17 | 0.12 |
| (1,391) | 1:A:2275:VAL:HG22 | 1:A:2277:GLY:H | 17 | 0.12 |
| (1,391) | 1:A:2275:VAL:HG23 | 1:A:2277:GLY:H | 17 | 0.12 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 13 | 0.12 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 13 | 0.12 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 13 | 0.12 |
| (1,299) | 1:A:2261:ILE:HA | 1:A:2263:THR:H | 8 | 0.12 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 2 | 0.12 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 5 | 0.12 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 19 | 0.12 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 16 | 0.12 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 18 | 0.12 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 5 | 0.12 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 8 | 0.12 |
| (1,266) | 1:A:2257:ALA:HB1 | 1:A:2258:GLU:H | 4 | 0.12 |
| (1,266) | 1:A:2257:ALA:HB2 | 1:A:2258:GLU:H | 4 | 0.12 |
| (1,266) | 1:A:2257:ALA:HB3 | 1:A:2258:GLU:H | 4 | 0.12 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 15 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 3 | 0.12 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 4 | 0.12 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 6 | 0.12 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 12 | 0.12 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 15 | 0.12 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 5 | 0.12 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 7 | 0.12 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 8 | 0.12 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 9 | 0.12 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 14 | 0.12 |
| (1,252) | 1:A:2255:VAL:HA | 1:A:2256:PRO:HB2 | 19 | 0.12 |
| (1,241) | 1:A:2254:GLY:H | 1:A:2300:GLN:HA | 7 | 0.12 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG11 | 20 | 0.12 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG12 | 20 | 0.12 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG13 | 20 | 0.12 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 6 | 0.12 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 6 | 0.12 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 6 | 0.12 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 1 | 0.12 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 7 | 0.12 |
| (1,137) | 1:A:2248:LEU:HD21 | 1:A:2307:VAL:HB | 1 | 0.12 |
| (1,137) | 1:A:2248:LEU:HD22 | 1:A:2307:VAL:HB | 1 | 0.12 |
| (1,137) | 1:A:2248:LEU:HD23 | 1:A:2307:VAL:HB | 1 | 0.12 |
| (1,1324) | 1:A:2275:VAL:H | 3:C:751:THR:HA | 10 | 0.12 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 16 | 0.12 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 10 | 0.12 |
| (1,1316) | 1:A:2238:ALA:H | 2:B:989:LYS:HB2 | 20 | 0.12 |
| (1,1282) | 3:C:757:ILE:H | 3:C:757:ILE:HD11 | 10 | 0.12 |
| (1,1282) | 3:C:757:ILE:H | 3:C:757:ILE:HD12 | 10 | 0.12 |
| (1,1282) | 3:C:757:ILE:H | 3:C:757:ILE:HD13 | 10 | 0.12 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD2 | 6 | 0.12 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD3 | 6 | 0.12 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD2 | 8 | 0.12 |
| (1,1232) | 3:C:748:LYS:H | 3:C:748:LYS:HD3 | 8 | 0.12 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 9 | 0.12 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 9 | 0.12 |
| (1,1127) | 3:C:732:GLU:HA | 3:C:735:ALA:H | 11 | 0.12 |
| (1,1116) | 3:C:731:GLU:H | 3:C:733:GLU:HB3 | 5 | 0.12 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 1 | 0.12 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 5 | 0.12 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 12 | 0.12 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 19 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 3 | 0.12 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 9 | 0.12 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 10 | 0.12 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 12 | 0.12 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 19 | 0.12 |
| (1,108) | 1:A:2246:PRO:HB3 | 1:A:2259:PHE:HA | 14 | 0.12 |
| (1,108) | 1:A:2246:PRO:HB3 | 1:A:2259:PHE:HA | 18 | 0.12 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 3 | 0.12 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 4 | 0.12 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 12 | 0.12 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 15 | 0.12 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 16 | 0.12 |
| (1,1063) | 3:C:727:PHE:H | 3:C:725:LYS:HA | 5 | 0.12 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 5 | 0.12 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 9 | 0.12 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 10 | 0.12 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 11 | 0.12 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 16 | 0.12 |
| (1,1044) | 3:C:725:LYS:H | 3:C:725:LYS:HD2 | 8 | 0.12 |
| (1,1044) | 3:C:725:LYS:H | 3:C:725:LYS:HD3 | 8 | 0.12 |
| (1,1039) | 3:C:725:LYS:H | 3:C:725:LYS:HE2 | 16 | 0.12 |
| (1,1039) | 3:C:725:LYS:H | 3:C:725:LYS:HE3 | 16 | 0.12 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 6 | 0.12 |
| (1,1004) | 3:C:716:LYS:HA | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HB2 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HD2 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HD3 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HE2 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HE3 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HG2 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HG3 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HZ1 | 3:C:716:LYS:HB3 | 9 | 0.12 |
| (1,1004) | 3:C:716:LYS:HZ2 | 3:C:716:LYS:HB3 | 9 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:NZ | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:716:LYS:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:NZ | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:717:LYS:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:NZ | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:718:LYS:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:719:ILE:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:719:ILE:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:720:THR:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:720:THR:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:720:THR:OG1 | 1:A:2240:LYS:O | 18 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|-------|-----------------|-----------------|----------|---------------|
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:721:ILE:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:721:ILE:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:ND1 | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:NE2 | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:722:HIS:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:OD1 | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:723:ASP:OD2 | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NE | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NH1 | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:NH2 | 1:A:2240:LYS:O | 18 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|------------------|-------------------|----------|---------------|
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:724:ARG:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:N | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:NZ | 1:A:2240:LYS:O | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:N | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:NZ | 18 | 0.11 |
| (2,2) | 3:C:725:LYS:O | 1:A:2240:LYS:O | 18 | 0.11 |
| (1,997) | 2:B:1008:GLU:H | 2:B:1008:GLU:HG2 | 7 | 0.11 |
| (1,997) | 2:B:1008:GLU:H | 2:B:1008:GLU:HG3 | 7 | 0.11 |
| (1,997) | 2:B:1008:GLU:H | 2:B:1008:GLU:HG2 | 12 | 0.11 |
| (1,997) | 2:B:1008:GLU:H | 2:B:1008:GLU:HG3 | 12 | 0.11 |
| (1,992) | 2:B:1007:GLY:HA3 | 2:B:1006:GLU:H | 13 | 0.11 |
| (1,99) | 1:A:2245:GLY:HA2 | 1:A:2258:GLU:HB3 | 2 | 0.11 |
| (1,987) | 2:B:1006:GLU:H | 2:B:1004:ASP:HA | 7 | 0.11 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 1 | 0.11 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 7 | 0.11 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 9 | 0.11 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 17 | 0.11 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 18 | 0.11 |
| (1,95) | 1:A:2245:GLY:HA2 | 1:A:2246:PRO:HA | 19 | 0.11 |
| (1,947) | 2:B:997:ARG:H | 2:B:997:ARG:HB3 | 1 | 0.11 |
| (1,938) | 2:B:996:ASN:HD22 | 2:B:996:ASN:HB3 | 19 | 0.11 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 18 | 0.11 |
| (1,92) | 1:A:2244:GLY:HA2 | 1:A:2261:ILE:HG13 | 20 | 0.11 |
| (1,9) | 1:A:2238:ALA:H | 1:A:2239:HIS:HA | 20 | 0.11 |
| (1,866) | 2:B:992:PHE:HD1 | 2:B:995:ARG:HA | 9 | 0.11 |
| (1,866) | 2:B:992:PHE:HD2 | 2:B:995:ARG:HA | 9 | 0.11 |
| (1,851) | 2:B:991:GLY:HA3 | 2:B:992:PHE:HE1 | 16 | 0.11 |
| (1,851) | 2:B:991:GLY:HA3 | 2:B:992:PHE:HE2 | 16 | 0.11 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 3 | 0.11 |
| (1,840) | 2:B:990:VAL:H | 2:B:990:VAL:HB | 19 | 0.11 |
| (1,836) | 2:B:990:VAL:H | 2:B:990:VAL:HA | 2 | 0.11 |
| (1,816) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB2 | 9 | 0.11 |
| (1,816) | 2:B:988:TRP:HZ2 | 2:B:988:TRP:HB2 | 16 | 0.11 |
| (1,813) | 1:A:2329:SER:HB3 | 1:A:2330:GLY:HA3 | 2 | 0.11 |
| (1,813) | 1:A:2329:SER:HB3 | 1:A:2330:GLY:HA3 | 5 | 0.11 |
| (1,813) | 1:A:2329:SER:HB3 | 1:A:2330:GLY:HA3 | 12 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,766) | 1:A:2321:PHE:HD2 | 1:A:2322:VAL:H | 11 | 0.11 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 9 | 0.11 |
| (1,712) | 1:A:2315:HIS:HA | 1:A:2315:HIS:HD2 | 11 | 0.11 |
| (1,709) | 1:A:2314:GLU:HG2 | 1:A:2316:ILE:HG21 | 2 | 0.11 |
| (1,709) | 1:A:2314:GLU:HG2 | 1:A:2316:ILE:HG22 | 2 | 0.11 |
| (1,709) | 1:A:2314:GLU:HG2 | 1:A:2316:ILE:HG23 | 2 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG21 | 2 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG22 | 2 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG23 | 2 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG21 | 6 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG22 | 6 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG23 | 6 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG21 | 13 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG22 | 13 | 0.11 |
| (1,708) | 1:A:2314:GLU:H | 1:A:2316:ILE:HG23 | 13 | 0.11 |
| (1,704) | 1:A:2314:GLU:HG3 | 1:A:2315:HIS:H | 16 | 0.11 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 3 | 0.11 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 4 | 0.11 |
| (1,70) | 1:A:2242:ARG:HG3 | 1:A:2260:SER:HB2 | 12 | 0.11 |
| (1,699) | 1:A:2314:GLU:H | 1:A:2314:GLU:HG2 | 2 | 0.11 |
| (1,696) | 1:A:2314:GLU:H | 1:A:2314:GLU:HB3 | 12 | 0.11 |
| (1,696) | 1:A:2314:GLU:H | 1:A:2314:GLU:HB3 | 17 | 0.11 |
| (1,667) | 1:A:2310:LYS:HE2 | 1:A:2315:HIS:H | 20 | 0.11 |
| (1,657) | 1:A:2309:VAL:HG21 | 1:A:2320:PRO:HG3 | 13 | 0.11 |
| (1,657) | 1:A:2309:VAL:HG22 | 1:A:2320:PRO:HG3 | 13 | 0.11 |
| (1,657) | 1:A:2309:VAL:HG23 | 1:A:2320:PRO:HG3 | 13 | 0.11 |
| (1,638) | 1:A:2308:SER:HA | 1:A:2309:VAL:HG11 | 7 | 0.11 |
| (1,638) | 1:A:2308:SER:HA | 1:A:2309:VAL:HG12 | 7 | 0.11 |
| (1,638) | 1:A:2308:SER:HA | 1:A:2309:VAL:HG13 | 7 | 0.11 |
| (1,629) | 1:A:2307:VAL:H | 1:A:2308:SER:HA | 20 | 0.11 |
| (1,626) | 1:A:2307:VAL:H | 1:A:2307:VAL:HB | 8 | 0.11 |
| (1,609) | 1:A:2305:TYR:HD1 | 1:A:2325:VAL:HB | 20 | 0.11 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG11 | 11 | 0.11 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG12 | 11 | 0.11 |
| (1,607) | 1:A:2305:TYR:H | 1:A:2325:VAL:HG13 | 11 | 0.11 |
| (1,602) | 1:A:2305:TYR:H | 1:A:2306:GLU:HB3 | 2 | 0.11 |
| (1,599) | 1:A:2305:TYR:H | 1:A:2305:TYR:HD1 | 13 | 0.11 |
| (1,597) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB3 | 10 | 0.11 |
| (1,597) | 1:A:2305:TYR:H | 1:A:2305:TYR:HB3 | 14 | 0.11 |
| (1,594) | 1:A:2304:ASP:HB2 | 1:A:2325:VAL:H | 6 | 0.11 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 1 | 0.11 |
| (1,592) | 1:A:2304:ASP:HB3 | 1:A:2305:TYR:H | 18 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG11 | 13 | 0.11 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG12 | 13 | 0.11 |
| (1,584) | 1:A:2303:GLY:H | 1:A:2325:VAL:HG13 | 13 | 0.11 |
| (1,582) | 1:A:2303:GLY:H | 1:A:2325:VAL:HB | 14 | 0.11 |
| (1,580) | 1:A:2303:GLY:H | 1:A:2325:VAL:H | 15 | 0.11 |
| (1,578) | 1:A:2303:GLY:H | 1:A:2305:TYR:HD2 | 20 | 0.11 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 2 | 0.11 |
| (1,569) | 1:A:2300:GLN:HA | 1:A:2302:PRO:HD3 | 19 | 0.11 |
| (1,566) | 1:A:2300:GLN:HB2 | 1:A:2301:GLU:H | 8 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 4 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 4 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 4 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 16 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 16 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 16 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG21 | 1:A:2301:GLU:HB2 | 18 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG22 | 1:A:2301:GLU:HB2 | 18 | 0.11 |
| (1,557) | 1:A:2299:VAL:HG23 | 1:A:2301:GLU:HB2 | 18 | 0.11 |
| (1,553) | 1:A:2299:VAL:HA | 1:A:2301:GLU:H | 7 | 0.11 |
| (1,485) | 1:A:2286:GLU:H | 1:A:2286:GLU:HB3 | 2 | 0.11 |
| (1,460) | 1:A:2282:GLU:H | 1:A:2282:GLU:HB3 | 6 | 0.11 |
| (1,460) | 1:A:2282:GLU:H | 1:A:2282:GLU:HB3 | 10 | 0.11 |
| (1,460) | 1:A:2282:GLU:H | 1:A:2282:GLU:HB3 | 15 | 0.11 |
| (1,441) | 1:A:2280:LYS:H | 1:A:2280:LYS:HG3 | 15 | 0.11 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 1 | 0.11 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 6 | 0.11 |
| (1,433) | 1:A:2279:SER:HA | 1:A:2301:GLU:H | 13 | 0.11 |
| (1,428) | 1:A:2279:SER:HB2 | 1:A:2280:LYS:H | 13 | 0.11 |
| (1,426) | 1:A:2279:SER:HB3 | 1:A:2280:LYS:H | 15 | 0.11 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 2 | 0.11 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 5 | 0.11 |
| (1,409) | 1:A:2276:GLU:HB2 | 1:A:2308:SER:HA | 19 | 0.11 |
| (1,399) | 1:A:2275:VAL:HA | 1:A:2308:SER:H | 8 | 0.11 |
| (1,399) | 1:A:2275:VAL:HA | 1:A:2308:SER:H | 19 | 0.11 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 9 | 0.11 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 9 | 0.11 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 9 | 0.11 |
| (1,386) | 1:A:2275:VAL:HG21 | 1:A:2276:GLU:H | 16 | 0.11 |
| (1,386) | 1:A:2275:VAL:HG22 | 1:A:2276:GLU:H | 16 | 0.11 |
| (1,386) | 1:A:2275:VAL:HG23 | 1:A:2276:GLU:H | 16 | 0.11 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG21 | 4 | 0.11 |
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG22 | 4 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---------|-------------------|-------------------|----------|---------------|
| (1,366) | 1:A:2273:ILE:HG13 | 1:A:2307:VAL:HG23 | 4 | 0.11 |
| (1,342) | 1:A:2270:GLY:HA3 | 1:A:2271:LEU:HG | 20 | 0.11 |
| (1,299) | 1:A:2261:ILE:HA | 1:A:2263:THR:H | 14 | 0.11 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 12 | 0.11 |
| (1,294) | 1:A:2260:SER:HB3 | 1:A:2294:GLY:HA3 | 20 | 0.11 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 4 | 0.11 |
| (1,286) | 1:A:2259:PHE:HB3 | 1:A:2260:SER:H | 7 | 0.11 |
| (1,283) | 1:A:2258:GLU:HA | 1:A:2297:TYR:H | 6 | 0.11 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 13 | 0.11 |
| (1,282) | 1:A:2258:GLU:HA | 1:A:2294:GLY:HA3 | 17 | 0.11 |
| (1,279) | 1:A:2258:GLU:HB2 | 1:A:2259:PHE:H | 17 | 0.11 |
| (1,269) | 1:A:2257:ALA:H | 1:A:2298:VAL:HB | 4 | 0.11 |
| (1,269) | 1:A:2257:ALA:H | 1:A:2298:VAL:HB | 5 | 0.11 |
| (1,269) | 1:A:2257:ALA:H | 1:A:2298:VAL:HB | 10 | 0.11 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 11 | 0.11 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 17 | 0.11 |
| (1,259) | 1:A:2256:PRO:HD3 | 1:A:2298:VAL:HB | 19 | 0.11 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 9 | 0.11 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 13 | 0.11 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 14 | 0.11 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 18 | 0.11 |
| (1,254) | 1:A:2255:VAL:H | 1:A:2299:VAL:HA | 20 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG11 | 3 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG12 | 3 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG13 | 3 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG11 | 4 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG12 | 4 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG13 | 4 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG11 | 6 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG12 | 6 | 0.11 |
| (1,236) | 1:A:2254:GLY:HA3 | 1:A:2298:VAL:HG13 | 6 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 1 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 1 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 1 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 3 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 3 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 3 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 4 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 4 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 4 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG21 | 14 | 0.11 |
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG22 | 14 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|-------------------|-------------------|----------|---------------|
| (1,226) | 1:A:2253:ALA:H | 1:A:2325:VAL:HG23 | 14 | 0.11 |
| (1,173) | 1:A:2251:ALA:H | 1:A:2325:VAL:HG21 | 11 | 0.11 |
| (1,173) | 1:A:2251:ALA:H | 1:A:2325:VAL:HG22 | 11 | 0.11 |
| (1,173) | 1:A:2251:ALA:H | 1:A:2325:VAL:HG23 | 11 | 0.11 |
| (1,170) | 1:A:2251:ALA:H | 1:A:2324:PRO:HA | 15 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG21 | 1 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG22 | 1 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG23 | 1 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG21 | 4 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG22 | 4 | 0.11 |
| (1,168) | 1:A:2251:ALA:H | 1:A:2323:VAL:HG23 | 4 | 0.11 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 1 | 0.11 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 9 | 0.11 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 14 | 0.11 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 16 | 0.11 |
| (1,161) | 1:A:2250:ARG:HB3 | 1:A:2325:VAL:H | 17 | 0.11 |
| (1,152) | 1:A:2250:ARG:HG3 | 1:A:2251:ALA:H | 13 | 0.11 |
| (1,152) | 1:A:2250:ARG:HG3 | 1:A:2251:ALA:H | 15 | 0.11 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 4 | 0.11 |
| (1,147) | 1:A:2249:GLU:HB3 | 1:A:2323:VAL:HA | 17 | 0.11 |
| (1,137) | 1:A:2248:LEU:HD21 | 1:A:2307:VAL:HB | 20 | 0.11 |
| (1,137) | 1:A:2248:LEU:HD22 | 1:A:2307:VAL:HB | 20 | 0.11 |
| (1,137) | 1:A:2248:LEU:HD23 | 1:A:2307:VAL:HB | 20 | 0.11 |
| (1,1334) | 3:C:751:THR:H | 1:A:2272:ALA:H | 11 | 0.11 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 3 | 0.11 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 8 | 0.11 |
| (1,1318) | 1:A:2269:GLY:H | 3:C:721:ILE:HB | 20 | 0.11 |
| (1,1266) | 3:C:754:PHE:H | 3:C:754:PHE:HB2 | 3 | 0.11 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB2 | 2 | 0.11 |
| (1,1229) | 3:C:748:LYS:H | 3:C:748:LYS:HB3 | 2 | 0.11 |
| (1,1208) | 3:C:744:ASN:H | 3:C:744:ASN:HB2 | 17 | 0.11 |
| (1,1191) | 3:C:743:ASN:H | 3:C:743:ASN:HB2 | 14 | 0.11 |
| (1,1185) | 3:C:741:THR:H | 3:C:741:THR:HA | 9 | 0.11 |
| (1,1137) | 3:C:733:GLU:HA | 3:C:735:ALA:H | 1 | 0.11 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB1 | 20 | 0.11 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB2 | 20 | 0.11 |
| (1,1128) | 3:C:732:GLU:H | 3:C:735:ALA:HB3 | 20 | 0.11 |
| (1,1124) | 3:C:732:GLU:HB3 | 3:C:733:GLU:H | 9 | 0.11 |
| (1,1121) | 3:C:732:GLU:H | 3:C:732:GLU:HB3 | 16 | 0.11 |
| (1,1114) | 3:C:731:GLU:HG3 | 3:C:733:GLU:H | 11 | 0.11 |
| (1,1114) | 3:C:731:GLU:HG3 | 3:C:733:GLU:H | 17 | 0.11 |
| (1,1104) | 3:C:730:PHE:HA | 3:C:732:GLU:H | 14 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,1103) | 3:C:730:PHE:HA | 3:C:731:GLU:H | 2 | 0.11 |
| (1,1103) | 3:C:730:PHE:HA | 3:C:731:GLU:H | 16 | 0.11 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 2 | 0.11 |
| (1,1099) | 3:C:730:PHE:H | 3:C:730:PHE:HA | 16 | 0.11 |
| (1,1089) | 3:C:729:LYS:HA | 3:C:731:GLU:H | 20 | 0.11 |
| (1,108) | 1:A:2246:PRO:HB3 | 1:A:2259:PHE:HA | 8 | 0.11 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 1 | 0.11 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 8 | 0.11 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 11 | 0.11 |
| (1,1079) | 3:C:728:ALA:H | 3:C:728:ALA:HA | 19 | 0.11 |
| (1,1061) | 3:C:727:PHE:H | 3:C:726:GLU:HG2 | 19 | 0.11 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 5 | 0.11 |
| (1,1056) | 3:C:726:GLU:HB3 | 3:C:727:PHE:H | 17 | 0.11 |
| (1,1044) | 3:C:725:LYS:H | 3:C:725:LYS:HD2 | 14 | 0.11 |
| (1,1044) | 3:C:725:LYS:H | 3:C:725:LYS:HD3 | 14 | 0.11 |

10 Dihedral-angle violation analysis [i](#)

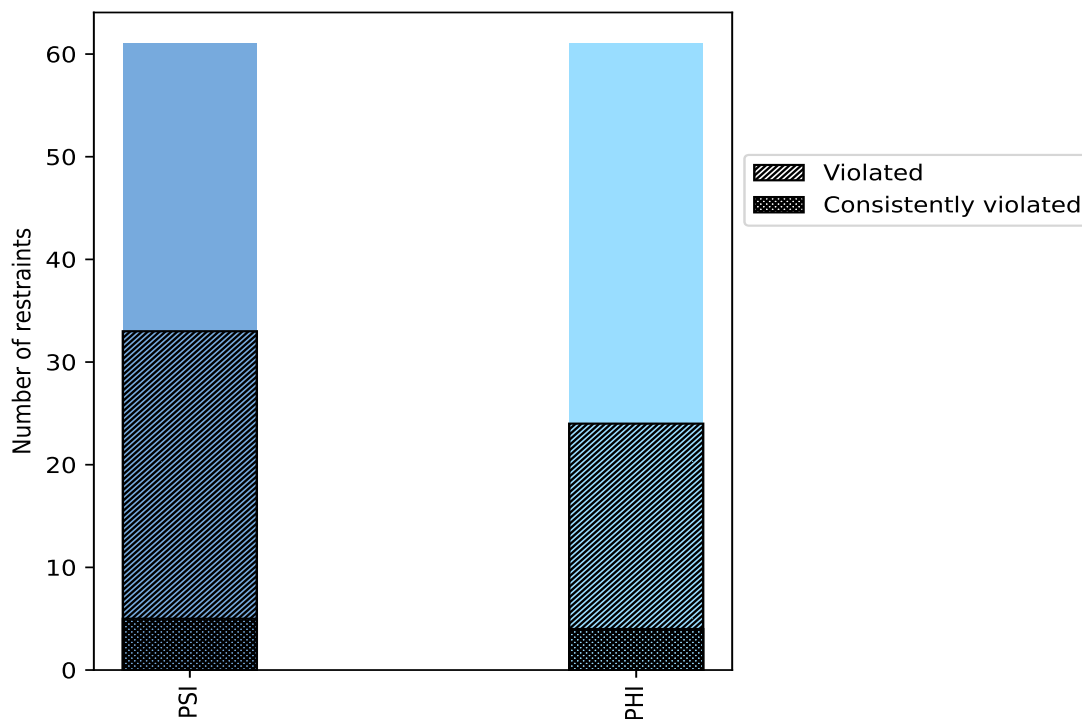
10.1 Summary of dihedral-angle violations [i](#)

The following table provides the summary of dihedral-angle violations in different dihedral-angle types. Violations less than 1° are not included in the calculation.

| Angle type | Count | % ¹ | Violated ³ | | | Consistently Violated ⁴ | | |
|------------|-------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
| | | | Count | % ² | % ¹ | Count | % ² | % ¹ |
| PSI | 61 | 50.0 | 33 | 54.1 | 27.0 | 5 | 8.2 | 4.1 |
| PHI | 61 | 50.0 | 24 | 39.3 | 19.7 | 4 | 6.6 | 3.3 |
| Total | 122 | 100.0 | 57 | 46.7 | 46.7 | 9 | 7.4 | 7.4 |

¹ percentage calculated with respect to total number of dihedral-angle restraints, ² percentage calculated with respect to number of restraints in a particular dihedral-angle type, ³ violated in at least one model, ⁴ violated in all the models

10.1.1 Bar chart : Distribution of dihedral-angles and violations [i](#)



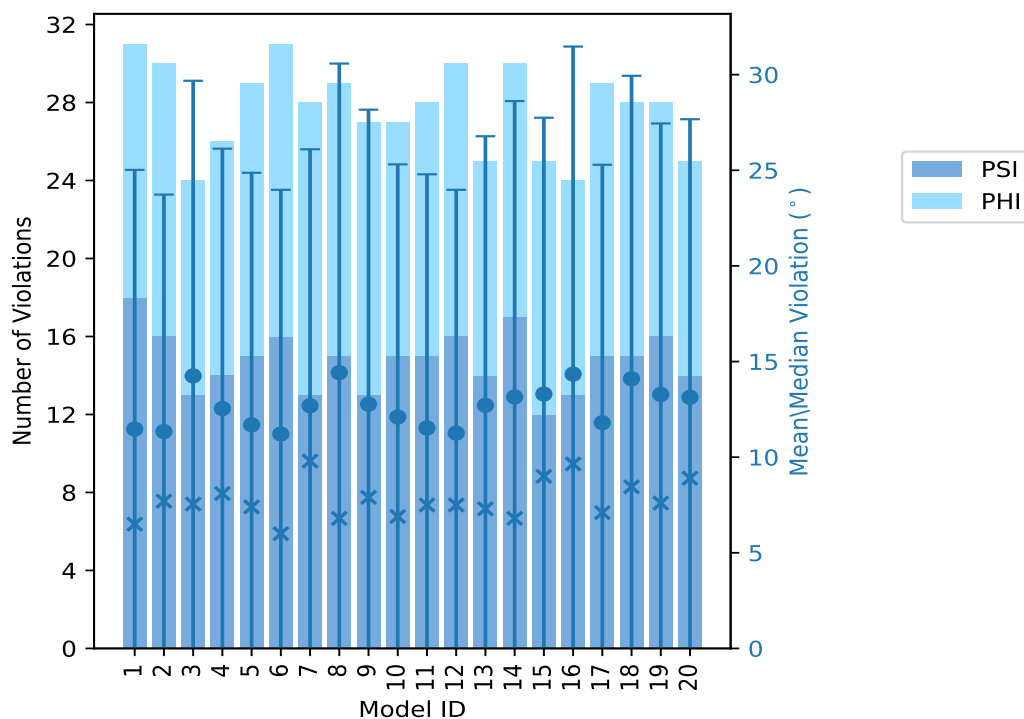
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

10.2 Dihedral-angle violation statistics for each model [i](#)

The following table provides the dihedral-angle violation statistics for each model in the ensemble. Violations less than 1° are not included in the statistics.

| Model ID | Number of violations | | | Mean (°) | Max (°) | SD (°) | Median (°) |
|----------|----------------------|-----|-------|----------|---------|--------|------------|
| | PSI | PHI | Total | | | | |
| 1 | 18 | 13 | 31 | 11.47 | 73.0 | 13.55 | 6.5 |
| 2 | 16 | 14 | 30 | 11.34 | 64.6 | 12.39 | 7.7 |
| 3 | 13 | 11 | 24 | 14.25 | 64.7 | 15.43 | 7.55 |
| 4 | 14 | 12 | 26 | 12.54 | 67.3 | 13.59 | 8.1 |
| 5 | 15 | 14 | 29 | 11.69 | 68.5 | 13.18 | 7.4 |
| 6 | 16 | 15 | 31 | 11.21 | 66.4 | 12.77 | 6.0 |
| 7 | 13 | 15 | 28 | 12.69 | 69.0 | 13.41 | 9.8 |
| 8 | 15 | 14 | 29 | 14.42 | 79.9 | 16.16 | 6.8 |
| 9 | 13 | 14 | 27 | 12.77 | 79.9 | 15.4 | 7.9 |
| 10 | 15 | 12 | 27 | 12.1 | 64.6 | 13.21 | 6.9 |
| 11 | 15 | 13 | 28 | 11.53 | 67.5 | 13.26 | 7.5 |
| 12 | 16 | 14 | 30 | 11.26 | 65.8 | 12.72 | 7.5 |
| 13 | 14 | 11 | 25 | 12.71 | 66.2 | 14.07 | 7.3 |
| 14 | 17 | 13 | 30 | 13.15 | 75.4 | 15.47 | 6.8 |
| 15 | 12 | 13 | 25 | 13.3 | 71.6 | 14.45 | 9.0 |
| 16 | 13 | 11 | 24 | 14.34 | 87.4 | 17.13 | 9.65 |
| 17 | 15 | 14 | 29 | 11.8 | 69.5 | 13.49 | 7.1 |
| 18 | 15 | 13 | 28 | 14.1 | 74.8 | 15.84 | 8.45 |
| 19 | 16 | 12 | 28 | 13.28 | 64.8 | 14.17 | 7.6 |
| 20 | 14 | 11 | 25 | 13.13 | 74.3 | 14.54 | 8.9 |

10.2.1 Bar graph : Dihedral violation statistics for each model [i](#)



The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

10.3 Dihedral-angle violation statistics for the ensemble [i](#)

Violation analysis may find that some restraints are violated in very few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of ensemble.

| Number of violated restraints | | | Fraction of the ensemble | |
|-------------------------------|-----|-------|--------------------------|------|
| PSI | PHI | Total | Count ¹ | % |
| 6 | 5 | 11 | 1 | 5.0 |
| 3 | 1 | 4 | 2 | 10.0 |
| 3 | 1 | 4 | 3 | 15.0 |
| 1 | 0 | 1 | 4 | 20.0 |
| 2 | 1 | 3 | 5 | 25.0 |
| 2 | 1 | 3 | 6 | 30.0 |
| 1 | 1 | 2 | 7 | 35.0 |
| 1 | 0 | 1 | 8 | 40.0 |
| 1 | 2 | 3 | 9 | 45.0 |
| 1 | 0 | 1 | 10 | 50.0 |
| 0 | 1 | 1 | 11 | 55.0 |

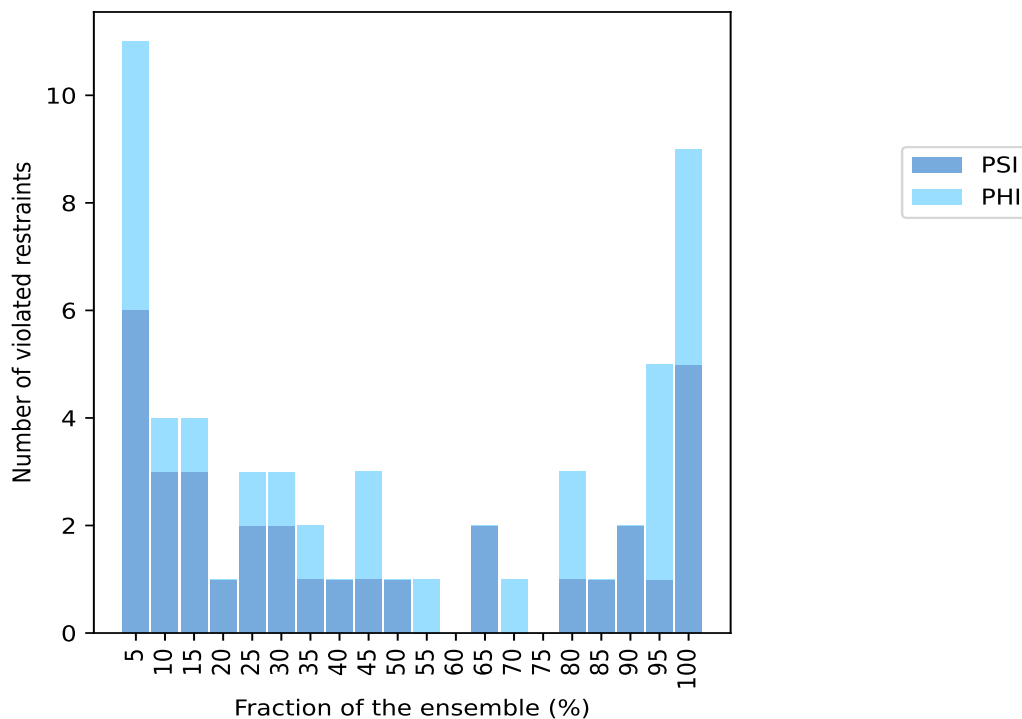
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| Number of violated restraints | | | Fraction of the ensemble | |
|-------------------------------|-----|-------|--------------------------|-------|
| PSI | PHI | Total | Count ¹ | % |
| 0 | 0 | 0 | 12 | 60.0 |
| 2 | 0 | 2 | 13 | 65.0 |
| 0 | 1 | 1 | 14 | 70.0 |
| 0 | 0 | 0 | 15 | 75.0 |
| 1 | 2 | 3 | 16 | 80.0 |
| 1 | 0 | 1 | 17 | 85.0 |
| 2 | 0 | 2 | 18 | 90.0 |
| 1 | 4 | 5 | 19 | 95.0 |
| 5 | 4 | 9 | 20 | 100.0 |

¹ Number of models with violations

10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble [i](#)

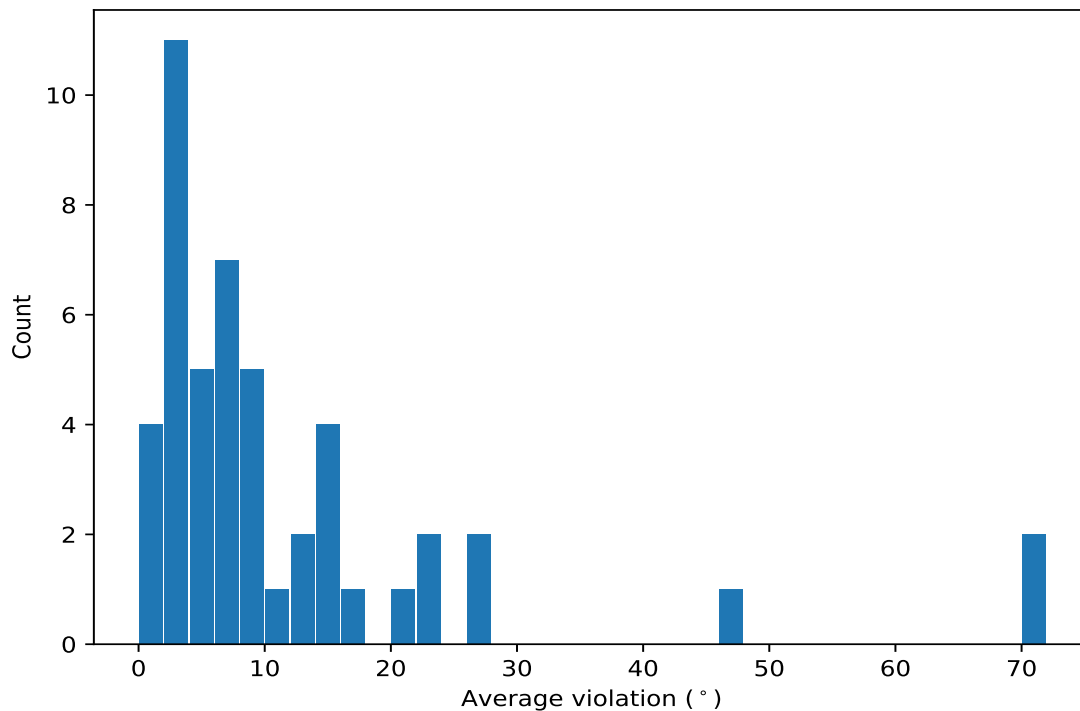


10.4 Most violated dihedral-angle restraints in the ensemble [i](#)

10.4.1 Histogram : Distribution of mean dihedral-angle violations [i](#)

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models

in the ensemble



10.4.2 Table: Most violated dihedral-angle restraints [i](#)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Models ¹ | Mean | SD ² | Medi |
|---------|----------------|-----------------|-----------------|----------------|---------------------|-------|-----------------|------|
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 20 | 70.76 | 6.1 | 68.7 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 20 | 70.76 | 6.1 | 68.7 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 20 | 27.66 | 0.41 | 27.0 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 20 | 26.83 | 0.66 | 27.0 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 20 | 23.81 | 1.44 | 23.9 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 20 | 23.81 | 1.44 | 23.9 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 20 | 21.77 | 4.89 | 21.8 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 20 | 15.25 | 3.42 | 16.4 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 20 | 14.69 | 3.41 | 14.5 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 20 | 6.13 | 1.71 | 6.09 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 20 | 1.34 | 0.15 | 1.35 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 19 | 14.63 | 4.05 | 15.0 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 19 | 12.16 | 5.37 | 10.0 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 19 | 7.02 | 1.63 | 6.4 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 19 | 5.88 | 0.93 | 5.8 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 19 | 3.26 | 1.64 | 2.4 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 18 | 13.04 | 4.98 | 14.0 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 18 | 4.47 | 1.68 | 5.2 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 17 | 15.18 | 6.02 | 18.5 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 16 | 8.81 | 2.69 | 10.1 |

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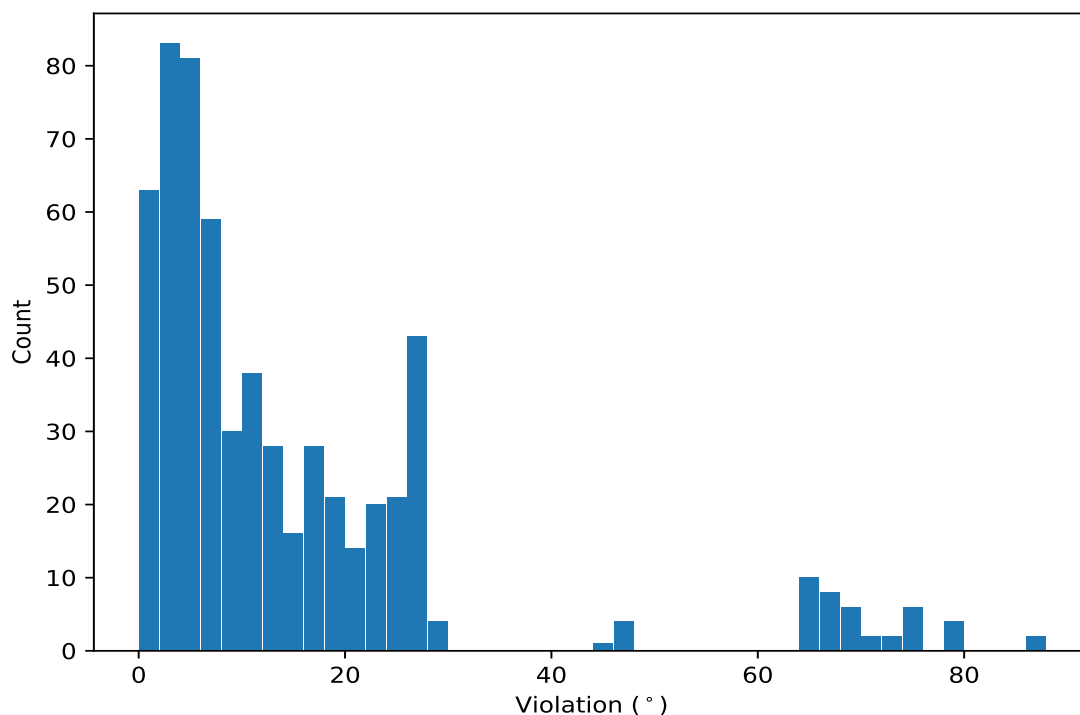
| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Models ¹ | Mean | SD ² | Medi |
|---------|----------------|-----------------|-----------------|----------------|---------------------|-------|-----------------|------|
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 16 | 8.54 | 2.09 | 9.4 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 16 | 3.84 | 0.5 | 3.9 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 14 | 2.46 | 0.33 | 2.4 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 13 | 8.94 | 2.94 | 9.1 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 13 | 1.36 | 0.16 | 1.3 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 11 | 6.32 | 1.44 | 6.8 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 10 | 8.58 | 3.26 | 8.5 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 9 | 6.3 | 2.98 | 5.8 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 9 | 4.52 | 0.22 | 4.6 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 9 | 3.68 | 1.06 | 4.2 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 8 | 3.71 | 1.13 | 3.2 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 7 | 3.56 | 0.69 | 3.6 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 7 | 1.71 | 0.3 | 1.7 |
| (1,6) | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 6 | 8.15 | 4.85 | 8.6 |
| (1,102) | 1:A:2320:PRO:N | 1:A:2320:PRO:CA | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 6 | 4.32 | 1.75 | 4.2 |
| (1,41) | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 6 | 2.4 | 0.58 | 2.1 |
| (1,122) | 1:A:2318:ASP:N | 1:A:2318:ASP:CA | 1:A:2318:ASP:C | 1:A:2319:SER:N | 5 | 46.38 | 0.62 | 46.5 |
| (1,92) | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 1:A:2309:VAL:N | 5 | 17.08 | 0.28 | 17.5 |
| (1,87) | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 5 | 2.16 | 0.47 | 2.1 |
| (1,110) | 1:A:2324:PRO:N | 1:A:2324:PRO:CA | 1:A:2324:PRO:C | 1:A:2325:VAL:N | 4 | 6.78 | 0.42 | 6.7 |
| (1,120) | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 1:A:2267:GLY:N | 3 | 6.8 | 3.77 | 5.9 |
| (1,93) | 1:A:2308:SER:C | 1:A:2309:VAL:N | 1:A:2309:VAL:CA | 1:A:2309:VAL:C | 3 | 3.77 | 2.36 | 3.2 |
| (1,84) | 1:A:2304:ASP:N | 1:A:2304:ASP:CA | 1:A:2304:ASP:C | 1:A:2305:TYR:N | 3 | 2.3 | 0.37 | 2.2 |
| (1,54) | 1:A:2282:GLU:N | 1:A:2282:GLU:CA | 1:A:2282:GLU:C | 1:A:2283:ILE:N | 3 | 1.57 | 0.05 | 1.6 |
| (1,94) | 1:A:2309:VAL:N | 1:A:2309:VAL:CA | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 2 | 10.5 | 1.5 | 10.3 |
| (1,50) | 1:A:2279:SER:N | 1:A:2279:SER:CA | 1:A:2279:SER:C | 1:A:2280:LYS:N | 2 | 6.65 | 0.65 | 6.6 |
| (1,56) | 1:A:2283:ILE:N | 1:A:2283:ILE:CA | 1:A:2283:ILE:C | 1:A:2284:SER:N | 2 | 4.0 | 2.5 | 4.0 |
| (1,37) | 1:A:2270:GLY:C | 1:A:2271:LEU:N | 1:A:2271:LEU:CA | 1:A:2271:LEU:C | 2 | 2.35 | 0.85 | 2.3 |

¹ Number of violated models, ²Standard deviation, All angle values are in degree (°)

10.5 All violated dihedral-angle restraints

10.5.1 Histogram : Distribution of violations

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.



10.5.2 Table: All violated dihedral-angle restraints [i](#)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|--------|----------------|-----------------|----------------|----------------|----------|---------------|
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 16 | 87.4 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 16 | 87.4 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 8 | 79.9 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 8 | 79.9 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 9 | 79.9 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 9 | 79.9 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 14 | 75.4 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 14 | 75.4 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 18 | 74.8 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 18 | 74.8 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 20 | 74.3 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 20 | 74.3 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 1 | 73.0 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 1 | 73.0 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 15 | 71.6 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 15 | 71.6 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 17 | 69.5 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 17 | 69.5 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 7 | 69.0 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 7 | 69.0 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 5 | 68.5 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 5 | 68.5 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 11 | 67.5 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 11 | 67.5 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 4 | 67.3 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 4 | 67.3 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 6 | 66.4 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 6 | 66.4 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 13 | 66.2 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 13 | 66.2 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 12 | 65.8 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 12 | 65.8 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 19 | 64.8 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 19 | 64.8 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 3 | 64.7 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 3 | 64.7 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 2 | 64.6 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 2 | 64.6 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 10 | 64.6 |
| (1,30) | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1:A:2262:TRP:N | 10 | 64.6 |
| (1,122) | 1:A:2318:ASP:N | 1:A:2318:ASP:CA | 1:A:2318:ASP:C | 1:A:2319:SER:N | 19 | 47.3 |
| (1,122) | 1:A:2318:ASP:N | 1:A:2318:ASP:CA | 1:A:2318:ASP:C | 1:A:2319:SER:N | 8 | 46.6 |
| (1,122) | 1:A:2318:ASP:N | 1:A:2318:ASP:CA | 1:A:2318:ASP:C | 1:A:2319:SER:N | 3 | 46.5 |
| (1,122) | 1:A:2318:ASP:N | 1:A:2318:ASP:CA | 1:A:2318:ASP:C | 1:A:2319:SER:N | 14 | 46.1 |
| (1,122) | 1:A:2318:ASP:N | 1:A:2318:ASP:CA | 1:A:2318:ASP:C | 1:A:2319:SER:N | 18 | 45.4 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 8 | 28.5 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 10 | 28.4 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 14 | 28.1 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 15 | 28.1 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 13 | 27.9 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 9 | 27.9 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 9 | 27.9 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 3 | 27.9 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 9 | 27.9 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 16 | 27.9 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 4 | 27.8 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 6 | 27.8 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 1 | 27.7 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 5 | 27.7 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 1 | 27.6 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 18 | 27.6 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 2 | 27.5 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 7 | 27.5 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 10 | 27.4 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 17 | 27.4 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 20 | 27.4 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 13 | 27.3 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 3 | 27.3 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 15 | 27.3 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 5 | 27.3 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 3 | 27.2 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 15 | 27.2 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|--------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 6 | 27.2 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 16 | 27.2 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 19 | 27.2 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 11 | 27.2 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 12 | 27.2 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 8 | 27.1 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 19 | 27.1 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 8 | 27.0 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 17 | 27.0 |
| (1,14) | 1:A:2251:ALA:N | 1:A:2251:ALA:CA | 1:A:2251:ALA:C | 1:A:2252:GLU:N | 13 | 27.0 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 11 | 26.9 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 18 | 26.7 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 14 | 26.7 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 18 | 26.6 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 17 | 26.4 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 4 | 26.3 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 2 | 26.2 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 9 | 26.2 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 7 | 26.1 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 12 | 26.0 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 16 | 25.7 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 16 | 25.7 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 10 | 25.6 |
| (1,51) | 1:A:2280:LYS:C | 1:A:2281:ALA:N | 1:A:2281:ALA:CA | 1:A:2281:ALA:C | 20 | 25.3 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 14 | 24.6 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 14 | 24.6 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 14 | 24.4 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1 | 24.4 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 1 | 24.4 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 13 | 24.4 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 13 | 24.4 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 10 | 24.3 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 10 | 24.3 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 4 | 24.2 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 4 | 24.2 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 11 | 24.2 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 11 | 24.2 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 8 | 24.1 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 8 | 24.1 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 5 | 24.0 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 5 | 24.0 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 2 | 23.8 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 2 | 23.8 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 3 | 23.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 3 | 23.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 12 | 23.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 12 | 23.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 17 | 23.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 17 | 23.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 18 | 23.2 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 18 | 23.2 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 20 | 23.2 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 20 | 23.2 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 4 | 23.0 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 15 | 22.7 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 15 | 22.7 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 7 | 22.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 7 | 22.5 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 6 | 22.3 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 6 | 22.3 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 5 | 22.2 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 1 | 21.8 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 6 | 21.4 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 18 | 21.4 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 7 | 21.3 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 13 | 21.0 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 7 | 20.8 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 14 | 20.8 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 18 | 20.8 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 12 | 20.7 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 20 | 20.7 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 8 | 20.7 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 19 | 20.2 |
| (1,29) | 1:A:2260:SER:C | 1:A:2261:ILE:N | 1:A:2261:ILE:CA | 1:A:2261:ILE:C | 19 | 20.2 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 11 | 20.2 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 16 | 19.8 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 19 | 19.4 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 6 | 19.4 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 2 | 19.0 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 11 | 19.0 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 7 | 18.9 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 19 | 18.9 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 5 | 18.8 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 20 | 18.8 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 6 | 18.7 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 9 | 18.6 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 8 | 18.5 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 13 | 18.5 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 16 | 18.5 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 15 | 18.4 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 9 | 18.4 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 18 | 18.3 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 13 | 18.2 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 16 | 18.0 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 3 | 18.0 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 12 | 18.0 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 10 | 17.8 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 15 | 17.8 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 7 | 17.8 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 2 | 17.7 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 17 | 17.7 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 19 | 17.7 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 11 | 17.6 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 17 | 17.5 |
| (1,92) | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 1:A:2309:VAL:N | 4 | 17.4 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 9 | 17.4 |
| (1,92) | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 1:A:2309:VAL:N | 12 | 17.3 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 7 | 17.3 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 4 | 17.3 |
| (1,92) | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 1:A:2309:VAL:N | 18 | 17.1 |
| (1,92) | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 1:A:2309:VAL:N | 2 | 17.0 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 10 | 17.0 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 12 | 17.0 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 14 | 16.8 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 2 | 16.8 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 3 | 16.7 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 8 | 16.7 |
| (1,92) | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 1:A:2309:VAL:N | 1 | 16.6 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 20 | 16.6 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 6 | 16.5 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 4 | 16.4 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 19 | 16.3 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 4 | 16.0 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 14 | 16.0 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 3 | 15.7 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 10 | 15.6 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 15 | 15.6 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 8 | 15.6 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 19 | 15.6 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 10 | 15.5 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 1 | 15.4 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 6 | 15.2 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 5 | 15.1 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 17 | 15.0 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 13 | 14.7 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 8 | 14.5 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 9 | 14.4 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 1 | 14.2 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 16 | 14.0 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 18 | 14.0 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 9 | 13.9 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 1 | 13.8 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 2 | 13.5 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 3 | 13.4 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 7 | 13.2 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 12 | 13.2 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 2 | 13.1 |
| (1,6) | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 9 | 13.1 |
| (1,6) | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 16 | 13.1 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 14 | 13.1 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 5 | 12.9 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 6 | 12.9 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 16 | 12.8 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 15 | 12.8 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 1 | 12.6 |
| (1,6) | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 20 | 12.6 |
| (1,72) | 1:A:2293:CYS:N | 1:A:2293:CYS:CA | 1:A:2293:CYS:C | 1:A:2294:GLY:N | 11 | 12.5 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 5 | 12.5 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 14 | 12.4 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 12 | 12.4 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 20 | 12.4 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 8 | 12.2 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 9 | 12.2 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 20 | 12.2 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 10 | 12.2 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 20 | 12.1 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 3 | 12.1 |
| (1,94) | 1:A:2309:VAL:N | 1:A:2309:VAL:CA | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 7 | 12.0 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1 | 11.9 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 14 | 11.9 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 9 | 11.8 |
| (1,120) | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 1:A:2267:GLY:N | 7 | 11.8 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 8 | 11.7 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 17 | 11.6 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 5 | 11.6 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 6 | 11.6 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 17 | 11.6 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 19 | 11.5 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 1 | 11.4 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 17 | 11.4 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 12 | 11.1 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 15 | 10.9 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 12 | 10.9 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 16 | 10.9 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 11 | 10.9 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 7 | 10.9 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 5 | 10.7 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 4 | 10.6 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 4 | 10.6 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 7 | 10.5 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 11 | 10.5 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 4 | 10.5 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 17 | 10.4 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 19 | 10.4 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 2 | 10.3 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 6 | 10.3 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 5 | 10.3 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 5 | 10.3 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 11 | 10.3 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 15 | 10.3 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 16 | 10.3 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 2 | 10.2 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 6 | 10.1 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 1 | 10.0 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 11 | 10.0 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 20 | 10.0 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 11 | 9.4 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 13 | 9.4 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 5 | 9.2 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 4 | 9.2 |
| (1,114) | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1:A:2327:SER:N | 18 | 9.2 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 7 | 9.1 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 12 | 9.1 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 18 | 9.1 |
| (1,94) | 1:A:2309:VAL:N | 1:A:2309:VAL:CA | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 15 | 9.0 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 3 | 9.0 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 15 | 9.0 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 16 | 9.0 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 6 | 8.9 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 20 | 8.9 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1 | 8.9 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 2 | 8.8 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 18 | 8.7 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 1 | 8.5 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 2 | 8.5 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 10 | 8.4 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 10 | 8.4 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 9 | 8.3 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 18 | 8.2 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 12 | 8.2 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 19 | 8.2 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 7 | 8.1 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 17 | 8.1 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 20 | 8.0 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 2 | 8.0 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 11 | 8.0 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 9 | 7.9 |
| (1,90) | 1:A:2307:VAL:N | 1:A:2307:VAL:CA | 1:A:2307:VAL:C | 1:A:2308:SER:N | 19 | 7.7 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 13 | 7.7 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 20 | 7.7 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 12 | 7.6 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 19 | 7.5 |
| (1,102) | 1:A:2320:PRO:N | 1:A:2320:PRO:CA | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 16 | 7.5 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 13 | 7.5 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 18 | 7.4 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 5 | 7.4 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 17 | 7.4 |
| (1,110) | 1:A:2324:PRO:N | 1:A:2324:PRO:CA | 1:A:2324:PRO:C | 1:A:2325:VAL:N | 12 | 7.4 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 2 | 7.4 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 10 | 7.3 |
| (1,50) | 1:A:2279:SER:N | 1:A:2279:SER:CA | 1:A:2279:SER:C | 1:A:2280:LYS:N | 13 | 7.3 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 19 | 7.2 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 14 | 7.2 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 16 | 7.1 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 14 | 7.1 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 17 | 7.1 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 4 | 7.0 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 15 | 7.0 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 11 | 7.0 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 2 | 7.0 |
| (1,93) | 1:A:2308:SER:C | 1:A:2309:VAL:N | 1:A:2309:VAL:CA | 1:A:2309:VAL:C | 12 | 6.9 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 14 | 6.9 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 8 | 6.9 |
| (1,110) | 1:A:2324:PRO:N | 1:A:2324:PRO:CA | 1:A:2324:PRO:C | 1:A:2325:VAL:N | 10 | 6.9 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 8 | 6.8 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 9 | 6.8 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 12 | 6.8 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 14 | 6.7 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 16 | 6.7 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 15 | 6.7 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 2 | 6.6 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 8 | 6.6 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 10 | 6.6 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 4 | 6.6 |
| (1,56) | 1:A:2283:ILE:N | 1:A:2283:ILE:CA | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1 | 6.5 |
| (1,110) | 1:A:2324:PRO:N | 1:A:2324:PRO:CA | 1:A:2324:PRO:C | 1:A:2325:VAL:N | 14 | 6.5 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 15 | 6.5 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 15 | 6.4 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 11 | 6.4 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 17 | 6.4 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 17 | 6.4 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 8 | 6.3 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 20 | 6.3 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 16 | 6.3 |
| (1,110) | 1:A:2324:PRO:N | 1:A:2324:PRO:CA | 1:A:2324:PRO:C | 1:A:2325:VAL:N | 8 | 6.3 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 8 | 6.3 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 13 | 6.2 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 10 | 6.2 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 20 | 6.2 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 7 | 6.1 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 3 | 6.1 |
| (1,73) | 1:A:2294:GLY:C | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 6 | 6.0 |
| (1,50) | 1:A:2279:SER:N | 1:A:2279:SER:CA | 1:A:2279:SER:C | 1:A:2280:LYS:N | 6 | 6.0 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 5 | 6.0 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 14 | 6.0 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 19 | 5.9 |
| (1,120) | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 1:A:2267:GLY:N | 3 | 5.9 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 3 | 5.8 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 5 | 5.8 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 2 | 5.8 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 19 | 5.8 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 19 | 5.8 |
| (1,57) | 1:A:2283:ILE:C | 1:A:2284:SER:N | 1:A:2284:SER:CA | 1:A:2284:SER:C | 20 | 5.8 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 6 | 5.8 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 8 | 5.8 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 17 | 5.8 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 10 | 5.8 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 14 | 5.8 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 18 | 5.8 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 9 | 5.7 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 9 | 5.7 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 19 | 5.7 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 1 | 5.7 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 1 | 5.6 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 15 | 5.6 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 4 | 5.5 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 11 | 5.4 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 13 | 5.3 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 17 | 5.2 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 18 | 5.2 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 5 | 5.2 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 11 | 5.2 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 5 | 5.2 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 13 | 5.1 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 4 | 5.1 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 6 | 5.0 |
| (1,11) | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 1:A:2244:GLY:CA | 1:A:2244:GLY:C | 6 | 5.0 |
| (1,102) | 1:A:2320:PRO:N | 1:A:2320:PRO:CA | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 14 | 5.0 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 1 | 4.9 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 6 | 4.9 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 8 | 4.9 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 15 | 4.9 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 12 | 4.9 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 13 | 4.9 |
| (1,102) | 1:A:2320:PRO:N | 1:A:2320:PRO:CA | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 1 | 4.9 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 9 | 4.8 |
| (1,6) | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 17 | 4.7 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 20 | 4.7 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 9 | 4.7 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 5 | 4.7 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 12 | 4.6 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 1 | 4.6 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 11 | 4.6 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 16 | 4.6 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 5 | 4.5 |
| (1,69) | 1:A:2291:GLY:C | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 19 | 4.5 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 16 | 4.5 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 14 | 4.5 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 10 | 4.4 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 14 | 4.4 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 15 | 4.4 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 6 | 4.4 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 4 | 4.4 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 1 | 4.3 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 18 | 4.3 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 20 | 4.3 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 17 | 4.3 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 7 | 4.2 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 8 | 4.2 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 2 | 4.2 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 4 | 4.2 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 3 | 4.2 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 10 | 4.1 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 12 | 4.1 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 8 | 4.1 |
| (1,119) | 1:A:2265:GLU:C | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 8 | 4.1 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 19 | 4.0 |
| (1,81) | 1:A:2298:VAL:C | 1:A:2299:VAL:N | 1:A:2299:VAL:CA | 1:A:2299:VAL:C | 1 | 4.0 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 5 | 4.0 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 5 | 4.0 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 6 | 4.0 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 11 | 4.0 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 19 | 4.0 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 4 | 4.0 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 18 | 4.0 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 7 | 4.0 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 7 | 3.9 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 14 | 3.9 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 17 | 3.9 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 4 | 3.9 |
| (1,104) | 1:A:2321:PHE:N | 1:A:2321:PHE:CA | 1:A:2321:PHE:C | 1:A:2322:VAL:N | 10 | 3.9 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 1 | 3.8 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 13 | 3.8 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 8 | 3.7 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 13 | 3.7 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 10 | 3.6 |
| (1,41) | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 7 | 3.6 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 16 | 3.6 |
| (1,86) | 1:A:2305:TYR:N | 1:A:2305:TYR:CA | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 2 | 3.5 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 8 | 3.5 |
| (1,6) | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 18 | 3.5 |
| (1,102) | 1:A:2320:PRO:N | 1:A:2320:PRO:CA | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 6 | 3.5 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 11 | 3.4 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 15 | 3.4 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 3 | 3.3 |
| (1,93) | 1:A:2308:SER:C | 1:A:2309:VAL:N | 1:A:2309:VAL:CA | 1:A:2309:VAL:C | 2 | 3.2 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 17 | 3.2 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 9 | 3.2 |
| (1,37) | 1:A:2270:GLY:C | 1:A:2271:LEU:N | 1:A:2271:LEU:CA | 1:A:2271:LEU:C | 9 | 3.2 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 10 | 3.1 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 16 | 3.1 |
| (1,70) | 1:A:2292:SER:N | 1:A:2292:SER:CA | 1:A:2292:SER:C | 1:A:2293:CYS:N | 20 | 3.1 |
| (1,42) | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 1:A:2274:ALA:N | 7 | 3.1 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 3 | 3.0 |
| (1,103) | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 1:A:2321:PHE:CA | 1:A:2321:PHE:C | 7 | 3.0 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 11 | 2.9 |
| (1,87) | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 2 | 2.9 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 2 | 2.9 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,40) | 1:A:2272:ALA:N | 1:A:2272:ALA:CA | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 13 | 2.9 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 14 | 2.9 |
| (1,84) | 1:A:2304:ASP:N | 1:A:2304:ASP:CA | 1:A:2304:ASP:C | 1:A:2305:TYR:N | 12 | 2.8 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 12 | 2.8 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 9 | 2.8 |
| (1,23) | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 1:A:2258:GLU:CA | 1:A:2258:GLU:C | 18 | 2.8 |
| (1,20) | 1:A:2256:PRO:N | 1:A:2256:PRO:CA | 1:A:2256:PRO:C | 1:A:2257:ALA:N | 19 | 2.8 |
| (1,10) | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 1:A:2244:GLY:N | 18 | 2.8 |
| (1,120) | 1:A:2266:ALA:N | 1:A:2266:ALA:CA | 1:A:2266:ALA:C | 1:A:2267:GLY:N | 5 | 2.7 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 7 | 2.7 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 9 | 2.7 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 16 | 2.7 |
| (1,102) | 1:A:2320:PRO:N | 1:A:2320:PRO:CA | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 2 | 2.7 |
| (1,88) | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 20 | 2.6 |
| (1,59) | 1:A:2284:SER:C | 1:A:2285:PHE:N | 1:A:2285:PHE:CA | 1:A:2285:PHE:C | 11 | 2.6 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 9 | 2.6 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 17 | 2.6 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 18 | 2.6 |
| (1,41) | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 3 | 2.6 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 4 | 2.5 |
| (1,95) | 1:A:2309:VAL:C | 1:A:2310:LYS:N | 1:A:2310:LYS:CA | 1:A:2310:LYS:C | 3 | 2.4 |
| (1,87) | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 7 | 2.4 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 6 | 2.4 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 7 | 2.4 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 6 | 2.4 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 10 | 2.4 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 15 | 2.4 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 17 | 2.4 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 1 | 2.4 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1 | 2.3 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 2 | 2.3 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 4 | 2.3 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 14 | 2.3 |
| (1,102) | 1:A:2320:PRO:N | 1:A:2320:PRO:CA | 1:A:2320:PRO:C | 1:A:2321:PHE:N | 13 | 2.3 |
| (1,84) | 1:A:2304:ASP:N | 1:A:2304:ASP:CA | 1:A:2304:ASP:C | 1:A:2305:TYR:N | 5 | 2.2 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 5 | 2.2 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 13 | 2.2 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 14 | 2.2 |
| (1,41) | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 10 | 2.2 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 1 | 2.2 |
| (1,91) | 1:A:2307:VAL:C | 1:A:2308:SER:N | 1:A:2308:SER:CA | 1:A:2308:SER:C | 8 | 2.1 |
| (1,87) | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 6 | 2.1 |
| (1,7) | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 1:A:2242:ARG:CA | 1:A:2242:ARG:C | 3 | 2.1 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 8 | 2.1 |
| (1,41) | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 16 | 2.1 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 2 | 2.1 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 20 | 2.1 |
| (1,5) | 1:A:2240:LYS:C | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 11 | 2.0 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 1 | 2.0 |
| (1,41) | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 9 | 2.0 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 19 | 2.0 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|-----------------|----------------|----------|---------------|
| (1,87) | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 1 | 1.9 |
| (1,84) | 1:A:2304:ASP:N | 1:A:2304:ASP:CA | 1:A:2304:ASP:C | 1:A:2305:TYR:N | 6 | 1.9 |
| (1,6) | 1:A:2241:VAL:N | 1:A:2241:VAL:CA | 1:A:2241:VAL:C | 1:A:2242:ARG:N | 14 | 1.9 |
| (1,41) | 1:A:2272:ALA:C | 1:A:2273:ILE:N | 1:A:2273:ILE:CA | 1:A:2273:ILE:C | 15 | 1.9 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 2 | 1.8 |
| (1,76) | 1:A:2296:ALA:N | 1:A:2296:ALA:CA | 1:A:2296:ALA:C | 1:A:2297:TYR:N | 17 | 1.8 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 14 | 1.8 |
| (1,17) | 1:A:2254:GLY:C | 1:A:2255:VAL:N | 1:A:2255:VAL:CA | 1:A:2255:VAL:C | 12 | 1.8 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 4 | 1.7 |
| (1,64) | 1:A:2287:ASP:N | 1:A:2287:ASP:CA | 1:A:2287:ASP:C | 1:A:2288:ARG:N | 14 | 1.7 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 10 | 1.7 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 2 | 1.7 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 3 | 1.7 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 7 | 1.7 |
| (1,97) | 1:A:2310:LYS:C | 1:A:2311:PHE:N | 1:A:2311:PHE:CA | 1:A:2311:PHE:C | 6 | 1.6 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 10 | 1.6 |
| (1,54) | 1:A:2282:GLU:N | 1:A:2282:GLU:CA | 1:A:2282:GLU:C | 1:A:2283:ILE:N | 1 | 1.6 |
| (1,54) | 1:A:2282:GLU:N | 1:A:2282:GLU:CA | 1:A:2282:GLU:C | 1:A:2283:ILE:N | 12 | 1.6 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 19 | 1.6 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 10 | 1.6 |
| (1,87) | 1:A:2305:TYR:C | 1:A:2306:GLU:N | 1:A:2306:GLU:CA | 1:A:2306:GLU:C | 5 | 1.5 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 20 | 1.5 |
| (1,56) | 1:A:2283:ILE:N | 1:A:2283:ILE:CA | 1:A:2283:ILE:C | 1:A:2284:SER:N | 9 | 1.5 |
| (1,54) | 1:A:2282:GLU:N | 1:A:2282:GLU:CA | 1:A:2282:GLU:C | 1:A:2283:ILE:N | 18 | 1.5 |
| (1,37) | 1:A:2270:GLY:C | 1:A:2271:LEU:N | 1:A:2271:LEU:CA | 1:A:2271:LEU:C | 13 | 1.5 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 3 | 1.5 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 7 | 1.4 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 11 | 1.4 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 13 | 1.4 |
| (1,26) | 1:A:2259:PHE:N | 1:A:2259:PHE:CA | 1:A:2259:PHE:C | 1:A:2260:SER:N | 6 | 1.4 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 5 | 1.4 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 8 | 1.4 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 12 | 1.4 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 14 | 1.4 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 16 | 1.4 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 17 | 1.4 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 20 | 1.4 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 11 | 1.4 |
| (1,89) | 1:A:2306:GLU:C | 1:A:2307:VAL:N | 1:A:2307:VAL:CA | 1:A:2307:VAL:C | 17 | 1.3 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 12 | 1.3 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 15 | 1.3 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 18 | 1.3 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 19 | 1.3 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 6 | 1.3 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 9 | 1.3 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 13 | 1.3 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 18 | 1.3 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 19 | 1.3 |
| (1,113) | 1:A:2325:VAL:C | 1:A:2326:ALA:N | 1:A:2326:ALA:CA | 1:A:2326:ALA:C | 3 | 1.3 |
| (1,93) | 1:A:2308:SER:C | 1:A:2309:VAL:N | 1:A:2309:VAL:CA | 1:A:2309:VAL:C | 18 | 1.2 |
| (1,9) | 1:A:2242:ARG:C | 1:A:2243:ALA:N | 1:A:2243:ALA:CA | 1:A:2243:ALA:C | 11 | 1.2 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---------|----------------|-----------------|----------------|----------------|----------|---------------|
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 5 | 1.2 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 6 | 1.2 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 2 | 1.2 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 11 | 1.2 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 15 | 1.2 |
| (1,74) | 1:A:2295:VAL:N | 1:A:2295:VAL:CA | 1:A:2295:VAL:C | 1:A:2296:ALA:N | 17 | 1.1 |
| (1,46) | 1:A:2275:VAL:N | 1:A:2275:VAL:CA | 1:A:2275:VAL:C | 1:A:2276:GLU:N | 12 | 1.1 |
| (1,44) | 1:A:2274:ALA:N | 1:A:2274:ALA:CA | 1:A:2274:ALA:C | 1:A:2275:VAL:N | 12 | 1.1 |
| (1,22) | 1:A:2257:ALA:N | 1:A:2257:ALA:CA | 1:A:2257:ALA:C | 1:A:2258:GLU:N | 4 | 1.1 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 1 | 1.1 |
| (1,118) | 1:A:2329:SER:N | 1:A:2329:SER:CA | 1:A:2329:SER:C | 1:A:2330:GLY:N | 4 | 1.1 |
| (1,108) | 1:A:2323:VAL:N | 1:A:2323:VAL:CA | 1:A:2323:VAL:C | 1:A:2324:PRO:N | 12 | 1.1 |