



# Full wwPDB NMR Structure Validation Report ⓘ

Dec 25, 2024 – 07:35 AM EST

PDB ID : 6CO4  
Title : Structure of the Rpn13-Rpn2 complex provides insights for Rpn13 and Uch37 as anticancer targets  
Authors : Lu, X.; Walters, K.J.  
Deposited on : 2018-03-11

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

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>.

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

MolProbity : 4.02b-467  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
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) : 2.40

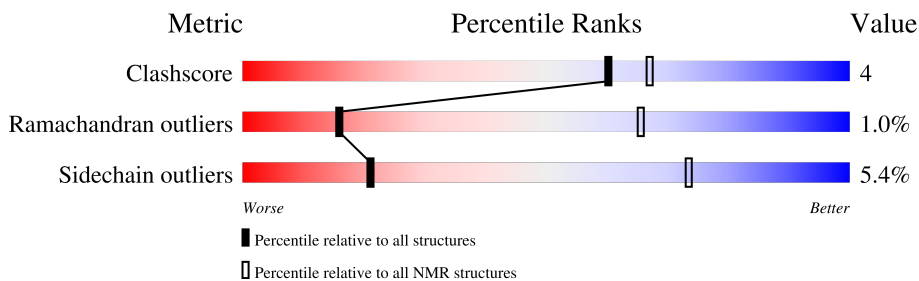
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*SOLUTION NMR*

The overall completeness of chemical shifts assignment is 85%.

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<br>(#Entries) | NMR archive<br>(#Entries) |
|-----------------------|-----------------------------|---------------------------|
| Clashscore            | 210492                      | 14027                     |
| Ramachandran outliers | 207382                      | 12486                     |
| Sidechain outliers    | 206894                      | 12463                     |

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  $\geq 3$ , 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     | 154    |                  |
| 2   | B     | 18     |                  |

## 2 Ensemble composition and analysis i

This entry contains 15 models. Model 7 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *target function*.

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:21-A:132, B:940-B:953<br>(126) | 0.39              | 7            |

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 5 clusters and 3 single-model clusters were found.

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

### 3 Entry composition

There are 2 unique types of molecules in this entry. The entry contains 2069 atoms, of which 1015 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Proteasomal ubiquitin receptor ADRM1.

| Mol | Chain | Residues | Atoms |     |     |     |     | Trace |   |
|-----|-------|----------|-------|-----|-----|-----|-----|-------|---|
|     |       |          | Total | C   | H   | N   | O   |       | S |
| 1   | A     | 113      | 1851  | 593 | 918 | 162 | 172 | 6     | 0 |

There are 4 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment        | Reference  |
|-------|---------|----------|--------|----------------|------------|
| A     | -3      | GLY      | -      | expression tag | UNP Q16186 |
| A     | -2      | PRO      | -      | expression tag | UNP Q16186 |
| A     | -1      | GLY      | -      | expression tag | UNP Q16186 |
| A     | 0       | SER      | -      | expression tag | UNP Q16186 |

- Molecule 2 is a protein called 26S proteasome non-ATPase regulatory subunit 1.

| Mol | Chain | Residues | Atoms |    |    |    |    | Trace |
|-----|-------|----------|-------|----|----|----|----|-------|
|     |       |          | Total | C  | H  | N  | O  |       |
| 2   | B     | 14       | 218   | 77 | 97 | 15 | 29 | 0     |

There are 4 discrepancies between the modelled and reference sequences:

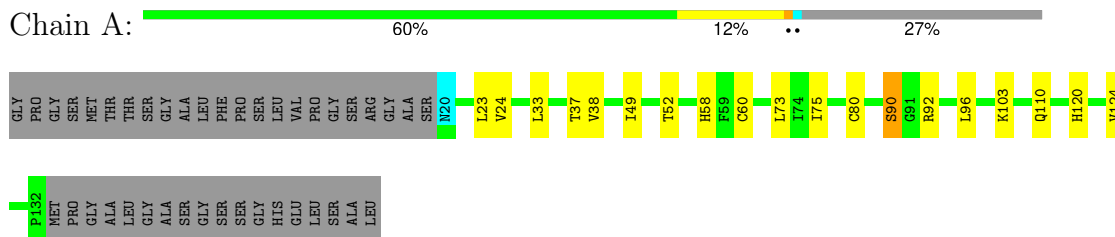
| Chain | Residue | Modelled | Actual | Comment        | Reference  |
|-------|---------|----------|--------|----------------|------------|
| B     | 936     | GLY      | -      | expression tag | UNP Q99460 |
| B     | 937     | PRO      | -      | expression tag | UNP Q99460 |
| B     | 938     | GLY      | -      | expression tag | UNP Q99460 |
| B     | 939     | SER      | -      | expression tag | UNP Q99460 |

## 4 Residue-property plots [i](#)

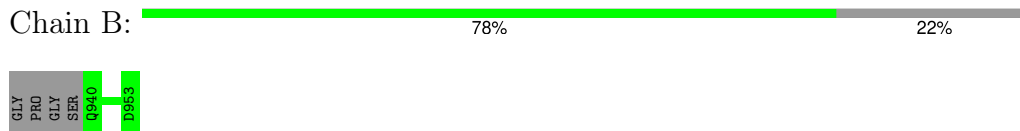
### 4.1 Average score per residue in the NMR ensemble

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: Proteasomal ubiquitin receptor ADRM1



- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

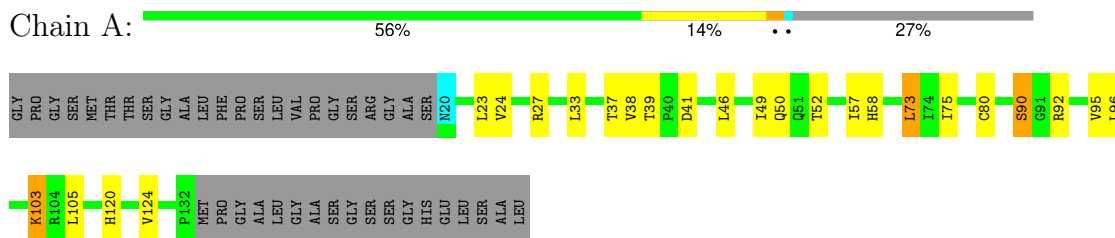


### 4.2 Scores per residue for each member of the ensemble

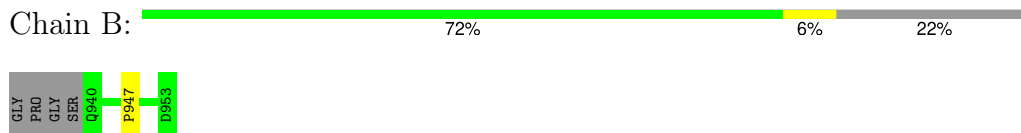
Colouring as in section 4.1 above.

#### 4.2.1 Score per residue for model 1

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

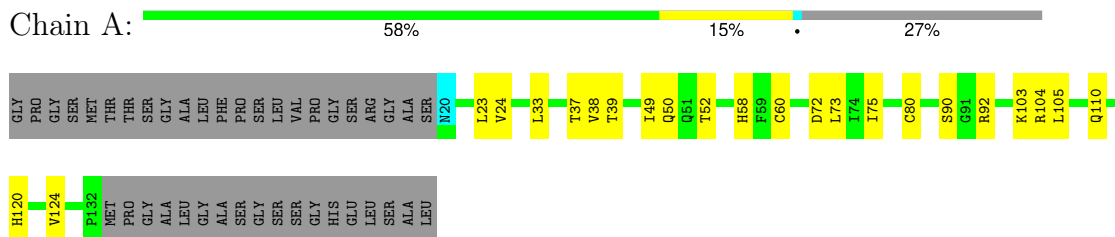


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

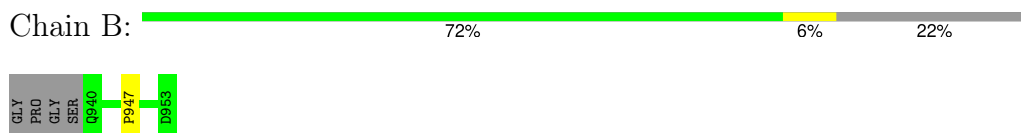


#### 4.2.2 Score per residue for model 2

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

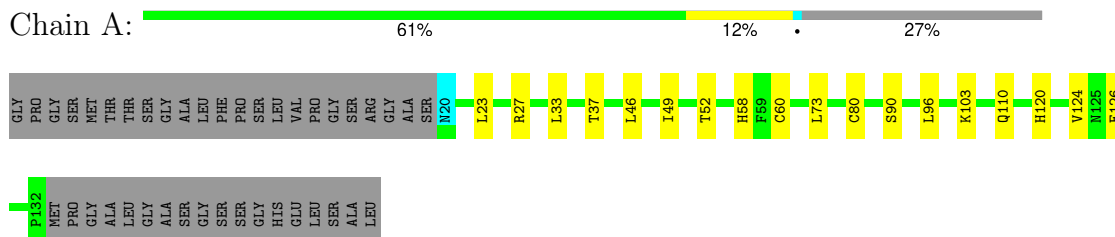


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

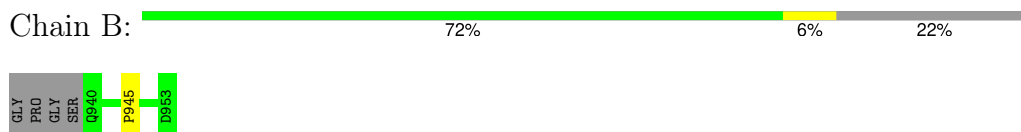


#### 4.2.3 Score per residue for model 3

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

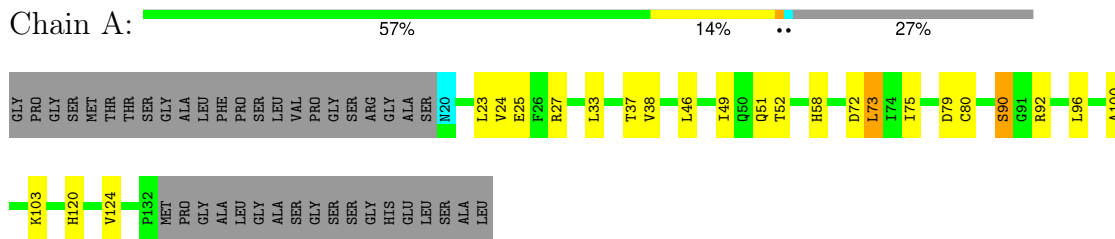


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

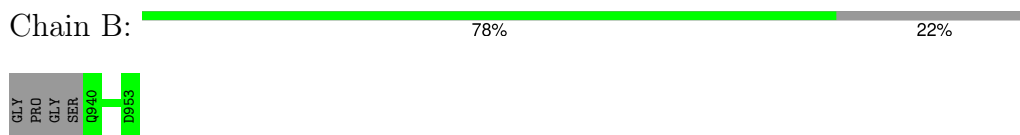


#### 4.2.4 Score per residue for model 4

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

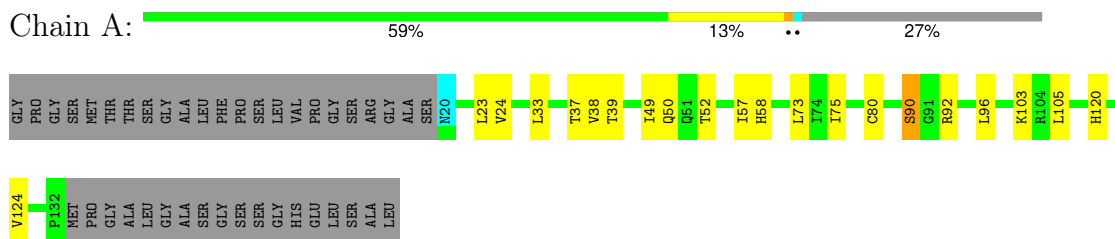


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

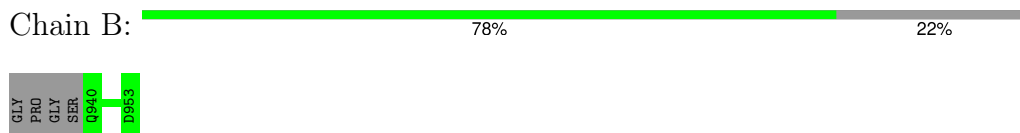


#### 4.2.5 Score per residue for model 5

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

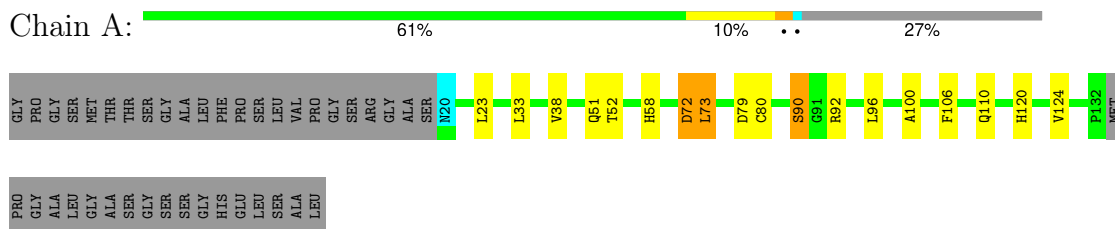


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1



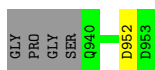
#### 4.2.6 Score per residue for model 6

- Molecule 1: Proteasomal ubiquitin receptor ADRM1



- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

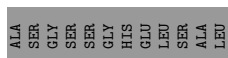
Chain B: 



#### 4.2.7 Score per residue for model 7 (medoid)

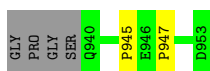
- Molecule 1: Proteasomal ubiquitin receptor ADRM1

Chain A: 



- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

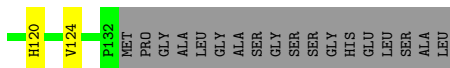
Chain B: 



#### 4.2.8 Score per residue for model 8

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

Chain A: 



- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

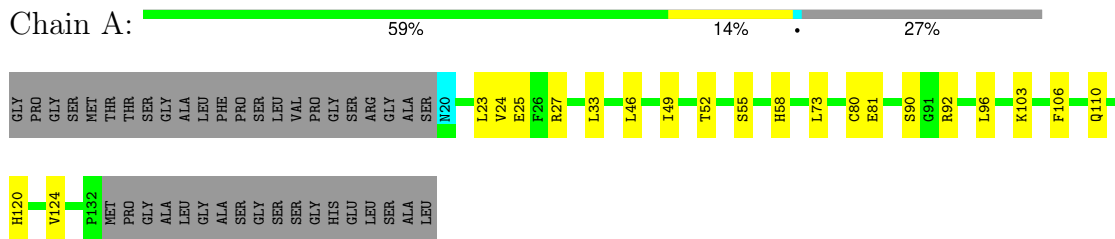
Chain B: 



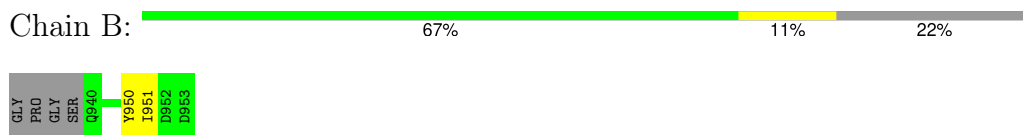
#### 4.2.9 Score per residue for model 9

- Molecule 1: Proteasomal ubiquitin receptor ADRM1



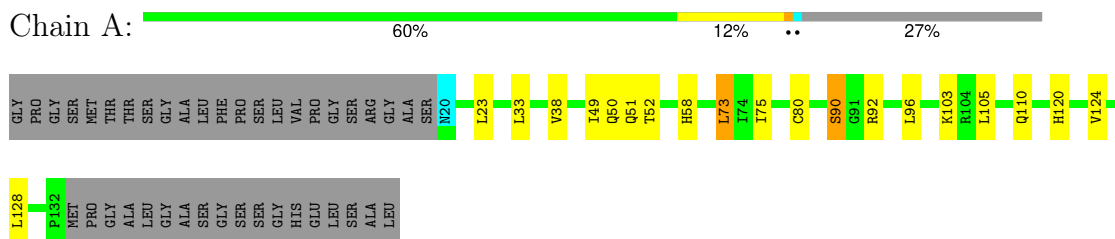


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

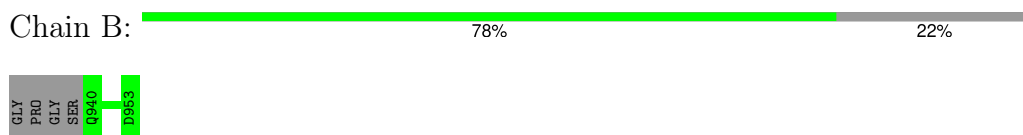


#### 4.2.10 Score per residue for model 10

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

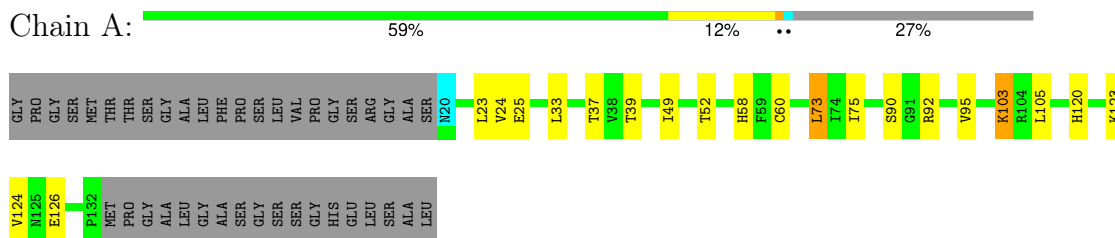


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1



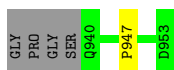
#### 4.2.11 Score per residue for model 11

- Molecule 1: Proteasomal ubiquitin receptor ADRM1



- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

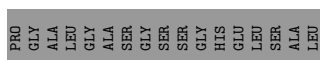
Chain B:  72% 6% 22%



#### 4.2.12 Score per residue for model 12

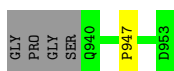
- Molecule 1: Proteasomal ubiquitin receptor ADRM1

Chain A:  60% 12% 27%



- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

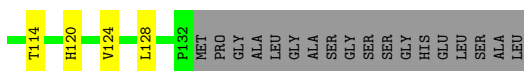
Chain B:  72% 6% 22%




#### 4.2.13 Score per residue for model 13

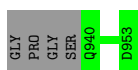
- Molecule 1: Proteasomal ubiquitin receptor ADRM1

Chain A:  58% 13% 27%



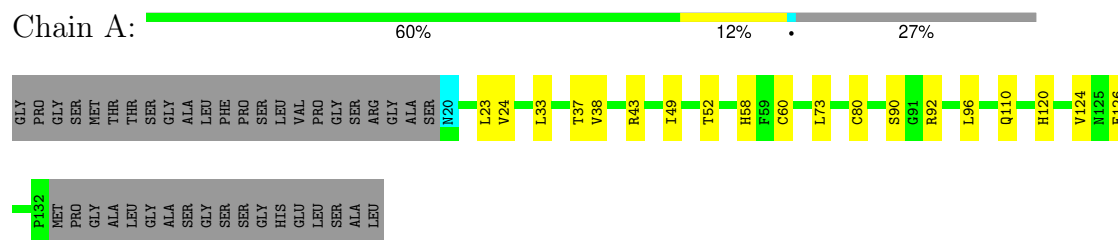
- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

Chain B:  78% 22%

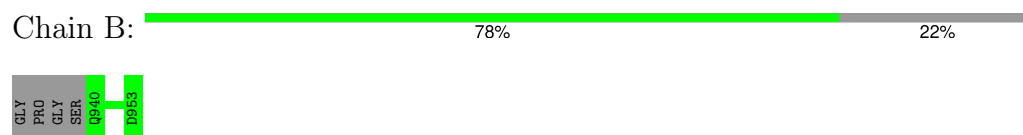


#### 4.2.14 Score per residue for model 14

- Molecule 1: Proteasomal ubiquitin receptor ADRM1

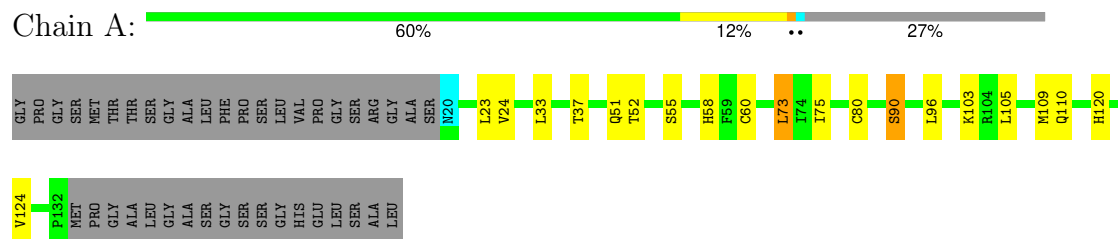


- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1

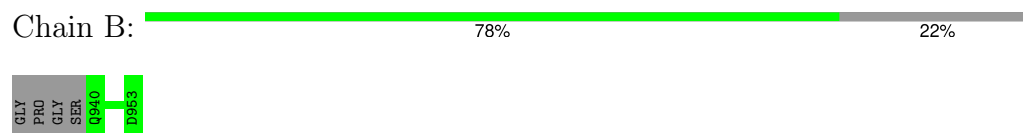


#### 4.2.15 Score per residue for model 15

- Molecule 1: Proteasomal ubiquitin receptor ADRM1



- Molecule 2: 26S proteasome non-ATPase regulatory subunit 1



## 5 Refinement protocol and experimental data overview

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

Of the 100 calculated structures, 15 were deposited, based on the following criterion: *structures with the least restraint violations*.

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

| Software name | Classification | Version |
|---------------|----------------|---------|
| 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                       | 1509           |
| Number of shifts mapped to atoms             | 1509           |
| Number of unparsed shifts                    | 0              |
| Number of shifts with mapping errors         | 0              |
| Number of shifts with mapping warnings       | 0              |
| Assignment completeness (well-defined parts) | 85%            |

## 6 Model quality i

### 6.1 Standard geometry i

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

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

### 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     | 925   | 912      | 912      | 9±2     |
| 2   | B     | 121   | 97       | 96       | 0±1     |
| All | All   | 15690 | 15135    | 15120    | 134     |

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 4.

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

| Atom-1          | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|-----------------|------------------|----------|-------------|--------|-------|
|                 |                  |          |             | Worst  | Total |
| 1:A:80:CYS:SG   | 1:A:96:LEU:HD11  | 0.73     | 2.23        | 14     | 11    |
| 2:B:950:TYR:O   | 2:B:951:ILE:HD13 | 0.69     | 1.87        | 9      | 1     |
| 1:A:120:HIS:O   | 1:A:124:VAL:HG23 | 0.64     | 1.93        | 2      | 15    |
| 1:A:79:ASP:OD1  | 1:A:100:ALA:HB3  | 0.62     | 1.95        | 13     | 4     |
| 1:A:75:ILE:HG21 | 1:A:80:CYS:SG    | 0.62     | 2.34        | 7      | 5     |
| 1:A:39:THR:HG22 | 2:B:947:PRO:HB3  | 0.59     | 1.75        | 2      | 5     |
| 1:A:71:ASP:OD2  | 1:A:73:LEU:HD21  | 0.57     | 2.00        | 13     | 1     |
| 1:A:33:LEU:HD12 | 1:A:38:VAL:HG22  | 0.56     | 1.75        | 6      | 1     |
| 1:A:33:LEU:HD12 | 1:A:106:PHE:CE1  | 0.55     | 2.36        | 9      | 1     |
| 1:A:33:LEU:CD1  | 1:A:38:VAL:HG22  | 0.55     | 2.32        | 6      | 1     |
| 1:A:23:LEU:HD11 | 1:A:51:GLN:HB2   | 0.53     | 1.80        | 6      | 5     |
| 1:A:73:LEU:HD12 | 1:A:75:ILE:HD11  | 0.53     | 1.79        | 10     | 4     |
| 1:A:33:LEU:HD12 | 1:A:37:THR:O     | 0.53     | 2.04        | 1      | 12    |

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| Atom-1          | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|-----------------|------------------|----------|-------------|--------|-------|
|                 |                  |          |             | Worst  | Total |
| 1:A:92:ARG:NE   | 1:A:114:THR:HG22 | 0.52     | 2.20        | 13     | 1     |
| 1:A:33:LEU:HD13 | 1:A:38:VAL:HG22  | 0.52     | 1.82        | 4      | 6     |
| 1:A:23:LEU:CD1  | 1:A:57:ILE:HD12  | 0.51     | 2.34        | 5      | 4     |
| 1:A:75:ILE:HG23 | 1:A:80:CYS:SG    | 0.50     | 2.47        | 12     | 2     |
| 1:A:72:ASP:C    | 1:A:73:LEU:HD23  | 0.50     | 2.27        | 4      | 2     |
| 1:A:33:LEU:HD13 | 1:A:38:VAL:CG2   | 0.49     | 2.38        | 4      | 8     |
| 1:A:103:LYS:HD3 | 1:A:105:LEU:HD21 | 0.49     | 1.83        | 15     | 3     |
| 1:A:52:THR:HG23 | 1:A:58:HIS:CD2   | 0.46     | 2.46        | 6      | 15    |
| 1:A:103:LYS:NZ  | 1:A:105:LEU:HD21 | 0.44     | 2.27        | 1      | 2     |
| 1:A:27:ARG:HA   | 1:A:46:LEU:HD12  | 0.44     | 1.89        | 4      | 4     |
| 1:A:33:LEU:HD23 | 1:A:33:LEU:C     | 0.43     | 2.33        | 9      | 1     |
| 1:A:23:LEU:N    | 1:A:49:ILE:O     | 0.42     | 2.52        | 13     | 12    |
| 2:B:950:TYR:C   | 2:B:951:ILE:HD13 | 0.42     | 2.35        | 9      | 1     |
| 1:A:39:THR:HG23 | 1:A:39:THR:O     | 0.42     | 2.14        | 5      | 1     |
| 1:A:75:ILE:HB   | 1:A:128:LEU:HD22 | 0.42     | 1.92        | 13     | 2     |
| 1:A:95:VAL:HG23 | 1:A:105:LEU:O    | 0.41     | 2.15        | 11     | 2     |
| 1:A:33:LEU:HD13 | 1:A:106:PHE:CE1  | 0.41     | 2.50        | 6      | 1     |
| 1:A:104:ARG:O   | 1:A:105:LEU:HD23 | 0.40     | 2.16        | 2      | 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     | 111/154 (72%)   | 106±1 (95±1%) | 4±1 (4±1%) | 1±0 (1±0%) | 17          | 67 |
| 2   | B     | 12/18 (67%)     | 11±0 (89±4%)  | 1±1 (9±5%) | 0±0 (2±4%) | 8           | 47 |
| All | All   | 1845/2580 (72%) | 1745 (95%)    | 81 (4%)    | 19 (1%)    | 16          | 65 |

All 3 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     | 90  | SER  | 15             |
| 2   | B     | 945 | PRO  | 2              |
| 2   | B     | 952 | ASP  | 2              |

### 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     | 104/132 (79%)   | 98±1 (94±1%)  | 6±1 (6±1%) | 18 69       |
| 2   | B     | 14/16 (88%)     | 14±0 (100±0%) | 0±0 (0±0%) | 100 100     |
| All | All   | 1770/2220 (80%) | 1674 (95%)    | 96 (5%)    | 21 73       |

All 18 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     | 73  | LEU  | 15             |
| 1   | A     | 92  | ARG  | 12             |
| 1   | A     | 24  | VAL  | 11             |
| 1   | A     | 90  | SER  | 9              |
| 1   | A     | 110 | GLN  | 9              |
| 1   | A     | 103 | LYS  | 8              |
| 1   | A     | 60  | CYS  | 8              |
| 1   | A     | 50  | GLN  | 5              |
| 1   | A     | 25  | GLU  | 5              |
| 1   | A     | 126 | GLU  | 3              |
| 1   | A     | 72  | ASP  | 2              |
| 1   | A     | 55  | SER  | 2              |
| 1   | A     | 109 | MET  | 2              |
| 1   | A     | 41  | ASP  | 1              |
| 1   | A     | 81  | GLU  | 1              |
| 1   | A     | 123 | LYS  | 1              |
| 1   | A     | 80  | CYS  | 1              |
| 1   | A     | 43  | ARG  | 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 oligosaccharides 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 85% for the well-defined parts and 85% 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                  | 1509 |
| Number of shifts mapped to atoms        | 1509 |
| Number of unparsed shifts               | 0    |
| Number of shifts with mapping errors    | 0    |
| Number of shifts with mapping warnings  | 0    |
| Number of shift outliers (ShiftChecker) | 6    |

#### 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        |
|------------------------|----------|---------------------------------|-------------------------|
| $^{13}\text{C}_\alpha$ | 125      | $0.20 \pm 0.14$                 | None needed (< 0.5 ppm) |
| $^{13}\text{C}_\beta$  | 119      | $0.11 \pm 0.14$                 | None needed (< 0.5 ppm) |
| $^{13}\text{C}'$       | 121      | $0.48 \pm 0.22$                 | None needed (< 0.5 ppm) |
| $^{15}\text{N}$        | 113      | $-0.53 \pm 0.40$                | None needed (imprecise) |

#### 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 85%, i.e. 1499 atoms were assigned a chemical shift out of a possible 1762. 0 out of 16 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

|           | Total         | $^1\text{H}$  | $^{13}\text{C}$ | $^{15}\text{N}$ |
|-----------|---------------|---------------|-----------------|-----------------|
| Backbone  | 596/614 (97%) | 240/247 (97%) | 244/252 (97%)   | 112/115 (97%)   |
| Sidechain | 815/985 (83%) | 541/628 (86%) | 262/314 (83%)   | 12/43 (28%)     |

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|          | Total           | <sup>1</sup> H | <sup>13</sup> C | <sup>15</sup> N |
|----------|-----------------|----------------|-----------------|-----------------|
| Aromatic | 88/163 (54%)    | 50/80 (62%)    | 36/79 (46%)     | 2/4 (50%)       |
| Overall  | 1499/1762 (85%) | 831/955 (87%)  | 542/645 (84%)   | 126/162 (78%)   |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 85%, i.e. 1508 atoms were assigned a chemical shift out of a possible 1774. 0 out of 16 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

|           | Total           | <sup>1</sup> H | <sup>13</sup> C | <sup>15</sup> N |
|-----------|-----------------|----------------|-----------------|-----------------|
| Backbone  | 600/619 (97%)   | 241/249 (97%)  | 246/254 (97%)   | 113/116 (97%)   |
| Sidechain | 820/992 (83%)   | 544/632 (86%)  | 263/316 (83%)   | 13/44 (30%)     |
| Aromatic  | 88/163 (54%)    | 50/80 (62%)    | 36/79 (46%)     | 2/4 (50%)       |
| Overall   | 1508/1774 (85%) | 835/961 (87%)  | 545/649 (84%)   | 128/164 (78%)   |

#### 7.1.4 Statistically unusual chemical shifts [i](#)

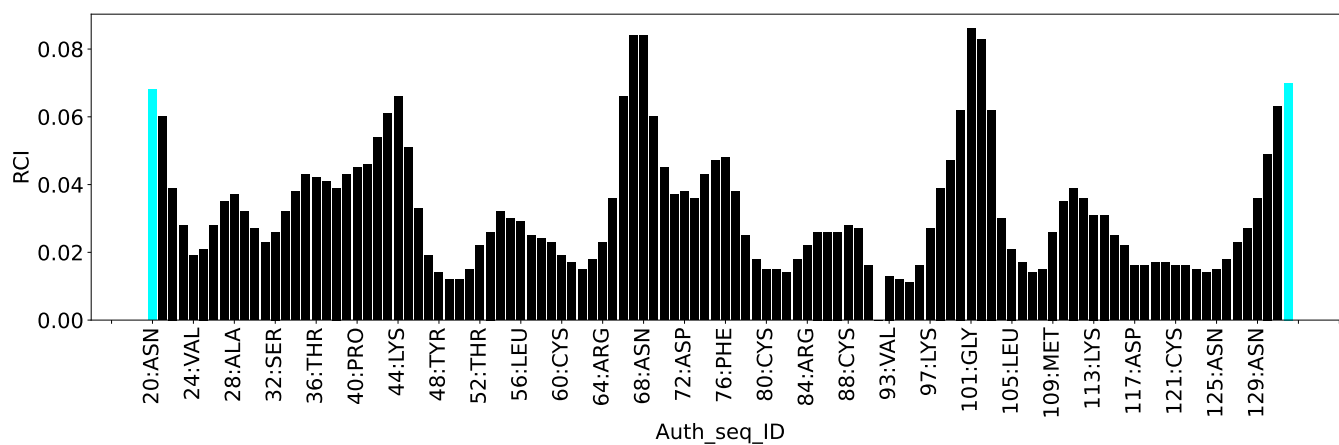
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1       | A     | 30  | LYS  | HE2  | 1.60       | 1.95 – 3.88         | -6.8    |
| 1       | A     | 47  | VAL  | HB   | 0.07       | 0.43 – 3.54         | -6.2    |
| 1       | A     | 38  | VAL  | HB   | 0.10       | 0.43 – 3.54         | -6.0    |
| 1       | A     | 60  | CYS  | HB3  | 0.41       | 0.69 – 5.10         | -5.6    |
| 1       | A     | 30  | LYS  | HG3  | -0.07      | 0.04 – 2.67         | -5.4    |
| 1       | B     | 944 | PRO  | HA   | 2.75       | 2.78 – 6.00         | -5.1    |

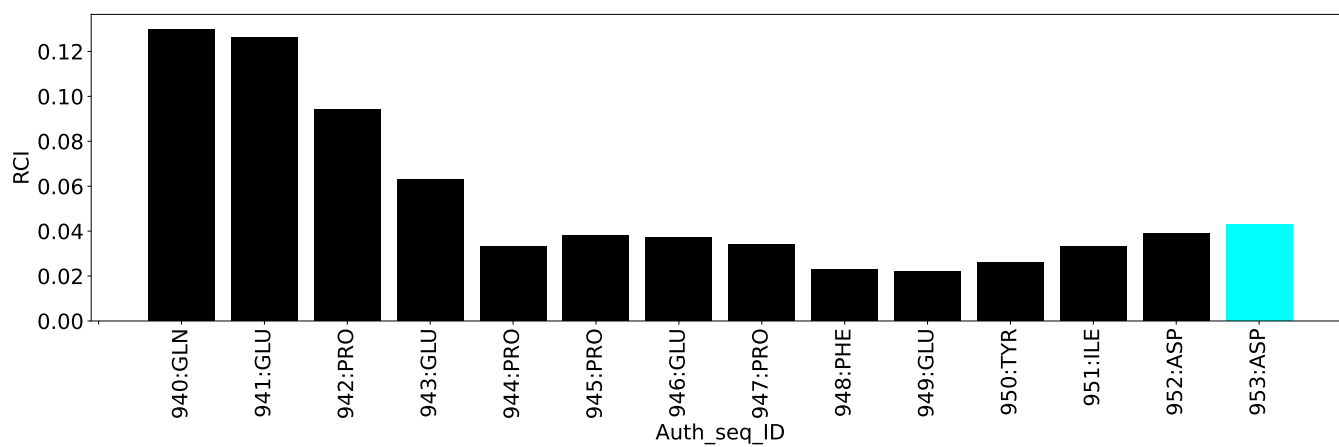
#### 7.1.5 Random Coil Index (RCI) plots [i](#)

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:



## 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                                | 3384  |
| Intra-residue ( $ i-j =0$ )                              | 894   |
| Sequential ( $ i-j =1$ )                                 | 700   |
| Medium range ( $ i-j >1$ and $ i-j <5$ )                 | 441   |
| Long range ( $ i-j \geq 5$ )                             | 1051  |
| Inter-chain  | 212   |
| Hydrogen bond restraints                                 | 86    |
| Disulfide bond restraints                                | 0     |
| Total dihedral-angle restraints                          | 200   |
| Number of unmapped restraints                            | 0     |
| Number of restraints per residue                         | 20.8  |
| Number of long range restraints per residue <sup>1</sup> | 6.4   |

<sup>1</sup>Long 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)  | 113.1                                  | 0.2     |
| 0.2-0.5 (Medium) | 65.7                                   | 0.47    |
| >0.5 (Large)     | None                                   | None    |

### 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)   | 10.7                                   | 3.7     |
| 10.0-20.0 (Medium) | None                                   | None    |
| >20.0 (Large)      | None                                   | None    |

## 9 Distance violation analysis i

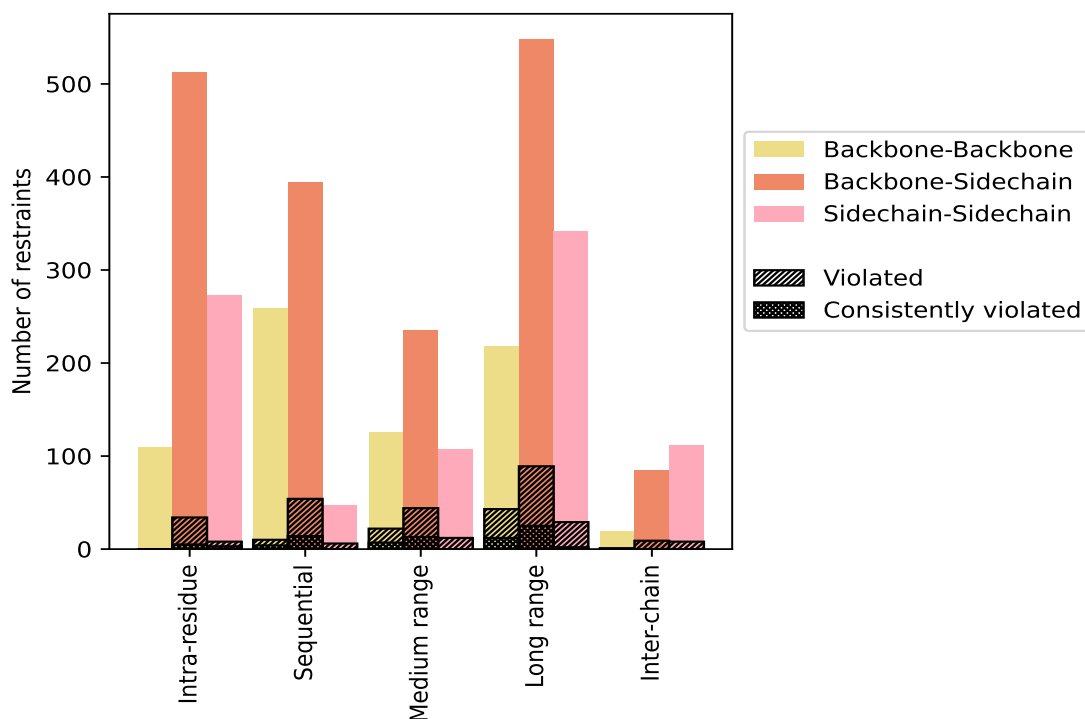
### 9.1 Summary of distance violations i

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       | % <sup>1</sup> | Violated <sup>3</sup> |                |                | Consistently Violated <sup>4</sup> |                |                |
|---|-------------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
|   |             |                | Count                 | % <sup>2</sup> | % <sup>1</sup> | Count                              | % <sup>2</sup> | % <sup>1</sup> |
| <b>Intra-residue (<math> i-j =0</math>)</b>                                 | <b>894</b>  | <b>26.4</b>    | <b>42</b>             | <b>4.7</b>     | <b>1.2</b>     | <b>8</b>                           | <b>0.9</b>     | <b>0.2</b>     |
| Backbone-Backbone   | 109         | 3.2            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 512         | 15.1           | 34                    | 6.6            | 1.0            | 5                                  | 1.0            | 0.1            |
| Sidechain-Sidechain   | 273         | 8.1            | 8                     | 2.9            | 0.2            | 3                                  | 1.1            | 0.1            |
| <b>Sequential (<math> i-j =1</math>)</b>                                    | <b>700</b>  | <b>20.7</b>    | <b>70</b>             | <b>10.0</b>    | <b>2.1</b>     | <b>18</b>                          | <b>2.6</b>     | <b>0.5</b>     |
| Backbone-Backbone   | 259         | 7.7            | 10                    | 3.9            | 0.3            | 4                                  | 1.5            | 0.1            |
| Backbone-Sidechain  | 394         | 11.6           | 54                    | 13.7           | 1.6            | 14                                 | 3.6            | 0.4            |
| Sidechain-Sidechain   | 47          | 1.4            | 6                     | 12.8           | 0.2            | 0                                  | 0.0            | 0.0            |
| <b>Medium range (<math> i-j &gt;1</math> &amp; <math> i-j &lt;5</math>)</b> | <b>441</b>  | <b>13.0</b>    | <b>78</b>             | <b>17.7</b>    | <b>2.3</b>     | <b>20</b>                          | <b>4.5</b>     | <b>0.6</b>     |
| Backbone-Backbone   | 125         | 3.7            | 22                    | 17.6           | 0.7            | 7                                  | 5.6            | 0.2            |
| Backbone-Sidechain  | 209         | 6.2            | 44                    | 21.1           | 1.3            | 13                                 | 6.2            | 0.4            |
| Sidechain-Sidechain   | 107         | 3.2            | 12                    | 11.2           | 0.4            | 0                                  | 0.0            | 0.0            |
| <b>Long range (<math> i-j \geq 5</math>)</b>                                | <b>1051</b> | <b>31.1</b>    | <b>160</b>            | <b>15.2</b>    | <b>4.7</b>     | <b>39</b>                          | <b>3.7</b>     | <b>1.2</b>     |
| Backbone-Backbone   | 218         | 6.4            | 43                    | 19.7           | 1.3            | 12                                 | 5.5            | 0.4            |
| Backbone-Sidechain  | 492         | 14.5           | 88                    | 17.9           | 2.6            | 25                                 | 5.1            | 0.7            |
| Sidechain-Sidechain   | 341         | 10.1           | 29                    | 8.5            | 0.9            | 2                                  | 0.6            | 0.1            |
| <b>Inter-chain</b>  | <b>212</b>  | <b>6.3</b>     | <b>18</b>             | <b>8.5</b>     | <b>0.5</b>     | <b>0</b>                           | <b>0.0</b>     | <b>0.0</b>     |
| Backbone-Backbone   | 19          | 0.6            | 1                     | 5.3            | 0.0            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 81          | 2.4            | 9                     | 11.1           | 0.3            | 0                                  | 0.0            | 0.0            |
| Sidechain-Sidechain   | 112         | 3.3            | 8                     | 7.1            | 0.2            | 0                                  | 0.0            | 0.0            |
| Hydrogen bond   | 86          | 2.5            | 1                     | 1.2            | 0.0            | 0                                  | 0.0            | 0.0            |
| Disulfide bond  | 0           | 0.0            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| <b>Total</b>  | <b>3384</b> | <b>100.0</b>   | <b>369</b>            | <b>10.9</b>    | <b>10.9</b>    | <b>85</b>                          | <b>2.5</b>     | <b>2.5</b>     |
| Backbone-Backbone   | 730         | 21.6           | 76                    | 10.4           | 2.2            | 23                                 | 3.2            | 0.7            |
| Backbone-Sidechain  | 1774        | 52.4           | 230                   | 13.0           | 6.8            | 57                                 | 3.2            | 1.7            |
| Sidechain-Sidechain   | 880         | 26.0           | 63                    | 7.2            | 1.9            | 5                                  | 0.6            | 0.1            |

<sup>1</sup> percentage calculated with respect to the total number of distance restraints, <sup>2</sup> percentage calculated with respect to the number of restraints in a particular restraint category, <sup>3</sup> violated in at least one model, <sup>4</sup> 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 <sup>6</sup> (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
|          | IR <sup>1</sup>      | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total |          |         |                     |            |
| 1        | 19                   | 34              | 44              | 88              | 5               | 190   | 0.19     | 0.44    | 0.07                | 0.17       |
| 2        | 17                   | 41              | 41              | 87              | 2               | 188   | 0.19     | 0.44    | 0.07                | 0.17       |
| 3        | 15                   | 35              | 42              | 88              | 5               | 185   | 0.19     | 0.44    | 0.06                | 0.18       |
| 4        | 19                   | 35              | 42              | 78              | 4               | 178   | 0.19     | 0.44    | 0.07                | 0.18       |
| 5        | 15                   | 38              | 37              | 84              | 6               | 180   | 0.18     | 0.41    | 0.07                | 0.17       |
| 6        | 18                   | 39              | 48              | 87              | 5               | 197   | 0.19     | 0.46    | 0.07                | 0.18       |
| 7        | 14                   | 39              | 37              | 83              | 2               | 175   | 0.19     | 0.47    | 0.07                | 0.17       |
| 8        | 19                   | 40              | 46              | 89              | 4               | 198   | 0.2      | 0.43    | 0.08                | 0.18       |
| 9        | 15                   | 42              | 39              | 86              | 5               | 187   | 0.2      | 0.45    | 0.08                | 0.18       |
| 10       | 15                   | 33              | 45              | 92              | 6               | 191   | 0.19     | 0.39    | 0.07                | 0.17       |

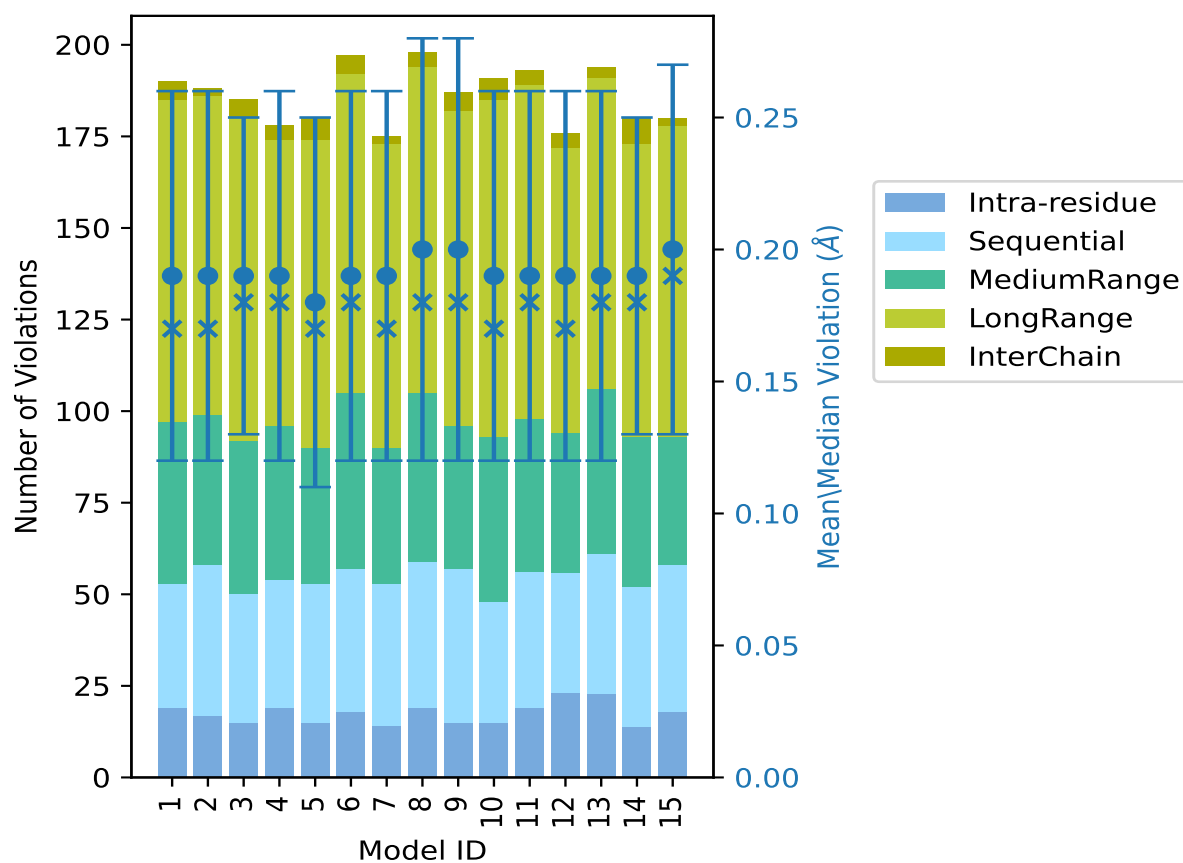
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| Model ID | Number of violations |                 |                 |                 |                 |       | Mean (Å) | Max (Å) | SD <sup>6</sup> (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
|          | IR <sup>1</sup>      | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total |          |         |                     |            |
| 11       | 19                   | 37              | 42              | 91              | 4               | 193   | 0.19     | 0.39    | 0.07                | 0.18       |
| 12       | 23                   | 33              | 38              | 78              | 4               | 176   | 0.19     | 0.38    | 0.07                | 0.17       |
| 13       | 23                   | 38              | 45              | 85              | 3               | 194   | 0.19     | 0.4     | 0.07                | 0.18       |
| 14       | 14                   | 38              | 41              | 80              | 7               | 180   | 0.19     | 0.41    | 0.06                | 0.18       |
| 15       | 18                   | 40              | 35              | 85              | 2               | 180   | 0.2      | 0.43    | 0.07                | 0.19       |

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

### 9.2.1 Bar graph : Distance 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



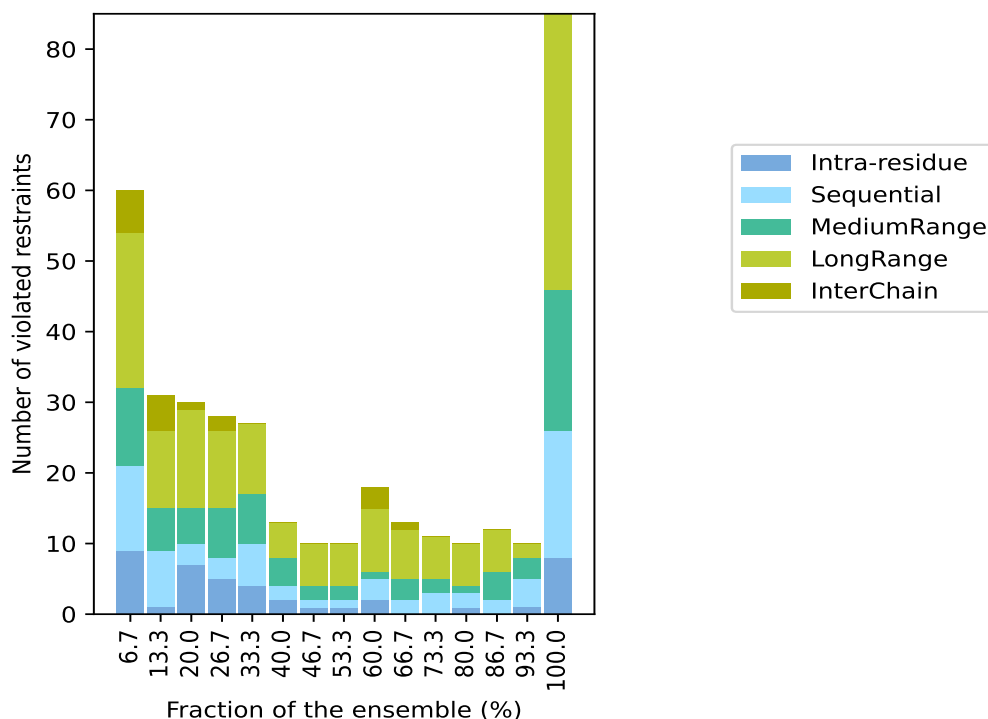
### 9.3 Distance violation statistics for the ensemble

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, 2930(IR:852, SQ:630, MR:363, LR:891, IC:194) restraints are not violated in the ensemble.

| Number of violated restraints |                 |                 |                 |                 |       | Fraction of the ensemble |       |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|-------|
| IR <sup>1</sup>               | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total | Count <sup>6</sup>       | %     |
| 9                             | 12              | 11              | 22              | 6               | 60    | 1                        | 6.7   |
| 1                             | 8               | 6               | 11              | 5               | 31    | 2                        | 13.3  |
| 7                             | 3               | 5               | 14              | 1               | 30    | 3                        | 20.0  |
| 5                             | 3               | 7               | 11              | 2               | 28    | 4                        | 26.7  |
| 4                             | 6               | 7               | 10              | 0               | 27    | 5                        | 33.3  |
| 2                             | 2               | 4               | 5               | 0               | 13    | 6                        | 40.0  |
| 1                             | 1               | 2               | 6               | 0               | 10    | 7                        | 46.7  |
| 1                             | 1               | 2               | 6               | 0               | 10    | 8                        | 53.3  |
| 2                             | 3               | 1               | 9               | 3               | 18    | 9                        | 60.0  |
| 0                             | 2               | 3               | 7               | 1               | 13    | 10                       | 66.7  |
| 0                             | 3               | 2               | 6               | 0               | 11    | 11                       | 73.3  |
| 1                             | 2               | 1               | 6               | 0               | 10    | 12                       | 80.0  |
| 0                             | 2               | 4               | 6               | 0               | 12    | 13                       | 86.7  |
| 1                             | 4               | 3               | 2               | 0               | 10    | 14                       | 93.3  |
| 8                             | 18              | 20              | 39              | 0               | 85    | 15                       | 100.0 |

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

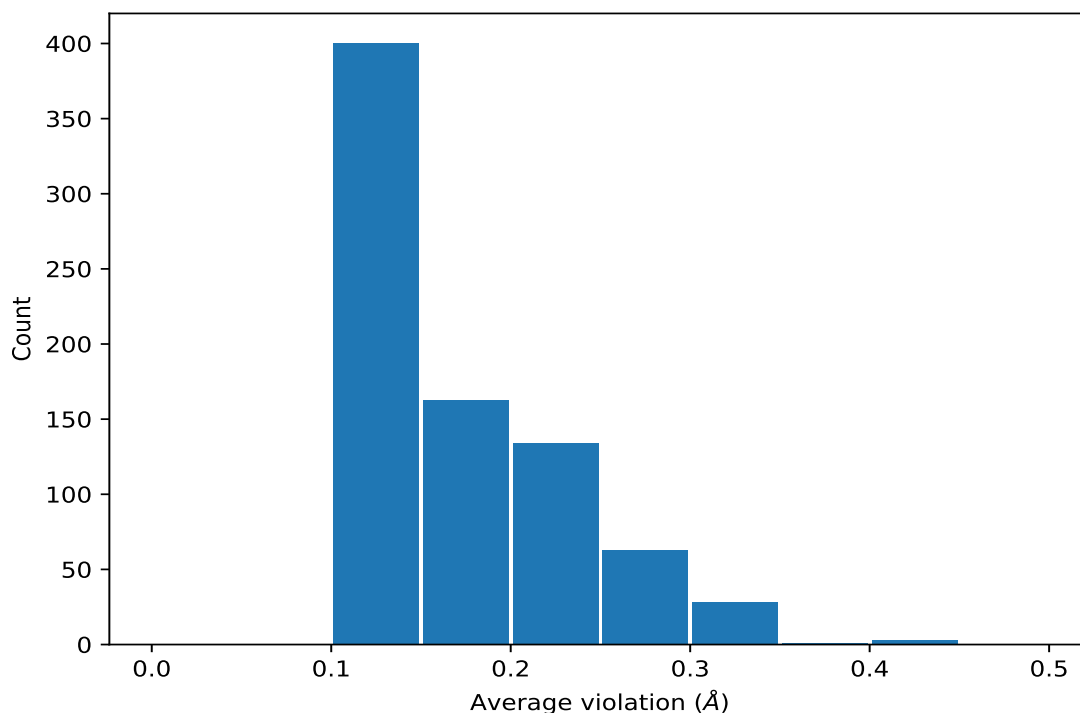
### 9.3.1 Bar graph : Distance violation statistics for the ensemble [i](#)



## 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 <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|----------------|---------------------|----------|---------------------|------------|
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H  | 15                  | 0.42     | 0.03                | 0.42       |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H  | 15                  | 0.42     | 0.03                | 0.42       |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H   | 15                  | 0.38     | 0.01                | 0.38       |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H   | 15                  | 0.35     | 0.02                | 0.35       |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H   | 15                  | 0.35     | 0.02                | 0.35       |
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H   | 15                  | 0.35     | 0.03                | 0.34       |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H  | 15                  | 0.33     | 0.04                | 0.31       |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H  | 15                  | 0.33     | 0.04                | 0.31       |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1 | 15                  | 0.33     | 0.05                | 0.35       |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H  | 15                  | 0.32     | 0.03                | 0.33       |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H  | 15                  | 0.32     | 0.03                | 0.33       |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H  | 15                  | 0.32     | 0.03                | 0.33       |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H  | 15                  | 0.32     | 0.03                | 0.33       |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H  | 15                  | 0.32     | 0.03                | 0.33       |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H  | 15                  | 0.32     | 0.03                | 0.33       |
| (2,2566) | 1:120:A:HIS:HD2 | 1:122:A:ARG:H  | 15                  | 0.31     | 0.03                | 0.31       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 15                  | 0.31     | 0.03                | 0.3        |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 15                  | 0.3      | 0.02                | 0.3        |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 15                  | 0.3      | 0.02                | 0.3        |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 15                  | 0.3      | 0.06                | 0.33       |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 15                  | 0.3      | 0.06                | 0.33       |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 15                  | 0.3      | 0.06                | 0.33       |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H   | 15                  | 0.3      | 0.03                | 0.29       |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H   | 15                  | 0.3      | 0.03                | 0.29       |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H   | 15                  | 0.3      | 0.03                | 0.29       |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 15                  | 0.29     | 0.06                | 0.27       |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 15                  | 0.28     | 0.05                | 0.3        |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 15                  | 0.28     | 0.05                | 0.3        |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 15                  | 0.28     | 0.05                | 0.3        |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 15                  | 0.28     | 0.02                | 0.28       |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H   | 15                  | 0.27     | 0.03                | 0.27       |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 15                  | 0.27     | 0.01                | 0.27       |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 15                  | 0.27     | 0.01                | 0.27       |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 15                  | 0.27     | 0.01                | 0.27       |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG21 | 15                  | 0.27     | 0.04                | 0.26       |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG22 | 15                  | 0.27     | 0.04                | 0.26       |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG23 | 15                  | 0.27     | 0.04                | 0.26       |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG21 | 15                  | 0.27     | 0.04                | 0.26       |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG22 | 15                  | 0.27     | 0.04                | 0.26       |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG23 | 15                  | 0.27     | 0.04                | 0.26       |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 15                  | 0.27     | 0.04                | 0.27       |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 15                  | 0.26     | 0.02                | 0.26       |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H    | 15                  | 0.26     | 0.05                | 0.26       |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H    | 15                  | 0.26     | 0.05                | 0.26       |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H    | 15                  | 0.26     | 0.05                | 0.26       |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 15                  | 0.26     | 0.01                | 0.26       |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 15                  | 0.26     | 0.01                | 0.26       |
| (2,390)  | 1:33:A:LEU:HB2  | 1:106:A:PHE:H   | 15                  | 0.25     | 0.04                | 0.24       |
| (2,390)  | 1:33:A:LEU:HB3  | 1:106:A:PHE:H   | 15                  | 0.25     | 0.04                | 0.24       |
| (2,3041) | 2:950:B:TYR:HD1 | 2:952:B:ASP:H   | 15                  | 0.25     | 0.05                | 0.27       |
| (2,3041) | 2:950:B:TYR:HD2 | 2:952:B:ASP:H   | 15                  | 0.25     | 0.05                | 0.27       |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 15                  | 0.25     | 0.02                | 0.25       |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 15                  | 0.25     | 0.02                | 0.24       |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 15                  | 0.25     | 0.02                | 0.24       |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 15                  | 0.25     | 0.02                | 0.24       |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 15                  | 0.25     | 0.02                | 0.25       |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 15                  | 0.25     | 0.02                | 0.25       |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 15                  | 0.25     | 0.02                | 0.25       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H    | 15                  | 0.24     | 0.01                | 0.24       |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H    | 15                  | 0.24     | 0.01                | 0.24       |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H    | 15                  | 0.24     | 0.01                | 0.24       |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 15                  | 0.24     | 0.03                | 0.25       |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 15                  | 0.24     | 0.03                | 0.25       |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 15                  | 0.24     | 0.03                | 0.23       |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H    | 15                  | 0.23     | 0.0                 | 0.23       |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H    | 15                  | 0.23     | 0.0                 | 0.23       |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H    | 15                  | 0.23     | 0.0                 | 0.23       |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 15                  | 0.23     | 0.01                | 0.23       |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 15                  | 0.23     | 0.01                | 0.23       |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 15                  | 0.23     | 0.01                | 0.23       |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 15                  | 0.23     | 0.02                | 0.22       |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 15                  | 0.23     | 0.03                | 0.23       |
| (2,2304) | 1:107:A:PHE:HE1 | 1:108:A:TRP:H   | 15                  | 0.23     | 0.02                | 0.22       |
| (2,2304) | 1:107:A:PHE:HE2 | 1:108:A:TRP:H   | 15                  | 0.23     | 0.02                | 0.22       |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 15                  | 0.22     | 0.03                | 0.22       |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 15                  | 0.22     | 0.03                | 0.22       |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 15                  | 0.22     | 0.03                | 0.22       |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 15                  | 0.22     | 0.03                | 0.22       |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 15                  | 0.22     | 0.01                | 0.22       |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 15                  | 0.22     | 0.01                | 0.22       |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H    | 15                  | 0.22     | 0.03                | 0.22       |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H    | 15                  | 0.22     | 0.03                | 0.22       |
| (2,749)  | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 15                  | 0.21     | 0.04                | 0.22       |
| (2,749)  | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 15                  | 0.21     | 0.04                | 0.22       |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 15                  | 0.21     | 0.02                | 0.21       |
| (2,59)   | 1:22:A:TYR:H    | 1:24:A:VAL:H    | 15                  | 0.21     | 0.03                | 0.22       |
| (2,802)  | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 15                  | 0.21     | 0.02                | 0.21       |
| (2,2543) | 1:120:A:HIS:HD2 | 1:24:A:VAL:HA   | 15                  | 0.21     | 0.04                | 0.21       |
| (2,815)  | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 15                  | 0.21     | 0.03                | 0.2        |
| (2,815)  | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 15                  | 0.21     | 0.03                | 0.2        |
| (2,815)  | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 15                  | 0.21     | 0.03                | 0.2        |
| (2,2851) | 1:128:A:LEU:HG  | 1:130:A:ASN:H   | 15                  | 0.2      | 0.03                | 0.21       |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 15                  | 0.2      | 0.03                | 0.19       |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD11 | 15                  | 0.2      | 0.0                 | 0.2        |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD12 | 15                  | 0.2      | 0.0                 | 0.2        |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD13 | 15                  | 0.2      | 0.0                 | 0.2        |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 15                  | 0.2      | 0.03                | 0.2        |
| (2,3085) | 2:952:B:ASP:HA  | 2:951:B:ILE:H   | 15                  | 0.19     | 0.05                | 0.19       |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H    | 15                  | 0.19     | 0.01                | 0.2        |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 15                  | 0.19     | 0.0                 | 0.19       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 15                  | 0.19     | 0.0                 | 0.19       |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 15                  | 0.19     | 0.0                 | 0.19       |
| (2,130)  | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 15                  | 0.19     | 0.02                | 0.19       |
| (2,130)  | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 15                  | 0.19     | 0.02                | 0.19       |
| (2,130)  | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 15                  | 0.19     | 0.02                | 0.19       |
| (2,130)  | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 15                  | 0.19     | 0.02                | 0.19       |
| (2,130)  | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 15                  | 0.19     | 0.02                | 0.19       |
| (2,130)  | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 15                  | 0.19     | 0.02                | 0.19       |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 15                  | 0.19     | 0.01                | 0.19       |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 15                  | 0.19     | 0.01                | 0.19       |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 15                  | 0.19     | 0.01                | 0.19       |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 15                  | 0.19     | 0.03                | 0.19       |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 15                  | 0.19     | 0.03                | 0.19       |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 15                  | 0.19     | 0.03                | 0.19       |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 15                  | 0.19     | 0.03                | 0.19       |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 15                  | 0.19     | 0.03                | 0.19       |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 15                  | 0.19     | 0.03                | 0.19       |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 15                  | 0.18     | 0.01                | 0.18       |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 15                  | 0.18     | 0.01                | 0.18       |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 15                  | 0.18     | 0.01                | 0.18       |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 15                  | 0.18     | 0.05                | 0.17       |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 15                  | 0.18     | 0.05                | 0.17       |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 15                  | 0.18     | 0.03                | 0.16       |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 15                  | 0.18     | 0.03                | 0.16       |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 15                  | 0.18     | 0.03                | 0.16       |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H    | 15                  | 0.18     | 0.03                | 0.18       |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H    | 15                  | 0.18     | 0.03                | 0.18       |
| (2,162)  | 1:25:A:GLU:HA   | 1:47:A:VAL:H    | 15                  | 0.18     | 0.04                | 0.17       |
| (2,636)  | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 15                  | 0.18     | 0.02                | 0.19       |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H    | 15                  | 0.18     | 0.02                | 0.18       |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H    | 15                  | 0.18     | 0.02                | 0.18       |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 15                  | 0.17     | 0.05                | 0.15       |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 15                  | 0.17     | 0.05                | 0.15       |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 15                  | 0.17     | 0.03                | 0.18       |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 15                  | 0.17     | 0.03                | 0.18       |
| (2,386)  | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 15                  | 0.17     | 0.02                | 0.18       |
| (2,203)  | 1:26:A:PHE:H    | 1:49:A:ILE:H    | 15                  | 0.17     | 0.02                | 0.17       |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H   | 15                  | 0.17     | 0.06                | 0.14       |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H   | 15                  | 0.17     | 0.06                | 0.14       |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 15                  | 0.17     | 0.04                | 0.17       |
| (2,71)   | 1:22:A:TYR:HD1  | 1:49:A:ILE:H    | 15                  | 0.17     | 0.04                | 0.16       |
| (2,71)   | 1:22:A:TYR:HD2  | 1:49:A:ILE:H    | 15                  | 0.17     | 0.04                | 0.16       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 15                  | 0.17     | 0.02                | 0.18       |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 15                  | 0.17     | 0.03                | 0.16       |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 15                  | 0.17     | 0.03                | 0.16       |
| (2,927)  | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 15                  | 0.17     | 0.02                | 0.17       |
| (2,643)  | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 15                  | 0.17     | 0.02                | 0.17       |
| (2,643)  | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 15                  | 0.17     | 0.02                | 0.17       |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 15                  | 0.17     | 0.03                | 0.16       |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H    | 15                  | 0.17     | 0.02                | 0.17       |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 15                  | 0.16     | 0.01                | 0.16       |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 15                  | 0.16     | 0.01                | 0.16       |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 15                  | 0.15     | 0.03                | 0.15       |
| (2,221)  | 1:26:A:PHE:HE1  | 1:25:A:GLU:H    | 15                  | 0.15     | 0.03                | 0.17       |
| (2,221)  | 1:26:A:PHE:HE2  | 1:25:A:GLU:H    | 15                  | 0.15     | 0.03                | 0.17       |
| (2,683)  | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 15                  | 0.15     | 0.02                | 0.15       |
| (2,683)  | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 15                  | 0.15     | 0.02                | 0.15       |
| (2,683)  | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 15                  | 0.15     | 0.02                | 0.15       |
| (2,683)  | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 15                  | 0.15     | 0.02                | 0.15       |
| (2,683)  | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 15                  | 0.15     | 0.02                | 0.15       |
| (2,683)  | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 15                  | 0.15     | 0.02                | 0.15       |
| (2,1472) | 1:73:A:LEU:HA   | 1:59:A:PHE:H    | 15                  | 0.14     | 0.02                | 0.14       |
| (2,818)  | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 15                  | 0.14     | 0.02                | 0.14       |
| (2,818)  | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 15                  | 0.14     | 0.02                | 0.14       |
| (2,818)  | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 15                  | 0.14     | 0.02                | 0.14       |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 15                  | 0.13     | 0.02                | 0.13       |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 15                  | 0.13     | 0.02                | 0.13       |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H   | 15                  | 0.13     | 0.02                | 0.13       |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 15                  | 0.13     | 0.01                | 0.13       |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 15                  | 0.13     | 0.01                | 0.13       |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 15                  | 0.12     | 0.01                | 0.11       |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 14                  | 0.22     | 0.05                | 0.22       |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 14                  | 0.22     | 0.05                | 0.22       |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 14                  | 0.22     | 0.05                | 0.22       |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 14                  | 0.22     | 0.05                | 0.22       |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 14                  | 0.22     | 0.05                | 0.22       |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 14                  | 0.22     | 0.05                | 0.22       |
| (2,552)  | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 14                  | 0.19     | 0.04                | 0.18       |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 14                  | 0.18     | 0.03                | 0.18       |
| (2,2698) | 1:126:A:GLU:HA  | 1:125:A:ASN:HA  | 14                  | 0.17     | 0.02                | 0.16       |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 14                  | 0.17     | 0.04                | 0.16       |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 14                  | 0.16     | 0.03                | 0.15       |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 14                  | 0.16     | 0.03                | 0.15       |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H    | 14                  | 0.16     | 0.02                | 0.16       |

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| Key      | Atom-1           | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1601) | 1:77:A:PRO:HG3   | 1:78:A:ASP:H    | 14                  | 0.16     | 0.02                | 0.16       |
| (2,971)  | 1:56:A:LEU:HD11  | 1:56:A:LEU:H    | 14                  | 0.16     | 0.02                | 0.16       |
| (2,971)  | 1:56:A:LEU:HD12  | 1:56:A:LEU:H    | 14                  | 0.16     | 0.02                | 0.16       |
| (2,971)  | 1:56:A:LEU:HD13  | 1:56:A:LEU:H    | 14                  | 0.16     | 0.02                | 0.16       |
| (2,971)  | 1:56:A:LEU:HD21  | 1:56:A:LEU:H    | 14                  | 0.16     | 0.02                | 0.16       |
| (2,971)  | 1:56:A:LEU:HD22  | 1:56:A:LEU:H    | 14                  | 0.16     | 0.02                | 0.16       |
| (2,971)  | 1:56:A:LEU:HD23  | 1:56:A:LEU:H    | 14                  | 0.16     | 0.02                | 0.16       |
| (2,2470) | 1:115:A:ASP:HB2  | 1:113:A:LYS:H   | 14                  | 0.15     | 0.04                | 0.14       |
| (2,2470) | 1:115:A:ASP:HB3  | 1:113:A:LYS:H   | 14                  | 0.15     | 0.04                | 0.14       |
| (2,2269) | 1:107:A:PHE:HE1  | 1:106:A:PHE:HA  | 14                  | 0.14     | 0.02                | 0.13       |
| (2,2269) | 1:107:A:PHE:HE2  | 1:106:A:PHE:HA  | 14                  | 0.14     | 0.02                | 0.13       |
| (2,2719) | 1:126:A:GLU:HB2  | 1:130:A:ASN:H   | 13                  | 0.28     | 0.11                | 0.29       |
| (2,2719) | 1:126:A:GLU:HB3  | 1:130:A:ASN:H   | 13                  | 0.28     | 0.11                | 0.29       |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 13                  | 0.25     | 0.06                | 0.23       |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 13                  | 0.25     | 0.06                | 0.23       |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 13                  | 0.2      | 0.05                | 0.2        |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 13                  | 0.2      | 0.05                | 0.2        |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 13                  | 0.2      | 0.05                | 0.2        |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 13                  | 0.2      | 0.03                | 0.2        |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 13                  | 0.2      | 0.03                | 0.2        |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 13                  | 0.2      | 0.03                | 0.2        |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 13                  | 0.2      | 0.03                | 0.2        |
| (2,220)  | 1:26:A:PHE:HE1   | 1:124:A:VAL:H   | 13                  | 0.19     | 0.06                | 0.18       |
| (2,220)  | 1:26:A:PHE:HE2   | 1:124:A:VAL:H   | 13                  | 0.19     | 0.06                | 0.18       |
| (2,409)  | 1:34:A:LYS:HB2   | 1:32:A:SER:HB2  | 13                  | 0.15     | 0.02                | 0.16       |
| (2,409)  | 1:34:A:LYS:HB2   | 1:32:A:SER:HB3  | 13                  | 0.15     | 0.02                | 0.16       |
| (2,409)  | 1:34:A:LYS:HB3   | 1:32:A:SER:HB2  | 13                  | 0.15     | 0.02                | 0.16       |
| (2,409)  | 1:34:A:LYS:HB3   | 1:32:A:SER:HB3  | 13                  | 0.15     | 0.02                | 0.16       |
| (2,273)  | 1:28:A:ALA:HB1   | 1:111:A:GLU:H   | 13                  | 0.15     | 0.03                | 0.15       |
| (2,273)  | 1:28:A:ALA:HB2   | 1:111:A:GLU:H   | 13                  | 0.15     | 0.03                | 0.15       |
| (2,273)  | 1:28:A:ALA:HB3   | 1:111:A:GLU:H   | 13                  | 0.15     | 0.03                | 0.15       |
| (2,741)  | 1:48:A:TYR:HD1   | 1:61:A:TRP:H    | 13                  | 0.15     | 0.04                | 0.14       |
| (2,741)  | 1:48:A:TYR:HD2   | 1:61:A:TRP:H    | 13                  | 0.15     | 0.04                | 0.14       |
| (2,1913) | 1:95:A:VAL:HB    | 1:107:A:PHE:H   | 13                  | 0.14     | 0.02                | 0.14       |
| (2,2282) | 1:107:A:PHE:HZ   | 1:96:A:LEU:HD11 | 13                  | 0.14     | 0.03                | 0.14       |
| (2,2282) | 1:107:A:PHE:HZ   | 1:96:A:LEU:HD12 | 13                  | 0.14     | 0.03                | 0.14       |
| (2,2282) | 1:107:A:PHE:HZ   | 1:96:A:LEU:HD13 | 13                  | 0.14     | 0.03                | 0.14       |
| (2,2282) | 1:107:A:PHE:HZ   | 1:96:A:LEU:HD21 | 13                  | 0.14     | 0.03                | 0.14       |
| (2,2282) | 1:107:A:PHE:HZ   | 1:96:A:LEU:HD22 | 13                  | 0.14     | 0.03                | 0.14       |
| (2,2282) | 1:107:A:PHE:HZ   | 1:96:A:LEU:HD23 | 13                  | 0.14     | 0.03                | 0.14       |
| (2,2034) | 1:98:A:PHE:HA    | 1:81:A:GLU:H    | 13                  | 0.14     | 0.02                | 0.14       |
| (2,2408) | 1:112:A:PRO:HA   | 1:111:A:GLU:H   | 13                  | 0.14     | 0.03                | 0.13       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2792) | 1:127:A:TYR:HD1 | 1:126:A:GLU:H   | 12                  | 0.25     | 0.02                | 0.26       |
| (2,2792) | 1:127:A:TYR:HD2 | 1:126:A:GLU:H   | 12                  | 0.25     | 0.02                | 0.26       |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 12                  | 0.24     | 0.05                | 0.26       |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 12                  | 0.22     | 0.04                | 0.22       |
| (2,635)  | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,635)  | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3  | 12                  | 0.2      | 0.04                | 0.21       |
| (2,507)  | 1:39:A:THR:HB   | 1:39:A:THR:H    | 12                  | 0.19     | 0.01                | 0.18       |
| (2,2834) | 1:128:A:LEU:HB2 | 1:130:A:ASN:H   | 12                  | 0.17     | 0.03                | 0.18       |
| (2,2834) | 1:128:A:LEU:HB3 | 1:130:A:ASN:H   | 12                  | 0.17     | 0.03                | 0.18       |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,674)  | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13 | 12                  | 0.14     | 0.02                | 0.14       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,188)  | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG21 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG22 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,188)  | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG23 | 12                  | 0.14     | 0.02                | 0.14       |
| (2,215)  | 1:26:A:PHE:HD1  | 1:120:A:HIS:H   | 12                  | 0.13     | 0.02                | 0.15       |
| (2,215)  | 1:26:A:PHE:HD2  | 1:120:A:HIS:H   | 12                  | 0.13     | 0.02                | 0.15       |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H    | 11                  | 0.4      | 0.02                | 0.4        |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H   | 11                  | 0.3      | 0.09                | 0.25       |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H   | 11                  | 0.3      | 0.09                | 0.25       |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2  | 11                  | 0.24     | 0.04                | 0.26       |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 11                  | 0.24     | 0.04                | 0.26       |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 11                  | 0.24     | 0.04                | 0.26       |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 11                  | 0.24     | 0.04                | 0.26       |
| (2,2666) | 1:124:A:VAL:HB  | 1:126:A:GLU:H   | 11                  | 0.24     | 0.08                | 0.21       |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H    | 11                  | 0.24     | 0.02                | 0.24       |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 11                  | 0.19     | 0.05                | 0.21       |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 11                  | 0.19     | 0.05                | 0.21       |
| (2,320)  | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1  | 11                  | 0.19     | 0.04                | 0.19       |
| (2,1727) | 1:82:A:PHE:HD1  | 1:121:A:CYS:H   | 11                  | 0.19     | 0.04                | 0.19       |
| (2,1727) | 1:82:A:PHE:HD2  | 1:121:A:CYS:H   | 11                  | 0.19     | 0.04                | 0.19       |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 11                  | 0.17     | 0.06                | 0.15       |
| (2,1648) | 1:80:A:CYS:HA   | 1:97:A:LYS:H    | 11                  | 0.15     | 0.02                | 0.16       |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 11                  | 0.15     | 0.02                | 0.15       |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H   | 10                  | 0.22     | 0.07                | 0.26       |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H   | 10                  | 0.22     | 0.07                | 0.26       |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2  | 10                  | 0.22     | 0.02                | 0.22       |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3  | 10                  | 0.22     | 0.02                | 0.22       |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2  | 10                  | 0.22     | 0.02                | 0.22       |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3  | 10                  | 0.22     | 0.02                | 0.22       |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB2  | 10                  | 0.17     | 0.07                | 0.12       |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB3  | 10                  | 0.17     | 0.07                | 0.12       |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB2  | 10                  | 0.17     | 0.07                | 0.12       |

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| Key      | Atom-1           | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1666) | 1:81:A:GLU:HG3   | 1:97:A:LYS:HB3  | 10                  | 0.17     | 0.07                | 0.12       |
| (2,1007) | 1:57:A:ILE:HD11  | 1:50:A:GLN:H    | 10                  | 0.16     | 0.02                | 0.16       |
| (2,1007) | 1:57:A:ILE:HD12  | 1:50:A:GLN:H    | 10                  | 0.16     | 0.02                | 0.16       |
| (2,1007) | 1:57:A:ILE:HD13  | 1:50:A:GLN:H    | 10                  | 0.16     | 0.02                | 0.16       |
| (2,2377) | 1:110:A:GLN:HA   | 2:942:B:PRO:HA  | 10                  | 0.16     | 0.05                | 0.15       |
| (2,2332) | 1:108:A:TRP:HD1  | 1:30:A:LYS:H    | 10                  | 0.15     | 0.03                | 0.15       |
| (2,2081) | 1:99:A:LYS:HA    | 1:81:A:GLU:H    | 10                  | 0.15     | 0.03                | 0.15       |
| (2,1238) | 1:61:A:TRP:HZ3   | 1:64:A:ARG:H    | 10                  | 0.15     | 0.03                | 0.15       |
| (2,1836) | 1:93:A:VAL:HA    | 1:107:A:PHE:H   | 10                  | 0.14     | 0.02                | 0.15       |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 10                  | 0.14     | 0.02                | 0.12       |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 10                  | 0.14     | 0.02                | 0.12       |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 10                  | 0.14     | 0.02                | 0.12       |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 10                  | 0.14     | 0.02                | 0.12       |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 10                  | 0.14     | 0.02                | 0.12       |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 10                  | 0.14     | 0.02                | 0.12       |
| (2,1705) | 1:82:A:PHE:HE1   | 1:59:A:PHE:HE1  | 10                  | 0.14     | 0.02                | 0.13       |
| (2,1705) | 1:82:A:PHE:HE1   | 1:59:A:PHE:HE2  | 10                  | 0.14     | 0.02                | 0.13       |
| (2,1705) | 1:82:A:PHE:HE2   | 1:59:A:PHE:HE1  | 10                  | 0.14     | 0.02                | 0.13       |
| (2,1705) | 1:82:A:PHE:HE2   | 1:59:A:PHE:HE2  | 10                  | 0.14     | 0.02                | 0.13       |
| (2,1024) | 1:57:A:ILE:HB    | 1:56:A:LEU:H    | 10                  | 0.12     | 0.02                | 0.11       |
| (2,894)  | 1:52:A:THR:HA    | 1:50:A:GLN:HE21 | 10                  | 0.12     | 0.01                | 0.12       |
| (2,894)  | 1:52:A:THR:HA    | 1:50:A:GLN:HE22 | 10                  | 0.12     | 0.01                | 0.12       |
| (2,842)  | 1:50:A:GLN:HG2   | 1:58:A:HIS:H    | 9                   | 0.26     | 0.12                | 0.36       |
| (2,842)  | 1:50:A:GLN:HG3   | 1:58:A:HIS:H    | 9                   | 0.26     | 0.12                | 0.36       |
| (2,2724) | 1:126:A:GLU:HG2  | 1:126:A:GLU:H   | 9                   | 0.23     | 0.11                | 0.21       |
| (2,2724) | 1:126:A:GLU:HG3  | 1:126:A:GLU:H   | 9                   | 0.23     | 0.11                | 0.21       |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 9                   | 0.19     | 0.09                | 0.16       |
| (2,2073) | 1:99:A:LYS:HG2   | 1:81:A:GLU:HG2  | 9                   | 0.18     | 0.04                | 0.2        |
| (2,2073) | 1:99:A:LYS:HG2   | 1:81:A:GLU:HG3  | 9                   | 0.18     | 0.04                | 0.2        |
| (2,2073) | 1:99:A:LYS:HG3   | 1:81:A:GLU:HG2  | 9                   | 0.18     | 0.04                | 0.2        |
| (2,2073) | 1:99:A:LYS:HG3   | 1:81:A:GLU:HG3  | 9                   | 0.18     | 0.04                | 0.2        |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H   | 9                   | 0.18     | 0.05                | 0.17       |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H   | 9                   | 0.18     | 0.05                | 0.17       |
| (2,819)  | 1:49:A:ILE:HD11  | 1:128:A:LEU:H   | 9                   | 0.18     | 0.05                | 0.19       |
| (2,819)  | 1:49:A:ILE:HD12  | 1:128:A:LEU:H   | 9                   | 0.18     | 0.05                | 0.19       |
| (2,819)  | 1:49:A:ILE:HD13  | 1:128:A:LEU:H   | 9                   | 0.18     | 0.05                | 0.19       |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H   | 9                   | 0.17     | 0.04                | 0.17       |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H   | 9                   | 0.17     | 0.04                | 0.17       |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21 | 9                   | 0.16     | 0.03                | 0.16       |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22 | 9                   | 0.16     | 0.03                | 0.16       |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23 | 9                   | 0.16     | 0.03                | 0.16       |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE1 | 9                   | 0.14     | 0.03                | 0.14       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE2 | 9                   | 0.14     | 0.03                | 0.14       |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE3 | 9                   | 0.14     | 0.03                | 0.14       |
| (2,2593) | 1:122:A:ARG:H   | 1:119:A:GLU:H   | 9                   | 0.14     | 0.02                | 0.14       |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD1  | 9                   | 0.13     | 0.03                | 0.13       |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2  | 9                   | 0.13     | 0.03                | 0.13       |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1  | 9                   | 0.13     | 0.03                | 0.13       |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2  | 9                   | 0.13     | 0.03                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG11 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG12 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG13 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG21 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG22 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG23 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG11 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG12 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG13 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG21 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG22 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG23 | 9                   | 0.13     | 0.01                | 0.13       |
| (2,3232) | 2:948:B:PHE:HE1 | 1:106:A:PHE:HE1 | 9                   | 0.13     | 0.03                | 0.14       |
| (2,3232) | 2:948:B:PHE:HE1 | 1:106:A:PHE:HE2 | 9                   | 0.13     | 0.03                | 0.14       |
| (2,3232) | 2:948:B:PHE:HE2 | 1:106:A:PHE:HE1 | 9                   | 0.13     | 0.03                | 0.14       |
| (2,3232) | 2:948:B:PHE:HE2 | 1:106:A:PHE:HE2 | 9                   | 0.13     | 0.03                | 0.14       |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 9                   | 0.13     | 0.02                | 0.12       |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 9                   | 0.13     | 0.02                | 0.12       |
| (2,226)  | 1:26:A:PHE:HE1  | 1:111:A:GLU:H   | 9                   | 0.12     | 0.02                | 0.12       |
| (2,226)  | 1:26:A:PHE:HE2  | 1:111:A:GLU:H   | 9                   | 0.12     | 0.02                | 0.12       |
| (2,319)  | 1:30:A:LYS:HA   | 1:108:A:TRP:HE1 | 9                   | 0.12     | 0.02                | 0.12       |
| (2,3097) | 1:33:A:LEU:HD21 | 2:950:B:TYR:H   | 9                   | 0.12     | 0.02                | 0.12       |
| (2,3097) | 1:33:A:LEU:HD22 | 2:950:B:TYR:H   | 9                   | 0.12     | 0.02                | 0.12       |
| (2,3097) | 1:33:A:LEU:HD23 | 2:950:B:TYR:H   | 9                   | 0.12     | 0.02                | 0.12       |
| (2,3025) | 2:950:B:TYR:HE1 | 2:950:B:TYR:HA  | 9                   | 0.12     | 0.01                | 0.12       |
| (2,3025) | 2:950:B:TYR:HE2 | 2:950:B:TYR:HA  | 9                   | 0.12     | 0.01                | 0.12       |
| (2,2409) | 1:112:A:PRO:HG2 | 1:113:A:LYS:H   | 8                   | 0.24     | 0.03                | 0.25       |
| (2,2409) | 1:112:A:PRO:HG3 | 1:113:A:LYS:H   | 8                   | 0.24     | 0.03                | 0.25       |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 8                   | 0.24     | 0.06                | 0.21       |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 8                   | 0.24     | 0.06                | 0.21       |
| (2,729)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2  | 8                   | 0.21     | 0.04                | 0.2        |
| (2,729)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3  | 8                   | 0.21     | 0.04                | 0.2        |
| (2,729)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2  | 8                   | 0.21     | 0.04                | 0.2        |
| (2,729)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3  | 8                   | 0.21     | 0.04                | 0.2        |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 8                   | 0.16     | 0.03                | 0.16       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,2294) | 1:107:A:PHE:HD2  | 1:45:A:GLY:H     | 8                   | 0.16     | 0.03                | 0.16       |
| (2,1272) | 1:62:A:LYS:H     | 1:70:A:GLU:H     | 8                   | 0.15     | 0.03                | 0.16       |
| (2,2373) | 1:110:A:GLN:HA   | 1:28:A:ALA:H     | 8                   | 0.14     | 0.03                | 0.14       |
| (2,2747) | 1:127:A:TYR:HD1  | 1:24:A:VAL:HA    | 8                   | 0.14     | 0.04                | 0.12       |
| (2,2747) | 1:127:A:TYR:HD2  | 1:24:A:VAL:HA    | 8                   | 0.14     | 0.04                | 0.12       |
| (2,1728) | 1:82:A:PHE:HD1   | 1:124:A:VAL:H    | 8                   | 0.13     | 0.03                | 0.12       |
| (2,1728) | 1:82:A:PHE:HD2   | 1:124:A:VAL:H    | 8                   | 0.13     | 0.03                | 0.12       |
| (2,1297) | 1:63:A:ASP:H     | 1:67:A:GLY:H     | 8                   | 0.12     | 0.02                | 0.12       |
| (2,1343) | 1:65:A:THR:HA    | 1:67:A:GLY:H     | 8                   | 0.12     | 0.02                | 0.12       |
| (2,2139) | 1:103:A:LYS:HE2  | 1:103:A:LYS:H    | 7                   | 0.22     | 0.06                | 0.19       |
| (2,2139) | 1:103:A:LYS:HE3  | 1:103:A:LYS:H    | 7                   | 0.22     | 0.06                | 0.19       |
| (2,190)  | 1:26:A:PHE:HD1   | 1:124:A:VAL:HG11 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD1   | 1:124:A:VAL:HG12 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD1   | 1:124:A:VAL:HG13 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD1   | 1:124:A:VAL:HG21 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD1   | 1:124:A:VAL:HG22 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD1   | 1:124:A:VAL:HG23 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD2   | 1:124:A:VAL:HG11 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD2   | 1:124:A:VAL:HG12 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD2   | 1:124:A:VAL:HG13 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD2   | 1:124:A:VAL:HG21 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD2   | 1:124:A:VAL:HG22 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,190)  | 1:26:A:PHE:HD2   | 1:124:A:VAL:HG23 | 7                   | 0.19     | 0.07                | 0.17       |
| (2,879)  | 1:52:A:THR:HG21  | 1:50:A:GLN:HB2   | 7                   | 0.18     | 0.02                | 0.19       |
| (2,879)  | 1:52:A:THR:HG21  | 1:50:A:GLN:HB3   | 7                   | 0.18     | 0.02                | 0.19       |
| (2,879)  | 1:52:A:THR:HG22  | 1:50:A:GLN:HB2   | 7                   | 0.18     | 0.02                | 0.19       |
| (2,879)  | 1:52:A:THR:HG22  | 1:50:A:GLN:HB3   | 7                   | 0.18     | 0.02                | 0.19       |
| (2,879)  | 1:52:A:THR:HG23  | 1:50:A:GLN:HB2   | 7                   | 0.18     | 0.02                | 0.19       |
| (2,879)  | 1:52:A:THR:HG23  | 1:50:A:GLN:HB3   | 7                   | 0.18     | 0.02                | 0.19       |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA    | 7                   | 0.17     | 0.05                | 0.16       |
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA    | 7                   | 0.17     | 0.05                | 0.16       |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA    | 7                   | 0.17     | 0.05                | 0.16       |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA    | 7                   | 0.17     | 0.05                | 0.16       |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA    | 7                   | 0.17     | 0.05                | 0.16       |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA    | 7                   | 0.17     | 0.05                | 0.16       |
| (2,1267) | 1:62:A:LYS:HE2   | 1:67:A:GLY:HA2   | 7                   | 0.15     | 0.02                | 0.15       |
| (2,1267) | 1:62:A:LYS:HE2   | 1:67:A:GLY:HA3   | 7                   | 0.15     | 0.02                | 0.15       |
| (2,1267) | 1:62:A:LYS:HE3   | 1:67:A:GLY:HA2   | 7                   | 0.15     | 0.02                | 0.15       |
| (2,1267) | 1:62:A:LYS:HE3   | 1:67:A:GLY:HA3   | 7                   | 0.15     | 0.02                | 0.15       |
| (2,2525) | 1:118:A:GLU:HG2  | 1:120:A:HIS:H    | 7                   | 0.14     | 0.03                | 0.13       |
| (2,2525) | 1:118:A:GLU:HG3  | 1:120:A:HIS:H    | 7                   | 0.14     | 0.03                | 0.13       |
| (2,1329) | 1:64:A:ARG:HG2   | 1:28:A:ALA:H     | 7                   | 0.13     | 0.04                | 0.12       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,1329) | 1:64:A:ARG:HG3   | 1:28:A:ALA:H     | 7                   | 0.13     | 0.04                | 0.12       |
| (2,734)  | 1:48:A:TYR:HA    | 1:26:A:PHE:H     | 7                   | 0.12     | 0.01                | 0.12       |
| (2,937)  | 1:56:A:LEU:HA    | 1:74:A:ILE:HD11  | 7                   | 0.12     | 0.01                | 0.12       |
| (2,937)  | 1:56:A:LEU:HA    | 1:74:A:ILE:HD12  | 7                   | 0.12     | 0.01                | 0.12       |
| (2,937)  | 1:56:A:LEU:HA    | 1:74:A:ILE:HD13  | 7                   | 0.12     | 0.01                | 0.12       |
| (2,1780) | 1:84:A:ARG:HD2   | 1:85:A:VAL:H     | 7                   | 0.12     | 0.01                | 0.12       |
| (2,1780) | 1:84:A:ARG:HD3   | 1:85:A:VAL:H     | 7                   | 0.12     | 0.01                | 0.12       |
| (2,585)  | 1:44:A:LYS:HA    | 1:44:A:LYS:HG2   | 6                   | 0.27     | 0.01                | 0.27       |
| (2,585)  | 1:44:A:LYS:HA    | 1:44:A:LYS:HG3   | 6                   | 0.27     | 0.01                | 0.27       |
| (2,911)  | 1:53:A:ASP:HB2   | 1:54:A:ASP:H     | 6                   | 0.27     | 0.0                 | 0.27       |
| (2,911)  | 1:53:A:ASP:HB3   | 1:54:A:ASP:H     | 6                   | 0.27     | 0.0                 | 0.27       |
| (2,2671) | 1:124:A:VAL:HG11 | 1:129:A:ASN:H    | 6                   | 0.23     | 0.05                | 0.24       |
| (2,2671) | 1:124:A:VAL:HG12 | 1:129:A:ASN:H    | 6                   | 0.23     | 0.05                | 0.24       |
| (2,2671) | 1:124:A:VAL:HG13 | 1:129:A:ASN:H    | 6                   | 0.23     | 0.05                | 0.24       |
| (2,2671) | 1:124:A:VAL:HG21 | 1:129:A:ASN:H    | 6                   | 0.23     | 0.05                | 0.24       |
| (2,2671) | 1:124:A:VAL:HG22 | 1:129:A:ASN:H    | 6                   | 0.23     | 0.05                | 0.24       |
| (2,2671) | 1:124:A:VAL:HG23 | 1:129:A:ASN:H    | 6                   | 0.23     | 0.05                | 0.24       |
| (2,1055) | 1:58:A:HIS:H     | 1:51:A:GLN:H     | 6                   | 0.17     | 0.04                | 0.16       |
| (2,756)  | 1:48:A:TYR:HE1   | 1:50:A:GLN:H     | 6                   | 0.16     | 0.03                | 0.16       |
| (2,756)  | 1:48:A:TYR:HE2   | 1:50:A:GLN:H     | 6                   | 0.16     | 0.03                | 0.16       |
| (2,1841) | 1:93:A:VAL:HG11  | 1:95:A:VAL:H     | 6                   | 0.14     | 0.03                | 0.14       |
| (2,1841) | 1:93:A:VAL:HG12  | 1:95:A:VAL:H     | 6                   | 0.14     | 0.03                | 0.14       |
| (2,1841) | 1:93:A:VAL:HG13  | 1:95:A:VAL:H     | 6                   | 0.14     | 0.03                | 0.14       |
| (2,1841) | 1:93:A:VAL:HG21  | 1:95:A:VAL:H     | 6                   | 0.14     | 0.03                | 0.14       |
| (2,1841) | 1:93:A:VAL:HG22  | 1:95:A:VAL:H     | 6                   | 0.14     | 0.03                | 0.14       |
| (2,1841) | 1:93:A:VAL:HG23  | 1:95:A:VAL:H     | 6                   | 0.14     | 0.03                | 0.14       |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE21 | 6                   | 0.14     | 0.02                | 0.13       |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE22 | 6                   | 0.14     | 0.02                | 0.13       |
| (2,1355) | 1:65:A:THR:HB    | 1:64:A:ARG:H     | 6                   | 0.14     | 0.02                | 0.13       |
| (2,1541) | 1:75:A:ILE:HA    | 1:59:A:PHE:H     | 6                   | 0.13     | 0.02                | 0.14       |
| (2,1401) | 1:69:A:VAL:HA    | 1:71:A:ASP:H     | 6                   | 0.13     | 0.02                | 0.12       |
| (2,167)  | 1:25:A:GLU:HG2   | 1:22:A:TYR:H     | 6                   | 0.13     | 0.02                | 0.12       |
| (2,167)  | 1:25:A:GLU:HG3   | 1:22:A:TYR:H     | 6                   | 0.13     | 0.02                | 0.12       |
| (2,1870) | 1:94:A:TYR:H     | 1:109:A:MET:H    | 6                   | 0.12     | 0.02                | 0.11       |
| (2,1490) | 1:74:A:ILE:HA    | 1:57:A:ILE:HG21  | 6                   | 0.11     | 0.01                | 0.12       |
| (2,1490) | 1:74:A:ILE:HA    | 1:57:A:ILE:HG22  | 6                   | 0.11     | 0.01                | 0.12       |
| (2,1490) | 1:74:A:ILE:HA    | 1:57:A:ILE:HG23  | 6                   | 0.11     | 0.01                | 0.12       |
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB2  | 5                   | 0.25     | 0.03                | 0.25       |
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB3  | 5                   | 0.25     | 0.03                | 0.25       |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB2  | 5                   | 0.25     | 0.03                | 0.25       |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB3  | 5                   | 0.25     | 0.03                | 0.25       |
| (2,843)  | 1:50:A:GLN:HG2   | 1:51:A:GLN:H     | 5                   | 0.22     | 0.01                | 0.22       |

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| Key      | Atom-1          | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (2,843)  | 1:50:A:GLN:HG3  | 1:51:A:GLN:H     | 5                   | 0.22     | 0.01                | 0.22       |
| (2,1779) | 1:84:A:ARG:HD2  | 1:84:A:ARG:H     | 5                   | 0.21     | 0.01                | 0.2        |
| (2,1779) | 1:84:A:ARG:HD3  | 1:84:A:ARG:H     | 5                   | 0.21     | 0.01                | 0.2        |
| (2,837)  | 1:50:A:GLN:HB2  | 1:58:A:HIS:H     | 5                   | 0.2      | 0.01                | 0.2        |
| (2,837)  | 1:50:A:GLN:HB3  | 1:58:A:HIS:H     | 5                   | 0.2      | 0.01                | 0.2        |
| (2,2762) | 1:127:A:TYR:HE1 | 1:131:A:PRO:HA   | 5                   | 0.18     | 0.07                | 0.18       |
| (2,2762) | 1:127:A:TYR:HE2 | 1:131:A:PRO:HA   | 5                   | 0.18     | 0.07                | 0.18       |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD2  | 5                   | 0.18     | 0.02                | 0.18       |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD3  | 5                   | 0.18     | 0.02                | 0.18       |
| (2,1680) | 1:81:A:GLU:HG2  | 1:81:A:GLU:H     | 5                   | 0.17     | 0.03                | 0.17       |
| (2,1680) | 1:81:A:GLU:HG3  | 1:81:A:GLU:H     | 5                   | 0.17     | 0.03                | 0.17       |
| (2,92)   | 1:23:A:LEU:HD11 | 1:21:A:LYS:HA    | 5                   | 0.16     | 0.03                | 0.15       |
| (2,92)   | 1:23:A:LEU:HD12 | 1:21:A:LYS:HA    | 5                   | 0.16     | 0.03                | 0.15       |
| (2,92)   | 1:23:A:LEU:HD13 | 1:21:A:LYS:HA    | 5                   | 0.16     | 0.03                | 0.15       |
| (2,92)   | 1:23:A:LEU:HD21 | 1:21:A:LYS:HA    | 5                   | 0.16     | 0.03                | 0.15       |
| (2,92)   | 1:23:A:LEU:HD22 | 1:21:A:LYS:HA    | 5                   | 0.16     | 0.03                | 0.15       |
| (2,92)   | 1:23:A:LEU:HD23 | 1:21:A:LYS:HA    | 5                   | 0.16     | 0.03                | 0.15       |
| (2,2352) | 1:109:A:MET:H   | 1:111:A:GLU:H    | 5                   | 0.15     | 0.03                | 0.14       |
| (2,2695) | 1:125:A:ASN:HB2 | 1:126:A:GLU:H    | 5                   | 0.15     | 0.01                | 0.15       |
| (2,2695) | 1:125:A:ASN:HB3 | 1:126:A:GLU:H    | 5                   | 0.15     | 0.01                | 0.15       |
| (2,2623) | 1:123:A:LYS:H   | 1:126:A:GLU:H    | 5                   | 0.15     | 0.03                | 0.14       |
| (2,1686) | 1:81:A:GLU:HB2  | 1:82:A:PHE:H     | 5                   | 0.14     | 0.03                | 0.14       |
| (2,1686) | 1:81:A:GLU:HB3  | 1:82:A:PHE:H     | 5                   | 0.14     | 0.03                | 0.14       |
| (2,2049) | 1:98:A:PHE:HD1  | 1:104:A:ARG:H    | 5                   | 0.14     | 0.02                | 0.14       |
| (2,2049) | 1:98:A:PHE:HD2  | 1:104:A:ARG:H    | 5                   | 0.14     | 0.02                | 0.14       |
| (2,102)  | 1:23:A:LEU:HA   | 1:51:A:GLN:H     | 5                   | 0.13     | 0.02                | 0.13       |
| (2,2428) | 1:113:A:LYS:H   | 1:111:A:GLU:H    | 5                   | 0.13     | 0.02                | 0.12       |
| (2,1713) | 1:82:A:PHE:H    | 1:125:A:ASN:HD21 | 5                   | 0.13     | 0.02                | 0.12       |
| (2,1713) | 1:82:A:PHE:H    | 1:125:A:ASN:HD22 | 5                   | 0.13     | 0.02                | 0.12       |
| (2,1715) | 1:82:A:PHE:HA   | 1:95:A:VAL:H     | 5                   | 0.13     | 0.01                | 0.13       |
| (2,1991) | 1:97:A:LYS:HD2  | 1:98:A:PHE:H     | 5                   | 0.13     | 0.03                | 0.12       |
| (2,1991) | 1:97:A:LYS:HD3  | 1:98:A:PHE:H     | 5                   | 0.13     | 0.03                | 0.12       |
| (2,343)  | 1:31:A:MET:H    | 1:108:A:TRP:H    | 5                   | 0.13     | 0.02                | 0.13       |
| (2,411)  | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE2   | 5                   | 0.13     | 0.0                 | 0.13       |
| (2,411)  | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE3   | 5                   | 0.13     | 0.0                 | 0.13       |
| (2,411)  | 1:34:A:LYS:HB3  | 1:34:A:LYS:HE2   | 5                   | 0.13     | 0.0                 | 0.13       |
| (2,411)  | 1:34:A:LYS:HB3  | 1:34:A:LYS:HE3   | 5                   | 0.13     | 0.0                 | 0.13       |
| (2,2035) | 1:98:A:PHE:HA   | 1:100:A:ALA:H    | 5                   | 0.12     | 0.02                | 0.11       |
| (2,1005) | 1:57:A:ILE:HD11 | 1:56:A:LEU:H     | 5                   | 0.12     | 0.02                | 0.11       |
| (2,1005) | 1:57:A:ILE:HD12 | 1:56:A:LEU:H     | 5                   | 0.12     | 0.02                | 0.11       |
| (2,1005) | 1:57:A:ILE:HD13 | 1:56:A:LEU:H     | 5                   | 0.12     | 0.02                | 0.11       |
| (2,2622) | 1:123:A:LYS:HE2 | 1:123:A:LYS:HB2  | 5                   | 0.12     | 0.01                | 0.12       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2622) | 1:123:A:LYS:HE2 | 1:123:A:LYS:HB3 | 5                   | 0.12     | 0.01                | 0.12       |
| (2,2622) | 1:123:A:LYS:HE3 | 1:123:A:LYS:HB2 | 5                   | 0.12     | 0.01                | 0.12       |
| (2,2622) | 1:123:A:LYS:HE3 | 1:123:A:LYS:HB3 | 5                   | 0.12     | 0.01                | 0.12       |
| (2,109)  | 1:23:A:LEU:HB2  | 1:50:A:GLN:H    | 5                   | 0.12     | 0.01                | 0.11       |
| (2,109)  | 1:23:A:LEU:HB3  | 1:50:A:GLN:H    | 5                   | 0.12     | 0.01                | 0.11       |
| (2,1755) | 1:83:A:LYS:H    | 1:97:A:LYS:H    | 5                   | 0.12     | 0.02                | 0.11       |
| (2,864)  | 1:51:A:GLN:HE21 | 1:55:A:SER:H    | 5                   | 0.11     | 0.01                | 0.11       |
| (2,864)  | 1:51:A:GLN:HE22 | 1:55:A:SER:H    | 5                   | 0.11     | 0.01                | 0.11       |
| (2,2767) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG12 | 5                   | 0.11     | 0.01                | 0.11       |
| (2,2767) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG13 | 5                   | 0.11     | 0.01                | 0.11       |
| (2,2767) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG12 | 5                   | 0.11     | 0.01                | 0.11       |
| (2,2767) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG13 | 5                   | 0.11     | 0.01                | 0.11       |
| (2,930)  | 1:55:A:SER:HB2  | 1:55:A:SER:H    | 4                   | 0.35     | 0.0                 | 0.35       |
| (2,930)  | 1:55:A:SER:HB3  | 1:55:A:SER:H    | 4                   | 0.35     | 0.0                 | 0.35       |
| (2,323)  | 1:30:A:LYS:HG2  | 1:61:A:TRP:HE1  | 4                   | 0.25     | 0.07                | 0.26       |
| (2,323)  | 1:30:A:LYS:HG3  | 1:61:A:TRP:HE1  | 4                   | 0.25     | 0.07                | 0.26       |
| (2,318)  | 1:30:A:LYS:HA   | 1:107:A:PHE:H   | 4                   | 0.22     | 0.03                | 0.22       |
| (2,2419) | 1:113:A:LYS:HA  | 1:113:A:LYS:HD2 | 4                   | 0.21     | 0.08                | 0.18       |
| (2,2419) | 1:113:A:LYS:HA  | 1:113:A:LYS:HD3 | 4                   | 0.21     | 0.08                | 0.18       |
| (2,506)  | 1:39:A:THR:HB   | 1:32:A:SER:H    | 4                   | 0.19     | 0.12                | 0.13       |
| (2,2784) | 1:127:A:TYR:HE1 | 1:127:A:TYR:H   | 4                   | 0.16     | 0.04                | 0.15       |
| (2,2784) | 1:127:A:TYR:HE2 | 1:127:A:TYR:H   | 4                   | 0.16     | 0.04                | 0.15       |
| (2,2362) | 1:109:A:MET:HE1 | 1:111:A:GLU:H   | 4                   | 0.16     | 0.05                | 0.16       |
| (2,2362) | 1:109:A:MET:HE2 | 1:111:A:GLU:H   | 4                   | 0.16     | 0.05                | 0.16       |
| (2,2362) | 1:109:A:MET:HE3 | 1:111:A:GLU:H   | 4                   | 0.16     | 0.05                | 0.16       |
| (2,2461) | 1:114:A:THR:HA  | 1:92:A:ARG:HE   | 4                   | 0.15     | 0.03                | 0.16       |
| (2,2877) | 1:130:A:ASN:HA  | 1:129:A:ASN:H   | 4                   | 0.15     | 0.02                | 0.15       |
| (2,1741) | 1:82:A:PHE:HE1  | 1:97:A:LYS:H    | 4                   | 0.14     | 0.02                | 0.14       |
| (2,1741) | 1:82:A:PHE:HE2  | 1:97:A:LYS:H    | 4                   | 0.14     | 0.02                | 0.14       |
| (2,1848) | 1:93:A:VAL:HB   | 1:91:A:GLY:H    | 4                   | 0.14     | 0.03                | 0.12       |
| (2,2782) | 1:127:A:TYR:HB2 | 1:126:A:GLU:H   | 4                   | 0.14     | 0.02                | 0.14       |
| (2,2782) | 1:127:A:TYR:HB3 | 1:126:A:GLU:H   | 4                   | 0.14     | 0.02                | 0.14       |
| (2,2608) | 1:122:A:ARG:HD2 | 1:122:A:ARG:H   | 4                   | 0.13     | 0.02                | 0.12       |
| (2,2608) | 1:122:A:ARG:HD3 | 1:122:A:ARG:H   | 4                   | 0.13     | 0.02                | 0.12       |
| (2,3251) | 2:948:B:PHE:HE1 | 1:88:A:CYS:H    | 4                   | 0.13     | 0.03                | 0.12       |
| (2,3251) | 2:948:B:PHE:HE2 | 1:88:A:CYS:H    | 4                   | 0.13     | 0.03                | 0.12       |
| (2,1208) | 1:61:A:TRP:HD1  | 1:48:A:TYR:H    | 4                   | 0.13     | 0.02                | 0.13       |
| (2,1737) | 1:82:A:PHE:HE1  | 1:122:A:ARG:H   | 4                   | 0.12     | 0.02                | 0.12       |
| (2,1737) | 1:82:A:PHE:HE2  | 1:122:A:ARG:H   | 4                   | 0.12     | 0.02                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG11 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG12 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG13 | 4                   | 0.12     | 0.01                | 0.12       |

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| Key      | Atom-1           | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2214) | 1:106:A:PHE:HE1  | 1:93:A:VAL:HG21 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE1  | 1:93:A:VAL:HG22 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE1  | 1:93:A:VAL:HG23 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE2  | 1:93:A:VAL:HG11 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE2  | 1:93:A:VAL:HG12 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE2  | 1:93:A:VAL:HG13 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE2  | 1:93:A:VAL:HG21 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE2  | 1:93:A:VAL:HG22 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2214) | 1:106:A:PHE:HE2  | 1:93:A:VAL:HG23 | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2705) | 1:126:A:GLU:H    | 1:129:A:ASN:H   | 4                   | 0.12     | 0.01                | 0.12       |
| (2,503)  | 1:39:A:THR:HA    | 1:32:A:SER:H    | 4                   | 0.12     | 0.01                | 0.12       |
| (2,1956) | 1:96:A:LEU:HD11  | 1:82:A:PHE:H    | 4                   | 0.12     | 0.01                | 0.12       |
| (2,1956) | 1:96:A:LEU:HD12  | 1:82:A:PHE:H    | 4                   | 0.12     | 0.01                | 0.12       |
| (2,1956) | 1:96:A:LEU:HD13  | 1:82:A:PHE:H    | 4                   | 0.12     | 0.01                | 0.12       |
| (2,1956) | 1:96:A:LEU:HD21  | 1:82:A:PHE:H    | 4                   | 0.12     | 0.01                | 0.12       |
| (2,1956) | 1:96:A:LEU:HD22  | 1:82:A:PHE:H    | 4                   | 0.12     | 0.01                | 0.12       |
| (2,1956) | 1:96:A:LEU:HD23  | 1:82:A:PHE:H    | 4                   | 0.12     | 0.01                | 0.12       |
| (2,2129) | 1:103:A:LYS:H    | 1:101:A:GLY:H   | 4                   | 0.12     | 0.02                | 0.11       |
| (2,244)  | 1:27:A:ARG:HB2   | 1:29:A:GLY:H    | 4                   | 0.12     | 0.02                | 0.11       |
| (2,244)  | 1:27:A:ARG:HB3   | 1:29:A:GLY:H    | 4                   | 0.12     | 0.02                | 0.11       |
| (2,792)  | 1:49:A:ILE:HA    | 1:58:A:HIS:H    | 4                   | 0.12     | 0.02                | 0.11       |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE21 | 4                   | 0.12     | 0.02                | 0.11       |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE22 | 4                   | 0.12     | 0.02                | 0.11       |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE21 | 4                   | 0.12     | 0.02                | 0.11       |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE22 | 4                   | 0.12     | 0.02                | 0.11       |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE21 | 4                   | 0.12     | 0.02                | 0.11       |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE22 | 4                   | 0.12     | 0.02                | 0.11       |
| (2,1685) | 1:81:A:GLU:HB2   | 1:83:A:LYS:H    | 4                   | 0.11     | 0.01                | 0.11       |
| (2,1685) | 1:81:A:GLU:HB3   | 1:83:A:LYS:H    | 4                   | 0.11     | 0.01                | 0.11       |
| (2,1461) | 1:73:A:LEU:HA    | 1:75:A:ILE:HD11 | 4                   | 0.11     | 0.0                 | 0.11       |
| (2,1461) | 1:73:A:LEU:HA    | 1:75:A:ILE:HD12 | 4                   | 0.11     | 0.0                 | 0.11       |
| (2,1461) | 1:73:A:LEU:HA    | 1:75:A:ILE:HD13 | 4                   | 0.11     | 0.0                 | 0.11       |
| (2,2982) | 2:947:B:PRO:HG2  | 2:948:B:PHE:H   | 4                   | 0.11     | 0.0                 | 0.11       |
| (2,2982) | 2:947:B:PRO:HG3  | 2:948:B:PHE:H   | 4                   | 0.11     | 0.0                 | 0.11       |
| (2,192)  | 1:26:A:PHE:HE1   | 1:26:A:PHE:HA   | 4                   | 0.1      | 0.0                 | 0.11       |
| (2,192)  | 1:26:A:PHE:HE2   | 1:26:A:PHE:HA   | 4                   | 0.1      | 0.0                 | 0.11       |
| (2,1268) | 1:62:A:LYS:HE2   | 1:46:A:LEU:HD11 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE2   | 1:46:A:LEU:HD12 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE2   | 1:46:A:LEU:HD13 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE2   | 1:46:A:LEU:HD21 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE2   | 1:46:A:LEU:HD22 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE2   | 1:46:A:LEU:HD23 | 3                   | 0.31     | 0.06                | 0.3        |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD11 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD12 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD13 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD21 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD22 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD23 | 3                   | 0.31     | 0.06                | 0.3        |
| (2,1283) | 1:62:A:LYS:HG2  | 1:70:A:GLU:H    | 3                   | 0.23     | 0.01                | 0.22       |
| (2,1283) | 1:62:A:LYS:HG3  | 1:70:A:GLU:H    | 3                   | 0.23     | 0.01                | 0.22       |
| (2,2615) | 1:123:A:LYS:HB2 | 1:122:A:ARG:HG2 | 3                   | 0.2      | 0.07                | 0.16       |
| (2,2615) | 1:123:A:LYS:HB2 | 1:122:A:ARG:HG3 | 3                   | 0.2      | 0.07                | 0.16       |
| (2,2615) | 1:123:A:LYS:HB3 | 1:122:A:ARG:HG2 | 3                   | 0.2      | 0.07                | 0.16       |
| (2,2615) | 1:123:A:LYS:HB3 | 1:122:A:ARG:HG3 | 3                   | 0.2      | 0.07                | 0.16       |
| (2,2786) | 1:127:A:TYR:HE1 | 1:123:A:LYS:H   | 3                   | 0.18     | 0.03                | 0.16       |
| (2,2786) | 1:127:A:TYR:HE2 | 1:123:A:LYS:H   | 3                   | 0.18     | 0.03                | 0.16       |
| (2,2159) | 1:104:A:ARG:HD2 | 1:104:A:ARG:H   | 3                   | 0.18     | 0.02                | 0.17       |
| (2,2159) | 1:104:A:ARG:HD3 | 1:104:A:ARG:H   | 3                   | 0.18     | 0.02                | 0.17       |
| (2,730)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE2  | 3                   | 0.15     | 0.02                | 0.16       |
| (2,730)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE3  | 3                   | 0.15     | 0.02                | 0.16       |
| (2,730)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE2  | 3                   | 0.15     | 0.02                | 0.16       |
| (2,730)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE3  | 3                   | 0.15     | 0.02                | 0.16       |
| (2,754)  | 1:48:A:TYR:HE1  | 1:46:A:LEU:H    | 3                   | 0.15     | 0.02                | 0.16       |
| (2,754)  | 1:48:A:TYR:HE2  | 1:46:A:LEU:H    | 3                   | 0.15     | 0.02                | 0.16       |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD2  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD3  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD2  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD3  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD2  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD3  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD2  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD3  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD2  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD3  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD2  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD3  | 3                   | 0.15     | 0.03                | 0.17       |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD2 | 3                   | 0.14     | 0.03                | 0.13       |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD3 | 3                   | 0.14     | 0.03                | 0.13       |
| (2,1483) | 1:73:A:LEU:HG   | 1:74:A:ILE:H    | 3                   | 0.14     | 0.03                | 0.12       |
| (2,1452) | 1:72:A:ASP:HA   | 1:60:A:CYS:H    | 3                   | 0.13     | 0.01                | 0.13       |
| (2,2441) | 1:113:A:LYS:HD2 | 1:113:A:LYS:H   | 3                   | 0.13     | 0.01                | 0.13       |
| (2,2441) | 1:113:A:LYS:HD3 | 1:113:A:LYS:H   | 3                   | 0.13     | 0.01                | 0.13       |
| (2,606)  | 1:44:A:LYS:H    | 1:64:A:ARG:H    | 3                   | 0.13     | 0.02                | 0.13       |
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA2  | 3                   | 0.13     | 0.02                | 0.14       |

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| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA3  | 3                   | 0.13     | 0.02                | 0.14       |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA2  | 3                   | 0.13     | 0.02                | 0.14       |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA3  | 3                   | 0.13     | 0.02                | 0.14       |
| (2,2489) | 1:116:A:GLN:HB2 | 1:119:A:GLU:H   | 3                   | 0.13     | 0.01                | 0.13       |
| (2,2489) | 1:116:A:GLN:HB3 | 1:119:A:GLU:H   | 3                   | 0.13     | 0.01                | 0.13       |
| (2,2588) | 1:122:A:ARG:HA  | 1:122:A:ARG:HD2 | 3                   | 0.13     | 0.02                | 0.13       |
| (2,2588) | 1:122:A:ARG:HA  | 1:122:A:ARG:HD3 | 3                   | 0.13     | 0.02                | 0.13       |
| (2,297)  | 1:29:A:GLY:H    | 1:111:A:GLU:H   | 3                   | 0.12     | 0.02                | 0.13       |
| (2,1500) | 1:74:A:ILE:HD11 | 1:58:A:HIS:HA   | 3                   | 0.12     | 0.02                | 0.11       |
| (2,1500) | 1:74:A:ILE:HD12 | 1:58:A:HIS:HA   | 3                   | 0.12     | 0.02                | 0.11       |
| (2,1500) | 1:74:A:ILE:HD13 | 1:58:A:HIS:HA   | 3                   | 0.12     | 0.02                | 0.11       |
| (2,1816) | 1:87:A:GLN:HB2  | 1:87:A:GLN:HE21 | 3                   | 0.12     | 0.0                 | 0.12       |
| (2,1816) | 1:87:A:GLN:HB2  | 1:87:A:GLN:HE22 | 3                   | 0.12     | 0.0                 | 0.12       |
| (2,1816) | 1:87:A:GLN:HB3  | 1:87:A:GLN:HE21 | 3                   | 0.12     | 0.0                 | 0.12       |
| (2,1816) | 1:87:A:GLN:HB3  | 1:87:A:GLN:HE22 | 3                   | 0.12     | 0.0                 | 0.12       |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG11 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG12 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG13 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG21 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG22 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG23 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG11 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG12 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG13 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG21 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG22 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG23 | 3                   | 0.12     | 0.02                | 0.12       |
| (2,2644) | 1:124:A:VAL:HA  | 1:49:A:ILE:HG21 | 3                   | 0.12     | 0.02                | 0.11       |
| (2,2644) | 1:124:A:VAL:HA  | 1:49:A:ILE:HG22 | 3                   | 0.12     | 0.02                | 0.11       |
| (2,2644) | 1:124:A:VAL:HA  | 1:49:A:ILE:HG23 | 3                   | 0.12     | 0.02                | 0.11       |
| (2,907)  | 1:53:A:ASP:HA   | 1:52:A:THR:H    | 3                   | 0.12     | 0.0                 | 0.12       |
| (2,2089) | 1:99:A:LYS:HG2  | 1:80:A:CYS:H    | 3                   | 0.12     | 0.0                 | 0.12       |
| (2,2089) | 1:99:A:LYS:HG3  | 1:80:A:CYS:H    | 3                   | 0.12     | 0.0                 | 0.12       |
| (2,1068) | 1:58:A:HIS:HD2  | 1:53:A:ASP:H    | 3                   | 0.11     | 0.0                 | 0.11       |
| (2,2235) | 1:106:A:PHE:HE1 | 1:106:A:PHE:H   | 3                   | 0.11     | 0.01                | 0.11       |
| (2,2235) | 1:106:A:PHE:HE2 | 1:106:A:PHE:H   | 3                   | 0.11     | 0.01                | 0.11       |
| (2,824)  | 1:49:A:ILE:HD11 | 1:129:A:ASN:H   | 3                   | 0.11     | 0.01                | 0.11       |
| (2,824)  | 1:49:A:ILE:HD12 | 1:129:A:ASN:H   | 3                   | 0.11     | 0.01                | 0.11       |
| (2,824)  | 1:49:A:ILE:HD13 | 1:129:A:ASN:H   | 3                   | 0.11     | 0.01                | 0.11       |
| (2,3126) | 1:37:A:THR:HB   | 2:948:B:PHE:H   | 3                   | 0.11     | 0.01                | 0.11       |
| (2,60)   | 1:22:A:TYR:HA   | 1:49:A:ILE:H    | 3                   | 0.11     | 0.0                 | 0.11       |
| (2,2640) | 1:123:A:LYS:HD2 | 1:123:A:LYS:H   | 3                   | 0.11     | 0.0                 | 0.11       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (2,2640) | 1:123:A:LYS:HD3  | 1:123:A:LYS:H    | 3                   | 0.11     | 0.0                 | 0.11       |
| (2,1359) | 1:66:A:SER:H     | 1:64:A:ARG:H     | 3                   | 0.1      | 0.0                 | 0.1        |
| (2,2134) | 1:103:A:LYS:HD2  | 1:104:A:ARG:H    | 2                   | 0.28     | 0.08                | 0.28       |
| (2,2134) | 1:103:A:LYS:HD3  | 1:104:A:ARG:H    | 2                   | 0.28     | 0.08                | 0.28       |
| (2,1827) | 1:92:A:ARG:HD2   | 1:109:A:MET:H    | 2                   | 0.24     | 0.02                | 0.24       |
| (2,1827) | 1:92:A:ARG:HD3   | 1:109:A:MET:H    | 2                   | 0.24     | 0.02                | 0.24       |
| (2,1616) | 1:79:A:ASP:HA    | 1:75:A:ILE:HG21  | 2                   | 0.24     | 0.12                | 0.24       |
| (2,1616) | 1:79:A:ASP:HA    | 1:75:A:ILE:HG22  | 2                   | 0.24     | 0.12                | 0.24       |
| (2,1616) | 1:79:A:ASP:HA    | 1:75:A:ILE:HG23  | 2                   | 0.24     | 0.12                | 0.24       |
| (2,2876) | 1:130:A:ASN:HD21 | 1:129:A:ASN:H    | 2                   | 0.24     | 0.0                 | 0.24       |
| (2,2876) | 1:130:A:ASN:HD22 | 1:129:A:ASN:H    | 2                   | 0.24     | 0.0                 | 0.24       |
| (2,1307) | 1:63:A:ASP:HB2   | 1:68:A:ASN:H     | 2                   | 0.22     | 0.01                | 0.22       |
| (2,1307) | 1:63:A:ASP:HB3   | 1:68:A:ASN:H     | 2                   | 0.22     | 0.01                | 0.22       |
| (2,3102) | 1:36:A:THR:HB    | 2:951:B:ILE:HG21 | 2                   | 0.2      | 0.02                | 0.2        |
| (2,3102) | 1:36:A:THR:HB    | 2:951:B:ILE:HG22 | 2                   | 0.2      | 0.02                | 0.2        |
| (2,3102) | 1:36:A:THR:HB    | 2:951:B:ILE:HG23 | 2                   | 0.2      | 0.02                | 0.2        |
| (2,3189) | 2:941:B:GLU:HG2  | 1:44:A:LYS:HE2   | 2                   | 0.18     | 0.01                | 0.18       |
| (2,3189) | 2:941:B:GLU:HG2  | 1:44:A:LYS:HE3   | 2                   | 0.18     | 0.01                | 0.18       |
| (2,3189) | 2:941:B:GLU:HG3  | 1:44:A:LYS:HE2   | 2                   | 0.18     | 0.01                | 0.18       |
| (2,3189) | 2:941:B:GLU:HG3  | 1:44:A:LYS:HE3   | 2                   | 0.18     | 0.01                | 0.18       |
| (2,1981) | 1:97:A:LYS:HA    | 1:103:A:LYS:H    | 2                   | 0.16     | 0.05                | 0.16       |
| (2,2005) | 1:98:A:PHE:HD1   | 1:103:A:LYS:HD2  | 2                   | 0.16     | 0.02                | 0.16       |
| (2,2005) | 1:98:A:PHE:HD1   | 1:103:A:LYS:HD3  | 2                   | 0.16     | 0.02                | 0.16       |
| (2,2005) | 1:98:A:PHE:HD2   | 1:103:A:LYS:HD2  | 2                   | 0.16     | 0.02                | 0.16       |
| (2,2005) | 1:98:A:PHE:HD2   | 1:103:A:LYS:HD3  | 2                   | 0.16     | 0.02                | 0.16       |
| (2,2162) | 1:105:A:LEU:HA   | 1:96:A:LEU:HD11  | 2                   | 0.15     | 0.04                | 0.15       |
| (2,2162) | 1:105:A:LEU:HA   | 1:96:A:LEU:HD12  | 2                   | 0.15     | 0.04                | 0.15       |
| (2,2162) | 1:105:A:LEU:HA   | 1:96:A:LEU:HD13  | 2                   | 0.15     | 0.04                | 0.15       |
| (2,2162) | 1:105:A:LEU:HA   | 1:96:A:LEU:HD21  | 2                   | 0.15     | 0.04                | 0.15       |
| (2,2162) | 1:105:A:LEU:HA   | 1:96:A:LEU:HD22  | 2                   | 0.15     | 0.04                | 0.15       |
| (2,2162) | 1:105:A:LEU:HA   | 1:96:A:LEU:HD23  | 2                   | 0.15     | 0.04                | 0.15       |
| (2,3217) | 2:947:B:PRO:HB2  | 1:31:A:MET:HE1   | 2                   | 0.15     | 0.0                 | 0.15       |
| (2,3217) | 2:947:B:PRO:HB2  | 1:31:A:MET:HE2   | 2                   | 0.15     | 0.0                 | 0.15       |
| (2,3217) | 2:947:B:PRO:HB2  | 1:31:A:MET:HE3   | 2                   | 0.15     | 0.0                 | 0.15       |
| (2,3217) | 2:947:B:PRO:HB3  | 1:31:A:MET:HE1   | 2                   | 0.15     | 0.0                 | 0.15       |
| (2,3217) | 2:947:B:PRO:HB3  | 1:31:A:MET:HE2   | 2                   | 0.15     | 0.0                 | 0.15       |
| (2,3217) | 2:947:B:PRO:HB3  | 1:31:A:MET:HE3   | 2                   | 0.15     | 0.0                 | 0.15       |
| (2,1149) | 1:60:A:CYS:H     | 1:50:A:GLN:H     | 2                   | 0.14     | 0.01                | 0.14       |
| (2,2440) | 1:113:A:LYS:HD2  | 1:114:A:THR:H    | 2                   | 0.14     | 0.04                | 0.14       |
| (2,2440) | 1:113:A:LYS:HD3  | 1:114:A:THR:H    | 2                   | 0.14     | 0.04                | 0.14       |
| (2,2714) | 1:126:A:GLU:HB2  | 1:128:A:LEU:H    | 2                   | 0.14     | 0.0                 | 0.14       |
| (2,2714) | 1:126:A:GLU:HB3  | 1:128:A:LEU:H    | 2                   | 0.14     | 0.0                 | 0.14       |

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| Key      | Atom-1           | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|-----------------|---------------------|----------|---------------------|------------|
| (2,2133) | 1:103:A:LYS:HD2  | 1:103:A:LYS:H   | 2                   | 0.14     | 0.01                | 0.14       |
| (2,2133) | 1:103:A:LYS:HD3  | 1:103:A:LYS:H   | 2                   | 0.14     | 0.01                | 0.14       |
| (2,428)  | 1:34:A:LYS:HB2   | 1:33:A:LEU:H    | 2                   | 0.13     | 0.01                | 0.13       |
| (2,428)  | 1:34:A:LYS:HB3   | 1:33:A:LEU:H    | 2                   | 0.13     | 0.01                | 0.13       |
| (2,662)  | 1:47:A:VAL:HA    | 1:46:A:LEU:HD11 | 2                   | 0.13     | 0.02                | 0.13       |
| (2,662)  | 1:47:A:VAL:HA    | 1:46:A:LEU:HD12 | 2                   | 0.13     | 0.02                | 0.13       |
| (2,662)  | 1:47:A:VAL:HA    | 1:46:A:LEU:HD13 | 2                   | 0.13     | 0.02                | 0.13       |
| (2,662)  | 1:47:A:VAL:HA    | 1:46:A:LEU:HD21 | 2                   | 0.13     | 0.02                | 0.13       |
| (2,662)  | 1:47:A:VAL:HA    | 1:46:A:LEU:HD22 | 2                   | 0.13     | 0.02                | 0.13       |
| (2,662)  | 1:47:A:VAL:HA    | 1:46:A:LEU:HD23 | 2                   | 0.13     | 0.02                | 0.13       |
| (2,1324) | 1:64:A:ARG:HA    | 1:46:A:LEU:H    | 2                   | 0.13     | 0.02                | 0.13       |
| (2,1363) | 1:66:A:SER:HB2   | 1:68:A:ASN:HD21 | 2                   | 0.13     | 0.01                | 0.13       |
| (2,1363) | 1:66:A:SER:HB2   | 1:68:A:ASN:HD22 | 2                   | 0.13     | 0.01                | 0.13       |
| (2,1363) | 1:66:A:SER:HB3   | 1:68:A:ASN:HD21 | 2                   | 0.13     | 0.01                | 0.13       |
| (2,1363) | 1:66:A:SER:HB3   | 1:68:A:ASN:HD22 | 2                   | 0.13     | 0.01                | 0.13       |
| (2,1386) | 1:68:A:ASN:HB2   | 1:67:A:GLY:H    | 2                   | 0.13     | 0.0                 | 0.13       |
| (2,1386) | 1:68:A:ASN:HB3   | 1:67:A:GLY:H    | 2                   | 0.13     | 0.0                 | 0.13       |
| (2,501)  | 1:39:A:THR:H     | 1:34:A:LYS:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG2  | 1:95:A:VAL:HG11 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG2  | 1:95:A:VAL:HG12 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG2  | 1:95:A:VAL:HG13 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG2  | 1:95:A:VAL:HG21 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG2  | 1:95:A:VAL:HG22 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG2  | 1:95:A:VAL:HG23 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG3  | 1:95:A:VAL:HG11 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG3  | 1:95:A:VAL:HG12 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG3  | 1:95:A:VAL:HG13 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG3  | 1:95:A:VAL:HG21 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG3  | 1:95:A:VAL:HG22 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2150) | 1:104:A:ARG:HG3  | 1:95:A:VAL:HG23 | 2                   | 0.12     | 0.01                | 0.12       |
| (2,2338) | 1:108:A:TRP:HZ2  | 1:42:A:LYS:H    | 2                   | 0.12     | 0.02                | 0.12       |
| (2,2508) | 1:118:A:GLU:H    | 1:116:A:GLN:H   | 2                   | 0.12     | 0.02                | 0.12       |
| (2,3053) | 2:951:B:ILE:HG12 | 2:950:B:TYR:HA  | 2                   | 0.12     | 0.01                | 0.12       |
| (2,3053) | 2:951:B:ILE:HG13 | 2:950:B:TYR:HA  | 2                   | 0.12     | 0.01                | 0.12       |
| (2,3165) | 1:108:A:TRP:HZ2  | 2:944:B:PRO:HD2 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,3165) | 1:108:A:TRP:HZ2  | 2:944:B:PRO:HD3 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,138)  | 1:24:A:VAL:HG11  | 1:23:A:LEU:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (2,138)  | 1:24:A:VAL:HG12  | 1:23:A:LEU:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (2,138)  | 1:24:A:VAL:HG13  | 1:23:A:LEU:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (2,138)  | 1:24:A:VAL:HG21  | 1:23:A:LEU:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (2,138)  | 1:24:A:VAL:HG22  | 1:23:A:LEU:H    | 2                   | 0.12     | 0.01                | 0.12       |
| (2,138)  | 1:24:A:VAL:HG23  | 1:23:A:LEU:H    | 2                   | 0.12     | 0.01                | 0.12       |

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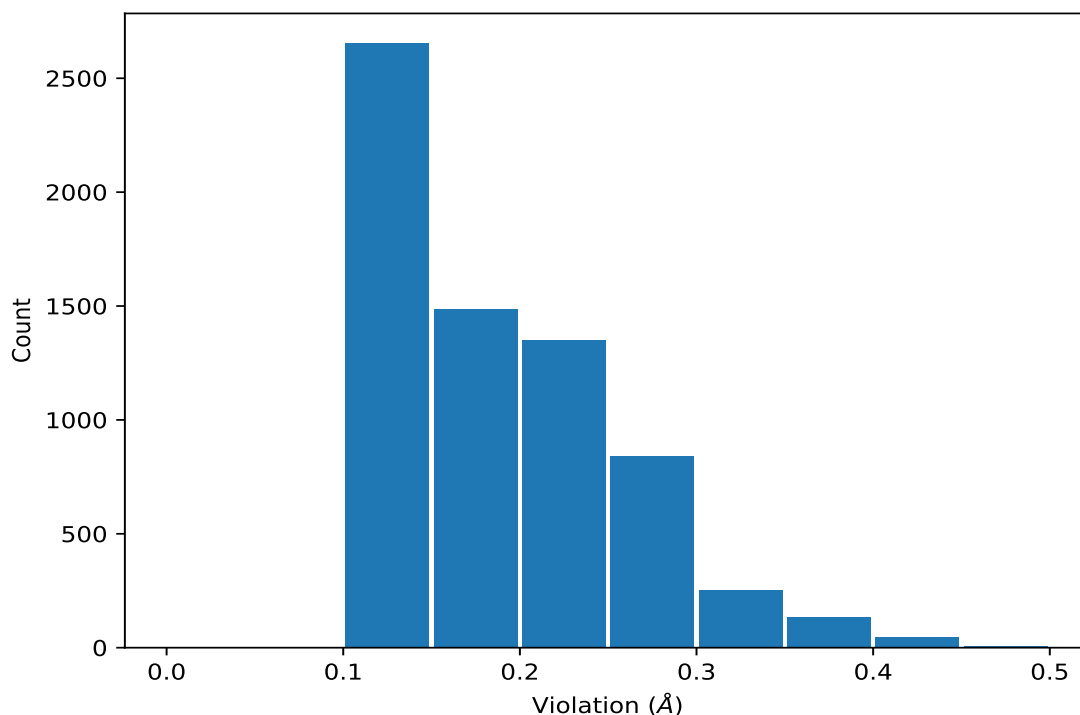
| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (2,1384) | 1:68:A:ASN:HA   | 1:70:A:GLU:H    | 2                   | 0.12     | 0.0                 | 0.12       |
| (2,3286) | 2:950:B:TYR:HE1 | 1:36:A:THR:HG21 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,3286) | 2:950:B:TYR:HE1 | 1:36:A:THR:HG22 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,3286) | 2:950:B:TYR:HE1 | 1:36:A:THR:HG23 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,3286) | 2:950:B:TYR:HE2 | 1:36:A:THR:HG21 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,3286) | 2:950:B:TYR:HE2 | 1:36:A:THR:HG22 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,3286) | 2:950:B:TYR:HE2 | 1:36:A:THR:HG23 | 2                   | 0.12     | 0.02                | 0.12       |
| (2,1896) | 1:95:A:VAL:HG11 | 1:97:A:LYS:HG2  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG11 | 1:97:A:LYS:HG3  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG12 | 1:97:A:LYS:HG2  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG12 | 1:97:A:LYS:HG3  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG13 | 1:97:A:LYS:HG2  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG13 | 1:97:A:LYS:HG3  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG21 | 1:97:A:LYS:HG2  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG21 | 1:97:A:LYS:HG3  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG22 | 1:97:A:LYS:HG2  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG22 | 1:97:A:LYS:HG3  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG23 | 1:97:A:LYS:HG2  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1896) | 1:95:A:VAL:HG23 | 1:97:A:LYS:HG3  | 2                   | 0.11     | 0.01                | 0.11       |
| (2,1206) | 1:61:A:TRP:HD1  | 1:30:A:LYS:H    | 2                   | 0.1      | 0.0                 | 0.1        |

<sup>1</sup>Number of violated models, <sup>2</sup>Standard 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) |
|----------|-----------------|---------------|----------|---------------|
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 7        | 0.47          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 7        | 0.47          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 6        | 0.46          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 6        | 0.46          |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H | 9        | 0.45          |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H | 9        | 0.45          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 1        | 0.44          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 1        | 0.44          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 3        | 0.44          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 3        | 0.44          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 4        | 0.44          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 4        | 0.44          |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H | 2        | 0.44          |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H | 2        | 0.44          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 8        | 0.43          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 8        | 0.43          |

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| Key      | Atom-1          | Atom-2        | Model ID | Violation (Å) |
|----------|-----------------|---------------|----------|---------------|
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 9        | 0.43          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 9        | 0.43          |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H | 15       | 0.43          |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H | 15       | 0.43          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 15       | 0.42          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 15       | 0.42          |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H | 4        | 0.42          |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H | 4        | 0.42          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 3        | 0.42          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 7        | 0.42          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 8        | 0.42          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 5        | 0.41          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 5        | 0.41          |
| (2,2724) | 1:126:A:GLU:HG2 | 1:126:A:GLU:H | 9        | 0.41          |
| (2,2724) | 1:126:A:GLU:HG3 | 1:126:A:GLU:H | 9        | 0.41          |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H | 15       | 0.41          |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H | 15       | 0.41          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 1        | 0.41          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 4        | 0.41          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H  | 14       | 0.41          |
| (2,2938) | 2:943:B:GLU:HG2 | 2:943:B:GLU:H | 15       | 0.4           |
| (2,2938) | 2:943:B:GLU:HG3 | 2:943:B:GLU:H | 15       | 0.4           |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 2        | 0.4           |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 2        | 0.4           |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 13       | 0.4           |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 13       | 0.4           |
| (2,2724) | 1:126:A:GLU:HG2 | 1:126:A:GLU:H | 15       | 0.4           |
| (2,2724) | 1:126:A:GLU:HG3 | 1:126:A:GLU:H | 15       | 0.4           |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H | 8        | 0.4           |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H | 8        | 0.4           |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 5        | 0.4           |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 6        | 0.4           |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H  | 14       | 0.4           |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H  | 6        | 0.4           |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H  | 8        | 0.4           |
| (2,506)  | 1:39:A:THR:HB   | 1:32:A:SER:H  | 5        | 0.4           |
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H  | 9        | 0.4           |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H | 14       | 0.39          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H | 14       | 0.39          |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H | 2        | 0.39          |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H | 2        | 0.39          |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H | 10       | 0.39          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H   | 10       | 0.39          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H    | 10       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD11 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD12 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD13 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD21 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD22 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD23 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD11 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD12 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD13 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD21 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD22 | 11       | 0.39          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD23 | 11       | 0.39          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H    | 3        | 0.39          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H    | 5        | 0.39          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H    | 6        | 0.39          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H    | 9        | 0.39          |
| (2,842)  | 1:50:A:GLN:HG2  | 1:58:A:HIS:H    | 1        | 0.39          |
| (2,842)  | 1:50:A:GLN:HG3  | 1:58:A:HIS:H    | 1        | 0.39          |
| (2,842)  | 1:50:A:GLN:HG2  | 1:58:A:HIS:H    | 5        | 0.39          |
| (2,842)  | 1:50:A:GLN:HG3  | 1:58:A:HIS:H    | 5        | 0.39          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H   | 10       | 0.38          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H   | 10       | 0.38          |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H   | 9        | 0.38          |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H   | 9        | 0.38          |
| (2,2666) | 1:124:A:VAL:HB  | 1:126:A:GLU:H   | 13       | 0.38          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 6        | 0.38          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 6        | 0.38          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H    | 9        | 0.38          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 12       | 0.38          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 12       | 0.38          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 2        | 0.38          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 4        | 0.38          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 10       | 0.38          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 8        | 0.38          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 8        | 0.38          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 8        | 0.38          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H    | 11       | 0.38          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H    | 12       | 0.38          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H    | 13       | 0.38          |
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H    | 2        | 0.38          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H   | 7        | 0.38          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H  | 11       | 0.37          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H  | 11       | 0.37          |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H  | 4        | 0.37          |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H  | 4        | 0.37          |
| (2,2566) | 1:120:A:HIS:HD2 | 1:122:A:ARG:H  | 8        | 0.37          |
| (2,1654) | 1:80:A:CYS:HG   | 1:99:A:LYS:H   | 15       | 0.37          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H   | 2        | 0.37          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H   | 2        | 0.37          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H   | 8        | 0.37          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H   | 8        | 0.37          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H   | 11       | 0.37          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H   | 11       | 0.37          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1 | 6        | 0.37          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H   | 2        | 0.37          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H   | 1        | 0.37          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H   | 1        | 0.37          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H   | 1        | 0.37          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H   | 1        | 0.37          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H   | 2        | 0.37          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H   | 4        | 0.37          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H   | 7        | 0.37          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H   | 8        | 0.37          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H   | 10       | 0.37          |
| (2,390)  | 1:33:A:LEU:HB2  | 1:106:A:PHE:H  | 9        | 0.37          |
| (2,390)  | 1:33:A:LEU:HB3  | 1:106:A:PHE:H  | 9        | 0.37          |
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H   | 8        | 0.37          |
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H   | 11       | 0.37          |
| (2,3214) | 2:947:B:PRO:HA  | 1:39:A:THR:HB  | 6        | 0.36          |
| (2,2879) | 1:130:A:ASN:HB2 | 1:129:A:ASN:H  | 12       | 0.36          |
| (2,2879) | 1:130:A:ASN:HB3 | 1:129:A:ASN:H  | 12       | 0.36          |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H  | 8        | 0.36          |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H  | 8        | 0.36          |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H  | 7        | 0.36          |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H  | 7        | 0.36          |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H  | 11       | 0.36          |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H  | 11       | 0.36          |
| (2,2134) | 1:103:A:LYS:HD2 | 1:104:A:ARG:H  | 12       | 0.36          |
| (2,2134) | 1:103:A:LYS:HD3 | 1:104:A:ARG:H  | 12       | 0.36          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H   | 7        | 0.36          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H   | 7        | 0.36          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H  | 1        | 0.36          |

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| Key      | Atom-1          | Atom-2        | Model ID | Violation (Å) |
|----------|-----------------|---------------|----------|---------------|
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H | 1        | 0.36          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H | 1        | 0.36          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H  | 15       | 0.36          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H  | 15       | 0.36          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H  | 15       | 0.36          |
| (2,892)  | 1:52:A:THR:HA   | 1:54:A:ASP:H  | 15       | 0.36          |
| (2,842)  | 1:50:A:GLN:HG2  | 1:58:A:HIS:H  | 2        | 0.36          |
| (2,842)  | 1:50:A:GLN:HG3  | 1:58:A:HIS:H  | 2        | 0.36          |
| (2,842)  | 1:50:A:GLN:HG2  | 1:58:A:HIS:H  | 10       | 0.36          |
| (2,842)  | 1:50:A:GLN:HG3  | 1:58:A:HIS:H  | 10       | 0.36          |
| (2,842)  | 1:50:A:GLN:HG2  | 1:58:A:HIS:H  | 12       | 0.36          |
| (2,842)  | 1:50:A:GLN:HG3  | 1:58:A:HIS:H  | 12       | 0.36          |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H | 1        | 0.36          |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H | 1        | 0.36          |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H | 1        | 0.36          |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H | 7        | 0.36          |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H | 7        | 0.36          |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H | 7        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H | 2        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H | 2        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H | 2        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H | 2        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H | 2        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H | 2        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H | 3        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H | 3        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H | 3        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H | 3        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H | 3        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H | 3        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H | 5        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H | 5        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H | 5        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H | 5        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H | 5        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H | 5        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H | 9        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H | 9        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H | 9        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H | 9        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H | 9        | 0.36          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H | 9        | 0.36          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H    | 15       | 0.36          |
| (2,2666) | 1:124:A:VAL:HB  | 1:126:A:GLU:H   | 8        | 0.35          |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H   | 6        | 0.35          |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H   | 6        | 0.35          |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H   | 9        | 0.35          |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H   | 9        | 0.35          |
| (2,1616) | 1:79:A:ASP:HA   | 1:75:A:ILE:HG21 | 13       | 0.35          |
| (2,1616) | 1:79:A:ASP:HA   | 1:75:A:ILE:HG22 | 13       | 0.35          |
| (2,1616) | 1:79:A:ASP:HA   | 1:75:A:ILE:HG23 | 13       | 0.35          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 1        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 1        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 3        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 3        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 4        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 4        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 5        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 5        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 6        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 6        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 9        | 0.35          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 9        | 0.35          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 5        | 0.35          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 8        | 0.35          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 9        | 0.35          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 11       | 0.35          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 13       | 0.35          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 1        | 0.35          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 11       | 0.35          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 11       | 0.35          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 11       | 0.35          |
| (2,930)  | 1:55:A:SER:HB2  | 1:55:A:SER:H    | 3        | 0.35          |
| (2,930)  | 1:55:A:SER:HB3  | 1:55:A:SER:H    | 3        | 0.35          |
| (2,930)  | 1:55:A:SER:HB2  | 1:55:A:SER:H    | 6        | 0.35          |
| (2,930)  | 1:55:A:SER:HB3  | 1:55:A:SER:H    | 6        | 0.35          |
| (2,930)  | 1:55:A:SER:HB2  | 1:55:A:SER:H    | 10       | 0.35          |
| (2,930)  | 1:55:A:SER:HB3  | 1:55:A:SER:H    | 10       | 0.35          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 2        | 0.35          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 2        | 0.35          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 2        | 0.35          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 7        | 0.35          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 7        | 0.35          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 7        | 0.35          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,901)  | 1:52:A:THR:HG21  | 1:51:A:GLN:H    | 10       | 0.35          |
| (2,901)  | 1:52:A:THR:HG22  | 1:51:A:GLN:H    | 10       | 0.35          |
| (2,901)  | 1:52:A:THR:HG23  | 1:51:A:GLN:H    | 10       | 0.35          |
| (2,136)  | 1:24:A:VAL:HG11  | 1:120:A:HIS:H   | 14       | 0.35          |
| (2,136)  | 1:24:A:VAL:HG12  | 1:120:A:HIS:H   | 14       | 0.35          |
| (2,136)  | 1:24:A:VAL:HG13  | 1:120:A:HIS:H   | 14       | 0.35          |
| (2,136)  | 1:24:A:VAL:HG21  | 1:120:A:HIS:H   | 14       | 0.35          |
| (2,136)  | 1:24:A:VAL:HG22  | 1:120:A:HIS:H   | 14       | 0.35          |
| (2,136)  | 1:24:A:VAL:HG23  | 1:120:A:HIS:H   | 14       | 0.35          |
| (2,99)   | 1:23:A:LEU:HA    | 1:49:A:ILE:H    | 1        | 0.35          |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 10       | 0.34          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 8        | 0.34          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 8        | 0.34          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 1        | 0.34          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 1        | 0.34          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 1        | 0.34          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 1        | 0.34          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 1        | 0.34          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 1        | 0.34          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 11       | 0.34          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 11       | 0.34          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 11       | 0.34          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 11       | 0.34          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 11       | 0.34          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 11       | 0.34          |
| (2,2724) | 1:126:A:GLU:HG2  | 1:126:A:GLU:H   | 2        | 0.34          |
| (2,2724) | 1:126:A:GLU:HG3  | 1:126:A:GLU:H   | 2        | 0.34          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 1        | 0.34          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 9        | 0.34          |
| (2,2519) | 1:118:A:GLU:HB2  | 1:121:A:CYS:H   | 13       | 0.34          |
| (2,2519) | 1:118:A:GLU:HB3  | 1:121:A:CYS:H   | 13       | 0.34          |
| (2,1370) | 1:67:A:GLY:HA2   | 1:66:A:SER:H    | 10       | 0.34          |
| (2,1370) | 1:67:A:GLY:HA3   | 1:66:A:SER:H    | 10       | 0.34          |
| (2,1370) | 1:67:A:GLY:HA2   | 1:66:A:SER:H    | 13       | 0.34          |
| (2,1370) | 1:67:A:GLY:HA3   | 1:66:A:SER:H    | 13       | 0.34          |
| (2,1320) | 1:64:A:ARG:H     | 1:61:A:TRP:HE1  | 3        | 0.34          |
| (2,1320) | 1:64:A:ARG:H     | 1:61:A:TRP:HE1  | 10       | 0.34          |
| (2,1244) | 1:61:A:TRP:HH2   | 1:43:A:ARG:H    | 8        | 0.34          |
| (2,1151) | 1:60:A:CYS:HA    | 1:48:A:TYR:H    | 15       | 0.34          |
| (2,930)  | 1:55:A:SER:HB2   | 1:55:A:SER:H    | 4        | 0.34          |
| (2,930)  | 1:55:A:SER:HB3   | 1:55:A:SER:H    | 4        | 0.34          |
| (2,901)  | 1:52:A:THR:HG21  | 1:51:A:GLN:H    | 12       | 0.34          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 12       | 0.34          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 12       | 0.34          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 9        | 0.34          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 9        | 0.34          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H   | 15       | 0.34          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H   | 15       | 0.34          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H   | 15       | 0.34          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H   | 15       | 0.34          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H   | 15       | 0.34          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H   | 15       | 0.34          |
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H    | 4        | 0.34          |
| (2,2566) | 1:120:A:HIS:HD2 | 1:122:A:ARG:H   | 5        | 0.33          |
| (2,2566) | 1:120:A:HIS:HD2 | 1:122:A:ARG:H   | 7        | 0.33          |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H   | 8        | 0.33          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 12       | 0.33          |
| (2,2419) | 1:113:A:LYS:HA  | 1:113:A:LYS:HD2 | 15       | 0.33          |
| (2,2419) | 1:113:A:LYS:HA  | 1:113:A:LYS:HD3 | 15       | 0.33          |
| (2,1370) | 1:67:A:GLY:HA2  | 1:66:A:SER:H    | 14       | 0.33          |
| (2,1370) | 1:67:A:GLY:HA3  | 1:66:A:SER:H    | 14       | 0.33          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 7        | 0.33          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 7        | 0.33          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 9        | 0.33          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 11       | 0.33          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 9        | 0.33          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 9        | 0.33          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 5        | 0.33          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 5        | 0.33          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 5        | 0.33          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 11       | 0.33          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 11       | 0.33          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 13       | 0.33          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 13       | 0.33          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 8        | 0.33          |
| (2,323)  | 1:30:A:LYS:HG2  | 1:61:A:TRP:HE1  | 6        | 0.33          |
| (2,323)  | 1:30:A:LYS:HG3  | 1:61:A:TRP:HE1  | 6        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H   | 6        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H   | 6        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H   | 6        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H   | 6        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H   | 6        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H   | 6        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H   | 8        | 0.33          |

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| Key      | Atom-1           | Atom-2        | Model ID | Violation (Å) |
|----------|------------------|---------------|----------|---------------|
| (2,136)  | 1:24:A:VAL:HG12  | 1:120:A:HIS:H | 8        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG13  | 1:120:A:HIS:H | 8        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG21  | 1:120:A:HIS:H | 8        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG22  | 1:120:A:HIS:H | 8        | 0.33          |
| (2,136)  | 1:24:A:VAL:HG23  | 1:120:A:HIS:H | 8        | 0.33          |
| (2,99)   | 1:23:A:LEU:HA    | 1:49:A:ILE:H  | 3        | 0.33          |
| (2,99)   | 1:23:A:LEU:HA    | 1:49:A:ILE:H  | 5        | 0.33          |
| (2,99)   | 1:23:A:LEU:HA    | 1:49:A:ILE:H  | 12       | 0.33          |
| (2,99)   | 1:23:A:LEU:HA    | 1:49:A:ILE:H  | 13       | 0.33          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H | 9        | 0.32          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H | 1        | 0.32          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H | 1        | 0.32          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H | 13       | 0.32          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H | 13       | 0.32          |
| (2,2666) | 1:124:A:VAL:HB   | 1:126:A:GLU:H | 10       | 0.32          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H | 3        | 0.32          |
| (2,1370) | 1:67:A:GLY:HA2   | 1:66:A:SER:H  | 15       | 0.32          |
| (2,1370) | 1:67:A:GLY:HA3   | 1:66:A:SER:H  | 15       | 0.32          |
| (2,1016) | 1:57:A:ILE:HG21  | 1:130:A:ASN:H | 8        | 0.32          |
| (2,1016) | 1:57:A:ILE:HG22  | 1:130:A:ASN:H | 8        | 0.32          |
| (2,1016) | 1:57:A:ILE:HG23  | 1:130:A:ASN:H | 8        | 0.32          |
| (2,1016) | 1:57:A:ILE:HG21  | 1:130:A:ASN:H | 14       | 0.32          |
| (2,1016) | 1:57:A:ILE:HG22  | 1:130:A:ASN:H | 14       | 0.32          |
| (2,1016) | 1:57:A:ILE:HG23  | 1:130:A:ASN:H | 14       | 0.32          |
| (2,866)  | 1:51:A:GLN:HE21  | 1:51:A:GLN:H  | 12       | 0.32          |
| (2,866)  | 1:51:A:GLN:HE22  | 1:51:A:GLN:H  | 12       | 0.32          |
| (2,813)  | 1:49:A:ILE:HG21  | 1:60:A:CYS:H  | 8        | 0.32          |
| (2,813)  | 1:49:A:ILE:HG22  | 1:60:A:CYS:H  | 8        | 0.32          |
| (2,813)  | 1:49:A:ILE:HG23  | 1:60:A:CYS:H  | 8        | 0.32          |
| (2,271)  | 1:28:A:ALA:HB1   | 1:107:A:PHE:H | 4        | 0.32          |
| (2,271)  | 1:28:A:ALA:HB2   | 1:107:A:PHE:H | 4        | 0.32          |
| (2,271)  | 1:28:A:ALA:HB3   | 1:107:A:PHE:H | 4        | 0.32          |
| (2,220)  | 1:26:A:PHE:HE1   | 1:124:A:VAL:H | 13       | 0.32          |
| (2,220)  | 1:26:A:PHE:HE2   | 1:124:A:VAL:H | 13       | 0.32          |
| (2,136)  | 1:24:A:VAL:HG11  | 1:120:A:HIS:H | 10       | 0.32          |
| (2,136)  | 1:24:A:VAL:HG12  | 1:120:A:HIS:H | 10       | 0.32          |
| (2,136)  | 1:24:A:VAL:HG13  | 1:120:A:HIS:H | 10       | 0.32          |
| (2,136)  | 1:24:A:VAL:HG21  | 1:120:A:HIS:H | 10       | 0.32          |
| (2,136)  | 1:24:A:VAL:HG22  | 1:120:A:HIS:H | 10       | 0.32          |
| (2,136)  | 1:24:A:VAL:HG23  | 1:120:A:HIS:H | 10       | 0.32          |
| (2,99)   | 1:23:A:LEU:HA    | 1:49:A:ILE:H  | 10       | 0.32          |
| (2,99)   | 1:23:A:LEU:HA    | 1:49:A:ILE:H  | 14       | 0.32          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 15       | 0.31          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 15       | 0.31          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 14       | 0.31          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 14       | 0.31          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 7        | 0.31          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 7        | 0.31          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 7        | 0.31          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 7        | 0.31          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 7        | 0.31          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 7        | 0.31          |
| (2,2719) | 1:126:A:GLU:HB2  | 1:130:A:ASN:H   | 12       | 0.31          |
| (2,2719) | 1:126:A:GLU:HB3  | 1:130:A:ASN:H   | 12       | 0.31          |
| (2,2671) | 1:124:A:VAL:HG11 | 1:129:A:ASN:H   | 2        | 0.31          |
| (2,2671) | 1:124:A:VAL:HG12 | 1:129:A:ASN:H   | 2        | 0.31          |
| (2,2671) | 1:124:A:VAL:HG13 | 1:129:A:ASN:H   | 2        | 0.31          |
| (2,2671) | 1:124:A:VAL:HG21 | 1:129:A:ASN:H   | 2        | 0.31          |
| (2,2671) | 1:124:A:VAL:HG22 | 1:129:A:ASN:H   | 2        | 0.31          |
| (2,2671) | 1:124:A:VAL:HG23 | 1:129:A:ASN:H   | 2        | 0.31          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H   | 13       | 0.31          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H   | 13       | 0.31          |
| (2,2585) | 1:121:A:CYS:HB2  | 1:119:A:GLU:H   | 15       | 0.31          |
| (2,2585) | 1:121:A:CYS:HB3  | 1:119:A:GLU:H   | 15       | 0.31          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 2        | 0.31          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 10       | 0.31          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 11       | 0.31          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 13       | 0.31          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 14       | 0.31          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 15       | 0.31          |
| (2,2519) | 1:118:A:GLU:HB2  | 1:121:A:CYS:H   | 1        | 0.31          |
| (2,2519) | 1:118:A:GLU:HB3  | 1:121:A:CYS:H   | 1        | 0.31          |
| (2,2519) | 1:118:A:GLU:HB2  | 1:121:A:CYS:H   | 2        | 0.31          |
| (2,2519) | 1:118:A:GLU:HB3  | 1:121:A:CYS:H   | 2        | 0.31          |
| (2,2519) | 1:118:A:GLU:HB2  | 1:121:A:CYS:H   | 3        | 0.31          |
| (2,2519) | 1:118:A:GLU:HB3  | 1:121:A:CYS:H   | 3        | 0.31          |
| (2,2519) | 1:118:A:GLU:HB2  | 1:121:A:CYS:H   | 7        | 0.31          |
| (2,2519) | 1:118:A:GLU:HB3  | 1:121:A:CYS:H   | 7        | 0.31          |
| (2,2458) | 1:114:A:THR:HB   | 1:116:A:GLN:H   | 2        | 0.31          |
| (2,2139) | 1:103:A:LYS:HE2  | 1:103:A:LYS:H   | 4        | 0.31          |
| (2,2139) | 1:103:A:LYS:HE3  | 1:103:A:LYS:H   | 4        | 0.31          |
| (2,2139) | 1:103:A:LYS:HE2  | 1:103:A:LYS:H   | 12       | 0.31          |
| (2,2139) | 1:103:A:LYS:HE3  | 1:103:A:LYS:H   | 12       | 0.31          |
| (2,1669) | 1:81:A:GLU:HG2   | 1:99:A:LYS:HE2  | 10       | 0.31          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 10       | 0.31          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 10       | 0.31          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 10       | 0.31          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 6        | 0.31          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 6        | 0.31          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 6        | 0.31          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 6        | 0.31          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 6        | 0.31          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 7        | 0.31          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 7        | 0.31          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H    | 11       | 0.31          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H    | 11       | 0.31          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H    | 11       | 0.31          |
| (2,519)  | 1:40:A:PRO:HD2  | 1:39:A:THR:HG21 | 5        | 0.31          |
| (2,519)  | 1:40:A:PRO:HD2  | 1:39:A:THR:HG22 | 5        | 0.31          |
| (2,519)  | 1:40:A:PRO:HD2  | 1:39:A:THR:HG23 | 5        | 0.31          |
| (2,519)  | 1:40:A:PRO:HD3  | 1:39:A:THR:HG21 | 5        | 0.31          |
| (2,519)  | 1:40:A:PRO:HD3  | 1:39:A:THR:HG22 | 5        | 0.31          |
| (2,519)  | 1:40:A:PRO:HD3  | 1:39:A:THR:HG23 | 5        | 0.31          |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H   | 13       | 0.31          |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H   | 13       | 0.31          |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H   | 13       | 0.31          |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H   | 15       | 0.31          |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H   | 15       | 0.31          |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H   | 15       | 0.31          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H   | 1        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H   | 1        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H   | 1        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H   | 1        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H   | 1        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H   | 1        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H   | 7        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H   | 7        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H   | 7        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H   | 7        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H   | 7        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H   | 7        | 0.31          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H   | 12       | 0.31          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H   | 12       | 0.31          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H   | 12       | 0.31          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H   | 12       | 0.31          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H   | 12       | 0.31          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H   | 12       | 0.31          |
| (2,99)   | 1:23:A:LEU:HA   | 1:49:A:ILE:H    | 6        | 0.31          |
| (2,3041) | 2:950:B:TYR:HD1 | 2:952:B:ASP:H   | 5        | 0.3           |
| (2,3041) | 2:950:B:TYR:HD2 | 2:952:B:ASP:H   | 5        | 0.3           |
| (2,3041) | 2:950:B:TYR:HD1 | 2:952:B:ASP:H   | 11       | 0.3           |
| (2,3041) | 2:950:B:TYR:HD2 | 2:952:B:ASP:H   | 11       | 0.3           |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG21 | 6        | 0.3           |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG22 | 6        | 0.3           |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG23 | 6        | 0.3           |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG21 | 6        | 0.3           |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG22 | 6        | 0.3           |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG23 | 6        | 0.3           |
| (2,2762) | 1:127:A:TYR:HE1 | 1:131:A:PRO:HA  | 13       | 0.3           |
| (2,2762) | 1:127:A:TYR:HE2 | 1:131:A:PRO:HA  | 13       | 0.3           |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H   | 4        | 0.3           |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H   | 4        | 0.3           |
| (2,2702) | 1:126:A:GLU:HB2 | 1:125:A:ASN:HB2 | 2        | 0.3           |
| (2,2702) | 1:126:A:GLU:HB2 | 1:125:A:ASN:HB3 | 2        | 0.3           |
| (2,2702) | 1:126:A:GLU:HB3 | 1:125:A:ASN:HB2 | 2        | 0.3           |
| (2,2702) | 1:126:A:GLU:HB3 | 1:125:A:ASN:HB3 | 2        | 0.3           |
| (2,2615) | 1:123:A:LYS:HB2 | 1:122:A:ARG:HG2 | 13       | 0.3           |
| (2,2615) | 1:123:A:LYS:HB2 | 1:122:A:ARG:HG3 | 13       | 0.3           |
| (2,2615) | 1:123:A:LYS:HB3 | 1:122:A:ARG:HG2 | 13       | 0.3           |
| (2,2615) | 1:123:A:LYS:HB3 | 1:122:A:ARG:HG3 | 13       | 0.3           |
| (2,2566) | 1:120:A:HIS:HD2 | 1:122:A:ARG:H   | 4        | 0.3           |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H   | 6        | 0.3           |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H   | 15       | 0.3           |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H   | 12       | 0.3           |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H   | 12       | 0.3           |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H   | 14       | 0.3           |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H   | 14       | 0.3           |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H   | 15       | 0.3           |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H   | 15       | 0.3           |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 1        | 0.3           |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 11       | 0.3           |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 11       | 0.3           |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 11       | 0.3           |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 11       | 0.3           |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 11       | 0.3           |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 11       | 0.3           |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 11       | 0.3           |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 1        | 0.3           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 15       | 0.3           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 15       | 0.3           |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD11 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD12 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD13 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD21 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD22 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD23 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD11 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD12 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD13 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD21 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD22 | 8        | 0.3           |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD23 | 8        | 0.3           |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 5        | 0.3           |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 6        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 3        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 3        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 3        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 5        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 5        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 5        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 7        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 7        | 0.3           |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 7        | 0.3           |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 8        | 0.3           |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 4        | 0.3           |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 4        | 0.3           |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 4        | 0.3           |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 4        | 0.3           |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 4        | 0.3           |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 8        | 0.3           |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H     | 8        | 0.3           |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H     | 15       | 0.3           |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H     | 15       | 0.3           |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H     | 2        | 0.3           |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H     | 2        | 0.3           |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H     | 2        | 0.3           |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H     | 12       | 0.3           |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H     | 12       | 0.3           |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H     | 12       | 0.3           |
| (2,552)  | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1  | 9        | 0.3           |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H    | 9        | 0.3           |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H    | 9        | 0.3           |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H    | 9        | 0.3           |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H    | 10       | 0.3           |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H    | 10       | 0.3           |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H    | 10       | 0.3           |
| (2,190)  | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG11 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG12 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG13 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG21 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG22 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG23 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG11 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG12 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG13 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG21 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG22 | 8        | 0.3           |
| (2,190)  | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG23 | 8        | 0.3           |
| (2,2792) | 1:127:A:TYR:HD1 | 1:126:A:GLU:H    | 4        | 0.29          |
| (2,2792) | 1:127:A:TYR:HD2 | 1:126:A:GLU:H    | 4        | 0.29          |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H    | 6        | 0.29          |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H    | 6        | 0.29          |
| (2,2666) | 1:124:A:VAL:HB  | 1:126:A:GLU:H    | 11       | 0.29          |
| (2,2614) | 1:123:A:LYS:HA  | 1:126:A:GLU:HG2  | 2        | 0.29          |
| (2,2614) | 1:123:A:LYS:HA  | 1:126:A:GLU:HG3  | 2        | 0.29          |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H    | 9        | 0.29          |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H    | 9        | 0.29          |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H    | 9        | 0.29          |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H    | 13       | 0.29          |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H    | 13       | 0.29          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H    | 4        | 0.29          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1   | 14       | 0.29          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2 | 14       | 0.29          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3 | 14       | 0.29          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1 | 14       | 0.29          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2 | 14       | 0.29          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3 | 14       | 0.29          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H   | 10       | 0.29          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H   | 10       | 0.29          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H   | 15       | 0.29          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H   | 7        | 0.29          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H   | 2        | 0.29          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H   | 3        | 0.29          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H   | 13       | 0.29          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H  | 13       | 0.29          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H  | 13       | 0.29          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H  | 13       | 0.29          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H   | 6        | 0.29          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H   | 2        | 0.29          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H   | 2        | 0.29          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H   | 5        | 0.29          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H   | 5        | 0.29          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H   | 10       | 0.29          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H   | 10       | 0.29          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H   | 7        | 0.29          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H   | 7        | 0.29          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H   | 7        | 0.29          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H   | 14       | 0.29          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H   | 14       | 0.29          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H   | 14       | 0.29          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H   | 1        | 0.29          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H   | 9        | 0.29          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H   | 11       | 0.29          |
| (2,729)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2 | 9        | 0.29          |
| (2,729)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3 | 9        | 0.29          |
| (2,729)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2 | 9        | 0.29          |
| (2,729)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3 | 9        | 0.29          |
| (2,585)  | 1:44:A:LYS:HA   | 1:44:A:LYS:HG2 | 1        | 0.29          |
| (2,585)  | 1:44:A:LYS:HA   | 1:44:A:LYS:HG3 | 1        | 0.29          |
| (2,323)  | 1:30:A:LYS:HG2  | 1:61:A:TRP:HE1 | 2        | 0.29          |
| (2,323)  | 1:30:A:LYS:HG3  | 1:61:A:TRP:HE1 | 2        | 0.29          |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H  | 3        | 0.29          |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H  | 3        | 0.29          |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H  | 3        | 0.29          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,271)  | 1:28:A:ALA:HB1   | 1:107:A:PHE:H   | 8        | 0.29          |
| (2,271)  | 1:28:A:ALA:HB2   | 1:107:A:PHE:H   | 8        | 0.29          |
| (2,271)  | 1:28:A:ALA:HB3   | 1:107:A:PHE:H   | 8        | 0.29          |
| (2,271)  | 1:28:A:ALA:HB1   | 1:107:A:PHE:H   | 12       | 0.29          |
| (2,271)  | 1:28:A:ALA:HB2   | 1:107:A:PHE:H   | 12       | 0.29          |
| (2,271)  | 1:28:A:ALA:HB3   | 1:107:A:PHE:H   | 12       | 0.29          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 4        | 0.28          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 4        | 0.28          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 1        | 0.28          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 1        | 0.28          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 1        | 0.28          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 1        | 0.28          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 1        | 0.28          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 12       | 0.28          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 12       | 0.28          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 15       | 0.28          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 15       | 0.28          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 2        | 0.28          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 2        | 0.28          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 2        | 0.28          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 2        | 0.28          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 2        | 0.28          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 2        | 0.28          |
| (2,2564) | 1:120:A:HIS:HD2  | 1:121:A:CYS:H   | 1        | 0.28          |
| (2,2564) | 1:120:A:HIS:HD2  | 1:121:A:CYS:H   | 11       | 0.28          |
| (2,2564) | 1:120:A:HIS:HD2  | 1:121:A:CYS:H   | 13       | 0.28          |
| (2,2539) | 1:119:A:GLU:HB2  | 1:122:A:ARG:H   | 9        | 0.28          |
| (2,2539) | 1:119:A:GLU:HB3  | 1:122:A:ARG:H   | 9        | 0.28          |
| (2,2522) | 1:118:A:GLU:HB2  | 1:117:A:ASP:H   | 8        | 0.28          |
| (2,2522) | 1:118:A:GLU:HB3  | 1:117:A:ASP:H   | 8        | 0.28          |
| (2,2458) | 1:114:A:THR:HB   | 1:116:A:GLN:H   | 7        | 0.28          |
| (2,2409) | 1:112:A:PRO:HG2  | 1:113:A:LYS:H   | 6        | 0.28          |
| (2,2409) | 1:112:A:PRO:HG3  | 1:113:A:LYS:H   | 6        | 0.28          |
| (2,2244) | 1:107:A:PHE:HE1  | 1:28:A:ALA:HB1  | 9        | 0.28          |
| (2,2244) | 1:107:A:PHE:HE1  | 1:28:A:ALA:HB2  | 9        | 0.28          |
| (2,2244) | 1:107:A:PHE:HE1  | 1:28:A:ALA:HB3  | 9        | 0.28          |
| (2,2244) | 1:107:A:PHE:HE2  | 1:28:A:ALA:HB1  | 9        | 0.28          |
| (2,2244) | 1:107:A:PHE:HE2  | 1:28:A:ALA:HB2  | 9        | 0.28          |
| (2,2244) | 1:107:A:PHE:HE2  | 1:28:A:ALA:HB3  | 9        | 0.28          |
| (2,1669) | 1:81:A:GLU:HG2   | 1:99:A:LYS:HE2  | 1        | 0.28          |
| (2,1669) | 1:81:A:GLU:HG2   | 1:99:A:LYS:HE3  | 1        | 0.28          |
| (2,1669) | 1:81:A:GLU:HG3   | 1:99:A:LYS:HE2  | 1        | 0.28          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 1        | 0.28          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2  | 14       | 0.28          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 14       | 0.28          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 14       | 0.28          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 14       | 0.28          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 1        | 0.28          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 1        | 0.28          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 1        | 0.28          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 1        | 0.28          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 1        | 0.28          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 1        | 0.28          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 12       | 0.28          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 6        | 0.28          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 15       | 0.28          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 12       | 0.28          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 12       | 0.28          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 14       | 0.28          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 15       | 0.28          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 6        | 0.28          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 15       | 0.28          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 10       | 0.28          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 10       | 0.28          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 10       | 0.28          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 11       | 0.28          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 14       | 0.28          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 10       | 0.28          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 1        | 0.28          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 1        | 0.28          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 3        | 0.28          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 3        | 0.28          |
| (2,866)  | 1:51:A:GLN:HE21 | 1:51:A:GLN:H    | 14       | 0.28          |
| (2,866)  | 1:51:A:GLN:HE22 | 1:51:A:GLN:H    | 14       | 0.28          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H    | 6        | 0.28          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H    | 6        | 0.28          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H    | 6        | 0.28          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 2        | 0.28          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 3        | 0.28          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 7        | 0.28          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 13       | 0.28          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 14       | 0.28          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 15       | 0.28          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 6        | 0.28          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD12 | 6        | 0.28          |
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD13 | 6        | 0.28          |
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD11 | 10       | 0.28          |
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD12 | 10       | 0.28          |
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD13 | 10       | 0.28          |
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD11 | 13       | 0.28          |
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD12 | 13       | 0.28          |
| (2,767)  | 1:49:A:ILE:HA    | 1:49:A:ILE:HD13 | 13       | 0.28          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H   | 3        | 0.28          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H   | 3        | 0.28          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H   | 12       | 0.28          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H   | 12       | 0.28          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H   | 13       | 0.28          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H   | 13       | 0.28          |
| (2,271)  | 1:28:A:ALA:HB1   | 1:107:A:PHE:H   | 11       | 0.28          |
| (2,271)  | 1:28:A:ALA:HB2   | 1:107:A:PHE:H   | 11       | 0.28          |
| (2,271)  | 1:28:A:ALA:HB3   | 1:107:A:PHE:H   | 11       | 0.28          |
| (2,136)  | 1:24:A:VAL:HG11  | 1:120:A:HIS:H   | 4        | 0.28          |
| (2,136)  | 1:24:A:VAL:HG12  | 1:120:A:HIS:H   | 4        | 0.28          |
| (2,136)  | 1:24:A:VAL:HG13  | 1:120:A:HIS:H   | 4        | 0.28          |
| (2,136)  | 1:24:A:VAL:HG21  | 1:120:A:HIS:H   | 4        | 0.28          |
| (2,136)  | 1:24:A:VAL:HG22  | 1:120:A:HIS:H   | 4        | 0.28          |
| (2,136)  | 1:24:A:VAL:HG23  | 1:120:A:HIS:H   | 4        | 0.28          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 12       | 0.27          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 12       | 0.27          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 2        | 0.27          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 2        | 0.27          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 3        | 0.27          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 3        | 0.27          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 13       | 0.27          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 13       | 0.27          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 6        | 0.27          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 6        | 0.27          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 6        | 0.27          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 6        | 0.27          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H   | 6        | 0.27          |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA   | 6        | 0.27          |
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA   | 6        | 0.27          |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA   | 6        | 0.27          |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA   | 6        | 0.27          |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA   | 6        | 0.27          |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA   | 6        | 0.27          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2792) | 1:127:A:TYR:HD1 | 1:126:A:GLU:H   | 7        | 0.27          |
| (2,2792) | 1:127:A:TYR:HD2 | 1:126:A:GLU:H   | 7        | 0.27          |
| (2,2792) | 1:127:A:TYR:HD1 | 1:126:A:GLU:H   | 9        | 0.27          |
| (2,2792) | 1:127:A:TYR:HD2 | 1:126:A:GLU:H   | 9        | 0.27          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG21 | 13       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG22 | 13       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG23 | 13       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG21 | 13       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG22 | 13       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG23 | 13       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG21 | 15       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG22 | 15       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG23 | 15       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG21 | 15       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG22 | 15       | 0.27          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG23 | 15       | 0.27          |
| (2,2702) | 1:126:A:GLU:HB2 | 1:125:A:ASN:HB2 | 9        | 0.27          |
| (2,2702) | 1:126:A:GLU:HB2 | 1:125:A:ASN:HB3 | 9        | 0.27          |
| (2,2702) | 1:126:A:GLU:HB3 | 1:125:A:ASN:HB2 | 9        | 0.27          |
| (2,2702) | 1:126:A:GLU:HB3 | 1:125:A:ASN:HB3 | 9        | 0.27          |
| (2,2566) | 1:120:A:HIS:HD2 | 1:122:A:ARG:H   | 6        | 0.27          |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H   | 5        | 0.27          |
| (2,2543) | 1:120:A:HIS:HD2 | 1:24:A:VAL:HA   | 8        | 0.27          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 3        | 0.27          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 3        | 0.27          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 8        | 0.27          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 8        | 0.27          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 13       | 0.27          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 13       | 0.27          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 14       | 0.27          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 14       | 0.27          |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H   | 6        | 0.27          |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H   | 6        | 0.27          |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H   | 10       | 0.27          |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H   | 10       | 0.27          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 5        | 0.27          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 6        | 0.27          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 14       | 0.27          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 15       | 0.27          |
| (2,2304) | 1:107:A:PHE:HE1 | 1:108:A:TRP:H   | 15       | 0.27          |
| (2,2304) | 1:107:A:PHE:HE2 | 1:108:A:TRP:H   | 15       | 0.27          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 8        | 0.27          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 8        | 0.27          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 8        | 0.27          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 8        | 0.27          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 8        | 0.27          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 8        | 0.27          |
| (2,1727) | 1:82:A:PHE:HD1  | 1:121:A:CYS:H   | 6        | 0.27          |
| (2,1727) | 1:82:A:PHE:HD2  | 1:121:A:CYS:H   | 6        | 0.27          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2  | 9        | 0.27          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 9        | 0.27          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 9        | 0.27          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 9        | 0.27          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H    | 9        | 0.27          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 8        | 0.27          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 8        | 0.27          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 11       | 0.27          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 11       | 0.27          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 6        | 0.27          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 6        | 0.27          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 6        | 0.27          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 14       | 0.27          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 14       | 0.27          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 14       | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 6        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 6        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 6        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 8        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 8        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 8        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 9        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 9        | 0.27          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 9        | 0.27          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 7        | 0.27          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 7        | 0.27          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 1        | 0.27          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 7        | 0.27          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 10       | 0.27          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 13       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 14       | 0.27          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 14       | 0.27          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 14       | 0.27          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 4        | 0.27          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 13       | 0.27          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 1        | 0.27          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 15       | 0.27          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 4        | 0.27          |
| (2,1151) | 1:60:A:CYS:HA   | 1:48:A:TYR:H    | 10       | 0.27          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 9        | 0.27          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 2        | 0.27          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 7        | 0.27          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H    | 15       | 0.27          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H    | 15       | 0.27          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H    | 15       | 0.27          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 3        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB2  | 1:54:A:ASP:H    | 2        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB3  | 1:54:A:ASP:H    | 2        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB2  | 1:54:A:ASP:H    | 4        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB3  | 1:54:A:ASP:H    | 4        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB2  | 1:54:A:ASP:H    | 7        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB3  | 1:54:A:ASP:H    | 7        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB2  | 1:54:A:ASP:H    | 8        | 0.27          |
| (2,911)  | 1:53:A:ASP:HB3  | 1:54:A:ASP:H    | 8        | 0.27          |
| (2,815)  | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 13       | 0.27          |
| (2,815)  | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 13       | 0.27          |
| (2,815)  | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 13       | 0.27          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 5        | 0.27          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 10       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 1        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 1        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 1        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 3        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 3        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 3        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 5        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 5        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 5        | 0.27          |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD11  | 7        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD12  | 7        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD13  | 7        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD11  | 8        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD12  | 8        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD13  | 8        | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD11  | 11       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD12  | 11       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD13  | 11       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD11  | 14       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD12  | 14       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD13  | 14       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD11  | 15       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD12  | 15       | 0.27          |
| (2,767)  | 1:49:A:ILE:HA  | 1:49:A:ILE:HD13  | 15       | 0.27          |
| (2,749)  | 1:48:A:TYR:HD1 | 1:24:A:VAL:H     | 1        | 0.27          |
| (2,749)  | 1:48:A:TYR:HD2 | 1:24:A:VAL:H     | 1        | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG2   | 9        | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG3   | 9        | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG2   | 11       | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG3   | 11       | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG2   | 13       | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG3   | 13       | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG2   | 14       | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG3   | 14       | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG2   | 15       | 0.27          |
| (2,585)  | 1:44:A:LYS:HA  | 1:44:A:LYS:HG3   | 15       | 0.27          |
| (2,390)  | 1:33:A:LEU:HB2 | 1:106:A:PHE:H    | 2        | 0.27          |
| (2,390)  | 1:33:A:LEU:HB3 | 1:106:A:PHE:H    | 2        | 0.27          |
| (2,190)  | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG11 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG12 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG13 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG21 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG22 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG23 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG11 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG12 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG13 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG21 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG22 | 13       | 0.27          |
| (2,190)  | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG23 | 13       | 0.27          |
| (2,3085) | 2:952:B:ASP:HA | 2:951:B:ILE:H    | 6        | 0.26          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 4        | 0.26          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 4        | 0.26          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 4        | 0.26          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 8        | 0.26          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 8        | 0.26          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 8        | 0.26          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 15       | 0.26          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 15       | 0.26          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 15       | 0.26          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 4        | 0.26          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 4        | 0.26          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H   | 3        | 0.26          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H   | 3        | 0.26          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H   | 11       | 0.26          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H   | 11       | 0.26          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H   | 12       | 0.26          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H   | 12       | 0.26          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H   | 14       | 0.26          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H   | 14       | 0.26          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H   | 15       | 0.26          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H   | 15       | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 3        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 3        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 3        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 3        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 3        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 3        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 5        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 5        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 5        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 5        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 5        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 5        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 8        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 8        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 8        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 8        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 8        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 8        | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 12       | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 12       | 0.26          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 12       | 0.26          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG21 | 12       | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG22 | 12       | 0.26          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG23 | 12       | 0.26          |
| (2,2666) | 1:124:A:VAL:HB  | 1:126:A:GLU:H   | 14       | 0.26          |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H   | 10       | 0.26          |
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H   | 12       | 0.26          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 10       | 0.26          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 10       | 0.26          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 11       | 0.26          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 11       | 0.26          |
| (2,2519) | 1:118:A:GLU:HB2 | 1:121:A:CYS:H   | 5        | 0.26          |
| (2,2519) | 1:118:A:GLU:HB3 | 1:121:A:CYS:H   | 5        | 0.26          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 13       | 0.26          |
| (2,2409) | 1:112:A:PRO:HG2 | 1:113:A:LYS:H   | 7        | 0.26          |
| (2,2409) | 1:112:A:PRO:HG3 | 1:113:A:LYS:H   | 7        | 0.26          |
| (2,2409) | 1:112:A:PRO:HG2 | 1:113:A:LYS:H   | 8        | 0.26          |
| (2,2409) | 1:112:A:PRO:HG3 | 1:113:A:LYS:H   | 8        | 0.26          |
| (2,2377) | 1:110:A:GLN:HA  | 2:942:B:PRO:HA  | 9        | 0.26          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 2        | 0.26          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 2        | 0.26          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 12       | 0.26          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 12       | 0.26          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 3        | 0.26          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 10       | 0.26          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 12       | 0.26          |
| (2,1827) | 1:92:A:ARG:HD2  | 1:109:A:MET:H   | 14       | 0.26          |
| (2,1827) | 1:92:A:ARG:HD3  | 1:109:A:MET:H   | 14       | 0.26          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H    | 7        | 0.26          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H    | 7        | 0.26          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2  | 5        | 0.26          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 5        | 0.26          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 5        | 0.26          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 5        | 0.26          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2  | 15       | 0.26          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 15       | 0.26          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 15       | 0.26          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 15       | 0.26          |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB2  | 3        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB3  | 3        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB2  | 3        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB3  | 3        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB2  | 4        | 0.26          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB3  | 4        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB2  | 4        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB3  | 4        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB2  | 6        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB3  | 6        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB2  | 6        | 0.26          |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB3  | 6        | 0.26          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H    | 8        | 0.26          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H    | 15       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 2        | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 2        | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 6        | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 6        | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 7        | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 7        | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 10       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 10       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 12       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 12       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 13       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 13       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 14       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 14       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 15       | 0.26          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 15       | 0.26          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 3        | 0.26          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 3        | 0.26          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 3        | 0.26          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 5        | 0.26          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 5        | 0.26          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 5        | 0.26          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 11       | 0.26          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 11       | 0.26          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 11       | 0.26          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 14       | 0.26          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 14       | 0.26          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 3        | 0.26          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 5        | 0.26          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 9        | 0.26          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 12       | 0.26          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 6        | 0.26          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 9        | 0.26          |

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| Key      | Atom-1          | Atom-2        | Model ID | Violation (Å) |
|----------|-----------------|---------------|----------|---------------|
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H  | 8        | 0.26          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H  | 8        | 0.26          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 4        | 0.26          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 7        | 0.26          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 8        | 0.26          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 10       | 0.26          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H  | 13       | 0.26          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA | 8        | 0.26          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA | 10       | 0.26          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H | 2        | 0.26          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H | 2        | 0.26          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H | 2        | 0.26          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H  | 6        | 0.26          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H  | 6        | 0.26          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H  | 6        | 0.26          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H  | 8        | 0.26          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H  | 8        | 0.26          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H  | 8        | 0.26          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H  | 1        | 0.26          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H  | 9        | 0.26          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H  | 13       | 0.26          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA | 9        | 0.26          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA | 9        | 0.26          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA | 9        | 0.26          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA | 11       | 0.26          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA | 11       | 0.26          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA | 11       | 0.26          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA | 13       | 0.26          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA | 13       | 0.26          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA | 13       | 0.26          |
| (2,911)  | 1:53:A:ASP:HB2  | 1:54:A:ASP:H  | 11       | 0.26          |
| (2,911)  | 1:53:A:ASP:HB3  | 1:54:A:ASP:H  | 11       | 0.26          |
| (2,911)  | 1:53:A:ASP:HB2  | 1:54:A:ASP:H  | 13       | 0.26          |
| (2,911)  | 1:53:A:ASP:HB3  | 1:54:A:ASP:H  | 13       | 0.26          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H  | 11       | 0.26          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H  | 11       | 0.26          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H  | 11       | 0.26          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H  | 4        | 0.26          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H  | 6        | 0.26          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H  | 15       | 0.26          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H  | 15       | 0.26          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H  | 15       | 0.26          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H    | 6        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 2        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 2        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 2        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 4        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 4        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 4        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 9        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 9        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 9        | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD11 | 12       | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD12 | 12       | 0.26          |
| (2,767)  | 1:49:A:ILE:HA   | 1:49:A:ILE:HD13 | 12       | 0.26          |
| (2,749)  | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 9        | 0.26          |
| (2,749)  | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 9        | 0.26          |
| (2,320)  | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1  | 15       | 0.26          |
| (2,318)  | 1:30:A:LYS:HA   | 1:107:A:PHE:H   | 5        | 0.26          |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H   | 6        | 0.26          |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H   | 6        | 0.26          |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H   | 6        | 0.26          |
| (2,271)  | 1:28:A:ALA:HB1  | 1:107:A:PHE:H   | 14       | 0.26          |
| (2,271)  | 1:28:A:ALA:HB2  | 1:107:A:PHE:H   | 14       | 0.26          |
| (2,271)  | 1:28:A:ALA:HB3  | 1:107:A:PHE:H   | 14       | 0.26          |
| (2,136)  | 1:24:A:VAL:HG11 | 1:120:A:HIS:H   | 13       | 0.26          |
| (2,136)  | 1:24:A:VAL:HG12 | 1:120:A:HIS:H   | 13       | 0.26          |
| (2,136)  | 1:24:A:VAL:HG13 | 1:120:A:HIS:H   | 13       | 0.26          |
| (2,136)  | 1:24:A:VAL:HG21 | 1:120:A:HIS:H   | 13       | 0.26          |
| (2,136)  | 1:24:A:VAL:HG22 | 1:120:A:HIS:H   | 13       | 0.26          |
| (2,136)  | 1:24:A:VAL:HG23 | 1:120:A:HIS:H   | 13       | 0.26          |
| (2,71)   | 1:22:A:TYR:HD1  | 1:49:A:ILE:H    | 3        | 0.26          |
| (2,71)   | 1:22:A:TYR:HD2  | 1:49:A:ILE:H    | 3        | 0.26          |
| (2,59)   | 1:22:A:TYR:H    | 1:24:A:VAL:H    | 8        | 0.26          |
| (2,3041) | 2:950:B:TYR:HD1 | 2:952:B:ASP:H   | 8        | 0.25          |
| (2,3041) | 2:950:B:TYR:HD2 | 2:952:B:ASP:H   | 8        | 0.25          |
| (2,3041) | 2:950:B:TYR:HD1 | 2:952:B:ASP:H   | 10       | 0.25          |
| (2,3041) | 2:950:B:TYR:HD2 | 2:952:B:ASP:H   | 10       | 0.25          |
| (2,2792) | 1:127:A:TYR:HD1 | 1:126:A:GLU:H   | 6        | 0.25          |
| (2,2792) | 1:127:A:TYR:HD2 | 1:126:A:GLU:H   | 6        | 0.25          |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H   | 6        | 0.25          |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H   | 6        | 0.25          |
| (2,2723) | 1:126:A:GLU:HG2 | 1:125:A:ASN:H   | 7        | 0.25          |
| (2,2723) | 1:126:A:GLU:HG3 | 1:125:A:ASN:H   | 7        | 0.25          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB2 | 15       | 0.25          |
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB3 | 15       | 0.25          |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB2 | 15       | 0.25          |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB3 | 15       | 0.25          |
| (2,2671) | 1:124:A:VAL:HG11 | 1:129:A:ASN:H   | 7        | 0.25          |
| (2,2671) | 1:124:A:VAL:HG12 | 1:129:A:ASN:H   | 7        | 0.25          |
| (2,2671) | 1:124:A:VAL:HG13 | 1:129:A:ASN:H   | 7        | 0.25          |
| (2,2671) | 1:124:A:VAL:HG21 | 1:129:A:ASN:H   | 7        | 0.25          |
| (2,2671) | 1:124:A:VAL:HG22 | 1:129:A:ASN:H   | 7        | 0.25          |
| (2,2671) | 1:124:A:VAL:HG23 | 1:129:A:ASN:H   | 7        | 0.25          |
| (2,2585) | 1:121:A:CYS:HB2  | 1:119:A:GLU:H   | 8        | 0.25          |
| (2,2585) | 1:121:A:CYS:HB3  | 1:119:A:GLU:H   | 8        | 0.25          |
| (2,2564) | 1:120:A:HIS:HD2  | 1:121:A:CYS:H   | 3        | 0.25          |
| (2,2564) | 1:120:A:HIS:HD2  | 1:121:A:CYS:H   | 7        | 0.25          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 1        | 0.25          |
| (2,2539) | 1:119:A:GLU:HB2  | 1:122:A:ARG:H   | 2        | 0.25          |
| (2,2539) | 1:119:A:GLU:HB3  | 1:122:A:ARG:H   | 2        | 0.25          |
| (2,2539) | 1:119:A:GLU:HB2  | 1:122:A:ARG:H   | 5        | 0.25          |
| (2,2539) | 1:119:A:GLU:HB3  | 1:122:A:ARG:H   | 5        | 0.25          |
| (2,2470) | 1:115:A:ASP:HB2  | 1:113:A:LYS:H   | 12       | 0.25          |
| (2,2470) | 1:115:A:ASP:HB3  | 1:113:A:LYS:H   | 12       | 0.25          |
| (2,2458) | 1:114:A:THR:HB   | 1:116:A:GLN:H   | 8        | 0.25          |
| (2,2409) | 1:112:A:PRO:HG2  | 1:113:A:LYS:H   | 1        | 0.25          |
| (2,2409) | 1:112:A:PRO:HG3  | 1:113:A:LYS:H   | 1        | 0.25          |
| (2,2409) | 1:112:A:PRO:HG2  | 1:113:A:LYS:H   | 10       | 0.25          |
| (2,2409) | 1:112:A:PRO:HG3  | 1:113:A:LYS:H   | 10       | 0.25          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 9        | 0.25          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 9        | 0.25          |
| (2,2250) | 1:107:A:PHE:HD1  | 1:30:A:LYS:HD2  | 11       | 0.25          |
| (2,2250) | 1:107:A:PHE:HD1  | 1:30:A:LYS:HD3  | 11       | 0.25          |
| (2,2250) | 1:107:A:PHE:HD2  | 1:30:A:LYS:HD2  | 11       | 0.25          |
| (2,2250) | 1:107:A:PHE:HD2  | 1:30:A:LYS:HD3  | 11       | 0.25          |
| (2,1758) | 1:83:A:LYS:HB2   | 1:95:A:VAL:H    | 1        | 0.25          |
| (2,1758) | 1:83:A:LYS:HB3   | 1:95:A:VAL:H    | 1        | 0.25          |
| (2,1727) | 1:82:A:PHE:HD1   | 1:121:A:CYS:H   | 12       | 0.25          |
| (2,1727) | 1:82:A:PHE:HD2   | 1:121:A:CYS:H   | 12       | 0.25          |
| (2,1666) | 1:81:A:GLU:HG2   | 1:97:A:LYS:HB2  | 8        | 0.25          |
| (2,1666) | 1:81:A:GLU:HG2   | 1:97:A:LYS:HB3  | 8        | 0.25          |
| (2,1666) | 1:81:A:GLU:HG3   | 1:97:A:LYS:HB2  | 8        | 0.25          |
| (2,1666) | 1:81:A:GLU:HG3   | 1:97:A:LYS:HB3  | 8        | 0.25          |
| (2,1545) | 1:75:A:ILE:HG12  | 1:76:A:PHE:H    | 1        | 0.25          |
| (2,1545) | 1:75:A:ILE:HG13  | 1:76:A:PHE:H    | 1        | 0.25          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 3        | 0.25          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 3        | 0.25          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 9        | 0.25          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 9        | 0.25          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 8        | 0.25          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 8        | 0.25          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 8        | 0.25          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 11       | 0.25          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 11       | 0.25          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 11       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 2        | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 2        | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 2        | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 13       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 13       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 13       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 14       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 14       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 14       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 15       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 15       | 0.25          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 15       | 0.25          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 7        | 0.25          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 14       | 0.25          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD11 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD12 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD13 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD21 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD22 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE2  | 1:46:A:LEU:HD23 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD11 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD12 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD13 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD21 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD22 | 2        | 0.25          |
| (2,1268) | 1:62:A:LYS:HE3  | 1:46:A:LEU:HD23 | 2        | 0.25          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 2        | 0.25          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 8        | 0.25          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 11       | 0.25          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 11       | 0.25          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 12       | 0.25          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 1        | 0.25          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA  | 3        | 0.25          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA  | 4        | 0.25          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA  | 14       | 0.25          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H   | 1        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H   | 1        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H   | 1        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H   | 3        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H   | 3        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H   | 3        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H   | 7        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H   | 7        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H   | 7        | 0.25          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H   | 11       | 0.25          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H   | 11       | 0.25          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H   | 11       | 0.25          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H   | 7        | 0.25          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H   | 15       | 0.25          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H   | 9        | 0.25          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H   | 9        | 0.25          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H   | 9        | 0.25          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H   | 13       | 0.25          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H   | 13       | 0.25          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H   | 13       | 0.25          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H   | 3        | 0.25          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H   | 15       | 0.25          |
| (2,843)  | 1:50:A:GLN:HG2  | 1:51:A:GLN:H   | 13       | 0.25          |
| (2,843)  | 1:50:A:GLN:HG3  | 1:51:A:GLN:H   | 13       | 0.25          |
| (2,815)  | 1:49:A:ILE:HG21 | 1:59:A:PHE:H   | 1        | 0.25          |
| (2,815)  | 1:49:A:ILE:HG22 | 1:59:A:PHE:H   | 1        | 0.25          |
| (2,815)  | 1:49:A:ILE:HG23 | 1:59:A:PHE:H   | 1        | 0.25          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H   | 4        | 0.25          |
| (2,749)  | 1:48:A:TYR:HD1  | 1:24:A:VAL:H   | 4        | 0.25          |
| (2,749)  | 1:48:A:TYR:HD2  | 1:24:A:VAL:H   | 4        | 0.25          |
| (2,749)  | 1:48:A:TYR:HD1  | 1:24:A:VAL:H   | 13       | 0.25          |
| (2,749)  | 1:48:A:TYR:HD2  | 1:24:A:VAL:H   | 13       | 0.25          |
| (2,729)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2 | 1        | 0.25          |
| (2,729)  | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3 | 1        | 0.25          |
| (2,729)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2 | 1        | 0.25          |
| (2,729)  | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3 | 1        | 0.25          |
| (2,635)  | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2 | 1        | 0.25          |
| (2,635)  | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3 | 1        | 0.25          |
| (2,635)  | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2 | 1        | 0.25          |

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| Key     | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2   | 1        | 0.25          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3   | 1        | 0.25          |
| (2,390) | 1:33:A:LEU:HB2  | 1:106:A:PHE:H    | 10       | 0.25          |
| (2,390) | 1:33:A:LEU:HB3  | 1:106:A:PHE:H    | 10       | 0.25          |
| (2,390) | 1:33:A:LEU:HB2  | 1:106:A:PHE:H    | 11       | 0.25          |
| (2,390) | 1:33:A:LEU:HB3  | 1:106:A:PHE:H    | 11       | 0.25          |
| (2,318) | 1:30:A:LYS:HA   | 1:107:A:PHE:H    | 6        | 0.25          |
| (2,271) | 1:28:A:ALA:HB1  | 1:107:A:PHE:H    | 2        | 0.25          |
| (2,271) | 1:28:A:ALA:HB2  | 1:107:A:PHE:H    | 2        | 0.25          |
| (2,271) | 1:28:A:ALA:HB3  | 1:107:A:PHE:H    | 2        | 0.25          |
| (2,271) | 1:28:A:ALA:HB1  | 1:107:A:PHE:H    | 5        | 0.25          |
| (2,271) | 1:28:A:ALA:HB2  | 1:107:A:PHE:H    | 5        | 0.25          |
| (2,271) | 1:28:A:ALA:HB3  | 1:107:A:PHE:H    | 5        | 0.25          |
| (2,220) | 1:26:A:PHE:HE1  | 1:124:A:VAL:H    | 11       | 0.25          |
| (2,220) | 1:26:A:PHE:HE2  | 1:124:A:VAL:H    | 11       | 0.25          |
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG11 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG12 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG13 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG21 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG22 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG23 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG11 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG12 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG13 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG21 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG22 | 10       | 0.25          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG23 | 10       | 0.25          |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H     | 8        | 0.25          |
| (2,136) | 1:24:A:VAL:HG11 | 1:120:A:HIS:H    | 11       | 0.25          |
| (2,136) | 1:24:A:VAL:HG12 | 1:120:A:HIS:H    | 11       | 0.25          |
| (2,136) | 1:24:A:VAL:HG13 | 1:120:A:HIS:H    | 11       | 0.25          |
| (2,136) | 1:24:A:VAL:HG21 | 1:120:A:HIS:H    | 11       | 0.25          |
| (2,136) | 1:24:A:VAL:HG22 | 1:120:A:HIS:H    | 11       | 0.25          |
| (2,136) | 1:24:A:VAL:HG23 | 1:120:A:HIS:H    | 11       | 0.25          |
| (2,71)  | 1:22:A:TYR:HD1  | 1:49:A:ILE:H     | 12       | 0.25          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 12       | 0.25          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H   | 8        | 0.24          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 12       | 0.24          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 12       | 0.24          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 12       | 0.24          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 13       | 0.24          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 13       | 0.24          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 13       | 0.24          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 7        | 0.24          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 7        | 0.24          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 9        | 0.24          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 9        | 0.24          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 9        | 0.24          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 9        | 0.24          |
| (2,2876) | 1:130:A:ASN:HD21 | 1:129:A:ASN:H   | 12       | 0.24          |
| (2,2876) | 1:130:A:ASN:HD22 | 1:129:A:ASN:H   | 12       | 0.24          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 9        | 0.24          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 9        | 0.24          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 9        | 0.24          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 9        | 0.24          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 9        | 0.24          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 9        | 0.24          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 14       | 0.24          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 14       | 0.24          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 14       | 0.24          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 14       | 0.24          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 14       | 0.24          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 14       | 0.24          |
| (2,2723) | 1:126:A:GLU:HG2  | 1:125:A:ASN:H   | 1        | 0.24          |
| (2,2723) | 1:126:A:GLU:HG3  | 1:125:A:ASN:H   | 1        | 0.24          |
| (2,2723) | 1:126:A:GLU:HG2  | 1:125:A:ASN:H   | 12       | 0.24          |
| (2,2723) | 1:126:A:GLU:HG3  | 1:125:A:ASN:H   | 12       | 0.24          |
| (2,2719) | 1:126:A:GLU:HB2  | 1:130:A:ASN:H   | 3        | 0.24          |
| (2,2719) | 1:126:A:GLU:HB3  | 1:130:A:ASN:H   | 3        | 0.24          |
| (2,2671) | 1:124:A:VAL:HG11 | 1:129:A:ASN:H   | 15       | 0.24          |
| (2,2671) | 1:124:A:VAL:HG12 | 1:129:A:ASN:H   | 15       | 0.24          |
| (2,2671) | 1:124:A:VAL:HG13 | 1:129:A:ASN:H   | 15       | 0.24          |
| (2,2671) | 1:124:A:VAL:HG21 | 1:129:A:ASN:H   | 15       | 0.24          |
| (2,2671) | 1:124:A:VAL:HG22 | 1:129:A:ASN:H   | 15       | 0.24          |
| (2,2671) | 1:124:A:VAL:HG23 | 1:129:A:ASN:H   | 15       | 0.24          |
| (2,2564) | 1:120:A:HIS:HD2  | 1:121:A:CYS:H   | 2        | 0.24          |
| (2,2564) | 1:120:A:HIS:HD2  | 1:121:A:CYS:H   | 4        | 0.24          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,2564) | 1:120:A:HIS:HD2 | 1:121:A:CYS:H  | 14       | 0.24          |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H  | 11       | 0.24          |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H  | 11       | 0.24          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H  | 9        | 0.24          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H  | 14       | 0.24          |
| (2,2409) | 1:112:A:PRO:HG2 | 1:113:A:LYS:H  | 4        | 0.24          |
| (2,2409) | 1:112:A:PRO:HG3 | 1:113:A:LYS:H  | 4        | 0.24          |
| (2,2304) | 1:107:A:PHE:HE1 | 1:108:A:TRP:H  | 8        | 0.24          |
| (2,2304) | 1:107:A:PHE:HE2 | 1:108:A:TRP:H  | 8        | 0.24          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2 | 10       | 0.24          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3 | 10       | 0.24          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2 | 10       | 0.24          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3 | 10       | 0.24          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1 | 1        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2 | 1        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3 | 1        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1 | 1        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2 | 1        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3 | 1        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1 | 4        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2 | 4        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3 | 4        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1 | 4        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2 | 4        | 0.24          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3 | 4        | 0.24          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H   | 9        | 0.24          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H   | 9        | 0.24          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H   | 1        | 0.24          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H   | 10       | 0.24          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 1        | 0.24          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 1        | 0.24          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H   | 11       | 0.24          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H   | 11       | 0.24          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H  | 6        | 0.24          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H  | 7        | 0.24          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H   | 12       | 0.24          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H   | 13       | 0.24          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H   | 13       | 0.24          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H   | 3        | 0.24          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H   | 4        | 0.24          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H   | 5        | 0.24          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H   | 6        | 0.24          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H    | 14       | 0.24          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H    | 5        | 0.24          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H    | 5        | 0.24          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 8        | 0.24          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 8        | 0.24          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 8        | 0.24          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 13       | 0.24          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 13       | 0.24          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 13       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 2        | 0.24          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 2        | 0.24          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 2        | 0.24          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 4        | 0.24          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 4        | 0.24          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 4        | 0.24          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 10       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 10       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 10       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 12       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 12       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 12       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 13       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 13       | 0.24          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 13       | 0.24          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 3        | 0.24          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 3        | 0.24          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 3        | 0.24          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 7        | 0.24          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 7        | 0.24          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 7        | 0.24          |
| (2,1320) | 1:64:A:ARG:H    | 1:61:A:TRP:HE1  | 15       | 0.24          |
| (2,1283) | 1:62:A:LYS:HG2  | 1:70:A:GLU:H    | 2        | 0.24          |
| (2,1283) | 1:62:A:LYS:HG3  | 1:70:A:GLU:H    | 2        | 0.24          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 14       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 6        | 0.24          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 6        | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 13       | 0.24          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 13       | 0.24          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 3        | 0.24          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 6        | 0.24          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 12       | 0.24          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 2        | 0.24          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 12       | 0.24          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H    | 3        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H    | 3        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H    | 3        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H    | 4        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H    | 4        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H    | 4        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H    | 6        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H    | 6        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H    | 6        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H    | 8        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H    | 8        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H    | 8        | 0.24          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H    | 14       | 0.24          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H    | 14       | 0.24          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H    | 14       | 0.24          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H    | 15       | 0.24          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H    | 15       | 0.24          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H    | 15       | 0.24          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 12       | 0.24          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 12       | 0.24          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 12       | 0.24          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H  | 15       | 0.24          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H  | 15       | 0.24          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H  | 15       | 0.24          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H   | 9        | 0.24          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H   | 9        | 0.24          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H   | 9        | 0.24          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H   | 10       | 0.24          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H   | 10       | 0.24          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H   | 10       | 0.24          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H   | 14       | 0.24          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H   | 14       | 0.24          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H   | 14       | 0.24          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H   | 5        | 0.24          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA  | 14       | 0.24          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA  | 14       | 0.24          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA  | 14       | 0.24          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H   | 11       | 0.24          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H   | 13       | 0.24          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H   | 8        | 0.24          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H   | 1        | 0.24          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H   | 1        | 0.24          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H   | 1        | 0.24          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H   | 3        | 0.24          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H   | 3        | 0.24          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H   | 3        | 0.24          |
| (2,813)  | 1:49:A:ILE:HG21 | 1:60:A:CYS:H   | 10       | 0.24          |
| (2,813)  | 1:49:A:ILE:HG22 | 1:60:A:CYS:H   | 10       | 0.24          |
| (2,813)  | 1:49:A:ILE:HG23 | 1:60:A:CYS:H   | 10       | 0.24          |
| (2,802)  | 1:49:A:ILE:HB   | 1:25:A:GLU:H   | 11       | 0.24          |
| (2,802)  | 1:49:A:ILE:HB   | 1:25:A:GLU:H   | 13       | 0.24          |
| (2,795)  | 1:49:A:ILE:HA   | 1:23:A:LEU:H   | 12       | 0.24          |
| (2,749)  | 1:48:A:TYR:HD1  | 1:24:A:VAL:H   | 5        | 0.24          |
| (2,749)  | 1:48:A:TYR:HD2  | 1:24:A:VAL:H   | 5        | 0.24          |
| (2,741)  | 1:48:A:TYR:HD1  | 1:61:A:TRP:H   | 1        | 0.24          |
| (2,741)  | 1:48:A:TYR:HD2  | 1:61:A:TRP:H   | 1        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2 | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3 | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2 | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3 | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2 | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3 | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2 | 7        | 0.24          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,635)  | 1:46:A:LEU:HD21  | 1:62:A:LYS:HD3  | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD2  | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD3  | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD2  | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD3  | 7        | 0.24          |
| (2,635)  | 1:46:A:LEU:HD11  | 1:62:A:LYS:HD2  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD11  | 1:62:A:LYS:HD3  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD12  | 1:62:A:LYS:HD2  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD12  | 1:62:A:LYS:HD3  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD13  | 1:62:A:LYS:HD2  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD13  | 1:62:A:LYS:HD3  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD21  | 1:62:A:LYS:HD2  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD21  | 1:62:A:LYS:HD3  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD2  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD3  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD2  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD3  | 14       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD11  | 1:62:A:LYS:HD2  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD11  | 1:62:A:LYS:HD3  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD12  | 1:62:A:LYS:HD2  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD12  | 1:62:A:LYS:HD3  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD13  | 1:62:A:LYS:HD2  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD13  | 1:62:A:LYS:HD3  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD21  | 1:62:A:LYS:HD2  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD21  | 1:62:A:LYS:HD3  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD2  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD3  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD2  | 15       | 0.24          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD3  | 15       | 0.24          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H   | 1        | 0.24          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H   | 1        | 0.24          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H   | 4        | 0.24          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H   | 4        | 0.24          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H   | 14       | 0.24          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H   | 14       | 0.24          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 8        | 0.24          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 8        | 0.24          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H    | 7        | 0.24          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 11       | 0.23          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 11       | 0.23          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 13       | 0.23          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 13       | 0.23          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 13       | 0.23          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 13       | 0.23          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H   | 1        | 0.23          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H   | 1        | 0.23          |
| (2,2876) | 1:130:A:ASN:HD21 | 1:129:A:ASN:H   | 2        | 0.23          |
| (2,2876) | 1:130:A:ASN:HD22 | 1:129:A:ASN:H   | 2        | 0.23          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H   | 1        | 0.23          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H   | 1        | 0.23          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H   | 2        | 0.23          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H   | 2        | 0.23          |
| (2,2719) | 1:126:A:GLU:HB2  | 1:130:A:ASN:H   | 1        | 0.23          |
| (2,2719) | 1:126:A:GLU:HB3  | 1:130:A:ASN:H   | 1        | 0.23          |
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB2 | 7        | 0.23          |
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB3 | 7        | 0.23          |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB2 | 7        | 0.23          |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB3 | 7        | 0.23          |
| (2,2671) | 1:124:A:VAL:HG11 | 1:129:A:ASN:H   | 9        | 0.23          |
| (2,2671) | 1:124:A:VAL:HG12 | 1:129:A:ASN:H   | 9        | 0.23          |
| (2,2671) | 1:124:A:VAL:HG13 | 1:129:A:ASN:H   | 9        | 0.23          |
| (2,2671) | 1:124:A:VAL:HG21 | 1:129:A:ASN:H   | 9        | 0.23          |
| (2,2671) | 1:124:A:VAL:HG22 | 1:129:A:ASN:H   | 9        | 0.23          |
| (2,2671) | 1:124:A:VAL:HG23 | 1:129:A:ASN:H   | 9        | 0.23          |
| (2,2585) | 1:121:A:CYS:HB2  | 1:119:A:GLU:H   | 12       | 0.23          |
| (2,2585) | 1:121:A:CYS:HB3  | 1:119:A:GLU:H   | 12       | 0.23          |
| (2,2566) | 1:120:A:HIS:HD2  | 1:122:A:ARG:H   | 12       | 0.23          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 10       | 0.23          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 11       | 0.23          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 15       | 0.23          |
| (2,2539) | 1:119:A:GLU:HB2  | 1:122:A:ARG:H   | 1        | 0.23          |
| (2,2539) | 1:119:A:GLU:HB3  | 1:122:A:ARG:H   | 1        | 0.23          |
| (2,2539) | 1:119:A:GLU:HB2  | 1:122:A:ARG:H   | 4        | 0.23          |
| (2,2539) | 1:119:A:GLU:HB3  | 1:122:A:ARG:H   | 4        | 0.23          |
| (2,2539) | 1:119:A:GLU:HB2  | 1:122:A:ARG:H   | 6        | 0.23          |
| (2,2539) | 1:119:A:GLU:HB3  | 1:122:A:ARG:H   | 6        | 0.23          |
| (2,2539) | 1:119:A:GLU:HB2  | 1:122:A:ARG:H   | 7        | 0.23          |
| (2,2539) | 1:119:A:GLU:HB3  | 1:122:A:ARG:H   | 7        | 0.23          |
| (2,2470) | 1:115:A:ASP:HB2  | 1:113:A:LYS:H   | 15       | 0.23          |
| (2,2470) | 1:115:A:ASP:HB3  | 1:113:A:LYS:H   | 15       | 0.23          |
| (2,2409) | 1:112:A:PRO:HG2  | 1:113:A:LYS:H   | 11       | 0.23          |
| (2,2409) | 1:112:A:PRO:HG3  | 1:113:A:LYS:H   | 11       | 0.23          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 12       | 0.23          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 12       | 0.23          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,2304) | 1:107:A:PHE:HE1 | 1:108:A:TRP:H  | 13       | 0.23          |
| (2,2304) | 1:107:A:PHE:HE2 | 1:108:A:TRP:H  | 13       | 0.23          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2 | 1        | 0.23          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3 | 1        | 0.23          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2 | 1        | 0.23          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3 | 1        | 0.23          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2 | 4        | 0.23          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3 | 4        | 0.23          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2 | 4        | 0.23          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3 | 4        | 0.23          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H   | 8        | 0.23          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H   | 14       | 0.23          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2 | 1        | 0.23          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3 | 1        | 0.23          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2 | 1        | 0.23          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3 | 1        | 0.23          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H  | 8        | 0.23          |
| (2,1827) | 1:92:A:ARG:HD2  | 1:109:A:MET:H  | 12       | 0.23          |
| (2,1827) | 1:92:A:ARG:HD3  | 1:109:A:MET:H  | 12       | 0.23          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H   | 15       | 0.23          |
| (2,1779) | 1:84:A:ARG:HD2  | 1:84:A:ARG:H   | 1        | 0.23          |
| (2,1779) | 1:84:A:ARG:HD3  | 1:84:A:ARG:H   | 1        | 0.23          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H   | 2        | 0.23          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H   | 2        | 0.23          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H   | 6        | 0.23          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H   | 6        | 0.23          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H   | 14       | 0.23          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H   | 14       | 0.23          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H   | 8        | 0.23          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H   | 8        | 0.23          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H   | 11       | 0.23          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H   | 11       | 0.23          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H   | 15       | 0.23          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H   | 15       | 0.23          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2 | 11       | 0.23          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3 | 11       | 0.23          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2 | 11       | 0.23          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3 | 11       | 0.23          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H   | 1        | 0.23          |
| (2,1545) | 1:75:A:ILE:HG12 | 1:76:A:PHE:H   | 4        | 0.23          |
| (2,1545) | 1:75:A:ILE:HG13 | 1:76:A:PHE:H   | 4        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H   | 1        | 0.23          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 1        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 1        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 2        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 2        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 2        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 3        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 3        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 3        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 4        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 4        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 4        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 6        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 6        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 6        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 7        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 7        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 7        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 9        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 9        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 9        | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 10       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 10       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 10       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 11       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 11       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 11       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 15       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 15       | 0.23          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 15       | 0.23          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 7        | 0.23          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 7        | 0.23          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 7        | 0.23          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 9        | 0.23          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 9        | 0.23          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 9        | 0.23          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 5        | 0.23          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 5        | 0.23          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 5        | 0.23          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 2        | 0.23          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 2        | 0.23          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 2        | 0.23          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 8        | 0.23          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 8        | 0.23          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 8        | 0.23          |
| (2,1329) | 1:64:A:ARG:HG2  | 1:28:A:ALA:H    | 7        | 0.23          |
| (2,1329) | 1:64:A:ARG:HG3  | 1:28:A:ALA:H    | 7        | 0.23          |
| (2,1307) | 1:63:A:ASP:HB2  | 1:68:A:ASN:H    | 6        | 0.23          |
| (2,1307) | 1:63:A:ASP:HB3  | 1:68:A:ASN:H    | 6        | 0.23          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 6        | 0.23          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 6        | 0.23          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 15       | 0.23          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 15       | 0.23          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H    | 9        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 3        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 7        | 0.23          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 7        | 0.23          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 5        | 0.23          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 8        | 0.23          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 7        | 0.23          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 10       | 0.23          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 15       | 0.23          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 12       | 0.23          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 12       | 0.23          |

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| Key      | Atom-1          | Atom-2        | Model ID | Violation (Å) |
|----------|-----------------|---------------|----------|---------------|
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 1        | 0.23          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 6        | 0.23          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA | 5        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 1        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 1        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 1        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 2        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 2        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 2        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 5        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 5        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 5        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 7        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 7        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 7        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 9        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 9        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 9        | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 10       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 10       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 10       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 11       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 11       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 11       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 12       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 12       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 12       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG21 | 1:57:A:ILE:H  | 13       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG22 | 1:57:A:ILE:H  | 13       | 0.23          |
| (2,1021) | 1:57:A:ILE:HG23 | 1:57:A:ILE:H  | 13       | 0.23          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H  | 2        | 0.23          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H  | 2        | 0.23          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H  | 2        | 0.23          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H  | 5        | 0.23          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H  | 5        | 0.23          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H  | 5        | 0.23          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H  | 12       | 0.23          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H  | 12       | 0.23          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H  | 12       | 0.23          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H  | 13       | 0.23          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H  | 13       | 0.23          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H  | 13       | 0.23          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,996) | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 2        | 0.23          |
| (2,996) | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 10       | 0.23          |
| (2,988) | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 3        | 0.23          |
| (2,988) | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 3        | 0.23          |
| (2,988) | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 3        | 0.23          |
| (2,988) | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 8        | 0.23          |
| (2,988) | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 8        | 0.23          |
| (2,988) | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 8        | 0.23          |
| (2,988) | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 15       | 0.23          |
| (2,988) | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 15       | 0.23          |
| (2,988) | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 15       | 0.23          |
| (2,889) | 1:52:A:THR:HA   | 1:55:A:SER:H    | 1        | 0.23          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 8        | 0.23          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 8        | 0.23          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 8        | 0.23          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 8        | 0.23          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 8        | 0.23          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 8        | 0.23          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 11       | 0.23          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 11       | 0.23          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 11       | 0.23          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 11       | 0.23          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 11       | 0.23          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 11       | 0.23          |
| (2,819) | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 8        | 0.23          |
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 8        | 0.23          |
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 8        | 0.23          |
| (2,819) | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 13       | 0.23          |
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 13       | 0.23          |
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 13       | 0.23          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 8        | 0.23          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 14       | 0.23          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 15       | 0.23          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 15       | 0.23          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2  | 13       | 0.23          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3  | 13       | 0.23          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2  | 13       | 0.23          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3  | 13       | 0.23          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 1        | 0.23          |
| (2,390) | 1:33:A:LEU:HB2  | 1:106:A:PHE:H   | 5        | 0.23          |
| (2,390) | 1:33:A:LEU:HB3  | 1:106:A:PHE:H   | 5        | 0.23          |
| (2,390) | 1:33:A:LEU:HB2  | 1:106:A:PHE:H   | 6        | 0.23          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H    | 6        | 0.23          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H    | 7        | 0.23          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H    | 7        | 0.23          |
| (2,323)  | 1:30:A:LYS:HG2   | 1:61:A:TRP:HE1   | 5        | 0.23          |
| (2,323)  | 1:30:A:LYS:HG3   | 1:61:A:TRP:HE1   | 5        | 0.23          |
| (2,220)  | 1:26:A:PHE:HE1   | 1:124:A:VAL:H    | 1        | 0.23          |
| (2,220)  | 1:26:A:PHE:HE2   | 1:124:A:VAL:H    | 1        | 0.23          |
| (2,162)  | 1:25:A:GLU:HA    | 1:47:A:VAL:H     | 1        | 0.23          |
| (2,162)  | 1:25:A:GLU:HA    | 1:47:A:VAL:H     | 9        | 0.23          |
| (2,130)  | 1:24:A:VAL:HG11  | 1:26:A:PHE:H     | 15       | 0.23          |
| (2,130)  | 1:24:A:VAL:HG12  | 1:26:A:PHE:H     | 15       | 0.23          |
| (2,130)  | 1:24:A:VAL:HG13  | 1:26:A:PHE:H     | 15       | 0.23          |
| (2,130)  | 1:24:A:VAL:HG21  | 1:26:A:PHE:H     | 15       | 0.23          |
| (2,130)  | 1:24:A:VAL:HG22  | 1:26:A:PHE:H     | 15       | 0.23          |
| (2,130)  | 1:24:A:VAL:HG23  | 1:26:A:PHE:H     | 15       | 0.23          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H     | 2        | 0.23          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H     | 4        | 0.23          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H     | 5        | 0.23          |
| (2,3102) | 1:36:A:THR:HB    | 2:951:B:ILE:HG21 | 14       | 0.22          |
| (2,3102) | 1:36:A:THR:HB    | 2:951:B:ILE:HG22 | 14       | 0.22          |
| (2,3102) | 1:36:A:THR:HB    | 2:951:B:ILE:HG23 | 14       | 0.22          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H    | 6        | 0.22          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H    | 6        | 0.22          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2  | 1        | 0.22          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3  | 1        | 0.22          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2  | 1        | 0.22          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3  | 1        | 0.22          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H    | 2        | 0.22          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H    | 2        | 0.22          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 1        | 0.22          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 3        | 0.22          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 5        | 0.22          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 8        | 0.22          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 9        | 0.22          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H    | 13       | 0.22          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H    | 13       | 0.22          |
| (2,2792) | 1:127:A:TYR:HD1  | 1:126:A:GLU:H    | 5        | 0.22          |
| (2,2792) | 1:127:A:TYR:HD2  | 1:126:A:GLU:H    | 5        | 0.22          |
| (2,2786) | 1:127:A:TYR:HE1  | 1:123:A:LYS:H    | 13       | 0.22          |
| (2,2786) | 1:127:A:TYR:HE2  | 1:123:A:LYS:H    | 13       | 0.22          |
| (2,2784) | 1:127:A:TYR:HE1  | 1:127:A:TYR:H    | 10       | 0.22          |
| (2,2784) | 1:127:A:TYR:HE2  | 1:127:A:TYR:H    | 10       | 0.22          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG21 | 10       | 0.22          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG22 | 10       | 0.22          |
| (2,2768) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG23 | 10       | 0.22          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG21 | 10       | 0.22          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG22 | 10       | 0.22          |
| (2,2768) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG23 | 10       | 0.22          |
| (2,2762) | 1:127:A:TYR:HE1  | 1:131:A:PRO:HA  | 8        | 0.22          |
| (2,2762) | 1:127:A:TYR:HE2  | 1:131:A:PRO:HA  | 8        | 0.22          |
| (2,2723) | 1:126:A:GLU:HG2  | 1:125:A:ASN:H   | 3        | 0.22          |
| (2,2723) | 1:126:A:GLU:HG3  | 1:125:A:ASN:H   | 3        | 0.22          |
| (2,2671) | 1:124:A:VAL:HG11 | 1:129:A:ASN:H   | 4        | 0.22          |
| (2,2671) | 1:124:A:VAL:HG12 | 1:129:A:ASN:H   | 4        | 0.22          |
| (2,2671) | 1:124:A:VAL:HG13 | 1:129:A:ASN:H   | 4        | 0.22          |
| (2,2671) | 1:124:A:VAL:HG21 | 1:129:A:ASN:H   | 4        | 0.22          |
| (2,2671) | 1:124:A:VAL:HG22 | 1:129:A:ASN:H   | 4        | 0.22          |
| (2,2671) | 1:124:A:VAL:HG23 | 1:129:A:ASN:H   | 4        | 0.22          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 7        | 0.22          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 13       | 0.22          |
| (2,2522) | 1:118:A:GLU:HB2  | 1:117:A:ASP:H   | 4        | 0.22          |
| (2,2522) | 1:118:A:GLU:HB3  | 1:117:A:ASP:H   | 4        | 0.22          |
| (2,2439) | 1:113:A:LYS:HE2  | 1:113:A:LYS:H   | 15       | 0.22          |
| (2,2439) | 1:113:A:LYS:HE3  | 1:113:A:LYS:H   | 15       | 0.22          |
| (2,2432) | 1:113:A:LYS:HA   | 1:115:A:ASP:H   | 15       | 0.22          |
| (2,2419) | 1:113:A:LYS:HA   | 1:113:A:LYS:HD2 | 11       | 0.22          |
| (2,2419) | 1:113:A:LYS:HA   | 1:113:A:LYS:HD3 | 11       | 0.22          |
| (2,2377) | 1:110:A:GLN:HA   | 2:942:B:PRO:HA  | 3        | 0.22          |
| (2,2352) | 1:109:A:MET:H    | 1:111:A:GLU:H   | 12       | 0.22          |
| (2,2332) | 1:108:A:TRP:HD1  | 1:30:A:LYS:H    | 12       | 0.22          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 3        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 3        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 4        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 4        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 5        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 5        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 6        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 6        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 7        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 7        | 0.22          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 10       | 0.22          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 10       | 0.22          |
| (2,2250) | 1:107:A:PHE:HD1  | 1:30:A:LYS:HD2  | 3        | 0.22          |
| (2,2250) | 1:107:A:PHE:HD1  | 1:30:A:LYS:HD3  | 3        | 0.22          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2 | 3        | 0.22          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3 | 3        | 0.22          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2 | 7        | 0.22          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3 | 7        | 0.22          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2 | 7        | 0.22          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3 | 7        | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1 | 7        | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2 | 7        | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3 | 7        | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1 | 7        | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2 | 7        | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3 | 7        | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1 | 10       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2 | 10       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3 | 10       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1 | 10       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2 | 10       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3 | 10       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1 | 13       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2 | 13       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3 | 13       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1 | 13       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2 | 13       | 0.22          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3 | 13       | 0.22          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H   | 5        | 0.22          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H   | 7        | 0.22          |
| (2,2139) | 1:103:A:LYS:HE2 | 1:103:A:LYS:H  | 2        | 0.22          |
| (2,2139) | 1:103:A:LYS:HE3 | 1:103:A:LYS:H  | 2        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 2        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 2        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 5        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 5        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 7        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 7        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 8        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 8        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 9        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 9        | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 10       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 10       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2 | 12       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3 | 12       | 0.22          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 13       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 13       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 14       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 14       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 15       | 0.22          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 15       | 0.22          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD2 | 13       | 0.22          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD3 | 13       | 0.22          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 2        | 0.22          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 4        | 0.22          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 9        | 0.22          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 14       | 0.22          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 15       | 0.22          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 5        | 0.22          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 5        | 0.22          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H    | 9        | 0.22          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H    | 9        | 0.22          |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H    | 13       | 0.22          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2  | 12       | 0.22          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 12       | 0.22          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 12       | 0.22          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 12       | 0.22          |
| (2,1619) | 1:79:A:ASP:HA   | 1:81:A:GLU:H    | 7        | 0.22          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 5        | 0.22          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 5        | 0.22          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 5        | 0.22          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 12       | 0.22          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 12       | 0.22          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 12       | 0.22          |
| (2,1515) | 1:74:A:ILE:HG21 | 1:74:A:ILE:H    | 14       | 0.22          |
| (2,1515) | 1:74:A:ILE:HG22 | 1:74:A:ILE:H    | 14       | 0.22          |
| (2,1515) | 1:74:A:ILE:HG23 | 1:74:A:ILE:H    | 14       | 0.22          |
| (2,1511) | 1:74:A:ILE:HG21 | 1:56:A:LEU:H    | 15       | 0.22          |
| (2,1511) | 1:74:A:ILE:HG22 | 1:56:A:LEU:H    | 15       | 0.22          |
| (2,1511) | 1:74:A:ILE:HG23 | 1:56:A:LEU:H    | 15       | 0.22          |
| (2,1465) | 1:73:A:LEU:HG   | 1:71:A:ASP:HB2  | 13       | 0.22          |
| (2,1465) | 1:73:A:LEU:HG   | 1:71:A:ASP:HB3  | 13       | 0.22          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 10       | 0.22          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 10       | 0.22          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 10       | 0.22          |
| (2,1283) | 1:62:A:LYS:HG2  | 1:70:A:GLU:H    | 8        | 0.22          |
| (2,1283) | 1:62:A:LYS:HG3  | 1:70:A:GLU:H    | 8        | 0.22          |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,1283) | 1:62:A:LYS:HG2 | 1:70:A:GLU:H    | 11       | 0.22          |
| (2,1283) | 1:62:A:LYS:HG3 | 1:70:A:GLU:H    | 11       | 0.22          |
| (2,1274) | 1:62:A:LYS:HA  | 1:71:A:ASP:H    | 5        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG11 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG12 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG13 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG21 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG22 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG23 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG11 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG12 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG13 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG21 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG22 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG23 | 1        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG11 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG12 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG13 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG21 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG22 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG23 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG11 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG12 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG13 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG21 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG22 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG23 | 9        | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG11 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG12 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG13 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG21 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG22 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE2 | 1:69:A:VAL:HG23 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG11 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG12 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG13 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG21 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG22 | 12       | 0.22          |
| (2,1269) | 1:62:A:LYS:HE3 | 1:69:A:VAL:HG23 | 12       | 0.22          |
| (2,1244) | 1:61:A:TRP:HH2 | 1:43:A:ARG:H    | 11       | 0.22          |
| (2,1234) | 1:61:A:TRP:HE3 | 1:62:A:LYS:H    | 11       | 0.22          |
| (2,1234) | 1:61:A:TRP:HE3 | 1:62:A:LYS:H    | 13       | 0.22          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 14       | 0.22          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 13       | 0.22          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 3        | 0.22          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 3        | 0.22          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 9        | 0.22          |
| (2,1055) | 1:58:A:HIS:H    | 1:51:A:GLN:H    | 9        | 0.22          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 9        | 0.22          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 11       | 0.22          |
| (2,1045) | 1:58:A:HIS:HE1  | 1:52:A:THR:HA   | 13       | 0.22          |
| (2,1012) | 1:57:A:ILE:HG21 | 1:49:A:ILE:H    | 4        | 0.22          |
| (2,1012) | 1:57:A:ILE:HG22 | 1:49:A:ILE:H    | 4        | 0.22          |
| (2,1012) | 1:57:A:ILE:HG23 | 1:49:A:ILE:H    | 4        | 0.22          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 4        | 0.22          |
| (2,996)  | 1:57:A:ILE:HA   | 1:52:A:THR:H    | 12       | 0.22          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 4        | 0.22          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 4        | 0.22          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 4        | 0.22          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 6        | 0.22          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 6        | 0.22          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 6        | 0.22          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 10       | 0.22          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 10       | 0.22          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 10       | 0.22          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 3        | 0.22          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 3        | 0.22          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 14       | 0.22          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 14       | 0.22          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 14       | 0.22          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 7        | 0.22          |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 9        | 0.22          |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 9        | 0.22          |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 9        | 0.22          |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 9        | 0.22          |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 9        | 0.22          |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 9        | 0.22          |
| (2,843)  | 1:50:A:GLN:HG2  | 1:51:A:GLN:H    | 3        | 0.22          |
| (2,843)  | 1:50:A:GLN:HG3  | 1:51:A:GLN:H    | 3        | 0.22          |
| (2,843)  | 1:50:A:GLN:HG2  | 1:51:A:GLN:H    | 9        | 0.22          |
| (2,843)  | 1:50:A:GLN:HG3  | 1:51:A:GLN:H    | 9        | 0.22          |
| (2,843)  | 1:50:A:GLN:HG2  | 1:51:A:GLN:H    | 11       | 0.22          |
| (2,843)  | 1:50:A:GLN:HG3  | 1:51:A:GLN:H    | 11       | 0.22          |
| (2,819)  | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 10       | 0.22          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 10       | 0.22          |
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 10       | 0.22          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 4        | 0.22          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 4        | 0.22          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 4        | 0.22          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 6        | 0.22          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 6        | 0.22          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 6        | 0.22          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 10       | 0.22          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 10       | 0.22          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 10       | 0.22          |
| (2,813) | 1:49:A:ILE:HG21 | 1:60:A:CYS:H    | 13       | 0.22          |
| (2,813) | 1:49:A:ILE:HG22 | 1:60:A:CYS:H    | 13       | 0.22          |
| (2,813) | 1:49:A:ILE:HG23 | 1:60:A:CYS:H    | 13       | 0.22          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 1        | 0.22          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 3        | 0.22          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 2        | 0.22          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 2        | 0.22          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 10       | 0.22          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 10       | 0.22          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2  | 12       | 0.22          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3  | 12       | 0.22          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 5        | 0.22          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 11       | 0.22          |
| (2,390) | 1:33:A:LEU:HB2  | 1:106:A:PHE:H   | 8        | 0.22          |
| (2,390) | 1:33:A:LEU:HB3  | 1:106:A:PHE:H   | 8        | 0.22          |
| (2,320) | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1  | 9        | 0.22          |
| (2,273) | 1:28:A:ALA:HB1  | 1:111:A:GLU:H   | 2        | 0.22          |
| (2,273) | 1:28:A:ALA:HB2  | 1:111:A:GLU:H   | 2        | 0.22          |
| (2,273) | 1:28:A:ALA:HB3  | 1:111:A:GLU:H   | 2        | 0.22          |
| (2,220) | 1:26:A:PHE:HE1  | 1:124:A:VAL:H   | 5        | 0.22          |
| (2,220) | 1:26:A:PHE:HE2  | 1:124:A:VAL:H   | 5        | 0.22          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,220)  | 1:26:A:PHE:HE1   | 1:124:A:VAL:H   | 8        | 0.22          |
| (2,220)  | 1:26:A:PHE:HE2   | 1:124:A:VAL:H   | 8        | 0.22          |
| (2,203)  | 1:26:A:PHE:H     | 1:49:A:ILE:H    | 3        | 0.22          |
| (2,130)  | 1:24:A:VAL:HG11  | 1:26:A:PHE:H    | 2        | 0.22          |
| (2,130)  | 1:24:A:VAL:HG12  | 1:26:A:PHE:H    | 2        | 0.22          |
| (2,130)  | 1:24:A:VAL:HG13  | 1:26:A:PHE:H    | 2        | 0.22          |
| (2,130)  | 1:24:A:VAL:HG21  | 1:26:A:PHE:H    | 2        | 0.22          |
| (2,130)  | 1:24:A:VAL:HG22  | 1:26:A:PHE:H    | 2        | 0.22          |
| (2,130)  | 1:24:A:VAL:HG23  | 1:26:A:PHE:H    | 2        | 0.22          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H    | 9        | 0.22          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H    | 11       | 0.22          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H    | 13       | 0.22          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 2        | 0.21          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 2        | 0.21          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 8        | 0.21          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 8        | 0.21          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 8        | 0.21          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 8        | 0.21          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H   | 4        | 0.21          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H   | 12       | 0.21          |
| (2,2724) | 1:126:A:GLU:HG2  | 1:126:A:GLU:H   | 4        | 0.21          |
| (2,2724) | 1:126:A:GLU:HG3  | 1:126:A:GLU:H   | 4        | 0.21          |
| (2,2724) | 1:126:A:GLU:HG2  | 1:126:A:GLU:H   | 8        | 0.21          |
| (2,2724) | 1:126:A:GLU:HG3  | 1:126:A:GLU:H   | 8        | 0.21          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 2        | 0.21          |
| (2,2666) | 1:124:A:VAL:HB   | 1:126:A:GLU:H   | 1        | 0.21          |
| (2,2585) | 1:121:A:CYS:HB2  | 1:119:A:GLU:H   | 7        | 0.21          |
| (2,2585) | 1:121:A:CYS:HB3  | 1:119:A:GLU:H   | 7        | 0.21          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 2        | 0.21          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 5        | 0.21          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA   | 9        | 0.21          |
| (2,2458) | 1:114:A:THR:HB   | 1:116:A:GLN:H   | 10       | 0.21          |
| (2,2432) | 1:113:A:LYS:HA   | 1:115:A:ASP:H   | 8        | 0.21          |
| (2,2408) | 1:112:A:PRO:HA   | 1:111:A:GLU:H   | 14       | 0.21          |
| (2,2362) | 1:109:A:MET:HE1  | 1:111:A:GLU:H   | 3        | 0.21          |
| (2,2362) | 1:109:A:MET:HE2  | 1:111:A:GLU:H   | 3        | 0.21          |
| (2,2362) | 1:109:A:MET:HE3  | 1:111:A:GLU:H   | 3        | 0.21          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 1        | 0.21          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 1        | 0.21          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 2        | 0.21          |
| (2,2304) | 1:107:A:PHE:HE2  | 1:108:A:TRP:H   | 2        | 0.21          |
| (2,2304) | 1:107:A:PHE:HE1  | 1:108:A:TRP:H   | 11       | 0.21          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2304) | 1:107:A:PHE:HE2 | 1:108:A:TRP:H   | 11       | 0.21          |
| (2,2304) | 1:107:A:PHE:HE1 | 1:108:A:TRP:H   | 14       | 0.21          |
| (2,2304) | 1:107:A:PHE:HE2 | 1:108:A:TRP:H   | 14       | 0.21          |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 10       | 0.21          |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H    | 10       | 0.21          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 8        | 0.21          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 8        | 0.21          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 8        | 0.21          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 8        | 0.21          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 8        | 0.21          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 8        | 0.21          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2  | 15       | 0.21          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3  | 15       | 0.21          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2  | 15       | 0.21          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3  | 15       | 0.21          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 15       | 0.21          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 15       | 0.21          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 15       | 0.21          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 15       | 0.21          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 15       | 0.21          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 15       | 0.21          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 4        | 0.21          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 11       | 0.21          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 12       | 0.21          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 13       | 0.21          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 15       | 0.21          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 3        | 0.21          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 3        | 0.21          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 8        | 0.21          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 8        | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 3        | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 3        | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 4        | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 4        | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 6        | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 6        | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG2  | 11       | 0.21          |
| (2,2095) | 1:100:A:ALA:HA  | 1:99:A:LYS:HG3  | 11       | 0.21          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 14       | 0.21          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 14       | 0.21          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 14       | 0.21          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 14       | 0.21          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 5        | 0.21          |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 6        | 0.21          |
| (2,1779) | 1:84:A:ARG:HD2  | 1:84:A:ARG:H    | 4        | 0.21          |
| (2,1779) | 1:84:A:ARG:HD3  | 1:84:A:ARG:H    | 4        | 0.21          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 10       | 0.21          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 10       | 0.21          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 11       | 0.21          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 11       | 0.21          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H    | 2        | 0.21          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H    | 2        | 0.21          |
| (2,1727) | 1:82:A:PHE:HD1  | 1:121:A:CYS:H   | 5        | 0.21          |
| (2,1727) | 1:82:A:PHE:HD2  | 1:121:A:CYS:H   | 5        | 0.21          |
| (2,1680) | 1:81:A:GLU:HG2  | 1:81:A:GLU:H    | 8        | 0.21          |
| (2,1680) | 1:81:A:GLU:HG3  | 1:81:A:GLU:H    | 8        | 0.21          |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H    | 8        | 0.21          |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H    | 11       | 0.21          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2  | 2        | 0.21          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3  | 2        | 0.21          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2  | 2        | 0.21          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3  | 2        | 0.21          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H    | 15       | 0.21          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H    | 15       | 0.21          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 12       | 0.21          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 12       | 0.21          |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 12       | 0.21          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 6        | 0.21          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 6        | 0.21          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 6        | 0.21          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 12       | 0.21          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 12       | 0.21          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 12       | 0.21          |
| (2,1307) | 1:63:A:ASP:HB2  | 1:68:A:ASN:H    | 3        | 0.21          |
| (2,1307) | 1:63:A:ASP:HB3  | 1:68:A:ASN:H    | 3        | 0.21          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 12       | 0.21          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 12       | 0.21          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 13       | 0.21          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 13       | 0.21          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 14       | 0.21          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 8        | 0.21          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 15       | 0.21          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 2        | 0.21          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 3        | 0.21          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 6        | 0.21          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 7        | 0.21          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 2        | 0.21          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 2        | 0.21          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD1  | 15       | 0.21          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2  | 15       | 0.21          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1  | 15       | 0.21          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2  | 15       | 0.21          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 3        | 0.21          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 5        | 0.21          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 13       | 0.21          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 11       | 0.21          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 1        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 1        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 1        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 5        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 5        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 5        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 7        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 7        | 0.21          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 7        | 0.21          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 9        | 0.21          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 4        | 0.21          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 4        | 0.21          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 3        | 0.21          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 3        | 0.21          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 3        | 0.21          |
| (2,901)  | 1:52:A:THR:HG21 | 1:51:A:GLN:H    | 6        | 0.21          |
| (2,901)  | 1:52:A:THR:HG22 | 1:51:A:GLN:H    | 6        | 0.21          |
| (2,901)  | 1:52:A:THR:HG23 | 1:51:A:GLN:H    | 6        | 0.21          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 2        | 0.21          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 5        | 0.21          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 9        | 0.21          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 11       | 0.21          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 12       | 0.21          |
| (2,889)  | 1:52:A:THR:HA   | 1:55:A:SER:H    | 13       | 0.21          |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 12       | 0.21          |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 12       | 0.21          |
| (2,855)  | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 12       | 0.21          |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 12       | 0.21          |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 12       | 0.21          |
| (2,855)  | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 12       | 0.21          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 13       | 0.21          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 13       | 0.21          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 13       | 0.21          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 13       | 0.21          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 13       | 0.21          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 13       | 0.21          |
| (2,843) | 1:50:A:GLN:HG2  | 1:51:A:GLN:H    | 14       | 0.21          |
| (2,843) | 1:50:A:GLN:HG3  | 1:51:A:GLN:H    | 14       | 0.21          |
| (2,837) | 1:50:A:GLN:HB2  | 1:58:A:HIS:H    | 9        | 0.21          |
| (2,837) | 1:50:A:GLN:HB3  | 1:58:A:HIS:H    | 9        | 0.21          |
| (2,830) | 1:50:A:GLN:HE21 | 1:50:A:GLN:H    | 6        | 0.21          |
| (2,830) | 1:50:A:GLN:HE22 | 1:50:A:GLN:H    | 6        | 0.21          |
| (2,819) | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 11       | 0.21          |
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 11       | 0.21          |
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 11       | 0.21          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 9        | 0.21          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 9        | 0.21          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 9        | 0.21          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 6        | 0.21          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 10       | 0.21          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 7        | 0.21          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 7        | 0.21          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2  | 15       | 0.21          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3  | 15       | 0.21          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2  | 15       | 0.21          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3  | 15       | 0.21          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3  | 3        | 0.21          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 13       | 0.21          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 13       | 0.21          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 13       | 0.21          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 13       | 0.21          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,635)  | 1:46:A:LEU:HD13  | 1:62:A:LYS:HD2   | 13       | 0.21          |
| (2,635)  | 1:46:A:LEU:HD13  | 1:62:A:LYS:HD3   | 13       | 0.21          |
| (2,635)  | 1:46:A:LEU:HD21  | 1:62:A:LYS:HD2   | 13       | 0.21          |
| (2,635)  | 1:46:A:LEU:HD21  | 1:62:A:LYS:HD3   | 13       | 0.21          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD2   | 13       | 0.21          |
| (2,635)  | 1:46:A:LEU:HD22  | 1:62:A:LYS:HD3   | 13       | 0.21          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD2   | 13       | 0.21          |
| (2,635)  | 1:46:A:LEU:HD23  | 1:62:A:LYS:HD3   | 13       | 0.21          |
| (2,507)  | 1:39:A:THR:HB    | 1:39:A:THR:H     | 2        | 0.21          |
| (2,390)  | 1:33:A:LEU:HB2   | 1:106:A:PHE:H    | 15       | 0.21          |
| (2,390)  | 1:33:A:LEU:HB3   | 1:106:A:PHE:H    | 15       | 0.21          |
| (2,320)  | 1:30:A:LYS:HA    | 1:61:A:TRP:HE1   | 4        | 0.21          |
| (2,320)  | 1:30:A:LYS:HA    | 1:61:A:TRP:HE1   | 13       | 0.21          |
| (2,203)  | 1:26:A:PHE:H     | 1:49:A:ILE:H     | 6        | 0.21          |
| (2,203)  | 1:26:A:PHE:H     | 1:49:A:ILE:H     | 14       | 0.21          |
| (2,130)  | 1:24:A:VAL:HG11  | 1:26:A:PHE:H     | 6        | 0.21          |
| (2,130)  | 1:24:A:VAL:HG12  | 1:26:A:PHE:H     | 6        | 0.21          |
| (2,130)  | 1:24:A:VAL:HG13  | 1:26:A:PHE:H     | 6        | 0.21          |
| (2,130)  | 1:24:A:VAL:HG21  | 1:26:A:PHE:H     | 6        | 0.21          |
| (2,130)  | 1:24:A:VAL:HG22  | 1:26:A:PHE:H     | 6        | 0.21          |
| (2,130)  | 1:24:A:VAL:HG23  | 1:26:A:PHE:H     | 6        | 0.21          |
| (2,92)   | 1:23:A:LEU:HD11  | 1:21:A:LYS:HA    | 6        | 0.21          |
| (2,92)   | 1:23:A:LEU:HD12  | 1:21:A:LYS:HA    | 6        | 0.21          |
| (2,92)   | 1:23:A:LEU:HD13  | 1:21:A:LYS:HA    | 6        | 0.21          |
| (2,92)   | 1:23:A:LEU:HD21  | 1:21:A:LYS:HA    | 6        | 0.21          |
| (2,92)   | 1:23:A:LEU:HD22  | 1:21:A:LYS:HA    | 6        | 0.21          |
| (2,92)   | 1:23:A:LEU:HD23  | 1:21:A:LYS:HA    | 6        | 0.21          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H     | 1        | 0.21          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H     | 10       | 0.21          |
| (2,3174) | 1:108:A:TRP:HZ3  | 2:942:B:PRO:HG2  | 7        | 0.2           |
| (2,3174) | 1:108:A:TRP:HZ3  | 2:942:B:PRO:HG3  | 7        | 0.2           |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H    | 1        | 0.2           |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H    | 7        | 0.2           |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H    | 15       | 0.2           |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H    | 9        | 0.2           |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H    | 9        | 0.2           |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H    | 9        | 0.2           |
| (2,3058) | 2:951:B:ILE:HB   | 2:951:B:ILE:HD11 | 9        | 0.2           |
| (2,3058) | 2:951:B:ILE:HB   | 2:951:B:ILE:HD12 | 9        | 0.2           |
| (2,3058) | 2:951:B:ILE:HB   | 2:951:B:ILE:HD13 | 9        | 0.2           |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2  | 11       | 0.2           |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3  | 11       | 0.2           |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 11       | 0.2           |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 11       | 0.2           |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 15       | 0.2           |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 15       | 0.2           |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 15       | 0.2           |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 15       | 0.2           |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H   | 7        | 0.2           |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H   | 7        | 0.2           |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H   | 10       | 0.2           |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 8        | 0.2           |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 8        | 0.2           |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA   | 1        | 0.2           |
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA   | 1        | 0.2           |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA   | 1        | 0.2           |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA   | 1        | 0.2           |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA   | 1        | 0.2           |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA   | 1        | 0.2           |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21 | 1        | 0.2           |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22 | 1        | 0.2           |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23 | 1        | 0.2           |
| (2,2747) | 1:127:A:TYR:HD1  | 1:24:A:VAL:HA   | 2        | 0.2           |
| (2,2747) | 1:127:A:TYR:HD2  | 1:24:A:VAL:HA   | 2        | 0.2           |
| (2,2719) | 1:126:A:GLU:HB2  | 1:130:A:ASN:H   | 5        | 0.2           |
| (2,2719) | 1:126:A:GLU:HB3  | 1:130:A:ASN:H   | 5        | 0.2           |
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB2 | 4        | 0.2           |
| (2,2702) | 1:126:A:GLU:HB2  | 1:125:A:ASN:HB3 | 4        | 0.2           |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB2 | 4        | 0.2           |
| (2,2702) | 1:126:A:GLU:HB3  | 1:125:A:ASN:HB3 | 4        | 0.2           |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 9        | 0.2           |
| (2,2666) | 1:124:A:VAL:HB   | 1:126:A:GLU:H   | 3        | 0.2           |
| (2,2666) | 1:124:A:VAL:HB   | 1:126:A:GLU:H   | 5        | 0.2           |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H   | 15       | 0.2           |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H   | 15       | 0.2           |
| (2,2623) | 1:123:A:LYS:H    | 1:126:A:GLU:H   | 13       | 0.2           |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H   | 15       | 0.2           |
| (2,2585) | 1:121:A:CYS:HB2  | 1:119:A:GLU:H   | 1        | 0.2           |
| (2,2585) | 1:121:A:CYS:HB3  | 1:119:A:GLU:H   | 1        | 0.2           |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE1 | 14       | 0.2           |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE2 | 14       | 0.2           |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE3 | 14       | 0.2           |
| (2,2470) | 1:115:A:ASP:HB2  | 1:113:A:LYS:H   | 6        | 0.2           |
| (2,2470) | 1:115:A:ASP:HB3  | 1:113:A:LYS:H   | 6        | 0.2           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 10       | 0.2           |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H    | 6        | 0.2           |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 3        | 0.2           |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H    | 3        | 0.2           |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2  | 9        | 0.2           |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3  | 9        | 0.2           |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2  | 9        | 0.2           |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3  | 9        | 0.2           |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2  | 13       | 0.2           |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3  | 13       | 0.2           |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2  | 13       | 0.2           |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3  | 13       | 0.2           |
| (2,2159) | 1:104:A:ARG:HD2 | 1:104:A:ARG:H   | 12       | 0.2           |
| (2,2159) | 1:104:A:ARG:HD3 | 1:104:A:ARG:H   | 12       | 0.2           |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 4        | 0.2           |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 4        | 0.2           |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 6        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 5        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 5        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 5        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 5        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 9        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 9        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 9        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 9        | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 10       | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 10       | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 10       | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 10       | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 15       | 0.2           |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 15       | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 15       | 0.2           |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 15       | 0.2           |
| (2,1981) | 1:97:A:LYS:HA   | 1:103:A:LYS:H   | 1        | 0.2           |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 1        | 0.2           |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 13       | 0.2           |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 14       | 0.2           |
| (2,1779) | 1:84:A:ARG:HD2  | 1:84:A:ARG:H    | 8        | 0.2           |
| (2,1779) | 1:84:A:ARG:HD3  | 1:84:A:ARG:H    | 8        | 0.2           |
| (2,1779) | 1:84:A:ARG:HD2  | 1:84:A:ARG:H    | 15       | 0.2           |
| (2,1779) | 1:84:A:ARG:HD3  | 1:84:A:ARG:H    | 15       | 0.2           |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H    | 4        | 0.2           |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,1758) | 1:83:A:LYS:HB3 | 1:95:A:VAL:H    | 4        | 0.2           |
| (2,1758) | 1:83:A:LYS:HB2 | 1:95:A:VAL:H    | 5        | 0.2           |
| (2,1758) | 1:83:A:LYS:HB3 | 1:95:A:VAL:H    | 5        | 0.2           |
| (2,1758) | 1:83:A:LYS:HB2 | 1:95:A:VAL:H    | 12       | 0.2           |
| (2,1758) | 1:83:A:LYS:HB3 | 1:95:A:VAL:H    | 12       | 0.2           |
| (2,1738) | 1:82:A:PHE:HE1 | 1:83:A:LYS:H    | 4        | 0.2           |
| (2,1738) | 1:82:A:PHE:HE2 | 1:83:A:LYS:H    | 4        | 0.2           |
| (2,1728) | 1:82:A:PHE:HD1 | 1:124:A:VAL:H   | 15       | 0.2           |
| (2,1728) | 1:82:A:PHE:HD2 | 1:124:A:VAL:H   | 15       | 0.2           |
| (2,1727) | 1:82:A:PHE:HD1 | 1:121:A:CYS:H   | 1        | 0.2           |
| (2,1727) | 1:82:A:PHE:HD2 | 1:121:A:CYS:H   | 1        | 0.2           |
| (2,1727) | 1:82:A:PHE:HD1 | 1:121:A:CYS:H   | 3        | 0.2           |
| (2,1727) | 1:82:A:PHE:HD2 | 1:121:A:CYS:H   | 3        | 0.2           |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 1        | 0.2           |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 2        | 0.2           |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 5        | 0.2           |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 7        | 0.2           |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 9        | 0.2           |
| (2,1669) | 1:81:A:GLU:HG2 | 1:99:A:LYS:HE2  | 13       | 0.2           |
| (2,1669) | 1:81:A:GLU:HG2 | 1:99:A:LYS:HE3  | 13       | 0.2           |
| (2,1669) | 1:81:A:GLU:HG3 | 1:99:A:LYS:HE2  | 13       | 0.2           |
| (2,1669) | 1:81:A:GLU:HG3 | 1:99:A:LYS:HE3  | 13       | 0.2           |
| (2,1619) | 1:79:A:ASP:HA  | 1:81:A:GLU:H    | 10       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 1        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 1        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 1        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 2        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 2        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 2        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 3        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 3        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 3        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 4        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 4        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 4        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 5        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 5        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 5        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 8        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 8        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 8        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 9        | 0.2           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD12 | 9        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD13 | 9        | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD11 | 10       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD12 | 10       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD13 | 10       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD11 | 12       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD12 | 12       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD13 | 12       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD11 | 13       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD12 | 13       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD13 | 13       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD11 | 14       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD12 | 14       | 0.2           |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD13 | 14       | 0.2           |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H    | 8        | 0.2           |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H    | 8        | 0.2           |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H    | 11       | 0.2           |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H    | 11       | 0.2           |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H    | 12       | 0.2           |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H    | 12       | 0.2           |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD11 | 4        | 0.2           |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD12 | 4        | 0.2           |
| (2,1459) | 1:73:A:LEU:HA   | 1:74:A:ILE:HD13 | 4        | 0.2           |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H    | 8        | 0.2           |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H    | 13       | 0.2           |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 4        | 0.2           |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 4        | 0.2           |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 4        | 0.2           |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 10       | 0.2           |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 10       | 0.2           |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 10       | 0.2           |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 6        | 0.2           |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 6        | 0.2           |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 6        | 0.2           |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 3        | 0.2           |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 3        | 0.2           |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 3        | 0.2           |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 7        | 0.2           |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 7        | 0.2           |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 7        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 5        | 0.2           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 5        | 0.2           |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 5        | 0.2           |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 10       | 0.2           |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 11       | 0.2           |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 4        | 0.2           |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 11       | 0.2           |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 13       | 0.2           |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 3        | 0.2           |
| (2,1055) | 1:58:A:HIS:H    | 1:51:A:GLN:H    | 13       | 0.2           |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H    | 8        | 0.2           |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H    | 8        | 0.2           |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H    | 8        | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 2        | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 2        | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 2        | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 7        | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 7        | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 7        | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 12       | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 12       | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 12       | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 13       | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 13       | 0.2           |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 13       | 0.2           |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 8        | 0.2           |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 6        | 0.2           |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 6        | 0.2           |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 10       | 0.2           |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 10       | 0.2           |
| (2,879)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HB2  | 11       | 0.2           |
| (2,879)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HB3  | 11       | 0.2           |
| (2,879)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HB2  | 11       | 0.2           |
| (2,879)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HB3  | 11       | 0.2           |
| (2,879)  | 1:52:A:THR:HG23 | 1:50:A:GLN:HB2  | 11       | 0.2           |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB3  | 11       | 0.2           |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB2  | 14       | 0.2           |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB3  | 14       | 0.2           |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB2  | 14       | 0.2           |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB3  | 14       | 0.2           |
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB2  | 14       | 0.2           |
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB3  | 14       | 0.2           |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 1        | 0.2           |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 1        | 0.2           |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 1        | 0.2           |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 1        | 0.2           |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 1        | 0.2           |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 1        | 0.2           |
| (2,837) | 1:50:A:GLN:HB2  | 1:58:A:HIS:H    | 11       | 0.2           |
| (2,837) | 1:50:A:GLN:HB3  | 1:58:A:HIS:H    | 11       | 0.2           |
| (2,837) | 1:50:A:GLN:HB2  | 1:58:A:HIS:H    | 13       | 0.2           |
| (2,837) | 1:50:A:GLN:HB3  | 1:58:A:HIS:H    | 13       | 0.2           |
| (2,837) | 1:50:A:GLN:HB2  | 1:58:A:HIS:H    | 14       | 0.2           |
| (2,837) | 1:50:A:GLN:HB3  | 1:58:A:HIS:H    | 14       | 0.2           |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 11       | 0.2           |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 11       | 0.2           |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 11       | 0.2           |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 14       | 0.2           |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 14       | 0.2           |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 14       | 0.2           |
| (2,813) | 1:49:A:ILE:HG21 | 1:60:A:CYS:H    | 4        | 0.2           |
| (2,813) | 1:49:A:ILE:HG22 | 1:60:A:CYS:H    | 4        | 0.2           |
| (2,813) | 1:49:A:ILE:HG23 | 1:60:A:CYS:H    | 4        | 0.2           |
| (2,813) | 1:49:A:ILE:HG21 | 1:60:A:CYS:H    | 5        | 0.2           |
| (2,813) | 1:49:A:ILE:HG22 | 1:60:A:CYS:H    | 5        | 0.2           |
| (2,813) | 1:49:A:ILE:HG23 | 1:60:A:CYS:H    | 5        | 0.2           |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 5        | 0.2           |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 3        | 0.2           |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 3        | 0.2           |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 12       | 0.2           |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 12       | 0.2           |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2  | 3        | 0.2           |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3  | 3        | 0.2           |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2  | 3        | 0.2           |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3  | 3        | 0.2           |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 8        | 0.2           |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 8        | 0.2           |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 8        | 0.2           |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 8        | 0.2           |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 8        | 0.2           |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 8        | 0.2           |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 14       | 0.2           |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 14       | 0.2           |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 2        | 0.2           |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 6        | 0.2           |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 12       | 0.2           |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 2        | 0.2           |
| (2,507) | 1:39:A:THR:HB   | 1:39:A:THR:H    | 8        | 0.2           |
| (2,507) | 1:39:A:THR:HB   | 1:39:A:THR:H    | 9        | 0.2           |
| (2,507) | 1:39:A:THR:HB   | 1:39:A:THR:H    | 11       | 0.2           |
| (2,507) | 1:39:A:THR:HB   | 1:39:A:THR:H    | 14       | 0.2           |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 2        | 0.2           |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 5        | 0.2           |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 12       | 0.2           |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 14       | 0.2           |
| (2,384) | 1:33:A:LEU:HD11 | 1:36:A:THR:HB   | 6        | 0.2           |
| (2,384) | 1:33:A:LEU:HD12 | 1:36:A:THR:HB   | 6        | 0.2           |
| (2,384) | 1:33:A:LEU:HD13 | 1:36:A:THR:HB   | 6        | 0.2           |
| (2,384) | 1:33:A:LEU:HD21 | 1:36:A:THR:HB   | 6        | 0.2           |
| (2,384) | 1:33:A:LEU:HD22 | 1:36:A:THR:HB   | 6        | 0.2           |
| (2,384) | 1:33:A:LEU:HD23 | 1:36:A:THR:HB   | 6        | 0.2           |
| (2,320) | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1  | 1        | 0.2           |
| (2,318) | 1:30:A:LYS:HA   | 1:107:A:PHE:H   | 2        | 0.2           |
| (2,221) | 1:26:A:PHE:HE1  | 1:25:A:GLU:H    | 10       | 0.2           |
| (2,221) | 1:26:A:PHE:HE2  | 1:25:A:GLU:H    | 10       | 0.2           |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H    | 11       | 0.2           |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 5        | 0.2           |
| (2,130) | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 5        | 0.2           |
| (2,130) | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 5        | 0.2           |
| (2,130) | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 5        | 0.2           |
| (2,130) | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 5        | 0.2           |
| (2,130) | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 5        | 0.2           |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 9        | 0.2           |
| (2,130) | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 9        | 0.2           |
| (2,130) | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 9        | 0.2           |
| (2,130) | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 9        | 0.2           |
| (2,130) | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 9        | 0.2           |
| (2,130) | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 9        | 0.2           |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 14       | 0.2           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,130)  | 1:24:A:VAL:HG12  | 1:26:A:PHE:H     | 14       | 0.2           |
| (2,130)  | 1:24:A:VAL:HG13  | 1:26:A:PHE:H     | 14       | 0.2           |
| (2,130)  | 1:24:A:VAL:HG21  | 1:26:A:PHE:H     | 14       | 0.2           |
| (2,130)  | 1:24:A:VAL:HG22  | 1:26:A:PHE:H     | 14       | 0.2           |
| (2,130)  | 1:24:A:VAL:HG23  | 1:26:A:PHE:H     | 14       | 0.2           |
| (2,3189) | 2:941:B:GLU:HG2  | 1:44:A:LYS:HE2   | 8        | 0.19          |
| (2,3189) | 2:941:B:GLU:HG2  | 1:44:A:LYS:HE3   | 8        | 0.19          |
| (2,3189) | 2:941:B:GLU:HG3  | 1:44:A:LYS:HE2   | 8        | 0.19          |
| (2,3189) | 2:941:B:GLU:HG3  | 1:44:A:LYS:HE3   | 8        | 0.19          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H    | 11       | 0.19          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H    | 13       | 0.19          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H    | 7        | 0.19          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H    | 7        | 0.19          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2  | 15       | 0.19          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3  | 15       | 0.19          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2  | 15       | 0.19          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3  | 15       | 0.19          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2  | 15       | 0.19          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3  | 15       | 0.19          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2  | 4        | 0.19          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3  | 4        | 0.19          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2  | 4        | 0.19          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3  | 4        | 0.19          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 7        | 0.19          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 13       | 0.19          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21  | 14       | 0.19          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22  | 14       | 0.19          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23  | 14       | 0.19          |
| (2,2747) | 1:127:A:TYR:HD1  | 1:24:A:VAL:HA    | 9        | 0.19          |
| (2,2747) | 1:127:A:TYR:HD2  | 1:24:A:VAL:HA    | 9        | 0.19          |
| (2,2723) | 1:126:A:GLU:HG2  | 1:125:A:ASN:H    | 5        | 0.19          |
| (2,2723) | 1:126:A:GLU:HG3  | 1:125:A:ASN:H    | 5        | 0.19          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA   | 15       | 0.19          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H    | 2        | 0.19          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H    | 2        | 0.19          |
| (2,2585) | 1:121:A:CYS:HB2  | 1:119:A:GLU:H    | 3        | 0.19          |
| (2,2585) | 1:121:A:CYS:HB3  | 1:119:A:GLU:H    | 3        | 0.19          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA    | 14       | 0.19          |
| (2,2525) | 1:118:A:GLU:HG2  | 1:120:A:HIS:H    | 5        | 0.19          |
| (2,2525) | 1:118:A:GLU:HG3  | 1:120:A:HIS:H    | 5        | 0.19          |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE21 | 6        | 0.19          |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE22 | 6        | 0.19          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2461) | 1:114:A:THR:HA  | 1:92:A:ARG:HE   | 8        | 0.19          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 11       | 0.19          |
| (2,2373) | 1:110:A:GLN:HA  | 1:28:A:ALA:H    | 6        | 0.19          |
| (2,2362) | 1:109:A:MET:HE1 | 1:111:A:GLU:H   | 10       | 0.19          |
| (2,2362) | 1:109:A:MET:HE2 | 1:111:A:GLU:H   | 10       | 0.19          |
| (2,2362) | 1:109:A:MET:HE3 | 1:111:A:GLU:H   | 10       | 0.19          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 2        | 0.19          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 2        | 0.19          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD2  | 14       | 0.19          |
| (2,2250) | 1:107:A:PHE:HD1 | 1:30:A:LYS:HD3  | 14       | 0.19          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD2  | 14       | 0.19          |
| (2,2250) | 1:107:A:PHE:HD2 | 1:30:A:LYS:HD3  | 14       | 0.19          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 10       | 0.19          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 10       | 0.19          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 3        | 0.19          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 3        | 0.19          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 5        | 0.19          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 5        | 0.19          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 6        | 0.19          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 6        | 0.19          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 2        | 0.19          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 3        | 0.19          |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD11 | 11       | 0.19          |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD12 | 11       | 0.19          |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD13 | 11       | 0.19          |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD21 | 11       | 0.19          |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD22 | 11       | 0.19          |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD23 | 11       | 0.19          |
| (2,2139) | 1:103:A:LYS:HE2 | 1:103:A:LYS:H   | 3        | 0.19          |
| (2,2139) | 1:103:A:LYS:HE3 | 1:103:A:LYS:H   | 3        | 0.19          |
| (2,2139) | 1:103:A:LYS:HE2 | 1:103:A:LYS:H   | 8        | 0.19          |
| (2,2139) | 1:103:A:LYS:HE3 | 1:103:A:LYS:H   | 8        | 0.19          |
| (2,2134) | 1:103:A:LYS:HD2 | 1:104:A:ARG:H   | 6        | 0.19          |
| (2,2134) | 1:103:A:LYS:HD3 | 1:104:A:ARG:H   | 6        | 0.19          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 9        | 0.19          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 9        | 0.19          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 9        | 0.19          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 15       | 0.19          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 7        | 0.19          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 13       | 0.19          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 6        | 0.19          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 6        | 0.19          |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,2058) | 1:98:A:PHE:HE1 | 1:97:A:LYS:H    | 15       | 0.19          |
| (2,2058) | 1:98:A:PHE:HE2 | 1:97:A:LYS:H    | 15       | 0.19          |
| (2,2034) | 1:98:A:PHE:HA  | 1:81:A:GLU:H    | 2        | 0.19          |
| (2,1910) | 1:95:A:VAL:HA  | 1:106:A:PHE:H   | 11       | 0.19          |
| (2,1848) | 1:93:A:VAL:HB  | 1:91:A:GLY:H    | 14       | 0.19          |
| (2,1820) | 1:88:A:CYS:HA  | 1:91:A:GLY:H    | 7        | 0.19          |
| (2,1801) | 1:85:A:VAL:HB  | 1:88:A:CYS:H    | 5        | 0.19          |
| (2,1801) | 1:85:A:VAL:HB  | 1:88:A:CYS:H    | 11       | 0.19          |
| (2,1801) | 1:85:A:VAL:HB  | 1:88:A:CYS:H    | 13       | 0.19          |
| (2,1779) | 1:84:A:ARG:HD2 | 1:84:A:ARG:H    | 12       | 0.19          |
| (2,1779) | 1:84:A:ARG:HD3 | 1:84:A:ARG:H    | 12       | 0.19          |
| (2,1761) | 1:83:A:LYS:HB2 | 1:97:A:LYS:H    | 1        | 0.19          |
| (2,1761) | 1:83:A:LYS:HB3 | 1:97:A:LYS:H    | 1        | 0.19          |
| (2,1761) | 1:83:A:LYS:HB2 | 1:97:A:LYS:H    | 3        | 0.19          |
| (2,1761) | 1:83:A:LYS:HB3 | 1:97:A:LYS:H    | 3        | 0.19          |
| (2,1761) | 1:83:A:LYS:HB2 | 1:97:A:LYS:H    | 8        | 0.19          |
| (2,1761) | 1:83:A:LYS:HB3 | 1:97:A:LYS:H    | 8        | 0.19          |
| (2,1761) | 1:83:A:LYS:HB2 | 1:97:A:LYS:H    | 14       | 0.19          |
| (2,1761) | 1:83:A:LYS:HB3 | 1:97:A:LYS:H    | 14       | 0.19          |
| (2,1758) | 1:83:A:LYS:HB2 | 1:95:A:VAL:H    | 15       | 0.19          |
| (2,1758) | 1:83:A:LYS:HB3 | 1:95:A:VAL:H    | 15       | 0.19          |
| (2,1738) | 1:82:A:PHE:HE1 | 1:83:A:LYS:H    | 9        | 0.19          |
| (2,1738) | 1:82:A:PHE:HE2 | 1:83:A:LYS:H    | 9        | 0.19          |
| (2,1727) | 1:82:A:PHE:HD1 | 1:121:A:CYS:H   | 8        | 0.19          |
| (2,1727) | 1:82:A:PHE:HD2 | 1:121:A:CYS:H   | 8        | 0.19          |
| (2,1727) | 1:82:A:PHE:HD1 | 1:121:A:CYS:H   | 10       | 0.19          |
| (2,1727) | 1:82:A:PHE:HD2 | 1:121:A:CYS:H   | 10       | 0.19          |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 10       | 0.19          |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 12       | 0.19          |
| (2,1676) | 1:81:A:GLU:HA  | 1:97:A:LYS:H    | 15       | 0.19          |
| (2,1601) | 1:77:A:PRO:HG2 | 1:78:A:ASP:H    | 8        | 0.19          |
| (2,1601) | 1:77:A:PRO:HG3 | 1:78:A:ASP:H    | 8        | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 6        | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 6        | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 6        | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 7        | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 7        | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 7        | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 11       | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD12 | 11       | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD13 | 11       | 0.19          |
| (2,1526) | 1:75:A:ILE:HB  | 1:75:A:ILE:HD11 | 15       | 0.19          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD12 | 15       | 0.19          |
| (2,1526) | 1:75:A:ILE:HB   | 1:75:A:ILE:HD13 | 15       | 0.19          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H    | 4        | 0.19          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H    | 4        | 0.19          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H    | 7        | 0.19          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H    | 7        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 6        | 0.19          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 6        | 0.19          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 5        | 0.19          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 5        | 0.19          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 5        | 0.19          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 11       | 0.19          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 11       | 0.19          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 11       | 0.19          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 12       | 0.19          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 12       | 0.19          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 12       | 0.19          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 3        | 0.19          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 3        | 0.19          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 3        | 0.19          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 7        | 0.19          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 7        | 0.19          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 7        | 0.19          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 13       | 0.19          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 13       | 0.19          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 13       | 0.19          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 14       | 0.19          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 14       | 0.19          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 14       | 0.19          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 15       | 0.19          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 15       | 0.19          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 15       | 0.19          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 5        | 0.19          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 5        | 0.19          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 5        | 0.19          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 8        | 0.19          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 8        | 0.19          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 8        | 0.19          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 9        | 0.19          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 9        | 0.19          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 9        | 0.19          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 15       | 0.19          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 15       | 0.19          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 15       | 0.19          |
| (2,1272) | 1:62:A:LYS:H    | 1:70:A:GLU:H    | 15       | 0.19          |
| (2,1244) | 1:61:A:TRP:HH2  | 1:43:A:ARG:H    | 1        | 0.19          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 4        | 0.19          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 4        | 0.19          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 5        | 0.19          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 9        | 0.19          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 12       | 0.19          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 14       | 0.19          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 8        | 0.19          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 14       | 0.19          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 14       | 0.19          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 14       | 0.19          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 3        | 0.19          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 7        | 0.19          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 14       | 0.19          |
| (2,1055) | 1:58:A:HIS:H    | 1:51:A:GLN:H    | 11       | 0.19          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H   | 9        | 0.19          |
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H   | 9        | 0.19          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H   | 9        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 1        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 1        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 1        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 3        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 3        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 3        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 4        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 4        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 4        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 5        | 0.19          |
| (2,982)  | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 5        | 0.19          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 5        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 6        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 6        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 6        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 8        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 8        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 8        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 9        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 9        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 9        | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 10       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 10       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 10       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 11       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 11       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 11       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 14       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 14       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 14       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD11 | 15       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD12 | 15       | 0.19          |
| (2,982) | 1:57:A:ILE:HB   | 1:57:A:ILE:HD13 | 15       | 0.19          |
| (2,971) | 1:56:A:LEU:HD11 | 1:56:A:LEU:H    | 4        | 0.19          |
| (2,971) | 1:56:A:LEU:HD12 | 1:56:A:LEU:H    | 4        | 0.19          |
| (2,971) | 1:56:A:LEU:HD13 | 1:56:A:LEU:H    | 4        | 0.19          |
| (2,971) | 1:56:A:LEU:HD21 | 1:56:A:LEU:H    | 4        | 0.19          |
| (2,971) | 1:56:A:LEU:HD22 | 1:56:A:LEU:H    | 4        | 0.19          |
| (2,971) | 1:56:A:LEU:HD23 | 1:56:A:LEU:H    | 4        | 0.19          |
| (2,956) | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 14       | 0.19          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 1        | 0.19          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 9        | 0.19          |
| (2,889) | 1:52:A:THR:HA   | 1:55:A:SER:H    | 14       | 0.19          |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB2  | 9        | 0.19          |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB3  | 9        | 0.19          |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB2  | 9        | 0.19          |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB3  | 9        | 0.19          |
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB2  | 9        | 0.19          |
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB3  | 9        | 0.19          |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB2  | 13       | 0.19          |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB3  | 13       | 0.19          |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB2  | 13       | 0.19          |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB3  | 13       | 0.19          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB2  | 13       | 0.19          |
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB3  | 13       | 0.19          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 3        | 0.19          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 3        | 0.19          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 3        | 0.19          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 3        | 0.19          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 3        | 0.19          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 3        | 0.19          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 14       | 0.19          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 14       | 0.19          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 14       | 0.19          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 14       | 0.19          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 14       | 0.19          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 14       | 0.19          |
| (2,837) | 1:50:A:GLN:HB2  | 1:58:A:HIS:H    | 3        | 0.19          |
| (2,837) | 1:50:A:GLN:HB3  | 1:58:A:HIS:H    | 3        | 0.19          |
| (2,819) | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 1        | 0.19          |
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 1        | 0.19          |
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 1        | 0.19          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 2        | 0.19          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 2        | 0.19          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 2        | 0.19          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 5        | 0.19          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 5        | 0.19          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 5        | 0.19          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 8        | 0.19          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 8        | 0.19          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 8        | 0.19          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H    | 12       | 0.19          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H    | 12       | 0.19          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H    | 12       | 0.19          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 7        | 0.19          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H    | 9        | 0.19          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 14       | 0.19          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 14       | 0.19          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 5        | 0.19          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 5        | 0.19          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 9        | 0.19          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 9        | 0.19          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 8        | 0.19          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 8        | 0.19          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 15       | 0.19          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 15       | 0.19          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 3        | 0.19          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 4        | 0.19          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 5        | 0.19          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 7        | 0.19          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 10       | 0.19          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2  | 9        | 0.19          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3  | 9        | 0.19          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 13       | 0.19          |
| (2,507) | 1:39:A:THR:HB   | 1:39:A:THR:H    | 13       | 0.19          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB2  | 5        | 0.19          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB3  | 5        | 0.19          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB2  | 5        | 0.19          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB3  | 5        | 0.19          |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 3        | 0.19          |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 10       | 0.19          |
| (2,320) | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1  | 11       | 0.19          |
| (2,318) | 1:30:A:LYS:HA   | 1:107:A:PHE:H   | 12       | 0.19          |
| (2,273) | 1:28:A:ALA:HB1  | 1:111:A:GLU:H   | 5        | 0.19          |
| (2,273) | 1:28:A:ALA:HB2  | 1:111:A:GLU:H   | 5        | 0.19          |
| (2,273) | 1:28:A:ALA:HB3  | 1:111:A:GLU:H   | 5        | 0.19          |
| (2,220) | 1:26:A:PHE:HE1  | 1:124:A:VAL:H   | 6        | 0.19          |
| (2,220) | 1:26:A:PHE:HE2  | 1:124:A:VAL:H   | 6        | 0.19          |
| (2,203) | 1:26:A:PHE:H    | 1:49:A:ILE:H    | 15       | 0.19          |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H    | 7        | 0.19          |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H    | 13       | 0.19          |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 3        | 0.19          |
| (2,130) | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 3        | 0.19          |
| (2,130) | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 3        | 0.19          |
| (2,130) | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 3        | 0.19          |
| (2,130) | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 3        | 0.19          |
| (2,130) | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 3        | 0.19          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,130)  | 1:24:A:VAL:HG11  | 1:26:A:PHE:H    | 7        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG12  | 1:26:A:PHE:H    | 7        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG13  | 1:26:A:PHE:H    | 7        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG21  | 1:26:A:PHE:H    | 7        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG22  | 1:26:A:PHE:H    | 7        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG23  | 1:26:A:PHE:H    | 7        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG11  | 1:26:A:PHE:H    | 8        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG12  | 1:26:A:PHE:H    | 8        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG13  | 1:26:A:PHE:H    | 8        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG21  | 1:26:A:PHE:H    | 8        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG22  | 1:26:A:PHE:H    | 8        | 0.19          |
| (2,130)  | 1:24:A:VAL:HG23  | 1:26:A:PHE:H    | 8        | 0.19          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 6        | 0.19          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 6        | 0.19          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H    | 3        | 0.19          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE1 | 6        | 0.18          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE2 | 6        | 0.18          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE1 | 6        | 0.18          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE2 | 6        | 0.18          |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 4        | 0.18          |
| (2,3189) | 2:941:B:GLU:HG2  | 1:44:A:LYS:HE2  | 11       | 0.18          |
| (2,3189) | 2:941:B:GLU:HG2  | 1:44:A:LYS:HE3  | 11       | 0.18          |
| (2,3189) | 2:941:B:GLU:HG3  | 1:44:A:LYS:HE2  | 11       | 0.18          |
| (2,3189) | 2:941:B:GLU:HG3  | 1:44:A:LYS:HE3  | 11       | 0.18          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H   | 10       | 0.18          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 3        | 0.18          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 3        | 0.18          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 9        | 0.18          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 9        | 0.18          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H   | 15       | 0.18          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H   | 15       | 0.18          |
| (2,2877) | 1:130:A:ASN:HA   | 1:129:A:ASN:H   | 4        | 0.18          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H   | 11       | 0.18          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H   | 14       | 0.18          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 1        | 0.18          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 1        | 0.18          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 3        | 0.18          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 3        | 0.18          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 6        | 0.18          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 6        | 0.18          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 11       | 0.18          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 11       | 0.18          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2800) | 1:128:A:LEU:HA  | 1:49:A:ILE:HG21 | 6        | 0.18          |
| (2,2800) | 1:128:A:LEU:HA  | 1:49:A:ILE:HG22 | 6        | 0.18          |
| (2,2800) | 1:128:A:LEU:HA  | 1:49:A:ILE:HG23 | 6        | 0.18          |
| (2,2784) | 1:127:A:TYR:HE1 | 1:127:A:TYR:H   | 13       | 0.18          |
| (2,2784) | 1:127:A:TYR:HE2 | 1:127:A:TYR:H   | 13       | 0.18          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG21 | 4        | 0.18          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG22 | 4        | 0.18          |
| (2,2768) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG23 | 4        | 0.18          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG21 | 4        | 0.18          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG22 | 4        | 0.18          |
| (2,2768) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG23 | 4        | 0.18          |
| (2,2762) | 1:127:A:TYR:HE1 | 1:131:A:PRO:HA  | 10       | 0.18          |
| (2,2762) | 1:127:A:TYR:HE2 | 1:131:A:PRO:HA  | 10       | 0.18          |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H   | 8        | 0.18          |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H   | 8        | 0.18          |
| (2,2666) | 1:124:A:VAL:HB  | 1:126:A:GLU:H   | 6        | 0.18          |
| (2,2553) | 1:120:A:HIS:HE1 | 1:111:A:GLU:HG2 | 15       | 0.18          |
| (2,2553) | 1:120:A:HIS:HE1 | 1:111:A:GLU:HG3 | 15       | 0.18          |
| (2,2543) | 1:120:A:HIS:HD2 | 1:24:A:VAL:HA   | 3        | 0.18          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H   | 13       | 0.18          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H   | 13       | 0.18          |
| (2,2458) | 1:114:A:THR:HB  | 1:116:A:GLN:H   | 3        | 0.18          |
| (2,2440) | 1:113:A:LYS:HD2 | 1:114:A:THR:H   | 15       | 0.18          |
| (2,2440) | 1:113:A:LYS:HD3 | 1:114:A:THR:H   | 15       | 0.18          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 1        | 0.18          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 6        | 0.18          |
| (2,2409) | 1:112:A:PRO:HG2 | 1:113:A:LYS:H   | 14       | 0.18          |
| (2,2409) | 1:112:A:PRO:HG3 | 1:113:A:LYS:H   | 14       | 0.18          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 14       | 0.18          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 14       | 0.18          |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 4        | 0.18          |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H    | 4        | 0.18          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 10       | 0.18          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 10       | 0.18          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 10       | 0.18          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 10       | 0.18          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 10       | 0.18          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 10       | 0.18          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 11       | 0.18          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 11       | 0.18          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 3        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 3        | 0.18          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 3        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 3        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 3        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 3        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 5        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 5        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 5        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 5        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 5        | 0.18          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 5        | 0.18          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 10       | 0.18          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 10       | 0.18          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 6        | 0.18          |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD2 | 1        | 0.18          |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD3 | 1        | 0.18          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 15       | 0.18          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 15       | 0.18          |
| (2,2139) | 1:103:A:LYS:HE2 | 1:103:A:LYS:H   | 9        | 0.18          |
| (2,2139) | 1:103:A:LYS:HE3 | 1:103:A:LYS:H   | 9        | 0.18          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 2        | 0.18          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 3        | 0.18          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 4        | 0.18          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 5        | 0.18          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 13       | 0.18          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 14       | 0.18          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 9        | 0.18          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 9        | 0.18          |
| (2,2005) | 1:98:A:PHE:HD1  | 1:103:A:LYS:HD2 | 6        | 0.18          |
| (2,2005) | 1:98:A:PHE:HD1  | 1:103:A:LYS:HD3 | 6        | 0.18          |
| (2,2005) | 1:98:A:PHE:HD2  | 1:103:A:LYS:HD2 | 6        | 0.18          |
| (2,2005) | 1:98:A:PHE:HD2  | 1:103:A:LYS:HD3 | 6        | 0.18          |
| (2,1991) | 1:97:A:LYS:HD2  | 1:98:A:PHE:H    | 15       | 0.18          |
| (2,1991) | 1:97:A:LYS:HD3  | 1:98:A:PHE:H    | 15       | 0.18          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD2 | 2        | 0.18          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD3 | 2        | 0.18          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD2 | 6        | 0.18          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD3 | 6        | 0.18          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 4        | 0.18          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 6        | 0.18          |
| (2,1910) | 1:95:A:VAL:HA   | 1:106:A:PHE:H   | 13       | 0.18          |
| (2,1841) | 1:93:A:VAL:HG11 | 1:95:A:VAL:H    | 7        | 0.18          |
| (2,1841) | 1:93:A:VAL:HG12 | 1:95:A:VAL:H    | 7        | 0.18          |

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| Key      | Atom-1          | Atom-2        | Model ID | Violation (Å) |
|----------|-----------------|---------------|----------|---------------|
| (2,1841) | 1:93:A:VAL:HG13 | 1:95:A:VAL:H  | 7        | 0.18          |
| (2,1841) | 1:93:A:VAL:HG21 | 1:95:A:VAL:H  | 7        | 0.18          |
| (2,1841) | 1:93:A:VAL:HG22 | 1:95:A:VAL:H  | 7        | 0.18          |
| (2,1841) | 1:93:A:VAL:HG23 | 1:95:A:VAL:H  | 7        | 0.18          |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H | 2        | 0.18          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H  | 4        | 0.18          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H  | 4        | 0.18          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H  | 3        | 0.18          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H  | 3        | 0.18          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H  | 8        | 0.18          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H  | 8        | 0.18          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H  | 6        | 0.18          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H  | 6        | 0.18          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H  | 7        | 0.18          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H  | 7        | 0.18          |
| (2,1686) | 1:81:A:GLU:HB2  | 1:82:A:PHE:H  | 11       | 0.18          |
| (2,1686) | 1:81:A:GLU:HB3  | 1:82:A:PHE:H  | 11       | 0.18          |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H  | 3        | 0.18          |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H  | 4        | 0.18          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H  | 1        | 0.18          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H  | 1        | 0.18          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H  | 6        | 0.18          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H  | 6        | 0.18          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H  | 9        | 0.18          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H  | 9        | 0.18          |
| (2,1483) | 1:73:A:LEU:HG   | 1:74:A:ILE:H  | 13       | 0.18          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H  | 2        | 0.18          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H  | 2        | 0.18          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H  | 3        | 0.18          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H  | 3        | 0.18          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H  | 14       | 0.18          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H  | 14       | 0.18          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H  | 2        | 0.18          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H  | 4        | 0.18          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H  | 9        | 0.18          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H  | 11       | 0.18          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H  | 15       | 0.18          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H  | 1        | 0.18          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H  | 1        | 0.18          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H  | 1        | 0.18          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H  | 4        | 0.18          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H  | 4        | 0.18          |

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| Key      | Atom-1          | Atom-2        | Model ID | Violation (Å) |
|----------|-----------------|---------------|----------|---------------|
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H  | 4        | 0.18          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H  | 5        | 0.18          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H  | 5        | 0.18          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H  | 5        | 0.18          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H  | 8        | 0.18          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H  | 8        | 0.18          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H  | 8        | 0.18          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H  | 9        | 0.18          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H  | 9        | 0.18          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H  | 9        | 0.18          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H  | 10       | 0.18          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H  | 10       | 0.18          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H  | 10       | 0.18          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H  | 12       | 0.18          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H  | 12       | 0.18          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H  | 12       | 0.18          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H  | 4        | 0.18          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H  | 4        | 0.18          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H  | 4        | 0.18          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H  | 11       | 0.18          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H  | 11       | 0.18          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H  | 11       | 0.18          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H  | 14       | 0.18          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H  | 14       | 0.18          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H  | 14       | 0.18          |
| (2,1343) | 1:65:A:THR:HA   | 1:67:A:GLY:H  | 15       | 0.18          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H  | 3        | 0.18          |
| (2,1274) | 1:62:A:LYS:HA   | 1:71:A:ASP:H  | 4        | 0.18          |
| (2,1272) | 1:62:A:LYS:H    | 1:70:A:GLU:H  | 6        | 0.18          |
| (2,1272) | 1:62:A:LYS:H    | 1:70:A:GLU:H  | 7        | 0.18          |
| (2,1272) | 1:62:A:LYS:H    | 1:70:A:GLU:H  | 14       | 0.18          |
| (2,1266) | 1:62:A:LYS:HE2  | 1:64:A:ARG:HA | 11       | 0.18          |
| (2,1266) | 1:62:A:LYS:HE3  | 1:64:A:ARG:HA | 11       | 0.18          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H  | 1        | 0.18          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H  | 10       | 0.18          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H  | 15       | 0.18          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H  | 15       | 0.18          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H  | 5        | 0.18          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H  | 14       | 0.18          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 9        | 0.18          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H  | 11       | 0.18          |
| (2,1016) | 1:57:A:ILE:HG21 | 1:130:A:ASN:H | 4        | 0.18          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,1016) | 1:57:A:ILE:HG22 | 1:130:A:ASN:H  | 4        | 0.18          |
| (2,1016) | 1:57:A:ILE:HG23 | 1:130:A:ASN:H  | 4        | 0.18          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H   | 6        | 0.18          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H   | 6        | 0.18          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H   | 6        | 0.18          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H   | 8        | 0.18          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H   | 8        | 0.18          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA  | 12       | 0.18          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA  | 12       | 0.18          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA  | 12       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H   | 3        | 0.18          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H   | 3        | 0.18          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H   | 3        | 0.18          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H   | 3        | 0.18          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H   | 3        | 0.18          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H   | 3        | 0.18          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H   | 10       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H   | 10       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H   | 10       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H   | 10       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H   | 10       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H   | 10       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H   | 12       | 0.18          |
| (2,927)  | 1:55:A:SER:HA   | 1:54:A:ASP:H   | 11       | 0.18          |
| (2,927)  | 1:55:A:SER:HA   | 1:54:A:ASP:H   | 13       | 0.18          |
| (2,927)  | 1:55:A:SER:HA   | 1:54:A:ASP:H   | 14       | 0.18          |
| (2,927)  | 1:55:A:SER:HA   | 1:54:A:ASP:H   | 15       | 0.18          |
| (2,879)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HB2 | 3        | 0.18          |
| (2,879)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HB3 | 3        | 0.18          |
| (2,879)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HB2 | 3        | 0.18          |
| (2,879)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HB3 | 3        | 0.18          |
| (2,879)  | 1:52:A:THR:HG23 | 1:50:A:GLN:HB2 | 3        | 0.18          |
| (2,879)  | 1:52:A:THR:HG23 | 1:50:A:GLN:HB3 | 3        | 0.18          |
| (2,815)  | 1:49:A:ILE:HG21 | 1:59:A:PHE:H   | 3        | 0.18          |
| (2,815)  | 1:49:A:ILE:HG22 | 1:59:A:PHE:H   | 3        | 0.18          |

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| Key     | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H   | 3        | 0.18          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H   | 7        | 0.18          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H   | 7        | 0.18          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H   | 7        | 0.18          |
| (2,815) | 1:49:A:ILE:HG21 | 1:59:A:PHE:H   | 15       | 0.18          |
| (2,815) | 1:49:A:ILE:HG22 | 1:59:A:PHE:H   | 15       | 0.18          |
| (2,815) | 1:49:A:ILE:HG23 | 1:59:A:PHE:H   | 15       | 0.18          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H   | 2        | 0.18          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H   | 4        | 0.18          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H   | 12       | 0.18          |
| (2,802) | 1:49:A:ILE:HB   | 1:25:A:GLU:H   | 15       | 0.18          |
| (2,756) | 1:48:A:TYR:HE1  | 1:50:A:GLN:H   | 10       | 0.18          |
| (2,756) | 1:48:A:TYR:HE2  | 1:50:A:GLN:H   | 10       | 0.18          |
| (2,756) | 1:48:A:TYR:HE1  | 1:50:A:GLN:H   | 13       | 0.18          |
| (2,756) | 1:48:A:TYR:HE2  | 1:50:A:GLN:H   | 13       | 0.18          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H   | 11       | 0.18          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H   | 11       | 0.18          |
| (2,730) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE2 | 11       | 0.18          |
| (2,730) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE3 | 11       | 0.18          |
| (2,730) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE2 | 11       | 0.18          |
| (2,730) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE3 | 11       | 0.18          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H   | 8        | 0.18          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H   | 3        | 0.18          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H   | 3        | 0.18          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H   | 6        | 0.18          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H   | 6        | 0.18          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H   | 7        | 0.18          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H   | 7        | 0.18          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H   | 11       | 0.18          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H   | 11       | 0.18          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H   | 11       | 0.18          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3 | 10       | 0.18          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2 | 10       | 0.18          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,635)  | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3   | 10       | 0.18          |
| (2,552)  | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1  | 6        | 0.18          |
| (2,552)  | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1  | 10       | 0.18          |
| (2,507)  | 1:39:A:THR:HB   | 1:39:A:THR:H     | 1        | 0.18          |
| (2,507)  | 1:39:A:THR:HB   | 1:39:A:THR:H     | 3        | 0.18          |
| (2,507)  | 1:39:A:THR:HB   | 1:39:A:THR:H     | 4        | 0.18          |
| (2,507)  | 1:39:A:THR:HB   | 1:39:A:THR:H     | 15       | 0.18          |
| (2,409)  | 1:34:A:LYS:HB2  | 1:32:A:SER:HB2   | 3        | 0.18          |
| (2,409)  | 1:34:A:LYS:HB2  | 1:32:A:SER:HB3   | 3        | 0.18          |
| (2,409)  | 1:34:A:LYS:HB3  | 1:32:A:SER:HB2   | 3        | 0.18          |
| (2,409)  | 1:34:A:LYS:HB3  | 1:32:A:SER:HB3   | 3        | 0.18          |
| (2,386)  | 1:33:A:LEU:HA   | 1:32:A:SER:H     | 4        | 0.18          |
| (2,386)  | 1:33:A:LEU:HA   | 1:32:A:SER:H     | 13       | 0.18          |
| (2,320)  | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1   | 3        | 0.18          |
| (2,320)  | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1   | 7        | 0.18          |
| (2,320)  | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1   | 14       | 0.18          |
| (2,221)  | 1:26:A:PHE:HE1  | 1:25:A:GLU:H     | 2        | 0.18          |
| (2,221)  | 1:26:A:PHE:HE2  | 1:25:A:GLU:H     | 2        | 0.18          |
| (2,221)  | 1:26:A:PHE:HE1  | 1:25:A:GLU:H     | 8        | 0.18          |
| (2,221)  | 1:26:A:PHE:HE2  | 1:25:A:GLU:H     | 8        | 0.18          |
| (2,221)  | 1:26:A:PHE:HE1  | 1:25:A:GLU:H     | 13       | 0.18          |
| (2,221)  | 1:26:A:PHE:HE2  | 1:25:A:GLU:H     | 13       | 0.18          |
| (2,221)  | 1:26:A:PHE:HE1  | 1:25:A:GLU:H     | 14       | 0.18          |
| (2,221)  | 1:26:A:PHE:HE2  | 1:25:A:GLU:H     | 14       | 0.18          |
| (2,220)  | 1:26:A:PHE:HE1  | 1:124:A:VAL:H    | 10       | 0.18          |
| (2,220)  | 1:26:A:PHE:HE2  | 1:124:A:VAL:H    | 10       | 0.18          |
| (2,220)  | 1:26:A:PHE:HE1  | 1:124:A:VAL:H    | 14       | 0.18          |
| (2,220)  | 1:26:A:PHE:HE2  | 1:124:A:VAL:H    | 14       | 0.18          |
| (2,203)  | 1:26:A:PHE:H    | 1:49:A:ILE:H     | 2        | 0.18          |
| (2,203)  | 1:26:A:PHE:H    | 1:49:A:ILE:H     | 12       | 0.18          |
| (2,162)  | 1:25:A:GLU:HA   | 1:47:A:VAL:H     | 15       | 0.18          |
| (2,92)   | 1:23:A:LEU:HD11 | 1:21:A:LYS:HA    | 3        | 0.18          |
| (2,92)   | 1:23:A:LEU:HD12 | 1:21:A:LYS:HA    | 3        | 0.18          |
| (2,92)   | 1:23:A:LEU:HD13 | 1:21:A:LYS:HA    | 3        | 0.18          |
| (2,92)   | 1:23:A:LEU:HD21 | 1:21:A:LYS:HA    | 3        | 0.18          |
| (2,92)   | 1:23:A:LEU:HD22 | 1:21:A:LYS:HA    | 3        | 0.18          |
| (2,92)   | 1:23:A:LEU:HD23 | 1:21:A:LYS:HA    | 3        | 0.18          |
| (2,59)   | 1:22:A:TYR:H    | 1:24:A:VAL:H     | 12       | 0.18          |
| (2,3251) | 2:948:B:PHE:HE1 | 1:88:A:CYS:H     | 9        | 0.17          |
| (2,3251) | 2:948:B:PHE:HE2 | 1:88:A:CYS:H     | 9        | 0.17          |
| (2,3102) | 1:36:A:THR:HB   | 2:951:B:ILE:HG21 | 5        | 0.17          |
| (2,3102) | 1:36:A:THR:HB   | 2:951:B:ILE:HG22 | 5        | 0.17          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,3102) | 1:36:A:THR:HB    | 2:951:B:ILE:HG23 | 5        | 0.17          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H    | 2        | 0.17          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H    | 2        | 0.17          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H    | 2        | 0.17          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H    | 2        | 0.17          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2  | 11       | 0.17          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3  | 11       | 0.17          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2  | 11       | 0.17          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3  | 11       | 0.17          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2  | 11       | 0.17          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3  | 11       | 0.17          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2  | 3        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3  | 3        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2  | 3        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3  | 3        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2  | 7        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3  | 7        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2  | 7        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3  | 7        | 0.17          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2  | 12       | 0.17          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3  | 12       | 0.17          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2  | 12       | 0.17          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3  | 12       | 0.17          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H    | 5        | 0.17          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H    | 5        | 0.17          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 2        | 0.17          |
| (2,2851) | 1:128:A:LEU:HG   | 1:130:A:ASN:H    | 15       | 0.17          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H    | 10       | 0.17          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H    | 10       | 0.17          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H    | 14       | 0.17          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H    | 14       | 0.17          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21  | 11       | 0.17          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22  | 11       | 0.17          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23  | 11       | 0.17          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA   | 3        | 0.17          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA   | 6        | 0.17          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA   | 7        | 0.17          |
| (2,2666) | 1:124:A:VAL:HB   | 1:126:A:GLU:H    | 12       | 0.17          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H    | 3        | 0.17          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H    | 3        | 0.17          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H    | 9        | 0.17          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H    | 9        | 0.17          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H   | 8        | 0.17          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 12       | 0.17          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 12       | 0.17          |
| (2,2461) | 1:114:A:THR:HA  | 1:92:A:ARG:HE   | 6        | 0.17          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 3        | 0.17          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 4        | 0.17          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H   | 8        | 0.17          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H   | 10       | 0.17          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H    | 8        | 0.17          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H    | 9        | 0.17          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 5        | 0.17          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 5        | 0.17          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 8        | 0.17          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 8        | 0.17          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 1        | 0.17          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 1        | 0.17          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 7        | 0.17          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 7        | 0.17          |
| (2,2183) | 1:105:A:LEU:HG  | 1:96:A:LEU:H    | 9        | 0.17          |
| (2,2159) | 1:104:A:ARG:HD2 | 1:104:A:ARG:H   | 10       | 0.17          |
| (2,2159) | 1:104:A:ARG:HD3 | 1:104:A:ARG:H   | 10       | 0.17          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD2 | 13       | 0.17          |
| (2,2119) | 1:103:A:LYS:HA  | 1:103:A:LYS:HD3 | 13       | 0.17          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 7        | 0.17          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 8        | 0.17          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 11       | 0.17          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 8        | 0.17          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 8        | 0.17          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 14       | 0.17          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 14       | 0.17          |
| (2,2049) | 1:98:A:PHE:HD1  | 1:104:A:ARG:H   | 11       | 0.17          |
| (2,2049) | 1:98:A:PHE:HD2  | 1:104:A:ARG:H   | 11       | 0.17          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 12       | 0.17          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 1        | 0.17          |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H   | 5        | 0.17          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 7        | 0.17          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 7        | 0.17          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 7        | 0.17          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 12       | 0.17          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 12       | 0.17          |
| (2,1741) | 1:82:A:PHE:HE1  | 1:97:A:LYS:H    | 12       | 0.17          |
| (2,1741) | 1:82:A:PHE:HE2  | 1:97:A:LYS:H    | 12       | 0.17          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,1705) | 1:82:A:PHE:HE1  | 1:59:A:PHE:HE1 | 12       | 0.17          |
| (2,1705) | 1:82:A:PHE:HE1  | 1:59:A:PHE:HE2 | 12       | 0.17          |
| (2,1705) | 1:82:A:PHE:HE2  | 1:59:A:PHE:HE1 | 12       | 0.17          |
| (2,1705) | 1:82:A:PHE:HE2  | 1:59:A:PHE:HE2 | 12       | 0.17          |
| (2,1680) | 1:81:A:GLU:HG2  | 1:81:A:GLU:H   | 3        | 0.17          |
| (2,1680) | 1:81:A:GLU:HG3  | 1:81:A:GLU:H   | 3        | 0.17          |
| (2,1680) | 1:81:A:GLU:HG2  | 1:81:A:GLU:H   | 6        | 0.17          |
| (2,1680) | 1:81:A:GLU:HG3  | 1:81:A:GLU:H   | 6        | 0.17          |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H   | 6        | 0.17          |
| (2,1676) | 1:81:A:GLU:HA   | 1:97:A:LYS:H   | 14       | 0.17          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE2 | 7        | 0.17          |
| (2,1669) | 1:81:A:GLU:HG2  | 1:99:A:LYS:HE3 | 7        | 0.17          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE2 | 7        | 0.17          |
| (2,1669) | 1:81:A:GLU:HG3  | 1:99:A:LYS:HE3 | 7        | 0.17          |
| (2,1648) | 1:80:A:CYS:HA   | 1:97:A:LYS:H   | 1        | 0.17          |
| (2,1648) | 1:80:A:CYS:HA   | 1:97:A:LYS:H   | 4        | 0.17          |
| (2,1648) | 1:80:A:CYS:HA   | 1:97:A:LYS:H   | 8        | 0.17          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H   | 3        | 0.17          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H   | 3        | 0.17          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H   | 15       | 0.17          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H   | 15       | 0.17          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H   | 9        | 0.17          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H   | 9        | 0.17          |
| (2,1472) | 1:73:A:LEU:HA   | 1:59:A:PHE:H   | 8        | 0.17          |
| (2,1472) | 1:73:A:LEU:HA   | 1:59:A:PHE:H   | 10       | 0.17          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H   | 7        | 0.17          |
| (2,1401) | 1:69:A:VAL:HA   | 1:71:A:ASP:H   | 12       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD2 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD3 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD2 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD3 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD2 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD3 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD2 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD3 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD2 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD3 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD2 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD3 | 8        | 0.17          |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD2 | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD3 | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD2 | 11       | 0.17          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD3  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD2  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD3  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD2  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD3  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD2  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD3  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD2  | 11       | 0.17          |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD3  | 11       | 0.17          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 7        | 0.17          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 7        | 0.17          |
| (2,1355) | 1:65:A:THR:HB   | 1:64:A:ARG:H    | 8        | 0.17          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 2        | 0.17          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 2        | 0.17          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 2        | 0.17          |
| (2,1349) | 1:65:A:THR:HG21 | 1:65:A:THR:H    | 11       | 0.17          |
| (2,1349) | 1:65:A:THR:HG22 | 1:65:A:THR:H    | 11       | 0.17          |
| (2,1349) | 1:65:A:THR:HG23 | 1:65:A:THR:H    | 11       | 0.17          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 1        | 0.17          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 1        | 0.17          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 1        | 0.17          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 2        | 0.17          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 2        | 0.17          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 2        | 0.17          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 10       | 0.17          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 10       | 0.17          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 10       | 0.17          |
| (2,1347) | 1:65:A:THR:HG21 | 1:67:A:GLY:H    | 13       | 0.17          |
| (2,1347) | 1:65:A:THR:HG22 | 1:67:A:GLY:H    | 13       | 0.17          |
| (2,1347) | 1:65:A:THR:HG23 | 1:67:A:GLY:H    | 13       | 0.17          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 1        | 0.17          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 1        | 0.17          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 9        | 0.17          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 9        | 0.17          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 10       | 0.17          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 10       | 0.17          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA2  | 3        | 0.17          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA3  | 3        | 0.17          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA2  | 3        | 0.17          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA3  | 3        | 0.17          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA2  | 5        | 0.17          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA3  | 5        | 0.17          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA2  | 5        | 0.17          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA3  | 5        | 0.17          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 11       | 0.17          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 1        | 0.17          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 11       | 0.17          |
| (2,1070) | 1:58:A:HIS:HD2  | 1:54:A:ASP:H    | 14       | 0.17          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 9        | 0.17          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H    | 5        | 0.17          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H    | 5        | 0.17          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H    | 5        | 0.17          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 1        | 0.17          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 1        | 0.17          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 7        | 0.17          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 7        | 0.17          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 10       | 0.17          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 10       | 0.17          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 15       | 0.17          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 15       | 0.17          |
| (2,988)  | 1:57:A:ILE:HD11 | 1:49:A:ILE:HA   | 2        | 0.17          |
| (2,988)  | 1:57:A:ILE:HD12 | 1:49:A:ILE:HA   | 2        | 0.17          |
| (2,988)  | 1:57:A:ILE:HD13 | 1:49:A:ILE:HA   | 2        | 0.17          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H    | 2        | 0.17          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,971) | 1:56:A:LEU:HD12 | 1:56:A:LEU:H    | 2        | 0.17          |
| (2,971) | 1:56:A:LEU:HD13 | 1:56:A:LEU:H    | 2        | 0.17          |
| (2,971) | 1:56:A:LEU:HD21 | 1:56:A:LEU:H    | 2        | 0.17          |
| (2,971) | 1:56:A:LEU:HD22 | 1:56:A:LEU:H    | 2        | 0.17          |
| (2,971) | 1:56:A:LEU:HD23 | 1:56:A:LEU:H    | 2        | 0.17          |
| (2,971) | 1:56:A:LEU:HD11 | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,971) | 1:56:A:LEU:HD12 | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,971) | 1:56:A:LEU:HD13 | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,971) | 1:56:A:LEU:HD21 | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,971) | 1:56:A:LEU:HD22 | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,971) | 1:56:A:LEU:HD23 | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,956) | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 1        | 0.17          |
| (2,956) | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 3        | 0.17          |
| (2,956) | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 4        | 0.17          |
| (2,931) | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 5        | 0.17          |
| (2,931) | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 5        | 0.17          |
| (2,931) | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,931) | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 14       | 0.17          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 5        | 0.17          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 6        | 0.17          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 7        | 0.17          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 8        | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 2        | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 2        | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 2        | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 2        | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 2        | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 2        | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 7        | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 7        | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 7        | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 7        | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 7        | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 7        | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 15       | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 15       | 0.17          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 15       | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 15       | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 15       | 0.17          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 15       | 0.17          |
| (2,819) | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 14       | 0.17          |
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 14       | 0.17          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 14       | 0.17          |
| (2,756) | 1:48:A:TYR:HE1  | 1:50:A:GLN:H    | 1        | 0.17          |
| (2,756) | 1:48:A:TYR:HE2  | 1:50:A:GLN:H    | 1        | 0.17          |
| (2,754) | 1:48:A:TYR:HE1  | 1:46:A:LEU:H    | 2        | 0.17          |
| (2,754) | 1:48:A:TYR:HE2  | 1:46:A:LEU:H    | 2        | 0.17          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 13       | 0.17          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 13       | 0.17          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2  | 4        | 0.17          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3  | 4        | 0.17          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2  | 4        | 0.17          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3  | 4        | 0.17          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2  | 5        | 0.17          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3  | 5        | 0.17          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2  | 5        | 0.17          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3  | 5        | 0.17          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 1        | 0.17          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 1        | 0.17          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 1        | 0.17          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 1        | 0.17          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 1        | 0.17          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 1        | 0.17          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 6        | 0.17          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 6        | 0.17          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 6        | 0.17          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 6        | 0.17          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 6        | 0.17          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 6        | 0.17          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 14       | 0.17          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 14       | 0.17          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 14       | 0.17          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 14       | 0.17          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 14       | 0.17          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 14       | 0.17          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 10       | 0.17          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 10       | 0.17          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 12       | 0.17          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 12       | 0.17          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 1        | 0.17          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 7        | 0.17          |
| (2,507) | 1:39:A:THR:HB   | 1:39:A:THR:H    | 7        | 0.17          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB2  | 1        | 0.17          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB3  | 1        | 0.17          |

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| Key     | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|---------|----------------|------------------|----------|---------------|
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2   | 1        | 0.17          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3   | 1        | 0.17          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB2   | 8        | 0.17          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB3   | 8        | 0.17          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2   | 8        | 0.17          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3   | 8        | 0.17          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB2   | 12       | 0.17          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB3   | 12       | 0.17          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2   | 12       | 0.17          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3   | 12       | 0.17          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB2   | 13       | 0.17          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB3   | 13       | 0.17          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2   | 13       | 0.17          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3   | 13       | 0.17          |
| (2,386) | 1:33:A:LEU:HA  | 1:32:A:SER:H     | 7        | 0.17          |
| (2,386) | 1:33:A:LEU:HA  | 1:32:A:SER:H     | 8        | 0.17          |
| (2,386) | 1:33:A:LEU:HA  | 1:32:A:SER:H     | 15       | 0.17          |
| (2,319) | 1:30:A:LYS:HA  | 1:108:A:TRP:HE1  | 6        | 0.17          |
| (2,273) | 1:28:A:ALA:HB1 | 1:111:A:GLU:H    | 4        | 0.17          |
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H    | 4        | 0.17          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H    | 4        | 0.17          |
| (2,273) | 1:28:A:ALA:HB1 | 1:111:A:GLU:H    | 9        | 0.17          |
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H    | 9        | 0.17          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H    | 9        | 0.17          |
| (2,273) | 1:28:A:ALA:HB1 | 1:111:A:GLU:H    | 11       | 0.17          |
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H    | 11       | 0.17          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H    | 11       | 0.17          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H     | 3        | 0.17          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H     | 3        | 0.17          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H     | 5        | 0.17          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H     | 5        | 0.17          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H     | 6        | 0.17          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H     | 6        | 0.17          |
| (2,220) | 1:26:A:PHE:HE1 | 1:124:A:VAL:H    | 3        | 0.17          |
| (2,220) | 1:26:A:PHE:HE2 | 1:124:A:VAL:H    | 3        | 0.17          |
| (2,203) | 1:26:A:PHE:H   | 1:49:A:ILE:H     | 5        | 0.17          |
| (2,203) | 1:26:A:PHE:H   | 1:49:A:ILE:H     | 8        | 0.17          |
| (2,203) | 1:26:A:PHE:H   | 1:49:A:ILE:H     | 11       | 0.17          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG11 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG12 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG13 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG21 | 1        | 0.17          |

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| Key     | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG22 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD1  | 1:124:A:VAL:HG23 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG11 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG12 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG13 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG21 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG22 | 1        | 0.17          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG23 | 1        | 0.17          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG21  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG22  | 13       | 0.17          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG23  | 13       | 0.17          |
| (2,167) | 1:25:A:GLU:HG2  | 1:22:A:TYR:H     | 1        | 0.17          |
| (2,167) | 1:25:A:GLU:HG3  | 1:22:A:TYR:H     | 1        | 0.17          |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H     | 2        | 0.17          |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H     | 5        | 0.17          |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H     | 6        | 0.17          |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H     | 1        | 0.17          |
| (2,130) | 1:24:A:VAL:HG12 | 1:26:A:PHE:H     | 1        | 0.17          |
| (2,130) | 1:24:A:VAL:HG13 | 1:26:A:PHE:H     | 1        | 0.17          |
| (2,130) | 1:24:A:VAL:HG21 | 1:26:A:PHE:H     | 1        | 0.17          |
| (2,130) | 1:24:A:VAL:HG22 | 1:26:A:PHE:H     | 1        | 0.17          |
| (2,130) | 1:24:A:VAL:HG23 | 1:26:A:PHE:H     | 1        | 0.17          |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H     | 12       | 0.17          |
| (2,130) | 1:24:A:VAL:HG12 | 1:26:A:PHE:H     | 12       | 0.17          |
| (2,130) | 1:24:A:VAL:HG13 | 1:26:A:PHE:H     | 12       | 0.17          |
| (2,130) | 1:24:A:VAL:HG21 | 1:26:A:PHE:H     | 12       | 0.17          |
| (2,130) | 1:24:A:VAL:HG22 | 1:26:A:PHE:H     | 12       | 0.17          |
| (2,130) | 1:24:A:VAL:HG23 | 1:26:A:PHE:H     | 12       | 0.17          |
| (2,102) | 1:23:A:LEU:HA   | 1:51:A:GLN:H     | 14       | 0.17          |
| (2,71)  | 1:22:A:TYR:HD1  | 1:49:A:ILE:H     | 10       | 0.17          |
| (2,71)  | 1:22:A:TYR:HD2  | 1:49:A:ILE:H     | 10       | 0.17          |
| (2,71)  | 1:22:A:TYR:HD1  | 1:49:A:ILE:H     | 14       | 0.17          |
| (2,71)  | 1:22:A:TYR:HD2  | 1:49:A:ILE:H     | 14       | 0.17          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H    | 14       | 0.17          |
| (2,24)   | 1:21:A:LYS:HG2   | 1:21:A:LYS:H    | 1        | 0.17          |
| (2,24)   | 1:21:A:LYS:HG3   | 1:21:A:LYS:H    | 1        | 0.17          |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 2        | 0.16          |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 3        | 0.16          |
| (2,3179) | 2:940:B:GLN:HA   | 1:112:A:PRO:HB2 | 7        | 0.16          |
| (2,3179) | 2:940:B:GLN:HA   | 1:112:A:PRO:HB3 | 7        | 0.16          |
| (2,3144) | 1:39:A:THR:HG21  | 2:948:B:PHE:H   | 5        | 0.16          |
| (2,3144) | 1:39:A:THR:HG22  | 2:948:B:PHE:H   | 5        | 0.16          |
| (2,3144) | 1:39:A:THR:HG23  | 2:948:B:PHE:H   | 5        | 0.16          |
| (2,3137) | 1:38:A:VAL:HG11  | 2:949:B:GLU:H   | 5        | 0.16          |
| (2,3137) | 1:38:A:VAL:HG12  | 2:949:B:GLU:H   | 5        | 0.16          |
| (2,3137) | 1:38:A:VAL:HG13  | 2:949:B:GLU:H   | 5        | 0.16          |
| (2,3137) | 1:38:A:VAL:HG21  | 2:949:B:GLU:H   | 5        | 0.16          |
| (2,3137) | 1:38:A:VAL:HG22  | 2:949:B:GLU:H   | 5        | 0.16          |
| (2,3137) | 1:38:A:VAL:HG23  | 2:949:B:GLU:H   | 5        | 0.16          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H   | 3        | 0.16          |
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H   | 5        | 0.16          |
| (2,3075) | 2:951:B:ILE:HG12 | 2:952:B:ASP:H   | 9        | 0.16          |
| (2,3075) | 2:951:B:ILE:HG13 | 2:952:B:ASP:H   | 9        | 0.16          |
| (2,3074) | 2:951:B:ILE:HG12 | 2:953:B:ASP:H   | 10       | 0.16          |
| (2,3074) | 2:951:B:ILE:HG13 | 2:953:B:ASP:H   | 10       | 0.16          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 7        | 0.16          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 7        | 0.16          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 7        | 0.16          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 10       | 0.16          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 10       | 0.16          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 10       | 0.16          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 2        | 0.16          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 2        | 0.16          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 2        | 0.16          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 2        | 0.16          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB2 | 10       | 0.16          |
| (2,3024) | 2:950:B:TYR:HD1  | 2:953:B:ASP:HB3 | 10       | 0.16          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB2 | 10       | 0.16          |
| (2,3024) | 2:950:B:TYR:HD2  | 2:953:B:ASP:HB3 | 10       | 0.16          |
| (2,3000) | 2:948:B:PHE:HD1  | 2:951:B:ILE:H   | 9        | 0.16          |
| (2,3000) | 2:948:B:PHE:HD2  | 2:951:B:ILE:H   | 9        | 0.16          |
| (2,2877) | 1:130:A:ASN:HA   | 1:129:A:ASN:H   | 15       | 0.16          |
| (2,2859) | 1:129:A:ASN:HD21 | 1:130:A:ASN:H   | 2        | 0.16          |
| (2,2859) | 1:129:A:ASN:HD22 | 1:130:A:ASN:H   | 2        | 0.16          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 12       | 0.16          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 12       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA   | 11       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA   | 11       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA   | 11       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA   | 11       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA   | 11       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA   | 11       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA   | 12       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA   | 12       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA   | 12       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA   | 12       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA   | 12       | 0.16          |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA   | 12       | 0.16          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21 | 12       | 0.16          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22 | 12       | 0.16          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23 | 12       | 0.16          |
| (2,2786) | 1:127:A:TYR:HE1  | 1:123:A:LYS:H   | 8        | 0.16          |
| (2,2786) | 1:127:A:TYR:HE2  | 1:123:A:LYS:H   | 8        | 0.16          |
| (2,2786) | 1:127:A:TYR:HE1  | 1:123:A:LYS:H   | 10       | 0.16          |
| (2,2786) | 1:127:A:TYR:HE2  | 1:123:A:LYS:H   | 10       | 0.16          |
| (2,2782) | 1:127:A:TYR:HB2  | 1:126:A:GLU:H   | 9        | 0.16          |
| (2,2782) | 1:127:A:TYR:HB3  | 1:126:A:GLU:H   | 9        | 0.16          |
| (2,2724) | 1:126:A:GLU:HG2  | 1:126:A:GLU:H   | 7        | 0.16          |
| (2,2724) | 1:126:A:GLU:HG3  | 1:126:A:GLU:H   | 7        | 0.16          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 1        | 0.16          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 4        | 0.16          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 5        | 0.16          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 8        | 0.16          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 11       | 0.16          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 12       | 0.16          |
| (2,2698) | 1:126:A:GLU:HA   | 1:125:A:ASN:HA  | 14       | 0.16          |
| (2,2695) | 1:125:A:ASN:HB2  | 1:126:A:GLU:H   | 2        | 0.16          |
| (2,2695) | 1:125:A:ASN:HB3  | 1:126:A:GLU:H   | 2        | 0.16          |
| (2,2695) | 1:125:A:ASN:HB2  | 1:126:A:GLU:H   | 9        | 0.16          |
| (2,2695) | 1:125:A:ASN:HB3  | 1:126:A:GLU:H   | 9        | 0.16          |
| (2,2690) | 1:125:A:ASN:HA   | 1:130:A:ASN:H   | 13       | 0.16          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H   | 5        | 0.16          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H   | 5        | 0.16          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H   | 14       | 0.16          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H   | 14       | 0.16          |
| (2,2623) | 1:123:A:LYS:H    | 1:126:A:GLU:H   | 11       | 0.16          |
| (2,2615) | 1:123:A:LYS:HB2  | 1:122:A:ARG:HG2 | 6        | 0.16          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2615) | 1:123:A:LYS:HB2 | 1:122:A:ARG:HG3 | 6        | 0.16          |
| (2,2615) | 1:123:A:LYS:HB3 | 1:122:A:ARG:HG2 | 6        | 0.16          |
| (2,2615) | 1:123:A:LYS:HB3 | 1:122:A:ARG:HG3 | 6        | 0.16          |
| (2,2608) | 1:122:A:ARG:HD2 | 1:122:A:ARG:H   | 3        | 0.16          |
| (2,2608) | 1:122:A:ARG:HD3 | 1:122:A:ARG:H   | 3        | 0.16          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H   | 1        | 0.16          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H   | 6        | 0.16          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE1 | 5        | 0.16          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE2 | 5        | 0.16          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE3 | 5        | 0.16          |
| (2,2543) | 1:120:A:HIS:HD2 | 1:24:A:VAL:HA   | 4        | 0.16          |
| (2,2539) | 1:119:A:GLU:HB2 | 1:122:A:ARG:H   | 15       | 0.16          |
| (2,2539) | 1:119:A:GLU:HB3 | 1:122:A:ARG:H   | 15       | 0.16          |
| (2,2525) | 1:118:A:GLU:HG2 | 1:120:A:HIS:H   | 3        | 0.16          |
| (2,2525) | 1:118:A:GLU:HG3 | 1:120:A:HIS:H   | 3        | 0.16          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H   | 10       | 0.16          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H   | 10       | 0.16          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 5        | 0.16          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 9        | 0.16          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 13       | 0.16          |
| (2,2428) | 1:113:A:LYS:H   | 1:111:A:GLU:H   | 6        | 0.16          |
| (2,2377) | 1:110:A:GLN:HA  | 2:942:B:PRO:HA  | 2        | 0.16          |
| (2,2377) | 1:110:A:GLN:HA  | 2:942:B:PRO:HA  | 6        | 0.16          |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 6        | 0.16          |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H    | 6        | 0.16          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 10       | 0.16          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 10       | 0.16          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 2        | 0.16          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 2        | 0.16          |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 2        | 0.16          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 2        | 0.16          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 2        | 0.16          |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 2        | 0.16          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 7        | 0.16          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 7        | 0.16          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 8        | 0.16          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 8        | 0.16          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 11       | 0.16          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 11       | 0.16          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 14       | 0.16          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 14       | 0.16          |
| (2,2159) | 1:104:A:ARG:HD2 | 1:104:A:ARG:H   | 14       | 0.16          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2159) | 1:104:A:ARG:HD3 | 1:104:A:ARG:H   | 14       | 0.16          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 11       | 0.16          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 12       | 0.16          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 13       | 0.16          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 13       | 0.16          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 13       | 0.16          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 13       | 0.16          |
| (2,2049) | 1:98:A:PHE:HD1  | 1:104:A:ARG:H   | 12       | 0.16          |
| (2,2049) | 1:98:A:PHE:HD2  | 1:104:A:ARG:H   | 12       | 0.16          |
| (2,2035) | 1:98:A:PHE:HA   | 1:100:A:ALA:H   | 11       | 0.16          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 6        | 0.16          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 11       | 0.16          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD2 | 11       | 0.16          |
| (2,1962) | 1:97:A:LYS:HA   | 1:104:A:ARG:HD3 | 11       | 0.16          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 7        | 0.16          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 9        | 0.16          |
| (2,1870) | 1:94:A:TYR:H    | 1:109:A:MET:H   | 14       | 0.16          |
| (2,1843) | 1:93:A:VAL:HG11 | 1:109:A:MET:H   | 3        | 0.16          |
| (2,1843) | 1:93:A:VAL:HG12 | 1:109:A:MET:H   | 3        | 0.16          |
| (2,1843) | 1:93:A:VAL:HG13 | 1:109:A:MET:H   | 3        | 0.16          |
| (2,1843) | 1:93:A:VAL:HG21 | 1:109:A:MET:H   | 3        | 0.16          |
| (2,1843) | 1:93:A:VAL:HG22 | 1:109:A:MET:H   | 3        | 0.16          |
| (2,1843) | 1:93:A:VAL:HG23 | 1:109:A:MET:H   | 3        | 0.16          |
| (2,1841) | 1:93:A:VAL:HG11 | 1:95:A:VAL:H    | 1        | 0.16          |
| (2,1841) | 1:93:A:VAL:HG12 | 1:95:A:VAL:H    | 1        | 0.16          |
| (2,1841) | 1:93:A:VAL:HG13 | 1:95:A:VAL:H    | 1        | 0.16          |
| (2,1841) | 1:93:A:VAL:HG21 | 1:95:A:VAL:H    | 1        | 0.16          |
| (2,1841) | 1:93:A:VAL:HG22 | 1:95:A:VAL:H    | 1        | 0.16          |
| (2,1841) | 1:93:A:VAL:HG23 | 1:95:A:VAL:H    | 1        | 0.16          |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H   | 15       | 0.16          |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 4        | 0.16          |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 14       | 0.16          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 4        | 0.16          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 2        | 0.16          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 2        | 0.16          |
| (2,1758) | 1:83:A:LYS:HB2  | 1:95:A:VAL:H    | 11       | 0.16          |
| (2,1758) | 1:83:A:LYS:HB3  | 1:95:A:VAL:H    | 11       | 0.16          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H    | 1        | 0.16          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H    | 1        | 0.16          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H    | 3        | 0.16          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H    | 3        | 0.16          |
| (2,1727) | 1:82:A:PHE:HD1  | 1:121:A:CYS:H   | 11       | 0.16          |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (2,1727) | 1:82:A:PHE:HD2 | 1:121:A:CYS:H    | 11       | 0.16          |
| (2,1727) | 1:82:A:PHE:HD1 | 1:121:A:CYS:H    | 14       | 0.16          |
| (2,1727) | 1:82:A:PHE:HD2 | 1:121:A:CYS:H    | 14       | 0.16          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD21 | 11       | 0.16          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD22 | 11       | 0.16          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1   | 1        | 0.16          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2   | 1        | 0.16          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1   | 1        | 0.16          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2   | 1        | 0.16          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1   | 3        | 0.16          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2   | 3        | 0.16          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1   | 3        | 0.16          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2   | 3        | 0.16          |
| (2,1686) | 1:81:A:GLU:HB2 | 1:82:A:PHE:H     | 12       | 0.16          |
| (2,1686) | 1:81:A:GLU:HB3 | 1:82:A:PHE:H     | 12       | 0.16          |
| (2,1680) | 1:81:A:GLU:HG2 | 1:81:A:GLU:H     | 4        | 0.16          |
| (2,1680) | 1:81:A:GLU:HG3 | 1:81:A:GLU:H     | 4        | 0.16          |
| (2,1648) | 1:80:A:CYS:HA  | 1:97:A:LYS:H     | 5        | 0.16          |
| (2,1648) | 1:80:A:CYS:HA  | 1:97:A:LYS:H     | 10       | 0.16          |
| (2,1648) | 1:80:A:CYS:HA  | 1:97:A:LYS:H     | 14       | 0.16          |
| (2,1601) | 1:77:A:PRO:HG2 | 1:78:A:ASP:H     | 11       | 0.16          |
| (2,1601) | 1:77:A:PRO:HG3 | 1:78:A:ASP:H     | 11       | 0.16          |
| (2,1601) | 1:77:A:PRO:HG2 | 1:78:A:ASP:H     | 12       | 0.16          |
| (2,1601) | 1:77:A:PRO:HG3 | 1:78:A:ASP:H     | 12       | 0.16          |
| (2,1601) | 1:77:A:PRO:HG2 | 1:78:A:ASP:H     | 14       | 0.16          |
| (2,1601) | 1:77:A:PRO:HG3 | 1:78:A:ASP:H     | 14       | 0.16          |
| (2,1541) | 1:75:A:ILE:HA  | 1:59:A:PHE:H     | 10       | 0.16          |
| (2,1477) | 1:73:A:LEU:HB2 | 1:59:A:PHE:H     | 5        | 0.16          |
| (2,1477) | 1:73:A:LEU:HB3 | 1:59:A:PHE:H     | 5        | 0.16          |
| (2,1477) | 1:73:A:LEU:HB2 | 1:59:A:PHE:H     | 10       | 0.16          |
| (2,1477) | 1:73:A:LEU:HB3 | 1:59:A:PHE:H     | 10       | 0.16          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H     | 1        | 0.16          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H     | 6        | 0.16          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H     | 9        | 0.16          |
| (2,1453) | 1:72:A:ASP:HA  | 1:59:A:PHE:H     | 6        | 0.16          |
| (2,1453) | 1:72:A:ASP:HA  | 1:59:A:PHE:H     | 10       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG11  | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG12  | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG13  | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG21  | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG22  | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG23  | 12       | 0.16          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 12       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 14       | 0.16          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 14       | 0.16          |
| (2,1355) | 1:65:A:THR:HB   | 1:64:A:ARG:H    | 2        | 0.16          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 3        | 0.16          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 3        | 0.16          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 3        | 0.16          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 6        | 0.16          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 6        | 0.16          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 6        | 0.16          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 7        | 0.16          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 7        | 0.16          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 7        | 0.16          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 9        | 0.16          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 9        | 0.16          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 9        | 0.16          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 13       | 0.16          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 13       | 0.16          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 13       | 0.16          |
| (2,1297) | 1:63:A:ASP:H    | 1:67:A:GLY:H    | 7        | 0.16          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA2  | 4        | 0.16          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA3  | 4        | 0.16          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA2  | 4        | 0.16          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA3  | 4        | 0.16          |
| (2,1234) | 1:61:A:TRP:HE3  | 1:62:A:LYS:H    | 2        | 0.16          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 5        | 0.16          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 1        | 0.16          |

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| Key      | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|----------|-----------------|----------------|----------|---------------|
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H   | 15       | 0.16          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD1 | 9        | 0.16          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2 | 9        | 0.16          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1 | 9        | 0.16          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2 | 9        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H   | 1        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H   | 1        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H   | 1        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H   | 4        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H   | 4        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H   | 4        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H   | 7        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H   | 7        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H   | 7        | 0.16          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H   | 10       | 0.16          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H   | 10       | 0.16          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H   | 10       | 0.16          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H   | 2        | 0.16          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H   | 2        | 0.16          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H   | 5        | 0.16          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H   | 5        | 0.16          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H   | 6        | 0.16          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H   | 6        | 0.16          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H   | 11       | 0.16          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H   | 11       | 0.16          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H   | 7        | 0.16          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H   | 7        | 0.16          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H   | 7        | 0.16          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H   | 7        | 0.16          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H   | 7        | 0.16          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H   | 7        | 0.16          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H   | 5        | 0.16          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H   | 2        | 0.16          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H   | 2        | 0.16          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H   | 8        | 0.16          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H   | 8        | 0.16          |
| (2,927)  | 1:55:A:SER:HA   | 1:54:A:ASP:H   | 3        | 0.16          |
| (2,879)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HB2 | 6        | 0.16          |
| (2,879)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HB3 | 6        | 0.16          |
| (2,879)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HB2 | 6        | 0.16          |
| (2,879)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HB3 | 6        | 0.16          |
| (2,879)  | 1:52:A:THR:HG23 | 1:50:A:GLN:HB2 | 6        | 0.16          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB3  | 6        | 0.16          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 10       | 0.16          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 10       | 0.16          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 10       | 0.16          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 10       | 0.16          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 10       | 0.16          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 10       | 0.16          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 1        | 0.16          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 1        | 0.16          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 1        | 0.16          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 3        | 0.16          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 3        | 0.16          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 3        | 0.16          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 11       | 0.16          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 11       | 0.16          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 11       | 0.16          |
| (2,756) | 1:48:A:TYR:HE1  | 1:50:A:GLN:H    | 9        | 0.16          |
| (2,756) | 1:48:A:TYR:HE2  | 1:50:A:GLN:H    | 9        | 0.16          |
| (2,754) | 1:48:A:TYR:HE1  | 1:46:A:LEU:H    | 6        | 0.16          |
| (2,754) | 1:48:A:TYR:HE2  | 1:46:A:LEU:H    | 6        | 0.16          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 8        | 0.16          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 8        | 0.16          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 4        | 0.16          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 4        | 0.16          |
| (2,730) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE2  | 8        | 0.16          |
| (2,730) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE3  | 8        | 0.16          |
| (2,730) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE2  | 8        | 0.16          |
| (2,730) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE3  | 8        | 0.16          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 7        | 0.16          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 7        | 0.16          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 7        | 0.16          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 7        | 0.16          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 7        | 0.16          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 7        | 0.16          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 6        | 0.16          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 1        | 0.16          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 1        | 0.16          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 2        | 0.16          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 2        | 0.16          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 5        | 0.16          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 5        | 0.16          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 9        | 0.16          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 14       | 0.16          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2  | 5        | 0.16          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3  | 5        | 0.16          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 4        | 0.16          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 8        | 0.16          |
| (2,507) | 1:39:A:THR:HB   | 1:39:A:THR:H    | 12       | 0.16          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB2  | 14       | 0.16          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB3  | 14       | 0.16          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB2  | 14       | 0.16          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB3  | 14       | 0.16          |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 1        | 0.16          |
| (2,343) | 1:31:A:MET:H    | 1:108:A:TRP:H   | 8        | 0.16          |
| (2,320) | 1:30:A:LYS:HA   | 1:61:A:TRP:HE1  | 10       | 0.16          |
| (2,306) | 1:30:A:LYS:HB2  | 1:41:A:ASP:HA   | 10       | 0.16          |
| (2,306) | 1:30:A:LYS:HB3  | 1:41:A:ASP:HA   | 10       | 0.16          |
| (2,273) | 1:28:A:ALA:HB1  | 1:111:A:GLU:H   | 13       | 0.16          |
| (2,273) | 1:28:A:ALA:HB2  | 1:111:A:GLU:H   | 13       | 0.16          |
| (2,273) | 1:28:A:ALA:HB3  | 1:111:A:GLU:H   | 13       | 0.16          |
| (2,226) | 1:26:A:PHE:HE1  | 1:111:A:GLU:H   | 9        | 0.16          |
| (2,226) | 1:26:A:PHE:HE2  | 1:111:A:GLU:H   | 9        | 0.16          |
| (2,215) | 1:26:A:PHE:HD1  | 1:120:A:HIS:H   | 2        | 0.16          |
| (2,215) | 1:26:A:PHE:HD2  | 1:120:A:HIS:H   | 2        | 0.16          |
| (2,203) | 1:26:A:PHE:H    | 1:49:A:ILE:H    | 4        | 0.16          |
| (2,203) | 1:26:A:PHE:H    | 1:49:A:ILE:H    | 7        | 0.16          |
| (2,203) | 1:26:A:PHE:H    | 1:49:A:ILE:H    | 10       | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11 | 6        | 0.16          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG21 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG22 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG23 | 6        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG21 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG22 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG23 | 8        | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG21 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG22 | 14       | 0.16          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG23 | 14       | 0.16          |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 4        | 0.16          |
| (2,130) | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 4        | 0.16          |
| (2,130) | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 4        | 0.16          |
| (2,130) | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 4        | 0.16          |
| (2,130) | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 4        | 0.16          |
| (2,130) | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 4        | 0.16          |
| (2,130) | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 10       | 0.16          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,130)  | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 10       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 10       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 10       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 10       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 10       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 11       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 11       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 11       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 11       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 11       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 11       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG11 | 1:26:A:PHE:H    | 13       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG12 | 1:26:A:PHE:H    | 13       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG13 | 1:26:A:PHE:H    | 13       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG21 | 1:26:A:PHE:H    | 13       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG22 | 1:26:A:PHE:H    | 13       | 0.16          |
| (2,130)  | 1:24:A:VAL:HG23 | 1:26:A:PHE:H    | 13       | 0.16          |
| (2,71)   | 1:22:A:TYR:HD1  | 1:49:A:ILE:H    | 1        | 0.16          |
| (2,71)   | 1:22:A:TYR:HD2  | 1:49:A:ILE:H    | 1        | 0.16          |
| (2,71)   | 1:22:A:TYR:HD1  | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,71)   | 1:22:A:TYR:HD2  | 1:49:A:ILE:H    | 9        | 0.16          |
| (2,59)   | 1:22:A:TYR:H    | 1:24:A:VAL:H    | 6        | 0.16          |
| (2,3232) | 2:948:B:PHE:HE1 | 1:106:A:PHE:HE1 | 1        | 0.15          |
| (2,3232) | 2:948:B:PHE:HE1 | 1:106:A:PHE:HE2 | 1        | 0.15          |
| (2,3232) | 2:948:B:PHE:HE2 | 1:106:A:PHE:HE1 | 1        | 0.15          |
| (2,3232) | 2:948:B:PHE:HE2 | 1:106:A:PHE:HE2 | 1        | 0.15          |
| (2,3232) | 2:948:B:PHE:HE1 | 1:106:A:PHE:HE1 | 3        | 0.15          |
| (2,3232) | 2:948:B:PHE:HE1 | 1:106:A:PHE:HE2 | 3        | 0.15          |
| (2,3232) | 2:948:B:PHE:HE2 | 1:106:A:PHE:HE1 | 3        | 0.15          |
| (2,3232) | 2:948:B:PHE:HE2 | 1:106:A:PHE:HE2 | 3        | 0.15          |
| (2,3217) | 2:947:B:PRO:HB2 | 1:31:A:MET:HE1  | 6        | 0.15          |
| (2,3217) | 2:947:B:PRO:HB2 | 1:31:A:MET:HE2  | 6        | 0.15          |
| (2,3217) | 2:947:B:PRO:HB2 | 1:31:A:MET:HE3  | 6        | 0.15          |
| (2,3217) | 2:947:B:PRO:HB3 | 1:31:A:MET:HE1  | 6        | 0.15          |
| (2,3217) | 2:947:B:PRO:HB3 | 1:31:A:MET:HE2  | 6        | 0.15          |
| (2,3217) | 2:947:B:PRO:HB3 | 1:31:A:MET:HE3  | 6        | 0.15          |
| (2,3214) | 2:947:B:PRO:HA  | 1:39:A:THR:HB   | 14       | 0.15          |
| (2,3097) | 1:33:A:LEU:HD21 | 2:950:B:TYR:H   | 15       | 0.15          |
| (2,3097) | 1:33:A:LEU:HD22 | 2:950:B:TYR:H   | 15       | 0.15          |
| (2,3097) | 1:33:A:LEU:HD23 | 2:950:B:TYR:H   | 15       | 0.15          |
| (2,3085) | 2:952:B:ASP:HA  | 2:951:B:ILE:H   | 4        | 0.15          |
| (2,3085) | 2:952:B:ASP:HA  | 2:951:B:ILE:H   | 12       | 0.15          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,3085) | 2:952:B:ASP:HA   | 2:951:B:ILE:H    | 14       | 0.15          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H    | 3        | 0.15          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H    | 3        | 0.15          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H    | 3        | 0.15          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H    | 13       | 0.15          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H    | 13       | 0.15          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21  | 5        | 0.15          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22  | 5        | 0.15          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23  | 5        | 0.15          |
| (2,2782) | 1:127:A:TYR:HB2  | 1:126:A:GLU:H    | 15       | 0.15          |
| (2,2782) | 1:127:A:TYR:HB3  | 1:126:A:GLU:H    | 15       | 0.15          |
| (2,2695) | 1:125:A:ASN:HB2  | 1:126:A:GLU:H    | 4        | 0.15          |
| (2,2695) | 1:125:A:ASN:HB3  | 1:126:A:GLU:H    | 4        | 0.15          |
| (2,2695) | 1:125:A:ASN:HB2  | 1:126:A:GLU:H    | 7        | 0.15          |
| (2,2695) | 1:125:A:ASN:HB3  | 1:126:A:GLU:H    | 7        | 0.15          |
| (2,2644) | 1:124:A:VAL:HA   | 1:49:A:ILE:HG21  | 8        | 0.15          |
| (2,2644) | 1:124:A:VAL:HA   | 1:49:A:ILE:HG22  | 8        | 0.15          |
| (2,2644) | 1:124:A:VAL:HA   | 1:49:A:ILE:HG23  | 8        | 0.15          |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H    | 4        | 0.15          |
| (2,2588) | 1:122:A:ARG:HA   | 1:122:A:ARG:HD2  | 12       | 0.15          |
| (2,2588) | 1:122:A:ARG:HA   | 1:122:A:ARG:HD3  | 12       | 0.15          |
| (2,2585) | 1:121:A:CYS:HB2  | 1:119:A:GLU:H    | 4        | 0.15          |
| (2,2585) | 1:121:A:CYS:HB3  | 1:119:A:GLU:H    | 4        | 0.15          |
| (2,2571) | 1:121:A:CYS:H    | 1:124:A:VAL:H    | 10       | 0.15          |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE1  | 10       | 0.15          |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE2  | 10       | 0.15          |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE3  | 10       | 0.15          |
| (2,2543) | 1:120:A:HIS:HD2  | 1:24:A:VAL:HA    | 12       | 0.15          |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE21 | 2        | 0.15          |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE22 | 2        | 0.15          |
| (2,2470) | 1:115:A:ASP:HB2  | 1:113:A:LYS:H    | 3        | 0.15          |
| (2,2470) | 1:115:A:ASP:HB3  | 1:113:A:LYS:H    | 3        | 0.15          |
| (2,2461) | 1:114:A:THR:HA   | 1:92:A:ARG:HE    | 9        | 0.15          |
| (2,2441) | 1:113:A:LYS:HD2  | 1:113:A:LYS:H    | 13       | 0.15          |
| (2,2441) | 1:113:A:LYS:HD3  | 1:113:A:LYS:H    | 13       | 0.15          |
| (2,2432) | 1:113:A:LYS:HA   | 1:115:A:ASP:H    | 7        | 0.15          |
| (2,2428) | 1:113:A:LYS:H    | 1:111:A:GLU:H    | 10       | 0.15          |
| (2,2419) | 1:113:A:LYS:HA   | 1:113:A:LYS:HD2  | 12       | 0.15          |
| (2,2419) | 1:113:A:LYS:HA   | 1:113:A:LYS:HD3  | 12       | 0.15          |
| (2,2377) | 1:110:A:GLN:HA   | 2:942:B:PRO:HA   | 4        | 0.15          |
| (2,2377) | 1:110:A:GLN:HA   | 2:942:B:PRO:HA   | 10       | 0.15          |
| (2,2373) | 1:110:A:GLN:HA   | 1:28:A:ALA:H     | 2        | 0.15          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2373) | 1:110:A:GLN:HA  | 1:28:A:ALA:H    | 3        | 0.15          |
| (2,2338) | 1:108:A:TRP:HZ2 | 1:42:A:LYS:H    | 7        | 0.15          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H    | 15       | 0.15          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 8        | 0.15          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 8        | 0.15          |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 12       | 0.15          |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H    | 12       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 7        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 7        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 7        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 7        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 7        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 7        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 9        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 9        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 9        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 9        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 9        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 9        | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 11       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 11       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 11       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 11       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 11       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 11       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 15       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 15       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 15       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 15       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 15       | 0.15          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 15       | 0.15          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 15       | 0.15          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 15       | 0.15          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 3        | 0.15          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 3        | 0.15          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 11       | 0.15          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 11       | 0.15          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 2        | 0.15          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 2        | 0.15          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 4        | 0.15          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 4        | 0.15          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 8        | 0.15          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 8        | 0.15          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 13       | 0.15          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 13       | 0.15          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG11 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG12 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG13 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG21 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG22 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG23 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG11 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG12 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG13 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG21 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG22 | 3        | 0.15          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG23 | 3        | 0.15          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 8        | 0.15          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 8        | 0.15          |
| (2,2139) | 1:103:A:LYS:HE2 | 1:103:A:LYS:H   | 13       | 0.15          |
| (2,2139) | 1:103:A:LYS:HE3 | 1:103:A:LYS:H   | 13       | 0.15          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 8        | 0.15          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 2        | 0.15          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 15       | 0.15          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 3        | 0.15          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 3        | 0.15          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 7        | 0.15          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 7        | 0.15          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 10       | 0.15          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 10       | 0.15          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 12       | 0.15          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 12       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG11 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG12 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG13 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG21 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG22 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG23 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG11 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG12 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG13 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG21 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG22 | 14       | 0.15          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG23 | 14       | 0.15          |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,1962) | 1:97:A:LYS:HA  | 1:104:A:ARG:HD2 | 1        | 0.15          |
| (2,1962) | 1:97:A:LYS:HA  | 1:104:A:ARG:HD3 | 1        | 0.15          |
| (2,1910) | 1:95:A:VAL:HA  | 1:106:A:PHE:H   | 1        | 0.15          |
| (2,1836) | 1:93:A:VAL:HA  | 1:107:A:PHE:H   | 3        | 0.15          |
| (2,1836) | 1:93:A:VAL:HA  | 1:107:A:PHE:H   | 13       | 0.15          |
| (2,1820) | 1:88:A:CYS:HA  | 1:91:A:GLY:H    | 2        | 0.15          |
| (2,1820) | 1:88:A:CYS:HA  | 1:91:A:GLY:H    | 11       | 0.15          |
| (2,1820) | 1:88:A:CYS:HA  | 1:91:A:GLY:H    | 12       | 0.15          |
| (2,1761) | 1:83:A:LYS:HB2 | 1:97:A:LYS:H    | 15       | 0.15          |
| (2,1761) | 1:83:A:LYS:HB3 | 1:97:A:LYS:H    | 15       | 0.15          |
| (2,1755) | 1:83:A:LYS:H   | 1:97:A:LYS:H    | 11       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG11 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG12 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG13 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG21 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG22 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG23 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG11 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG12 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG13 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG21 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG22 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG23 | 4        | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG11 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG12 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG13 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG21 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG22 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG23 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG11 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG12 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG13 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG21 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG22 | 13       | 0.15          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG23 | 13       | 0.15          |
| (2,1741) | 1:82:A:PHE:HE1 | 1:97:A:LYS:H    | 3        | 0.15          |
| (2,1741) | 1:82:A:PHE:HE2 | 1:97:A:LYS:H    | 3        | 0.15          |
| (2,1738) | 1:82:A:PHE:HE1 | 1:83:A:LYS:H    | 12       | 0.15          |
| (2,1738) | 1:82:A:PHE:HE2 | 1:83:A:LYS:H    | 12       | 0.15          |
| (2,1737) | 1:82:A:PHE:HE1 | 1:122:A:ARG:H   | 8        | 0.15          |
| (2,1737) | 1:82:A:PHE:HE2 | 1:122:A:ARG:H   | 8        | 0.15          |
| (2,1727) | 1:82:A:PHE:HD1 | 1:121:A:CYS:H   | 13       | 0.15          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,1727) | 1:82:A:PHE:HD2  | 1:121:A:CYS:H    | 13       | 0.15          |
| (2,1713) | 1:82:A:PHE:H    | 1:125:A:ASN:HD21 | 2        | 0.15          |
| (2,1713) | 1:82:A:PHE:H    | 1:125:A:ASN:HD22 | 2        | 0.15          |
| (2,1648) | 1:80:A:CYS:HA   | 1:97:A:LYS:H     | 3        | 0.15          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H     | 2        | 0.15          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H     | 2        | 0.15          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H     | 5        | 0.15          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H     | 5        | 0.15          |
| (2,1601) | 1:77:A:PRO:HG2  | 1:78:A:ASP:H     | 7        | 0.15          |
| (2,1601) | 1:77:A:PRO:HG3  | 1:78:A:ASP:H     | 7        | 0.15          |
| (2,1541) | 1:75:A:ILE:HA   | 1:59:A:PHE:H     | 7        | 0.15          |
| (2,1500) | 1:74:A:ILE:HD11 | 1:58:A:HIS:HA    | 1        | 0.15          |
| (2,1500) | 1:74:A:ILE:HD12 | 1:58:A:HIS:HA    | 1        | 0.15          |
| (2,1500) | 1:74:A:ILE:HD13 | 1:58:A:HIS:HA    | 1        | 0.15          |
| (2,1477) | 1:73:A:LEU:HB2  | 1:59:A:PHE:H     | 6        | 0.15          |
| (2,1477) | 1:73:A:LEU:HB3  | 1:59:A:PHE:H     | 6        | 0.15          |
| (2,1472) | 1:73:A:LEU:HA   | 1:59:A:PHE:H     | 7        | 0.15          |
| (2,1472) | 1:73:A:LEU:HA   | 1:59:A:PHE:H     | 13       | 0.15          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H     | 1        | 0.15          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H     | 5        | 0.15          |
| (2,1453) | 1:72:A:ASP:HA   | 1:59:A:PHE:H     | 14       | 0.15          |
| (2,1452) | 1:72:A:ASP:HA   | 1:60:A:CYS:H     | 1        | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23  | 10       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11  | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12  | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13  | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21  | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22  | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23  | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11  | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12  | 13       | 0.15          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 13       | 0.15          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 13       | 0.15          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 1        | 0.15          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 1        | 0.15          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 1        | 0.15          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 14       | 0.15          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 14       | 0.15          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 14       | 0.15          |
| (2,1324) | 1:64:A:ARG:HA   | 1:46:A:LEU:H    | 7        | 0.15          |
| (2,1272) | 1:62:A:LYS:H    | 1:70:A:GLU:H    | 12       | 0.15          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG11 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG12 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG13 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG21 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG22 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE2  | 1:69:A:VAL:HG23 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG11 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG12 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG13 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG21 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG22 | 4        | 0.15          |
| (2,1269) | 1:62:A:LYS:HE3  | 1:69:A:VAL:HG23 | 4        | 0.15          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA2  | 9        | 0.15          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA3  | 9        | 0.15          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA2  | 9        | 0.15          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA3  | 9        | 0.15          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA2  | 13       | 0.15          |
| (2,1267) | 1:62:A:LYS:HE2  | 1:67:A:GLY:HA3  | 13       | 0.15          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA2  | 13       | 0.15          |
| (2,1267) | 1:62:A:LYS:HE3  | 1:67:A:GLY:HA3  | 13       | 0.15          |
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA2  | 11       | 0.15          |
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA3  | 11       | 0.15          |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA2  | 11       | 0.15          |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA3  | 11       | 0.15          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 2        | 0.15          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 5        | 0.15          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 12       | 0.15          |
| (2,1216) | 1:61:A:TRP:HZ2  | 1:46:A:LEU:H    | 3        | 0.15          |
| (2,1208) | 1:61:A:TRP:HD1  | 1:48:A:TYR:H    | 6        | 0.15          |
| (2,1149) | 1:60:A:CYS:H    | 1:50:A:GLN:H    | 11       | 0.15          |

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| Key      | Atom-1          | Atom-2       | Model ID | Violation (Å) |
|----------|-----------------|--------------|----------|---------------|
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H | 4        | 0.15          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H | 4        | 0.15          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H | 6        | 0.15          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H | 6        | 0.15          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H | 7        | 0.15          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H | 7        | 0.15          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H | 2        | 0.15          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H | 4        | 0.15          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H | 1        | 0.15          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H | 5        | 0.15          |
| (2,1005) | 1:57:A:ILE:HD11 | 1:56:A:LEU:H | 9        | 0.15          |
| (2,1005) | 1:57:A:ILE:HD12 | 1:56:A:LEU:H | 9        | 0.15          |
| (2,1005) | 1:57:A:ILE:HD13 | 1:56:A:LEU:H | 9        | 0.15          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H | 9        | 0.15          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H | 9        | 0.15          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H | 13       | 0.15          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H | 13       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H | 5        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H | 5        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H | 5        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H | 5        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H | 5        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H | 5        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H | 8        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H | 8        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H | 8        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H | 8        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H | 8        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H | 8        | 0.15          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H | 13       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H | 13       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H | 13       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H | 13       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H | 13       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H | 13       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H | 15       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H | 15       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H | 15       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H | 15       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H | 15       | 0.15          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H | 15       | 0.15          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H | 7        | 0.15          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,931) | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 1        | 0.15          |
| (2,931) | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 1        | 0.15          |
| (2,931) | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 7        | 0.15          |
| (2,931) | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 7        | 0.15          |
| (2,931) | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 15       | 0.15          |
| (2,931) | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 15       | 0.15          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 2        | 0.15          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 10       | 0.15          |
| (2,927) | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 12       | 0.15          |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB2  | 1        | 0.15          |
| (2,879) | 1:52:A:THR:HG21 | 1:50:A:GLN:HB3  | 1        | 0.15          |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB2  | 1        | 0.15          |
| (2,879) | 1:52:A:THR:HG22 | 1:50:A:GLN:HB3  | 1        | 0.15          |
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB2  | 1        | 0.15          |
| (2,879) | 1:52:A:THR:HG23 | 1:50:A:GLN:HB3  | 1        | 0.15          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 4        | 0.15          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 4        | 0.15          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 4        | 0.15          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 4        | 0.15          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 4        | 0.15          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 4        | 0.15          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 5        | 0.15          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 5        | 0.15          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 5        | 0.15          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 5        | 0.15          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 5        | 0.15          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 5        | 0.15          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 8        | 0.15          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 8        | 0.15          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 8        | 0.15          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 14       | 0.15          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 14       | 0.15          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 14       | 0.15          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 15       | 0.15          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 15       | 0.15          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 15       | 0.15          |
| (2,813) | 1:49:A:ILE:HG21 | 1:60:A:CYS:H    | 9        | 0.15          |
| (2,813) | 1:49:A:ILE:HG22 | 1:60:A:CYS:H    | 9        | 0.15          |
| (2,813) | 1:49:A:ILE:HG23 | 1:60:A:CYS:H    | 9        | 0.15          |
| (2,756) | 1:48:A:TYR:HE1  | 1:50:A:GLN:H    | 4        | 0.15          |
| (2,756) | 1:48:A:TYR:HE2  | 1:50:A:GLN:H    | 4        | 0.15          |
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD2  | 10       | 0.15          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,729) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HD3  | 10       | 0.15          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD2  | 10       | 0.15          |
| (2,729) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HD3  | 10       | 0.15          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 5        | 0.15          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 5        | 0.15          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 5        | 0.15          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 5        | 0.15          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 5        | 0.15          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 5        | 0.15          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 13       | 0.15          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 13       | 0.15          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 13       | 0.15          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 13       | 0.15          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 13       | 0.15          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 13       | 0.15          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 1        | 0.15          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 7        | 0.15          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 12       | 0.15          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD11 | 2        | 0.15          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD12 | 2        | 0.15          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD13 | 2        | 0.15          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD21 | 2        | 0.15          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD22 | 2        | 0.15          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD23 | 2        | 0.15          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H    | 13       | 0.15          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2  | 6        | 0.15          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3  | 6        | 0.15          |
| (2,606) | 1:44:A:LYS:H    | 1:64:A:ARG:H    | 15       | 0.15          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 15       | 0.15          |
| (2,469) | 1:38:A:VAL:HA   | 1:33:A:LEU:HD11 | 9        | 0.15          |
| (2,469) | 1:38:A:VAL:HA   | 1:33:A:LEU:HD12 | 9        | 0.15          |
| (2,469) | 1:38:A:VAL:HA   | 1:33:A:LEU:HD13 | 9        | 0.15          |

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| Key     | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|---------|----------------|-----------------|----------|---------------|
| (2,469) | 1:38:A:VAL:HA  | 1:33:A:LEU:HD21 | 9        | 0.15          |
| (2,469) | 1:38:A:VAL:HA  | 1:33:A:LEU:HD22 | 9        | 0.15          |
| (2,469) | 1:38:A:VAL:HA  | 1:33:A:LEU:HD23 | 9        | 0.15          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB2  | 15       | 0.15          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB3  | 15       | 0.15          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2  | 15       | 0.15          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3  | 15       | 0.15          |
| (2,386) | 1:33:A:LEU:HA  | 1:32:A:SER:H    | 9        | 0.15          |
| (2,323) | 1:30:A:LYS:HG2 | 1:61:A:TRP:HE1  | 12       | 0.15          |
| (2,323) | 1:30:A:LYS:HG3 | 1:61:A:TRP:HE1  | 12       | 0.15          |
| (2,273) | 1:28:A:ALA:HB1 | 1:111:A:GLU:H   | 7        | 0.15          |
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H   | 7        | 0.15          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H   | 7        | 0.15          |
| (2,273) | 1:28:A:ALA:HB1 | 1:111:A:GLU:H   | 14       | 0.15          |
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H   | 14       | 0.15          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H   | 14       | 0.15          |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H   | 14       | 0.15          |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H   | 14       | 0.15          |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H   | 15       | 0.15          |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H   | 15       | 0.15          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H    | 15       | 0.15          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H    | 15       | 0.15          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 1        | 0.15          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 1        | 0.15          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 4        | 0.15          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 4        | 0.15          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 7        | 0.15          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 7        | 0.15          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 9        | 0.15          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 9        | 0.15          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 15       | 0.15          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 15       | 0.15          |
| (2,203) | 1:26:A:PHE:H   | 1:49:A:ILE:H    | 13       | 0.15          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG11 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG12 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG13 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG21 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG22 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG23 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD2 | 1:47:A:VAL:HG11 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD2 | 1:47:A:VAL:HG12 | 1        | 0.15          |
| (2,188) | 1:26:A:PHE:HD2 | 1:47:A:VAL:HG13 | 1        | 0.15          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG21 | 1        | 0.15          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG22 | 1        | 0.15          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG23 | 1        | 0.15          |
| (2,162)  | 1:25:A:GLU:HA    | 1:47:A:VAL:H    | 4        | 0.15          |
| (2,92)   | 1:23:A:LEU:HD11  | 1:21:A:LYS:HA   | 10       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD12  | 1:21:A:LYS:HA   | 10       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD13  | 1:21:A:LYS:HA   | 10       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD21  | 1:21:A:LYS:HA   | 10       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD22  | 1:21:A:LYS:HA   | 10       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD23  | 1:21:A:LYS:HA   | 10       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD11  | 1:21:A:LYS:HA   | 14       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD12  | 1:21:A:LYS:HA   | 14       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD13  | 1:21:A:LYS:HA   | 14       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD21  | 1:21:A:LYS:HA   | 14       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD22  | 1:21:A:LYS:HA   | 14       | 0.15          |
| (2,92)   | 1:23:A:LEU:HD23  | 1:21:A:LYS:HA   | 14       | 0.15          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 4        | 0.15          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 4        | 0.15          |
| (2,59)   | 1:22:A:TYR:H     | 1:24:A:VAL:H    | 15       | 0.15          |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE21 | 6        | 0.14          |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE22 | 6        | 0.14          |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE21 | 6        | 0.14          |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE22 | 6        | 0.14          |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE21 | 6        | 0.14          |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE22 | 6        | 0.14          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE1 | 4        | 0.14          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE2 | 4        | 0.14          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE1 | 4        | 0.14          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE2 | 4        | 0.14          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE1 | 10       | 0.14          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE2 | 10       | 0.14          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE1 | 10       | 0.14          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE2 | 10       | 0.14          |
| (2,3217) | 2:947:B:PRO:HB2  | 1:31:A:MET:HE1  | 10       | 0.14          |
| (2,3217) | 2:947:B:PRO:HB2  | 1:31:A:MET:HE2  | 10       | 0.14          |
| (2,3217) | 2:947:B:PRO:HB2  | 1:31:A:MET:HE3  | 10       | 0.14          |
| (2,3217) | 2:947:B:PRO:HB3  | 1:31:A:MET:HE1  | 10       | 0.14          |
| (2,3217) | 2:947:B:PRO:HB3  | 1:31:A:MET:HE2  | 10       | 0.14          |
| (2,3217) | 2:947:B:PRO:HB3  | 1:31:A:MET:HE3  | 10       | 0.14          |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 9        | 0.14          |
| (2,3165) | 1:108:A:TRP:HZ2  | 2:944:B:PRO:HD2 | 11       | 0.14          |
| (2,3165) | 1:108:A:TRP:HZ2  | 2:944:B:PRO:HD3 | 11       | 0.14          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 10       | 0.14          |
| (2,3097) | 1:33:A:LEU:HD22  | 2:950:B:TYR:H   | 10       | 0.14          |
| (2,3097) | 1:33:A:LEU:HD23  | 2:950:B:TYR:H   | 10       | 0.14          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 6        | 0.14          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 6        | 0.14          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 6        | 0.14          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 1        | 0.14          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 1        | 0.14          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 1        | 0.14          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 1        | 0.14          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 1        | 0.14          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 1        | 0.14          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 13       | 0.14          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 13       | 0.14          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 13       | 0.14          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 13       | 0.14          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 13       | 0.14          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 13       | 0.14          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 9        | 0.14          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 9        | 0.14          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H   | 8        | 0.14          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H   | 8        | 0.14          |
| (2,2877) | 1:130:A:ASN:HA   | 1:129:A:ASN:H   | 9        | 0.14          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 5        | 0.14          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 5        | 0.14          |
| (2,2787) | 1:127:A:TYR:HE1  | 1:126:A:GLU:H   | 2        | 0.14          |
| (2,2787) | 1:127:A:TYR:HE2  | 1:126:A:GLU:H   | 2        | 0.14          |
| (2,2714) | 1:126:A:GLU:HB2  | 1:128:A:LEU:H   | 10       | 0.14          |
| (2,2714) | 1:126:A:GLU:HB3  | 1:128:A:LEU:H   | 10       | 0.14          |
| (2,2714) | 1:126:A:GLU:HB2  | 1:128:A:LEU:H   | 13       | 0.14          |
| (2,2714) | 1:126:A:GLU:HB3  | 1:128:A:LEU:H   | 13       | 0.14          |
| (2,2705) | 1:126:A:GLU:H    | 1:129:A:ASN:H   | 13       | 0.14          |
| (2,2695) | 1:125:A:ASN:HB2  | 1:126:A:GLU:H   | 15       | 0.14          |
| (2,2695) | 1:125:A:ASN:HB3  | 1:126:A:GLU:H   | 15       | 0.14          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H   | 8        | 0.14          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H   | 8        | 0.14          |
| (2,2639) | 1:123:A:LYS:HD2  | 1:124:A:VAL:H   | 10       | 0.14          |
| (2,2639) | 1:123:A:LYS:HD3  | 1:124:A:VAL:H   | 10       | 0.14          |
| (2,2623) | 1:123:A:LYS:H    | 1:126:A:GLU:H   | 5        | 0.14          |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H   | 2        | 0.14          |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H   | 7        | 0.14          |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H   | 11       | 0.14          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H   | 2        | 0.14          |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H   | 2        | 0.14          |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H   | 5        | 0.14          |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H   | 5        | 0.14          |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H   | 9        | 0.14          |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H   | 9        | 0.14          |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H   | 10       | 0.14          |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H   | 10       | 0.14          |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H   | 11       | 0.14          |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H   | 11       | 0.14          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H   | 12       | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE1 | 1        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE2 | 1        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE3 | 1        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE1 | 3        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE2 | 3        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE3 | 3        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE1 | 8        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE2 | 8        | 0.14          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE3 | 8        | 0.14          |
| (2,2543) | 1:120:A:HIS:HD2 | 1:24:A:VAL:HA   | 6        | 0.14          |
| (2,2508) | 1:118:A:GLU:H   | 1:116:A:GLN:H   | 8        | 0.14          |
| (2,2489) | 1:116:A:GLN:HB2 | 1:119:A:GLU:H   | 1        | 0.14          |
| (2,2489) | 1:116:A:GLN:HB3 | 1:119:A:GLU:H   | 1        | 0.14          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H   | 9        | 0.14          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H   | 9        | 0.14          |
| (2,2432) | 1:113:A:LYS:HA  | 1:115:A:ASP:H   | 2        | 0.14          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H   | 6        | 0.14          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H   | 11       | 0.14          |
| (2,2373) | 1:110:A:GLN:HA  | 1:28:A:ALA:H    | 4        | 0.14          |
| (2,2352) | 1:109:A:MET:H   | 1:111:A:GLU:H   | 6        | 0.14          |
| (2,2352) | 1:109:A:MET:H   | 1:111:A:GLU:H   | 10       | 0.14          |
| (2,2352) | 1:109:A:MET:H   | 1:111:A:GLU:H   | 13       | 0.14          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H    | 10       | 0.14          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H    | 11       | 0.14          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 3        | 0.14          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 3        | 0.14          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 4        | 0.14          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 4        | 0.14          |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 8        | 0.14          |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H    | 8        | 0.14          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 4        | 0.14          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 4        | 0.14          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 4        | 0.14          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 4        | 0.14          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 4        | 0.14          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 4        | 0.14          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 2        | 0.14          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 2        | 0.14          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 13       | 0.14          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 13       | 0.14          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 12       | 0.14          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 12       | 0.14          |
| (2,2133) | 1:103:A:LYS:HD2 | 1:103:A:LYS:H   | 7        | 0.14          |
| (2,2133) | 1:103:A:LYS:HD3 | 1:103:A:LYS:H   | 7        | 0.14          |
| (2,2129) | 1:103:A:LYS:H   | 1:101:A:GLY:H   | 12       | 0.14          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 4        | 0.14          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 7        | 0.14          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 7        | 0.14          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 7        | 0.14          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 7        | 0.14          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 1        | 0.14          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 1        | 0.14          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 2        | 0.14          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 2        | 0.14          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 4        | 0.14          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 4        | 0.14          |
| (2,2049) | 1:98:A:PHE:HD1  | 1:104:A:ARG:H   | 2        | 0.14          |
| (2,2049) | 1:98:A:PHE:HD2  | 1:104:A:ARG:H   | 2        | 0.14          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 8        | 0.14          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 9        | 0.14          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 14       | 0.14          |
| (2,1991) | 1:97:A:LYS:HD2  | 1:98:A:PHE:H    | 1        | 0.14          |
| (2,1991) | 1:97:A:LYS:HD3  | 1:98:A:PHE:H    | 1        | 0.14          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 3        | 0.14          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 11       | 0.14          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 12       | 0.14          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 14       | 0.14          |
| (2,1850) | 1:93:A:VAL:HB   | 1:88:A:CYS:H    | 3        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG11 | 1:95:A:VAL:H    | 8        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG12 | 1:95:A:VAL:H    | 8        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG13 | 1:95:A:VAL:H    | 8        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG21 | 1:95:A:VAL:H    | 8        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG22 | 1:95:A:VAL:H    | 8        | 0.14          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1841) | 1:93:A:VAL:HG23 | 1:95:A:VAL:H    | 8        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG11 | 1:95:A:VAL:H    | 9        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG12 | 1:95:A:VAL:H    | 9        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG13 | 1:95:A:VAL:H    | 9        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG21 | 1:95:A:VAL:H    | 9        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG22 | 1:95:A:VAL:H    | 9        | 0.14          |
| (2,1841) | 1:93:A:VAL:HG23 | 1:95:A:VAL:H    | 9        | 0.14          |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H   | 10       | 0.14          |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 10       | 0.14          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 1        | 0.14          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 6        | 0.14          |
| (2,1780) | 1:84:A:ARG:HD2  | 1:85:A:VAL:H    | 5        | 0.14          |
| (2,1780) | 1:84:A:ARG:HD3  | 1:85:A:VAL:H    | 5        | 0.14          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 6        | 0.14          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 6        | 0.14          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 13       | 0.14          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 13       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG11 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG12 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG13 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG21 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG22 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG23 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG11 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG12 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG13 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG21 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG22 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG23 | 1        | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG11 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG12 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG13 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG21 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG22 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG23 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG11 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG12 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG13 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG21 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG22 | 10       | 0.14          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG23 | 10       | 0.14          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H    | 5        | 0.14          |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,1738) | 1:82:A:PHE:HE2 | 1:83:A:LYS:H    | 5        | 0.14          |
| (2,1738) | 1:82:A:PHE:HE1 | 1:83:A:LYS:H    | 10       | 0.14          |
| (2,1738) | 1:82:A:PHE:HE2 | 1:83:A:LYS:H    | 10       | 0.14          |
| (2,1738) | 1:82:A:PHE:HE1 | 1:83:A:LYS:H    | 14       | 0.14          |
| (2,1738) | 1:82:A:PHE:HE2 | 1:83:A:LYS:H    | 14       | 0.14          |
| (2,1737) | 1:82:A:PHE:HE1 | 1:122:A:ARG:H   | 9        | 0.14          |
| (2,1737) | 1:82:A:PHE:HE2 | 1:122:A:ARG:H   | 9        | 0.14          |
| (2,1728) | 1:82:A:PHE:HD1 | 1:124:A:VAL:H   | 14       | 0.14          |
| (2,1728) | 1:82:A:PHE:HD2 | 1:124:A:VAL:H   | 14       | 0.14          |
| (2,1715) | 1:82:A:PHE:HA  | 1:95:A:VAL:H    | 5        | 0.14          |
| (2,1715) | 1:82:A:PHE:HA  | 1:95:A:VAL:H    | 9        | 0.14          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1  | 6        | 0.14          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2  | 6        | 0.14          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1  | 6        | 0.14          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2  | 6        | 0.14          |
| (2,1686) | 1:81:A:GLU:HB2 | 1:82:A:PHE:H    | 8        | 0.14          |
| (2,1686) | 1:81:A:GLU:HB3 | 1:82:A:PHE:H    | 8        | 0.14          |
| (2,1648) | 1:80:A:CYS:HA  | 1:97:A:LYS:H    | 6        | 0.14          |
| (2,1648) | 1:80:A:CYS:HA  | 1:97:A:LYS:H    | 7        | 0.14          |
| (2,1648) | 1:80:A:CYS:HA  | 1:97:A:LYS:H    | 9        | 0.14          |
| (2,1601) | 1:77:A:PRO:HG2 | 1:78:A:ASP:H    | 10       | 0.14          |
| (2,1601) | 1:77:A:PRO:HG3 | 1:78:A:ASP:H    | 10       | 0.14          |
| (2,1541) | 1:75:A:ILE:HA  | 1:59:A:PHE:H    | 9        | 0.14          |
| (2,1477) | 1:73:A:LEU:HB2 | 1:59:A:PHE:H    | 1        | 0.14          |
| (2,1477) | 1:73:A:LEU:HB3 | 1:59:A:PHE:H    | 1        | 0.14          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H    | 5        | 0.14          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H    | 11       | 0.14          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H    | 15       | 0.14          |
| (2,1401) | 1:69:A:VAL:HA  | 1:71:A:ASP:H    | 3        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG11 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG12 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG13 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG21 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG22 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG23 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG11 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG12 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG13 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG21 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG22 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG23 | 1        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG11 | 2        | 0.14          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 2        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 9        | 0.14          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 9        | 0.14          |
| (2,1363) | 1:66:A:SER:HB2  | 1:68:A:ASN:HD21 | 12       | 0.14          |
| (2,1363) | 1:66:A:SER:HB2  | 1:68:A:ASN:HD22 | 12       | 0.14          |
| (2,1363) | 1:66:A:SER:HB3  | 1:68:A:ASN:HD21 | 12       | 0.14          |
| (2,1363) | 1:66:A:SER:HB3  | 1:68:A:ASN:HD22 | 12       | 0.14          |
| (2,1355) | 1:65:A:THR:HB   | 1:64:A:ARG:H    | 10       | 0.14          |
| (2,1351) | 1:65:A:THR:HG21 | 1:64:A:ARG:H    | 15       | 0.14          |
| (2,1351) | 1:65:A:THR:HG22 | 1:64:A:ARG:H    | 15       | 0.14          |
| (2,1351) | 1:65:A:THR:HG23 | 1:64:A:ARG:H    | 15       | 0.14          |
| (2,1329) | 1:64:A:ARG:HG2  | 1:28:A:ALA:H    | 12       | 0.14          |
| (2,1329) | 1:64:A:ARG:HG3  | 1:28:A:ALA:H    | 12       | 0.14          |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 10       | 0.14          |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 10       | 0.14          |
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA2  | 8        | 0.14          |
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA3  | 8        | 0.14          |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA2  | 8        | 0.14          |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA3  | 8        | 0.14          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 3        | 0.14          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 4        | 0.14          |
| (2,1208) | 1:61:A:TRP:HD1  | 1:48:A:TYR:H    | 2        | 0.14          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 9        | 0.14          |
| (2,1193) | 1:61:A:TRP:HZ3  | 1:71:A:ASP:HA   | 13       | 0.14          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 5        | 0.14          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 5        | 0.14          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 8        | 0.14          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 8        | 0.14          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 13       | 0.14          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 13       | 0.14          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 1        | 0.14          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 1        | 0.14          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 6        | 0.14          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 8        | 0.14          |
| (2,1125) | 1:59:A:PHE:HA   | 1:75:A:ILE:H    | 10       | 0.14          |
| (2,1055) | 1:58:A:HIS:H    | 1:51:A:GLN:H    | 3        | 0.14          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 8        | 0.14          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 11       | 0.14          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H    | 15       | 0.14          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H    | 15       | 0.14          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H    | 15       | 0.14          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 3        | 0.14          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 3        | 0.14          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 12       | 0.14          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 12       | 0.14          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 14       | 0.14          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 14       | 0.14          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H    | 6        | 0.14          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H    | 6        | 0.14          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H    | 6        | 0.14          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H    | 6        | 0.14          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H    | 6        | 0.14          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H    | 6        | 0.14          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 8        | 0.14          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 2        | 0.14          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 10       | 0.14          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 12       | 0.14          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD11 | 14       | 0.14          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD12 | 14       | 0.14          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD13 | 14       | 0.14          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 13       | 0.14          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 13       | 0.14          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 2        | 0.14          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 2        | 0.14          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 10       | 0.14          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 10       | 0.14          |
| (2,864) | 1:51:A:GLN:HE21 | 1:55:A:SER:H    | 8        | 0.14          |
| (2,864) | 1:51:A:GLN:HE22 | 1:55:A:SER:H    | 8        | 0.14          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG21 | 6        | 0.14          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG22 | 6        | 0.14          |
| (2,855) | 1:51:A:GLN:HB2  | 1:57:A:ILE:HG23 | 6        | 0.14          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG21 | 6        | 0.14          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG22 | 6        | 0.14          |
| (2,855) | 1:51:A:GLN:HB3  | 1:57:A:ILE:HG23 | 6        | 0.14          |
| (2,842) | 1:50:A:GLN:HG2  | 1:58:A:HIS:H    | 7        | 0.14          |
| (2,842) | 1:50:A:GLN:HG3  | 1:58:A:HIS:H    | 7        | 0.14          |
| (2,836) | 1:50:A:GLN:HA   | 1:50:A:GLN:HE21 | 13       | 0.14          |
| (2,836) | 1:50:A:GLN:HA   | 1:50:A:GLN:HE22 | 13       | 0.14          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 2        | 0.14          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 2        | 0.14          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 2        | 0.14          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 9        | 0.14          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 9        | 0.14          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 9        | 0.14          |
| (2,792) | 1:49:A:ILE:HA   | 1:58:A:HIS:H    | 5        | 0.14          |
| (2,749) | 1:48:A:TYR:HD1  | 1:24:A:VAL:H    | 6        | 0.14          |
| (2,749) | 1:48:A:TYR:HD2  | 1:24:A:VAL:H    | 6        | 0.14          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 3        | 0.14          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 3        | 0.14          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 8        | 0.14          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 8        | 0.14          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 10       | 0.14          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 10       | 0.14          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 15       | 0.14          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 15       | 0.14          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 3        | 0.14          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 3        | 0.14          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 3        | 0.14          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 3        | 0.14          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 3        | 0.14          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 3        | 0.14          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 12       | 0.14          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 12       | 0.14          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 12       | 0.14          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 12       | 0.14          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 12       | 0.14          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 12       | 0.14          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 5        | 0.14          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 9        | 0.14          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 13       | 0.14          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 13       | 0.14          |
| (2,552) | 1:42:A:LYS:HA   | 1:108:A:TRP:HE1 | 14       | 0.14          |
| (2,506) | 1:39:A:THR:HB   | 1:32:A:SER:H    | 2        | 0.14          |
| (2,428) | 1:34:A:LYS:HB2  | 1:33:A:LEU:H    | 9        | 0.14          |
| (2,428) | 1:34:A:LYS:HB3  | 1:33:A:LEU:H    | 9        | 0.14          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB2  | 4        | 0.14          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB3  | 4        | 0.14          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB2  | 4        | 0.14          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB3  | 4        | 0.14          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB2  | 6        | 0.14          |
| (2,409) | 1:34:A:LYS:HB2  | 1:32:A:SER:HB3  | 6        | 0.14          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB2  | 6        | 0.14          |
| (2,409) | 1:34:A:LYS:HB3  | 1:32:A:SER:HB3  | 6        | 0.14          |
| (2,343) | 1:31:A:MET:H    | 1:108:A:TRP:H   | 3        | 0.14          |
| (2,326) | 1:30:A:LYS:HE2  | 1:61:A:TRP:HE1  | 8        | 0.14          |
| (2,326) | 1:30:A:LYS:HE3  | 1:61:A:TRP:HE1  | 8        | 0.14          |
| (2,319) | 1:30:A:LYS:HA   | 1:108:A:TRP:HE1 | 5        | 0.14          |
| (2,319) | 1:30:A:LYS:HA   | 1:108:A:TRP:HE1 | 12       | 0.14          |
| (2,297) | 1:29:A:GLY:H    | 1:111:A:GLU:H   | 4        | 0.14          |
| (2,244) | 1:27:A:ARG:HB2  | 1:29:A:GLY:H    | 6        | 0.14          |
| (2,244) | 1:27:A:ARG:HB3  | 1:29:A:GLY:H    | 6        | 0.14          |
| (2,221) | 1:26:A:PHE:HE1  | 1:25:A:GLU:H    | 1        | 0.14          |
| (2,221) | 1:26:A:PHE:HE2  | 1:25:A:GLU:H    | 1        | 0.14          |
| (2,220) | 1:26:A:PHE:HE1  | 1:124:A:VAL:H   | 15       | 0.14          |
| (2,220) | 1:26:A:PHE:HE2  | 1:124:A:VAL:H   | 15       | 0.14          |
| (2,215) | 1:26:A:PHE:HD1  | 1:120:A:HIS:H   | 14       | 0.14          |
| (2,215) | 1:26:A:PHE:HD2  | 1:120:A:HIS:H   | 14       | 0.14          |
| (2,203) | 1:26:A:PHE:H    | 1:49:A:ILE:H    | 1        | 0.14          |
| (2,203) | 1:26:A:PHE:H    | 1:49:A:ILE:H    | 9        | 0.14          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12 | 3        | 0.14          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13 | 3        | 0.14          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG21 | 3        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG22 | 3        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG23 | 3        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG11 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG12 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG13 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG21 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG22 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG23 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG11 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG12 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG13 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG21 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG22 | 7        | 0.14          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG23 | 7        | 0.14          |
| (2,162)  | 1:25:A:GLU:HA    | 1:47:A:VAL:H    | 3        | 0.14          |
| (2,162)  | 1:25:A:GLU:HA    | 1:47:A:VAL:H    | 10       | 0.14          |
| (2,102)  | 1:23:A:LEU:HA    | 1:51:A:GLN:H    | 11       | 0.14          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 13       | 0.14          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 13       | 0.14          |
| (2,3286) | 2:950:B:TYR:HE1  | 1:36:A:THR:HG21 | 8        | 0.13          |
| (2,3286) | 2:950:B:TYR:HE1  | 1:36:A:THR:HG22 | 8        | 0.13          |
| (2,3286) | 2:950:B:TYR:HE1  | 1:36:A:THR:HG23 | 8        | 0.13          |
| (2,3286) | 2:950:B:TYR:HE2  | 1:36:A:THR:HG21 | 8        | 0.13          |
| (2,3286) | 2:950:B:TYR:HE2  | 1:36:A:THR:HG22 | 8        | 0.13          |
| (2,3286) | 2:950:B:TYR:HE2  | 1:36:A:THR:HG23 | 8        | 0.13          |
| (2,3251) | 2:948:B:PHE:HE1  | 1:88:A:CYS:H    | 13       | 0.13          |
| (2,3251) | 2:948:B:PHE:HE2  | 1:88:A:CYS:H    | 13       | 0.13          |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 1        | 0.13          |
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 12       | 0.13          |
| (2,3097) | 1:33:A:LEU:HD22  | 2:950:B:TYR:H   | 12       | 0.13          |
| (2,3097) | 1:33:A:LEU:HD23  | 2:950:B:TYR:H   | 12       | 0.13          |
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 13       | 0.13          |
| (2,3097) | 1:33:A:LEU:HD22  | 2:950:B:TYR:H   | 13       | 0.13          |
| (2,3097) | 1:33:A:LEU:HD23  | 2:950:B:TYR:H   | 13       | 0.13          |
| (2,3071) | 2:951:B:ILE:HG21 | 2:950:B:TYR:H   | 11       | 0.13          |
| (2,3071) | 2:951:B:ILE:HG22 | 2:950:B:TYR:H   | 11       | 0.13          |
| (2,3071) | 2:951:B:ILE:HG23 | 2:950:B:TYR:H   | 11       | 0.13          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 6        | 0.13          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 6        | 0.13          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 6        | 0.13          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 6        | 0.13          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 6        | 0.13          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 6        | 0.13          |
| (2,3059) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HB2 | 14       | 0.13          |
| (2,3059) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HB3 | 14       | 0.13          |
| (2,3059) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HB2 | 14       | 0.13          |
| (2,3059) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HB3 | 14       | 0.13          |
| (2,3059) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HB2 | 14       | 0.13          |
| (2,3059) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HB3 | 14       | 0.13          |
| (2,3053) | 2:951:B:ILE:HG12 | 2:950:B:TYR:HA  | 14       | 0.13          |
| (2,3053) | 2:951:B:ILE:HG13 | 2:950:B:TYR:HA  | 14       | 0.13          |
| (2,3025) | 2:950:B:TYR:HE1  | 2:950:B:TYR:HA  | 5        | 0.13          |
| (2,3025) | 2:950:B:TYR:HE2  | 2:950:B:TYR:HA  | 5        | 0.13          |
| (2,3025) | 2:950:B:TYR:HE1  | 2:950:B:TYR:HA  | 14       | 0.13          |
| (2,3025) | 2:950:B:TYR:HE2  | 2:950:B:TYR:HA  | 14       | 0.13          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H   | 11       | 0.13          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H   | 11       | 0.13          |
| (2,2877) | 1:130:A:ASN:HA   | 1:129:A:ASN:H   | 7        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA   | 2        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA   | 2        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA   | 2        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA   | 2        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA   | 2        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA   | 2        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA   | 9        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA   | 9        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA   | 9        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA   | 9        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA   | 9        | 0.13          |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA   | 9        | 0.13          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21 | 3        | 0.13          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22 | 3        | 0.13          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23 | 3        | 0.13          |
| (2,2782) | 1:127:A:TYR:HB2  | 1:126:A:GLU:H   | 2        | 0.13          |
| (2,2782) | 1:127:A:TYR:HB3  | 1:126:A:GLU:H   | 2        | 0.13          |
| (2,2724) | 1:126:A:GLU:HG2  | 1:126:A:GLU:H   | 6        | 0.13          |
| (2,2724) | 1:126:A:GLU:HG3  | 1:126:A:GLU:H   | 6        | 0.13          |
| (2,2716) | 1:126:A:GLU:HB2  | 1:125:A:ASN:H   | 13       | 0.13          |
| (2,2716) | 1:126:A:GLU:HB3  | 1:125:A:ASN:H   | 13       | 0.13          |
| (2,2715) | 1:126:A:GLU:HB2  | 1:127:A:TYR:H   | 10       | 0.13          |
| (2,2715) | 1:126:A:GLU:HB3  | 1:127:A:TYR:H   | 10       | 0.13          |
| (2,2705) | 1:126:A:GLU:H    | 1:129:A:ASN:H   | 10       | 0.13          |
| (2,2671) | 1:124:A:VAL:HG11 | 1:129:A:ASN:H   | 12       | 0.13          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (2,2671) | 1:124:A:VAL:HG12 | 1:129:A:ASN:H    | 12       | 0.13          |
| (2,2671) | 1:124:A:VAL:HG13 | 1:129:A:ASN:H    | 12       | 0.13          |
| (2,2671) | 1:124:A:VAL:HG21 | 1:129:A:ASN:H    | 12       | 0.13          |
| (2,2671) | 1:124:A:VAL:HG22 | 1:129:A:ASN:H    | 12       | 0.13          |
| (2,2671) | 1:124:A:VAL:HG23 | 1:129:A:ASN:H    | 12       | 0.13          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB2  | 4        | 0.13          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB3  | 4        | 0.13          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB2  | 4        | 0.13          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB3  | 4        | 0.13          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB2  | 7        | 0.13          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB3  | 7        | 0.13          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB2  | 7        | 0.13          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB3  | 7        | 0.13          |
| (2,2615) | 1:123:A:LYS:HB2  | 1:122:A:ARG:HG2  | 7        | 0.13          |
| (2,2615) | 1:123:A:LYS:HB2  | 1:122:A:ARG:HG3  | 7        | 0.13          |
| (2,2615) | 1:123:A:LYS:HB3  | 1:122:A:ARG:HG2  | 7        | 0.13          |
| (2,2615) | 1:123:A:LYS:HB3  | 1:122:A:ARG:HG3  | 7        | 0.13          |
| (2,2608) | 1:122:A:ARG:HD2  | 1:122:A:ARG:H    | 12       | 0.13          |
| (2,2608) | 1:122:A:ARG:HD3  | 1:122:A:ARG:H    | 12       | 0.13          |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H    | 1        | 0.13          |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H    | 13       | 0.13          |
| (2,2588) | 1:122:A:ARG:HA   | 1:122:A:ARG:HD2  | 5        | 0.13          |
| (2,2588) | 1:122:A:ARG:HA   | 1:122:A:ARG:HD3  | 5        | 0.13          |
| (2,2571) | 1:121:A:CYS:H    | 1:124:A:VAL:H    | 5        | 0.13          |
| (2,2571) | 1:121:A:CYS:H    | 1:124:A:VAL:H    | 9        | 0.13          |
| (2,2571) | 1:121:A:CYS:H    | 1:124:A:VAL:H    | 11       | 0.13          |
| (2,2571) | 1:121:A:CYS:H    | 1:124:A:VAL:H    | 13       | 0.13          |
| (2,2571) | 1:121:A:CYS:H    | 1:124:A:VAL:H    | 14       | 0.13          |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE1  | 4        | 0.13          |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE2  | 4        | 0.13          |
| (2,2567) | 1:121:A:CYS:HA   | 1:109:A:MET:HE3  | 4        | 0.13          |
| (2,2525) | 1:118:A:GLU:HG2  | 1:120:A:HIS:H    | 2        | 0.13          |
| (2,2525) | 1:118:A:GLU:HG3  | 1:120:A:HIS:H    | 2        | 0.13          |
| (2,2525) | 1:118:A:GLU:HG2  | 1:120:A:HIS:H    | 14       | 0.13          |
| (2,2525) | 1:118:A:GLU:HG3  | 1:120:A:HIS:H    | 14       | 0.13          |
| (2,2522) | 1:118:A:GLU:HB2  | 1:117:A:ASP:H    | 3        | 0.13          |
| (2,2522) | 1:118:A:GLU:HB3  | 1:117:A:ASP:H    | 3        | 0.13          |
| (2,2489) | 1:116:A:GLN:HB2  | 1:119:A:GLU:H    | 2        | 0.13          |
| (2,2489) | 1:116:A:GLN:HB3  | 1:119:A:GLU:H    | 2        | 0.13          |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE21 | 11       | 0.13          |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE22 | 11       | 0.13          |
| (2,2483) | 1:116:A:GLN:HA   | 1:116:A:GLN:HE21 | 12       | 0.13          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,2483) | 1:116:A:GLN:HA  | 1:116:A:GLN:HE22 | 12       | 0.13          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H    | 4        | 0.13          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H    | 4        | 0.13          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H    | 5        | 0.13          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H    | 5        | 0.13          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H    | 11       | 0.13          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H    | 11       | 0.13          |
| (2,2441) | 1:113:A:LYS:HD2 | 1:113:A:LYS:H    | 1        | 0.13          |
| (2,2441) | 1:113:A:LYS:HD3 | 1:113:A:LYS:H    | 1        | 0.13          |
| (2,2419) | 1:113:A:LYS:HA  | 1:113:A:LYS:HD2  | 1        | 0.13          |
| (2,2419) | 1:113:A:LYS:HA  | 1:113:A:LYS:HD3  | 1        | 0.13          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H    | 1        | 0.13          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H    | 4        | 0.13          |
| (2,2377) | 1:110:A:GLN:HA  | 2:942:B:PRO:HA   | 1        | 0.13          |
| (2,2373) | 1:110:A:GLN:HA  | 1:28:A:ALA:H     | 1        | 0.13          |
| (2,2352) | 1:109:A:MET:H   | 1:111:A:GLU:H    | 3        | 0.13          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H     | 4        | 0.13          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1  | 7        | 0.13          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1  | 7        | 0.13          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1  | 13       | 0.13          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1  | 13       | 0.13          |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H     | 2        | 0.13          |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H     | 2        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11  | 5        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12  | 5        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13  | 5        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21  | 5        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22  | 5        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23  | 5        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11  | 6        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12  | 6        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13  | 6        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21  | 6        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22  | 6        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23  | 6        | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11  | 12       | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12  | 12       | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13  | 12       | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21  | 12       | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22  | 12       | 0.13          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23  | 12       | 0.13          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA   | 3        | 0.13          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 3        | 0.13          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 4        | 0.13          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 4        | 0.13          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 7        | 0.13          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 7        | 0.13          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 9        | 0.13          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 9        | 0.13          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 14       | 0.13          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 14       | 0.13          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 15       | 0.13          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 15       | 0.13          |
| (2,2236) | 1:106:A:PHE:HE1 | 1:33:A:LEU:H    | 15       | 0.13          |
| (2,2236) | 1:106:A:PHE:HE2 | 1:33:A:LEU:H    | 15       | 0.13          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG11 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG12 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG13 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG21 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG22 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG23 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG11 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG12 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG13 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG21 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG22 | 6        | 0.13          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG23 | 6        | 0.13          |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD2 | 11       | 0.13          |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD3 | 11       | 0.13          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 9        | 0.13          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 9        | 0.13          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 14       | 0.13          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 14       | 0.13          |
| (2,2133) | 1:103:A:LYS:HD2 | 1:103:A:LYS:H   | 15       | 0.13          |
| (2,2133) | 1:103:A:LYS:HD3 | 1:103:A:LYS:H   | 15       | 0.13          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 10       | 0.13          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 12       | 0.13          |
| (2,2058) | 1:98:A:PHE:HE1  | 1:97:A:LYS:H    | 5        | 0.13          |
| (2,2058) | 1:98:A:PHE:HE2  | 1:97:A:LYS:H    | 5        | 0.13          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 3        | 0.13          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 5        | 0.13          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 15       | 0.13          |
| (2,2005) | 1:98:A:PHE:HD1  | 1:103:A:LYS:HD2 | 12       | 0.13          |
| (2,2005) | 1:98:A:PHE:HD1  | 1:103:A:LYS:HD3 | 12       | 0.13          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2005) | 1:98:A:PHE:HD2  | 1:103:A:LYS:HD2 | 12       | 0.13          |
| (2,2005) | 1:98:A:PHE:HD2  | 1:103:A:LYS:HD3 | 12       | 0.13          |
| (2,1956) | 1:96:A:LEU:HD11 | 1:82:A:PHE:H    | 7        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD12 | 1:82:A:PHE:H    | 7        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD13 | 1:82:A:PHE:H    | 7        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD21 | 1:82:A:PHE:H    | 7        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD22 | 1:82:A:PHE:H    | 7        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD23 | 1:82:A:PHE:H    | 7        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD11 | 1:82:A:PHE:H    | 8        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD12 | 1:82:A:PHE:H    | 8        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD13 | 1:82:A:PHE:H    | 8        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD21 | 1:82:A:PHE:H    | 8        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD22 | 1:82:A:PHE:H    | 8        | 0.13          |
| (2,1956) | 1:96:A:LEU:HD23 | 1:82:A:PHE:H    | 8        | 0.13          |
| (2,1870) | 1:94:A:TYR:H    | 1:109:A:MET:H   | 2        | 0.13          |
| (2,1848) | 1:93:A:VAL:HB   | 1:91:A:GLY:H    | 5        | 0.13          |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H   | 6        | 0.13          |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 9        | 0.13          |
| (2,1816) | 1:87:A:GLN:HB2  | 1:87:A:GLN:HE21 | 2        | 0.13          |
| (2,1816) | 1:87:A:GLN:HB2  | 1:87:A:GLN:HE22 | 2        | 0.13          |
| (2,1816) | 1:87:A:GLN:HB3  | 1:87:A:GLN:HE21 | 2        | 0.13          |
| (2,1816) | 1:87:A:GLN:HB3  | 1:87:A:GLN:HE22 | 2        | 0.13          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 2        | 0.13          |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 8        | 0.13          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG11 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG12 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG13 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG21 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG22 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG23 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG11 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG12 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG13 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG21 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG22 | 15       | 0.13          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG23 | 15       | 0.13          |
| (2,1741) | 1:82:A:PHE:HE1  | 1:97:A:LYS:H    | 11       | 0.13          |
| (2,1741) | 1:82:A:PHE:HE2  | 1:97:A:LYS:H    | 11       | 0.13          |
| (2,1738) | 1:82:A:PHE:HE1  | 1:83:A:LYS:H    | 13       | 0.13          |
| (2,1738) | 1:82:A:PHE:HE2  | 1:83:A:LYS:H    | 13       | 0.13          |
| (2,1728) | 1:82:A:PHE:HD1  | 1:124:A:VAL:H   | 3        | 0.13          |
| (2,1728) | 1:82:A:PHE:HD2  | 1:124:A:VAL:H   | 3        | 0.13          |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,1728) | 1:82:A:PHE:HD1 | 1:124:A:VAL:H   | 8        | 0.13          |
| (2,1728) | 1:82:A:PHE:HD2 | 1:124:A:VAL:H   | 8        | 0.13          |
| (2,1715) | 1:82:A:PHE:HA  | 1:95:A:VAL:H    | 4        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1  | 5        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2  | 5        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1  | 5        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2  | 5        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1  | 8        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2  | 8        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1  | 8        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2  | 8        | 0.13          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1  | 10       | 0.13          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2  | 10       | 0.13          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1  | 10       | 0.13          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2  | 10       | 0.13          |
| (2,1601) | 1:77:A:PRO:HG2 | 1:78:A:ASP:H    | 13       | 0.13          |
| (2,1601) | 1:77:A:PRO:HG3 | 1:78:A:ASP:H    | 13       | 0.13          |
| (2,1541) | 1:75:A:ILE:HA  | 1:59:A:PHE:H    | 4        | 0.13          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H    | 2        | 0.13          |
| (2,1453) | 1:72:A:ASP:HA  | 1:59:A:PHE:H    | 12       | 0.13          |
| (2,1452) | 1:72:A:ASP:HA  | 1:60:A:CYS:H    | 10       | 0.13          |
| (2,1401) | 1:69:A:VAL:HA  | 1:71:A:ASP:H    | 8        | 0.13          |
| (2,1386) | 1:68:A:ASN:HB2 | 1:67:A:GLY:H    | 11       | 0.13          |
| (2,1386) | 1:68:A:ASN:HB3 | 1:67:A:GLY:H    | 11       | 0.13          |
| (2,1386) | 1:68:A:ASN:HB2 | 1:67:A:GLY:H    | 15       | 0.13          |
| (2,1386) | 1:68:A:ASN:HB3 | 1:67:A:GLY:H    | 15       | 0.13          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG11 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG12 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG13 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG21 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG22 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB2 | 1:69:A:VAL:HG23 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG11 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG12 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG13 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG21 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG22 | 5        | 0.13          |
| (2,1376) | 1:68:A:ASN:HB3 | 1:69:A:VAL:HG23 | 5        | 0.13          |
| (2,1343) | 1:65:A:THR:HA  | 1:67:A:GLY:H    | 9        | 0.13          |
| (2,1343) | 1:65:A:THR:HA  | 1:67:A:GLY:H    | 13       | 0.13          |
| (2,1297) | 1:63:A:ASP:H   | 1:67:A:GLY:H    | 1        | 0.13          |
| (2,1297) | 1:63:A:ASP:H   | 1:67:A:GLY:H    | 12       | 0.13          |

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| Key      | Atom-1         | Atom-2         | Model ID | Violation (Å) |
|----------|----------------|----------------|----------|---------------|
| (2,1292) | 1:62:A:LYS:HD2 | 1:67:A:GLY:H   | 11       | 0.13          |
| (2,1292) | 1:62:A:LYS:HD3 | 1:67:A:GLY:H   | 11       | 0.13          |
| (2,1287) | 1:62:A:LYS:HB2 | 1:63:A:ASP:H   | 5        | 0.13          |
| (2,1287) | 1:62:A:LYS:HB3 | 1:63:A:ASP:H   | 5        | 0.13          |
| (2,1272) | 1:62:A:LYS:H   | 1:70:A:GLU:H   | 10       | 0.13          |
| (2,1267) | 1:62:A:LYS:HE2 | 1:67:A:GLY:HA2 | 10       | 0.13          |
| (2,1267) | 1:62:A:LYS:HE2 | 1:67:A:GLY:HA3 | 10       | 0.13          |
| (2,1267) | 1:62:A:LYS:HE3 | 1:67:A:GLY:HA2 | 10       | 0.13          |
| (2,1267) | 1:62:A:LYS:HE3 | 1:67:A:GLY:HA3 | 10       | 0.13          |
| (2,1238) | 1:61:A:TRP:HZ3 | 1:64:A:ARG:H   | 9        | 0.13          |
| (2,1233) | 1:61:A:TRP:HE3 | 1:63:A:ASP:H   | 8        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 2        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 2        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 3        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 3        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 4        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 4        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 6        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 6        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 9        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 9        | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 10       | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 10       | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 11       | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 11       | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB2 | 12       | 0.13          |
| (2,1184) | 1:61:A:TRP:HZ2 | 1:61:A:TRP:HB3 | 12       | 0.13          |
| (2,1149) | 1:60:A:CYS:H   | 1:50:A:GLN:H   | 15       | 0.13          |
| (2,1132) | 1:59:A:PHE:HD1 | 1:72:A:ASP:H   | 5        | 0.13          |
| (2,1132) | 1:59:A:PHE:HD2 | 1:72:A:ASP:H   | 5        | 0.13          |
| (2,1132) | 1:59:A:PHE:HD1 | 1:72:A:ASP:H   | 9        | 0.13          |
| (2,1132) | 1:59:A:PHE:HD2 | 1:72:A:ASP:H   | 9        | 0.13          |
| (2,1125) | 1:59:A:PHE:HA  | 1:75:A:ILE:H   | 12       | 0.13          |
| (2,1099) | 1:59:A:PHE:HE1 | 1:82:A:PHE:HD1 | 2        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE1 | 1:82:A:PHE:HD2 | 2        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE2 | 1:82:A:PHE:HD1 | 2        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE2 | 1:82:A:PHE:HD2 | 2        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE1 | 1:82:A:PHE:HD1 | 7        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE1 | 1:82:A:PHE:HD2 | 7        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE2 | 1:82:A:PHE:HD1 | 7        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE2 | 1:82:A:PHE:HD2 | 7        | 0.13          |
| (2,1099) | 1:59:A:PHE:HE1 | 1:82:A:PHE:HD1 | 11       | 0.13          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2  | 11       | 0.13          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1  | 11       | 0.13          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2  | 11       | 0.13          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 4        | 0.13          |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 7        | 0.13          |
| (2,1055) | 1:58:A:HIS:H    | 1:51:A:GLN:H    | 4        | 0.13          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H    | 12       | 0.13          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H    | 12       | 0.13          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H    | 12       | 0.13          |
| (2,1005) | 1:57:A:ILE:HD11 | 1:56:A:LEU:H    | 12       | 0.13          |
| (2,1005) | 1:57:A:ILE:HD12 | 1:56:A:LEU:H    | 12       | 0.13          |
| (2,1005) | 1:57:A:ILE:HD13 | 1:56:A:LEU:H    | 12       | 0.13          |
| (2,1000) | 1:57:A:ILE:HG12 | 1:58:A:HIS:H    | 4        | 0.13          |
| (2,1000) | 1:57:A:ILE:HG13 | 1:58:A:HIS:H    | 4        | 0.13          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H    | 1        | 0.13          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H    | 1        | 0.13          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H    | 1        | 0.13          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H    | 1        | 0.13          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H    | 1        | 0.13          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H    | 1        | 0.13          |
| (2,971)  | 1:56:A:LEU:HD11 | 1:56:A:LEU:H    | 11       | 0.13          |
| (2,971)  | 1:56:A:LEU:HD12 | 1:56:A:LEU:H    | 11       | 0.13          |
| (2,971)  | 1:56:A:LEU:HD13 | 1:56:A:LEU:H    | 11       | 0.13          |
| (2,971)  | 1:56:A:LEU:HD21 | 1:56:A:LEU:H    | 11       | 0.13          |
| (2,971)  | 1:56:A:LEU:HD22 | 1:56:A:LEU:H    | 11       | 0.13          |
| (2,971)  | 1:56:A:LEU:HD23 | 1:56:A:LEU:H    | 11       | 0.13          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 15       | 0.13          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 6        | 0.13          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD11 | 11       | 0.13          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD12 | 11       | 0.13          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD13 | 11       | 0.13          |
| (2,902)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HE21 | 6        | 0.13          |
| (2,902)  | 1:52:A:THR:HG21 | 1:50:A:GLN:HE22 | 6        | 0.13          |
| (2,902)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HE21 | 6        | 0.13          |
| (2,902)  | 1:52:A:THR:HG22 | 1:50:A:GLN:HE22 | 6        | 0.13          |
| (2,902)  | 1:52:A:THR:HG23 | 1:50:A:GLN:HE21 | 6        | 0.13          |
| (2,902)  | 1:52:A:THR:HG23 | 1:50:A:GLN:HE22 | 6        | 0.13          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 12       | 0.13          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 12       | 0.13          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 15       | 0.13          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 15       | 0.13          |
| (2,818)  | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 13       | 0.13          |

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| Key     | Atom-1          | Atom-2         | Model ID | Violation (Å) |
|---------|-----------------|----------------|----------|---------------|
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H   | 13       | 0.13          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H   | 13       | 0.13          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H   | 7        | 0.13          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H   | 7        | 0.13          |
| (2,734) | 1:48:A:TYR:HA   | 1:26:A:PHE:H   | 2        | 0.13          |
| (2,734) | 1:48:A:TYR:HA   | 1:26:A:PHE:H   | 3        | 0.13          |
| (2,734) | 1:48:A:TYR:HA   | 1:26:A:PHE:H   | 6        | 0.13          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H   | 2        | 0.13          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H   | 2        | 0.13          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H   | 2        | 0.13          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H   | 2        | 0.13          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H   | 2        | 0.13          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H   | 2        | 0.13          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H   | 4        | 0.13          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H   | 4        | 0.13          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H   | 4        | 0.13          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H   | 4        | 0.13          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H   | 4        | 0.13          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H   | 4        | 0.13          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H   | 11       | 0.13          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H   | 11       | 0.13          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H   | 11       | 0.13          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H   | 11       | 0.13          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H   | 11       | 0.13          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H   | 11       | 0.13          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H   | 15       | 0.13          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H   | 15       | 0.13          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H   | 15       | 0.13          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H   | 15       | 0.13          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H   | 15       | 0.13          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H   | 15       | 0.13          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H   | 3        | 0.13          |
| (2,650) | 1:46:A:LEU:HG   | 1:28:A:ALA:H   | 2        | 0.13          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H   | 9        | 0.13          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H   | 9        | 0.13          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H   | 8        | 0.13          |
| (2,636) | 1:46:A:LEU:H    | 1:48:A:TYR:H   | 15       | 0.13          |
| (2,606) | 1:44:A:LYS:H    | 1:64:A:ARG:H   | 1        | 0.13          |
| (2,503) | 1:39:A:THR:HA   | 1:32:A:SER:H   | 11       | 0.13          |
| (2,501) | 1:39:A:THR:H    | 1:34:A:LYS:H   | 5        | 0.13          |
| (2,411) | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE2 | 6        | 0.13          |
| (2,411) | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE3 | 6        | 0.13          |

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| Key     | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|---------|----------------|-----------------|----------|---------------|
| (2,411) | 1:34:A:LYS:HB3 | 1:34:A:LYS:HE2  | 6        | 0.13          |
| (2,411) | 1:34:A:LYS:HB3 | 1:34:A:LYS:HE3  | 6        | 0.13          |
| (2,411) | 1:34:A:LYS:HB2 | 1:34:A:LYS:HE2  | 12       | 0.13          |
| (2,411) | 1:34:A:LYS:HB2 | 1:34:A:LYS:HE3  | 12       | 0.13          |
| (2,411) | 1:34:A:LYS:HB3 | 1:34:A:LYS:HE2  | 12       | 0.13          |
| (2,411) | 1:34:A:LYS:HB3 | 1:34:A:LYS:HE3  | 12       | 0.13          |
| (2,411) | 1:34:A:LYS:HB2 | 1:34:A:LYS:HE2  | 14       | 0.13          |
| (2,411) | 1:34:A:LYS:HB2 | 1:34:A:LYS:HE3  | 14       | 0.13          |
| (2,411) | 1:34:A:LYS:HB3 | 1:34:A:LYS:HE2  | 14       | 0.13          |
| (2,411) | 1:34:A:LYS:HB3 | 1:34:A:LYS:HE3  | 14       | 0.13          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB2  | 2        | 0.13          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB3  | 2        | 0.13          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2  | 2        | 0.13          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3  | 2        | 0.13          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB2  | 9        | 0.13          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB3  | 9        | 0.13          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2  | 9        | 0.13          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3  | 9        | 0.13          |
| (2,386) | 1:33:A:LEU:HA  | 1:32:A:SER:H    | 6        | 0.13          |
| (2,343) | 1:31:A:MET:H   | 1:108:A:TRP:H   | 13       | 0.13          |
| (2,319) | 1:30:A:LYS:HA  | 1:108:A:TRP:HE1 | 8        | 0.13          |
| (2,297) | 1:29:A:GLY:H   | 1:111:A:GLU:H   | 1        | 0.13          |
| (2,273) | 1:28:A:ALA:HB1 | 1:111:A:GLU:H   | 1        | 0.13          |
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H   | 1        | 0.13          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H   | 1        | 0.13          |
| (2,273) | 1:28:A:ALA:HB1 | 1:111:A:GLU:H   | 15       | 0.13          |
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H   | 15       | 0.13          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H   | 15       | 0.13          |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H   | 10       | 0.13          |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H   | 10       | 0.13          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H    | 9        | 0.13          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H    | 9        | 0.13          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H    | 12       | 0.13          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H    | 12       | 0.13          |
| (2,220) | 1:26:A:PHE:HE1 | 1:124:A:VAL:H   | 2        | 0.13          |
| (2,220) | 1:26:A:PHE:HE2 | 1:124:A:VAL:H   | 2        | 0.13          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 5        | 0.13          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 5        | 0.13          |
| (2,167) | 1:25:A:GLU:HG2 | 1:22:A:TYR:H    | 11       | 0.13          |
| (2,167) | 1:25:A:GLU:HG3 | 1:22:A:TYR:H    | 11       | 0.13          |
| (2,167) | 1:25:A:GLU:HG2 | 1:22:A:TYR:H    | 13       | 0.13          |
| (2,167) | 1:25:A:GLU:HG3 | 1:22:A:TYR:H    | 13       | 0.13          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,162)  | 1:25:A:GLU:HA    | 1:47:A:VAL:H    | 12       | 0.13          |
| (2,138)  | 1:24:A:VAL:HG11  | 1:23:A:LEU:H    | 11       | 0.13          |
| (2,138)  | 1:24:A:VAL:HG12  | 1:23:A:LEU:H    | 11       | 0.13          |
| (2,138)  | 1:24:A:VAL:HG13  | 1:23:A:LEU:H    | 11       | 0.13          |
| (2,138)  | 1:24:A:VAL:HG21  | 1:23:A:LEU:H    | 11       | 0.13          |
| (2,138)  | 1:24:A:VAL:HG22  | 1:23:A:LEU:H    | 11       | 0.13          |
| (2,138)  | 1:24:A:VAL:HG23  | 1:23:A:LEU:H    | 11       | 0.13          |
| (2,109)  | 1:23:A:LEU:HB2   | 1:50:A:GLN:H    | 4        | 0.13          |
| (2,109)  | 1:23:A:LEU:HB3   | 1:50:A:GLN:H    | 4        | 0.13          |
| (2,102)  | 1:23:A:LEU:HA    | 1:51:A:GLN:H    | 13       | 0.13          |
| (2,92)   | 1:23:A:LEU:HD11  | 1:21:A:LYS:HA   | 15       | 0.13          |
| (2,92)   | 1:23:A:LEU:HD12  | 1:21:A:LYS:HA   | 15       | 0.13          |
| (2,92)   | 1:23:A:LEU:HD13  | 1:21:A:LYS:HA   | 15       | 0.13          |
| (2,92)   | 1:23:A:LEU:HD21  | 1:21:A:LYS:HA   | 15       | 0.13          |
| (2,92)   | 1:23:A:LEU:HD22  | 1:21:A:LYS:HA   | 15       | 0.13          |
| (2,92)   | 1:23:A:LEU:HD23  | 1:21:A:LYS:HA   | 15       | 0.13          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 2        | 0.13          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 2        | 0.13          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 5        | 0.13          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 5        | 0.13          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 7        | 0.13          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 7        | 0.13          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 11       | 0.13          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 11       | 0.13          |
| (2,71)   | 1:22:A:TYR:HD1   | 1:49:A:ILE:H    | 15       | 0.13          |
| (2,71)   | 1:22:A:TYR:HD2   | 1:49:A:ILE:H    | 15       | 0.13          |
| (1,8)    | 1:49:A:ILE:O     | 1:24:A:VAL:N    | 6        | 0.13          |
| (2,3251) | 2:948:B:PHE:HE1  | 1:88:A:CYS:H    | 14       | 0.12          |
| (2,3251) | 2:948:B:PHE:HE2  | 1:88:A:CYS:H    | 14       | 0.12          |
| (2,3126) | 1:37:A:THR:HB    | 2:948:B:PHE:H   | 14       | 0.12          |
| (2,3111) | 1:36:A:THR:HG21  | 2:950:B:TYR:H   | 5        | 0.12          |
| (2,3111) | 1:36:A:THR:HG22  | 2:950:B:TYR:H   | 5        | 0.12          |
| (2,3111) | 1:36:A:THR:HG23  | 2:950:B:TYR:H   | 5        | 0.12          |
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 3        | 0.12          |
| (2,3097) | 1:33:A:LEU:HD22  | 2:950:B:TYR:H   | 3        | 0.12          |
| (2,3097) | 1:33:A:LEU:HD23  | 2:950:B:TYR:H   | 3        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 4        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 4        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 4        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 4        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 4        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 4        | 0.12          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 8        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 8        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 8        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 8        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 8        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 8        | 0.12          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 12       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 12       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 12       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 12       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 12       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 12       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 14       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 14       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 14       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 14       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 14       | 0.12          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 14       | 0.12          |
| (2,3053) | 2:951:B:ILE:HG12 | 2:950:B:TYR:HA  | 5        | 0.12          |
| (2,3053) | 2:951:B:ILE:HG13 | 2:950:B:TYR:HA  | 5        | 0.12          |
| (2,3025) | 2:950:B:TYR:HE1  | 2:950:B:TYR:HA  | 4        | 0.12          |
| (2,3025) | 2:950:B:TYR:HE2  | 2:950:B:TYR:HA  | 4        | 0.12          |
| (2,3025) | 2:950:B:TYR:HE1  | 2:950:B:TYR:HA  | 11       | 0.12          |
| (2,3025) | 2:950:B:TYR:HE2  | 2:950:B:TYR:HA  | 11       | 0.12          |
| (2,3025) | 2:950:B:TYR:HE1  | 2:950:B:TYR:HA  | 12       | 0.12          |
| (2,3025) | 2:950:B:TYR:HE2  | 2:950:B:TYR:HA  | 12       | 0.12          |
| (2,3025) | 2:950:B:TYR:HE1  | 2:950:B:TYR:HA  | 13       | 0.12          |
| (2,3025) | 2:950:B:TYR:HE2  | 2:950:B:TYR:HA  | 13       | 0.12          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 7        | 0.12          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 7        | 0.12          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21 | 8        | 0.12          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22 | 8        | 0.12          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23 | 8        | 0.12          |
| (2,2784) | 1:127:A:TYR:HE1  | 1:127:A:TYR:H   | 11       | 0.12          |
| (2,2784) | 1:127:A:TYR:HE2  | 1:127:A:TYR:H   | 11       | 0.12          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG12 | 8        | 0.12          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG13 | 8        | 0.12          |
| (2,2767) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG12 | 8        | 0.12          |
| (2,2767) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG13 | 8        | 0.12          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG12 | 9        | 0.12          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG13 | 9        | 0.12          |
| (2,2767) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG12 | 9        | 0.12          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,2767) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG13  | 9        | 0.12          |
| (2,2747) | 1:127:A:TYR:HD1 | 1:24:A:VAL:HA    | 1        | 0.12          |
| (2,2747) | 1:127:A:TYR:HD2 | 1:24:A:VAL:HA    | 1        | 0.12          |
| (2,2747) | 1:127:A:TYR:HD1 | 1:24:A:VAL:HA    | 7        | 0.12          |
| (2,2747) | 1:127:A:TYR:HD2 | 1:24:A:VAL:HA    | 7        | 0.12          |
| (2,2747) | 1:127:A:TYR:HD1 | 1:24:A:VAL:HA    | 11       | 0.12          |
| (2,2747) | 1:127:A:TYR:HD2 | 1:24:A:VAL:HA    | 11       | 0.12          |
| (2,2747) | 1:127:A:TYR:HD1 | 1:24:A:VAL:HA    | 15       | 0.12          |
| (2,2747) | 1:127:A:TYR:HD2 | 1:24:A:VAL:HA    | 15       | 0.12          |
| (2,2724) | 1:126:A:GLU:HG2 | 1:126:A:GLU:H    | 12       | 0.12          |
| (2,2724) | 1:126:A:GLU:HG3 | 1:126:A:GLU:H    | 12       | 0.12          |
| (2,2705) | 1:126:A:GLU:H   | 1:129:A:ASN:H    | 11       | 0.12          |
| (2,2698) | 1:126:A:GLU:HA  | 1:125:A:ASN:HA   | 10       | 0.12          |
| (2,2623) | 1:123:A:LYS:H   | 1:126:A:GLU:H    | 8        | 0.12          |
| (2,2622) | 1:123:A:LYS:HE2 | 1:123:A:LYS:HB2  | 12       | 0.12          |
| (2,2622) | 1:123:A:LYS:HE2 | 1:123:A:LYS:HB3  | 12       | 0.12          |
| (2,2622) | 1:123:A:LYS:HE3 | 1:123:A:LYS:HB2  | 12       | 0.12          |
| (2,2622) | 1:123:A:LYS:HE3 | 1:123:A:LYS:HB3  | 12       | 0.12          |
| (2,2608) | 1:122:A:ARG:HD2 | 1:122:A:ARG:H    | 5        | 0.12          |
| (2,2608) | 1:122:A:ARG:HD3 | 1:122:A:ARG:H    | 5        | 0.12          |
| (2,2608) | 1:122:A:ARG:HD2 | 1:122:A:ARG:H    | 11       | 0.12          |
| (2,2608) | 1:122:A:ARG:HD3 | 1:122:A:ARG:H    | 11       | 0.12          |
| (2,2593) | 1:122:A:ARG:H   | 1:119:A:GLU:H    | 6        | 0.12          |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H    | 14       | 0.12          |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H    | 14       | 0.12          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H    | 3        | 0.12          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H    | 7        | 0.12          |
| (2,2525) | 1:118:A:GLU:HG2 | 1:120:A:HIS:H    | 1        | 0.12          |
| (2,2525) | 1:118:A:GLU:HG3 | 1:120:A:HIS:H    | 1        | 0.12          |
| (2,2525) | 1:118:A:GLU:HG2 | 1:120:A:HIS:H    | 12       | 0.12          |
| (2,2525) | 1:118:A:GLU:HG3 | 1:120:A:HIS:H    | 12       | 0.12          |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H    | 5        | 0.12          |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H    | 5        | 0.12          |
| (2,2489) | 1:116:A:GLN:HB2 | 1:119:A:GLU:H    | 7        | 0.12          |
| (2,2489) | 1:116:A:GLN:HB3 | 1:119:A:GLU:H    | 7        | 0.12          |
| (2,2483) | 1:116:A:GLN:HA  | 1:116:A:GLN:HE21 | 5        | 0.12          |
| (2,2483) | 1:116:A:GLN:HA  | 1:116:A:GLN:HE22 | 5        | 0.12          |
| (2,2483) | 1:116:A:GLN:HA  | 1:116:A:GLN:HE21 | 13       | 0.12          |
| (2,2483) | 1:116:A:GLN:HA  | 1:116:A:GLN:HE22 | 13       | 0.12          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H    | 7        | 0.12          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H    | 7        | 0.12          |
| (2,2441) | 1:113:A:LYS:HD2 | 1:113:A:LYS:H    | 11       | 0.12          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2441) | 1:113:A:LYS:HD3 | 1:113:A:LYS:H   | 11       | 0.12          |
| (2,2428) | 1:113:A:LYS:H   | 1:111:A:GLU:H   | 1        | 0.12          |
| (2,2428) | 1:113:A:LYS:H   | 1:111:A:GLU:H   | 11       | 0.12          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H   | 2        | 0.12          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H   | 3        | 0.12          |
| (2,2362) | 1:109:A:MET:HE1 | 1:111:A:GLU:H   | 13       | 0.12          |
| (2,2362) | 1:109:A:MET:HE2 | 1:111:A:GLU:H   | 13       | 0.12          |
| (2,2362) | 1:109:A:MET:HE3 | 1:111:A:GLU:H   | 13       | 0.12          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 6        | 0.12          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 6        | 0.12          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 9        | 0.12          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 9        | 0.12          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 10       | 0.12          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 10       | 0.12          |
| (2,2301) | 1:107:A:PHE:HD1 | 1:108:A:TRP:HE1 | 11       | 0.12          |
| (2,2301) | 1:107:A:PHE:HD2 | 1:108:A:TRP:HE1 | 11       | 0.12          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 14       | 0.12          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 14       | 0.12          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 14       | 0.12          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 14       | 0.12          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 14       | 0.12          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 14       | 0.12          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 5        | 0.12          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 5        | 0.12          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 12       | 0.12          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 12       | 0.12          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 14       | 0.12          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 14       | 0.12          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 2        | 0.12          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 2        | 0.12          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 4        | 0.12          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 4        | 0.12          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 6        | 0.12          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 6        | 0.12          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 12       | 0.12          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 12       | 0.12          |
| (2,2235) | 1:106:A:PHE:HE1 | 1:106:A:PHE:H   | 1        | 0.12          |
| (2,2235) | 1:106:A:PHE:HE2 | 1:106:A:PHE:H   | 1        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG11 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG12 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG13 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG21 | 9        | 0.12          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG22 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG23 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG11 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG12 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG13 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG21 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG22 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG23 | 9        | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG11 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG12 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG13 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG21 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG22 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG23 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG11 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG12 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG13 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG21 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG22 | 11       | 0.12          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG23 | 11       | 0.12          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG11 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG12 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG13 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG21 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG22 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG2 | 1:95:A:VAL:HG23 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG11 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG12 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG13 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG21 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG22 | 2        | 0.12          |
| (2,2150) | 1:104:A:ARG:HG3 | 1:95:A:VAL:HG23 | 2        | 0.12          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 7        | 0.12          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 7        | 0.12          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 13       | 0.12          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 13       | 0.12          |
| (2,2089) | 1:99:A:LYS:HG2  | 1:80:A:CYS:H    | 3        | 0.12          |
| (2,2089) | 1:99:A:LYS:HG3  | 1:80:A:CYS:H    | 3        | 0.12          |
| (2,2089) | 1:99:A:LYS:HG2  | 1:80:A:CYS:H    | 6        | 0.12          |
| (2,2089) | 1:99:A:LYS:HG3  | 1:80:A:CYS:H    | 6        | 0.12          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 10       | 0.12          |
| (2,2049) | 1:98:A:PHE:HD1  | 1:104:A:ARG:H   | 6        | 0.12          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2049) | 1:98:A:PHE:HD2  | 1:104:A:ARG:H   | 6        | 0.12          |
| (2,2049) | 1:98:A:PHE:HD1  | 1:104:A:ARG:H   | 8        | 0.12          |
| (2,2049) | 1:98:A:PHE:HD2  | 1:104:A:ARG:H   | 8        | 0.12          |
| (2,2035) | 1:98:A:PHE:HA   | 1:100:A:ALA:H   | 8        | 0.12          |
| (2,1991) | 1:97:A:LYS:HD2  | 1:98:A:PHE:H    | 9        | 0.12          |
| (2,1991) | 1:97:A:LYS:HD3  | 1:98:A:PHE:H    | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG11 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG12 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG13 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG21 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG22 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG23 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG11 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG12 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG13 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG21 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG22 | 9        | 0.12          |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG23 | 9        | 0.12          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 2        | 0.12          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 10       | 0.12          |
| (2,1896) | 1:95:A:VAL:HG11 | 1:97:A:LYS:HG2  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG11 | 1:97:A:LYS:HG3  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG12 | 1:97:A:LYS:HG2  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG12 | 1:97:A:LYS:HG3  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG13 | 1:97:A:LYS:HG2  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG13 | 1:97:A:LYS:HG3  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG21 | 1:97:A:LYS:HG2  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG21 | 1:97:A:LYS:HG3  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG22 | 1:97:A:LYS:HG2  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG22 | 1:97:A:LYS:HG3  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG23 | 1:97:A:LYS:HG2  | 2        | 0.12          |
| (2,1896) | 1:95:A:VAL:HG23 | 1:97:A:LYS:HG3  | 2        | 0.12          |
| (2,1878) | 1:94:A:TYR:HE1  | 1:109:A:MET:H   | 15       | 0.12          |
| (2,1878) | 1:94:A:TYR:HE2  | 1:109:A:MET:H   | 15       | 0.12          |
| (2,1870) | 1:94:A:TYR:H    | 1:109:A:MET:H   | 13       | 0.12          |
| (2,1841) | 1:93:A:VAL:HG11 | 1:95:A:VAL:H    | 4        | 0.12          |
| (2,1841) | 1:93:A:VAL:HG12 | 1:95:A:VAL:H    | 4        | 0.12          |
| (2,1841) | 1:93:A:VAL:HG13 | 1:95:A:VAL:H    | 4        | 0.12          |
| (2,1841) | 1:93:A:VAL:HG21 | 1:95:A:VAL:H    | 4        | 0.12          |
| (2,1841) | 1:93:A:VAL:HG22 | 1:95:A:VAL:H    | 4        | 0.12          |
| (2,1841) | 1:93:A:VAL:HG23 | 1:95:A:VAL:H    | 4        | 0.12          |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H   | 8        | 0.12          |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,1820) | 1:88:A:CYS:HA  | 1:91:A:GLY:H    | 3        | 0.12          |
| (2,1820) | 1:88:A:CYS:HA  | 1:91:A:GLY:H    | 8        | 0.12          |
| (2,1820) | 1:88:A:CYS:HA  | 1:91:A:GLY:H    | 15       | 0.12          |
| (2,1816) | 1:87:A:GLN:HB2 | 1:87:A:GLN:HE21 | 8        | 0.12          |
| (2,1816) | 1:87:A:GLN:HB2 | 1:87:A:GLN:HE22 | 8        | 0.12          |
| (2,1816) | 1:87:A:GLN:HB3 | 1:87:A:GLN:HE21 | 8        | 0.12          |
| (2,1816) | 1:87:A:GLN:HB3 | 1:87:A:GLN:HE22 | 8        | 0.12          |
| (2,1816) | 1:87:A:GLN:HB2 | 1:87:A:GLN:HE21 | 11       | 0.12          |
| (2,1816) | 1:87:A:GLN:HB2 | 1:87:A:GLN:HE22 | 11       | 0.12          |
| (2,1816) | 1:87:A:GLN:HB3 | 1:87:A:GLN:HE21 | 11       | 0.12          |
| (2,1816) | 1:87:A:GLN:HB3 | 1:87:A:GLN:HE22 | 11       | 0.12          |
| (2,1801) | 1:85:A:VAL:HB  | 1:88:A:CYS:H    | 9        | 0.12          |
| (2,1780) | 1:84:A:ARG:HD2 | 1:85:A:VAL:H    | 3        | 0.12          |
| (2,1780) | 1:84:A:ARG:HD3 | 1:85:A:VAL:H    | 3        | 0.12          |
| (2,1780) | 1:84:A:ARG:HD2 | 1:85:A:VAL:H    | 6        | 0.12          |
| (2,1780) | 1:84:A:ARG:HD3 | 1:85:A:VAL:H    | 6        | 0.12          |
| (2,1780) | 1:84:A:ARG:HD2 | 1:85:A:VAL:H    | 14       | 0.12          |
| (2,1780) | 1:84:A:ARG:HD3 | 1:85:A:VAL:H    | 14       | 0.12          |
| (2,1755) | 1:83:A:LYS:H   | 1:97:A:LYS:H    | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG11 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG12 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG13 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG21 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG22 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG23 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG11 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG12 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG13 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG21 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG22 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG23 | 5        | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG11 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG12 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG13 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG21 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG22 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG23 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG11 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG12 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG13 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG21 | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG22 | 12       | 0.12          |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG23  | 12       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG11  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG12  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG13  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG21  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG22  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB2 | 1:95:A:VAL:HG23  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG11  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG12  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG13  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG21  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG22  | 14       | 0.12          |
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG23  | 14       | 0.12          |
| (2,1741) | 1:82:A:PHE:HE1 | 1:97:A:LYS:H     | 14       | 0.12          |
| (2,1741) | 1:82:A:PHE:HE2 | 1:97:A:LYS:H     | 14       | 0.12          |
| (2,1728) | 1:82:A:PHE:HD1 | 1:124:A:VAL:H    | 1        | 0.12          |
| (2,1728) | 1:82:A:PHE:HD2 | 1:124:A:VAL:H    | 1        | 0.12          |
| (2,1728) | 1:82:A:PHE:HD1 | 1:124:A:VAL:H    | 9        | 0.12          |
| (2,1728) | 1:82:A:PHE:HD2 | 1:124:A:VAL:H    | 9        | 0.12          |
| (2,1728) | 1:82:A:PHE:HD1 | 1:124:A:VAL:H    | 13       | 0.12          |
| (2,1728) | 1:82:A:PHE:HD2 | 1:124:A:VAL:H    | 13       | 0.12          |
| (2,1715) | 1:82:A:PHE:HA  | 1:95:A:VAL:H     | 7        | 0.12          |
| (2,1715) | 1:82:A:PHE:HA  | 1:95:A:VAL:H     | 10       | 0.12          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD21 | 12       | 0.12          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD22 | 12       | 0.12          |
| (2,1686) | 1:81:A:GLU:HB2 | 1:82:A:PHE:H     | 6        | 0.12          |
| (2,1686) | 1:81:A:GLU:HB3 | 1:82:A:PHE:H     | 6        | 0.12          |
| (2,1685) | 1:81:A:GLU:HB2 | 1:83:A:LYS:H     | 9        | 0.12          |
| (2,1685) | 1:81:A:GLU:HB3 | 1:83:A:LYS:H     | 9        | 0.12          |
| (2,1680) | 1:81:A:GLU:HG2 | 1:81:A:GLU:H     | 2        | 0.12          |
| (2,1680) | 1:81:A:GLU:HG3 | 1:81:A:GLU:H     | 2        | 0.12          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB2   | 7        | 0.12          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB3   | 7        | 0.12          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB2   | 7        | 0.12          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB3   | 7        | 0.12          |
| (2,1648) | 1:80:A:CYS:HA  | 1:97:A:LYS:H     | 15       | 0.12          |
| (2,1616) | 1:79:A:ASP:HA  | 1:75:A:ILE:HG21  | 4        | 0.12          |
| (2,1616) | 1:79:A:ASP:HA  | 1:75:A:ILE:HG22  | 4        | 0.12          |
| (2,1616) | 1:79:A:ASP:HA  | 1:75:A:ILE:HG23  | 4        | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG21  | 1        | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG22  | 1        | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG23  | 1        | 0.12          |

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| Key      | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|----------|----------------|-----------------|----------|---------------|
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG21 | 8        | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG22 | 8        | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG23 | 8        | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG21 | 11       | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG22 | 11       | 0.12          |
| (2,1490) | 1:74:A:ILE:HA  | 1:57:A:ILE:HG23 | 11       | 0.12          |
| (2,1483) | 1:73:A:LEU:HG  | 1:74:A:ILE:H    | 5        | 0.12          |
| (2,1480) | 1:73:A:LEU:HG  | 1:72:A:ASP:H    | 3        | 0.12          |
| (2,1477) | 1:73:A:LEU:HB2 | 1:59:A:PHE:H    | 13       | 0.12          |
| (2,1477) | 1:73:A:LEU:HB3 | 1:59:A:PHE:H    | 13       | 0.12          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H    | 4        | 0.12          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H    | 12       | 0.12          |
| (2,1472) | 1:73:A:LEU:HA  | 1:59:A:PHE:H    | 14       | 0.12          |
| (2,1453) | 1:72:A:ASP:HA  | 1:59:A:PHE:H    | 3        | 0.12          |
| (2,1452) | 1:72:A:ASP:HA  | 1:60:A:CYS:H    | 13       | 0.12          |
| (2,1401) | 1:69:A:VAL:HA  | 1:71:A:ASP:H    | 4        | 0.12          |
| (2,1401) | 1:69:A:VAL:HA  | 1:71:A:ASP:H    | 11       | 0.12          |
| (2,1384) | 1:68:A:ASN:HA  | 1:70:A:GLU:H    | 6        | 0.12          |
| (2,1384) | 1:68:A:ASN:HA  | 1:70:A:GLU:H    | 10       | 0.12          |
| (2,1363) | 1:66:A:SER:HB2 | 1:68:A:ASN:HD21 | 6        | 0.12          |
| (2,1363) | 1:66:A:SER:HB2 | 1:68:A:ASN:HD22 | 6        | 0.12          |
| (2,1363) | 1:66:A:SER:HB3 | 1:68:A:ASN:HD21 | 6        | 0.12          |
| (2,1363) | 1:66:A:SER:HB3 | 1:68:A:ASN:HD22 | 6        | 0.12          |
| (2,1355) | 1:65:A:THR:HB  | 1:64:A:ARG:H    | 4        | 0.12          |
| (2,1355) | 1:65:A:THR:HB  | 1:64:A:ARG:H    | 5        | 0.12          |
| (2,1355) | 1:65:A:THR:HB  | 1:64:A:ARG:H    | 12       | 0.12          |
| (2,1343) | 1:65:A:THR:HA  | 1:67:A:GLY:H    | 1        | 0.12          |
| (2,1343) | 1:65:A:THR:HA  | 1:67:A:GLY:H    | 10       | 0.12          |
| (2,1329) | 1:64:A:ARG:HG2 | 1:28:A:ALA:H    | 1        | 0.12          |
| (2,1329) | 1:64:A:ARG:HG3 | 1:28:A:ALA:H    | 1        | 0.12          |
| (2,1329) | 1:64:A:ARG:HG2 | 1:28:A:ALA:H    | 5        | 0.12          |
| (2,1329) | 1:64:A:ARG:HG3 | 1:28:A:ALA:H    | 5        | 0.12          |
| (2,1329) | 1:64:A:ARG:HG2 | 1:28:A:ALA:H    | 13       | 0.12          |
| (2,1329) | 1:64:A:ARG:HG3 | 1:28:A:ALA:H    | 13       | 0.12          |
| (2,1297) | 1:63:A:ASP:H   | 1:67:A:GLY:H    | 6        | 0.12          |
| (2,1297) | 1:63:A:ASP:H   | 1:67:A:GLY:H    | 14       | 0.12          |
| (2,1274) | 1:62:A:LYS:HA  | 1:71:A:ASP:H    | 12       | 0.12          |
| (2,1272) | 1:62:A:LYS:H   | 1:70:A:GLU:H    | 13       | 0.12          |
| (2,1267) | 1:62:A:LYS:HE2 | 1:67:A:GLY:HA2  | 1        | 0.12          |
| (2,1267) | 1:62:A:LYS:HE2 | 1:67:A:GLY:HA3  | 1        | 0.12          |
| (2,1267) | 1:62:A:LYS:HE3 | 1:67:A:GLY:HA2  | 1        | 0.12          |
| (2,1267) | 1:62:A:LYS:HE3 | 1:67:A:GLY:HA3  | 1        | 0.12          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 10       | 0.12          |
| (2,1208) | 1:61:A:TRP:HD1  | 1:48:A:TYR:H    | 8        | 0.12          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 1        | 0.12          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 1        | 0.12          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 7        | 0.12          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 7        | 0.12          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 15       | 0.12          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 15       | 0.12          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 10       | 0.12          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 10       | 0.12          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD1  | 8        | 0.12          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2  | 8        | 0.12          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1  | 8        | 0.12          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2  | 8        | 0.12          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD1  | 14       | 0.12          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2  | 14       | 0.12          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1  | 14       | 0.12          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2  | 14       | 0.12          |
| (2,1055) | 1:58:A:HIS:H    | 1:51:A:GLN:H    | 14       | 0.12          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 14       | 0.12          |
| (2,1007) | 1:57:A:ILE:HD11 | 1:50:A:GLN:H    | 2        | 0.12          |
| (2,1007) | 1:57:A:ILE:HD12 | 1:50:A:GLN:H    | 2        | 0.12          |
| (2,1007) | 1:57:A:ILE:HD13 | 1:50:A:GLN:H    | 2        | 0.12          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 3        | 0.12          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 7        | 0.12          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 9        | 0.12          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 11       | 0.12          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 13       | 0.12          |
| (2,956)  | 1:56:A:LEU:HA   | 1:75:A:ILE:H    | 15       | 0.12          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD11 | 1        | 0.12          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD12 | 1        | 0.12          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD13 | 1        | 0.12          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD11 | 3        | 0.12          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD12 | 3        | 0.12          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD13 | 3        | 0.12          |
| (2,931)  | 1:55:A:SER:HB2  | 1:56:A:LEU:H    | 11       | 0.12          |
| (2,931)  | 1:55:A:SER:HB3  | 1:56:A:LEU:H    | 11       | 0.12          |
| (2,927)  | 1:55:A:SER:HA   | 1:54:A:ASP:H    | 4        | 0.12          |
| (2,907)  | 1:53:A:ASP:HA   | 1:52:A:THR:H    | 6        | 0.12          |
| (2,907)  | 1:53:A:ASP:HA   | 1:52:A:THR:H    | 8        | 0.12          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 4        | 0.12          |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 4        | 0.12          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 8        | 0.12          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 8        | 0.12          |
| (2,864) | 1:51:A:GLN:HE21 | 1:55:A:SER:H    | 6        | 0.12          |
| (2,864) | 1:51:A:GLN:HE22 | 1:55:A:SER:H    | 6        | 0.12          |
| (2,842) | 1:50:A:GLN:HG2  | 1:58:A:HIS:H    | 8        | 0.12          |
| (2,842) | 1:50:A:GLN:HG3  | 1:58:A:HIS:H    | 8        | 0.12          |
| (2,842) | 1:50:A:GLN:HG2  | 1:58:A:HIS:H    | 15       | 0.12          |
| (2,842) | 1:50:A:GLN:HG3  | 1:58:A:HIS:H    | 15       | 0.12          |
| (2,824) | 1:49:A:ILE:HD11 | 1:129:A:ASN:H   | 10       | 0.12          |
| (2,824) | 1:49:A:ILE:HD12 | 1:129:A:ASN:H   | 10       | 0.12          |
| (2,824) | 1:49:A:ILE:HD13 | 1:129:A:ASN:H   | 10       | 0.12          |
| (2,819) | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 3        | 0.12          |
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 3        | 0.12          |
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 3        | 0.12          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 5        | 0.12          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 5        | 0.12          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 5        | 0.12          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 6        | 0.12          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 6        | 0.12          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 6        | 0.12          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 10       | 0.12          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 10       | 0.12          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 10       | 0.12          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 12       | 0.12          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 12       | 0.12          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 12       | 0.12          |
| (2,792) | 1:49:A:ILE:HA   | 1:58:A:HIS:H    | 3        | 0.12          |
| (2,754) | 1:48:A:TYR:HE1  | 1:46:A:LEU:H    | 3        | 0.12          |
| (2,754) | 1:48:A:TYR:HE2  | 1:46:A:LEU:H    | 3        | 0.12          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 11       | 0.12          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 11       | 0.12          |
| (2,734) | 1:48:A:TYR:HA   | 1:26:A:PHE:H    | 15       | 0.12          |
| (2,730) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE2  | 2        | 0.12          |
| (2,730) | 1:48:A:TYR:HE1  | 1:62:A:LYS:HE3  | 2        | 0.12          |
| (2,730) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE2  | 2        | 0.12          |
| (2,730) | 1:48:A:TYR:HE2  | 1:62:A:LYS:HE3  | 2        | 0.12          |
| (2,683) | 1:47:A:VAL:HG11 | 1:49:A:ILE:H    | 10       | 0.12          |
| (2,683) | 1:47:A:VAL:HG12 | 1:49:A:ILE:H    | 10       | 0.12          |
| (2,683) | 1:47:A:VAL:HG13 | 1:49:A:ILE:H    | 10       | 0.12          |
| (2,683) | 1:47:A:VAL:HG21 | 1:49:A:ILE:H    | 10       | 0.12          |
| (2,683) | 1:47:A:VAL:HG22 | 1:49:A:ILE:H    | 10       | 0.12          |
| (2,683) | 1:47:A:VAL:HG23 | 1:49:A:ILE:H    | 10       | 0.12          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 10       | 0.12          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 11       | 0.12          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 13       | 0.12          |
| (2,643) | 1:46:A:LEU:HB2  | 1:48:A:TYR:H    | 4        | 0.12          |
| (2,643) | 1:46:A:LEU:HB3  | 1:48:A:TYR:H    | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD2  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD11 | 1:62:A:LYS:HD3  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD2  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD12 | 1:62:A:LYS:HD3  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD2  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD13 | 1:62:A:LYS:HD3  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD2  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD21 | 1:62:A:LYS:HD3  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD2  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD22 | 1:62:A:LYS:HD3  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD2  | 4        | 0.12          |
| (2,635) | 1:46:A:LEU:HD23 | 1:62:A:LYS:HD3  | 4        | 0.12          |
| (2,553) | 1:42:A:LYS:HE2  | 1:43:A:ARG:H    | 13       | 0.12          |
| (2,553) | 1:42:A:LYS:HE3  | 1:43:A:ARG:H    | 13       | 0.12          |
| (2,506) | 1:39:A:THR:HB   | 1:32:A:SER:H    | 9        | 0.12          |
| (2,503) | 1:39:A:THR:HA   | 1:32:A:SER:H    | 6        | 0.12          |
| (2,503) | 1:39:A:THR:HA   | 1:32:A:SER:H    | 7        | 0.12          |
| (2,501) | 1:39:A:THR:H    | 1:34:A:LYS:H    | 10       | 0.12          |
| (2,428) | 1:34:A:LYS:HB2  | 1:33:A:LEU:H    | 6        | 0.12          |
| (2,428) | 1:34:A:LYS:HB3  | 1:33:A:LEU:H    | 6        | 0.12          |
| (2,411) | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE2  | 5        | 0.12          |
| (2,411) | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE3  | 5        | 0.12          |
| (2,411) | 1:34:A:LYS:HB3  | 1:34:A:LYS:HE2  | 5        | 0.12          |
| (2,411) | 1:34:A:LYS:HB3  | 1:34:A:LYS:HE3  | 5        | 0.12          |
| (2,411) | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE2  | 9        | 0.12          |
| (2,411) | 1:34:A:LYS:HB2  | 1:34:A:LYS:HE3  | 9        | 0.12          |
| (2,411) | 1:34:A:LYS:HB3  | 1:34:A:LYS:HE2  | 9        | 0.12          |
| (2,411) | 1:34:A:LYS:HB3  | 1:34:A:LYS:HE3  | 9        | 0.12          |
| (2,386) | 1:33:A:LEU:HA   | 1:32:A:SER:H    | 11       | 0.12          |
| (2,319) | 1:30:A:LYS:HA   | 1:108:A:TRP:HE1 | 7        | 0.12          |
| (2,273) | 1:28:A:ALA:HB1  | 1:111:A:GLU:H   | 3        | 0.12          |
| (2,273) | 1:28:A:ALA:HB2  | 1:111:A:GLU:H   | 3        | 0.12          |
| (2,273) | 1:28:A:ALA:HB3  | 1:111:A:GLU:H   | 3        | 0.12          |
| (2,273) | 1:28:A:ALA:HB1  | 1:111:A:GLU:H   | 6        | 0.12          |
| (2,273) | 1:28:A:ALA:HB2  | 1:111:A:GLU:H   | 6        | 0.12          |
| (2,273) | 1:28:A:ALA:HB3  | 1:111:A:GLU:H   | 6        | 0.12          |
| (2,273) | 1:28:A:ALA:HB1  | 1:111:A:GLU:H   | 10       | 0.12          |

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| Key     | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|---------|----------------|------------------|----------|---------------|
| (2,273) | 1:28:A:ALA:HB2 | 1:111:A:GLU:H    | 10       | 0.12          |
| (2,273) | 1:28:A:ALA:HB3 | 1:111:A:GLU:H    | 10       | 0.12          |
| (2,253) | 1:28:A:ALA:HA  | 1:47:A:VAL:HG11  | 15       | 0.12          |
| (2,253) | 1:28:A:ALA:HA  | 1:47:A:VAL:HG12  | 15       | 0.12          |
| (2,253) | 1:28:A:ALA:HA  | 1:47:A:VAL:HG13  | 15       | 0.12          |
| (2,253) | 1:28:A:ALA:HA  | 1:47:A:VAL:HG21  | 15       | 0.12          |
| (2,253) | 1:28:A:ALA:HA  | 1:47:A:VAL:HG22  | 15       | 0.12          |
| (2,253) | 1:28:A:ALA:HA  | 1:47:A:VAL:HG23  | 15       | 0.12          |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H    | 13       | 0.12          |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H    | 13       | 0.12          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H    | 3        | 0.12          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H    | 3        | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG11 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG12 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG13 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG21 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG22 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG23 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG11 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG12 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG13 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG21 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG22 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG23 | 7        | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG11 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG12 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG13 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG21 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG22 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG23 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG11 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG12 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG13 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG21 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG22 | 12       | 0.12          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG23 | 12       | 0.12          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG11  | 2        | 0.12          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG12  | 2        | 0.12          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG13  | 2        | 0.12          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG21  | 2        | 0.12          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG22  | 2        | 0.12          |
| (2,188) | 1:26:A:PHE:HD1 | 1:47:A:VAL:HG23  | 2        | 0.12          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG11 | 2        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG12 | 2        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG13 | 2        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG21 | 2        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG22 | 2        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG23 | 2        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG11 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG12 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG13 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG21 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG22 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG23 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG11 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG12 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG13 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG21 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG22 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG23 | 5        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG11 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG12 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG13 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG21 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG22 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD1   | 1:47:A:VAL:HG23 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG11 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG12 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG13 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG21 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG22 | 9        | 0.12          |
| (2,188)  | 1:26:A:PHE:HD2   | 1:47:A:VAL:HG23 | 9        | 0.12          |
| (2,109)  | 1:23:A:LEU:HB2   | 1:50:A:GLN:H    | 15       | 0.12          |
| (2,109)  | 1:23:A:LEU:HB3   | 1:50:A:GLN:H    | 15       | 0.12          |
| (2,75)   | 1:22:A:TYR:HD1   | 1:51:A:GLN:H    | 8        | 0.12          |
| (2,75)   | 1:22:A:TYR:HD2   | 1:51:A:GLN:H    | 8        | 0.12          |
| (2,19)   | 1:21:A:LYS:H     | 1:22:A:TYR:H    | 14       | 0.12          |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE21 | 1        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE22 | 1        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE21 | 1        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE22 | 1        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE21 | 1        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE22 | 1        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE21 | 3        | 0.11          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE22 | 3        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE21 | 3        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE22 | 3        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE21 | 3        | 0.11          |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE22 | 3        | 0.11          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE1 | 9        | 0.11          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE2 | 9        | 0.11          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE1 | 9        | 0.11          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE2 | 9        | 0.11          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE1 | 14       | 0.11          |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE2 | 14       | 0.11          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE1 | 14       | 0.11          |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE2 | 14       | 0.11          |
| (2,3214) | 2:947:B:PRO:HA   | 1:39:A:THR:HB   | 11       | 0.11          |
| (2,3165) | 1:108:A:TRP:HZ2  | 2:944:B:PRO:HD2 | 14       | 0.11          |
| (2,3165) | 1:108:A:TRP:HZ2  | 2:944:B:PRO:HD3 | 14       | 0.11          |
| (2,3126) | 1:37:A:THR:HB    | 2:948:B:PHE:H   | 12       | 0.11          |
| (2,3110) | 1:36:A:THR:HG21  | 2:951:B:ILE:H   | 10       | 0.11          |
| (2,3110) | 1:36:A:THR:HG22  | 2:951:B:ILE:H   | 10       | 0.11          |
| (2,3110) | 1:36:A:THR:HG23  | 2:951:B:ILE:H   | 10       | 0.11          |
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 14       | 0.11          |
| (2,3097) | 1:33:A:LEU:HD22  | 2:950:B:TYR:H   | 14       | 0.11          |
| (2,3097) | 1:33:A:LEU:HD23  | 2:950:B:TYR:H   | 14       | 0.11          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG2 | 5        | 0.11          |
| (2,3060) | 2:951:B:ILE:HD11 | 2:949:B:GLU:HG3 | 5        | 0.11          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG2 | 5        | 0.11          |
| (2,3060) | 2:951:B:ILE:HD12 | 2:949:B:GLU:HG3 | 5        | 0.11          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG2 | 5        | 0.11          |
| (2,3060) | 2:951:B:ILE:HD13 | 2:949:B:GLU:HG3 | 5        | 0.11          |
| (2,3041) | 2:950:B:TYR:HD1  | 2:952:B:ASP:H   | 6        | 0.11          |
| (2,3041) | 2:950:B:TYR:HD2  | 2:952:B:ASP:H   | 6        | 0.11          |
| (2,3025) | 2:950:B:TYR:HE1  | 2:950:B:TYR:HA  | 10       | 0.11          |
| (2,3025) | 2:950:B:TYR:HE2  | 2:950:B:TYR:HA  | 10       | 0.11          |
| (2,2982) | 2:947:B:PRO:HG2  | 2:948:B:PHE:H   | 8        | 0.11          |
| (2,2982) | 2:947:B:PRO:HG3  | 2:948:B:PHE:H   | 8        | 0.11          |
| (2,2982) | 2:947:B:PRO:HG2  | 2:948:B:PHE:H   | 13       | 0.11          |
| (2,2982) | 2:947:B:PRO:HG3  | 2:948:B:PHE:H   | 13       | 0.11          |
| (2,2896) | 1:131:A:PRO:HG2  | 1:130:A:ASN:H   | 14       | 0.11          |
| (2,2896) | 1:131:A:PRO:HG3  | 1:130:A:ASN:H   | 14       | 0.11          |
| (2,2834) | 1:128:A:LEU:HB2  | 1:130:A:ASN:H   | 2        | 0.11          |
| (2,2834) | 1:128:A:LEU:HB3  | 1:130:A:ASN:H   | 2        | 0.11          |
| (2,2815) | 1:128:A:LEU:HD11 | 1:49:A:ILE:HA   | 3        | 0.11          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,2815) | 1:128:A:LEU:HD12 | 1:49:A:ILE:HA   | 3        | 0.11          |
| (2,2815) | 1:128:A:LEU:HD13 | 1:49:A:ILE:HA   | 3        | 0.11          |
| (2,2815) | 1:128:A:LEU:HD21 | 1:49:A:ILE:HA   | 3        | 0.11          |
| (2,2815) | 1:128:A:LEU:HD22 | 1:49:A:ILE:HA   | 3        | 0.11          |
| (2,2815) | 1:128:A:LEU:HD23 | 1:49:A:ILE:HA   | 3        | 0.11          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG21 | 10       | 0.11          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG22 | 10       | 0.11          |
| (2,2800) | 1:128:A:LEU:HA   | 1:49:A:ILE:HG23 | 10       | 0.11          |
| (2,2784) | 1:127:A:TYR:HE1  | 1:127:A:TYR:H   | 8        | 0.11          |
| (2,2784) | 1:127:A:TYR:HE2  | 1:127:A:TYR:H   | 8        | 0.11          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG12 | 3        | 0.11          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG13 | 3        | 0.11          |
| (2,2767) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG12 | 3        | 0.11          |
| (2,2767) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG13 | 3        | 0.11          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG12 | 13       | 0.11          |
| (2,2767) | 1:127:A:TYR:HE1  | 1:49:A:ILE:HG13 | 13       | 0.11          |
| (2,2767) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG12 | 13       | 0.11          |
| (2,2767) | 1:127:A:TYR:HE2  | 1:49:A:ILE:HG13 | 13       | 0.11          |
| (2,2762) | 1:127:A:TYR:HE1  | 1:131:A:PRO:HA  | 4        | 0.11          |
| (2,2762) | 1:127:A:TYR:HE2  | 1:131:A:PRO:HA  | 4        | 0.11          |
| (2,2762) | 1:127:A:TYR:HE1  | 1:131:A:PRO:HA  | 11       | 0.11          |
| (2,2762) | 1:127:A:TYR:HE2  | 1:131:A:PRO:HA  | 11       | 0.11          |
| (2,2747) | 1:127:A:TYR:HD1  | 1:24:A:VAL:HA   | 4        | 0.11          |
| (2,2747) | 1:127:A:TYR:HD2  | 1:24:A:VAL:HA   | 4        | 0.11          |
| (2,2644) | 1:124:A:VAL:HA   | 1:49:A:ILE:HG21 | 9        | 0.11          |
| (2,2644) | 1:124:A:VAL:HA   | 1:49:A:ILE:HG22 | 9        | 0.11          |
| (2,2644) | 1:124:A:VAL:HA   | 1:49:A:ILE:HG23 | 9        | 0.11          |
| (2,2640) | 1:123:A:LYS:HD2  | 1:123:A:LYS:H   | 8        | 0.11          |
| (2,2640) | 1:123:A:LYS:HD3  | 1:123:A:LYS:H   | 8        | 0.11          |
| (2,2640) | 1:123:A:LYS:HD2  | 1:123:A:LYS:H   | 13       | 0.11          |
| (2,2640) | 1:123:A:LYS:HD3  | 1:123:A:LYS:H   | 13       | 0.11          |
| (2,2623) | 1:123:A:LYS:H    | 1:126:A:GLU:H   | 14       | 0.11          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB2 | 1        | 0.11          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB3 | 1        | 0.11          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB2 | 1        | 0.11          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB3 | 1        | 0.11          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB2 | 6        | 0.11          |
| (2,2622) | 1:123:A:LYS:HE2  | 1:123:A:LYS:HB3 | 6        | 0.11          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB2 | 6        | 0.11          |
| (2,2622) | 1:123:A:LYS:HE3  | 1:123:A:LYS:HB3 | 6        | 0.11          |
| (2,2593) | 1:122:A:ARG:H    | 1:119:A:GLU:H   | 8        | 0.11          |
| (2,2588) | 1:122:A:ARG:HA   | 1:122:A:ARG:HD2 | 7        | 0.11          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (2,2588) | 1:122:A:ARG:HA  | 1:122:A:ARG:HD3  | 7        | 0.11          |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H    | 13       | 0.11          |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H    | 13       | 0.11          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H    | 2        | 0.11          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H    | 4        | 0.11          |
| (2,2571) | 1:121:A:CYS:H   | 1:124:A:VAL:H    | 15       | 0.11          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE1  | 13       | 0.11          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE2  | 13       | 0.11          |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE3  | 13       | 0.11          |
| (2,2525) | 1:118:A:GLU:HG2 | 1:120:A:HIS:H    | 7        | 0.11          |
| (2,2525) | 1:118:A:GLU:HG3 | 1:120:A:HIS:H    | 7        | 0.11          |
| (2,2522) | 1:118:A:GLU:HB2 | 1:117:A:ASP:H    | 14       | 0.11          |
| (2,2522) | 1:118:A:GLU:HB3 | 1:117:A:ASP:H    | 14       | 0.11          |
| (2,2508) | 1:118:A:GLU:H   | 1:116:A:GLN:H    | 3        | 0.11          |
| (2,2472) | 1:115:A:ASP:HB2 | 1:116:A:GLN:HE21 | 11       | 0.11          |
| (2,2472) | 1:115:A:ASP:HB2 | 1:116:A:GLN:HE22 | 11       | 0.11          |
| (2,2472) | 1:115:A:ASP:HB3 | 1:116:A:GLN:HE21 | 11       | 0.11          |
| (2,2472) | 1:115:A:ASP:HB3 | 1:116:A:GLN:HE22 | 11       | 0.11          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H    | 1        | 0.11          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H    | 1        | 0.11          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H    | 2        | 0.11          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H    | 2        | 0.11          |
| (2,2470) | 1:115:A:ASP:HB2 | 1:113:A:LYS:H    | 8        | 0.11          |
| (2,2470) | 1:115:A:ASP:HB3 | 1:113:A:LYS:H    | 8        | 0.11          |
| (2,2428) | 1:113:A:LYS:H   | 1:111:A:GLU:H    | 4        | 0.11          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H    | 5        | 0.11          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H    | 7        | 0.11          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H    | 9        | 0.11          |
| (2,2408) | 1:112:A:PRO:HA  | 1:111:A:GLU:H    | 13       | 0.11          |
| (2,2377) | 1:110:A:GLN:HA  | 2:942:B:PRO:HA   | 12       | 0.11          |
| (2,2377) | 1:110:A:GLN:HA  | 2:942:B:PRO:HA   | 13       | 0.11          |
| (2,2373) | 1:110:A:GLN:HA  | 1:28:A:ALA:H     | 5        | 0.11          |
| (2,2373) | 1:110:A:GLN:HA  | 1:28:A:ALA:H     | 7        | 0.11          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H     | 1        | 0.11          |
| (2,2332) | 1:108:A:TRP:HD1 | 1:30:A:LYS:H     | 3        | 0.11          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11  | 2        | 0.11          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12  | 2        | 0.11          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13  | 2        | 0.11          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21  | 2        | 0.11          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22  | 2        | 0.11          |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23  | 2        | 0.11          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA   | 1        | 0.11          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 1        | 0.11          |
| (2,2269) | 1:107:A:PHE:HE1 | 1:106:A:PHE:HA  | 13       | 0.11          |
| (2,2269) | 1:107:A:PHE:HE2 | 1:106:A:PHE:HA  | 13       | 0.11          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 5        | 0.11          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 5        | 0.11          |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 9        | 0.11          |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 9        | 0.11          |
| (2,2235) | 1:106:A:PHE:HE1 | 1:106:A:PHE:H   | 5        | 0.11          |
| (2,2235) | 1:106:A:PHE:HE2 | 1:106:A:PHE:H   | 5        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG11 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG12 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG13 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG21 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG22 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE1 | 1:93:A:VAL:HG23 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG11 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG12 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG13 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG21 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG22 | 8        | 0.11          |
| (2,2214) | 1:106:A:PHE:HE2 | 1:93:A:VAL:HG23 | 8        | 0.11          |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD2 | 13       | 0.11          |
| (2,2146) | 1:104:A:ARG:HA  | 1:104:A:ARG:HD3 | 13       | 0.11          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 2        | 0.11          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 2        | 0.11          |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 5        | 0.11          |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 5        | 0.11          |
| (2,2129) | 1:103:A:LYS:H   | 1:101:A:GLY:H   | 2        | 0.11          |
| (2,2129) | 1:103:A:LYS:H   | 1:101:A:GLY:H   | 6        | 0.11          |
| (2,2101) | 1:100:A:ALA:H   | 1:98:A:PHE:H    | 1        | 0.11          |
| (2,2089) | 1:99:A:LYS:HG2  | 1:80:A:CYS:H    | 13       | 0.11          |
| (2,2089) | 1:99:A:LYS:HG3  | 1:80:A:CYS:H    | 13       | 0.11          |
| (2,2081) | 1:99:A:LYS:HA   | 1:81:A:GLU:H    | 6        | 0.11          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG2  | 8        | 0.11          |
| (2,2073) | 1:99:A:LYS:HG2  | 1:81:A:GLU:HG3  | 8        | 0.11          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG2  | 8        | 0.11          |
| (2,2073) | 1:99:A:LYS:HG3  | 1:81:A:GLU:HG3  | 8        | 0.11          |
| (2,2035) | 1:98:A:PHE:HA   | 1:100:A:ALA:H   | 9        | 0.11          |
| (2,2035) | 1:98:A:PHE:HA   | 1:100:A:ALA:H   | 10       | 0.11          |
| (2,2035) | 1:98:A:PHE:HA   | 1:100:A:ALA:H   | 15       | 0.11          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 1        | 0.11          |
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 4        | 0.11          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2034) | 1:98:A:PHE:HA   | 1:81:A:GLU:H    | 10       | 0.11          |
| (2,2006) | 1:98:A:PHE:HD1  | 1:103:A:LYS:HE2 | 2        | 0.11          |
| (2,2006) | 1:98:A:PHE:HD1  | 1:103:A:LYS:HE3 | 2        | 0.11          |
| (2,2006) | 1:98:A:PHE:HD2  | 1:103:A:LYS:HE2 | 2        | 0.11          |
| (2,2006) | 1:98:A:PHE:HD2  | 1:103:A:LYS:HE3 | 2        | 0.11          |
| (2,1991) | 1:97:A:LYS:HD2  | 1:98:A:PHE:H    | 6        | 0.11          |
| (2,1991) | 1:97:A:LYS:HD3  | 1:98:A:PHE:H    | 6        | 0.11          |
| (2,1981) | 1:97:A:LYS:HA   | 1:103:A:LYS:H   | 11       | 0.11          |
| (2,1956) | 1:96:A:LEU:HD11 | 1:82:A:PHE:H    | 2        | 0.11          |
| (2,1956) | 1:96:A:LEU:HD12 | 1:82:A:PHE:H    | 2        | 0.11          |
| (2,1956) | 1:96:A:LEU:HD13 | 1:82:A:PHE:H    | 2        | 0.11          |
| (2,1956) | 1:96:A:LEU:HD21 | 1:82:A:PHE:H    | 2        | 0.11          |
| (2,1956) | 1:96:A:LEU:HD22 | 1:82:A:PHE:H    | 2        | 0.11          |
| (2,1956) | 1:96:A:LEU:HD23 | 1:82:A:PHE:H    | 2        | 0.11          |
| (2,1956) | 1:96:A:LEU:HD11 | 1:82:A:PHE:H    | 13       | 0.11          |
| (2,1956) | 1:96:A:LEU:HD12 | 1:82:A:PHE:H    | 13       | 0.11          |
| (2,1956) | 1:96:A:LEU:HD13 | 1:82:A:PHE:H    | 13       | 0.11          |
| (2,1956) | 1:96:A:LEU:HD21 | 1:82:A:PHE:H    | 13       | 0.11          |
| (2,1956) | 1:96:A:LEU:HD22 | 1:82:A:PHE:H    | 13       | 0.11          |
| (2,1956) | 1:96:A:LEU:HD23 | 1:82:A:PHE:H    | 13       | 0.11          |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 13       | 0.11          |
| (2,1877) | 1:94:A:TYR:HD1  | 1:85:A:VAL:H    | 15       | 0.11          |
| (2,1877) | 1:94:A:TYR:HD2  | 1:85:A:VAL:H    | 15       | 0.11          |
| (2,1848) | 1:93:A:VAL:HB   | 1:91:A:GLY:H    | 2        | 0.11          |
| (2,1848) | 1:93:A:VAL:HB   | 1:91:A:GLY:H    | 11       | 0.11          |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H   | 4        | 0.11          |
| (2,1780) | 1:84:A:ARG:HD2  | 1:85:A:VAL:H    | 2        | 0.11          |
| (2,1780) | 1:84:A:ARG:HD3  | 1:85:A:VAL:H    | 2        | 0.11          |
| (2,1761) | 1:83:A:LYS:HB2  | 1:97:A:LYS:H    | 9        | 0.11          |
| (2,1761) | 1:83:A:LYS:HB3  | 1:97:A:LYS:H    | 9        | 0.11          |
| (2,1755) | 1:83:A:LYS:H    | 1:97:A:LYS:H    | 12       | 0.11          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG11 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG12 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG13 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG21 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG22 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB2  | 1:95:A:VAL:HG23 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG11 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG12 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG13 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG21 | 2        | 0.11          |
| (2,1750) | 1:83:A:LYS:HB3  | 1:95:A:VAL:HG22 | 2        | 0.11          |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (2,1750) | 1:83:A:LYS:HB3 | 1:95:A:VAL:HG23  | 2        | 0.11          |
| (2,1737) | 1:82:A:PHE:HE1 | 1:122:A:ARG:H    | 7        | 0.11          |
| (2,1737) | 1:82:A:PHE:HE2 | 1:122:A:ARG:H    | 7        | 0.11          |
| (2,1728) | 1:82:A:PHE:HD1 | 1:124:A:VAL:H    | 10       | 0.11          |
| (2,1728) | 1:82:A:PHE:HD2 | 1:124:A:VAL:H    | 10       | 0.11          |
| (2,1727) | 1:82:A:PHE:HD1 | 1:121:A:CYS:H    | 4        | 0.11          |
| (2,1727) | 1:82:A:PHE:HD2 | 1:121:A:CYS:H    | 4        | 0.11          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD21 | 5        | 0.11          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD22 | 5        | 0.11          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD21 | 13       | 0.11          |
| (2,1713) | 1:82:A:PHE:H   | 1:125:A:ASN:HD22 | 13       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1   | 13       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2   | 13       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1   | 13       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2   | 13       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1   | 14       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2   | 14       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1   | 14       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2   | 14       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE1   | 15       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE1 | 1:59:A:PHE:HE2   | 15       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE1   | 15       | 0.11          |
| (2,1705) | 1:82:A:PHE:HE2 | 1:59:A:PHE:HE2   | 15       | 0.11          |
| (2,1686) | 1:81:A:GLU:HB2 | 1:82:A:PHE:H     | 3        | 0.11          |
| (2,1686) | 1:81:A:GLU:HB3 | 1:82:A:PHE:H     | 3        | 0.11          |
| (2,1685) | 1:81:A:GLU:HB2 | 1:83:A:LYS:H     | 4        | 0.11          |
| (2,1685) | 1:81:A:GLU:HB3 | 1:83:A:LYS:H     | 4        | 0.11          |
| (2,1685) | 1:81:A:GLU:HB2 | 1:83:A:LYS:H     | 10       | 0.11          |
| (2,1685) | 1:81:A:GLU:HB3 | 1:83:A:LYS:H     | 10       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB2   | 2        | 0.11          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB3   | 2        | 0.11          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB2   | 2        | 0.11          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB3   | 2        | 0.11          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB2   | 11       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB3   | 11       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB2   | 11       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB3   | 11       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB2   | 15       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG2 | 1:97:A:LYS:HB3   | 15       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB2   | 15       | 0.11          |
| (2,1666) | 1:81:A:GLU:HG3 | 1:97:A:LYS:HB3   | 15       | 0.11          |
| (2,1653) | 1:80:A:CYS:HG  | 1:80:A:CYS:H     | 13       | 0.11          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1606) | 1:78:A:ASP:HA   | 1:99:A:LYS:HE2  | 15       | 0.11          |
| (2,1606) | 1:78:A:ASP:HA   | 1:99:A:LYS:HE3  | 15       | 0.11          |
| (2,1541) | 1:75:A:ILE:HA   | 1:59:A:PHE:H    | 13       | 0.11          |
| (2,1541) | 1:75:A:ILE:HA   | 1:59:A:PHE:H    | 15       | 0.11          |
| (2,1500) | 1:74:A:ILE:HD11 | 1:58:A:HIS:HA   | 6        | 0.11          |
| (2,1500) | 1:74:A:ILE:HD12 | 1:58:A:HIS:HA   | 6        | 0.11          |
| (2,1500) | 1:74:A:ILE:HD13 | 1:58:A:HIS:HA   | 6        | 0.11          |
| (2,1500) | 1:74:A:ILE:HD11 | 1:58:A:HIS:HA   | 12       | 0.11          |
| (2,1500) | 1:74:A:ILE:HD12 | 1:58:A:HIS:HA   | 12       | 0.11          |
| (2,1500) | 1:74:A:ILE:HD13 | 1:58:A:HIS:HA   | 12       | 0.11          |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG21 | 3        | 0.11          |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG22 | 3        | 0.11          |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG23 | 3        | 0.11          |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG21 | 10       | 0.11          |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG22 | 10       | 0.11          |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG23 | 10       | 0.11          |
| (2,1483) | 1:73:A:LEU:HG   | 1:74:A:ILE:H    | 6        | 0.11          |
| (2,1472) | 1:73:A:LEU:HA   | 1:59:A:PHE:H    | 3        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD11 | 2        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD12 | 2        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD13 | 2        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD11 | 4        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD12 | 4        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD13 | 4        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD11 | 6        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD12 | 6        | 0.11          |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD13 | 6        | 0.11          |
| (2,1436) | 1:71:A:ASP:H    | 1:63:A:ASP:H    | 2        | 0.11          |
| (2,1401) | 1:69:A:VAL:HA   | 1:71:A:ASP:H    | 14       | 0.11          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG11 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG12 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG13 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG21 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG22 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB2  | 1:69:A:VAL:HG23 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG11 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG12 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG13 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG21 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG22 | 4        | 0.11          |
| (2,1376) | 1:68:A:ASN:HB3  | 1:69:A:VAL:HG23 | 4        | 0.11          |
| (2,1359) | 1:66:A:SER:H    | 1:64:A:ARG:H    | 10       | 0.11          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1343) | 1:65:A:THR:HA   | 1:67:A:GLY:H    | 14       | 0.11          |
| (2,1329) | 1:64:A:ARG:HG2  | 1:28:A:ALA:H    | 4        | 0.11          |
| (2,1329) | 1:64:A:ARG:HG3  | 1:28:A:ALA:H    | 4        | 0.11          |
| (2,1324) | 1:64:A:ARG:HA   | 1:46:A:LEU:H    | 6        | 0.11          |
| (2,1297) | 1:63:A:ASP:H    | 1:67:A:GLY:H    | 2        | 0.11          |
| (2,1297) | 1:63:A:ASP:H    | 1:67:A:GLY:H    | 9        | 0.11          |
| (2,1297) | 1:63:A:ASP:H    | 1:67:A:GLY:H    | 13       | 0.11          |
| (2,1241) | 1:61:A:TRP:HZ3  | 1:43:A:ARG:HE   | 1        | 0.11          |
| (2,1238) | 1:61:A:TRP:HZ3  | 1:64:A:ARG:H    | 1        | 0.11          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB2  | 14       | 0.11          |
| (2,1184) | 1:61:A:TRP:HZ2  | 1:61:A:TRP:HB3  | 14       | 0.11          |
| (2,1132) | 1:59:A:PHE:HD1  | 1:72:A:ASP:H    | 13       | 0.11          |
| (2,1132) | 1:59:A:PHE:HD2  | 1:72:A:ASP:H    | 13       | 0.11          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD1  | 13       | 0.11          |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2  | 13       | 0.11          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1  | 13       | 0.11          |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2  | 13       | 0.11          |
| (2,1068) | 1:58:A:HIS:HD2  | 1:53:A:ASP:H    | 9        | 0.11          |
| (2,1068) | 1:58:A:HIS:HD2  | 1:53:A:ASP:H    | 13       | 0.11          |
| (2,1068) | 1:58:A:HIS:HD2  | 1:53:A:ASP:H    | 15       | 0.11          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 1        | 0.11          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 6        | 0.11          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 7        | 0.11          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 13       | 0.11          |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 15       | 0.11          |
| (2,1005) | 1:57:A:ILE:HD11 | 1:56:A:LEU:H    | 1        | 0.11          |
| (2,1005) | 1:57:A:ILE:HD12 | 1:56:A:LEU:H    | 1        | 0.11          |
| (2,1005) | 1:57:A:ILE:HD13 | 1:56:A:LEU:H    | 1        | 0.11          |
| (2,1005) | 1:57:A:ILE:HD11 | 1:56:A:LEU:H    | 8        | 0.11          |
| (2,1005) | 1:57:A:ILE:HD12 | 1:56:A:LEU:H    | 8        | 0.11          |
| (2,1005) | 1:57:A:ILE:HD13 | 1:56:A:LEU:H    | 8        | 0.11          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 1        | 0.11          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 2        | 0.11          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 4        | 0.11          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 5        | 0.11          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 6        | 0.11          |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 10       | 0.11          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD11 | 6        | 0.11          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD12 | 6        | 0.11          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD13 | 6        | 0.11          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD11 | 12       | 0.11          |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD12 | 12       | 0.11          |

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| Key     | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|---------|-----------------|-----------------|----------|---------------|
| (2,937) | 1:56:A:LEU:HA   | 1:74:A:ILE:HD13 | 12       | 0.11          |
| (2,907) | 1:53:A:ASP:HA   | 1:52:A:THR:H    | 15       | 0.11          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 1        | 0.11          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 1        | 0.11          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 6        | 0.11          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 6        | 0.11          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 7        | 0.11          |
| (2,894) | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 7        | 0.11          |
| (2,864) | 1:51:A:GLN:HE21 | 1:55:A:SER:H    | 3        | 0.11          |
| (2,864) | 1:51:A:GLN:HE22 | 1:55:A:SER:H    | 3        | 0.11          |
| (2,854) | 1:51:A:GLN:HB2  | 1:55:A:SER:HA   | 12       | 0.11          |
| (2,854) | 1:51:A:GLN:HB3  | 1:55:A:SER:HA   | 12       | 0.11          |
| (2,842) | 1:50:A:GLN:HG2  | 1:58:A:HIS:H    | 4        | 0.11          |
| (2,842) | 1:50:A:GLN:HG3  | 1:58:A:HIS:H    | 4        | 0.11          |
| (2,824) | 1:49:A:ILE:HD11 | 1:129:A:ASN:H   | 2        | 0.11          |
| (2,824) | 1:49:A:ILE:HD12 | 1:129:A:ASN:H   | 2        | 0.11          |
| (2,824) | 1:49:A:ILE:HD13 | 1:129:A:ASN:H   | 2        | 0.11          |
| (2,819) | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 5        | 0.11          |
| (2,819) | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 5        | 0.11          |
| (2,819) | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 5        | 0.11          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 4        | 0.11          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 4        | 0.11          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 4        | 0.11          |
| (2,818) | 1:49:A:ILE:HG21 | 1:24:A:VAL:H    | 7        | 0.11          |
| (2,818) | 1:49:A:ILE:HG22 | 1:24:A:VAL:H    | 7        | 0.11          |
| (2,818) | 1:49:A:ILE:HG23 | 1:24:A:VAL:H    | 7        | 0.11          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 6        | 0.11          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 6        | 0.11          |
| (2,741) | 1:48:A:TYR:HD1  | 1:61:A:TRP:H    | 12       | 0.11          |
| (2,741) | 1:48:A:TYR:HD2  | 1:61:A:TRP:H    | 12       | 0.11          |
| (2,734) | 1:48:A:TYR:HA   | 1:26:A:PHE:H    | 5        | 0.11          |
| (2,734) | 1:48:A:TYR:HA   | 1:26:A:PHE:H    | 12       | 0.11          |
| (2,734) | 1:48:A:TYR:HA   | 1:26:A:PHE:H    | 14       | 0.11          |
| (2,674) | 1:47:A:VAL:HA   | 1:28:A:ALA:H    | 2        | 0.11          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD11 | 8        | 0.11          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD12 | 8        | 0.11          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD13 | 8        | 0.11          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD21 | 8        | 0.11          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD22 | 8        | 0.11          |
| (2,662) | 1:47:A:VAL:HA   | 1:46:A:LEU:HD23 | 8        | 0.11          |
| (2,606) | 1:44:A:LYS:H    | 1:64:A:ARG:H    | 14       | 0.11          |
| (2,590) | 1:44:A:LYS:HB2  | 1:44:A:LYS:HE2  | 13       | 0.11          |

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| Key     | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|---------|----------------|------------------|----------|---------------|
| (2,590) | 1:44:A:LYS:HB2 | 1:44:A:LYS:HE3   | 13       | 0.11          |
| (2,590) | 1:44:A:LYS:HB3 | 1:44:A:LYS:HE2   | 13       | 0.11          |
| (2,590) | 1:44:A:LYS:HB3 | 1:44:A:LYS:HE3   | 13       | 0.11          |
| (2,552) | 1:42:A:LYS:HA  | 1:108:A:TRP:HE1  | 3        | 0.11          |
| (2,506) | 1:39:A:THR:HB  | 1:32:A:SER:H     | 4        | 0.11          |
| (2,503) | 1:39:A:THR:HA  | 1:32:A:SER:H     | 10       | 0.11          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB2   | 10       | 0.11          |
| (2,409) | 1:34:A:LYS:HB2 | 1:32:A:SER:HB3   | 10       | 0.11          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB2   | 10       | 0.11          |
| (2,409) | 1:34:A:LYS:HB3 | 1:32:A:SER:HB3   | 10       | 0.11          |
| (2,343) | 1:31:A:MET:H   | 1:108:A:TRP:H    | 15       | 0.11          |
| (2,320) | 1:30:A:LYS:HA  | 1:61:A:TRP:HE1   | 8        | 0.11          |
| (2,319) | 1:30:A:LYS:HA  | 1:108:A:TRP:HE1  | 2        | 0.11          |
| (2,319) | 1:30:A:LYS:HA  | 1:108:A:TRP:HE1  | 11       | 0.11          |
| (2,266) | 1:28:A:ALA:HA  | 1:27:A:ARG:H     | 8        | 0.11          |
| (2,244) | 1:27:A:ARG:HB2 | 1:29:A:GLY:H     | 3        | 0.11          |
| (2,244) | 1:27:A:ARG:HB3 | 1:29:A:GLY:H     | 3        | 0.11          |
| (2,244) | 1:27:A:ARG:HB2 | 1:29:A:GLY:H     | 5        | 0.11          |
| (2,244) | 1:27:A:ARG:HB3 | 1:29:A:GLY:H     | 5        | 0.11          |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H    | 1        | 0.11          |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H    | 1        | 0.11          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H     | 7        | 0.11          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H     | 7        | 0.11          |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H     | 11       | 0.11          |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H     | 11       | 0.11          |
| (2,220) | 1:26:A:PHE:HE1 | 1:124:A:VAL:H    | 7        | 0.11          |
| (2,220) | 1:26:A:PHE:HE2 | 1:124:A:VAL:H    | 7        | 0.11          |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H    | 6        | 0.11          |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H    | 6        | 0.11          |
| (2,192) | 1:26:A:PHE:HE1 | 1:26:A:PHE:HA    | 12       | 0.11          |
| (2,192) | 1:26:A:PHE:HE2 | 1:26:A:PHE:HA    | 12       | 0.11          |
| (2,192) | 1:26:A:PHE:HE1 | 1:26:A:PHE:HA    | 13       | 0.11          |
| (2,192) | 1:26:A:PHE:HE2 | 1:26:A:PHE:HA    | 13       | 0.11          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG11 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG12 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG13 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG21 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG22 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD1 | 1:124:A:VAL:HG23 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG11 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG12 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD2 | 1:124:A:VAL:HG13 | 11       | 0.11          |

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| Key     | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG21 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG22 | 11       | 0.11          |
| (2,190) | 1:26:A:PHE:HD2  | 1:124:A:VAL:HG23 | 11       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG21  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG22  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG23  | 10       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG11  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG12  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG13  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG21  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG22  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD1  | 1:47:A:VAL:HG23  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG11  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG12  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG13  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG21  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG22  | 12       | 0.11          |
| (2,188) | 1:26:A:PHE:HD2  | 1:47:A:VAL:HG23  | 12       | 0.11          |
| (2,167) | 1:25:A:GLU:HG2  | 1:22:A:TYR:H     | 5        | 0.11          |
| (2,167) | 1:25:A:GLU:HG3  | 1:22:A:TYR:H     | 5        | 0.11          |
| (2,167) | 1:25:A:GLU:HG2  | 1:22:A:TYR:H     | 7        | 0.11          |
| (2,167) | 1:25:A:GLU:HG3  | 1:22:A:TYR:H     | 7        | 0.11          |
| (2,167) | 1:25:A:GLU:HG2  | 1:22:A:TYR:H     | 8        | 0.11          |
| (2,167) | 1:25:A:GLU:HG3  | 1:22:A:TYR:H     | 8        | 0.11          |
| (2,162) | 1:25:A:GLU:HA   | 1:47:A:VAL:H     | 14       | 0.11          |
| (2,138) | 1:24:A:VAL:HG11 | 1:23:A:LEU:H     | 1        | 0.11          |
| (2,138) | 1:24:A:VAL:HG12 | 1:23:A:LEU:H     | 1        | 0.11          |
| (2,138) | 1:24:A:VAL:HG13 | 1:23:A:LEU:H     | 1        | 0.11          |
| (2,138) | 1:24:A:VAL:HG21 | 1:23:A:LEU:H     | 1        | 0.11          |
| (2,138) | 1:24:A:VAL:HG22 | 1:23:A:LEU:H     | 1        | 0.11          |
| (2,138) | 1:24:A:VAL:HG23 | 1:23:A:LEU:H     | 1        | 0.11          |
| (2,109) | 1:23:A:LEU:HB2  | 1:50:A:GLN:H     | 2        | 0.11          |
| (2,109) | 1:23:A:LEU:HB3  | 1:50:A:GLN:H     | 2        | 0.11          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (2,109)  | 1:23:A:LEU:HB2   | 1:50:A:GLN:H    | 7        | 0.11          |
| (2,109)  | 1:23:A:LEU:HB3   | 1:50:A:GLN:H    | 7        | 0.11          |
| (2,109)  | 1:23:A:LEU:HB2   | 1:50:A:GLN:H    | 10       | 0.11          |
| (2,109)  | 1:23:A:LEU:HB3   | 1:50:A:GLN:H    | 10       | 0.11          |
| (2,102)  | 1:23:A:LEU:HA    | 1:51:A:GLN:H    | 3        | 0.11          |
| (2,102)  | 1:23:A:LEU:HA    | 1:51:A:GLN:H    | 9        | 0.11          |
| (2,78)   | 1:22:A:TYR:HD1   | 1:50:A:GLN:HE21 | 7        | 0.11          |
| (2,78)   | 1:22:A:TYR:HD1   | 1:50:A:GLN:HE22 | 7        | 0.11          |
| (2,78)   | 1:22:A:TYR:HD2   | 1:50:A:GLN:HE21 | 7        | 0.11          |
| (2,78)   | 1:22:A:TYR:HD2   | 1:50:A:GLN:HE22 | 7        | 0.11          |
| (2,60)   | 1:22:A:TYR:HA    | 1:49:A:ILE:H    | 6        | 0.11          |
| (2,60)   | 1:22:A:TYR:HA    | 1:49:A:ILE:H    | 14       | 0.11          |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE21 | 9        | 0.1           |
| (2,3297) | 2:951:B:ILE:HG21 | 1:87:A:GLN:HE22 | 9        | 0.1           |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE21 | 9        | 0.1           |
| (2,3297) | 2:951:B:ILE:HG22 | 1:87:A:GLN:HE22 | 9        | 0.1           |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE21 | 9        | 0.1           |
| (2,3297) | 2:951:B:ILE:HG23 | 1:87:A:GLN:HE22 | 9        | 0.1           |
| (2,3286) | 2:950:B:TYR:HE1  | 1:36:A:THR:HG21 | 1        | 0.1           |
| (2,3286) | 2:950:B:TYR:HE1  | 1:36:A:THR:HG22 | 1        | 0.1           |
| (2,3286) | 2:950:B:TYR:HE1  | 1:36:A:THR:HG23 | 1        | 0.1           |
| (2,3286) | 2:950:B:TYR:HE2  | 1:36:A:THR:HG21 | 1        | 0.1           |
| (2,3286) | 2:950:B:TYR:HE2  | 1:36:A:THR:HG22 | 1        | 0.1           |
| (2,3286) | 2:950:B:TYR:HE2  | 1:36:A:THR:HG23 | 1        | 0.1           |
| (2,3251) | 2:948:B:PHE:HE1  | 1:88:A:CYS:H    | 8        | 0.1           |
| (2,3251) | 2:948:B:PHE:HE2  | 1:88:A:CYS:H    | 8        | 0.1           |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE1 | 11       | 0.1           |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE2 | 11       | 0.1           |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE1 | 11       | 0.1           |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE2 | 11       | 0.1           |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE1 | 12       | 0.1           |
| (2,3232) | 2:948:B:PHE:HE1  | 1:106:A:PHE:HE2 | 12       | 0.1           |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE1 | 12       | 0.1           |
| (2,3232) | 2:948:B:PHE:HE2  | 1:106:A:PHE:HE2 | 12       | 0.1           |
| (2,3126) | 1:37:A:THR:HB    | 2:948:B:PHE:H   | 15       | 0.1           |
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 4        | 0.1           |
| (2,3097) | 1:33:A:LEU:HD22  | 2:950:B:TYR:H   | 4        | 0.1           |
| (2,3097) | 1:33:A:LEU:HD23  | 2:950:B:TYR:H   | 4        | 0.1           |
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 5        | 0.1           |
| (2,3097) | 1:33:A:LEU:HD22  | 2:950:B:TYR:H   | 5        | 0.1           |
| (2,3097) | 1:33:A:LEU:HD23  | 2:950:B:TYR:H   | 5        | 0.1           |
| (2,3097) | 1:33:A:LEU:HD21  | 2:950:B:TYR:H   | 8        | 0.1           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,3097) | 1:33:A:LEU:HD22 | 2:950:B:TYR:H   | 8        | 0.1           |
| (2,3097) | 1:33:A:LEU:HD23 | 2:950:B:TYR:H   | 8        | 0.1           |
| (2,3025) | 2:950:B:TYR:HE1 | 2:950:B:TYR:HA  | 6        | 0.1           |
| (2,3025) | 2:950:B:TYR:HE2 | 2:950:B:TYR:HA  | 6        | 0.1           |
| (2,3025) | 2:950:B:TYR:HE1 | 2:950:B:TYR:HA  | 8        | 0.1           |
| (2,3025) | 2:950:B:TYR:HE2 | 2:950:B:TYR:HA  | 8        | 0.1           |
| (2,2982) | 2:947:B:PRO:HG2 | 2:948:B:PHE:H   | 7        | 0.1           |
| (2,2982) | 2:947:B:PRO:HG3 | 2:948:B:PHE:H   | 7        | 0.1           |
| (2,2982) | 2:947:B:PRO:HG2 | 2:948:B:PHE:H   | 15       | 0.1           |
| (2,2982) | 2:947:B:PRO:HG3 | 2:948:B:PHE:H   | 15       | 0.1           |
| (2,2782) | 1:127:A:TYR:HB2 | 1:126:A:GLU:H   | 14       | 0.1           |
| (2,2782) | 1:127:A:TYR:HB3 | 1:126:A:GLU:H   | 14       | 0.1           |
| (2,2767) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG12 | 11       | 0.1           |
| (2,2767) | 1:127:A:TYR:HE1 | 1:49:A:ILE:HG13 | 11       | 0.1           |
| (2,2767) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG12 | 11       | 0.1           |
| (2,2767) | 1:127:A:TYR:HE2 | 1:49:A:ILE:HG13 | 11       | 0.1           |
| (2,2747) | 1:127:A:TYR:HD1 | 1:24:A:VAL:HA   | 5        | 0.1           |
| (2,2747) | 1:127:A:TYR:HD2 | 1:24:A:VAL:HA   | 5        | 0.1           |
| (2,2724) | 1:126:A:GLU:HG2 | 1:126:A:GLU:H   | 1        | 0.1           |
| (2,2724) | 1:126:A:GLU:HG3 | 1:126:A:GLU:H   | 1        | 0.1           |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H   | 11       | 0.1           |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H   | 11       | 0.1           |
| (2,2719) | 1:126:A:GLU:HB2 | 1:130:A:ASN:H   | 14       | 0.1           |
| (2,2719) | 1:126:A:GLU:HB3 | 1:130:A:ASN:H   | 14       | 0.1           |
| (2,2705) | 1:126:A:GLU:H   | 1:129:A:ASN:H   | 6        | 0.1           |
| (2,2666) | 1:124:A:VAL:HB  | 1:126:A:GLU:H   | 4        | 0.1           |
| (2,2644) | 1:124:A:VAL:HA  | 1:49:A:ILE:HG21 | 10       | 0.1           |
| (2,2644) | 1:124:A:VAL:HA  | 1:49:A:ILE:HG22 | 10       | 0.1           |
| (2,2644) | 1:124:A:VAL:HA  | 1:49:A:ILE:HG23 | 10       | 0.1           |
| (2,2640) | 1:123:A:LYS:HD2 | 1:123:A:LYS:H   | 10       | 0.1           |
| (2,2640) | 1:123:A:LYS:HD3 | 1:123:A:LYS:H   | 10       | 0.1           |
| (2,2585) | 1:121:A:CYS:HB2 | 1:119:A:GLU:H   | 6        | 0.1           |
| (2,2585) | 1:121:A:CYS:HB3 | 1:119:A:GLU:H   | 6        | 0.1           |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE1 | 11       | 0.1           |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE2 | 11       | 0.1           |
| (2,2567) | 1:121:A:CYS:HA  | 1:109:A:MET:HE3 | 11       | 0.1           |
| (2,2461) | 1:114:A:THR:HA  | 1:92:A:ARG:HE   | 11       | 0.1           |
| (2,2440) | 1:113:A:LYS:HD2 | 1:114:A:THR:H   | 12       | 0.1           |
| (2,2440) | 1:113:A:LYS:HD3 | 1:114:A:THR:H   | 12       | 0.1           |
| (2,2377) | 1:110:A:GLN:HA  | 2:942:B:PRO:HA  | 5        | 0.1           |
| (2,2373) | 1:110:A:GLN:HA  | 1:28:A:ALA:H    | 9        | 0.1           |
| (2,2362) | 1:109:A:MET:HE1 | 1:111:A:GLU:H   | 14       | 0.1           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,2362) | 1:109:A:MET:HE2 | 1:111:A:GLU:H   | 14       | 0.1           |
| (2,2362) | 1:109:A:MET:HE3 | 1:111:A:GLU:H   | 14       | 0.1           |
| (2,2338) | 1:108:A:TRP:HZ2 | 1:42:A:LYS:H    | 8        | 0.1           |
| (2,2296) | 1:107:A:PHE:HD1 | 1:108:A:TRP:H   | 15       | 0.1           |
| (2,2296) | 1:107:A:PHE:HD2 | 1:108:A:TRP:H   | 15       | 0.1           |
| (2,2294) | 1:107:A:PHE:HD1 | 1:45:A:GLY:H    | 7        | 0.1           |
| (2,2294) | 1:107:A:PHE:HD2 | 1:45:A:GLY:H    | 7        | 0.1           |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD11 | 1        | 0.1           |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD12 | 1        | 0.1           |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD13 | 1        | 0.1           |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD21 | 1        | 0.1           |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD22 | 1        | 0.1           |
| (2,2282) | 1:107:A:PHE:HZ  | 1:96:A:LEU:HD23 | 1        | 0.1           |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB1  | 6        | 0.1           |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB2  | 6        | 0.1           |
| (2,2244) | 1:107:A:PHE:HE1 | 1:28:A:ALA:HB3  | 6        | 0.1           |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB1  | 6        | 0.1           |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB2  | 6        | 0.1           |
| (2,2244) | 1:107:A:PHE:HE2 | 1:28:A:ALA:HB3  | 6        | 0.1           |
| (2,2238) | 1:106:A:PHE:HE1 | 1:96:A:LEU:H    | 1        | 0.1           |
| (2,2238) | 1:106:A:PHE:HE2 | 1:96:A:LEU:H    | 1        | 0.1           |
| (2,2235) | 1:106:A:PHE:HE1 | 1:106:A:PHE:H   | 2        | 0.1           |
| (2,2235) | 1:106:A:PHE:HE2 | 1:106:A:PHE:H   | 2        | 0.1           |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD11 | 1        | 0.1           |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD12 | 1        | 0.1           |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD13 | 1        | 0.1           |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD21 | 1        | 0.1           |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD22 | 1        | 0.1           |
| (2,2162) | 1:105:A:LEU:HA  | 1:96:A:LEU:HD23 | 1        | 0.1           |
| (2,2140) | 1:103:A:LYS:HE2 | 1:104:A:ARG:H   | 3        | 0.1           |
| (2,2140) | 1:103:A:LYS:HE3 | 1:104:A:ARG:H   | 3        | 0.1           |
| (2,2129) | 1:103:A:LYS:H   | 1:101:A:GLY:H   | 8        | 0.1           |
| (2,1991) | 1:97:A:LYS:HD2  | 1:98:A:PHE:H    | 3        | 0.1           |
| (2,1991) | 1:97:A:LYS:HD3  | 1:98:A:PHE:H    | 3        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG11 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG12 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG13 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG21 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG22 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD2  | 1:95:A:VAL:HG23 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG11 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG12 | 7        | 0.1           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG13 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG21 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG22 | 7        | 0.1           |
| (2,1975) | 1:97:A:LYS:HD3  | 1:95:A:VAL:HG23 | 7        | 0.1           |
| (2,1913) | 1:95:A:VAL:HB   | 1:107:A:PHE:H   | 8        | 0.1           |
| (2,1896) | 1:95:A:VAL:HG11 | 1:97:A:LYS:HG2  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG11 | 1:97:A:LYS:HG3  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG12 | 1:97:A:LYS:HG2  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG12 | 1:97:A:LYS:HG3  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG13 | 1:97:A:LYS:HG2  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG13 | 1:97:A:LYS:HG3  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG21 | 1:97:A:LYS:HG2  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG21 | 1:97:A:LYS:HG3  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG22 | 1:97:A:LYS:HG2  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG22 | 1:97:A:LYS:HG3  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG23 | 1:97:A:LYS:HG2  | 13       | 0.1           |
| (2,1896) | 1:95:A:VAL:HG23 | 1:97:A:LYS:HG3  | 13       | 0.1           |
| (2,1870) | 1:94:A:TYR:H    | 1:109:A:MET:H   | 5        | 0.1           |
| (2,1870) | 1:94:A:TYR:H    | 1:109:A:MET:H   | 9        | 0.1           |
| (2,1870) | 1:94:A:TYR:H    | 1:109:A:MET:H   | 11       | 0.1           |
| (2,1841) | 1:93:A:VAL:HG11 | 1:95:A:VAL:H    | 14       | 0.1           |
| (2,1841) | 1:93:A:VAL:HG12 | 1:95:A:VAL:H    | 14       | 0.1           |
| (2,1841) | 1:93:A:VAL:HG13 | 1:95:A:VAL:H    | 14       | 0.1           |
| (2,1841) | 1:93:A:VAL:HG21 | 1:95:A:VAL:H    | 14       | 0.1           |
| (2,1841) | 1:93:A:VAL:HG22 | 1:95:A:VAL:H    | 14       | 0.1           |
| (2,1841) | 1:93:A:VAL:HG23 | 1:95:A:VAL:H    | 14       | 0.1           |
| (2,1839) | 1:93:A:VAL:HG11 | 1:91:A:GLY:H    | 3        | 0.1           |
| (2,1839) | 1:93:A:VAL:HG12 | 1:91:A:GLY:H    | 3        | 0.1           |
| (2,1839) | 1:93:A:VAL:HG13 | 1:91:A:GLY:H    | 3        | 0.1           |
| (2,1839) | 1:93:A:VAL:HG21 | 1:91:A:GLY:H    | 3        | 0.1           |
| (2,1839) | 1:93:A:VAL:HG22 | 1:91:A:GLY:H    | 3        | 0.1           |
| (2,1839) | 1:93:A:VAL:HG23 | 1:91:A:GLY:H    | 3        | 0.1           |
| (2,1836) | 1:93:A:VAL:HA   | 1:107:A:PHE:H   | 11       | 0.1           |
| (2,1820) | 1:88:A:CYS:HA   | 1:91:A:GLY:H    | 5        | 0.1           |
| (2,1801) | 1:85:A:VAL:HB   | 1:88:A:CYS:H    | 3        | 0.1           |
| (2,1780) | 1:84:A:ARG:HD2  | 1:85:A:VAL:H    | 10       | 0.1           |
| (2,1780) | 1:84:A:ARG:HD3  | 1:85:A:VAL:H    | 10       | 0.1           |
| (2,1780) | 1:84:A:ARG:HD2  | 1:85:A:VAL:H    | 13       | 0.1           |
| (2,1780) | 1:84:A:ARG:HD3  | 1:85:A:VAL:H    | 13       | 0.1           |
| (2,1755) | 1:83:A:LYS:H    | 1:97:A:LYS:H    | 2        | 0.1           |
| (2,1755) | 1:83:A:LYS:H    | 1:97:A:LYS:H    | 3        | 0.1           |
| (2,1737) | 1:82:A:PHE:HE1  | 1:122:A:ARG:H   | 15       | 0.1           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1737) | 1:82:A:PHE:HE2  | 1:122:A:ARG:H   | 15       | 0.1           |
| (2,1712) | 1:82:A:PHE:HZ   | 1:121:A:CYS:HA  | 8        | 0.1           |
| (2,1685) | 1:81:A:GLU:HB2  | 1:83:A:LYS:H    | 7        | 0.1           |
| (2,1685) | 1:81:A:GLU:HB3  | 1:83:A:LYS:H    | 7        | 0.1           |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB2  | 5        | 0.1           |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB3  | 5        | 0.1           |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB2  | 5        | 0.1           |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB3  | 5        | 0.1           |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB2  | 13       | 0.1           |
| (2,1666) | 1:81:A:GLU:HG2  | 1:97:A:LYS:HB3  | 13       | 0.1           |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB2  | 13       | 0.1           |
| (2,1666) | 1:81:A:GLU:HG3  | 1:97:A:LYS:HB3  | 13       | 0.1           |
| (2,1657) | 1:80:A:CYS:HG   | 1:97:A:LYS:H    | 11       | 0.1           |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG21 | 12       | 0.1           |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG22 | 12       | 0.1           |
| (2,1490) | 1:74:A:ILE:HA   | 1:57:A:ILE:HG23 | 12       | 0.1           |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD11 | 14       | 0.1           |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD12 | 14       | 0.1           |
| (2,1461) | 1:73:A:LEU:HA   | 1:75:A:ILE:HD13 | 14       | 0.1           |
| (2,1429) | 1:70:A:GLU:HB2  | 1:68:A:ASN:HD21 | 1        | 0.1           |
| (2,1429) | 1:70:A:GLU:HB2  | 1:68:A:ASN:HD22 | 1        | 0.1           |
| (2,1429) | 1:70:A:GLU:HB3  | 1:68:A:ASN:HD21 | 1        | 0.1           |
| (2,1429) | 1:70:A:GLU:HB3  | 1:68:A:ASN:HD22 | 1        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD2  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG11 | 1:62:A:LYS:HD3  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD2  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG12 | 1:62:A:LYS:HD3  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD2  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG13 | 1:62:A:LYS:HD3  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD2  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG21 | 1:62:A:LYS:HD3  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD2  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG22 | 1:62:A:LYS:HD3  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD2  | 2        | 0.1           |
| (2,1397) | 1:69:A:VAL:HG23 | 1:62:A:LYS:HD3  | 2        | 0.1           |
| (2,1359) | 1:66:A:SER:H    | 1:64:A:ARG:H    | 2        | 0.1           |
| (2,1359) | 1:66:A:SER:H    | 1:64:A:ARG:H    | 8        | 0.1           |
| (2,1343) | 1:65:A:THR:HA   | 1:67:A:GLY:H    | 4        | 0.1           |
| (2,1343) | 1:65:A:THR:HA   | 1:67:A:GLY:H    | 11       | 0.1           |
| (2,1331) | 1:64:A:ARG:HB2  | 1:46:A:LEU:H    | 9        | 0.1           |
| (2,1331) | 1:64:A:ARG:HB3  | 1:46:A:LEU:H    | 9        | 0.1           |
| (2,1329) | 1:64:A:ARG:HG2  | 1:28:A:ALA:H    | 10       | 0.1           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (2,1329) | 1:64:A:ARG:HG3  | 1:28:A:ALA:H    | 10       | 0.1           |
| (2,1287) | 1:62:A:LYS:HB2  | 1:63:A:ASP:H    | 4        | 0.1           |
| (2,1287) | 1:62:A:LYS:HB3  | 1:63:A:ASP:H    | 4        | 0.1           |
| (2,1272) | 1:62:A:LYS:H    | 1:70:A:GLU:H    | 5        | 0.1           |
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA2  | 2        | 0.1           |
| (2,1264) | 1:62:A:LYS:HD2  | 1:67:A:GLY:HA3  | 2        | 0.1           |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA2  | 2        | 0.1           |
| (2,1264) | 1:62:A:LYS:HD3  | 1:67:A:GLY:HA3  | 2        | 0.1           |
| (2,1208) | 1:61:A:TRP:HD1  | 1:48:A:TYR:H    | 10       | 0.1           |
| (2,1206) | 1:61:A:TRP:HD1  | 1:30:A:LYS:H    | 12       | 0.1           |
| (2,1206) | 1:61:A:TRP:HD1  | 1:30:A:LYS:H    | 14       | 0.1           |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD1  | 3        | 0.1           |
| (2,1099) | 1:59:A:PHE:HE1  | 1:82:A:PHE:HD2  | 3        | 0.1           |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD1  | 3        | 0.1           |
| (2,1099) | 1:59:A:PHE:HE2  | 1:82:A:PHE:HD2  | 3        | 0.1           |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 2        | 0.1           |
| (2,1062) | 1:58:A:HIS:HA   | 1:50:A:GLN:H    | 15       | 0.1           |
| (2,1024) | 1:57:A:ILE:HB   | 1:56:A:LEU:H    | 5        | 0.1           |
| (2,1005) | 1:57:A:ILE:HD11 | 1:56:A:LEU:H    | 11       | 0.1           |
| (2,1005) | 1:57:A:ILE:HD12 | 1:56:A:LEU:H    | 11       | 0.1           |
| (2,1005) | 1:57:A:ILE:HD13 | 1:56:A:LEU:H    | 11       | 0.1           |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 12       | 0.1           |
| (2,967)  | 1:56:A:LEU:HG   | 1:57:A:ILE:H    | 14       | 0.1           |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD11 | 2        | 0.1           |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD12 | 2        | 0.1           |
| (2,937)  | 1:56:A:LEU:HA   | 1:74:A:ILE:HD13 | 2        | 0.1           |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE21 | 5        | 0.1           |
| (2,894)  | 1:52:A:THR:HA   | 1:50:A:GLN:HE22 | 5        | 0.1           |
| (2,864)  | 1:51:A:GLN:HE21 | 1:55:A:SER:H    | 10       | 0.1           |
| (2,864)  | 1:51:A:GLN:HE22 | 1:55:A:SER:H    | 10       | 0.1           |
| (2,864)  | 1:51:A:GLN:HE21 | 1:55:A:SER:H    | 15       | 0.1           |
| (2,864)  | 1:51:A:GLN:HE22 | 1:55:A:SER:H    | 15       | 0.1           |
| (2,835)  | 1:50:A:GLN:HA   | 1:24:A:VAL:H    | 6        | 0.1           |
| (2,824)  | 1:49:A:ILE:HD11 | 1:129:A:ASN:H   | 11       | 0.1           |
| (2,824)  | 1:49:A:ILE:HD12 | 1:129:A:ASN:H   | 11       | 0.1           |
| (2,824)  | 1:49:A:ILE:HD13 | 1:129:A:ASN:H   | 11       | 0.1           |
| (2,819)  | 1:49:A:ILE:HD11 | 1:128:A:LEU:H   | 12       | 0.1           |
| (2,819)  | 1:49:A:ILE:HD12 | 1:128:A:LEU:H   | 12       | 0.1           |
| (2,819)  | 1:49:A:ILE:HD13 | 1:128:A:LEU:H   | 12       | 0.1           |
| (2,792)  | 1:49:A:ILE:HA   | 1:58:A:HIS:H    | 9        | 0.1           |
| (2,792)  | 1:49:A:ILE:HA   | 1:58:A:HIS:H    | 10       | 0.1           |
| (2,756)  | 1:48:A:TYR:HE1  | 1:50:A:GLN:H    | 5        | 0.1           |

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| Key     | Atom-1         | Atom-2          | Model ID | Violation (Å) |
|---------|----------------|-----------------|----------|---------------|
| (2,756) | 1:48:A:TYR:HE2 | 1:50:A:GLN:H    | 5        | 0.1           |
| (2,343) | 1:31:A:MET:H   | 1:108:A:TRP:H   | 7        | 0.1           |
| (2,319) | 1:30:A:LYS:HA  | 1:108:A:TRP:HE1 | 9        | 0.1           |
| (2,319) | 1:30:A:LYS:HA  | 1:108:A:TRP:HE1 | 10       | 0.1           |
| (2,297) | 1:29:A:GLY:H   | 1:111:A:GLU:H   | 7        | 0.1           |
| (2,244) | 1:27:A:ARG:HB2 | 1:29:A:GLY:H    | 9        | 0.1           |
| (2,244) | 1:27:A:ARG:HB3 | 1:29:A:GLY:H    | 9        | 0.1           |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H   | 5        | 0.1           |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H   | 5        | 0.1           |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H   | 6        | 0.1           |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H   | 6        | 0.1           |
| (2,226) | 1:26:A:PHE:HE1 | 1:111:A:GLU:H   | 8        | 0.1           |
| (2,226) | 1:26:A:PHE:HE2 | 1:111:A:GLU:H   | 8        | 0.1           |
| (2,221) | 1:26:A:PHE:HE1 | 1:25:A:GLU:H    | 4        | 0.1           |
| (2,221) | 1:26:A:PHE:HE2 | 1:25:A:GLU:H    | 4        | 0.1           |
| (2,220) | 1:26:A:PHE:HE1 | 1:124:A:VAL:H   | 4        | 0.1           |
| (2,220) | 1:26:A:PHE:HE2 | 1:124:A:VAL:H   | 4        | 0.1           |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 8        | 0.1           |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 8        | 0.1           |
| (2,215) | 1:26:A:PHE:HD1 | 1:120:A:HIS:H   | 10       | 0.1           |
| (2,215) | 1:26:A:PHE:HD2 | 1:120:A:HIS:H   | 10       | 0.1           |
| (2,192) | 1:26:A:PHE:HE1 | 1:26:A:PHE:HA   | 4        | 0.1           |
| (2,192) | 1:26:A:PHE:HE2 | 1:26:A:PHE:HA   | 4        | 0.1           |
| (2,192) | 1:26:A:PHE:HE1 | 1:26:A:PHE:HA   | 10       | 0.1           |
| (2,192) | 1:26:A:PHE:HE2 | 1:26:A:PHE:HA   | 10       | 0.1           |
| (2,60)  | 1:22:A:TYR:HA  | 1:49:A:ILE:H    | 10       | 0.1           |
| (2,12)  | 1:21:A:LYS:HA  | 1:21:A:LYS:HE2  | 15       | 0.1           |
| (2,12)  | 1:21:A:LYS:HA  | 1:21:A:LYS:HE3  | 15       | 0.1           |



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

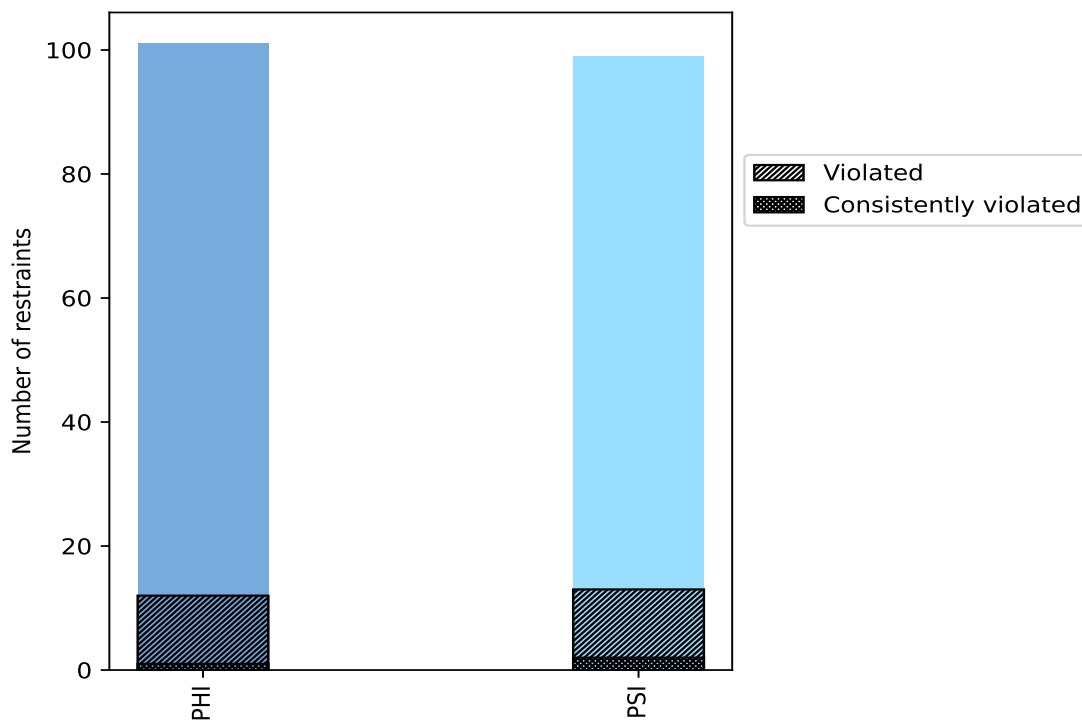
### 10.1 Summary of dihedral-angle violations [i](#)

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 | % <sup>1</sup> | Violated <sup>3</sup> |                |                | Consistently Violated <sup>4</sup> |                |                |
|------------|-------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
|            |       |                | Count                 | % <sup>2</sup> | % <sup>1</sup> | Count                              | % <sup>2</sup> | % <sup>1</sup> |
| PHI        | 101   | 50.5           | 12                    | 11.9           | 6.0            | 1                                  | 1.0            | 0.5            |
| PSI        | 99    | 49.5           | 13                    | 13.1           | 6.5            | 2                                  | 2.0            | 1.0            |
| Total      | 200   | 100.0          | 25                    | 12.5           | 12.5           | 3                                  | 1.5            | 1.5            |

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

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



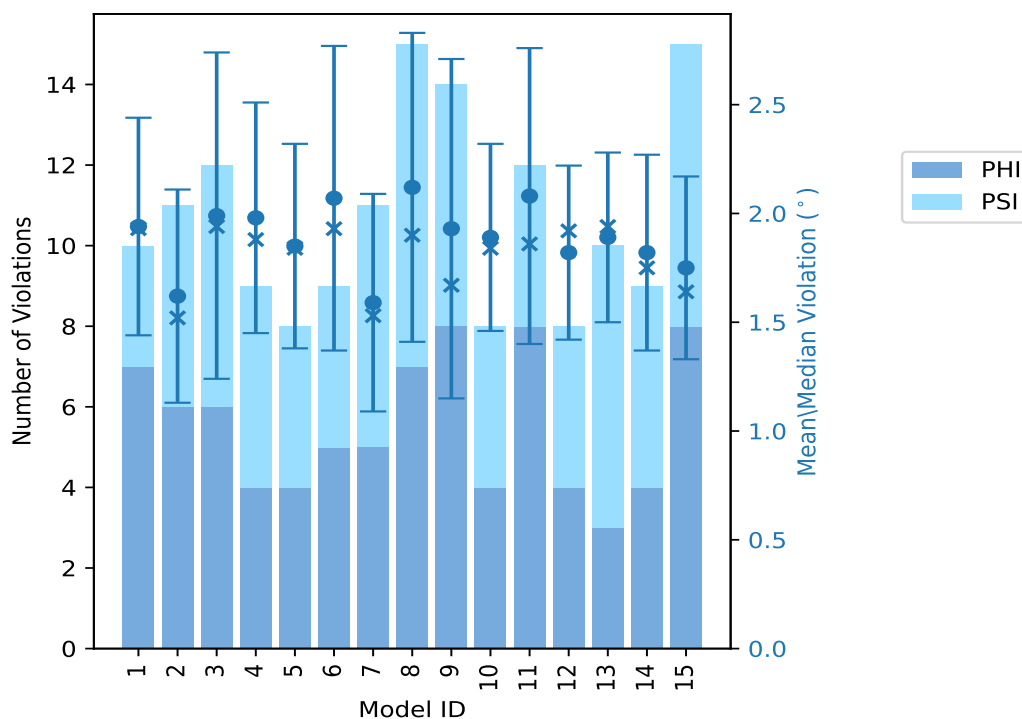
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

## 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 (°) |
|----------|----------------------|-----|-------|----------|---------|--------|------------|
|          | PHI                  | PSI | Total |          |         |        |            |
| 1        | 7                    | 3   | 10    | 1.94     | 2.8     | 0.5    | 1.93       |
| 2        | 6                    | 5   | 11    | 1.62     | 2.8     | 0.49   | 1.52       |
| 3        | 6                    | 6   | 12    | 1.99     | 3.3     | 0.75   | 1.94       |
| 4        | 4                    | 5   | 9     | 1.98     | 2.86    | 0.53   | 1.88       |
| 5        | 4                    | 4   | 8     | 1.85     | 2.78    | 0.47   | 1.84       |
| 6        | 5                    | 4   | 9     | 2.07     | 3.21    | 0.7    | 1.93       |
| 7        | 5                    | 6   | 11    | 1.59     | 2.38    | 0.5    | 1.53       |
| 8        | 7                    | 8   | 15    | 2.12     | 3.55    | 0.71   | 1.9        |
| 9        | 8                    | 6   | 14    | 1.93     | 3.7     | 0.78   | 1.67       |
| 10       | 4                    | 4   | 8     | 1.89     | 2.57    | 0.43   | 1.84       |
| 11       | 8                    | 4   | 12    | 2.08     | 3.57    | 0.68   | 1.86       |
| 12       | 4                    | 4   | 8     | 1.82     | 2.23    | 0.4    | 1.92       |
| 13       | 3                    | 7   | 10    | 1.89     | 2.41    | 0.39   | 1.94       |
| 14       | 4                    | 5   | 9     | 1.82     | 2.68    | 0.45   | 1.75       |
| 15       | 8                    | 7   | 15    | 1.75     | 2.54    | 0.42   | 1.64       |

### 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

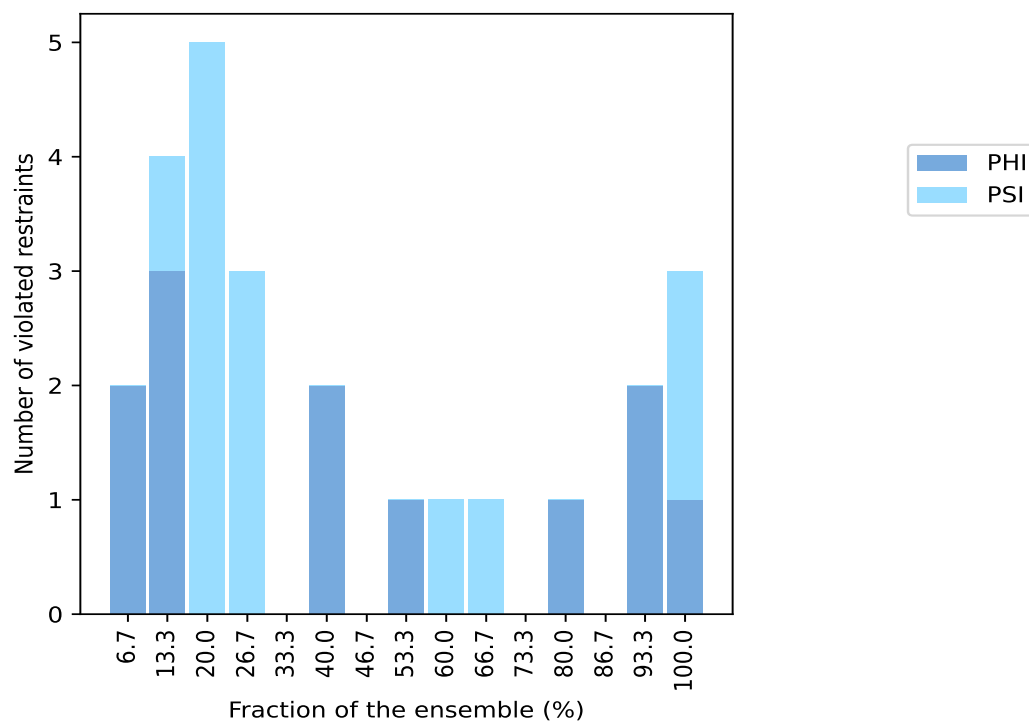
### 10.3 Dihedral-angle violation statistics for the ensemble

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 |       |
|-------------------------------|-----|-------|--------------------------|-------|
| PHI                           | PSI | Total | Count <sup>1</sup>       | %     |
| 2                             | 0   | 2     | 1                        | 6.7   |
| 3                             | 1   | 4     | 2                        | 13.3  |
| 0                             | 5   | 5     | 3                        | 20.0  |
| 0                             | 3   | 3     | 4                        | 26.7  |
| 0                             | 0   | 0     | 5                        | 33.3  |
| 2                             | 0   | 2     | 6                        | 40.0  |
| 0                             | 0   | 0     | 7                        | 46.7  |
| 1                             | 0   | 1     | 8                        | 53.3  |
| 0                             | 1   | 1     | 9                        | 60.0  |
| 0                             | 1   | 1     | 10                       | 66.7  |
| 0                             | 0   | 0     | 11                       | 73.3  |
| 1                             | 0   | 1     | 12                       | 80.0  |
| 0                             | 0   | 0     | 13                       | 86.7  |
| 2                             | 0   | 2     | 14                       | 93.3  |
| 1                             | 2   | 3     | 15                       | 100.0 |

<sup>1</sup> Number of models with violations

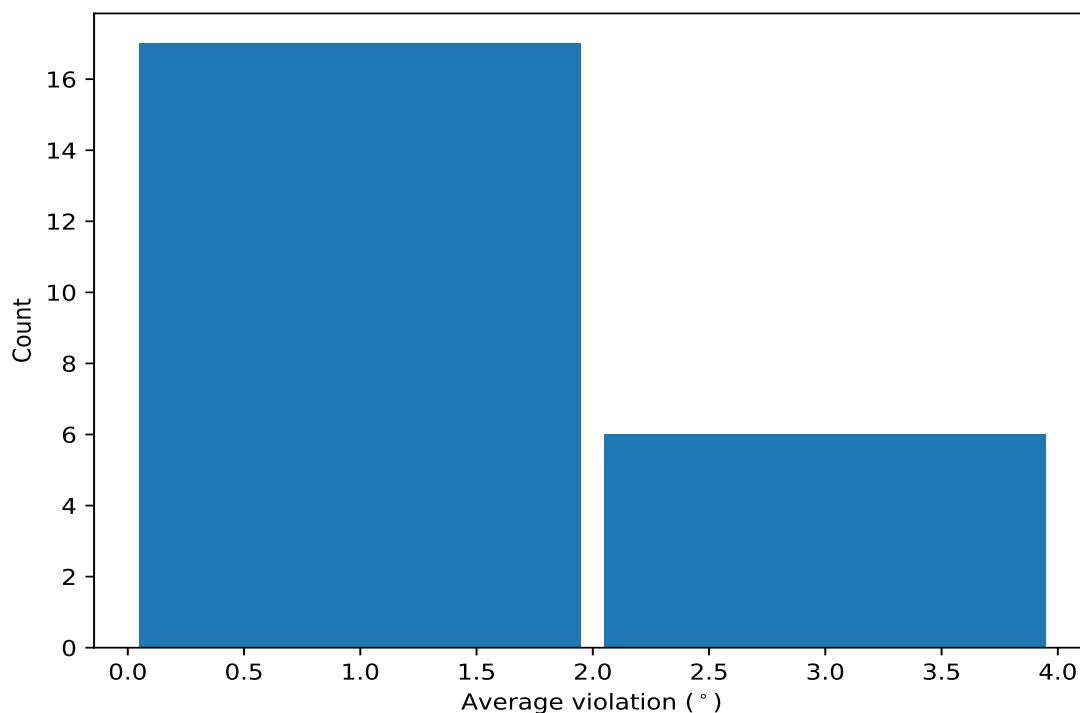
### 10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble [i](#)



## 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 <sup>1</sup> | Mean | SD <sup>2</sup> | Median |
|---------|---------------|----------------|----------------|---------------|---------------------|------|-----------------|--------|
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 15                  | 2.4  | 0.69            | 2.37   |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 15                  | 2.01 | 0.5             | 1.92   |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 15                  | 1.85 | 0.27            | 1.8    |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 14                  | 2.57 | 0.7             | 2.67   |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 14                  | 2.19 | 0.42            | 2.14   |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 12                  | 1.76 | 0.45            | 1.77   |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 10                  | 1.68 | 0.51            | 1.7    |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 9                   | 2.11 | 0.32            | 2.22   |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 8                   | 1.46 | 0.35            | 1.4    |
| (1,130) | 1:103:A:LYS:C | 1:104:A:ARG:N  | 1:104:A:ARG:CA | 1:104:A:ARG:C | 6                   | 1.9  | 0.71            | 1.79   |
| (1,66)  | 1:65:A:THR:C  | 1:66:A:SER:N   | 1:66:A:SER:CA  | 1:66:A:SER:C  | 6                   | 1.33 | 0.14            | 1.32   |
| (1,71)  | 1:69:A:VAL:N  | 1:69:A:VAL:CA  | 1:69:A:VAL:C   | 1:70:A:GLU:N  | 4                   | 1.73 | 0.18            | 1.78   |
| (1,87)  | 1:78:A:ASP:N  | 1:78:A:ASP:CA  | 1:78:A:ASP:C   | 1:79:A:ASP:N  | 4                   | 1.5  | 0.3             | 1.47   |
| (1,169) | 1:125:A:ASN:N | 1:125:A:ASN:CA | 1:125:A:ASN:C  | 1:126:A:GLU:N | 4                   | 1.35 | 0.26            | 1.33   |
| (1,101) | 1:85:A:VAL:N  | 1:85:A:VAL:CA  | 1:85:A:VAL:C   | 1:86:A:PRO:N  | 3                   | 1.84 | 0.39            | 2.0    |
| (1,69)  | 1:68:A:ASN:N  | 1:68:A:ASN:CA  | 1:68:A:ASN:C   | 1:69:A:VAL:N  | 3                   | 1.78 | 0.16            | 1.89   |
| (1,109) | 1:89:A:PRO:N  | 1:89:A:PRO:CA  | 1:89:A:PRO:C   | 1:90:A:SER:N  | 3                   | 1.33 | 0.09            | 1.34   |
| (1,127) | 1:100:A:ALA:N | 1:100:A:ALA:CA | 1:100:A:ALA:C  | 1:101:A:GLY:N | 3                   | 1.3  | 0.14            | 1.28   |
| (1,97)  | 1:83:A:LYS:N  | 1:83:A:LYS:CA  | 1:83:A:LYS:C   | 1:84:A:ARG:N  | 3                   | 1.2  | 0.16            | 1.15   |
| (1,139) | 1:108:A:TRP:N | 1:108:A:TRP:CA | 1:108:A:TRP:C  | 1:109:A:MET:N | 2                   | 2.02 | 0.34            | 2.02   |
| (1,197) | 2:950:B:TYR:C | 2:951:B:ILE:N  | 2:951:B:ILE:CA | 2:951:B:ILE:C | 2                   | 1.72 | 0.4             | 1.72   |

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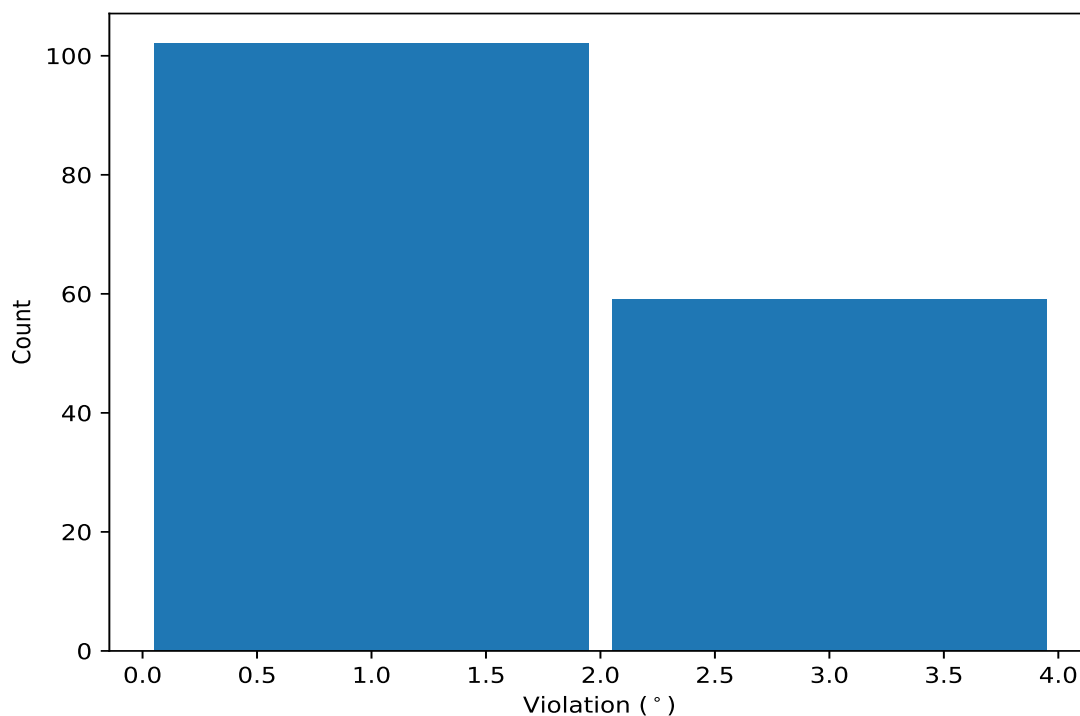
| Key     | Atom-1        | Atom-2        | Atom-3         | Atom-4        | Models <sup>1</sup> | Mean | SD <sup>2</sup> | Median |
|---------|---------------|---------------|----------------|---------------|---------------------|------|-----------------|--------|
| (1,168) | 1:124:A:VAL:C | 1:125:A:ASN:N | 1:125:A:ASN:CA | 1:125:A:ASN:C | 2                   | 1.46 | 0.3             | 1.46   |
| (1,193) | 2:948:B:PHE:C | 2:949:B:GLU:N | 2:949:B:GLU:CA | 2:949:B:GLU:C | 2                   | 1.29 | 0.2             | 1.29   |

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

## 10.5 All violated dihedral-angle restraints [i](#)

### 10.5.1 Histogram : Distribution of violations [i](#)

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 (°) |
|---------|--------------|---------------|---------------|--------------|----------|---------------|
| (1,74)  | 1:70:A:GLU:C | 1:71:A:ASP:N  | 1:71:A:ASP:CA | 1:71:A:ASP:C | 9        | 3.7           |
| (1,103) | 1:86:A:PRO:N | 1:86:A:PRO:CA | 1:86:A:PRO:C  | 1:87:A:GLN:N | 9        | 3.59          |
| (1,74)  | 1:70:A:GLU:C | 1:71:A:ASP:N  | 1:71:A:ASP:CA | 1:71:A:ASP:C | 11       | 3.57          |
| (1,103) | 1:86:A:PRO:N | 1:86:A:PRO:CA | 1:86:A:PRO:C  | 1:87:A:GLN:N | 8        | 3.55          |
| (1,74)  | 1:70:A:GLU:C | 1:71:A:ASP:N  | 1:71:A:ASP:CA | 1:71:A:ASP:C | 8        | 3.37          |

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| Key     | Atom-1        | Atom-2         | Atom-3         | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 3        | 3.3           |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 3        | 3.26          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 6        | 3.21          |
| (1,130) | 1:103:A:LYS:C | 1:104:A:ARG:N  | 1:104:A:ARG:CA | 1:104:A:ARG:C | 11       | 3.05          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 6        | 2.97          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 8        | 2.87          |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 4        | 2.86          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 2        | 2.8           |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 1        | 2.8           |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 5        | 2.78          |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 14       | 2.68          |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 3        | 2.66          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 11       | 2.61          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 4        | 2.6           |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 10       | 2.57          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 9        | 2.56          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 6        | 2.55          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 15       | 2.54          |
| (1,130) | 1:103:A:LYS:C | 1:104:A:ARG:N  | 1:104:A:ARG:CA | 1:104:A:ARG:C | 1        | 2.53          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 8        | 2.53          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 10       | 2.47          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 4        | 2.46          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 8        | 2.46          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 1        | 2.45          |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 13       | 2.41          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 7        | 2.38          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 11       | 2.37          |
| (1,139) | 1:108:A:TRP:N | 1:108:A:TRP:CA | 1:108:A:TRP:C  | 1:109:A:MET:N | 8        | 2.36          |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 15       | 2.35          |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 13       | 2.32          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 7        | 2.26          |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 14       | 2.25          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 12       | 2.23          |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 6        | 2.23          |
| (1,101) | 1:85:A:VAL:N  | 1:85:A:VAL:CA  | 1:85:A:VAL:C   | 1:86:A:PRO:N  | 15       | 2.22          |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 5        | 2.22          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 13       | 2.22          |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 3        | 2.2           |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 12       | 2.2           |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 12       | 2.17          |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 15       | 2.14          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 7        | 2.13          |
| (1,197) | 2:950:B:TYR:C | 2:951:B:ILE:N  | 2:951:B:ILE:CA | 2:951:B:ILE:C | 14       | 2.12          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 12       | 2.12          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 3        | 2.11          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 8        | 2.08          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 7        | 2.06          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 2        | 2.05          |
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 10       | 2.03          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 9        | 2.02          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 15       | 2.01          |

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| Key     | Atom-1        | Atom-2         | Atom-3         | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 1        | 2.01          |
| (1,101) | 1:85:A:VAL:N  | 1:85:A:VAL:CA  | 1:85:A:VAL:C   | 1:86:A:PRO:N  | 13       | 2.0           |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 2        | 2.0           |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 3        | 1.97          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 11       | 1.97          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 4        | 1.96          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 10       | 1.96          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 13       | 1.95          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 15       | 1.95          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 1        | 1.94          |
| (1,87)  | 1:78:A:ASP:N  | 1:78:A:ASP:CA  | 1:78:A:ASP:C   | 1:79:A:ASP:N  | 13       | 1.94          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 6        | 1.93          |
| (1,71)  | 1:69:A:VAL:N  | 1:69:A:VAL:CA  | 1:69:A:VAL:C   | 1:70:A:GLU:N  | 3        | 1.92          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 1        | 1.92          |
| (1,69)  | 1:68:A:ASN:N  | 1:68:A:ASN:CA  | 1:68:A:ASN:C   | 1:69:A:VAL:N  | 8        | 1.9           |
| (1,69)  | 1:68:A:ASN:N  | 1:68:A:ASN:CA  | 1:68:A:ASN:C   | 1:69:A:VAL:N  | 11       | 1.89          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 5        | 1.88          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 4        | 1.88          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 5        | 1.87          |
| (1,130) | 1:103:A:LYS:C | 1:104:A:ARG:N  | 1:104:A:ARG:CA | 1:104:A:ARG:C | 6        | 1.85          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 9        | 1.83          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 14       | 1.82          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 11       | 1.82          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 2        | 1.81          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 13       | 1.81          |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 8        | 1.81          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 5        | 1.81          |
| (1,71)  | 1:69:A:VAL:N  | 1:69:A:VAL:CA  | 1:69:A:VAL:C   | 1:70:A:GLU:N  | 11       | 1.8           |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 11       | 1.8           |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 9        | 1.78          |
| (1,71)  | 1:69:A:VAL:N  | 1:69:A:VAL:CA  | 1:69:A:VAL:C   | 1:70:A:GLU:N  | 4        | 1.77          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 8        | 1.77          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 13       | 1.76          |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 8        | 1.76          |
| (1,168) | 1:124:A:VAL:C | 1:125:A:ASN:N  | 1:125:A:ASN:CA | 1:125:A:ASN:C | 15       | 1.75          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 14       | 1.75          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 3        | 1.74          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 5        | 1.74          |
| (1,130) | 1:103:A:LYS:C | 1:104:A:ARG:N  | 1:104:A:ARG:CA | 1:104:A:ARG:C | 12       | 1.73          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 10       | 1.73          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 14       | 1.73          |
| (1,139) | 1:108:A:TRP:N | 1:108:A:TRP:CA | 1:108:A:TRP:C  | 1:109:A:MET:N | 9        | 1.68          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 4        | 1.68          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 6        | 1.68          |
| (1,169) | 1:125:A:ASN:N | 1:125:A:ASN:CA | 1:125:A:ASN:C  | 1:126:A:GLU:N | 9        | 1.67          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 1        | 1.67          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 14       | 1.66          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 15       | 1.64          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 12       | 1.64          |
| (1,76)  | 1:71:A:ASP:C  | 1:72:A:ASP:N   | 1:72:A:ASP:CA  | 1:72:A:ASP:C  | 10       | 1.61          |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 11       | 1.61          |

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| Key     | Atom-1        | Atom-2         | Atom-3         | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,74)  | 1:70:A:GLU:C  | 1:71:A:ASP:N   | 1:71:A:ASP:CA  | 1:71:A:ASP:C  | 2        | 1.59          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 15       | 1.58          |
| (1,87)  | 1:78:A:ASP:N  | 1:78:A:ASP:CA  | 1:78:A:ASP:C   | 1:79:A:ASP:N  | 7        | 1.57          |
| (1,69)  | 1:68:A:ASN:N  | 1:68:A:ASN:CA  | 1:68:A:ASN:C   | 1:69:A:VAL:N  | 3        | 1.56          |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 9        | 1.56          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 1        | 1.55          |
| (1,66)  | 1:65:A:THR:C  | 1:66:A:SER:N   | 1:66:A:SER:CA  | 1:66:A:SER:C  | 8        | 1.55          |
| (1,169) | 1:125:A:ASN:N | 1:125:A:ASN:CA | 1:125:A:ASN:C  | 1:126:A:GLU:N | 7        | 1.53          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 2        | 1.52          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 4        | 1.5           |
| (1,193) | 2:948:B:PHE:C | 2:949:B:GLU:N  | 2:949:B:GLU:CA | 2:949:B:GLU:C | 9        | 1.49          |
| (1,127) | 1:100:A:ALA:N | 1:100:A:ALA:CA | 1:100:A:ALA:C  | 1:101:A:GLY:N | 10       | 1.48          |
| (1,66)  | 1:65:A:THR:C  | 1:66:A:SER:N   | 1:66:A:SER:CA  | 1:66:A:SER:C  | 15       | 1.44          |
| (1,109) | 1:89:A:PRO:N  | 1:89:A:PRO:CA  | 1:89:A:PRO:C   | 1:90:A:SER:N  | 9        | 1.43          |
| (1,71)  | 1:69:A:VAL:N  | 1:69:A:VAL:CA  | 1:69:A:VAL:C   | 1:70:A:GLU:N  | 8        | 1.43          |
| (1,97)  | 1:83:A:LYS:N  | 1:83:A:LYS:CA  | 1:83:A:LYS:C   | 1:84:A:ARG:N  | 13       | 1.42          |
| (1,99)  | 1:84:A:ARG:N  | 1:84:A:ARG:CA  | 1:84:A:ARG:C   | 1:85:A:VAL:N  | 15       | 1.4           |
| (1,87)  | 1:78:A:ASP:N  | 1:78:A:ASP:CA  | 1:78:A:ASP:C   | 1:79:A:ASP:N  | 15       | 1.37          |
| (1,6)   | 1:25:A:GLU:N  | 1:25:A:GLU:CA  | 1:25:A:GLU:C   | 1:26:A:PHE:N  | 2        | 1.36          |
| (1,66)  | 1:65:A:THR:C  | 1:66:A:SER:N   | 1:66:A:SER:CA  | 1:66:A:SER:C  | 1        | 1.35          |
| (1,109) | 1:89:A:PRO:N  | 1:89:A:PRO:CA  | 1:89:A:PRO:C   | 1:90:A:SER:N  | 15       | 1.34          |
| (1,197) | 2:950:B:TYR:C | 2:951:B:ILE:N  | 2:951:B:ILE:CA | 2:951:B:ILE:C | 5        | 1.32          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 15       | 1.32          |
| (1,101) | 1:85:A:VAL:N  | 1:85:A:VAL:CA  | 1:85:A:VAL:C   | 1:86:A:PRO:N  | 12       | 1.3           |
| (1,66)  | 1:65:A:THR:C  | 1:66:A:SER:N   | 1:66:A:SER:CA  | 1:66:A:SER:C  | 9        | 1.29          |
| (1,127) | 1:100:A:ALA:N | 1:100:A:ALA:CA | 1:100:A:ALA:C  | 1:101:A:GLY:N | 14       | 1.28          |
| (1,68)  | 1:67:A:GLY:C  | 1:68:A:ASN:N   | 1:68:A:ASN:CA  | 1:68:A:ASN:C  | 10       | 1.27          |
| (1,66)  | 1:65:A:THR:C  | 1:66:A:SER:N   | 1:66:A:SER:CA  | 1:66:A:SER:C  | 11       | 1.24          |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 2        | 1.24          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 7        | 1.23          |
| (1,109) | 1:89:A:PRO:N  | 1:89:A:PRO:CA  | 1:89:A:PRO:C   | 1:90:A:SER:N  | 8        | 1.22          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 9        | 1.2           |
| (1,92)  | 1:80:A:CYS:C  | 1:81:A:GLU:N   | 1:81:A:GLU:CA  | 1:81:A:GLU:C  | 11       | 1.2           |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 1        | 1.2           |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 2        | 1.18          |
| (1,168) | 1:124:A:VAL:C | 1:125:A:ASN:N  | 1:125:A:ASN:CA | 1:125:A:ASN:C | 9        | 1.16          |
| (1,5)   | 1:24:A:VAL:C  | 1:25:A:GLU:N   | 1:25:A:GLU:CA  | 1:25:A:GLU:C  | 7        | 1.16          |
| (1,127) | 1:100:A:ALA:N | 1:100:A:ALA:CA | 1:100:A:ALA:C  | 1:101:A:GLY:N | 5        | 1.15          |
| (1,103) | 1:86:A:PRO:N  | 1:86:A:PRO:CA  | 1:86:A:PRO:C   | 1:87:A:GLN:N  | 12       | 1.15          |
| (1,97)  | 1:83:A:LYS:N  | 1:83:A:LYS:CA  | 1:83:A:LYS:C   | 1:84:A:ARG:N  | 6        | 1.15          |
| (1,187) | 2:943:B:GLU:C | 2:944:B:PRO:N  | 2:944:B:PRO:CA | 2:944:B:PRO:C | 15       | 1.14          |
| (1,130) | 1:103:A:LYS:C | 1:104:A:ARG:N  | 1:104:A:ARG:CA | 1:104:A:ARG:C | 8        | 1.13          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 7        | 1.12          |
| (1,169) | 1:125:A:ASN:N | 1:125:A:ASN:CA | 1:125:A:ASN:C  | 1:126:A:GLU:N | 2        | 1.12          |
| (1,87)  | 1:78:A:ASP:N  | 1:78:A:ASP:CA  | 1:78:A:ASP:C   | 1:79:A:ASP:N  | 14       | 1.11          |
| (1,66)  | 1:65:A:THR:C  | 1:66:A:SER:N   | 1:66:A:SER:CA  | 1:66:A:SER:C  | 2        | 1.11          |
| (1,130) | 1:103:A:LYS:C | 1:104:A:ARG:N  | 1:104:A:ARG:CA | 1:104:A:ARG:C | 3        | 1.1           |
| (1,193) | 2:948:B:PHE:C | 2:949:B:GLU:N  | 2:949:B:GLU:CA | 2:949:B:GLU:C | 6        | 1.09          |
| (1,169) | 1:125:A:ASN:N | 1:125:A:ASN:CA | 1:125:A:ASN:C  | 1:126:A:GLU:N | 4        | 1.08          |
| (1,200) | 2:952:B:ASP:N | 2:952:B:ASP:CA | 2:952:B:ASP:C  | 2:953:B:ASP:N | 3        | 1.06          |
| (1,104) | 1:86:A:PRO:C  | 1:87:A:GLN:N   | 1:87:A:GLN:CA  | 1:87:A:GLN:C  | 13       | 1.06          |

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| <b>Key</b> | <b>Atom-1</b> | <b>Atom-2</b> | <b>Atom-3</b> | <b>Atom-4</b> | <b>Model ID</b> | <b>Violation (°)</b> |
|------------|---------------|---------------|---------------|---------------|-----------------|----------------------|
| (1,97)     | 1:83:A:LYS:N  | 1:83:A:LYS:CA | 1:83:A:LYS:C  | 1:84:A:ARG:N  | 7               | 1.03                 |
| (1,74)     | 1:70:A:GLU:C  | 1:71:A:ASP:N  | 1:71:A:ASP:CA | 1:71:A:ASP:C  | 7               | 1.03                 |
| (1,5)      | 1:24:A:VAL:C  | 1:25:A:GLU:N  | 1:25:A:GLU:CA | 1:25:A:GLU:C  | 3               | 1.02                 |