Full wwPDB X-ray Structure Validation Report

Apr 18, 2018 – 03:21 PM EDT

PDB ID : 3BCC
Title : STIGMATELLIN AND ANTIMYCIN BOUND CYTOCHROME BC1 COMPLEX FROM CHICKEN
Deposited on : 1998-03-23
Resolution : 3.70 Å (reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at https://www.wwpdb.org/validation/2017/XrayValidationReportHelp
with specific help available everywhere you see the symbol.

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

- MolProbity : 4.02b-467
- Mogul : 1.7.3 (157068), CSD as539be (2018)
- Xtriage (Phenix) : 1.13
- EDS : rb-20031021
- Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)
- Refmac : 5.8.0158
- CCP4 : 7.0 (Gargrove)
- Ideal geometry (proteins) : Engh & Huber (2001)
- Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
- Validation Pipeline (wwPDB-VP) : rb-20031021
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.70 Å.

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

<table>
<thead>
<tr>
<th>Metric</th>
<th>Whole archive (#Entries)</th>
<th>Similar resolution (#Entries, resolution range (Å))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clashscore</td>
<td>122126</td>
<td>1524 (3.90-3.50)</td>
</tr>
<tr>
<td>Ramachandran outliers</td>
<td>120053</td>
<td>1470 (3.90-3.50)</td>
</tr>
<tr>
<td>Sidechain outliers</td>
<td>120020</td>
<td>1467 (3.90-3.50)</td>
</tr>
<tr>
<td>RSRZ outliers</td>
<td>108989</td>
<td>1298 (3.90-3.50)</td>
</tr>
</tbody>
</table>

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%.

The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Length</th>
<th>Quality of chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>446</td>
<td><img src="image" alt="Quality of chain for chain A" /></td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>422</td>
<td><img src="image" alt="Quality of chain for chain B" /></td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>380</td>
<td><img src="image" alt="Quality of chain for chain C" /></td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>241</td>
<td><img src="image" alt="Quality of chain for chain D" /></td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>196</td>
<td><img src="image" alt="Quality of chain for chain E" /></td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>109</td>
<td><img src="image" alt="Quality of chain for chain F" /></td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>81</td>
<td><img src="image" alt="Quality of chain for chain G" /></td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Length</th>
<th>Quality of chain</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>H</td>
<td>78</td>
<td><img src="image1" alt="Quality of chain" /></td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>33</td>
<td><img src="image2" alt="Quality of chain" /></td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>62</td>
<td><img src="image3" alt="Quality of chain" /></td>
</tr>
</tbody>
</table>

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Chirality</th>
<th>Geometry</th>
<th>Clashes</th>
<th>Electron density</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>FES</td>
<td>E</td>
<td>197</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
</tr>
</tbody>
</table>
2 Entry composition

There are 14 unique types of molecules in this entry. The entry contains 15645 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>442</td>
<td>Total C N O S 3423 2147 601 657 18</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

There are 45 discrepancies between the modelled and reference sequences:

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3</td>
<td>TYR</td>
<td>THR</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>23</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>59</td>
<td>LEU</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>72</td>
<td>GLN</td>
<td>GLY</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>91</td>
<td>SER</td>
<td>THR</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>106</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>135</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>136</td>
<td>ARG</td>
<td>GLN</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>147</td>
<td>GLU</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>162</td>
<td>GLY</td>
<td>PRO</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>174</td>
<td>ILE</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>188</td>
<td>THR</td>
<td>ARG</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>191</td>
<td>THR</td>
<td>LYS</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>203</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>206</td>
<td>GLN</td>
<td>ARG</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>210</td>
<td>GLU</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>217</td>
<td>GLY</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>219</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>220</td>
<td>PRO</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>221</td>
<td>PHE</td>
<td>GLY</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>225</td>
<td>ASP</td>
<td>GLU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>233</td>
<td>LYS</td>
<td>PRO</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>242</td>
<td>ARG</td>
<td>CYS</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>267</td>
<td>LEU</td>
<td>ASN</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>282</td>
<td>ARG</td>
<td>CYS</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>288</td>
<td>LEU</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>290</td>
<td>SER</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modeled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>299</td>
<td>VAL</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>311</td>
<td>SER</td>
<td>ASN</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>315</td>
<td>SER</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>316</td>
<td>GLU</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>320</td>
<td>PHE</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>322</td>
<td>PHE</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>323</td>
<td>TYR</td>
<td>HIS</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>328</td>
<td>ARG</td>
<td>HIS</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>349</td>
<td>ILE</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>350</td>
<td>SER</td>
<td>THR</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>360</td>
<td>PHE</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>382</td>
<td>GLU</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>393</td>
<td>GLU</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>397</td>
<td>GLU</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>399</td>
<td>LEU</td>
<td>ILE</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>406</td>
<td>MET</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>415</td>
<td>ILE</td>
<td>PHE</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
<tr>
<td>A</td>
<td>425</td>
<td>PRO</td>
<td>PHE</td>
<td>CONFLICT</td>
<td>UNP P31800</td>
</tr>
</tbody>
</table>

- Molecule 2 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>406</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2994 1878 518 591 7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are 37 discrepancies between the modelled and reference sequences:

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modeled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>26</td>
<td>ILE</td>
<td>PHE</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>28</td>
<td>LYS</td>
<td>ARG</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>42</td>
<td>SER</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>44</td>
<td>GLY</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>46</td>
<td>THR</td>
<td>ARG</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>49</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>61</td>
<td>SER</td>
<td>ASN</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>99</td>
<td>GLU</td>
<td>THR</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>117</td>
<td>GLU</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>134</td>
<td>PRO</td>
<td>ARG</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>139</td>
<td>ASP</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>145</td>
<td>LYS</td>
<td>ARG</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>152</td>
<td>PHE</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>157</td>
<td>THR</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>174</td>
<td>ASP</td>
<td>ASN</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>188</td>
<td>SER</td>
<td>PRO</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>194</td>
<td>PHE</td>
<td>TYR</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>207</td>
<td>VAL</td>
<td>ILE</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>218</td>
<td>ASN</td>
<td>GLN</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>223</td>
<td>LEU</td>
<td>PHE</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>240</td>
<td>ARG</td>
<td>HIS</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>257</td>
<td>ILE</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>266</td>
<td>GLY</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>282</td>
<td>ASN</td>
<td>GLY</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>304</td>
<td>LEU</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>332</td>
<td>TYR</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>335</td>
<td>GLN</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>352</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>355</td>
<td>GLU</td>
<td>PRO</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>356</td>
<td>ASN</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>367</td>
<td>LYS</td>
<td>GLY</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>380</td>
<td>GLU</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>393</td>
<td>ASN</td>
<td>THR</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>412</td>
<td>LYS</td>
<td>ASN</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>420</td>
<td>ARG</td>
<td>GLY</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>421</td>
<td>GLN</td>
<td>ARG</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
<tr>
<td>B</td>
<td>436</td>
<td>VAL</td>
<td>ILE</td>
<td>CONFLICT</td>
<td>UNP P23004</td>
</tr>
</tbody>
</table>

- Molecule 3 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>C</td>
<td>379</td>
<td>Total C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3002 2013 473 504 12</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 4 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>D</td>
<td>241</td>
<td>Total C N O S</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1899 1214 326 345 14</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

There are 5 discrepancies between the modelled and reference sequences:

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>17</td>
<td>PRO</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P00125</td>
</tr>
<tr>
<td>D</td>
<td>143</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P00125</td>
</tr>
<tr>
<td>D</td>
<td>167</td>
<td>ASP</td>
<td>GLU</td>
<td>CONFLICT</td>
<td>UNP P00125</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>216</td>
<td>VAL</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P00125</td>
</tr>
<tr>
<td>D</td>
<td>221</td>
<td>TYR</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P00125</td>
</tr>
</tbody>
</table>

- Molecule 5 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>E</td>
<td>196</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1512 953 266 285 8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are 12 discrepancies between the modelled and reference sequences:

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>9</td>
<td>ASN</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>17</td>
<td>PRO</td>
<td>GLU</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>18</td>
<td>ASP</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>19</td>
<td>ASP</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>20</td>
<td>TYR</td>
<td>ASP</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>26</td>
<td>ARG</td>
<td>LYS</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>29</td>
<td>ASP</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>30</td>
<td>PRO</td>
<td>GLU</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>31</td>
<td>SER</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>42</td>
<td>VAL</td>
<td>THR</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>45</td>
<td>LEU</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
<tr>
<td>E</td>
<td>56</td>
<td>THR</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P13272</td>
</tr>
</tbody>
</table>

- Molecule 6 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>F</td>
<td>100</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>875 557 153 162 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are 7 discrepancies between the modelled and reference sequences:

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>29</td>
<td>TYR</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P00129</td>
</tr>
<tr>
<td>F</td>
<td>38</td>
<td>TYR</td>
<td>HIS</td>
<td>CONFLICT</td>
<td>UNP P00129</td>
</tr>
<tr>
<td>F</td>
<td>59</td>
<td>MET</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P00129</td>
</tr>
<tr>
<td>F</td>
<td>69</td>
<td>ASN</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P00129</td>
</tr>
<tr>
<td>F</td>
<td>87</td>
<td>VAL</td>
<td>LYS</td>
<td>CONFLICT</td>
<td>UNP P00129</td>
</tr>
<tr>
<td>F</td>
<td>88</td>
<td>PRO</td>
<td>SER</td>
<td>CONFLICT</td>
<td>UNP P00129</td>
</tr>
<tr>
<td>F</td>
<td>108</td>
<td>ASP</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P00129</td>
</tr>
</tbody>
</table>
Molecule 7 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>G</td>
<td>78</td>
<td>Total C N O S</td>
<td>626 411 114 100 1</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

There are 8 discrepancies between the modelled and reference sequences:

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>13</td>
<td>LEU</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
<tr>
<td>G</td>
<td>25</td>
<td>PRO</td>
<td>ALA</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
<tr>
<td>G</td>
<td>34</td>
<td>VAL</td>
<td>ILE</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
<tr>
<td>G</td>
<td>38</td>
<td>TRP</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
<tr>
<td>G</td>
<td>41</td>
<td>LEU</td>
<td>THR</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
<tr>
<td>G</td>
<td>53</td>
<td>LEU</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
<tr>
<td>G</td>
<td>58</td>
<td>LEU</td>
<td>VAL</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
<tr>
<td>G</td>
<td>78</td>
<td>VAL</td>
<td>GLU</td>
<td>CONFLICT</td>
<td>UNP P13271</td>
</tr>
</tbody>
</table>

Molecule 8 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>H</td>
<td>66</td>
<td>Total C N O S</td>
<td>490 301 88 96 5</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

There is a discrepancy between the modelled and reference sequences:

<table>
<thead>
<tr>
<th>Chain</th>
<th>Residue</th>
<th>Modelled</th>
<th>Actual</th>
<th>Comment</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>H</td>
<td>59</td>
<td>PHE</td>
<td>LEU</td>
<td>CONFLICT</td>
<td>UNP P00126</td>
</tr>
</tbody>
</table>

Molecule 9 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>I</td>
<td>33</td>
<td>Total C N O</td>
<td>159 92 33 34</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Molecule 10 is a protein called UBIQUINOL CYTOCHROME C OXIDOREDUCTASE.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>J</td>
<td>59</td>
<td>Total C N O</td>
<td>459 299 78 82</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

There is a discrepancy between the modelled and reference sequences:
- Molecule 11 is PROTOPORPHYRIN IX CONTAINING FE (three-letter code: HEM) (formula: \( C_{34}H_{32}FeN_4O_4 \)).

![HEM](image)

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>C</td>
<td>1</td>
<td>Total ( C ) Fe N O ( 43 ) ( 34 ) ( 1 ) ( 4 ) ( 4 )</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>1</td>
<td>Total ( C ) Fe N O ( 43 ) ( 34 ) ( 1 ) ( 4 ) ( 4 )</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>1</td>
<td>Total ( C ) Fe N O ( 43 ) ( 34 ) ( 1 ) ( 4 ) ( 4 )</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 12 is STIGMATELLIN (three-letter code: SIG) (formula: \( C_{30}H_{42}O_5 \)).
Molecule 13 is ANTIMYCIN (three-letter code: AMY) (formula: C_{27}H_{38}N_{2}O_{9}).

Molecule 14 is FE2/S2 (INORGANIC) CLUSTER (three-letter code: FES) (formula: Fe_{2}S_{2}).
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>ZeroOcc</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>E</td>
<td>1</td>
<td>Total 4 Fe 2 S 2</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density (RSRZ > 2). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: UBIQUINOL CYTOCHROME C OXIDOREDUCTASE

Chain A:

- Molecule 2: UBIQUINOL CYTOCHROME C OXIDOREDUCTASE

Chain B:
- Molecule 3: UBIQUINOL CYTOCHROME C OXIDOREDUCTASE

Chain C:

- Molecule 4: UBIQUINOL CYTOCHROME C OXIDOREDUCTASE

Chain D:
<table>
<thead>
<tr>
<th>Molecule</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>UBIQUINOL CYTOCHROME C OXIDOREDUCTASE</td>
</tr>
<tr>
<td>Chain E</td>
<td>![Chain E Diagram]</td>
</tr>
<tr>
<td>6</td>
<td>UBIQUINOL CYTOCHROME C OXIDOREDUCTASE</td>
</tr>
<tr>
<td>Chain F</td>
<td>![Chain F Diagram]</td>
</tr>
<tr>
<td>7</td>
<td>UBIQUINOL CYTOCHROME C OXIDOREDUCTASE</td>
</tr>
<tr>
<td>Chain G</td>
<td>![Chain G Diagram]</td>
</tr>
<tr>
<td>8</td>
<td>UBIQUINOL CYTOCHROME C OXIDOREDUCTASE</td>
</tr>
<tr>
<td>Chain H</td>
<td>![Chain H Diagram]</td>
</tr>
<tr>
<td>9</td>
<td>UBIQUINOL CYTOCHROME C OXIDOREDUCTASE</td>
</tr>
<tr>
<td>Chain I</td>
<td>![Chain I Diagram]</td>
</tr>
</tbody>
</table>
- Molecule 10: UBIQUINOL CYTOCHROME C OXIDOREDUCTASE

Chain J:
## 4 Data and refinement statistics

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Space group</td>
<td>P 21 21 21</td>
<td>Depositor</td>
</tr>
<tr>
<td>Cell constants</td>
<td>173.18Å 179.73Å 238.22Å</td>
<td>Depositor</td>
</tr>
<tr>
<td>a, b, c, α, β, γ</td>
<td>90.00° 90.00° 90.00°</td>
<td>Depositor</td>
</tr>
<tr>
<td>Resolution (Å)</td>
<td>12.00 - 3.70</td>
<td>Depositor</td>
</tr>
<tr>
<td></td>
<td>86.13 - 3.20</td>
<td>EDS</td>
</tr>
<tr>
<td>% Data completeness (in resolution range)</td>
<td>91.8 (12.00-3.70)</td>
<td>Depositor</td>
</tr>
<tr>
<td></td>
<td>77.4 (86.13-3.20)</td>
<td>EDS</td>
</tr>
<tr>
<td>Rmerge</td>
<td>0.16</td>
<td>Depositor</td>
</tr>
<tr>
<td>Rsym</td>
<td>0.16</td>
<td>Depositor</td>
</tr>
<tr>
<td>$&lt;I/\sigma(I)&gt;^1$</td>
<td>0.71 (at 3.19Å)</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Refinement program</td>
<td>CNS 0.1</td>
<td>Depositor</td>
</tr>
<tr>
<td>$R, R_{free}$</td>
<td>0.289 , 0.321</td>
<td>Depositor</td>
</tr>
<tr>
<td></td>
<td>0.288 , (Not available)</td>
<td>DCC</td>
</tr>
<tr>
<td>$R_{free}$ test set</td>
<td>No test flags present.</td>
<td>wwPDB-VP</td>
</tr>
<tr>
<td>Wilson B-factor (Å²)</td>
<td>82.7</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Anisotropy</td>
<td>0.446</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Bulk solvent $k_{sol}(e/Å³)$, $B_{sol}(Å²)$</td>
<td>0.27 , 50.8</td>
<td>EDS</td>
</tr>
<tr>
<td>L-test for twinning$^2$</td>
<td>$&lt;</td>
<td>L</td>
</tr>
<tr>
<td>Estimated twinning fraction</td>
<td>0.019 for k,h,-l</td>
<td>Xtriage</td>
</tr>
<tr>
<td>Fc</td>
<td>Fc correlation</td>
<td>0.86</td>
</tr>
<tr>
<td>Total number of atoms</td>
<td>15645</td>
<td>wwPDB-VP</td>
</tr>
<tr>
<td>Average B, all atoms (Å²)</td>
<td>73.0</td>
<td>wwPDB-VP</td>
</tr>
</tbody>
</table>

Xtriage’s analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.79% of the height of the origin peak. No significant pseudotranslation is detected.*

---

$^1$Intensities estimated from amplitudes.

$^2$Theoretical values of $<|L|>$, $<L^2>$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.
5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: AMY, HEM, SIG, FES

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with \(|Z| > 5\) is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Bond lengths</th>
<th>Bond angles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RMSZ</td>
<td>#(</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>0.50</td>
<td>0/3495</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>0.49</td>
<td>0/3046</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>0.60</td>
<td>0/3104</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>0.54</td>
<td>0/1960</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>0.58</td>
<td>1/1548 (0.1%)</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>0.52</td>
<td>0/896</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>0.57</td>
<td>0/648</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>0.43</td>
<td>0/495</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>0.58</td>
<td>0/470</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>0.54</td>
<td>1/15662 (0.0%)</td>
</tr>
</tbody>
</table>

All (1) bond length outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(Å)</th>
<th>Ideal(Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>E</td>
<td>6</td>
<td>LYS</td>
<td>CD-CE</td>
<td>6.62</td>
<td>1.67</td>
<td>1.51</td>
</tr>
</tbody>
</table>

All (9) bond angle outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>G</td>
<td>26</td>
<td>PHE</td>
<td>C-N-CD</td>
<td>-20.16</td>
<td>76.25</td>
<td>120.60</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>26</td>
<td>PHE</td>
<td>C-N-CA</td>
<td>12.85</td>
<td>175.99</td>
<td>122.00</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>27</td>
<td>PRO</td>
<td>CA-N-CD</td>
<td>-7.88</td>
<td>100.47</td>
<td>111.50</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>287</td>
<td>GLY</td>
<td>N-CA-C</td>
<td>-6.79</td>
<td>96.12</td>
<td>113.10</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>76</td>
<td>GLU</td>
<td>N-CA-C</td>
<td>-6.20</td>
<td>94.27</td>
<td>111.00</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>61</td>
<td>ASN</td>
<td>N-CA-C</td>
<td>6.19</td>
<td>127.72</td>
<td>111.00</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>267</td>
<td>PRO</td>
<td>N-CA-C</td>
<td>-6.18</td>
<td>96.04</td>
<td>112.10</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>216</td>
<td>VAL</td>
<td>C-N-CD</td>
<td>5.16</td>
<td>139.24</td>
<td>128.40</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>6</td>
<td>LYS</td>
<td>CB-CA-C</td>
<td>-5.11</td>
<td>100.18</td>
<td>110.40</td>
</tr>
</tbody>
</table>

There are no chirality outliers.
There are no planarity outliers.

### 5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry related clashes.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Non-H</th>
<th>H(model)</th>
<th>H(added)</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>3423</td>
<td>0</td>
<td>3286</td>
<td>448</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2994</td>
<td>0</td>
<td>2906</td>
<td>327</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>3002</td>
<td>0</td>
<td>3036</td>
<td>487</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>1899</td>
<td>0</td>
<td>1822</td>
<td>254</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>1512</td>
<td>0</td>
<td>1483</td>
<td>185</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>875</td>
<td>0</td>
<td>839</td>
<td>88</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>626</td>
<td>0</td>
<td>591</td>
<td>67</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>490</td>
<td>0</td>
<td>445</td>
<td>45</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>159</td>
<td>0</td>
<td>43</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>459</td>
<td>0</td>
<td>424</td>
<td>55</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>86</td>
<td>0</td>
<td>60</td>
<td>23</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>43</td>
<td>0</td>
<td>30</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>35</td>
<td>0</td>
<td>42</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>38</td>
<td>0</td>
<td>36</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>E</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>15645</td>
<td>0</td>
<td>15043</td>
<td>1851</td>
<td>1</td>
</tr>
</tbody>
</table>

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 60.

All (1851) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:107:SER:HB3</td>
<td>11:C:382:HEM:HBD1</td>
<td>1.22</td>
<td>1.17</td>
</tr>
<tr>
<td>3:C:316:MET:SD</td>
<td>3:C:319:ARG:HG3</td>
<td>1.90</td>
<td>1.11</td>
</tr>
<tr>
<td>1:A:36:THR:HG22</td>
<td>1:A:100:LYS:HB3</td>
<td>1.31</td>
<td>1.11</td>
</tr>
<tr>
<td>3:C:146:VAL:HG23</td>
<td>3:C:147:ILE:H</td>
<td>1.15</td>
<td>1.08</td>
</tr>
<tr>
<td>3:C:327:TRP:HA</td>
<td>3:C:330:VAL:HG12</td>
<td>1.33</td>
<td>1.07</td>
</tr>
<tr>
<td>2:B:76:THR:HG22</td>
<td>2:B:82:SER:H</td>
<td>1.18</td>
<td>1.07</td>
</tr>
<tr>
<td>4:D:158:ILE:HG22</td>
<td>4:D:160:MET:H</td>
<td>1.05</td>
<td>1.05</td>
</tr>
</tbody>
</table>

*Continued on next page...*
## Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:325:LEU:HD11</td>
<td>3:C:366:LEU:HB3</td>
<td>1.36</td>
<td>1.01</td>
</tr>
<tr>
<td>3:C:43:MET:HE2</td>
<td>3:C:43:MET:HA</td>
<td>1.42</td>
<td>1.01</td>
</tr>
<tr>
<td>2:B:280:GLY:H</td>
<td>2:B:283:PRO:HD2</td>
<td>1.28</td>
<td>0.98</td>
</tr>
<tr>
<td>3:C:167:GLY:N</td>
<td>3:C:175:THR:HG22</td>
<td>1.78</td>
<td>0.98</td>
</tr>
<tr>
<td>1:A:382:GLU:HG2</td>
<td>1:A:389:ARG:HA</td>
<td>1.46</td>
<td>0.97</td>
</tr>
<tr>
<td>4:D:54:VAL:HG21</td>
<td>4:D:192:TRP:CZ3</td>
<td>2.00</td>
<td>0.96</td>
</tr>
<tr>
<td>3:C:138:GLN:NE2</td>
<td>3:C:261:ASN:H</td>
<td>1.65</td>
<td>0.95</td>
</tr>
<tr>
<td>1:A:159:GLN:NE2</td>
<td>5:E:7:VAL:HG11</td>
<td>1.81</td>
<td>0.95</td>
</tr>
<tr>
<td>12:C:383:SIG:H353</td>
<td>12:C:383:SIG:H333</td>
<td>1.48</td>
<td>0.95</td>
</tr>
<tr>
<td>2:B:241:GLY:HA3</td>
<td>2:B:421:GLN:HE21</td>
<td>1.30</td>
<td>0.94</td>
</tr>
<tr>
<td>1:A:436:ARG:HD3</td>
<td>3:C:223:PRO:HD3</td>
<td>1.50</td>
<td>0.93</td>
</tr>
<tr>
<td>2:B:337:ILE:HD11</td>
<td>2:B:434:PRO:HD2</td>
<td>1.49</td>
<td>0.93</td>
</tr>
<tr>
<td>2:B:168:TYR:CB</td>
<td>2:B:173:ALA:HB2</td>
<td>1.98</td>
<td>0.93</td>
</tr>
<tr>
<td>1:A:281:ASP:HB3</td>
<td>1:A:284:TYR:HE1</td>
<td>1.34</td>
<td>0.93</td>
</tr>
<tr>
<td>4:D:158:ILE:CG2</td>
<td>4:D:160:MET:H</td>
<td>1.83</td>
<td>0.92</td>
</tr>
<tr>
<td>3:C:107:SER:C</td>
<td>11:C:382:HEM:HBD1</td>
<td>2.00</td>
<td>0.92</td>
</tr>
<tr>
<td>3:C:120:LEU:HG</td>
<td>11:C:382:HEM:HBB2</td>
<td>1.52</td>
<td>0.90</td>
</tr>
<tr>
<td>2:B:258:VAL:HG13</td>
<td>2:B:322:PHE:H</td>
<td>1.34</td>
<td>0.90</td>
</tr>
<tr>
<td>4:D:158:ILE:HG22</td>
<td>4:D:160:MET:N</td>
<td>1.87</td>
<td>0.89</td>
</tr>
<tr>
<td>3:C:43:MET:CE</td>
<td>3:C:43:MET:HA</td>
<td>2.02</td>
<td>0.89</td>
</tr>
<tr>
<td>2:B:250:ASP:O</td>
<td>2:B:252:LEU:HD23</td>
<td>1.73</td>
<td>0.89</td>
</tr>
<tr>
<td>1:A:49:SER:H</td>
<td>1:A:52:ASN:HB3</td>
<td>1.37</td>
<td>0.89</td>
</tr>
<tr>
<td>3:C:319:ARG:CZ</td>
<td>3:C:374:GLU:HB2</td>
<td>2.03</td>
<td>0.88</td>
</tr>
<tr>
<td>3:C:147:ILE:O</td>
<td>3:C:150:LEU:HB3</td>
<td>1.73</td>
<td>0.88</td>
</tr>
<tr>
<td>5:E:45:LEU:HD11</td>
<td>10:J:28:ALA:HA</td>
<td>1.54</td>
<td>0.88</td>
</tr>
<tr>
<td>5:E:156:TYR:HB2</td>
<td>5:E:165:TYR:HB2</td>
<td>1.56</td>
<td>0.87</td>
</tr>
<tr>
<td>3:C:146:VAL:HG23</td>
<td>3:C:147:ILE:N</td>
<td>1.90</td>
<td>0.87</td>
</tr>
<tr>
<td>1:A:166:SER:OG</td>
<td>5:E:3:THR:HG23</td>
<td>1.74</td>
<td>0.87</td>
</tr>
<tr>
<td>1:A:349:ILE:HG22</td>
<td>1:A:408:ARG:HG3</td>
<td>1.56</td>
<td>0.86</td>
</tr>
<tr>
<td>2:B:69:LEU:HD12</td>
<td>2:B:105:MET:HE1</td>
<td>1.57</td>
<td>0.86</td>
</tr>
<tr>
<td>3:C:242:THR:HA</td>
<td>4:D:208:MET:HE1</td>
<td>1.58</td>
<td>0.86</td>
</tr>
<tr>
<td>2:B:101:THR:HB</td>
<td>2:B:104:ASN:OD1</td>
<td>1.76</td>
<td>0.85</td>
</tr>
<tr>
<td>3:C:106:GLY:HA2</td>
<td>3:C:108:TYR:CE2</td>
<td>2.11</td>
<td>0.85</td>
</tr>
<tr>
<td>3:C:167:GLY:H</td>
<td>3:C:175:THR:HG22</td>
<td>1.39</td>
<td>0.85</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:E:13:TYR:O</td>
<td>5:E:14:ARG:HD3</td>
<td>1.75</td>
<td>0.85</td>
</tr>
<tr>
<td>3:C:283:ARG:O</td>
<td>3:C:283:ARG:HG3</td>
<td>1.76</td>
<td>0.85</td>
</tr>
<tr>
<td>5:E:29:ASP:C</td>
<td>5:E:31:SER:H</td>
<td>1.79</td>
<td>0.84</td>
</tr>
<tr>
<td>2:B:75:LEU:HD22</td>
<td>2:B:136:GLU:HB3</td>
<td>1.59</td>
<td>0.84</td>
</tr>
<tr>
<td>1:A:346:CYS:HB3</td>
<td>1:A:411:CYS:HB2</td>
<td>1.57</td>
<td>0.84</td>
</tr>
<tr>
<td>10:J:57:HIS:O</td>
<td>10:J:61:ASN:N</td>
<td>2.11</td>
<td>0.84</td>
</tr>
<tr>
<td>3:C:207:ASN:O</td>
<td>3:C:208:ASN:HB3</td>
<td>1.76</td>
<td>0.83</td>
</tr>
<tr>
<td>1:A:210:GLU:O</td>
<td>1:A:214:LYS:HB2</td>
<td>1.78</td>
<td>0.83</td>
</tr>
<tr>
<td>1:A:345:LEU:HD12</td>
<td>1:A:349:ILE:HD12</td>
<td>1.60</td>
<td>0.83</td>
</tr>
<tr>
<td>1:A:406:MET:O</td>
<td>1:A:410:VAL:HG23</td>
<td>1.80</td>
<td>0.82</td>
</tr>
<tr>
<td>3:C:166:TRP:HB2</td>
<td>3:C:175:THR:CG2</td>
<td>2.08</td>
<td>0.82</td>
</tr>
<tr>
<td>2:B:258:VAL:HG11</td>
<td>2:B:321:LEU:HB3</td>
<td>1.60</td>
<td>0.81</td>
</tr>
<tr>
<td>2:B:62:ASN:C</td>
<td>2:B:62:ASN:ND2</td>
<td>2.32</td>
<td>0.81</td>
</tr>
<tr>
<td>1:A:37:VAL:HG12</td>
<td>1:A:199:ALA:CB</td>
<td>2.10</td>
<td>0.81</td>
</tr>
<tr>
<td>4:D:165:TYR:O</td>
<td>4:D:168:VAL:HG23</td>
<td>1.79</td>
<td>0.81</td>
</tr>
<tr>
<td>1:A:250:LEU:HD21</td>
<td>1:A:325:VAL:HG13</td>
<td>1.61</td>
<td>0.81</td>
</tr>
<tr>
<td>3:C:342:GLN:HB3</td>
<td>3:C:348:PHE:CE2</td>
<td>2.16</td>
<td>0.81</td>
</tr>
<tr>
<td>2:B:96:LEU:HD23</td>
<td>2:B:97:SER:N</td>
<td>1.95</td>
<td>0.81</td>
</tr>
<tr>
<td>3:C:372:THR:HA</td>
<td>3:C:375:ASN:HD22</td>
<td>1.45</td>
<td>0.81</td>
</tr>
<tr>
<td>8:H:69:VAL:O</td>
<td>8:H:73:LEU:HB2</td>
<td>1.80</td>
<td>0.81</td>
</tr>
<tr>
<td>2:B:146:ILE:HG13</td>
<td>2:B:147:ASP:N</td>
<td>1.96</td>
<td>0.80</td>
</tr>
<tr>
<td>2:B:168:TYR:CE2</td>
<td>2:B:172:LEU:HD23</td>
<td>2.16</td>
<td>0.80</td>
</tr>
<tr>
<td>3:C:92:PHE:O</td>
<td>3:C:95:ILE:HG22</td>
<td>1.80</td>
<td>0.80</td>
</tr>
<tr>
<td>1:A:88:ALA:HB1</td>
<td>1:A:96:ALA:O</td>
<td>1.82</td>
<td>0.80</td>
</tr>
<tr>
<td>5:E:72:SER:O</td>
<td>5:E:196:GLY:HA3</td>
<td>1.82</td>
<td>0.80</td>
</tr>
<tr>
<td>10:J:57:HIS:HB2</td>
<td>10:J:61:ASN:C</td>
<td>2.02</td>
<td>0.80</td>
</tr>
<tr>
<td>3:C:90:PHE:HE1</td>
<td>3:C:236:MET:HB3</td>
<td>1.45</td>
<td>0.80</td>
</tr>
<tr>
<td>2:B:168:TYR:HB2</td>
<td>2:B:173:ALA:CB</td>
<td>2.06</td>
<td>0.80</td>
</tr>
<tr>
<td>1:A:333:ASP:O</td>
<td>1:A:337:VAL:HG23</td>
<td>1.82</td>
<td>0.79</td>
</tr>
<tr>
<td>2:B:357:VAL:HG11</td>
<td>2:B:406:ALA:HB1</td>
<td>1.62</td>
<td>0.79</td>
</tr>
<tr>
<td>4:D:214:LEU:O</td>
<td>4:D:218:LEU:HG</td>
<td>1.80</td>
<td>0.79</td>
</tr>
<tr>
<td>3:C:27:ASN:HD22</td>
<td>6:F:69:ASN:ND2</td>
<td>1.79</td>
<td>0.79</td>
</tr>
<tr>
<td>2:B:280:GLY:H</td>
<td>2:B:283:PRO:CD</td>
<td>1.95</td>
<td>0.79</td>
</tr>
<tr>
<td>3:C:370:ILE:O</td>
<td>3:C:374:GLU:HG3</td>
<td>1.83</td>
<td>0.79</td>
</tr>
<tr>
<td>1:A:36:THR:HG22</td>
<td>1:A:106:LYS:CB</td>
<td>2.11</td>
<td>0.79</td>
</tr>
<tr>
<td>3:C:327:TRP:HA</td>
<td>3:C:330:VAL:CG1</td>
<td>2.12</td>
<td>0.79</td>
</tr>
<tr>
<td>2:B:143:GLN:OE1</td>
<td>2:B:146:ILE:HD11</td>
<td>1.81</td>
<td>0.79</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:189:HIS:HD2</td>
<td>1:A:194:ARG:HH12</td>
<td>1.31</td>
<td>0.78</td>
</tr>
<tr>
<td>3:C:130:VAL:HG12</td>
<td>3:C:131:GLY:H</td>
<td>1.46</td>
<td>0.78</td>
</tr>
<tr>
<td>4:D:181:GLN:HG2</td>
<td>8:H:77:LEU:HD22</td>
<td>1.66</td>
<td>0.78</td>
</tr>
<tr>
<td>5:E:11:SER:HA</td>
<td>5:E:13:ARG:HD2</td>
<td>1.63</td>
<td>0.78</td>
</tr>
<tr>
<td>4:D:132:THR:HA</td>
<td>4:D:179:MET:HE1</td>
<td>1.64</td>
<td>0.78</td>
</tr>
<tr>
<td>1:A:37:VAL:HG12</td>
<td>1:A:199:ALA:HB1</td>
<td>1.64</td>
<td>0.78</td>
</tr>
<tr>
<td>3:C:285:ILE:HG23</td>
<td>3:C:291:GLY:HA2</td>
<td>1.63</td>
<td>0.77</td>
</tr>
<tr>
<td>2:B:132:PHE:CE2</td>
<td>2:B:191:LEU:HB3</td>
<td>2.20</td>
<td>0.77</td>
</tr>
<tr>
<td>1:A:291:SER:O</td>
<td>1:A:293:PRO:N</td>
<td>2.17</td>
<td>0.77</td>
</tr>
<tr>
<td>5:E:119:ASP:HB3</td>
<td>5:E:179:ASN:ND2</td>
<td>2.00</td>
<td>0.77</td>
</tr>
<tr>
<td>1:A:252:HIS:HB3</td>
<td>1:A:323:TYR:HE1</td>
<td>1.50</td>
<td>0.77</td>
</tr>
<tr>
<td>4:D:46:VAL:HG12</td>
<td>4:D:47:ALA:H</td>
<td>1.50</td>
<td>0.77</td>
</tr>
<tr>
<td>1:A:391:PRO:HG2</td>
<td>1:A:394:GLU:HB2</td>
<td>1.65</td>
<td>0.77</td>
</tr>
<tr>
<td>1:A:276:ILE:CD1</td>
<td>1:A:349:ILE:HD11</td>
<td>2.15</td>
<td>0.77</td>
</tr>
<tr>
<td>1:A:281:ASP:HB3</td>
<td>1:A:284:TYR:CE1</td>
<td>2.19</td>
<td>0.76</td>
</tr>
<tr>
<td>2:B:128:THR:C</td>
<td>2:B:130:PRO:HD3</td>
<td>2.04</td>
<td>0.76</td>
</tr>
<tr>
<td>1:A:88:ALA:HB2</td>
<td>1:A:97:TYR:HA</td>
<td>1.66</td>
<td>0.76</td>
</tr>
<tr>
<td>2:B:24:LEU:H</td>
<td>2:B:24:LEU:HD23</td>
<td>1.48</td>
<td>0.76</td>
</tr>
<tr>
<td>1:A:328:ARG:HG3</td>
<td>1:A:427:PRO:HB2</td>
<td>1.68</td>
<td>0.76</td>
</tr>
<tr>
<td>1:A:4:TYR:CG</td>
<td>2:B:113:ARG:HB3</td>
<td>2.21</td>
<td>0.76</td>
</tr>
<tr>
<td>5:E:29:ASP:O</td>
<td>5:E:31:SER:N</td>
<td>2.19</td>
<td>0.76</td>
</tr>
<tr>
<td>1:A:205:HIS:NE2</td>
<td>1:A:209:LEU:HD21</td>
<td>2.00</td>
<td>0.75</td>
</tr>
<tr>
<td>4:D:54:VAL:HG11</td>
<td>4:D:192:TRP:CH2</td>
<td>2.22</td>
<td>0.75</td>
</tr>
<tr>
<td>5:E:15:ARG:NH1</td>
<td>5:E:19:ASP:HB3</td>
<td>2.01</td>
<td>0.75</td>
</tr>
<tr>
<td>1:A:53:ASN:HD22</td>
<td>1:A:54:GLY:N</td>
<td>1.83</td>
<td>0.75</td>
</tr>
<tr>
<td>3:C:6:ARG:HA</td>
<td>3:C:12:LEU:HD22</td>
<td>1.67</td>
<td>0.75</td>
</tr>
<tr>
<td>1:A:279:HIS:HA</td>
<td>1:A:307:PHE:CE1</td>
<td>2.22</td>
<td>0.75</td>
</tr>
<tr>
<td>1:A:342:TRP:O</td>
<td>1:A:345:LEU:HB3</td>
<td>1.86</td>
<td>0.75</td>
</tr>
<tr>
<td>3:C:145:THR:O</td>
<td>3:C:149:ASN:HB2</td>
<td>1.87</td>
<td>0.75</td>
</tr>
<tr>
<td>4:D:167:ASP:O</td>
<td>4:D:169:LEU:N</td>
<td>2.20</td>
<td>0.75</td>
</tr>
<tr>
<td>4:D:233:ARG:HB3</td>
<td>6:F:71:ARG:NH2</td>
<td>2.00</td>
<td>0.75</td>
</tr>
<tr>
<td>5:E:76:ILE:HB</td>
<td>5:E:193:VAL:HG13</td>
<td>1.69</td>
<td>0.75</td>
</tr>
<tr>
<td>3:C:138:GLN:HE22</td>
<td>3:C:261:ASN:H</td>
<td>1.33</td>
<td>0.75</td>
</tr>
<tr>
<td>1:A:85:HIS:CB</td>
<td>9:I:314:UNK:HG1</td>
<td>2.16</td>
<td>0.75</td>
</tr>
<tr>
<td>1:A:46:ARG:NH1</td>
<td>1:A:316:GLU:OE2</td>
<td>2.18</td>
<td>0.75</td>
</tr>
<tr>
<td>2:B:272:PHE:O</td>
<td>2:B:276:GLN:N</td>
<td>2.20</td>
<td>0.75</td>
</tr>
<tr>
<td>8:H:66:ASP:HA</td>
<td>8:H:69:VAL:CG2</td>
<td>2.16</td>
<td>0.75</td>
</tr>
<tr>
<td>1:A:242:ARG:O</td>
<td>7:G:14:ILE:HA</td>
<td>1.87</td>
<td>0.75</td>
</tr>
</tbody>
</table>

Continued on next page...
### Interatomic distance (Å) & Clash overlap (Å)

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:61:HIS:HE2</td>
<td>1:A:137:GLU:CD</td>
<td>1.89</td>
<td>0.74</td>
</tr>
<tr>
<td>3:C:131:GLY:HA2</td>
<td>3:C:134:LEU:HD22</td>
<td>1.69</td>
<td>0.74</td>
</tr>
<tr>
<td>4:D:32:VAL:HG21</td>
<td>4:D:186:VAL:HG22</td>
<td>1.68</td>
<td>0.74</td>
</tr>
<tr>
<td>10:J:57:HIS:C</td>
<td>10:J:59:TYR:H</td>
<td>1.88</td>
<td>0.74</td>
</tr>
<tr>
<td>1:A:189:HIS:CD2</td>
<td>1:A:194:ARG:HH12</td>
<td>2.04</td>
<td>0.74</td>
</tr>
<tr>
<td>1:A:56:GLY:HA2</td>
<td>1:A:185:TYR:CE2</td>
<td>2.23</td>
<td>0.74</td>
</tr>
<tr>
<td>2:B:76:THR:CG2</td>
<td>2:B:82:SER:H</td>
<td>1.99</td>
<td>0.74</td>
</tr>
<tr>
<td>1:A:178:SER:HB2</td>
<td>1:A:181:ASP:OD1</td>
<td>1.88</td>
<td>0.74</td>
</tr>
<tr>
<td>2:B:132:PHE:CD2</td>
<td>2:B:191:LEU:HB3</td>
<td>2.22</td>
<td>0.74</td>
</tr>
<tr>
<td>2:B:258:VAL:CG1</td>
<td>2:B:322:PHE:H</td>
<td>2.01</td>
<td>0.74</td>
</tr>
<tr>
<td>4:D:12:TRP:CG2</td>
<td>4:D:124:GLU:HB2</td>
<td>2.23</td>
<td>0.74</td>
</tr>
<tr>
<td>3:C:76:TYR:HE1</td>
<td>4:D:200:HIS:HE1</td>
<td>1.36</td>
<td>0.74</td>
</tr>
<tr>
<td>2:B:154:ASN:O</td>
<td>2:B:157:THR:HG22</td>
<td>1.88</td>
<td>0.74</td>
</tr>
<tr>
<td>4:D:120:ARG:HH11</td>
<td>4:D:12:ARG:HG2</td>
<td>1.53</td>
<td>0.74</td>
</tr>
<tr>
<td>4:D:32:VAL:O</td>
<td>4:D:36:VAL:HG13</td>
<td>1.88</td>
<td>0.74</td>
</tr>
<tr>
<td>10:J:57:HIS:HB2</td>
<td>10:J:61:ASN:O</td>
<td>1.87</td>
<td>0.73</td>
</tr>
<tr>
<td>2:B:379:LEU:HD13</td>
<td>2:B:379:LEU:O</td>
<td>1.88</td>
<td>0.73</td>
</tr>
<tr>
<td>2:B:76:THR:HG22</td>
<td>2:B:82:SER:N</td>
<td>2.01</td>
<td>0.73</td>
</tr>
<tr>
<td>4:D:224:ARG:HB3</td>
<td>4:D:224:ARG:HH11</td>
<td>1.53</td>
<td>0.73</td>
</tr>
<tr>
<td>3:C:12:LEU:HD23</td>
<td>3:C:12:LEU:O</td>
<td>1.89</td>
<td>0.73</td>
</tr>
<tr>
<td>3:C:138:GLN:NE2</td>
<td>3:C:261:ASN:N</td>
<td>2.37</td>
<td>0.72</td>
</tr>
<tr>
<td>4:D:102:ARG:NH1</td>
<td>4:D:109:LEU:HB2</td>
<td>2.03</td>
<td>0.72</td>
</tr>
<tr>
<td>4:D:212:MET:O</td>
<td>4:D:216:VAL:HG22</td>
<td>1.89</td>
<td>0.72</td>
</tr>
<tr>
<td>3:C:253:ASP:OD1</td>
<td>3:C:255:GLU:N</td>
<td>2.21</td>
<td>0.72</td>
</tr>
<tr>
<td>4:D:230:LEU:HB3</td>
<td>6:F:70:MET:HE3</td>
<td>1.72</td>
<td>0.72</td>
</tr>
<tr>
<td>5:E:55:ILE:HD13</td>
<td>7:G:14:ILE:HD13</td>
<td>1.70</td>
<td>0.72</td>
</tr>
<tr>
<td>2:B:341:TYR:OH</td>
<td>2:B:422:LYS:HE3</td>
<td>1.88</td>
<td>0.72</td>
</tr>
<tr>
<td>2:B:241:GLY:HA3</td>
<td>2:B:421:GLN:NE2</td>
<td>2.04</td>
<td>0.72</td>
</tr>
<tr>
<td>3:C:313:GLN:NE2</td>
<td>6:F:36:THR:OG1</td>
<td>2.23</td>
<td>0.72</td>
</tr>
<tr>
<td>4:D:180:SER:HB2</td>
<td>8:H:17:LEU:HB2</td>
<td>1.71</td>
<td>0.72</td>
</tr>
<tr>
<td>1:A:3069:LEU:HD13</td>
<td>1:A:392:LEU:HD21</td>
<td>1.71</td>
<td>0.72</td>
</tr>
<tr>
<td>1:A:382:GLU:HG2</td>
<td>1:A:389:ARG:HD2</td>
<td>1.71</td>
<td>0.72</td>
</tr>
<tr>
<td>3:C:327:TRP:CA</td>
<td>3:C:330:VAL:HG12</td>
<td>2.17</td>
<td>0.72</td>
</tr>
<tr>
<td>3:C:127:THR:HG22</td>
<td>3:C:186:LEU:HB3</td>
<td>1.71</td>
<td>0.72</td>
</tr>
<tr>
<td>3:C:325:LEU:HD12</td>
<td>3:C:370:ILE:HG13</td>
<td>1.70</td>
<td>0.72</td>
</tr>
<tr>
<td>4:D:46:VAL:HG12</td>
<td>4:D:47:ALA:N</td>
<td>2.04</td>
<td>0.72</td>
</tr>
<tr>
<td>1:A:283:THR:HG21</td>
<td>9:I:114:UNK:CB</td>
<td>2.20</td>
<td>0.72</td>
</tr>
<tr>
<td>2:B:209:LEU:HG</td>
<td>2:B:379:LEU:HD23</td>
<td>1.72</td>
<td>0.71</td>
</tr>
<tr>
<td>3:C:127:THR:HG22</td>
<td>3:C:186:LEU:HD13</td>
<td>1.70</td>
<td>0.71</td>
</tr>
<tr>
<td>5:E:26:ARG:O</td>
<td>5:E:28:SER:N</td>
<td>2.20</td>
<td>0.71</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:D:75:ASN:HB2</td>
<td>4:D:78:GLY:N</td>
<td>2.04</td>
<td>0.71</td>
</tr>
<tr>
<td>3:C:282:LEU:HD22</td>
<td>3:C:291:GLY:O</td>
<td>1.90</td>
<td>0.71</td>
</tr>
<tr>
<td>3:C:271:PRO:HG2</td>
<td>3:C:276:LEU:HD23</td>
<td>1.73</td>
<td>0.71</td>
</tr>
<tr>
<td>1:A:108:LYS:O</td>
<td>1:A:112:LEU:HG</td>
<td>1.90</td>
<td>0.71</td>
</tr>
<tr>
<td>1:A:250:LEU:HD22</td>
<td>1:A:250:LEU:HG</td>
<td>2.11</td>
<td>0.71</td>
</tr>
<tr>
<td>2:B:122:PHE:O</td>
<td>2:B:126:VAL:HG23</td>
<td>1.90</td>
<td>0.71</td>
</tr>
<tr>
<td>3:C:319:ARG:NH2</td>
<td>3:C:371:GLY:HA2</td>
<td>2.05</td>
<td>0.71</td>
</tr>
<tr>
<td>3:C:347:PRO:HG3</td>
<td>7:G:66:PHE:HD1</td>
<td>1.56</td>
<td>0.71</td>
</tr>
<tr>
<td>3:C:90:PHE:CE1</td>
<td>3:C:236:MET:HB3</td>
<td>2.26</td>
<td>0.70</td>
</tr>
<tr>
<td>3:C:378:LEU:O</td>
<td>6:F:33:ARG:NH1</td>
<td>2.24</td>
<td>0.70</td>
</tr>
<tr>
<td>7:G:50:PRO:HG2</td>
<td>7:G:51:PRO:HD2</td>
<td>1.73</td>
<td>0.70</td>
</tr>
<tr>
<td>2:B:92:VAL:HG11</td>
<td>2:B:115:ASP:HB3</td>
<td>1.73</td>
<td>0.70</td>
</tr>
<tr>
<td>1:A:33:PRO:HG3</td>
<td>2:B:369:LEU:HD22</td>
<td>1.72</td>
<td>0.70</td>
</tr>
<tr>
<td>3:C:46:ILE:HA</td>
<td>11:C:381:HEM:HMC2</td>
<td>1.72</td>
<td>0.70</td>
</tr>
<tr>
<td>1:A:23:VAL:HG23</td>
<td>1:A:192:ALA:HB1</td>
<td>1.72</td>
<td>0.70</td>
</tr>
<tr>
<td>1:A:250:LEU:CD2</td>
<td>1:A:325:VAL:HG13</td>
<td>2.21</td>
<td>0.70</td>
</tr>
<tr>
<td>3:C:107:SER:HB3</td>
<td>11:C:382:HEM:CBD</td>
<td>2.13</td>
<td>0.70</td>
</tr>
<tr>
<td>3:C:342:GLN:HE21</td>
<td>3:C:343:PRO:HD2</td>
<td>1.56</td>
<td>0.70</td>
</tr>
<tr>
<td>3:C:120:LEU:CG</td>
<td>11:C:382:HEM:HB2</td>
<td>2.22</td>
<td>0.70</td>
</tr>
<tr>
<td>7:G:26:PHE:HD1</td>
<td>7:G:26:PHE:H</td>
<td>1.37</td>
<td>0.70</td>
</tr>
<tr>
<td>5:E:188:THR:OG1</td>
<td>5:E:192:MET:HB3</td>
<td>1.92</td>
<td>0.70</td>
</tr>
<tr>
<td>2:B:207:VAL:HG12</td>
<td>2:B:208:GLY:N</td>
<td>2.07</td>
<td>0.70</td>
</tr>
<tr>
<td>1:A:281:ASP:O</td>
<td>1:A:283:THR:N</td>
<td>2.24</td>
<td>0.70</td>
</tr>
<tr>
<td>3:C:276:LEU:O</td>
<td>3:C:279:TYR:HB3</td>
<td>1.92</td>
<td>0.70</td>
</tr>
<tr>
<td>2:B:405:VAL:HG12</td>
<td>2:B:406:ALA:N</td>
<td>2.04</td>
<td>0.69</td>
</tr>
<tr>
<td>1:A:102:LEU:N</td>
<td>1:A:102:LEU:HD12</td>
<td>2.06</td>
<td>0.69</td>
</tr>
<tr>
<td>1:A:382:GLU:CG</td>
<td>1:A:389:ARG:HA</td>
<td>2.22</td>
<td>0.69</td>
</tr>
<tr>
<td>1:A:85:HIS:CG</td>
<td>9:I:314:UNK:HG1</td>
<td>2.27</td>
<td>0.69</td>
</tr>
<tr>
<td>3:C:325:LEU:CD2</td>
<td>3:C:362:ILE:HG23</td>
<td>2.23</td>
<td>0.69</td>
</tr>
<tr>
<td>3:C:347:PRO:HG3</td>
<td>7:G:66:PHE:CD1</td>
<td>2.27</td>
<td>0.69</td>
</tr>
<tr>
<td>3:C:90:PHE:CE1</td>
<td>3:C:236:MET:O</td>
<td>2.45</td>
<td>0.69</td>
</tr>
<tr>
<td>1:A:343:MET:O</td>
<td>1:A:347:THR:HG22</td>
<td>1.91</td>
<td>0.69</td>
</tr>
<tr>
<td>2:B:162:ASN:O</td>
<td>2:B:244:ILE:HD11</td>
<td>1.93</td>
<td>0.69</td>
</tr>
<tr>
<td>3:C:9:HIS:HB3</td>
<td>3:C:12:LEU:HB3</td>
<td>1.74</td>
<td>0.69</td>
</tr>
<tr>
<td>4:D:83:ARG:NH1</td>
<td>4:D:86:LYS:HG3</td>
<td>2.08</td>
<td>0.69</td>
</tr>
<tr>
<td>2:B:213:HIS:N</td>
<td>2:B:214:PRO:HD2</td>
<td>2.08</td>
<td>0.69</td>
</tr>
<tr>
<td>2:B:273:SER:O</td>
<td>2:B:276:GLN:HB3</td>
<td>1.92</td>
<td>0.69</td>
</tr>
<tr>
<td>1:A:297:ILE:HG22</td>
<td>1:A:303:LEU:HD11</td>
<td>1.74</td>
<td>0.69</td>
</tr>
<tr>
<td>3:C:150:LEU:HD12</td>
<td>3:C:292:VAL:HG22</td>
<td>1.74</td>
<td>0.69</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>4:D:32:VAL:HG11</td>
<td>4:D:186:VAL:HG22</td>
<td>1.75</td>
<td>0.69</td>
</tr>
<tr>
<td>4:D:225:HIS:CE1</td>
<td>7:G:20:PRO:HB2</td>
<td>2.27</td>
<td>0.69</td>
</tr>
<tr>
<td>5:E:136:ILE:HB</td>
<td>5:E:181:GLU:HB3</td>
<td>1.74</td>
<td>0.69</td>
</tr>
<tr>
<td>1:A:388:ARG:HG1</td>
<td>1:A:388:ARG:HH11</td>
<td>1.57</td>
<td>0.68</td>
</tr>
<tr>
<td>2:B:181:TYR:CE1</td>
<td>2:B:182:ARG:HG3</td>
<td>2.28</td>
<td>0.68</td>
</tr>
<tr>
<td>5:E:171:ILE:HG12</td>
<td>5:E:176:ALA:HB3</td>
<td>1.75</td>
<td>0.68</td>
</tr>
<tr>
<td>4:D:75:ASN:ND2</td>
<td>4:D:79:GLU:O</td>
<td>2.25</td>
<td>0.68</td>
</tr>
<tr>
<td>5:E:62:MET:HG3</td>
<td>5:E:63:SER:H</td>
<td>1.58</td>
<td>0.68</td>
</tr>
<tr>
<td>1:A:106:VAL:O</td>
<td>1:A:110:VAL:HG23</td>
<td>1.93</td>
<td>0.68</td>
</tr>
<tr>
<td>1:A:61:HIS:HD2</td>
<td>1:A:134:ILE:HG12</td>
<td>1.57</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:138:GLN:HE21</td>
<td>3:C:260:ALA:HA</td>
<td>1.59</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:289:LEU:O</td>
<td>3:C:293:LEU:HD23</td>
<td>1.94</td>
<td>0.68</td>
</tr>
<tr>
<td>4:D:138:PRO:HG3</td>
<td>8:H:55:THR:HA</td>
<td>1.75</td>
<td>0.68</td>
</tr>
<tr>
<td>1:A:159:GLN:OE1</td>
<td>1:A:237:THR:HG21</td>
<td>1.92</td>
<td>0.68</td>
</tr>
<tr>
<td>1:A:286:GLY:HA3</td>
<td>1:A:289:HIS:CD2</td>
<td>2.28</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:22:LEU:HD12</td>
<td>3:C:23:PRO:CD</td>
<td>2.23</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:316:MET:HE3</td>
<td>3:C:319:ARG:HE</td>
<td>1.57</td>
<td>0.68</td>
</tr>
<tr>
<td>5:E:161:HIS:HB2</td>
<td>14:E:197:FES:S1</td>
<td>2.34</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:27:ASN:ND2</td>
<td>3:C:208:ASN:OD1</td>
<td>2.26</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:90:PHE:CE1</td>
<td>3:C:236:MET:O</td>
<td>2.47</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:131:GLY:N</td>
<td>3:C:134:LEU:HD13</td>
<td>2.09</td>
<td>0.68</td>
</tr>
<tr>
<td>2:B:111:CYS:HB3</td>
<td>2:B:119:LEU:HD22</td>
<td>1.75</td>
<td>0.68</td>
</tr>
<tr>
<td>2:B:248:ASN:HD22</td>
<td>2:B:248:ASN:C</td>
<td>1.97</td>
<td>0.68</td>
</tr>
<tr>
<td>2:B:273:SER:HB3</td>
<td>2:B:364:LEU:HD11</td>
<td>1.74</td>
<td>0.68</td>
</tr>
<tr>
<td>2:B:62:ASN:HD22</td>
<td>2:B:63:LEU:N</td>
<td>1.91</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:101:ARG:C</td>
<td>3:C:101:ARG:HD2</td>
<td>2.14</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:323:GLN:N</td>
<td>3:C:326:PHE:HB3</td>
<td>1.94</td>
<td>0.68</td>
</tr>
<tr>
<td>2:B:357:VAL:HG12</td>
<td>2:B:361:LYS:HD2</td>
<td>1.74</td>
<td>0.68</td>
</tr>
<tr>
<td>3:C:372:THR:HA</td>
<td>3:C:375:ASN:ND2</td>
<td>2.07</td>
<td>0.67</td>
</tr>
<tr>
<td>1:A:245:GLU:HG3</td>
<td>7:G:11:ARG:HG2</td>
<td>1.75</td>
<td>0.67</td>
</tr>
<tr>
<td>6:F:374:ARG:NH2</td>
<td>5:E:127:VAL:HG21</td>
<td>2.05</td>
<td>0.67</td>
</tr>
<tr>
<td>3:C:254:PRO:HG2</td>
<td>3:C:276:LEU:CD2</td>
<td>2.24</td>
<td>0.67</td>
</tr>
<tr>
<td>3:C:146:VAL:CG2</td>
<td>3:C:147:ILE:H</td>
<td>1.98</td>
<td>0.67</td>
</tr>
<tr>
<td>1:A:16:VAL:HG13</td>
<td>1:A:26:ALA:HB2</td>
<td>1.76</td>
<td>0.67</td>
</tr>
<tr>
<td>3:C:348:PHE:O</td>
<td>3:C:350:ILE:N</td>
<td>2.28</td>
<td>0.67</td>
</tr>
<tr>
<td>2:B:332:TYR:O</td>
<td>2:B:336:VAL:HG23</td>
<td>1.95</td>
<td>0.67</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:E:10:PHE:O</td>
<td>5:E:11:SER:O</td>
<td>2.12</td>
<td>0.67</td>
</tr>
<tr>
<td>1:A:36:THR:HG23</td>
<td>1:A:37:2:THR:OG1</td>
<td>1.94</td>
<td>0.67</td>
</tr>
<tr>
<td>3:C:130:VAL:HG13</td>
<td>3:C:179:PHE:HB3</td>
<td>1.76</td>
<td>0.67</td>
</tr>
<tr>
<td>3:C:278:ALA:HB1</td>
<td>3:C:295:LEU:CD1</td>
<td>2.25</td>
<td>0.67</td>
</tr>
<tr>
<td>5:E:44:THR:HB</td>
<td>10:J:24:ILE:HD12</td>
<td>1.77</td>
<td>0.67</td>
</tr>
<tr>
<td>2:B:428:GLY:O</td>
<td>2:B:430:LEU:HG</td>
<td>1.95</td>
<td>0.67</td>
</tr>
<tr>
<td>2:B:72:ALA:HB1</td>
<td>2:B:75:LEU:HD12</td>
<td>1.77</td>
<td>0.67</td>
</tr>
<tr>
<td>3:C:282:LEU:HD13</td>
<td>3:C:282:LEU:O</td>
<td>1.94</td>
<td>0.67</td>
</tr>
<tr>
<td>1:A:264:HIS:HD2</td>
<td>1:A:266:ASP:HB2</td>
<td>1.60</td>
<td>0.66</td>
</tr>
<tr>
<td>2:B:397:THR:O</td>
<td>2:B:401:GLN:HG2</td>
<td>1.94</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:148:THR:HG21</td>
<td>3:C:166:TRP:CE3</td>
<td>2.30</td>
<td>0.66</td>
</tr>
<tr>
<td>4:D:132:THR:HA</td>
<td>4:D:179:MET:CE</td>
<td>2.25</td>
<td>0.66</td>
</tr>
<tr>
<td>2:B:258:VAL:HG13</td>
<td>2:B:322:PHE:N</td>
<td>2.08</td>
<td>0.66</td>
</tr>
<tr>
<td>5:E:29:ASP:C</td>
<td>5:E:31:SER:N</td>
<td>2.49</td>
<td>0.66</td>
</tr>
<tr>
<td>10:J:59:TYR:O</td>
<td>10:J:60:GLU:HG3</td>
<td>1.95</td>
<td>0.66</td>
</tr>
<tr>
<td>2:B:113:ARG:O</td>
<td>2:B:116:VAL:HG23</td>
<td>1.95</td>
<td>0.66</td>
</tr>
<tr>
<td>1:A:19:LEU:HB2</td>
<td>1:A:21:ASN:HB3</td>
<td>1.77</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:233:LEU:O</td>
<td>3:C:237:LEU:HB2</td>
<td>1.95</td>
<td>0.66</td>
</tr>
<tr>
<td>4:D:141:VAL:HG21</td>
<td>8:H:55:THR:HG23</td>
<td>1.77</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:327:TRP:CE3</td>
<td>3:C:330:VAL:HG11</td>
<td>2.31</td>
<td>0.66</td>
</tr>
<tr>
<td>4:D:116:ILE:HG23</td>
<td>4:D:117:VAL:N</td>
<td>2.11</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:131:GLY:H</td>
<td>3:C:134:LEU:HD13</td>
<td>1.61</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:319:ARG:NH2</td>
<td>3:C:374:GLU:HB2</td>
<td>2.11</td>
<td>0.66</td>
</tr>
<tr>
<td>5:E:113:GLU:OE2</td>
<td>5:E:116:GLN:HG3</td>
<td>1.95</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:166:TRP:HB2</td>
<td>3:C:175:THR:HB</td>
<td>1.78</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:41:CY5:HB2</td>
<td>3:C:91:PHE:CD2</td>
<td>2.31</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:131:GLY:CA</td>
<td>3:C:134:LEU:HD13</td>
<td>2.26</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:162:VAL:O</td>
<td>3:C:164:TRP:N</td>
<td>2.26</td>
<td>0.66</td>
</tr>
<tr>
<td>3:C:183:HIS:O</td>
<td>3:C:187:PRO:HD3</td>
<td>1.95</td>
<td>0.66</td>
</tr>
<tr>
<td>1:A:156:THR:HA</td>
<td>5:E:7:VAL:HG21</td>
<td>1.76</td>
<td>0.66</td>
</tr>
<tr>
<td>4:D:192:TRP:CD1</td>
<td>4:D:193:ALA:N</td>
<td>2.64</td>
<td>0.65</td>
</tr>
<tr>
<td>7:G:25:PRO:HG2</td>
<td>7:G:26:PHE:HD1</td>
<td>1.60</td>
<td>0.65</td>
</tr>
<tr>
<td>1:A:246:ASP:HA</td>
<td>1:A:427:PRO:HB3</td>
<td>1.77</td>
<td>0.65</td>
</tr>
<tr>
<td>1:A:416:TYR:CE1</td>
<td>1:A:442:PHE:HA</td>
<td>2.30</td>
<td>0.65</td>
</tr>
<tr>
<td>2:B:209:LEU:O</td>
<td>2:B:211:VAL:HG22</td>
<td>1.96</td>
<td>0.65</td>
</tr>
<tr>
<td>2:B:280:GLY:N</td>
<td>2:B:283:PRO:HD2</td>
<td>2.08</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:275:PHE:CD2</td>
<td>12:C:383:SIG:H331</td>
<td>2.30</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:313:GLN:HE21</td>
<td>6:F:36:THR:CB</td>
<td>2.08</td>
<td>0.65</td>
</tr>
<tr>
<td>4:D:178:THR:OG1</td>
<td>4:D:181:GLN:HB2</td>
<td>1.95</td>
<td>0.65</td>
</tr>
<tr>
<td>1:A:281:ASP:O</td>
<td>1:A:284:TYR:HD1</td>
<td>1.77</td>
<td>0.65</td>
</tr>
<tr>
<td>4:D:95:TYR:CD2</td>
<td>4:D:101:ALA:HA</td>
<td>2.30</td>
<td>0.65</td>
</tr>
<tr>
<td>7:G:12:HIS:O</td>
<td>7:G:13:LEU:HD23</td>
<td>1.96</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:332:ASN:HD21</td>
<td>3:C:359:TYR:HA</td>
<td>1.61</td>
<td>0.65</td>
</tr>
<tr>
<td>1:A:26:ALA:O</td>
<td>1:A:198:ALA:HA</td>
<td>1.96</td>
<td>0.65</td>
</tr>
<tr>
<td>1:A:57:TYR:O</td>
<td>1:A:59:LEU:N</td>
<td>2.30</td>
<td>0.65</td>
</tr>
<tr>
<td>2:B:111:CYS:SG</td>
<td>2:B:116:VAL:HA</td>
<td>2.37</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:267:PRO:O</td>
<td>3:C:268:HIS:HB2</td>
<td>1.97</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:32:TRP:O</td>
<td>13:C:384:AMY:H8</td>
<td>1.96</td>
<td>0.65</td>
</tr>
<tr>
<td>5:E:164:HIS:CD2</td>
<td>5:E:173:LYS:HB3</td>
<td>2.32</td>
<td>0.65</td>
</tr>
<tr>
<td>5:E:32:ARG:HH22</td>
<td>7:G:25:PRO:HD2</td>
<td>1.61</td>
<td>0.65</td>
</tr>
<tr>
<td>2:B:150:VAL:HG23</td>
<td>2:B:151:ALA:N</td>
<td>2.11</td>
<td>0.65</td>
</tr>
<tr>
<td>2:B:337:ILE:HD11</td>
<td>2:B:434:PRO:CD</td>
<td>2.25</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:166:TRP:HB2</td>
<td>3:C:175:THR:CB</td>
<td>2.27</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:332:ASN:HD21</td>
<td>3:C:359:TYR:CA</td>
<td>2.10</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:142:TRP:CZ3</td>
<td>3:C:265:THR:HG22</td>
<td>2.31</td>
<td>0.65</td>
</tr>
<tr>
<td>3:C:365:ILE:HG23</td>
<td>3:C:366:LEU:HD22</td>
<td>1.78</td>
<td>0.65</td>
</tr>
<tr>
<td>1:A:264:HIS:CD2</td>
<td>1:A:266:ASP:HB2</td>
<td>2.31</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:42:ASP:HB2</td>
<td>1:A:384:LEU:HD21</td>
<td>1.79</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:133:VAL:O</td>
<td>3:C:140:SER:HB3</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:5:ILE:HA</td>
<td>3:C:8:SER:OG</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:76:TYR:HE1</td>
<td>4:D:200:HIS:CE1</td>
<td>2.14</td>
<td>0.64</td>
</tr>
<tr>
<td>4:D:43:MET:HE3</td>
<td>4:D:46:VAL:HG21</td>
<td>1.78</td>
<td>0.64</td>
</tr>
<tr>
<td>4:D:75:ASN:H</td>
<td>4:D:79:GLU:H</td>
<td>1.42</td>
<td>0.64</td>
</tr>
<tr>
<td>4:D:75:ASN:OD1</td>
<td>4:D:79:GLU:HB2</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:93:GLU:OE1</td>
<td>1:A:314:TYR:HB3</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:378:ASP:O</td>
<td>1:A:382:GLU:N</td>
<td>2.29</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:35:GLY:HA2</td>
<td>3:C:38:LEU:HD12</td>
<td>1.79</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:268:VAL:O</td>
<td>1:A:271:GLN:N</td>
<td>2.30</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:294:LEU:HD13</td>
<td>1:A:338:LEU:HA</td>
<td>1.78</td>
<td>0.64</td>
</tr>
<tr>
<td>2:B:368:TYR:O</td>
<td>2:B:372:VAL:HG23</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:18:SER:C</td>
<td>3:C:19:LEU:HD12</td>
<td>2.17</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:444:LEU:HD12</td>
<td>1:A:444:LEU:H</td>
<td>1.63</td>
<td>0.64</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:401:GLN:O</td>
<td>2:B:404:ALA:HB3</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:242:THR:HA</td>
<td>4:D:208:MET:CE</td>
<td>2.27</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:261:ASN:HD22</td>
<td>3:C:264:VAL:HB</td>
<td>1.61</td>
<td>0.64</td>
</tr>
<tr>
<td>2:B:207:VAL:HG12</td>
<td>2:B:208:GLY:H</td>
<td>1.62</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:65:LYS:HD2</td>
<td>1:A:65:LYS:N</td>
<td>2.13</td>
<td>0.64</td>
</tr>
<tr>
<td>2:B:26:HIS:N</td>
<td>2:B:21:PRO:HD3</td>
<td>2.12</td>
<td>0.64</td>
</tr>
<tr>
<td>2:B:257:ILE:O</td>
<td>2:B:323:GLY:HA3</td>
<td>1.98</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:183:HIS:O</td>
<td>3:C:187:PRO:CD</td>
<td>2.46</td>
<td>0.64</td>
</tr>
<tr>
<td>5:E:13:TYR:C</td>
<td>5:E:14:ARG:HD3</td>
<td>2.17</td>
<td>0.64</td>
</tr>
<tr>
<td>8:H:50:THR:HG22</td>
<td>8:H:52:GLU:H</td>
<td>1.62</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:374:PRO:O</td>
<td>1:A:377:GLU:HB3</td>
<td>1.97</td>
<td>0.64</td>
</tr>
<tr>
<td>3:C:31:TRP:O</td>
<td>3:C:101:ARG:HG3</td>
<td>1.98</td>
<td>0.64</td>
</tr>
<tr>
<td>5:E:5:ILE:HD13</td>
<td>7:G:14:ILE:CD1</td>
<td>2.26</td>
<td>0.64</td>
</tr>
<tr>
<td>1:A:40:TRP:HZ3</td>
<td>1:A:89:TYR:HH</td>
<td>1.45</td>
<td>0.63</td>
</tr>
<tr>
<td>2:B:342:ASN:O</td>
<td>2:B:345:LYS:HB3</td>
<td>1.97</td>
<td>0.63</td>
</tr>
<tr>
<td>3:C:106:GLY:HA2</td>
<td>3:C:108:TYR:CD2</td>
<td>2.33</td>
<td>0.63</td>
</tr>
<tr>
<td>4:D:5:LEU:HB2</td>
<td>8:H:59:PHE:CD1</td>
<td>2.33</td>
<td>0.63</td>
</tr>
<tr>
<td>1:A:85:HIS:HB3</td>
<td>9:I:314:UNK:HG1</td>
<td>1.80</td>
<td>0.63</td>
</tr>
<tr>
<td>3:C:51:LEU:HG</td>
<td>3:C:80:ILE:HD13</td>
<td>1.80</td>
<td>0.63</td>
</tr>
<tr>
<td>1:A:42:ASP:HB3</td>
<td>1:A:194:ARG:HB3</td>
<td>1.79</td>
<td>0.63</td>
</tr>
<tr>
<td>5:E:72:SER:HA</td>
<td>5:E:92:ARG:HD3</td>
<td>1.80</td>
<td>0.63</td>
</tr>
<tr>
<td>3:C:232:GLY:HA2</td>
<td>3:C:235:LEU:HD12</td>
<td>1.79</td>
<td>0.63</td>
</tr>
<tr>
<td>3:C:245:LEU:O</td>
<td>4:D:201:ARG:HD2</td>
<td>1.98</td>
<td>0.63</td>
</tr>
<tr>
<td>5:E:165:TYR:CE2</td>
<td>5:E:180:LEU:HG</td>
<td>2.34</td>
<td>0.63</td>
</tr>
<tr>
<td>1:A:253:VAL:HG11</td>
<td>1:A:335:MET:HE1</td>
<td>1.80</td>
<td>0.63</td>
</tr>
<tr>
<td>2:B:71:LEU:C</td>
<td>2:B:73:SER:H</td>
<td>1.99</td>
<td>0.63</td>
</tr>
<tr>
<td>3:C:130:VAL:HG12</td>
<td>3:C:131:GLY:N</td>
<td>2.12</td>
<td>0.63</td>
</tr>
<tr>
<td>4:D:227:TRP:O</td>
<td>4:D:230:LEU:N</td>
<td>2.29</td>
<td>0.63</td>
</tr>
<tr>
<td>1:A:130:GLU:O</td>
<td>1:A:134:ILE:HG13</td>
<td>1.98</td>
<td>0.63</td>
</tr>
<tr>
<td>2:B:84:LYS:O</td>
<td>2:B:88:GLY:N</td>
<td>2.28</td>
<td>0.63</td>
</tr>
<tr>
<td>3:C:289:LEU:HG</td>
<td>3:C:293:LEU:HD23</td>
<td>1.81</td>
<td>0.63</td>
</tr>
<tr>
<td>5:E:119:ASP:HB3</td>
<td>5:E:179:ASN:CG</td>
<td>2.19</td>
<td>0.63</td>
</tr>
<tr>
<td>1:A:100:LYS:HE3</td>
<td>2:B:370:MET:HE3</td>
<td>1.80</td>
<td>0.62</td>
</tr>
</tbody>
</table>
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:56:ARG:NH2</td>
<td>2:B:318:ASP:OD2</td>
<td>2.32</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:45:GLN:HG3</td>
<td>11:C:381:HEM:HAB</td>
<td>1.80</td>
<td>0.62</td>
</tr>
<tr>
<td>1:A:64:PHE:CE1</td>
<td>1:A:86:LEU:HG</td>
<td>2.34</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:204:SER:O</td>
<td>3:C:205:GLY:O</td>
<td>2.17</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:52:LEU:HD13</td>
<td>3:C:80:ILE:HG22</td>
<td>1.81</td>
<td>0.62</td>
</tr>
<tr>
<td>5:E:45:LEU:CD1</td>
<td>10:J:28:ALA:HA</td>
<td>2.26</td>
<td>0.62</td>
</tr>
<tr>
<td>5:E:38:LEU:HA</td>
<td>10:J:14:PHE:CE2</td>
<td>2.34</td>
<td>0.62</td>
</tr>
<tr>
<td>4:D:12:TRP:CH2</td>
<td>4:D:124:GLU:HB2</td>
<td>2.34</td>
<td>0.62</td>
</tr>
<tr>
<td>1:A:16:VAL:HG22</td>
<td>1:A:26:ALA:CB</td>
<td>2.30</td>
<td>0.62</td>
</tr>
<tr>
<td>1:A:307:PHE:C</td>
<td>1:A:307:PHE:CD1</td>
<td>2.73</td>
<td>0.62</td>
</tr>
<tr>
<td>2:B:27:PH2:HB3</td>
<td>2:B:322:PH2:CE2</td>
<td>2.34</td>
<td>0.62</td>
</tr>
<tr>
<td>2:B:405:VAL:CG1</td>
<td>2:B:406:ALA:N</td>
<td>2.63</td>
<td>0.62</td>
</tr>
<tr>
<td>4:D:141:VAL:HG23</td>
<td>8:H:53:ASP:HB3</td>
<td>1.80</td>
<td>0.62</td>
</tr>
<tr>
<td>2:B:258:VAL:HG12</td>
<td>2:B:259:ALA:N</td>
<td>2.13</td>
<td>0.62</td>
</tr>
<tr>
<td>2:B:146:ILE:HG13</td>
<td>2:B:147:ASP:H</td>
<td>1.63</td>
<td>0.62</td>
</tr>
<tr>
<td>2:B:92:VAL:HG12</td>
<td>2:B:92:VAL:O</td>
<td>1.99</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:365:ILE:O</td>
<td>3:C:368:PRO:HG2</td>
<td>1.99</td>
<td>0.62</td>
</tr>
<tr>
<td>4:D:14:HIS:CG</td>
<td>4:D:21:LEU:HD23</td>
<td>2.34</td>
<td>0.62</td>
</tr>
<tr>
<td>4:D:225:HIS:HA</td>
<td>7:G:25:PRO:HB3</td>
<td>1.81</td>
<td>0.62</td>
</tr>
<tr>
<td>7:G:29:TYR:O</td>
<td>7:G:30:PH2:HB2</td>
<td>2.00</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:28:ILE:HG23</td>
<td>3:C:32:TRP:HB2</td>
<td>1.82</td>
<td>0.62</td>
</tr>
<tr>
<td>1:A:100:LYS:HE3</td>
<td>2:B:370:MET:CE</td>
<td>2.30</td>
<td>0.62</td>
</tr>
<tr>
<td>1:A:57:TYR:C</td>
<td>1:A:59:LEU:N</td>
<td>2.51</td>
<td>0.62</td>
</tr>
<tr>
<td>2:B:66:SER:O</td>
<td>2:B:69:LEU:HB3</td>
<td>2.00</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:101:ARG:HE</td>
<td>3:C:102:GLY:N</td>
<td>1.98</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:148:THR:HG22</td>
<td>3:C:162:VAL:HG13</td>
<td>1.79</td>
<td>0.62</td>
</tr>
<tr>
<td>3:C:104:TYR:O</td>
<td>3:C:316:MET:HB2</td>
<td>2.35</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:49:SER:N</td>
<td>1:A:52:ASN:HB3</td>
<td>2.13</td>
<td>0.61</td>
</tr>
<tr>
<td>2:B:112:LEU:N</td>
<td>2:B:112:LEU:HD23</td>
<td>2.16</td>
<td>0.61</td>
</tr>
<tr>
<td>3:C:105:TYR:CD2</td>
<td>3:C:209:PRO:HA</td>
<td>2.35</td>
<td>0.61</td>
</tr>
<tr>
<td>3:C:377:MET:HE1</td>
<td>6:F:20:TYR:HB2</td>
<td>1.82</td>
<td>0.61</td>
</tr>
<tr>
<td>3:C:171:VAL:HA</td>
<td>3:C:175:THR:HG21</td>
<td>1.82</td>
<td>0.61</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:365:ILE:HG23</td>
<td>3:C:366:LEU:H</td>
<td>1.65</td>
<td>0.61</td>
</tr>
<tr>
<td>3:C:2:ALA:HB3</td>
<td>3:C:8:SER:HB3</td>
<td>1.82</td>
<td>0.61</td>
</tr>
<tr>
<td>3:C:91:PHE:CE1</td>
<td>3:C:124:LEU:HG</td>
<td>2.35</td>
<td>0.61</td>
</tr>
<tr>
<td>4:D:232:SER:HB2</td>
<td>7:G:23:GLN:OE1</td>
<td>2.01</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:429:GLU:OE2</td>
<td>7:G:7:LEU:HB2</td>
<td>2.00</td>
<td>0.61</td>
</tr>
<tr>
<td>8:H:17:LEU:HD13</td>
<td>8:H:73:LEU:HD11</td>
<td>1.81</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:159:GLN:NE2</td>
<td>5:E:7:VAL:CG1</td>
<td>2.61</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:46:ARG:NH1</td>
<td>1:A:93:GLU:OE2</td>
<td>2.32</td>
<td>0.61</td>
</tr>
<tr>
<td>3:C:282:LEU:HD22</td>
<td>3:C:291:GLY:C</td>
<td>2.20</td>
<td>0.61</td>
</tr>
<tr>
<td>2:B:272:PHE:O</td>
<td>2:B:275:LEU:N</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:37:VAL:HG12</td>
<td>1:A:199:ALA:HB2</td>
<td>1.82</td>
<td>0.61</td>
</tr>
<tr>
<td>2:B:357:VAL:O</td>
<td>2:B:361:LYS:HG3</td>
<td>2.01</td>
<td>0.61</td>
</tr>
<tr>
<td>4:D:221:TYR:CE2</td>
<td>5:E:36:SER:HA</td>
<td>2.35</td>
<td>0.61</td>
</tr>
<tr>
<td>5:E:26:ARG:C</td>
<td>5:E:28:SER:H</td>
<td>2.04</td>
<td>0.61</td>
</tr>
<tr>
<td>4:D:134:TYR:CD2</td>
<td>4:D:162:PRO:HG3</td>
<td>2.36</td>
<td>0.61</td>
</tr>
<tr>
<td>4:D:216:VAL:HG23</td>
<td>4:D:217:PRO:CD</td>
<td>2.31</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:15:GLN:O</td>
<td>1:A:26:ALA:HA</td>
<td>2.01</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:40:TRP:CH2</td>
<td>1:A:37:GLU:HA</td>
<td>2.36</td>
<td>0.61</td>
</tr>
<tr>
<td>5:E:112:VAL:HG21</td>
<td>5:E:170:ARG:NH2</td>
<td>2.15</td>
<td>0.61</td>
</tr>
<tr>
<td>5:E:45:LEU:HD21</td>
<td>10:J:28:ALA:N</td>
<td>2.15</td>
<td>0.61</td>
</tr>
<tr>
<td>5:E:71:MET:O</td>
<td>5:E:73:LYS:N</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>10:J:14:PHE:CD1</td>
<td>10:J:14:PHE:N</td>
<td>2.66</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:291:SER:HB2</td>
<td>1:A:356:ARG:NH2</td>
<td>2.16</td>
<td>0.61</td>
</tr>
<tr>
<td>2:B:130:PRO:HB3</td>
<td>2:B:132:PHE:CE1</td>
<td>2.36</td>
<td>0.61</td>
</tr>
<tr>
<td>3:C:46:ILE:HA</td>
<td>11:C:381:HEM:CMC</td>
<td>2.31</td>
<td>0.61</td>
</tr>
<tr>
<td>6:F:93:TYR:O</td>
<td>6:F:97:VAL:HG23</td>
<td>2.00</td>
<td>0.61</td>
</tr>
<tr>
<td>1:A:7:ALA:O</td>
<td>1:A:11:VAL:HG23</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:63:LEU:HB2</td>
<td>2:B:182:ARG:HD3</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:222:HIS:HB3</td>
<td>3:C:223:PRO:HD2</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:361:THR:HA</td>
<td>3:C:365:ILE:HG22</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>4:D:118:ARG:HD3</td>
<td>4:D:191:ARG:HH12</td>
<td>1.65</td>
<td>0.60</td>
</tr>
<tr>
<td>4:D:144:ARG:CZ</td>
<td>4:D:147:LEU:HD21</td>
<td>2.31</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:27:ASN:ND2</td>
<td>6:F:69:ASN:ND2</td>
<td>2.48</td>
<td>0.60</td>
</tr>
<tr>
<td>8:H:72:LYS:HA</td>
<td>8:H:75:ASN:ND2</td>
<td>2.16</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:45:SER:HB3</td>
<td>2:B:210:GLY:HA3</td>
<td>1.82</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:349:ILE:CG2</td>
<td>1:A:408:ARG:HG3</td>
<td>2.29</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:19:PRO:C</td>
<td>2:B:21:PRO:HD3</td>
<td>2.22</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:22:LEU:HD12</td>
<td>3:C:23:PRO:HD2</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>5:E:11:SER:O</td>
<td>5:E:15:ARG:HB2</td>
<td>2.00</td>
<td>0.60</td>
</tr>
</tbody>
</table>
### Interatomic Distance Validation

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:E:52:LYS:C</td>
<td>5:E:52:LYS:HD3</td>
<td>2.22</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:9:HIS:HD2</td>
<td>3:C:10:PRO:HG2</td>
<td>1.65</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:239:SER:HB2</td>
<td>7:G:17:SER:O</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:270:LEU:O</td>
<td>1:A:273:ALA:HB3</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>5:E:43:THR:O</td>
<td>5:E:47:VAL:HG23</td>
<td>2.00</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:398:VAL:HA</td>
<td>2:B:402:ILE:HG22</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:32:TRP:HZ2</td>
<td>3:C:207:ASN:HB3</td>
<td>1.67</td>
<td>0.60</td>
</tr>
<tr>
<td>8:H:66:ASP:O</td>
<td>8:H:69:VAL:HB</td>
<td>2.02</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:92:VAL:CG1</td>
<td>2:B:115:ASP:HB3</td>
<td>2.31</td>
<td>0.60</td>
</tr>
<tr>
<td>7:G:25:PRO:O</td>
<td>7:G:26:PHE:C</td>
<td>2.40</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:279:HIS:HB3</td>
<td>1:A:308:GLN:HA</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:371:GLY:O</td>
<td>1:A:375:VAL:HG23</td>
<td>2.01</td>
<td>0.60</td>
</tr>
<tr>
<td>9:I:313:UNK:CB</td>
<td>9:I:314:UNK:CD</td>
<td>2.80</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:120:CYS:O</td>
<td>1:A:122:LEU:HG</td>
<td>2.02</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:147:GLU:O</td>
<td>1:A:150:PHE:N</td>
<td>2.30</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:4:TYR:O</td>
<td>1:A:7:ALA:N</td>
<td>2.34</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:180:ASP:O</td>
<td>2:B:183:ILE:HG12</td>
<td>2.02</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:95:LYS:HB2</td>
<td>2:B:110:GLU:HG2</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:109:LEU:C</td>
<td>3:C:111:LYS:H</td>
<td>2.04</td>
<td>0.60</td>
</tr>
<tr>
<td>3:C:278:ALA:HB1</td>
<td>3:C:295:LEU:HD12</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>1:A:235:ARG:NH1</td>
<td>5:E:15:ARG:CZ</td>
<td>2.65</td>
<td>0.59</td>
</tr>
<tr>
<td>1:A:265:PRO:O</td>
<td>1:A:268:VAL:HG23</td>
<td>2.02</td>
<td>0.59</td>
</tr>
<tr>
<td>1:A:293:PRO:O</td>
<td>1:A:294:LEU:C</td>
<td>2.40</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:31:ASN:HB3</td>
<td>2:B:201:SER:CB</td>
<td>2.31</td>
<td>0.59</td>
</tr>
<tr>
<td>4:D:120:ARG:NH1</td>
<td>4:D:120:ARG:HG2</td>
<td>2.16</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:109:VAL:HG13</td>
<td>2:B:119:LEU:CD2</td>
<td>2.32</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:316:MET:SD</td>
<td>3:C:319:ARG:CG</td>
<td>2.80</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:92:PHE:CZ</td>
<td>3:C:124:LEU:HD13</td>
<td>2.38</td>
<td>0.59</td>
</tr>
<tr>
<td>4:D:169:LEU:HD23</td>
<td>4:D:169:LEU:N</td>
<td>2.17</td>
<td>0.59</td>
</tr>
<tr>
<td>4:D:233:ARG:C</td>
<td>6:F:71:ARG:HH22</td>
<td>2.05</td>
<td>0.59</td>
</tr>
<tr>
<td>4:D:27:ARG:NH2</td>
<td>4:D:60:GLU:OE2</td>
<td>2.25</td>
<td>0.59</td>
</tr>
<tr>
<td>5:E:136:ILE:O</td>
<td>5:E:136:ILE:HG22</td>
<td>2.01</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:374:SER:O</td>
<td>2:B:376:GLU:N</td>
<td>2.35</td>
<td>0.59</td>
</tr>
<tr>
<td>5:E:70:ALA:C</td>
<td>5:E:72:SER:H</td>
<td>2.05</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:377:MET:CE</td>
<td>6:F:20:TYR:HB2</td>
<td>2.32</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:357:VAL:HG12</td>
<td>2:B:361:LYS:CD</td>
<td>2.31</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:20:ILE:HA</td>
<td>3:C:222:HIS:HB2</td>
<td>1.83</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:319:ARG:NH1</td>
<td>3:C:374:GLU:HB2</td>
<td>2.16</td>
<td>0.59</td>
</tr>
</tbody>
</table>

Continued on next page...
## Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:174:PRO:O</td>
<td>3:C:175:THR:C</td>
<td>2.41</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:235:LEU:O</td>
<td>3:C:239:PRO:HD3</td>
<td>2.01</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:247:SER:O</td>
<td>3:C:250:LEU:HB2</td>
<td>2.03</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:325:LEU:HD22</td>
<td>3:C:362:ILE:HG23</td>
<td>1.84</td>
<td>0.59</td>
</tr>
<tr>
<td>1:A:61:HIS:NE2</td>
<td>1:A:137:GLU:OE1</td>
<td>2.31</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:286:LYS:CB</td>
<td>2:B:343:GLN:HG3</td>
<td>2.33</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:400:GLN:O</td>
<td>2:B:404:ALA:HB2</td>
<td>2.02</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:89:ILE:HD13</td>
<td>2:B:96:LEU:HB2</td>
<td>1.85</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:222:HIS:HB3</td>
<td>3:C:223:PRO:CD</td>
<td>2.32</td>
<td>0.59</td>
</tr>
<tr>
<td>4:D:134:TYR:CG</td>
<td>4:D:162:PRO:HG3</td>
<td>2.38</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:332:ASN:ND2</td>
<td>3:C:359:TYR:HA</td>
<td>2.17</td>
<td>0.59</td>
</tr>
<tr>
<td>1:A:364:ALA:O</td>
<td>1:A:368:HIS:HB2</td>
<td>2.03</td>
<td>0.59</td>
</tr>
<tr>
<td>7:G:24:ARG:HH21</td>
<td>7:G:28:HIS:CE1</td>
<td>2.21</td>
<td>0.59</td>
</tr>
<tr>
<td>1:A:332:ASP:O</td>
<td>1:A:334:MET:N</td>
<td>2.35</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:127:THR:CG2</td>
<td>3:C:186:LEU:HB3</td>
<td>2.33</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:26:ILE:O</td>
<td>3:C:21:ASP:HB2</td>
<td>2.02</td>
<td>0.59</td>
</tr>
<tr>
<td>3:C:373:LEU:HD23</td>
<td>3:C:373:LEU:C</td>
<td>2.24</td>
<td>0.59</td>
</tr>
<tr>
<td>4:D:218:LEU:O</td>
<td>4:D:222:MET:HG3</td>
<td>2.02</td>
<td>0.59</td>
</tr>
<tr>
<td>4:D:232:SER:O</td>
<td>4:D:233:ARG:O</td>
<td>2.21</td>
<td>0.59</td>
</tr>
<tr>
<td>6:F:57:ASP:HB3</td>
<td>6:F:61:ARG:NH1</td>
<td>2.16</td>
<td>0.59</td>
</tr>
<tr>
<td>1:A:102:LEU:C</td>
<td>1:A:104:LYS:H</td>
<td>2.07</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:131:GLU:O</td>
<td>2:B:132:PHE:C</td>
<td>2.41</td>
<td>0.58</td>
</tr>
<tr>
<td>5:E:69:LEU:N</td>
<td>5:E:69:LEU:HD12</td>
<td>2.18</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:277:HIS:HB2</td>
<td>2:B:360:ALA:HB1</td>
<td>1.84</td>
<td>0.58</td>
</tr>
<tr>
<td>3:C:219:ILE:HD11</td>
<td>3:C:225:TYR:HE1</td>
<td>1.68</td>
<td>0.58</td>
</tr>
<tr>
<td>10:J:52:TRP:O</td>
<td>10:J:56:LYS:HB2</td>
<td>2.03</td>
<td>0.58</td>
</tr>
<tr>
<td>1:A:36:THR:CG2</td>
<td>1:A:100:LYS:HB3</td>
<td>2.20</td>
<td>0.58</td>
</tr>
<tr>
<td>1:A:19:LEU:C</td>
<td>1:A:21:ASN:H</td>
<td>2.06</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:39:GLU:HG3</td>
<td>2:B:41:TYR:CE1</td>
<td>2.39</td>
<td>0.58</td>
</tr>
<tr>
<td>1:A:75:LEU:O</td>
<td>1:A:79:VAL:HG23</td>
<td>2.03</td>
<td>0.58</td>
</tr>
<tr>
<td>3:C:362:ILE:HA</td>
<td>3:C:366:LEU:HB2</td>
<td>1.86</td>
<td>0.58</td>
</tr>
<tr>
<td>3:C:29:VAL:O</td>
<td>3:C:295:LEU:HB3</td>
<td>2.03</td>
<td>0.58</td>
</tr>
<tr>
<td>7:G:73:ASN:O</td>
<td>7:G:75:ALA:N</td>
<td>2.36</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:187:THR:OG1</td>
<td>2:B:190:GLU:HG3</td>
<td>2.02</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:25:GLU:HB2</td>
<td>2:B:213:HIS:ND1</td>
<td>2.18</td>
<td>0.58</td>
</tr>
</tbody>
</table>

*Continued on next page...*
### continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:211:GLY:HA3</td>
<td>3:C:315:THR:HG23</td>
<td>1.85</td>
<td>0.58</td>
</tr>
<tr>
<td>3:C:346:HIS:N</td>
<td>3:C:347:PRO:HD2</td>
<td>2.18</td>
<td>0.58</td>
</tr>
<tr>
<td>4:D:149:PHE:CE1</td>
<td>4:D:156:GLN:HB3</td>
<td>2.39</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:159:VAL:HG21</td>
<td>2:B:254:HIS:HB3</td>
<td>1.84</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:58:GLU:HB3</td>
<td>2:B:62:ASN:HD21</td>
<td>1.68</td>
<td>0.58</td>
</tr>
<tr>
<td>3:C:277:PHE:CG</td>
<td>3:C:278:ALA:N</td>
<td>2.69</td>
<td>0.58</td>
</tr>
<tr>
<td>4:D:34:LYS:O</td>
<td>4:D:38:SER:OG</td>
<td>2.21</td>
<td>0.58</td>
</tr>
<tr>
<td>3:C:342:GLN:HB3</td>
<td>3:C:348:PHE:CD2</td>
<td>2.38</td>
<td>0.58</td>
</tr>
<tr>
<td>5:E:144:CYS:HB2</td>
<td>5:E:158:CYS:SG</td>
<td>2.43</td>
<td>0.58</td>
</tr>
<tr>
<td>1:A:253:VAL:HG11</td>
<td>1:A:335:MET:CE</td>
<td>2.34</td>
<td>0.58</td>
</tr>
<tr>
<td>1:A:381:ARG:O</td>
<td>1:A:382:GLU:C</td>
<td>2.42</td>
<td>0.58</td>
</tr>
<tr>
<td>1:A:438:ARG:C</td>
<td>1:A:440:GLY:H</td>
<td>2.07</td>
<td>0.58</td>
</tr>
<tr>
<td>3:C:101:ARG:NH1</td>
<td>11:C:382:HEM:O2A</td>
<td>2.31</td>
<td>0.58</td>
</tr>
<tr>
<td>7:G:68:LYS:C</td>
<td>7:G:70:LYS:H</td>
<td>2.07</td>
<td>0.58</td>
</tr>
<tr>
<td>1:A:85:HIS:HB2</td>
<td>1:A:100:LYS:HG3</td>
<td>1.85</td>
<td>0.57</td>
</tr>
<tr>
<td>13:C:384:AMY:H262</td>
<td>13:C:384:AMY:O6</td>
<td>2.03</td>
<td>0.57</td>
</tr>
<tr>
<td>4:D:94:PRO:HB2</td>
<td>4:D:95:TYR:CD1</td>
<td>2.39</td>
<td>0.57</td>
</tr>
<tr>
<td>5:E:164:HIS:O</td>
<td>5:E:171:ILE:HD12</td>
<td>2.03</td>
<td>0.57</td>
</tr>
<tr>
<td>6:F:12:TRP:HA</td>
<td>6:F:12:TRP:CE3</td>
<td>2.38</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:46:ARG:HD3</td>
<td>1:A:231:LEU:HD13</td>
<td>1.84</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:31:ASN:HB3</td>
<td>2:B:201:SER:HB2</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>5:E:170:ARG:HA</td>
<td>5:E:179:ASN:HB3</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:85:HIS:HB2</td>
<td>1:A:100:LYS:CG</td>
<td>2.35</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:145:MET:HB3</td>
<td>1:A:252:HIS:CD2</td>
<td>2.38</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:272:PHE:HA</td>
<td>2:B:275:LEU:HB3</td>
<td>1.85</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:261:ASN:HD21</td>
<td>3:C:264:VAL:HG23</td>
<td>1.69</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:43:MET:CE</td>
<td>3:C:43:MET:CA</td>
<td>2.80</td>
<td>0.57</td>
</tr>
<tr>
<td>4:D:216:VAL:HG23</td>
<td>4:D:217:PRO:HD3</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>5:E:136:ILE:O</td>
<td>5:E:138:ASN:N</td>
<td>2.35</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:16:VAL:HG22</td>
<td>1:A:26:ALA:HB1</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:46:THR:HG22</td>
<td>2:B:110:GLU:HB2</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:149:ASN:O</td>
<td>3:C:152:SER:HB2</td>
<td>2.03</td>
<td>0.57</td>
</tr>
<tr>
<td>4:D:180:SER:OG</td>
<td>8:H:7:3:LEU:HD21</td>
<td>2.04</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:272:VAL:O</td>
<td>1:A:275:ALA:HB3</td>
<td>2.05</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:164:TRP:O</td>
<td>3:C:165:ALA:C</td>
<td>2.42</td>
<td>0.57</td>
</tr>
</tbody>
</table>

*Continued on next page...*
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:E:113:GLU:CD</td>
<td>5:E:116:GLN:HG3</td>
<td>2.25</td>
<td>0.57</td>
</tr>
<tr>
<td>5:E:11:SER:OG</td>
<td>5:E:12:ASP:N</td>
<td>2.37</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:343:MET:HE2</td>
<td>1:A:343:MET:HA</td>
<td>1.85</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:83:PHE:CE1</td>
<td>2:B:87:ARG:HD2</td>
<td>2.40</td>
<td>0.57</td>
</tr>
<tr>
<td>10:J:57:HIS:CE1</td>
<td>10:J:58:LYS:HG3</td>
<td>2.40</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:90:SER:O</td>
<td>1:A:167:VAL:HG11</td>
<td>2.05</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:133:ARG:HD3</td>
<td>2:B:135:TRP:CH2</td>
<td>2.39</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:385:GLN:C</td>
<td>2:B:387:LEU:H</td>
<td>2.08</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:355:ALA:C</td>
<td>3:C:357:LEU:H</td>
<td>2.07</td>
<td>0.57</td>
</tr>
<tr>
<td>8:H:16:PRO:O</td>
<td>8:H:20:VAL:HG23</td>
<td>2.05</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:33:PRO:HG2</td>
<td>1:A:34:THR:H</td>
<td>1.70</td>
<td>0.57</td>
</tr>
<tr>
<td>1:A:391:PRO:HG2</td>
<td>1:A:394:GLU:CB</td>
<td>2.34</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:85:ILE:HA</td>
<td>2:B:122:PHE:CD1</td>
<td>2.39</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:219:ILE:HD11</td>
<td>3:C:225:TYR:CE1</td>
<td>2.40</td>
<td>0.57</td>
</tr>
<tr>
<td>8:H:66:ASP:HA</td>
<td>8:H:69:VAL:CB</td>
<td>2.35</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:146:ILE:O</td>
<td>2:B:149:ALA:N</td>
<td>2.38</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:201:LEU:O</td>
<td>3:C:203:GLU:N</td>
<td>2.37</td>
<td>0.57</td>
</tr>
<tr>
<td>4:D:203:ARG:O</td>
<td>4:D:206:LEU:HB3</td>
<td>2.05</td>
<td>0.57</td>
</tr>
<tr>
<td>4:D:32:VAL:HG21</td>
<td>4:D:186:VAL:CG2</td>
<td>2.35</td>
<td>0.57</td>
</tr>
<tr>
<td>4:D:62:LYS:O</td>
<td>4:D:66:GLU:HG2</td>
<td>2.05</td>
<td>0.57</td>
</tr>
<tr>
<td>7:G:4:PHE:HA</td>
<td>7:G:7:LEU:HD21</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>3:C:15:ILE:C</td>
<td>3:C:17:ASN:H</td>
<td>2.08</td>
<td>0.56</td>
</tr>
<tr>
<td>4:D:63:ALA:HA</td>
<td>4:D:66:GLU:CG</td>
<td>2.34</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:26:HIS:N</td>
<td>2:B:21:PRO:CD</td>
<td>2.68</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:358:GLN:O</td>
<td>2:B:362:ASN:ND2</td>
<td>2.38</td>
<td>0.56</td>
</tr>
<tr>
<td>5:E:16:PRO:O</td>
<td>5:E:18:ASP:N</td>
<td>2.37</td>
<td>0.56</td>
</tr>
<tr>
<td>5:E:93:GLY:O</td>
<td>5:E:94:LYS:HE3</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>7:G:68:LYS:O</td>
<td>7:G:70:LYS:N</td>
<td>2.38</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:399:LEU:C</td>
<td>1:A:399:LEU:HD12</td>
<td>2.25</td>
<td>0.56</td>
</tr>
<tr>
<td>3:C:137:GLY:H</td>
<td>3:C:140:SER:HB2</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:130:PRO:CB</td>
<td>2:B:132:PHE:CE1</td>
<td>2.88</td>
<td>0.56</td>
</tr>
<tr>
<td>5:E:140:THR:OG1</td>
<td>5:E:177:PRO:HD2</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>3:C:95:ILE:HD13</td>
<td>3:C:121:LEU:HD12</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>3:C:123:THR:O</td>
<td>3:C:127:THR:HG23</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>3:C:283:ARG:NH2</td>
<td>3:C:342:GLN:O</td>
<td>2.32</td>
<td>0.56</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>3:C:95:ILE:CG2</td>
<td>3:C:96:PHE:N</td>
<td>2.68</td>
<td>0.56</td>
</tr>
<tr>
<td>4:D:72:ASP:O</td>
<td>4:D:73:GLY:O</td>
<td>2.23</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:57:TYR:CD1</td>
<td>2:B:57:TYR:N</td>
<td>2.73</td>
<td>0.56</td>
</tr>
<tr>
<td>5:E:55:VAL:O</td>
<td>5:E:56:THR:C</td>
<td>2.43</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:15:GLN:HB3</td>
<td>1:A:205:HIS:ND1</td>
<td>2.20</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:332:ASP:O</td>
<td>1:A:333:ASP:C</td>
<td>2.42</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:393:GLU:O</td>
<td>1:A:396:GLU:HB3</td>
<td>2.06</td>
<td>0.56</td>
</tr>
<tr>
<td>3:C:142:TRP:CH2</td>
<td>3:C:265:THR:HG22</td>
<td>2.41</td>
<td>0.56</td>
</tr>
<tr>
<td>4:D:222:MET:HE3</td>
<td>5:E:40:THR:HG23</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:19:LEU:C</td>
<td>1:A:21:ASN:N</td>
<td>2.59</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:345:LEU:CD1</td>
<td>1:A:349:ILE:HD12</td>
<td>2.32</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:4:TYR:CB</td>
<td>2:B:113:ARG:HB3</td>
<td>2.35</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:49:SER:HB2</td>
<td>1:A:52:ASN:HB3</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>3:C:150:LEU:CD1</td>
<td>3:C:292:VAL:HG22</td>
<td>2.35</td>
<td>0.56</td>
</tr>
<tr>
<td>4:D:240:PRO:O</td>
<td>4:D:241:LYS:CB</td>
<td>2.53</td>
<td>0.56</td>
</tr>
<tr>
<td>13:C:384:AMY:C21</td>
<td>13:C:384:AMY:H272</td>
<td>2.36</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:162:ASN:HB3</td>
<td>2:B:244:ILE:CD1</td>
<td>2.36</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:282:ASN:HB3</td>
<td>2:B:343:GLN:NE2</td>
<td>2.21</td>
<td>0.56</td>
</tr>
<tr>
<td>3:C:316:MET:HE3</td>
<td>3:C:319:ARG:NE</td>
<td>2.20</td>
<td>0.56</td>
</tr>
<tr>
<td>4:D:109:LEU:O</td>
<td>4:D:109:LEU:HG</td>
<td>2.05</td>
<td>0.56</td>
</tr>
<tr>
<td>10:J:57:HIS:C</td>
<td>10:J:59:TYR:N</td>
<td>2.57</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:369:LEU:CD1</td>
<td>1:A:392:LEU:HD21</td>
<td>2.34</td>
<td>0.56</td>
</tr>
<tr>
<td>4:D:29:GLY:HA3</td>
<td>4:D:189:PHE:HB2</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>1:A:100:LYS:HB2</td>
<td>1:A:100:LYS:HZ2</td>
<td>1.71</td>
<td>0.55</td>
</tr>
<tr>
<td>1:A:274:ASN:ND2</td>
<td>1:A:320:PHE:CE1</td>
<td>2.75</td>
<td>0.55</td>
</tr>
<tr>
<td>3:C:365:ILE:HG23</td>
<td>3:C:366:LEU:CD2</td>
<td>2.36</td>
<td>0.55</td>
</tr>
<tr>
<td>5:E:160:CYS:HB2</td>
<td>14:E:197:FES:S2</td>
<td>2.46</td>
<td>0.55</td>
</tr>
<tr>
<td>1:A:345:LEU:O</td>
<td>1:A:349:ILE:HB</td>
<td>2.06</td>
<td>0.55</td>
</tr>
<tr>
<td>3:C:265:SER:HA</td>
<td>3:C:219:ILE:CD1</td>
<td>2.36</td>
<td>0.55</td>
</tr>
<tr>
<td>3:C:344:VAL:O</td>
<td>3:C:344:VAL:HG23</td>
<td>2.06</td>
<td>0.55</td>
</tr>
<tr>
<td>1:A:244:ARG:NH2</td>
<td>1:A:429:GLU:HB2</td>
<td>2.20</td>
<td>0.55</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:40:TRP:HE3</td>
<td>1:A:94:HIS:HE1</td>
<td>1.54</td>
<td>0.55</td>
</tr>
<tr>
<td>4:D:61:ALA:O</td>
<td>4:D:64:LEU:HB3</td>
<td>2.07</td>
<td>0.55</td>
</tr>
<tr>
<td>7:G:25:PRO:HG2</td>
<td>7:G:26:PHE:CD1</td>
<td>2.41</td>
<td>0.55</td>
</tr>
<tr>
<td>3:C:30:ALA:C</td>
<td>3:C:32:TRP:H</td>
<td>2.08</td>
<td>0.55</td>
</tr>
<tr>
<td>3:C:78:TRP:CG</td>
<td>4:D:197:GLU:HG2</td>
<td>2.41</td>
<td>0.55</td>
</tr>
<tr>
<td>2:B:200:THR:HG22</td>
<td>2:B:226:ILE:HG21</td>
<td>1.89</td>
<td>0.55</td>
</tr>
<tr>
<td>2:B:38:LEU:HD23</td>
<td>2:B:378:PHE:HZ</td>
<td>1.72</td>
<td>0.55</td>
</tr>
<tr>
<td>3:C:184:PHE:HD1</td>
<td>3:C:184:PHE:O</td>
<td>1.89</td>
<td>0.55</td>
</tr>
<tr>
<td>4:D:217:PRO:O</td>
<td>4:D:220:TYR:N</td>
<td>2.40</td>
<td>0.55</td>
</tr>
<tr>
<td>3:C:378:LEU:O</td>
<td>3:C:379:ASN:HB2</td>
<td>2.07</td>
<td>0.55</td>
</tr>
<tr>
<td>4:D:102:ARG:NH1</td>
<td>4:D:109:LEU:CB</td>
<td>2.69</td>
<td>0.55</td>
</tr>
<tr>
<td>2:B:51:ILE:HG12</td>
<td>2:B:204:MET:HG2</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:19:LEU:N</td>
<td>3:C:19:LEU:HD12</td>
<td>2.22</td>
<td>0.54</td>
</tr>
<tr>
<td>4:D:169:LEU:HD23</td>
<td>4:D:169:LEU:H</td>
<td>1.72</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:246:ASP:OD2</td>
<td>7:G:10:VAL:N</td>
<td>2.34</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:251:ALA:HB1</td>
<td>1:A:428:ILE:CG2</td>
<td>2.37</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:372:VAL:O</td>
<td>2:B:378:PHE:HB2</td>
<td>2.06</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:222:HIS:CB</td>
<td>3:C:223:PRO:CD</td>
<td>2.85</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:326:PHE:O</td>
<td>3:C:329:LEU:HB3</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>5:E:122:HIS:O</td>
<td>5:E:125:GLU:HG2</td>
<td>2.06</td>
<td>0.54</td>
</tr>
<tr>
<td>6:F:36:THR:O</td>
<td>6:F:37:ILE:C</td>
<td>2.46</td>
<td>0.54</td>
</tr>
<tr>
<td>10:J:54:HIS:O</td>
<td>10:J:57:HIS:CD2</td>
<td>2.60</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:45:SER:HA</td>
<td>1:A:48:GLU:HG3</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:308:LEU:CD1</td>
<td>3:C:364:LEU:HA</td>
<td>2.38</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:95:ILE:HG23</td>
<td>3:C:96:PHE:N</td>
<td>2.22</td>
<td>0.54</td>
</tr>
<tr>
<td>7:G:26:PHE:HD1</td>
<td>7:G:26:PHE:N</td>
<td>2.03</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:141:GLN:N</td>
<td>2:B:142:PRO:HD2</td>
<td>2.22</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:406:ALA:O</td>
<td>2:B:407:ASP:C</td>
<td>2.45</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:167:GLY:H</td>
<td>3:C:175:THR:CG2</td>
<td>2.16</td>
<td>0.54</td>
</tr>
<tr>
<td>4:D:43:MET:CE</td>
<td>4:D:46:VAL:HG21</td>
<td>2.37</td>
<td>0.54</td>
</tr>
<tr>
<td>5:E:85:LYS:HE2</td>
<td>5:E:86:ASN:O</td>
<td>2.07</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:321:GLY:HA2</td>
<td>1:A:342:TRP:CZ2</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:36:THR:HA</td>
<td>1:A:100:LYS:HA</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:405:VAL:HG11</td>
<td>2:B:409:ASP:OD1</td>
<td>2.06</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:113:THR:O</td>
<td>3:C:197:HIS:CE1</td>
<td>2.59</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:131:GLY:O</td>
<td>3:C:134:LEU:HB2</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:289:LEU:HG</td>
<td>3:C:293:LEU:CD2</td>
<td>2.38</td>
<td>0.54</td>
</tr>
<tr>
<td>13:C:384:AMY:O7</td>
<td>13:C:384:AMY:H271</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:60:THR:HG23</td>
<td>3:C:136:TRP:CZ3</td>
<td>2.42</td>
<td>0.54</td>
</tr>
<tr>
<td>4:D:117:VAL:CG2</td>
<td>4:D:190:LEU:HB3</td>
<td>2.37</td>
<td>0.54</td>
</tr>
<tr>
<td>4:D:66:GLU:O</td>
<td>4:D:68:VAL:N</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:81:SER:O</td>
<td>2:B:85:ILE:HG22</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:213:SER:HB2</td>
<td>6:F:39:ILE:OE2</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>4:D:123:GLY:O</td>
<td>4:D:126:TYR:N</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>5:E:34:GLY:O</td>
<td>5:E:38:LEU:N</td>
<td>2.33</td>
<td>0.54</td>
</tr>
<tr>
<td>5:E:69:LEU:N</td>
<td>5:E:69:LEU:CD1</td>
<td>2.71</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:45:SER:HB3</td>
<td>1:A:167:VAL:HA</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:92:PHE:CZ</td>
<td>3:C:124:LEU:CD1</td>
<td>2.91</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:343:PRO:O</td>
<td>3:C:348:PHE:HD2</td>
<td>1.91</td>
<td>0.54</td>
</tr>
<tr>
<td>4:D:191:ARG:O</td>
<td>4:D:192:TRP:C</td>
<td>2.45</td>
<td>0.54</td>
</tr>
<tr>
<td>5:E:166:ASP:OD2</td>
<td>5:E:170:ARG:HB2</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>7:G:24:ARG:NH2</td>
<td>7:G:28:HIS:CE1</td>
<td>2.76</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:114:ALA:HA</td>
<td>1:A:216:PHE:HE1</td>
<td>1.73</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:294:LEU:O</td>
<td>1:A:298:ALA:HB2</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:255:ILE:HA</td>
<td>1:A:421:ALA:O</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:443:TRP:O</td>
<td>1:A:445:ARG:N</td>
<td>2.37</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:169:ARG:O</td>
<td>2:B:170:ASN:CB</td>
<td>2.56</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:201:LEU:O</td>
<td>3:C:204:SER:N</td>
<td>2.33</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:376:LYS:C</td>
<td>3:C:378:LEU:H</td>
<td>2.11</td>
<td>0.54</td>
</tr>
<tr>
<td>3:C:295:LEU:HD11</td>
<td>12:C:383:SIG:H273</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:100:SER:O</td>
<td>9:I:106:UNK:HA</td>
<td>2.08</td>
<td>0.54</td>
</tr>
<tr>
<td>1:A:27:SER:HB2</td>
<td>1:A:199:ALA:O</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:239:TYR:CD1</td>
<td>2:B:260:GLU:HB2</td>
<td>2.43</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:102:ARG:HA</td>
<td>4:D:108:ALA:O</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:231:LEU:HD12</td>
<td>4:D:219:VAL:HG23</td>
<td>1.90</td>
<td>0.53</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:354:MET:O</td>
<td>3:C:357:LEU:N</td>
<td>2.41</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:47:ALA:O</td>
<td>4:D:50:HIS:ND1</td>
<td>2.30</td>
<td>0.53</td>
</tr>
<tr>
<td>5:E:33:LYS:HG2</td>
<td>7:G:21:PHE:CD1</td>
<td>2.43</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:123:GLU:HB3</td>
<td>1:A:126:GLN:HB2</td>
<td>1.89</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:250:LEU:C</td>
<td>1:A:250:LEU:CD2</td>
<td>2.77</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:64:PHE:C</td>
<td>1:A:66:GLY:H</td>
<td>2.11</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:65:LYS:NZ</td>
<td>9:I:311:UNK:N</td>
<td>2.57</td>
<td>0.53</td>
</tr>
<tr>
<td>10:J:46:ILE:HG22</td>
<td>10:J:46:ILE:O</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:163:LEU:HD21</td>
<td>2:B:258:VAL:HG21</td>
<td>1.89</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:130:VAL:O</td>
<td>3:C:132:TYR:N</td>
<td>2.40</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:338:TRP:CE3</td>
<td>3:C:339:ILE:HG12</td>
<td>2.44</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:350:ILE:O</td>
<td>3:C:351:ILE:C</td>
<td>2.44</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:149:PHE:HA</td>
<td>4:D:156:GLN:O</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>10:J:56:LYS:O</td>
<td>10:J:60:GLU:HB2</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:45:SER:OG</td>
<td>1:A:92:ARG:HA</td>
<td>2.09</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:342:GLN:NE2</td>
<td>3:C:343:PRO:HD2</td>
<td>2.22</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:75:ASN:HB2</td>
<td>4:D:78:GLY:H</td>
<td>1.74</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:146:ARG:HH11</td>
<td>1:A:146:ARG:HG2</td>
<td>1.73</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:435:PHE:N</td>
<td>2:B:435:PHE:CD1</td>
<td>2.77</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:23:VAL:HG23</td>
<td>1:A:192:ALA:CB</td>
<td>2.38</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:85:ILE:HG23</td>
<td>2:B:86:THR:N</td>
<td>2.23</td>
<td>0.53</td>
</tr>
<tr>
<td>12:C:383:SIG:C33</td>
<td>12:C:383:SIG:H282</td>
<td>2.38</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:181:GLN:HE21</td>
<td>4:D:181:GLN:C</td>
<td>2.12</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:48:TYR:CE2</td>
<td>4:D:65:ALA:HA</td>
<td>2.43</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:278:VAL:O</td>
<td>2:B:282:ASN:ND2</td>
<td>2.42</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:339:ALA:HA</td>
<td>2:B:342:ASN:HD22</td>
<td>1.74</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:356:ARG:HG3</td>
<td>2:B:90:GLU:O</td>
<td>2.09</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:95:ILE:HD11</td>
<td>3:C:121:LEU:HA</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:57:THR:HB</td>
<td>4:D:60:GLU:HB2</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:30:PHE:CE2</td>
<td>4:D:64:LEU:HD21</td>
<td>2.44</td>
<td>0.53</td>
</tr>
<tr>
<td>5:E:91:TRP:O</td>
<td>5:E:94:LYS:O</td>
<td>2.27</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:312:LYS:HB3</td>
<td>6:F:37:ILE:HG22</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>8:H:50:THR:HG22</td>
<td>8:H:52:GLU:N</td>
<td>2.23</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:129:ALA:N</td>
<td>2:B:130:PRO:HD3</td>
<td>2.24</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:4:ASN:O</td>
<td>3:C:5:ILE:HB</td>
<td>2.09</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:197:GLU:O</td>
<td>4:D:198:HIS:C</td>
<td>2.47</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:61:ALA:HA</td>
<td>4:D:64:LEU:HB3</td>
<td>1.91</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:373:THR:N</td>
<td>1:A:374:PRO:HD2</td>
<td>2.23</td>
<td>0.53</td>
</tr>
<tr>
<td>3:C:162:VAL:O</td>
<td>3:C:165:ALA:N</td>
<td>2.42</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:158:ILE:CG2</td>
<td>4:D:159:GLY:N</td>
<td>2.71</td>
<td>0.53</td>
</tr>
<tr>
<td>4:D:117:VAL:HG23</td>
<td>4:D:190:LEU:HB3</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>5:E:85:LYS:HG2</td>
<td>5:E:86:ASN:H</td>
<td>1.74</td>
<td>0.53</td>
</tr>
<tr>
<td>6:F:70:MET:O</td>
<td>6:F:70:MET:HG2</td>
<td>2.08</td>
<td>0.53</td>
</tr>
<tr>
<td>1:A:290:SER:O</td>
<td>1:A:291:SER:C</td>
<td>2.46</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:258:VAL:HG11</td>
<td>2:B:321:LEU:HD22</td>
<td>1.90</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:333:ALA:O</td>
<td>2:B:337:ILE:HG12</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>10:J:59:TYR:CD1</td>
<td>10:J:59:TYR:N</td>
<td>2.78</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:418:GLN:N</td>
<td>1:A:420:PRO:HD3</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:137:VAL:HG23</td>
<td>2:B:138:ALA:N</td>
<td>2.24</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:221:GLU:HG3</td>
<td>2:B:222:GLN:N</td>
<td>2.24</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:255:ALA:O</td>
<td>2:B:325:TYR:HA</td>
<td>2.09</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:342:GLN:HA</td>
<td>3:C:342:GLN:HE21</td>
<td>1.75</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:350:ILE:HD13</td>
<td>3:C:350:ILE:N</td>
<td>2.25</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:365:ILE:HG23</td>
<td>3:C:366:LEU:N</td>
<td>2.23</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:118:ARG:HD3</td>
<td>4:D:191:ARG:NH1</td>
<td>2.25</td>
<td>0.52</td>
</tr>
<tr>
<td>6:F:75:LEU:HG</td>
<td>6:F:79:GLN:HB2</td>
<td>1.90</td>
<td>0.52</td>
</tr>
<tr>
<td>7:G:29:TYR:HA</td>
<td>7:G:33:GLY:HA3</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:351:GLU:HA</td>
<td>1:A:354:VAL:HG22</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:170:ASN:O</td>
<td>2:B:171:ALA:O</td>
<td>2.27</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:191:LEU:CB</td>
<td>2:B:191:LEU:CB</td>
<td>2.93</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:199:THR:HG22</td>
<td>3:C:200:PHE:N</td>
<td>2.24</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:165:TYR:CZ</td>
<td>4:D:168:VAL:HG22</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>5:E:164:HIS:HD2</td>
<td>5:E:173:LYS:HB3</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:178:SER:O</td>
<td>1:A:179:ARG:C</td>
<td>2.47</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:170:ASN:HD22</td>
<td>2:B:170:ASN:C</td>
<td>2.12</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:324:PHE:O</td>
<td>2:B:324:PHE:CD1</td>
<td>2.62</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:85:ILE:HG23</td>
<td>2:B:86:THR:H</td>
<td>1.75</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:15:ILE:O</td>
<td>3:C:17:ASN:N</td>
<td>2.39</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:223:LYS:HD2</td>
<td>4:D:223:LYS:O</td>
<td>2.09</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:21:LEU:HD13</td>
<td>4:D:26:ILE:HD11</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:123:GLU:O</td>
<td>1:A:126:GLN:N</td>
<td>2.40</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:343:MET:O</td>
<td>1:A:344:ARG:C</td>
<td>2.48</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:4:TYR:HB2</td>
<td>2:B:113:ARG:HB3</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:137:GLY:H</td>
<td>3:C:140:SER:CB</td>
<td>2.22</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:293:LEU:O</td>
<td>3:C:296:ALA:HB3</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:104:TYR:CE2</td>
<td>3:C:316:MET:HB2</td>
<td>2.45</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:32:TRP:C</td>
<td>13:C:384:AMY:H8</td>
<td>2.30</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:45:GLN:OE1</td>
<td>3:C:45:GLN:HA</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>8:H:66:ASP:HA</td>
<td>8:H:69:VAL:HG21</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:86:LEU:HB2</td>
<td>1:A:99:ILE:HG12</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:117:VAL:O</td>
<td>4:D:123:GLY:HA2</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>5:E:13:TYR:O</td>
<td>7:G:28:HIS:HD2</td>
<td>1.93</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:221:TYR:HE2</td>
<td>5:E:36:SER:HA</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>5:E:39:VAL:O</td>
<td>5:E:42:VAL:HB</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:224:ARG:HH22</td>
<td>7:G:27:PRO:HG3</td>
<td>1.75</td>
<td>0.52</td>
</tr>
<tr>
<td>8:H:58:LEU:O</td>
<td>8:H:58:LEU:HD12</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:361:LEU:HD13</td>
<td>1:A:399:LEU:CD2</td>
<td>2.27</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:405:VAL:CG1</td>
<td>2:B:419:ASP:OD1</td>
<td>2.58</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:111:LYS:O</td>
<td>3:C:114:TRP:N</td>
<td>2.42</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:352:GLY:O</td>
<td>3:C:354:MET:N</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>8:H:59:PHE:O</td>
<td>8:H:60:ASP:C</td>
<td>2.48</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:91:SER:O</td>
<td>1:A:167:VAL:HG22</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:64:PHE:O</td>
<td>1:A:75:LEU:HD23</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:87:ASN:HB3</td>
<td>1:A:98:TYR:CE1</td>
<td>2.45</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:101:ARG:CD</td>
<td>3:C:101:ARG:C</td>
<td>2.78</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:219:ILE:CD1</td>
<td>3:C:225:TYR:HE1</td>
<td>2.22</td>
<td>0.52</td>
</tr>
<tr>
<td>4:D:165:TYR:CE2</td>
<td>4:D:168:VAL:HG22</td>
<td>2.45</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:239:SER:O</td>
<td>1:A:421:ALA:HA</td>
<td>2.09</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:209:LEU:O</td>
<td>2:B:211:VAL:HG13</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:101:ARG:NE</td>
<td>3:C:102:GLY:N</td>
<td>2.58</td>
<td>0.52</td>
</tr>
<tr>
<td>5:E:112:VAL:HG21</td>
<td>5:E:170:ARG:HH22</td>
<td>1.75</td>
<td>0.52</td>
</tr>
<tr>
<td>5:E:22:THR:HG22</td>
<td>5:E:22:THR:O</td>
<td>2.10</td>
<td>0.52</td>
</tr>
<tr>
<td>10:J:14:PHE:HD1</td>
<td>10:J:14:PHE:N</td>
<td>2.06</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:338:LEU:O</td>
<td>1:A:341:GLN:N</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>1:A:4:TYR:HB2</td>
<td>2:B:113:ARG:CB</td>
<td>2.40</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:260:GLU:O</td>
<td>2:B:261:SER:CB</td>
<td>2.58</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:131:GLY:HA2</td>
<td>3:C:134:LEU:HD13</td>
<td>1.90</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:38:LEU:HD21</td>
<td>3:C:95:ILE:N</td>
<td>2.25</td>
<td>0.52</td>
</tr>
<tr>
<td>3:C:245:LEU:O</td>
<td>4:D:201:ARG:CD</td>
<td>2.58</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:182:ARG:NH2</td>
<td>2:B:190:GLU:OE1</td>
<td>2.42</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:361:LYS:O</td>
<td>2:B:365:LYS:HG3</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:238:THR:OG1</td>
<td>4:D:212:MET:HG3</td>
<td>2.09</td>
<td>0.51</td>
</tr>
<tr>
<td>10:J:49:GLY:N</td>
<td>10:J:54:HIS:ND1</td>
<td>2.57</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:39:VAL:HA</td>
<td>1:A:196:VAL:O</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:150:VAL:CG2</td>
<td>2:B:151:ALA:N</td>
<td>2.72</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:105:TYR:CE2</td>
<td>3:C:209:PRO:HA</td>
<td>2.45</td>
<td>0.51</td>
</tr>
<tr>
<td>11:C:382:HEM:O2D</td>
<td>11:C:382:HEM:HBA1</td>
<td>2.10</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:191:ALA:HB1</td>
<td>13:C:384:AMY:H251</td>
<td>1.92</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:85:ALA:O</td>
<td>3:C:88:ALA:HB3</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:29:GLY:O</td>
<td>4:D:32:VAL:CG1</td>
<td>2.58</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:294:LEU:HG</td>
<td>1:A:307:PHE:CE2</td>
<td>2.46</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:416:TYR:HE1</td>
<td>1:A:443:TRP:H</td>
<td>1.58</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:402:ILE:HD13</td>
<td>2:B:402:ILE:C</td>
<td>2.30</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:157:ILE:O</td>
<td>3:C:161:LEU:HB2</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:335:ILE:O</td>
<td>3:C:336:LEU:C</td>
<td>2.48</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:182:VAL:HG13</td>
<td>4:D:183:ALA:H</td>
<td>1.75</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:356:ARG:O</td>
<td>1:A:357:GLY:C</td>
<td>2.49</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:87:ASN:O</td>
<td>1:A:88:ALA:HB2</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:189:VAL:O</td>
<td>2:B:191:LEU:N</td>
<td>2.43</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:166:TRP:HB2</td>
<td>3:C:175:THR:HG22</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:18:SER:HB2</td>
<td>3:C:19:LEU:HD12</td>
<td>1.92</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:215:ASP:HB3</td>
<td>7:G:7:LEU:HB3</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:274:TYR:HE1</td>
<td>3:C:275:PHE:CE2</td>
<td>2.28</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:295:LEU:O</td>
<td>3:C:296:ALA:C</td>
<td>2.47</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:41:CYC:O</td>
<td>3:C:42:LEU:C</td>
<td>2.46</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:169:LEU:HD11</td>
<td>4:D:171:PHE:HE1</td>
<td>1.75</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:57:THR:H</td>
<td>4:D:60:GLU:HB3</td>
<td>1.75</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:63:ALA:HA</td>
<td>4:D:66:GLU:HG2</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:123:GLU:OE1</td>
<td>1:A:123:GLU:HA</td>
<td>2.09</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:228:VAL:HG13</td>
<td>1:A:228:VAL:O</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:58:PHE:CE1</td>
<td>1:A:127:ILE:HG23</td>
<td>2.45</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:71:LEU:C</td>
<td>2:B:73:SER:N</td>
<td>2.63</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:30:ALA:C</td>
<td>3:C:32:TRP:N</td>
<td>2.64</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:186:VAL:O</td>
<td>4:D:190:LEU:HG</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:275:PHE:CG</td>
<td>12:C:383:SIG:H332</td>
<td>2.45</td>
<td>0.51</td>
</tr>
<tr>
<td>3:C:281:ILE:O</td>
<td>3:C:285:ILE:HG22</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:134:TYR:O</td>
<td>4:D:135:CYS:HB3</td>
<td>2.10</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:230:LEU:C</td>
<td>6:F:70:MET:HE1</td>
<td>2.31</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:47:ALA:N</td>
<td>4:D:50:HIS:CE1</td>
<td>2.78</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:56:TYR:HD2</td>
<td>4:D:60:GLU:HG2</td>
<td>1.74</td>
<td>0.51</td>
</tr>
<tr>
<td>5:E:76:ILE:HD13</td>
<td>5:E:98:VAL:HG21</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:65:LYS:CD</td>
<td>1:A:65:LYS:N</td>
<td>2.73</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:88:ALA:CB</td>
<td>1:A:97:TYR:HA</td>
<td>2.38</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:282:ARG:NH2</td>
<td>2:B:146:ILE:HG21</td>
<td>2.25</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:202:ALA:HB3</td>
<td>2:B:229:GLY:O</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>7:G:55:PHE:O</td>
<td>7:G:56:TYR:C</td>
<td>2.49</td>
<td>0.51</td>
</tr>
</tbody>
</table>

Continued from previous page...
### Interatomic distances and clash overlap

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:57:TYR:C</td>
<td>1:A:59:LEU:H</td>
<td>2.13</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:32:VAL:CG2</td>
<td>4:D:186:VAL:HG22</td>
<td>2.37</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:189:PHE:O</td>
<td>4:D:191:ARG:N</td>
<td>2.44</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:46:VAL:CG1</td>
<td>4:D:47:ALA:N</td>
<td>2.74</td>
<td>0.51</td>
</tr>
<tr>
<td>5:E:19:ASP:C</td>
<td>5:E:20:TYR:CD1</td>
<td>2.84</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:316:PHE:CE1</td>
<td>1:A:322:PHE:N</td>
<td>2.79</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:395:TRP:HA</td>
<td>1:A:395:TRP:HE3</td>
<td>1.73</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:146:ILE:CG1</td>
<td>2:B:147:ASP:N</td>
<td>2.72</td>
<td>0.51</td>
</tr>
<tr>
<td>4:D:124:GLU:OE1</td>
<td>4:D:124:GLU:N</td>
<td>2.37</td>
<td>0.51</td>
</tr>
<tr>
<td>5:E:11:SER:HA</td>
<td>5:E:15:ARG:CD</td>
<td>2.36</td>
<td>0.51</td>
</tr>
<tr>
<td>5:E:163:SER:OG</td>
<td>5:E:176:ALA:HB2</td>
<td>2.11</td>
<td>0.51</td>
</tr>
<tr>
<td>6:F:32:MET:CE</td>
<td>6:F:87:VAL:HG22</td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td>7:G:73:ASN:C</td>
<td>7:G:75:ALA:N</td>
<td>2.65</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:345:LYS:O</td>
<td>2:B:347:ILE:N</td>
<td>2.43</td>
<td>0.51</td>
</tr>
<tr>
<td>6:F:75:LEU:O</td>
<td>6:F:80:TRP:NE1</td>
<td>2.41</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:295:ALA:O</td>
<td>1:A:298:ALA:HB3</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:351:GLU:O</td>
<td>1:A:354:VAL:HG22</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>4:D:182:VAL:HG13</td>
<td>4:D:183:ALA:N</td>
<td>2.25</td>
<td>0.50</td>
</tr>
<tr>
<td>4:D:213:GLY:O</td>
<td>4:D:217:PRO:CD</td>
<td>2.59</td>
<td>0.50</td>
</tr>
<tr>
<td>4:D:94:PRO:HO2</td>
<td>4:D:95:TYR:CE1</td>
<td>2.46</td>
<td>0.50</td>
</tr>
<tr>
<td>4:D:98:PRO:O</td>
<td>4:D:101:ALA:N</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>5:E:29:ASP:O</td>
<td>5:E:32:ARG:N</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>8:H:40:CYS:C</td>
<td>8:H:54:CYS:SG</td>
<td>2.89</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:180:ALA:O</td>
<td>1:A:183:THR:N</td>
<td>2.45</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:231:LEU:HD13</td>
<td>1:A:231:LEU:HD13</td>
<td>2.41</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:343:MET:SD</td>
<td>1:A:441:MET:O</td>
<td>2.69</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:57:TYR:O</td>
<td>1:A:60:GLU:N</td>
<td>2.45</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:170:ASN:ND2</td>
<td>2:B:170:ASN:C</td>
<td>2.65</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:288:GLY:O</td>
<td>2:B:305:ASN:CB</td>
<td>2.59</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:166:TRP:O</td>
<td>3:C:167:GLY:O</td>
<td>2.29</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:273:TRP:CD2</td>
<td>3:C:274:TYR:N</td>
<td>2.79</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:429:GLU:CD</td>
<td>7:G:7:LEU:HB2</td>
<td>2.31</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:24:ARG:HH11</td>
<td>1:A:24:ARG:HG3</td>
<td>1.76</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:410:VAL:O</td>
<td>1:A:413:LYS:HB3</td>
<td>2.12</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:13:LYS:O</td>
<td>3:C:14:MET:C</td>
<td>2.49</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:138:GLN:HE21</td>
<td>3:C:261:ASN:H</td>
<td>1.55</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:273:TRP:HA</td>
<td>3:C:276:LEU:HG</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>6:F:16:ILE:O</td>
<td>6:F:19:TRP:N</td>
<td>2.45</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:100:LYS:HZ2</td>
<td>1:A:100:LYS:CB</td>
<td>2.25</td>
<td>0.50</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:212:ALA:C</td>
<td>1:A:214:LYS:N</td>
<td>2.64</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:382:GLU:HG2</td>
<td>1:A:389:ARG:CA</td>
<td>2.30</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:248:ASN:ND2</td>
<td>2:B:248:ASN:C</td>
<td>2.64</td>
<td>0.50</td>
</tr>
<tr>
<td>5:E:32:ARG:NH2</td>
<td>7:G:25:PRO:HD2</td>
<td>2.26</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:363:LYS:O</td>
<td>2:B:366:ALA:HB3</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:430:LEU:O</td>
<td>2:B:432:HIS:N</td>
<td>2.45</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:101:ARG:HE</td>
<td>3:C:102:GLY:CA</td>
<td>2.24</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:34:PHE:CD1</td>
<td>3:C:37:LEU:HD12</td>
<td>2.47</td>
<td>0.50</td>
</tr>
<tr>
<td>10:J:26:VAL:O</td>
<td>10:J:30:LEU:HG</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:343:MET:HA</td>
<td>1:A:343:MET:CE</td>
<td>2.42</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:444:LEU:O</td>
<td>1:A:445:ARG:O</td>
<td>2.29</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:92:VAL:CG1</td>
<td>2:B:92:VAL:O</td>
<td>2.60</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:230:ILE:O</td>
<td>3:C:233:LEU:HB3</td>
<td>2.12</td>
<td>0.50</td>
</tr>
<tr>
<td>4:D:54:VAL:HG21</td>
<td>4:D:192:TRP:CE3</td>
<td>2.43</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:250:LEU:HD22</td>
<td>1:A:250:LEU:O</td>
<td>2.10</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:53:ASN:C</td>
<td>1:A:53:ASN:HD22</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:285:ILE:CG2</td>
<td>3:C:291:GLY:HA2</td>
<td>2.37</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:354:MET:HA</td>
<td>3:C:354:MET:CE</td>
<td>2.42</td>
<td>0.50</td>
</tr>
<tr>
<td>10:J:55:ILE:C</td>
<td>10:J:57:HIS:N</td>
<td>2.64</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:242:THR:CA</td>
<td>4:D:208:MET:HE1</td>
<td>2.36</td>
<td>0.50</td>
</tr>
<tr>
<td>4:D:47:ALA:HB1</td>
<td>4:D:89:ASP:O</td>
<td>2.11</td>
<td>0.50</td>
</tr>
<tr>
<td>5:E:123:ASP:O</td>
<td>5:E:127:VAL:HG22</td>
<td>2.12</td>
<td>0.50</td>
</tr>
<tr>
<td>1:A:53:ASN:C</td>
<td>1:A:53:ASN:ND2</td>
<td>2.64</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:102:ARG:N</td>
<td>2:B:164:HIS:CD2</td>
<td>2.80</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:250:ASP:O</td>
<td>2:B:252:LEU:CD2</td>
<td>2.54</td>
<td>0.50</td>
</tr>
<tr>
<td>3:C:27:ASN:O</td>
<td>3:C:209:PRO:HD2</td>
<td>2.12</td>
<td>0.50</td>
</tr>
<tr>
<td>7:G:60:THR:HG22</td>
<td>7:G:64:GLN:HE21</td>
<td>1.77</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:66:SER:OG</td>
<td>2:B:67:HIS:N</td>
<td>2.44</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:273:TRP:CG</td>
<td>3:C:274:TYR:N</td>
<td>2.80</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:14:HIS:HB3</td>
<td>4:D:21:LEU:HA</td>
<td>1.93</td>
<td>0.49</td>
</tr>
<tr>
<td>10:J:57:HIS:HA</td>
<td>10:J:60:GLU:C</td>
<td>2.32</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:267:LEU:O</td>
<td>1:A:271:GLN:HB2</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:261:ASN:ND2</td>
<td>3:C:264:VAL:HB</td>
<td>2.26</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:353:GLN:HA</td>
<td>3:C:356:SER:HB3</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:141:VAL:HG21</td>
<td>8:H:55:THR:CG2</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>5:E:171:ILE:HG22</td>
<td>5:E:179:ASN:OD1</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:212:ALA:C</td>
<td>1:A:214:LYS:H</td>
<td>2.16</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:218:ASN:N</td>
<td>2:B:221:GLU:HG2</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:108:TYR:HE1</td>
<td>3:C:309:HIS:HB2</td>
<td>1.77</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:138:GLN:OE1</td>
<td>3:C:266:PRO:HD3</td>
<td>2.11</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:222:HIS:CG</td>
<td>3:C:223:PRO:N</td>
<td>2.80</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:116:ILE:CG2</td>
<td>4:D:117:VAL:N</td>
<td>2.75</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:138:PRO:HD3</td>
<td>8:H:58:LEU:CD2</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>10:J:57:HIS:HB2</td>
<td>10:J:61:ASN:CA</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:430:GLN:N</td>
<td>1:A:430:GLN:HG2</td>
<td>2.13</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:232:LEU:O</td>
<td>2:B:233:SER:O</td>
<td>2.30</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:222:HIS:N</td>
<td>3:C:223:PRO:C</td>
<td>2.49</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:30:ALA:HA</td>
<td>3:C:33:ASN:OD1</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:339:ILE:HG22</td>
<td>3:C:339:ILE:O</td>
<td>2.11</td>
<td>0.49</td>
</tr>
<tr>
<td>5:E:15:ARG:O</td>
<td>7:G:24:ARG:HD3</td>
<td>2.13</td>
<td>0.49</td>
</tr>
<tr>
<td>7:G:60:THR:O</td>
<td>7:G:61:TRP:C</td>
<td>2.49</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:208:LEU:O</td>
<td>1:A:209:LEU:C</td>
<td>2.50</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:40:TRP:CE3</td>
<td>1:A:96:ALA:HB2</td>
<td>2.46</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:30:ALA:O</td>
<td>3:C:32:TRP:N</td>
<td>2.45</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:235:ARG:HB2</td>
<td>5:E:21:SER:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>7:G:27:PRO:HD2</td>
<td>7:G:29:TYR:HD1</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>7:G:68:LYS:C</td>
<td>7:G:70:LYS:N</td>
<td>2.65</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:250:ASP:C</td>
<td>2:B:252:LEU:H</td>
<td>2.16</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:127:THR:HG22</td>
<td>3:C:186:LEU:CB</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:164:ILE:CD1</td>
<td>4:D:182:VAL:HG13</td>
<td>2.35</td>
<td>0.49</td>
</tr>
<tr>
<td>5:E:91:TRP:CE2</td>
<td>5:E:92:ARG:HG3</td>
<td>2.48</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:31:ASN:HB3</td>
<td>2:B:201:SER:OG</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:128:THR:HG21</td>
<td>2:B:223:LEU:HD12</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:370:MET:O</td>
<td>2:B:373:GLU:HG3</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:102:GLY:HA2</td>
<td>3:C:107:SER:HB2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:12:TRP:NE1</td>
<td>4:D:125:ASP:OD1</td>
<td>2.34</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:175:THR:O</td>
<td>4:D:177:ALA:N</td>
<td>2.46</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:103:SER:O</td>
<td>1:A:106:VAL:HG23</td>
<td>2.12</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:270:LYS:O</td>
<td>3:C:270:LYS:HG3</td>
<td>2.13</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:273:TRP:C</td>
<td>3:C:275:FHE:HE</td>
<td>2.16</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:295:LEU:CG</td>
<td>12:C:383:SIG:H273</td>
<td>2.43</td>
<td>0.49</td>
</tr>
<tr>
<td>8:H:35:GLU:O</td>
<td>8:H:39:LEU:HD13</td>
<td>2.12</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:204:GLU:O</td>
<td>1:A:205:HIS:C</td>
<td>2.50</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:266:ASP:C</td>
<td>1:A:268:VAL:N</td>
<td>2.56</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:430:LEU:O</td>
<td>2:B:433:THR:N</td>
<td>2.42</td>
<td>0.49</td>
</tr>
<tr>
<td>3:C:184:PHE:HA</td>
<td>11:C:381:HEM:CBC</td>
<td>2.43</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:210:GLU:O</td>
<td>1:A:214:LYS:CB</td>
<td>2.56</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:83:PHE:CE2</td>
<td>2:B:87:ARG:HD2</td>
<td>2.48</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:155:GLY:C</td>
<td>4:D:156:GLN:NE2</td>
<td>2.66</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:130:LEU:HD11</td>
<td>4:D:158:ILE:CD1</td>
<td>2.43</td>
<td>0.49</td>
</tr>
<tr>
<td>4:D:181:GLN:NE2</td>
<td>4:D:181:GLN:C</td>
<td>2.67</td>
<td>0.49</td>
</tr>
<tr>
<td>1:A:16:VAL:HG22</td>
<td>1:A:26:ALA:HB2</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:64:PHE:O</td>
<td>1:A:66:GLY:N</td>
<td>2.45</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:77:LYS:O</td>
<td>1:A:81:SER:OG</td>
<td>2.23</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:181:TYR:CA</td>
<td>2:B:182:ARG:HG3</td>
<td>2.48</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:305:ASN:CB</td>
<td>2:B:306:PRO:HD2</td>
<td>2.43</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:345:LYS:C</td>
<td>2:B:347:ILE:H</td>
<td>2.15</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:198:LEU:HD11</td>
<td>13:C:384:AMY:H9</td>
<td>1.93</td>
<td>0.48</td>
</tr>
<tr>
<td>10:I:12:LEU:O</td>
<td>10:I:19:THR:HG21</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:94:HIS:NE2</td>
<td>1:A:381:ARG:HG2</td>
<td>2.29</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:72:ALA:CB</td>
<td>2:B:75:LEU:HD12</td>
<td>2.42</td>
<td>0.48</td>
</tr>
<tr>
<td>4:D:147:LEU:N</td>
<td>4:D:147:LEU:HD22</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>6:F:59:MET:HA</td>
<td>6:F:59:MET:HE2</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:79:VAL:O</td>
<td>1:A:80:GLU:C</td>
<td>2.51</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:142:TRP:CE3</td>
<td>3:C:265:THR:HG22</td>
<td>2.48</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:271:PRO:HB3</td>
<td>12:C:383:SIG:C5</td>
<td>2.42</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:9:HIS:CD2</td>
<td>3:C:10:PRO:HG2</td>
<td>2.46</td>
<td>0.48</td>
</tr>
<tr>
<td>8:H:58:LEU:O</td>
<td>8:H:61:PHE:HB3</td>
<td>2.14</td>
<td>0.48</td>
</tr>
<tr>
<td>8:H:72:LYS:HA</td>
<td>8:H:75:ASN:HD21</td>
<td>1.77</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:240:GLN:HB3</td>
<td>1:A:422:VAL:HG12</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:137:GLY:N</td>
<td>3:C:140:SER:HB2</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:63:ALA:HB2</td>
<td>3:C:176:LEU:HD21</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:345:GLU:HB3</td>
<td>3:C:347:PRO:HD2</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>5:E:166:ASP:HB3</td>
<td>5:E:172:ARG:HH11</td>
<td>1.76</td>
<td>0.48</td>
</tr>
<tr>
<td>7:G:49:ALA:O</td>
<td>7:G:50:PRO:C</td>
<td>2.52</td>
<td>0.48</td>
</tr>
<tr>
<td>8:H:61:PHE:O</td>
<td>8:H:62:LEU:C</td>
<td>2.50</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:438:ARG:O</td>
<td>1:A:441:MET:HG2</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:4:TYR:O</td>
<td>1:A:7:ALA:HB3</td>
<td>2.14</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:40:TRP:HZ3</td>
<td>1:A:89:TYR:OH</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:102:ARG:NH1</td>
<td>2:B:174:ASP:O</td>
<td>2.47</td>
<td>0.48</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:64:PHE:CE2</td>
<td>3:C:259:PRO:HG3</td>
<td>2.48</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:53:ASN:ND2</td>
<td>1:A:54:GLY:N</td>
<td>2.58</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:137:VAL:CG2</td>
<td>2:B:138:ALA:N</td>
<td>2.77</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:24:LEU:CD2</td>
<td>2:B:24:LEU:H</td>
<td>2.23</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:31:TRP:N</td>
<td>3:C:31:TRP:CD1</td>
<td>2.80</td>
<td>0.48</td>
</tr>
<tr>
<td>4:D:144:ARG:NH1</td>
<td>4:D:147:LEU:HD21</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>4:D:63:ALA:HA</td>
<td>4:D:66:GLU:HG3</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>5:E:166:ASP:OD2</td>
<td>5:E:172:ARG:HD3</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>5:E:184:SER:O</td>
<td>5:E:196:GLY:N</td>
<td>2.36</td>
<td>0.48</td>
</tr>
<tr>
<td>5:E:51:ALA:O</td>
<td>5:E:52:LYS:C</td>
<td>2.52</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:89:TYR:O</td>
<td>1:A:95:THR:HG23</td>
<td>2.13</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:107:SER:C</td>
<td>3:C:109:LEU:H</td>
<td>2.17</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:70:ARG:HD3</td>
<td>2:B:100:SER:HB3</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:111:CYS:SG</td>
<td>2:B:112:LEU:N</td>
<td>2.87</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:146:ILE:O</td>
<td>2:B:147:ASP:HZ</td>
<td>2.52</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:171:ALA:O</td>
<td>2:B:172:LEU:HB3</td>
<td>2.14</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:281:ALA:O</td>
<td>2:B:285:VAL:HB</td>
<td>2.14</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:405:VAL:HG11</td>
<td>2:B:409:ASP:HZ</td>
<td>2.34</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:40:VAL:HG21</td>
<td>3:C:233:LEU:HD23</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:282:LEU:C</td>
<td>3:C:282:LEU:HD23</td>
<td>2.33</td>
<td>0.48</td>
</tr>
<tr>
<td>5:E:32:ARG:HH11</td>
<td>5:E:32:ARG:HG3</td>
<td>1.78</td>
<td>0.48</td>
</tr>
<tr>
<td>10:J:19:THR:O</td>
<td>10:J:20:PHE:HZ</td>
<td>2.51</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:131:ARG:HH11</td>
<td>1:A:131:ARG:HG3</td>
<td>1.77</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:69:LEU:CD1</td>
<td>2:B:105:MET:HE1</td>
<td>2.39</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:104:TYR:O</td>
<td>3:C:105:TYR:CD1</td>
<td>2.67</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:127:THR:HG22</td>
<td>3:C:186:LEU:CD1</td>
<td>2.40</td>
<td>0.48</td>
</tr>
<tr>
<td>4:D:122:GLY:O</td>
<td>4:D:123:GLY:HZ</td>
<td>2.51</td>
<td>0.48</td>
</tr>
<tr>
<td>11:D:242:HEM:HMC1</td>
<td>11:D:242:HEM:CBC</td>
<td>2.44</td>
<td>0.48</td>
</tr>
<tr>
<td>4:D:33:TYR:HA</td>
<td>4:D:37:CYS:SG</td>
<td>2.53</td>
<td>0.48</td>
</tr>
<tr>
<td>5:E:60:SER:HZ</td>
<td>5:E:62:MET:N</td>
<td>2.67</td>
<td>0.48</td>
</tr>
<tr>
<td>1:A:40:TRP:N</td>
<td>1:A:40:TRP:CD1</td>
<td>2.81</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:267:PRO:O</td>
<td>3:C:268:LYS:HZ</td>
<td>2.62</td>
<td>0.48</td>
</tr>
<tr>
<td>3:C:342:GLN:HZ</td>
<td>3:C:342:GLN:NE2</td>
<td>2.28</td>
<td>0.48</td>
</tr>
<tr>
<td>4:D:127:VAL:HG12</td>
<td>4:D:187:CYS:SG</td>
<td>2.54</td>
<td>0.48</td>
</tr>
<tr>
<td>4:D:81:PHE:HZ</td>
<td>4:D:81:PHE:CD1</td>
<td>2.88</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:130:PRO:HB2</td>
<td>2:B:132:PHE:CE1</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:217:LYS:HZ</td>
<td>2:B:219:VAL:HZ</td>
<td>2.17</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:117:VAL:HG21</td>
<td>4:D:190:LEU:HZ</td>
<td>2.34</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:D:32:VAL:CG1</td>
<td>4:D:186:VAL:HG22</td>
<td>2.42</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:341:GLN:O</td>
<td>1:A:342:TRP:C</td>
<td>2.51</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:36:THR:HG21</td>
<td>1:A:373:THR:OG1</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:195:VAL:HG13</td>
<td>2:B:199:PHE:HB2</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:216:VAL:CG2</td>
<td>4:D:217:PRO:CD</td>
<td>2.92</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:56:TYR:CD2</td>
<td>4:D:60:GLU:HG2</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:11:SER:CA</td>
<td>5:E:15:ARG:HD2</td>
<td>2.39</td>
<td>0.47</td>
</tr>
<tr>
<td>7:G:3:GLN:O</td>
<td>7:G:7:LEU:HD21</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:60:GLU:OE1</td>
<td>1:A:89:TYR:HA</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:118:VAL:O</td>
<td>3:C:119:ILE:C</td>
<td>2.53</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:161:LEU:HD23</td>
<td>3:C:161:LEU:O</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:184:PHE:HA</td>
<td>11:C:381:HEM:HBC2</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:40:VAL:HG21</td>
<td>3:C:233:LEU:CD2</td>
<td>2.44</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:191:ALA:CA</td>
<td>13:C:384:AMY:H251</td>
<td>2.44</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:59:ASP:O</td>
<td>3:C:60:THR:C</td>
<td>2.53</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:64:PHE:CD2</td>
<td>3:C:259:PRO:HG3</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:167:ASP:C</td>
<td>4:D:169:LEU:N</td>
<td>2.67</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:217:PRO:O</td>
<td>4:D:218:LEU:C</td>
<td>2.52</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:170:ARG:HA</td>
<td>5:E:179:ASN:CB</td>
<td>2.43</td>
<td>0.47</td>
</tr>
<tr>
<td>7:G:26:PHE:CD1</td>
<td>7:G:26:PHE:N</td>
<td>2.71</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:251:LEU:HD23</td>
<td>3:C:273:TRP:NE1</td>
<td>2.29</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:97:ASN:O</td>
<td>4:D:100:ALA:HB3</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:224:ARG:NH2</td>
<td>7:G:27:PRO:HG3</td>
<td>2.29</td>
<td>0.47</td>
</tr>
<tr>
<td>8:H:72:LYS:O</td>
<td>8:H:75:ASN:ND2</td>
<td>2.47</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:62:LEU:CD2</td>
<td>1:A:126:GLN:HG3</td>
<td>2.44</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:191:ALA:HA</td>
<td>13:C:384:AMY:H251</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:155:GLY:C</td>
<td>4:D:157:ALA:H</td>
<td>2.18</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:17:PRO:HA</td>
<td>5:E:20:TYR:CE1</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:35:PHE:O</td>
<td>5:E:38:LEU:HB3</td>
<td>2.14</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:111:GLU:HB2</td>
<td>1:A:215:HIS:CD2</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:378:PHE:C</td>
<td>2:B:380:GLU:N</td>
<td>2.68</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:241:LEU:HA</td>
<td>3:C:241:LEU:HD23</td>
<td>1.58</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:318:PHE:CG</td>
<td>6:F:26:PHE:HB3</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:21:LEU:HB3</td>
<td>4:D:26:ILE:HD11</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:127:VAL:HG11</td>
<td>5:E:133:VAL:HA</td>
<td>1.96</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:99:ILE:HG22</td>
<td>1:A:100:LYS:N</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:171:ALA:O</td>
<td>2:B:172:LEU:CB</td>
<td>2.63</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:180:ASP:O</td>
<td>2:B:182:ARG:N</td>
<td>2.48</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:47:ILE:HD13</td>
<td>2:B:126:MET:SD</td>
<td>2.54</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:153:ALA:HB1</td>
<td>3:C:289:LEU:HD12</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:44:THR:HG22</td>
<td>10:J:24:ILE:HG21</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:77:LYS:HB3</td>
<td>5:E:80:ASP:OD2</td>
<td>2.14</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:78:LEU:HB3</td>
<td>5:E:132:TRP:CZ2</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:138:LEU:HA</td>
<td>1:A:141:ASN:HD22</td>
<td>1.79</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:335:MET:O</td>
<td>1:A:336:PHE:C</td>
<td>2.53</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:213:HIS:HD2</td>
<td>2:B:213:HIS:O</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:284:HIS:C</td>
<td>2:B:286:LYS:H</td>
<td>2.17</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:83:ARG:O</td>
<td>4:D:83:ARG:HD2</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:31:ASN:HD21</td>
<td>2:B:224:LEU:HD13</td>
<td>1.80</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:96:LEU:C</td>
<td>2:B:96:LEU:HD23</td>
<td>2.35</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:103:LEU:C</td>
<td>3:C:103:LEU:HD13</td>
<td>2.34</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:350:ILE:H</td>
<td>3:C:350:ILE:HD13</td>
<td>1.80</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:178:THR:O</td>
<td>4:D:182:VAL:HG12</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:235:LEU:O</td>
<td>4:D:236:ALA:HB2</td>
<td>2.13</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:153:PHE:CD2</td>
<td>5:E:172:ARG:HG3</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>5:E:53:ASN:N</td>
<td>5:E:57:GLN:HG3</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>7:G:7:LEU:N</td>
<td>7:G:7:LEU:HD22</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>10:J:26:PHE:CE1</td>
<td>10:J:24:ILE:HD11</td>
<td>2.50</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:307:PHE:CD2</td>
<td>2:B:308:ASP:N</td>
<td>2.82</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:424:MET:HG2</td>
<td>2:B:425:ALA:N</td>
<td>2.29</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:135:PRO:HG2</td>
<td>3:C:140:SER:OG</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:277:PHE:CD2</td>
<td>3:C:278:ALA:N</td>
<td>2.83</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:318:PHE:CD2</td>
<td>6:F:26:PHE:HB3</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:195:GLU:OE2</td>
<td>4:D:201:ARG:NH2</td>
<td>2.47</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:3:LEU:O</td>
<td>1:A:11:VAL:HG23</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>1:A:72:GLN:HG2</td>
<td>1:A:76:GLU:OE1</td>
<td>2.15</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:318:ASP:O</td>
<td>2:B:319:SER:HB2</td>
<td>2.14</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:149:ASN:O</td>
<td>3:C:152:SER:CB</td>
<td>2.63</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:138:GLN:HE21</td>
<td>3:C:261:ASN:N</td>
<td>2.09</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:287:ASN:N</td>
<td>3:C:288:LYS:C</td>
<td>2.51</td>
<td>0.47</td>
</tr>
<tr>
<td>3:C:43:MET:CE</td>
<td>13:C:384:AMY:H242</td>
<td>2.45</td>
<td>0.47</td>
</tr>
<tr>
<td>4:D:169:LEU:CD2</td>
<td>4:D:169:LEU:N</td>
<td>2.78</td>
<td>0.47</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:E:119:ASP:O</td>
<td>5:E:179:ASN:ND2</td>
<td>2.47</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:170:ASN:O</td>
<td>2:B:171:ALA:C</td>
<td>2.54</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:359:TYR:CD2</td>
<td>3:C:360:PHE:HD1</td>
<td>2.34</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:86:LYS:N</td>
<td>4:D:89:ASP:OD1</td>
<td>2.47</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:235:LEU:HB3</td>
<td>6:F:60:PHE:HE1</td>
<td>1.80</td>
<td>0.46</td>
</tr>
<tr>
<td>7:G:73:ASN:C</td>
<td>7:G:75:ALA:H</td>
<td>2.19</td>
<td>0.46</td>
</tr>
<tr>
<td>10:J:38:GLY:O</td>
<td>10:J:42:ILE:HG13</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:41:ILE:C</td>
<td>1:A:43:ALA:H</td>
<td>2.18</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:299:VAL:C</td>
<td>3:C:301:ILE:H</td>
<td>2.18</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:191:ARG:O</td>
<td>4:D:194:ALA:N</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:238:ARG:HG3</td>
<td>7:G:14:ILE:HD12</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:46:VAL:CG1</td>
<td>4:D:47:ALA:H</td>
<td>2.23</td>
<td>0.46</td>
</tr>
<tr>
<td>5:E:170:ARG:HG2</td>
<td>5:E:179:ASN:ND2</td>
<td>2.30</td>
<td>0.46</td>
</tr>
<tr>
<td>10:J:57:HIS:HA</td>
<td>10:J:60:GLU:CA</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:236:PHE:HB2</td>
<td>1:A:258:GLU:OE1</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:64:PHE:CZ</td>
<td>1:A:86:LEU:HG</td>
<td>2.50</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:248:ASN:HD22</td>
<td>2:B:249:GLY:N</td>
<td>2.12</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:258:VAL:CG1</td>
<td>2:B:259:ALA:N</td>
<td>2.77</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:67:HIS:O</td>
<td>2:B:70:ARG:HB3</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:162:VAL:C</td>
<td>3:C:164:TRP:N</td>
<td>2.68</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:223:PRO:O</td>
<td>3:C:227:PHE:HD2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:280:ALA:O</td>
<td>3:C:281:ILE:C</td>
<td>2.54</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:285:ILE:N</td>
<td>3:C:286:PRO:HD3</td>
<td>2.30</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:338:TRP:CE2</td>
<td>7:G:59:TYR:HD1</td>
<td>2.34</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:354:MET:O</td>
<td>3:C:357:LEU:CB</td>
<td>2.63</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:7:PRO:HA</td>
<td>4:D:8:PRO:HD2</td>
<td>1.76</td>
<td>0.46</td>
</tr>
<tr>
<td>5:E:72:SER:CA</td>
<td>5:E:92:ARG:HD3</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:58:GLU:HB3</td>
<td>2:B:62:ASN:ND2</td>
<td>2.30</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:89:SER:HB3</td>
<td>3:C:273:TRP:HZ2</td>
<td>1.80</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:335:ILE:O</td>
<td>3:C:337:THR:N</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:45:GLN:CB</td>
<td>11:C:381:HEM:HAB</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:16:GLY:O</td>
<td>4:D:18:LEU:N</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>7:G:56:TYR:O</td>
<td>7:G:59:TYR:HB3</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>8:H:73:LEU:O</td>
<td>8:H:73:LEU:HD23</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:178:SER:O</td>
<td>1:A:182:LEU:HD23</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:280:TYR:CD2</td>
<td>1:A:281:ASP:N</td>
<td>2.84</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:353:SER:C</td>
<td>2:B:355:GLU:H</td>
<td>2.19</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:385:GLN:C</td>
<td>2:B:387:LEU:N</td>
<td>2.68</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:172:ASP:O</td>
<td>3:C:173:ASN:C</td>
<td>2.54</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:E:38:LEU:HA</td>
<td>10:I:14:PHE:HE2</td>
<td>1.79</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:105:ASP:O</td>
<td>1:A:106:VAL:C</td>
<td>2.54</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:30:SER:N</td>
<td>1:A:201:GLY:O</td>
<td>2.45</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:266:ASP:O</td>
<td>1:A:268:VAL:N</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:209:LEU:O</td>
<td>2:B:210:GLY:C</td>
<td>2.53</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:162:ASN:HB3</td>
<td>2:B:244:ILE:HD11</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>5:E:189:SER:OG</td>
<td>5:E:192:MET:HB2</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:140:LEU:HD12</td>
<td>2:B:146:LEU:O</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:307:PHE:CG</td>
<td>2:B:308:ASP:N</td>
<td>2.80</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:334:PHE:HA2</td>
<td>2:B:343:PRO:HD3</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:350:ILE:HA</td>
<td>3:C:353:GLN:HE21</td>
<td>1.80</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:43:MET:HG2</td>
<td>4:D:43:MET:O</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:55:CY5:HG</td>
<td>4:D:56:TYR:HD1</td>
<td>1.54</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:142:ASP:OD1</td>
<td>5:E:2:HIS:HB3</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:207:VAL:CG1</td>
<td>2:B:208:GLY:N</td>
<td>2.75</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:213:HIS:N</td>
<td>2:B:214:PRO:CD</td>
<td>2.79</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:258:VAL:HD11</td>
<td>2:B:321:LEU:CB</td>
<td>2.38</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:138:GLN:O</td>
<td>3:C:142:TRP:HD1</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:253:ASP:C</td>
<td>3:C:253:ASP:OD1</td>
<td>2.53</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:135:CY5:O</td>
<td>4:D:149:PHE:HD2</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:44:ASP:O</td>
<td>4:D:90:TYR:HD2</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>7:G:40:ARG:O</td>
<td>7:G:41:LEU:C</td>
<td>2.53</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:156:THR:HG1</td>
<td>1:A:239:SER:HG</td>
<td>1.59</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:405:ARG:HA</td>
<td>1:A:408:ARG:HE</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:101:THR:HG22</td>
<td>2:B:102:ARG:N</td>
<td>2.31</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:105:MET:HE2</td>
<td>2:B:107:TYR:HE1</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:261:SER:O</td>
<td>2:B:262:ALA:O</td>
<td>2.33</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:34:PHE:O</td>
<td>3:C:98:His:ND1</td>
<td>2.49</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:130:LEU:HD11</td>
<td>4:D:158:ILE:HD11</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>5:E:28:SER:O</td>
<td>5:E:31:SER:HB3</td>
<td>2.15</td>
<td>0.46</td>
</tr>
<tr>
<td>5:E:87:MET:HG2</td>
<td>5:E:89:PHE:CZ</td>
<td>2.51</td>
<td>0.46</td>
</tr>
<tr>
<td>7:G:36:ASN:O</td>
<td>7:G:40:ARG:HG3</td>
<td>2.16</td>
<td>0.46</td>
</tr>
<tr>
<td>10:J:58:LYS:HB2</td>
<td>10:J:59:TYR:CE1</td>
<td>2.51</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:103:SER:C</td>
<td>1:A:105:ASP:H</td>
<td>2.18</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:59:LEU:O</td>
<td>1:A:60:GLU:C</td>
<td>2.54</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:24:LEU:HD11</td>
<td>2:B:392:TYR:CG</td>
<td>2.51</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:330:ALA:O</td>
<td>2:B:333:ALA:N</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>3:C:293:LEU:O</td>
<td>3:C:294:ALA:C</td>
<td>2.55</td>
<td>0.46</td>
</tr>
</tbody>
</table>

*Continued on next page...*
### Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:97:LEU:O</td>
<td>3:C:100:GLY:N</td>
<td>2.49</td>
<td>0.46</td>
</tr>
<tr>
<td>4:D:144:ARG:HG3</td>
<td>4:D:147:LEU:HD23</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>5:E:153:PHE:CE2</td>
<td>5:E:172:ARG:HB3</td>
<td>2.51</td>
<td>0.46</td>
</tr>
<tr>
<td>5:E:26:ARG:C</td>
<td>5:E:28:SER:N</td>
<td>2.68</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:259:GLY:HA3</td>
<td>1:A:318:GLY:HA3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:207:VAL:HG21</td>
<td>2:B:383:GLY:HA2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:184:PHE:C</td>
<td>3:C:184:PHE:CD1</td>
<td>2.90</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:207:ASN:O</td>
<td>3:C:208:ASN:CB</td>
<td>2.54</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:254:PRO:HG2</td>
<td>3:C:255:GLU:N</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:325:LEU:O</td>
<td>3:C:328:LEU:HB3</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:123:GLY:O</td>
<td>4:D:124:GLU:C</td>
<td>2.54</td>
<td>0.45</td>
</tr>
<tr>
<td>5:E:29:ASP:N</td>
<td>5:E:30:PRO:HD2</td>
<td>2.30</td>
<td>0.45</td>
</tr>
<tr>
<td>7:G:38:TRP:C</td>
<td>7:G:40:ARG:N</td>
<td>2.70</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:373:THR:HB</td>
<td>1:A:374:PRO:CD</td>
<td>2.45</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:84:LYS:HG2</td>
<td>2:B:122:PRO:HE1</td>
<td>1.82</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:141:GLN:C</td>
<td>2:B:143:GLN:H</td>
<td>2.19</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:282:LEU:C</td>
<td>3:C:282:LEU:CD1</td>
<td>2.85</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:191:ALA:CB</td>
<td>13:C:384:AMY:H251</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>5:E:148:ALA:HB2</td>
<td>5:E:156:TYR:HE1</td>
<td>1.80</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:27:ASN:HB3</td>
<td>6:F:70:MET:HB2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:445:ARG:NH1</td>
<td>10:J:16:ARG:HG2</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:278:GLY:O</td>
<td>1:A:307:PHE:HE1</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:16:ASN:HA</td>
<td>3:C:20:ILE:HB</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:266:PRO:HA</td>
<td>3:C:267:PRO:HD3</td>
<td>1.87</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:73:ASN:O</td>
<td>5:E:66:ALA:HB3</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:260:GLU:OE1</td>
<td>2:B:319:SER:OG</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:341:TYR:OH</td>
<td>2:B:439:LEU:HD22</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:116:THR:O</td>
<td>3:C:117:GLY:C</td>
<td>2.55</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:138:GLN:HA</td>
<td>3:C:138:GLN:NE2</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:113:THR:HG22</td>
<td>3:C:200:PHE:C</td>
<td>2.36</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:261:ASN:ND2</td>
<td>3:C:264:VAL:N</td>
<td>2.65</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:148:TYR:CD1</td>
<td>4:D:148:TYR:N</td>
<td>2.84</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:29:GLY:O</td>
<td>4:D:32:VAL:HG12</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:57:THR:O</td>
<td>4:D:60:GLU:HB3</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>10:J:48:GLU:HA</td>
<td>10:J:54:HIS:CE1</td>
<td>2.51</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:135:TRP:N</td>
<td>2:B:135:TRP:CD1</td>
<td>2.83</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:146:ILE:HE</td>
<td>2:B:149:ALA:HB3</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:177:TYR:O</td>
<td>2:B:178:CYS:C</td>
<td>2.54</td>
<td>0.45</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:207:VAL:CG1</td>
<td>2:B:208:GLY:H</td>
<td>2.29</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:52:LEU:HB3</td>
<td>11:C:381:HEM:HMD2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:116:ILE:HG23</td>
<td>4:D:117:VAL:H</td>
<td>1.80</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:146:ARG:NH2</td>
<td>9:I:206:UNK:HA</td>
<td>2.31</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:328:ARG:CG</td>
<td>1:A:427:PRO:HB2</td>
<td>2.44</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:272:PHE:O</td>
<td>2:B:273:SER:C</td>
<td>2.55</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:43:PRO:HG2</td>
<td>2:B:44:GLY:H</td>
<td>1.81</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:258:THR:HG22</td>
<td>3:C:258:THR:O</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:275:PHE:CD2</td>
<td>12:C:383:SIG:C33</td>
<td>2.98</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:339:ILE:O</td>
<td>3:C:339:ILE:CG2</td>
<td>2.64</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:223:LYS:HD2</td>
<td>4:D:227:TRP:CD1</td>
<td>2.51</td>
<td>0.45</td>
</tr>
<tr>
<td>7:G:24:ARG:HA</td>
<td>7:G:25:PRO:HD2</td>
<td>1.67</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:255:ILE:HG12</td>
<td>1:A:420:PRO:HB2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:338:TRP:CD3</td>
<td>3:C:339:ILE:HD11</td>
<td>2.50</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:39:ALA:O</td>
<td>3:C:42:LEU:N</td>
<td>2.49</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:152:TYR:OH</td>
<td>5:E:5:ILE:HD12</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:77:LYS:O</td>
<td>1:A:81:SER:CB</td>
<td>2.65</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:120:LEU:O</td>
<td>3:C:121:LEU:C</td>
<td>2.54</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:110:TYR:OH</td>
<td>3:C:207:ASN:HA</td>
<td>2.16</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:81:ARG:O</td>
<td>3:C:82:ASN:C</td>
<td>2.55</td>
<td>0.45</td>
</tr>
<tr>
<td>5:E:91:TRP:NE1</td>
<td>5:E:92:ARG:HG3</td>
<td>2.32</td>
<td>0.45</td>
</tr>
<tr>
<td>8:H:40:CVS:O</td>
<td>8:H:44:VAL:HG23</td>
<td>2.17</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:150:PHE:O</td>
<td>1:A:153:LEU:HB3</td>
<td>2.17</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:154:HIS:NE2</td>
<td>1:A:314:TYR:OH</td>
<td>2.34</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:438:ARG:C</td>
<td>1:A:440:GLY:N</td>
<td>2.70</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:142:TRP:HA</td>
<td>3:C:145:THR:OG1</td>
<td>2.17</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:189:PHE:O</td>
<td>4:D:190:LEU:C</td>
<td>2.55</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:47:ALA:O</td>
<td>4:D:48:TYR:C</td>
<td>2.54</td>
<td>0.45</td>
</tr>
<tr>
<td>4:D:48:TYR:CD2</td>
<td>4:D:65:ALA:HB2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>8:H:55:THR:O</td>
<td>8:H:58:LEU:N</td>
<td>2.49</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:101:THR:O</td>
<td>2:B:103:GLU:N</td>
<td>2.50</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:277:HIS:CD2</td>
<td>2:B:363:LYS:HB2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>3:C:110:TYR:CD2</td>
<td>4:C:382:HNM:HBD2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>5:E:45:LEU:CD2</td>
<td>10:J:24:ILE:O</td>
<td>2.65</td>
<td>0.45</td>
</tr>
<tr>
<td>1:A:104:LYS:O</td>
<td>1:A:104:LYS:HG2</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:112:LEU:CD2</td>
<td>2:B:112:LEU:N</td>
<td>2.81</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:395:PRO:O</td>
<td>2:B:398:VAL:HG12</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:179:PHE:O</td>
<td>3:C:180:PHE:C</td>
<td>2.54</td>
<td>0.44</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>------------------</td>
<td>------------------</td>
<td>------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>3:C:295:LEU:HD21</td>
<td>12:C:383:SIG:H273</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:32:TRP:O</td>
<td>11:C:382:HEM:O1A</td>
<td>2.35</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:358:SER:O</td>
<td>3:C:362:ILE:HG13</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:161:ALA:O</td>
<td>4:D:163:PRO:HD3</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:167:ASP:C</td>
<td>4:D:169:LEU:H</td>
<td>2.21</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:59:LEU:O</td>
<td>1:A:61:HIS:N</td>
<td>2.49</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:132:TYR:HA</td>
<td>11:C:381:HEM:HAA2</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:15:ILE:C</td>
<td>3:C:17:ASN:N</td>
<td>2.70</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:214:SER:OG</td>
<td>3:C:218:LYS:HE3</td>
<td>2.16</td>
<td>0.44</td>
</tr>
<tr>
<td>5:E:15:ARG:HH12</td>
<td>5:E:19:ASP:HB3</td>
<td>1.74</td>
<td>0.44</td>
</tr>
<tr>
<td>5:E:35:PHE:O</td>
<td>5:E:38:LEU:N</td>
<td>2.50</td>
<td>0.44</td>
</tr>
<tr>
<td>5:E:71:MET:C</td>
<td>5:E:73:LYS:N</td>
<td>2.71</td>
<td>0.44</td>
</tr>
<tr>
<td>5:E:86:ASN:HB2</td>
<td>5:E:99:ARG:HG3</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:182:LEU:O</td>
<td>1:A:185:TYR:HB3</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:297:ILE:HG21</td>
<td>1:A:337:VAL:CG1</td>
<td>2.35</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:334:MET:O</td>
<td>1:A:335:MET:C</td>
<td>2.54</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:36:THR:CG2</td>
<td>1:A:100:LYS:HZ3</td>
<td>2.30</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:391:PRO:CG</td>
<td>1:A:394:GLU:HB2</td>
<td>2.42</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:61:HIS:NE2</td>
<td>1:A:137:GLU:OE2</td>
<td>2.50</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:85:HS:CD2</td>
<td>9:I:314:UNK:HB2</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:141:GLN:O</td>
<td>2:B:143:GLN:N</td>
<td>2.50</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:35:ILE:HD11</td>
<td>2:B:220:ALA:CB</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:42:LEU:HD23</td>
<td>13:C:384:AMY:H23</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:395:TRP:O</td>
<td>1:A:399:LEU:HG</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:57:TYR:O</td>
<td>1:A:58:PHE:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:111:CYS:CB</td>
<td>2:B:119:LEU:HD22</td>
<td>2.46</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:56:ARG:O</td>
<td>2:B:171:ALA:HB1</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:272:PHE:HB3</td>
<td>2:B:322:PHE:CD2</td>
<td>2.53</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:399:LEU:O</td>
<td>2:B:402:ILE:HG22</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:71:LEU:O</td>
<td>2:B:73:SER:N</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:81:ARG:HG3</td>
<td>3:C:81:ARG:HH11</td>
<td>1.82</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:139:THR:C</td>
<td>4:D:141:VAL:H</td>
<td>2.20</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:5:LEU:HB2</td>
<td>8:H:59:PHE:CE1</td>
<td>2.53</td>
<td>0.44</td>
</tr>
<tr>
<td>5:E:62:MET:O</td>
<td>5:E:63:SER:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:279:HIS:HB2</td>
<td>1:A:307:PHE:E</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:169:ARG:O</td>
<td>2:B:170:ASN:HB3</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:31:ASN:CB</td>
<td>2:B:201:SER:HB2</td>
<td>2.47</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:273:SER:CB</td>
<td>2:B:364:LEU:HD11</td>
<td>2.45</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:395:PRO:O</td>
<td>2:B:398:VAL:HG12</td>
<td>2.38</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:146:VAL:O</td>
<td>3:C:147:ILE:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:92:PHE:HA</td>
<td>3:C:95:ILE:HG22</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>4:D:128:PHE:O</td>
<td>4:D:129:SER:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>5:E:193:VAL:HG13</td>
<td>5:E:193:VAL:O</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:235:LEU:CD1</td>
<td>6:F:64:ARG:HA</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>7:G:42:ARG:HG2</td>
<td>7:G:42:ARG:HH11</td>
<td>1.82</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:305:GLN:HB3</td>
<td>9:I:203:UNK:HA</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:147:GLU:O</td>
<td>1:A:148:VAL:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:370:ASP:O</td>
<td>1:A:374:PRO:HG3</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:74:ALA:O</td>
<td>1:A:78:GLU:N</td>
<td>2.46</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:409:ASP:O</td>
<td>2:B:411:ILE:N</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:83:PHE:O</td>
<td>2:B:84:LYS:C</td>
<td>2.55</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:90:GLU:C</td>
<td>2:B:92:VAL:H</td>
<td>2.20</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:108:TYR:HB2</td>
<td>3:C:306:PRO:HG3</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:9:HIS:HD2</td>
<td>3:C:10:PRO:CG</td>
<td>2.29</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:202:HIS:H</td>
<td>3:C:202:HIS:HD1</td>
<td>1.63</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:354:MET:O</td>
<td>3:C:357:LEU:HB3</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:88:ALA:O</td>
<td>3:C:91:PHE:HB3</td>
<td>2.17</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:16:GLY:C</td>
<td>4:D:18:LEU:N</td>
<td>2.69</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:57:THR:HG22</td>
<td>4:D:58:GLU:N</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:70:ARG:HE</td>
<td>9:I:107:UNK:CB</td>
<td>2.31</td>
<td>0.44</td>
</tr>
<tr>
<td>10:J:57:HIS:O</td>
<td>10:J:66:GLU:N</td>
<td>2.33</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:159:GLN:HE21</td>
<td>5:E:7:VAL:CG1</td>
<td>2.09</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:49:SER:HB2</td>
<td>1:A:52:ASN:CB</td>
<td>2.46</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:207:VAL:HG11</td>
<td>2:B:382:VAL:HG23</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:109:LEU:C</td>
<td>3:C:111:LYS:N</td>
<td>2.71</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:113:THR:CG2</td>
<td>3:C:201:LEU:HA</td>
<td>2.47</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:369:THR:C</td>
<td>3:C:371:GLY:N</td>
<td>2.69</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:70:THR:HA</td>
<td>3:C:74:VAL:HG23</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:78:TRP:CD2</td>
<td>3:C:79:LEU:N</td>
<td>2.86</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:27:ASN:CB</td>
<td>6:F:69:ASN:ND2</td>
<td>2.72</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:327:ASP:O</td>
<td>1:A:328:ARG:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:395:PRO:HA</td>
<td>2:B:398:VAL:CG1</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:56:ARG:NH1</td>
<td>2:B:56:ARG:HG3</td>
<td>2.32</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:105:TYR:O</td>
<td>3:C:106:GLY:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:46:ILE:O</td>
<td>3:C:50:LEU:HB2</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:228:SER:O</td>
<td>4:D:232:SER:HB3</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:95:TYR:HE2</td>
<td>4:D:104:ALA:CB</td>
<td>2.30</td>
<td>0.44</td>
</tr>
<tr>
<td>5:E:15:ARG:HH11</td>
<td>5:E:19:ASP:HB3</td>
<td>1.80</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:238:ARG:HD2</td>
<td>5:E:5:ILE:HD11</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>7:G:42:ARG:O</td>
<td>7:G:43:ALA:HB2</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>8:H:61:PHE:O</td>
<td>8:H:64:ALA:N</td>
<td>2.49</td>
<td>0.44</td>
</tr>
<tr>
<td>10:J:13:LEU:HA</td>
<td>10:J:19:THR:CG2</td>
<td>2.48</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Continued on next page...
### Interatomic Overlap and Clash Analysis

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic Distance (Å)</th>
<th>Clash Overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:153:LEU:C</td>
<td>1:A:153:LEU:CD2</td>
<td>2.86</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:405:VAL:CG1</td>
<td>2:B:406:ALA:H</td>
<td>2.28</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:166:TRP:C</td>
<td>3:C:166:TRP:CD1</td>
<td>2.91</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:136:TRP:CD1</td>
<td>3:C:176:LEU:HD13</td>
<td>2.53</td>
<td>0.44</td>
</tr>
<tr>
<td>3:C:352:GLY:O</td>
<td>3:C:353:GLN:C</td>
<td>2.56</td>
<td>0.44</td>
</tr>
<tr>
<td>4:D:29:GLY:HA3</td>
<td>4:D:185:ASP:O</td>
<td>2.18</td>
<td>0.44</td>
</tr>
<tr>
<td>1:A:123:GLU:HB3</td>
<td>1:A:126:GLN:CB</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:114:ALA:HB2</td>
<td>1:A:216:PHE:CE1</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:250:LEU:CD2</td>
<td>1:A:325:VAL:CG1</td>
<td>2.93</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:147:ASP:O</td>
<td>2:B:150:VAL:HG2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:189:VAL:C</td>
<td>2:B:191:LEU:N</td>
<td>2.71</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:110:TYR:O</td>
<td>3:C:111:LYS:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:113:THR:HG2</td>
<td>3:C:201:LEU:N</td>
<td>2.32</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:184:PHE:C</td>
<td>3:C:184:PHE:HD1</td>
<td>2.21</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:282:LEU:HD2</td>
<td>3:C:295:LEU:HD22</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:326:PHE:O</td>
<td>3:C:329:LEU:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:92:PHE:O</td>
<td>3:C:96:PHE:CD2</td>
<td>2.71</td>
<td>0.43</td>
</tr>
<tr>
<td>11:D:242:HEM:CMB</td>
<td>11:D:242:HEM:HBB2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>10:J:57:HIS:HA</td>
<td>10:J:60:GLU:HB2</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:134:ILE:O</td>
<td>1:A:138:LEU:N</td>
<td>2.50</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:15:GLN:HB3</td>
<td>1:A:205:HIS:CE1</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:335:MET:HG3</td>
<td>1:A:339:GLN:HE21</td>
<td>1.82</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:382:GLU:OE2</td>
<td>1:A:396:ILE:HB</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:199:PHE:CA</td>
<td>2:B:204:MET:HE2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:246:ARG:NH1</td>
<td>2:B:242:GLY:HA3</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:56:TYR:OH</td>
<td>3:C:134:LEU:O</td>
<td>2.31</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:139:MET:O</td>
<td>3:C:140:SER:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:382:GLU:HG2</td>
<td>1:A:390:ILE:N</td>
<td>2.32</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:33:LEU:HD21</td>
<td>2:B:223:LEU:HD23</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:95:ILE:HD13</td>
<td>3:C:121:LEU:CD1</td>
<td>2.47</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:186:LEU:O</td>
<td>3:C:189:ALA:N</td>
<td>2.45</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:204:MET:O</td>
<td>4:D:205:GLY:C</td>
<td>2.57</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:166:ASP:OD2</td>
<td>5:E:170:ARG:NE</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:171:ILE:N</td>
<td>5:E:179:ASN:OD1</td>
<td>2.44</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:40:THR:O</td>
<td>5:E:41:ALA:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>6:F:32:MET:SD</td>
<td>6:F:87:VAL:HG2</td>
<td>2.59</td>
<td>0.43</td>
</tr>
<tr>
<td>8:H:62:LEU:O</td>
<td>8:H:63:HIS:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:36:THR:HG2</td>
<td>1:A:100:LYS:HZ3</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:206:GLN:HA</td>
<td>1:A:209:LEU:HD12</td>
<td>2.00</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:365:LEU:HD21</td>
<td>1:A:395:TRP:CB</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:85:HIS:O</td>
<td>1:A:99:ILE:HA</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:163:LEU:O</td>
<td>2:B:166:ALA:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:65:THR:O</td>
<td>2:B:69:LEU:HB2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:148:THR:C</td>
<td>3:C:150:LEU:H</td>
<td>2.21</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:342:GLN:CA</td>
<td>3:C:342:GLN:HE21</td>
<td>2.30</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:44:THR:O</td>
<td>3:C:48:THR:HG23</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:169:LEU:HD11</td>
<td>4:D:171:PHE:CE1</td>
<td>2.53</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:157:TYR:CE1</td>
<td>5:E:162:GLY:HA2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:26:ARG:O</td>
<td>5:E:27:GLU:HG3</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:106:VAL:HG21</td>
<td>1:A:203:VAL:HG13</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:358:LYS:O</td>
<td>1:A:361:LEU:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:404:ALA:O</td>
<td>1:A:407:VAL:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:428:ILE:O</td>
<td>1:A:429:GLU:C</td>
<td>2.57</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:276:GLN:OE1</td>
<td>2:B:313:ASN:HB3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:419:SER:O</td>
<td>2:B:420:ARG:O</td>
<td>2.36</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:5:LYS:O</td>
<td>3:C:13:LYS:HD2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:332:ASN:HD21</td>
<td>3:C:359:TYR:N</td>
<td>2.15</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:361:THR:CA</td>
<td>3:C:365:ILE:HG22</td>
<td>2.47</td>
<td>0.43</td>
</tr>
<tr>
<td>11:C:382:HEM:HAA2</td>
<td>11:C:382:HEM:HMA1</td>
<td>1.87</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:160:MET:HB2</td>
<td>4:D:242:HEM:C2D</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:91:PHE:HA</td>
<td>4:D:92:PRO:HD3</td>
<td>1.80</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:218:LEU:CD1</td>
<td>5:E:42:VAL:HG12</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:42:VAL:O</td>
<td>5:E:45:LEU:HB3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:234:LYS:O</td>
<td>7:G:15:THR:HA</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>7:G:50:PRO:CG</td>
<td>7:G:51:PRO:HD2</td>
<td>2.46</td>
<td>0.43</td>
</tr>
<tr>
<td>10:J:57:HIS:ND1</td>
<td>10:J:58:LYS:N</td>
<td>2.66</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:27:SER:CB</td>
<td>1:A:199:ALA:O</td>
<td>2.67</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:296:SER:O</td>
<td>1:A:299:VAL:N</td>
<td>2.46</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:351:GLU:OE1</td>
<td>1:A:404:ALA:HB2</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:202:ALA:CB</td>
<td>2:B:229:GLY:HA2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:117:GLY:O</td>
<td>3:C:126:LEU:HB2</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:157:ILE:O</td>
<td>3:C:157:ILE:HG13</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:276:LEU:HA</td>
<td>3:C:279:TYR:HB3</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:51:LEU:O</td>
<td>4:D:54:VAL:HG12</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:9:ASN:ND2</td>
<td>5:E:11:SER:HB3</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>8:H:17:LEU:HD13</td>
<td>8:H:73:LEU:CD1</td>
<td>2.45</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:22:LEU:HB3</td>
<td>3:C:221:PHE:HB2</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:143:VAL:CG2</td>
<td>4:D:147:LEU:HB2</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:48:TYR:C</td>
<td>4:D:49:ARG:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5:E:170:ARG:HA</td>
<td>5:E:179:ASN:CG</td>
<td>2.39</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:74:ILE:CG2</td>
<td>5:E:195:VAL:HB</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:32:ARG:HH22</td>
<td>7:G:25:PRO:CD</td>
<td>2.27</td>
<td>0.43</td>
</tr>
<tr>
<td>6:F:61:ARG:NH2</td>
<td>6:F:89:TYR:CE2</td>
<td>2.87</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:178:SER:C</td>
<td>1:A:180:ALA:N</td>
<td>2.67</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:178:SER:O</td>
<td>1:A:180:ALA:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:53:ALA:O</td>
<td>2:B:104:ASN:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:146:VAL:HG23</td>
<td>3:C:147:ILE:HG13</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:158:GLY:O</td>
<td>3:C:159:HIS:C</td>
<td>2.57</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:17:PRO:HA</td>
<td>5:E:20:TYR:HE1</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>10:J:41:ALA:O</td>
<td>10:J:42:ILE:C</td>
<td>2.55</td>
<td>0.43</td>
</tr>
<tr>
<td>10:J:57:HIS:HA</td>
<td>10:J:60:GLU:CB</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:21:ASN:HD21</td>
<td>1:A:218:GLY:HA3</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:35:CYS:HA</td>
<td>1:A:372:THR:HG21</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:49:SER:CB</td>
<td>1:A:52:ASN:HB3</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:73:ASN:O</td>
<td>1:A:77:LYS:HB2</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:58:GLU:OE2</td>
<td>2:B:64:GLY:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:100:GLY:O</td>
<td>3:C:101:ARG:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:141:PHE:O</td>
<td>3:C:144:ALA:HB3</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:148:THR:O</td>
<td>3:C:150:LEU:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:154:ILE:O</td>
<td>3:C:158:GLY:HA3</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:52:LEU:CD2</td>
<td>11:C:381:HEM:HB1D</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>4:D:168:VAL:HG12</td>
<td>4:D:168:VAL:O</td>
<td>2.18</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:16:PRO:C</td>
<td>5:E:18:ASP:H</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:47:VAL:O</td>
<td>5:E:48:ALA:C</td>
<td>2.57</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:9:ASN:HD21</td>
<td>5:E:11:SER:HB3</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>8:H:47:ARG:CD</td>
<td>8:H:48:SER:H</td>
<td>2.30</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:24:ARG:NH1</td>
<td>1:A:24:ARG:HG3</td>
<td>2.33</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:388:ARG:HG2</td>
<td>1:A:389:ARG:N</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:86:LEU:CB</td>
<td>1:A:99:ILE:HG12</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:160:ILE:O</td>
<td>2:B:161:GLU:C</td>
<td>2.56</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:187:THR:HG1</td>
<td>2:B:190:GLU:HG3</td>
<td>1.82</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:186:LEU:O</td>
<td>3:C:187:PRO:C</td>
<td>2.57</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:243:LEU:HD22</td>
<td>3:C:243:LEU:N</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:266:PRO:O</td>
<td>3:C:269:ILE:HG13</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>3:C:5:ILE:C</td>
<td>3:C:7:LYS:H</td>
<td>2.21</td>
<td>0.43</td>
</tr>
<tr>
<td>5:E:117:LEU:O</td>
<td>5:E:120:PRO:HD3</td>
<td>2.19</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:39:VAL:HG22</td>
<td>1:A:41:ILE:HD13</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:209:LEU:O</td>
<td>2:B:211:VAL:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:277:HIS:C</td>
<td>2:B:279:LEU:N</td>
<td>2.69</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:370:MET:C</td>
<td>2:B:372:VAL:H</td>
<td>2.22</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:37:SER:O</td>
<td>2:B:38:LEU:HB2</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:139:MET:HE2</td>
<td>3:C:255:GLU:HB3</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:158:ILE:HG22</td>
<td>4:D:159:GLY:N</td>
<td>2.32</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:83:ARG:HH12</td>
<td>4:D:86:LYS:HG3</td>
<td>1.80</td>
<td>0.42</td>
</tr>
<tr>
<td>5:E:33:LYS:O</td>
<td>5:E:34:GLY:C</td>
<td>2.57</td>
<td>0.42</td>
</tr>
<tr>
<td>5:E:85:LYS:HG2</td>
<td>5:E:86:ASN:N</td>
<td>2.32</td>
<td>0.42</td>
</tr>
<tr>
<td>5:E:91:TRP:CE3</td>
<td>5:E:96:LEU:HD22</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:359:TYR:CD2</td>
<td>3:C:360:PHE:CD1</td>
<td>3.07</td>
<td>0.42</td>
</tr>
<tr>
<td>5:E:19:ASP:O</td>
<td>5:E:20:TYR:CD1</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:236:LEU:CB</td>
<td>6:F:70:MET:HE3</td>
<td>2.43</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:345:LYS:C</td>
<td>2:B:347:ILE:N</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:184:PHE:CD1</td>
<td>3:C:184:PHE:O</td>
<td>2.71</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:191:ALA:O</td>
<td>3:C:195:ILE:HG12</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:247:SER:N</td>
<td>3:C:248:PRO:HD3</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:45:THR:O</td>
<td>3:C:51:LEU:HB3</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:87:GLY:O</td>
<td>3:C:88:ALA:C</td>
<td>2.57</td>
<td>0.42</td>
</tr>
<tr>
<td>5:E:70:ALA:C</td>
<td>5:E:72:SER:N</td>
<td>2.73</td>
<td>0.42</td>
</tr>
<tr>
<td>8:H:37:LEU:O</td>
<td>8:H:38:GLU:C</td>
<td>2.57</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:146:ARG:NH1</td>
<td>1:A:146:ARG:HG2</td>
<td>2.35</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:175:THR:O</td>
<td>3:C:179:PHE:CD1</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:5:ILE:C</td>
<td>3:C:7:LYS:N</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:269:ALA:CB</td>
<td>1:A:410:VAL:HG21</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:294:LEU:HD11</td>
<td>1:A:334:MET:CE</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:310:PHE:HE1</td>
<td>1:A:322:PHE:N</td>
<td>2.17</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:91:SER:OG</td>
<td>1:A:92:ARG:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:92:ARG:NE</td>
<td>1:A:154:HIS:CD2</td>
<td>2.87</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:117:GLU:O</td>
<td>2:B:120:MET:HB2</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:37:VAL:O</td>
<td>2:B:372:VAL:HG12</td>
<td>2.18</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:395:PRO:HA</td>
<td>2:B:398:VAL:HG12</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:148:THR:C</td>
<td>3:C:150:LEU:N</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:130:VAL:CG1</td>
<td>3:C:179:PHE:HB3</td>
<td>2.46</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:42:LEU:HD21</td>
<td>3:C:191:ALA:HA</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:146:ARG:NH2</td>
<td>9:I:206:UNK:CB</td>
<td>2.82</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:165:GLN:HB2</td>
<td>1:A:165:GLN:HE21</td>
<td>1.66</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued from previous page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:236:PHE:CD2</td>
<td>1:A:258:GLU:HB2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:262:TRP:HH2</td>
<td>1:A:381:ARG:HH21</td>
<td>1.66</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:129:PHE:C</td>
<td>3:C:129:PHE:CD1</td>
<td>2.89</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:233:LEU:CD1</td>
<td>3:C:237:LEU:HD22</td>
<td>2.48</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:137:VAL:C</td>
<td>2:B:139:ASP:H</td>
<td>2.22</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:270:ASN:O</td>
<td>2:B:273:SER:HB2</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:284:HIS:C</td>
<td>2:B:286:LYS:N</td>
<td>2.73</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:37:SER:O</td>
<td>2:B:38:LEU:CB</td>
<td>2.67</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:416:VAL:O</td>
<td>2:B:411:ILE:C</td>
<td>2.57</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:161:LEU:HD23</td>
<td>3:C:161:LEU:C</td>
<td>2.40</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:238:THR:N</td>
<td>3:C:239:PRO:CD</td>
<td>2.83</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:42:LEU:O</td>
<td>3:C:46:ILE:HG13</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:89:SER:O</td>
<td>3:C:90:PHE:C</td>
<td>2.58</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:177:LEU:HA</td>
<td>1:A:177:LEU:HD23</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:343:MET:CA</td>
<td>1:A:343:MET:CE</td>
<td>2.97</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:276:GLN:O</td>
<td>2:B:279:LEU:O</td>
<td>2.38</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:277:HIS:CB</td>
<td>2:B:360:ALA:HB1</td>
<td>2.48</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:374:SER:O</td>
<td>2:B:377:GLY:N</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:239:PRO:O</td>
<td>3:C:243:LEU:HD23</td>
<td>2.19</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:327:TRP:HE3</td>
<td>3:C:330:VAL:HG11</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:69:HIS:O</td>
<td>3:C:71:CYS:N</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:144:ARG:NH1</td>
<td>4:D:147:LEU:CD2</td>
<td>2.83</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:160:MET:HB2</td>
<td>11:D:242:HEM:C1D</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:33:TYR:CD1</td>
<td>4:D:37:CYR:HB2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>5:E:121:GLN:OE1</td>
<td>5:E:126:ARG:HD2</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>10:J:54:HIS:O</td>
<td>10:J:57:HIS:NE2</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:114:ALA:HA</td>
<td>1:A:216:PHE:CE1</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:107:SER:C</td>
<td>3:C:109:LEU:N</td>
<td>2.72</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:130:VAL:HG13</td>
<td>3:C:179:PHE:CD2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:308:LEU:HD13</td>
<td>3:C:364:LEU:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>12:C:383:SIG:HG23</td>
<td>12:C:383:SIG:H343</td>
<td>1.97</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:98:PRO:HG2</td>
<td>4:D:99:GLU:OE2</td>
<td>2.20</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:117:GLY:O</td>
<td>3:C:118:VAL:C</td>
<td>2.58</td>
<td>0.42</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:63:ALA:CB</td>
<td>3:C:176:LEU:HD21</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>3:C:295:LEU:CD1</td>
<td>12:C:383:SIG:H273</td>
<td>2.50</td>
<td>0.42</td>
</tr>
<tr>
<td>11:D:242:HEM:CMB</td>
<td>11:D:242:HEM:CBB</td>
<td>2.97</td>
<td>0.42</td>
</tr>
<tr>
<td>4:D:83:ARG:C</td>
<td>4:D:83:ARG:HD2</td>
<td>2.40</td>
<td>0.42</td>
</tr>
<tr>
<td>5:E:35:PHE:O</td>
<td>5:E:36:SER:C</td>
<td>2.58</td>
<td>0.42</td>
</tr>
<tr>
<td>10:J:57:His:C</td>
<td>10:J:60:GLU:H</td>
<td>2.17</td>
<td>0.42</td>
</tr>
<tr>
<td>1:A:8:LEU:O</td>
<td>1:A:11:VAL:HB</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:293:PRO:C</td>
<td>1:A:295:ALA:N</td>
<td>2.70</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:396:GLU:O</td>
<td>1:A:400:ALA:N</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:419:CY2:SG</td>
<td>1:A:438:ARG:NH2</td>
<td>2.78</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:59:LEU:C</td>
<td>1:A:61:His:N</td>
<td>2.72</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:269:ALA:O</td>
<td>2:B:271:ALA:N</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:109:TYR:CE1</td>
<td>3:C:109:LEU:CD2</td>
<td>3.03</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:147:ILE:O</td>
<td>3:C:150:LEU:CB</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:156:VAL:HA</td>
<td>3:C:165:ALA:HB2</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:316:MET:HB3</td>
<td>3:C:319:ARG:HB2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>12:C:383:SIG:H282</td>
<td>12:C:383:SIG:H333</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:227:TRP:O</td>
<td>4:D:228:SER:C</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:12:ASP:O</td>
<td>5:E:13:TYR:C</td>
<td>2.58</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:14:THR:HG23</td>
<td>1:A:27:SER:O</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:405:ARG:HG2</td>
<td>1:A:405:ARG:NH1</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:264:ILE:HD11</td>
<td>2:B:317:SER:HA</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:194:THR:O</td>
<td>3:C:197:His:HB3</td>
<td>2.19</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:214:LEU:O</td>
<td>4:D:217:PRO:HG2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:78:LEU:HD11</td>
<td>5:E:193:VAL:HB</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>6:F:12:TRP:CB</td>
<td>6:F:15:GLY:H</td>
<td>2.32</td>
<td>0.41</td>
</tr>
<tr>
<td>6:F:89:TYR:CD1</td>
<td>6:F:89:TYR:C</td>
<td>2.93</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:23:VAL:CG2</td>
<td>1:A:192:ALA:HB1</td>
<td>2.46</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:192:ALA:N</td>
<td>1:A:193:PRO:HD2</td>
<td>2.34</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:268:GLU:HG2</td>
<td>2:B:268:GLU:O</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:56:ARG:HG11</td>
<td>2:B:56:ARG:HG3</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:166:TRP:HB2</td>
<td>3:C:175:THR:HG21</td>
<td>1.96</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:139:MET:HB2</td>
<td>3:C:256:ASN:OD1</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:23:His:HB2</td>
<td>10:J:50:LYS:O</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:14:ARG:O</td>
<td>5:E:15:ARG:O</td>
<td>2.38</td>
<td>0.41</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:A:161:THR:HG21</td>
<td>1:A:234:CYS:CA</td>
<td>2.47</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:266:ASP:C</td>
<td>1:A:268:VAL:H</td>
<td>2.23</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:40:TRP:CE3</td>
<td>1:A:96:ALA:CB</td>
<td>3.03</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:126:LEU:H</td>
<td>3:C:120:ALA:CB</td>
<td>1.86</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:65:SER:O</td>
<td>3:C:66:SER:C</td>
<td>2.59</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:126:ARG:HH11</td>
<td>5:E:126:ARG:HG2</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>7:G:53:LEU:O</td>
<td>7:G:57:LEU:HD23</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>8:H:59:PHE:O</td>
<td>8:H:61:PHE:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>10:J:58:LYS:C</td>
<td>10:J:59:TYR:CG</td>
<td>2.94</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:64:PHE:CE1</td>
<td>1:A:86:LEU:CG</td>
<td>3.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:169:ARG:O</td>
<td>2:B:170:ASN:CG</td>
<td>2.58</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:200:THR:HG22</td>
<td>2:B:226:ILE:CG2</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:271:PRO:HG3</td>
<td>3:C:279:TYR:CG</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:127:VAL:CG1</td>
<td>5:E:133:VAL:HA</td>
<td>2.49</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:155:ALA:O</td>
<td>5:E:7:VAL:HG21</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:91:TRP:HZ2</td>
<td>5:E:92:ARG:NE</td>
<td>2.89</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:97:PHE:O</td>
<td>5:E:134:ILE:HA</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>6:F:32:MET:N</td>
<td>6:F:35:ASP:OD2</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:251:ALA:HB1</td>
<td>1:A:428:ILE:HG22</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:146:ILE:C</td>
<td>2:B:148:LYS:N</td>
<td>2.73</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:168:TYR:N</td>
<td>2:B:168:TYR:CD1</td>
<td>2.87</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:39:GLU:HG3</td>
<td>2:B:41:TYR:CD1</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:210:LEU:HA</td>
<td>3:C:210:LEU:HD23</td>
<td>1.87</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:235:LEU:C</td>
<td>3:C:237:LEU:H</td>
<td>2.24</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:335:ILE:O</td>
<td>3:C:338:TRP:O</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:325:LEU:HD21</td>
<td>3:C:362:ILE:HG23</td>
<td>2.00</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:9:HIS:HA</td>
<td>3:C:10:PRO:HD2</td>
<td>1.72</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:150:ASN:HA</td>
<td>4:D:151:PRO:HD2</td>
<td>1.81</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:76:TYR:CE2</td>
<td>5:E:57:GLN:HG2</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>8:H:15:ASP:HA</td>
<td>8:H:16:PRO:HD2</td>
<td>1.82</td>
<td>0.41</td>
</tr>
<tr>
<td>10:J:33:ARG:O</td>
<td>10:J:37:GLN:HG3</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:102:LEU:O</td>
<td>1:A:103:SER:OG</td>
<td>2.37</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:114:ALA:CB</td>
<td>1:A:216:PHE:CE1</td>
<td>3.04</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:282:ASN:HB2</td>
<td>2:B:283:PRO:CD</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:410:VAL:O</td>
<td>2:B:413:ALA:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:430:LEU:C</td>
<td>2:B:432:HIS:N</td>
<td>2.74</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:229:ASP:OD2</td>
<td>13:C:384:AMY:O1</td>
<td>2.39</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:239:PRO:O</td>
<td>3:C:240:PHE:C</td>
<td>2.59</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:249:ASN:O</td>
<td>3:C:250:LEU:C</td>
<td>2.59</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:52:LEU:HD21</td>
<td>11:C:381:HEM:O2D</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:118:ARG:NH1</td>
<td>4:D:195:GLU:OE1</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:220:TYR:O</td>
<td>4:D:221:TYR:C</td>
<td>2.57</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:26:ILE:HG23</td>
<td>4:D:189:PHE:HA</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>7:G:11:ARG:O</td>
<td>7:G:12:HIP:HB2</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:106:VAL:HB</td>
<td>1:A:107:PRO:HD3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:221:GLU:HG3</td>
<td>2:B:222:GLN:H</td>
<td>1.86</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:146:VAL:O</td>
<td>3:C:150:LEU:N</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:204:SER:O</td>
<td>3:C:205:GLY:C</td>
<td>2.57</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:331:ALA:C</td>
<td>3:C:333:LEU:N</td>
<td>2.74</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:206:HIP:O</td>
<td>4:D:204:MET:HB2</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:22:ASP:HA</td>
<td>10:I:50:LYS:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:57:GLN:C</td>
<td>5:E:59:VAL:H</td>
<td>2.23</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:78:LEU:HD13</td>
<td>5:E:132:TRP:CE2</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>7:G:53:LEU:O</td>
<td>7:G:56:TYR:HB3</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:250:LEU:HB2</td>
<td>1:A:326:CYS:O</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:428:ILE:O</td>
<td>1:A:430:GLN:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:31:ASN:ND2</td>
<td>2:B:224:LEU:HD13</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:24:LEU:HD11</td>
<td>2:B:392:TYR:CD2</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:319:ARG:HI21</td>
<td>3:C:371:GLY:HA2</td>
<td>1.84</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:76:TYR:CE1</td>
<td>4:D:200:HIP:HE1</td>
<td>2.25</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:97:ASN:HB2</td>
<td>4:D:98:PRO:HD2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:78:LEU:HG</td>
<td>5:E:193:VAL:CG1</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:99:ARG:HB3</td>
<td>5:E:133:VAL:CG1</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:239:SER:CB</td>
<td>7:G:18:LEU:HA</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:365:LEU:HD21</td>
<td>1:A:395:TRP:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:36:THR:CG2</td>
<td>1:A:100:LYS:NZ</td>
<td>2.83</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:431:LEU:HA</td>
<td>1:A:432:PRO:HD2</td>
<td>1.83</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:72:GLN:O</td>
<td>1:A:74:ALA:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:101:THR:O</td>
<td>2:B:102:ARG:C</td>
<td>2.59</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:104:TYR:CZ</td>
<td>3:C:316:MET:CB</td>
<td>3.02</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:221:PHE:CD1</td>
<td>3:C:221:PHE:CE</td>
<td>2.93</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:355:ALA:C</td>
<td>3:C:357:LEU:N</td>
<td>2.72</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:374:GLU:HE3</td>
<td>6:F:20:TYR:CZ</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:319:ARG:NH2</td>
<td>3:C:374:GLU:OE2</td>
<td>2.53</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:C:45:GLN:CG</td>
<td>11:C:381:HEM:HB A B</td>
<td>2.46</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:4:ASN:OD1</td>
<td>3:C:7:LYS:CB</td>
<td>2.69</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:46:VAL:HB</td>
<td>4:D:91:PHE:CE2</td>
<td>2.56</td>
<td>0.41</td>
</tr>
<tr>
<td>4:D:79:GLU:O</td>
<td>4:D:80:MET:C</td>
<td>2.60</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:153:PHE:CD2</td>
<td>5:E:172:ARG:NH1</td>
<td>2.88</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:212:ILE:HD12</td>
<td>6:F:62:ILE:HG23</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>8:H:24:CYC:C</td>
<td>8:H:26:GLN:H</td>
<td>2.24</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:32:GLN:HA</td>
<td>1:A:33:PRO:HD2</td>
<td>1.71</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:48:GLU:OE1</td>
<td>1:A:53:ASN:ND2</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:176:LEU:HD12</td>
<td>2:B:176:LEU:O</td>
<td>2.20</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:277:HIS:HD2</td>
<td>2:B:363:LYS:HB2</td>
<td>1.86</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:131:GLY:HA2</td>
<td>3:C:134:LEU:CD2</td>
<td>2.46</td>
<td>0.41</td>
</tr>
<tr>
<td>3:C:134:LEU:H</td>
<td>3:C:134:LEU:CD1</td>
<td>2.33</td>
<td>0.41</td>
</tr>
<tr>
<td>11:C:382:HEM:HAM2</td>
<td>13:C:384:AMY:O7</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:102:THR:H</td>
<td>5:E:105:GLU:HB2</td>
<td>1.86</td>
<td>0.41</td>
</tr>
<tr>
<td>5:E:10:PHE:O</td>
<td>5:E:11:SER:C</td>
<td>2.59</td>
<td>0.41</td>
</tr>
<tr>
<td>6:F:80:TRP:CD1</td>
<td>6:F:80:TRP:N</td>
<td>2.89</td>
<td>0.41</td>
</tr>
<tr>
<td>7:G:48:VAL:O</td>
<td>7:G:51:PRO:HG2</td>
<td>2.21</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:37:VAL:HG23</td>
<td>1:A:113:LEU:HD11</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:433:ASP:OD2</td>
<td>1:A:435:ASN:ND2</td>
<td>2.54</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:120:MET:O</td>
<td>2:B:121:GLU:C</td>
<td>2.59</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:206:LEU:HG</td>
<td>2:B:206:LEU:O</td>
<td>2.20</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:385:GLY:OE1</td>
<td>2:B:393:ASN:N</td>
<td>2.48</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:212:ILE:O</td>
<td>3:C:213:SER:C</td>
<td>2.59</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:26:SER:HA</td>
<td>3:C:219:ILE:HD13</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:86:ASN:HA</td>
<td>3:C:86:ASN:HD22</td>
<td>1.70</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:16:GLY:HA2</td>
<td>4:D:17:PRO:HD2</td>
<td>1.90</td>
<td>0.40</td>
</tr>
<tr>
<td>8:H:37:LEU:C</td>
<td>8:H:37:LEU:HD13</td>
<td>2.42</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:378:ASP:O</td>
<td>1:A:382:GLU:HB2</td>
<td>2.22</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:405:ARG:HH1</td>
<td>1:A:405:ARG:HG2</td>
<td>1.87</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:48:GLU:HB3</td>
<td>1:A:53:ASN:HA</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:137:VAL:HA</td>
<td>2:B:140:LEU:HB3</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:341:TYR:O</td>
<td>2:B:342:ASN:C</td>
<td>2.59</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:117:GLY:HA2</td>
<td>3:C:120:LEU:HD23</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:16:TYR:CD1</td>
<td>4:D:10:TYR:N</td>
<td>2.89</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:1:SER:C</td>
<td>4:D:3:LEU:H</td>
<td>2.24</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:6:HIS:HA</td>
<td>4:D:7:PRO:HD2</td>
<td>1.69</td>
<td>0.40</td>
</tr>
<tr>
<td>5:E:121:GLU:HA</td>
<td>5:E:125:GLU:OE2</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>6:F:76:PRO:O</td>
<td>6:F:78:GLU:N</td>
<td>2.54</td>
<td>0.40</td>
</tr>
</tbody>
</table>
## Interatomic Distance Table

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic Distance (Å)</th>
<th>Clash Overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:G:66:PHE:CZ</td>
<td>7:G:70:LYS:HE3</td>
<td>2.56</td>
<td>0.40</td>
</tr>
<tr>
<td>8:H:20:VAL:O</td>
<td>8:H:20:VAL:HG12</td>
<td>2.19</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:157:THR:HG23</td>
<td>2:B:158:HIS:N</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:59:ASN:C</td>
<td>2:B:61:SER:N</td>
<td>2.73</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:198:LEU:HD23</td>
<td>3:C:198:LEU:HA</td>
<td>1.78</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:9:HIS:HB3</td>
<td>3:C:12:LEU:CB</td>
<td>2.47</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:148:TYR:CZ</td>
<td>4:D:161:ALA:HB2</td>
<td>2.56</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:238:THR:HG21</td>
<td>4:D:212:MET:HG3</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:51:LEU:C</td>
<td>4:D:54:VAL:HG12</td>
<td>2.42</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:98:PRO:O</td>
<td>4:D:100:ALA:N</td>
<td>2.55</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:233:ARG:CB</td>
<td>6:F:71:ARG:NH2</td>
<td>2.80</td>
<td>0.40</td>
</tr>
<tr>
<td>10:J:13:LEU:CD1</td>
<td>10:J:13:LEU:N</td>
<td>2.84</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:335:MET:O</td>
<td>1:A:338:LEU:N</td>
<td>2.54</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:72:GLN:O</td>
<td>1:A:73:ASN:C</td>
<td>2.60</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:375:SER:HA</td>
<td>2:B:378:PHE:HB3</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:100:GLY:O</td>
<td>3:C:103:LEU:N</td>
<td>2.55</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:173:ASN:O</td>
<td>3:C:176:LEU:HB3</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:6:ARG:HA</td>
<td>3:C:12:LEU:CD2</td>
<td>2.44</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:189:PHE:C</td>
<td>4:D:191:ARG:N</td>
<td>2.74</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:218:LEU:HD22</td>
<td>5:E:39:VAL:HG13</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:37:CVS:C</td>
<td>4:D:39:SER:H</td>
<td>2.25</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:50:HIS:O</td>
<td>4:D:51:LEU:C</td>
<td>2.60</td>
<td>0.40</td>
</tr>
<tr>
<td>5:E:108:GLN:O</td>
<td>5:E:112:VAL:HG23</td>
<td>2.21</td>
<td>0.40</td>
</tr>
<tr>
<td>5:E:78:LEU:HD13</td>
<td>5:E:132:TRP:NE1</td>
<td>2.36</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:252:HIS:HB2</td>
<td>1:A:425:PRO:HD2</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:428:ILE:C</td>
<td>1:A:430:GLN:N</td>
<td>2.73</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:145:LYS:HG3</td>
<td>2:B:183:ILE:HG21</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:162:ASN:O</td>
<td>2:B:165:ALA:HB3</td>
<td>2.22</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:199:PHE:HA</td>
<td>2:B:204:MET:HE2</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:263:LEU:CD1</td>
<td>3:C:263:LEU:N</td>
<td>2.84</td>
<td>0.40</td>
</tr>
<tr>
<td>3:C:49:GLY:HA3</td>
<td>11:C:381:HEM:C4C</td>
<td>2.55</td>
<td>0.40</td>
</tr>
<tr>
<td>4:D:51:LEU:HA</td>
<td>4:D:54:VAL:CG1</td>
<td>2.51</td>
<td>0.40</td>
</tr>
<tr>
<td>1:A:244:ARG:NE</td>
<td>7:G:10:VAL:HB</td>
<td>2.37</td>
<td>0.40</td>
</tr>
</tbody>
</table>

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:D:165:TYR:OH</td>
<td>6:F:14:GLU:OE2</td>
<td>2.18</td>
<td>0.02</td>
</tr>
</tbody>
</table>

### 5.3 Torsion angles

#### 5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Favoured</th>
<th>Allowed</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>440/446 (99%)</td>
<td>310 (70%)</td>
<td>103 (23%)</td>
<td>27 (6%)</td>
<td>1 21</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>404/422 (96%)</td>
<td>281 (70%)</td>
<td>83 (20%)</td>
<td>40 (10%)</td>
<td>1 10</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>377/380 (99%)</td>
<td>235 (62%)</td>
<td>106 (28%)</td>
<td>36 (10%)</td>
<td>1 11</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>239/241 (99%)</td>
<td>175 (73%)</td>
<td>47 (20%)</td>
<td>17 (7%)</td>
<td>1 18</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>194/196 (99%)</td>
<td>141 (73%)</td>
<td>39 (20%)</td>
<td>14 (7%)</td>
<td>1 17</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>98/109 (90%)</td>
<td>74 (76%)</td>
<td>17 (17%)</td>
<td>7 (7%)</td>
<td>1 18</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>76/81 (94%)</td>
<td>52 (68%)</td>
<td>17 (22%)</td>
<td>7 (9%)</td>
<td>1 12</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>64/78 (82%)</td>
<td>42 (66%)</td>
<td>19 (30%)</td>
<td>3 (5%)</td>
<td>2 27</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>57/62 (92%)</td>
<td>37 (65%)</td>
<td>13 (23%)</td>
<td>7 (12%)</td>
<td>0 6</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>1949/2015 (97%)</td>
<td>1347 (69%)</td>
<td>444 (23%)</td>
<td>158 (8%)</td>
<td>1 14</td>
</tr>
</tbody>
</table>

All (158) Ramachandran outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>71</td>
<td>PRO</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>282</td>
<td>ARG</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>284</td>
<td>TYR</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>289</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>19</td>
<td>PRO</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>20</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>38</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>113</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>170</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>171</td>
<td>ALA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>228</td>
<td>GLY</td>
</tr>
</tbody>
</table>

*Continued on next page...*
### Continued from previous page

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>233</td>
<td>SER</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>262</td>
<td>ALA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>305</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>330</td>
<td>ALA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>375</td>
<td>SER</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>406</td>
<td>ALA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>410</td>
<td>VAL</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>420</td>
<td>ARG</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>60</td>
<td>THR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>111</td>
<td>LYS</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>167</td>
<td>GLY</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>202</td>
<td>HIS</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>207</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>208</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>218</td>
<td>LYS</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>284</td>
<td>SER</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>349</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>67</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>73</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>106</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>168</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>198</td>
<td>HIS</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>233</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>11</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>15</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>72</td>
<td>SER</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>27</td>
<td>PRO</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>43</td>
<td>ALA</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>5</td>
<td>LEU</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>60</td>
<td>GLU</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>61</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>58</td>
<td>PHE</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>65</td>
<td>LYS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>72</td>
<td>GLN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>81</td>
<td>SER</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>205</td>
<td>HIS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>222</td>
<td>THR</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>281</td>
<td>ASP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>291</td>
<td>SER</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>292</td>
<td>SER</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>333</td>
<td>ASP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>382</td>
<td>GLU</td>
</tr>
</tbody>
</table>

*Continued on next page...*
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>433</td>
<td>ASP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>444</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>132</td>
<td>PHE</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>181</td>
<td>TYR</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>229</td>
<td>GLY</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>261</td>
<td>SER</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>346</td>
<td>THR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>164</td>
<td>TRP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>205</td>
<td>GLY</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>224</td>
<td>TYR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>268</td>
<td>HIS</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>352</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>75</td>
<td>ASN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>78</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>190</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>236</td>
<td>ALA</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>21</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>27</td>
<td>GLU</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>65</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>70</td>
<td>ALA</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>180</td>
<td>LEU</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>53</td>
<td>ASN</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>97</td>
<td>VAL</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>33</td>
<td>GLY</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>69</td>
<td>SER</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>32</td>
<td>GLU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>73</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>245</td>
<td>GLU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>76</td>
<td>THR</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>102</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>111</td>
<td>CYS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>190</td>
<td>GLU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>201</td>
<td>SER</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>210</td>
<td>GLY</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>218</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>249</td>
<td>GLY</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>260</td>
<td>GLU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>270</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>431</td>
<td>GLY</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>31</td>
<td>TRP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>58</td>
<td>ALA</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>149</td>
<td>ASN</td>
</tr>
</tbody>
</table>

*Continued from previous page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>C</td>
<td>201</td>
<td>LEU</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>222</td>
<td>HIS</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>274</td>
<td>TYR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>287</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>353</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>133</td>
<td>GLY</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>172</td>
<td>ASP</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>30</td>
<td>PRO</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>141</td>
<td>HIS</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>19</td>
<td>TRP</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>77</td>
<td>LYS</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>61</td>
<td>PHE</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>25</td>
<td>VAL</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>58</td>
<td>LYS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>159</td>
<td>GLN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>181</td>
<td>ASP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>209</td>
<td>LEU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>268</td>
<td>VAL</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>332</td>
<td>ASP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>405</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>23</td>
<td>ASP</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>269</td>
<td>ALA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>319</td>
<td>SER</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>331</td>
<td>ALA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>371</td>
<td>SER</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>430</td>
<td>LEU</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>16</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>64</td>
<td>PHE</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>105</td>
<td>TYR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>163</td>
<td>GLU</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>235</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>55</td>
<td>CYS</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>17</td>
<td>PRO</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>177</td>
<td>PRO</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>37</td>
<td>ILE</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>65</td>
<td>ARG</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>20</td>
<td>PHE</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>72</td>
<td>ALA</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>366</td>
<td>ALA</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>12</td>
<td>LEU</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>173</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>286</td>
<td>PRO</td>
</tr>
</tbody>
</table>

Continued on next page...
### 5.3.2 Protein sidechains

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Rotameric</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>359/376 (96%)</td>
<td>336 (94%)</td>
<td>23 (6%)</td>
<td>19 56</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>307/336 (91%)</td>
<td>286 (93%)</td>
<td>21 (7%)</td>
<td>17 54</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>326/329 (99%)</td>
<td>304 (93%)</td>
<td>22 (7%)</td>
<td>18 55</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>201/207 (97%)</td>
<td>192 (96%)</td>
<td>9 (4%)</td>
<td>30 66</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>165/169 (98%)</td>
<td>151 (92%)</td>
<td>14 (8%)</td>
<td>12 46</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>90/98 (92%)</td>
<td>82 (91%)</td>
<td>8 (9%)</td>
<td>11 44</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>60/72 (83%)</td>
<td>53 (88%)</td>
<td>7 (12%)</td>
<td>6 31</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>51/74 (69%)</td>
<td>51 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Rotameric</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>J</td>
<td>41/52 (79%)</td>
<td>39 (95%)</td>
<td>2 (5%)</td>
<td>27  63</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>1600/1713 (93%)</td>
<td>1494 (93%)</td>
<td>106 (7%)</td>
<td>18  55</td>
</tr>
</tbody>
</table>

All (106) residues with a non-rotameric sidechain are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>53</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>69</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>100</td>
<td>LYS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>102</td>
<td>LEU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>108</td>
<td>LYS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>148</td>
<td>VAL</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>168</td>
<td>GLU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>220</td>
<td>PRO</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>250</td>
<td>LEU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>279</td>
<td>HIS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>281</td>
<td>ASP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>307</td>
<td>PHE</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>316</td>
<td>GLU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>333</td>
<td>ASP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>361</td>
<td>LEU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>382</td>
<td>GLU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>384</td>
<td>LEU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>388</td>
<td>ARG</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>395</td>
<td>TRP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>409</td>
<td>GLU</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>438</td>
<td>ARG</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>443</td>
<td>TRP</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>444</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>21</td>
<td>PRO</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>56</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>57</td>
<td>TYR</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>62</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>109</td>
<td>VAL</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>112</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>135</td>
<td>TRP</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>170</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>181</td>
<td>TYR</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>193</td>
<td>ASP</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>221</td>
<td>GLU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>225</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>247</td>
<td>GLN</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>248</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>325</td>
<td>TYR</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>351</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>402</td>
<td>ILE</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>409</td>
<td>ASP</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>429</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>435</td>
<td>PHE</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>437</td>
<td>ASP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>4</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>21</td>
<td>ASP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>28</td>
<td>ILE</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>32</td>
<td>TRP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>43</td>
<td>MET</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>104</td>
<td>TYR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>129</td>
<td>PHE</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>136</td>
<td>TRP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>164</td>
<td>TRP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>166</td>
<td>TRP</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>184</td>
<td>PHE</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>199</td>
<td>THR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>207</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>208</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>250</td>
<td>LEU</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>254</td>
<td>PRO</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>258</td>
<td>THR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>259</td>
<td>PRO</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>265</td>
<td>THR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>282</td>
<td>LEU</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>317</td>
<td>THR</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>350</td>
<td>ILE</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>36</td>
<td>VAL</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>82</td>
<td>MET</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>136</td>
<td>GLU</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>156</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>163</td>
<td>PRO</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>169</td>
<td>LEU</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>181</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>192</td>
<td>TRP</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>224</td>
<td>ARG</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>9</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>11</td>
<td>SER</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>27</td>
<td>GLU</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (52) such sidechains are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>29</td>
<td>GLN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>53</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>69</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>85</td>
<td>HIS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>87</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>118</td>
<td>GLN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>141</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>165</td>
<td>GLN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>173</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>189</td>
<td>HIS</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>252</td>
<td>HIS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>274</td>
<td>ASN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>279</td>
<td>HIS</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>339</td>
<td>GLN</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>341</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>22</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>62</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>225</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>248</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>277</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>342</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>343</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>351</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>356</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>393</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>421</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>429</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>9</td>
<td>HIS</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>16</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>17</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>73</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>82</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>86</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>138</td>
<td>GLN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>222</td>
<td>HIS</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>261</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>313</td>
<td>GLN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>332</td>
<td>ASN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>342</td>
<td>GLN</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>353</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>35</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>156</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>181</td>
<td>GLN</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>200</td>
<td>HIS</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>9</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>57</td>
<td>GLN</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>86</td>
<td>ASN</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>164</td>
<td>HIS</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>69</td>
<td>ASN</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>64</td>
<td>GLN</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>79</td>
<td>ASN</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>75</td>
<td>ASN</td>
</tr>
</tbody>
</table>
5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

6 ligands are modelled in this entry.

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Link</th>
<th>Bond lengths</th>
<th>Bond angles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Counts</td>
<td>RMSZ</td>
</tr>
<tr>
<td>11</td>
<td>HEM</td>
<td>C</td>
<td>381</td>
<td>3</td>
<td>27,50,50</td>
<td>2.53</td>
</tr>
<tr>
<td>11</td>
<td>HEM</td>
<td>C</td>
<td>382</td>
<td>3</td>
<td>27,50,50</td>
<td>2.63</td>
</tr>
<tr>
<td>12</td>
<td>SIG</td>
<td>C</td>
<td>383</td>
<td></td>
<td>33,36,36</td>
<td>1.59</td>
</tr>
<tr>
<td>13</td>
<td>AMY</td>
<td>C</td>
<td>384</td>
<td></td>
<td>39,39,39</td>
<td>3.96</td>
</tr>
<tr>
<td>11</td>
<td>HEM</td>
<td>D</td>
<td>242</td>
<td>4</td>
<td>27,50,50</td>
<td>2.49</td>
</tr>
<tr>
<td>14</td>
<td>FES</td>
<td>E</td>
<td>197</td>
<td>5</td>
<td>0,4,4</td>
<td>0.00</td>
</tr>
</tbody>
</table>

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Link</th>
<th>Chirals</th>
<th>Torsions</th>
<th>Rings</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>HEM</td>
<td>C</td>
<td>381</td>
<td>3</td>
<td>-</td>
<td>0/6/54/54</td>
<td>0/0/8/8</td>
</tr>
<tr>
<td>11</td>
<td>HEM</td>
<td>C</td>
<td>382</td>
<td>3</td>
<td>-</td>
<td>0/6/54/54</td>
<td>0/0/8/8</td>
</tr>
<tr>
<td>12</td>
<td>SIG</td>
<td>C</td>
<td>383</td>
<td></td>
<td>-</td>
<td>0/29/30/30</td>
<td>0/2/2/2</td>
</tr>
</tbody>
</table>

*Continued on next page...*
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Link</th>
<th>Chirals</th>
<th>Torsions</th>
<th>Rings</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>AMY</td>
<td>C</td>
<td>384</td>
<td>-</td>
<td>-</td>
<td>1/37/52/52</td>
<td>0/1/2/2</td>
</tr>
<tr>
<td>11</td>
<td>HEM</td>
<td>D</td>
<td>242</td>
<td>4</td>
<td>-</td>
<td>0/6/54/54</td>
<td>0/0/8/8</td>
</tr>
<tr>
<td>14</td>
<td>FES</td>
<td>E</td>
<td>197</td>
<td>5</td>
<td>-</td>
<td>0/0/4/4</td>
<td>0/1/1/1</td>
</tr>
</tbody>
</table>

All (47) bond length outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(Å)</th>
<th>Ideal(Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C3B-C2B</td>
<td>-8.59</td>
<td>1.28</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C3B-C2B</td>
<td>-7.85</td>
<td>1.29</td>
<td>1.40</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C27-C11</td>
<td>-7.74</td>
<td>1.33</td>
<td>1.51</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>C3B-C2B</td>
<td>-7.62</td>
<td>1.29</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>C3C-C2C</td>
<td>-6.45</td>
<td>1.31</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C3B-CAB</td>
<td>-5.82</td>
<td>1.36</td>
<td>1.47</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C3C-C2C</td>
<td>-5.56</td>
<td>1.32</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C3B-CAB</td>
<td>-5.54</td>
<td>1.36</td>
<td>1.47</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C3C-CAC</td>
<td>-4.43</td>
<td>1.38</td>
<td>1.47</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C26-C10</td>
<td>-4.35</td>
<td>1.41</td>
<td>1.51</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C8-N1</td>
<td>-4.25</td>
<td>1.28</td>
<td>1.34</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C3C-CAC</td>
<td>-4.09</td>
<td>1.39</td>
<td>1.47</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C2A-C3A</td>
<td>-3.18</td>
<td>1.28</td>
<td>1.37</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C3C-C2C</td>
<td>-3.07</td>
<td>1.36</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C1A-CHA</td>
<td>-2.50</td>
<td>1.33</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>C2A-C3A</td>
<td>-2.45</td>
<td>1.30</td>
<td>1.37</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C4A-CHB</td>
<td>-2.37</td>
<td>1.33</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C3D-C2D</td>
<td>-2.31</td>
<td>1.30</td>
<td>1.37</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C4B-CHC</td>
<td>-2.18</td>
<td>1.34</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>C1A-CHA</td>
<td>-2.16</td>
<td>1.34</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C1D-CHD</td>
<td>-2.12</td>
<td>1.34</td>
<td>1.40</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C2A-C3A</td>
<td>-2.12</td>
<td>1.31</td>
<td>1.37</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C13-C14</td>
<td>2.01</td>
<td>1.55</td>
<td>1.51</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C1B-C2B</td>
<td>2.11</td>
<td>1.47</td>
<td>1.42</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C4-C3</td>
<td>2.22</td>
<td>1.43</td>
<td>1.38</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C1C-C2C</td>
<td>2.33</td>
<td>1.48</td>
<td>1.42</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>C3C-CAC</td>
<td>2.33</td>
<td>1.52</td>
<td>1.47</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>CAD-C3D</td>
<td>2.43</td>
<td>1.56</td>
<td>1.52</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>O7-C3</td>
<td>2.54</td>
<td>1.40</td>
<td>1.36</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O5-C10</td>
<td>2.58</td>
<td>1.50</td>
<td>1.46</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C37-C36</td>
<td>2.68</td>
<td>1.35</td>
<td>1.33</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C12-C11</td>
<td>2.96</td>
<td>1.59</td>
<td>1.52</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O3-C7</td>
<td>3.06</td>
<td>1.29</td>
<td>1.23</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C1-C2</td>
<td>3.20</td>
<td>1.44</td>
<td>1.40</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C13-C12</td>
<td>3.36</td>
<td>1.59</td>
<td>1.53</td>
</tr>
</tbody>
</table>

Continued on next page...
### Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(Å)</th>
<th>Ideal(Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C6-C1</td>
<td>3.44</td>
<td>1.47</td>
<td>1.41</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>CBC-CAC</td>
<td>3.47</td>
<td>1.52</td>
<td>1.29</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>CBB-CAB</td>
<td>3.49</td>
<td>1.52</td>
<td>1.29</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>O14-C5</td>
<td>3.63</td>
<td>1.43</td>
<td>1.36</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C4-C5</td>
<td>3.92</td>
<td>1.46</td>
<td>1.38</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C15-C13</td>
<td>4.00</td>
<td>1.61</td>
<td>1.54</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C10-C9</td>
<td>4.06</td>
<td>1.53</td>
<td>1.41</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O9-C21</td>
<td>5.40</td>
<td>1.38</td>
<td>1.22</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O4-C20</td>
<td>6.20</td>
<td>1.48</td>
<td>1.34</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O5-C14</td>
<td>8.77</td>
<td>1.54</td>
<td>1.34</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O7-C20</td>
<td>10.36</td>
<td>1.47</td>
<td>1.21</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O6-C14</td>
<td>12.13</td>
<td>1.51</td>
<td>1.21</td>
</tr>
</tbody>
</table>

All (36) bond angle outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O5-C14-O6</td>
<td>-13.11</td>
<td>107.56</td>
<td>124.08</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O4-C20-O7</td>
<td>-12.87</td>
<td>107.87</td>
<td>124.08</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O7-C20-C9</td>
<td>-7.12</td>
<td>108.75</td>
<td>125.14</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O8-C21-O9</td>
<td>-6.79</td>
<td>106.92</td>
<td>123.69</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O9-C21-C22</td>
<td>-5.99</td>
<td>111.26</td>
<td>124.70</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O2-C8-N1</td>
<td>-5.84</td>
<td>118.19</td>
<td>125.80</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O5-C10-C26</td>
<td>-4.68</td>
<td>98.44</td>
<td>106.76</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C39-C36-C32</td>
<td>-3.87</td>
<td>111.94</td>
<td>118.10</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C4C-C3C-C2C</td>
<td>-3.70</td>
<td>104.31</td>
<td>106.90</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C9-C10-C4</td>
<td>-3.43</td>
<td>107.82</td>
<td>111.94</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C4C-C3C-C2C</td>
<td>-3.06</td>
<td>104.76</td>
<td>106.90</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O8-C21-C22</td>
<td>-2.93</td>
<td>106.02</td>
<td>111.47</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O3-C7-C6</td>
<td>-2.76</td>
<td>115.84</td>
<td>120.98</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>CBA-CAA-C2A</td>
<td>-2.45</td>
<td>107.80</td>
<td>112.48</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C9-C10-C4</td>
<td>-2.42</td>
<td>118.04</td>
<td>121.25</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>CAD-C3D-C2D</td>
<td>-2.35</td>
<td>122.29</td>
<td>129.00</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>CMC-C2C-C3C</td>
<td>-2.23</td>
<td>120.82</td>
<td>124.88</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>CAA-C2A-C3A</td>
<td>-2.21</td>
<td>122.68</td>
<td>129.00</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>CAD-C3D-C2D</td>
<td>-2.20</td>
<td>122.73</td>
<td>129.00</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>O8-C12-C13</td>
<td>-2.11</td>
<td>102.43</td>
<td>109.48</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C3-C9-C8</td>
<td>2.29</td>
<td>125.64</td>
<td>122.28</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>O14-C5-C4</td>
<td>2.44</td>
<td>119.58</td>
<td>115.89</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>C3C-C4C-NC</td>
<td>2.44</td>
<td>115.56</td>
<td>110.94</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>C4A-C3A-C2A</td>
<td>2.47</td>
<td>108.71</td>
<td>107.00</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>C5-C4-C3</td>
<td>3.04</td>
<td>121.50</td>
<td>115.03</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>CBA-CAA-C2A</td>
<td>3.15</td>
<td>118.51</td>
<td>112.48</td>
</tr>
</tbody>
</table>

*Continued on next page...*
There are no chirality outliers.

All (1) torsion outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>C11-O4-C20-C9</td>
<td>10.05</td>
<td>132.42</td>
<td>120.40</td>
</tr>
</tbody>
</table>

There are no ring outliers.

6 monomers are involved in 58 short contacts:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>C</td>
<td>381</td>
<td>HEM</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>C</td>
<td>382</td>
<td>HEM</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>C</td>
<td>383</td>
<td>SIG</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>C</td>
<td>384</td>
<td>AMY</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>D</td>
<td>242</td>
<td>HEM</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>E</td>
<td>197</td>
<td>FES</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Number of breaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>I</td>
<td>2</td>
</tr>
</tbody>
</table>

All chain breaks are listed below:
<table>
<thead>
<tr>
<th>Model</th>
<th>Chain</th>
<th>Residue-1</th>
<th>Atom-1</th>
<th>Residue-2</th>
<th>Atom-2</th>
<th>Distance (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I</td>
<td>210:UNK</td>
<td>C</td>
<td>309:UNK</td>
<td>N</td>
<td>33.28</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>121:UNK</td>
<td>C</td>
<td>202:UNK</td>
<td>N</td>
<td>28.55</td>
</tr>
</tbody>
</table>
6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RZRZ> 2’ contains the number (and percentage) of RZRZ outliers, followed by percent RZRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>&lt;RZRZ&gt;</th>
<th>#RZRZ&gt;2</th>
<th>OWAB(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>442/446 (99%)</td>
<td>0.13</td>
<td>13 (2%)</td>
<td>51</td>
<td>38</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>406/422 (96%)</td>
<td>0.39</td>
<td>28 (6%)</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>379/380 (99%)</td>
<td>-0.16</td>
<td>2 (0%)</td>
<td>90</td>
<td>85</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>241/241 (100%)</td>
<td>-0.05</td>
<td>3 (1%)</td>
<td>79</td>
<td>68</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>196/196 (100%)</td>
<td>0.53</td>
<td>26 (13%)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>6</td>
<td>F</td>
<td>100/109 (91%)</td>
<td>-0.19</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>7</td>
<td>G</td>
<td>78/81 (96%)</td>
<td>-0.22</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>8</td>
<td>H</td>
<td>66/78 (84%)</td>
<td>-0.18</td>
<td>1 (1%)</td>
<td>73</td>
<td>62</td>
</tr>
<tr>
<td>9</td>
<td>I</td>
<td>0/33</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>59/62 (95%)</td>
<td>-0.13</td>
<td>1 (1%)</td>
<td>70</td>
<td>58</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>1967/2048 (96%)</td>
<td>0.09</td>
<td>74 (3%)</td>
<td>40</td>
<td>29</td>
</tr>
</tbody>
</table>

All (74) RZRZ outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>E</td>
<td>117</td>
<td>LEU</td>
<td>5.1</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>42</td>
<td>ASP</td>
<td>4.7</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>351</td>
<td>ASN</td>
<td>4.3</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>194</td>
<td>ARG</td>
<td>4.3</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>97</td>
<td>PHE</td>
<td>4.3</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>46</td>
<td>THR</td>
<td>4.1</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>95</td>
<td>PRO</td>
<td>4.0</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>112</td>
<td>VAL</td>
<td>3.9</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>206</td>
<td>LEU</td>
<td>3.6</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>114</td>
<td>VAL</td>
<td>3.6</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>132</td>
<td>ASP</td>
<td>3.6</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>223</td>
<td>LEU</td>
<td>3.5</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>76</td>
<td>ILE</td>
<td>3.4</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>109</td>
<td>GLU</td>
<td>3.2</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>RSRZ</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>E</td>
<td>116</td>
<td>GLN</td>
<td>3.2</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>48</td>
<td>TYR</td>
<td>3.1</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>100</td>
<td>SER</td>
<td>3.1</td>
</tr>
<tr>
<td>10</td>
<td>J</td>
<td>61</td>
<td>ASN</td>
<td>3.1</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>113</td>
<td>GLU</td>
<td>3.1</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>208</td>
<td>GLY</td>
<td>3.1</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>69</td>
<td>ASN</td>
<td>3.1</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>110</td>
<td>ALA</td>
<td>3.0</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>122</td>
<td>HIS</td>
<td>3.0</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>132</td>
<td>TRP</td>
<td>2.9</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>118</td>
<td>ARG</td>
<td>2.8</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>98</td>
<td>VAL</td>
<td>2.8</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>35</td>
<td>ILE</td>
<td>2.8</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>9</td>
<td>SER</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>167</td>
<td>ALA</td>
<td>2.7</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>199</td>
<td>PHE</td>
<td>2.7</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>121</td>
<td>GLN</td>
<td>2.7</td>
</tr>
<tr>
<td>4</td>
<td>D</td>
<td>148</td>
<td>TYR</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>124</td>
<td>LEU</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>421</td>
<td>GLN</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>47</td>
<td>ILE</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>346</td>
<td>THR</td>
<td>2.6</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>120</td>
<td>PRO</td>
<td>2.6</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>350</td>
<td>GLY</td>
<td>2.6</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>380</td>
<td>TYR</td>
<td>2.5</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>133</td>
<td>VAL</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>33</td>
<td>LEU</td>
<td>2.5</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>363</td>
<td>ASN</td>
<td>2.5</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>41</td>
<td>ILE</td>
<td>2.5</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>96</td>
<td>LEU</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>209</td>
<td>LEU</td>
<td>2.4</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>229</td>
<td>GLY</td>
<td>2.4</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>34</td>
<td>THR</td>
<td>2.4</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>309</td>
<td>VAL</td>
<td>2.4</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>191</td>
<td>ASP</td>
<td>2.4</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>38</td>
<td>LEU</td>
<td>2.4</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>6</td>
<td>GLN</td>
<td>2.3</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>197</td>
<td>LEU</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>129</td>
<td>LYS</td>
<td>2.3</td>
</tr>
<tr>
<td>3</td>
<td>C</td>
<td>269</td>
<td>ILE</td>
<td>2.3</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>177</td>
<td>TYR</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>E</td>
<td>134</td>
<td>ILE</td>
<td>2.3</td>
</tr>
</tbody>
</table>

Continued on next page...
### 6.2 Non-standard residues in protein, DNA, RNA chains

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

### 6.3 Carbohydrates

There are no carbohydrates in this entry.

### 6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled ‘Q<0.9’ lists the number of atoms with occupancy less than 0.9.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Type</th>
<th>Chain</th>
<th>Res</th>
<th>Atoms</th>
<th>RS CC</th>
<th>RSR</th>
<th>B-factors(Å²)</th>
<th>Q&lt;0.9</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td>SIG</td>
<td>C</td>
<td>383</td>
<td>35/35</td>
<td>0.91</td>
<td>0.45</td>
<td>17,37,61,71</td>
<td>0</td>
</tr>
<tr>
<td>13</td>
<td>AMY</td>
<td>C</td>
<td>384</td>
<td>38/38</td>
<td>0.93</td>
<td>0.32</td>
<td>15,37,60,64</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>HEM</td>
<td>C</td>
<td>381</td>
<td>43/43</td>
<td>0.97</td>
<td>0.30</td>
<td>22,34,42,44</td>
<td>0</td>
</tr>
<tr>
<td>14</td>
<td>FES</td>
<td>E</td>
<td>197</td>
<td>4/4</td>
<td>0.98</td>
<td>0.20</td>
<td>71,84,87,88</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>HEM</td>
<td>D</td>
<td>242</td>
<td>43/43</td>
<td>0.98</td>
<td>0.25</td>
<td>34,40,53,61</td>
<td>0</td>
</tr>
</tbody>
</table>
### 6.5 Other polymers

There are no such residues in this entry.