



Full wwPDB EM Validation Report ⓘ

Jul 1, 2024 – 09:53 PM JST

PDB ID : 8IYJ
EMDB ID : EMD-35823
Title : Cryo-EM structure of the 48-nm repeat doublet microtubule from mouse sperm
Authors : Zhou, L.N.; Gui, M.; Wu, J.P.
Deposited on : 2023-04-05
Resolution : 3.50 Å (reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev92
Mogul : 1.8.5 (274361), CSD as541be (2020)
MolProbity : 4.02b-467
buster-report : 1.1.7 (2018)
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.37.1



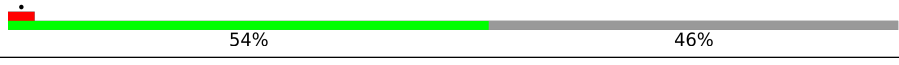

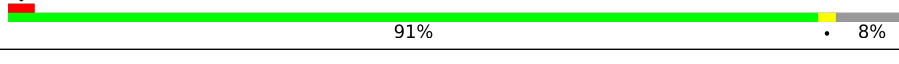
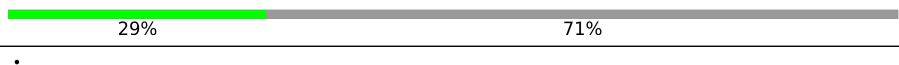
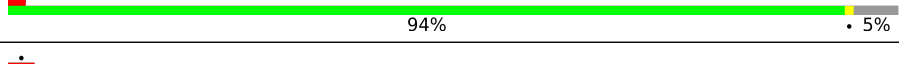
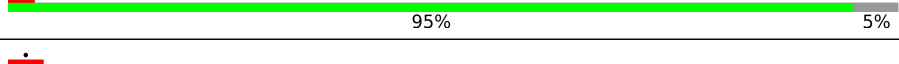
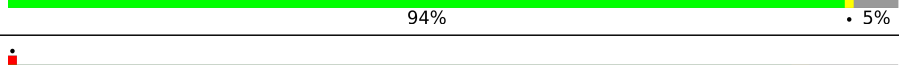
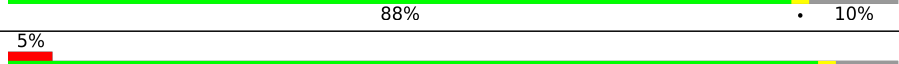
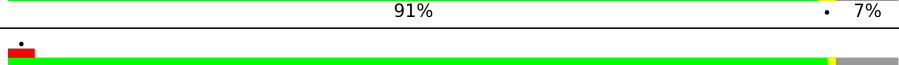
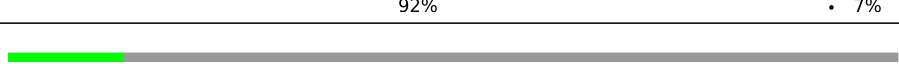
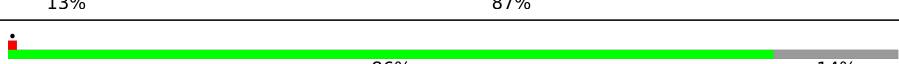
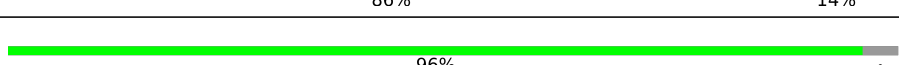
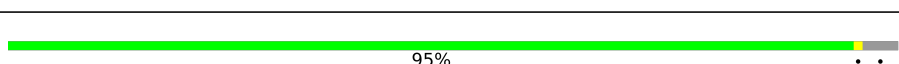
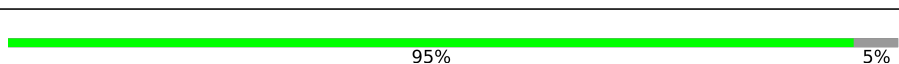

1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.50 Å.


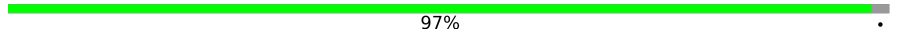
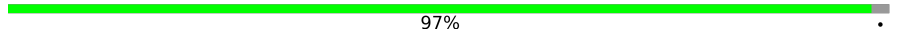
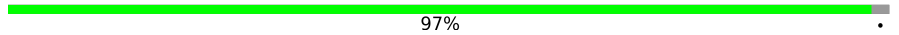
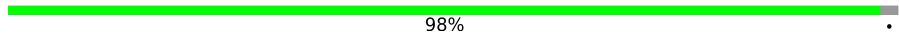
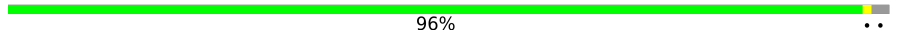
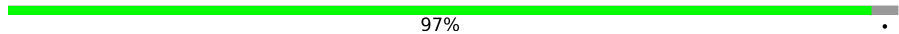
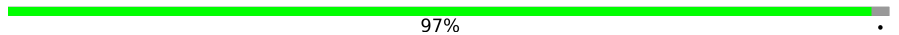
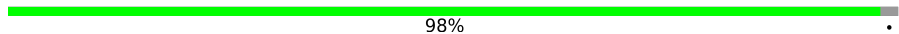
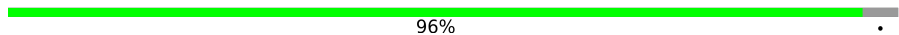
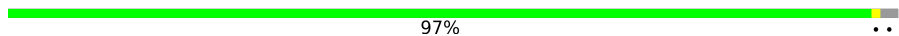
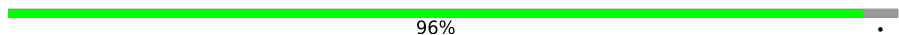
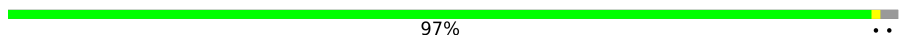
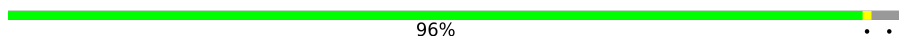
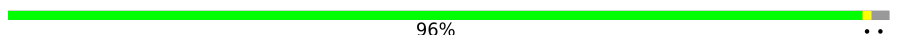
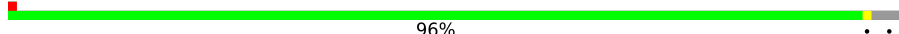
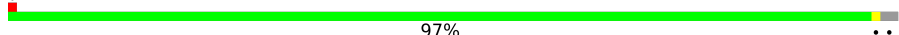
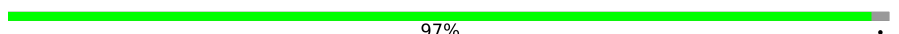
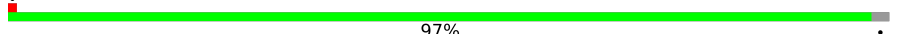
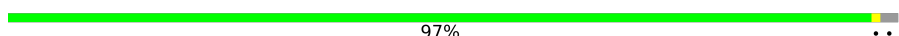
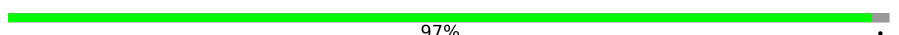
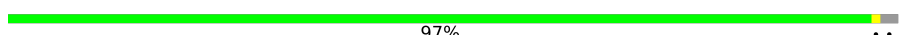
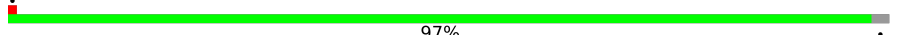

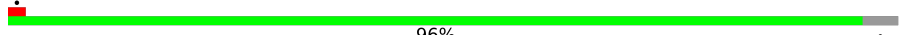
There are no overall percentile quality scores available for this entry.

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

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 1 | 0 | 228 |  36% 64% |
| 1 | 7 | 228 |  61% 38% |
| 2 | 1 | 853 |  54% 46% |
| 2 | 2 | 853 |  31% 68% |
| 3 | 3 | 514 |  91% 8% |
| 3 | 4 | 514 |  29% 71% |
| 4 | 5 | 395 |  94% 5% |
| 4 | 6 | 395 |  95% 5% |
| 4 | j1 | 395 |  94% 5% |
| 5 | 8 | 196 |  88% 10% |
| 6 | A | 101 |  5% 91% 7% |
| 6 | N1 | 101 |  92% 7% |
| 7 | A0 | 418 |  13% 87% |
| 7 | A1 | 418 |  86% 14% |
| 7 | A2 | 418 |  96% |
| 7 | A3 | 418 |  95% |
| 7 | A4 | 418 |  95% 5% |

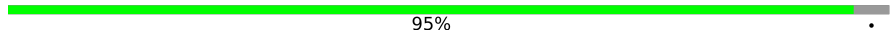
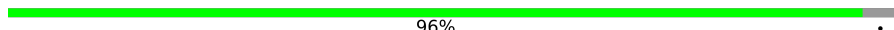
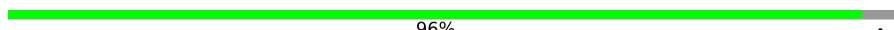
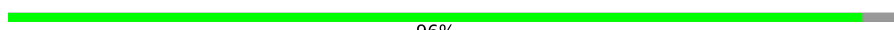
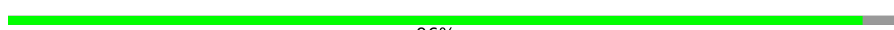





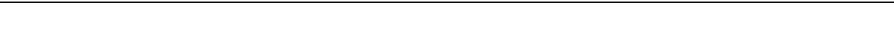

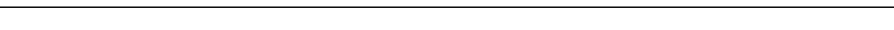
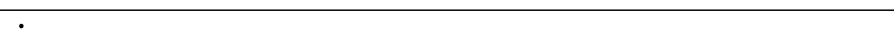
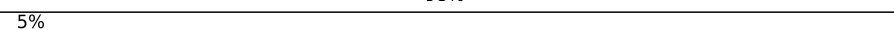
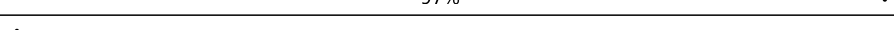
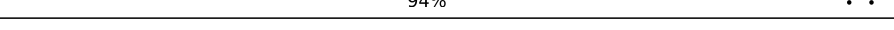
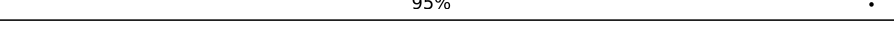
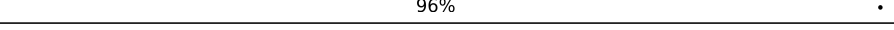
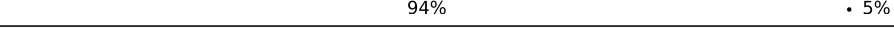
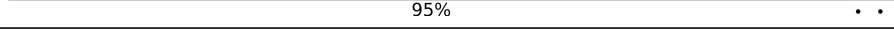
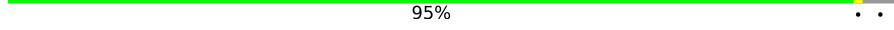
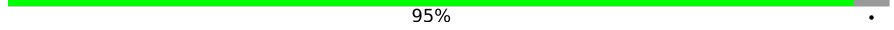
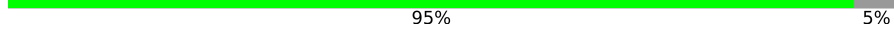
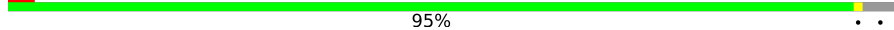
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 7 | A5 | 418 |  40% 60% |
| 8 | AA | 450 |  97% |
| 8 | AC | 450 |  97% |
| 8 | AE | 450 |  97% |
| 8 | AG | 450 |  98% |
| 8 | AI | 450 |  96% |
| 8 | AK | 450 |  97% |
| 8 | AM | 450 |  97% |
| 8 | AO | 450 |  98% |
| 8 | BC | 450 |  96% |
| 8 | BE | 450 |  97% |
| 8 | BG | 450 |  96% |
| 8 | BI | 450 |  97% |
| 8 | BK | 450 |  96% |
| 8 | BM | 450 |  96% |
| 8 | BO | 450 |  96% |
| 8 | CC | 450 |  97% |
| 8 | CE | 450 |  97% |
| 8 | CG | 450 |  97% |
| 8 | CI | 450 |  97% |
| 8 | CK | 450 |  97% |
| 8 | CM | 450 |  97% |
| 8 | CO | 450 |  97% |
| 8 | CQ | 450 |  8% 97% |
| 8 | DC | 450 |  96% |

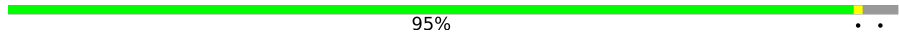
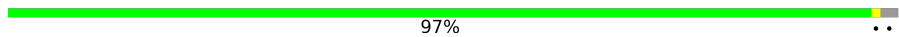
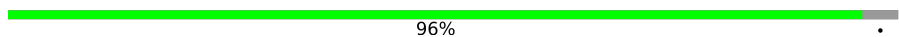
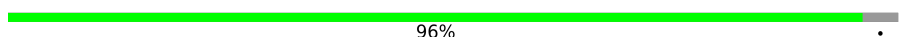
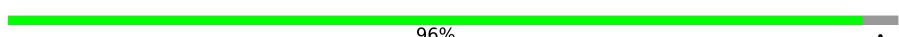
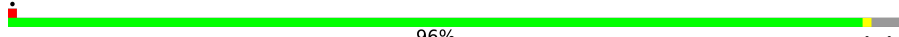




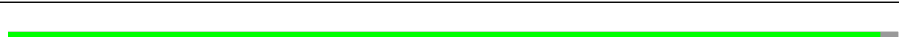


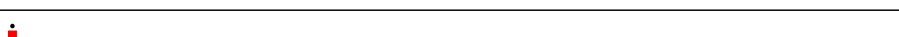
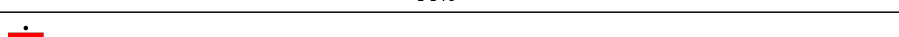
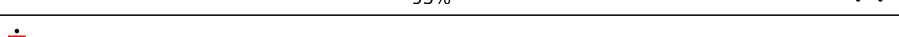
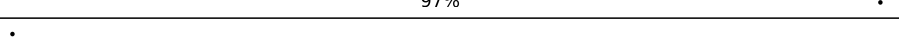
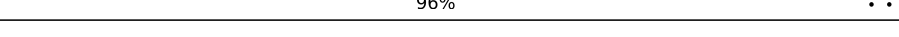
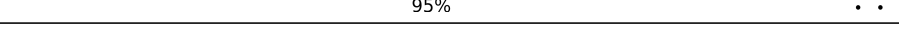
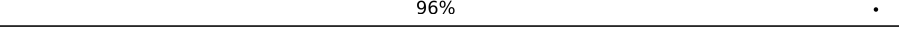
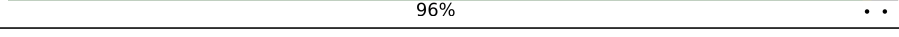
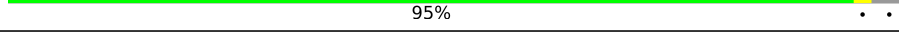
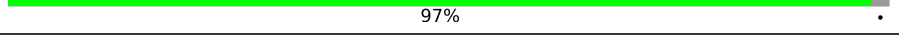
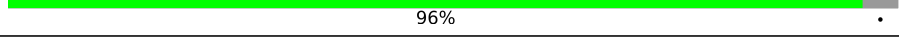
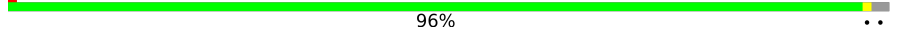
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 8 | DE | 450 |  95% |
| 8 | DG | 450 |  96% |
| 8 | DI | 450 |  96% |
| 8 | DK | 450 |  96% |
| 8 | DM | 450 |  96% |
| 8 | DO | 450 |  95% |
| 8 | DQ | 450 |  95% 5% |
| 8 | EA | 450 |  97% |
| 8 | EC | 450 |  97% |
| 8 | EE | 450 |  97% |
| 8 | EG | 450 |  97% |
| 8 | EI | 450 |  97% |
| 8 | EK | 450 |  98% |
| 8 | EM | 450 |  98% |
| 8 | EO | 450 |  97% 5% |
| 8 | FA | 450 |  94% |
| 8 | FC | 450 |  95% |
| 8 | FE | 450 |  96% |
| 8 | FG | 450 |  94% 5% |
| 8 | FI | 450 |  95% |
| 8 | FK | 450 |  95% |
| 8 | FM | 450 |  95% |
| 8 | FO | 450 |  95% 5% |
| 8 | GA | 450 |  95% |
| 8 | GC | 450 |  95% |

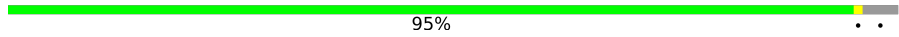
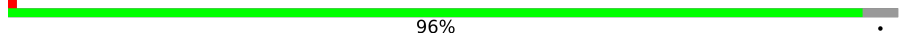
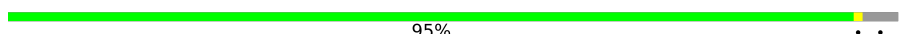
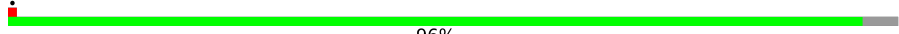


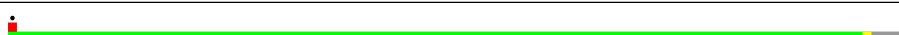
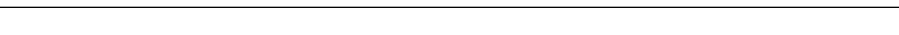
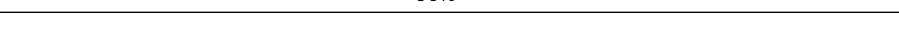
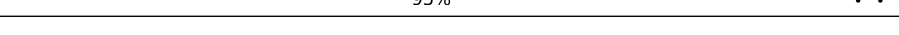
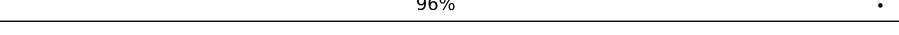
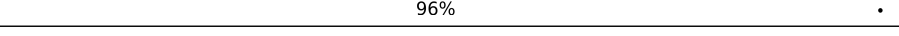

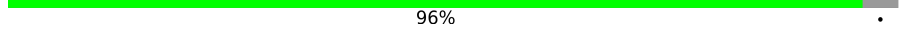
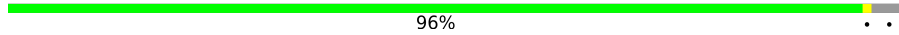
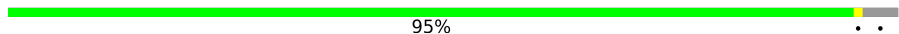
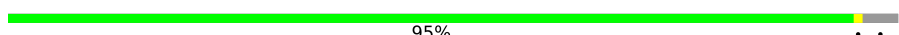
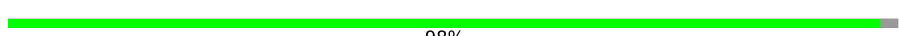





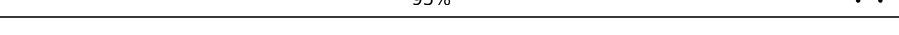
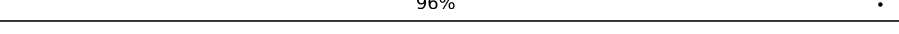
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 8 | GE | 450 |  95% .. |
| 8 | GG | 450 |  97% .. |
| 8 | GI | 450 |  96% . |
| 8 | GK | 450 |  96% . |
| 8 | GM | 450 |  96% . |
| 8 | GO | 450 |  96% .. |
| 8 | HA | 450 |  94% .. |
| 8 | HC | 450 |  96% . |
| 8 | HE | 450 |  97% .. |
| 8 | HG | 450 |  97% . |
| 8 | HI | 450 |  98% . |
| 8 | HK | 450 |  95% .. |
| 8 | HM | 450 |  96% .. |
| 8 | HO | 450 |  96% . |
| 8 | IA | 450 |  95% .. |
| 8 | IC | 450 |  97% . |
| 8 | IE | 450 |  96% .. |
| 8 | IG | 450 |  95% .. |
| 8 | II | 450 |  96% . |
| 8 | IK | 450 |  96% .. |
| 8 | IM | 450 |  95% .. |
| 8 | IO | 450 |  97% . |
| 8 | JC | 450 |  96% . |
| 8 | JE | 450 |  96% .. |
| 8 | JG | 450 |  95% 5% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 8 | JI | 450 |  95% |
| 8 | JK | 450 |  96% |
| 8 | JM | 450 |  95% |
| 8 | JO | 450 |  96% |
| 8 | JQ | 450 |  96% |
| 8 | KA | 450 |  96% |
| 8 | KC | 450 |  96% |
| 8 | KE | 450 |  96% |
| 8 | KG | 450 |  95% |
| 8 | KI | 450 |  96% |
| 8 | KK | 450 |  96% |
| 8 | KM | 450 |  95% |
| 8 | KO | 450 |  96% |
| 8 | LA | 450 |  96% |
| 8 | LC | 450 |  95% |
| 8 | LE | 450 |  95% |
| 8 | LG | 450 |  98% |
| 8 | LI | 450 |  98% |
| 8 | LK | 450 |  98% |
| 8 | LM | 450 |  96% |
| 8 | LO | 450 |  95% |
| 8 | MA | 450 |  95% |
| 8 | MC | 450 |  96% |
| 8 | ME | 450 |  97% |
| 8 | MG | 450 |  95% |

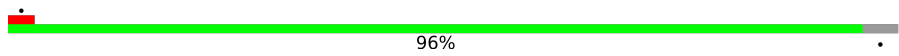
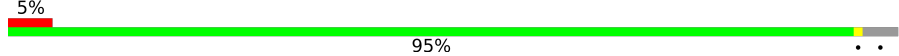
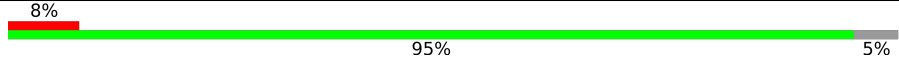
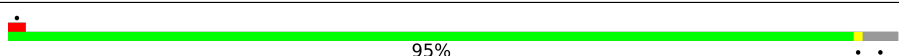
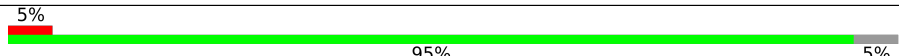
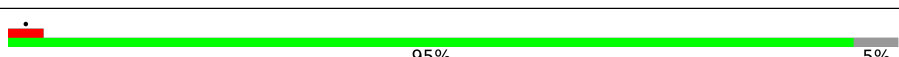
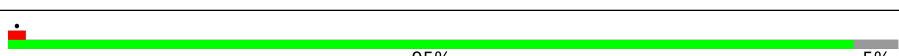
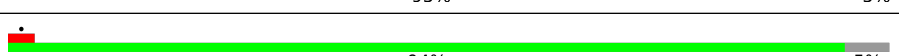
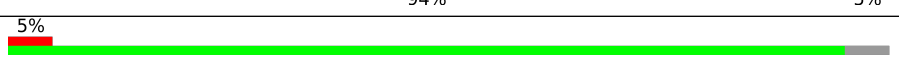
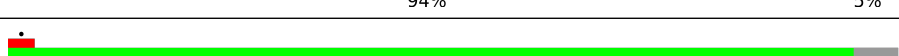
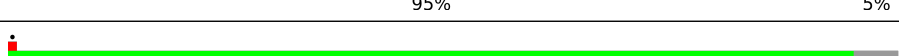
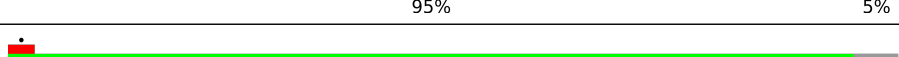
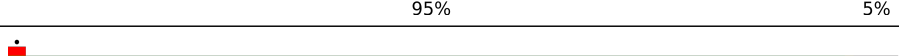
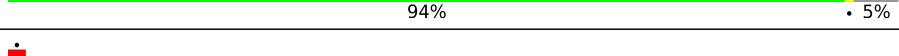
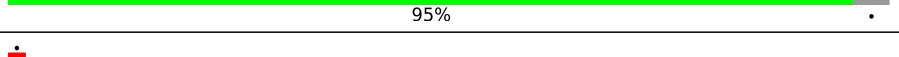
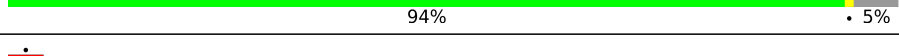
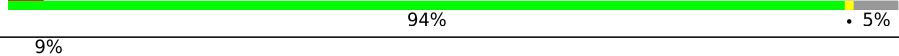
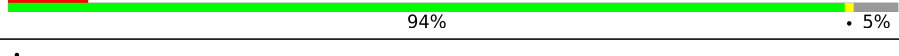
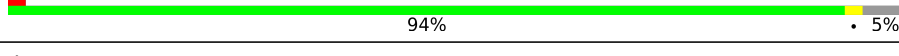
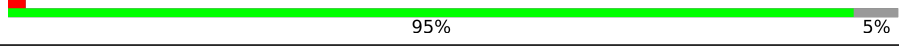
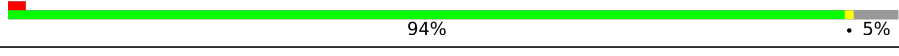
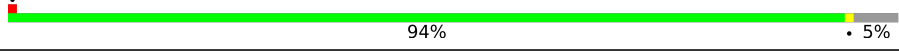
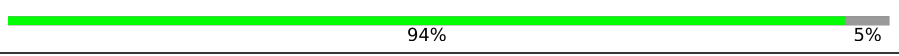
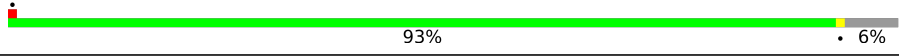
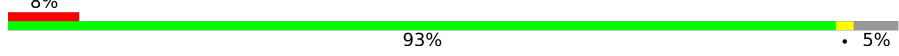
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 8 | MI | 450 | 96% . |
| 8 | MK | 450 | 96% .. |
| 8 | MM | 450 | 96% . |
| 8 | MO | 450 | 94% . 5% |
| 8 | NA | 450 | 5% 94% . 5% |
| 8 | NC | 450 | 6% 95% 5% |
| 8 | NE | 450 | . 96% . |
| 8 | NG | 450 | . 96% . |
| 8 | NI | 450 | . 95% . |
| 8 | NK | 450 | . 95% .. |
| 8 | NM | 450 | . 95% .. |
| 8 | NO | 450 | . 95% .. |
| 8 | OA | 450 | 19% 95% . |
| 8 | OC | 450 | 6% 95% .. |
| 8 | OE | 450 | . 95% .. |
| 8 | OG | 450 | . 95% .. |
| 8 | OI | 450 | . 95% 5% |
| 8 | OK | 450 | . 96% . |
| 8 | OM | 450 | . 95% 5% |
| 8 | OO | 450 | 5% 94% 6% |
| 8 | PC | 450 | . 94% . 5% |
| 8 | PE | 450 | . 94% 6% |
| 8 | PG | 450 | . 95% . |
| 8 | PI | 450 | . 95% . |
| 8 | PK | 450 | . 94% .. |

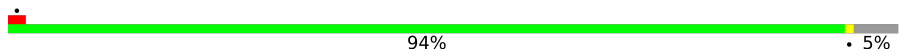
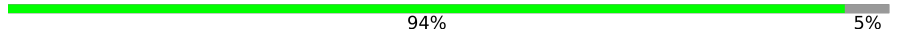
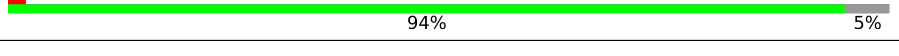
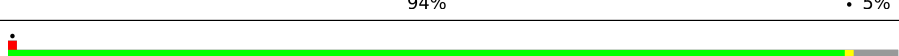
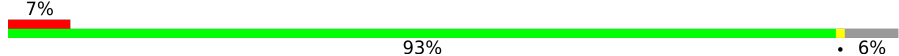
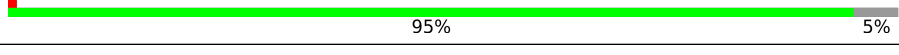
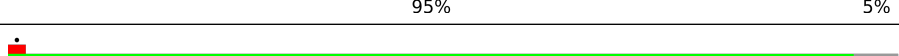
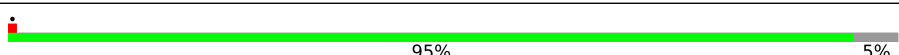
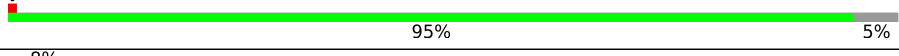
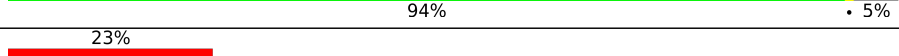
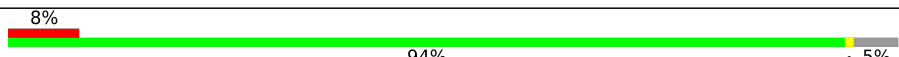
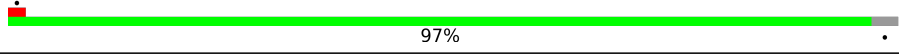
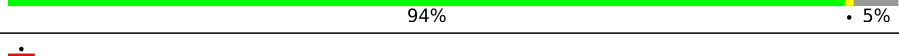
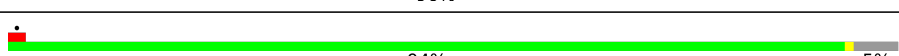
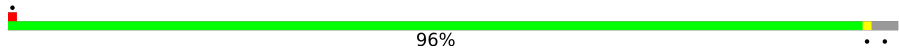
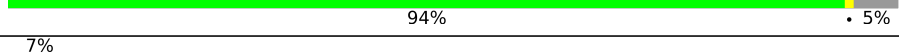
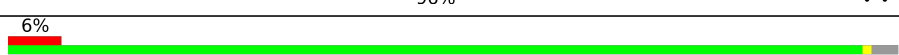
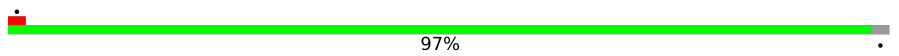
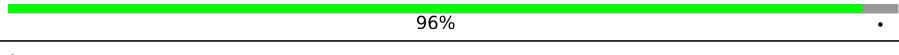
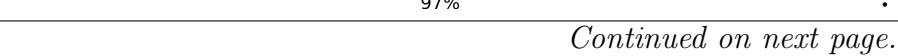


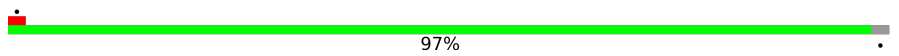
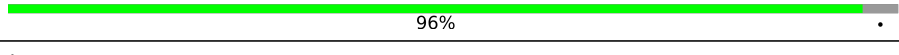
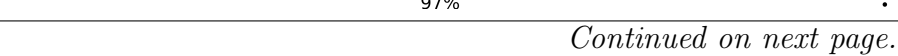
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 8 | PM | 450 |  96% |
| 8 | PO | 450 |  95% |
| 8 | QC | 450 |  95% |
| 8 | QE | 450 |  95% |
| 8 | QG | 450 |  95% |
| 8 | QI | 450 |  95% |
| 8 | QK | 450 |  95% |
| 8 | QM | 450 |  94% |
| 8 | QO | 450 |  94% |
| 8 | RC | 450 |  95% |
| 8 | RE | 450 |  95% |
| 8 | RG | 450 |  95% |
| 8 | RI | 450 |  94% |
| 8 | RK | 450 |  95% |
| 8 | RM | 450 |  94% |
| 8 | RO | 450 |  94% |
| 8 | SA | 450 |  94% |
| 8 | SC | 450 |  94% |
| 8 | SE | 450 |  95% |
| 8 | SG | 450 |  94% |
| 8 | SI | 450 |  94% |
| 8 | SK | 450 |  94% |
| 8 | SM | 450 |  93% |
| 8 | TA | 450 |  93% |
| 8 | TC | 450 |  94% |

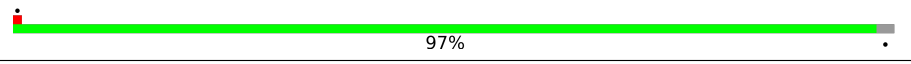
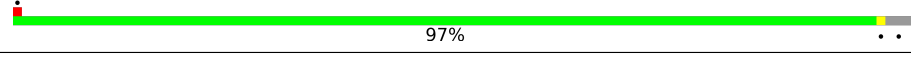
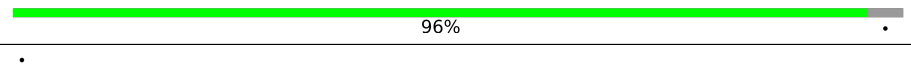
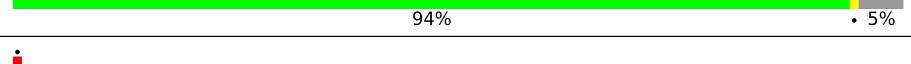
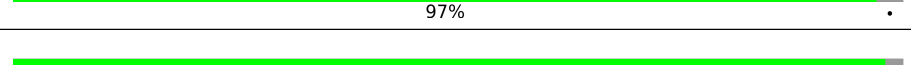
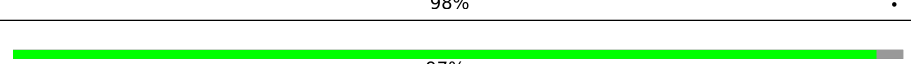
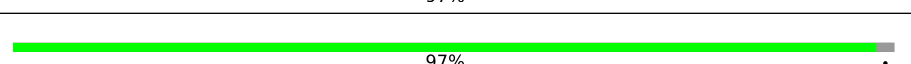
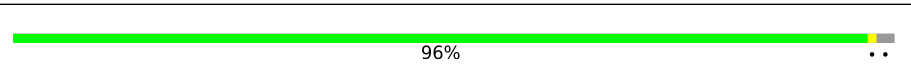
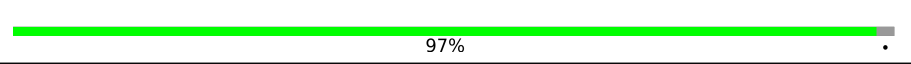
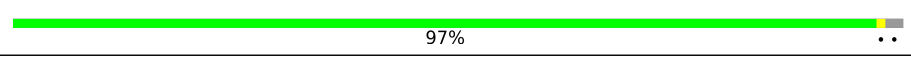
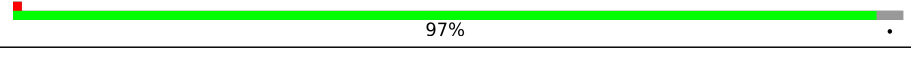
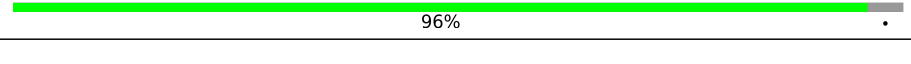
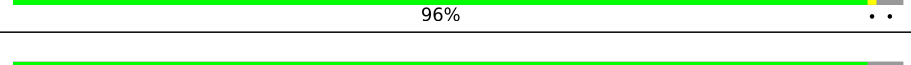
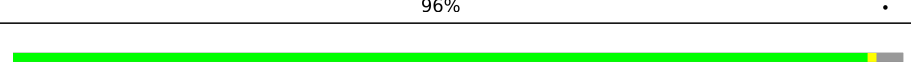
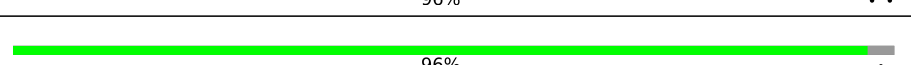
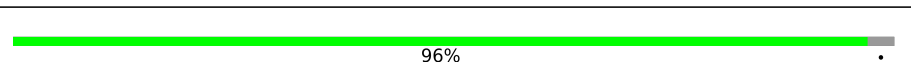
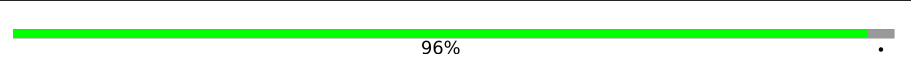
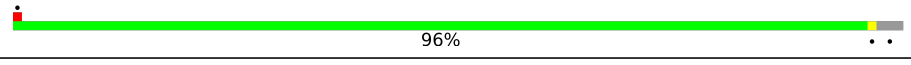
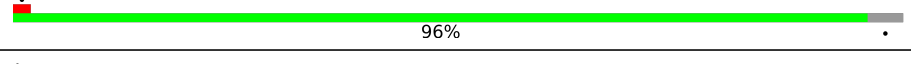
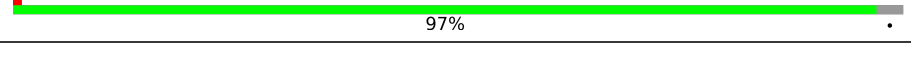
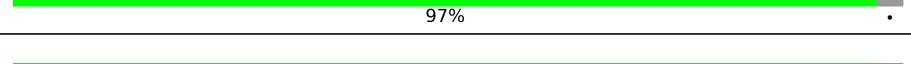
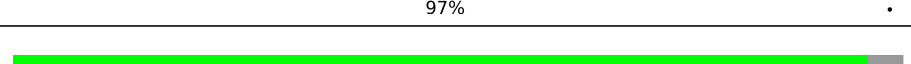
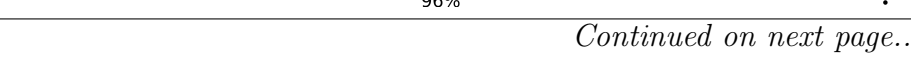


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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 8 | TE | 450 |  94% . 5% |
| 8 | TG | 450 |  94% 5% |
| 8 | TI | 450 |  94% 5% |
| 8 | TK | 450 |  94% . 5% |
| 8 | TM | 450 |  94% . 5% |
| 8 | UA | 450 |  93% . 6% |
| 8 | UC | 450 |  95% 5% |
| 8 | UE | 450 |  95% 5% |
| 8 | UG | 450 |  95% 5% |
| 8 | UI | 450 |  95% 5% |
| 8 | UK | 450 |  95% 5% |
| 8 | UM | 450 |  94% . 5% |
| 8 | UO | 450 |  94% . 5% |
| 8 | VA | 450 |  94% . 5% |
| 8 | VC | 450 |  97% . |
| 8 | VE | 450 |  94% . 5% |
| 8 | VG | 450 |  96% . . |
| 8 | VI | 450 |  94% . 5% |
| 8 | VK | 450 |  96% . . |
| 8 | VM | 450 |  94% . 5% |
| 8 | VO | 450 |  96% . . |
| 8 | WA | 450 |  96% . . |
| 8 | WC | 450 |  97% . |
| 8 | WE | 450 |  96% . |
| 8 | WG | 450 |  97% . |

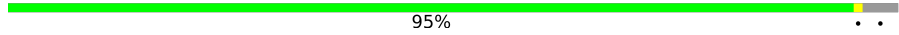
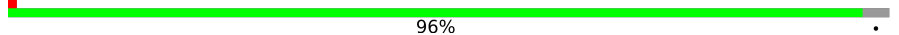
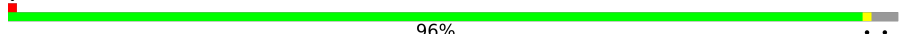
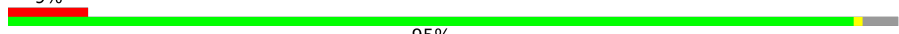


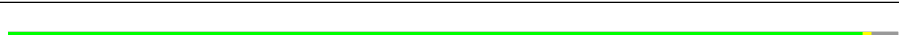
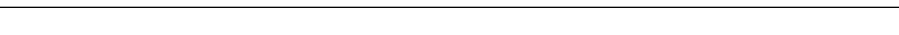
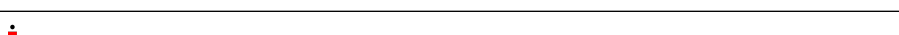
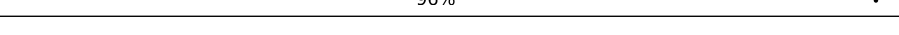
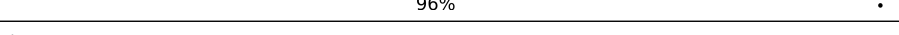
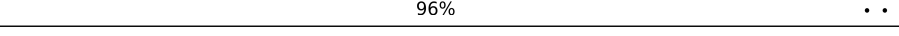
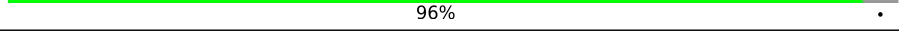
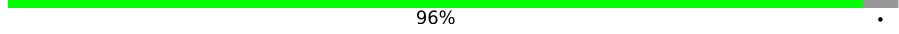
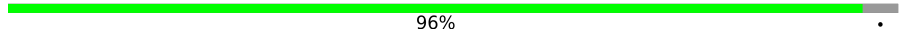
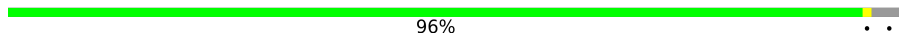
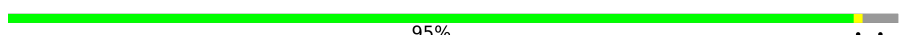
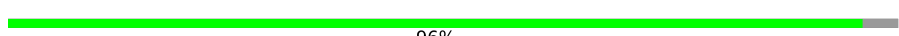





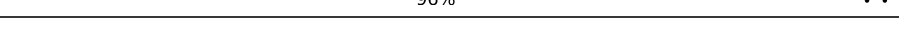
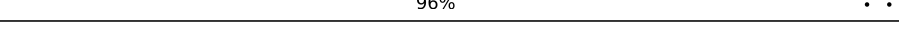
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 8 | WI | 450 |  97% |
| 8 | WK | 450 |  97% |
| 8 | WM | 450 |  96% |
| 8 | WO | 450 |  94% 5% |
| 9 | AB | 445 |  97% |
| 9 | AD | 445 |  98% |
| 9 | AF | 445 |  97% |
| 9 | AH | 445 |  97% |
| 9 | AJ | 445 |  96% |
| 9 | AL | 445 |  97% |
| 9 | AN | 445 |  97% |
| 9 | AP | 445 |  97% |
| 9 | BB | 445 |  96% |
| 9 | BD | 445 |  96% |
| 9 | BF | 445 |  96% |
| 9 | BH | 445 |  96% |
| 9 | BJ | 445 |  96% |
| 9 | BL | 445 |  96% |
| 9 | BN | 445 |  96% |
| 9 | BP | 445 |  96% |
| 9 | CB | 445 |  96% |
| 9 | CD | 445 |  97% |
| 9 | CF | 445 |  97% |
| 9 | CH | 445 |  97% |
| 9 | CJ | 445 |  96% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 9 | CL | 445 |  95% .. |
| 9 | CN | 445 |  96% . |
| 9 | CP | 445 |  96% .. |
| 9 | DB | 445 |  95% .. |
| 9 | DD | 445 |  96% .. |
| 9 | DF | 445 |  96% . |
| 9 | DH | 445 |  96% .. |
| 9 | DJ | 445 |  96% .. |
| 9 | DL | 445 |  96% . |
| 9 | DN | 445 |  96% . |
| 9 | DP | 445 |  96% .. |
| 9 | EB | 445 |  96% . |
| 9 | ED | 445 |  96% . |
| 9 | EF | 445 |  96% . |
| 9 | EH | 445 |  96% .. |
| 9 | EJ | 445 |  95% .. |
| 9 | EL | 445 |  96% . |
| 9 | EN | 445 |  96% .. |
| 9 | FB | 445 |  96% .. |
| 9 | FD | 445 |  96% .. |
| 9 | FF | 445 |  96% . |
| 9 | FH | 445 |  96% .. |
| 9 | FJ | 445 |  96% .. |
| 9 | FL | 445 |  96% . |
| 9 | FN | 445 |  96% . |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9 | GB | 445 | 96% |
| 9 | GD | 445 | 96% |
| 9 | GF | 445 | 97% |
| 9 | GH | 445 | 97% |
| 9 | GJ | 445 | 97% |
| 9 | GL | 445 | 96% |
| 9 | GN | 445 | 96% |
| 9 | HB | 445 | 96% |
| 9 | HD | 445 | 95% |
| 9 | HF | 445 | 96% |
| 9 | HH | 445 | 96% |
| 9 | HJ | 445 | 96% |
| 9 | HL | 445 | 97% |
| 9 | HN | 445 | 96% |
| 9 | HP | 445 | 95% |
| 9 | IB | 445 | 96% |
| 9 | ID | 445 | 96% |
| 9 | IF | 445 | 96% |
| 9 | IH | 445 | 96% |
| 9 | IJ | 445 | 96% |
| 9 | IL | 445 | 96% |
| 9 | IN | 445 | 96% |
| 9 | IP | 445 | 96% |
| 9 | JB | 445 | 96% |
| 9 | JD | 445 | 96% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9 | JF | 445 | 94% |
| 9 | JH | 445 | 96% |
| 9 | JJ | 445 | 96% |
| 9 | JL | 445 | 95% |
| 9 | JN | 445 | 96% |
| 9 | JP | 445 | 96% |
| 9 | KB | 445 | 96% |
| 9 | KD | 445 | 96% |
| 9 | KF | 445 | 97% |
| 9 | KH | 445 | 96% |
| 9 | KJ | 445 | 97% |
| 9 | KL | 445 | 96% |
| 9 | KN | 445 | 96% |
| 9 | KP | 445 | 96% |
| 9 | LB | 445 | 98% |
| 9 | LD | 445 | 97% |
| 9 | LF | 445 | 98% |
| 9 | LH | 445 | 96% |
| 9 | LJ | 445 | 98% |
| 9 | LL | 445 | 96% |
| 9 | LN | 445 | 97% |
| 9 | LP | 445 | 96% |
| 9 | MB | 445 | 96% |
| 9 | MD | 445 | 96% |
| 9 | MF | 445 | 95% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9 | MH | 445 | 96% |
| 9 | MJ | 445 | 96% |
| 9 | ML | 445 | 96% |
| 9 | MN | 445 | 96% |
| 9 | MP | 445 | 96% |
| 9 | NB | 445 | 96% |
| 9 | ND | 445 | 97% |
| 9 | NF | 445 | 96% |
| 9 | NH | 445 | 96% |
| 9 | NJ | 445 | 96% |
| 9 | NL | 445 | 96% |
| 9 | NN | 445 | 96% |
| 9 | NP | 445 | 96% |
| 9 | OB | 445 | 95% |
| 9 | OD | 445 | 96% |
| 9 | OF | 445 | 96% |
| 9 | OH | 445 | 95% |
| 9 | OJ | 445 | 95% |
| 9 | OL | 445 | 96% |
| 9 | ON | 445 | 96% |
| 9 | OP | 445 | 95% |
| 9 | PB | 445 | 95% |
| 9 | PD | 445 | 95% |
| 9 | PF | 445 | 95% |
| 9 | PH | 445 | 95% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9 | PJ | 445 | 96% |
| 9 | PL | 445 | 96% |
| 9 | PN | 445 | 96% |
| 9 | PP | 445 | 96% |
| 9 | QB | 445 | 96% |
| 9 | QD | 445 | 96% |
| 9 | QF | 445 | 96% |
| 9 | QH | 445 | 95% |
| 9 | QJ | 445 | 95% |
| 9 | QL | 445 | 96% |
| 9 | QN | 445 | 95% |
| 9 | QP | 445 | 95% |
| 9 | RD | 445 | 96% |
| 9 | RF | 445 | 96% |
| 9 | RH | 445 | 96% |
| 9 | RJ | 445 | 96% |
| 9 | RL | 445 | 96% |
| 9 | RN | 445 | 96% |
| 9 | RP | 445 | 96% |
| 9 | SB | 445 | 95% |
| 9 | SD | 445 | 96% |
| 9 | SF | 445 | 96% |
| 9 | SH | 445 | 96% |
| 9 | SJ | 445 | 95% |
| 9 | SL | 445 | 95% |

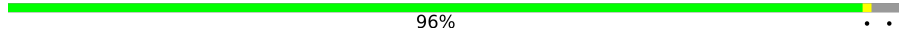
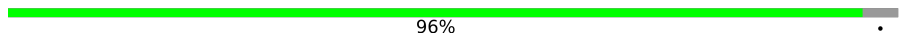
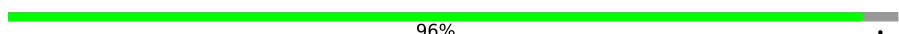
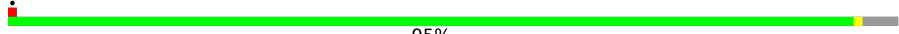


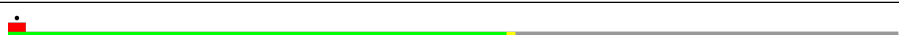
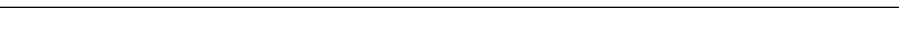
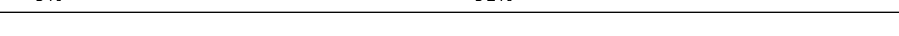
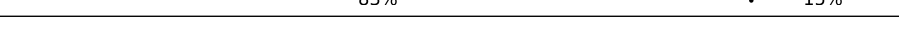
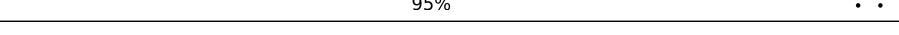
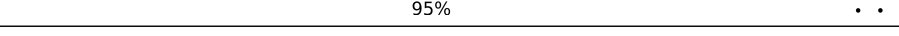



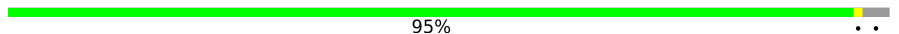
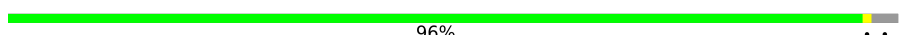
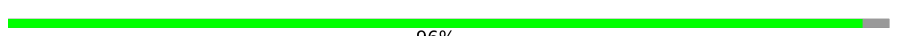







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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 9 | SN | 445 | 9% 96% |
| 9 | TB | 445 | 95% |
| 9 | TD | 445 | 95% |
| 9 | TF | 445 | 95% |
| 9 | TH | 445 | 95% |
| 9 | TJ | 445 | 95% |
| 9 | TL | 445 | 94% |
| 9 | TN | 445 | 5% 95% |
| 9 | UB | 445 | 95% |
| 9 | UD | 445 | 96% |
| 9 | UF | 445 | 96% |
| 9 | UH | 445 | 96% |
| 9 | UJ | 445 | 96% |
| 9 | UL | 445 | 6% 96% |
| 9 | UN | 445 | 10% 96% |
| 9 | VB | 445 | 96% |
| 9 | VD | 445 | 96% |
| 9 | VF | 445 | 96% |
| 9 | VH | 445 | 95% |
| 9 | VJ | 445 | 95% |
| 9 | VL | 445 | 95% |
| 9 | VN | 445 | 95% |
| 9 | WB | 445 | 96% |
| 9 | WD | 445 | 96% |
| 9 | WF | 445 | 96% |



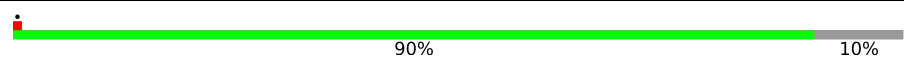
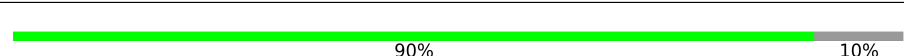
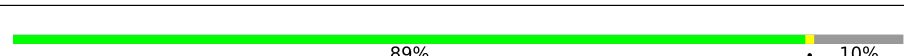
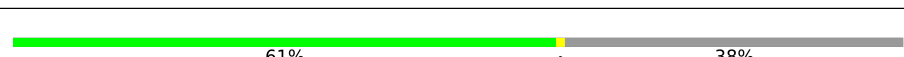
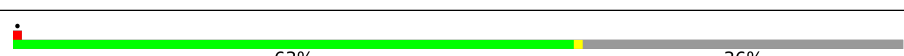
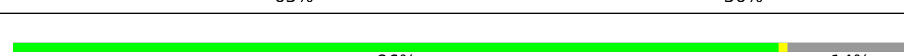
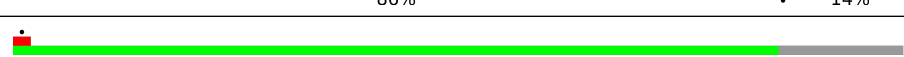

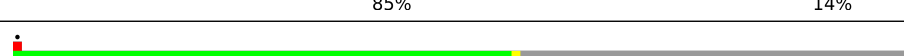
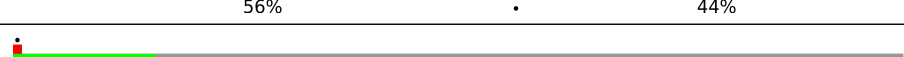

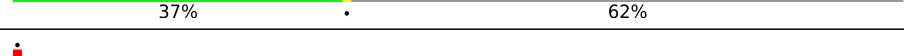
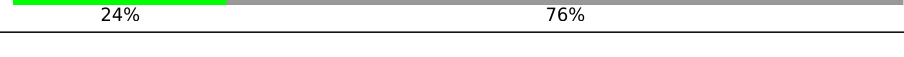
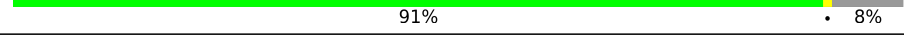
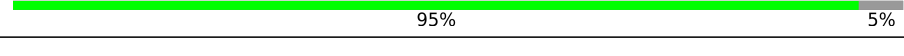
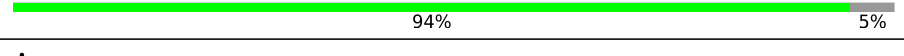
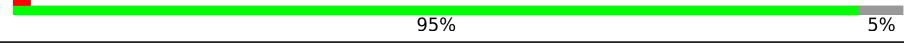


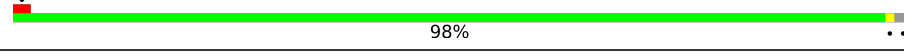
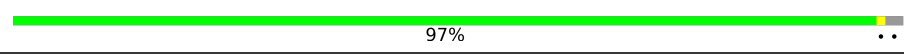
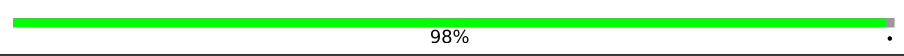

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 9 | WH | 445 |  96% |
| 9 | WJ | 445 |  96% |
| 9 | WL | 445 |  96% |
| 9 | WN | 445 |  95% |
| 9 | WP | 445 |  96% |
| 10 | B | 491 |  64% 35% |
| 10 | C | 491 |  56% 43% |
| 11 | B0 | 430 |  9% 91% |
| 11 | B1 | 430 |  83% 15% |
| 11 | B2 | 430 |  95% |
| 11 | B3 | 430 |  95% |
| 11 | B4 | 430 |  96% |
| 11 | B5 | 430 |  46% 53% |
| 11 | R0 | 430 |  46% 54% |
| 11 | R1 | 430 |  95% |
| 11 | R2 | 430 |  96% |
| 11 | R3 | 430 |  96% |
| 11 | R4 | 430 |  85% 14% |
| 11 | R5 | 430 |  10% 90% |
| 12 | C0 | 490 |  36% 63% |
| 12 | C1 | 490 |  83% 16% |
| 12 | C2 | 490 |  83% 16% |
| 12 | C3 | 490 |  83% 17% |
| 12 | C4 | 490 |  74% 26% |
| 12 | C5 | 490 |  10% 90% |

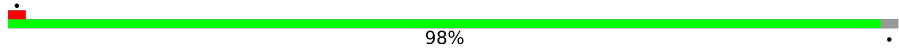
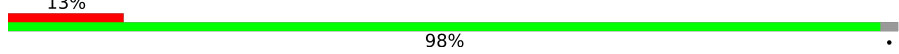
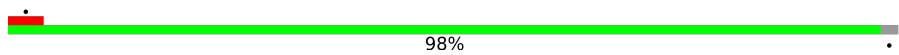


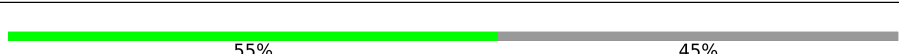
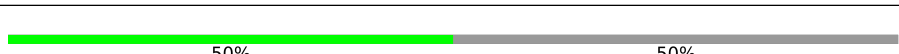
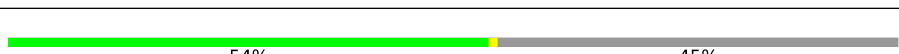
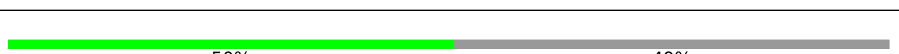
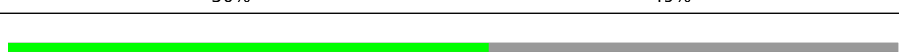

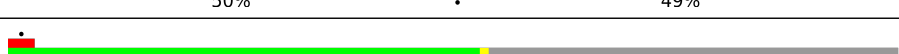


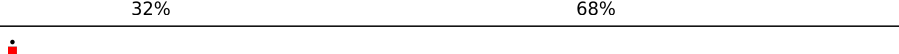






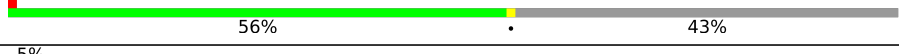

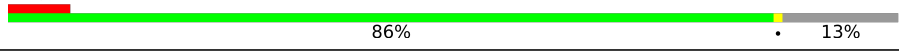

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 12 | C6 | 490 |  9% 91% |
| 12 | S0 | 490 |  65% 34% |
| 12 | S1 | 490 |  90% 10% |
| 12 | S2 | 490 |  90% 10% |
| 12 | S3 | 490 |  89% 10% |
| 12 | S4 | 490 |  61% 38% |
| 12 | S5 | 490 |  63% 36% |
| 12 | S6 | 490 |  86% 14% |
| 12 | S7 | 490 |  86% 14% |
| 12 | S8 | 490 |  85% 14% |
| 12 | S9 | 490 |  56% 44% |
| 13 | D | 470 |  16% 84% |
| 13 | K3 | 470 |  37% 62% |
| 14 | D0 | 447 |  24% 76% |
| 14 | D1 | 447 |  91% 8% |
| 14 | D2 | 447 |  95% 5% |
| 14 | D3 | 447 |  94% 5% |
| 14 | D4 | 447 |  95% 5% |
| 14 | D5 | 447 |  18% 81% |
| 14 | T0 | 447 |  26% 73% |
| 14 | T1 | 447 |  98% .. |
| 14 | T2 | 447 |  97% .. |
| 14 | T3 | 447 |  98% . |
| 14 | T4 | 447 |  87% 12% |
| 14 | T5 | 447 |  26% 73% |

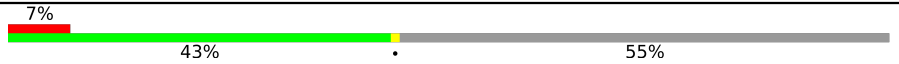




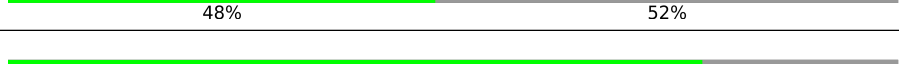
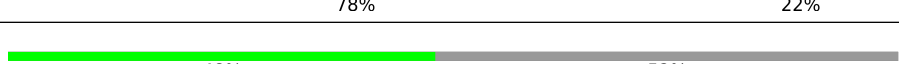
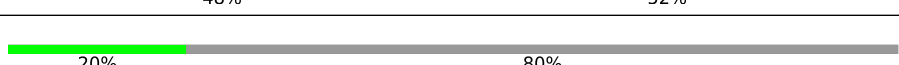
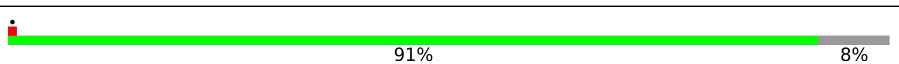

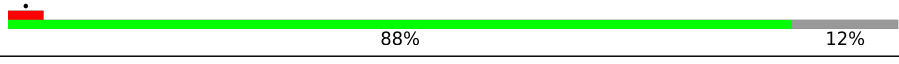
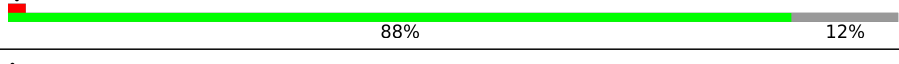
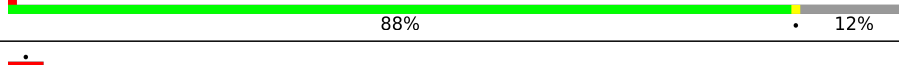
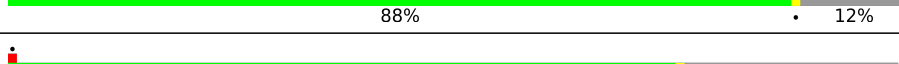

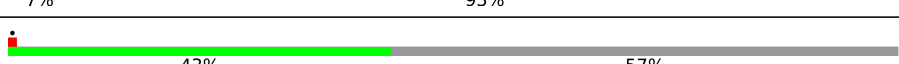

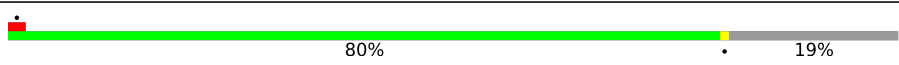







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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|---|
| 15 | E | 303 |  98% |
| 15 | F | 303 |  13% 98% |
| 15 | N2 | 303 |  98% |
| 16 | G | 122 |  9% 74% 25% |
| 17 | H | 319 |  50% 49% |
| 17 | I | 319 |  55% 45% |
| 17 | J | 319 |  50% 50% |
| 17 | K | 319 |  54% 45% |
| 17 | L | 319 |  50% 49% |
| 17 | M | 319 |  54% 46% |
| 17 | N | 319 |  50% 49% |
| 17 | O7 | 319 |  53% 46% |
| 17 | O8 | 319 |  31% 68% |
| 17 | O9 | 319 |  32% 68% |
| 17 | P8 | 319 |  32% 68% |
| 17 | P9 | 319 |  31% 68% |
| 17 | Z2 | 319 |  16% 84% |
| 17 | Z3 | 319 |  16% 84% |
| 17 | Z4 | 319 |  16% 84% |
| 17 | Z5 | 319 |  15% 84% |
| 18 | I1 | 166 |  56% 43% |
| 19 | J1 | 283 |  5% 39% 61% |
| 19 | J2 | 283 |  7% 86% 13% |
| 19 | J3 | 283 |  86% 13% |
| 19 | J4 | 283 |  5% 86% 13% |



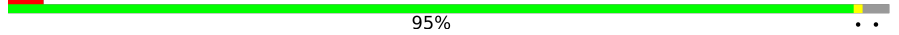
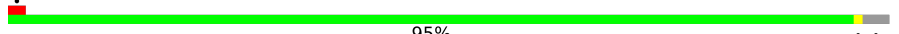

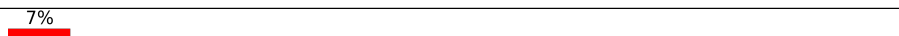
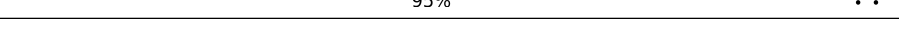

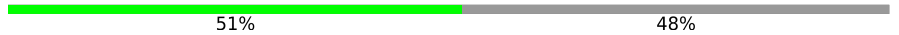


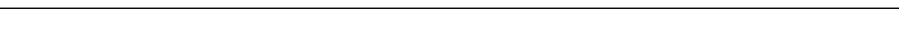
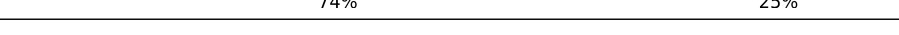
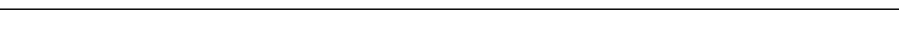











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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 19 | J5 | 283 |  |
| 20 | K1 | 137 |  |
| 20 | K2 | 137 |  |
| 21 | L1 | 182 |  |
| 22 | M1 | 200 |  |
| 22 | M2 | 200 |  |
| 22 | M3 | 200 |  |
| 22 | M4 | 200 |  |
| 23 | O | 379 |  |
| 23 | P | 379 |  |
| 23 | Q | 379 |  |
| 24 | O1 | 189 |  |
| 24 | O2 | 189 |  |
| 24 | O3 | 189 |  |
| 24 | O4 | 189 |  |
| 25 | O5 | 648 |  |
| 25 | O6 | 648 |  |
| 25 | T | 648 |  |
| 25 | U | 648 |  |
| 25 | V | 648 |  |
| 26 | P1 | 131 |  |
| 26 | P2 | 131 |  |
| 27 | P3 | 180 |  |
| 27 | P4 | 180 |  |
| 27 | P5 | 180 |  |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 27 | P6 | 180 |  85% 14% |
| 27 | P7 | 180 |  29% 71% |
| 28 | Q1 | 206 |  95% |
| 28 | Q2 | 206 |  95% |
| 28 | Q3 | 206 |  96% |
| 28 | Q4 | 206 |  7% 95% |
| 28 | Q5 | 206 |  8% 91% |
| 29 | R | 377 |  51% 48% |
| 29 | S | 377 |  85% 14% |
| 30 | U0 | 557 |  63% 36% |
| 30 | U1 | 557 |  74% 25% |
| 30 | U2 | 557 |  73% 25% |
| 30 | U3 | 557 |  74% 25% |
| 30 | U4 | 557 |  36% 64% |
| 30 | U5 | 557 |  8% 57% 43% |
| 30 | U6 | 557 |  5% 73% 26% |
| 30 | U7 | 557 |  73% 26% |
| 30 | U8 | 557 |  8% 73% 26% |
| 30 | U9 | 557 |  6% 32% 67% |
| 30 | V0 | 557 |  26% 36% 63% |
| 30 | V1 | 557 |  12% 69% 30% |
| 30 | V2 | 557 |  69% 30% |
| 30 | V3 | 557 |  11% 69% 30% |
| 30 | V4 | 557 |  11% 51% 49% |
| 30 | V5 | 557 |  52% 47% |

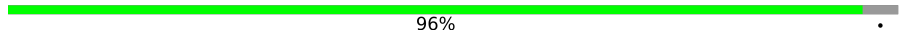
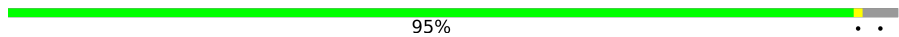
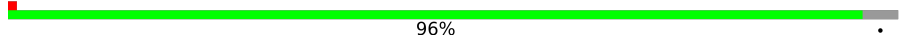
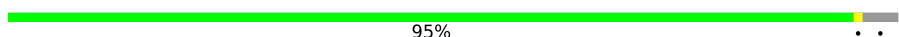
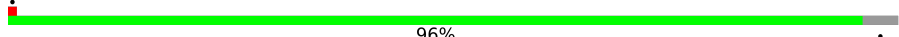
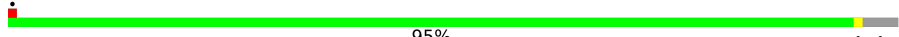




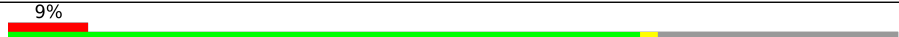


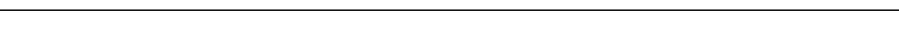
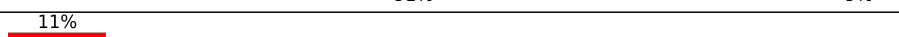
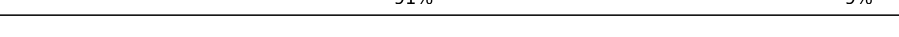
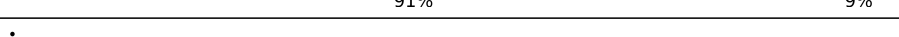
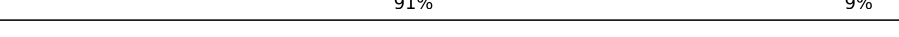

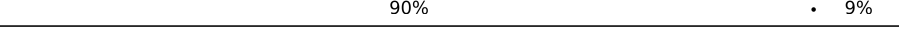





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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 30 | V6 | 557 | 65% 35% |
| 30 | V7 | 557 | 59% 40% |
| 30 | V8 | 557 | 54% 46% |
| 30 | V9 | 557 | 18% 82% |
| 30 | W0 | 557 | 35% 53% 46% |
| 30 | W2 | 557 | 8% 54% 46% |
| 30 | W4 | 557 | 58% 42% |
| 30 | W5 | 557 | 58% 42% |
| 30 | W6 | 557 | 58% 42% |
| 30 | W7 | 557 | 58% 42% |
| 31 | W | 750 | 98% .. |
| 31 | X | 750 | 98% .. |
| 31 | Y | 750 | 98% .. |
| 31 | Z | 750 | 98% .. |
| 32 | X0 | 260 | 10% 90% |
| 32 | X1 | 260 | 9% 91% |
| 32 | X2 | 260 | 9% 91% |
| 32 | X3 | 260 | 10% 90% |
| 33 | X4 | 427 | 77% 23% |
| 33 | X5 | 427 | 31% 69% |
| 34 | X6 | 273 | 5% 97% .. |
| 34 | X7 | 273 | 39% 96% .. |
| 34 | X8 | 273 | 48% 98% . |
| 35 | XA | 193 | 9% 95% .. |
| 35 | XB | 193 | 95% .. |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 35 | XC | 193 |  96% |
| 35 | XD | 193 |  95% |
| 35 | XE | 193 |  96% |
| 35 | XF | 193 |  95% |
| 35 | XG | 193 |  96% |
| 35 | XH | 193 |  95% |
| 36 | Y0 | 254 |  24% 75% |
| 36 | Y1 | 254 |  92% 6% |
| 36 | Y2 | 254 |  88% 11% |
| 36 | Y3 | 254 |  25% 75% 6% |
| 36 | Y4 | 254 |  71% 27% 9% |
| 36 | Y5 | 254 |  33% 67% 6% |
| 37 | YA | 241 |  90% 9% 10% |
| 37 | YB | 241 |  91% 9% |
| 37 | YC | 241 |  91% 9% 11% |
| 37 | YD | 241 |  91% 9% |
| 37 | YE | 241 |  91% 9% |
| 37 | YF | 241 |  90% 9% |
| 37 | YG | 241 |  90% 9% |
| 37 | YH | 241 |  90% 9% |
| 38 | Z1 | 216 |  15% 85% |
| 39 | a | 551 |  52% 47% 11% |
| 39 | a6 | 551 |  13% 87% |
| 39 | b | 551 |  43% 56% 16% |
| 39 | c | 551 |  74% 25% 17% |







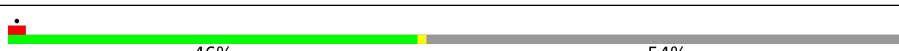

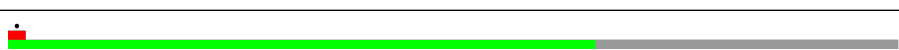
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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 39 | d | 551 | 8% 24% 75% |
| 40 | a1 | 229 | 68% 32% |
| 40 | a2 | 229 | 67% 32% |
| 40 | a3 | 229 | 67% 32% |
| 40 | a4 | 229 | 67% 32% |
| 41 | b1 | 499 | 25% 74% |
| 41 | b2 | 499 | 76% 24% |
| 41 | b3 | 499 | 76% 23% |
| 41 | b4 | 499 | 76% 23% |
| 41 | b5 | 499 | 66% 33% |
| 42 | e | 620 | 98% |
| 42 | f | 620 | 97% |
| 42 | g | 620 | 98% |
| 43 | h | 255 | 96% |
| 43 | i | 255 | 95% |
| 43 | j | 255 | 95% |
| 43 | k | 255 | 96% |
| 44 | h1 | 141 | 67% 31% |
| 44 | h2 | 141 | 70% 30% |
| 44 | h3 | 141 | 70% 30% |
| 44 | h4 | 141 | 69% 30% |
| 45 | i1 | 189 | 61% 39% |
| 45 | l | 189 | 61% 39% |
| 45 | m | 189 | 61% 39% |
| 45 | n | 189 | 60% 39% |

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| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|--|
| 46 | i2 | 1516 |  12% 88% |
| 46 | i3 | 1516 |  12% 88% |
| 46 | i4 | 1516 |  12% 88% |
| 47 | o | 547 |  16% 36% 64% |
| 47 | p | 547 |  21% 70% 28% |
| 48 | q | 168 |  44% 55% |
| 48 | r | 168 |  46% 54% |
| 48 | s | 168 |  46% 54% |
| 49 | y | 167 |  66% 34% |

2 Entry composition [i](#)

There are 52 unique types of molecules in this entry. The entry contains 1650085 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Cilia- and flagella-associated protein 95.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 1 | 0 | 81 | Total | C | N | O | S | 0 | 0 |
| | | | 670 | 422 | 120 | 123 | 5 | | |
| 1 | 7 | 141 | Total | C | N | O | S | 0 | 0 |
| | | | 1174 | 741 | 210 | 217 | 6 | | |

- Molecule 2 is a protein called EF-hand domain-containing family member B.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 2 | 1 | 462 | Total | C | N | O | S | 0 | 0 |
| | | | 3738 | 2356 | 672 | 700 | 10 | | |
| 2 | 2 | 270 | Total | C | N | O | S | 0 | 0 |
| | | | 2160 | 1381 | 385 | 386 | 8 | | |

- Molecule 3 is a protein called Cilia- and flagella-associated protein 53.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 3 | 3 | 475 | Total | C | N | O | S | 0 | 0 |
| | | | 4023 | 2453 | 784 | 770 | 16 | | |
| 3 | 4 | 148 | Total | C | N | O | S | 0 | 0 |
| | | | 1230 | 747 | 241 | 235 | 7 | | |

- Molecule 4 is a protein called Nucleoside diphosphate kinase 7.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 4 | 5 | 376 | Total | C | N | O | S | 0 | 0 |
| | | | 2975 | 1885 | 517 | 553 | 20 | | |
| 4 | 6 | 376 | Total | C | N | O | S | 0 | 0 |
| | | | 2975 | 1885 | 517 | 553 | 20 | | |
| 4 | j1 | 376 | Total | C | N | O | S | 0 | 0 |
| | | | 2975 | 1885 | 517 | 553 | 20 | | |

- Molecule 5 is a protein called Cilia- and flagella-associated protein 107.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 5 | 8 | 176 | Total | C | N | O | S | 0 | 0 |
| | | | 1470 | 949 | 257 | 259 | 5 | | |

- Molecule 6 is a protein called Cilia- and flagella-associated protein 141.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 6 | A | 94 | Total | C | N | O | S | 0 | 0 |
| | | | 806 | 507 | 150 | 145 | 4 | | |
| 6 | N1 | 94 | Total | C | N | O | S | 0 | 0 |
| | | | 806 | 507 | 150 | 145 | 4 | | |

- Molecule 7 is a protein called Tektin-1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 7 | A0 | 54 | Total | C | N | O | S | 0 | 0 |
| | | | 444 | 271 | 89 | 83 | 1 | | |
| 7 | A1 | 359 | Total | C | N | O | S | 0 | 0 |
| | | | 2935 | 1818 | 527 | 580 | 10 | | |
| 7 | A2 | 401 | Total | C | N | O | S | 0 | 0 |
| | | | 3288 | 2038 | 595 | 645 | 10 | | |
| 7 | A3 | 401 | Total | C | N | O | S | 0 | 0 |
| | | | 3288 | 2038 | 595 | 645 | 10 | | |
| 7 | A4 | 399 | Total | C | N | O | S | 0 | 0 |
| | | | 3274 | 2029 | 592 | 643 | 10 | | |
| 7 | A5 | 169 | Total | C | N | O | S | 0 | 0 |
| | | | 1400 | 868 | 252 | 279 | 1 | | |

- Molecule 8 is a protein called Tubulin alpha-3 chain.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | AA | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | AC | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | AE | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | AG | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3440 | 2179 | 584 | 655 | 22 | | |
| 8 | AI | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | AK | 438 | Total | C | N | O | S | 0 | 0 |
| | | | 3418 | 2166 | 581 | 649 | 22 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 8 | AM | 440 | 3431 | 2174 | 583 | 652 | 22 | 0 | 0 |
| 8 | AO | 440 | 3431 | 2174 | 583 | 652 | 22 | 0 | 0 |
| 8 | BC | 431 | 3374 | 2140 | 573 | 639 | 22 | 0 | 0 |
| 8 | BE | 441 | 3440 | 2179 | 584 | 655 | 22 | 0 | 0 |
| 8 | BG | 434 | 3396 | 2153 | 576 | 645 | 22 | 0 | 0 |
| 8 | BI | 441 | 3440 | 2179 | 584 | 655 | 22 | 0 | 0 |
| 8 | BK | 433 | 3390 | 2150 | 575 | 643 | 22 | 0 | 0 |
| 8 | BM | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | BO | 434 | 3396 | 2153 | 576 | 645 | 22 | 0 | 0 |
| 8 | CC | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | CE | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | CG | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | CI | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | CK | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | CM | 440 | 3431 | 2174 | 583 | 652 | 22 | 0 | 0 |
| 8 | CO | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | CQ | 437 | 3410 | 2162 | 580 | 646 | 22 | 0 | 0 |
| 8 | DC | 432 | 3382 | 2146 | 574 | 640 | 22 | 0 | 0 |
| 8 | DE | 430 | 3366 | 2136 | 572 | 636 | 22 | 0 | 0 |
| 8 | DG | 430 | 3366 | 2136 | 572 | 636 | 22 | 0 | 0 |
| 8 | DI | 431 | 3374 | 2142 | 573 | 637 | 22 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | DK | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2141 | 573 | 637 | 22 | | |
| 8 | DM | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | DO | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3372 | 2139 | 573 | 638 | 22 | | |
| 8 | DQ | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2133 | 571 | 634 | 22 | | |
| 8 | EA | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | EC | 438 | Total | C | N | O | S | 0 | 0 |
| | | | 3418 | 2166 | 581 | 649 | 22 | | |
| 8 | EE | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | EG | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | EI | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | EK | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | EM | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | EO | 437 | Total | C | N | O | S | 0 | 0 |
| | | | 3410 | 2162 | 580 | 646 | 22 | | |
| 8 | FA | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | FC | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | FE | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | FG | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3351 | 2127 | 570 | 632 | 22 | | |
| 8 | FI | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | FK | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2141 | 573 | 637 | 22 | | |
| 8 | FM | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | FO | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3355 | 2129 | 570 | 634 | 22 | | |
| 8 | GA | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3368 | 2137 | 572 | 637 | 22 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | GC | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2141 | 573 | 637 | 22 | | |
| 8 | GE | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2141 | 573 | 637 | 22 | | |
| 8 | GG | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | GI | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3387 | 2148 | 575 | 642 | 22 | | |
| 8 | GK | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3387 | 2148 | 575 | 642 | 22 | | |
| 8 | GM | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3395 | 2152 | 576 | 645 | 22 | | |
| 8 | GO | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3395 | 2152 | 576 | 645 | 22 | | |
| 8 | HA | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3371 | 2140 | 573 | 636 | 22 | | |
| 8 | HC | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3389 | 2149 | 576 | 642 | 22 | | |
| 8 | HE | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | HG | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | HI | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | HK | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | HM | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3389 | 2149 | 576 | 642 | 22 | | |
| 8 | HO | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3381 | 2145 | 574 | 640 | 22 | | |
| 8 | IA | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | IC | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | IE | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3440 | 2179 | 584 | 655 | 22 | | |
| 8 | IG | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3387 | 2148 | 575 | 642 | 22 | | |
| 8 | II | 435 | Total | C | N | O | S | 0 | 0 |
| | | | 3399 | 2154 | 577 | 646 | 22 | | |
| 8 | IK | 436 | Total | C | N | O | S | 0 | 0 |
| | | | 3411 | 2162 | 579 | 648 | 22 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | IM | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3391 | 2150 | 576 | 643 | 22 | | |
| 8 | IO | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3431 | 2174 | 583 | 652 | 22 | | |
| 8 | JC | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3388 | 2147 | 576 | 643 | 22 | | |
| 8 | JE | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | JG | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2133 | 571 | 634 | 22 | | |
| 8 | JI | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3390 | 2150 | 575 | 643 | 22 | | |
| 8 | JK | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3381 | 2145 | 574 | 640 | 22 | | |
| 8 | JM | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | JO | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3379 | 2144 | 574 | 639 | 22 | | |
| 8 | JQ | 435 | Total | C | N | O | S | 0 | 0 |
| | | | 3403 | 2158 | 578 | 645 | 22 | | |
| 8 | KA | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | KC | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3389 | 2149 | 576 | 642 | 22 | | |
| 8 | KE | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3397 | 2153 | 577 | 645 | 22 | | |
| 8 | KG | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | KI | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3374 | 2140 | 573 | 639 | 22 | | |
| 8 | KK | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3372 | 2139 | 573 | 638 | 22 | | |
| 8 | KM | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | KO | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3389 | 2149 | 576 | 642 | 22 | | |
| 8 | LA | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3396 | 2153 | 576 | 645 | 22 | | |
| 8 | LC | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3374 | 2140 | 573 | 639 | 22 | | |
| 8 | LE | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3388 | 2149 | 575 | 642 | 22 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | LG | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3440 | 2179 | 584 | 655 | 22 | | |
| 8 | LI | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3440 | 2179 | 584 | 655 | 22 | | |
| 8 | LK | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3440 | 2179 | 584 | 655 | 22 | | |
| 8 | LM | 435 | Total | C | N | O | S | 0 | 0 |
| | | | 3404 | 2157 | 577 | 648 | 22 | | |
| 8 | LO | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | MA | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3374 | 2140 | 573 | 639 | 22 | | |
| 8 | MC | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3374 | 2140 | 573 | 639 | 22 | | |
| 8 | ME | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | MG | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | MI | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3378 | 2142 | 574 | 640 | 22 | | |
| 8 | MK | 433 | Total | C | N | O | S | 0 | 0 |
| | | | 3390 | 2150 | 575 | 643 | 22 | | |
| 8 | MM | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | MO | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | NA | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3353 | 2128 | 570 | 633 | 22 | | |
| 8 | NC | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | NE | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3394 | 2152 | 576 | 644 | 22 | | |
| 8 | NG | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2146 | 574 | 640 | 22 | | |
| 8 | NI | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2141 | 573 | 637 | 22 | | |
| 8 | NK | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2141 | 573 | 637 | 22 | | |
| 8 | NM | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2146 | 574 | 640 | 22 | | |
| 8 | NO | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2146 | 574 | 640 | 22 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | OA | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3374 | 2140 | 573 | 639 | 22 | | |
| 8 | OC | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | OE | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3372 | 2139 | 573 | 638 | 22 | | |
| 8 | OG | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | OI | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2133 | 571 | 634 | 22 | | |
| 8 | OK | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3374 | 2140 | 573 | 639 | 22 | | |
| 8 | OM | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | OO | 425 | Total | C | N | O | S | 0 | 0 |
| | | | 3330 | 2114 | 567 | 628 | 21 | | |
| 8 | PC | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | PE | 425 | Total | C | N | O | S | 0 | 0 |
| | | | 3330 | 2115 | 566 | 628 | 21 | | |
| 8 | PG | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | PI | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | PK | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3367 | 2135 | 572 | 638 | 22 | | |
| 8 | PM | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3380 | 2143 | 574 | 641 | 22 | | |
| 8 | PO | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | QC | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | QE | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3366 | 2136 | 572 | 636 | 22 | | |
| 8 | QG | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | QI | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3345 | 2124 | 569 | 630 | 22 | | |
| 8 | QK | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3345 | 2124 | 569 | 630 | 22 | | |
| 8 | QM | 426 | Total | C | N | O | S | 0 | 0 |
| | | | 3338 | 2119 | 568 | 629 | 22 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | QO | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3345 | 2124 | 569 | 630 | 22 | | |
| 8 | RC | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | RE | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3353 | 2128 | 570 | 633 | 22 | | |
| 8 | RG | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | RI | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2133 | 571 | 634 | 22 | | |
| 8 | RK | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3368 | 2137 | 572 | 637 | 22 | | |
| 8 | RM | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3361 | 2132 | 571 | 636 | 22 | | |
| 8 | RO | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3353 | 2128 | 570 | 633 | 22 | | |
| 8 | SA | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3359 | 2131 | 571 | 635 | 22 | | |
| 8 | SC | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | SE | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |
| 8 | SG | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3345 | 2124 | 569 | 630 | 22 | | |
| 8 | SI | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2133 | 571 | 634 | 22 | | |
| 8 | SK | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3345 | 2124 | 569 | 630 | 22 | | |
| 8 | SM | 425 | Total | C | N | O | S | 0 | 0 |
| | | | 3333 | 2118 | 567 | 626 | 22 | | |
| 8 | TA | 426 | Total | C | N | O | S | 0 | 0 |
| | | | 3342 | 2121 | 568 | 631 | 22 | | |
| 8 | TC | 426 | Total | C | N | O | S | 0 | 0 |
| | | | 3337 | 2120 | 568 | 627 | 22 | | |
| 8 | TE | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3357 | 2130 | 571 | 634 | 22 | | |
| 8 | TG | 426 | Total | C | N | O | S | 0 | 0 |
| | | | 3341 | 2122 | 568 | 629 | 22 | | |
| 8 | TI | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3349 | 2126 | 569 | 632 | 22 | | |
| 8 | TK | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3352 | 2129 | 570 | 631 | 22 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 8 | TM | 426 | 3341 | 2122 | 568 | 629 | 22 | 0 | 0 |
| 8 | UA | 424 | 3327 | 2112 | 566 | 627 | 22 | 0 | 0 |
| 8 | UC | 428 | 3351 | 2127 | 570 | 632 | 22 | 0 | 0 |
| 8 | UE | 428 | 3351 | 2127 | 570 | 632 | 22 | 0 | 0 |
| 8 | UG | 428 | 3353 | 2128 | 570 | 633 | 22 | 0 | 0 |
| 8 | UI | 428 | 3352 | 2129 | 570 | 631 | 22 | 0 | 0 |
| 8 | UK | 428 | 3353 | 2128 | 570 | 633 | 22 | 0 | 0 |
| 8 | UM | 429 | 3359 | 2131 | 571 | 635 | 22 | 0 | 0 |
| 8 | UO | 427 | 3347 | 2125 | 569 | 631 | 22 | 0 | 0 |
| 8 | VA | 427 | 3345 | 2124 | 569 | 630 | 22 | 0 | 0 |
| 8 | VC | 437 | 3410 | 2162 | 580 | 646 | 22 | 0 | 0 |
| 8 | VE | 429 | 3358 | 2132 | 571 | 633 | 22 | 0 | 0 |
| 8 | VG | 437 | 3410 | 2162 | 580 | 646 | 22 | 0 | 0 |
| 8 | VI | 429 | 3360 | 2133 | 571 | 634 | 22 | 0 | 0 |
| 8 | VK | 438 | 3418 | 2166 | 581 | 649 | 22 | 0 | 0 |
| 8 | VM | 429 | 3359 | 2131 | 571 | 635 | 22 | 0 | 0 |
| 8 | VO | 436 | 3403 | 2157 | 579 | 645 | 22 | 0 | 0 |
| 8 | WA | 436 | 3403 | 2157 | 579 | 645 | 22 | 0 | 0 |
| 8 | WC | 439 | 3424 | 2169 | 582 | 651 | 22 | 0 | 0 |
| 8 | WE | 433 | 3382 | 2144 | 575 | 641 | 22 | 0 | 0 |
| 8 | WG | 438 | 3418 | 2166 | 581 | 649 | 22 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 8 | WI | 439 | Total | C | N | O | S | 0 | 0 |
| | | | 3424 | 2169 | 582 | 651 | 22 | | |
| 8 | WK | 438 | Total | C | N | O | S | 0 | 0 |
| | | | 3418 | 2166 | 581 | 649 | 22 | | |
| 8 | WM | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3374 | 2140 | 573 | 639 | 22 | | |
| 8 | WO | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3358 | 2132 | 571 | 633 | 22 | | |

- Molecule 9 is a protein called Tubulin beta-4B chain.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 9 | AB | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3391 | 2129 | 580 | 656 | 26 | | |
| 9 | AD | 435 | Total | C | N | O | S | 0 | 0 |
| | | | 3413 | 2141 | 583 | 663 | 26 | | |
| 9 | AF | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | AH | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3404 | 2136 | 582 | 660 | 26 | | |
| 9 | AJ | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3404 | 2136 | 582 | 660 | 26 | | |
| 9 | AL | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3404 | 2136 | 582 | 660 | 26 | | |
| 9 | AN | 434 | Total | C | N | O | S | 0 | 0 |
| | | | 3404 | 2136 | 582 | 660 | 26 | | |
| 9 | AP | 432 | Total | C | N | O | S | 0 | 0 |
| | | | 3391 | 2129 | 580 | 656 | 26 | | |
| 9 | BB | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3361 | 2112 | 576 | 647 | 26 | | |
| 9 | BD | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | BF | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3368 | 2116 | 577 | 649 | 26 | | |
| 9 | BH | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | BJ | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2124 | 579 | 653 | 26 | | |
| 9 | BL | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | BN | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|---------|---------|-------|
| | | | Total | C | N | O | S | | |
| 9 | BP | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | CB | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | CD | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | CF | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | CH | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | CJ | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | CL | 429 | Total 3368 | C 2116 | N 577 | O 649 | S 26 | 0 | 0 |
| 9 | CN | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | CP | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | DB | 429 | Total 3368 | C 2116 | N 577 | O 649 | S 26 | 0 | 0 |
| 9 | DD | 429 | Total 3368 | C 2116 | N 577 | O 649 | S 26 | 0 | 0 |
| 9 | DF | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | DH | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | DJ | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | DL | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | DN | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | DP | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | EB | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | ED | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | EF | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | EH | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 9 | EJ | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | EL | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3361 | 2112 | 576 | 647 | 26 | | |
| 9 | EN | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3361 | 2112 | 576 | 647 | 26 | | |
| 9 | FB | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | FD | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | FF | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | FH | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | FJ | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3368 | 2116 | 577 | 649 | 26 | | |
| 9 | FL | 429 | Total | C | N | O | S | 0 | 0 |
| | | | 3368 | 2116 | 577 | 649 | 26 | | |
| 9 | FN | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | GB | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | GD | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | GF | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | GH | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2124 | 579 | 653 | 26 | | |
| 9 | GJ | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | GL | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2124 | 579 | 653 | 26 | | |
| 9 | GN | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2124 | 579 | 653 | 26 | | |
| 9 | HB | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | HD | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | HF | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | HH | 431 | Total | C | N | O | S | 0 | 0 |
| | | | 3382 | 2124 | 579 | 653 | 26 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|---------|---------|-------|
| | | | Total | C | N | O | S | | |
| 9 | HJ | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | HL | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | HN | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | HP | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | IB | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | ID | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | IF | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | IH | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | IJ | 429 | Total 3368 | C 2116 | N 577 | O 649 | S 26 | 0 | 0 |
| 9 | IL | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | IN | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | IP | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | JB | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | JD | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | JF | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | JH | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | JJ | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | JL | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | JN | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | JP | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | KB | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 9 | KD | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | KF | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | KH | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | KJ | 430 | 3373 | 2119 | 578 | 650 | 26 | 0 | 0 |
| 9 | KL | 430 | 3373 | 2119 | 578 | 650 | 26 | 0 | 0 |
| 9 | KN | 430 | 3373 | 2119 | 578 | 650 | 26 | 0 | 0 |
| 9 | KP | 428 | 3361 | 2112 | 576 | 647 | 26 | 0 | 0 |
| 9 | LB | 437 | 3433 | 2155 | 585 | 667 | 26 | 0 | 0 |
| 9 | LD | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | LF | 439 | 3451 | 2165 | 587 | 673 | 26 | 0 | 0 |
| 9 | LH | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | LJ | 437 | 3433 | 2155 | 585 | 667 | 26 | 0 | 0 |
| 9 | LL | 428 | 3361 | 2112 | 576 | 647 | 26 | 0 | 0 |
| 9 | LN | 432 | 3391 | 2129 | 580 | 656 | 26 | 0 | 0 |
| 9 | LP | 429 | 3368 | 2116 | 577 | 649 | 26 | 0 | 0 |
| 9 | MB | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | MD | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | MF | 427 | 3356 | 2109 | 575 | 646 | 26 | 0 | 0 |
| 9 | MH | 431 | 3382 | 2124 | 579 | 653 | 26 | 0 | 0 |
| 9 | MJ | 430 | 3373 | 2119 | 578 | 650 | 26 | 0 | 0 |
| 9 | ML | 430 | 3373 | 2119 | 578 | 650 | 26 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|---------|---------|-------|
| | | | Total | C | N | O | S | | |
| 9 | MN | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | MP | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | NB | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | ND | 431 | Total 3382 | C 2124 | N 579 | O 653 | S 26 | 0 | 0 |
| 9 | NF | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | NH | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | NJ | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | NL | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | NN | 430 | Total 3373 | C 2119 | N 578 | O 650 | S 26 | 0 | 0 |
| 9 | NP | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | OB | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | OD | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | OF | 429 | Total 3368 | C 2116 | N 577 | O 649 | S 26 | 0 | 0 |
| 9 | OH | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | OJ | 429 | Total 3368 | C 2116 | N 577 | O 649 | S 26 | 0 | 0 |
| 9 | OL | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | ON | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | OP | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | PB | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | PD | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | PF | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|---------|---------|-------|
| 9 | PH | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | PJ | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | PL | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | PN | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | PP | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | QB | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | QD | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | QF | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | QH | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | QJ | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | QL | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | QN | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | QP | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | RD | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | RF | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | RH | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | RJ | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | RL | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | RN | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | RP | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | SB | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|---------------|-----------|----------|----------|---------|---------|-------|
| 9 | SD | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | SF | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | SH | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | SJ | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | SL | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | SN | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | TB | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | TD | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | TF | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | TH | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | TJ | 428 | Total 3361 | C 2112 | N 576 | O 647 | S 26 | 0 | 0 |
| 9 | TL | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | TN | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | UB | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | UD | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | UF | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | UH | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | UJ | 427 | Total 3356 | C 2109 | N 575 | O 646 | S 26 | 0 | 0 |
| 9 | UL | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | UN | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |
| 9 | VB | 426 | Total 3348 | C 2105 | N 574 | O 643 | S 26 | 0 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 9 | VD | 426 | Total | C | N | O | S | 0 | 0 |
| | | | 3348 | 2105 | 574 | 643 | 26 | | |
| 9 | VF | 426 | Total | C | N | O | S | 0 | 0 |
| | | | 3348 | 2105 | 574 | 643 | 26 | | |
| 9 | VH | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | VJ | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | VL | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3361 | 2112 | 576 | 647 | 26 | | |
| 9 | VN | 426 | Total | C | N | O | S | 0 | 0 |
| | | | 3348 | 2105 | 574 | 643 | 26 | | |
| 9 | WB | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | WD | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | WF | 430 | Total | C | N | O | S | 0 | 0 |
| | | | 3373 | 2119 | 578 | 650 | 26 | | |
| 9 | WH | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3361 | 2112 | 576 | 647 | 26 | | |
| 9 | WJ | 428 | Total | C | N | O | S | 0 | 0 |
| | | | 3361 | 2112 | 576 | 647 | 26 | | |
| 9 | WL | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | WN | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |
| 9 | WP | 427 | Total | C | N | O | S | 0 | 0 |
| | | | 3356 | 2109 | 575 | 646 | 26 | | |

- Molecule 10 is a protein called Meiosis-specific nuclear structural protein 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 10 | B | 319 | Total | C | N | O | S | 0 | 0 |
| | | | 2769 | 1697 | 520 | 539 | 13 | | |
| 10 | C | 279 | Total | C | N | O | S | 0 | 0 |
| | | | 2408 | 1493 | 445 | 459 | 11 | | |

- Molecule 11 is a protein called Tektin-2.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---------|-------|
| 11 | B0 | 39 | Total | C | N | O | 0 | 0 |
| | | | 334 | 203 | 66 | 65 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 11 | B1 | 364 | Total | C | N | O | S | 0 | 0 |
| | | | 2984 | 1840 | 547 | 586 | 11 | | |
| 11 | B2 | 414 | Total | C | N | O | S | 0 | 0 |
| | | | 3401 | 2093 | 627 | 667 | 14 | | |
| 11 | B3 | 414 | Total | C | N | O | S | 0 | 0 |
| | | | 3401 | 2093 | 627 | 667 | 14 | | |
| 11 | B4 | 415 | Total | C | N | O | S | 0 | 0 |
| | | | 3412 | 2099 | 631 | 668 | 14 | | |
| 11 | B5 | 203 | Total | C | N | O | S | 0 | 0 |
| | | | 1675 | 1036 | 305 | 325 | 9 | | |
| 11 | R0 | 196 | Total | C | N | O | S | 0 | 0 |
| | | | 1612 | 996 | 294 | 313 | 9 | | |
| 11 | R1 | 415 | Total | C | N | O | S | 0 | 0 |
| | | | 3412 | 2099 | 631 | 668 | 14 | | |
| 11 | R2 | 415 | Total | C | N | O | S | 0 | 0 |
| | | | 3412 | 2099 | 631 | 668 | 14 | | |
| 11 | R3 | 415 | Total | C | N | O | S | 0 | 0 |
| | | | 3412 | 2099 | 631 | 668 | 14 | | |
| 11 | R4 | 369 | Total | C | N | O | S | 0 | 0 |
| | | | 3025 | 1864 | 555 | 595 | 11 | | |
| 11 | R5 | 43 | Total | C | N | O | | 0 | 0 |
| | | | 366 | 224 | 73 | 69 | | | |

- Molecule 12 is a protein called Tektin-3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 12 | C0 | 179 | Total | C | N | O | S | 0 | 0 |
| | | | 1453 | 887 | 270 | 293 | 3 | | |
| 12 | C1 | 411 | Total | C | N | O | S | 0 | 0 |
| | | | 3354 | 2064 | 616 | 658 | 16 | | |
| 12 | C2 | 411 | Total | C | N | O | S | 0 | 0 |
| | | | 3354 | 2064 | 616 | 658 | 16 | | |
| 12 | C3 | 408 | Total | C | N | O | S | 0 | 0 |
| | | | 3332 | 2050 | 613 | 654 | 15 | | |
| 12 | C4 | 363 | Total | C | N | O | S | 0 | 0 |
| | | | 2944 | 1810 | 539 | 580 | 15 | | |
| 12 | C5 | 51 | Total | C | N | O | S | 0 | 0 |
| | | | 420 | 259 | 78 | 81 | 2 | | |
| 12 | C6 | 42 | Total | C | N | O | S | 0 | 0 |
| | | | 354 | 220 | 69 | 63 | 2 | | |
| 12 | S0 | 325 | Total | C | N | O | S | 0 | 0 |
| | | | 2675 | 1642 | 499 | 521 | 13 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 12 | S1 | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3613 | 2223 | 669 | 705 | 16 | | |
| 12 | S2 | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3613 | 2223 | 669 | 705 | 16 | | |
| 12 | S3 | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3613 | 2223 | 669 | 705 | 16 | | |
| 12 | S4 | 303 | Total | C | N | O | S | 0 | 0 |
| | | | 2459 | 1515 | 446 | 485 | 13 | | |
| 12 | S5 | 313 | Total | C | N | O | S | 0 | 0 |
| | | | 2568 | 1581 | 472 | 504 | 11 | | |
| 12 | S6 | 422 | Total | C | N | O | S | 0 | 0 |
| | | | 3453 | 2130 | 633 | 676 | 14 | | |
| 12 | S7 | 422 | Total | C | N | O | S | 0 | 0 |
| | | | 3453 | 2130 | 633 | 676 | 14 | | |
| 12 | S8 | 420 | Total | C | N | O | S | 0 | 0 |
| | | | 3435 | 2117 | 631 | 673 | 14 | | |
| 12 | S9 | 276 | Total | C | N | O | S | 0 | 0 |
| | | | 2232 | 1370 | 409 | 440 | 13 | | |

- Molecule 13 is a protein called Sperm-associated antigen 8.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 13 | D | 77 | Total | C | N | O | S | 0 | 0 |
| | | | 622 | 393 | 112 | 116 | 1 | | |
| 13 | K3 | 179 | Total | C | N | O | S | 0 | 0 |
| | | | 1460 | 911 | 268 | 274 | 7 | | |

- Molecule 14 is a protein called Tektin-4.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 14 | D0 | 109 | Total | C | N | O | S | 0 | 0 |
| | | | 889 | 545 | 164 | 178 | 2 | | |
| 14 | D1 | 411 | Total | C | N | O | S | 0 | 0 |
| | | | 3370 | 2070 | 621 | 663 | 16 | | |
| 14 | D2 | 424 | Total | C | N | O | S | 0 | 0 |
| | | | 3480 | 2133 | 647 | 683 | 17 | | |
| 14 | D3 | 424 | Total | C | N | O | S | 0 | 0 |
| | | | 3480 | 2133 | 647 | 683 | 17 | | |
| 14 | D4 | 424 | Total | C | N | O | S | 0 | 0 |
| | | | 3480 | 2133 | 647 | 683 | 17 | | |
| 14 | D5 | 87 | Total | C | N | O | S | 0 | 0 |
| | | | 715 | 436 | 139 | 138 | 2 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 14 | T0 | 119 | Total | C | N | O | S | 0 | 0 |
| | | | 957 | 588 | 173 | 193 | 3 | | |
| 14 | T1 | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3594 | 2206 | 664 | 706 | 18 | | |
| 14 | T2 | 440 | Total | C | N | O | S | 0 | 0 |
| | | | 3594 | 2206 | 664 | 706 | 18 | | |
| 14 | T3 | 441 | Total | C | N | O | S | 0 | 0 |
| | | | 3606 | 2215 | 665 | 708 | 18 | | |
| 14 | T4 | 395 | Total | C | N | O | S | 0 | 0 |
| | | | 3260 | 1997 | 608 | 639 | 16 | | |
| 14 | T5 | 119 | Total | C | N | O | S | 0 | 0 |
| | | | 975 | 600 | 180 | 191 | 4 | | |

- Molecule 15 is a protein called Cilia- and flagella-associated protein 161.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 15 | E | 298 | Total | C | N | O | S | 0 | 0 |
| | | | 2372 | 1486 | 423 | 446 | 17 | | |
| 15 | F | 297 | Total | C | N | O | S | 0 | 0 |
| | | | 2363 | 1481 | 421 | 444 | 17 | | |
| 15 | N2 | 297 | Total | C | N | O | S | 0 | 0 |
| | | | 2363 | 1481 | 421 | 444 | 17 | | |

- Molecule 16 is a protein called Piercer of microtubule wall 2 protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 16 | G | 91 | Total | C | N | O | S | 0 | 0 |
| | | | 724 | 462 | 123 | 134 | 5 | | |

- Molecule 17 is a protein called Protein FAM166A.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 17 | H | 162 | Total | C | N | O | S | 0 | 0 |
| | | | 1316 | 841 | 234 | 233 | 8 | | |
| 17 | I | 175 | Total | C | N | O | S | 0 | 0 |
| | | | 1429 | 912 | 259 | 250 | 8 | | |
| 17 | J | 161 | Total | C | N | O | S | 0 | 0 |
| | | | 1307 | 835 | 232 | 232 | 8 | | |
| 17 | K | 174 | Total | C | N | O | S | 0 | 0 |
| | | | 1420 | 906 | 257 | 249 | 8 | | |
| 17 | L | 162 | Total | C | N | O | S | 0 | 0 |
| | | | 1316 | 841 | 234 | 233 | 8 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 17 | M | 173 | Total | C | N | O | S | 0 | 0 |
| | | | 1413 | 902 | 256 | 247 | 8 | | |
| 17 | N | 162 | Total | C | N | O | S | 0 | 0 |
| | | | 1316 | 841 | 234 | 233 | 8 | | |
| 17 | O7 | 173 | Total | C | N | O | S | 0 | 0 |
| | | | 1413 | 902 | 256 | 247 | 8 | | |
| 17 | O8 | 103 | Total | C | N | O | S | 0 | 0 |
| | | | 837 | 539 | 141 | 153 | 4 | | |
| 17 | O9 | 103 | Total | C | N | O | S | 0 | 0 |
| | | | 837 | 539 | 141 | 153 | 4 | | |
| 17 | P8 | 103 | Total | C | N | O | S | 0 | 0 |
| | | | 837 | 539 | 141 | 153 | 4 | | |
| 17 | P9 | 103 | Total | C | N | O | S | 0 | 0 |
| | | | 837 | 539 | 141 | 153 | 4 | | |
| 17 | Z2 | 51 | Total | C | N | O | S | 0 | 0 |
| | | | 412 | 265 | 74 | 69 | 4 | | |
| 17 | Z3 | 51 | Total | C | N | O | S | 0 | 0 |
| | | | 412 | 265 | 74 | 69 | 4 | | |
| 17 | Z4 | 51 | Total | C | N | O | S | 0 | 0 |
| | | | 412 | 265 | 74 | 69 | 4 | | |
| 17 | Z5 | 50 | Total | C | N | O | S | 0 | 0 |
| | | | 405 | 260 | 73 | 68 | 4 | | |

- Molecule 18 is a protein called Cilia- and flagella-associated protein 68.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 18 | I1 | 94 | Total | C | N | O | S | 0 | 0 |
| | | | 796 | 503 | 145 | 145 | 3 | | |

- Molecule 19 is a protein called Cilia and flagella-associated protein 77.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 19 | J1 | 111 | Total | C | N | O | S | 0 | 0 |
| | | | 934 | 596 | 177 | 158 | 3 | | |
| 19 | J2 | 247 | Total | C | N | O | S | 0 | 0 |
| | | | 2010 | 1269 | 377 | 353 | 11 | | |
| 19 | J3 | 247 | Total | C | N | O | S | 0 | 0 |
| | | | 2010 | 1269 | 377 | 353 | 11 | | |
| 19 | J4 | 245 | Total | C | N | O | S | 0 | 0 |
| | | | 1992 | 1259 | 374 | 348 | 11 | | |
| 19 | J5 | 126 | Total | C | N | O | S | 0 | 0 |
| | | | 1001 | 626 | 188 | 180 | 7 | | |

- Molecule 20 is a protein called Family with sequence similarity 183, member B.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 20 | K1 | 118 | Total | C | N | O | S | 0 | 0 |
| | | | 1009 | 640 | 187 | 181 | 1 | | |
| 20 | K2 | 118 | Total | C | N | O | S | 0 | 0 |
| | | | 1009 | 640 | 187 | 181 | 1 | | |

- Molecule 21 is a protein called Cilia- and flagella-associated protein 90.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 21 | L1 | 126 | Total | C | N | O | S | 0 | 0 |
| | | | 1034 | 652 | 193 | 187 | 2 | | |

- Molecule 22 is a protein called Protein FAM166C.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 22 | M1 | 96 | Total | C | N | O | | 0 | 0 |
| | | | 826 | 529 | 148 | 149 | | | |
| 22 | M2 | 96 | Total | C | N | O | | 0 | 0 |
| | | | 826 | 529 | 148 | 149 | | | |
| 22 | M3 | 156 | Total | C | N | O | S | 0 | 0 |
| | | | 1280 | 821 | 223 | 233 | 3 | | |
| 22 | M4 | 96 | Total | C | N | O | | 0 | 0 |
| | | | 826 | 529 | 148 | 149 | | | |

- Molecule 23 is a protein called RIB43A-like with coiled-coils protein 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 23 | O | 74 | Total | C | N | O | S | 0 | 0 |
| | | | 627 | 386 | 124 | 115 | 2 | | |
| 23 | P | 347 | Total | C | N | O | S | 0 | 0 |
| | | | 2875 | 1751 | 564 | 549 | 11 | | |
| 23 | Q | 103 | Total | C | N | O | S | 0 | 0 |
| | | | 858 | 522 | 165 | 169 | 2 | | |

- Molecule 24 is a protein called Dual specificity phosphatase 21.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 24 | O1 | 166 | Total | C | N | O | S | 0 | 0 |
| | | | 1332 | 856 | 225 | 244 | 7 | | |
| 24 | O2 | 167 | Total | C | N | O | S | 0 | 0 |
| | | | 1344 | 865 | 226 | 246 | 7 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 24 | O3 | 167 | Total | C | N | O | S | 0 | 0 |
| | | | 1344 | 865 | 226 | 246 | 7 | | |
| 24 | O4 | 167 | Total | C | N | O | S | 0 | 0 |
| | | | 1344 | 865 | 226 | 246 | 7 | | |

- Molecule 25 is a protein called EF-hand domain-containing protein 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 25 | O5 | 491 | Total | C | N | O | S | 0 | 0 |
| | | | 4047 | 2608 | 682 | 740 | 17 | | |
| 25 | O6 | 48 | Total | C | N | O | S | 0 | 0 |
| | | | 383 | 240 | 73 | 69 | 1 | | |
| 25 | T | 280 | Total | C | N | O | S | 0 | 0 |
| | | | 2365 | 1525 | 396 | 433 | 11 | | |
| 25 | U | 503 | Total | C | N | O | S | 0 | 0 |
| | | | 4138 | 2671 | 694 | 756 | 17 | | |
| 25 | V | 524 | Total | C | N | O | S | 0 | 0 |
| | | | 4299 | 2773 | 720 | 789 | 17 | | |

- Molecule 26 is a protein called Testis expressed 49.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 26 | P1 | 76 | Total | C | N | O | S | 0 | 0 |
| | | | 637 | 409 | 117 | 109 | 2 | | |
| 26 | P2 | 98 | Total | C | N | O | S | 0 | 0 |
| | | | 825 | 531 | 152 | 140 | 2 | | |

- Molecule 27 is a protein called Testis-expressed sequence 37 protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 27 | P3 | 135 | Total | C | N | O | S | 0 | 0 |
| | | | 1103 | 719 | 187 | 190 | 7 | | |
| 27 | P4 | 155 | Total | C | N | O | S | 0 | 0 |
| | | | 1272 | 829 | 211 | 224 | 8 | | |
| 27 | P5 | 155 | Total | C | N | O | S | 0 | 0 |
| | | | 1272 | 829 | 211 | 224 | 8 | | |
| 27 | P6 | 154 | Total | C | N | O | S | 0 | 0 |
| | | | 1263 | 824 | 210 | 221 | 8 | | |
| 27 | P7 | 53 | Total | C | N | O | S | 0 | 0 |
| | | | 447 | 293 | 70 | 82 | 2 | | |

- Molecule 28 is a protein called Tektin bundle-interacting protein 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 28 | Q1 | 199 | Total | C | N | O | S | 0 | 0 |
| | | | 1634 | 1046 | 305 | 277 | 6 | | |
| 28 | Q2 | 199 | Total | C | N | O | S | 0 | 0 |
| | | | 1634 | 1046 | 305 | 277 | 6 | | |
| 28 | Q3 | 199 | Total | C | N | O | S | 0 | 0 |
| | | | 1634 | 1046 | 305 | 277 | 6 | | |
| 28 | Q4 | 199 | Total | C | N | O | S | 0 | 0 |
| | | | 1634 | 1046 | 305 | 277 | 6 | | |
| 28 | Q5 | 18 | Total | C | N | O | S | 0 | 0 |
| | | | 152 | 101 | 28 | 22 | 1 | | |

- Molecule 29 is a protein called RIB43A-like with coiled-coils protein 2.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 29 | R | 195 | Total | C | N | O | S | 0 | 0 |
| | | | 1648 | 1010 | 324 | 304 | 10 | | |
| 29 | S | 323 | Total | C | N | O | S | 0 | 0 |
| | | | 2728 | 1662 | 539 | 512 | 15 | | |

- Molecule 30 is a protein called Tektin-5.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 30 | U0 | 355 | Total | C | N | O | S | 0 | 0 |
| | | | 2897 | 1793 | 524 | 557 | 23 | | |
| 30 | U1 | 415 | Total | C | N | O | S | 0 | 0 |
| | | | 3396 | 2101 | 624 | 646 | 25 | | |
| 30 | U2 | 415 | Total | C | N | O | S | 0 | 0 |
| | | | 3396 | 2101 | 624 | 646 | 25 | | |
| 30 | U3 | 415 | Total | C | N | O | S | 0 | 0 |
| | | | 3396 | 2101 | 624 | 646 | 25 | | |
| 30 | U4 | 201 | Total | C | N | O | S | 0 | 0 |
| | | | 1664 | 1019 | 319 | 319 | 7 | | |
| 30 | U5 | 318 | Total | C | N | O | S | 0 | 0 |
| | | | 2607 | 1604 | 484 | 501 | 18 | | |
| 30 | U6 | 410 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2079 | 619 | 638 | 24 | | |
| 30 | U7 | 410 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2079 | 619 | 638 | 24 | | |
| 30 | U8 | 410 | Total | C | N | O | S | 0 | 0 |
| | | | 3360 | 2079 | 619 | 638 | 24 | | |
| 30 | U9 | 182 | Total | C | N | O | S | 0 | 0 |
| | | | 1486 | 932 | 266 | 275 | 13 | | |
| 30 | V0 | 208 | Total | C | N | O | S | 0 | 0 |
| | | | 1695 | 1061 | 300 | 319 | 15 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 30 | V1 | 389 | Total | C | N | O | S | 0 | 0 |
| | | | 3185 | 1967 | 583 | 612 | 23 | | |
| 30 | V2 | 389 | Total | C | N | O | S | 0 | 0 |
| | | | 3185 | 1967 | 583 | 612 | 23 | | |
| 30 | V3 | 389 | Total | C | N | O | S | 0 | 0 |
| | | | 3185 | 1967 | 583 | 612 | 23 | | |
| 30 | V4 | 284 | Total | C | N | O | S | 0 | 0 |
| | | | 2325 | 1425 | 429 | 454 | 17 | | |
| 30 | V5 | 294 | Total | C | N | O | S | 0 | 0 |
| | | | 2408 | 1493 | 432 | 466 | 17 | | |
| 30 | V6 | 364 | Total | C | N | O | S | 0 | 0 |
| | | | 2980 | 1841 | 542 | 577 | 20 | | |
| 30 | V7 | 334 | Total | C | N | O | S | 0 | 0 |
| | | | 2736 | 1700 | 493 | 522 | 21 | | |
| 30 | V8 | 303 | Total | C | N | O | S | 0 | 0 |
| | | | 2477 | 1539 | 442 | 479 | 17 | | |
| 30 | V9 | 99 | Total | C | N | O | S | 0 | 0 |
| | | | 800 | 507 | 136 | 153 | 4 | | |
| 30 | W0 | 298 | Total | C | N | O | S | 0 | 0 |
| | | | 2447 | 1513 | 449 | 465 | 20 | | |
| 30 | W2 | 300 | Total | C | N | O | S | 0 | 0 |
| | | | 2458 | 1522 | 447 | 469 | 20 | | |
| 30 | W4 | 323 | Total | C | N | O | S | 0 | 0 |
| | | | 2662 | 1655 | 486 | 502 | 19 | | |
| 30 | W5 | 323 | Total | C | N | O | S | 0 | 0 |
| | | | 2662 | 1655 | 486 | 502 | 19 | | |
| 30 | W6 | 323 | Total | C | N | O | S | 0 | 0 |
| | | | 2662 | 1655 | 486 | 502 | 19 | | |
| 30 | W7 | 323 | Total | C | N | O | S | 0 | 0 |
| | | | 2662 | 1655 | 486 | 502 | 19 | | |

- Molecule 31 is a protein called EF-hand domain-containing family member C2.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|------|------|----|---------|-------|
| 31 | W | 741 | Total | C | N | O | S | 0 | 0 |
| | | | 6116 | 3950 | 1019 | 1119 | 28 | | |
| 31 | X | 741 | Total | C | N | O | S | 0 | 0 |
| | | | 6116 | 3950 | 1019 | 1119 | 28 | | |
| 31 | Y | 742 | Total | C | N | O | S | 0 | 0 |
| | | | 6124 | 3954 | 1021 | 1121 | 28 | | |
| 31 | Z | 741 | Total | C | N | O | S | 0 | 0 |
| | | | 6116 | 3950 | 1019 | 1119 | 28 | | |

- Molecule 32 is a protein called Spermatid-specific manchette-related protein 1.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| 32 | X0 | 25 | Total | C | N | O | S | 0 | 0 |
| | | | 200 | 124 | 34 | 38 | 4 | | |
| 32 | X1 | 24 | Total | C | N | O | S | 0 | 0 |
| | | | 192 | 118 | 33 | 37 | 4 | | |
| 32 | X2 | 24 | Total | C | N | O | S | 0 | 0 |
| | | | 192 | 118 | 33 | 37 | 4 | | |
| 32 | X3 | 25 | Total | C | N | O | S | 0 | 0 |
| | | | 200 | 124 | 34 | 38 | 4 | | |

- Molecule 33 is a protein called Protein phosphatase 1 regulatory subunit 32.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 33 | X4 | 330 | Total | C | N | O | S | 0 | 0 |
| | | | 2619 | 1638 | 471 | 509 | 1 | | |
| 33 | X5 | 133 | Total | C | N | O | S | 0 | 0 |
| | | | 1041 | 658 | 182 | 196 | 5 | | |

- Molecule 34 is a protein called Testis-specific serine/threonine-protein kinase 6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 34 | X6 | 267 | Total | C | N | O | S | 0 | 0 |
| | | | 2097 | 1335 | 380 | 374 | 8 | | |
| 34 | X7 | 267 | Total | C | N | O | S | 0 | 0 |
| | | | 2097 | 1335 | 380 | 374 | 8 | | |
| 34 | X8 | 267 | Total | C | N | O | S | 0 | 0 |
| | | | 2097 | 1335 | 380 | 374 | 8 | | |

- Molecule 35 is a protein called Cilia- and flagella-associated protein 20.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 35 | XA | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |
| 35 | XB | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |
| 35 | XC | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |
| 35 | XD | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |
| 35 | XE | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 35 | XF | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |
| 35 | XG | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |
| 35 | XH | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1540 | 990 | 269 | 274 | 7 | | |

- Molecule 36 is a protein called Outer dense fiber protein 3.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 36 | Y0 | 63 | Total | C | N | O | S | 0 | 0 |
| | | | 483 | 313 | 87 | 80 | 3 | | |
| 36 | Y1 | 240 | Total | C | N | O | S | 0 | 0 |
| | | | 1828 | 1176 | 317 | 327 | 8 | | |
| 36 | Y2 | 225 | Total | C | N | O | S | 0 | 0 |
| | | | 1711 | 1101 | 294 | 309 | 7 | | |
| 36 | Y3 | 63 | Total | C | N | O | S | 0 | 0 |
| | | | 483 | 313 | 87 | 80 | 3 | | |
| 36 | Y4 | 185 | Total | C | N | O | S | 0 | 0 |
| | | | 1412 | 910 | 241 | 255 | 6 | | |
| 36 | Y5 | 85 | Total | C | N | O | S | 0 | 0 |
| | | | 644 | 411 | 110 | 120 | 3 | | |

- Molecule 37 is a protein called Parkin coregulated gene protein homolog.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 37 | YA | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |
| 37 | YB | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |
| 37 | YC | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |
| 37 | YD | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |
| 37 | YE | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |
| 37 | YF | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |
| 37 | YG | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |
| 37 | YH | 220 | Total | C | N | O | S | 0 | 0 |
| | | | 1775 | 1148 | 300 | 317 | 10 | | |

- Molecule 38 is a protein called Testis, prostate and placenta-expressed protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|----|----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 38 | Z1 | 33 | 279 | 181 | 48 | 48 | 2 | 0 | 0 |

- Molecule 39 is a protein called Cilia- and flagella-associated protein 45.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 39 | a | 294 | 2499 | 1522 | 478 | 485 | 14 | 0 | 0 |
| 39 | a6 | 70 | 572 | 363 | 99 | 108 | 2 | 0 | 0 |
| 39 | b | 244 | 2092 | 1266 | 420 | 399 | 7 | 0 | 0 |
| 39 | c | 413 | 3528 | 2141 | 692 | 680 | 15 | 0 | 0 |
| 39 | d | 135 | 1155 | 701 | 233 | 219 | 2 | 0 | 0 |

- Molecule 40 is a protein called Uncharacterized protein C10orf82 homolog.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 40 | a1 | 156 | 1277 | 818 | 218 | 231 | 10 | 0 | 0 |
| 40 | a2 | 156 | 1277 | 818 | 218 | 231 | 10 | 0 | 0 |
| 40 | a3 | 156 | 1277 | 818 | 218 | 231 | 10 | 0 | 0 |
| 40 | a4 | 156 | 1277 | 818 | 218 | 231 | 10 | 0 | 0 |

- Molecule 41 is a protein called Coiled-coil domain-containing protein 105.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 41 | b1 | 132 | 1081 | 670 | 212 | 188 | 11 | 0 | 0 |
| 41 | b2 | 381 | 3091 | 1915 | 598 | 555 | 23 | 0 | 0 |
| 41 | b3 | 382 | 3102 | 1921 | 602 | 556 | 23 | 0 | 0 |
| 41 | b4 | 382 | 3102 | 1921 | 602 | 556 | 23 | 0 | 0 |
| 41 | b5 | 333 | 2705 | 1675 | 519 | 489 | 22 | 0 | 0 |

- Molecule 42 is a protein called Cilia- and flagella-associated protein 52.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| 42 | e | 607 | Total | C | N | O | S | 0 | 0 |
| | | | 4689 | 2967 | 818 | 872 | 32 | | |
| 42 | f | 607 | Total | C | N | O | S | 0 | 0 |
| | | | 4689 | 2967 | 818 | 872 | 32 | | |
| 42 | g | 607 | Total | C | N | O | S | 0 | 0 |
| | | | 4689 | 2967 | 818 | 872 | 32 | | |

- Molecule 43 is a protein called Enkurin.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|---|---------|-------|
| 43 | h | 247 | Total | C | N | O | S | 0 | 0 |
| | | | 2014 | 1287 | 351 | 367 | 9 | | |
| 43 | i | 245 | Total | C | N | O | S | 0 | 0 |
| | | | 1999 | 1279 | 349 | 362 | 9 | | |
| 43 | j | 244 | Total | C | N | O | S | 0 | 0 |
| | | | 1993 | 1276 | 348 | 360 | 9 | | |
| 43 | k | 245 | Total | C | N | O | S | 0 | 0 |
| | | | 1999 | 1279 | 349 | 362 | 9 | | |

- Molecule 44 is a protein called Testis-expressed protein 43.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 44 | h1 | 97 | Total | C | N | O | S | 0 | 0 |
| | | | 787 | 506 | 139 | 136 | 6 | | |
| 44 | h2 | 99 | Total | C | N | O | S | 0 | 0 |
| | | | 809 | 518 | 147 | 138 | 6 | | |
| 44 | h3 | 99 | Total | C | N | O | S | 0 | 0 |
| | | | 809 | 518 | 147 | 138 | 6 | | |
| 44 | h4 | 98 | Total | C | N | O | S | 0 | 0 |
| | | | 798 | 512 | 143 | 137 | 6 | | |

- Molecule 45 is a protein called Protein Flattop.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| 45 | i1 | 116 | Total | C | N | O | S | 0 | 0 |
| | | | 909 | 579 | 162 | 165 | 3 | | |
| 45 | l | 116 | Total | C | N | O | S | 0 | 0 |
| | | | 909 | 579 | 162 | 165 | 3 | | |
| 45 | m | 116 | Total | C | N | O | S | 0 | 0 |
| | | | 909 | 579 | 162 | 165 | 3 | | |
| 45 | n | 116 | Total | C | N | O | S | 0 | 0 |
| | | | 909 | 579 | 162 | 165 | 3 | | |

- Molecule 46 is a protein called EF-hand calcium-binding domain-containing protein 6.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 46 | i2 | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1500 | 956 | 263 | 271 | 10 | | |
| 46 | i3 | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1500 | 956 | 263 | 271 | 10 | | |
| 46 | i4 | 180 | Total | C | N | O | S | 0 | 0 |
| | | | 1500 | 956 | 263 | 271 | 10 | | |

- Molecule 47 is a protein called Cilia- and flagella-associated protein 210.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|------|-----|-----|----|---------|-------|
| | | | Total | C | N | O | S | | |
| 47 | o | 199 | Total | C | N | O | S | 0 | 0 |
| | | | 1688 | 1040 | 321 | 322 | 5 | | |
| 47 | p | 395 | Total | C | N | O | S | 0 | 0 |
| | | | 3300 | 2045 | 601 | 643 | 11 | | |

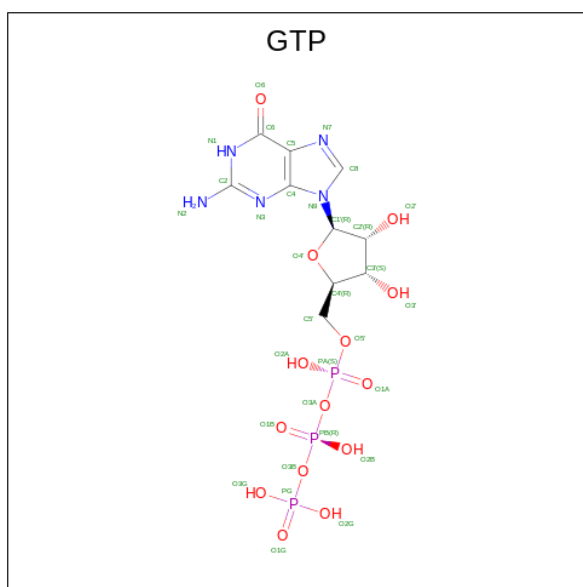
- Molecule 48 is a protein called Cilia- and flagella-associated protein 276.

| Mol | Chain | Residues | Atoms | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---------|-------|
| | | | Total | C | N | O | | |
| 48 | q | 75 | Total | C | N | O | 0 | 0 |
| | | | 599 | 379 | 108 | 112 | | |
| 48 | r | 78 | Total | C | N | O | 0 | 0 |
| | | | 625 | 395 | 114 | 116 | | |
| 48 | s | 78 | Total | C | N | O | 0 | 0 |
| | | | 625 | 395 | 114 | 116 | | |

- Molecule 49 is a protein called Piercer of microtubule wall 1 protein.

| Mol | Chain | Residues | Atoms | | | | | AltConf | Trace |
|-----|-------|----------|-------|-----|-----|-----|---|---------|-------|
| | | | Total | C | N | O | S | | |
| 49 | y | 111 | Total | C | N | O | S | 0 | 0 |
| | | | 911 | 577 | 165 | 166 | 3 | | |

- Molecule 50 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: C₁₀H₁₆N₅O₁₄P₃).



| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | AA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | AC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | AE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | AG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | AI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | AK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | AM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | AO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | BC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | BE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | BG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | BI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | BK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | BM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | BO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | CQ | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | DQ | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | EA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | EC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | EE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | EG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | EI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | EK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | EM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | EO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | FO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | GO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | HA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | HC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | HE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | HG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | HI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | HK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | HM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | HO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | IA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | IC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | IE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | IG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | II | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | IK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | IM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | IO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | JC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | JE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | JG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | JI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | JK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | JM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | JO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | JQ | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | KO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | LO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | MA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | MC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | ME | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | MG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | MI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | MK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | MM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | MO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | NO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | OO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | PC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | PE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | PG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | PI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | PK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | PM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | PO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | QC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | QE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | QG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | QI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | QK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | QM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | QO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | RC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | RE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | RG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | RI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | RK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | RM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | RO | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 50 | SA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | SC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | SE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | SG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | SI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | SK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | SM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | TA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | TC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | TE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | TG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | TI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | TK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | TM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | UA | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | UC | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | UE | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | UG | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | UI | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | UK | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |
| 50 | UM | 1 | Total 32 | C 10 | N 5 | O 14 | P 3 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------|----|---|----|---|---------|
| | | | Total | C | N | O | P | |
| 50 | UO | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VA | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VC | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VE | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VG | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VI | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VK | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VM | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | VO | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WA | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WC | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WE | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WG | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WI | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WK | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WM | 1 | 32 | 10 | 5 | 14 | 3 | 0 |
| 50 | WO | 1 | 32 | 10 | 5 | 14 | 3 | 0 |

- Molecule 51 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|------------|---------|---------|
| 51 | AA | 1 | Total 1 | Mg 1 | 0 |
| 51 | AC | 1 | Total 1 | Mg 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Mg | |
| 51 | AE | 1 | 1 | 1 | 0 |
| 51 | AG | 1 | 1 | 1 | 0 |
| 51 | AI | 1 | 1 | 1 | 0 |
| 51 | AK | 1 | 1 | 1 | 0 |
| 51 | AM | 1 | 1 | 1 | 0 |
| 51 | AO | 1 | 1 | 1 | 0 |
| 51 | BC | 1 | 1 | 1 | 0 |
| 51 | BE | 1 | 1 | 1 | 0 |
| 51 | BG | 1 | 1 | 1 | 0 |
| 51 | BI | 1 | 1 | 1 | 0 |
| 51 | BK | 1 | 1 | 1 | 0 |
| 51 | BM | 1 | 1 | 1 | 0 |
| 51 | BO | 1 | 1 | 1 | 0 |
| 51 | CC | 1 | 1 | 1 | 0 |
| 51 | CE | 1 | 1 | 1 | 0 |
| 51 | CG | 1 | 1 | 1 | 0 |
| 51 | CI | 1 | 1 | 1 | 0 |
| 51 | CK | 1 | 1 | 1 | 0 |
| 51 | CM | 1 | 1 | 1 | 0 |
| 51 | CO | 1 | 1 | 1 | 0 |
| 51 | CQ | 1 | 1 | 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Mg | |
| 51 | DC | 1 | 1 | 1 | 0 |
| 51 | DE | 1 | 1 | 1 | 0 |
| 51 | DG | 1 | 1 | 1 | 0 |
| 51 | DI | 1 | 1 | 1 | 0 |
| 51 | DK | 1 | 1 | 1 | 0 |
| 51 | DM | 1 | 1 | 1 | 0 |
| 51 | DO | 1 | 1 | 1 | 0 |
| 51 | DQ | 1 | 1 | 1 | 0 |
| 51 | EA | 1 | 1 | 1 | 0 |
| 51 | EC | 1 | 1 | 1 | 0 |
| 51 | EE | 1 | 1 | 1 | 0 |
| 51 | EG | 1 | 1 | 1 | 0 |
| 51 | EI | 1 | 1 | 1 | 0 |
| 51 | EK | 1 | 1 | 1 | 0 |
| 51 | EM | 1 | 1 | 1 | 0 |
| 51 | EO | 1 | 1 | 1 | 0 |
| 51 | FA | 1 | 1 | 1 | 0 |
| 51 | FC | 1 | 1 | 1 | 0 |
| 51 | FE | 1 | 1 | 1 | 0 |
| 51 | FG | 1 | 1 | 1 | 0 |
| 51 | FI | 1 | 1 | 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Mg | |
| 51 | FK | 1 | 1 | 1 | 0 |
| 51 | FM | 1 | 1 | 1 | 0 |
| 51 | FO | 1 | 1 | 1 | 0 |
| 51 | GA | 1 | 1 | 1 | 0 |
| 51 | GC | 1 | 1 | 1 | 0 |
| 51 | GE | 1 | 1 | 1 | 0 |
| 51 | GG | 1 | 1 | 1 | 0 |
| 51 | GI | 1 | 1 | 1 | 0 |
| 51 | GK | 1 | 1 | 1 | 0 |
| 51 | GM | 1 | 1 | 1 | 0 |
| 51 | GO | 1 | 1 | 1 | 0 |
| 51 | HA | 1 | 1 | 1 | 0 |
| 51 | HC | 1 | 1 | 1 | 0 |
| 51 | HE | 1 | 1 | 1 | 0 |
| 51 | HG | 1 | 1 | 1 | 0 |
| 51 | HI | 1 | 1 | 1 | 0 |
| 51 | HK | 1 | 1 | 1 | 0 |
| 51 | HM | 1 | 1 | 1 | 0 |
| 51 | HO | 1 | 1 | 1 | 0 |
| 51 | IA | 1 | 1 | 1 | 0 |
| 51 | IC | 1 | 1 | 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Mg | |
| 51 | IE | 1 | 1 | 1 | 0 |
| 51 | IG | 1 | 1 | 1 | 0 |
| 51 | II | 1 | 1 | 1 | 0 |
| 51 | IK | 1 | 1 | 1 | 0 |
| 51 | IM | 1 | 1 | 1 | 0 |
| 51 | IO | 1 | 1 | 1 | 0 |
| 51 | JC | 1 | 1 | 1 | 0 |
| 51 | JE | 1 | 1 | 1 | 0 |
| 51 | JG | 1 | 1 | 1 | 0 |
| 51 | JI | 1 | 1 | 1 | 0 |
| 51 | JK | 1 | 1 | 1 | 0 |
| 51 | JM | 1 | 1 | 1 | 0 |
| 51 | JO | 1 | 1 | 1 | 0 |
| 51 | JQ | 1 | 1 | 1 | 0 |
| 51 | KA | 1 | 1 | 1 | 0 |
| 51 | KC | 1 | 1 | 1 | 0 |
| 51 | KE | 1 | 1 | 1 | 0 |
| 51 | KG | 1 | 1 | 1 | 0 |
| 51 | KI | 1 | 1 | 1 | 0 |
| 51 | KK | 1 | 1 | 1 | 0 |
| 51 | KM | 1 | 1 | 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Mg | |
| 51 | KO | 1 | 1 | 1 | 0 |
| 51 | LA | 1 | 1 | 1 | 0 |
| 51 | LC | 1 | 1 | 1 | 0 |
| 51 | LE | 1 | 1 | 1 | 0 |
| 51 | LG | 1 | 1 | 1 | 0 |
| 51 | LI | 1 | 1 | 1 | 0 |
| 51 | LK | 1 | 1 | 1 | 0 |
| 51 | LM | 1 | 1 | 1 | 0 |
| 51 | LO | 1 | 1 | 1 | 0 |
| 51 | MA | 1 | 1 | 1 | 0 |
| 51 | MC | 1 | 1 | 1 | 0 |
| 51 | ME | 1 | 1 | 1 | 0 |
| 51 | MG | 1 | 1 | 1 | 0 |
| 51 | MI | 1 | 1 | 1 | 0 |
| 51 | MK | 1 | 1 | 1 | 0 |
| 51 | MM | 1 | 1 | 1 | 0 |
| 51 | MO | 1 | 1 | 1 | 0 |
| 51 | NA | 1 | 1 | 1 | 0 |
| 51 | NC | 1 | 1 | 1 | 0 |
| 51 | NE | 1 | 1 | 1 | 0 |
| 51 | NG | 1 | 1 | 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|------------|--------------|-----------------|--------------|---------|----------------|
| 51 | NI | 1 | Total 1 | Mg 1 | 0 |
| 51 | NK | 1 | Total 1 | Mg 1 | 0 |
| 51 | NM | 1 | Total 1 | Mg 1 | 0 |
| 51 | NO | 1 | Total 1 | Mg 1 | 0 |
| 51 | OA | 1 | Total 1 | Mg 1 | 0 |
| 51 | OC | 1 | Total 1 | Mg 1 | 0 |
| 51 | OE | 1 | Total 1 | Mg 1 | 0 |
| 51 | OG | 1 | Total 1 | Mg 1 | 0 |
| 51 | OI | 1 | Total 1 | Mg 1 | 0 |
| 51 | OK | 1 | Total 1 | Mg 1 | 0 |
| 51 | OM | 1 | Total 1 | Mg 1 | 0 |
| 51 | OO | 1 | Total 1 | Mg 1 | 0 |
| 51 | PC | 1 | Total 1 | Mg 1 | 0 |
| 51 | PE | 1 | Total 1 | Mg 1 | 0 |
| 51 | PG | 1 | Total 1 | Mg 1 | 0 |
| 51 | PI | 1 | Total 1 | Mg 1 | 0 |
| 51 | PK | 1 | Total 1 | Mg 1 | 0 |
| 51 | PM | 1 | Total 1 | Mg 1 | 0 |
| 51 | PO | 1 | Total 1 | Mg 1 | 0 |
| 51 | QC | 1 | Total 1 | Mg 1 | 0 |
| 51 | QE | 1 | Total 1 | Mg 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| | | | Total | Mg | |
| 51 | QG | 1 | 1 | 1 | 0 |
| 51 | QI | 1 | 1 | 1 | 0 |
| 51 | QK | 1 | 1 | 1 | 0 |
| 51 | QM | 1 | 1 | 1 | 0 |
| 51 | QO | 1 | 1 | 1 | 0 |
| 51 | RC | 1 | 1 | 1 | 0 |
| 51 | RE | 1 | 1 | 1 | 0 |
| 51 | RG | 1 | 1 | 1 | 0 |
| 51 | RI | 1 | 1 | 1 | 0 |
| 51 | RK | 1 | 1 | 1 | 0 |
| 51 | RM | 1 | 1 | 1 | 0 |
| 51 | RO | 1 | 1 | 1 | 0 |
| 51 | SA | 1 | 1 | 1 | 0 |
| 51 | SC | 1 | 1 | 1 | 0 |
| 51 | SE | 1 | 1 | 1 | 0 |
| 51 | SG | 1 | 1 | 1 | 0 |
| 51 | SI | 1 | 1 | 1 | 0 |
| 51 | SK | 1 | 1 | 1 | 0 |
| 51 | SM | 1 | 1 | 1 | 0 |
| 51 | TA | 1 | 1 | 1 | 0 |
| 51 | TC | 1 | 1 | 1 | 0 |

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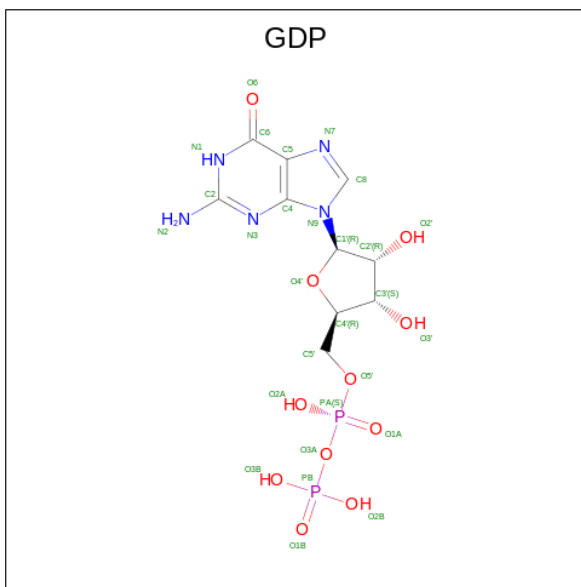
| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|------------|---------|---------|
| 51 | TE | 1 | Total 1 | Mg 1 | 0 |
| 51 | TG | 1 | Total 1 | Mg 1 | 0 |
| 51 | TI | 1 | Total 1 | Mg 1 | 0 |
| 51 | TK | 1 | Total 1 | Mg 1 | 0 |
| 51 | TM | 1 | Total 1 | Mg 1 | 0 |
| 51 | UA | 1 | Total 1 | Mg 1 | 0 |
| 51 | UC | 1 | Total 1 | Mg 1 | 0 |
| 51 | UE | 1 | Total 1 | Mg 1 | 0 |
| 51 | UG | 1 | Total 1 | Mg 1 | 0 |
| 51 | UI | 1 | Total 1 | Mg 1 | 0 |
| 51 | UK | 1 | Total 1 | Mg 1 | 0 |
| 51 | UM | 1 | Total 1 | Mg 1 | 0 |
| 51 | UO | 1 | Total 1 | Mg 1 | 0 |
| 51 | VA | 1 | Total 1 | Mg 1 | 0 |
| 51 | VC | 1 | Total 1 | Mg 1 | 0 |
| 51 | VE | 1 | Total 1 | Mg 1 | 0 |
| 51 | VG | 1 | Total 1 | Mg 1 | 0 |
| 51 | VI | 1 | Total 1 | Mg 1 | 0 |
| 51 | VK | 1 | Total 1 | Mg 1 | 0 |
| 51 | VM | 1 | Total 1 | Mg 1 | 0 |
| 51 | VO | 1 | Total 1 | Mg 1 | 0 |

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| Mol | Chain | Residues | Atoms | | AltConf |
|-----|-------|----------|-------|----|---------|
| 51 | WA | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 51 | WC | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 51 | WE | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 51 | WG | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 51 | WI | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 51 | WK | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 51 | WM | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |
| 51 | WO | 1 | Total | Mg | 0 |
| | | | 1 | 1 | |

- Molecule 52 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).



| Mol | Chain | Residues | Atoms | | | | AltConf | |
|-----|-------|----------|-------|----|---|----|---------|---|
| 52 | AB | 1 | Total | C | N | O | P | 0 |
| | | | 28 | 10 | 5 | 11 | 2 | |
| 52 | AD | 1 | Total | C | N | O | P | 0 |
| | | | 28 | 10 | 5 | 11 | 2 | |
| 52 | AF | 1 | Total | C | N | O | P | 0 |
| | | | 28 | 10 | 5 | 11 | 2 | |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 52 | AH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | AJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | AL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | AN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | AP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | BP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | CP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 52 | DB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | DD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | DF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | DH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | DJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | DL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | DN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | DP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | EB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | ED | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | EF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | EH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | EJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | EL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | EN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | FB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | FD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | FF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | FH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | FJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | FL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------|----|---|----|---|---------|
| | | | Total | C | N | O | P | |
| 52 | FN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | GB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | GD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | GF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | GH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | GJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | GL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | GN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | HP | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | IB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | ID | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | IF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | IH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | IJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 52 | IL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | IN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | IP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | JP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | KP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | LB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | LD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------|----|---|----|---|---------|
| | | | Total | C | N | O | P | |
| 52 | LF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | LH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | LJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | LL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | LN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | LP | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | MB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | MD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | MF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | MH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | MJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | ML | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | MN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | MP | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | NB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | ND | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | NF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | NH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | NJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | NL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | NN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------|----|---|----|---|---------|
| | | | Total | C | N | O | P | |
| 52 | NP | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | OB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | OD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | OF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | OH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | OJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | OL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | ON | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | OP | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | PP | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | QB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | QD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | QF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | QH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |

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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 52 | QJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | QL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | QN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | QP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | RD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | RF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | RH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | RJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | RL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | RN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | RP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | SB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | SD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | SF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | SH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | SJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | SL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | SN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | TB | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | TD | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | TF | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |

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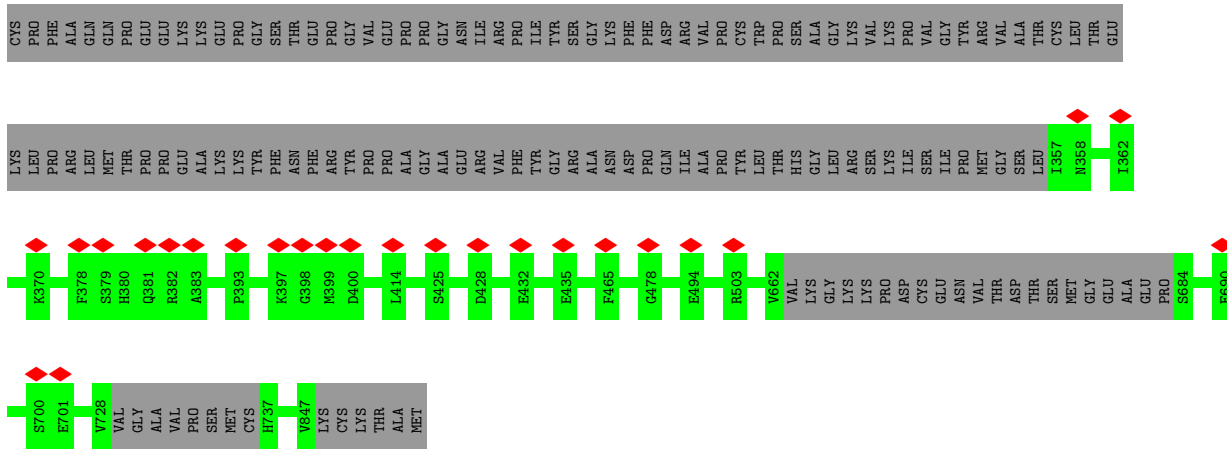
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| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------|----|---|----|---|---------|
| | | | Total | C | N | O | P | |
| 52 | TH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | TJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | TL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | TN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | UB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | UD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | UF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | UH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | UJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | UL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | UN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | VB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | VD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | VF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | VH | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | VJ | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | VL | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | VN | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | WB | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | WD | 1 | 28 | 10 | 5 | 11 | 2 | 0 |
| 52 | WF | 1 | 28 | 10 | 5 | 11 | 2 | 0 |

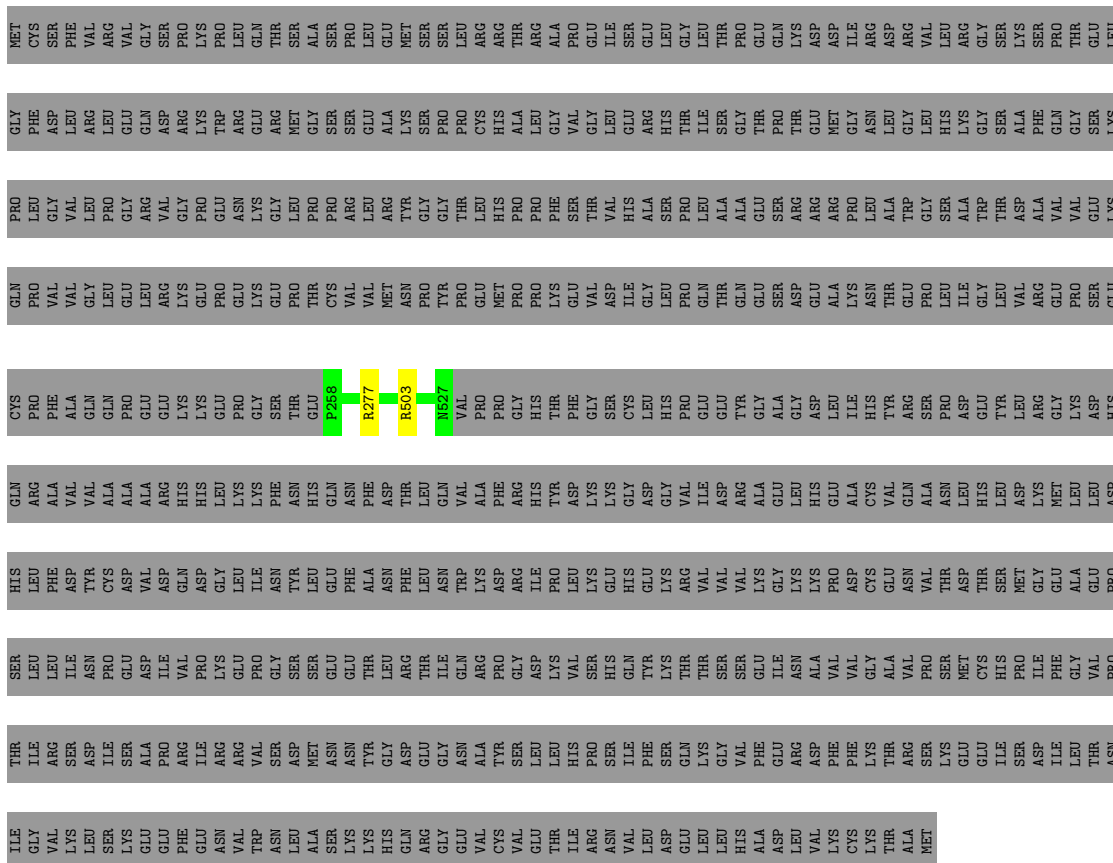
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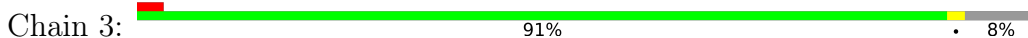
| Mol | Chain | Residues | Atoms | | | | | AltConf |
|-----|-------|----------|-------------|---------|--------|---------|--------|---------|
| | | | Total | C | N | O | P | |
| 52 | WH | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | WJ | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | WL | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | WN | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |
| 52 | WP | 1 | Total 28 | C 10 | N 5 | O 11 | P 2 | 0 |



• Molecule 2: EF-hand domain-containing family member B



• Molecule 3: Cilia- and flagella-associated protein 53



GLN ARG
ILE ILE
LEU LEU
SER SER
GLU GLU
ASN ASN
GLN GLN
ALA ALA
SER SER
GLN GLN
ASN ASN
VAL VAL
HIS HIS
MET MET
MET MET
ARG ARG
ARG ARG
GLY GLY
TYR TYR
PRO PRO
ASP ASP
PRO PRO
LEU LEU

• Molecule 3: Cilia- and flagella-associated protein 53

Chain 4:  29% 71%

MET TYR
GLN SER
ILE GLN
GLN GLN
PHE ASP
GLY THR
THR VAL
VAL ARG
PRO ASP
SER ARG
PHE HIS
LYS GLN
GLY LEU
PRO ASP
THR SER
LYS LEU
VAL VAL
ALA GLN
VAL ILE
ILE ARG
GLN GLN
ASP ARG
ALA ASP
LYS LEU
PRO GLN
PRO MET
GLY GLY
PHE LEU
ALA LEU
VAL GLN
ARG ARG
ASN ASN
GLN GLN
HIS HIS
LYS LYS
THR THR
THR THR
ALA TYR
PHE PHE
SER SER
ILE ILE
LYS LYS
MET MET
ASN ASN
GLN GLN
LEU LEU
LEU LEU
GLN GLN
SER SER

ARG LEU
LYS LYS
CYS CYS
ASP ASP
TRP TRP
ILE ILE
GLN GLN
THR THR
VAL VAL
SER SER
ASP ASP
PRO PRO
MET MET
ARG ARG
HIS HIS
GLY GLY
THR THR
LYS LYS
PHE PHE
LEU LEU
SER SER
VAL VAL
GLN GLN
ALA ALA
LEU LEU
THR THR
HIS HIS
TYR TYR
LEU LEU
ALA ALA
SER SER
SER SER
ILE ILE
LYS LYS
GLN GLN
MET MET
LEU LEU
LEU LEU
GLN GLN
SER SER
GLY GLY

GLU THR
THR ILE
ILE GLU
GLU GLU
LYS LYS
ASP ASP
LEU LEU
LYS LYS
SER SER
MET MET
PRO PRO
ARG ARG
GLY GLY
THR THR
GLN GLN
VAL VAL
LEU LEU
ASP ASP
LEU LEU
LEU LEU
GLN GLN
GLN GLN
PHE PHE
VAL VAL
ARG ARG
ASP ASP
GLY GLY
SER SER
LEU LEU
LEU LEU
SER SER
GLU GLU
CYS CYS
ARG ARG
GLN GLN
GLU GLU
LEU LEU
THR THR
ARG ARG
LEU LEU
SER SER
THR THR
HIS HIS
TYR TYR
ALA ALA
SER SER
SER SER
LYS LYS
LEU LEU
GLN GLN
PHE PHE
ARG ARG
GLY GLY
VAL VAL

ASN ALA
ALA ILE
ILE ILE
GLU GLU
PHE PHE
ASN ASN
LYS LYS
SER SER
MET MET
PRO PRO
ARG ARG
GLY GLY
THR THR
GLN GLN
VAL VAL
LEU LEU
GLU GLU
LYS LYS
THR THR
HIS HIS
VAL VAL
LEU LEU
GLU GLU
ASP ASP
LEU LEU
GLN GLN
GLN GLN
MET MET
SER SER
PHE PHE
LYS LYS
GLN GLN
ASN ASN
SER SER
THR THR
ARG ARG
GLU GLU
SER SER
VAL VAL
LEU LEU
GLN GLN
ASP ASP
LYS LYS
LEU LEU
VAL VAL
GLN GLN
SER SER
THR THR
MET MET
VAL VAL
GLU GLU
THR THR
SER SER

ILE GLN
GLN ALA
ALA ALA
GLN GLN
CYS CYS
ASP ASP
TRP TRP
ILE ILE
GLU GLU
PHE PHE
ASN ASN
LYS LYS
SER SER
MET MET
PRO PRO
ARG ARG
GLY GLY
THR THR
GLN GLN
VAL VAL
LEU LEU
GLU GLU
LYS LYS
THR THR
HIS HIS
VAL VAL
LEU LEU
GLU GLU
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LEU LEU
GLN GLN
GLN GLN
MET MET
SER SER
PHE PHE
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GLN GLN
ASP ASP
LYS LYS
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VAL VAL
GLN GLN
SER SER
THR THR
MET MET
VAL VAL
GLU GLU
THR THR
SER SER
GLN GLN

ARG GLU
LEU TYR
TYR ARG
ASP GLU
LEU ASP
ASP LEU
SER ASN
MET MET
PRO PRO
LYS LYS
VAL VAL
GLY GLY
GLU GLU
ALA ALA
SER SER
MET MET
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GLY GLY
THR THR
HIS HIS
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LEU LEU
GLU GLU
ASP ASP
LEU LEU
GLN GLN
GLN GLN
MET MET
SER SER
PHE PHE
LYS LYS
GLN GLN
ASN ASN
SER SER
THR THR
ARG ARG
GLU GLU
SER SER
VAL VAL
LEU LEU
GLN GLN
ASP ASP
LYS LYS
LEU LEU
VAL VAL
GLN GLN
SER SER
THR THR
MET MET
VAL VAL
GLU GLU
THR THR
SER SER
GLN GLN

L443
L497
R606
ARG
GLY
TYR
TYR
PRO
ASP
LYS
PRO
PRO
LEU

• Molecule 4: Nucleoside diphosphate kinase 7

Chain 5:  94% 5%

MET ARG
ALA ALA
CYS CYS
GLN GLN
GLY GLY
ARG ARG
SER SER
SER SER
SER SER
LEU LEU
VAL VAL
SER SER
PRO PRO
TYR TYR
MET MET
ALA ALA
P19
R62
K70
S243
S244
G245
G246
C247
N257
E302
D316
D394
ASN

• Molecule 4: Nucleoside diphosphate kinase 7

Chain 6:  95% 5%

MET ARG
ALA ALA
CYS CYS
GLN GLN
GLY GLY
ARG ARG
SER SER
SER SER
SER SER
LEU LEU
VAL VAL
SER SER
PRO PRO
TYR TYR
MET MET
ALA ALA
P19
S243
S244
G245
G246
G286
N287
S334
N335
P336
T337
K338
D394
ASN

• Molecule 4: Nucleoside diphosphate kinase 7

Chain j1:  94% 5%

MET ARG
ALA ALA
CYS CYS
GLN GLN
GLY GLY
ARG ARG
SER SER
SER SER
SER SER
LEU LEU
VAL VAL
SER SER
PRO PRO
TYR TYR
MET MET
ALA ALA
P19
R63
S243
S244
G245
G246
T252
N257
L273
D282
V311
S312
N315
D316
M317
S334
N335
P336
T337
K338
D394
ASN

• Molecule 5: Cilia- and flagella-associated protein 107

ILE
ARG
ALA
GLU
ALA
ILE
CYS

• Molecule 7: Tektin-1



MET
A2
D89
G402
ASP
ASP
HIS
GLY
ALA
TRP
GLU
GLY
GLY
ILE
ARG
ALA
GLU
ALA
CYS

• Molecule 7: Tektin-1



MET
A2
D78
E202
K203
V204
L232
L389
G402
ASP
ASP
HIS
GLY
ALA
TRP
GLU
GLY
ILE
ARG
ALA
GLU
ALA
CYS

• Molecule 7: Tektin-1



MET
ALA
LYS
L4
E202
K203
D264
G402
ASP
ASP
HIS
GLY
ALA
TRP
GLY
GLY
ILE
ARG
ALA
CYS

• Molecule 7: Tektin-1



MET
A2
D90
LEU
THR
LYR
THR
THR
ARG
LEU
SER
GLU
ARG
SER
LEU
LEU
SER
TYR
LYS
LEU
PRO
LEU
HIS
ILE
THR
GLU
GLY
CYS
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GLY
TYR
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ASP
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G186
V204
L232
K239
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SER
ILE
PRO
PRO

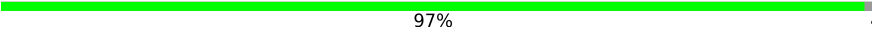
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GLY
ASP
ASP
HIS
GLY
ALA
TRP
GLY
GLY
ILE
ARG
ALA
ALA
ALA
ILE
CYS

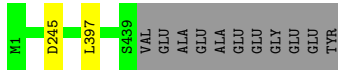
• Molecule 8: Tubulin alpha-3 chain



K1
M36
I83
D367
S439
VAL
GLU
ALA
GLU
ALA
GLU
GLY
GLU
GLU
TYR

• Molecule 8: Tubulin alpha-3 chain

Chain AC:  97%



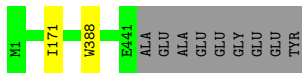
- Molecule 8: Tubulin alpha-3 chain

Chain AE:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain AG:  98%



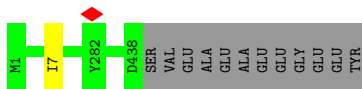
- Molecule 8: Tubulin alpha-3 chain

Chain AI:  96%



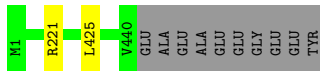
- Molecule 8: Tubulin alpha-3 chain

Chain AK:  97%



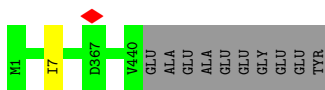
- Molecule 8: Tubulin alpha-3 chain

Chain AM:  97%



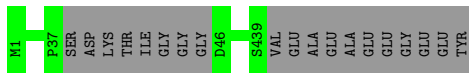
- Molecule 8: Tubulin alpha-3 chain

Chain AO:  98%



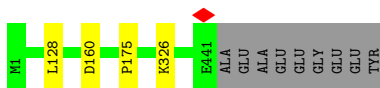
- Molecule 8: Tubulin alpha-3 chain

Chain BC:  96%



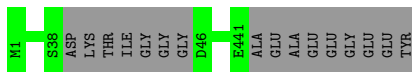
- Molecule 8: Tubulin alpha-3 chain

Chain BE:  97%



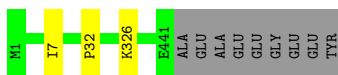
- Molecule 8: Tubulin alpha-3 chain

Chain BG:  96%



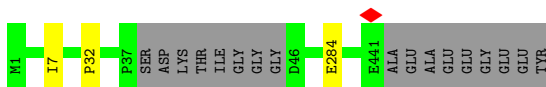
- Molecule 8: Tubulin alpha-3 chain

Chain BI:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain BK:  96%



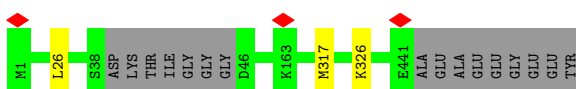
- Molecule 8: Tubulin alpha-3 chain

Chain BM:  96%



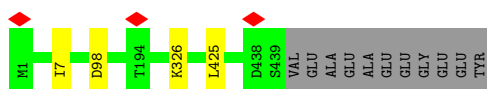
- Molecule 8: Tubulin alpha-3 chain

Chain BO:  96%



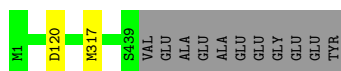
- Molecule 8: Tubulin alpha-3 chain

Chain CC:  97%



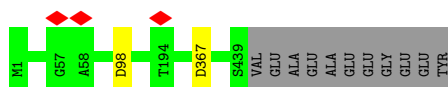
- Molecule 8: Tubulin alpha-3 chain

Chain CE:  97%



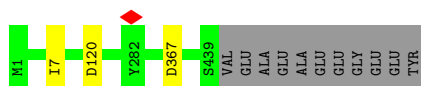
- Molecule 8: Tubulin alpha-3 chain

Chain CG:  97%



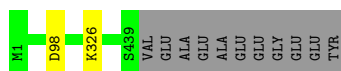
- Molecule 8: Tubulin alpha-3 chain

Chain CI:  97%



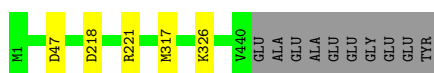
- Molecule 8: Tubulin alpha-3 chain

Chain CK:  97%



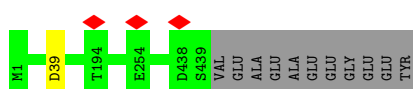
- Molecule 8: Tubulin alpha-3 chain

Chain CM:  97%

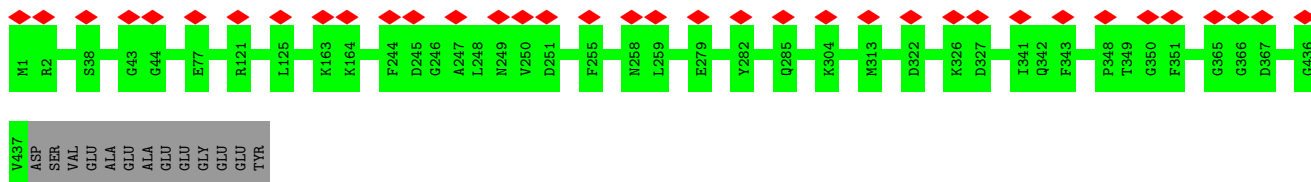


- Molecule 8: Tubulin alpha-3 chain

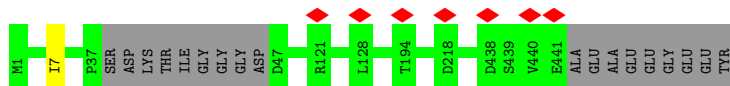
Chain CO:  97%



- Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



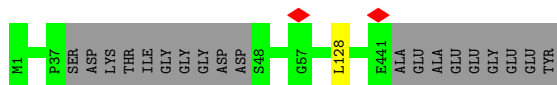
• Molecule 8: Tubulin alpha-3 chain



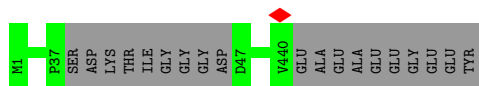
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

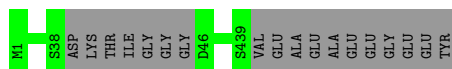


• Molecule 8: Tubulin alpha-3 chain

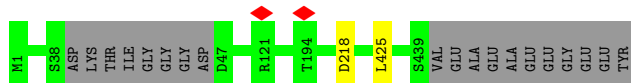


• Molecule 8: Tubulin alpha-3 chain

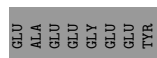
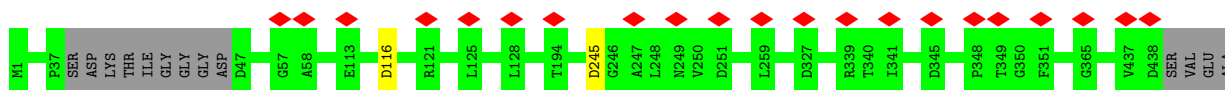




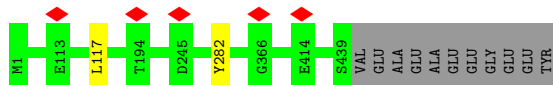
• Molecule 8: Tubulin alpha-3 chain



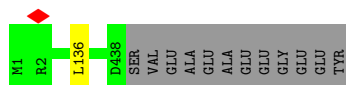
• Molecule 8: Tubulin alpha-3 chain



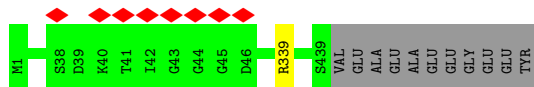
• Molecule 8: Tubulin alpha-3 chain



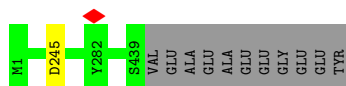
• Molecule 8: Tubulin alpha-3 chain



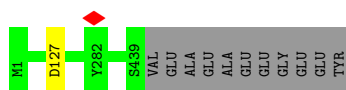
• Molecule 8: Tubulin alpha-3 chain



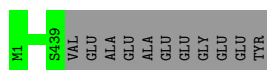
• Molecule 8: Tubulin alpha-3 chain



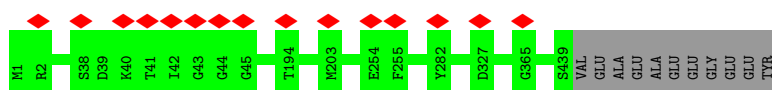
• Molecule 8: Tubulin alpha-3 chain



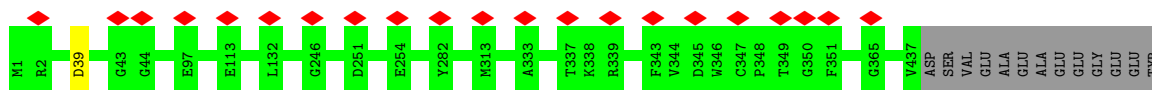
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



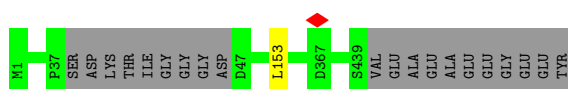
• Molecule 8: Tubulin alpha-3 chain



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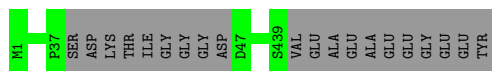


• Molecule 8: Tubulin alpha-3 chain

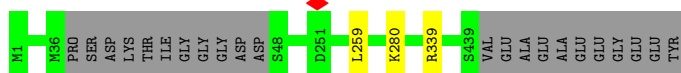


• Molecule 8: Tubulin alpha-3 chain





• Molecule 8: Tubulin alpha-3 chain



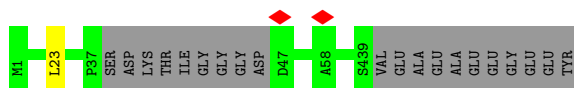
• Molecule 8: Tubulin alpha-3 chain



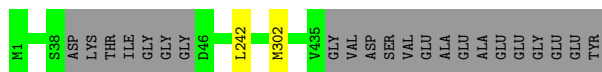
• Molecule 8: Tubulin alpha-3 chain



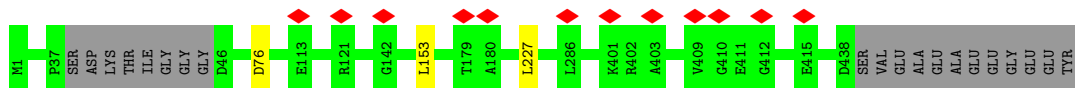
• Molecule 8: Tubulin alpha-3 chain



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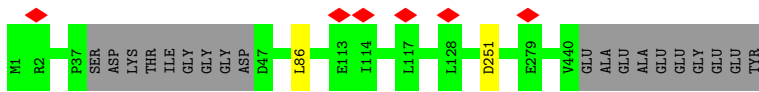


• Molecule 8: Tubulin alpha-3 chain



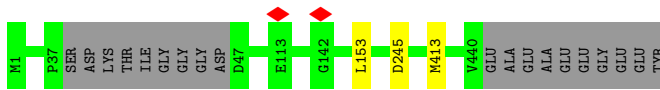
• Molecule 8: Tubulin alpha-3 chain

Chain GC:  95%



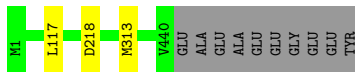
- Molecule 8: Tubulin alpha-3 chain

Chain GE:  95%



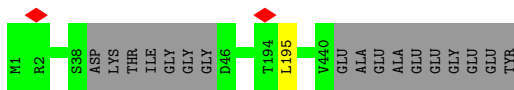
- Molecule 8: Tubulin alpha-3 chain

Chain GG:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain GI:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain GK:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain GM:  96%

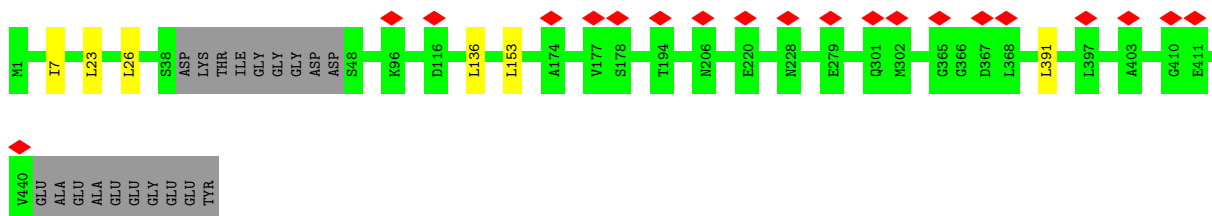


- Molecule 8: Tubulin alpha-3 chain

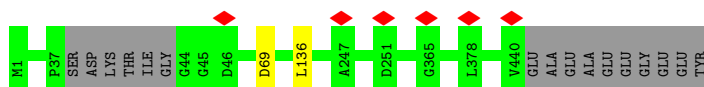
Chain GO:  96%



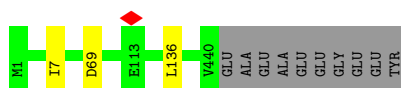
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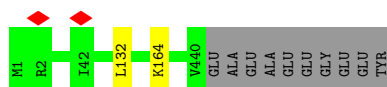
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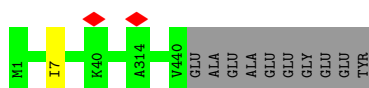
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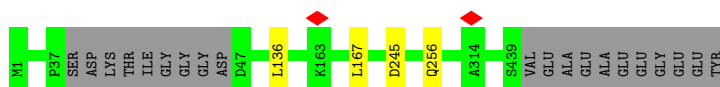
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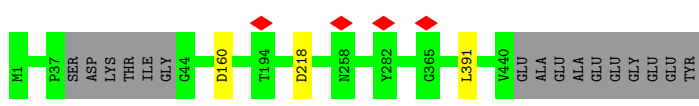
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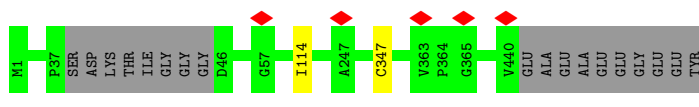
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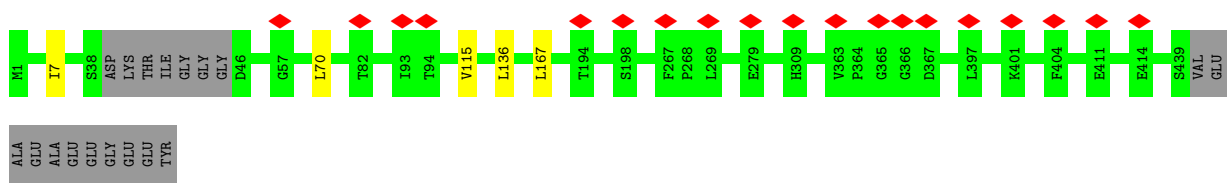
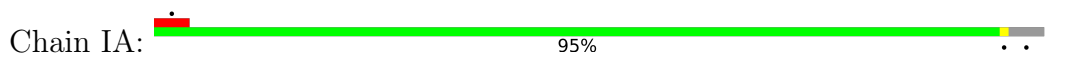
• Molecule 8: Tubulin alpha-3 chain



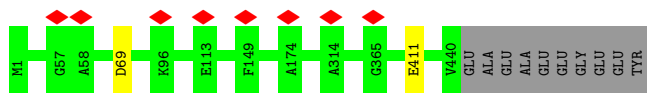
• Molecule 8: Tubulin alpha-3 chain



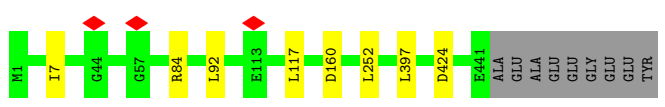
• Molecule 8: Tubulin alpha-3 chain



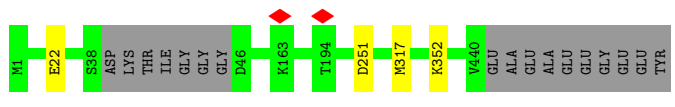
• Molecule 8: Tubulin alpha-3 chain



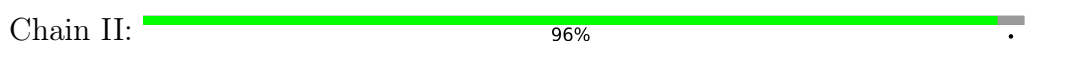
• Molecule 8: Tubulin alpha-3 chain

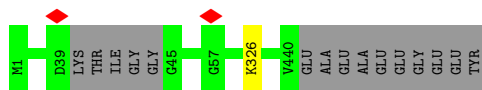


• Molecule 8: Tubulin alpha-3 chain

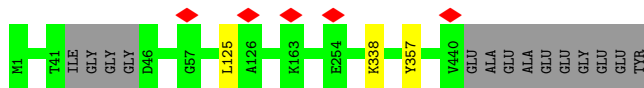


• Molecule 8: Tubulin alpha-3 chain

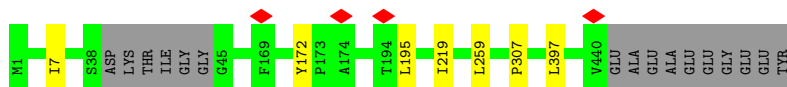




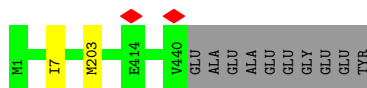
- Molecule 8: Tubulin alpha-3 chain



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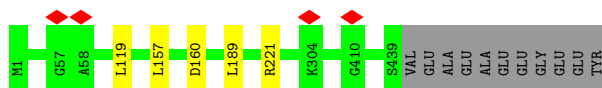
- Molecule 8: Tubulin alpha-3 chain



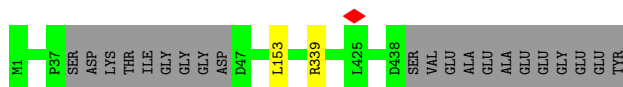
- Molecule 8: Tubulin alpha-3 chain



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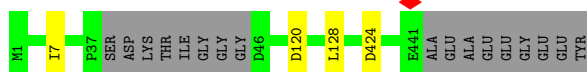


- Molecule 8: Tubulin alpha-3 chain



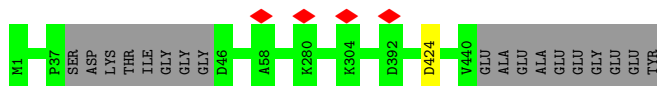
- Molecule 8: Tubulin alpha-3 chain

Chain JI:  95%



- Molecule 8: Tubulin alpha-3 chain

Chain JK:  96%



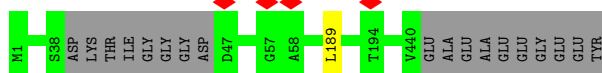
- Molecule 8: Tubulin alpha-3 chain

Chain JM:  95%



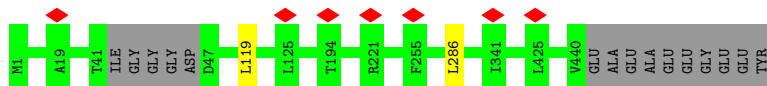
- Molecule 8: Tubulin alpha-3 chain

Chain JO:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain JQ:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain KA:  96%



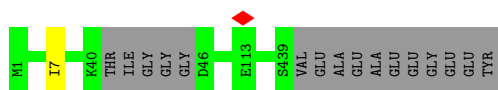
- Molecule 8: Tubulin alpha-3 chain

Chain KC:  96%



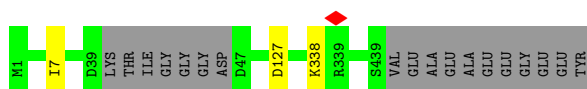
• Molecule 8: Tubulin alpha-3 chain

Chain KE:  96%



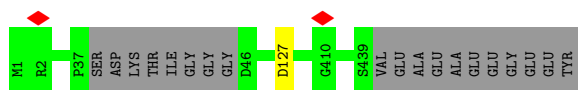
• Molecule 8: Tubulin alpha-3 chain

Chain KG:  95%



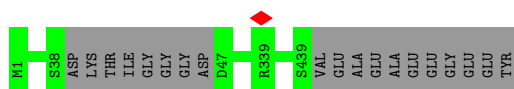
• Molecule 8: Tubulin alpha-3 chain

Chain KI:  96%



• Molecule 8: Tubulin alpha-3 chain

Chain KK:  96%



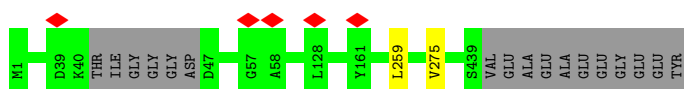
• Molecule 8: Tubulin alpha-3 chain

Chain KM:  95%



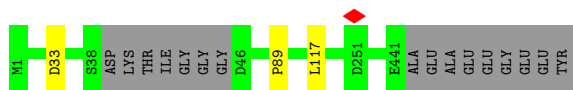
• Molecule 8: Tubulin alpha-3 chain

Chain KO:  96%



• Molecule 8: Tubulin alpha-3 chain

Chain LA:  96%



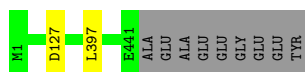
• Molecule 8: Tubulin alpha-3 chain



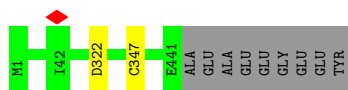
• Molecule 8: Tubulin alpha-3 chain



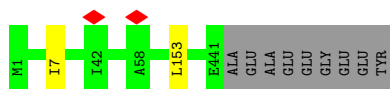
• Molecule 8: Tubulin alpha-3 chain



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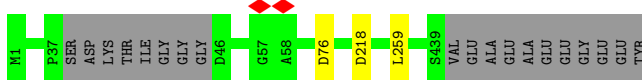
• Molecule 8: Tubulin alpha-3 chain

Chain LO:  95%



- Molecule 8: Tubulin alpha-3 chain

Chain MA:  95%



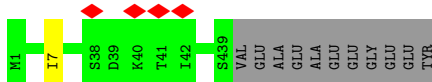
- Molecule 8: Tubulin alpha-3 chain

Chain MC:  96%



- Molecule 8: Tubulin alpha-3 chain

Chain ME:  97%



- Molecule 8: Tubulin alpha-3 chain

Chain MG:  95%



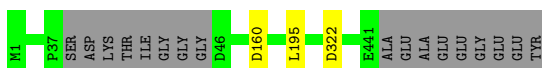
- Molecule 8: Tubulin alpha-3 chain

Chain MI:  96%



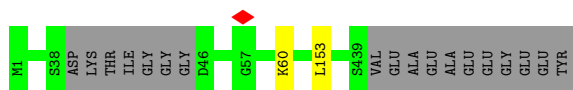
- Molecule 8: Tubulin alpha-3 chain

Chain MK:  96%



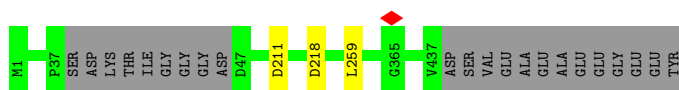
- Molecule 8: Tubulin alpha-3 chain

Chain MM:  96%



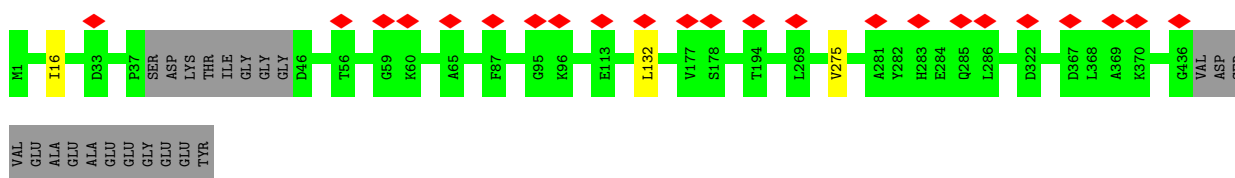
• Molecule 8: Tubulin alpha-3 chain

Chain MO:  94% 5%



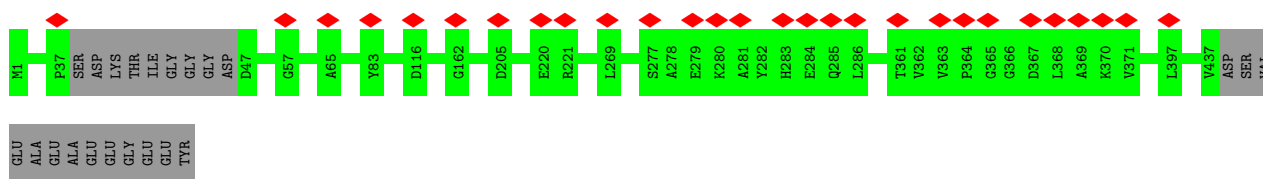
• Molecule 8: Tubulin alpha-3 chain

Chain NA:  94% 5% 5%



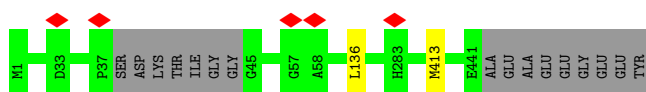
• Molecule 8: Tubulin alpha-3 chain

Chain NC:  95% 5% 6%



• Molecule 8: Tubulin alpha-3 chain

Chain NE:  96%

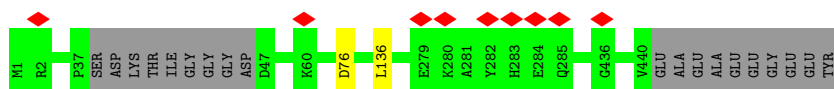


• Molecule 8: Tubulin alpha-3 chain

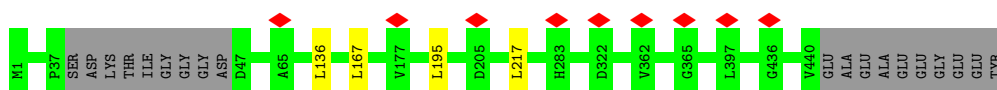
Chain NG:  96%



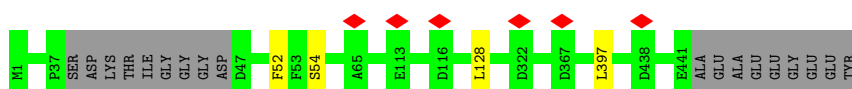
• Molecule 8: Tubulin alpha-3 chain



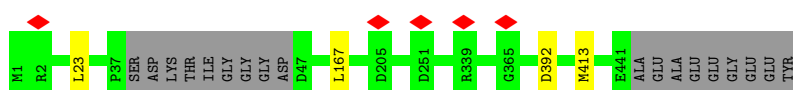
• Molecule 8: Tubulin alpha-3 chain



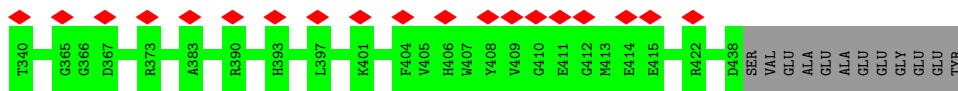
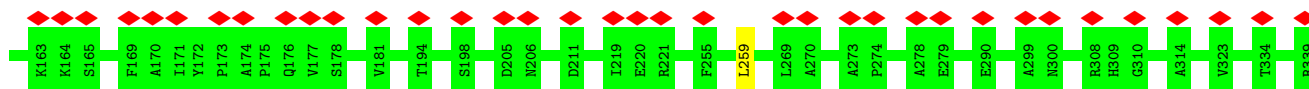
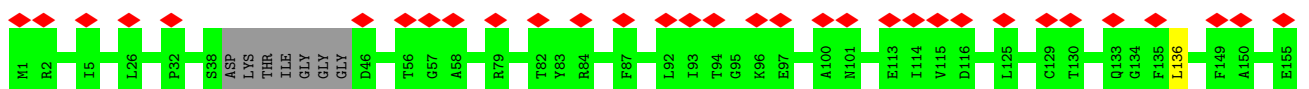
• Molecule 8: Tubulin alpha-3 chain



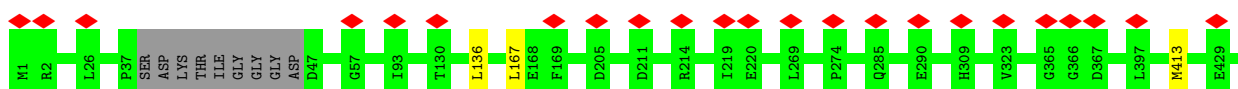
• Molecule 8: Tubulin alpha-3 chain

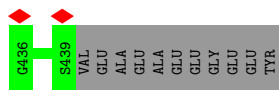


• Molecule 8: Tubulin alpha-3 chain

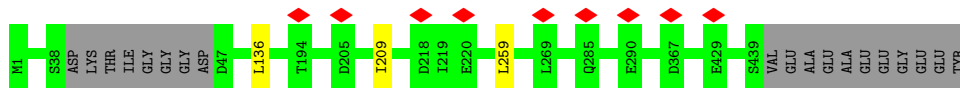


• Molecule 8: Tubulin alpha-3 chain

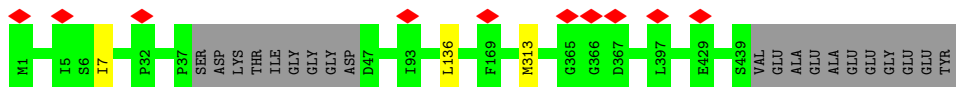




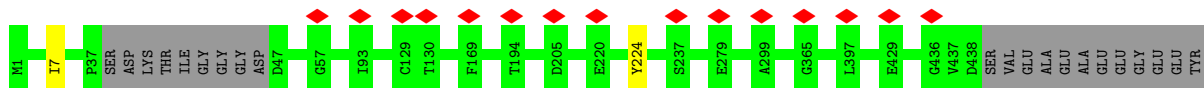
• Molecule 8: Tubulin alpha-3 chain



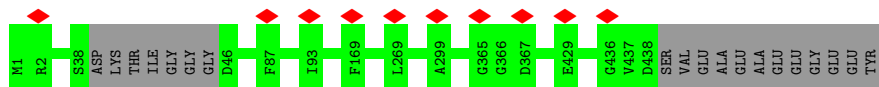
• Molecule 8: Tubulin alpha-3 chain



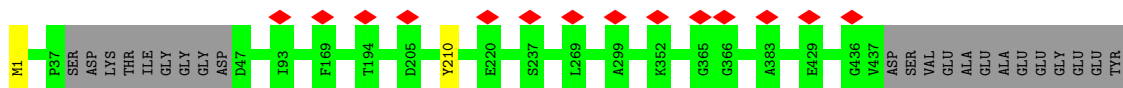
• Molecule 8: Tubulin alpha-3 chain



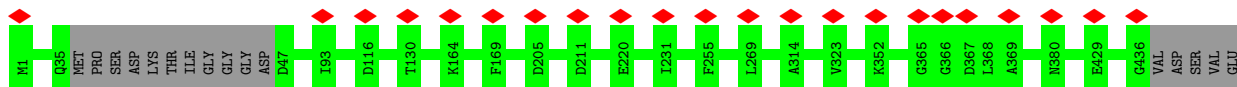
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



ALA
GLU
ALA
GLU
GLU
GLU
TYR

• Molecule 8: Tubulin alpha-3 chain

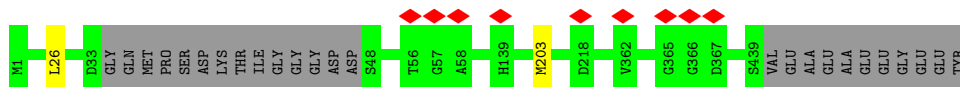
Chain PC:  94% 5%



ALA
GLU
ALA
GLU
GLU
GLU
TYR

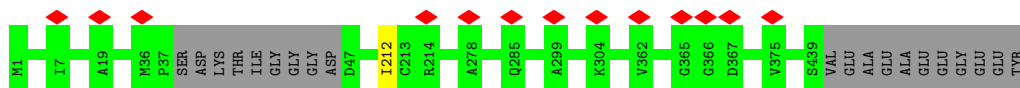
• Molecule 8: Tubulin alpha-3 chain

Chain PE:  94% 6%



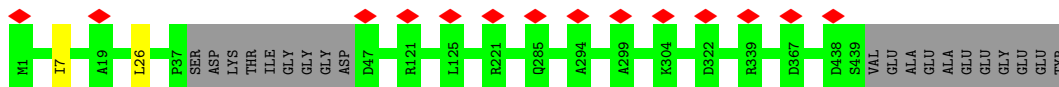
• Molecule 8: Tubulin alpha-3 chain

Chain PG:  95% 1%



• Molecule 8: Tubulin alpha-3 chain

Chain PI:  95% 1%



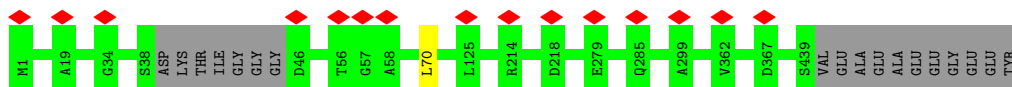
• Molecule 8: Tubulin alpha-3 chain

Chain PK:  94% 2%

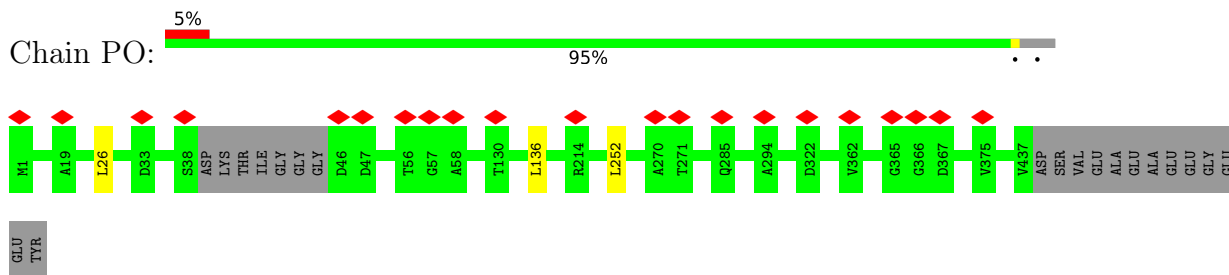


• Molecule 8: Tubulin alpha-3 chain

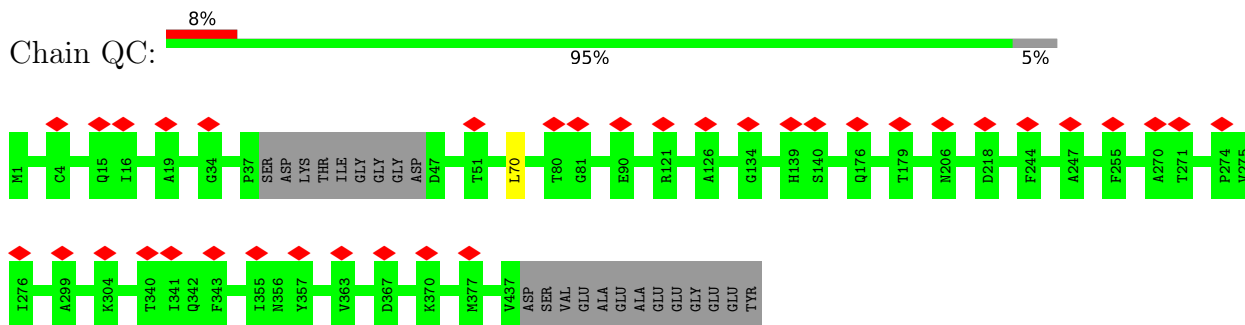
Chain PM:  96% 1%



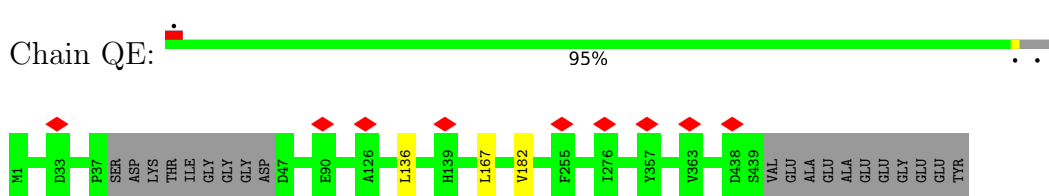
• Molecule 8: Tubulin alpha-3 chain



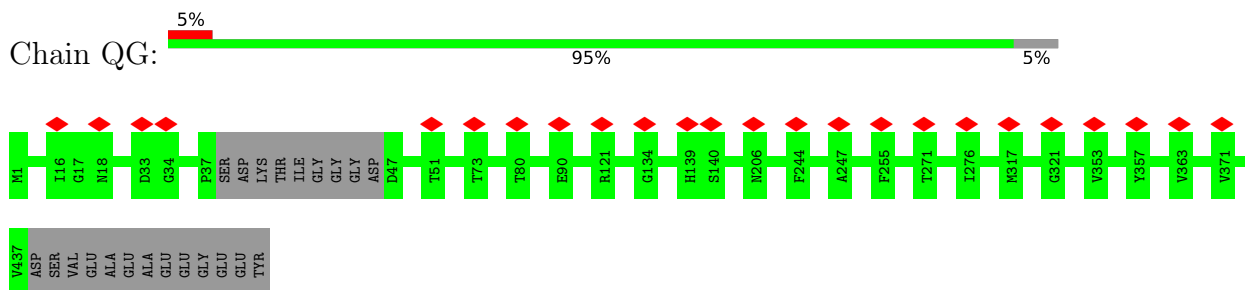
• Molecule 8: Tubulin alpha-3 chain



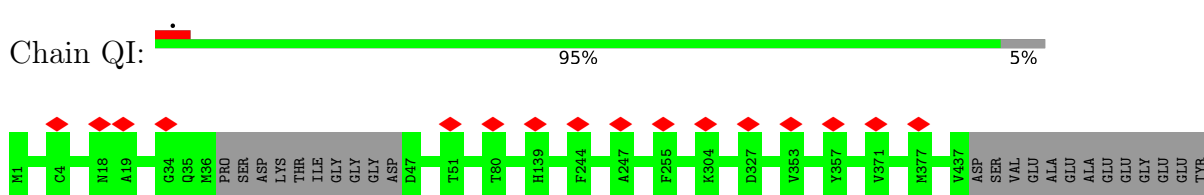
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

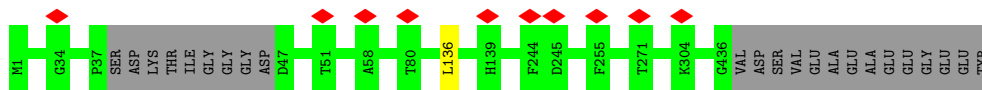


• Molecule 8: Tubulin alpha-3 chain



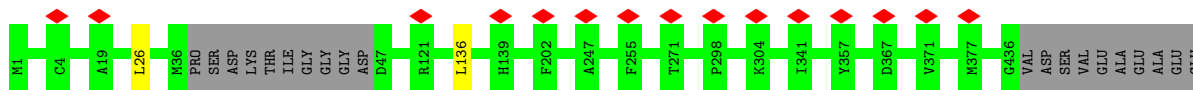
• Molecule 8: Tubulin alpha-3 chain





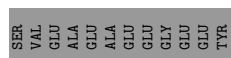
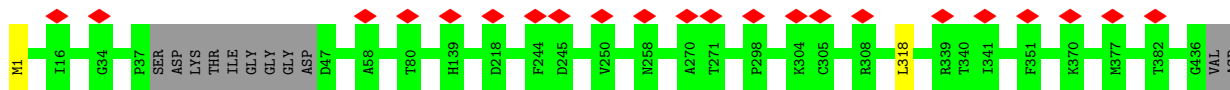
- Molecule 8: Tubulin alpha-3 chain

Chain QM: 94% 5%



- Molecule 8: Tubulin alpha-3 chain

Chain QO: 5% 94% 5%



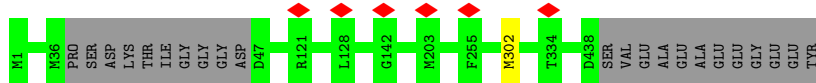
- Molecule 8: Tubulin alpha-3 chain

Chain RC: 5% 95% 5%



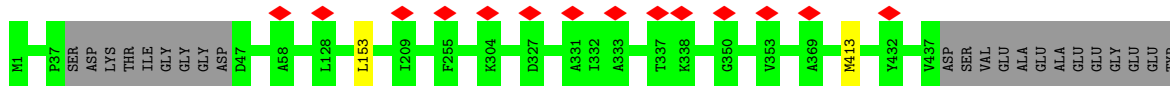
- Molecule 8: Tubulin alpha-3 chain

Chain RE: 5% 95% 5%



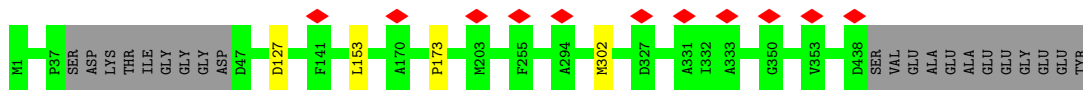
- Molecule 8: Tubulin alpha-3 chain

Chain RG: 5% 95% 5%

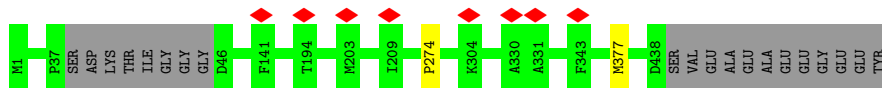


- Molecule 8: Tubulin alpha-3 chain

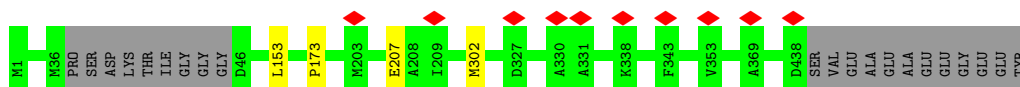
Chain RI: 5% 94% 5%



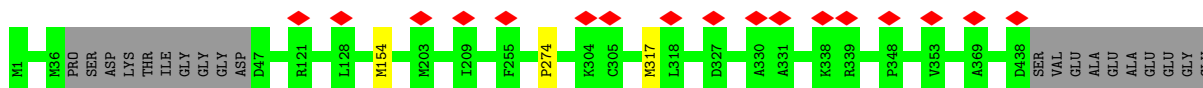
• Molecule 8: Tubulin alpha-3 chain



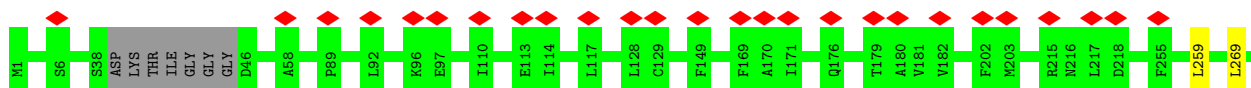
• Molecule 8: Tubulin alpha-3 chain



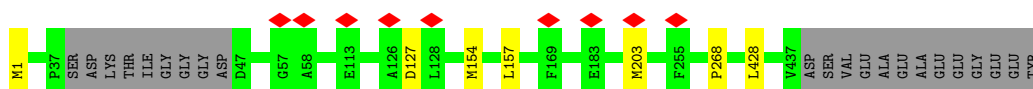
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

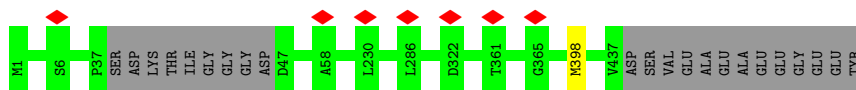


• Molecule 8: Tubulin alpha-3 chain



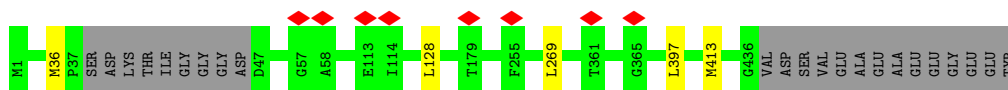
• Molecule 8: Tubulin alpha-3 chain

Chain SE:  95% 5%



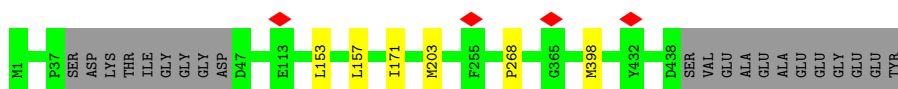
• Molecule 8: Tubulin alpha-3 chain

Chain SG:  94% 5%



• Molecule 8: Tubulin alpha-3 chain

Chain SI:  94% 5%



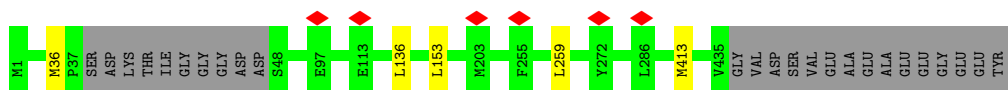
• Molecule 8: Tubulin alpha-3 chain

Chain SK:  94% 5%



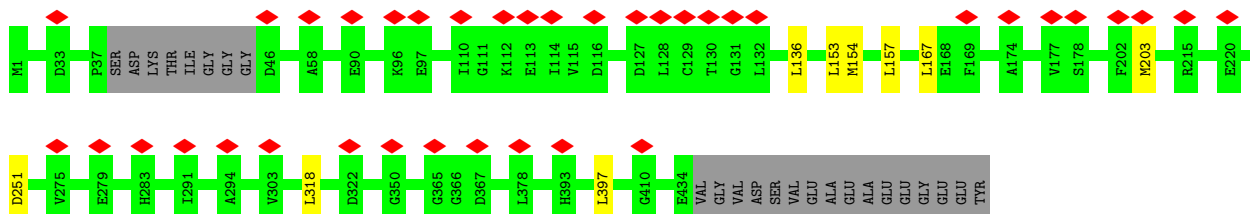
• Molecule 8: Tubulin alpha-3 chain

Chain SM:  93% 6%



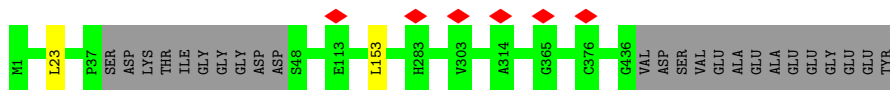
• Molecule 8: Tubulin alpha-3 chain

Chain TA:  8% 93% 5%

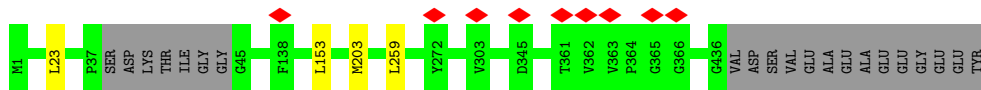


• Molecule 8: Tubulin alpha-3 chain

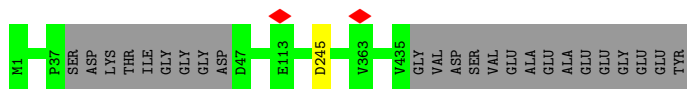
Chain TC:  94% 5%



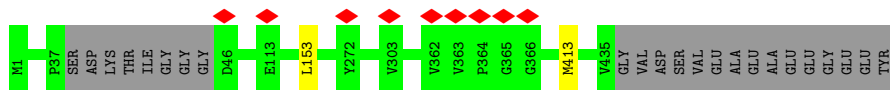
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain



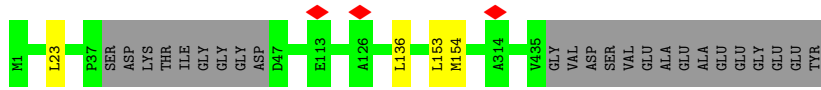
• Molecule 8: Tubulin alpha-3 chain



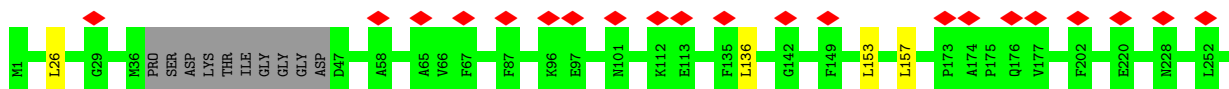
• Molecule 8: Tubulin alpha-3 chain

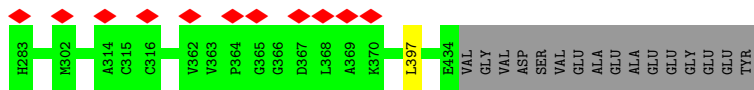


• Molecule 8: Tubulin alpha-3 chain

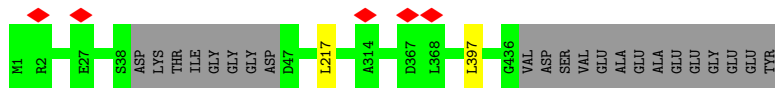


• Molecule 8: Tubulin alpha-3 chain

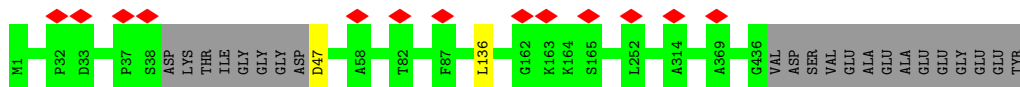




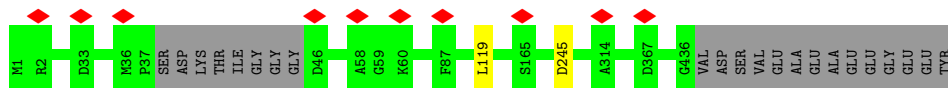
• Molecule 8: Tubulin alpha-3 chain



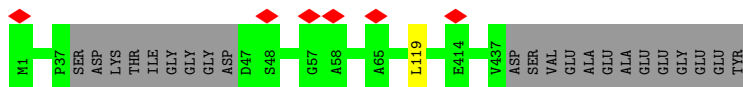
• Molecule 8: Tubulin alpha-3 chain



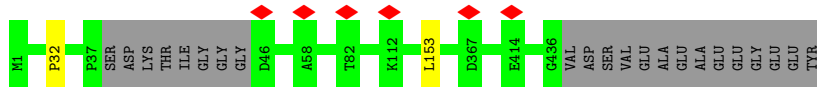
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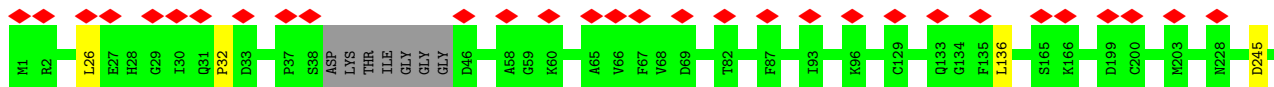
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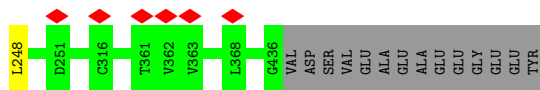


• Molecule 8: Tubulin alpha-3 chain

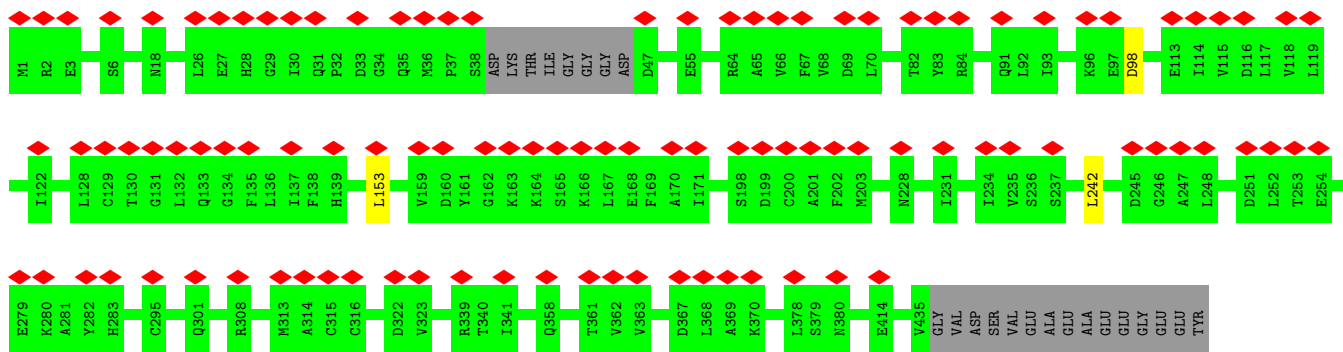


• Molecule 8: Tubulin alpha-3 chain

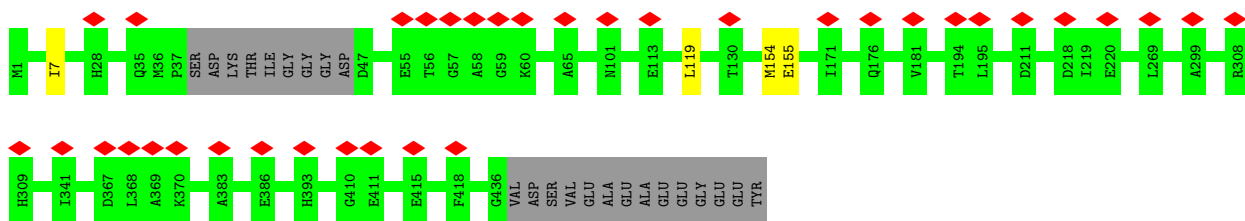




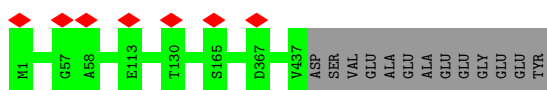
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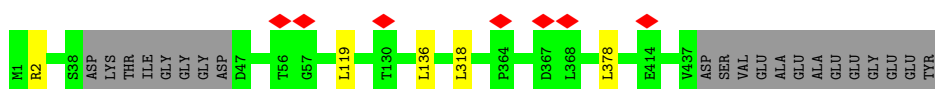
• Molecule 8: Tubulin alpha-3 chain



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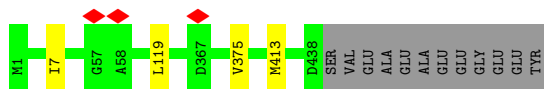




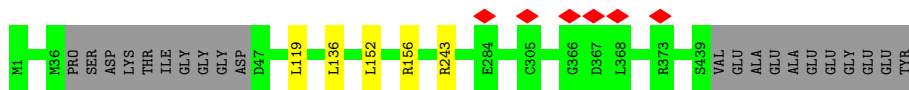
• Molecule 8: Tubulin alpha-3 chain



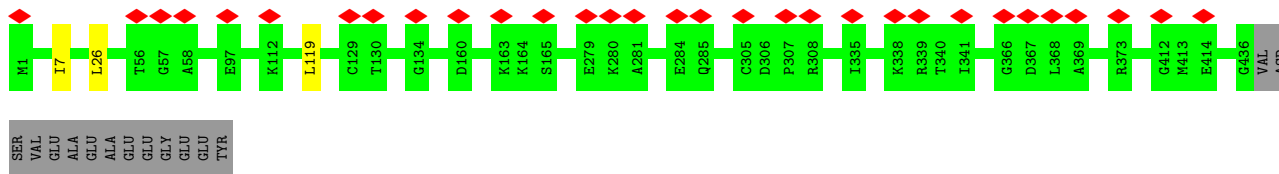
• Molecule 8: Tubulin alpha-3 chain



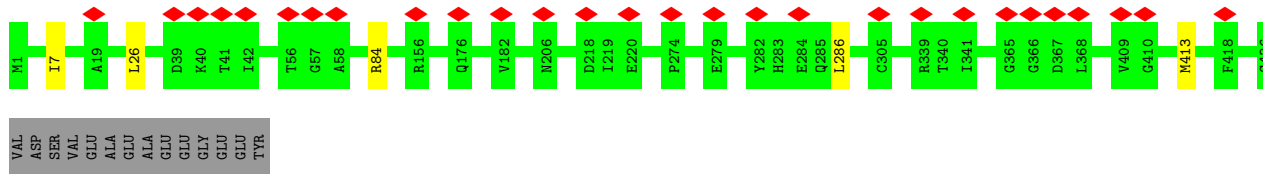
• Molecule 8: Tubulin alpha-3 chain



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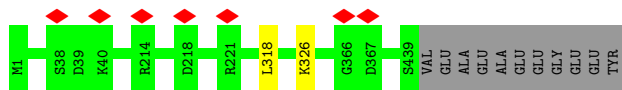


• Molecule 8: Tubulin alpha-3 chain

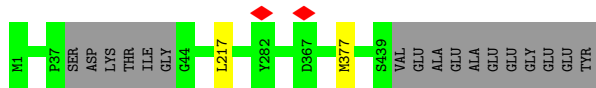


• Molecule 8: Tubulin alpha-3 chain

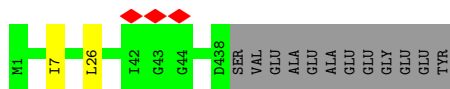




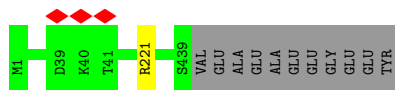
• Molecule 8: Tubulin alpha-3 chain



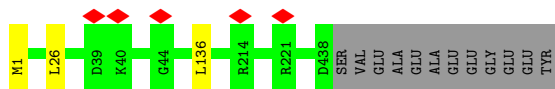
• Molecule 8: Tubulin alpha-3 chain



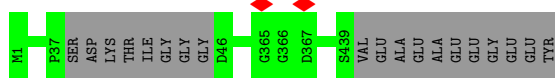
• Molecule 8: Tubulin alpha-3 chain



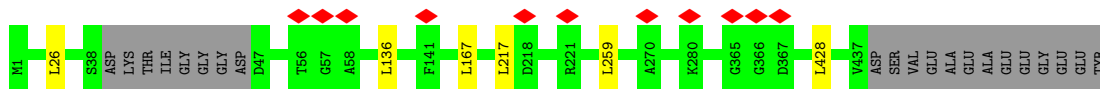
• Molecule 8: Tubulin alpha-3 chain



• Molecule 8: Tubulin alpha-3 chain

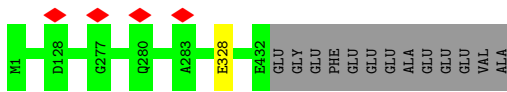


• Molecule 8: Tubulin alpha-3 chain



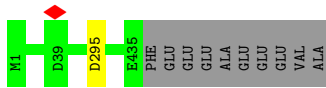
• Molecule 9: Tubulin beta-4B chain

Chain AB:  97%



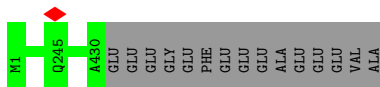
• Molecule 9: Tubulin beta-4B chain

Chain AD:  98%



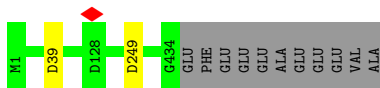
• Molecule 9: Tubulin beta-4B chain

Chain AF:  97%



• Molecule 9: Tubulin beta-4B chain

Chain AH:  97%



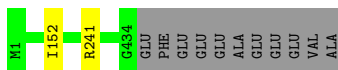
• Molecule 9: Tubulin beta-4B chain

Chain AJ:  96%



• Molecule 9: Tubulin beta-4B chain

Chain AL:  97%



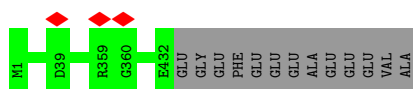
• Molecule 9: Tubulin beta-4B chain

Chain AN:  97%



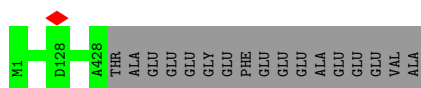
• Molecule 9: Tubulin beta-4B chain

Chain AP:  97%



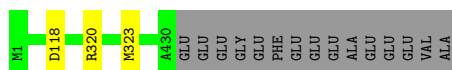
- Molecule 9: Tubulin beta-4B chain

Chain BB:  96%



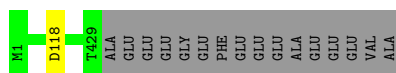
- Molecule 9: Tubulin beta-4B chain

Chain BD:  96%



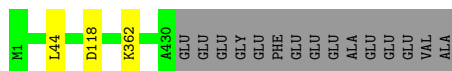
- Molecule 9: Tubulin beta-4B chain

Chain BF:  96%



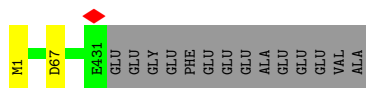
- Molecule 9: Tubulin beta-4B chain

Chain BH:  96%



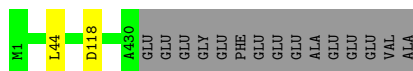
- Molecule 9: Tubulin beta-4B chain

Chain BJ:  96%



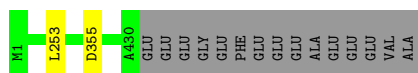
- Molecule 9: Tubulin beta-4B chain

Chain BL:  96%



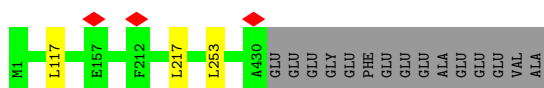
- Molecule 9: Tubulin beta-4B chain

Chain BN:  96%



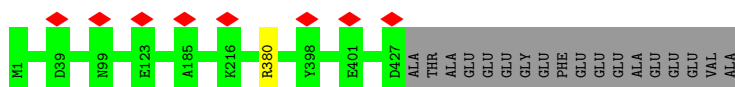
• Molecule 9: Tubulin beta-4B chain

Chain BP:  96%



• Molecule 9: Tubulin beta-4B chain

Chain CB:  96%



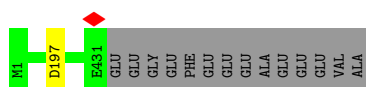
• Molecule 9: Tubulin beta-4B chain

Chain CD:  97%



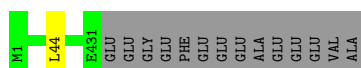
• Molecule 9: Tubulin beta-4B chain

Chain CF:  97%



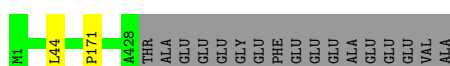
• Molecule 9: Tubulin beta-4B chain

Chain CH:  97%



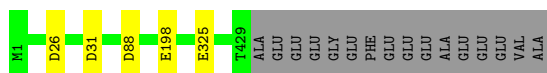
• Molecule 9: Tubulin beta-4B chain

Chain CJ:  96%



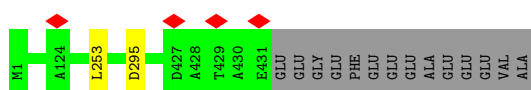
• Molecule 9: Tubulin beta-4B chain

Chain CL:  95%



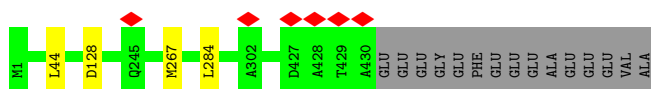
• Molecule 9: Tubulin beta-4B chain

Chain CN:  96%



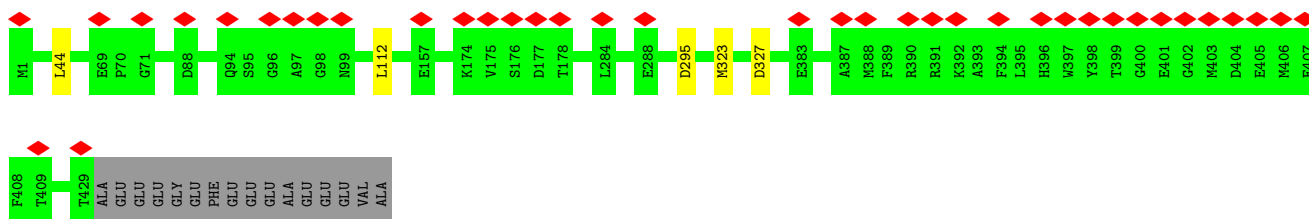
• Molecule 9: Tubulin beta-4B chain

Chain CP:  96%



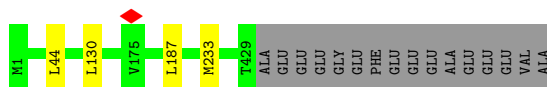
• Molecule 9: Tubulin beta-4B chain

Chain DB:  95%



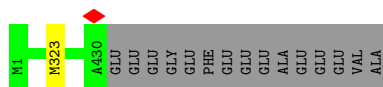
• Molecule 9: Tubulin beta-4B chain

Chain DD:  96%



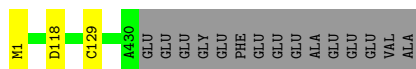
• Molecule 9: Tubulin beta-4B chain

Chain DF:  96%

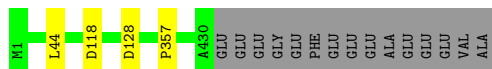


• Molecule 9: Tubulin beta-4B chain

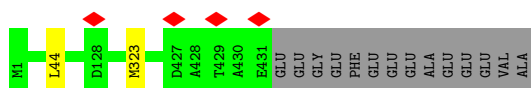
Chain DH:  96%



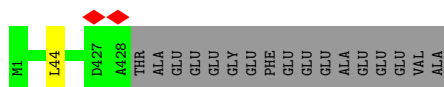
• Molecule 9: Tubulin beta-4B chain



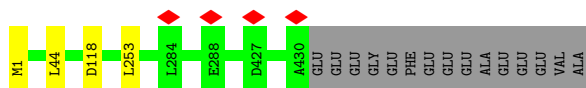
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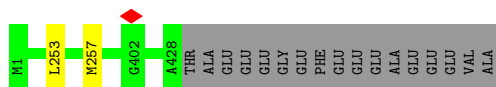
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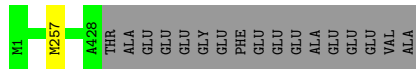
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

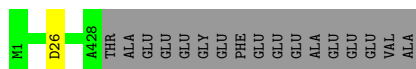


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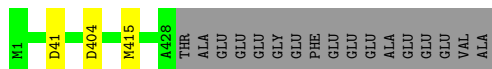


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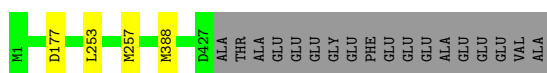




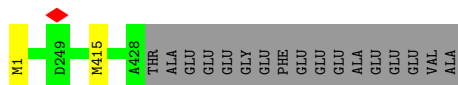
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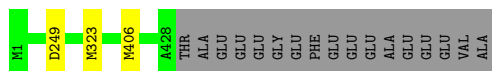
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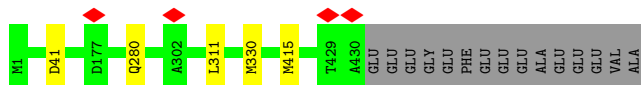
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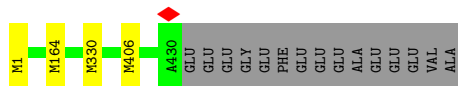
• Molecule 9: Tubulin beta-4B chain



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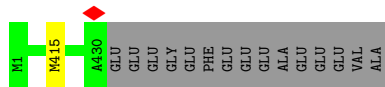


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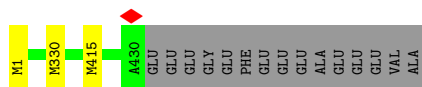


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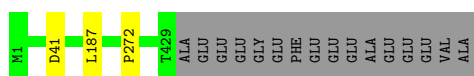




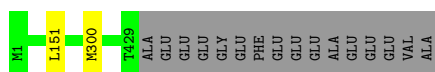
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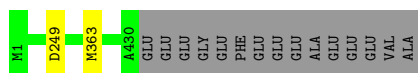
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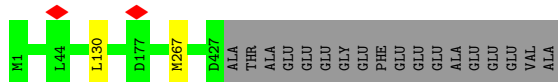
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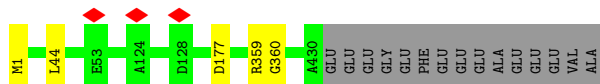
• Molecule 9: Tubulin beta-4B chain



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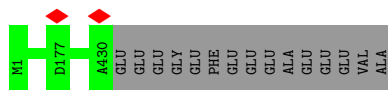


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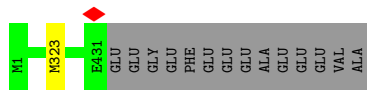


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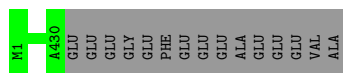




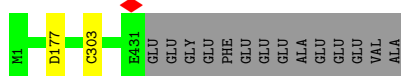
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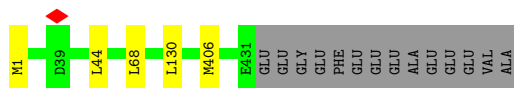
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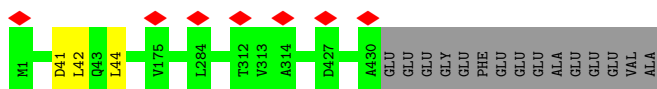
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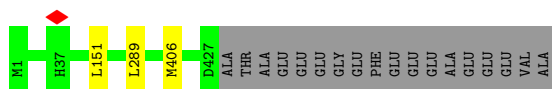
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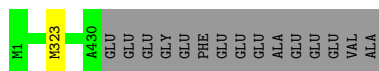


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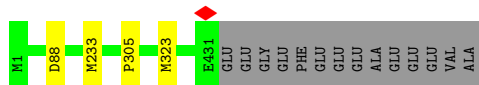


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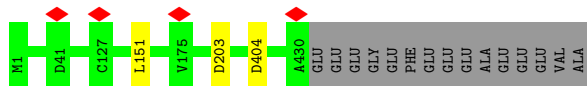




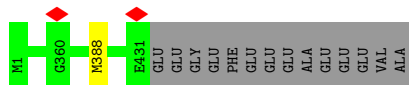
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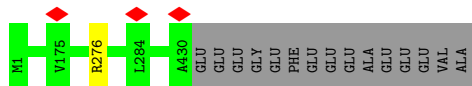
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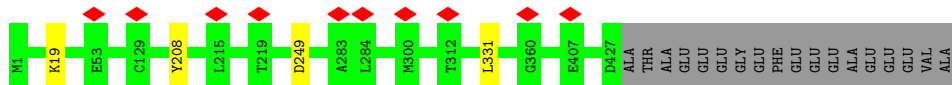
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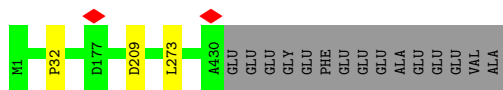


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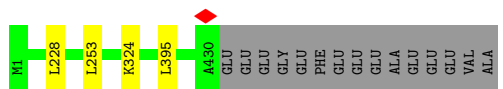


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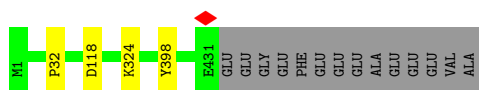




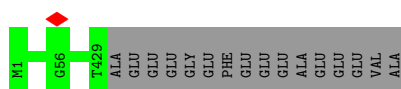
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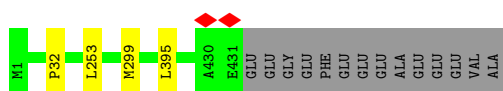
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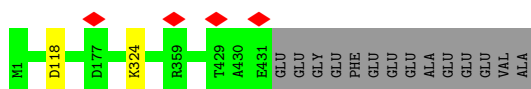
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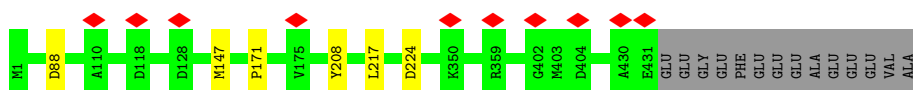
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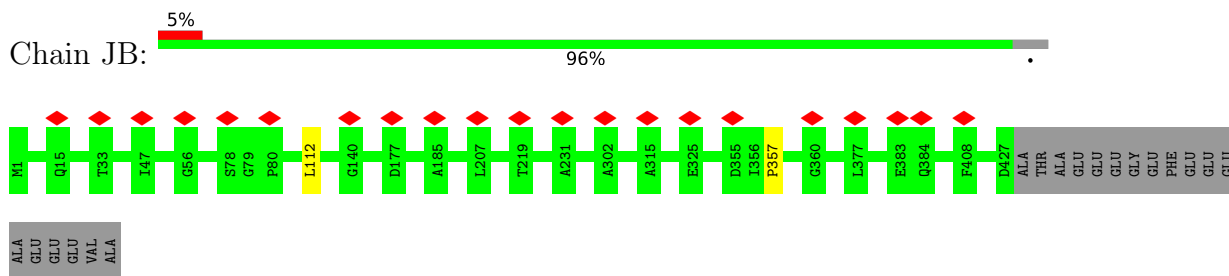
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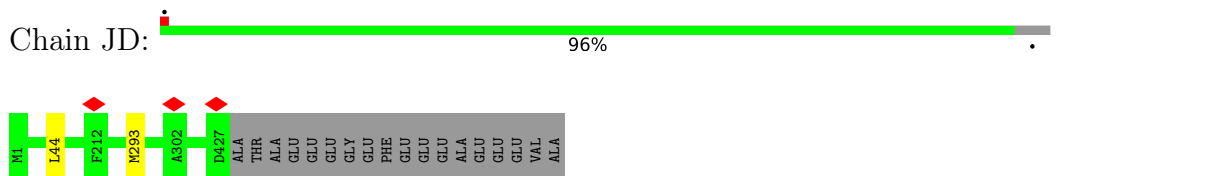
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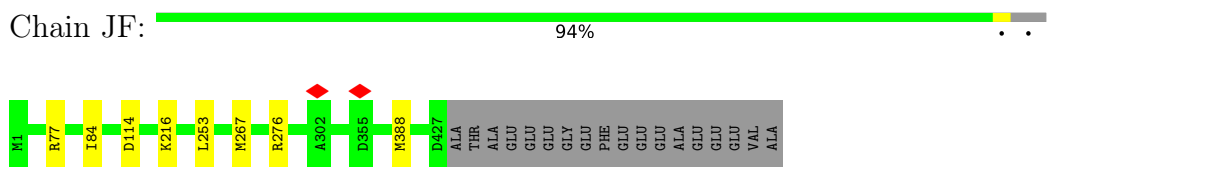
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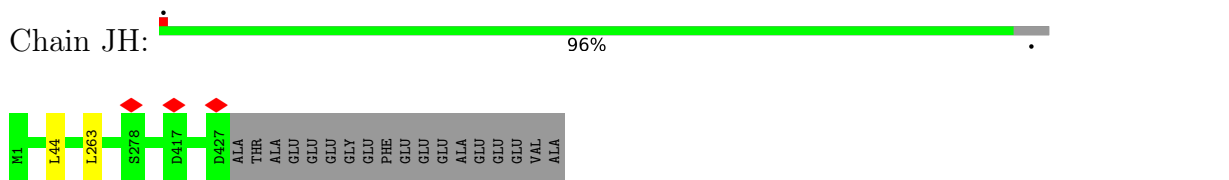
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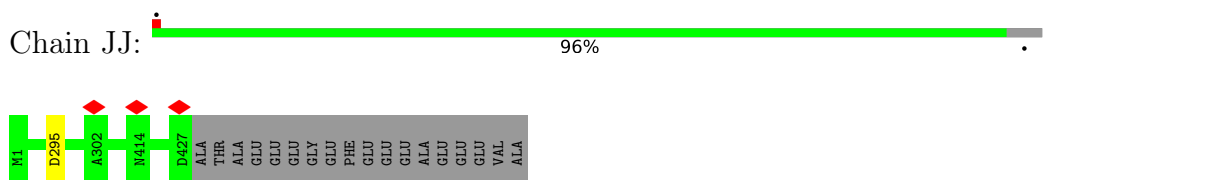
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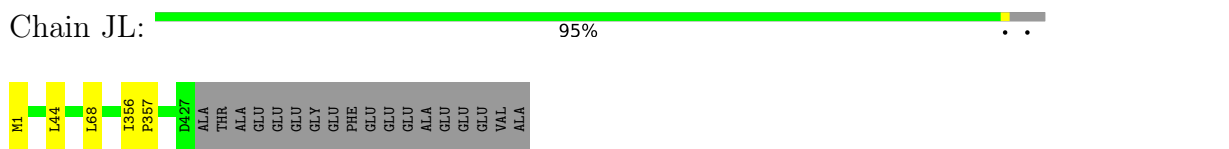
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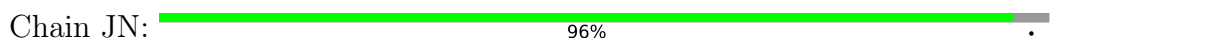
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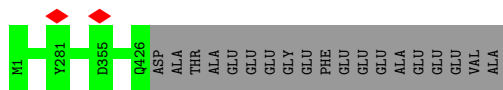


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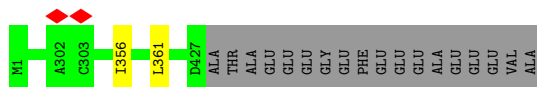


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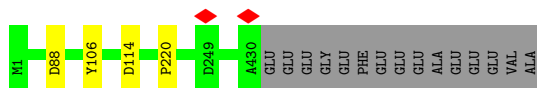




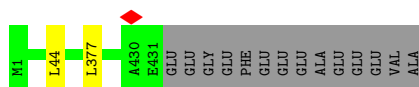
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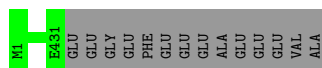
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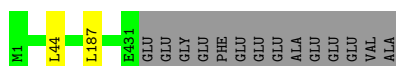
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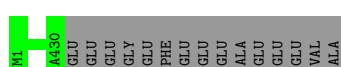
• Molecule 9: Tubulin beta-4B chain



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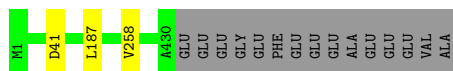


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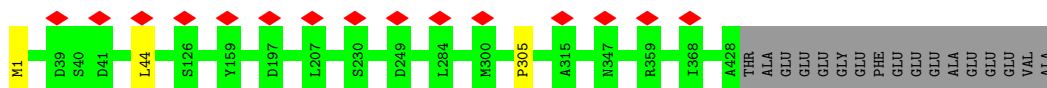




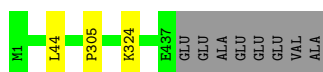
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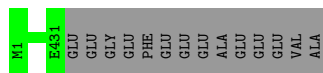
• Molecule 9: Tubulin beta-4B chain



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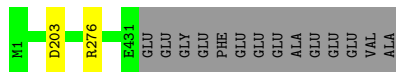
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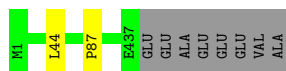


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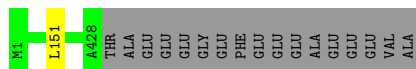
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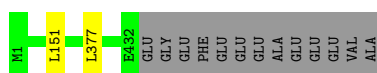
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Chain LL: 96%



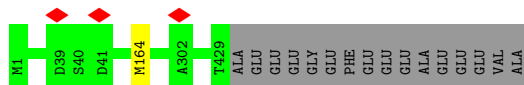
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Chain LN: 97%



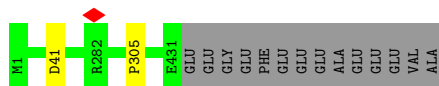
- Molecule 9: Tubulin beta-4B chain

Chain LP: 96%



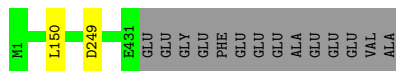
- Molecule 9: Tubulin beta-4B chain

Chain MB: 96%



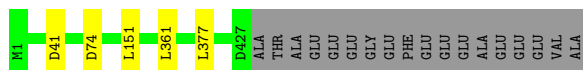
- Molecule 9: Tubulin beta-4B chain

Chain MD: 96%



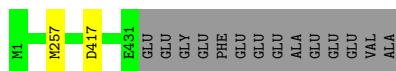
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Chain MF: 95%

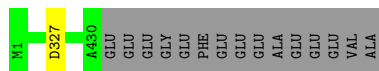


- Molecule 9: Tubulin beta-4B chain

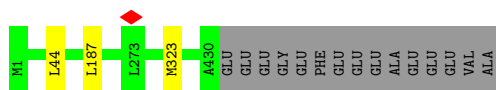
Chain MH: 96%



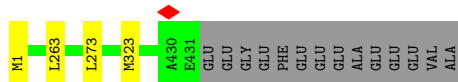
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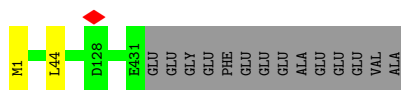
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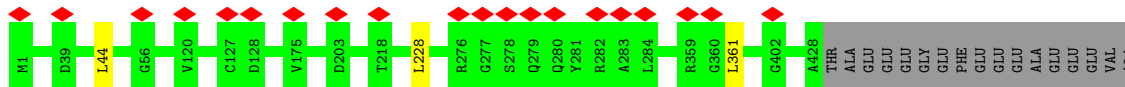
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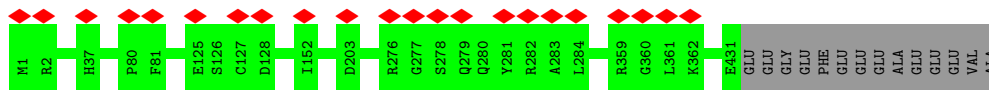
• Molecule 9: Tubulin beta-4B chain



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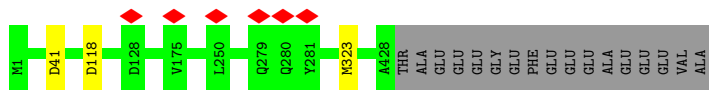


• Molecule 9: Tubulin beta-4B chain



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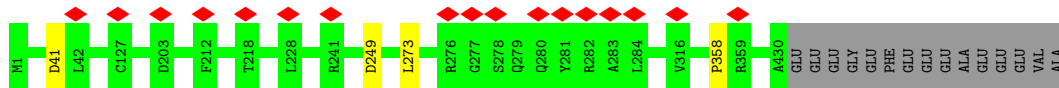




• Molecule 9: Tubulin beta-4B chain



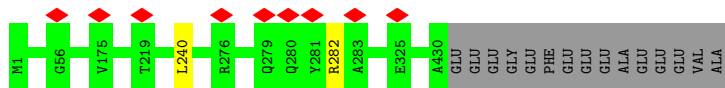
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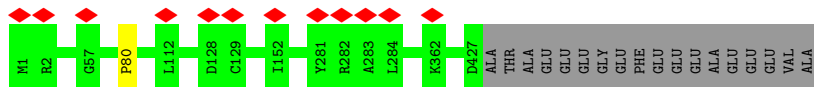
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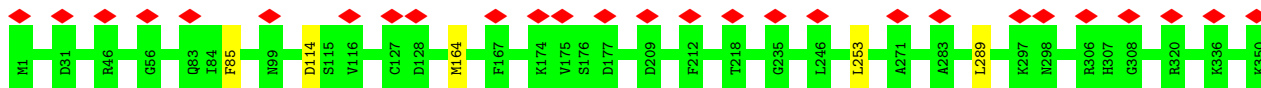
• Molecule 9: Tubulin beta-4B chain

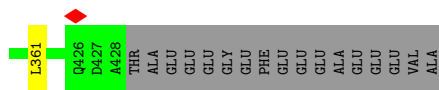


• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

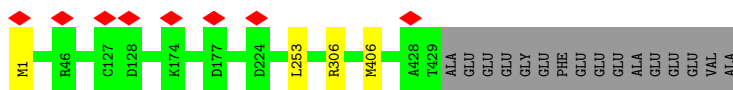




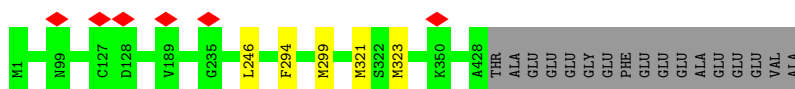
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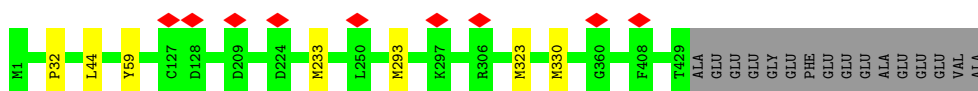
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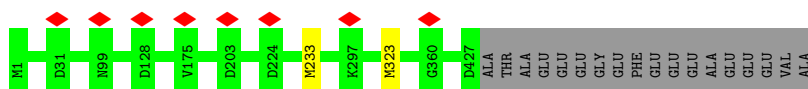
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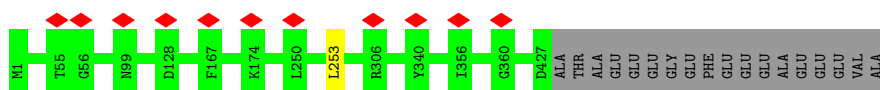
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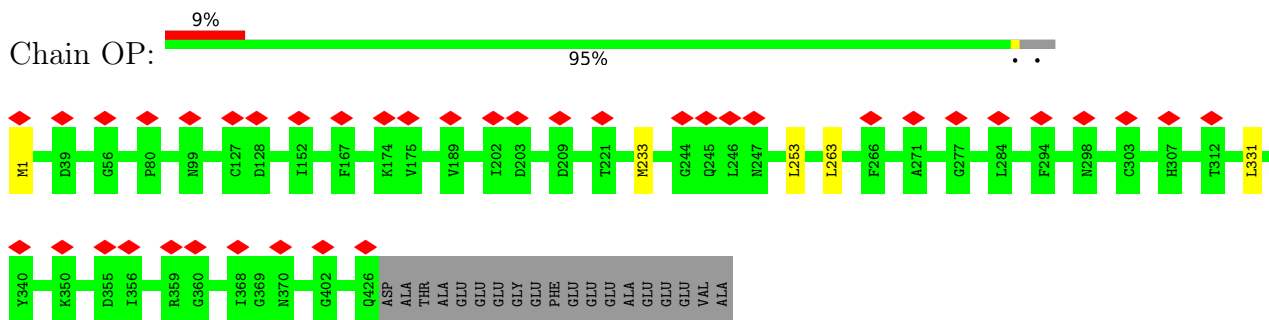
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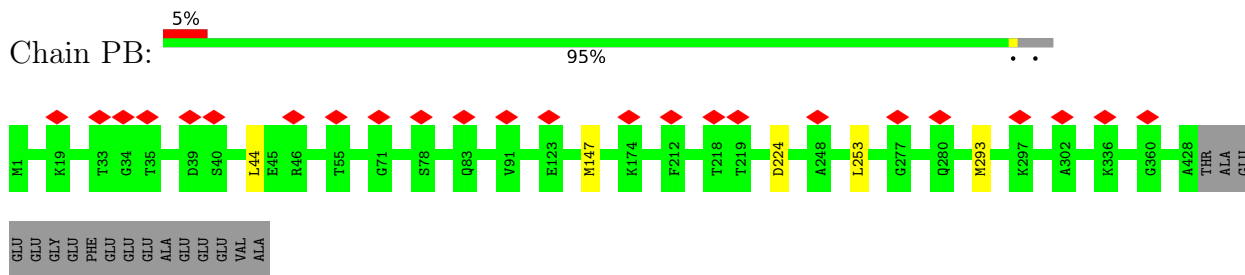
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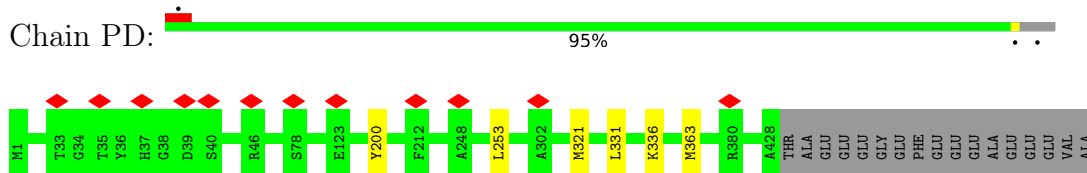
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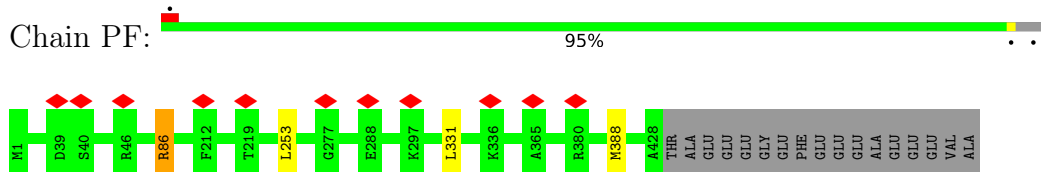
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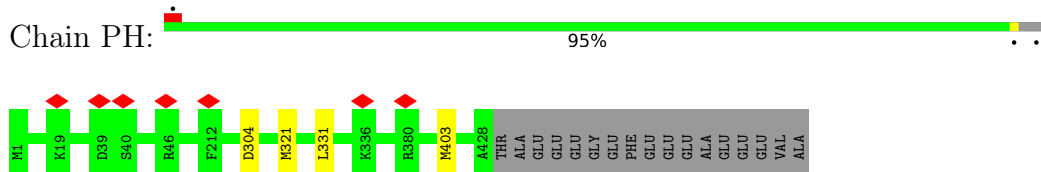
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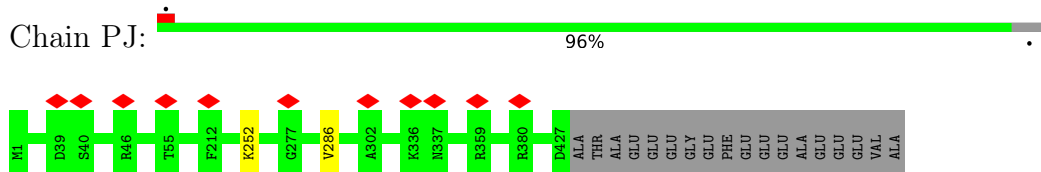
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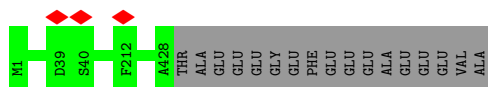
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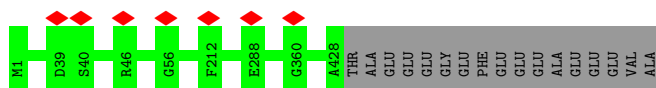
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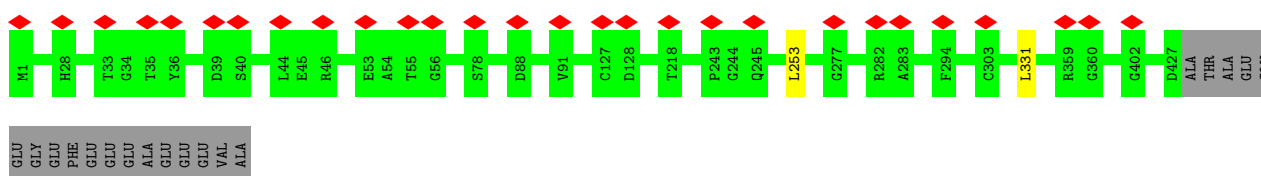
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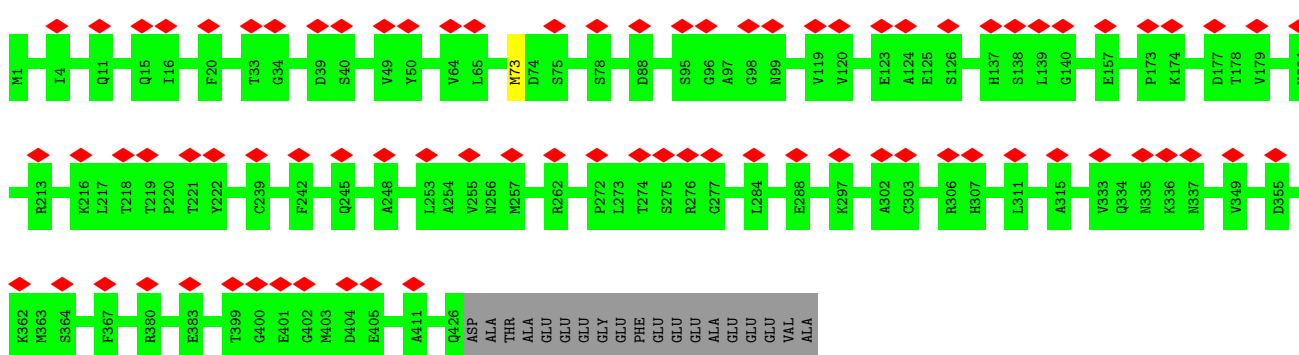
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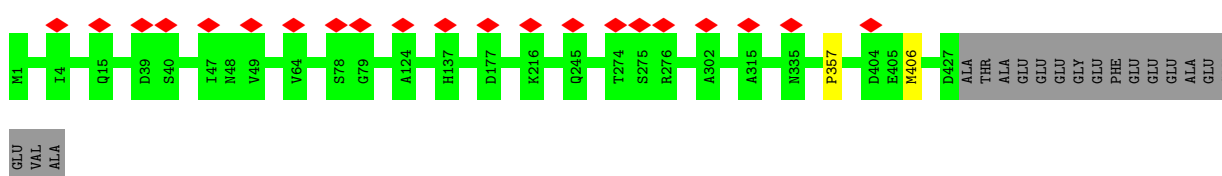
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• Molecule 9: Tubulin beta-4B chain

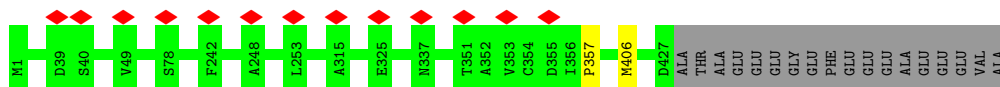


• Molecule 9: Tubulin beta-4B chain



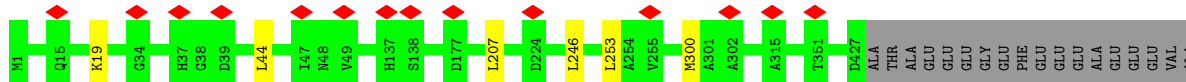
• Molecule 9: Tubulin beta-4B chain

Chain QF:  96%



• Molecule 9: Tubulin beta-4B chain

Chain QH:  95%



• Molecule 9: Tubulin beta-4B chain

Chain QJ:  95%



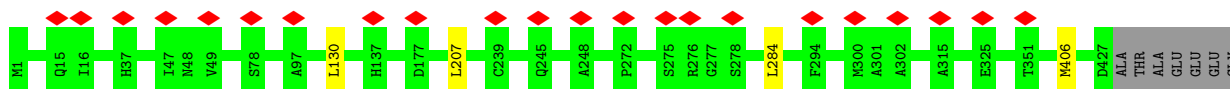
• Molecule 9: Tubulin beta-4B chain

Chain QL:  96%



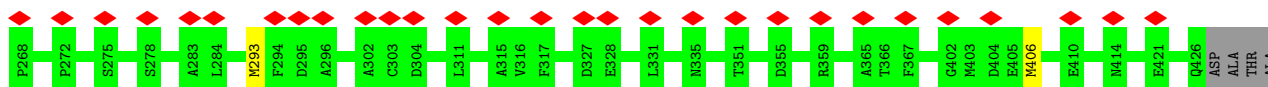
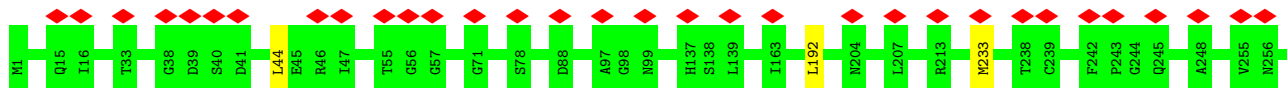
• Molecule 9: Tubulin beta-4B chain

Chain QN:  5% 95%



• Molecule 9: Tubulin beta-4B chain

Chain QP:  14% 95%

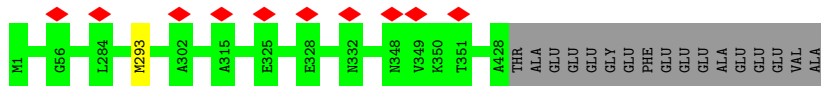


GLU
GLU
GLY
GLU
PHE
GLU
GLU
GLU
ALA
GLU
GLU
VAL
ALA

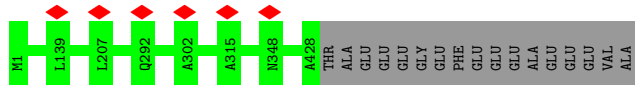
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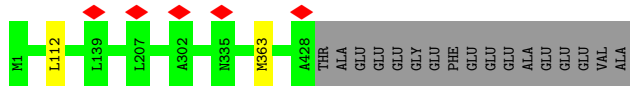
● Molecule 9: Tubulin beta-4B chain



● Molecule 9: Tubulin beta-4B chain



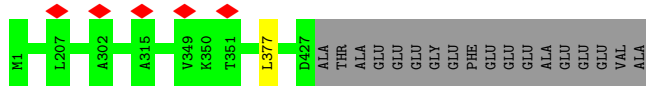
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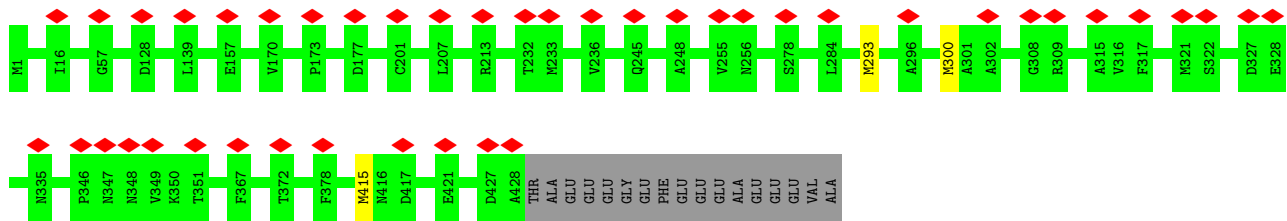


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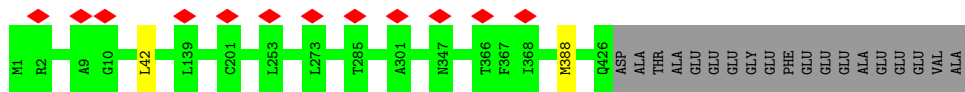


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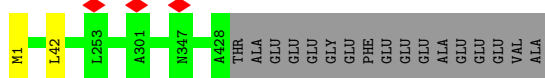




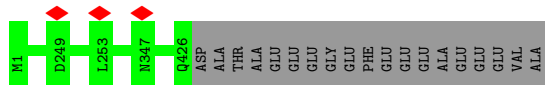
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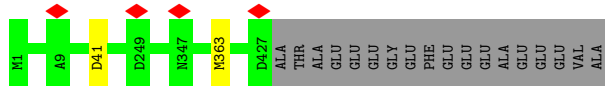
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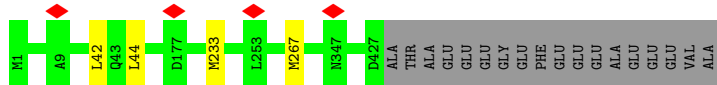
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• Molecule 9: Tubulin beta-4B chain

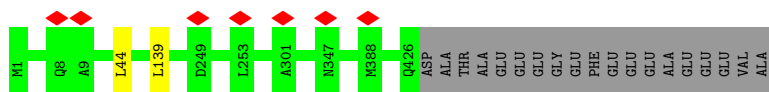


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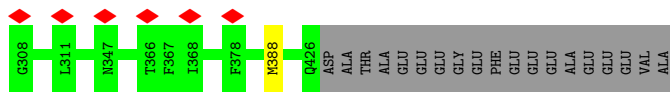


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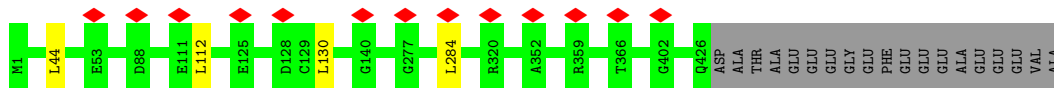




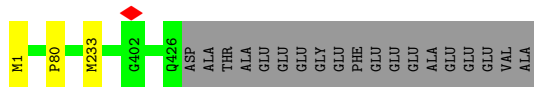
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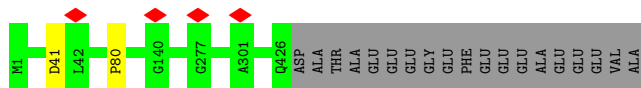
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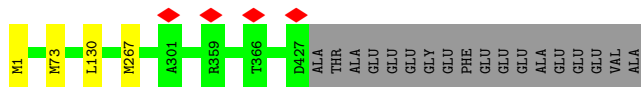
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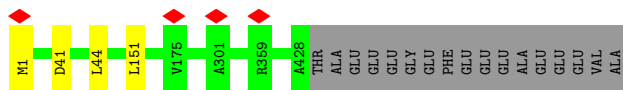


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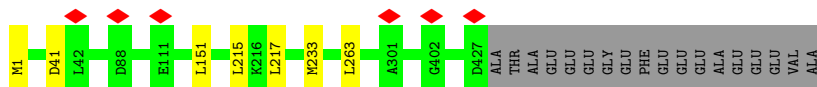


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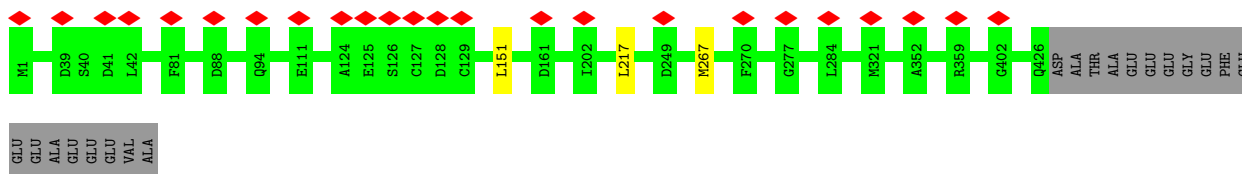




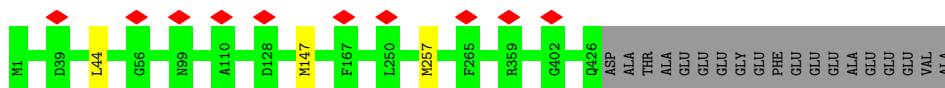
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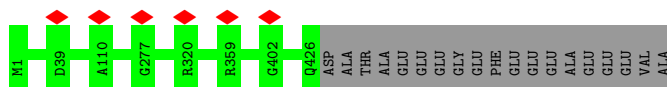
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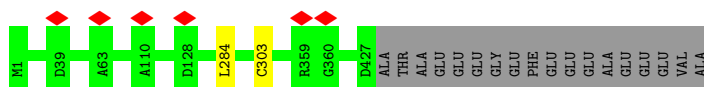
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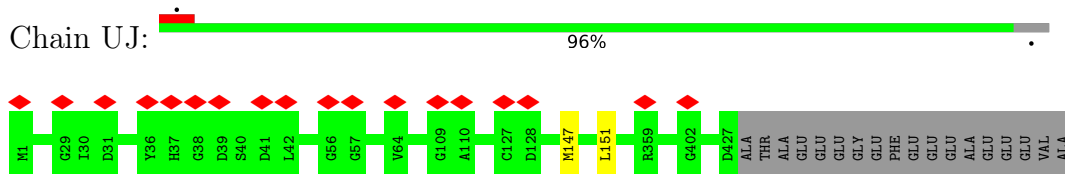
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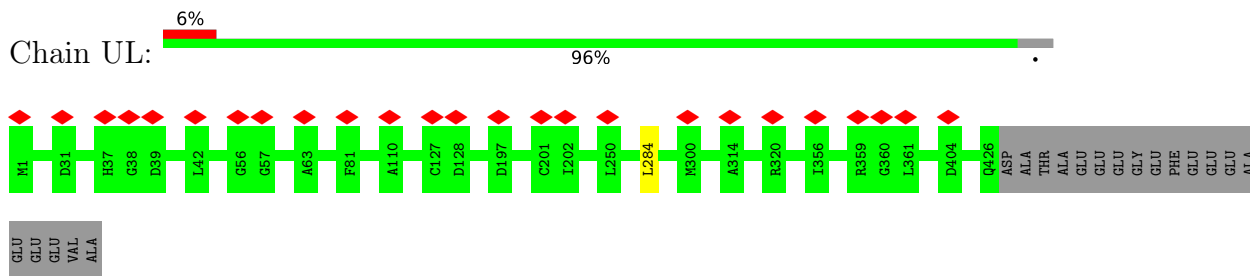
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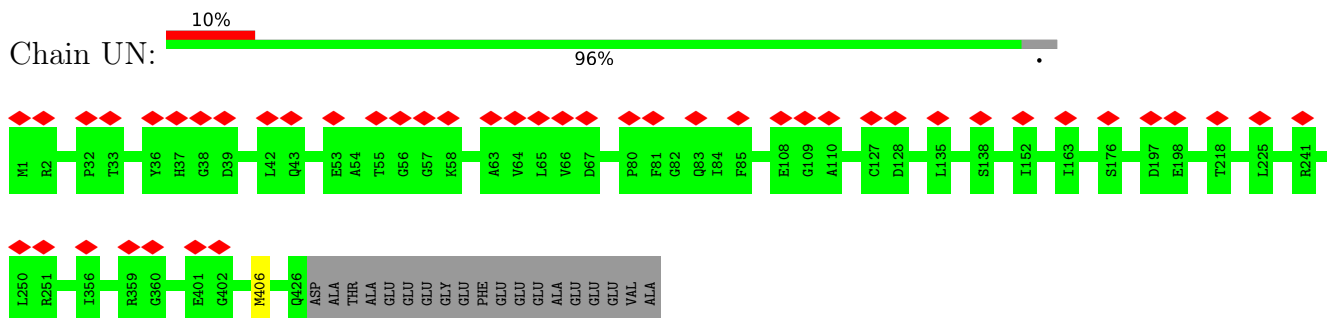
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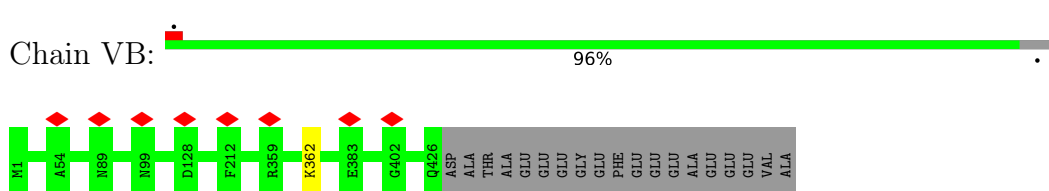
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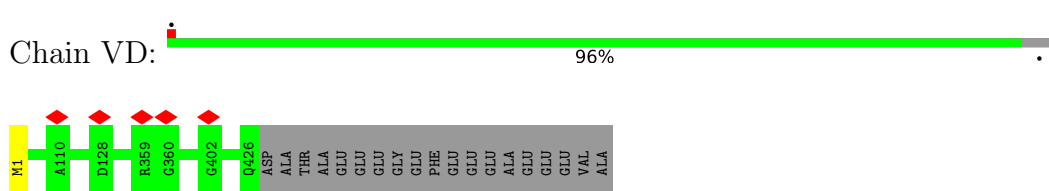
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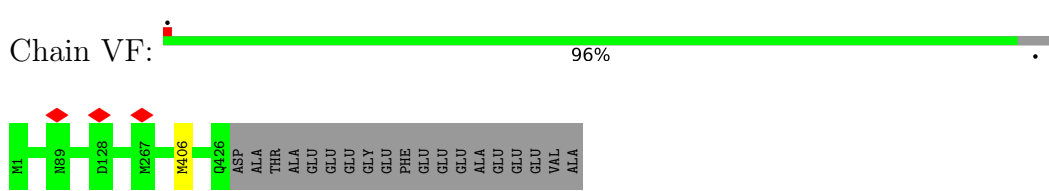
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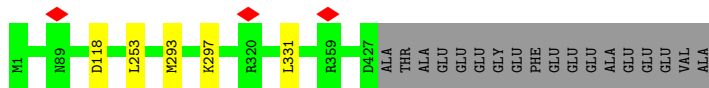
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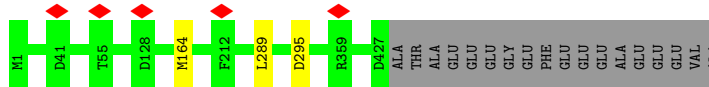
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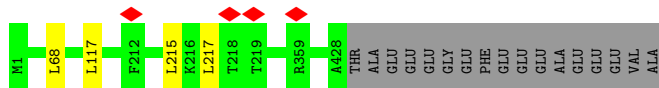
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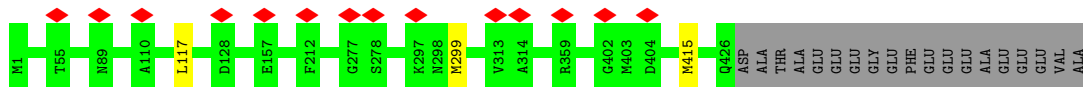
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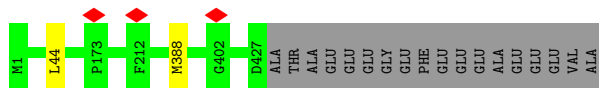
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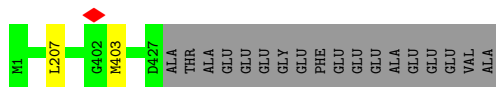
• Molecule 9: Tubulin beta-4B chain



• Molecule 9: Tubulin beta-4B chain

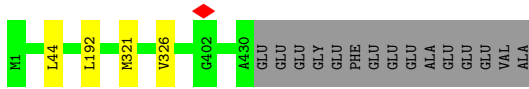


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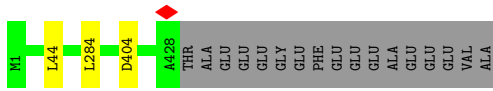


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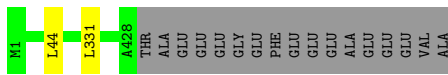




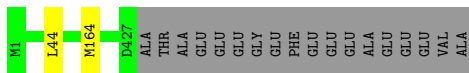
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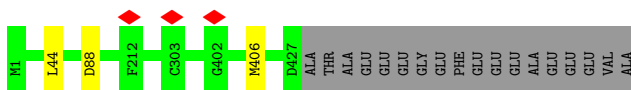
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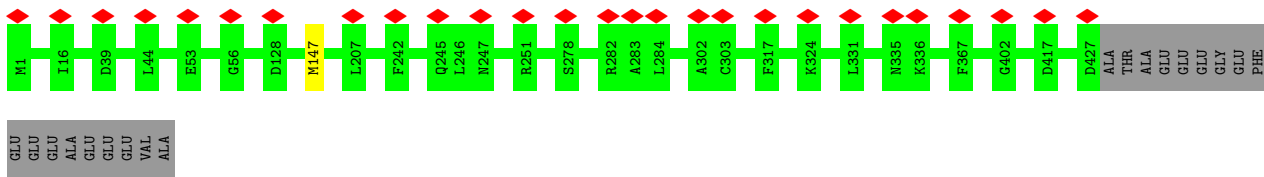
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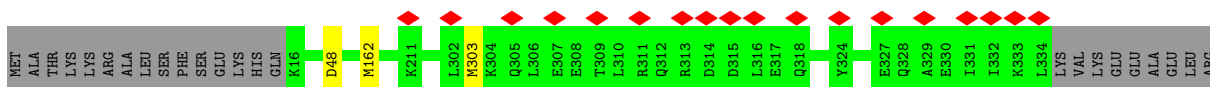
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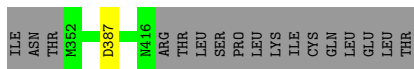


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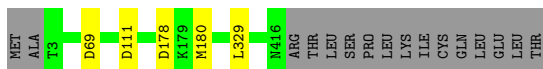


• Molecule 10: Meiosis-specific nuclear structural protein 1

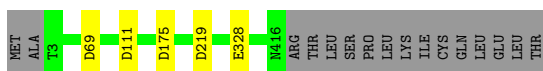




● Molecule 11: Tektin-2



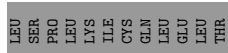
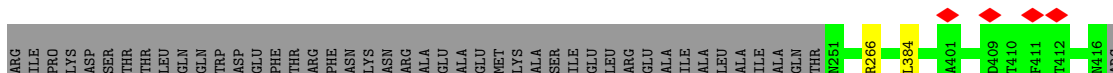
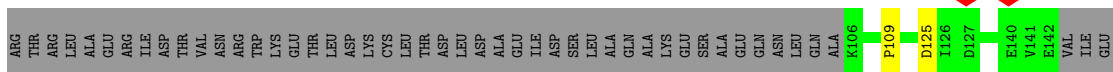
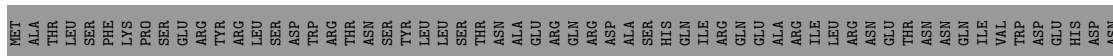
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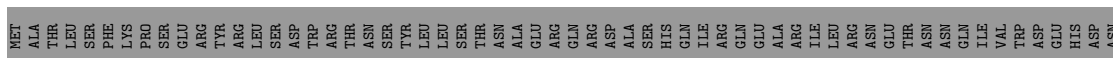
● Molecule 11: Tektin-2



● Molecule 11: Tektin-2



● Molecule 11: Tektin-2




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GLN ASN LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
PHE THR ARG PHE THR LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
HIS LEU CYS LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
PHE THR ARG PHE THR LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
TRP GLN LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
GLU VAL HIS GLM LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR THR
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GLU VAL HIS GLM LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR

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● Molecule 12: Tektin-3

Chain C0: 36% 63%

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MET GLU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ASN TYR PRO THR PRO THR LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
CYS ARG ASP MET LEU VAL VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR THR
LYS CYS MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET MET

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● Molecule 12: Tektin-3

Chain C1: 83% 16%

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MET GLU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ASN TYR PRO THR PRO THR LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
CYS ARG ASP MET LEU VAL VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR

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● Molecule 12: Tektin-3

Chain C2: 83% 16%

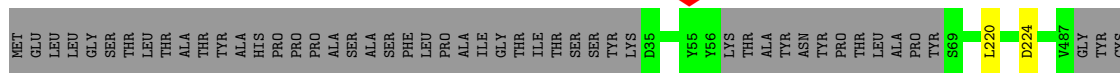
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MET GLU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ASN TYR PRO THR PRO THR LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU LEU
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
ALA GLU LYS PHE VAL VAL PRO PRO VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR
CYS ARG ASP MET LEU VAL VAL VAL VAL ASP ASP THR THR THR THR THR THR THR THR THR THR THR


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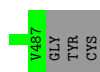
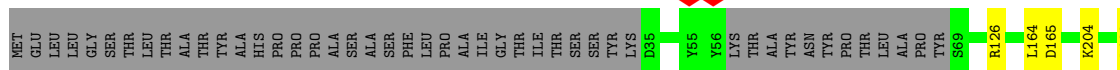

• Molecule 12: Tektin-3

Chain S2:  90% 10%



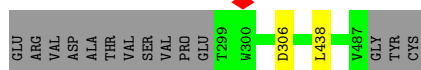
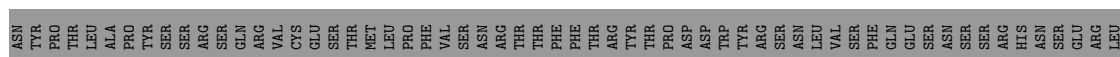
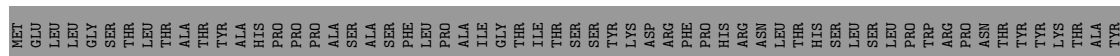
• Molecule 12: Tektin-3

Chain S3:  89% 10%



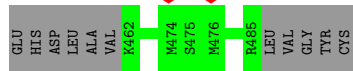
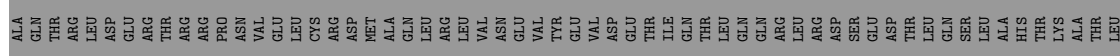
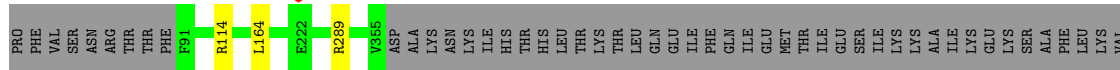
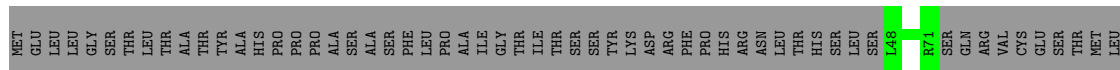
• Molecule 12: Tektin-3

Chain S4:  61% 38%




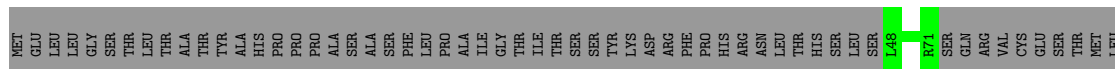
• Molecule 12: Tektin-3

Chain S5:  63% 36%




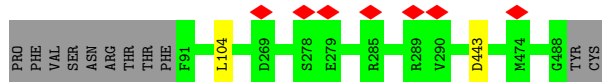
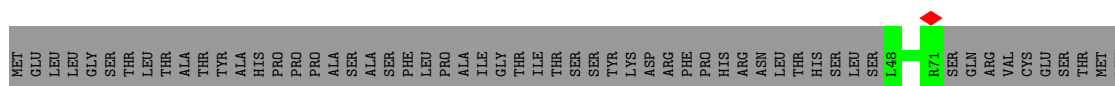
- Molecule 12: Tektin-3

Chain S6:  86% 14%




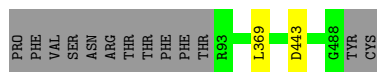
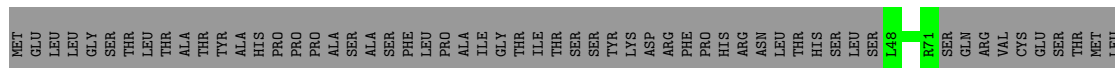
- Molecule 12: Tektin-3

Chain S7:  86% 14%



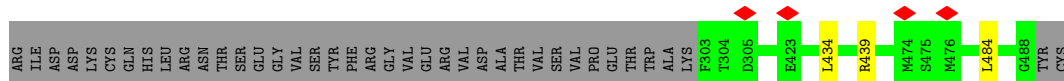
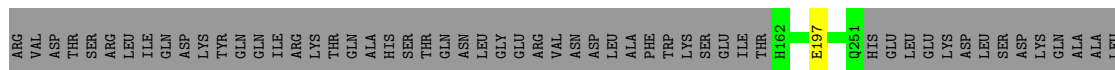
- Molecule 12: Tektin-3

Chain S8:  85% 14%



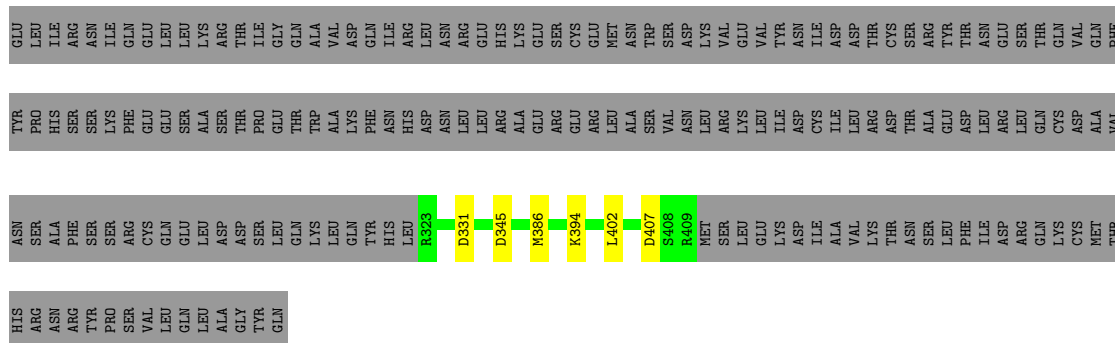
- Molecule 12: Tektin-3

Chain S9:  56% 44%

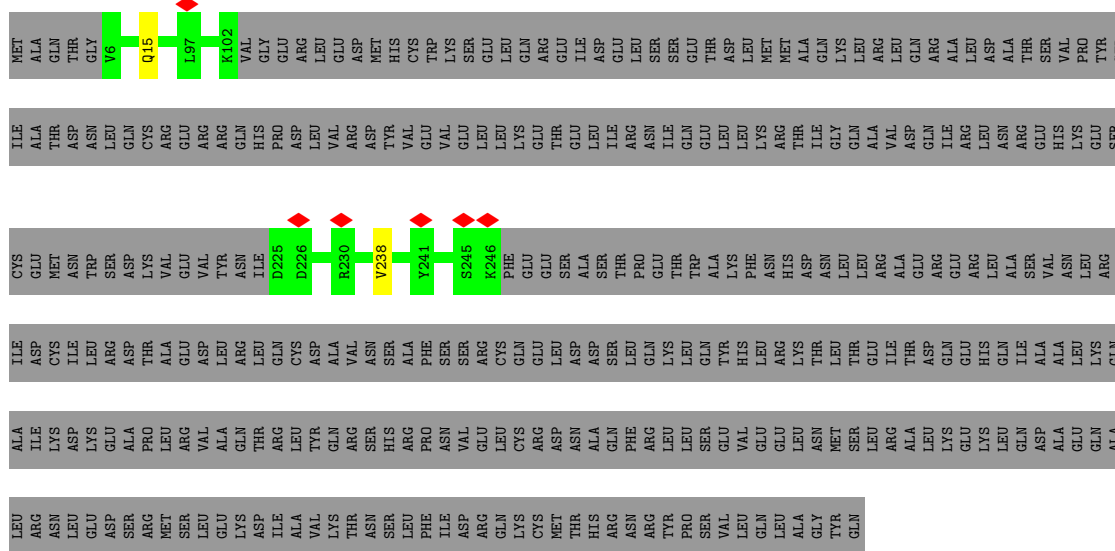


- Molecule 13: Sperm-associated antigen 8

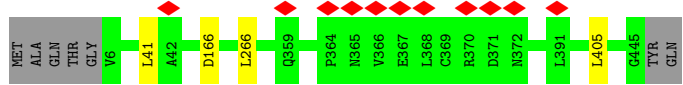
Chain D:  16% 84%



• Molecule 14: Tektin-4



• Molecule 14: Tektin-4

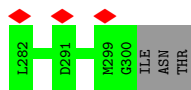


• Molecule 14: Tektin-4

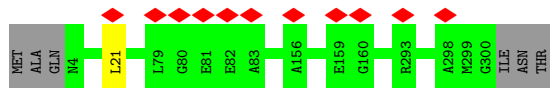


• Molecule 14: Tektin-4

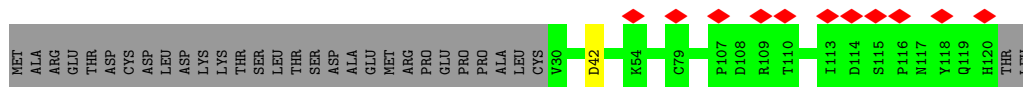




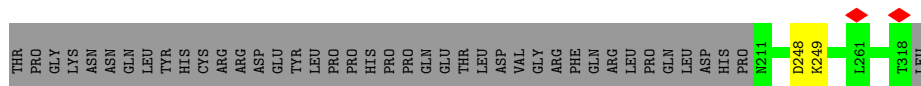
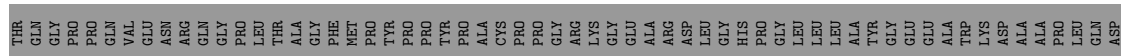
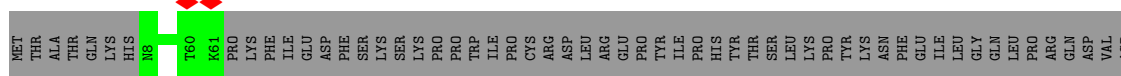
• Molecule 15: Cilia- and flagella-associated protein 161



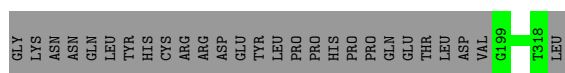
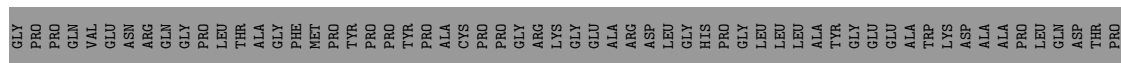
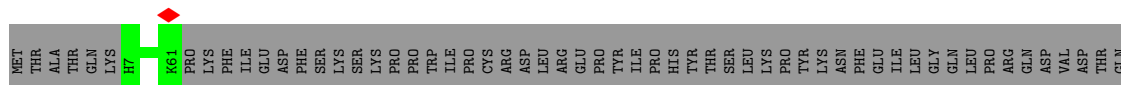
• Molecule 16: Piercer of microtubule wall 2 protein



• Molecule 17: Protein FAM166A

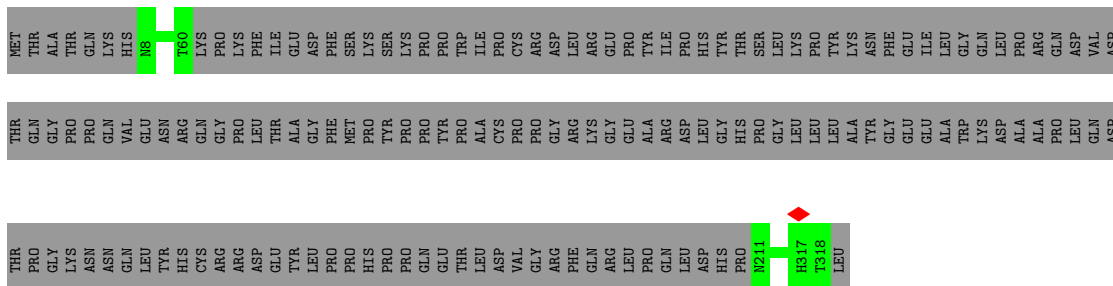


• Molecule 17: Protein FAM166A

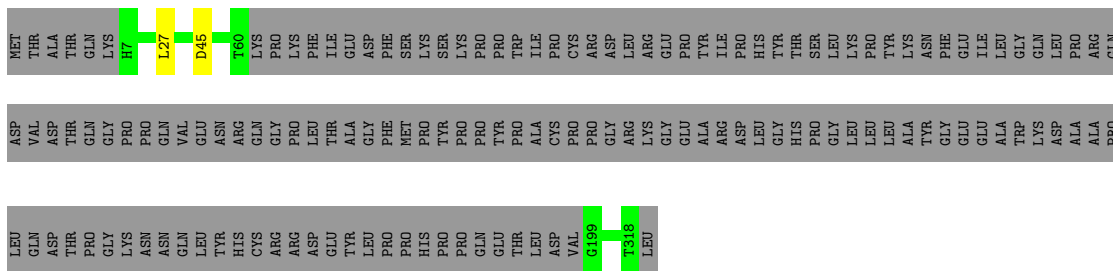


• Molecule 17: Protein FAM166A

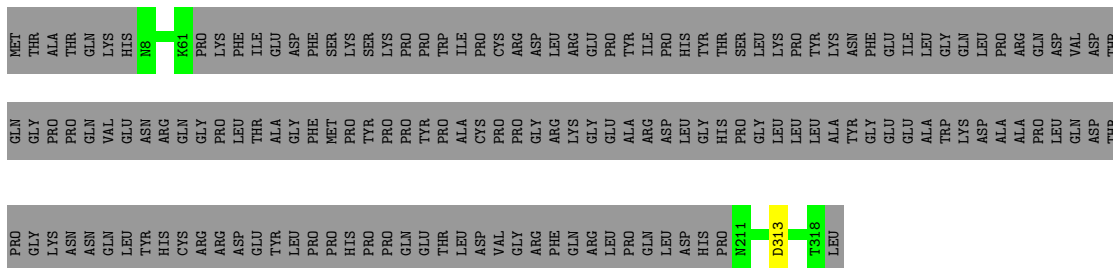




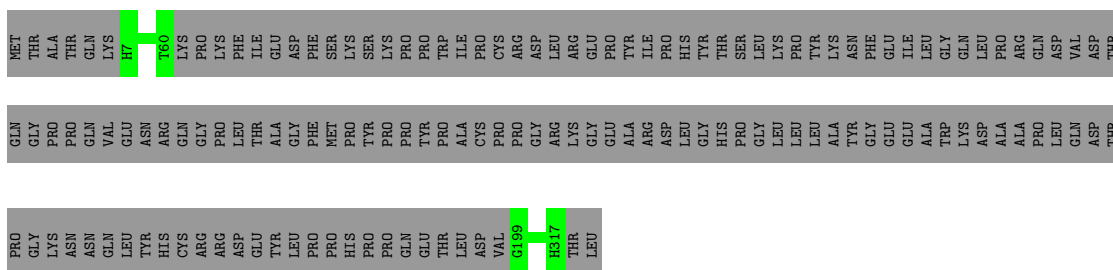
Molecule 17: Protein FAM166A



Molecule 17: Protein FAM166A

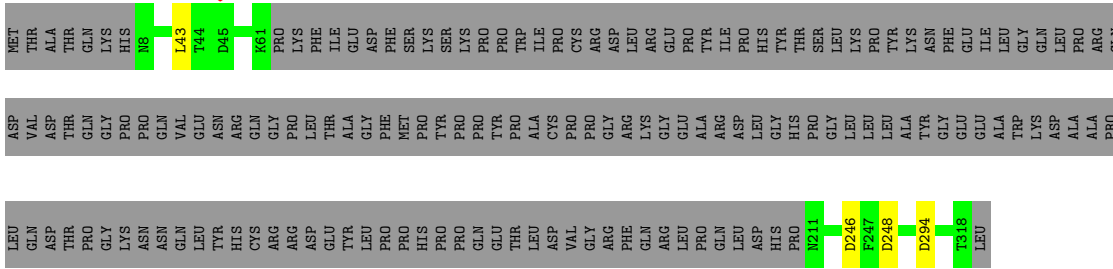


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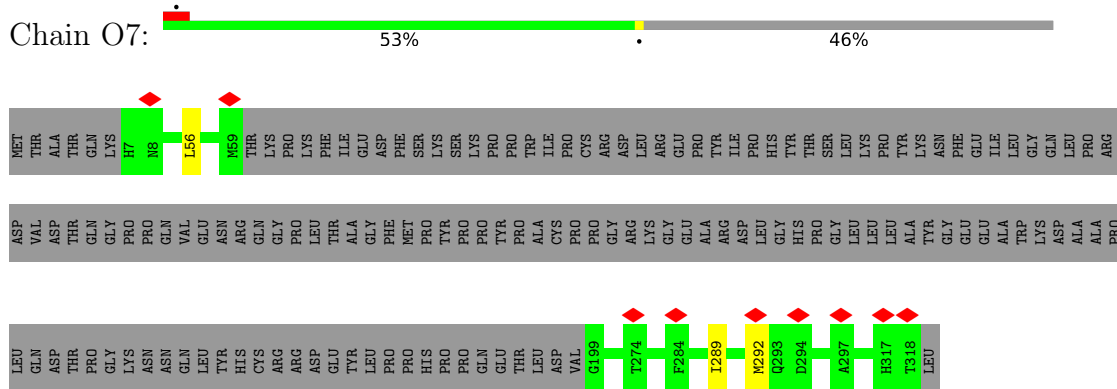


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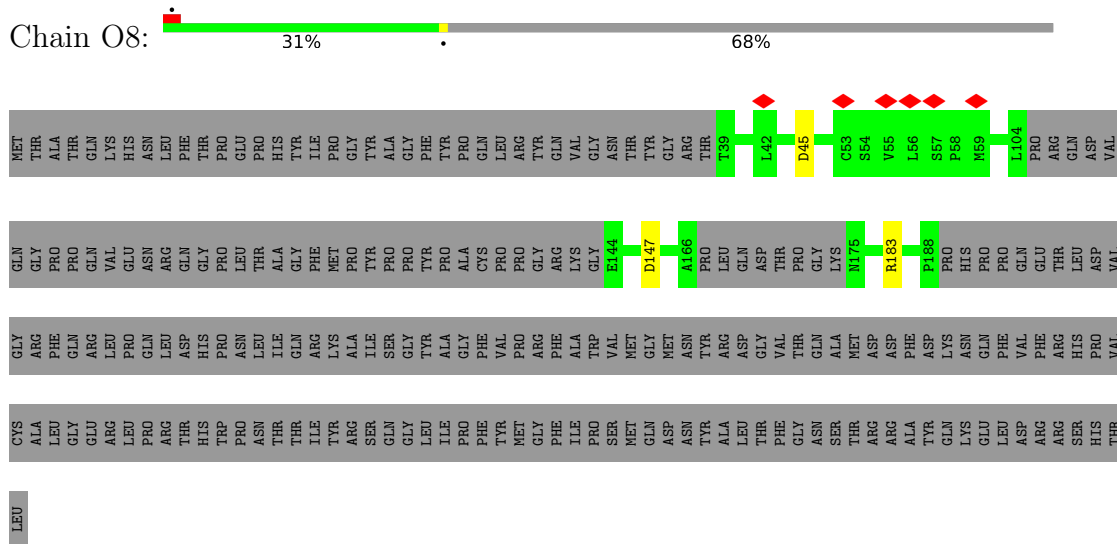




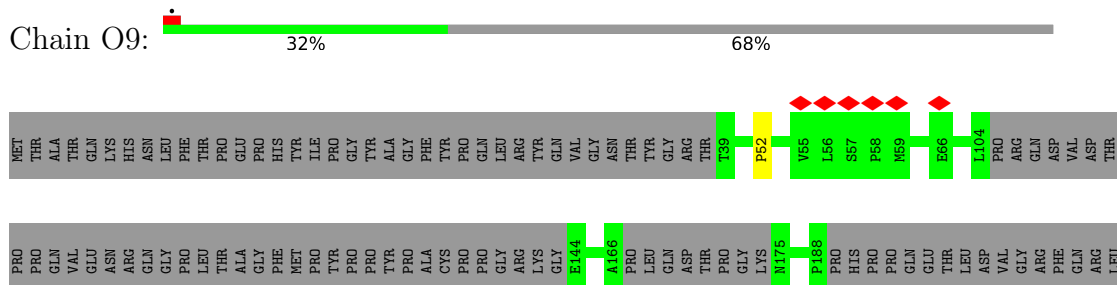
- Molecule 17: Protein FAM166A

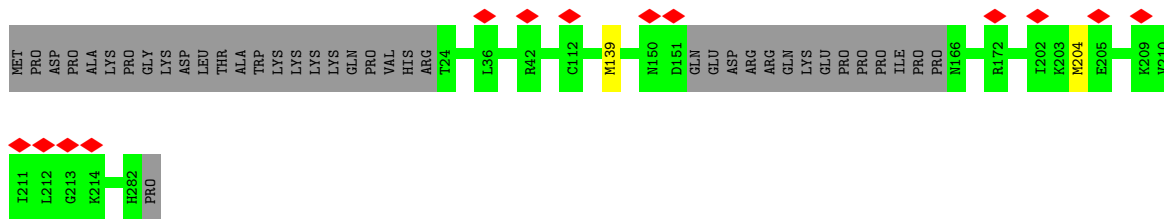


- Molecule 17: Protein FAM166A

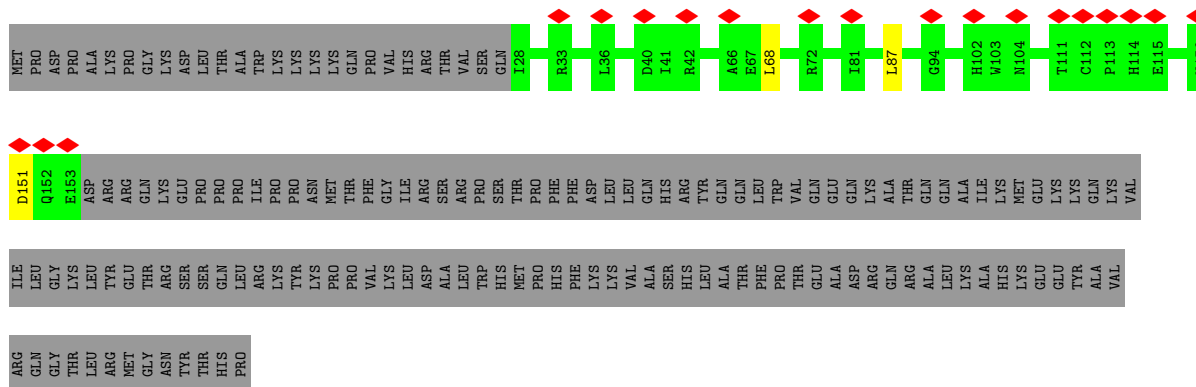
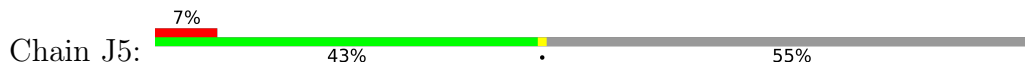


- Molecule 17: Protein FAM166A

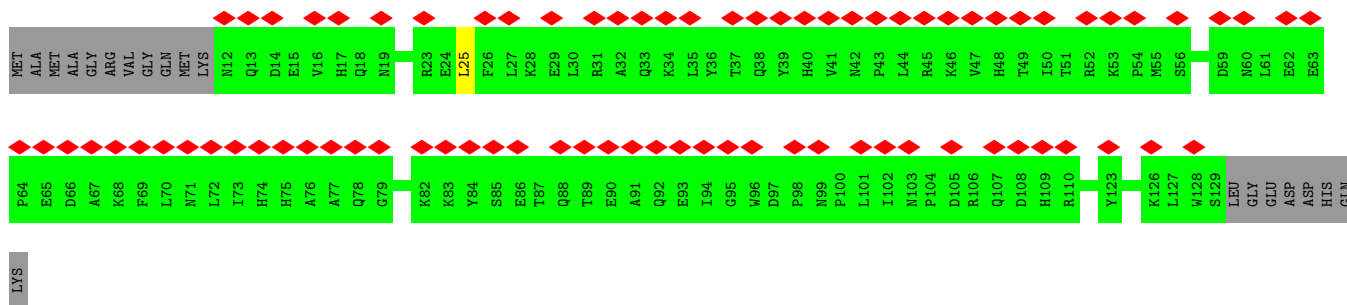
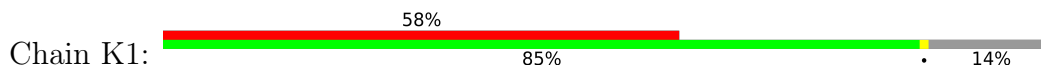




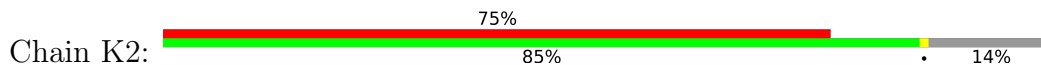
• Molecule 19: Cilia and flagella-associated protein 77



• Molecule 20: Family with sequence similarity 183, member B



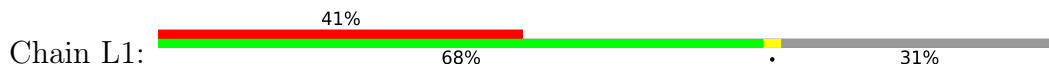
• Molecule 20: Family with sequence similarity 183, member B



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| S129 |
| LEU |
| GLY |
| GLU |
| ASP |
| HIS |
| GLN |
| LYS |

• Molecule 21: Cilia- and flagella-associated protein 90



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| MET | GLU | LEU | LEU | ALA | LYS | LYS | GLU | ARG | ARG | ALA | MET | ASP | PRO | GLY | GLY | LEU | LYS | LYS | GLU | GLY | LYS | VAL | F79 | GLU | R81 | GLU | ALA | GLY | LYS | LYS | GLU | GLU | GLY | GLY | ARG | THR | SER | THR | LEU | ARG | GLY | LYS | PRO | ARG | PRO | LEU | P56 | I57 | S58 | A59 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

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| A62 | F63 | S64 | Y65 | I66 | P67 | P68 | R69 | Q71 | G72 | P73 | K74 | E75 | R76 | S77 | Y78 | S80 | R81 | E82 | G83 | Q84 | T85 | G86 | I87 | W88 | L90 | Y91 | C93 | V94 | F95 | K96 | R97 | R98 | L99 | D100 | Y101 | M102 | Q103 | K104 | L105 | H106 | R107 | D108 | D109 | R110 | E111 | H112 | A113 | K114 | N115 | L116 | G117 | L118 | H119 | E124 |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|

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|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|
| Q125 | E126 | R127 | M133 | I141 | N142 | Q143 | P144 | I145 | E146 | P147 | L148 | N149 | R150 | D151 | H154 | K159 | E167 | P174 | G175 | H178 | P181 | ALA |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|

• Molecule 22: Protein FAM166C



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| MET | ALA | PHE | ARG | SER | ALA | GLY | THR | LEU | MET | THR | THR | GLU | PHE | ASN | ALA | ALA | VAL | PRO | VAL | PRO | PRO | ALA | ALA | MET | ASN | PRO | GLY | TYR | LYS | GLY | HIS | VAL | VAL | GLY | VAL | SER | THR | SER | TYR | PHE | GLY | SER | SER | TYR | ASN | GLN | ASN | ASP | THR | THR | PHE | LYS | TYR | PHE | GLN | ASP | LEU | ARG | ASN | THR | GLY | LEU | LYS | SER |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

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| TYR | ALA | LEU | LEU | SER | GLY | GLY | CYS | PHE | PRO | PRO | THR | ILE | PHE | SER | ASN | ASN | ALA | PRO | VAL | PRO | VAL | LEU | VAL | THR | LEU | LEU | ASP | ASN | SER | GLN | ASN | TRP | GLY | HIS | ARG | TRP | LEU | HIS | GLN | ALA | PRO | SER | THR | SER | TYR | SER | ARG | ASN | GLN | ASP | N104 | D170 | R189 | Q190 | R191 | L194 | R199 | ALA |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|-----|

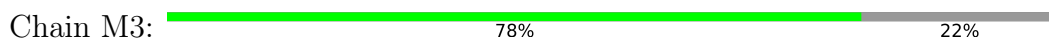
• Molecule 22: Protein FAM166C



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| MET | ALA | PHE | ARG | SER | ALA | GLY | THR | LEU | MET | THR | THR | GLU | PHE | ASN | ALA | ALA | VAL | PRO | VAL | PRO | VAL | LEU | VAL | ALA | MET | ASP | PRO | GLY | TYR | LYS | GLY | HIS | ARG | TRP | LEU | GLY | VAL | SER | THR | SER | TYR | PHE | GLY | SER | SER | TYR | ASN | GLN | ASP | THR | THR | PHE | LYS | TYR | PHE | GLN | ASP | LEU | ARG | ASN | THR | GLY | LEU | GLU | LYS | SER |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|

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| TYR | ALA | LEU | LEU | SER | GLY | GLY | CYS | PHE | PRO | PRO | THR | ILE | PHE | SER | ASN | ASN | ALA | PRO | VAL | PRO | VAL | LEU | VAL | THR | LEU | LEU | ASP | ASN | SER | GLN | ASN | TRP | GLY | HIS | ARG | TRP | LEU | HIS | GLN | ALA | PRO | SER | THR | SER | TYR | SER | ARG | ASN | GLN | ASP | N104 | R199 | ALA |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|-----|

• Molecule 22: Protein FAM166C

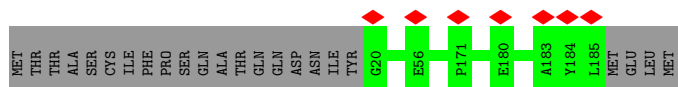
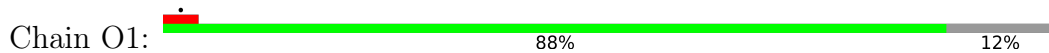


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|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|
| H1 | S60 | TYR | ALA | LEU | LEU | SER | GLY | GLY | GLY | CYS | PHE | PRO | THR | THR | ILE | PHE | ASN | ALA | PRO | VAL | PRO | VAL | LEU | VAL | THR | LEU | LEU | ASP | ASN | SER | GLN | ASN | TRP | GLY | HIS | ARG | TRP | LEU | HIS | GLN | ALA | PRO | SER | THR | SER | TYR | SER | ARG | ASN | GLN | ASP | N104 | K169 | R199 | ALA |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|-----|

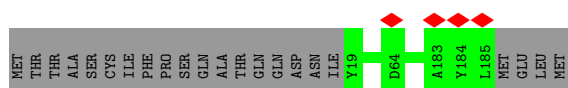
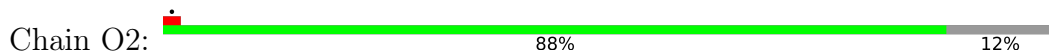
• Molecule 22: Protein FAM166C



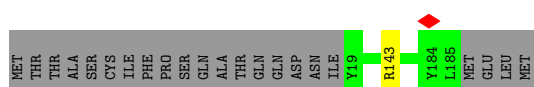
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|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| MET | ALA | PHE | ARG | SER | ALA | GLY | THR | LEU | MET | THR | THR | GLU | PHE | ASN | ALA | ALA | VAL | PRO | VAL | PRO | VAL | LEU | VAL | ALA | MET | ASP | PRO | GLY | TYR | LYS | GLY | HIS | VAL | VAL | GLY | VAL | SER | THR | SER | TYR | PHE | GLY | SER | SER | TYR | ASN | GLN | ASP | THR | THR | PHE | LYS | TYR | PHE | GLN | ASP | LEU | ARG | ASN | THR | GLY | LEU | GLU | LYS | SER |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|



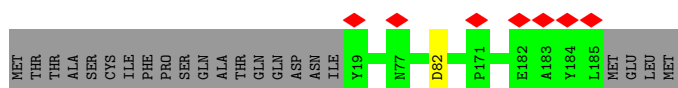
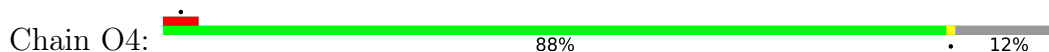
• Molecule 24: Dual specificity phosphatase 21



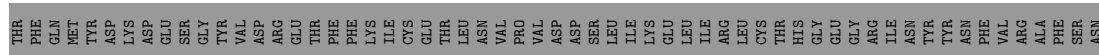
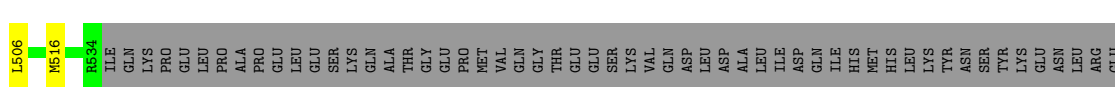
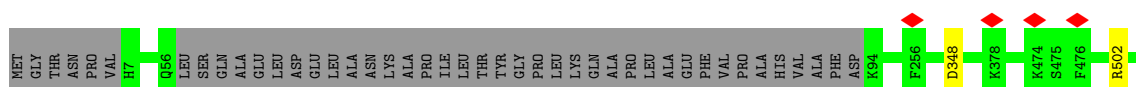
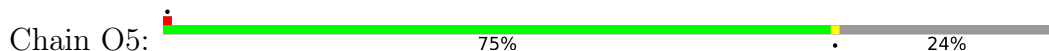
• Molecule 24: Dual specificity phosphatase 21



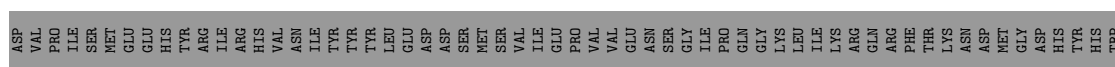
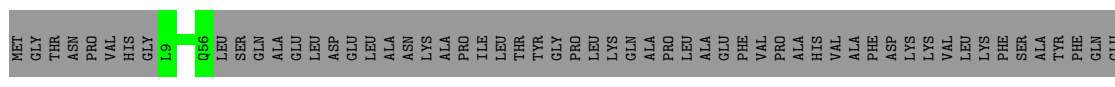
• Molecule 24: Dual specificity phosphatase 21

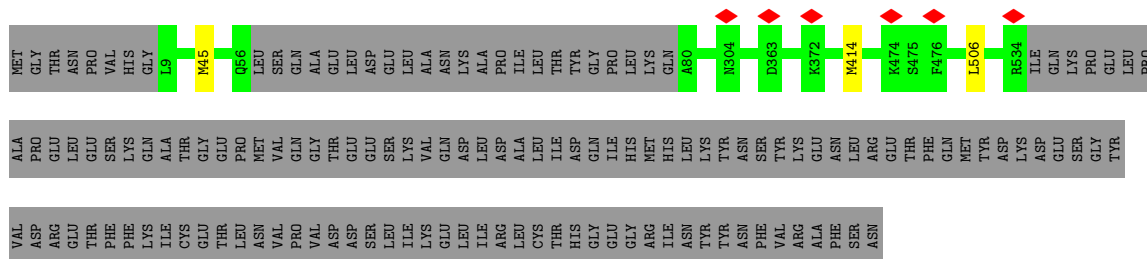


• Molecule 25: EF-hand domain-containing protein 1

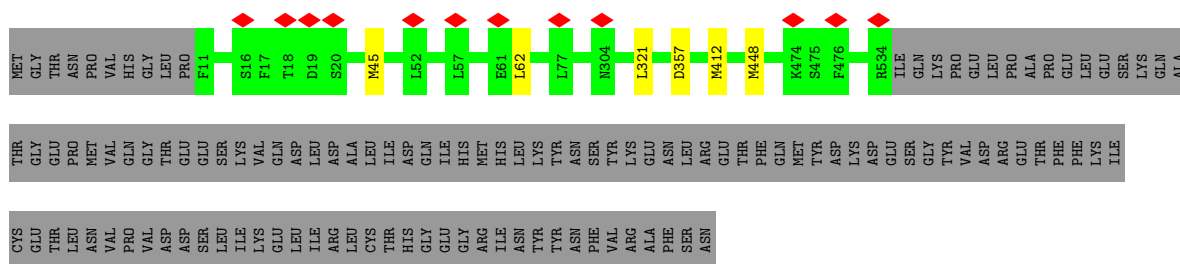
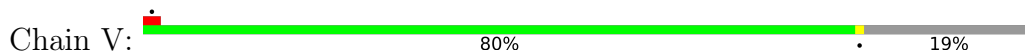


• Molecule 25: EF-hand domain-containing protein 1

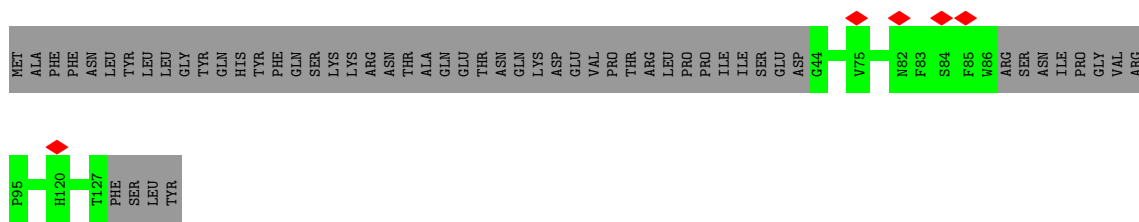




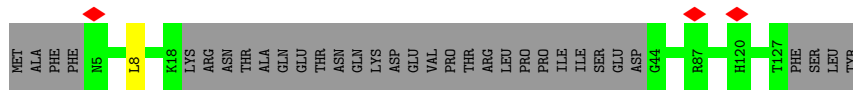
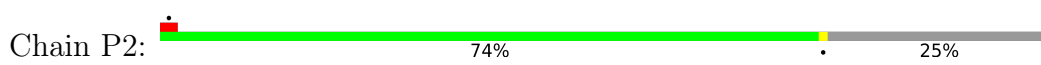
• Molecule 25: EF-hand domain-containing protein 1



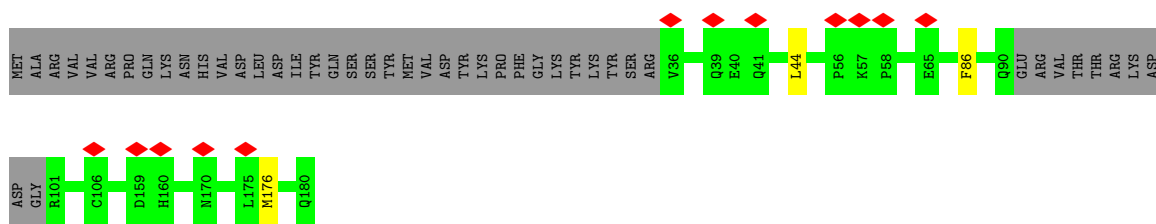
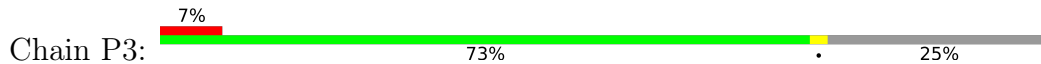
• Molecule 26: Testis expressed 49



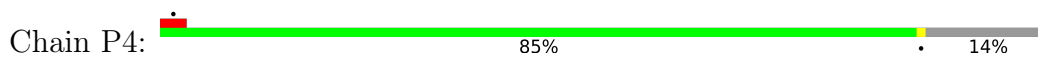
• Molecule 26: Testis expressed 49



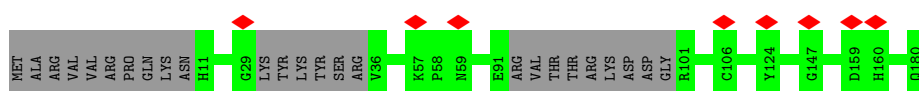
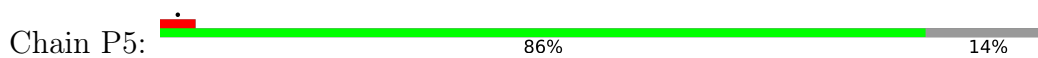
• Molecule 27: Testis-expressed sequence 37 protein



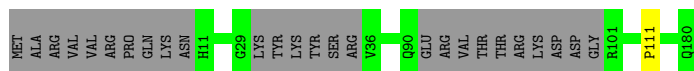
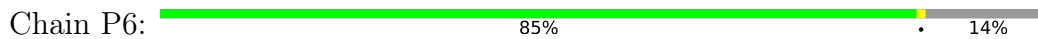
- Molecule 27: Testis-expressed sequence 37 protein



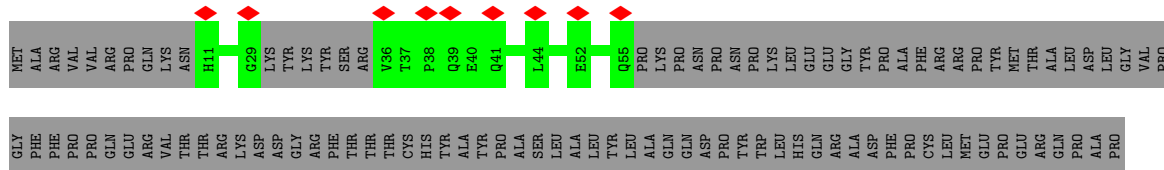
- Molecule 27: Testis-expressed sequence 37 protein



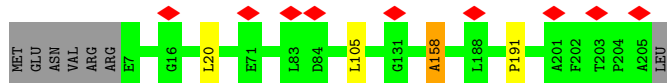
- Molecule 27: Testis-expressed sequence 37 protein



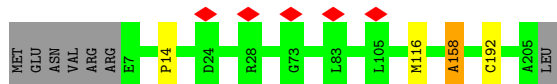
- Molecule 27: Testis-expressed sequence 37 protein



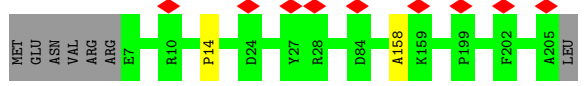
- Molecule 28: Tektin bundle-interacting protein 1



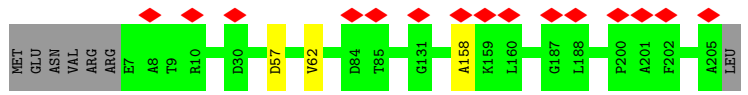
- Molecule 28: Tektin bundle-interacting protein 1



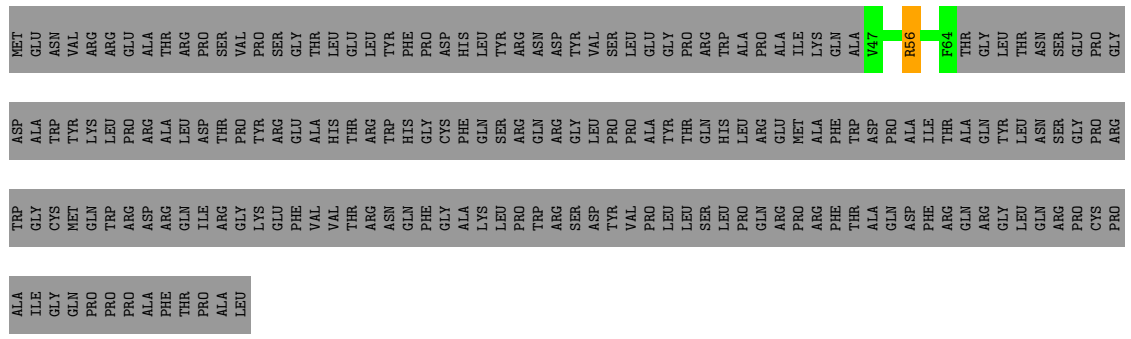
• Molecule 28: Tektin bundle-interacting protein 1



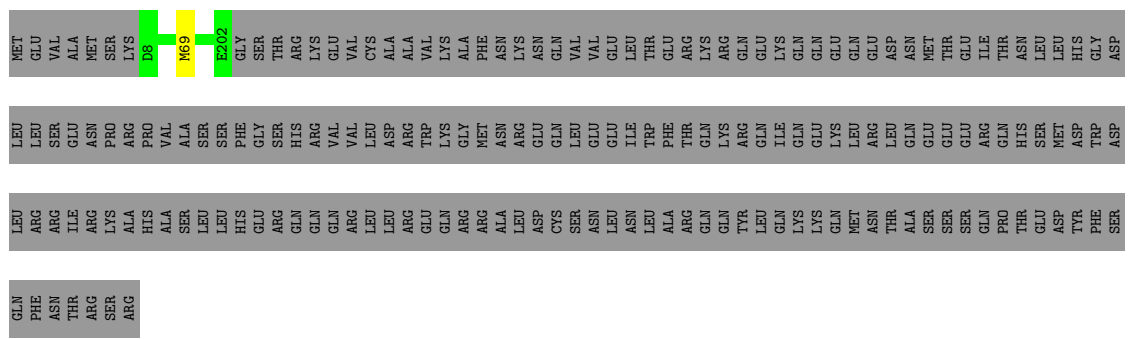
• Molecule 28: Tektin bundle-interacting protein 1



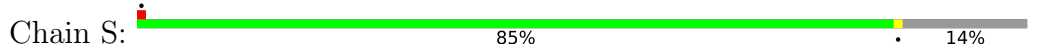
• Molecule 28: Tektin bundle-interacting protein 1

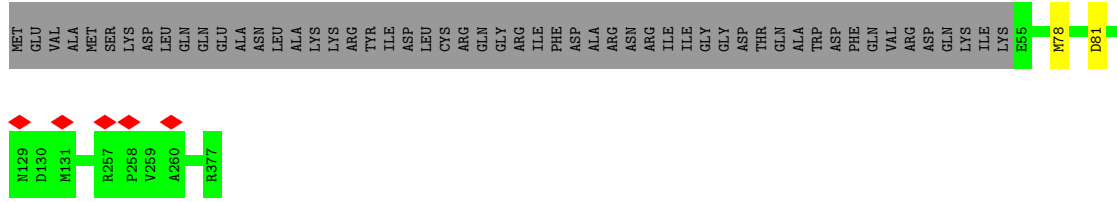


• Molecule 29: RIB43A-like with coiled-coils protein 2



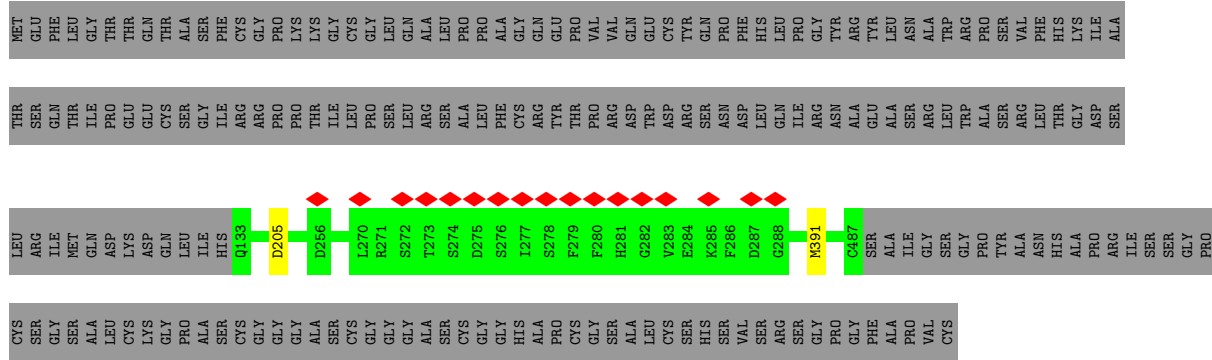
• Molecule 29: RIB43A-like with coiled-coils protein 2





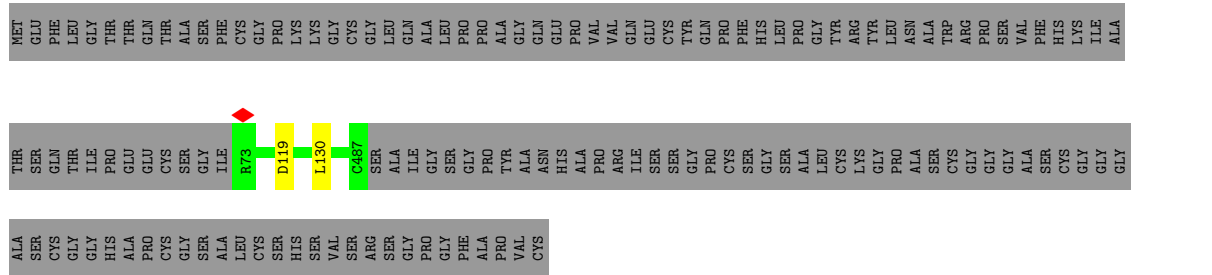
● Molecule 30: Tektin-5

Chain U0: 63% 36%



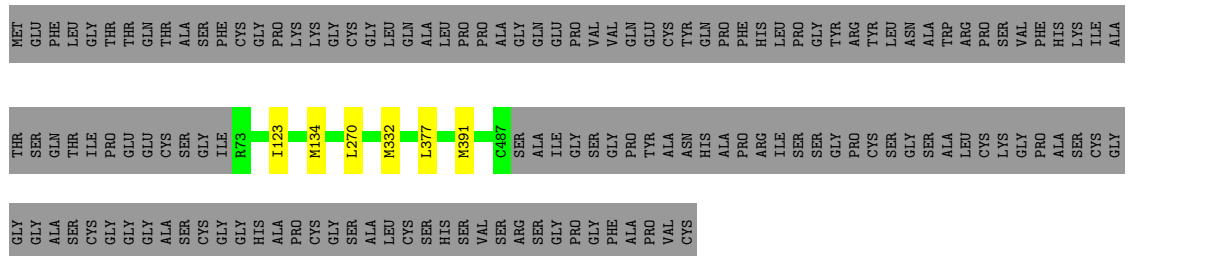
● Molecule 30: Tektin-5

Chain U1: 74% 25%



● Molecule 30: Tektin-5

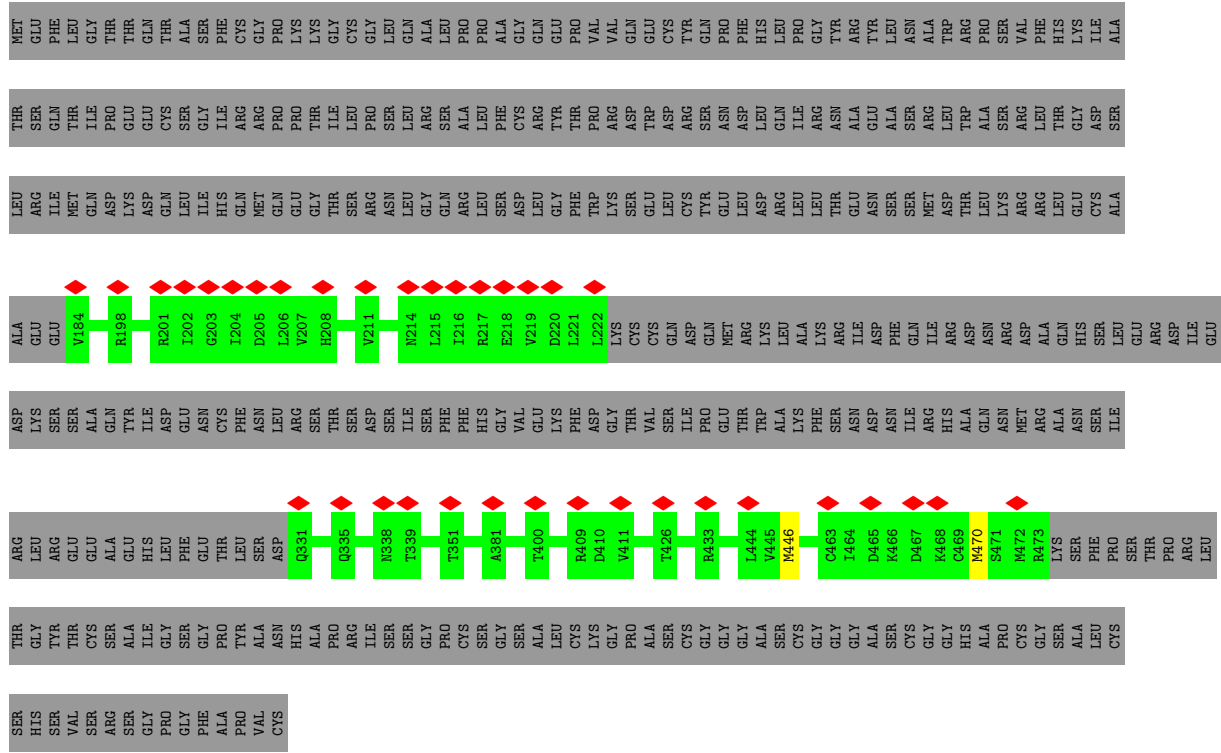
Chain U2: 73% 25%



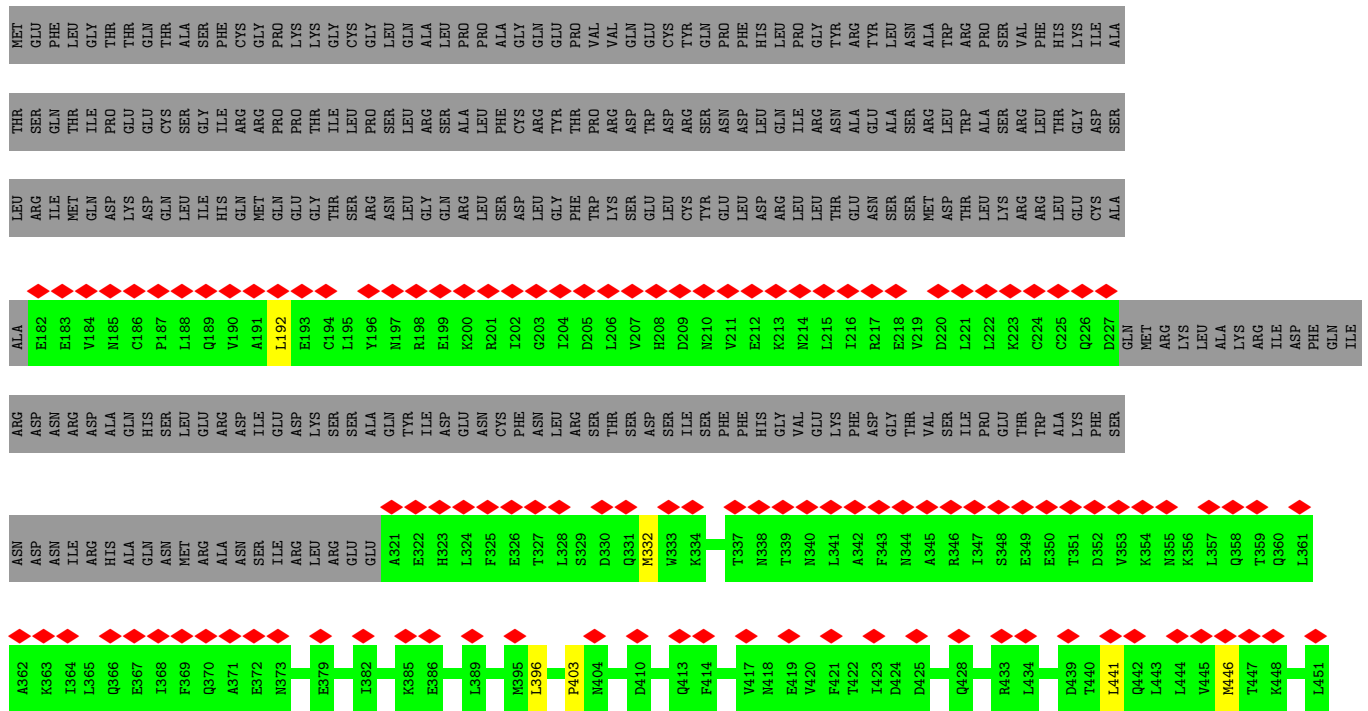
● Molecule 30: Tektin-5

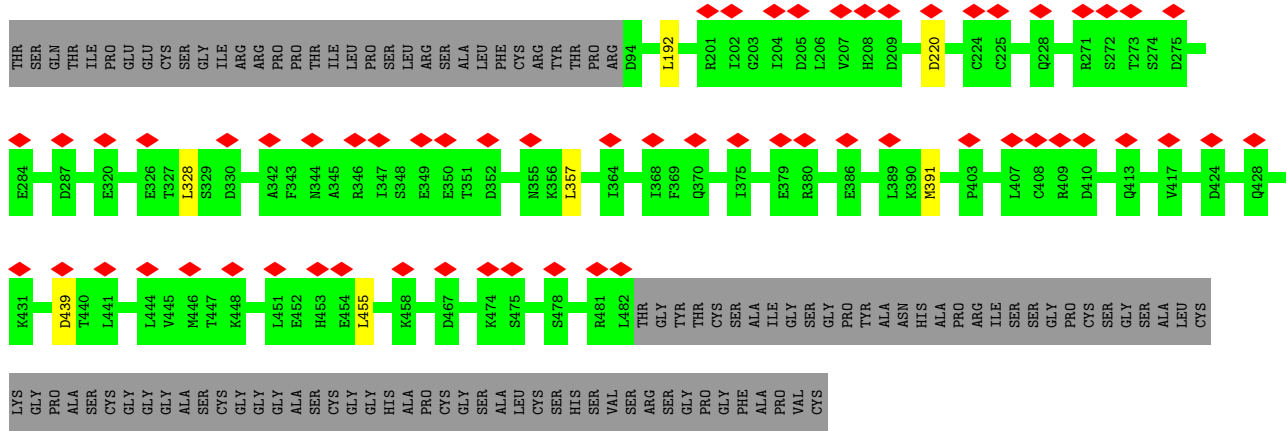
Chain U3: 74% 25%

• Molecule 30: Tektin-5

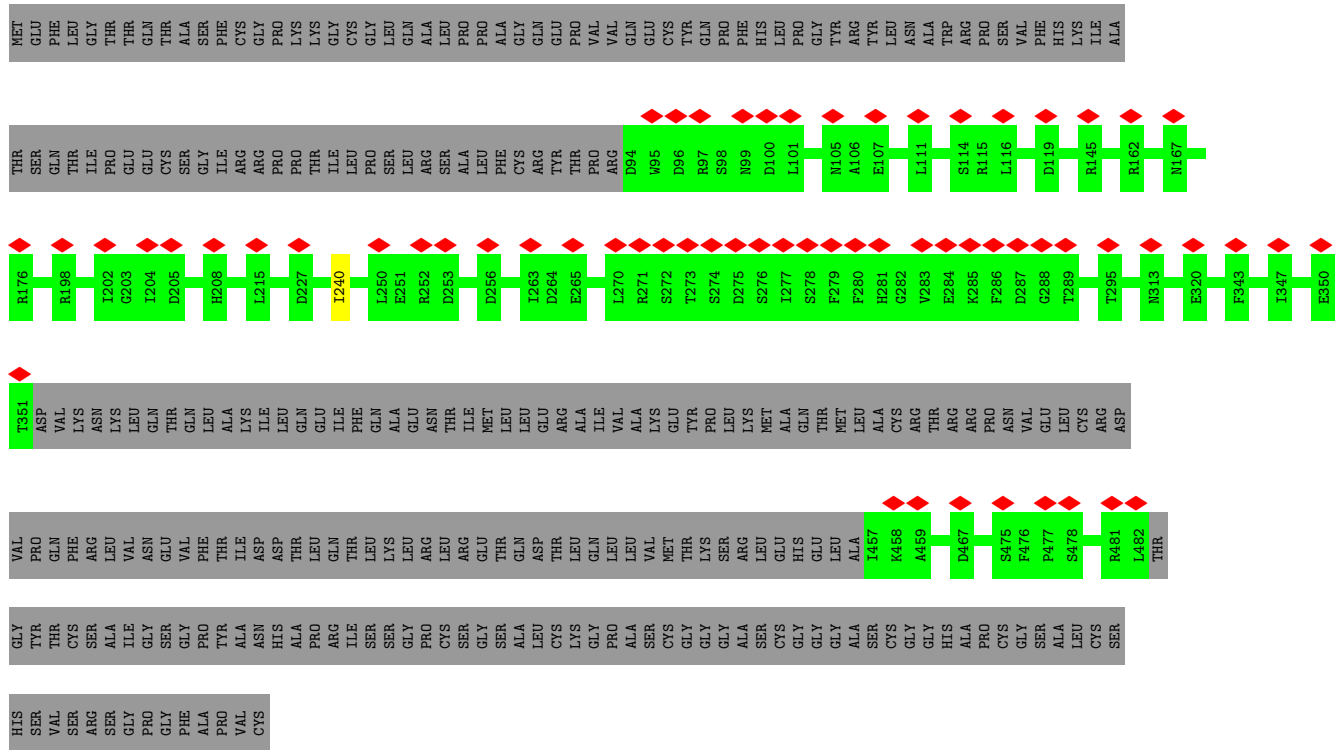


• Molecule 30: Tektin-5

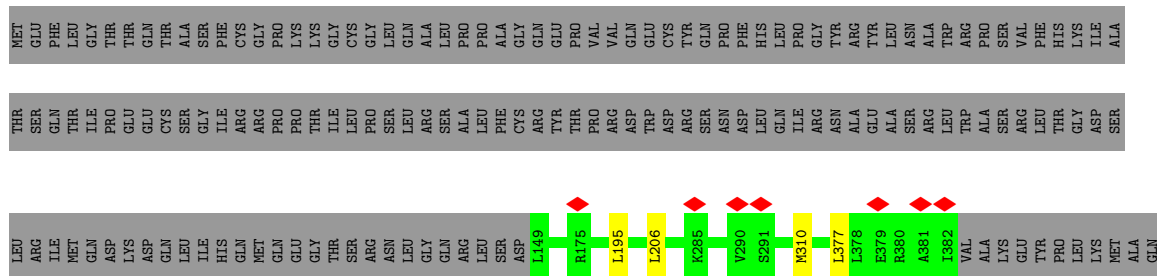


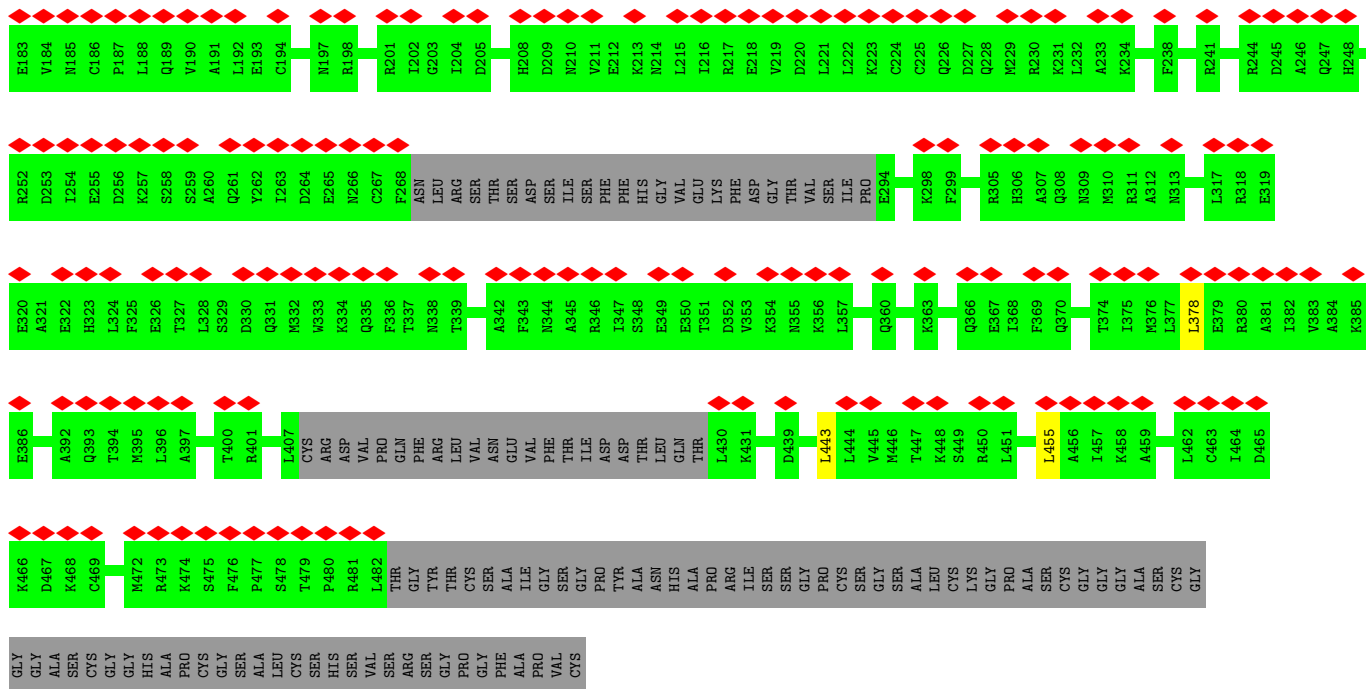


Molecule 30: Tektin-5

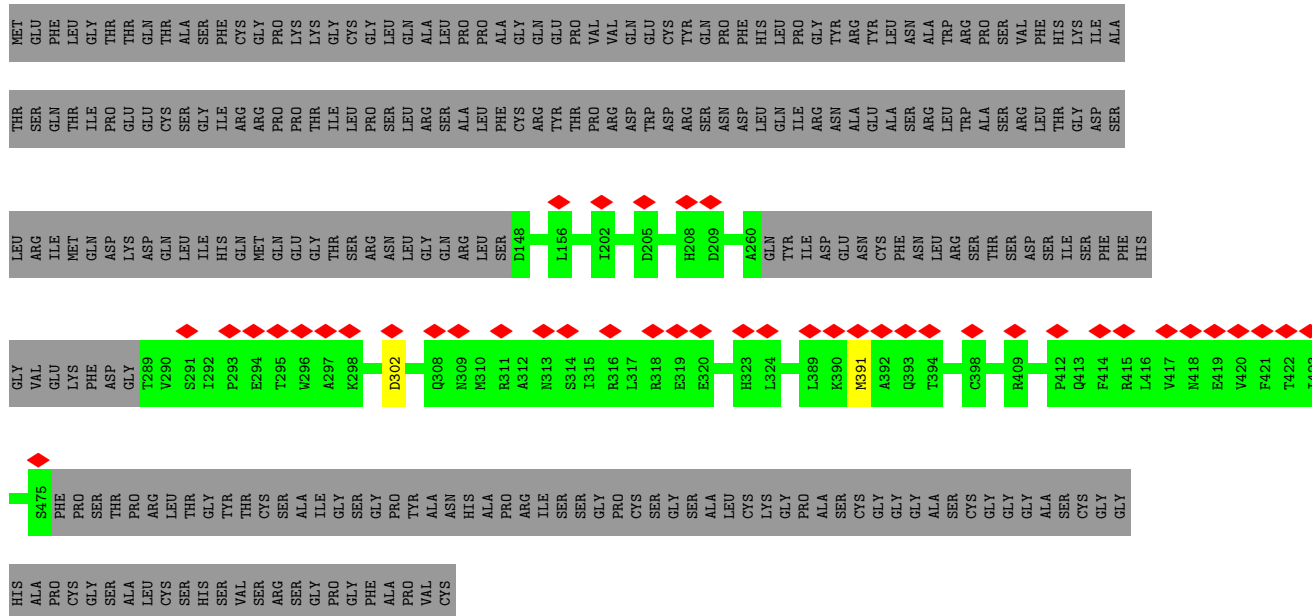


Molecule 30: Tektin-5

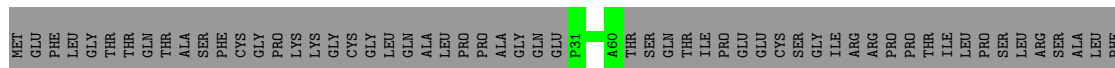


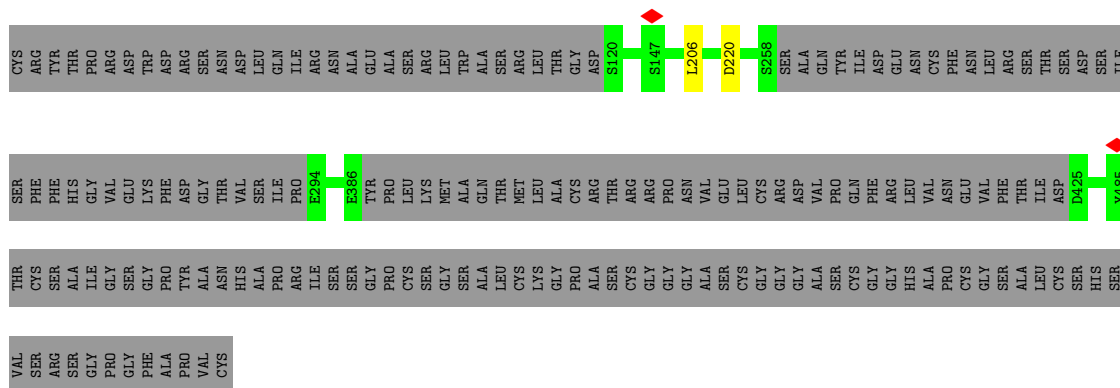


• Molecule 30: Tektin-5



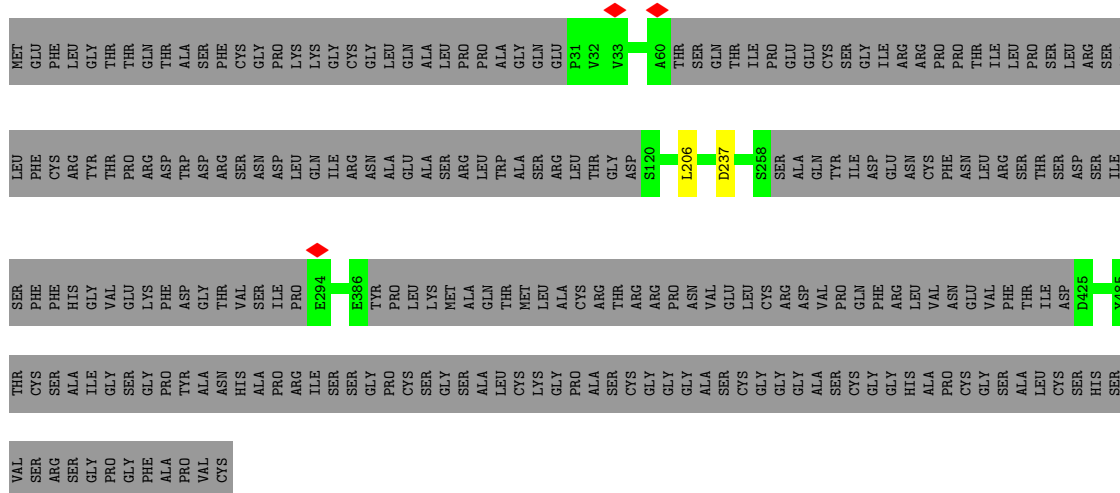
• Molecule 30: Tektin-5





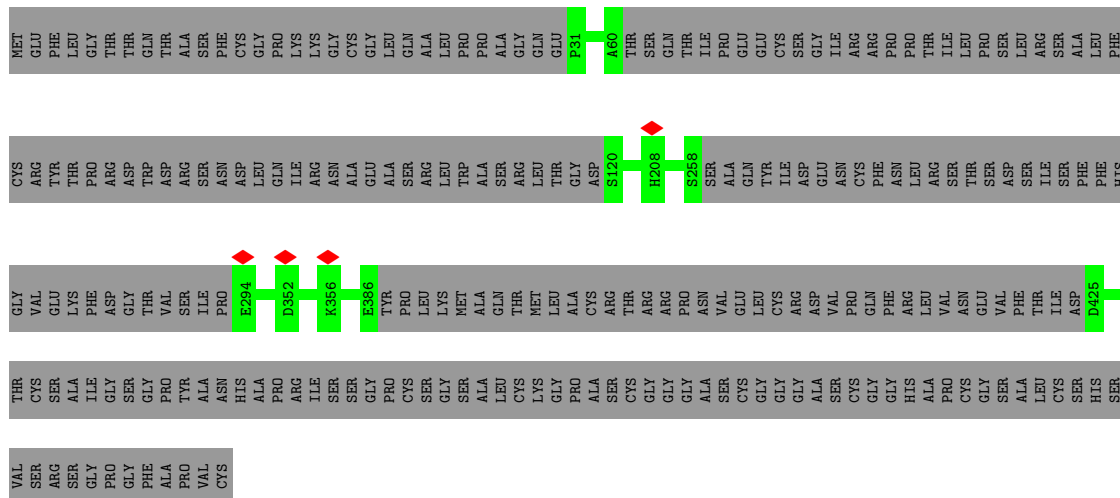
● Molecule 30: Tektin-5

Chain W5: 58% 42%



● Molecule 30: Tektin-5

Chain W6: 58% 42%



SER
VAL
ASP
PRO
PHE
TYR
ARG
ASP
MET
PRO
HIS
SER
SER
ARG
TYR
PRO
ALA
SER
SER

- Molecule 34: Testis-specific serine/threonine-protein kinase 6

Chain X6: 5% 97%

MET SER G3 D4 E9 G19 K65 P68 R59 S62 P70 H74 E77 N83 G84 L198 L248 S253 A258 L267 R268 A269 GLY ASP SER SER GLY

- Molecule 34: Testis-specific serine/threonine-protein kinase 6

Chain X7: 39% 96%

MET SER G3 D4 K5 L6 L7 S8 E9 L10 K13 R16 E20 G21 S22 A29 T30 S31 K32 G33 Y34 K35 G36 T37 V38 A39 D44 R47 A48 K55 F56 L57 P58 R59 E60 L61 S62 I63 G66 H74 E80 V81 C82 N83 G84 V89 A100

R103 N104 I107 F108 G109 S110 Q111 A112 R113 E114 L115 F116 H129 H130 L131 L142 L143 S144 P145 D146 E147 R148 R149 D154 F155 G156 F157 Q160 A161 H162 Q163 Y164 P165 D166 L167 C172 A178 L183 P187 Y188 D189 D194 V195 M205 V206 T207 G208 D214

S215 D216 I217 A218 R222 K225 R226 G227 V228 E129 L234 E235 L236 S237 R239 C240 S242 E246 L247 Q249 S253 A254 R255 S257 A258 Q259 Q260 V261 W266 L267 R268 A269 GLY ASP SER SER GLY

- Molecule 34: Testis-specific serine/threonine-protein kinase 6

Chain X8: 48% 98%

MET SER G3 D4 K5 L6 L7 S8 E9 L10 G11 Y12 K13 R16 T17 E20 G21 S22 V28 A29 K33 Y34 K35 G36 T37 V38 A39 D44 R45 R46 R47 A48 F52 V53 N54 K55 F56 L57 P58 L61 S62 I63 L64 H74 V75 F76 V81 C82 N83 G84 K85

L86 V89 A92 Q102 R103 N104 G105 R106 I107 P108 G109 S110 Q111 A112 F116 L126 H129 H130 L131 V132 L142 L143 D145 E147 R148 R149 V150 D154 F155 G156 F157 F158 G158 R159 Q160 A161 H162 G163 Y164 P165 D166 L167 C172 G173 S174 A175 A176 Y177 V182

V206 T207 G208 C209 M210 P211 F212 D213 D214 S215 D216 I217 A218 P221 R222 R223 Q224 K225 R226 G227 V228 L229 Y230 P231 D232 G233 L234 E235 L236 R239 L247 L248 Q249 F250 S253 A254 R255 P256 S257 A258 G259 Q260 V261 W266 L267 R268 A269 GLY ASP SER SER GLY

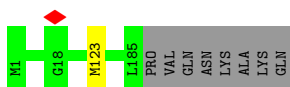
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XA: 9% 95%

M1 S16 I17 G18 S19 K27 M40 Q43 S44 L47 D126 L171 E174 D175 E176 P177 P178 A179 E180 L183 Y184 L185 PRO VAL GLN ASN LYS ALA LYS GLN

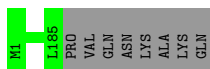
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XB:  95%



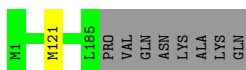
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XC:  96%



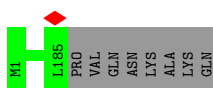
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XD:  95%



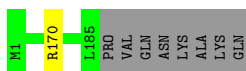
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XE:  96%



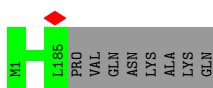
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XF:  95%



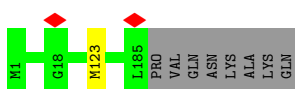
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XG:  96%



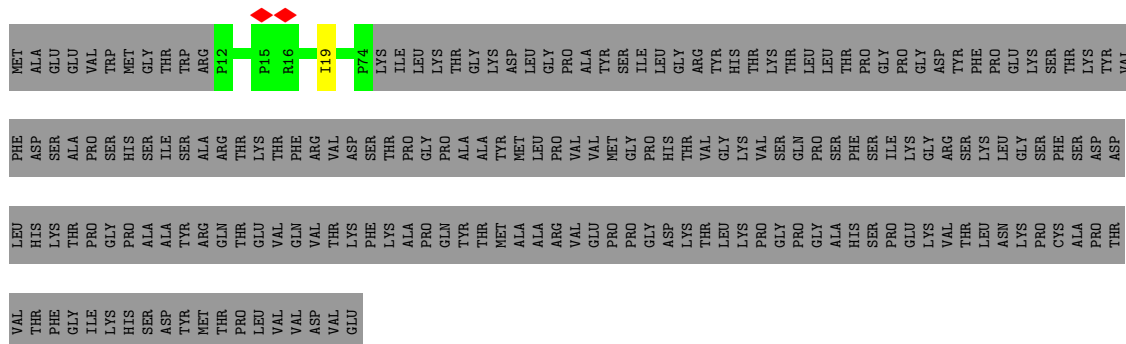
- Molecule 35: Cilia- and flagella-associated protein 20

Chain XH:  95%



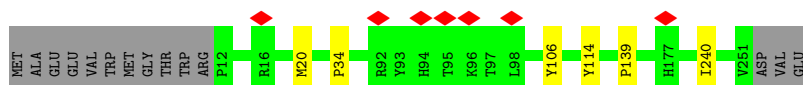
- Molecule 36: Outer dense fiber protein 3

Chain Y0:  24% 75%




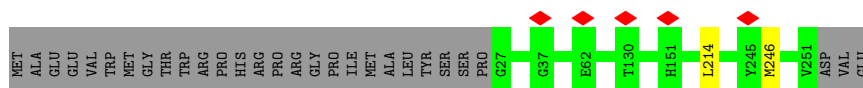
- Molecule 36: Outer dense fiber protein 3

Chain Y1:  92% 6%



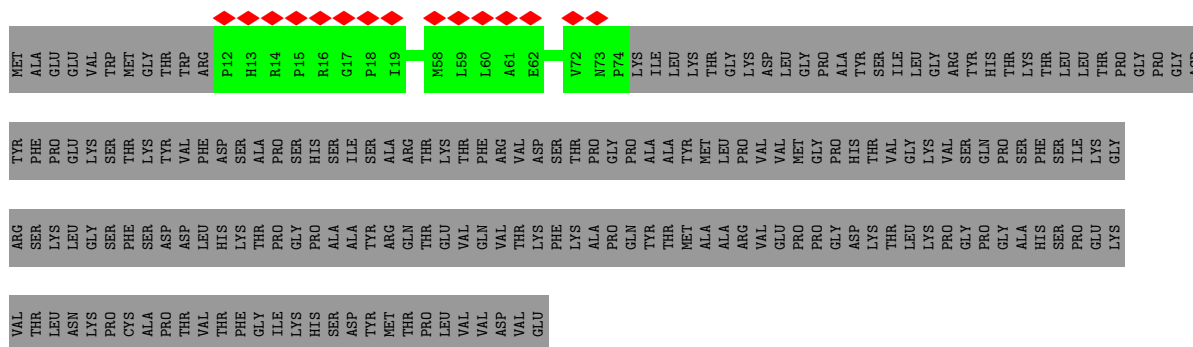
- Molecule 36: Outer dense fiber protein 3

Chain Y2:  88% 11%




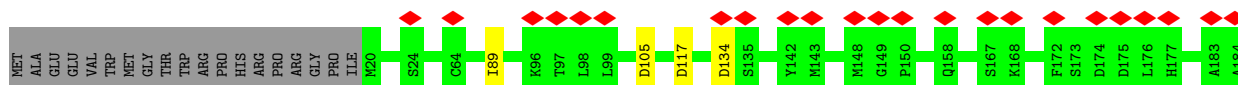
- Molecule 36: Outer dense fiber protein 3

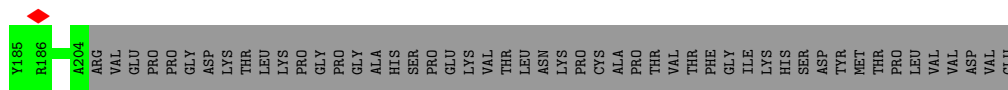
Chain Y3:  6% 25% 75%



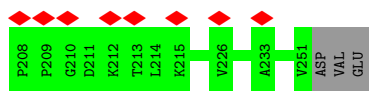
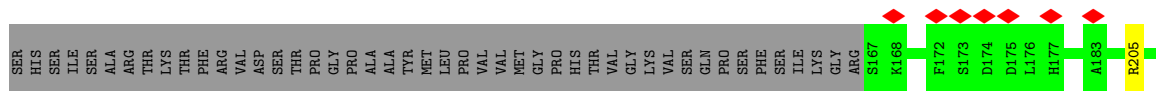
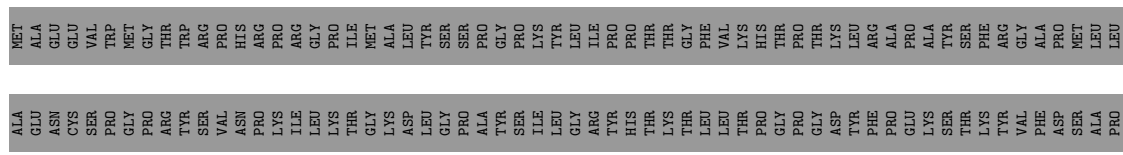
- Molecule 36: Outer dense fiber protein 3

Chain Y4:  9% 71% 27%

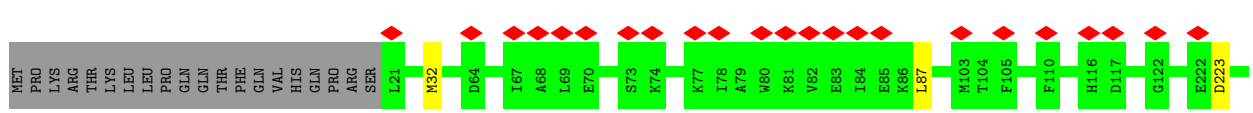
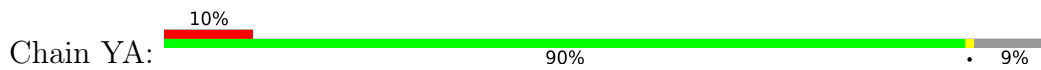




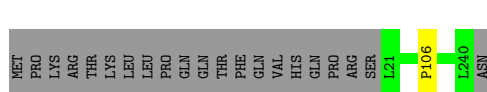
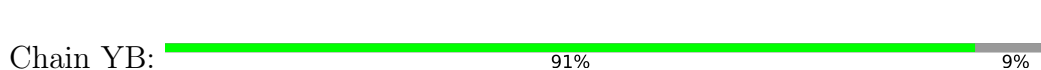
• Molecule 36: Outer dense fiber protein 3



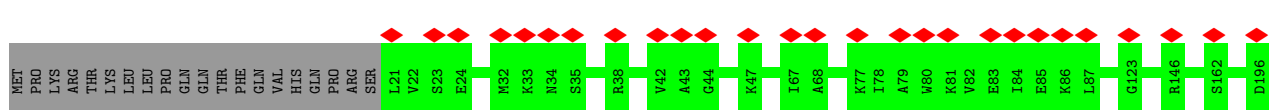
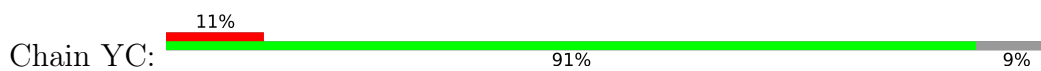
• Molecule 37: Parkin coregulated gene protein homolog



• Molecule 37: Parkin coregulated gene protein homolog

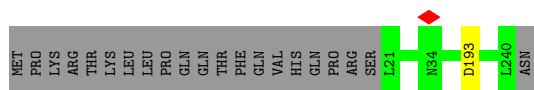


• Molecule 37: Parkin coregulated gene protein homolog



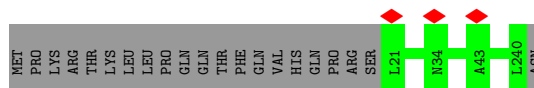
• Molecule 37: Parkin coregulated gene protein homolog

Chain YD:  91% 9%



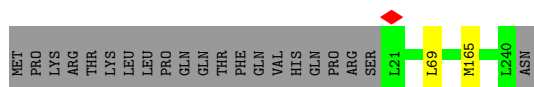
- Molecule 37: Parkin coregulated gene protein homolog

Chain YE:  91% 9%



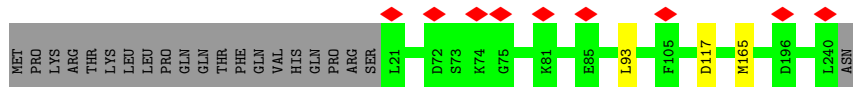
- Molecule 37: Parkin coregulated gene protein homolog

Chain YF:  90% 9%



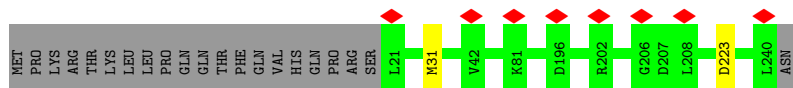
- Molecule 37: Parkin coregulated gene protein homolog

Chain YG:  90% 9%



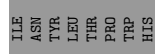
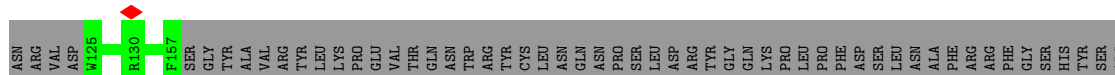
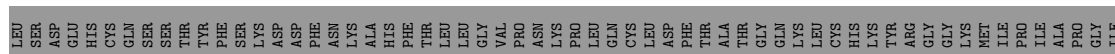
- Molecule 37: Parkin coregulated gene protein homolog

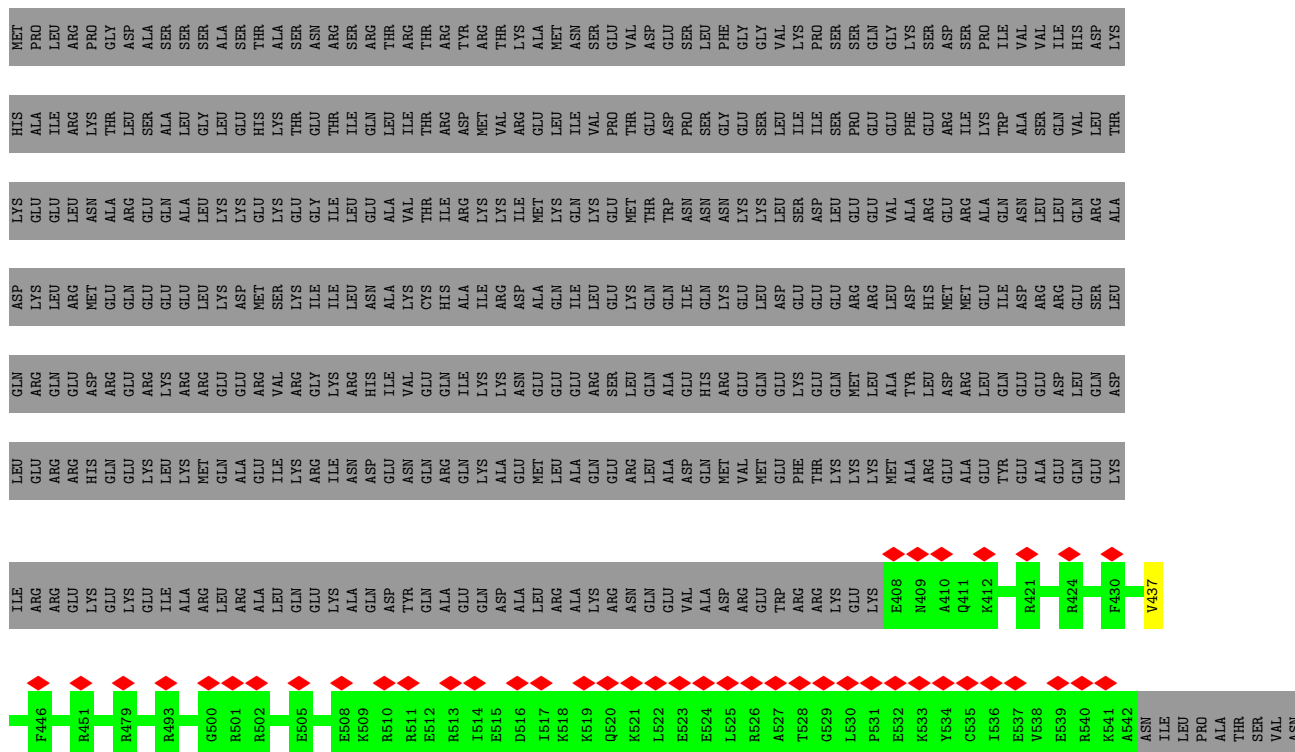
Chain YH:  90% 9%



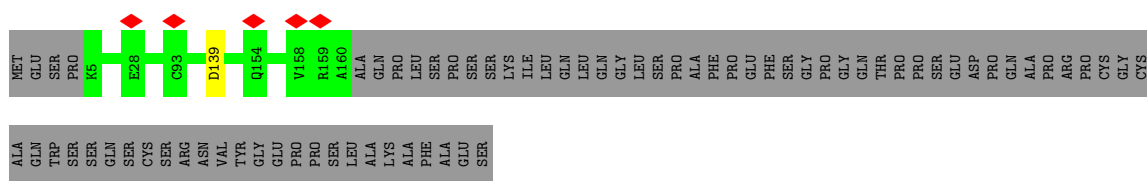
- Molecule 38: Testis, prostate and placenta-expressed protein

Chain Z1:  15% 85%

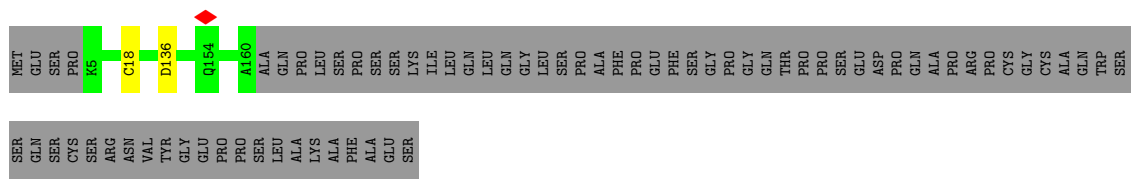




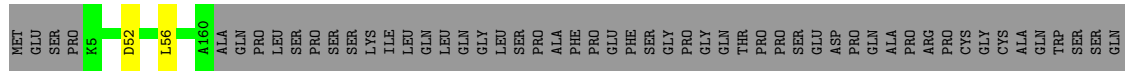
• Molecule 40: Uncharacterized protein C10orf82 homolog

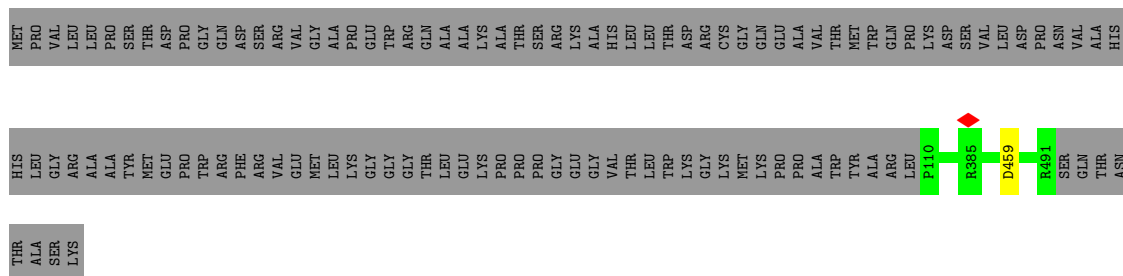


• Molecule 40: Uncharacterized protein C10orf82 homolog

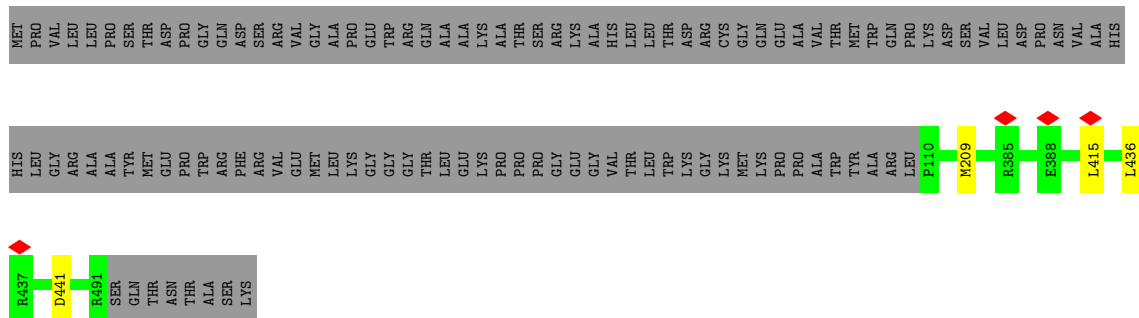
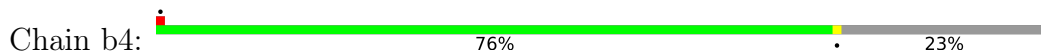


• Molecule 40: Uncharacterized protein C10orf82 homolog

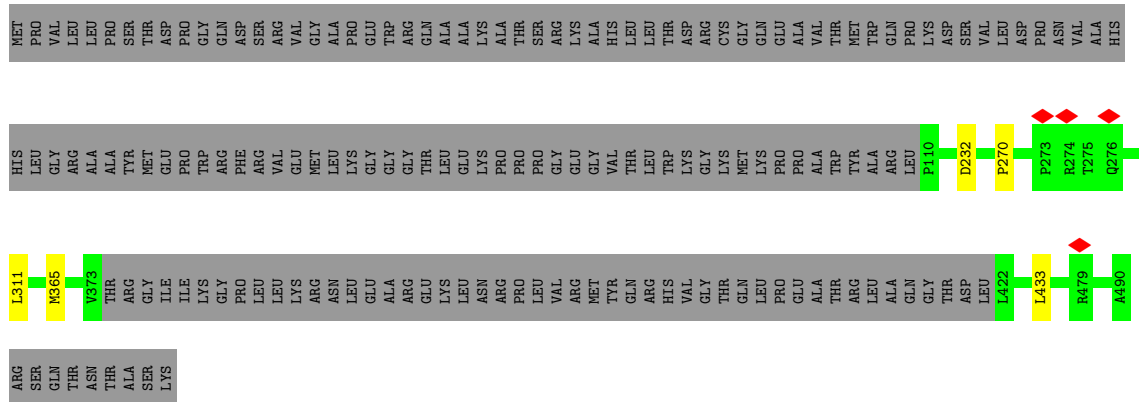




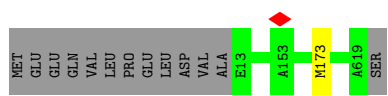
• Molecule 41: Coiled-coil domain-containing protein 105



• Molecule 41: Coiled-coil domain-containing protein 105

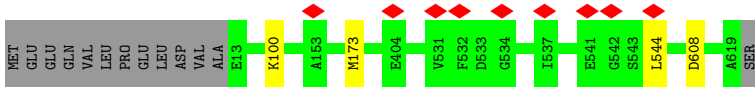


• Molecule 42: Cilia- and flagella-associated protein 52

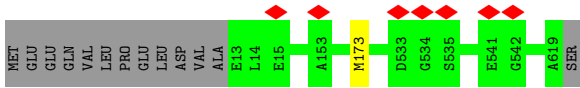


• Molecule 42: Cilia- and flagella-associated protein 52

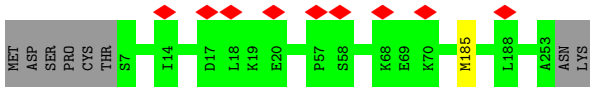




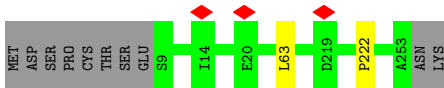
• Molecule 42: Cilia- and flagella-associated protein 52



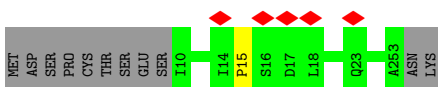
• Molecule 43: Enkurin



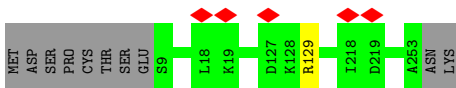
• Molecule 43: Enkurin



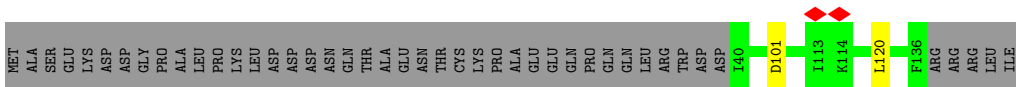
• Molecule 43: Enkurin



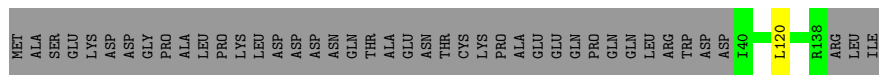
• Molecule 43: Enkurin



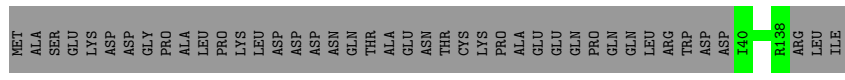
• Molecule 44: Testis-expressed protein 43



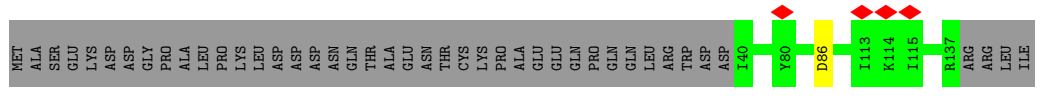
• Molecule 44: Testis-expressed protein 43



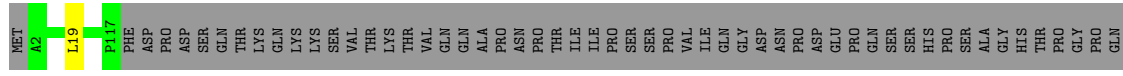
• Molecule 44: Testis-expressed protein 43



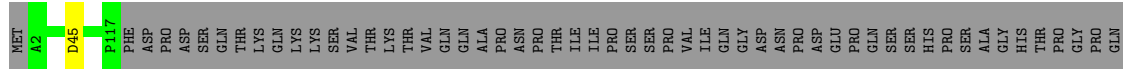
• Molecule 44: Testis-expressed protein 43



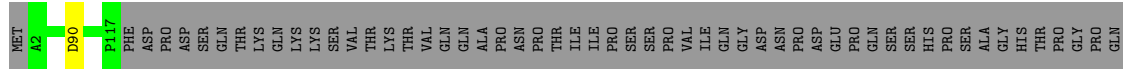
• Molecule 45: Protein Flattop



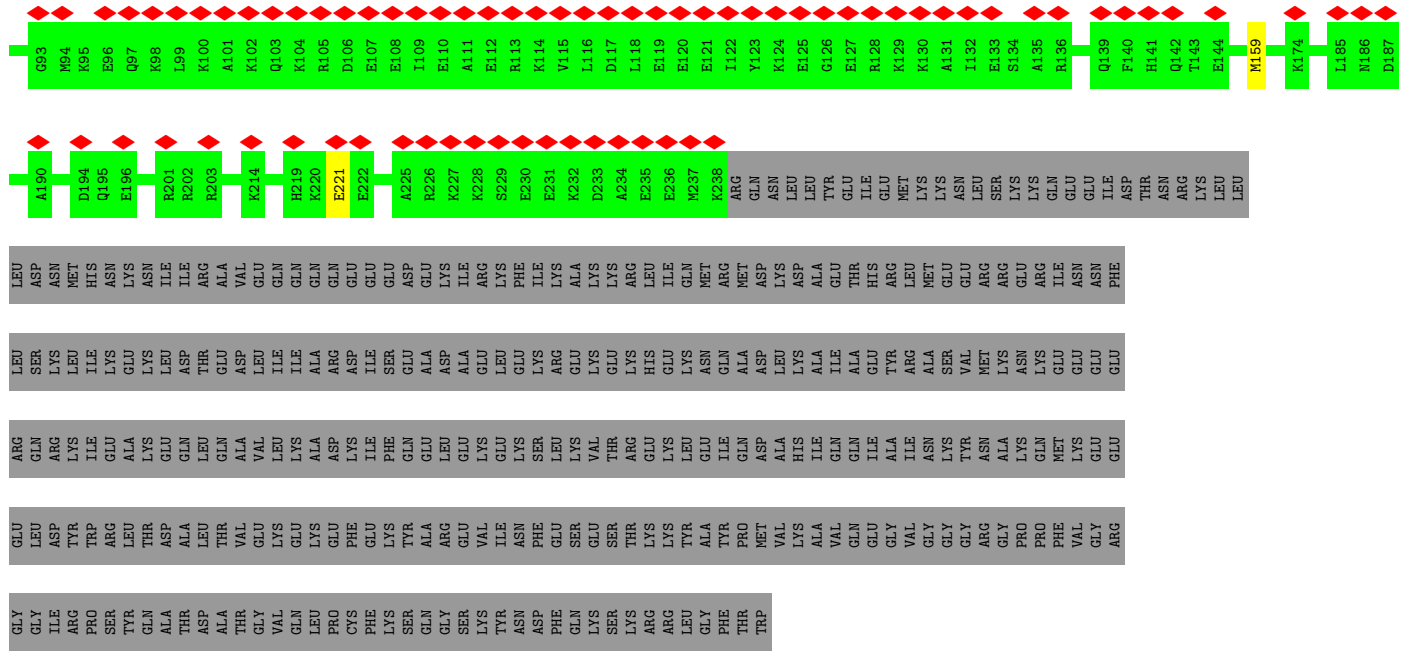
• Molecule 45: Protein Flattop



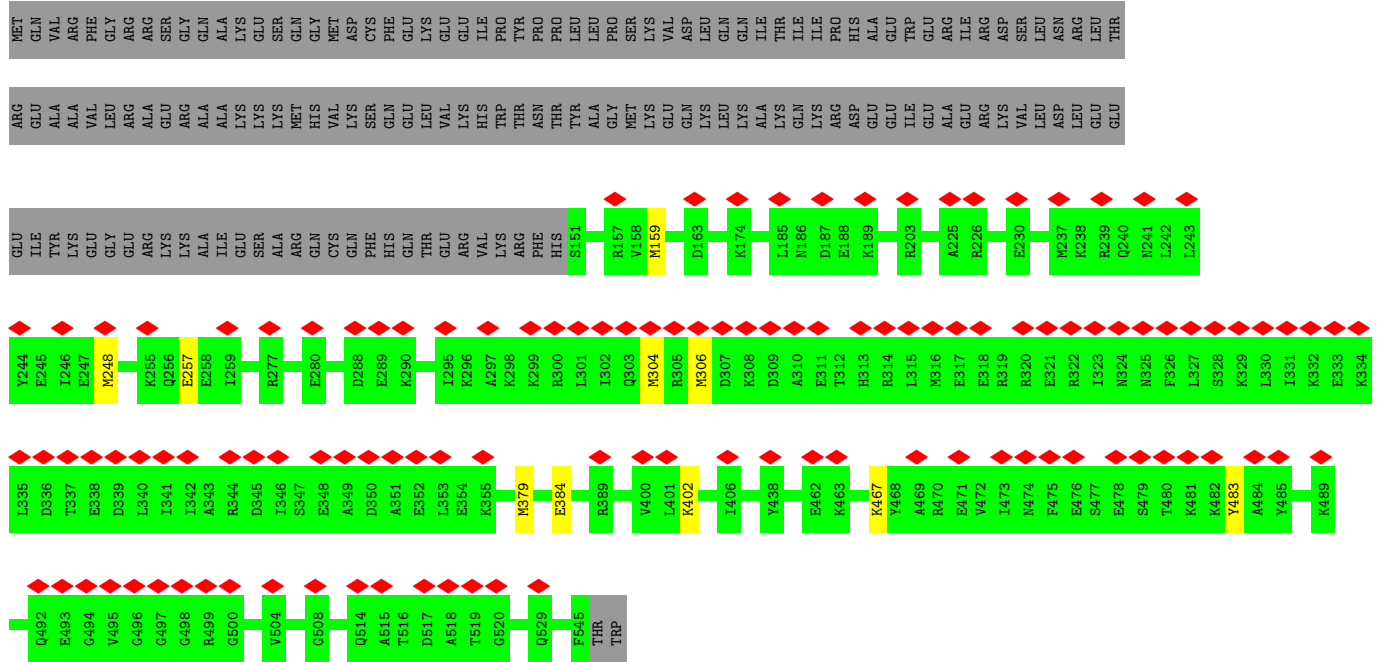
• Molecule 45: Protein Flattop



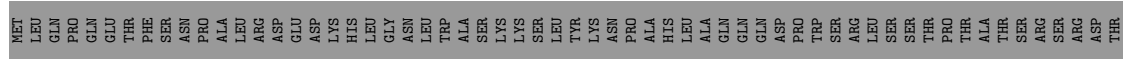
• Molecule 45: Protein Flattop

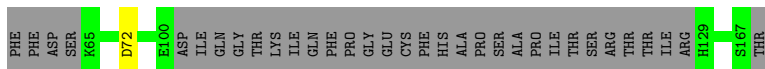


• Molecule 47: Cilia- and flagella-associated protein 210

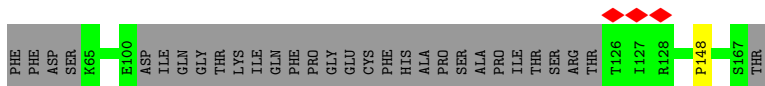
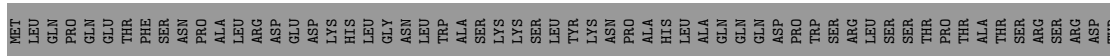


• Molecule 48: Cilia- and flagella-associated protein 276

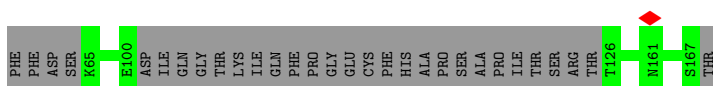
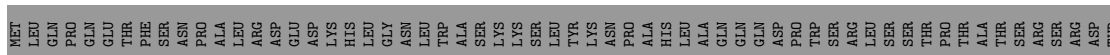




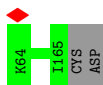
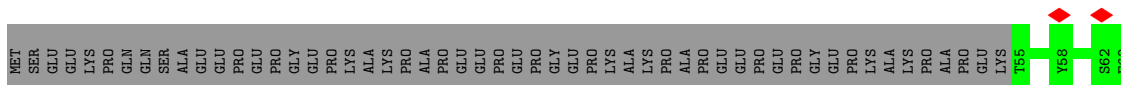
• Molecule 48: Cilia- and flagella-associated protein 276



• Molecule 48: Cilia- and flagella-associated protein 276



• Molecule 49: Piercer of microtubule wall 1 protein



4 Experimental information

| Property | Value | Source |
|--------------------------------------|---|-----------|
| EM reconstruction method | SINGLE PARTICLE | Depositor |
| Imposed symmetry | POINT, Not provided | |
| Number of particles used | 95290 | Depositor |
| Resolution determination method | FSC 0.143 CUT-OFF | Depositor |
| CTF correction method | PHASE FLIPPING AND AMPLITUDE CORRECTION | Depositor |
| Microscope | FEI TITAN KRIOS | Depositor |
| Voltage (kV) | 300 | Depositor |
| Electron dose ($e^-/\text{\AA}^2$) | 50 | Depositor |
| Minimum defocus (nm) | 1500 | Depositor |
| Maximum defocus (nm) | 2600 | Depositor |
| Magnification | 81000 | Depositor |
| Image detector | GATAN K3 (6k x 4k) | Depositor |
| Maximum map value | 2.821 | Depositor |
| Minimum map value | 0.000 | Depositor |
| Average map value | 0.073 | Depositor |
| Map value standard deviation | 0.176 | Depositor |
| Recommended contour level | 0.3 | Depositor |
| Map size (Å) | 576.11, 463.062, 869.60004 | wwPDB |
| Map dimensions | 530, 426, 800 | wwPDB |
| Map angles (°) | 90.0, 90.0, 90.0 | wwPDB |
| Pixel spacing (Å) | 1.087, 1.087, 1.087 | Depositor |

5 Model quality i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: MG, GTP, GDP

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

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 1 | 0 | 0.39 | 0/685 | 0.78 | 0/918 |
| 1 | 7 | 0.35 | 0/1206 | 0.72 | 2/1629 (0.1%) |
| 2 | 1 | 0.33 | 0/3827 | 0.59 | 0/5169 |
| 2 | 2 | 0.37 | 0/2224 | 0.65 | 0/3010 |
| 3 | 3 | 0.35 | 0/4056 | 0.64 | 7/5386 (0.1%) |
| 3 | 4 | 0.33 | 0/1237 | 0.67 | 1/1646 (0.1%) |
| 4 | 5 | 0.31 | 0/3038 | 0.58 | 2/4102 (0.0%) |
| 4 | 6 | 0.29 | 0/3038 | 0.57 | 0/4102 |
| 4 | j1 | 0.34 | 0/3038 | 0.67 | 2/4102 (0.0%) |
| 5 | 8 | 0.33 | 0/1523 | 0.75 | 4/2073 (0.2%) |
| 6 | A | 0.35 | 0/819 | 0.74 | 2/1097 (0.2%) |
| 6 | N1 | 0.44 | 0/819 | 0.71 | 1/1097 (0.1%) |
| 7 | A0 | 0.34 | 0/449 | 0.61 | 0/605 |
| 7 | A1 | 0.32 | 0/2965 | 0.55 | 0/3994 |
| 7 | A2 | 0.34 | 0/3327 | 0.54 | 1/4483 (0.0%) |
| 7 | A3 | 0.36 | 0/3327 | 0.58 | 3/4483 (0.1%) |
| 7 | A4 | 0.34 | 0/3313 | 0.56 | 1/4465 (0.0%) |
| 7 | A5 | 0.36 | 0/1419 | 0.59 | 1/1910 (0.1%) |
| 8 | AA | 0.27 | 0/3502 | 0.56 | 1/4755 (0.0%) |
| 8 | AC | 0.30 | 0/3502 | 0.55 | 2/4755 (0.0%) |
| 8 | AE | 0.35 | 0/3509 | 0.64 | 2/4765 (0.0%) |
| 8 | AG | 0.37 | 1/3518 (0.0%) | 0.59 | 1/4777 (0.0%) |
| 8 | AI | 0.35 | 0/3509 | 0.64 | 6/4765 (0.1%) |
| 8 | AK | 0.33 | 0/3496 | 0.56 | 1/4747 (0.0%) |
| 8 | AM | 0.34 | 0/3509 | 0.60 | 1/4765 (0.0%) |
| 8 | AO | 0.32 | 0/3509 | 0.60 | 1/4765 (0.0%) |
| 8 | BC | 0.29 | 0/3451 | 0.54 | 0/4686 |
| 8 | BE | 0.34 | 0/3518 | 0.64 | 5/4777 (0.1%) |
| 8 | BG | 0.32 | 0/3473 | 0.57 | 0/4716 |
| 8 | BI | 0.35 | 0/3518 | 0.61 | 3/4777 (0.1%) |
| 8 | BK | 0.33 | 0/3467 | 0.60 | 3/4708 (0.1%) |
| 8 | BM | 0.33 | 0/3502 | 0.63 | 6/4755 (0.1%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 8 | BO | 0.33 | 0/3473 | 0.62 | 3/4716 (0.1%) |
| 8 | CC | 0.31 | 0/3502 | 0.57 | 5/4755 (0.1%) |
| 8 | CE | 0.30 | 0/3502 | 0.58 | 2/4755 (0.0%) |
| 8 | CG | 0.30 | 0/3502 | 0.57 | 2/4755 (0.0%) |
| 8 | CI | 0.32 | 0/3502 | 0.58 | 3/4755 (0.1%) |
| 8 | CK | 0.32 | 0/3502 | 0.56 | 2/4755 (0.0%) |
| 8 | CM | 0.34 | 0/3509 | 0.63 | 4/4765 (0.1%) |
| 8 | CO | 0.29 | 0/3502 | 0.55 | 1/4755 (0.0%) |
| 8 | CQ | 0.31 | 0/3488 | 0.59 | 0/4736 |
| 8 | DC | 0.32 | 0/3459 | 0.57 | 1/4697 (0.0%) |
| 8 | DE | 0.29 | 0/3443 | 0.56 | 3/4675 (0.1%) |
| 8 | DG | 0.31 | 0/3443 | 0.54 | 0/4675 |
| 8 | DI | 0.31 | 0/3451 | 0.57 | 1/4686 (0.0%) |
| 8 | DK | 0.29 | 0/3450 | 0.52 | 0/4685 |
| 8 | DM | 0.29 | 0/3457 | 0.54 | 0/4694 |
| 8 | DO | 0.28 | 0/3449 | 0.55 | 2/4683 (0.0%) |
| 8 | DQ | 0.27 | 0/3437 | 0.56 | 2/4667 (0.0%) |
| 8 | EA | 0.32 | 1/3502 (0.0%) | 0.58 | 1/4755 (0.0%) |
| 8 | EC | 0.28 | 0/3496 | 0.55 | 1/4747 (0.0%) |
| 8 | EE | 0.27 | 0/3502 | 0.52 | 0/4755 |
| 8 | EG | 0.28 | 0/3502 | 0.55 | 1/4755 (0.0%) |
| 8 | EI | 0.30 | 0/3502 | 0.56 | 1/4755 (0.0%) |
| 8 | EK | 0.30 | 0/3502 | 0.54 | 0/4755 |
| 8 | EM | 0.27 | 0/3502 | 0.52 | 0/4755 |
| 8 | EO | 0.28 | 0/3488 | 0.57 | 1/4736 (0.0%) |
| 8 | FA | 0.32 | 0/3443 | 0.62 | 4/4675 (0.1%) |
| 8 | FC | 0.30 | 0/3443 | 0.58 | 1/4675 (0.0%) |
| 8 | FE | 0.27 | 0/3443 | 0.53 | 0/4675 |
| 8 | FG | 0.30 | 0/3427 | 0.60 | 3/4652 (0.1%) |
| 8 | FI | 0.33 | 0/3443 | 0.57 | 3/4675 (0.1%) |
| 8 | FK | 0.27 | 0/3450 | 0.55 | 3/4685 (0.1%) |
| 8 | FM | 0.28 | 0/3443 | 0.56 | 1/4675 (0.0%) |
| 8 | FO | 0.28 | 0/3432 | 0.59 | 2/4660 (0.0%) |
| 8 | GA | 0.27 | 0/3445 | 0.55 | 3/4678 (0.1%) |
| 8 | GC | 0.30 | 0/3450 | 0.60 | 2/4685 (0.0%) |
| 8 | GE | 0.33 | 0/3450 | 0.62 | 3/4685 (0.1%) |
| 8 | GG | 0.34 | 0/3509 | 0.62 | 3/4765 (0.1%) |
| 8 | GI | 0.30 | 0/3464 | 0.58 | 1/4704 (0.0%) |
| 8 | GK | 0.31 | 0/3464 | 0.61 | 2/4704 (0.0%) |
| 8 | GM | 0.31 | 0/3472 | 0.61 | 2/4715 (0.0%) |
| 8 | GO | 0.30 | 0/3472 | 0.63 | 4/4715 (0.1%) |
| 8 | HA | 0.30 | 0/3448 | 0.63 | 6/4682 (0.1%) |
| 8 | HC | 0.33 | 0/3466 | 0.65 | 2/4706 (0.0%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 8 | HE | 0.32 | 0/3509 | 0.64 | 3/4765 (0.1%) |
| 8 | HG | 0.36 | 1/3509 (0.0%) | 0.60 | 1/4765 (0.0%) |
| 8 | HI | 0.33 | 0/3509 | 0.59 | 1/4765 (0.0%) |
| 8 | HK | 0.32 | 0/3443 | 0.64 | 4/4675 (0.1%) |
| 8 | HM | 0.36 | 0/3466 | 0.66 | 3/4706 (0.1%) |
| 8 | HO | 0.34 | 0/3458 | 0.66 | 2/4696 (0.0%) |
| 8 | IA | 0.30 | 0/3457 | 0.64 | 5/4694 (0.1%) |
| 8 | IC | 0.36 | 2/3509 (0.1%) | 0.65 | 1/4765 (0.0%) |
| 8 | IE | 0.33 | 0/3518 | 0.67 | 7/4777 (0.1%) |
| 8 | IG | 0.43 | 2/3464 (0.1%) | 0.68 | 4/4704 (0.1%) |
| 8 | II | 0.38 | 0/3476 | 0.62 | 1/4720 (0.0%) |
| 8 | IK | 0.38 | 1/3488 (0.0%) | 0.64 | 2/4736 (0.0%) |
| 8 | IM | 0.39 | 1/3468 (0.0%) | 0.69 | 8/4709 (0.2%) |
| 8 | IO | 0.35 | 0/3509 | 0.67 | 2/4765 (0.0%) |
| 8 | JC | 0.30 | 0/3465 | 0.59 | 2/4704 (0.0%) |
| 8 | JE | 0.35 | 0/3502 | 0.67 | 5/4755 (0.1%) |
| 8 | JG | 0.33 | 0/3437 | 0.60 | 2/4667 (0.0%) |
| 8 | JI | 0.37 | 0/3467 | 0.67 | 4/4708 (0.1%) |
| 8 | JK | 0.33 | 0/3458 | 0.60 | 1/4696 (0.0%) |
| 8 | JM | 0.32 | 0/3443 | 0.59 | 3/4675 (0.1%) |
| 8 | JO | 0.35 | 0/3456 | 0.65 | 1/4693 (0.0%) |
| 8 | JQ | 0.31 | 0/3480 | 0.64 | 2/4725 (0.0%) |
| 8 | KA | 0.31 | 0/3457 | 0.58 | 2/4694 (0.0%) |
| 8 | KC | 0.32 | 0/3466 | 0.59 | 3/4705 (0.1%) |
| 8 | KE | 0.34 | 0/3474 | 0.60 | 1/4716 (0.0%) |
| 8 | KG | 0.33 | 0/3457 | 0.58 | 3/4694 (0.1%) |
| 8 | KI | 0.35 | 0/3451 | 0.59 | 1/4686 (0.0%) |
| 8 | KK | 0.30 | 0/3449 | 0.57 | 0/4683 |
| 8 | KM | 0.33 | 0/3457 | 0.64 | 5/4694 (0.1%) |
| 8 | KO | 0.34 | 0/3466 | 0.62 | 2/4705 (0.0%) |
| 8 | LA | 0.31 | 0/3473 | 0.61 | 3/4716 (0.1%) |
| 8 | LC | 0.34 | 0/3451 | 0.60 | 3/4686 (0.1%) |
| 8 | LE | 0.37 | 1/3465 (0.0%) | 0.61 | 5/4705 (0.1%) |
| 8 | LG | 0.33 | 0/3518 | 0.57 | 2/4777 (0.0%) |
| 8 | LI | 0.34 | 0/3518 | 0.58 | 2/4777 (0.0%) |
| 8 | LK | 0.33 | 0/3518 | 0.58 | 2/4777 (0.0%) |
| 8 | LM | 0.30 | 0/3481 | 0.57 | 2/4727 (0.0%) |
| 8 | LO | 0.32 | 0/3443 | 0.59 | 2/4675 (0.0%) |
| 8 | MA | 0.27 | 0/3451 | 0.57 | 3/4686 (0.1%) |
| 8 | MC | 0.32 | 0/3451 | 0.56 | 1/4686 (0.0%) |
| 8 | ME | 0.32 | 0/3502 | 0.56 | 1/4755 (0.0%) |
| 8 | MG | 0.32 | 0/3457 | 0.57 | 3/4694 (0.1%) |
| 8 | MI | 0.34 | 0/3455 | 0.57 | 1/4691 (0.0%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 8 | MK | 0.37 | 0/3467 | 0.59 | 3/4708 (0.1%) |
| 8 | MM | 0.31 | 0/3457 | 0.57 | 2/4694 (0.0%) |
| 8 | MO | 0.29 | 0/3429 | 0.58 | 3/4656 (0.1%) |
| 8 | NA | 0.28 | 0/3430 | 0.58 | 3/4657 (0.1%) |
| 8 | NC | 0.27 | 0/3429 | 0.54 | 0/4656 |
| 8 | NE | 0.30 | 0/3471 | 0.58 | 2/4713 (0.0%) |
| 8 | NG | 0.32 | 0/3459 | 0.61 | 1/4697 (0.0%) |
| 8 | NI | 0.33 | 0/3450 | 0.60 | 2/4685 (0.0%) |
| 8 | NK | 0.34 | 0/3450 | 0.69 | 4/4685 (0.1%) |
| 8 | NM | 0.34 | 1/3459 (0.0%) | 0.63 | 3/4697 (0.1%) |
| 8 | NO | 0.31 | 0/3459 | 0.63 | 4/4697 (0.1%) |
| 8 | OA | 0.28 | 0/3451 | 0.58 | 2/4686 (0.0%) |
| 8 | OC | 0.28 | 0/3443 | 0.59 | 3/4675 (0.1%) |
| 8 | OE | 0.31 | 0/3449 | 0.60 | 3/4683 (0.1%) |
| 8 | OG | 0.30 | 0/3443 | 0.58 | 3/4675 (0.1%) |
| 8 | OI | 0.33 | 1/3437 (0.0%) | 0.58 | 1/4667 (0.0%) |
| 8 | OK | 0.32 | 0/3451 | 0.59 | 0/4686 |
| 8 | OM | 0.31 | 1/3429 (0.0%) | 0.58 | 1/4656 (0.0%) |
| 8 | OO | 0.31 | 0/3406 | 0.62 | 0/4624 |
| 8 | PC | 0.33 | 1/3429 (0.0%) | 0.61 | 4/4656 (0.1%) |
| 8 | PE | 0.29 | 0/3406 | 0.57 | 2/4625 (0.0%) |
| 8 | PG | 0.28 | 0/3443 | 0.57 | 1/4675 (0.0%) |
| 8 | PI | 0.33 | 0/3443 | 0.60 | 2/4675 (0.0%) |
| 8 | PK | 0.32 | 1/3443 (0.0%) | 0.62 | 4/4674 (0.1%) |
| 8 | PM | 0.31 | 0/3457 | 0.60 | 2/4694 (0.0%) |
| 8 | PO | 0.29 | 0/3443 | 0.60 | 3/4675 (0.1%) |
| 8 | QC | 0.28 | 0/3429 | 0.59 | 1/4656 (0.0%) |
| 8 | QE | 0.33 | 1/3443 (0.0%) | 0.60 | 2/4675 (0.0%) |
| 8 | QG | 0.29 | 0/3429 | 0.55 | 0/4656 |
| 8 | QI | 0.29 | 0/3421 | 0.58 | 0/4644 |
| 8 | QK | 0.28 | 0/3422 | 0.56 | 1/4646 (0.0%) |
| 8 | QM | 0.30 | 0/3414 | 0.61 | 2/4634 (0.0%) |
| 8 | QO | 0.29 | 0/3422 | 0.59 | 2/4646 (0.0%) |
| 8 | RC | 0.27 | 0/3429 | 0.56 | 1/4656 (0.0%) |
| 8 | RE | 0.28 | 0/3429 | 0.57 | 1/4655 (0.0%) |
| 8 | RG | 0.27 | 0/3429 | 0.57 | 3/4656 (0.1%) |
| 8 | RI | 0.29 | 0/3437 | 0.58 | 4/4667 (0.1%) |
| 8 | RK | 0.30 | 0/3445 | 0.58 | 2/4678 (0.0%) |
| 8 | RM | 0.33 | 1/3437 (0.0%) | 0.59 | 3/4666 (0.1%) |
| 8 | RO | 0.30 | 0/3429 | 0.61 | 4/4655 (0.1%) |
| 8 | SA | 0.27 | 0/3436 | 0.58 | 4/4665 (0.1%) |
| 8 | SC | 0.34 | 1/3429 (0.0%) | 0.64 | 8/4656 (0.2%) |
| 8 | SE | 0.29 | 0/3429 | 0.59 | 1/4656 (0.0%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 8 | SG | 0.29 | 0/3422 | 0.60 | 5/4646 (0.1%) |
| 8 | SI | 0.37 | 2/3437 (0.1%) | 0.69 | 7/4667 (0.1%) |
| 8 | SK | 0.29 | 0/3422 | 0.58 | 2/4646 (0.0%) |
| 8 | SM | 0.30 | 0/3410 | 0.64 | 6/4630 (0.1%) |
| 8 | TA | 0.31 | 0/3419 | 0.66 | 9/4642 (0.2%) |
| 8 | TC | 0.31 | 0/3414 | 0.63 | 2/4635 (0.0%) |
| 8 | TE | 0.31 | 0/3434 | 0.62 | 4/4662 (0.1%) |
| 8 | TG | 0.27 | 0/3418 | 0.56 | 1/4641 (0.0%) |
| 8 | TI | 0.32 | 0/3426 | 0.58 | 2/4652 (0.0%) |
| 8 | TK | 0.27 | 0/3429 | 0.57 | 3/4656 (0.1%) |
| 8 | TM | 0.29 | 0/3418 | 0.63 | 5/4641 (0.1%) |
| 8 | UA | 0.30 | 0/3403 | 0.65 | 6/4619 (0.1%) |
| 8 | UC | 0.28 | 0/3428 | 0.59 | 2/4654 (0.0%) |
| 8 | UE | 0.28 | 0/3428 | 0.59 | 2/4654 (0.0%) |
| 8 | UG | 0.27 | 0/3430 | 0.58 | 2/4657 (0.0%) |
| 8 | UI | 0.30 | 0/3429 | 0.57 | 1/4656 (0.0%) |
| 8 | UK | 0.28 | 0/3430 | 0.61 | 2/4657 (0.0%) |
| 8 | UM | 0.30 | 0/3436 | 0.62 | 5/4665 (0.1%) |
| 8 | UO | 0.28 | 0/3424 | 0.60 | 3/4649 (0.1%) |
| 8 | VA | 0.28 | 0/3422 | 0.57 | 4/4646 (0.1%) |
| 8 | VC | 0.28 | 0/3488 | 0.56 | 0/4736 |
| 8 | VE | 0.30 | 0/3435 | 0.59 | 4/4664 (0.1%) |
| 8 | VG | 0.31 | 0/3488 | 0.64 | 6/4736 (0.1%) |
| 8 | VI | 0.32 | 0/3437 | 0.66 | 4/4667 (0.1%) |
| 8 | VK | 0.31 | 0/3496 | 0.60 | 4/4747 (0.1%) |
| 8 | VM | 0.32 | 0/3435 | 0.61 | 4/4663 (0.1%) |
| 8 | VO | 0.28 | 0/3481 | 0.58 | 3/4726 (0.1%) |
| 8 | WA | 0.32 | 0/3481 | 0.61 | 5/4726 (0.1%) |
| 8 | WC | 0.28 | 0/3502 | 0.59 | 2/4755 (0.0%) |
| 8 | WE | 0.28 | 0/3459 | 0.60 | 3/4696 (0.1%) |
| 8 | WG | 0.28 | 0/3496 | 0.57 | 2/4747 (0.0%) |
| 8 | WI | 0.28 | 0/3502 | 0.55 | 0/4755 |
| 8 | WK | 0.29 | 0/3496 | 0.57 | 3/4747 (0.1%) |
| 8 | WM | 0.28 | 0/3451 | 0.57 | 0/4686 |
| 8 | WO | 0.29 | 0/3435 | 0.61 | 6/4664 (0.1%) |
| 9 | AB | 0.30 | 0/3466 | 0.58 | 1/4697 (0.0%) |
| 9 | AD | 0.31 | 0/3488 | 0.59 | 1/4726 (0.0%) |
| 9 | AF | 0.32 | 0/3448 | 0.56 | 0/4673 |
| 9 | AH | 0.34 | 0/3479 | 0.59 | 2/4714 (0.0%) |
| 9 | AJ | 0.38 | 0/3479 | 0.64 | 5/4714 (0.1%) |
| 9 | AL | 0.34 | 0/3479 | 0.60 | 1/4714 (0.0%) |
| 9 | AN | 0.32 | 0/3479 | 0.62 | 3/4714 (0.1%) |
| 9 | AP | 0.30 | 0/3466 | 0.57 | 0/4697 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 9 | BB | 0.28 | 0/3436 | 0.55 | 0/4656 |
| 9 | BD | 0.29 | 0/3448 | 0.57 | 2/4673 (0.0%) |
| 9 | BF | 0.32 | 0/3443 | 0.57 | 1/4666 (0.0%) |
| 9 | BH | 0.34 | 0/3448 | 0.59 | 3/4673 (0.1%) |
| 9 | BJ | 0.33 | 0/3457 | 0.58 | 2/4685 (0.0%) |
| 9 | BL | 0.32 | 0/3448 | 0.59 | 2/4673 (0.0%) |
| 9 | BN | 0.31 | 0/3448 | 0.59 | 2/4673 (0.0%) |
| 9 | BP | 0.28 | 0/3448 | 0.58 | 3/4673 (0.1%) |
| 9 | CB | 0.31 | 0/3431 | 0.61 | 1/4649 (0.0%) |
| 9 | CD | 0.29 | 0/3457 | 0.60 | 2/4685 (0.0%) |
| 9 | CF | 0.30 | 0/3457 | 0.56 | 1/4685 (0.0%) |
| 9 | CH | 0.30 | 0/3457 | 0.57 | 1/4685 (0.0%) |
| 9 | CJ | 0.29 | 0/3436 | 0.55 | 2/4656 (0.0%) |
| 9 | CL | 0.35 | 2/3443 (0.1%) | 0.62 | 4/4666 (0.1%) |
| 9 | CN | 0.29 | 0/3457 | 0.56 | 2/4685 (0.0%) |
| 9 | CP | 0.29 | 0/3448 | 0.58 | 4/4673 (0.1%) |
| 9 | DB | 0.28 | 0/3443 | 0.59 | 5/4666 (0.1%) |
| 9 | DD | 0.29 | 0/3443 | 0.59 | 4/4666 (0.1%) |
| 9 | DF | 0.28 | 0/3448 | 0.55 | 1/4673 (0.0%) |
| 9 | DH | 0.30 | 1/3448 (0.0%) | 0.56 | 2/4673 (0.0%) |
| 9 | DJ | 0.29 | 0/3448 | 0.56 | 4/4673 (0.1%) |
| 9 | DL | 0.28 | 0/3457 | 0.56 | 3/4685 (0.1%) |
| 9 | DN | 0.28 | 0/3436 | 0.56 | 1/4656 (0.0%) |
| 9 | DP | 0.27 | 0/3448 | 0.59 | 4/4673 (0.1%) |
| 9 | EB | 0.31 | 0/3436 | 0.58 | 3/4656 (0.1%) |
| 9 | ED | 0.28 | 0/3436 | 0.56 | 1/4656 (0.0%) |
| 9 | EF | 0.29 | 0/3436 | 0.58 | 1/4656 (0.0%) |
| 9 | EH | 0.28 | 0/3436 | 0.57 | 3/4656 (0.1%) |
| 9 | EJ | 0.29 | 0/3431 | 0.58 | 4/4649 (0.1%) |
| 9 | EL | 0.28 | 0/3436 | 0.57 | 2/4656 (0.0%) |
| 9 | EN | 0.28 | 0/3436 | 0.59 | 3/4656 (0.1%) |
| 9 | FB | 0.31 | 0/3448 | 0.64 | 5/4673 (0.1%) |
| 9 | FD | 0.29 | 0/3448 | 0.58 | 4/4673 (0.1%) |
| 9 | FF | 0.28 | 0/3448 | 0.57 | 1/4673 (0.0%) |
| 9 | FH | 0.28 | 0/3448 | 0.58 | 3/4673 (0.1%) |
| 9 | FJ | 0.30 | 0/3443 | 0.57 | 3/4666 (0.1%) |
| 9 | FL | 0.29 | 0/3443 | 0.58 | 2/4666 (0.0%) |
| 9 | FN | 0.29 | 0/3448 | 0.58 | 2/4673 (0.0%) |
| 9 | GB | 0.29 | 0/3431 | 0.59 | 2/4649 (0.0%) |
| 9 | GD | 0.31 | 1/3448 (0.0%) | 0.61 | 4/4673 (0.1%) |
| 9 | GF | 0.29 | 0/3448 | 0.56 | 0/4673 |
| 9 | GH | 0.28 | 0/3457 | 0.57 | 1/4685 (0.0%) |
| 9 | GJ | 0.30 | 0/3448 | 0.57 | 0/4673 |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 9 | GL | 0.35 | 1/3457 (0.0%) | 0.59 | 1/4685 (0.0%) |
| 9 | GN | 0.31 | 0/3457 | 0.61 | 5/4685 (0.1%) |
| 9 | HB | 0.31 | 0/3448 | 0.65 | 3/4673 (0.1%) |
| 9 | HD | 0.33 | 0/3431 | 0.62 | 3/4649 (0.1%) |
| 9 | HF | 0.32 | 0/3448 | 0.61 | 2/4673 (0.0%) |
| 9 | HH | 0.31 | 0/3457 | 0.61 | 5/4685 (0.1%) |
| 9 | HJ | 0.33 | 0/3448 | 0.66 | 3/4673 (0.1%) |
| 9 | HL | 0.33 | 0/3457 | 0.62 | 1/4685 (0.0%) |
| 9 | HN | 0.33 | 0/3448 | 0.60 | 0/4673 |
| 9 | HP | 0.33 | 0/3431 | 0.64 | 5/4649 (0.1%) |
| 9 | IB | 0.34 | 0/3448 | 0.67 | 4/4673 (0.1%) |
| 9 | ID | 0.32 | 0/3448 | 0.64 | 3/4673 (0.1%) |
| 9 | IF | 0.36 | 1/3448 (0.0%) | 0.63 | 3/4673 (0.1%) |
| 9 | IH | 0.37 | 0/3457 | 0.69 | 5/4685 (0.1%) |
| 9 | IJ | 0.31 | 0/3443 | 0.56 | 0/4666 |
| 9 | IL | 0.39 | 1/3457 (0.0%) | 0.69 | 5/4685 (0.1%) |
| 9 | IN | 0.35 | 0/3457 | 0.63 | 2/4685 (0.0%) |
| 9 | IP | 0.37 | 1/3457 (0.0%) | 0.74 | 7/4685 (0.1%) |
| 9 | JB | 0.31 | 0/3431 | 0.61 | 3/4649 (0.1%) |
| 9 | JD | 0.34 | 0/3431 | 0.66 | 2/4649 (0.0%) |
| 9 | JF | 0.37 | 0/3431 | 0.69 | 7/4649 (0.2%) |
| 9 | JH | 0.34 | 0/3431 | 0.63 | 2/4649 (0.0%) |
| 9 | JJ | 0.34 | 0/3431 | 0.62 | 1/4649 (0.0%) |
| 9 | JL | 0.34 | 0/3431 | 0.69 | 5/4649 (0.1%) |
| 9 | JN | 0.34 | 0/3423 | 0.60 | 0/4638 |
| 9 | JP | 0.33 | 0/3431 | 0.62 | 2/4649 (0.0%) |
| 9 | KB | 0.36 | 1/3448 (0.0%) | 0.63 | 3/4673 (0.1%) |
| 9 | KD | 0.34 | 0/3457 | 0.62 | 2/4685 (0.0%) |
| 9 | KF | 0.31 | 0/3457 | 0.55 | 0/4685 |
| 9 | KH | 0.31 | 0/3457 | 0.60 | 2/4685 (0.0%) |
| 9 | KJ | 0.31 | 0/3448 | 0.58 | 0/4673 |
| 9 | KL | 0.32 | 0/3448 | 0.63 | 3/4673 (0.1%) |
| 9 | KN | 0.33 | 0/3448 | 0.60 | 2/4673 (0.0%) |
| 9 | KP | 0.33 | 0/3436 | 0.64 | 4/4656 (0.1%) |
| 9 | LB | 0.33 | 0/3509 | 0.63 | 3/4754 (0.1%) |
| 9 | LD | 0.31 | 0/3457 | 0.55 | 0/4685 |
| 9 | LF | 0.34 | 0/3527 | 0.63 | 4/4778 (0.1%) |
| 9 | LH | 0.33 | 0/3457 | 0.57 | 1/4685 (0.0%) |
| 9 | LJ | 0.33 | 0/3509 | 0.60 | 2/4754 (0.0%) |
| 9 | LL | 0.31 | 0/3436 | 0.57 | 1/4656 (0.0%) |
| 9 | LN | 0.30 | 0/3466 | 0.58 | 2/4697 (0.0%) |
| 9 | LP | 0.27 | 0/3443 | 0.54 | 1/4666 (0.0%) |
| 9 | MB | 0.30 | 0/3457 | 0.59 | 2/4685 (0.0%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 9 | MD | 0.34 | 0/3457 | 0.58 | 2/4685 (0.0%) |
| 9 | MF | 0.31 | 0/3431 | 0.59 | 5/4649 (0.1%) |
| 9 | MH | 0.32 | 0/3457 | 0.58 | 2/4685 (0.0%) |
| 9 | MJ | 0.33 | 0/3448 | 0.57 | 1/4673 (0.0%) |
| 9 | ML | 0.32 | 0/3448 | 0.59 | 3/4673 (0.1%) |
| 9 | MN | 0.30 | 0/3457 | 0.59 | 4/4685 (0.1%) |
| 9 | MP | 0.31 | 0/3457 | 0.57 | 2/4685 (0.0%) |
| 9 | NB | 0.28 | 0/3436 | 0.60 | 3/4656 (0.1%) |
| 9 | ND | 0.29 | 0/3457 | 0.57 | 0/4685 |
| 9 | NF | 0.35 | 0/3436 | 0.65 | 4/4656 (0.1%) |
| 9 | NH | 0.32 | 0/3431 | 0.60 | 1/4649 (0.0%) |
| 9 | NJ | 0.33 | 0/3448 | 0.66 | 4/4673 (0.1%) |
| 9 | NL | 0.34 | 0/3436 | 0.64 | 3/4656 (0.1%) |
| 9 | NN | 0.31 | 0/3448 | 0.62 | 1/4673 (0.0%) |
| 9 | NP | 0.28 | 0/3431 | 0.56 | 1/4649 (0.0%) |
| 9 | OB | 0.33 | 0/3436 | 0.64 | 6/4656 (0.1%) |
| 9 | OD | 0.29 | 0/3436 | 0.60 | 2/4656 (0.0%) |
| 9 | OF | 0.34 | 0/3443 | 0.61 | 3/4666 (0.1%) |
| 9 | OH | 0.37 | 2/3436 (0.1%) | 0.64 | 5/4656 (0.1%) |
| 9 | OJ | 0.36 | 0/3443 | 0.72 | 8/4666 (0.2%) |
| 9 | OL | 0.31 | 0/3431 | 0.61 | 2/4649 (0.0%) |
| 9 | ON | 0.31 | 0/3431 | 0.59 | 1/4649 (0.0%) |
| 9 | OP | 0.31 | 0/3423 | 0.66 | 6/4638 (0.1%) |
| 9 | PB | 0.30 | 1/3436 (0.0%) | 0.60 | 4/4656 (0.1%) |
| 9 | PD | 0.33 | 0/3436 | 0.67 | 7/4656 (0.2%) |
| 9 | PF | 0.28 | 0/3436 | 0.60 | 4/4656 (0.1%) |
| 9 | PH | 0.32 | 0/3436 | 0.62 | 4/4656 (0.1%) |
| 9 | PJ | 0.30 | 0/3431 | 0.62 | 2/4649 (0.0%) |
| 9 | PL | 0.29 | 0/3436 | 0.57 | 0/4656 |
| 9 | PN | 0.29 | 0/3436 | 0.58 | 0/4656 |
| 9 | PP | 0.27 | 0/3431 | 0.56 | 2/4649 (0.0%) |
| 9 | QB | 0.31 | 0/3423 | 0.63 | 1/4638 (0.0%) |
| 9 | QD | 0.29 | 0/3431 | 0.60 | 2/4649 (0.0%) |
| 9 | QF | 0.28 | 0/3431 | 0.59 | 2/4649 (0.0%) |
| 9 | QH | 0.32 | 0/3431 | 0.64 | 6/4649 (0.1%) |
| 9 | QJ | 0.30 | 0/3431 | 0.61 | 3/4649 (0.1%) |
| 9 | QL | 0.28 | 0/3431 | 0.56 | 0/4649 |
| 9 | QN | 0.29 | 0/3431 | 0.62 | 4/4649 (0.1%) |
| 9 | QP | 0.30 | 0/3423 | 0.60 | 5/4638 (0.1%) |
| 9 | RD | 0.28 | 0/3436 | 0.58 | 3/4656 (0.1%) |
| 9 | RF | 0.28 | 0/3436 | 0.57 | 1/4656 (0.0%) |
| 9 | RH | 0.28 | 0/3436 | 0.54 | 0/4656 |
| 9 | RJ | 0.29 | 0/3436 | 0.57 | 2/4656 (0.0%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 9 | RL | 0.31 | 0/3436 | 0.60 | 2/4656 (0.0%) |
| 9 | RN | 0.28 | 0/3431 | 0.56 | 1/4649 (0.0%) |
| 9 | RP | 0.27 | 0/3436 | 0.56 | 3/4656 (0.1%) |
| 9 | SB | 0.28 | 0/3423 | 0.58 | 2/4638 (0.0%) |
| 9 | SD | 0.29 | 0/3436 | 0.58 | 2/4656 (0.0%) |
| 9 | SF | 0.33 | 0/3423 | 0.59 | 0/4638 |
| 9 | SH | 0.29 | 0/3431 | 0.61 | 2/4649 (0.0%) |
| 9 | SJ | 0.30 | 0/3431 | 0.63 | 4/4649 (0.1%) |
| 9 | SL | 0.29 | 0/3423 | 0.60 | 2/4638 (0.0%) |
| 9 | SN | 0.28 | 0/3423 | 0.59 | 2/4638 (0.0%) |
| 9 | TB | 0.30 | 0/3423 | 0.62 | 4/4638 (0.1%) |
| 9 | TD | 0.31 | 1/3423 (0.0%) | 0.63 | 4/4638 (0.1%) |
| 9 | TF | 0.28 | 0/3423 | 0.58 | 2/4638 (0.0%) |
| 9 | TH | 0.29 | 0/3431 | 0.61 | 5/4649 (0.1%) |
| 9 | TJ | 0.28 | 0/3436 | 0.60 | 4/4656 (0.1%) |
| 9 | TL | 0.32 | 0/3431 | 0.63 | 7/4649 (0.2%) |
| 9 | TN | 0.29 | 0/3423 | 0.59 | 3/4638 (0.1%) |
| 9 | UB | 0.28 | 0/3423 | 0.64 | 4/4638 (0.1%) |
| 9 | UD | 0.27 | 0/3423 | 0.55 | 0/4638 |
| 9 | UF | 0.29 | 0/3423 | 0.60 | 1/4638 (0.0%) |
| 9 | UH | 0.30 | 1/3431 (0.0%) | 0.59 | 1/4649 (0.0%) |
| 9 | UJ | 0.30 | 0/3431 | 0.60 | 2/4649 (0.0%) |
| 9 | UL | 0.28 | 0/3423 | 0.57 | 1/4638 (0.0%) |
| 9 | UN | 0.27 | 0/3423 | 0.58 | 1/4638 (0.0%) |
| 9 | VB | 0.27 | 0/3423 | 0.53 | 1/4638 (0.0%) |
| 9 | VD | 0.26 | 0/3423 | 0.58 | 1/4638 (0.0%) |
| 9 | VF | 0.29 | 0/3423 | 0.60 | 1/4638 (0.0%) |
| 9 | VH | 0.28 | 0/3431 | 0.62 | 5/4649 (0.1%) |
| 9 | VJ | 0.30 | 0/3431 | 0.62 | 3/4649 (0.1%) |
| 9 | VL | 0.28 | 0/3436 | 0.57 | 4/4656 (0.1%) |
| 9 | VN | 0.29 | 0/3423 | 0.64 | 3/4638 (0.1%) |
| 9 | WB | 0.30 | 0/3431 | 0.58 | 2/4649 (0.0%) |
| 9 | WD | 0.28 | 0/3431 | 0.56 | 2/4649 (0.0%) |
| 9 | WF | 0.32 | 1/3448 (0.0%) | 0.62 | 3/4673 (0.1%) |
| 9 | WH | 0.29 | 0/3436 | 0.60 | 3/4656 (0.1%) |
| 9 | WJ | 0.29 | 0/3436 | 0.60 | 2/4656 (0.0%) |
| 9 | WL | 0.30 | 0/3431 | 0.58 | 3/4649 (0.1%) |
| 9 | WN | 0.29 | 0/3431 | 0.61 | 3/4649 (0.1%) |
| 9 | WP | 0.30 | 0/3431 | 0.59 | 1/4649 (0.0%) |
| 10 | B | 0.33 | 0/2787 | 0.64 | 3/3696 (0.1%) |
| 10 | C | 0.37 | 0/2427 | 0.70 | 6/3218 (0.2%) |
| 11 | B0 | 0.43 | 0/340 | 0.81 | 0/457 |
| 11 | B1 | 0.35 | 0/3018 | 0.65 | 6/4069 (0.1%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 11 | B2 | 0.37 | 0/3440 | 0.66 | 6/4638 (0.1%) |
| 11 | B3 | 0.39 | 1/3440 (0.0%) | 0.64 | 4/4638 (0.1%) |
| 11 | B4 | 0.35 | 2/3451 (0.1%) | 0.61 | 3/4652 (0.1%) |
| 11 | B5 | 0.38 | 0/1691 | 0.76 | 4/2274 (0.2%) |
| 11 | R0 | 0.34 | 0/1625 | 0.62 | 0/2184 |
| 11 | R1 | 0.32 | 0/3451 | 0.63 | 5/4652 (0.1%) |
| 11 | R2 | 0.33 | 0/3451 | 0.62 | 3/4652 (0.1%) |
| 11 | R3 | 0.36 | 0/3451 | 0.62 | 1/4652 (0.0%) |
| 11 | R4 | 0.37 | 0/3059 | 0.68 | 4/4124 (0.1%) |
| 11 | R5 | 0.41 | 0/372 | 0.79 | 0/500 |
| 12 | C0 | 0.35 | 0/1476 | 0.59 | 1/1991 (0.1%) |
| 12 | C1 | 0.39 | 2/3399 (0.1%) | 0.58 | 1/4581 (0.0%) |
| 12 | C2 | 0.35 | 0/3399 | 0.57 | 2/4581 (0.0%) |
| 12 | C3 | 0.35 | 0/3376 | 0.57 | 2/4550 (0.0%) |
| 12 | C4 | 0.33 | 0/2978 | 0.56 | 2/4010 (0.0%) |
| 12 | C5 | 0.38 | 0/422 | 0.81 | 1/567 (0.2%) |
| 12 | C6 | 0.31 | 0/364 | 0.71 | 0/493 |
| 12 | S0 | 0.36 | 0/2719 | 0.69 | 5/3665 (0.1%) |
| 12 | S1 | 0.30 | 0/3666 | 0.55 | 1/4944 (0.0%) |
| 12 | S2 | 0.32 | 0/3666 | 0.59 | 2/4944 (0.0%) |
| 12 | S3 | 0.38 | 0/3666 | 0.65 | 5/4944 (0.1%) |
| 12 | S4 | 0.34 | 0/2485 | 0.61 | 3/3344 (0.1%) |
| 12 | S5 | 0.33 | 0/2610 | 0.59 | 2/3522 (0.1%) |
| 12 | S6 | 0.32 | 0/3504 | 0.58 | 2/4728 (0.0%) |
| 12 | S7 | 0.38 | 0/3504 | 0.62 | 2/4728 (0.0%) |
| 12 | S8 | 0.40 | 0/3485 | 0.65 | 2/4702 (0.0%) |
| 12 | S9 | 0.38 | 0/2252 | 0.70 | 3/3028 (0.1%) |
| 13 | D | 0.31 | 0/642 | 0.70 | 1/879 (0.1%) |
| 13 | K3 | 0.31 | 0/1500 | 0.71 | 4/2037 (0.2%) |
| 14 | D0 | 0.34 | 0/906 | 0.63 | 1/1219 (0.1%) |
| 14 | D1 | 0.37 | 0/3416 | 0.61 | 3/4598 (0.1%) |
| 14 | D2 | 0.36 | 0/3529 | 0.60 | 1/4752 (0.0%) |
| 14 | D3 | 0.36 | 0/3529 | 0.60 | 1/4752 (0.0%) |
| 14 | D4 | 0.36 | 0/3529 | 0.61 | 1/4752 (0.0%) |
| 14 | D5 | 0.54 | 1/720 (0.1%) | 0.98 | 7/965 (0.7%) |
| 14 | T0 | 0.44 | 1/976 (0.1%) | 0.76 | 1/1319 (0.1%) |
| 14 | T1 | 0.29 | 0/3645 | 0.62 | 4/4913 (0.1%) |
| 14 | T2 | 0.38 | 1/3645 (0.0%) | 0.68 | 6/4913 (0.1%) |
| 14 | T3 | 0.36 | 0/3658 | 0.62 | 2/4931 (0.0%) |
| 14 | T4 | 0.37 | 0/3305 | 0.65 | 5/4450 (0.1%) |
| 14 | T5 | 0.42 | 0/983 | 0.87 | 6/1319 (0.5%) |
| 15 | E | 0.33 | 0/2415 | 0.63 | 0/3259 |
| 15 | F | 0.29 | 0/2406 | 0.62 | 1/3247 (0.0%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 15 | N2 | 0.30 | 0/2406 | 0.60 | 1/3247 (0.0%) |
| 16 | G | 0.32 | 0/747 | 0.66 | 1/1015 (0.1%) |
| 17 | H | 0.36 | 0/1356 | 0.68 | 2/1840 (0.1%) |
| 17 | I | 0.31 | 0/1474 | 0.65 | 0/2000 |
| 17 | J | 0.36 | 0/1347 | 0.57 | 0/1829 |
| 17 | K | 0.33 | 0/1465 | 0.66 | 2/1989 (0.1%) |
| 17 | L | 0.34 | 0/1356 | 0.63 | 1/1840 (0.1%) |
| 17 | M | 0.35 | 0/1458 | 0.65 | 0/1979 |
| 17 | N | 0.34 | 0/1356 | 0.74 | 5/1840 (0.3%) |
| 17 | O7 | 0.37 | 0/1458 | 0.71 | 3/1979 (0.2%) |
| 17 | O8 | 0.33 | 0/862 | 0.68 | 2/1170 (0.2%) |
| 17 | O9 | 0.36 | 0/862 | 0.66 | 1/1170 (0.1%) |
| 17 | P8 | 0.35 | 0/862 | 0.65 | 1/1170 (0.1%) |
| 17 | P9 | 0.35 | 0/862 | 0.72 | 3/1170 (0.3%) |
| 17 | Z2 | 0.31 | 0/424 | 0.65 | 1/571 (0.2%) |
| 17 | Z3 | 0.33 | 0/424 | 0.66 | 0/571 |
| 17 | Z4 | 0.32 | 0/424 | 0.59 | 0/571 |
| 17 | Z5 | 0.36 | 0/416 | 0.78 | 1/560 (0.2%) |
| 18 | I1 | 0.49 | 1/826 (0.1%) | 0.82 | 2/1123 (0.2%) |
| 19 | J1 | 0.32 | 0/958 | 0.77 | 2/1287 (0.2%) |
| 19 | J2 | 0.40 | 1/2055 (0.0%) | 0.73 | 3/2772 (0.1%) |
| 19 | J3 | 0.34 | 0/2055 | 0.69 | 3/2772 (0.1%) |
| 19 | J4 | 0.38 | 0/2037 | 0.71 | 3/2748 (0.1%) |
| 19 | J5 | 0.35 | 0/1021 | 0.77 | 3/1382 (0.2%) |
| 20 | K1 | 0.31 | 0/1038 | 0.68 | 1/1407 (0.1%) |
| 20 | K2 | 0.28 | 0/1038 | 0.58 | 1/1407 (0.1%) |
| 21 | L1 | 0.37 | 1/1063 (0.1%) | 0.78 | 3/1435 (0.2%) |
| 22 | M1 | 0.33 | 0/849 | 0.69 | 2/1148 (0.2%) |
| 22 | M2 | 0.38 | 0/849 | 0.67 | 0/1148 |
| 22 | M3 | 0.37 | 0/1316 | 0.68 | 1/1778 (0.1%) |
| 22 | M4 | 0.43 | 1/849 (0.1%) | 0.70 | 0/1148 |
| 23 | O | 0.33 | 0/635 | 0.66 | 0/846 |
| 23 | P | 0.36 | 0/2911 | 0.61 | 1/3896 (0.0%) |
| 23 | Q | 0.36 | 0/868 | 0.78 | 5/1161 (0.4%) |
| 24 | O1 | 0.29 | 0/1366 | 0.54 | 0/1862 |
| 24 | O2 | 0.31 | 0/1379 | 0.55 | 0/1880 |
| 24 | O3 | 0.31 | 0/1379 | 0.55 | 0/1880 |
| 24 | O4 | 0.33 | 0/1379 | 0.61 | 1/1880 (0.1%) |
| 25 | O5 | 0.32 | 0/4158 | 0.61 | 4/5631 (0.1%) |
| 25 | O6 | 0.31 | 0/393 | 0.77 | 0/531 |
| 25 | T | 0.30 | 0/2429 | 0.60 | 3/3285 (0.1%) |
| 25 | U | 0.35 | 0/4253 | 0.61 | 3/5764 (0.1%) |
| 25 | V | 0.33 | 0/4417 | 0.66 | 9/5988 (0.2%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 26 | P1 | 0.31 | 0/658 | 0.58 | 0/892 |
| 26 | P2 | 0.37 | 0/852 | 0.70 | 1/1155 (0.1%) |
| 27 | P3 | 0.43 | 0/1145 | 0.71 | 3/1564 (0.2%) |
| 27 | P4 | 0.33 | 0/1319 | 0.65 | 2/1799 (0.1%) |
| 27 | P5 | 0.39 | 0/1319 | 0.61 | 0/1799 |
| 27 | P6 | 0.43 | 0/1310 | 0.65 | 1/1787 (0.1%) |
| 27 | P7 | 0.37 | 0/460 | 0.68 | 1/621 (0.2%) |
| 28 | Q1 | 0.36 | 0/1696 | 0.77 | 5/2315 (0.2%) |
| 28 | Q2 | 0.44 | 1/1696 (0.1%) | 0.72 | 3/2315 (0.1%) |
| 28 | Q3 | 0.36 | 0/1696 | 0.69 | 1/2315 (0.0%) |
| 28 | Q4 | 0.38 | 0/1696 | 0.75 | 2/2315 (0.1%) |
| 28 | Q5 | 0.49 | 0/158 | 0.81 | 1/213 (0.5%) |
| 29 | R | 0.31 | 0/1674 | 0.63 | 1/2232 (0.0%) |
| 29 | S | 0.34 | 0/2770 | 0.66 | 2/3701 (0.1%) |
| 30 | U0 | 0.32 | 0/2934 | 0.57 | 2/3946 (0.1%) |
| 30 | U1 | 0.29 | 0/3444 | 0.60 | 2/4637 (0.0%) |
| 30 | U2 | 0.29 | 0/3444 | 0.63 | 6/4637 (0.1%) |
| 30 | U3 | 0.33 | 0/3444 | 0.59 | 2/4637 (0.0%) |
| 30 | U4 | 0.31 | 0/1691 | 0.61 | 1/2271 (0.0%) |
| 30 | U5 | 0.33 | 0/2646 | 0.65 | 4/3557 (0.1%) |
| 30 | U6 | 0.29 | 0/3407 | 0.59 | 4/4586 (0.1%) |
| 30 | U7 | 0.32 | 0/3407 | 0.61 | 4/4586 (0.1%) |
| 30 | U8 | 0.35 | 0/3407 | 0.70 | 5/4586 (0.1%) |
| 30 | U9 | 0.32 | 0/1499 | 0.64 | 2/2018 (0.1%) |
| 30 | V0 | 0.39 | 1/1713 (0.1%) | 0.82 | 7/2307 (0.3%) |
| 30 | V1 | 0.28 | 0/3226 | 0.61 | 2/4339 (0.0%) |
| 30 | V2 | 0.30 | 0/3226 | 0.64 | 4/4339 (0.1%) |
| 30 | V3 | 0.37 | 0/3226 | 0.73 | 7/4339 (0.2%) |
| 30 | V4 | 0.40 | 0/2357 | 0.65 | 1/3165 (0.0%) |
| 30 | V5 | 0.34 | 0/2437 | 0.67 | 7/3274 (0.2%) |
| 30 | V6 | 0.32 | 0/3018 | 0.62 | 4/4057 (0.1%) |
| 30 | V7 | 0.39 | 1/2772 (0.0%) | 0.69 | 7/3729 (0.2%) |
| 30 | V8 | 0.35 | 0/2507 | 0.67 | 3/3371 (0.1%) |
| 30 | V9 | 0.41 | 0/804 | 0.80 | 0/1080 |
| 30 | W0 | 0.36 | 0/2473 | 0.72 | 5/3317 (0.2%) |
| 30 | W2 | 0.36 | 0/2484 | 0.65 | 2/3338 (0.1%) |
| 30 | W4 | 0.26 | 0/2697 | 0.57 | 2/3621 (0.1%) |
| 30 | W5 | 0.29 | 0/2697 | 0.61 | 2/3621 (0.1%) |
| 30 | W6 | 0.27 | 0/2697 | 0.54 | 0/3621 |
| 30 | W7 | 0.31 | 0/2697 | 0.63 | 2/3621 (0.1%) |
| 31 | W | 0.32 | 0/6283 | 0.61 | 4/8495 (0.0%) |
| 31 | X | 0.32 | 0/6283 | 0.60 | 5/8495 (0.1%) |
| 31 | Y | 0.33 | 0/6291 | 0.60 | 4/8506 (0.0%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|---------------|-------------|---------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 31 | Z | 0.33 | 1/6283 (0.0%) | 0.61 | 4/8495 (0.0%) |
| 32 | X0 | 0.33 | 0/206 | 0.63 | 0/278 |
| 32 | X1 | 0.35 | 0/198 | 0.73 | 1/266 (0.4%) |
| 32 | X2 | 0.33 | 0/198 | 0.64 | 0/266 |
| 32 | X3 | 0.29 | 0/206 | 0.70 | 0/278 |
| 33 | X4 | 0.32 | 0/2694 | 0.66 | 3/3661 (0.1%) |
| 33 | X5 | 0.35 | 0/1072 | 0.68 | 1/1454 (0.1%) |
| 34 | X6 | 0.35 | 0/2144 | 0.66 | 3/2899 (0.1%) |
| 34 | X7 | 0.34 | 0/2144 | 0.70 | 4/2899 (0.1%) |
| 34 | X8 | 0.29 | 0/2144 | 0.64 | 0/2899 |
| 35 | XA | 0.29 | 0/1573 | 0.63 | 2/2122 (0.1%) |
| 35 | XB | 0.29 | 0/1573 | 0.62 | 1/2122 (0.0%) |
| 35 | XC | 0.26 | 0/1573 | 0.57 | 0/2122 |
| 35 | XD | 0.28 | 0/1573 | 0.62 | 1/2122 (0.0%) |
| 35 | XE | 0.34 | 0/1573 | 0.59 | 0/2122 |
| 35 | XF | 0.30 | 0/1573 | 0.61 | 0/2122 |
| 35 | XG | 0.31 | 0/1573 | 0.61 | 0/2122 |
| 35 | XH | 0.31 | 0/1573 | 0.63 | 1/2122 (0.0%) |
| 36 | Y0 | 0.36 | 0/503 | 0.75 | 1/688 (0.1%) |
| 36 | Y1 | 0.39 | 0/1890 | 0.83 | 6/2576 (0.2%) |
| 36 | Y2 | 0.30 | 0/1767 | 0.62 | 2/2408 (0.1%) |
| 36 | Y3 | 0.31 | 0/503 | 0.66 | 0/688 |
| 36 | Y4 | 0.37 | 0/1458 | 0.86 | 6/1984 (0.3%) |
| 36 | Y5 | 0.38 | 0/663 | 0.73 | 0/903 |
| 37 | YA | 0.31 | 0/1817 | 0.63 | 3/2455 (0.1%) |
| 37 | YB | 0.31 | 0/1817 | 0.59 | 1/2455 (0.0%) |
| 37 | YC | 0.27 | 0/1817 | 0.50 | 0/2455 |
| 37 | YD | 0.34 | 1/1817 (0.1%) | 0.57 | 1/2455 (0.0%) |
| 37 | YE | 0.31 | 0/1817 | 0.61 | 0/2455 |
| 37 | YF | 0.28 | 0/1817 | 0.62 | 3/2455 (0.1%) |
| 37 | YG | 0.30 | 0/1817 | 0.63 | 5/2455 (0.2%) |
| 37 | YH | 0.29 | 0/1817 | 0.61 | 2/2455 (0.1%) |
| 38 | Z1 | 0.36 | 0/288 | 0.75 | 0/387 |
| 39 | a | 0.34 | 0/2512 | 0.74 | 5/3331 (0.2%) |
| 39 | a6 | 0.29 | 0/575 | 0.62 | 1/767 (0.1%) |
| 39 | b | 0.40 | 0/2105 | 0.81 | 5/2785 (0.2%) |
| 39 | c | 0.33 | 0/3549 | 0.72 | 4/4707 (0.1%) |
| 39 | d | 0.37 | 1/1162 (0.1%) | 0.69 | 0/1538 |
| 40 | a1 | 0.29 | 0/1313 | 0.60 | 1/1779 (0.1%) |
| 40 | a2 | 0.39 | 1/1313 (0.1%) | 0.62 | 1/1779 (0.1%) |
| 40 | a3 | 0.33 | 0/1313 | 0.63 | 2/1779 (0.1%) |
| 40 | a4 | 0.37 | 0/1313 | 0.71 | 2/1779 (0.1%) |
| 41 | b1 | 0.40 | 0/1095 | 0.83 | 6/1465 (0.4%) |

| Mol | Chain | Bond lengths | | Bond angles | |
|-----|-------|--------------|-------------------|-------------|---------------------|
| | | RMSZ | # Z >5 | RMSZ | # Z >5 |
| 41 | b2 | 0.38 | 1/3141 (0.0%) | 0.66 | 4/4226 (0.1%) |
| 41 | b3 | 0.29 | 0/3152 | 0.62 | 1/4240 (0.0%) |
| 41 | b4 | 0.35 | 0/3152 | 0.67 | 4/4240 (0.1%) |
| 41 | b5 | 0.34 | 0/2749 | 0.69 | 5/3697 (0.1%) |
| 42 | e | 0.28 | 0/4786 | 0.58 | 1/6472 (0.0%) |
| 42 | f | 0.30 | 0/4786 | 0.64 | 5/6472 (0.1%) |
| 42 | g | 0.29 | 0/4786 | 0.60 | 1/6472 (0.0%) |
| 43 | h | 0.31 | 0/2057 | 0.58 | 1/2757 (0.0%) |
| 43 | i | 0.29 | 0/2042 | 0.59 | 2/2737 (0.1%) |
| 43 | j | 0.32 | 0/2036 | 0.59 | 1/2729 (0.0%) |
| 43 | k | 0.35 | 2/2042 (0.1%) | 0.61 | 1/2737 (0.0%) |
| 44 | h1 | 0.39 | 0/809 | 0.76 | 3/1091 (0.3%) |
| 44 | h2 | 0.45 | 0/831 | 0.71 | 1/1119 (0.1%) |
| 44 | h3 | 0.39 | 0/831 | 0.69 | 0/1119 |
| 44 | h4 | 0.32 | 0/820 | 0.70 | 1/1105 (0.1%) |
| 45 | i1 | 0.30 | 0/937 | 0.60 | 1/1281 (0.1%) |
| 45 | l | 0.36 | 0/937 | 0.59 | 1/1281 (0.1%) |
| 45 | m | 0.31 | 0/937 | 0.56 | 1/1281 (0.1%) |
| 45 | n | 0.32 | 0/937 | 0.65 | 3/1281 (0.2%) |
| 46 | i2 | 0.28 | 0/1526 | 0.58 | 1/2039 (0.0%) |
| 46 | i3 | 0.33 | 0/1526 | 0.64 | 2/2039 (0.1%) |
| 46 | i4 | 0.29 | 0/1526 | 0.61 | 0/2039 |
| 47 | o | 0.38 | 0/1707 | 0.77 | 3/2264 (0.1%) |
| 47 | p | 0.40 | 2/3334 (0.1%) | 0.70 | 10/4428 (0.2%) |
| 48 | q | 0.31 | 0/614 | 0.63 | 1/827 (0.1%) |
| 48 | r | 0.40 | 0/640 | 0.69 | 1/862 (0.1%) |
| 48 | s | 0.32 | 0/640 | 0.55 | 0/862 |
| 49 | y | 0.36 | 0/942 | 0.67 | 0/1279 |
| All | All | 0.32 | 59/1674605 (0.0%) | 0.61 | 1363/2267788 (0.1%) |

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

| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 2 | 2 | 0 | 2 |
| 3 | 3 | 0 | 1 |
| 4 | 5 | 0 | 1 |
| 4 | j1 | 0 | 1 |
| 8 | AM | 0 | 1 |
| 8 | CM | 0 | 1 |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 8 | EE | 0 | 1 |
| 8 | FA | 0 | 1 |
| 8 | IE | 0 | 1 |
| 8 | JE | 0 | 1 |
| 8 | JM | 0 | 1 |
| 8 | NG | 0 | 1 |
| 8 | VE | 0 | 1 |
| 8 | VM | 0 | 1 |
| 8 | WI | 0 | 1 |
| 9 | AJ | 0 | 1 |
| 9 | AL | 0 | 1 |
| 9 | BD | 0 | 1 |
| 9 | HN | 0 | 1 |
| 9 | IB | 0 | 1 |
| 9 | JF | 0 | 1 |
| 9 | LF | 0 | 1 |
| 9 | LH | 0 | 1 |
| 9 | NL | 0 | 1 |
| 9 | NN | 0 | 1 |
| 9 | OF | 0 | 1 |
| 9 | PF | 0 | 1 |
| 11 | B5 | 0 | 1 |
| 12 | S0 | 0 | 1 |
| 12 | S3 | 0 | 1 |
| 12 | S5 | 0 | 1 |
| 12 | S6 | 0 | 1 |
| 12 | S9 | 0 | 1 |
| 14 | D3 | 0 | 1 |
| 14 | T2 | 0 | 1 |
| 17 | O8 | 0 | 1 |
| 22 | M1 | 0 | 1 |
| 24 | O3 | 0 | 1 |
| 25 | O5 | 0 | 1 |
| 28 | Q1 | 0 | 1 |
| 28 | Q2 | 0 | 1 |
| 28 | Q3 | 0 | 1 |
| 28 | Q4 | 0 | 1 |
| 28 | Q5 | 0 | 1 |
| 30 | U3 | 0 | 1 |
| 30 | U8 | 0 | 1 |
| 31 | Z | 0 | 1 |
| 35 | XF | 0 | 1 |

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| Mol | Chain | #Chirality outliers | #Planarity outliers |
|-----|-------|---------------------|---------------------|
| 36 | Y5 | 0 | 1 |
| 40 | a4 | 0 | 1 |
| 46 | i3 | 0 | 1 |
| All | All | 0 | 52 |

All (59) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 47 | p | 483 | TYR | CD2-CE2 | -9.30 | 1.25 | 1.39 |
| 9 | OH | 294 | PHE | CD1-CE1 | -8.75 | 1.21 | 1.39 |
| 8 | LE | 175 | PRO | CG-CD | -8.32 | 1.23 | 1.50 |
| 18 | I1 | 87 | PRO | CG-CD | -8.13 | 1.23 | 1.50 |
| 19 | J2 | 187 | TYR | CD1-CE1 | -7.27 | 1.28 | 1.39 |
| 30 | V0 | 403 | PRO | CG-CD | -7.18 | 1.26 | 1.50 |
| 9 | IL | 32 | PRO | CG-CD | -7.02 | 1.27 | 1.50 |
| 9 | WF | 326 | VAL | CB-CG2 | -7.02 | 1.38 | 1.52 |
| 8 | IG | 22 | GLU | CG-CD | -7.01 | 1.41 | 1.51 |
| 8 | HG | 164 | LYS | CE-NZ | -6.87 | 1.31 | 1.49 |
| 47 | p | 483 | TYR | CB-CG | -6.86 | 1.41 | 1.51 |
| 37 | YD | 193 | ASP | CA-CB | 6.82 | 1.69 | 1.53 |
| 40 | a2 | 18 | CYS | CB-SG | -6.81 | 1.70 | 1.82 |
| 8 | OI | 224 | TYR | CD1-CE1 | -6.65 | 1.29 | 1.39 |
| 9 | IF | 324 | LYS | CD-CE | -6.54 | 1.34 | 1.51 |
| 43 | k | 129 | ARG | CG-CD | -6.42 | 1.35 | 1.51 |
| 41 | b2 | 152 | ARG | CB-CG | -6.35 | 1.35 | 1.52 |
| 8 | SI | 268 | PRO | CG-CD | -6.23 | 1.30 | 1.50 |
| 11 | B4 | 328 | GLU | CB-CG | -6.21 | 1.40 | 1.52 |
| 9 | IP | 171 | PRO | CG-CD | -6.19 | 1.30 | 1.50 |
| 8 | NM | 54 | SER | CA-CB | -6.11 | 1.43 | 1.52 |
| 8 | SI | 171 | ILE | C-N | 6.11 | 1.48 | 1.34 |
| 8 | QE | 182 | VAL | CB-CG2 | -6.08 | 1.40 | 1.52 |
| 9 | TD | 80 | PRO | CG-CD | -6.03 | 1.30 | 1.50 |
| 8 | EA | 282 | TYR | CE1-CZ | -5.97 | 1.30 | 1.38 |
| 11 | B3 | 328 | GLU | CD-OE2 | -5.96 | 1.19 | 1.25 |
| 8 | RM | 207 | GLU | CD-OE1 | -5.86 | 1.19 | 1.25 |
| 9 | DH | 129 | CYS | CB-SG | -5.85 | 1.72 | 1.81 |
| 8 | IK | 357 | TYR | CE1-CZ | -5.82 | 1.30 | 1.38 |
| 11 | B4 | 328 | GLU | CD-OE2 | -5.79 | 1.19 | 1.25 |
| 12 | C1 | 203 | GLU | CG-CD | -5.74 | 1.43 | 1.51 |
| 39 | d | 437 | VAL | CB-CG1 | -5.72 | 1.40 | 1.52 |
| 9 | GL | 303 | CYS | CB-SG | -5.63 | 1.72 | 1.81 |
| 8 | AG | 388 | TRP | CB-CG | -5.62 | 1.40 | 1.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|---------|-------|-------------|----------|
| 8 | IG | 352 | LYS | CD-CE | -5.54 | 1.37 | 1.51 |
| 9 | CL | 198 | GLU | CD-OE2 | -5.53 | 1.19 | 1.25 |
| 8 | OM | 210 | TYR | CE2-CZ | -5.51 | 1.31 | 1.38 |
| 31 | Z | 715 | GLU | CD-OE1 | -5.51 | 1.19 | 1.25 |
| 9 | GD | 360 | GLY | N-CA | -5.38 | 1.38 | 1.46 |
| 8 | IM | 172 | TYR | CG-CD1 | -5.36 | 1.32 | 1.39 |
| 8 | SC | 268 | PRO | CG-CD | -5.33 | 1.33 | 1.50 |
| 8 | IC | 411 | GLU | CG-CD | -5.33 | 1.44 | 1.51 |
| 21 | L1 | 133 | MET | CG-SD | -5.33 | 1.67 | 1.81 |
| 8 | PK | 168 | GLU | CD-OE1 | -5.27 | 1.19 | 1.25 |
| 14 | T0 | 238 | VAL | CB-CG1 | -5.26 | 1.41 | 1.52 |
| 9 | PB | 44 | LEU | CA-CB | 5.26 | 1.65 | 1.53 |
| 30 | V7 | 367 | GLU | CD-OE2 | -5.26 | 1.19 | 1.25 |
| 43 | k | 129 | ARG | CB-CG | -5.26 | 1.38 | 1.52 |
| 14 | D5 | 394 | LYS | CB-CG | -5.26 | 1.38 | 1.52 |
| 14 | T2 | 23 | PRO | CG-CD | -5.25 | 1.33 | 1.50 |
| 28 | Q2 | 192 | CYS | CB-SG | -5.24 | 1.73 | 1.81 |
| 9 | OH | 294 | PHE | CB-CG | -5.23 | 1.42 | 1.51 |
| 9 | KB | 106 | TYR | CD1-CE1 | -5.19 | 1.31 | 1.39 |
| 12 | C1 | 203 | GLU | CB-CG | -5.17 | 1.42 | 1.52 |
| 22 | M4 | 184 | VAL | CB-CG1 | -5.16 | 1.42 | 1.52 |
| 8 | PC | 315 | CYS | CB-SG | -5.15 | 1.73 | 1.81 |
| 9 | UH | 303 | CYS | CB-SG | -5.09 | 1.73 | 1.81 |
| 9 | CL | 198 | GLU | CD-OE1 | -5.07 | 1.20 | 1.25 |
| 8 | IC | 411 | GLU | CB-CG | -5.01 | 1.42 | 1.52 |

All (1363) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|--------|-------------|----------|
| 9 | IP | 217 | LEU | CB-CG-CD1 | -15.19 | 85.19 | 111.00 |
| 42 | f | 544 | LEU | CB-CG-CD2 | -14.72 | 85.97 | 111.00 |
| 36 | Y4 | 89 | ILE | CG1-CB-CG2 | -13.71 | 81.25 | 111.40 |
| 8 | IG | 352 | LYS | CD-CE-NZ | -13.40 | 80.88 | 111.70 |
| 30 | V0 | 403 | PRO | CA-N-CD | -13.16 | 93.07 | 111.50 |
| 9 | PD | 321 | MET | CG-SD-CE | 13.15 | 121.25 | 100.20 |
| 18 | I1 | 87 | PRO | CA-N-CD | -12.66 | 93.77 | 111.50 |
| 9 | IP | 171 | PRO | CA-N-CD | -12.56 | 93.91 | 111.50 |
| 9 | WN | 88 | ASP | CB-CG-OD1 | 12.54 | 129.59 | 118.30 |
| 9 | TD | 80 | PRO | CA-N-CD | -12.52 | 93.97 | 111.50 |
| 37 | YF | 69 | LEU | CB-CG-CD2 | -12.39 | 89.93 | 111.00 |
| 9 | RL | 87 | PRO | CA-N-CD | -12.28 | 94.31 | 111.50 |
| 9 | OJ | 32 | PRO | CA-N-CD | -12.16 | 94.47 | 111.50 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|--------|-------------|----------|
| 8 | SI | 268 | PRO | CA-N-CD | -12.08 | 94.59 | 111.50 |
| 9 | JL | 357 | PRO | CA-N-CD | -11.91 | 94.82 | 111.50 |
| 14 | T2 | 23 | PRO | CA-N-CD | -11.86 | 94.89 | 111.50 |
| 47 | o | 159 | MET | CA-CB-CG | 11.79 | 133.34 | 113.30 |
| 9 | IL | 32 | PRO | CA-N-CD | -11.74 | 95.06 | 111.50 |
| 9 | IH | 32 | PRO | CA-N-CD | -11.71 | 95.10 | 111.50 |
| 9 | JL | 356 | ILE | C-N-CD | -11.59 | 95.11 | 120.60 |
| 9 | JB | 357 | PRO | CA-N-CD | -11.56 | 95.32 | 111.50 |
| 9 | OP | 253 | LEU | CA-CB-CG | 11.42 | 141.56 | 115.30 |
| 8 | BE | 175 | PRO | CA-N-CD | -11.41 | 95.53 | 111.50 |
| 9 | WL | 164 | MET | CG-SD-CE | -11.38 | 81.99 | 100.20 |
| 8 | AE | 370 | LYS | CD-CE-NZ | -11.26 | 85.81 | 111.70 |
| 9 | HF | 323 | MET | CG-SD-CE | -11.06 | 82.51 | 100.20 |
| 8 | GG | 218 | ASP | CB-CG-OD1 | 10.96 | 128.17 | 118.30 |
| 9 | QD | 357 | PRO | CA-N-CD | -10.91 | 96.22 | 111.50 |
| 8 | TM | 153 | LEU | CA-CB-CG | 10.75 | 140.02 | 115.30 |
| 31 | Y | 413 | PRO | CA-N-CD | -10.61 | 96.64 | 111.50 |
| 23 | Q | 324 | LEU | CB-CG-CD1 | -10.52 | 93.11 | 111.00 |
| 30 | U7 | 127 | LYS | CD-CE-NZ | 10.38 | 135.57 | 111.70 |
| 36 | Y4 | 117 | ASP | CB-CG-OD2 | 10.28 | 127.55 | 118.30 |
| 8 | UK | 32 | PRO | CA-N-CD | -10.14 | 97.31 | 111.50 |
| 8 | RC | 218 | ASP | CB-CG-OD1 | 10.12 | 127.41 | 118.30 |
| 36 | Y1 | 34 | PRO | CA-N-CD | -10.08 | 97.39 | 111.50 |
| 30 | U8 | 425 | ASP | CB-CG-OD2 | 10.06 | 127.36 | 118.30 |
| 9 | WF | 321 | MET | CG-SD-CE | -9.84 | 84.46 | 100.20 |
| 21 | L1 | 144 | PRO | CA-N-CD | -9.81 | 97.76 | 111.50 |
| 25 | V | 62 | LEU | CB-CG-CD2 | -9.78 | 94.37 | 111.00 |
| 8 | CM | 47 | ASP | CB-CG-OD1 | 9.78 | 127.10 | 118.30 |
| 41 | b5 | 270 | PRO | CA-N-CD | -9.71 | 97.90 | 111.50 |
| 8 | MG | 428 | LEU | CB-CG-CD2 | -9.67 | 94.56 | 111.00 |
| 9 | AN | 323 | MET | CG-SD-CE | -9.65 | 84.77 | 100.20 |
| 9 | IP | 224 | ASP | CB-CG-OD1 | 9.65 | 126.98 | 118.30 |
| 9 | OL | 233 | MET | CG-SD-CE | 9.64 | 115.63 | 100.20 |
| 5 | 8 | 61 | ASP | CB-CG-OD2 | 9.61 | 126.95 | 118.30 |
| 8 | BI | 32 | PRO | CA-N-CD | -9.60 | 98.06 | 111.50 |
| 42 | f | 544 | LEU | CB-CG-CD1 | 9.57 | 127.27 | 111.00 |
| 18 | I1 | 87 | PRO | N-CD-CG | -9.53 | 88.90 | 103.20 |
| 47 | o | 159 | MET | CB-CG-SD | 9.45 | 140.74 | 112.40 |
| 11 | R2 | 205 | PRO | CA-N-CD | -9.39 | 98.35 | 111.50 |
| 11 | B1 | 387 | ASP | CB-CG-OD1 | 9.35 | 126.72 | 118.30 |
| 30 | V2 | 388 | PRO | CA-N-CD | -9.30 | 98.49 | 111.50 |
| 9 | NJ | 273 | LEU | CB-CG-CD2 | -9.21 | 95.34 | 111.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 28 | Q1 | 158 | ALA | O-C-N | -9.20 | 107.98 | 122.70 |
| 30 | U2 | 270 | LEU | CB-CG-CD2 | -9.18 | 95.40 | 111.00 |
| 8 | LK | 7 | ILE | CG1-CB-CG2 | -9.16 | 91.25 | 111.40 |
| 36 | Y1 | 240 | ILE | CG1-CB-CG2 | -9.09 | 91.41 | 111.40 |
| 36 | Y1 | 139 | PRO | CA-N-CD | -9.08 | 98.79 | 111.50 |
| 11 | B5 | 109 | PRO | CA-N-CD | -9.03 | 98.86 | 111.50 |
| 9 | QJ | 268 | PRO | CA-N-CD | -8.98 | 98.92 | 111.50 |
| 30 | V0 | 403 | PRO | N-CD-CG | -8.95 | 89.77 | 103.20 |
| 48 | r | 148 | PRO | CA-N-CD | -8.95 | 98.97 | 111.50 |
| 9 | NF | 323 | MET | CG-SD-CE | -8.92 | 85.93 | 100.20 |
| 8 | HM | 218 | ASP | CB-CG-OD2 | 8.85 | 126.27 | 118.30 |
| 9 | RF | 293 | MET | CG-SD-CE | -8.84 | 86.06 | 100.20 |
| 8 | LA | 89 | PRO | CA-N-CD | -8.81 | 99.17 | 111.50 |
| 8 | LE | 175 | PRO | CA-N-CD | -8.77 | 99.22 | 111.50 |
| 31 | X | 460 | ASP | CB-CG-OD1 | 8.76 | 126.18 | 118.30 |
| 9 | IL | 32 | PRO | N-CD-CG | -8.75 | 90.08 | 103.20 |
| 30 | V0 | 396 | LEU | CB-CG-CD2 | -8.73 | 96.15 | 111.00 |
| 11 | B4 | 205 | PRO | CA-N-CD | -8.69 | 99.33 | 111.50 |
| 30 | V1 | 293 | PRO | CA-N-CD | -8.68 | 99.35 | 111.50 |
| 5 | 8 | 59 | MET | CA-CB-CG | 8.65 | 128.00 | 113.30 |
| 19 | J2 | 232 | LEU | CA-CB-CG | 8.64 | 135.18 | 115.30 |
| 37 | YB | 106 | PRO | CA-N-CD | -8.63 | 99.42 | 111.50 |
| 30 | W0 | 378 | LEU | CB-CG-CD1 | -8.62 | 96.34 | 111.00 |
| 8 | VO | 7 | ILE | CG1-CB-CG2 | -8.62 | 92.44 | 111.40 |
| 8 | LE | 175 | PRO | N-CD-CG | -8.61 | 90.28 | 103.20 |
| 9 | QH | 207 | LEU | CB-CG-CD2 | -8.54 | 96.48 | 111.00 |
| 13 | K3 | 386 | PRO | CA-N-CD | -8.53 | 99.56 | 111.50 |
| 9 | HB | 42 | LEU | CB-CG-CD2 | -8.49 | 96.57 | 111.00 |
| 8 | UM | 32 | PRO | CA-N-CD | -8.49 | 99.61 | 111.50 |
| 8 | UA | 153 | LEU | CA-CB-CG | 8.47 | 134.79 | 115.30 |
| 9 | OP | 233 | MET | CG-SD-CE | 8.47 | 113.75 | 100.20 |
| 8 | DO | 218 | ASP | CB-CG-OD2 | 8.46 | 125.91 | 118.30 |
| 20 | K1 | 25 | LEU | CA-CB-CG | 8.43 | 134.69 | 115.30 |
| 9 | ID | 273 | LEU | CB-CG-CD2 | -8.39 | 96.73 | 111.00 |
| 9 | KN | 233 | MET | CG-SD-CE | 8.37 | 113.59 | 100.20 |
| 28 | Q2 | 14 | PRO | CA-N-CD | -8.37 | 99.78 | 111.50 |
| 9 | IB | 330 | MET | CA-CB-CG | 8.32 | 127.45 | 113.30 |
| 8 | PG | 212 | ILE | CG1-CB-CG2 | -8.32 | 93.09 | 111.40 |
| 8 | GK | 153 | LEU | CA-CB-CG | 8.25 | 134.27 | 115.30 |
| 43 | k | 129 | ARG | CG-CD-NE | -8.24 | 94.50 | 111.80 |
| 8 | NK | 167 | LEU | CA-CB-CG | 8.19 | 134.13 | 115.30 |
| 14 | T2 | 22 | LEU | CA-CB-CG | 8.18 | 134.11 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 8 | UK | 153 | LEU | CA-CB-CG | 8.18 | 134.11 | 115.30 |
| 9 | VN | 299 | MET | CB-CG-SD | -8.15 | 87.95 | 112.40 |
| 17 | N | 43 | LEU | CA-CB-CG | 8.13 | 134.01 | 115.30 |
| 39 | b | 450 | LEU | CA-CB-CG | 8.12 | 133.98 | 115.30 |
| 21 | L1 | 133 | MET | CA-CB-CG | -8.12 | 99.50 | 113.30 |
| 33 | X4 | 313 | VAL | CG1-CB-CG2 | -8.10 | 97.94 | 110.90 |
| 30 | U2 | 123 | ILE | CG1-CB-CG2 | -8.10 | 93.58 | 111.40 |
| 30 | V3 | 192 | LEU | CA-CB-CG | 8.07 | 133.86 | 115.30 |
| 41 | b4 | 436 | LEU | CA-CB-CG | 8.05 | 133.81 | 115.30 |
| 11 | R1 | 329 | LEU | CA-CB-CG | 8.03 | 133.76 | 115.30 |
| 8 | KC | 205 | ASP | CB-CG-OD2 | 8.03 | 125.52 | 118.30 |
| 12 | S4 | 438 | LEU | CB-CG-CD2 | 8.03 | 124.64 | 111.00 |
| 9 | AJ | 323 | MET | CG-SD-CE | -8.02 | 87.37 | 100.20 |
| 9 | QF | 357 | PRO | CA-N-CD | -7.98 | 100.32 | 111.50 |
| 8 | RO | 274 | PRO | CA-N-CD | -7.98 | 100.32 | 111.50 |
| 9 | CL | 26 | ASP | CB-CG-OD1 | 7.94 | 125.45 | 118.30 |
| 8 | OG | 7 | ILE | CG1-CB-CG2 | -7.92 | 93.97 | 111.40 |
| 30 | U2 | 134 | MET | CB-CG-SD | -7.92 | 88.65 | 112.40 |
| 8 | BK | 32 | PRO | CA-N-CD | -7.90 | 100.44 | 111.50 |
| 8 | VG | 7 | ILE | CG1-CB-CG2 | -7.89 | 94.05 | 111.40 |
| 39 | b | 341 | MET | CA-CB-CG | 7.88 | 126.70 | 113.30 |
| 31 | X | 91 | ASP | CB-CG-OD1 | 7.88 | 125.39 | 118.30 |
| 9 | FB | 415 | MET | CG-SD-CE | -7.86 | 87.62 | 100.20 |
| 9 | CH | 44 | LEU | CA-CB-CG | 7.86 | 133.38 | 115.30 |
| 14 | T5 | 386 | MET | CA-CB-CG | 7.86 | 126.66 | 113.30 |
| 8 | SM | 153 | LEU | CA-CB-CG | 7.86 | 133.37 | 115.30 |
| 9 | LF | 427 | ASP | CB-CG-OD1 | 7.85 | 125.37 | 118.30 |
| 8 | UG | 245 | ASP | CB-CG-OD1 | 7.83 | 125.35 | 118.30 |
| 9 | NJ | 358 | PRO | CA-N-CD | -7.83 | 100.54 | 111.50 |
| 9 | MB | 305 | PRO | CA-N-CD | -7.83 | 100.54 | 111.50 |
| 14 | T2 | 443 | LEU | CA-CB-CG | 7.82 | 133.28 | 115.30 |
| 9 | VN | 117 | LEU | CA-CB-CG | 7.78 | 133.20 | 115.30 |
| 14 | T1 | 166 | ASP | CB-CG-OD2 | 7.78 | 125.30 | 118.30 |
| 34 | X7 | 194 | ASP | CB-CG-OD2 | 7.77 | 125.29 | 118.30 |
| 8 | WO | 428 | LEU | CB-CG-CD2 | -7.75 | 97.82 | 111.00 |
| 41 | b2 | 152 | ARG | CG-CD-NE | -7.73 | 95.57 | 111.80 |
| 8 | HA | 23 | LEU | CA-CB-CG | 7.72 | 133.06 | 115.30 |
| 30 | V6 | 377 | LEU | CA-CB-CG | 7.72 | 133.06 | 115.30 |
| 39 | a | 232 | MET | CA-CB-CG | 7.70 | 126.40 | 113.30 |
| 14 | T4 | 283 | ASP | CB-CG-OD2 | 7.70 | 125.23 | 118.30 |
| 9 | LB | 324 | LYS | CD-CE-NZ | -7.69 | 94.00 | 111.70 |
| 30 | U4 | 134 | MET | CB-CG-SD | -7.69 | 89.32 | 112.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 41 | b4 | 415 | LEU | CA-CB-CG | 7.69 | 132.98 | 115.30 |
| 8 | TA | 203 | MET | CG-SD-CE | 7.68 | 112.50 | 100.20 |
| 8 | RO | 154 | MET | CA-CB-CG | 7.68 | 126.36 | 113.30 |
| 8 | OE | 136 | LEU | CA-CB-CG | 7.66 | 132.92 | 115.30 |
| 34 | X7 | 115 | LEU | CA-CB-CG | 7.66 | 132.92 | 115.30 |
| 12 | S0 | 484 | LEU | CA-CB-CG | 7.65 | 132.89 | 115.30 |
| 9 | OD | 284 | LEU | CA-CB-CG | 7.65 | 132.89 | 115.30 |
| 21 | L1 | 147 | PRO | CA-N-CD | -7.63 | 100.81 | 111.50 |
| 9 | CF | 197 | ASP | CB-CG-OD1 | 7.61 | 125.15 | 118.30 |
| 17 | P9 | 188 | PRO | CA-N-CD | -7.60 | 100.86 | 111.50 |
| 8 | RG | 413 | MET | CG-SD-CE | 7.59 | 112.34 | 100.20 |
| 8 | NO | 23 | LEU | CA-CB-CG | 7.56 | 132.70 | 115.30 |
| 8 | VG | 119 | LEU | CA-CB-CG | 7.56 | 132.69 | 115.30 |
| 8 | GO | 153 | LEU | CA-CB-CG | 7.55 | 132.67 | 115.30 |
| 44 | h2 | 120 | LEU | CA-CB-CG | 7.55 | 132.67 | 115.30 |
| 8 | VM | 152 | LEU | CA-CB-CG | 7.55 | 132.66 | 115.30 |
| 25 | V | 321 | LEU | CA-CB-CG | 7.54 | 132.63 | 115.30 |
| 8 | KE | 7 | ILE | CG1-CB-CG2 | -7.52 | 94.85 | 111.40 |
| 10 | B | 303 | MET | CA-CB-CG | 7.52 | 126.09 | 113.30 |
| 8 | MO | 211 | ASP | CB-CG-OD1 | 7.52 | 125.07 | 118.30 |
| 8 | HA | 26 | LEU | CB-CG-CD2 | -7.52 | 98.22 | 111.00 |
| 8 | IM | 219 | ILE | CG1-CB-CG2 | -7.51 | 94.89 | 111.40 |
| 8 | DQ | 245 | ASP | CB-CG-OD2 | 7.50 | 125.05 | 118.30 |
| 9 | GD | 177 | ASP | CB-CG-OD2 | 7.50 | 125.05 | 118.30 |
| 8 | BE | 326 | LYS | CD-CE-NZ | -7.50 | 94.46 | 111.70 |
| 43 | j | 15 | PRO | CA-N-CD | -7.49 | 101.01 | 111.50 |
| 39 | b | 442 | ASP | CB-CG-OD1 | 7.49 | 125.04 | 118.30 |
| 13 | D | 388 | ASP | CB-CG-OD1 | 7.48 | 125.03 | 118.30 |
| 14 | D1 | 331 | ASP | CB-CG-OD2 | 7.48 | 125.03 | 118.30 |
| 9 | TL | 41 | ASP | CB-CG-OD2 | 7.48 | 125.03 | 118.30 |
| 8 | LC | 218 | ASP | CB-CG-OD2 | 7.47 | 125.03 | 118.30 |
| 12 | C4 | 269 | ASP | CB-CG-OD1 | 7.47 | 125.02 | 118.30 |
| 30 | W4 | 220 | ASP | CB-CG-OD2 | 7.47 | 125.02 | 118.30 |
| 9 | HH | 305 | PRO | CA-N-CD | -7.46 | 101.06 | 111.50 |
| 9 | HH | 323 | MET | CG-SD-CE | -7.46 | 88.26 | 100.20 |
| 9 | KD | 44 | LEU | CA-CB-CG | 7.45 | 132.44 | 115.30 |
| 8 | SC | 203 | MET | CG-SD-CE | 7.45 | 112.12 | 100.20 |
| 25 | V | 412 | MET | CA-CB-CG | 7.45 | 125.96 | 113.30 |
| 8 | TC | 153 | LEU | CA-CB-CG | 7.45 | 132.42 | 115.30 |
| 9 | IP | 88 | ASP | CB-CG-OD1 | 7.44 | 125.00 | 118.30 |
| 17 | O9 | 52 | PRO | CA-N-CD | -7.43 | 101.10 | 111.50 |
| 44 | h4 | 86 | ASP | CB-CG-OD2 | 7.42 | 124.98 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 19 | J1 | 190 | LEU | CB-CG-CD2 | -7.42 | 98.39 | 111.00 |
| 9 | NF | 41 | ASP | CB-CG-OD2 | 7.41 | 124.97 | 118.30 |
| 8 | VI | 119 | LEU | CA-CB-CG | 7.41 | 132.34 | 115.30 |
| 9 | PF | 331 | LEU | CA-CB-CG | 7.40 | 132.31 | 115.30 |
| 17 | Z5 | 238 | ASP | CB-CG-OD2 | 7.39 | 124.95 | 118.30 |
| 9 | BF | 118 | ASP | CB-CG-OD1 | 7.38 | 124.94 | 118.30 |
| 9 | GH | 323 | MET | CG-SD-CE | -7.38 | 88.40 | 100.20 |
| 6 | A | 39 | LEU | CA-CB-CG | 7.38 | 132.26 | 115.30 |
| 9 | KP | 44 | LEU | CB-CG-CD1 | 7.38 | 123.54 | 111.00 |
| 9 | UF | 41 | ASP | CB-CG-OD2 | 7.37 | 124.94 | 118.30 |
| 30 | V3 | 439 | ASP | CB-CG-OD1 | 7.37 | 124.93 | 118.30 |
| 9 | TD | 80 | PRO | N-CD-CG | -7.37 | 92.15 | 103.20 |
| 8 | MI | 218 | ASP | CB-CG-OD2 | 7.35 | 124.91 | 118.30 |
| 8 | WC | 326 | LYS | CD-CE-NZ | -7.34 | 94.81 | 111.70 |
| 9 | DP | 118 | ASP | CB-CG-OD2 | 7.34 | 124.91 | 118.30 |
| 28 | Q4 | 62 | VAL | CG1-CB-CG2 | -7.34 | 99.16 | 110.90 |
| 8 | JE | 189 | LEU | CB-CG-CD1 | 7.33 | 123.47 | 111.00 |
| 12 | C1 | 123 | ASP | CB-CG-OD1 | 7.31 | 124.88 | 118.30 |
| 8 | UI | 119 | LEU | CA-CB-CG | 7.31 | 132.10 | 115.30 |
| 8 | CM | 218 | ASP | CB-CG-OD1 | 7.30 | 124.87 | 118.30 |
| 8 | MA | 218 | ASP | CB-CG-OD1 | 7.30 | 124.87 | 118.30 |
| 9 | JF | 267 | MET | CG-SD-CE | 7.29 | 111.87 | 100.20 |
| 7 | A3 | 78 | ASP | CB-CG-OD1 | 7.29 | 124.86 | 118.30 |
| 8 | SM | 136 | LEU | CA-CB-CG | 7.28 | 132.05 | 115.30 |
| 11 | B3 | 219 | ASP | CB-CG-OD1 | 7.28 | 124.85 | 118.30 |
| 12 | C2 | 401 | ASP | CB-CG-OD2 | 7.28 | 124.85 | 118.30 |
| 9 | IL | 395 | LEU | CB-CG-CD1 | -7.27 | 98.64 | 111.00 |
| 8 | IM | 259 | LEU | CB-CG-CD2 | -7.27 | 98.64 | 111.00 |
| 9 | KP | 305 | PRO | CA-N-CD | -7.27 | 101.32 | 111.50 |
| 17 | H | 248 | ASP | CB-CG-OD2 | 7.26 | 124.84 | 118.30 |
| 9 | BP | 253 | LEU | CA-CB-CG | 7.26 | 132.00 | 115.30 |
| 8 | SI | 203 | MET | CA-CB-CG | -7.24 | 101.00 | 113.30 |
| 8 | RM | 173 | PRO | CA-N-CD | -7.23 | 101.38 | 111.50 |
| 17 | P8 | 147 | ASP | CB-CG-OD1 | 7.23 | 124.81 | 118.30 |
| 3 | 3 | 367 | ILE | CG1-CB-CG2 | -7.22 | 95.50 | 111.40 |
| 9 | KB | 88 | ASP | CB-CG-OD1 | 7.22 | 124.80 | 118.30 |
| 8 | SC | 268 | PRO | CA-N-CD | -7.22 | 101.39 | 111.50 |
| 8 | IM | 7 | ILE | CG1-CB-CG2 | -7.22 | 95.52 | 111.40 |
| 14 | T4 | 225 | ASP | CB-CG-OD1 | 7.21 | 124.78 | 118.30 |
| 8 | EO | 39 | ASP | CB-CG-OD1 | 7.20 | 124.78 | 118.30 |
| 20 | K2 | 27 | LEU | CA-CB-CG | 7.20 | 131.86 | 115.30 |
| 11 | B3 | 111 | ASP | CB-CG-OD2 | 7.19 | 124.77 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 8 | NK | 136 | LEU | CA-CB-CG | 7.19 | 131.84 | 115.30 |
| 5 | 8 | 59 | MET | CB-CG-SD | 7.19 | 133.97 | 112.40 |
| 8 | TM | 23 | LEU | CA-CB-CG | 7.18 | 131.81 | 115.30 |
| 8 | GO | 157 | LEU | CB-CG-CD2 | 7.17 | 123.19 | 111.00 |
| 8 | GE | 153 | LEU | CA-CB-CG | 7.16 | 131.78 | 115.30 |
| 8 | AI | 218 | ASP | CB-CG-OD2 | 7.16 | 124.75 | 118.30 |
| 11 | R3 | 111 | ASP | CB-CG-OD1 | 7.16 | 124.75 | 118.30 |
| 8 | HM | 391 | LEU | CA-CB-CG | 7.14 | 131.71 | 115.30 |
| 9 | KH | 44 | LEU | CA-CB-CG | 7.13 | 131.71 | 115.30 |
| 8 | NK | 217 | LEU | CA-CB-CG | 7.13 | 131.71 | 115.30 |
| 9 | OB | 253 | LEU | CA-CB-CG | 7.13 | 131.70 | 115.30 |
| 8 | UO | 153 | LEU | CA-CB-CG | 7.13 | 131.69 | 115.30 |
| 14 | D0 | 72 | ASP | CB-CG-OD1 | 7.12 | 124.70 | 118.30 |
| 9 | JF | 114 | ASP | CB-CG-OD1 | 7.11 | 124.70 | 118.30 |
| 8 | RI | 173 | PRO | CA-N-CD | -7.11 | 101.54 | 111.50 |
| 9 | NL | 293 | MET | CG-SD-CE | -7.11 | 88.83 | 100.20 |
| 19 | J5 | 151 | ASP | CB-CG-OD2 | 7.11 | 124.70 | 118.30 |
| 8 | RE | 302 | MET | CB-CG-SD | 7.10 | 133.70 | 112.40 |
| 17 | N | 248 | ASP | CB-CG-OD2 | 7.09 | 124.69 | 118.30 |
| 9 | BD | 323 | MET | CA-CB-CG | -7.08 | 101.27 | 113.30 |
| 8 | JI | 128 | LEU | CA-CB-CG | 7.08 | 131.58 | 115.30 |
| 8 | TG | 245 | ASP | CB-CG-OD2 | 7.07 | 124.67 | 118.30 |
| 12 | S8 | 369 | LEU | CA-CB-CG | 7.07 | 131.57 | 115.30 |
| 30 | V2 | 229 | MET | CA-CB-CG | 7.07 | 125.32 | 113.30 |
| 9 | UL | 284 | LEU | CA-CB-CG | 7.05 | 131.53 | 115.30 |
| 8 | HE | 7 | ILE | CG1-CB-CG2 | -7.05 | 95.88 | 111.40 |
| 9 | BL | 118 | ASP | CB-CG-OD1 | 7.05 | 124.64 | 118.30 |
| 11 | B3 | 69 | ASP | CB-CG-OD1 | 7.05 | 124.64 | 118.30 |
| 40 | a4 | 140 | LEU | CA-CB-CG | 7.05 | 131.51 | 115.30 |
| 14 | D2 | 283 | ASP | CB-CG-OD1 | 7.04 | 124.64 | 118.30 |
| 8 | TK | 153 | LEU | CA-CB-CG | 7.04 | 131.50 | 115.30 |
| 33 | X5 | 81 | ASP | CB-CG-OD2 | 7.04 | 124.64 | 118.30 |
| 8 | HC | 69 | ASP | CB-CG-OD1 | 7.04 | 124.64 | 118.30 |
| 8 | KG | 7 | ILE | CG1-CB-CG2 | -7.03 | 95.93 | 111.40 |
| 9 | TL | 233 | MET | CB-CG-SD | -7.03 | 91.31 | 112.40 |
| 9 | PH | 403 | MET | CA-CB-CG | 7.02 | 125.24 | 113.30 |
| 30 | V0 | 441 | LEU | CA-CB-CG | 7.00 | 131.41 | 115.30 |
| 27 | P4 | 24 | ASP | CB-CG-OD2 | 6.99 | 124.59 | 118.30 |
| 17 | N | 294 | ASP | CB-CG-OD2 | 6.99 | 124.59 | 118.30 |
| 8 | BE | 128 | LEU | CA-CB-CG | 6.97 | 131.34 | 115.30 |
| 10 | C | 217 | ASP | CB-CG-OD1 | 6.97 | 124.57 | 118.30 |
| 8 | MO | 259 | LEU | CA-CB-CG | 6.97 | 131.32 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 30 | W0 | 455 | LEU | CA-CB-CG | 6.97 | 131.32 | 115.30 |
| 17 | O8 | 45 | ASP | CB-CG-OD2 | 6.96 | 124.57 | 118.30 |
| 8 | DQ | 116 | ASP | CB-CG-OD2 | 6.96 | 124.57 | 118.30 |
| 41 | b5 | 365 | MET | CA-CB-CG | 6.96 | 125.14 | 113.30 |
| 8 | TE | 23 | LEU | CA-CB-CG | 6.96 | 131.31 | 115.30 |
| 9 | NL | 359 | ARG | CG-CD-NE | -6.96 | 97.19 | 111.80 |
| 9 | DL | 323 | MET | CB-CG-SD | -6.96 | 91.53 | 112.40 |
| 43 | i | 222 | PRO | CA-N-CD | -6.96 | 101.76 | 111.50 |
| 12 | C2 | 176 | ASP | CB-CG-OD1 | 6.94 | 124.55 | 118.30 |
| 8 | VM | 119 | LEU | CA-CB-CG | 6.94 | 131.25 | 115.30 |
| 8 | FG | 280 | LYS | CA-CB-CG | 6.93 | 128.65 | 113.40 |
| 8 | AI | 127 | ASP | CB-CG-OD1 | 6.93 | 124.54 | 118.30 |
| 8 | FK | 302 | MET | CA-CB-CG | 6.93 | 125.08 | 113.30 |
| 14 | D5 | 386 | MET | CA-CB-CG | 6.93 | 125.08 | 113.30 |
| 8 | OE | 209 | ILE | CG1-CB-CG2 | -6.92 | 96.18 | 111.40 |
| 37 | YD | 193 | ASP | CB-CG-OD1 | 6.92 | 124.53 | 118.30 |
| 11 | B2 | 180 | MET | CG-SD-CE | -6.91 | 89.14 | 100.20 |
| 9 | JJ | 295 | ASP | CB-CG-OD2 | 6.91 | 124.52 | 118.30 |
| 12 | S0 | 199 | LEU | CA-CB-CG | 6.90 | 131.18 | 115.30 |
| 30 | U5 | 341 | LEU | CA-CB-CG | 6.90 | 131.16 | 115.30 |
| 8 | MA | 259 | LEU | CA-CB-CG | 6.88 | 131.13 | 115.30 |
| 8 | AI | 245 | ASP | CB-CG-OD2 | 6.88 | 124.49 | 118.30 |
| 28 | Q2 | 116 | MET | CG-SD-CE | -6.88 | 89.19 | 100.20 |
| 8 | VG | 136 | LEU | CA-CB-CG | 6.88 | 131.13 | 115.30 |
| 30 | U6 | 378 | LEU | CA-CB-CG | 6.87 | 131.11 | 115.30 |
| 9 | TH | 267 | MET | CA-CB-CG | 6.86 | 124.97 | 113.30 |
| 14 | T3 | 199 | ASP | CB-CG-OD2 | 6.86 | 124.48 | 118.30 |
| 8 | II | 326 | LYS | CD-CE-NZ | 6.86 | 127.48 | 111.70 |
| 8 | BI | 326 | LYS | CD-CE-NZ | -6.86 | 95.93 | 111.70 |
| 11 | R1 | 387 | ASP | CB-CG-OD1 | 6.86 | 124.47 | 118.30 |
| 31 | X | 171 | ASP | CB-CG-OD1 | 6.84 | 124.46 | 118.30 |
| 8 | LE | 218 | ASP | CB-CG-OD1 | 6.84 | 124.46 | 118.30 |
| 8 | TA | 318 | LEU | CA-CB-CG | 6.84 | 131.03 | 115.30 |
| 12 | S6 | 443 | ASP | CB-CG-OD1 | 6.83 | 124.45 | 118.30 |
| 30 | V3 | 357 | LEU | CA-CB-CG | 6.83 | 131.02 | 115.30 |
| 9 | PD | 200 | TYR | CB-CG-CD2 | -6.83 | 116.90 | 121.00 |
| 9 | MF | 151 | LEU | CA-CB-CG | 6.83 | 131.00 | 115.30 |
| 8 | IA | 115 | VAL | CG1-CB-CG2 | -6.83 | 99.98 | 110.90 |
| 7 | A5 | 232 | LEU | CA-CB-CG | 6.81 | 130.97 | 115.30 |
| 9 | HP | 331 | LEU | CA-CB-CG | 6.81 | 130.96 | 115.30 |
| 14 | T5 | 339 | LEU | CA-CB-CG | 6.81 | 130.96 | 115.30 |
| 12 | S8 | 443 | ASP | CB-CG-OD1 | 6.80 | 124.42 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 8 | VG | 217 | LEU | CA-CB-CG | 6.80 | 130.94 | 115.30 |
| 31 | W | 458 | LEU | CB-CG-CD2 | -6.80 | 99.44 | 111.00 |
| 25 | U | 414 | MET | CG-SD-CE | -6.80 | 89.32 | 100.20 |
| 9 | IH | 324 | LYS | CD-CE-NZ | -6.80 | 96.07 | 111.70 |
| 28 | Q1 | 105 | LEU | CB-CG-CD1 | -6.80 | 99.45 | 111.00 |
| 8 | CI | 367 | ASP | CB-CG-OD1 | 6.79 | 124.42 | 118.30 |
| 9 | BH | 118 | ASP | CB-CG-OD1 | 6.79 | 124.41 | 118.30 |
| 14 | D5 | 407 | ASP | CB-CG-OD1 | 6.79 | 124.41 | 118.30 |
| 37 | YF | 165 | MET | CA-CB-CG | 6.79 | 124.83 | 113.30 |
| 28 | Q2 | 158 | ALA | O-C-N | -6.78 | 111.85 | 122.70 |
| 8 | IA | 136 | LEU | CA-CB-CG | 6.78 | 130.89 | 115.30 |
| 30 | V5 | 377 | LEU | CA-CB-CG | 6.78 | 130.88 | 115.30 |
| 8 | BM | 7 | ILE | CG1-CB-CG2 | -6.77 | 96.50 | 111.40 |
| 8 | SG | 36 | MET | CG-SD-CE | 6.77 | 111.03 | 100.20 |
| 36 | Y4 | 105 | ASP | CB-CG-OD1 | 6.77 | 124.39 | 118.30 |
| 9 | CN | 295 | ASP | CB-CG-OD1 | 6.76 | 124.39 | 118.30 |
| 9 | MF | 74 | ASP | CB-CG-OD1 | 6.76 | 124.38 | 118.30 |
| 8 | FO | 302 | MET | CA-CB-CG | 6.76 | 124.79 | 113.30 |
| 30 | V7 | 250 | LEU | CB-CG-CD2 | -6.75 | 99.52 | 111.00 |
| 9 | JF | 84 | ILE | CG1-CB-CG2 | -6.75 | 96.54 | 111.40 |
| 9 | WN | 406 | MET | CA-CB-CG | 6.75 | 124.77 | 113.30 |
| 22 | M1 | 194 | LEU | CA-CB-CG | 6.74 | 130.80 | 115.30 |
| 8 | WE | 217 | LEU | CA-CB-CG | 6.73 | 130.78 | 115.30 |
| 31 | W | 713 | LEU | CA-CB-CG | 6.73 | 130.78 | 115.30 |
| 9 | JH | 263 | LEU | CA-CB-CG | 6.73 | 130.77 | 115.30 |
| 8 | AO | 7 | ILE | CG1-CB-CG2 | -6.73 | 96.60 | 111.40 |
| 9 | EN | 323 | MET | CG-SD-CE | -6.72 | 89.44 | 100.20 |
| 25 | O5 | 348 | ASP | CB-CG-OD1 | 6.72 | 124.35 | 118.30 |
| 8 | AI | 46 | ASP | CB-CG-OD1 | 6.72 | 124.35 | 118.30 |
| 8 | CC | 7 | ILE | CG1-CB-CG2 | -6.72 | 96.62 | 111.40 |
| 9 | TF | 41 | ASP | CB-CG-OD1 | 6.71 | 124.34 | 118.30 |
| 30 | U1 | 130 | LEU | CA-CB-CG | 6.71 | 130.73 | 115.30 |
| 9 | EN | 249 | ASP | CB-CG-OD1 | 6.70 | 124.33 | 118.30 |
| 8 | QO | 318 | LEU | CB-CG-CD1 | -6.70 | 99.61 | 111.00 |
| 9 | HP | 208 | TYR | CB-CG-CD1 | -6.69 | 116.98 | 121.00 |
| 17 | P9 | 164 | ASP | CB-CG-OD1 | 6.68 | 124.32 | 118.30 |
| 9 | QH | 253 | LEU | CA-CB-CG | 6.68 | 130.66 | 115.30 |
| 41 | b1 | 443 | LEU | CB-CG-CD2 | 6.68 | 122.35 | 111.00 |
| 8 | IA | 167 | LEU | CB-CG-CD1 | -6.66 | 99.67 | 111.00 |
| 9 | UB | 257 | MET | CB-CG-SD | 6.66 | 132.39 | 112.40 |
| 8 | LM | 157 | LEU | CA-CB-CG | 6.66 | 130.62 | 115.30 |
| 9 | QH | 44 | LEU | CA-CB-CG | 6.66 | 130.62 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 30 | W7 | 253 | ASP | CB-CG-OD1 | 6.66 | 124.29 | 118.30 |
| 8 | UA | 157 | LEU | CB-CG-CD1 | -6.65 | 99.69 | 111.00 |
| 11 | B5 | 125 | ASP | CB-CG-OD1 | 6.65 | 124.28 | 118.30 |
| 9 | MD | 249 | ASP | CB-CG-OD1 | 6.64 | 124.28 | 118.30 |
| 9 | OJ | 44 | LEU | CA-CB-CG | 6.64 | 130.58 | 115.30 |
| 8 | JE | 189 | LEU | CB-CG-CD2 | -6.64 | 99.71 | 111.00 |
| 12 | S7 | 443 | ASP | CB-CG-OD1 | 6.64 | 124.27 | 118.30 |
| 9 | FB | 41 | ASP | CB-CG-OD2 | 6.63 | 124.27 | 118.30 |
| 8 | KM | 317 | MET | CB-CG-SD | 6.63 | 132.29 | 112.40 |
| 30 | V3 | 328 | LEU | CA-CB-CG | 6.63 | 130.55 | 115.30 |
| 8 | IO | 7 | ILE | CG1-CB-CG2 | -6.63 | 96.82 | 111.40 |
| 8 | JM | 116 | ASP | CB-CG-OD1 | 6.63 | 124.27 | 118.30 |
| 30 | W4 | 206 | LEU | CA-CB-CG | 6.63 | 130.54 | 115.30 |
| 34 | X6 | 198 | LEU | CA-CB-CG | 6.63 | 130.54 | 115.30 |
| 8 | FA | 153 | LEU | CA-CB-CG | 6.62 | 130.54 | 115.30 |
| 9 | GN | 1 | MET | CA-CB-CG | 6.62 | 124.56 | 113.30 |
| 30 | V6 | 446 | MET | CA-CB-CG | 6.62 | 124.55 | 113.30 |
| 3 | 3 | 311 | MET | CA-CB-CG | 6.62 | 124.55 | 113.30 |
| 10 | B | 162 | MET | CA-CB-CG | 6.62 | 124.55 | 113.30 |
| 8 | EG | 245 | ASP | CB-CG-OD2 | 6.62 | 124.25 | 118.30 |
| 31 | Z | 82 | ASP | CB-CG-OD1 | 6.61 | 124.25 | 118.30 |
| 17 | N | 246 | ASP | CB-CG-OD2 | 6.60 | 124.24 | 118.30 |
| 9 | TH | 73 | MET | CB-CG-SD | -6.60 | 92.60 | 112.40 |
| 9 | OJ | 32 | PRO | N-CD-CG | -6.59 | 93.31 | 103.20 |
| 40 | a3 | 56 | LEU | CB-CG-CD2 | -6.59 | 99.80 | 111.00 |
| 9 | HJ | 151 | LEU | CB-CG-CD2 | -6.59 | 99.80 | 111.00 |
| 8 | FC | 153 | LEU | CA-CB-CG | 6.58 | 130.44 | 115.30 |
| 9 | DJ | 357 | PRO | CA-N-CD | -6.58 | 102.28 | 111.50 |
| 8 | LC | 322 | ASP | CB-CG-OD1 | 6.58 | 124.22 | 118.30 |
| 8 | WE | 377 | MET | CG-SD-CE | 6.57 | 110.71 | 100.20 |
| 9 | HP | 249 | ASP | CB-CG-OD1 | 6.57 | 124.21 | 118.30 |
| 8 | OC | 136 | LEU | CA-CB-CG | 6.56 | 130.40 | 115.30 |
| 47 | p | 379 | MET | CA-CB-CG | 6.56 | 124.46 | 113.30 |
| 8 | PO | 252 | LEU | CA-CB-CG | 6.56 | 130.40 | 115.30 |
| 25 | V | 62 | LEU | CB-CG-CD1 | -6.56 | 99.85 | 111.00 |
| 8 | GE | 245 | ASP | CB-CG-OD2 | 6.56 | 124.20 | 118.30 |
| 11 | R2 | 114 | ILE | CG1-CB-CG2 | -6.55 | 96.98 | 111.40 |
| 30 | W0 | 455 | LEU | CB-CG-CD2 | -6.55 | 99.86 | 111.00 |
| 30 | V7 | 170 | MET | CG-SD-CE | -6.55 | 89.72 | 100.20 |
| 17 | Z2 | 246 | ASP | CB-CG-OD2 | 6.55 | 124.19 | 118.30 |
| 8 | NI | 76 | ASP | CB-CG-OD2 | 6.54 | 124.18 | 118.30 |
| 8 | TC | 23 | LEU | CA-CB-CG | 6.54 | 130.33 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 8 | BO | 326 | LYS | CA-CB-CG | -6.53 | 99.03 | 113.40 |
| 9 | PD | 331 | LEU | CA-CB-CG | 6.50 | 130.26 | 115.30 |
| 12 | S4 | 165 | ASP | CB-CG-OD2 | 6.50 | 124.15 | 118.30 |
| 3 | 4 | 443 | LEU | CA-CB-CG | 6.50 | 130.24 | 115.30 |
| 9 | FJ | 187 | LEU | CA-CB-CG | 6.50 | 130.24 | 115.30 |
| 8 | HG | 132 | LEU | CB-CG-CD2 | 6.50 | 122.04 | 111.00 |
| 19 | J1 | 204 | MET | CA-CB-CG | 6.49 | 124.34 | 113.30 |
| 11 | B1 | 387 | ASP | CB-CG-OD2 | -6.49 | 112.46 | 118.30 |
| 8 | TA | 136 | LEU | CA-CB-CG | 6.49 | 130.22 | 115.30 |
| 48 | q | 72 | ASP | CB-CG-OD2 | 6.49 | 124.14 | 118.30 |
| 9 | BH | 362 | LYS | CD-CE-NZ | 6.47 | 126.59 | 111.70 |
| 12 | S2 | 224 | ASP | CB-CG-OD2 | 6.47 | 124.12 | 118.30 |
| 9 | DH | 1 | MET | CA-CB-CG | 6.47 | 124.29 | 113.30 |
| 9 | PH | 304 | ASP | CB-CG-OD2 | 6.46 | 124.12 | 118.30 |
| 10 | B | 48 | ASP | CB-CG-OD2 | 6.46 | 124.11 | 118.30 |
| 8 | UE | 136 | LEU | CA-CB-CG | 6.45 | 130.13 | 115.30 |
| 9 | OP | 263 | LEU | CA-CB-CG | 6.44 | 130.12 | 115.30 |
| 30 | V5 | 206 | LEU | CA-CB-CG | 6.44 | 130.12 | 115.30 |
| 12 | S7 | 104 | LEU | CA-CB-CG | 6.44 | 130.10 | 115.30 |
| 9 | FJ | 41 | ASP | CB-CG-OD2 | 6.43 | 124.09 | 118.30 |
| 8 | CE | 120 | ASP | CB-CG-OD1 | 6.43 | 124.08 | 118.30 |
| 8 | PE | 26 | LEU | CA-CB-CG | 6.43 | 130.08 | 115.30 |
| 8 | HE | 69 | ASP | CB-CG-OD2 | 6.42 | 124.08 | 118.30 |
| 9 | ID | 32 | PRO | CA-N-CD | -6.42 | 102.52 | 111.50 |
| 8 | SI | 203 | MET | CG-SD-CE | -6.42 | 89.94 | 100.20 |
| 12 | S1 | 411 | LEU | CA-CB-CG | 6.41 | 130.05 | 115.30 |
| 30 | V2 | 462 | LEU | CA-CB-CG | 6.41 | 130.05 | 115.30 |
| 8 | KG | 127 | ASP | CB-CG-OD1 | 6.41 | 124.07 | 118.30 |
| 9 | TB | 44 | LEU | CB-CG-CD2 | -6.40 | 100.12 | 111.00 |
| 11 | B1 | 211 | ASP | CB-CG-OD1 | 6.40 | 124.06 | 118.30 |
| 8 | EI | 127 | ASP | CB-CG-OD2 | 6.40 | 124.06 | 118.30 |
| 30 | W2 | 302 | ASP | CB-CG-OD2 | 6.39 | 124.05 | 118.30 |
| 9 | TF | 80 | PRO | CA-N-CD | -6.39 | 102.56 | 111.50 |
| 9 | IN | 324 | LYS | CD-CE-NZ | -6.38 | 97.01 | 111.70 |
| 41 | b5 | 232 | ASP | CB-CG-OD1 | 6.38 | 124.04 | 118.30 |
| 8 | LA | 33 | ASP | CB-CG-OD1 | 6.38 | 124.04 | 118.30 |
| 41 | b3 | 459 | ASP | CB-CG-OD2 | 6.38 | 124.04 | 118.30 |
| 8 | HK | 167 | LEU | CA-CB-CG | 6.37 | 129.95 | 115.30 |
| 25 | O5 | 348 | ASP | CB-CG-OD2 | -6.37 | 112.57 | 118.30 |
| 23 | Q | 324 | LEU | CB-CG-CD2 | 6.37 | 121.83 | 111.00 |
| 9 | JD | 44 | LEU | CA-CB-CG | 6.37 | 129.94 | 115.30 |
| 8 | SC | 268 | PRO | N-CD-CG | -6.36 | 93.66 | 103.20 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 9 | RD | 406 | MET | CA-CB-CG | 6.36 | 124.11 | 113.30 |
| 8 | VE | 318 | LEU | CB-CG-CD1 | -6.36 | 100.19 | 111.00 |
| 12 | S3 | 438 | LEU | CB-CG-CD1 | -6.35 | 100.20 | 111.00 |
| 9 | PD | 363 | MET | CB-CG-SD | -6.35 | 93.34 | 112.40 |
| 30 | U8 | 444 | LEU | CA-CB-CG | 6.35 | 129.91 | 115.30 |
| 8 | JI | 120 | ASP | CB-CG-OD2 | 6.35 | 124.02 | 118.30 |
| 8 | UA | 26 | LEU | CA-CB-CG | 6.35 | 129.90 | 115.30 |
| 39 | a | 286 | MET | CG-SD-CE | -6.35 | 90.04 | 100.20 |
| 9 | MH | 417 | ASP | CB-CG-OD2 | 6.35 | 124.01 | 118.30 |
| 8 | SA | 259 | LEU | CA-CB-CG | 6.35 | 129.90 | 115.30 |
| 37 | YG | 165 | MET | CA-CB-CG | 6.35 | 124.09 | 113.30 |
| 31 | Z | 169 | ASP | CB-CG-OD2 | 6.35 | 124.01 | 118.30 |
| 37 | YG | 93 | LEU | CB-CG-CD2 | -6.35 | 100.21 | 111.00 |
| 9 | CL | 31 | ASP | CB-CG-OD2 | 6.34 | 124.01 | 118.30 |
| 11 | R4 | 376 | ASP | CB-CG-OD2 | 6.34 | 124.01 | 118.30 |
| 30 | V3 | 220 | ASP | CB-CG-OD2 | 6.34 | 124.01 | 118.30 |
| 33 | X4 | 153 | LEU | CA-CB-CG | 6.34 | 129.88 | 115.30 |
| 30 | W7 | 227 | ASP | CB-CG-OD2 | 6.34 | 124.00 | 118.30 |
| 8 | GA | 76 | ASP | CB-CG-OD1 | 6.33 | 124.00 | 118.30 |
| 8 | IC | 69 | ASP | CB-CG-OD1 | 6.33 | 124.00 | 118.30 |
| 8 | VK | 119 | LEU | CA-CB-CG | 6.33 | 129.86 | 115.30 |
| 9 | MB | 41 | ASP | CB-CG-OD2 | 6.33 | 124.00 | 118.30 |
| 8 | SM | 136 | LEU | CB-CG-CD2 | 6.32 | 121.75 | 111.00 |
| 8 | BM | 322 | ASP | CB-CG-OD1 | 6.32 | 123.99 | 118.30 |
| 9 | HP | 19 | LYS | CD-CE-NZ | 6.32 | 126.24 | 111.70 |
| 9 | BL | 44 | LEU | CA-CB-CG | 6.32 | 129.83 | 115.30 |
| 8 | QE | 136 | LEU | CA-CB-CG | 6.31 | 129.82 | 115.30 |
| 8 | CI | 120 | ASP | CB-CG-OD2 | 6.31 | 123.98 | 118.30 |
| 9 | OB | 289 | LEU | CA-CB-CG | 6.31 | 129.81 | 115.30 |
| 30 | U2 | 332 | MET | CA-CB-CG | 6.31 | 124.02 | 113.30 |
| 8 | WO | 26 | LEU | CA-CB-CG | 6.31 | 129.81 | 115.30 |
| 9 | JF | 216 | LYS | CA-CB-CG | 6.30 | 127.26 | 113.40 |
| 9 | SJ | 233 | MET | CA-CB-CG | 6.30 | 124.01 | 113.30 |
| 30 | U6 | 462 | LEU | CA-CB-CG | 6.30 | 129.78 | 115.30 |
| 8 | TA | 153 | LEU | CA-CB-CG | 6.29 | 129.78 | 115.30 |
| 11 | B5 | 384 | LEU | CA-CB-CG | 6.29 | 129.76 | 115.30 |
| 14 | T5 | 345 | ASP | CB-CG-OD2 | 6.29 | 123.96 | 118.30 |
| 37 | YH | 31 | MET | CA-CB-CG | 6.28 | 123.98 | 113.30 |
| 28 | Q1 | 105 | LEU | CA-CB-CG | 6.27 | 129.71 | 115.30 |
| 25 | V | 357 | ASP | CB-CG-OD2 | 6.26 | 123.94 | 118.30 |
| 9 | OP | 253 | LEU | CB-CG-CD1 | 6.26 | 121.65 | 111.00 |
| 9 | IF | 395 | LEU | CA-CB-CG | 6.26 | 129.69 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 19 | J2 | 204 | MET | CA-CB-CG | 6.26 | 123.94 | 113.30 |
| 37 | YG | 117 | ASP | CB-CG-OD2 | 6.25 | 123.93 | 118.30 |
| 8 | PK | 26 | LEU | CA-CB-CG | 6.25 | 129.68 | 115.30 |
| 30 | U5 | 461 | THR | OG1-CB-CG2 | -6.25 | 95.62 | 110.00 |
| 8 | IA | 7 | ILE | CG1-CB-CG2 | -6.25 | 97.65 | 111.40 |
| 9 | GB | 267 | MET | CA-CB-CG | 6.25 | 123.92 | 113.30 |
| 9 | TJ | 41 | ASP | CB-CG-OD2 | 6.25 | 123.92 | 118.30 |
| 8 | RM | 153 | LEU | CA-CB-CG | 6.25 | 129.67 | 115.30 |
| 8 | VG | 127 | ASP | CB-CG-OD2 | 6.25 | 123.92 | 118.30 |
| 8 | PM | 70 | LEU | CA-CB-CG | 6.24 | 129.66 | 115.30 |
| 25 | O5 | 516 | MET | CG-SD-CE | 6.24 | 110.19 | 100.20 |
| 8 | PI | 7 | ILE | CG1-CB-CG2 | -6.24 | 97.67 | 111.40 |
| 47 | p | 248 | MET | CA-CB-CG | 6.24 | 123.90 | 113.30 |
| 8 | IK | 125 | LEU | CB-CG-CD2 | -6.23 | 100.40 | 111.00 |
| 9 | WF | 44 | LEU | CA-CB-CG | 6.23 | 129.64 | 115.30 |
| 3 | 3 | 101 | LEU | CB-CG-CD1 | -6.23 | 100.41 | 111.00 |
| 17 | O7 | 56 | LEU | CA-CB-CG | 6.23 | 129.63 | 115.30 |
| 11 | B4 | 111 | ASP | CB-CG-OD2 | 6.23 | 123.91 | 118.30 |
| 28 | Q4 | 57 | ASP | CB-CG-OD1 | 6.23 | 123.90 | 118.30 |
| 8 | BE | 326 | LYS | CA-CB-CG | -6.22 | 99.71 | 113.40 |
| 9 | FB | 330 | MET | CB-CG-SD | -6.22 | 93.73 | 112.40 |
| 9 | FJ | 272 | PRO | CA-N-CD | -6.22 | 102.78 | 111.50 |
| 9 | JF | 388 | MET | CA-CB-CG | 6.22 | 123.88 | 113.30 |
| 9 | EH | 41 | ASP | CB-CG-OD2 | 6.22 | 123.90 | 118.30 |
| 9 | PB | 147 | MET | CA-CB-CG | 6.22 | 123.88 | 113.30 |
| 9 | VH | 297 | LYS | CD-CE-NZ | -6.22 | 97.39 | 111.70 |
| 45 | m | 90 | ASP | CB-CG-OD2 | 6.22 | 123.90 | 118.30 |
| 8 | EC | 136 | LEU | CA-CB-CG | 6.22 | 129.60 | 115.30 |
| 8 | SC | 127 | ASP | CB-CG-OD2 | 6.21 | 123.89 | 118.30 |
| 30 | U8 | 378 | LEU | CA-CB-CG | 6.21 | 129.59 | 115.30 |
| 9 | IN | 118 | ASP | CB-CG-OD2 | 6.21 | 123.89 | 118.30 |
| 47 | o | 221 | GLU | CA-CB-CG | 6.21 | 127.06 | 113.40 |
| 8 | NA | 16 | ILE | CG1-CB-CG2 | -6.21 | 97.74 | 111.40 |
| 8 | HK | 136 | LEU | CA-CB-CG | 6.21 | 129.58 | 115.30 |
| 8 | TA | 167 | LEU | CA-CB-CG | 6.21 | 129.58 | 115.30 |
| 8 | BO | 26 | LEU | CA-CB-CG | 6.20 | 129.57 | 115.30 |
| 8 | KO | 275 | VAL | CG1-CB-CG2 | -6.20 | 100.98 | 110.90 |
| 8 | TM | 136 | LEU | CA-CB-CG | 6.20 | 129.56 | 115.30 |
| 8 | SC | 154 | MET | CG-SD-CE | -6.20 | 90.29 | 100.20 |
| 8 | SG | 397 | LEU | CA-CB-CG | 6.20 | 129.55 | 115.30 |
| 9 | WL | 164 | MET | CB-CG-SD | -6.20 | 93.82 | 112.40 |
| 17 | L | 313 | ASP | CB-CG-OD2 | 6.19 | 123.87 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 9 | TB | 112 | LEU | CA-CB-CG | 6.19 | 129.54 | 115.30 |
| 9 | QP | 233 | MET | CG-SD-CE | -6.19 | 90.30 | 100.20 |
| 9 | HL | 388 | MET | CA-CB-CG | 6.19 | 123.82 | 113.30 |
| 9 | KL | 41 | ASP | CB-CG-OD2 | 6.19 | 123.87 | 118.30 |
| 8 | SC | 157 | LEU | CA-CB-CG | 6.19 | 129.53 | 115.30 |
| 7 | A2 | 89 | ASP | CB-CG-OD1 | 6.18 | 123.87 | 118.30 |
| 17 | N | 43 | LEU | CB-CG-CD2 | 6.18 | 121.51 | 111.00 |
| 8 | DE | 189 | LEU | CB-CG-CD2 | -6.18 | 100.50 | 111.00 |
| 9 | CD | 284 | LEU | CA-CB-CG | 6.17 | 129.50 | 115.30 |
| 8 | JQ | 286 | LEU | CA-CB-CG | 6.17 | 129.50 | 115.30 |
| 8 | WK | 1 | MET | CA-CB-CG | 6.17 | 123.79 | 113.30 |
| 12 | S0 | 176 | ASP | CB-CG-OD2 | 6.17 | 123.85 | 118.30 |
| 40 | a3 | 52 | ASP | CB-CG-OD2 | 6.17 | 123.85 | 118.30 |
| 9 | QP | 293 | MET | CA-CB-CG | 6.16 | 123.78 | 113.30 |
| 12 | S3 | 164 | LEU | CA-CB-CG | 6.16 | 129.47 | 115.30 |
| 8 | VI | 125 | LEU | CA-CB-CG | 6.16 | 129.47 | 115.30 |
| 9 | OH | 299 | MET | CB-CG-SD | -6.16 | 93.92 | 112.40 |
| 8 | SI | 153 | LEU | CA-CB-CG | 6.16 | 129.47 | 115.30 |
| 9 | NF | 118 | ASP | CB-CG-OD2 | 6.16 | 123.84 | 118.30 |
| 30 | U5 | 477 | PRO | CA-N-CD | -6.16 | 102.88 | 111.50 |
| 9 | WH | 404 | ASP | CB-CG-OD2 | 6.16 | 123.84 | 118.30 |
| 9 | GN | 406 | MET | CB-CG-SD | 6.15 | 130.86 | 112.40 |
| 9 | PD | 336 | LYS | CD-CE-NZ | -6.15 | 97.55 | 111.70 |
| 8 | MA | 76 | ASP | CB-CG-OD1 | 6.15 | 123.83 | 118.30 |
| 9 | WD | 403 | MET | CA-CB-CG | 6.15 | 123.75 | 113.30 |
| 35 | XA | 47 | LEU | CA-CB-CG | 6.14 | 129.43 | 115.30 |
| 8 | CM | 317 | MET | CA-CB-CG | 6.14 | 123.73 | 113.30 |
| 8 | RO | 154 | MET | CG-SD-CE | 6.14 | 110.02 | 100.20 |
| 37 | YA | 223 | ASP | CB-CG-OD2 | 6.13 | 123.82 | 118.30 |
| 8 | PK | 1 | MET | CA-CB-CG | 6.13 | 123.71 | 113.30 |
| 9 | DJ | 44 | LEU | CA-CB-CG | 6.12 | 129.38 | 115.30 |
| 14 | T4 | 213 | MET | CA-CB-CG | 6.12 | 123.71 | 113.30 |
| 42 | g | 173 | MET | CB-CG-SD | 6.12 | 130.77 | 112.40 |
| 12 | S0 | 484 | LEU | CB-CG-CD2 | -6.12 | 100.60 | 111.00 |
| 25 | V | 62 | LEU | CA-CB-CG | 6.12 | 129.37 | 115.30 |
| 8 | KI | 127 | ASP | CB-CG-OD2 | 6.11 | 123.80 | 118.30 |
| 9 | LB | 44 | LEU | CA-CB-CG | 6.11 | 129.35 | 115.30 |
| 37 | YA | 32 | MET | CG-SD-CE | -6.11 | 90.43 | 100.20 |
| 3 | 3 | 116 | MET | CB-CG-SD | -6.10 | 94.09 | 112.40 |
| 9 | CP | 128 | ASP | CB-CG-OD2 | 6.09 | 123.78 | 118.30 |
| 11 | R4 | 111 | ASP | CB-CG-OD1 | 6.09 | 123.78 | 118.30 |
| 45 | i1 | 19 | LEU | CB-CG-CD2 | -6.09 | 100.64 | 111.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 36 | Y4 | 134 | ASP | CB-CG-OD1 | 6.08 | 123.78 | 118.30 |
| 30 | V8 | 270 | LEU | CA-CB-CG | 6.08 | 129.28 | 115.30 |
| 14 | D3 | 312 | ASP | CB-CG-OD1 | 6.08 | 123.77 | 118.30 |
| 8 | LO | 153 | LEU | CA-CB-CG | 6.08 | 129.28 | 115.30 |
| 9 | BP | 117 | LEU | CA-CB-CG | 6.07 | 129.27 | 115.30 |
| 8 | LC | 173 | PRO | CA-N-CD | -6.07 | 103.00 | 111.50 |
| 9 | OF | 406 | MET | CA-CB-CG | 6.07 | 123.62 | 113.30 |
| 9 | VH | 118 | ASP | CB-CG-OD2 | 6.07 | 123.76 | 118.30 |
| 8 | JI | 7 | ILE | CG1-CB-CG2 | -6.07 | 98.06 | 111.40 |
| 9 | LJ | 44 | LEU | CA-CB-CG | 6.07 | 129.25 | 115.30 |
| 9 | OH | 299 | MET | CG-SD-CE | 6.07 | 109.91 | 100.20 |
| 25 | V | 448 | MET | CB-CG-SD | 6.07 | 130.60 | 112.40 |
| 9 | BN | 355 | ASP | CB-CG-OD2 | 6.06 | 123.76 | 118.30 |
| 19 | J4 | 139 | MET | CA-CB-CG | -6.06 | 103.00 | 113.30 |
| 9 | KB | 114 | ASP | CB-CG-OD2 | 6.06 | 123.75 | 118.30 |
| 17 | K | 27 | LEU | CB-CG-CD2 | -6.05 | 100.71 | 111.00 |
| 8 | UM | 26 | LEU | CA-CB-CG | 6.05 | 129.23 | 115.30 |
| 30 | V7 | 195 | LEU | CB-CG-CD2 | -6.05 | 100.71 | 111.00 |
| 9 | TL | 215 | LEU | CA-CB-CG | 6.05 | 129.22 | 115.30 |
| 9 | ML | 187 | LEU | CA-CB-CG | 6.04 | 129.20 | 115.30 |
| 41 | b4 | 441 | ASP | CB-CG-OD2 | 6.04 | 123.74 | 118.30 |
| 9 | DB | 112 | LEU | CA-CB-CG | 6.04 | 129.20 | 115.30 |
| 6 | N1 | 51 | MET | CG-SD-CE | -6.04 | 90.53 | 100.20 |
| 8 | RI | 302 | MET | CB-CG-SD | 6.04 | 130.51 | 112.40 |
| 19 | J4 | 139 | MET | CB-CG-SD | -6.04 | 94.29 | 112.40 |
| 8 | QO | 1 | MET | CA-CB-CG | 6.04 | 123.56 | 113.30 |
| 9 | GL | 177 | ASP | CB-CG-OD1 | 6.03 | 123.73 | 118.30 |
| 13 | K3 | 302 | LEU | CA-CB-CG | 6.03 | 129.17 | 115.30 |
| 8 | SI | 268 | PRO | N-CD-CG | -6.03 | 94.16 | 103.20 |
| 8 | LG | 127 | ASP | CB-CG-OD2 | 6.03 | 123.72 | 118.30 |
| 26 | P2 | 8 | LEU | CA-CB-CG | 6.02 | 129.16 | 115.30 |
| 32 | X1 | 209 | MET | CA-CB-CG | 6.02 | 123.53 | 113.30 |
| 8 | IM | 307 | PRO | N-CD-CG | -6.02 | 94.17 | 103.20 |
| 41 | b5 | 311 | LEU | CA-CB-CG | 6.01 | 129.13 | 115.30 |
| 9 | MF | 41 | ASP | CB-CG-OD1 | 6.01 | 123.71 | 118.30 |
| 8 | CG | 98 | ASP | CB-CG-OD1 | 6.01 | 123.71 | 118.30 |
| 9 | UB | 147 | MET | CA-CB-CG | 6.01 | 123.52 | 113.30 |
| 8 | QM | 26 | LEU | CA-CB-CG | 6.00 | 129.10 | 115.30 |
| 9 | HB | 41 | ASP | CB-CG-OD1 | 6.00 | 123.70 | 118.30 |
| 8 | JG | 339 | ARG | CA-CB-CG | 6.00 | 126.60 | 113.40 |
| 42 | e | 173 | MET | CB-CG-SD | 6.00 | 130.39 | 112.40 |
| 12 | C3 | 270 | LYS | CD-CE-NZ | -6.00 | 97.91 | 111.70 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 30 | V4 | 240 | ILE | CG1-CB-CG2 | -6.00 | 98.21 | 111.40 |
| 8 | VK | 7 | ILE | CG1-CB-CG2 | -5.99 | 98.22 | 111.40 |
| 9 | CJ | 171 | PRO | C-N-CA | 5.99 | 136.67 | 121.70 |
| 9 | OH | 323 | MET | CG-SD-CE | -5.99 | 90.62 | 100.20 |
| 8 | TE | 153 | LEU | CA-CB-CG | 5.98 | 129.06 | 115.30 |
| 9 | MJ | 327 | ASP | CB-CG-OD2 | 5.98 | 123.68 | 118.30 |
| 28 | Q3 | 14 | PRO | CA-N-CD | -5.98 | 103.13 | 111.50 |
| 9 | DB | 327 | ASP | CB-CG-OD1 | 5.97 | 123.67 | 118.30 |
| 30 | U6 | 377 | LEU | CA-CB-CG | 5.97 | 129.04 | 115.30 |
| 11 | B2 | 111 | ASP | CB-CG-OD1 | 5.97 | 123.67 | 118.30 |
| 9 | QB | 73 | MET | CG-SD-CE | -5.97 | 90.65 | 100.20 |
| 8 | GO | 154 | MET | CA-CB-CG | 5.96 | 123.44 | 113.30 |
| 8 | IE | 424 | ASP | CB-CG-OD2 | 5.96 | 123.67 | 118.30 |
| 8 | PO | 136 | LEU | CB-CG-CD1 | 5.96 | 121.14 | 111.00 |
| 9 | NB | 361 | LEU | CA-CB-CG | 5.96 | 129.01 | 115.30 |
| 8 | PE | 203 | MET | CB-CG-SD | 5.96 | 130.27 | 112.40 |
| 8 | GO | 397 | LEU | CA-CB-CG | 5.95 | 128.99 | 115.30 |
| 9 | QH | 246 | LEU | CA-CB-CG | 5.95 | 128.99 | 115.30 |
| 13 | K3 | 385 | LYS | CA-CB-CG | 5.95 | 126.50 | 113.40 |
| 8 | LE | 211 | ASP | CB-CG-OD1 | 5.95 | 123.66 | 118.30 |
| 8 | IM | 195 | LEU | CA-CB-CG | 5.95 | 128.98 | 115.30 |
| 9 | TH | 130 | LEU | CA-CB-CG | 5.95 | 128.98 | 115.30 |
| 8 | IM | 259 | LEU | CB-CG-CD1 | 5.95 | 121.11 | 111.00 |
| 9 | QN | 284 | LEU | CA-CB-CG | 5.94 | 128.97 | 115.30 |
| 8 | JQ | 119 | LEU | CA-CB-CG | 5.94 | 128.97 | 115.30 |
| 15 | N2 | 21 | LEU | CA-CB-CG | 5.94 | 128.97 | 115.30 |
| 9 | VF | 406 | MET | CA-CB-CG | 5.94 | 123.39 | 113.30 |
| 31 | Z | 591 | MET | CA-CB-CG | 5.93 | 123.39 | 113.30 |
| 8 | AK | 7 | ILE | CG1-CB-CG2 | -5.93 | 98.35 | 111.40 |
| 8 | SK | 153 | LEU | CA-CB-CG | 5.93 | 128.94 | 115.30 |
| 8 | HA | 136 | LEU | CA-CB-CG | 5.93 | 128.94 | 115.30 |
| 9 | CP | 284 | LEU | CA-CB-CG | 5.92 | 128.92 | 115.30 |
| 19 | J4 | 204 | MET | CA-CB-CG | 5.92 | 123.37 | 113.30 |
| 8 | UC | 217 | LEU | CA-CB-CG | 5.92 | 128.91 | 115.30 |
| 9 | DJ | 128 | ASP | CB-CG-OD1 | 5.92 | 123.62 | 118.30 |
| 9 | IH | 118 | ASP | CB-CG-OD2 | 5.91 | 123.62 | 118.30 |
| 8 | JM | 251 | ASP | CB-CG-OD1 | 5.91 | 123.62 | 118.30 |
| 8 | OC | 167 | LEU | CA-CB-CG | 5.91 | 128.90 | 115.30 |
| 8 | FI | 326 | LYS | CB-CG-CD | -5.91 | 96.24 | 111.60 |
| 8 | WK | 26 | LEU | CA-CB-CG | 5.91 | 128.88 | 115.30 |
| 45 | n | 90 | ASP | CB-CG-OD2 | 5.91 | 123.61 | 118.30 |
| 9 | HF | 323 | MET | CA-CB-CG | -5.90 | 103.27 | 113.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 9 | IL | 253 | LEU | CA-CB-CG | 5.90 | 128.87 | 115.30 |
| 9 | MN | 263 | LEU | CA-CB-CG | 5.90 | 128.87 | 115.30 |
| 9 | PP | 331 | LEU | CA-CB-CG | 5.90 | 128.87 | 115.30 |
| 9 | FD | 406 | MET | CB-CG-SD | 5.90 | 130.09 | 112.40 |
| 9 | MF | 361 | LEU | CA-CB-CG | 5.90 | 128.86 | 115.30 |
| 41 | b1 | 397 | LEU | CA-CB-CG | 5.90 | 128.86 | 115.30 |
| 22 | M1 | 194 | LEU | CB-CG-CD2 | 5.90 | 121.02 | 111.00 |
| 19 | J5 | 87 | LEU | CA-CB-CG | 5.89 | 128.85 | 115.30 |
| 8 | IE | 7 | ILE | CG1-CB-CG2 | -5.89 | 98.44 | 111.40 |
| 8 | JC | 302 | MET | CA-CB-CG | 5.89 | 123.31 | 113.30 |
| 9 | IP | 171 | PRO | N-CD-CG | -5.89 | 94.37 | 103.20 |
| 8 | KO | 259 | LEU | CA-CB-CG | 5.88 | 128.84 | 115.30 |
| 9 | LJ | 87 | PRO | CA-N-CD | -5.88 | 103.26 | 111.50 |
| 30 | V5 | 470 | MET | CB-CG-SD | 5.88 | 130.05 | 112.40 |
| 8 | FK | 259 | LEU | CA-CB-CG | 5.88 | 128.83 | 115.30 |
| 9 | EH | 404 | ASP | CB-CG-OD1 | 5.88 | 123.59 | 118.30 |
| 9 | SD | 1 | MET | CA-CB-CG | 5.88 | 123.29 | 113.30 |
| 30 | V5 | 434 | LEU | CB-CG-CD1 | -5.87 | 101.02 | 111.00 |
| 27 | P3 | 44 | LEU | CA-CB-CG | 5.87 | 128.79 | 115.30 |
| 8 | UG | 119 | LEU | CA-CB-CG | 5.87 | 128.79 | 115.30 |
| 8 | PC | 33 | ASP | CB-CG-OD2 | 5.87 | 123.58 | 118.30 |
| 30 | V6 | 332 | MET | CA-CB-CG | 5.87 | 123.27 | 113.30 |
| 9 | FL | 151 | LEU | CA-CB-CG | 5.86 | 128.78 | 115.30 |
| 17 | K | 45 | ASP | CB-CG-OD2 | 5.86 | 123.57 | 118.30 |
| 8 | VA | 155 | GLU | CA-CB-CG | 5.86 | 126.29 | 113.40 |
| 9 | CP | 44 | LEU | CA-CB-CG | 5.86 | 128.77 | 115.30 |
| 9 | IB | 284 | LEU | CB-CG-CD2 | 5.86 | 120.96 | 111.00 |
| 8 | VE | 136 | LEU | CA-CB-CG | 5.86 | 128.77 | 115.30 |
| 9 | FN | 249 | ASP | CB-CG-OD2 | 5.86 | 123.57 | 118.30 |
| 9 | QP | 406 | MET | CA-CB-CG | 5.86 | 123.25 | 113.30 |
| 9 | OJ | 233 | MET | CG-SD-CE | 5.85 | 109.57 | 100.20 |
| 14 | D5 | 402 | LEU | CA-CB-CG | 5.85 | 128.76 | 115.30 |
| 4 | 5 | 70 | LYS | CD-CE-NZ | 5.85 | 125.15 | 111.70 |
| 9 | PB | 293 | MET | CA-CB-CG | 5.85 | 123.24 | 113.30 |
| 9 | LB | 305 | PRO | CA-N-CD | -5.85 | 103.32 | 111.50 |
| 9 | HH | 323 | MET | CA-CB-CG | -5.84 | 103.36 | 113.30 |
| 30 | W0 | 170 | MET | CB-CG-SD | -5.84 | 94.87 | 112.40 |
| 44 | h1 | 120 | LEU | CB-CG-CD2 | 5.84 | 120.93 | 111.00 |
| 8 | KM | 128 | LEU | CA-CB-CG | 5.84 | 128.73 | 115.30 |
| 10 | C | 303 | MET | CA-CB-CG | 5.84 | 123.22 | 113.30 |
| 8 | UO | 242 | LEU | CB-CG-CD2 | -5.84 | 101.08 | 111.00 |
| 8 | VE | 119 | LEU | CA-CB-CG | 5.84 | 128.72 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 8 | LM | 153 | LEU | CA-CB-CG | 5.83 | 128.72 | 115.30 |
| 9 | FD | 1 | MET | CA-CB-CG | 5.83 | 123.22 | 113.30 |
| 11 | R1 | 23 | LEU | CA-CB-CG | 5.83 | 128.72 | 115.30 |
| 9 | PD | 321 | MET | CB-CG-SD | -5.83 | 94.91 | 112.40 |
| 12 | S9 | 434 | LEU | CB-CG-CD2 | 5.83 | 120.91 | 111.00 |
| 8 | NM | 128 | LEU | CA-CB-CG | 5.83 | 128.71 | 115.30 |
| 8 | NE | 136 | LEU | CA-CB-CG | 5.83 | 128.70 | 115.30 |
| 9 | BD | 118 | ASP | CB-CG-OD1 | 5.82 | 123.54 | 118.30 |
| 8 | UA | 397 | LEU | CA-CB-CG | 5.82 | 128.69 | 115.30 |
| 9 | TL | 1 | MET | CA-CB-CG | 5.82 | 123.19 | 113.30 |
| 39 | a | 191 | LEU | CB-CG-CD1 | -5.81 | 101.12 | 111.00 |
| 8 | BM | 120 | ASP | CB-CG-OD2 | 5.81 | 123.53 | 118.30 |
| 9 | SB | 42 | LEU | CA-CB-CG | 5.81 | 128.66 | 115.30 |
| 9 | SH | 41 | ASP | CB-CG-OD2 | 5.81 | 123.53 | 118.30 |
| 14 | T2 | 23 | PRO | N-CD-CG | -5.81 | 94.49 | 103.20 |
| 9 | WH | 284 | LEU | CB-CG-CD2 | 5.80 | 120.86 | 111.00 |
| 8 | MO | 218 | ASP | CB-CG-OD2 | 5.80 | 123.52 | 118.30 |
| 17 | O8 | 147 | ASP | CB-CG-OD1 | 5.80 | 123.52 | 118.30 |
| 30 | U7 | 302 | ASP | CB-CG-OD2 | 5.80 | 123.52 | 118.30 |
| 8 | TE | 259 | LEU | CA-CB-CG | 5.79 | 128.63 | 115.30 |
| 11 | B2 | 329 | LEU | CA-CB-CG | 5.79 | 128.63 | 115.30 |
| 28 | Q1 | 191 | PRO | CA-N-CD | -5.79 | 103.39 | 111.50 |
| 8 | WE | 377 | MET | CB-CG-SD | 5.79 | 129.78 | 112.40 |
| 8 | FA | 1 | MET | CA-CB-CG | 5.79 | 123.14 | 113.30 |
| 8 | NO | 392 | ASP | CB-CG-OD1 | 5.79 | 123.51 | 118.30 |
| 8 | SA | 377 | MET | CB-CG-SD | 5.79 | 129.76 | 112.40 |
| 9 | DD | 233 | MET | CA-CB-CG | 5.79 | 123.13 | 113.30 |
| 9 | PB | 224 | ASP | CB-CG-OD2 | 5.79 | 123.51 | 118.30 |
| 8 | JO | 189 | LEU | CA-CB-CG | 5.78 | 128.60 | 115.30 |
| 8 | NG | 114 | ILE | CG1-CB-CG2 | -5.78 | 98.68 | 111.40 |
| 9 | RP | 293 | MET | CA-CB-CG | 5.78 | 123.13 | 113.30 |
| 8 | FA | 157 | LEU | CA-CB-CG | 5.78 | 128.60 | 115.30 |
| 9 | QN | 130 | LEU | CA-CB-CG | 5.78 | 128.59 | 115.30 |
| 9 | JB | 112 | LEU | CA-CB-CG | 5.78 | 128.59 | 115.30 |
| 14 | T4 | 278 | LEU | CB-CG-CD2 | 5.78 | 120.82 | 111.00 |
| 9 | BJ | 1 | MET | CA-CB-CG | -5.78 | 103.48 | 113.30 |
| 9 | WJ | 331 | LEU | CB-CG-CD2 | 5.78 | 120.82 | 111.00 |
| 40 | a1 | 139 | ASP | CB-CG-OD2 | 5.78 | 123.50 | 118.30 |
| 8 | GA | 153 | LEU | CA-CB-CG | 5.78 | 128.59 | 115.30 |
| 17 | O7 | 289 | ILE | CG1-CB-CG2 | -5.78 | 98.70 | 111.40 |
| 8 | SI | 157 | LEU | CA-CB-CG | 5.78 | 128.59 | 115.30 |
| 8 | BM | 152 | LEU | CB-CG-CD2 | -5.77 | 101.19 | 111.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 8 | IK | 338 | LYS | CD-CE-NZ | -5.77 | 98.42 | 111.70 |
| 8 | SI | 398 | MET | CG-SD-CE | -5.77 | 90.96 | 100.20 |
| 34 | X6 | 70 | PRO | CA-N-CD | -5.77 | 103.42 | 111.50 |
| 27 | P3 | 176 | MET | CA-CB-CG | 5.77 | 123.11 | 113.30 |
| 9 | FB | 280 | GLN | CA-CB-CG | 5.77 | 126.09 | 113.40 |
| 8 | OC | 413 | MET | CA-CB-CG | 5.77 | 123.10 | 113.30 |
| 8 | RI | 153 | LEU | CA-CB-CG | 5.76 | 128.55 | 115.30 |
| 9 | WL | 44 | LEU | CA-CB-CG | 5.76 | 128.55 | 115.30 |
| 30 | U5 | 461 | THR | CA-CB-CG2 | -5.76 | 104.34 | 112.40 |
| 19 | J2 | 36 | LEU | CB-CG-CD2 | 5.75 | 120.78 | 111.00 |
| 9 | EL | 1 | MET | CA-CB-CG | 5.74 | 123.06 | 113.30 |
| 9 | WH | 44 | LEU | CA-CB-CG | 5.74 | 128.50 | 115.30 |
| 8 | CG | 367 | ASP | CB-CG-OD1 | 5.74 | 123.46 | 118.30 |
| 28 | Q1 | 20 | LEU | CA-CB-CG | 5.73 | 128.49 | 115.30 |
| 30 | U2 | 377 | LEU | CA-CB-CG | 5.73 | 128.48 | 115.30 |
| 9 | IB | 323 | MET | CG-SD-CE | -5.73 | 91.03 | 100.20 |
| 8 | RO | 317 | MET | CA-CB-CG | 5.73 | 123.04 | 113.30 |
| 9 | WJ | 44 | LEU | CA-CB-CG | 5.73 | 128.48 | 115.30 |
| 34 | X7 | 216 | ASP | CB-CG-OD1 | 5.73 | 123.46 | 118.30 |
| 8 | OG | 136 | LEU | CA-CB-CG | 5.73 | 128.48 | 115.30 |
| 14 | D5 | 386 | MET | CB-CG-SD | 5.73 | 129.58 | 112.40 |
| 9 | PF | 388 | MET | CA-CB-CG | 5.73 | 123.04 | 113.30 |
| 39 | c | 478 | LEU | CA-CB-CG | 5.73 | 128.47 | 115.30 |
| 41 | b2 | 357 | MET | CG-SD-CE | -5.73 | 91.04 | 100.20 |
| 42 | f | 608 | ASP | CB-CG-OD2 | 5.73 | 123.45 | 118.30 |
| 9 | EF | 26 | ASP | CB-CG-OD2 | 5.72 | 123.45 | 118.30 |
| 9 | OJ | 323 | MET | CA-CB-CG | 5.72 | 123.03 | 113.30 |
| 9 | DB | 295 | ASP | CB-CG-OD2 | 5.72 | 123.45 | 118.30 |
| 8 | IM | 397 | LEU | CA-CB-CG | 5.72 | 128.45 | 115.30 |
| 22 | M3 | 159 | LYS | CD-CE-NZ | 5.72 | 124.86 | 111.70 |
| 8 | HA | 391 | LEU | CA-CB-CG | 5.71 | 128.44 | 115.30 |
| 8 | WO | 259 | LEU | CA-CB-CG | 5.71 | 128.44 | 115.30 |
| 9 | FH | 415 | MET | CA-CB-CG | 5.71 | 123.01 | 113.30 |
| 30 | V0 | 446 | MET | CA-CB-CG | 5.71 | 123.01 | 113.30 |
| 30 | U2 | 391 | MET | CB-CG-SD | 5.71 | 129.51 | 112.40 |
| 9 | SJ | 42 | LEU | CA-CB-CG | 5.70 | 128.42 | 115.30 |
| 8 | NI | 136 | LEU | CA-CB-CG | 5.70 | 128.41 | 115.30 |
| 9 | RJ | 363 | MET | CG-SD-CE | 5.70 | 109.31 | 100.20 |
| 9 | SL | 44 | LEU | CA-CB-CG | 5.70 | 128.40 | 115.30 |
| 9 | HJ | 203 | ASP | CB-CG-OD1 | 5.69 | 123.42 | 118.30 |
| 19 | J3 | 87 | LEU | CA-CB-CG | 5.69 | 128.39 | 115.30 |
| 23 | P | 251 | ASP | CB-CG-OD2 | 5.69 | 123.42 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 9 | DP | 1 | MET | CA-CB-CG | 5.69 | 122.97 | 113.30 |
| 8 | MK | 160 | ASP | CB-CG-OD1 | 5.69 | 123.42 | 118.30 |
| 8 | QM | 136 | LEU | CA-CB-CG | 5.69 | 128.39 | 115.30 |
| 8 | VI | 136 | LEU | CA-CB-CG | 5.69 | 128.39 | 115.30 |
| 12 | S3 | 204 | LYS | CD-CE-NZ | -5.69 | 98.62 | 111.70 |
| 9 | SN | 388 | MET | CA-CB-CG | 5.69 | 122.97 | 113.30 |
| 9 | OP | 1 | MET | CA-CB-CG | 5.68 | 122.97 | 113.30 |
| 27 | P7 | 169 | LEU | CA-CB-CG | 5.68 | 128.38 | 115.30 |
| 31 | Y | 449 | ASP | CB-CG-OD1 | 5.68 | 123.41 | 118.30 |
| 8 | QC | 70 | LEU | CA-CB-CG | 5.68 | 128.36 | 115.30 |
| 8 | GM | 86 | LEU | CA-CB-CG | 5.68 | 128.36 | 115.30 |
| 9 | PF | 253 | LEU | CA-CB-CG | 5.67 | 128.35 | 115.30 |
| 8 | OE | 259 | LEU | CA-CB-CG | 5.67 | 128.35 | 115.30 |
| 47 | p | 306 | MET | CA-CB-CG | 5.67 | 122.94 | 113.30 |
| 8 | GA | 227 | LEU | CA-CB-CG | 5.67 | 128.34 | 115.30 |
| 9 | PF | 86 | ARG | CA-CB-CG | 5.67 | 125.87 | 113.40 |
| 9 | TL | 151 | LEU | CA-CB-CG | 5.67 | 128.33 | 115.30 |
| 44 | h1 | 120 | LEU | CA-CB-CG | 5.66 | 128.32 | 115.30 |
| 9 | DL | 44 | LEU | CA-CB-CG | 5.66 | 128.32 | 115.30 |
| 8 | SM | 413 | MET | CA-CB-CG | 5.66 | 122.92 | 113.30 |
| 9 | VH | 253 | LEU | CA-CB-CG | 5.66 | 128.32 | 115.30 |
| 11 | B2 | 178 | ASP | CB-CG-OD1 | 5.66 | 123.39 | 118.30 |
| 9 | JL | 1 | MET | CA-CB-CG | 5.66 | 122.92 | 113.30 |
| 14 | T3 | 22 | LEU | CA-CB-CG | 5.66 | 128.31 | 115.30 |
| 8 | TA | 251 | ASP | CB-CG-OD1 | 5.66 | 123.39 | 118.30 |
| 25 | O5 | 506 | LEU | CA-CB-CG | 5.66 | 128.31 | 115.30 |
| 19 | J3 | 68 | LEU | CA-CB-CG | 5.65 | 128.29 | 115.30 |
| 9 | EL | 415 | MET | CA-CB-CG | 5.65 | 122.90 | 113.30 |
| 8 | FG | 259 | LEU | CA-CB-CG | 5.65 | 128.29 | 115.30 |
| 8 | WO | 136 | LEU | CA-CB-CG | 5.65 | 128.29 | 115.30 |
| 8 | GC | 86 | LEU | CA-CB-CG | 5.64 | 128.28 | 115.30 |
| 9 | LL | 151 | LEU | CA-CB-CG | 5.64 | 128.28 | 115.30 |
| 8 | JE | 157 | LEU | CA-CB-CG | 5.64 | 128.28 | 115.30 |
| 9 | JP | 361 | LEU | CB-CG-CD2 | 5.64 | 120.59 | 111.00 |
| 8 | FI | 153 | LEU | CA-CB-CG | 5.64 | 128.27 | 115.30 |
| 9 | WN | 44 | LEU | CA-CB-CG | 5.64 | 128.27 | 115.30 |
| 10 | C | 459 | LEU | CA-CB-CG | 5.64 | 128.27 | 115.30 |
| 8 | IE | 160 | ASP | CB-CG-OD2 | 5.64 | 123.37 | 118.30 |
| 8 | RK | 274 | PRO | CA-N-CD | -5.64 | 103.61 | 111.50 |
| 8 | AA | 36 | MET | CB-CG-SD | 5.63 | 129.31 | 112.40 |
| 12 | C3 | 458 | ASP | CB-CG-OD2 | 5.63 | 123.37 | 118.30 |
| 8 | GK | 7 | ILE | CG1-CB-CG2 | -5.63 | 99.01 | 111.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 9 | QH | 300 | MET | CA-CB-CG | 5.63 | 122.88 | 113.30 |
| 9 | UJ | 151 | LEU | CA-CB-CG | 5.63 | 128.26 | 115.30 |
| 44 | h1 | 101 | ASP | CB-CG-OD2 | 5.63 | 123.37 | 118.30 |
| 9 | GD | 1 | MET | CA-CB-CG | 5.63 | 122.87 | 113.30 |
| 9 | KP | 44 | LEU | CB-CG-CD2 | -5.63 | 101.43 | 111.00 |
| 8 | FK | 189 | LEU | CA-CB-CG | 5.63 | 128.25 | 115.30 |
| 8 | UM | 248 | LEU | CA-CB-CG | 5.63 | 128.25 | 115.30 |
| 9 | JP | 356 | ILE | CG1-CB-CG2 | -5.63 | 99.02 | 111.40 |
| 8 | NA | 132 | LEU | CA-CB-CG | 5.63 | 128.25 | 115.30 |
| 9 | GB | 130 | LEU | CA-CB-CG | 5.63 | 128.24 | 115.30 |
| 8 | MM | 153 | LEU | CA-CB-CG | 5.63 | 128.24 | 115.30 |
| 8 | TK | 157 | LEU | CA-CB-CG | 5.63 | 128.24 | 115.30 |
| 31 | Z | 697 | LEU | CB-CG-CD1 | 5.63 | 120.57 | 111.00 |
| 9 | HB | 44 | LEU | CA-CB-CG | 5.62 | 128.22 | 115.30 |
| 9 | JL | 44 | LEU | CA-CB-CG | 5.62 | 128.22 | 115.30 |
| 37 | YH | 223 | ASP | CB-CG-OD1 | 5.62 | 123.35 | 118.30 |
| 9 | LF | 305 | PRO | CA-N-CD | -5.61 | 103.64 | 111.50 |
| 31 | Y | 711 | PRO | CA-N-CD | -5.61 | 103.64 | 111.50 |
| 9 | FH | 330 | MET | CA-CB-CG | 5.61 | 122.84 | 113.30 |
| 9 | HH | 233 | MET | CA-CB-CG | 5.61 | 122.84 | 113.30 |
| 31 | W | 684 | LYS | CA-CB-CG | 5.61 | 125.74 | 113.40 |
| 9 | TN | 151 | LEU | CA-CB-CG | 5.61 | 128.20 | 115.30 |
| 16 | G | 42 | ASP | CB-CG-OD1 | 5.61 | 123.34 | 118.30 |
| 8 | CK | 98 | ASP | CB-CG-OD1 | 5.60 | 123.34 | 118.30 |
| 14 | T5 | 331 | ASP | CB-CG-OD2 | 5.60 | 123.34 | 118.30 |
| 43 | h | 185 | MET | CB-CG-SD | -5.60 | 95.59 | 112.40 |
| 8 | GI | 195 | LEU | CB-CG-CD1 | 5.60 | 120.52 | 111.00 |
| 8 | PC | 221 | ARG | CA-CB-CG | 5.60 | 125.72 | 113.40 |
| 39 | c | 232 | MET | CA-CB-CG | 5.60 | 122.82 | 113.30 |
| 9 | AD | 295 | ASP | CB-CG-OD2 | 5.60 | 123.34 | 118.30 |
| 8 | HE | 136 | LEU | CA-CB-CG | 5.60 | 128.17 | 115.30 |
| 25 | V | 45 | MET | CA-CB-CG | 5.60 | 122.82 | 113.30 |
| 8 | WA | 26 | LEU | CA-CB-CG | 5.60 | 128.17 | 115.30 |
| 9 | QH | 19 | LYS | CD-CE-NZ | -5.59 | 98.83 | 111.70 |
| 30 | U8 | 130 | LEU | CA-CB-CG | 5.59 | 128.17 | 115.30 |
| 33 | X4 | 175 | MET | CA-CB-CG | 5.59 | 122.81 | 113.30 |
| 9 | AJ | 377 | LEU | CA-CB-CG | 5.59 | 128.15 | 115.30 |
| 14 | D1 | 167 | LEU | CA-CB-CG | 5.58 | 128.14 | 115.30 |
| 9 | IF | 253 | LEU | CA-CB-CG | 5.58 | 128.14 | 115.30 |
| 30 | W5 | 206 | LEU | CA-CB-CG | 5.58 | 128.14 | 115.30 |
| 47 | p | 159 | MET | CA-CB-CG | 5.58 | 122.79 | 113.30 |
| 1 | 7 | 47 | LEU | CA-CB-CG | 5.58 | 128.13 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 8 | UE | 47 | ASP | CB-CG-OD2 | 5.58 | 123.32 | 118.30 |
| 30 | V5 | 195 | LEU | CB-CG-CD2 | -5.58 | 101.51 | 111.00 |
| 9 | LF | 330 | MET | CA-CB-CG | -5.58 | 103.82 | 113.30 |
| 9 | MN | 273 | LEU | CA-CB-CG | 5.58 | 128.13 | 115.30 |
| 9 | IF | 228 | LEU | CB-CG-CD2 | -5.58 | 101.52 | 111.00 |
| 8 | OI | 7 | ILE | CG1-CB-CG2 | -5.58 | 99.13 | 111.40 |
| 9 | FD | 330 | MET | CA-CB-CG | 5.57 | 122.77 | 113.30 |
| 41 | b1 | 382 | LEU | CA-CB-CG | 5.57 | 128.12 | 115.30 |
| 9 | MN | 1 | MET | CA-CB-CG | 5.57 | 122.77 | 113.30 |
| 8 | FG | 339 | ARG | CA-CB-CG | 5.56 | 125.64 | 113.40 |
| 9 | EN | 406 | MET | CA-CB-CG | 5.56 | 122.75 | 113.30 |
| 8 | LG | 397 | LEU | CA-CB-CG | 5.56 | 128.10 | 115.30 |
| 9 | OH | 321 | MET | CA-CB-CG | 5.56 | 122.75 | 113.30 |
| 30 | U7 | 232 | LEU | CB-CG-CD1 | -5.56 | 101.55 | 111.00 |
| 11 | B1 | 269 | LEU | CB-CG-CD2 | -5.56 | 101.55 | 111.00 |
| 8 | AC | 245 | ASP | CB-CG-OD2 | 5.56 | 123.30 | 118.30 |
| 8 | UA | 136 | LEU | CA-CB-CG | 5.56 | 128.09 | 115.30 |
| 9 | JD | 293 | MET | CA-CB-CG | 5.56 | 122.75 | 113.30 |
| 9 | TH | 267 | MET | CB-CG-SD | 5.56 | 129.07 | 112.40 |
| 8 | NO | 167 | LEU | CA-CB-CG | 5.55 | 128.08 | 115.30 |
| 35 | XB | 123 | MET | CA-CB-CG | 5.55 | 122.74 | 113.30 |
| 37 | YG | 93 | LEU | CA-CB-CG | 5.55 | 128.07 | 115.30 |
| 9 | GD | 44 | LEU | CA-CB-CG | 5.55 | 128.06 | 115.30 |
| 9 | OL | 323 | MET | CB-CG-SD | 5.55 | 129.04 | 112.40 |
| 8 | HI | 7 | ILE | CG1-CB-CG2 | -5.54 | 99.21 | 111.40 |
| 23 | Q | 324 | LEU | CA-CB-CG | 5.54 | 128.05 | 115.30 |
| 8 | TK | 251 | ASP | CB-CG-OD2 | 5.54 | 123.29 | 118.30 |
| 8 | OA | 136 | LEU | CA-CB-CG | 5.54 | 128.05 | 115.30 |
| 9 | JH | 44 | LEU | CA-CB-CG | 5.54 | 128.04 | 115.30 |
| 8 | VM | 156 | ARG | CA-CB-CG | 5.54 | 125.58 | 113.40 |
| 9 | MP | 1 | MET | CA-CB-CG | 5.54 | 122.71 | 113.30 |
| 9 | DP | 44 | LEU | CA-CB-CG | 5.53 | 128.03 | 115.30 |
| 30 | V3 | 391 | MET | CA-CB-CG | -5.53 | 103.90 | 113.30 |
| 35 | XA | 171 | LEU | CB-CG-CD2 | -5.53 | 101.60 | 111.00 |
| 41 | b2 | 113 | MET | CA-CB-CG | 5.53 | 122.70 | 113.30 |
| 9 | CJ | 44 | LEU | CA-CB-CG | 5.53 | 128.01 | 115.30 |
| 9 | CL | 325 | GLU | CA-CB-CG | 5.53 | 125.55 | 113.40 |
| 9 | OB | 114 | ASP | CB-CG-OD1 | 5.53 | 123.27 | 118.30 |
| 8 | IG | 317 | MET | CA-CB-CG | 5.52 | 122.69 | 113.30 |
| 11 | B4 | 108 | LEU | CB-CG-CD1 | -5.52 | 101.62 | 111.00 |
| 30 | W5 | 237 | ASP | CB-CG-OD1 | 5.51 | 123.26 | 118.30 |
| 4 | j1 | 317 | MET | CA-CB-CG | 5.51 | 122.67 | 113.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|-----------|-------|-------------|----------|
| 8 | TI | 413 | MET | CA-CB-CG | 5.51 | 122.67 | 113.30 |
| 30 | V3 | 455 | LEU | CA-CB-CG | 5.51 | 127.97 | 115.30 |
| 9 | FL | 300 | MET | CB-CG-SD | 5.50 | 128.92 | 112.40 |
| 39 | a | 240 | LEU | CA-CB-CG | 5.50 | 127.96 | 115.30 |
| 8 | RG | 413 | MET | CB-CG-SD | -5.50 | 95.89 | 112.40 |
| 8 | VI | 203 | MET | CB-CG-SD | 5.50 | 128.91 | 112.40 |
| 9 | SD | 42 | LEU | CA-CB-CG | 5.50 | 127.95 | 115.30 |
| 30 | U9 | 446 | MET | CA-CB-CG | 5.50 | 122.65 | 113.30 |
| 45 | n | 109 | LEU | CA-CB-CG | 5.50 | 127.95 | 115.30 |
| 9 | IH | 32 | PRO | N-CD-CG | -5.50 | 94.96 | 103.20 |
| 8 | IE | 397 | LEU | CA-CB-CG | 5.50 | 127.94 | 115.30 |
| 9 | DN | 44 | LEU | CA-CB-CG | 5.49 | 127.94 | 115.30 |
| 9 | TL | 217 | LEU | CA-CB-CG | 5.49 | 127.93 | 115.30 |
| 41 | b1 | 344 | LEU | CA-CB-CG | 5.49 | 127.93 | 115.30 |
| 11 | R1 | 287 | LEU | CA-CB-CG | 5.49 | 127.93 | 115.30 |
| 9 | EH | 415 | MET | CB-CG-SD | 5.49 | 128.87 | 112.40 |
| 9 | EJ | 388 | MET | CA-CB-CG | 5.49 | 122.63 | 113.30 |
| 9 | GN | 130 | LEU | CA-CB-CG | 5.49 | 127.92 | 115.30 |
| 8 | WG | 26 | LEU | CA-CB-CG | 5.49 | 127.92 | 115.30 |
| 8 | BE | 160 | ASP | CB-CG-OD2 | 5.49 | 123.24 | 118.30 |
| 8 | HO | 347 | CYS | CA-CB-SG | 5.49 | 123.88 | 114.00 |
| 29 | S | 81 | ASP | CB-CG-OD2 | 5.49 | 123.24 | 118.30 |
| 41 | b5 | 433 | LEU | CB-CG-CD1 | 5.49 | 120.33 | 111.00 |
| 8 | VE | 378 | LEU | CA-CB-CG | 5.48 | 127.91 | 115.30 |
| 9 | GN | 68 | LEU | CB-CG-CD2 | -5.48 | 101.68 | 111.00 |
| 8 | MK | 195 | LEU | CA-CB-CG | 5.48 | 127.90 | 115.30 |
| 12 | S5 | 164 | LEU | CB-CG-CD1 | -5.48 | 101.69 | 111.00 |
| 46 | i3 | 1515 | LEU | CA-CB-CG | 5.48 | 127.89 | 115.30 |
| 8 | GM | 98 | ASP | CB-CG-OD1 | 5.47 | 123.23 | 118.30 |
| 8 | MG | 153 | LEU | CA-CB-CG | 5.47 | 127.89 | 115.30 |
| 3 | 3 | 51 | LEU | CA-CB-CG | 5.47 | 127.89 | 115.30 |
| 8 | AI | 205 | ASP | CB-CG-OD1 | 5.47 | 123.22 | 118.30 |
| 31 | X | 458 | LEU | CB-CG-CD2 | -5.47 | 101.70 | 111.00 |
| 8 | JC | 398 | MET | CG-SD-CE | -5.47 | 91.45 | 100.20 |
| 47 | p | 467 | LYS | CA-CB-CG | 5.47 | 125.42 | 113.40 |
| 8 | LA | 117 | LEU | CA-CB-CG | 5.46 | 127.87 | 115.30 |
| 8 | WA | 286 | LEU | CB-CG-CD2 | 5.46 | 120.29 | 111.00 |
| 12 | C4 | 167 | MET | CB-CG-SD | 5.46 | 128.79 | 112.40 |
| 9 | LP | 164 | MET | CG-SD-CE | 5.46 | 108.94 | 100.20 |
| 9 | KD | 377 | LEU | CA-CB-CG | 5.46 | 127.85 | 115.30 |
| 9 | OB | 85 | PHE | C-N-CA | 5.46 | 135.34 | 121.70 |
| 9 | HH | 88 | ASP | CB-CG-OD2 | 5.45 | 123.21 | 118.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 9 | VL | 215 | LEU | CA-CB-CG | 5.45 | 127.84 | 115.30 |
| 9 | DD | 130 | LEU | CA-CB-CG | 5.45 | 127.84 | 115.30 |
| 8 | IE | 117 | LEU | CA-CB-CG | 5.45 | 127.84 | 115.30 |
| 9 | DF | 323 | MET | CB-CG-SD | -5.45 | 96.05 | 112.40 |
| 8 | MG | 425 | LEU | CB-CG-CD1 | -5.45 | 101.74 | 111.00 |
| 9 | DB | 44 | LEU | CA-CB-CG | 5.45 | 127.83 | 115.30 |
| 9 | AJ | 323 | MET | CA-CB-CG | -5.44 | 104.05 | 113.30 |
| 36 | Y4 | 89 | ILE | CA-CB-CG1 | 5.44 | 121.34 | 111.00 |
| 14 | D5 | 394 | LYS | CB-CG-CD | -5.44 | 97.46 | 111.60 |
| 9 | DL | 323 | MET | CG-SD-CE | -5.44 | 91.50 | 100.20 |
| 8 | TA | 154 | MET | CA-CB-CG | 5.44 | 122.54 | 113.30 |
| 9 | AH | 39 | ASP | CB-CG-OD1 | 5.43 | 123.19 | 118.30 |
| 8 | TM | 154 | MET | CA-CB-CG | 5.43 | 122.53 | 113.30 |
| 9 | WB | 44 | LEU | CA-CB-CG | 5.43 | 127.80 | 115.30 |
| 9 | DP | 253 | LEU | CA-CB-CG | 5.43 | 127.79 | 115.30 |
| 11 | R1 | 114 | ILE | CG1-CB-CG2 | -5.43 | 99.45 | 111.40 |
| 8 | VM | 136 | LEU | CA-CB-CG | 5.43 | 127.79 | 115.30 |
| 8 | WK | 136 | LEU | CA-CB-CG | 5.43 | 127.79 | 115.30 |
| 12 | C0 | 269 | ASP | CB-CG-OD2 | 5.43 | 123.19 | 118.30 |
| 8 | SG | 413 | MET | CA-CB-CG | 5.43 | 122.53 | 113.30 |
| 9 | OB | 164 | MET | CA-CB-CG | 5.42 | 122.52 | 113.30 |
| 8 | IA | 70 | LEU | CA-CB-CG | 5.42 | 127.77 | 115.30 |
| 9 | KN | 114 | ASP | CB-CG-OD1 | 5.42 | 123.18 | 118.30 |
| 8 | VA | 7 | ILE | CG1-CB-CG2 | -5.42 | 99.47 | 111.40 |
| 9 | HP | 208 | TYR | CB-CG-CD2 | 5.42 | 124.25 | 121.00 |
| 9 | NN | 240 | LEU | CA-CB-CG | 5.42 | 127.76 | 115.30 |
| 36 | Y1 | 20 | MET | CB-CG-SD | 5.42 | 128.65 | 112.40 |
| 25 | T | 232 | LEU | CA-CB-CG | 5.42 | 127.75 | 115.30 |
| 8 | WO | 217 | LEU | CA-CB-CG | 5.42 | 127.75 | 115.30 |
| 8 | GG | 117 | LEU | CA-CB-CG | 5.41 | 127.75 | 115.30 |
| 8 | NO | 413 | MET | CA-CB-CG | 5.41 | 122.50 | 113.30 |
| 9 | EB | 253 | LEU | CA-CB-CG | 5.41 | 127.75 | 115.30 |
| 8 | PC | 26 | LEU | CA-CB-CG | 5.41 | 127.74 | 115.30 |
| 8 | LI | 347 | CYS | CA-CB-SG | 5.41 | 123.74 | 114.00 |
| 8 | OM | 1 | MET | CA-CB-CG | 5.41 | 122.49 | 113.30 |
| 8 | JG | 153 | LEU | CA-CB-CG | 5.41 | 127.73 | 115.30 |
| 17 | O7 | 292 | MET | CG-SD-CE | 5.40 | 108.85 | 100.20 |
| 8 | VA | 119 | LEU | CA-CB-CG | 5.40 | 127.72 | 115.30 |
| 9 | OF | 1 | MET | CA-CB-CG | 5.40 | 122.48 | 113.30 |
| 14 | T1 | 41 | LEU | CB-CG-CD2 | -5.40 | 101.83 | 111.00 |
| 8 | UO | 98 | ASP | CB-CG-OD1 | 5.39 | 123.15 | 118.30 |
| 41 | b2 | 152 | ARG | NE-CZ-NH2 | -5.39 | 117.61 | 120.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 9 | TH | 1 | MET | CA-CB-CG | 5.39 | 122.46 | 113.30 |
| 23 | Q | 357 | LEU | CA-CB-CG | 5.38 | 127.68 | 115.30 |
| 9 | OJ | 330 | MET | CA-CB-CG | 5.38 | 122.45 | 113.30 |
| 14 | T4 | 368 | LEU | CA-CB-CG | 5.38 | 127.68 | 115.30 |
| 40 | a2 | 136 | ASP | CB-CG-OD2 | 5.38 | 123.14 | 118.30 |
| 9 | BN | 253 | LEU | CA-CB-CG | 5.38 | 127.67 | 115.30 |
| 8 | CK | 326 | LYS | CD-CE-NZ | -5.38 | 99.33 | 111.70 |
| 9 | TN | 267 | MET | CA-CB-CG | 5.38 | 122.44 | 113.30 |
| 30 | V6 | 134 | MET | CB-CG-SD | -5.38 | 96.27 | 112.40 |
| 11 | B1 | 33 | ASP | CB-CG-OD1 | 5.37 | 123.13 | 118.30 |
| 8 | BK | 284 | GLU | CA-CB-CG | 5.37 | 125.22 | 113.40 |
| 41 | b4 | 209 | MET | CA-CB-CG | 5.37 | 122.43 | 113.30 |
| 30 | U7 | 127 | LYS | CG-CD-CE | -5.37 | 95.79 | 111.90 |
| 9 | CL | 88 | ASP | CB-CG-OD2 | 5.37 | 123.13 | 118.30 |
| 45 | n | 45 | ASP | CB-CG-OD2 | 5.37 | 123.13 | 118.30 |
| 8 | RG | 153 | LEU | CA-CB-CG | 5.37 | 127.64 | 115.30 |
| 9 | QJ | 68 | LEU | CA-CB-CG | 5.36 | 127.64 | 115.30 |
| 11 | R4 | 387 | ASP | CB-CG-OD1 | 5.36 | 123.13 | 118.30 |
| 8 | VA | 154 | MET | CG-SD-CE | -5.36 | 91.62 | 100.20 |
| 39 | a | 185 | MET | CA-CB-CG | 5.36 | 122.42 | 113.30 |
| 9 | JF | 276 | ARG | CG-CD-NE | 5.36 | 123.06 | 111.80 |
| 8 | JM | 7 | ILE | CG1-CB-CG2 | -5.36 | 99.61 | 111.40 |
| 9 | AN | 273 | LEU | CA-CB-CG | 5.36 | 127.62 | 115.30 |
| 8 | CC | 98 | ASP | CB-CG-OD2 | 5.36 | 123.12 | 118.30 |
| 15 | F | 158 | LEU | CA-CB-CG | 5.36 | 127.62 | 115.30 |
| 9 | RL | 406 | MET | CB-CG-SD | 5.36 | 128.47 | 112.40 |
| 8 | RM | 302 | MET | CA-CB-CG | 5.35 | 122.40 | 113.30 |
| 29 | S | 78 | MET | CG-SD-CE | -5.35 | 91.63 | 100.20 |
| 42 | f | 173 | MET | CA-CB-CG | 5.35 | 122.40 | 113.30 |
| 9 | UB | 257 | MET | CG-SD-CE | 5.35 | 108.76 | 100.20 |
| 9 | VL | 68 | LEU | CA-CB-CG | 5.35 | 127.61 | 115.30 |
| 8 | JI | 424 | ASP | CB-CG-OD1 | 5.35 | 123.12 | 118.30 |
| 8 | PM | 70 | LEU | CB-CG-CD1 | -5.35 | 101.90 | 111.00 |
| 8 | RK | 377 | MET | CB-CG-SD | -5.35 | 96.35 | 112.40 |
| 36 | Y1 | 114 | TYR | CA-CB-CG | -5.35 | 103.23 | 113.40 |
| 8 | AG | 171 | ILE | C-N-CA | 5.35 | 135.07 | 121.70 |
| 17 | H | 249 | LYS | CA-CB-CG | 5.35 | 125.17 | 113.40 |
| 8 | ME | 7 | ILE | CG1-CB-CG2 | -5.35 | 99.64 | 111.40 |
| 12 | S5 | 114 | ARG | CG-CD-NE | -5.35 | 100.57 | 111.80 |
| 9 | TL | 263 | LEU | CA-CB-CG | 5.35 | 127.60 | 115.30 |
| 8 | HM | 160 | ASP | CB-CG-OD1 | 5.34 | 123.11 | 118.30 |
| 8 | PO | 26 | LEU | CA-CB-CG | 5.34 | 127.58 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 8 | TE | 203 | MET | CG-SD-CE | 5.34 | 108.75 | 100.20 |
| 8 | BM | 347 | CYS | CA-CB-SG | 5.34 | 123.61 | 114.00 |
| 31 | W | 745 | LEU | CA-CB-CG | 5.34 | 127.58 | 115.30 |
| 12 | C5 | 426 | GLU | CA-CB-CG | 5.34 | 125.14 | 113.40 |
| 8 | SM | 36 | MET | CG-SD-CE | 5.34 | 108.74 | 100.20 |
| 9 | BJ | 67 | ASP | CB-CG-OD1 | 5.33 | 123.10 | 118.30 |
| 30 | V0 | 332 | MET | CA-CB-CG | 5.33 | 122.37 | 113.30 |
| 9 | IP | 208 | TYR | CB-CG-CD2 | -5.33 | 117.80 | 121.00 |
| 8 | HA | 153 | LEU | CA-CB-CG | 5.33 | 127.56 | 115.30 |
| 9 | FD | 164 | MET | CB-CG-SD | -5.33 | 96.41 | 112.40 |
| 30 | V8 | 192 | LEU | CA-CB-CG | 5.33 | 127.56 | 115.30 |
| 30 | V7 | 206 | LEU | CA-CB-CG | 5.33 | 127.55 | 115.30 |
| 8 | KA | 215 | ARG | CA-CB-CG | 5.33 | 125.12 | 113.40 |
| 3 | 3 | 105 | LEU | CA-CB-CG | 5.32 | 127.54 | 115.30 |
| 9 | OF | 253 | LEU | CA-CB-CG | 5.32 | 127.55 | 115.30 |
| 8 | PK | 7 | ILE | CG1-CB-CG2 | -5.32 | 99.69 | 111.40 |
| 8 | HK | 256 | GLN | CA-CB-CG | 5.32 | 125.11 | 113.40 |
| 9 | VH | 331 | LEU | CA-CB-CG | 5.32 | 127.53 | 115.30 |
| 31 | X | 533 | MET | CG-SD-CE | 5.32 | 108.71 | 100.20 |
| 8 | VG | 26 | LEU | CA-CB-CG | 5.32 | 127.52 | 115.30 |
| 9 | LN | 151 | LEU | CA-CB-CG | 5.31 | 127.52 | 115.30 |
| 36 | Y4 | 89 | ILE | CB-CG1-CD1 | 5.31 | 128.78 | 113.90 |
| 9 | KL | 258 | VAL | CA-CB-CG2 | 5.31 | 118.86 | 110.90 |
| 12 | S6 | 176 | ASP | CB-CG-OD2 | 5.31 | 123.08 | 118.30 |
| 8 | AC | 397 | LEU | CA-CB-CG | 5.31 | 127.50 | 115.30 |
| 9 | NH | 44 | LEU | CA-CB-CG | 5.31 | 127.51 | 115.30 |
| 9 | PD | 253 | LEU | CA-CB-CG | 5.31 | 127.50 | 115.30 |
| 9 | TN | 217 | LEU | CB-CG-CD2 | 5.31 | 120.02 | 111.00 |
| 8 | CC | 326 | LYS | CD-CE-NZ | -5.30 | 99.50 | 111.70 |
| 19 | J3 | 55 | ASP | CB-CG-OD1 | 5.30 | 123.07 | 118.30 |
| 9 | AH | 249 | ASP | CB-CG-OD2 | 5.30 | 123.07 | 118.30 |
| 7 | A4 | 261 | ASP | CB-CG-OD2 | 5.30 | 123.07 | 118.30 |
| 9 | ED | 257 | MET | CG-SD-CE | 5.30 | 108.68 | 100.20 |
| 45 | I | 45 | ASP | CB-CG-OD1 | 5.30 | 123.07 | 118.30 |
| 9 | SH | 363 | MET | CB-CG-SD | 5.30 | 128.29 | 112.40 |
| 11 | B5 | 384 | LEU | CB-CG-CD2 | 5.29 | 120.00 | 111.00 |
| 9 | QP | 192 | LEU | CA-CB-CG | 5.29 | 127.47 | 115.30 |
| 14 | T2 | 395 | LEU | CA-CB-CG | 5.29 | 127.47 | 115.30 |
| 8 | AM | 425 | LEU | CB-CG-CD2 | 5.29 | 119.99 | 111.00 |
| 8 | LO | 157 | LEU | CA-CB-CG | 5.29 | 127.47 | 115.30 |
| 9 | CD | 284 | LEU | CB-CG-CD2 | -5.28 | 102.02 | 111.00 |
| 9 | QN | 207 | LEU | CA-CB-CG | 5.28 | 127.45 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 8 | UM | 136 | LEU | CA-CB-CG | 5.28 | 127.45 | 115.30 |
| 11 | B2 | 180 | MET | CA-CB-CG | 5.28 | 122.28 | 113.30 |
| 30 | U1 | 119 | ASP | CB-CG-OD2 | 5.28 | 123.05 | 118.30 |
| 9 | WD | 207 | LEU | CA-CB-CG | 5.28 | 127.44 | 115.30 |
| 8 | JE | 160 | ASP | CB-CG-OD2 | 5.28 | 123.05 | 118.30 |
| 8 | UM | 245 | ASP | CB-CG-OD2 | 5.28 | 123.05 | 118.30 |
| 8 | NE | 413 | MET | CG-SD-CE | -5.28 | 91.76 | 100.20 |
| 9 | NP | 80 | PRO | CA-N-CD | -5.28 | 104.11 | 111.50 |
| 39 | c | 339 | MET | CA-CB-CG | 5.28 | 122.27 | 113.30 |
| 9 | FH | 1 | MET | CA-CB-CG | 5.27 | 122.27 | 113.30 |
| 9 | HD | 151 | LEU | CA-CB-CG | 5.27 | 127.43 | 115.30 |
| 8 | JE | 119 | LEU | CA-CB-CG | 5.27 | 127.43 | 115.30 |
| 35 | XD | 121 | MET | CA-CB-CG | 5.27 | 122.27 | 113.30 |
| 36 | Y1 | 106 | TYR | CB-CA-C | -5.27 | 99.85 | 110.40 |
| 37 | YG | 93 | LEU | CB-CG-CD1 | 5.27 | 119.97 | 111.00 |
| 9 | LF | 284 | LEU | CA-CB-CG | 5.27 | 127.42 | 115.30 |
| 37 | YF | 69 | LEU | CA-CB-CG | 5.27 | 127.42 | 115.30 |
| 9 | AN | 58 | LYS | CA-CB-CG | -5.27 | 101.81 | 113.40 |
| 8 | BM | 219 | ILE | CG1-CB-CG2 | -5.27 | 99.82 | 111.40 |
| 27 | P4 | 169 | LEU | CA-CB-CG | 5.26 | 127.41 | 115.30 |
| 28 | Q5 | 56 | ARG | CG-CD-NE | -5.26 | 100.75 | 111.80 |
| 10 | C | 334 | LEU | CA-CB-CG | 5.26 | 127.40 | 115.30 |
| 11 | R2 | 69 | ASP | CB-CG-OD2 | 5.26 | 123.03 | 118.30 |
| 8 | KM | 160 | ASP | CB-CG-OD1 | 5.26 | 123.03 | 118.30 |
| 9 | VB | 362 | LYS | CD-CE-NZ | -5.26 | 99.61 | 111.70 |
| 31 | Y | 82 | ASP | CB-CG-OD2 | 5.26 | 123.03 | 118.30 |
| 8 | AE | 137 | ILE | CG1-CB-CG2 | -5.25 | 99.84 | 111.40 |
| 14 | D1 | 394 | LYS | CB-CG-CD | -5.25 | 97.94 | 111.60 |
| 24 | O4 | 82 | ASP | CB-CG-OD2 | 5.25 | 123.03 | 118.30 |
| 9 | EB | 257 | MET | CG-SD-CE | 5.25 | 108.60 | 100.20 |
| 9 | JB | 357 | PRO | N-CD-CG | -5.25 | 95.32 | 103.20 |
| 9 | NB | 228 | LEU | CA-CB-CG | 5.25 | 127.38 | 115.30 |
| 9 | OB | 361 | LEU | CA-CB-CG | 5.25 | 127.38 | 115.30 |
| 9 | TD | 233 | MET | CA-CB-CG | 5.25 | 122.23 | 113.30 |
| 30 | V8 | 451 | LEU | CB-CG-CD2 | -5.25 | 102.07 | 111.00 |
| 9 | WB | 388 | MET | CA-CB-CG | 5.25 | 122.23 | 113.30 |
| 8 | GC | 251 | ASP | CB-CG-OD2 | 5.25 | 123.02 | 118.30 |
| 30 | V2 | 206 | LEU | CA-CB-CG | 5.25 | 127.37 | 115.30 |
| 9 | VL | 217 | LEU | CA-CB-CG | 5.25 | 127.37 | 115.30 |
| 9 | IH | 398 | TYR | CB-CG-CD2 | -5.25 | 117.85 | 121.00 |
| 8 | TA | 157 | LEU | CA-CB-CG | 5.24 | 127.36 | 115.30 |
| 47 | p | 304 | MET | CA-CB-CG | 5.24 | 122.21 | 113.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 8 | OG | 313 | MET | CG-SD-CE | -5.24 | 91.81 | 100.20 |
| 34 | X7 | 142 | LEU | CA-CB-CG | 5.24 | 127.35 | 115.30 |
| 47 | p | 384 | GLU | CA-CB-CG | 5.24 | 124.92 | 113.40 |
| 9 | OP | 331 | LEU | CA-CB-CG | 5.24 | 127.34 | 115.30 |
| 25 | V | 448 | MET | CG-SD-CE | 5.23 | 108.58 | 100.20 |
| 9 | AJ | 225 | LEU | CA-CB-CG | 5.23 | 127.33 | 115.30 |
| 9 | CN | 253 | LEU | CA-CB-CG | 5.23 | 127.33 | 115.30 |
| 14 | D4 | 331 | ASP | CB-CG-OD1 | 5.23 | 123.01 | 118.30 |
| 8 | HK | 245 | ASP | CB-CG-OD2 | 5.23 | 123.01 | 118.30 |
| 9 | KP | 1 | MET | CA-CB-CG | 5.23 | 122.19 | 113.30 |
| 9 | VH | 293 | MET | CA-CB-CG | 5.23 | 122.19 | 113.30 |
| 30 | U8 | 173 | LEU | CA-CB-CG | 5.23 | 127.32 | 115.30 |
| 8 | EA | 117 | LEU | CA-CB-CG | 5.23 | 127.32 | 115.30 |
| 8 | CM | 326 | LYS | CA-CB-CG | -5.22 | 101.91 | 113.40 |
| 9 | ML | 323 | MET | CG-SD-CE | -5.22 | 91.84 | 100.20 |
| 35 | XH | 123 | MET | CA-CB-CG | 5.22 | 122.18 | 113.30 |
| 17 | P9 | 187 | LEU | CA-CB-CG | 5.22 | 127.31 | 115.30 |
| 9 | RD | 403 | MET | CA-CB-CG | 5.22 | 122.18 | 113.30 |
| 8 | AI | 47 | ASP | CB-CG-OD2 | 5.22 | 123.00 | 118.30 |
| 19 | J5 | 68 | LEU | CA-CB-CG | 5.22 | 127.31 | 115.30 |
| 8 | LK | 153 | LEU | CB-CG-CD2 | -5.22 | 102.13 | 111.00 |
| 9 | NJ | 41 | ASP | CB-CG-OD1 | 5.22 | 123.00 | 118.30 |
| 8 | RI | 127 | ASP | CB-CG-OD2 | 5.22 | 123.00 | 118.30 |
| 9 | AL | 152 | ILE | CG1-CB-CG2 | -5.22 | 99.92 | 111.40 |
| 8 | LE | 335 | ILE | CG1-CB-CG2 | -5.22 | 99.92 | 111.40 |
| 8 | BI | 7 | ILE | CG1-CB-CG2 | -5.22 | 99.92 | 111.40 |
| 8 | HC | 136 | LEU | CA-CB-CG | 5.22 | 127.30 | 115.30 |
| 12 | S9 | 197 | GLU | CA-CB-CG | 5.22 | 124.88 | 113.40 |
| 9 | PP | 253 | LEU | CA-CB-CG | 5.21 | 127.29 | 115.30 |
| 11 | B2 | 69 | ASP | CB-CG-OD2 | 5.21 | 122.99 | 118.30 |
| 8 | CE | 317 | MET | CB-CG-SD | 5.21 | 128.04 | 112.40 |
| 8 | NK | 195 | LEU | CB-CG-CD1 | -5.21 | 102.14 | 111.00 |
| 8 | GE | 413 | MET | CA-CB-CG | 5.21 | 122.16 | 113.30 |
| 8 | PK | 398 | MET | CA-CB-CG | 5.21 | 122.16 | 113.30 |
| 8 | WA | 413 | MET | CG-SD-CE | -5.21 | 91.86 | 100.20 |
| 8 | KC | 7 | ILE | CG1-CB-CG2 | -5.21 | 99.94 | 111.40 |
| 12 | S0 | 309 | LEU | CA-CB-CG | 5.21 | 127.28 | 115.30 |
| 9 | SB | 388 | MET | CG-SD-CE | 5.21 | 108.53 | 100.20 |
| 39 | b | 443 | ARG | CB-CG-CD | 5.21 | 125.14 | 111.60 |
| 9 | RP | 415 | MET | CA-CB-CG | 5.20 | 122.15 | 113.30 |
| 39 | b | 461 | LYS | CA-CB-CG | 5.20 | 124.85 | 113.40 |
| 46 | i3 | 1344 | LEU | CB-CG-CD2 | 5.20 | 119.84 | 111.00 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 9 | FF | 415 | MET | CA-CB-CG | 5.20 | 122.14 | 113.30 |
| 9 | FN | 363 | MET | CG-SD-CE | 5.20 | 108.52 | 100.20 |
| 27 | P3 | 86 | PHE | C-N-CA | 5.20 | 134.70 | 121.70 |
| 41 | b1 | 357 | MET | CG-SD-CE | -5.20 | 91.88 | 100.20 |
| 8 | IG | 251 | ASP | CB-CG-OD1 | 5.20 | 122.98 | 118.30 |
| 9 | TB | 284 | LEU | CB-CG-CD2 | -5.20 | 102.16 | 111.00 |
| 9 | UB | 44 | LEU | CA-CB-CG | 5.20 | 127.26 | 115.30 |
| 9 | DJ | 118 | ASP | CB-CG-OD2 | 5.20 | 122.98 | 118.30 |
| 9 | RD | 42 | LEU | CB-CG-CD1 | 5.20 | 119.84 | 111.00 |
| 8 | TI | 153 | LEU | CA-CB-CG | 5.20 | 127.26 | 115.30 |
| 25 | U | 45 | MET | CA-CB-CG | 5.20 | 122.14 | 113.30 |
| 9 | BP | 217 | LEU | CA-CB-CG | 5.20 | 127.25 | 115.30 |
| 9 | ON | 253 | LEU | CA-CB-CG | 5.20 | 127.25 | 115.30 |
| 9 | UJ | 147 | MET | CA-CB-CG | 5.20 | 122.13 | 113.30 |
| 9 | PH | 321 | MET | CA-CB-CG | 5.19 | 122.13 | 113.30 |
| 9 | RJ | 112 | LEU | CB-CG-CD1 | -5.19 | 102.17 | 111.00 |
| 9 | TD | 1 | MET | CA-CB-CG | 5.19 | 122.13 | 113.30 |
| 27 | P6 | 111 | PRO | CA-N-CD | -5.19 | 104.23 | 111.50 |
| 9 | TJ | 44 | LEU | CA-CB-CG | 5.19 | 127.23 | 115.30 |
| 8 | DC | 7 | ILE | CG1-CB-CG2 | -5.19 | 99.99 | 111.40 |
| 8 | SC | 1 | MET | CA-CB-CG | 5.19 | 122.12 | 113.30 |
| 9 | EJ | 253 | LEU | CA-CB-CG | 5.19 | 127.23 | 115.30 |
| 8 | KA | 339 | ARG | CA-CB-CG | 5.19 | 124.81 | 113.40 |
| 8 | LI | 322 | ASP | CB-CG-OD2 | 5.19 | 122.97 | 118.30 |
| 8 | BK | 7 | ILE | CG1-CB-CG2 | -5.18 | 100.00 | 111.40 |
| 8 | CC | 326 | LYS | CB-CG-CD | -5.18 | 98.12 | 111.60 |
| 14 | D5 | 345 | ASP | CB-CG-OD1 | 5.18 | 122.97 | 118.30 |
| 8 | VO | 119 | LEU | CA-CB-CG | 5.18 | 127.22 | 115.30 |
| 8 | DE | 189 | LEU | CB-CG-CD1 | 5.18 | 119.81 | 111.00 |
| 9 | EJ | 177 | ASP | CB-CG-OD2 | 5.18 | 122.96 | 118.30 |
| 8 | HA | 7 | ILE | CG1-CB-CG2 | -5.18 | 100.00 | 111.40 |
| 8 | IE | 92 | LEU | CB-CG-CD2 | 5.18 | 119.81 | 111.00 |
| 9 | OD | 273 | LEU | CA-CB-CG | 5.18 | 127.22 | 115.30 |
| 8 | SC | 428 | LEU | CA-CB-CG | 5.18 | 127.21 | 115.30 |
| 9 | WF | 192 | LEU | CA-CB-CG | 5.18 | 127.21 | 115.30 |
| 8 | QE | 167 | LEU | CA-CB-CG | 5.18 | 127.21 | 115.30 |
| 8 | DE | 116 | ASP | CB-CG-OD2 | 5.18 | 122.96 | 118.30 |
| 8 | GG | 313 | MET | CA-CB-CG | 5.18 | 122.10 | 113.30 |
| 9 | QP | 44 | LEU | CA-CB-CG | 5.18 | 127.20 | 115.30 |
| 9 | VJ | 164 | MET | CB-CG-SD | 5.18 | 127.93 | 112.40 |
| 8 | WA | 84 | ARG | CG-CD-NE | 5.17 | 122.66 | 111.80 |
| 10 | C | 306 | LEU | CA-CB-CG | 5.17 | 127.19 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 9 | IB | 330 | MET | CB-CG-SD | 5.17 | 127.91 | 112.40 |
| 8 | NM | 52 | PHE | C-N-CA | 5.17 | 134.63 | 121.70 |
| 30 | U9 | 470 | MET | CG-SD-CE | 5.17 | 108.47 | 100.20 |
| 30 | V0 | 192 | LEU | CA-CB-CG | 5.17 | 127.19 | 115.30 |
| 41 | b1 | 400 | MET | CG-SD-CE | -5.17 | 91.93 | 100.20 |
| 39 | a6 | 121 | LYS | CA-CB-CG | 5.17 | 124.77 | 113.40 |
| 8 | BO | 317 | MET | CA-CB-CG | 5.16 | 122.08 | 113.30 |
| 9 | OJ | 293 | MET | CA-CB-CG | 5.16 | 122.08 | 113.30 |
| 9 | PB | 253 | LEU | CA-CB-CG | 5.16 | 127.17 | 115.30 |
| 14 | T5 | 339 | LEU | CB-CG-CD2 | -5.16 | 102.22 | 111.00 |
| 9 | VD | 1 | MET | CB-CG-SD | -5.16 | 96.91 | 112.40 |
| 8 | CO | 39 | ASP | CB-CG-OD2 | 5.16 | 122.94 | 118.30 |
| 9 | NL | 151 | LEU | CA-CB-CG | 5.16 | 127.17 | 115.30 |
| 9 | PJ | 252 | LYS | CB-CG-CD | 5.16 | 125.01 | 111.60 |
| 8 | SM | 259 | LEU | CA-CB-CG | 5.16 | 127.16 | 115.30 |
| 14 | T1 | 266 | LEU | CA-CB-CG | 5.16 | 127.16 | 115.30 |
| 8 | PC | 70 | LEU | CA-CB-CG | 5.15 | 127.15 | 115.30 |
| 9 | QJ | 44 | LEU | CA-CB-CG | 5.15 | 127.15 | 115.30 |
| 8 | WO | 167 | LEU | CA-CB-CG | 5.15 | 127.15 | 115.30 |
| 14 | D5 | 331 | ASP | CB-CG-OD1 | 5.15 | 122.94 | 118.30 |
| 8 | SA | 269 | LEU | CA-CB-CG | 5.15 | 127.15 | 115.30 |
| 8 | KC | 327 | ASP | CB-CG-OD2 | 5.15 | 122.93 | 118.30 |
| 8 | NA | 275 | VAL | CG1-CB-CG2 | -5.15 | 102.67 | 110.90 |
| 9 | AJ | 130 | LEU | CA-CB-CG | 5.14 | 127.13 | 115.30 |
| 9 | GN | 44 | LEU | CA-CB-CG | 5.14 | 127.13 | 115.30 |
| 1 | 7 | 63 | ASP | CB-CG-OD1 | 5.14 | 122.93 | 118.30 |
| 11 | B1 | 125 | ASP | CB-CG-OD1 | 5.14 | 122.93 | 118.30 |
| 8 | VO | 26 | LEU | CA-CB-CG | 5.14 | 127.13 | 115.30 |
| 11 | B3 | 175 | ASP | CB-CG-OD2 | 5.14 | 122.93 | 118.30 |
| 8 | NM | 397 | LEU | CA-CB-CG | 5.14 | 127.12 | 115.30 |
| 47 | p | 483 | TYR | OH-CZ-CE2 | -5.14 | 106.22 | 120.10 |
| 14 | T2 | 380 | GLU | CA-CB-CG | -5.14 | 102.10 | 113.40 |
| 7 | A3 | 232 | LEU | CA-CB-CG | 5.14 | 127.11 | 115.30 |
| 10 | C | 375 | PHE | CB-CG-CD2 | -5.14 | 117.20 | 120.80 |
| 9 | MP | 44 | LEU | CA-CB-CG | 5.14 | 127.11 | 115.30 |
| 9 | DD | 44 | LEU | CA-CB-CG | 5.13 | 127.11 | 115.30 |
| 9 | EB | 257 | MET | CB-CG-SD | 5.13 | 127.80 | 112.40 |
| 9 | SN | 388 | MET | CG-SD-CE | 5.13 | 108.41 | 100.20 |
| 8 | IE | 252 | LEU | CA-CB-CG | 5.13 | 127.10 | 115.30 |
| 14 | T5 | 339 | LEU | CB-CG-CD1 | 5.13 | 119.72 | 111.00 |
| 30 | V1 | 341 | LEU | CA-CB-CG | 5.13 | 127.10 | 115.30 |
| 34 | X6 | 248 | LEU | CA-CB-CG | 5.13 | 127.10 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 6 | A | 34 | MET | CG-SD-CE | 5.13 | 108.41 | 100.20 |
| 9 | TJ | 151 | LEU | CA-CB-CG | 5.13 | 127.10 | 115.30 |
| 8 | VK | 413 | MET | CA-CB-CG | 5.13 | 122.02 | 113.30 |
| 9 | CB | 380 | ARG | CG-CD-NE | -5.13 | 101.03 | 111.80 |
| 8 | FM | 23 | LEU | CA-CB-CG | 5.13 | 127.09 | 115.30 |
| 30 | V7 | 367 | GLU | OE1-CD-OE2 | -5.13 | 117.15 | 123.30 |
| 25 | T | 321 | LEU | CA-CB-CG | 5.12 | 127.09 | 115.30 |
| 9 | HD | 289 | LEU | CA-CB-CG | 5.12 | 127.08 | 115.30 |
| 30 | U0 | 391 | MET | CG-SD-CE | -5.12 | 92.00 | 100.20 |
| 36 | Y2 | 214 | LEU | CA-CB-CG | 5.12 | 127.08 | 115.30 |
| 8 | JK | 424 | ASP | CB-CG-OD2 | 5.12 | 122.91 | 118.30 |
| 30 | V7 | 253 | ASP | CB-CG-OD2 | 5.12 | 122.91 | 118.30 |
| 9 | OH | 246 | LEU | CB-CG-CD1 | -5.12 | 102.30 | 111.00 |
| 12 | S3 | 438 | LEU | CA-CB-CG | 5.12 | 127.07 | 115.30 |
| 9 | NF | 323 | MET | CA-CB-CG | -5.12 | 104.61 | 113.30 |
| 8 | DO | 425 | LEU | CA-CB-CG | 5.11 | 127.06 | 115.30 |
| 30 | U3 | 310 | MET | CB-CG-SD | 5.11 | 127.74 | 112.40 |
| 40 | a4 | 101 | GLN | CA-CB-CG | 5.11 | 124.65 | 113.40 |
| 30 | U6 | 101 | LEU | CA-CB-CG | 5.11 | 127.05 | 115.30 |
| 9 | BH | 44 | LEU | CA-CB-CG | 5.11 | 127.05 | 115.30 |
| 9 | MN | 323 | MET | CG-SD-CE | -5.11 | 92.03 | 100.20 |
| 9 | DD | 187 | LEU | CA-CB-CG | 5.11 | 127.04 | 115.30 |
| 9 | GD | 359 | ARG | C-N-CA | -5.10 | 111.58 | 122.30 |
| 8 | SE | 398 | MET | CG-SD-CE | -5.10 | 92.03 | 100.20 |
| 9 | UH | 284 | LEU | CA-CB-CG | 5.10 | 127.04 | 115.30 |
| 4 | 5 | 316 | ASP | CB-CG-OD2 | 5.10 | 122.89 | 118.30 |
| 9 | JF | 253 | LEU | CA-CB-CG | 5.10 | 127.04 | 115.30 |
| 8 | QK | 136 | LEU | CA-CB-CG | 5.10 | 127.03 | 115.30 |
| 9 | MH | 257 | MET | CA-CB-CG | -5.10 | 104.63 | 113.30 |
| 8 | VK | 375 | VAL | CG1-CB-CG2 | -5.10 | 102.74 | 110.90 |
| 8 | PI | 26 | LEU | CA-CB-CG | 5.10 | 127.03 | 115.30 |
| 8 | SG | 269 | LEU | CA-CB-CG | 5.10 | 127.03 | 115.30 |
| 8 | MM | 60 | LYS | CD-CE-NZ | -5.10 | 99.98 | 111.70 |
| 9 | OJ | 59 | TYR | CB-CG-CD2 | -5.09 | 117.94 | 121.00 |
| 36 | Y2 | 246 | MET | CG-SD-CE | -5.09 | 92.05 | 100.20 |
| 8 | TM | 154 | MET | CG-SD-CE | 5.09 | 108.35 | 100.20 |
| 30 | U0 | 205 | ASP | CB-CG-OD1 | 5.09 | 122.88 | 118.30 |
| 8 | IG | 317 | MET | CB-CG-SD | 5.09 | 127.67 | 112.40 |
| 8 | SA | 302 | MET | CA-CB-CG | 5.09 | 121.95 | 113.30 |
| 9 | VJ | 295 | ASP | CB-CG-OD1 | 5.09 | 122.88 | 118.30 |
| 9 | WP | 147 | MET | CA-CB-CG | 5.09 | 121.95 | 113.30 |
| 3 | 3 | 390 | MET | CA-CB-CG | 5.09 | 121.95 | 113.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 5 | 8 | 134 | PRO | CA-N-CD | -5.09 | 104.38 | 111.50 |
| 9 | DB | 323 | MET | CA-CB-CG | -5.09 | 104.65 | 113.30 |
| 9 | QN | 406 | MET | CA-CB-CG | 5.09 | 121.95 | 113.30 |
| 9 | UN | 406 | MET | CA-CB-CG | 5.09 | 121.95 | 113.30 |
| 9 | DH | 118 | ASP | CB-CG-OD2 | 5.08 | 122.87 | 118.30 |
| 8 | IM | 307 | PRO | CA-CB-CG | -5.08 | 94.35 | 104.00 |
| 8 | UC | 397 | LEU | CA-CB-CG | 5.08 | 126.99 | 115.30 |
| 37 | YA | 87 | LEU | CB-CG-CD2 | 5.08 | 119.64 | 111.00 |
| 9 | QF | 406 | MET | CA-CB-CG | 5.08 | 121.93 | 113.30 |
| 42 | f | 100 | LYS | CA-CB-CG | 5.08 | 124.57 | 113.40 |
| 9 | AB | 328 | GLU | CA-CB-CG | 5.08 | 124.57 | 113.40 |
| 47 | p | 257 | GLU | CA-CB-CG | 5.08 | 124.56 | 113.40 |
| 9 | IL | 299 | MET | CB-CG-SD | -5.07 | 97.18 | 112.40 |
| 9 | QD | 406 | MET | CA-CB-CG | 5.07 | 121.92 | 113.30 |
| 9 | SJ | 44 | LEU | CA-CB-CG | 5.07 | 126.97 | 115.30 |
| 39 | c | 274 | LEU | CA-CB-CG | 5.07 | 126.97 | 115.30 |
| 9 | KB | 220 | PRO | N-CD-CG | -5.07 | 95.59 | 103.20 |
| 30 | W0 | 443 | LEU | CA-CB-CG | 5.07 | 126.97 | 115.30 |
| 9 | IP | 147 | MET | CA-CB-CG | 5.07 | 121.92 | 113.30 |
| 23 | Q | 300 | ARG | CG-CD-NE | 5.07 | 122.45 | 111.80 |
| 8 | FO | 242 | LEU | CA-CB-CG | 5.07 | 126.96 | 115.30 |
| 8 | CI | 7 | ILE | CG1-CB-CG2 | -5.07 | 100.25 | 111.40 |
| 8 | MK | 322 | ASP | CB-CG-OD1 | 5.07 | 122.86 | 118.30 |
| 9 | RN | 377 | LEU | CA-CB-CG | 5.07 | 126.95 | 115.30 |
| 9 | LH | 203 | ASP | CB-CG-OD1 | 5.07 | 122.86 | 118.30 |
| 9 | NJ | 249 | ASP | CB-CG-OD2 | 5.07 | 122.86 | 118.30 |
| 9 | PH | 331 | LEU | CA-CB-CG | 5.07 | 126.95 | 115.30 |
| 14 | T1 | 405 | LEU | CA-CB-CG | 5.07 | 126.95 | 115.30 |
| 8 | KM | 117 | LEU | CA-CB-CG | 5.06 | 126.94 | 115.30 |
| 9 | SL | 139 | LEU | CB-CG-CD2 | -5.06 | 102.39 | 111.00 |
| 30 | V5 | 470 | MET | CG-SD-CE | 5.06 | 108.30 | 100.20 |
| 8 | UA | 157 | LEU | CB-CG-CD2 | 5.06 | 119.60 | 111.00 |
| 8 | WC | 318 | LEU | CA-CB-CG | 5.06 | 126.94 | 115.30 |
| 8 | KM | 189 | LEU | CA-CB-CG | 5.06 | 126.93 | 115.30 |
| 25 | U | 506 | LEU | CA-CB-CG | 5.06 | 126.93 | 115.30 |
| 9 | HJ | 404 | ASP | CB-CG-OD1 | 5.06 | 122.85 | 118.30 |
| 9 | MD | 150 | LEU | CB-CG-CD2 | 5.05 | 119.59 | 111.00 |
| 8 | IO | 203 | MET | CB-CG-SD | 5.05 | 127.56 | 112.40 |
| 12 | S2 | 220 | LEU | CA-CB-CG | 5.05 | 126.92 | 115.30 |
| 9 | CP | 267 | MET | CA-CB-CG | 5.05 | 121.89 | 113.30 |
| 9 | MF | 377 | LEU | CA-CB-CG | 5.05 | 126.91 | 115.30 |
| 8 | OA | 259 | LEU | CA-CB-CG | 5.05 | 126.91 | 115.30 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|------|------|------------|-------|-------------|----------|
| 12 | S4 | 306 | ASP | CB-CG-OD1 | 5.05 | 122.84 | 118.30 |
| 9 | VL | 117 | LEU | CB-CG-CD2 | 5.05 | 119.59 | 111.00 |
| 9 | TJ | 1 | MET | CA-CB-CG | 5.05 | 121.88 | 113.30 |
| 8 | FI | 345 | ASP | CB-CG-OD2 | 5.05 | 122.84 | 118.30 |
| 9 | RP | 300 | MET | CA-CB-CG | 5.05 | 121.88 | 113.30 |
| 9 | VN | 415 | MET | CA-CB-CG | 5.05 | 121.88 | 113.30 |
| 25 | T | 321 | LEU | CB-CG-CD2 | 5.04 | 119.58 | 111.00 |
| 8 | CC | 425 | LEU | CB-CG-CD2 | -5.04 | 102.43 | 111.00 |
| 8 | SK | 378 | LEU | CA-CB-CG | 5.04 | 126.90 | 115.30 |
| 30 | W2 | 391 | MET | CG-SD-CE | 5.04 | 108.26 | 100.20 |
| 9 | PJ | 286 | VAL | CA-CB-CG2 | -5.04 | 103.34 | 110.90 |
| 8 | WA | 7 | ILE | CG1-CB-CG2 | -5.04 | 100.32 | 111.40 |
| 8 | WG | 7 | ILE | CG1-CB-CG2 | -5.03 | 100.34 | 111.40 |
| 14 | T0 | 15 | GLN | CA-CB-CG | 5.03 | 124.46 | 113.40 |
| 9 | HD | 406 | MET | CA-CB-CG | 5.03 | 121.84 | 113.30 |
| 9 | VJ | 289 | LEU | CA-CB-CG | 5.03 | 126.86 | 115.30 |
| 46 | i2 | 1494 | LEU | CA-CB-CG | 5.03 | 126.86 | 115.30 |
| 9 | TB | 130 | LEU | CA-CB-CG | 5.02 | 126.85 | 115.30 |
| 30 | U3 | 310 | MET | CG-SD-CE | 5.02 | 108.23 | 100.20 |
| 30 | V5 | 310 | MET | CB-CG-SD | -5.02 | 97.33 | 112.40 |
| 9 | EJ | 257 | MET | CB-CG-SD | 5.02 | 127.46 | 112.40 |
| 8 | HO | 114 | ILE | CG1-CB-CG2 | -5.02 | 100.35 | 111.40 |
| 9 | LN | 377 | LEU | CA-CB-CG | 5.02 | 126.85 | 115.30 |
| 8 | TA | 397 | LEU | CA-CB-CG | 5.02 | 126.84 | 115.30 |
| 43 | i | 63 | LEU | CB-CG-CD2 | -5.02 | 102.47 | 111.00 |
| 4 | j1 | 273 | LEU | CA-CB-CG | 5.02 | 126.84 | 115.30 |
| 47 | p | 402 | LYS | CA-CB-CG | 5.02 | 124.44 | 113.40 |
| 9 | ID | 209 | ASP | CB-CG-OD2 | 5.02 | 122.82 | 118.30 |
| 9 | ML | 44 | LEU | CA-CB-CG | 5.02 | 126.84 | 115.30 |
| 29 | R | 69 | MET | CB-CG-SD | -5.02 | 97.35 | 112.40 |
| 8 | DI | 128 | LEU | CA-CB-CG | 5.02 | 126.84 | 115.30 |
| 13 | K3 | 414 | LEU | CA-CB-CG | 5.02 | 126.84 | 115.30 |
| 8 | KG | 338 | LYS | CA-CB-CG | 5.02 | 124.43 | 113.40 |
| 11 | R4 | 108 | LEU | CA-CB-CG | 5.02 | 126.84 | 115.30 |
| 30 | V7 | 366 | GLN | CA-CB-CG | 5.02 | 124.44 | 113.40 |
| 8 | FA | 280 | LYS | CA-CB-CG | 5.01 | 124.43 | 113.40 |
| 9 | FB | 311 | LEU | CA-CB-CG | 5.01 | 126.83 | 115.30 |
| 9 | KH | 187 | LEU | CB-CG-CD1 | 5.01 | 119.53 | 111.00 |
| 9 | KL | 187 | LEU | CB-CG-CD1 | 5.01 | 119.52 | 111.00 |
| 7 | A3 | 389 | LEU | CA-CB-CG | 5.01 | 126.83 | 115.30 |
| 8 | SG | 128 | LEU | CA-CB-CG | 5.01 | 126.83 | 115.30 |
| 36 | Y0 | 19 | ILE | CG1-CB-CG2 | -5.01 | 100.38 | 111.40 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 12 | S3 | 165 | ASP | CB-CG-OD1 | 5.01 | 122.81 | 118.30 |
| 9 | JL | 68 | LEU | CB-CG-CD1 | -5.00 | 102.49 | 111.00 |
| 8 | MC | 242 | LEU | CA-CB-CG | 5.00 | 126.81 | 115.30 |
| 9 | NB | 44 | LEU | CA-CB-CG | 5.00 | 126.81 | 115.30 |
| 12 | S9 | 484 | LEU | CA-CB-CG | 5.00 | 126.81 | 115.30 |
| 9 | SJ | 267 | MET | CA-CB-CG | 5.00 | 121.80 | 113.30 |

There are no chirality outliers.

All (52) planarity outliers are listed below:

| Mol | Chain | Res | Type | Group |
|-----|-------|-----|------|-----------|
| 2 | 2 | 277 | ARG | Sidechain |
| 2 | 2 | 503 | ARG | Sidechain |
| 3 | 3 | 339 | GLN | Mainchain |
| 4 | 5 | 62 | ARG | Sidechain |
| 9 | AJ | 262 | ARG | Sidechain |
| 9 | AL | 241 | ARG | Sidechain |
| 8 | AM | 221 | ARG | Sidechain |
| 11 | B5 | 266 | ARG | Sidechain |
| 9 | BD | 320 | ARG | Sidechain |
| 8 | CM | 221 | ARG | Sidechain |
| 14 | D3 | 230 | ARG | Sidechain |
| 8 | EE | 339 | ARG | Sidechain |
| 8 | FA | 123 | ARG | Sidechain |
| 9 | HN | 276 | ARG | Sidechain |
| 9 | IB | 306 | ARG | Sidechain |
| 8 | IE | 84 | ARG | Sidechain |
| 8 | JE | 221 | ARG | Sidechain |
| 9 | JF | 77 | ARG | Sidechain |
| 8 | JM | 221 | ARG | Sidechain |
| 9 | LF | 390 | ARG | Sidechain |
| 9 | LH | 276 | ARG | Sidechain |
| 22 | M1 | 191 | ARG | Sidechain |
| 8 | NG | 221 | ARG | Sidechain |
| 9 | NL | 359 | ARG | Sidechain |
| 9 | NN | 282 | ARG | Sidechain |
| 24 | O3 | 143 | ARG | Sidechain |
| 25 | O5 | 502 | ARG | Sidechain |
| 17 | O8 | 183 | ARG | Sidechain |
| 9 | OF | 306 | ARG | Sidechain |
| 9 | PF | 86 | ARG | Sidechain |
| 28 | Q1 | 158 | ALA | Mainchain |

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| Mol | Chain | Res | Type | Group |
|-----|-------|------|------|-----------|
| 28 | Q2 | 158 | ALA | Mainchain |
| 28 | Q3 | 158 | ALA | Mainchain |
| 28 | Q4 | 158 | ALA | Mainchain |
| 28 | Q5 | 56 | ARG | Sidechain |
| 12 | S0 | 485 | ARG | Sidechain |
| 12 | S3 | 126 | ARG | Sidechain |
| 12 | S5 | 289 | ARG | Sidechain |
| 12 | S6 | 183 | ARG | Sidechain |
| 12 | S9 | 439 | ARG | Sidechain |
| 14 | T2 | 403 | ARG | Sidechain |
| 30 | U3 | 73 | ARG | Sidechain |
| 30 | U8 | 415 | ARG | Sidechain |
| 8 | VE | 2 | ARG | Sidechain |
| 8 | VM | 243 | ARG | Sidechain |
| 8 | WI | 221 | ARG | Sidechain |
| 35 | XF | 170 | ARG | Sidechain |
| 36 | Y5 | 205 | ARG | Sidechain |
| 31 | Z | 280 | ARG | Sidechain |
| 40 | a4 | 159 | ARG | Sidechain |
| 46 | i3 | 1475 | ARG | Sidechain |
| 4 | j1 | 63 | ARG | Sidechain |

5.2 Too-close contacts [i](#)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

There are no protein backbone outliers to report in this entry.

5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 532 ligands modelled in this entry, 178 are monoatomic - leaving 354 for Mogul analysis.

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

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 52 | GDP | PH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | RL | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | HI | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | QN | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | EO | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 52 | GDP | MH | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | UF | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | VJ | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 50 | GTP | SC | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.52 | 7 (21%) |
| 50 | GTP | CC | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | DQ | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 50 | GTP | PC | 501 | - | 26,34,34 | 1.11 | 2 (7%) | 32,54,54 | 1.55 | 6 (18%) |
| 50 | GTP | AI | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.64 | 7 (21%) |
| 52 | GDP | CB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | HE | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | PE | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.57 | 6 (18%) |
| 50 | GTP | TE | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 50 | GTP | DK | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 50 | GTP | AA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | SF | 502 | - | 24,30,30 | 0.91 | 1 (4%) | 30,47,47 | 1.34 | 5 (16%) |
| 50 | GTP | VK | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | RM | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 50 | GTP | NK | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | QC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | QI | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.60 | 6 (18%) |
| 52 | GDP | BB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | WB | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | WC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | KP | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | VD | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 50 | GTP | KM | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 50 | GTP | EK | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | LH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 5 (16%) |
| 52 | GDP | VH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | GI | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | LF | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.40 | 4 (13%) |
| 50 | GTP | FI | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | PB | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | OK | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | LD | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.31 | 5 (16%) |
| 52 | GDP | MF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.38 | 4 (13%) |
| 52 | GDP | TN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | UJ | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.26 | 4 (13%) |
| 50 | GTP | CG | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 52 | GDP | JP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.26 | 4 (13%) |
| 50 | GTP | UC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 50 | GTP | JK | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.67 | 7 (21%) |
| 52 | GDP | GJ | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.25 | 5 (16%) |
| 50 | GTP | WI | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | WH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | CI | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | MG | 501 | - | 26,34,34 | 1.20 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | RD | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 52 | GDP | HH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 50 | GTP | KG | 501 | - | 26,34,34 | 1.19 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | AF | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | LL | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.33 | 5 (16%) |
| 50 | GTP | KC | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | KL | 502 | - | 24,30,30 | 0.97 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | RF | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | AO | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | MJ | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.43 | 4 (13%) |
| 52 | GDP | VN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 50 | GTP | AC | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | RN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | WF | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 50 | GTP | RK | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | VF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | EN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | QD | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | OE | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.57 | 6 (18%) |
| 50 | GTP | KK | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | JN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 52 | GDP | WJ | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 50 | GTP | BC | 501 | - | 26,34,34 | 1.11 | 2 (7%) | 32,54,54 | 1.61 | 6 (18%) |
| 50 | GTP | GO | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.56 | 6 (18%) |
| 52 | GDP | OH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | GG | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.54 | 6 (18%) |
| 52 | GDP | KF | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.33 | 5 (16%) |
| 52 | GDP | IH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | WL | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | CP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | DL | 502 | - | 24,30,30 | 0.98 | 1 (4%) | 30,47,47 | 1.28 | 5 (16%) |
| 50 | GTP | PM | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.57 | 6 (18%) |
| 50 | GTP | BO | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 52 | GDP | NH | 502 | - | 24,30,30 | 0.92 | 1 (4%) | 30,47,47 | 1.43 | 4 (13%) |
| 50 | GTP | JE | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | PN | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 52 | GDP | NF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.36 | 4 (13%) |
| 52 | GDP | MN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 50 | GTP | EI | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | BH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 52 | GDP | QH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.23 | 4 (13%) |
| 52 | GDP | PL | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | HK | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 50 | GTP | SI | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.52 | 7 (21%) |
| 50 | GTP | NG | 501 | - | 26,34,34 | 1.20 | 2 (7%) | 32,54,54 | 1.65 | 7 (21%) |
| 50 | GTP | GM | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | FK | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 52 | GDP | KD | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 52 | GDP | GD | 502 | - | 24,30,30 | 1.03 | 1 (4%) | 30,47,47 | 1.24 | 4 (13%) |
| 52 | GDP | WN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.26 | 4 (13%) |
| 52 | GDP | HB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | TB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.34 | 5 (16%) |
| 52 | GDP | GL | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 52 | GDP | PD | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | UH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 50 | GTP | JG | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.59 | 6 (18%) |
| 52 | GDP | EF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 5 (16%) |
| 50 | GTP | QK | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | QP | 502 | - | 24,30,30 | 0.92 | 1 (4%) | 30,47,47 | 1.32 | 5 (16%) |
| 52 | GDP | OB | 502 | - | 24,30,30 | 1.01 | 1 (4%) | 30,47,47 | 1.36 | 4 (13%) |
| 52 | GDP | TD | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | TH | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | OC | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 50 | GTP | MM | 501 | - | 26,34,34 | 1.17 | 1 (3%) | 32,54,54 | 1.65 | 7 (21%) |
| 50 | GTP | JQ | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | AN | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.35 | 4 (13%) |
| 52 | GDP | BP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | CH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 52 | GDP | AP | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 52 | GDP | HP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.26 | 4 (13%) |
| 50 | GTP | BK | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 50 | GTP | NI | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.63 | 7 (21%) |
| 52 | GDP | IN | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 52 | GDP | IF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | TL | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | EE | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | FN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 52 | GDP | JH | 502 | - | 24,30,30 | 1.01 | 1 (4%) | 30,47,47 | 1.36 | 4 (13%) |
| 50 | GTP | QO | 501 | - | 26,34,34 | 1.10 | 1 (3%) | 32,54,54 | 1.56 | 6 (18%) |
| 50 | GTP | VE | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | EL | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | WM | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | OP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 50 | GTP | DO | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 50 | GTP | SK | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 52 | GDP | DF | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | RJ | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | LK | 501 | - | 26,34,34 | 1.20 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 52 | GDP | BF | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 52 | GDP | SD | 502 | - | 24,30,30 | 0.92 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | CQ | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | LG | 501 | - | 26,34,34 | 1.19 | 2 (7%) | 32,54,54 | 1.62 | 7 (21%) |
| 50 | GTP | GE | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | EA | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | VC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | GN | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | IO | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.65 | 6 (18%) |
| 50 | GTP | VO | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 50 | GTP | MK | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | DJ | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | CO | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | KB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.36 | 4 (13%) |
| 50 | GTP | AG | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.62 | 7 (21%) |
| 50 | GTP | CM | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 52 | GDP | IL | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | IG | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.63 | 6 (18%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 50 | GTP | GA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | JO | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.69 | 7 (21%) |
| 50 | GTP | FM | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | TG | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 50 | GTP | TM | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 52 | GDP | KH | 502 | - | 24,30,30 | 0.97 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | NB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | WP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | EJ | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | NA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | MP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 50 | GTP | UA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | MO | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | UL | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | TJ | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | PP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | VM | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | AH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.36 | 4 (13%) |
| 52 | GDP | GH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 50 | GTP | DC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | ML | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 5 (16%) |
| 52 | GDP | JJ | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 52 | GDP | EB | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.27 | 5 (16%) |
| 52 | GDP | SL | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | EH | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | HA | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.53 | 7 (21%) |
| 52 | GDP | KJ | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.40 | 5 (16%) |
| 52 | GDP | ED | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | NJ | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.41 | 4 (13%) |
| 50 | GTP | KO | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | GF | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.28 | 5 (16%) |
| 52 | GDP | SN | 502 | - | 24,30,30 | 0.92 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | TA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.53 | 7 (21%) |
| 50 | GTP | SG | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.51 | 6 (18%) |
| 52 | GDP | BL | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 52 | GDP | UB | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 50 | GTP | BG | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.63 | 7 (21%) |
| 50 | GTP | MC | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.51 | 6 (18%) |
| 52 | GDP | QB | 502 | - | 24,30,30 | 0.92 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | UE | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.54 | 6 (18%) |
| 52 | GDP | JF | 502 | - | 24,30,30 | 0.92 | 1 (4%) | 30,47,47 | 1.29 | 3 (10%) |
| 50 | GTP | SM | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.53 | 7 (21%) |
| 50 | GTP | JC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | FB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | OA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 52 | GDP | CJ | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.36 | 4 (13%) |
| 50 | GTP | PO | 501 | - | 26,34,34 | 1.11 | 2 (7%) | 32,54,54 | 1.58 | 6 (18%) |
| 52 | GDP | AJ | 502 | - | 24,30,30 | 0.97 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 50 | GTP | QE | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | LN | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 50 | GTP | ME | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.64 | 6 (18%) |
| 50 | GTP | SE | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.52 | 7 (21%) |
| 50 | GTP | RI | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | DM | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | QG | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 50 | GTP | LE | 501 | - | 26,34,34 | 1.20 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | BE | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 50 | GTP | NO | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | EG | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | HN | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | OD | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | CD | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | TK | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | FG | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | CF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | KN | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | LA | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | UI | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 52 | GDP | BJ | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | MI | 501 | - | 26,34,34 | 1.20 | 1 (3%) | 32,54,54 | 1.59 | 7 (21%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 50 | GTP | UG | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | VB | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | GC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.54 | 6 (18%) |
| 50 | GTP | WK | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.57 | 6 (18%) |
| 50 | GTP | UO | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | DN | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | RP | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | RG | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | IC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | KA | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | UM | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | WO | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | DP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 52 | GDP | ND | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | NL | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | HC | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | JM | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.62 | 6 (18%) |
| 50 | GTP | NM | 501 | - | 26,34,34 | 1.13 | 1 (3%) | 32,54,54 | 1.60 | 7 (21%) |
| 52 | GDP | NN | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.34 | 4 (13%) |
| 50 | GTP | RE | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | IM | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.62 | 7 (21%) |
| 50 | GTP | NC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 50 | GTP | AE | 501 | - | 26,34,34 | 1.19 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 52 | GDP | AL | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.38 | 4 (13%) |
| 52 | GDP | AD | 502 | - | 24,30,30 | 0.97 | 1 (4%) | 30,47,47 | 1.37 | 4 (13%) |
| 50 | GTP | AM | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | UD | 502 | - | 24,30,30 | 0.92 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | HL | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |
| 50 | GTP | PI | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 50 | GTP | WA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 50 | GTP | DG | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | PJ | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |
| 50 | GTP | IA | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | CE | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | IE | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 50 | GTP | TC | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | FL | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.36 | 4 (13%) |
| 50 | GTP | QM | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 52 | GDP | DB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | JB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | RH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | IJ | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | NE | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.52 | 7 (21%) |
| 50 | GTP | OG | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | FJ | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.30 | 3 (10%) |
| 52 | GDP | MB | 502 | - | 24,30,30 | 0.90 | 1 (4%) | 30,47,47 | 1.25 | 4 (13%) |
| 50 | GTP | OI | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.57 | 6 (18%) |
| 52 | GDP | FH | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |
| 50 | GTP | LO | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | OM | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | AK | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.62 | 7 (21%) |
| 50 | GTP | PK | 501 | - | 26,34,34 | 1.11 | 2 (7%) | 32,54,54 | 1.55 | 6 (18%) |
| 50 | GTP | II | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.62 | 7 (21%) |
| 52 | GDP | UN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 52 | GDP | SH | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | DH | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 52 | GDP | IP | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.43 | 5 (16%) |
| 50 | GTP | EC | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 50 | GTP | MA | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.53 | 7 (21%) |
| 50 | GTP | LC | 501 | - | 26,34,34 | 1.22 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 50 | GTP | LI | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 50 | GTP | VA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | UK | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.57 | 7 (21%) |
| 52 | GDP | TF | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | LB | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | KI | 501 | - | 26,34,34 | 1.20 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 50 | GTP | SA | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 52 | GDP | QL | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | VI | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.57 | 6 (18%) |
| 50 | GTP | RO | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 50 | GTP | FE | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 52 | GDP | HF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | FO | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | WG | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | ID | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | LJ | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.38 | 4 (13%) |
| 52 | GDP | SB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | JI | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | CN | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 50 | GTP | PG | 501 | - | 26,34,34 | 1.09 | 1 (3%) | 32,54,54 | 1.62 | 7 (21%) |
| 50 | GTP | HO | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.58 | 8 (25%) |
| 52 | GDP | BN | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 52 | GDP | LP | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.25 | 4 (13%) |
| 52 | GDP | JL | 502 | - | 24,30,30 | 0.97 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 50 | GTP | CK | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.67 | 7 (21%) |
| 52 | GDP | BD | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | OO | 501 | - | 26,34,34 | 1.12 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 52 | GDP | FF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 50 | GTP | BM | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | IB | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |
| 52 | GDP | MD | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.28 | 4 (13%) |
| 50 | GTP | BI | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.65 | 7 (21%) |
| 50 | GTP | WE | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.56 | 7 (21%) |
| 52 | GDP | QF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.26 | 4 (13%) |
| 50 | GTP | GK | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.53 | 7 (21%) |
| 50 | GTP | LM | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.55 | 7 (21%) |
| 52 | GDP | DD | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | OJ | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.37 | 6 (20%) |
| 52 | GDP | HJ | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.23 | 4 (13%) |
| 52 | GDP | OF | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.33 | 4 (13%) |
| 52 | GDP | CL | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 52 | GDP | FD | 502 | - | 24,30,30 | 0.96 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |
| 50 | GTP | FC | 501 | - | 26,34,34 | 1.18 | 2 (7%) | 32,54,54 | 1.60 | 7 (21%) |
| 50 | GTP | HG | 501 | - | 26,34,34 | 1.19 | 2 (7%) | 32,54,54 | 1.62 | 7 (21%) |
| 52 | GDP | AB | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |

| Mol | Type | Chain | Res | Link | Bond lengths | | | Bond angles | | |
|-----|------|-------|-----|------|--------------|------|----------|-------------|------|----------|
| | | | | | Counts | RMSZ | # Z > 2 | Counts | RMSZ | # Z > 2 |
| 50 | GTP | FA | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 50 | GTP | DE | 501 | - | 26,34,34 | 1.15 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 50 | GTP | HM | 501 | - | 26,34,34 | 1.17 | 2 (7%) | 32,54,54 | 1.59 | 7 (21%) |
| 52 | GDP | JD | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.27 | 4 (13%) |
| 52 | GDP | ON | 502 | - | 24,30,30 | 0.99 | 1 (4%) | 30,47,47 | 1.28 | 5 (16%) |
| 50 | GTP | IK | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.64 | 7 (21%) |
| 50 | GTP | VG | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.58 | 7 (21%) |
| 52 | GDP | GB | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.24 | 4 (13%) |
| 52 | GDP | HD | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.26 | 4 (13%) |
| 52 | GDP | OL | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |
| 50 | GTP | DI | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.61 | 7 (21%) |
| 52 | GDP | QJ | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.24 | 4 (13%) |
| 52 | GDP | SJ | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | NP | 502 | - | 24,30,30 | 0.93 | 1 (4%) | 30,47,47 | 1.32 | 4 (13%) |
| 52 | GDP | PF | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.30 | 4 (13%) |
| 50 | GTP | TI | 501 | - | 26,34,34 | 1.14 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 50 | GTP | KE | 501 | - | 26,34,34 | 1.19 | 1 (3%) | 32,54,54 | 1.53 | 7 (21%) |
| 50 | GTP | RC | 501 | - | 26,34,34 | 1.13 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 50 | GTP | EM | 501 | - | 26,34,34 | 1.16 | 2 (7%) | 32,54,54 | 1.54 | 7 (21%) |
| 52 | GDP | VL | 502 | - | 24,30,30 | 0.94 | 1 (4%) | 30,47,47 | 1.31 | 4 (13%) |
| 52 | GDP | WD | 502 | - | 24,30,30 | 0.95 | 1 (4%) | 30,47,47 | 1.29 | 4 (13%) |

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

| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 52 | GDP | PH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | RL | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | HI | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | QN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | EO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | MH | 502 | - | - | 4/12/32/32 | 0/3/3/3 |
| 52 | GDP | UF | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | VJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | SC | 501 | - | - | 7/18/38/38 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 50 | GTP | CC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | DQ | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | PC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | AI | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | CB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | HE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | PE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | TE | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | DK | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | AA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | SF | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | VK | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | RM | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | NK | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 50 | GTP | QC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | QI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | BB | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | WB | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | WC | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | KP | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | VD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | KM | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 50 | GTP | EK | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | LH | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 52 | GDP | VH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | GI | 501 | - | - | 4/18/38/38 | 0/3/3/3 |
| 52 | GDP | LF | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | FI | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | PB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | OK | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | LD | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 52 | GDP | MF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | TN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | UJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | CG | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | JP | 502 | - | - | 0/12/32/32 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 50 | GTP | UC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | JK | 501 | - | - | 4/18/38/38 | 0/3/3/3 |
| 52 | GDP | GJ | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 50 | GTP | WI | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | WH | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | CI | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 50 | GTP | MG | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | RD | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | HH | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | KG | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 52 | GDP | AF | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | LL | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 50 | GTP | KC | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 52 | GDP | KL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | RF | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | AO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | MJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | VN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | AC | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | RN | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | WF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | RK | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | VF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | EN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | QD | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | OE | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | KK | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | JN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | WJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | BC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | GO | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | OH | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | GG | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | KF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | IH | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | WL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | CP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | DL | 502 | - | - | 2/12/32/32 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 50 | GTP | PM | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | BO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | NH | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | JE | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | PN | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 52 | GDP | NF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | MN | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | EI | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | BH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | QH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | PL | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | HK | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | SI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | NG | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 50 | GTP | GM | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | FK | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | KD | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | GD | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | WN | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | HB | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | TB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | GL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | PD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | UH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | JG | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | EF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | QK | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | QP | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | OB | 502 | - | - | 4/12/32/32 | 0/3/3/3 |
| 52 | GDP | TD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | TH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | OC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | MM | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 50 | GTP | JQ | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | AN | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | BP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | CH | 502 | - | - | 0/12/32/32 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 52 | GDP | AP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | HP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | BK | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | NI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | IN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | IF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | TL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | EE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | FN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | JH | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | QO | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | VE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | EL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | WM | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | OP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | DO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | SK | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | DF | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | RJ | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | LK | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | BF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | SD | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | CQ | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | LG | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | GE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | EA | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | VC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | GN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | IO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | VO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | MK | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | DJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | CO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | KB | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | AG | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | CM | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 52 | GDP | IL | 502 | - | - | 0/12/32/32 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 50 | GTP | IG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | GA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | JO | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | FM | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | TG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | TM | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | KH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | NB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | WP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | EJ | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | NA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | MP | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | UA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | MO | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | UL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | TJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | PP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | VM | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | AH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | GH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | DC | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | ML | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 52 | GDP | JJ | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | EB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | SL | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | EH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | HA | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | KJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | ED | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | NJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | KO | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 52 | GDP | GF | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | SN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | TA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | SG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | BL | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | UB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 50 | GTP | BG | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | MC | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | QB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | UE | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | JF | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | SM | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | JC | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | FB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | OA | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | CJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | PO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | AJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | QE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | LN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | ME | 501 | - | - | 4/18/38/38 | 0/3/3/3 |
| 50 | GTP | SE | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | RI | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | DM | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | QG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | LE | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 50 | GTP | BE | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | NO | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 50 | GTP | EG | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | HN | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | OD | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 52 | GDP | CD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | TK | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | FG | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | CF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | KN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | LA | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | UI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | BJ | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | MI | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 50 | GTP | UG | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | VB | 502 | - | - | 4/12/32/32 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 50 | GTP | GC | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | WK | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | UO | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | DN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | RP | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | RG | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | IC | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | KA | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 50 | GTP | UM | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | WO | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | DP | 502 | - | - | 4/12/32/32 | 0/3/3/3 |
| 52 | GDP | ND | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | NL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | HC | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 50 | GTP | JM | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | NM | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | NN | 502 | - | - | 4/12/32/32 | 0/3/3/3 |
| 50 | GTP | RE | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | IM | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | NC | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | AE | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | AL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | AD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | AM | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | UD | 502 | - | - | 4/12/32/32 | 0/3/3/3 |
| 52 | GDP | HL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | PI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | WA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | DG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | PJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | IA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | CE | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | IE | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | TC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | FL | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | QM | 501 | - | - | 8/18/38/38 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 52 | GDP | DB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | JB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | RH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | IJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | NE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | OG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | FJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | MB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | OI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | FH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | LO | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | OM | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | AK | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | PK | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | II | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | UN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | SH | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | DH | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | IP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | EC | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | MA | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | LC | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 50 | GTP | LI | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | VA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | UK | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | TF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | LB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | KI | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | SA | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | QL | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | VI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | RO | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | FE | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 52 | GDP | HF | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | FO | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 50 | GTP | WG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | ID | 502 | - | - | 0/12/32/32 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 52 | GDP | LJ | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | SB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | JI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 52 | GDP | CN | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | PG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | HO | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | BN | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | LP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | JL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | CK | 501 | - | - | 5/18/38/38 | 0/3/3/3 |
| 52 | GDP | BD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | OO | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | FF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | BM | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | IB | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | MD | 502 | - | - | 4/12/32/32 | 0/3/3/3 |
| 50 | GTP | BI | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | WE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | QF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | GK | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | LM | 501 | - | - | 6/18/38/38 | 0/3/3/3 |
| 52 | GDP | DD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | OJ | 502 | - | - | 4/12/32/32 | 0/3/3/3 |
| 52 | GDP | HJ | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | OF | 502 | - | - | 3/12/32/32 | 0/3/3/3 |
| 52 | GDP | CL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | FD | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | FC | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | HG | 501 | - | - | 9/18/38/38 | 0/3/3/3 |
| 52 | GDP | AB | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 50 | GTP | FA | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | DE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | HM | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | JD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | ON | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 50 | GTP | IK | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | VG | 501 | - | - | 8/18/38/38 | 0/3/3/3 |

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| Mol | Type | Chain | Res | Link | Chirals | Torsions | Rings |
|-----|------|-------|-----|------|---------|------------|---------|
| 52 | GDP | GB | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | HD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | OL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | DI | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | QJ | 502 | - | - | 0/12/32/32 | 0/3/3/3 |
| 52 | GDP | SJ | 502 | - | - | 2/12/32/32 | 0/3/3/3 |
| 52 | GDP | NP | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | PF | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 50 | GTP | TI | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | KE | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 50 | GTP | RC | 501 | - | - | 8/18/38/38 | 0/3/3/3 |
| 50 | GTP | EM | 501 | - | - | 7/18/38/38 | 0/3/3/3 |
| 52 | GDP | VL | 502 | - | - | 1/12/32/32 | 0/3/3/3 |
| 52 | GDP | WD | 502 | - | - | 1/12/32/32 | 0/3/3/3 |

All (526) bond length outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | LC | 501 | GTP | C5-C6 | -4.36 | 1.38 | 1.47 |
| 50 | NG | 501 | GTP | C5-C6 | -4.35 | 1.38 | 1.47 |
| 50 | HG | 501 | GTP | C5-C6 | -4.29 | 1.38 | 1.47 |
| 50 | KI | 501 | GTP | C5-C6 | -4.28 | 1.38 | 1.47 |
| 50 | LG | 501 | GTP | C5-C6 | -4.28 | 1.38 | 1.47 |
| 50 | KE | 501 | GTP | C5-C6 | -4.27 | 1.38 | 1.47 |
| 50 | MI | 501 | GTP | C5-C6 | -4.27 | 1.38 | 1.47 |
| 50 | LK | 501 | GTP | C5-C6 | -4.26 | 1.38 | 1.47 |
| 50 | LE | 501 | GTP | C5-C6 | -4.26 | 1.38 | 1.47 |
| 50 | MG | 501 | GTP | C5-C6 | -4.26 | 1.38 | 1.47 |
| 50 | MO | 501 | GTP | C5-C6 | -4.24 | 1.38 | 1.47 |
| 50 | KG | 501 | GTP | C5-C6 | -4.23 | 1.38 | 1.47 |
| 50 | KC | 501 | GTP | C5-C6 | -4.22 | 1.38 | 1.47 |
| 50 | BE | 501 | GTP | C5-C6 | -4.21 | 1.38 | 1.47 |
| 50 | BM | 501 | GTP | C5-C6 | -4.20 | 1.38 | 1.47 |
| 50 | FK | 501 | GTP | C5-C6 | -4.20 | 1.38 | 1.47 |
| 50 | HO | 501 | GTP | C5-C6 | -4.20 | 1.38 | 1.47 |
| 50 | BI | 501 | GTP | C5-C6 | -4.20 | 1.38 | 1.47 |
| 50 | LI | 501 | GTP | C5-C6 | -4.20 | 1.38 | 1.47 |
| 50 | MM | 501 | GTP | C5-C6 | -4.20 | 1.38 | 1.47 |
| 50 | GM | 501 | GTP | C5-C6 | -4.19 | 1.38 | 1.47 |
| 50 | KK | 501 | GTP | C5-C6 | -4.19 | 1.38 | 1.47 |
| 50 | EE | 501 | GTP | C5-C6 | -4.18 | 1.38 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | AE | 501 | GTP | C5-C6 | -4.17 | 1.38 | 1.47 |
| 50 | AC | 501 | GTP | C5-C6 | -4.17 | 1.38 | 1.47 |
| 50 | EO | 501 | GTP | C5-C6 | -4.17 | 1.39 | 1.47 |
| 50 | EI | 501 | GTP | C5-C6 | -4.16 | 1.39 | 1.47 |
| 50 | FO | 501 | GTP | C5-C6 | -4.16 | 1.39 | 1.47 |
| 50 | LO | 501 | GTP | C5-C6 | -4.16 | 1.39 | 1.47 |
| 50 | GI | 501 | GTP | C5-C6 | -4.16 | 1.39 | 1.47 |
| 50 | FC | 501 | GTP | C5-C6 | -4.16 | 1.39 | 1.47 |
| 50 | MA | 501 | GTP | C5-C6 | -4.15 | 1.39 | 1.47 |
| 50 | EM | 501 | GTP | C5-C6 | -4.15 | 1.39 | 1.47 |
| 50 | GK | 501 | GTP | C5-C6 | -4.15 | 1.39 | 1.47 |
| 50 | EG | 501 | GTP | C5-C6 | -4.15 | 1.39 | 1.47 |
| 50 | BK | 501 | GTP | C5-C6 | -4.15 | 1.39 | 1.47 |
| 50 | II | 501 | GTP | C5-C6 | -4.14 | 1.39 | 1.47 |
| 50 | HK | 501 | GTP | C5-C6 | -4.14 | 1.39 | 1.47 |
| 50 | HM | 501 | GTP | C5-C6 | -4.14 | 1.39 | 1.47 |
| 50 | FI | 501 | GTP | C5-C6 | -4.14 | 1.39 | 1.47 |
| 50 | NO | 501 | GTP | C5-C6 | -4.14 | 1.39 | 1.47 |
| 50 | AG | 501 | GTP | C5-C6 | -4.14 | 1.39 | 1.47 |
| 50 | FM | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | MK | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | DK | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | HI | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | KM | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | WM | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | GE | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | CI | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | CM | 501 | GTP | C5-C6 | -4.13 | 1.39 | 1.47 |
| 50 | QG | 501 | GTP | C5-C6 | -4.12 | 1.39 | 1.47 |
| 50 | JI | 501 | GTP | C5-C6 | -4.12 | 1.39 | 1.47 |
| 50 | IE | 501 | GTP | C5-C6 | -4.12 | 1.39 | 1.47 |
| 50 | MC | 501 | GTP | C5-C6 | -4.11 | 1.39 | 1.47 |
| 50 | AK | 501 | GTP | C5-C6 | -4.11 | 1.39 | 1.47 |
| 50 | AI | 501 | GTP | C5-C6 | -4.11 | 1.39 | 1.47 |
| 50 | KO | 501 | GTP | C5-C6 | -4.11 | 1.39 | 1.47 |
| 50 | HC | 501 | GTP | C5-C6 | -4.10 | 1.39 | 1.47 |
| 50 | LM | 501 | GTP | C5-C6 | -4.10 | 1.39 | 1.47 |
| 50 | NE | 501 | GTP | C5-C6 | -4.10 | 1.39 | 1.47 |
| 50 | DM | 501 | GTP | C5-C6 | -4.10 | 1.39 | 1.47 |
| 50 | EK | 501 | GTP | C5-C6 | -4.10 | 1.39 | 1.47 |
| 50 | FG | 501 | GTP | C5-C6 | -4.10 | 1.39 | 1.47 |
| 50 | SK | 501 | GTP | C5-C6 | -4.09 | 1.39 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | BG | 501 | GTP | C5-C6 | -4.09 | 1.39 | 1.47 |
| 50 | KA | 501 | GTP | C5-C6 | -4.09 | 1.39 | 1.47 |
| 50 | AO | 501 | GTP | C5-C6 | -4.09 | 1.39 | 1.47 |
| 50 | FE | 501 | GTP | C5-C6 | -4.09 | 1.39 | 1.47 |
| 50 | UI | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | SI | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | TC | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | DE | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | JK | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | SC | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | BO | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | NI | 501 | GTP | C5-C6 | -4.08 | 1.39 | 1.47 |
| 50 | AM | 501 | GTP | C5-C6 | -4.07 | 1.39 | 1.47 |
| 50 | OK | 501 | GTP | C5-C6 | -4.07 | 1.39 | 1.47 |
| 50 | VI | 501 | GTP | C5-C6 | -4.07 | 1.39 | 1.47 |
| 50 | OG | 501 | GTP | C5-C6 | -4.07 | 1.39 | 1.47 |
| 50 | UE | 501 | GTP | C5-C6 | -4.07 | 1.39 | 1.47 |
| 50 | NK | 501 | GTP | C5-C6 | -4.07 | 1.39 | 1.47 |
| 50 | CK | 501 | GTP | C5-C6 | -4.07 | 1.39 | 1.47 |
| 50 | LA | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | GO | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | ME | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | CO | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | DI | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | CC | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | IM | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | RG | 501 | GTP | C5-C6 | -4.06 | 1.39 | 1.47 |
| 50 | UG | 501 | GTP | C5-C6 | -4.05 | 1.39 | 1.47 |
| 50 | RM | 501 | GTP | C5-C6 | -4.05 | 1.39 | 1.47 |
| 50 | OM | 501 | GTP | C5-C6 | -4.05 | 1.39 | 1.47 |
| 50 | UO | 501 | GTP | C5-C6 | -4.05 | 1.39 | 1.47 |
| 50 | DQ | 501 | GTP | C5-C6 | -4.05 | 1.39 | 1.47 |
| 50 | TK | 501 | GTP | C5-C6 | -4.05 | 1.39 | 1.47 |
| 50 | RI | 501 | GTP | C5-C6 | -4.05 | 1.39 | 1.47 |
| 50 | OI | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | DO | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | WG | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | HA | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | RK | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | CE | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | EA | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | PI | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | TM | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | RO | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | SG | 501 | GTP | C5-C6 | -4.04 | 1.39 | 1.47 |
| 50 | EC | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | CQ | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | WI | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | UM | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | DG | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | VC | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | CG | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | UK | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | VM | 501 | GTP | C5-C6 | -4.03 | 1.39 | 1.47 |
| 50 | WK | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | GC | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | NC | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | PE | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | WO | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | UC | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | DC | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | FA | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | SE | 501 | GTP | C5-C6 | -4.02 | 1.39 | 1.47 |
| 50 | VK | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | TE | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | WE | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | TI | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | IA | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | UA | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | OO | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | VG | 501 | GTP | C5-C6 | -4.01 | 1.39 | 1.47 |
| 50 | VO | 501 | GTP | C5-C6 | -4.00 | 1.39 | 1.47 |
| 50 | QE | 501 | GTP | C5-C6 | -4.00 | 1.39 | 1.47 |
| 50 | AA | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | HE | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | QI | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | RC | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | TG | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | IC | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | NA | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | SM | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | WC | 501 | GTP | C5-C6 | -3.99 | 1.39 | 1.47 |
| 50 | IG | 501 | GTP | C5-C6 | -3.98 | 1.39 | 1.47 |
| 50 | GG | 501 | GTP | C5-C6 | -3.98 | 1.39 | 1.47 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | SA | 501 | GTP | C5-C6 | -3.97 | 1.39 | 1.47 |
| 50 | JM | 501 | GTP | C5-C6 | -3.97 | 1.39 | 1.47 |
| 50 | GA | 501 | GTP | C5-C6 | -3.97 | 1.39 | 1.47 |
| 50 | VE | 501 | GTP | C5-C6 | -3.97 | 1.39 | 1.47 |
| 50 | IK | 501 | GTP | C5-C6 | -3.97 | 1.39 | 1.47 |
| 50 | JE | 501 | GTP | C5-C6 | -3.97 | 1.39 | 1.47 |
| 50 | WA | 501 | GTP | C5-C6 | -3.97 | 1.39 | 1.47 |
| 50 | PM | 501 | GTP | C5-C6 | -3.96 | 1.39 | 1.47 |
| 50 | QM | 501 | GTP | C5-C6 | -3.96 | 1.39 | 1.47 |
| 50 | RE | 501 | GTP | C5-C6 | -3.96 | 1.39 | 1.47 |
| 50 | NM | 501 | GTP | C5-C6 | -3.96 | 1.39 | 1.47 |
| 50 | OE | 501 | GTP | C5-C6 | -3.96 | 1.39 | 1.47 |
| 50 | PK | 501 | GTP | C5-C6 | -3.95 | 1.39 | 1.47 |
| 50 | OA | 501 | GTP | C5-C6 | -3.95 | 1.39 | 1.47 |
| 50 | VA | 501 | GTP | C5-C6 | -3.95 | 1.39 | 1.47 |
| 50 | QK | 501 | GTP | C5-C6 | -3.95 | 1.39 | 1.47 |
| 50 | TA | 501 | GTP | C5-C6 | -3.95 | 1.39 | 1.47 |
| 50 | OC | 501 | GTP | C5-C6 | -3.94 | 1.39 | 1.47 |
| 50 | QC | 501 | GTP | C5-C6 | -3.94 | 1.39 | 1.47 |
| 50 | IO | 501 | GTP | C5-C6 | -3.94 | 1.39 | 1.47 |
| 50 | JQ | 501 | GTP | C5-C6 | -3.94 | 1.39 | 1.47 |
| 50 | PC | 501 | GTP | C5-C6 | -3.93 | 1.39 | 1.47 |
| 50 | JC | 501 | GTP | C5-C6 | -3.93 | 1.39 | 1.47 |
| 50 | JG | 501 | GTP | C5-C6 | -3.92 | 1.39 | 1.47 |
| 50 | PO | 501 | GTP | C5-C6 | -3.92 | 1.39 | 1.47 |
| 50 | BC | 501 | GTP | C5-C6 | -3.82 | 1.39 | 1.47 |
| 50 | JO | 501 | GTP | C5-C6 | -3.80 | 1.39 | 1.47 |
| 50 | QO | 501 | GTP | C5-C6 | -3.76 | 1.39 | 1.47 |
| 50 | PG | 501 | GTP | C5-C6 | -3.73 | 1.39 | 1.47 |
| 52 | GD | 502 | GDP | C6-N1 | -3.00 | 1.33 | 1.37 |
| 52 | JH | 502 | GDP | C6-N1 | -2.87 | 1.33 | 1.37 |
| 52 | KH | 502 | GDP | C6-N1 | -2.72 | 1.33 | 1.37 |
| 52 | AD | 502 | GDP | C6-N1 | -2.68 | 1.33 | 1.37 |
| 52 | KJ | 502 | GDP | C6-N1 | -2.68 | 1.33 | 1.37 |
| 52 | OB | 502 | GDP | C6-N1 | -2.66 | 1.33 | 1.37 |
| 52 | PN | 502 | GDP | C6-N1 | -2.65 | 1.33 | 1.37 |
| 52 | LB | 502 | GDP | C6-N1 | -2.64 | 1.33 | 1.37 |
| 52 | KL | 502 | GDP | C6-N1 | -2.63 | 1.34 | 1.37 |
| 52 | DL | 502 | GDP | C6-N1 | -2.62 | 1.34 | 1.37 |
| 52 | IL | 502 | GDP | C6-N1 | -2.58 | 1.34 | 1.37 |
| 52 | IJ | 502 | GDP | C6-N1 | -2.58 | 1.34 | 1.37 |
| 52 | IN | 502 | GDP | C6-N1 | -2.58 | 1.34 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 52 | DJ | 502 | GDP | C6-N1 | -2.58 | 1.34 | 1.37 |
| 52 | NL | 502 | GDP | C6-N1 | -2.57 | 1.34 | 1.37 |
| 52 | CN | 502 | GDP | C6-N1 | -2.56 | 1.34 | 1.37 |
| 52 | GL | 502 | GDP | C6-N1 | -2.55 | 1.34 | 1.37 |
| 52 | BF | 502 | GDP | C6-N1 | -2.55 | 1.34 | 1.37 |
| 52 | CL | 502 | GDP | C6-N1 | -2.55 | 1.34 | 1.37 |
| 52 | AJ | 502 | GDP | C6-N1 | -2.55 | 1.34 | 1.37 |
| 52 | KB | 502 | GDP | C6-N1 | -2.55 | 1.34 | 1.37 |
| 52 | LJ | 502 | GDP | C6-N1 | -2.54 | 1.34 | 1.37 |
| 52 | FL | 502 | GDP | C6-N1 | -2.54 | 1.34 | 1.37 |
| 52 | CH | 502 | GDP | C6-N1 | -2.53 | 1.34 | 1.37 |
| 52 | EJ | 502 | GDP | C6-N1 | -2.53 | 1.34 | 1.37 |
| 52 | MD | 502 | GDP | C6-N1 | -2.53 | 1.34 | 1.37 |
| 50 | VI | 501 | GTP | C2-N3 | 2.53 | 1.39 | 1.33 |
| 52 | HN | 502 | GDP | C6-N1 | -2.53 | 1.34 | 1.37 |
| 52 | LD | 502 | GDP | C6-N1 | -2.53 | 1.34 | 1.37 |
| 52 | DN | 502 | GDP | C6-N1 | -2.53 | 1.34 | 1.37 |
| 52 | NF | 502 | GDP | C6-N1 | -2.53 | 1.34 | 1.37 |
| 52 | LF | 502 | GDP | C6-N1 | -2.52 | 1.34 | 1.37 |
| 52 | CF | 502 | GDP | C6-N1 | -2.52 | 1.34 | 1.37 |
| 52 | JL | 502 | GDP | C6-N1 | -2.52 | 1.34 | 1.37 |
| 52 | ID | 502 | GDP | C6-N1 | -2.52 | 1.34 | 1.37 |
| 52 | KD | 502 | GDP | C6-N1 | -2.52 | 1.34 | 1.37 |
| 52 | JN | 502 | GDP | C6-N1 | -2.51 | 1.34 | 1.37 |
| 52 | AH | 502 | GDP | C6-N1 | -2.51 | 1.34 | 1.37 |
| 52 | WJ | 502 | GDP | C6-N1 | -2.51 | 1.34 | 1.37 |
| 52 | CJ | 502 | GDP | C6-N1 | -2.50 | 1.34 | 1.37 |
| 52 | EL | 502 | GDP | C6-N1 | -2.49 | 1.34 | 1.37 |
| 52 | UB | 502 | GDP | C6-N1 | -2.49 | 1.34 | 1.37 |
| 52 | RH | 502 | GDP | C6-N1 | -2.49 | 1.34 | 1.37 |
| 52 | EH | 502 | GDP | C6-N1 | -2.49 | 1.34 | 1.37 |
| 52 | DH | 502 | GDP | C6-N1 | -2.49 | 1.34 | 1.37 |
| 52 | FD | 502 | GDP | C6-N1 | -2.49 | 1.34 | 1.37 |
| 52 | FF | 502 | GDP | C6-N1 | -2.49 | 1.34 | 1.37 |
| 52 | PP | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | IH | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | CD | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | GJ | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | DF | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | FH | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | OH | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | HH | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 52 | SL | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | WD | 502 | GDP | C6-N1 | -2.48 | 1.34 | 1.37 |
| 52 | GH | 502 | GDP | C6-N1 | -2.47 | 1.34 | 1.37 |
| 52 | BD | 502 | GDP | C6-N1 | -2.47 | 1.34 | 1.37 |
| 52 | RL | 502 | GDP | C6-N1 | -2.47 | 1.34 | 1.37 |
| 52 | UF | 502 | GDP | C6-N1 | -2.47 | 1.34 | 1.37 |
| 52 | RF | 502 | GDP | C6-N1 | -2.47 | 1.34 | 1.37 |
| 52 | KF | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | WF | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | QD | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | GF | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | BN | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | WN | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | MH | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | AF | 502 | GDP | C6-N1 | -2.46 | 1.34 | 1.37 |
| 52 | HF | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | LL | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | HL | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | NJ | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | VJ | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | FN | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | MJ | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | IF | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | ML | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | VD | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | MP | 502 | GDP | C6-N1 | -2.45 | 1.34 | 1.37 |
| 52 | RP | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | ED | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | MF | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | PJ | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | OJ | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | SB | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | TH | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | VH | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | AP | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | KP | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | QF | 502 | GDP | C6-N1 | -2.44 | 1.34 | 1.37 |
| 52 | AL | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | DP | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | MN | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | PB | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | GB | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 52 | UJ | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | OL | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | BL | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | NB | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | BP | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | IB | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 50 | QG | 501 | GTP | C2-N3 | 2.43 | 1.39 | 1.33 |
| 52 | PH | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | BB | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | BJ | 502 | GDP | C6-N1 | -2.43 | 1.34 | 1.37 |
| 52 | LH | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | NN | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | EN | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | BH | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | TL | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | AB | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | PL | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | TJ | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | RJ | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | UH | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | DD | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | ON | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | PD | 502 | GDP | C6-N1 | -2.42 | 1.34 | 1.37 |
| 52 | GN | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | PF | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | LN | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | TN | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | EF | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | JP | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | JB | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | WL | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | JD | 502 | GDP | C6-N1 | -2.41 | 1.34 | 1.37 |
| 52 | WB | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | CP | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | TF | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | HP | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | NH | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | CB | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | OP | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | OF | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | QH | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |
| 52 | QL | 502 | GDP | C6-N1 | -2.40 | 1.34 | 1.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 52 | RN | 502 | GDP | C6-N1 | -2.39 | 1.34 | 1.37 |
| 52 | VL | 502 | GDP | C6-N1 | -2.39 | 1.34 | 1.37 |
| 52 | IP | 502 | GDP | C6-N1 | -2.39 | 1.34 | 1.37 |
| 52 | SJ | 502 | GDP | C6-N1 | -2.39 | 1.34 | 1.37 |
| 52 | UN | 502 | GDP | C6-N1 | -2.39 | 1.34 | 1.37 |
| 52 | ND | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | UL | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | JJ | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | SH | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | WH | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | QN | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | OD | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | AN | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | EB | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | HD | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | NP | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | LP | 502 | GDP | C6-N1 | -2.38 | 1.34 | 1.37 |
| 52 | QJ | 502 | GDP | C6-N1 | -2.37 | 1.34 | 1.37 |
| 52 | DB | 502 | GDP | C6-N1 | -2.37 | 1.34 | 1.37 |
| 52 | UD | 502 | GDP | C6-N1 | -2.37 | 1.34 | 1.37 |
| 52 | TD | 502 | GDP | C6-N1 | -2.36 | 1.34 | 1.37 |
| 52 | VF | 502 | GDP | C6-N1 | -2.36 | 1.34 | 1.37 |
| 52 | KN | 502 | GDP | C6-N1 | -2.35 | 1.34 | 1.37 |
| 52 | SN | 502 | GDP | C6-N1 | -2.35 | 1.34 | 1.37 |
| 52 | SF | 502 | GDP | C6-N1 | -2.35 | 1.34 | 1.37 |
| 52 | FB | 502 | GDP | C6-N1 | -2.35 | 1.34 | 1.37 |
| 52 | RD | 502 | GDP | C6-N1 | -2.35 | 1.34 | 1.37 |
| 52 | WP | 502 | GDP | C6-N1 | -2.34 | 1.34 | 1.37 |
| 52 | VB | 502 | GDP | C6-N1 | -2.34 | 1.34 | 1.37 |
| 52 | HB | 502 | GDP | C6-N1 | -2.34 | 1.34 | 1.37 |
| 52 | HJ | 502 | GDP | C6-N1 | -2.33 | 1.34 | 1.37 |
| 52 | SD | 502 | GDP | C6-N1 | -2.32 | 1.34 | 1.37 |
| 52 | VN | 502 | GDP | C6-N1 | -2.32 | 1.34 | 1.37 |
| 52 | QB | 502 | GDP | C6-N1 | -2.32 | 1.34 | 1.37 |
| 50 | JO | 501 | GTP | C2-N3 | 2.32 | 1.38 | 1.33 |
| 50 | IE | 501 | GTP | C2-N3 | 2.32 | 1.38 | 1.33 |
| 50 | VK | 501 | GTP | C2-N3 | 2.31 | 1.38 | 1.33 |
| 50 | UO | 501 | GTP | C2-N3 | 2.30 | 1.38 | 1.33 |
| 52 | QP | 502 | GDP | C6-N1 | -2.30 | 1.34 | 1.37 |
| 50 | CK | 501 | GTP | C2-N3 | 2.28 | 1.38 | 1.33 |
| 50 | WE | 501 | GTP | C2-N3 | 2.28 | 1.38 | 1.33 |
| 50 | RM | 501 | GTP | C2-N3 | 2.27 | 1.38 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | UM | 501 | GTP | C2-N3 | 2.27 | 1.38 | 1.33 |
| 50 | HA | 501 | GTP | C2-N3 | 2.26 | 1.38 | 1.33 |
| 50 | IK | 501 | GTP | C2-N3 | 2.26 | 1.38 | 1.33 |
| 50 | UK | 501 | GTP | C2-N3 | 2.26 | 1.38 | 1.33 |
| 50 | FO | 501 | GTP | C2-N3 | 2.26 | 1.38 | 1.33 |
| 50 | VM | 501 | GTP | C2-N3 | 2.26 | 1.38 | 1.33 |
| 50 | WO | 501 | GTP | C2-N3 | 2.26 | 1.38 | 1.33 |
| 50 | RK | 501 | GTP | C2-N3 | 2.25 | 1.38 | 1.33 |
| 50 | GC | 501 | GTP | C2-N3 | 2.25 | 1.38 | 1.33 |
| 50 | QC | 501 | GTP | C2-N3 | 2.25 | 1.38 | 1.33 |
| 50 | CQ | 501 | GTP | C2-N3 | 2.25 | 1.38 | 1.33 |
| 50 | VG | 501 | GTP | C2-N3 | 2.25 | 1.38 | 1.33 |
| 50 | VA | 501 | GTP | C2-N3 | 2.25 | 1.38 | 1.33 |
| 50 | IO | 501 | GTP | C2-N3 | 2.25 | 1.38 | 1.33 |
| 50 | RI | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 50 | RC | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 50 | SC | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 52 | TB | 502 | GDP | C6-N1 | -2.24 | 1.34 | 1.37 |
| 50 | IG | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 50 | HK | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 50 | TC | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 50 | QE | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 50 | VE | 501 | GTP | C2-N3 | 2.24 | 1.38 | 1.33 |
| 50 | GM | 501 | GTP | C2-N3 | 2.23 | 1.38 | 1.33 |
| 50 | PE | 501 | GTP | C2-N3 | 2.23 | 1.38 | 1.33 |
| 50 | LA | 501 | GTP | C2-N3 | 2.23 | 1.38 | 1.33 |
| 50 | CM | 501 | GTP | C2-N3 | 2.23 | 1.38 | 1.33 |
| 50 | QI | 501 | GTP | C2-N3 | 2.23 | 1.38 | 1.33 |
| 50 | AO | 501 | GTP | C2-N3 | 2.23 | 1.38 | 1.33 |
| 50 | RO | 501 | GTP | C2-N3 | 2.22 | 1.38 | 1.33 |
| 50 | JK | 501 | GTP | C2-N3 | 2.22 | 1.38 | 1.33 |
| 50 | SG | 501 | GTP | C2-N3 | 2.22 | 1.38 | 1.33 |
| 50 | OA | 501 | GTP | C2-N3 | 2.22 | 1.38 | 1.33 |
| 50 | SE | 501 | GTP | C2-N3 | 2.22 | 1.38 | 1.33 |
| 50 | VO | 501 | GTP | C2-N3 | 2.22 | 1.38 | 1.33 |
| 50 | UA | 501 | GTP | C2-N3 | 2.21 | 1.38 | 1.33 |
| 50 | WI | 501 | GTP | C2-N3 | 2.21 | 1.38 | 1.33 |
| 50 | IA | 501 | GTP | C2-N3 | 2.21 | 1.38 | 1.33 |
| 50 | TA | 501 | GTP | C2-N3 | 2.21 | 1.38 | 1.33 |
| 50 | RG | 501 | GTP | C2-N3 | 2.21 | 1.38 | 1.33 |
| 50 | DK | 501 | GTP | C2-N3 | 2.21 | 1.38 | 1.33 |
| 50 | BC | 501 | GTP | C2-N3 | 2.21 | 1.38 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|------|-------------|----------|
| 50 | SK | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | DM | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | VC | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | IC | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | NE | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | UE | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | II | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | EE | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | WA | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | PI | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | OK | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | GA | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | OE | 501 | GTP | C2-N3 | 2.20 | 1.38 | 1.33 |
| 50 | EA | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | PO | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | CG | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | QM | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | DQ | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | CO | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | OG | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | WC | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | CE | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | DC | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | NO | 501 | GTP | C2-N3 | 2.19 | 1.38 | 1.33 |
| 50 | CC | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | EK | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | UI | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | LM | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | FG | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | NC | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | NI | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | HC | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | OM | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | DI | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | AA | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | CI | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | JC | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | FA | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | JE | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | GO | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | BO | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | UC | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | PK | 501 | GTP | C2-N3 | 2.18 | 1.38 | 1.33 |
| 50 | QK | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | LG | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | RE | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | SA | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | IM | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | TK | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | FC | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | WM | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | LE | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | HE | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | HO | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | GI | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | MA | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | UG | 501 | GTP | C2-N3 | 2.17 | 1.38 | 1.33 |
| 50 | NA | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | BE | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | EI | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | EO | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | TE | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | KK | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | OC | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | AC | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | EC | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | EG | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | NG | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | TI | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | ME | 501 | GTP | C2-N3 | 2.16 | 1.38 | 1.33 |
| 50 | HM | 501 | GTP | C2-N3 | 2.15 | 1.38 | 1.33 |
| 50 | BM | 501 | GTP | C2-N3 | 2.15 | 1.38 | 1.33 |
| 50 | BK | 501 | GTP | C2-N3 | 2.15 | 1.38 | 1.33 |
| 50 | DG | 501 | GTP | C2-N3 | 2.15 | 1.38 | 1.33 |
| 50 | EM | 501 | GTP | C2-N3 | 2.15 | 1.38 | 1.33 |
| 50 | DE | 501 | GTP | C2-N3 | 2.15 | 1.38 | 1.33 |
| 50 | DO | 501 | GTP | C2-N3 | 2.15 | 1.38 | 1.33 |
| 50 | MO | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 50 | LC | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 50 | AE | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 52 | JF | 502 | GDP | C6-N1 | -2.14 | 1.34 | 1.37 |
| 50 | JM | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 50 | FM | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 50 | TG | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(Å) | Ideal(Å) |
|-----|-------|-----|------|-------|-------|-------------|----------|
| 50 | OO | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 52 | FJ | 502 | GDP | C6-N1 | -2.14 | 1.34 | 1.37 |
| 50 | SI | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 50 | GG | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 50 | SM | 501 | GTP | C2-N3 | 2.14 | 1.38 | 1.33 |
| 50 | WG | 501 | GTP | C2-N3 | 2.13 | 1.38 | 1.33 |
| 52 | MB | 502 | GDP | C6-N1 | -2.13 | 1.34 | 1.37 |
| 50 | HI | 501 | GTP | C2-N3 | 2.13 | 1.38 | 1.33 |
| 50 | BI | 501 | GTP | C2-N3 | 2.13 | 1.38 | 1.33 |
| 50 | WK | 501 | GTP | C2-N3 | 2.12 | 1.38 | 1.33 |
| 50 | OI | 501 | GTP | C2-N3 | 2.12 | 1.38 | 1.33 |
| 50 | JG | 501 | GTP | C2-N3 | 2.12 | 1.38 | 1.33 |
| 50 | TM | 501 | GTP | C2-N3 | 2.12 | 1.38 | 1.33 |
| 50 | KM | 501 | GTP | C2-N3 | 2.11 | 1.38 | 1.33 |
| 50 | JQ | 501 | GTP | C2-N3 | 2.11 | 1.38 | 1.33 |
| 50 | MK | 501 | GTP | C2-N3 | 2.11 | 1.38 | 1.33 |
| 50 | KO | 501 | GTP | C2-N3 | 2.11 | 1.38 | 1.33 |
| 50 | PC | 501 | GTP | C2-N3 | 2.11 | 1.38 | 1.33 |
| 50 | FE | 501 | GTP | C2-N3 | 2.10 | 1.38 | 1.33 |
| 50 | AK | 501 | GTP | C2-N3 | 2.10 | 1.38 | 1.33 |
| 50 | FK | 501 | GTP | C2-N3 | 2.10 | 1.38 | 1.33 |
| 50 | GE | 501 | GTP | C2-N3 | 2.10 | 1.38 | 1.33 |
| 50 | LO | 501 | GTP | C2-N3 | 2.10 | 1.38 | 1.33 |
| 50 | NK | 501 | GTP | C2-N3 | 2.09 | 1.38 | 1.33 |
| 50 | FI | 501 | GTP | C2-N3 | 2.09 | 1.38 | 1.33 |
| 50 | LI | 501 | GTP | C2-N3 | 2.09 | 1.38 | 1.33 |
| 50 | GK | 501 | GTP | C2-N3 | 2.09 | 1.38 | 1.33 |
| 50 | AG | 501 | GTP | C2-N3 | 2.08 | 1.38 | 1.33 |
| 50 | KI | 501 | GTP | C2-N3 | 2.08 | 1.38 | 1.33 |
| 50 | KA | 501 | GTP | C2-N3 | 2.08 | 1.38 | 1.33 |
| 50 | PM | 501 | GTP | C2-N3 | 2.08 | 1.38 | 1.33 |
| 50 | AM | 501 | GTP | C2-N3 | 2.08 | 1.38 | 1.33 |
| 50 | BG | 501 | GTP | C2-N3 | 2.08 | 1.38 | 1.33 |
| 50 | LK | 501 | GTP | C2-N3 | 2.08 | 1.38 | 1.33 |
| 50 | AI | 501 | GTP | C2-N3 | 2.07 | 1.38 | 1.33 |
| 50 | MC | 501 | GTP | C2-N3 | 2.06 | 1.38 | 1.33 |
| 50 | MG | 501 | GTP | C2-N3 | 2.06 | 1.38 | 1.33 |
| 50 | KG | 501 | GTP | C2-N3 | 2.04 | 1.38 | 1.33 |
| 50 | HG | 501 | GTP | C2-N3 | 2.03 | 1.38 | 1.33 |
| 50 | KC | 501 | GTP | C2-N3 | 2.03 | 1.38 | 1.33 |
| 50 | JI | 501 | GTP | C2-N3 | 2.02 | 1.38 | 1.33 |

All (1944) bond angle outliers are listed below:

| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 52 | MJ | 502 | GDP | PA-O3A-PB | -4.58 | 117.09 | 132.83 |
| 52 | LF | 502 | GDP | PA-O3A-PB | -4.52 | 117.31 | 132.83 |
| 50 | II | 501 | GTP | PB-O3B-PG | -4.51 | 117.34 | 132.83 |
| 52 | KB | 502 | GDP | PA-O3A-PB | -4.39 | 117.75 | 132.83 |
| 50 | MM | 501 | GTP | PA-O3A-PB | -4.34 | 117.94 | 132.83 |
| 52 | LJ | 502 | GDP | PA-O3A-PB | -4.29 | 118.09 | 132.83 |
| 52 | AD | 502 | GDP | PA-O3A-PB | -4.25 | 118.24 | 132.83 |
| 52 | CH | 502 | GDP | PA-O3A-PB | -4.25 | 118.24 | 132.83 |
| 52 | AL | 502 | GDP | PA-O3A-PB | -4.23 | 118.31 | 132.83 |
| 52 | CJ | 502 | GDP | PA-O3A-PB | -4.19 | 118.46 | 132.83 |
| 52 | HH | 502 | GDP | PA-O3A-PB | -4.17 | 118.53 | 132.83 |
| 50 | BC | 501 | GTP | PB-O3B-PG | -4.16 | 118.56 | 132.83 |
| 52 | NH | 502 | GDP | PA-O3A-PB | -4.15 | 118.57 | 132.83 |
| 52 | MF | 502 | GDP | PA-O3A-PB | -4.15 | 118.60 | 132.83 |
| 50 | NI | 501 | GTP | PB-O3B-PG | -4.14 | 118.62 | 132.83 |
| 52 | AJ | 502 | GDP | PA-O3A-PB | -4.14 | 118.62 | 132.83 |
| 50 | JO | 501 | GTP | PA-O3A-PB | -4.12 | 118.70 | 132.83 |
| 50 | OO | 501 | GTP | PB-O3B-PG | -4.11 | 118.72 | 132.83 |
| 50 | QI | 501 | GTP | PB-O3B-PG | -4.10 | 118.75 | 132.83 |
| 50 | IO | 501 | GTP | PA-O3A-PB | -4.10 | 118.76 | 132.83 |
| 52 | NJ | 502 | GDP | PA-O3A-PB | -4.09 | 118.79 | 132.83 |
| 52 | AN | 502 | GDP | PA-O3A-PB | -4.07 | 118.87 | 132.83 |
| 52 | BH | 502 | GDP | PA-O3A-PB | -4.07 | 118.87 | 132.83 |
| 50 | FC | 501 | GTP | PB-O3B-PG | -4.06 | 118.90 | 132.83 |
| 50 | UC | 501 | GTP | PB-O3B-PG | -4.06 | 118.90 | 132.83 |
| 50 | BM | 501 | GTP | PB-O3B-PG | -4.06 | 118.91 | 132.83 |
| 52 | AH | 502 | GDP | PA-O3A-PB | -4.02 | 119.03 | 132.83 |
| 52 | LL | 502 | GDP | PA-O3A-PB | -4.02 | 119.04 | 132.83 |
| 52 | IN | 502 | GDP | PA-O3A-PB | -4.02 | 119.05 | 132.83 |
| 50 | CK | 501 | GTP | PB-O3B-PG | -4.02 | 119.05 | 132.83 |
| 50 | AK | 501 | GTP | PA-O3A-PB | -4.01 | 119.06 | 132.83 |
| 52 | FL | 502 | GDP | PA-O3A-PB | -4.01 | 119.06 | 132.83 |
| 50 | GI | 501 | GTP | PB-O3B-PG | -4.01 | 119.07 | 132.83 |
| 52 | IP | 502 | GDP | PA-O3A-PB | -3.98 | 119.16 | 132.83 |
| 50 | NG | 501 | GTP | PB-O3B-PG | -3.98 | 119.18 | 132.83 |
| 52 | KJ | 502 | GDP | PA-O3A-PB | -3.97 | 119.20 | 132.83 |
| 50 | OC | 501 | GTP | PB-O3B-PG | -3.95 | 119.26 | 132.83 |
| 50 | MO | 501 | GTP | PA-O3A-PB | -3.95 | 119.26 | 132.83 |
| 52 | IJ | 502 | GDP | PA-O3A-PB | -3.95 | 119.26 | 132.83 |
| 50 | VI | 501 | GTP | PB-O3B-PG | -3.95 | 119.27 | 132.83 |
| 50 | AO | 501 | GTP | PB-O3B-PG | -3.94 | 119.29 | 132.83 |
| 50 | EK | 501 | GTP | PB-O3B-PG | -3.94 | 119.31 | 132.83 |
| 50 | IE | 501 | GTP | PB-O3B-PG | -3.94 | 119.32 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 52 | KF | 502 | GDP | PA-O3A-PB | -3.94 | 119.32 | 132.83 |
| 50 | PI | 501 | GTP | PB-O3B-PG | -3.93 | 119.33 | 132.83 |
| 52 | FH | 502 | GDP | PA-O3A-PB | -3.93 | 119.34 | 132.83 |
| 52 | LN | 502 | GDP | PA-O3A-PB | -3.93 | 119.34 | 132.83 |
| 52 | FD | 502 | GDP | PA-O3A-PB | -3.92 | 119.36 | 132.83 |
| 50 | BG | 501 | GTP | PB-O3B-PG | -3.92 | 119.37 | 132.83 |
| 50 | AI | 501 | GTP | PB-O3B-PG | -3.92 | 119.37 | 132.83 |
| 52 | JH | 502 | GDP | PA-O3A-PB | -3.91 | 119.41 | 132.83 |
| 50 | HK | 501 | GTP | PB-O3B-PG | -3.90 | 119.44 | 132.83 |
| 50 | JO | 501 | GTP | PB-O3B-PG | -3.90 | 119.45 | 132.83 |
| 50 | HI | 501 | GTP | PB-O3B-PG | -3.89 | 119.47 | 132.83 |
| 50 | IK | 501 | GTP | PB-O3B-PG | -3.89 | 119.47 | 132.83 |
| 52 | NF | 502 | GDP | PA-O3A-PB | -3.89 | 119.48 | 132.83 |
| 50 | BK | 501 | GTP | PB-O3B-PG | -3.89 | 119.49 | 132.83 |
| 50 | BI | 501 | GTP | PB-O3B-PG | -3.89 | 119.49 | 132.83 |
| 50 | CI | 501 | GTP | PB-O3B-PG | -3.89 | 119.49 | 132.83 |
| 52 | KN | 502 | GDP | PA-O3A-PB | -3.88 | 119.51 | 132.83 |
| 50 | WG | 501 | GTP | PB-O3B-PG | -3.88 | 119.51 | 132.83 |
| 50 | HM | 501 | GTP | PB-O3B-PG | -3.87 | 119.53 | 132.83 |
| 50 | EE | 501 | GTP | PB-O3B-PG | -3.87 | 119.55 | 132.83 |
| 52 | AF | 502 | GDP | PA-O3A-PB | -3.87 | 119.56 | 132.83 |
| 50 | GE | 501 | GTP | PA-O3A-PB | -3.87 | 119.56 | 132.83 |
| 50 | NG | 501 | GTP | PA-O3A-PB | -3.86 | 119.56 | 132.83 |
| 50 | QK | 501 | GTP | PB-O3B-PG | -3.86 | 119.59 | 132.83 |
| 50 | RK | 501 | GTP | PB-O3B-PG | -3.85 | 119.60 | 132.83 |
| 50 | QE | 501 | GTP | PB-O3B-PG | -3.85 | 119.62 | 132.83 |
| 50 | IC | 501 | GTP | PB-O3B-PG | -3.84 | 119.64 | 132.83 |
| 50 | IG | 501 | GTP | PB-O3B-PG | -3.84 | 119.64 | 132.83 |
| 52 | LB | 502 | GDP | PA-O3A-PB | -3.84 | 119.65 | 132.83 |
| 50 | PE | 501 | GTP | PB-O3B-PG | -3.84 | 119.65 | 132.83 |
| 50 | IO | 501 | GTP | PB-O3B-PG | -3.83 | 119.68 | 132.83 |
| 50 | HG | 501 | GTP | PA-O3A-PB | -3.83 | 119.69 | 132.83 |
| 50 | AC | 501 | GTP | PB-O3B-PG | -3.83 | 119.69 | 132.83 |
| 52 | GH | 502 | GDP | PA-O3A-PB | -3.82 | 119.70 | 132.83 |
| 50 | JI | 501 | GTP | PB-O3B-PG | -3.82 | 119.71 | 132.83 |
| 50 | CE | 501 | GTP | PB-O3B-PG | -3.81 | 119.74 | 132.83 |
| 50 | CM | 501 | GTP | PB-O3B-PG | -3.81 | 119.74 | 132.83 |
| 50 | JK | 501 | GTP | PA-O3A-PB | -3.81 | 119.74 | 132.83 |
| 52 | BF | 502 | GDP | PA-O3A-PB | -3.81 | 119.76 | 132.83 |
| 52 | JJ | 502 | GDP | PA-O3A-PB | -3.81 | 119.76 | 132.83 |
| 50 | JK | 501 | GTP | PB-O3B-PG | -3.81 | 119.77 | 132.83 |
| 50 | JM | 501 | GTP | PB-O3B-PG | -3.80 | 119.78 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 50 | MK | 501 | GTP | PA-O3A-PB | -3.80 | 119.78 | 132.83 |
| 52 | CF | 502 | GDP | PA-O3A-PB | -3.80 | 119.79 | 132.83 |
| 50 | FM | 501 | GTP | PB-O3B-PG | -3.80 | 119.80 | 132.83 |
| 52 | BL | 502 | GDP | PA-O3A-PB | -3.79 | 119.81 | 132.83 |
| 50 | PG | 501 | GTP | PB-O3B-PG | -3.79 | 119.83 | 132.83 |
| 52 | CB | 502 | GDP | PA-O3A-PB | -3.79 | 119.83 | 132.83 |
| 50 | JG | 501 | GTP | PB-O3B-PG | -3.78 | 119.84 | 132.83 |
| 50 | UO | 501 | GTP | PB-O3B-PG | -3.78 | 119.87 | 132.83 |
| 50 | WM | 501 | GTP | PB-O3B-PG | -3.77 | 119.89 | 132.83 |
| 52 | KD | 502 | GDP | PA-O3A-PB | -3.77 | 119.90 | 132.83 |
| 50 | NM | 501 | GTP | PB-O3B-PG | -3.77 | 119.90 | 132.83 |
| 52 | MD | 502 | GDP | PA-O3A-PB | -3.77 | 119.91 | 132.83 |
| 50 | WI | 501 | GTP | PB-O3B-PG | -3.76 | 119.91 | 132.83 |
| 50 | IM | 501 | GTP | PB-O3B-PG | -3.76 | 119.92 | 132.83 |
| 52 | EH | 502 | GDP | PA-O3A-PB | -3.76 | 119.93 | 132.83 |
| 50 | BO | 501 | GTP | PB-O3B-PG | -3.76 | 119.94 | 132.83 |
| 52 | SJ | 502 | GDP | PA-O3A-PB | -3.75 | 119.94 | 132.83 |
| 52 | LD | 502 | GDP | PA-O3A-PB | -3.75 | 119.95 | 132.83 |
| 50 | OG | 501 | GTP | PB-O3B-PG | -3.75 | 119.96 | 132.83 |
| 52 | KL | 502 | GDP | PA-O3A-PB | -3.75 | 119.96 | 132.83 |
| 50 | JM | 501 | GTP | PA-O3A-PB | -3.75 | 119.97 | 132.83 |
| 52 | FF | 502 | GDP | PA-O3A-PB | -3.74 | 119.98 | 132.83 |
| 50 | CK | 501 | GTP | PA-O3A-PB | -3.74 | 119.99 | 132.83 |
| 50 | UI | 501 | GTP | PB-O3B-PG | -3.74 | 119.99 | 132.83 |
| 50 | JQ | 501 | GTP | PB-O3B-PG | -3.74 | 120.00 | 132.83 |
| 50 | UG | 501 | GTP | PB-O3B-PG | -3.74 | 120.01 | 132.83 |
| 52 | CD | 502 | GDP | PA-O3A-PB | -3.74 | 120.01 | 132.83 |
| 50 | MI | 501 | GTP | PA-O3A-PB | -3.73 | 120.01 | 132.83 |
| 50 | AG | 501 | GTP | PB-O3B-PG | -3.73 | 120.02 | 132.83 |
| 50 | VO | 501 | GTP | PA-O3A-PB | -3.72 | 120.05 | 132.83 |
| 50 | EI | 501 | GTP | PB-O3B-PG | -3.72 | 120.05 | 132.83 |
| 50 | DE | 501 | GTP | PB-O3B-PG | -3.72 | 120.05 | 132.83 |
| 50 | VK | 501 | GTP | PB-O3B-PG | -3.72 | 120.06 | 132.83 |
| 50 | OK | 501 | GTP | PB-O3B-PG | -3.72 | 120.07 | 132.83 |
| 50 | NK | 501 | GTP | PB-O3B-PG | -3.72 | 120.08 | 132.83 |
| 52 | DF | 502 | GDP | PA-O3A-PB | -3.72 | 120.08 | 132.83 |
| 50 | BE | 501 | GTP | PB-O3B-PG | -3.71 | 120.08 | 132.83 |
| 52 | EN | 502 | GDP | PA-O3A-PB | -3.71 | 120.09 | 132.83 |
| 50 | QO | 501 | GTP | PB-O3B-PG | -3.71 | 120.10 | 132.83 |
| 52 | FN | 502 | GDP | PA-O3A-PB | -3.71 | 120.10 | 132.83 |
| 52 | WH | 502 | GDP | PA-O3A-PB | -3.71 | 120.10 | 132.83 |
| 52 | FB | 502 | GDP | PA-O3A-PB | -3.71 | 120.10 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 50 | DI | 501 | GTP | PA-O3A-PB | -3.71 | 120.11 | 132.83 |
| 50 | EG | 501 | GTP | PB-O3B-PG | -3.70 | 120.12 | 132.83 |
| 50 | HG | 501 | GTP | PB-O3B-PG | -3.70 | 120.13 | 132.83 |
| 52 | HL | 502 | GDP | PA-O3A-PB | -3.70 | 120.13 | 132.83 |
| 50 | VG | 501 | GTP | PB-O3B-PG | -3.70 | 120.14 | 132.83 |
| 50 | CO | 501 | GTP | PB-O3B-PG | -3.70 | 120.14 | 132.83 |
| 52 | UH | 502 | GDP | PA-O3A-PB | -3.70 | 120.14 | 132.83 |
| 52 | BJ | 502 | GDP | PA-O3A-PB | -3.70 | 120.14 | 132.83 |
| 52 | GL | 502 | GDP | PA-O3A-PB | -3.69 | 120.17 | 132.83 |
| 50 | IM | 501 | GTP | PA-O3A-PB | -3.68 | 120.19 | 132.83 |
| 52 | IF | 502 | GDP | PA-O3A-PB | -3.68 | 120.19 | 132.83 |
| 50 | LK | 501 | GTP | PB-O3B-PG | -3.68 | 120.21 | 132.83 |
| 50 | WE | 501 | GTP | PB-O3B-PG | -3.68 | 120.21 | 132.83 |
| 50 | DG | 501 | GTP | PB-O3B-PG | -3.67 | 120.23 | 132.83 |
| 50 | DI | 501 | GTP | PB-O3B-PG | -3.67 | 120.23 | 132.83 |
| 50 | CG | 501 | GTP | PB-O3B-PG | -3.67 | 120.23 | 132.83 |
| 50 | DO | 501 | GTP | PB-O3B-PG | -3.67 | 120.24 | 132.83 |
| 50 | CC | 501 | GTP | PB-O3B-PG | -3.67 | 120.25 | 132.83 |
| 50 | NI | 501 | GTP | PA-O3A-PB | -3.66 | 120.27 | 132.83 |
| 50 | VM | 501 | GTP | PB-O3B-PG | -3.66 | 120.28 | 132.83 |
| 52 | JP | 502 | GDP | PA-O3A-PB | -3.66 | 120.28 | 132.83 |
| 52 | SF | 502 | GDP | PA-O3A-PB | -3.66 | 120.28 | 132.83 |
| 50 | WC | 501 | GTP | PB-O3B-PG | -3.66 | 120.28 | 132.83 |
| 50 | KE | 501 | GTP | PB-O3B-PG | -3.65 | 120.29 | 132.83 |
| 50 | QC | 501 | GTP | PB-O3B-PG | -3.65 | 120.29 | 132.83 |
| 50 | BI | 501 | GTP | PA-O3A-PB | -3.65 | 120.30 | 132.83 |
| 52 | DN | 502 | GDP | PA-O3A-PB | -3.65 | 120.30 | 132.83 |
| 50 | HO | 501 | GTP | PA-O3A-PB | -3.65 | 120.30 | 132.83 |
| 52 | EJ | 502 | GDP | PA-O3A-PB | -3.65 | 120.30 | 132.83 |
| 50 | WK | 501 | GTP | PB-O3B-PG | -3.65 | 120.30 | 132.83 |
| 50 | WO | 501 | GTP | PB-O3B-PG | -3.65 | 120.30 | 132.83 |
| 50 | RE | 501 | GTP | PB-O3B-PG | -3.65 | 120.31 | 132.83 |
| 50 | LC | 501 | GTP | PB-O3B-PG | -3.65 | 120.31 | 132.83 |
| 50 | ME | 501 | GTP | PA-O3A-PB | -3.64 | 120.32 | 132.83 |
| 52 | HF | 502 | GDP | PA-O3A-PB | -3.64 | 120.34 | 132.83 |
| 50 | AI | 501 | GTP | PA-O3A-PB | -3.64 | 120.35 | 132.83 |
| 52 | FJ | 502 | GDP | PA-O3A-PB | -3.63 | 120.36 | 132.83 |
| 50 | DC | 501 | GTP | PA-O3A-PB | -3.63 | 120.36 | 132.83 |
| 52 | JF | 502 | GDP | PA-O3A-PB | -3.63 | 120.37 | 132.83 |
| 50 | LG | 501 | GTP | PA-O3A-PB | -3.63 | 120.37 | 132.83 |
| 52 | IH | 502 | GDP | PA-O3A-PB | -3.63 | 120.38 | 132.83 |
| 50 | JE | 501 | GTP | PA-O3A-PB | -3.63 | 120.38 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 50 | DQ | 501 | GTP | PB-O3B-PG | -3.63 | 120.38 | 132.83 |
| 50 | OM | 501 | GTP | PB-O3B-PG | -3.62 | 120.39 | 132.83 |
| 50 | EC | 501 | GTP | PB-O3B-PG | -3.62 | 120.42 | 132.83 |
| 50 | MM | 501 | GTP | PB-O3B-PG | -3.61 | 120.43 | 132.83 |
| 50 | AM | 501 | GTP | PA-O3A-PB | -3.61 | 120.44 | 132.83 |
| 50 | LE | 501 | GTP | PB-O3B-PG | -3.61 | 120.44 | 132.83 |
| 50 | GO | 501 | GTP | PB-O3B-PG | -3.61 | 120.45 | 132.83 |
| 52 | CL | 502 | GDP | PA-O3A-PB | -3.60 | 120.47 | 132.83 |
| 50 | MC | 501 | GTP | PB-O3B-PG | -3.60 | 120.48 | 132.83 |
| 52 | IL | 502 | GDP | PA-O3A-PB | -3.60 | 120.48 | 132.83 |
| 50 | AM | 501 | GTP | PB-O3B-PG | -3.60 | 120.48 | 132.83 |
| 52 | MP | 502 | GDP | PA-O3A-PB | -3.60 | 120.48 | 132.83 |
| 50 | EG | 501 | GTP | PA-O3A-PB | -3.60 | 120.49 | 132.83 |
| 52 | TB | 502 | GDP | PA-O3A-PB | -3.59 | 120.49 | 132.83 |
| 52 | MH | 502 | GDP | PA-O3A-PB | -3.59 | 120.49 | 132.83 |
| 52 | AP | 502 | GDP | PA-O3A-PB | -3.59 | 120.51 | 132.83 |
| 52 | KH | 502 | GDP | PA-O3A-PB | -3.59 | 120.51 | 132.83 |
| 52 | MN | 502 | GDP | PA-O3A-PB | -3.59 | 120.51 | 132.83 |
| 50 | DK | 501 | GTP | PB-O3B-PG | -3.58 | 120.54 | 132.83 |
| 50 | RG | 501 | GTP | PB-O3B-PG | -3.58 | 120.54 | 132.83 |
| 52 | NN | 502 | GDP | PA-O3A-PB | -3.58 | 120.54 | 132.83 |
| 50 | EO | 501 | GTP | PB-O3B-PG | -3.58 | 120.54 | 132.83 |
| 52 | HN | 502 | GDP | PA-O3A-PB | -3.58 | 120.54 | 132.83 |
| 50 | FE | 501 | GTP | PB-O3B-PG | -3.58 | 120.55 | 132.83 |
| 50 | PM | 501 | GTP | PB-O3B-PG | -3.58 | 120.55 | 132.83 |
| 52 | TJ | 502 | GDP | PA-O3A-PB | -3.58 | 120.56 | 132.83 |
| 50 | TG | 501 | GTP | PB-O3B-PG | -3.57 | 120.57 | 132.83 |
| 50 | KC | 501 | GTP | PB-O3B-PG | -3.57 | 120.57 | 132.83 |
| 50 | NC | 501 | GTP | PB-O3B-PG | -3.57 | 120.57 | 132.83 |
| 52 | BN | 502 | GDP | PA-O3A-PB | -3.57 | 120.58 | 132.83 |
| 50 | KO | 501 | GTP | PB-O3B-PG | -3.57 | 120.58 | 132.83 |
| 52 | SB | 502 | GDP | PA-O3A-PB | -3.57 | 120.58 | 132.83 |
| 52 | PH | 502 | GDP | PA-O3A-PB | -3.57 | 120.59 | 132.83 |
| 50 | LI | 501 | GTP | PB-O3B-PG | -3.56 | 120.59 | 132.83 |
| 50 | VE | 501 | GTP | PB-O3B-PG | -3.56 | 120.59 | 132.83 |
| 50 | JC | 501 | GTP | PB-O3B-PG | -3.56 | 120.60 | 132.83 |
| 52 | MB | 502 | GDP | PA-O3A-PB | -3.56 | 120.61 | 132.83 |
| 50 | KM | 501 | GTP | PB-O3B-PG | -3.56 | 120.61 | 132.83 |
| 50 | MG | 501 | GTP | PB-O3B-PG | -3.56 | 120.62 | 132.83 |
| 50 | LG | 501 | GTP | PB-O3B-PG | -3.56 | 120.62 | 132.83 |
| 52 | CN | 502 | GDP | PA-O3A-PB | -3.56 | 120.62 | 132.83 |
| 50 | PO | 501 | GTP | PB-O3B-PG | -3.55 | 120.63 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | PG | 501 | GTP | PA-O3A-PB | -3.55 | 120.63 | 132.83 |
| 50 | UK | 501 | GTP | PB-O3B-PG | -3.55 | 120.65 | 132.83 |
| 52 | EB | 502 | GDP | PA-O3A-PB | -3.54 | 120.67 | 132.83 |
| 50 | QG | 501 | GTP | PB-O3B-PG | -3.54 | 120.67 | 132.83 |
| 50 | FO | 501 | GTP | PB-O3B-PG | -3.54 | 120.68 | 132.83 |
| 50 | GM | 501 | GTP | PB-O3B-PG | -3.54 | 120.68 | 132.83 |
| 50 | UE | 501 | GTP | PB-O3B-PG | -3.54 | 120.68 | 132.83 |
| 52 | DH | 502 | GDP | PA-O3A-PB | -3.54 | 120.69 | 132.83 |
| 50 | AK | 501 | GTP | PB-O3B-PG | -3.53 | 120.70 | 132.83 |
| 50 | AE | 501 | GTP | PB-O3B-PG | -3.53 | 120.70 | 132.83 |
| 50 | JO | 501 | GTP | C5-C6-N1 | 3.53 | 120.19 | 113.95 |
| 52 | RF | 502 | GDP | PA-O3A-PB | -3.53 | 120.70 | 132.83 |
| 52 | RP | 502 | GDP | PA-O3A-PB | -3.53 | 120.71 | 132.83 |
| 50 | OE | 501 | GTP | PB-O3B-PG | -3.53 | 120.72 | 132.83 |
| 52 | EF | 502 | GDP | PA-O3A-PB | -3.53 | 120.72 | 132.83 |
| 50 | UM | 501 | GTP | PB-O3B-PG | -3.52 | 120.73 | 132.83 |
| 50 | JE | 501 | GTP | PB-O3B-PG | -3.52 | 120.73 | 132.83 |
| 50 | ME | 501 | GTP | PB-O3B-PG | -3.52 | 120.74 | 132.83 |
| 50 | FO | 501 | GTP | PA-O3A-PB | -3.52 | 120.75 | 132.83 |
| 52 | GF | 502 | GDP | PA-O3A-PB | -3.52 | 120.75 | 132.83 |
| 50 | QM | 501 | GTP | PB-O3B-PG | -3.52 | 120.76 | 132.83 |
| 50 | LK | 501 | GTP | PA-O3A-PB | -3.52 | 120.76 | 132.83 |
| 50 | EA | 501 | GTP | PB-O3B-PG | -3.51 | 120.77 | 132.83 |
| 52 | LP | 502 | GDP | PA-O3A-PB | -3.51 | 120.77 | 132.83 |
| 50 | VC | 501 | GTP | PB-O3B-PG | -3.51 | 120.78 | 132.83 |
| 50 | VO | 501 | GTP | PB-O3B-PG | -3.51 | 120.78 | 132.83 |
| 50 | QG | 501 | GTP | C5-C6-N1 | 3.51 | 120.14 | 113.95 |
| 52 | DJ | 502 | GDP | PA-O3A-PB | -3.50 | 120.82 | 132.83 |
| 50 | GC | 501 | GTP | PB-O3B-PG | -3.50 | 120.82 | 132.83 |
| 52 | GB | 502 | GDP | PA-O3A-PB | -3.50 | 120.82 | 132.83 |
| 52 | WF | 502 | GDP | PA-O3A-PB | -3.50 | 120.82 | 132.83 |
| 50 | TK | 501 | GTP | PB-O3B-PG | -3.50 | 120.83 | 132.83 |
| 50 | FI | 501 | GTP | PA-O3A-PB | -3.50 | 120.83 | 132.83 |
| 50 | RI | 501 | GTP | PB-O3B-PG | -3.50 | 120.83 | 132.83 |
| 50 | GG | 501 | GTP | PB-O3B-PG | -3.50 | 120.83 | 132.83 |
| 50 | NK | 501 | GTP | PA-O3A-PB | -3.49 | 120.83 | 132.83 |
| 50 | BG | 501 | GTP | PA-O3A-PB | -3.49 | 120.84 | 132.83 |
| 50 | MI | 501 | GTP | PB-O3B-PG | -3.49 | 120.84 | 132.83 |
| 52 | RD | 502 | GDP | PA-O3A-PB | -3.49 | 120.85 | 132.83 |
| 52 | TN | 502 | GDP | PA-O3A-PB | -3.49 | 120.86 | 132.83 |
| 52 | OB | 502 | GDP | C3'-C2'-C1' | 3.49 | 106.23 | 100.98 |
| 50 | MK | 501 | GTP | PB-O3B-PG | -3.49 | 120.86 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 50 | TM | 501 | GTP | PB-O3B-PG | -3.48 | 120.88 | 132.83 |
| 50 | PC | 501 | GTP | PB-O3B-PG | -3.48 | 120.88 | 132.83 |
| 50 | AA | 501 | GTP | PB-O3B-PG | -3.48 | 120.88 | 132.83 |
| 50 | LO | 501 | GTP | PB-O3B-PG | -3.48 | 120.89 | 132.83 |
| 52 | RN | 502 | GDP | PA-O3A-PB | -3.48 | 120.89 | 132.83 |
| 50 | CQ | 501 | GTP | PB-O3B-PG | -3.48 | 120.90 | 132.83 |
| 52 | JN | 502 | GDP | PA-O3A-PB | -3.47 | 120.91 | 132.83 |
| 50 | DM | 501 | GTP | PB-O3B-PG | -3.47 | 120.92 | 132.83 |
| 50 | GM | 501 | GTP | PA-O3A-PB | -3.47 | 120.92 | 132.83 |
| 52 | TD | 502 | GDP | PA-O3A-PB | -3.47 | 120.92 | 132.83 |
| 52 | SH | 502 | GDP | PA-O3A-PB | -3.47 | 120.93 | 132.83 |
| 52 | SL | 502 | GDP | PA-O3A-PB | -3.47 | 120.93 | 132.83 |
| 52 | PJ | 502 | GDP | PA-O3A-PB | -3.46 | 120.94 | 132.83 |
| 50 | OI | 501 | GTP | PB-O3B-PG | -3.46 | 120.94 | 132.83 |
| 50 | PO | 501 | GTP | PA-O3A-PB | -3.46 | 120.94 | 132.83 |
| 52 | CP | 502 | GDP | PA-O3A-PB | -3.46 | 120.95 | 132.83 |
| 52 | LH | 502 | GDP | PA-O3A-PB | -3.46 | 120.96 | 132.83 |
| 50 | NA | 501 | GTP | PB-O3B-PG | -3.46 | 120.96 | 132.83 |
| 50 | AE | 501 | GTP | C5-C6-N1 | 3.46 | 120.05 | 113.95 |
| 50 | TC | 501 | GTP | PB-O3B-PG | -3.45 | 120.97 | 132.83 |
| 52 | BD | 502 | GDP | PA-O3A-PB | -3.45 | 120.98 | 132.83 |
| 50 | LA | 501 | GTP | PB-O3B-PG | -3.45 | 120.98 | 132.83 |
| 52 | QP | 502 | GDP | PA-O3A-PB | -3.45 | 121.00 | 132.83 |
| 52 | HJ | 502 | GDP | PA-O3A-PB | -3.45 | 121.00 | 132.83 |
| 52 | WB | 502 | GDP | PA-O3A-PB | -3.44 | 121.01 | 132.83 |
| 52 | WJ | 502 | GDP | PA-O3A-PB | -3.44 | 121.01 | 132.83 |
| 50 | GK | 501 | GTP | PB-O3B-PG | -3.44 | 121.01 | 132.83 |
| 50 | PK | 501 | GTP | PB-O3B-PG | -3.44 | 121.01 | 132.83 |
| 50 | HE | 501 | GTP | PB-O3B-PG | -3.44 | 121.01 | 132.83 |
| 52 | AB | 502 | GDP | PA-O3A-PB | -3.44 | 121.02 | 132.83 |
| 50 | KI | 501 | GTP | PB-O3B-PG | -3.44 | 121.02 | 132.83 |
| 50 | NM | 501 | GTP | PA-O3A-PB | -3.44 | 121.03 | 132.83 |
| 50 | FM | 501 | GTP | PA-O3A-PB | -3.44 | 121.03 | 132.83 |
| 50 | JQ | 501 | GTP | PA-O3A-PB | -3.44 | 121.03 | 132.83 |
| 50 | TG | 501 | GTP | PA-O3A-PB | -3.44 | 121.04 | 132.83 |
| 50 | IA | 501 | GTP | PB-O3B-PG | -3.43 | 121.05 | 132.83 |
| 50 | IG | 501 | GTP | PA-O3A-PB | -3.43 | 121.05 | 132.83 |
| 50 | KK | 501 | GTP | C5-C6-N1 | 3.43 | 120.00 | 113.95 |
| 52 | JD | 502 | GDP | PA-O3A-PB | -3.43 | 121.06 | 132.83 |
| 50 | DK | 501 | GTP | PA-O3A-PB | -3.43 | 121.07 | 132.83 |
| 52 | PN | 502 | GDP | PA-O3A-PB | -3.43 | 121.07 | 132.83 |
| 52 | ED | 502 | GDP | PA-O3A-PB | -3.43 | 121.07 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | NP | 502 | GDP | PA-O3A-PB | -3.43 | 121.07 | 132.83 |
| 50 | FC | 501 | GTP | C5-C6-N1 | 3.43 | 120.00 | 113.95 |
| 50 | LM | 501 | GTP | PB-O3B-PG | -3.42 | 121.09 | 132.83 |
| 50 | UA | 501 | GTP | PB-O3B-PG | -3.42 | 121.09 | 132.83 |
| 50 | KI | 501 | GTP | C5-C6-N1 | 3.42 | 119.99 | 113.95 |
| 50 | LO | 501 | GTP | PA-O3A-PB | -3.42 | 121.10 | 132.83 |
| 50 | OE | 501 | GTP | PA-O3A-PB | -3.41 | 121.11 | 132.83 |
| 52 | ID | 502 | GDP | PA-O3A-PB | -3.41 | 121.11 | 132.83 |
| 50 | BO | 501 | GTP | PA-O3A-PB | -3.41 | 121.11 | 132.83 |
| 50 | AC | 501 | GTP | PA-O3A-PB | -3.41 | 121.11 | 132.83 |
| 50 | RO | 501 | GTP | PB-O3B-PG | -3.41 | 121.13 | 132.83 |
| 50 | RG | 501 | GTP | C5-C6-N1 | 3.41 | 119.97 | 113.95 |
| 52 | DD | 502 | GDP | PA-O3A-PB | -3.40 | 121.14 | 132.83 |
| 50 | AG | 501 | GTP | PA-O3A-PB | -3.40 | 121.15 | 132.83 |
| 52 | VD | 502 | GDP | PA-O3A-PB | -3.40 | 121.15 | 132.83 |
| 50 | HC | 501 | GTP | PB-O3B-PG | -3.40 | 121.16 | 132.83 |
| 52 | NL | 502 | GDP | PA-O3A-PB | -3.40 | 121.16 | 132.83 |
| 52 | PF | 502 | GDP | PA-O3A-PB | -3.40 | 121.17 | 132.83 |
| 52 | WD | 502 | GDP | PA-O3A-PB | -3.40 | 121.17 | 132.83 |
| 52 | UF | 502 | GDP | PA-O3A-PB | -3.40 | 121.17 | 132.83 |
| 50 | IK | 501 | GTP | C5-C6-N1 | 3.40 | 119.95 | 113.95 |
| 50 | RO | 501 | GTP | C5-C6-N1 | 3.40 | 119.95 | 113.95 |
| 50 | HI | 501 | GTP | PA-O3A-PB | -3.40 | 121.18 | 132.83 |
| 50 | OA | 501 | GTP | PB-O3B-PG | -3.39 | 121.18 | 132.83 |
| 52 | RL | 502 | GDP | PA-O3A-PB | -3.39 | 121.18 | 132.83 |
| 50 | RM | 501 | GTP | C5-C6-N1 | 3.39 | 119.94 | 113.95 |
| 52 | VH | 502 | GDP | PA-O3A-PB | -3.39 | 121.18 | 132.83 |
| 50 | JK | 501 | GTP | C5-C6-N1 | 3.39 | 119.94 | 113.95 |
| 50 | FK | 501 | GTP | PB-O3B-PG | -3.39 | 121.19 | 132.83 |
| 50 | FG | 501 | GTP | PB-O3B-PG | -3.39 | 121.19 | 132.83 |
| 50 | NO | 501 | GTP | PA-O3A-PB | -3.39 | 121.19 | 132.83 |
| 50 | WA | 501 | GTP | PB-O3B-PG | -3.39 | 121.19 | 132.83 |
| 50 | VA | 501 | GTP | PB-O3B-PG | -3.39 | 121.20 | 132.83 |
| 50 | EC | 501 | GTP | C5-C6-N1 | 3.39 | 119.93 | 113.95 |
| 52 | RH | 502 | GDP | PA-O3A-PB | -3.39 | 121.21 | 132.83 |
| 50 | NO | 501 | GTP | PB-O3B-PG | -3.38 | 121.21 | 132.83 |
| 50 | SM | 501 | GTP | PB-O3B-PG | -3.38 | 121.22 | 132.83 |
| 50 | KG | 501 | GTP | C3'-C2'-C1' | 3.38 | 106.07 | 100.98 |
| 50 | AG | 501 | GTP | C5-C6-N1 | 3.38 | 119.92 | 113.95 |
| 50 | LI | 501 | GTP | PA-O3A-PB | -3.38 | 121.22 | 132.83 |
| 50 | VM | 501 | GTP | PA-O3A-PB | -3.38 | 121.23 | 132.83 |
| 52 | WL | 502 | GDP | PA-O3A-PB | -3.38 | 121.23 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | AK | 501 | GTP | C5-C6-N1 | 3.37 | 119.91 | 113.95 |
| 50 | VK | 501 | GTP | C5-C6-N1 | 3.37 | 119.91 | 113.95 |
| 50 | JG | 501 | GTP | PA-O3A-PB | -3.37 | 121.25 | 132.83 |
| 50 | MK | 501 | GTP | C5-C6-N1 | 3.37 | 119.91 | 113.95 |
| 50 | AE | 501 | GTP | PA-O3A-PB | -3.37 | 121.26 | 132.83 |
| 50 | HC | 501 | GTP | C5-C6-N1 | 3.37 | 119.90 | 113.95 |
| 50 | PI | 501 | GTP | C5-C6-N1 | 3.37 | 119.90 | 113.95 |
| 50 | RE | 501 | GTP | C5-C6-N1 | 3.37 | 119.89 | 113.95 |
| 50 | PM | 501 | GTP | PA-O3A-PB | -3.37 | 121.28 | 132.83 |
| 50 | FK | 501 | GTP | PA-O3A-PB | -3.36 | 121.28 | 132.83 |
| 50 | EA | 501 | GTP | C5-C6-N1 | 3.36 | 119.89 | 113.95 |
| 50 | KA | 501 | GTP | C5-C6-N1 | 3.36 | 119.89 | 113.95 |
| 52 | UB | 502 | GDP | PA-O3A-PB | -3.36 | 121.29 | 132.83 |
| 50 | AI | 501 | GTP | C5-C6-N1 | 3.36 | 119.88 | 113.95 |
| 50 | WC | 501 | GTP | C5-C6-N1 | 3.36 | 119.88 | 113.95 |
| 50 | JI | 501 | GTP | C5-C6-N1 | 3.36 | 119.88 | 113.95 |
| 50 | BI | 501 | GTP | C5-C6-N1 | 3.35 | 119.88 | 113.95 |
| 50 | SI | 501 | GTP | PA-O3A-PB | -3.35 | 121.32 | 132.83 |
| 52 | TH | 502 | GDP | PA-O3A-PB | -3.35 | 121.32 | 132.83 |
| 52 | HD | 502 | GDP | PA-O3A-PB | -3.35 | 121.32 | 132.83 |
| 50 | KC | 501 | GTP | C5-C6-N1 | 3.35 | 119.87 | 113.95 |
| 50 | RK | 501 | GTP | C5-C6-N1 | 3.35 | 119.86 | 113.95 |
| 50 | EC | 501 | GTP | PA-O3A-PB | -3.35 | 121.34 | 132.83 |
| 50 | FG | 501 | GTP | PA-O3A-PB | -3.35 | 121.34 | 132.83 |
| 50 | QI | 501 | GTP | C5-C6-N1 | 3.35 | 119.86 | 113.95 |
| 52 | OL | 502 | GDP | PA-O3A-PB | -3.35 | 121.34 | 132.83 |
| 50 | AC | 501 | GTP | C5-C6-N1 | 3.35 | 119.86 | 113.95 |
| 50 | NC | 501 | GTP | PA-O3A-PB | -3.34 | 121.35 | 132.83 |
| 50 | EM | 501 | GTP | C5-C6-N1 | 3.34 | 119.86 | 113.95 |
| 50 | OI | 501 | GTP | PA-O3A-PB | -3.34 | 121.35 | 132.83 |
| 50 | RC | 501 | GTP | C5-C6-N1 | 3.34 | 119.85 | 113.95 |
| 50 | TE | 501 | GTP | PB-O3B-PG | -3.34 | 121.36 | 132.83 |
| 50 | CK | 501 | GTP | C5-C6-N1 | 3.34 | 119.84 | 113.95 |
| 50 | CM | 501 | GTP | C5-C6-N1 | 3.34 | 119.84 | 113.95 |
| 52 | NJ | 502 | GDP | C3'-C2'-C1' | 3.33 | 106.00 | 100.98 |
| 52 | ND | 502 | GDP | PA-O3A-PB | -3.33 | 121.39 | 132.83 |
| 50 | FO | 501 | GTP | C5-C6-N1 | 3.33 | 119.84 | 113.95 |
| 50 | CG | 501 | GTP | C5-C6-N1 | 3.33 | 119.83 | 113.95 |
| 50 | ME | 501 | GTP | C5-C6-N1 | 3.33 | 119.83 | 113.95 |
| 50 | OC | 501 | GTP | PA-O3A-PB | -3.33 | 121.41 | 132.83 |
| 50 | KG | 501 | GTP | C5-C6-N1 | 3.33 | 119.83 | 113.95 |
| 50 | TC | 501 | GTP | C5-C6-N1 | 3.33 | 119.82 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 52 | ML | 502 | GDP | PA-O3A-PB | -3.33 | 121.42 | 132.83 |
| 50 | EK | 501 | GTP | C5-C6-N1 | 3.32 | 119.82 | 113.95 |
| 50 | FI | 501 | GTP | PB-O3B-PG | -3.32 | 121.42 | 132.83 |
| 52 | TF | 502 | GDP | PA-O3A-PB | -3.32 | 121.42 | 132.83 |
| 50 | PO | 501 | GTP | C5-C6-N1 | 3.32 | 119.82 | 113.95 |
| 52 | VL | 502 | GDP | PA-O3A-PB | -3.32 | 121.43 | 132.83 |
| 50 | PE | 501 | GTP | C5-C6-N1 | 3.32 | 119.82 | 113.95 |
| 50 | LG | 501 | GTP | C5-C6-N1 | 3.32 | 119.82 | 113.95 |
| 50 | HA | 501 | GTP | PB-O3B-PG | -3.32 | 121.43 | 132.83 |
| 50 | TI | 501 | GTP | PB-O3B-PG | -3.32 | 121.44 | 132.83 |
| 50 | EI | 501 | GTP | C5-C6-N1 | 3.32 | 119.81 | 113.95 |
| 50 | LE | 501 | GTP | C5-C6-N1 | 3.32 | 119.81 | 113.95 |
| 50 | QC | 501 | GTP | C5-C6-N1 | 3.32 | 119.81 | 113.95 |
| 50 | LI | 501 | GTP | C5-C6-N1 | 3.32 | 119.81 | 113.95 |
| 50 | IK | 501 | GTP | PA-O3A-PB | -3.32 | 121.44 | 132.83 |
| 52 | GN | 502 | GDP | PA-O3A-PB | -3.32 | 121.45 | 132.83 |
| 50 | EE | 501 | GTP | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 52 | PL | 502 | GDP | PA-O3A-PB | -3.31 | 121.46 | 132.83 |
| 50 | OG | 501 | GTP | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 50 | WI | 501 | GTP | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 50 | VE | 501 | GTP | PA-O3A-PB | -3.31 | 121.46 | 132.83 |
| 50 | EG | 501 | GTP | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 50 | BG | 501 | GTP | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 50 | FI | 501 | GTP | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 50 | WG | 501 | GTP | C5-C6-N1 | 3.31 | 119.80 | 113.95 |
| 50 | FA | 501 | GTP | C5-C6-N1 | 3.31 | 119.79 | 113.95 |
| 50 | GE | 501 | GTP | PB-O3B-PG | -3.31 | 121.48 | 132.83 |
| 50 | DK | 501 | GTP | C5-C6-N1 | 3.31 | 119.79 | 113.95 |
| 50 | KE | 501 | GTP | C5-C6-N1 | 3.31 | 119.79 | 113.95 |
| 50 | WK | 501 | GTP | PA-O3A-PB | -3.31 | 121.48 | 132.83 |
| 50 | DM | 501 | GTP | C5-C6-N1 | 3.30 | 119.79 | 113.95 |
| 50 | NE | 501 | GTP | PB-O3B-PG | -3.30 | 121.49 | 132.83 |
| 52 | SD | 502 | GDP | PA-O3A-PB | -3.30 | 121.49 | 132.83 |
| 52 | PD | 502 | GDP | PA-O3A-PB | -3.30 | 121.50 | 132.83 |
| 50 | AA | 501 | GTP | C5-C6-N1 | 3.30 | 119.78 | 113.95 |
| 50 | SK | 501 | GTP | PB-O3B-PG | -3.30 | 121.51 | 132.83 |
| 50 | DE | 501 | GTP | C5-C6-N1 | 3.30 | 119.77 | 113.95 |
| 50 | LC | 501 | GTP | C5-C6-N1 | 3.30 | 119.77 | 113.95 |
| 50 | QK | 501 | GTP | C5-C6-N1 | 3.30 | 119.77 | 113.95 |
| 50 | WE | 501 | GTP | C5-C6-N1 | 3.30 | 119.77 | 113.95 |
| 50 | OI | 501 | GTP | C5-C6-N1 | 3.30 | 119.77 | 113.95 |
| 52 | SN | 502 | GDP | PA-O3A-PB | -3.30 | 121.52 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | NO | 501 | GTP | C5-C6-N1 | 3.29 | 119.77 | 113.95 |
| 50 | GA | 501 | GTP | PB-O3B-PG | -3.29 | 121.52 | 132.83 |
| 50 | JE | 501 | GTP | C5-C6-N1 | 3.29 | 119.77 | 113.95 |
| 50 | MA | 501 | GTP | PA-O3A-PB | -3.29 | 121.52 | 132.83 |
| 52 | UL | 502 | GDP | PA-O3A-PB | -3.29 | 121.54 | 132.83 |
| 50 | GK | 501 | GTP | PA-O3A-PB | -3.29 | 121.54 | 132.83 |
| 50 | VG | 501 | GTP | PA-O3A-PB | -3.29 | 121.55 | 132.83 |
| 50 | ME | 501 | GTP | C3'-C2'-C1' | 3.29 | 105.93 | 100.98 |
| 50 | BE | 501 | GTP | C5-C6-N1 | 3.29 | 119.75 | 113.95 |
| 50 | NG | 501 | GTP | C5-C6-N1 | 3.29 | 119.75 | 113.95 |
| 50 | DC | 501 | GTP | C5-C6-N1 | 3.29 | 119.75 | 113.95 |
| 50 | SA | 501 | GTP | PA-O3A-PB | -3.29 | 121.55 | 132.83 |
| 52 | RJ | 502 | GDP | PA-O3A-PB | -3.29 | 121.55 | 132.83 |
| 52 | OH | 502 | GDP | PA-O3A-PB | -3.28 | 121.56 | 132.83 |
| 50 | BK | 501 | GTP | C5-C6-N1 | 3.28 | 119.75 | 113.95 |
| 50 | WM | 501 | GTP | C5-C6-N1 | 3.28 | 119.75 | 113.95 |
| 50 | OC | 501 | GTP | C5-C6-N1 | 3.28 | 119.75 | 113.95 |
| 50 | RI | 501 | GTP | C5-C6-N1 | 3.28 | 119.75 | 113.95 |
| 52 | NP | 502 | GDP | C3'-C2'-C1' | 3.28 | 105.92 | 100.98 |
| 50 | GO | 501 | GTP | C5-C6-N1 | 3.28 | 119.75 | 113.95 |
| 50 | IG | 501 | GTP | C5-C6-N1 | 3.28 | 119.74 | 113.95 |
| 50 | NI | 501 | GTP | C5-C6-N1 | 3.28 | 119.74 | 113.95 |
| 50 | NK | 501 | GTP | C5-C6-N1 | 3.28 | 119.74 | 113.95 |
| 50 | HM | 501 | GTP | PA-O3A-PB | -3.28 | 121.58 | 132.83 |
| 50 | SG | 501 | GTP | PB-O3B-PG | -3.28 | 121.58 | 132.83 |
| 50 | LM | 501 | GTP | C5-C6-N1 | 3.28 | 119.74 | 113.95 |
| 52 | QB | 502 | GDP | PA-O3A-PB | -3.28 | 121.59 | 132.83 |
| 52 | VB | 502 | GDP | PA-O3A-PB | -3.27 | 121.59 | 132.83 |
| 52 | UF | 502 | GDP | C3'-C2'-C1' | 3.27 | 105.91 | 100.98 |
| 50 | TE | 501 | GTP | C5-C6-N1 | 3.27 | 119.73 | 113.95 |
| 50 | TK | 501 | GTP | PA-O3A-PB | -3.27 | 121.61 | 132.83 |
| 50 | JM | 501 | GTP | C5-C6-N1 | 3.27 | 119.72 | 113.95 |
| 50 | CO | 501 | GTP | C5-C6-N1 | 3.27 | 119.72 | 113.95 |
| 50 | RC | 501 | GTP | PB-O3B-PG | -3.27 | 121.61 | 132.83 |
| 50 | DQ | 501 | GTP | C5-C6-N1 | 3.27 | 119.72 | 113.95 |
| 50 | VI | 501 | GTP | C5-C6-N1 | 3.27 | 119.72 | 113.95 |
| 50 | OO | 501 | GTP | PA-O3A-PB | -3.27 | 121.61 | 132.83 |
| 50 | UK | 501 | GTP | PA-O3A-PB | -3.27 | 121.61 | 132.83 |
| 50 | MO | 501 | GTP | C5-C6-N1 | 3.27 | 119.72 | 113.95 |
| 50 | VC | 501 | GTP | C5-C6-N1 | 3.27 | 119.72 | 113.95 |
| 50 | UE | 501 | GTP | C5-C6-N1 | 3.26 | 119.72 | 113.95 |
| 52 | ID | 502 | GDP | C3'-C2'-C1' | 3.26 | 105.89 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | HI | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | OK | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | PK | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | AO | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | CQ | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 52 | PB | 502 | GDP | PA-O3A-PB | -3.26 | 121.63 | 132.83 |
| 50 | BO | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | HM | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | PC | 501 | GTP | PA-O3A-PB | -3.26 | 121.64 | 132.83 |
| 52 | DB | 502 | GDP | PA-O3A-PB | -3.26 | 121.64 | 132.83 |
| 50 | IE | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | KM | 501 | GTP | C5-C6-N1 | 3.26 | 119.71 | 113.95 |
| 50 | AA | 501 | GTP | PA-O3A-PB | -3.26 | 121.65 | 132.83 |
| 52 | BB | 502 | GDP | PA-O3A-PB | -3.26 | 121.65 | 132.83 |
| 50 | WK | 501 | GTP | C5-C6-N1 | 3.26 | 119.70 | 113.95 |
| 52 | OB | 502 | GDP | PA-O3A-PB | -3.26 | 121.65 | 132.83 |
| 52 | UB | 502 | GDP | C3'-C2'-C1' | 3.26 | 105.88 | 100.98 |
| 50 | SK | 501 | GTP | C5-C6-N1 | 3.26 | 119.70 | 113.95 |
| 50 | AM | 501 | GTP | C5-C6-N1 | 3.26 | 119.70 | 113.95 |
| 50 | FK | 501 | GTP | C5-C6-N1 | 3.26 | 119.70 | 113.95 |
| 50 | KK | 501 | GTP | PB-O3B-PG | -3.25 | 121.66 | 132.83 |
| 52 | BP | 502 | GDP | PA-O3A-PB | -3.25 | 121.66 | 132.83 |
| 50 | MO | 501 | GTP | PB-O3B-PG | -3.25 | 121.66 | 132.83 |
| 50 | QM | 501 | GTP | C5-C6-N1 | 3.25 | 119.69 | 113.95 |
| 50 | OG | 501 | GTP | PA-O3A-PB | -3.25 | 121.67 | 132.83 |
| 52 | QB | 502 | GDP | C3'-C2'-C1' | 3.25 | 105.87 | 100.98 |
| 50 | GA | 501 | GTP | C5-C6-N1 | 3.25 | 119.69 | 113.95 |
| 50 | HK | 501 | GTP | C5-C6-N1 | 3.25 | 119.69 | 113.95 |
| 52 | DL | 502 | GDP | PA-O3A-PB | -3.25 | 121.67 | 132.83 |
| 50 | JC | 501 | GTP | C5-C6-N1 | 3.25 | 119.69 | 113.95 |
| 50 | EO | 501 | GTP | C5-C6-N1 | 3.25 | 119.69 | 113.95 |
| 50 | HO | 501 | GTP | C5-C6-N1 | 3.25 | 119.69 | 113.95 |
| 50 | KO | 501 | GTP | C5-C6-N1 | 3.25 | 119.69 | 113.95 |
| 52 | KP | 502 | GDP | PA-O3A-PB | -3.25 | 121.69 | 132.83 |
| 50 | DE | 501 | GTP | PA-O3A-PB | -3.25 | 121.69 | 132.83 |
| 50 | PG | 501 | GTP | C5-C6-N1 | 3.24 | 119.68 | 113.95 |
| 50 | VA | 501 | GTP | C5-C6-N1 | 3.24 | 119.68 | 113.95 |
| 50 | NA | 501 | GTP | PA-O3A-PB | -3.24 | 121.70 | 132.83 |
| 50 | LA | 501 | GTP | C5-C6-N1 | 3.24 | 119.68 | 113.95 |
| 50 | QE | 501 | GTP | C5-C6-N1 | 3.24 | 119.68 | 113.95 |
| 50 | CC | 501 | GTP | C5-C6-N1 | 3.24 | 119.68 | 113.95 |
| 50 | DI | 501 | GTP | C5-C6-N1 | 3.24 | 119.68 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | UM | 501 | GTP | C5-C6-N1 | 3.24 | 119.68 | 113.95 |
| 50 | FG | 501 | GTP | C5-C6-N1 | 3.24 | 119.67 | 113.95 |
| 50 | DG | 501 | GTP | C5-C6-N1 | 3.24 | 119.67 | 113.95 |
| 50 | IC | 501 | GTP | PA-O3A-PB | -3.24 | 121.71 | 132.83 |
| 50 | GC | 501 | GTP | C5-C6-N1 | 3.24 | 119.67 | 113.95 |
| 50 | LK | 501 | GTP | C5-C6-N1 | 3.24 | 119.67 | 113.95 |
| 50 | TI | 501 | GTP | PA-O3A-PB | -3.24 | 121.72 | 132.83 |
| 50 | BM | 501 | GTP | C5-C6-N1 | 3.24 | 119.67 | 113.95 |
| 50 | OK | 501 | GTP | PA-O3A-PB | -3.24 | 121.72 | 132.83 |
| 50 | IM | 501 | GTP | C5-C6-N1 | 3.24 | 119.67 | 113.95 |
| 50 | WO | 501 | GTP | C5-C6-N1 | 3.24 | 119.67 | 113.95 |
| 50 | BC | 501 | GTP | C5-C6-N1 | 3.23 | 119.66 | 113.95 |
| 50 | HG | 501 | GTP | C5-C6-N1 | 3.23 | 119.66 | 113.95 |
| 52 | FL | 502 | GDP | C3'-C2'-C1' | 3.23 | 105.84 | 100.98 |
| 50 | CM | 501 | GTP | PA-O3A-PB | -3.23 | 121.74 | 132.83 |
| 50 | DO | 501 | GTP | C5-C6-N1 | 3.23 | 119.66 | 113.95 |
| 50 | TI | 501 | GTP | C5-C6-N1 | 3.23 | 119.65 | 113.95 |
| 50 | MM | 501 | GTP | C5-C6-N1 | 3.23 | 119.65 | 113.95 |
| 50 | TA | 501 | GTP | C5-C6-N1 | 3.23 | 119.65 | 113.95 |
| 50 | GG | 501 | GTP | C5-C6-N1 | 3.23 | 119.65 | 113.95 |
| 52 | WP | 502 | GDP | PA-O3A-PB | -3.23 | 121.76 | 132.83 |
| 50 | AE | 501 | GTP | C2-N1-C6 | -3.23 | 119.16 | 125.10 |
| 50 | PM | 501 | GTP | C5-C6-N1 | 3.23 | 119.65 | 113.95 |
| 50 | MA | 501 | GTP | C5-C6-N1 | 3.22 | 119.65 | 113.95 |
| 50 | IA | 501 | GTP | C5-C6-N1 | 3.22 | 119.64 | 113.95 |
| 52 | JB | 502 | GDP | PA-O3A-PB | -3.22 | 121.77 | 132.83 |
| 50 | NE | 501 | GTP | C5-C6-N1 | 3.22 | 119.64 | 113.95 |
| 50 | HA | 501 | GTP | C5-C6-N1 | 3.22 | 119.64 | 113.95 |
| 50 | MA | 501 | GTP | PB-O3B-PG | -3.22 | 121.78 | 132.83 |
| 50 | LO | 501 | GTP | C5-C6-N1 | 3.22 | 119.64 | 113.95 |
| 50 | SE | 501 | GTP | C5-C6-N1 | 3.22 | 119.64 | 113.95 |
| 50 | TG | 501 | GTP | C5-C6-N1 | 3.22 | 119.64 | 113.95 |
| 52 | PB | 502 | GDP | C3'-C2'-C1' | 3.22 | 105.82 | 100.98 |
| 50 | CE | 501 | GTP | C5-C6-N1 | 3.22 | 119.63 | 113.95 |
| 50 | SA | 501 | GTP | C5-C6-N1 | 3.22 | 119.63 | 113.95 |
| 50 | BE | 501 | GTP | PA-O3A-PB | -3.22 | 121.78 | 132.83 |
| 52 | TL | 502 | GDP | PA-O3A-PB | -3.22 | 121.79 | 132.83 |
| 50 | SA | 501 | GTP | PB-O3B-PG | -3.22 | 121.79 | 132.83 |
| 50 | SK | 501 | GTP | PA-O3A-PB | -3.22 | 121.79 | 132.83 |
| 52 | NB | 502 | GDP | C3'-C2'-C1' | 3.21 | 105.82 | 100.98 |
| 52 | UD | 502 | GDP | PA-O3A-PB | -3.21 | 121.80 | 132.83 |
| 50 | MI | 501 | GTP | C5-C6-N1 | 3.21 | 119.63 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | WL | 502 | GDP | C3'-C2'-C1' | 3.21 | 105.82 | 100.98 |
| 50 | MG | 501 | GTP | PA-O3A-PB | -3.21 | 121.80 | 132.83 |
| 50 | UA | 501 | GTP | C5-C6-N1 | 3.21 | 119.62 | 113.95 |
| 50 | VE | 501 | GTP | C5-C6-N1 | 3.21 | 119.62 | 113.95 |
| 50 | TA | 501 | GTP | PB-O3B-PG | -3.21 | 121.81 | 132.83 |
| 50 | FM | 501 | GTP | C5-C6-N1 | 3.21 | 119.62 | 113.95 |
| 50 | VK | 501 | GTP | PA-O3A-PB | -3.21 | 121.81 | 132.83 |
| 50 | JQ | 501 | GTP | C5-C6-N1 | 3.21 | 119.62 | 113.95 |
| 50 | SM | 501 | GTP | C5-C6-N1 | 3.21 | 119.62 | 113.95 |
| 50 | OA | 501 | GTP | PA-O3A-PB | -3.21 | 121.82 | 132.83 |
| 50 | CI | 501 | GTP | PA-O3A-PB | -3.21 | 121.82 | 132.83 |
| 52 | NH | 502 | GDP | C3'-C2'-C1' | 3.21 | 105.81 | 100.98 |
| 52 | WP | 502 | GDP | C3'-C2'-C1' | 3.21 | 105.81 | 100.98 |
| 52 | MF | 502 | GDP | C3'-C2'-C1' | 3.21 | 105.80 | 100.98 |
| 50 | NA | 501 | GTP | C5-C6-N1 | 3.20 | 119.61 | 113.95 |
| 50 | VM | 501 | GTP | C5-C6-N1 | 3.20 | 119.61 | 113.95 |
| 50 | FE | 501 | GTP | C5-C6-N1 | 3.20 | 119.61 | 113.95 |
| 52 | PP | 502 | GDP | PA-O3A-PB | -3.20 | 121.84 | 132.83 |
| 50 | GM | 501 | GTP | C5-C6-N1 | 3.20 | 119.60 | 113.95 |
| 52 | NF | 502 | GDP | C3'-C2'-C1' | 3.20 | 105.80 | 100.98 |
| 52 | MN | 502 | GDP | C3'-C2'-C1' | 3.20 | 105.80 | 100.98 |
| 50 | UK | 501 | GTP | C5-C6-N1 | 3.20 | 119.60 | 113.95 |
| 52 | EL | 502 | GDP | PA-O3A-PB | -3.20 | 121.85 | 132.83 |
| 50 | HE | 501 | GTP | C5-C6-N1 | 3.20 | 119.60 | 113.95 |
| 52 | NB | 502 | GDP | PA-O3A-PB | -3.20 | 121.85 | 132.83 |
| 50 | CI | 501 | GTP | C5-C6-N1 | 3.20 | 119.60 | 113.95 |
| 50 | MG | 501 | GTP | C5-C6-N1 | 3.20 | 119.60 | 113.95 |
| 50 | DO | 501 | GTP | PA-O3A-PB | -3.20 | 121.86 | 132.83 |
| 50 | UO | 501 | GTP | C5-C6-N1 | 3.20 | 119.60 | 113.95 |
| 50 | WI | 501 | GTP | PA-O3A-PB | -3.19 | 121.86 | 132.83 |
| 50 | UG | 501 | GTP | C5-C6-N1 | 3.19 | 119.59 | 113.95 |
| 50 | SC | 501 | GTP | PB-O3B-PG | -3.19 | 121.86 | 132.83 |
| 50 | TK | 501 | GTP | C5-C6-N1 | 3.19 | 119.59 | 113.95 |
| 50 | FA | 501 | GTP | PA-O3A-PB | -3.19 | 121.87 | 132.83 |
| 50 | KC | 501 | GTP | PA-O3A-PB | -3.19 | 121.87 | 132.83 |
| 50 | QG | 501 | GTP | PA-O3A-PB | -3.19 | 121.87 | 132.83 |
| 50 | WC | 501 | GTP | PA-O3A-PB | -3.19 | 121.87 | 132.83 |
| 52 | OP | 502 | GDP | PA-O3A-PB | -3.19 | 121.87 | 132.83 |
| 50 | VG | 501 | GTP | C5-C6-N1 | 3.19 | 119.59 | 113.95 |
| 52 | SF | 502 | GDP | C3'-C2'-C1' | 3.19 | 105.78 | 100.98 |
| 50 | NM | 501 | GTP | C5-C6-N1 | 3.19 | 119.58 | 113.95 |
| 50 | GI | 501 | GTP | C5-C6-N1 | 3.19 | 119.58 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | JG | 501 | GTP | C5-C6-N1 | 3.19 | 119.58 | 113.95 |
| 50 | OA | 501 | GTP | C5-C6-N1 | 3.19 | 119.58 | 113.95 |
| 50 | VO | 501 | GTP | C5-C6-N1 | 3.19 | 119.58 | 113.95 |
| 50 | IA | 501 | GTP | PA-O3A-PB | -3.19 | 121.89 | 132.83 |
| 50 | UI | 501 | GTP | C5-C6-N1 | 3.19 | 119.58 | 113.95 |
| 52 | SN | 502 | GDP | C3'-C2'-C1' | 3.19 | 105.77 | 100.98 |
| 52 | WD | 502 | GDP | C3'-C2'-C1' | 3.19 | 105.77 | 100.98 |
| 50 | TM | 501 | GTP | C5-C6-N1 | 3.19 | 119.58 | 113.95 |
| 52 | RP | 502 | GDP | C3'-C2'-C1' | 3.18 | 105.77 | 100.98 |
| 50 | NC | 501 | GTP | C5-C6-N1 | 3.18 | 119.58 | 113.95 |
| 50 | SG | 501 | GTP | C5-C6-N1 | 3.18 | 119.57 | 113.95 |
| 50 | WA | 501 | GTP | C5-C6-N1 | 3.18 | 119.57 | 113.95 |
| 50 | PC | 501 | GTP | C5-C6-N1 | 3.18 | 119.56 | 113.95 |
| 50 | GI | 501 | GTP | PA-O3A-PB | -3.18 | 121.93 | 132.83 |
| 50 | GO | 501 | GTP | PA-O3A-PB | -3.18 | 121.93 | 132.83 |
| 50 | UA | 501 | GTP | PA-O3A-PB | -3.18 | 121.93 | 132.83 |
| 50 | OE | 501 | GTP | C5-C6-N1 | 3.17 | 119.56 | 113.95 |
| 52 | AP | 502 | GDP | C3'-C2'-C1' | 3.17 | 105.75 | 100.98 |
| 50 | VC | 501 | GTP | PA-O3A-PB | -3.17 | 121.94 | 132.83 |
| 50 | TA | 501 | GTP | PA-O3A-PB | -3.17 | 121.94 | 132.83 |
| 52 | DP | 502 | GDP | PA-O3A-PB | -3.17 | 121.95 | 132.83 |
| 52 | AL | 502 | GDP | C3'-C2'-C1' | 3.17 | 105.75 | 100.98 |
| 50 | UC | 501 | GTP | C5-C6-N1 | 3.17 | 119.55 | 113.95 |
| 50 | GK | 501 | GTP | C5-C6-N1 | 3.17 | 119.55 | 113.95 |
| 50 | SG | 501 | GTP | PA-O3A-PB | -3.17 | 121.96 | 132.83 |
| 50 | SM | 501 | GTP | PA-O3A-PB | -3.17 | 121.96 | 132.83 |
| 50 | UC | 501 | GTP | PA-O3A-PB | -3.17 | 121.96 | 132.83 |
| 50 | EM | 501 | GTP | PA-O3A-PB | -3.17 | 121.97 | 132.83 |
| 50 | IO | 501 | GTP | C5-C6-N1 | 3.16 | 119.54 | 113.95 |
| 52 | IB | 502 | GDP | PA-O3A-PB | -3.16 | 121.97 | 132.83 |
| 50 | EM | 501 | GTP | PB-O3B-PG | -3.16 | 121.97 | 132.83 |
| 52 | QN | 502 | GDP | PA-O3A-PB | -3.16 | 121.98 | 132.83 |
| 50 | MC | 501 | GTP | C5-C6-N1 | 3.16 | 119.53 | 113.95 |
| 50 | SI | 501 | GTP | PB-O3B-PG | -3.16 | 121.98 | 132.83 |
| 50 | TC | 501 | GTP | PA-O3A-PB | -3.16 | 121.98 | 132.83 |
| 50 | JI | 501 | GTP | PA-O3A-PB | -3.16 | 121.99 | 132.83 |
| 52 | VB | 502 | GDP | C3'-C2'-C1' | 3.16 | 105.73 | 100.98 |
| 50 | IK | 501 | GTP | C8-N7-C5 | 3.16 | 109.00 | 102.99 |
| 50 | KA | 501 | GTP | PB-O3B-PG | -3.16 | 122.00 | 132.83 |
| 50 | WA | 501 | GTP | PA-O3A-PB | -3.16 | 122.00 | 132.83 |
| 50 | SE | 501 | GTP | PA-O3A-PB | -3.15 | 122.00 | 132.83 |
| 50 | HE | 501 | GTP | PA-O3A-PB | -3.15 | 122.01 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | IC | 501 | GTP | C5-C6-N1 | 3.15 | 119.52 | 113.95 |
| 52 | OF | 502 | GDP | PA-O3A-PB | -3.15 | 122.01 | 132.83 |
| 52 | UN | 502 | GDP | C3'-C2'-C1' | 3.15 | 105.72 | 100.98 |
| 50 | SC | 501 | GTP | C5-C6-N1 | 3.15 | 119.51 | 113.95 |
| 50 | IM | 501 | GTP | C8-N7-C5 | 3.15 | 108.99 | 102.99 |
| 50 | SI | 501 | GTP | C5-C6-N1 | 3.15 | 119.51 | 113.95 |
| 50 | FA | 501 | GTP | PB-O3B-PG | -3.15 | 122.02 | 132.83 |
| 50 | SC | 501 | GTP | PA-O3A-PB | -3.15 | 122.02 | 132.83 |
| 50 | BK | 501 | GTP | PA-O3A-PB | -3.15 | 122.03 | 132.83 |
| 50 | KG | 501 | GTP | PB-O3B-PG | -3.14 | 122.03 | 132.83 |
| 50 | QK | 501 | GTP | PA-O3A-PB | -3.14 | 122.04 | 132.83 |
| 50 | GA | 501 | GTP | PA-O3A-PB | -3.14 | 122.04 | 132.83 |
| 50 | IG | 501 | GTP | C8-N7-C5 | 3.14 | 108.98 | 102.99 |
| 50 | IO | 501 | GTP | C8-N7-C5 | 3.14 | 108.98 | 102.99 |
| 50 | WO | 501 | GTP | PA-O3A-PB | -3.14 | 122.05 | 132.83 |
| 50 | BM | 501 | GTP | PA-O3A-PB | -3.14 | 122.05 | 132.83 |
| 50 | TE | 501 | GTP | PA-O3A-PB | -3.14 | 122.05 | 132.83 |
| 52 | VF | 502 | GDP | PA-O3A-PB | -3.14 | 122.05 | 132.83 |
| 52 | OJ | 502 | GDP | PA-O3A-PB | -3.14 | 122.05 | 132.83 |
| 50 | OM | 501 | GTP | C5-C6-N1 | 3.14 | 119.49 | 113.95 |
| 52 | MJ | 502 | GDP | C3'-C2'-C1' | 3.14 | 105.70 | 100.98 |
| 50 | TM | 501 | GTP | PA-O3A-PB | -3.14 | 122.06 | 132.83 |
| 52 | JL | 502 | GDP | PA-O3A-PB | -3.14 | 122.06 | 132.83 |
| 50 | BC | 501 | GTP | C8-N7-C5 | 3.14 | 108.97 | 102.99 |
| 50 | GC | 501 | GTP | PA-O3A-PB | -3.13 | 122.07 | 132.83 |
| 50 | SE | 501 | GTP | PB-O3B-PG | -3.13 | 122.08 | 132.83 |
| 50 | QO | 501 | GTP | C8-N7-C5 | 3.13 | 108.96 | 102.99 |
| 50 | RI | 501 | GTP | C8-N7-C5 | 3.13 | 108.95 | 102.99 |
| 52 | AD | 502 | GDP | C3'-C2'-C1' | 3.13 | 105.69 | 100.98 |
| 50 | JO | 501 | GTP | C8-N7-C5 | 3.13 | 108.95 | 102.99 |
| 50 | PG | 501 | GTP | C8-N7-C5 | 3.13 | 108.95 | 102.99 |
| 52 | NN | 502 | GDP | C3'-C2'-C1' | 3.13 | 105.69 | 100.98 |
| 50 | CG | 501 | GTP | C8-N7-C5 | 3.13 | 108.95 | 102.99 |
| 50 | PK | 501 | GTP | PA-O3A-PB | -3.13 | 122.09 | 132.83 |
| 52 | WH | 502 | GDP | C3'-C2'-C1' | 3.13 | 105.69 | 100.98 |
| 50 | GE | 501 | GTP | C5-C6-N1 | 3.13 | 119.47 | 113.95 |
| 52 | PP | 502 | GDP | C3'-C2'-C1' | 3.13 | 105.69 | 100.98 |
| 50 | UG | 501 | GTP | PA-O3A-PB | -3.13 | 122.10 | 132.83 |
| 50 | OO | 501 | GTP | C5-C6-N1 | 3.13 | 119.47 | 113.95 |
| 50 | CG | 501 | GTP | C2-N1-C6 | -3.12 | 119.34 | 125.10 |
| 52 | OF | 502 | GDP | C3'-C2'-C1' | 3.12 | 105.68 | 100.98 |
| 50 | CE | 501 | GTP | C8-N7-C5 | 3.12 | 108.94 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | AO | 501 | GTP | PA-O3A-PB | -3.12 | 122.12 | 132.83 |
| 52 | FN | 502 | GDP | C3'-C2'-C1' | 3.12 | 105.68 | 100.98 |
| 50 | JI | 501 | GTP | C2-N1-C6 | -3.12 | 119.36 | 125.10 |
| 50 | CG | 501 | GTP | PA-O3A-PB | -3.12 | 122.13 | 132.83 |
| 50 | KA | 501 | GTP | PA-O3A-PB | -3.11 | 122.14 | 132.83 |
| 52 | PF | 502 | GDP | C3'-C2'-C1' | 3.11 | 105.67 | 100.98 |
| 52 | VL | 502 | GDP | C3'-C2'-C1' | 3.11 | 105.66 | 100.98 |
| 52 | OD | 502 | GDP | PA-O3A-PB | -3.11 | 122.15 | 132.83 |
| 50 | PK | 501 | GTP | C8-N7-C5 | 3.11 | 108.91 | 102.99 |
| 50 | DM | 501 | GTP | PA-O3A-PB | -3.11 | 122.16 | 132.83 |
| 50 | HO | 501 | GTP | PB-O3B-PG | -3.10 | 122.18 | 132.83 |
| 50 | EO | 501 | GTP | PA-O3A-PB | -3.10 | 122.18 | 132.83 |
| 52 | SB | 502 | GDP | C3'-C2'-C1' | 3.10 | 105.65 | 100.98 |
| 50 | JK | 501 | GTP | C2-N1-C6 | -3.10 | 119.39 | 125.10 |
| 50 | JQ | 501 | GTP | C8-N7-C5 | 3.10 | 108.90 | 102.99 |
| 52 | HB | 502 | GDP | PA-O3A-PB | -3.10 | 122.19 | 132.83 |
| 52 | UD | 502 | GDP | C3'-C2'-C1' | 3.10 | 105.64 | 100.98 |
| 50 | JG | 501 | GTP | C8-N7-C5 | 3.10 | 108.89 | 102.99 |
| 50 | EC | 501 | GTP | C8-N7-C5 | 3.09 | 108.88 | 102.99 |
| 50 | QC | 501 | GTP | C8-N7-C5 | 3.09 | 108.88 | 102.99 |
| 50 | PI | 501 | GTP | PA-O3A-PB | -3.09 | 122.22 | 132.83 |
| 50 | DC | 501 | GTP | PB-O3B-PG | -3.09 | 122.22 | 132.83 |
| 50 | ME | 501 | GTP | C2-N1-C6 | -3.09 | 119.41 | 125.10 |
| 52 | CN | 502 | GDP | C3'-C2'-C1' | 3.09 | 105.63 | 100.98 |
| 52 | DN | 502 | GDP | C3'-C2'-C1' | 3.09 | 105.62 | 100.98 |
| 50 | DC | 501 | GTP | C8-N7-C5 | 3.09 | 108.87 | 102.99 |
| 50 | QE | 501 | GTP | C8-N7-C5 | 3.08 | 108.87 | 102.99 |
| 50 | QK | 501 | GTP | C8-N7-C5 | 3.08 | 108.87 | 102.99 |
| 52 | QD | 502 | GDP | PA-O3A-PB | -3.08 | 122.25 | 132.83 |
| 50 | IC | 501 | GTP | C3'-C2'-C1' | 3.08 | 105.62 | 100.98 |
| 50 | OM | 501 | GTP | PA-O3A-PB | -3.08 | 122.26 | 132.83 |
| 52 | TL | 502 | GDP | C3'-C2'-C1' | 3.08 | 105.61 | 100.98 |
| 50 | II | 501 | GTP | C5-C6-N1 | 3.08 | 119.39 | 113.95 |
| 50 | JC | 501 | GTP | PA-O3A-PB | -3.08 | 122.27 | 132.83 |
| 50 | QM | 501 | GTP | C8-N7-C5 | 3.08 | 108.85 | 102.99 |
| 50 | CK | 501 | GTP | C2-N1-C6 | -3.07 | 119.44 | 125.10 |
| 50 | IK | 501 | GTP | C2-N1-C6 | -3.07 | 119.44 | 125.10 |
| 50 | VK | 501 | GTP | C8-N7-C5 | 3.07 | 108.84 | 102.99 |
| 50 | BK | 501 | GTP | C8-N7-C5 | 3.07 | 108.84 | 102.99 |
| 50 | PM | 501 | GTP | C8-N7-C5 | 3.07 | 108.84 | 102.99 |
| 50 | OE | 501 | GTP | C8-N7-C5 | 3.07 | 108.84 | 102.99 |
| 50 | PC | 501 | GTP | C8-N7-C5 | 3.07 | 108.84 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | CB | 502 | GDP | C3'-C2'-C1' | 3.07 | 105.60 | 100.98 |
| 50 | HI | 501 | GTP | C8-N7-C5 | 3.07 | 108.83 | 102.99 |
| 50 | EK | 501 | GTP | C3'-C2'-C1' | 3.07 | 105.60 | 100.98 |
| 50 | VI | 501 | GTP | C3'-C2'-C1' | 3.07 | 105.60 | 100.98 |
| 50 | IC | 501 | GTP | C8-N7-C5 | 3.07 | 108.83 | 102.99 |
| 50 | JE | 501 | GTP | C8-N7-C5 | 3.07 | 108.83 | 102.99 |
| 52 | BF | 502 | GDP | C3'-C2'-C1' | 3.07 | 105.60 | 100.98 |
| 50 | PO | 501 | GTP | C8-N7-C5 | 3.07 | 108.83 | 102.99 |
| 50 | JC | 501 | GTP | C8-N7-C5 | 3.07 | 108.83 | 102.99 |
| 50 | QI | 501 | GTP | C8-N7-C5 | 3.07 | 108.83 | 102.99 |
| 50 | AG | 501 | GTP | C8-N7-C5 | 3.06 | 108.83 | 102.99 |
| 50 | JM | 501 | GTP | C8-N7-C5 | 3.06 | 108.83 | 102.99 |
| 50 | HA | 501 | GTP | PA-O3A-PB | -3.06 | 122.31 | 132.83 |
| 50 | BC | 501 | GTP | PA-O3A-PB | -3.06 | 122.32 | 132.83 |
| 50 | BO | 501 | GTP | C8-N7-C5 | 3.06 | 108.82 | 102.99 |
| 50 | CE | 501 | GTP | PA-O3A-PB | -3.06 | 122.32 | 132.83 |
| 50 | ME | 501 | GTP | C8-N7-C5 | 3.06 | 108.82 | 102.99 |
| 50 | VE | 501 | GTP | C8-N7-C5 | 3.06 | 108.82 | 102.99 |
| 50 | WM | 501 | GTP | PA-O3A-PB | -3.06 | 122.33 | 132.83 |
| 50 | AI | 501 | GTP | C8-N7-C5 | 3.06 | 108.82 | 102.99 |
| 50 | CI | 501 | GTP | C2-N1-C6 | -3.06 | 119.47 | 125.10 |
| 50 | VM | 501 | GTP | C8-N7-C5 | 3.06 | 108.82 | 102.99 |
| 50 | AI | 501 | GTP | C2-N1-C6 | -3.06 | 119.47 | 125.10 |
| 50 | OO | 501 | GTP | C8-N7-C5 | 3.06 | 108.81 | 102.99 |
| 50 | UE | 501 | GTP | PA-O3A-PB | -3.06 | 122.34 | 132.83 |
| 50 | LM | 501 | GTP | PA-O3A-PB | -3.06 | 122.34 | 132.83 |
| 50 | AG | 501 | GTP | C2-N1-C6 | -3.06 | 119.47 | 125.10 |
| 50 | VA | 501 | GTP | C8-N7-C5 | 3.06 | 108.81 | 102.99 |
| 50 | CK | 501 | GTP | C8-N7-C5 | 3.05 | 108.81 | 102.99 |
| 52 | TN | 502 | GDP | C3'-C2'-C1' | 3.05 | 105.58 | 100.98 |
| 50 | LI | 501 | GTP | C8-N7-C5 | 3.05 | 108.81 | 102.99 |
| 50 | SA | 501 | GTP | C8-N7-C5 | 3.05 | 108.81 | 102.99 |
| 50 | OG | 501 | GTP | C8-N7-C5 | 3.05 | 108.81 | 102.99 |
| 50 | QO | 501 | GTP | C5-C6-N1 | 3.05 | 119.34 | 113.95 |
| 50 | AA | 501 | GTP | C8-N7-C5 | 3.05 | 108.80 | 102.99 |
| 50 | VA | 501 | GTP | PA-O3A-PB | -3.05 | 122.36 | 132.83 |
| 50 | GG | 501 | GTP | C3'-C2'-C1' | 3.05 | 105.57 | 100.98 |
| 50 | DE | 501 | GTP | C8-N7-C5 | 3.05 | 108.80 | 102.99 |
| 50 | HC | 501 | GTP | C8-N7-C5 | 3.05 | 108.80 | 102.99 |
| 50 | HM | 501 | GTP | C8-N7-C5 | 3.05 | 108.80 | 102.99 |
| 50 | DQ | 501 | GTP | C8-N7-C5 | 3.05 | 108.80 | 102.99 |
| 50 | BG | 501 | GTP | C8-N7-C5 | 3.05 | 108.79 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | CQ | 501 | GTP | C8-N7-C5 | 3.05 | 108.79 | 102.99 |
| 50 | GA | 501 | GTP | C8-N7-C5 | 3.05 | 108.79 | 102.99 |
| 50 | NK | 501 | GTP | C8-N7-C5 | 3.05 | 108.79 | 102.99 |
| 50 | VO | 501 | GTP | C8-N7-C5 | 3.05 | 108.79 | 102.99 |
| 50 | IE | 501 | GTP | C3'-C2'-C1' | 3.05 | 105.56 | 100.98 |
| 50 | OC | 501 | GTP | C8-N7-C5 | 3.05 | 108.79 | 102.99 |
| 50 | IA | 501 | GTP | C8-N7-C5 | 3.04 | 108.79 | 102.99 |
| 50 | UC | 501 | GTP | C8-N7-C5 | 3.04 | 108.79 | 102.99 |
| 50 | UA | 501 | GTP | C8-N7-C5 | 3.04 | 108.79 | 102.99 |
| 50 | IG | 501 | GTP | C3'-C2'-C1' | 3.04 | 105.56 | 100.98 |
| 52 | PD | 502 | GDP | C3'-C2'-C1' | 3.04 | 105.56 | 100.98 |
| 50 | VG | 501 | GTP | C8-N7-C5 | 3.04 | 108.78 | 102.99 |
| 52 | BN | 502 | GDP | C3'-C2'-C1' | 3.04 | 105.56 | 100.98 |
| 50 | LG | 501 | GTP | C2-N1-C6 | -3.04 | 119.50 | 125.10 |
| 50 | RC | 501 | GTP | C8-N7-C5 | 3.04 | 108.78 | 102.99 |
| 50 | HE | 501 | GTP | C8-N7-C5 | 3.04 | 108.78 | 102.99 |
| 50 | DI | 501 | GTP | C8-N7-C5 | 3.04 | 108.77 | 102.99 |
| 50 | EI | 501 | GTP | C3'-C2'-C1' | 3.04 | 105.55 | 100.98 |
| 50 | NM | 501 | GTP | C2-N1-C6 | -3.04 | 119.51 | 125.10 |
| 50 | JO | 501 | GTP | C2-N1-C6 | -3.03 | 119.51 | 125.10 |
| 52 | QL | 502 | GDP | PA-O3A-PB | -3.03 | 122.42 | 132.83 |
| 50 | SG | 501 | GTP | C8-N7-C5 | 3.03 | 108.77 | 102.99 |
| 52 | QJ | 502 | GDP | PA-O3A-PB | -3.03 | 122.42 | 132.83 |
| 50 | RK | 501 | GTP | C8-N7-C5 | 3.03 | 108.76 | 102.99 |
| 50 | WC | 501 | GTP | C8-N7-C5 | 3.03 | 108.76 | 102.99 |
| 52 | UH | 502 | GDP | C3'-C2'-C1' | 3.03 | 105.54 | 100.98 |
| 50 | CI | 501 | GTP | C8-N7-C5 | 3.03 | 108.76 | 102.99 |
| 50 | DG | 501 | GTP | C8-N7-C5 | 3.03 | 108.76 | 102.99 |
| 50 | RE | 501 | GTP | C8-N7-C5 | 3.03 | 108.76 | 102.99 |
| 50 | RM | 501 | GTP | C8-N7-C5 | 3.03 | 108.76 | 102.99 |
| 50 | OM | 501 | GTP | C3'-C2'-C1' | 3.03 | 105.54 | 100.98 |
| 50 | BI | 501 | GTP | C2-N1-C6 | -3.03 | 119.53 | 125.10 |
| 50 | EM | 501 | GTP | C8-N7-C5 | 3.03 | 108.75 | 102.99 |
| 50 | AO | 501 | GTP | C8-N7-C5 | 3.03 | 108.75 | 102.99 |
| 50 | OA | 501 | GTP | C8-N7-C5 | 3.03 | 108.75 | 102.99 |
| 50 | WO | 501 | GTP | C8-N7-C5 | 3.03 | 108.75 | 102.99 |
| 52 | OH | 502 | GDP | C3'-C2'-C1' | 3.03 | 105.53 | 100.98 |
| 50 | SM | 501 | GTP | C8-N7-C5 | 3.03 | 108.75 | 102.99 |
| 50 | TE | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | TI | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | EK | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | KI | 501 | GTP | PA-O3A-PB | -3.02 | 122.45 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | VC | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | QO | 501 | GTP | PA-O3A-PB | -3.02 | 122.45 | 132.83 |
| 50 | GI | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | IE | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | UG | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | PM | 501 | GTP | C2-N1-C6 | -3.02 | 119.53 | 125.10 |
| 50 | AM | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | NM | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | DK | 501 | GTP | C2-N1-C6 | -3.02 | 119.53 | 125.10 |
| 50 | PI | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | UO | 501 | GTP | C8-N7-C5 | 3.02 | 108.75 | 102.99 |
| 50 | BE | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | CC | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | EO | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | GO | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | WI | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 52 | SL | 502 | GDP | C3'-C2'-C1' | 3.02 | 105.53 | 100.98 |
| 50 | GG | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | KO | 501 | GTP | PA-O3A-PB | -3.02 | 122.46 | 132.83 |
| 50 | EI | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | UM | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | TA | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 50 | GC | 501 | GTP | C8-N7-C5 | 3.02 | 108.74 | 102.99 |
| 52 | HP | 502 | GDP | PA-O3A-PB | -3.02 | 122.48 | 132.83 |
| 50 | WA | 501 | GTP | C8-N7-C5 | 3.02 | 108.73 | 102.99 |
| 50 | LE | 501 | GTP | C2-N1-C6 | -3.02 | 119.55 | 125.10 |
| 50 | CM | 501 | GTP | C8-N7-C5 | 3.02 | 108.73 | 102.99 |
| 50 | II | 501 | GTP | PA-O3A-PB | -3.02 | 122.48 | 132.83 |
| 52 | IB | 502 | GDP | C3'-C2'-C1' | 3.01 | 105.52 | 100.98 |
| 52 | ND | 502 | GDP | C3'-C2'-C1' | 3.01 | 105.52 | 100.98 |
| 52 | OP | 502 | GDP | C3'-C2'-C1' | 3.01 | 105.52 | 100.98 |
| 50 | CO | 501 | GTP | C8-N7-C5 | 3.01 | 108.73 | 102.99 |
| 50 | DO | 501 | GTP | C8-N7-C5 | 3.01 | 108.73 | 102.99 |
| 50 | EG | 501 | GTP | C8-N7-C5 | 3.01 | 108.73 | 102.99 |
| 50 | BE | 501 | GTP | C2-N1-C6 | -3.01 | 119.55 | 125.10 |
| 52 | GD | 502 | GDP | PA-O3A-PB | -3.01 | 122.49 | 132.83 |
| 50 | NA | 501 | GTP | C8-N7-C5 | 3.01 | 108.73 | 102.99 |
| 50 | UI | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 50 | WE | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 50 | JI | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 50 | TM | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 50 | BM | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | TF | 502 | GDP | C3'-C2'-C1' | 3.01 | 105.51 | 100.98 |
| 50 | AE | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 50 | DM | 501 | GTP | C2-N1-C6 | -3.01 | 119.56 | 125.10 |
| 50 | LA | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 50 | RO | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 52 | QD | 502 | GDP | C3'-C2'-C1' | 3.01 | 105.50 | 100.98 |
| 52 | GN | 502 | GDP | C3'-C2'-C1' | 3.01 | 105.50 | 100.98 |
| 50 | MK | 501 | GTP | C2-N1-C6 | -3.01 | 119.56 | 125.10 |
| 50 | WG | 501 | GTP | C8-N7-C5 | 3.01 | 108.72 | 102.99 |
| 50 | NC | 501 | GTP | C3'-C2'-C1' | 3.00 | 105.50 | 100.98 |
| 50 | KO | 501 | GTP | C8-N7-C5 | 3.00 | 108.71 | 102.99 |
| 50 | OK | 501 | GTP | C8-N7-C5 | 3.00 | 108.71 | 102.99 |
| 50 | RC | 501 | GTP | PA-O3A-PB | -3.00 | 122.52 | 132.83 |
| 52 | DJ | 502 | GDP | C3'-C2'-C1' | 3.00 | 105.50 | 100.98 |
| 52 | PJ | 502 | GDP | C3'-C2'-C1' | 3.00 | 105.50 | 100.98 |
| 50 | HK | 501 | GTP | PA-O3A-PB | -3.00 | 122.52 | 132.83 |
| 50 | SE | 501 | GTP | C8-N7-C5 | 3.00 | 108.71 | 102.99 |
| 50 | AC | 501 | GTP | C8-N7-C5 | 3.00 | 108.71 | 102.99 |
| 50 | WK | 501 | GTP | C8-N7-C5 | 3.00 | 108.71 | 102.99 |
| 50 | RG | 501 | GTP | C8-N7-C5 | 3.00 | 108.71 | 102.99 |
| 52 | KJ | 502 | GDP | C3'-C2'-C1' | 3.00 | 105.50 | 100.98 |
| 50 | KK | 501 | GTP | PA-O3A-PB | -3.00 | 122.53 | 132.83 |
| 50 | JE | 501 | GTP | C2-N1-C6 | -3.00 | 119.57 | 125.10 |
| 50 | EE | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | KK | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | EA | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | CM | 501 | GTP | C2-N1-C6 | -3.00 | 119.58 | 125.10 |
| 50 | FC | 501 | GTP | C3'-C2'-C1' | 3.00 | 105.49 | 100.98 |
| 52 | AB | 502 | GDP | C3'-C2'-C1' | 3.00 | 105.49 | 100.98 |
| 50 | TK | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | PG | 501 | GTP | C2-N1-C6 | -3.00 | 119.58 | 125.10 |
| 50 | FO | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | OA | 501 | GTP | C3'-C2'-C1' | 3.00 | 105.49 | 100.98 |
| 50 | PE | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | MK | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | UE | 501 | GTP | C8-N7-C5 | 3.00 | 108.70 | 102.99 |
| 50 | CQ | 501 | GTP | PA-O3A-PB | -2.99 | 122.55 | 132.83 |
| 50 | LM | 501 | GTP | C8-N7-C5 | 2.99 | 108.69 | 102.99 |
| 50 | QG | 501 | GTP | C2-N1-C6 | -2.99 | 119.59 | 125.10 |
| 50 | UM | 501 | GTP | PA-O3A-PB | -2.99 | 122.56 | 132.83 |
| 50 | KK | 501 | GTP | C2-N1-C6 | -2.99 | 119.59 | 125.10 |
| 50 | QE | 501 | GTP | C3'-C2'-C1' | 2.99 | 105.48 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | GL | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.48 | 100.98 |
| 50 | QG | 501 | GTP | C8-N7-C5 | 2.99 | 108.69 | 102.99 |
| 52 | RH | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.48 | 100.98 |
| 50 | EE | 501 | GTP | C3'-C2'-C1' | 2.99 | 105.48 | 100.98 |
| 52 | BB | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.48 | 100.98 |
| 50 | BI | 501 | GTP | C8-N7-C5 | 2.99 | 108.69 | 102.99 |
| 50 | DK | 501 | GTP | C8-N7-C5 | 2.99 | 108.69 | 102.99 |
| 52 | AN | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.48 | 100.98 |
| 50 | LI | 501 | GTP | C2-N1-C6 | -2.99 | 119.59 | 125.10 |
| 50 | AK | 501 | GTP | C2-N1-C6 | -2.99 | 119.59 | 125.10 |
| 50 | RK | 501 | GTP | C2-N1-C6 | -2.99 | 119.60 | 125.10 |
| 52 | VJ | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.47 | 100.98 |
| 50 | BG | 501 | GTP | C2-N1-C6 | -2.99 | 119.60 | 125.10 |
| 50 | CK | 501 | GTP | C3'-C2'-C1' | 2.99 | 105.47 | 100.98 |
| 52 | BJ | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.47 | 100.98 |
| 50 | WM | 501 | GTP | C8-N7-C5 | 2.99 | 108.68 | 102.99 |
| 52 | QN | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.47 | 100.98 |
| 52 | UJ | 502 | GDP | C3'-C2'-C1' | 2.99 | 105.47 | 100.98 |
| 50 | WE | 501 | GTP | PA-O3A-PB | -2.99 | 122.58 | 132.83 |
| 50 | WI | 501 | GTP | C2-N1-C6 | -2.98 | 119.60 | 125.10 |
| 50 | HA | 501 | GTP | C8-N7-C5 | 2.98 | 108.67 | 102.99 |
| 52 | UL | 502 | GDP | C3'-C2'-C1' | 2.98 | 105.47 | 100.98 |
| 50 | FC | 501 | GTP | C2-N1-C6 | -2.98 | 119.61 | 125.10 |
| 50 | EA | 501 | GTP | C2-N1-C6 | -2.98 | 119.61 | 125.10 |
| 50 | UK | 501 | GTP | C3'-C2'-C1' | 2.98 | 105.47 | 100.98 |
| 52 | BD | 502 | GDP | C3'-C2'-C1' | 2.98 | 105.47 | 100.98 |
| 50 | PI | 501 | GTP | C3'-C2'-C1' | 2.98 | 105.47 | 100.98 |
| 50 | MI | 501 | GTP | C8-N7-C5 | 2.98 | 108.67 | 102.99 |
| 50 | DQ | 501 | GTP | PA-O3A-PB | -2.98 | 122.60 | 132.83 |
| 50 | DM | 501 | GTP | C8-N7-C5 | 2.98 | 108.67 | 102.99 |
| 50 | NO | 501 | GTP | C8-N7-C5 | 2.98 | 108.67 | 102.99 |
| 50 | GE | 501 | GTP | C3'-C2'-C1' | 2.98 | 105.46 | 100.98 |
| 50 | IA | 501 | GTP | C3'-C2'-C1' | 2.98 | 105.46 | 100.98 |
| 52 | WN | 502 | GDP | PA-O3A-PB | -2.98 | 122.60 | 132.83 |
| 50 | KM | 501 | GTP | C8-N7-C5 | 2.98 | 108.67 | 102.99 |
| 52 | VJ | 502 | GDP | PA-O3A-PB | -2.98 | 122.61 | 132.83 |
| 50 | IG | 501 | GTP | C2-N1-C6 | -2.98 | 119.61 | 125.10 |
| 50 | GE | 501 | GTP | C8-N7-C5 | 2.98 | 108.66 | 102.99 |
| 50 | OI | 501 | GTP | C3'-C2'-C1' | 2.98 | 105.46 | 100.98 |
| 50 | RM | 501 | GTP | C2-N1-C6 | -2.98 | 119.62 | 125.10 |
| 50 | NG | 501 | GTP | C8-N7-C5 | 2.98 | 108.66 | 102.99 |
| 50 | WE | 501 | GTP | C3'-C2'-C1' | 2.98 | 105.46 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | LC | 501 | GTP | C2-N1-C6 | -2.98 | 119.62 | 125.10 |
| 50 | WE | 501 | GTP | C2-N1-C6 | -2.98 | 119.62 | 125.10 |
| 50 | FK | 501 | GTP | C8-N7-C5 | 2.98 | 108.66 | 102.99 |
| 50 | LE | 501 | GTP | C8-N7-C5 | 2.98 | 108.66 | 102.99 |
| 50 | OO | 501 | GTP | C3'-C2'-C1' | 2.97 | 105.46 | 100.98 |
| 50 | FE | 501 | GTP | C8-N7-C5 | 2.97 | 108.66 | 102.99 |
| 50 | FO | 501 | GTP | C2-N1-C6 | -2.97 | 119.62 | 125.10 |
| 50 | FA | 501 | GTP | C8-N7-C5 | 2.97 | 108.66 | 102.99 |
| 50 | LO | 501 | GTP | C8-N7-C5 | 2.97 | 108.66 | 102.99 |
| 52 | TH | 502 | GDP | C3'-C2'-C1' | 2.97 | 105.45 | 100.98 |
| 52 | WB | 502 | GDP | C3'-C2'-C1' | 2.97 | 105.45 | 100.98 |
| 50 | VC | 501 | GTP | C3'-C2'-C1' | 2.97 | 105.45 | 100.98 |
| 50 | EC | 501 | GTP | C2-N1-C6 | -2.97 | 119.62 | 125.10 |
| 50 | HK | 501 | GTP | C2-N1-C6 | -2.97 | 119.63 | 125.10 |
| 52 | JH | 502 | GDP | C3'-C2'-C1' | 2.97 | 105.45 | 100.98 |
| 50 | TG | 501 | GTP | C8-N7-C5 | 2.97 | 108.65 | 102.99 |
| 50 | VI | 501 | GTP | C8-N7-C5 | 2.97 | 108.65 | 102.99 |
| 50 | IE | 501 | GTP | C2-N1-C6 | -2.97 | 119.63 | 125.10 |
| 50 | EA | 501 | GTP | PA-O3A-PB | -2.97 | 122.63 | 132.83 |
| 50 | UO | 501 | GTP | PA-O3A-PB | -2.97 | 122.64 | 132.83 |
| 50 | MO | 501 | GTP | C8-N7-C5 | 2.97 | 108.65 | 102.99 |
| 50 | NC | 501 | GTP | C8-N7-C5 | 2.97 | 108.65 | 102.99 |
| 50 | FC | 501 | GTP | C8-N7-C5 | 2.97 | 108.64 | 102.99 |
| 50 | HG | 501 | GTP | C8-N7-C5 | 2.97 | 108.64 | 102.99 |
| 50 | OC | 501 | GTP | C3'-C2'-C1' | 2.97 | 105.45 | 100.98 |
| 50 | WG | 501 | GTP | PA-O3A-PB | -2.97 | 122.64 | 132.83 |
| 50 | WK | 501 | GTP | C3'-C2'-C1' | 2.97 | 105.44 | 100.98 |
| 50 | VA | 501 | GTP | C3'-C2'-C1' | 2.97 | 105.44 | 100.98 |
| 52 | ON | 502 | GDP | PA-O3A-PB | -2.97 | 122.65 | 132.83 |
| 50 | EM | 501 | GTP | C2-N1-C6 | -2.96 | 119.64 | 125.10 |
| 50 | HK | 501 | GTP | C8-N7-C5 | 2.96 | 108.64 | 102.99 |
| 50 | FI | 501 | GTP | C2-N1-C6 | -2.96 | 119.64 | 125.10 |
| 50 | HC | 501 | GTP | C2-N1-C6 | -2.96 | 119.64 | 125.10 |
| 50 | OG | 501 | GTP | C3'-C2'-C1' | 2.96 | 105.44 | 100.98 |
| 52 | ED | 502 | GDP | C3'-C2'-C1' | 2.96 | 105.44 | 100.98 |
| 50 | MA | 501 | GTP | C8-N7-C5 | 2.96 | 108.64 | 102.99 |
| 50 | LK | 501 | GTP | C8-N7-C5 | 2.96 | 108.63 | 102.99 |
| 50 | OI | 501 | GTP | C8-N7-C5 | 2.96 | 108.63 | 102.99 |
| 50 | FC | 501 | GTP | PA-O3A-PB | -2.96 | 122.66 | 132.83 |
| 50 | UG | 501 | GTP | C3'-C2'-C1' | 2.96 | 105.44 | 100.98 |
| 50 | EI | 501 | GTP | PA-O3A-PB | -2.96 | 122.67 | 132.83 |
| 50 | PE | 501 | GTP | PA-O3A-PB | -2.96 | 122.67 | 132.83 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | UC | 501 | GTP | C3'-C2'-C1' | 2.96 | 105.44 | 100.98 |
| 50 | RM | 501 | GTP | PB-O3B-PG | -2.96 | 122.67 | 132.83 |
| 52 | UN | 502 | GDP | PA-O3A-PB | -2.96 | 122.67 | 132.83 |
| 50 | BM | 501 | GTP | C2-N1-C6 | -2.96 | 119.65 | 125.10 |
| 50 | AC | 501 | GTP | C2-N1-C6 | -2.96 | 119.65 | 125.10 |
| 50 | IO | 501 | GTP | C2-N1-C6 | -2.96 | 119.65 | 125.10 |
| 50 | LM | 501 | GTP | C2-N1-C6 | -2.96 | 119.65 | 125.10 |
| 50 | EA | 501 | GTP | C3'-C2'-C1' | 2.96 | 105.43 | 100.98 |
| 50 | KC | 501 | GTP | C2-N1-C6 | -2.96 | 119.65 | 125.10 |
| 50 | CO | 501 | GTP | PA-O3A-PB | -2.96 | 122.67 | 132.83 |
| 50 | VE | 501 | GTP | C3'-C2'-C1' | 2.96 | 105.43 | 100.98 |
| 52 | VH | 502 | GDP | C3'-C2'-C1' | 2.96 | 105.43 | 100.98 |
| 50 | WC | 501 | GTP | C2-N1-C6 | -2.96 | 119.65 | 125.10 |
| 52 | TJ | 502 | GDP | C3'-C2'-C1' | 2.96 | 105.43 | 100.98 |
| 50 | BO | 501 | GTP | C2-N1-C6 | -2.96 | 119.65 | 125.10 |
| 50 | LC | 501 | GTP | C8-N7-C5 | 2.96 | 108.62 | 102.99 |
| 50 | HO | 501 | GTP | C2-N1-C6 | -2.96 | 119.66 | 125.10 |
| 50 | FM | 501 | GTP | C8-N7-C5 | 2.95 | 108.62 | 102.99 |
| 50 | TC | 501 | GTP | C8-N7-C5 | 2.95 | 108.62 | 102.99 |
| 50 | RG | 501 | GTP | C2-N1-C6 | -2.95 | 119.66 | 125.10 |
| 50 | PI | 501 | GTP | C2-N1-C6 | -2.95 | 119.66 | 125.10 |
| 52 | MP | 502 | GDP | C3'-C2'-C1' | 2.95 | 105.42 | 100.98 |
| 50 | IM | 501 | GTP | C2-N1-C6 | -2.95 | 119.66 | 125.10 |
| 50 | GM | 501 | GTP | C8-N7-C5 | 2.95 | 108.61 | 102.99 |
| 50 | EI | 501 | GTP | C2-N1-C6 | -2.95 | 119.67 | 125.10 |
| 50 | SI | 501 | GTP | C8-N7-C5 | 2.95 | 108.61 | 102.99 |
| 50 | KG | 501 | GTP | C8-N7-C5 | 2.95 | 108.61 | 102.99 |
| 50 | EE | 501 | GTP | C2-N1-C6 | -2.95 | 119.67 | 125.10 |
| 50 | RO | 501 | GTP | C2-N1-C6 | -2.95 | 119.67 | 125.10 |
| 50 | KA | 501 | GTP | C8-N7-C5 | 2.95 | 108.61 | 102.99 |
| 50 | MC | 501 | GTP | C8-N7-C5 | 2.95 | 108.61 | 102.99 |
| 50 | UO | 501 | GTP | C3'-C2'-C1' | 2.95 | 105.42 | 100.98 |
| 50 | NE | 501 | GTP | C8-N7-C5 | 2.95 | 108.60 | 102.99 |
| 50 | DI | 501 | GTP | C2-N1-C6 | -2.95 | 119.67 | 125.10 |
| 50 | KI | 501 | GTP | C2-N1-C6 | -2.95 | 119.67 | 125.10 |
| 50 | CQ | 501 | GTP | C2-N1-C6 | -2.94 | 119.67 | 125.10 |
| 50 | JC | 501 | GTP | C2-N1-C6 | -2.94 | 119.67 | 125.10 |
| 52 | OJ | 502 | GDP | C5-C6-N1 | 2.94 | 119.15 | 113.95 |
| 50 | OM | 501 | GTP | C8-N7-C5 | 2.94 | 108.60 | 102.99 |
| 50 | RO | 501 | GTP | PA-O3A-PB | -2.94 | 122.72 | 132.83 |
| 52 | SJ | 502 | GDP | C3'-C2'-C1' | 2.94 | 105.41 | 100.98 |
| 52 | SD | 502 | GDP | C3'-C2'-C1' | 2.94 | 105.41 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | UK | 501 | GTP | C8-N7-C5 | 2.94 | 108.59 | 102.99 |
| 50 | SC | 501 | GTP | C8-N7-C5 | 2.94 | 108.59 | 102.99 |
| 50 | WO | 501 | GTP | C3'-C2'-C1' | 2.94 | 105.41 | 100.98 |
| 50 | RC | 501 | GTP | C2-N1-C6 | -2.94 | 119.69 | 125.10 |
| 50 | DC | 501 | GTP | C3'-C2'-C1' | 2.94 | 105.40 | 100.98 |
| 50 | EK | 501 | GTP | C2-N1-C6 | -2.94 | 119.69 | 125.10 |
| 50 | OE | 501 | GTP | C3'-C2'-C1' | 2.94 | 105.40 | 100.98 |
| 50 | RI | 501 | GTP | C2-N1-C6 | -2.94 | 119.69 | 125.10 |
| 50 | PO | 501 | GTP | C2-N1-C6 | -2.94 | 119.69 | 125.10 |
| 50 | HC | 501 | GTP | PA-O3A-PB | -2.94 | 122.75 | 132.83 |
| 50 | MO | 501 | GTP | C2-N1-C6 | -2.94 | 119.69 | 125.10 |
| 50 | PE | 501 | GTP | C2-N1-C6 | -2.94 | 119.69 | 125.10 |
| 50 | FI | 501 | GTP | C8-N7-C5 | 2.94 | 108.58 | 102.99 |
| 50 | VK | 501 | GTP | C2-N1-C6 | -2.94 | 119.69 | 125.10 |
| 52 | TD | 502 | GDP | C3'-C2'-C1' | 2.94 | 105.40 | 100.98 |
| 50 | AA | 501 | GTP | C2-N1-C6 | -2.93 | 119.69 | 125.10 |
| 50 | JK | 501 | GTP | C8-N7-C5 | 2.93 | 108.58 | 102.99 |
| 50 | LG | 501 | GTP | C8-N7-C5 | 2.93 | 108.58 | 102.99 |
| 50 | KA | 501 | GTP | C2-N1-C6 | -2.93 | 119.70 | 125.10 |
| 50 | KC | 501 | GTP | C8-N7-C5 | 2.93 | 108.58 | 102.99 |
| 50 | RM | 501 | GTP | PA-O3A-PB | -2.93 | 122.77 | 132.83 |
| 50 | GC | 501 | GTP | C3'-C2'-C1' | 2.93 | 105.39 | 100.98 |
| 52 | UJ | 502 | GDP | PA-O3A-PB | -2.93 | 122.77 | 132.83 |
| 52 | JB | 502 | GDP | C3'-C2'-C1' | 2.93 | 105.39 | 100.98 |
| 50 | LA | 501 | GTP | C2-N1-C6 | -2.93 | 119.70 | 125.10 |
| 50 | DE | 501 | GTP | C2-N1-C6 | -2.93 | 119.70 | 125.10 |
| 50 | PE | 501 | GTP | C3'-C2'-C1' | 2.93 | 105.39 | 100.98 |
| 50 | MG | 501 | GTP | C8-N7-C5 | 2.93 | 108.56 | 102.99 |
| 50 | VG | 501 | GTP | C2-N1-C6 | -2.93 | 119.71 | 125.10 |
| 52 | QF | 502 | GDP | PA-O3A-PB | -2.93 | 122.78 | 132.83 |
| 50 | WA | 501 | GTP | C3'-C2'-C1' | 2.93 | 105.38 | 100.98 |
| 50 | BK | 501 | GTP | C2-N1-C6 | -2.93 | 119.71 | 125.10 |
| 50 | AO | 501 | GTP | C2-N1-C6 | -2.92 | 119.71 | 125.10 |
| 50 | DQ | 501 | GTP | C2-N1-C6 | -2.92 | 119.71 | 125.10 |
| 50 | JM | 501 | GTP | C2-N1-C6 | -2.92 | 119.72 | 125.10 |
| 50 | RE | 501 | GTP | C2-N1-C6 | -2.92 | 119.72 | 125.10 |
| 50 | VG | 501 | GTP | C3'-C2'-C1' | 2.92 | 105.38 | 100.98 |
| 50 | EE | 501 | GTP | PA-O3A-PB | -2.92 | 122.80 | 132.83 |
| 50 | DG | 501 | GTP | C2-N1-C6 | -2.92 | 119.72 | 125.10 |
| 50 | KG | 501 | GTP | C2-N1-C6 | -2.92 | 119.72 | 125.10 |
| 52 | RF | 502 | GDP | C3'-C2'-C1' | 2.92 | 105.37 | 100.98 |
| 50 | WM | 501 | GTP | C2-N1-C6 | -2.92 | 119.72 | 125.10 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | VA | 501 | GTP | C2-N1-C6 | -2.92 | 119.72 | 125.10 |
| 50 | QI | 501 | GTP | PA-O3A-PB | -2.92 | 122.81 | 132.83 |
| 50 | VC | 501 | GTP | C2-N1-C6 | -2.92 | 119.72 | 125.10 |
| 50 | UM | 501 | GTP | C2-N1-C6 | -2.92 | 119.73 | 125.10 |
| 50 | WO | 501 | GTP | C2-N1-C6 | -2.92 | 119.73 | 125.10 |
| 50 | BM | 501 | GTP | C3'-C2'-C1' | 2.92 | 105.37 | 100.98 |
| 50 | CO | 501 | GTP | C3'-C2'-C1' | 2.92 | 105.37 | 100.98 |
| 50 | NA | 501 | GTP | C3'-C2'-C1' | 2.92 | 105.37 | 100.98 |
| 50 | WM | 501 | GTP | C3'-C2'-C1' | 2.92 | 105.37 | 100.98 |
| 50 | CO | 501 | GTP | C2-N1-C6 | -2.92 | 119.73 | 125.10 |
| 50 | QI | 501 | GTP | C2-N1-C6 | -2.92 | 119.73 | 125.10 |
| 50 | JO | 501 | GTP | C3'-C2'-C1' | 2.91 | 105.37 | 100.98 |
| 52 | RD | 502 | GDP | C3'-C2'-C1' | 2.91 | 105.37 | 100.98 |
| 50 | MI | 501 | GTP | C2-N1-C6 | -2.91 | 119.73 | 125.10 |
| 50 | BC | 501 | GTP | C2-N1-C6 | -2.91 | 119.73 | 125.10 |
| 50 | MM | 501 | GTP | C8-N7-C5 | 2.91 | 108.54 | 102.99 |
| 50 | UA | 501 | GTP | C3'-C2'-C1' | 2.91 | 105.36 | 100.98 |
| 52 | CJ | 502 | GDP | C3'-C2'-C1' | 2.91 | 105.36 | 100.98 |
| 52 | IP | 502 | GDP | C3'-C2'-C1' | 2.91 | 105.36 | 100.98 |
| 50 | DG | 501 | GTP | PA-O3A-PB | -2.91 | 122.83 | 132.83 |
| 50 | GA | 501 | GTP | C3'-C2'-C1' | 2.91 | 105.36 | 100.98 |
| 50 | UM | 501 | GTP | C3'-C2'-C1' | 2.91 | 105.36 | 100.98 |
| 50 | WG | 501 | GTP | C2-N1-C6 | -2.91 | 119.74 | 125.10 |
| 50 | SK | 501 | GTP | C8-N7-C5 | 2.91 | 108.54 | 102.99 |
| 50 | PC | 501 | GTP | C3'-C2'-C1' | 2.91 | 105.36 | 100.98 |
| 50 | FE | 501 | GTP | PA-O3A-PB | -2.91 | 122.84 | 132.83 |
| 50 | GK | 501 | GTP | C8-N7-C5 | 2.91 | 108.53 | 102.99 |
| 50 | EG | 501 | GTP | C2-N1-C6 | -2.91 | 119.74 | 125.10 |
| 50 | FG | 501 | GTP | C8-N7-C5 | 2.91 | 108.53 | 102.99 |
| 50 | RO | 501 | GTP | C3'-C2'-C1' | 2.91 | 105.35 | 100.98 |
| 50 | JC | 501 | GTP | C3'-C2'-C1' | 2.90 | 105.35 | 100.98 |
| 50 | FA | 501 | GTP | C2-N1-C6 | -2.90 | 119.75 | 125.10 |
| 50 | OG | 501 | GTP | C2-N1-C6 | -2.90 | 119.75 | 125.10 |
| 50 | CQ | 501 | GTP | C3'-C2'-C1' | 2.90 | 105.35 | 100.98 |
| 52 | TB | 502 | GDP | C3'-C2'-C1' | 2.90 | 105.35 | 100.98 |
| 50 | QM | 501 | GTP | C2-N1-C6 | -2.90 | 119.76 | 125.10 |
| 50 | QM | 501 | GTP | C3'-C2'-C1' | 2.90 | 105.34 | 100.98 |
| 52 | GH | 502 | GDP | C3'-C2'-C1' | 2.90 | 105.34 | 100.98 |
| 50 | LK | 501 | GTP | C2-N1-C6 | -2.90 | 119.76 | 125.10 |
| 52 | VD | 502 | GDP | C3'-C2'-C1' | 2.90 | 105.34 | 100.98 |
| 52 | HP | 502 | GDP | C3'-C2'-C1' | 2.90 | 105.34 | 100.98 |
| 50 | AA | 501 | GTP | C3'-C2'-C1' | 2.90 | 105.34 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | NI | 501 | GTP | C8-N7-C5 | 2.90 | 108.51 | 102.99 |
| 50 | CE | 501 | GTP | C2-N1-C6 | -2.90 | 119.76 | 125.10 |
| 50 | CC | 501 | GTP | C2-N1-C6 | -2.90 | 119.77 | 125.10 |
| 50 | II | 501 | GTP | C2-N1-C6 | -2.89 | 119.77 | 125.10 |
| 50 | MG | 501 | GTP | C2-N1-C6 | -2.89 | 119.77 | 125.10 |
| 50 | QE | 501 | GTP | C2-N1-C6 | -2.89 | 119.77 | 125.10 |
| 50 | GA | 501 | GTP | C2-N1-C6 | -2.89 | 119.77 | 125.10 |
| 50 | HO | 501 | GTP | C8-N7-C5 | 2.89 | 108.50 | 102.99 |
| 52 | RL | 502 | GDP | C3'-C2'-C1' | 2.89 | 105.33 | 100.98 |
| 50 | KO | 501 | GTP | C2-N1-C6 | -2.89 | 119.78 | 125.10 |
| 50 | KM | 501 | GTP | C2-N1-C6 | -2.89 | 119.78 | 125.10 |
| 50 | GG | 501 | GTP | PA-O3A-PB | -2.89 | 122.92 | 132.83 |
| 50 | UI | 501 | GTP | C3'-C2'-C1' | 2.89 | 105.33 | 100.98 |
| 50 | JG | 501 | GTP | C2-N1-C6 | -2.89 | 119.78 | 125.10 |
| 50 | KG | 501 | GTP | PA-O3A-PB | -2.89 | 122.92 | 132.83 |
| 50 | CM | 501 | GTP | C3'-C2'-C1' | 2.89 | 105.33 | 100.98 |
| 50 | UE | 501 | GTP | C3'-C2'-C1' | 2.89 | 105.32 | 100.98 |
| 50 | CC | 501 | GTP | PA-O3A-PB | -2.89 | 122.92 | 132.83 |
| 50 | CG | 501 | GTP | C3'-C2'-C1' | 2.89 | 105.32 | 100.98 |
| 50 | AM | 501 | GTP | C2-N1-C6 | -2.89 | 119.78 | 125.10 |
| 50 | HM | 501 | GTP | C2-N1-C6 | -2.88 | 119.79 | 125.10 |
| 50 | IK | 501 | GTP | C3'-C2'-C1' | 2.88 | 105.32 | 100.98 |
| 50 | IA | 501 | GTP | C2-N1-C6 | -2.88 | 119.79 | 125.10 |
| 50 | DG | 501 | GTP | C3'-C2'-C1' | 2.88 | 105.32 | 100.98 |
| 50 | SC | 501 | GTP | C2-N1-C6 | -2.88 | 119.79 | 125.10 |
| 52 | QP | 502 | GDP | C3'-C2'-C1' | 2.88 | 105.32 | 100.98 |
| 50 | DI | 501 | GTP | C3'-C2'-C1' | 2.88 | 105.32 | 100.98 |
| 52 | PH | 502 | GDP | C3'-C2'-C1' | 2.88 | 105.32 | 100.98 |
| 50 | AK | 501 | GTP | C8-N7-C5 | 2.88 | 108.48 | 102.99 |
| 50 | NK | 501 | GTP | C2-N1-C6 | -2.88 | 119.79 | 125.10 |
| 50 | PK | 501 | GTP | C2-N1-C6 | -2.88 | 119.79 | 125.10 |
| 50 | KI | 501 | GTP | C8-N7-C5 | 2.88 | 108.48 | 102.99 |
| 50 | VI | 501 | GTP | PA-O3A-PB | -2.88 | 122.94 | 132.83 |
| 50 | EO | 501 | GTP | C2-N1-C6 | -2.88 | 119.79 | 125.10 |
| 50 | DC | 501 | GTP | C2-N1-C6 | -2.88 | 119.80 | 125.10 |
| 52 | IL | 502 | GDP | C3'-C2'-C1' | 2.88 | 105.31 | 100.98 |
| 52 | PN | 502 | GDP | C3'-C2'-C1' | 2.88 | 105.31 | 100.98 |
| 50 | UO | 501 | GTP | C2-N1-C6 | -2.88 | 119.80 | 125.10 |
| 52 | QL | 502 | GDP | C3'-C2'-C1' | 2.88 | 105.31 | 100.98 |
| 50 | HK | 501 | GTP | C3'-C2'-C1' | 2.88 | 105.31 | 100.98 |
| 50 | TG | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.31 | 100.98 |
| 52 | HN | 502 | GDP | C3'-C2'-C1' | 2.87 | 105.31 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | OO | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 50 | UA | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 50 | TK | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | NO | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 50 | OK | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | OK | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 52 | HB | 502 | GDP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | CE | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 52 | LN | 502 | GDP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | SA | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | VM | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | FG | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 50 | UC | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 50 | WI | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 52 | HF | 502 | GDP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | PC | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 50 | QK | 501 | GTP | C2-N1-C6 | -2.87 | 119.81 | 125.10 |
| 50 | LA | 501 | GTP | PA-O3A-PB | -2.87 | 122.98 | 132.83 |
| 50 | GI | 501 | GTP | C2-N1-C6 | -2.87 | 119.82 | 125.10 |
| 50 | VM | 501 | GTP | C2-N1-C6 | -2.87 | 119.82 | 125.10 |
| 50 | HE | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.30 | 100.98 |
| 50 | MM | 501 | GTP | C2-N1-C6 | -2.87 | 119.82 | 125.10 |
| 50 | WA | 501 | GTP | C2-N1-C6 | -2.87 | 119.82 | 125.10 |
| 52 | VN | 502 | GDP | PA-O3A-PB | -2.87 | 122.99 | 132.83 |
| 50 | TC | 501 | GTP | C3'-C2'-C1' | 2.87 | 105.29 | 100.98 |
| 52 | FH | 502 | GDP | C3'-C2'-C1' | 2.87 | 105.29 | 100.98 |
| 50 | NE | 501 | GTP | C2-N1-C6 | -2.87 | 119.82 | 125.10 |
| 52 | QF | 502 | GDP | C3'-C2'-C1' | 2.87 | 105.29 | 100.98 |
| 50 | MA | 501 | GTP | C2-N1-C6 | -2.87 | 119.82 | 125.10 |
| 50 | FO | 501 | GTP | C3'-C2'-C1' | 2.86 | 105.29 | 100.98 |
| 50 | PK | 501 | GTP | C3'-C2'-C1' | 2.86 | 105.29 | 100.98 |
| 50 | RC | 501 | GTP | C3'-C2'-C1' | 2.86 | 105.29 | 100.98 |
| 50 | HI | 501 | GTP | C2-N1-C6 | -2.86 | 119.83 | 125.10 |
| 50 | TE | 501 | GTP | C3'-C2'-C1' | 2.86 | 105.29 | 100.98 |
| 50 | GO | 501 | GTP | C2-N1-C6 | -2.86 | 119.83 | 125.10 |
| 50 | WK | 501 | GTP | C2-N1-C6 | -2.86 | 119.83 | 125.10 |
| 50 | SA | 501 | GTP | C2-N1-C6 | -2.86 | 119.83 | 125.10 |
| 50 | IC | 501 | GTP | C2-N1-C6 | -2.86 | 119.83 | 125.10 |
| 52 | GJ | 502 | GDP | C3'-C2'-C1' | 2.86 | 105.28 | 100.98 |
| 50 | OI | 501 | GTP | C2-N1-C6 | -2.86 | 119.83 | 125.10 |
| 50 | TC | 501 | GTP | C2-N1-C6 | -2.86 | 119.83 | 125.10 |
| 50 | PO | 501 | GTP | C3'-C2'-C1' | 2.86 | 105.28 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | UE | 501 | GTP | C2-N1-C6 | -2.86 | 119.84 | 125.10 |
| 50 | KE | 501 | GTP | C8-N7-C5 | 2.86 | 108.43 | 102.99 |
| 50 | DO | 501 | GTP | C2-N1-C6 | -2.85 | 119.84 | 125.10 |
| 50 | VE | 501 | GTP | C2-N1-C6 | -2.85 | 119.84 | 125.10 |
| 50 | BC | 501 | GTP | C3'-C2'-C1' | 2.85 | 105.28 | 100.98 |
| 50 | HE | 501 | GTP | C2-N1-C6 | -2.85 | 119.85 | 125.10 |
| 50 | RG | 501 | GTP | C3'-C2'-C1' | 2.85 | 105.27 | 100.98 |
| 50 | LO | 501 | GTP | C2-N1-C6 | -2.85 | 119.85 | 125.10 |
| 52 | DB | 502 | GDP | C3'-C2'-C1' | 2.85 | 105.27 | 100.98 |
| 50 | HG | 501 | GTP | C2-N1-C6 | -2.85 | 119.85 | 125.10 |
| 50 | JQ | 501 | GTP | C2-N1-C6 | -2.85 | 119.85 | 125.10 |
| 50 | SM | 501 | GTP | C3'-C2'-C1' | 2.85 | 105.27 | 100.98 |
| 50 | UI | 501 | GTP | C2-N1-C6 | -2.85 | 119.86 | 125.10 |
| 50 | GC | 501 | GTP | C2-N1-C6 | -2.85 | 119.86 | 125.10 |
| 50 | KE | 501 | GTP | C2-N1-C6 | -2.85 | 119.86 | 125.10 |
| 50 | PM | 501 | GTP | C3'-C2'-C1' | 2.85 | 105.26 | 100.98 |
| 52 | WN | 502 | GDP | C3'-C2'-C1' | 2.85 | 105.26 | 100.98 |
| 50 | IE | 501 | GTP | PA-O3A-PB | -2.85 | 123.06 | 132.83 |
| 50 | FK | 501 | GTP | C2-N1-C6 | -2.85 | 119.86 | 125.10 |
| 50 | FA | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.26 | 100.98 |
| 50 | OA | 501 | GTP | C2-N1-C6 | -2.84 | 119.86 | 125.10 |
| 50 | SE | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.26 | 100.98 |
| 50 | NC | 501 | GTP | C2-N1-C6 | -2.84 | 119.86 | 125.10 |
| 50 | RM | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.26 | 100.98 |
| 50 | TA | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.26 | 100.98 |
| 50 | TA | 501 | GTP | C2-N1-C6 | -2.84 | 119.86 | 125.10 |
| 50 | OM | 501 | GTP | C2-N1-C6 | -2.84 | 119.87 | 125.10 |
| 50 | BE | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.25 | 100.98 |
| 50 | NI | 501 | GTP | C2-N1-C6 | -2.84 | 119.87 | 125.10 |
| 52 | DP | 502 | GDP | C3'-C2'-C1' | 2.84 | 105.25 | 100.98 |
| 50 | OC | 501 | GTP | C2-N1-C6 | -2.84 | 119.87 | 125.10 |
| 50 | UG | 501 | GTP | C2-N1-C6 | -2.84 | 119.87 | 125.10 |
| 52 | PL | 502 | GDP | C3'-C2'-C1' | 2.84 | 105.25 | 100.98 |
| 50 | UK | 501 | GTP | C2-N1-C6 | -2.84 | 119.87 | 125.10 |
| 50 | TM | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.25 | 100.98 |
| 50 | SK | 501 | GTP | C2-N1-C6 | -2.84 | 119.88 | 125.10 |
| 50 | RI | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.25 | 100.98 |
| 50 | MA | 501 | GTP | C3'-C2'-C1' | 2.84 | 105.25 | 100.98 |
| 50 | TI | 501 | GTP | C2-N1-C6 | -2.83 | 119.88 | 125.10 |
| 50 | QM | 501 | GTP | PA-O3A-PB | -2.83 | 123.10 | 132.83 |
| 50 | NA | 501 | GTP | C2-N1-C6 | -2.83 | 119.88 | 125.10 |
| 52 | EH | 502 | GDP | C3'-C2'-C1' | 2.83 | 105.24 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | MC | 501 | GTP | C2-N1-C6 | -2.83 | 119.89 | 125.10 |
| 50 | VK | 501 | GTP | C3'-C2'-C1' | 2.83 | 105.24 | 100.98 |
| 50 | BO | 501 | GTP | C3'-C2'-C1' | 2.83 | 105.24 | 100.98 |
| 50 | II | 501 | GTP | C8-N7-C5 | 2.83 | 108.38 | 102.99 |
| 50 | FM | 501 | GTP | C2-N1-C6 | -2.83 | 119.89 | 125.10 |
| 50 | KA | 501 | GTP | C3'-C2'-C1' | 2.83 | 105.23 | 100.98 |
| 50 | VO | 501 | GTP | C3'-C2'-C1' | 2.83 | 105.23 | 100.98 |
| 52 | DF | 502 | GDP | C3'-C2'-C1' | 2.83 | 105.23 | 100.98 |
| 50 | QC | 501 | GTP | PA-O3A-PB | -2.83 | 123.13 | 132.83 |
| 50 | HA | 501 | GTP | C2-N1-C6 | -2.82 | 119.90 | 125.10 |
| 50 | SM | 501 | GTP | C2-N1-C6 | -2.82 | 119.90 | 125.10 |
| 50 | VO | 501 | GTP | C2-N1-C6 | -2.82 | 119.90 | 125.10 |
| 50 | SG | 501 | GTP | C2-N1-C6 | -2.82 | 119.90 | 125.10 |
| 50 | DQ | 501 | GTP | C3'-C2'-C1' | 2.82 | 105.22 | 100.98 |
| 50 | GE | 501 | GTP | C2-N1-C6 | -2.82 | 119.91 | 125.10 |
| 50 | SE | 501 | GTP | C2-N1-C6 | -2.82 | 119.91 | 125.10 |
| 50 | GM | 501 | GTP | C2-N1-C6 | -2.82 | 119.91 | 125.10 |
| 52 | VN | 502 | GDP | C3'-C2'-C1' | 2.81 | 105.22 | 100.98 |
| 50 | QC | 501 | GTP | C2-N1-C6 | -2.81 | 119.92 | 125.10 |
| 50 | VI | 501 | GTP | C2-N1-C6 | -2.81 | 119.92 | 125.10 |
| 50 | QK | 501 | GTP | C3'-C2'-C1' | 2.81 | 105.21 | 100.98 |
| 50 | NE | 501 | GTP | PA-O3A-PB | -2.81 | 123.19 | 132.83 |
| 50 | II | 501 | GTP | C3'-C2'-C1' | 2.81 | 105.21 | 100.98 |
| 50 | JE | 501 | GTP | C3'-C2'-C1' | 2.81 | 105.20 | 100.98 |
| 50 | FG | 501 | GTP | C3'-C2'-C1' | 2.80 | 105.20 | 100.98 |
| 50 | SI | 501 | GTP | C3'-C2'-C1' | 2.80 | 105.20 | 100.98 |
| 50 | FE | 501 | GTP | C2-N1-C6 | -2.80 | 119.93 | 125.10 |
| 50 | LO | 501 | GTP | C3'-C2'-C1' | 2.80 | 105.20 | 100.98 |
| 50 | EM | 501 | GTP | C3'-C2'-C1' | 2.80 | 105.20 | 100.98 |
| 50 | NG | 501 | GTP | C2-N1-C6 | -2.80 | 119.94 | 125.10 |
| 50 | GG | 501 | GTP | C2-N1-C6 | -2.80 | 119.95 | 125.10 |
| 50 | CC | 501 | GTP | C3'-C2'-C1' | 2.80 | 105.19 | 100.98 |
| 50 | NE | 501 | GTP | C3'-C2'-C1' | 2.79 | 105.19 | 100.98 |
| 50 | RE | 501 | GTP | PA-O3A-PB | -2.79 | 123.24 | 132.83 |
| 50 | OE | 501 | GTP | C2-N1-C6 | -2.79 | 119.96 | 125.10 |
| 50 | SC | 501 | GTP | C3'-C2'-C1' | 2.79 | 105.18 | 100.98 |
| 52 | AH | 502 | GDP | C3'-C2'-C1' | 2.79 | 105.18 | 100.98 |
| 52 | GD | 502 | GDP | C3'-C2'-C1' | 2.79 | 105.18 | 100.98 |
| 52 | KD | 502 | GDP | C3'-C2'-C1' | 2.79 | 105.18 | 100.98 |
| 50 | EG | 501 | GTP | C3'-C2'-C1' | 2.79 | 105.18 | 100.98 |
| 50 | WG | 501 | GTP | C3'-C2'-C1' | 2.79 | 105.17 | 100.98 |
| 50 | FM | 501 | GTP | C3'-C2'-C1' | 2.79 | 105.17 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | JN | 502 | GDP | C3'-C2'-C1' | 2.79 | 105.17 | 100.98 |
| 52 | BH | 502 | GDP | C3'-C2'-C1' | 2.78 | 105.17 | 100.98 |
| 50 | RI | 501 | GTP | PA-O3A-PB | -2.78 | 123.27 | 132.83 |
| 50 | TE | 501 | GTP | C2-N1-C6 | -2.78 | 119.97 | 125.10 |
| 50 | TK | 501 | GTP | C2-N1-C6 | -2.78 | 119.97 | 125.10 |
| 50 | SK | 501 | GTP | C3'-C2'-C1' | 2.78 | 105.17 | 100.98 |
| 50 | QE | 501 | GTP | PA-O3A-PB | -2.78 | 123.28 | 132.83 |
| 50 | MK | 501 | GTP | C3'-C2'-C1' | 2.78 | 105.16 | 100.98 |
| 52 | WJ | 502 | GDP | C3'-C2'-C1' | 2.78 | 105.16 | 100.98 |
| 50 | DO | 501 | GTP | C3'-C2'-C1' | 2.78 | 105.16 | 100.98 |
| 50 | KM | 501 | GTP | PA-O3A-PB | -2.78 | 123.29 | 132.83 |
| 52 | WF | 502 | GDP | C3'-C2'-C1' | 2.78 | 105.16 | 100.98 |
| 50 | LA | 501 | GTP | C3'-C2'-C1' | 2.77 | 105.16 | 100.98 |
| 50 | TM | 501 | GTP | C2-N1-C6 | -2.77 | 119.99 | 125.10 |
| 50 | TG | 501 | GTP | C2-N1-C6 | -2.77 | 119.99 | 125.10 |
| 50 | UI | 501 | GTP | PA-O3A-PB | -2.77 | 123.32 | 132.83 |
| 50 | NG | 501 | GTP | C3'-C2'-C1' | 2.77 | 105.15 | 100.98 |
| 50 | NO | 501 | GTP | C3'-C2'-C1' | 2.77 | 105.15 | 100.98 |
| 50 | RE | 501 | GTP | C3'-C2'-C1' | 2.77 | 105.15 | 100.98 |
| 52 | VF | 502 | GDP | C3'-C2'-C1' | 2.77 | 105.15 | 100.98 |
| 52 | BP | 502 | GDP | C3'-C2'-C1' | 2.77 | 105.15 | 100.98 |
| 52 | ON | 502 | GDP | C3'-C2'-C1' | 2.77 | 105.15 | 100.98 |
| 50 | BK | 501 | GTP | C3'-C2'-C1' | 2.77 | 105.14 | 100.98 |
| 50 | IM | 501 | GTP | C3'-C2'-C1' | 2.77 | 105.14 | 100.98 |
| 50 | QO | 501 | GTP | C3'-C2'-C1' | 2.76 | 105.14 | 100.98 |
| 52 | EL | 502 | GDP | C3'-C2'-C1' | 2.76 | 105.14 | 100.98 |
| 52 | IJ | 502 | GDP | C3'-C2'-C1' | 2.76 | 105.13 | 100.98 |
| 50 | GK | 501 | GTP | C2-N1-C6 | -2.75 | 120.03 | 125.10 |
| 50 | SI | 501 | GTP | C2-N1-C6 | -2.75 | 120.03 | 125.10 |
| 50 | HM | 501 | GTP | C3'-C2'-C1' | 2.75 | 105.12 | 100.98 |
| 50 | HO | 501 | GTP | C3'-C2'-C1' | 2.75 | 105.12 | 100.98 |
| 50 | HA | 501 | GTP | C3'-C2'-C1' | 2.75 | 105.11 | 100.98 |
| 50 | WC | 501 | GTP | C3'-C2'-C1' | 2.75 | 105.11 | 100.98 |
| 52 | JL | 502 | GDP | C3'-C2'-C1' | 2.75 | 105.11 | 100.98 |
| 50 | KM | 501 | GTP | C3'-C2'-C1' | 2.75 | 105.11 | 100.98 |
| 50 | AO | 501 | GTP | C3'-C2'-C1' | 2.74 | 105.11 | 100.98 |
| 50 | LE | 501 | GTP | PA-O3A-PB | -2.74 | 123.42 | 132.83 |
| 50 | DE | 501 | GTP | C3'-C2'-C1' | 2.74 | 105.10 | 100.98 |
| 52 | QH | 502 | GDP | C3'-C2'-C1' | 2.74 | 105.10 | 100.98 |
| 50 | BI | 501 | GTP | C3'-C2'-C1' | 2.74 | 105.10 | 100.98 |
| 52 | RN | 502 | GDP | C3'-C2'-C1' | 2.74 | 105.10 | 100.98 |
| 50 | MC | 501 | GTP | C3'-C2'-C1' | 2.73 | 105.09 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | RG | 501 | GTP | PA-O3A-PB | -2.73 | 123.46 | 132.83 |
| 50 | DK | 501 | GTP | C3'-C2'-C1' | 2.73 | 105.09 | 100.98 |
| 50 | HG | 501 | GTP | C3'-C2'-C1' | 2.73 | 105.09 | 100.98 |
| 50 | LG | 501 | GTP | C3'-C2'-C1' | 2.73 | 105.09 | 100.98 |
| 52 | IN | 502 | GDP | C3'-C2'-C1' | 2.73 | 105.08 | 100.98 |
| 50 | DM | 501 | GTP | C3'-C2'-C1' | 2.73 | 105.08 | 100.98 |
| 50 | JM | 501 | GTP | C3'-C2'-C1' | 2.72 | 105.08 | 100.98 |
| 52 | FD | 502 | GDP | C3'-C2'-C1' | 2.72 | 105.07 | 100.98 |
| 52 | SH | 502 | GDP | C3'-C2'-C1' | 2.72 | 105.07 | 100.98 |
| 50 | LC | 501 | GTP | PA-O3A-PB | -2.72 | 123.50 | 132.83 |
| 50 | NI | 501 | GTP | C3'-C2'-C1' | 2.72 | 105.07 | 100.98 |
| 52 | HL | 502 | GDP | C3'-C2'-C1' | 2.71 | 105.06 | 100.98 |
| 50 | JQ | 501 | GTP | C3'-C2'-C1' | 2.71 | 105.06 | 100.98 |
| 50 | FI | 501 | GTP | C3'-C2'-C1' | 2.71 | 105.06 | 100.98 |
| 50 | GI | 501 | GTP | C3'-C2'-C1' | 2.71 | 105.05 | 100.98 |
| 52 | FJ | 502 | GDP | C3'-C2'-C1' | 2.70 | 105.05 | 100.98 |
| 52 | BL | 502 | GDP | C3'-C2'-C1' | 2.70 | 105.04 | 100.98 |
| 52 | CP | 502 | GDP | C3'-C2'-C1' | 2.70 | 105.04 | 100.98 |
| 50 | FE | 501 | GTP | C3'-C2'-C1' | 2.70 | 105.04 | 100.98 |
| 52 | RJ | 502 | GDP | C3'-C2'-C1' | 2.69 | 105.02 | 100.98 |
| 50 | GO | 501 | GTP | C3'-C2'-C1' | 2.69 | 105.02 | 100.98 |
| 50 | QI | 501 | GTP | C3'-C2'-C1' | 2.69 | 105.02 | 100.98 |
| 50 | AM | 501 | GTP | C3'-C2'-C1' | 2.68 | 105.02 | 100.98 |
| 50 | PG | 501 | GTP | C3'-C2'-C1' | 2.68 | 105.02 | 100.98 |
| 52 | JJ | 502 | GDP | C3'-C2'-C1' | 2.68 | 105.02 | 100.98 |
| 50 | KK | 501 | GTP | C3'-C2'-C1' | 2.67 | 105.00 | 100.98 |
| 52 | DL | 502 | GDP | C3'-C2'-C1' | 2.67 | 104.99 | 100.98 |
| 52 | LJ | 502 | GDP | C3'-C2'-C1' | 2.67 | 104.99 | 100.98 |
| 50 | MO | 501 | GTP | C3'-C2'-C1' | 2.67 | 104.99 | 100.98 |
| 52 | KP | 502 | GDP | C3'-C2'-C1' | 2.67 | 104.99 | 100.98 |
| 50 | EK | 501 | GTP | PA-O3A-PB | -2.67 | 123.68 | 132.83 |
| 50 | JI | 501 | GTP | C3'-C2'-C1' | 2.66 | 104.99 | 100.98 |
| 50 | HC | 501 | GTP | C3'-C2'-C1' | 2.66 | 104.99 | 100.98 |
| 52 | FF | 502 | GDP | C3'-C2'-C1' | 2.66 | 104.98 | 100.98 |
| 50 | RK | 501 | GTP | C3'-C2'-C1' | 2.66 | 104.98 | 100.98 |
| 52 | NL | 502 | GDP | C3'-C2'-C1' | 2.65 | 104.97 | 100.98 |
| 50 | JK | 501 | GTP | C3'-C2'-C1' | 2.65 | 104.97 | 100.98 |
| 52 | EJ | 502 | GDP | C3'-C2'-C1' | 2.65 | 104.97 | 100.98 |
| 52 | HH | 502 | GDP | C3'-C2'-C1' | 2.65 | 104.97 | 100.98 |
| 52 | EN | 502 | GDP | C3'-C2'-C1' | 2.65 | 104.97 | 100.98 |
| 50 | QG | 501 | GTP | C3'-C2'-C1' | 2.64 | 104.95 | 100.98 |
| 50 | EC | 501 | GTP | C3'-C2'-C1' | 2.64 | 104.95 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | IO | 501 | GTP | C3'-C2'-C1' | 2.64 | 104.95 | 100.98 |
| 50 | AG | 501 | GTP | C3'-C2'-C1' | 2.63 | 104.94 | 100.98 |
| 50 | MC | 501 | GTP | PA-O3A-PB | -2.63 | 123.80 | 132.83 |
| 50 | BG | 501 | GTP | C3'-C2'-C1' | 2.61 | 104.92 | 100.98 |
| 50 | TI | 501 | GTP | C3'-C2'-C1' | 2.61 | 104.91 | 100.98 |
| 50 | CI | 501 | GTP | C3'-C2'-C1' | 2.61 | 104.91 | 100.98 |
| 50 | GM | 501 | GTP | C3'-C2'-C1' | 2.61 | 104.91 | 100.98 |
| 50 | LC | 501 | GTP | C3'-C2'-C1' | 2.59 | 104.88 | 100.98 |
| 50 | JG | 501 | GTP | C3'-C2'-C1' | 2.59 | 104.87 | 100.98 |
| 52 | OJ | 502 | GDP | O6-C6-C5 | -2.58 | 119.33 | 124.37 |
| 52 | ML | 502 | GDP | C3'-C2'-C1' | 2.58 | 104.86 | 100.98 |
| 52 | QP | 502 | GDP | C5-C6-N1 | 2.57 | 118.50 | 113.95 |
| 52 | QH | 502 | GDP | PA-O3A-PB | -2.57 | 123.99 | 132.83 |
| 52 | OL | 502 | GDP | C5-C6-N1 | 2.57 | 118.50 | 113.95 |
| 50 | LM | 501 | GTP | C3'-C2'-C1' | 2.57 | 104.85 | 100.98 |
| 50 | MM | 501 | GTP | C3'-C2'-C1' | 2.57 | 104.85 | 100.98 |
| 50 | AE | 501 | GTP | C3'-C2'-C1' | 2.57 | 104.84 | 100.98 |
| 50 | NM | 501 | GTP | C3'-C2'-C1' | 2.57 | 104.84 | 100.98 |
| 52 | AF | 502 | GDP | C3'-C2'-C1' | 2.56 | 104.83 | 100.98 |
| 52 | JF | 502 | GDP | C8-N7-C5 | 2.56 | 107.86 | 102.99 |
| 50 | MG | 501 | GTP | C3'-C2'-C1' | 2.55 | 104.82 | 100.98 |
| 52 | QJ | 502 | GDP | C3'-C2'-C1' | 2.55 | 104.82 | 100.98 |
| 50 | KI | 501 | GTP | C3'-C2'-C1' | 2.55 | 104.82 | 100.98 |
| 50 | QC | 501 | GTP | C3'-C2'-C1' | 2.55 | 104.81 | 100.98 |
| 52 | JD | 502 | GDP | C3'-C2'-C1' | 2.54 | 104.80 | 100.98 |
| 50 | KE | 501 | GTP | PA-O3A-PB | -2.53 | 124.14 | 132.83 |
| 50 | KC | 501 | GTP | C3'-C2'-C1' | 2.53 | 104.78 | 100.98 |
| 52 | OL | 502 | GDP | C3'-C2'-C1' | 2.53 | 104.78 | 100.98 |
| 52 | OD | 502 | GDP | C3'-C2'-C1' | 2.52 | 104.77 | 100.98 |
| 50 | AC | 501 | GTP | C3'-C2'-C1' | 2.52 | 104.77 | 100.98 |
| 52 | FB | 502 | GDP | C3'-C2'-C1' | 2.52 | 104.77 | 100.98 |
| 50 | SG | 501 | GTP | C3'-C2'-C1' | 2.51 | 104.76 | 100.98 |
| 52 | IP | 502 | GDP | O3B-PB-O3A | 2.51 | 113.05 | 104.64 |
| 52 | KH | 502 | GDP | C3'-C2'-C1' | 2.51 | 104.75 | 100.98 |
| 50 | KO | 501 | GTP | C3'-C2'-C1' | 2.50 | 104.74 | 100.98 |
| 52 | OD | 502 | GDP | C5-C6-N1 | 2.49 | 118.35 | 113.95 |
| 52 | CD | 502 | GDP | C3'-C2'-C1' | 2.48 | 104.71 | 100.98 |
| 52 | HD | 502 | GDP | C3'-C2'-C1' | 2.48 | 104.71 | 100.98 |
| 52 | IF | 502 | GDP | C3'-C2'-C1' | 2.48 | 104.71 | 100.98 |
| 50 | LE | 501 | GTP | C3'-C2'-C1' | 2.47 | 104.70 | 100.98 |
| 52 | GF | 502 | GDP | C8-N7-C5 | 2.47 | 107.69 | 102.99 |
| 52 | JF | 502 | GDP | C5-C6-N1 | 2.47 | 118.31 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | OB | 502 | GDP | C8-N7-C5 | 2.47 | 107.69 | 102.99 |
| 52 | RD | 502 | GDP | C5-C6-N1 | 2.46 | 118.30 | 113.95 |
| 50 | HI | 501 | GTP | C3'-C2'-C1' | 2.46 | 104.68 | 100.98 |
| 52 | DJ | 502 | GDP | C8-N7-C5 | 2.46 | 107.68 | 102.99 |
| 52 | DD | 502 | GDP | C3'-C2'-C1' | 2.46 | 104.68 | 100.98 |
| 52 | CL | 502 | GDP | C5-C6-N1 | 2.46 | 118.29 | 113.95 |
| 52 | IF | 502 | GDP | C8-N7-C5 | 2.45 | 107.66 | 102.99 |
| 52 | NL | 502 | GDP | C8-N7-C5 | 2.45 | 107.66 | 102.99 |
| 52 | DH | 502 | GDP | C8-N7-C5 | 2.45 | 107.66 | 102.99 |
| 50 | EO | 501 | GTP | C3'-C2'-C1' | 2.45 | 104.66 | 100.98 |
| 52 | JH | 502 | GDP | C5-C6-N1 | 2.45 | 118.27 | 113.95 |
| 50 | KE | 501 | GTP | C3'-C2'-C1' | 2.45 | 104.66 | 100.98 |
| 52 | UJ | 502 | GDP | C8-N7-C5 | 2.44 | 107.65 | 102.99 |
| 52 | AJ | 502 | GDP | C3'-C2'-C1' | 2.44 | 104.66 | 100.98 |
| 50 | AE | 501 | GTP | O6-C6-C5 | -2.44 | 119.61 | 124.37 |
| 52 | IH | 502 | GDP | C3'-C2'-C1' | 2.43 | 104.64 | 100.98 |
| 52 | SD | 502 | GDP | C5-C6-N1 | 2.43 | 118.25 | 113.95 |
| 52 | CF | 502 | GDP | C3'-C2'-C1' | 2.43 | 104.64 | 100.98 |
| 52 | KL | 502 | GDP | C3'-C2'-C1' | 2.43 | 104.63 | 100.98 |
| 52 | LB | 502 | GDP | C5-C6-N1 | 2.43 | 118.23 | 113.95 |
| 52 | IL | 502 | GDP | C5-C6-N1 | 2.42 | 118.23 | 113.95 |
| 50 | QG | 501 | GTP | O6-C6-C5 | -2.42 | 119.64 | 124.37 |
| 52 | LH | 502 | GDP | C5-C6-N1 | 2.42 | 118.23 | 113.95 |
| 52 | FL | 502 | GDP | C5-C6-N1 | 2.42 | 118.22 | 113.95 |
| 52 | CF | 502 | GDP | C5-C6-N1 | 2.42 | 118.22 | 113.95 |
| 52 | DF | 502 | GDP | C8-N7-C5 | 2.42 | 107.59 | 102.99 |
| 52 | KF | 502 | GDP | C3'-C2'-C1' | 2.42 | 104.61 | 100.98 |
| 52 | EF | 502 | GDP | C8-N7-C5 | 2.41 | 107.59 | 102.99 |
| 52 | GD | 502 | GDP | C5-C6-N1 | 2.41 | 118.22 | 113.95 |
| 52 | VD | 502 | GDP | C8-N7-C5 | 2.41 | 107.59 | 102.99 |
| 50 | NG | 501 | GTP | O6-C6-C5 | -2.41 | 119.66 | 124.37 |
| 52 | QJ | 502 | GDP | C8-N7-C5 | 2.41 | 107.58 | 102.99 |
| 52 | BF | 502 | GDP | C5-C6-N1 | 2.41 | 118.21 | 113.95 |
| 52 | BB | 502 | GDP | C8-N7-C5 | 2.41 | 107.58 | 102.99 |
| 52 | DH | 502 | GDP | C3'-C2'-C1' | 2.41 | 104.60 | 100.98 |
| 52 | IL | 502 | GDP | C8-N7-C5 | 2.41 | 107.58 | 102.99 |
| 52 | HN | 502 | GDP | C8-N7-C5 | 2.41 | 107.57 | 102.99 |
| 52 | AJ | 502 | GDP | C5-C6-N1 | 2.40 | 118.20 | 113.95 |
| 52 | JL | 502 | GDP | C8-N7-C5 | 2.40 | 107.57 | 102.99 |
| 50 | QO | 501 | GTP | C2-N1-C6 | -2.40 | 120.67 | 125.10 |
| 52 | VH | 502 | GDP | C8-N7-C5 | 2.40 | 107.57 | 102.99 |
| 52 | KL | 502 | GDP | C5-C6-N1 | 2.40 | 118.19 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | UH | 502 | GDP | C8-N7-C5 | 2.40 | 107.56 | 102.99 |
| 52 | KJ | 502 | GDP | C5-C6-N1 | 2.40 | 118.19 | 113.95 |
| 50 | AI | 501 | GTP | C3'-C2'-C1' | 2.40 | 104.58 | 100.98 |
| 52 | HN | 502 | GDP | C5-C6-N1 | 2.39 | 118.18 | 113.95 |
| 52 | NF | 502 | GDP | C5-C6-N1 | 2.39 | 118.18 | 113.95 |
| 52 | HP | 502 | GDP | C8-N7-C5 | 2.39 | 107.55 | 102.99 |
| 52 | QH | 502 | GDP | C8-N7-C5 | 2.39 | 107.55 | 102.99 |
| 52 | IH | 502 | GDP | C8-N7-C5 | 2.39 | 107.55 | 102.99 |
| 52 | PJ | 502 | GDP | C8-N7-C5 | 2.39 | 107.55 | 102.99 |
| 52 | VL | 502 | GDP | C8-N7-C5 | 2.39 | 107.55 | 102.99 |
| 52 | IJ | 502 | GDP | C5-C6-N1 | 2.39 | 118.17 | 113.95 |
| 50 | BE | 501 | GTP | O6-C6-C5 | -2.39 | 119.70 | 124.37 |
| 52 | JP | 502 | GDP | C8-N7-C5 | 2.39 | 107.54 | 102.99 |
| 52 | PF | 502 | GDP | C8-N7-C5 | 2.39 | 107.54 | 102.99 |
| 52 | LF | 502 | GDP | C3'-C2'-C1' | 2.39 | 104.57 | 100.98 |
| 52 | GB | 502 | GDP | C5-C6-N1 | 2.39 | 118.17 | 113.95 |
| 52 | JL | 502 | GDP | C5-C6-N1 | 2.39 | 118.17 | 113.95 |
| 50 | NK | 501 | GTP | C3'-C2'-C1' | 2.39 | 104.57 | 100.98 |
| 52 | GJ | 502 | GDP | PA-O3A-PB | -2.38 | 124.64 | 132.83 |
| 52 | PH | 502 | GDP | C8-N7-C5 | 2.38 | 107.53 | 102.99 |
| 52 | JN | 502 | GDP | C8-N7-C5 | 2.38 | 107.53 | 102.99 |
| 52 | EF | 502 | GDP | C3'-C2'-C1' | 2.38 | 104.56 | 100.98 |
| 52 | HL | 502 | GDP | C8-N7-C5 | 2.38 | 107.53 | 102.99 |
| 52 | NP | 502 | GDP | C8-N7-C5 | 2.38 | 107.53 | 102.99 |
| 52 | EB | 502 | GDP | C8-N7-C5 | 2.38 | 107.52 | 102.99 |
| 52 | NL | 502 | GDP | C5-C6-N1 | 2.38 | 118.15 | 113.95 |
| 52 | TB | 502 | GDP | C5-C6-N1 | 2.38 | 118.15 | 113.95 |
| 52 | PL | 502 | GDP | C8-N7-C5 | 2.38 | 107.52 | 102.99 |
| 52 | VJ | 502 | GDP | C8-N7-C5 | 2.38 | 107.52 | 102.99 |
| 52 | ON | 502 | GDP | C8-N7-C5 | 2.38 | 107.52 | 102.99 |
| 52 | JN | 502 | GDP | C5-C6-N1 | 2.38 | 118.15 | 113.95 |
| 52 | DD | 502 | GDP | C5-C6-N1 | 2.38 | 118.15 | 113.95 |
| 52 | KF | 502 | GDP | C5-C6-N1 | 2.38 | 118.15 | 113.95 |
| 52 | WN | 502 | GDP | C8-N7-C5 | 2.38 | 107.52 | 102.99 |
| 52 | AP | 502 | GDP | C5-C6-N1 | 2.38 | 118.15 | 113.95 |
| 52 | CN | 502 | GDP | C5-C6-N1 | 2.37 | 118.14 | 113.95 |
| 52 | UN | 502 | GDP | C8-N7-C5 | 2.37 | 107.51 | 102.99 |
| 52 | CD | 502 | GDP | C5-C6-N1 | 2.37 | 118.14 | 113.95 |
| 52 | PP | 502 | GDP | C8-N7-C5 | 2.37 | 107.51 | 102.99 |
| 52 | IJ | 502 | GDP | C8-N7-C5 | 2.37 | 107.51 | 102.99 |
| 52 | VB | 502 | GDP | C8-N7-C5 | 2.37 | 107.51 | 102.99 |
| 52 | GJ | 502 | GDP | C8-N7-C5 | 2.37 | 107.51 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-----------|-------|-------------|----------|
| 52 | BP | 502 | GDP | C5-C6-N1 | 2.37 | 118.14 | 113.95 |
| 52 | GL | 502 | GDP | C5-C6-N1 | 2.37 | 118.14 | 113.95 |
| 52 | UB | 502 | GDP | C8-N7-C5 | 2.37 | 107.50 | 102.99 |
| 52 | KN | 502 | GDP | C8-N7-C5 | 2.37 | 107.50 | 102.99 |
| 52 | RF | 502 | GDP | C5-C6-N1 | 2.37 | 118.13 | 113.95 |
| 52 | OF | 502 | GDP | C8-N7-C5 | 2.37 | 107.50 | 102.99 |
| 52 | DL | 502 | GDP | C5-C6-N1 | 2.37 | 118.13 | 113.95 |
| 52 | HF | 502 | GDP | C5-C6-N1 | 2.37 | 118.13 | 113.95 |
| 52 | ID | 502 | GDP | C5-C6-N1 | 2.37 | 118.13 | 113.95 |
| 50 | AC | 501 | GTP | O6-C6-C5 | -2.36 | 119.75 | 124.37 |
| 52 | CH | 502 | GDP | C5-C6-N1 | 2.36 | 118.13 | 113.95 |
| 52 | BD | 502 | GDP | C5-C6-N1 | 2.36 | 118.13 | 113.95 |
| 52 | BL | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | PP | 502 | GDP | C5-C6-N1 | 2.36 | 118.13 | 113.95 |
| 52 | RH | 502 | GDP | C5-C6-N1 | 2.36 | 118.13 | 113.95 |
| 52 | CP | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | UD | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | WF | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | PJ | 502 | GDP | C5-C6-N1 | 2.36 | 118.12 | 113.95 |
| 52 | PD | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | PH | 502 | GDP | C5-C6-N1 | 2.36 | 118.12 | 113.95 |
| 52 | EJ | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | TJ | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | EH | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | KH | 502 | GDP | C5-C6-N1 | 2.36 | 118.12 | 113.95 |
| 52 | AN | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | RD | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | WJ | 502 | GDP | C8-N7-C5 | 2.36 | 107.49 | 102.99 |
| 52 | QL | 502 | GDP | C5-C6-N1 | 2.36 | 118.12 | 113.95 |
| 52 | QB | 502 | GDP | C5-C6-N1 | 2.36 | 118.12 | 113.95 |
| 52 | VN | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 52 | AB | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 52 | WB | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 52 | JJ | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 50 | RK | 501 | GTP | PA-O3A-PB | -2.36 | 124.74 | 132.83 |
| 52 | AP | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 52 | TB | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 52 | UF | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 52 | BJ | 502 | GDP | C8-N7-C5 | 2.36 | 107.48 | 102.99 |
| 52 | EL | 502 | GDP | C5-C6-N1 | 2.36 | 118.11 | 113.95 |
| 52 | WH | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |
| 52 | JD | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | AF | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |
| 52 | CD | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |
| 52 | ED | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |
| 52 | VF | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |
| 52 | AH | 502 | GDP | C5-C6-N1 | 2.35 | 118.11 | 113.95 |
| 52 | OF | 502 | GDP | C5-C6-N1 | 2.35 | 118.11 | 113.95 |
| 52 | QD | 502 | GDP | C5-C6-N1 | 2.35 | 118.11 | 113.95 |
| 52 | NJ | 502 | GDP | C5-C6-N1 | 2.35 | 118.10 | 113.95 |
| 52 | VB | 502 | GDP | C5-C6-N1 | 2.35 | 118.10 | 113.95 |
| 52 | QN | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |
| 52 | OP | 502 | GDP | C5-C6-N1 | 2.35 | 118.10 | 113.95 |
| 52 | TF | 502 | GDP | C8-N7-C5 | 2.35 | 107.47 | 102.99 |
| 52 | OH | 502 | GDP | C5-C6-N1 | 2.35 | 118.10 | 113.95 |
| 50 | AK | 501 | GTP | C3'-C2'-C1' | 2.35 | 104.51 | 100.98 |
| 52 | JB | 502 | GDP | C5-C6-N1 | 2.35 | 118.10 | 113.95 |
| 52 | BP | 502 | GDP | C8-N7-C5 | 2.35 | 107.46 | 102.99 |
| 52 | TL | 502 | GDP | C8-N7-C5 | 2.35 | 107.46 | 102.99 |
| 52 | PD | 502 | GDP | C5-C6-N1 | 2.35 | 118.10 | 113.95 |
| 52 | AB | 502 | GDP | C5-C6-N1 | 2.35 | 118.09 | 113.95 |
| 52 | WN | 502 | GDP | C5-C6-N1 | 2.35 | 118.09 | 113.95 |
| 52 | DH | 502 | GDP | C5-C6-N1 | 2.35 | 118.09 | 113.95 |
| 52 | FF | 502 | GDP | C5-C6-N1 | 2.35 | 118.09 | 113.95 |
| 52 | PN | 502 | GDP | C5-C6-N1 | 2.35 | 118.09 | 113.95 |
| 52 | QF | 502 | GDP | C5-C6-N1 | 2.35 | 118.09 | 113.95 |
| 52 | WJ | 502 | GDP | C5-C6-N1 | 2.34 | 118.09 | 113.95 |
| 52 | LB | 502 | GDP | C8-N7-C5 | 2.34 | 107.46 | 102.99 |
| 52 | TD | 502 | GDP | C8-N7-C5 | 2.34 | 107.46 | 102.99 |
| 52 | NH | 502 | GDP | C5-C6-N1 | 2.34 | 118.09 | 113.95 |
| 52 | CB | 502 | GDP | C5-C6-N1 | 2.34 | 118.09 | 113.95 |
| 52 | TH | 502 | GDP | C5-C6-N1 | 2.34 | 118.09 | 113.95 |
| 52 | FN | 502 | GDP | C5-C6-N1 | 2.34 | 118.09 | 113.95 |
| 52 | CF | 502 | GDP | C8-N7-C5 | 2.34 | 107.45 | 102.99 |
| 52 | FD | 502 | GDP | C5-C6-N1 | 2.34 | 118.09 | 113.95 |
| 52 | WD | 502 | GDP | C8-N7-C5 | 2.34 | 107.45 | 102.99 |
| 52 | UL | 502 | GDP | C8-N7-C5 | 2.34 | 107.45 | 102.99 |
| 52 | KB | 502 | GDP | C5-C6-N1 | 2.34 | 118.08 | 113.95 |
| 52 | DB | 502 | GDP | C8-N7-C5 | 2.34 | 107.45 | 102.99 |
| 52 | TN | 502 | GDP | C8-N7-C5 | 2.34 | 107.45 | 102.99 |
| 52 | UH | 502 | GDP | C5-C6-N1 | 2.34 | 118.08 | 113.95 |
| 52 | VD | 502 | GDP | C5-C6-N1 | 2.34 | 118.08 | 113.95 |
| 50 | KI | 501 | GTP | O6-C6-C5 | -2.34 | 119.81 | 124.37 |
| 52 | AH | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|------|-------------|----------|
| 52 | LP | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | CL | 502 | GDP | C3'-C2'-C1' | 2.34 | 104.50 | 100.98 |
| 52 | DB | 502 | GDP | C5-C6-N1 | 2.34 | 118.08 | 113.95 |
| 52 | BD | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | DD | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | WL | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | AL | 502 | GDP | C5-C6-N1 | 2.34 | 118.08 | 113.95 |
| 52 | MB | 502 | GDP | C3'-C2'-C1' | 2.34 | 104.50 | 100.98 |
| 52 | TH | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | GH | 502 | GDP | C5-C6-N1 | 2.34 | 118.08 | 113.95 |
| 52 | GL | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | HB | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | HJ | 502 | GDP | C8-N7-C5 | 2.34 | 107.44 | 102.99 |
| 52 | PL | 502 | GDP | C5-C6-N1 | 2.33 | 118.08 | 113.95 |
| 52 | DJ | 502 | GDP | C5-C6-N1 | 2.33 | 118.07 | 113.95 |
| 52 | RF | 502 | GDP | C8-N7-C5 | 2.33 | 107.44 | 102.99 |
| 52 | NB | 502 | GDP | C5-C6-N1 | 2.33 | 118.07 | 113.95 |
| 52 | QF | 502 | GDP | C8-N7-C5 | 2.33 | 107.44 | 102.99 |
| 52 | PB | 502 | GDP | C8-N7-C5 | 2.33 | 107.43 | 102.99 |
| 52 | OD | 502 | GDP | C8-N7-C5 | 2.33 | 107.43 | 102.99 |
| 52 | CJ | 502 | GDP | C5-C6-N1 | 2.33 | 118.07 | 113.95 |
| 52 | AD | 502 | GDP | C5-C6-N1 | 2.33 | 118.07 | 113.95 |
| 52 | SF | 502 | GDP | C5-C6-N1 | 2.33 | 118.07 | 113.95 |
| 52 | IB | 502 | GDP | C8-N7-C5 | 2.33 | 107.43 | 102.99 |
| 52 | JD | 502 | GDP | C5-C6-N1 | 2.33 | 118.07 | 113.95 |
| 52 | CN | 502 | GDP | C8-N7-C5 | 2.33 | 107.43 | 102.99 |
| 52 | PN | 502 | GDP | C8-N7-C5 | 2.33 | 107.43 | 102.99 |
| 52 | CJ | 502 | GDP | C8-N7-C5 | 2.33 | 107.43 | 102.99 |
| 52 | HL | 502 | GDP | C5-C6-N1 | 2.33 | 118.06 | 113.95 |
| 52 | CH | 502 | GDP | C8-N7-C5 | 2.33 | 107.42 | 102.99 |
| 52 | EN | 502 | GDP | C8-N7-C5 | 2.33 | 107.42 | 102.99 |
| 52 | SN | 502 | GDP | C8-N7-C5 | 2.33 | 107.42 | 102.99 |
| 52 | IF | 502 | GDP | C5-C6-N1 | 2.33 | 118.06 | 113.95 |
| 52 | KP | 502 | GDP | C5-C6-N1 | 2.33 | 118.06 | 113.95 |
| 52 | WP | 502 | GDP | C8-N7-C5 | 2.33 | 107.42 | 102.99 |
| 52 | DN | 502 | GDP | C5-C6-N1 | 2.33 | 118.06 | 113.95 |
| 52 | QL | 502 | GDP | C8-N7-C5 | 2.33 | 107.42 | 102.99 |
| 52 | SB | 502 | GDP | C5-C6-N1 | 2.33 | 118.06 | 113.95 |
| 52 | ND | 502 | GDP | C5-C6-N1 | 2.33 | 118.06 | 113.95 |
| 52 | QJ | 502 | GDP | C5-C6-N1 | 2.33 | 118.06 | 113.95 |
| 52 | DL | 502 | GDP | C8-N7-C5 | 2.32 | 107.42 | 102.99 |
| 52 | MH | 502 | GDP | C3'-C2'-C1' | 2.32 | 104.48 | 100.98 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|------------|-------|-------------|----------|
| 52 | MP | 502 | GDP | C8-N7-C5 | 2.32 | 107.42 | 102.99 |
| 52 | SD | 502 | GDP | C8-N7-C5 | 2.32 | 107.42 | 102.99 |
| 52 | LD | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | GH | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | RP | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | MP | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | GF | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | LL | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | BH | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | TL | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | CB | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | HD | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 50 | KE | 501 | GTP | O6-C6-C5 | -2.32 | 119.84 | 124.37 |
| 52 | RL | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | UB | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | BF | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | DN | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | KL | 502 | GDP | C8-N7-C5 | 2.32 | 107.41 | 102.99 |
| 52 | IB | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | UD | 502 | GDP | C5-C6-N1 | 2.32 | 118.05 | 113.95 |
| 52 | MD | 502 | GDP | C5-C6-N1 | 2.32 | 118.04 | 113.95 |
| 52 | RN | 502 | GDP | C5-C6-N1 | 2.32 | 118.04 | 113.95 |
| 52 | TJ | 502 | GDP | C5-C6-N1 | 2.32 | 118.04 | 113.95 |
| 52 | LN | 502 | GDP | C5-C6-N1 | 2.32 | 118.04 | 113.95 |
| 52 | AN | 502 | GDP | C5-C6-N1 | 2.31 | 118.04 | 113.95 |
| 52 | CL | 502 | GDP | C8-N7-C5 | 2.31 | 107.40 | 102.99 |
| 52 | GN | 502 | GDP | C8-N7-C5 | 2.31 | 107.40 | 102.99 |
| 52 | JB | 502 | GDP | C8-N7-C5 | 2.31 | 107.40 | 102.99 |
| 52 | SJ | 502 | GDP | C5-C6-N1 | 2.31 | 118.04 | 113.95 |
| 52 | NB | 502 | GDP | C8-N7-C5 | 2.31 | 107.39 | 102.99 |
| 52 | SB | 502 | GDP | C8-N7-C5 | 2.31 | 107.39 | 102.99 |
| 52 | DP | 502 | GDP | C8-N7-C5 | 2.31 | 107.39 | 102.99 |
| 52 | FB | 502 | GDP | C5-C6-N1 | 2.31 | 118.03 | 113.95 |
| 52 | RN | 502 | GDP | C8-N7-C5 | 2.31 | 107.39 | 102.99 |
| 52 | EN | 502 | GDP | C5-C6-N1 | 2.31 | 118.03 | 113.95 |
| 52 | WD | 502 | GDP | C5-C6-N1 | 2.31 | 118.03 | 113.95 |
| 52 | AJ | 502 | GDP | C8-N7-C5 | 2.31 | 107.39 | 102.99 |
| 52 | GJ | 502 | GDP | O3B-PB-O3A | 2.31 | 112.37 | 104.64 |
| 52 | WP | 502 | GDP | C5-C6-N1 | 2.31 | 118.03 | 113.95 |
| 52 | QN | 502 | GDP | C5-C6-N1 | 2.31 | 118.02 | 113.95 |
| 52 | RJ | 502 | GDP | C8-N7-C5 | 2.31 | 107.38 | 102.99 |
| 52 | VH | 502 | GDP | C5-C6-N1 | 2.31 | 118.02 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | FH | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | MN | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 50 | BI | 501 | GTP | O6-C6-C5 | -2.30 | 119.87 | 124.37 |
| 52 | RL | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | RP | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | MB | 502 | GDP | C8-N7-C5 | 2.30 | 107.38 | 102.99 |
| 52 | PF | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | JJ | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | TD | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | MH | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | VJ | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 50 | BO | 501 | GTP | O6-C6-C5 | -2.30 | 119.88 | 124.37 |
| 52 | QB | 502 | GDP | C8-N7-C5 | 2.30 | 107.38 | 102.99 |
| 52 | IN | 502 | GDP | C8-N7-C5 | 2.30 | 107.37 | 102.99 |
| 52 | SL | 502 | GDP | C5-C6-N1 | 2.30 | 118.02 | 113.95 |
| 52 | QH | 502 | GDP | C5-C6-N1 | 2.30 | 118.01 | 113.95 |
| 52 | VN | 502 | GDP | C5-C6-N1 | 2.30 | 118.01 | 113.95 |
| 52 | OH | 502 | GDP | C8-N7-C5 | 2.30 | 107.37 | 102.99 |
| 52 | OP | 502 | GDP | C8-N7-C5 | 2.30 | 107.37 | 102.99 |
| 52 | DP | 502 | GDP | C5-C6-N1 | 2.30 | 118.01 | 113.95 |
| 52 | LP | 502 | GDP | C5-C6-N1 | 2.30 | 118.01 | 113.95 |
| 52 | UL | 502 | GDP | C5-C6-N1 | 2.30 | 118.01 | 113.95 |
| 52 | QD | 502 | GDP | C8-N7-C5 | 2.30 | 107.37 | 102.99 |
| 52 | LJ | 502 | GDP | C5-C6-N1 | 2.30 | 118.01 | 113.95 |
| 52 | LN | 502 | GDP | C8-N7-C5 | 2.30 | 107.36 | 102.99 |
| 52 | PB | 502 | GDP | C5-C6-N1 | 2.30 | 118.01 | 113.95 |
| 52 | NN | 502 | GDP | C5-C6-N1 | 2.30 | 118.00 | 113.95 |
| 52 | EL | 502 | GDP | C8-N7-C5 | 2.29 | 107.36 | 102.99 |
| 52 | NF | 502 | GDP | C8-N7-C5 | 2.29 | 107.36 | 102.99 |
| 52 | CP | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | KD | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 50 | FK | 501 | GTP | C3'-C2'-C1' | 2.29 | 104.43 | 100.98 |
| 52 | HD | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | IN | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | VL | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | ML | 502 | GDP | C8-N7-C5 | 2.29 | 107.36 | 102.99 |
| 52 | EF | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | MN | 502 | GDP | C8-N7-C5 | 2.29 | 107.36 | 102.99 |
| 52 | KN | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | RJ | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | AL | 502 | GDP | C8-N7-C5 | 2.29 | 107.36 | 102.99 |
| 52 | FD | 502 | GDP | C8-N7-C5 | 2.29 | 107.36 | 102.99 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | LL | 502 | GDP | C8-N7-C5 | 2.29 | 107.35 | 102.99 |
| 52 | IP | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | MF | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | UF | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | SN | 502 | GDP | C5-C6-N1 | 2.29 | 118.00 | 113.95 |
| 52 | MH | 502 | GDP | C8-N7-C5 | 2.29 | 107.35 | 102.99 |
| 52 | BN | 502 | GDP | C8-N7-C5 | 2.29 | 107.35 | 102.99 |
| 52 | UN | 502 | GDP | C5-C6-N1 | 2.29 | 117.99 | 113.95 |
| 52 | GN | 502 | GDP | C5-C6-N1 | 2.29 | 117.99 | 113.95 |
| 52 | LF | 502 | GDP | C5-C6-N1 | 2.29 | 117.99 | 113.95 |
| 52 | BH | 502 | GDP | C5-C6-N1 | 2.29 | 117.99 | 113.95 |
| 52 | SL | 502 | GDP | C8-N7-C5 | 2.28 | 107.34 | 102.99 |
| 52 | HJ | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | FL | 502 | GDP | C8-N7-C5 | 2.28 | 107.34 | 102.99 |
| 52 | FB | 502 | GDP | C8-N7-C5 | 2.28 | 107.34 | 102.99 |
| 52 | BB | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | JP | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | LF | 502 | GDP | C8-N7-C5 | 2.28 | 107.33 | 102.99 |
| 52 | GJ | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | HB | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | WB | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | FH | 502 | GDP | C8-N7-C5 | 2.28 | 107.33 | 102.99 |
| 52 | WF | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | TN | 502 | GDP | C5-C6-N1 | 2.28 | 117.98 | 113.95 |
| 52 | MD | 502 | GDP | C8-N7-C5 | 2.28 | 107.33 | 102.99 |
| 52 | LJ | 502 | GDP | C8-N7-C5 | 2.28 | 107.33 | 102.99 |
| 52 | JP | 502 | GDP | C3'-C2'-C1' | 2.28 | 104.41 | 100.98 |
| 50 | MO | 501 | GTP | O6-C6-C5 | -2.28 | 119.92 | 124.37 |
| 52 | HP | 502 | GDP | C5-C6-N1 | 2.28 | 117.97 | 113.95 |
| 52 | IH | 502 | GDP | C5-C6-N1 | 2.28 | 117.97 | 113.95 |
| 52 | AF | 502 | GDP | C5-C6-N1 | 2.27 | 117.97 | 113.95 |
| 50 | LK | 501 | GTP | C3'-C2'-C1' | 2.27 | 104.40 | 100.98 |
| 52 | GB | 502 | GDP | C8-N7-C5 | 2.27 | 107.32 | 102.99 |
| 52 | BL | 502 | GDP | C5-C6-N1 | 2.27 | 117.96 | 113.95 |
| 52 | EB | 502 | GDP | C5-C6-N1 | 2.27 | 117.96 | 113.95 |
| 52 | ND | 502 | GDP | C8-N7-C5 | 2.27 | 107.31 | 102.99 |
| 52 | GF | 502 | GDP | C3'-C2'-C1' | 2.27 | 104.40 | 100.98 |
| 52 | FF | 502 | GDP | C8-N7-C5 | 2.27 | 107.31 | 102.99 |
| 52 | UJ | 502 | GDP | C5-C6-N1 | 2.27 | 117.96 | 113.95 |
| 52 | MJ | 502 | GDP | C5-C6-N1 | 2.27 | 117.96 | 113.95 |
| 52 | EJ | 502 | GDP | C5-C6-N1 | 2.27 | 117.95 | 113.95 |
| 52 | NP | 502 | GDP | C5-C6-N1 | 2.27 | 117.95 | 113.95 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | ML | 502 | GDP | C5-C6-N1 | 2.26 | 117.95 | 113.95 |
| 52 | NH | 502 | GDP | C8-N7-C5 | 2.26 | 107.30 | 102.99 |
| 52 | KP | 502 | GDP | C8-N7-C5 | 2.26 | 107.30 | 102.99 |
| 52 | MF | 502 | GDP | C8-N7-C5 | 2.26 | 107.30 | 102.99 |
| 52 | ED | 502 | GDP | C5-C6-N1 | 2.26 | 117.95 | 113.95 |
| 52 | IP | 502 | GDP | C8-N7-C5 | 2.26 | 107.30 | 102.99 |
| 52 | TF | 502 | GDP | C5-C6-N1 | 2.26 | 117.94 | 113.95 |
| 50 | II | 501 | GTP | O6-C6-C5 | -2.26 | 119.96 | 124.37 |
| 52 | HF | 502 | GDP | C8-N7-C5 | 2.26 | 107.29 | 102.99 |
| 50 | LC | 501 | GTP | O6-C6-C5 | -2.26 | 119.96 | 124.37 |
| 50 | LG | 501 | GTP | O6-C6-C5 | -2.26 | 119.96 | 124.37 |
| 52 | OL | 502 | GDP | C8-N7-C5 | 2.26 | 107.29 | 102.99 |
| 52 | EH | 502 | GDP | C5-C6-N1 | 2.25 | 117.93 | 113.95 |
| 52 | LP | 502 | GDP | C3'-C2'-C1' | 2.25 | 104.37 | 100.98 |
| 52 | FN | 502 | GDP | C8-N7-C5 | 2.25 | 107.28 | 102.99 |
| 52 | HH | 502 | GDP | C8-N7-C5 | 2.25 | 107.28 | 102.99 |
| 50 | NK | 501 | GTP | O6-C6-C5 | -2.25 | 119.97 | 124.37 |
| 52 | WL | 502 | GDP | C5-C6-N1 | 2.25 | 117.92 | 113.95 |
| 50 | AG | 501 | GTP | O6-C6-C5 | -2.25 | 119.98 | 124.37 |
| 50 | FI | 501 | GTP | O6-C6-C5 | -2.25 | 119.98 | 124.37 |
| 52 | GD | 502 | GDP | C8-N7-C5 | 2.25 | 107.27 | 102.99 |
| 52 | LD | 502 | GDP | C8-N7-C5 | 2.25 | 107.27 | 102.99 |
| 52 | RH | 502 | GDP | C8-N7-C5 | 2.25 | 107.27 | 102.99 |
| 52 | SJ | 502 | GDP | C8-N7-C5 | 2.25 | 107.27 | 102.99 |
| 50 | GK | 501 | GTP | O6-C6-C5 | -2.25 | 119.98 | 124.37 |
| 50 | NA | 501 | GTP | O6-C6-C5 | -2.25 | 119.98 | 124.37 |
| 52 | AD | 502 | GDP | C8-N7-C5 | 2.25 | 107.27 | 102.99 |
| 52 | MJ | 502 | GDP | C8-N7-C5 | 2.25 | 107.27 | 102.99 |
| 52 | DF | 502 | GDP | C5-C6-N1 | 2.25 | 117.92 | 113.95 |
| 50 | MG | 501 | GTP | O6-C6-C5 | -2.24 | 119.99 | 124.37 |
| 52 | KB | 502 | GDP | C3'-C2'-C1' | 2.24 | 104.36 | 100.98 |
| 52 | TB | 502 | GDP | O2B-PB-O3A | 2.24 | 112.16 | 104.64 |
| 52 | BJ | 502 | GDP | C5-C6-N1 | 2.24 | 117.91 | 113.95 |
| 52 | KB | 502 | GDP | C8-N7-C5 | 2.24 | 107.26 | 102.99 |
| 52 | MB | 502 | GDP | C5-C6-N1 | 2.24 | 117.91 | 113.95 |
| 52 | OB | 502 | GDP | C5-C6-N1 | 2.24 | 117.91 | 113.95 |
| 52 | BN | 502 | GDP | C5-C6-N1 | 2.24 | 117.90 | 113.95 |
| 50 | LI | 501 | GTP | C3'-C2'-C1' | 2.24 | 104.35 | 100.98 |
| 50 | NO | 501 | GTP | O6-C6-C5 | -2.24 | 120.00 | 124.37 |
| 52 | SH | 502 | GDP | C5-C6-N1 | 2.24 | 117.90 | 113.95 |
| 52 | WH | 502 | GDP | C5-C6-N1 | 2.24 | 117.90 | 113.95 |
| 52 | GB | 502 | GDP | C2'-C3'-C4' | 2.24 | 106.98 | 102.64 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | OJ | 502 | GDP | C3'-C2'-C1' | 2.23 | 104.34 | 100.98 |
| 50 | IE | 501 | GTP | O6-C6-C5 | -2.23 | 120.01 | 124.37 |
| 52 | NJ | 502 | GDP | C8-N7-C5 | 2.23 | 107.24 | 102.99 |
| 52 | SH | 502 | GDP | C8-N7-C5 | 2.23 | 107.23 | 102.99 |
| 50 | CK | 501 | GTP | O6-C6-C5 | -2.23 | 120.02 | 124.37 |
| 52 | QP | 502 | GDP | C8-N7-C5 | 2.23 | 107.23 | 102.99 |
| 52 | VF | 502 | GDP | C5-C6-N1 | 2.22 | 117.88 | 113.95 |
| 50 | NE | 501 | GTP | O6-C6-C5 | -2.22 | 120.03 | 124.37 |
| 52 | HH | 502 | GDP | C5-C6-N1 | 2.22 | 117.87 | 113.95 |
| 50 | OG | 501 | GTP | O6-C6-C5 | -2.22 | 120.04 | 124.37 |
| 52 | NN | 502 | GDP | C8-N7-C5 | 2.22 | 107.21 | 102.99 |
| 52 | LH | 502 | GDP | C8-N7-C5 | 2.21 | 107.20 | 102.99 |
| 50 | AO | 501 | GTP | O6-C6-C5 | -2.21 | 120.06 | 124.37 |
| 52 | SF | 502 | GDP | C8-N7-C5 | 2.21 | 107.20 | 102.99 |
| 50 | NC | 501 | GTP | O6-C6-C5 | -2.21 | 120.06 | 124.37 |
| 52 | ID | 502 | GDP | C8-N7-C5 | 2.21 | 107.20 | 102.99 |
| 50 | HC | 501 | GTP | O6-C6-C5 | -2.21 | 120.06 | 124.37 |
| 50 | LA | 501 | GTP | O6-C6-C5 | -2.21 | 120.06 | 124.37 |
| 50 | NI | 501 | GTP | O6-C6-C5 | -2.21 | 120.06 | 124.37 |
| 50 | KC | 501 | GTP | O6-C6-C5 | -2.20 | 120.07 | 124.37 |
| 52 | KH | 502 | GDP | C8-N7-C5 | 2.20 | 107.19 | 102.99 |
| 52 | JH | 502 | GDP | C8-N7-C5 | 2.20 | 107.19 | 102.99 |
| 50 | MI | 501 | GTP | O6-C6-C5 | -2.20 | 120.08 | 124.37 |
| 52 | LB | 502 | GDP | C3'-C2'-C1' | 2.20 | 104.29 | 100.98 |
| 50 | KG | 501 | GTP | O6-C6-C5 | -2.20 | 120.08 | 124.37 |
| 50 | AK | 501 | GTP | O6-C6-C5 | -2.19 | 120.09 | 124.37 |
| 50 | SC | 501 | GTP | O6-C6-C5 | -2.19 | 120.09 | 124.37 |
| 52 | LH | 502 | GDP | C2'-C3'-C4' | 2.19 | 106.90 | 102.64 |
| 52 | LH | 502 | GDP | O6-C6-C5 | -2.19 | 120.10 | 124.37 |
| 50 | FM | 501 | GTP | O6-C6-C5 | -2.19 | 120.10 | 124.37 |
| 50 | LK | 501 | GTP | O6-C6-C5 | -2.19 | 120.10 | 124.37 |
| 50 | LE | 501 | GTP | O6-C6-C5 | -2.18 | 120.11 | 124.37 |
| 52 | KJ | 502 | GDP | C8-N7-C5 | 2.18 | 107.15 | 102.99 |
| 52 | KN | 502 | GDP | C3'-C2'-C1' | 2.18 | 104.27 | 100.98 |
| 52 | KD | 502 | GDP | C8-N7-C5 | 2.18 | 107.15 | 102.99 |
| 50 | RI | 501 | GTP | O6-C6-C5 | -2.18 | 120.11 | 124.37 |
| 50 | LM | 501 | GTP | O6-C6-C5 | -2.18 | 120.11 | 124.37 |
| 50 | BM | 501 | GTP | O6-C6-C5 | -2.18 | 120.11 | 124.37 |
| 50 | HK | 501 | GTP | O6-C6-C5 | -2.18 | 120.11 | 124.37 |
| 50 | MK | 501 | GTP | O6-C6-C5 | -2.18 | 120.12 | 124.37 |
| 50 | HO | 501 | GTP | O3G-PG-O3B | 2.18 | 111.94 | 104.64 |
| 50 | BG | 501 | GTP | O6-C6-C5 | -2.18 | 120.12 | 124.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | EB | 502 | GDP | C2'-C3'-C4' | 2.18 | 106.87 | 102.64 |
| 50 | SK | 501 | GTP | O6-C6-C5 | -2.18 | 120.12 | 124.37 |
| 50 | HM | 501 | GTP | O6-C6-C5 | -2.18 | 120.12 | 124.37 |
| 52 | KF | 502 | GDP | C8-N7-C5 | 2.17 | 107.13 | 102.99 |
| 50 | DI | 501 | GTP | O6-C6-C5 | -2.17 | 120.13 | 124.37 |
| 50 | LI | 501 | GTP | O6-C6-C5 | -2.17 | 120.13 | 124.37 |
| 50 | LO | 501 | GTP | O6-C6-C5 | -2.17 | 120.14 | 124.37 |
| 52 | KJ | 502 | GDP | O6-C6-C5 | -2.17 | 120.14 | 124.37 |
| 50 | NM | 501 | GTP | O6-C6-C5 | -2.16 | 120.15 | 124.37 |
| 52 | ON | 502 | GDP | C2'-C3'-C4' | 2.16 | 106.84 | 102.64 |
| 50 | EM | 501 | GTP | O6-C6-C5 | -2.16 | 120.15 | 124.37 |
| 50 | GA | 501 | GTP | O6-C6-C5 | -2.16 | 120.15 | 124.37 |
| 50 | HI | 501 | GTP | O6-C6-C5 | -2.16 | 120.15 | 124.37 |
| 52 | OJ | 502 | GDP | C8-N7-C5 | 2.16 | 107.11 | 102.99 |
| 50 | IM | 501 | GTP | O6-C6-C5 | -2.16 | 120.15 | 124.37 |
| 50 | HG | 501 | GTP | O6-C6-C5 | -2.16 | 120.15 | 124.37 |
| 50 | IA | 501 | GTP | O6-C6-C5 | -2.16 | 120.15 | 124.37 |
| 50 | KA | 501 | GTP | O6-C6-C5 | -2.16 | 120.16 | 124.37 |
| 50 | JI | 501 | GTP | O6-C6-C5 | -2.16 | 120.16 | 124.37 |
| 50 | FG | 501 | GTP | O6-C6-C5 | -2.16 | 120.16 | 124.37 |
| 50 | CC | 501 | GTP | O6-C6-C5 | -2.16 | 120.16 | 124.37 |
| 50 | MM | 501 | GTP | O6-C6-C5 | -2.16 | 120.16 | 124.37 |
| 52 | CH | 502 | GDP | C3'-C2'-C1' | 2.16 | 104.22 | 100.98 |
| 50 | RG | 501 | GTP | O6-C6-C5 | -2.16 | 120.16 | 124.37 |
| 50 | TK | 501 | GTP | O6-C6-C5 | -2.15 | 120.17 | 124.37 |
| 50 | DE | 501 | GTP | O6-C6-C5 | -2.15 | 120.17 | 124.37 |
| 50 | FC | 501 | GTP | O6-C6-C5 | -2.15 | 120.17 | 124.37 |
| 50 | GI | 501 | GTP | O6-C6-C5 | -2.15 | 120.17 | 124.37 |
| 50 | OO | 501 | GTP | O6-C6-C5 | -2.15 | 120.18 | 124.37 |
| 50 | CM | 501 | GTP | O6-C6-C5 | -2.15 | 120.18 | 124.37 |
| 50 | KM | 501 | GTP | O6-C6-C5 | -2.15 | 120.18 | 124.37 |
| 50 | AI | 501 | GTP | O6-C6-C5 | -2.14 | 120.18 | 124.37 |
| 50 | KO | 501 | GTP | O6-C6-C5 | -2.14 | 120.18 | 124.37 |
| 50 | TA | 501 | GTP | O6-C6-C5 | -2.14 | 120.18 | 124.37 |
| 50 | DQ | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | VA | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | EG | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | AA | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | UA | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | FE | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | FK | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | CI | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 50 | WI | 501 | GTP | O6-C6-C5 | -2.14 | 120.19 | 124.37 |
| 50 | TM | 501 | GTP | O6-C6-C5 | -2.14 | 120.20 | 124.37 |
| 50 | EI | 501 | GTP | O6-C6-C5 | -2.14 | 120.20 | 124.37 |
| 50 | SI | 501 | GTP | O6-C6-C5 | -2.14 | 120.20 | 124.37 |
| 50 | EA | 501 | GTP | O6-C6-C5 | -2.14 | 120.20 | 124.37 |
| 50 | RM | 501 | GTP | O6-C6-C5 | -2.14 | 120.20 | 124.37 |
| 50 | DM | 501 | GTP | O6-C6-C5 | -2.13 | 120.20 | 124.37 |
| 50 | DO | 501 | GTP | O6-C6-C5 | -2.13 | 120.20 | 124.37 |
| 50 | HO | 501 | GTP | O6-C6-C5 | -2.13 | 120.21 | 124.37 |
| 50 | PG | 501 | GTP | N2-C2-N1 | 2.13 | 121.25 | 116.71 |
| 50 | OK | 501 | GTP | O6-C6-C5 | -2.13 | 120.22 | 124.37 |
| 50 | DK | 501 | GTP | O6-C6-C5 | -2.13 | 120.22 | 124.37 |
| 50 | GE | 501 | GTP | O6-C6-C5 | -2.13 | 120.22 | 124.37 |
| 52 | KF | 502 | GDP | O6-C6-C5 | -2.13 | 120.22 | 124.37 |
| 50 | TC | 501 | GTP | O6-C6-C5 | -2.12 | 120.23 | 124.37 |
| 50 | WA | 501 | GTP | O6-C6-C5 | -2.12 | 120.23 | 124.37 |
| 50 | TI | 501 | GTP | O6-C6-C5 | -2.12 | 120.23 | 124.37 |
| 50 | UM | 501 | GTP | O6-C6-C5 | -2.12 | 120.24 | 124.37 |
| 52 | LL | 502 | GDP | C3'-C2'-C1' | 2.11 | 104.16 | 100.98 |
| 52 | FJ | 502 | GDP | C8-N7-C5 | 2.11 | 107.01 | 102.99 |
| 50 | CO | 501 | GTP | O6-C6-C5 | -2.11 | 120.25 | 124.37 |
| 50 | EE | 501 | GTP | O6-C6-C5 | -2.11 | 120.26 | 124.37 |
| 52 | OJ | 502 | GDP | C2'-C3'-C4' | 2.11 | 106.73 | 102.64 |
| 50 | JE | 501 | GTP | O6-C6-C5 | -2.11 | 120.26 | 124.37 |
| 50 | UG | 501 | GTP | O6-C6-C5 | -2.11 | 120.26 | 124.37 |
| 50 | OA | 501 | GTP | O6-C6-C5 | -2.10 | 120.26 | 124.37 |
| 50 | EK | 501 | GTP | O6-C6-C5 | -2.10 | 120.27 | 124.37 |
| 50 | RC | 501 | GTP | O6-C6-C5 | -2.10 | 120.27 | 124.37 |
| 50 | UO | 501 | GTP | O6-C6-C5 | -2.10 | 120.27 | 124.37 |
| 50 | UK | 501 | GTP | O6-C6-C5 | -2.10 | 120.27 | 124.37 |
| 50 | VM | 501 | GTP | O6-C6-C5 | -2.10 | 120.27 | 124.37 |
| 50 | VO | 501 | GTP | O6-C6-C5 | -2.10 | 120.27 | 124.37 |
| 52 | HJ | 502 | GDP | C3'-C2'-C1' | 2.10 | 104.14 | 100.98 |
| 50 | WM | 501 | GTP | O6-C6-C5 | -2.10 | 120.27 | 124.37 |
| 50 | GM | 501 | GTP | O6-C6-C5 | -2.10 | 120.28 | 124.37 |
| 50 | RK | 501 | GTP | O6-C6-C5 | -2.10 | 120.28 | 124.37 |
| 50 | SE | 501 | GTP | O6-C6-C5 | -2.10 | 120.28 | 124.37 |
| 50 | VC | 501 | GTP | O6-C6-C5 | -2.10 | 120.28 | 124.37 |
| 50 | FA | 501 | GTP | O6-C6-C5 | -2.10 | 120.28 | 124.37 |
| 50 | HE | 501 | GTP | O6-C6-C5 | -2.09 | 120.28 | 124.37 |
| 52 | QP | 502 | GDP | O6-C6-C5 | -2.09 | 120.28 | 124.37 |
| 50 | UC | 501 | GTP | O6-C6-C5 | -2.09 | 120.28 | 124.37 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | EB | 502 | GDP | C3'-C2'-C1' | 2.09 | 104.13 | 100.98 |
| 50 | GK | 501 | GTP | C3'-C2'-C1' | 2.09 | 104.13 | 100.98 |
| 50 | CG | 501 | GTP | O6-C6-C5 | -2.09 | 120.29 | 124.37 |
| 50 | BK | 501 | GTP | O6-C6-C5 | -2.09 | 120.29 | 124.37 |
| 50 | CE | 501 | GTP | O6-C6-C5 | -2.09 | 120.29 | 124.37 |
| 50 | TE | 501 | GTP | O6-C6-C5 | -2.09 | 120.30 | 124.37 |
| 50 | HA | 501 | GTP | O6-C6-C5 | -2.08 | 120.30 | 124.37 |
| 50 | QM | 501 | GTP | O6-C6-C5 | -2.08 | 120.30 | 124.37 |
| 50 | SA | 501 | GTP | O6-C6-C5 | -2.08 | 120.30 | 124.37 |
| 50 | KK | 501 | GTP | O6-C6-C5 | -2.08 | 120.30 | 124.37 |
| 50 | UI | 501 | GTP | O6-C6-C5 | -2.08 | 120.31 | 124.37 |
| 50 | WE | 501 | GTP | O6-C6-C5 | -2.08 | 120.31 | 124.37 |
| 50 | MA | 501 | GTP | O6-C6-C5 | -2.08 | 120.31 | 124.37 |
| 52 | ON | 502 | GDP | C5-C6-N1 | 2.08 | 117.62 | 113.95 |
| 52 | MD | 502 | GDP | C3'-C2'-C1' | 2.08 | 104.10 | 100.98 |
| 50 | EO | 501 | GTP | O6-C6-C5 | -2.08 | 120.32 | 124.37 |
| 50 | MI | 501 | GTP | C3'-C2'-C1' | 2.07 | 104.10 | 100.98 |
| 50 | AM | 501 | GTP | O6-C6-C5 | -2.07 | 120.32 | 124.37 |
| 50 | DC | 501 | GTP | O6-C6-C5 | -2.07 | 120.32 | 124.37 |
| 50 | IK | 501 | GTP | O6-C6-C5 | -2.07 | 120.32 | 124.37 |
| 50 | DG | 501 | GTP | O6-C6-C5 | -2.07 | 120.33 | 124.37 |
| 50 | EC | 501 | GTP | O6-C6-C5 | -2.07 | 120.33 | 124.37 |
| 52 | DL | 502 | GDP | C2'-C3'-C4' | 2.07 | 106.66 | 102.64 |
| 52 | GF | 502 | GDP | C2'-C3'-C4' | 2.07 | 106.66 | 102.64 |
| 50 | OM | 501 | GTP | O6-C6-C5 | -2.07 | 120.34 | 124.37 |
| 50 | RO | 501 | GTP | O6-C6-C5 | -2.06 | 120.34 | 124.37 |
| 50 | QE | 501 | GTP | O6-C6-C5 | -2.06 | 120.35 | 124.37 |
| 50 | TG | 501 | GTP | O6-C6-C5 | -2.06 | 120.36 | 124.37 |
| 50 | SM | 501 | GTP | O6-C6-C5 | -2.05 | 120.36 | 124.37 |
| 50 | VK | 501 | GTP | O6-C6-C5 | -2.05 | 120.36 | 124.37 |
| 52 | SF | 502 | GDP | O6-C6-C5 | -2.05 | 120.36 | 124.37 |
| 50 | CQ | 501 | GTP | O6-C6-C5 | -2.05 | 120.37 | 124.37 |
| 50 | WO | 501 | GTP | O6-C6-C5 | -2.05 | 120.37 | 124.37 |
| 52 | LD | 502 | GDP | O6-C6-C5 | -2.04 | 120.38 | 124.37 |
| 50 | FO | 501 | GTP | O6-C6-C5 | -2.04 | 120.38 | 124.37 |
| 50 | JQ | 501 | GTP | O6-C6-C5 | -2.04 | 120.39 | 124.37 |
| 50 | RE | 501 | GTP | O6-C6-C5 | -2.03 | 120.40 | 124.37 |
| 50 | IC | 501 | GTP | O6-C6-C5 | -2.03 | 120.40 | 124.37 |
| 50 | JK | 501 | GTP | O6-C6-C5 | -2.03 | 120.40 | 124.37 |
| 50 | VG | 501 | GTP | O6-C6-C5 | -2.03 | 120.41 | 124.37 |
| 50 | PI | 501 | GTP | O6-C6-C5 | -2.03 | 120.41 | 124.37 |
| 52 | EF | 502 | GDP | C2'-C3'-C4' | 2.03 | 106.58 | 102.64 |

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| Mol | Chain | Res | Type | Atoms | Z | Observed(°) | Ideal(°) |
|-----|-------|-----|------|-------------|-------|-------------|----------|
| 52 | LD | 502 | GDP | C3'-C2'-C1' | 2.03 | 104.03 | 100.98 |
| 50 | WG | 501 | GTP | O6-C6-C5 | -2.03 | 120.41 | 124.37 |
| 50 | JC | 501 | GTP | O6-C6-C5 | -2.03 | 120.41 | 124.37 |
| 50 | QK | 501 | GTP | O6-C6-C5 | -2.02 | 120.43 | 124.37 |
| 52 | LL | 502 | GDP | O6-C6-C5 | -2.02 | 120.43 | 124.37 |
| 50 | QC | 501 | GTP | O6-C6-C5 | -2.02 | 120.43 | 124.37 |
| 50 | VE | 501 | GTP | O6-C6-C5 | -2.02 | 120.43 | 124.37 |
| 50 | JO | 501 | GTP | O6-C6-N1 | -2.01 | 118.27 | 120.65 |
| 52 | ML | 502 | GDP | C2'-C3'-C4' | 2.01 | 106.55 | 102.64 |
| 50 | WC | 501 | GTP | O6-C6-C5 | -2.00 | 120.46 | 124.37 |
| 50 | OC | 501 | GTP | O6-C6-C5 | -2.00 | 120.46 | 124.37 |

There are no chirality outliers.

All (1477) torsion outliers are listed below:

| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | AA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | AA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | AC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | AC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | AE | 501 | GTP | PB-O3A-PA-O5' |
| 50 | AE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | AE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | AG | 501 | GTP | PB-O3A-PA-O5' |
| 50 | AG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | AG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | AI | 501 | GTP | PB-O3A-PA-O5' |
| 50 | AI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | AI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | AK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | AK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | AM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | AM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | AO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | AO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | BC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | BC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | BE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | BE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | BG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | BG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | BI | 501 | GTP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | BK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | BK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | BM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | BO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | BO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CQ | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | CQ | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DQ | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | DQ | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | EA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | EC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | EE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EG | 501 | GTP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | EG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | EI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | EK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | EM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | EO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | EO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | FA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | FC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | FE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | FG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | FK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | FM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | FO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | FO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | GE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | GG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | GK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GM | 501 | GTP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | GM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | GO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HA | 501 | GTP | PB-O3A-PA-O5' |
| 50 | HA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | HA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | HA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | HC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HE | 501 | GTP | PB-O3A-PA-O5' |
| 50 | HE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | HE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | HE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | HG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HI | 501 | GTP | PB-O3A-PA-O5' |
| 50 | HI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | HI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HK | 501 | GTP | PB-O3A-PA-O5' |
| 50 | HK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | HK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | HM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | HO | 501 | GTP | PB-O3A-PA-O5' |
| 50 | HO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | HO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | IA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | IC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | IE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | IG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | II | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | IM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | IO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JC | 501 | GTP | C5'-O5'-PA-O2A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | JE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | JG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | JI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | JK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | JM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | JO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | JQ | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | JQ | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | KA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | KG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | KK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | KO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | KO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | LA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | LC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | LG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | LG | 501 | GTP | C3'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | LI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | LI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | LK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | LM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | LO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | MA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | MC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | ME | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | MI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | MK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | MM | 501 | GTP | PB-O3A-PA-O5' |
| 50 | MM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | MO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | MO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | NA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NC | 501 | GTP | PB-O3A-PA-O5' |
| 50 | NC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NE | 501 | GTP | PB-O3A-PA-O5' |
| 50 | NE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | NG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | NI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | NK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | NM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | NO | 501 | GTP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | NO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | OO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | OO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | PC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | PC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | PE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | PE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | PG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | PG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | PI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | PI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | PK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | PK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | PM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | PM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | PO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | PO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | QC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | QE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | QG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | QI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | QK | 501 | GTP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|-----------------|
| 50 | QK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | QM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | RE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | RG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | RI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | RK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | RK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | RM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | RO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | RO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | SA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | SC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | SE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | SE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | SG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SI | 501 | GTP | PB-O3A-PA-O5' |
| 50 | SI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | SI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | SK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | SK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | SM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | SM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | TA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | TA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | TC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | TC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | TE | 501 | GTP | C5'-O5'-PA-O3A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | TE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | TE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | TG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | TG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | TG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | TI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | TI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | TK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | TK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | TM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | TM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | TM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UC | 501 | GTP | PB-O3A-PA-O5' |
| 50 | UC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UE | 501 | GTP | PB-O3A-PA-O5' |
| 50 | UE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UI | 501 | GTP | PB-O3A-PA-O5' |
| 50 | UI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | UO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | UO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | VA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | VC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | VE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | VG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VI | 501 | GTP | C5'-O5'-PA-O2A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | VK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | VK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | VM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | VO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | VO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | VO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | WA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WA | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | WC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | WE | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | WG | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WG | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | WI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | WK | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | WM | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | WO | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | WO | 501 | GTP | C5'-O5'-PA-O2A |
| 52 | AD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | BH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | BL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | CL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | CN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | DJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | DL | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | DL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | DN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | DP | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | DP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | EL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | GD | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | GD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | GJ | 502 | GDP | PA-O3A-PB-O3B |
| 52 | GL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | HB | 502 | GDP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|----------------|
| 52 | HP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | JJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | JL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KB | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | KB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | MB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | MD | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | MF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | MH | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | MH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | MJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | ML | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | MN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | MP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | ND | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | NF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | NH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | NJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | NN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | OB | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | OB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | OF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | OH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | OJ | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | OJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | OP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | PP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | SD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | SF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | SH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | SJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | SL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | SN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | TH | 502 | GDP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 52 | UD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | VB | 502 | GDP | C5'-O5'-PA-O1A |
| 50 | BC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | BI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | DC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | EM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | FO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | HM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | IE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | IG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | IK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | IO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | LK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | LK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | OK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | PG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | PG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | RK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | UK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | VG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | VK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | WG | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | OB | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | OJ | 502 | GDP | O4'-C4'-C5'-O5' |
| 52 | OJ | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | BC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | BI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | DE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | EM | 501 | GTP | O4'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | FO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | HG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | HI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | HK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | HK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | II | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | II | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | OC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | QK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | QO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | TC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | TC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | VM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | WG | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | OB | 502 | GDP | O4'-C4'-C5'-O5' |
| 50 | BM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | DE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | JC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | JC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | PI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | PI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | UE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | AA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | AO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | BM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | EC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | FK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | FM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | GE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JG | 501 | GTP | C3'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | LI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | PO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | VC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | VI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | WA | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | MD | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | PN | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | AO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | BO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | CO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | EE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | FM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | GE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | HE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | LI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | NA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | NE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | PE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | QE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | QI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | SK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | WA | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | PN | 502 | GDP | O4'-C4'-C5'-O5' |
| 52 | UD | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | AM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DG | 501 | GTP | C3'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | EC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | FK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | PK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | SG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | TE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | WC | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | QH | 502 | GDP | PA-O3A-PB-O1B |
| 50 | HA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | HC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | HK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | JI | 501 | GTP | PB-O3A-PA-O1A |
| 50 | KE | 501 | GTP | PB-O3A-PA-O1A |
| 50 | OK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | OO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | SE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | SI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | SK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | UE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | UK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | UO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | CC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | CQ | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | HA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | PM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | RC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | RE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | RO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | SC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | TA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | TK | 501 | GTP | C3'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | TM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | VA | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | NN | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | LE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | BO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | CO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | EE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | HC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | NM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | NO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | PE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | PO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | QC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | UI | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | MD | 502 | GDP | O4'-C4'-C5'-O5' |
| 50 | CE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | DI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | DQ | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | IK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | IO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | JC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | JE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | LC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | LM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | MG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | MK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | MM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | MO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | PI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | QC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VO | 501 | GTP | C4'-C5'-O5'-PA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | WA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | WE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | WI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AM | 501 | GTP | PB-O3A-PA-O5' |
| 50 | FO | 501 | GTP | PB-O3A-PA-O5' |
| 50 | GO | 501 | GTP | PB-O3A-PA-O5' |
| 50 | HC | 501 | GTP | PB-O3A-PA-O5' |
| 50 | HG | 501 | GTP | PB-O3A-PA-O5' |
| 50 | IG | 501 | GTP | PB-O3A-PA-O5' |
| 50 | NG | 501 | GTP | PB-O3A-PA-O5' |
| 50 | NK | 501 | GTP | PB-O3A-PA-O5' |
| 50 | NO | 501 | GTP | PB-O3A-PA-O5' |
| 50 | OE | 501 | GTP | PB-O3A-PA-O5' |
| 50 | OO | 501 | GTP | PB-O3A-PA-O5' |
| 50 | RK | 501 | GTP | PB-O3A-PA-O5' |
| 50 | TM | 501 | GTP | PB-O3A-PA-O5' |
| 50 | UK | 501 | GTP | PB-O3A-PA-O5' |
| 50 | DO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | NE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SA | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | UD | 502 | GDP | O4'-C4'-C5'-O5' |
| 50 | BO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | CI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | CO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | DM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | IA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | IC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | II | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | JG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | JM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KO | 501 | GTP | C4'-C5'-O5'-PA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | LA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | LI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | LO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | MA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | MI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | PE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | PK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | QG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | QK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | QO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | RI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | RM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | WM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | WO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | BM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CQ | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DQ | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GO | 501 | GTP | C5'-O5'-PA-O3A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | HC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | HG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | II | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | IM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | IO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | KO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | MA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | ME | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | MM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | QO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | RE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | RG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | RM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | RO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | SG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | TA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | TC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | TI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | TK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WM | 501 | GTP | C5'-O5'-PA-O3A |
| 52 | JJ | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | KP | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | ML | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | MP | 502 | GDP | C5'-O5'-PA-O3A |
| 50 | AM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | EA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | FC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JQ | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NC | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | RG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | TE | 501 | GTP | O4'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|---------------|
| 50 | AC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | AI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | BC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | BE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | BM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | BO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | CO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | EA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | EC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | EK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | EM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | HM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | II | 501 | GTP | PA-O3A-PB-O2B |
| 50 | IK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | IM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | JC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | MC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | MK | 501 | GTP | PA-O3A-PB-O2B |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | MM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | MO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | NG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | NK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | NM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | PM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | QE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | QM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | RI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | RK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | SC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | SG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | VE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | WA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | WC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | WG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | WM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | WO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | AA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | BC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | BE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | BG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | BI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | BK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | BM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | CC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | CG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | CK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | CM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | CQ | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | DC | 501 | GTP | C4'-C5'-O5'-PA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | DE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | DG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | DK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | DO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | GK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | HO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | IE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | IM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | JQ | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | LG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | LK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | MC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | ME | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | NK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | OO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | PC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | PG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | PM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | PO | 501 | GTP | C4'-C5'-O5'-PA |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | QE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | QI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | QM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | RC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | RE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | RG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | RK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | RO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | SA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | SE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | SG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | SI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | SK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | SM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | TA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | TE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | TG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | TI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | TK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VA | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | VE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | WC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | WG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | WK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | BI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | BM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | CK | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DC | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | DI | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | GA | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | GC | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | II | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | IM | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | IO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | LE | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | ME | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | QI | 501 | GTP | C5'-O5'-PA-O1A |
| 50 | QO | 501 | GTP | C5'-O5'-PA-O2A |
| 50 | SI | 501 | GTP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | VG | 501 | GTP | C5'-O5'-PA-O2A |
| 52 | MD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | OD | 502 | GDP | C5'-O5'-PA-O1A |
| 50 | BE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DQ | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | EG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | EO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | FA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | JI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | KI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | MM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | PK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | QM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | TG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | TI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | WC | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | MH | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | AE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | EK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | IG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KE | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | KG | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | TC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | TM | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | UC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | CC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | CQ | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | DG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | DI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | FI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | GA | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | IA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | IC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | JE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | JM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | NG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | OE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | PC | 501 | GTP | C3'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | PM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | RC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | RE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | RO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | TA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | TK | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | TM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | UM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | VA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | WK | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | DP | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | NN | 502 | GDP | O4'-C4'-C5'-O5' |
| 52 | OD | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | CK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | NO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | OM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | RG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | UI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | UO | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | VB | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | AE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | AG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | AK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | AM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | AO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | BG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | BI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | BK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | CC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | CE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | CG | 501 | GTP | PB-O3A-PA-O1A |
| 50 | CI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | CM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | CQ | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DQ | 501 | GTP | PA-O3A-PB-O2B |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|---------------|
| 50 | EE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | EO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | FO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | GM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | HG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | HI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | IA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | IC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | IE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | IG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | KK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | LI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | MA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | MG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | MI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | NA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | NI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | NO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | OA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | OC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | OE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | OG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | OI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | OM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | PC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | PE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | PG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | PI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | PK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | PO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | QC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | QG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | QK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | QO | 501 | GTP | PA-O3A-PB-O2B |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | RC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | RE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | RG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | RM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | RO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | SA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | SM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | TI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | TK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | UA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | UC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | UG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | VC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | WE | 501 | GTP | PA-O3A-PB-O2B |
| 50 | WI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | JO | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | SC | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | MO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | SM | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | ON | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | BG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NC | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | ML | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | JI | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | FC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | AA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | AE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | HI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | MG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | NG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | NI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | NO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | OC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | OK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | RE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | SG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | SM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | TA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TA | 501 | GTP | PA-O3A-PB-O2B |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | UI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | UM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | UM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | BE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | BK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | DQ | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | EA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | EO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | JO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | JQ | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | MM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | OA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | OG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | OO | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | QM | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | TG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | TI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | UA | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | LL | 502 | GDP | C3'-C4'-C5'-O5' |
| 50 | UG | 501 | GTP | PB-O3A-PA-O5' |
| 50 | CE | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | CG | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | EG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | FA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | JI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | KI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | RI | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | MH | 502 | GDP | O4'-C4'-C5'-O5' |
| 50 | AE | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | LO | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | NG | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | SI | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | IB | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | OD | 502 | GDP | O4'-C4'-C5'-O5' |
| 50 | AA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | AC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | AI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | AK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | AM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | AO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | BC | 501 | GTP | C5'-O5'-PA-O3A |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|----------------|
| 50 | BE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | BG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | BI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | BK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | BO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | CO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | DO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | EO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | FO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | GE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | HI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | HM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | IA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | IC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | IE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | IG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | IK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | JQ | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | KC | 501 | GTP | C5'-O5'-PA-O3A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 50 | KE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | KI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | KM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | LO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | MC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | MG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | MI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | MK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | MO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | NO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | OO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | PC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | PE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | PG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | PI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | PK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | PM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | PO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | QC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | QE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | QG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | QM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | RC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | RI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | RK | 501 | GTP | C5'-O5'-PA-O3A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | SA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | SC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | UA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VM | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | VO | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WA | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WC | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WE | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WG | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WI | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WK | 501 | GTP | C5'-O5'-PA-O3A |
| 50 | WO | 501 | GTP | C5'-O5'-PA-O3A |
| 52 | BL | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | HB | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | IJ | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | KD | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | LD | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | LH | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | LL | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | MN | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | ND | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | NH | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | NN | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | OF | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | SD | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | SF | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | SJ | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | SL | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | UD | 502 | GDP | C5'-O5'-PA-O3A |
| 52 | VB | 502 | GDP | C5'-O5'-PA-O3A |
| 50 | JK | 501 | GTP | C4'-C5'-O5'-PA |
| 50 | AI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | FI | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | GA | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | GK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | LM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | PC | 501 | GTP | O4'-C4'-C5'-O5' |
| 50 | RM | 501 | GTP | C3'-C4'-C5'-O5' |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 50 | WM | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | WO | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | DP | 502 | GDP | O4'-C4'-C5'-O5' |
| 52 | LD | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | LH | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | OF | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | VB | 502 | GDP | O4'-C4'-C5'-O5' |
| 50 | AA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | AC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | AG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | AI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | AK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | AM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | AO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | BC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | BE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | BK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | BO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | CC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | CO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | CQ | 501 | GTP | PA-O3A-PB-O1B |
| 50 | DG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | DK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | DK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | DM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | DO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | DQ | 501 | GTP | PA-O3A-PB-O1B |
| 50 | EG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | EI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | EI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | EO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | FG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | FK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | FM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | FO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | GA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | GC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | GG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | GK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | GM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | HA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | HC | 501 | GTP | PA-O3A-PB-O2B |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|---------------|
| 50 | HG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | HO | 501 | GTP | PB-O3A-PA-O1A |
| 50 | IA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | IE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | IO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | IO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | JI | 501 | GTP | PB-O3A-PA-O2A |
| 50 | KE | 501 | GTP | PB-O3A-PA-O2A |
| 50 | KK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | LA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | LC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | LE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | MA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | MC | 501 | GTP | PB-O3A-PA-O1A |
| 50 | MM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | NA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | NK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | NM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | OG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | OI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | OM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | OO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | PC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | PG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | PI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | PM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | PO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | QC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | QG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | QI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | QI | 501 | GTP | PA-O3A-PB-O2B |
| 50 | QK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | QM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | RC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | RI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | RK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | RM | 501 | GTP | PA-O3A-PB-O1B |
| 50 | RO | 501 | GTP | PA-O3A-PB-O2B |
| 50 | SA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | SK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | TC | 501 | GTP | PA-O3A-PB-O2B |
| 50 | TE | 501 | GTP | PA-O3A-PB-O2B |

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| Mol | Chain | Res | Type | Atoms |
|------------|--------------|------------|-------------|----------------|
| 50 | TG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TK | 501 | GTP | PA-O3A-PB-O1B |
| 50 | TM | 501 | GTP | PA-O3A-PB-O2B |
| 50 | UA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | UG | 501 | GTP | PA-O3A-PB-O2B |
| 50 | UK | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VA | 501 | GTP | PA-O3A-PB-O2B |
| 50 | VC | 501 | GTP | PA-O3A-PB-O1B |
| 50 | VG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | VI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | VO | 501 | GTP | PA-O3A-PB-O1B |
| 50 | WA | 501 | GTP | PA-O3A-PB-O1B |
| 50 | WE | 501 | GTP | PA-O3A-PB-O1B |
| 50 | WG | 501 | GTP | PA-O3A-PB-O1B |
| 50 | WI | 501 | GTP | PA-O3A-PB-O1B |
| 50 | NE | 501 | GTP | C5'-O5'-PA-O1A |
| 52 | AH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | AJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | AL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | AP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | BD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | BF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | BP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | CB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | CD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | CF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | CJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | CP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | DB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | DD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | EB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | ED | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | EF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | EH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | EN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | FB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | FF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | FH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | FJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | FN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | GB | 502 | GDP | C5'-O5'-PA-O1A |

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| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|----------------|
| 52 | GH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | GJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | GN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | HD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | HL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | IB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | IF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | IN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | IP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | JB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | JD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | JN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | KN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | LP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | NB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | NL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | NP | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | OL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | ON | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | PB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | PD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | PF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | PH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | PJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | PN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | QB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | QF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | QN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | RH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | SB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | TB | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | TD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | TF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | TJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | TL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | TN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | UB | 502 | GDP | C5'-O5'-PA-O1A |

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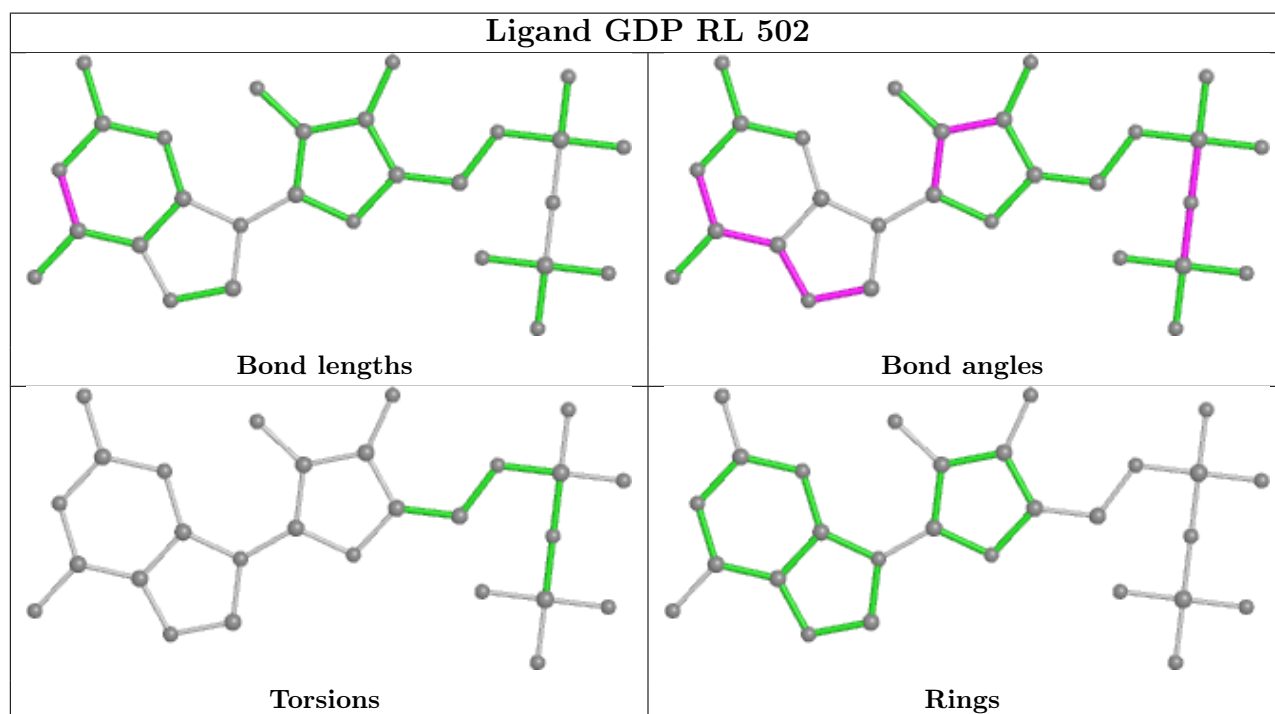
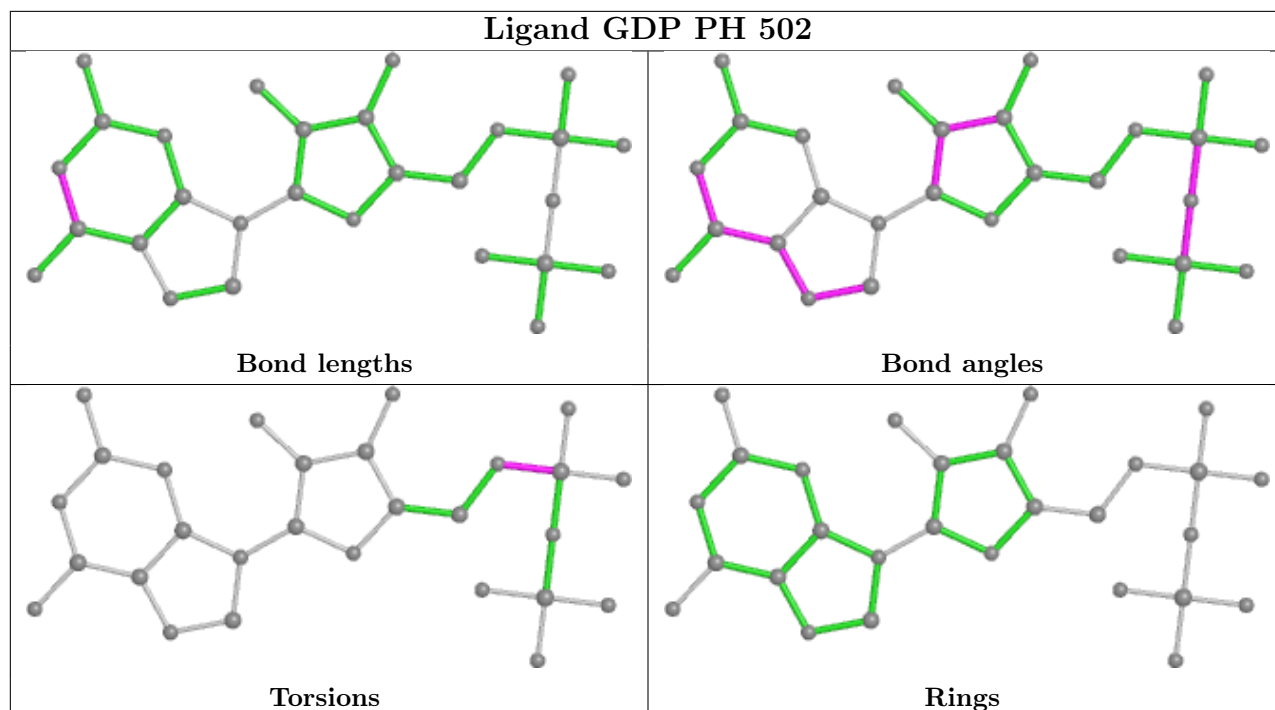
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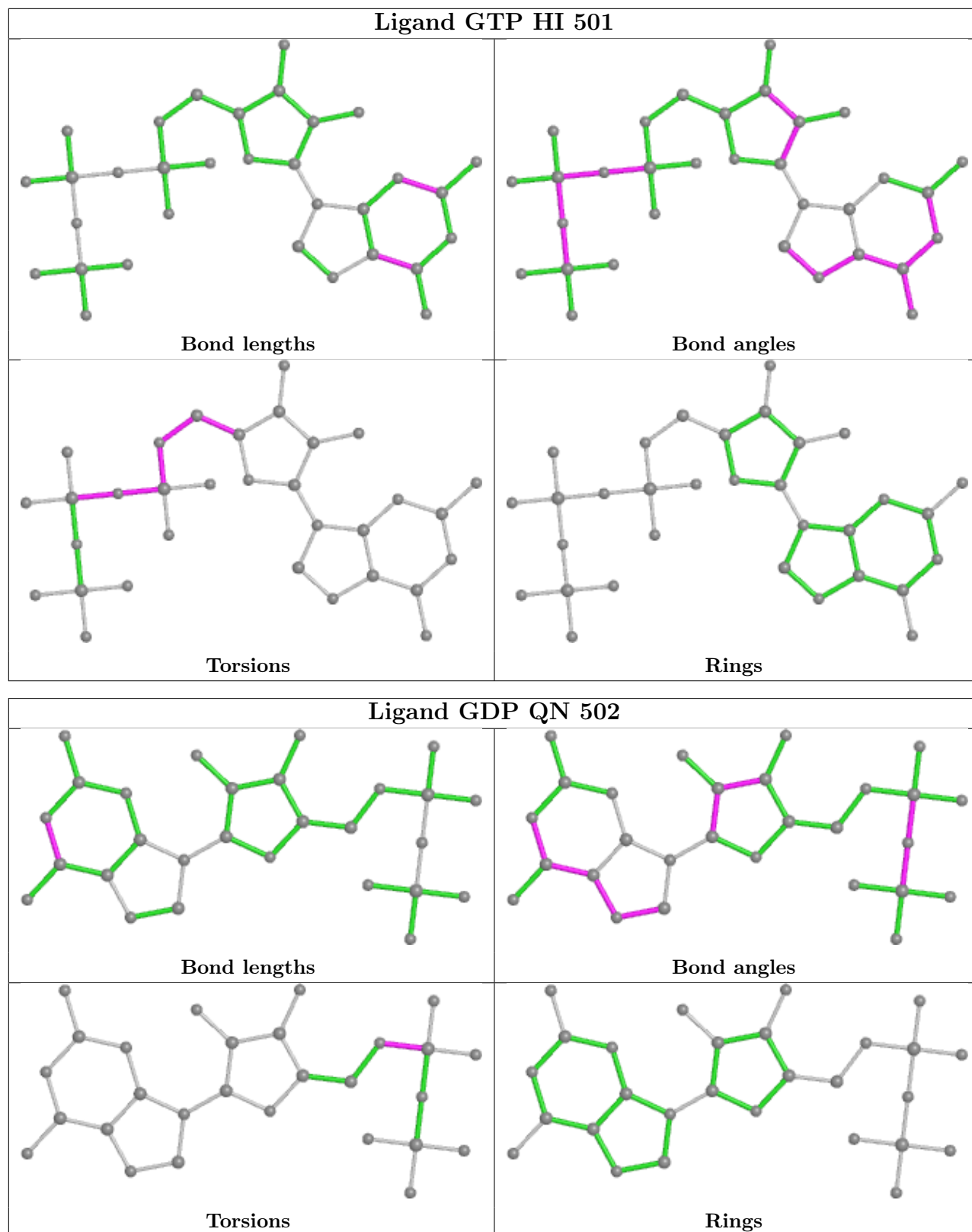
| Mol | Chain | Res | Type | Atoms |
|-----|-------|-----|------|-----------------|
| 52 | UH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | UJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | UL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | UN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | VD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | VF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | VH | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | VJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | VL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | VN | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | WD | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | WF | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | WJ | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | WL | 502 | GDP | C5'-O5'-PA-O1A |
| 52 | WP | 502 | GDP | C5'-O5'-PA-O1A |
| 50 | EI | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | WK | 501 | GTP | O4'-C4'-C5'-O5' |
| 52 | GJ | 502 | GDP | PA-O3A-PB-O1B |
| 50 | EK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | MK | 501 | GTP | C3'-C4'-C5'-O5' |
| 50 | WE | 501 | GTP | C3'-C4'-C5'-O5' |
| 52 | LF | 502 | GDP | C3'-C4'-C5'-O5' |
| 52 | OH | 502 | GDP | C3'-C4'-C5'-O5' |

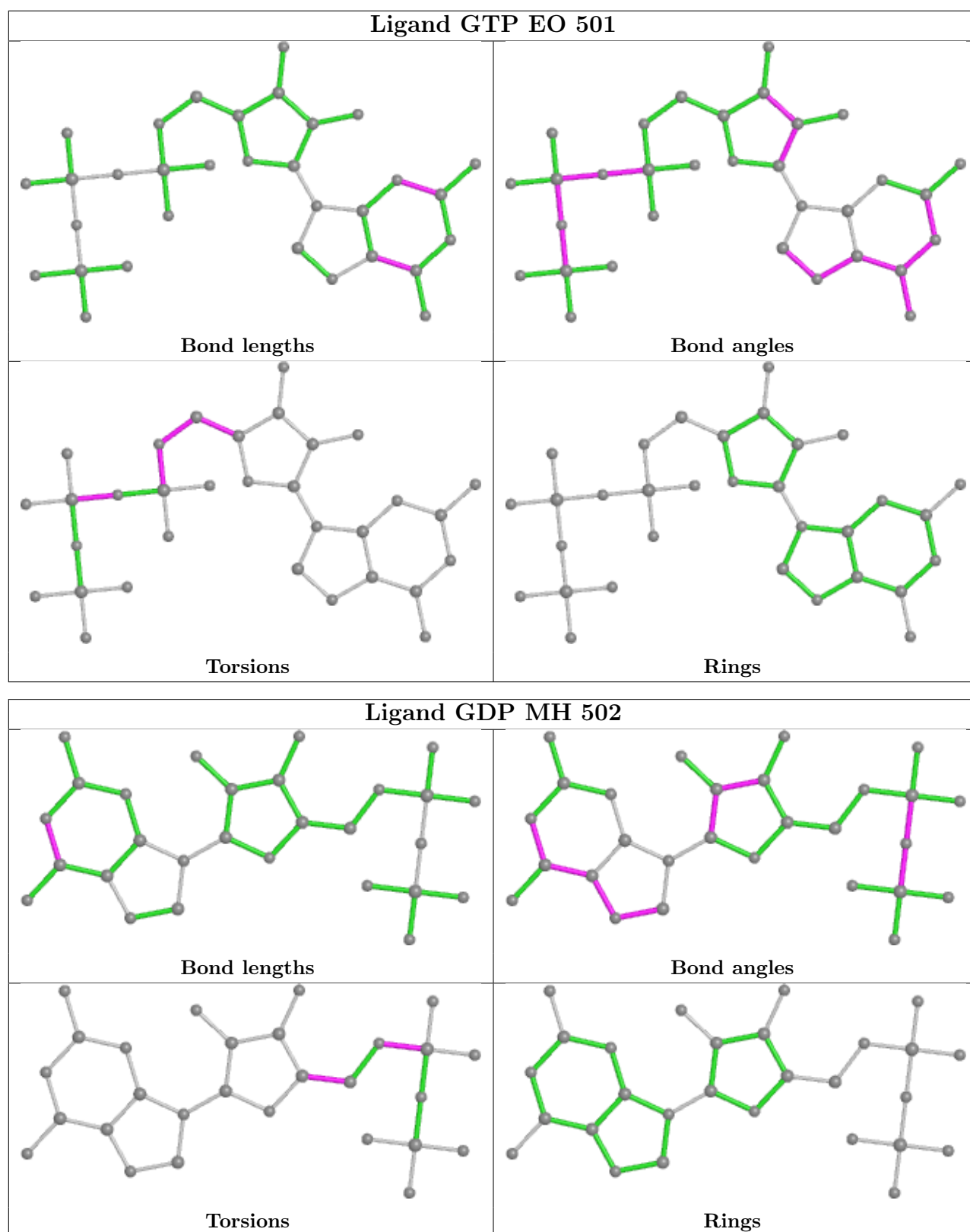
There are no ring outliers.

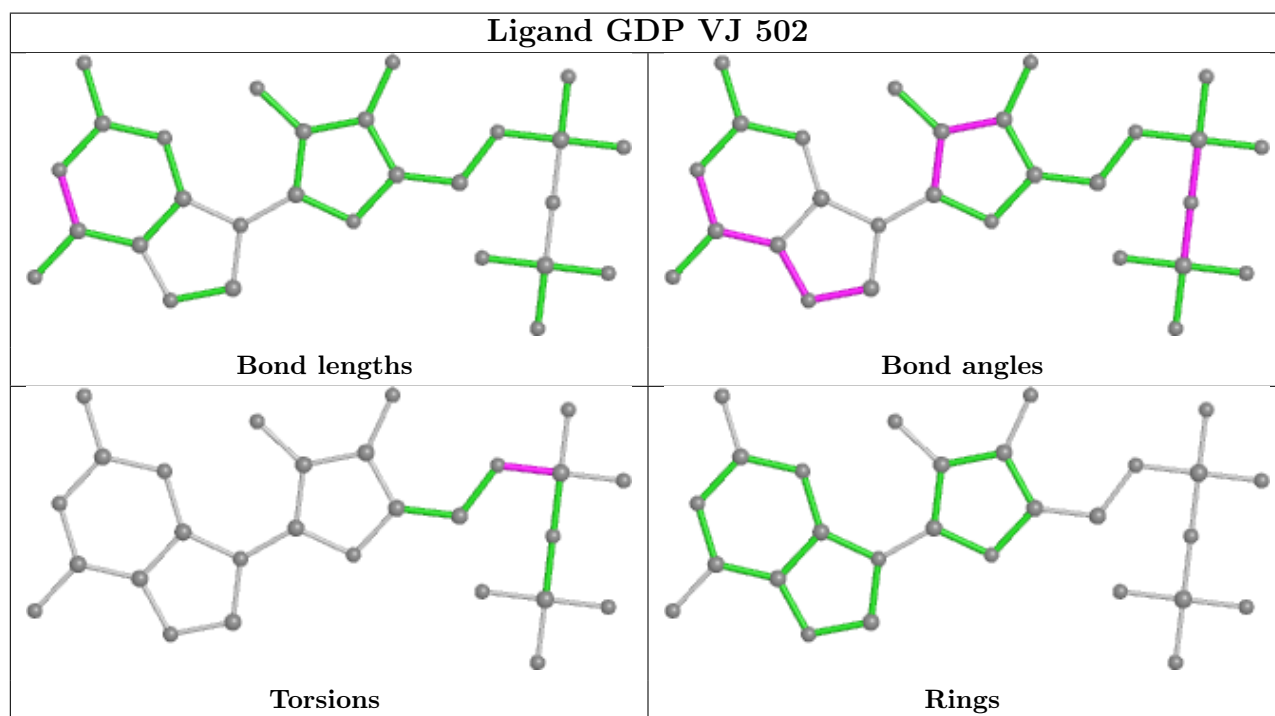
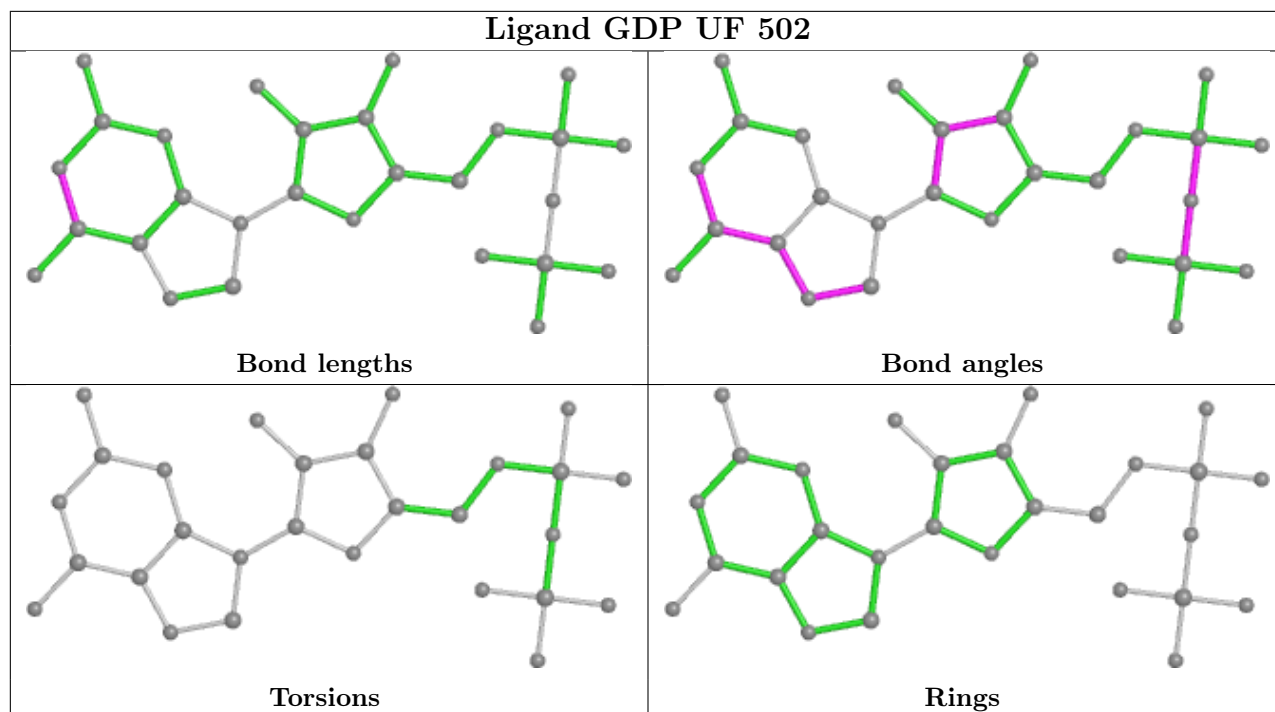
No monomer is involved in short contacts.

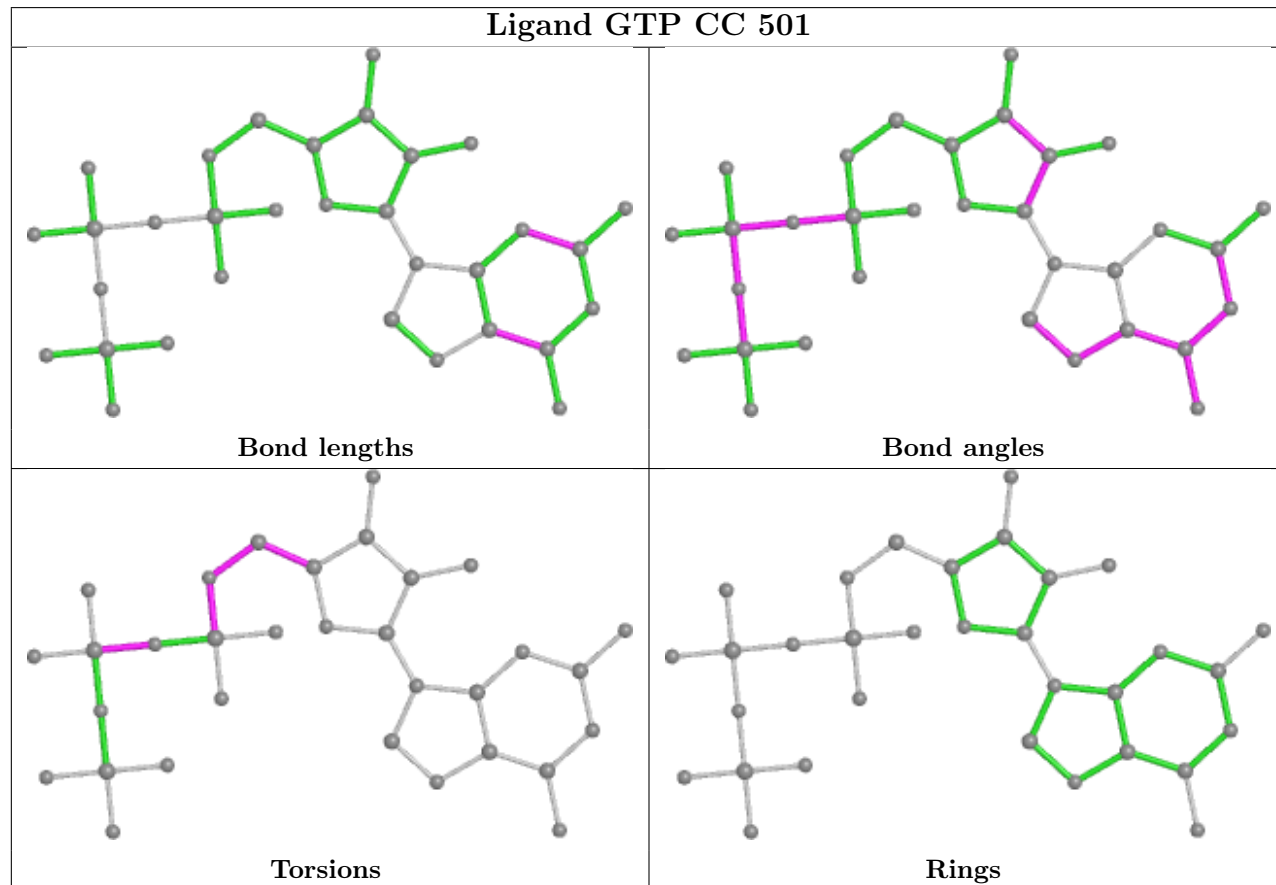
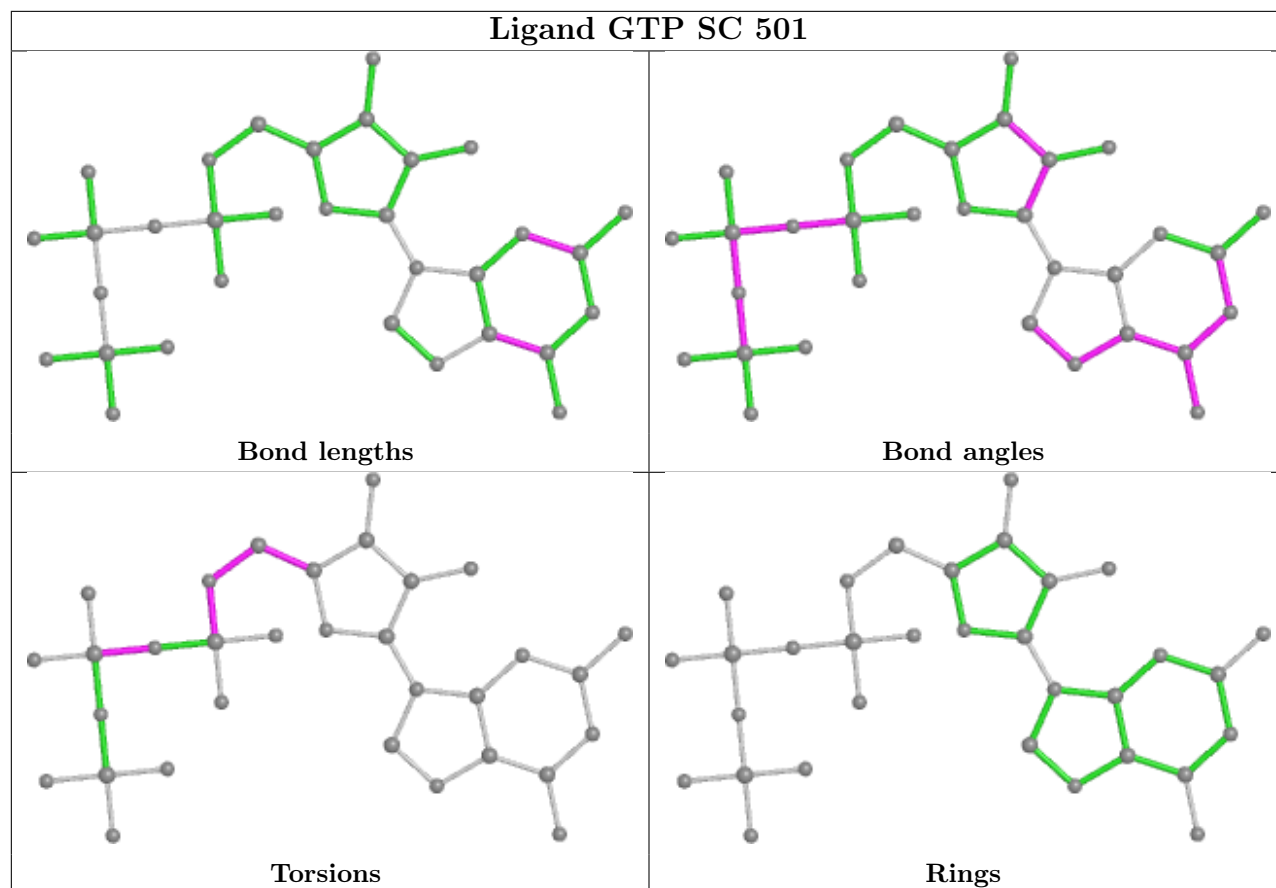
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

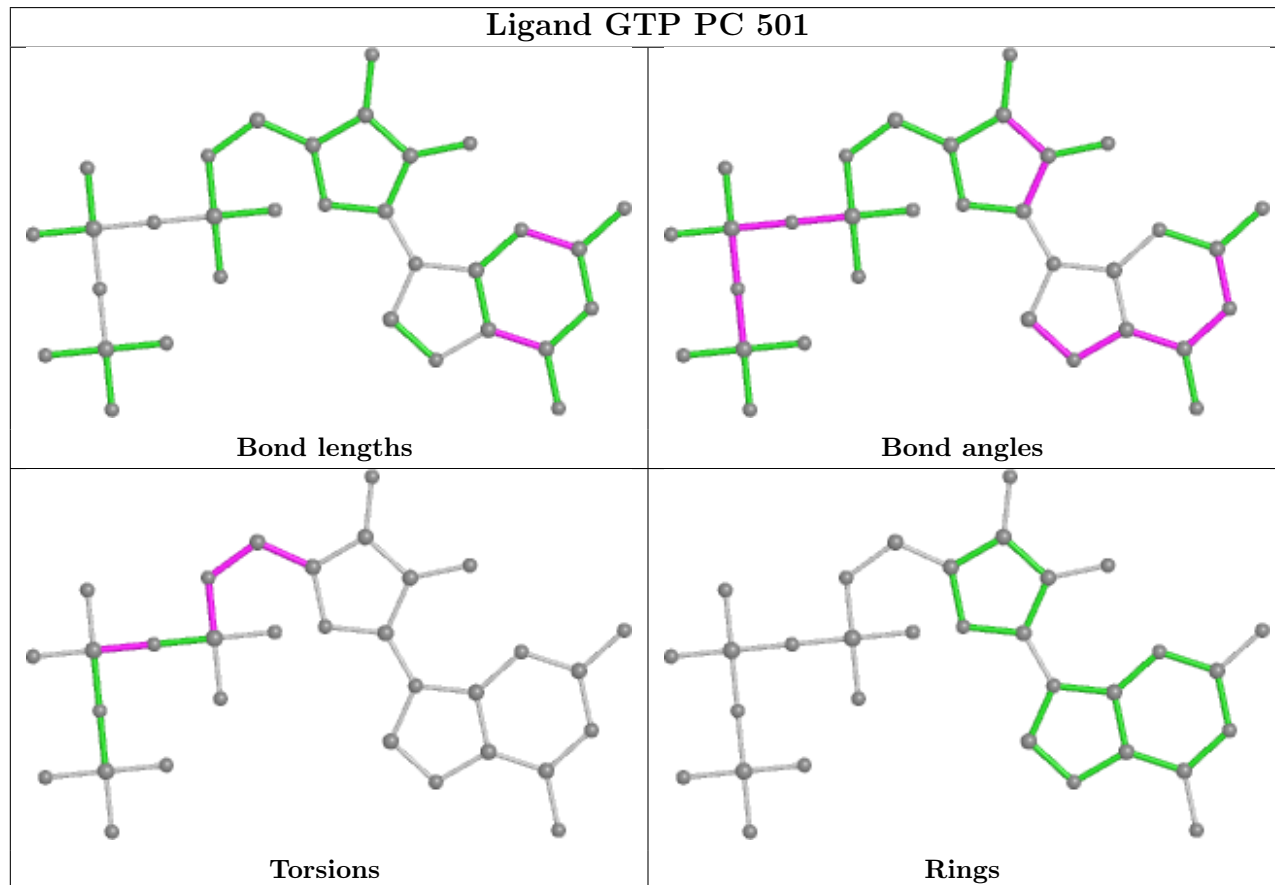
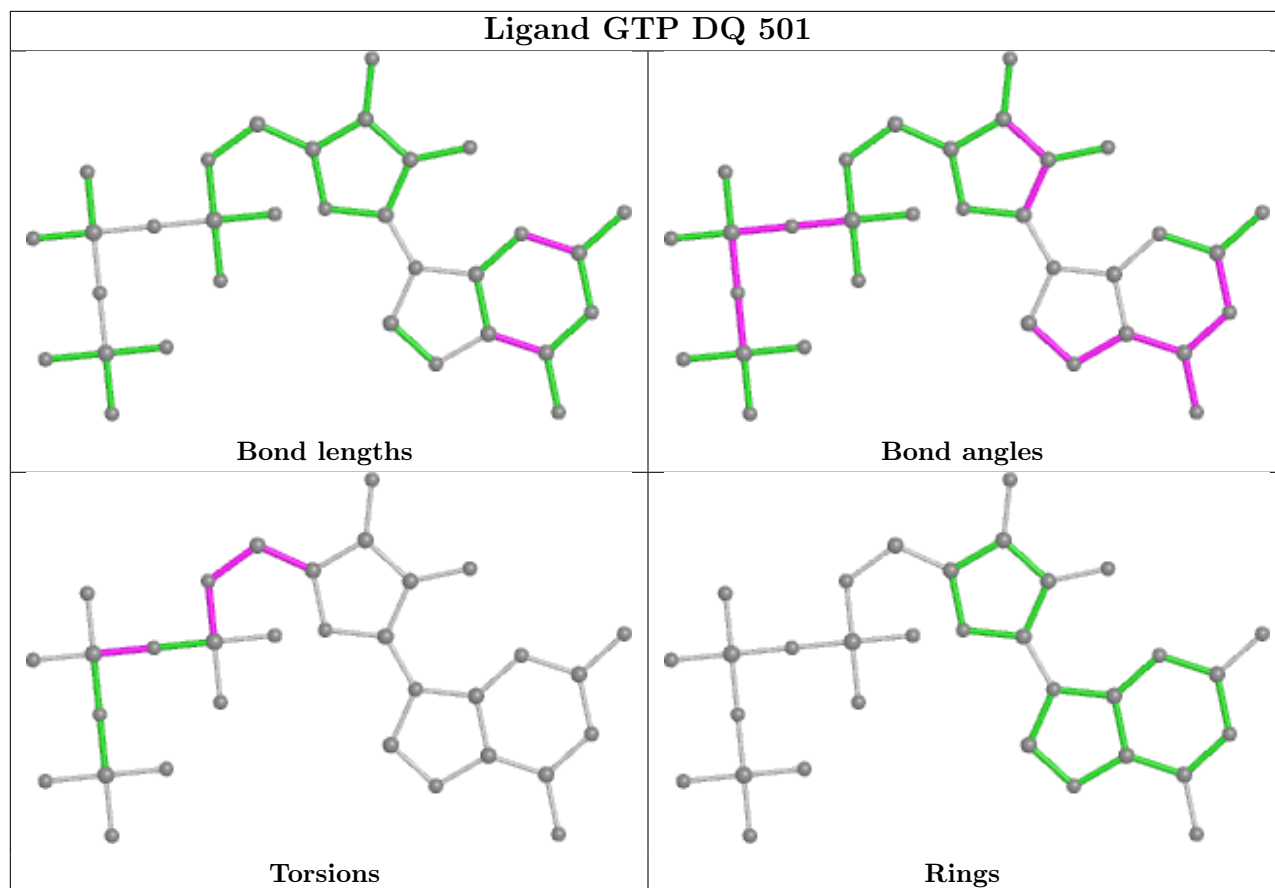


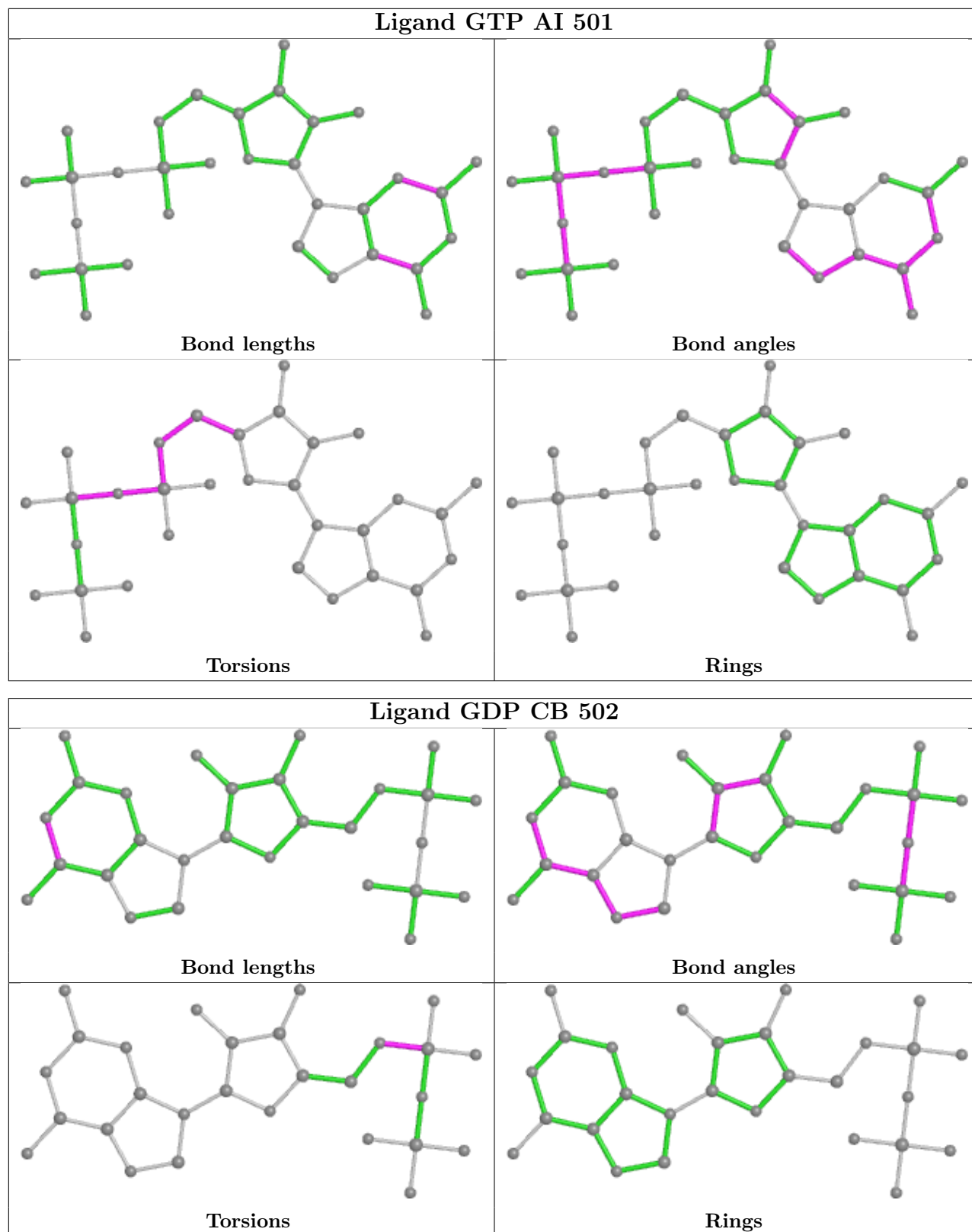


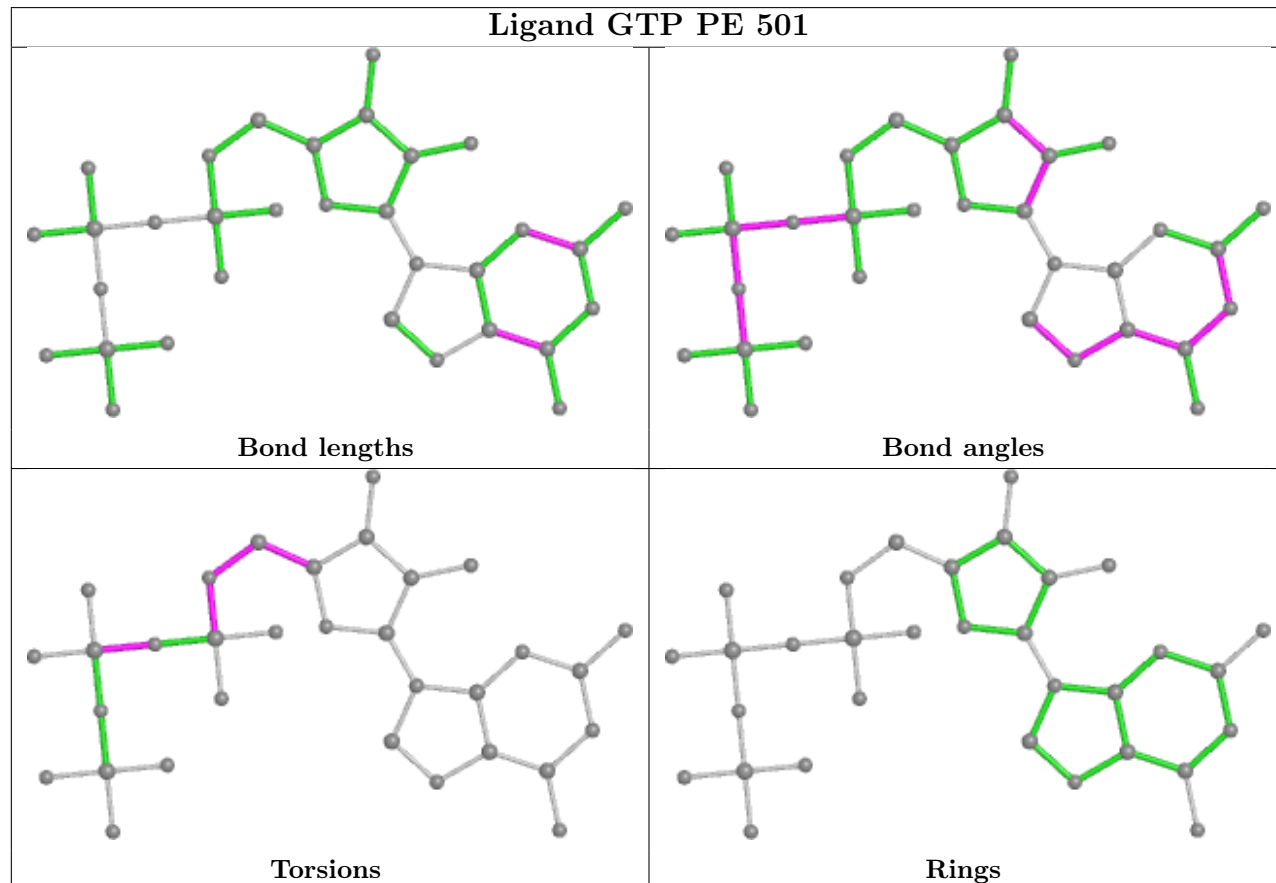
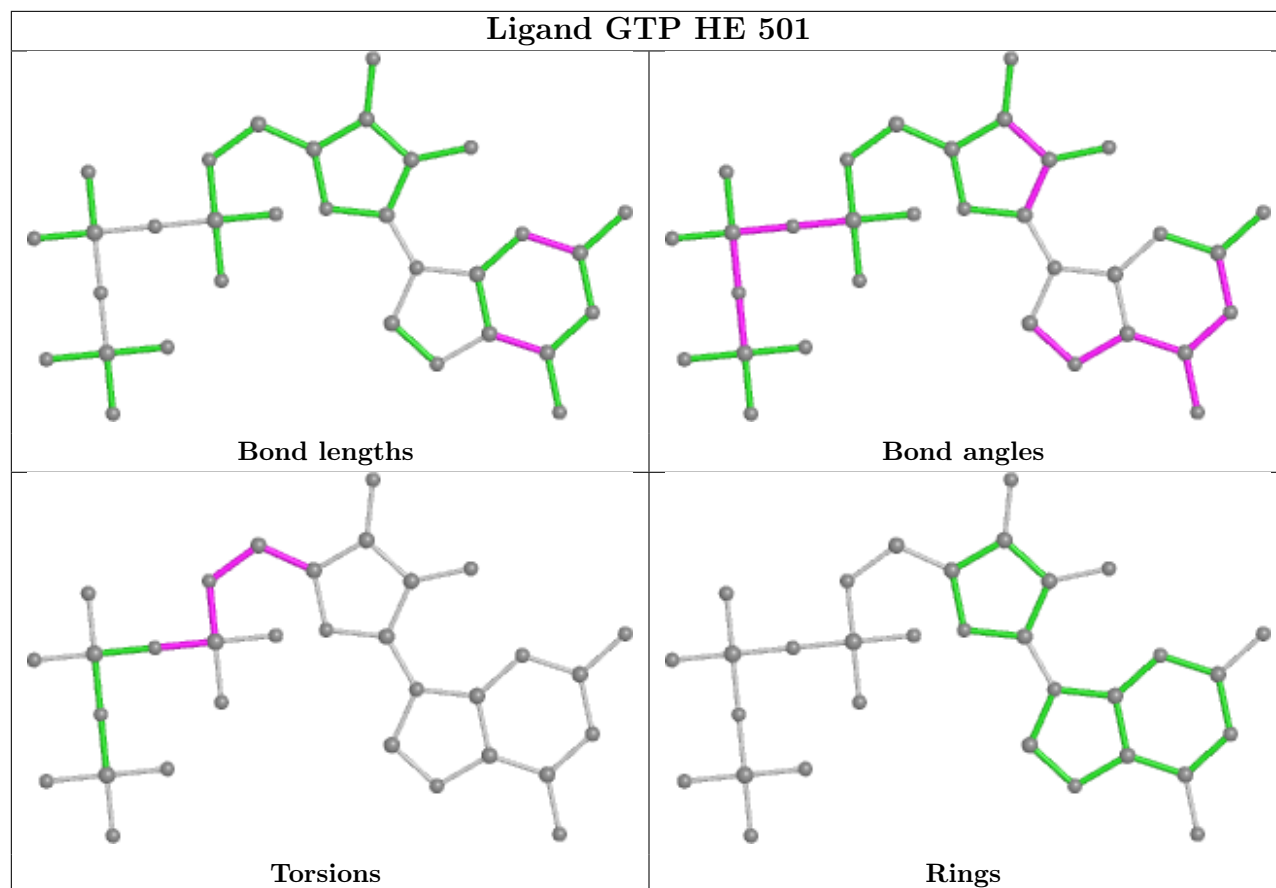


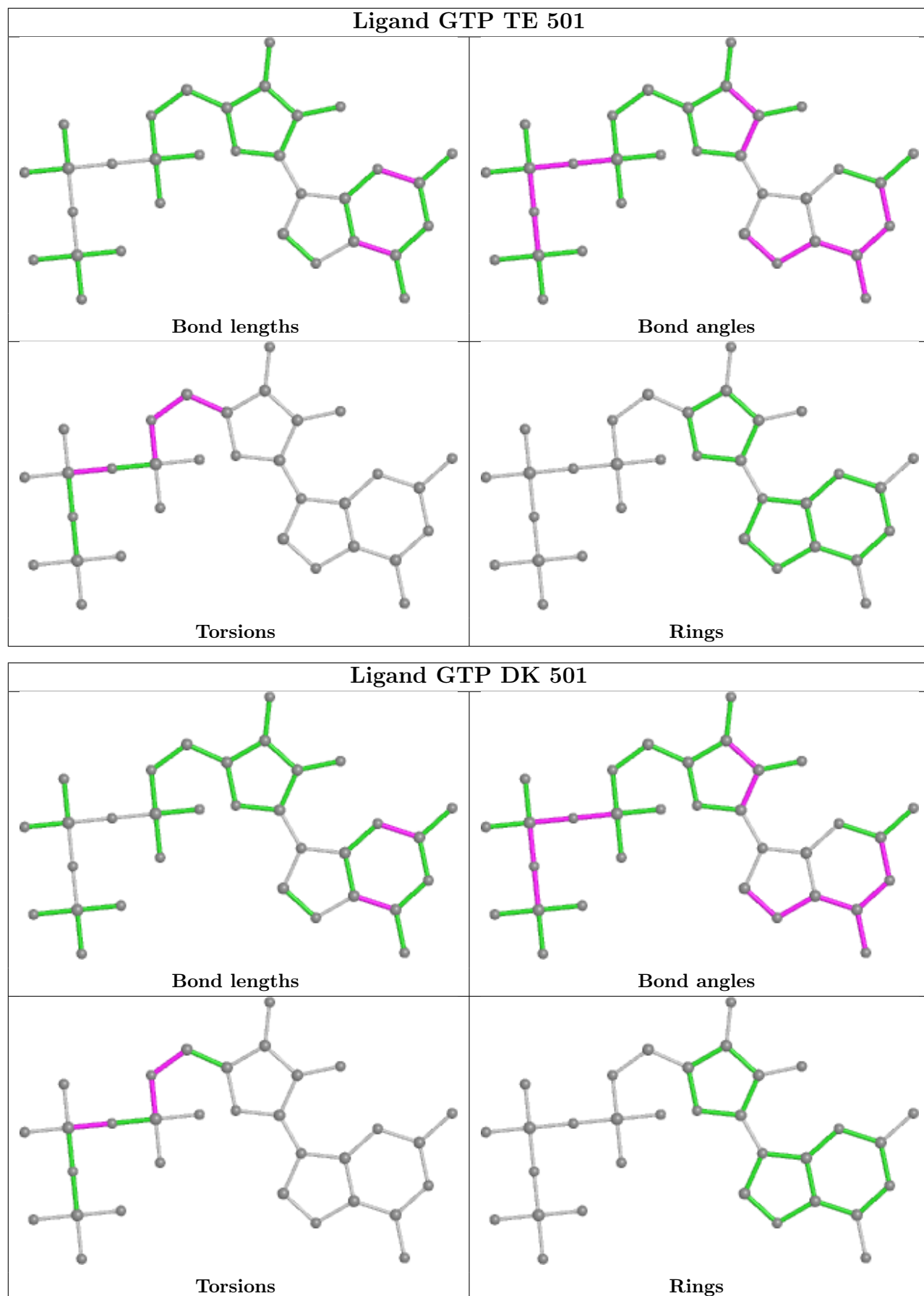


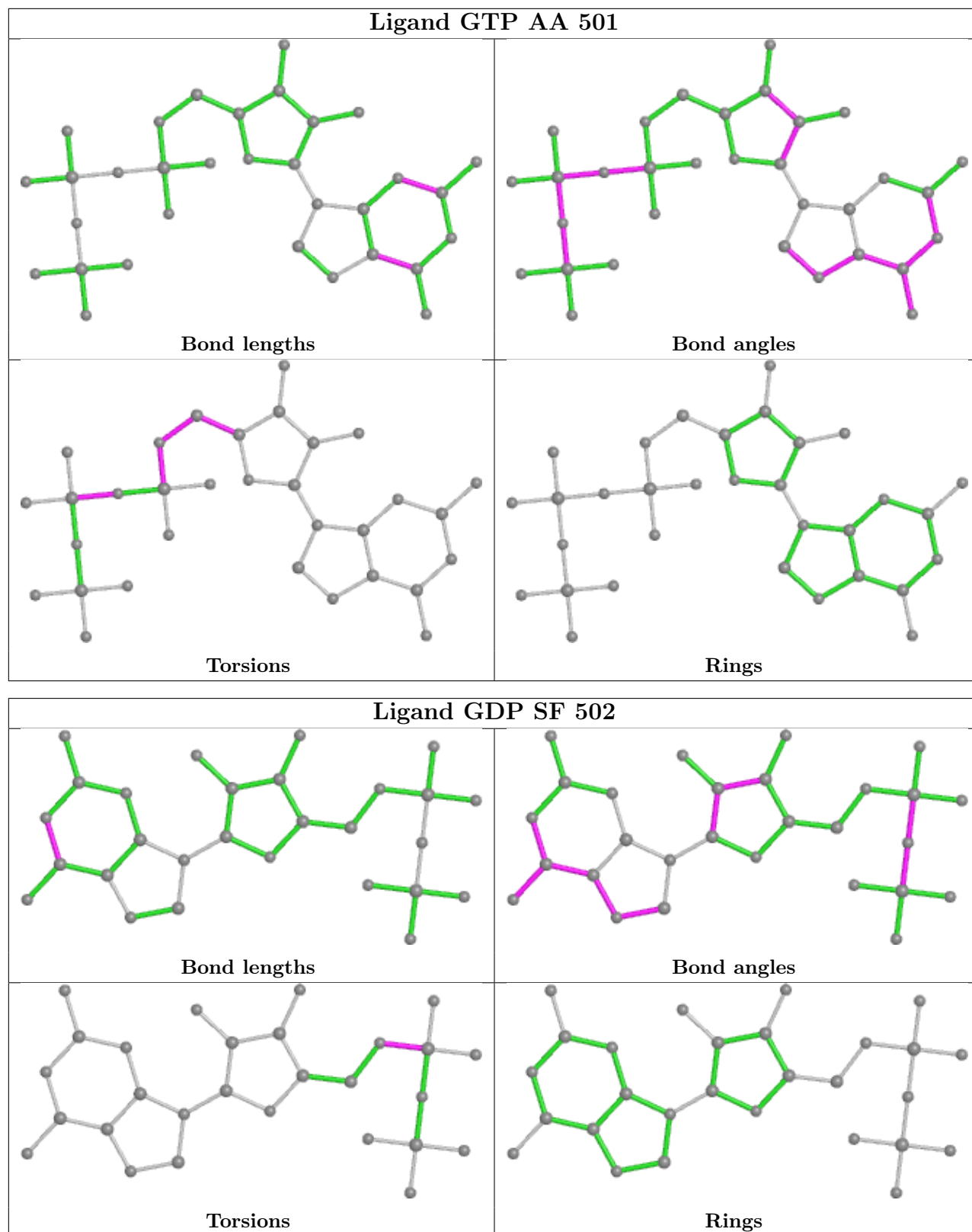


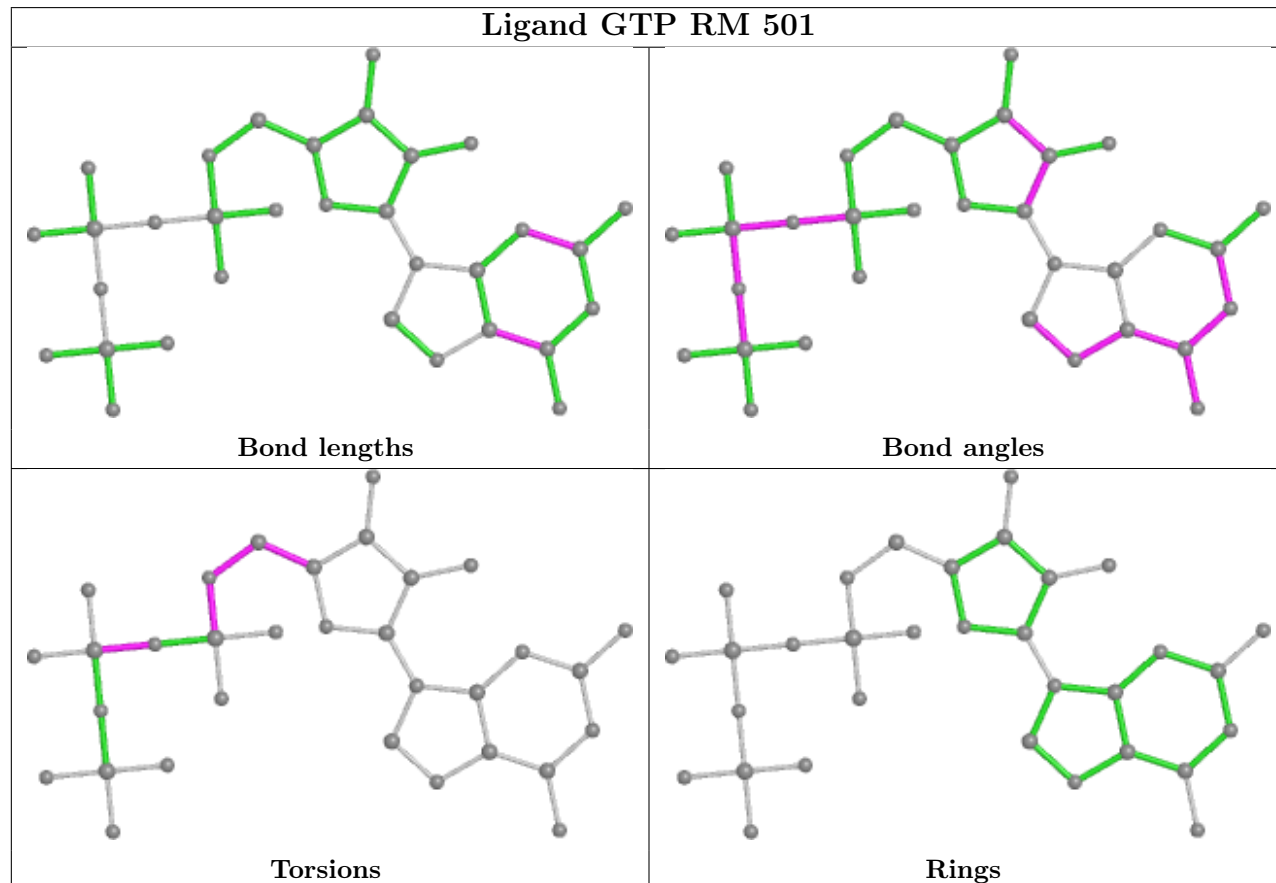
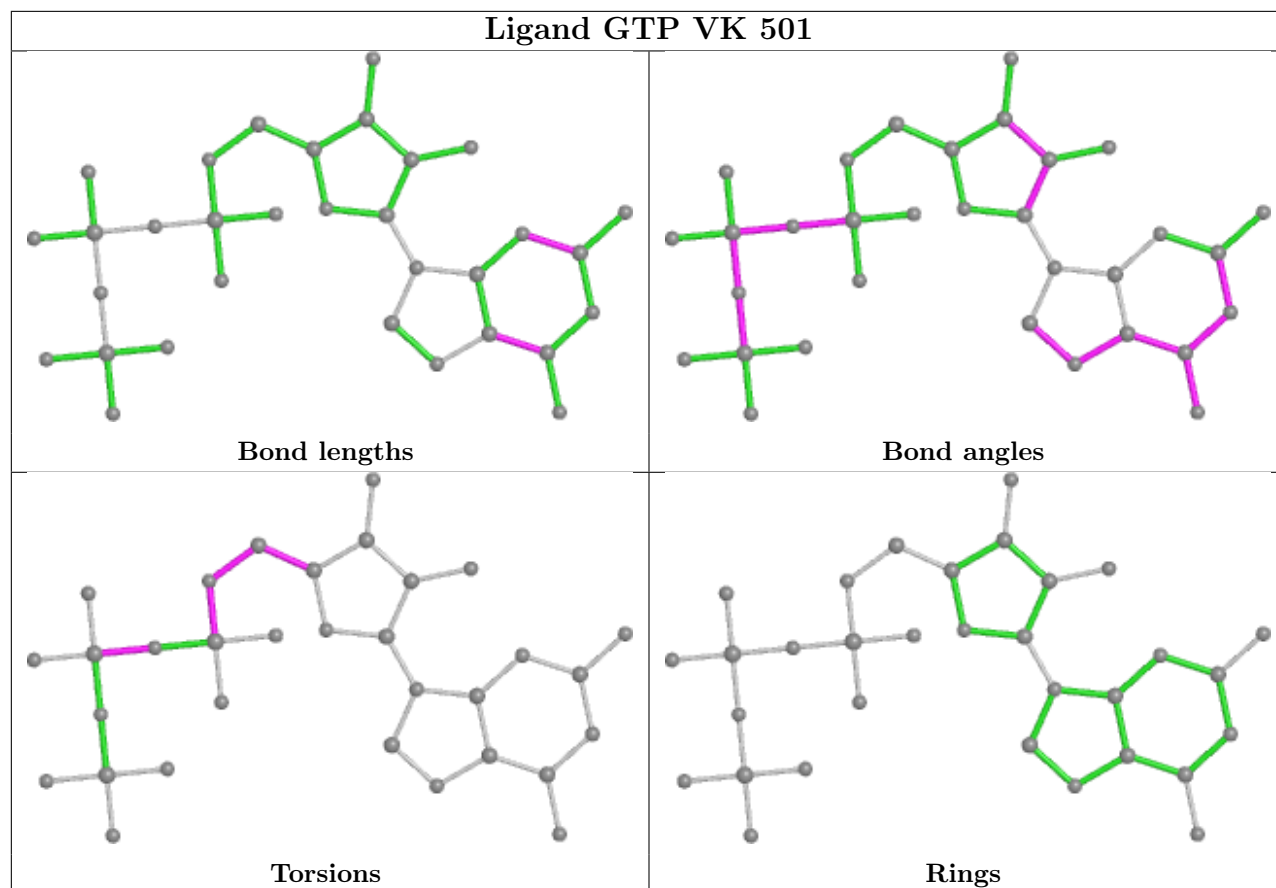


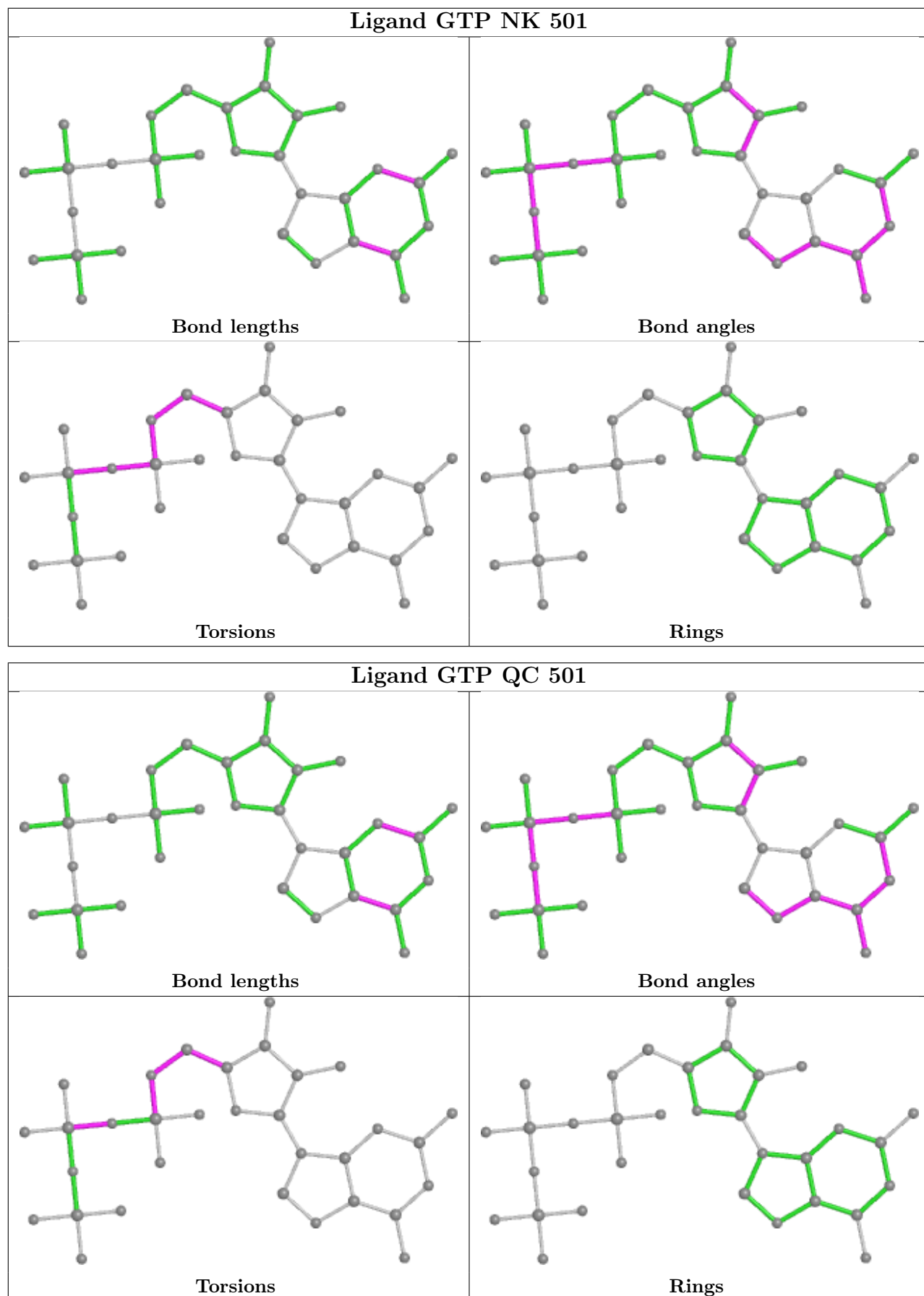


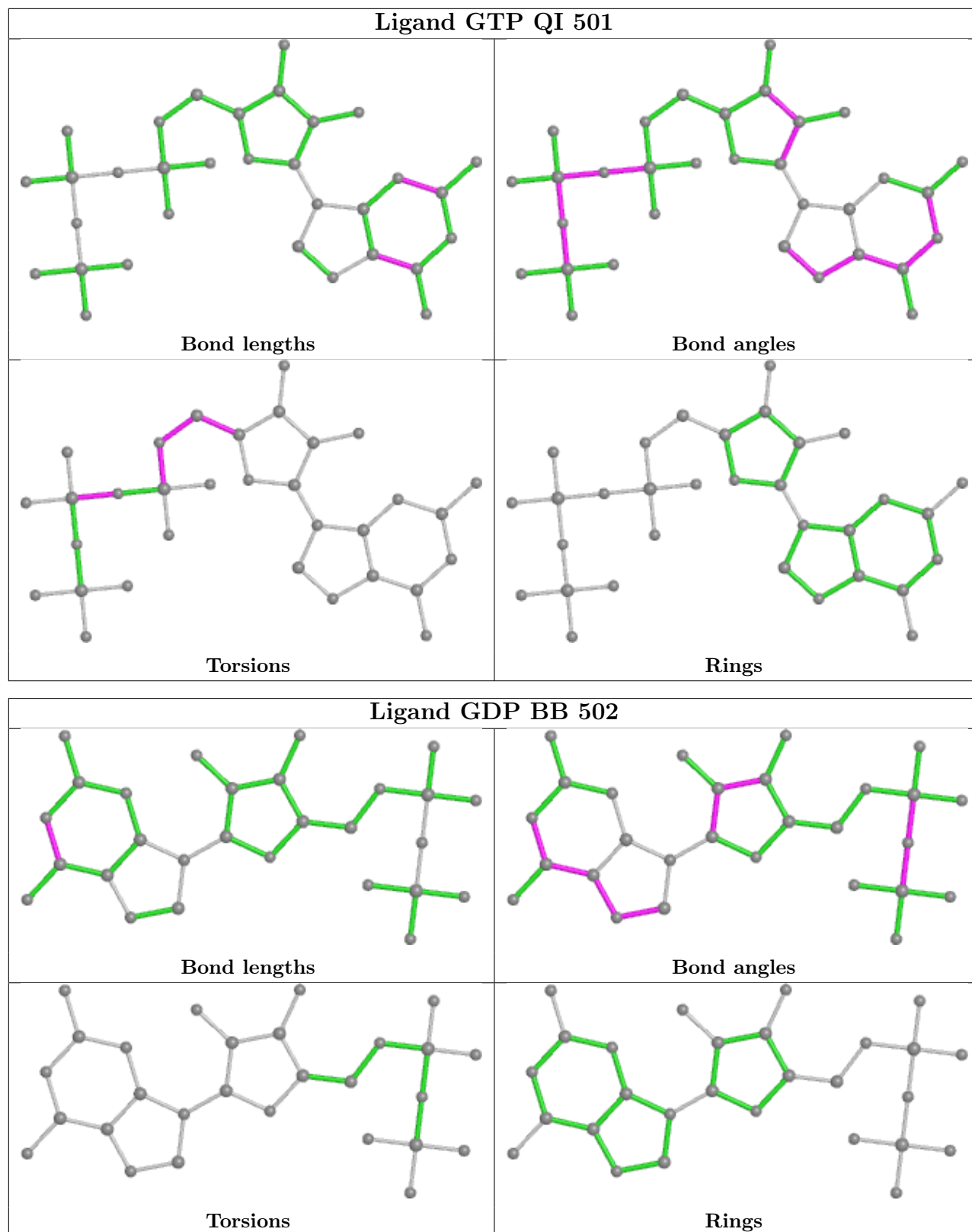


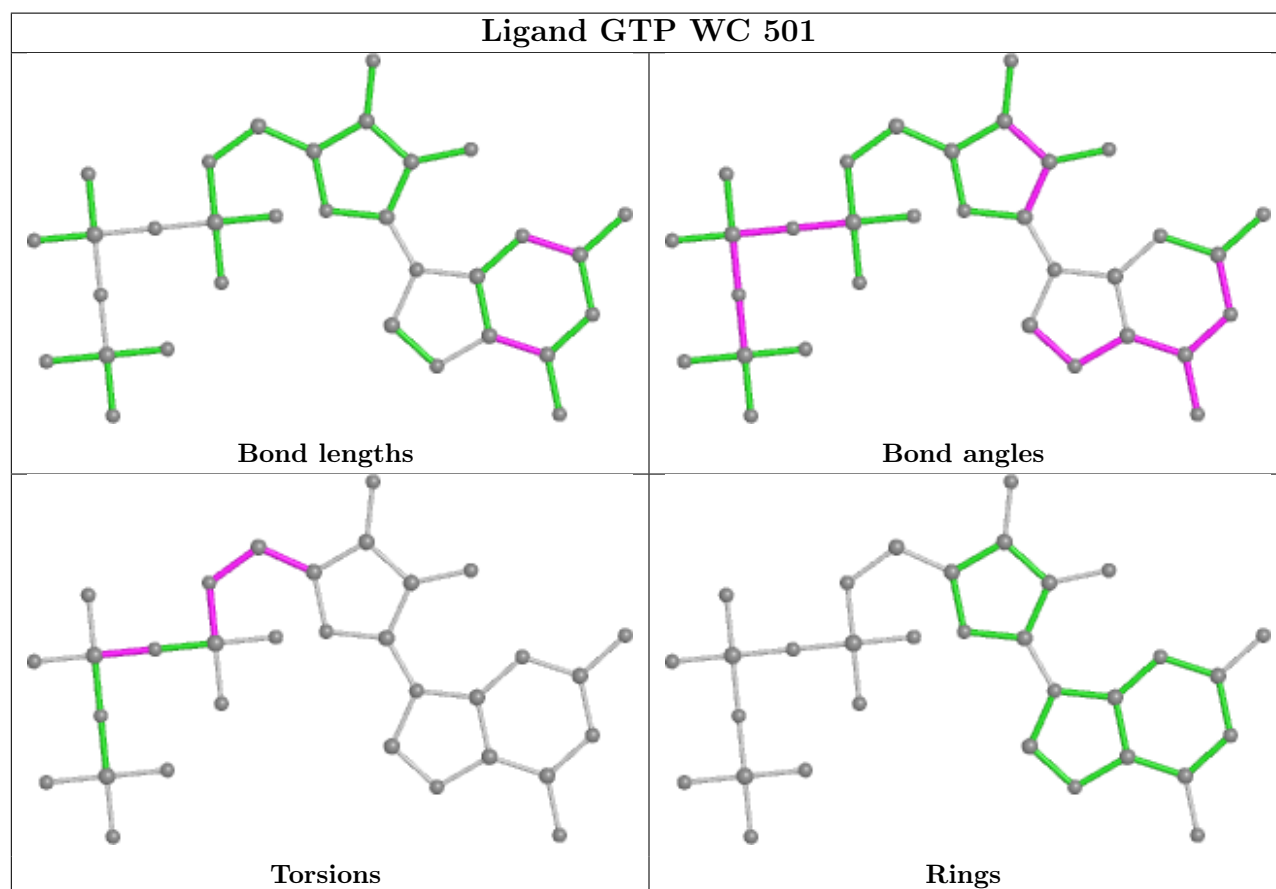
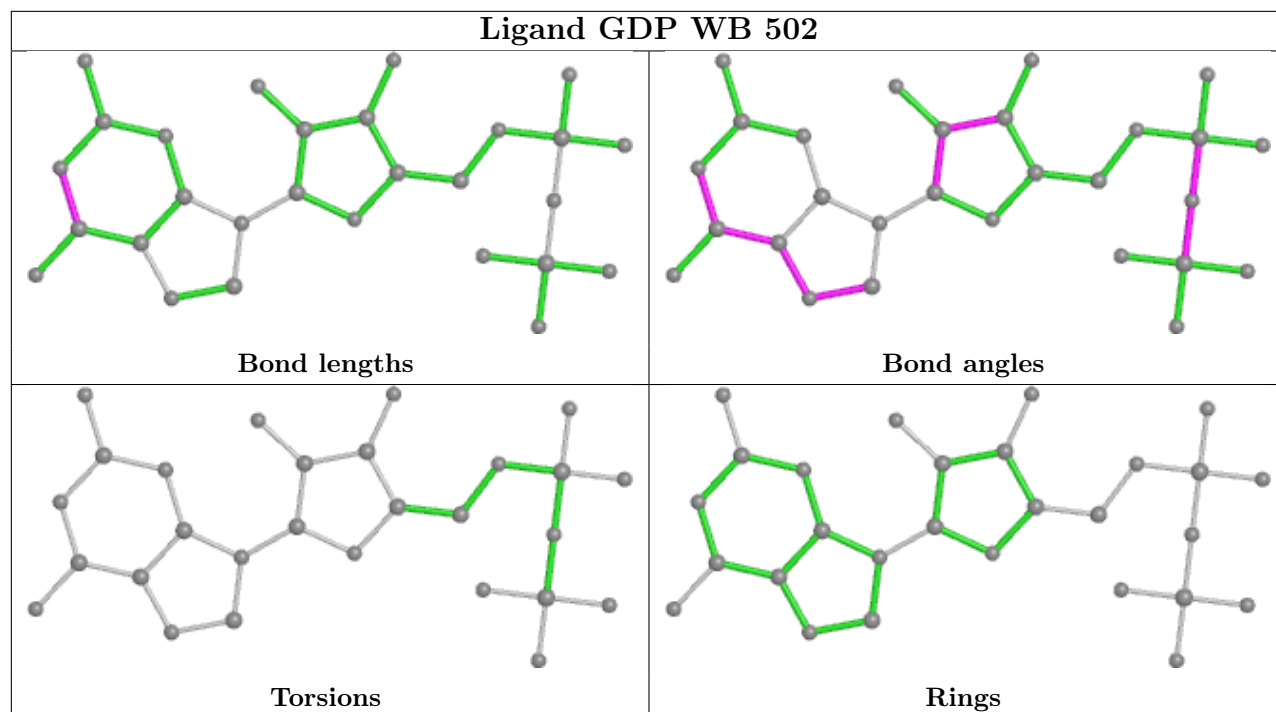


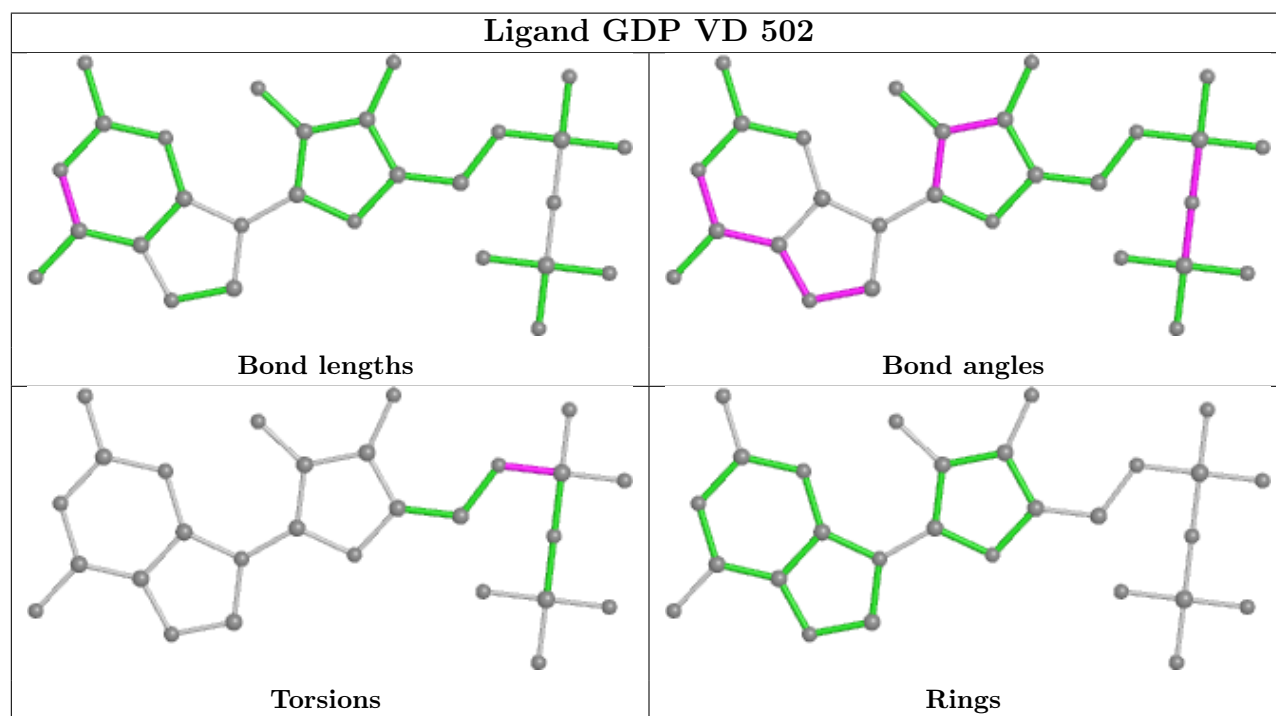
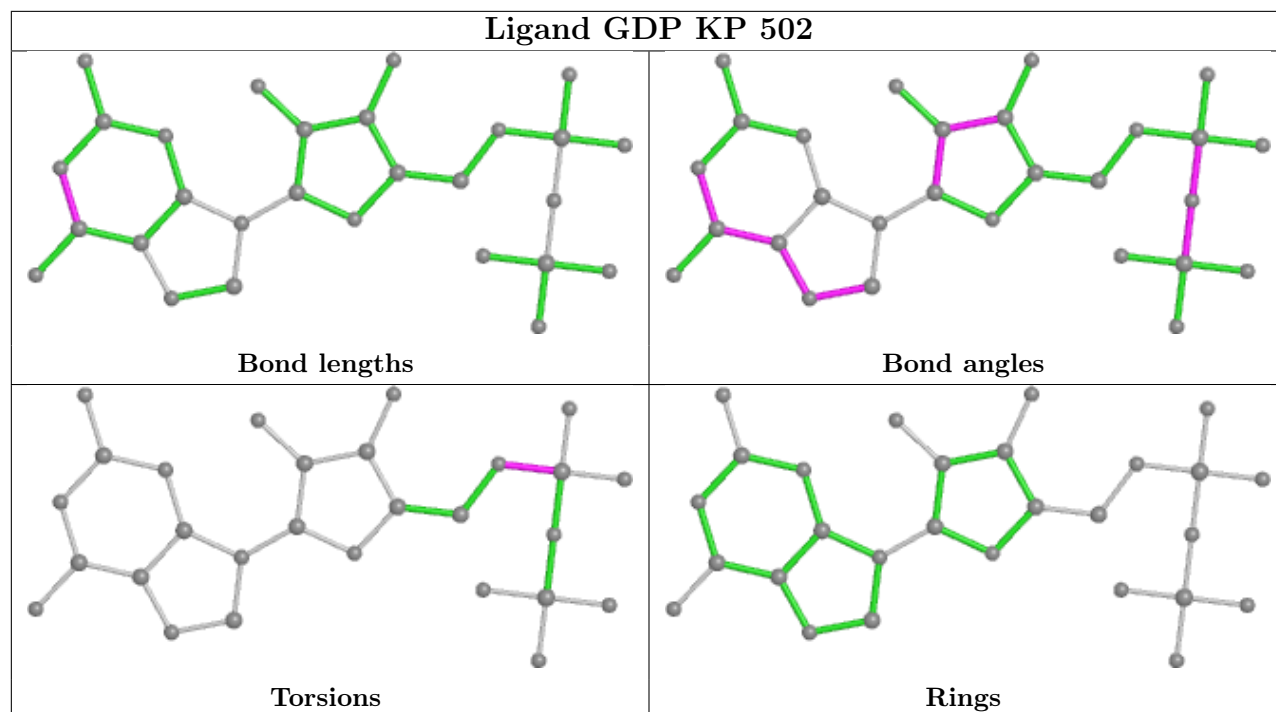


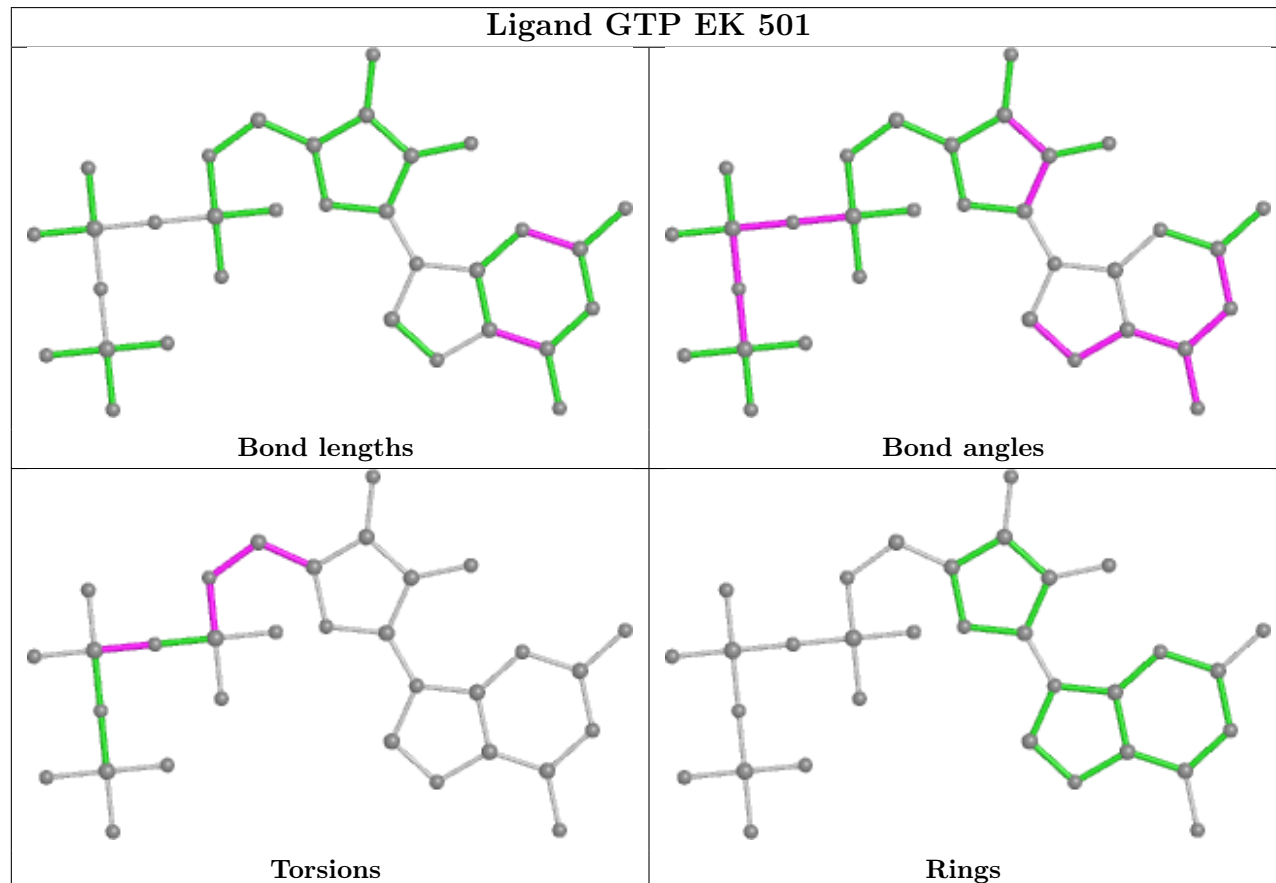
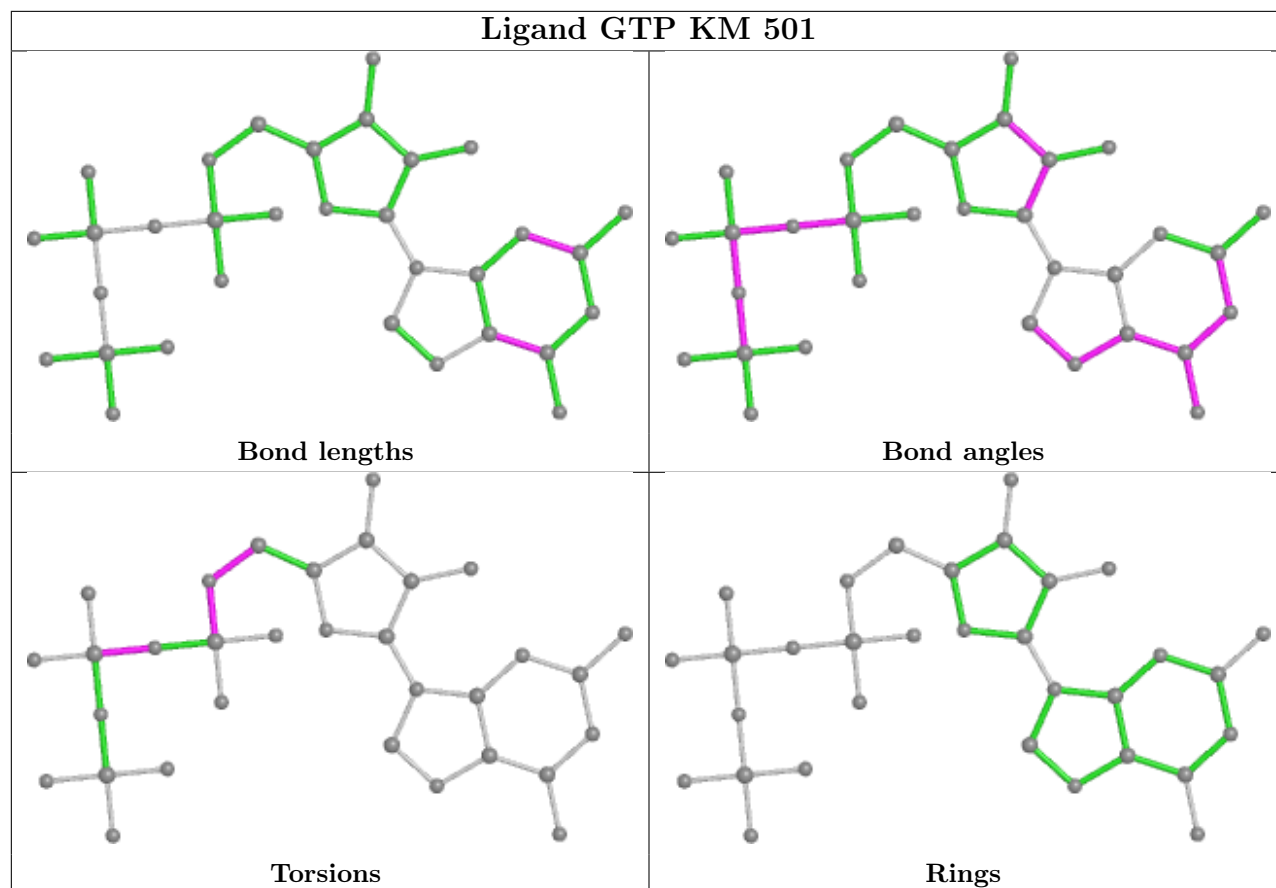


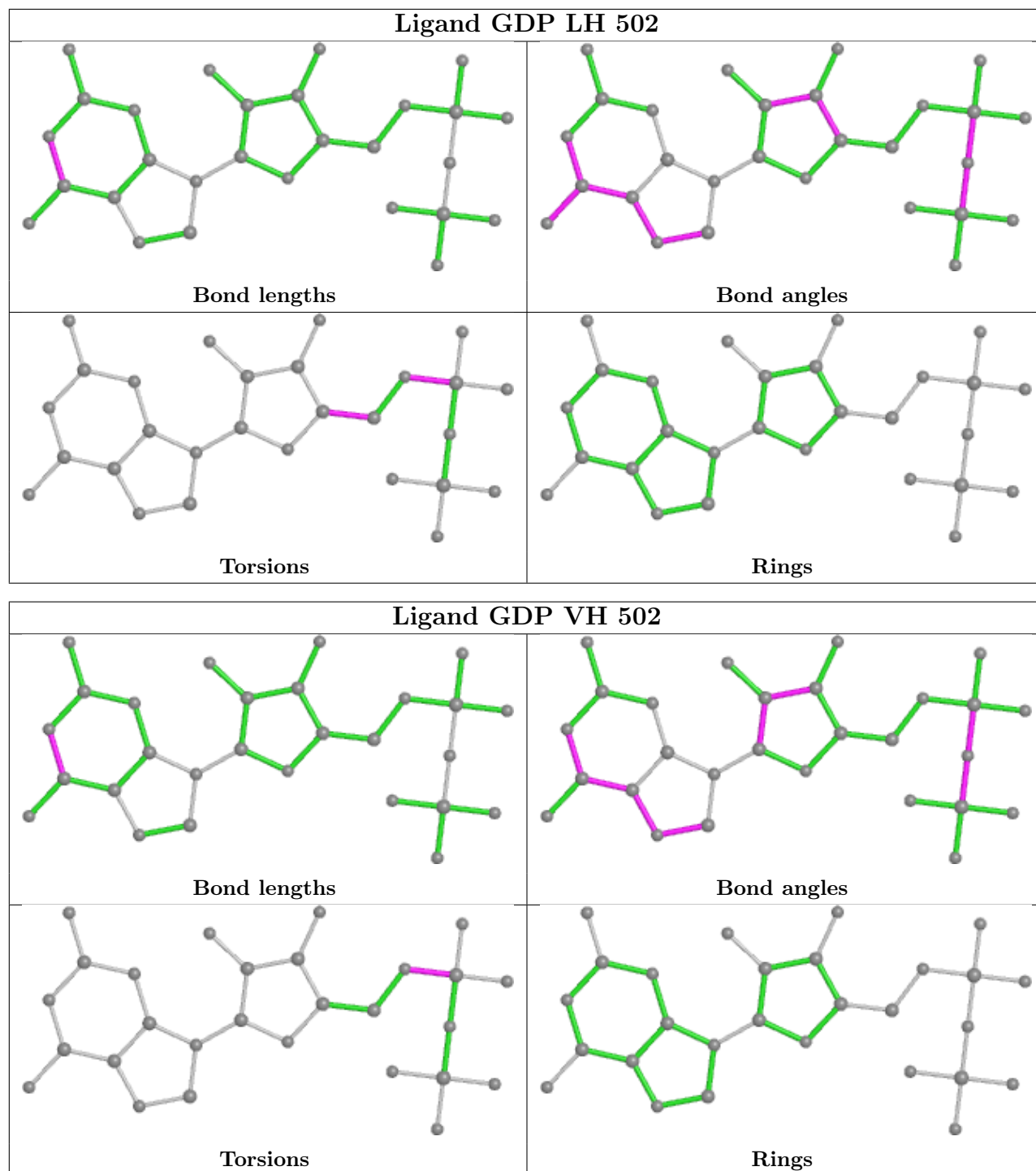


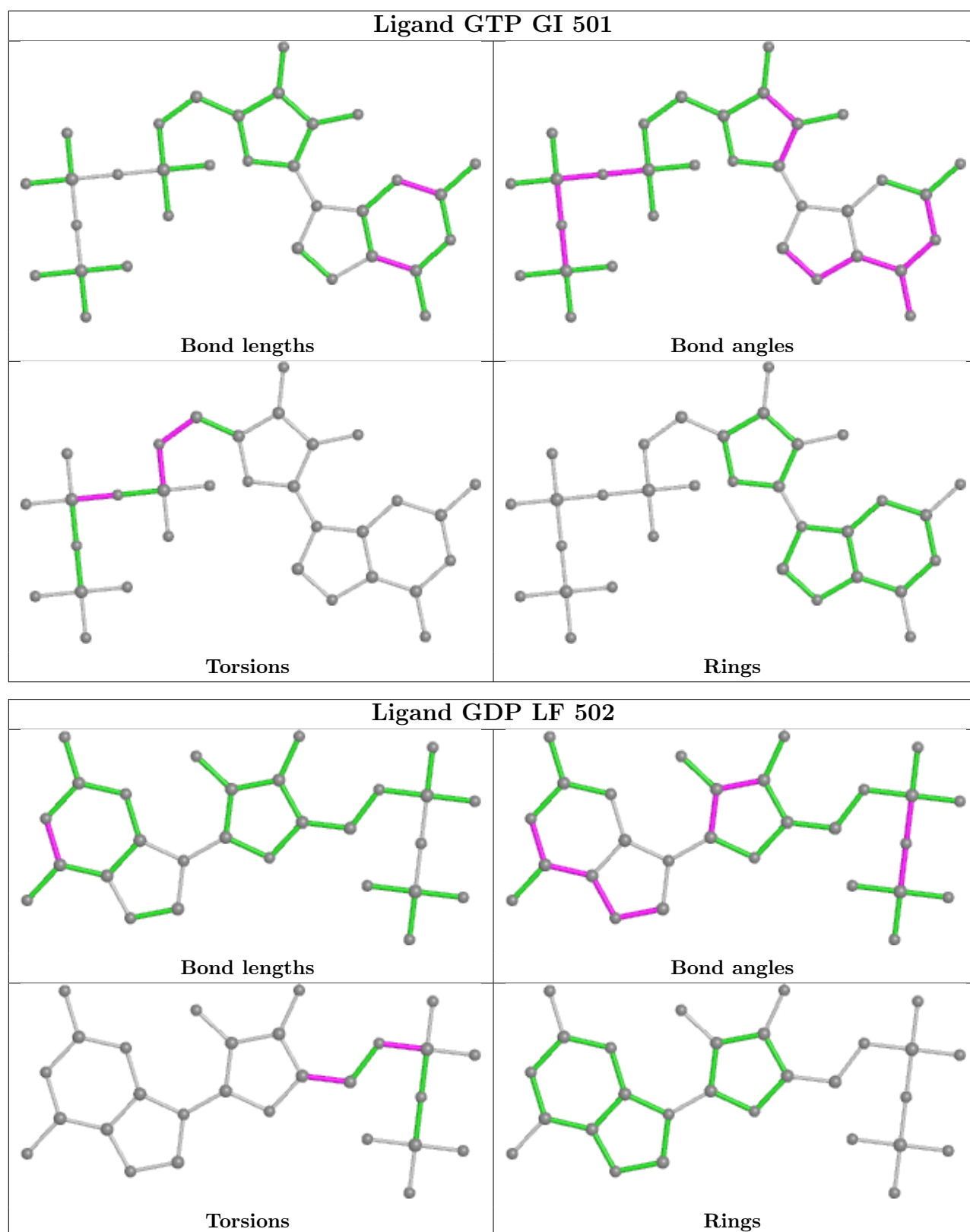


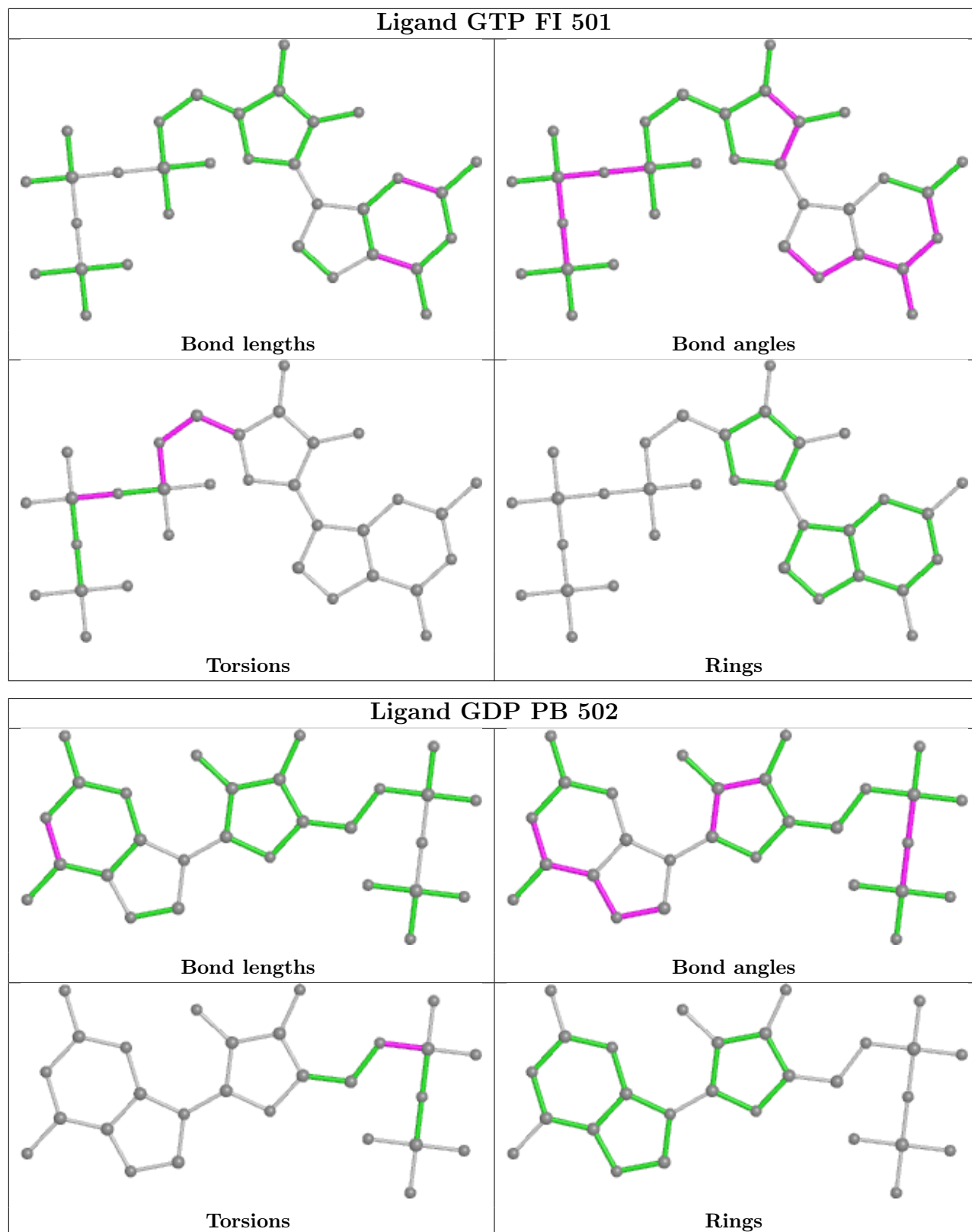


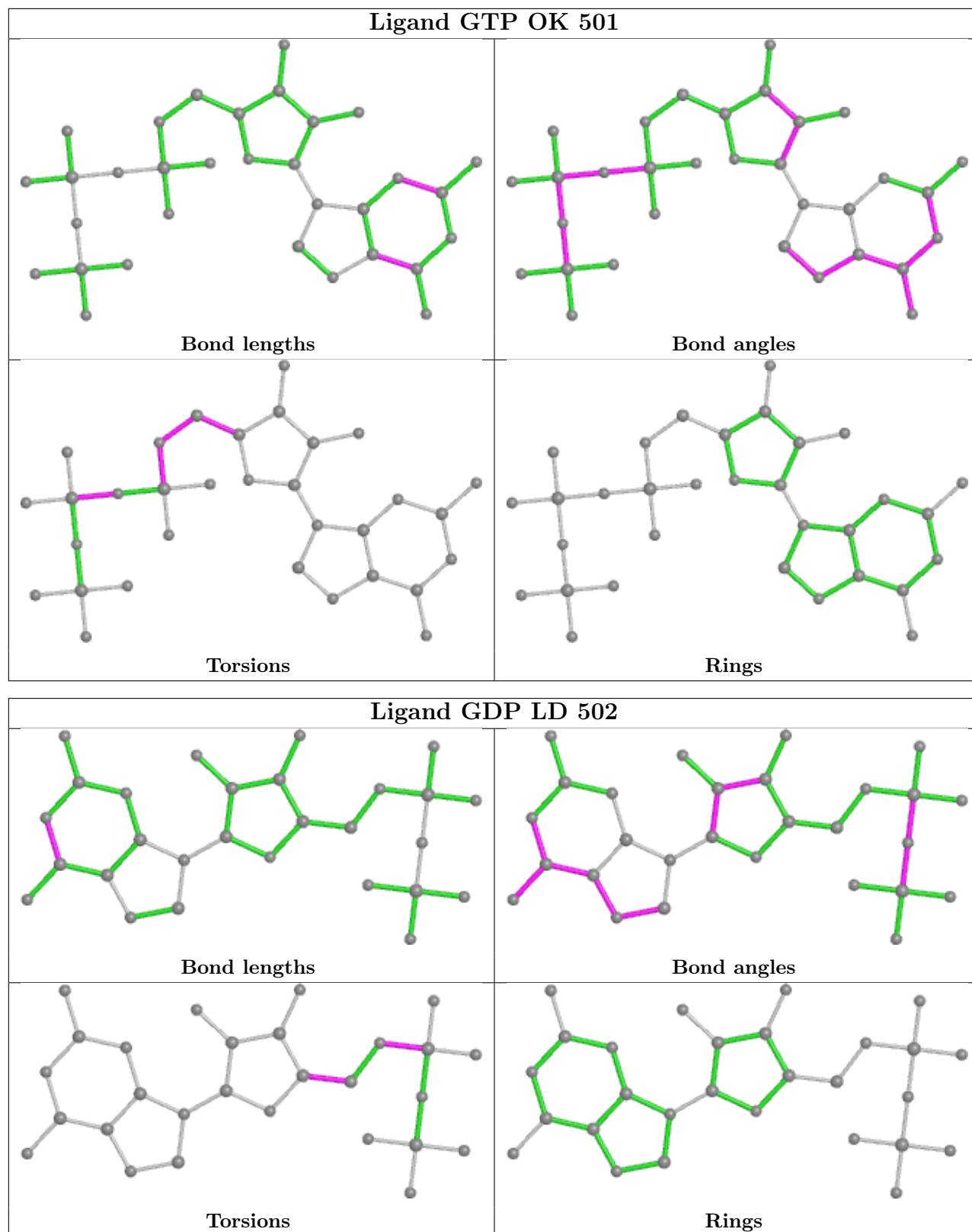


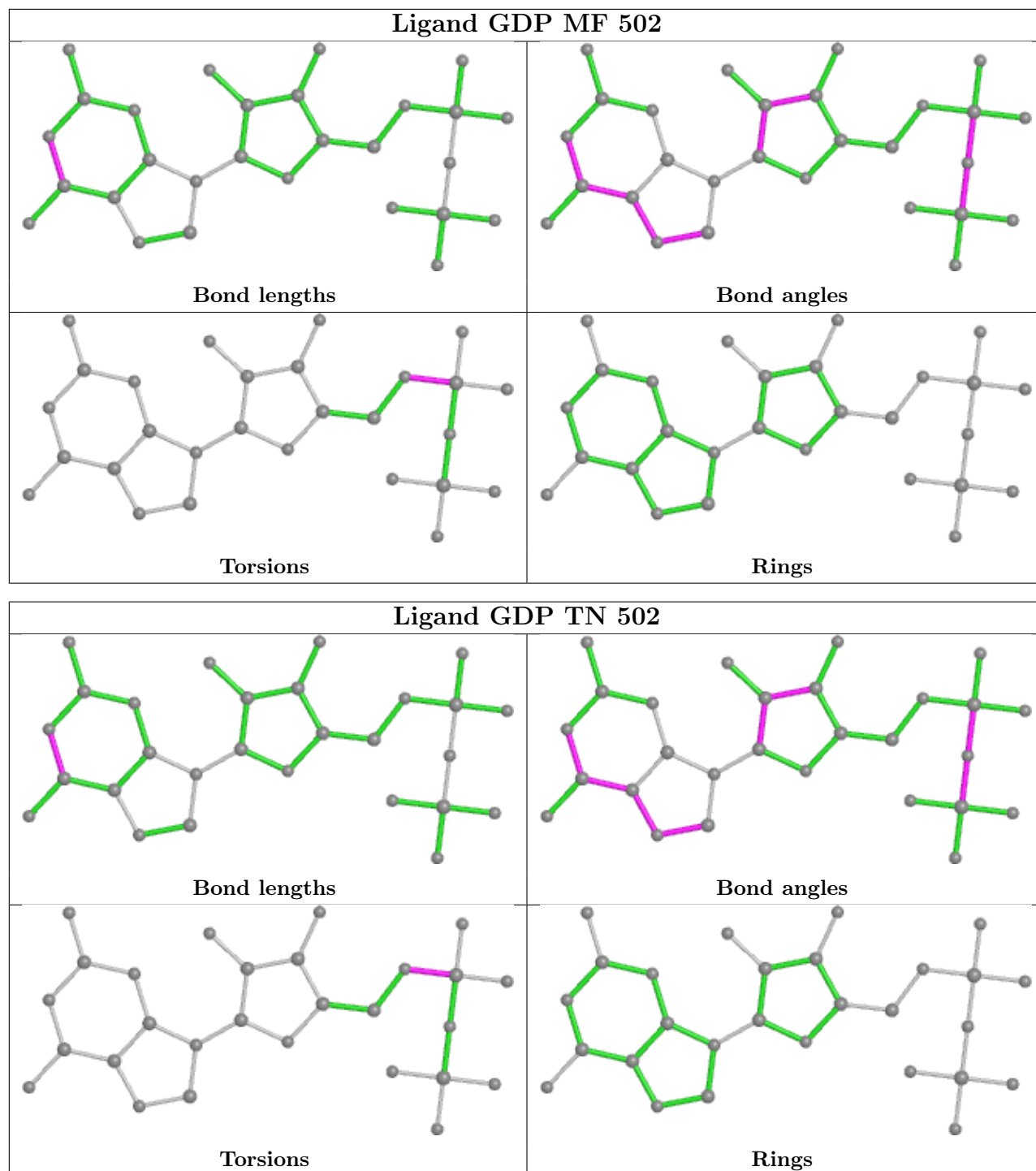


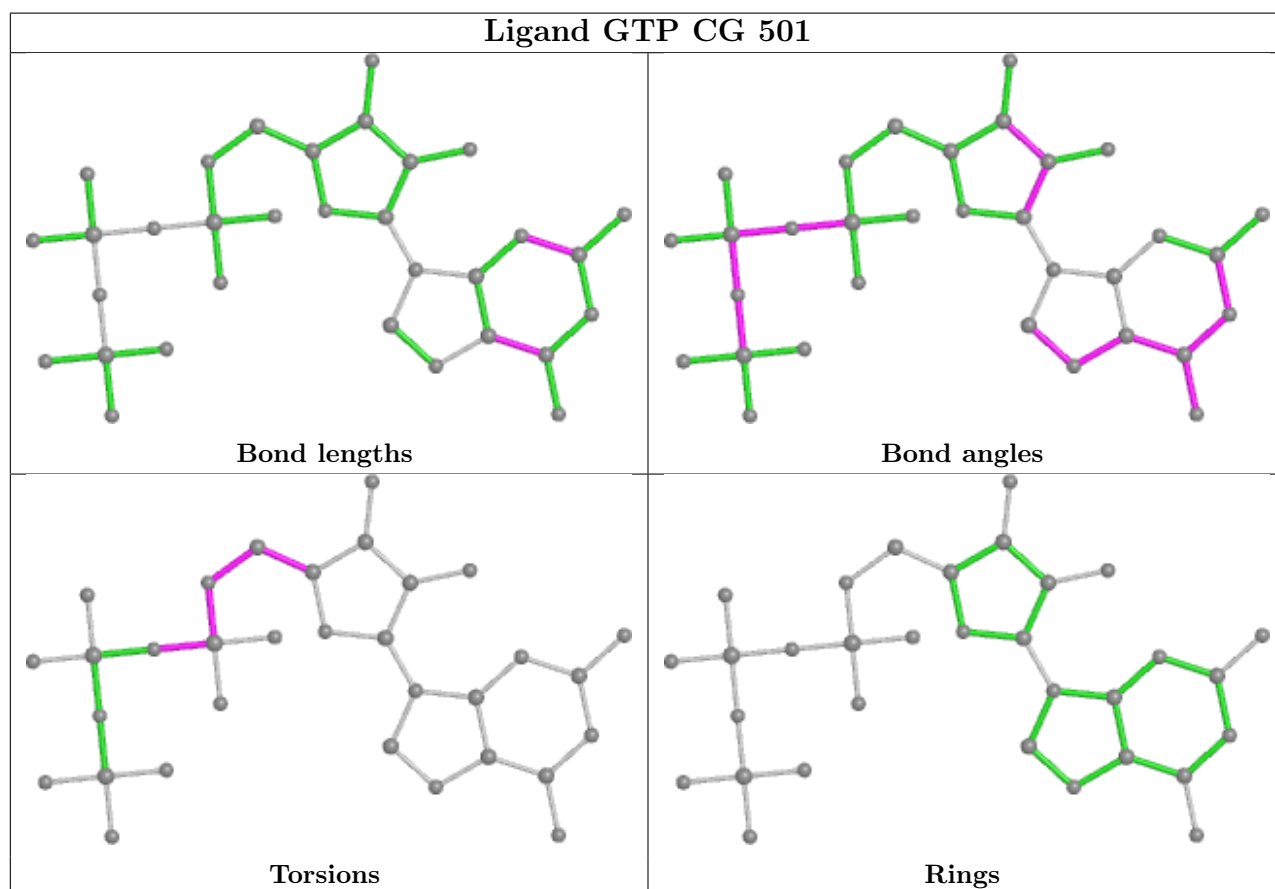
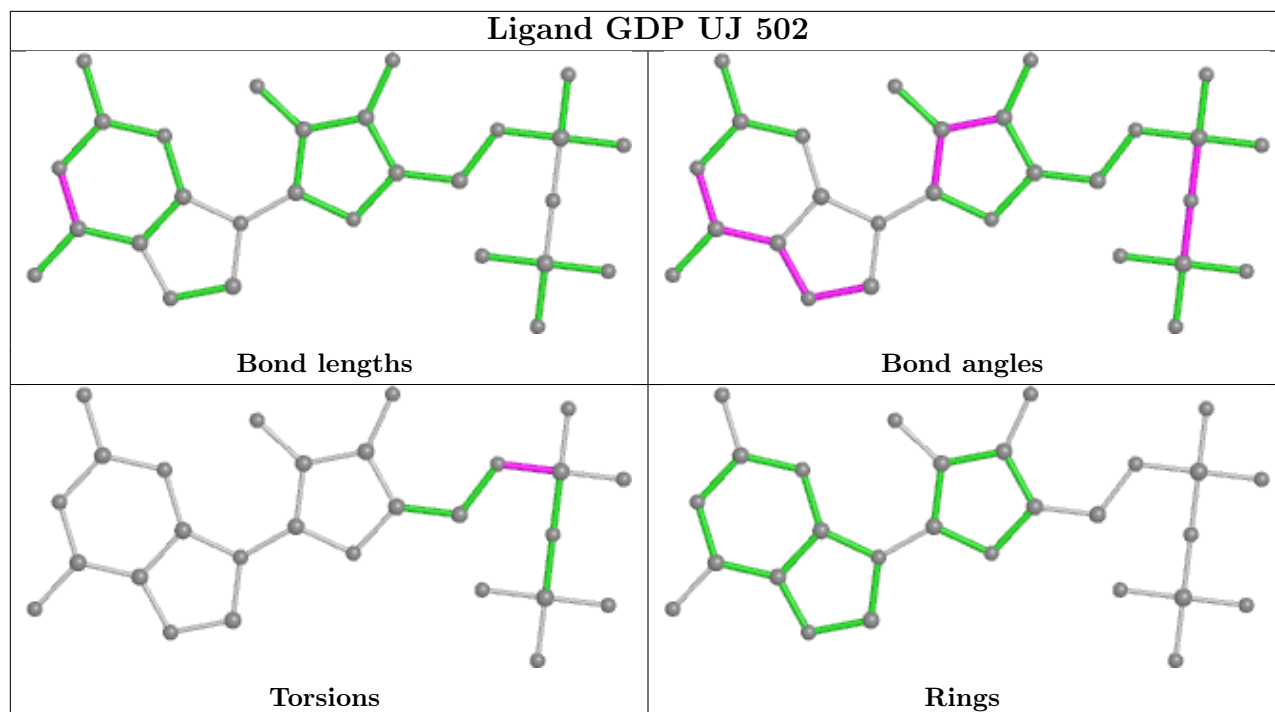


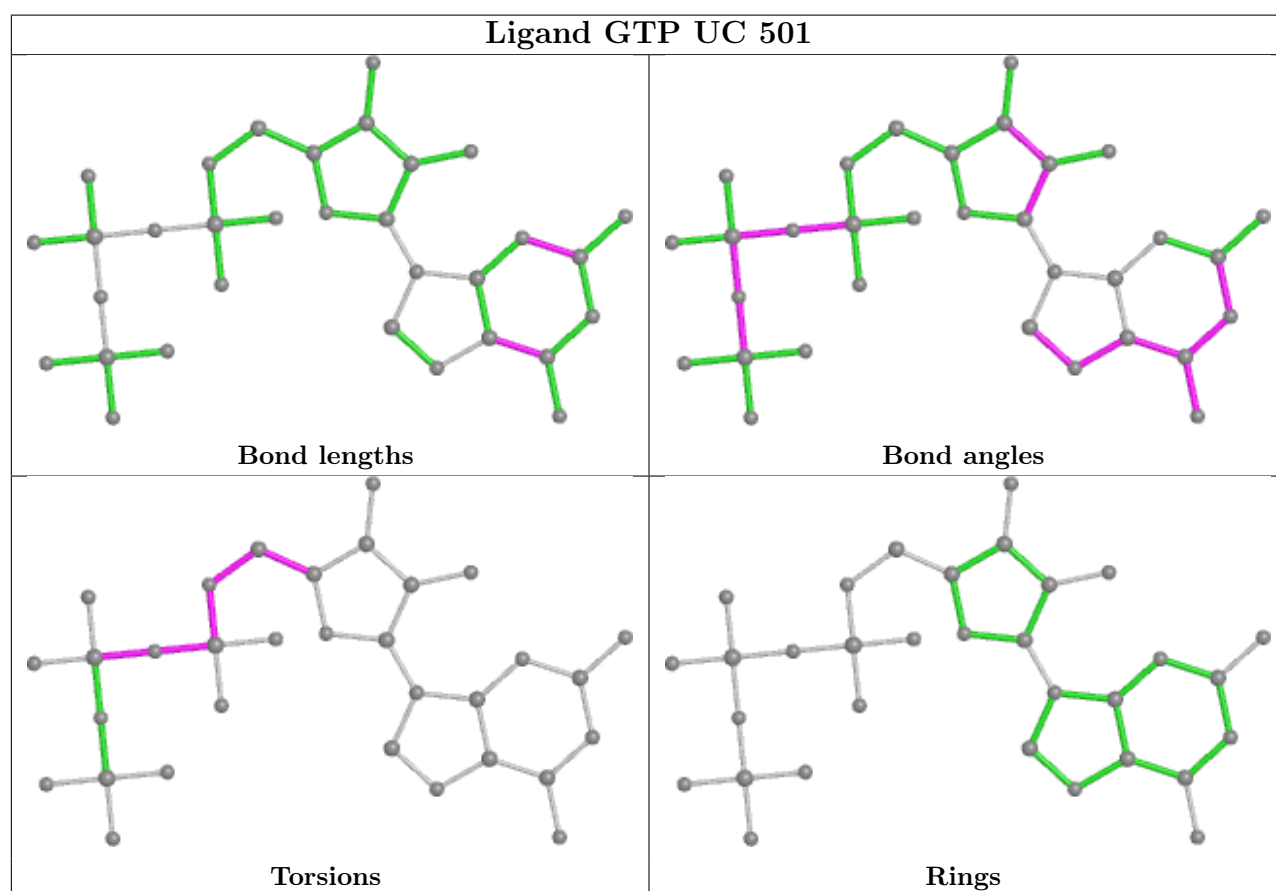
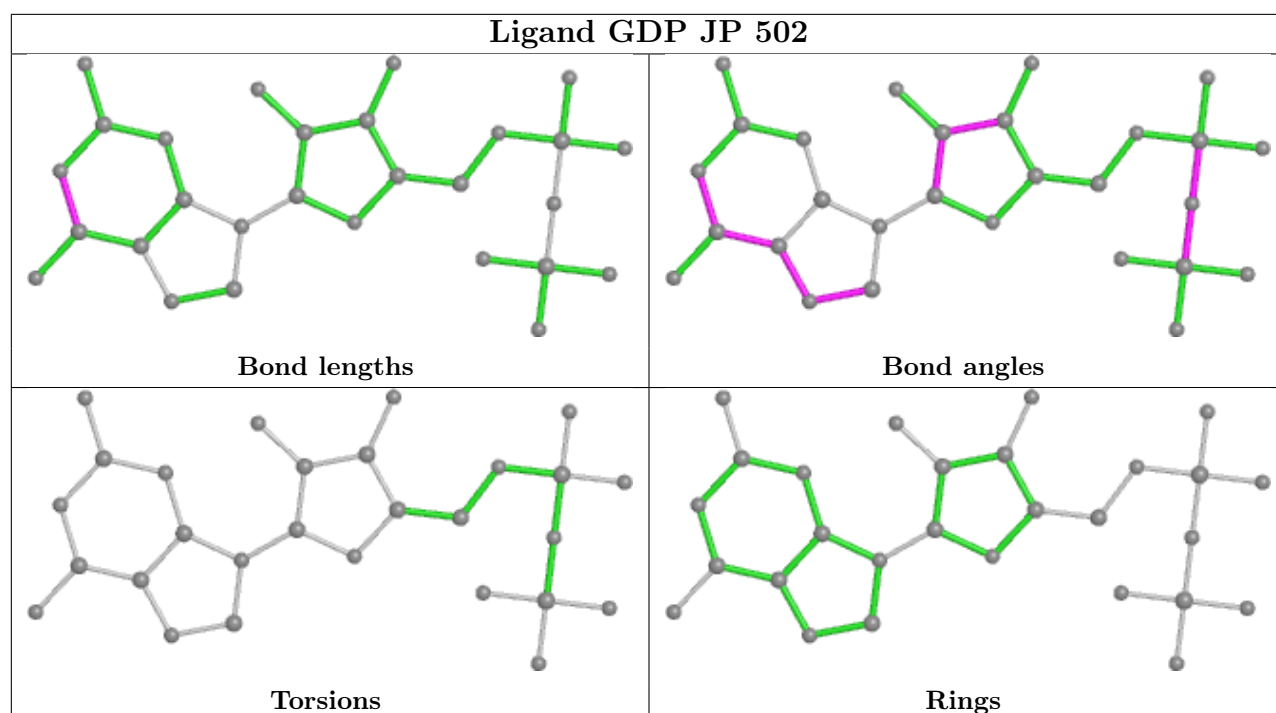


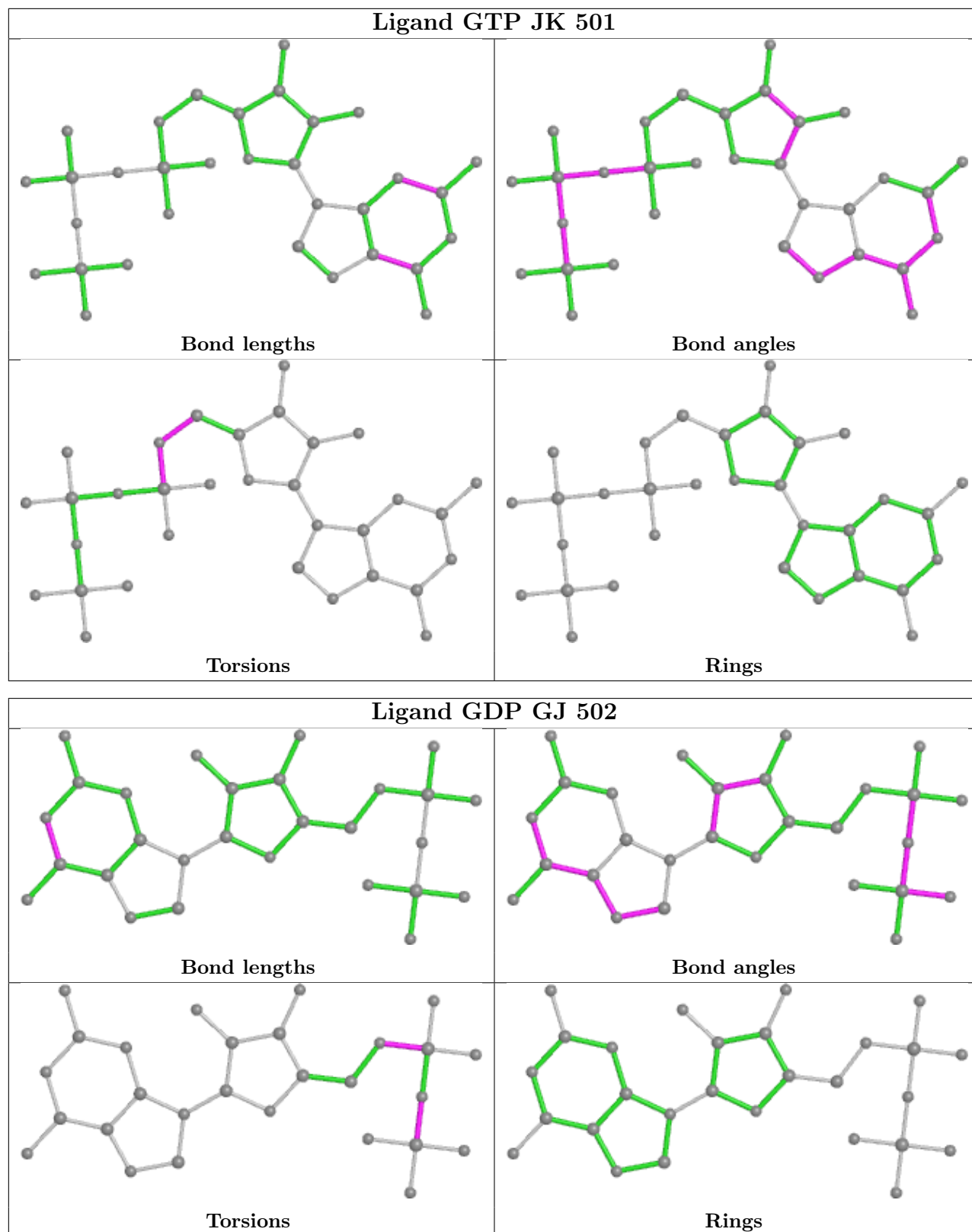


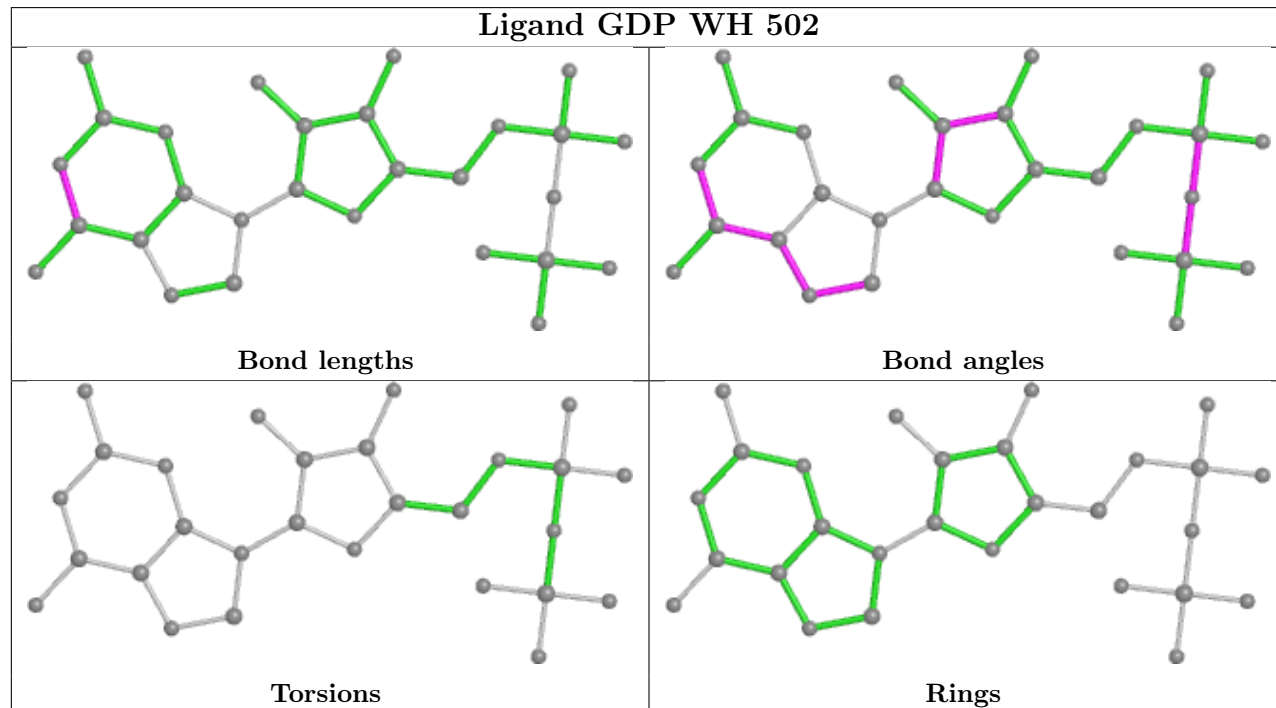
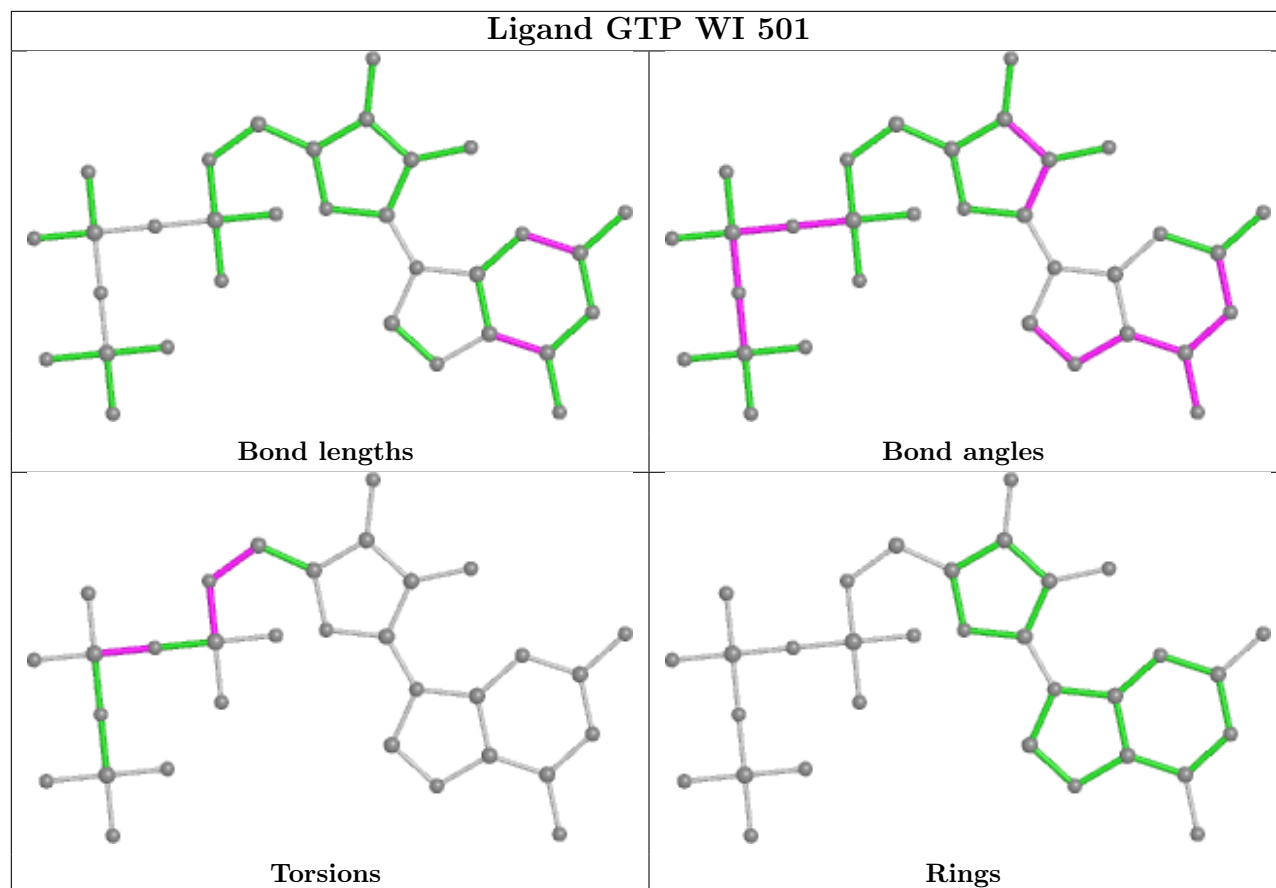


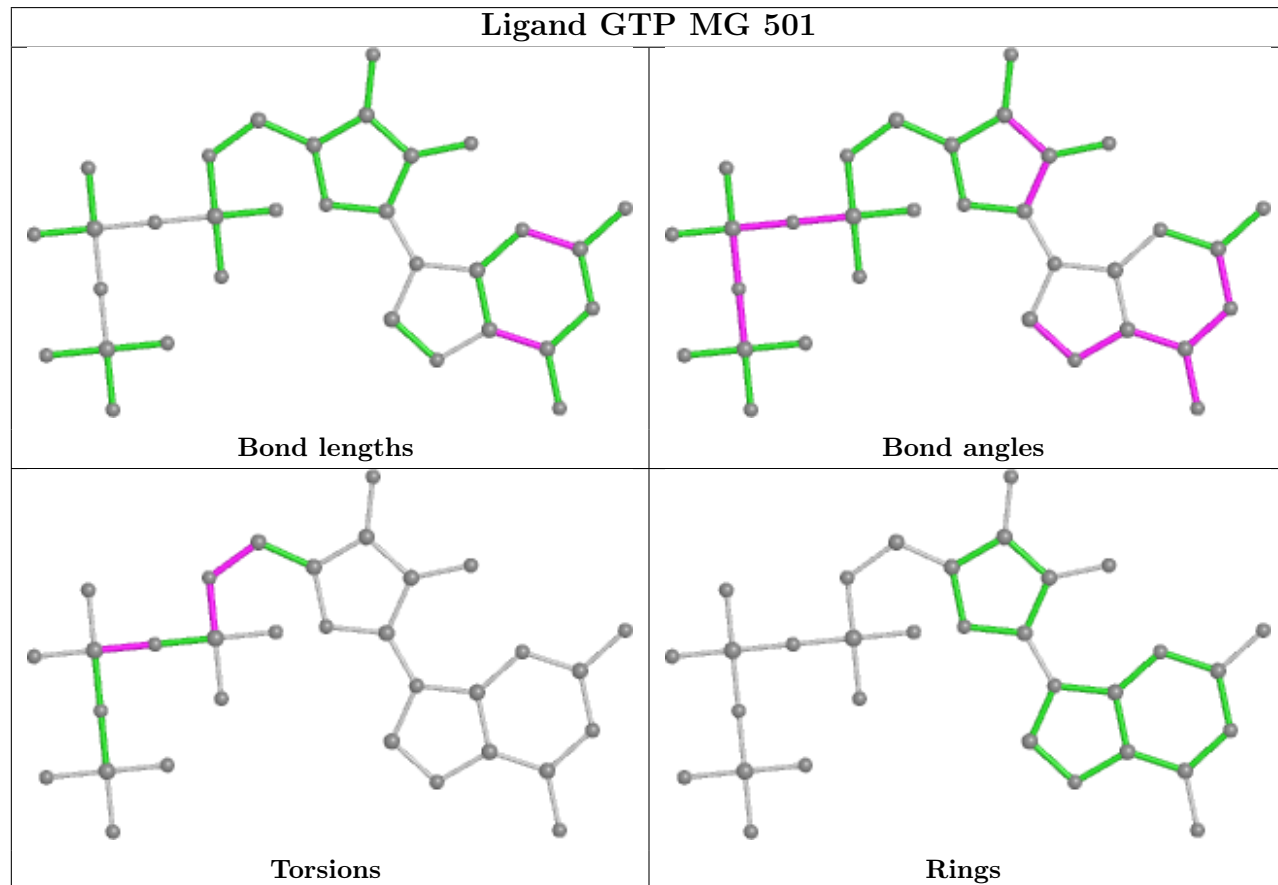
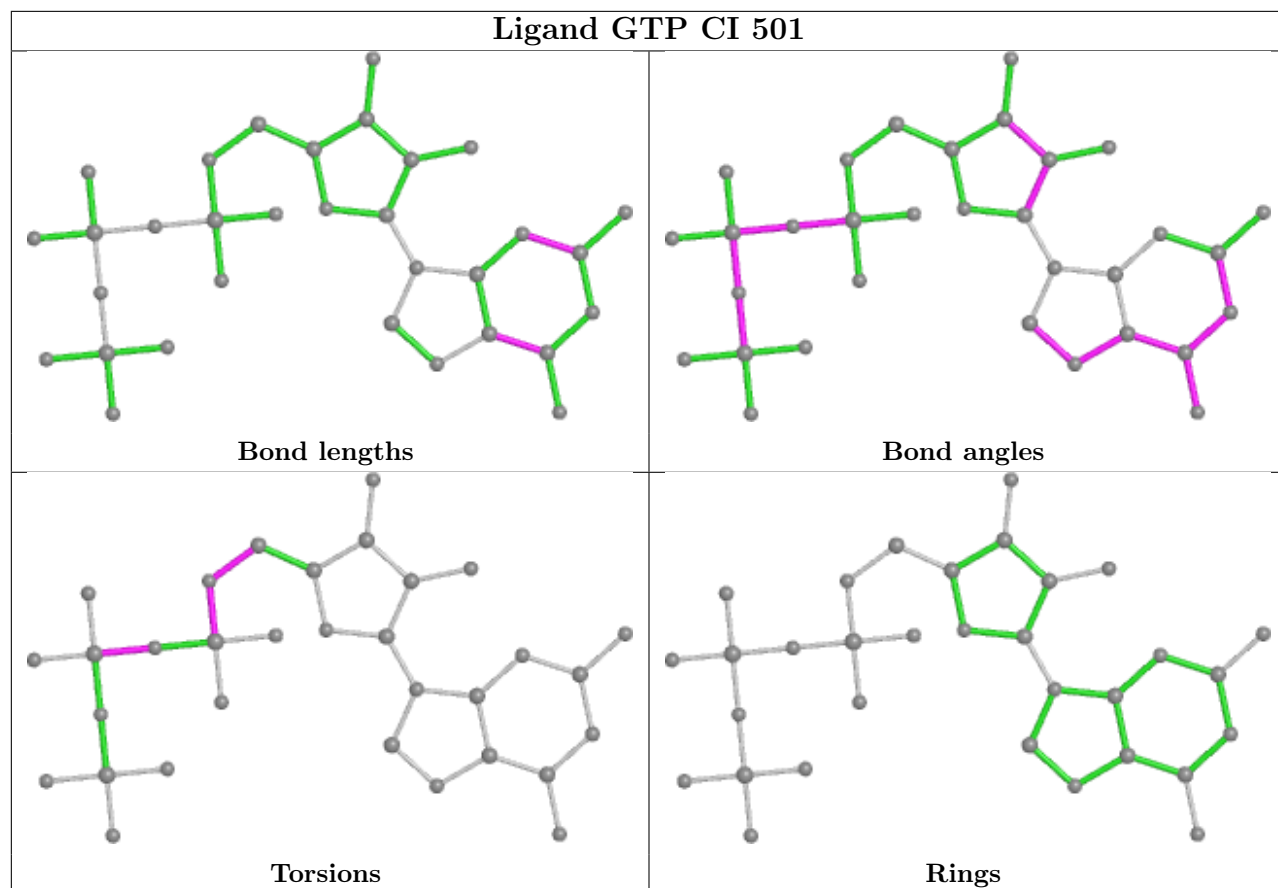


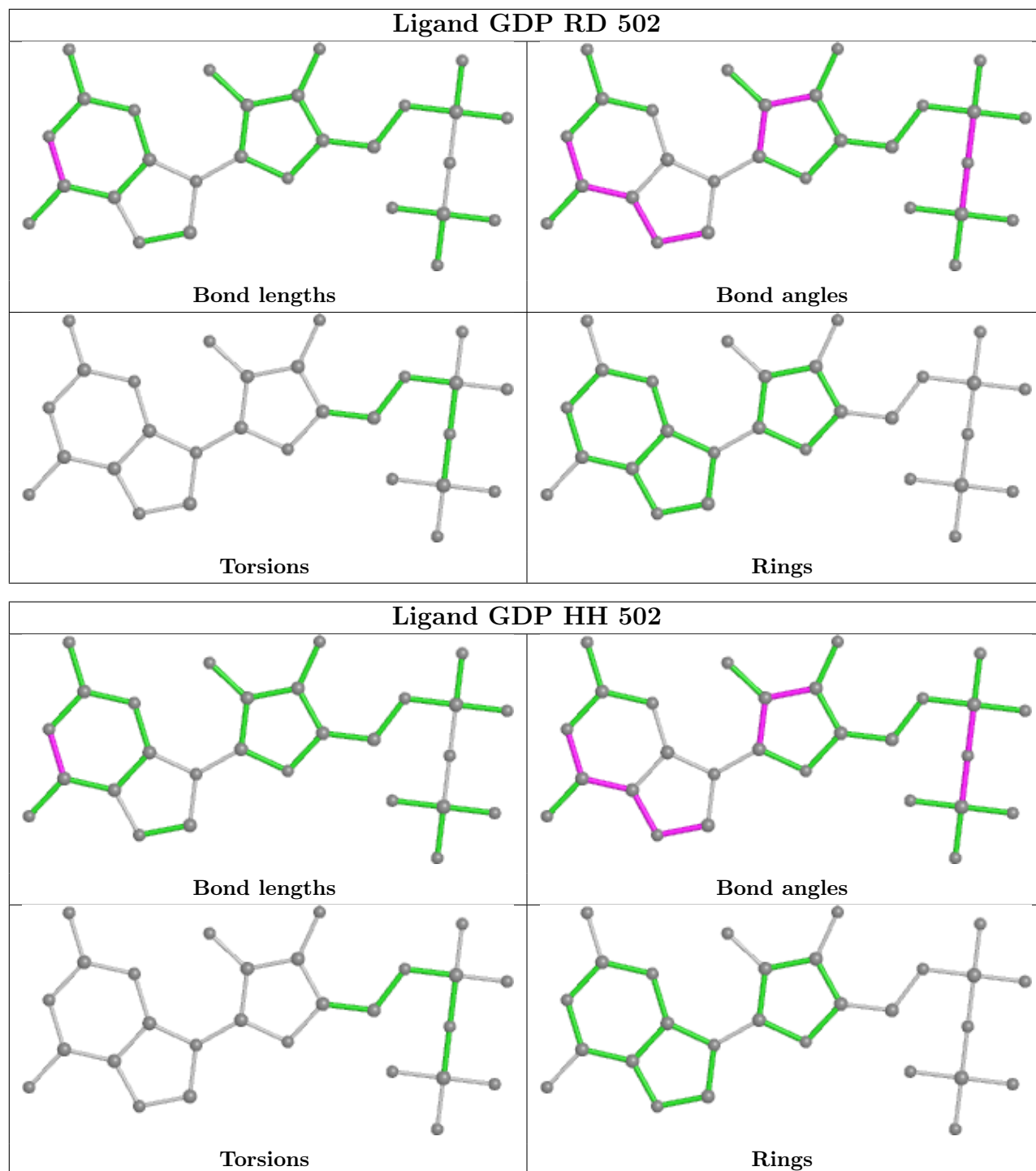


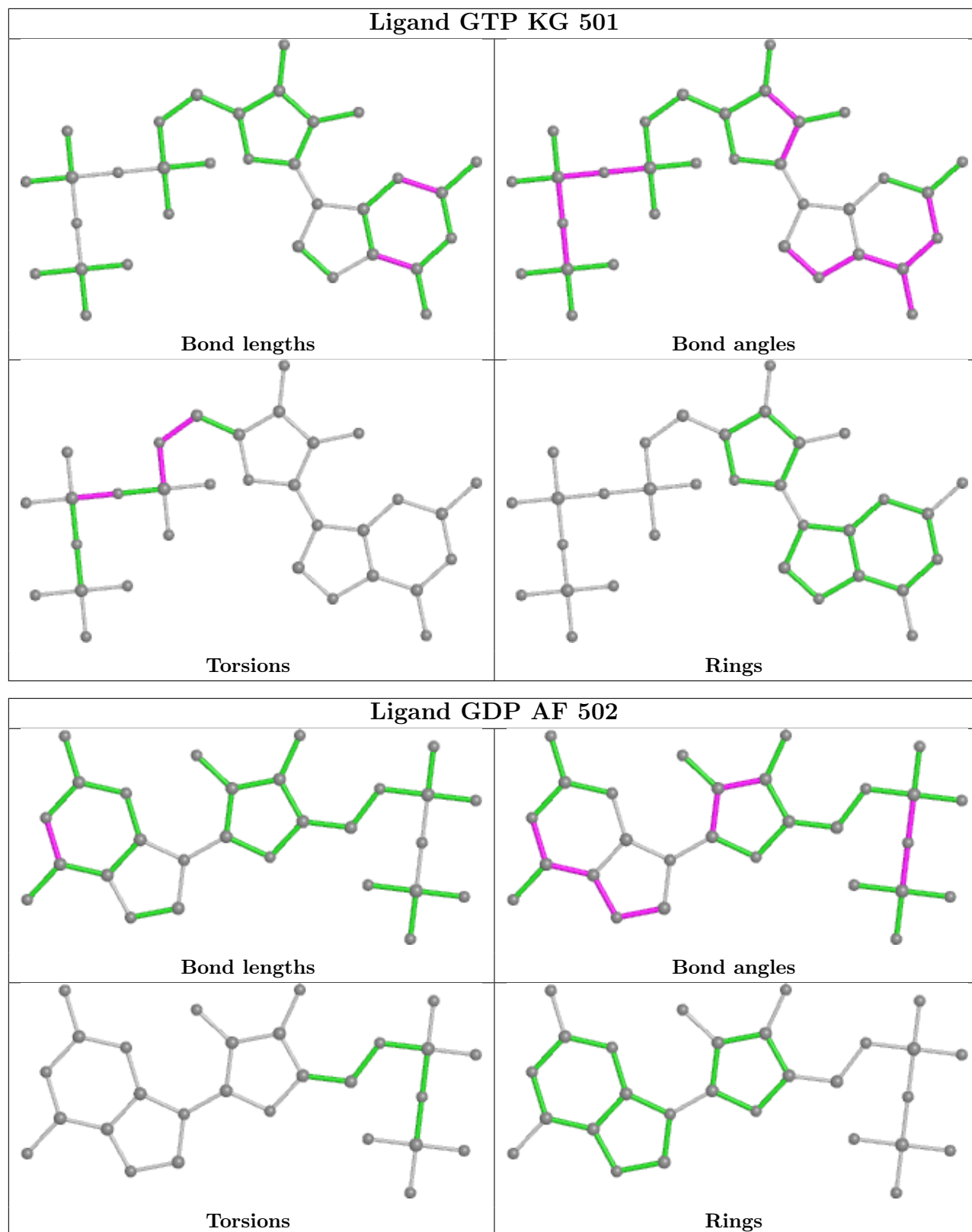


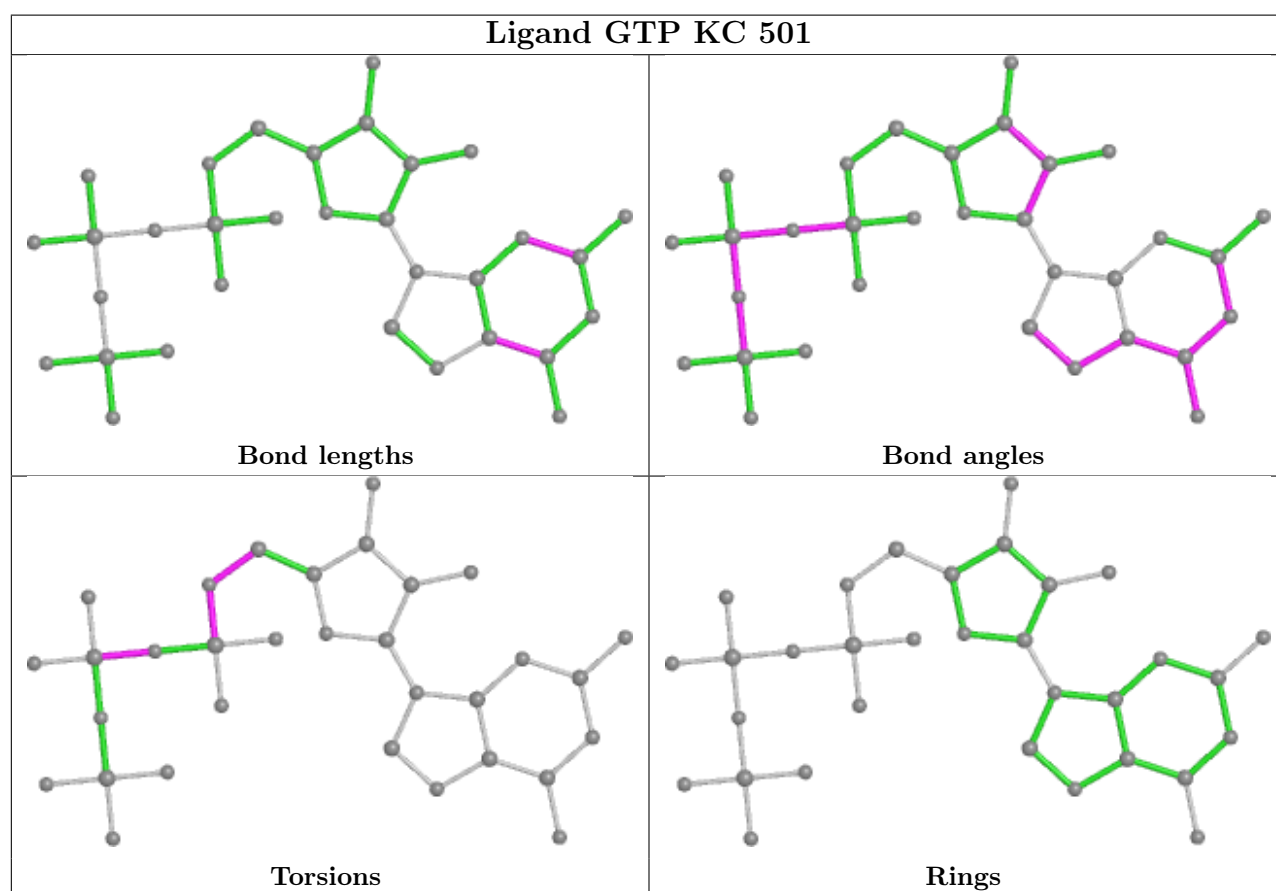
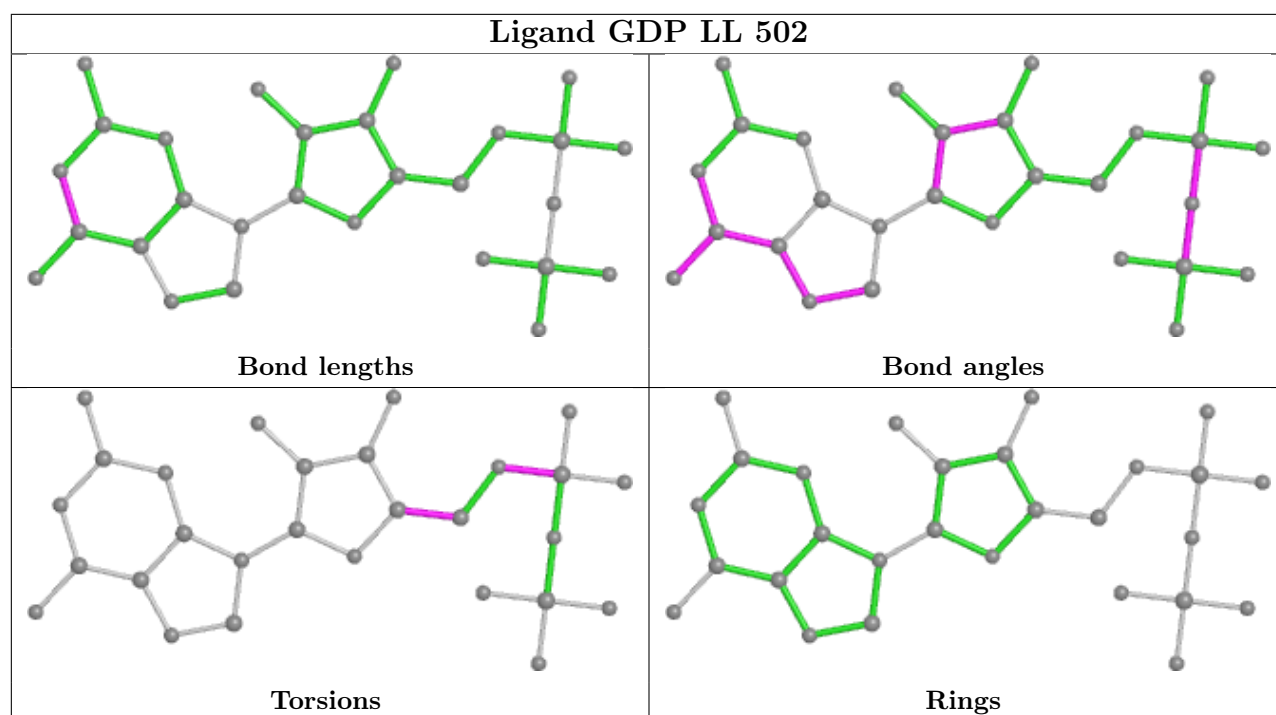


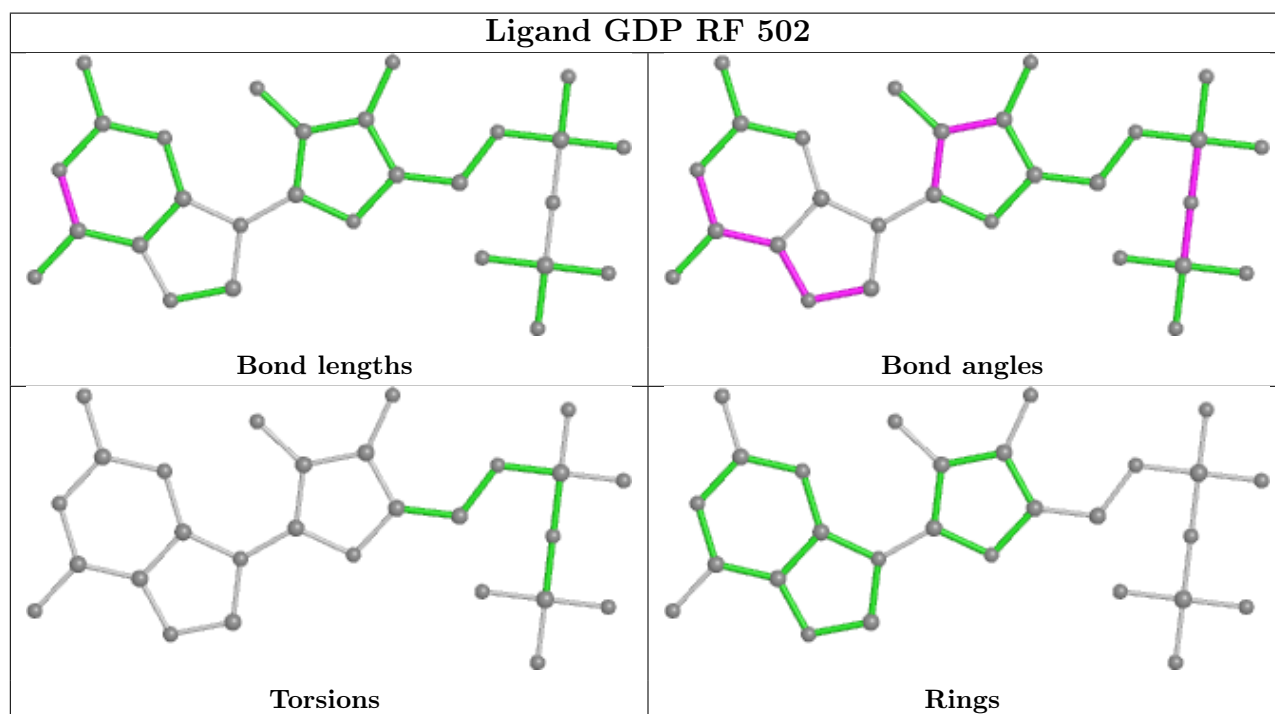
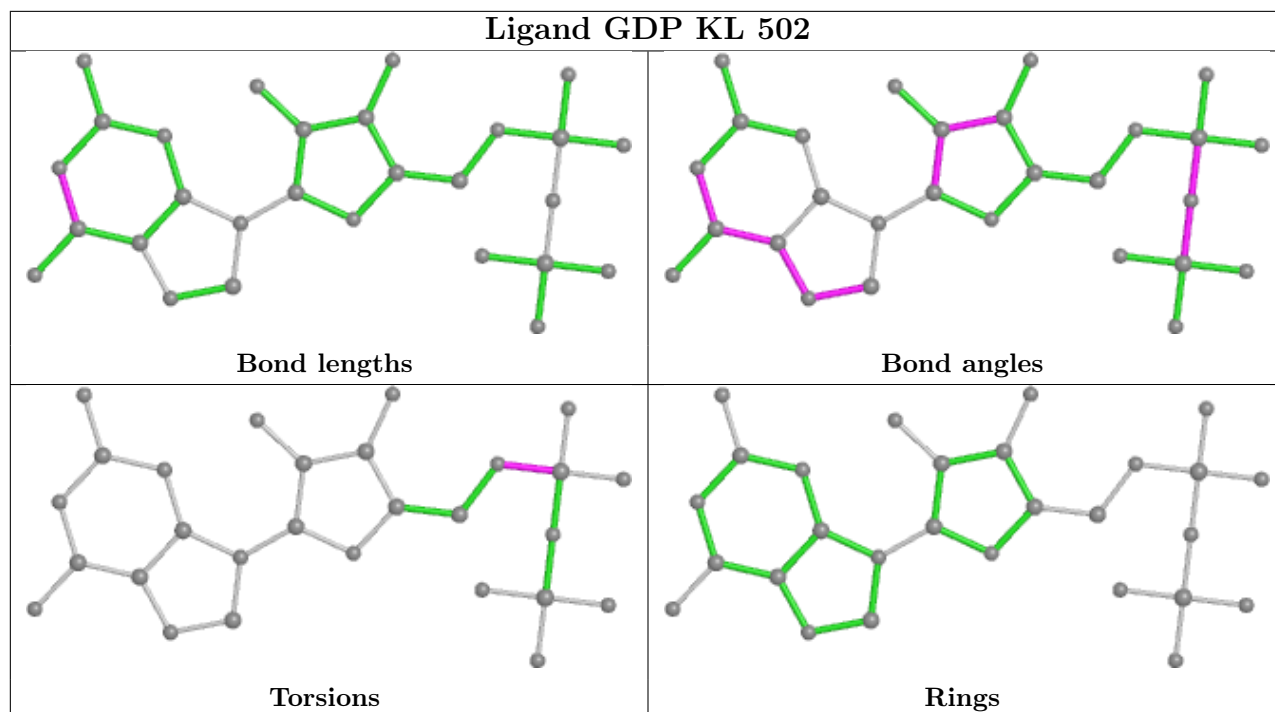


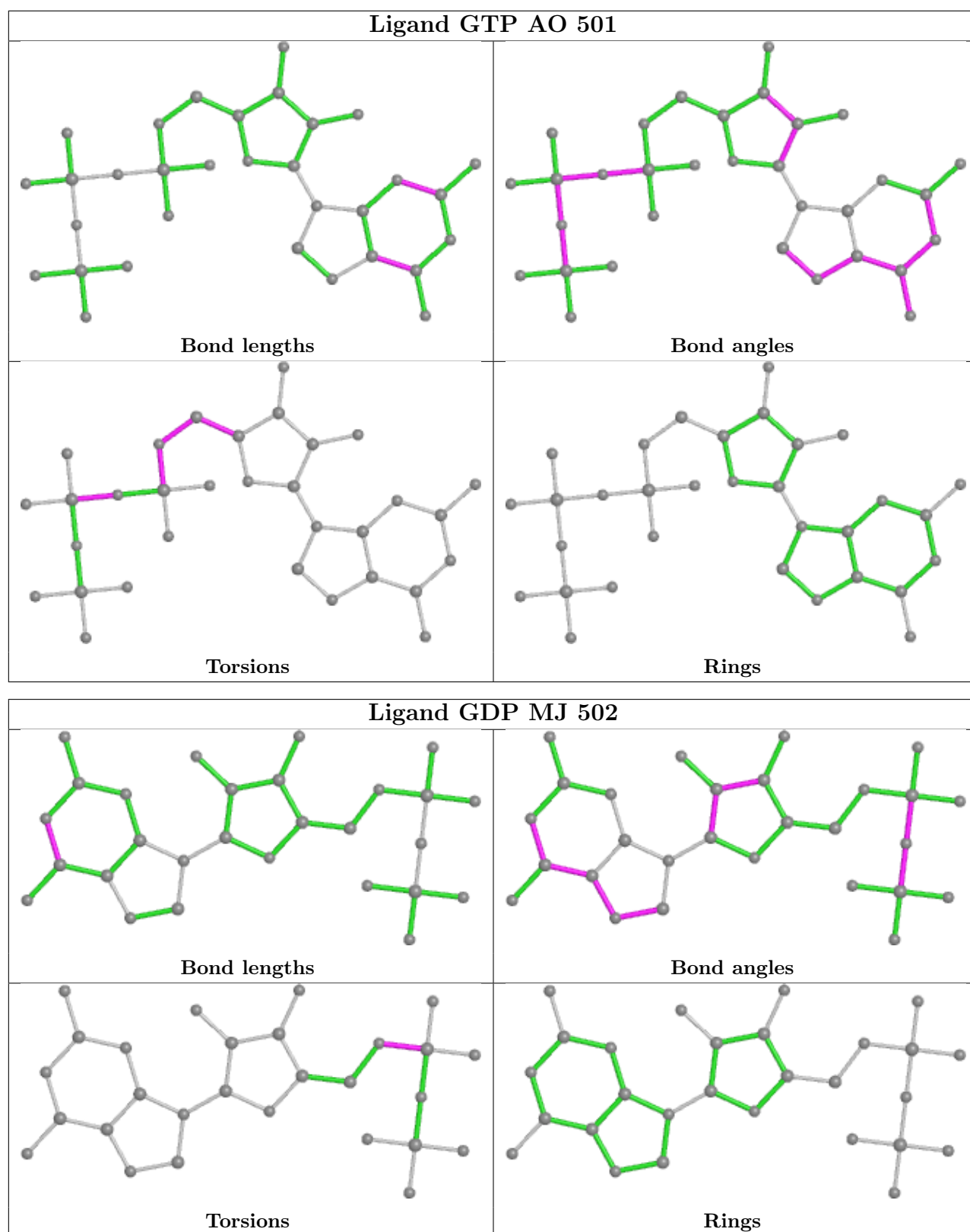


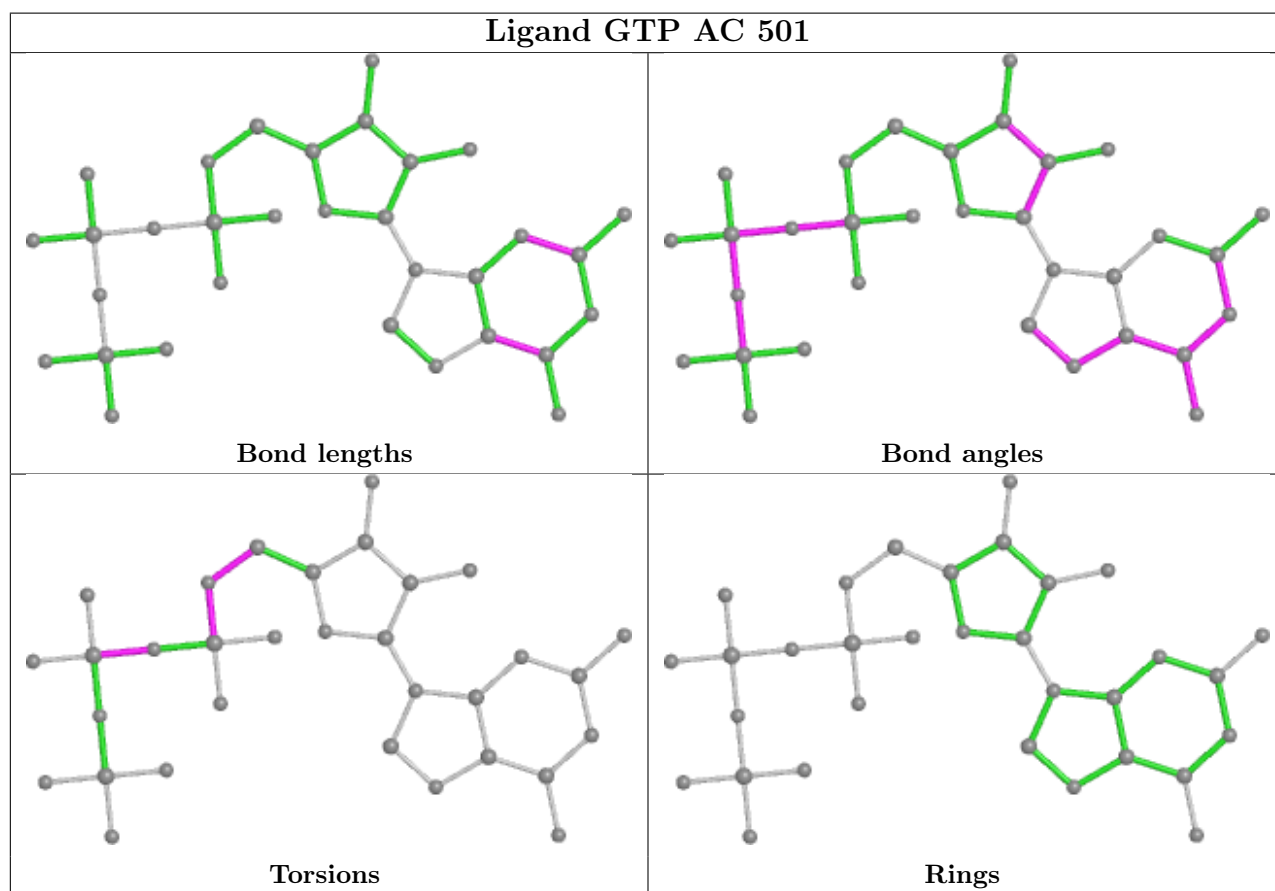
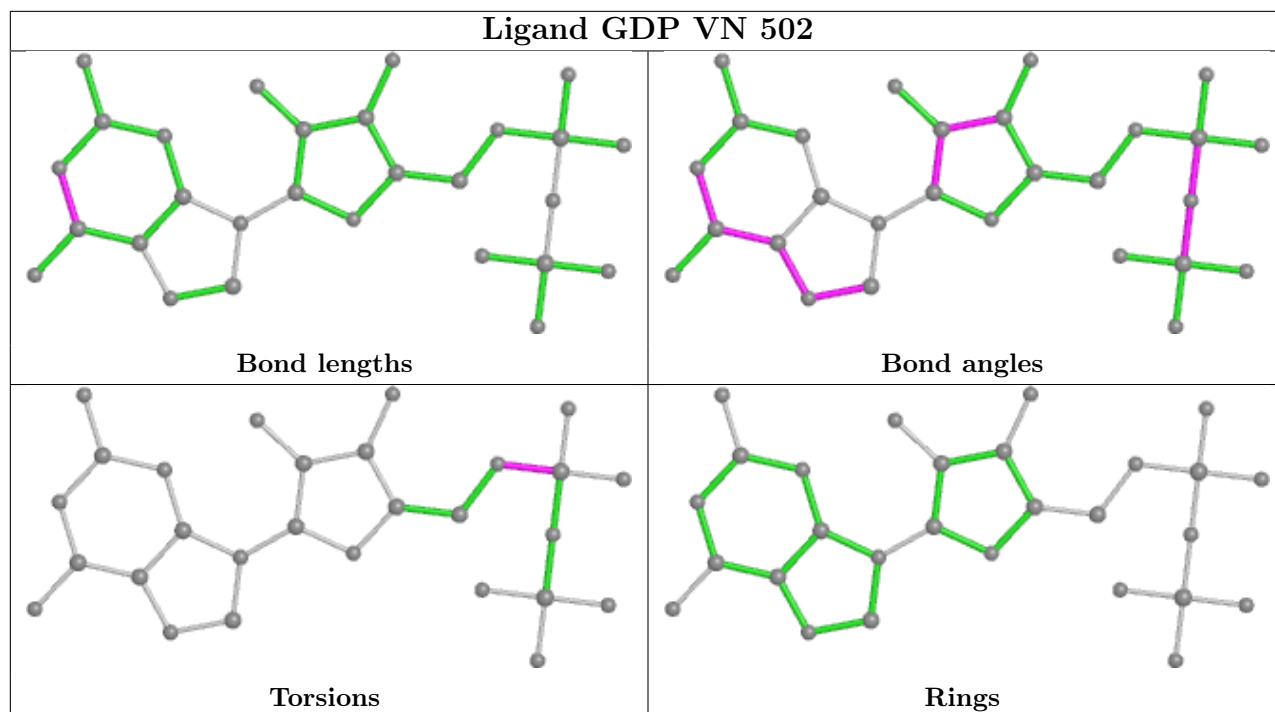


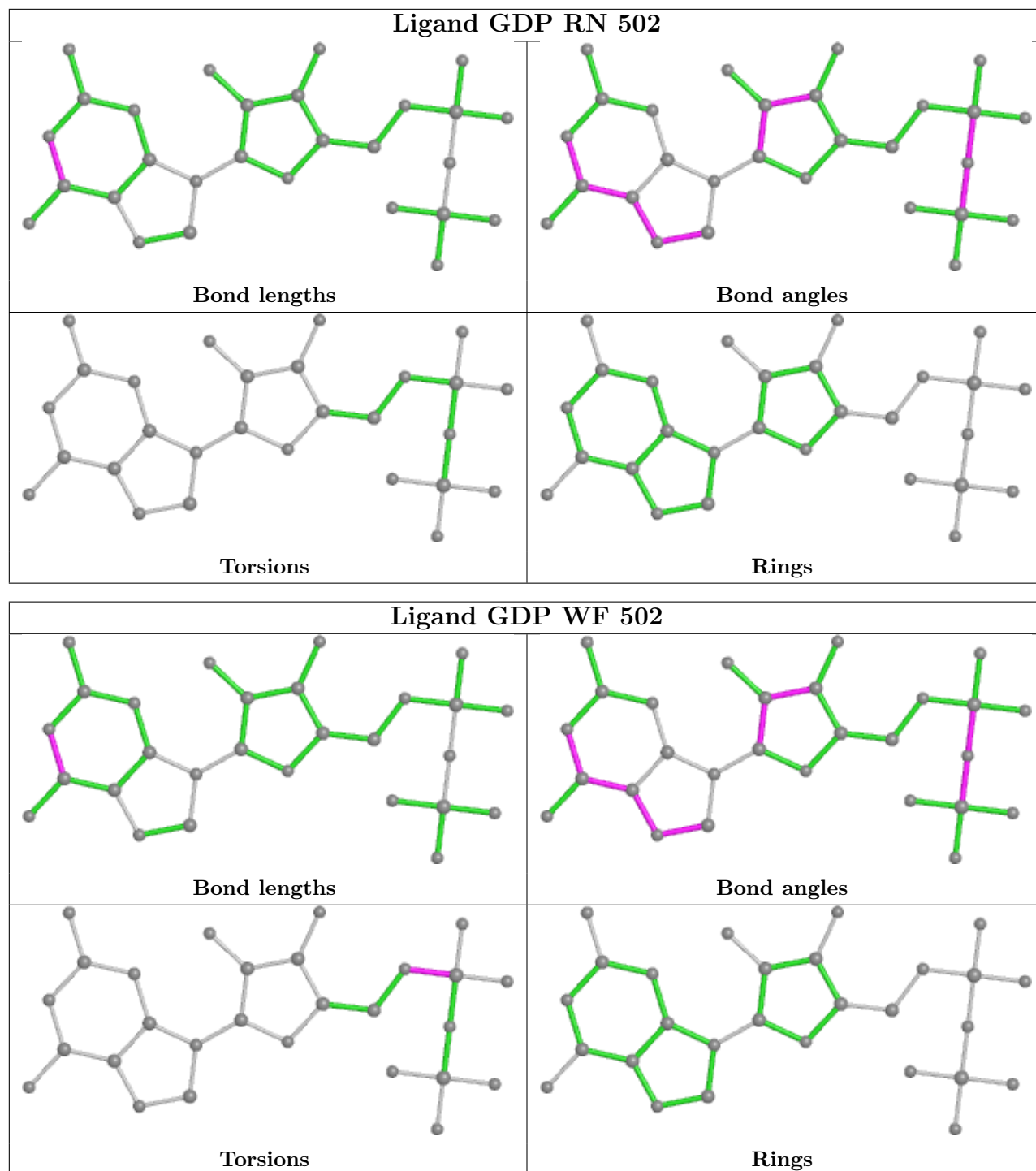


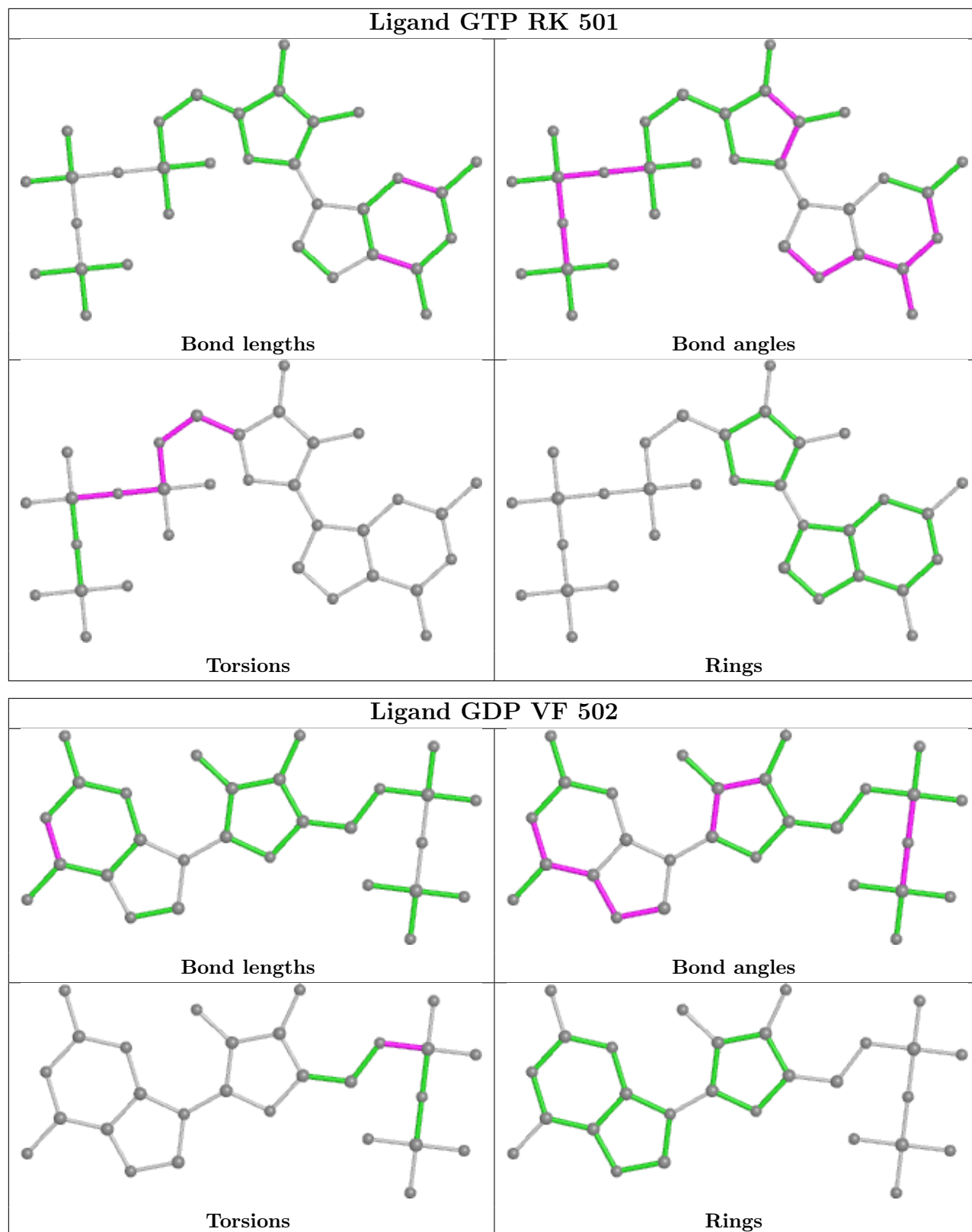


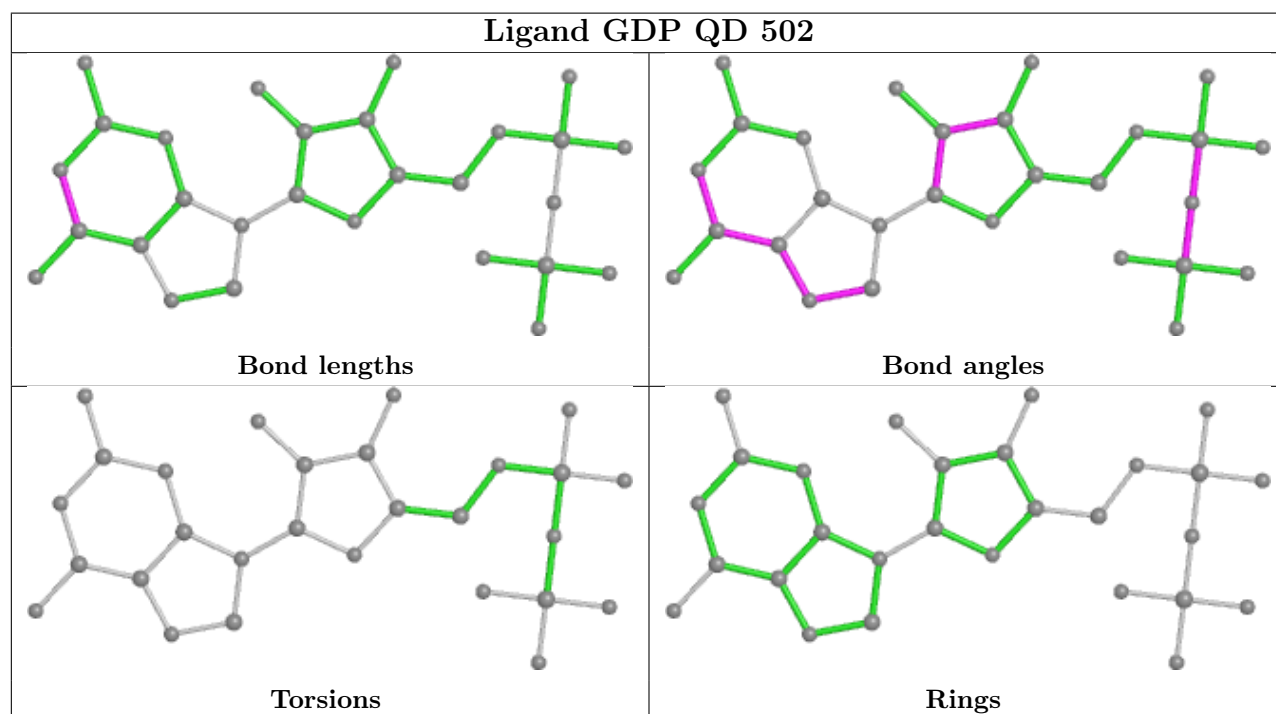
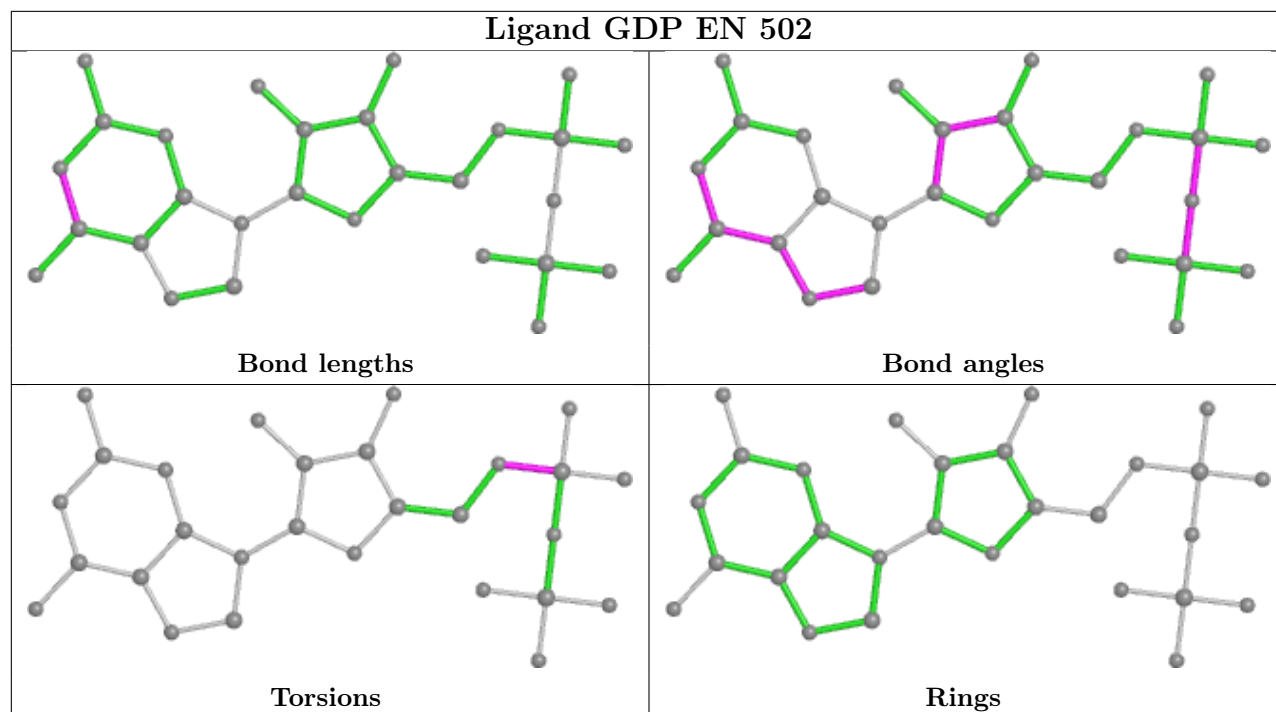


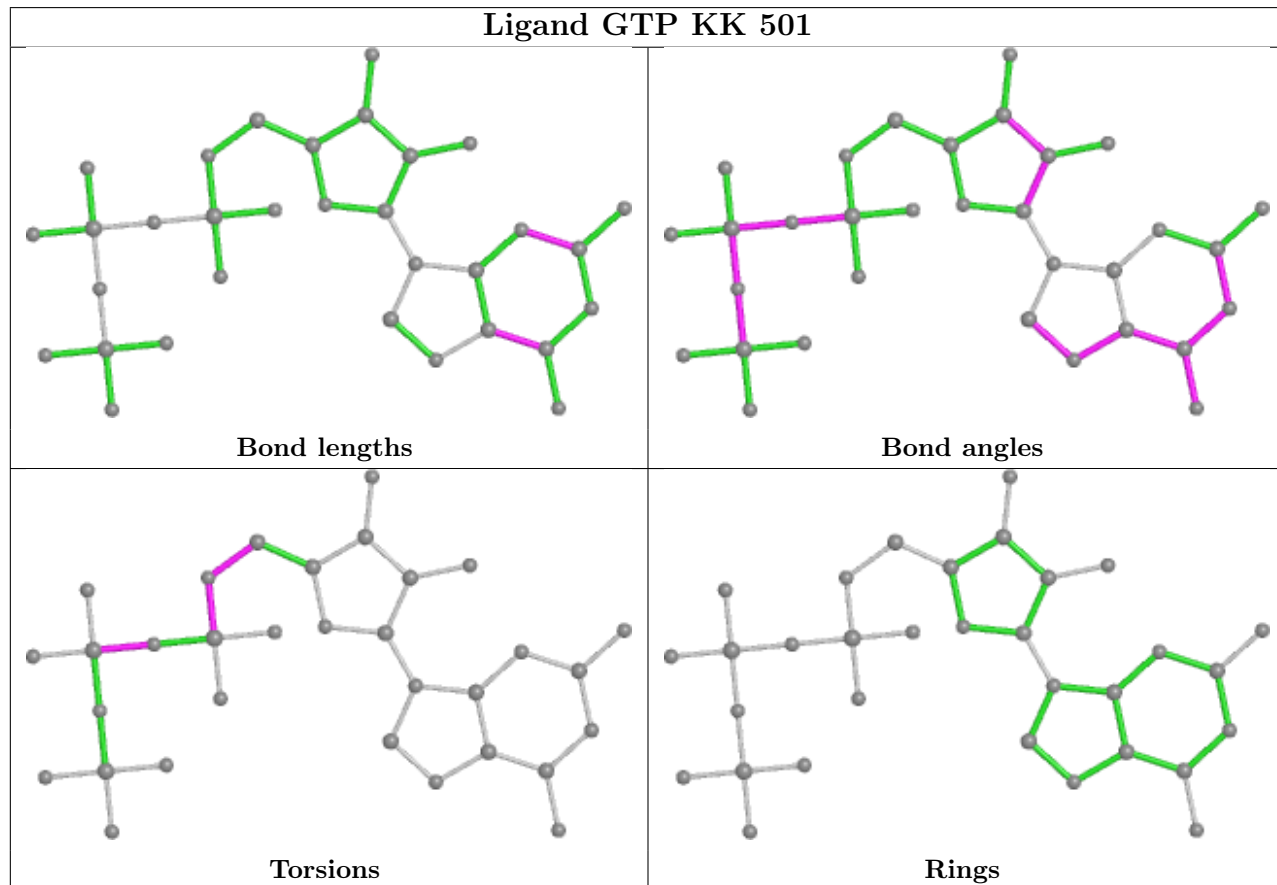
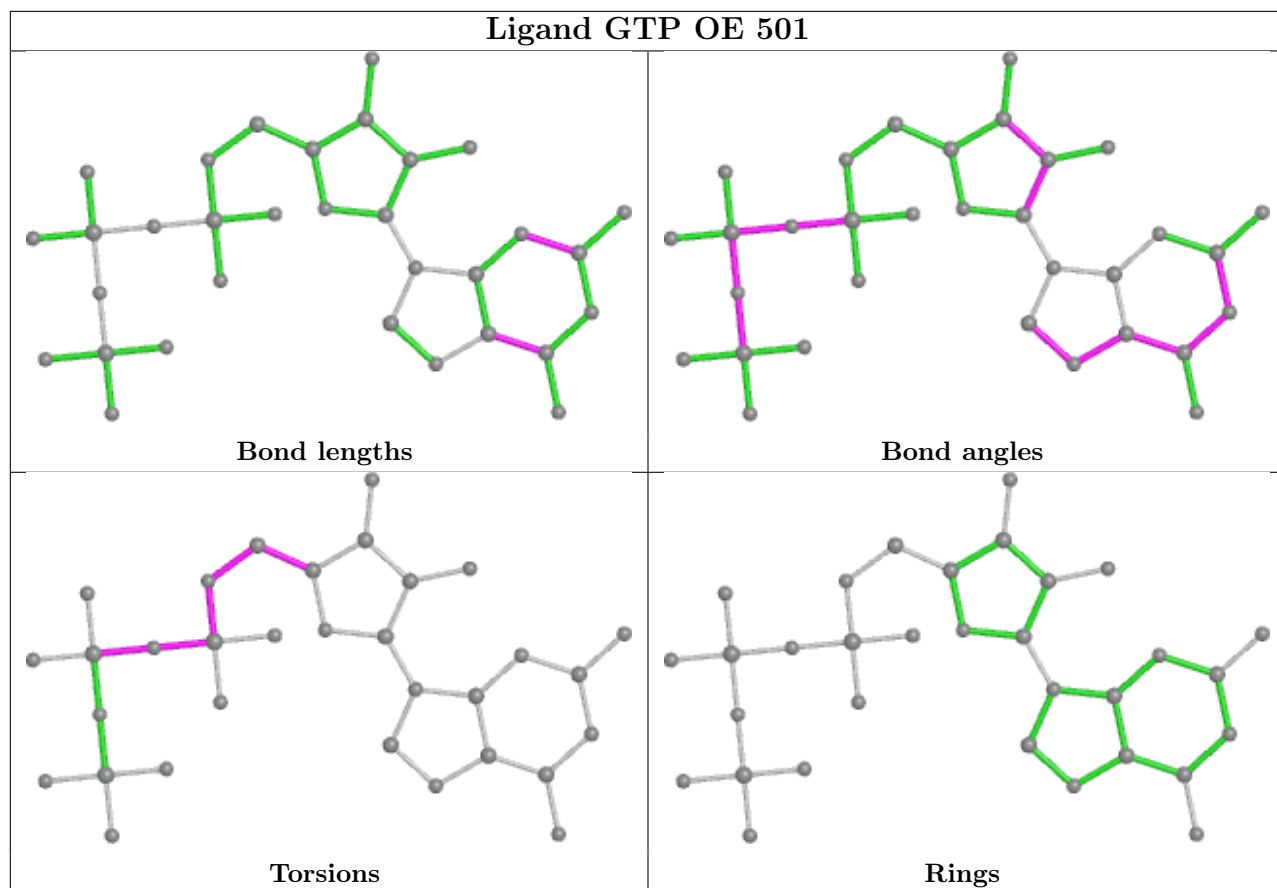


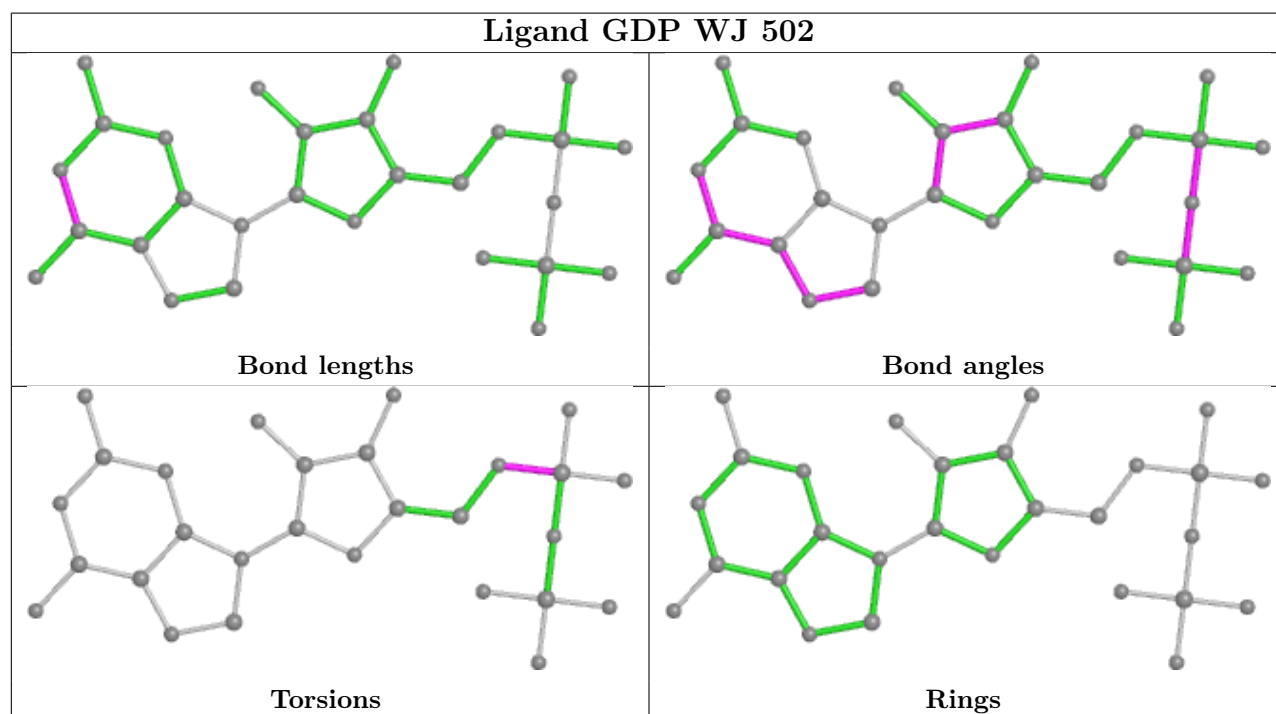
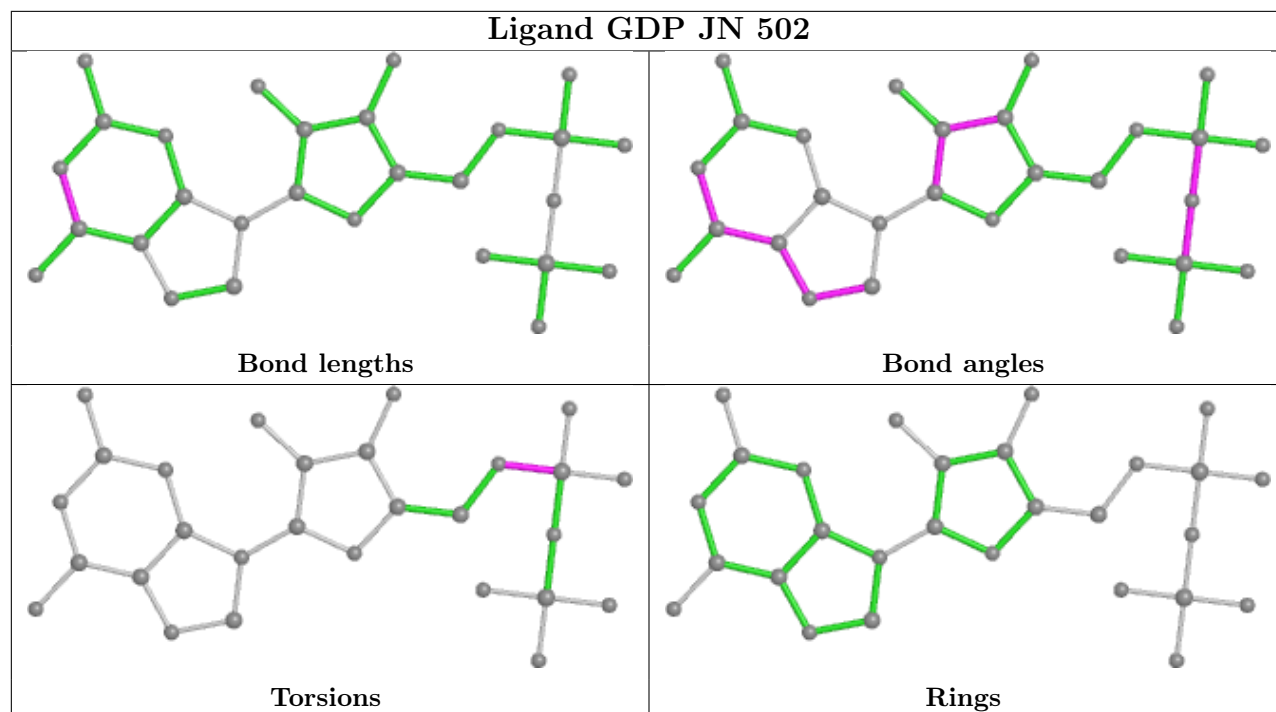


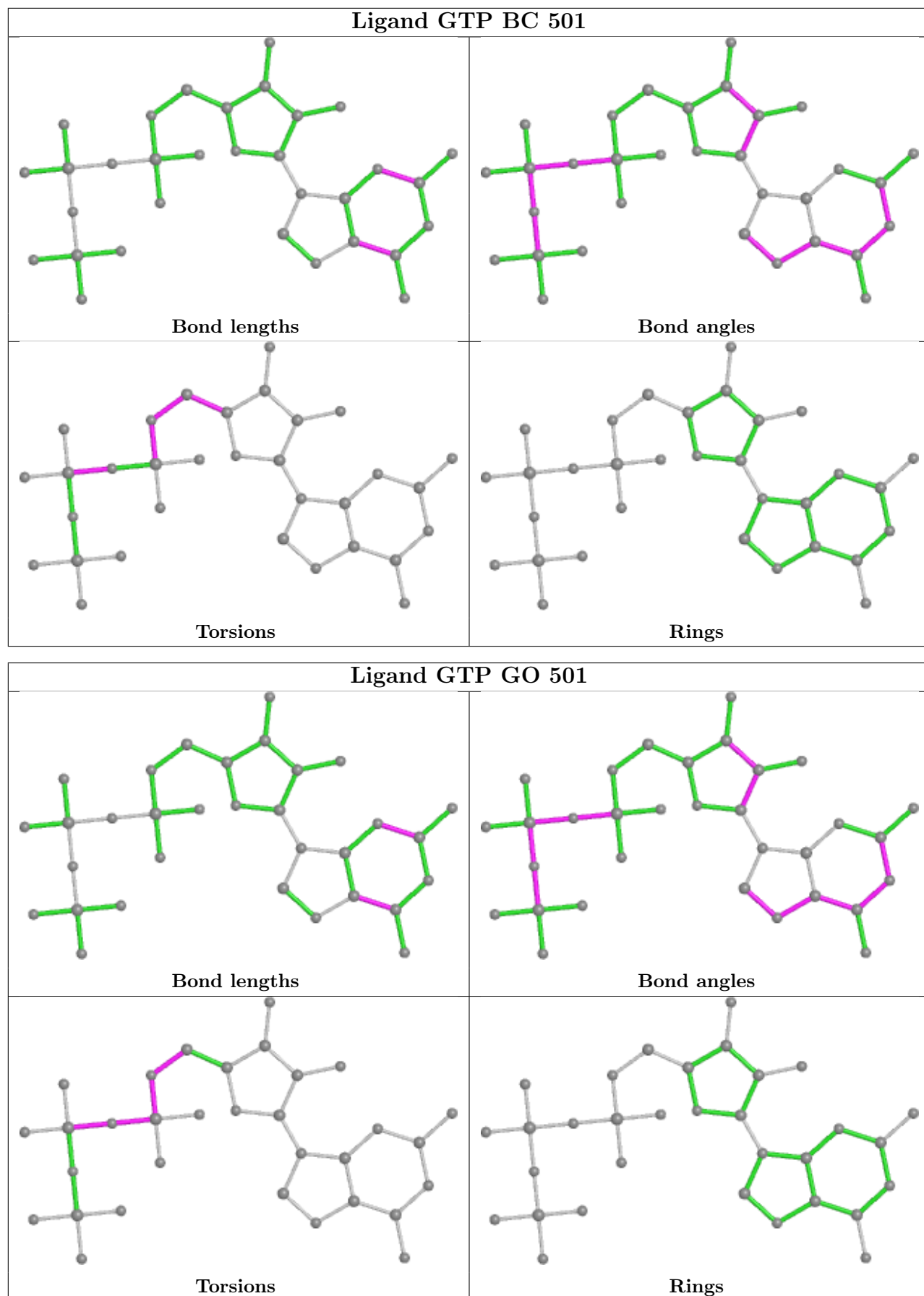


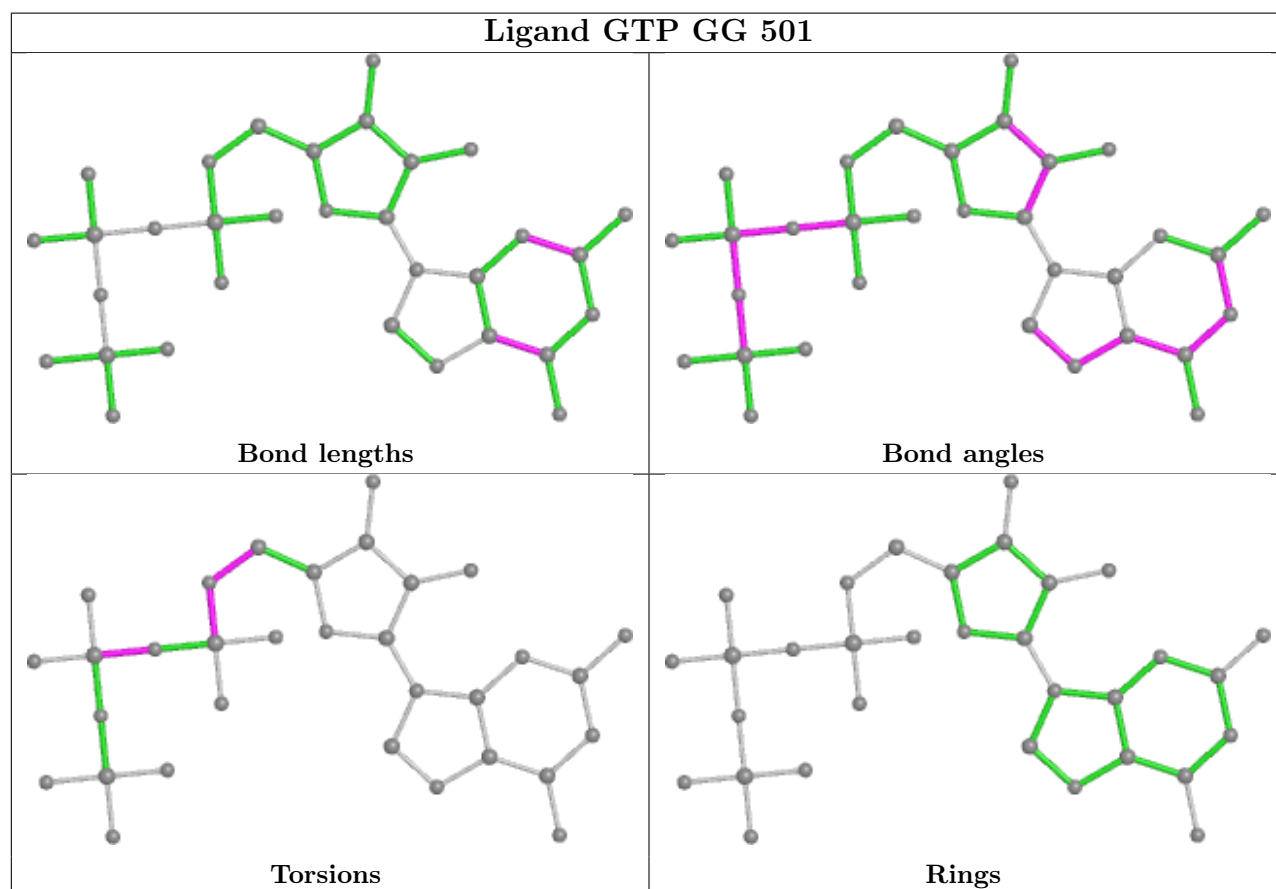
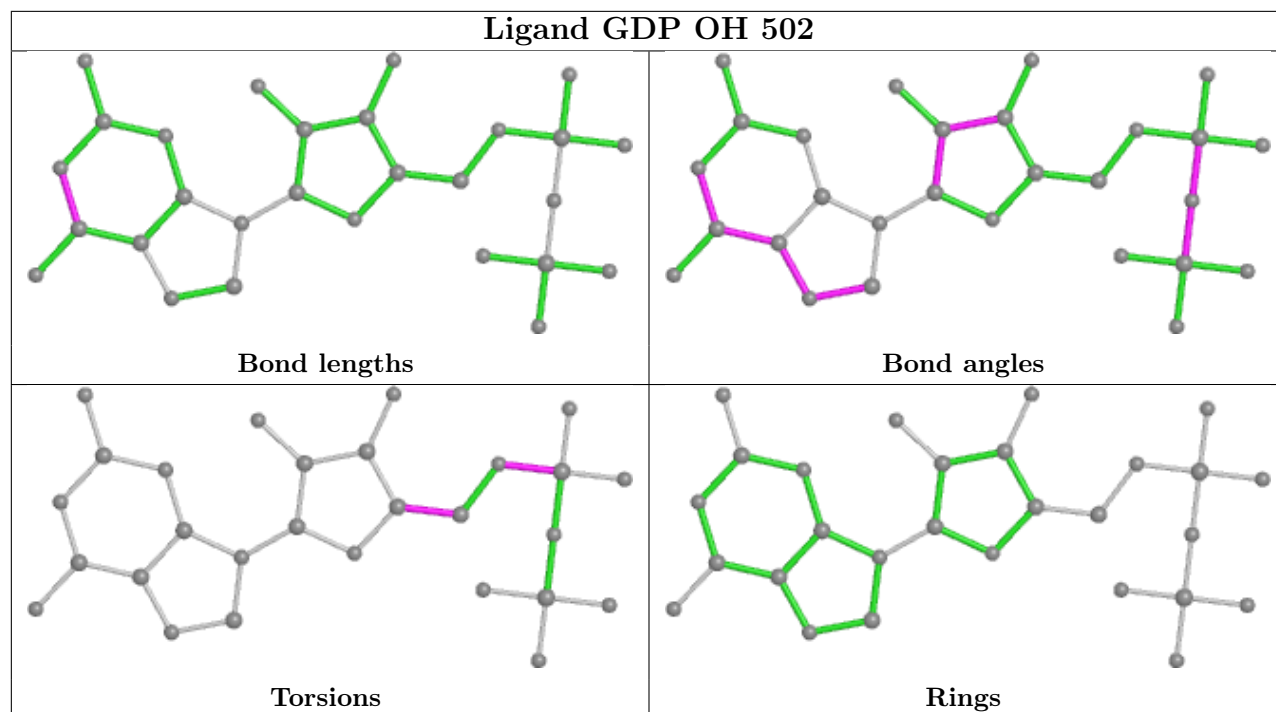


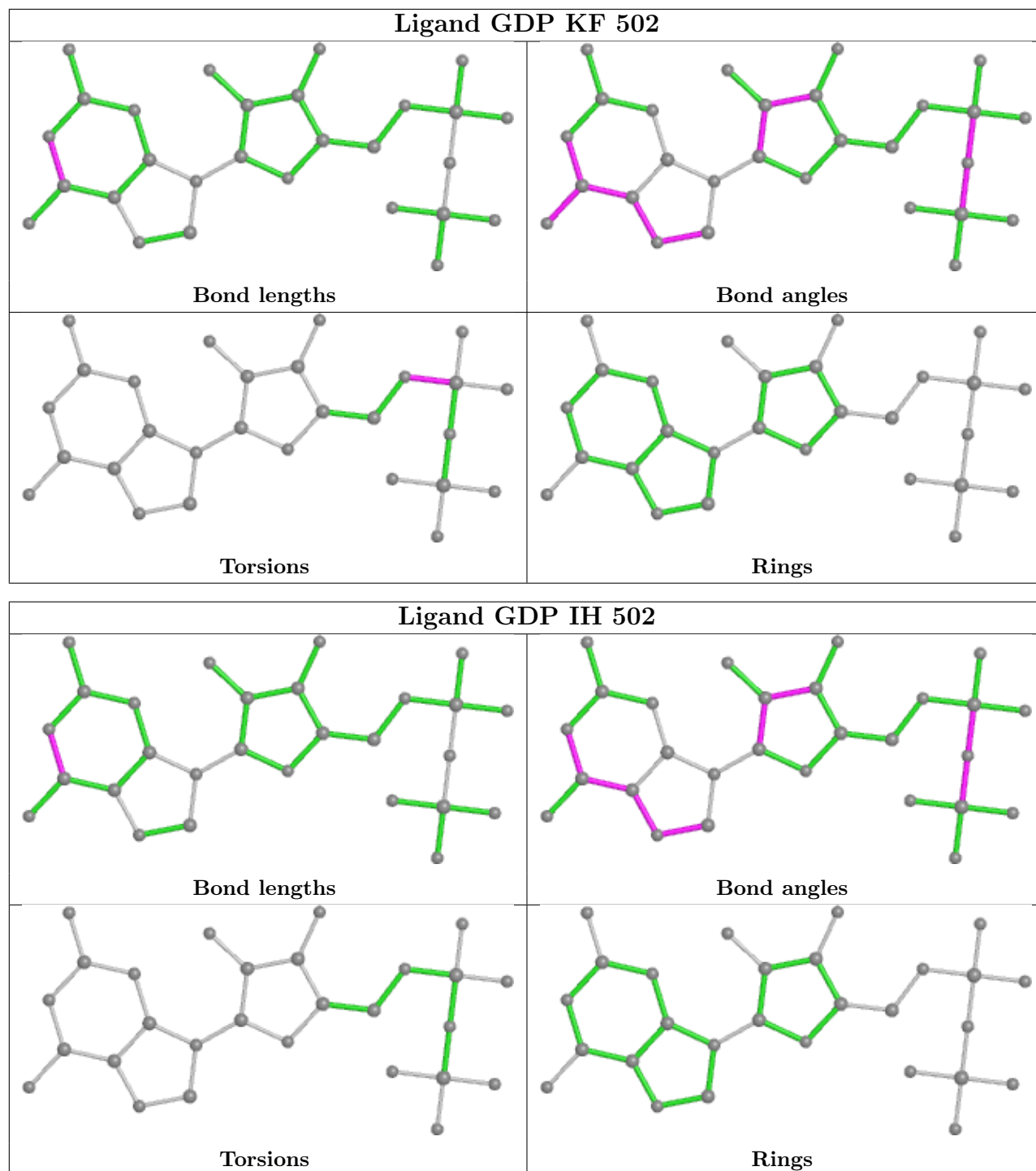


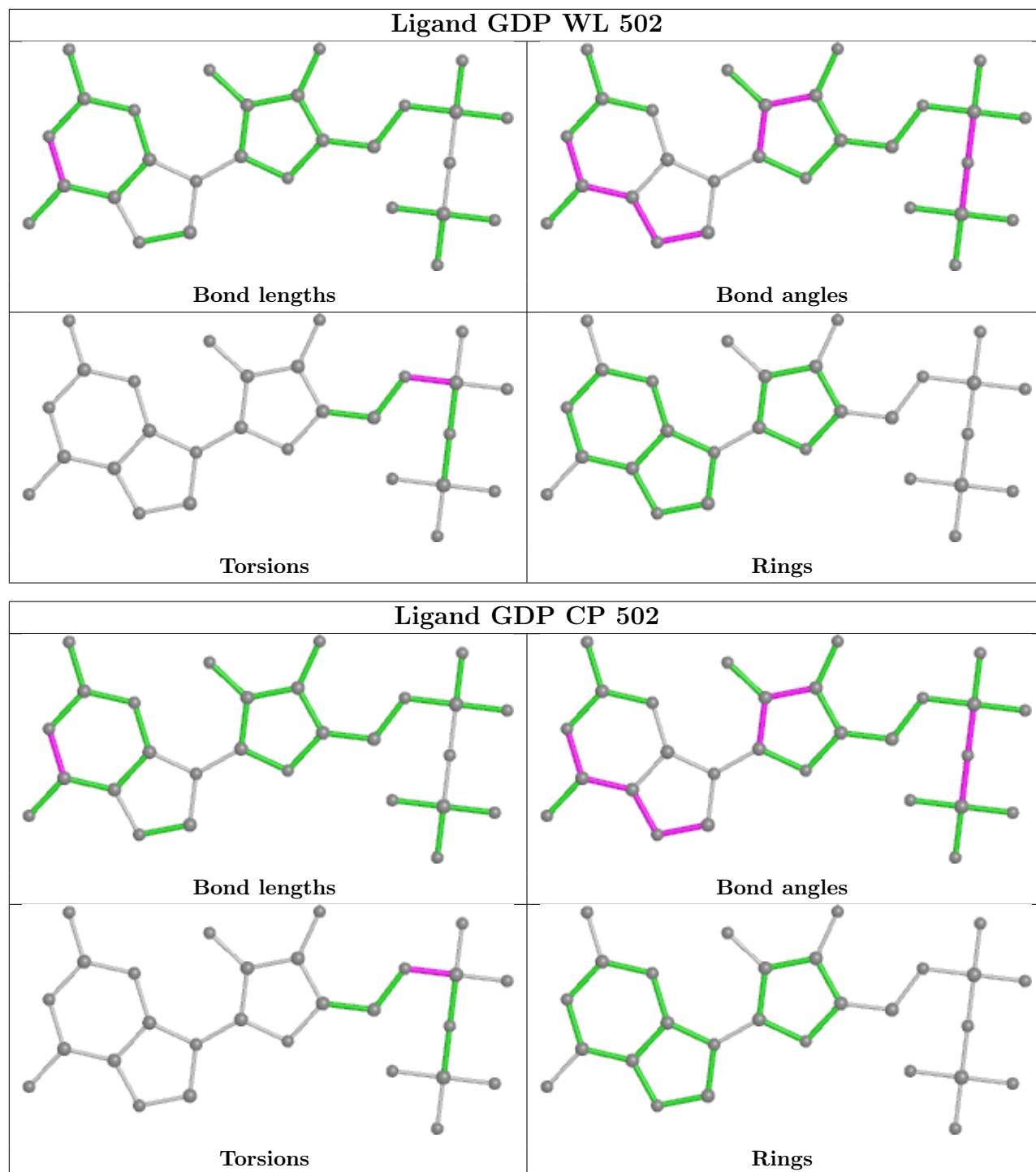


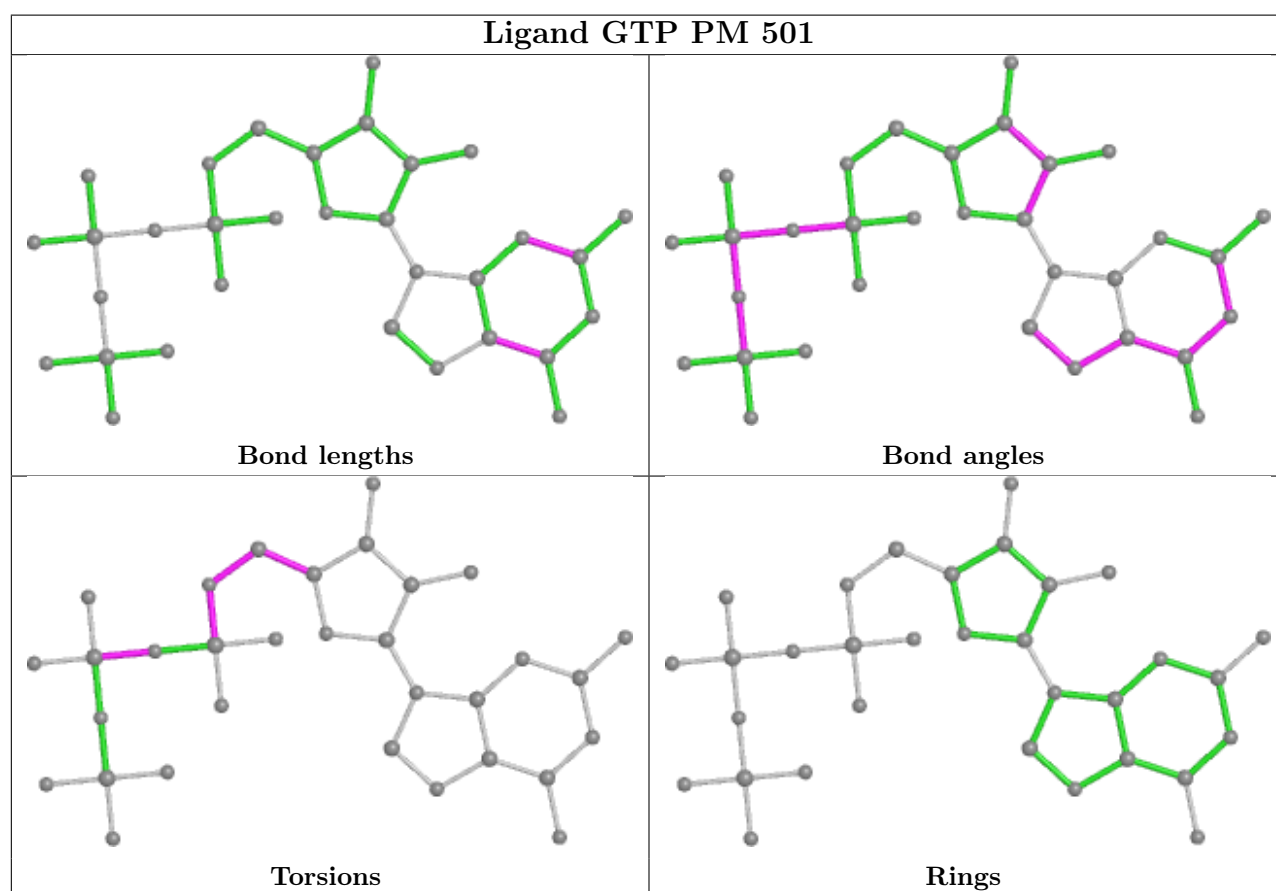
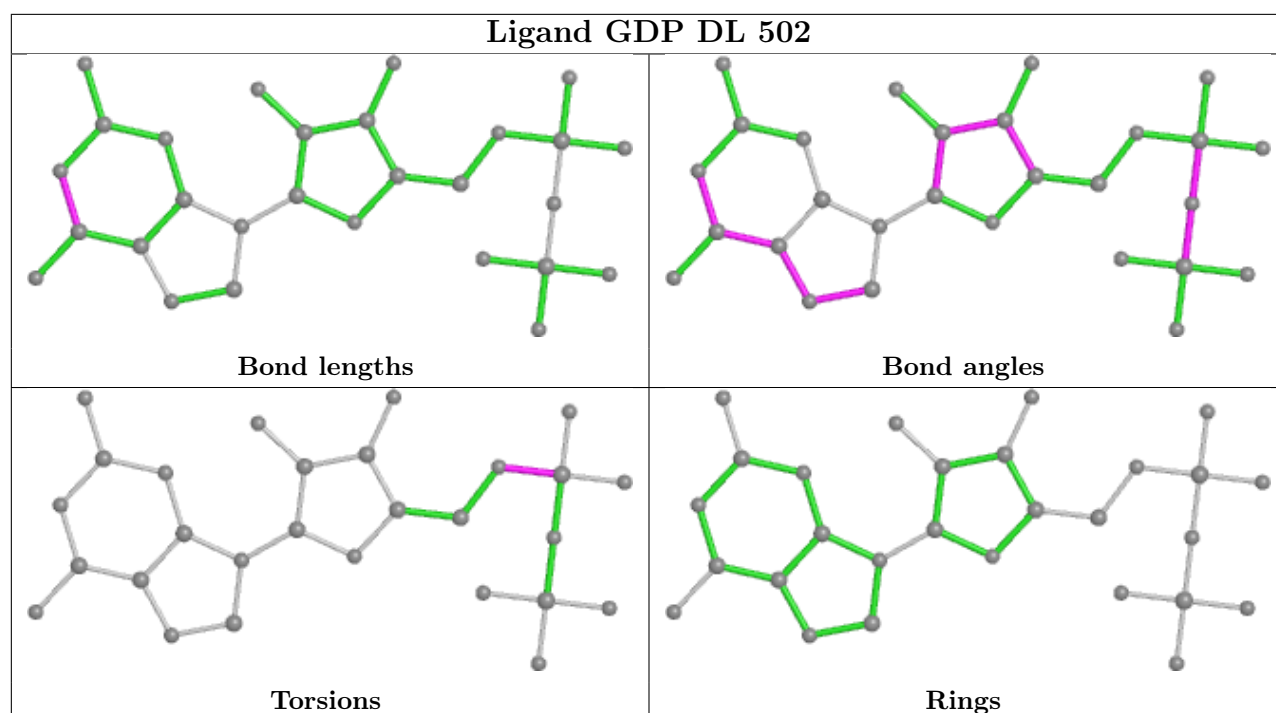


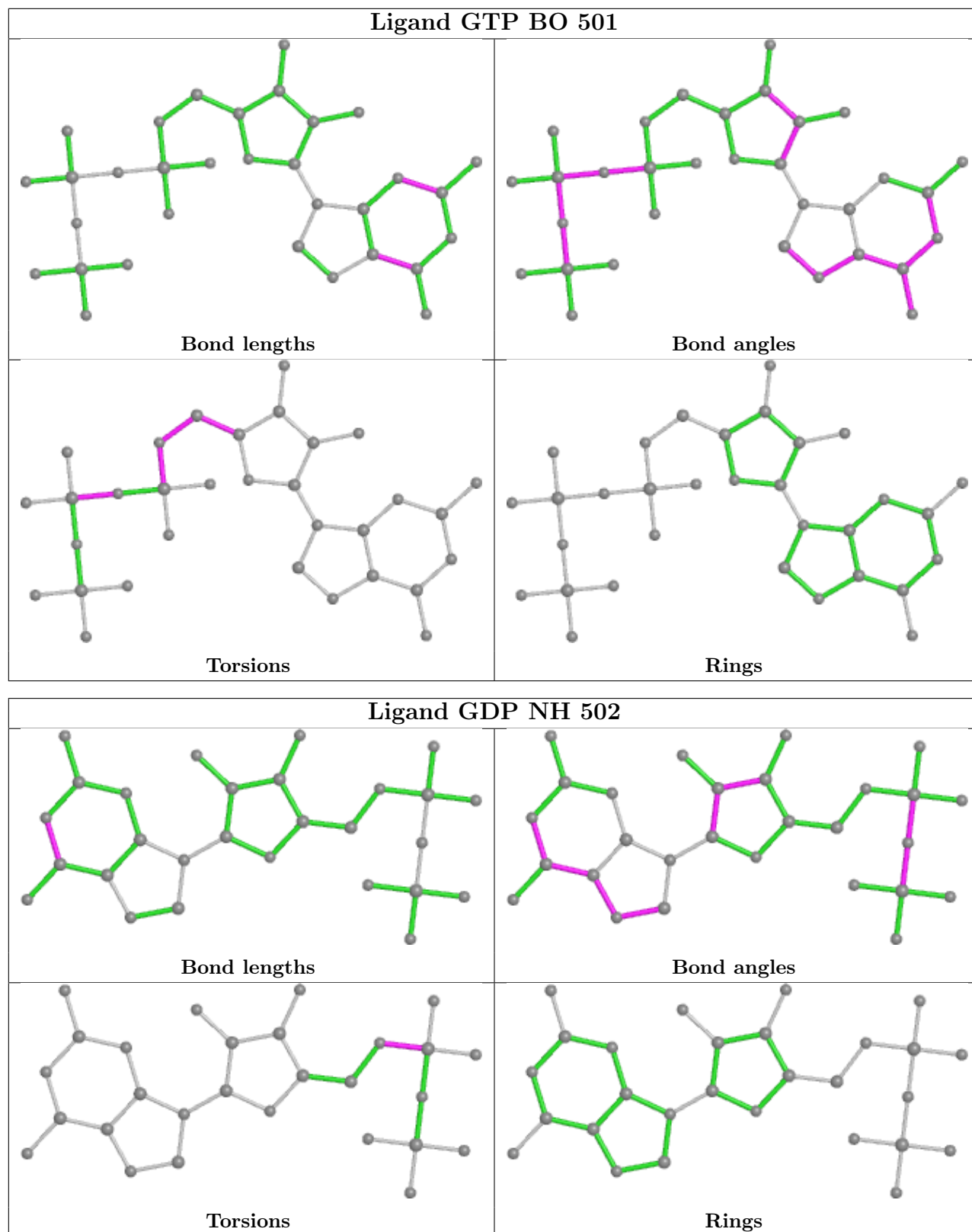


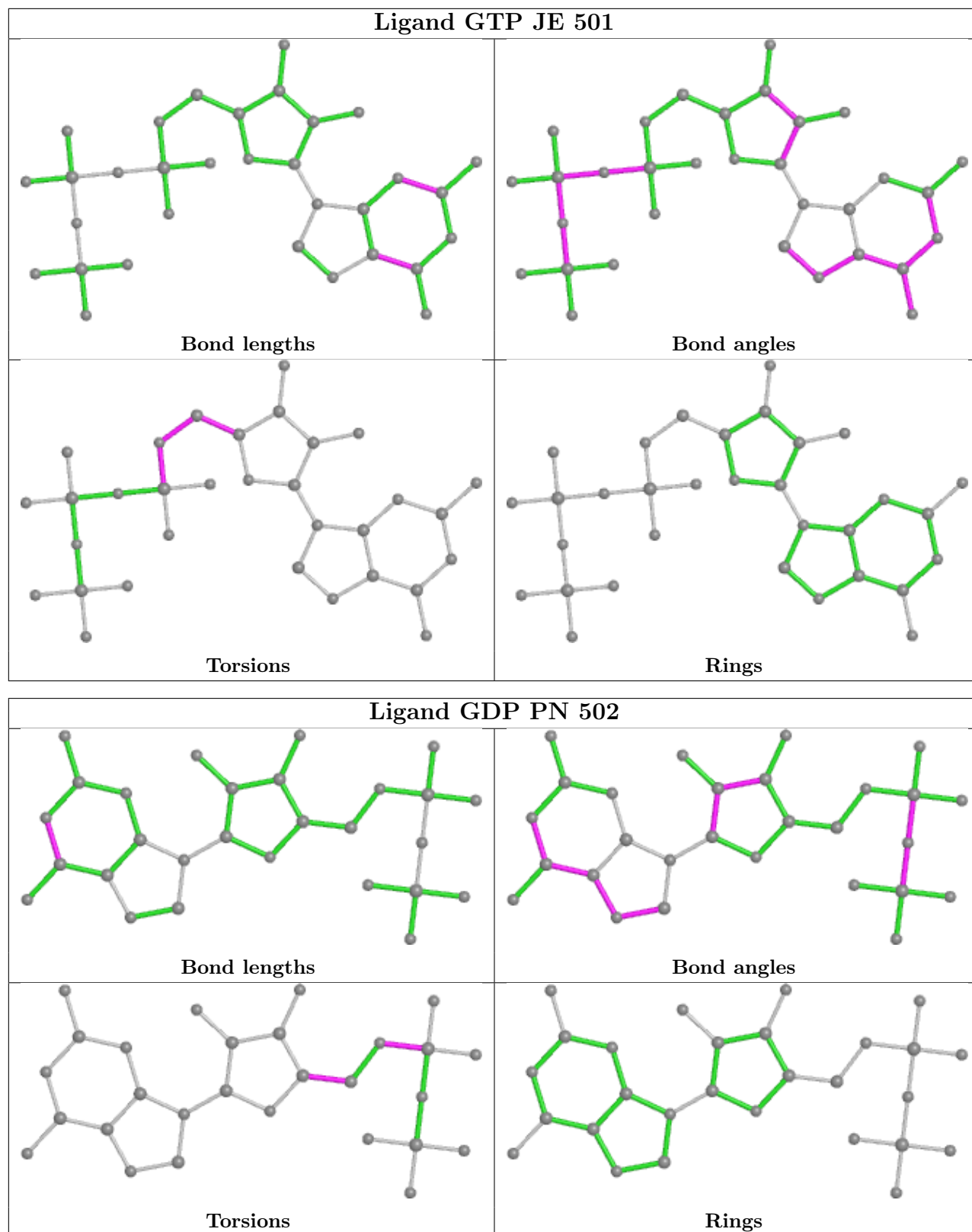


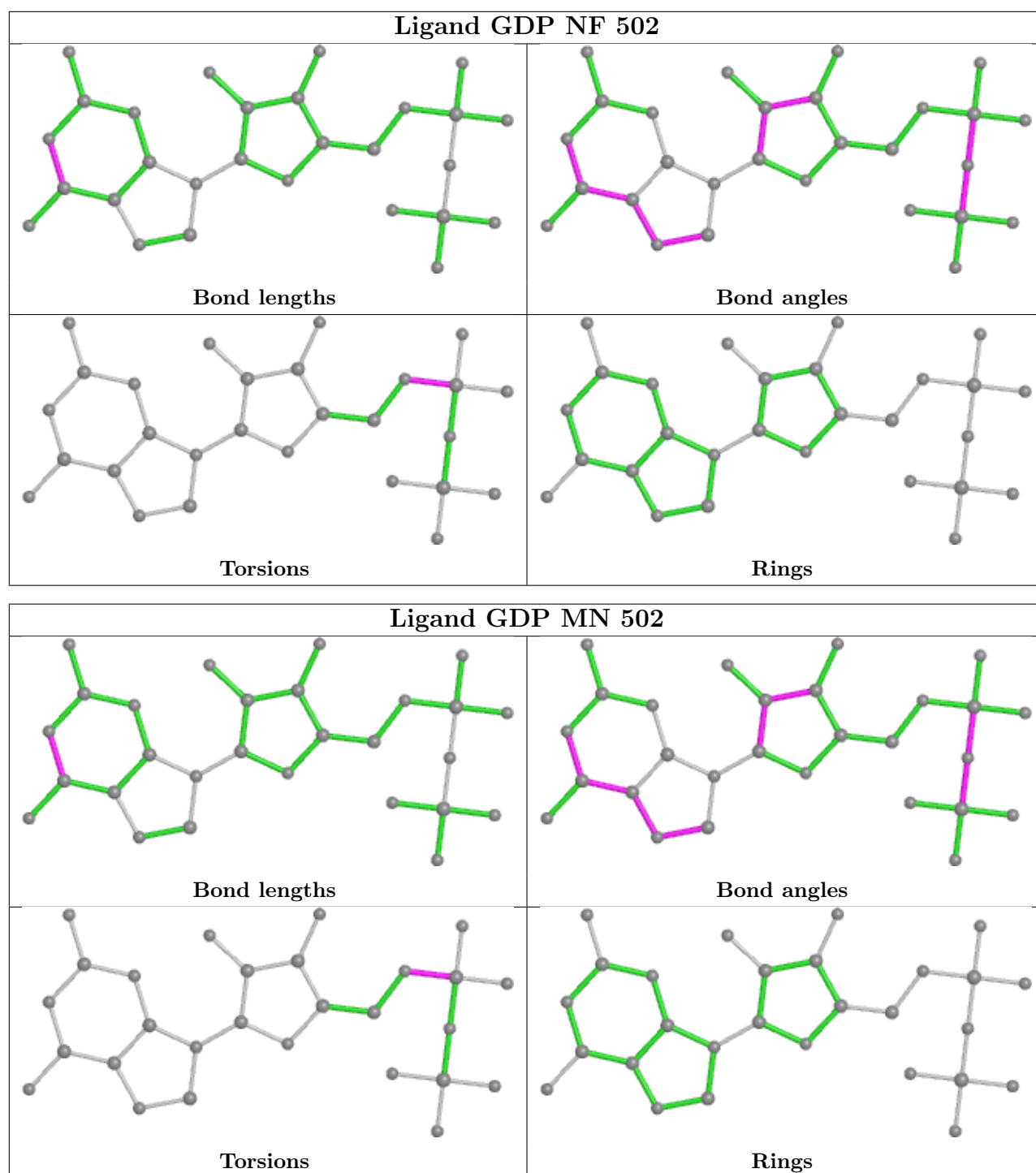


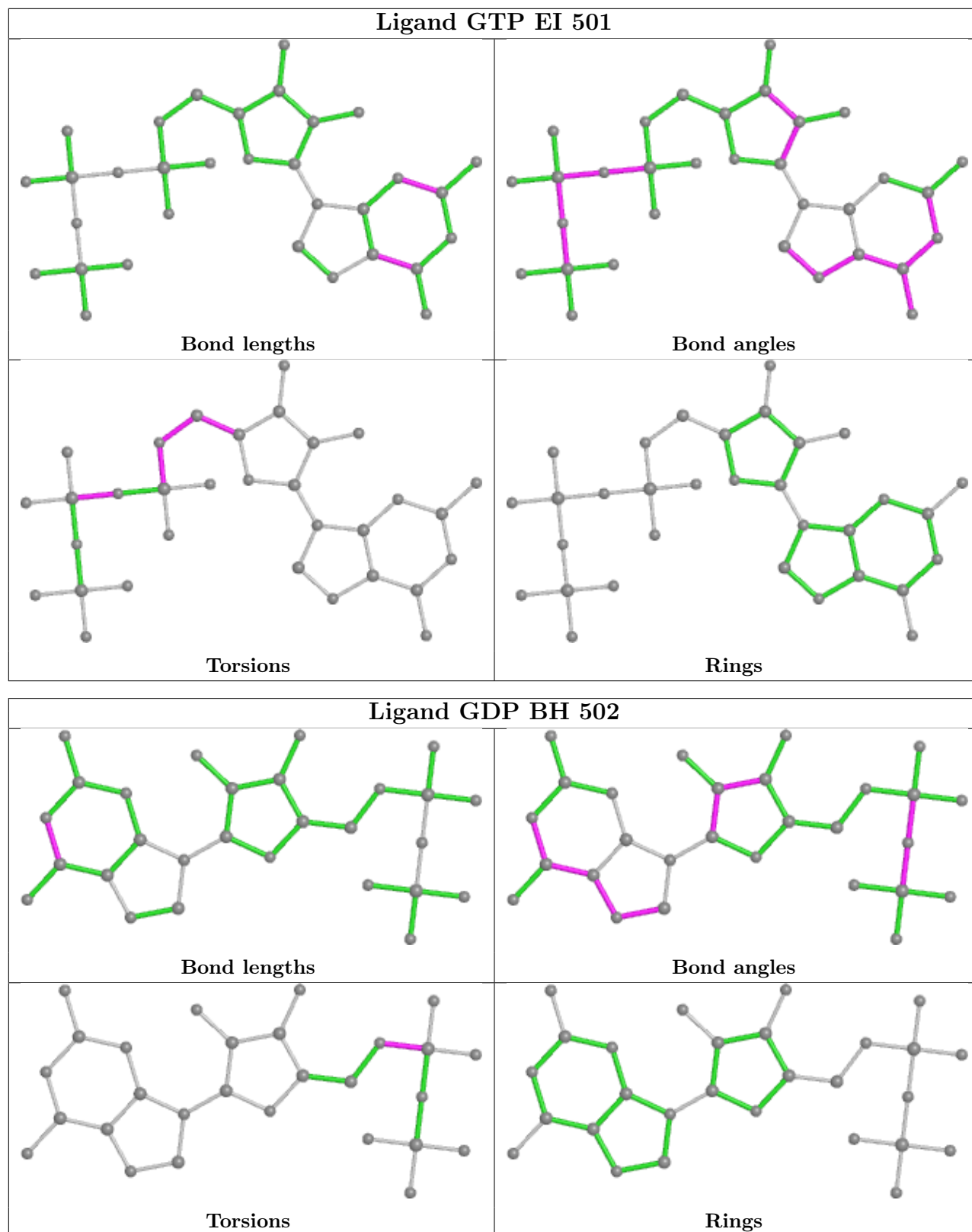


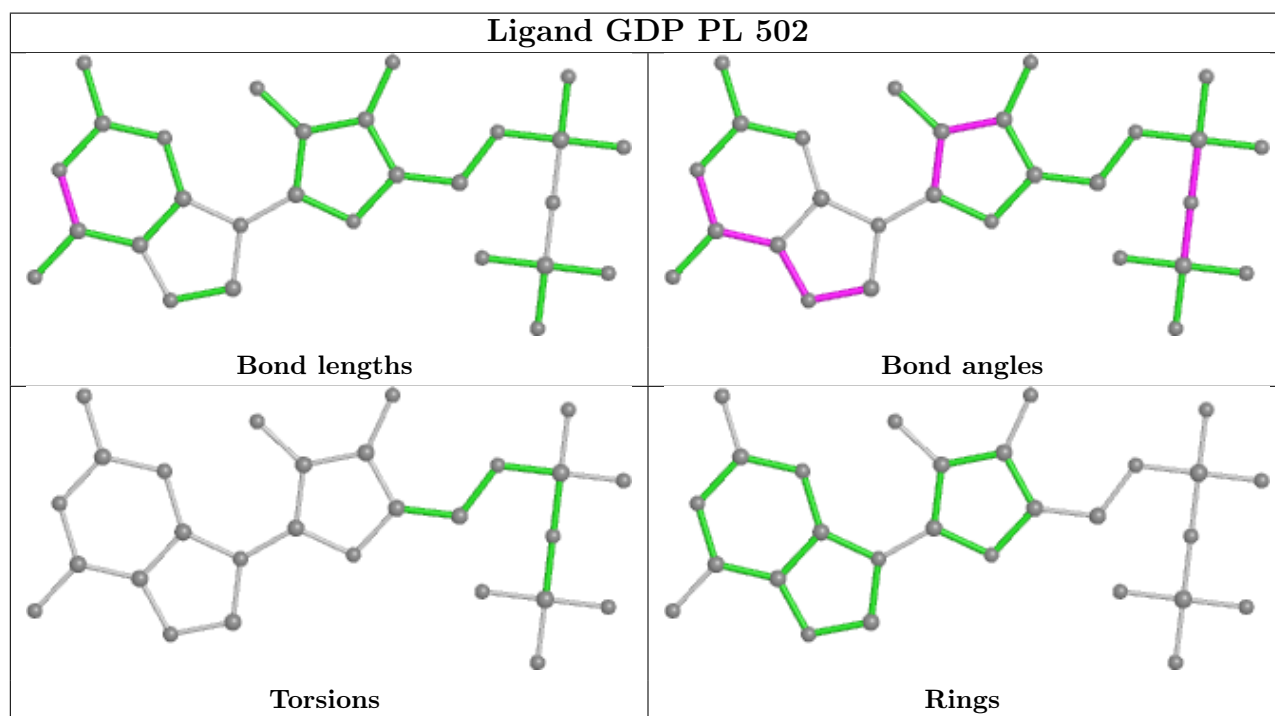
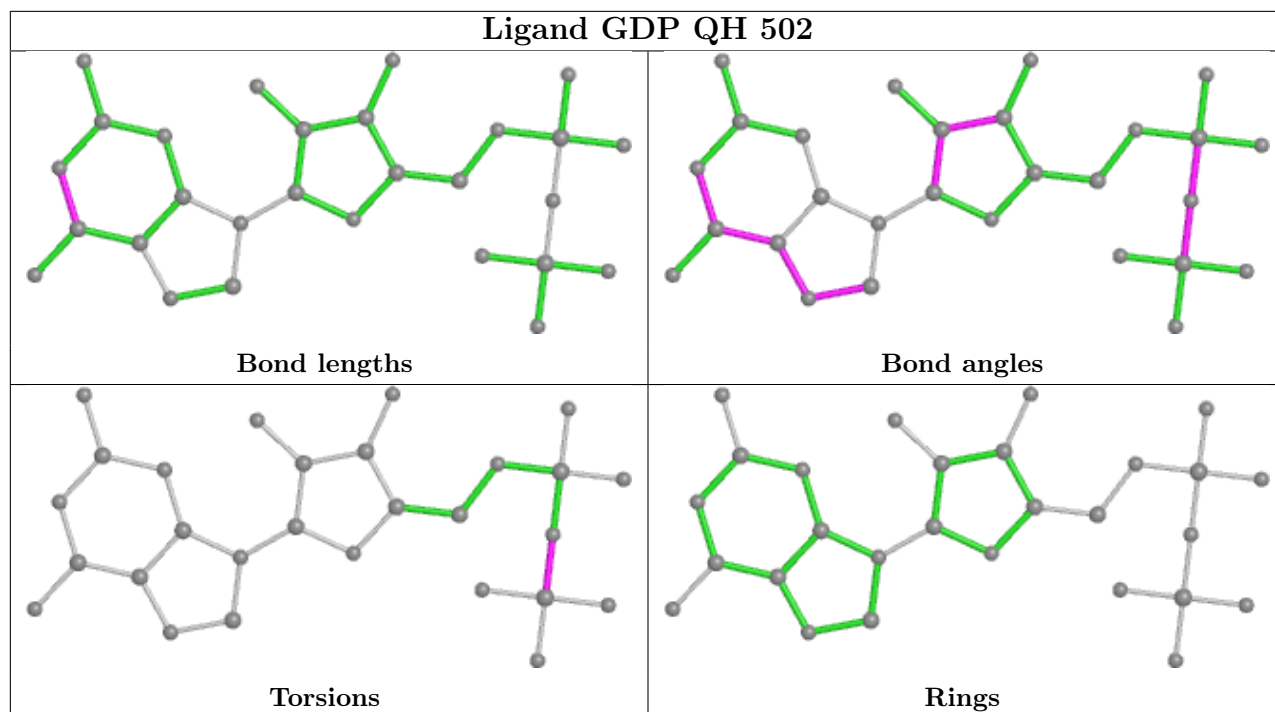


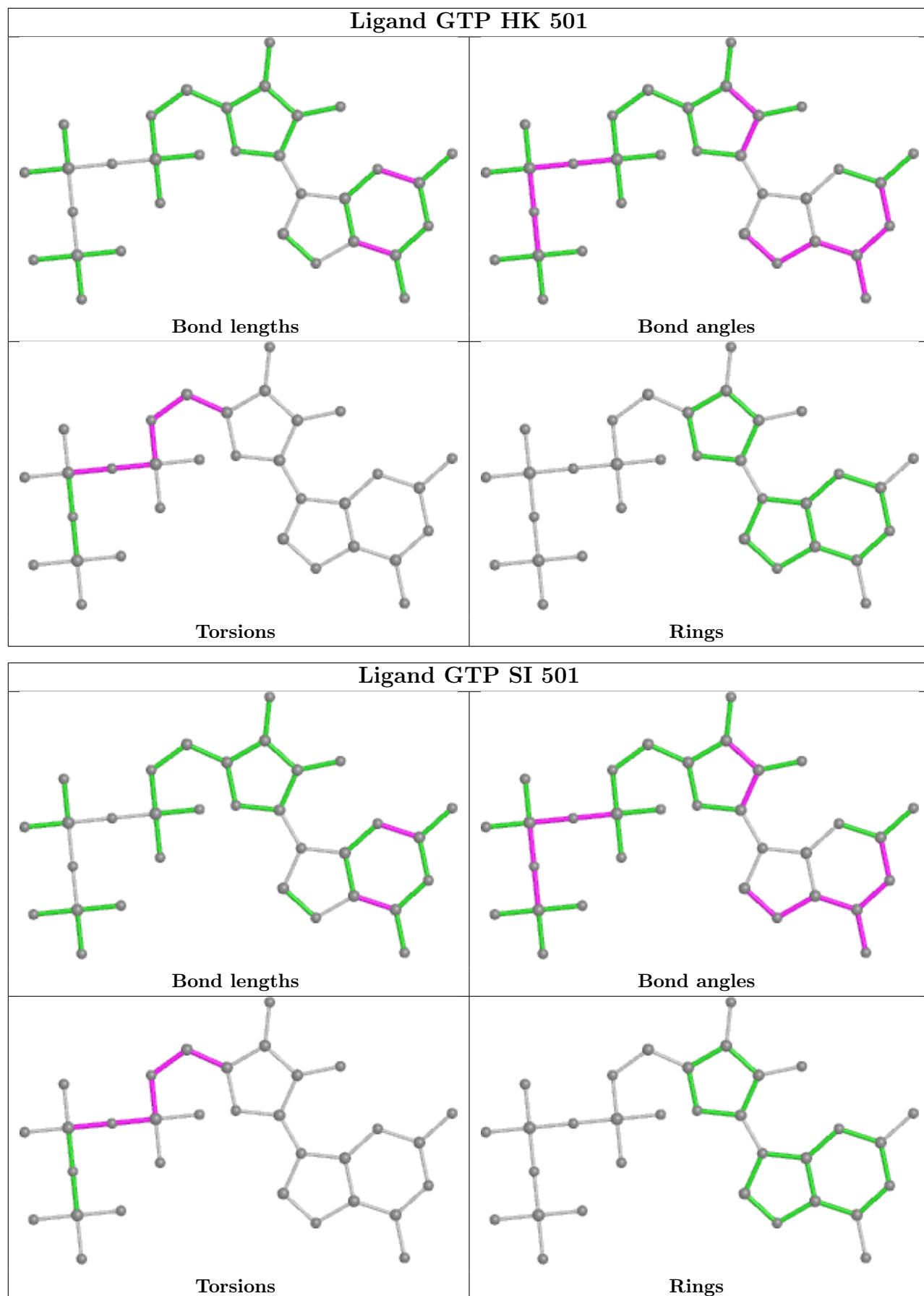


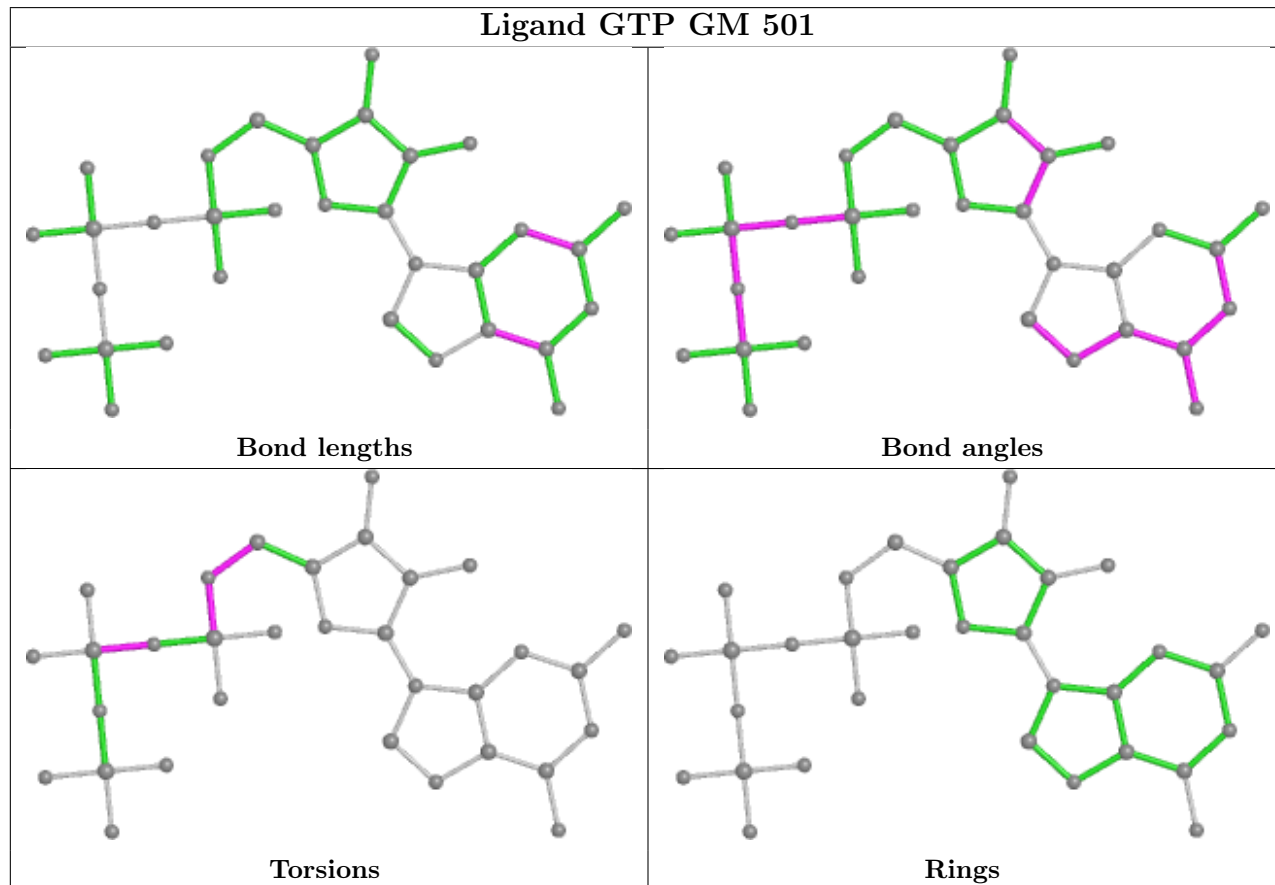
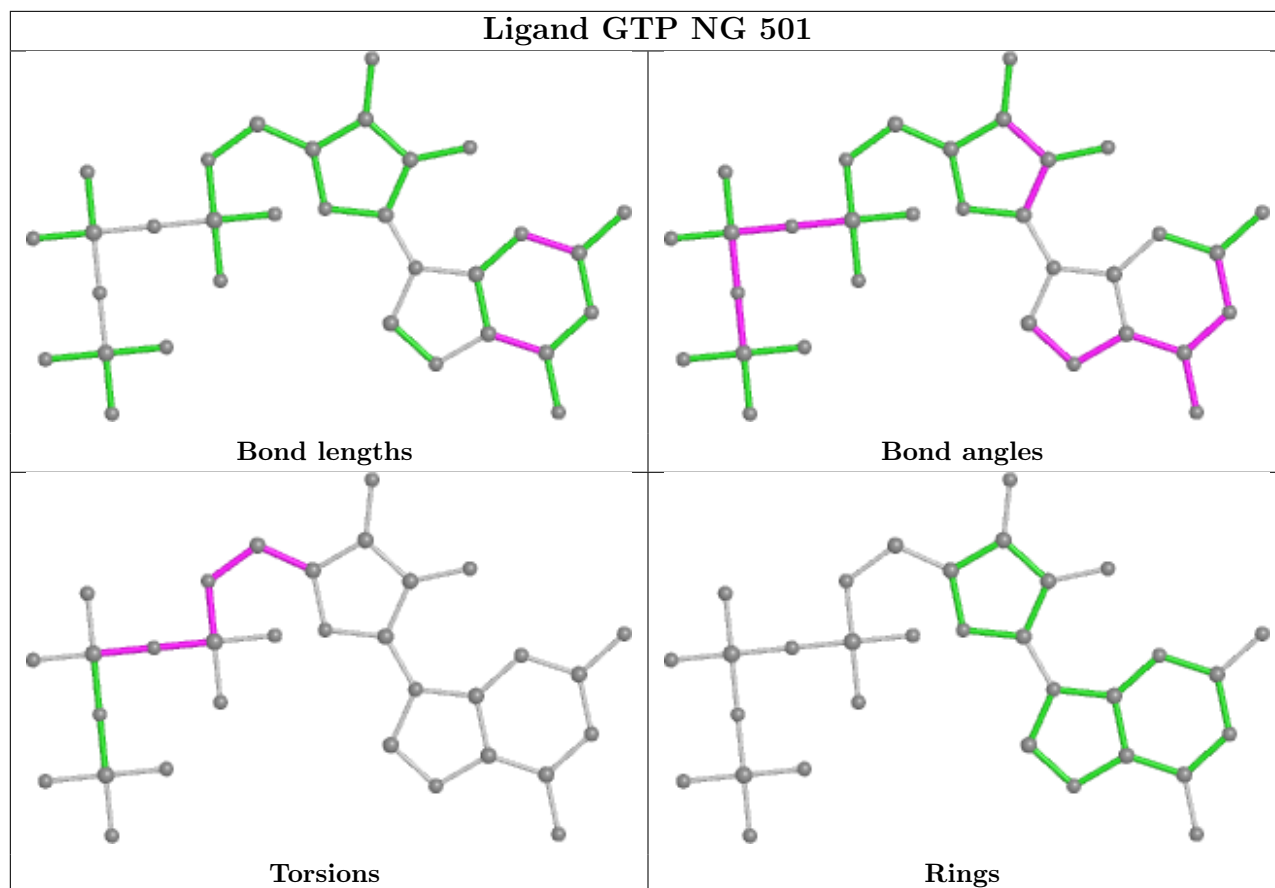


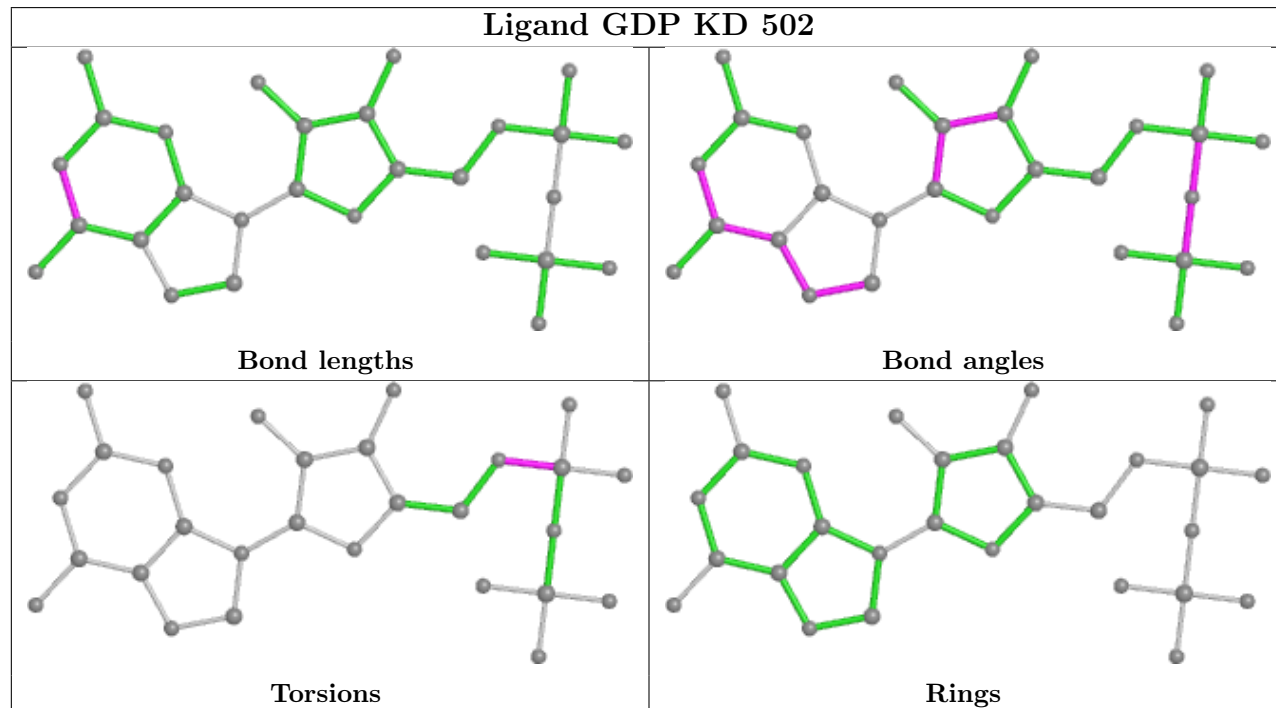
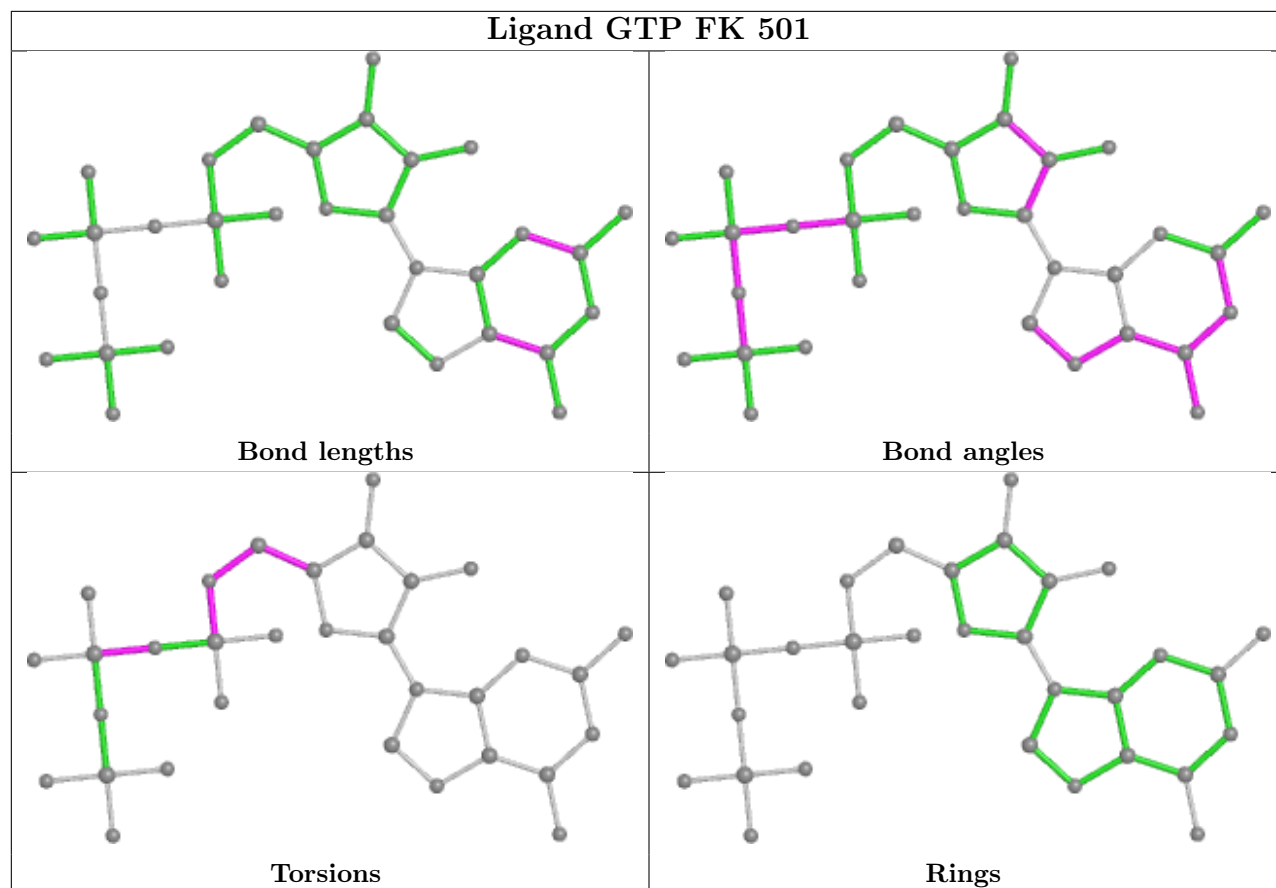


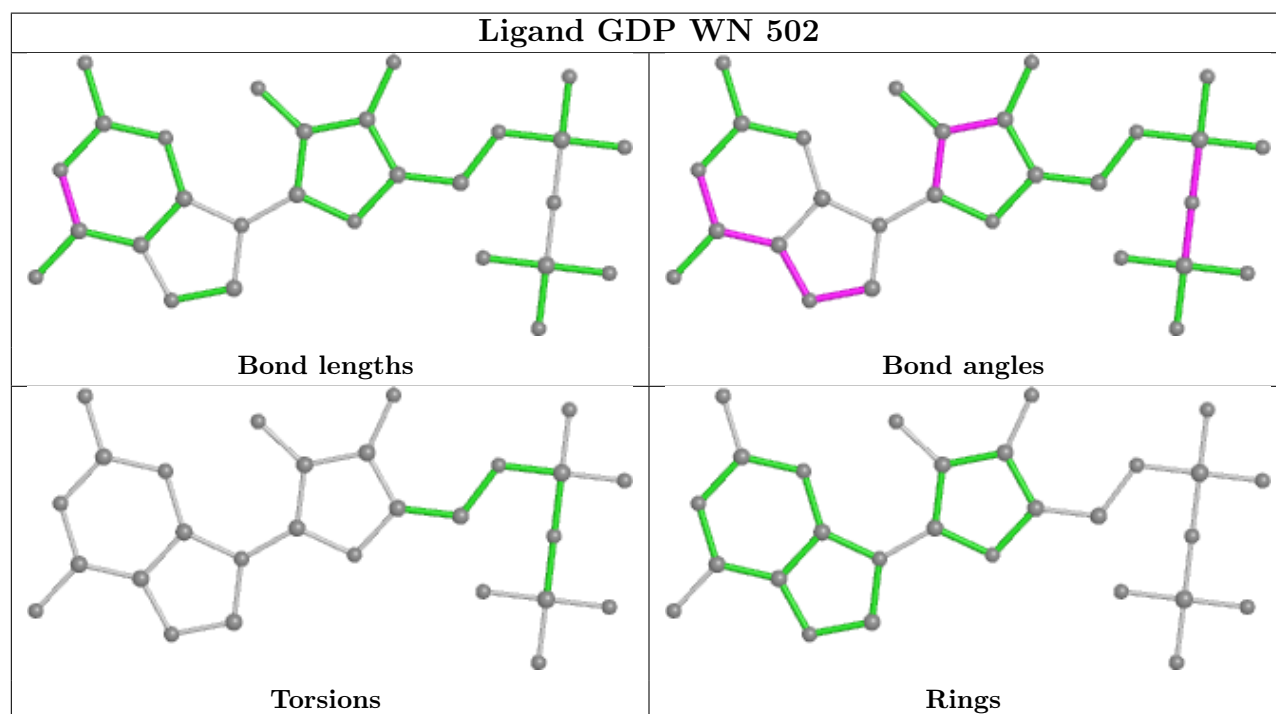
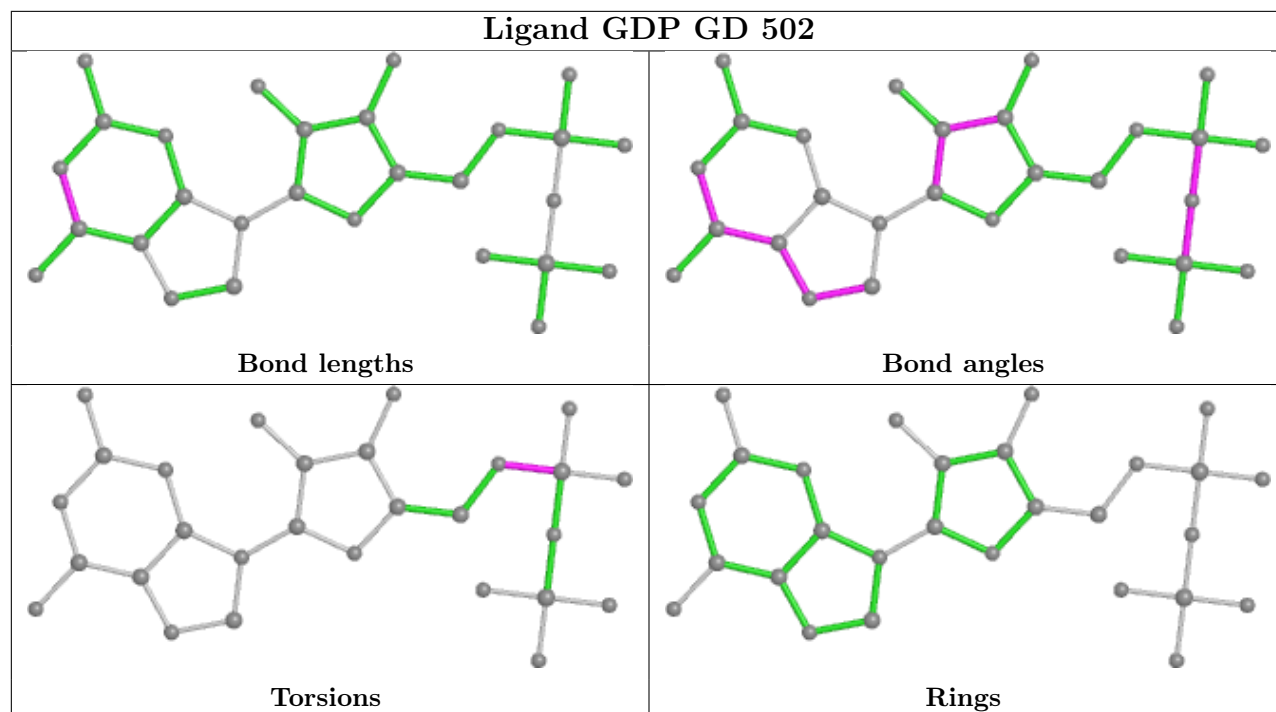


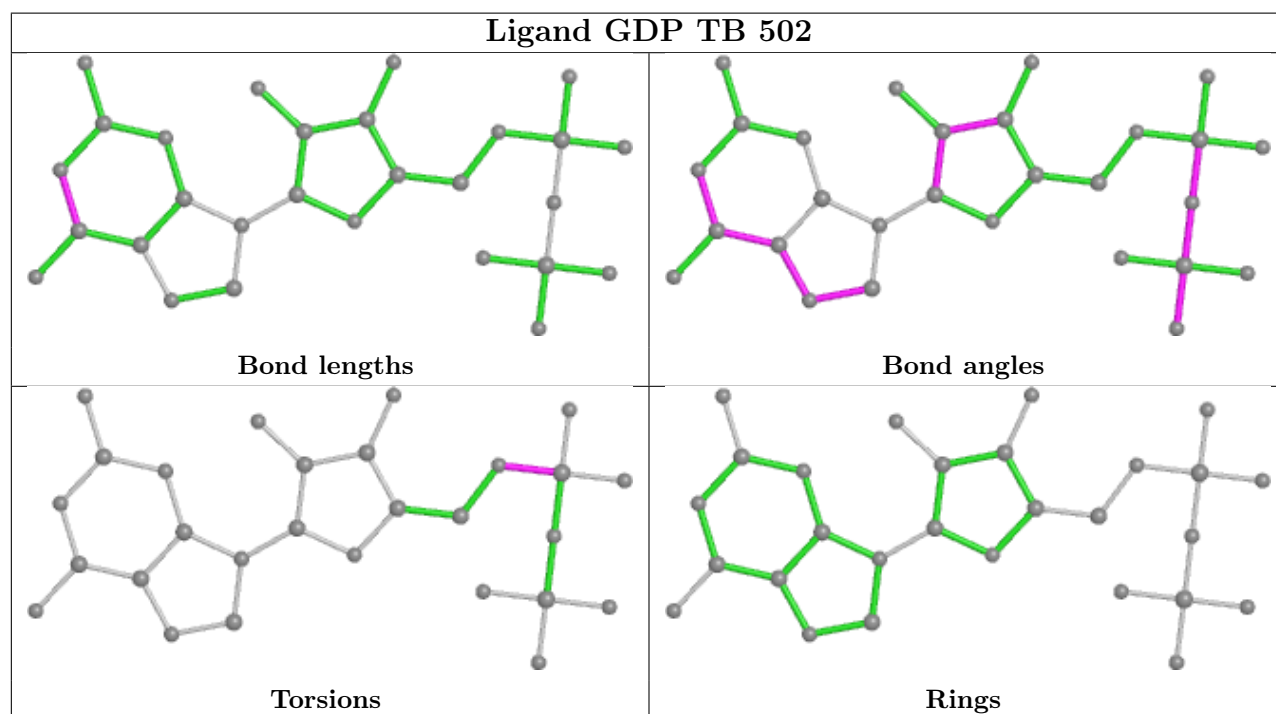
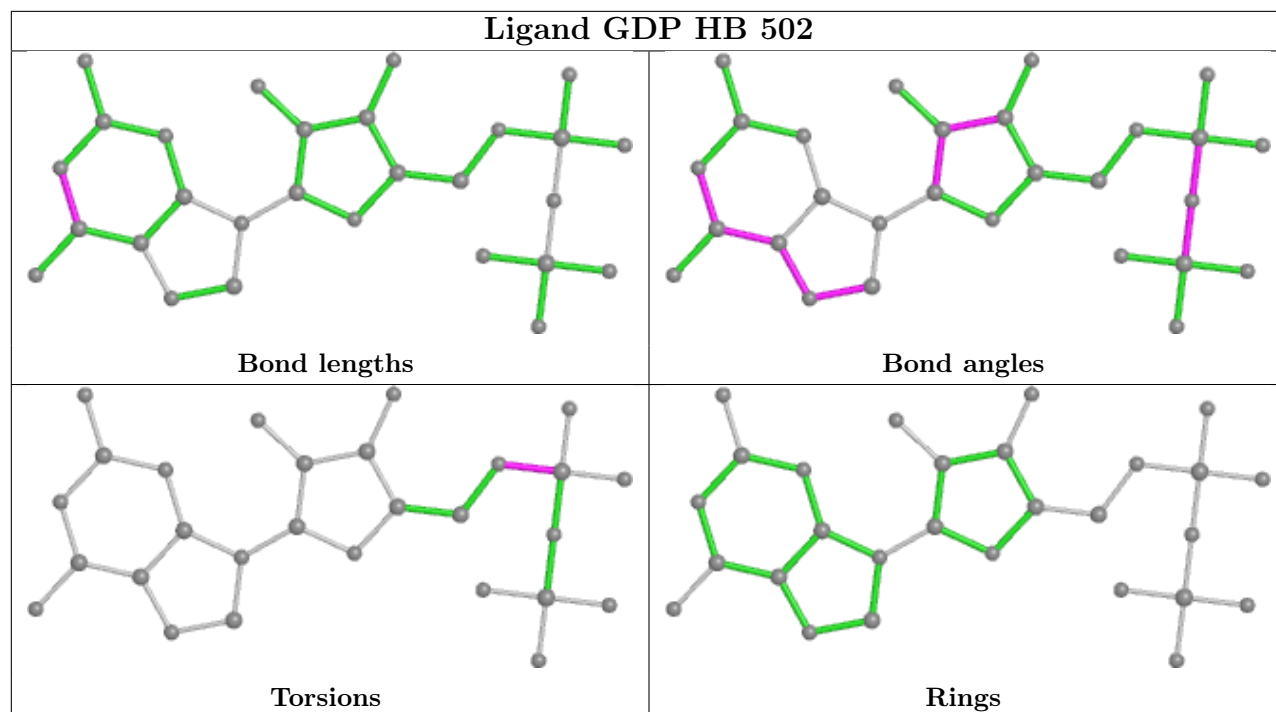


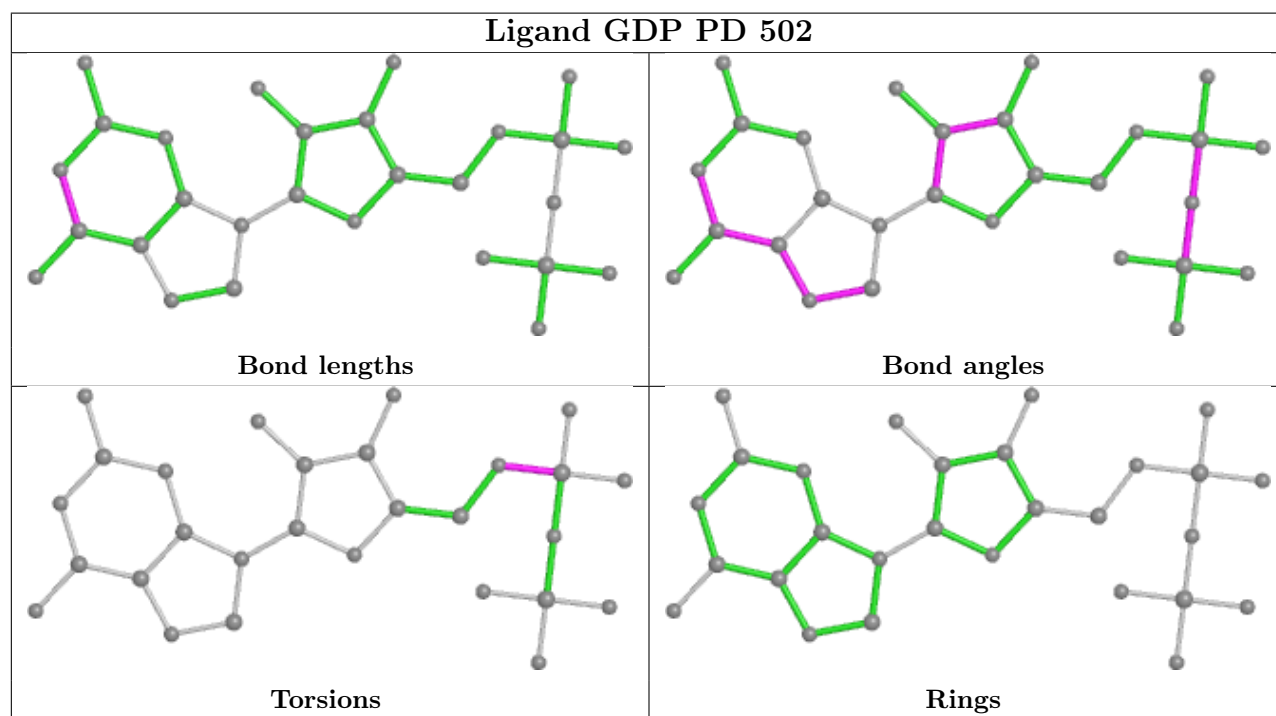
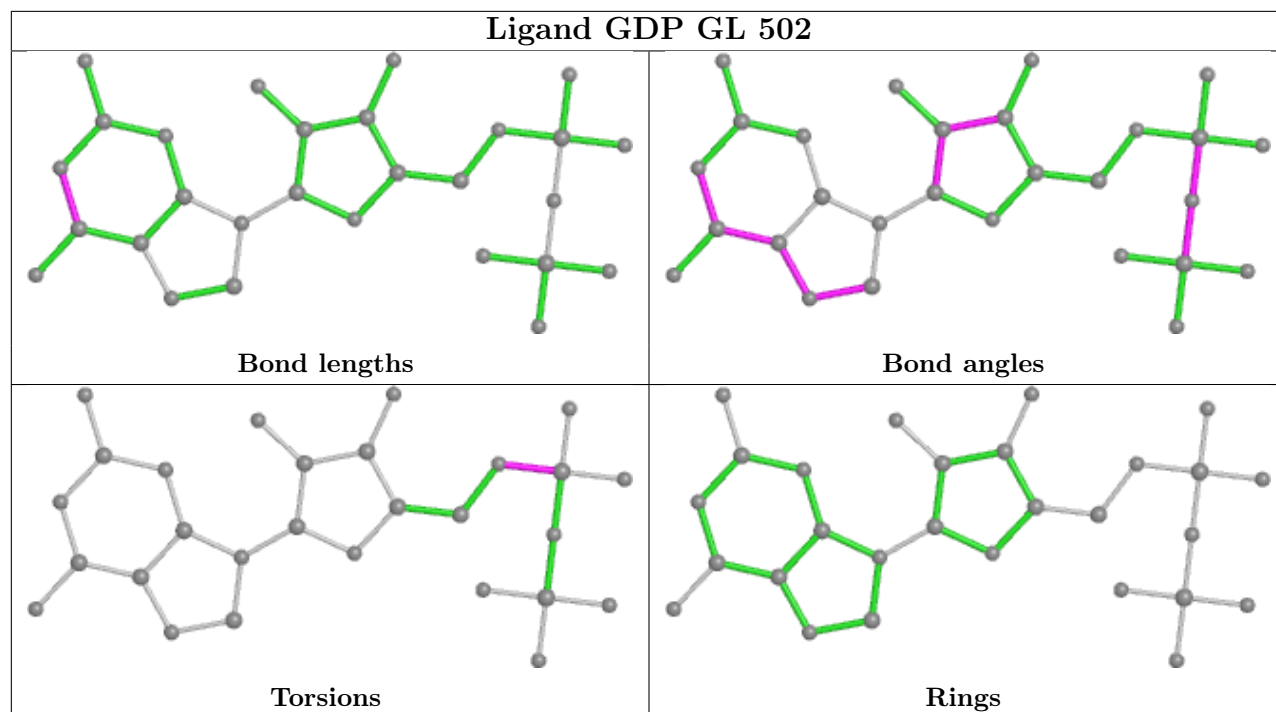


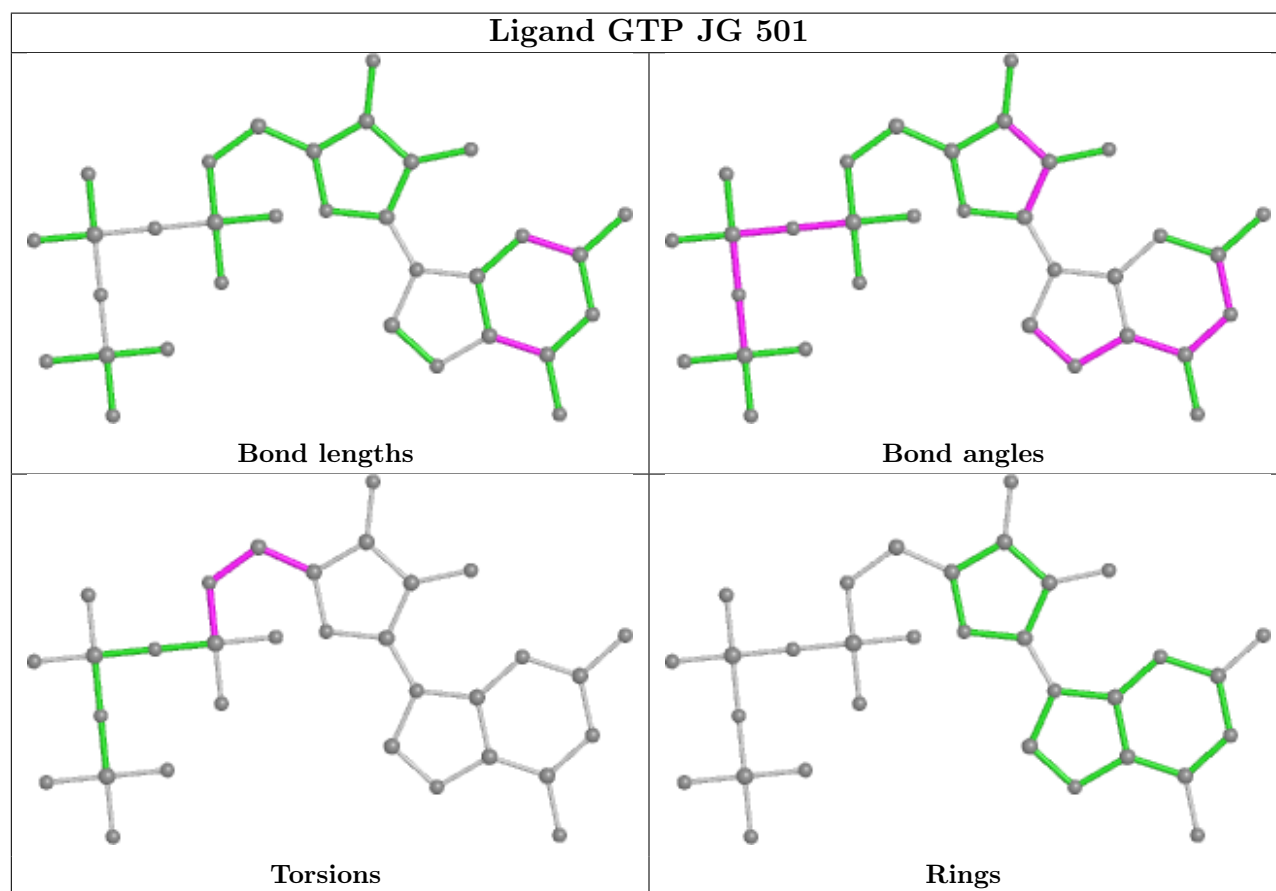
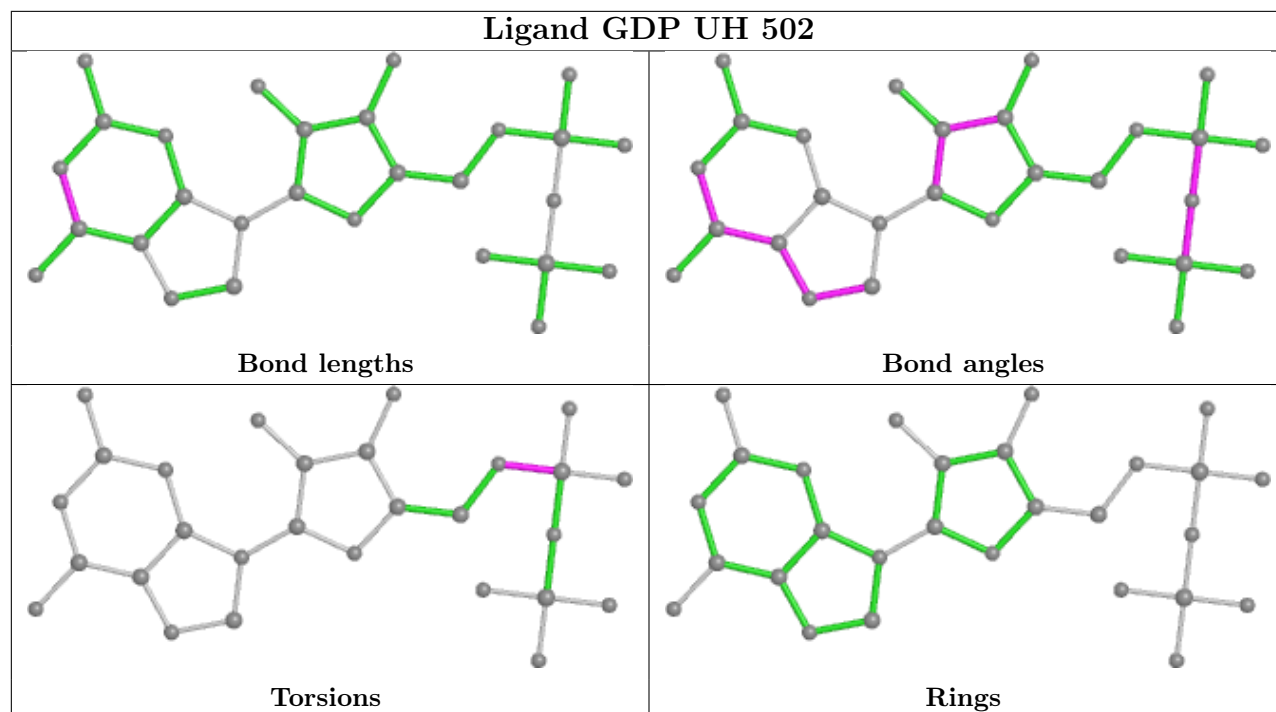


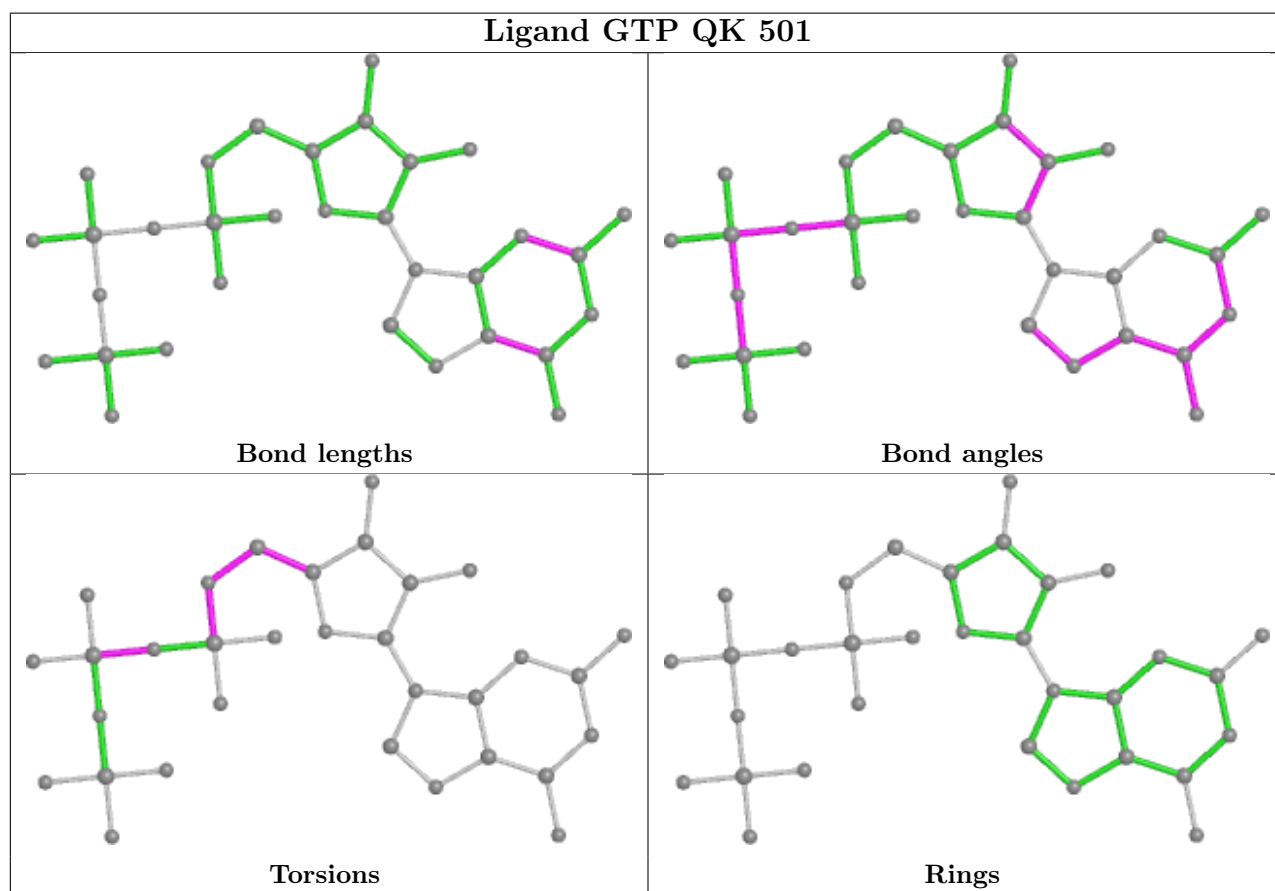
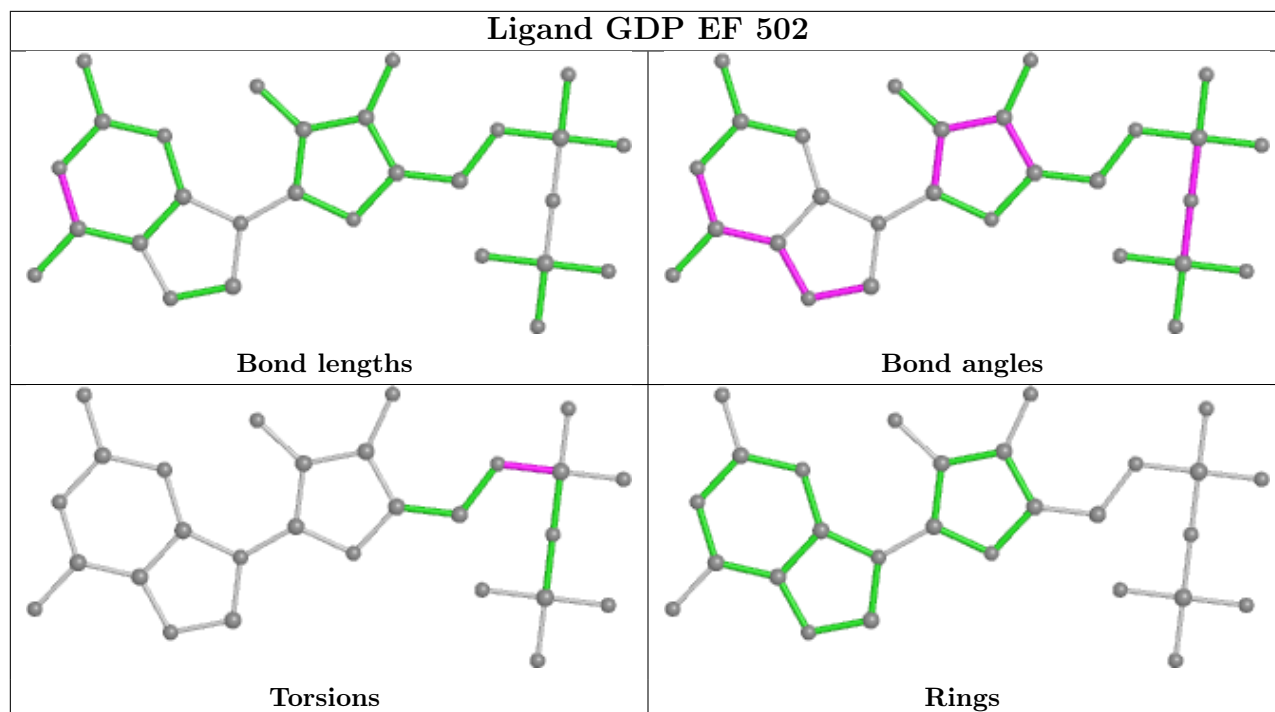


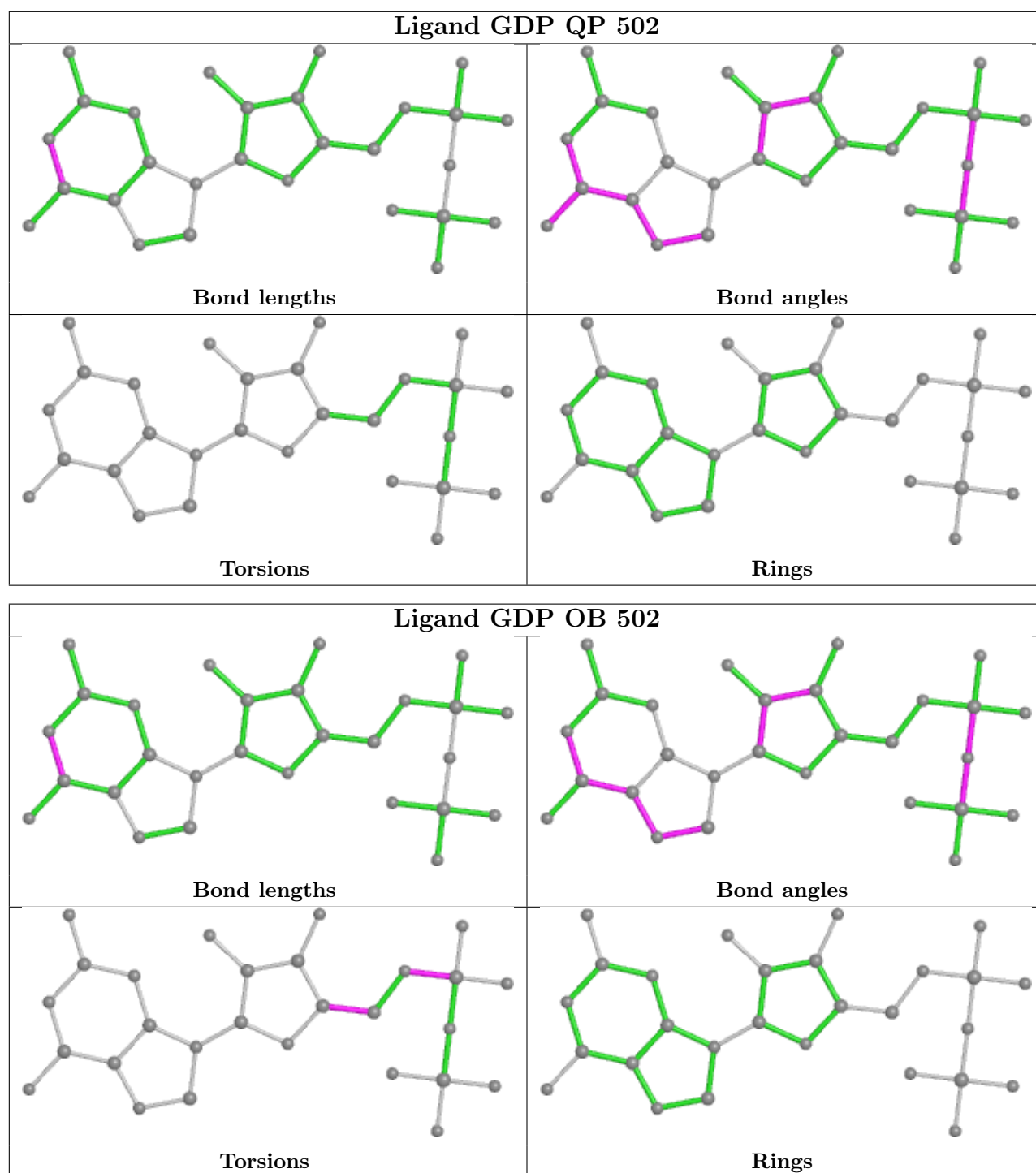


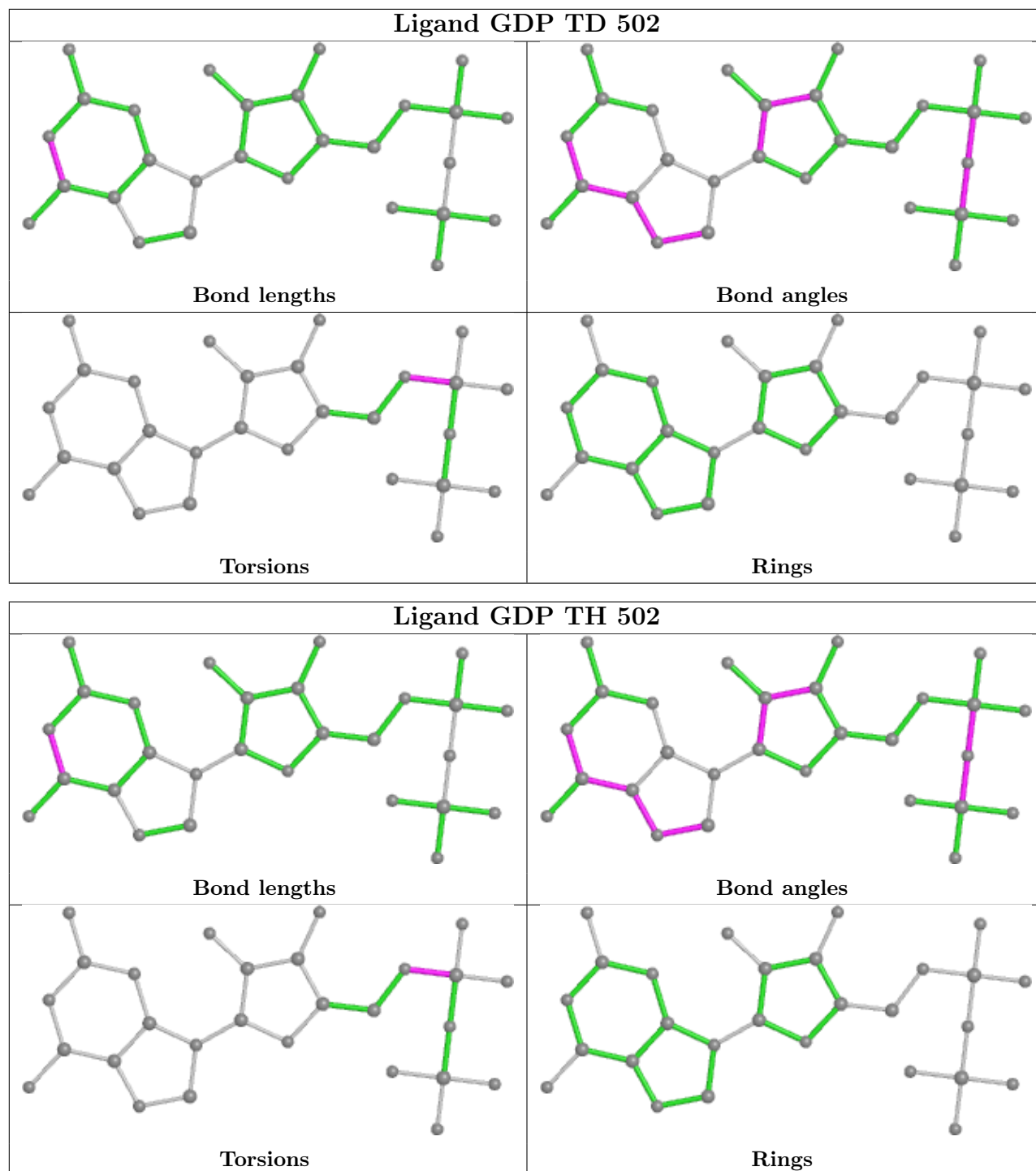


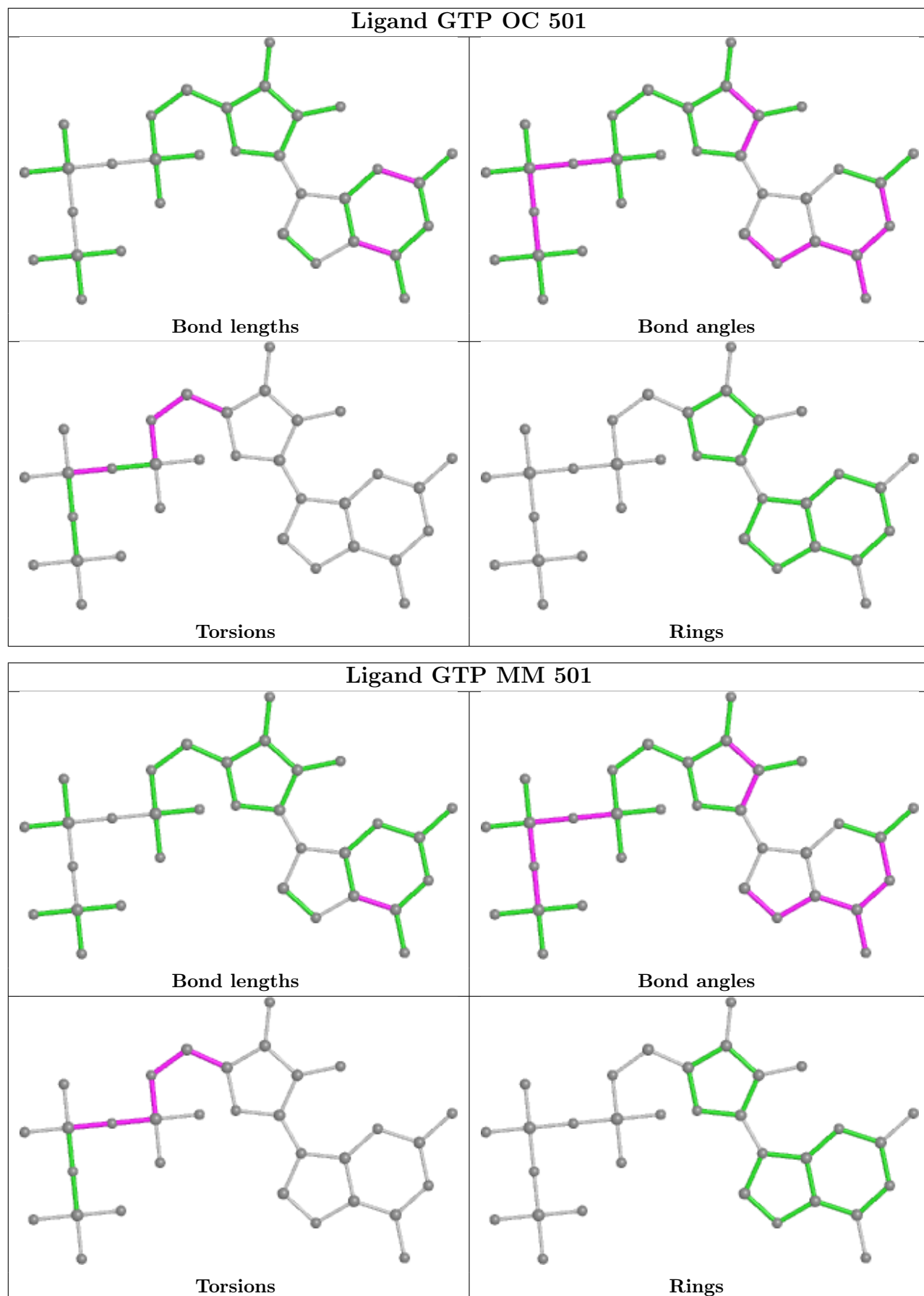


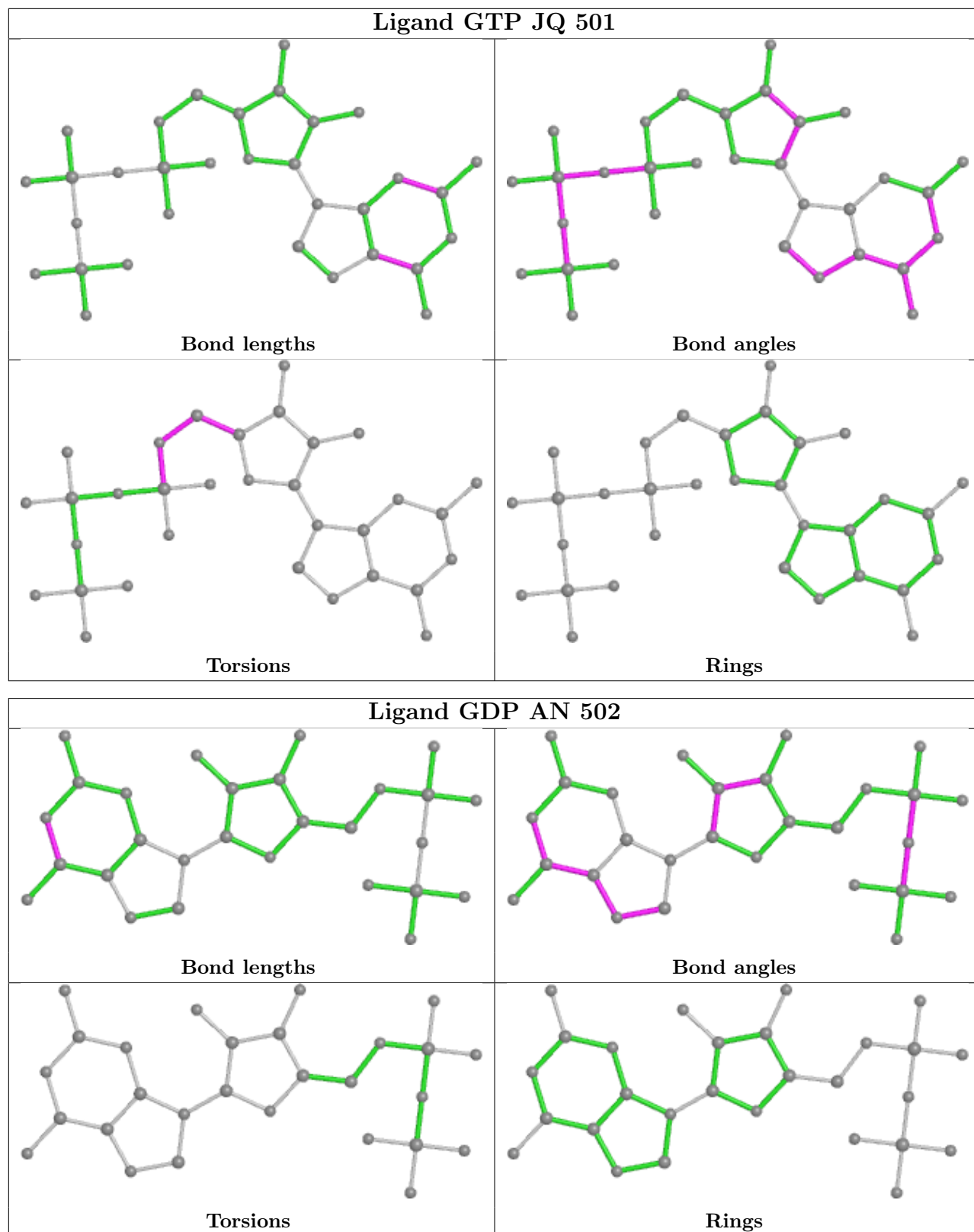


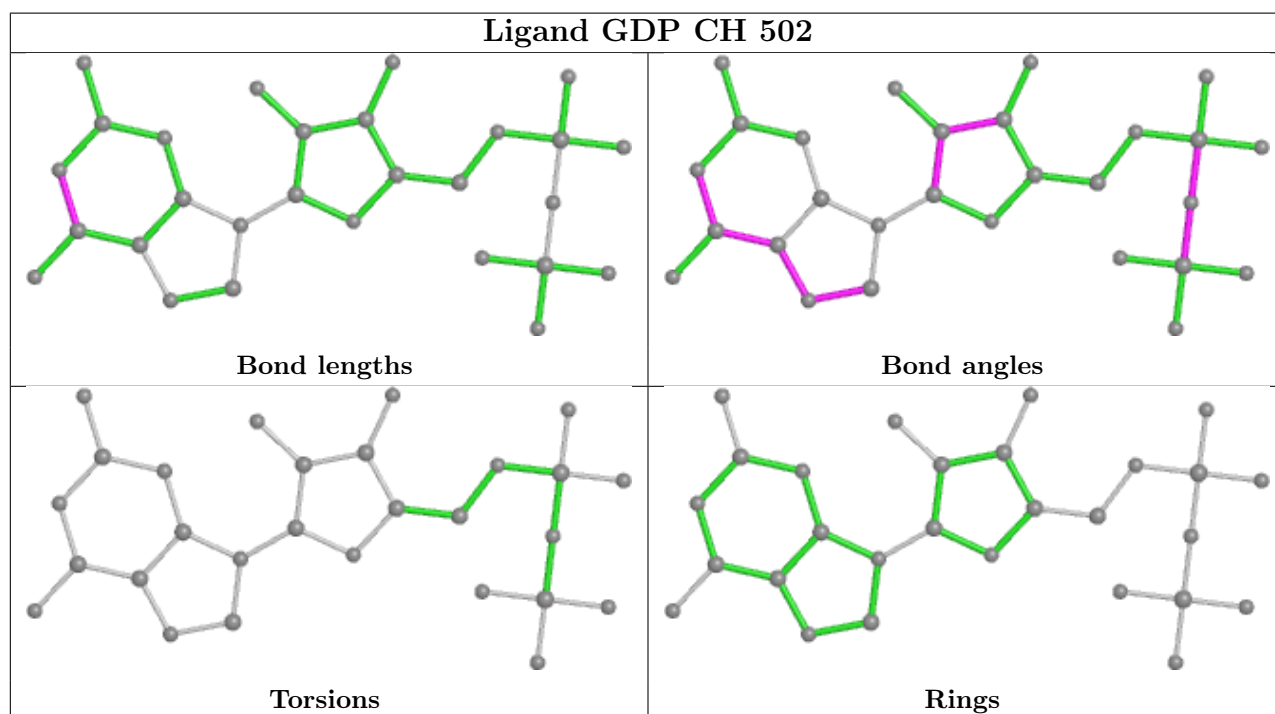
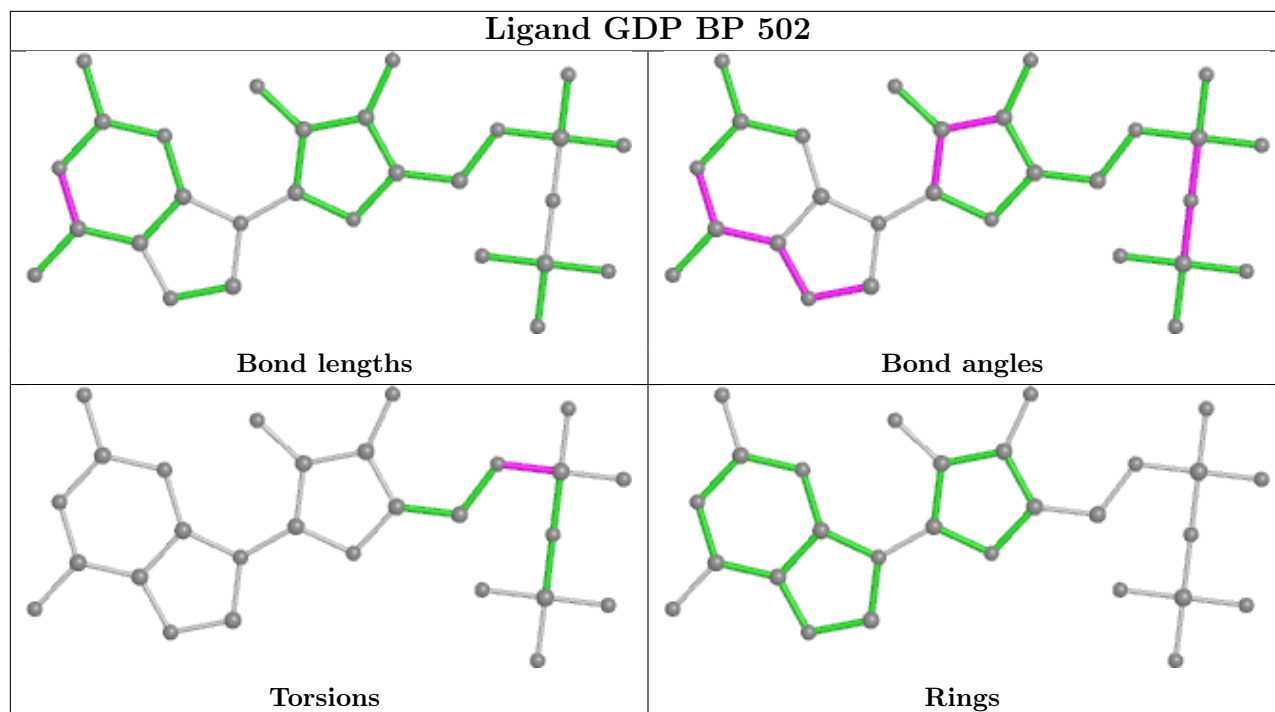


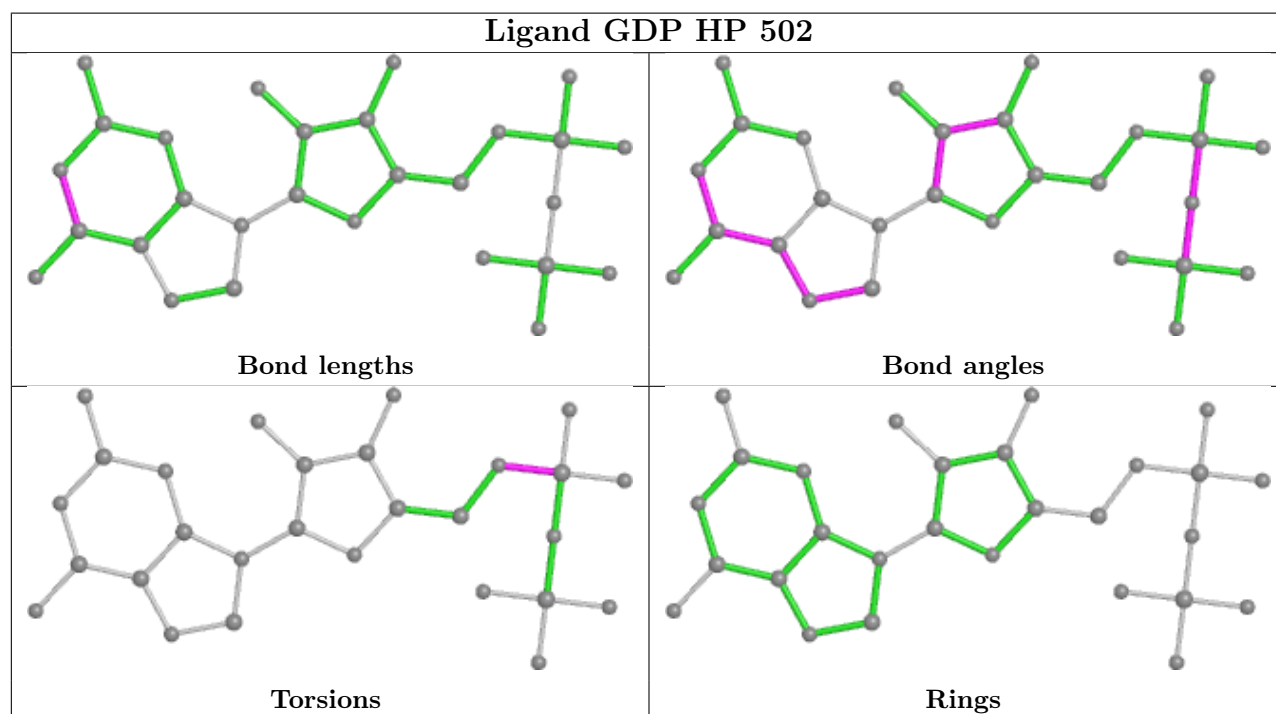
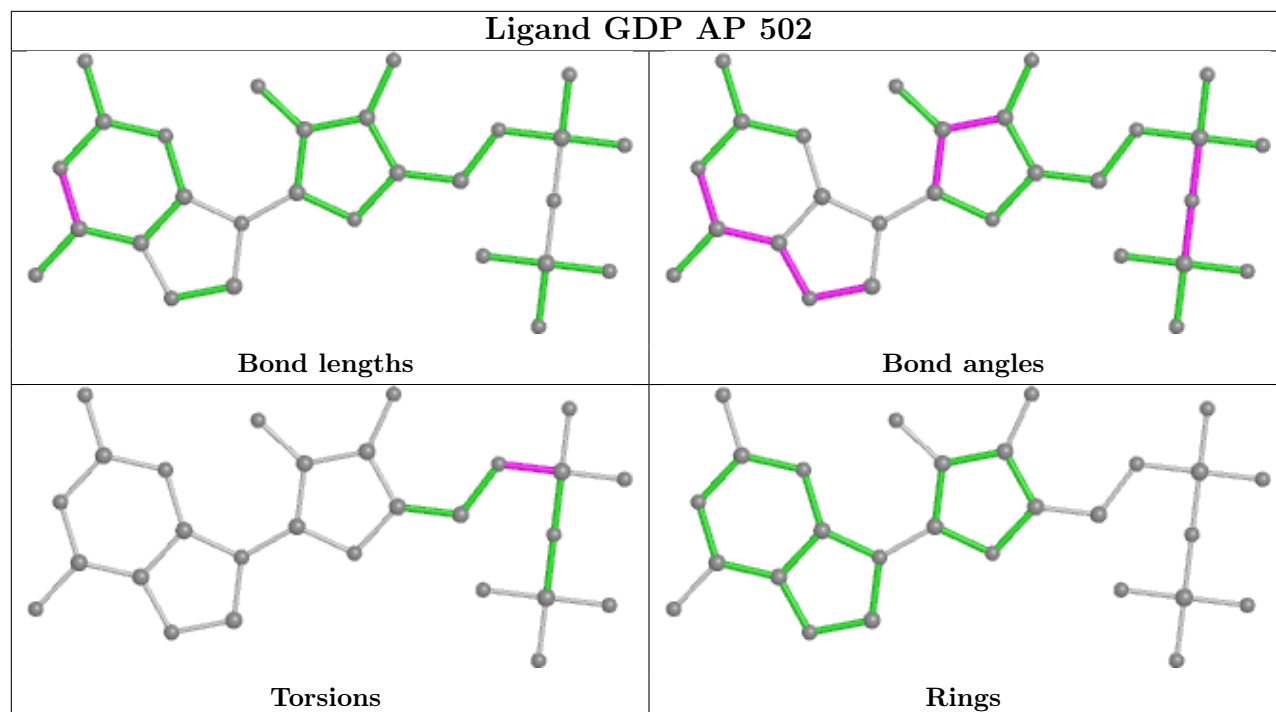


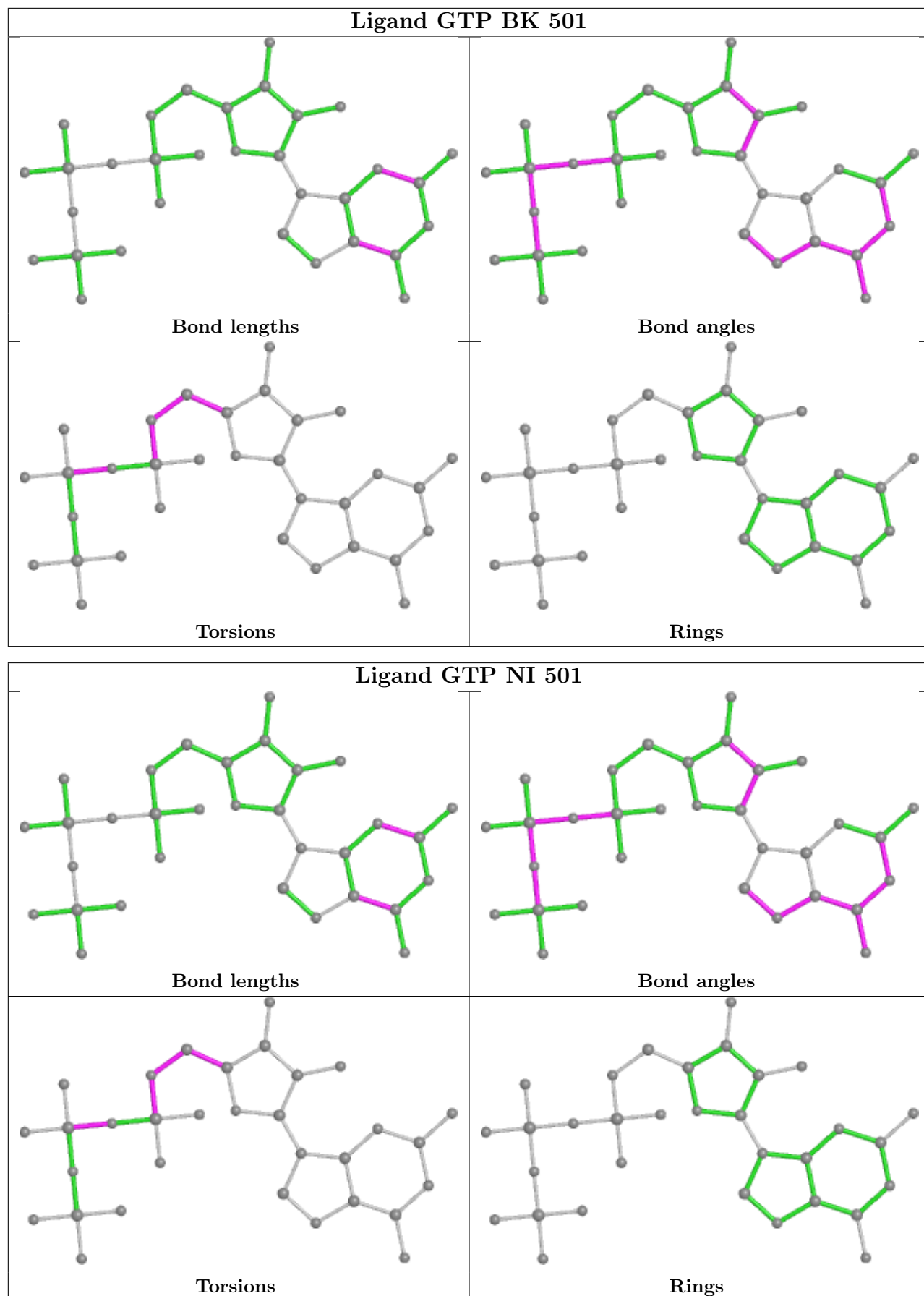


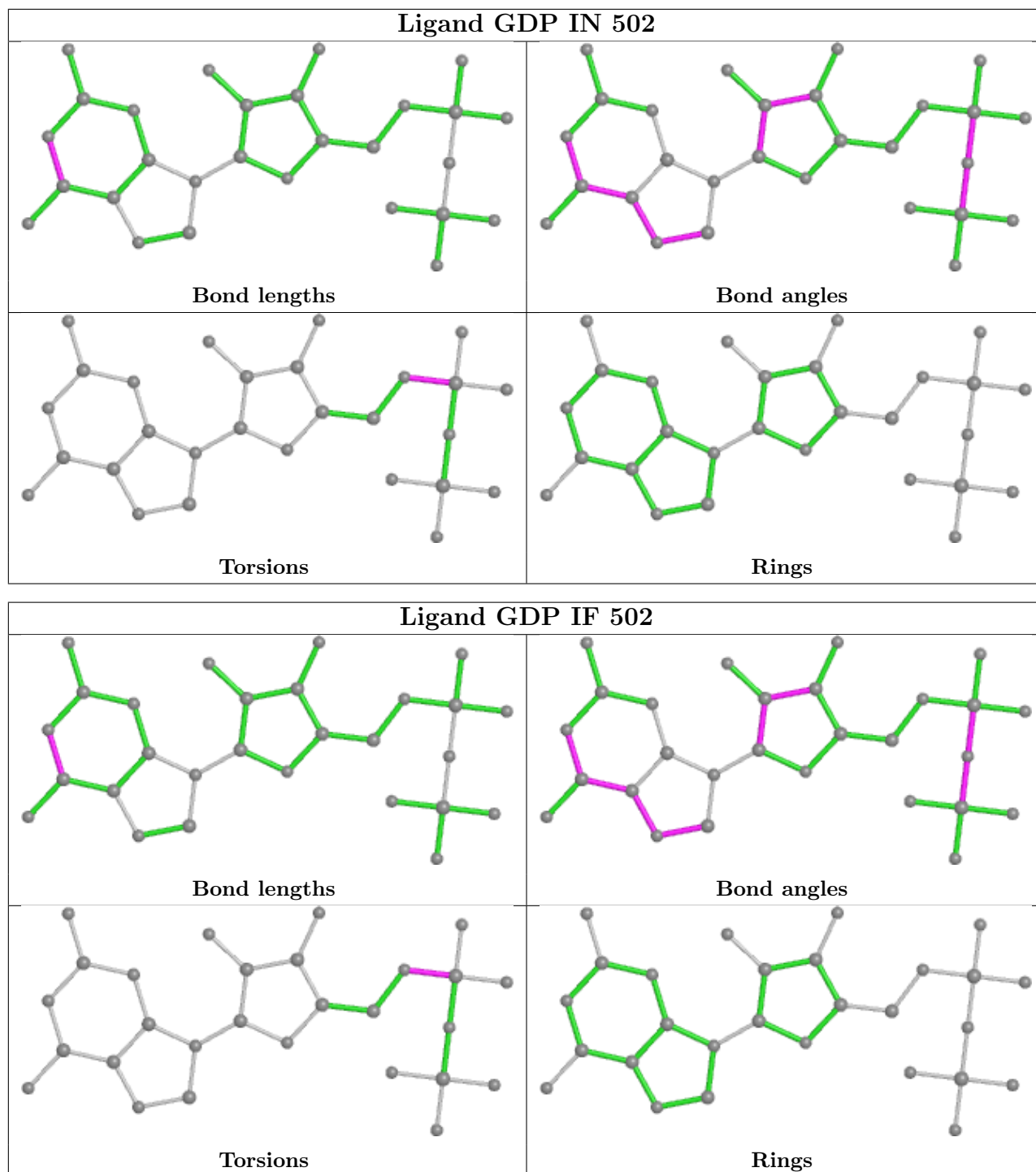


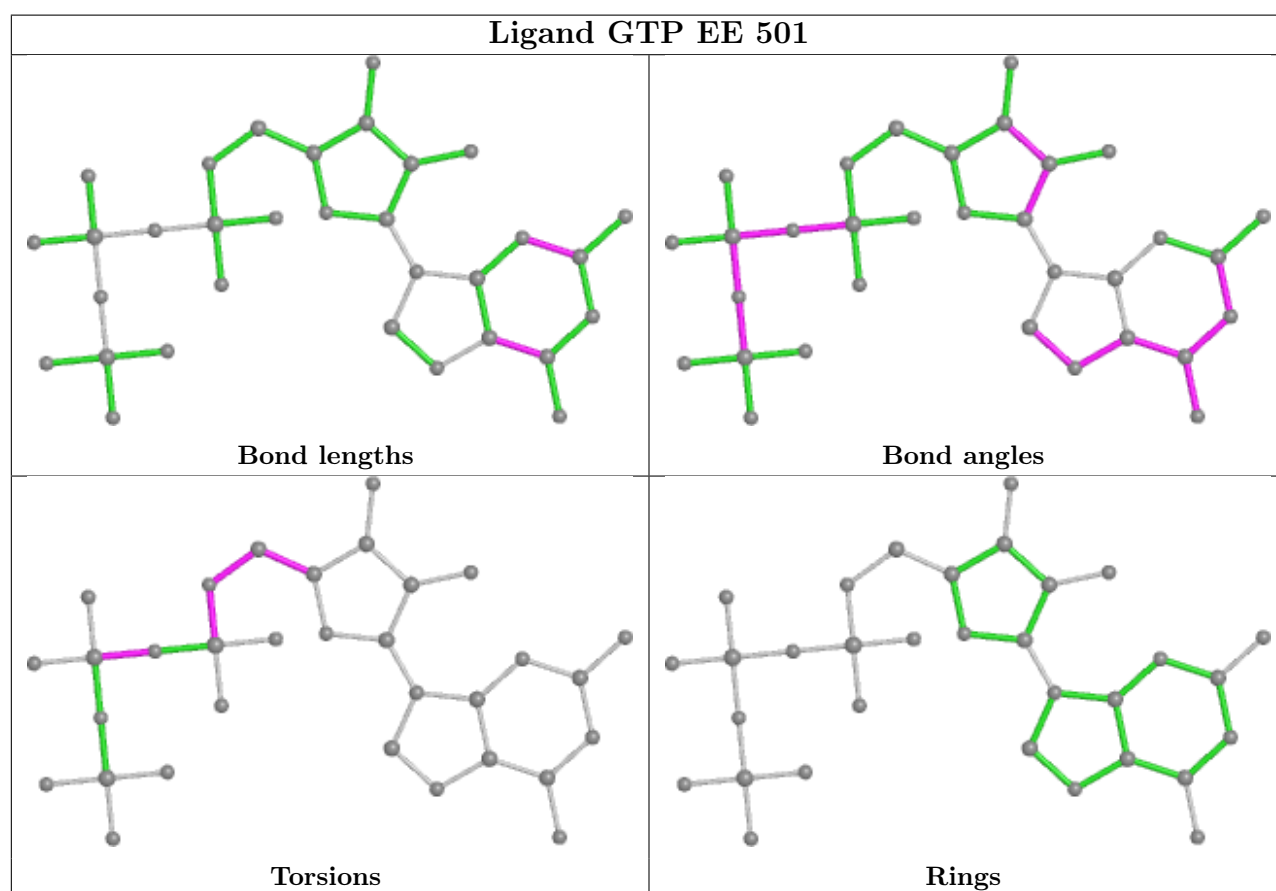
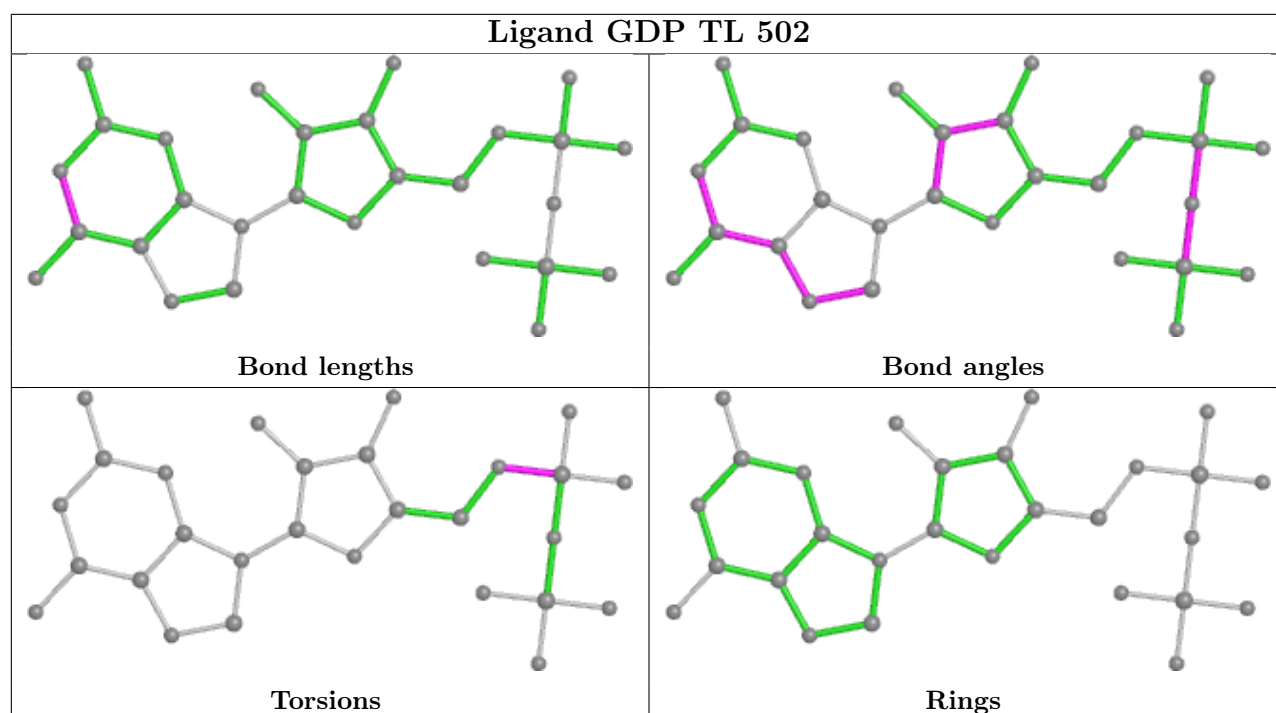


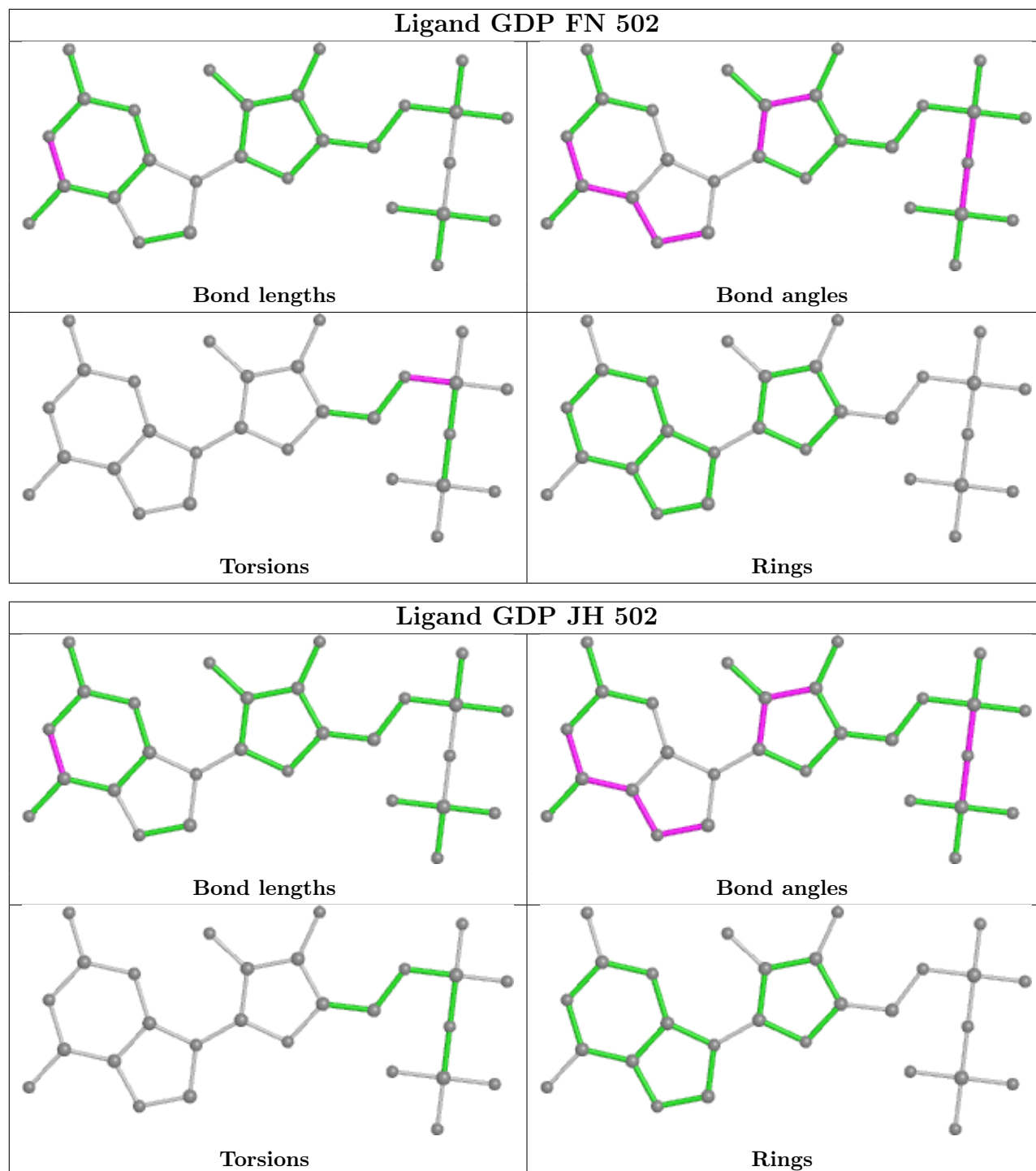


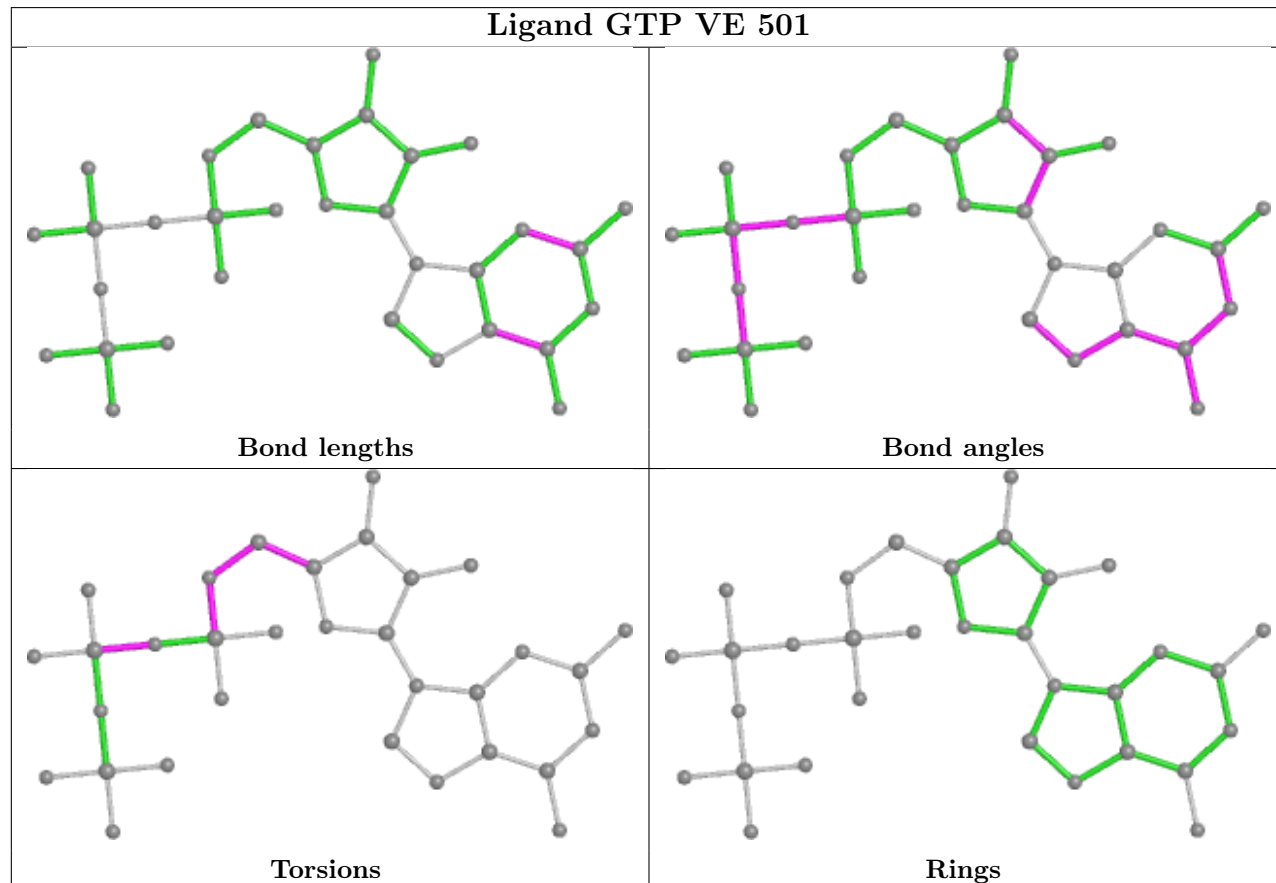
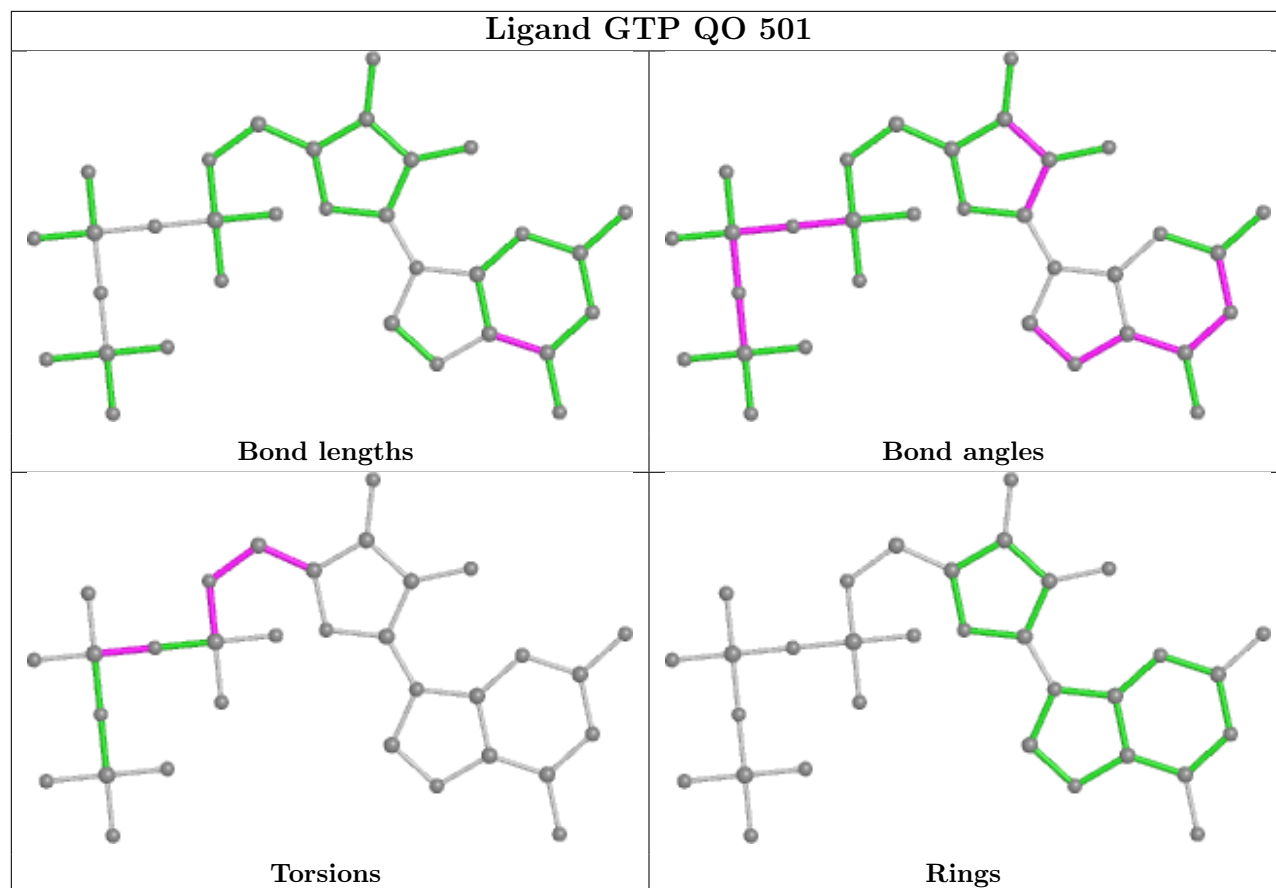


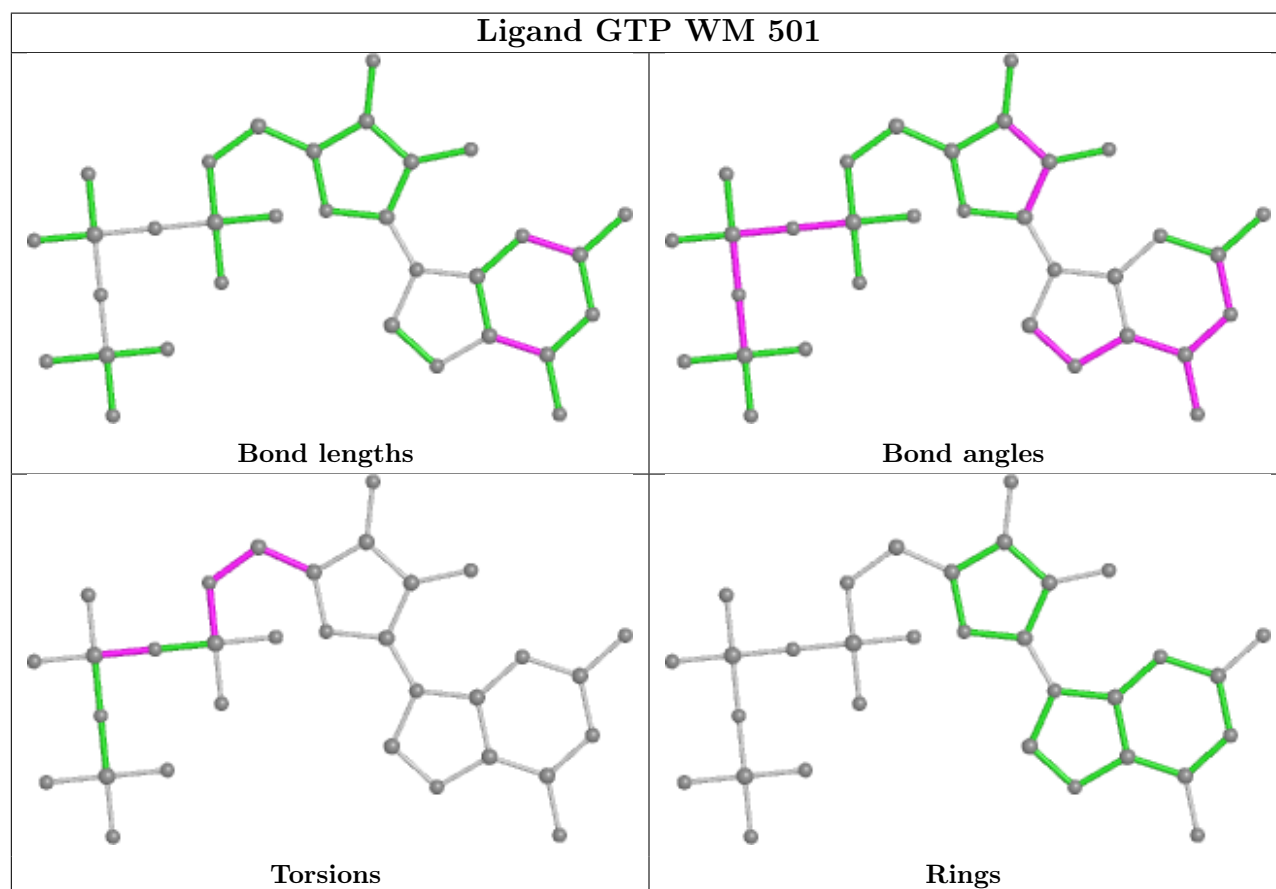
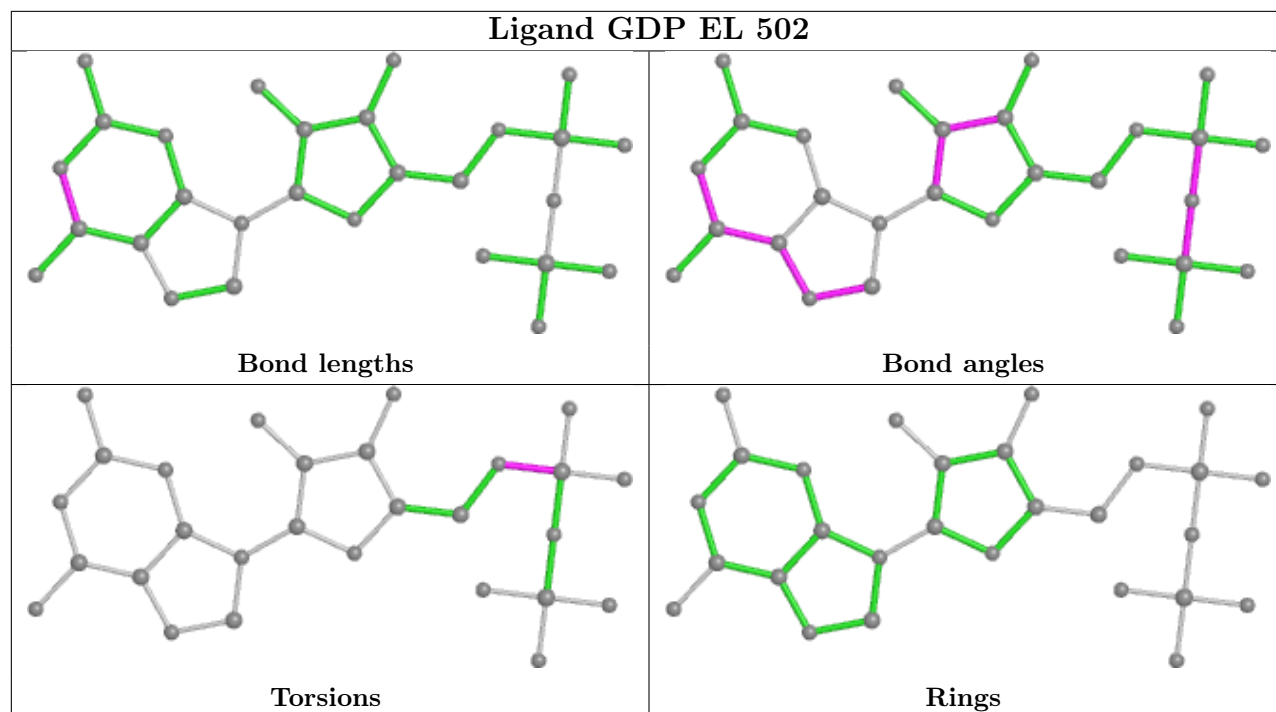


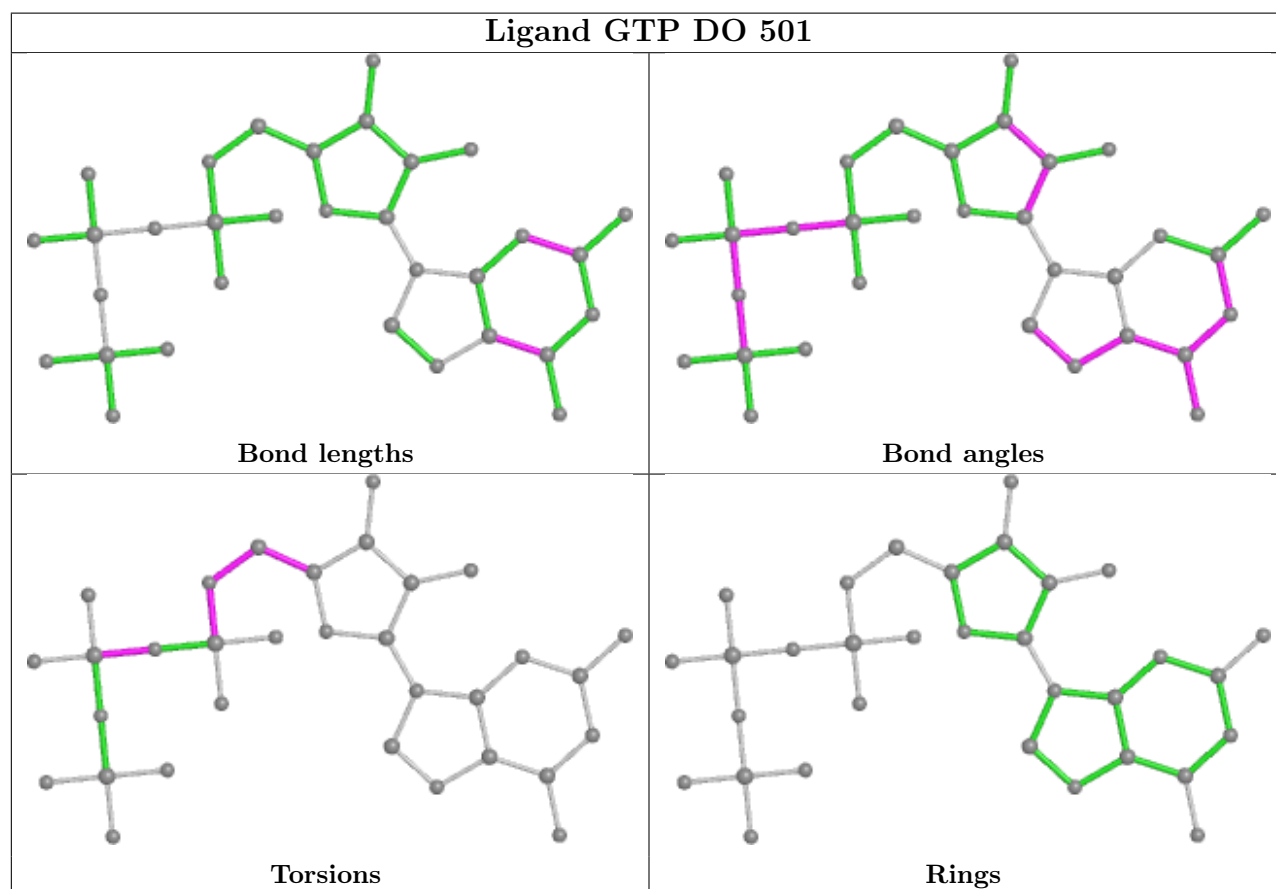
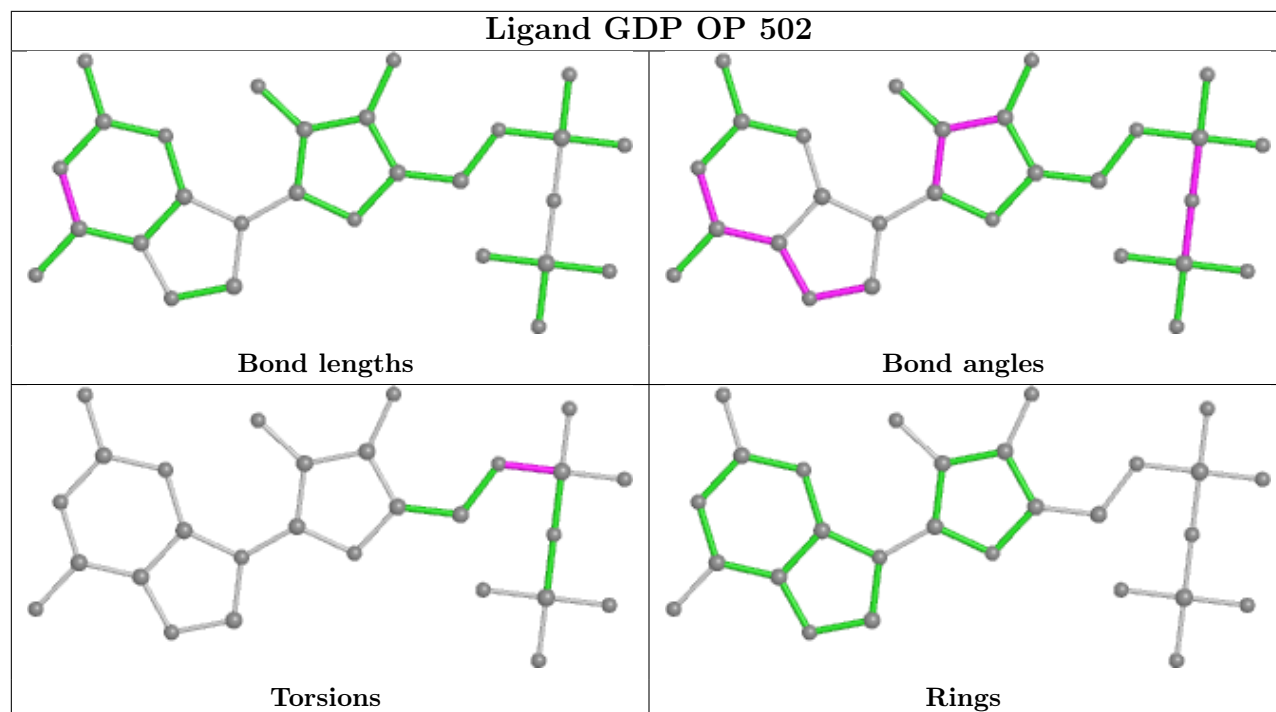


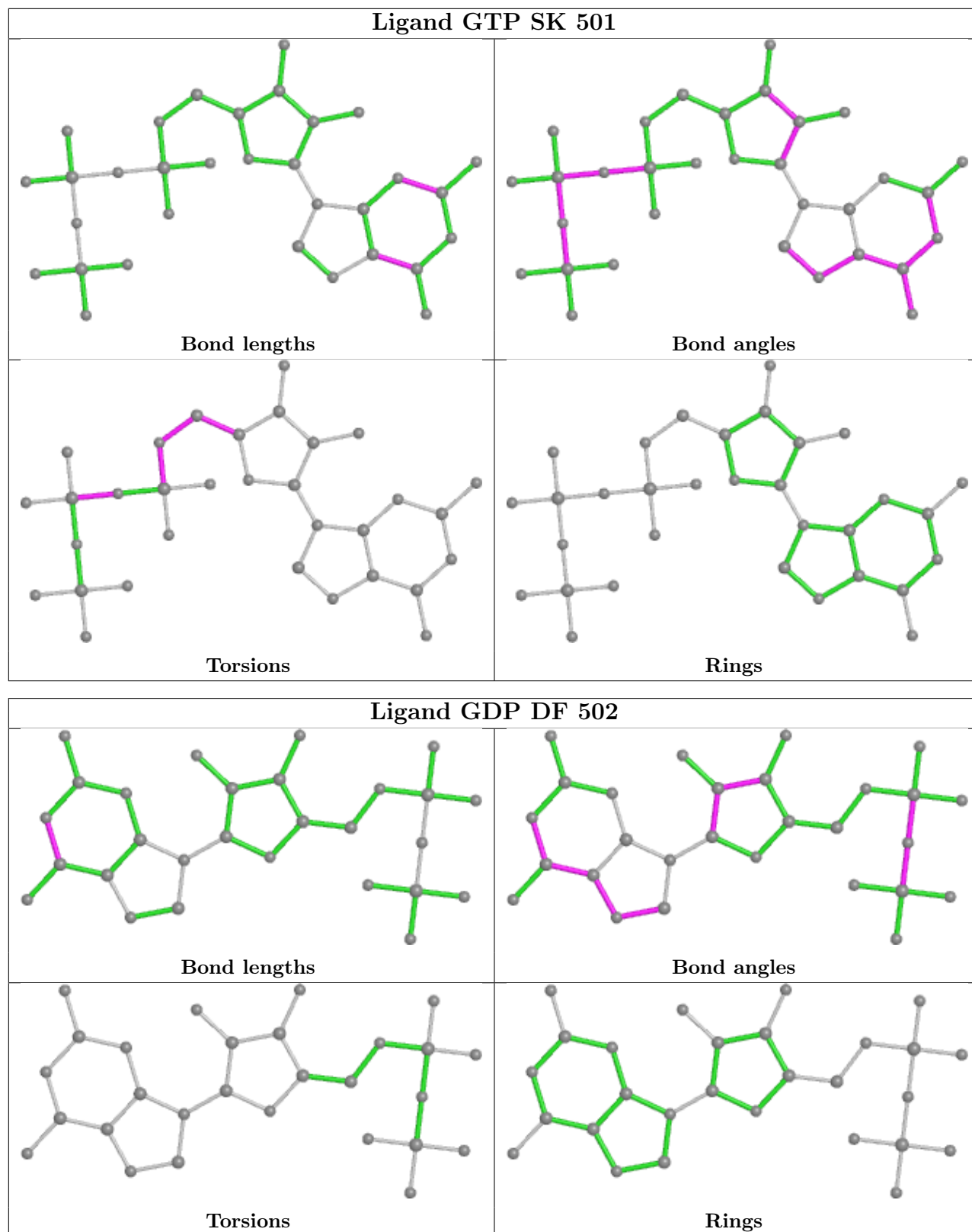


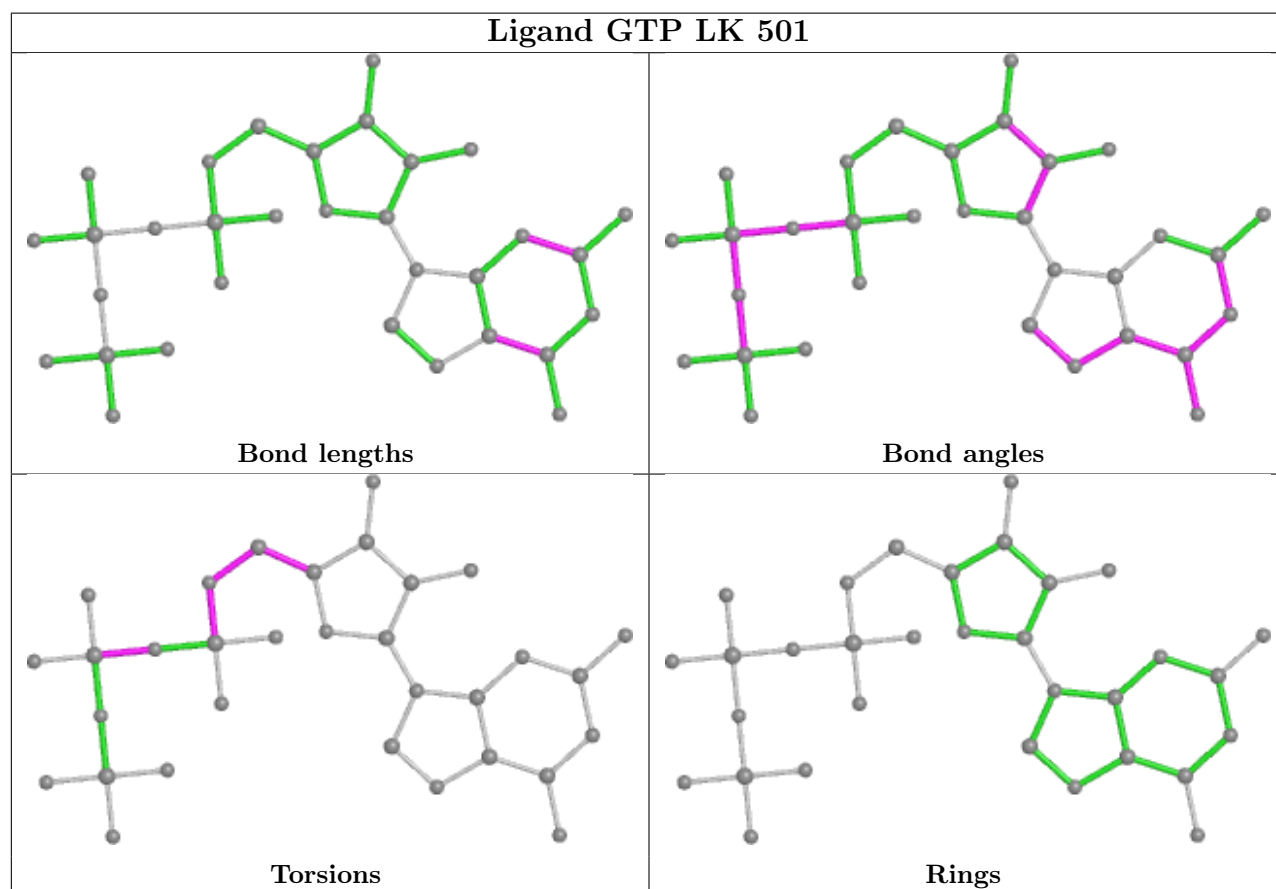
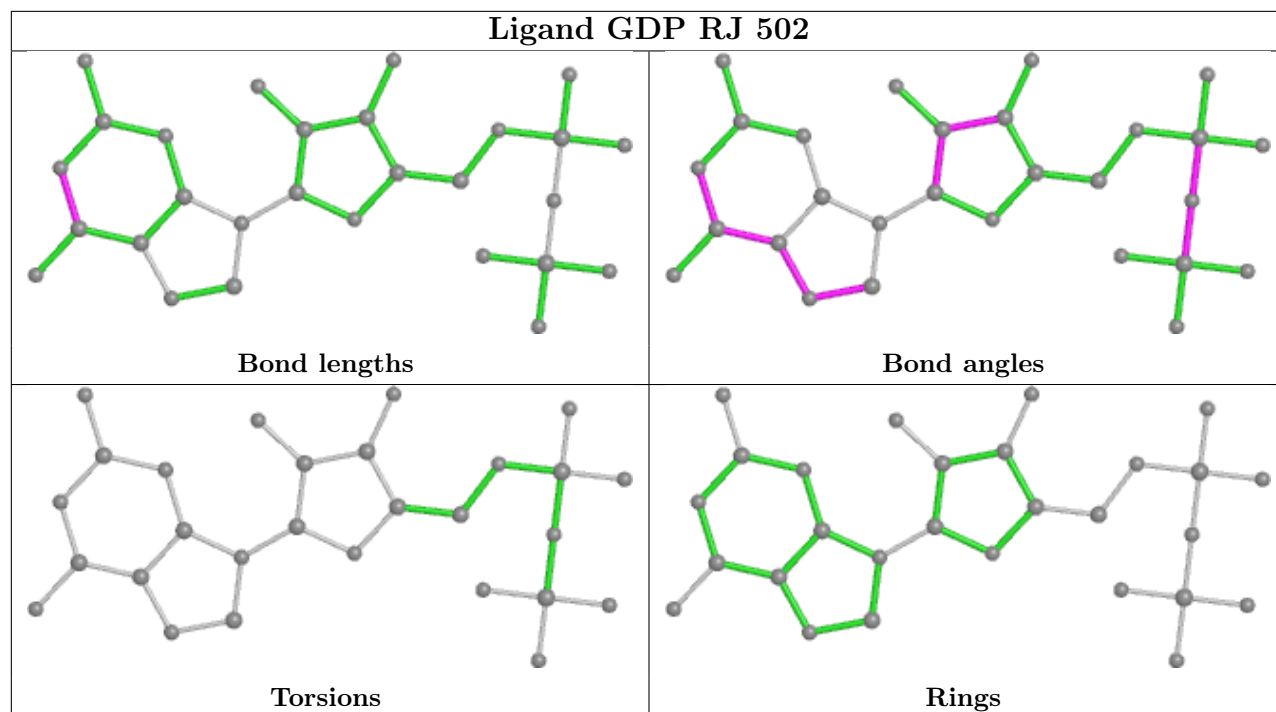


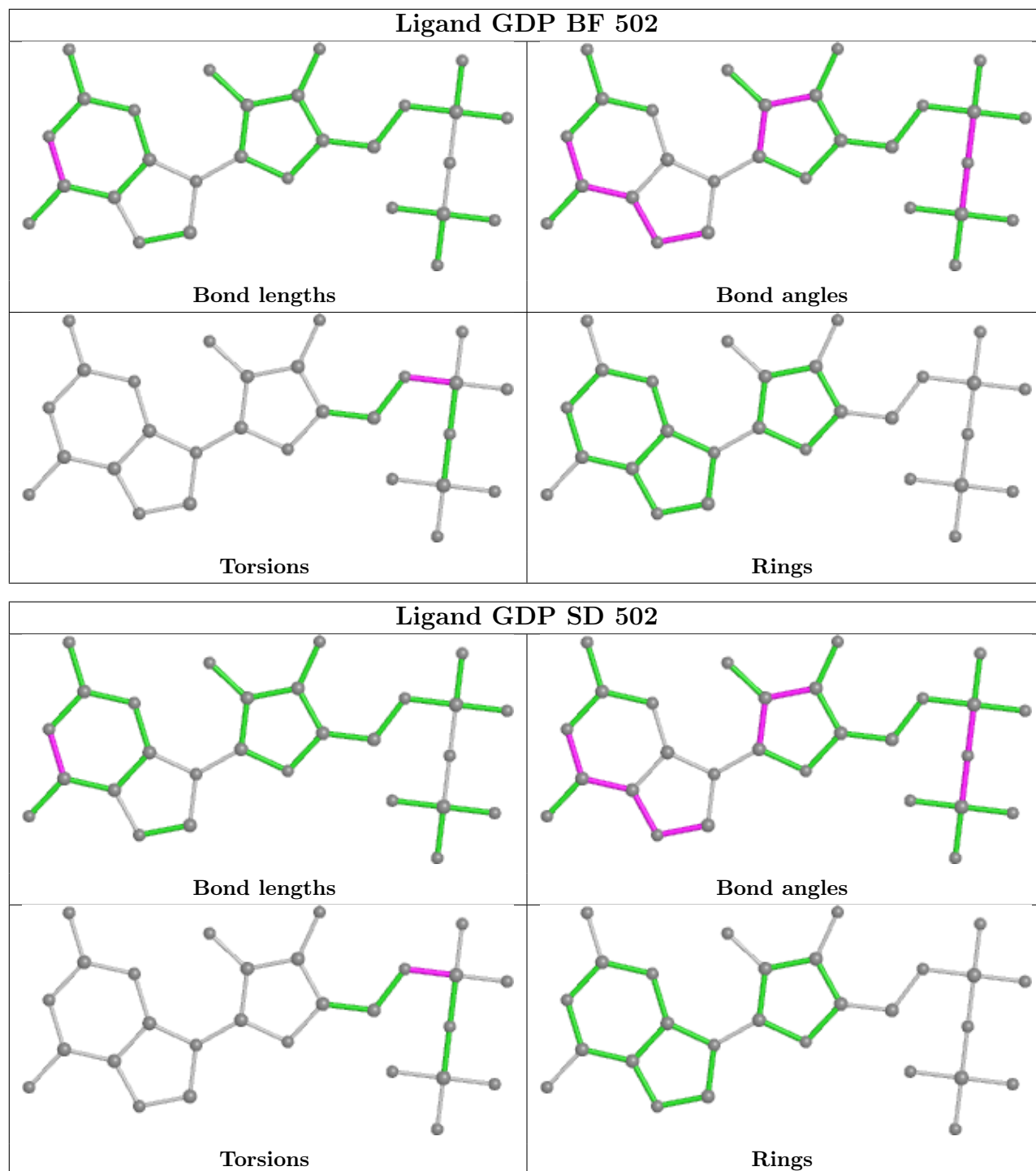


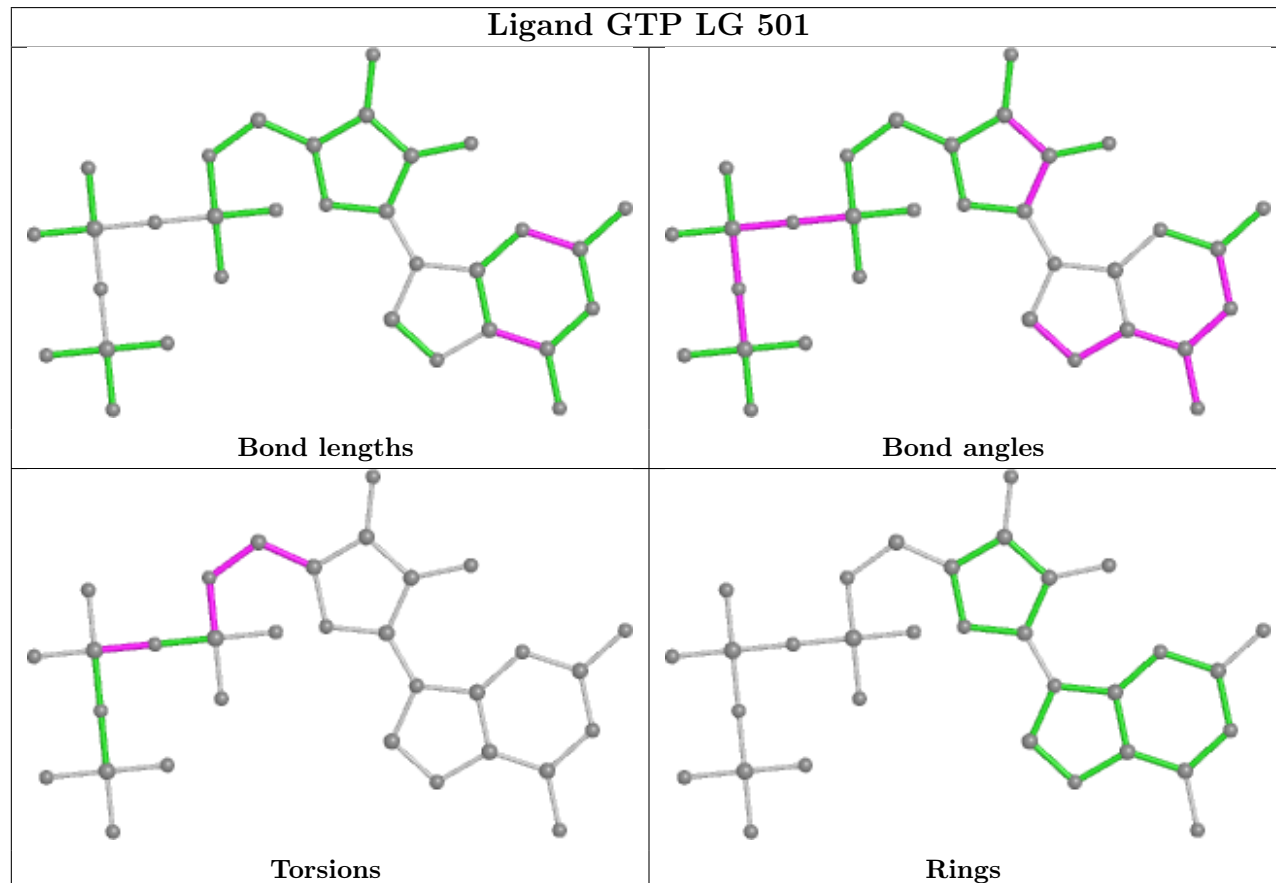
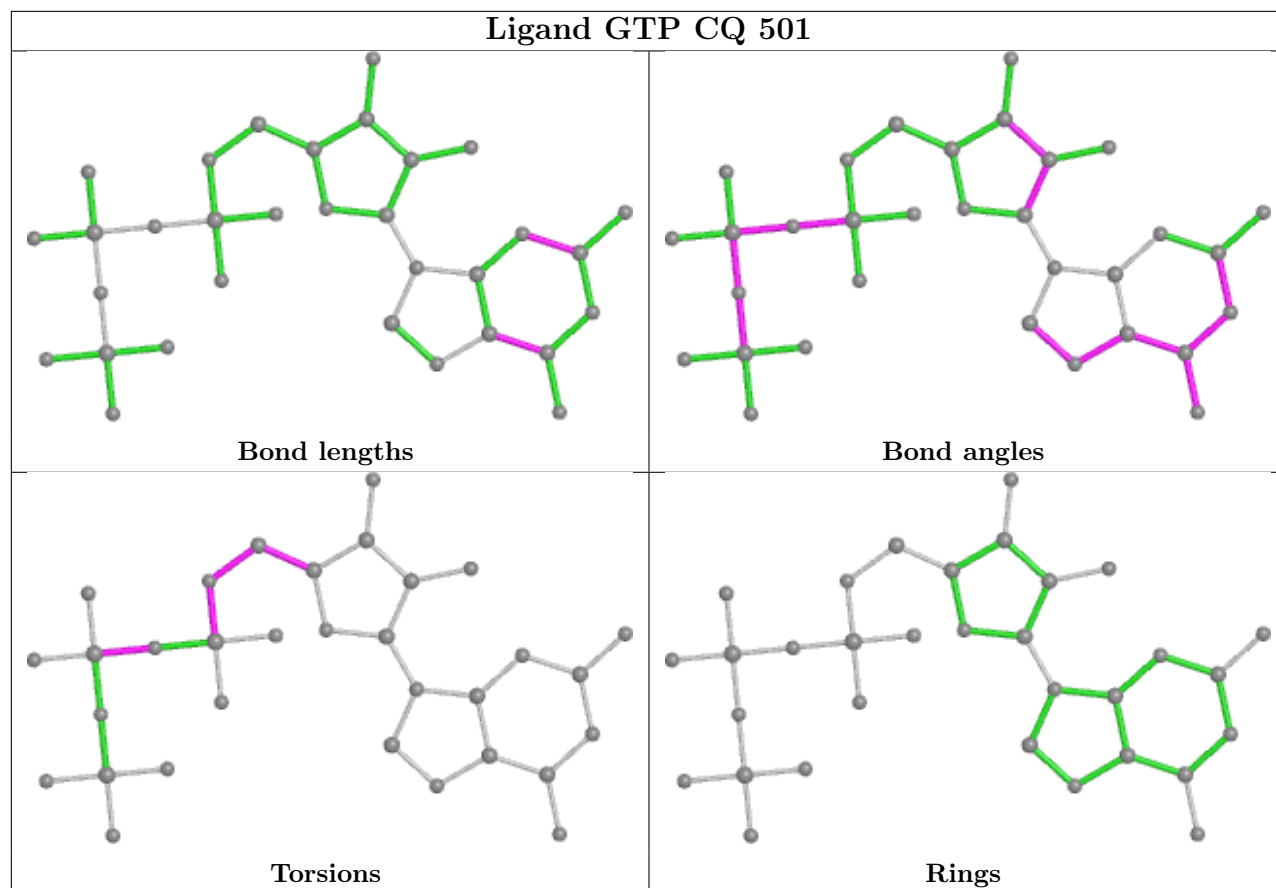


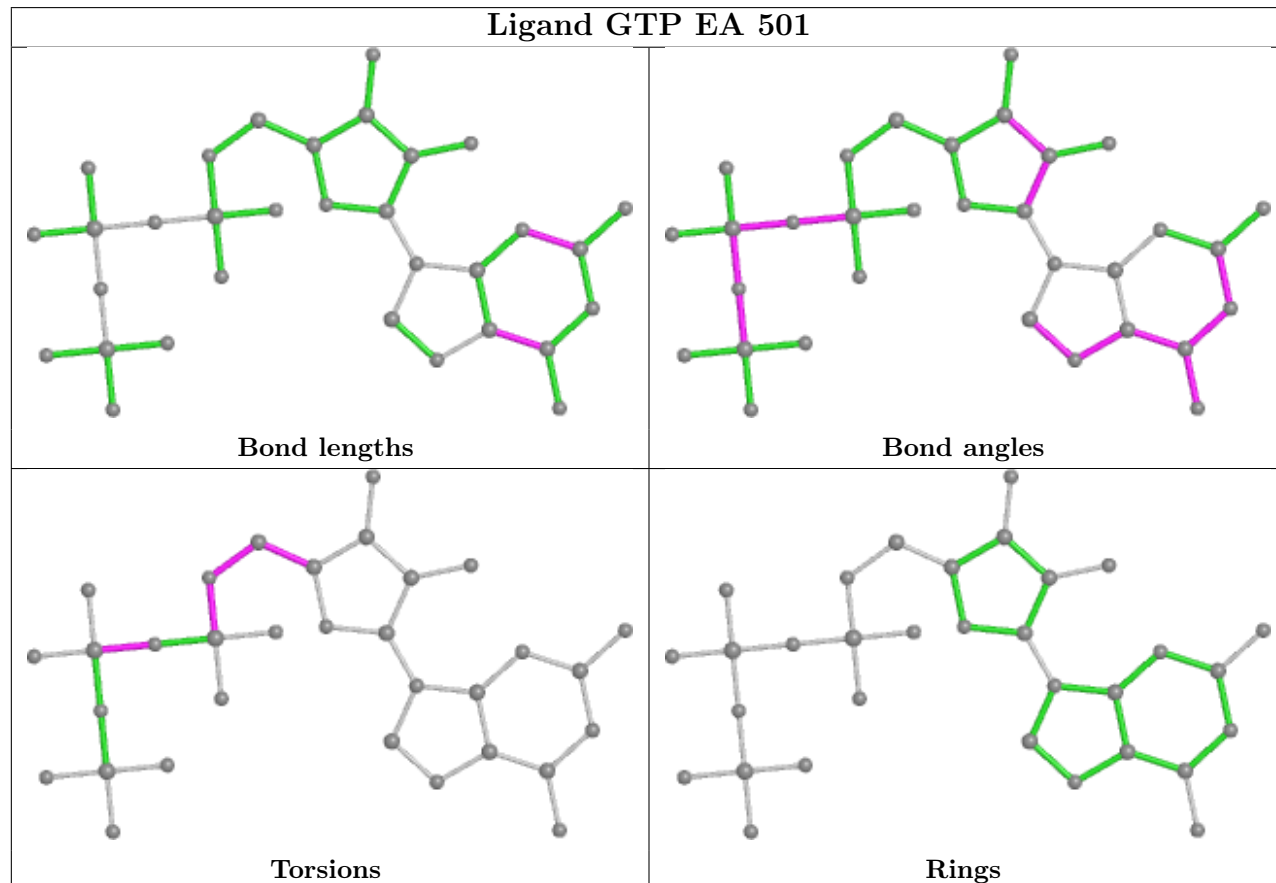
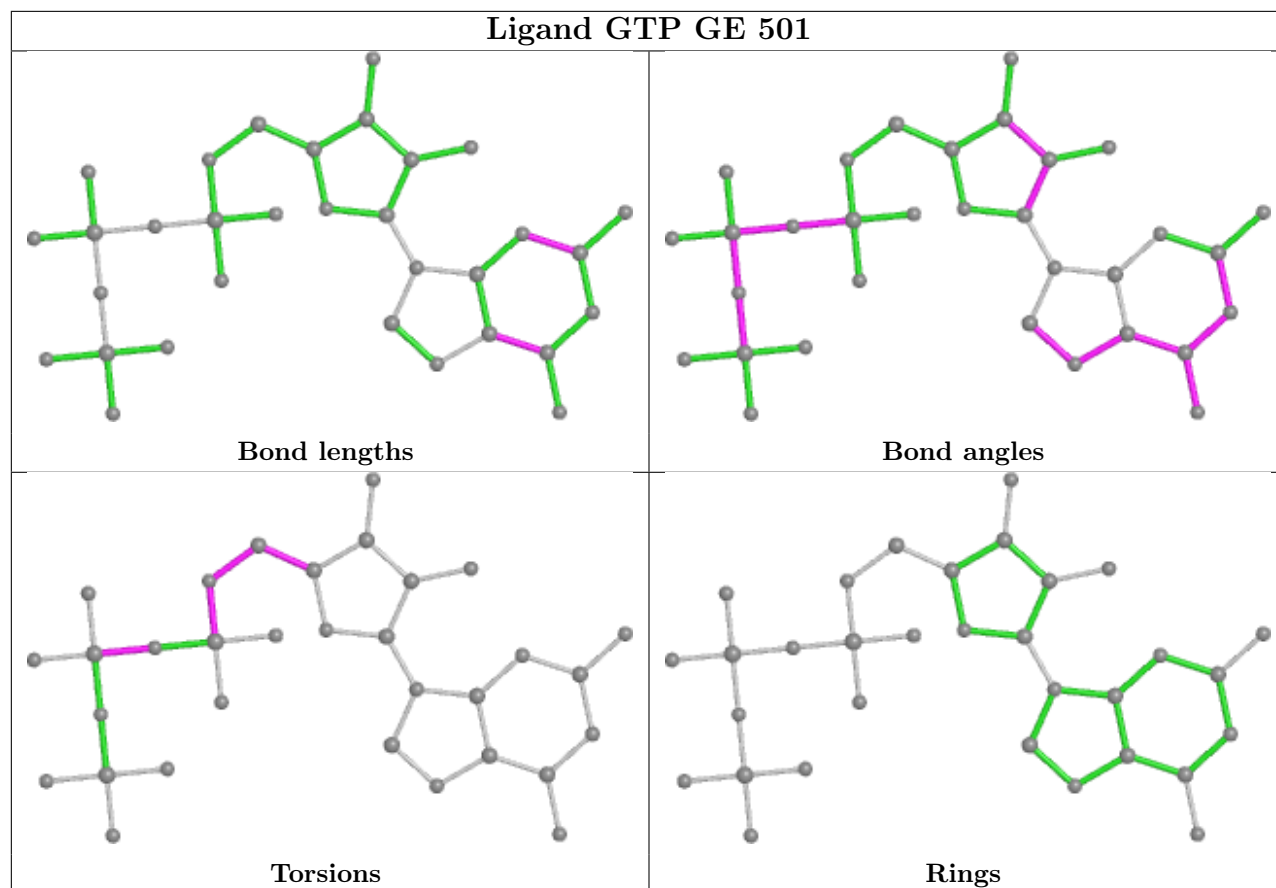


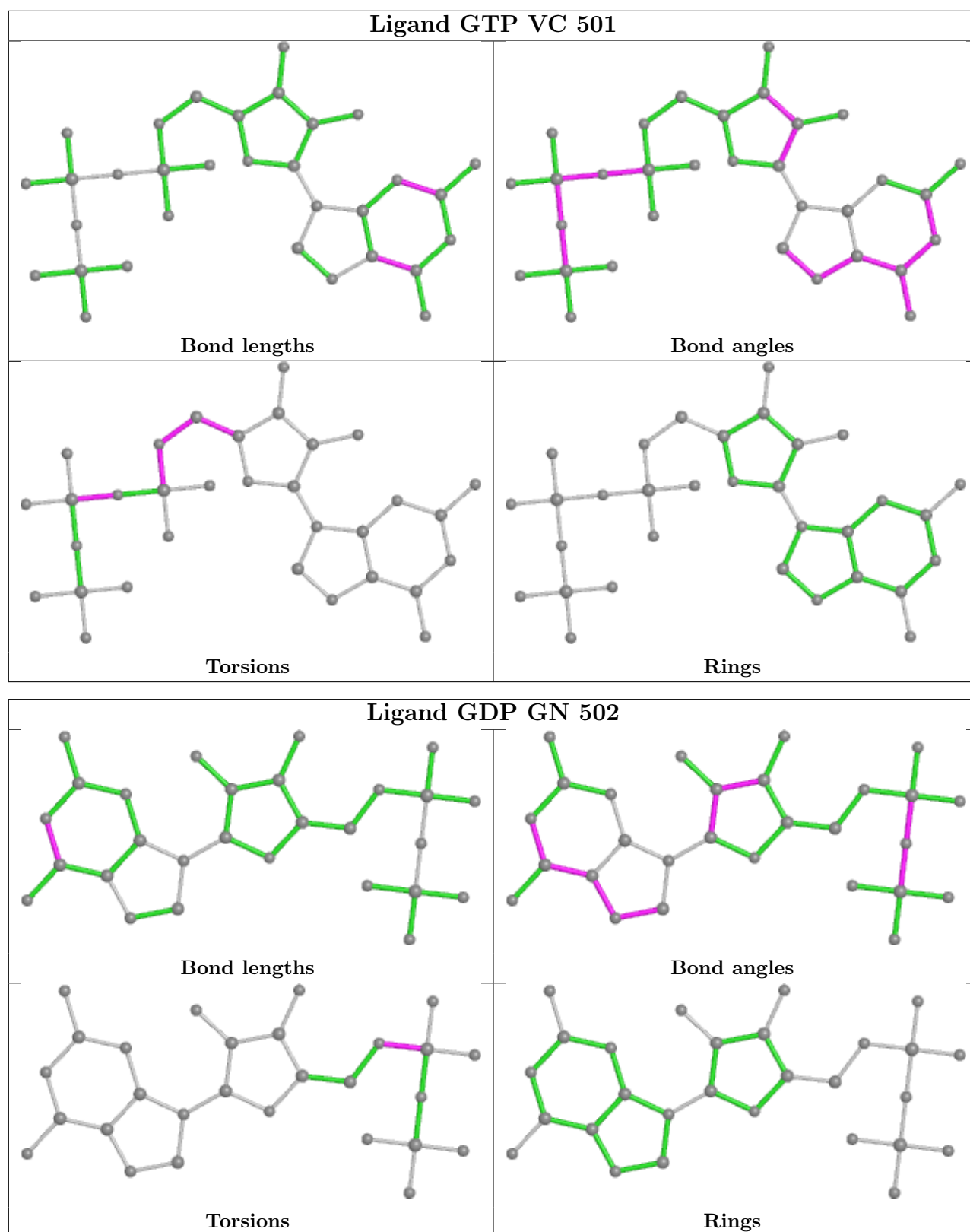


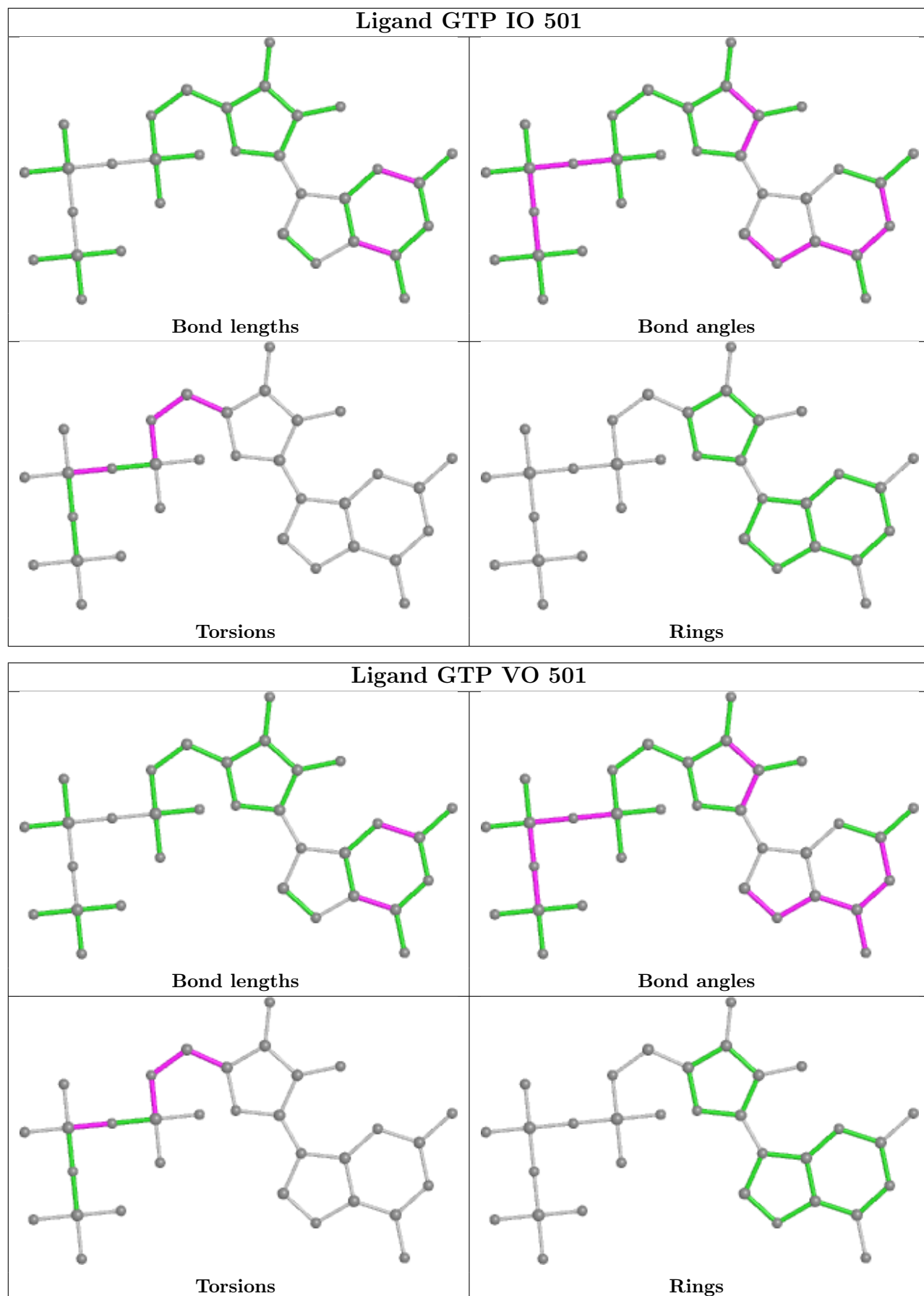


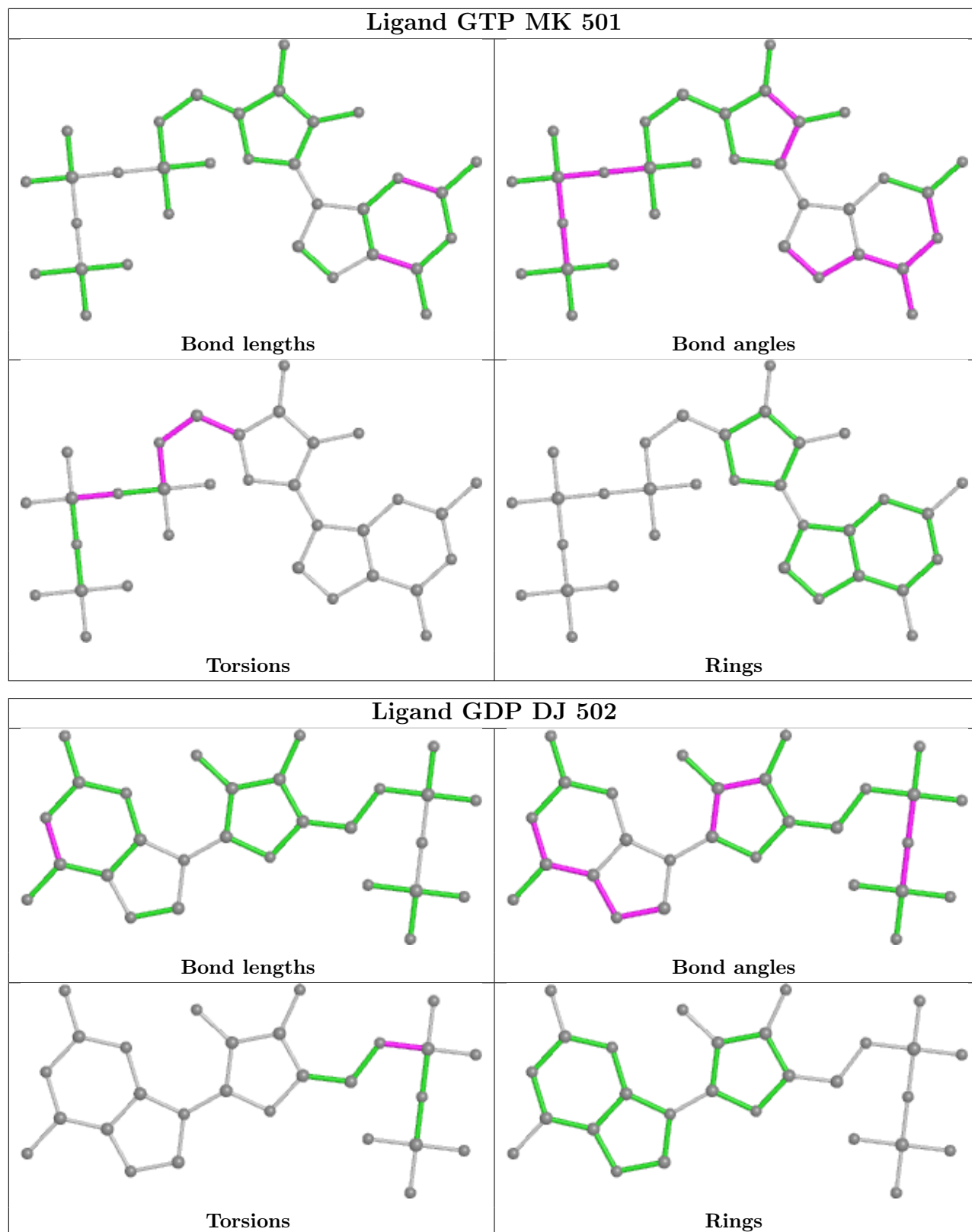


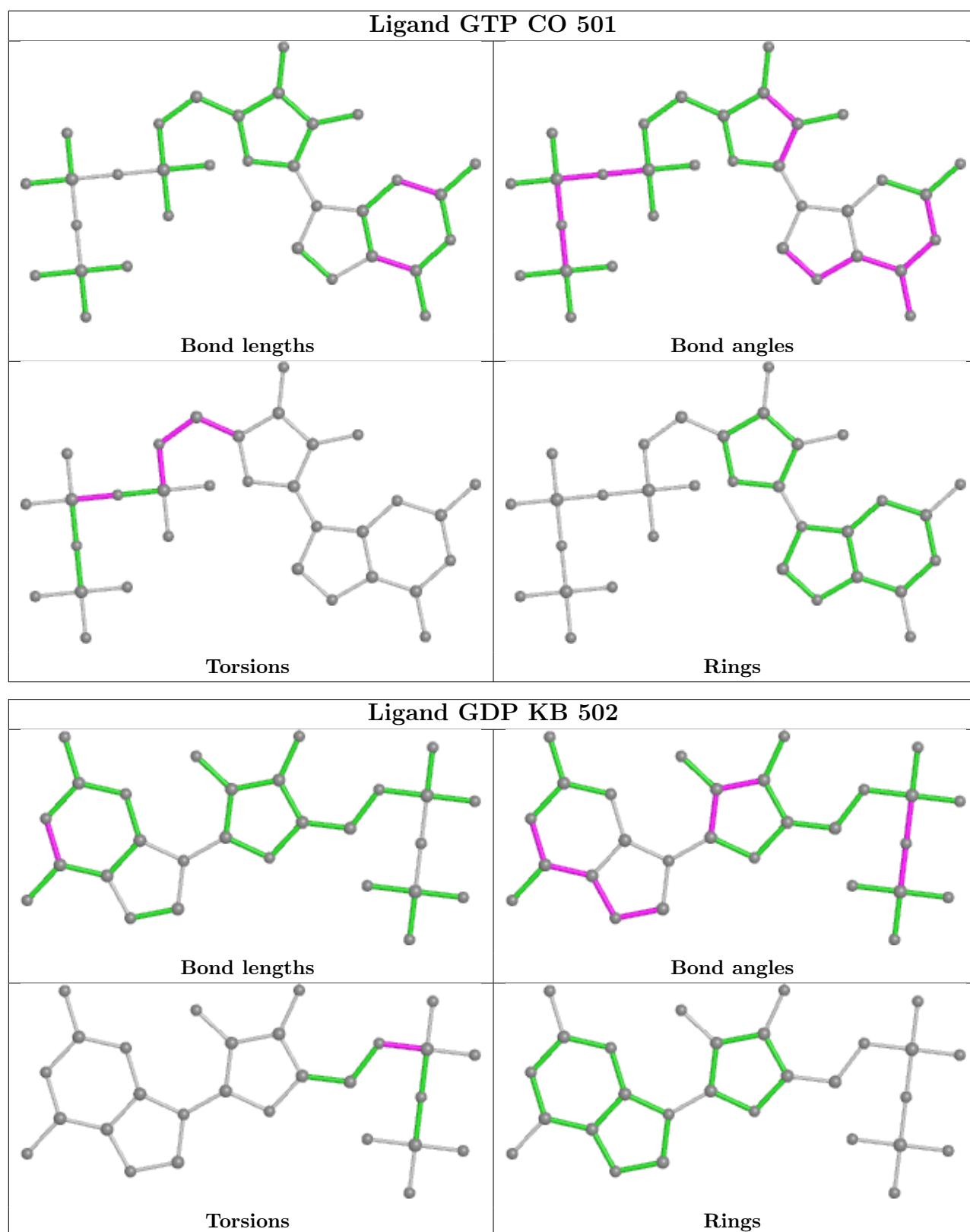


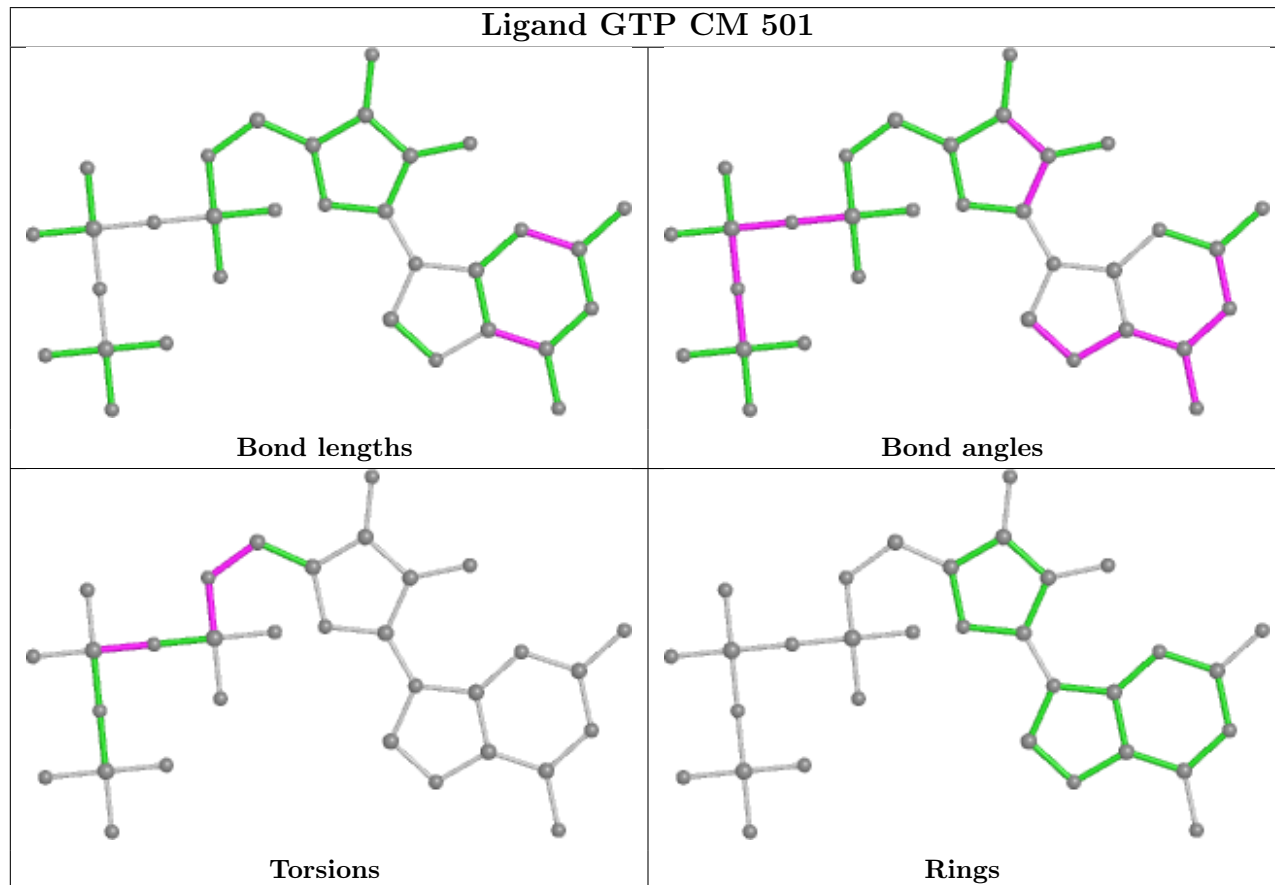
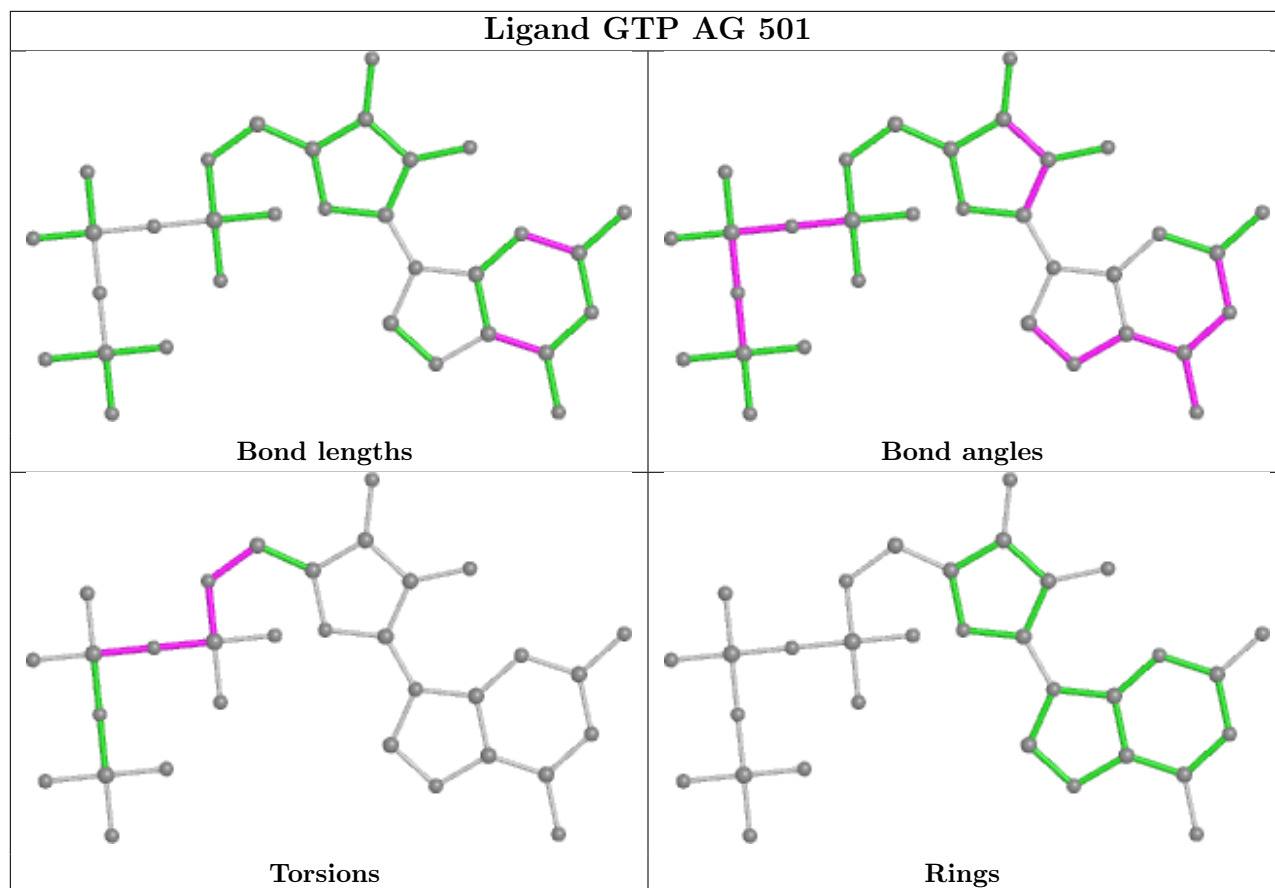


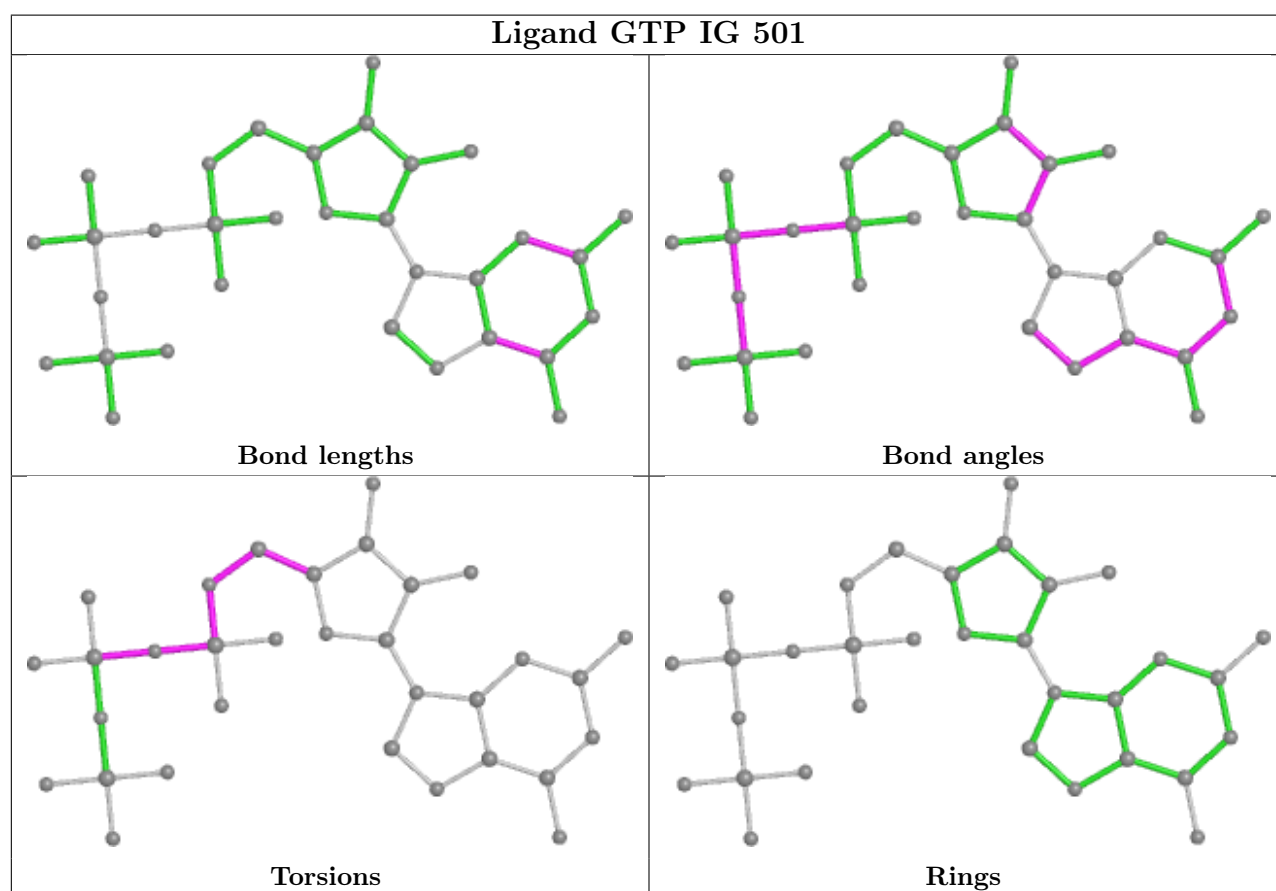
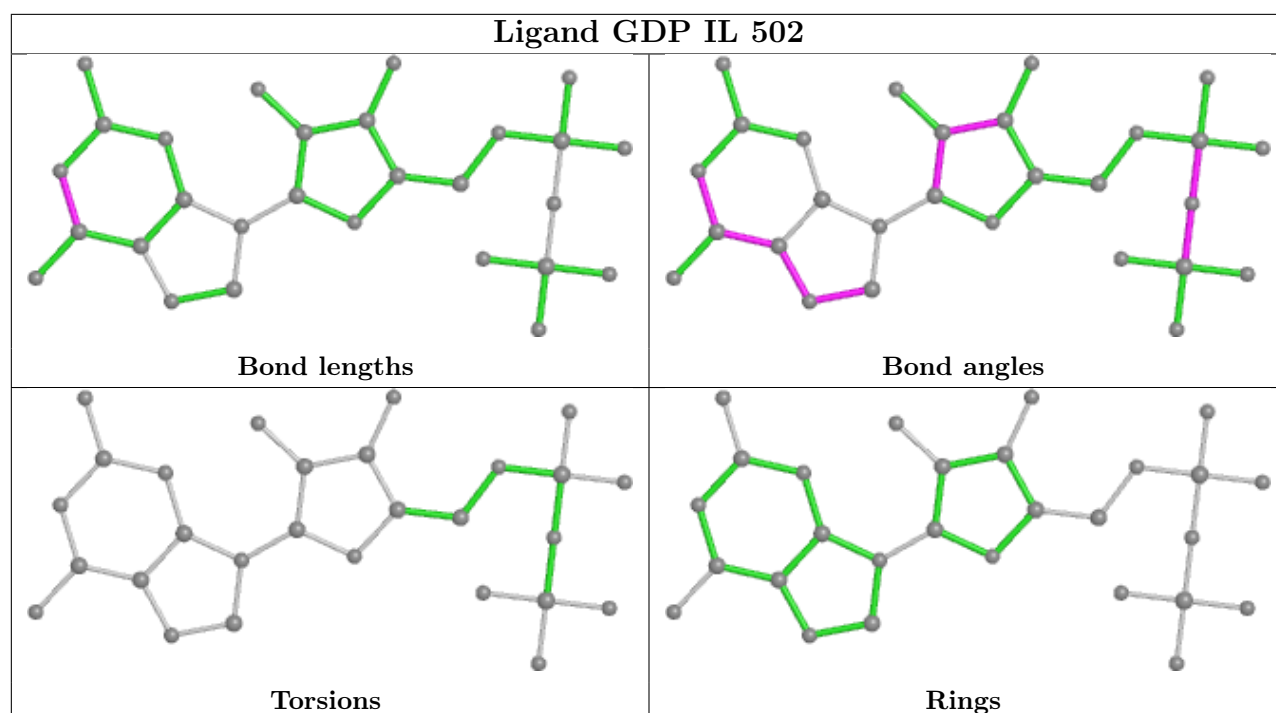


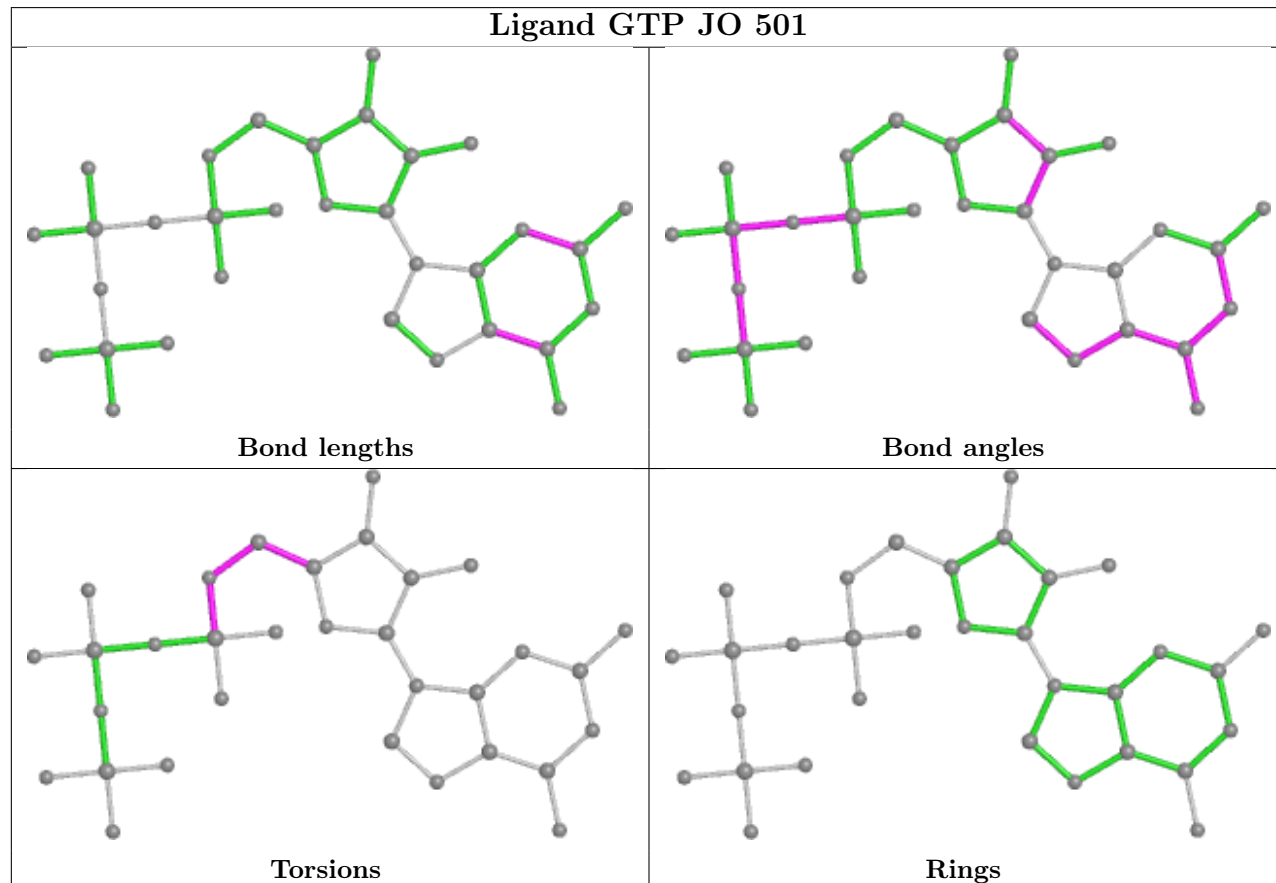
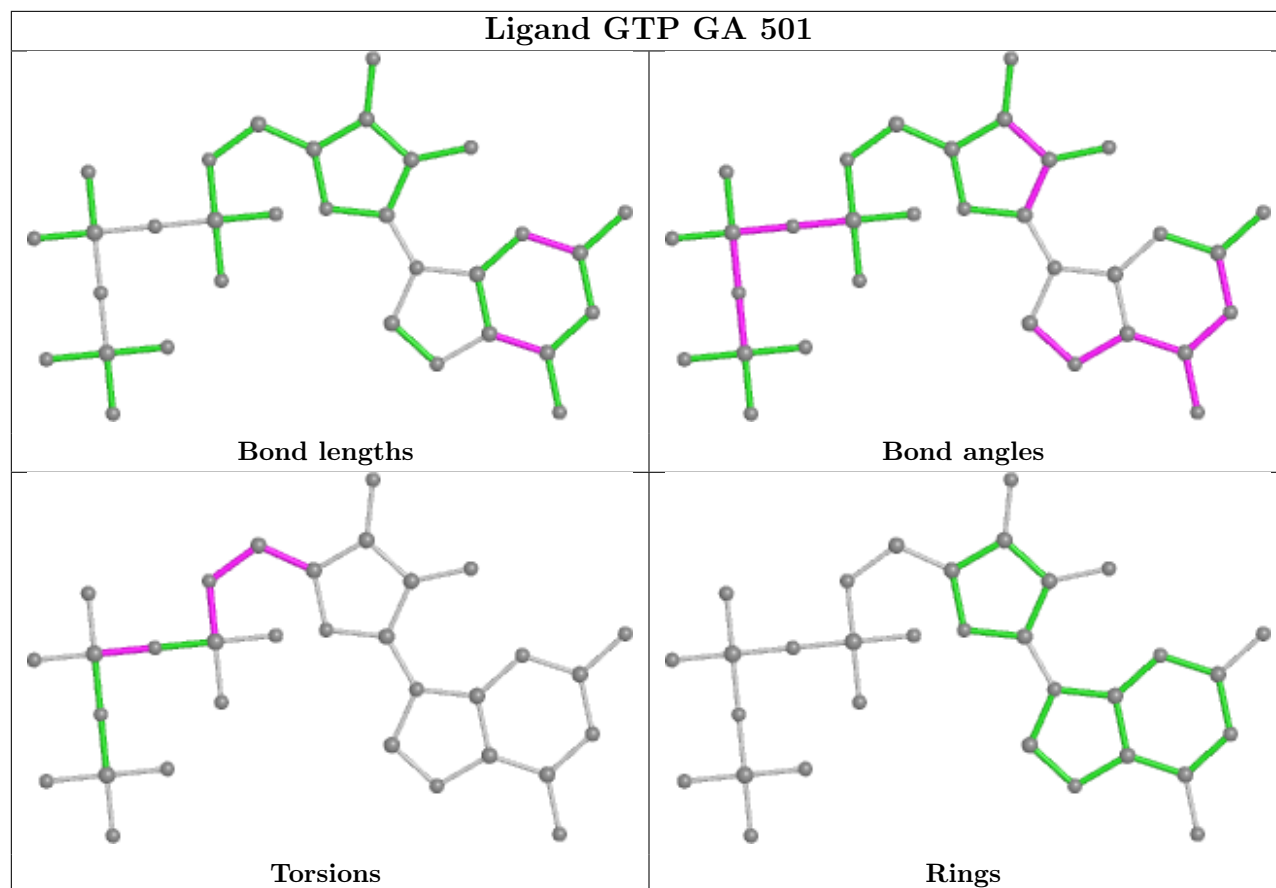


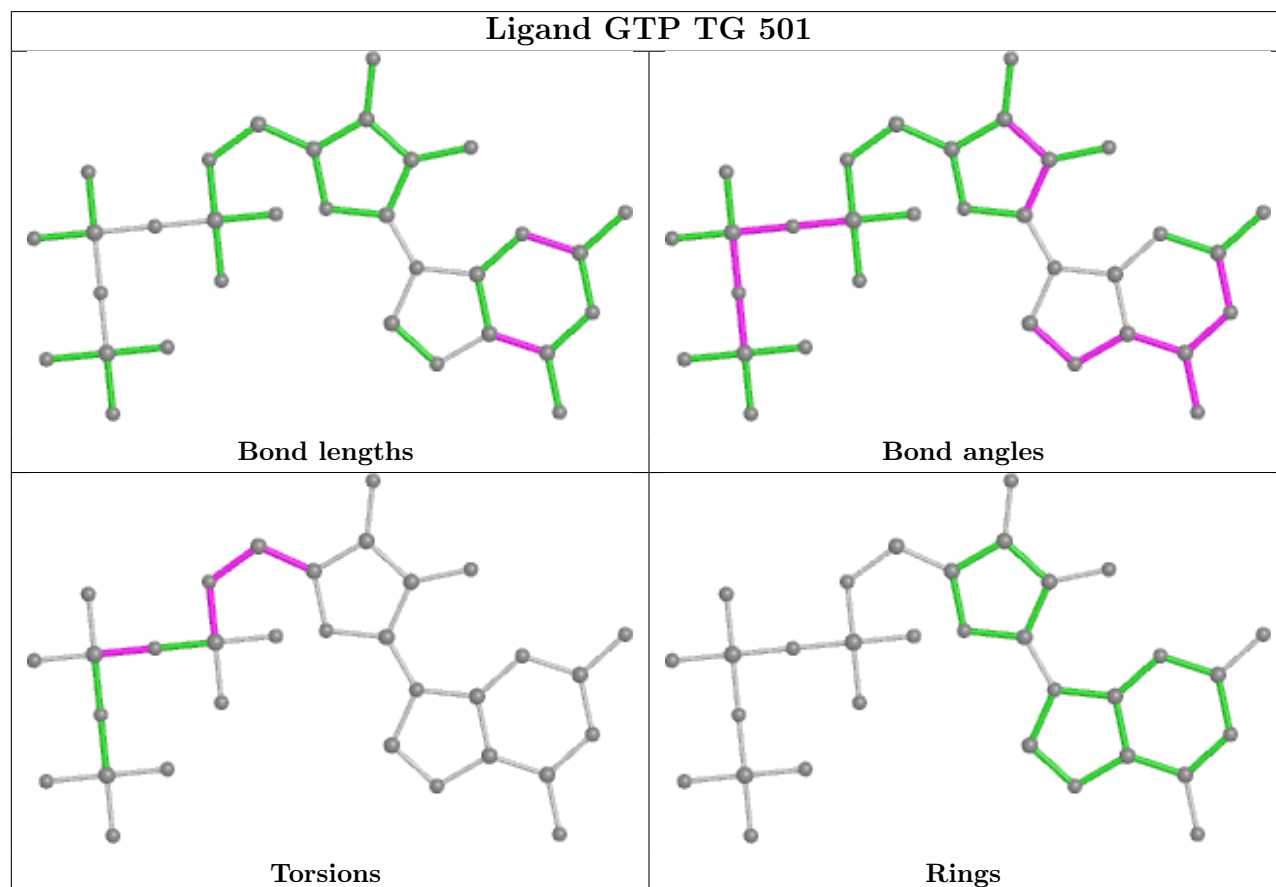
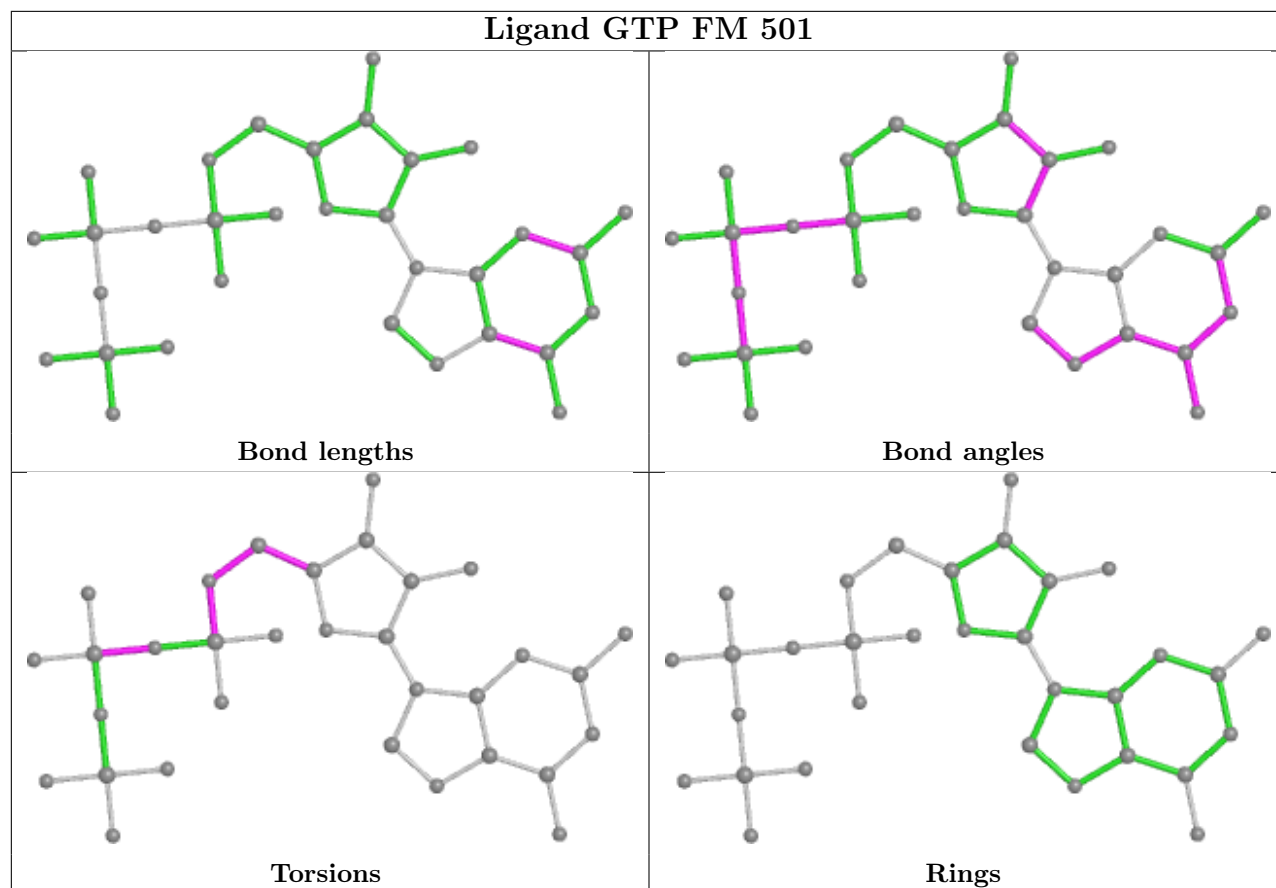


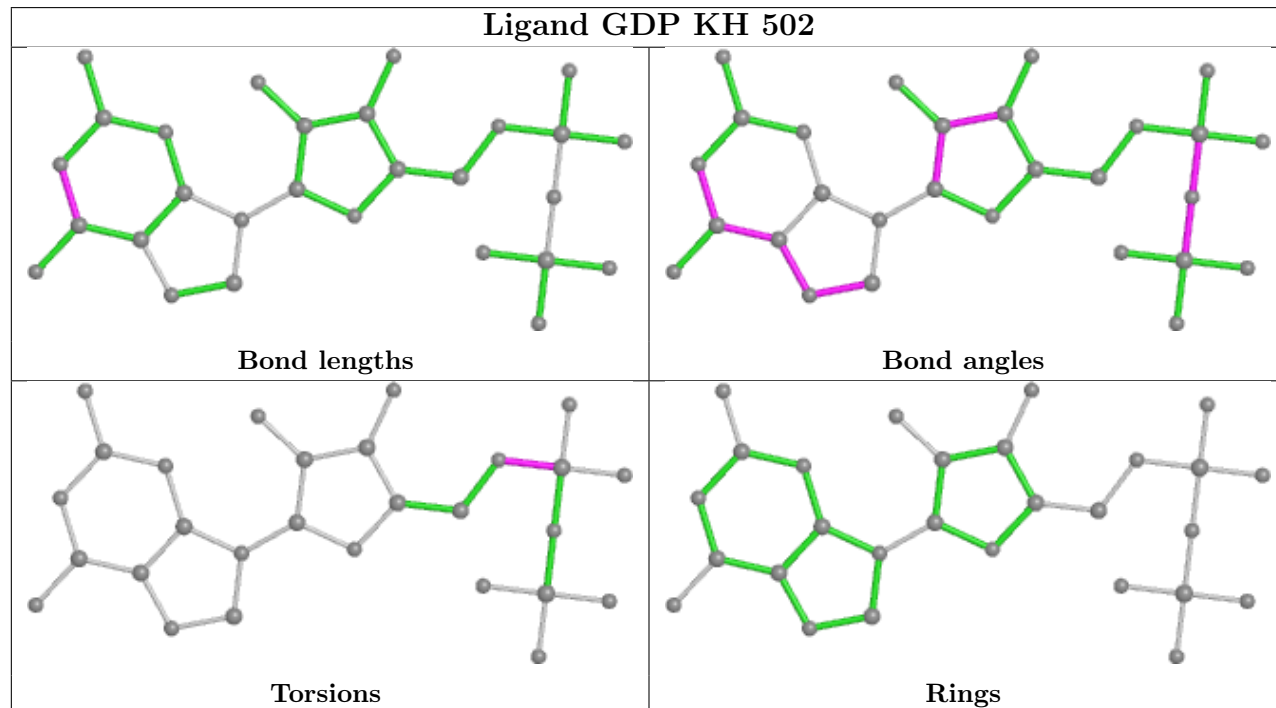
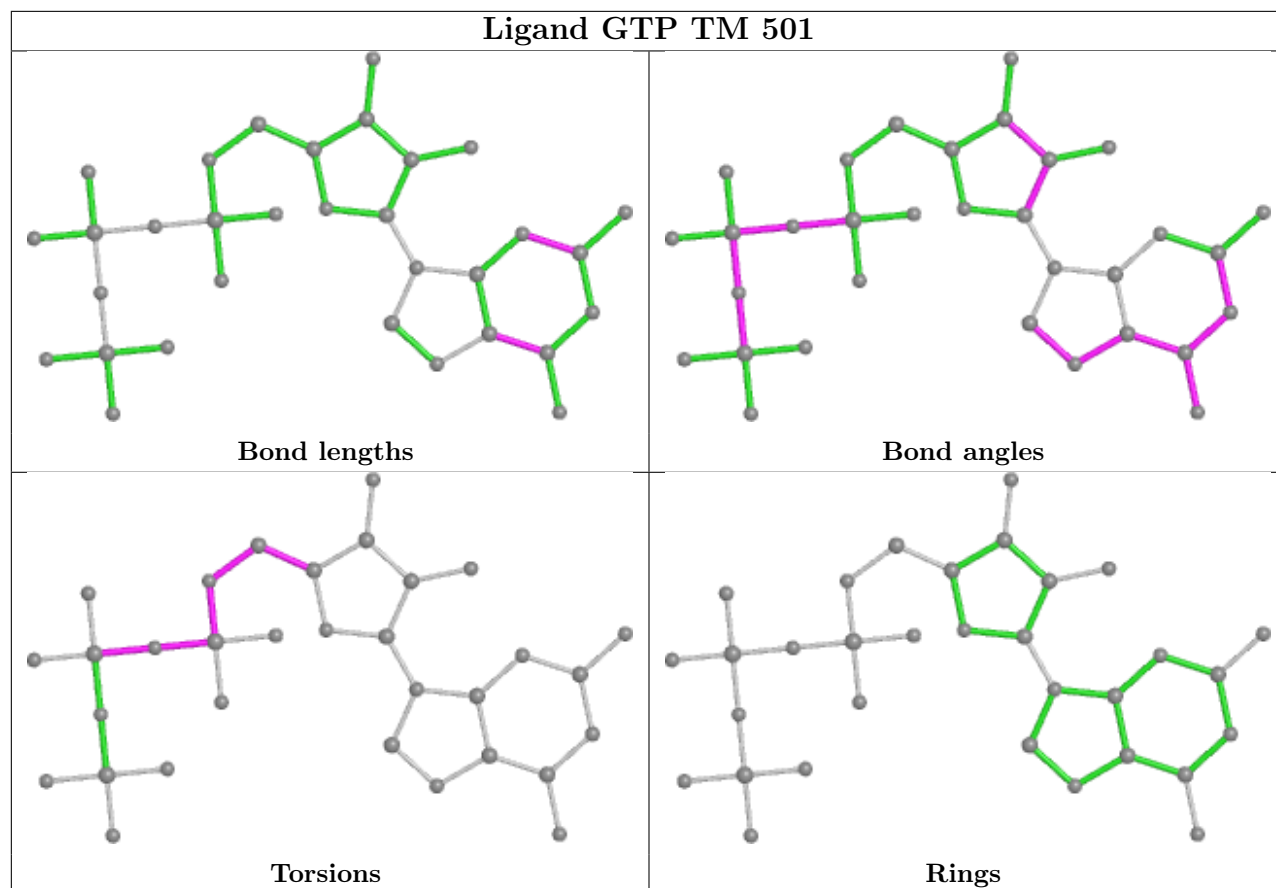


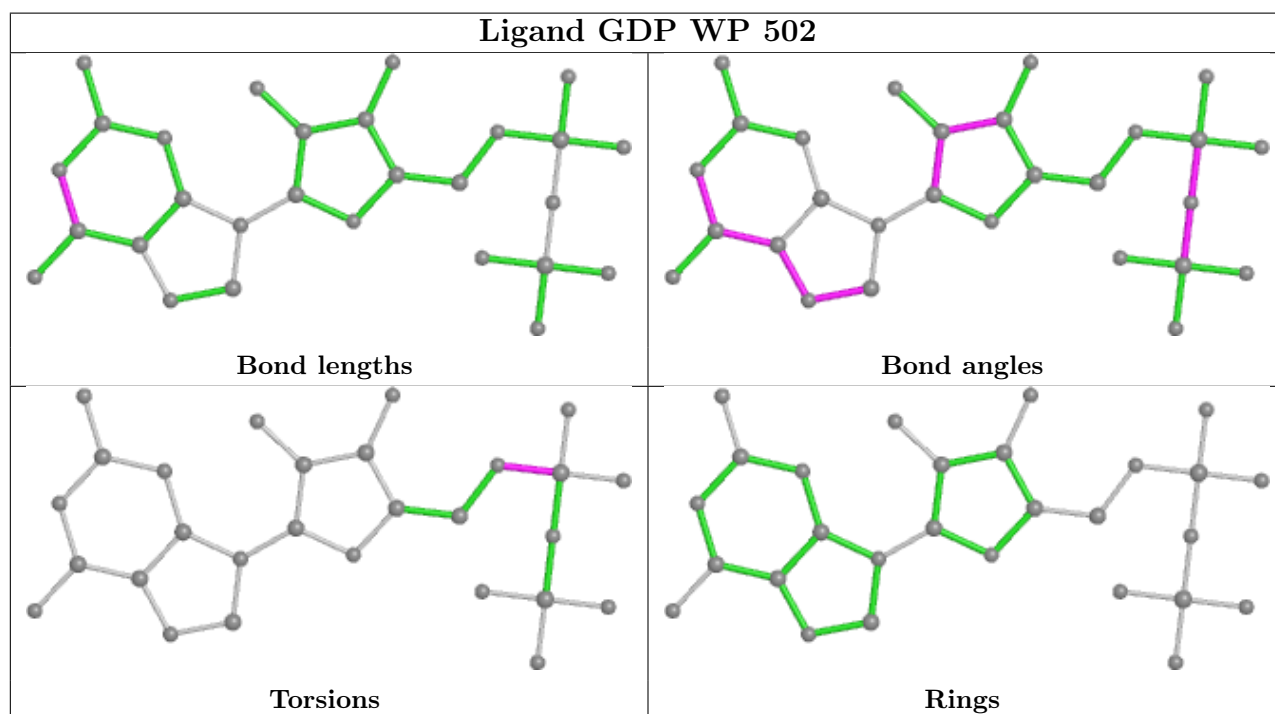
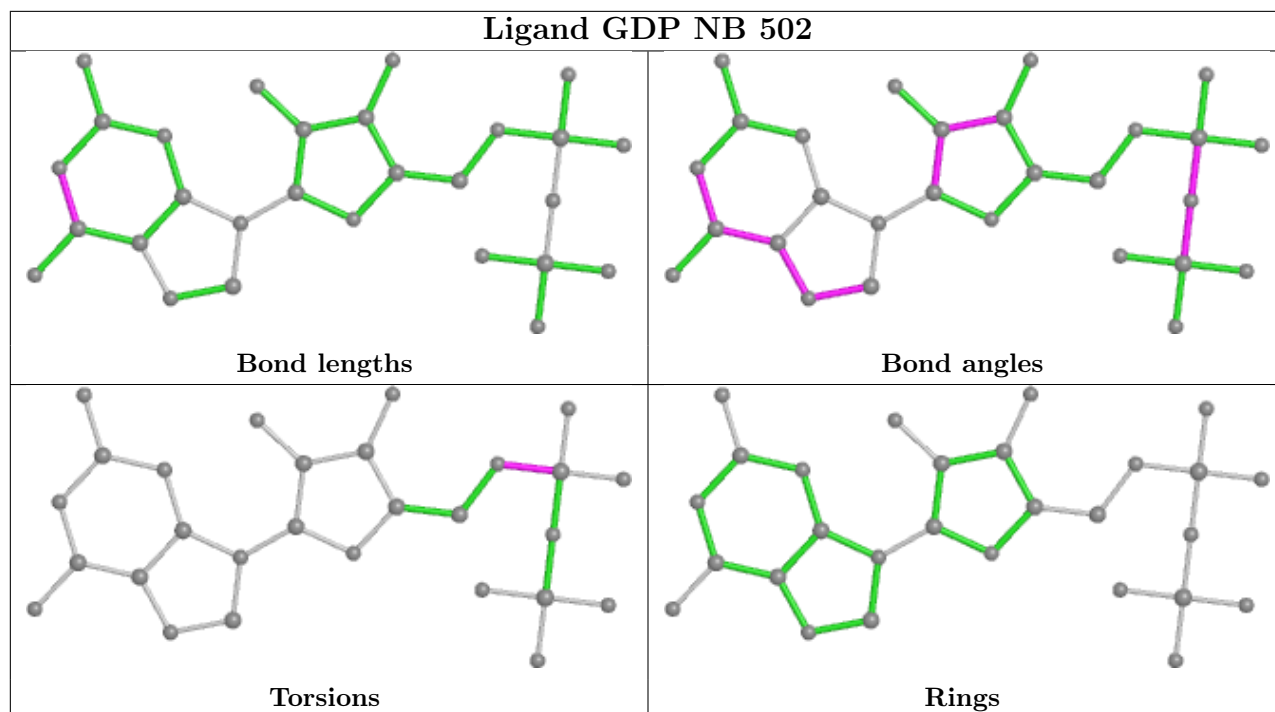


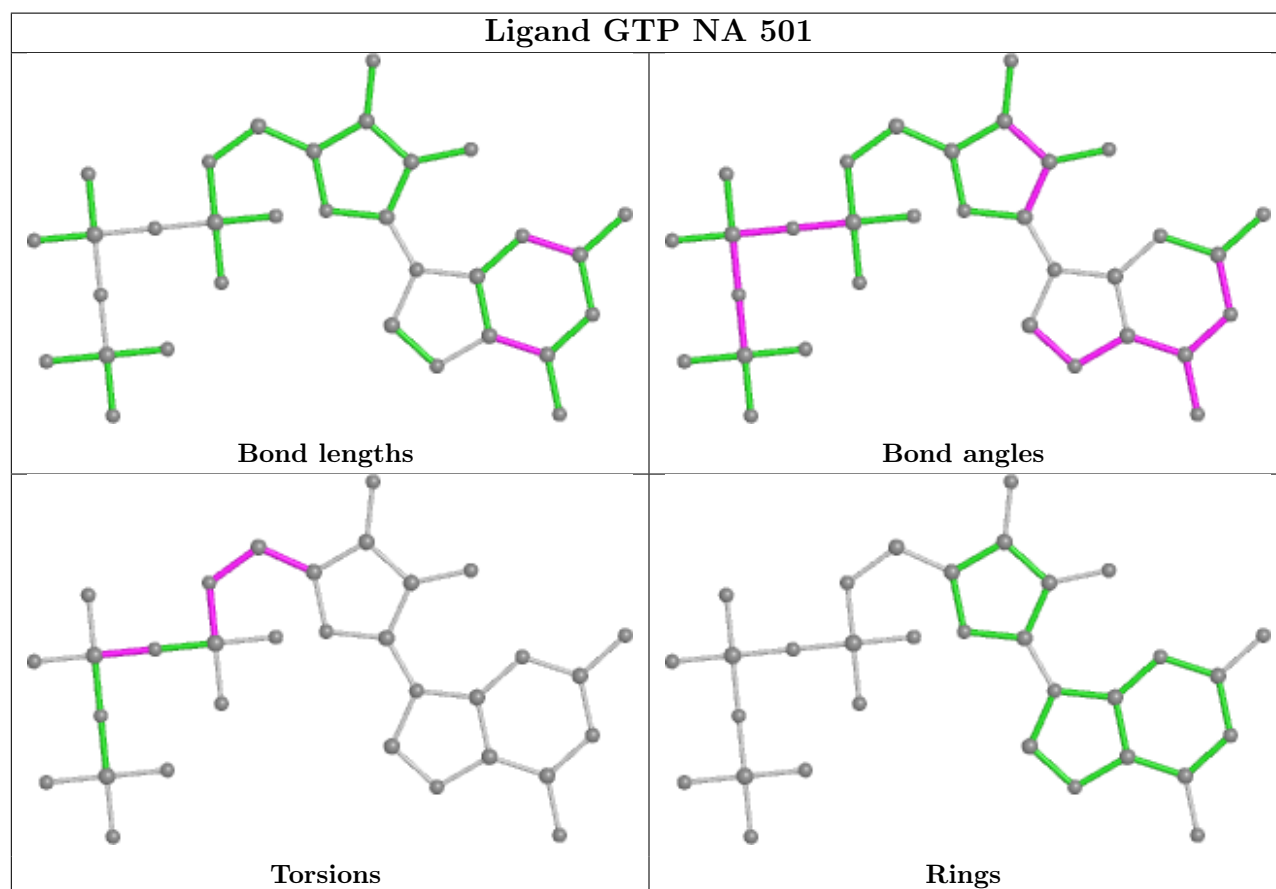
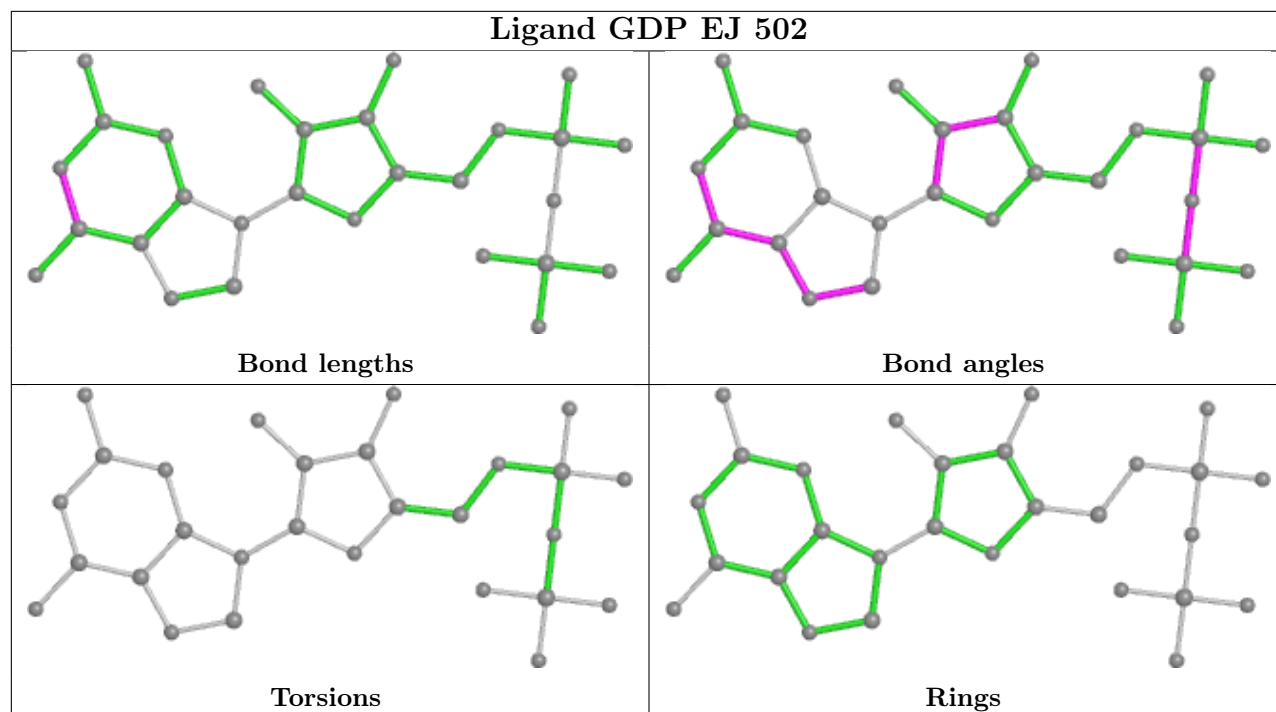


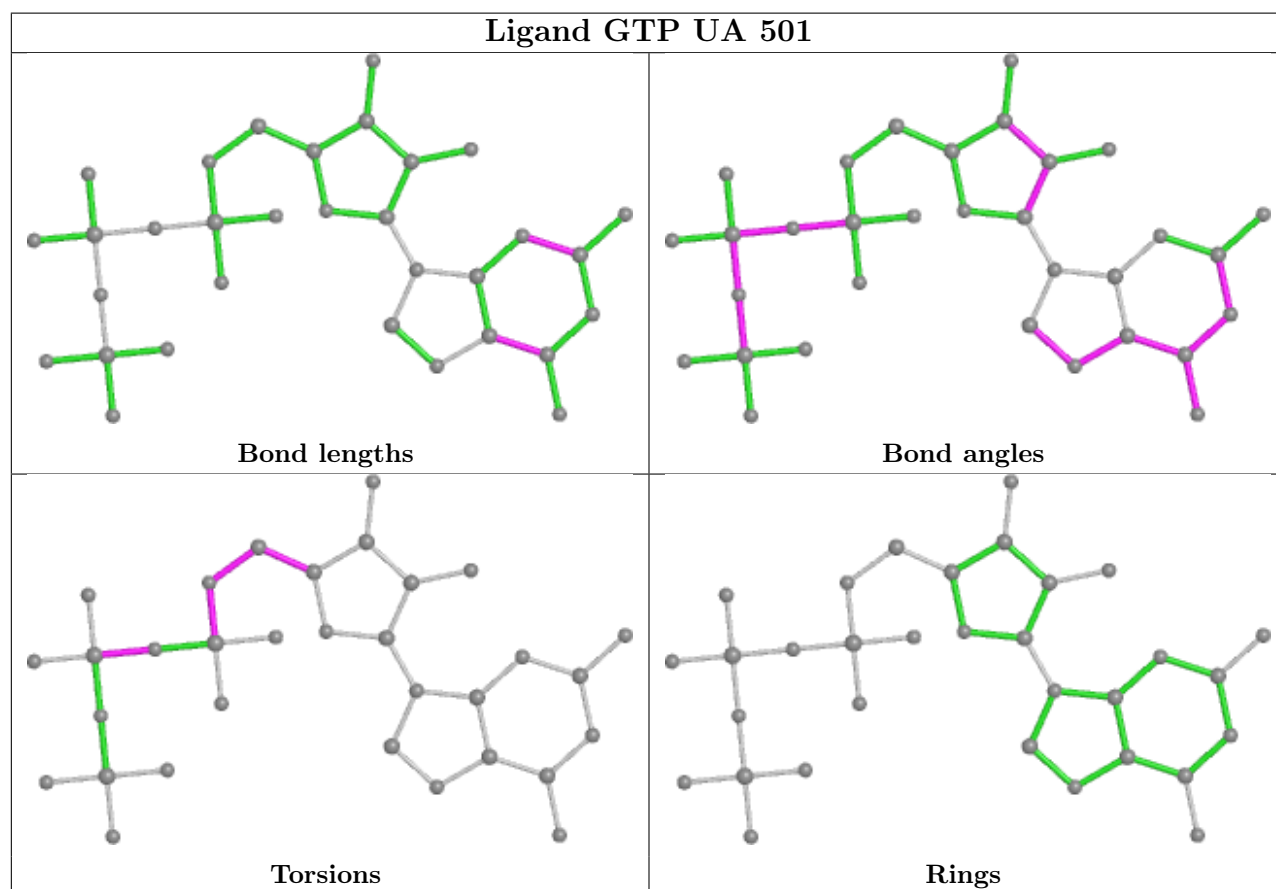
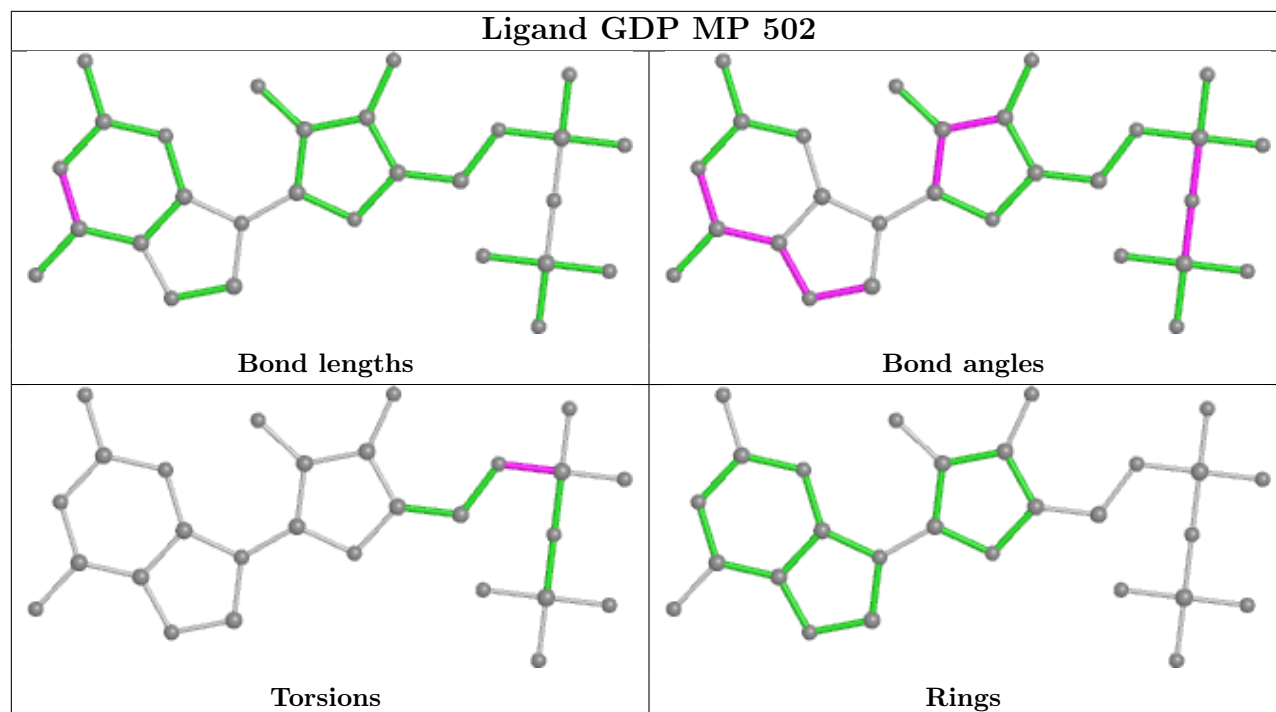


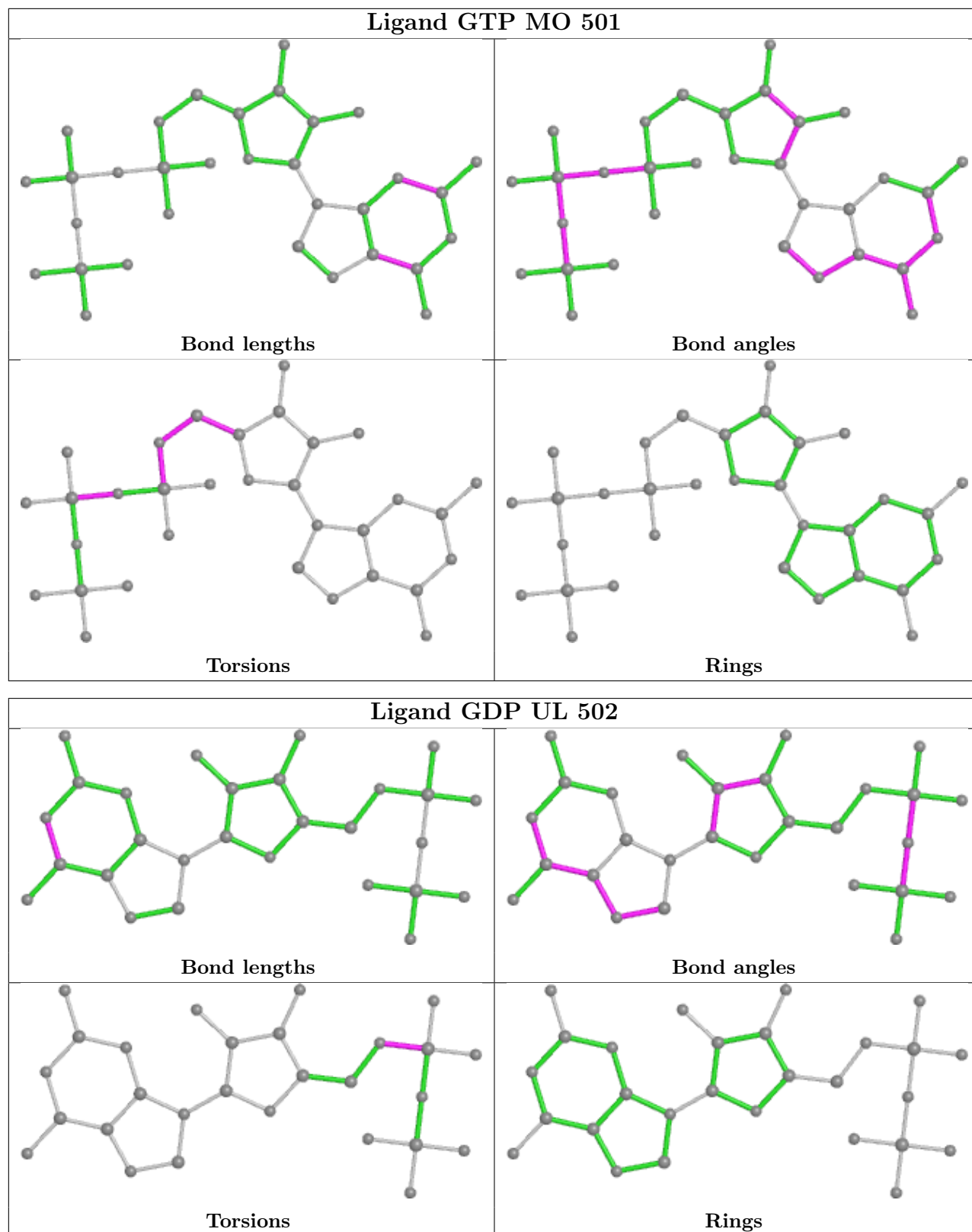


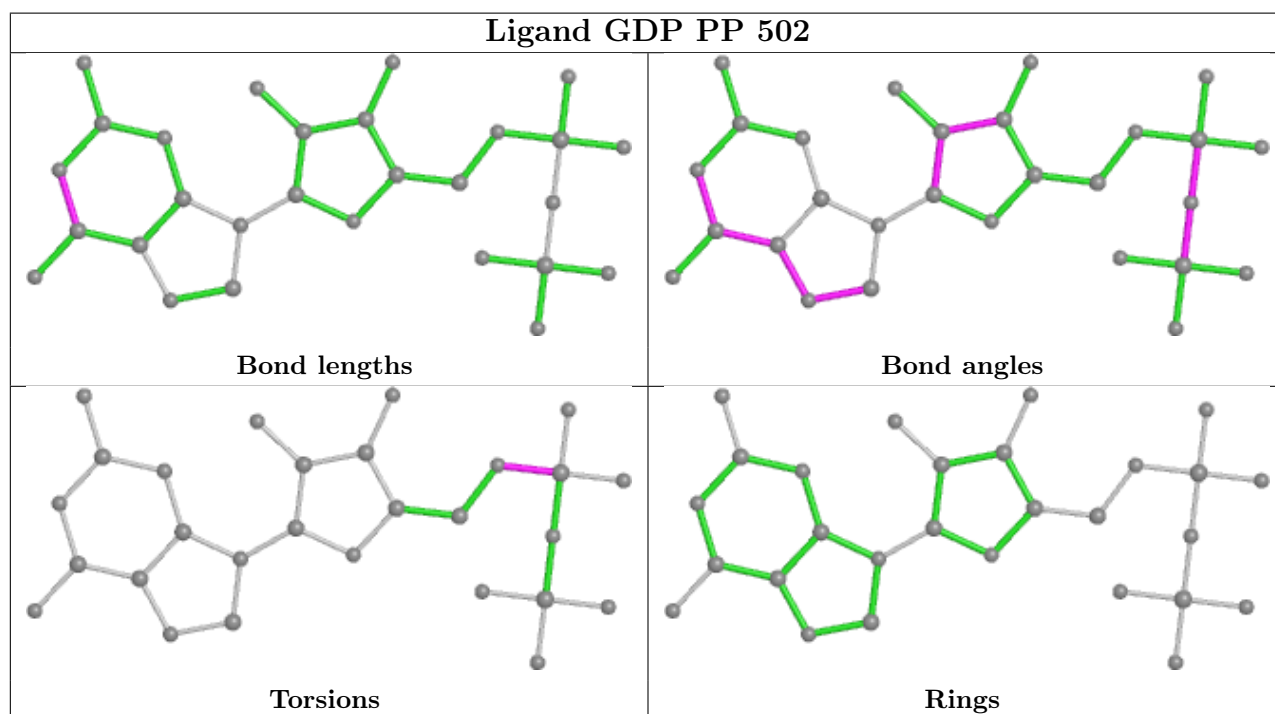
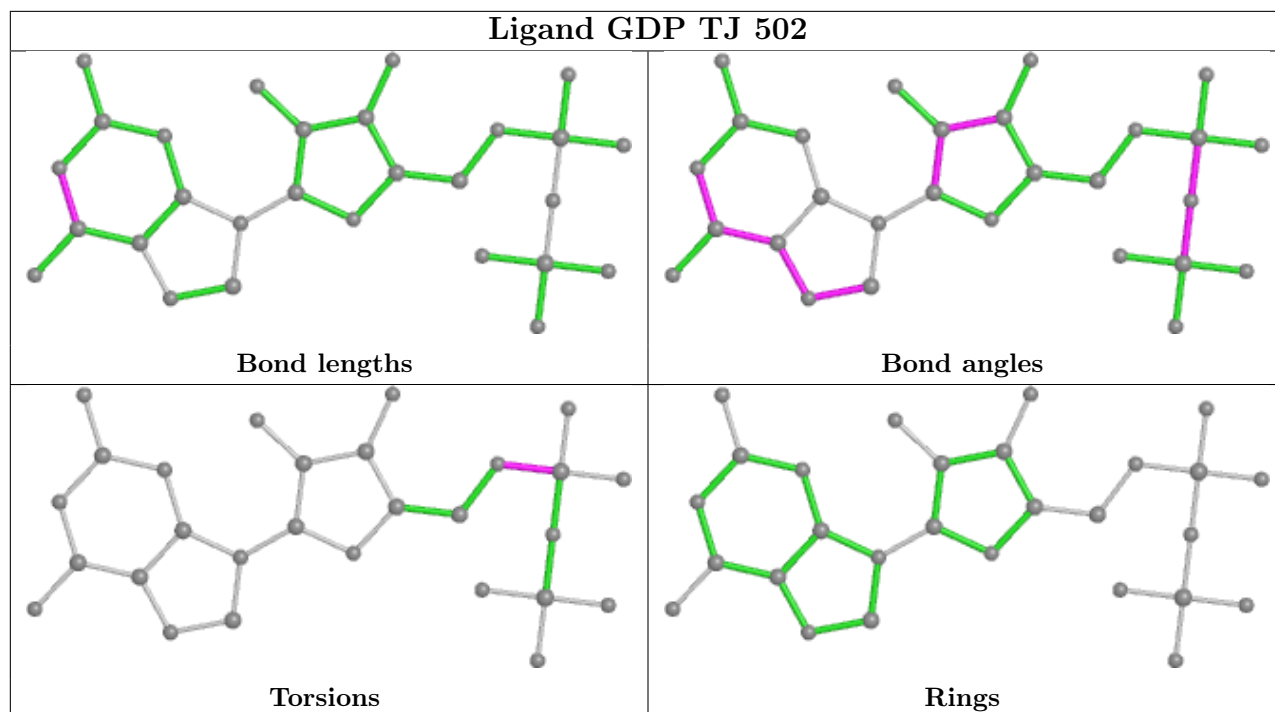


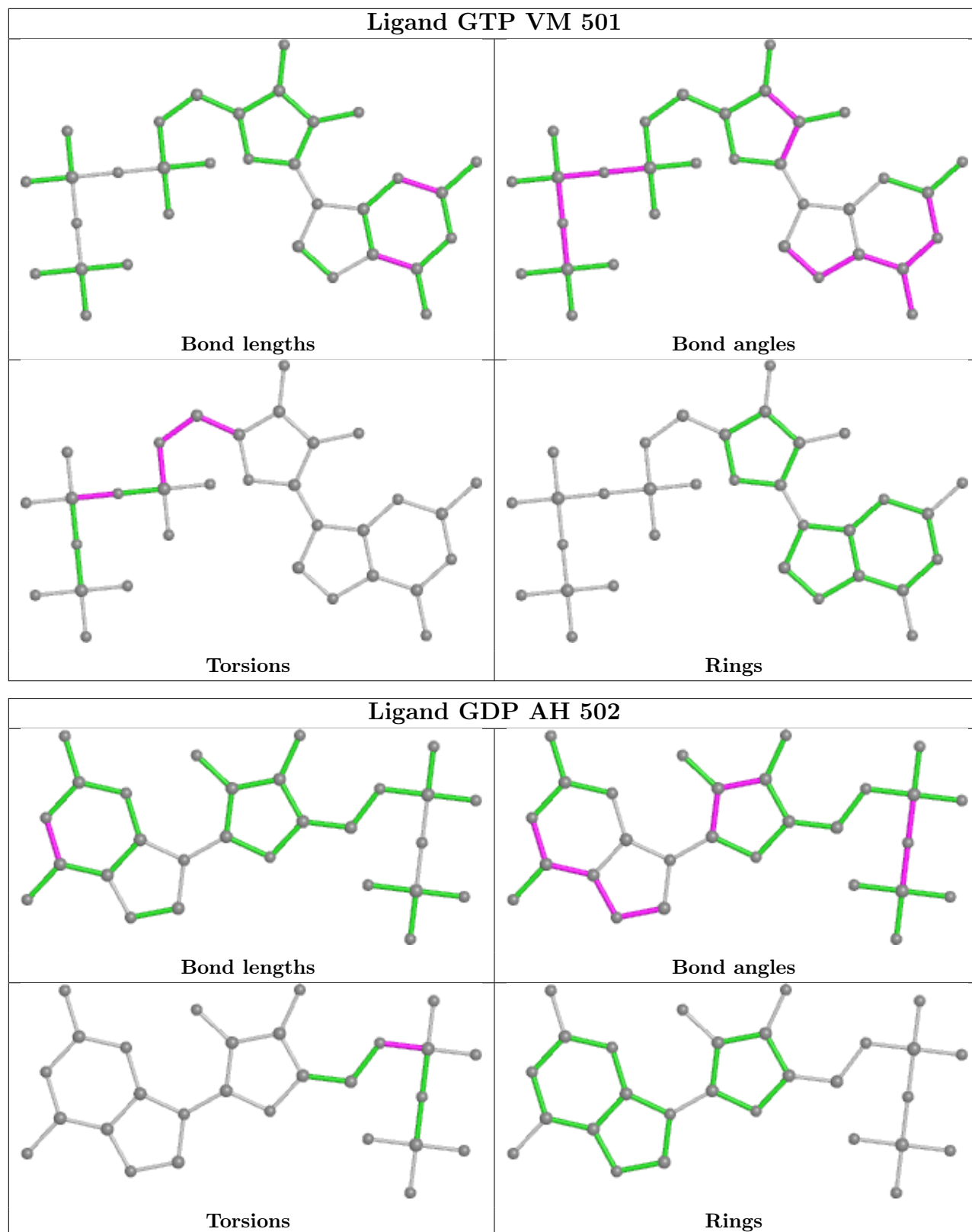


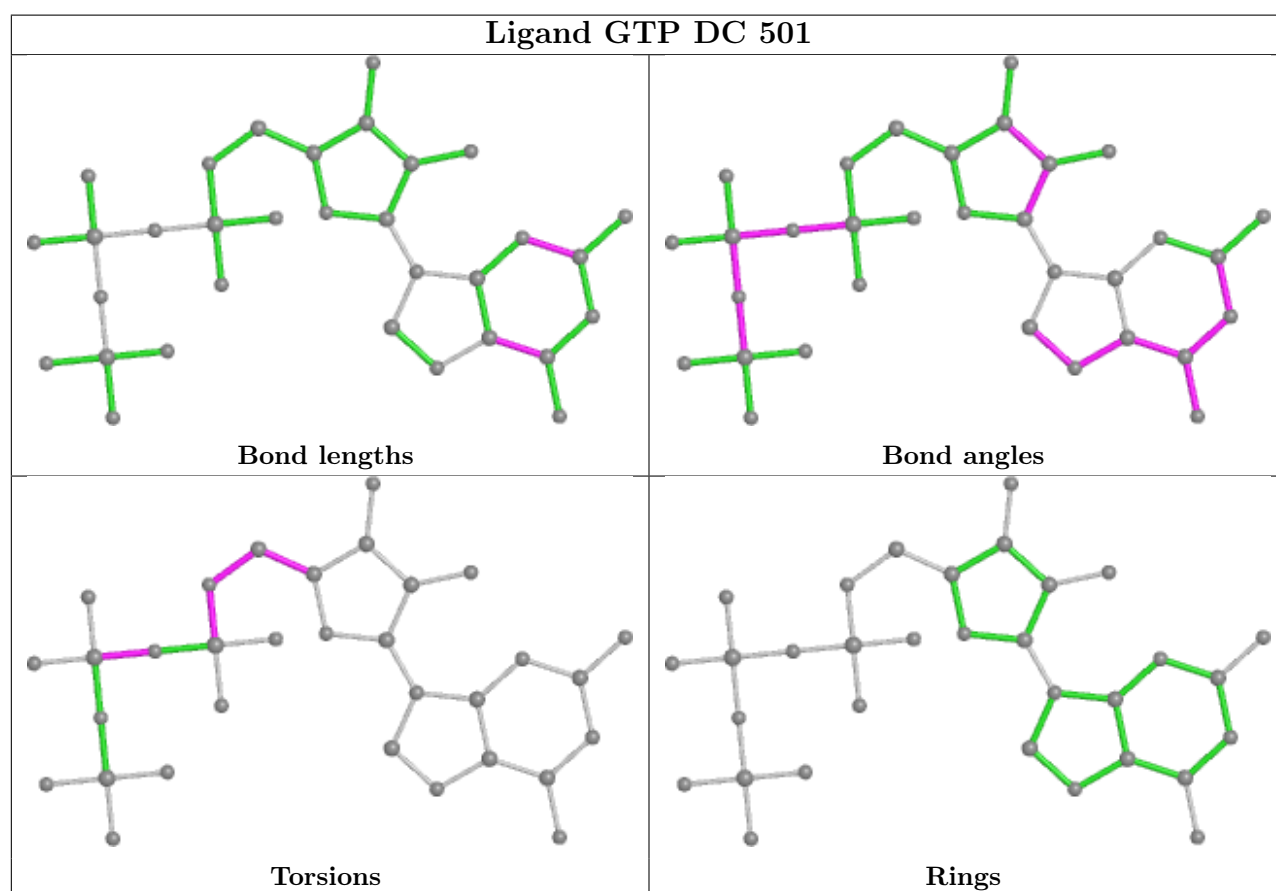
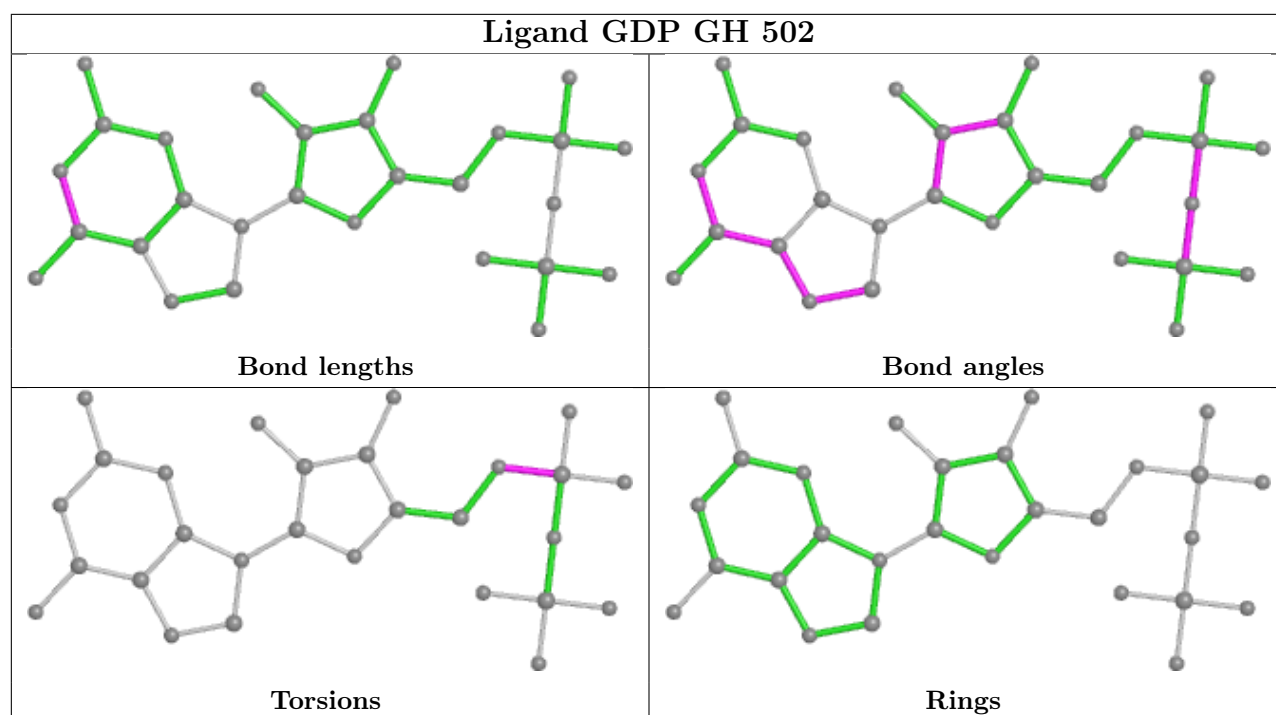


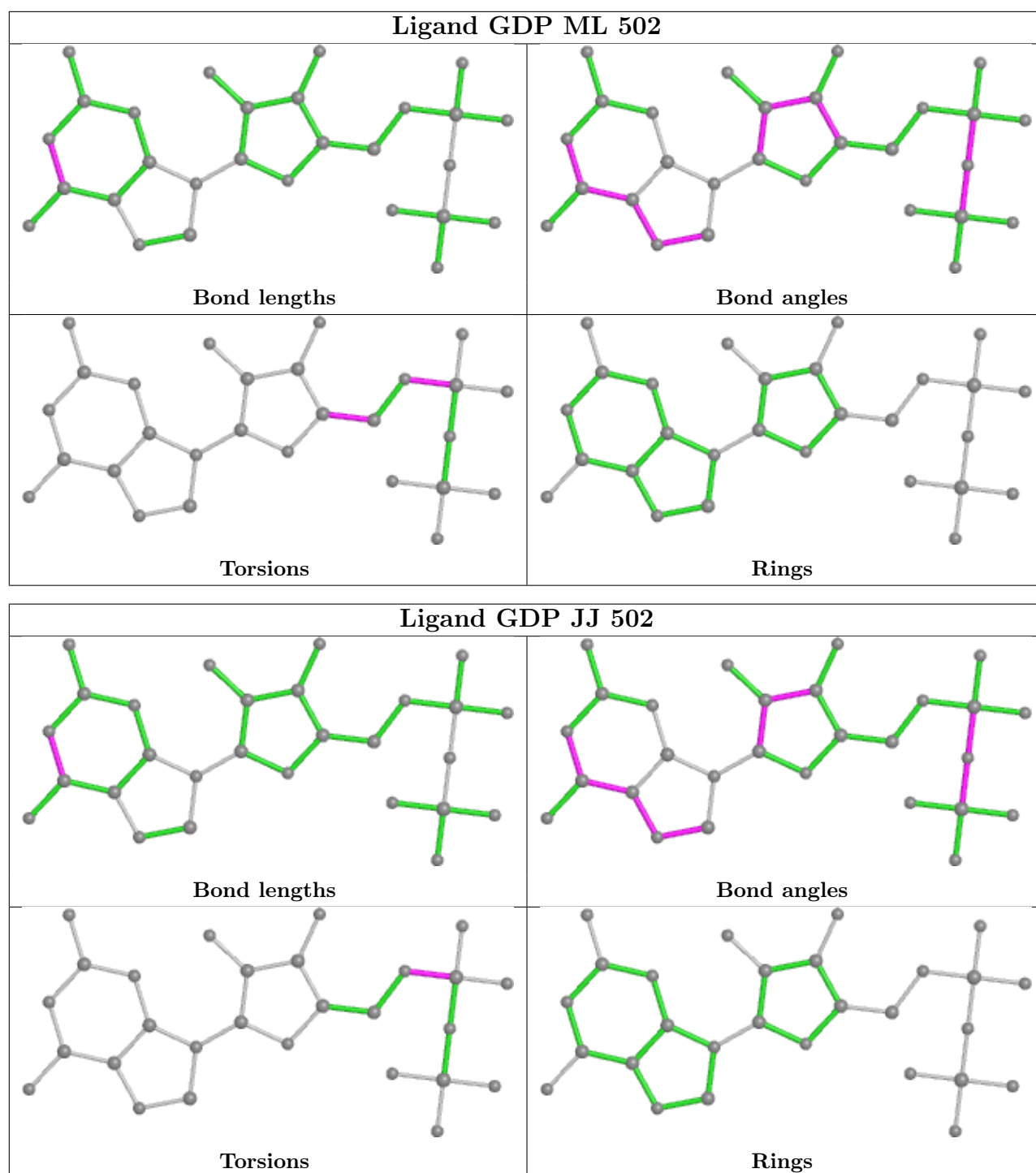


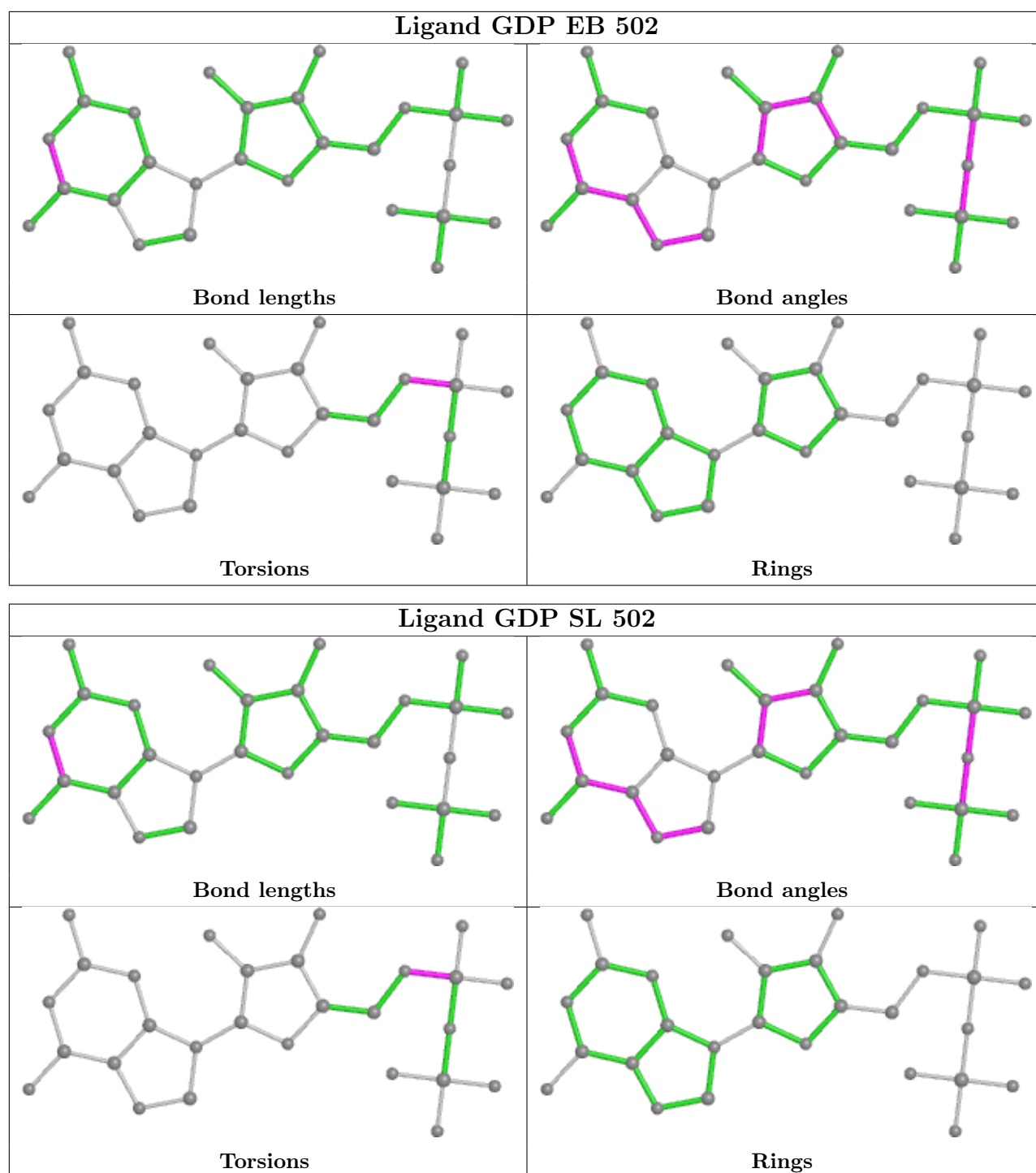


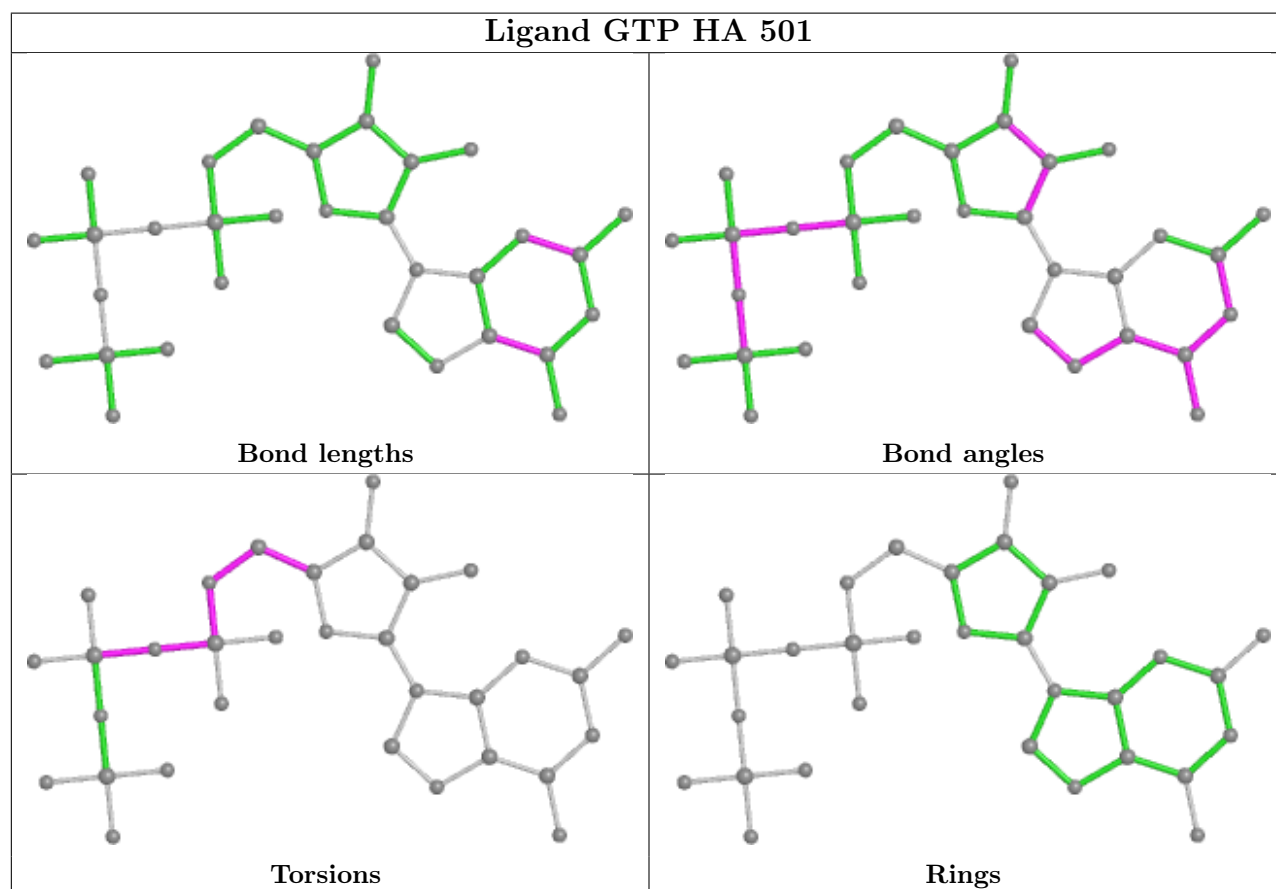
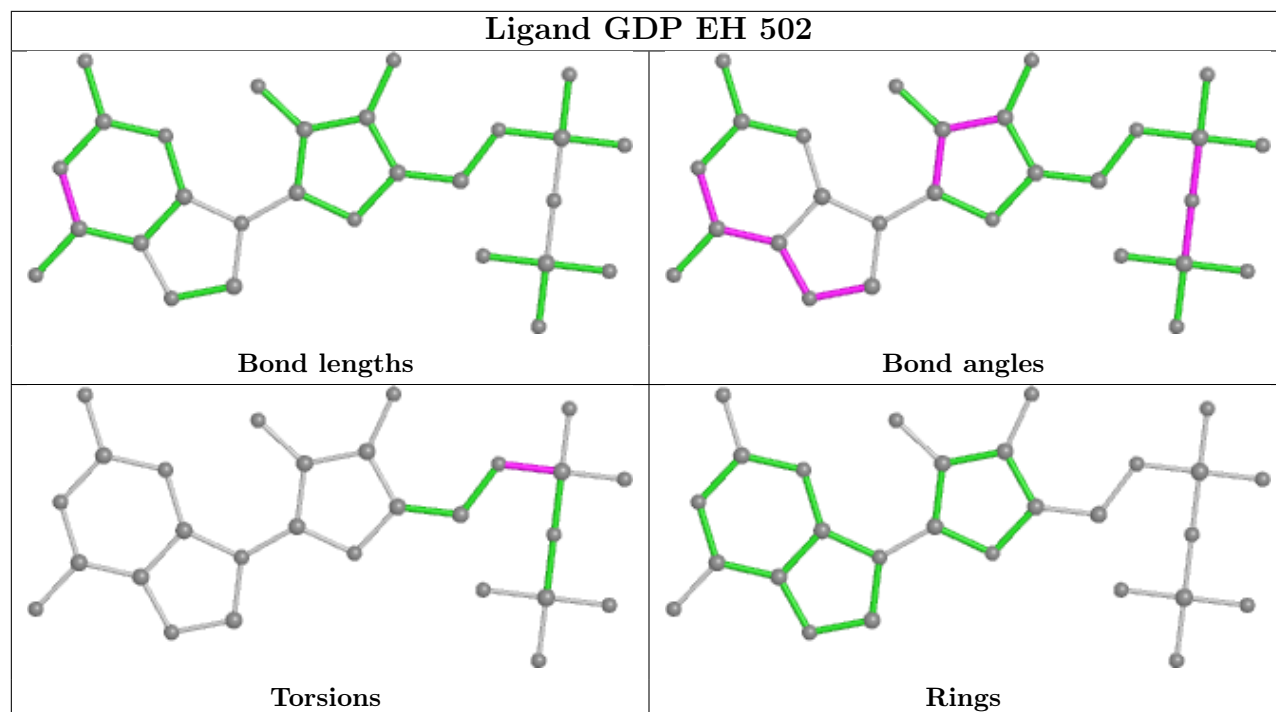


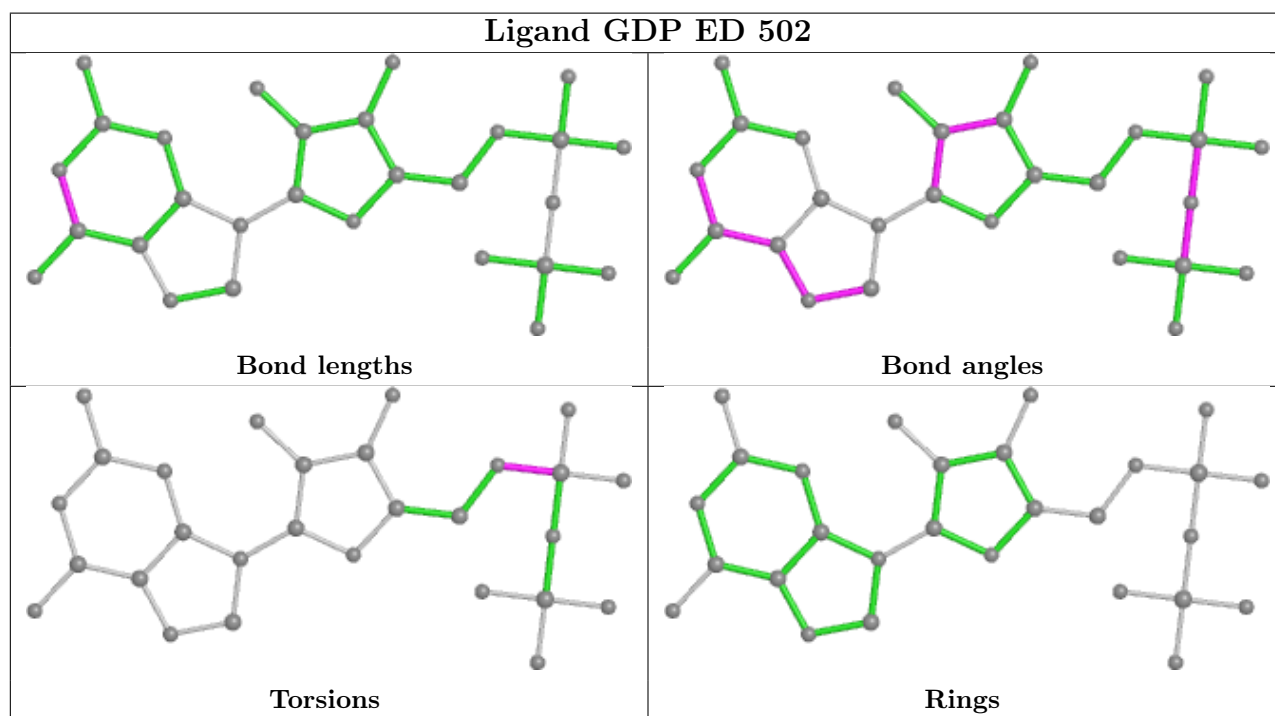
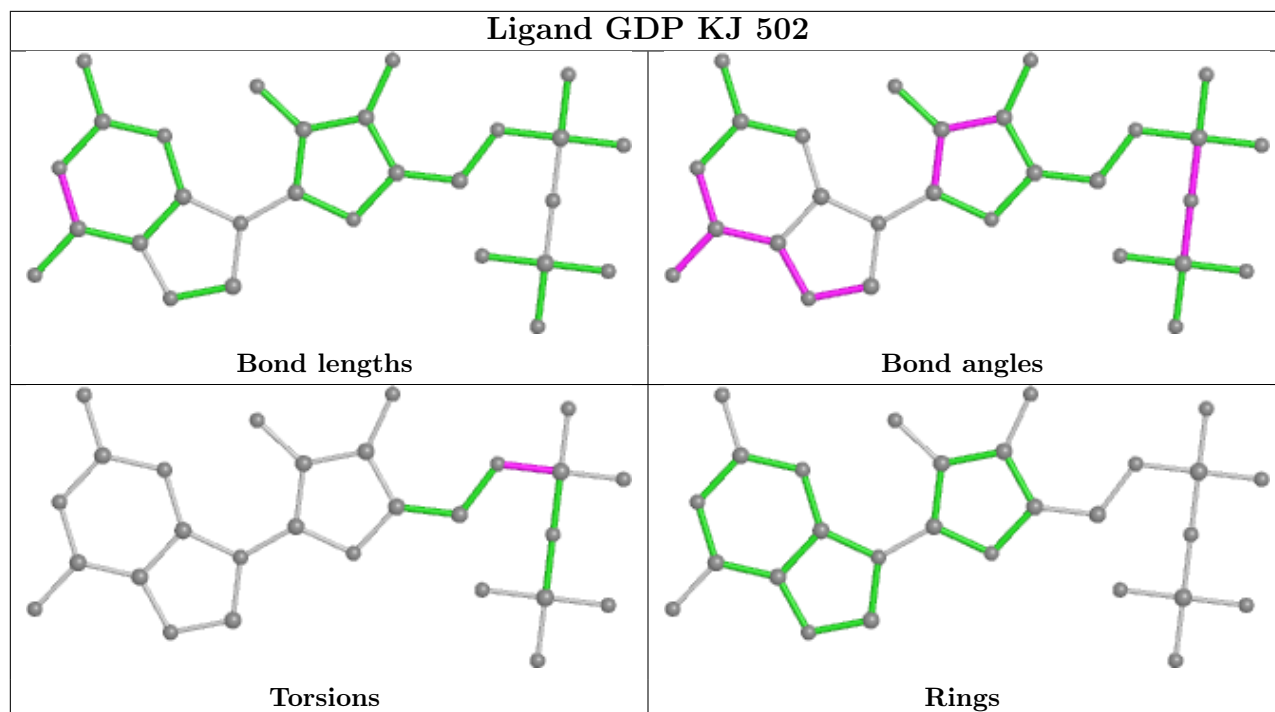


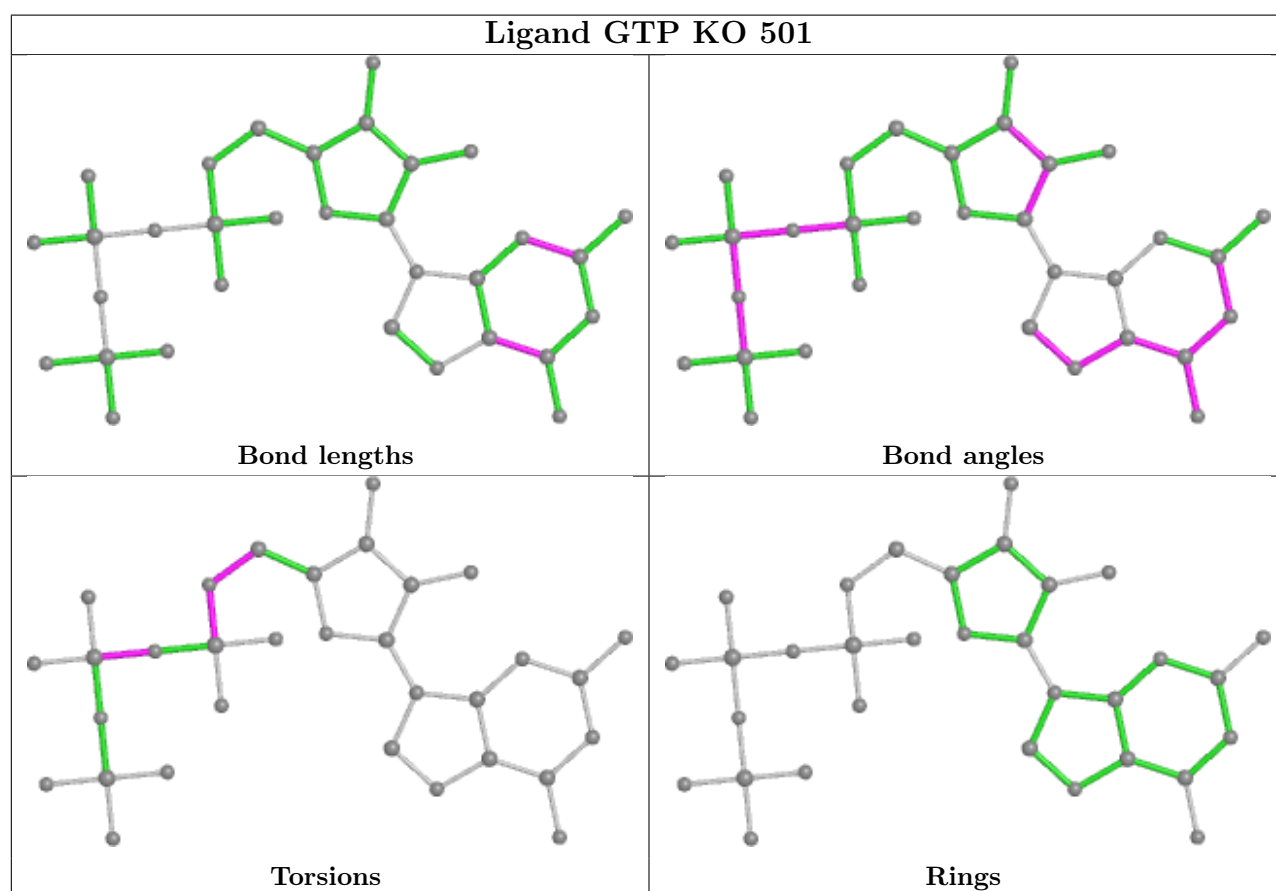
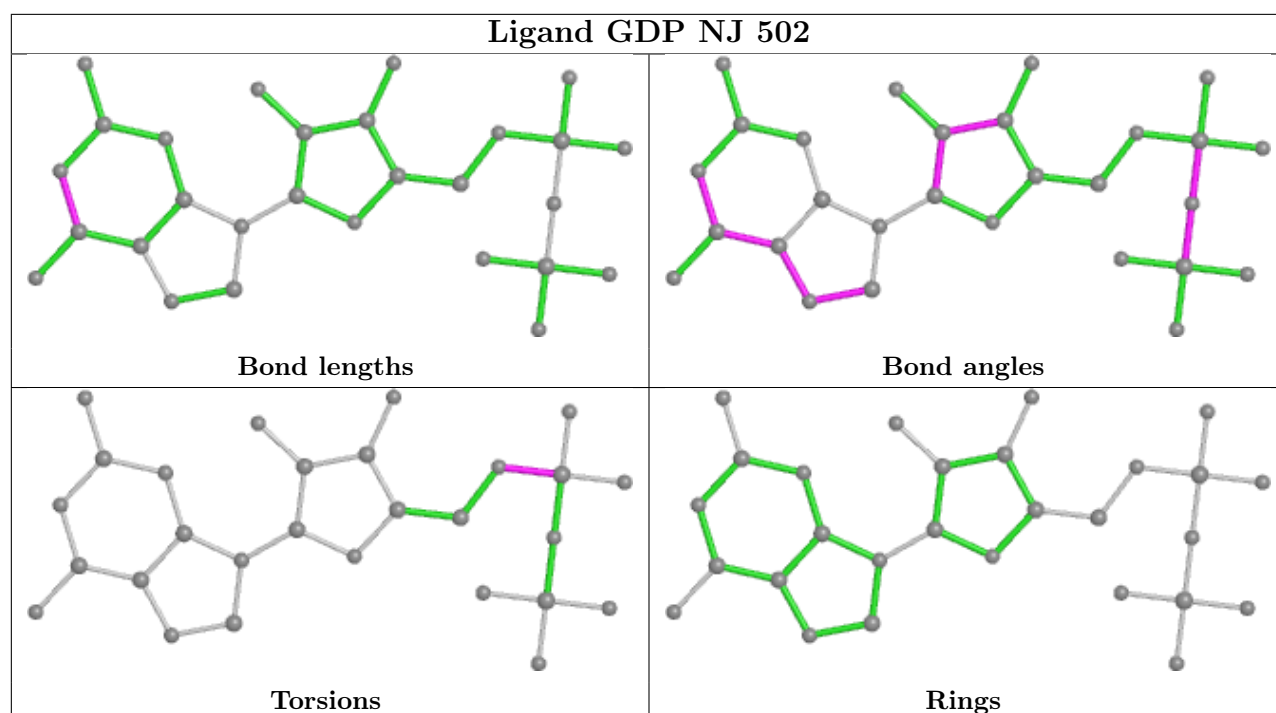


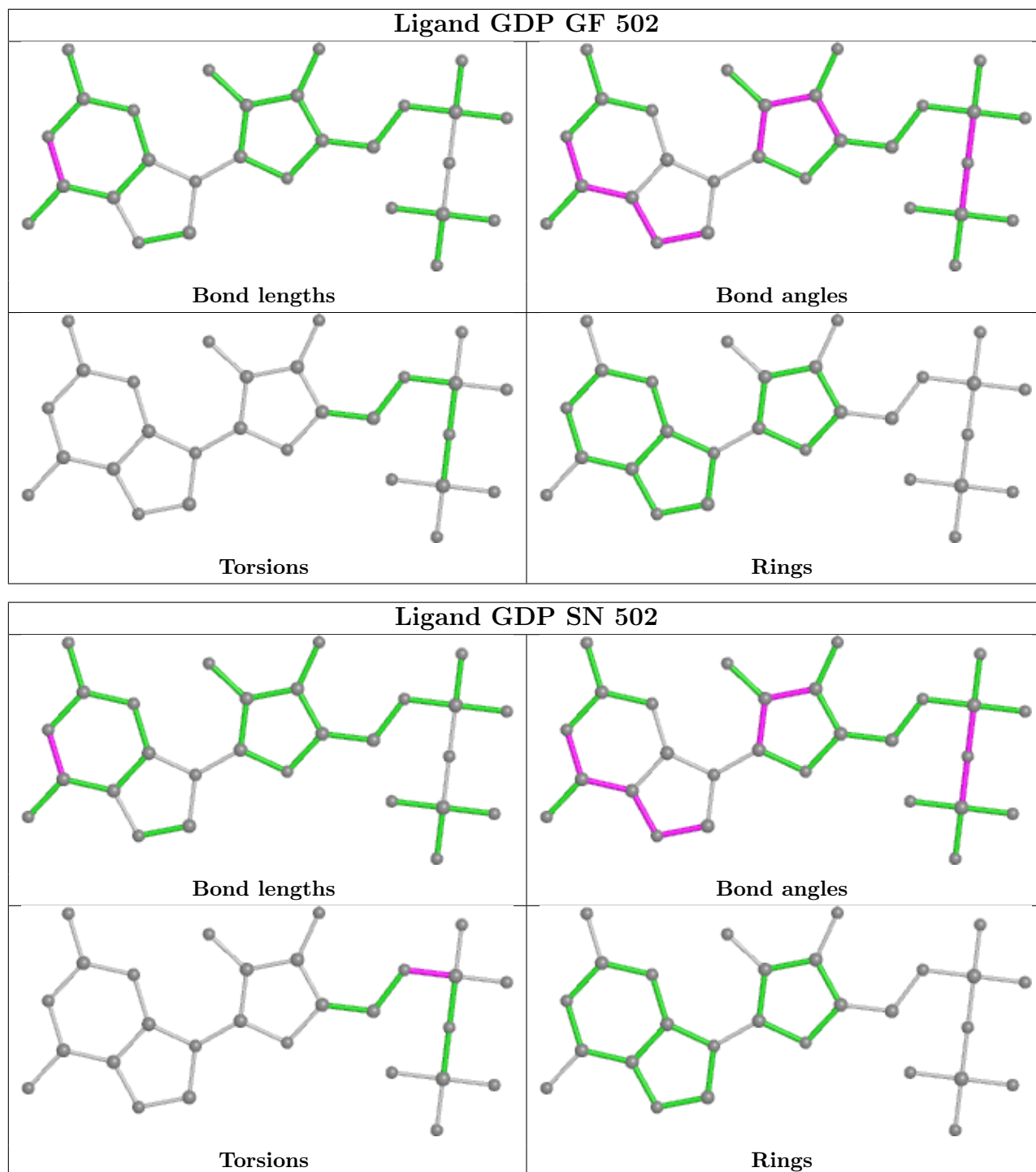


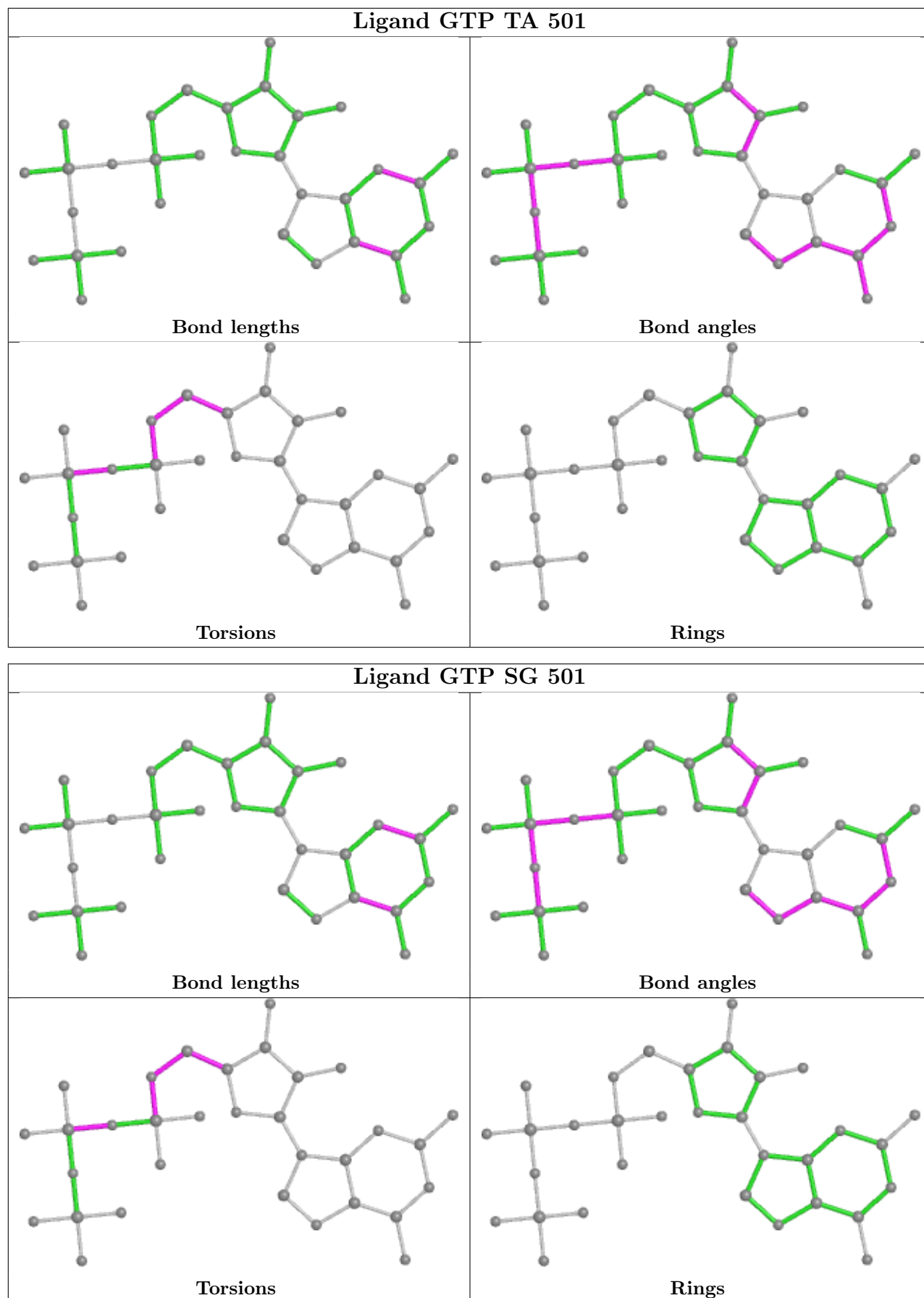


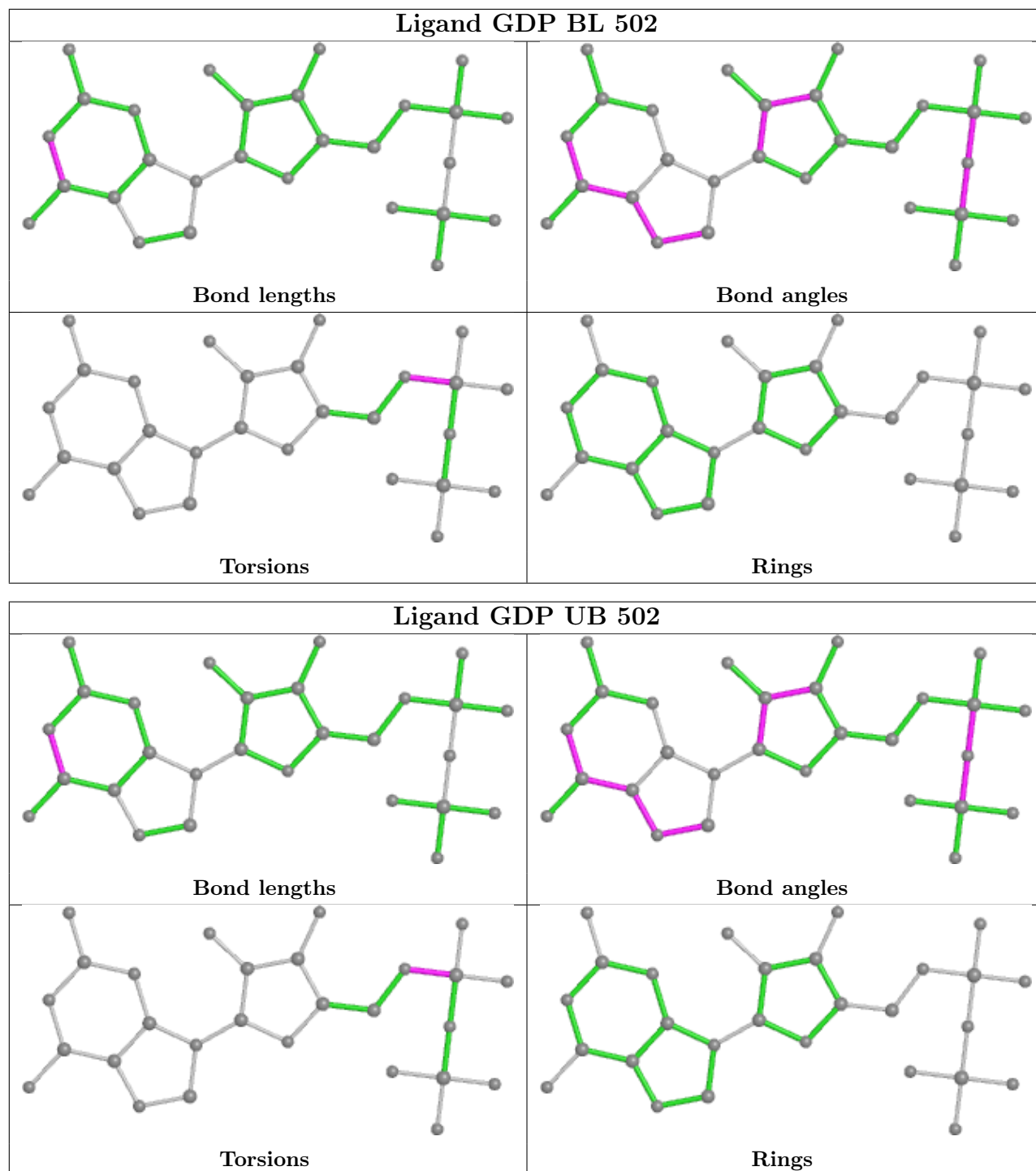


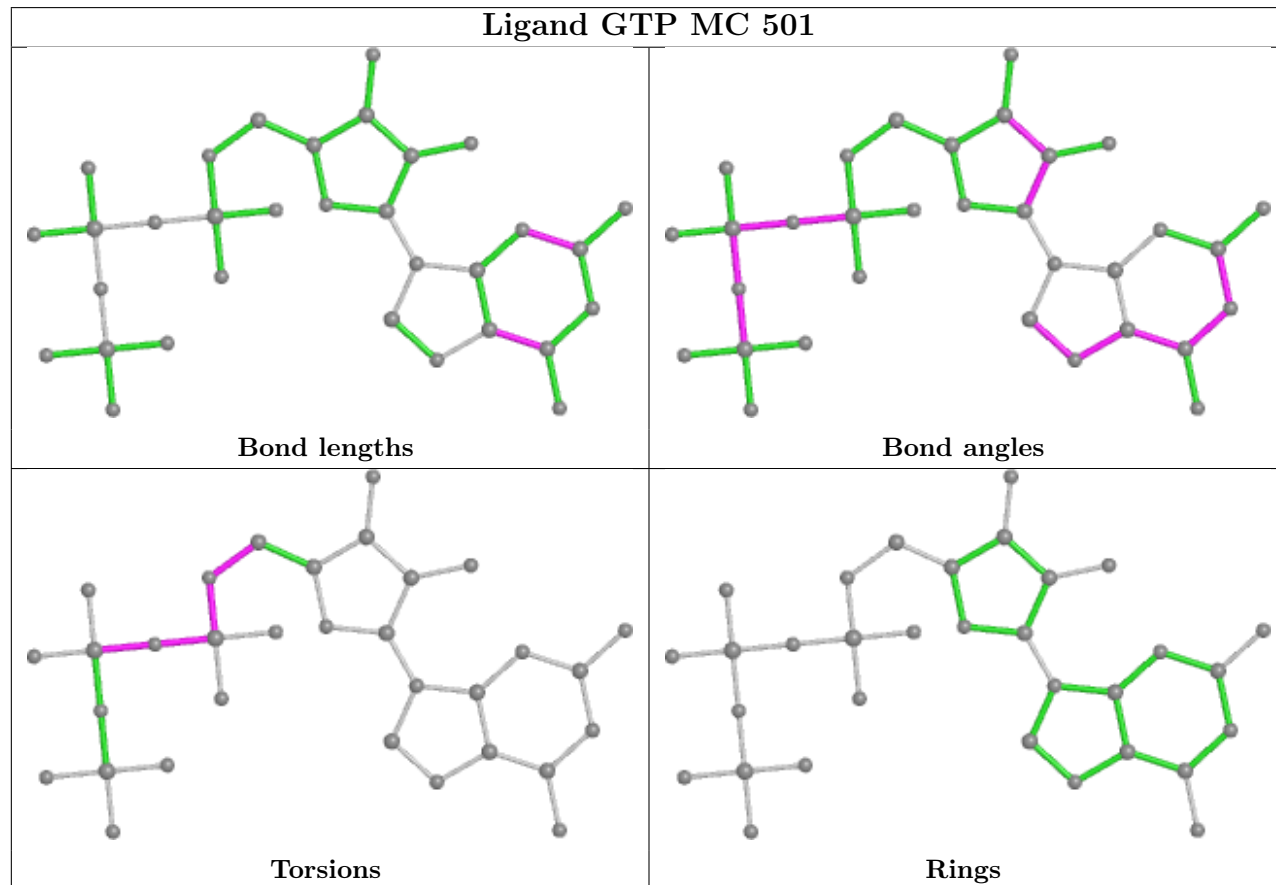
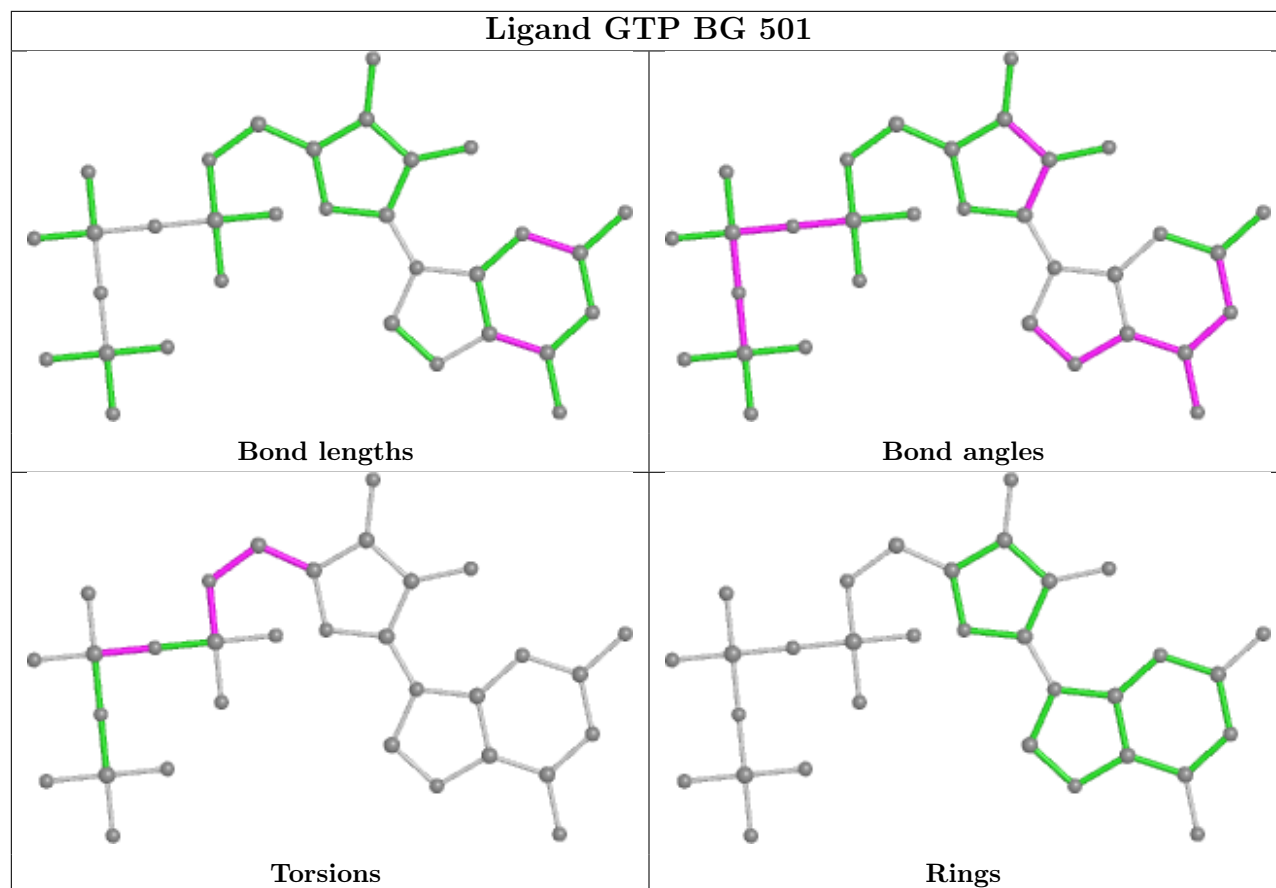


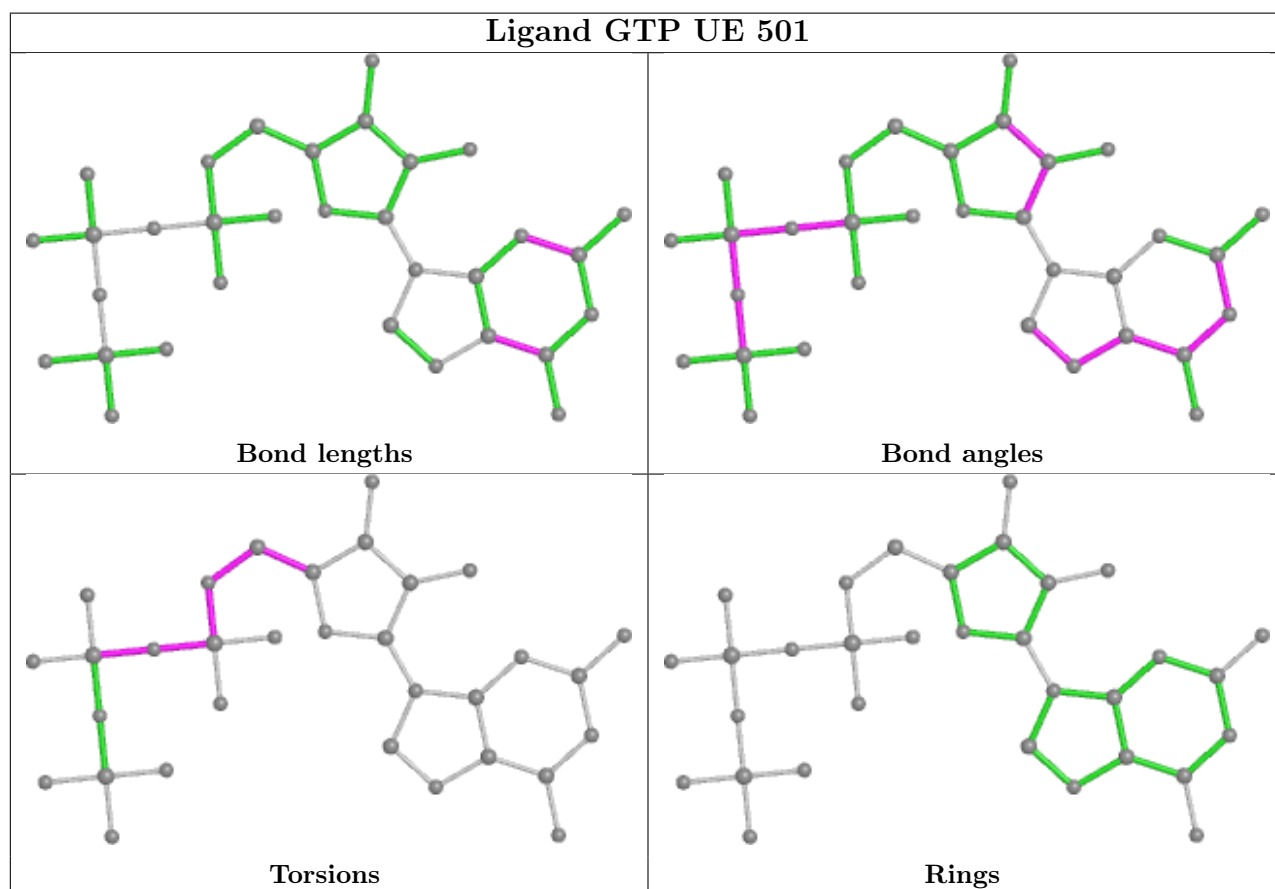
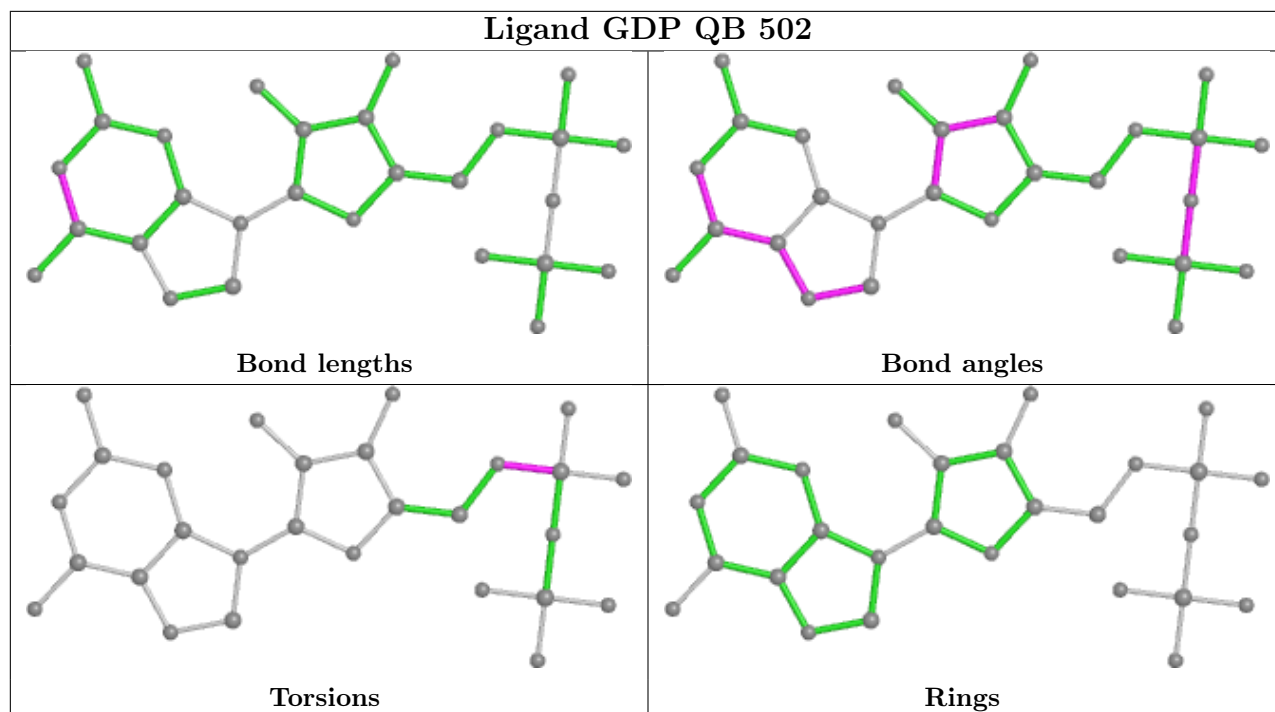


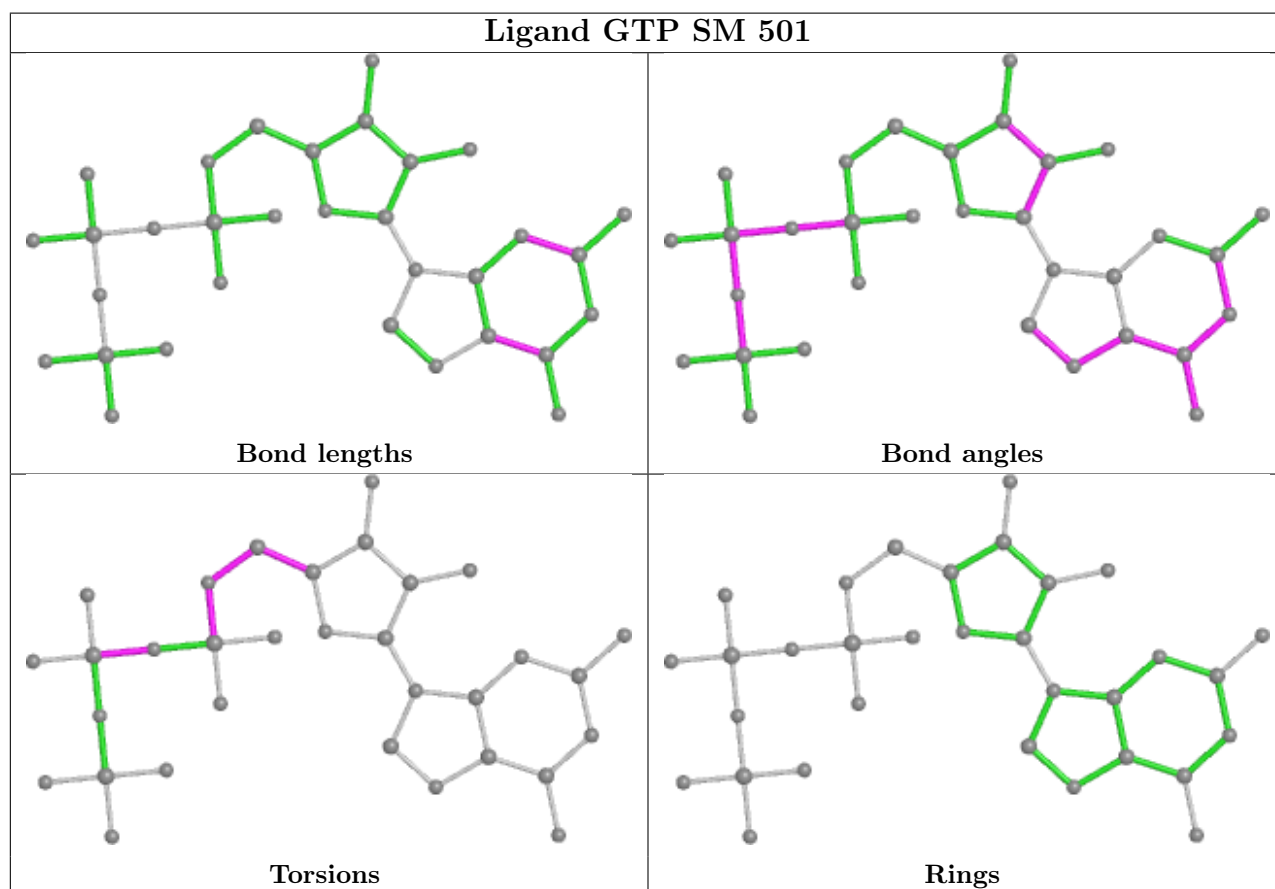
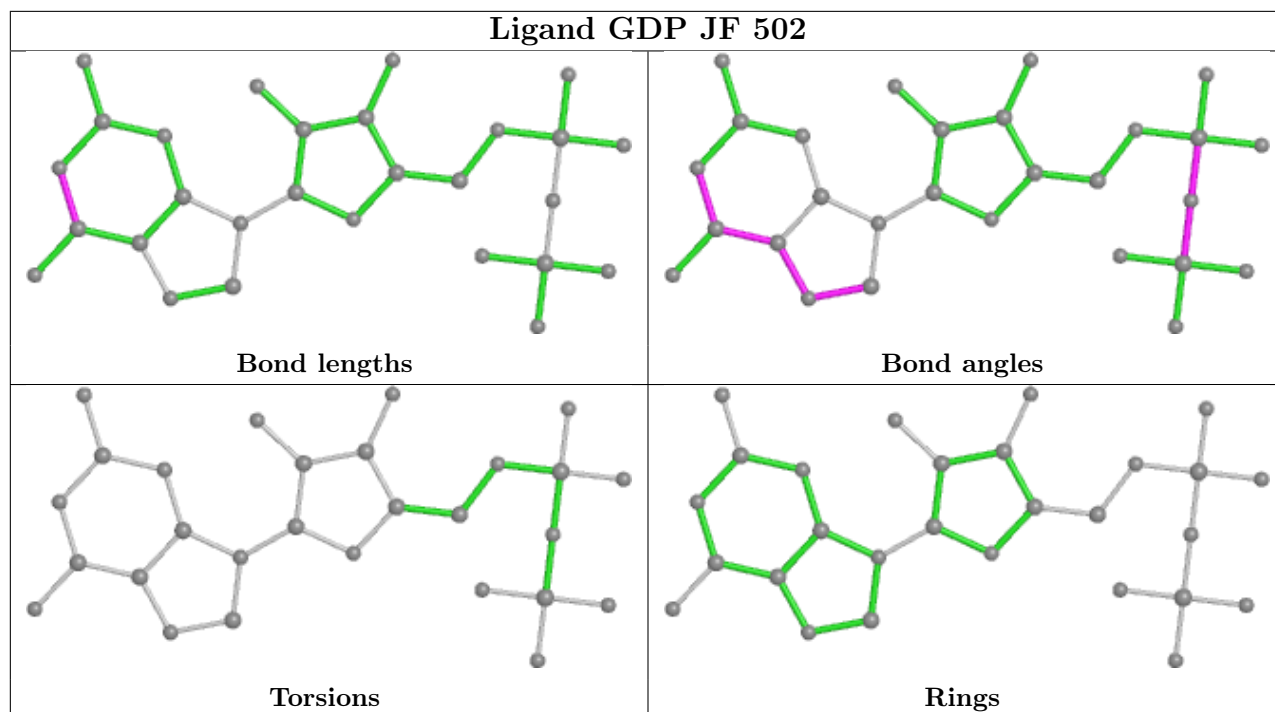


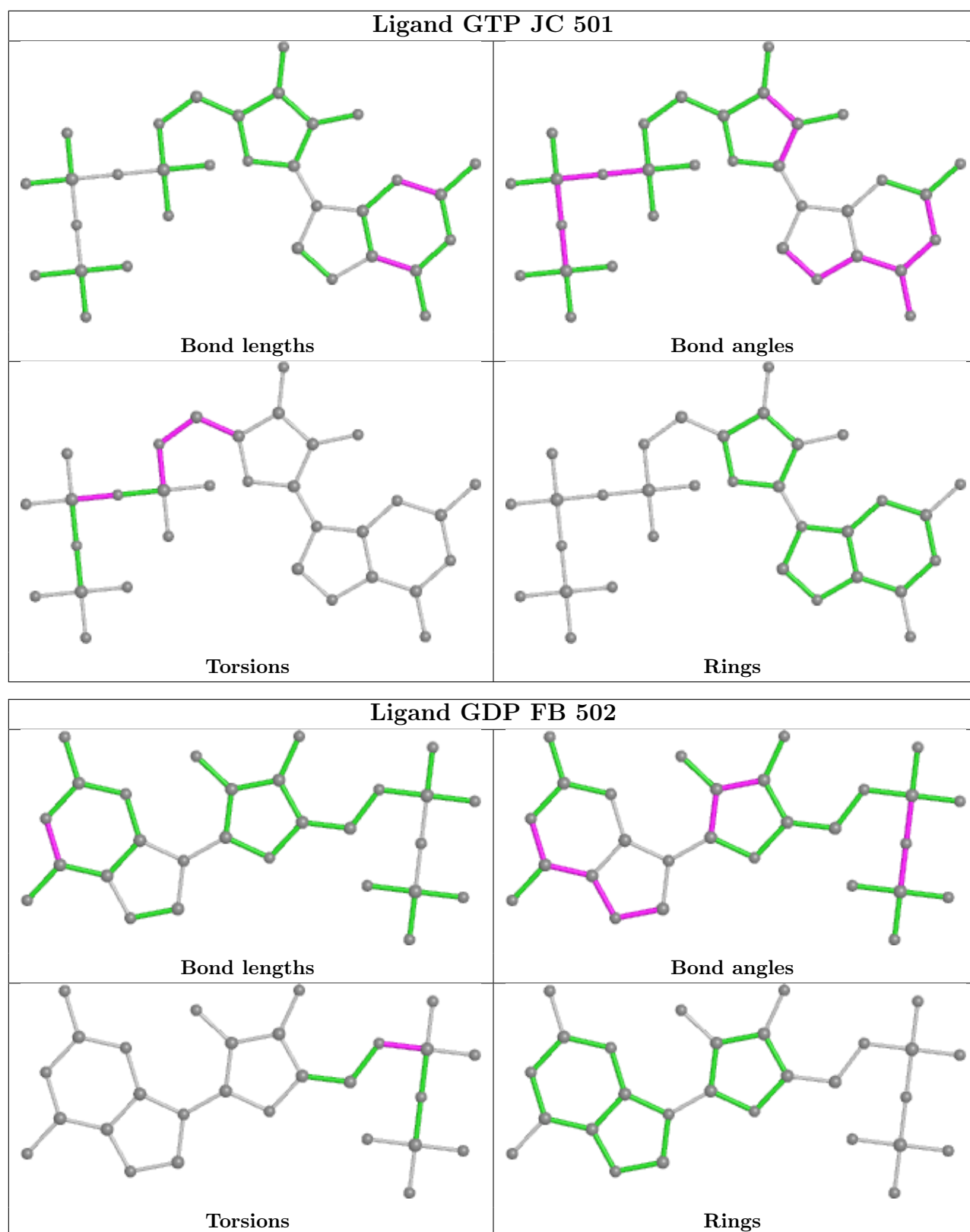


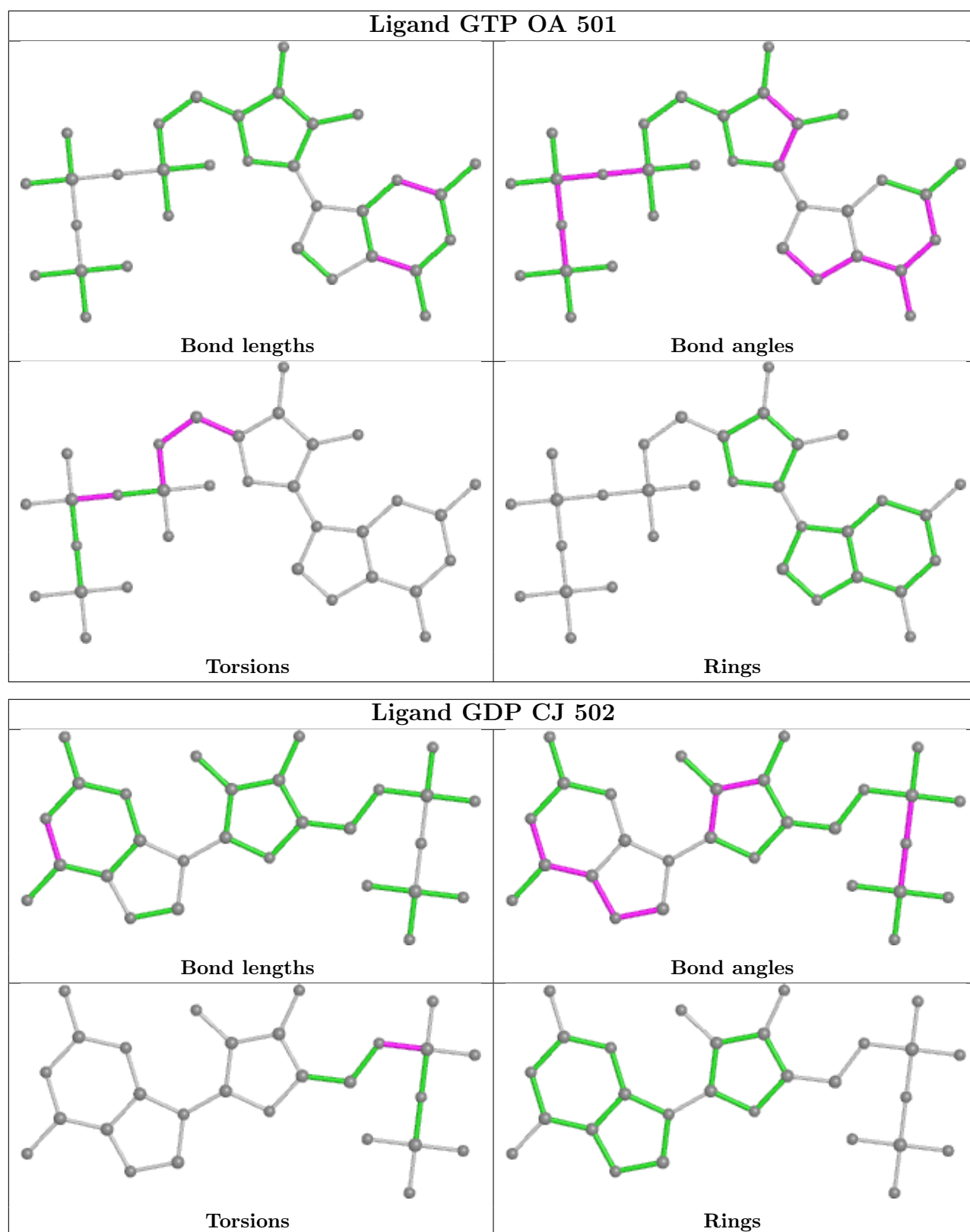


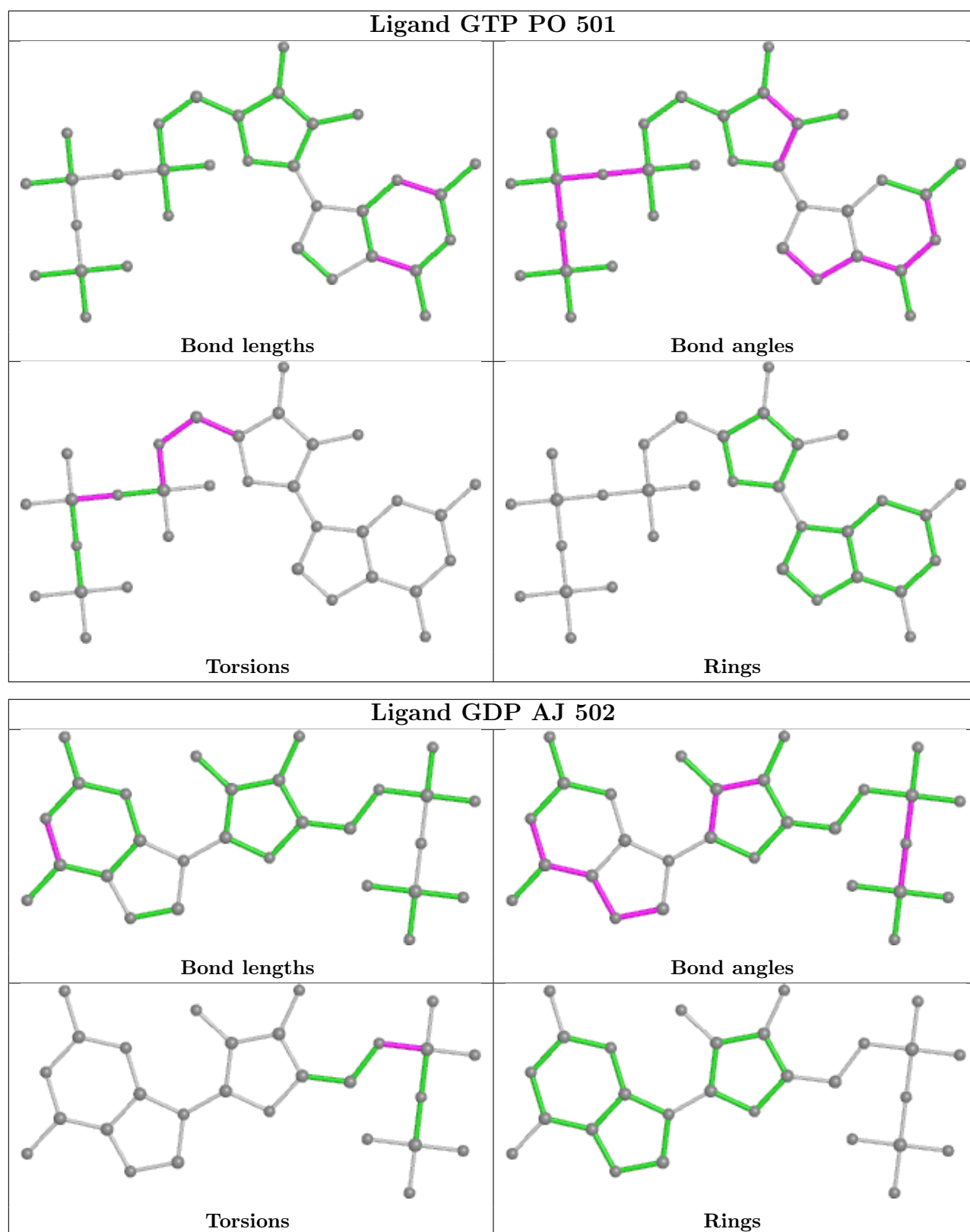


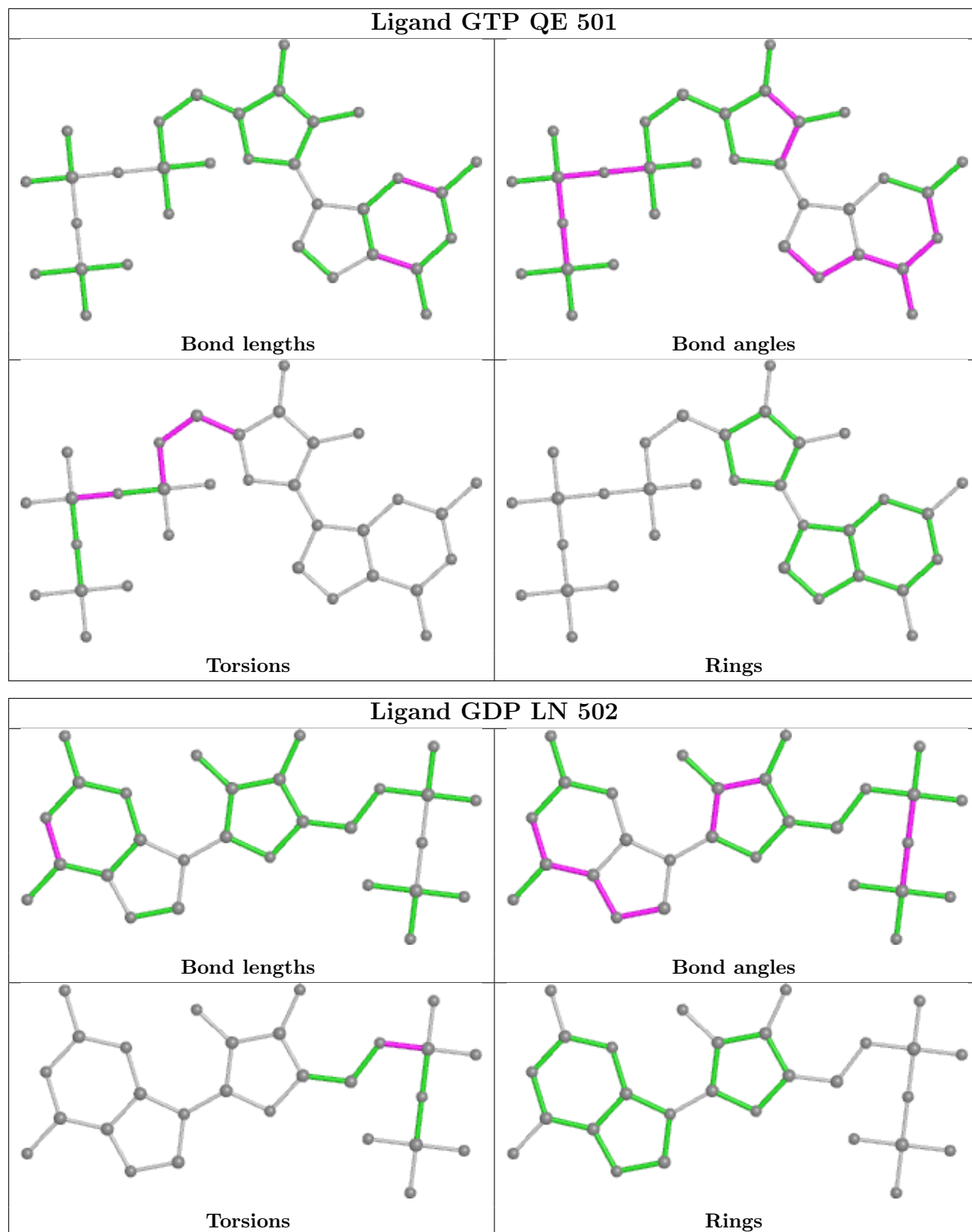


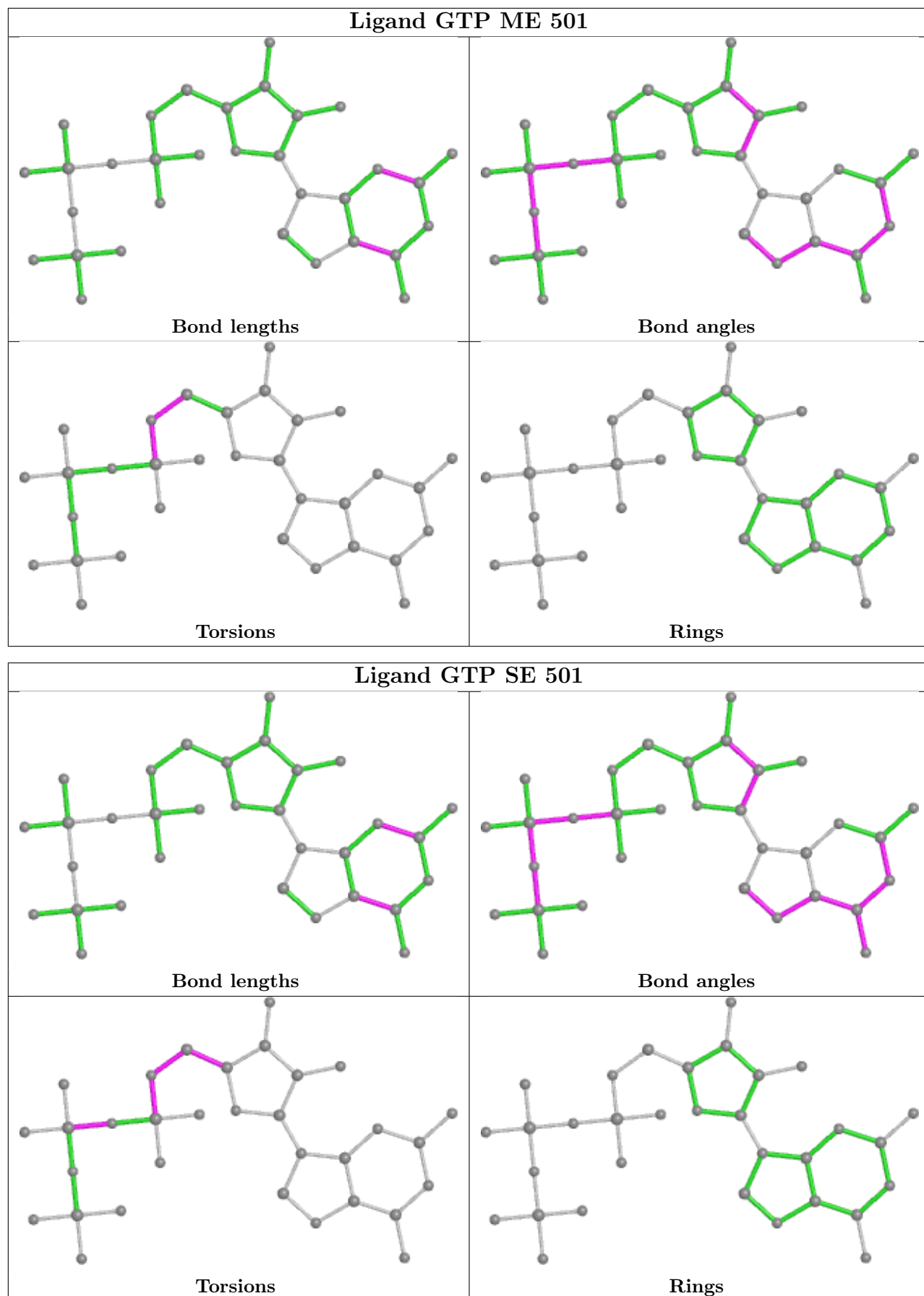


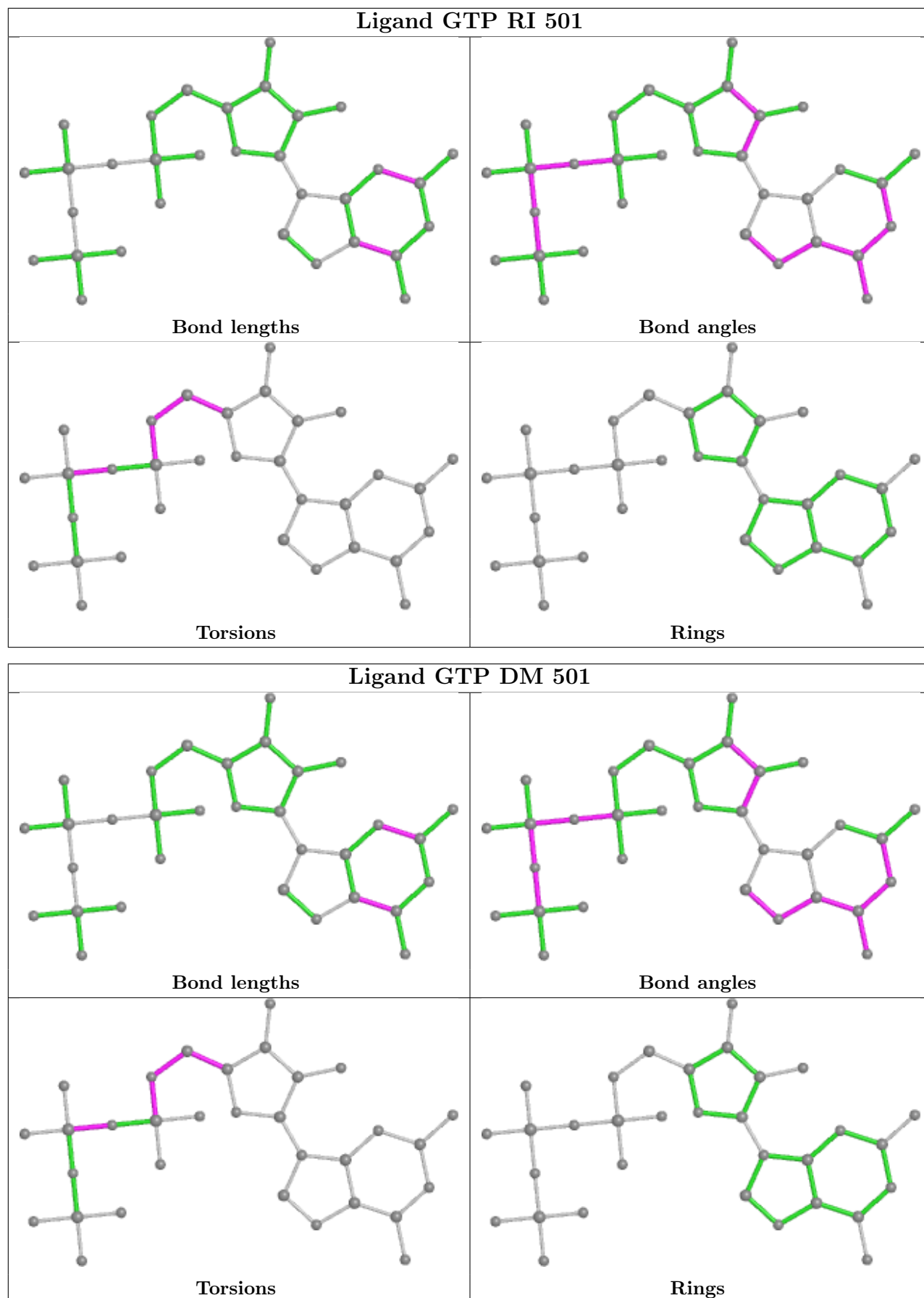


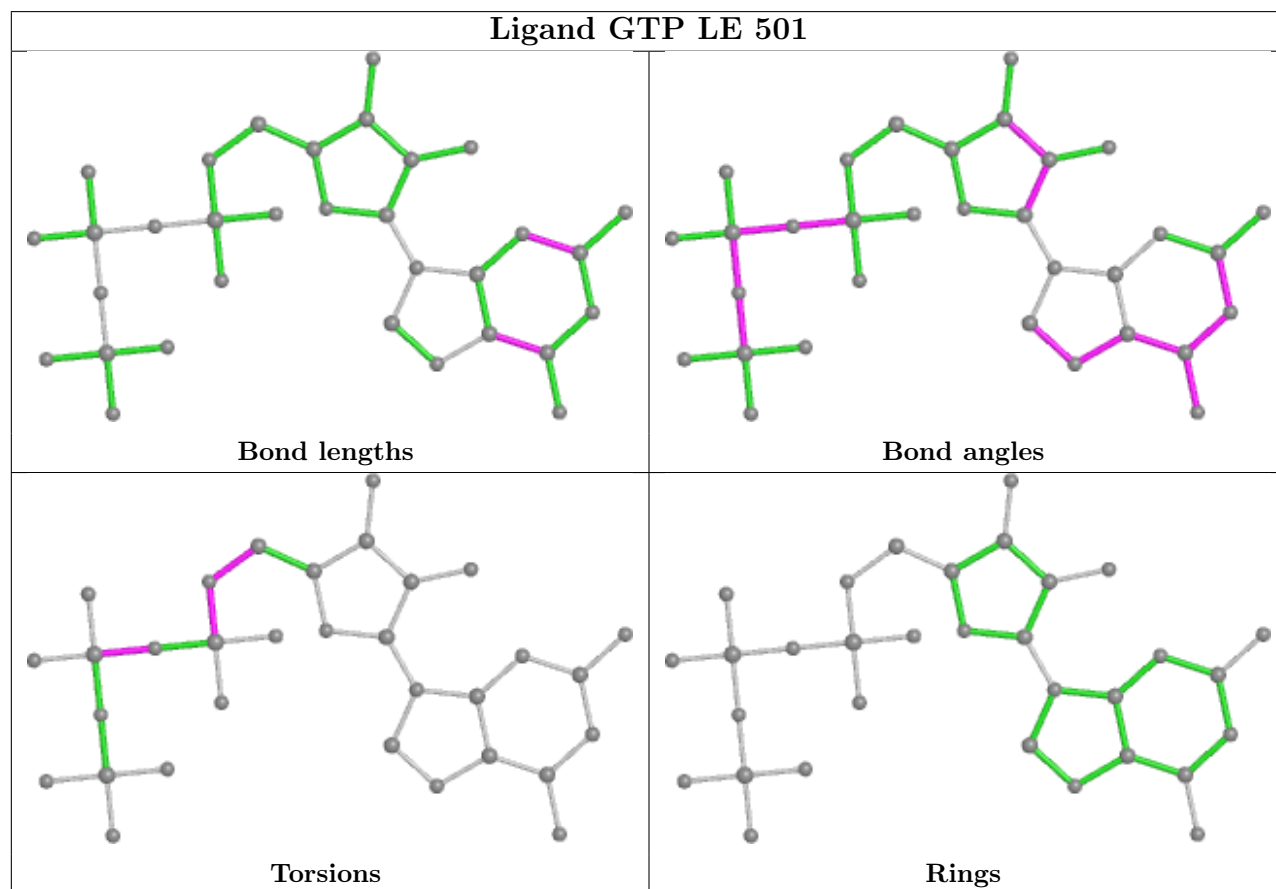
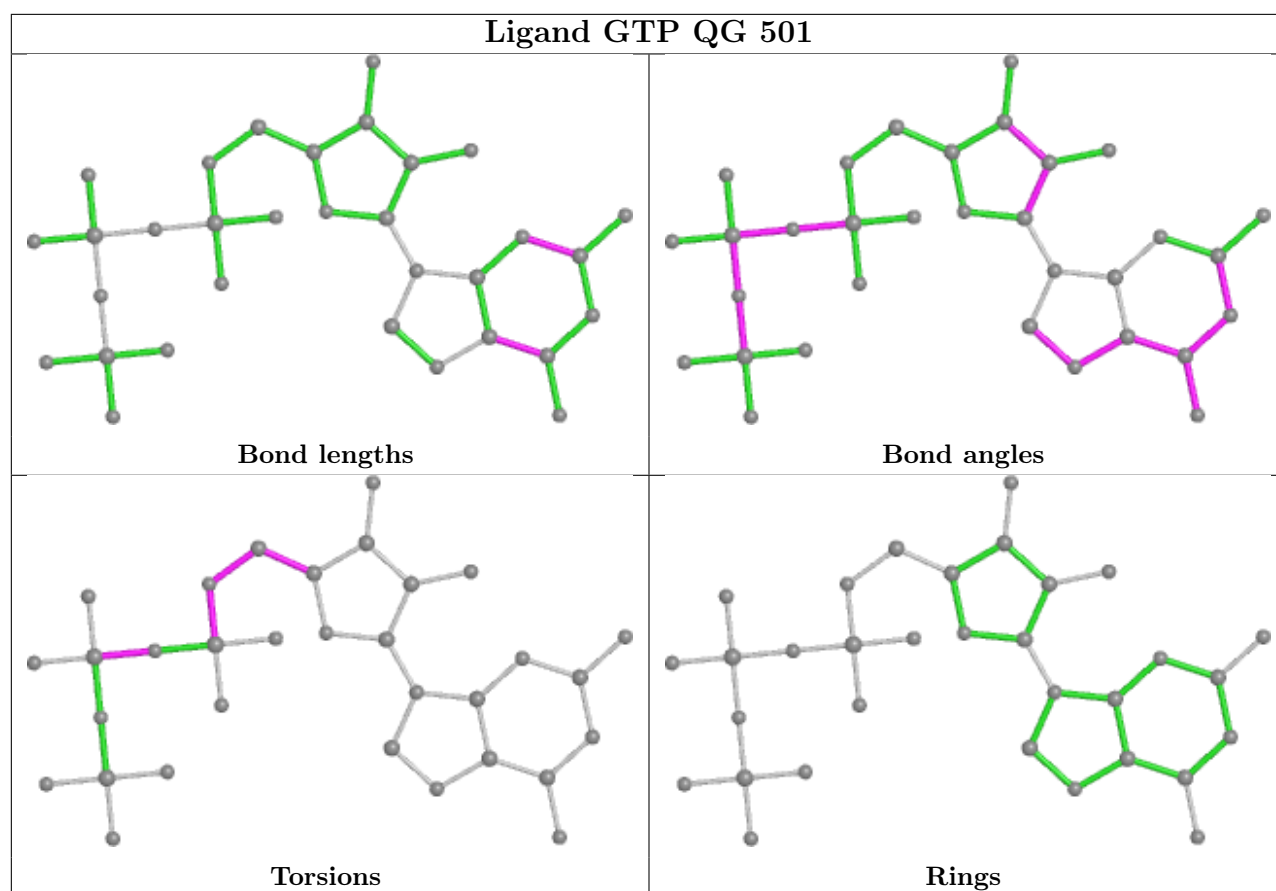


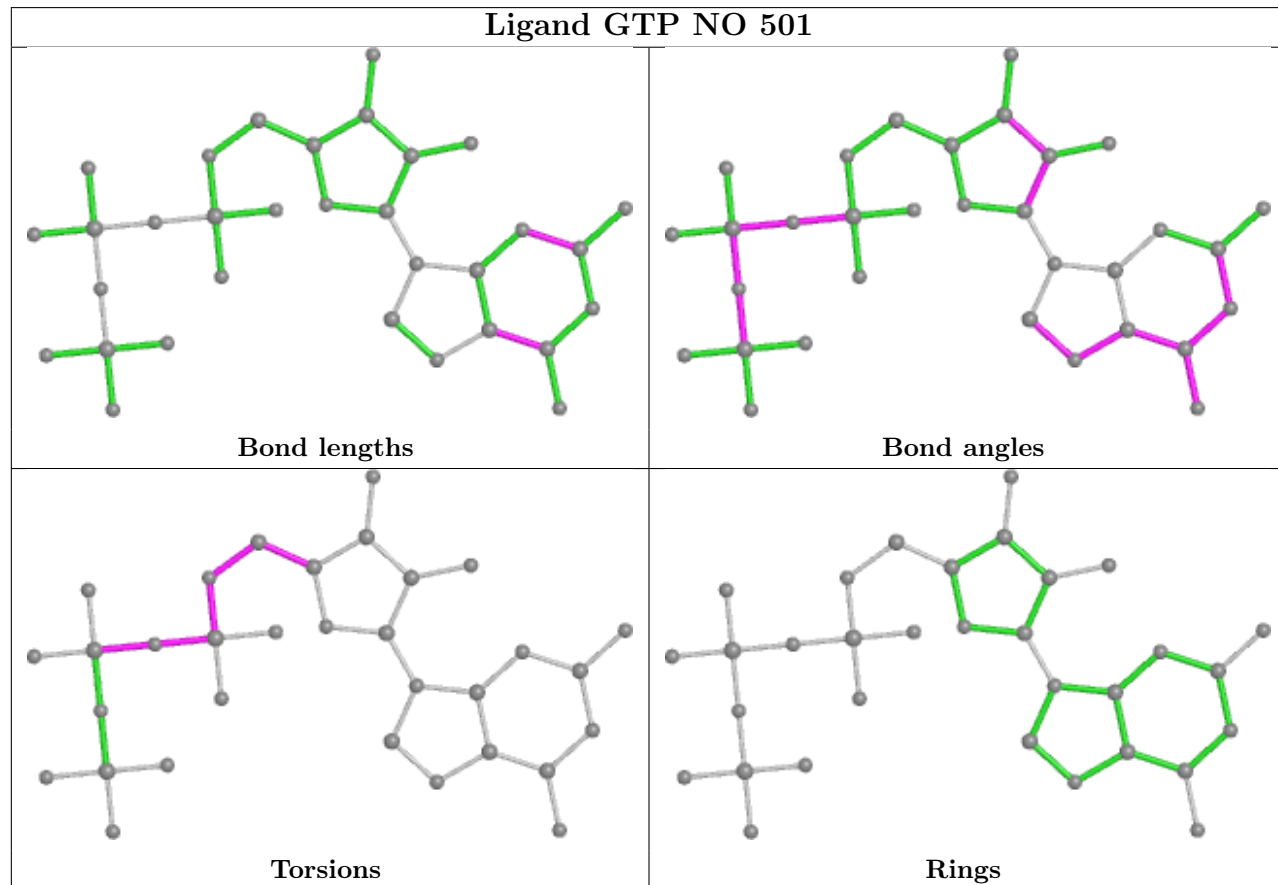
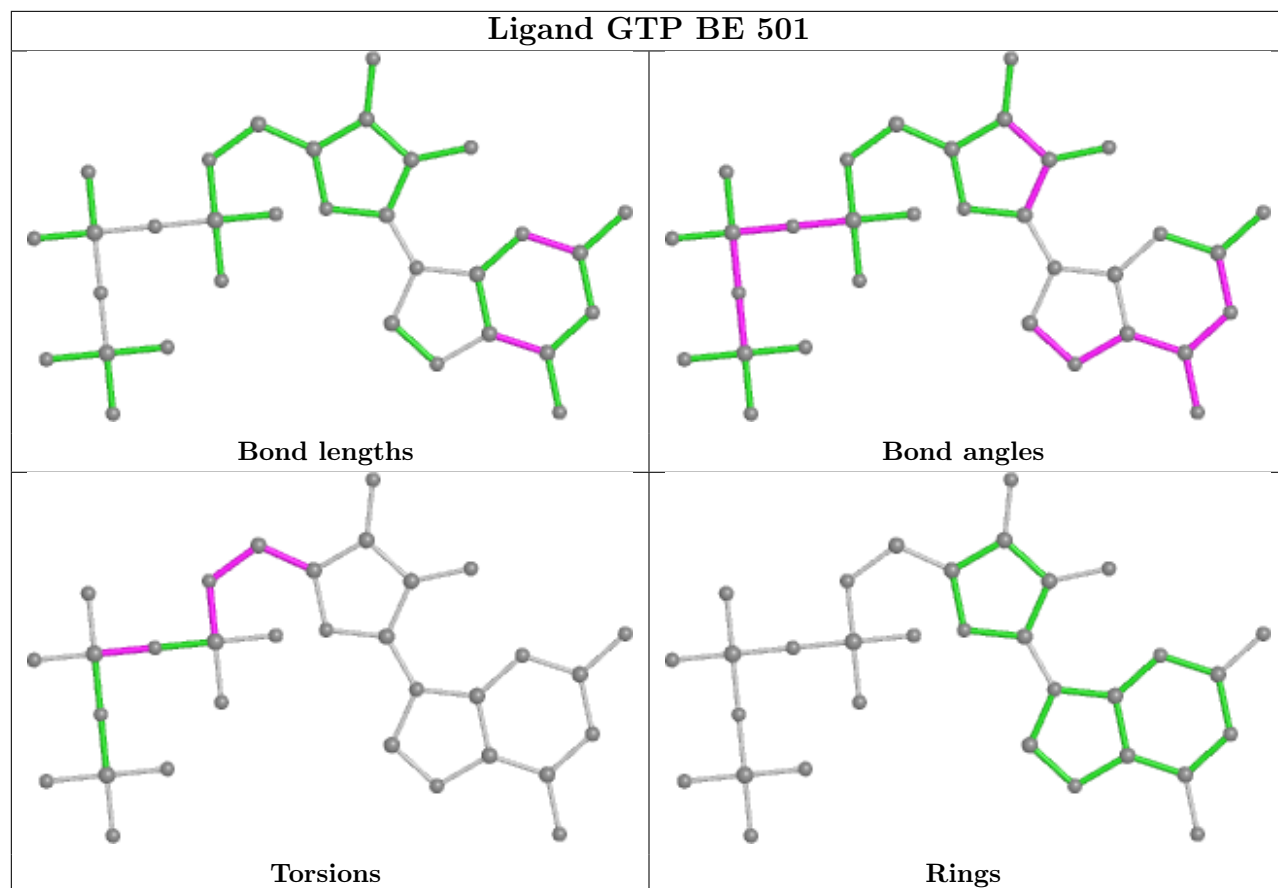


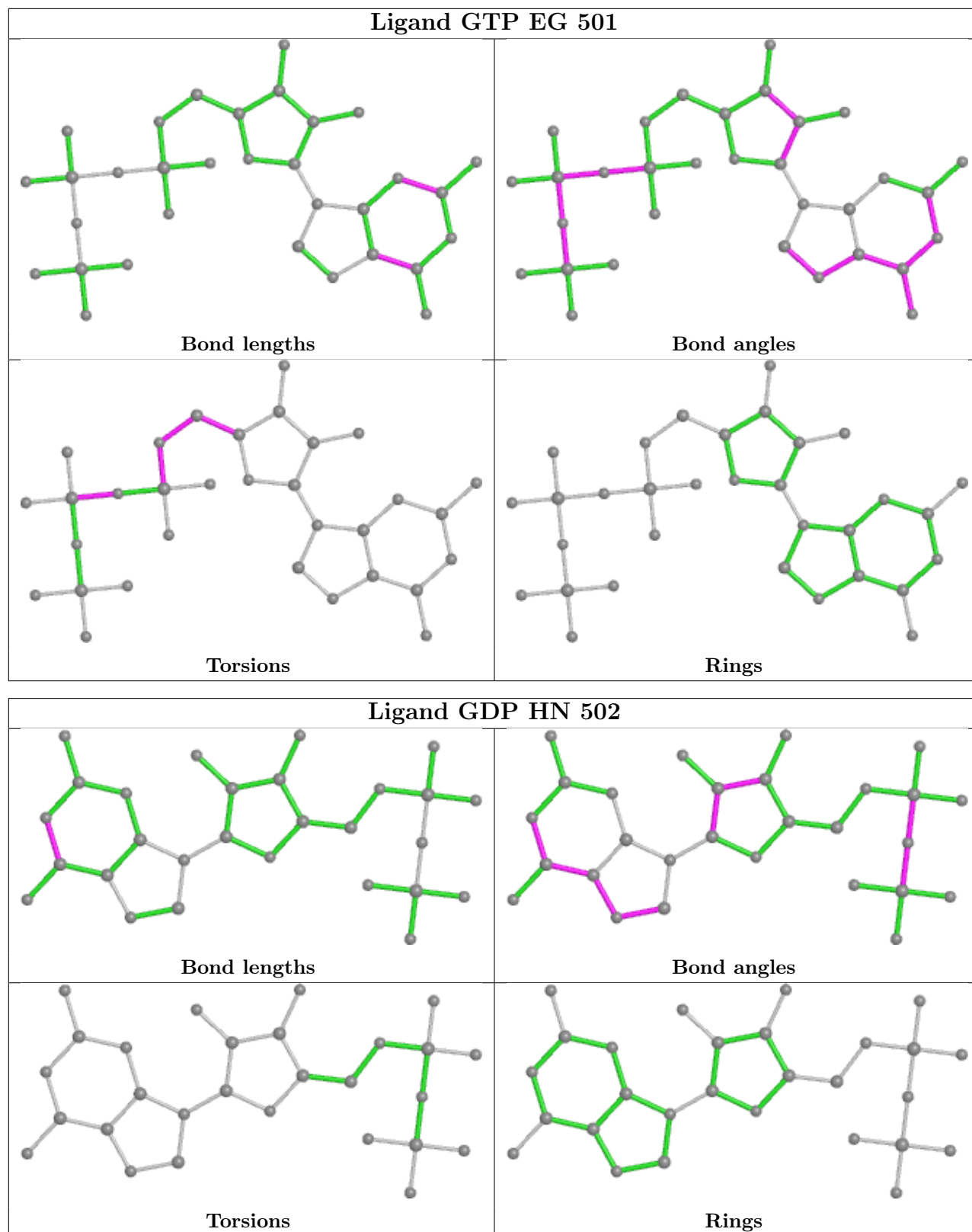


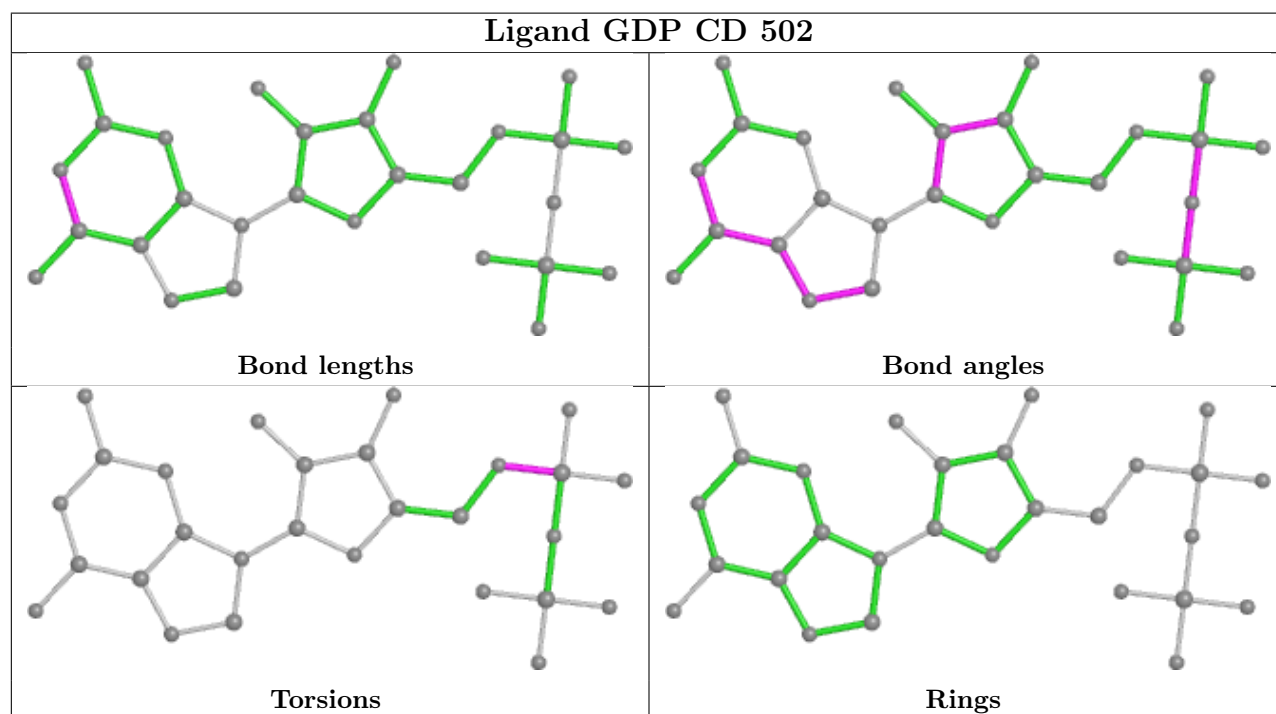
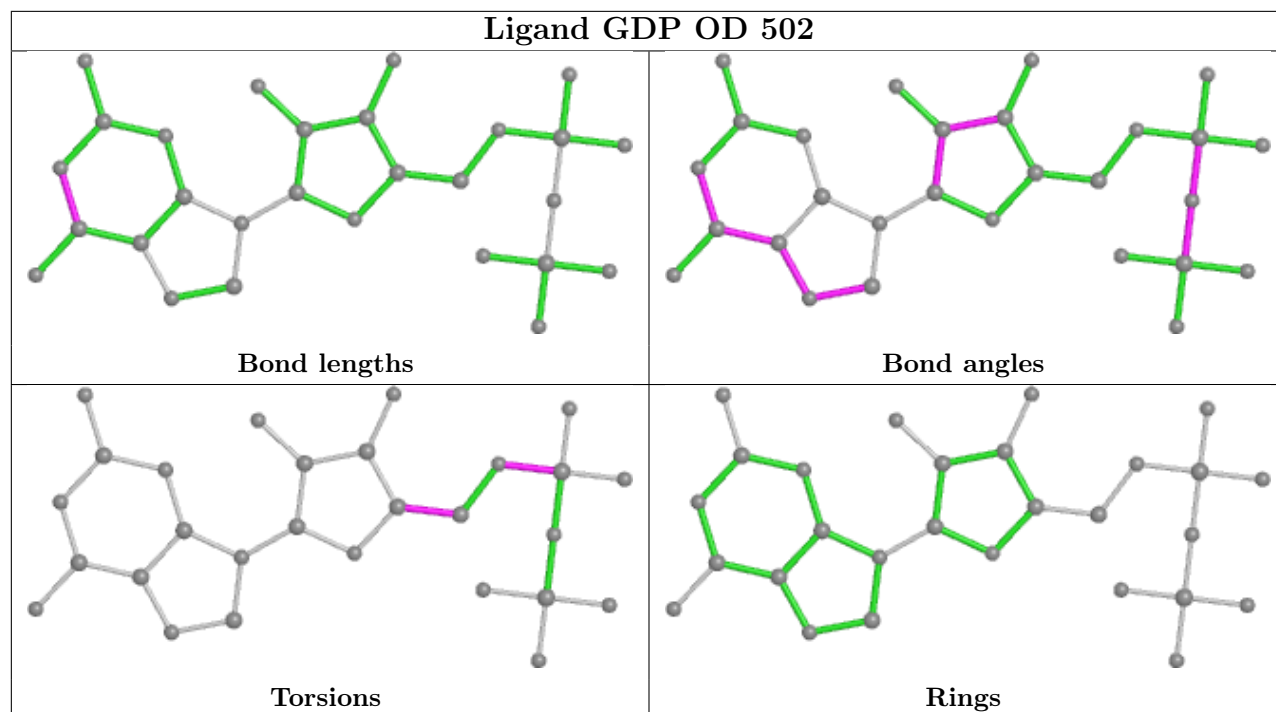


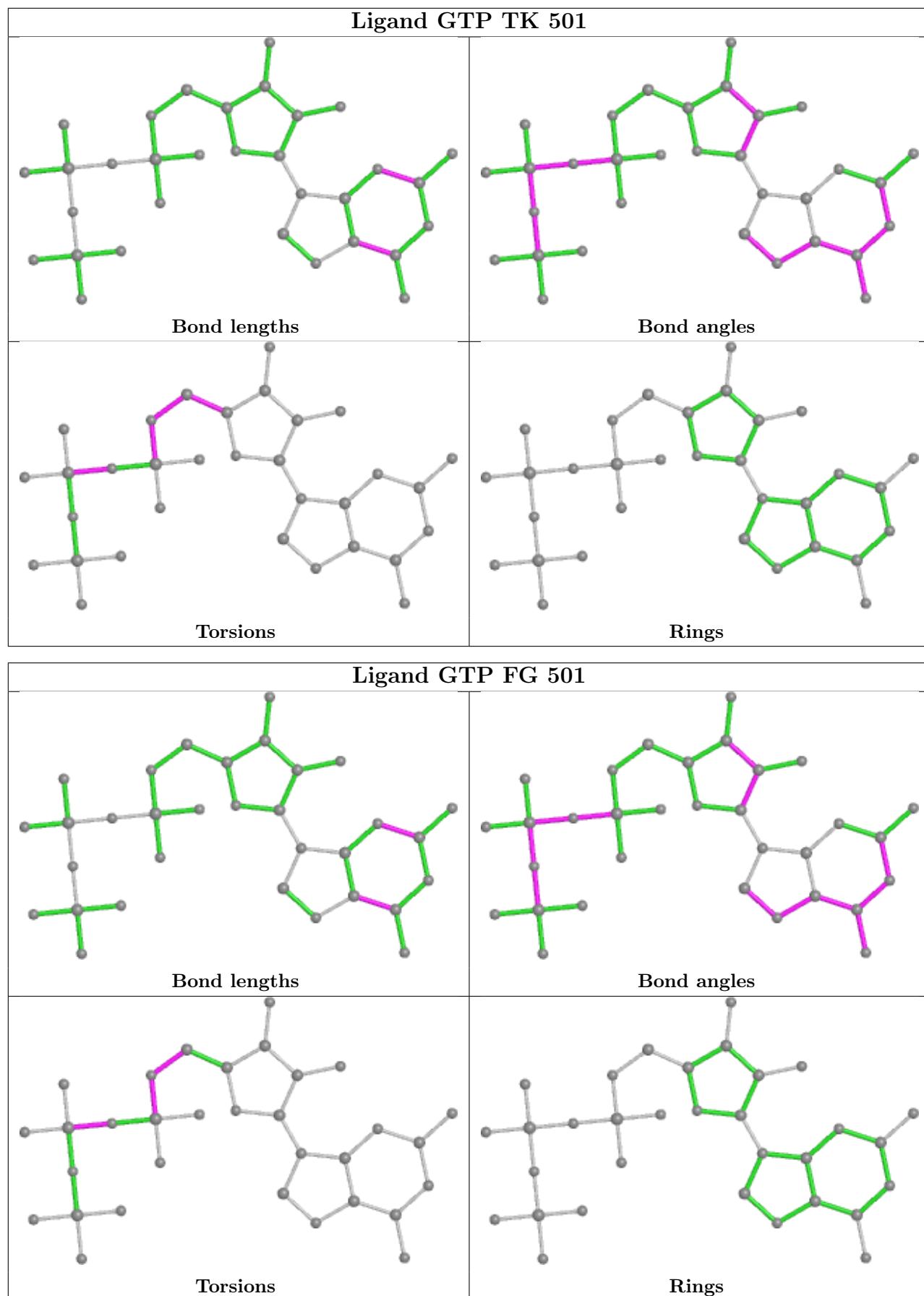


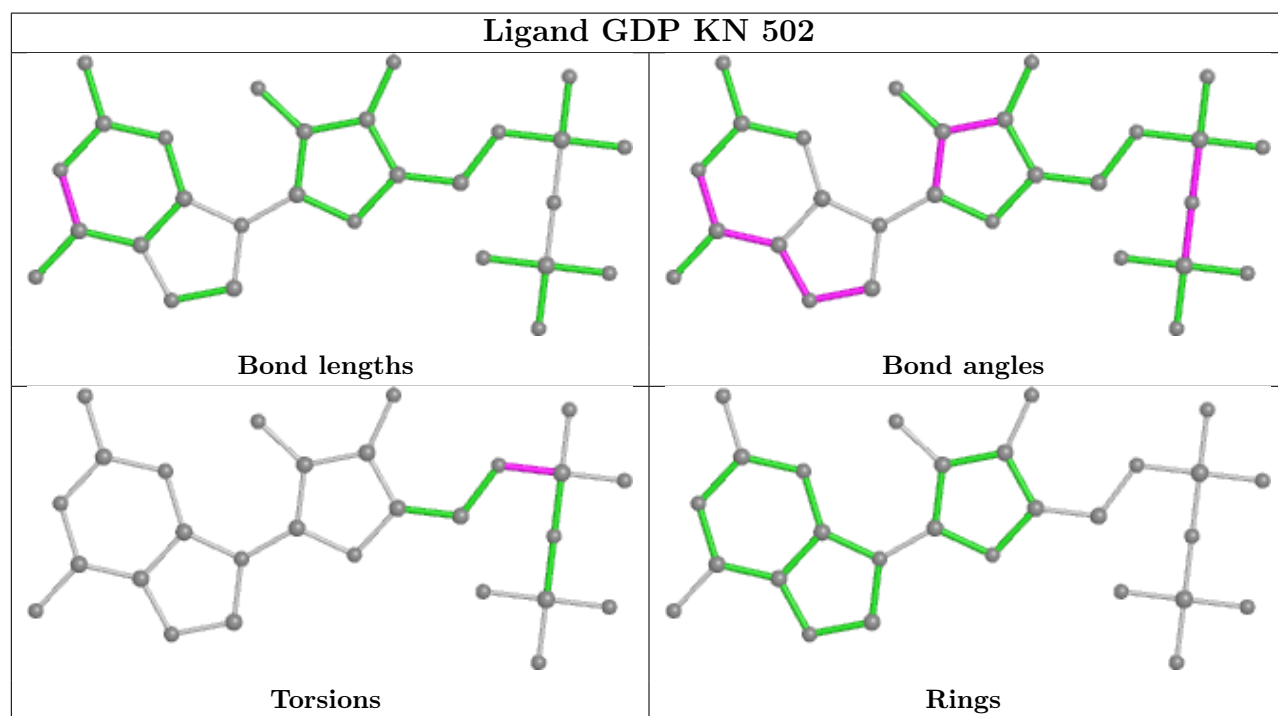
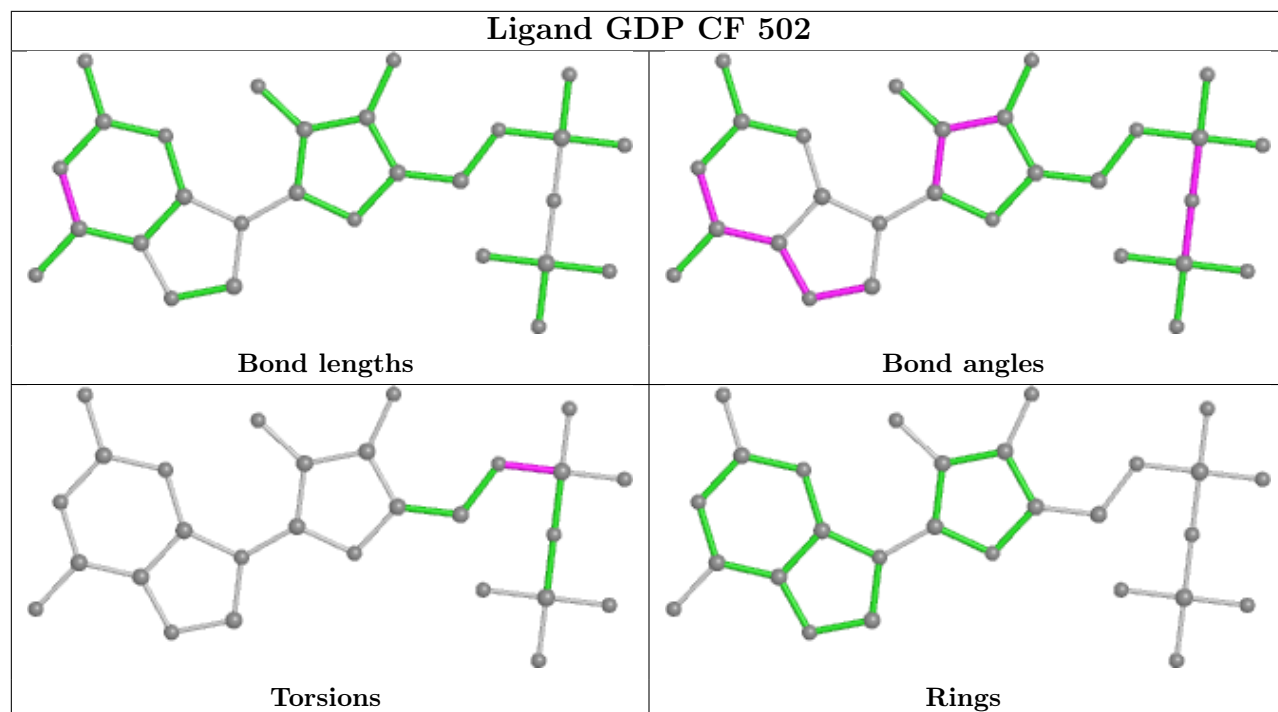


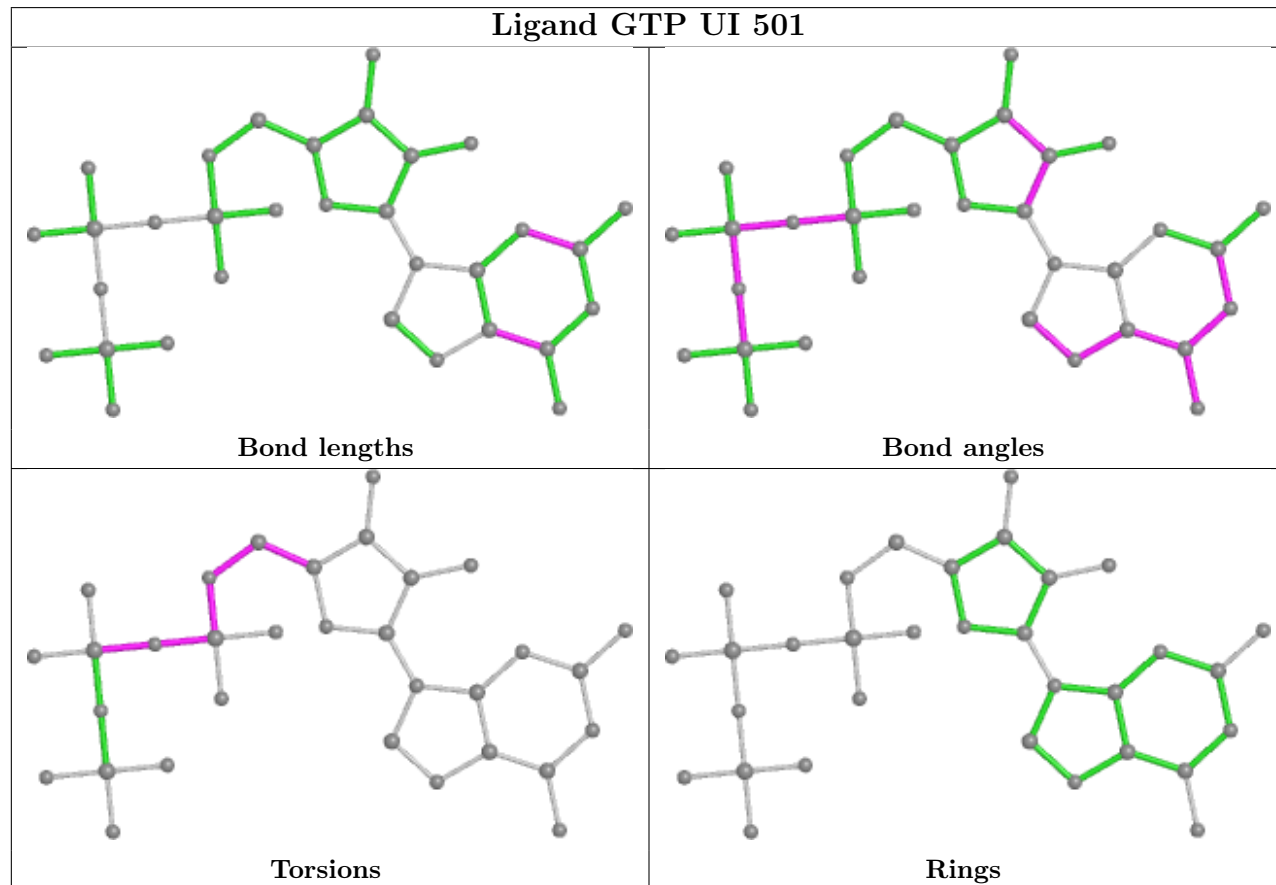
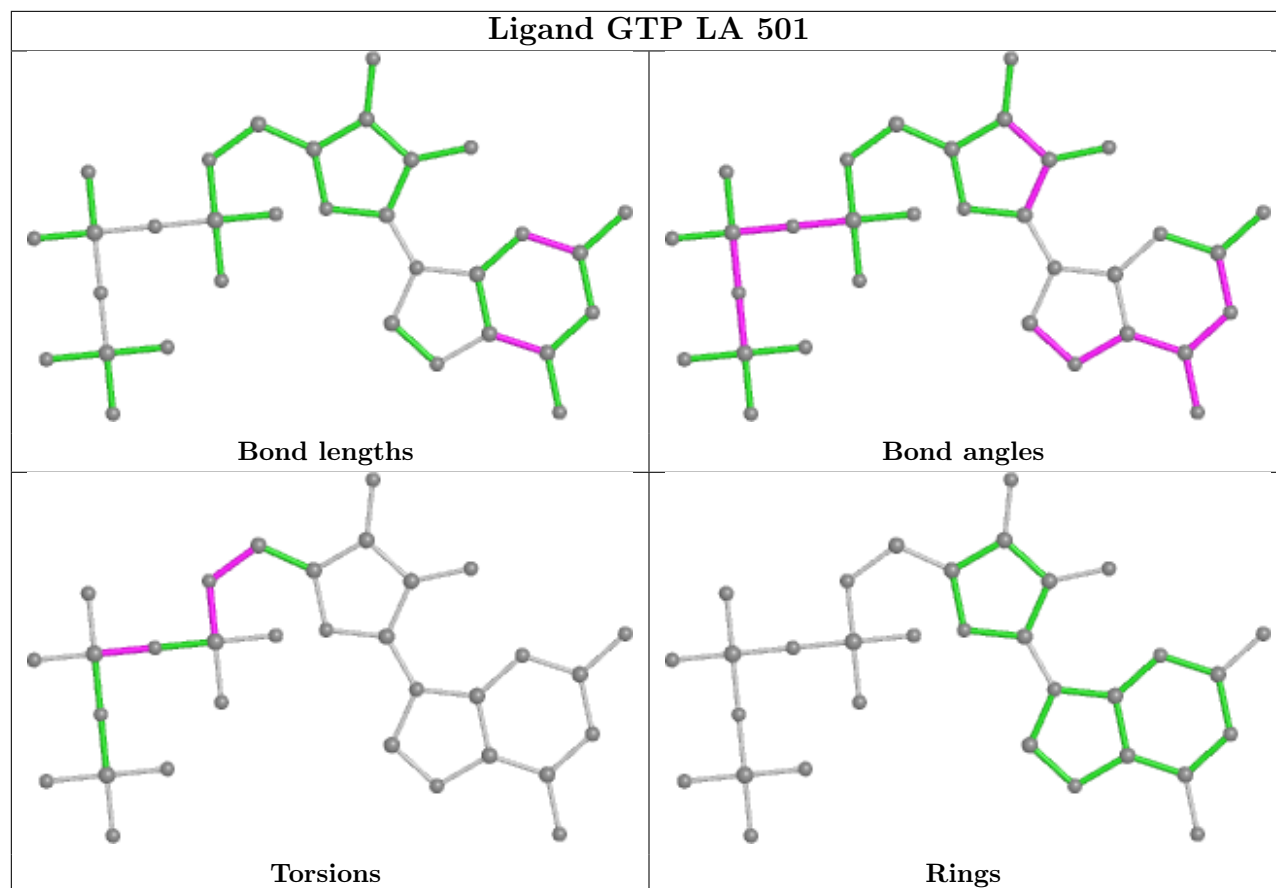


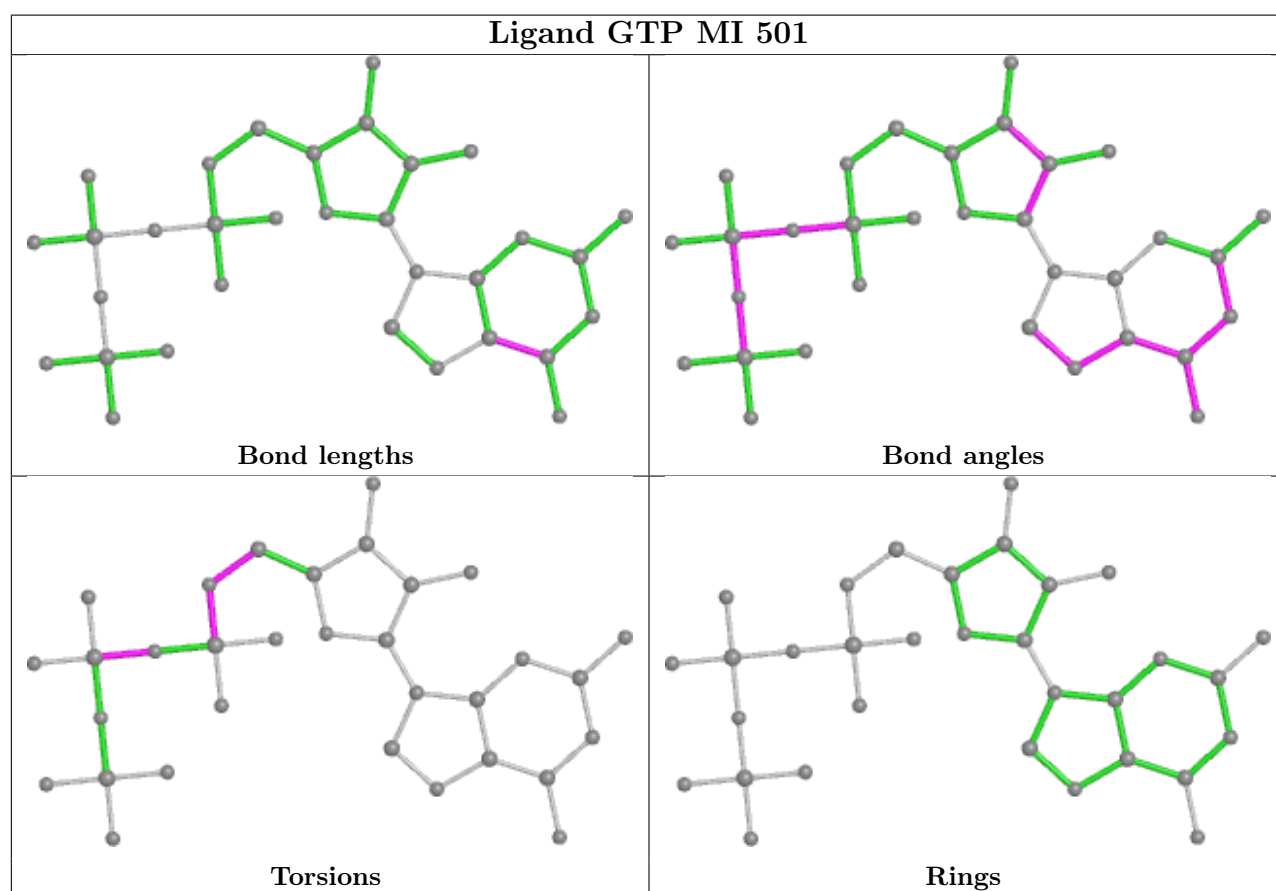
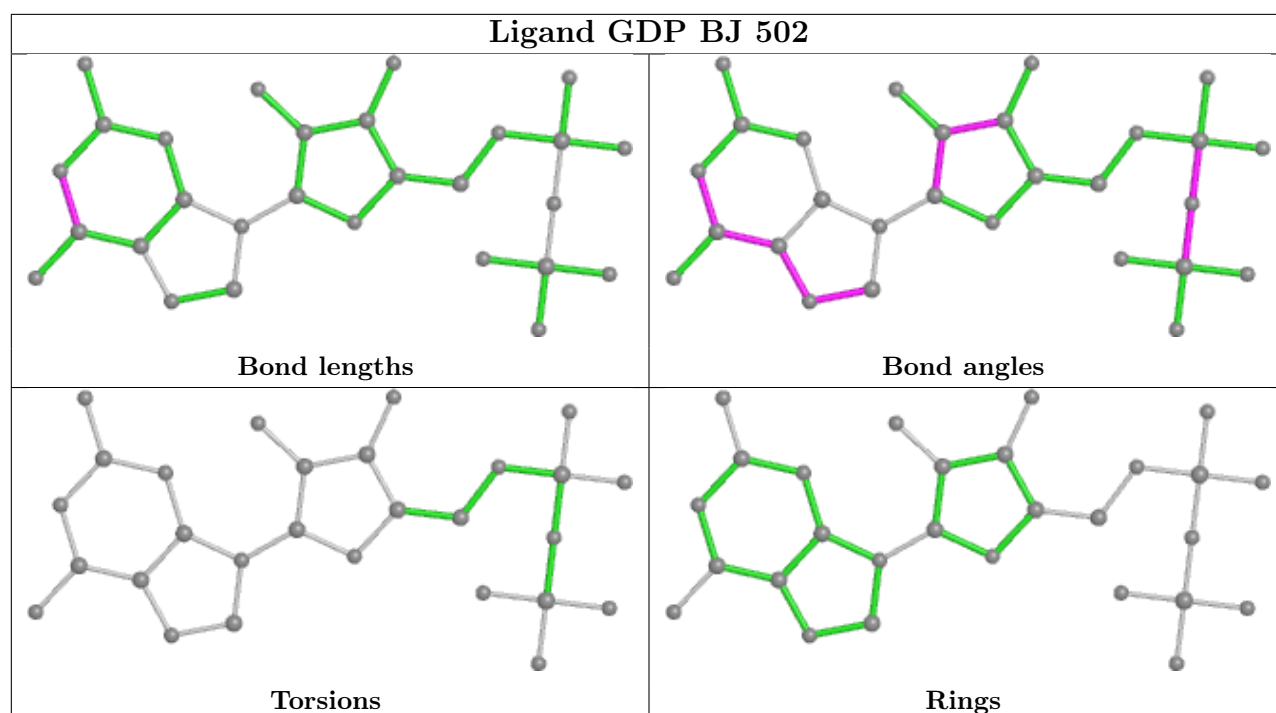


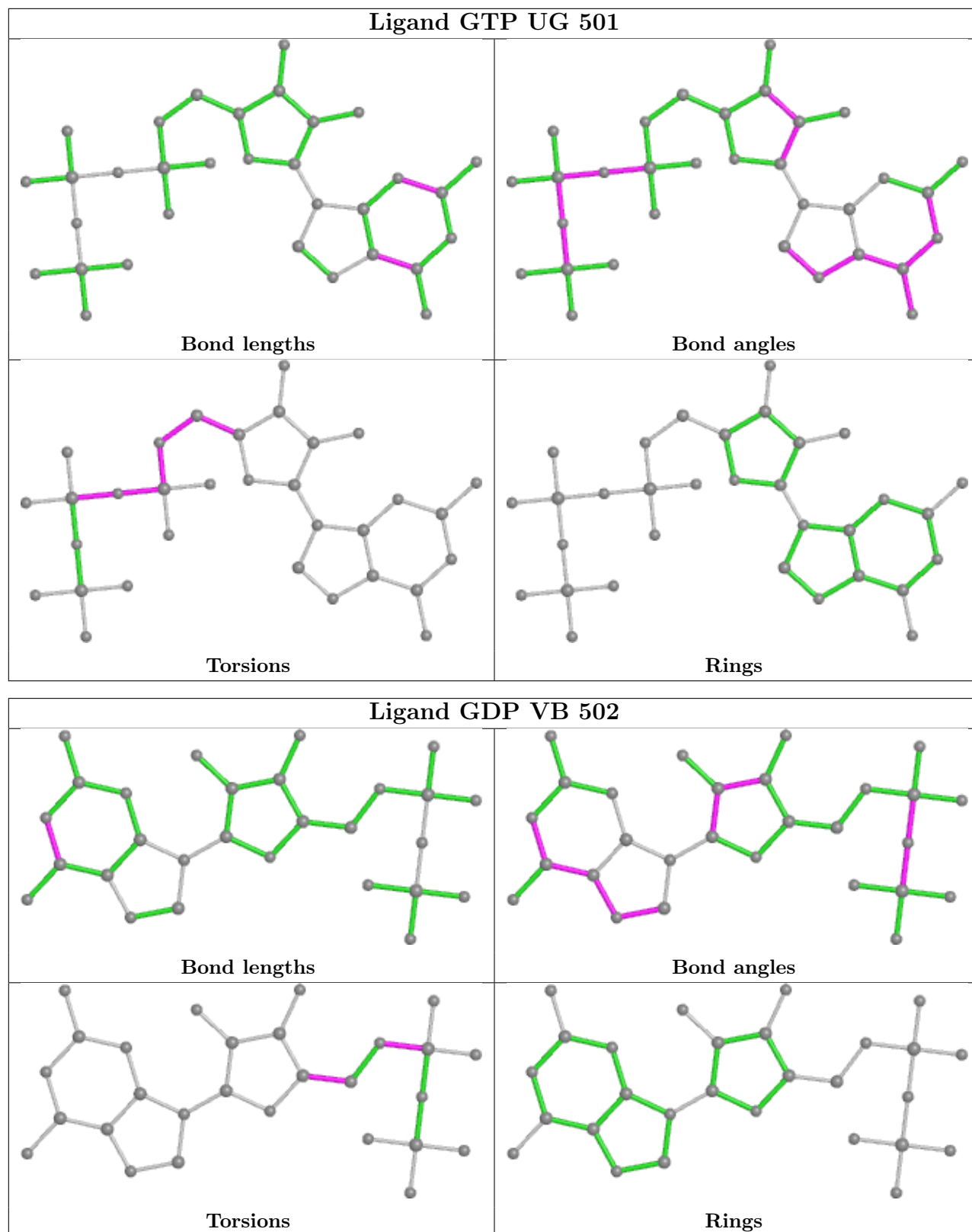


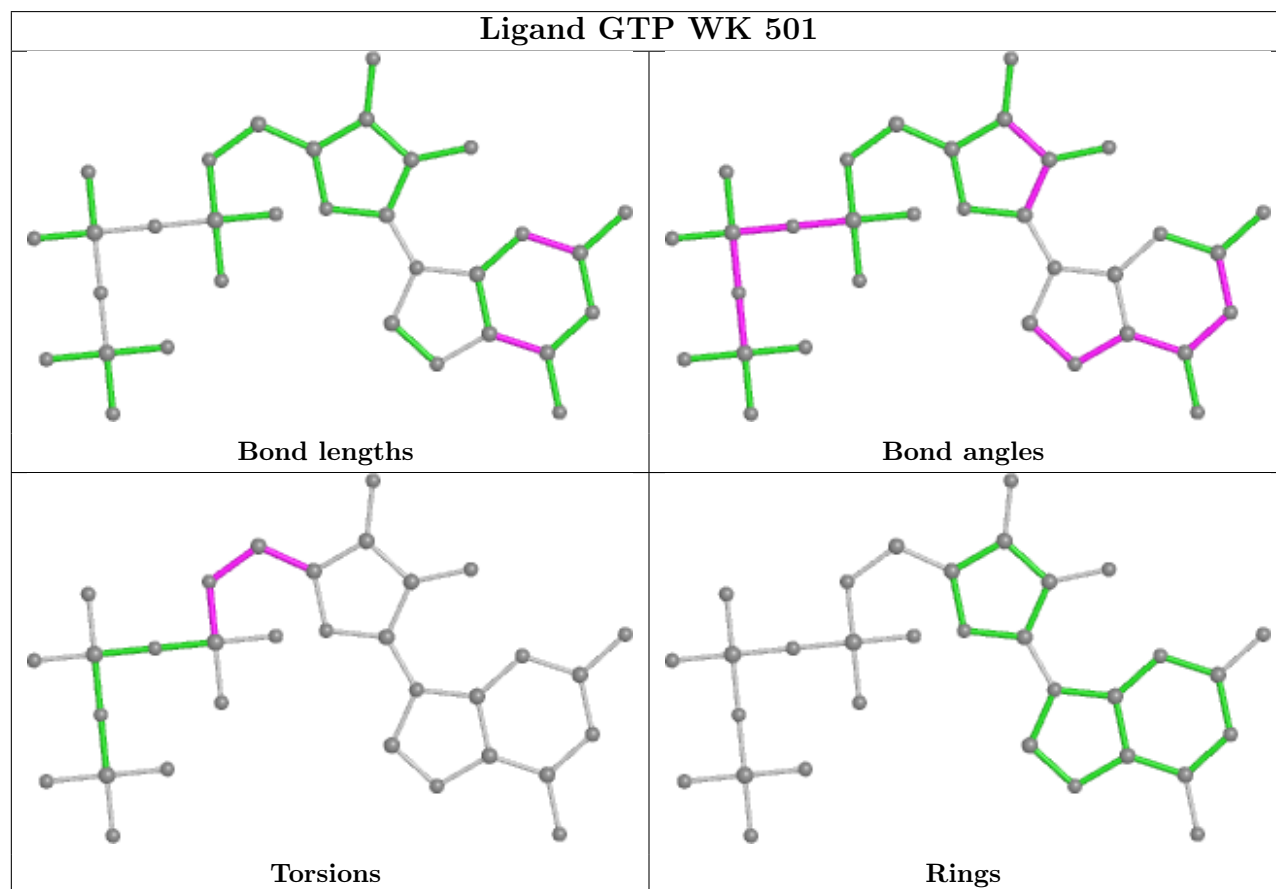
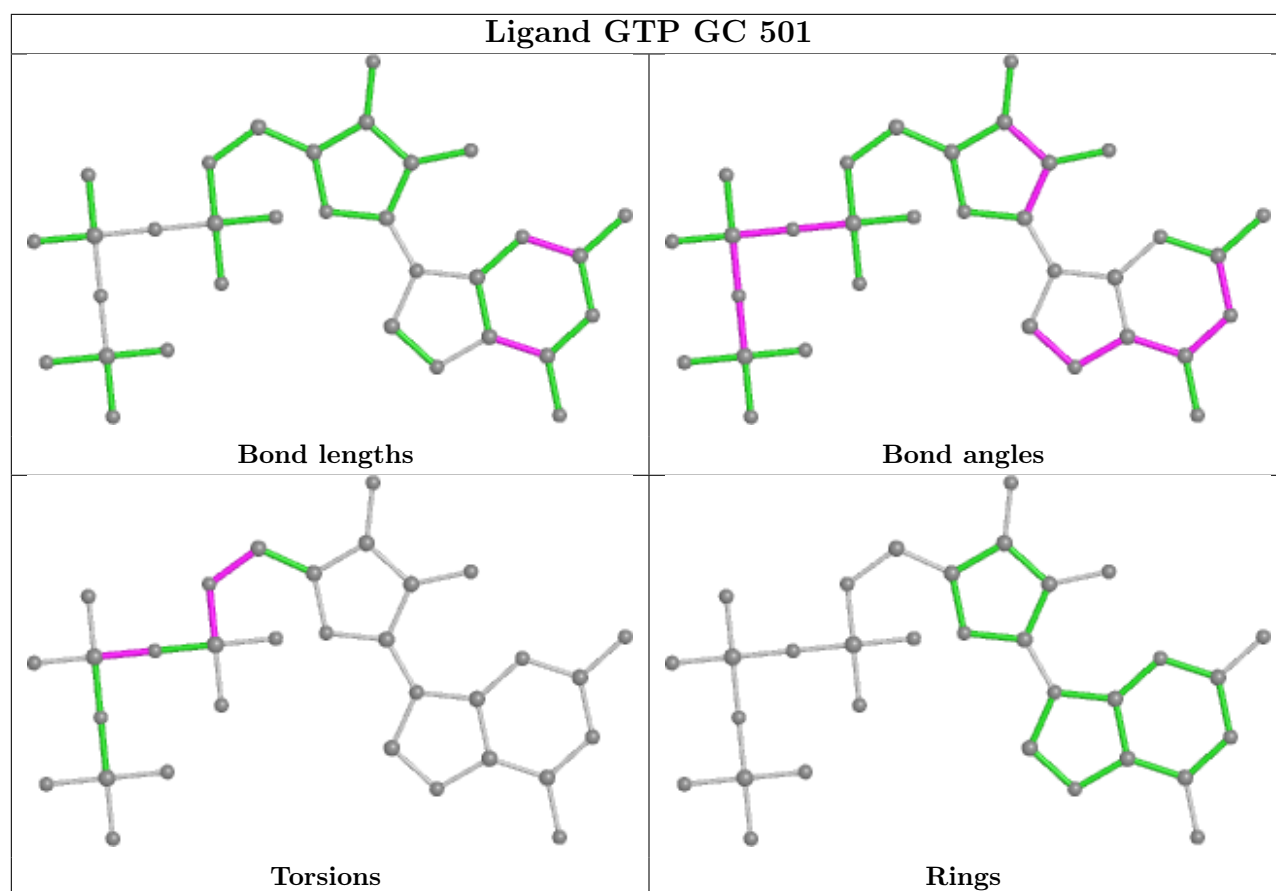


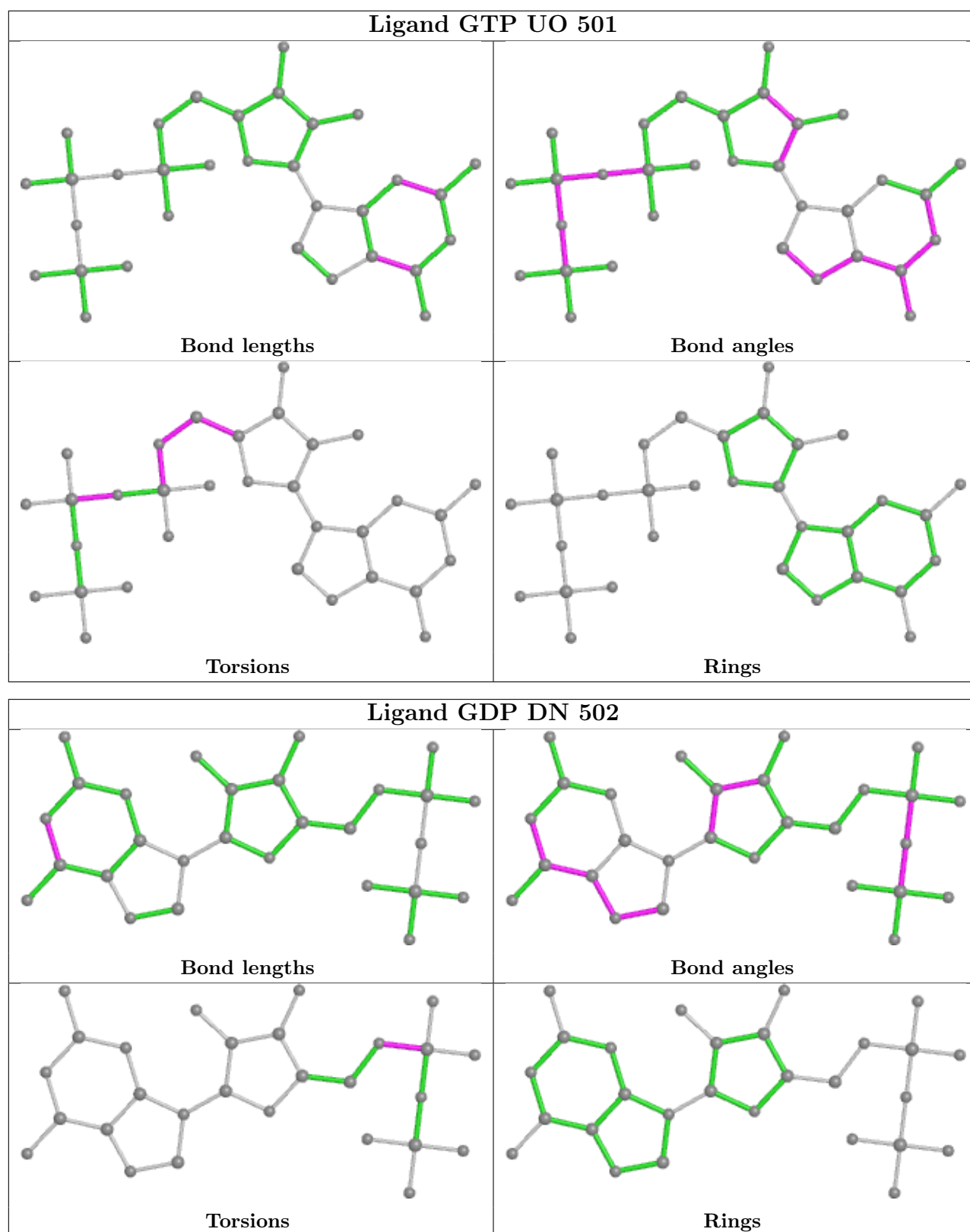


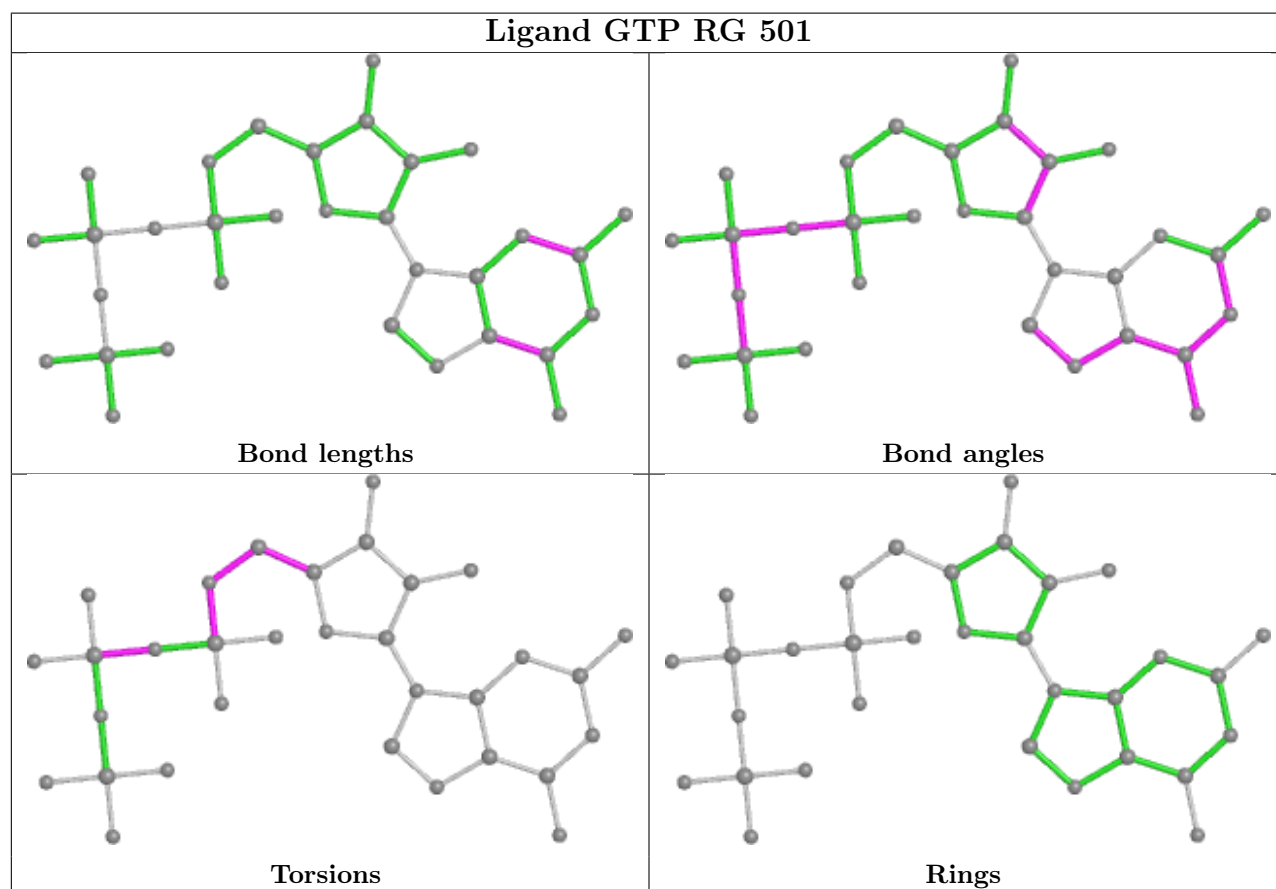
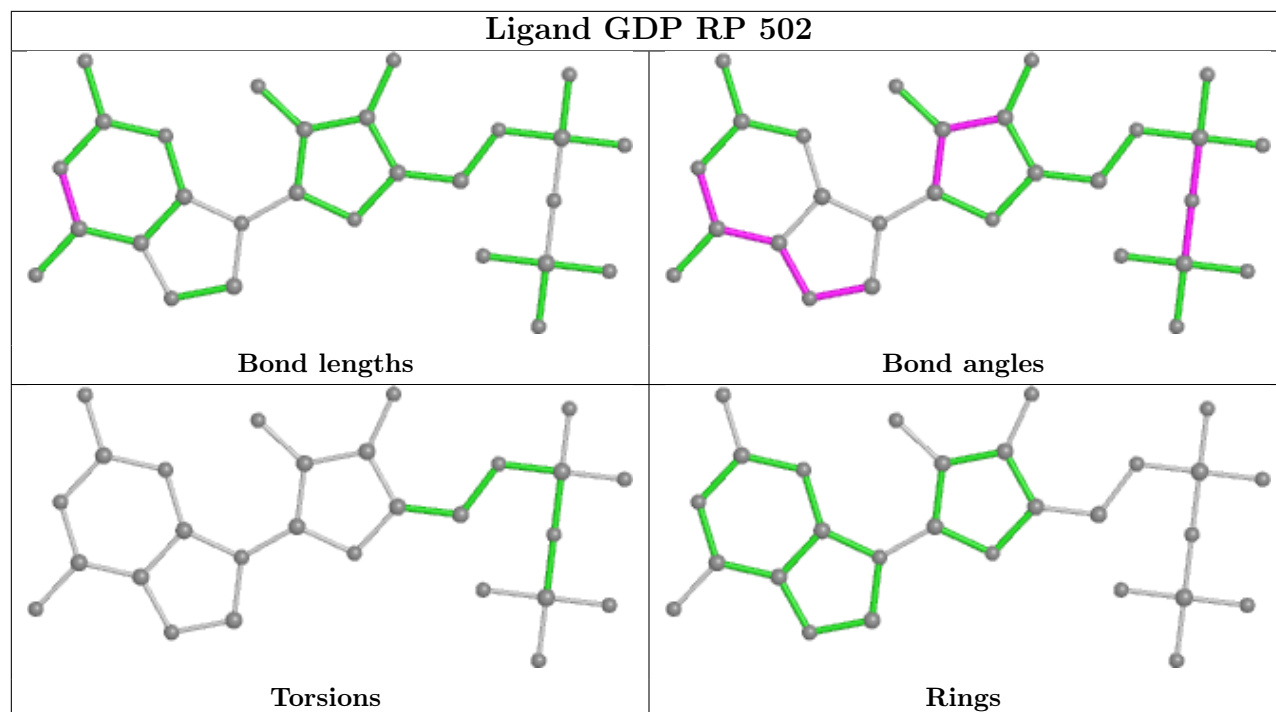


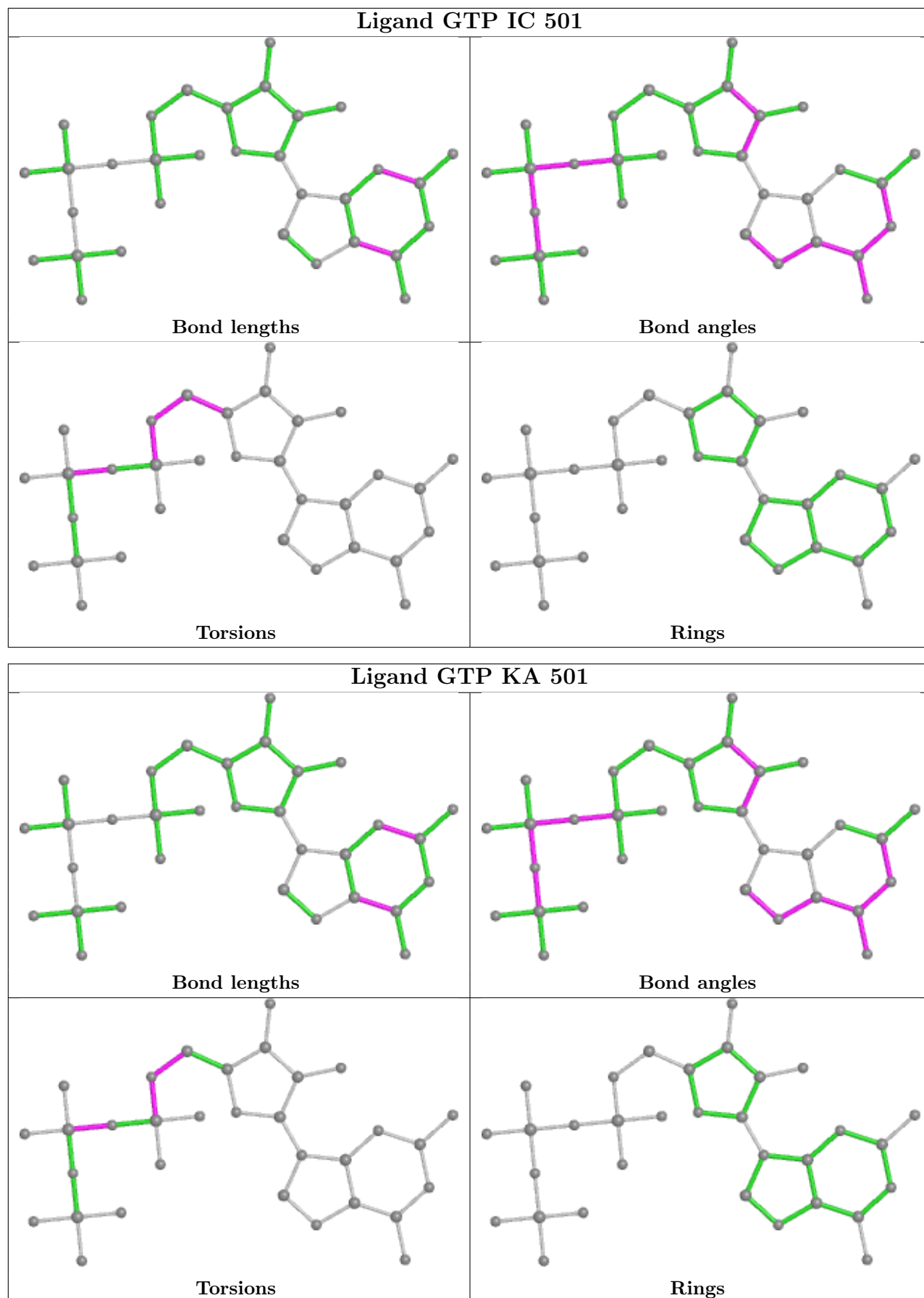


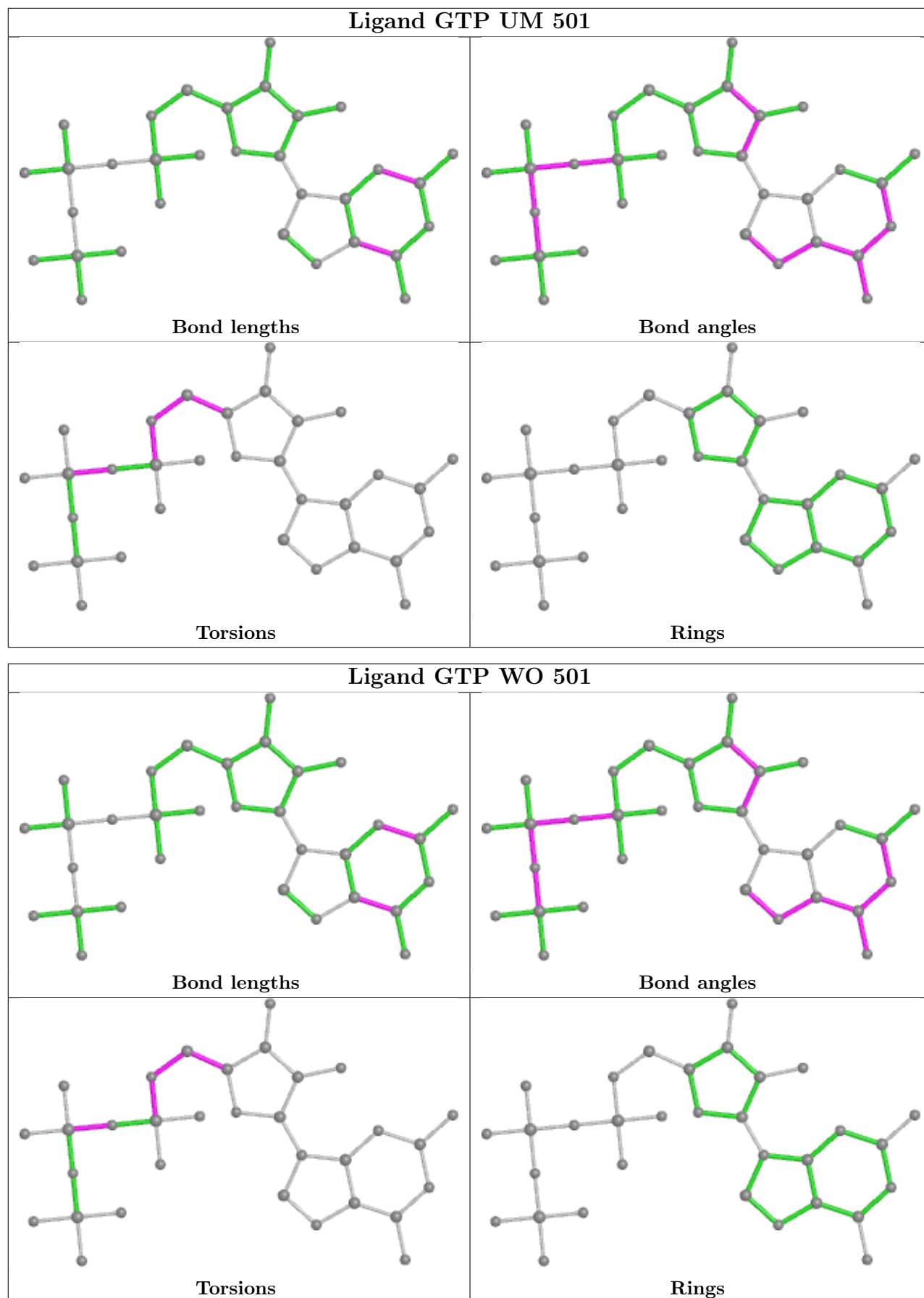


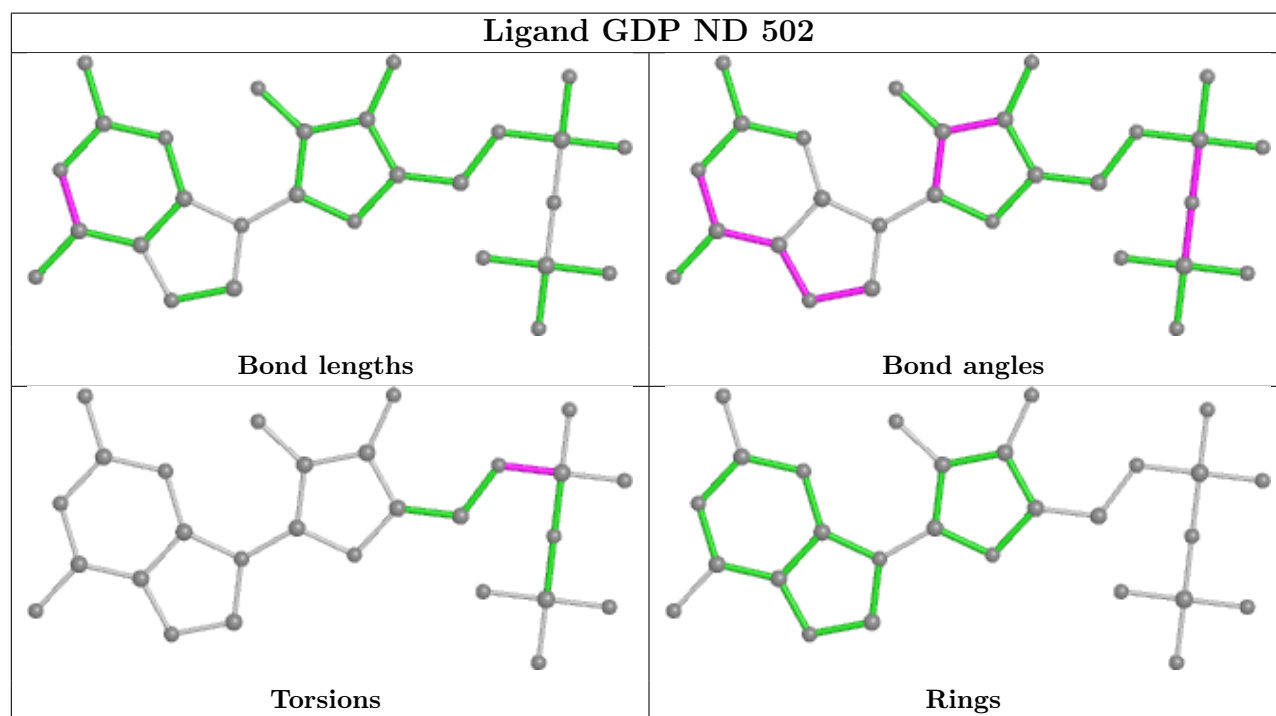
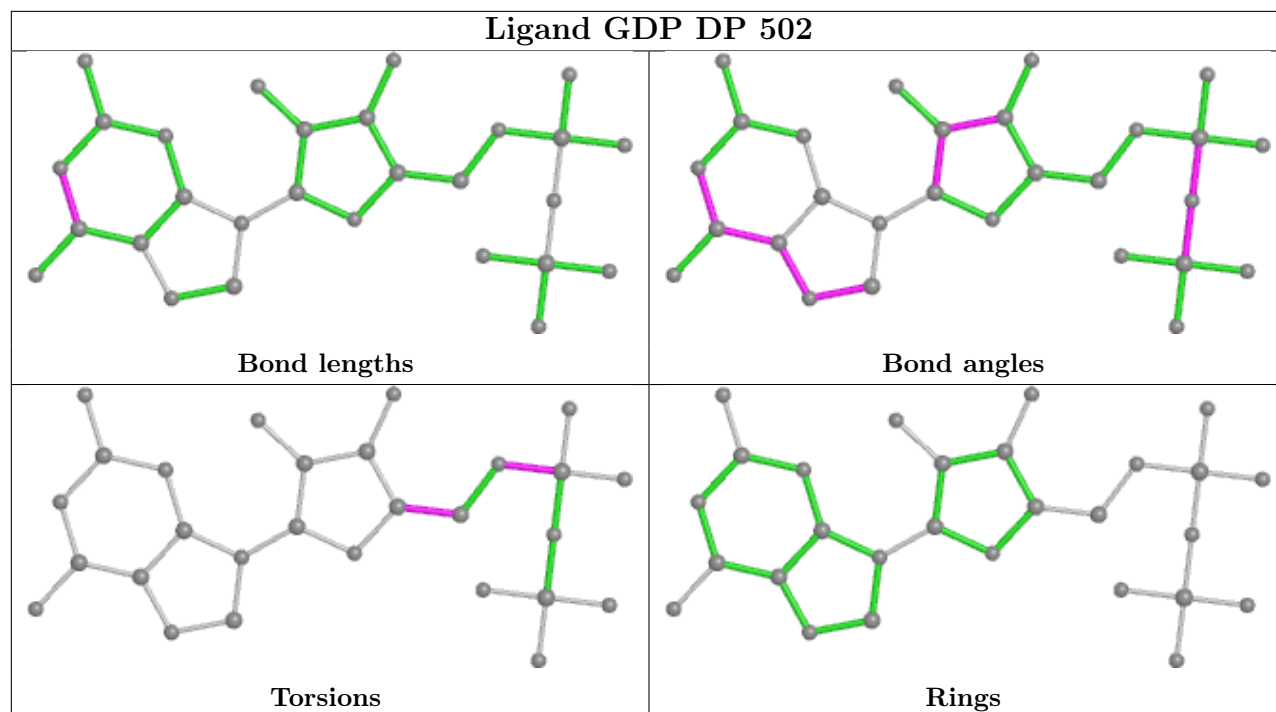


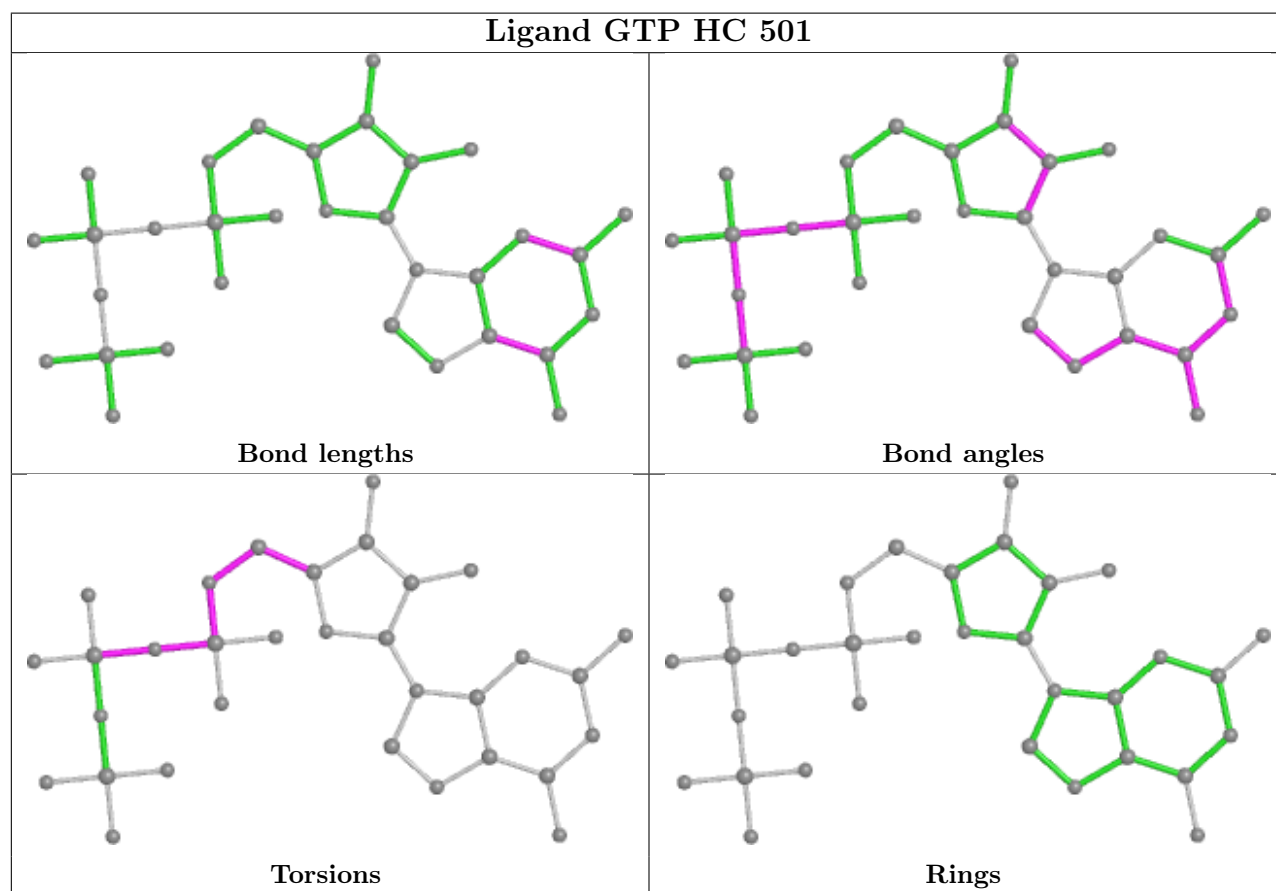
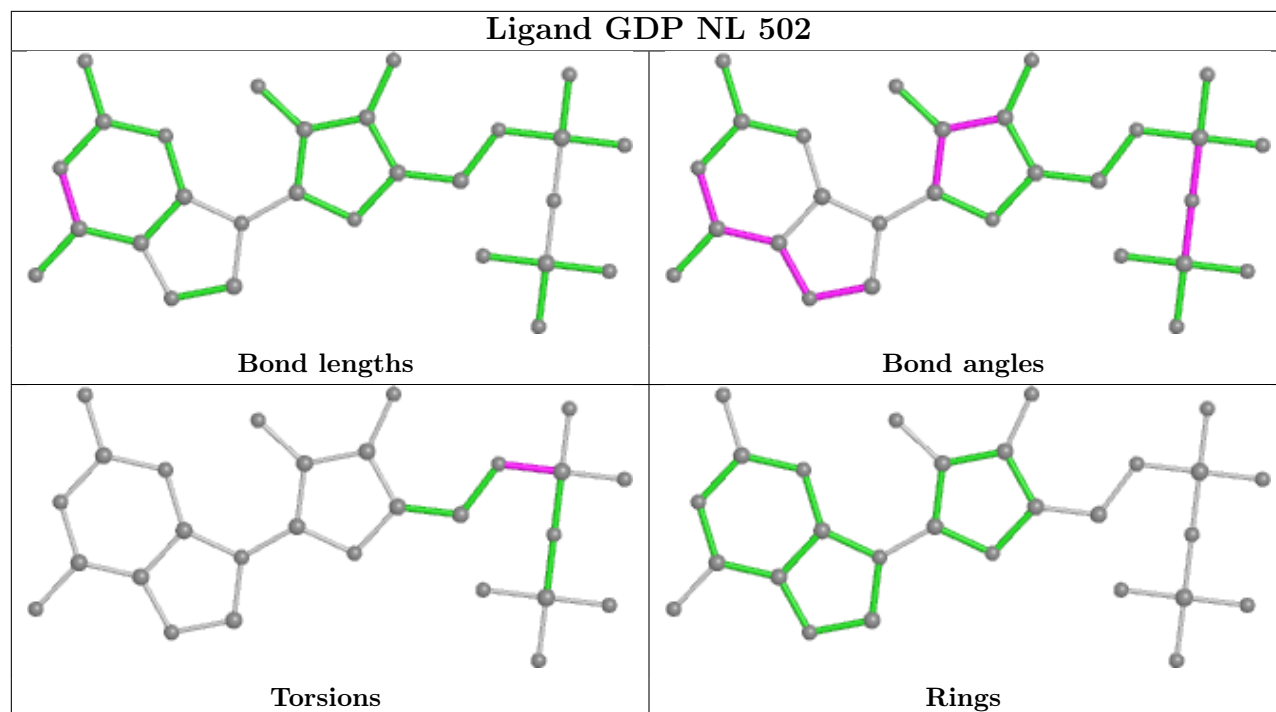


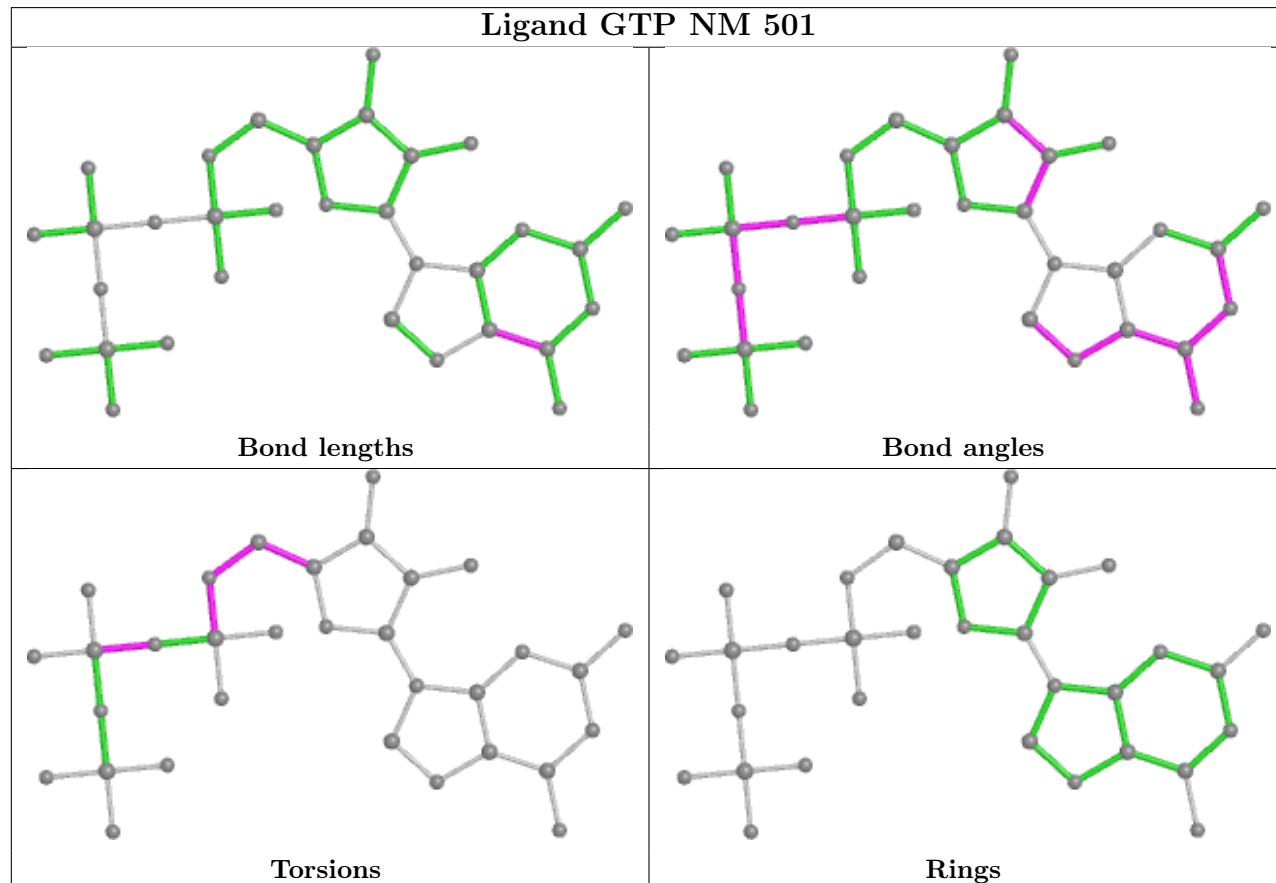
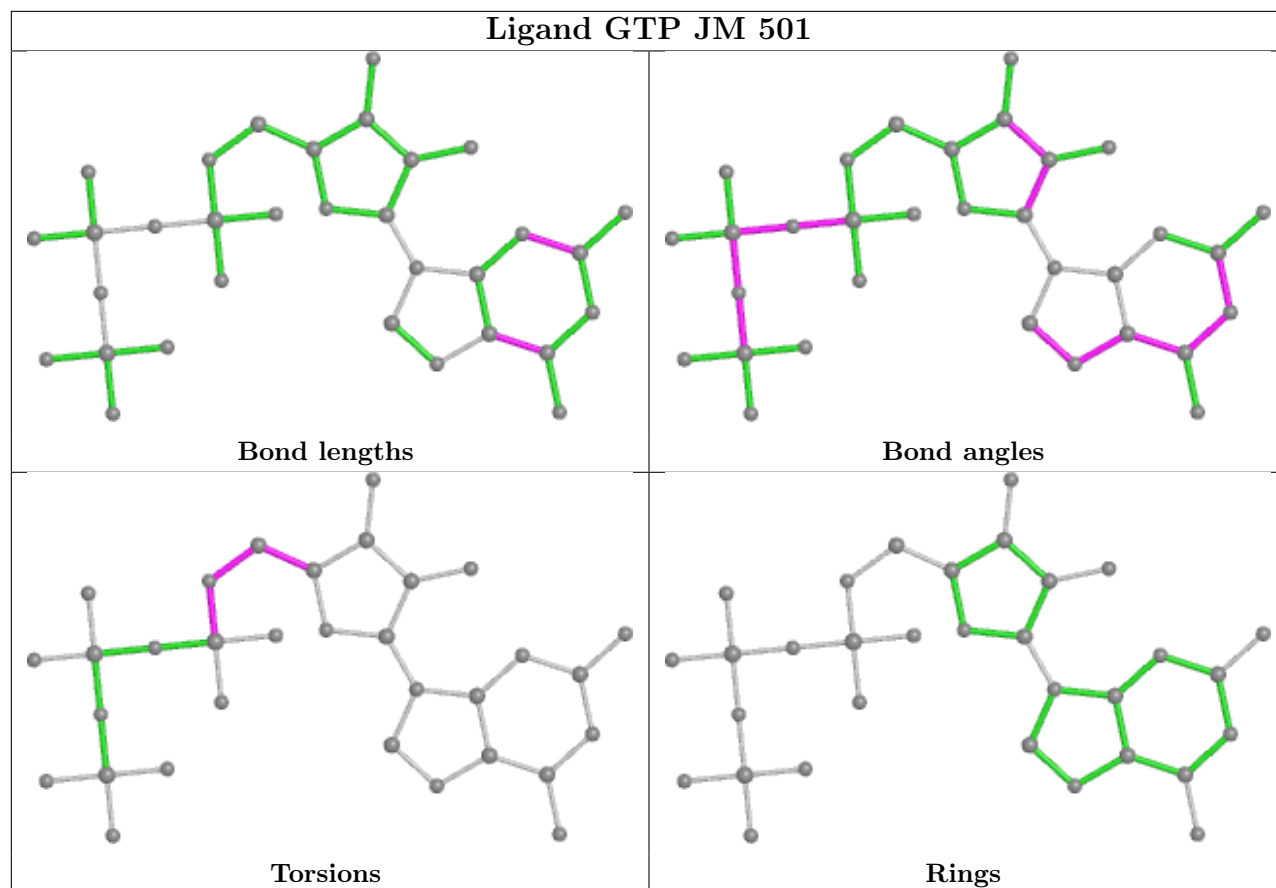


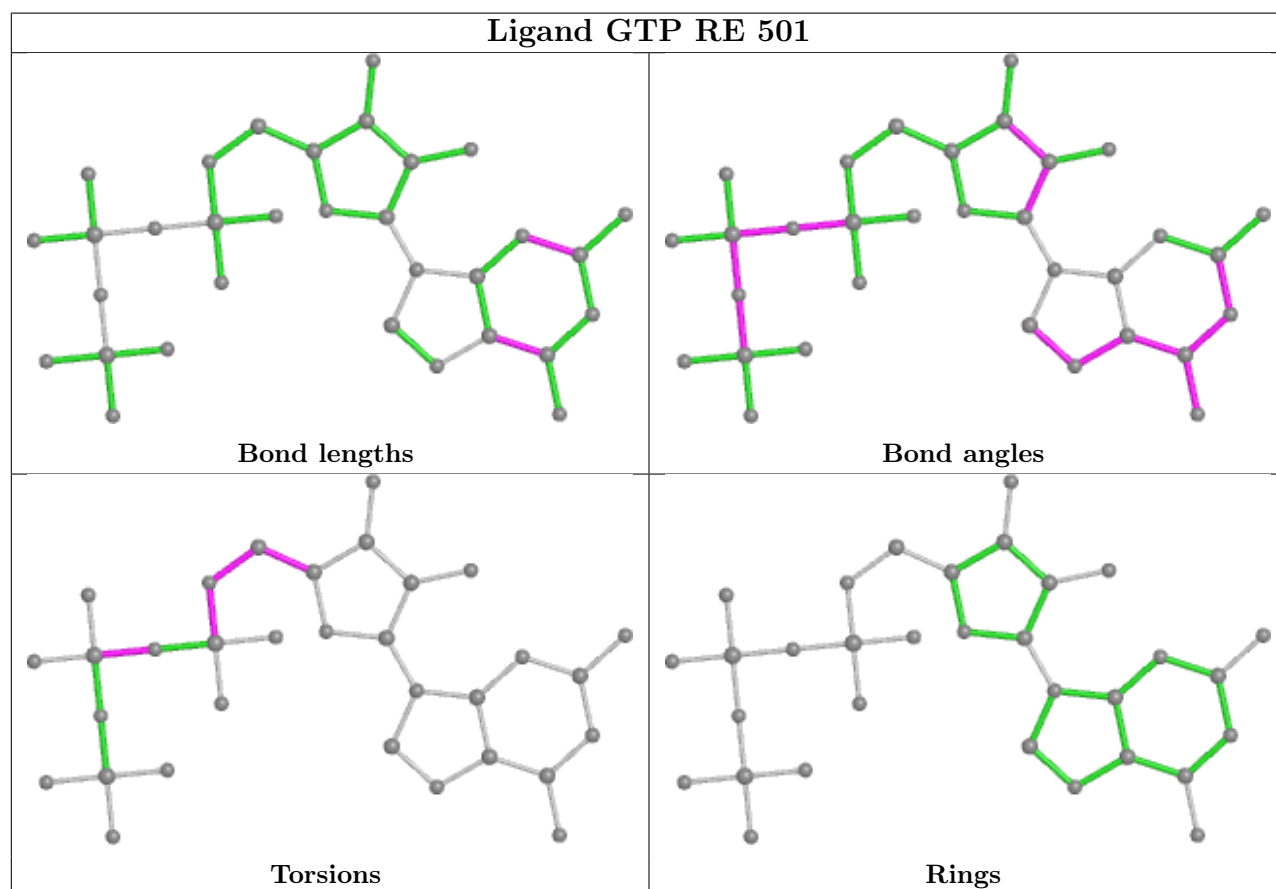
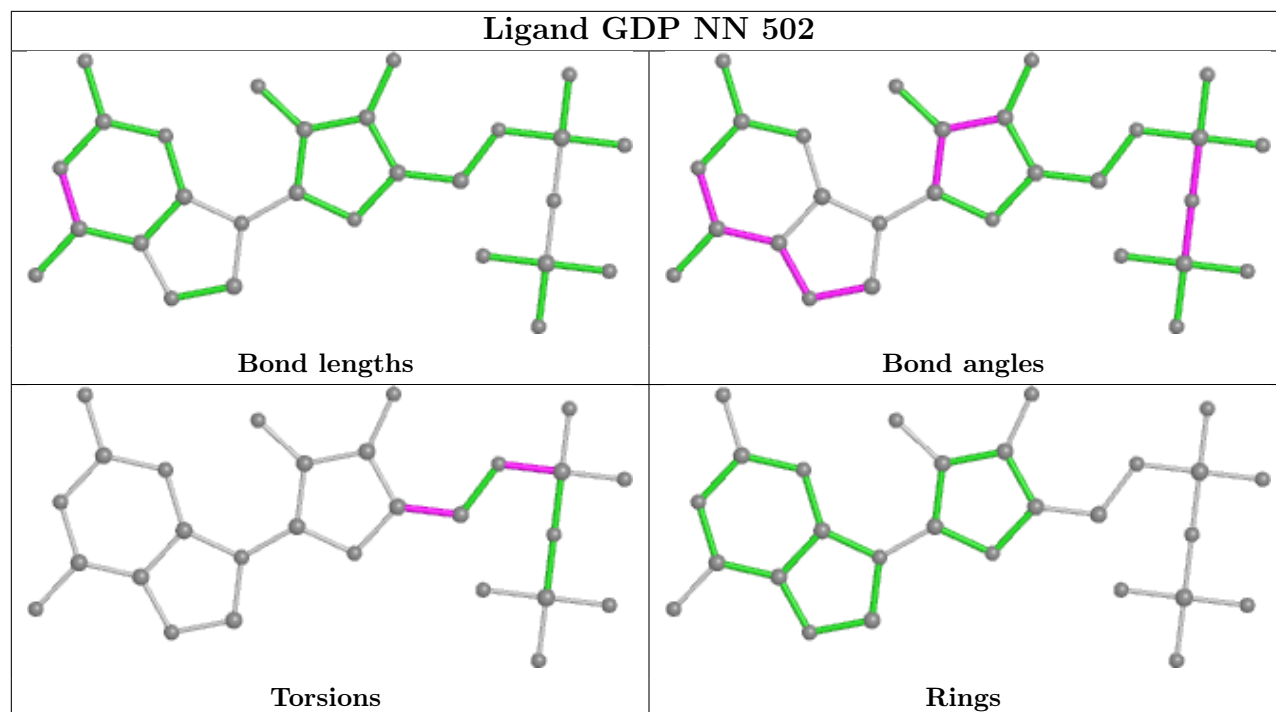


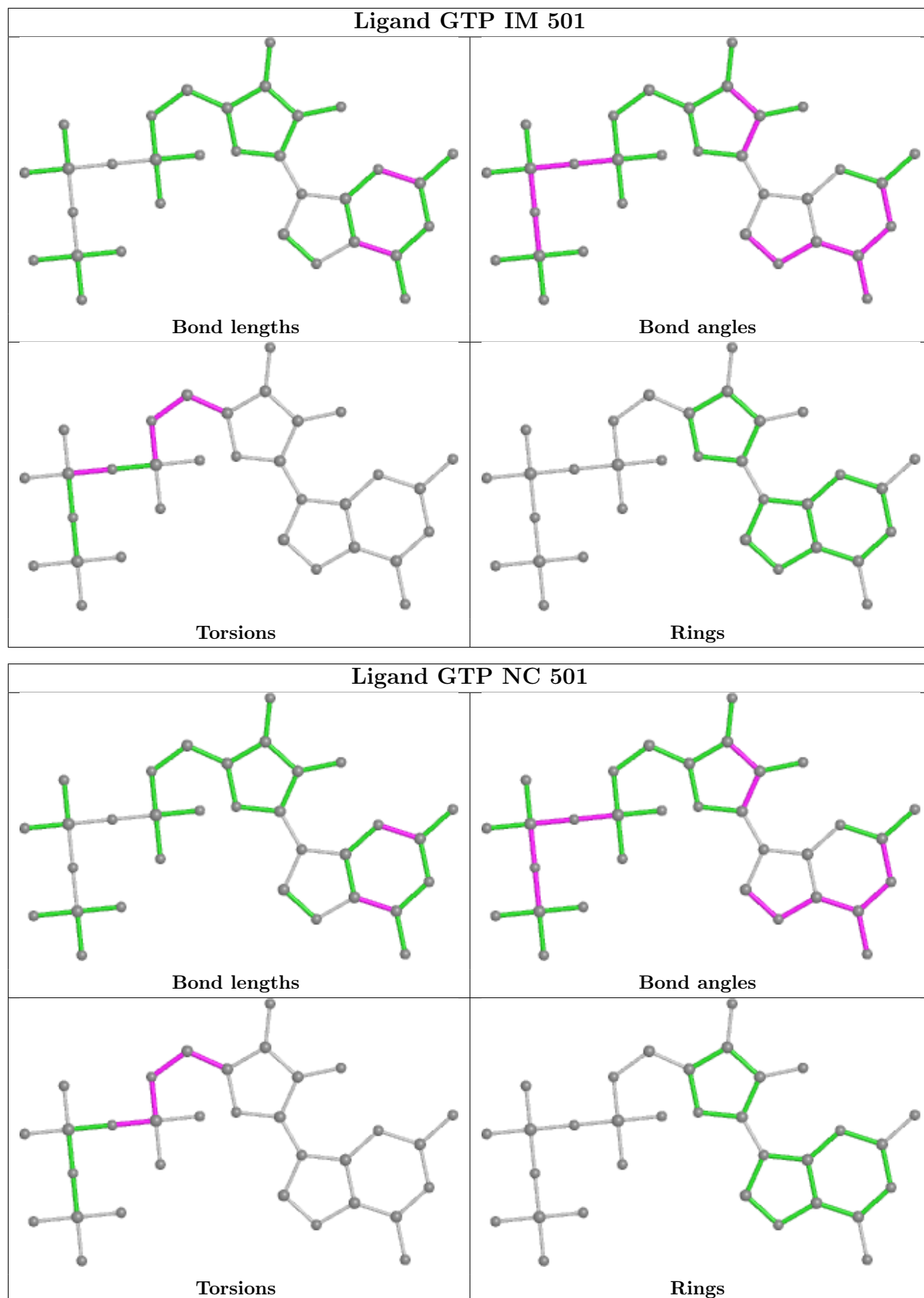


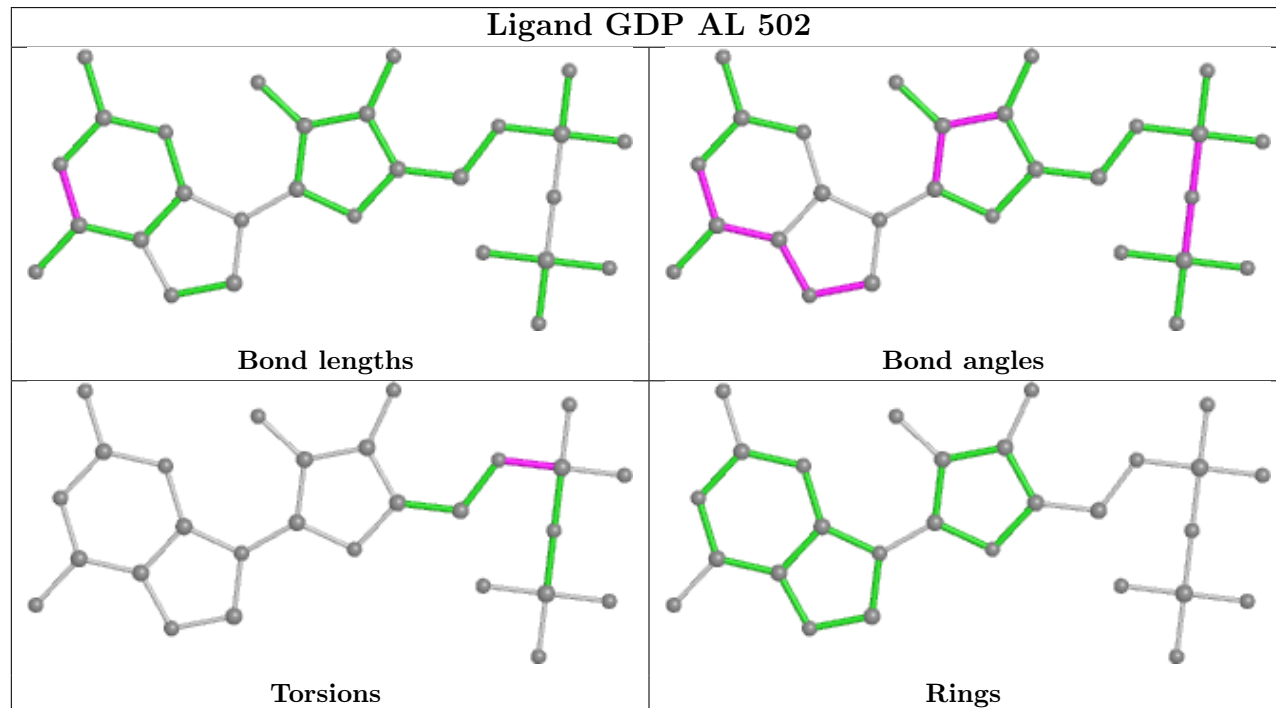
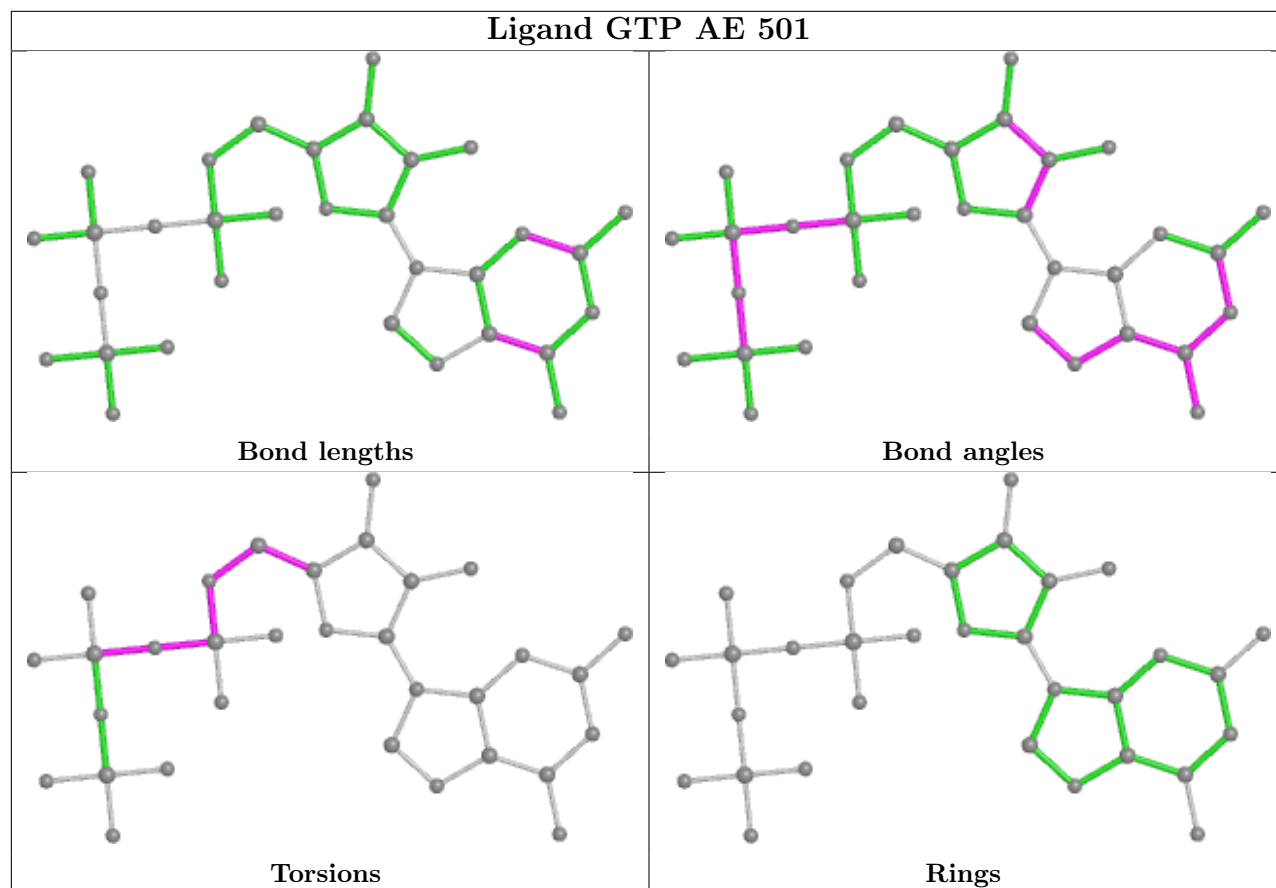


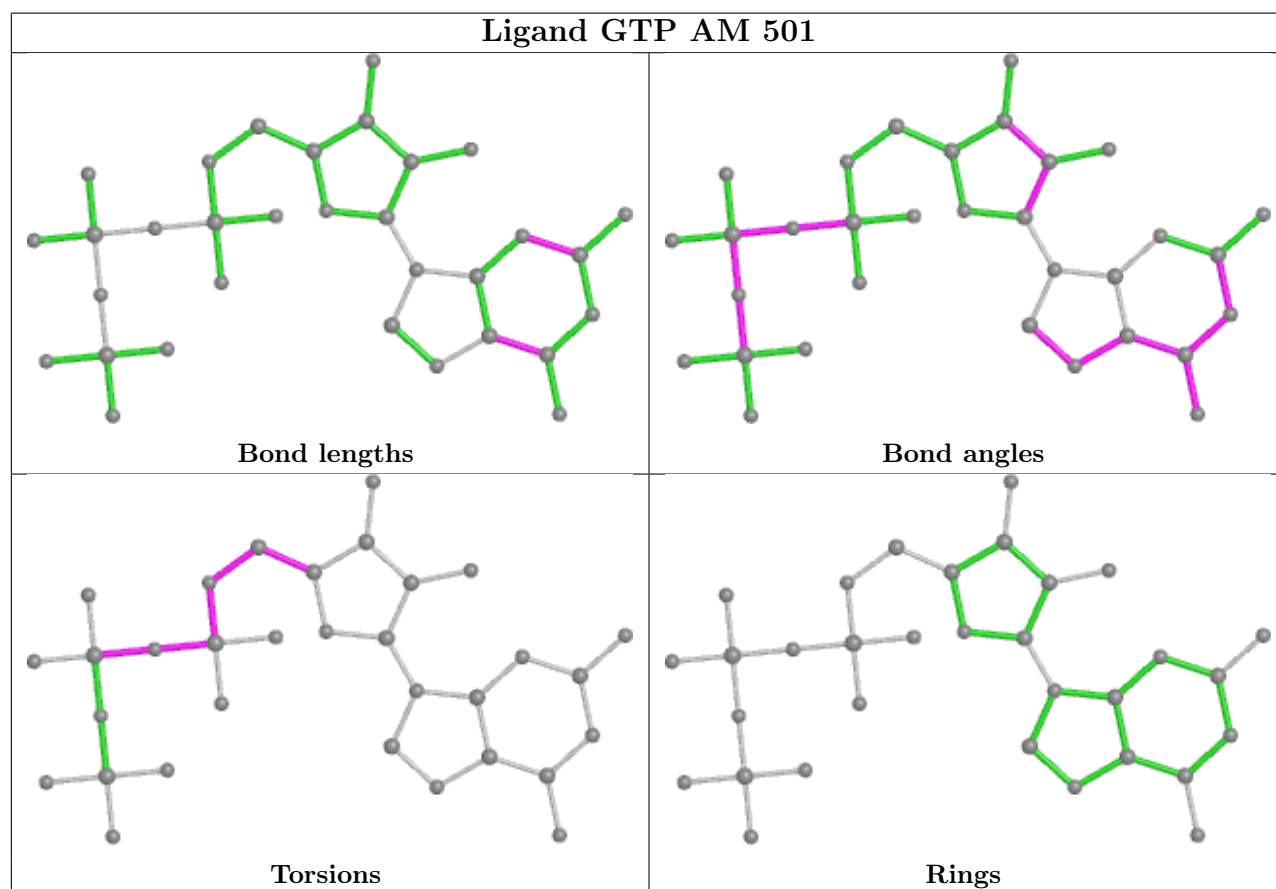
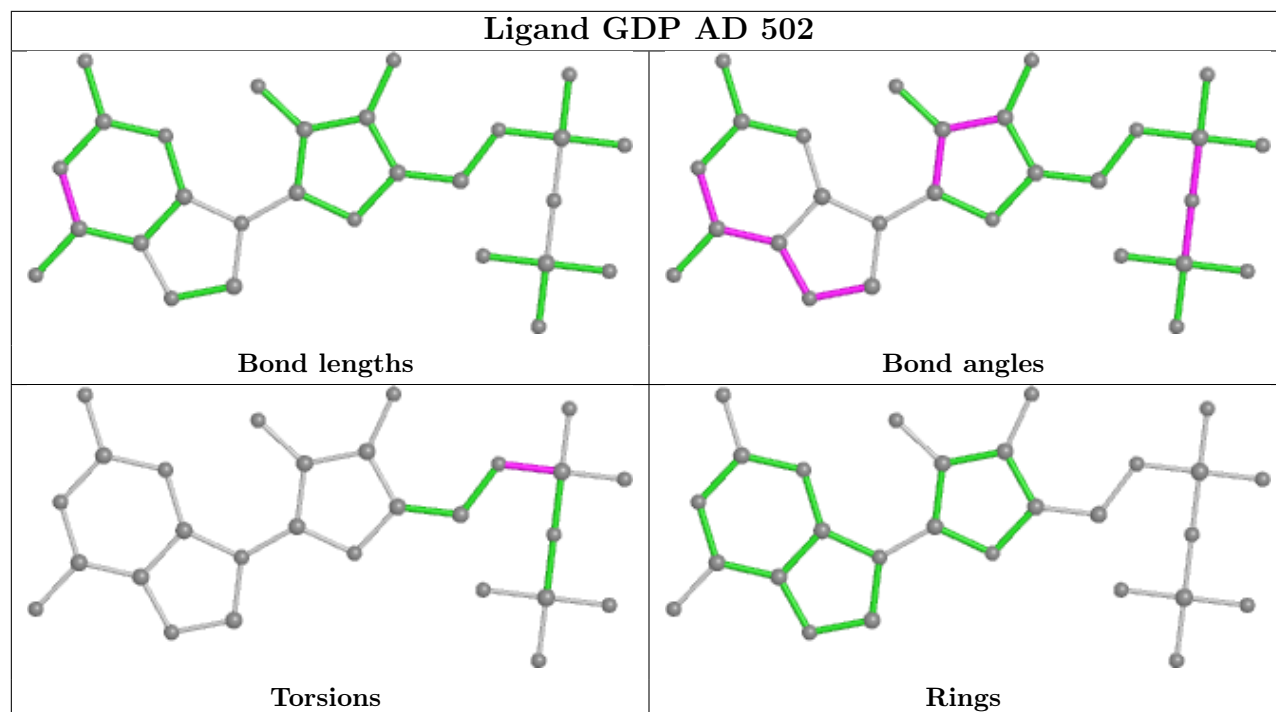


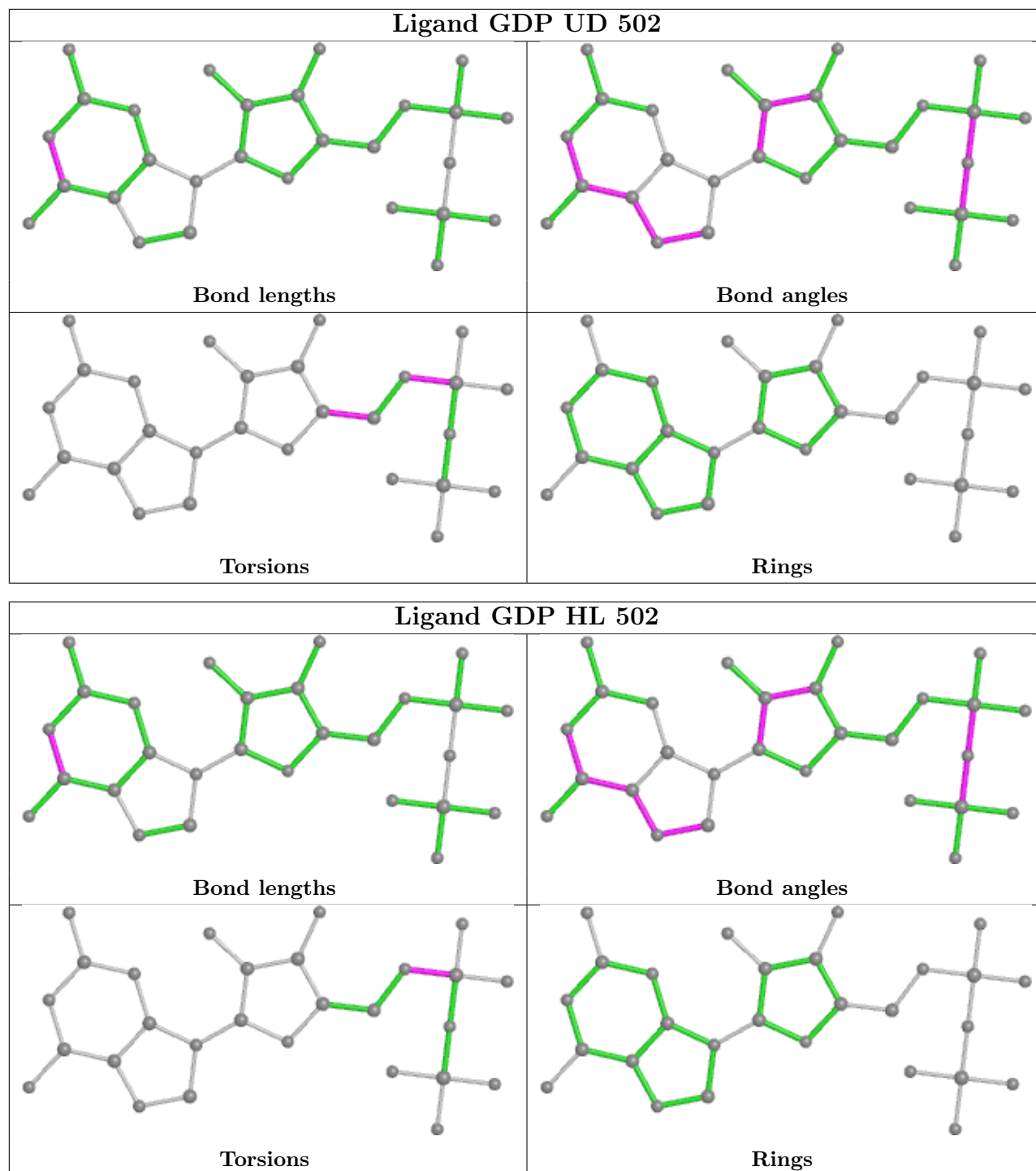


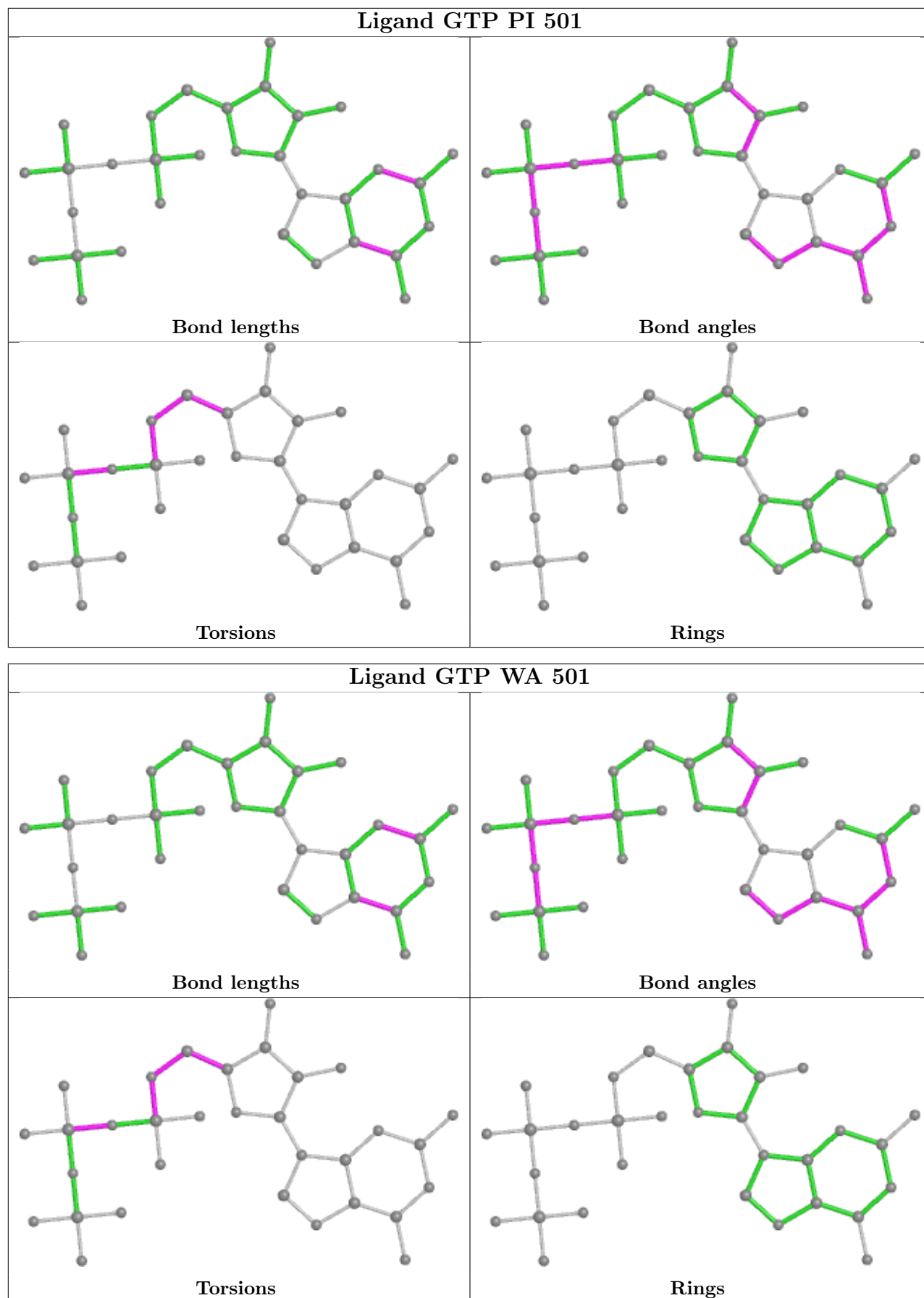


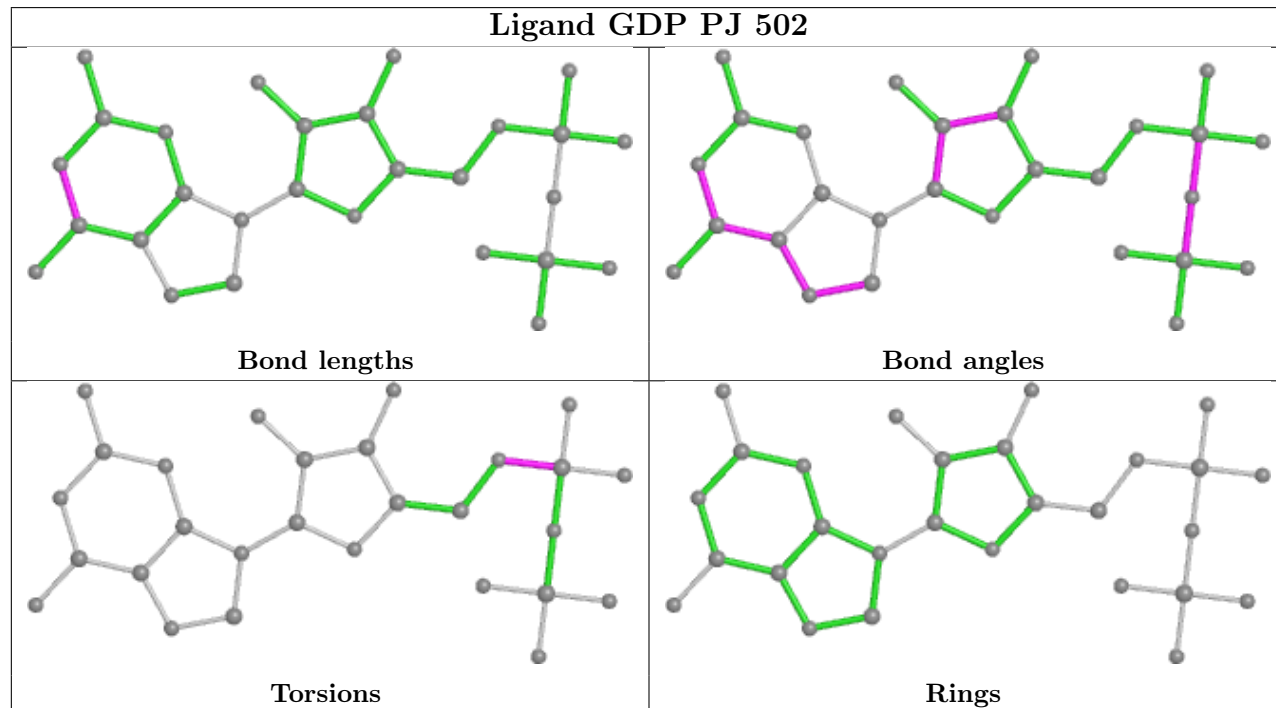
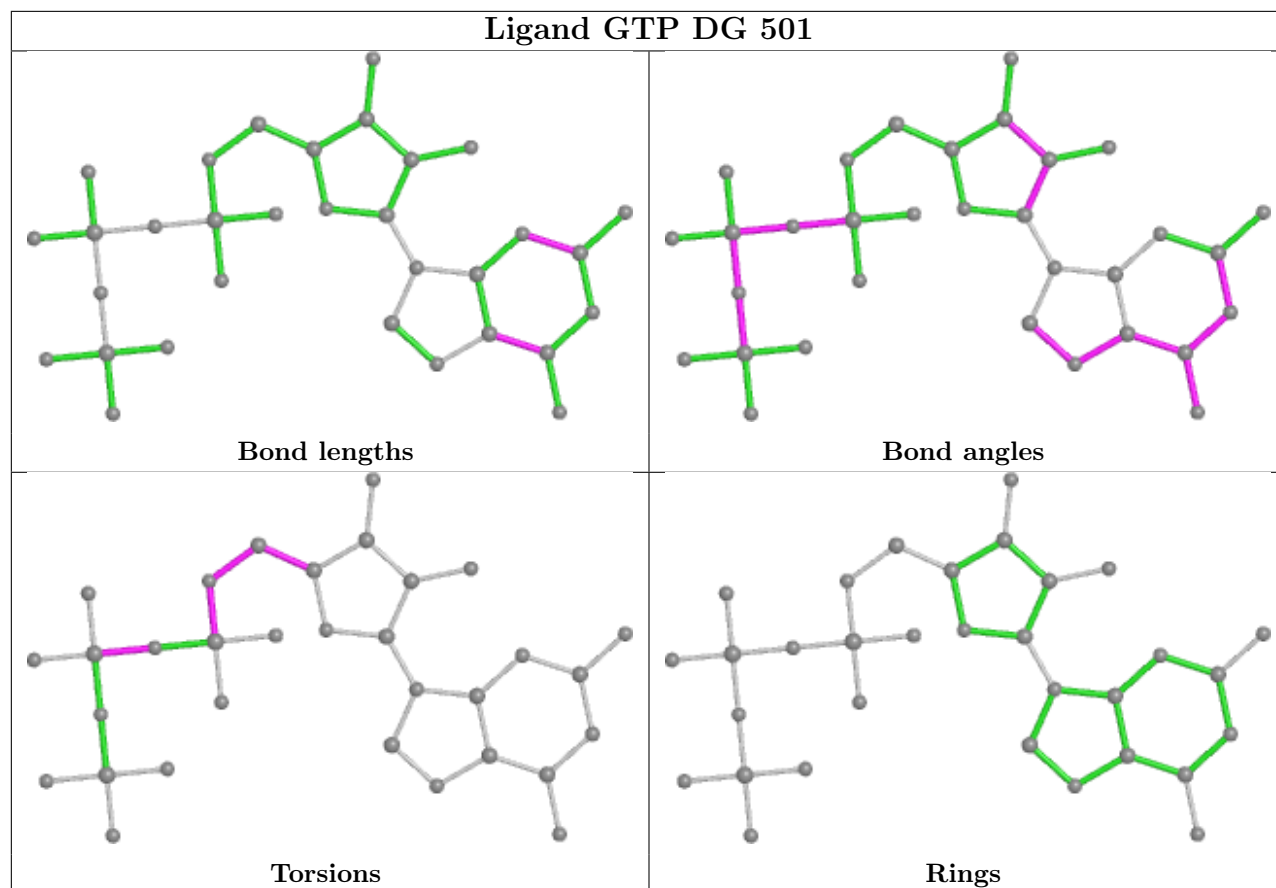


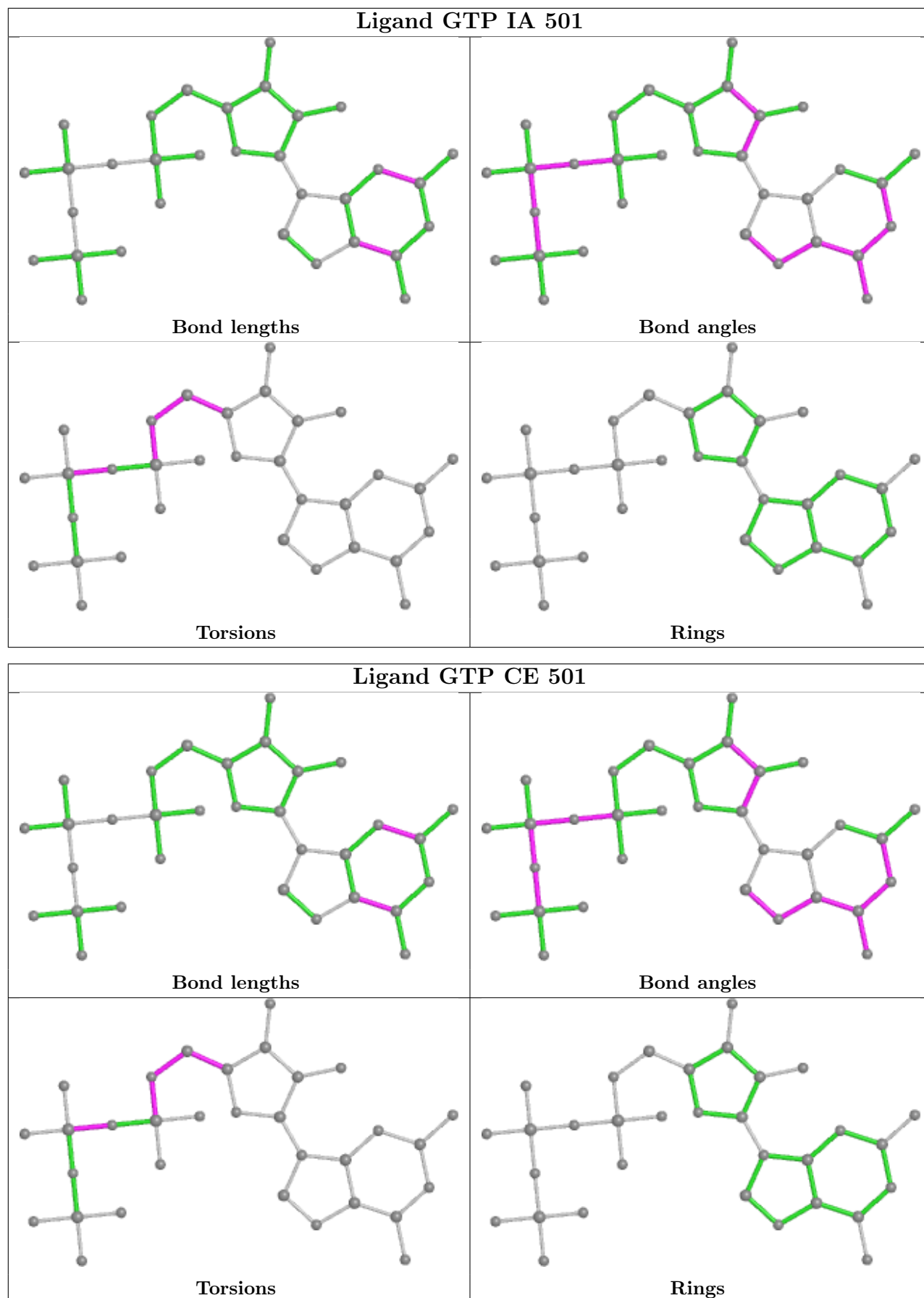


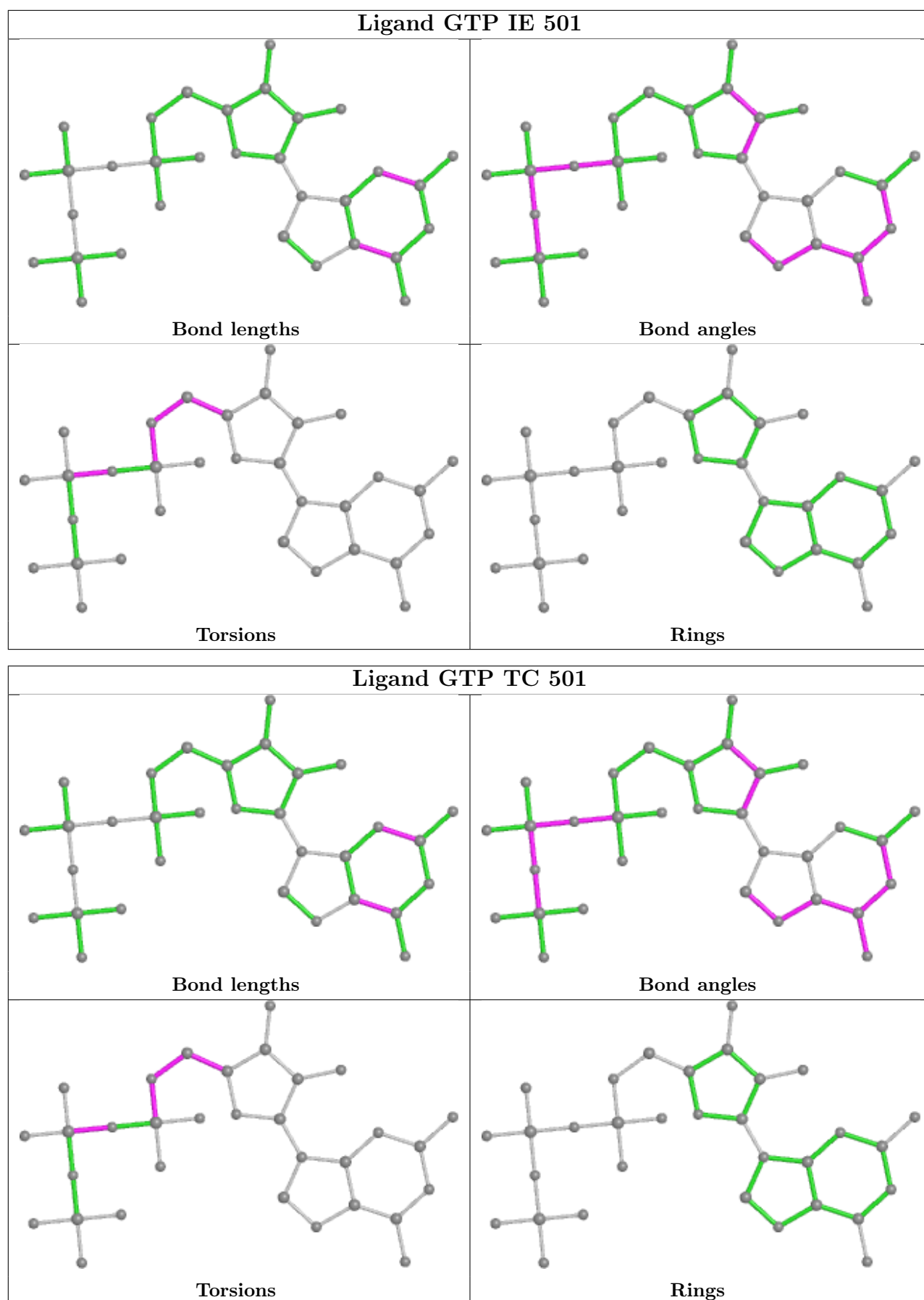


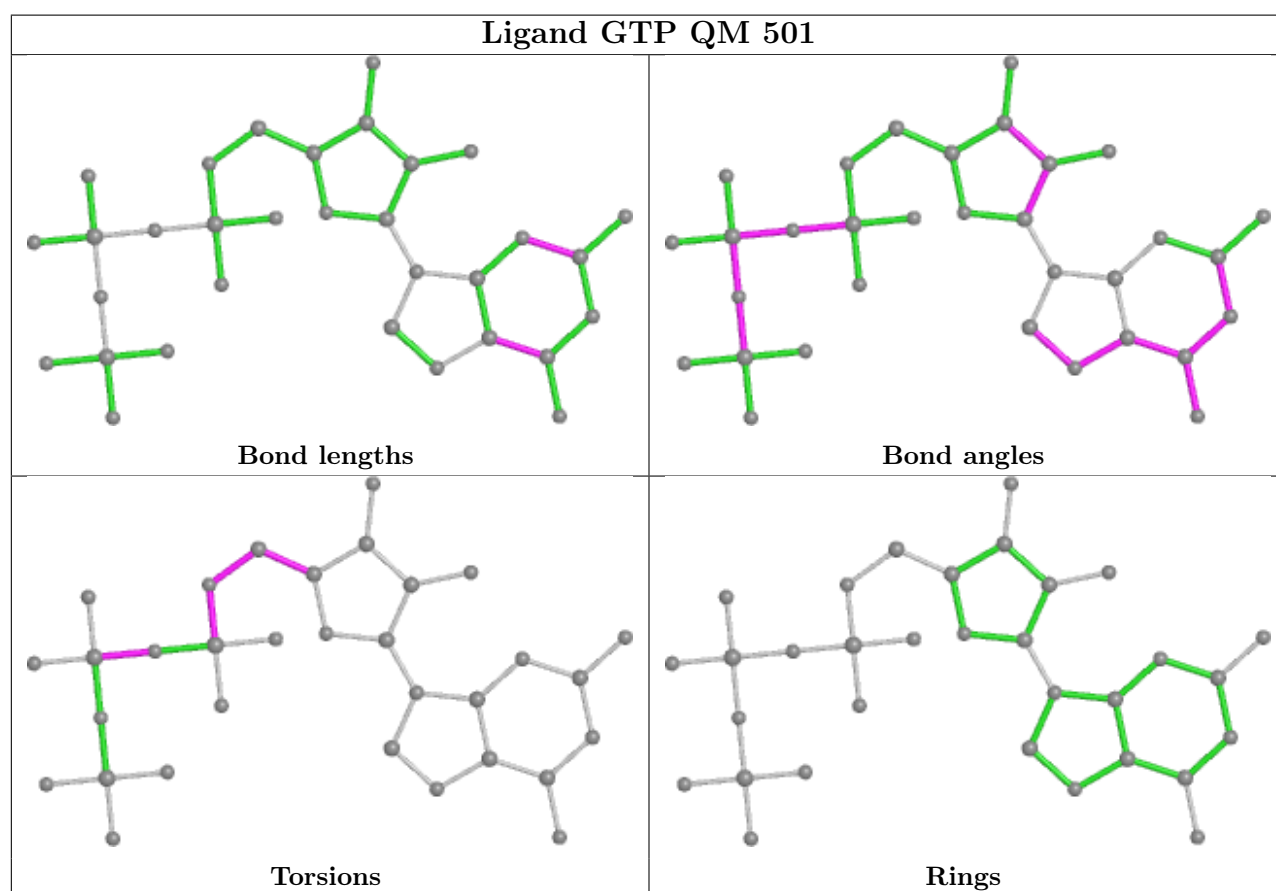
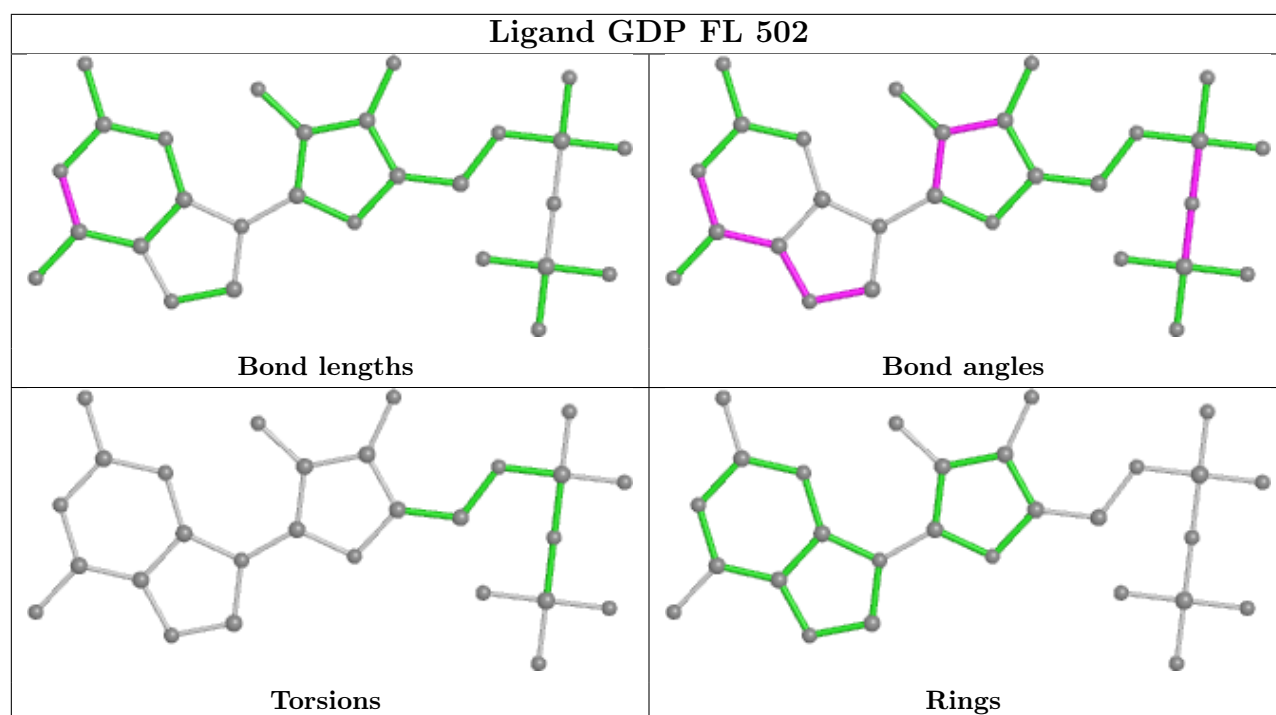


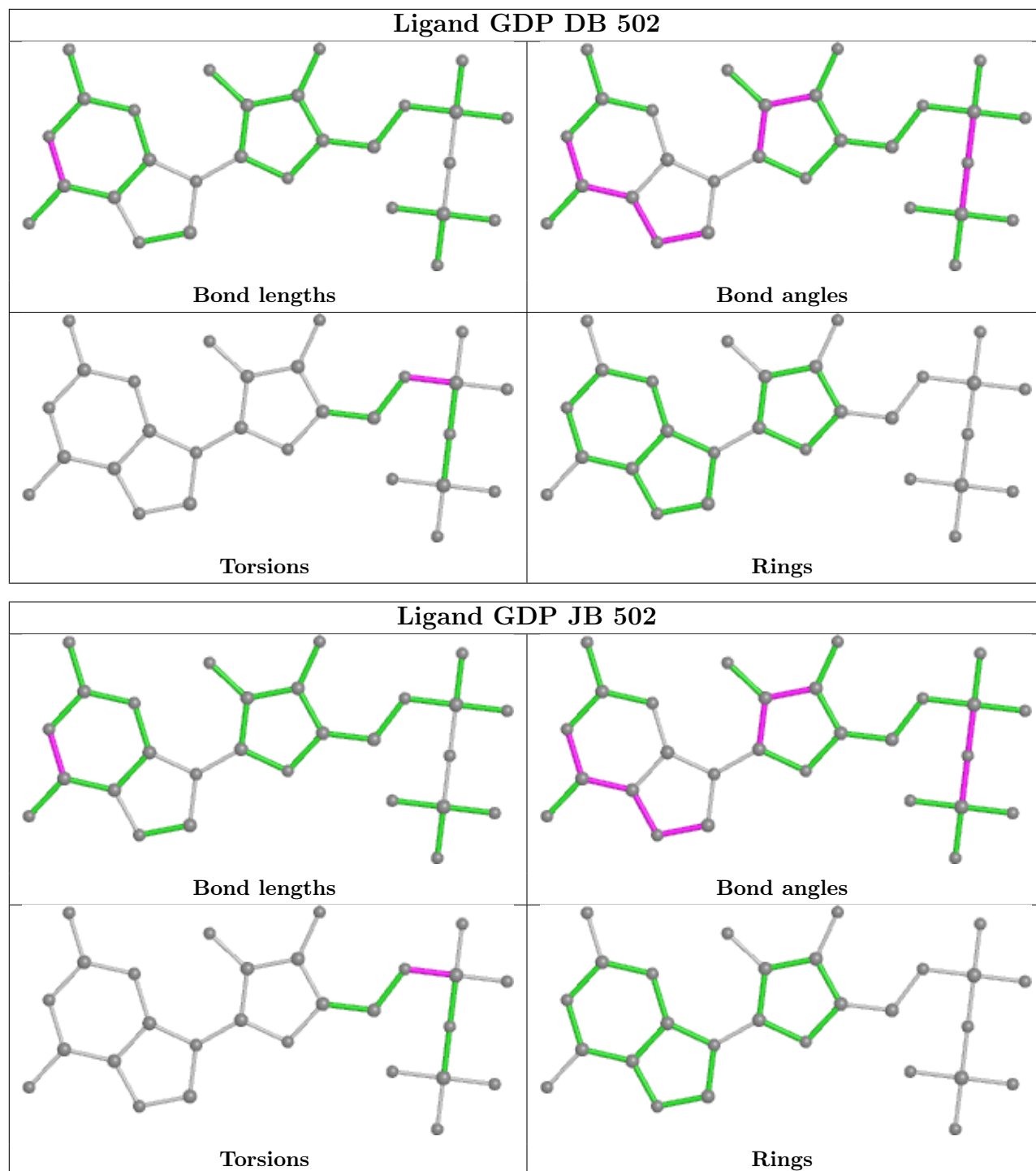


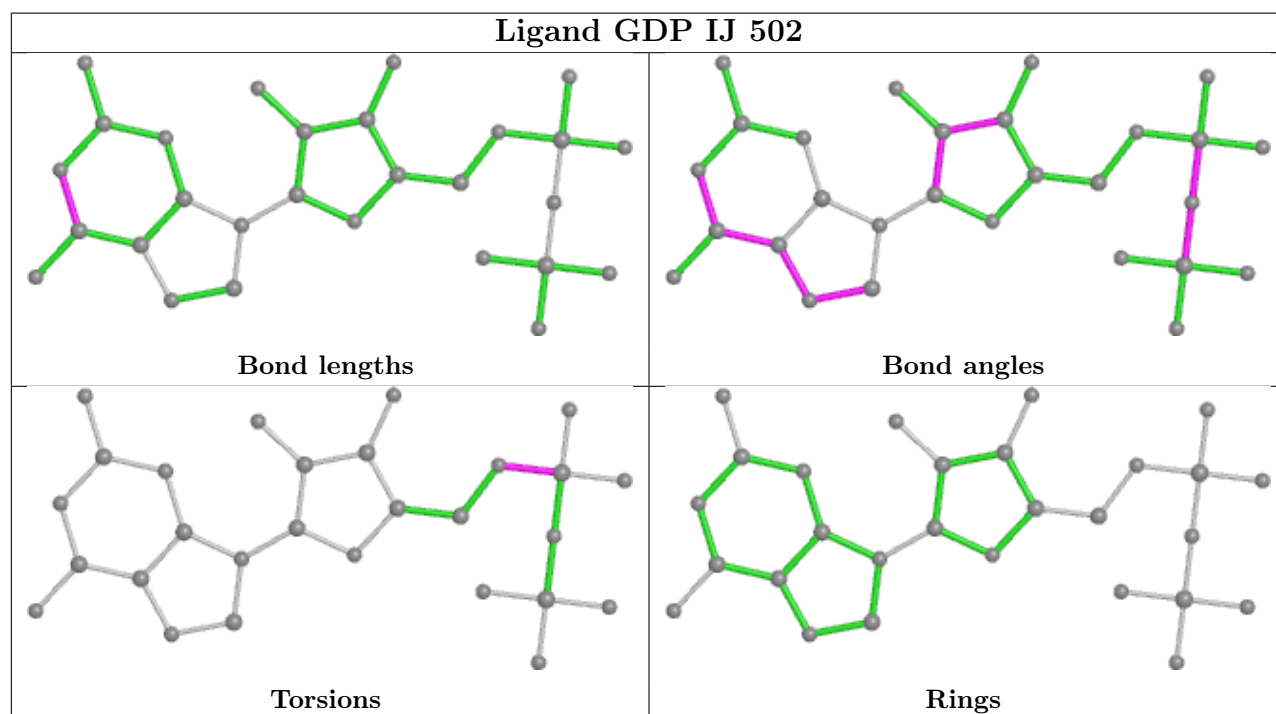
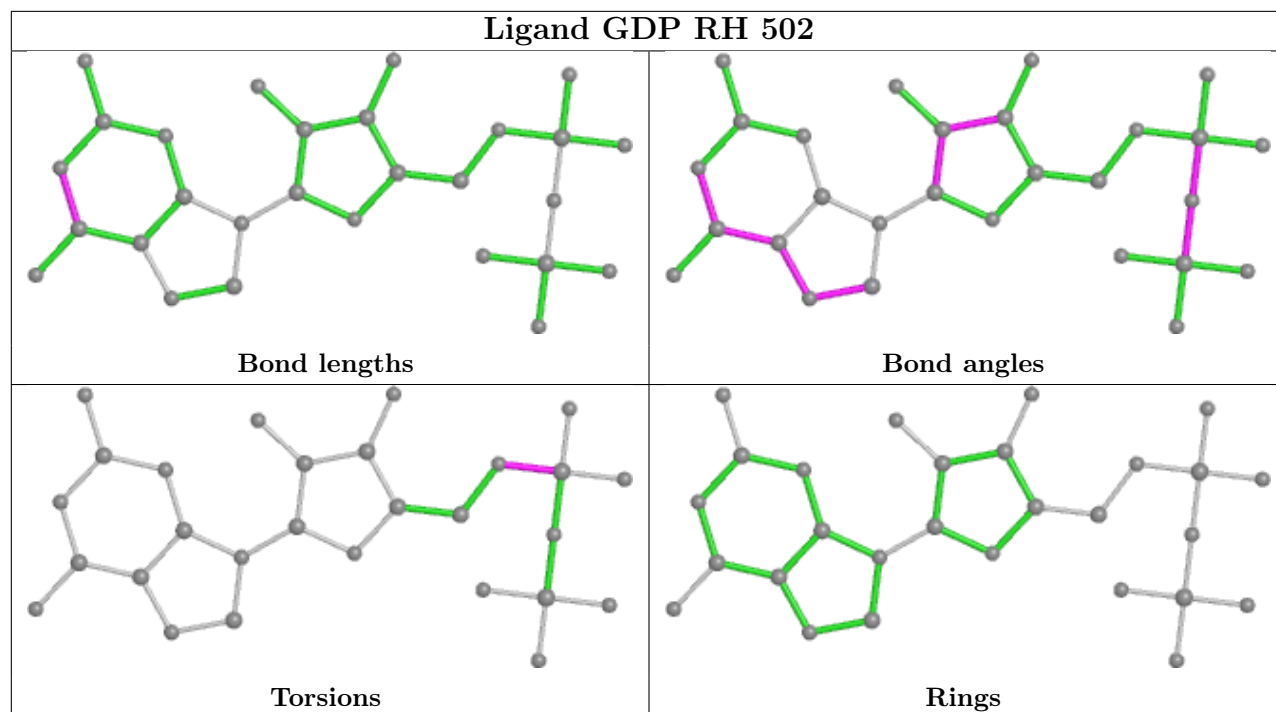


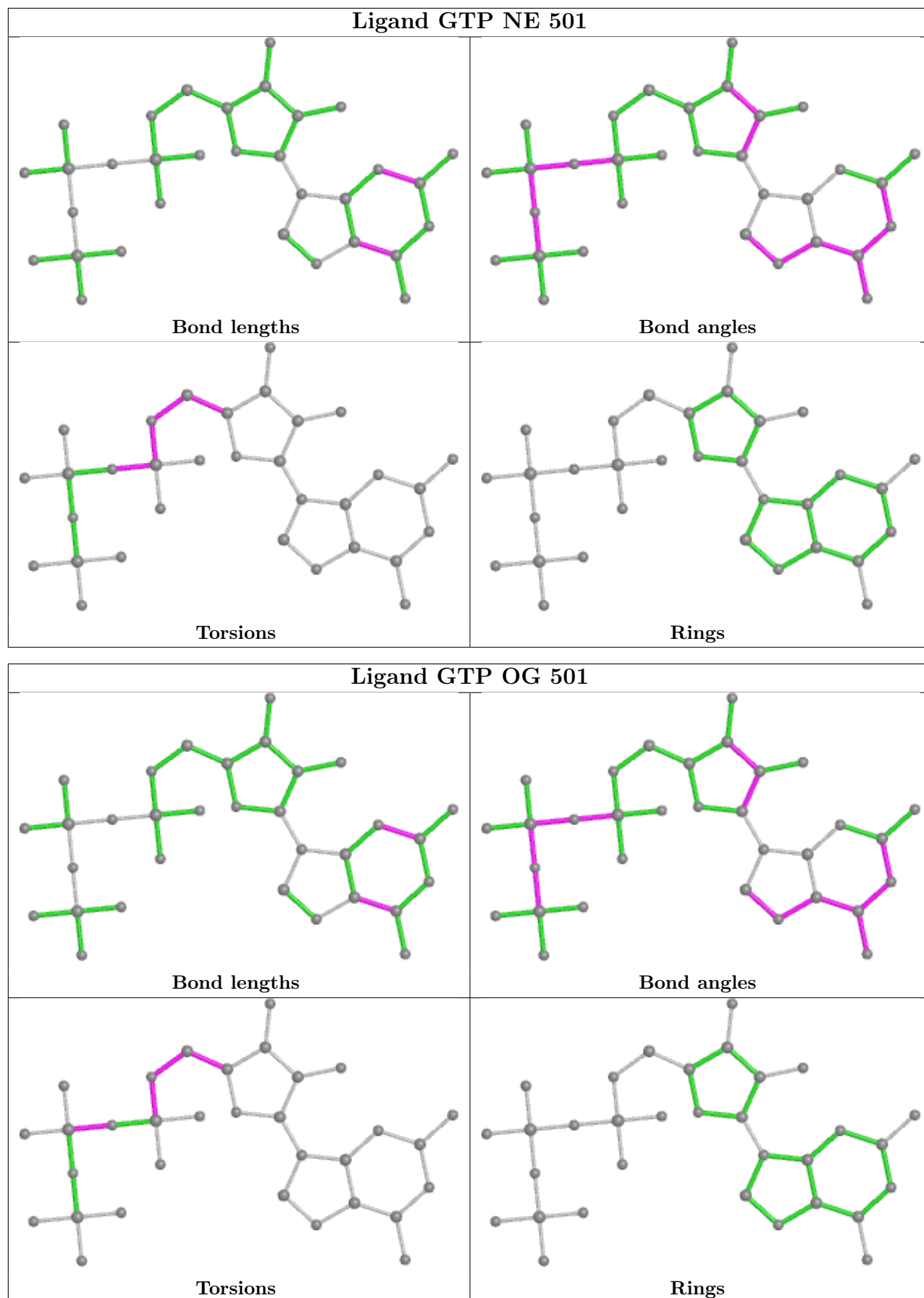


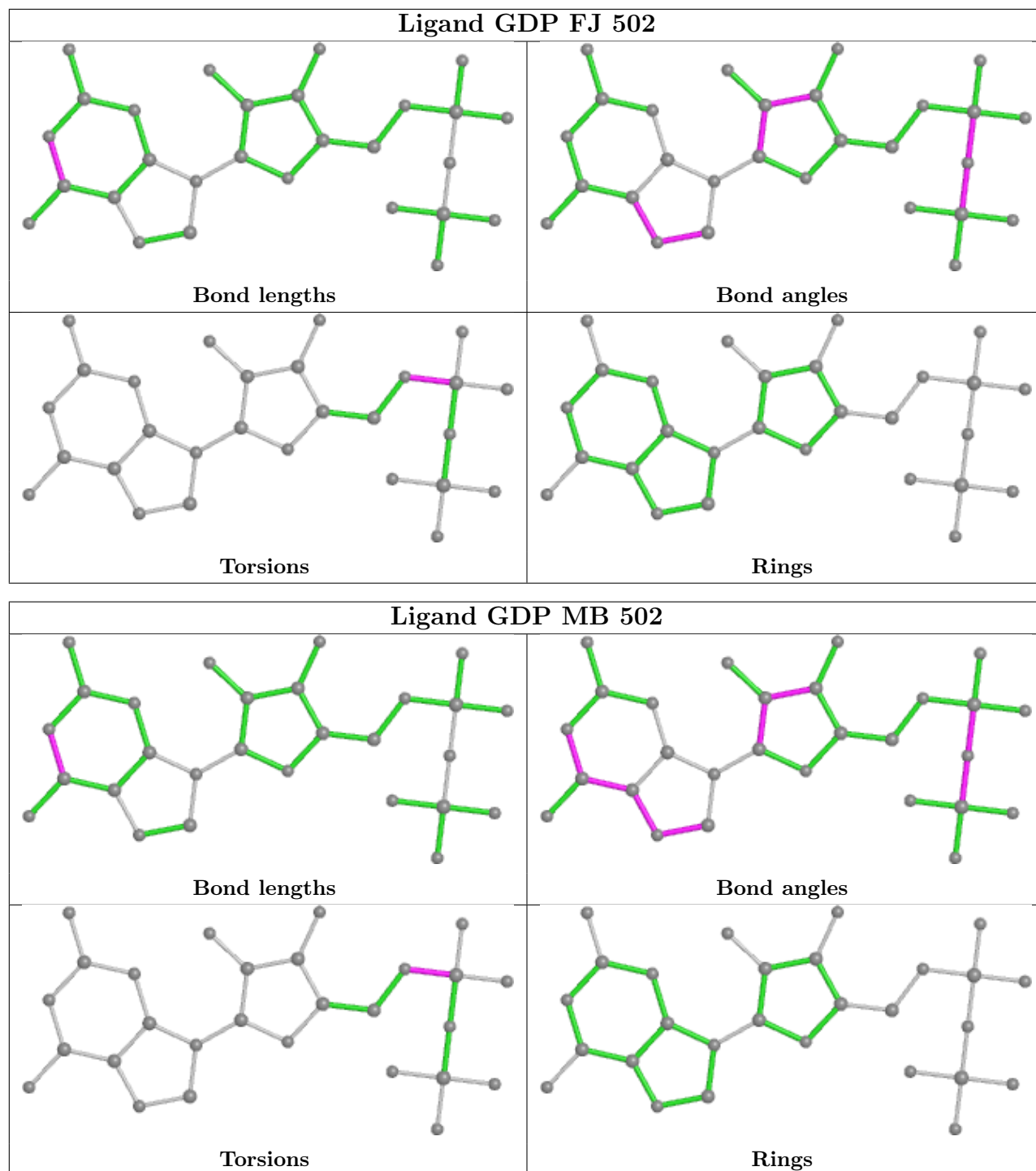


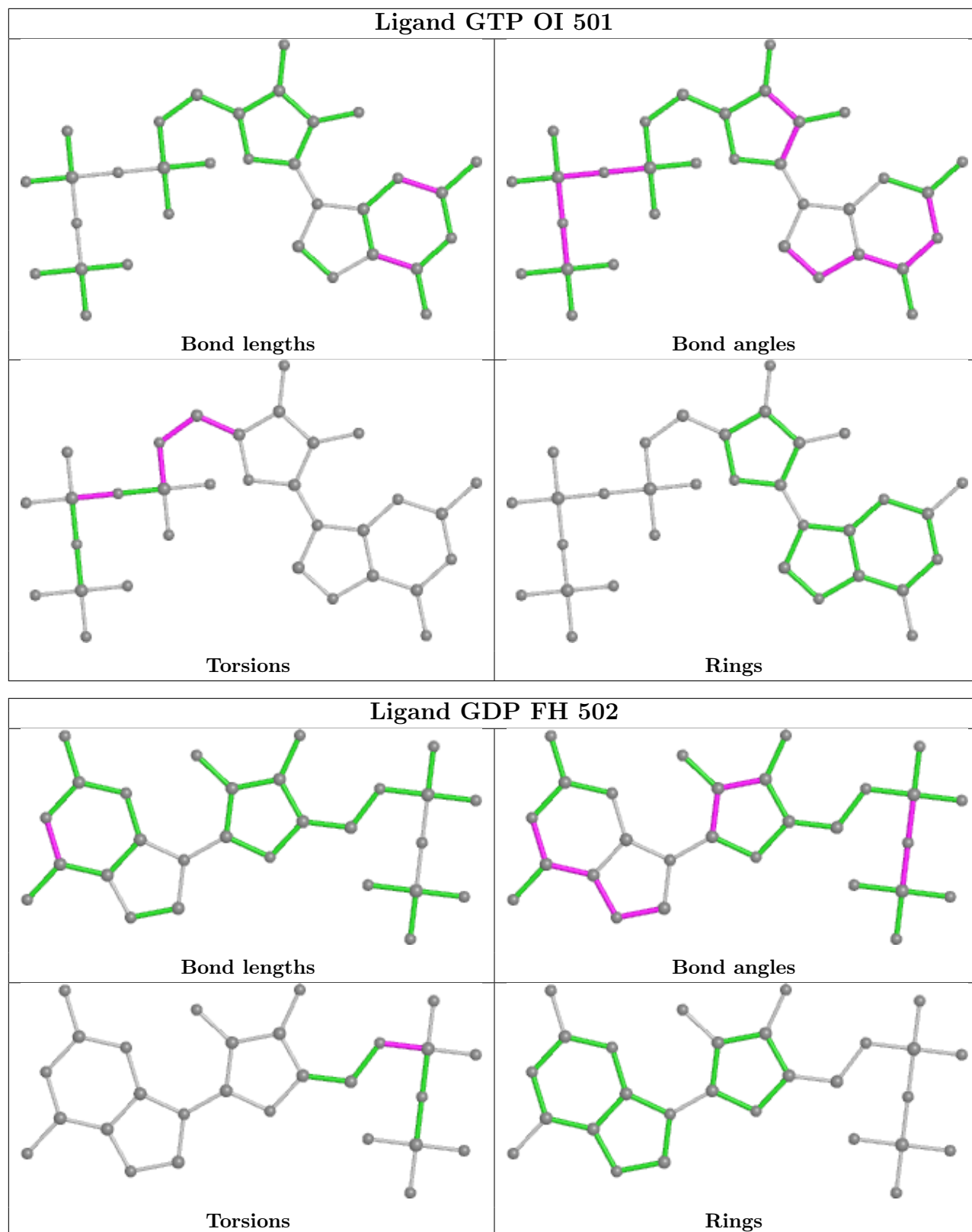


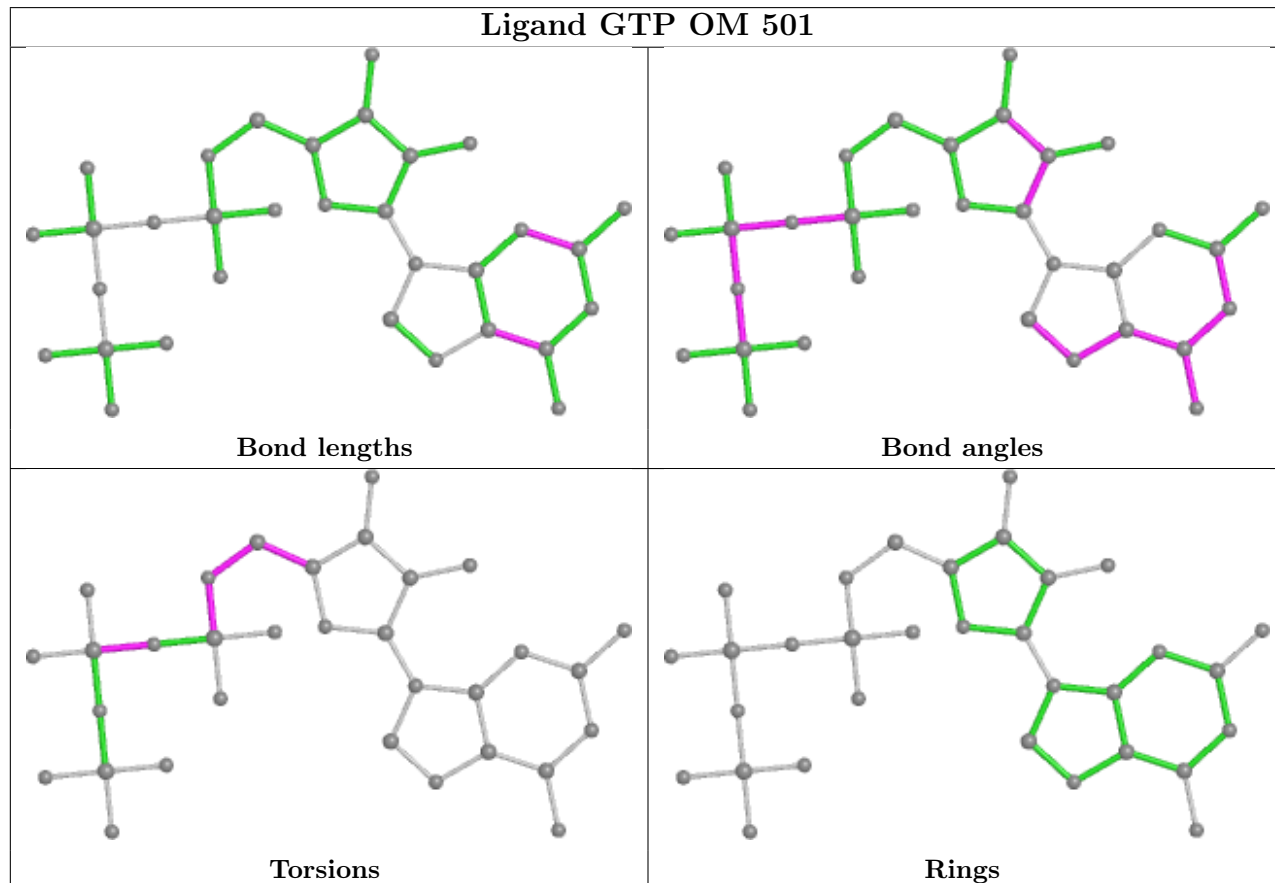
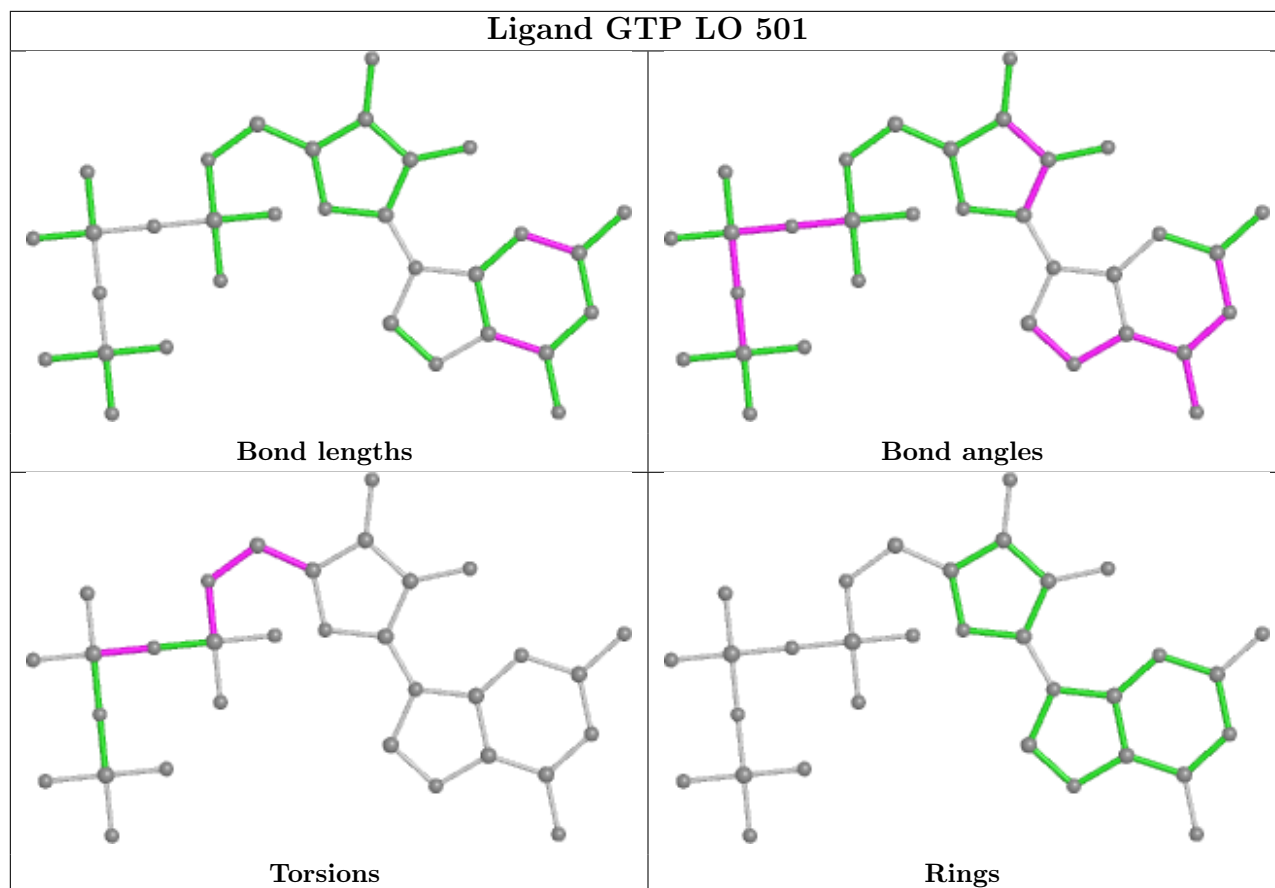


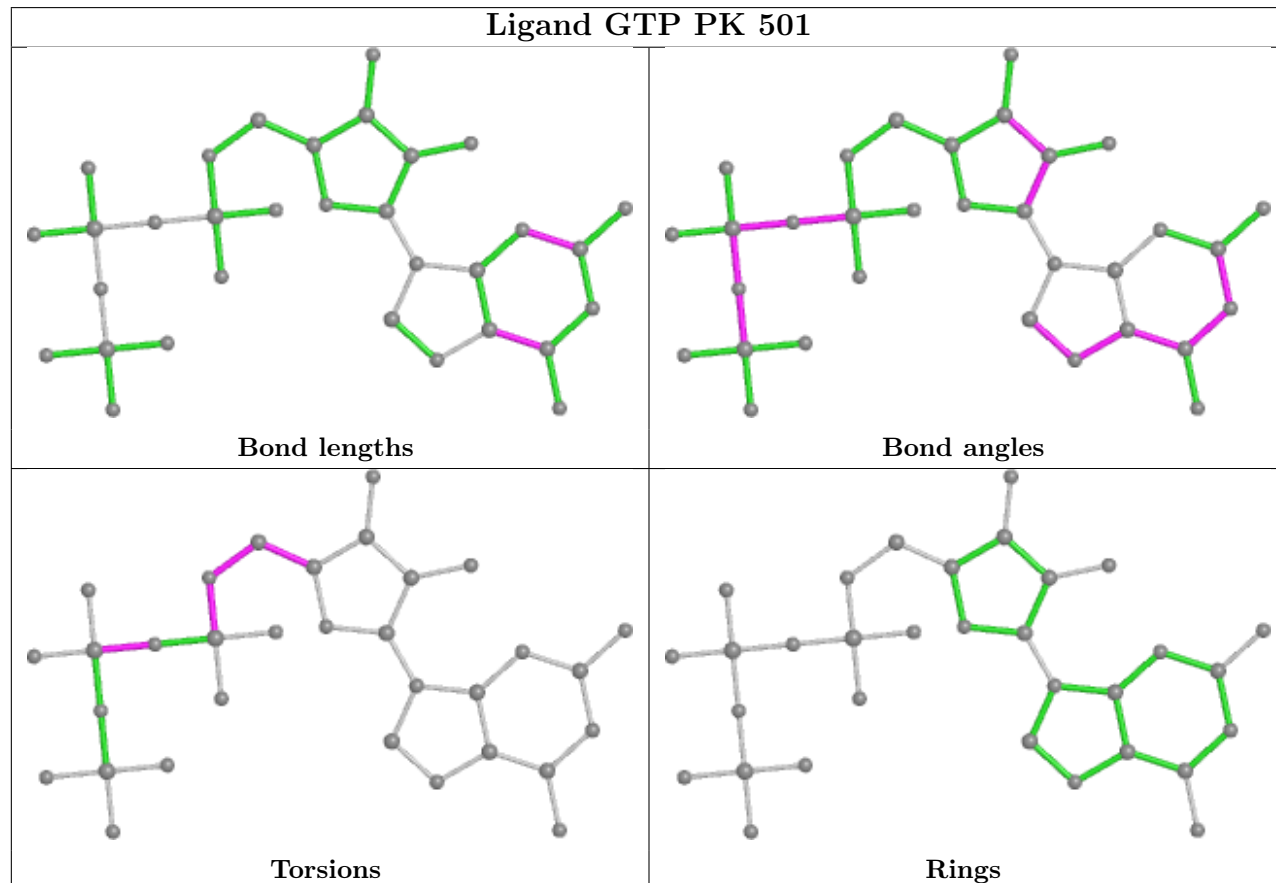
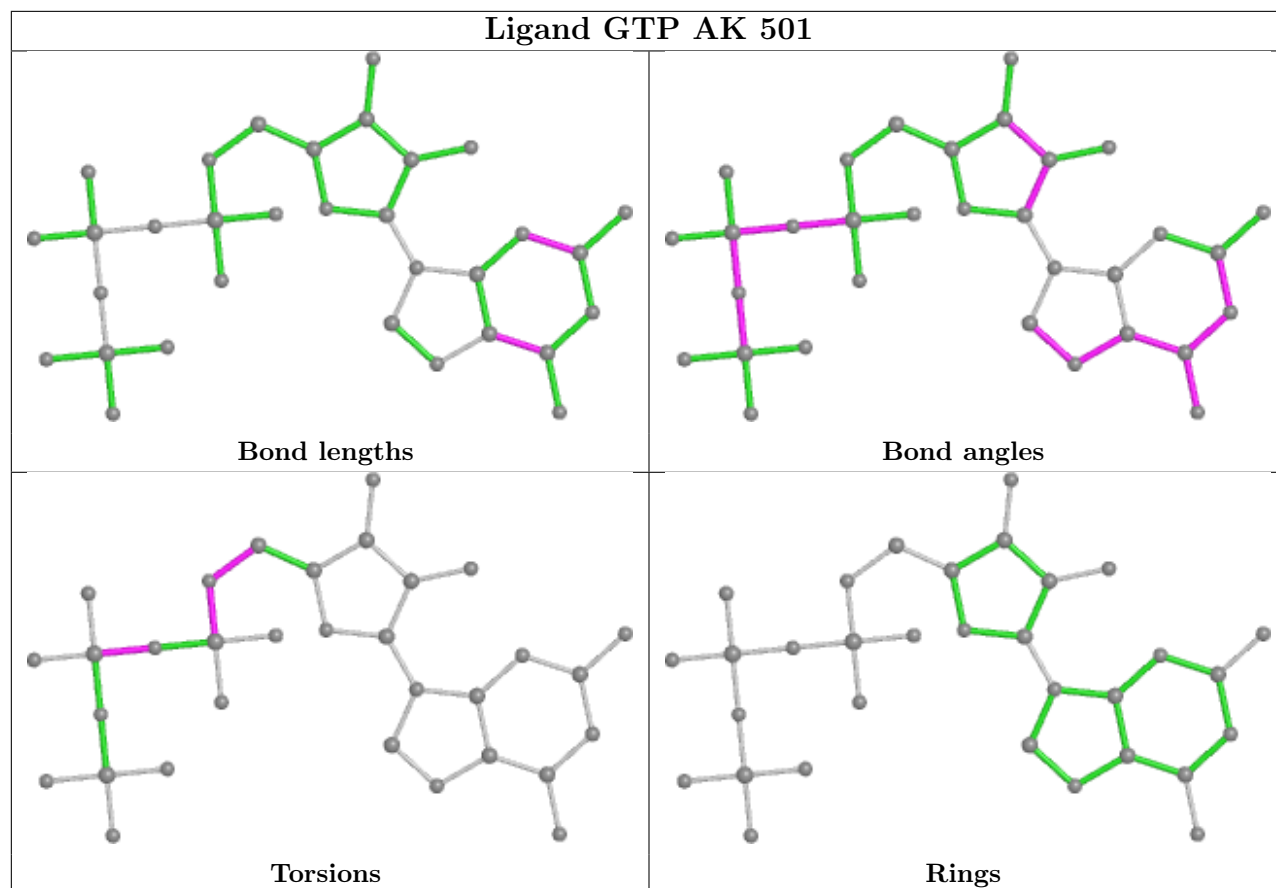


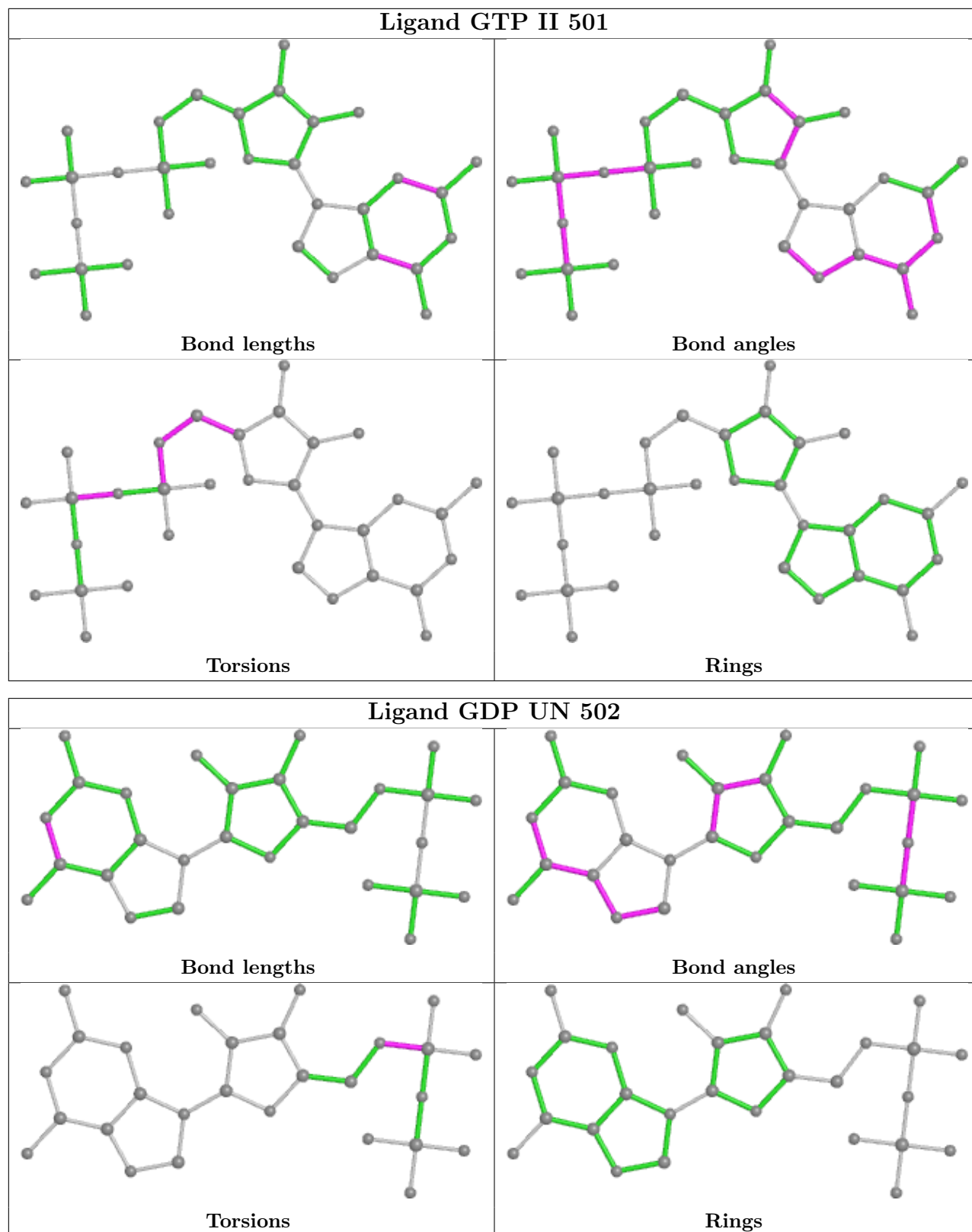


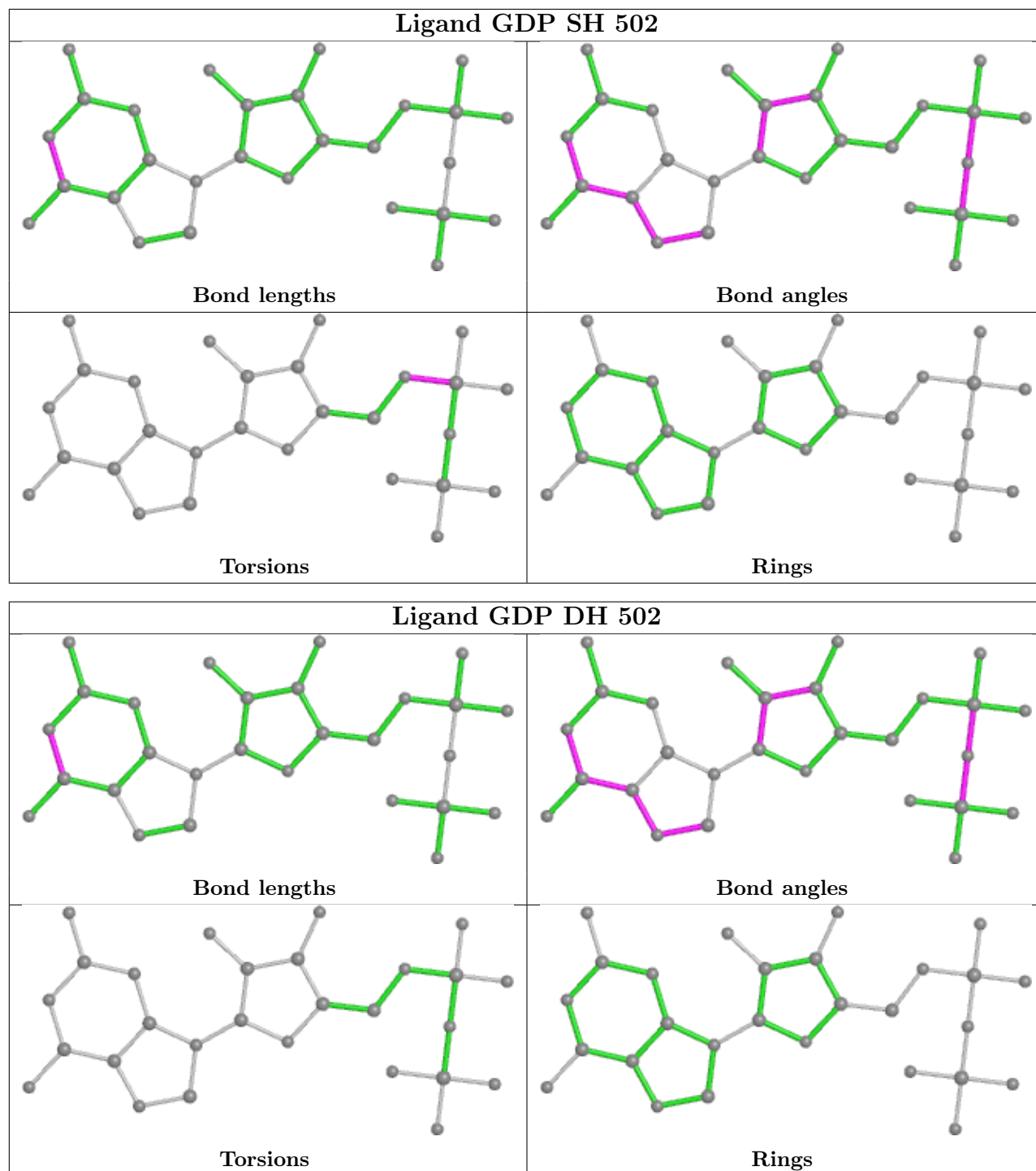


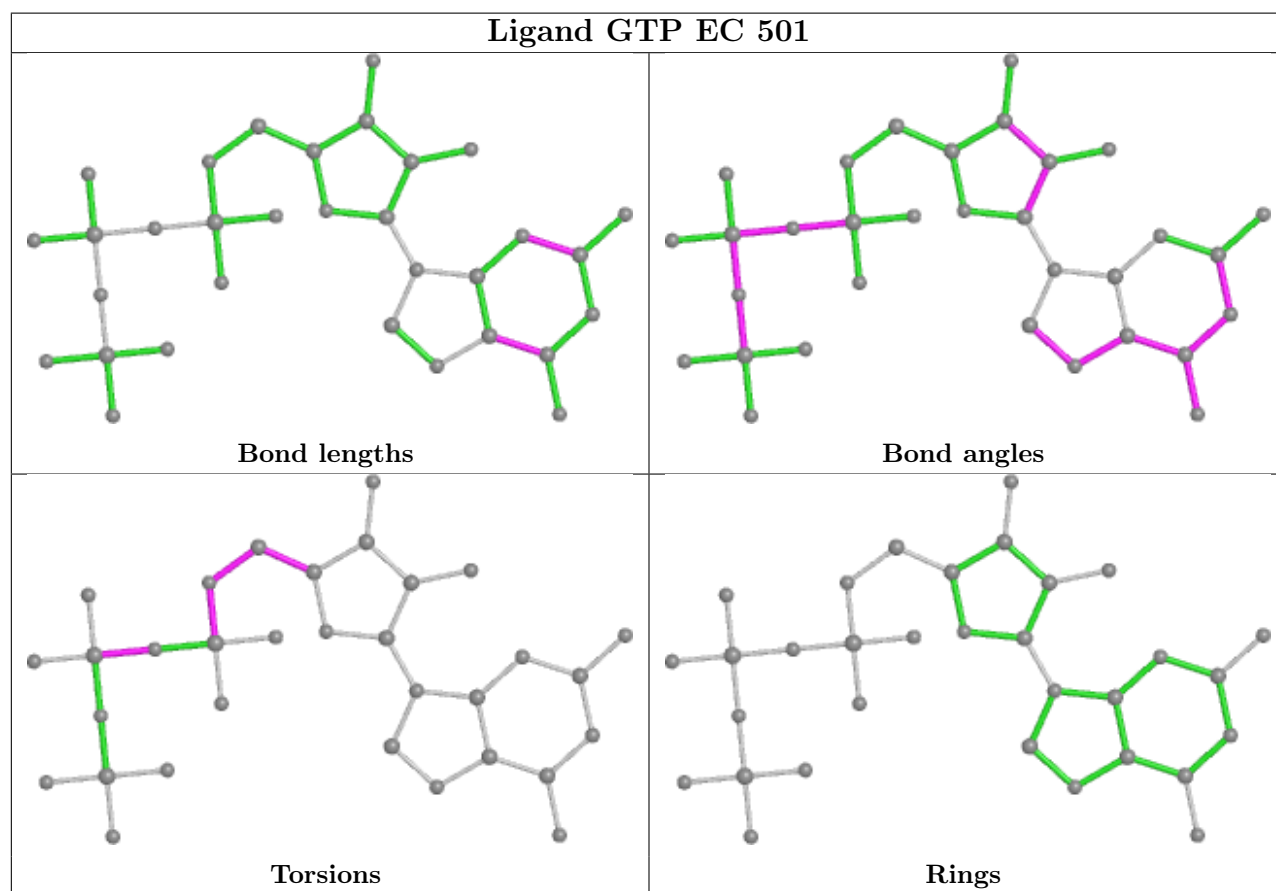
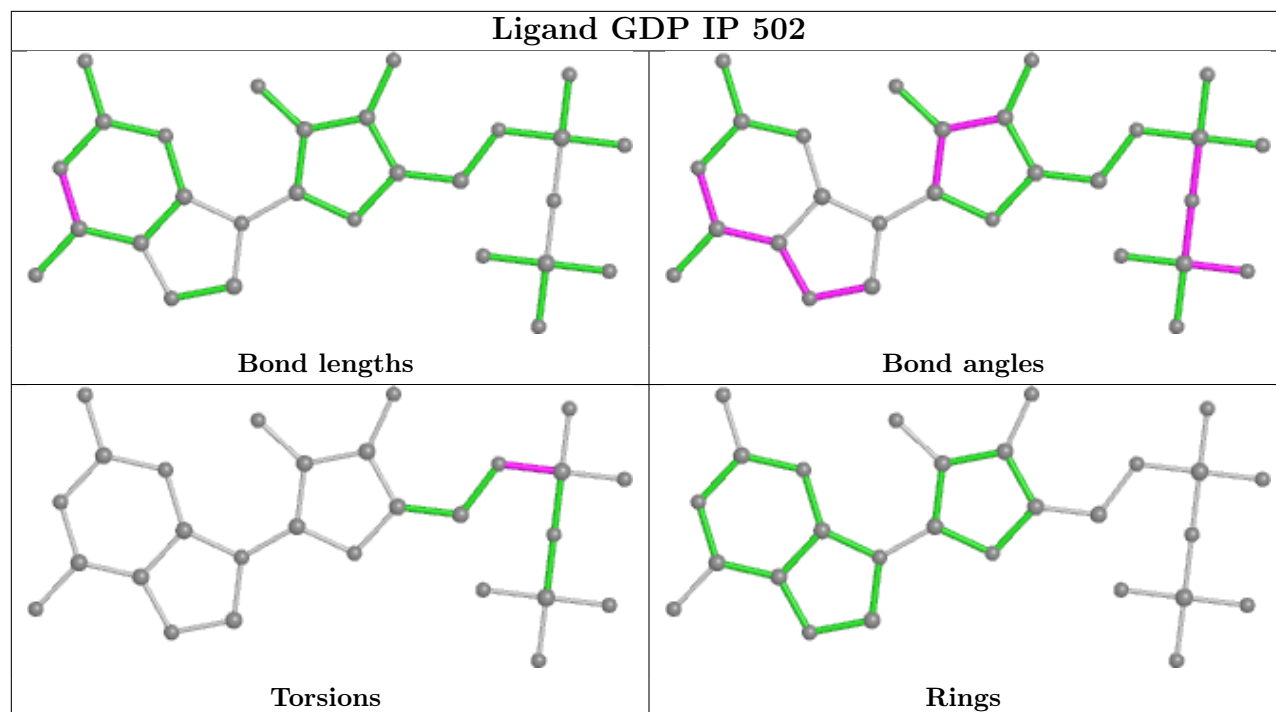


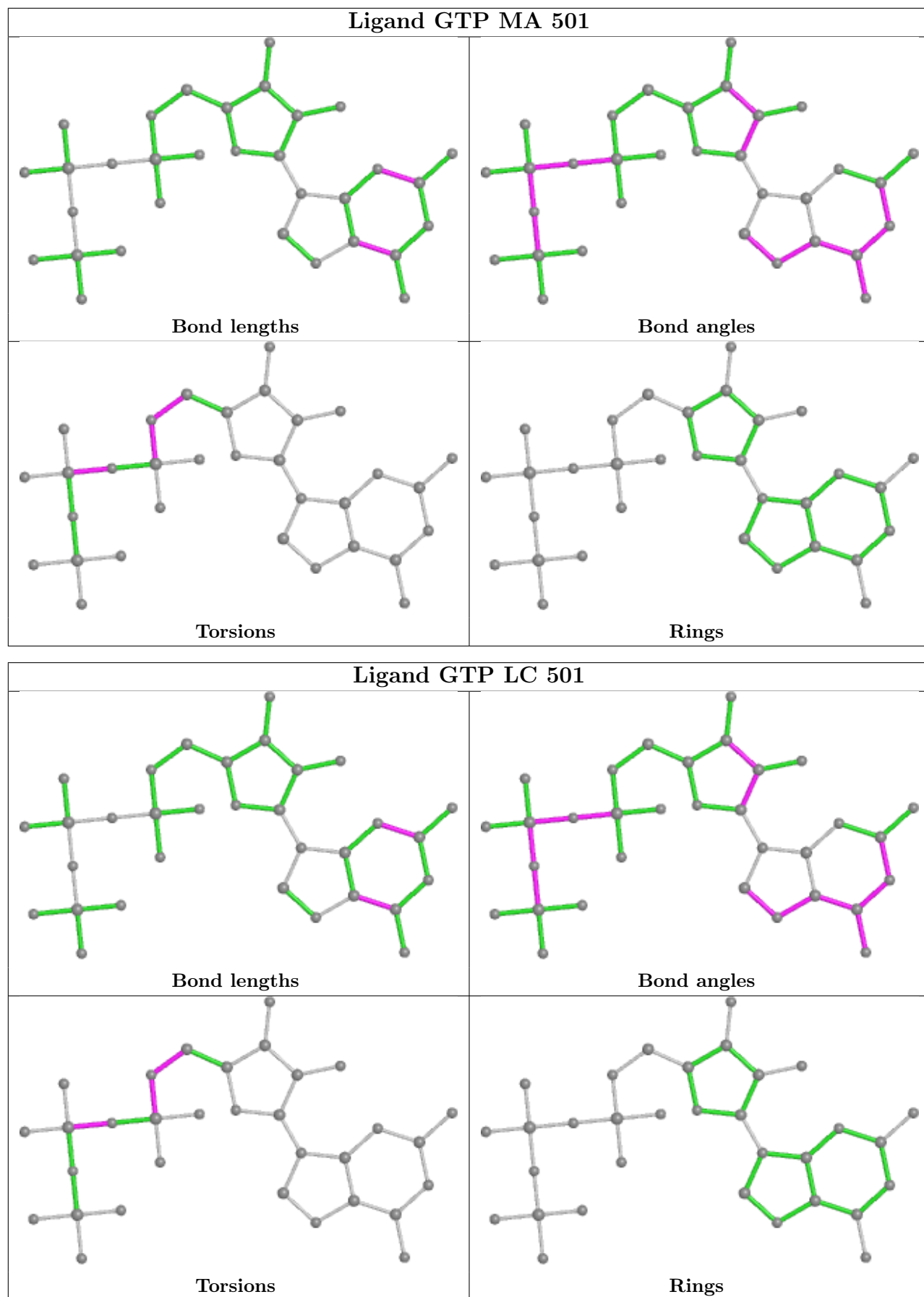


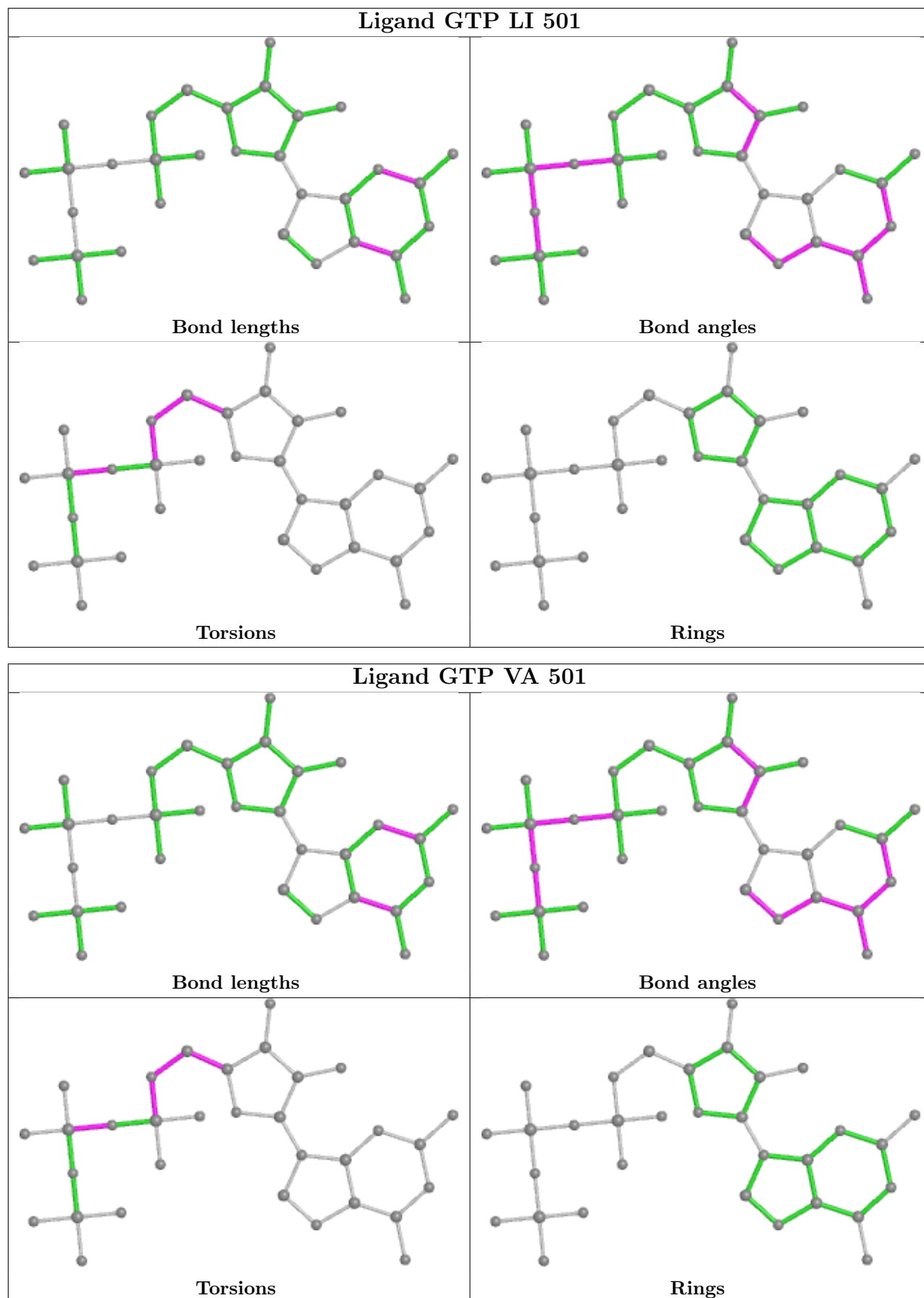


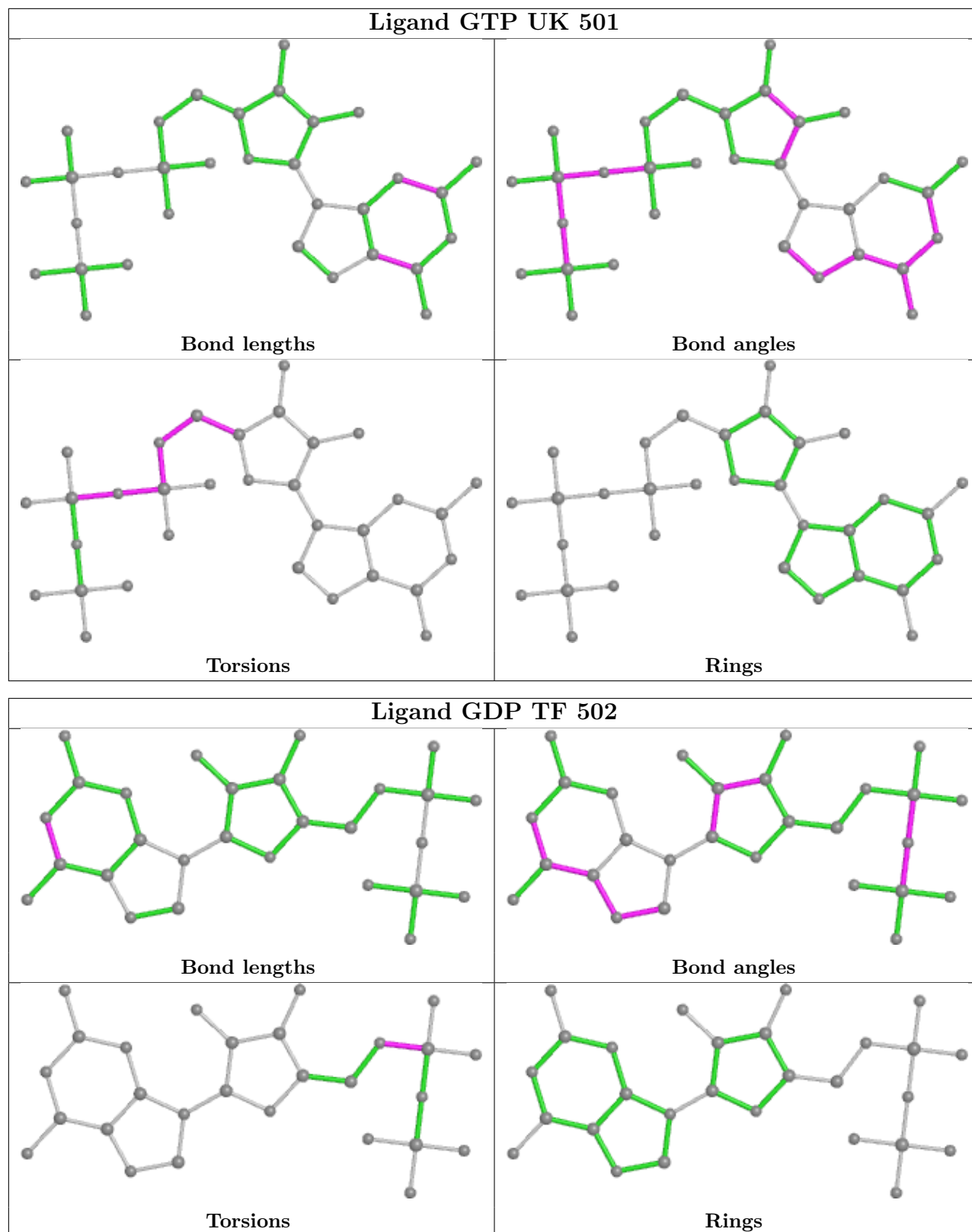


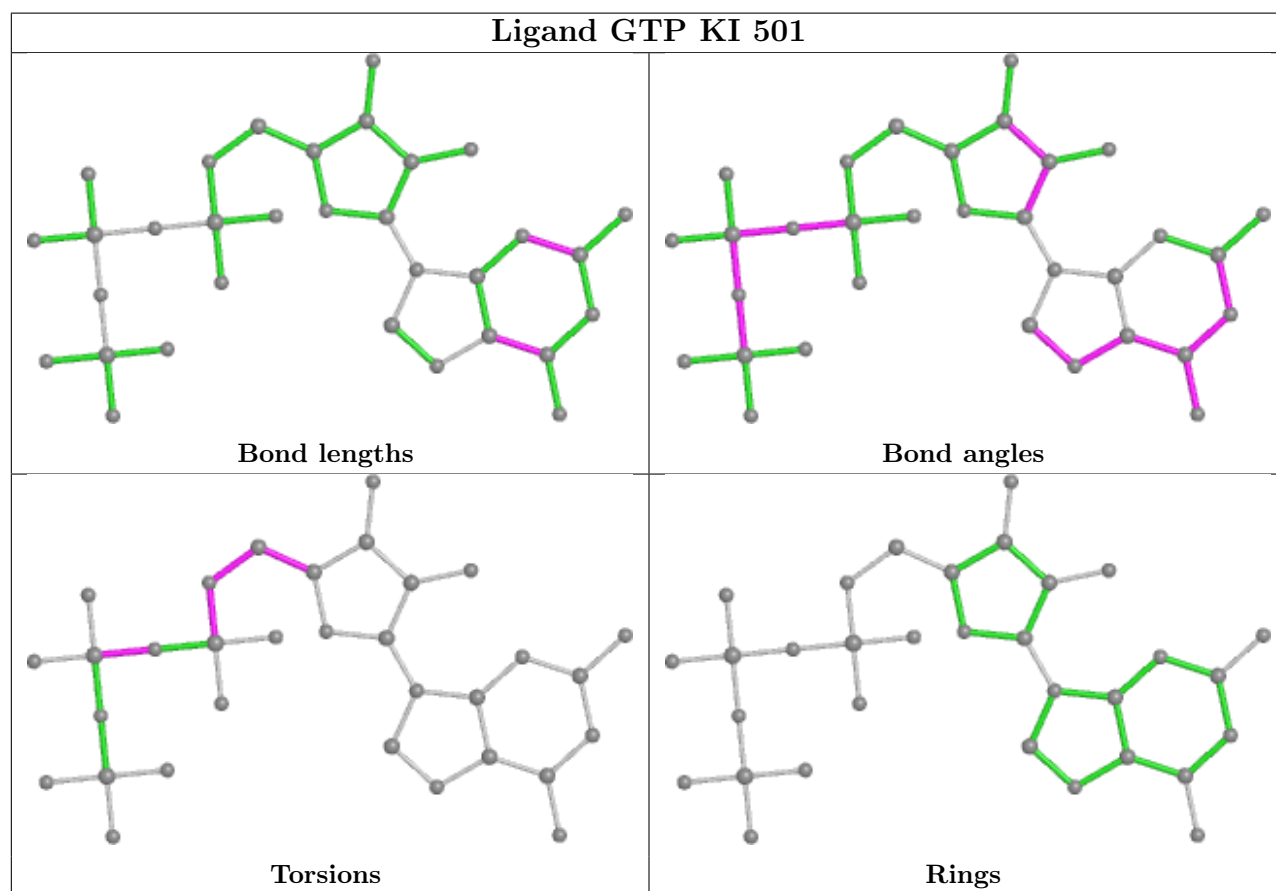
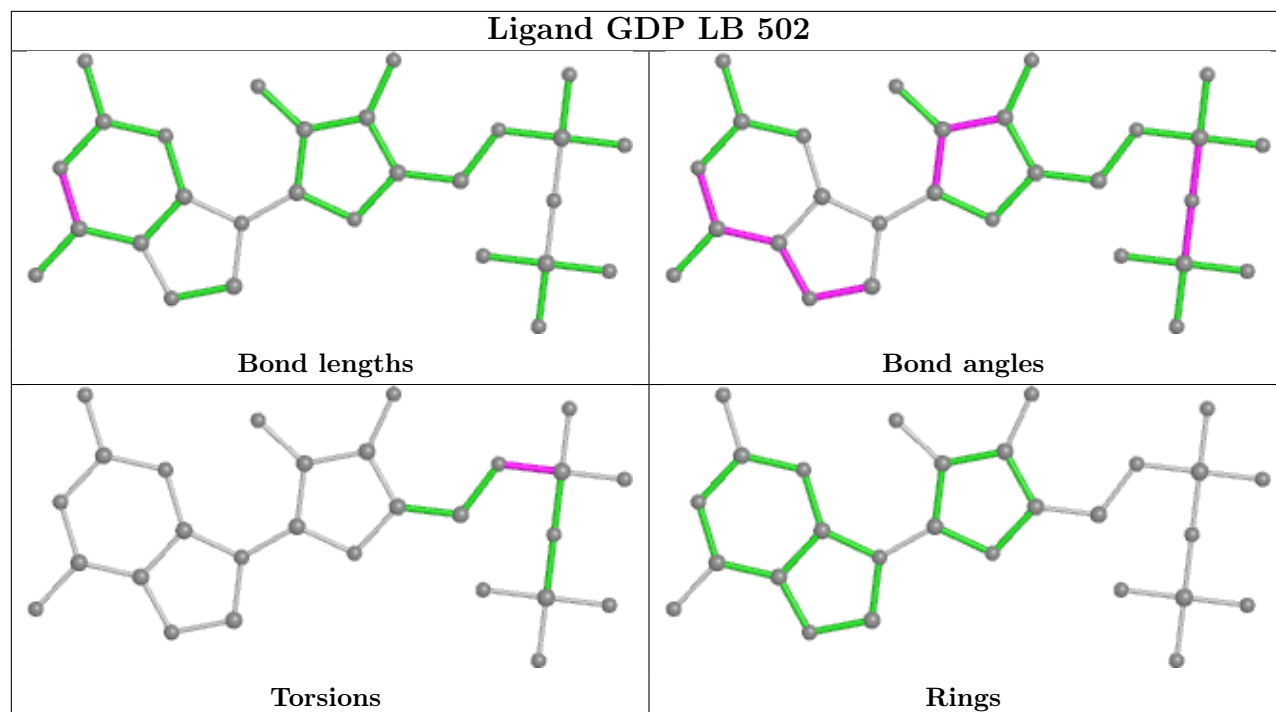


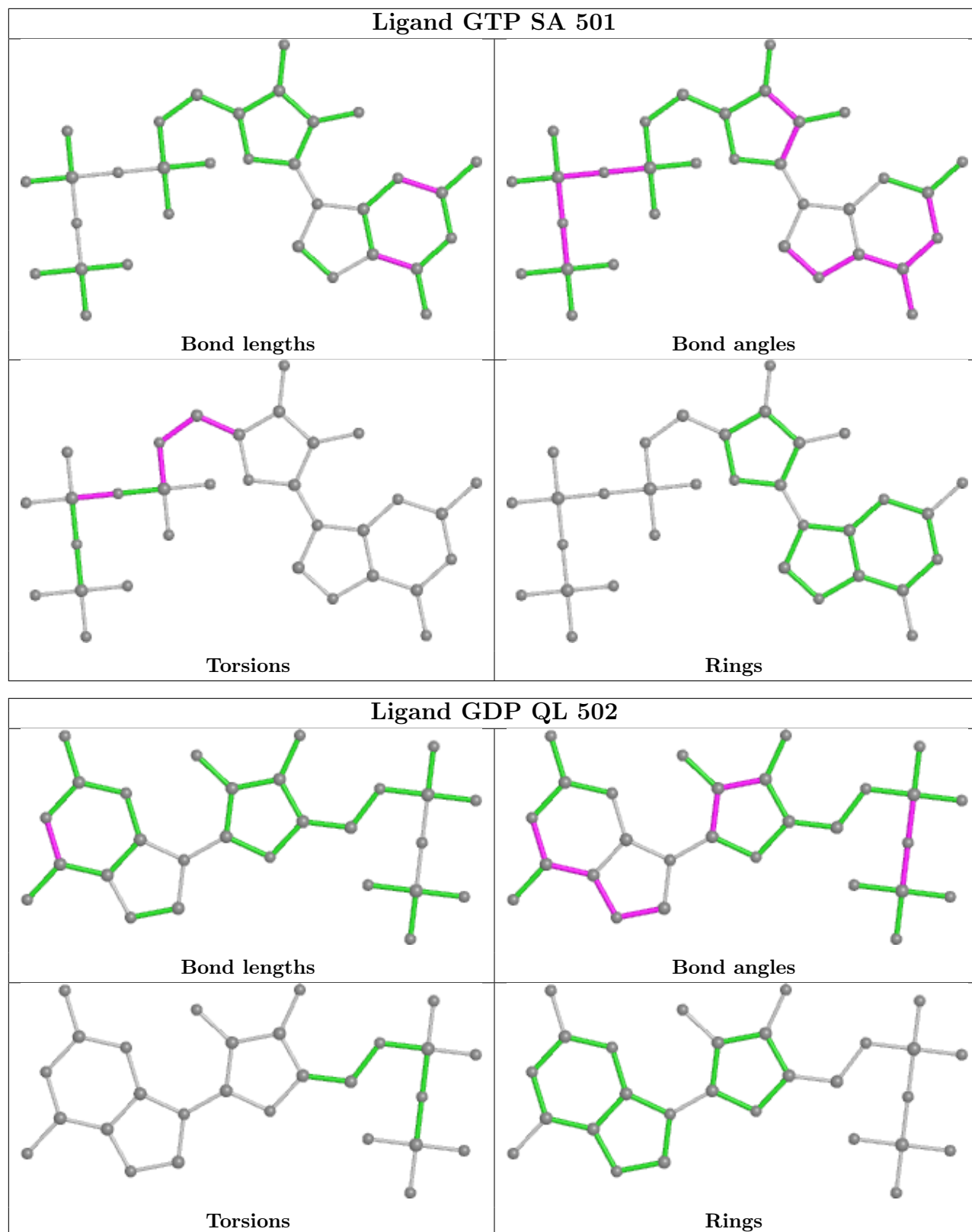


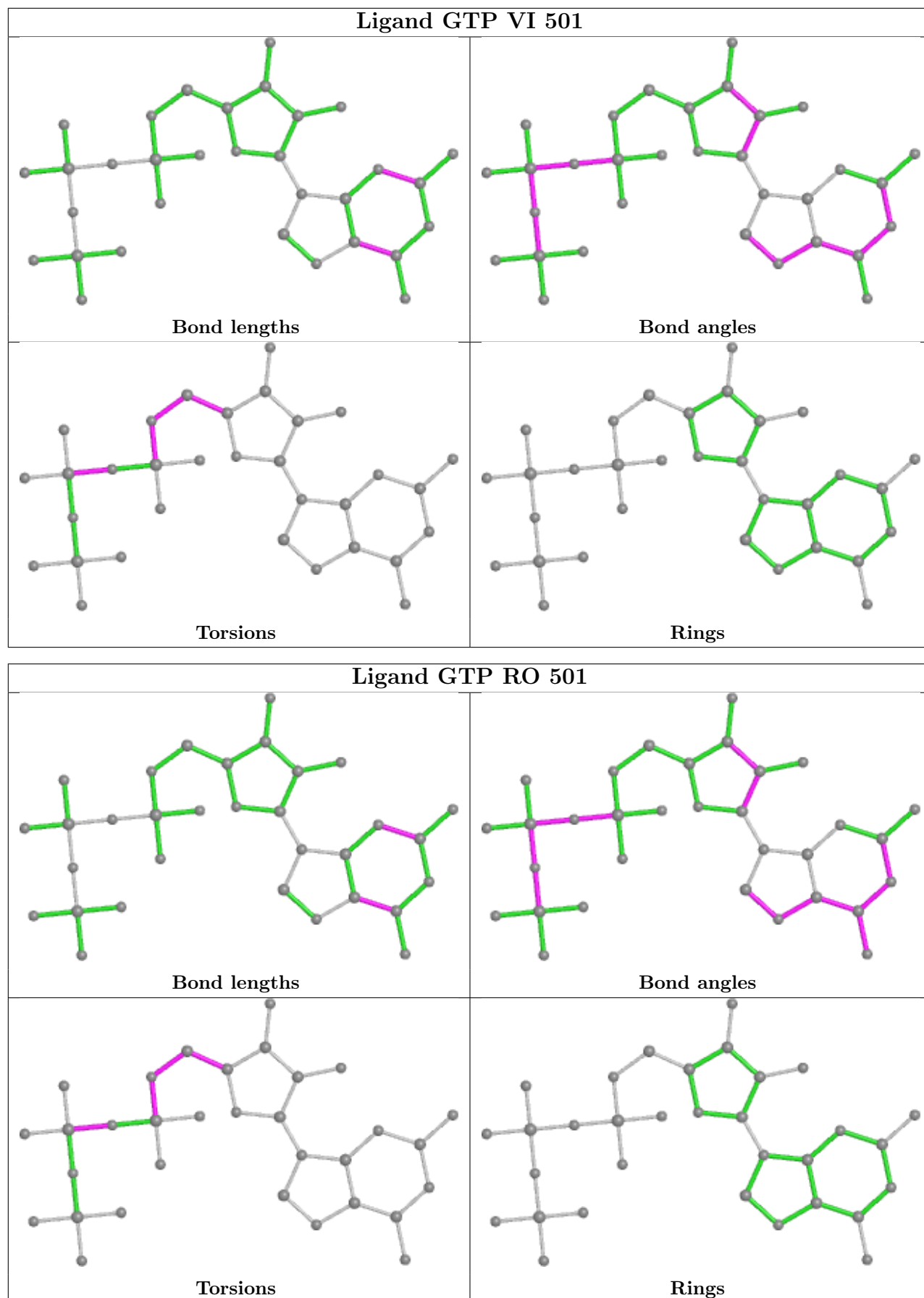


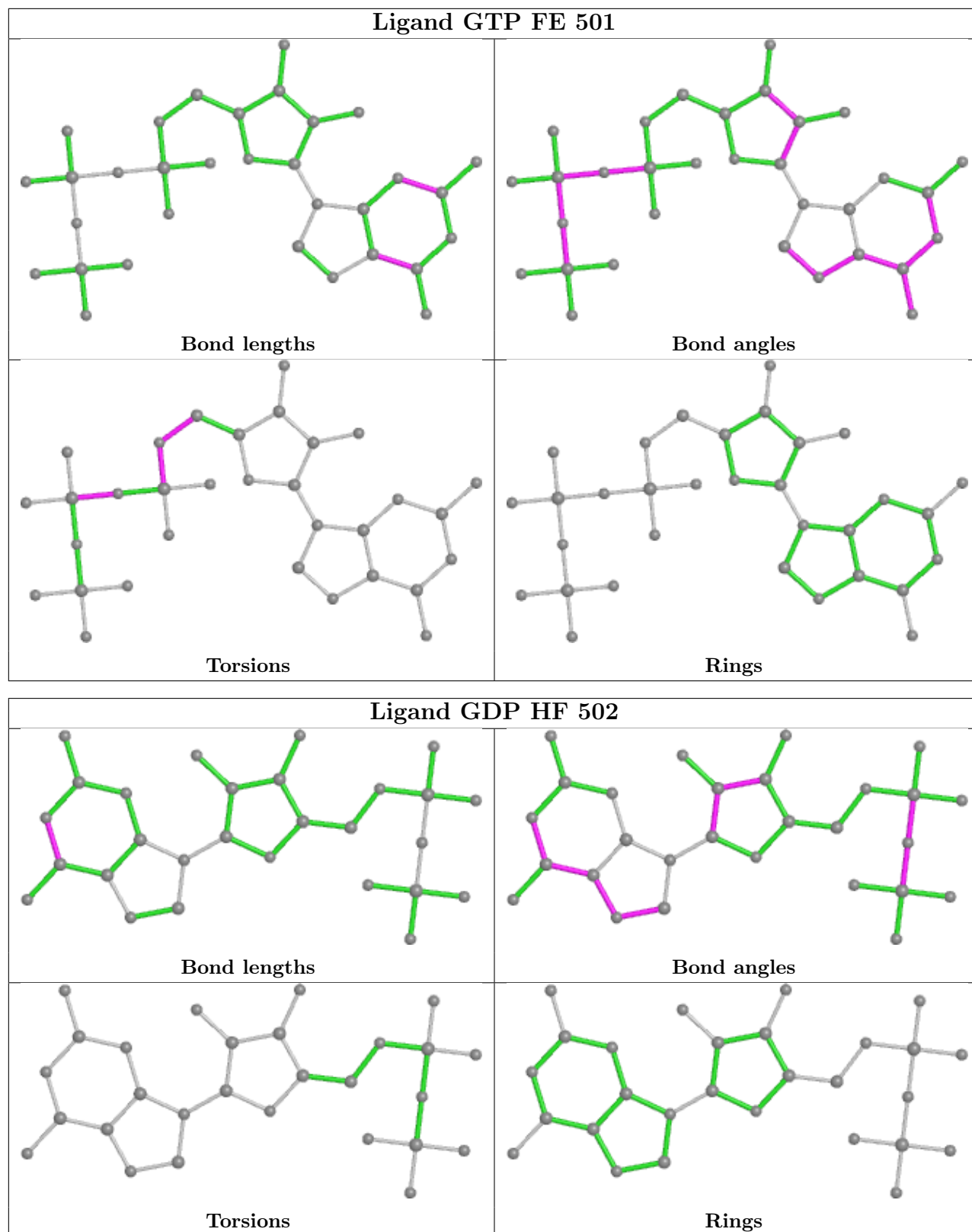


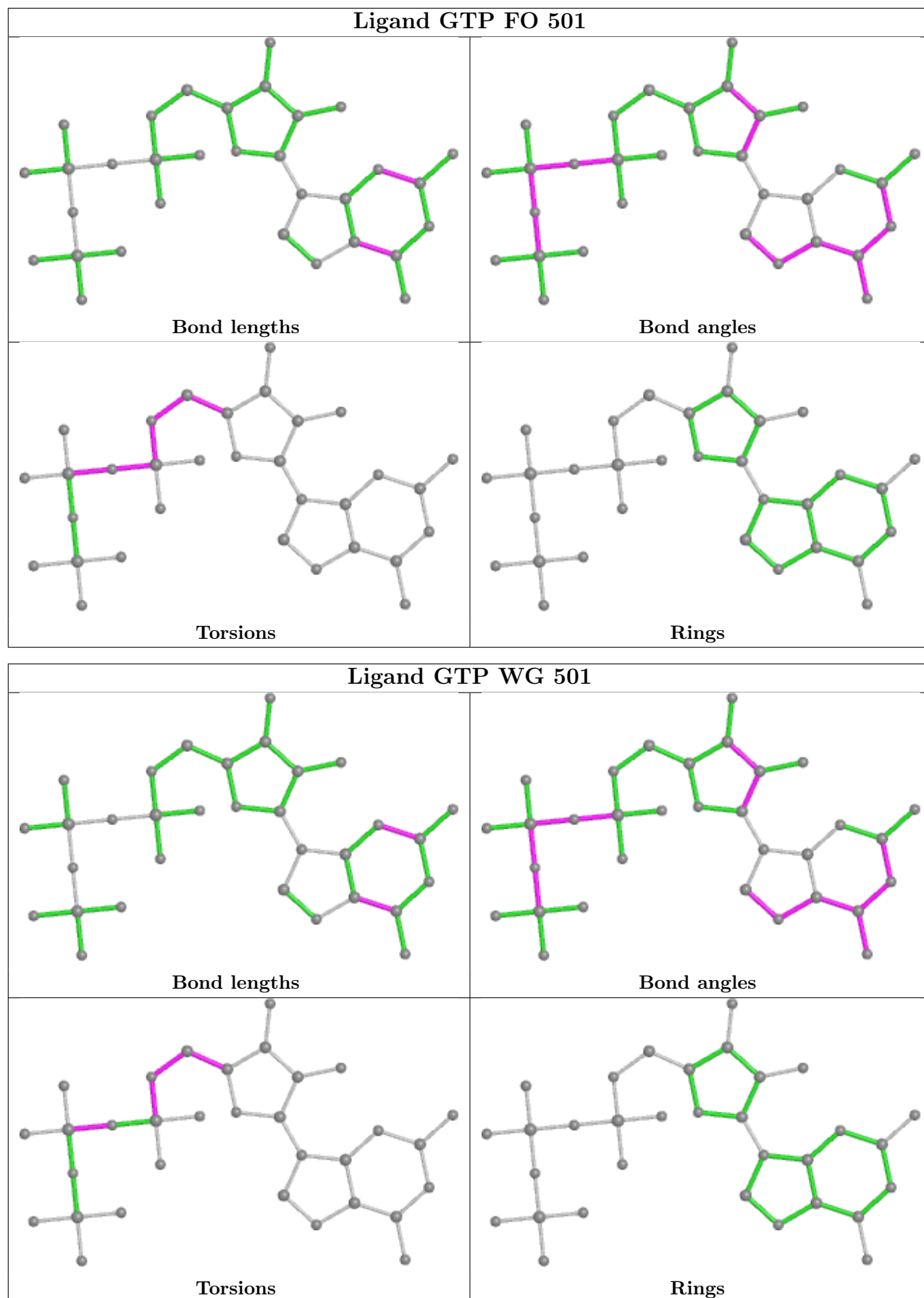


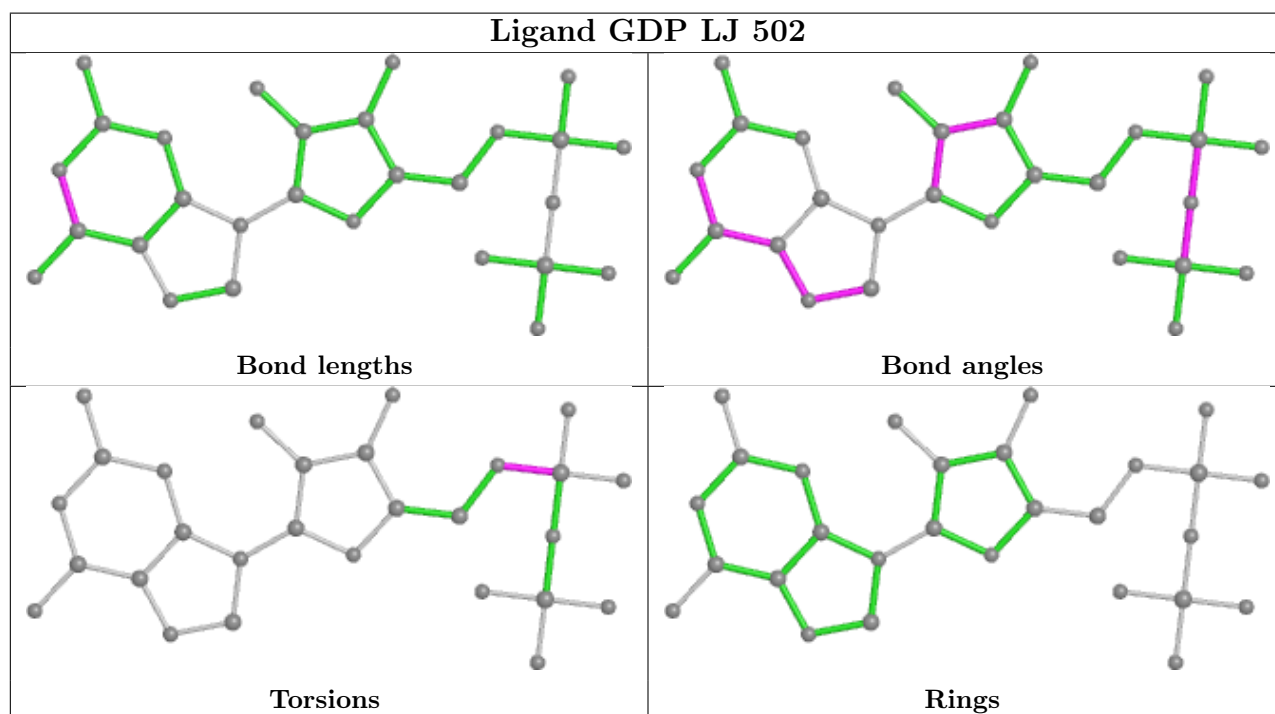
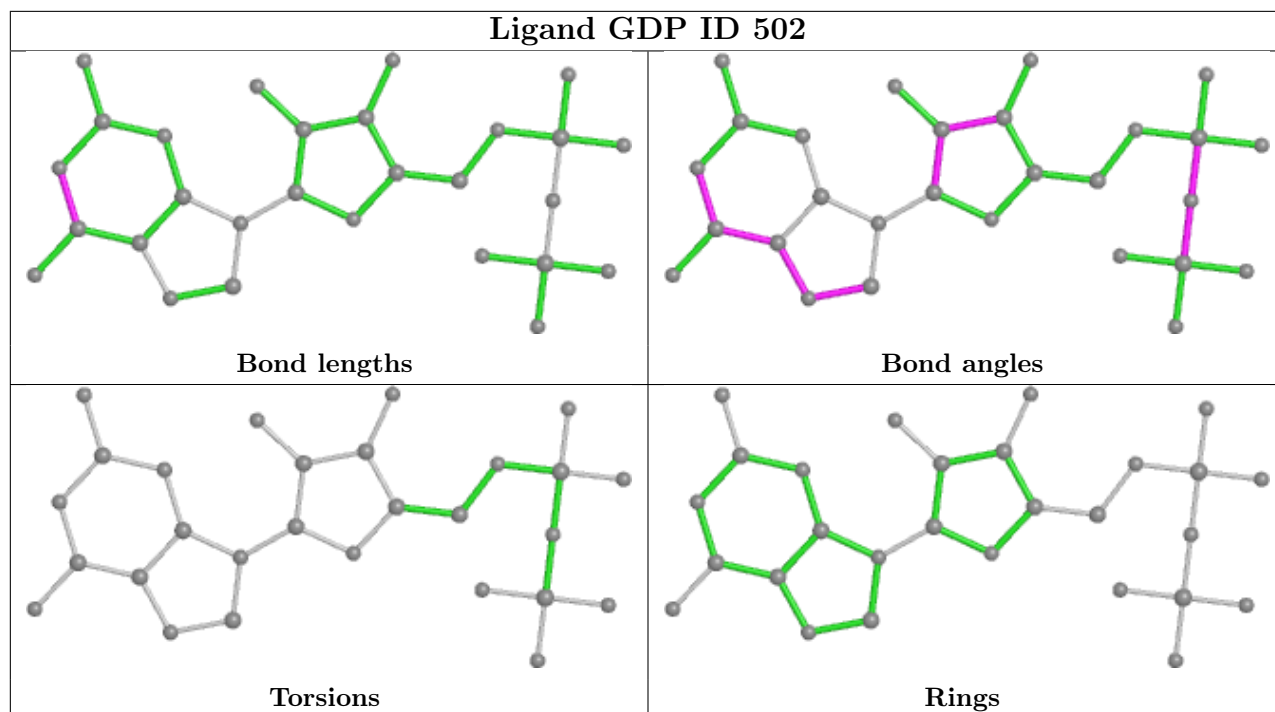


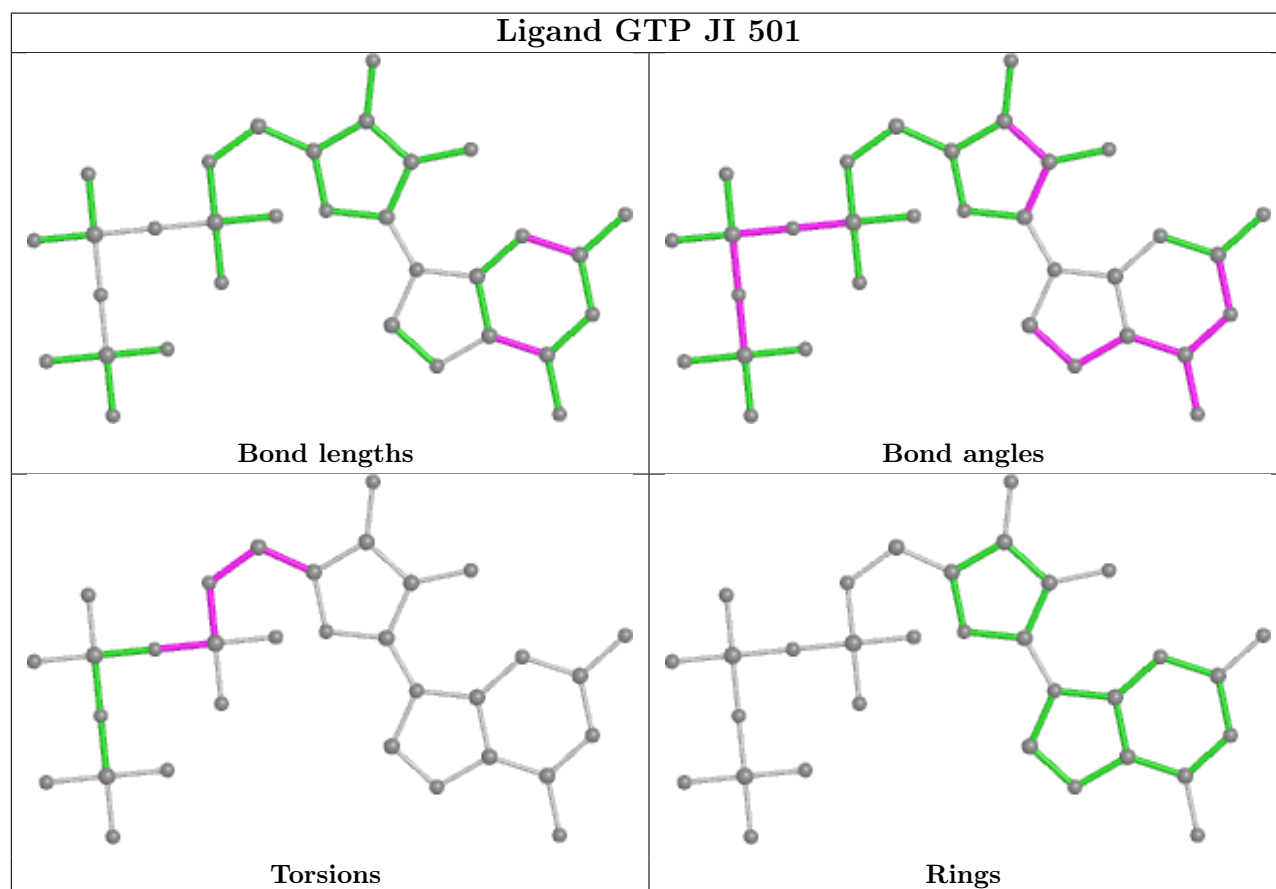
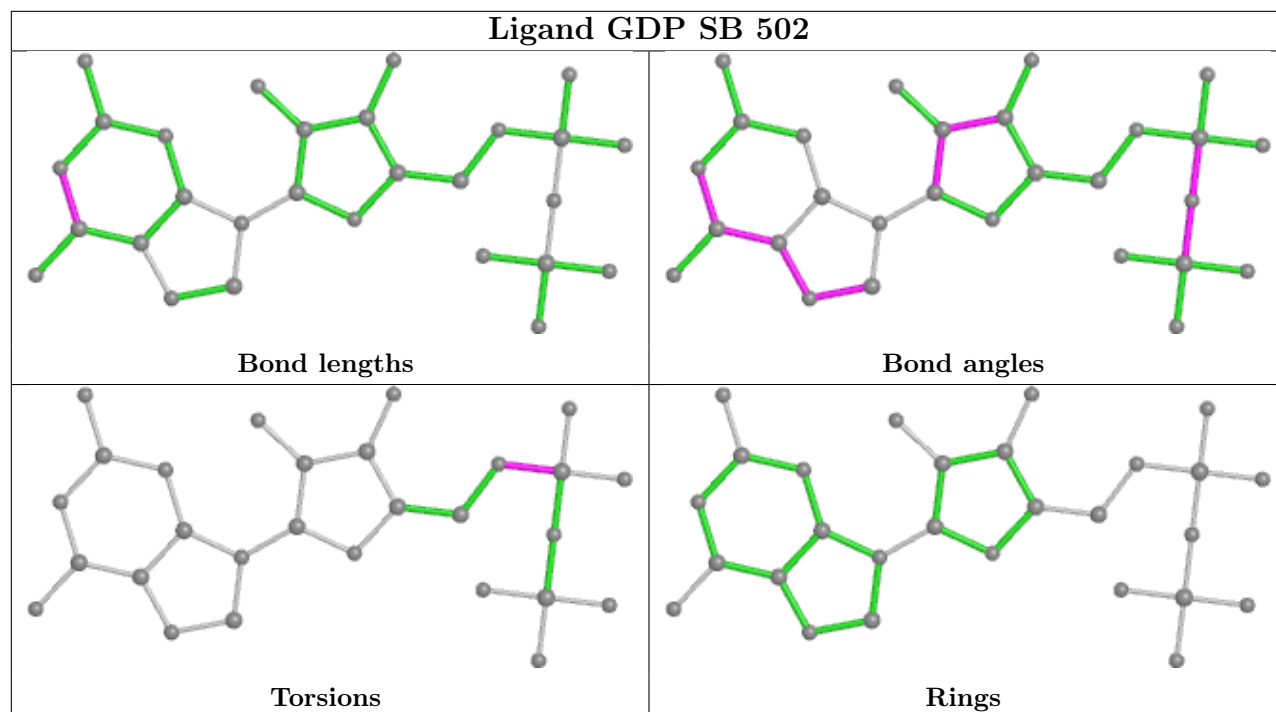


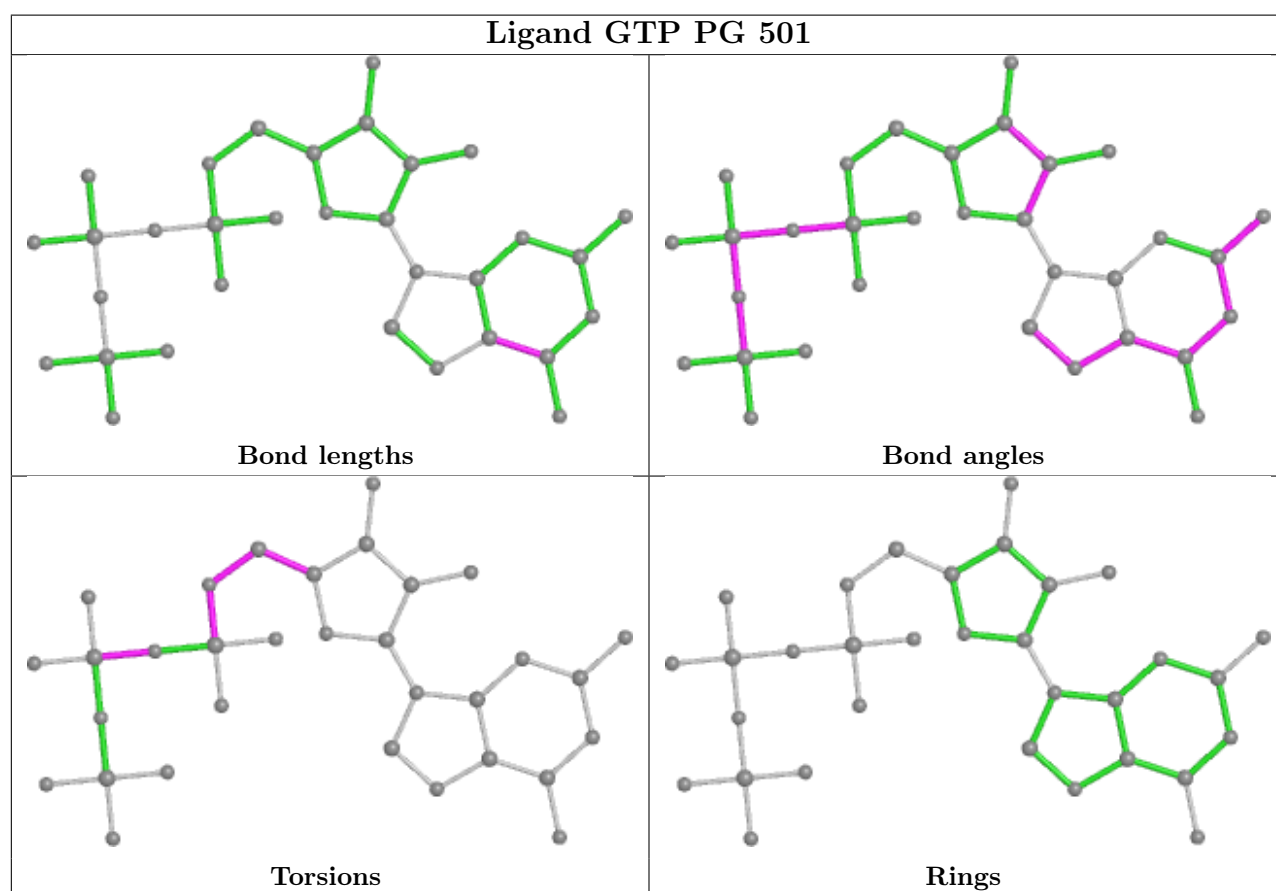
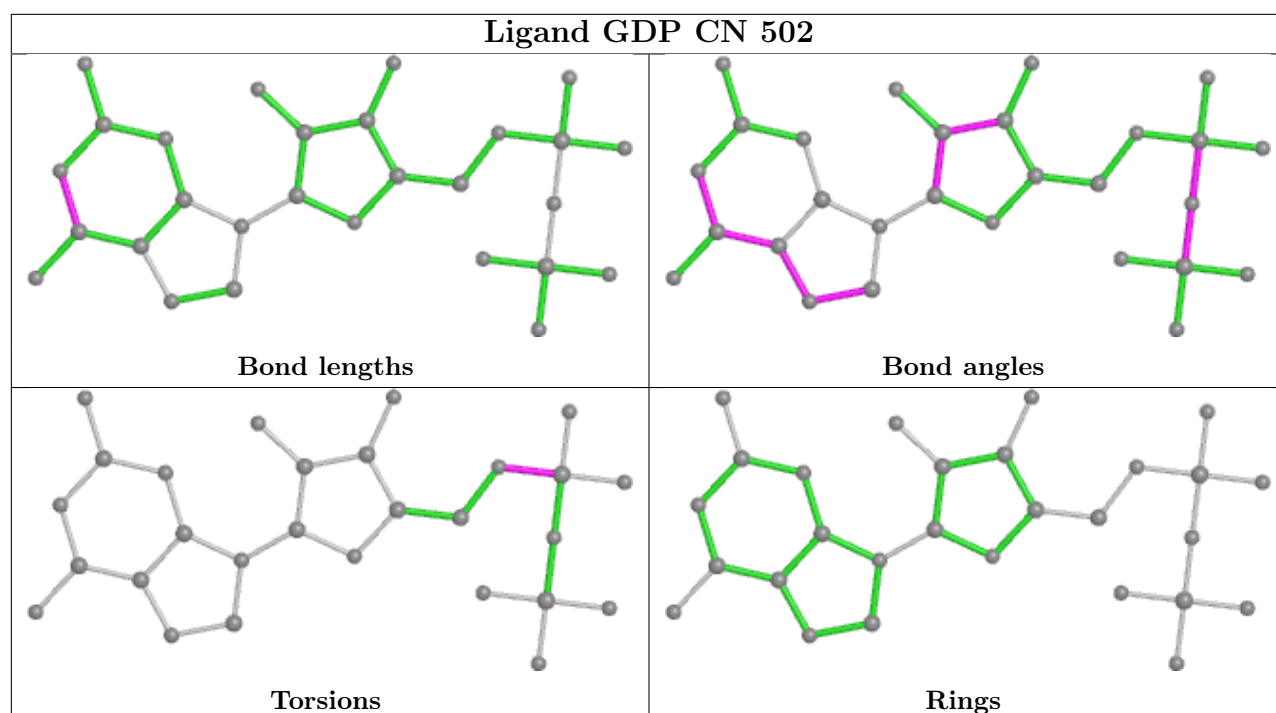


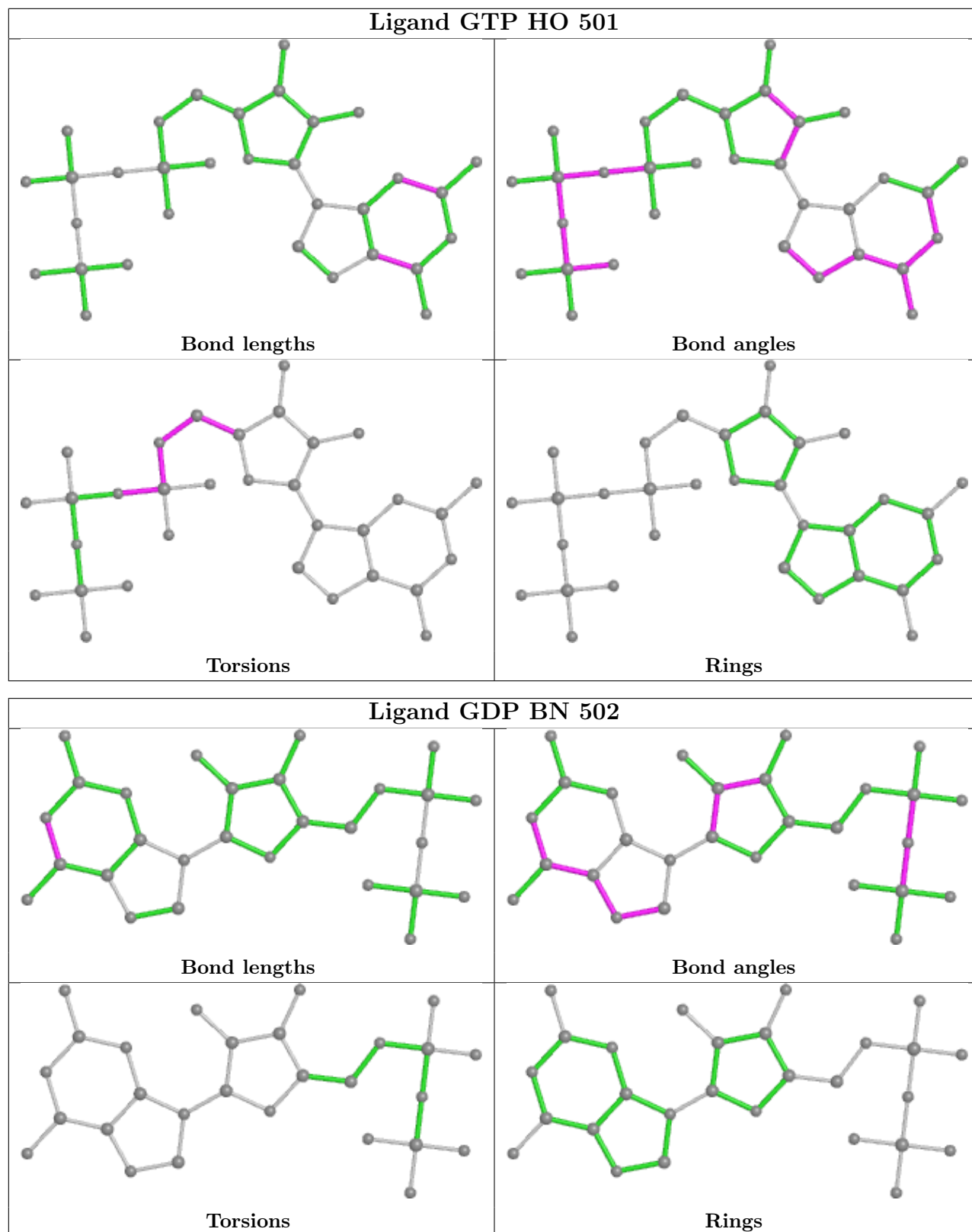


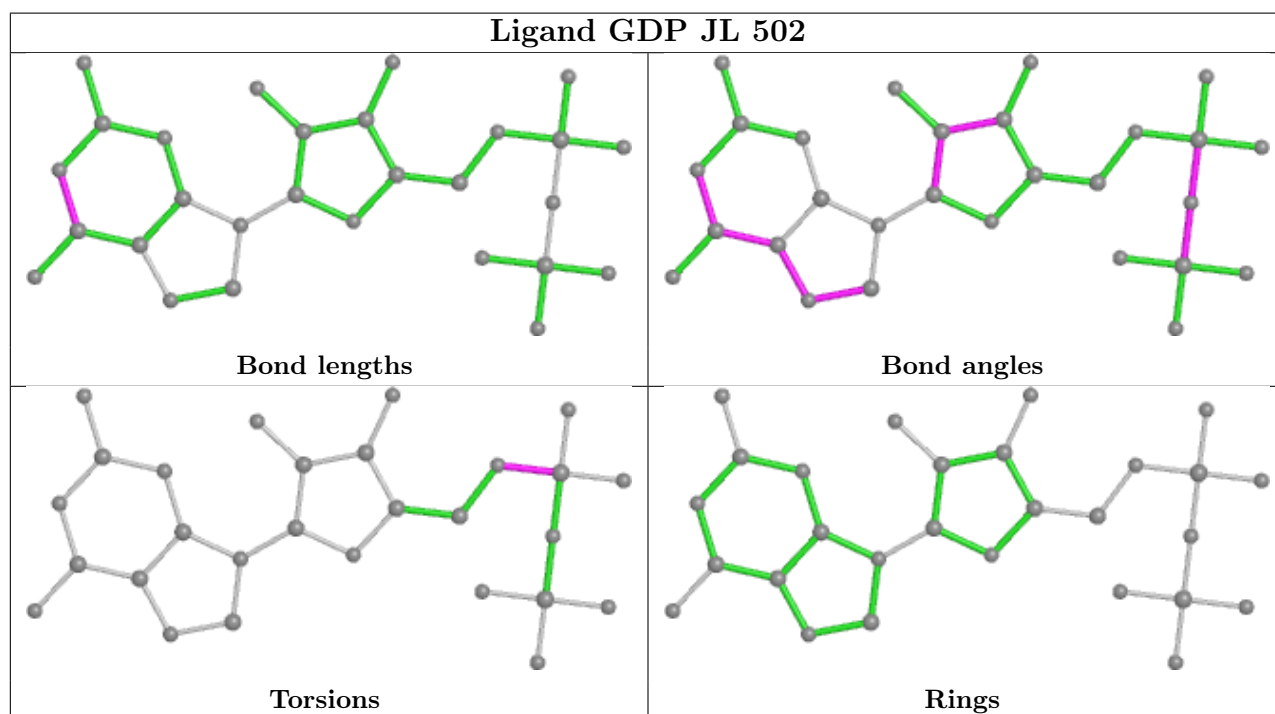
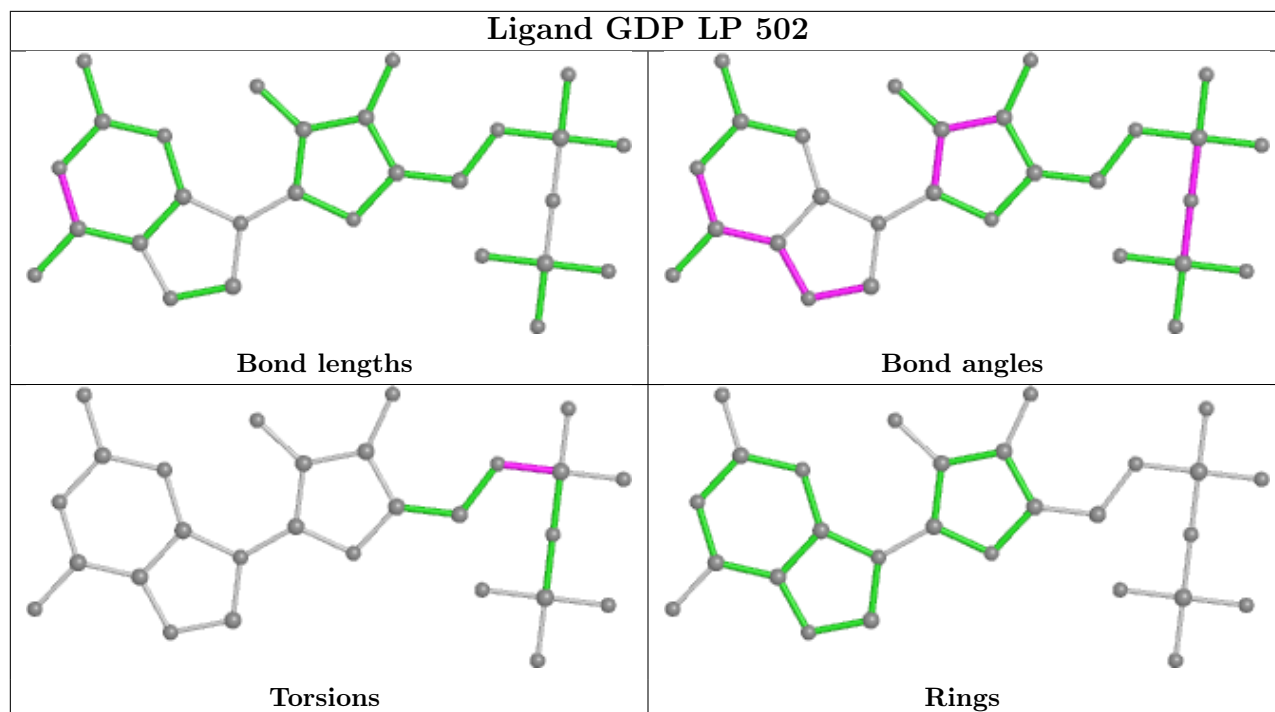


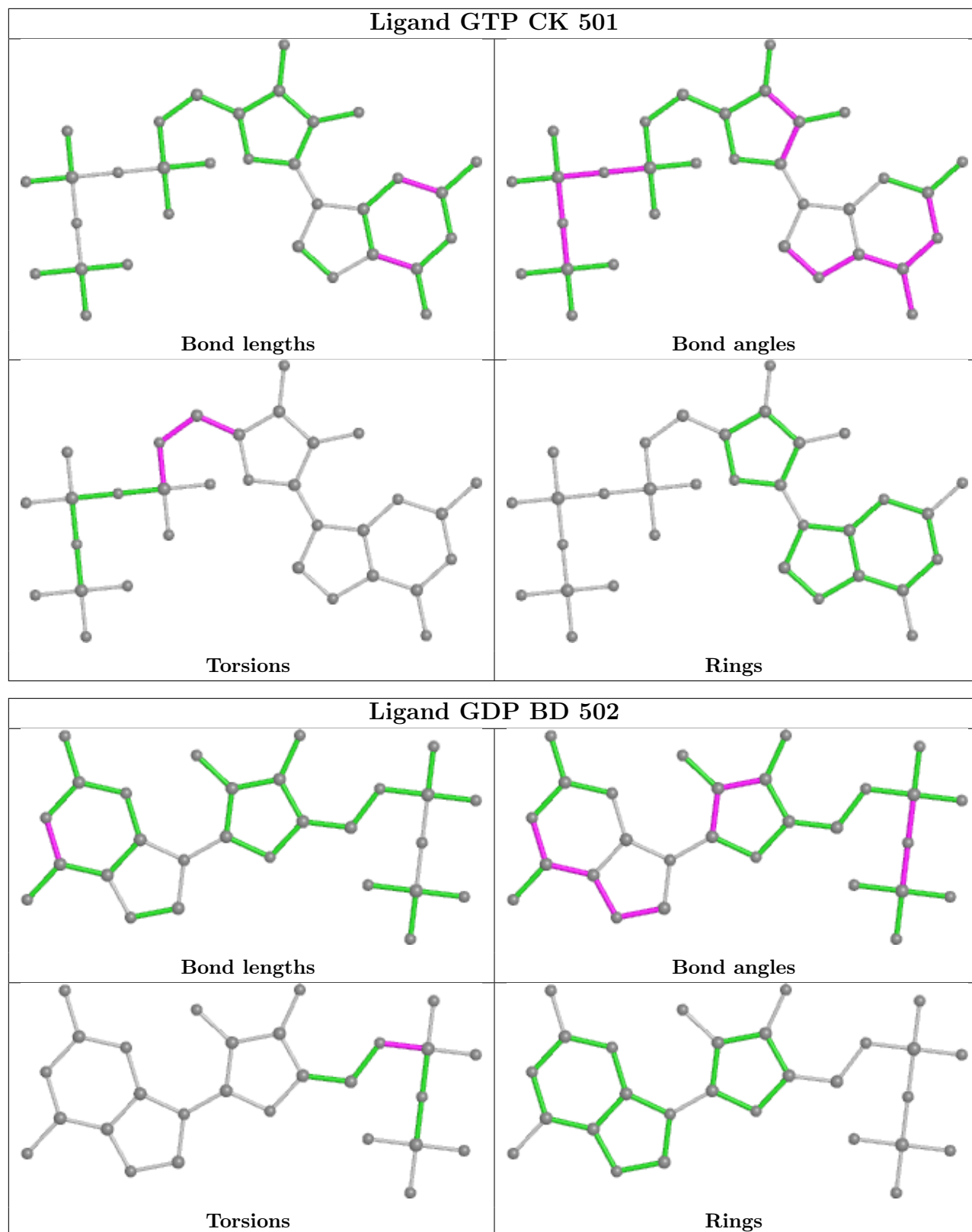


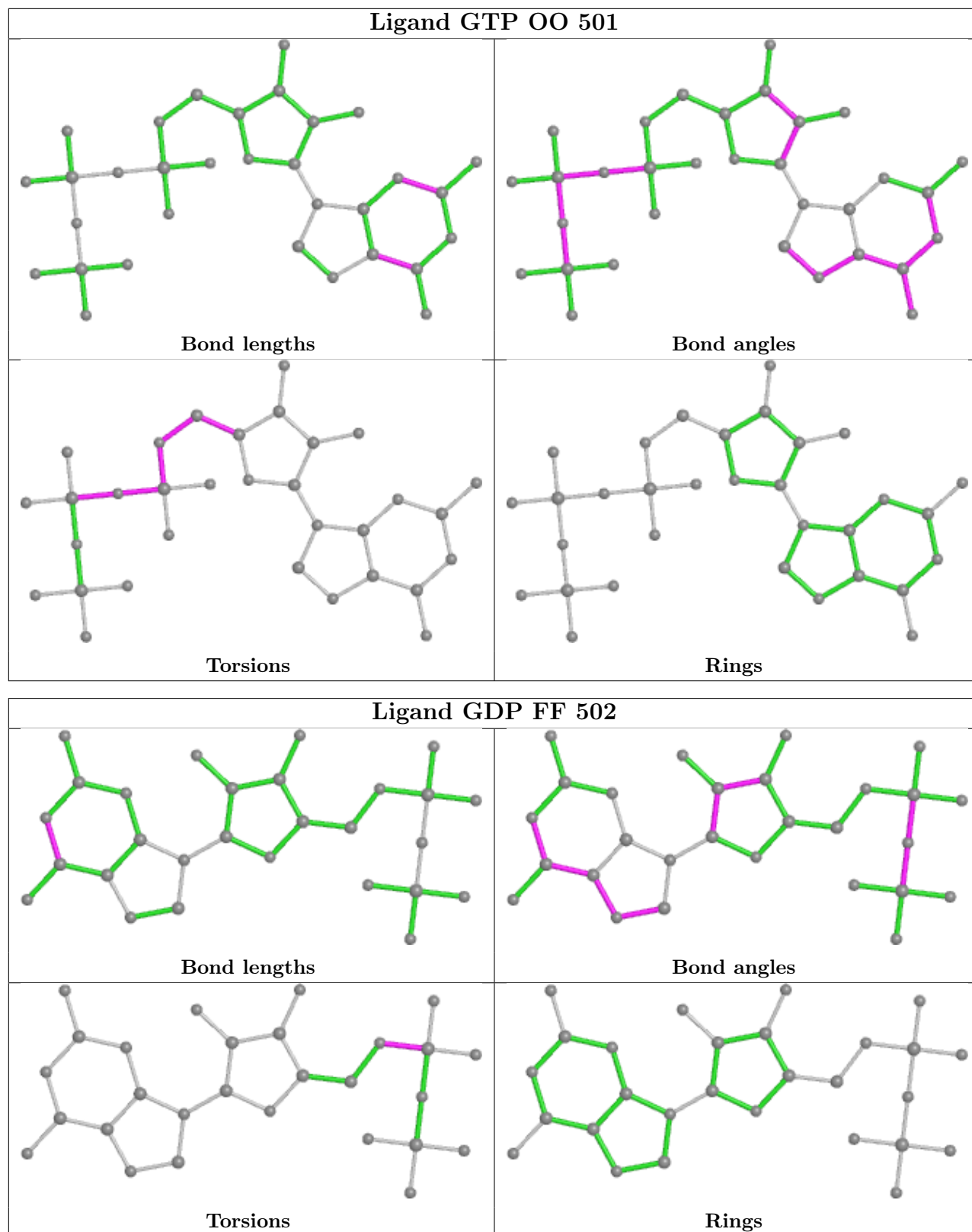


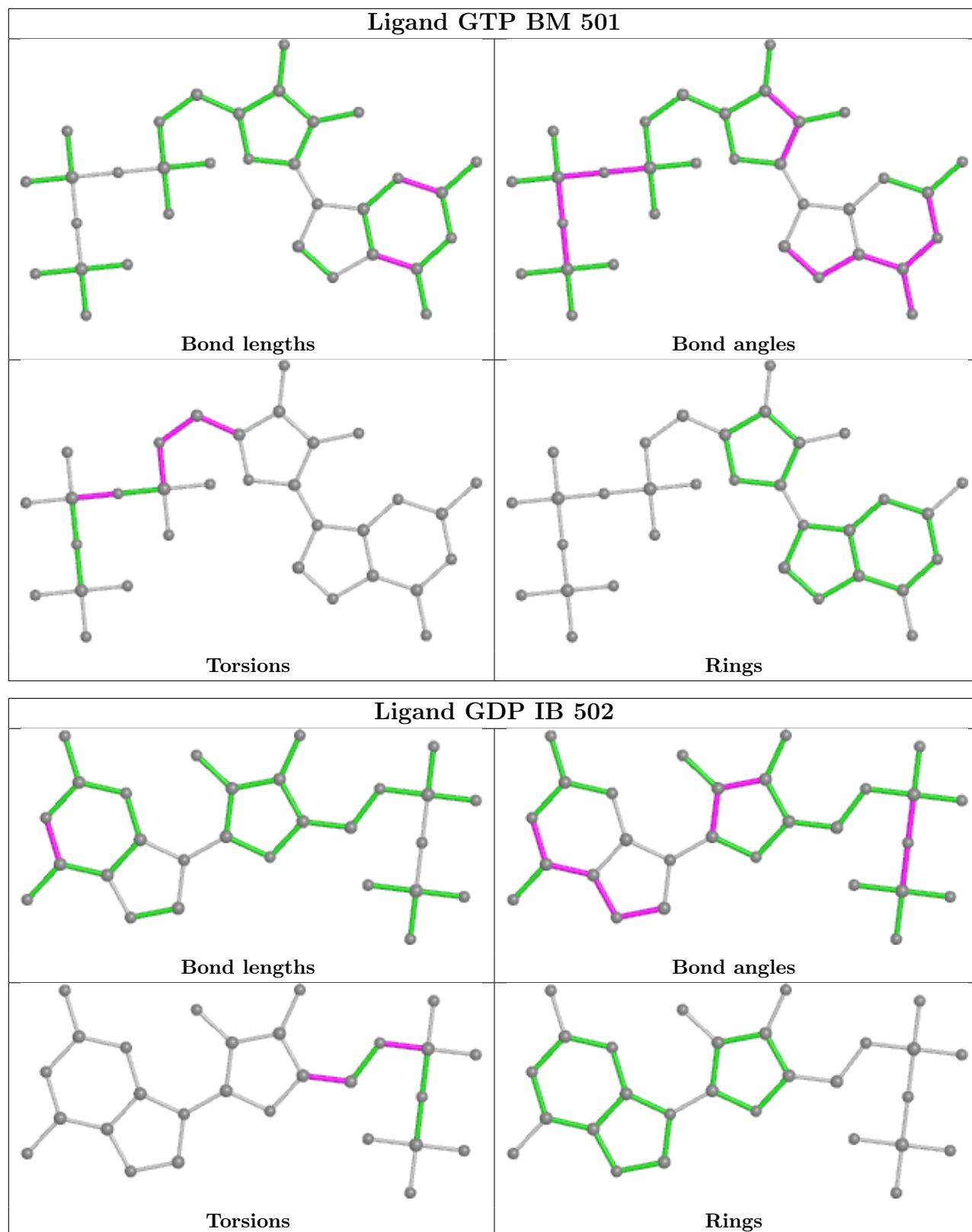


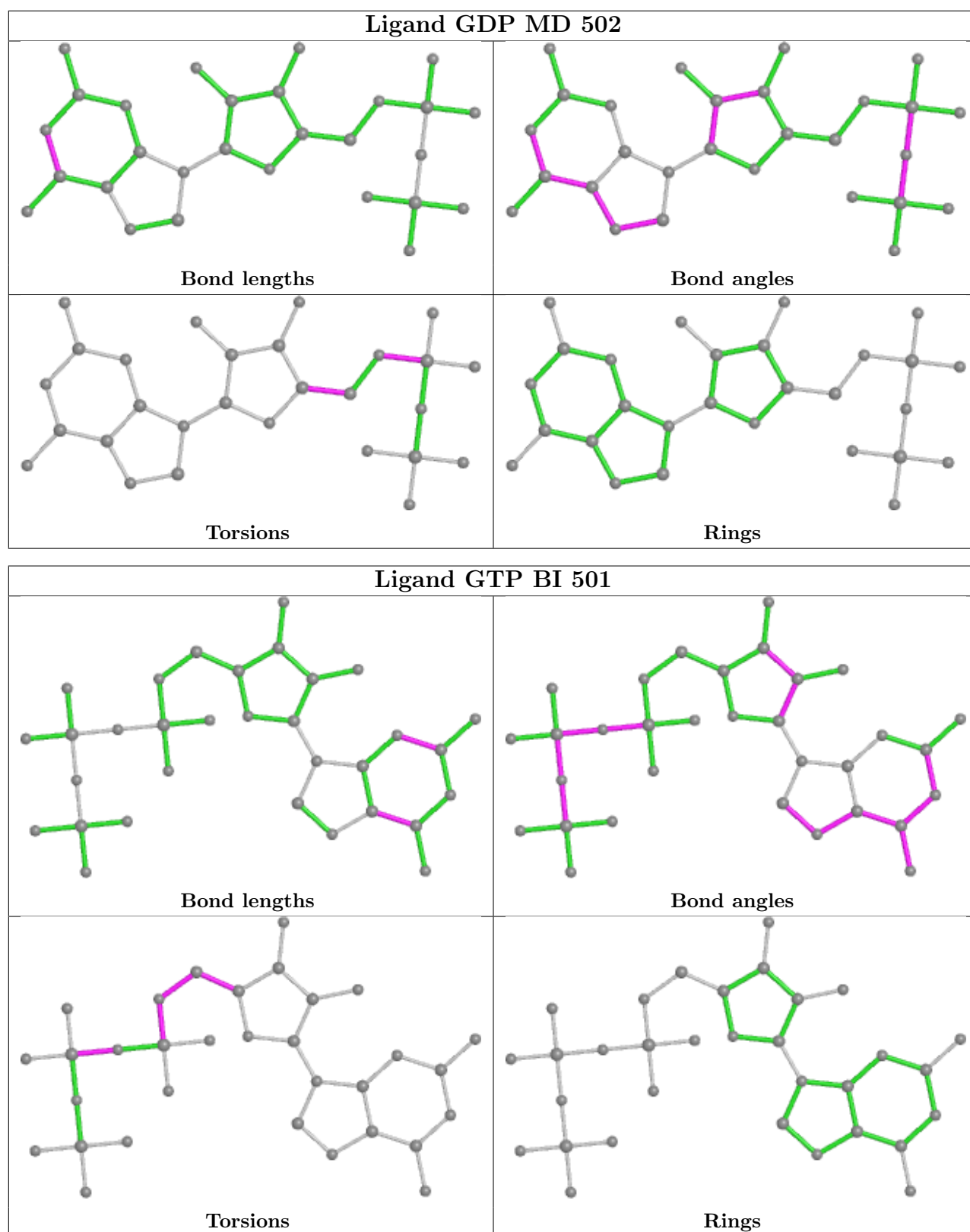


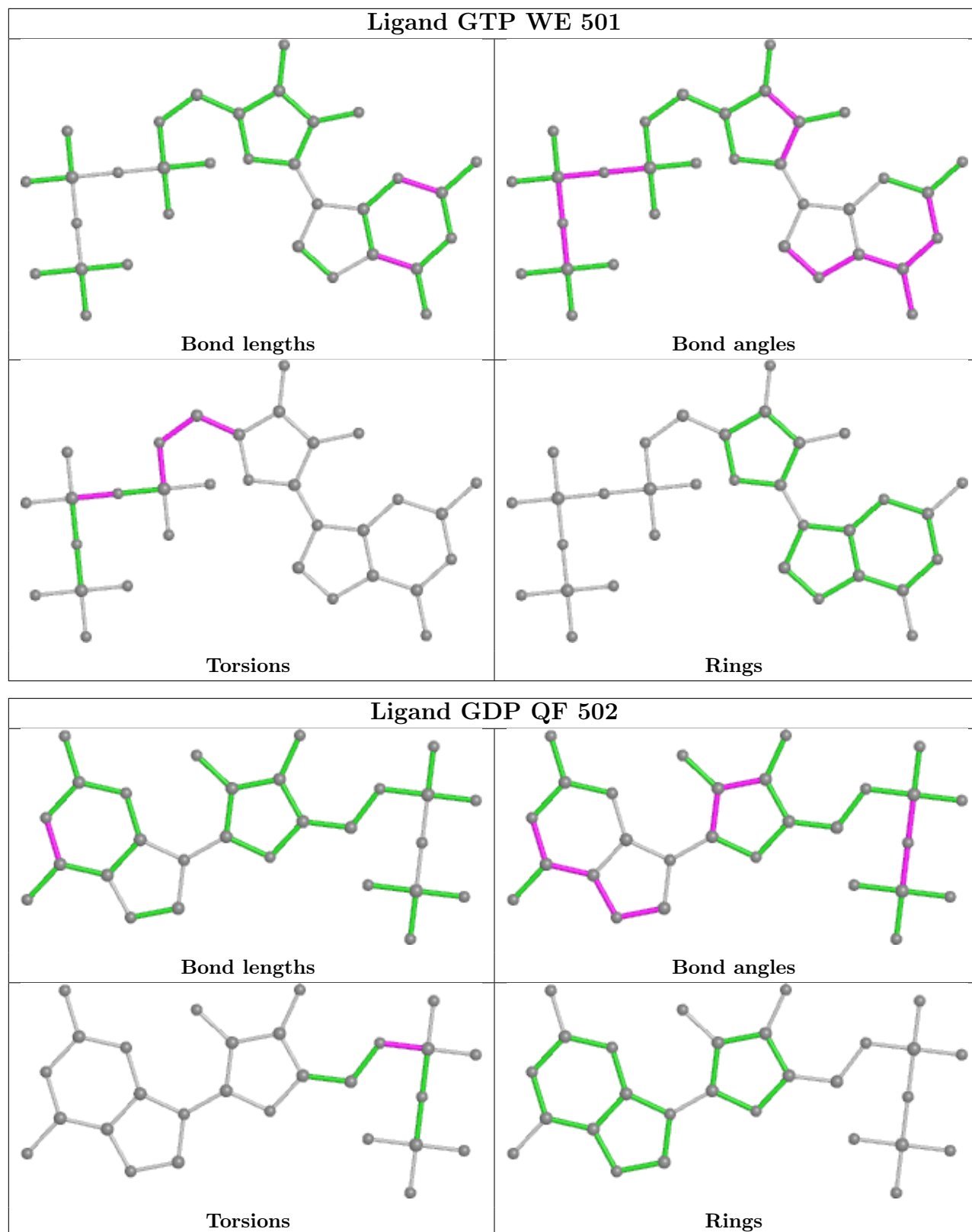


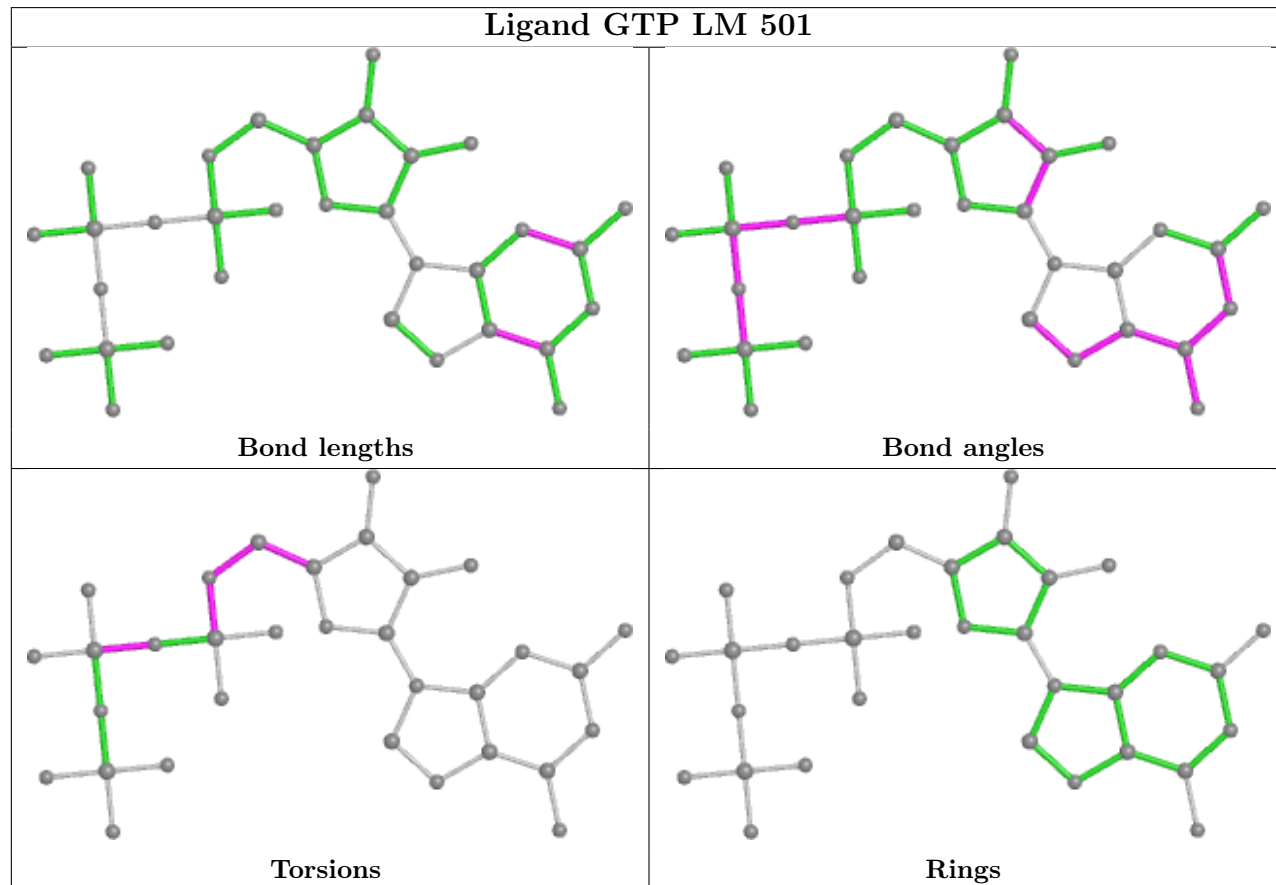
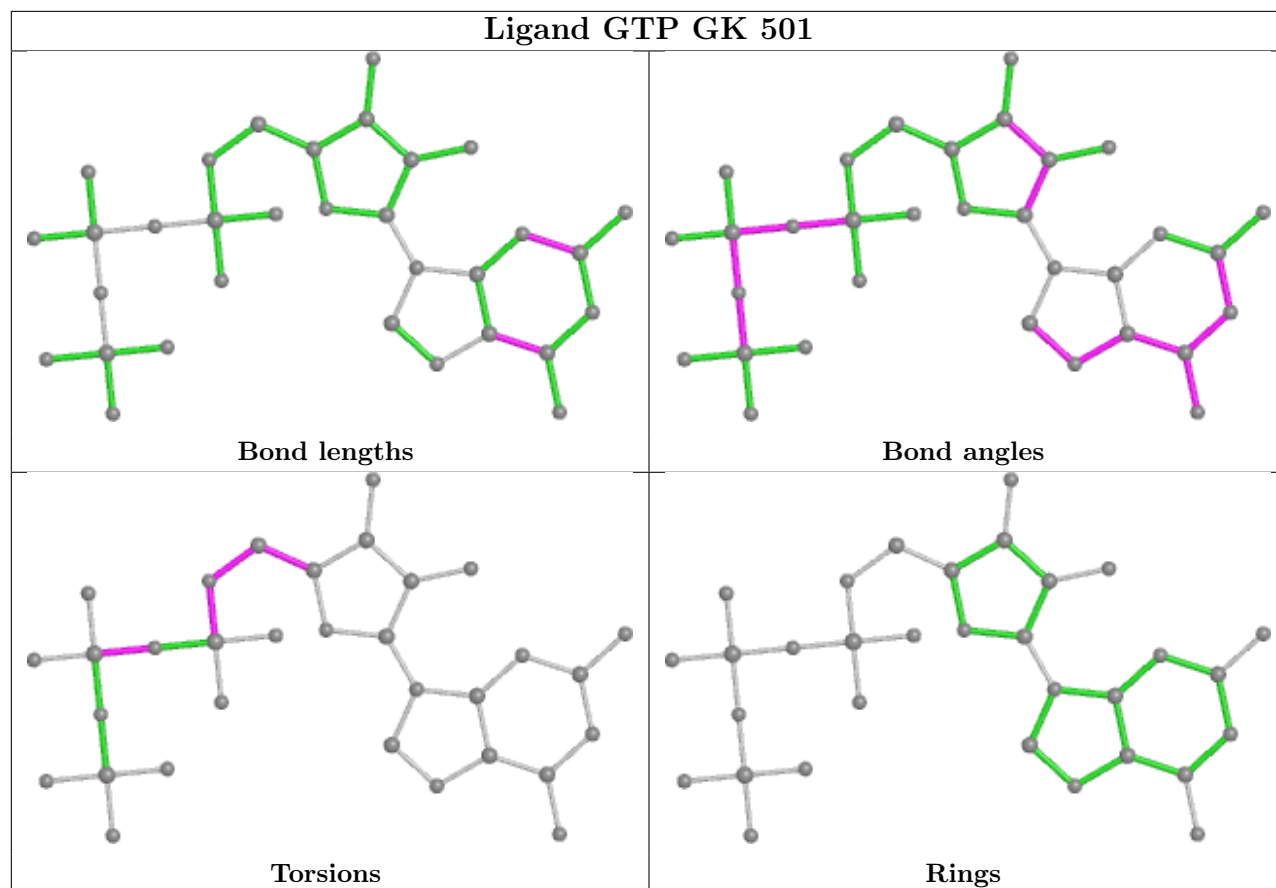


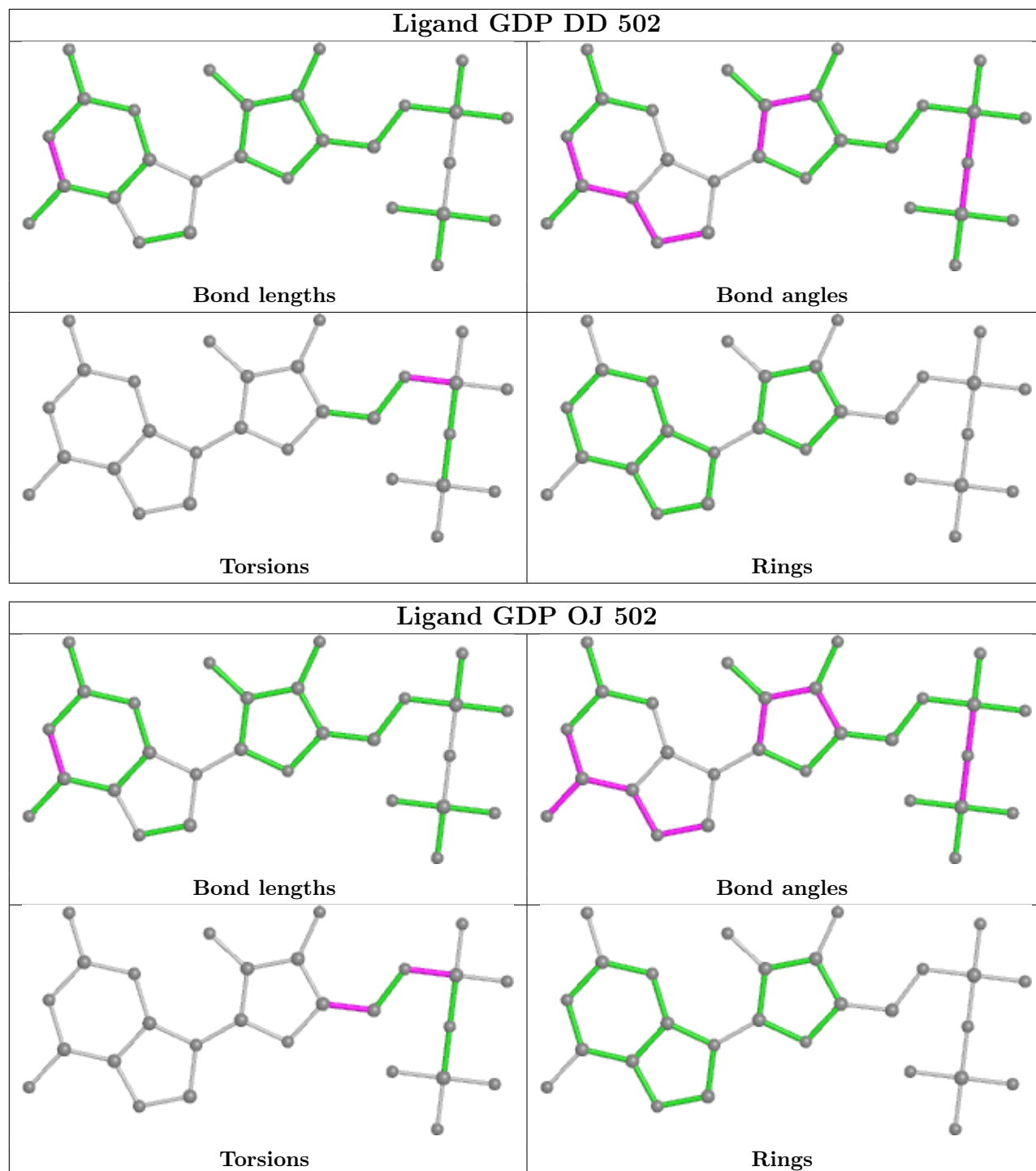


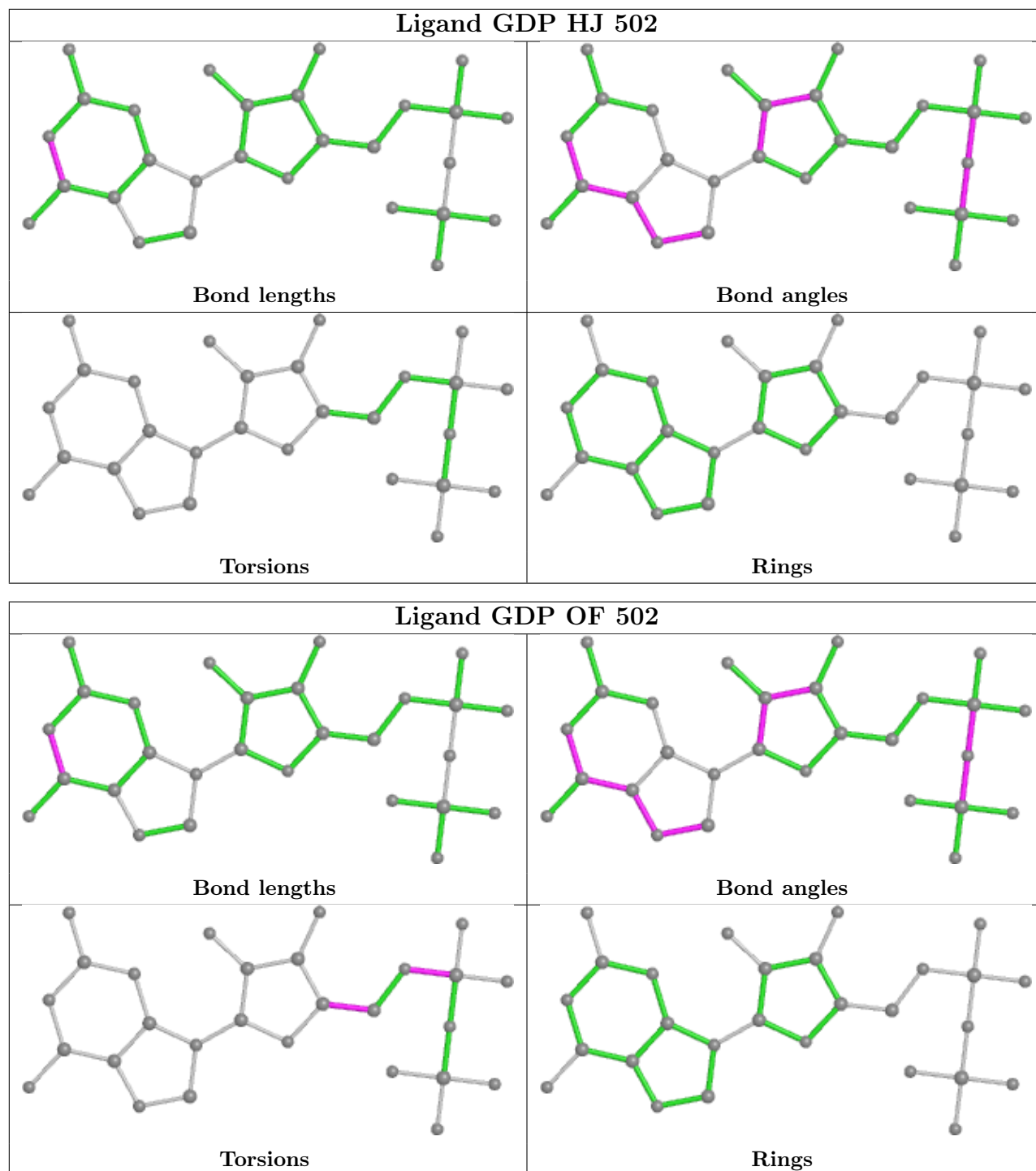


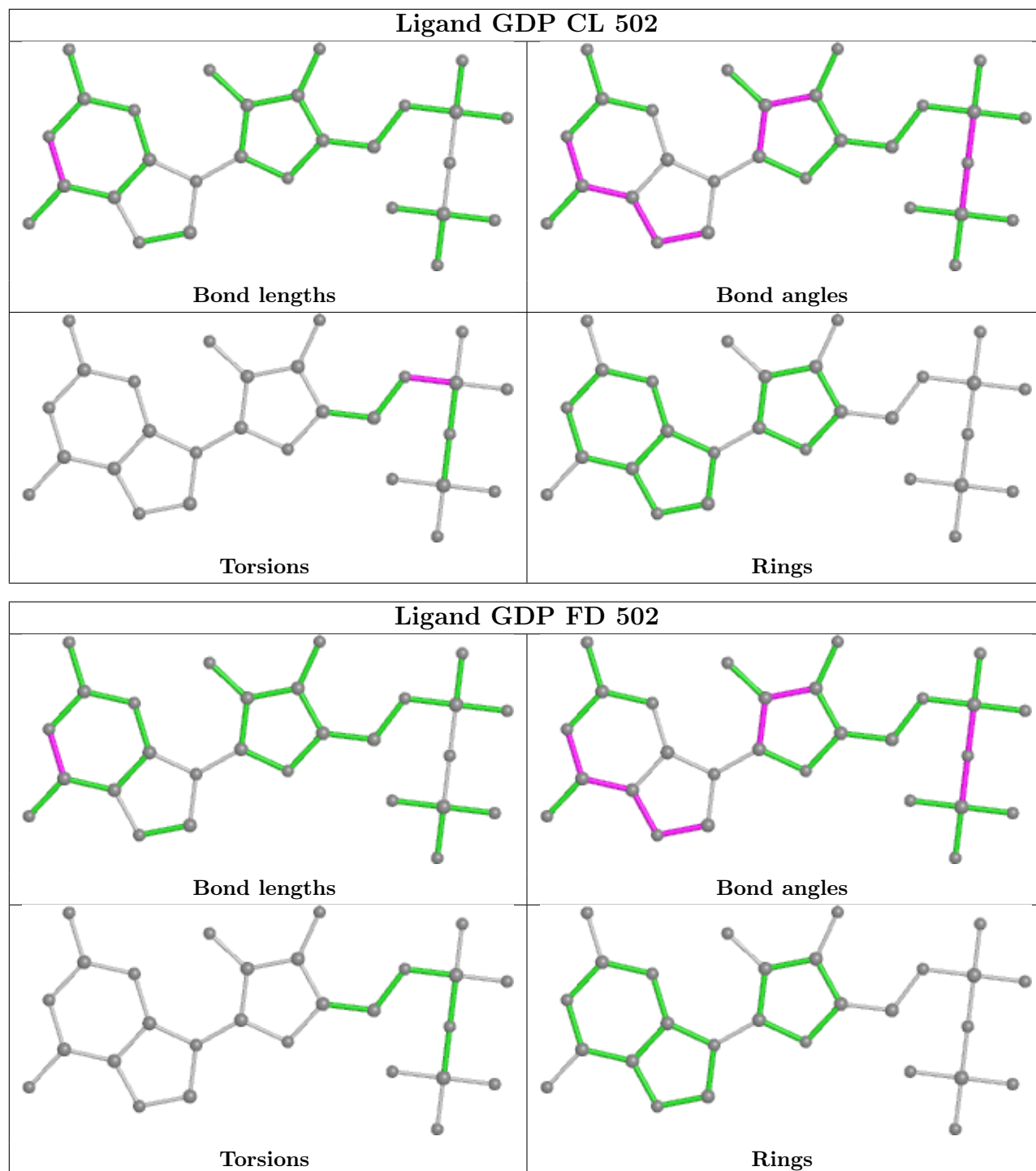


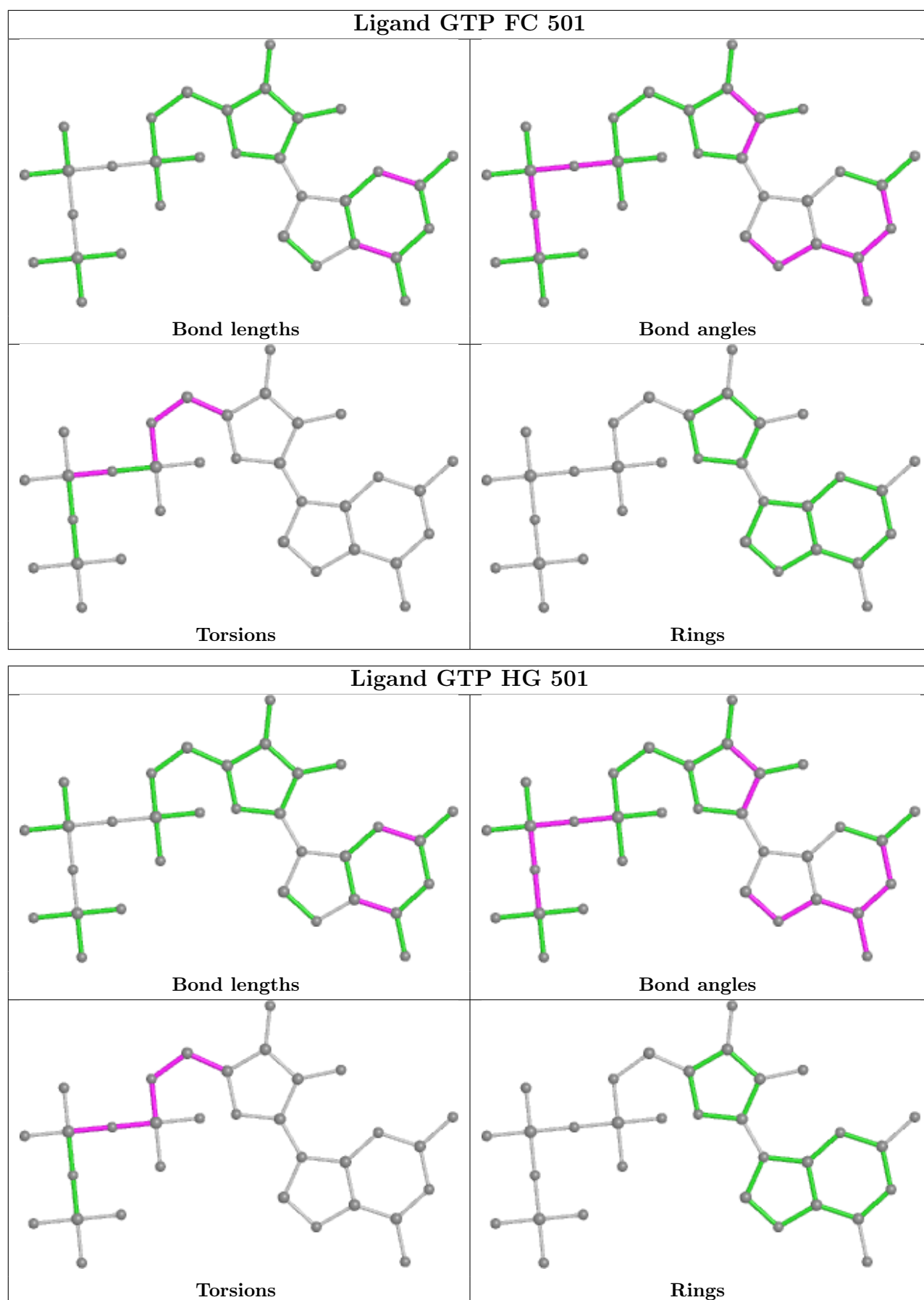


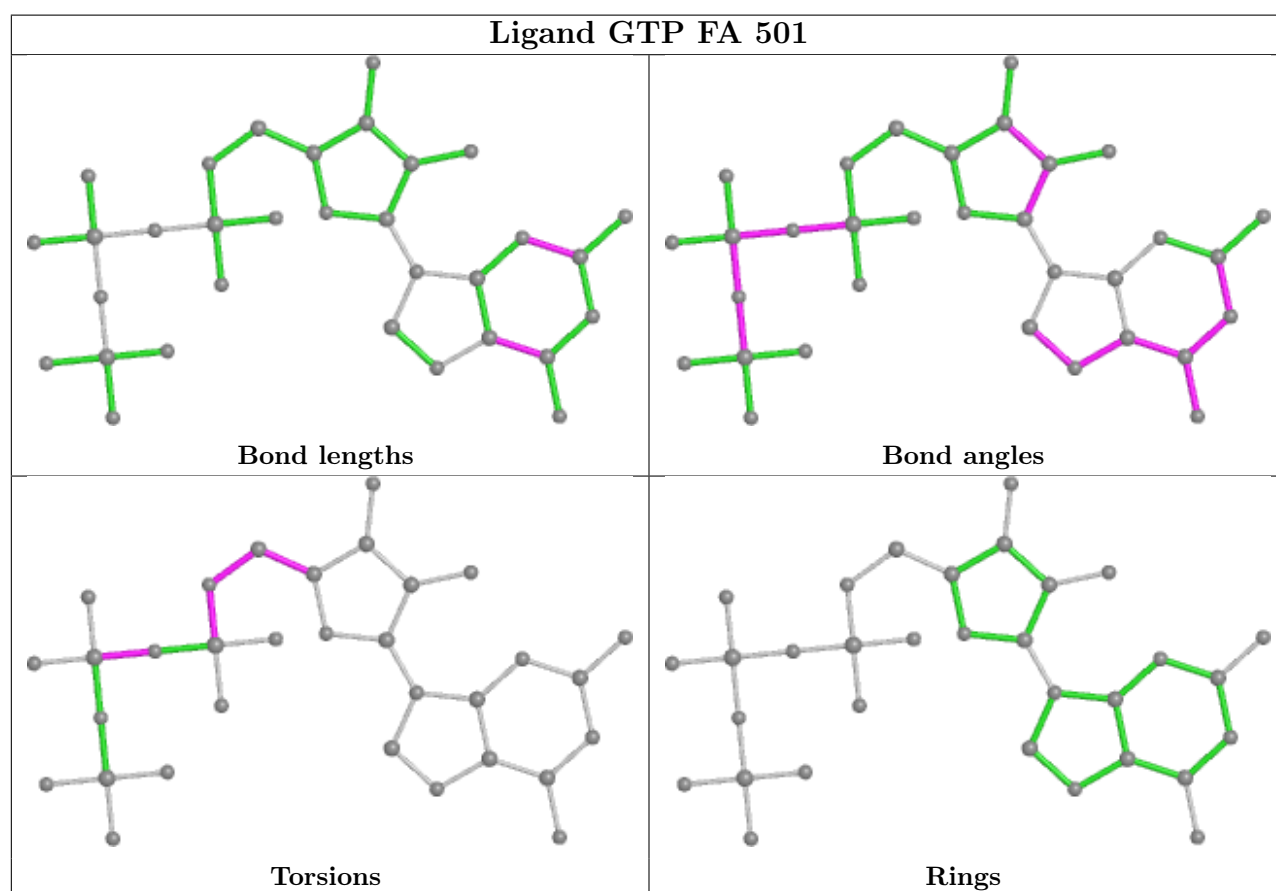
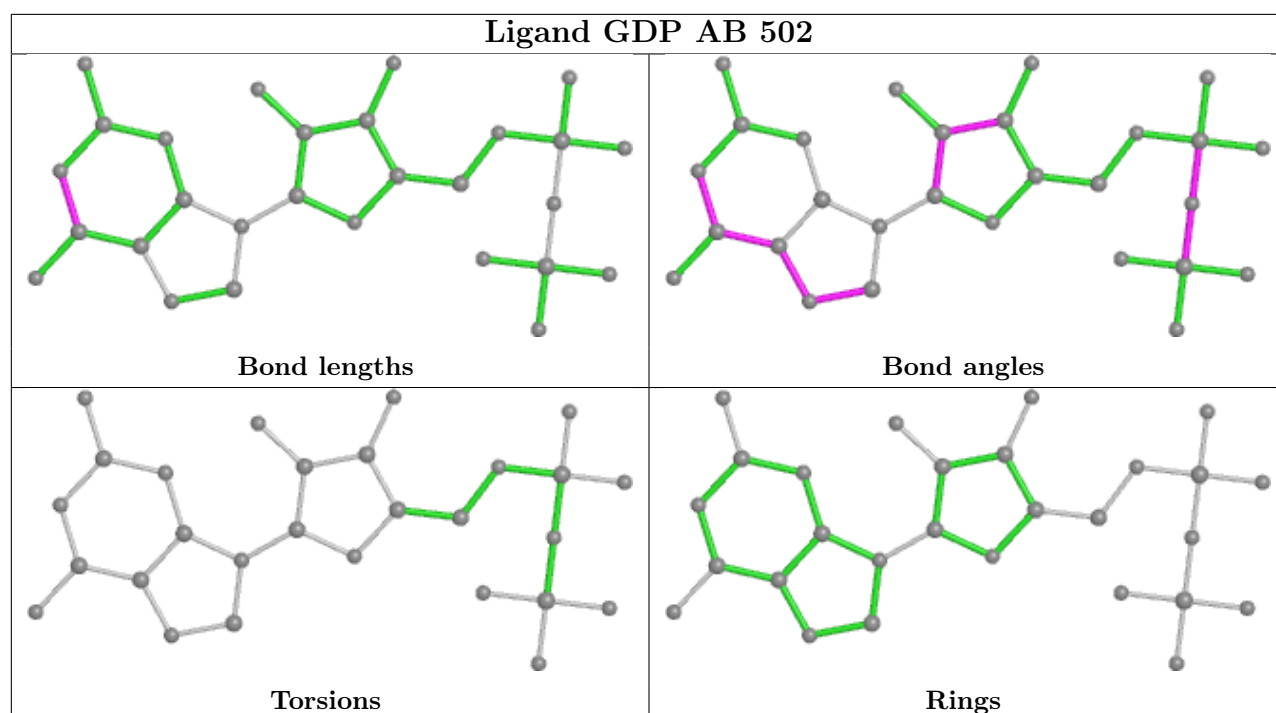


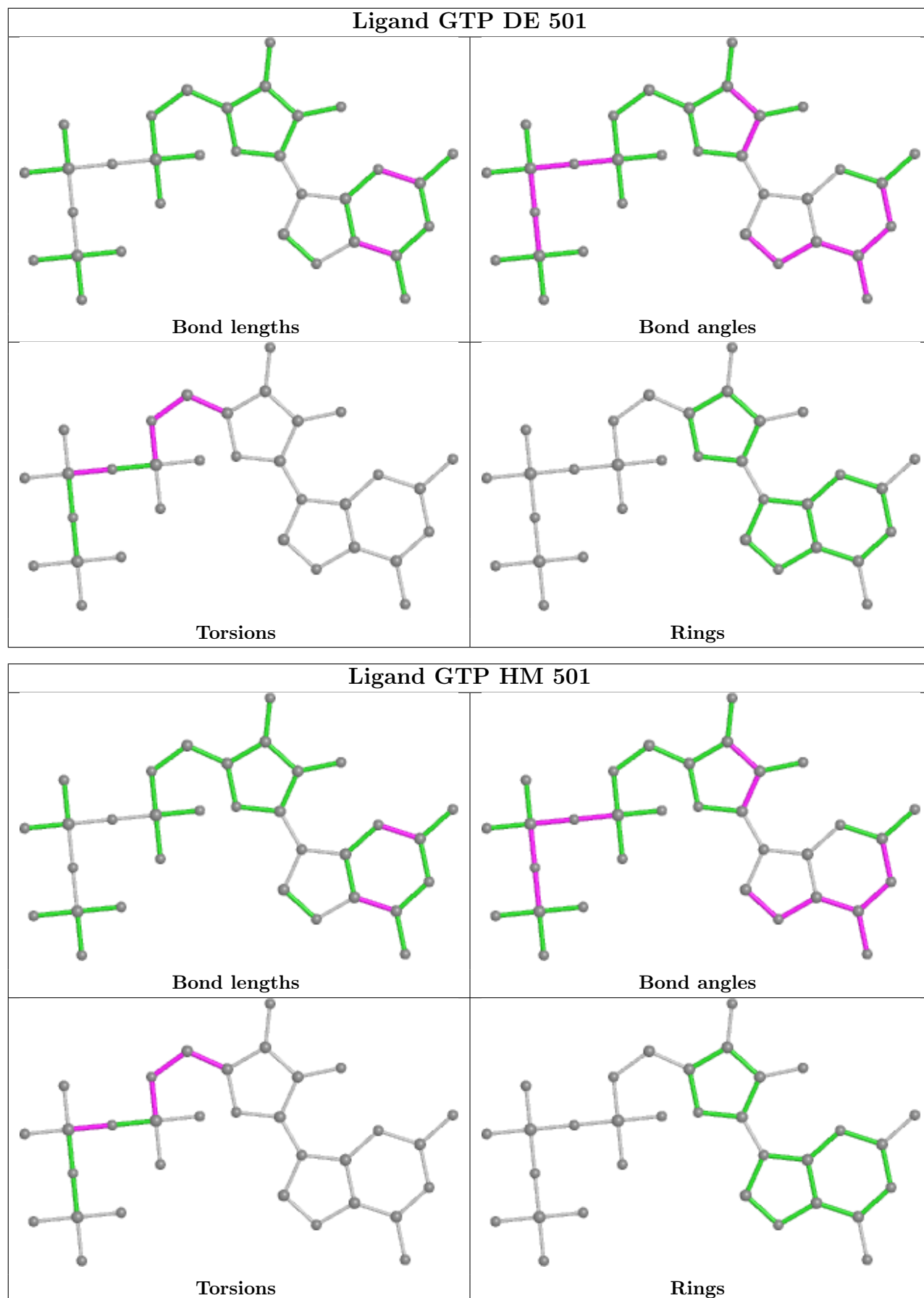


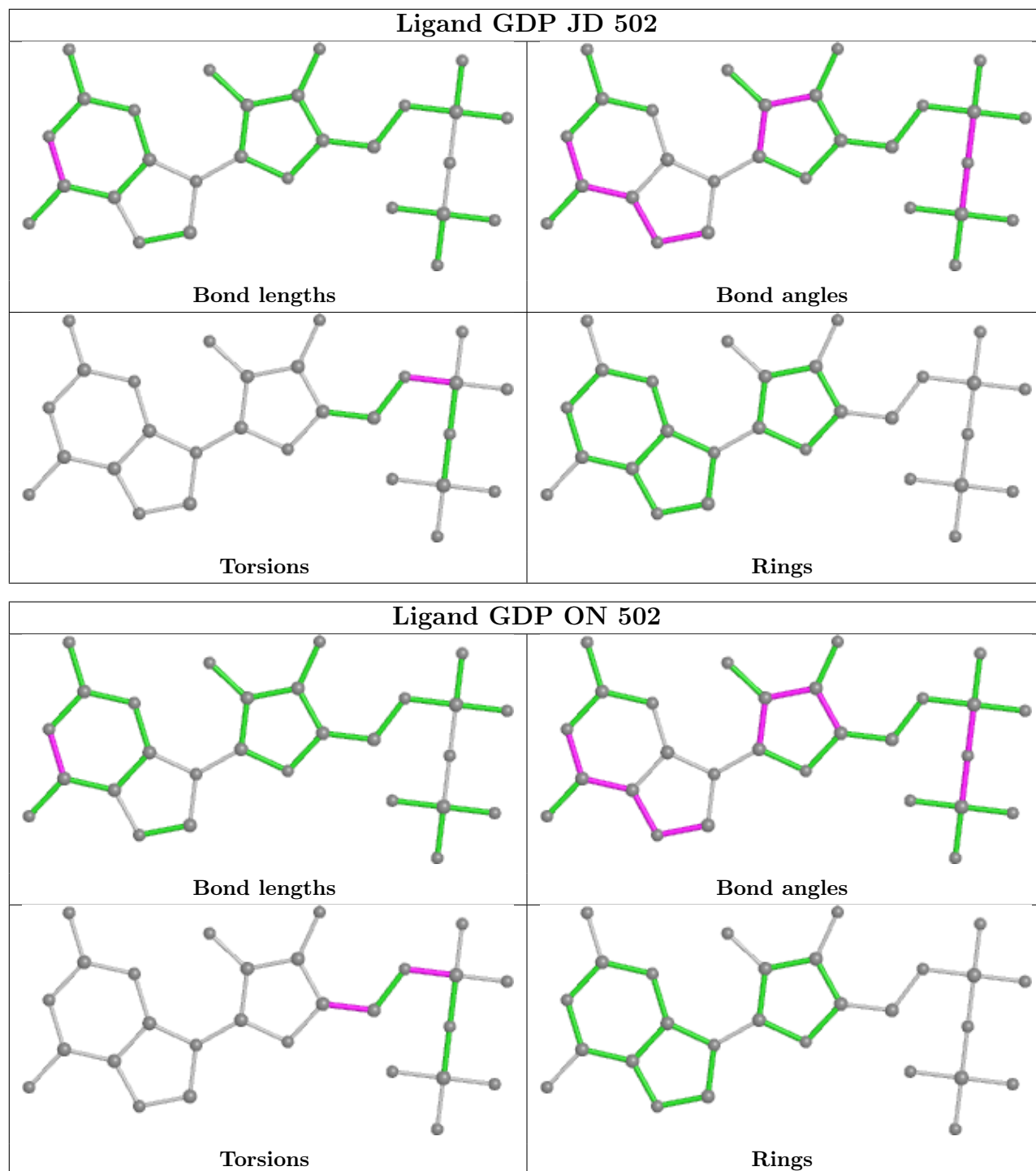


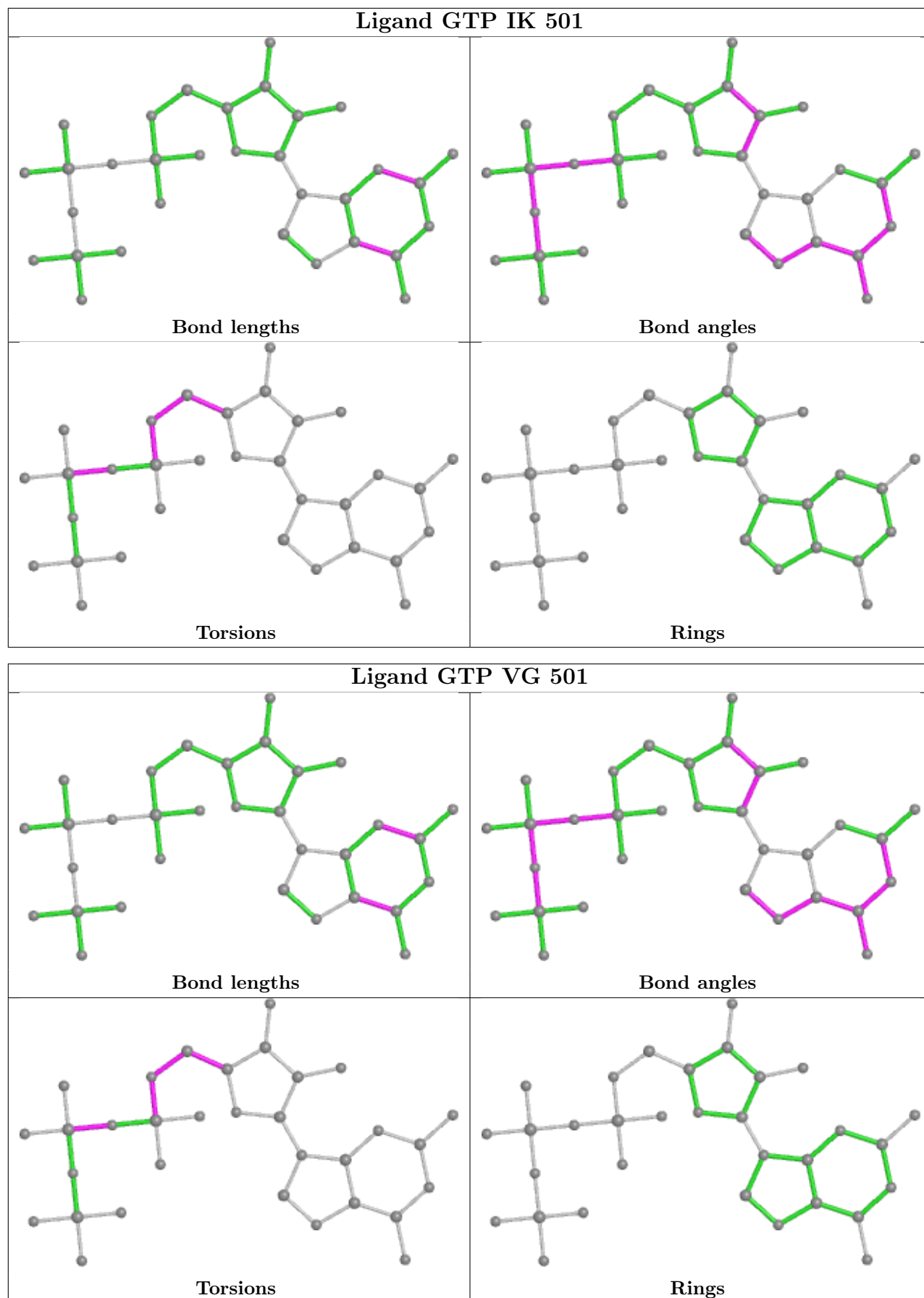


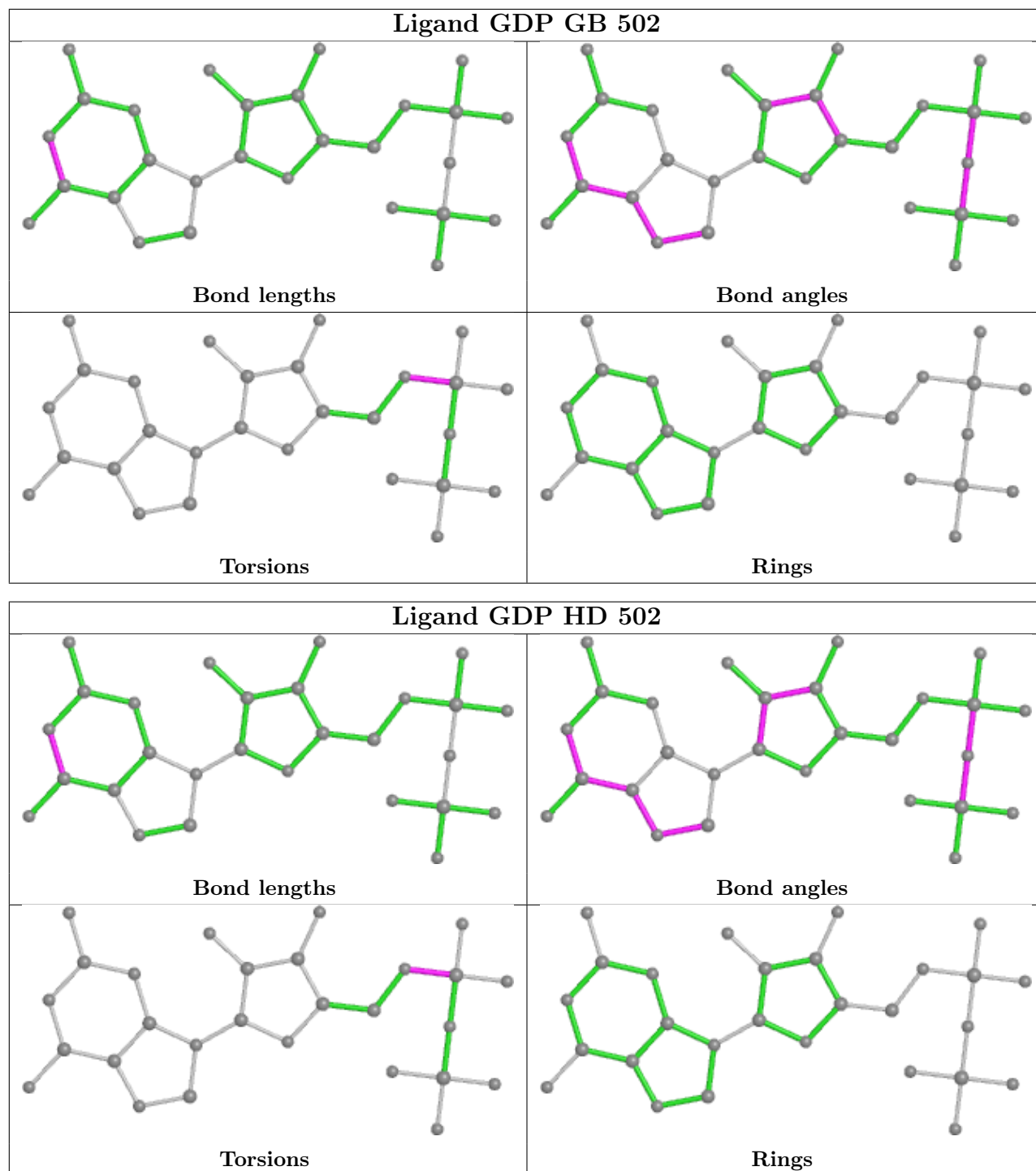


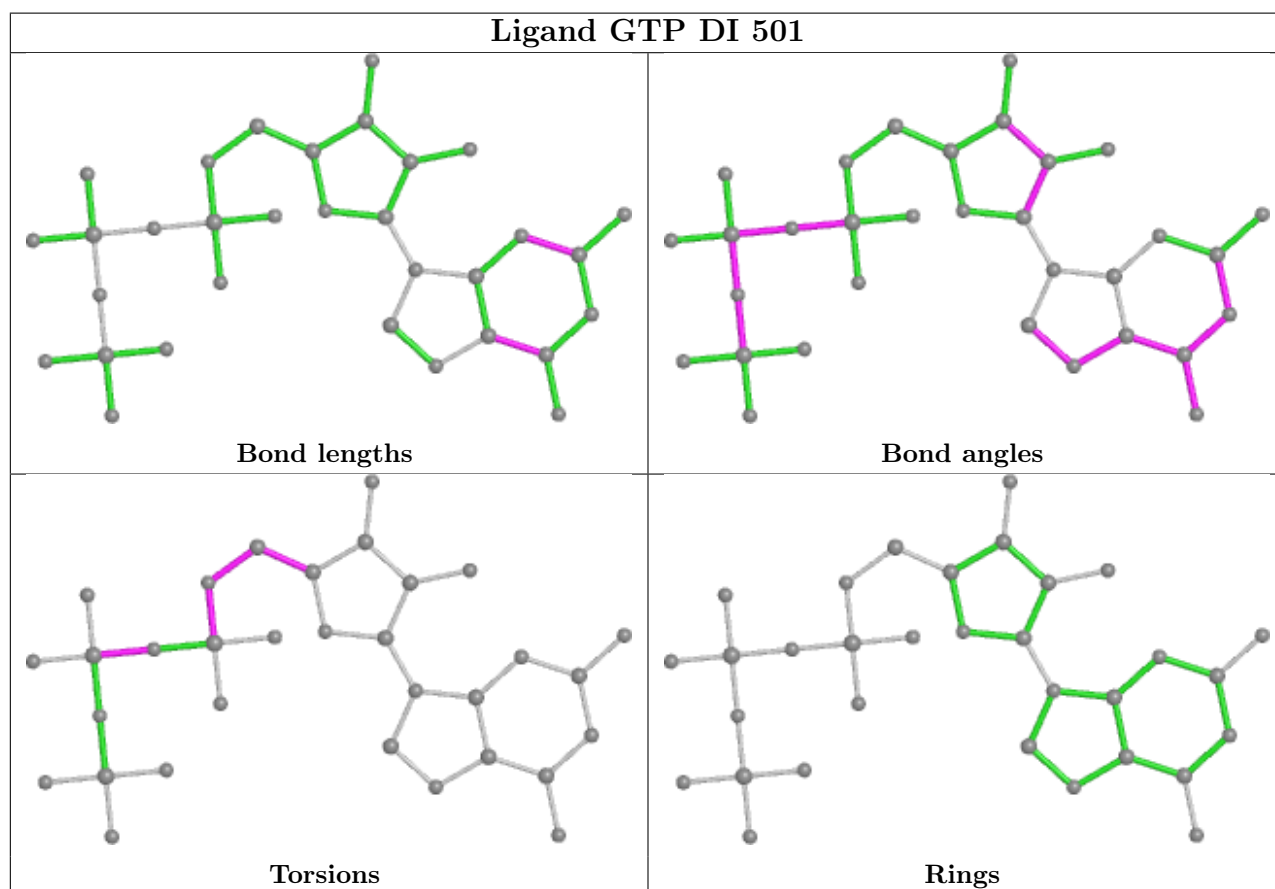
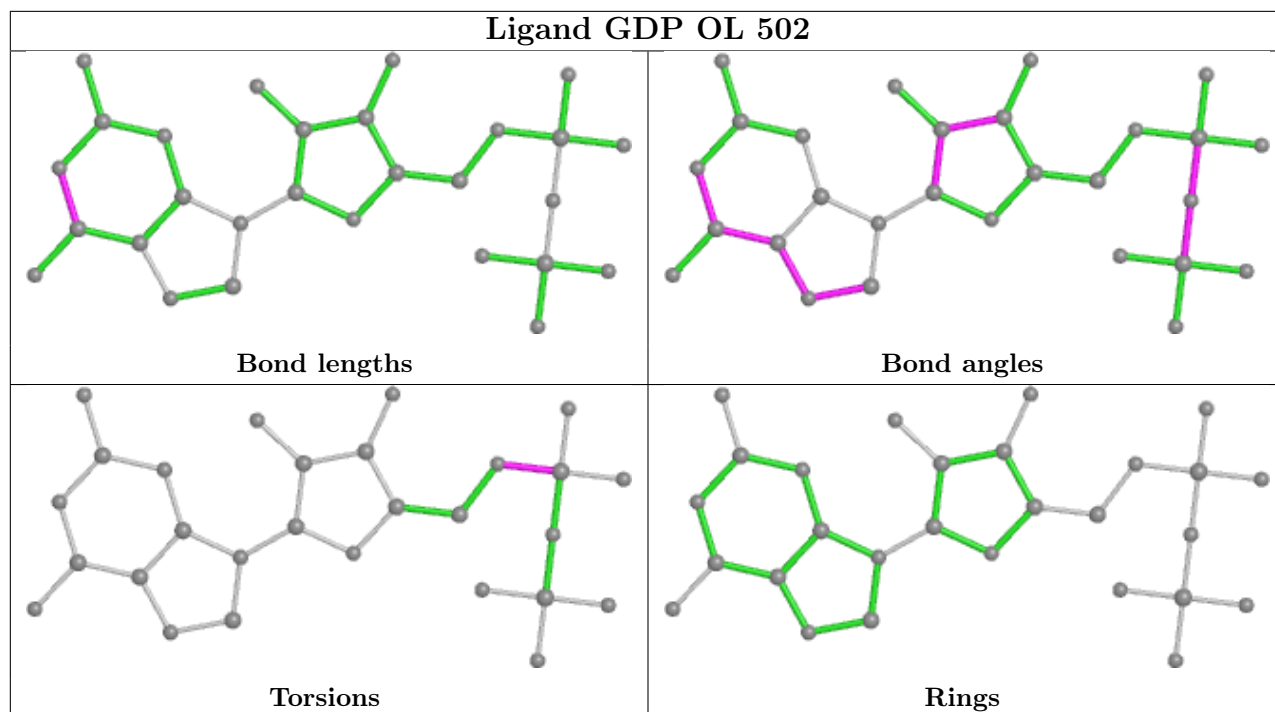


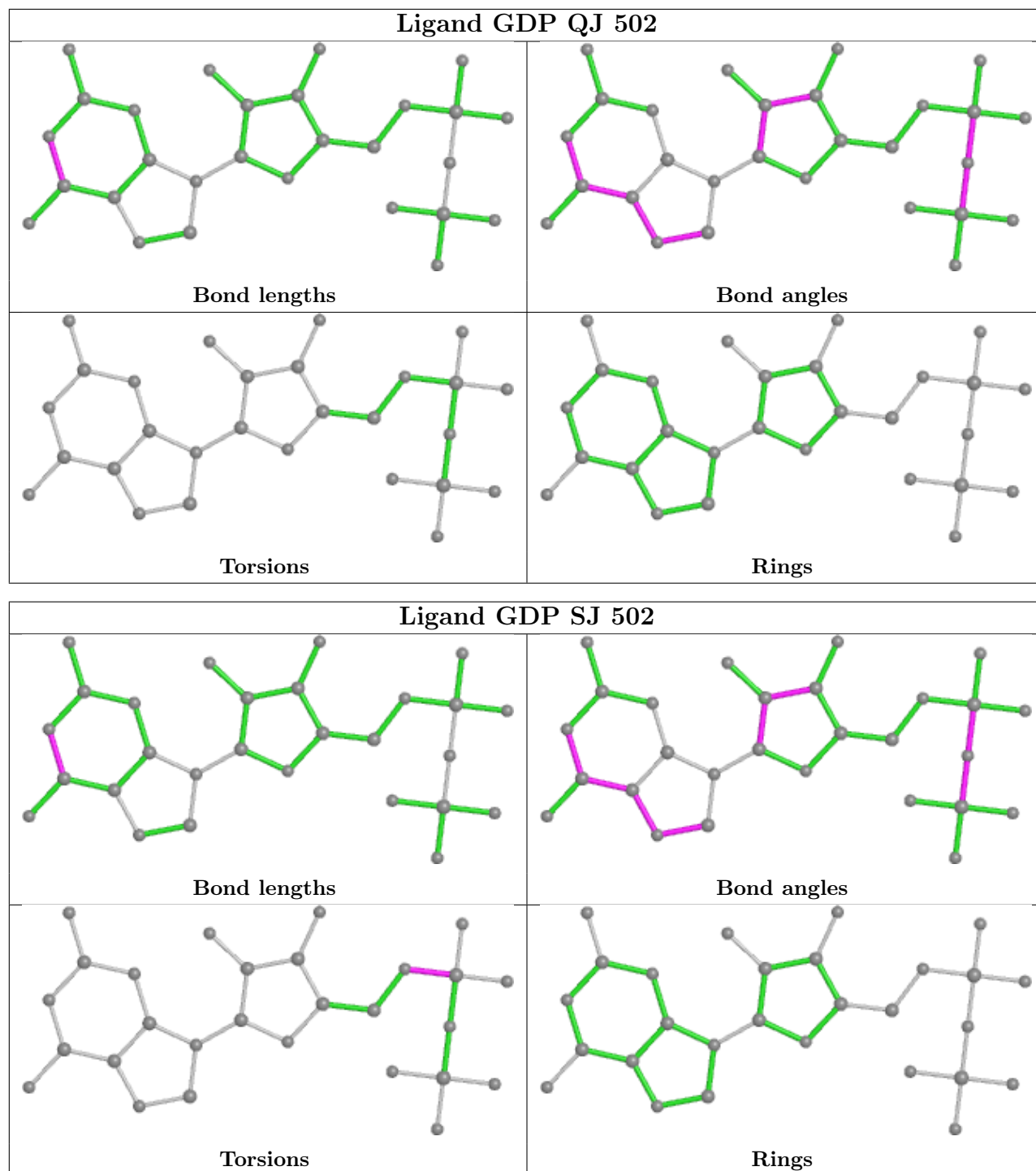


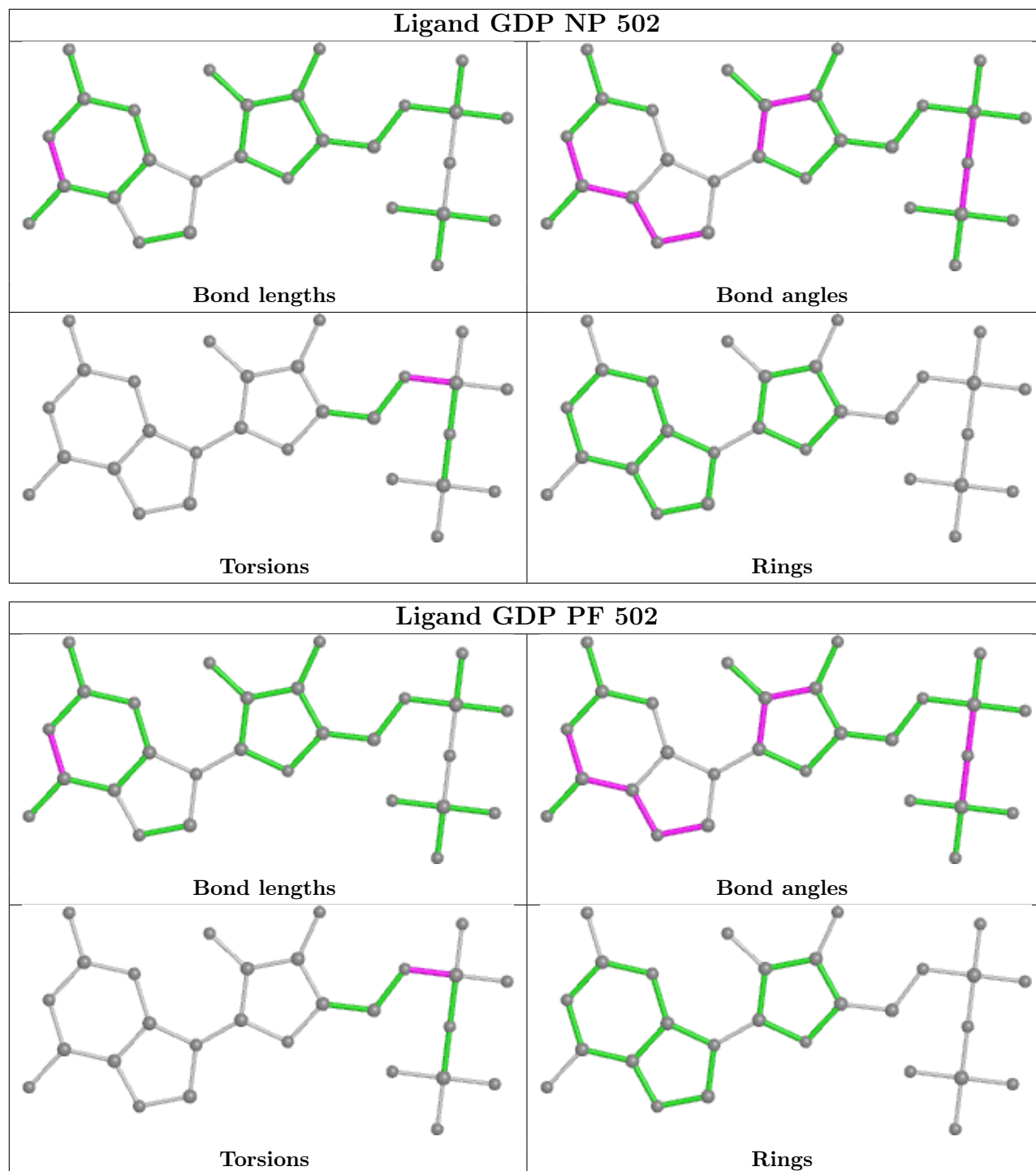


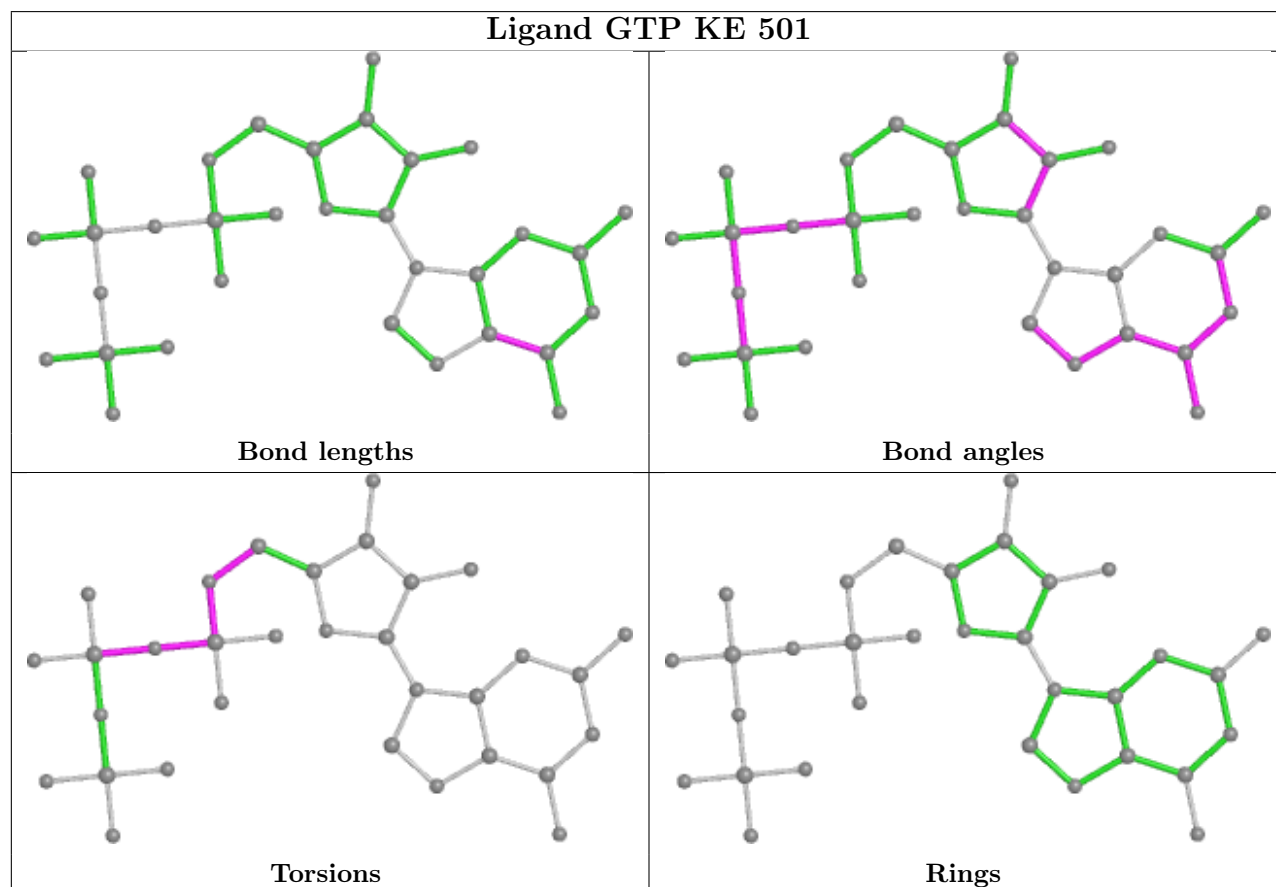
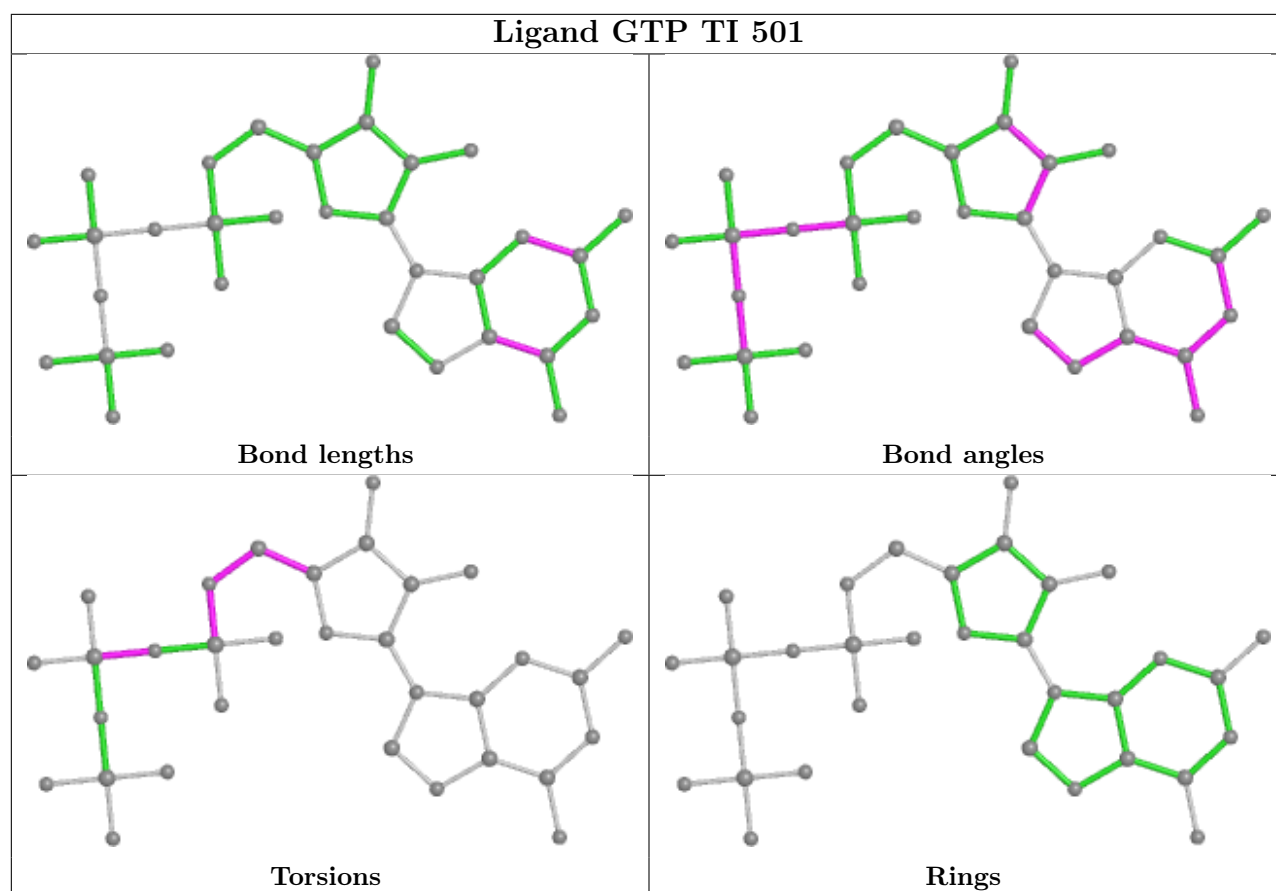


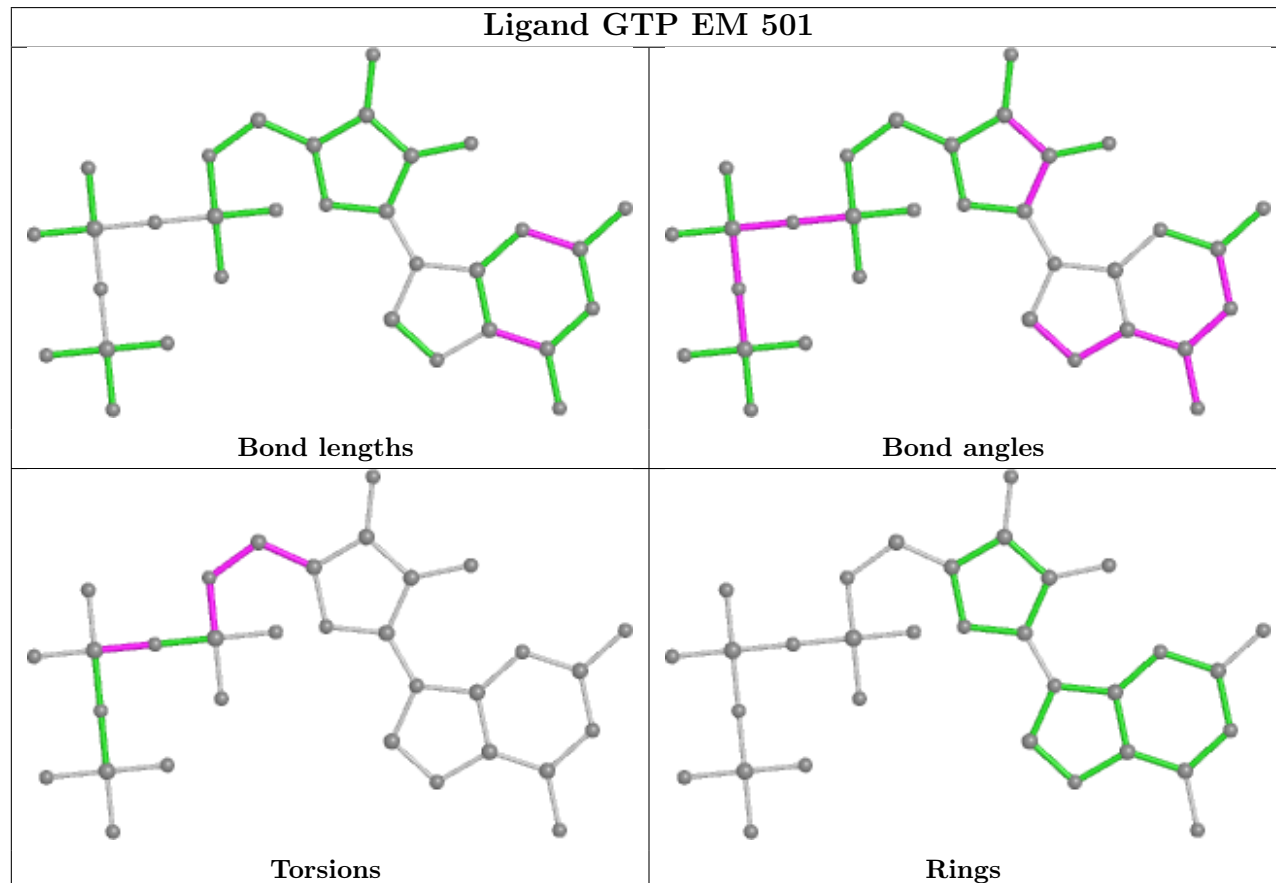
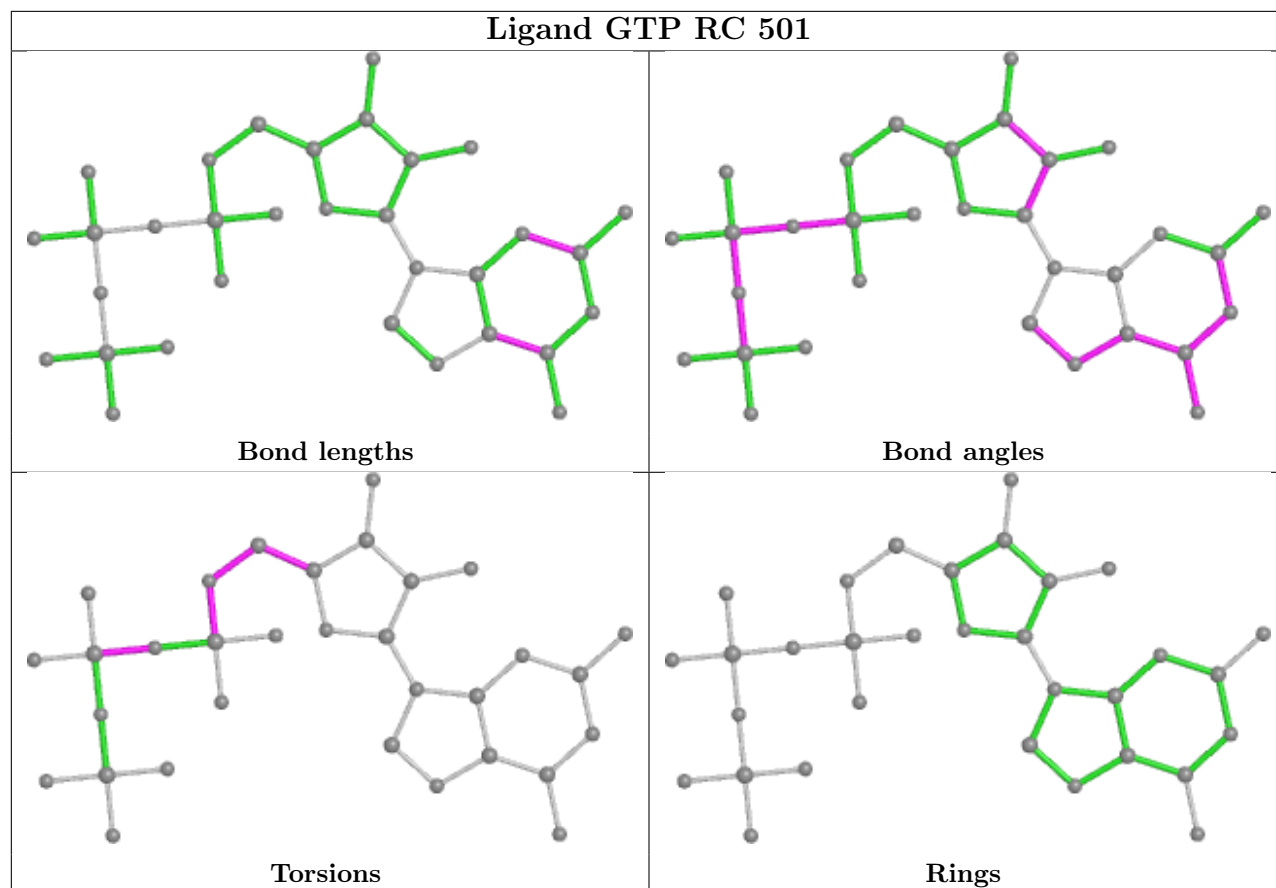


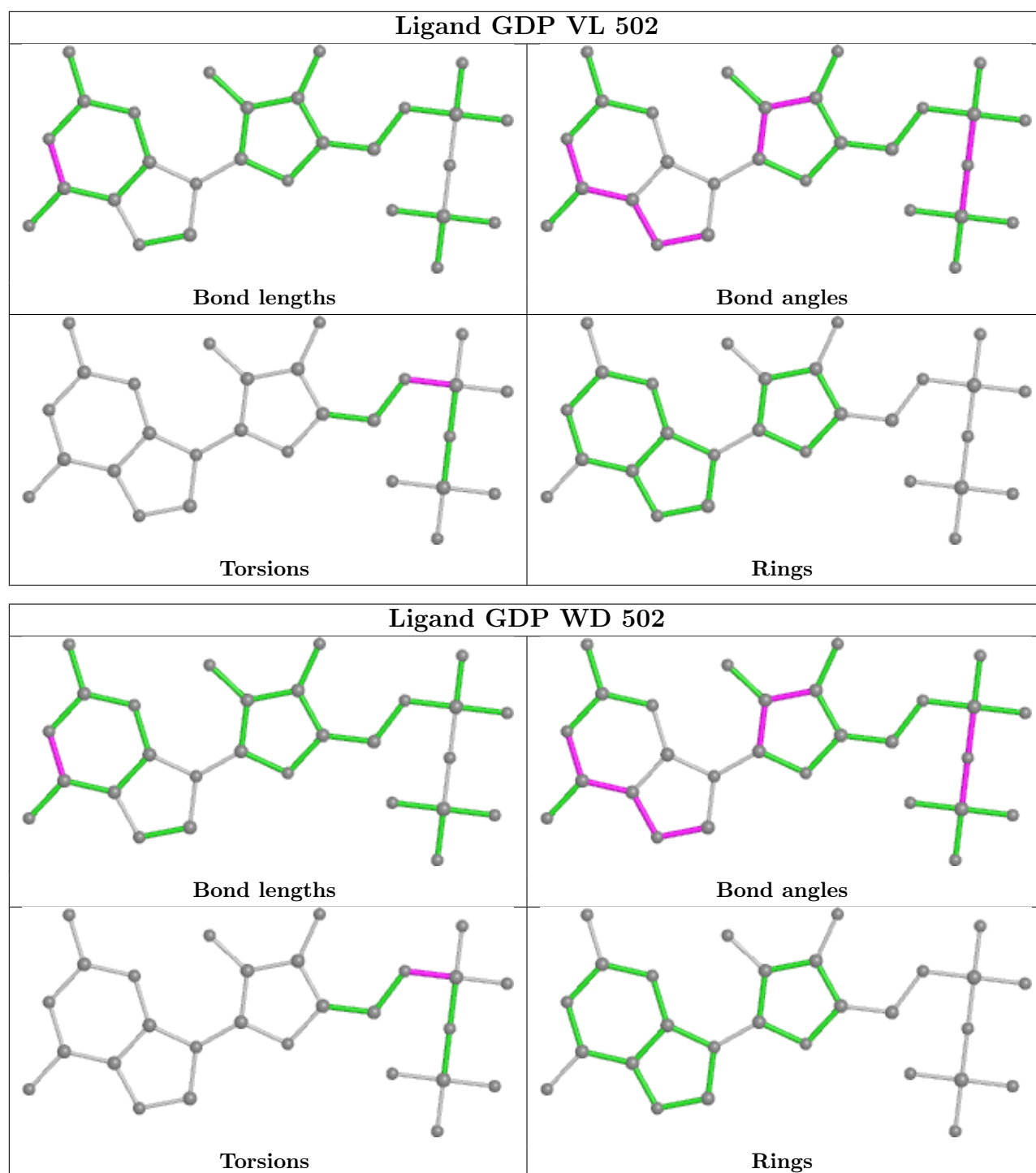












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

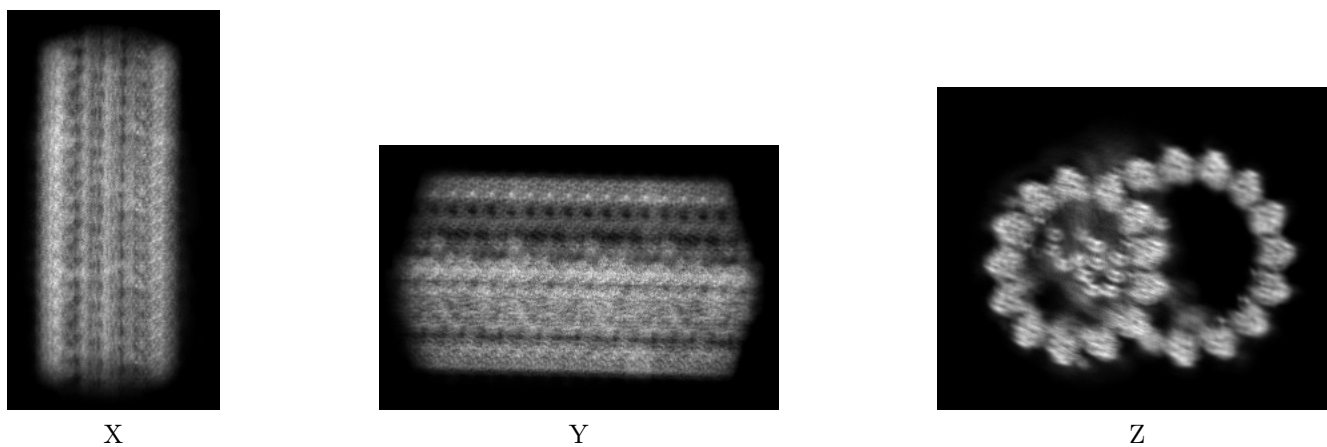
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-35823. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections [i](#)

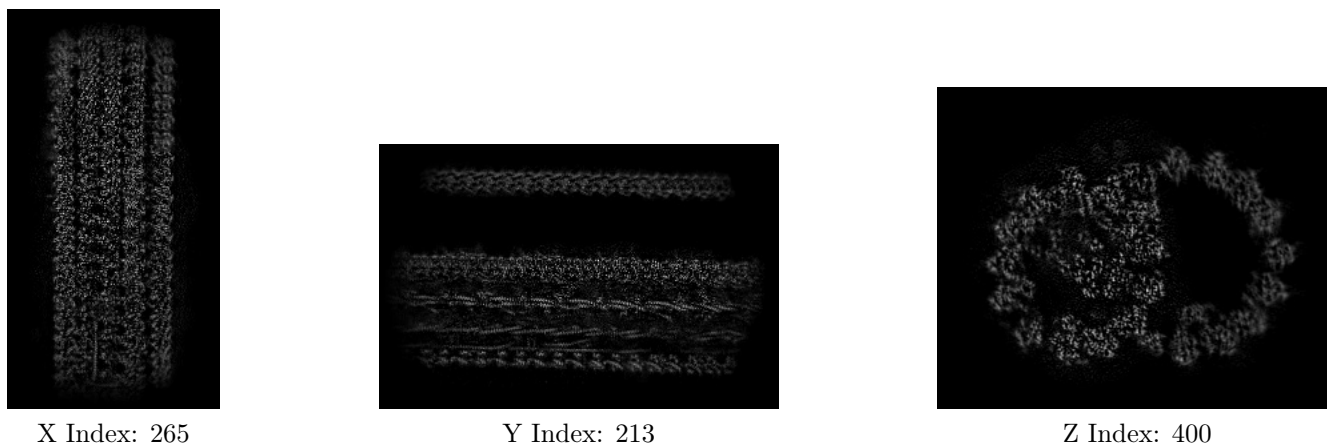
6.1.1 Primary map



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

6.2 Central slices [i](#)

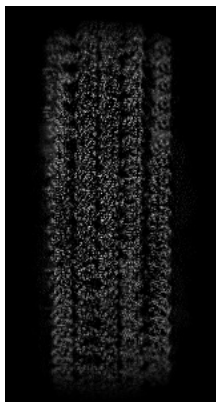
6.2.1 Primary map



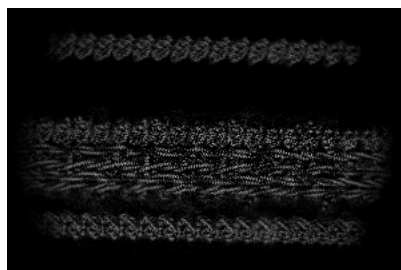
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

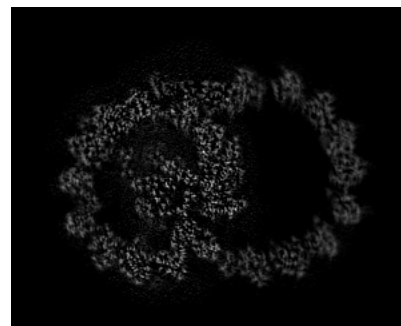
6.3.1 Primary map



X Index: 270



Y Index: 196

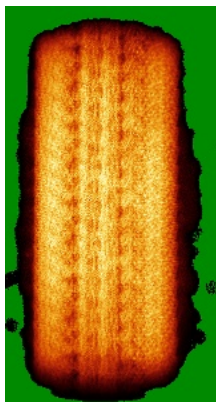


Z Index: 448

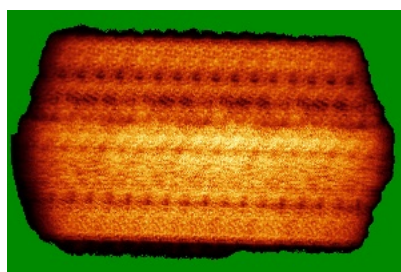
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



X



Y

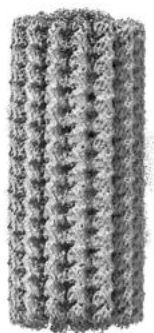


Z

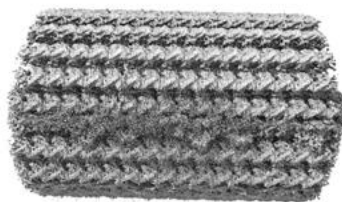
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

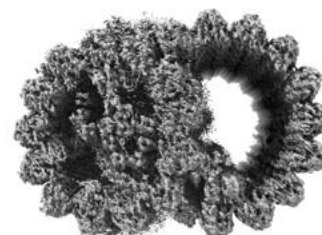
6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.3. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

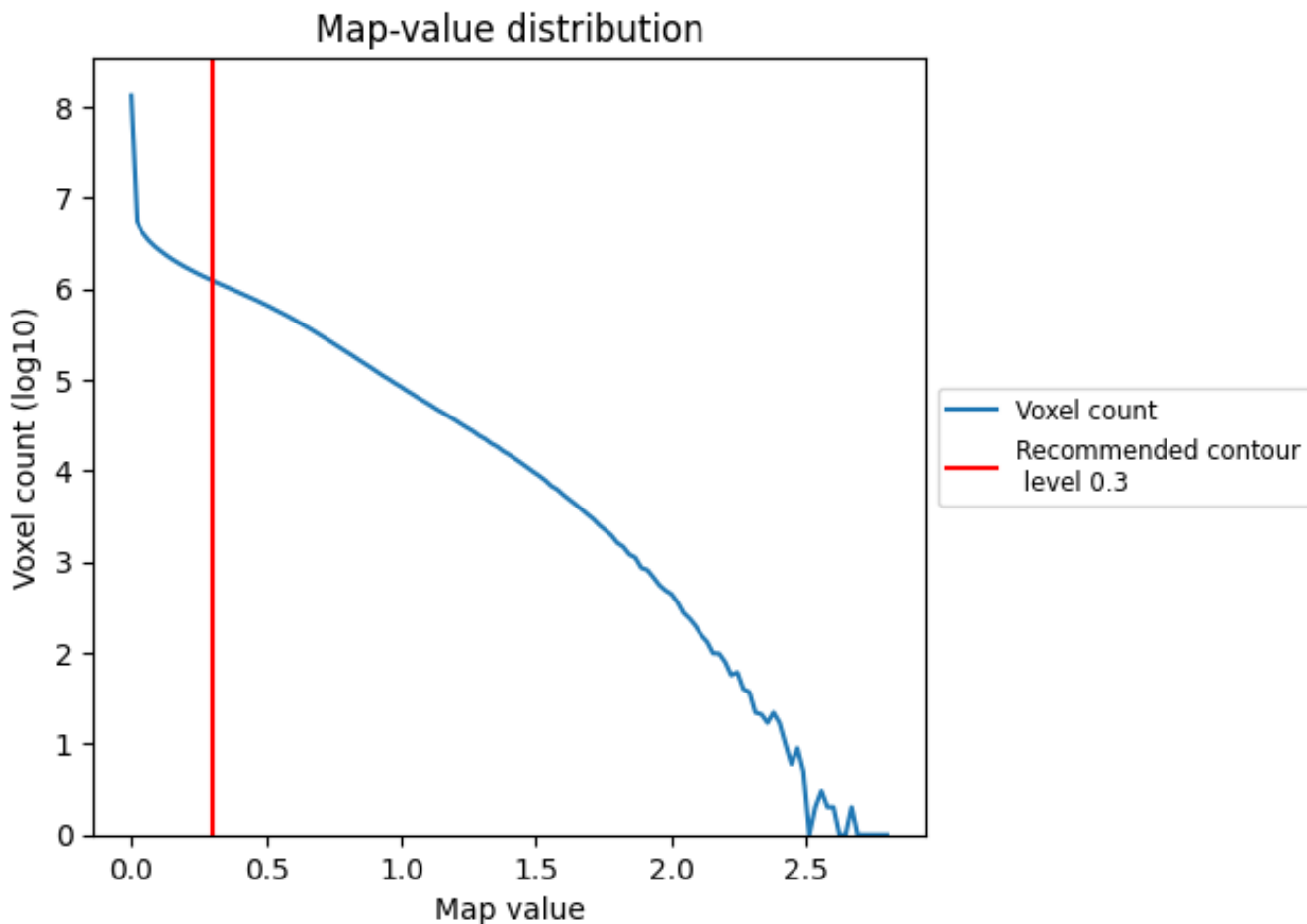
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

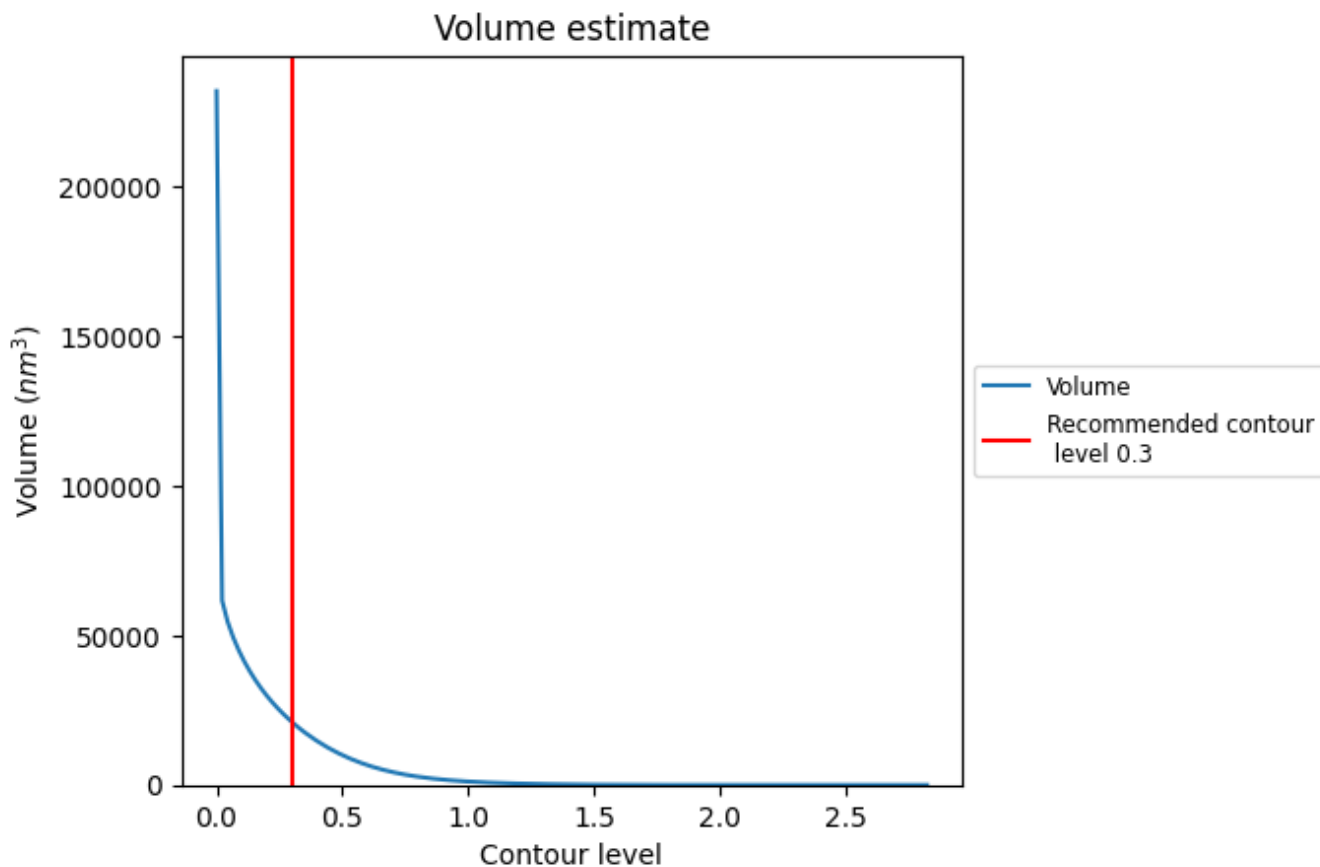
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

7.2 Volume estimate [i](#)



The volume at the recommended contour level is 21016 nm³; this corresponds to an approximate mass of 18985 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

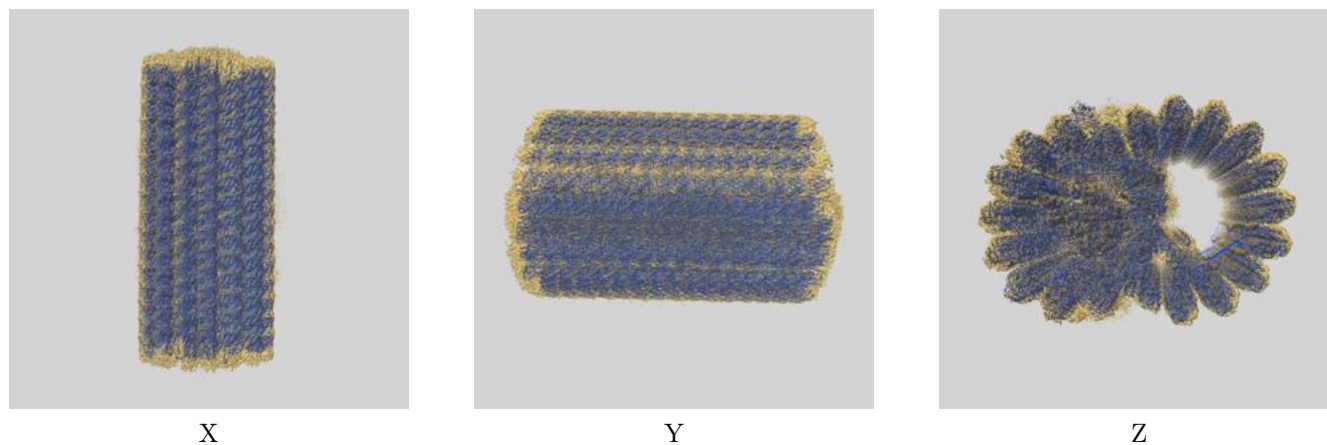
8 Fourier-Shell correlation

This section was not generated. No FSC curve or half-maps provided.

9 Map-model fit [i](#)

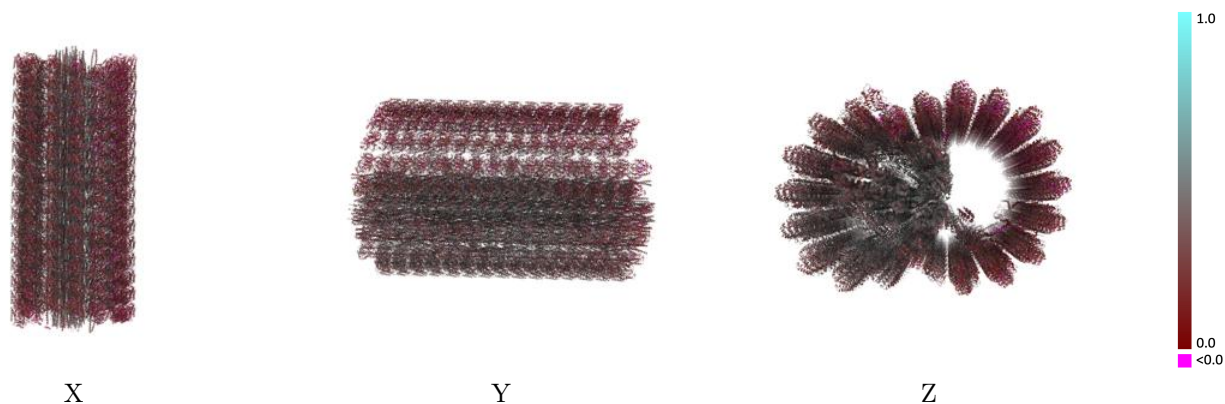
This section contains information regarding the fit between EMDB map EMD-35823 and PDB model 8IYJ. Per-residue inclusion information can be found in section 3 on page 85.

9.1 Map-model overlay [i](#)



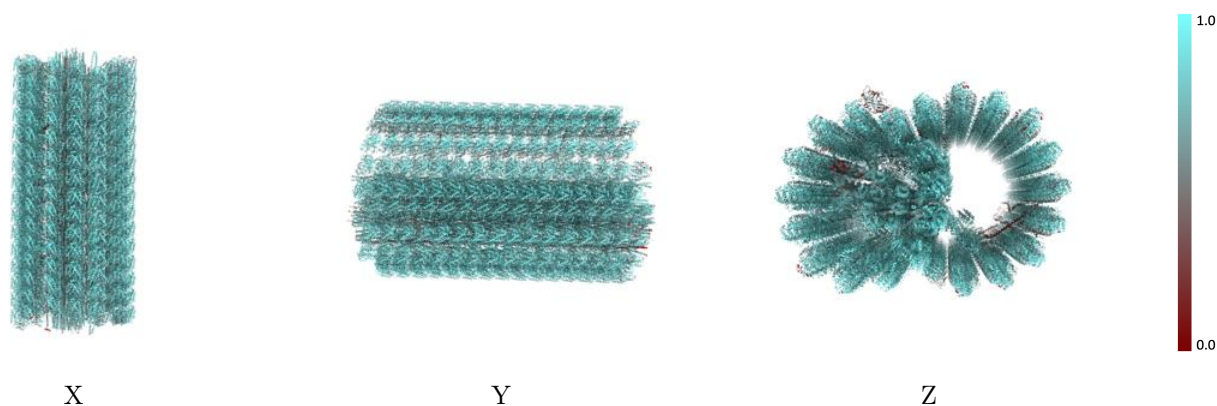
The images above show the 3D surface view of the map at the recommended contour level 0.3 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



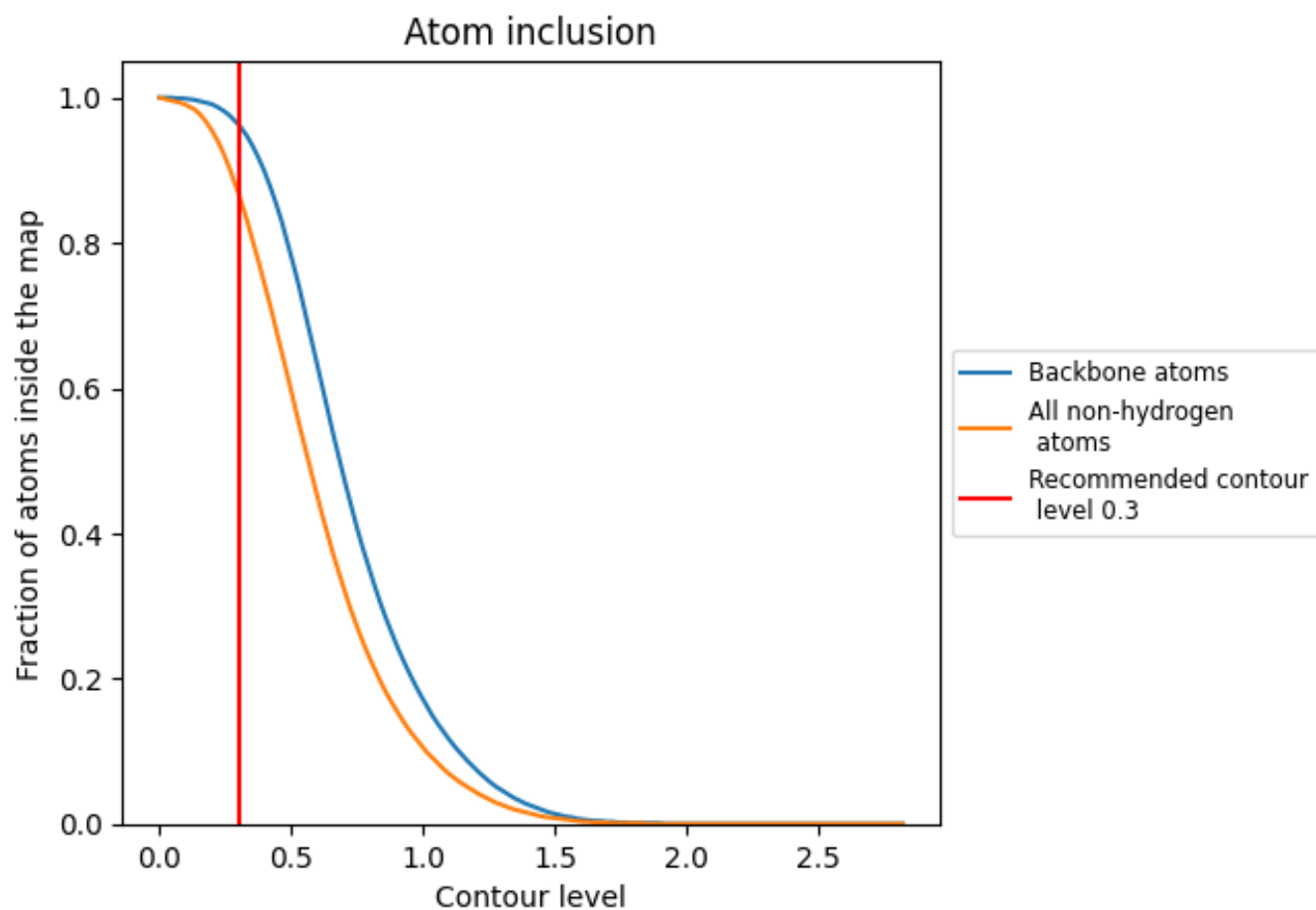
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.3).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 96% of all backbone atoms, 87% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary





















































































The table lists the average atom inclusion at the recommended contour level (0.3) and Q-score for the entire model and for each chain.

| Chain | Atom inclusion | Q-score |
|-------|--|--|
| All |  0.8680 |  0.3500 |
| 0 |  0.7450 |  0.3730 |
| 1 |  0.8190 |  0.3730 |
| 2 |  0.8610 |  0.4040 |
| 3 |  0.7760 |  0.3250 |
| 4 |  0.7930 |  0.3380 |
| 5 |  0.8770 |  0.3650 |
| 6 |  0.8500 |  0.3880 |
| 7 |  0.8190 |  0.3740 |
| 8 |  0.9100 |  0.4350 |
| A |  0.7950 |  0.3460 |
| A0 |  0.8820 |  0.4010 |
| A1 |  0.8990 |  0.4490 |
| A2 |  0.9230 |  0.4990 |
| A3 |  0.9280 |  0.5010 |
| A4 |  0.9010 |  0.4480 |
| A5 |  0.8410 |  0.3840 |
| AA |  0.8650 |  0.2940 |
| AB |  0.9190 |  0.3730 |
| AC |  0.9390 |  0.4340 |
| AD |  0.9280 |  0.4460 |
| AE |  0.9290 |  0.4640 |
| AF |  0.9250 |  0.4520 |
| AG |  0.9500 |  0.4610 |
| AH |  0.9330 |  0.4700 |
| AI |  0.9300 |  0.4800 |
| AJ |  0.9220 |  0.4670 |
| AK |  0.9270 |  0.4730 |
| AL |  0.9370 |  0.4510 |
| AM |  0.9220 |  0.4350 |
| AN |  0.9420 |  0.3990 |
| AO |  0.9110 |  0.3680 |
| AP |  0.8850 |  0.3590 |
| B |  0.7980 |  0.3430 |
| B0 |  0.8720 |  0.3970 |























































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| B1 |  0.8860 |  0.4460 |
| B2 |  0.9190 |  0.4950 |
| B3 |  0.9200 |  0.4960 |
| B4 |  0.8860 |  0.4550 |
| B5 |  0.7900 |  0.3900 |
| BB |  0.9060 |  0.3690 |
| BC |  0.9180 |  0.3980 |
| BD |  0.9420 |  0.4120 |
| BE |  0.9140 |  0.4070 |
| BF |  0.9410 |  0.4480 |
| BG |  0.9530 |  0.4550 |
| BH |  0.9520 |  0.4650 |
| BI |  0.9580 |  0.4700 |
| BJ |  0.9440 |  0.4530 |
| BK |  0.9540 |  0.4640 |
| BL |  0.9250 |  0.4330 |
| BM |  0.9190 |  0.4170 |
| BN |  0.9380 |  0.3890 |
| BO |  0.8930 |  0.3780 |
| BP |  0.8510 |  0.3330 |
| C |  0.8290 |  0.3600 |
| C0 |  0.8950 |  0.4070 |
| C1 |  0.9270 |  0.4750 |
| C2 |  0.9450 |  0.5030 |
| C3 |  0.9300 |  0.4910 |
| C4 |  0.8790 |  0.4090 |
| C5 |  0.8230 |  0.3570 |
| C6 |  0.6400 |  0.3920 |
| CB |  0.8430 |  0.3530 |
| CC |  0.8710 |  0.3850 |
| CD |  0.9060 |  0.3980 |
| CE |  0.9270 |  0.3920 |
| CF |  0.9470 |  0.4340 |
| CG |  0.9510 |  0.4460 |
| CH |  0.9550 |  0.4760 |
| CI |  0.9490 |  0.4640 |
| CJ |  0.9520 |  0.4680 |
| CK |  0.9480 |  0.4730 |
| CL |  0.9360 |  0.4330 |
| CM |  0.9200 |  0.4070 |
| CN |  0.9170 |  0.3490 |
| CO |  0.8580 |  0.3660 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| CP |  0.8390 |  0.3480 |
| CQ |  0.7210 |  0.3190 |
| D |  0.7960 |  0.4060 |
| D0 |  0.8360 |  0.4130 |
| D1 |  0.8890 |  0.4600 |
| D2 |  0.9110 |  0.4910 |
| D3 |  0.9250 |  0.4970 |
| D4 |  0.8580 |  0.4260 |
| D5 |  0.8620 |  0.4030 |
| DB |  0.7410 |  0.3540 |
| DC |  0.8540 |  0.3470 |
| DD |  0.8990 |  0.3840 |
| DE |  0.9230 |  0.4050 |
| DF |  0.9730 |  0.3680 |
| DG |  0.9570 |  0.3880 |
| DH |  0.9490 |  0.4210 |
| DI |  0.9320 |  0.3990 |
| DJ |  0.9520 |  0.4460 |
| DK |  0.9470 |  0.4320 |
| DL |  0.9430 |  0.4110 |
| DM |  0.9360 |  0.3780 |
| DN |  0.9080 |  0.3820 |
| DO |  0.8770 |  0.3710 |
| DP |  0.8510 |  0.3670 |
| DQ |  0.7420 |  0.3270 |
| E |  0.9300 |  0.4530 |
| EA |  0.8070 |  0.3620 |
| EB |  0.8810 |  0.3930 |
| EC |  0.8840 |  0.4030 |
| ED |  0.9430 |  0.3720 |
| EE |  0.9300 |  0.3360 |
| EF |  0.9240 |  0.3970 |
| EG |  0.9340 |  0.4070 |
| EH |  0.9360 |  0.4180 |
| EI |  0.9290 |  0.4120 |
| EJ |  0.9370 |  0.4070 |
| EK |  0.9320 |  0.3920 |
| EL |  0.8850 |  0.3760 |
| EM |  0.8300 |  0.3300 |
| EN |  0.8540 |  0.3670 |
| EO |  0.7560 |  0.3380 |
| F |  0.6990 |  0.3720 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| FA |  0.8130 |  0.3330 |
| FB |  0.8760 |  0.3630 |
| FC |  0.9030 |  0.3740 |
| FD |  0.9410 |  0.3690 |
| FE |  0.9640 |  0.3360 |
| FF |  0.9340 |  0.3820 |
| FG |  0.9060 |  0.3640 |
| FH |  0.9120 |  0.3890 |
| FI |  0.9100 |  0.3910 |
| FJ |  0.9110 |  0.3900 |
| FK |  0.9180 |  0.3920 |
| FL |  0.9250 |  0.3760 |
| FM |  0.8840 |  0.3570 |
| FN |  0.8930 |  0.3560 |
| FO |  0.8540 |  0.3220 |
| G |  0.7720 |  0.3440 |
| GA |  0.7870 |  0.3120 |
| GB |  0.8800 |  0.3270 |
| GC |  0.8600 |  0.3130 |
| GD |  0.8880 |  0.3340 |
| GE |  0.9080 |  0.3400 |
| GF |  0.9190 |  0.3590 |
| GG |  0.9200 |  0.3500 |
| GH |  0.9210 |  0.3660 |
| GI |  0.9000 |  0.3640 |
| GJ |  0.9360 |  0.3790 |
| GK |  0.9310 |  0.3780 |
| GL |  0.9270 |  0.3870 |
| GM |  0.9090 |  0.3910 |
| GN |  0.9080 |  0.3980 |
| GO |  0.8720 |  0.3720 |
| H |  0.8750 |  0.4220 |
| HA |  0.7880 |  0.2800 |
| HB |  0.8590 |  0.3120 |
| HC |  0.8520 |  0.3050 |
| HD |  0.8810 |  0.3330 |
| HE |  0.8950 |  0.3530 |
| HF |  0.9350 |  0.3900 |
| HG |  0.9200 |  0.4050 |
| HH |  0.9480 |  0.4210 |
| HI |  0.9340 |  0.4020 |
| HJ |  0.9090 |  0.3320 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| HK |  0.9160 |  0.3590 |
| HL |  0.9090 |  0.3550 |
| HM |  0.8930 |  0.3700 |
| HN |  0.9100 |  0.3950 |
| HO |  0.8800 |  0.3640 |
| HP |  0.8350 |  0.3240 |
| I |  0.9050 |  0.4550 |
| I1 |  0.8500 |  0.3640 |
| IA |  0.8200 |  0.2520 |
| IB |  0.8380 |  0.2660 |
| IC |  0.8470 |  0.3060 |
| ID |  0.8650 |  0.3260 |
| IE |  0.9100 |  0.3640 |
| IF |  0.9220 |  0.3980 |
| IG |  0.9010 |  0.3990 |
| IH |  0.9140 |  0.4050 |
| II |  0.9190 |  0.4110 |
| IJ |  0.9420 |  0.3800 |
| IK |  0.9110 |  0.3600 |
| IL |  0.9140 |  0.3590 |
| IM |  0.8890 |  0.3740 |
| IN |  0.8950 |  0.3970 |
| IO |  0.8930 |  0.3800 |
| IP |  0.8520 |  0.3420 |
| J |  0.9580 |  0.4510 |
| J1 |  0.8120 |  0.3530 |
| J2 |  0.7990 |  0.3460 |
| J3 |  0.8590 |  0.3460 |
| J4 |  0.8080 |  0.3100 |
| J5 |  0.6680 |  0.2790 |
| JB |  0.8110 |  0.2140 |
| JC |  0.8560 |  0.2420 |
| JD |  0.8700 |  0.2980 |
| JE |  0.8660 |  0.3150 |
| JF |  0.9030 |  0.3500 |
| JG |  0.9050 |  0.3770 |
| JH |  0.9150 |  0.4000 |
| JI |  0.9140 |  0.3950 |
| JJ |  0.9220 |  0.4140 |
| JK |  0.9310 |  0.4010 |
| JL |  0.9040 |  0.3780 |
| JM |  0.8920 |  0.3820 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| JN |  0.8860 |  0.3780 |
| JO |  0.8880 |  0.3950 |
| JP |  0.8710 |  0.3890 |
| JQ |  0.8460 |  0.3210 |
| K |  0.9290 |  0.4750 |
| K1 |  0.3040 |  0.2490 |
| K2 |  0.1240 |  0.1370 |
| K3 |  0.7560 |  0.3790 |
| KA |  0.8940 |  0.3650 |
| KB |  0.8960 |  0.4290 |
| KC |  0.9030 |  0.4370 |
| KD |  0.9150 |  0.4460 |
| KE |  0.9210 |  0.4410 |
| KF |  0.9410 |  0.4520 |
| KG |  0.9510 |  0.4420 |
| KH |  0.9490 |  0.4410 |
| KI |  0.9080 |  0.4350 |
| KJ |  0.9020 |  0.4320 |
| KK |  0.9360 |  0.4160 |
| KL |  0.9320 |  0.4090 |
| KM |  0.8980 |  0.3950 |
| KN |  0.8820 |  0.3740 |
| KO |  0.8700 |  0.3620 |
| KP |  0.7800 |  0.3260 |
| L |  0.9540 |  0.4910 |
| L1 |  0.3750 |  0.2720 |
| LA |  0.9200 |  0.4160 |
| LB |  0.9230 |  0.4720 |
| LC |  0.9320 |  0.4940 |
| LD |  0.9330 |  0.4980 |
| LE |  0.9270 |  0.4890 |
| LF |  0.9340 |  0.4820 |
| LG |  0.9460 |  0.4830 |
| LH |  0.9350 |  0.4990 |
| LI |  0.9270 |  0.4890 |
| LJ |  0.9330 |  0.4930 |
| LK |  0.9250 |  0.4710 |
| LL |  0.9440 |  0.4410 |
| LM |  0.9150 |  0.4160 |
| LN |  0.8880 |  0.4080 |
| LO |  0.8720 |  0.3930 |
| LP |  0.8770 |  0.3690 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| M |  0.9390 |  0.4690 |
| M1 |  0.8740 |  0.4260 |
| M2 |  0.9280 |  0.4820 |
| M3 |  0.8930 |  0.4850 |
| M4 |  0.9420 |  0.4580 |
| MA |  0.9250 |  0.3880 |
| MB |  0.9250 |  0.4490 |
| MC |  0.9190 |  0.4800 |
| MD |  0.9270 |  0.4940 |
| ME |  0.9160 |  0.4910 |
| MF |  0.9310 |  0.4910 |
| MG |  0.9410 |  0.4970 |
| MH |  0.9430 |  0.5050 |
| MI |  0.9290 |  0.4960 |
| MJ |  0.9340 |  0.4990 |
| MK |  0.9110 |  0.4850 |
| ML |  0.9270 |  0.4700 |
| MM |  0.9220 |  0.4380 |
| MN |  0.9100 |  0.4100 |
| MO |  0.8830 |  0.3890 |
| MP |  0.8770 |  0.3620 |
| N |  0.8580 |  0.4250 |
| N1 |  0.7580 |  0.3370 |
| N2 |  0.8480 |  0.4170 |
| NA |  0.8040 |  0.2160 |
| NB |  0.8590 |  0.2490 |
| NC |  0.8320 |  0.2390 |
| ND |  0.8590 |  0.2560 |
| NE |  0.8990 |  0.2590 |
| NF |  0.8930 |  0.3440 |
| NG |  0.8770 |  0.3570 |
| NH |  0.8800 |  0.3590 |
| NI |  0.8820 |  0.3340 |
| NJ |  0.8630 |  0.3150 |
| NK |  0.8590 |  0.3210 |
| NL |  0.8630 |  0.3260 |
| NM |  0.8370 |  0.3240 |
| NN |  0.8550 |  0.2990 |
| NO |  0.8520 |  0.2840 |
| NP |  0.8130 |  0.2410 |
| O |  0.8340 |  0.3660 |
| O1 |  0.8260 |  0.4270 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| O2 |  0.8570 |  0.4650 |
| O3 |  0.8790 |  0.4850 |
| O4 |  0.8290 |  0.4220 |
| O5 |  0.8840 |  0.4290 |
| O6 |  0.8270 |  0.4090 |
| O7 |  0.7630 |  0.3860 |
| O8 |  0.8410 |  0.4300 |
| O9 |  0.8720 |  0.4380 |
| OA |  0.6500 |  0.1890 |
| OB |  0.7760 |  0.2220 |
| OC |  0.7920 |  0.2310 |
| OD |  0.8330 |  0.2400 |
| OE |  0.8370 |  0.2330 |
| OF |  0.8870 |  0.2420 |
| OG |  0.8930 |  0.2530 |
| OH |  0.9030 |  0.2590 |
| OI |  0.8780 |  0.2460 |
| OJ |  0.8710 |  0.2450 |
| OK |  0.8730 |  0.2460 |
| OL |  0.8920 |  0.2470 |
| OM |  0.8590 |  0.2560 |
| ON |  0.8320 |  0.2420 |
| OO |  0.8050 |  0.2380 |
| OP |  0.7350 |  0.2020 |
| P |  0.8590 |  0.4530 |
| P1 |  0.7340 |  0.3020 |
| P2 |  0.8260 |  0.3510 |
| P3 |  0.7070 |  0.3900 |
| P4 |  0.8340 |  0.4410 |
| P5 |  0.8210 |  0.4500 |
| P6 |  0.8680 |  0.4310 |
| P7 |  0.6220 |  0.3510 |
| P8 |  0.8710 |  0.4750 |
| P9 |  0.8010 |  0.3540 |
| PB |  0.8240 |  0.1820 |
| PC |  0.8430 |  0.1930 |
| PD |  0.8690 |  0.2200 |
| PE |  0.8960 |  0.2040 |
| PF |  0.8830 |  0.2140 |
| PG |  0.8680 |  0.2230 |
| PH |  0.8840 |  0.2450 |
| PI |  0.8800 |  0.2420 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| PJ |  0.8850 |  0.2420 |
| PK |  0.8730 |  0.2380 |
| PL |  0.9120 |  0.2280 |
| PM |  0.8850 |  0.2250 |
| PN |  0.8880 |  0.2170 |
| PO |  0.8520 |  0.2080 |
| PP |  0.7940 |  0.1750 |
| Q |  0.7590 |  0.3850 |
| Q1 |  0.8530 |  0.4350 |
| Q2 |  0.8780 |  0.4680 |
| Q3 |  0.8610 |  0.4650 |
| Q4 |  0.8150 |  0.4100 |
| Q5 |  0.7470 |  0.3710 |
| QB |  0.6730 |  0.1560 |
| QC |  0.7690 |  0.1760 |
| QD |  0.8170 |  0.2060 |
| QE |  0.8750 |  0.1810 |
| QF |  0.8640 |  0.1940 |
| QG |  0.8360 |  0.2040 |
| QH |  0.8650 |  0.2280 |
| QI |  0.8470 |  0.2240 |
| QJ |  0.8660 |  0.2370 |
| QK |  0.8590 |  0.2260 |
| QL |  0.8810 |  0.2140 |
| QM |  0.8380 |  0.2120 |
| QN |  0.8140 |  0.2100 |
| QO |  0.7980 |  0.2020 |
| QP |  0.6950 |  0.1720 |
| R |  0.8810 |  0.4430 |
| R0 |  0.8700 |  0.3790 |
| R1 |  0.9040 |  0.4620 |
| R2 |  0.9220 |  0.4960 |
| R3 |  0.9260 |  0.4670 |
| R4 |  0.8520 |  0.3830 |
| R5 |  0.8110 |  0.3690 |
| RC |  0.8530 |  0.1870 |
| RD |  0.8990 |  0.2130 |
| RE |  0.9030 |  0.2030 |
| RF |  0.9070 |  0.1920 |
| RG |  0.8840 |  0.1840 |
| RH |  0.9070 |  0.2250 |
| RI |  0.8940 |  0.2210 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| RJ |  0.9150 |  0.2360 |
| RK |  0.9030 |  0.2260 |
| RL |  0.9190 |  0.2180 |
| RM |  0.8990 |  0.2140 |
| RN |  0.9000 |  0.2170 |
| RO |  0.8680 |  0.2050 |
| RP |  0.7710 |  0.1710 |
| S |  0.8470 |  0.4180 |
| S0 |  0.8060 |  0.3660 |
| S1 |  0.9270 |  0.4420 |
| S2 |  0.9350 |  0.4630 |
| S3 |  0.9250 |  0.4420 |
| S4 |  0.8740 |  0.4030 |
| S5 |  0.8590 |  0.4150 |
| S6 |  0.9190 |  0.4870 |
| S7 |  0.9020 |  0.4740 |
| S8 |  0.9220 |  0.4490 |
| S9 |  0.8440 |  0.3670 |
| SA |  0.7240 |  0.2080 |
| SB |  0.8390 |  0.2370 |
| SC |  0.8500 |  0.2410 |
| SD |  0.9010 |  0.2200 |
| SE |  0.8460 |  0.2170 |
| SF |  0.8770 |  0.2460 |
| SG |  0.8640 |  0.2570 |
| SH |  0.8890 |  0.2710 |
| SI |  0.8700 |  0.2680 |
| SJ |  0.8850 |  0.2430 |
| SK |  0.8830 |  0.2540 |
| SL |  0.8670 |  0.2600 |
| SM |  0.8260 |  0.2480 |
| SN |  0.7240 |  0.2130 |
| T |  0.8320 |  0.4090 |
| T0 |  0.8040 |  0.3560 |
| T1 |  0.8710 |  0.3820 |
| T2 |  0.9220 |  0.4490 |
| T3 |  0.9180 |  0.4580 |
| T4 |  0.9040 |  0.4270 |
| T5 |  0.7980 |  0.3550 |
| TA |  0.7380 |  0.2280 |
| TB |  0.8190 |  0.2650 |
| TC |  0.8450 |  0.2660 |

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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| TD |  0.9110 |  0.2560 |
| TE |  0.8590 |  0.2250 |
| TF |  0.8680 |  0.2620 |
| TG |  0.8700 |  0.2800 |
| TH |  0.8760 |  0.2890 |
| TI |  0.8540 |  0.2840 |
| TJ |  0.8660 |  0.2690 |
| TK |  0.8960 |  0.2720 |
| TL |  0.8610 |  0.2840 |
| TM |  0.8500 |  0.2720 |
| TN |  0.7700 |  0.2330 |
| U |  0.8880 |  0.4560 |
| U0 |  0.8070 |  0.3730 |
| U1 |  0.9130 |  0.4170 |
| U2 |  0.9180 |  0.4390 |
| U3 |  0.8930 |  0.3860 |
| U4 |  0.7930 |  0.3300 |
| U5 |  0.6360 |  0.3010 |
| U6 |  0.7690 |  0.3130 |
| U7 |  0.8590 |  0.3930 |
| U8 |  0.7320 |  0.3290 |
| U9 |  0.6040 |  0.2760 |
| UA |  0.7360 |  0.2330 |
| UB |  0.8440 |  0.2530 |
| UC |  0.8430 |  0.2650 |
| UD |  0.8920 |  0.2410 |
| UE |  0.8580 |  0.2150 |
| UF |  0.8660 |  0.2480 |
| UG |  0.8640 |  0.2610 |
| UH |  0.8800 |  0.2710 |
| UI |  0.8780 |  0.2700 |
| UJ |  0.8590 |  0.2480 |
| UK |  0.8780 |  0.2360 |
| UL |  0.8060 |  0.2420 |
| UM |  0.7860 |  0.2460 |
| UN |  0.7390 |  0.2150 |
| UO |  0.6310 |  0.1830 |
| V |  0.8930 |  0.4570 |
| V0 |  0.2680 |  0.2490 |
| V1 |  0.6600 |  0.3050 |
| V2 |  0.8200 |  0.3290 |
| V3 |  0.6700 |  0.2920 |





















































































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| Chain | Atom inclusion | Q-score |
|-------|----------------|---------|
| V4 | 0.5980 | 0.2690 |
| V5 | 0.7330 | 0.3060 |
| V6 | 0.8660 | 0.3570 |
| V7 | 0.8460 | 0.3410 |
| V8 | 0.7510 | 0.3320 |
| V9 | 0.7430 | 0.3340 |
| VA | 0.7630 | 0.2010 |
| VB | 0.8560 | 0.2300 |
| VC | 0.8590 | 0.2530 |
| VD | 0.9000 | 0.2570 |
| VE | 0.8690 | 0.2550 |
| VF | 0.8590 | 0.2750 |
| VG | 0.8500 | 0.2910 |
| VH | 0.8860 | 0.3030 |
| VI | 0.8650 | 0.2990 |
| VJ | 0.8680 | 0.2870 |
| VK | 0.8870 | 0.2760 |
| VL | 0.8870 | 0.2760 |
| VM | 0.8490 | 0.2710 |
| VN | 0.8290 | 0.2370 |
| VO | 0.7700 | 0.2270 |
| W | 0.8300 | 0.4350 |
| W0 | 0.3180 | 0.1640 |
| W2 | 0.6400 | 0.3100 |
| W4 | 0.8310 | 0.4070 |
| W5 | 0.8800 | 0.4200 |
| W6 | 0.8760 | 0.4340 |
| W7 | 0.7690 | 0.3340 |
| WA | 0.7630 | 0.2440 |
| WB | 0.8580 | 0.2860 |
| WC | 0.8550 | 0.3090 |
| WD | 0.9140 | 0.3140 |
| WE | 0.9030 | 0.2940 |
| WF | 0.9100 | 0.3180 |
| WG | 0.8940 | 0.3360 |
| WH | 0.9190 | 0.3590 |
| WI | 0.8880 | 0.3430 |
| WJ | 0.9150 | 0.3410 |
| WK | 0.9000 | 0.3270 |
| WL | 0.9310 | 0.3210 |
| WM | 0.8720 | 0.3150 |
| WN | 0.8850 | 0.3020 |













































































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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| WO |  0.8350 |  0.2800 |
| WP |  0.7660 |  0.2230 |
| X |  0.9030 |  0.4400 |
| X0 |  0.7600 |  0.4530 |
| X1 |  0.7070 |  0.3740 |
| X2 |  0.7720 |  0.4480 |
| X3 |  0.7500 |  0.4150 |
| X4 |  0.8110 |  0.4380 |
| X5 |  0.7700 |  0.3840 |
| X6 |  0.7830 |  0.3710 |
| X7 |  0.4670 |  0.2840 |
| X8 |  0.4050 |  0.1970 |
| XA |  0.7370 |  0.3240 |
| XB |  0.9040 |  0.3860 |
| XC |  0.9740 |  0.3550 |
| XD |  0.9560 |  0.4080 |
| XE |  0.9500 |  0.4290 |
| XF |  0.9450 |  0.4270 |
| XG |  0.9430 |  0.4000 |
| XH |  0.9190 |  0.3820 |
| Y |  0.8980 |  0.4550 |
| Y0 |  0.8170 |  0.3290 |
| Y1 |  0.8540 |  0.3580 |
| Y2 |  0.8790 |  0.3210 |
| Y3 |  0.7040 |  0.2240 |
| Y4 |  0.7680 |  0.3150 |
| Y5 |  0.6860 |  0.2970 |
| YA |  0.7140 |  0.3380 |
| YB |  0.8500 |  0.3800 |
| YC |  0.7350 |  0.3030 |
| YD |  0.9020 |  0.4210 |
| YE |  0.8340 |  0.3980 |
| YF |  0.9020 |  0.3830 |
| YG |  0.8000 |  0.3630 |
| YH |  0.7570 |  0.3130 |
| Z |  0.8110 |  0.3990 |
| Z1 |  0.8040 |  0.4030 |
| Z2 |  0.7830 |  0.4180 |
| Z3 |  0.9100 |  0.4100 |
| Z4 |  0.8900 |  0.4100 |
| Z5 |  0.8200 |  0.3610 |
| a |  0.5800 |  0.2430 |

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| Chain | Atom inclusion | Q-score |
|-------|--|--|
| a1 |  0.8360 |  0.4130 |
| a2 |  0.9120 |  0.4490 |
| a3 |  0.9160 |  0.4710 |
| a4 |  0.8200 |  0.3810 |
| a6 |  0.5760 |  0.2710 |
| b |  0.4820 |  0.2450 |
| b1 |  0.8640 |  0.3380 |
| b2 |  0.8880 |  0.4280 |
| b3 |  0.9300 |  0.4380 |
| b4 |  0.8990 |  0.3900 |
| b5 |  0.8220 |  0.3460 |
| c |  0.5560 |  0.2370 |
| d |  0.4670 |  0.2280 |
| e |  0.8750 |  0.3360 |
| f |  0.8700 |  0.3610 |
| g |  0.8630 |  0.3400 |
| h |  0.8200 |  0.3530 |
| h1 |  0.9130 |  0.4070 |
| h2 |  0.9060 |  0.4390 |
| h3 |  0.8960 |  0.4440 |
| h4 |  0.8470 |  0.3780 |
| i |  0.8750 |  0.3950 |
| i1 |  0.9330 |  0.3980 |
| i2 |  0.8110 |  0.3250 |
| i3 |  0.7840 |  0.3450 |
| i4 |  0.8250 |  0.2940 |
| j |  0.8740 |  0.4100 |
| j1 |  0.8270 |  0.3630 |
| k |  0.8450 |  0.3420 |
| l |  0.9480 |  0.4940 |
| m |  0.9580 |  0.4950 |
| n |  0.9480 |  0.4780 |
| o |  0.4630 |  0.2030 |
| p |  0.5340 |  0.2370 |
| q |  0.8580 |  0.4050 |
| r |  0.8490 |  0.4290 |
| s |  0.8670 |  0.4030 |
| y |  0.8330 |  0.3600 |