**Supplementary file 3. Conformational changes for the RNAP component of the Mfd-EC structures.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | L2(adp) | C1(ATP) | C2(ATP) | C3(adp) | C4(ADP) | C5(ATP) |
|  | align | rms\_cur | align | rms\_cur | align | rms\_cur | align | rms\_cur | align | rms\_cur | align | rms\_cur |
| L1(atp) | 0.556(2798) | 0.82(3171) | 0.596(2832) | 0.877(3172) | 0.661(2536) | 1.46(3169) | 0.707(2362) | 3.638(3164) | 0.642(2318) | 2.203(3171) | 0.553(2583) | 2.188(3172) |
| L2(adp) |  | 0.456(2860) | 0.585(3171) | 0.586(2409) | 1.318(3168) | 0.711(2322) | 3.61(3163) | 0.603(2332) | 2.244(3170) | 0.565(2625) | 2.313(3171) |
| C1(ATP) |  |  | 0.544(2393) | 1.24(3169) | 0.693(2279) | 3.514(3164) | 0.548(2328) | 2.177(3171) | 0.522(2592) | 2.3(3172) |
| C2ATP) |  |  |  | 0.546(2343) | 2.69(3167) | 0.303(2480) | 1.818(3168) | 0.346(2319) | 2.244(3169) |
| C3(adp) |  |  |  |  | 0.57(2326) | 2.669(3163) | 0.585(2351) | 3.518(3164) |
| C4(ADP) |  |  |  |  |  | 0.393(2492) | 1.044(3171) |