

Supporting information

# Melatonin activation by Cytochrome P450 isozymes. How does CYP1A2 compare to CYP1A1?

Thirakorn Mekkawes <sup>1,2</sup>, and Sam P. de Visser <sup>1,2,\*</sup>

<sup>1</sup> Manchester Institute of Biotechnology, The University of Manchester, 131 Princess Street, Manchester M1 7DN, United Kingdom

<sup>2</sup> Department of Chemical Engineering, The University of Manchester, Oxford Road, Manchester M13 9PL, United Kingdom; [sam.devisser@manchester.ac.uk](mailto:sam.devisser@manchester.ac.uk)

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## **1 Methodology**

### **1.1 Primary model preparation**

Here is the outline of the steps involved in preparing a structure for a molecular dynamics simulation as starting from a protein databank (PDB) file:

1. Select the PDB file: The first step was to select the enzyme for this study by fetching the data from rcsb.org<sup>1</sup>. The enzyme in this study was CYP1A2. We selected the chain A of 2HI4<sup>2</sup> PDB structure which was the latest released structure and with good resolution.
2. Clean the PDB file: The next step was to remove unnecessary residues (solvent, glycerol, ions) and/or ligands and ensuring that all residues were properly named and had their correct residue types (ATOM or HETATM). This was done using a text editor software and Chimera UCSF.
3. Add missing atoms: In this step, the heme-iron complex was modified to a Compound I (Cpd I) structure. The additional oxygen atom was added over the central iron atom with bond length 1.686 Å, which was a distance taken from a previous study using the quantum mechanics method<sup>3</sup>. This was customized using Chimera UCSF<sup>4</sup>.
4. Add hydrogen atoms: Once all of the missing atoms were corrected and presented in the PDB file, the hydrogen atoms were added using AmberTools 2018<sup>5</sup>.
5. Prepare the substrate: Melatonin was the substrate of this study. It was fetched from the ML1<sup>6</sup> PDB and reoptimized using a quantum mechanics method in Gaussian version 16<sup>7</sup>. The optimized structure was converted to a PDB file by the Antechamber<sup>8</sup> software package provided by AmberTools 2018.

### **1.2 Substrate docking**

Here is the outline of the steps involved in docking a substrate into the active site of the PDB file:

1. Prepare the receptor: The first step was to prepare the receptor, which was the well-prepared structure from section 1.1.
2. Prepare the ligand: The next step was to prepare the ligand, which was the small molecule that will be docked into the receptor, namely melatonin.
3. Select the docking software: In this study, we used AutoDock Vina<sup>9</sup> which uses a generic algorithm to search for the lowest energy configuration of a small molecule in the active site of a protein.
4. Set up the docking simulation: Once the receptor and ligand have been prepared, the next step was to set up the docking simulation. The size of the simulation box was 20.0626, 23.4102, 21.855 with the center coordinate at 5.74371, 17.7915, 17.8511. The box was placed at the center of the enzyme active site containing CpdI, the I helix, the G helix and the B' helix. The maximum energy difference between each search was set to 2 kcal/mol. The maximum number of binding modes was set to 10. This resulted in 10 binding poses which were further used for the molecular dynamics simulations.
5. Save different docked substrate poses: The ten low-energy binding poses of melatonin were separately saved as PDB files.

### 1.3 Molecular dynamics simulation

Here is the outline of the molecular dynamics simulations of the heme-iron complexes:

1. Prepare the mol2 files for non-standard molecules: Amber needs the information about non-standard chemical compounds which was in the mol2 file format. There are atom names, atom types, bond types, bond orders, etc. This was done using Antechamber.
2. Prepare the frcmod files for non-standard molecules: The forcefields for non-standard molecules were not available in Amber. This information can be prepared by converting data from mol2 file using parmchk2 software package provided in AmberTools 2018.
3. Generate forcefield for heme-iron complex: The atoms within 2.5 Å around the central iron atom in the porphyrin are optimized by quantum mechanics and the output was transferred to forcefield parameter. This was generated by MCPB.py<sup>10</sup> that was the python-based software package provided on Amber.
4. Solvate the protein: Once the force field for non-standard residues were generated, the whole system was solvated in water using the TIP3P<sup>11</sup> forcefield while the standard amino acids were performed by ff14SB<sup>12</sup> forcefield. The system was neutralized by Na<sup>+</sup> and Cl<sup>-</sup>. The rectangular solvate-box was set to a size of 10 Å, which was the distance between the box edges and the protein. This can be done using Amber's tleap software package.
5. Minimize the system: Once the system was solvated in water and neutralized, it was minimized to remove any bad contacts between the molecule and solvent. The steepest descent was set to 2000 with a cutoff set to 10 Å.
6. Heat the system: In this step, the system is heated up to bring the system into a more stable state. The system is heated up to a temperature of 310 K during a 10 ns simulation.
7. Run the MD production: Finally, the system was run for 100 ns for the general study and 1000 ns for the comparison of CYP1A1 and CYP1A2. It was run under the constant temperature and pressure condition at 310 K and 1 bar by running through multiple loops of 5 ns.
8. The calculations were run on different intermediates along the mechanisms for O-demethylation and aromatic hydroxylation. The labels of each data were presented in the following figure:

$$A_C^B$$

Where:

- A is the intermediate created, including reactant (Re), intermediate 1 (IM1), intermediate 2 (IM2), product (P).
- B is the reaction pathway, including O-demethylation (ODE) or aromatic hydroxylation (HYD).
- C is the model number as taken from the MD simulations that ranges from 1 to 10.

#### 1.4 Data extraction from molecular dynamics simulation

Once the molecular dynamics simulation was finished, all results from multiple loops were combined using the cpptraj software package provided on Amber and pytraj<sup>13</sup> which was python-based library. The data was in csv format and illustrated by the python libraries named plotly and seaborn. For the geometry visualization, it was presented by Chimera UCSF.

#### 1.5 Data selection of molecular dynamics simulation

Here is the outline of the data selection from the molecular dynamics simulations:

1. Compare the structure at the start and end of the molecular dynamics simulation: Focus on the protein changes and substrate-binding orientations of each system in the snapshots between 1 ns and 100 ns. The results are shown in Figure S1 to S6.
2. Determine the RMSD: The RMSD of each structure was extracted to see the stability of protein, substrate and heme in the molecular dynamics simulations. The results are shown in Figure S7 and S8.
3. Compare the RMSD from different intermediates: Each structure from 90 ns to 100 ns was used as the reference structure to calculate the RMSD of the next systems. For example, the snapshot at 90 ns of reactant was used to calculate the RMSD of 10 models from 1 ns to 100 ns. The RMSD of the comparison from 90 ns to 100 ns were presented in median values. The structure that mostly gave low RMSD was selected as the reference structure for quantum mechanics calculations. That structure was the model 6 of reactant. The results are shown in Figure S9 and S10.
4. Map the substrate in the active site: The substrate orientations were mapped into the quadrants based on the heme plane by measuring the C6 position of the substrate using the pyramid method. From the previous step, the snapshot of the selected reactant at the median that had highest density on x and y axis was selected. The selected snapshot of model 6 reactant was 80.4 ns. The results are shown in Figure S11 and S12.

#### 1.6 Modification of small model for quantum mechanics simulation

The amino acids within 5 Å of the melatonin are reported in Figure S13 with the distributions of amino acids. Those residues are included in the active site cluster model for which quantum mechanics calculation were performed. However, some residues or side chains had to be truncated because of the size limitation of the quantum mechanics calculation. The truncated model had 283 atoms. The result is shown in Figure S14.

#### 1.7 Quantum mechanics simulation

The quantum mechanics calculation was performed with Gaussian version 16 by the following steps:

1. Optimize cluster models and local minima: The modified small model was optimized with basis set 1 (BS1) and the UB3LYP density functional approach. The iron (Fe) atom was described with the LANL2DZ+ECP basis set and the rest of the atoms employed 6-31G\*. Calculations were performed at 298.15 K (25°C) in the doublet and quartet spin multiplicities and overall charge -2.
2. Geometry scans for describing specific chemical reaction pathways: The atoms involved in the O-demethylation and aromatic hydroxylation were moved closer to the oxo group by constraint geometry scans were the O-H/C-O distances



were shortened in a stepwise manner. Each step had fixed O-H/C-O distance and applied a full geometry optimization. During this process the electronic energy changed and followed past a maximum and leading to another local minimum. The scan was run until the next local minimum was reached using the computational methods as described in (1).

3. Optimize transition state: The structure at the maximum energy point was reoptimized as a transition state and with basis set BS1 with the same conditions as in (1).
4. Perform better basis set calculations: The optimized structures were subjected to the single point calculation with basis set 2 (BS2) and the UB3LYP density functional. The iron (Fe) atom was described with cc-pVTZ and the rest of the atoms with a 6-311++G\* basis set. Energies were calculated at 298.15 K (25°C) in the doublet and quartet spin multiplicities and with overall charge -2.
5. Generate energy data: The optimized structures were confirmed as local minima or first-order saddle points with a frequency calculation with BS1 under the same condition in (1) resulting in energy data including zero-point energy, electronic energy, free energy, etc.
6. The vibrational frequencies obtained from Gaussian were corrected with the Goodvibes<sup>15</sup> software package. The calculated energy was added by the approximation for the quasi-harmonic enthalpy correction. It replaced harmonic energy contributions with a quasi-RRHO vibrational energy term via the Head-Gordon expression at the 298.15 K and 1 atm.

### 1.8 Chemical reaction determination of quantum mechanics simulation

Here is the outline of the chemical reactions determined by quantum mechanics calculations:

1. Extract energy data: The thermochemistry data was extracted and includes zero-point energy, electronic energy, electronic energy with zero-point energy and free energy. The chemical reaction energies were determined from relative energies which were derived from absolute free energies.
2. Illustrate energy profile: To give the insight of chemical reaction, the energy profile was created from the relative energies from BS2 single point calculation using Chemdraw<sup>14</sup> software.
3. Extract charges and spin densities: The electron configurations and orbitals were determined by charges and spin densities.
4. Extract geometry data: Geometry information presented the positions of the atoms relative to doublet and quartet multiplicities. The geometry data including bond lengths, angles and dihedrals were extracted by a python-based library.
5. Extract imaginary frequencies: The imaginary frequency relates to the activation energy that is required to overcome the energy barrier and initiate a chemical reaction. It was extracted by data mining using python.

## 2 Reference

1. Berman, H. M.; Westbrook, J.; Feng, Z.; Gilliland, G.; Bhat, T. N.; Weissig, H.; Shindyalov, I. N.; Bourne, P. E. The Protein Data Bank. *Nucleic Acids Research* **2000**, 28 (1), 235-242.
2. Sansen, S.; Yano, J. K.; Reynald, R. L.; Schoch, G. A.; Griffin, K. J.; Stout, C. D.; Johnson, E. F. Adaptations for the oxidation of polycyclic aromatic hydrocarbons exhibited by the structure of human P450 1A2. *J Biol Chem* **2007**, 282 (19), 14348-55.
3. Mokkawas, T.; Lim, Z. Q.; de Visser, S. P. Mechanism of Melatonin Metabolism by CYP1A1: What Determines the Bifurcation Pathways of Hydroxylation versus Deformylation? *The Journal of Physical Chemistry B* **2022**, 126 (46), 9591-9606.
4. Pettersen, E. F.; Goddard, T. D.; Huang, C. C.; Couch, G. S.; Greenblatt, D. M.; Meng, E. C.; Ferrin, T. E. UCSF Chimera--a visualization system for exploratory research and analysis. *J Comput Chem* **2004**, 25 (13), 1605-1612.
5. Case, D. A.; Cheatham, T. E., 3rd; Darden, T.; Gohlke, H.; Luo, R.; Merz, K. M., Jr.; Onufriev, A.; Simmerling, C.; Wang, B.; Woods, R. J. The Amber biomolecular simulation programs. *J Comput Chem* **2005**, 26 (16), 1668-88.
6. Sliwiak, J.; Sikorski, M.; Jaskolski, M. PR-10 proteins as potential mediators of melatonin-cytokinin cross-talk in plants: crystallographic studies of LIPR-10.2B isoform from yellow lupine. *The FEBS Journal* [<https://doi.org/10.1111/febs.14455>] **2018**, 285 (10), 1907-1922.
7. Frisch, M. J.; Trucks, G. W.; Schlegel, H. B.; Scuseria, G. E.; Robb, M. A.; Cheeseman, J. R.; Scalmani, G.; Barone, V.; Petersson, G. A.; Nakatsuji, H.; Li, X.; Caricato, M.; Marenich, A. V.; Bloino, J.; Janesko, B. G.; Gomperts, R.; Mennucci, B.; Hratchian, H. P.; Ortiz, J. V.; Izmaylov, A. F.; Sonnenberg, J. L.; Williams, Ding, F.; Lipparini, F.; Egidi, F.; Goings, J.; Peng, B.; Petrone, A.; Henderson, T.; Ranasinghe, D.; Zakrzewski, V. G.; Gao, J.; Rega, N.; Zheng, G.; Liang, W.; Hada, M.; Ehara, M.; Toyota, K.; Fukuda, R.; Hasegawa, J.; Ishida, M.; Nakajima, T.; Honda, Y.; Kitao, O.; Nakai, H.; Vreven, T.; Throssell, K.; Montgomery Jr., J. A.; Peralta, J. E.; Ogliaro, F.; Bearpark, M. J.; Heyd, J. J.; Brothers, E. N.; Kudin, K. N.; Staroverov, V. N.; Keith, T. A.; Kobayashi, R.; Normand, J.; Raghavachari, K.; Rendell, A. P.; Burant, J. C.; Iyengar, S. S.; Tomasi, J.; Cossi, M.; Millam, J. M.; Klene, M.; Adamo, C.; Cammi, R.; Ochterski, J. W.; Martin, R. L.; Morokuma, K.; Farkas, O.; Foresman, J. B.; Fox, D. J. *Gaussian 16 Rev. C.01*, Wallingford, CT, 2016.
8. Wang, J.; Wang, W.; Kollman, P.; Case, D. ANTECHAMBER: an accessory software package for molecular mechanical calculations. *Journal of Chemical Information and Computer Sciences - JCISD* **2000**, 222.
9. Trott, O.; Olson, A. J. AutoDock Vina: improving the speed and accuracy of docking with a new scoring function, efficient optimization, and multithreading. *J Comput Chem* **2010**, 31 (2), 455-61.
10. Li, P.; Merz, K. M., Jr. MCPB.py: A Python Based Metal Center Parameter Builder. *Journal of Chemical Information and Modeling* **2016**, 56 (4), 599-604.
11. Price, D. J.; Brooks, C. L. A modified TIP3P water potential for simulation with Ewald summation. *The Journal of Chemical Physics* **2004**, 121 (20), 10096-10103.
12. Maier, J. A.; Martinez, C.; Kasavajhala, K.; Wickstrom, L.; Hauser, K. E.; Simmerling, C. ff14SB: Improving the Accuracy of Protein Side Chain and Backbone Parameters from ff99SB.

*Journal of Chemical Theory and Computation* **2015**, 11 (8), 3696-3713.

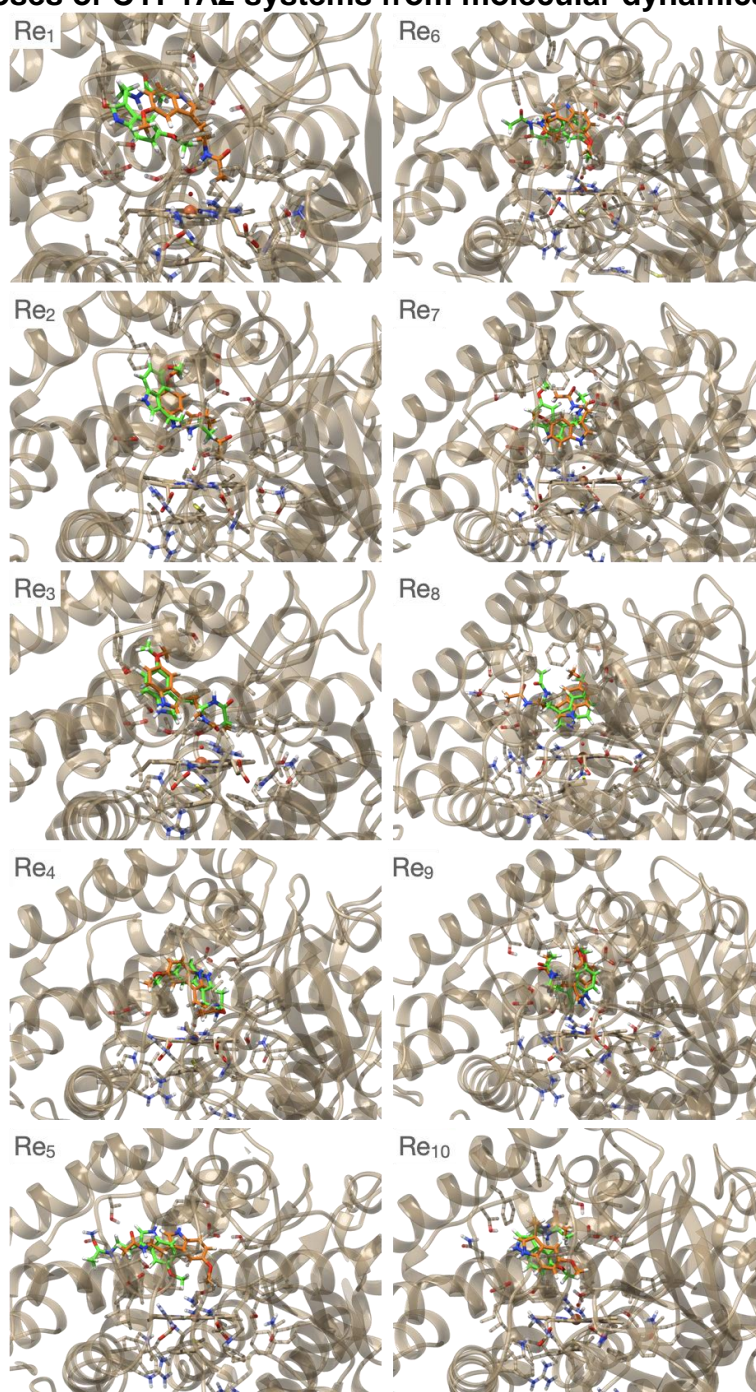
13. Roe, D. R.; Cheatham, T. E., III. PTRAJ and CPPTRAJ: Software for Processing and Analysis of Molecular Dynamics Trajectory Data. *Journal of Chemical Theory and Computation* **2013**, 9 (7), 3084-3095.

14. ChemDraw professional.

15. Luchini, G.; Alegre-Requena, J. V.; Funes-Ardoiz, I.; Paton, R. S. F1000Research, 2020, 9, 291.

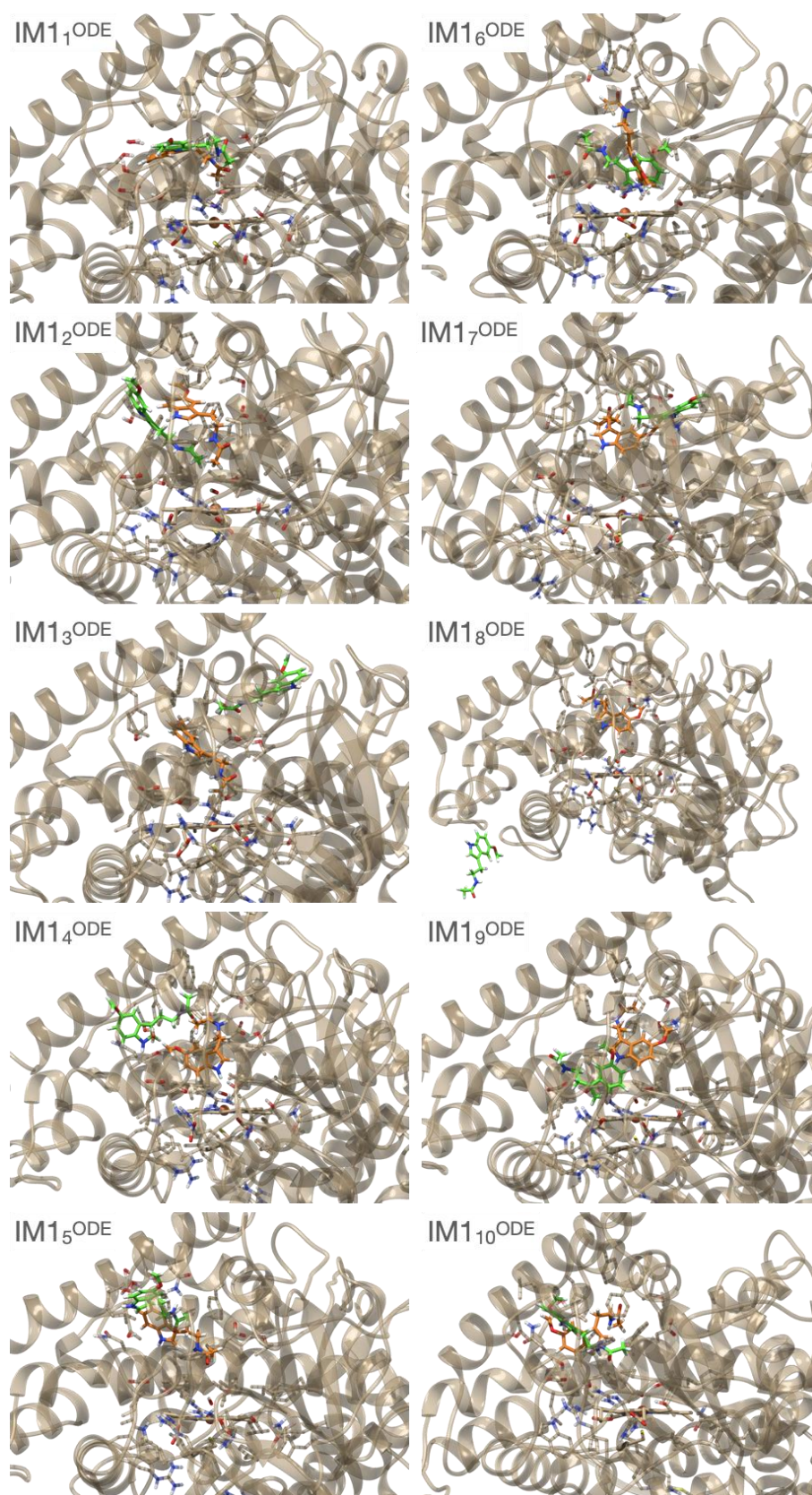
GoodVibes version 2.0.3 DOI: 10.5281/zenodo.1435820.

### 3 Binding poses of CYP1A2 systems from molecular dynamics simulation



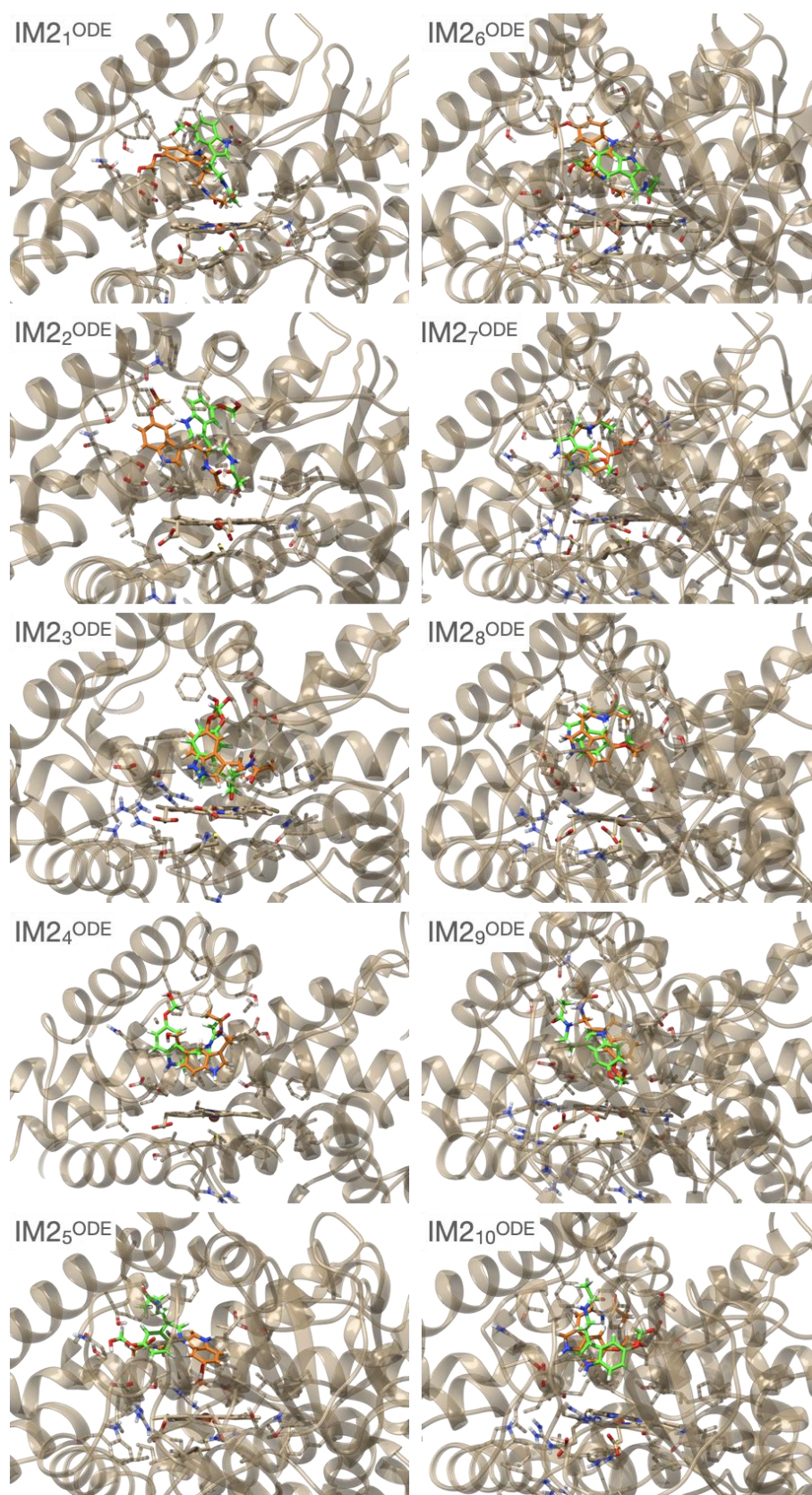
**Figure S1** Binding poses of the reactant complex as obtained from 10 MD simulations of 10 different starting orientations of substrate. The substrate orientation structures at 1 and 100 ns are presented in orange and green.





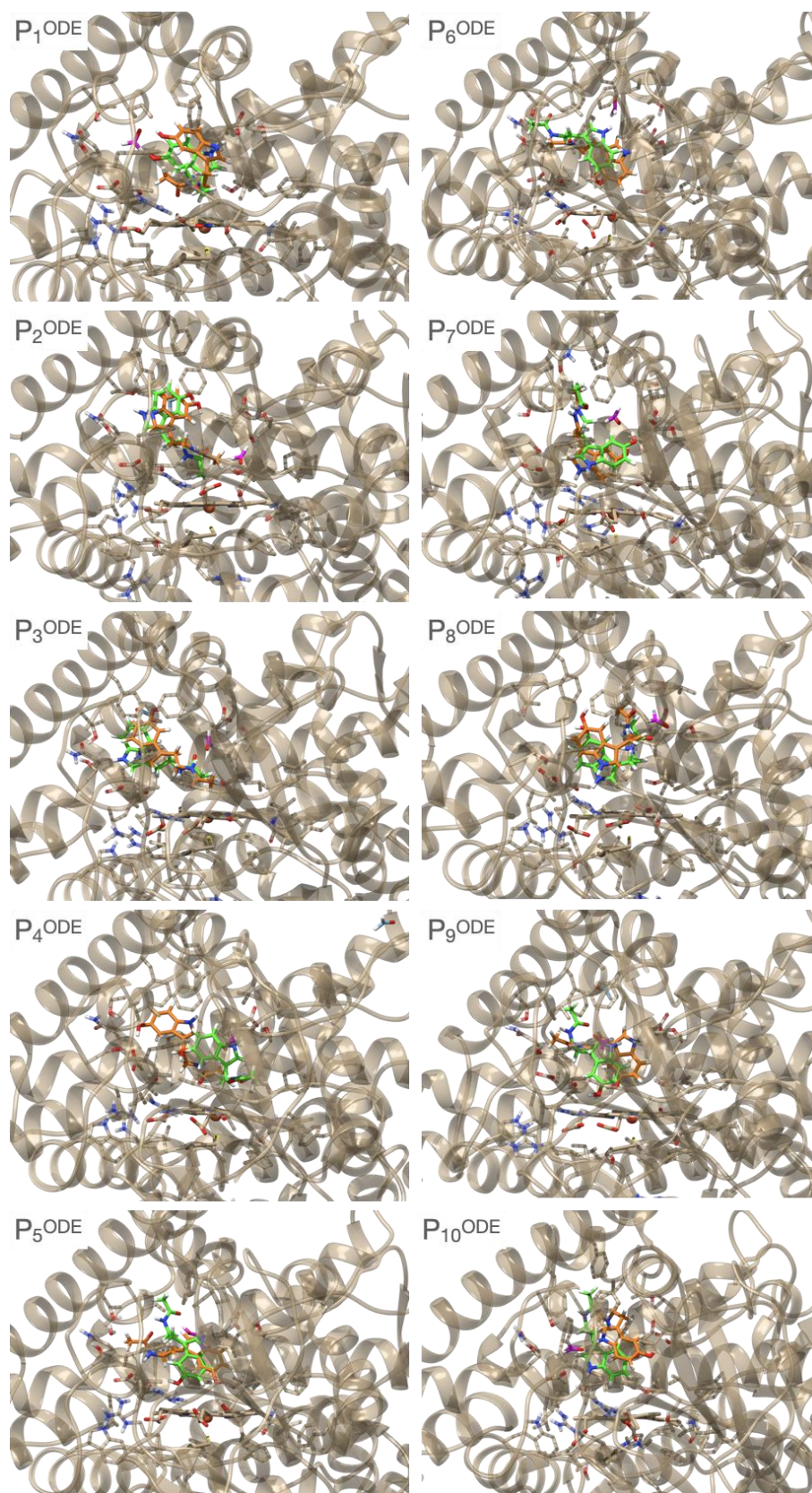
**Figure S2** Binding poses of the substrate in intermediate-1 along the O-demethylation pathway in 10 models as obtained from MD simulations. Structures at 1 and 100 ns are presented in orange and green.



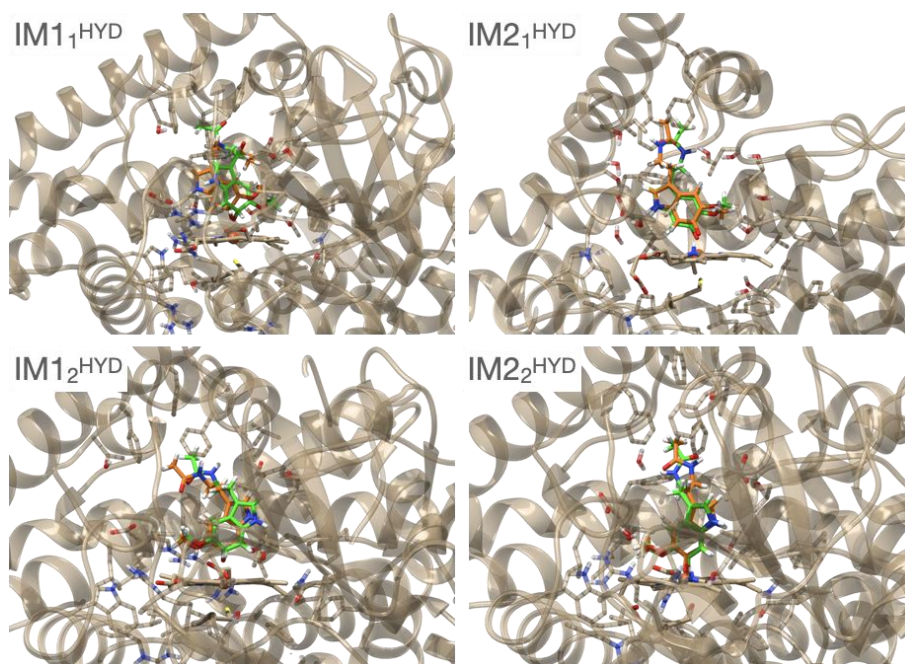


**Figure S3** Binding poses of the substrate in intermediate-2 along the O-demethylation pathway in 10 models as obtained from MD simulations. Structures at 1 and 100 ns are presented in orange and green.



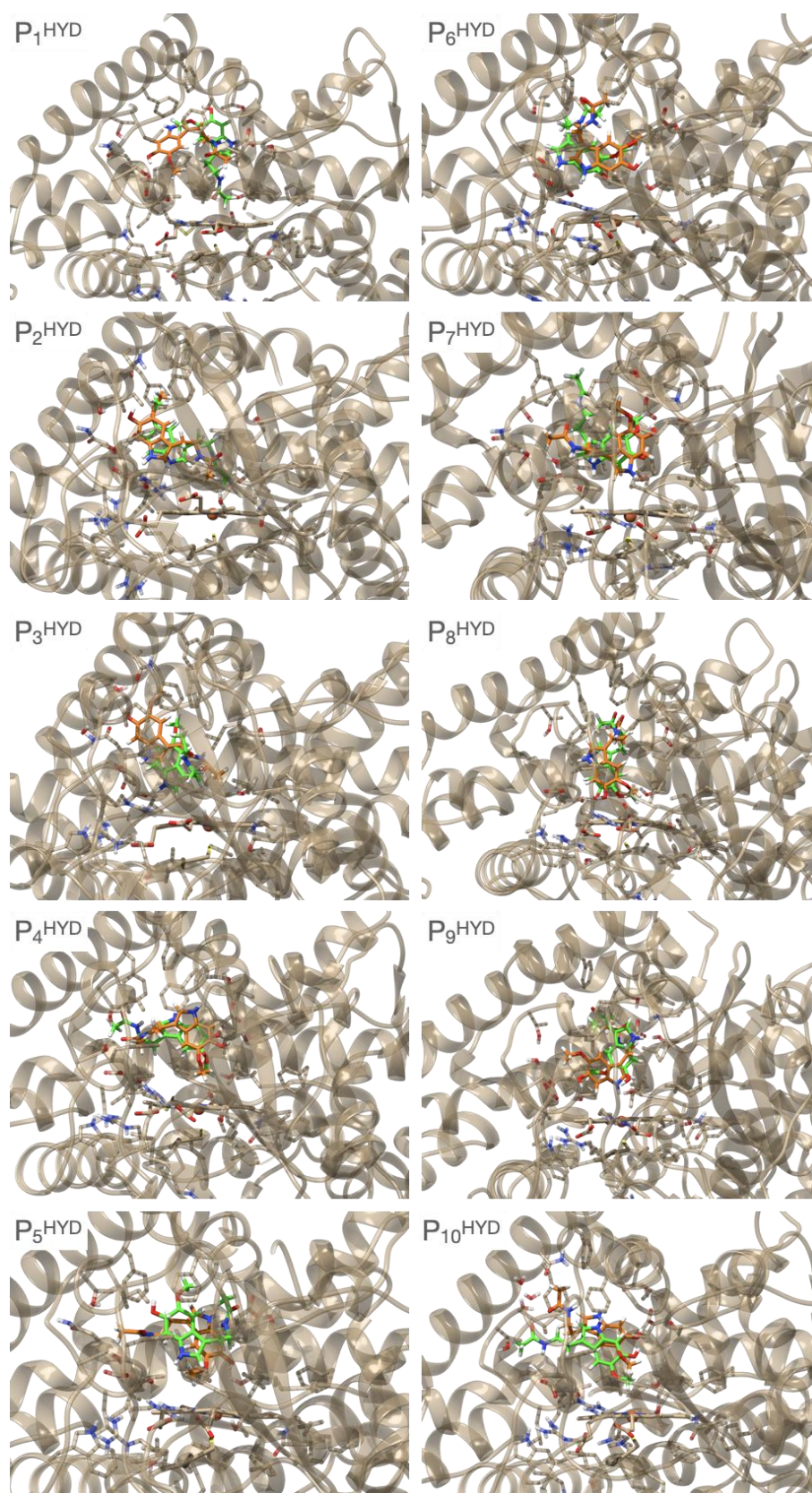


**Figure S4** Binding poses of the substrate in product along the O-demethylation pathway in 10 models as obtained from MD simulations. Structures at 1 and 100 ns are presented in orange and green.



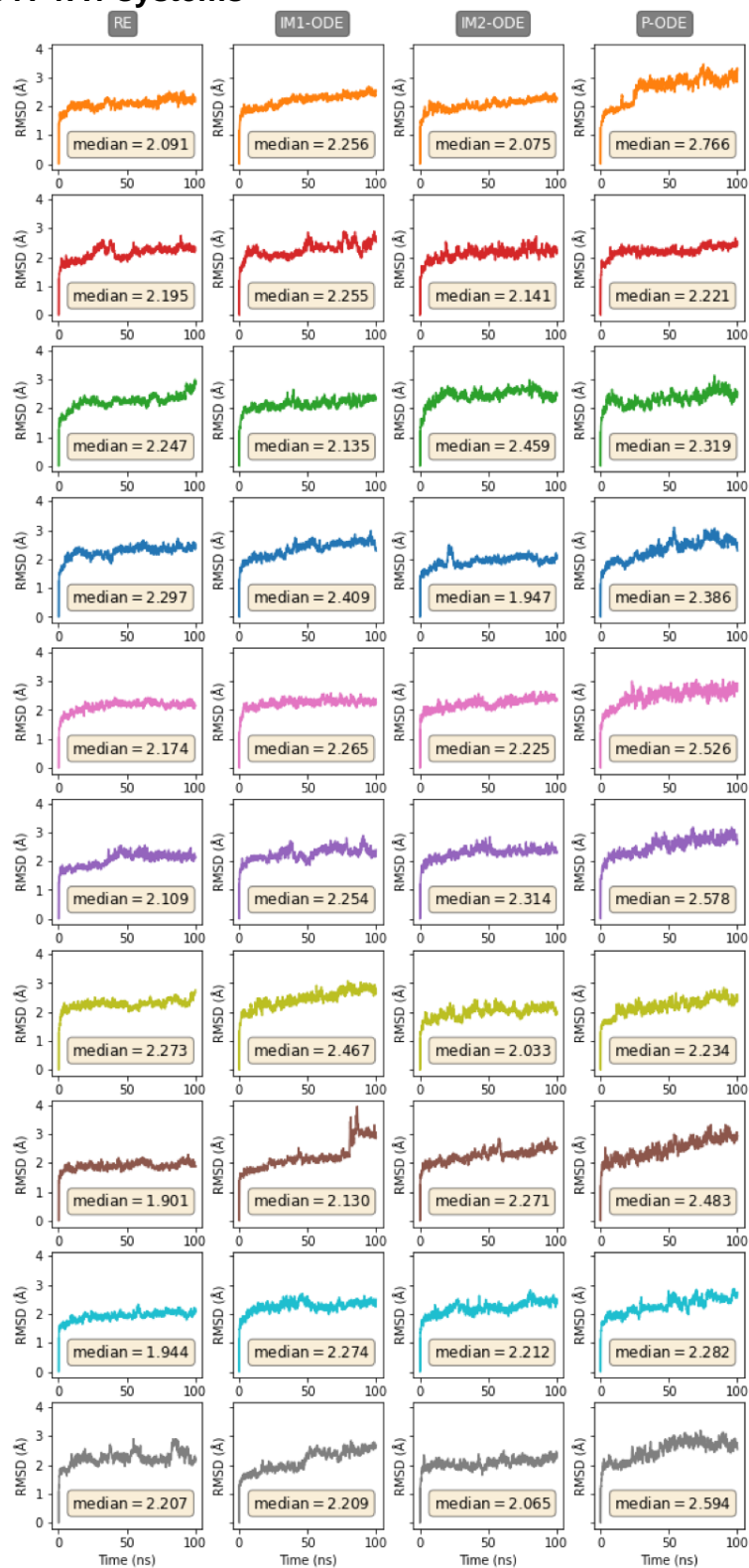
**Figure S5** Binding poses of the substrate in intermediate-1 and intermediate-2 along the aromatic hydroxylation pathway in 2 models as obtained from MD simulations. Structures at 1 and 100 ns are presented in orange and green.



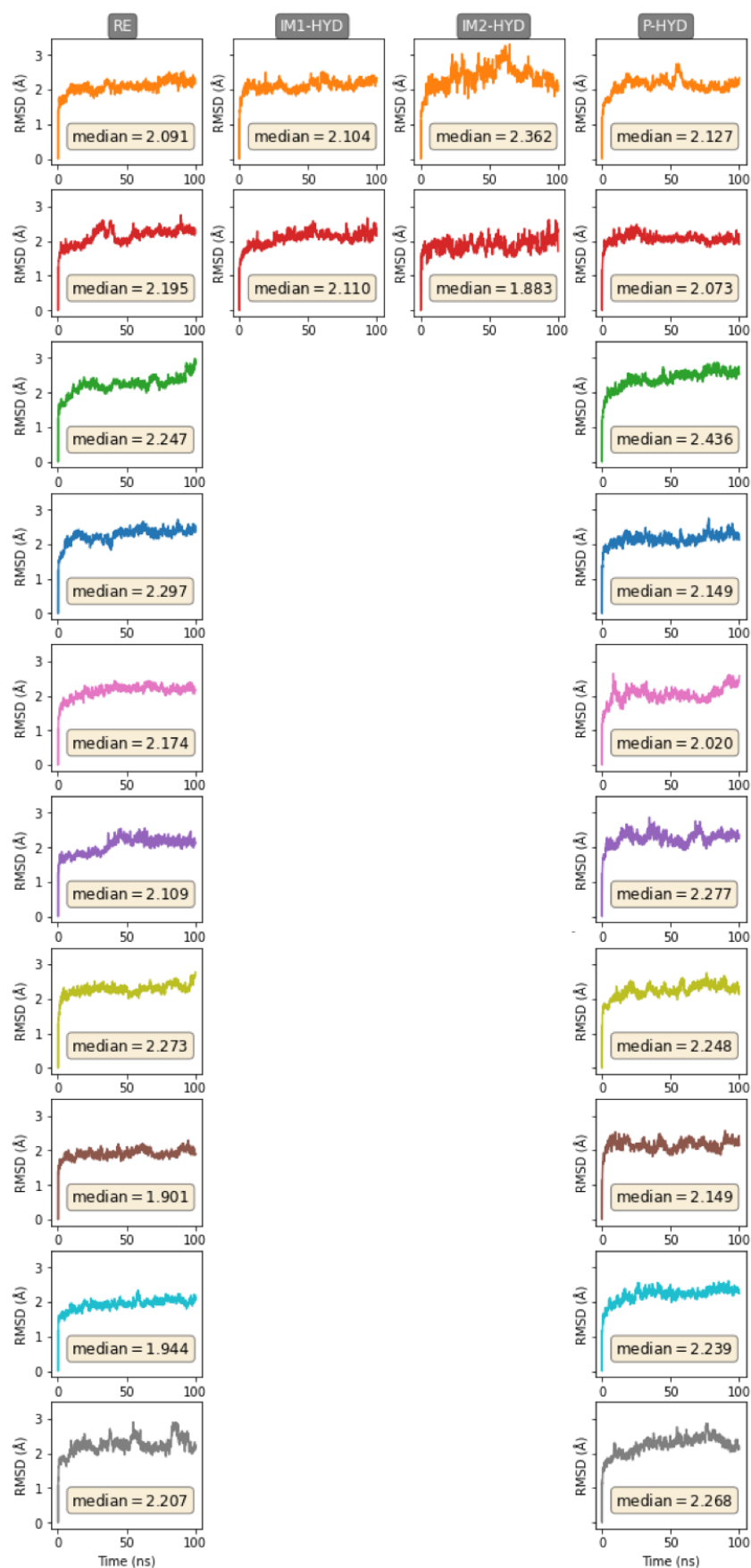


**Figure S6** Binding poses of the substrate in product along the aromatic hydroxylation pathway in 10 models as obtained from MD simulations. Structures at 1 and 100 ns are presented in orange and green.

## 4 RMSD of CYP1A1 systems

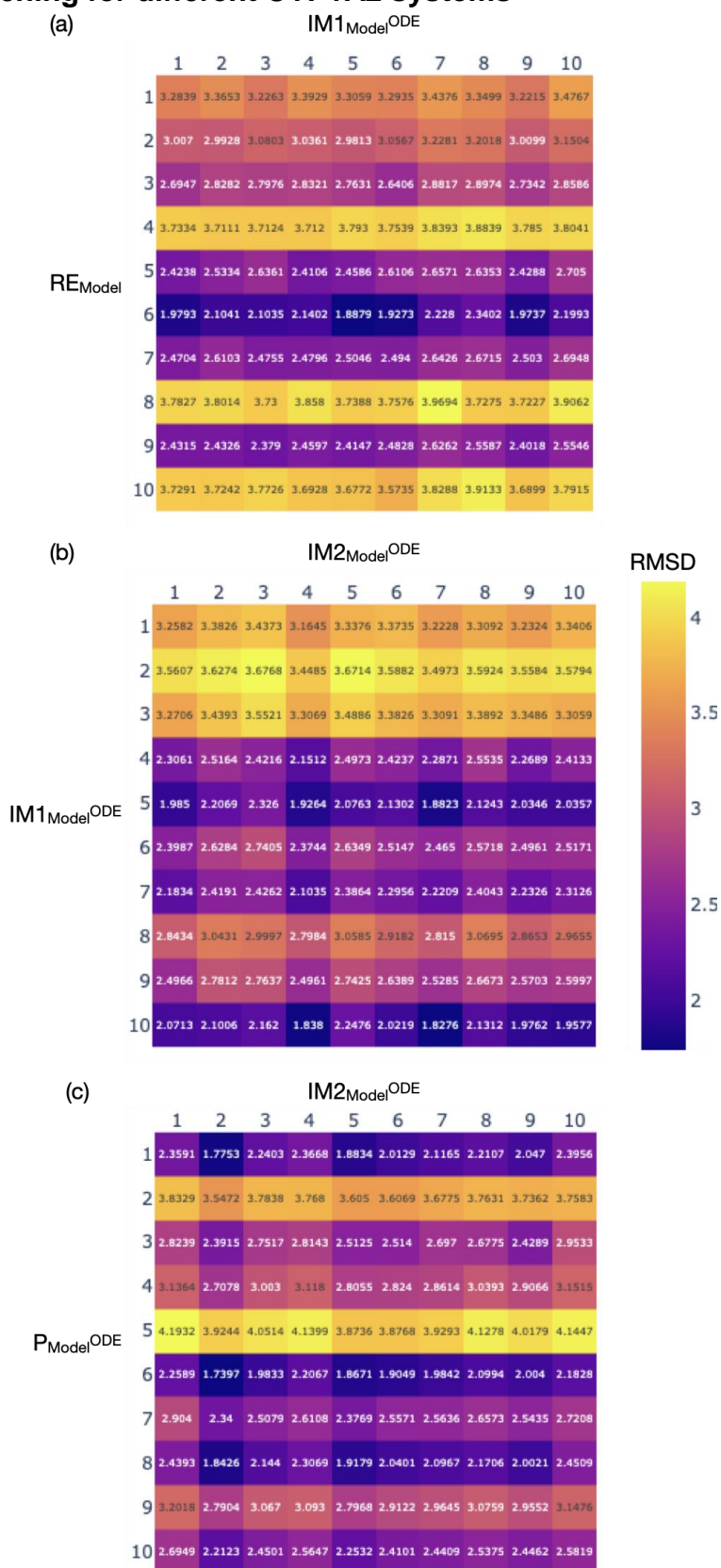


**Figure S7** RMSD values of the protein for the MD simulations of various intermediates along the pathway for O-demethylation in 100 ns.



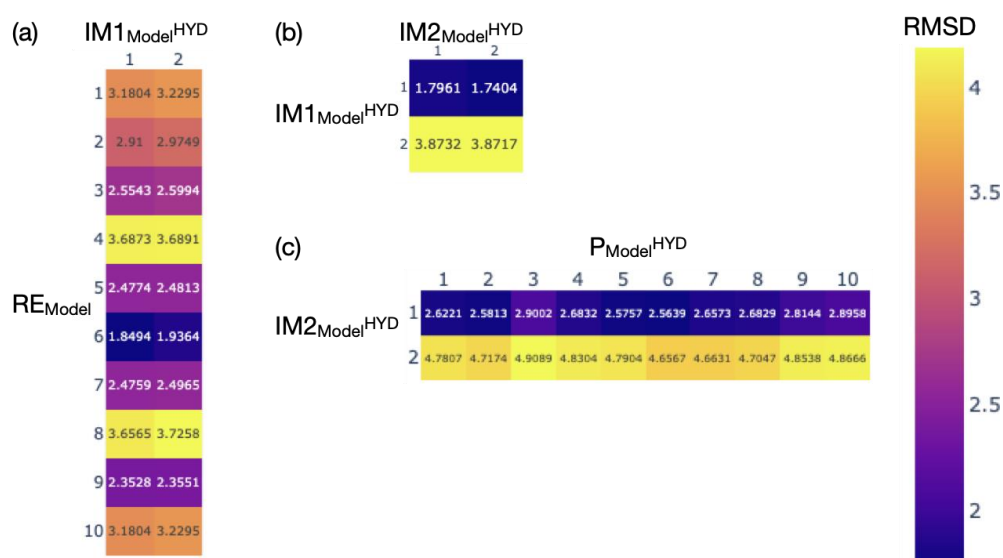
**Figure S8** RMSD values of the protein for the MD simulations of various intermediates along the pathway for aromatic hydroxylation in 100 ns.

## 5 RMSD matching for different CYP1A2 systems



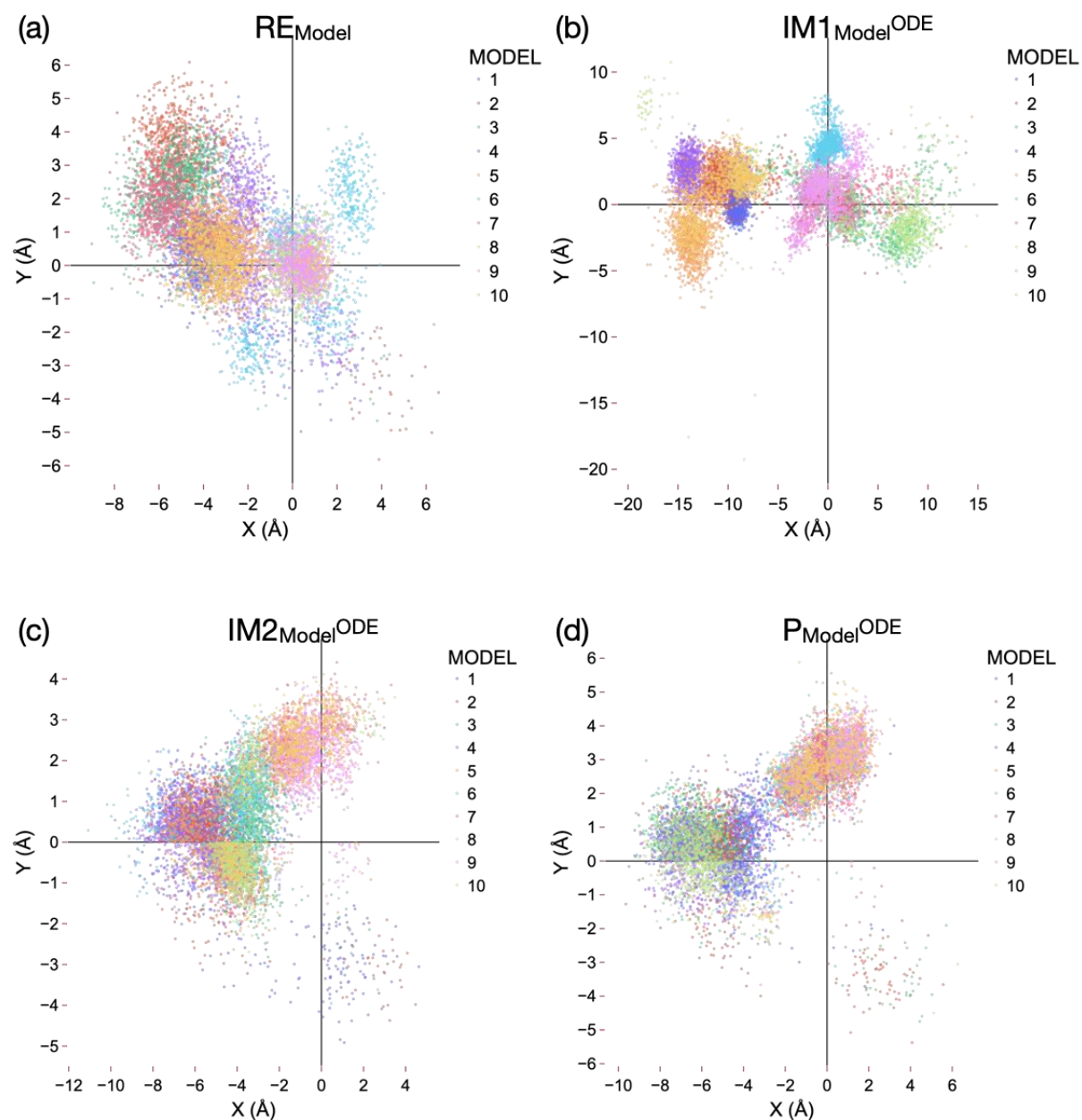
**Figure S9** RMSD comparison of intermediate states for O-demethylation during a 100 ns MD simulation.



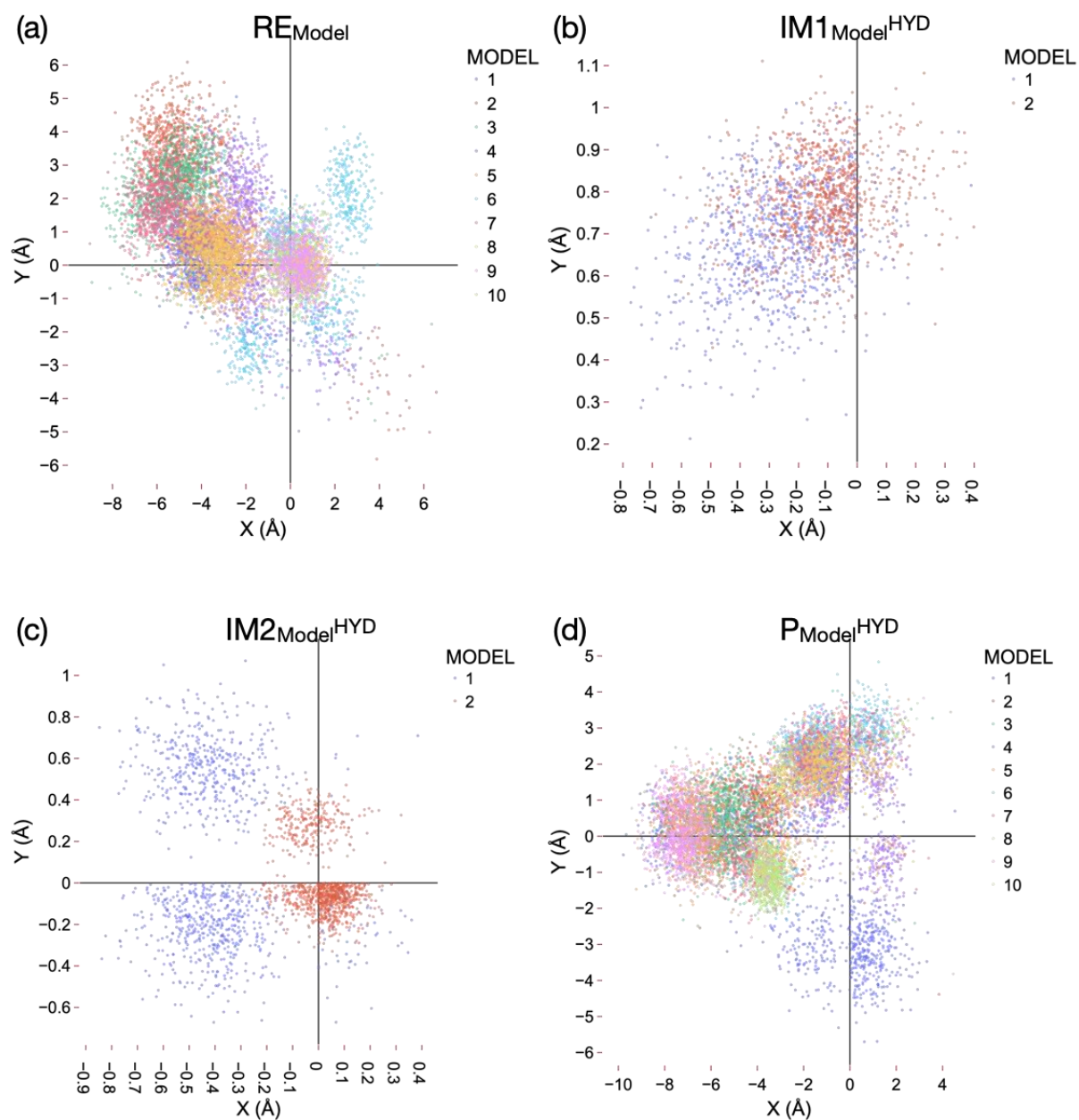


**Figure S10** RMSD comparison of intermediate states for aromatic hydroxylation during a 100 ns MD simulation.

## 6 Substrate location in the active sites



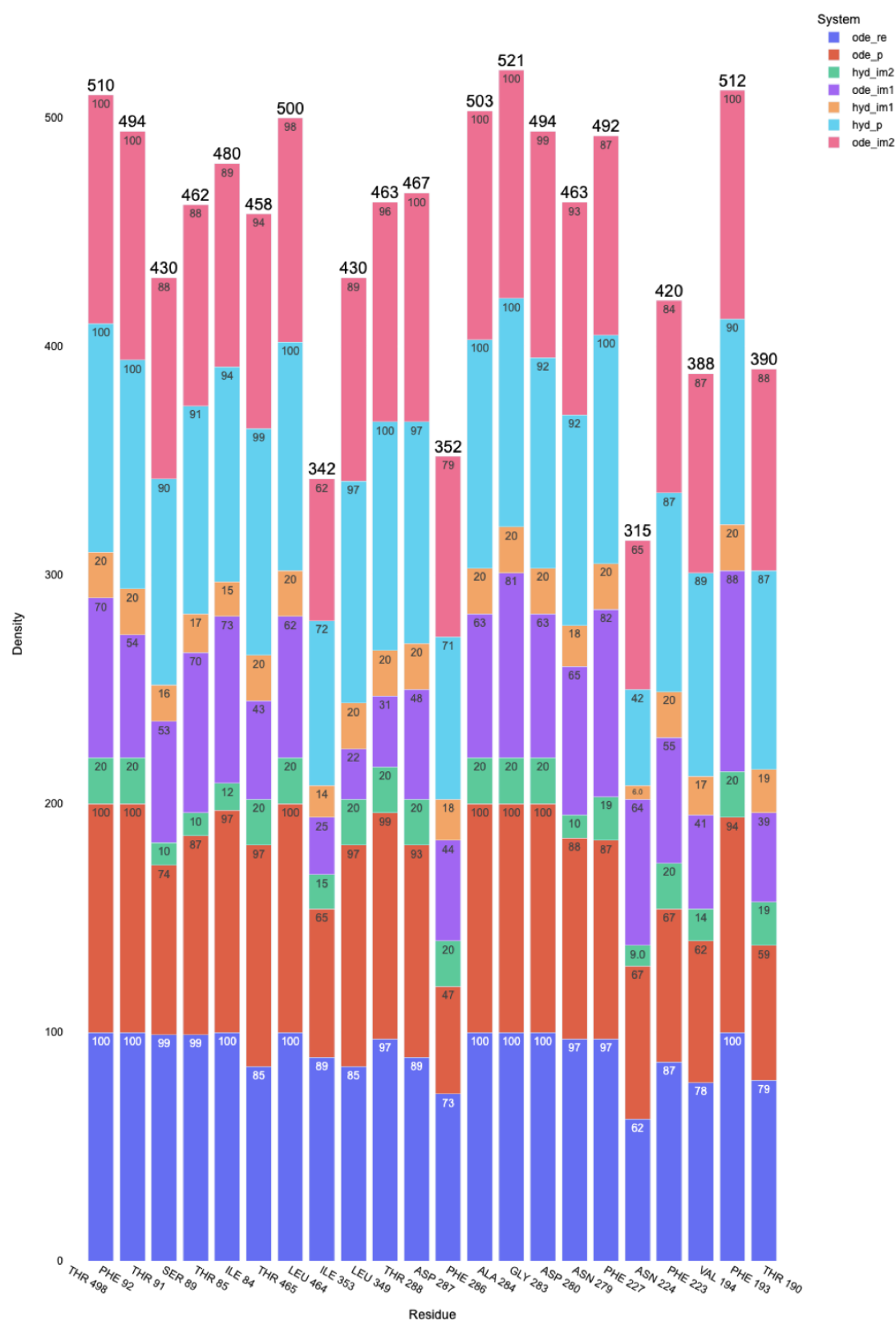
**Figure S11** Substrate mapping in the active site in intermediates along the mechanism for O-demethylation as obtained from a 100 ns MD simulation.



**Figure S12** Substrate mapping in the active site in intermediates along the mechanism for aromatic hydroxylation as obtained from a 100 ns MD simulation.

## 7 Amino acid distributions

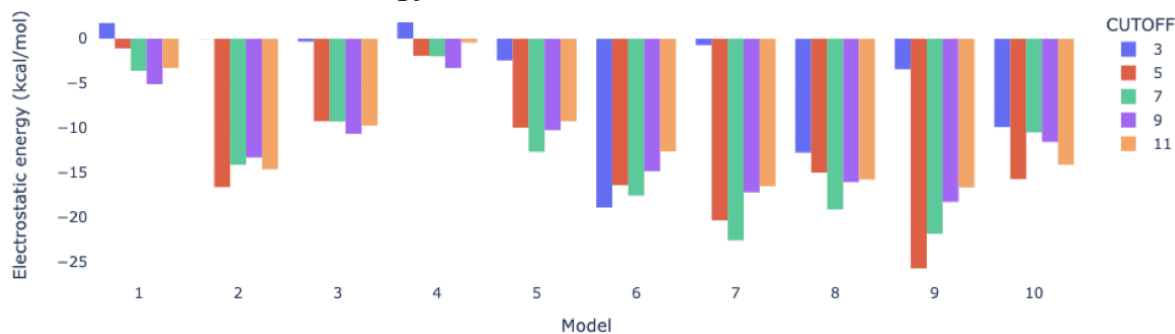
(a)



**Figure S13** Amino acid distributions within 5 Å around the melatonin as derived from snapshot structures from MD simulations.

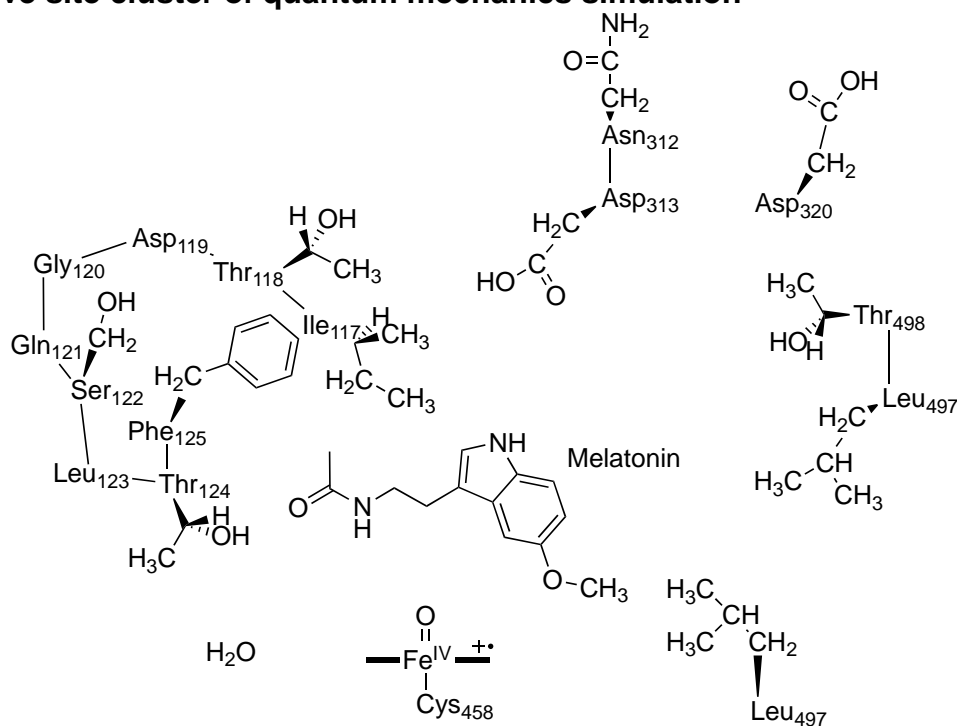


## 8 Linear interaction energy of 10 reactant models of CYP1A2



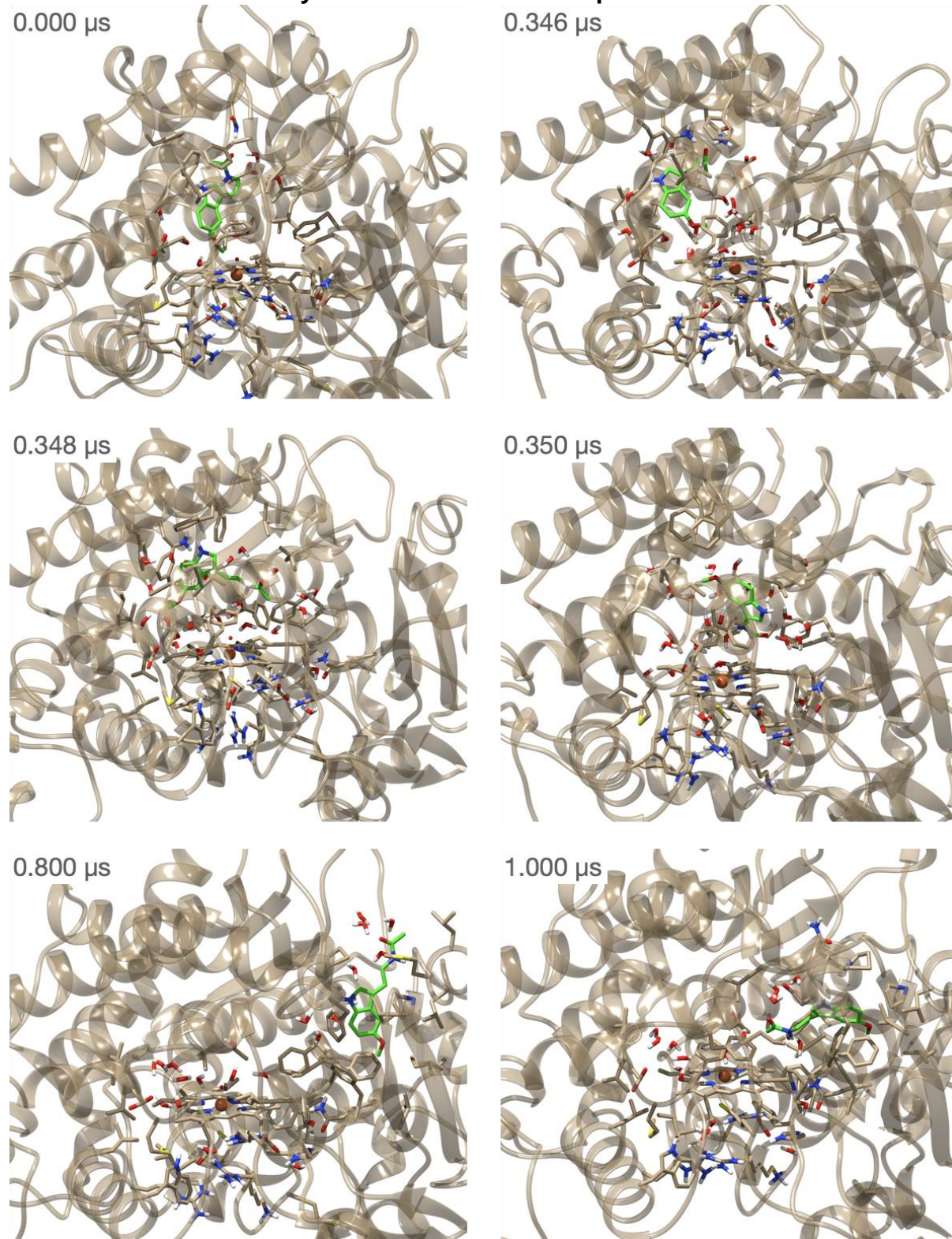
**Figure S14** Linear interaction energy of the 10 reactant models as obtained from the CYP1A2 MD simulations.

## 9 Active site cluster of quantum mechanics simulation



**Figure S15** QM active site cluster of 283 atoms used in this work. It was selected from RE<sub>6</sub> at the lowest total energy (80.4 ns).

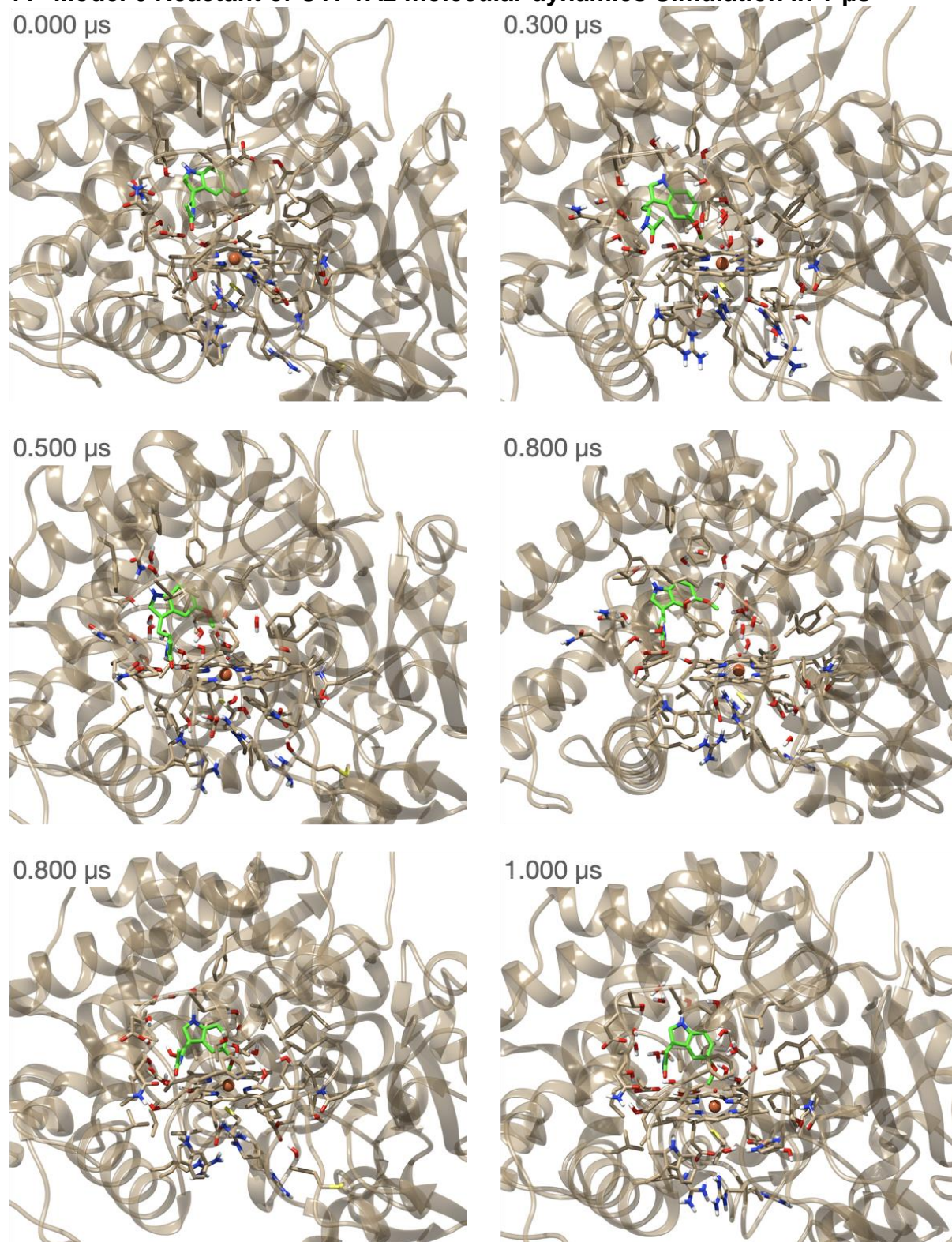
## 10 CYP1A1 molecular dynamics Simulation in 1 $\mu$ s



**Figure S16** Binding poses of the substrate in the reactant complex in CYP1A1 as obtained from MD simulations. The starting structure was taken from Model 3 of Mekkawes et al (J. Phys. Chem. A 2022).



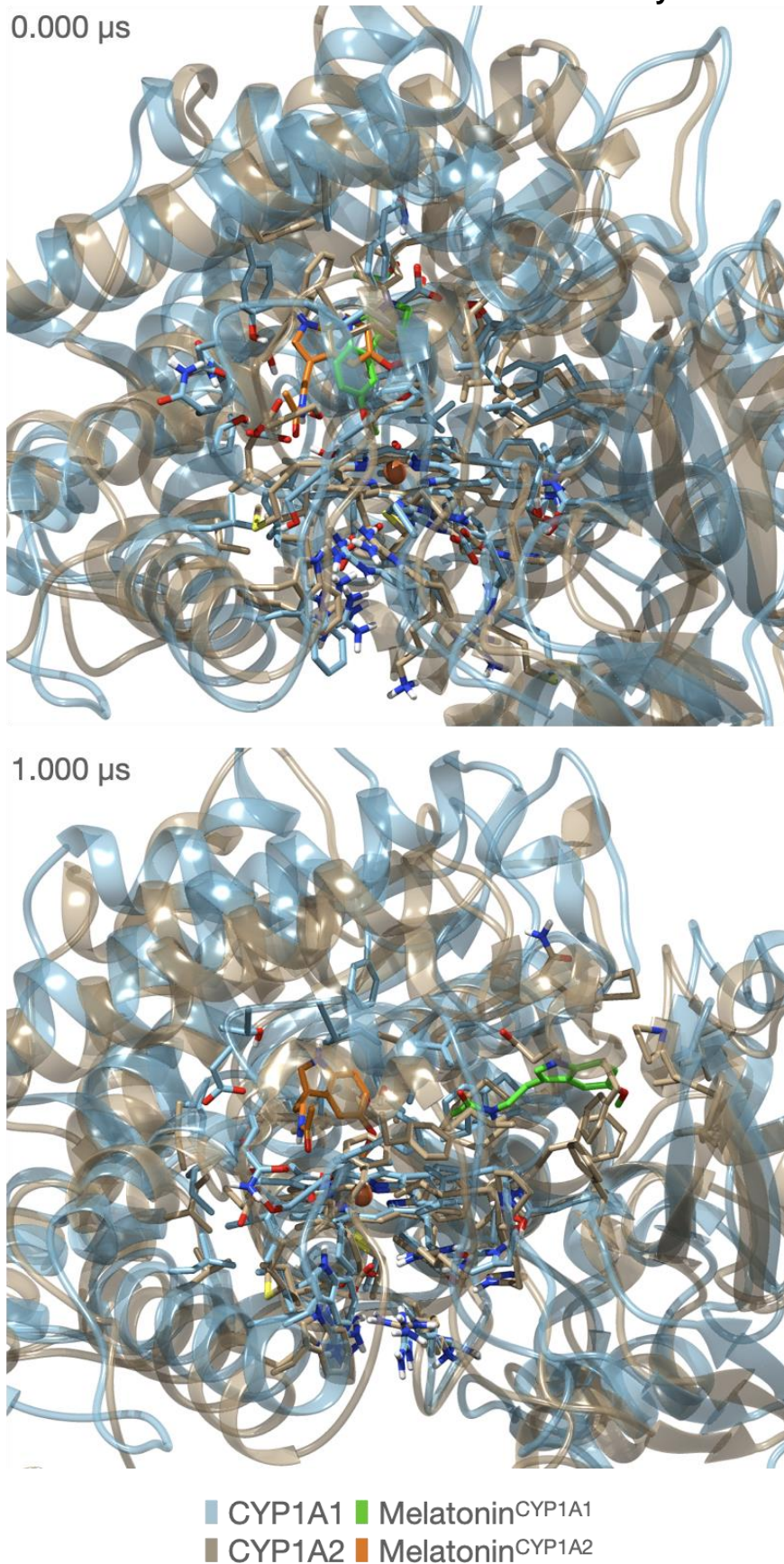
### 11 Model 6 Reactant of CYP1A2 molecular dynamics Simulation in 1 $\mu$ s



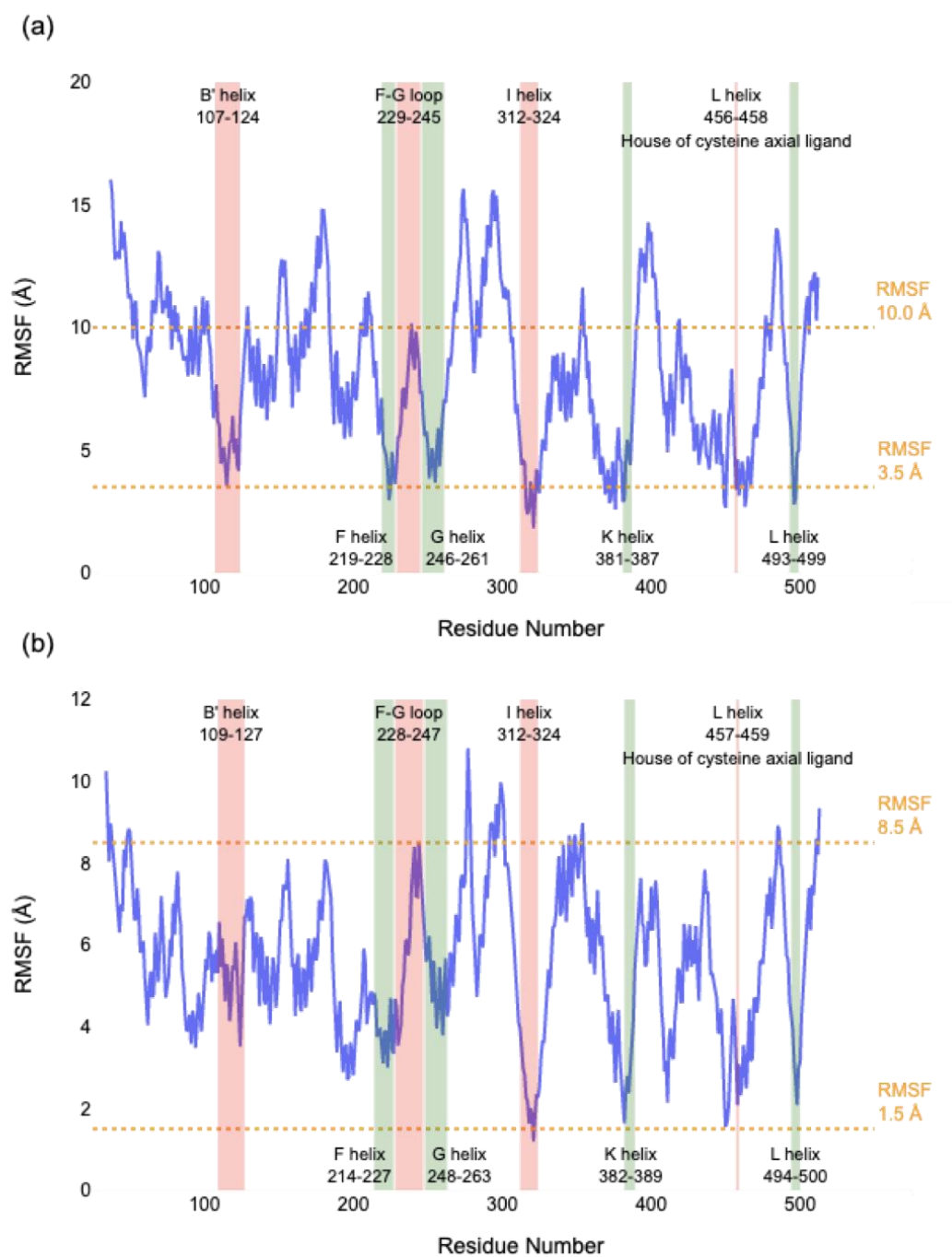
**Figure S17** Binding poses of the substrate in the reactant complex in CYP1A1 as obtained from MD simulations. The starting structure was taken from Model 6 of the reactant complex discussed above.



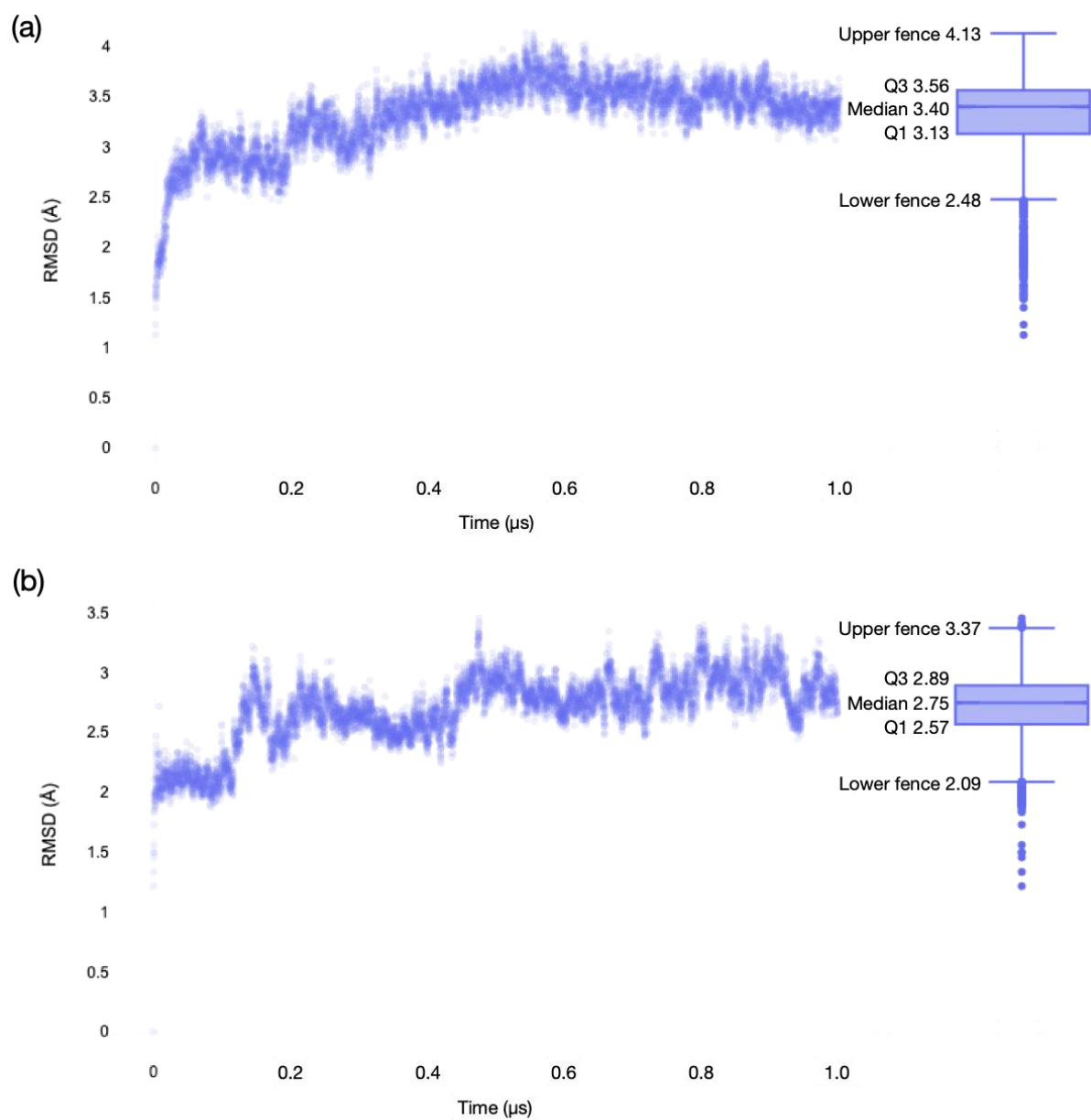
## 12 Comparison of CYP1A1 and CYP1A2 from Molecular Dynamics Simulation



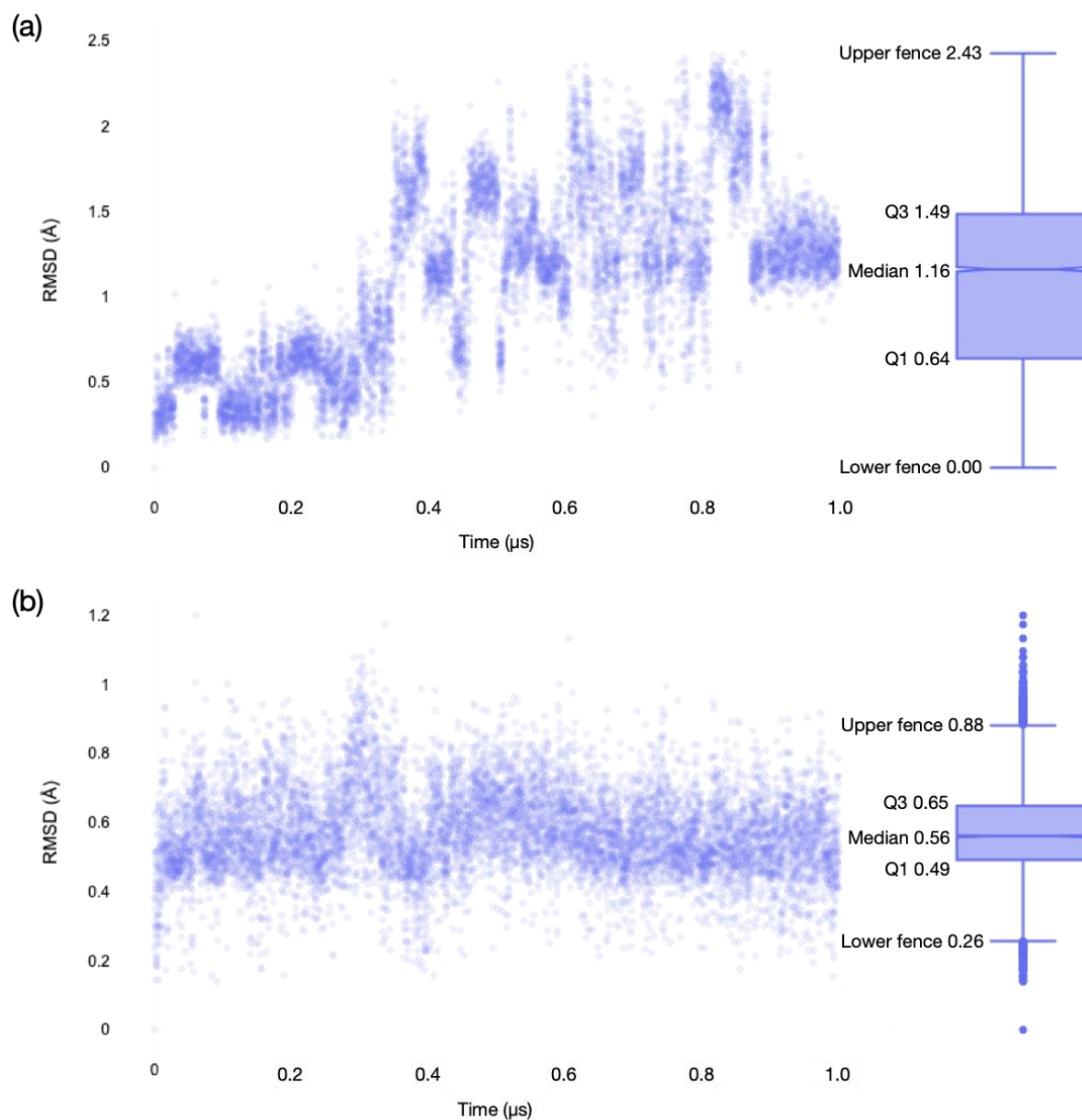
**Figure S18** Overlay of the start and end point structures of the 1  $\mu\text{s}$  MD simulation for CYP1A1 and CYP1A2.



**Figure S19** RMSF values of the 1  $\mu$ s MD simulation for CYP1A1 and CYP1A2.

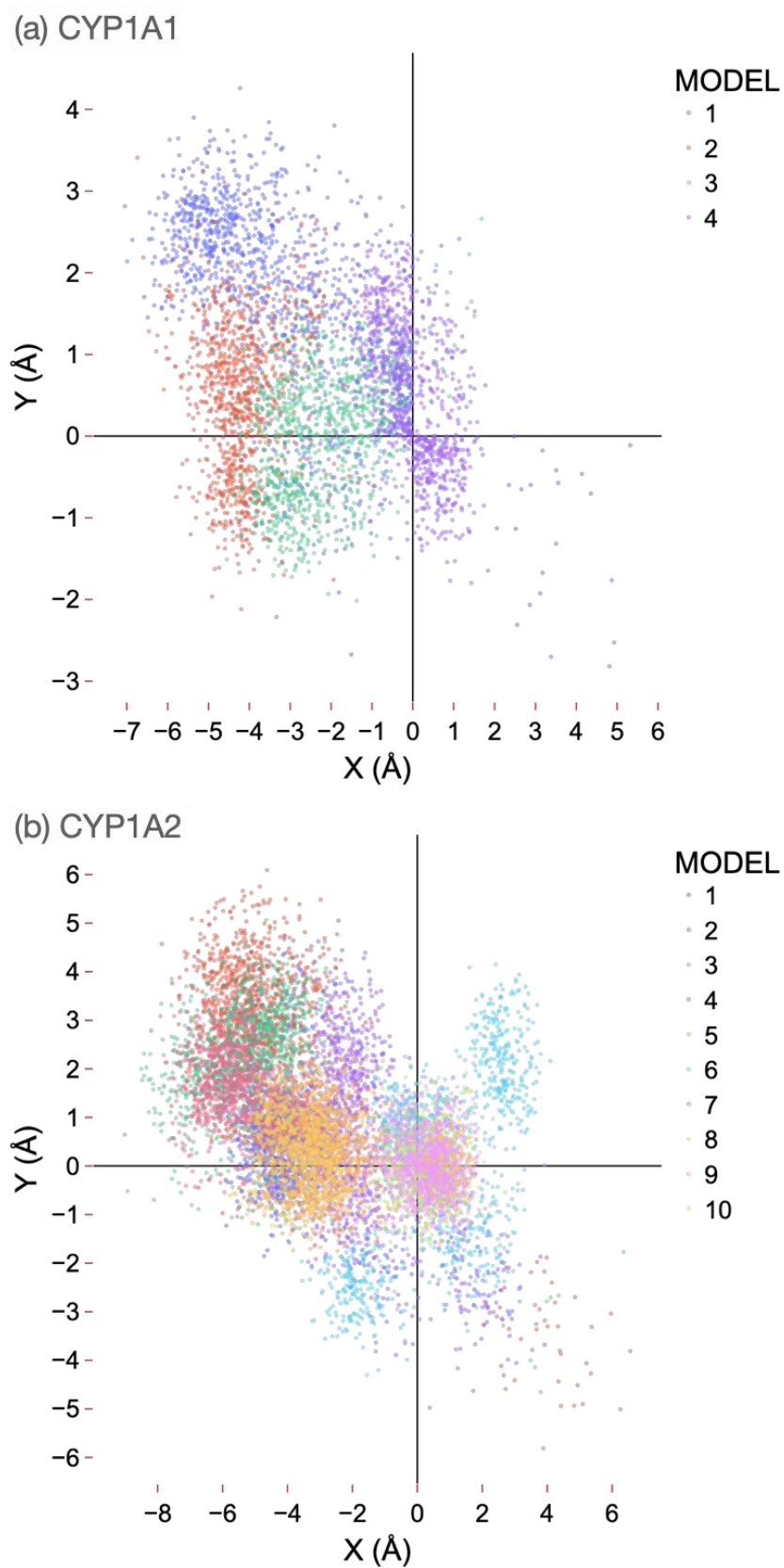


**Figure S20** Enzyme RMSD values of the 1  $\mu$ s MD simulations for CYP1A1 and CYP1A2.



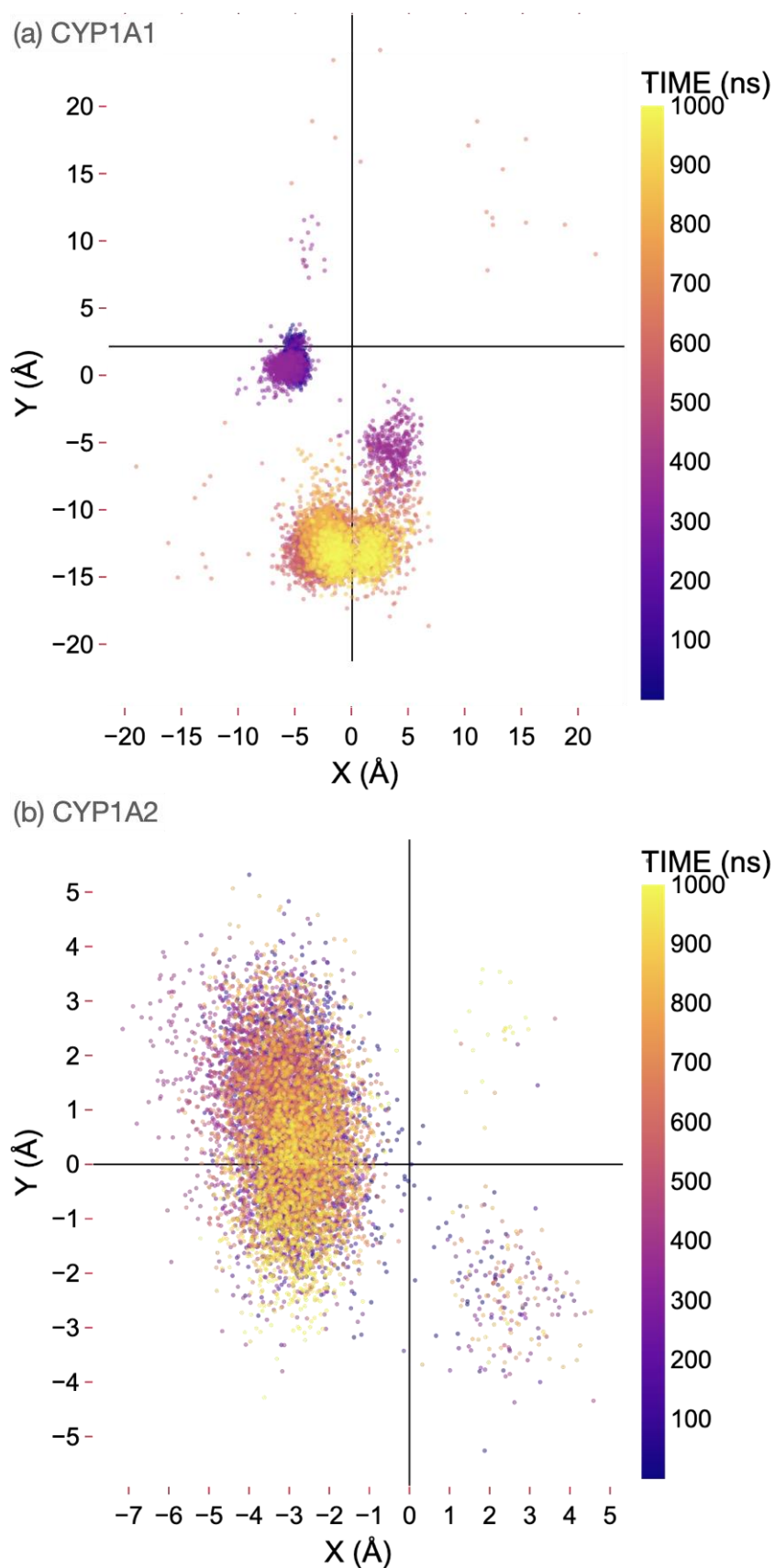
**Figure S21** Substrate melatonin RMSD values of the 1  $\mu$ s MD simulations for CYP1A1 and CYP1A2.





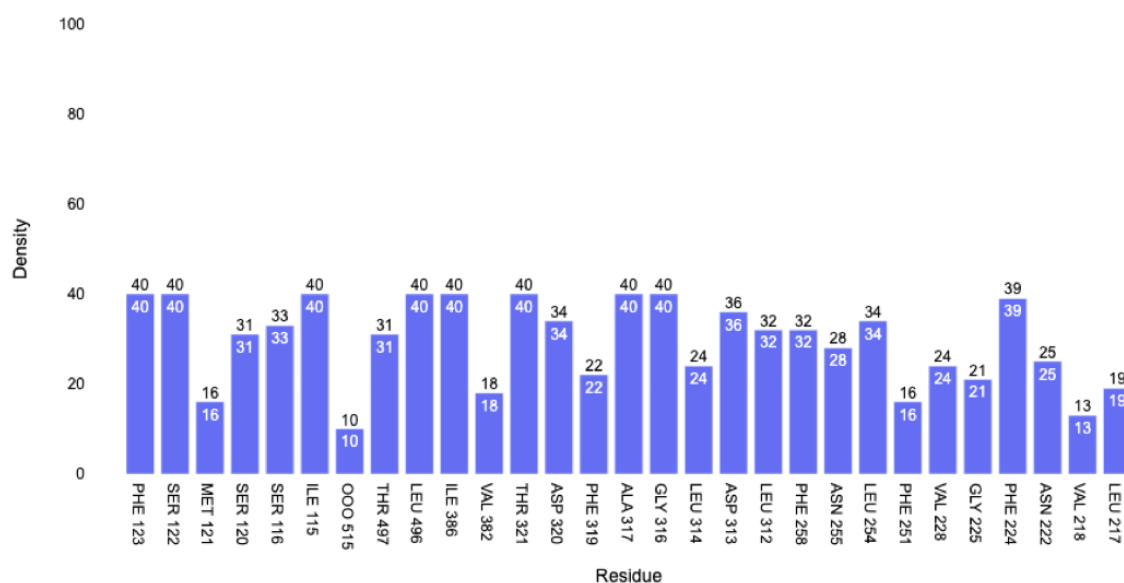
**Figure S22** Substrate mapping of the reactant models as obtained from MD simulations for CYP1A1 and CYP1A2.



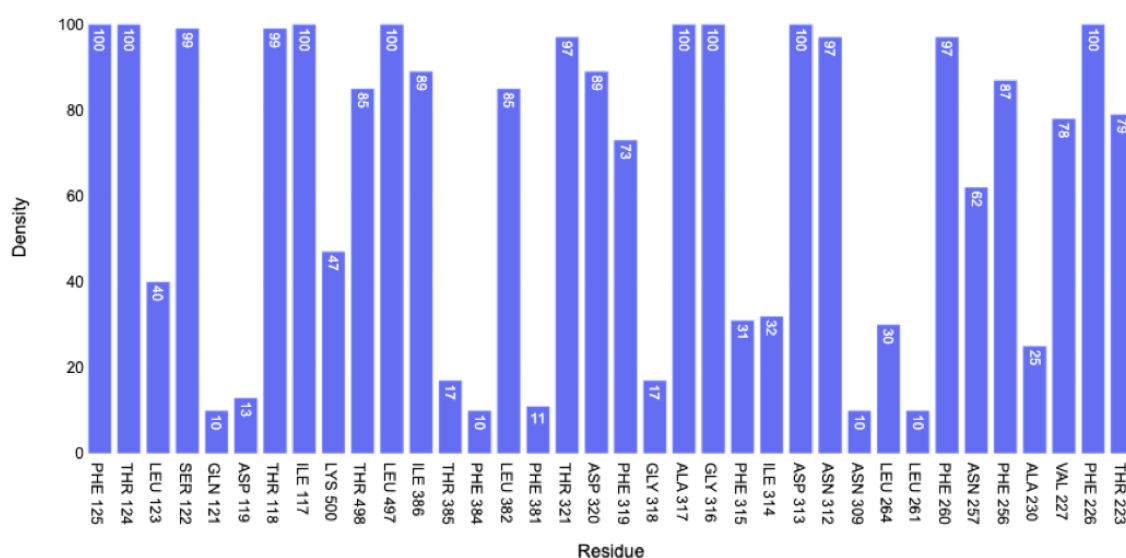


**Figure S23** Substrate mapping of reactant models as obtained from the 1  $\mu$ s MD simulations for CYP1A1 and CYP1A2.

(a) CYP1A1



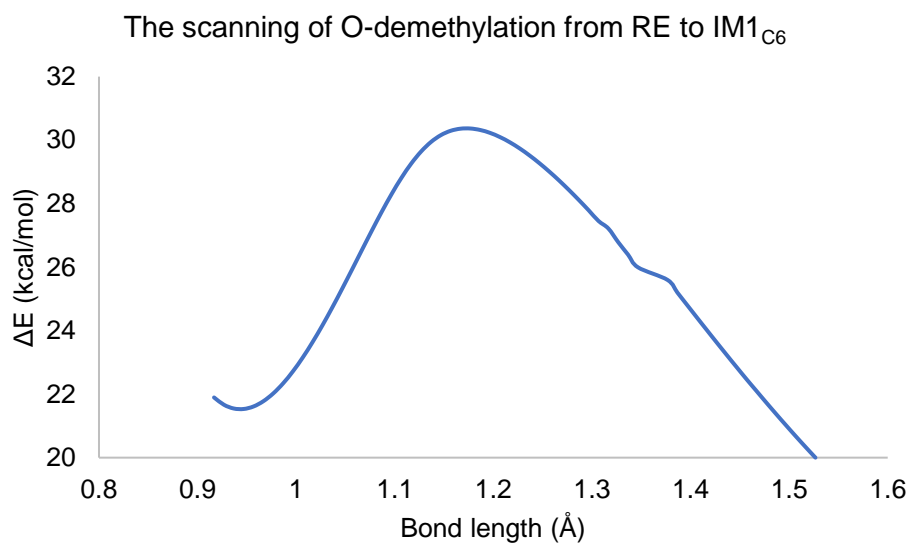
(b) CYP1A2



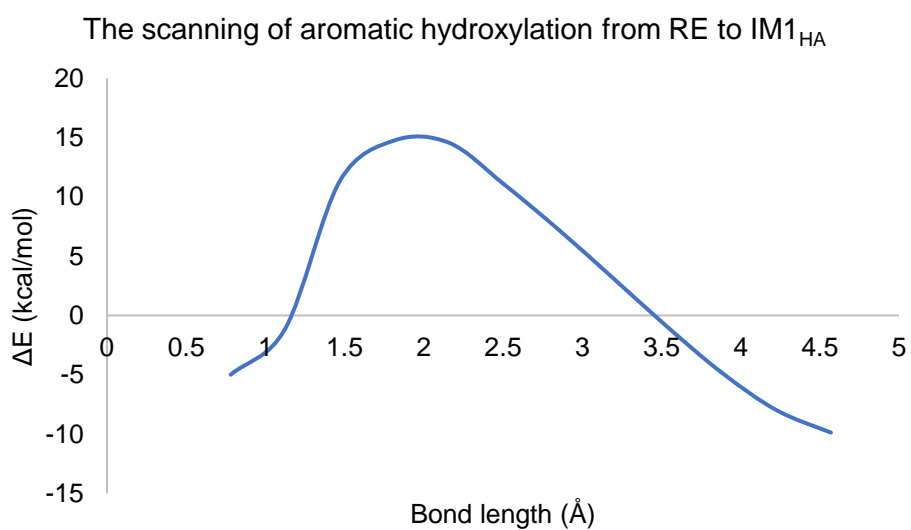
**Figure S24** Statistical distribution of amino acid residues positioned within 5 Å from melatonin substrate in the molecular dynamics simulations of the 4 reactant models of CYP1A1 and the 10 models of CYP1A2. Densities in %.

### 13 Scanning from quantum mechanics calculation

(a)



(b)



**Figure S25** Scanning from quantum mechanics calculations. Each data point represents a full geometry optimization with one degree of freedom (the reaction coordinate) fixed.

## 14 Energy data from quantum mechanics calculation

**Table S1** Absolute energies in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation in the doublet and quartet spin states.

CAL	Energy	State					MUL
		RE	TS1 <sub>C6</sub>	IM1 <sub>C6</sub>	IM2 <sub>C6</sub>	P <sub>C6</sub>	
BS1	ZPE	1484.549	1484.561	1485.443	1487.218	1486.983	2
	E	-4556160.818	-4556145.862	-4556183.697	-4556187.538	-4556209.768	
	E+ZPE	-4554676.269	-4554661.300	-4554698.254	-4554700.320	-4554722.785	
	G	-4554821.969	-4554802.893	-4554844.535	-4554837.643	-4554863.286	
BS2_SOL	E	-5273049.633	-5273045.172	-5273078.670	-5273081.505	-5273101.941	2
	E+ZPE	-5271565.084	-5271560.611	-5271593.227	-5271594.287	-5271614.958	
	G	-5271710.784	-5271702.204	-5271739.508	-5271731.610	-5271755.460	
BS1	ZPE	1484.553	1484.803	1483.859	1485.341	1484.780	4
	E	-4556160.729	-4556142.630	-4556170.360	-4556182.697	-4556197.669	
	E+ZPE	-4554676.176	-4554657.827	-4554686.501	-4554697.356	-4554712.888	
	G	-4554822.331	-4554798.990	-4554834.141	-4554838.216	-4554855.959	
BS2_SOL	E	-5273050.261	-5273041.624	-5273064.116	-5273077.967	-5273099.272	4
	E+ZPE	-5271565.708	-5271556.821	-5271580.257	-5271592.626	-5271614.492	
	G	-5271711.863	-5271697.984	-5271727.898	-5271733.487	-5271757.562	

**Table S2** Absolute energies in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through O-demethylation in the doublet and quartet spin state.

CAL	Energy	State				MUL
		RE	TS1 <sub>HA</sub>	IM1 <sub>HA</sub>	IM2	
BS1	ZPE	1484.549	1479.619	1481.210	1485.942	2
	E	-4556160.818	-4556124.127	-4556132.678	-4556197.813	
	E+ZPE	-4554676.269	-4554644.508	-4554651.467	-4554711.871	
	G	-4554821.969	-4554788.926	-4554796.824	-4554858.175	
BS2_SOL	E	-5273049.633	-5273028.234	-5273033.757	-5273098.633	2
	E+ZPE	-5271565.084	-5271548.615	-5271552.546	-5271612.691	
	G	-5271710.784	-5271693.032	-5271697.903	-5271758.995	
BS1	ZPE	1484.553	1480.201	1482.271	1485.373	4
	E	-4556160.729	-4556123.845	-4556132.951	-4556198.009	
	E+ZPE	-4554676.176	-4554643.643	-4554650.680	-4554712.636	
	G	-4554822.331	-4554787.634	-4554797.893	-4554859.431	
BS2_SOL	E	-5273050.261	-5273026.520	-5273039.291	-5273102.415	4
	E+ZPE	-5271565.708	-5271546.319	-5271557.020	-5271617.042	
	G	-5271711.863	-5271690.309	-5271704.233	-5271763.837	

**Table S3** Relative energies in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation in the doublet and quartet spin state.

CAL	Energy	State					MUL
		RE	TS1 <sub>C6</sub>	IM1 <sub>C6</sub>	IM2 <sub>C6</sub>	P <sub>C6</sub>	
BS1	ΔE	0.000	14.957	-22.878	-26.720	-48.950	2
	Δ(E+ZPE)	0.000	14.969	-21.984	-24.051	-46.515	
	ΔG	0.000	19.076	-22.566	-15.674	-41.317	
BS2_SOL	ΔE	0.000	4.461	-29.037	-31.872	-52.308	
	Δ(E+ZPE)	0.000	4.474	-28.143	-29.202	-49.874	
	ΔG	0.000	8.580	-28.724	-20.825	-44.676	
BS1	ΔE	0.089	18.188	-9.541	-21.879	-36.850	4
	Δ(E+ZPE)	0.093	18.443	-10.232	-21.086	-36.619	
	ΔG	-0.362	22.979	-12.172	-16.247	-33.990	
BS2_SOL	ΔE	-0.628	8.009	-14.483	-28.334	-49.639	
	Δ(E+ZPE)	-0.624	8.264	-15.173	-27.541	-49.407	
	ΔG	-1.079	12.800	-17.114	-22.703	-46.778	

**Table S4** Relative energies in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through O-demethylation in the doublet and quartet spin state.

CAL	Energy	State				MUL
		RE	TS1 <sub>HA</sub>	IM1 <sub>HA</sub>	IM2	
BS1	ΔE	0.000	36.691	28.141	-36.995	2
	Δ(E+ZPE)	0.000	31.761	24.802	-35.602	
	ΔG	0.000	33.043	25.145	-36.206	
BS2_SOL	ΔE	0.000	21.399	15.876	-49.000	
	Δ(E+ZPE)	0.000	16.470	12.538	-47.606	
	ΔG	0.000	17.752	12.881	-48.211	
BS1	ΔE	0.089	36.973	27.868	-37.191	4
	Δ(E+ZPE)	0.093	32.626	25.590	-36.366	
	ΔG	-0.362	34.335	24.076	-37.462	
BS2_SOL	ΔE	-0.628	23.113	10.343	-52.782	
	Δ(E+ZPE)	-0.624	18.766	8.065	-51.957	
	ΔG	-1.079	20.475	6.551	-53.053	

## 15 Energy data from quantum mechanics calculation with RRHO fixed

**Table S5** Absolute energies with the correction in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation in the doublet and quartet spin states.

CAL	Energy	State					MUL
		RE	TS1 <sub>C6</sub>	IM1 <sub>C6</sub>	IM2 <sub>C6</sub>	P <sub>C6</sub>	
BS1	G	-4554821.969	-4554802.893	-4554844.535	-4554837.643	-4554863.286	2
	G <sub>Cr</sub>	-4554812.403	-4554794.879	-4554833.892	-4554831.325	-4554855.788	
BS2_SOL	G	-5271710.784	-5271702.204	-5271739.508	-5271731.610	-5271755.460	
	G <sub>Cr</sub>	-5271701.218	-5271694.190	-5271728.866	-5271725.291	-5271747.961	
BS1	G	-4554822.331	-4554798.990	-4554834.141	-4554838.216	-4554855.959	4
	G <sub>Cr</sub>	-4554812.723	-4554791.224	-4554823.373	-4554831.325	-4554847.950	
BS2_SOL	G	-5271711.863	-5271697.984	-5271727.898	-5271733.487	-5271757.562	
	G <sub>Cr</sub>	-5271701.226	-5271690.218	-5271717.129	-5271725.291	-5271749.553	

G<sub>Cr</sub> is free energy with rroh correction

**Table S6** Absolute energies with the correction in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through O-demethylation in the doublet and quartet spin state.

CAL	Energy	State				MUL
		RE	TS1 <sub>HA</sub>	IM1 <sub>HA</sub>	IM2	
BS1	G	-4554821.969	-4554788.926	-4554796.824	-4554858.175	2
	G <sub>Cr</sub>	-4554812.403	-4554779.557	-4554787.152	-4554848.087	
BS2_SOL	G	-5271710.784	-5271693.032	-5271697.903	-5271758.995	
	G <sub>Cr</sub>	-5271701.218	-5271683.664	-5271688.230	-5271748.906	
BS1	G	-4554822.331	-4554787.634	-4554797.893	-4554859.431	4
	G <sub>Cr</sub>	-4554812.723	-4554778.606	-4554787.607	-4554849.552	
BS2_SOL	G	-5271711.863	-5271690.309	-5271704.233	-5271763.837	
	G <sub>Cr</sub>	-5271702.666	-5271681.282	-5271693.947	-5271753.959	

G<sub>Cr</sub> is free energy with rroh correction

**Table S7** Relative energies with the correction in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation in the doublet and quartet spin state.

CAL	Energy	State					MUL
		RE	TS1 <sub>C6</sub>	IM1 <sub>C6</sub>	IM2 <sub>C6</sub>	P <sub>C6</sub>	
BS1	ΔG	0.000	19.076	-22.566	-15.674	-41.317	2
	ΔG <sub>Cr</sub>	0.000	17.524	-21.490	-18.922	-43.385	
BS2_SOL	ΔG	0.000	8.580	-28.724	-20.826	-44.676	
	ΔG <sub>Cr</sub>	0.000	7.029	-27.647	-24.073	-46.743	
BS1	ΔG	-0.362	22.979	-12.172	-16.247	-33.990	4
	ΔG <sub>Cr</sub>	-0.320	21.179	-10.970	-18.922	-35.547	
BS2_SOL	ΔG	-1.079	12.800	-17.114	-22.703	-46.778	
	ΔG <sub>Cr</sub>	-0.008	11.000	-15.911	-24.073	-48.335	

G<sub>Cr</sub> is free energy with rroh correction

**Table S8** Relative energies with the correction in kcal mol<sup>-1</sup> of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through O-demethylation in the doublet and quartet spin state.

CAL	Energy	State				MUL
		RE	TS1 <sub>HA</sub>	IM1 <sub>HA</sub>	IM2	
BS1	G	0.000	33.043	25.145	-36.206	2
	G <sub>Cr</sub>	0.000	32.846	25.251	-35.684	
BS2_SOL	G	0.000	17.752	12.881	-48.211	
	G <sub>Cr</sub>	0.000	17.555	12.988	-47.688	
BS1	G	-0.362	34.335	24.076	-37.462	4
	G <sub>Cr</sub>	-0.320	33.796	24.796	-37.150	
BS2_SOL	G	-1.079	20.475	6.551	-53.053	
	G <sub>Cr</sub>	-1.448	19.936	7.272	-52.740	

G<sub>Cr</sub> is free energy with rroh correction

## 16 Group charges and spin densities from quantum mechanics simulation

**Table S9** Group charges (doublet/quartet) of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation in the doublet and quartet spin state.

Residue group	Composition	RE	TS1 <sub>C6</sub>	IM1 <sub>C6</sub>	IM2 <sub>C6</sub>	P <sub>C6</sub>
Compound I	Fe	0.479 / 0.471	0.413 / 0.432	0.274 / 0.461	0.264 / 0.428	0.238 / 0.447
	O	-0.422 / -0.418	-0.46 / -0.479	-0.557 / -0.546	-0.562 / -0.57	0.158 / 0.158
	Fe-O*	0.058 / 0.053	-0.047 / -0.047	-0.284 / -0.085	-0.298 / -0.142	0.396 / 0.605
	Por*	-0.054 / -0.047	-0.346 / -0.375	-0.559 / -0.519	-0.55 / -0.748	-0.417 / -0.52
	S	-0.189 / -0.191	-0.207 / -0.164	-0.177 / -0.349	-0.17 / -0.15	0.554 / 0.554
	S-H*	-0.101 / -0.104	-0.13 / -0.083	-0.111 / -0.277	-0.109 / -0.08	1.008 / 1.002
Melatonin	C <sub>6</sub> *	-0.199 / -0.199	-0.129 / -0.082	0.102 / 0.103	0.101 / 0.098	0.323 / 0.326
	H <sub>C6</sub> *	0.16 / 0.16	0.179 / 0.169	0.141 / 0.118	0.148 / 0.15	0.174 / 0.173
	The rest atoms*	-0.04 / -0.04	0.28 / 0.229	0.497 / 0.416	0.5 / 0.514	-0.832 / -0.941
Environment*		-1.824 / -1.824	-1.808 / -1.813	-1.787 / -1.755	-1.792 / -1.793	-2.651 / -2.644
<b>Total**</b>		-2 / -2	-2 / -2	-2 / -2	-2 / -2	-2 / -2

\*\* is the summation of \*

**Table S10** Group charges (doublet/quartet) of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through O-demethylation in the doublet and quartet spin state.

Residue group	Composition	RE	TS1 <sub>HA</sub>	IM1 <sub>HA</sub>	IM2
Compound I	Fe	0.479 / 0.471	0.356 / 0.415	0.324 / 0.405	0.306 / 0.49
	O	-0.422 / -0.418	-0.6 / -0.596	-0.696 / -0.678	0.164 / 0.165
	Fe-O*	0.058 / 0.053	-0.244 / -0.181	-0.372 / -0.273	0.47 / 0.656
	Por*	-0.054 / -0.047	-0.102 / -0.247	-0.075 / -0.283	-0.36 / -0.376
	S	-0.189 / -0.191	-0.185 / -0.104	-0.184 / -0.091	0.534 / 0.534
	S-H*	-0.101 / -0.104	-0.101 / -0.023	-0.1 / -0.001	0.985 / 0.983
Melatonin	C <sub>Meth</sub> *	-0.236 / -0.235	-0.246 / -0.262	-0.164 / -0.173	0.158 / 0.158
	H <sub>C<sub>Meth</sub></sub> *	0.219 / 0.218	0.389 / 0.396	0.412 / 0.441	0.154 / 0.153
	The rest atoms*	-0.061 / -0.061	0.12 / 0.129	0.112 / 0.103	-0.883 / -1.053
Environment*		-1.824 / -1.824	-1.816 / -1.812	-1.813 / -1.815	-2.523 / -2.521
<b>Total**</b>		-2 / -2	-2 / -2	-2 / -2	-2 / -2

\*\* is the summation of \*



**Table S11** Group spin densities (doublet/quartet) of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation in the doublet and quartet spin state.

Residue group	Composition	RE	TS1 <sub>C6</sub>	IM1 <sub>C6</sub>	IM2 <sub>C6</sub>	P <sub>C6</sub>
Compound I	Fe	1.239 / 1.113	1.418 / 1.44	0.992 / 2.573	0.988 / 2.988	1.123 / 3.253
	O	0.856 / 0.902	0.352 / 0.722	0.044 / 0.103	0.05 / 0.026	0 / 0
	Fe-O*	2.095 / 2.015	1.769 / 2.162	1.036 / 2.677	1.039 / 3.015	1.123 / 3.253
	Por*	-0.593 / 0.527	-0.21 / -0.002	-0.076 / -0.058	-0.075 / 0.14	-0.089 / -0.083
	S	-0.518 / 0.468	-0.172 / 0.233	0.035 / 0.358	0.037 / -0.163	0 / 0
	S-H*	-0.503 / 0.455	-0.167 / 0.229	0.033 / 0.35	0.034 / -0.163	0 / -0.001
Melatonin	C <sub>6</sub> *	0 / 0.001	-0.12 / 0.046	-0.003 / -0.001	-0.004 / -0.003	0.001 / -0.003
	H <sub>C6</sub> *	-0.001 / -0.001	0.006 / 0.009	0 / 0.009	0 / 0.001	0 / 0
	The rest atoms*	0.002 / 0.002	-0.277 / 0.555	0.011 / 0.023	0.005 / 0.01	-0.027 / -0.166
Environment*		0 / 0.001	-0.001 / 0.002	0 / 0	0 / 0	-0.008 / 0
<b>Total**</b>		1 / 3	1 / 3	1 / 3	1 / 3	1 / 3

\*\* is the summation of \*

**Table S12** Group spin densities (doublet/quartet) of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through O-demethylation in the doublet and quartet spin state.

Residue group	Composition	RE	TS1 <sub>HA</sub>	IM1 <sub>HA</sub>	IM2
Compound I	Fe	1.239 / 1.113	1.022 / 1.295	0.992 / 1.755	1.222 / 2.49
	O	0.856 / 0.902	0.498 / 0.633	0.093 / 0.271	0 / 0
	Fe-O*	2.095 / 2.015	1.52 / 1.929	1.085 / 2.025	1.222 / 2.49
	Por*	-0.593 / 0.527	-0.616 / 0.157	-0.702 / -0.095	-0.14 / 0.06
	S	-0.518 / 0.468	-0.319 / 0.35	-0.325 / 0.096	0 / 0
	S-H*	-0.503 / 0.455	-0.311 / 0.342	-0.317 / 0.096	0 / -0.002
Melatonin	C <sub>Meth</sub> *	0.002 / 0.003	0.386 / 0.424	0.848 / 0.846	0 / 0
	H <sub>Meth</sub> *	-0.001 / -0.002	-0.059 / -0.037	0.009 / 0.021	0 / 0
	The rest atoms*	0 / 0.001	0.079 / 0.185	0.074 / 0.102	-0.081 / 0.458
Environment*		0 / 0.001	0.001 / 0	0.004 / 0.005	-0.001 / -0.006
<b>Total**</b>		1 / 3	1 / 3	1 / 3	1 / 3

\*\* is the summation of \*

## 17 Imaginary frequency data from quantum mechanics simulation

**Table S13** Imaginary frequencies for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation and O-demethylation.

State	Imaginary frequency
<sup>2,4</sup> TS1 <sub>C6</sub>	i240.44 (Doublet), i410.71 (Quartet)
<sup>2,4</sup> TS1 <sub>HA</sub>	i1602.02 (Doublet), i1775.64 (Quartet)

## 18 Geometry data from quantum mechanics simulation

**Table S14** Geometry data (doublet/quartet) of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through aromatic hydroxylation in the doublet and quartet spin state. Bond length is Å and angle is degree.

Composition	RE	TS1 <sub>C6</sub>	IM1 <sub>C6</sub>	IM2 <sub>C6</sub>	PC <sub>6</sub>
Fe-OC <sub>pdl</sub>	1.629 / 1.631	1.679 / 1.715	1.922 / 1.933	1.927 / 1.920	2.356 / 2.595
Fe-SC <sub>pdl</sub>	2.575 / 2.562	2.434 / 2.403	2.322 / 2.353	2.318 / 2.393	2.242 / 2.339
C <sub>6</sub> -OC <sub>pdl</sub>	3.743 / 3.739	2.052 / 1.887	1.387 / 1.388	1.326 / 1.326	1.387 / 1.376
H <sub>C6</sub> -C <sub>6</sub>	1.086 / 1.086	1.082 / 1.083	1.110 / 1.110	2.163 / 2.188	1.939 / 1.936
H <sub>C6</sub> -NC <sub>pdl</sub>	5.239 / 5.232	2.467 / 2.624	2.415 / 2.419	1.043 / 1.028	3.058 / 2.998
H <sub>C6</sub> -OC <sub>pdl</sub>	2.888 / 2.875	2.275 / 2.192	2.081 / 2.083	2.304 / 2.241	0.974 / 0.973
C <sub>6</sub> -OC <sub>pdl</sub> -Fe	156.966 /	126.974 /	126.884 /	129.186 /	132.156 /
	157.370	136.423	126.325	135.900	134.214
	150.798 /	136.892 /	118.091 /	144.397 /	85.503 /
C <sub>6</sub> -H <sub>C6</sub> -NC <sub>pdl</sub>	151.609	126.877	118.952	154.665	91.265

**Table S15** Geometry data (doublet/quartet) of UB3LYP/BS1 optimized geometries for the metabolism of melatonin by CYP1A2 through O-demethylation in the doublet and quartet spin state. Bond lengths are in Å and angles in degrees.

Composition	RE	TS1 <sub>HA</sub>	IM1 <sub>HA</sub>	IM2
Fe-OC <sub>pdl</sub>	1.629 / 1.631	1.755 / 1.731	1.812 / 1.786	3.381 / 3.469
Fe-SC <sub>pdl</sub>	2.575 / 2.562	2.440 / 2.383	2.431 / 2.329	2.236 / 2.429
HC <sub>Meth</sub> -OC <sub>pdl</sub>	2.369 / 2.384	1.175 / 1.187	0.975 / 0.981	0.974 / 0.973
HC <sub>Meth</sub> -C <sub>Meth</sub>	1.095 / 1.095	1.354 / 1.375	2.397 / 2.311	1.956 / 1.956
OC <sub>pdl</sub> -C <sub>Meth</sub>	3.434 / 3.447	2.518 / 2.543	3.203 / 3.201	1.392 / 1.391
HC <sub>Meth</sub> -OC <sub>pdl</sub> -Fe	141.215 / 141.387	116.977 / 123.516	105.949 / 109.607	52.602 / 50.622
HC <sub>Meth</sub> -OC <sub>pdl</sub> -C <sub>Meth</sub>	5.201 / 5.249	5.796 / 7.641	29.018 / 20.837	110.352 / 110.408

# Geometry coordination RE<sup>2</sup>

6	2.719429000	26.652134000	18.197097000
6	6.914258000	28.986224000	17.600464000
6	8.246242000	27.743597000	22.080341000
6	3.995356000	25.526777000	22.719282000
6	3.762419000	27.387266000	17.638455000
6	3.740216000	27.936450000	16.304209000
6	4.919257000	28.595863000	16.136177000
6	5.656350000	28.444798000	17.367701000
6	7.647384000	28.859436000	18.774646000
6	8.965251000	29.405061000	18.981516000
6	9.345168000	29.042877000	20.239120000
6	8.254377000	28.284798000	20.798845000
6	7.193276000	27.053154000	22.657769000
6	7.193392000	26.529791000	24.001216000
6	5.994287000	25.912276000	24.184313000
6	5.260658000	26.051140000	22.950534000
6	3.281004000	25.636370000	21.532648000
6	1.959191000	25.085805000	21.325685000
6	1.612470000	25.394537000	20.046995000
6	2.716039000	26.139694000	19.485943000
7	4.934576000	27.705250000	18.267928000
7	7.229084000	28.187478000	19.894371000
7	5.998589000	26.763135000	22.036001000
7	3.724662000	26.280868000	20.405725000
26	5.526787000	27.105857000	20.096882000
1	1.830607000	26.467448000	17.598152000
1	7.367920000	29.551414000	16.791271000
1	9.135098000	27.891781000	22.686671000
1	3.521530000	24.983391000	23.531190000
6	5.964538000	19.705412000	17.895444000
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6	6.004312000	21.056151000	19.962521000
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6	10.542565000	23.350391000	18.246970000
6	9.636176000	23.703291000	19.422711000
7	6.674778000	21.804470000	17.877608000
1	5.835772000	21.664541000	18.473091000
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6	8.532343000	19.290328000	14.724043000
7	7.185646000	18.807911000	14.481851000
6	6.686169000	18.767492000	13.212987000
6	5.252286000	18.267231000	13.104629000
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1	6.568314000	18.587183000	15.269719000
8	11.777230000	23.863475000	18.420865000
6	12.624344000	24.003201000	17.281987000
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1	10.803100000	22.476618000	16.306814000
1	7.570158000	23.326919000	20.121368000
1	10.109498000	23.283330000	20.335110000
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1	9.692302000	21.110753000	14.763452000

1	8.921802000	18.805666000	15.626721000	1	1.424826000	17.186363000	20.817573000
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1	4.980215000	21.682426000	24.473334000	1	-1.391007000	21.424899000	16.539279000
1	4.171189000	19.698860000	25.670562000	1	-0.574164000	21.534803000	18.096706000
1	5.935322000	19.776722000	25.651043000	1	-1.395121000	18.271384000	16.307223000
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1	6.356309000	16.855423000	23.257141000	1	-2.860819000	17.965231000	17.235524000
1	6.368791000	18.536111000	22.721006000	1	1.105639000	21.132714000	16.349043000
1	7.262510000	18.067484000	24.178546000	1	1.032579000	19.694863000	17.375262000
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8	4.079474000	18.462940000	18.456068000	1	-5.129097000	15.033429000	18.046041000
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1	-1.533018000	15.791307000	22.186936000	6	-7.751448000	23.461619000	15.036679000
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8	-1.617244000	25.749094000	22.328066000	8	-5.391271000	22.031814000	16.138818000
6	-0.715143000	22.881942000	22.175514000	1	-7.145575000	20.920577000	14.391680000
6	-0.589344000	21.381827000	22.411803000	1	-8.713012000	22.235744000	16.531868000
8	-1.479150000	20.593014000	22.050455000	1	-6.550721000	22.972279000	17.593363000
7	0.541820000	20.955132000	23.005258000	1	-6.741116000	21.222747000	17.504589000
1	-2.370622000	23.395416000	23.472540000	1	-4.815256000	21.409179000	16.627808000
1	-0.007221000	23.440579000	22.792656000	7	-7.527214000	24.633653000	15.698016000
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1	1.279903000	21.607825000	23.230321000	6	-5.889626000	26.275785000	14.693534000
1	0.727176000	19.948337000	23.075913000	8	-5.653805000	27.376907000	14.188809000
7	-3.243645000	24.970227000	20.922705000	1	-7.253206000	24.668095000	16.687984000
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6	-5.114982000	26.278272000	20.015174000	7	-4.946383000	25.373682000	15.050668000
6	-5.593921000	25.154543000	19.063893000	6	-3.521808000	25.520743000	14.773234000
8	-6.345996000	25.507303000	18.098336000	6	-3.035675000	24.446391000	13.777566000
8	-5.231455000	23.974612000	19.319782000	8	-2.334206000	24.767699000	12.817893000
1	-3.817223000	24.193932000	20.584310000	6	-2.687812000	25.565095000	16.089289000
1	-3.050035000	26.387505000	19.368835000	8	-2.841732000	26.796244000	16.764762000
1	-5.371777000	27.254620000	19.598016000	6	-1.190315000	25.411696000	15.826951000
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6	-2.399996000	21.657627000	18.284758000	1	-3.396688000	26.476741000	14.262784000
6	-3.404650000	20.603192000	18.698753000	1	-3.030894000	24.726179000	16.722636000

1	-3.787021000	27.057048000	16.881985000	7	5.518038000	26.657156000	19.407908000
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1	-0.849658000	26.175751000	15.120047000	7	3.971903000	25.174739000	22.767946000
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6	-2.243480000	20.943115000	13.582062000	1	8.886981000	26.094455000	19.227272000
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6	-0.144877000	22.379443000	13.164877000	6	6.084021000	21.194205000	18.134594000
6	1.496029000	20.218547000	13.861853000	6	5.522104000	22.269502000	17.407886000
6	1.249293000	22.508488000	13.140447000	6	5.370695000	22.240652000	20.249045000
6	2.071446000	21.437381000	13.487564000	6	5.995448000	21.198929000	19.551094000
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1	1.494156000	24.392319000	24.929831000	8	4.357155000	18.132647000	14.911616000
1	9.938701000	24.825553000	21.536692000	1	5.540521000	16.968534000	17.628987000
1	8.842510000	23.977478000	23.846232000	8	4.294007000	24.371779000	17.481111000
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1	8.019955000	26.999523000	17.118991000	1	7.397670000	18.307942000	19.090394000
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1	0.896803000	28.393196000	18.698357000	1	5.234484000	22.202439000	21.327161000
1	8.573304000	16.170014000	18.850578000	1	6.254722000	24.111230000	20.980822000
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1	1.032129000	17.942222000	20.436035000	1	7.615419000	17.420357000	16.761618000
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1	-3.320079000	27.044195000	20.990822000	1	2.437096000	17.910318000	16.810242000
1	-4.159636000	21.603025000	12.906415000	1	3.308795000	16.618872000	17.668915000
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1	-5.583089000	28.056901000	16.248537000	6	9.808853000	23.258636000	18.302898000
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# IM2<sup>4</sup><sub>C6</sub>

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6	1.086110000	27.661111000	19.370828000	1	7.395773000	14.064759000	18.776593000
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6	-0.073718000	17.377921000	22.232924000	1	-4.182757000	16.936087000	14.377286000
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1	0.715346000	19.915955000	23.149637000	8	-5.528069000	27.401106000	14.248314000
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1	-0.023311000	22.620219000	17.122170000	6	-0.587286000	21.210429000	13.605059000
1	-0.337745000	23.327756000	18.697295000	6	0.244043000	20.122665000	13.929733000
1	0.519765000	19.669071000	17.959059000	6	0.018146000	22.424730000	13.257503000
1	-0.636608000	20.116453000	16.701113000	6	1.634575000	20.233726000	13.918833000
1	-1.149400000	19.118788000	18.087953000	6	1.413625000	22.540284000	13.242100000
1	2.082111000	23.152830000	18.439436000	6	2.223485000	21.454065000	13.571228000
1	1.611295000	21.964892000	19.655129000	1	-3.945488000	23.011731000	14.820914000

1	-2.640490000	22.588615000	12.230706000	6	4.940895000	23.210276000	18.197144000
1	-2.404170000	20.721880000	14.649224000	6	4.890285000	23.140146000	19.618480000
1	-2.330227000	20.119584000	13.012585000	7	6.825587000	19.991597000	20.007743000
1	-0.211065000	19.168008000	14.190921000	1	6.750170000	19.552942000	20.933785000
1	-0.588439000	23.286731000	12.994642000	6	7.079359000	19.474324000	16.322571000
1	2.265013000	19.385013000	14.175501000	6	6.904713000	17.947460000	16.164596000
1	1.861704000	23.492672000	12.966717000	7	5.636261000	17.443422000	16.668761000
1	3.306912000	21.544728000	13.554395000	6	4.477915000	17.665500000	15.996003000
1	3.985807000	23.499677000	25.643589000	6	3.210577000	17.179624000	16.682325000
1	1.559267000	24.482463000	24.955375000	8	4.441492000	18.217794000	14.892014000
1	9.979669000	25.428242000	21.669588000	1	5.616327000	17.040094000	17.605294000
1	8.939820000	24.476089000	23.954580000	8	4.276260000	24.272222000	17.646636000
1	5.466350000	28.226055000	16.471463000	6	4.197285000	24.341060000	16.234622000
1	7.891961000	27.238504000	17.149442000	1	7.698723000	18.320913000	19.027123000
1	-0.466856000	27.129506000	20.856938000	1	5.619165000	22.252350000	16.392883000
1	0.558553000	28.151298000	18.561818000	1	5.469109000	22.091504000	21.404339000
1	8.684068000	15.912997000	19.015847000	1	6.330497000	19.955268000	15.683717000
1	6.775157000	15.807597000	22.941470000	1	8.061968000	19.744030000	15.903522000
1	2.897435000	13.018421000	20.806342000	1	7.701192000	17.413400000	16.693786000
1	1.056586000	17.944067000	20.49054000	1	6.981264000	17.694964000	15.101647000
1	-2.894539000	22.638575000	21.975789000	1	2.531622000	18.029430000	16.807486000
1	-3.435903000	26.979010000	21.132033000	1	3.392717000	16.724456000	17.659012000
1	-3.994251000	21.680057000	12.926155000	1	2.707329000	16.454401000	16.034308000
1	-2.582467000	22.555811000	18.908111000	1	3.615234000	25.237602000	16.014013000
1	10.093852000	22.529084000	20.805991000	1	3.688051000	23.463526000	15.814087000
1	-7.726373000	26.678666000	15.485335000	1	5.193771000	24.434103000	15.779781000
1	-8.880322000	17.939513000	14.590914000	16	5.192867000	27.983505000	22.509205000
8	-5.321612000	27.884803000	17.267965000	6	9.898854000	23.280056000	18.587116000
1	-5.512329000	28.047478000	16.327615000	8	10.657962000	24.057448000	19.173303000
1	-5.827165000	27.069772000	17.518526000	7	9.699117000	21.998357000	18.995585000
1	-4.993643000	15.061036000	18.471702000	6	10.297170000	21.479932000	20.222689000
6	7.001204000	19.298859000	18.929588000	6	11.754647000	21.003694000	20.077150000
8	4.181456000	24.299986000	20.152416000	6	11.970511000	19.604488000	19.466668000
6	9.060749000	23.564570000	17.013116000	6	11.461033000	19.475352000	18.022312000
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1	8.761182000	22.662637000	16.471208000	1	8.967077000	21.453985000	18.554148000
1	8.153144000	24.132710000	17.245957000	1	9.657617000	20.665230000	20.576015000
1	5.790642000	28.580349000	21.315170000	1	12.196192000	21.001139000	21.084351000
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				1	11.413408000	18.883432000	20.085266000
				1	11.694105000	18.481110000	17.619900000
				1	11.934430000	20.220719000	17.369917000
				1	10.377995000	19.613821000	17.953761000
				1	13.626232000	18.207545000	19.163363000
				1	13.829134000	19.261346000	20.573546000
				1	14.068671000	19.910360000	18.941202000
				6	9.570449000	15.703741000	19.362026000
				6	9.387825000	15.860519000	20.874044000
				8	10.311593000	15.625125000	21.656246000
				6	10.112983000	14.311204000	18.998072000
				6	9.152311000	13.137029000	19.274624000
				6	7.863116000	13.215212000	18.440594000
				6	9.872734000	11.801077000	19.034873000
				1	10.304521000	16.457440000	19.047748000
				1	11.036563000	14.158719000	19.569752000
				1	10.387366000	14.302776000	17.932634000
				1	8.874403000	13.178206000	20.338181000
				1	7.228373000	12.339604000	18.628754000
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				6	7.758439000	16.363507000	22.658052000
				6	7.439855000	17.795876000	23.125918000
				8	6.439105000	18.415897000	22.324124000
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				1	8.382463000	19.719867000	23.422739000
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## P<sup>2</sup>C<sub>6</sub>

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6	6.949517000	26.775335000	19.322267000				
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6	8.146008000	24.145356000	23.035538000				
6	6.746863000	24.495288000	22.973309000				
6	4.448749000	24.430622000	23.855787000				
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6	0.728647000	27.294320000	20.541848000				
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1	-0.134318000	23.621718000	22.854961000	7	-7.521570000	24.513743000	15.541908000
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8	-4.209667000	20.170119000	17.922199000	1	-3.850541000	27.033049000	16.802530000
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6	0.044343000	22.406277000	18.162203000	1	-0.847740000	26.131786000	15.153533000
6	-0.582505000	19.951741000	17.785957000	1	-0.942124000	24.391424000	15.497857000
6	1.507417000	22.184601000	18.556760000	7	-3.304063000	23.090334000	14.036487000
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1	-0.753850000	21.048741000	19.617893000	6	-2.096317000	20.897652000	13.629588000
1	-0.022986000	22.581971000	17.079877000	6	-0.592650000	21.141997000	13.599582000
1	-0.317770000	23.327421000	18.641222000	6	0.262867000	20.076892000	13.936430000
1	0.451458000	19.636460000	17.960435000	6	-0.014274000	22.365099000	13.236824000
1	-0.704833000	20.092431000	16.704995000	6	1.650647000	20.218876000	13.922547000
1	-1.227552000	19.127683000	18.111180000	6	1.378223000	22.512235000	13.220790000
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1	1.967539000	21.368431000	17.989986000	1	-2.669879000	22.429934000	12.179010000
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6	-3.705357000	17.828561000	19.909398000	1	-0.170673000	19.115098000	14.207946000
8	-2.530470000	17.482872000	19.989059000	1	-0.639888000	23.208602000	12.959269000
6	-5.687657000	19.430335000	20.657231000	1	2.301089000	19.386996000	14.184060000
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1	-3.811711000	19.069109000	21.618675000	1	1.329502000	24.588098000	24.966240000
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1	-5.522406000	20.937968000	22.223684000	1	-0.311825000	27.284068000	20.840965000

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1	8.637404000	15.916484000	18.829758000	1	5.464938000	22.051874000	21.425021000
1	6.868419000	15.741884000	22.812413000	1	6.303481000	19.902516000	15.704683000
1	2.844536000	13.173168000	20.929695000	1	8.035435000	19.693987000	15.922874000
1	1.086716000	18.126143000	20.626589000	1	7.676290000	17.361355000	16.713296000
1	-2.936270000	22.796191000	21.918051000	1	6.961081000	17.643932000	15.119048000
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6	6.010769000	28.099519000	17.616692000	1	13.789329000	19.299090000	20.549935000
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6	6.987247000	26.926805000	19.285321000	6	9.557690000	15.658543000	19.356736000
6	7.767623000	25.508925000	21.191250000	6	9.375504000	15.801907000	20.870161000
6	8.806150000	24.820040000	21.928939000	8	10.298431000	15.556796000	21.650410000
6	8.216536000	24.311147000	23.049649000	6	10.106438000	14.272173000	18.979586000
6	6.817034000	24.680374000	22.993769000	6	9.151236000	13.091141000	19.245794000
6	4.493012000	24.720894000	23.920053000	6	7.859683000	13.172520000	18.415684000
6	3.518265000	24.380240000	24.928104000	6	9.876656000	11.760853000	18.990146000
6	2.310542000	24.855720000	24.497504000	1	10.287197000	16.419218000	19.048375000
6	2.531329000	25.490606000	23.219298000	1	11.031009000	14.118274000	19.549270000
6	1.705700000	26.683044000	21.186874000	1	10.380123000	14.274943000	17.913925000
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7	5.611366000	17.390375000	16.681795000	6	4.936709000	15.847946000	20.291285000
6	4.455029000	17.614047000	16.006618000	8	4.703031000	16.461417000	21.378709000
6	3.185042000	17.130324000	16.689719000	8	5.848004000	16.135218000	19.463332000
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1	-0.810816000	18.284522000	22.084489000	1	-6.761702000	17.493851000	15.803685000
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1	0.653842000	20.086063000	23.264268000	8	-5.614336000	27.282509000	14.091972000
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6	-3.711027000	17.790746000	19.878094000	1	-0.156225000	19.119427000	14.221616000
8	-2.535726000	17.446756000	19.959470000	1	-0.601719000	23.224400000	13.002031000
6	-5.700206000	19.380464000	20.633840000	1	2.316650000	19.378486000	14.206117000
8	-6.361020000	19.212344000	19.373126000	1	1.844339000	23.474199000	12.983599000
6	-6.030237000	20.745373000	21.240703000	1	3.321731000	21.553601000	13.582167000
1	-2.650282000	20.567663000	20.660110000	1	3.738067000	23.845271000	25.844042000
1	-3.828077000	19.012531000	21.599994000	1	1.350958000	24.797890000	24.996804000
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# TS1<sup>2</sup><sub>HA</sub>

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8	-0.193233000	13.089490000	20.841235000
6	2.462275000	14.692885000	19.855016000
6	3.999122000	14.891444000	19.806838000
8	4.646336000	14.559957000	20.849721000
8	4.469106000	15.379639000	18.753010000
1	2.236986000	14.924662000	21.997595000
1	2.184659000	13.970787000	19.077449000
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7	-0.289391000	15.253090000	21.567399000
6	-1.708774000	15.456449000	21.240837000
6	-2.634058000	15.075782000	22.415622000
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6	-2.906537000	13.578928000	22.547641000
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1	-1.971976000	14.883001000	20.348425000
1	-3.579933000	15.609370000	22.276802000
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8	-0.883730000	23.096743000	22.485035000
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6	-1.412196000	19.964038000	18.909219000	1	0.483012000	22.701035000	15.864468000
6	-0.233041000	20.928820000	18.650875000	1	0.581260000	23.842521000	14.499813000
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7	-6.387467000	16.832331000	18.263814000	1	0.517122000	24.594800000	18.834262000
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6	4.881391000	25.150069000	22.227777000	1	10.015175000	20.058038000	25.572735000
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6	9.333925000	19.013120000	19.819411000	1	6.296704000	14.857773000	21.049428000
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6	5.693216000	19.176223000	19.936390000	1	6.276874000	15.534359000	23.859964000
6	8.751053000	21.206617000	18.957378000	1	6.558939000	13.882762000	24.453172000
6	9.720976000	20.241078000	19.292603000	6	1.945859000	14.274911000	21.146411000
7	7.298974000	17.684632000	20.517612000	6	0.433443000	14.139641000	21.082762000
1	7.638351000	16.733016000	20.672095000	8	-0.142233000	13.131447000	20.693221000
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6	2.527333000	18.062926000	16.912894000	8	4.532856000	15.612376000	18.811749000
6	2.327237000	16.605897000	16.517482000	1	2.249867000	14.915361000	21.982481000
8	1.816932000	18.957606000	16.443995000	1	2.258707000	14.184165000	18.998793000
1	4.075437000	17.490740000	18.137270000	1	2.044077000	15.813612000	19.597789000
8	9.266087000	22.412531000	18.464277000	7	-0.269366000	15.266825000	21.494692000
6	8.443843000	23.288845000	17.828608000	6	-1.682536000	15.473936000	21.144593000
1	5.259392000	17.162369000	20.789138000	6	-2.628652000	15.047242000	22.286790000
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1	10.078365000	18.266766000	20.083909000	6	-2.900629000	13.546050000	22.354179000
1	10.770743000	20.474969000	19.144785000	1	0.285436000	16.110775000	21.565658000
1	3.582489000	19.346835000	20.276356000	1	-1.923666000	14.930493000	20.227681000
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1	13.033414000	23.503722000	12.628133000	6	-3.977386000	19.705820000	18.276846000
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6	11.660726000	19.118155000	24.524298000	6	0.741458000	21.044054000	19.776802000
6	11.555718000	20.002533000	23.272061000	1	-2.447665000	20.265640000	16.951254000
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1	8.266380000	18.440023000	25.180126000	1	0.208962000	20.811464000	17.691449000
1	10.514949000	18.501818000	26.246601000	1	-0.704895000	22.055204000	18.549982000



6	7.008045000	19.767518000	19.607787000	1	9.134148000	14.313634000	23.999181000
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6	-4.156456000	19.949528000	11.686950000	1	2.944244000	24.460562000	22.912124000
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6	-3.267939000	18.876331000	11.752719000	6	7.159559000	20.840896000	19.065621000
6	-1.424285000	20.422321000	11.864114000	6	9.283480000	19.096140000	19.817995000
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1	-4.606270000	24.324147000	13.797131000	6	5.648939000	18.96508000	19.933559000
1	-3.380557000	24.051084000	11.129318000	6	8.489727000	21.198561000	18.875686000
1	-5.539775000	22.193109000	12.302951000	6	9.545242000	20.339875000	19.248463000
1	-5.192805000	22.332986000	10.598610000	7	7.388053000	17.583028000	20.555591000
1	-5.227868000	19.768513000	11.638750000	1	7.809856000	16.665943000	20.696181000
1	-1.920818000	22.511025000	11.821685000	6	4.259483000	19.383317000	19.637477000
1	-3.648808000	17.857248000	11.739406000	6	3.850700000	19.254044000	18.156302000
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