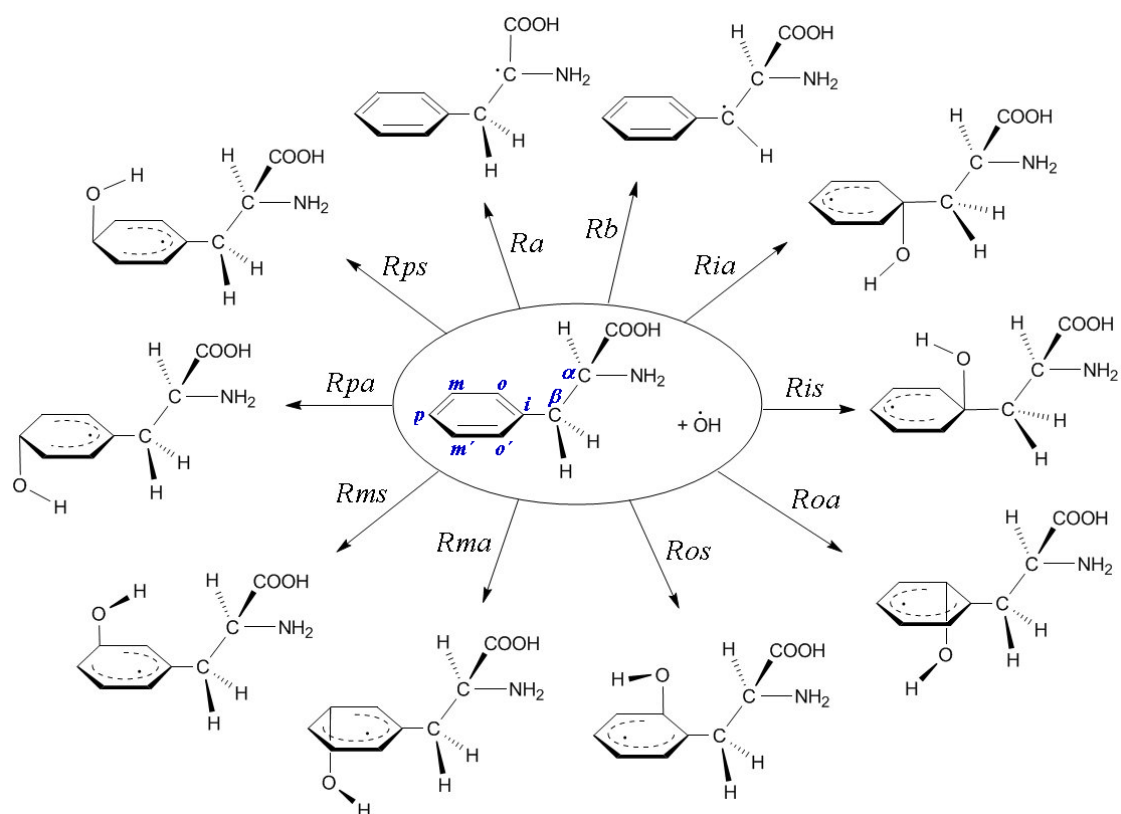
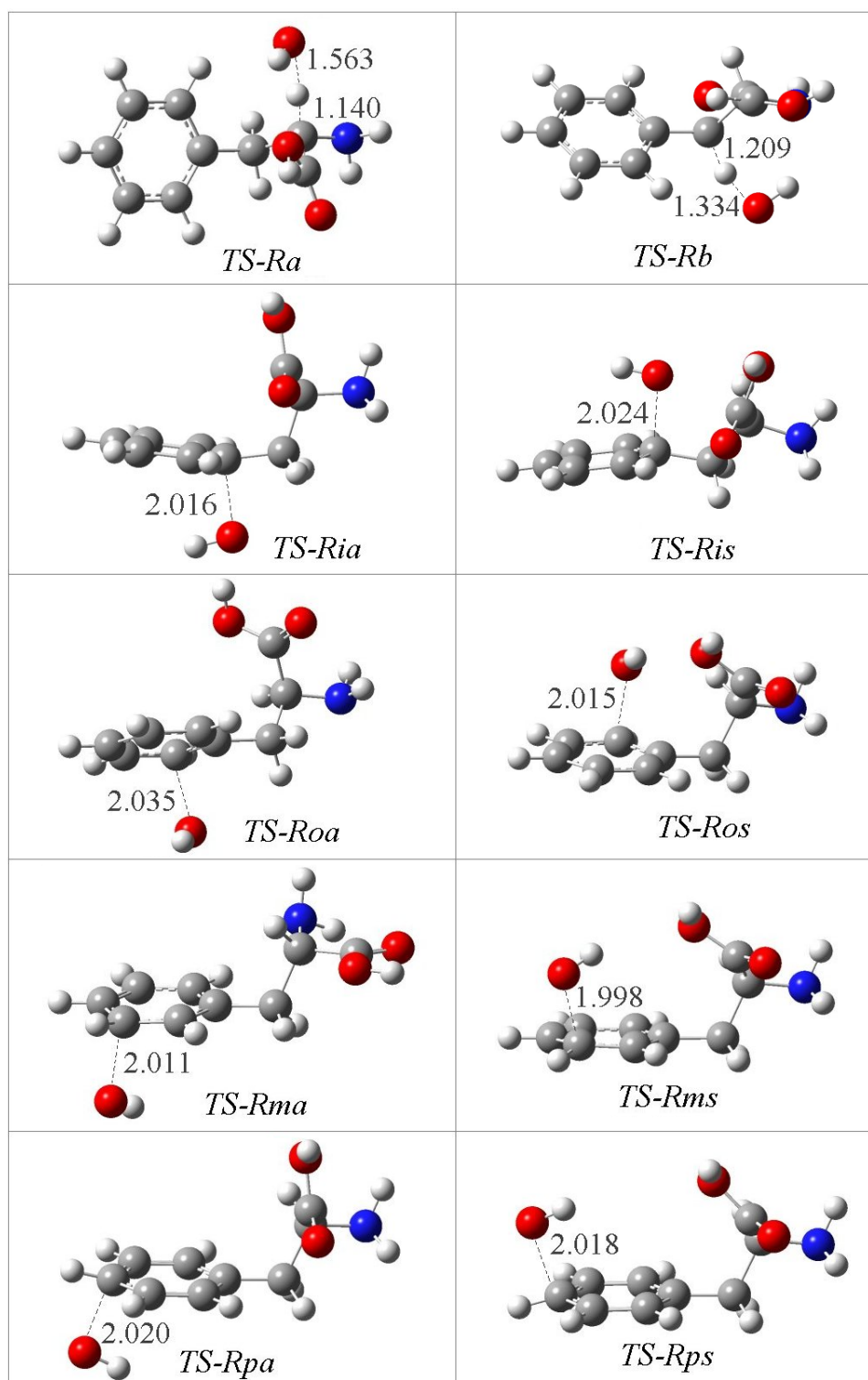


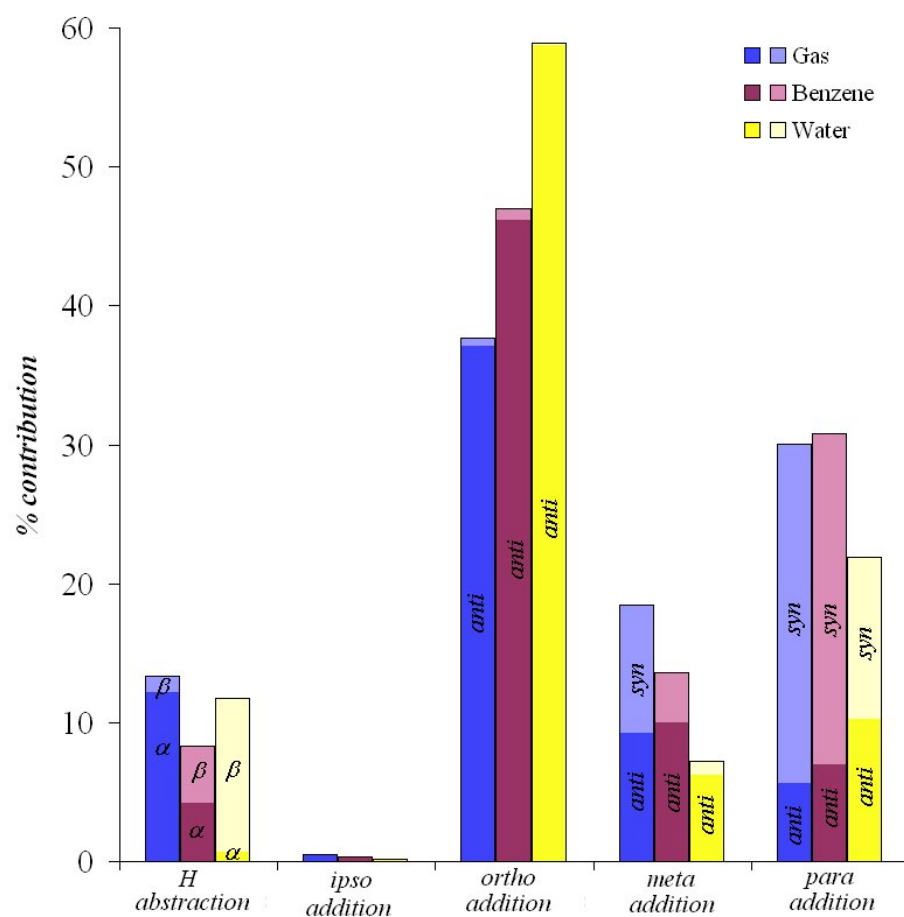
## Figures captions



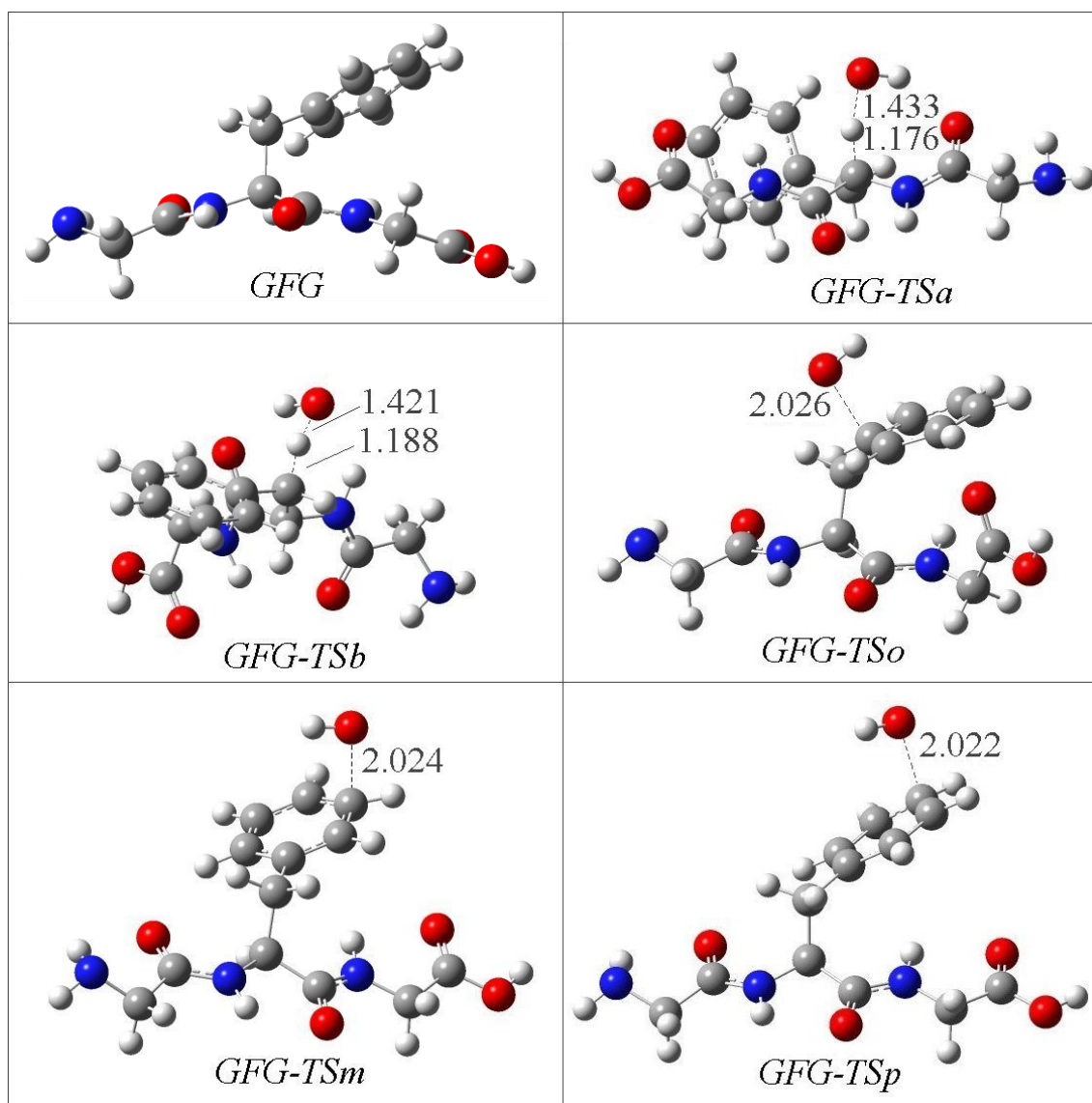
**Figure 1.** Schematic representation of the studied paths of reaction, based on the transition state structures.



**Figure 2.** Fully optimized geometries of the Phe + OH transition states.



**Figure 3.** Percentage contribution of the different channels to the Phe + OH overall reaction.



**Figure 4.** Fully optimized geometries of GFG + OH transition states.