Supporting Information

Understanding the Inhibitory Mechanism of Tea Polyphenols against Tyrosinase Using Fluorescence Spectroscopy, Cyclic Voltammetry, Oximetry, and Molecular Simulations

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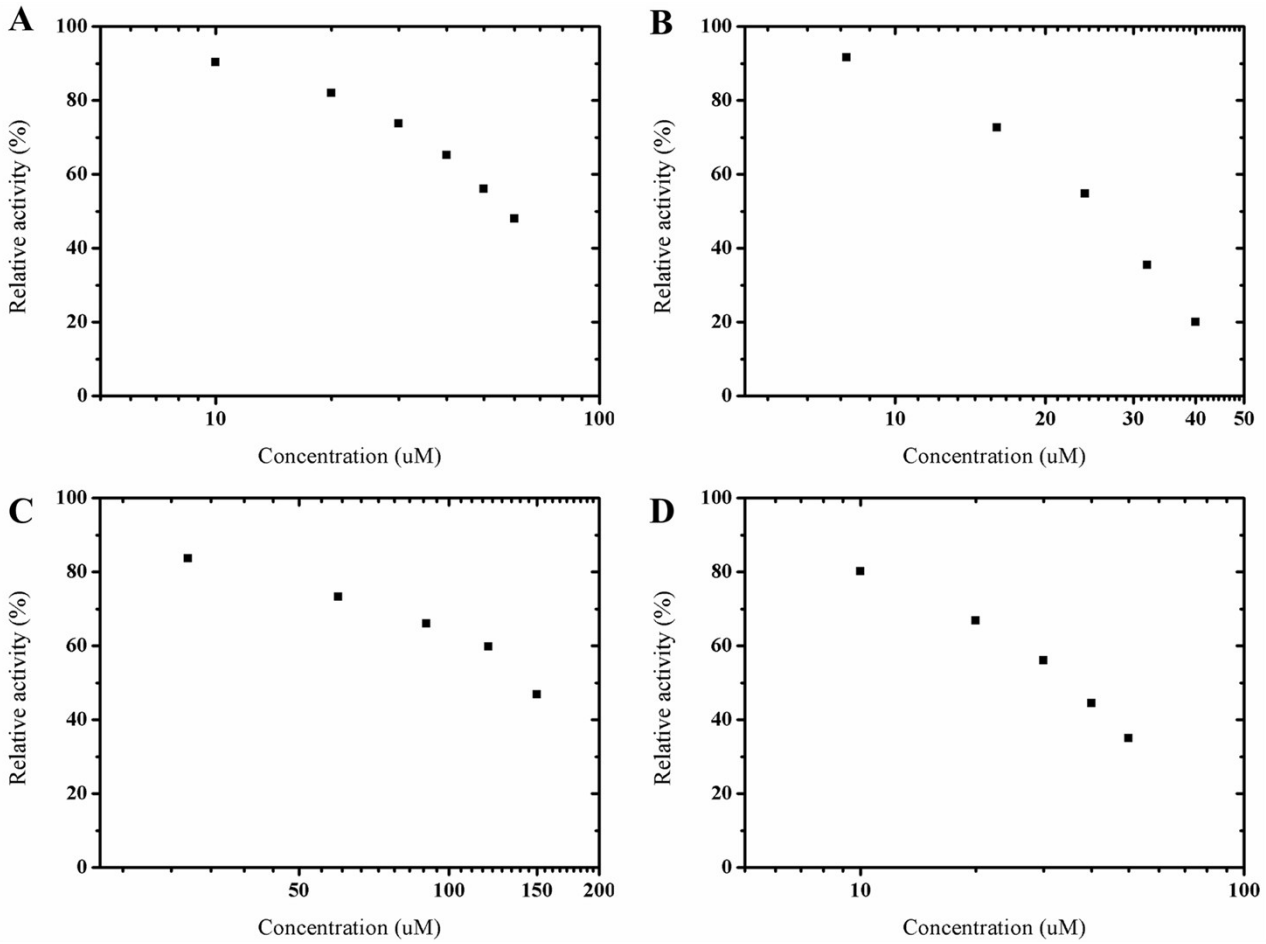

Figure 1. Tea Polyphenols, i.e. catechin (A), ECG (B), EGCG (C) and kojic acid (D) inhibit tyrosinase with dose-dependent manner.

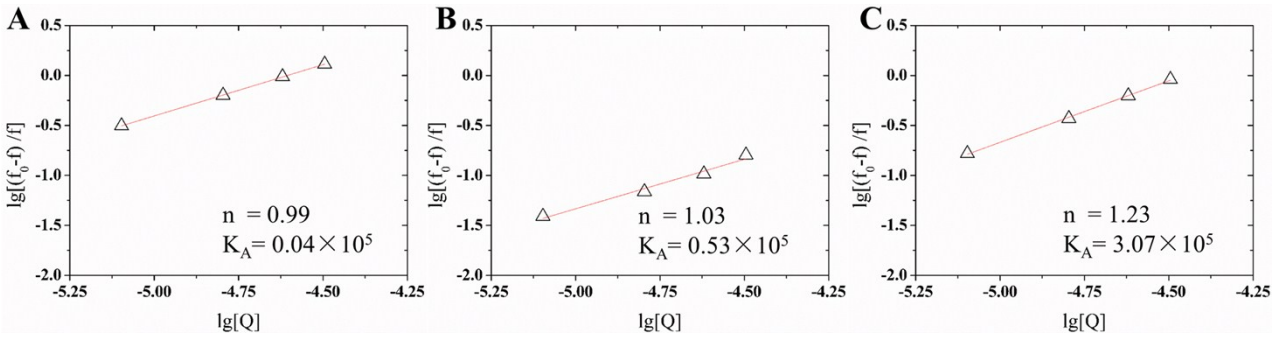

Figure 2. The binding number of TPs with tyrosinase obtained by fitting with equation 2 approximately equals to 1.

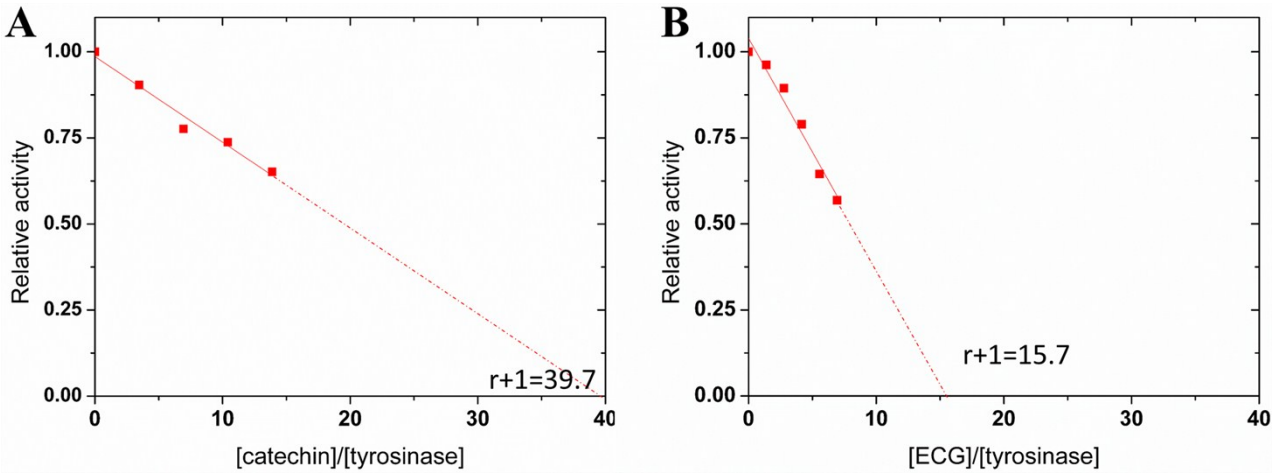

Figure 3. The partition ratio (r) of catechin (A) and ECG (B) is 38.7 and 14.7, respectively. The relative active of tyrosinase is negatively correlate with the molar partition of inhibitor and tyrosinase, and the value of (r+1) can be evaluated from the intercept on abscissa of correlation equation.

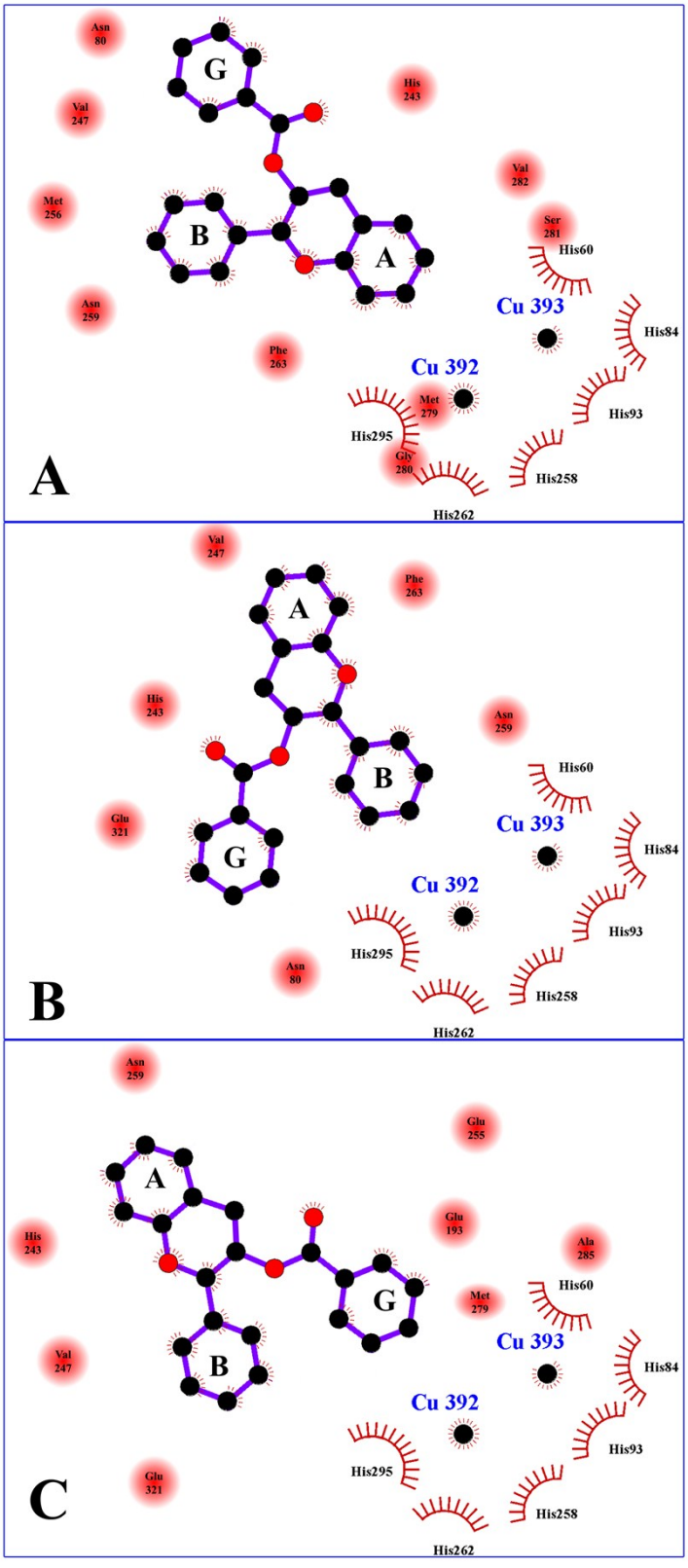

Figure 4. The possible binding poses of TPs coordinating with the bi-copper ions in the active center of tyrosinase. A and B represent ring A and B facing the bi-copper ions for catechin (excluding ring G) and ECG, respectively; C is the ring G orientating to active center for ECG and EGCG, respectively.