Synthesis and Spectroscopic Characterization of Ternary Copper(II) Complexes Containing Nitrogen and Oxygen Donors as Functional Mimics of Catechol Oxidase and Phenoxazinone Synthase

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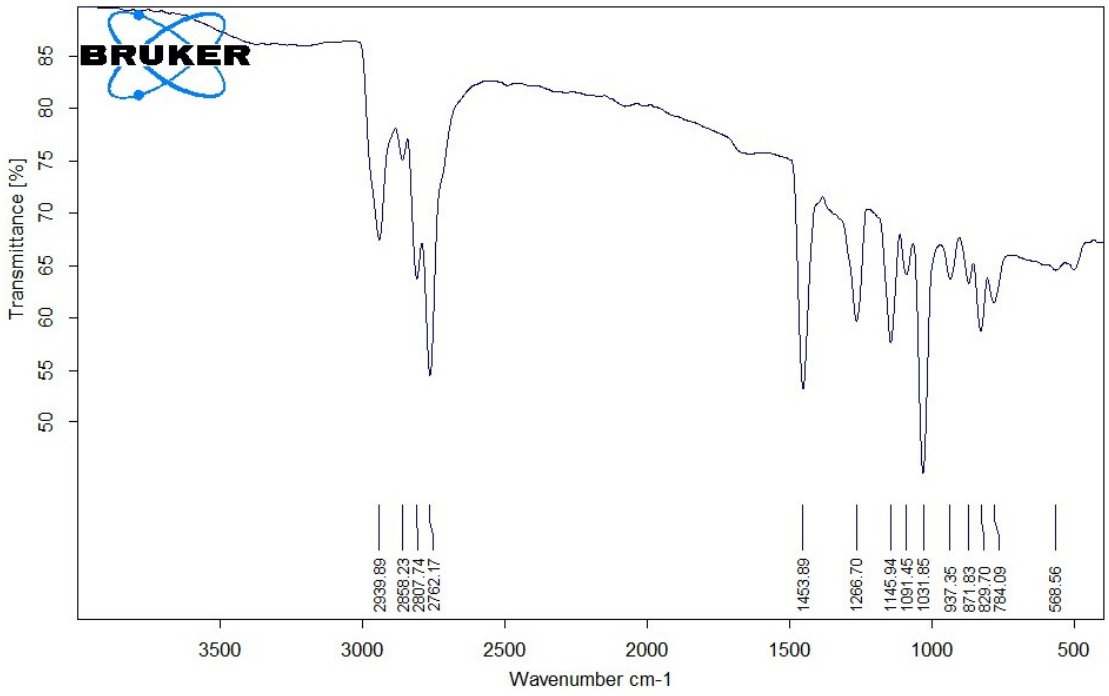
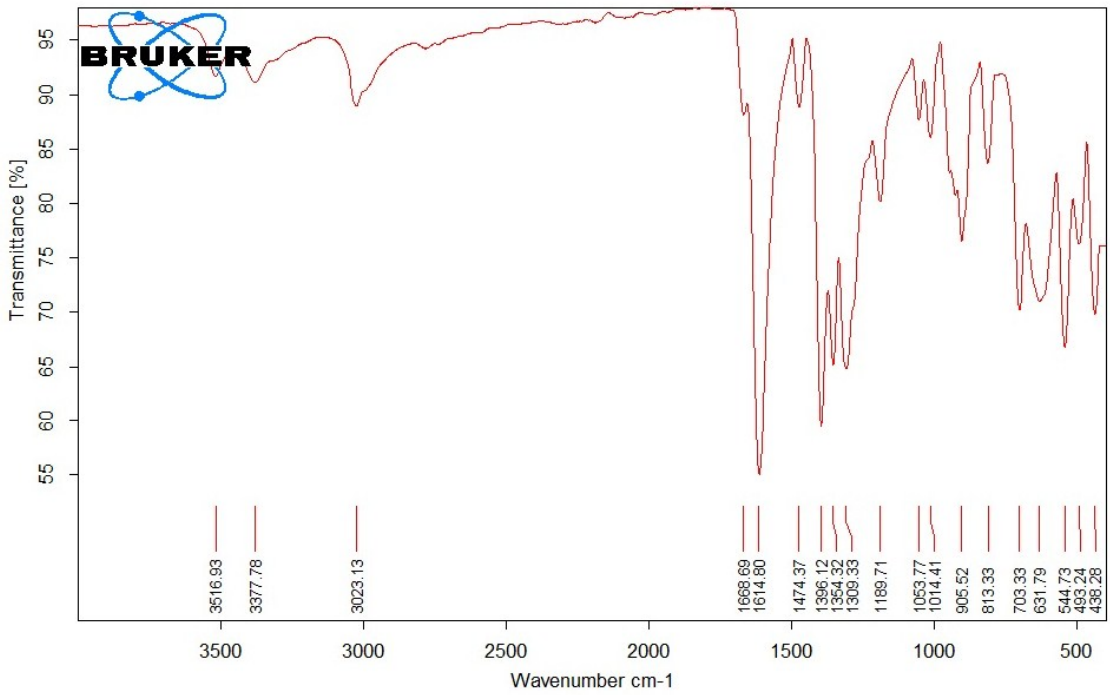
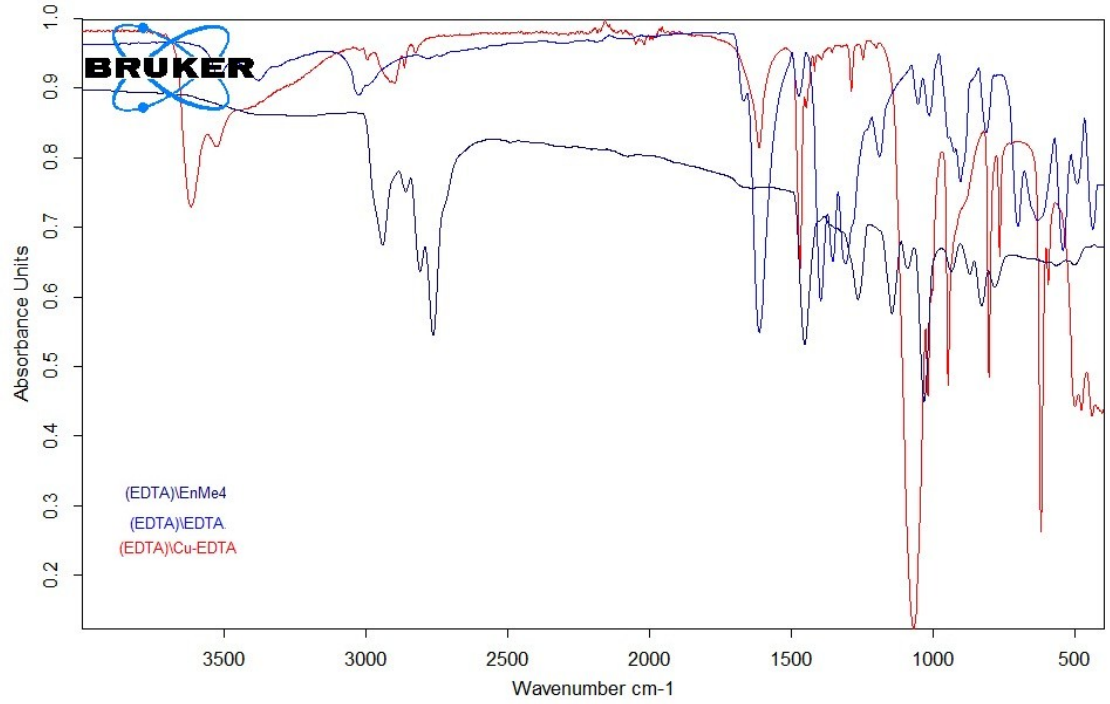


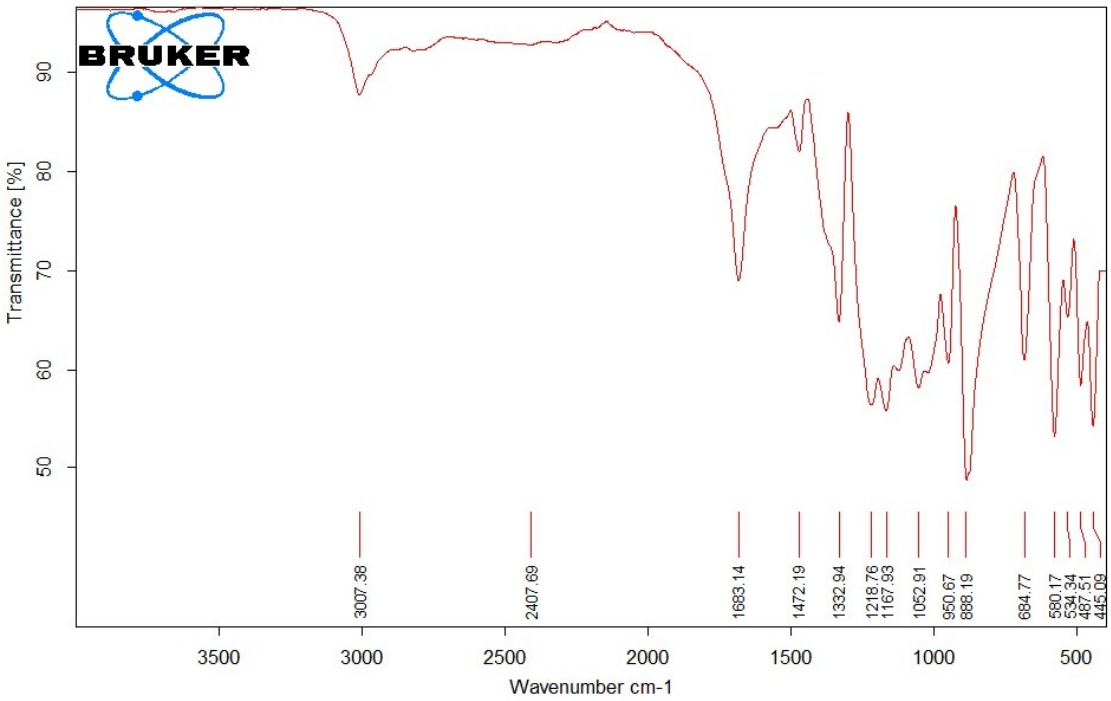
S1: FTIR spectrum of Me_4en



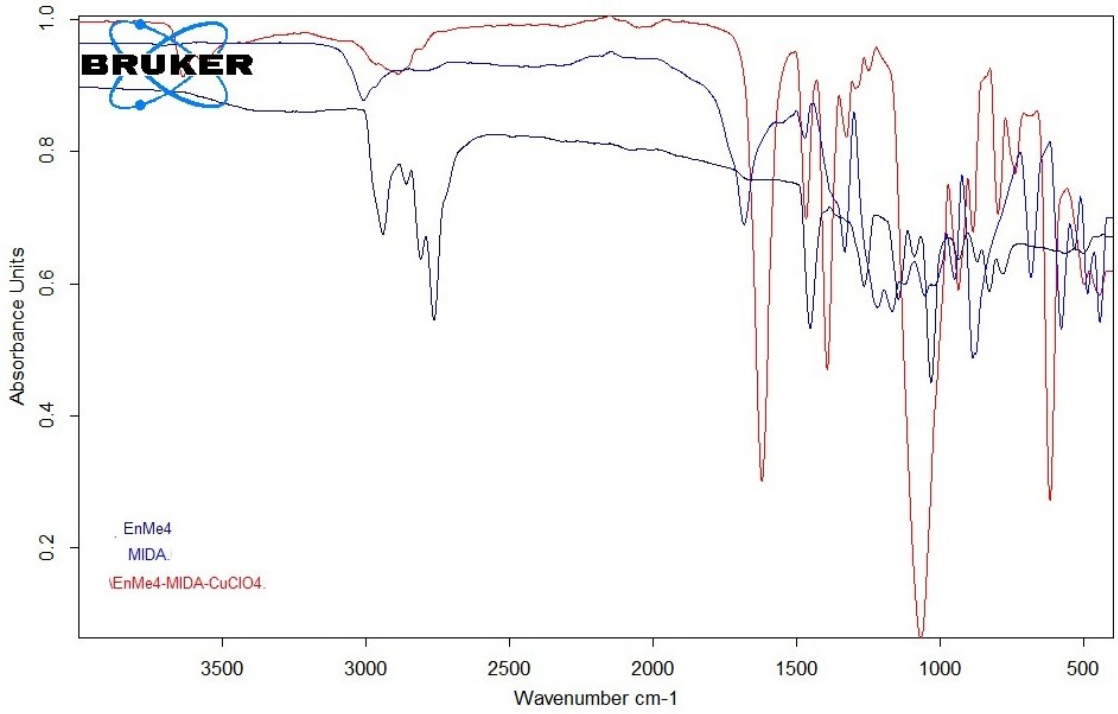
S2: FTIR spectrum of EDTA



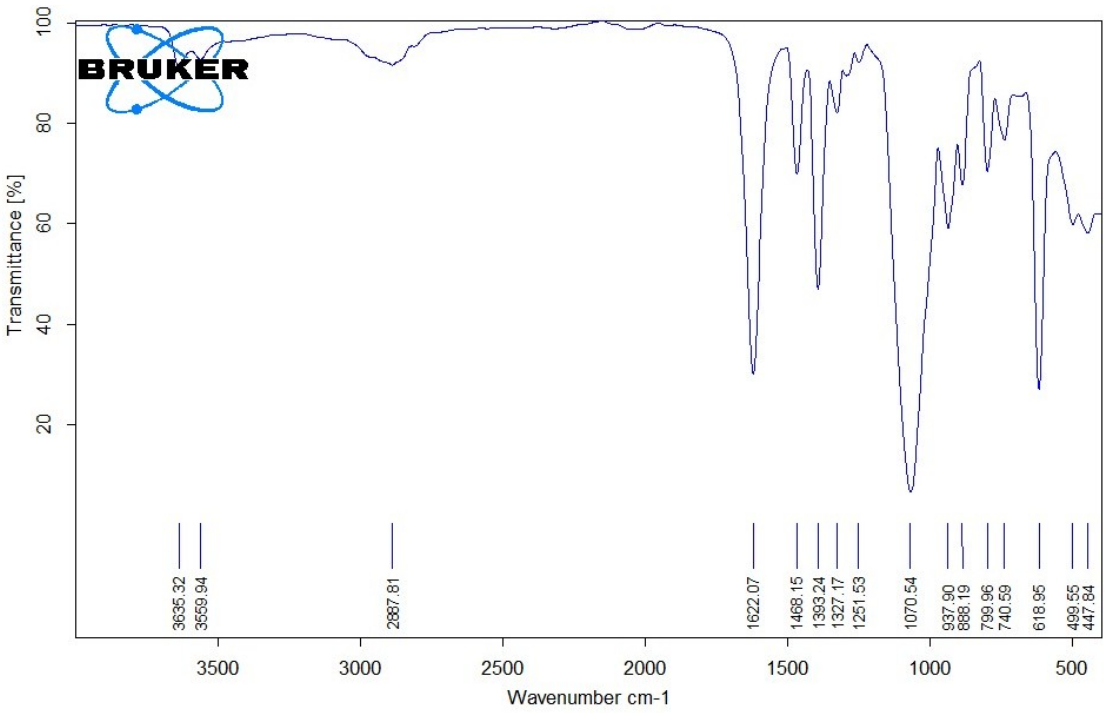
S3: Multi FTIR spectra of complex **1** and its ligand system L and L′



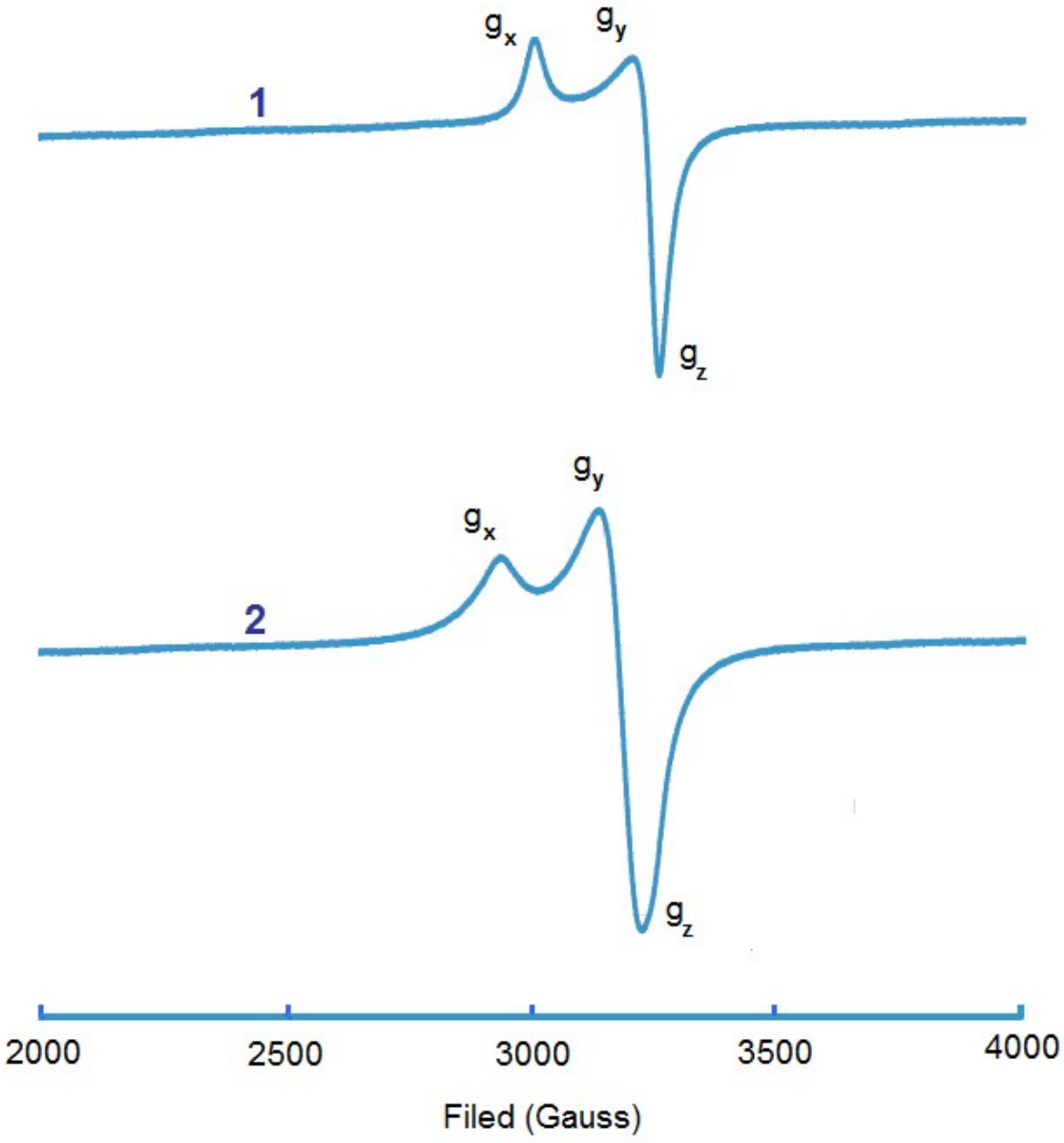
S4: FTIR spectrum of N-methyl iminodiacetic acid



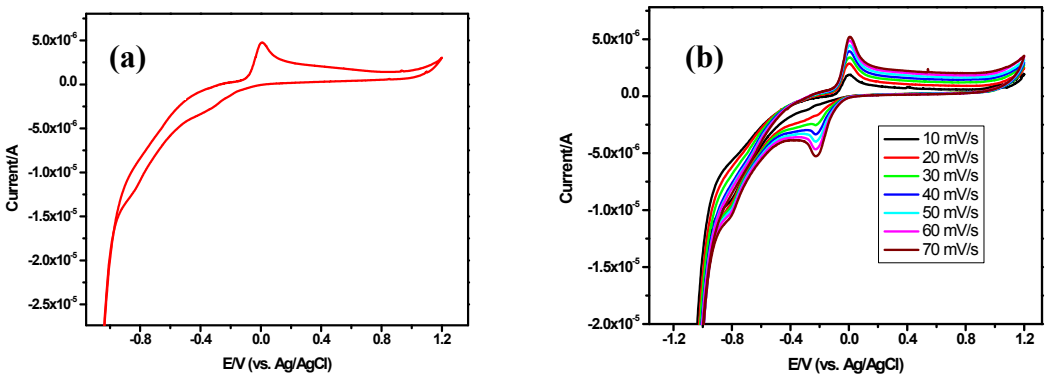
S5: Multi FTIR spectra of complex **2** and its ligand system L and L′



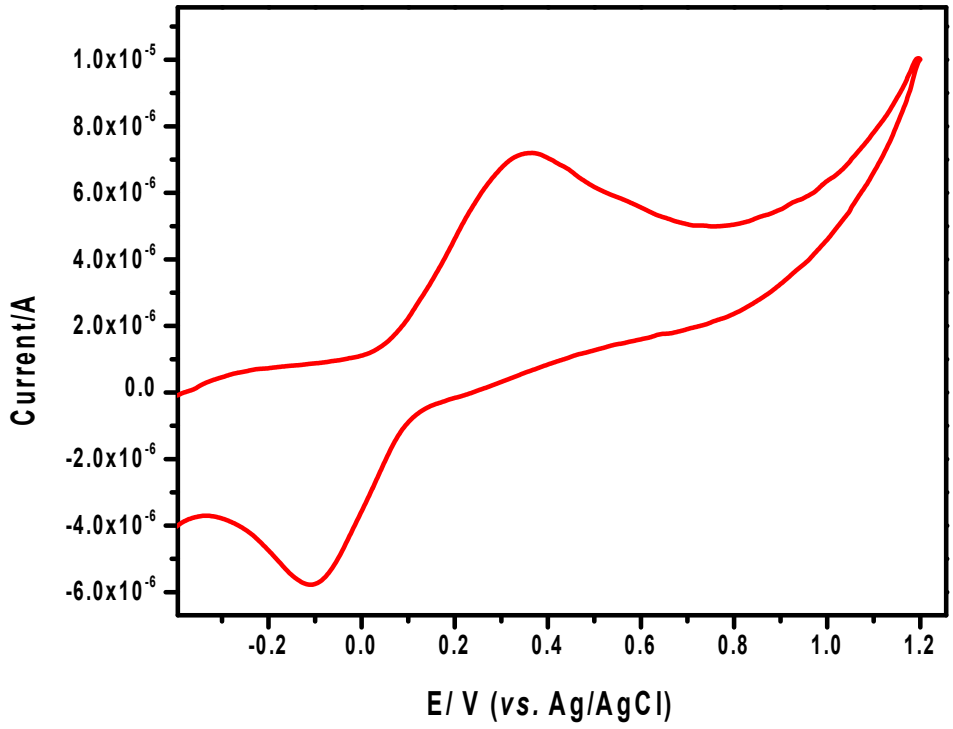
S6: FTIR spectrum of complex **2**



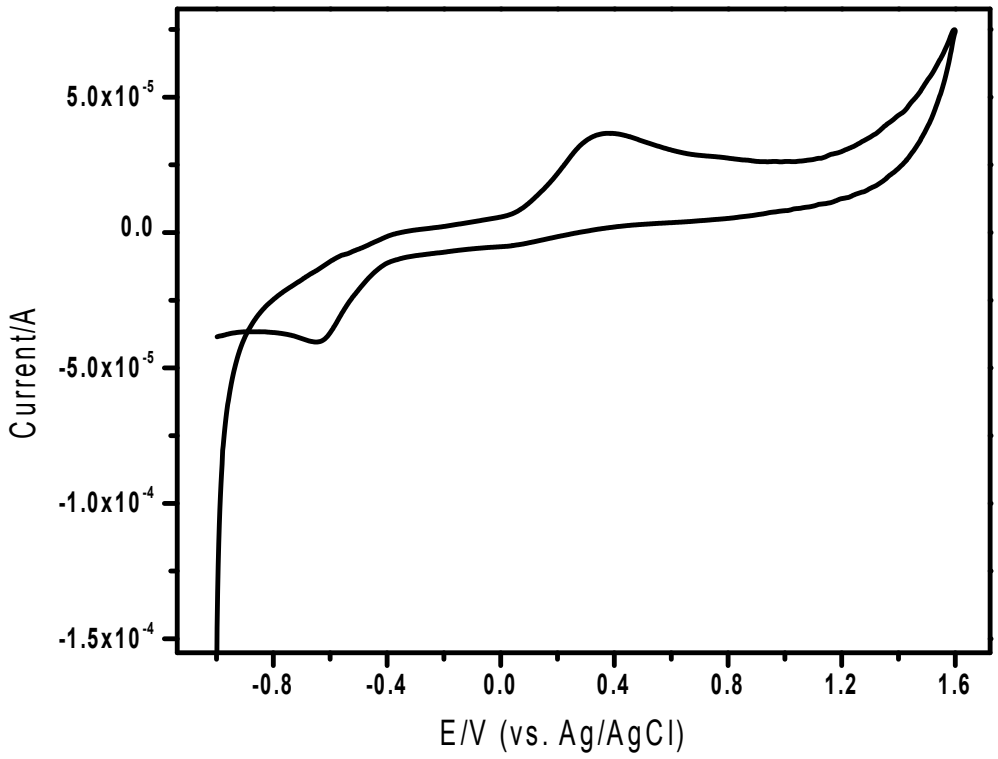
S7: ESR spectra of complexes **1** and **2**



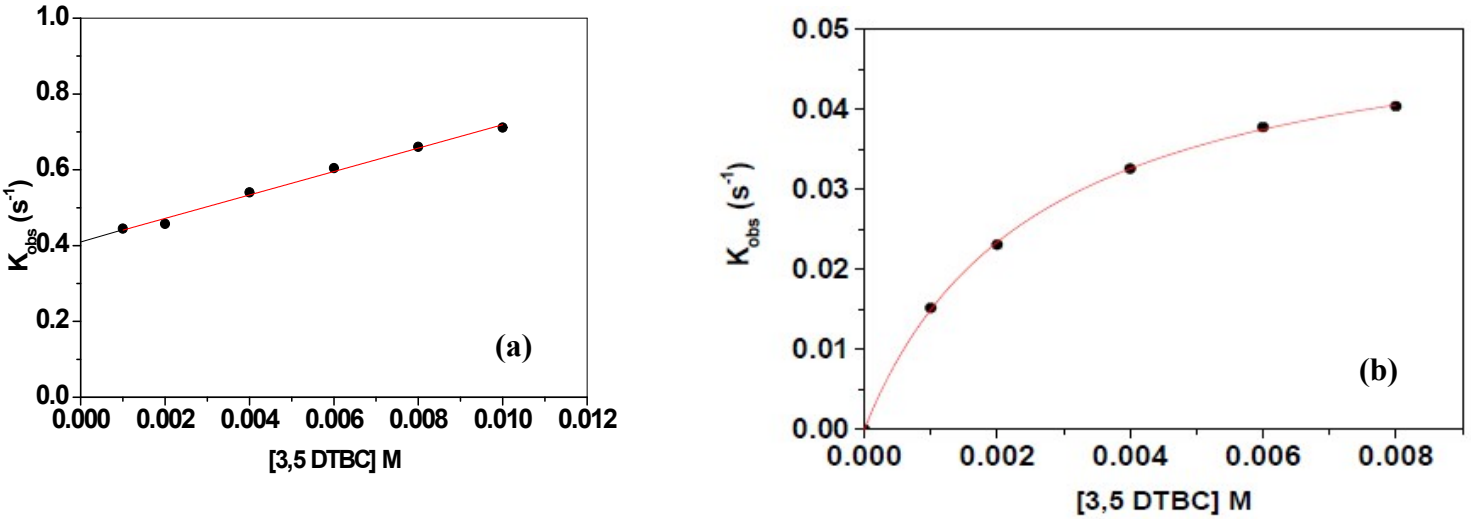
S8: (a) Cyclic voltammogram for complex **2** at CPE at phosphate buffer pH 7 using scan rate of 50 mV/s; (b) Effect of scan rate on the peak current height of 1×10^{-3} M complex **2** using cyclic voltammetry at CPE at phosphate buffer pH 7



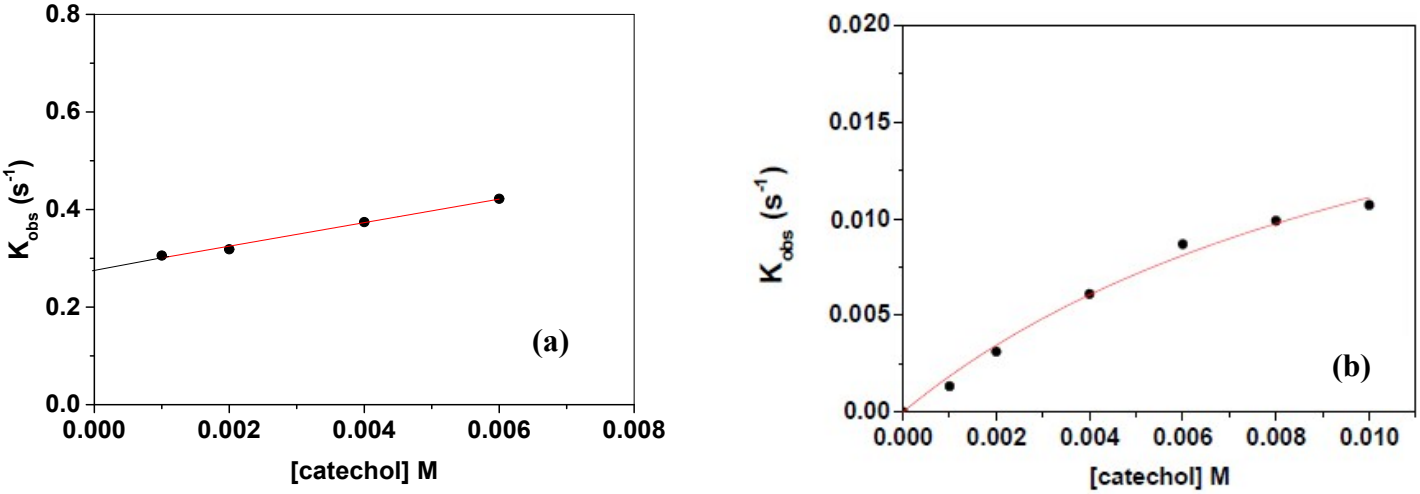
S9: Cyclic voltammogram for 1×10^{-3} M 3,5-DTBCH$_2$ at CPME at phosphate buffer pH 7 using scan rate of 50 mV/s.



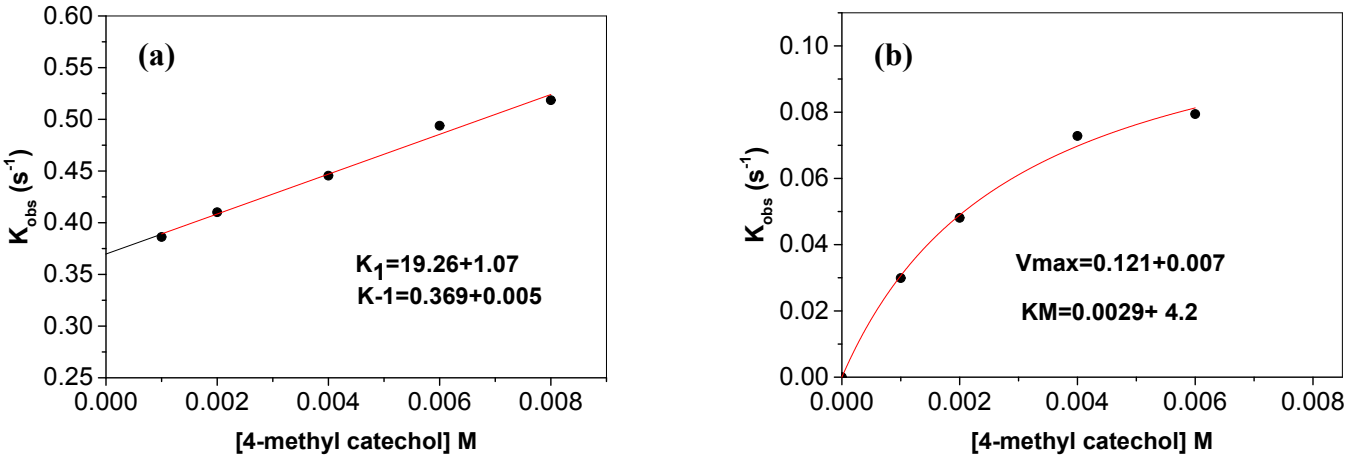
S10: Cyclic voltammogram for 1×10^{-3} M *o*-APH_3 at CPME
at phosphate buffer pH 7 using scan rate of 50 mV/s



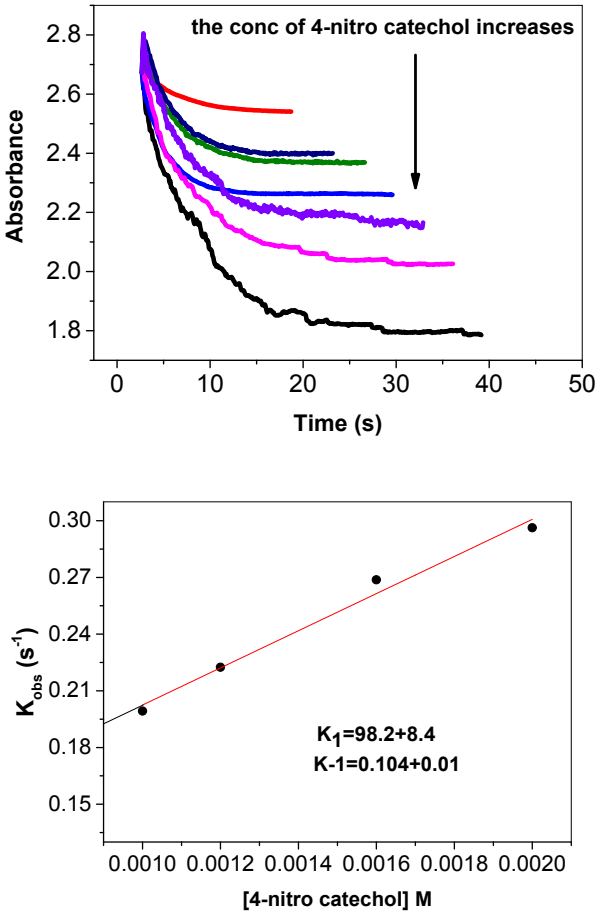
S11: Dependence of the initial rate on the concentration of the substrate for the oxidation reaction of 3,5-DTBCH_2 catalyzed by complex **2** in methanol; (a) is the first step and (b) is the second step. The concentration of complex was 1.0×10^{-4} M and the reaction was followed at 400 nm



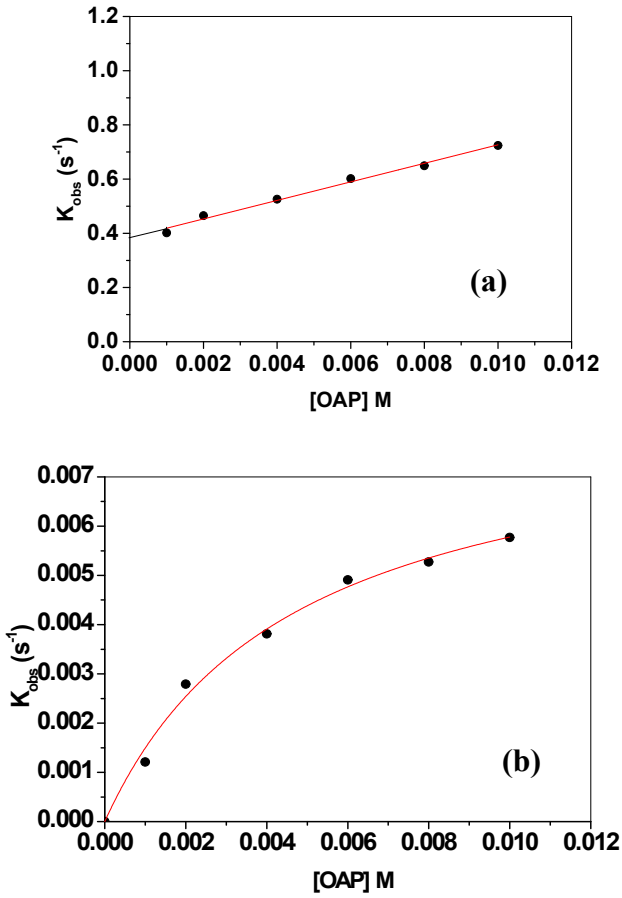
S12: Dependence of the initial rate on the concentration of the substrate for the oxidation reaction of CatH_2 catalyzed by complex **1** in methanol; (a) is the first step and (b) is the second step. The concentration of complex was 1.0×10^{-4} M and the reaction was followed at 390 nm



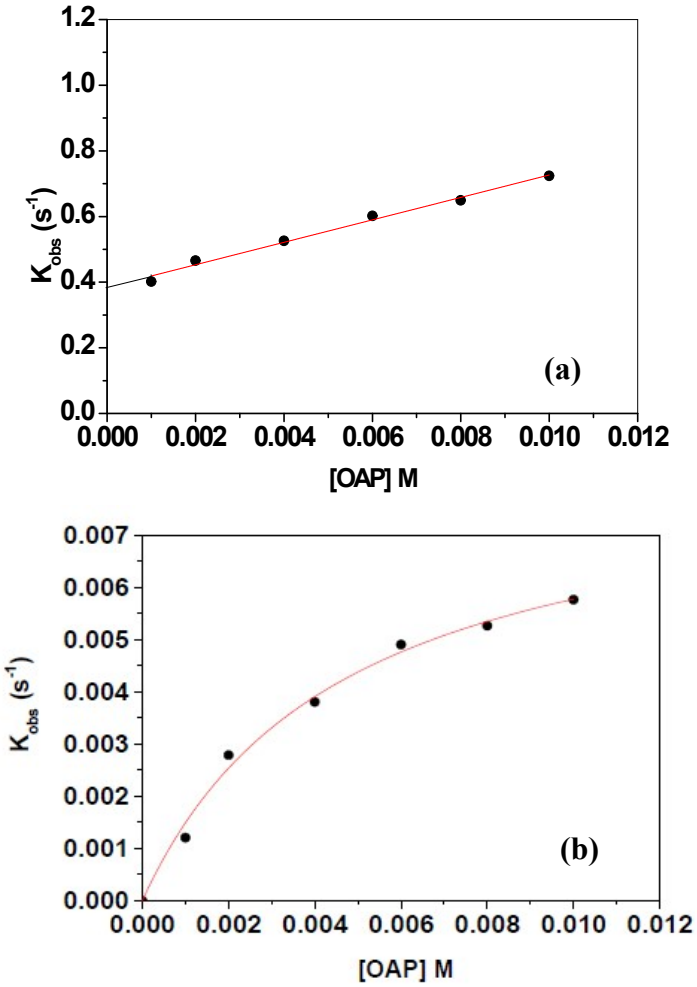
S13: Dependence of the initial rate on the concentration of the substrate for the oxidation reaction of 4-CH_3-$CatH_2$ catalyzed by complex **1** in methanol; (a) is the first step and (b) is the second step. The concentration of complex was 1.0 $\times 10^{-4}$ M and the reaction was followed at 400 nm



S14: Dependence of the initial rate on the substrate concentration for the oxidation reaction of 4- NO_2-$CatH_2$ catalyzed by complex **1** in methanol for the first step; the concentration of complex was 1.0×10^{-4} M and the reaction was followed at 400 nm



S15: Dependence of the initial rate for on the concentration of the substrate for the oxidation reaction of *o*-APH_3 catalyzed by complex **2** in methanol; (a) is the first step and (b) is the second step. The concentration of complex was 1.0×10^{-4} M and the reaction was followed at 433 nm



S16: Dependence of the initial rate for on the concentration of the substrate for the oxidation reaction of *o*-APH_3 catalyzed by complex **2** in methanol; (a) is the first step and (b) is the second step. The concentration of complex was 1.0 $\times 10^{-4}$ M and the reaction was followed at 433 nm