

## Supporting Information

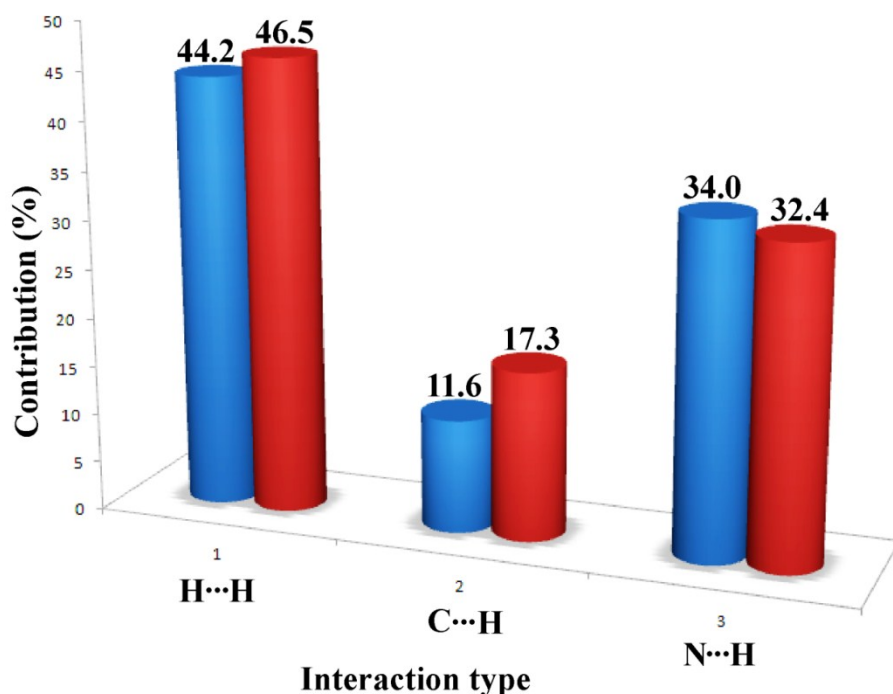
# One pot synthesis of two cobalt(III) Schiff base complexes with chelating pyridyltetrazolate and exploration of their bio-relevant catalytic activities

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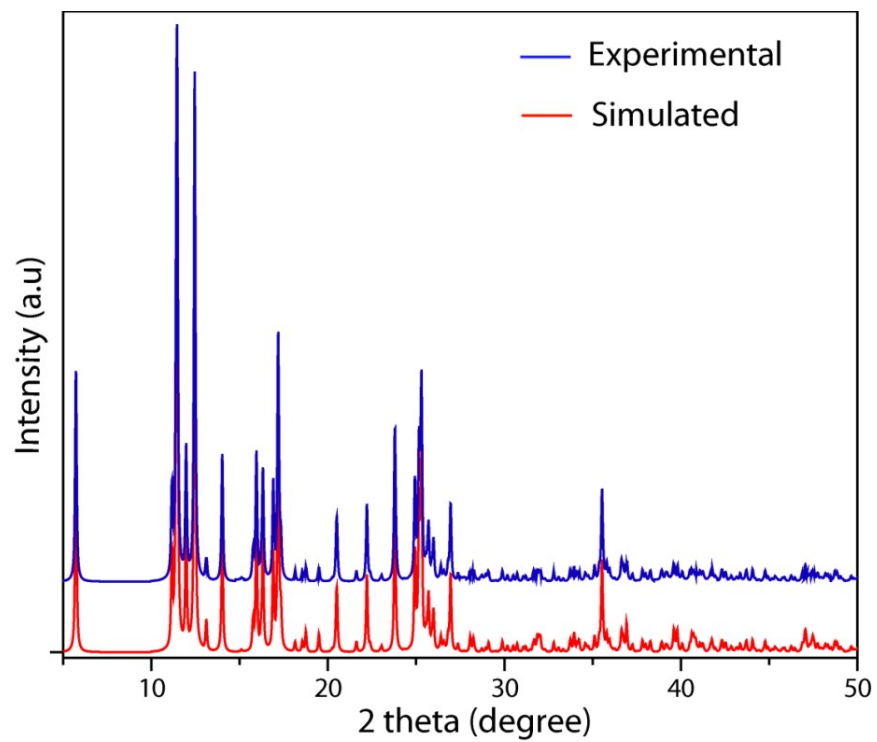
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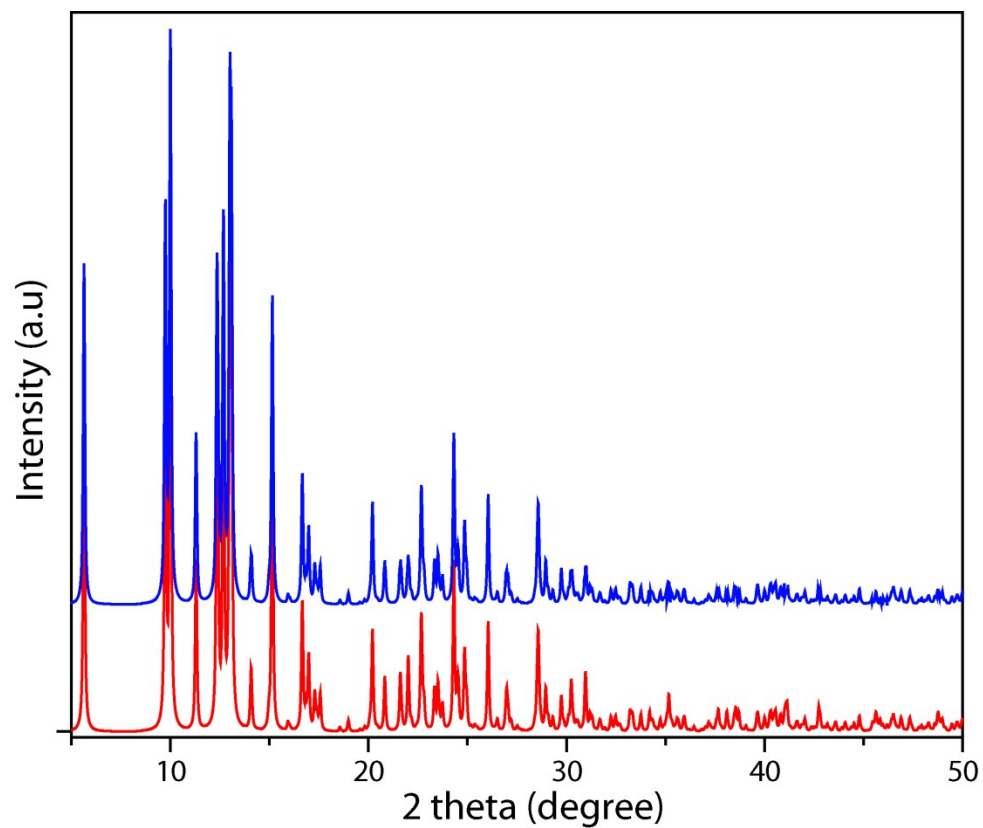
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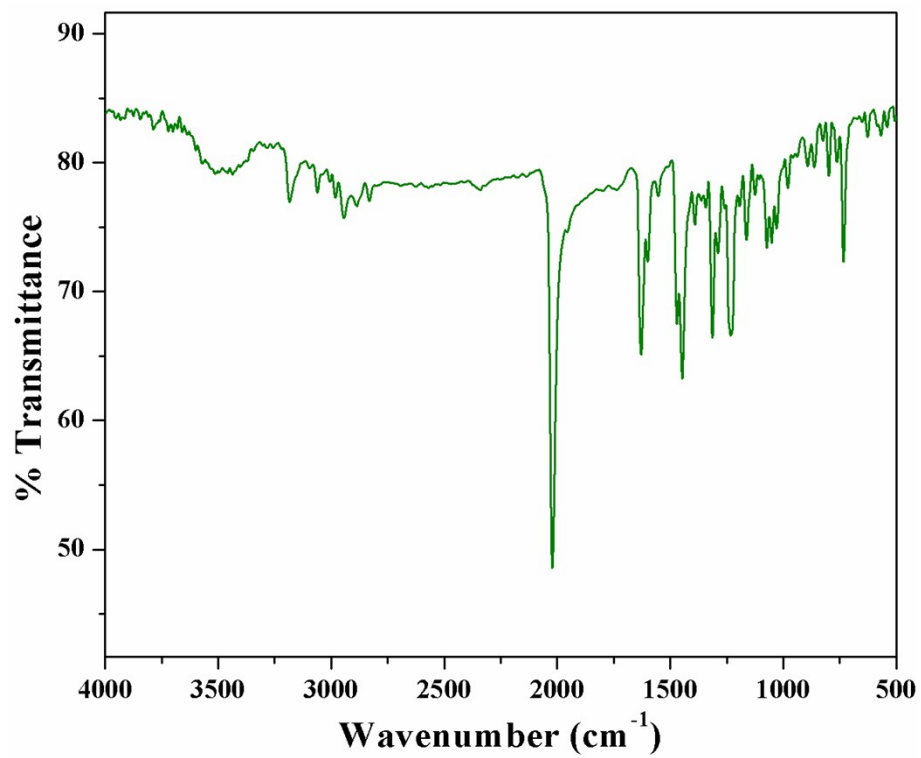
**Figure S1:** Relative contributions to the Hirshfeld surface area for the various intermolecular contacts of complexes **1** and **2**. Colour scheme: Blue = **1** and Red = **2**.



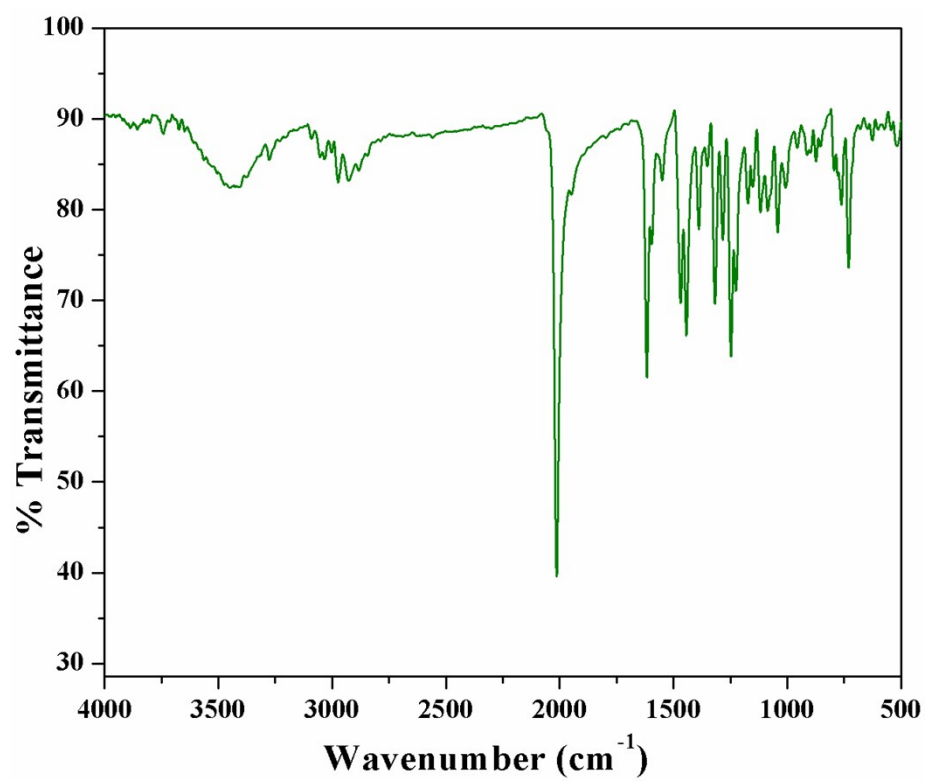
**Figure S2:** Experimental and simulated powder XRD patterns of complex **1**, confirming the purity of the bulk materials.



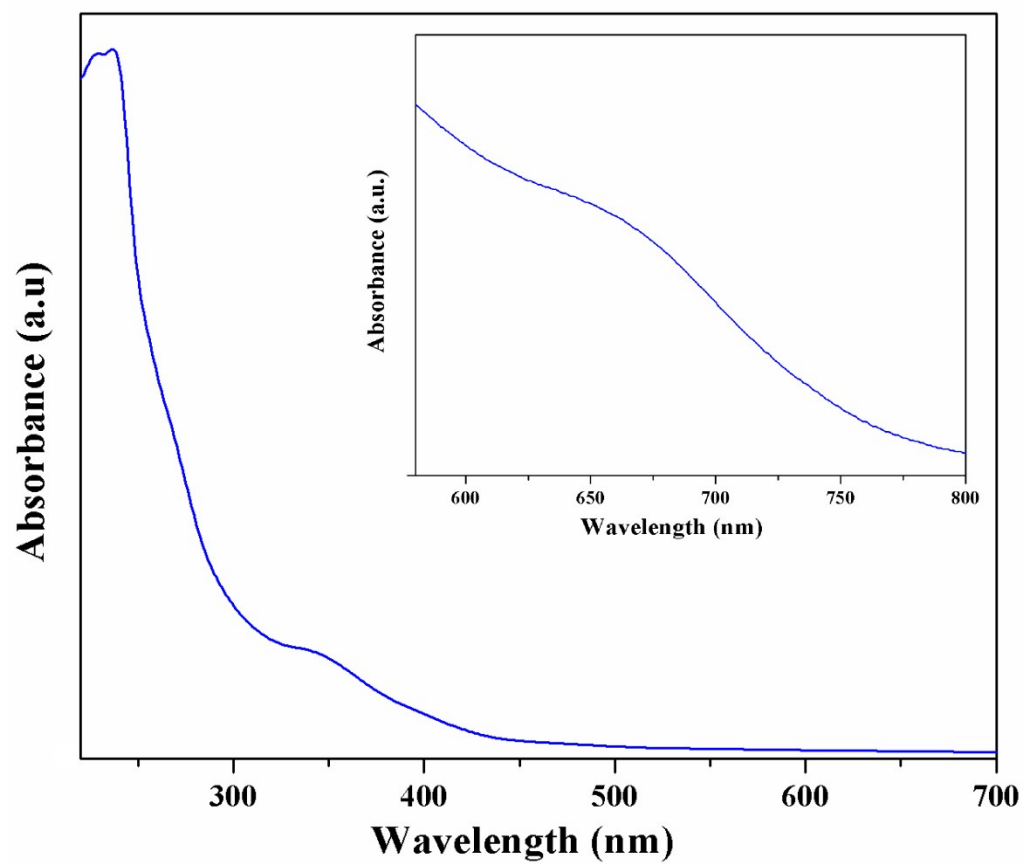
**Figure S3:** Experimental and simulated powder XRD patterns of complex **2**, confirming the purity of the bulk materials.



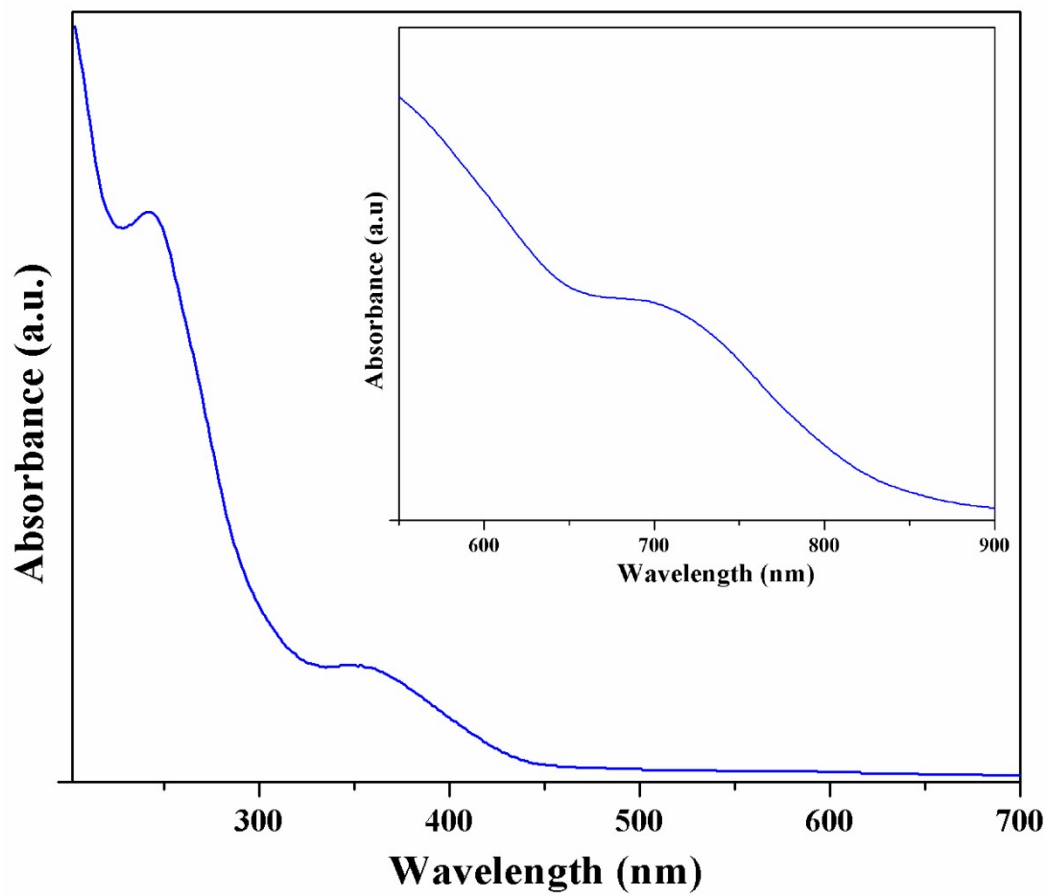
**Figure S4:** Infrared spectrum of complex 1.



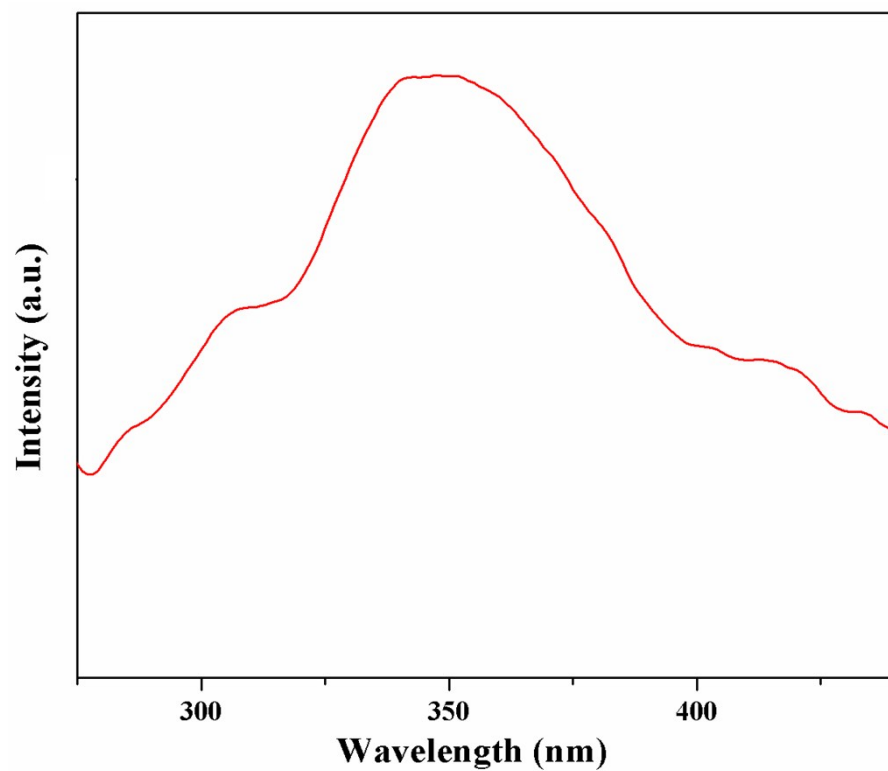
**Figure S5:** Infrared spectrum of complex 2.



**Figure S6:** Electronic spectrum of complex **1** in acetonitrile medium.

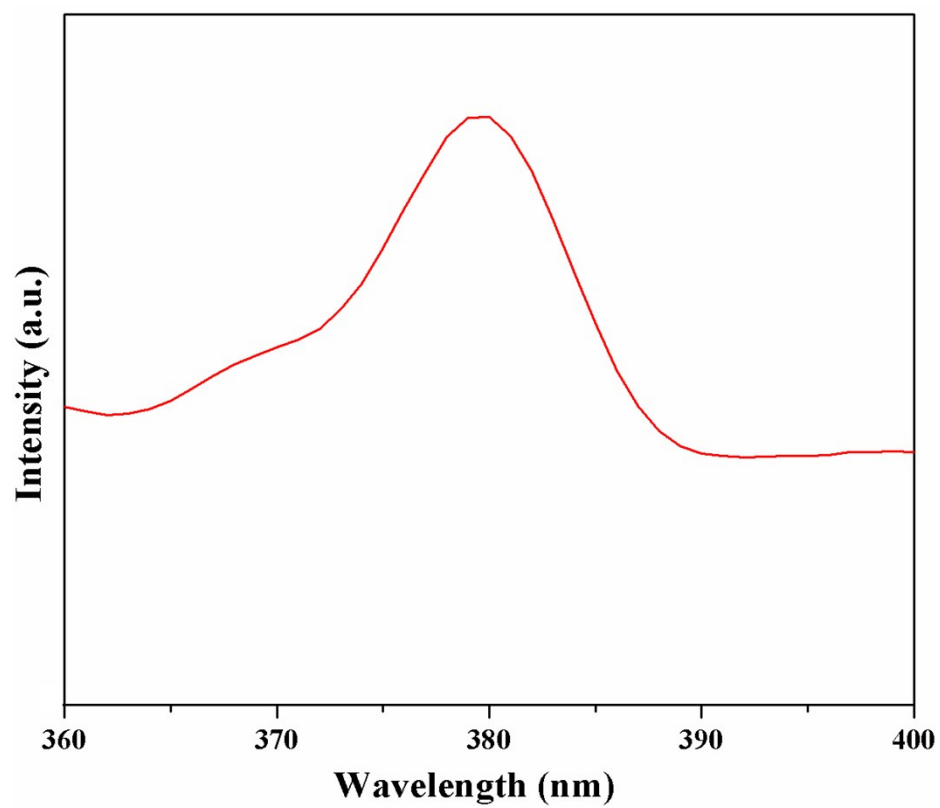


**Figure S7:** Electronic spectrum of complex **2** in acetonitrile medium.

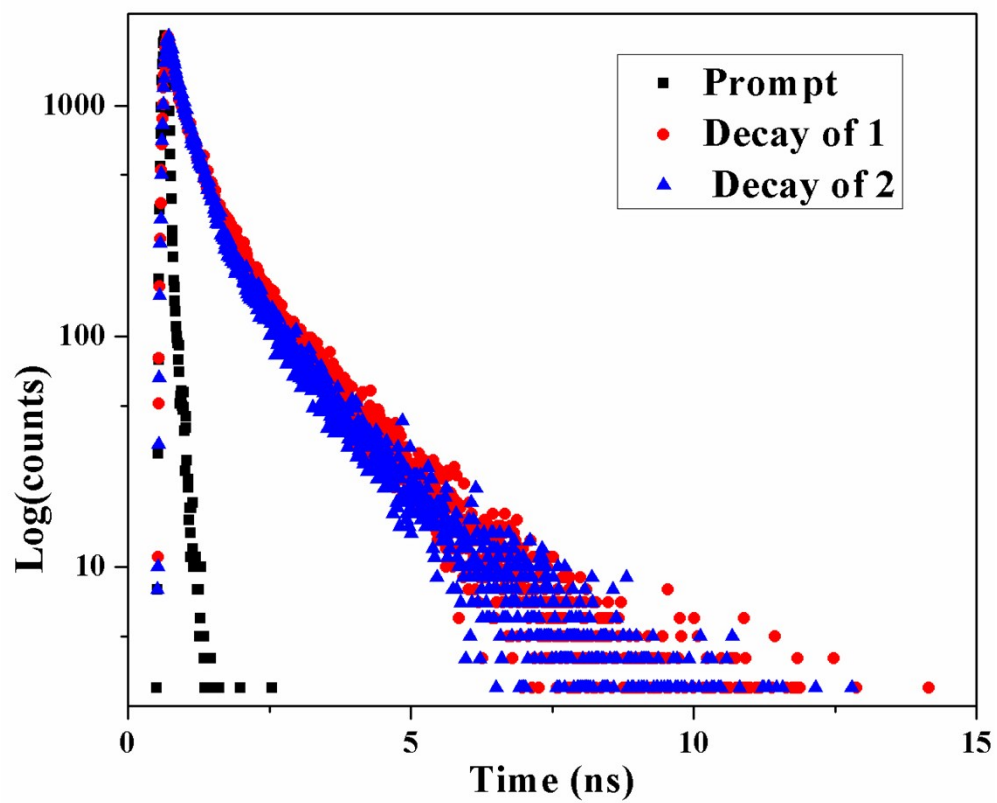


**Figure S8:** Fluorescence spectrum of complex **1** in acetonitrile medium.

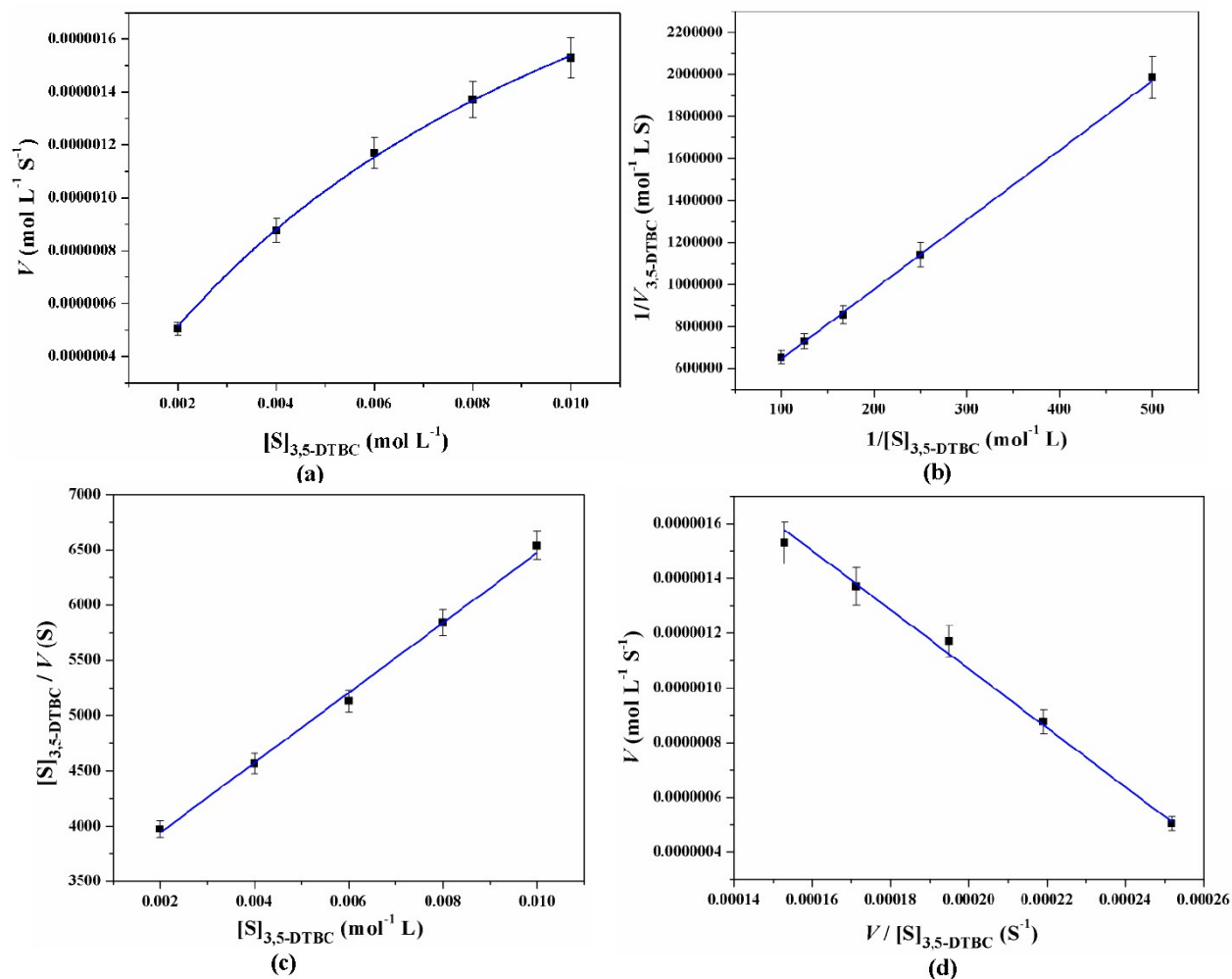




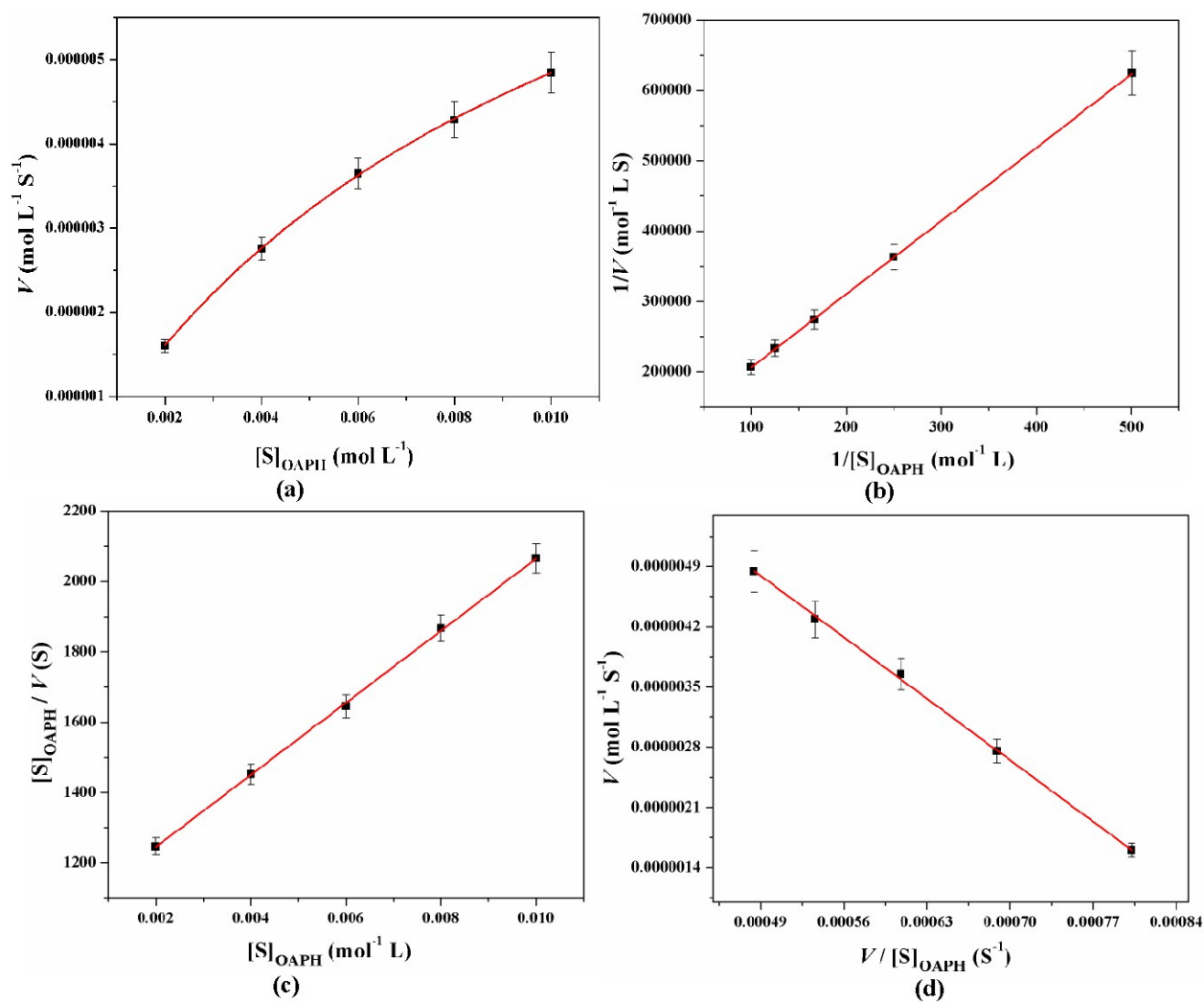
**Figure S9:** Fluorescence spectrum of complex **2** in acetonitrile medium.



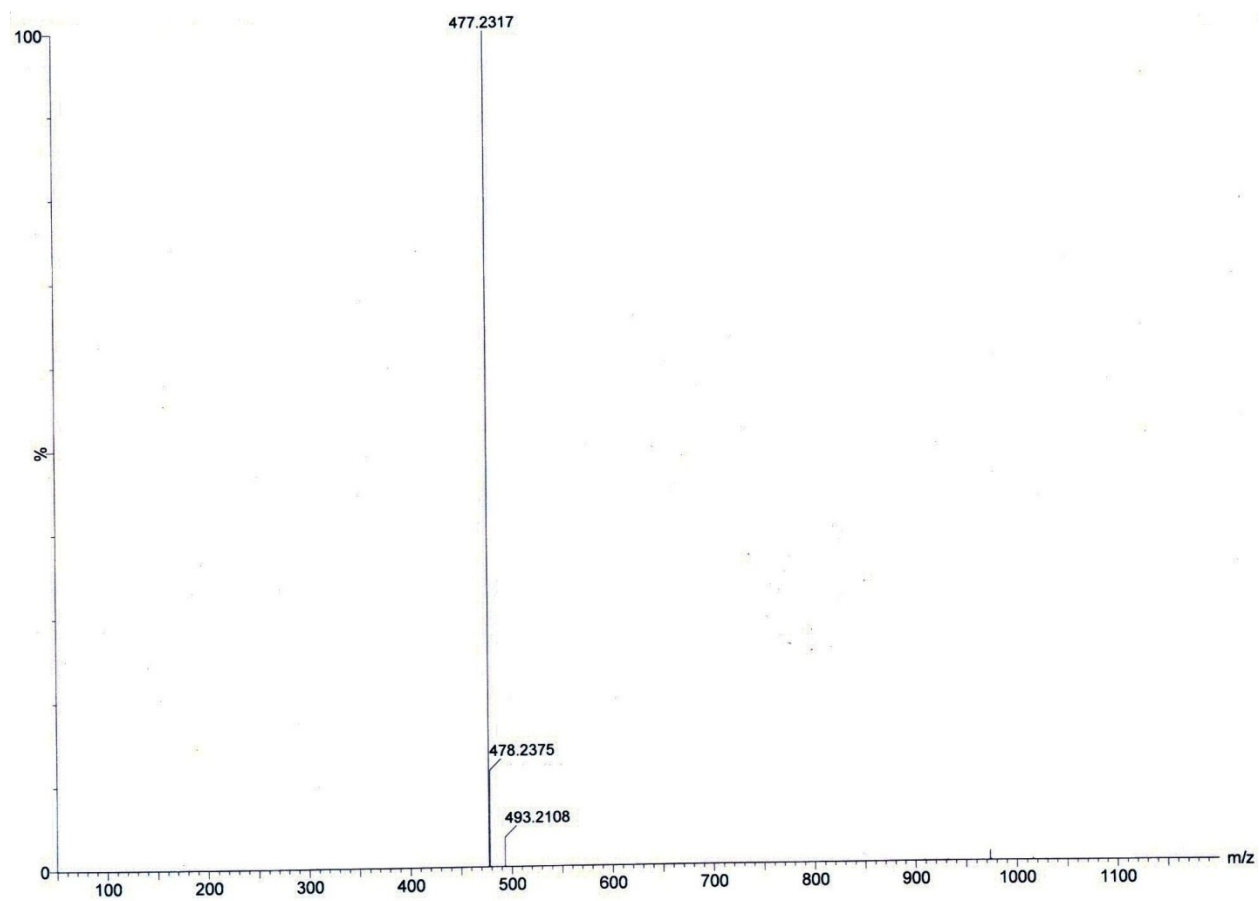
**Figure S10:** Time dependent photoluminescence decay profile of complexes **1** and **2**.



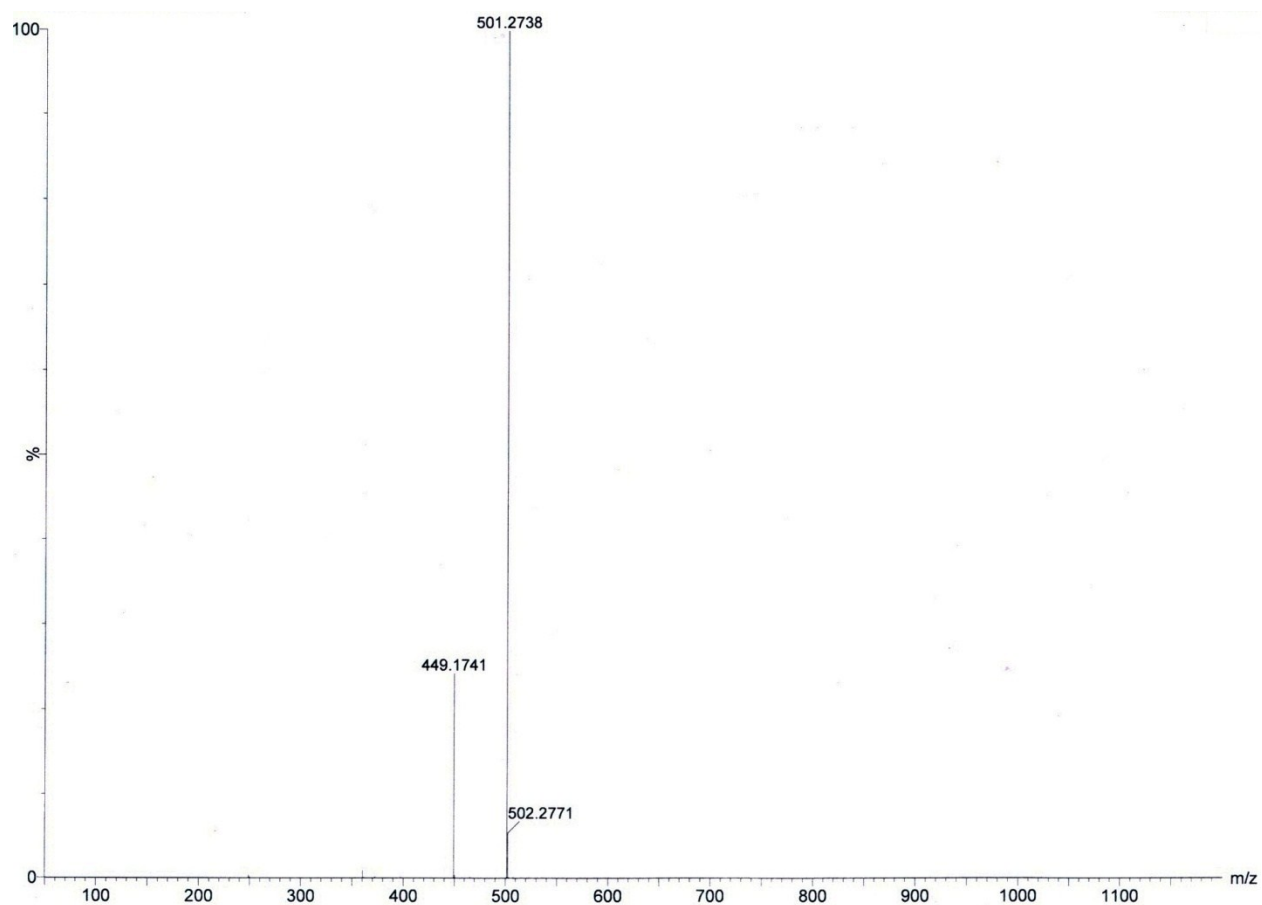
**Figure S11:** Michaelis-Menten plot (a), Lineweaver-Burk plot (b), Hanes plot (c) and Eadie-Hofstee plot (d) of complex **2** for catalytic oxidation of 3,5-DTBC in acetonitrile-methanol (2:1) mixture at room temperature.



**Figure S12:** Michaelis-Menten plot (a), Lineweaver-Burk plot (b), Hanes plot (c) and Eadie-Hofstee plot (d) of complex **2** for catalytic oxidation of OAPH in acetonitrile-methanol (2:1) mixture at room temperature.



**Figure S13:** ESI-MS positive spectrum of complex **1** in acetonitrile-methanol (2:1) mixture at room temperature.



**Figure S14:** ESI-MS positive spectrum of complex **2** in acetonitrile-methanol (2:1) mixture at room temperature.