

Supplementary Material

Effects of Appended Hydroxyl Groups and Ligand Chain Length on Copper Coordination and Oxidation Activity

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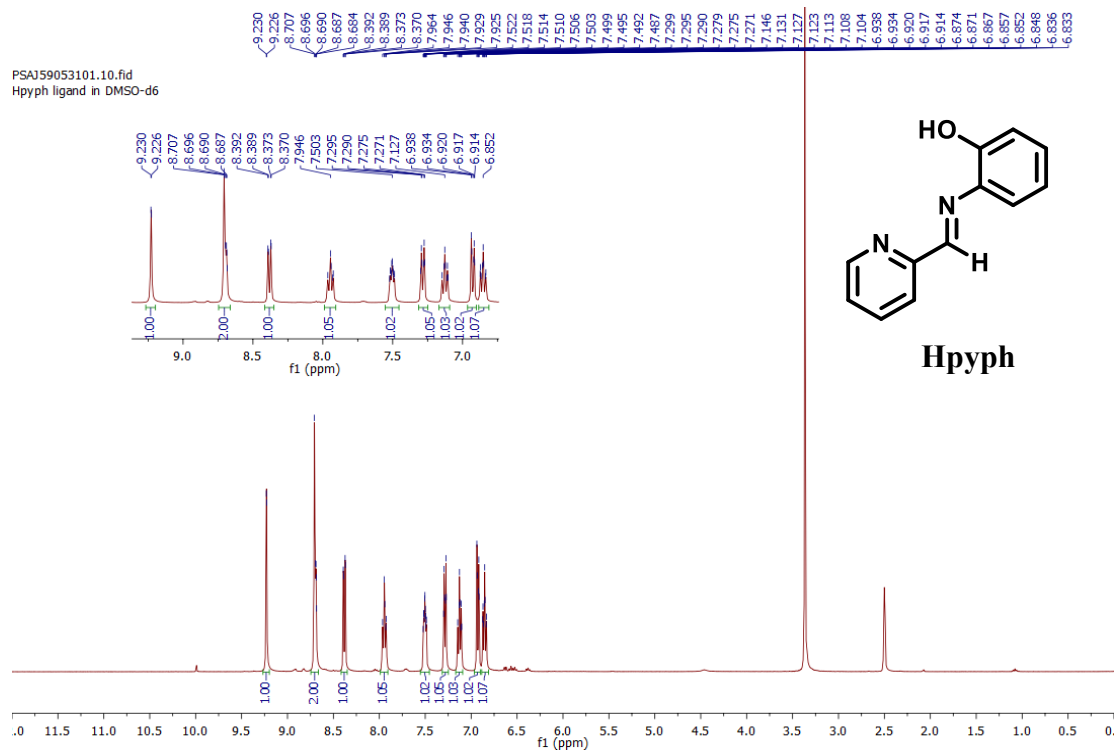


Figure S1. ¹H NMR spectrum of Hpyph in DMSO-*d*₆

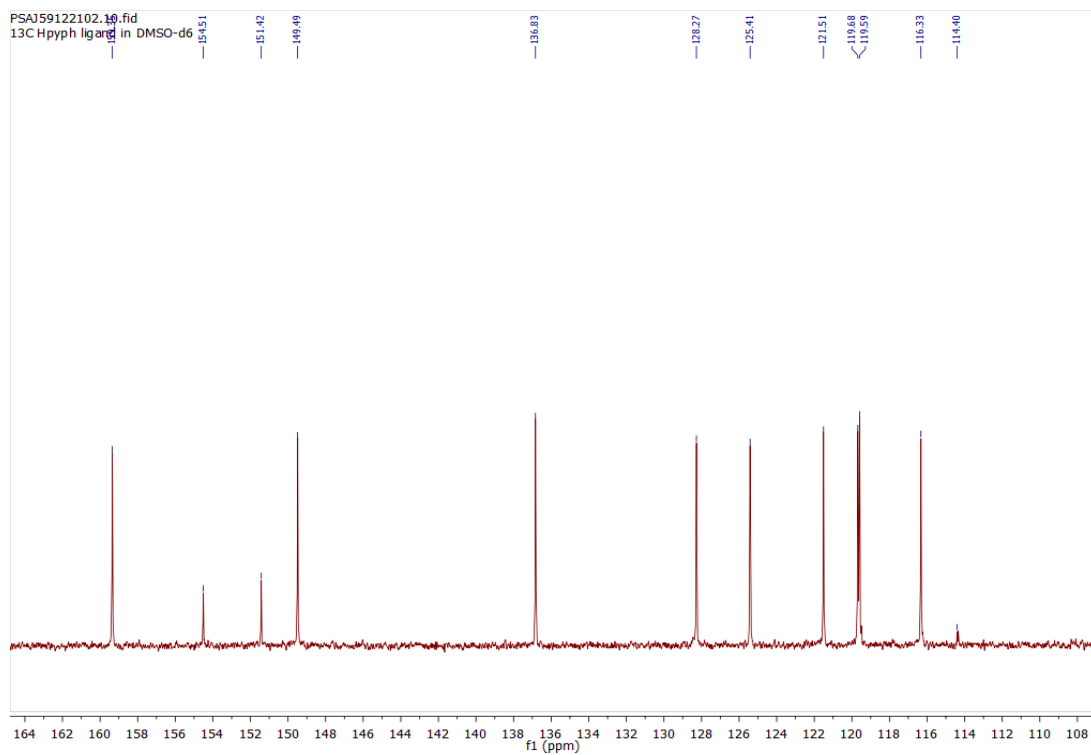


Figure S2. ¹³C NMR spectrum of Hpyph in DMSO-*d*₆

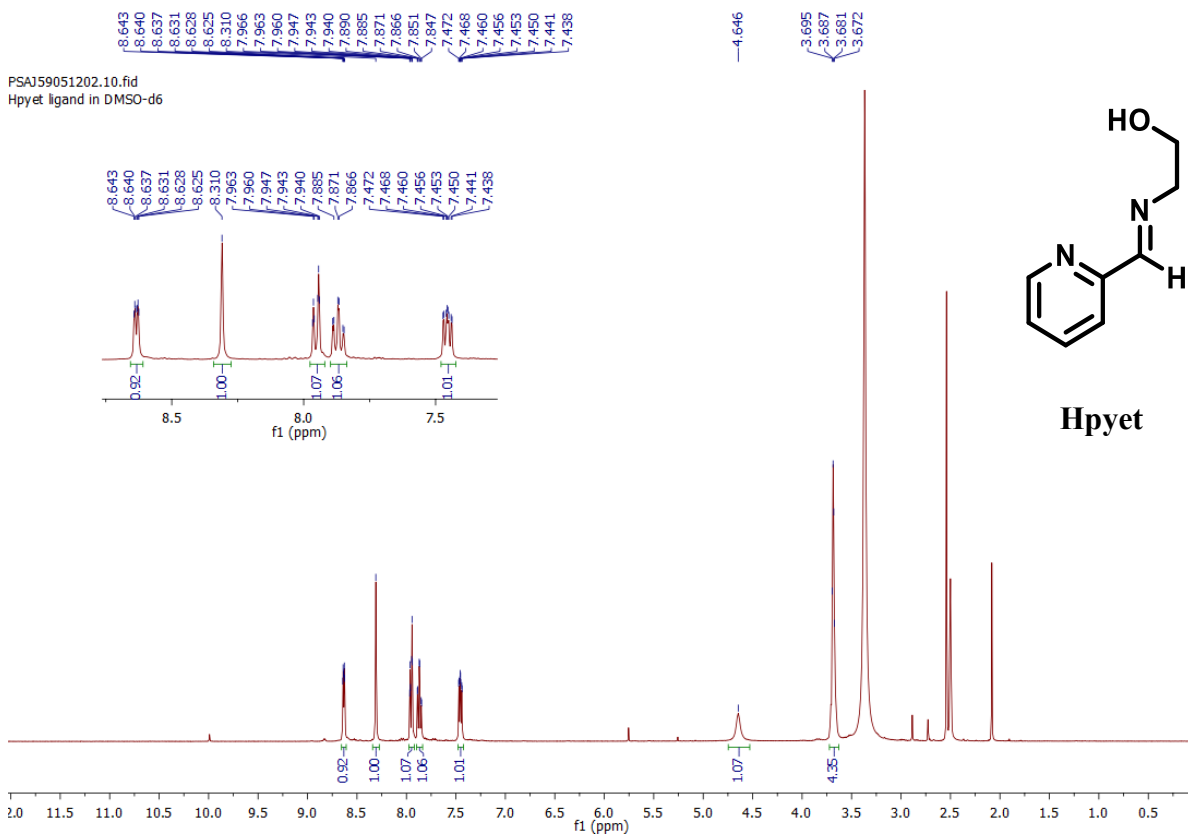


Figure S3. ¹H NMR spectrum of Hpyet in DMSO-*d*₆

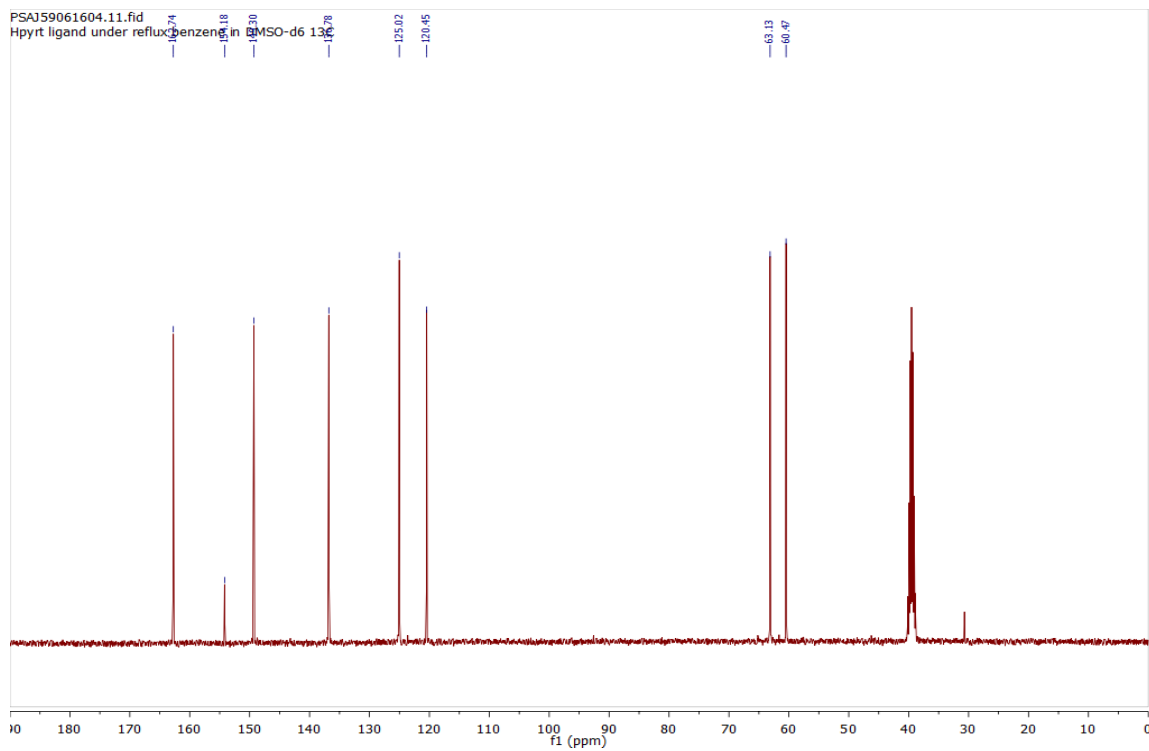


Figure S4. ¹³C NMR spectrum of Hpyet in DMSO-*d*₆

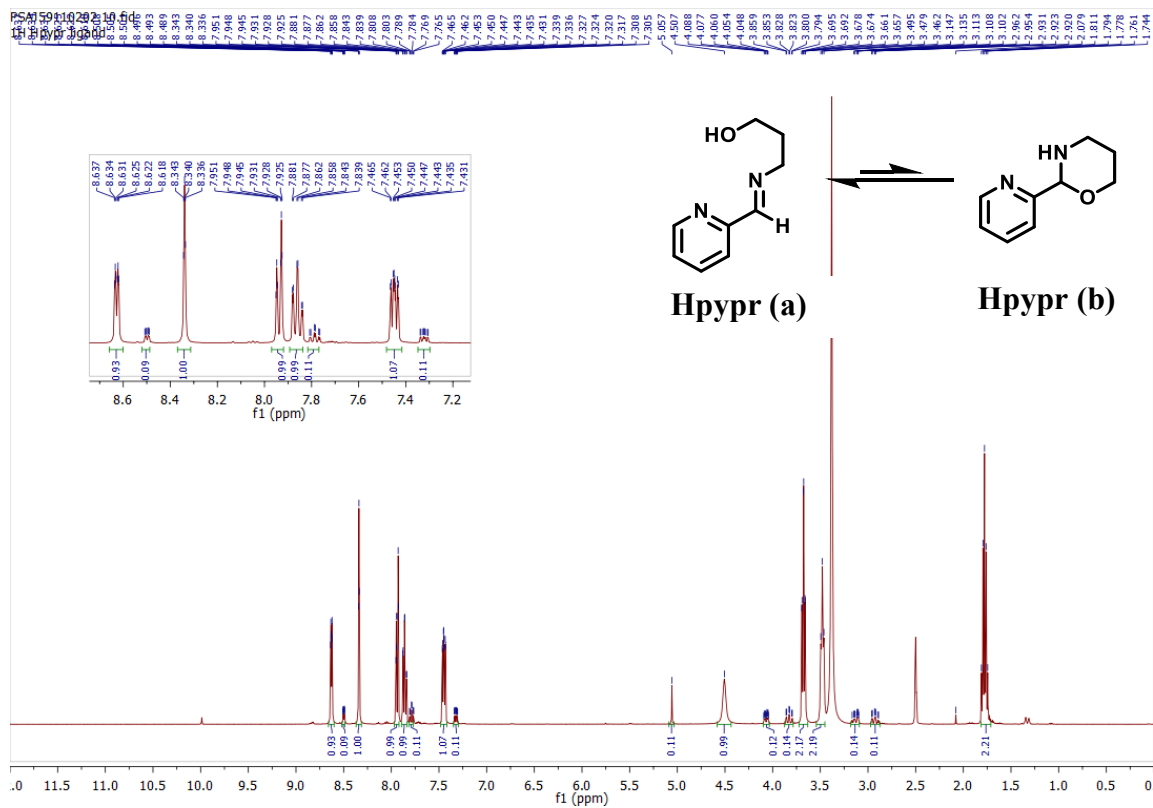


Figure S5. ^1H NMR spectrum of Hpypr in $\text{DMSO-}d_6$

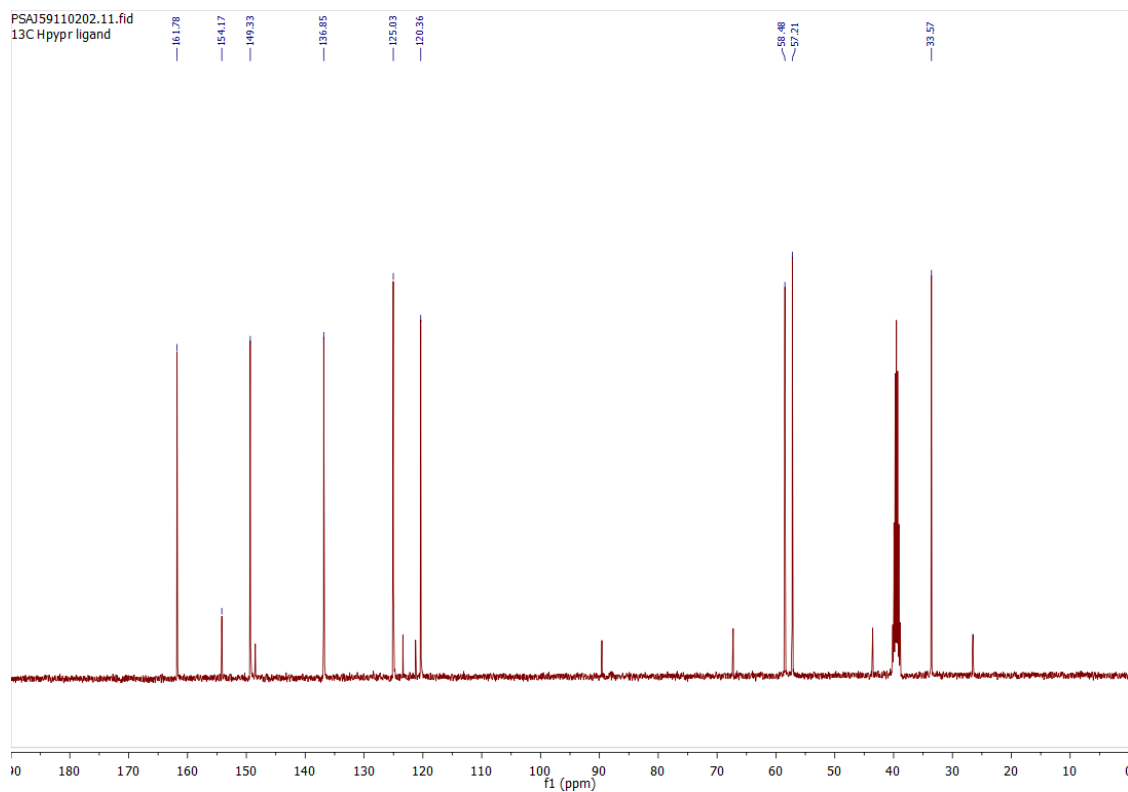


Figure S6. ^{13}C NMR spectrum of Hpypr in $\text{DMSO-}d_6$

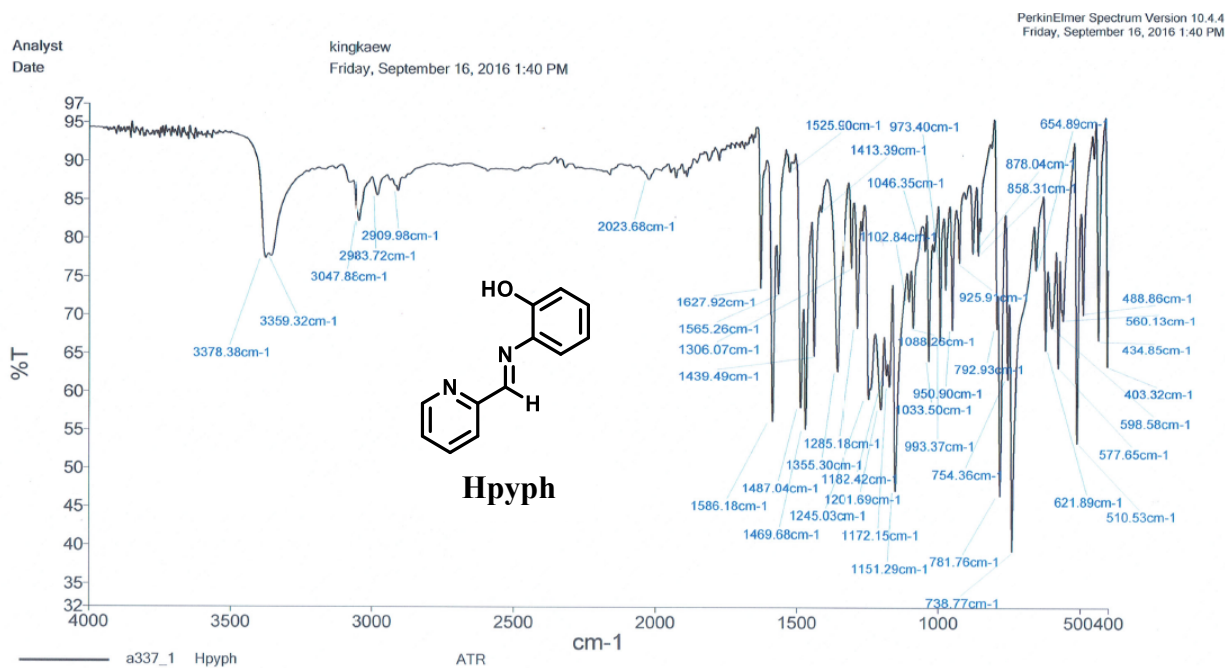


Figure S7. FT-IR spectrum of Hpyph

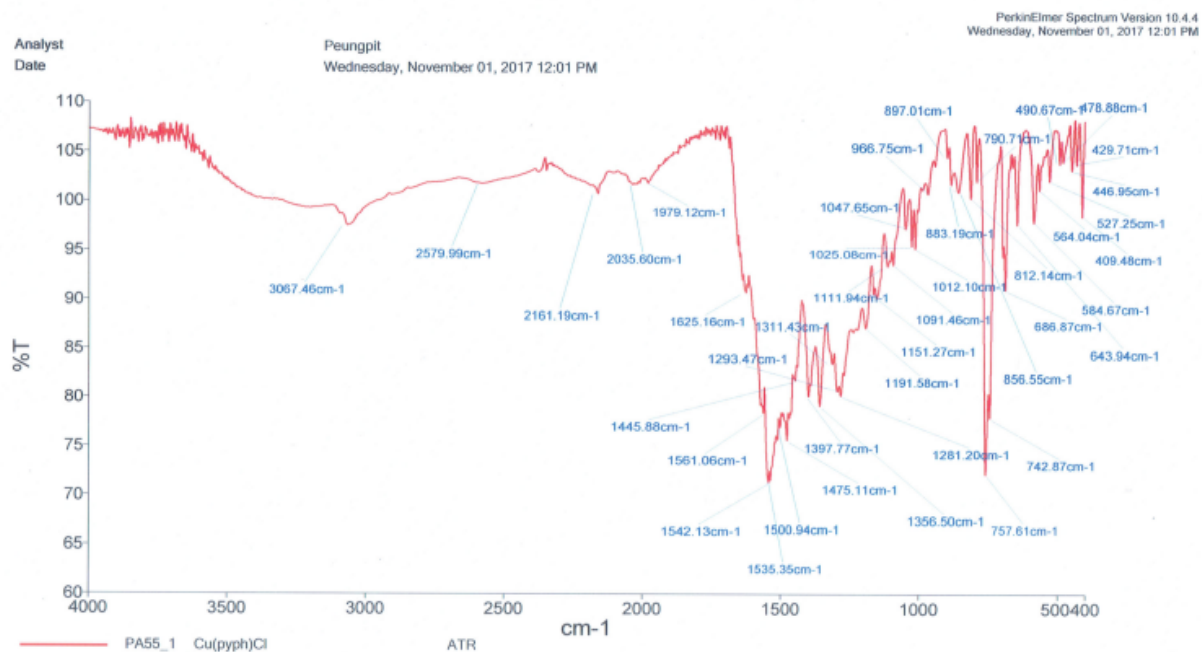


Figure S8. FT-IR spectrum of 1

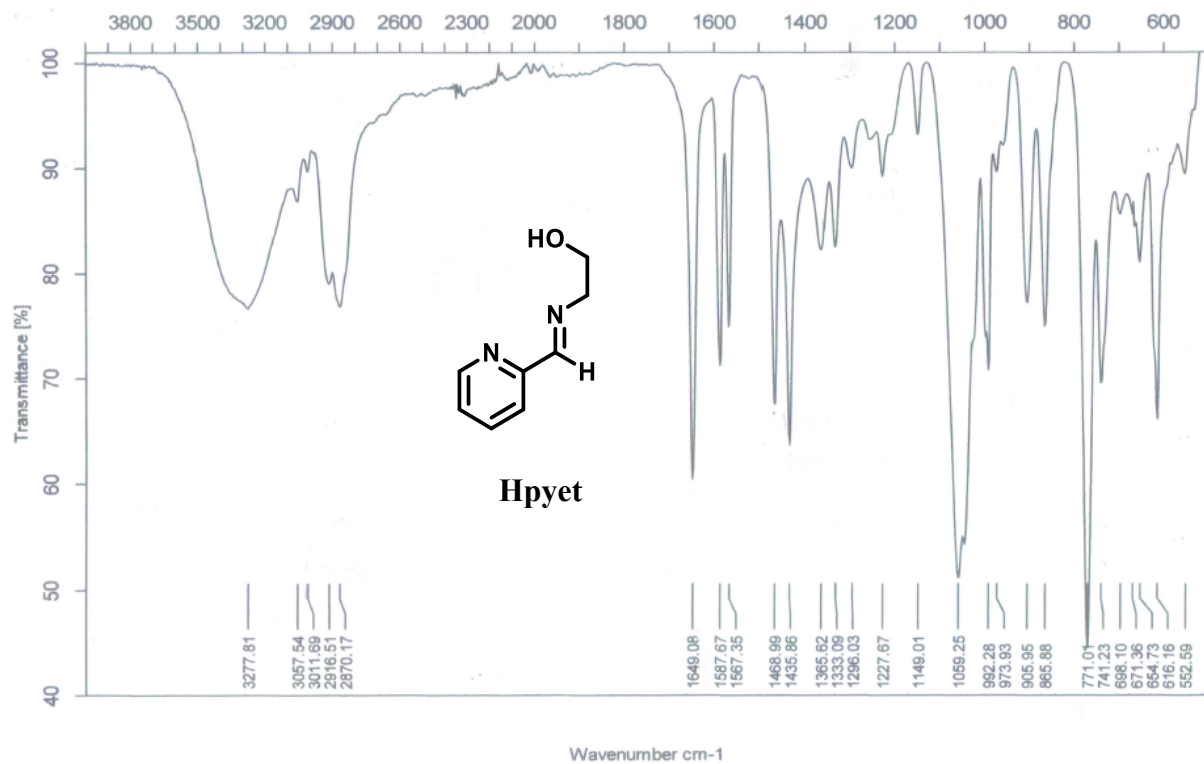


Figure S9. FT-IR spectrum of Hpyet

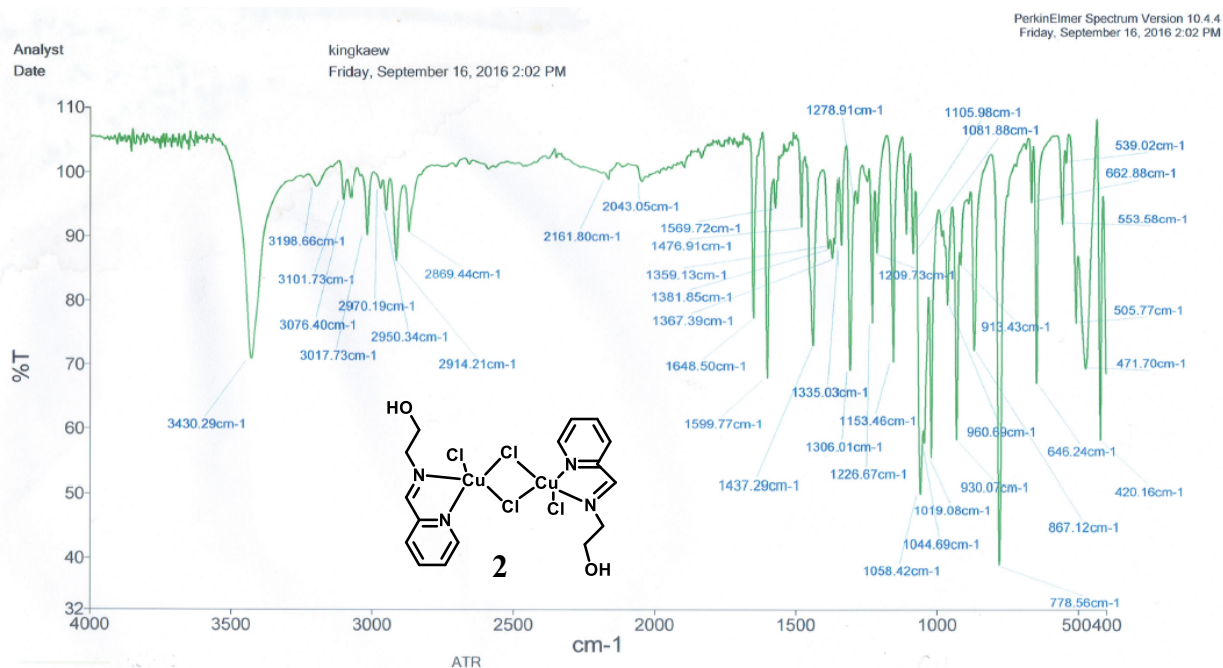


Figure S10. FT-IR spectrum of 2

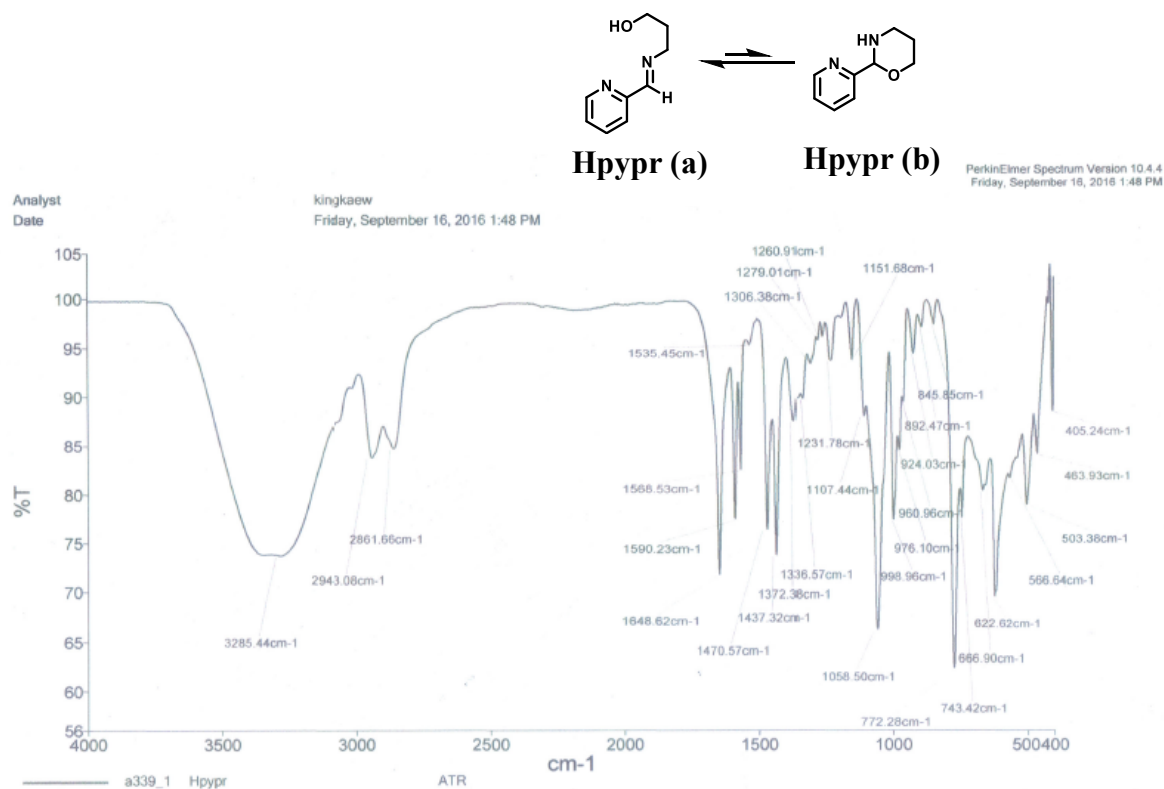


Figure S11. FT-IR spectrum of Hpypr

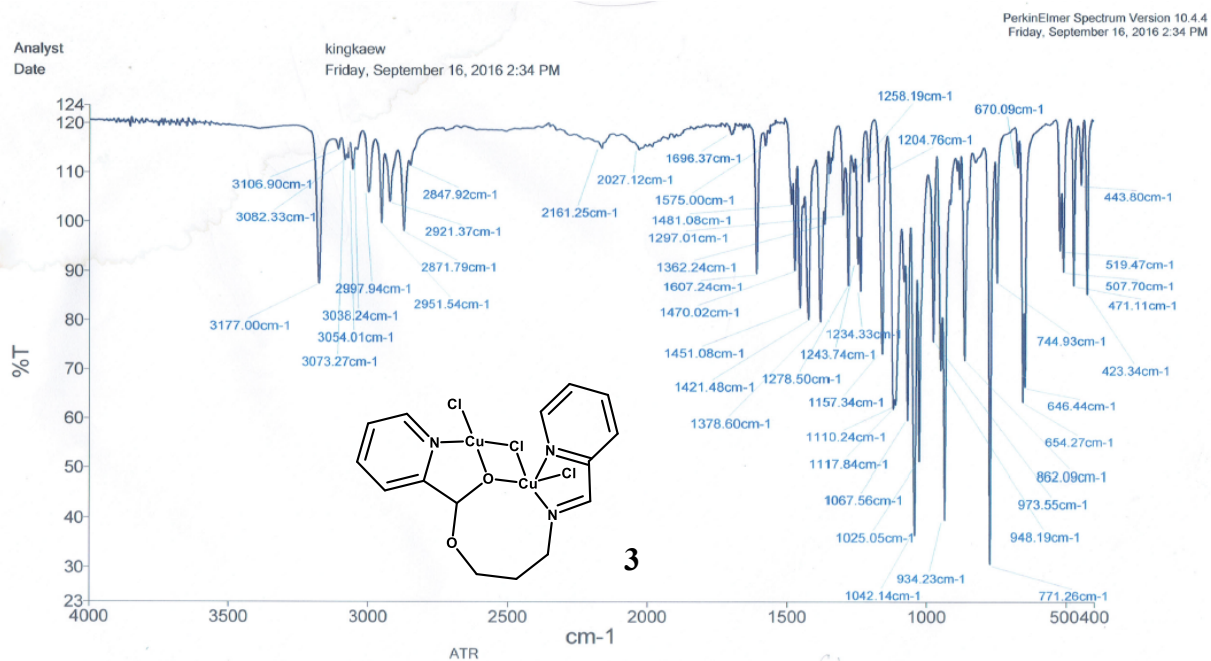


Figure S12. FT-IR spectrum of **3**

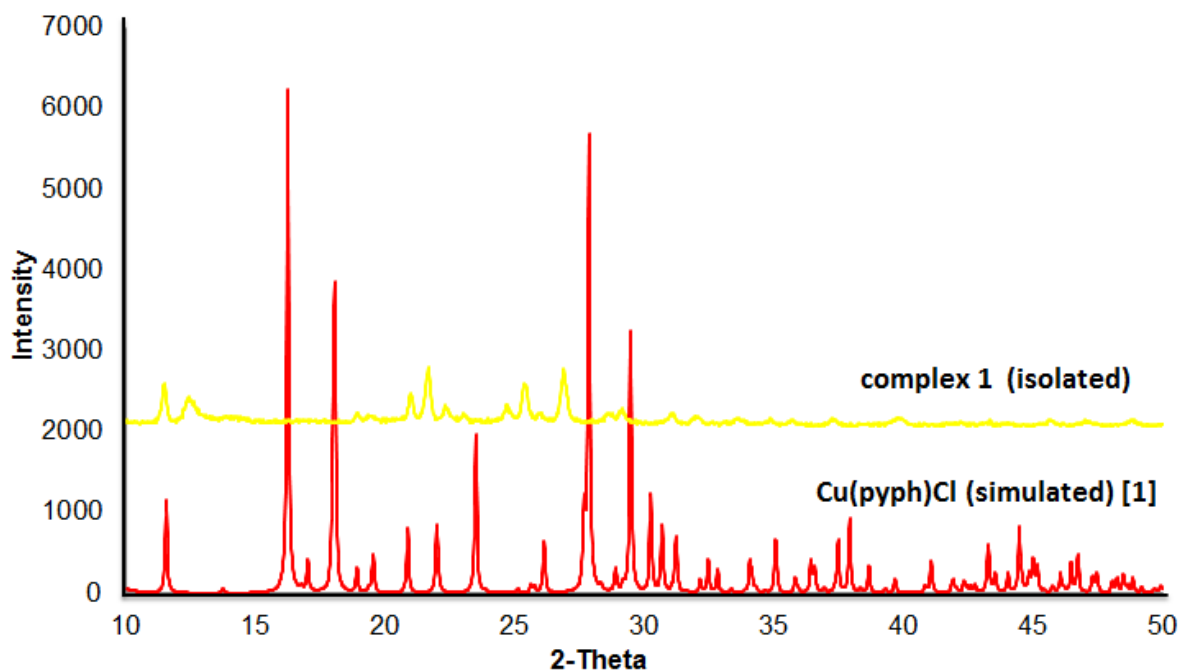


Figure S13. XRD patterns of **1** and Cu(pyph)Cl (simulated using XRD data from Ref. [1])

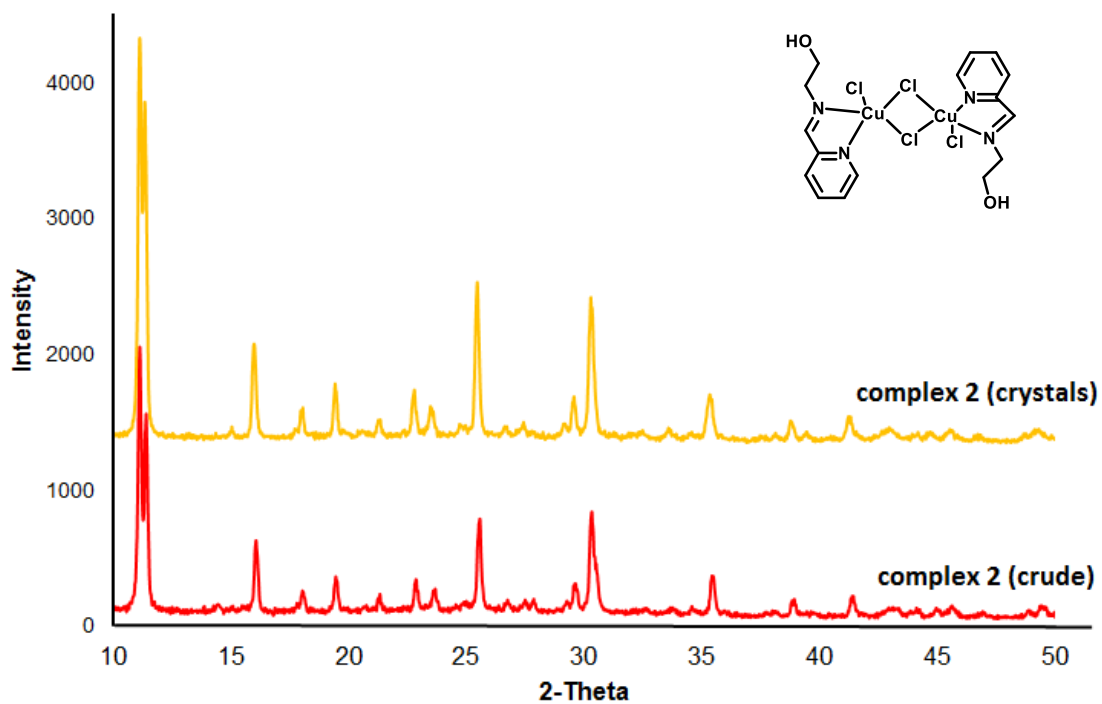


Figure S14. XRD patterns of **2**

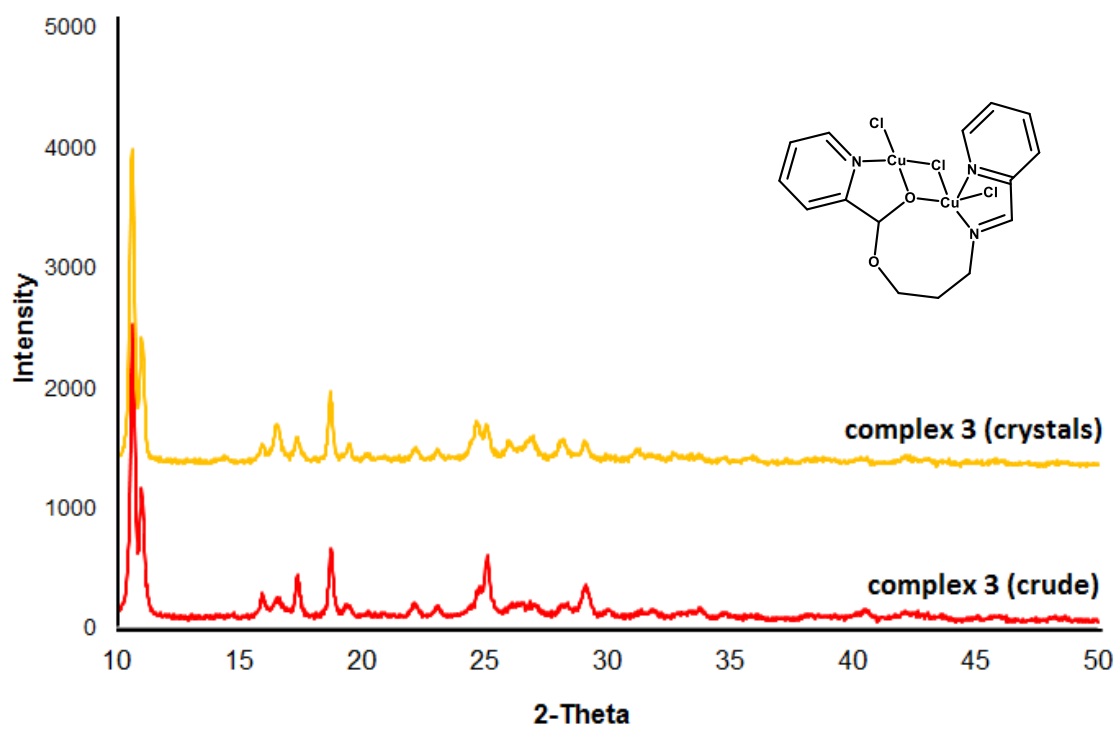


Figure S15. XRD patterns of **3**

Complex 1

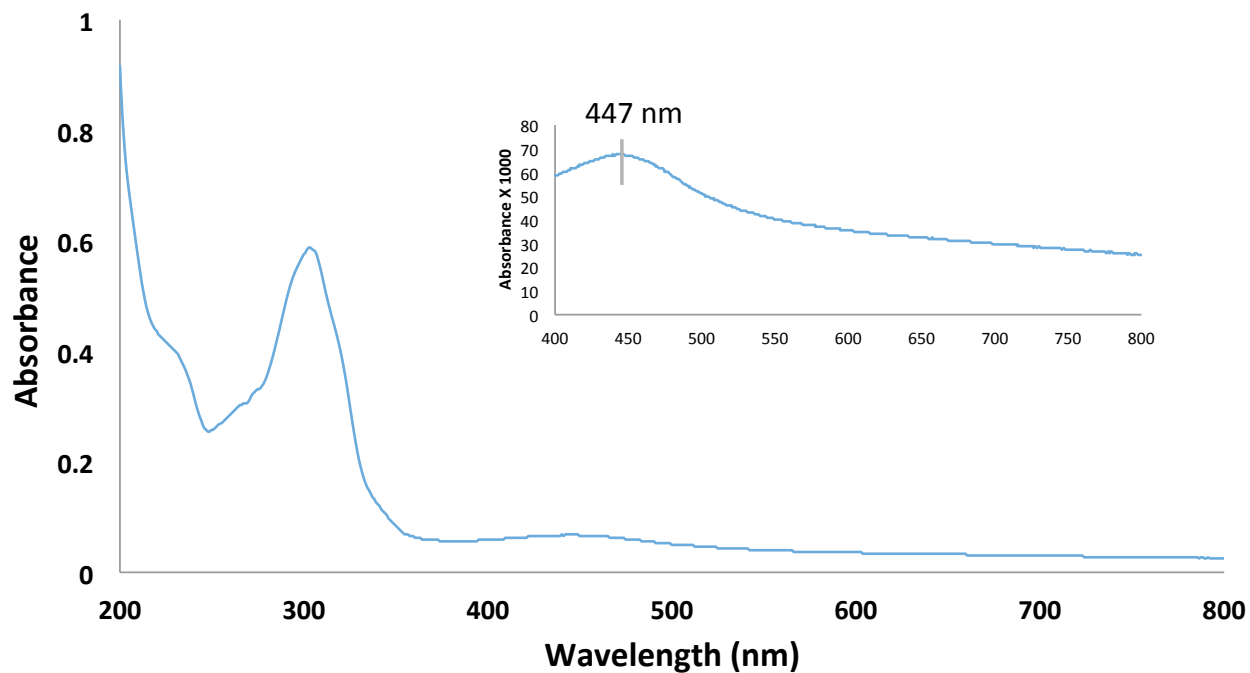


Figure S16. UV-vis spectrum of **1**

Complex 2

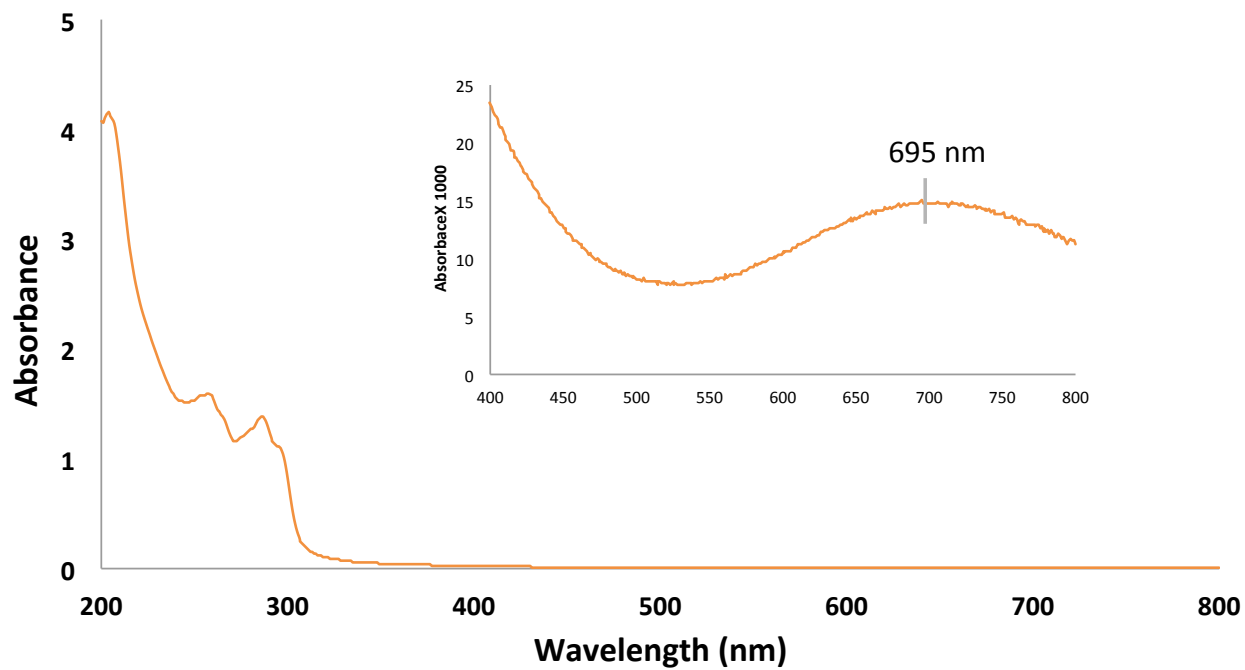


Figure S17. UV-vis spectrum of **2**

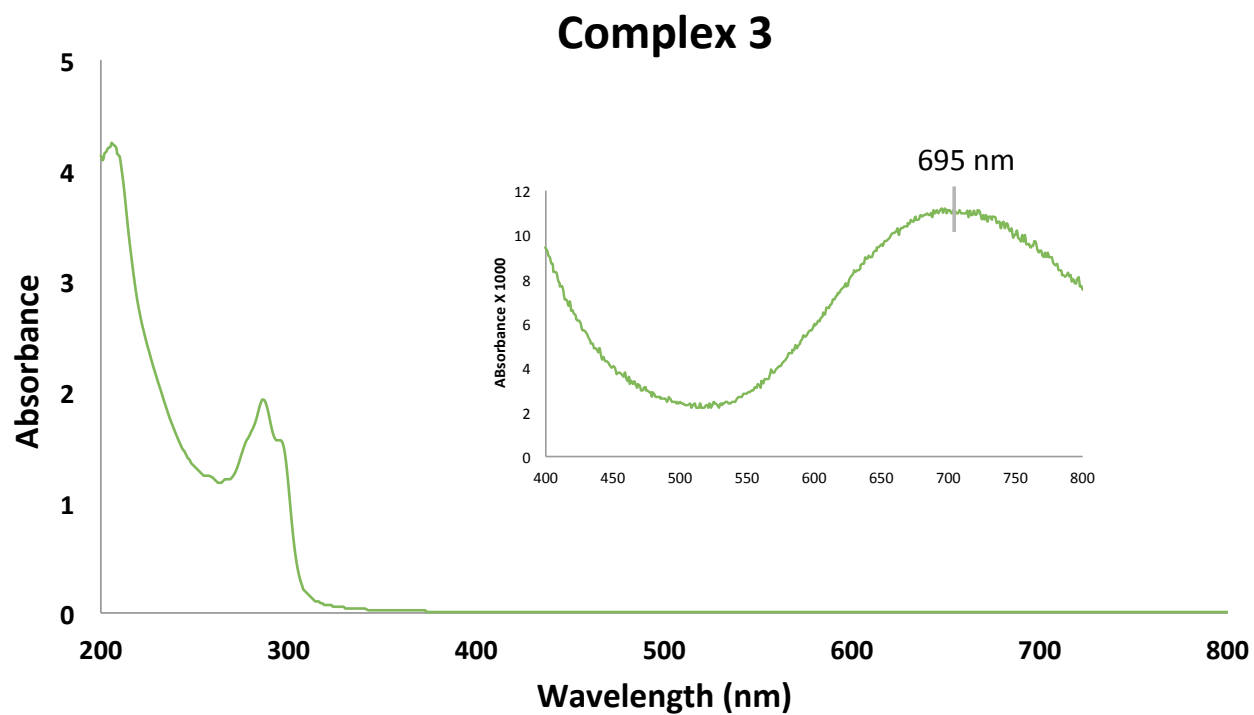


Figure S18. UV-vis spectrum of **3**

Reference:

[1] S. Das, S. A. Maloor, S. Pal, S. Pal. Solvated square-planar ternary copper(II) complexes: solvent-dependent zipper and columnar structures. *Cryst. Growth Des.* **2006**, 6, 2013–2018.