

Electronic Supplementary Information

Construction of five Zn(II)/Cd(II) coordination polymers derived from a new linear carboxylate/pyridyl ligand: Design, synthesis, and photocatalytic properties

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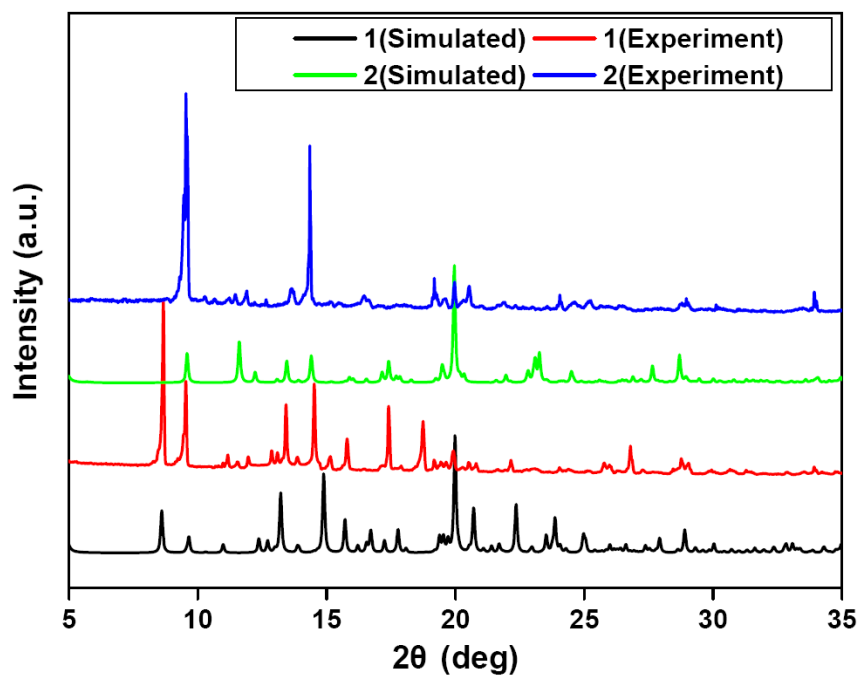


Figure S1. Experimental and simulated PXRD patterns for **1–2**.

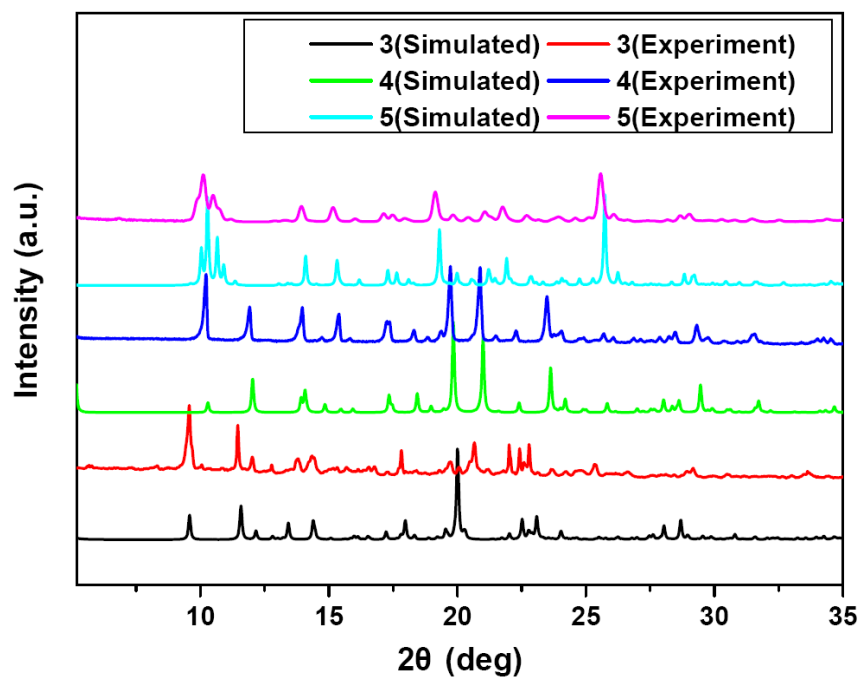


Figure S2. Experimental and simulated PXRD patterns for **3–5**.

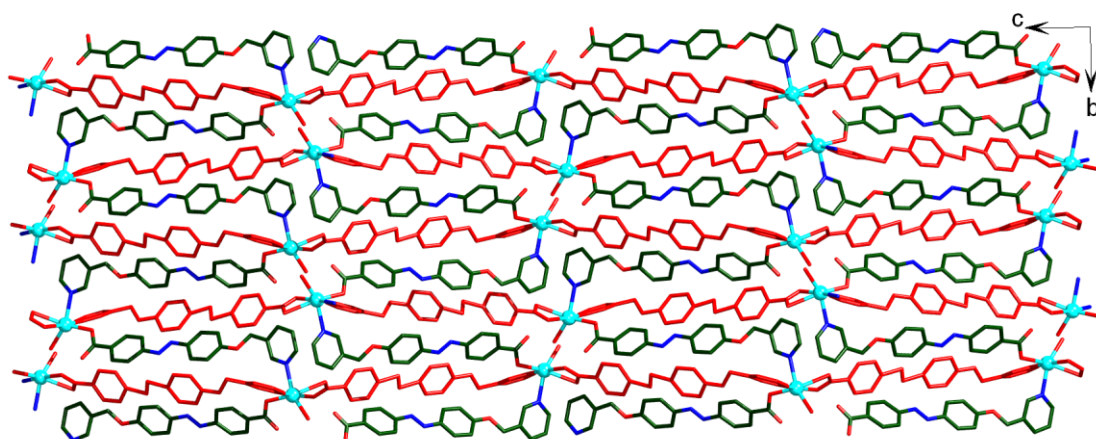
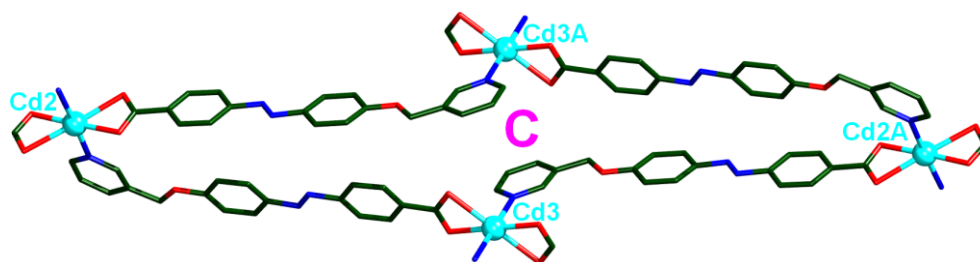
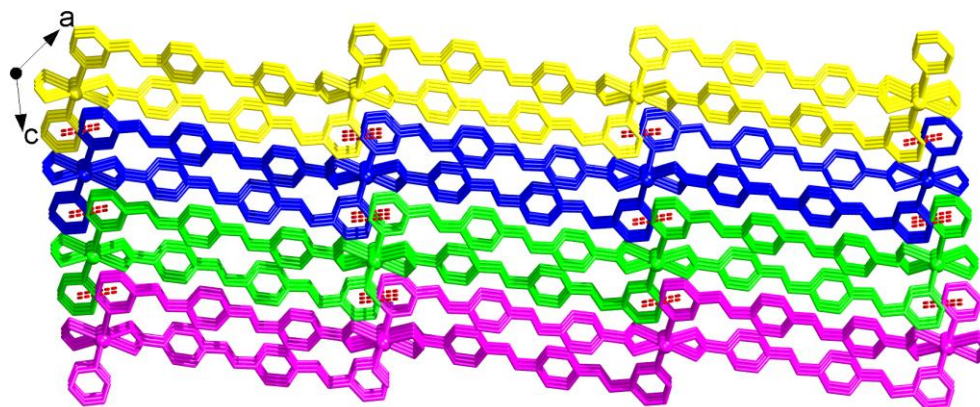


Figure S3. View of the 2D network in **1** extending along *bc* plane.

(a)



(b)



(c)

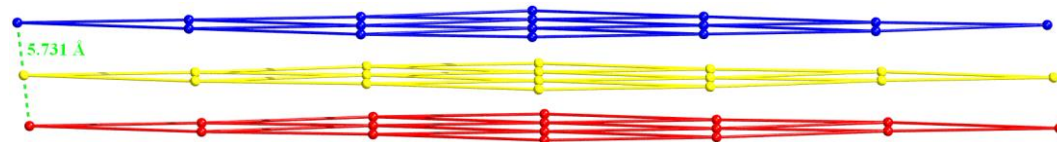


Figure S4. (a) View of the metallocyclic $[Cd_4L_4]$ unit of **3**. (b) View of a 3D supramolecular structure in **3** looking down the *b* axis. (c) View of the separations between the neighboring nets in **2**. Atom color codes: Cd, cyan polyhedrons; O, red; N, blue; C, dark green. All H atoms are omitted for clarity.

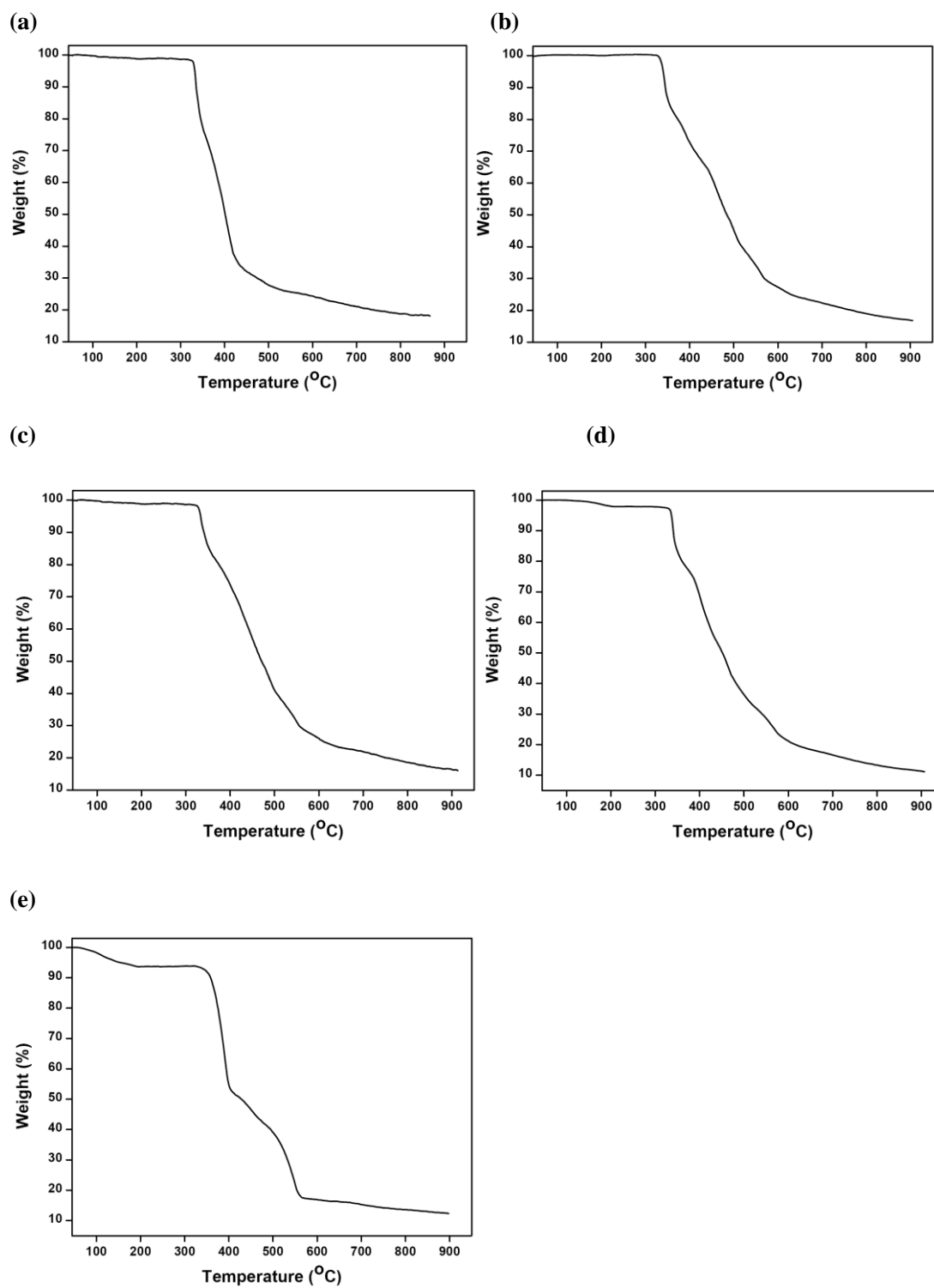


Figure S5. TG curves of **1** (a), **2** (b), **3** (c), **4** (d), and **5** (e).

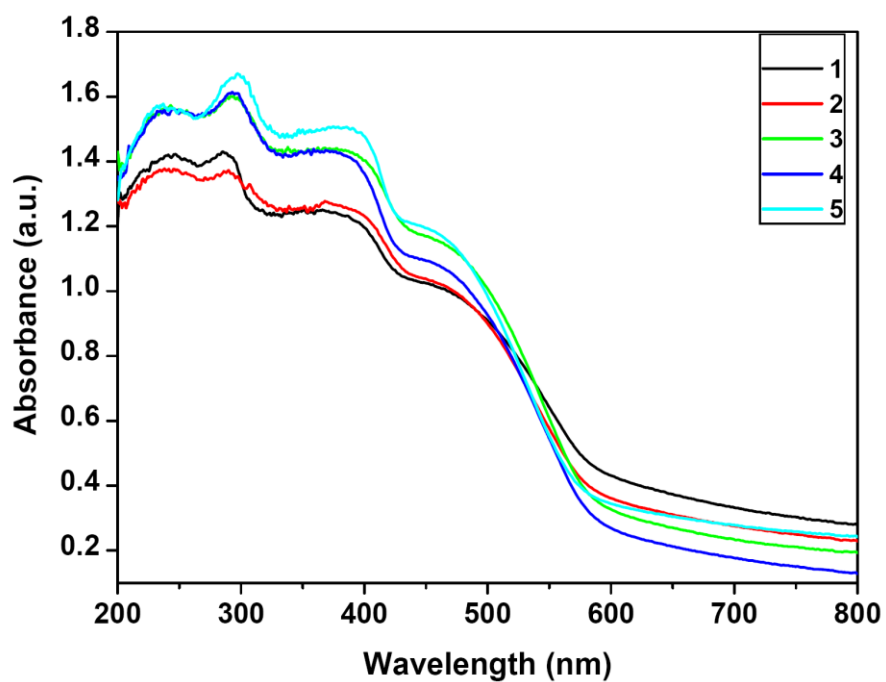


Figure S6. UV-vis adsorption spectra of 1–5 in the solid state at ambient temperature.

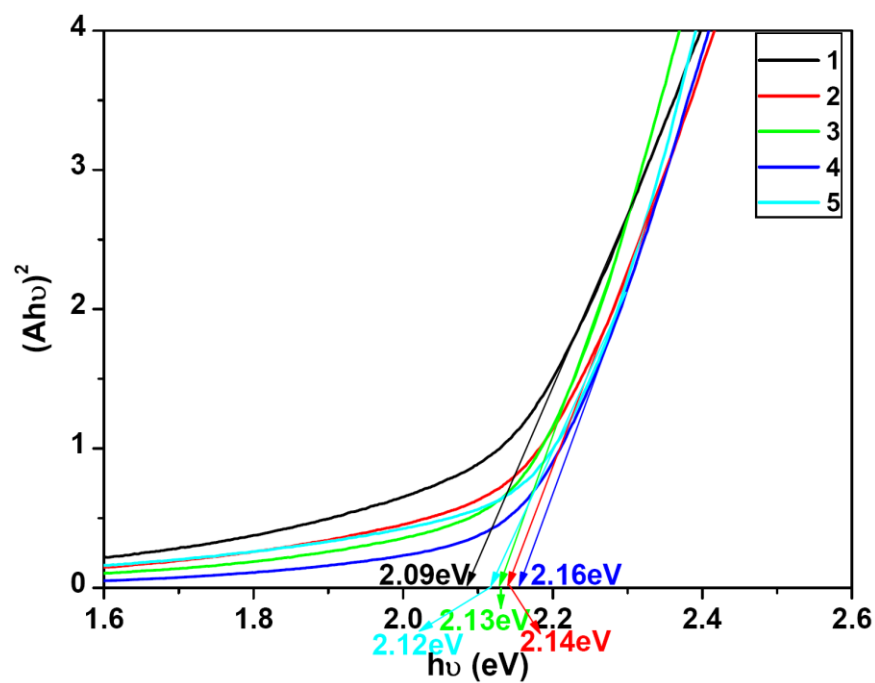


Figure S7. $(Ah\nu)^2-h\nu$ curves of 1–5.

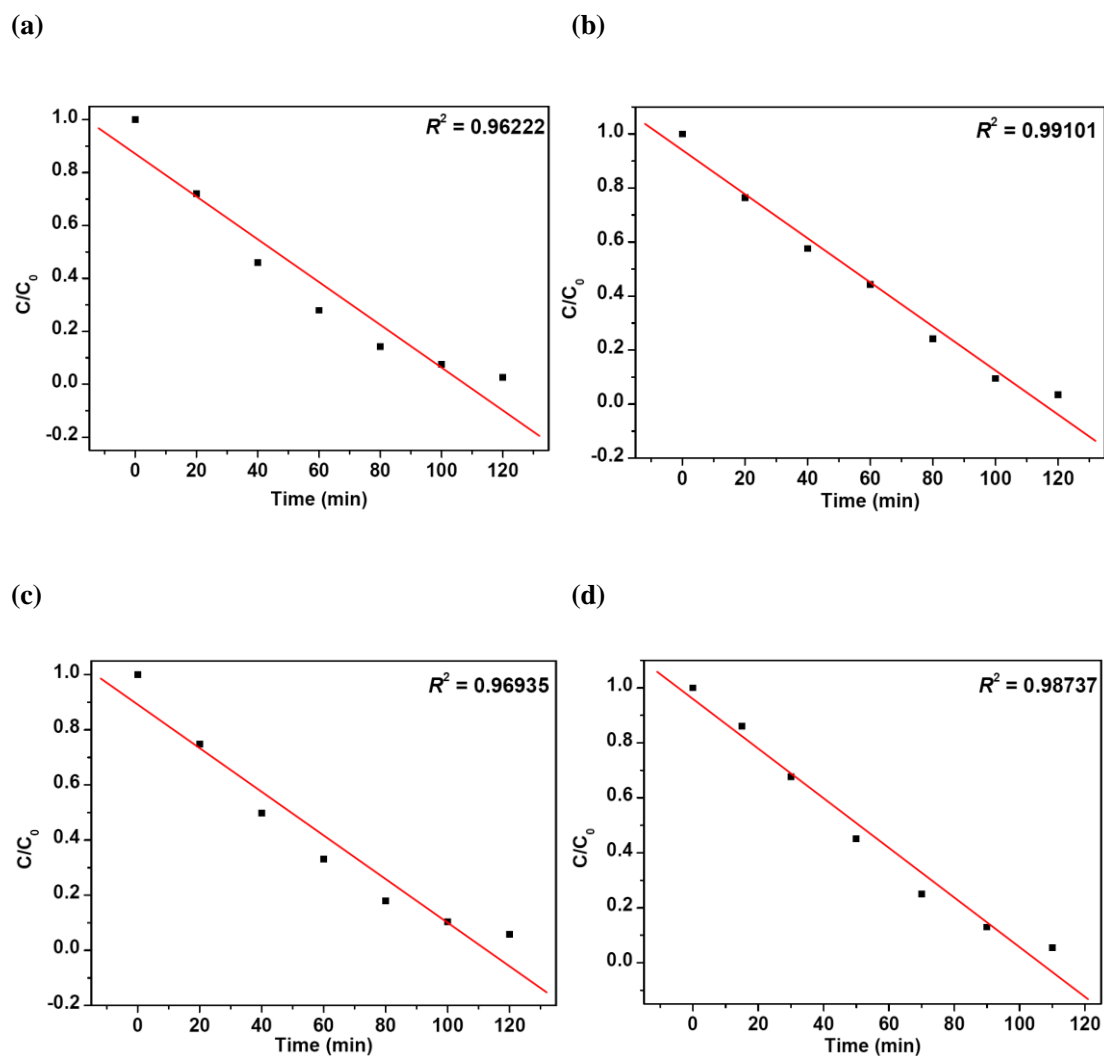


Figure S8. (a-d) The pseudo-zero-order plot for the photodegradation of MB in the presence of 1–4 under UV-Vis light irradiation. The square dots and the red line represent the experimental data and the fitted least-square line, respectively.

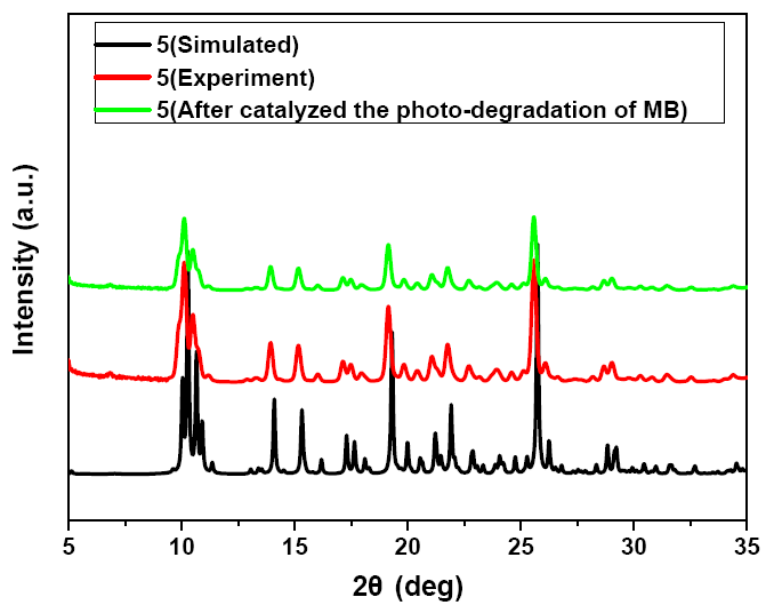


Figure S9. The PXRD patterns from simulated single crystal data, of as-synthesized samples, of as-synthesized samples after catalyzed the photo-degradation of MB.

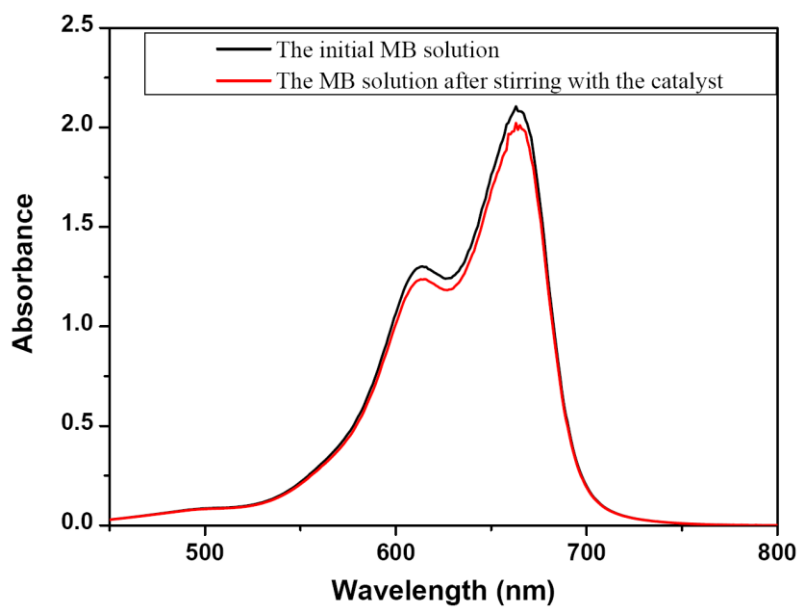


Figure S10. The UV-vis adsorption spectra of the initial MB solution and the MB solution after stirring with the catalyst about 30 min.