

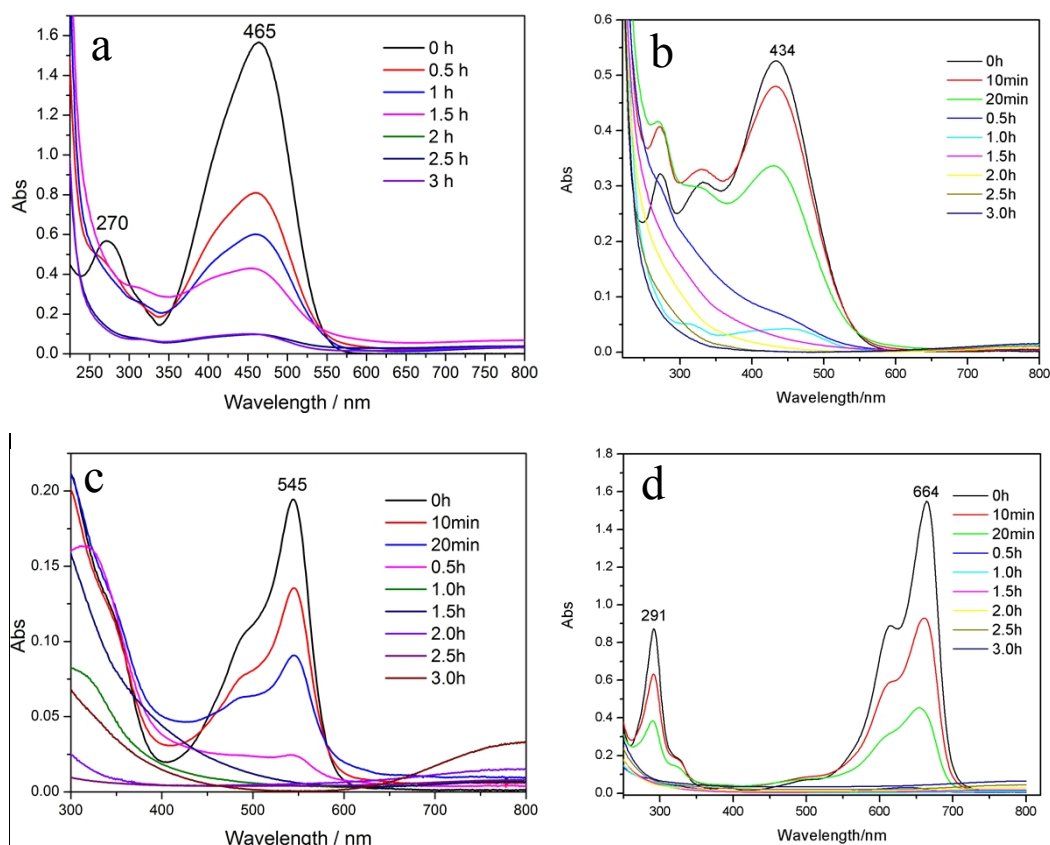
## Supporting Information

### Facile preparation of Chevrel's salt ( $\text{Cu}_2\text{SO}_3 \cdot \text{CuSO}_3 \cdot 2\text{H}_2\text{O}$ )

### mesocrystalline microspheres and its high photocatalytic activity†

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**SI-1** Temporal UV-vis absorption spectral changed for the various dyes solution over  $\text{Cu}_2\text{SO}_3 \cdot \text{CuSO}_3 \cdot 2\text{H}_2\text{O}$  as a function of UV irradiation time from 0 to 3 h respectively



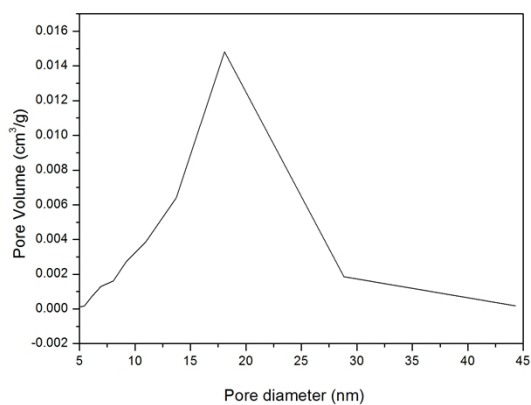
a) methyl orange, b) thymol blue, c) acid fuchsin, d) methyl blue.

**SI-2** Pore-size distribution isotherms of the prepared  $\text{Cu}_2\text{SO}_3 \cdot \text{CuSO}_3 \cdot 2\text{H}_2\text{O}$  mesocrystalline microspheres.

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### SI-3 Synthesis of $\text{Cu}_2\text{SO}_3 \cdot \text{CuSO}_3 \cdot 2\text{H}_2\text{O}$ irregular microparticles

20 mL  $\text{Na}_2\text{SO}_3$  ( $7.6 \text{ mmol} \cdot \text{L}^{-1}$ ) aqueous solution was added into 20 mL  $\text{CuAc}_2$  ( $4.67 \text{ mmol} \cdot \text{L}^{-1}$ ) aqueous solution in a beaker under magnetic stirring at the ambient temperature. The slurry immediately formed. After stirring for 15 min,  $\text{H}_2\text{SO}_4$  solution with pH value 1 was dropwise added into the above mixed solution to adjust pH value to the range of 4-4.6. The brick red precipitates at the bottom of the beaker were collected, washed with distilled water, and then dried in a vacuum oven at  $80^\circ\text{C}$ .