Electronic Supplementary Material (ESI) for CrystEngComm

Supporting Information

Organic templates promoted photocatalytic and photoluminescent properties between two coordination polymers

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X-ray diffraction analysis. Suitable single crystals of **1-2** were carefully selected under an optical microscope and glued to thin glass fibers. Whereafter, single-crystal X-ray diffraction analyses were performed on a computer-controlled XCalibur E CCD diffractometer with graphite monochromated Mo Kα radiation ($\lambda_{Mo\text{-}K\alpha}$ = 0.71073 Å) at T = 293 K. The structures were solved using the direct method and refined by full-matrix least-squares methods on F^2 by using the SHELX-97 program package. The SQUEEZE option of PLATON was used to eliminate the contribution of disordered guest molecules to the reflection intensities. Due to the bad crystal quality of compound **2**, several atoms in the structure have large ADPs including O21 atom and the final R-factors are large.

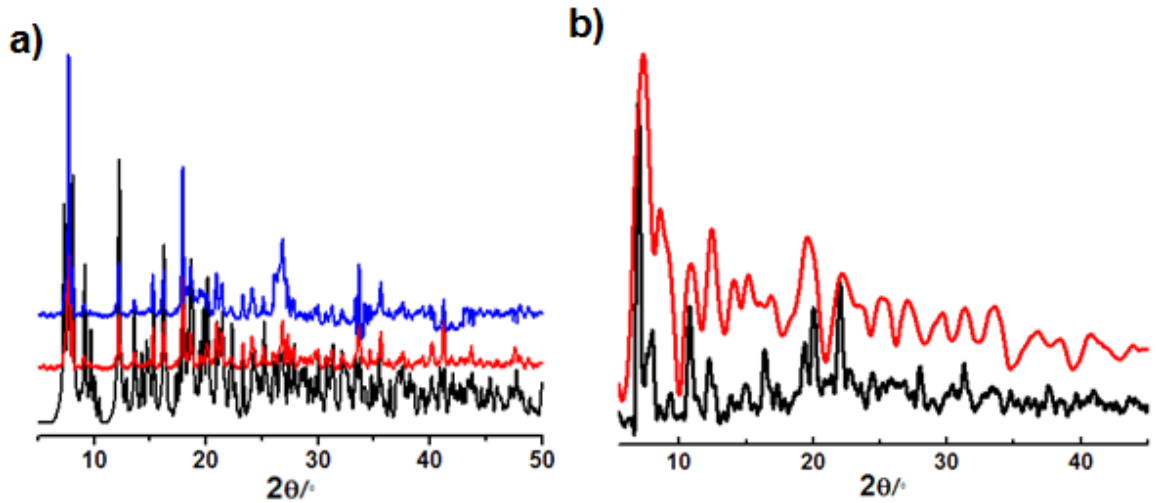

Figure S1. (a) Powder XRD patterns for **1**: Black line: simulated, Red line: sample, Blue line: after degradation of methyl blue; (b) Powder XRD patterns for **2**: Black line: simulated, Red line: sample.

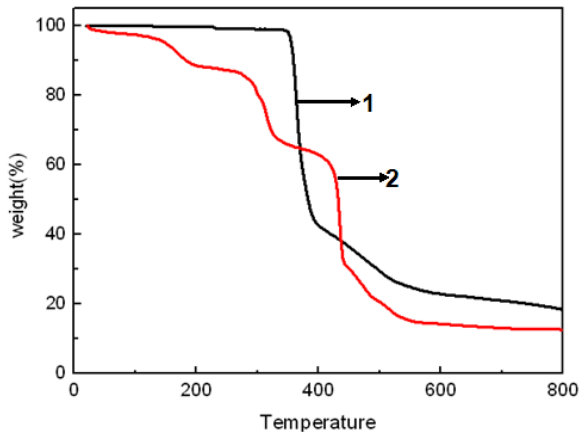

Figure S2. The TGA diagram of compound **1** and **2**.

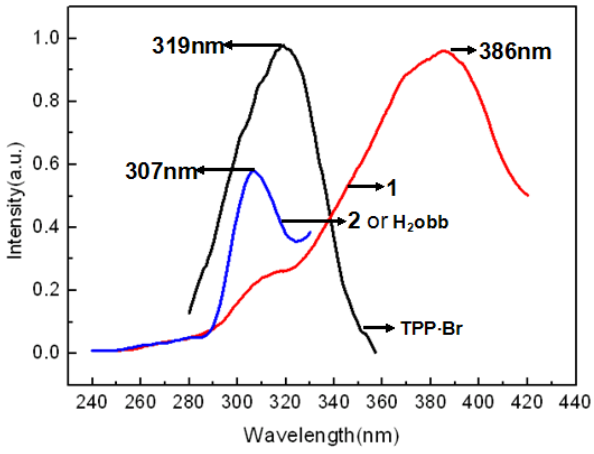

Figure S3. Excitation spectra of **1** (maximum 386 nm), **2** or H_2obb (maximum 307 nm) and TPP·Br (maximum 319 nm) in the solid state at room temperature.

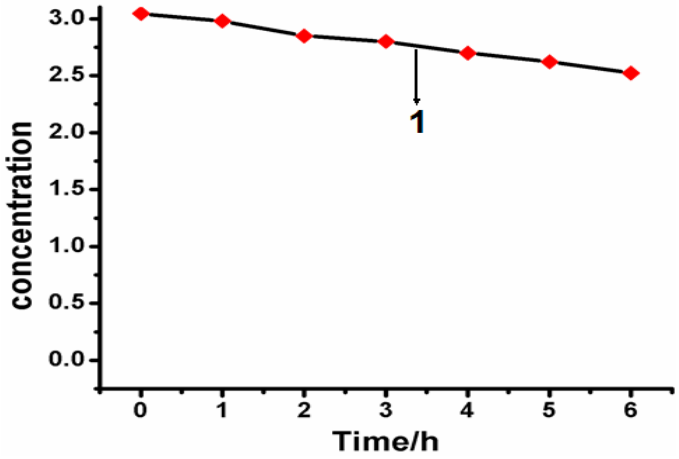

Figure S4. The darkcatalytic degradation curve of MB concentration corresponding to **1.**

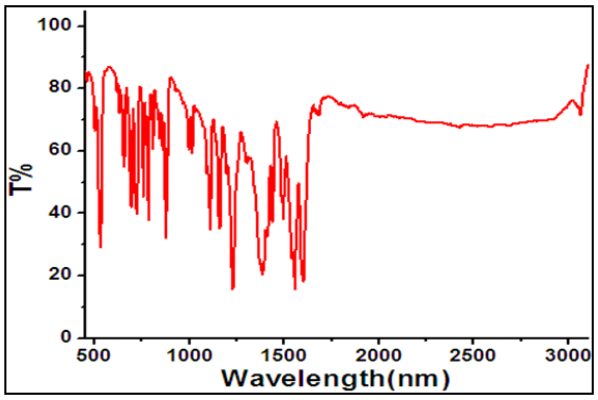

Figure S5.The IR of compound **1**.

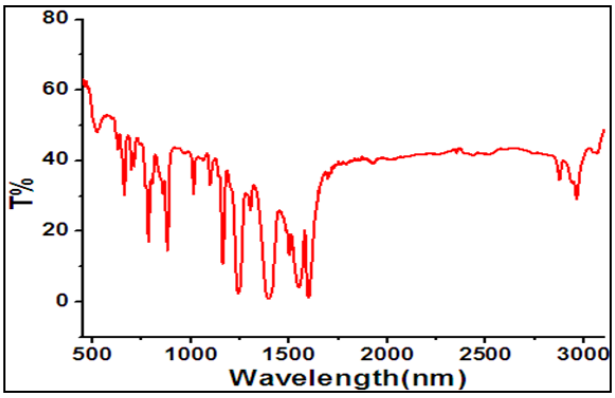

Figure S6. The IR of compound **2**.