

Selective and Recyclable Sensing of aqueous phase 2,4,6-trinitrophenol (TNP) Based on Cd(II) Coordination Polymer with Zwitterionic Ligand

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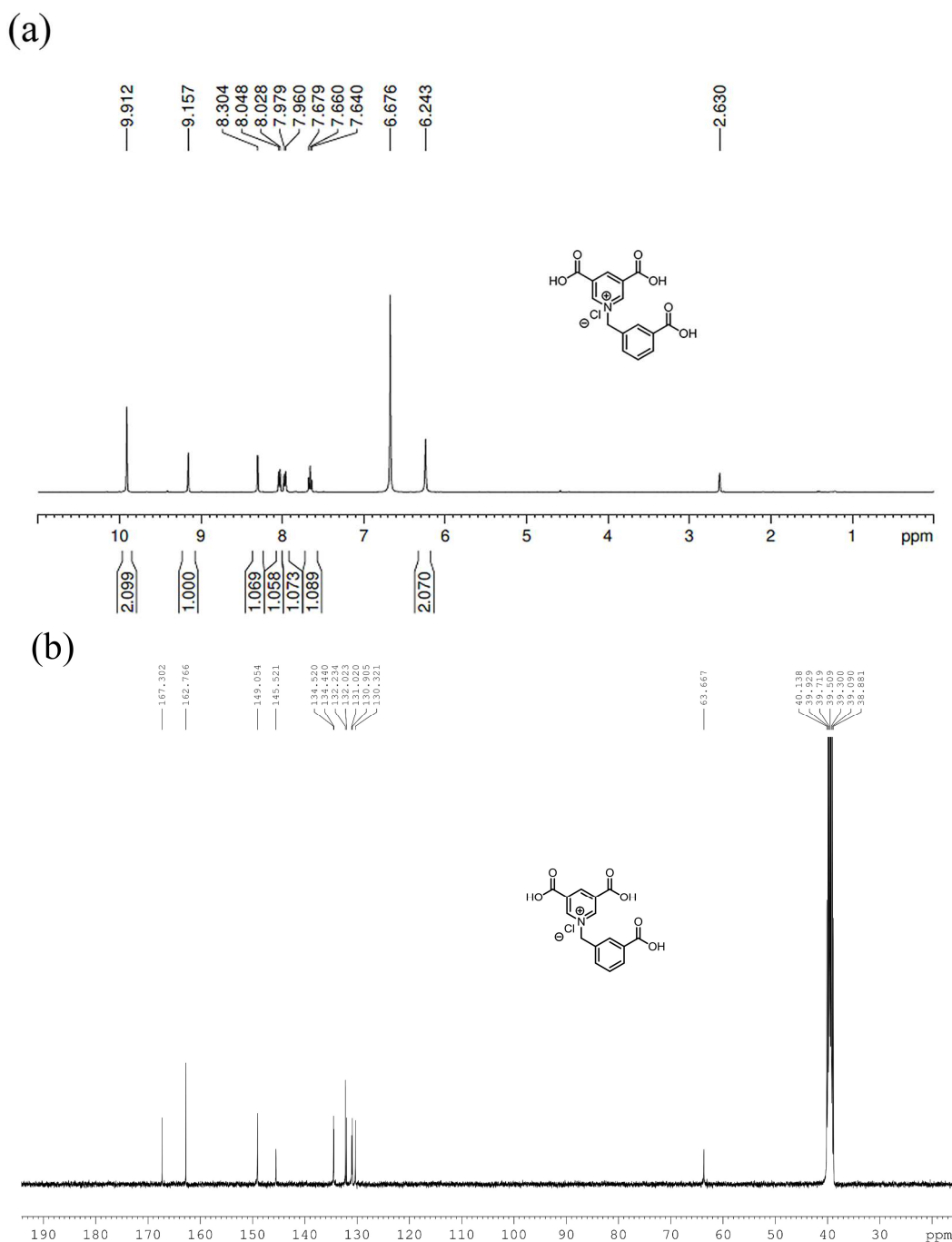


Figure S1. (a) ^1H NMR (400 Hz, $\text{DMSO-}d_6 + \text{DCl}$) spectra of the $\text{H}_3\text{DccbpCl}$ ligand; (b) ^{13}C NMR (100 Hz, $\text{DMSO-}d_6 + \text{DCl}$) spectra of the $\text{H}_3\text{DccbpCl}$ ligand.

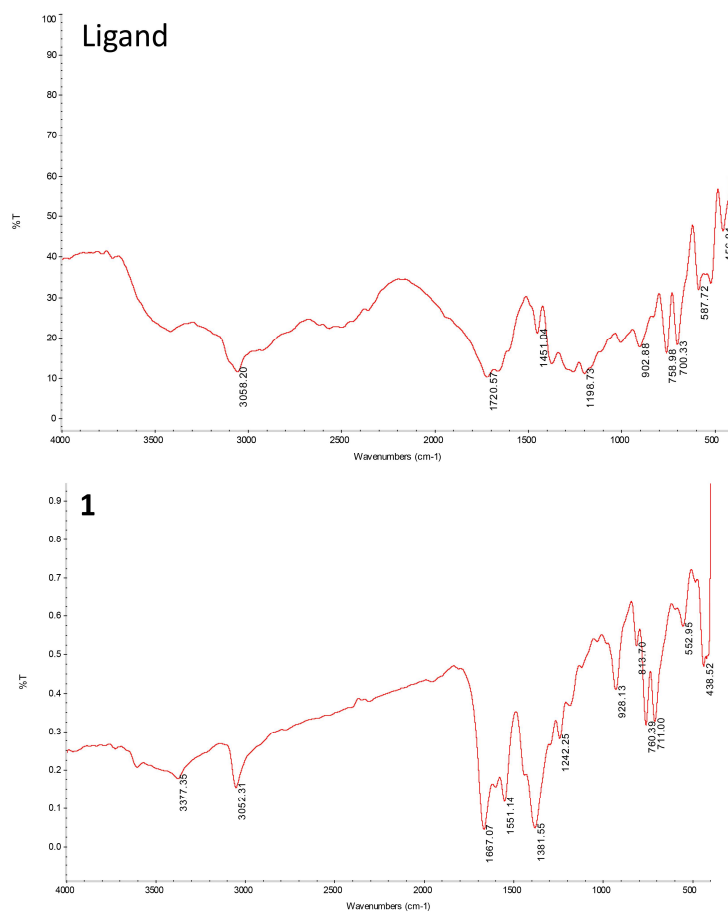


Figure S2. The infrared spectrum (IR) spectra of (a) H₃DcbpCl ligand; (b) coordination polymer 1.

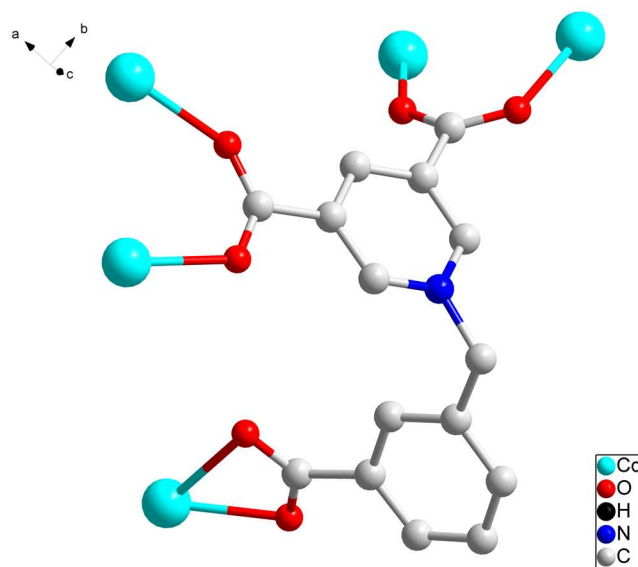


Figure S3. Coordination modes of ligand in the coordination polymer 1.

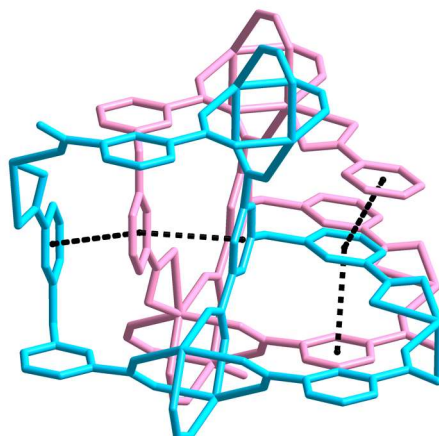


Figure S4. The interlayer $\pi\cdots\pi$ stacking interactions in coordination polymers (CP) 1.

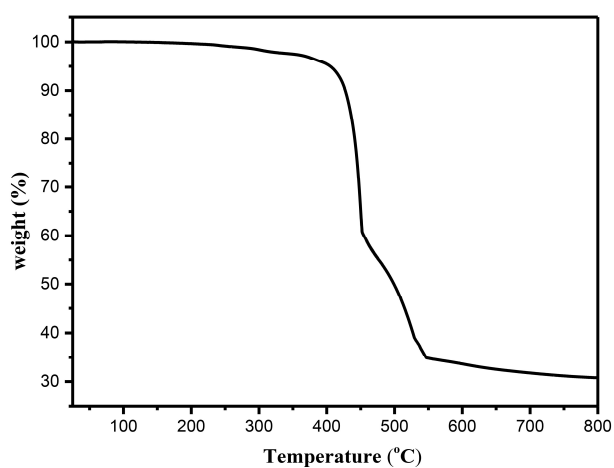


Figure S5. The thermogravimetric analysis (TGA) diagram of coordination polymer 1.

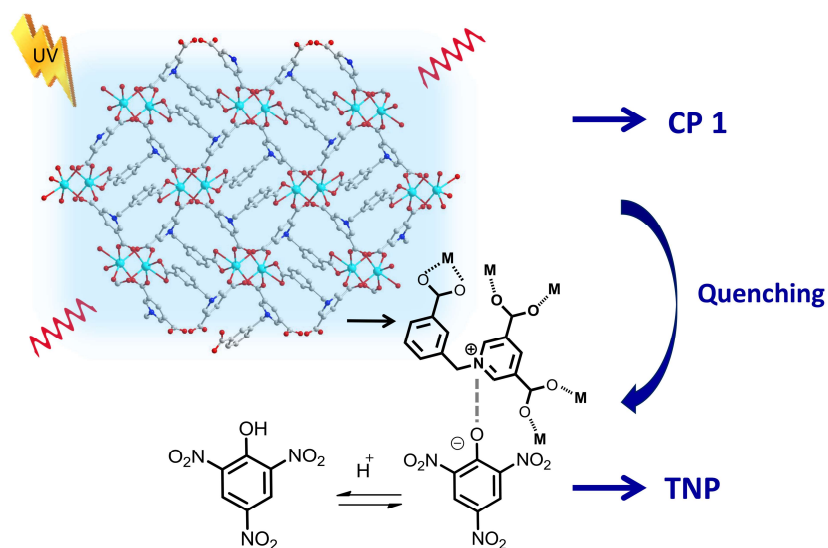


Figure S6. A possible schematic representation of the selective sensing and the simulation result of the electrostatic interaction between 2,4,6-trinitrophenol (TNP) and the monomer unit of coordination polymer 1.

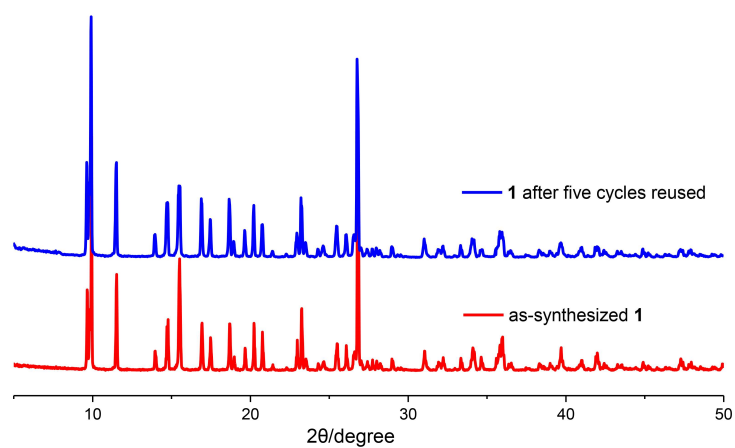


Figure S7. Powder X-ray diffraction (PXRD) patterns of coordination polymer **1** after detection of TNP (after five cycles reused).