

Electronic Supplementary Information for:

Four Binuclear Coordination Polymers with 6^3 Net and Self-

Assembly of 2D 6^3 Topology into Different Supramolecular Networks

Using Unit-Unit H-Bonds

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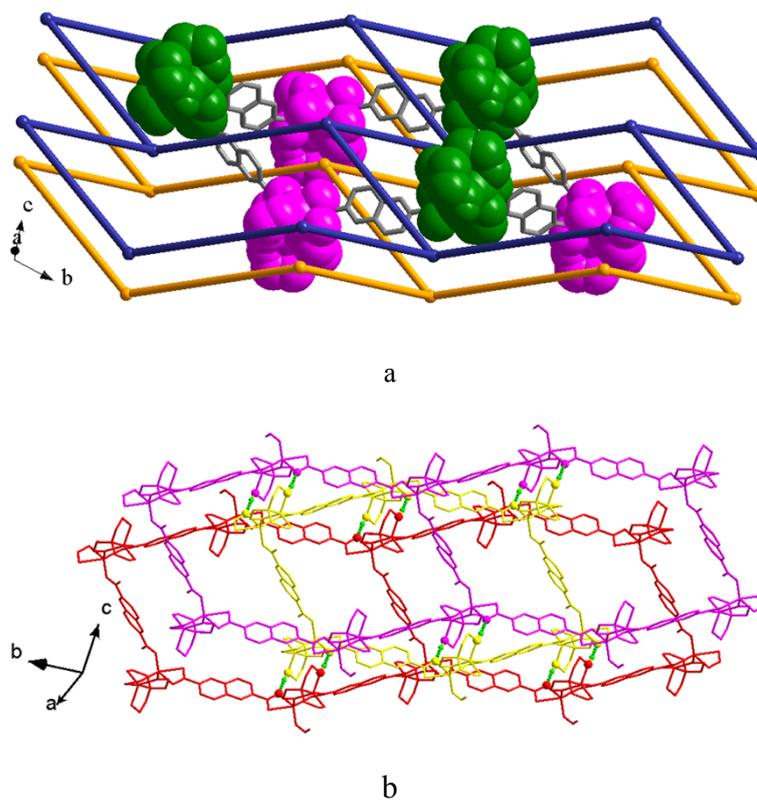
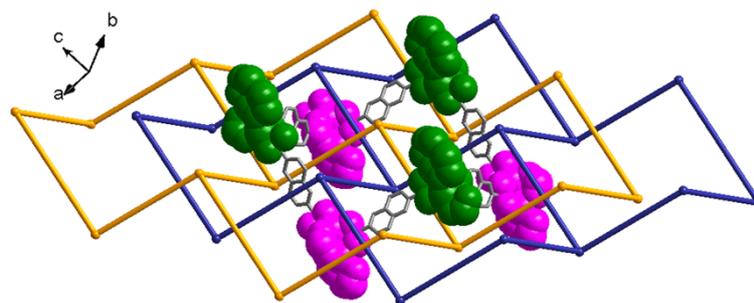
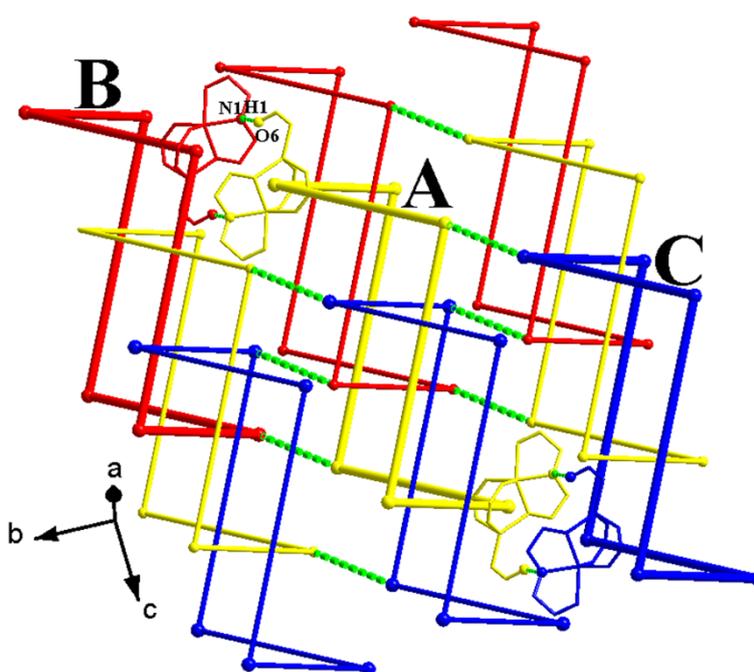


Figure S1. Part structure of **1**: a) the space-filling view of Zn₂ units on each hexagonal window, showing that half (green) fall in the above layer, half (pink) in the below layer; b) the H-bonding interactions among 6^3 layers.

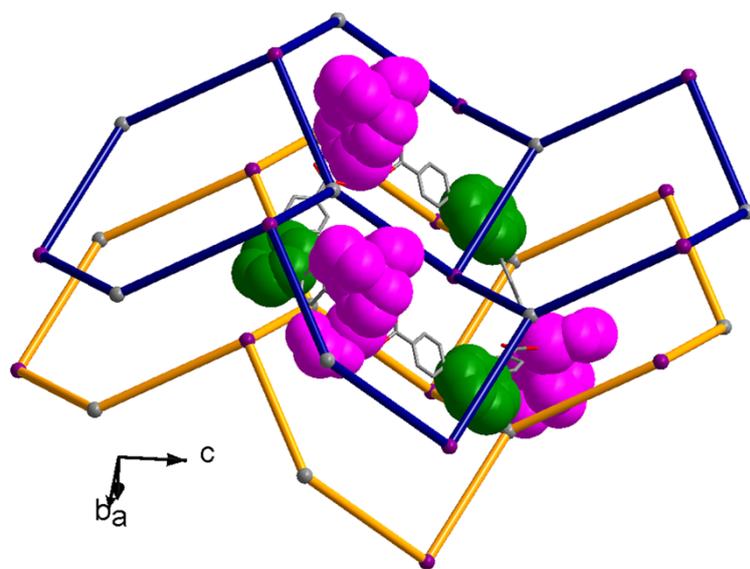


a

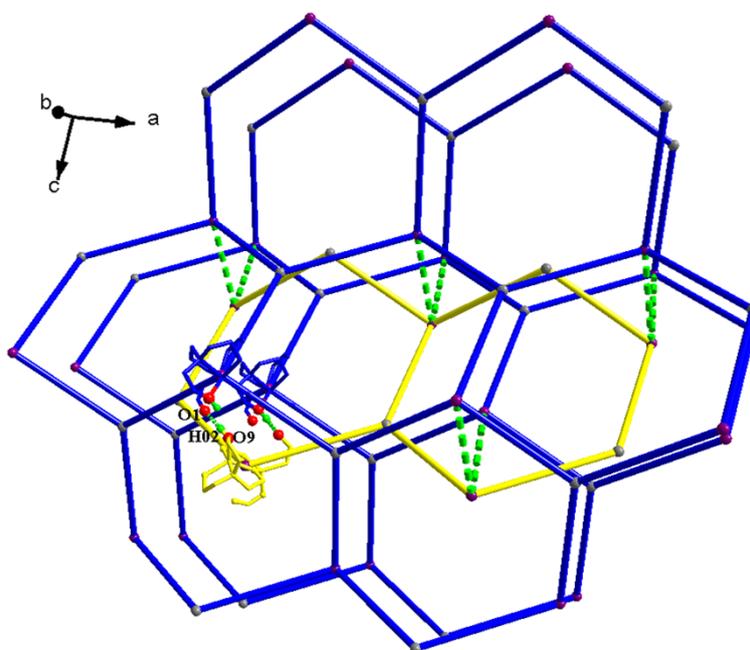


b

Figure S2. Part structure of **3**: a) the space-filling view of Zn₂ units on each hexagonal window, showing that half (green) fall in one layer of a set of three-fold interpenetrating network, half (pink) in another layer of this set; b) the H-bonding interactions among sets of interpenetrating 6³ layers.



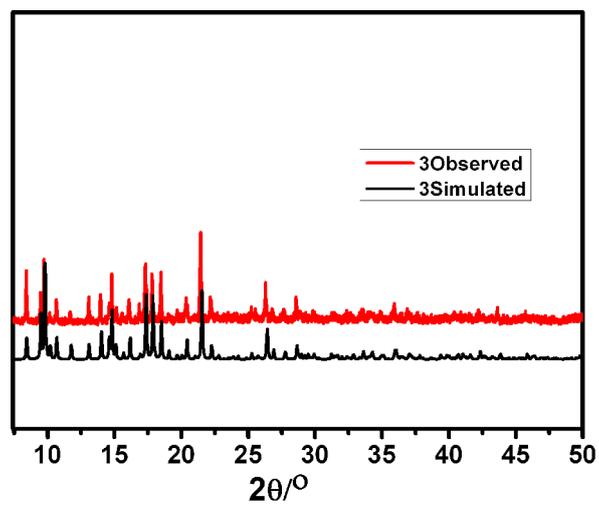
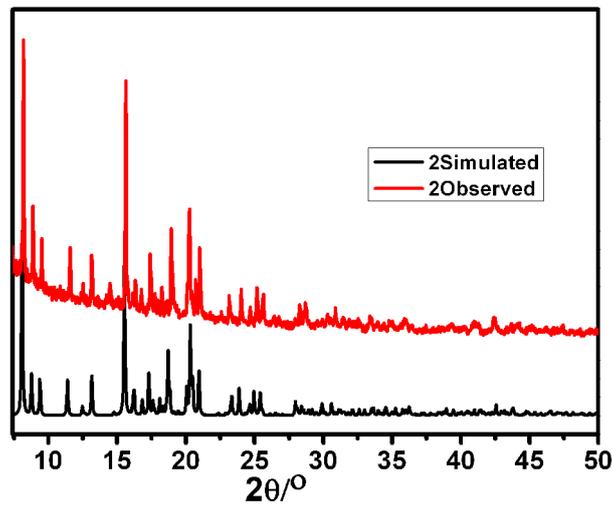
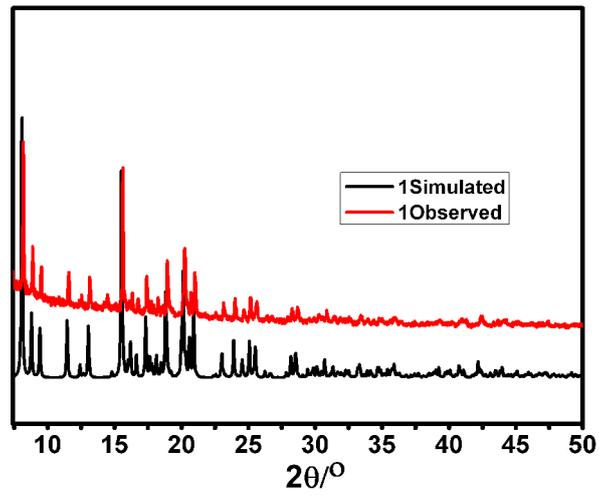
a



b

Figure S3. Part structure of **4**: a) the space-filling view of CO₂ units on each hexagonal window, showing that two units (pink) fall in the above layer, one unit (pink) in the below layer; b) the H-bonding interactions among 6³ layers.

Powder X-ray diffraction data were collected using a Bruker D8 Advance (Cu K α 1 radiation, $\lambda=1.5406 \text{ \AA}$).



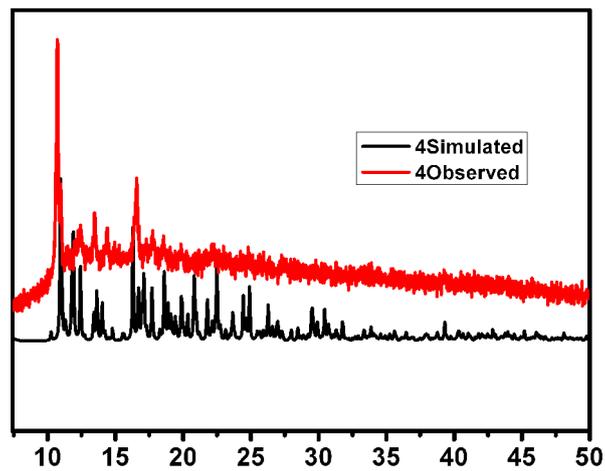


Figure S4. Simulated and observed powder X-ray diffraction patterns of 1-4.

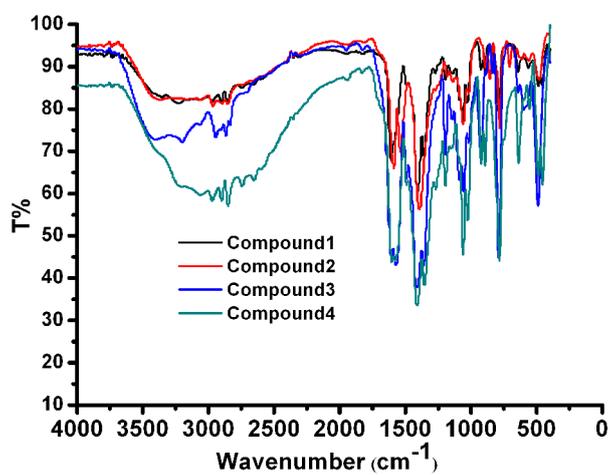


Figure S5. The infrared spectra of 1-4.

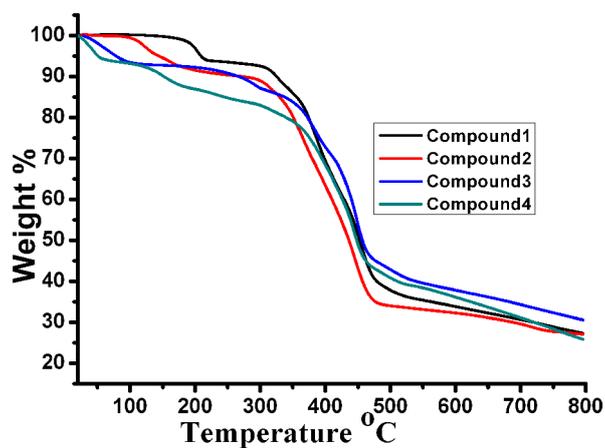


Figure S6. Thermogravimetric analyses of samples 1-4.