

Supplementary Information

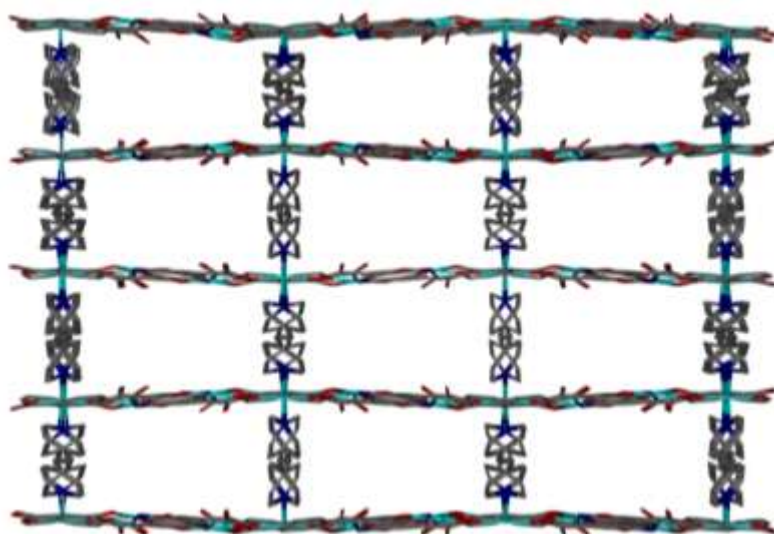
Ancillary ligand-assisted structural diversity of six new metal-organic frameworks with 5-(4-carboxybenzoylamino)-isophthalic acid: syntheses, crystal structures and photoluminescence properties

Wen Zhao^a, Jie Han^{b,*}, Ge Tian^c, Xiao-Li Zhao^{a,*}

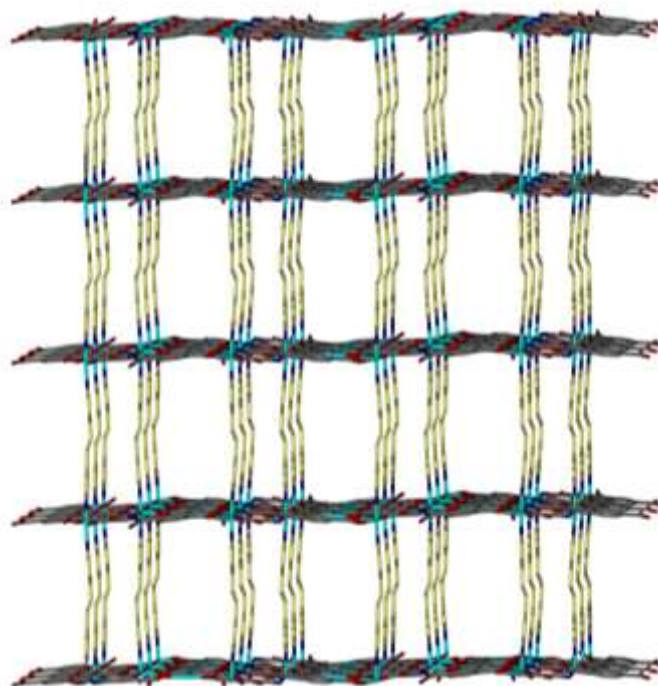
^aShanghai Key Laboratory of Green Chemistry and Chemical Processes, Department of Chemistry, East China Normal University, 3663 North Zhongshan Road, Shanghai 200062, P. R. China. Fax: 86-21-62233179. Email: xlzhao@chem.ecnu.edu.cn

^bSchool of Science & Technology, The Open University of Hong Kong, Kowloon, HongKong SAR, P. R. China. Email: chan@ouhk.edu.hk

^cState Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of Chemistry, Jilin University, Changchun 130012, P.R. China

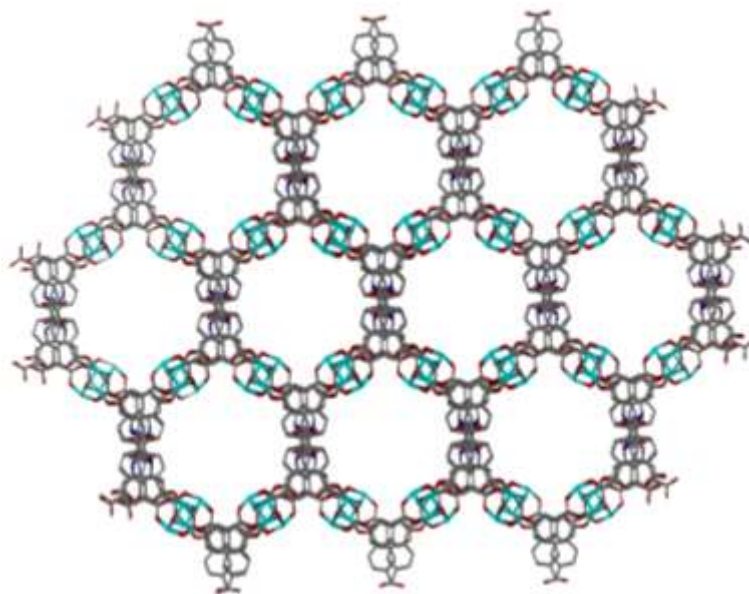


(a)

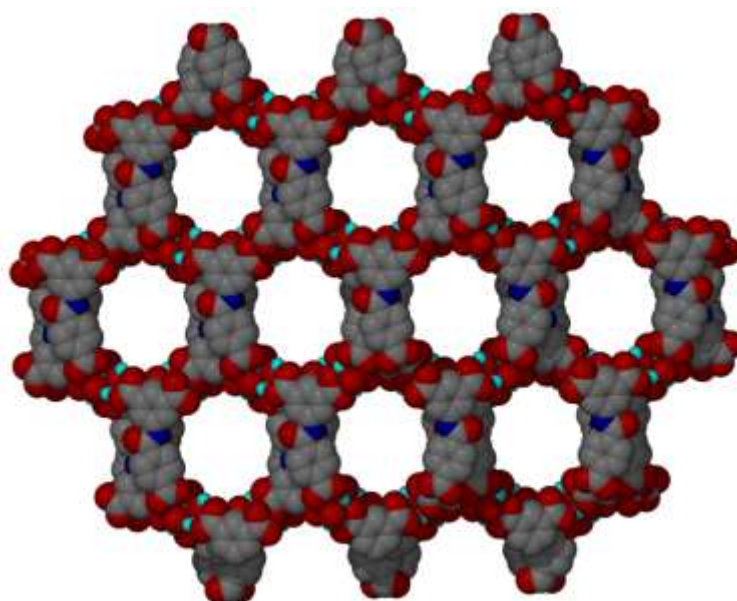


(b)

Fig. S1 (a) Bpe pillars *s* in **1**: (a) supporting the adjacent layers; (b) supporting the interval layers.



(a)



(b)

Fig. S2 Three-dimensional structure of **3** generated from Zn²⁺ and L³ ligands with 1D honeycomb-like channel viewed along the *c* axis: (a) in stick mode; (b) in Space-filling mode.

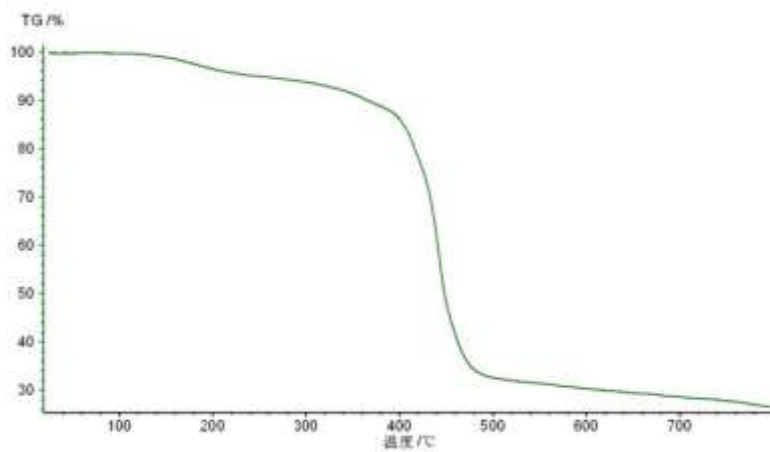


Fig. S3 TGA curve of $[\text{Co}_3\text{L}_2(\text{bpe})_4] \cdot 2\text{DMF} \cdot 2\text{H}_2\text{O}$ (1).

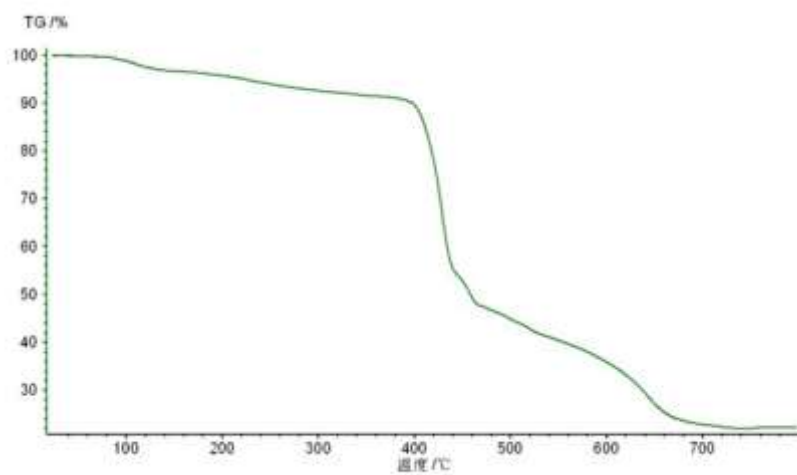


Fig. S4 TGA curve of $[\text{Cd}_3\text{L}_2(\text{bpe})_4] \cdot 3\text{H}_2\text{O}$ (2).

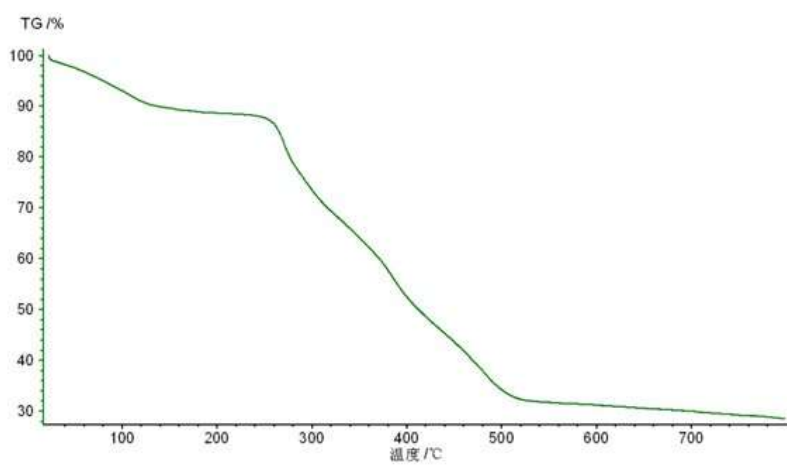


Fig. S5 TGA curve of $[\text{Zn}_2\text{L}(\text{OH})(\text{bpe})] \cdot 5.5\text{H}_2\text{O}$ (**3**).

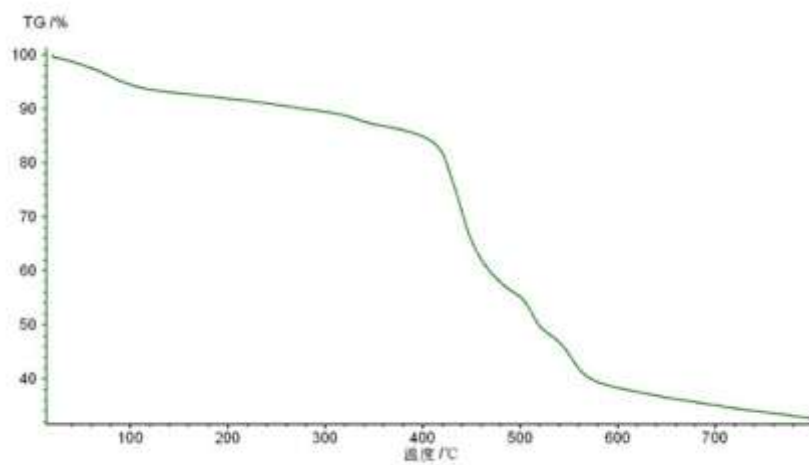


Fig. S6 TGA curve of $[\text{Co}_7\text{L}_4(\text{bpa})_2(\text{OH})_2(\text{H}_2\text{O})_4] \cdot 4\text{H}_2\text{O}$ (**4**).

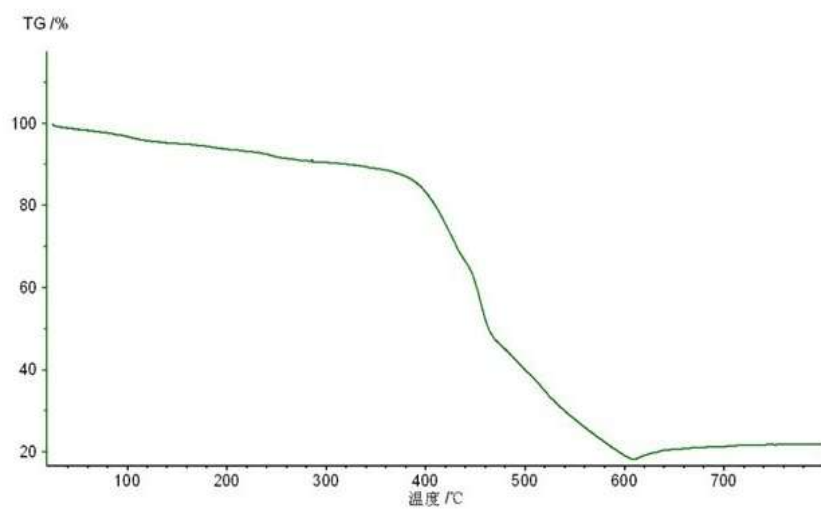


Fig. S7 TGA curve of Ni(HL)(bpa)(H₂O) (5).

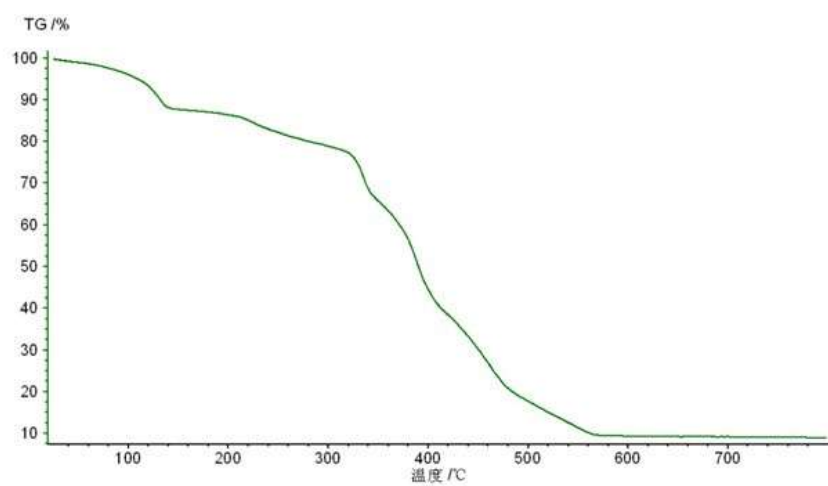


Fig. S8 TGA curve of $[\text{Zn}_2(\text{HL})_2(\text{bpy})_2(\text{H}_2\text{O})_2] \cdot (\text{bpy}) \cdot 6\text{H}_2\text{O}$ (6).

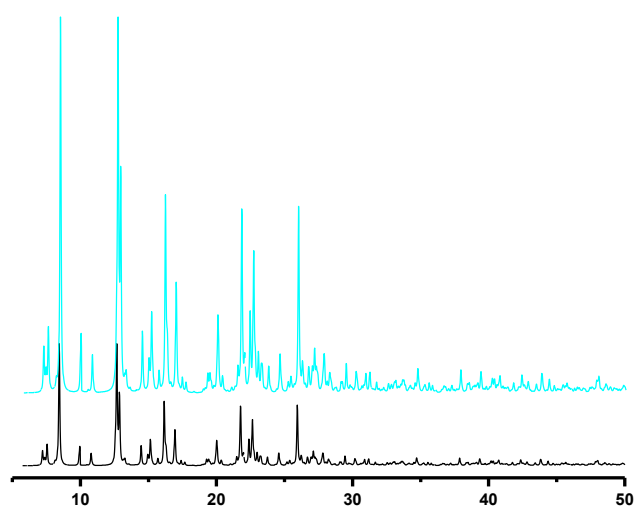


Fig. S9 PXR D patterns of the simulated (black), as-synthesized of **1** (turquoise).

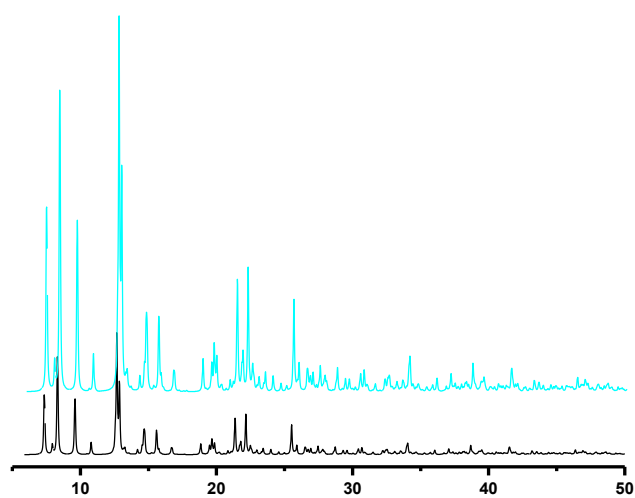


Fig. S10 PXR D patterns of the simulated (black), as-synthesized of **2** (turquoise).

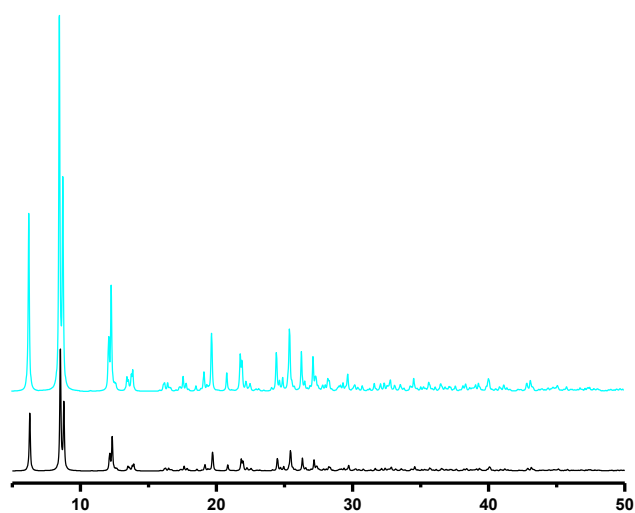


Fig. S11 PXR D patterns of the simulated (black), as-synthesized of **3** (turquoise).

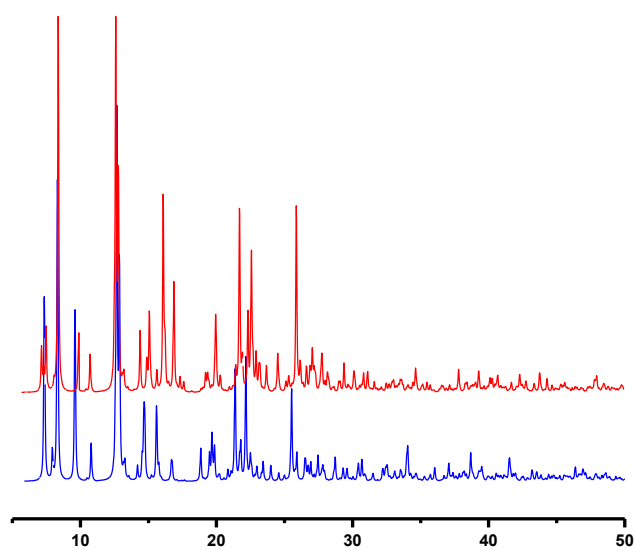


Fig. S12 PXR D patterns of **1**(red) and **2**(blue), indicating **1** and **2** are isostructural.

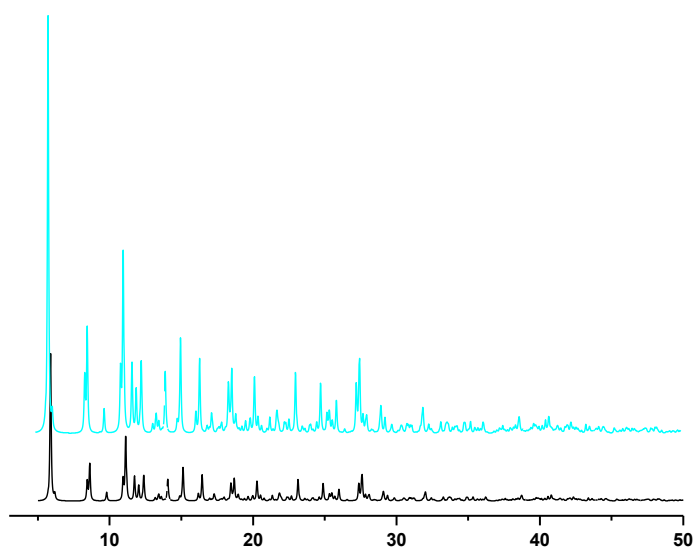


Fig. S13 PXR D patterns of the simulated (black), as-synthesized of **4** (turquoise).

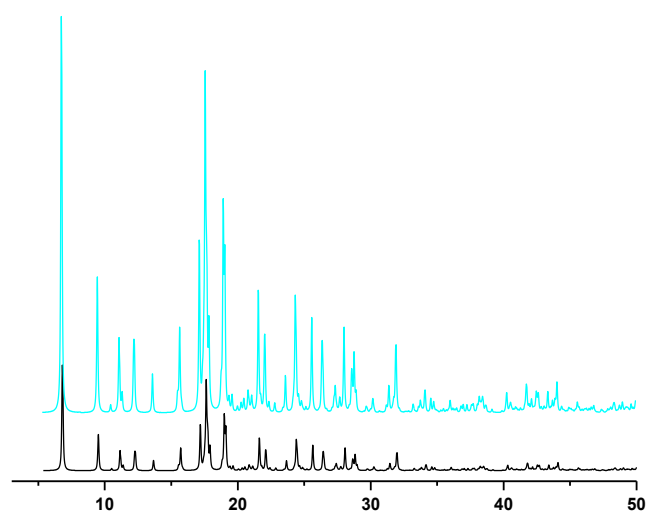


Fig. S14 PXRd patterns of the simulated (black), as-synthesized of **5** (turquoise).

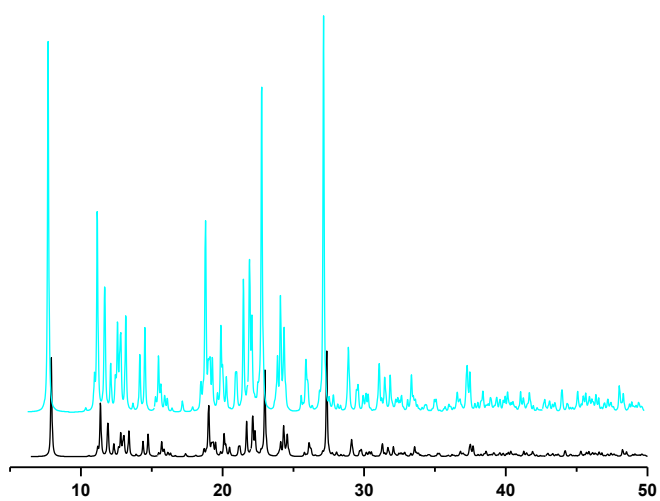


Fig. S15 PXR D patterns of the simulated (black), as-synthesized of **6** (turquoise).