Supplementary Material (ESI) for Chemical Society Reviews

Molecular braids in metal-organic frameworks

Guo-Ping Yang, Lei Hou, Xin-Jun Luan, Biao Wu and Yao-Yu Wang*

Key Laboratory of Synthetic and Natural Functional Molecule Chemistry of the Ministry of Education, Shaanxi Key Laboratory of Physico-Inorganic Chemistry, College of Chemistry & Materials Science, Northwest University, Xi'an, 710069, Shaanxi, P. R. China.

E-mail: wyaoyu@nwu.edu.cn; Fax: +86-29-88303798; Tel: +86-29-88308031.

Electronic Supplementary Information

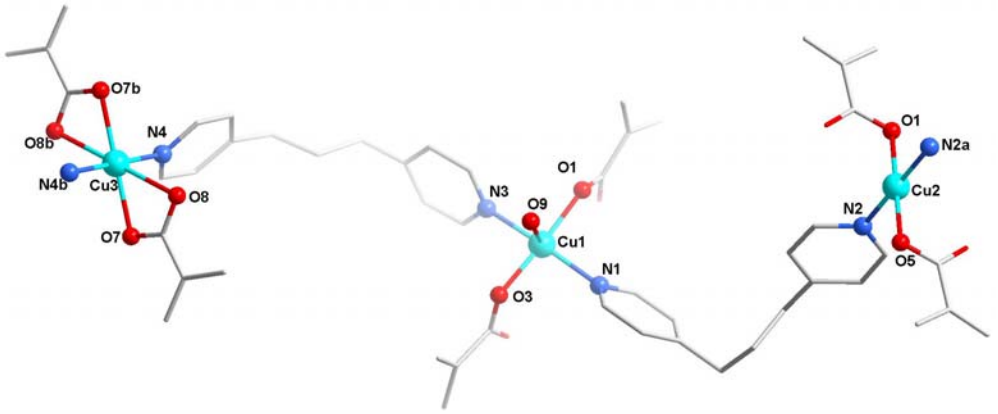


Fig. S1 The three types of different coordination environments of the Cu(II) ions in **1**. Symmetry codes: a. -x, 2-y, 3-z; b. -x, 2-y, -z.

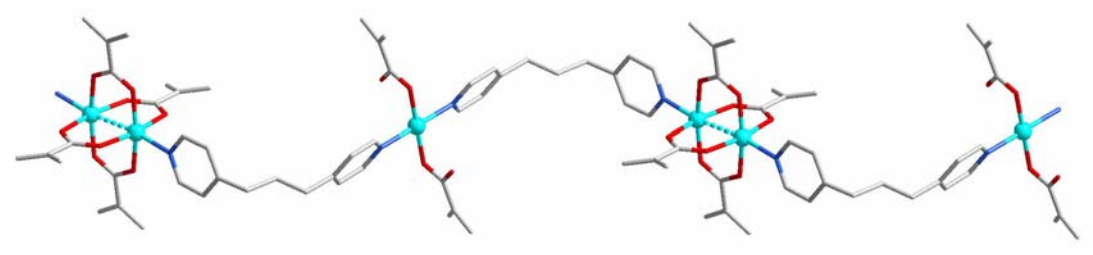


Fig. S2 The 1D zigzag-like chain with the mono- and dinuclear nodes in **2**.

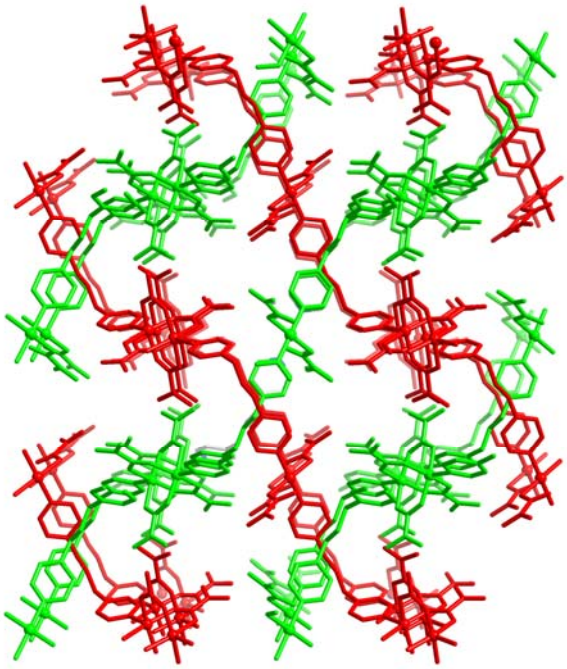


Fig. S3 The perspective view of packing motif of the 1D zigzag-like chains along the *c* axis of **2**.

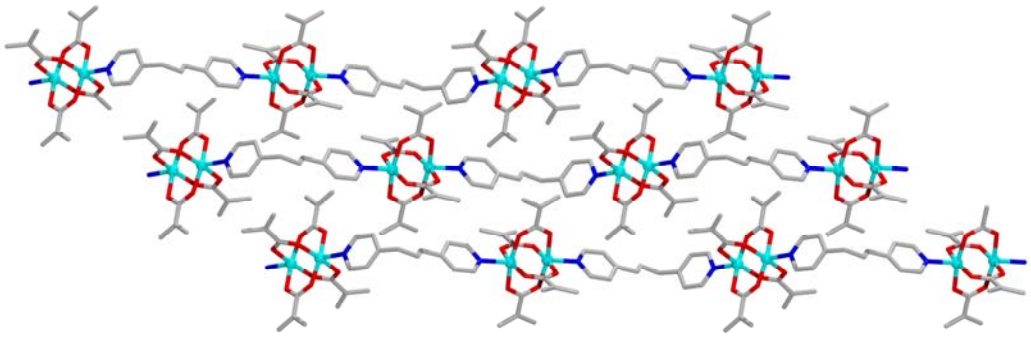


Fig. S4 The parallel arrangement of the 1D zigzag chains based on the dinuclear nodes of **3**.

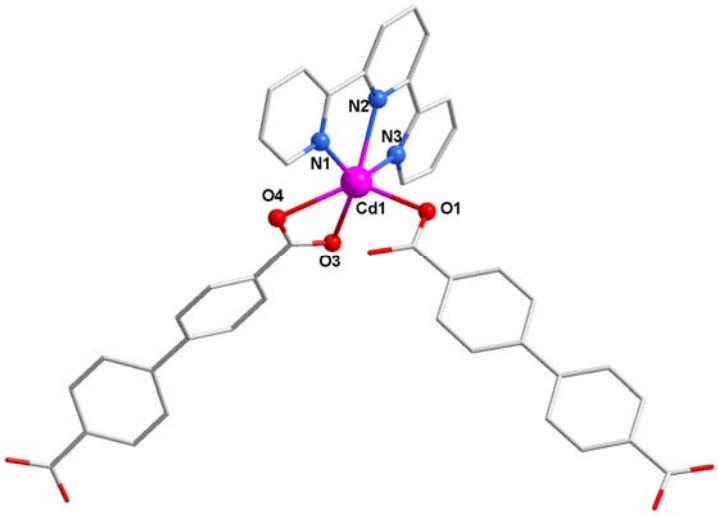


Fig. S5 The coordination environment of the Cd(II) ion in **4**. Copyright 2006 Wiley-VCH.

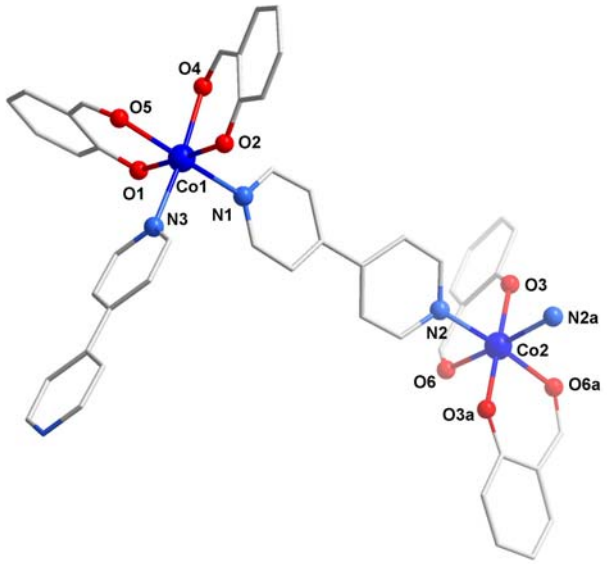


Fig. S6 The coordination environments of the Co(II) ions in **5**. Symmetry code: a. -x, y, 1.5-z.

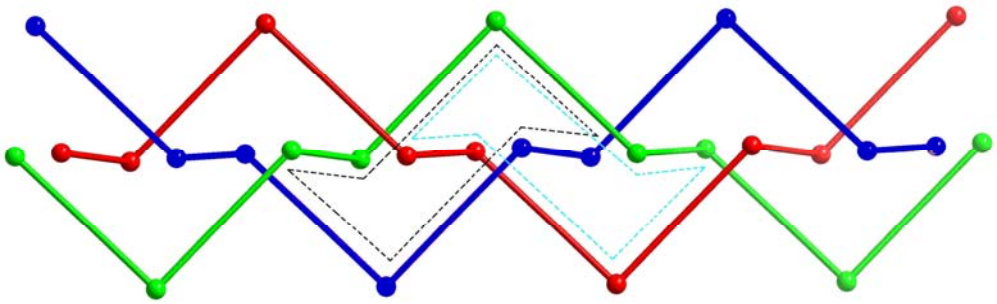


Fig. S7 The topological view of the triple-stranded molecular braid of **5**.

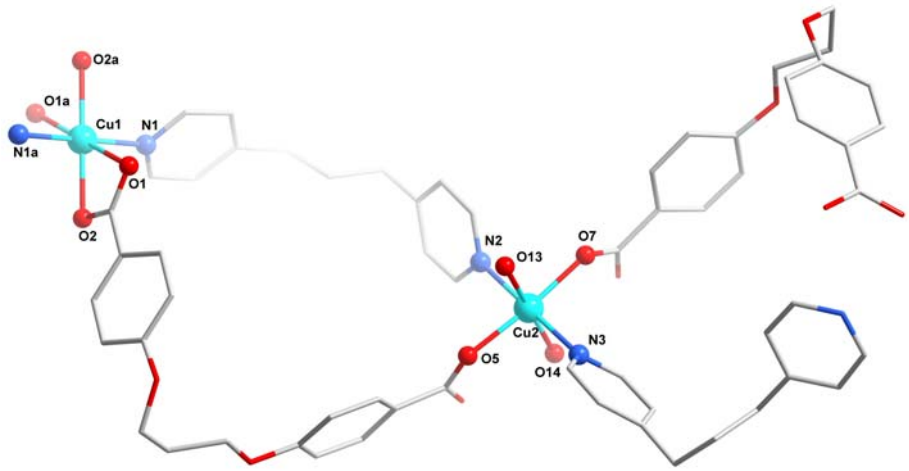


Fig. S8 The coordination environments of the Cu(II) ions in **6**. Symmetry code: a. 3-x, 1-y, 1-z.

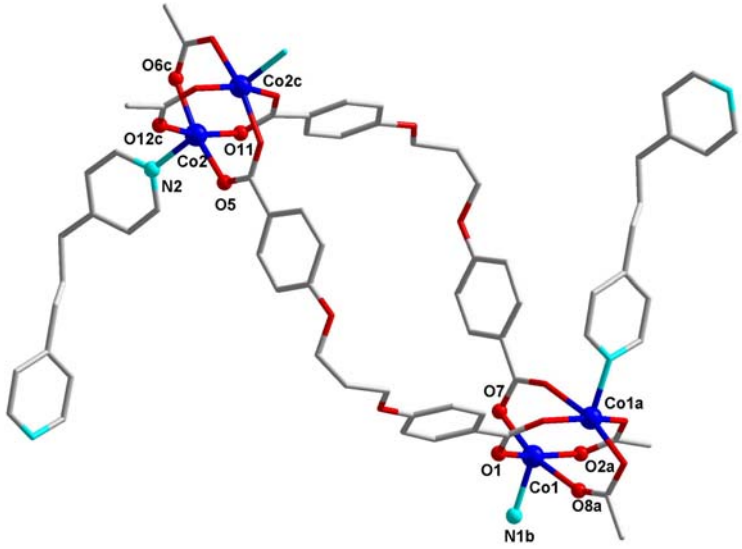
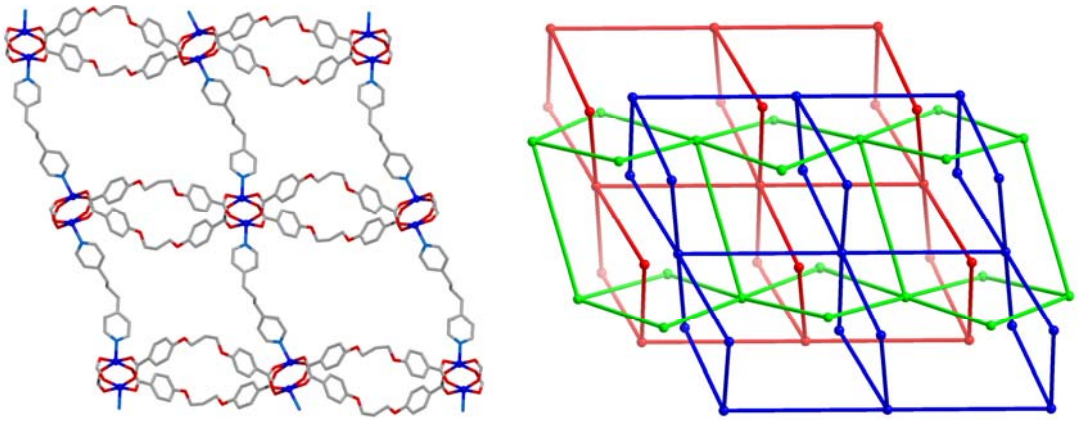


Fig. S9 The coordination environments of the Co(II) ions in **8**. Symmetry codes: a. 1-x, -y, 1-z; b. 1-x, 1-y, 1-z; c. 2-x, 1-y, -z.



(a) **(b)**

Fig. S10 (a) A single 2D undulated sheet based on the paddle-wheel $Co_2(CO_2)_4$ dimeric units in **8**; (b) the schematic view of the three-fold interpenetrated motif involving 2-membered circuits in **8**.

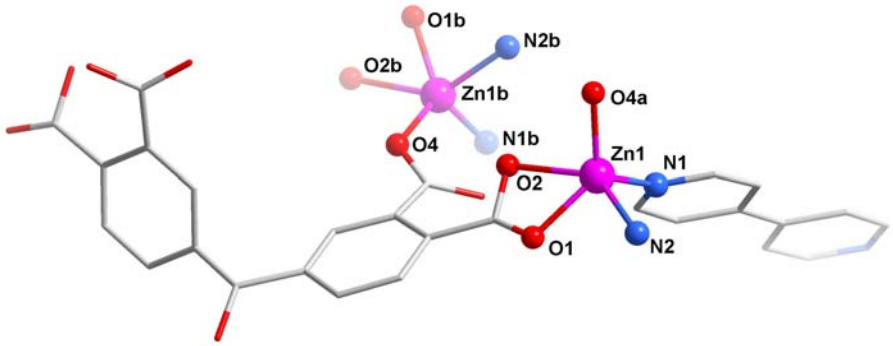


Fig. S11 The coordination environments of the Zn(II) ions in **9**. Symmetry codes: a. x, 1-y, 0.5+z; b. x, 1-y, -0.5+z.

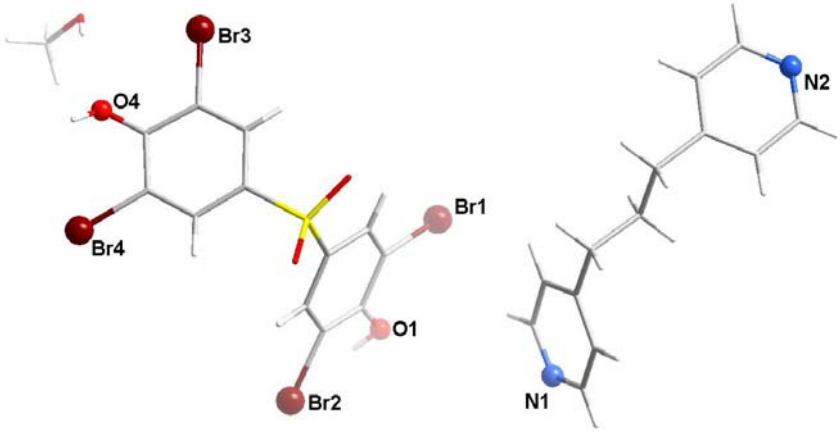


Fig. S12 The view of the basic building unit of co-crystal **10**.