Alkaline reagents-induced structural diversity of four metal-organic frameworks based on flexible bicarboxylate ligand

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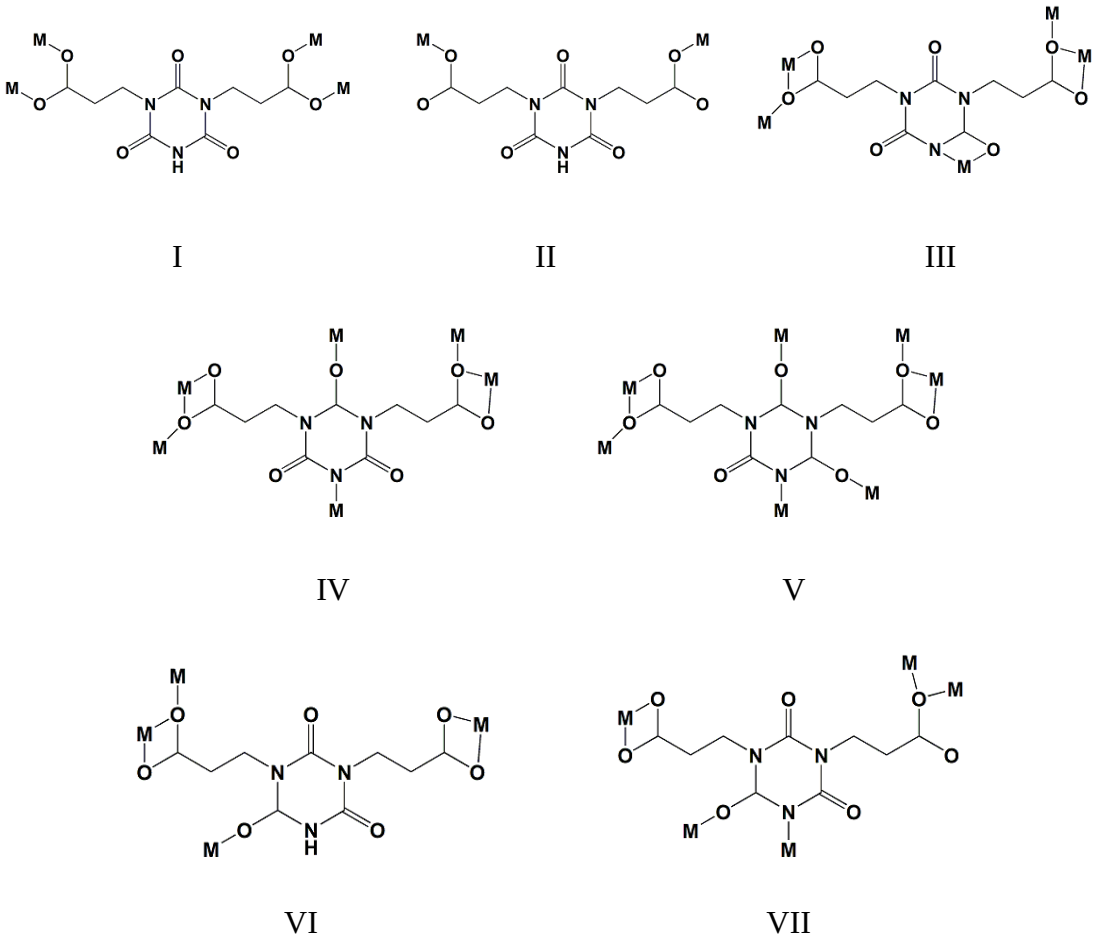
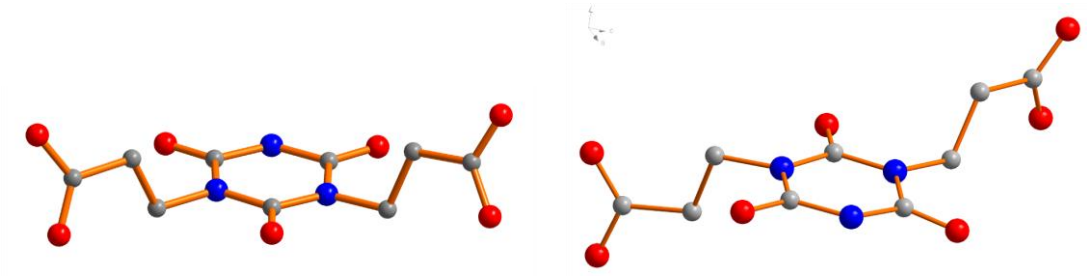


Scheme S1 The coordination modes reported (I-III) previously and found (IV-VII) in this work of H_3bci ligand.



cis-cis *cis-trans*

Scheme S2 The ligand conformation of *cis-cis* and *cis-trans*.

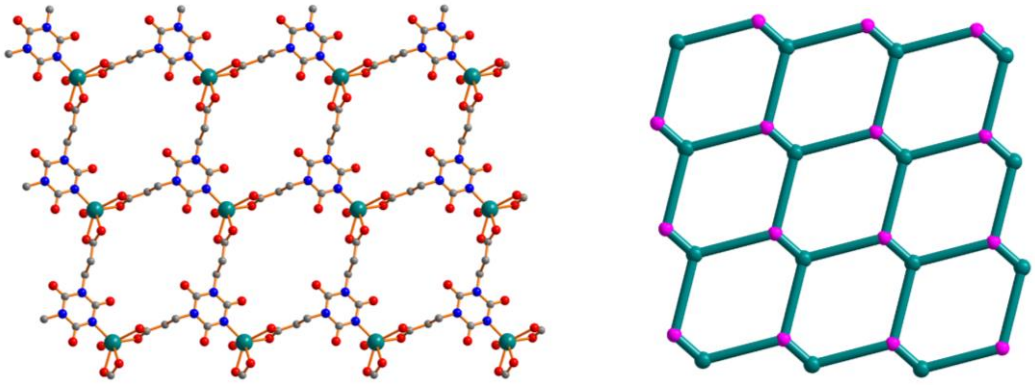


Fig. S1 The 2D Cd-bci layer structure and its uninodal 3-connected ***hcb*** topology with the point symbol of $\{6^3\}$ in **1**.

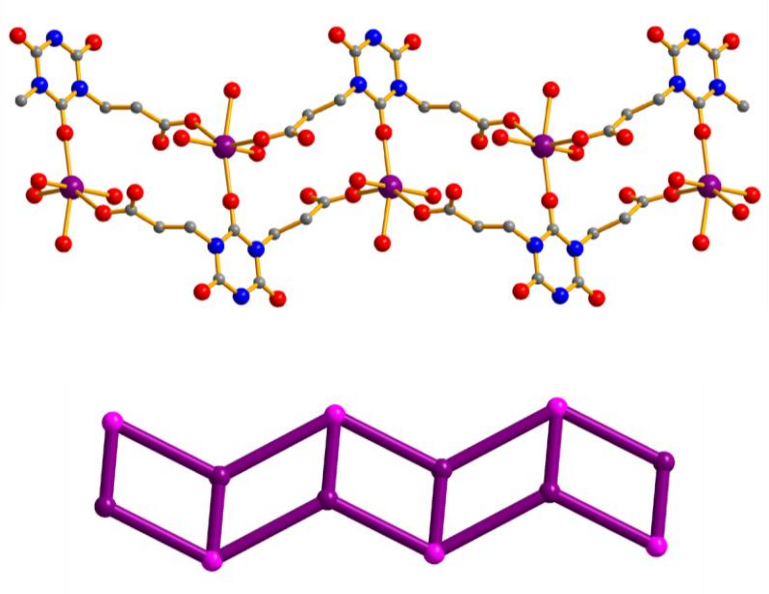


Fig. S2 The infinite 1D ladder-like Na-bci chain in **1**.

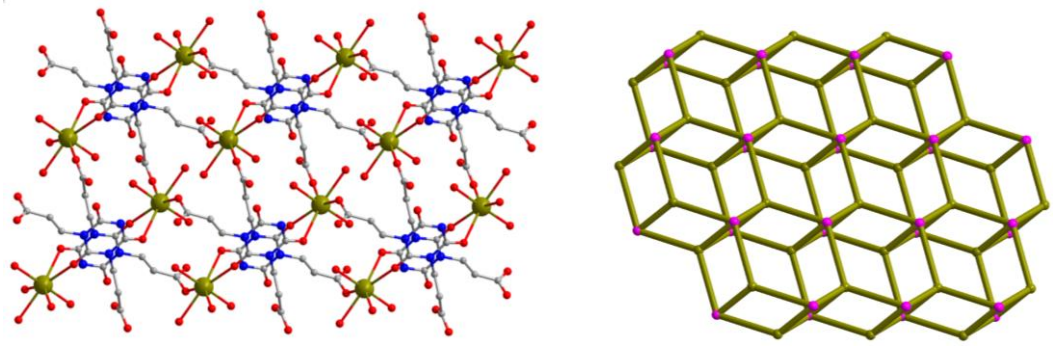


Fig. S3 The 2D potassium double-layer structure and its uninodal 4-connected ***sp*** topology with the point symbol of $\{4^3 \cdot 6^3\}$ in **2**.

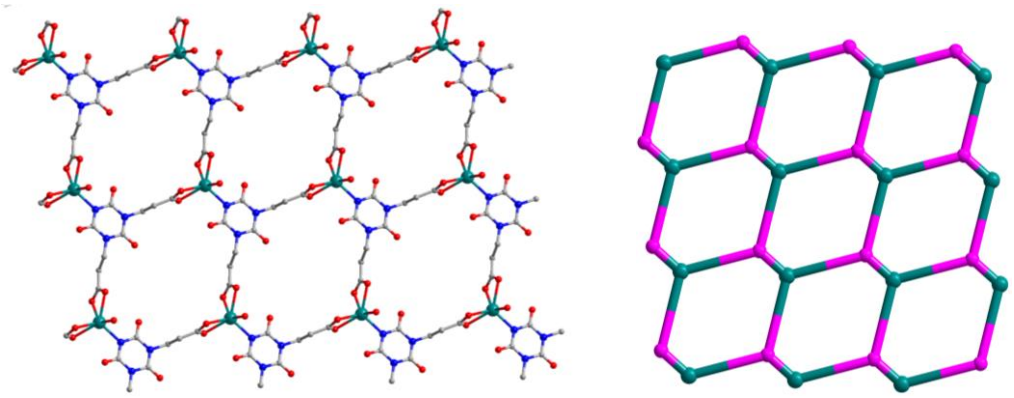


Fig. S4 The 2D cadmium layer structure and its uninodal 3-connected ***hcb*** topology with the point symbol of $\{6^3\}$ in **2**.

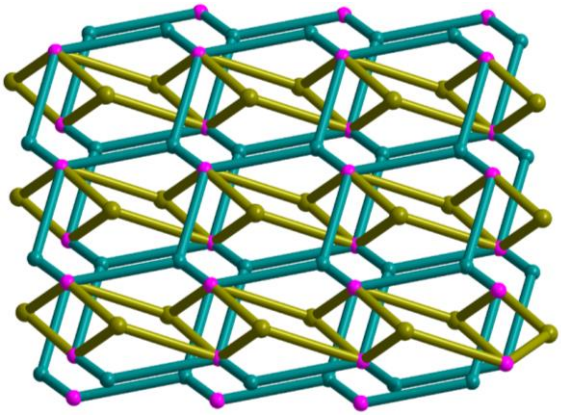


Fig. S5 The schematic representations of the 3-nodal 3,4,7-connected new topology with the point symbol of $\{4\cdot6^2\}\{4^4\cdot6^2\}\{4^5\cdot6^{12}\cdot8^4\}$ along the *b*-axis of complex **2**.

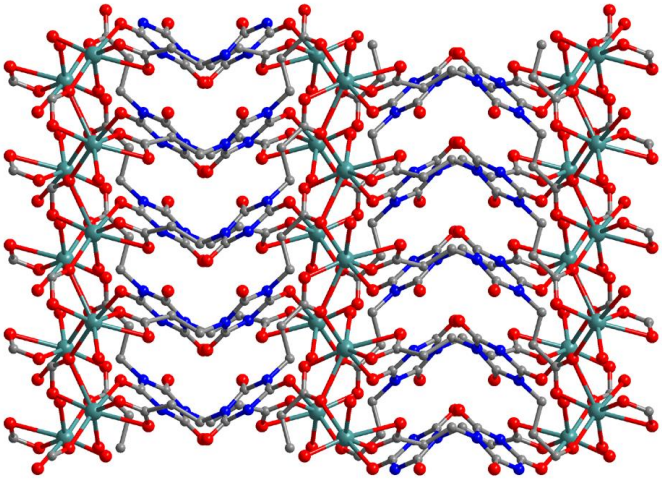
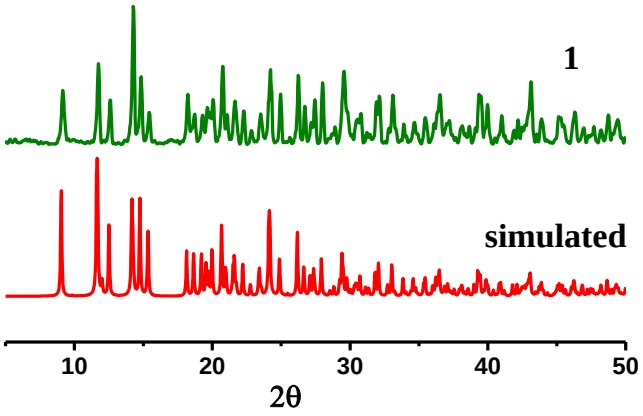
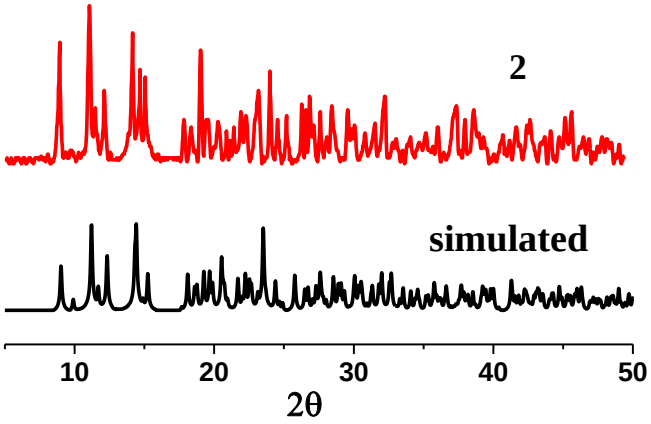


Fig. S6 The 3D MOF structure of **3** is view along the *a*-axis.





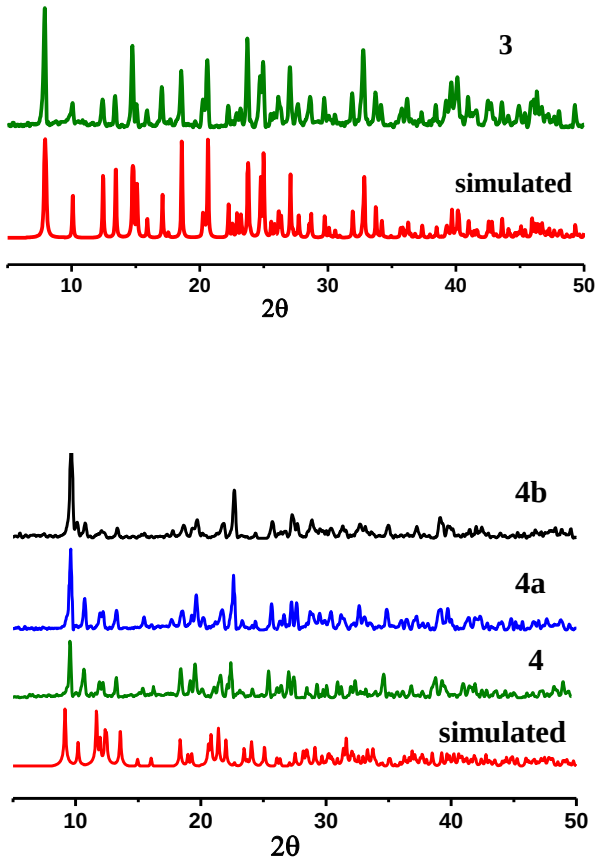


Fig. S7 The PXRD patterns of **1-4, 4a** and **4b,** respectively.

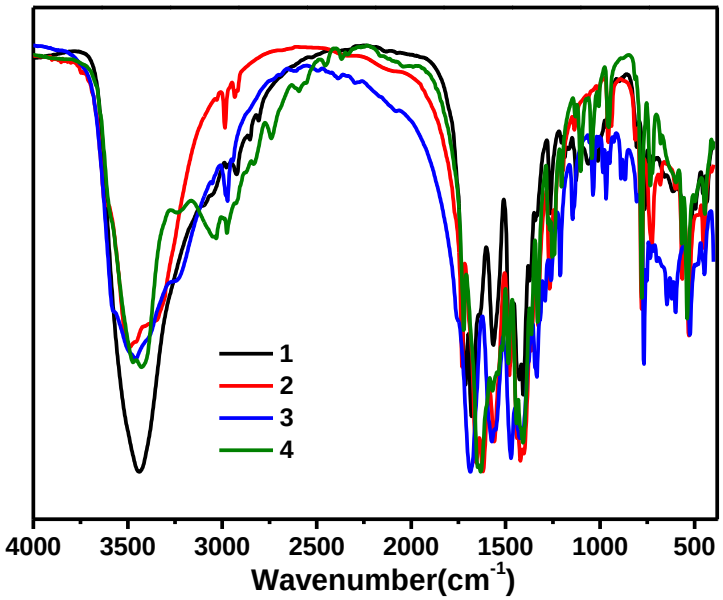


Fig. S8 Infrared spectra of complexes **1-4**.

Table S1. Hydrogen bonds (Å) for **4**.

D-H...A	**D...A**
N4-H4C...O2W	2.778(3)
N4-H4D...O1W	2.814(2)
N4-H4E...O7	2.784(3)
O1W-H1A...O6	2.866(3)
O2W-H2A...O1	3.012(2)
O2W-H2B...O4	2.689(2)