Electronic Supplementary Information (ESI)

How do substituent groups in the 5-position of 1,3-benzenedicarboxylate affect the construction of supramolecular frameworks? †

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Table of Contents

Fig. S1 Powder XRD patterns of (a) [Zn(OH$_2$)(5-HO-1,3-BDC)(1,4-bpeb)]$_n$ (1); (b) [Zn(HBTC)(1,4-bpeb)]$_n$ (2); (c) {[Zn(5-NO$_2$-1,3-BDC)(1,4-bpeb)]·2(H$_2$O)$_{0.5}$}$_n$ (3); (d) [Zn(5-Me-1,3-BDC)(1,4-bpeb)]$_n$ (4). Black: simulated from single crystal analysis and experimental; Red: as synthesized. .............................. S3

Fig. S2 (a) The O1–H2W···N2 H-bonding interaction in 1. (b) The O1–H1W···O5 H-bonding interaction in 1. (c) The O6–H6A···O3 H-bonding interactions in 1. .................................................. S4

Fig. S3 The O5–H5A···N2 H-bonding interaction in 2. .................................................. S5

Fig. S4 The O7–H1W···O5 and O8–H2W···O6 H-bonding interactions in 3. ..................... S5

Fig. S5 Emission spectra of 1–4 in the solid state at ambient temperature. .................. S6

Fig. S6 The TGA curves for 1 (black), 2 (red), 3 (blue) and 4 (purple). ...................... S7
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Fig. S5 Emission spectra of 1–4 in the solid state at ambient temperature.
The thermal properties of 1-4 were described as follows. The thermogravimetric analyses revealed that 1-4 were stable up to 202 °C (1), 415°C (2), 193°C (3), and 400 °C (4) (Fig. S5†). For 1 and 3, the first weight loss of 3.56% from 202 to 258 °C (1) or 3.51% from 193 to 265 °C (3) corresponds roughly to the loss of one coordinated water molecule per formula unit in 1 (calculated 3.29%) or two one-half of the uncoordinated water molecules per formula unit in 3 (calculated 3.12%). The second weight loss of 81.30% from 258 to 820 °C (1) or 82.62% from 265 to 830 °C (3) approximately amounts to the loss of all 1,4-bpeb and 5-HO-1,3-BDC or 5-NO2-1,3-BDC ligands (calculated 81.85% for 1 and 82.77% for 3). For 2 and 4, only one weight loss of 85.38% from 415 to 820 °C (2) or 84.69% from 400 to 820 °C (4) amounts roughly to the loss of 1,4-bpeb and H3BTC or 5-Me-1,3-BDC ligands (calculated 85.41% for 2 and 84.58% for 4). In all cases, the decomposition residue species, according to X-ray fluorescence analysis, was assumed to be ZnO (15.14% vs calculated 14.86% (1), 14.62% vs calculated 14.59% (2), 13.87% vs calculated 14.11% (3), and 15.31% vs calculated 15.42% (4)).