Supplementary Information for

Homochiral transition-metal camphorate coordination architectures containing "piperazine-pyridine" ligands

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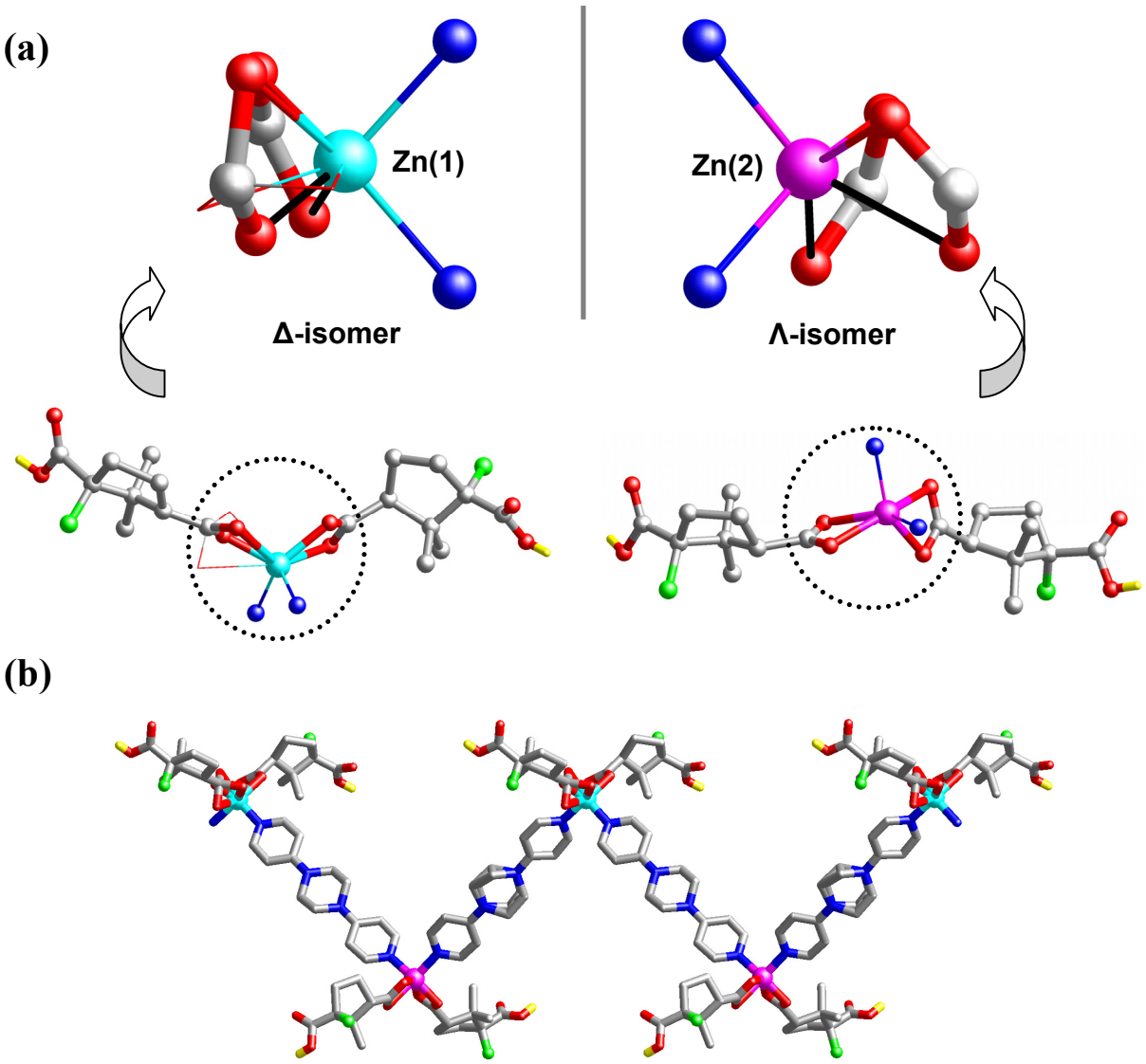

Fig. S1 (a) Local connectivity around the Zn(1) and Zn(2) centers in **3**, highlighting the Δ,Λ-enantiomeric Zn^{2+} ions in chirality and showing the relationship between the two α-methyl groups of *D*-HCam ligands in spatial with respect to the central Zn^{2+} ion. (b) The one-dimensional zigzag chain structure in **3**. *Key*: cyan, Zn(1); pink, Zn(2); red, O; blue, N; gray, C; yellow, H. The α-methyl groups of *D*-HCam ligands are highlighted by green-colored balls.

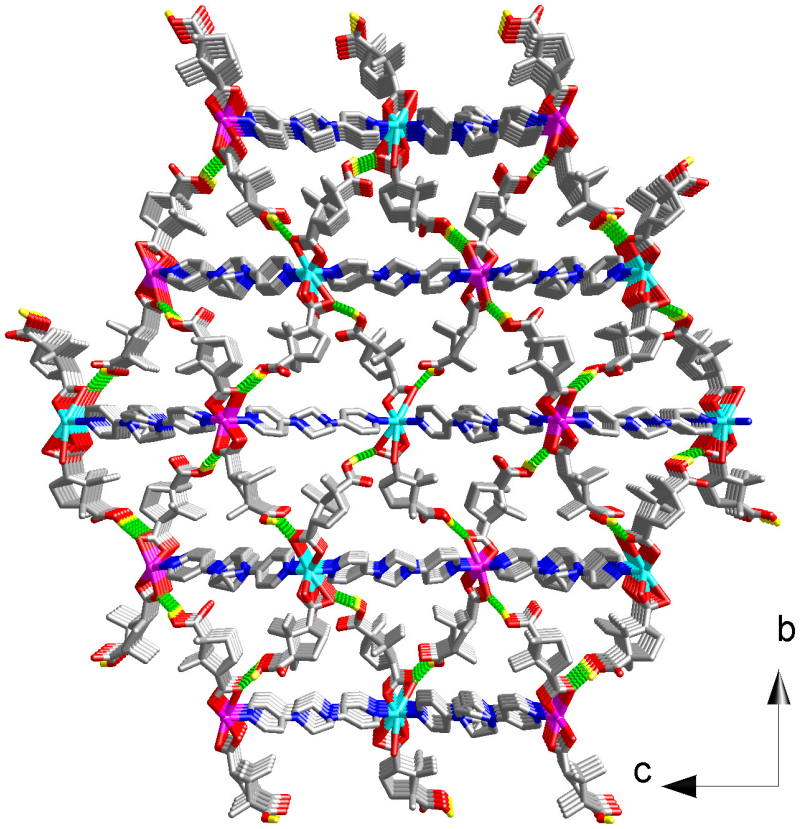

Fig. S2 Packing diagrams of **3**, showing inter-chain OH···O hydrogen-bonding interactions (greenish-dashed lines) supported extended three-dimensional supramolecular assembly. *Key*: cyan, Zn(1); pink, Zn(2); red, O; blue, N; gray, C; yellow, H.

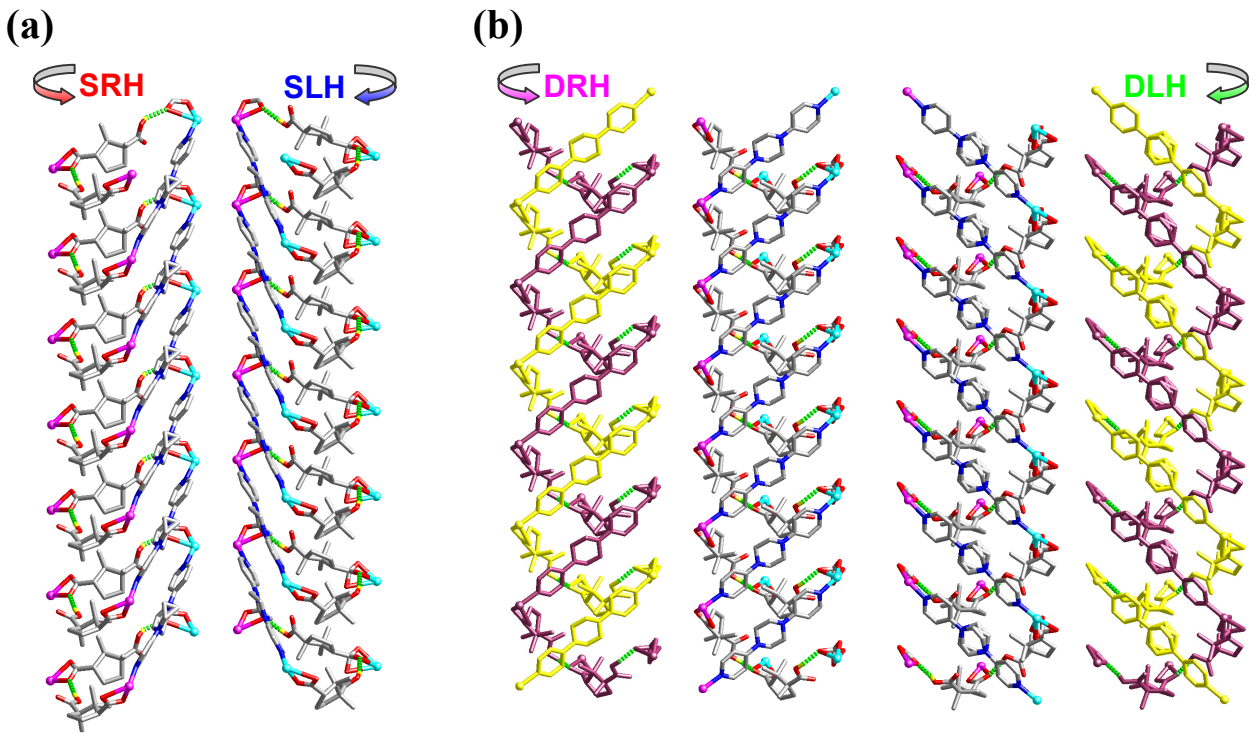

Fig. S3 View of the pseudo-3_1 supramolecular helical chain structures in **3**: (a) single-stranded right-handed (**SRH**) and single-stranded left-handed (**SLH**) helices and (b) double-stranded right-handed (**DRH**) and double-stranded left-handed (**DLH**) helices. For color code, see Fig. S2.

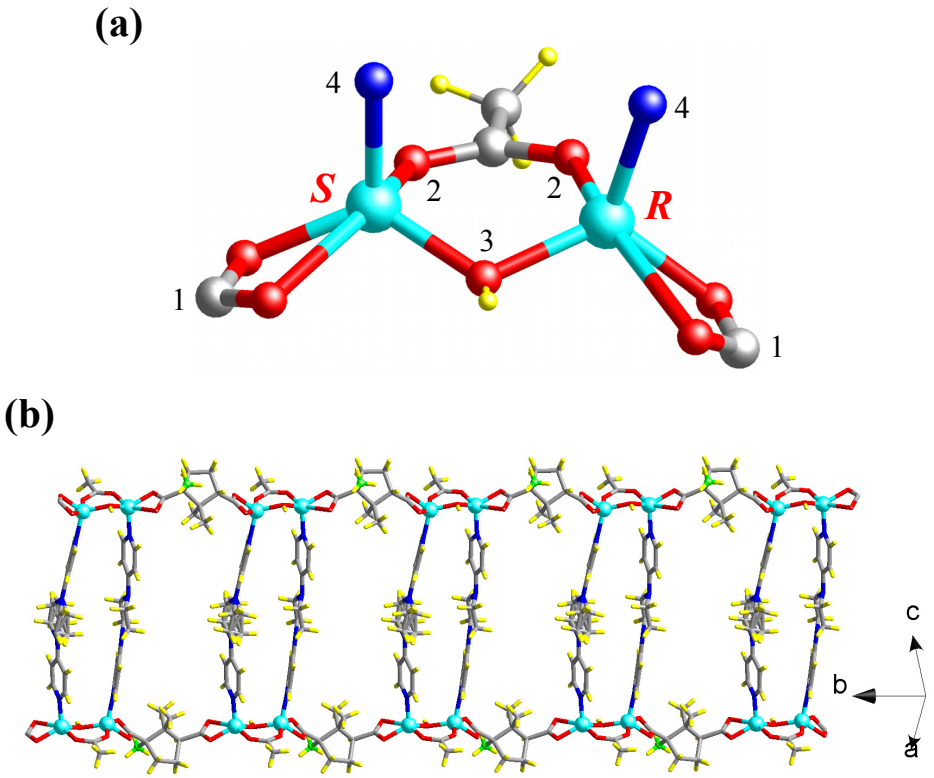

Fig. S4 (a) The achiral *meso*-M_2 unit in **5**. A couple of *R*,*S*-enantiomeric metal centers are indicated. (b) The homochiral one-dimensional ladder-like chain structure in **5**. *Key*: cyan, Zn; red, O; blue, N; gray, C; yellow, H. The α-methyl groups of *D*-Cam ligands are highlighted by green-colored balls.

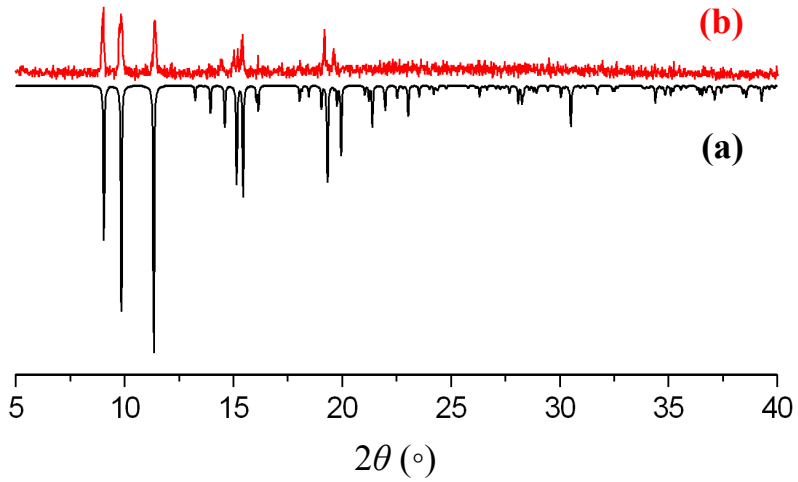

Fig. S5 Powder X-ray diffraction (PXRD) patterns of **1**·1.5H_2O. (a) Simulated from the single-crystal data. (b) A freshly grounded sample at room temperature.

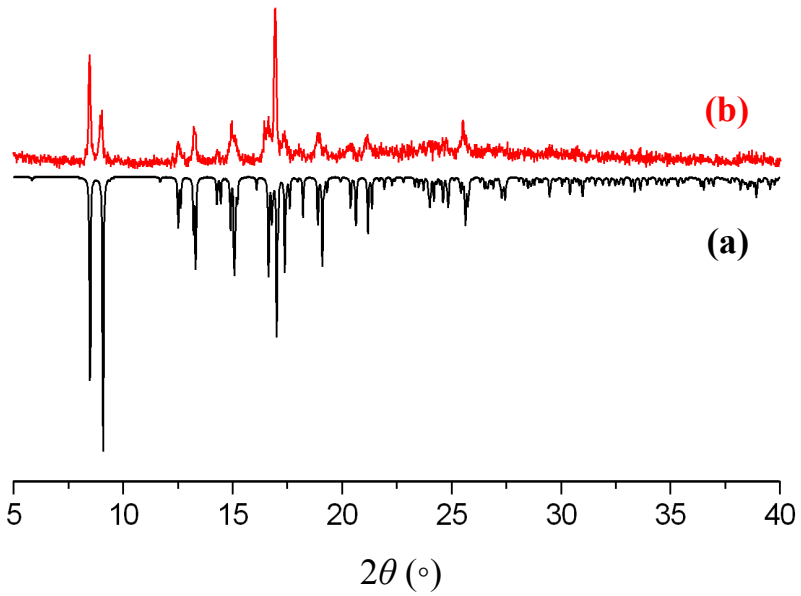

Fig. S6 Powder X-ray diffraction (PXRD) patterns of **2**. (a) Simulated from the single-crystal data. (b) A freshly grounded sample at room temperature.

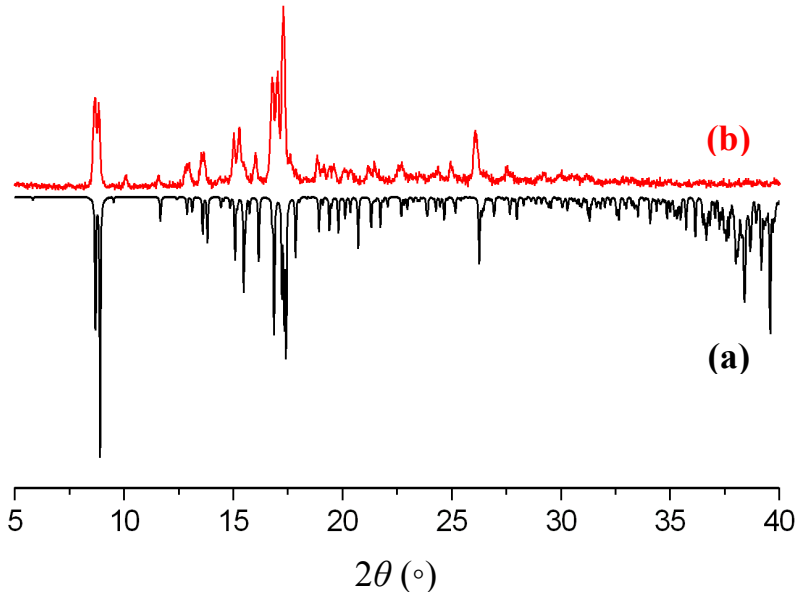

Fig. S7 Powder X-ray diffraction (PXRD) patterns of **3**. (a) Simulated from the single-crystal data. (b) A freshly grounded sample at room temperature.

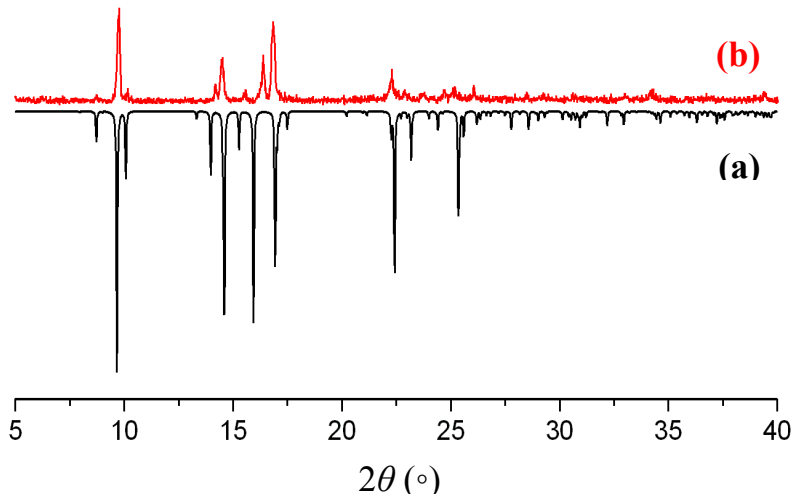

Fig. S8 Powder X-ray diffraction (PXRD) patterns of **4**. (a) Simulated from the single-crystal data. (b) A freshly grounded sample at room temperature.

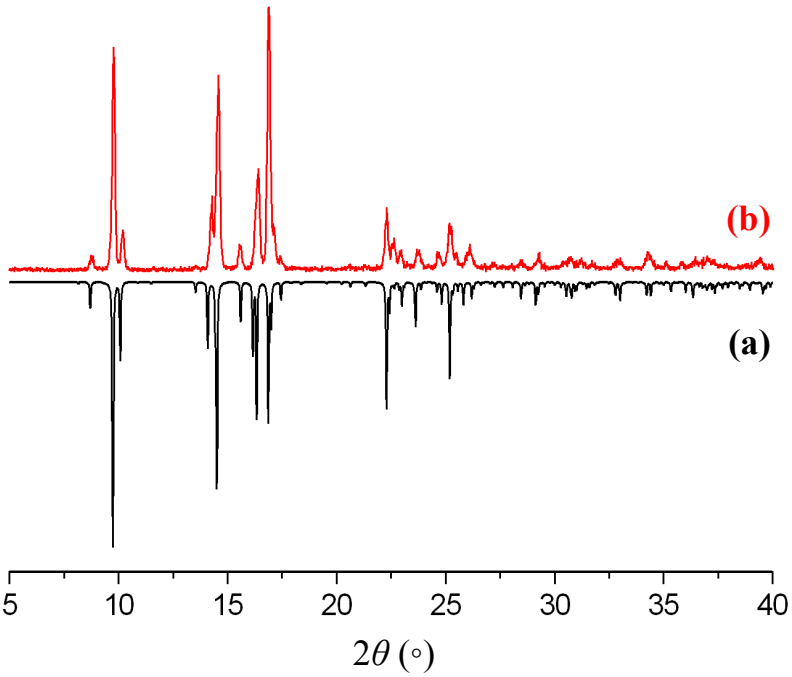

Fig. S9 Powder X-ray diffraction (PXRD) patterns of **5**. (a) Simulated from the single-crystal data. (b) A freshly grounded sample at room temperature.

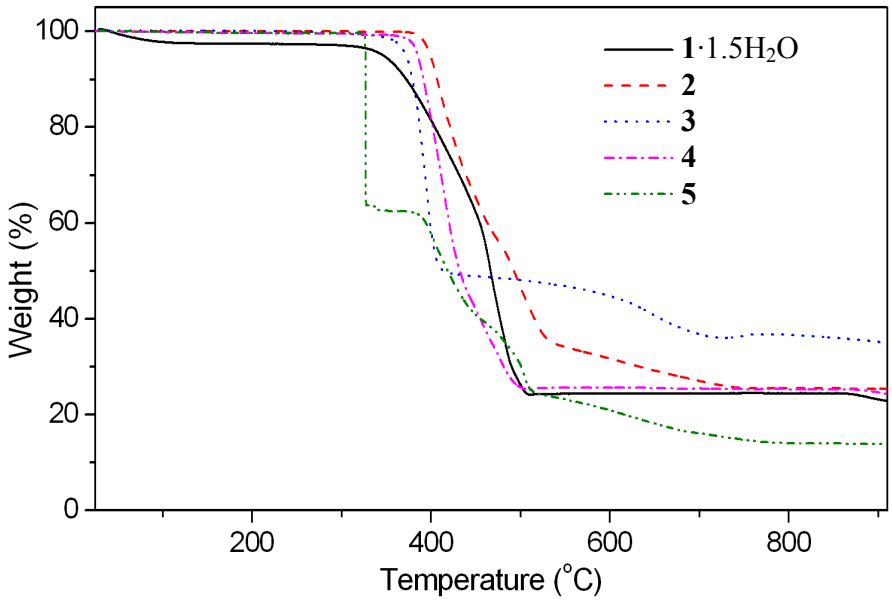

Fig. S10 Thermogravimetric (TG) traces of **1**·1.5H_2O and **2**–**5**.