Electronic Supplementary Information (ESI)

Hydrothermal syntheses, crystal structures and magnetic properties of four Mn(II) and Co(II) coordination polymers generated from new carboxylate-introduced 1,2,3-triazole ligands

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Table S1 Hydrogen-bonded geometry for **1–4** [a]

D-H···A	D-H/Å	H···A/Å	D···A/Å	D-H···A/°
		1		
O(1W)-H(1B)···O22_$1	0.79(3)	1.98(3)	2.772(2)	178(3)
O(1W)-H(1A)···O11_$2	0.79(4)	2.36(4)	3.112(2)	160(3)
O(2W)-H(2B)···O22_$3	0.80(2)	1.89(3)	2.694(2)	177(2))
O(2W)-H(2A)···O12_$4	0.81(2)	1.97(3)	2.7604(18)	165(2)
		2		
O(1W)-H(1WA)···N2_$1	0.857(8)	2.257(8)	3.101(3)	168.1(12)
O(1W)-H(1WB)···O4_$2	0.859(8)	1.957(11)	2.785(3)	161.4(15)
		3		
O(1W)-H(1WA)···O11_$1	0.860(3)	2.177(3)	2.7998(15)	129.0(3)
O(1W)-H(1WB)···N13_$2	0.858(3)	2.500(6)	3.0501(15)	122.7(5)
O(2W)-H(2WA)···O11_$3	0.860(2)	2.094(5)	2.7571(14)	133.5(5)
O(2W)-H(2WB)···O1W_$4	0.861(2)	2.413(2)	3.2450(15)	162.8(3)
O(2W)-H(2WB)···O13_$5	0.861(2)	2.427(13)	2.8726(16)	112.8(11)
		4		
O(1W)-H(1WA)···O13_$1	0.859(10)	1.929(14)	2.775(3)	168(4)
O(1W)-H(1WB)···O(7W)	0.861(10)	1.870(17)	2.691(5)	159(4)
O(2W)-H(2WA)···O15_$2	0.854(10)	2.44(3)	3.107(4)	136(4)
O(2W)-H(2WA)···O(7W)_$2	0.854(10)	2.39(4)	2.993(5)	128(4)
O(2W)-H(2WB)···O15	0.859(10)	1.962(11)	2.815(3)	172(4)
O(3W)-H(3WA)···O15_$3	0.854(10)	1.904(12)	2.752(3)	172(4)
O(3W)-H(3WB)···O11_$4	0.858(10)	2.071(13)	2.919(3)	170(3)
O(4W)-H(4WA)···O13_$3	0.848(10)	1.905(13)	2.743(3)	169(4)
O(4W)-H(4WB)···O11	0.852(10)	1.909(15)	2.721(3)	159(3)
O(5W)-H(5WA)···O14_$5	0.854(10)	1.838(12)	2.679(3)	168(3)
O(5W)-H(5WB)···O14_$6	0.853(10)	1.854(11)	2.701(3)	172(3)

O(6W)-H(6WA)···O11_$7	0.855(10)	2.026(12)	2.876(3)	173(4)
O(6W)-H(6WB)···O(5W)_$8	0.852(10)	2.008(11)	2.856(3)	174(4)
O(7W)-H(7WA)···O13_$9	0.865(10)	2.23(3)	3.008(4)	150(5)

[a] Symmetry codes for **1**: $1 –x + 1/2, y – 1/2, –z + 1/2; $2 –x + 1, –y + 1, –z + 1; $3 –x + 1/2, –y + 3/2, –z; $4 –x + 1, y – 1, –z + 1/2; for **2**: $1 –x + 1/2, y + 1/2, –z + 3/2; $2 x – 1/2, y + 1/2, z; for **3**: $1 x, –y + 3/2, z – 1/2; $2 x – 1, y, z; $3 x, –y + 3/2, z + 1/2; $4 x, y, z + 1; $5 –x + 1, –y + 2, –z + 1; for **4**: $1 –x + 1, –y + 2, –z; $2 –x, –y + 2, –z + 1; $3 x, y – 1, z; $4 –x + 1, –y, –z; $5 –x + 1, –y + 1, –z; $6 x, y, z + 1; $7 x, y + 1, z + 1; $8 x, y + 1, z; $9 –x, –y + 2, –z.

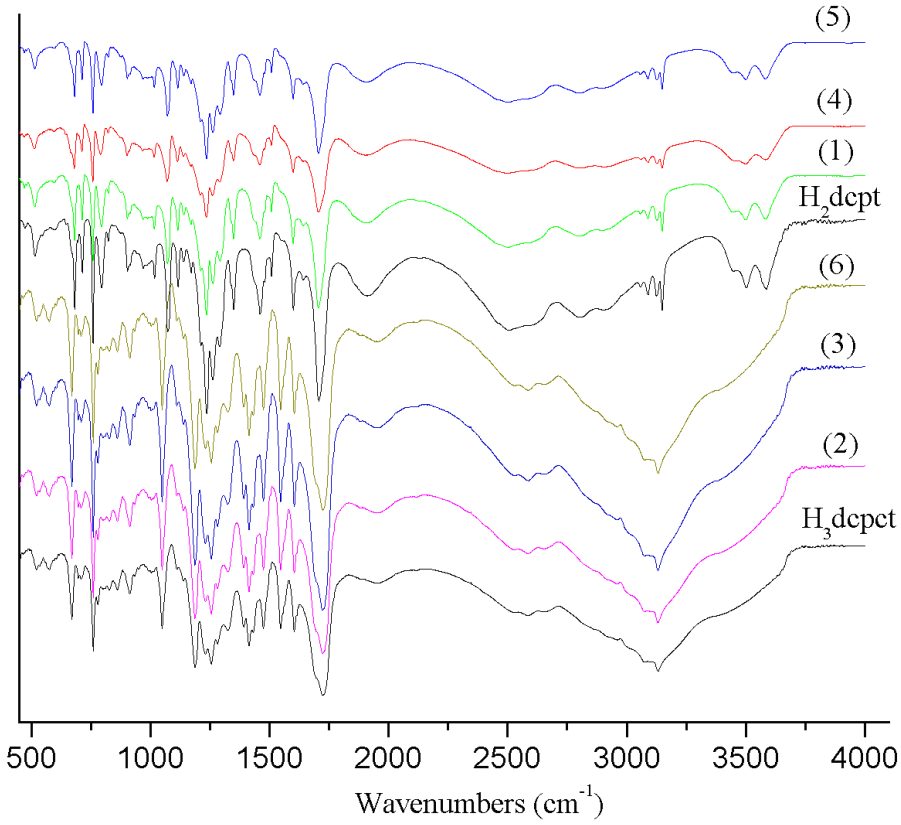

Fig. S1 IR spectra of H_3dcpct, H_2dcpt and the products of reactions (1)–(6) in Scheme 2 (see the text).

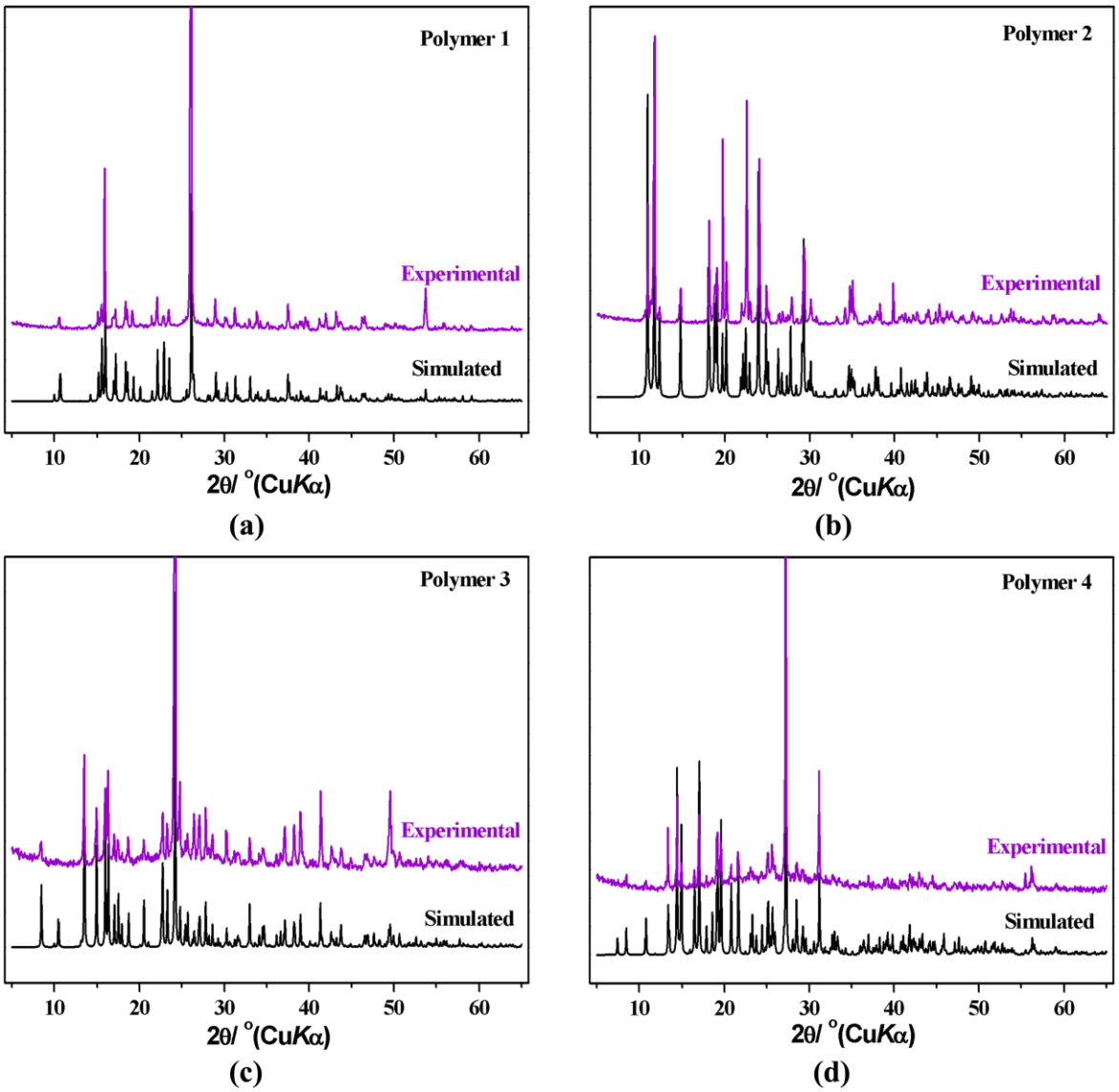

Fig. S2 Powdered X-ray diffraction (PXRD) patterns of **1** (a), **2** (b), **3** (c) and **4** (d).

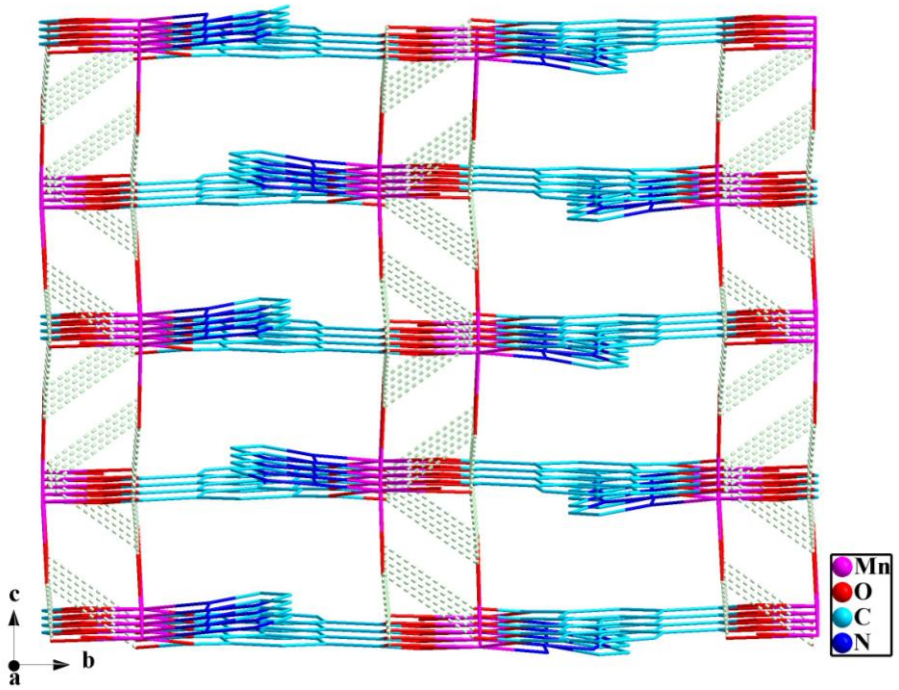

Fig. S3 3-D structure of **1** connected by hydrogen bonds viewed along the *a* direction.

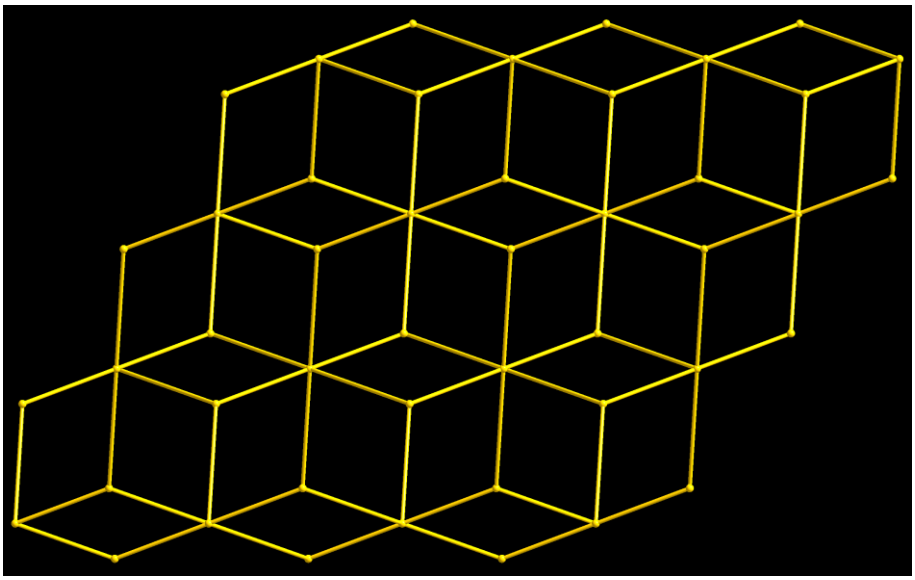

Fig. S4 A schematic representation of the 2-D $CdCl_2$ net in **2**.

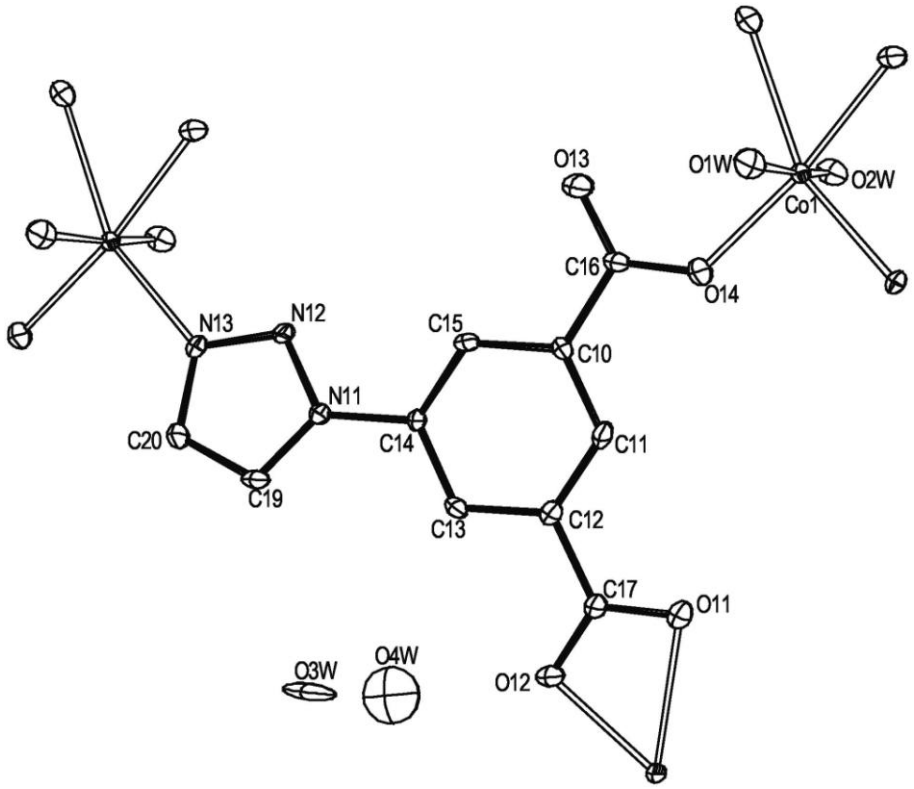

Fig. S5 ORTEP representation of **3** with thermal ellipse at the 30% probability level. Hydrogen atoms are omitted for clarity.

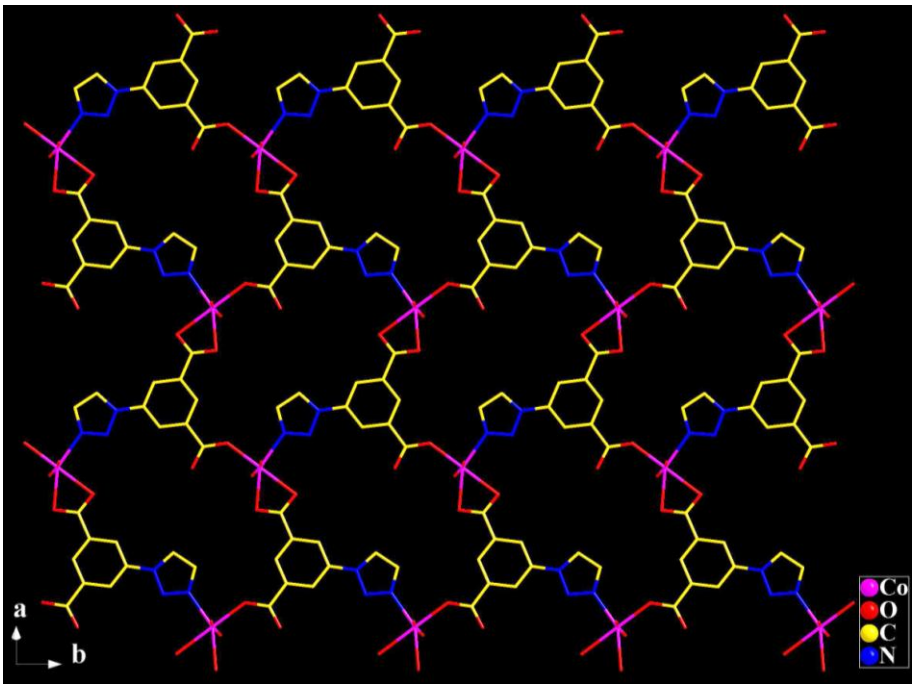

Fig. S6 The 2-D layered structure of **3** linked by $dcpt^{2-}$ ligands.

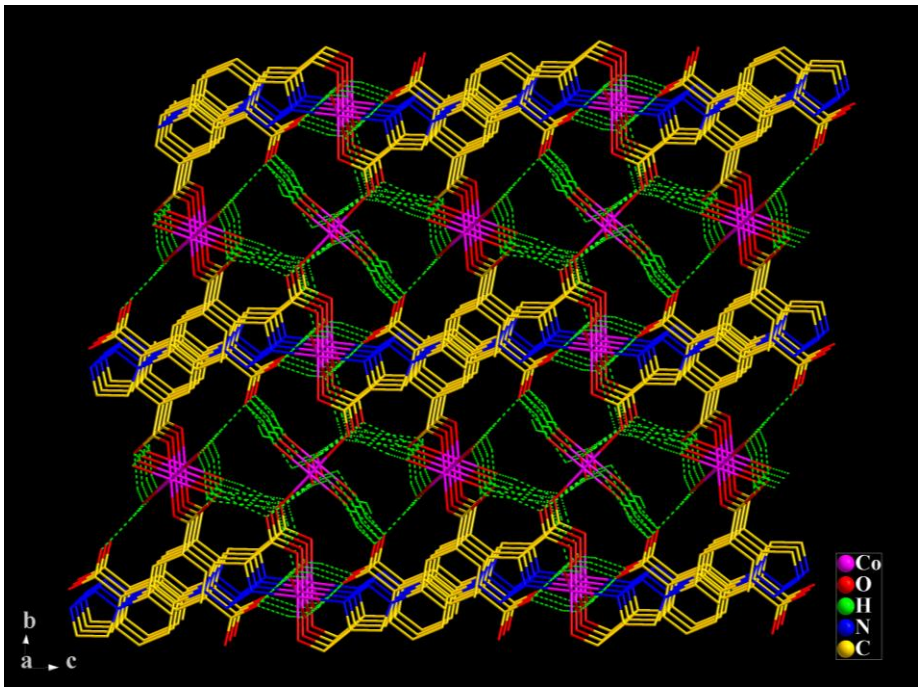

Fig. S7 3-D structure of **4** connected by hydrogen bonds viewed along the *a* direction.

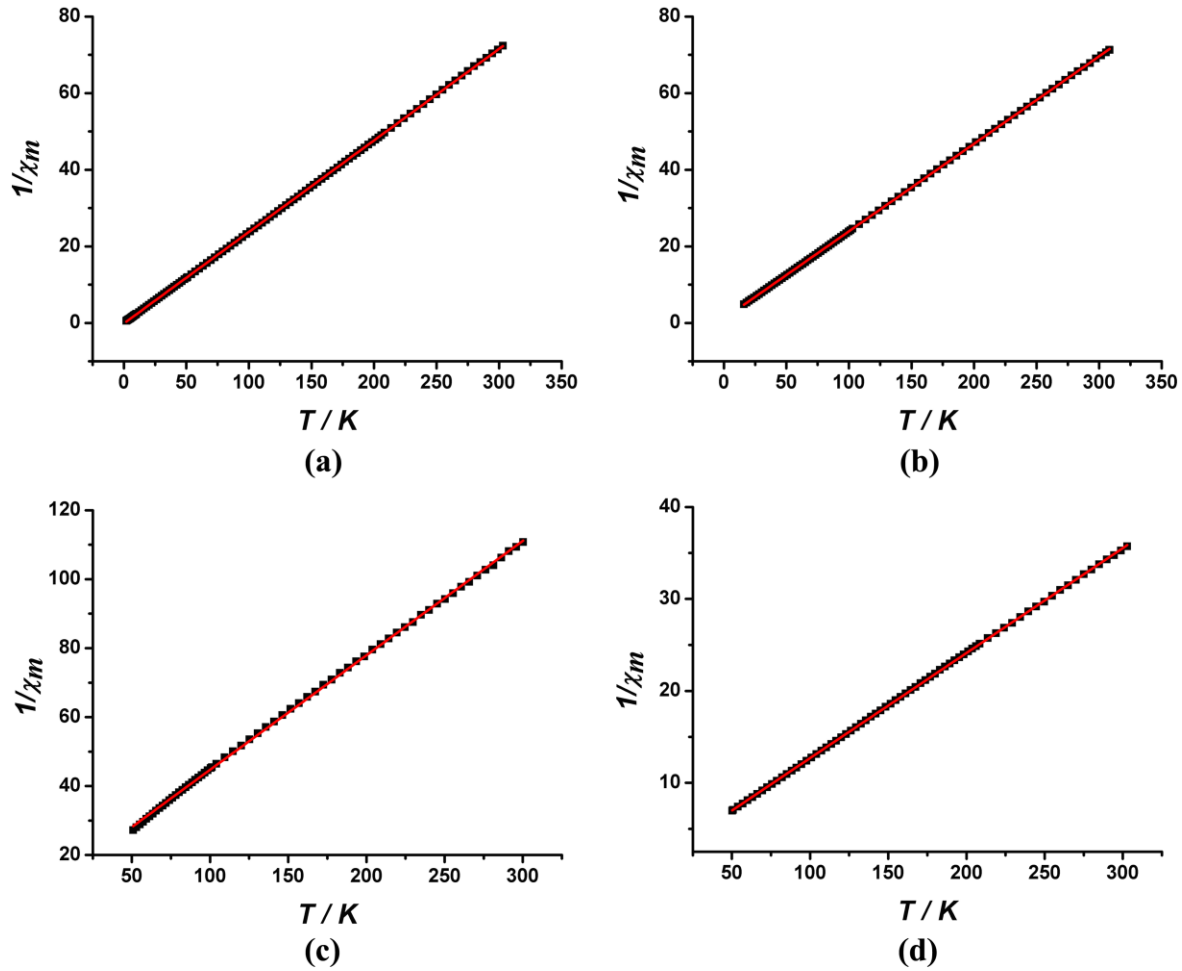

Fig. S8 A linear fit via Curie-Weiss law $1/\chi_M = (T - \theta)/C$ in the temperature range of 2–300K for **1** (a), 16–300K for **2** (b), 50–300K for **3** (c) and 50–300K for **4** (d).