

Electronic Supplementary Information (ESI) for:

Two Three-Dimensional Metal-Organic Frameworks Constructed by Thiazole-Spaced Pyridinecarboxylates with Selective Gas Sorption or Magnetic Properties Respectively

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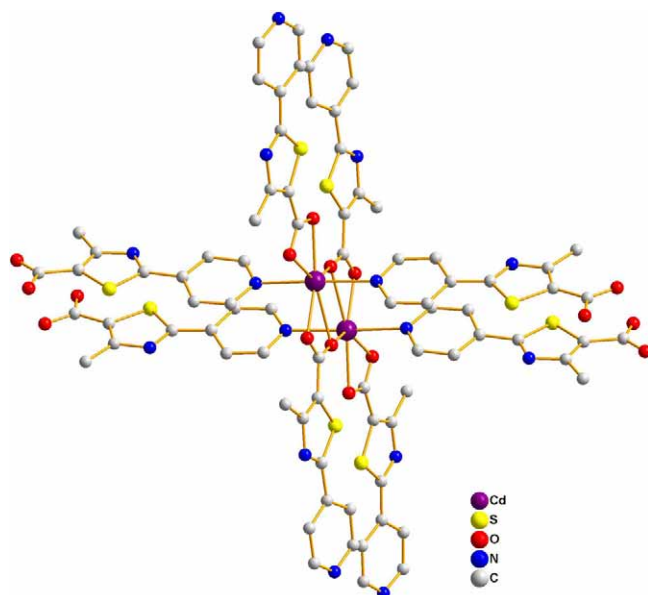


Fig. S1 The coordination mode of Cd center in crystal **1** (Cd atoms: pink, N atoms: blue, O atoms: red, S atoms: brown, H atoms are omitted for clarity).

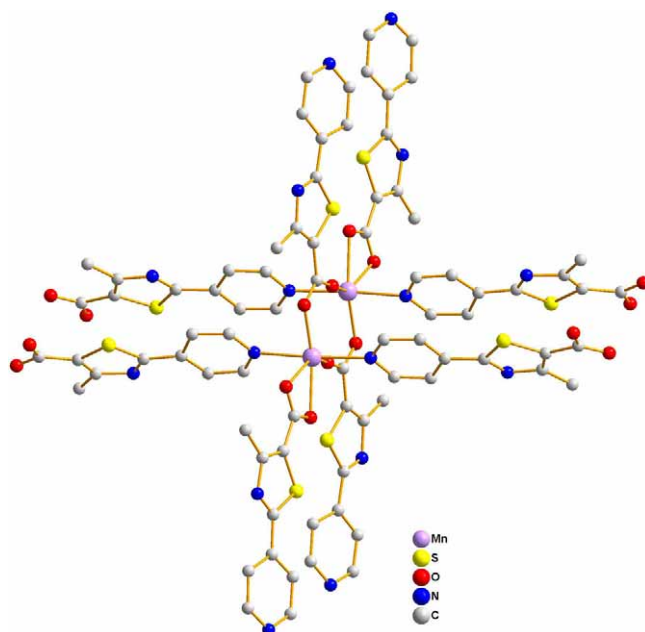


Fig. S2 The coordination mode of Mn center in crystal **2** (Mn atoms: lavender, N atoms: blue, O atoms: red, S atoms: brown, H atoms are omitted for clarity).

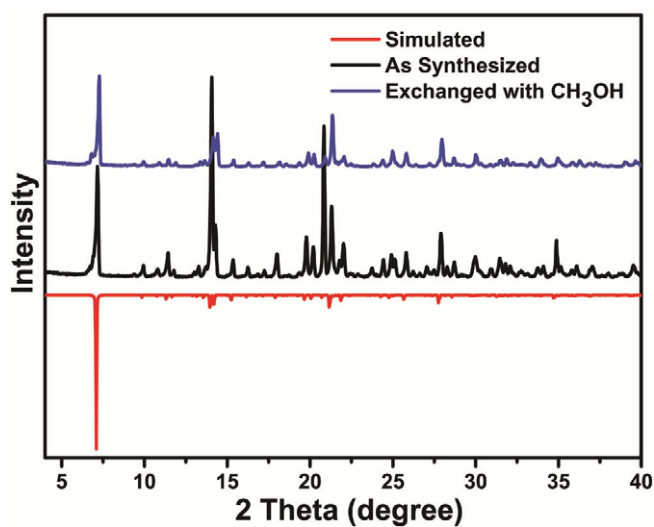


Fig. S3 The PXRD of crystal 1 and activated 1.

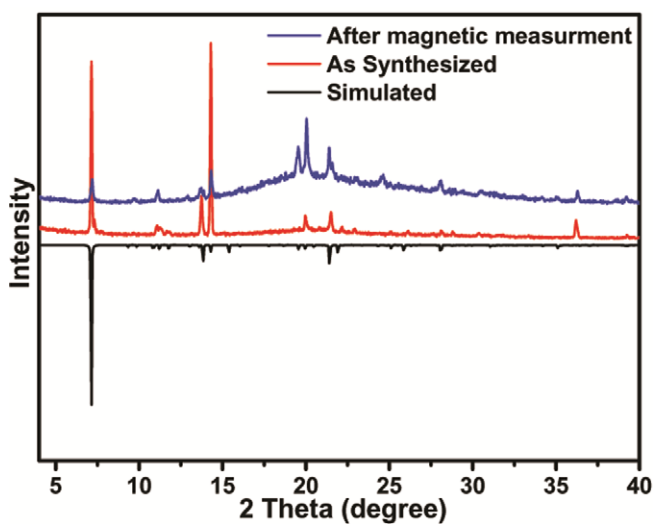


Fig. S4 The PXRD of crystal 2.

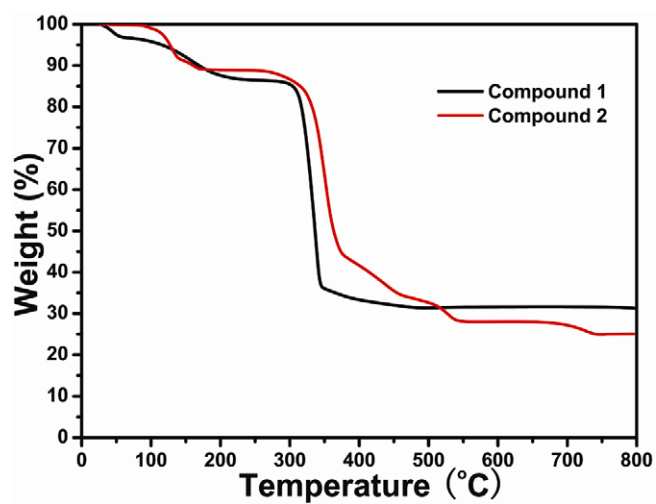


Fig. S5 The TGA of compound 1, 2.

Table S1. Single-component gas uptake in compound **1** and separation ratios of CO₂/Gas at 298 K.

Pressure (atm)	Gas	Gas Uptake (STP, mL/g)	Wt %	CO ₂ /Gas Ratio (v/v)
1.00	CO ₂	29.47	5.8	
	CH ₄	3.0	0.6	9.8
	N ₂	2.8	0.55	10.5
	H ₂	0.2	0.04	147
	CO	1.3	0.16	22.7
	O ₂	2.0	0.28	14.7