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Supporting Information

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Polymorphic Coordination Networks Responsive to CO₂, Moisture and Thermal Stimuli: Porous Cobalt(II) and Zinc(II) Fluoropyrimidinolates

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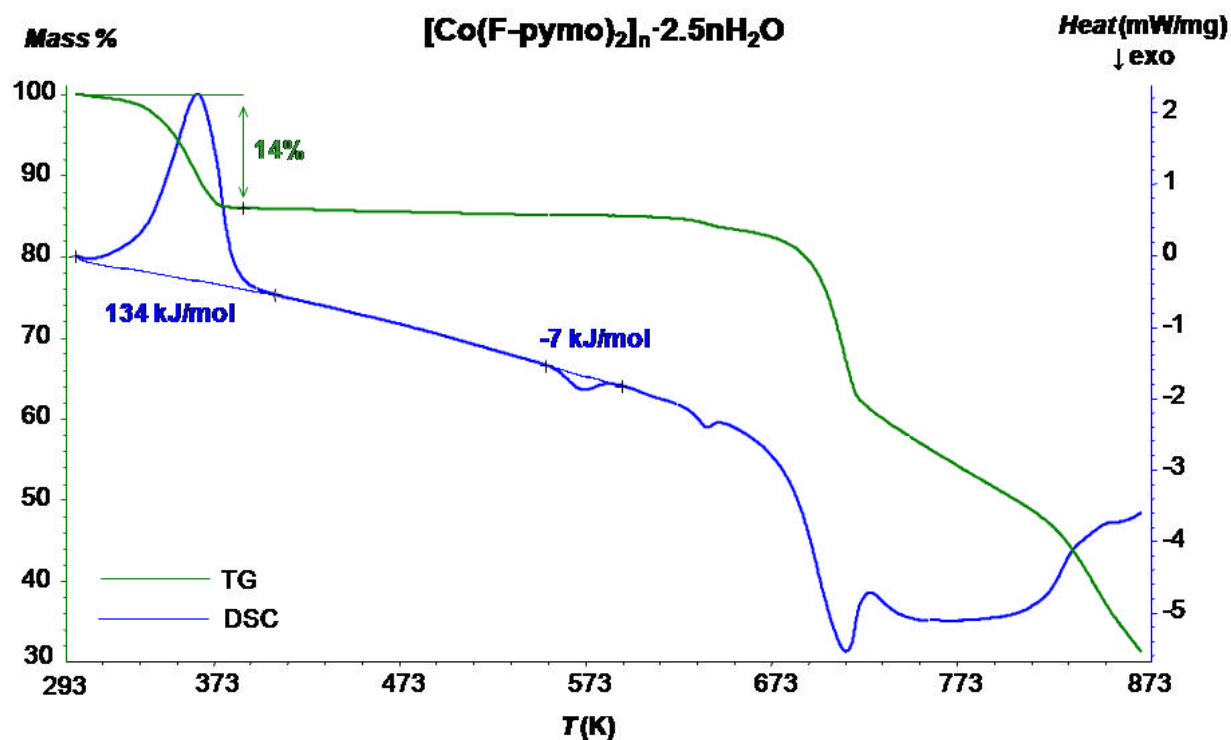


Figure S.1

Thermogravimetric (TG) and differential scanning calorimetric (DSC) curves for $[\text{Co}(\text{F-pymo})_2]_n \cdot 2.5n\text{H}_2\text{O}$, a-Co, acquired under a nitrogen atmosphere at 20 K/min. The species undergoes a mass loss of about 14% at 365 K, by means of an endothermic process. The mass loss is compatible with the release of all the clathrated water molecules (theoretical value 13.6%) to form the anhydrous $[\text{Co}(\text{F-pymo})_2]_n$ (b-Co) phase. The latter undergoes a temperature-promoted exothermic transformation at 573 K, without any mass loss, yielding a polymorphic form of b-Co, namely g-Co, which is stable up to 673 K, when decomposition starts.

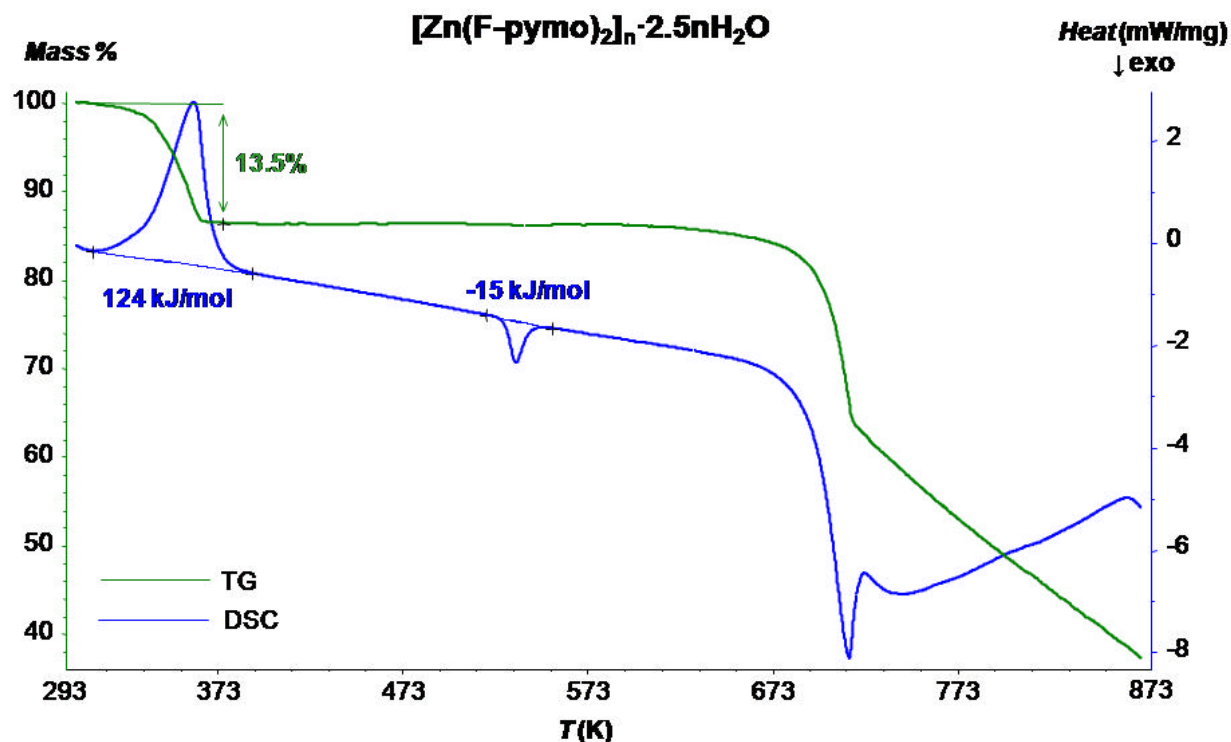


Figure S.2

Thermogravimetric (TG) and differential scanning calorimetric (DSC) curves for $[\text{Zn}(\text{F-pymo})_2]_n \cdot 2.5n\text{H}_2\text{O}$, **a-Zn**, acquired under a nitrogen atmosphere at 20 K/min. The compound suffers a mass loss of about 13.5% at 361 K, promoted by an endothermic process, and consistent with the release of all the clathrated water molecules to form the anhydrous $[\text{Zn}(\text{F-pymo})_2]_n$ species, **b-Zn**. The latter undergoes a temperature-promoted exothermic transformation at 535 K, without any mass loss, to yield the $[\text{Zn}(\text{F-pymo})_2]_n$ polymorph **g-Zn**, stable up to 673 K, when decomposition starts.

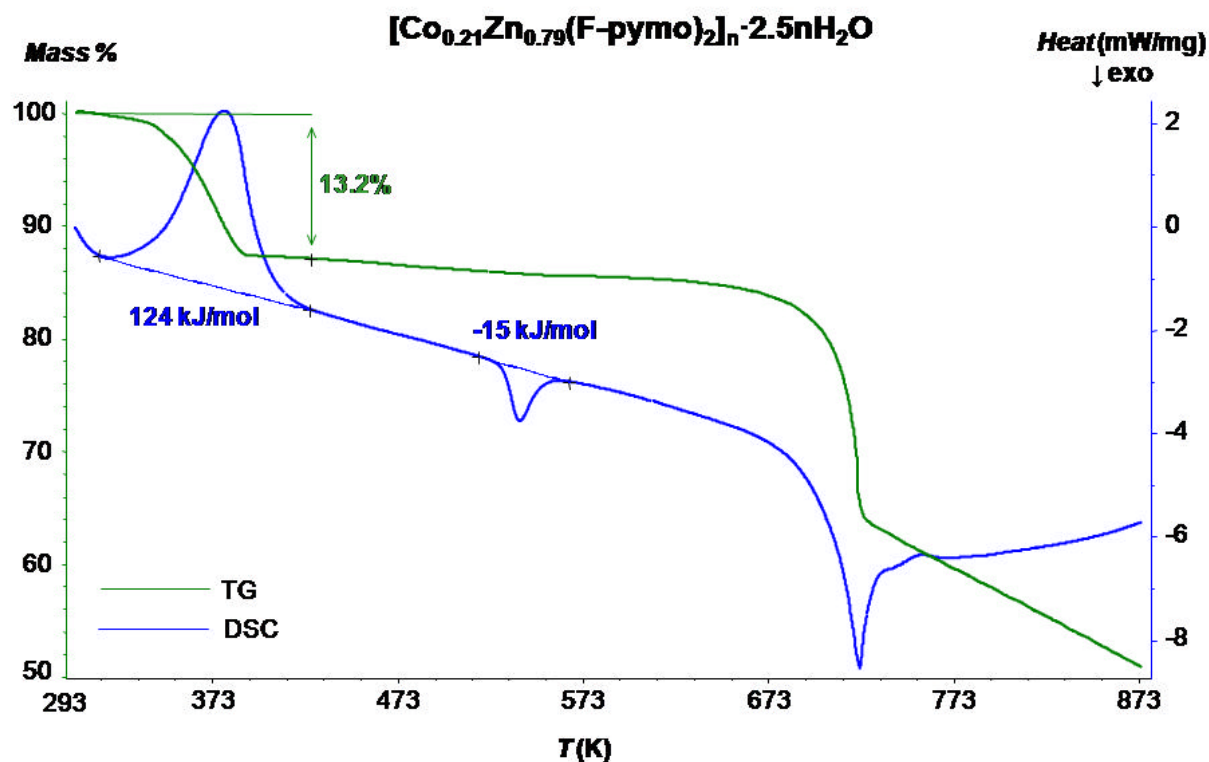


Figure S.3

Thermogravimetric (TG) and differential scanning calorimetric (DSC) curves for [Co_{0.21}Zn_{0.79}(F-pymo)₂]_n·2.5nH₂O, **a-CoZn**, acquired under a nitrogen atmosphere at 20 K/min. The material undergoes an endothermic mass loss at about 380 K, which yields the anhydrous **b-CoZn** phase. Further heating up to 539 K causes an exothermic phase change to give the anhydrous **g-CoZn**, which starts decomposing at about 673 K.