Supporting Information

Two Homochiral Bimetallic Metal-Organic Frameworks Composed of a Paramagnetic Metalloligand and Chiral Camphorates: Multifunctional Properties of Sorption, Magnetism, and Enantioselective Separation

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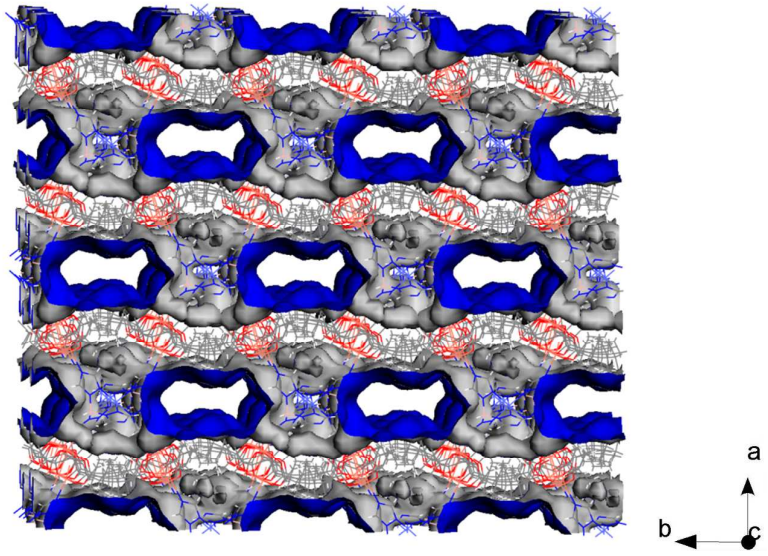


Figure S1. Connolly surface of **2** with a probe radius of 1.4 Å showing 1D channels.

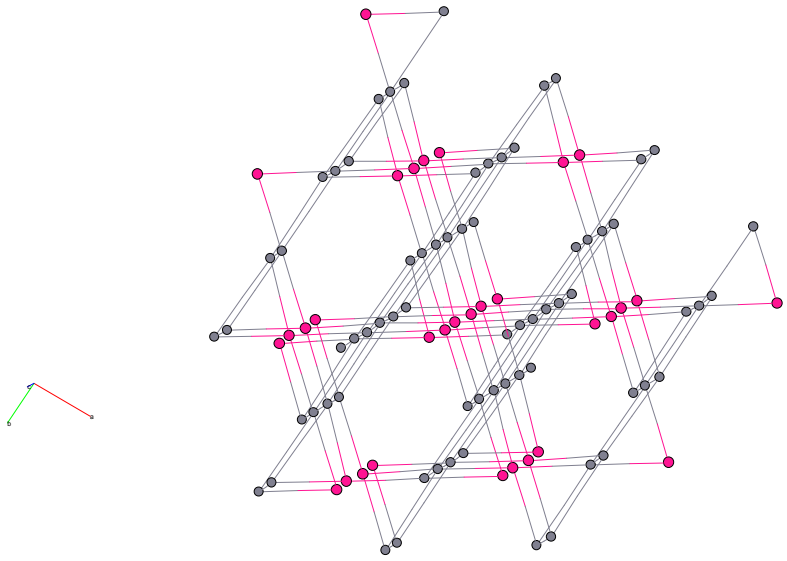
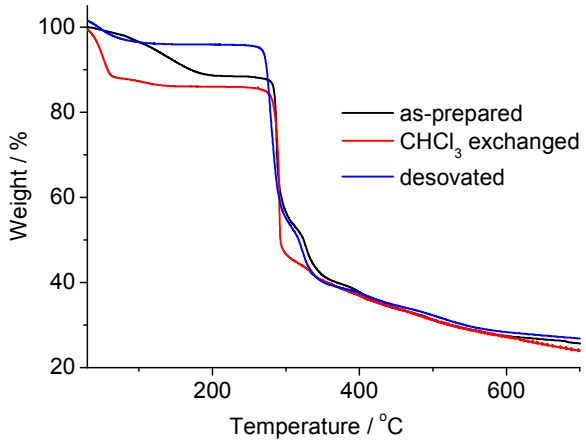
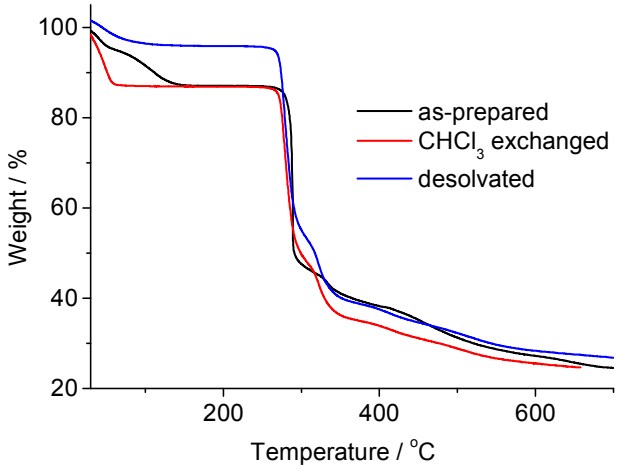


Figure S2. Simplified net of **1**. The red circle indicates Co and the gray circles denote the midpoints of the Cu diimeric subunits.

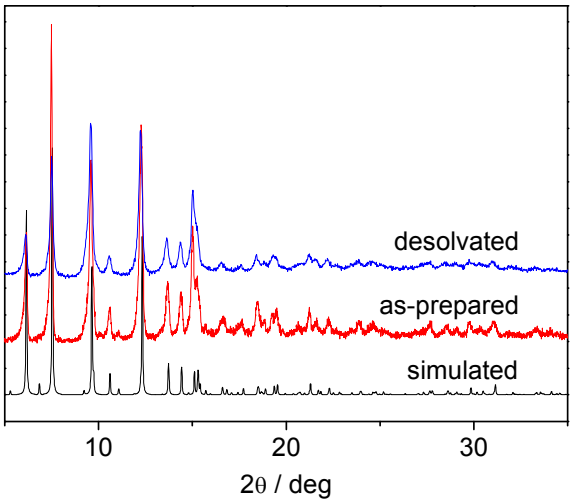


(a)

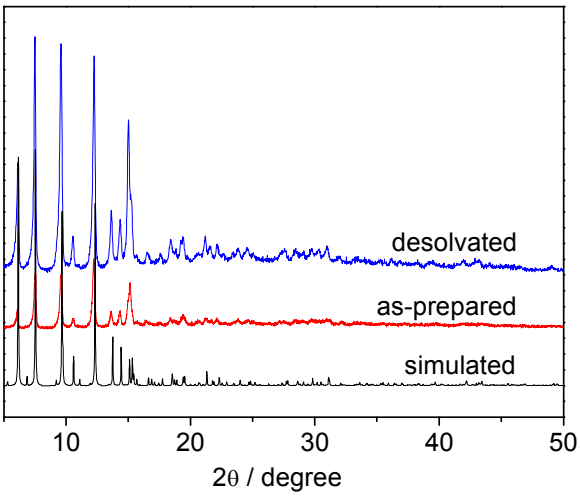


(b)

Figure S3. TG plots of as-prepared, $CHCl_3$ exchanged, and desolvated phase for **1** (a) and **2** (b).



(a)



(b)

Figure S4. PXRD data of the simulated, as-prepared, and desolvated phase for **1** (a) and **2** (b).

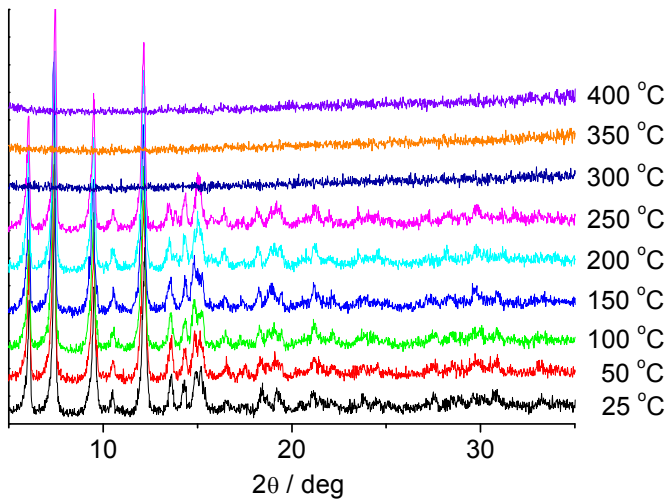


Figure S5. Temperature dependent PXRD pattern of **1**.

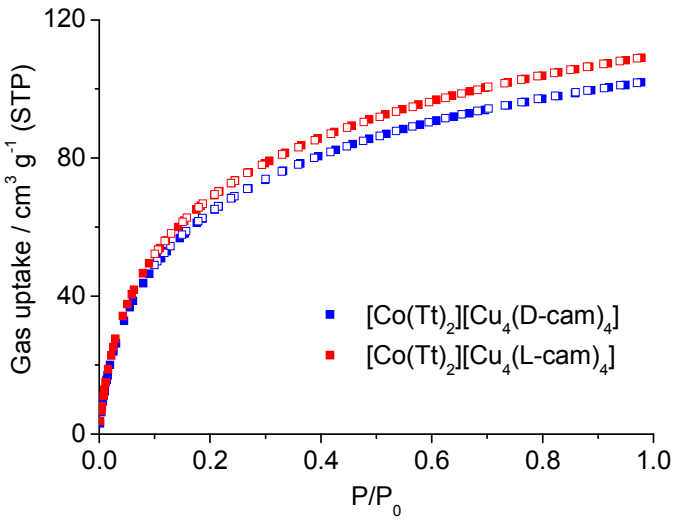


Figure S6. H_2 sorption isotherms for **1'** and **2'** at 77 K.

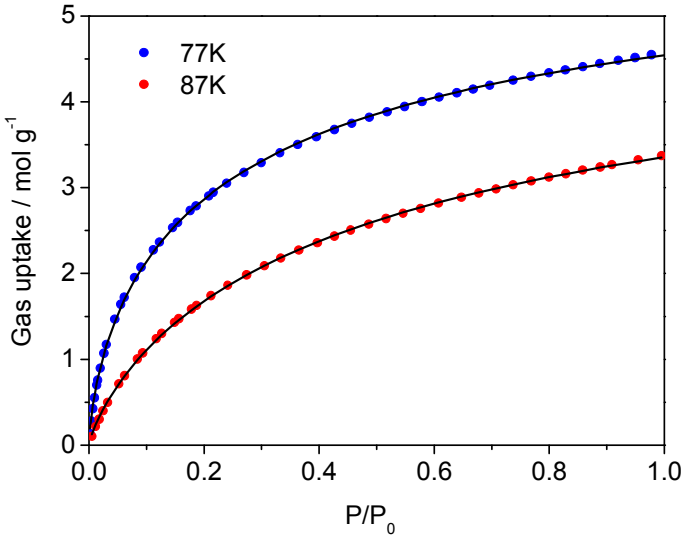


Figure S7. H_2 sorption isotherms at 77 and 78 K of **1'**. The solid lines show fits to a virial equation.

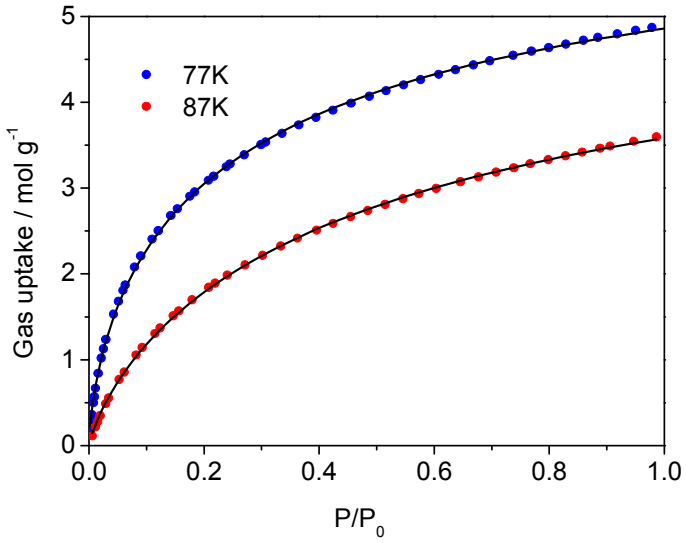


Figure S8. H_2 sorption isotherms at 77 and 78 K of **2'**. The solid lines show fits to a virial equation.

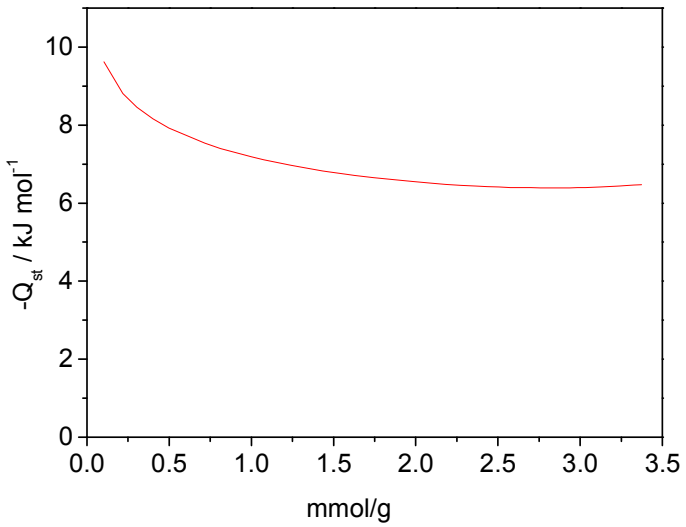


Figure S9. Plot of the isosteric heat of H_2 adsorption for **1'**.

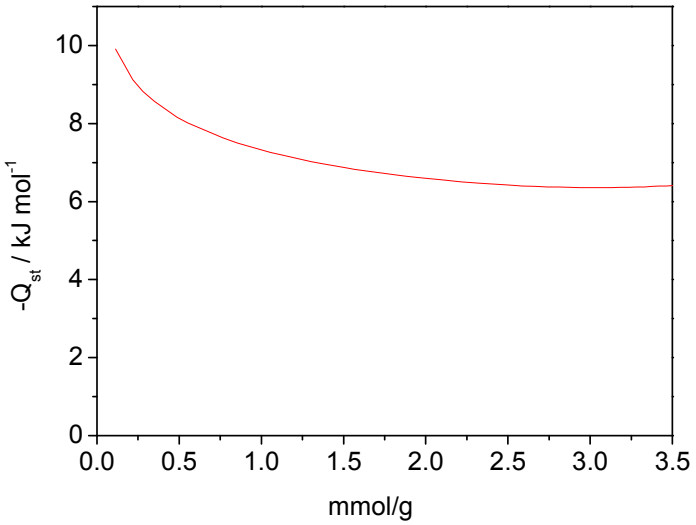


Figure S10. Plot of the isosteric heat of H_2 adsorption for **2'**.

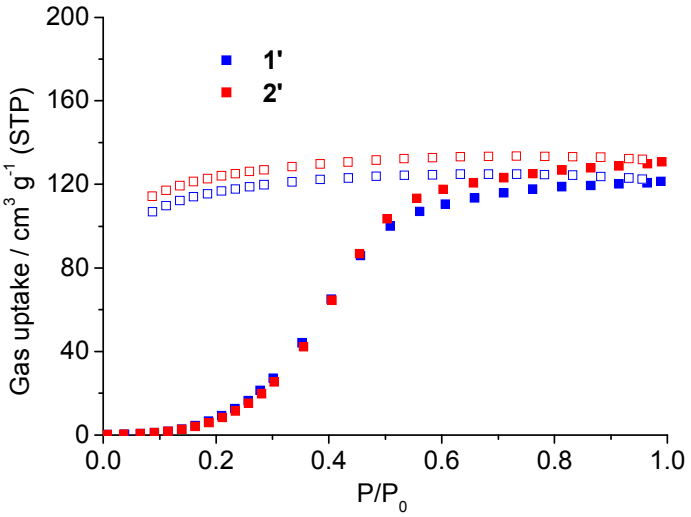


Figure S11. CO_2 sorption isotherms for **1'** and **2'** at 195 K.

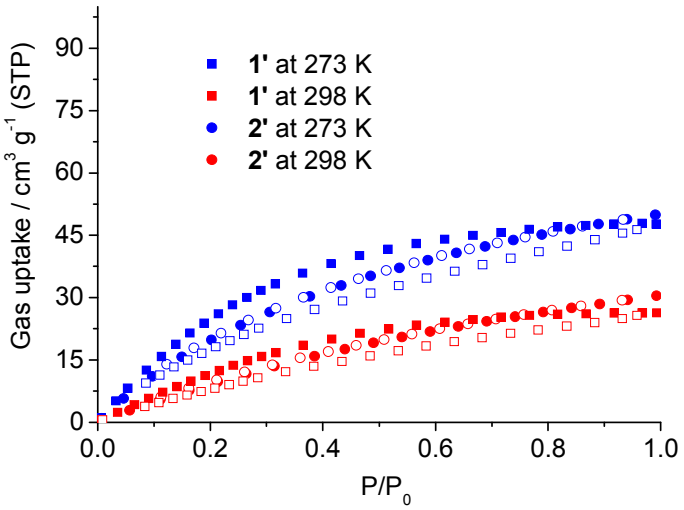


Figure S12. CO_2 sorption isotherms for **1'** and **2'** at 273 and 298 K.

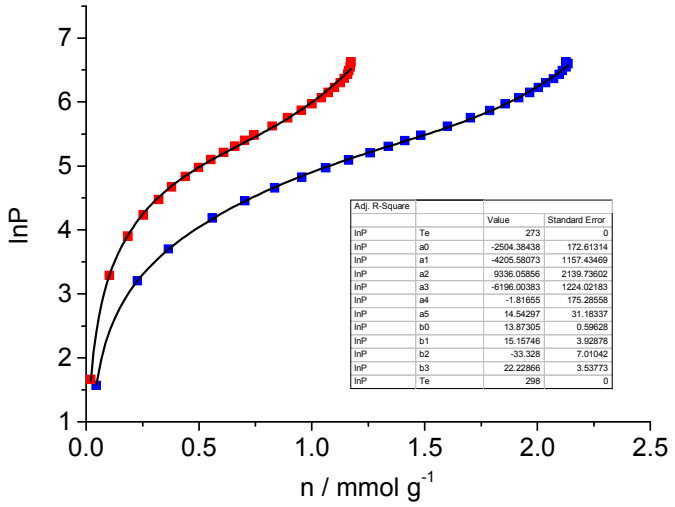


Figure S13. CO_2 sorption isotherms at 273 and 298 K of **1'**. The solid lines show fits to a virial equation.

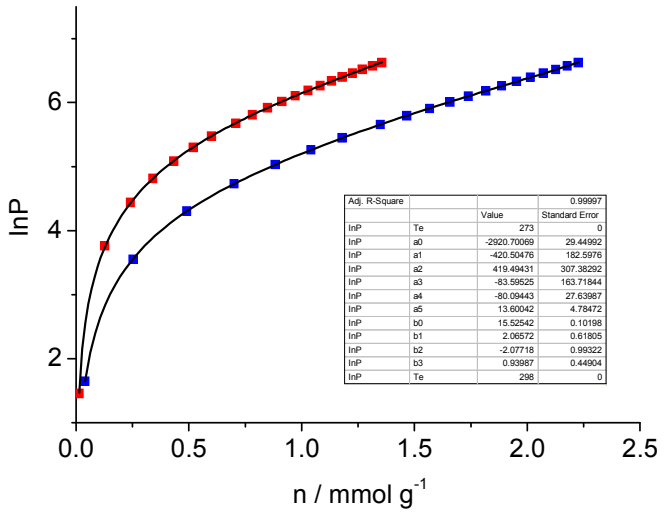


Figure S14. CO_2 sorption isotherms at 273 and 298 K of **2'**. The solid lines show fits to a virial equation.

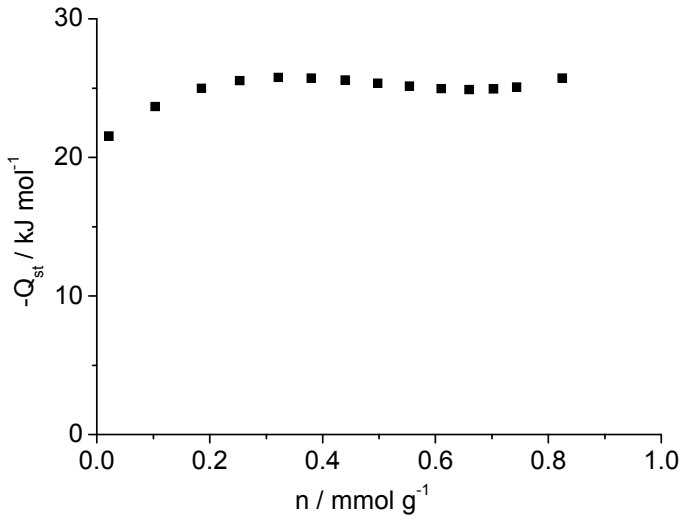


Figure S15. Plot of the isosteric heat of CO_2 adsorption for **1'**.

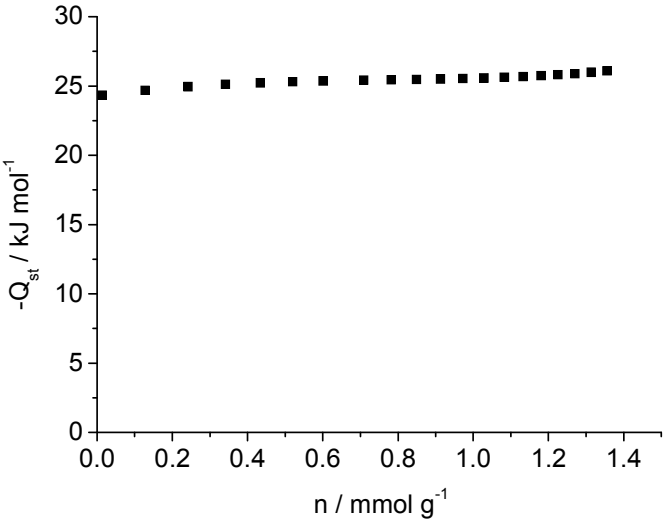


Figure S16. Plot of the isosteric heat of CO_2 adsorption for **2'**.

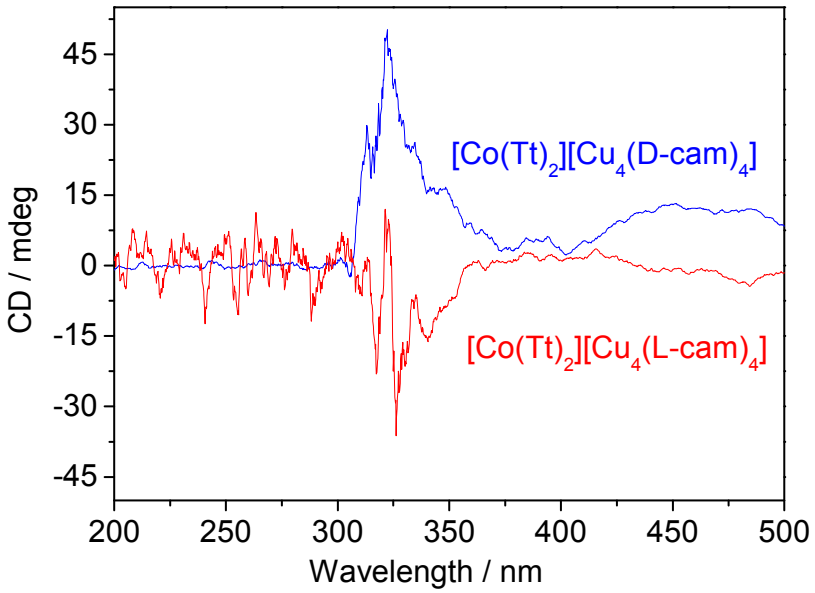


Figure S17. The solid state circular dichroism (CD) spectra of **1** (blue) and **2** (red).

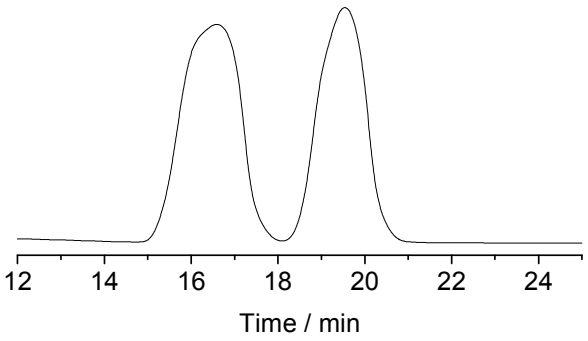


Figure S18. HPLC graph after chiral separation of 1-phenylethanol by compound **2**. Chiral separation capability for (S)-1-phenylethanol shows ee of 5.7%