Supporting information

New layered copper 1,3,5-benzenetriphosphonates pillared with N-donor ligands: Synthesis, crystal structures, and adsorption properties

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Figure 1S. SEM image of the compound 4.

Figure 2S. Final Rietveld plot of compound 2.

Figure 2S. TGA curve of the compound 1-4.

Figure 3S. XRD patterns of the compound 3 and 4 at several conditions.

Figure 4S. CO_2 adsorption isotherm at 273 K on the compound 3 evacuated under the mild condition.

Figure 5S. Ethanol adsorption isotherms on the compound 2-4 at 303 K.



Figure 1S. SEM image of the compound 4.



Figure 2S. Final Rietveld plot of compound **2**. Observed (red points), simulated (green line), and residual (blue line) profiles.







(a)



(d)



Figure 3S. TGA curve of (a) the compound 1, (b) 2, (c) 3, (d) and 4.

(c)



Figure 4S. XRD patterns of (a) the compound **3** and (b) **4** at several conditions. From bottom to top, pristine, sample treated at 150 °C, and sample with water after the heating treatment, respectively.



Figure 5S. CO_2 adsorption isotherm at 273 K on the compound 3 evacuated under the mild condition.



Figure 6S. Ethanol adsorption isotherms on the compound **2-4** at 303 K. Solid and open symbols represent adsorption and desorption branches, respectively.