

## Supporting Information

### **An unusual highly connected 3D net with hydrophilic pore surface**

Huabin Zhang,<sup>a,b</sup> Ping Lin,<sup>a</sup> Guodong Zou,<sup>a,b</sup> Xiaochen Shan<sup>a,b</sup> Fenglei Du<sup>a,b</sup>  
and Shaowu Du<sup>\*a</sup>

<sup>a</sup> *State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fuzhou, Fujian 350002, P. R. China;*

<sup>b</sup> *Graduate University of Chinese Academy of Sciences, Beijing 100039, P. R. China;*

\* Corresponding author E-mail address: [swdu@fjirsm.ac.cn](mailto:swdu@fjirsm.ac.cn)

#### **Contents**

**Fig. S1** Schematic representation for the nodes of (a) the  $\mu_4$  ligand, (b) the  $\mu_3$  ligand, (c) the 10-connected SBU<sub>I</sub>, (d) the 8-connected SBU<sub>II</sub>, (e) and (f) the (3,4,8,10)-connected topological net of **1**.

**Fig. S2.** Simulated and experimental XRD powder patterns for **1**.

**Fig. S3.** XRD powder patterns for the as-synthesized and activated samples of **1**.

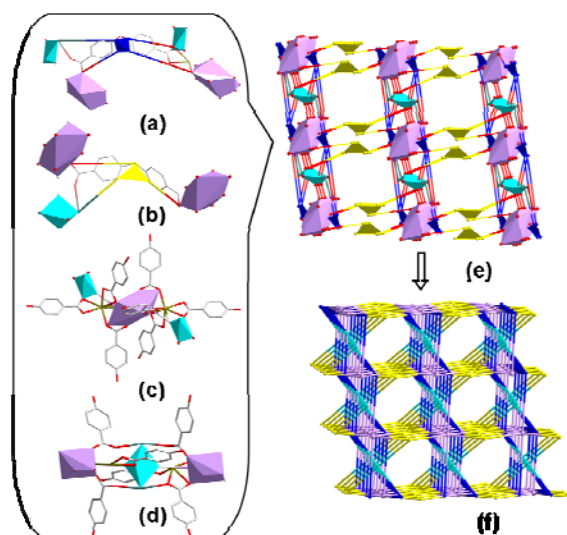
**Fig. S4** IR spectra for the as-synthesized and activated (at 120 °C) samples of **1**.

**Fig. S5** N<sub>2</sub> adsorption isotherm of **1** at 273 K and P/P<sub>0</sub> = 1.

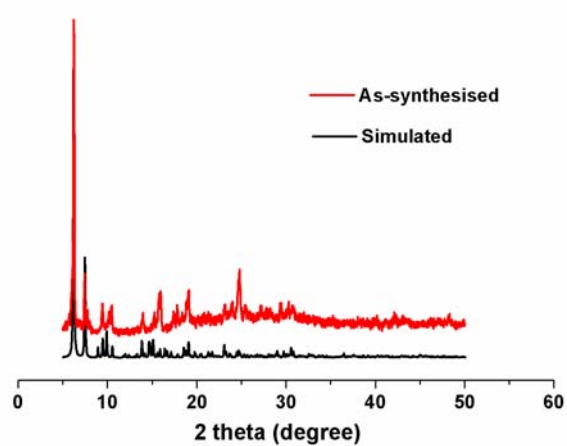
**Fig. S6** CO<sub>2</sub> adsorption isotherm of **1** at 273 K and P/P<sub>0</sub> = 1.

**Fig. S7** Adsorption/desorption isotherms of **1** for different solvent molecules at 298 K and P/P<sub>0</sub> = 1.

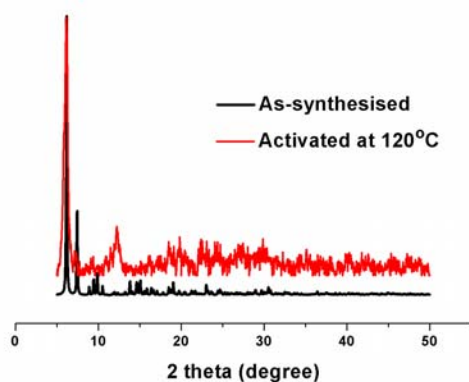
**Fig.S8** Excitation spectrum and UV-vis adsorption spectrum for compound **1**.



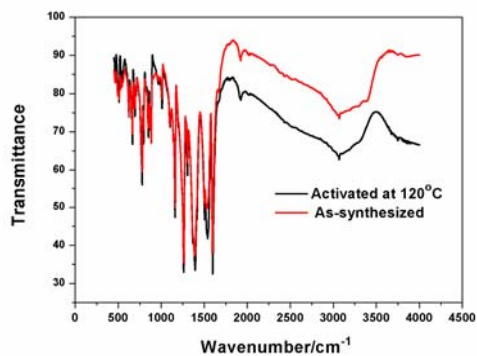
**Fig. S1** Schematic representation for the nodes of (a) the  $\mu_4$  ligand, (b) the  $\mu_3$  ligand, (c) the 10-connected SBU<sub>I</sub>, (d) the 8-connected SBU<sub>II</sub>, (e) and (f) the (3,4,8,10)-connected topological net of **1**.



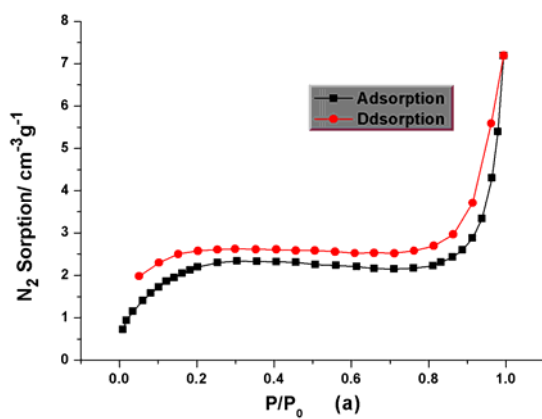
**Fig. S2** Simulated and experimental XRD powder patterns for **1**.



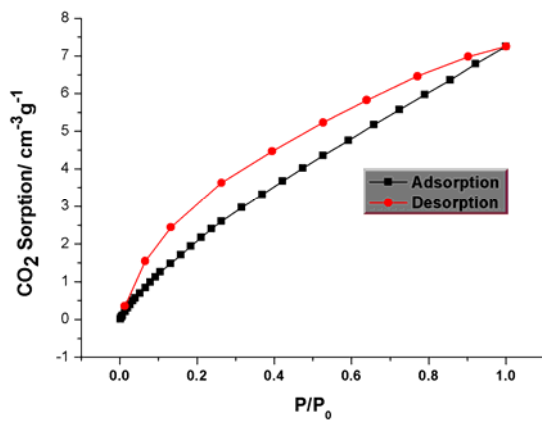
**Fig. S3** XRD powder patterns for the as-synthesized and activated samples of **1**.



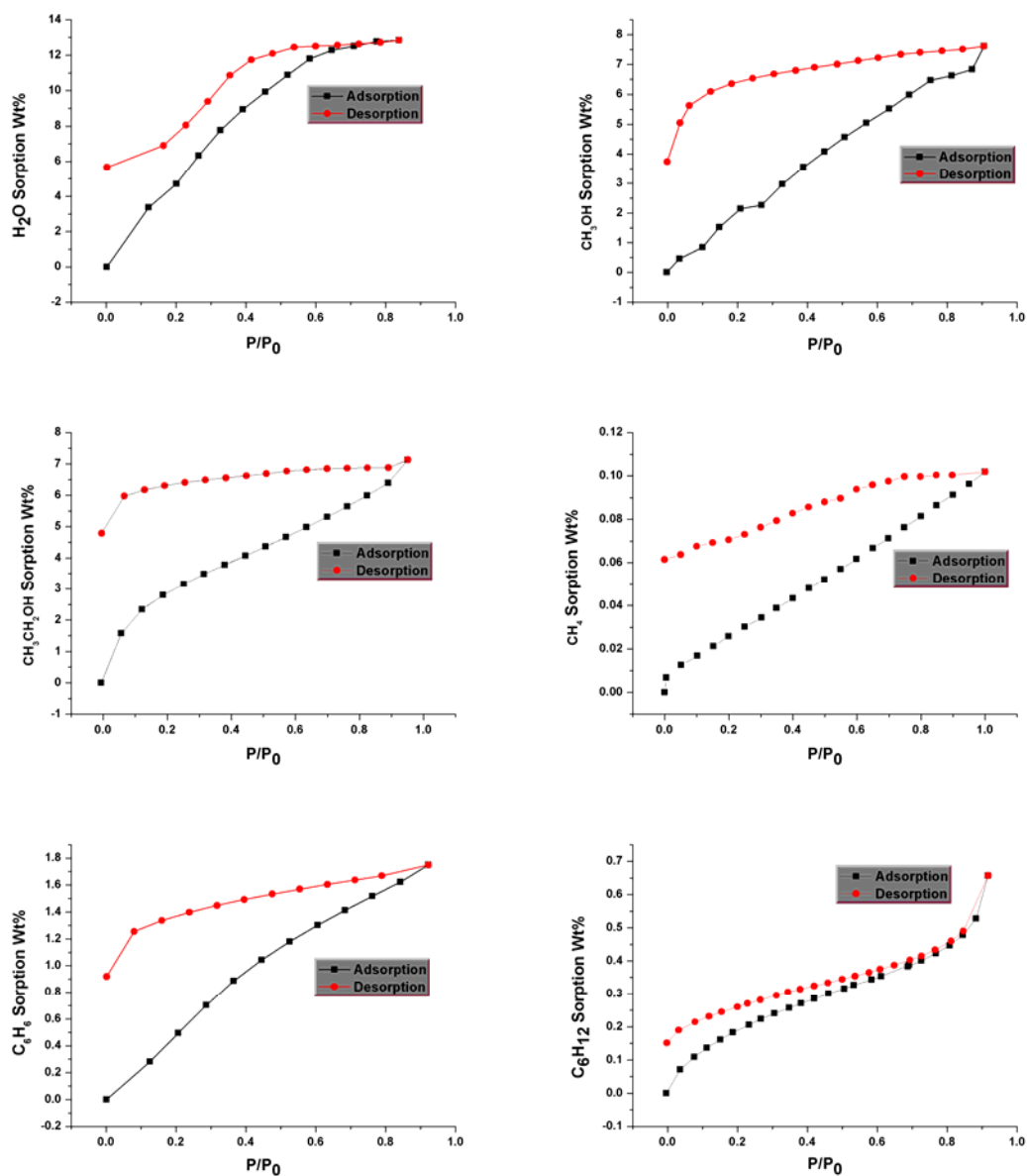
**Fig. S4** IR spectra for the as-synthesized and activated (at 120 °C) samples of **1**.



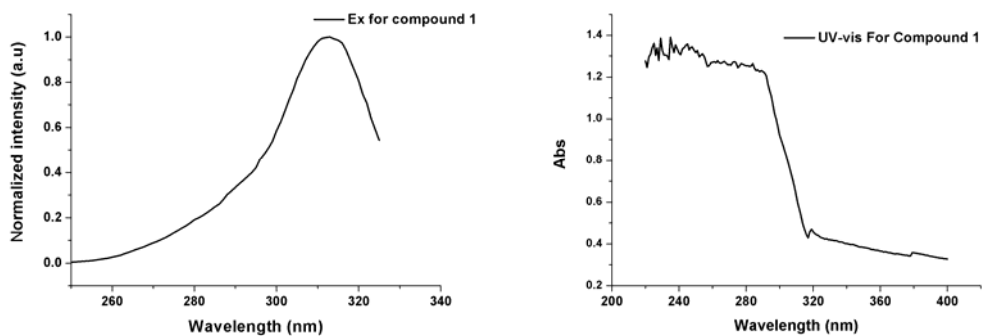
**Fig .S5** N<sub>2</sub> adsorption isotherm of **1** at 273 K and P/P<sub>0</sub> = 1.



**Fig .S6** CO<sub>2</sub> adsorption isotherm of **1** at 273 K and P/P<sub>0</sub> = 1.



**Fig. S7** Adsorption/desorption isotherms of **1** for different solvent molecules at 298 K and  $P/P_0 = 1$ .



**Fig.S8** Excitation spectrum and UV-vis adsorption spectrum for compound **1**.