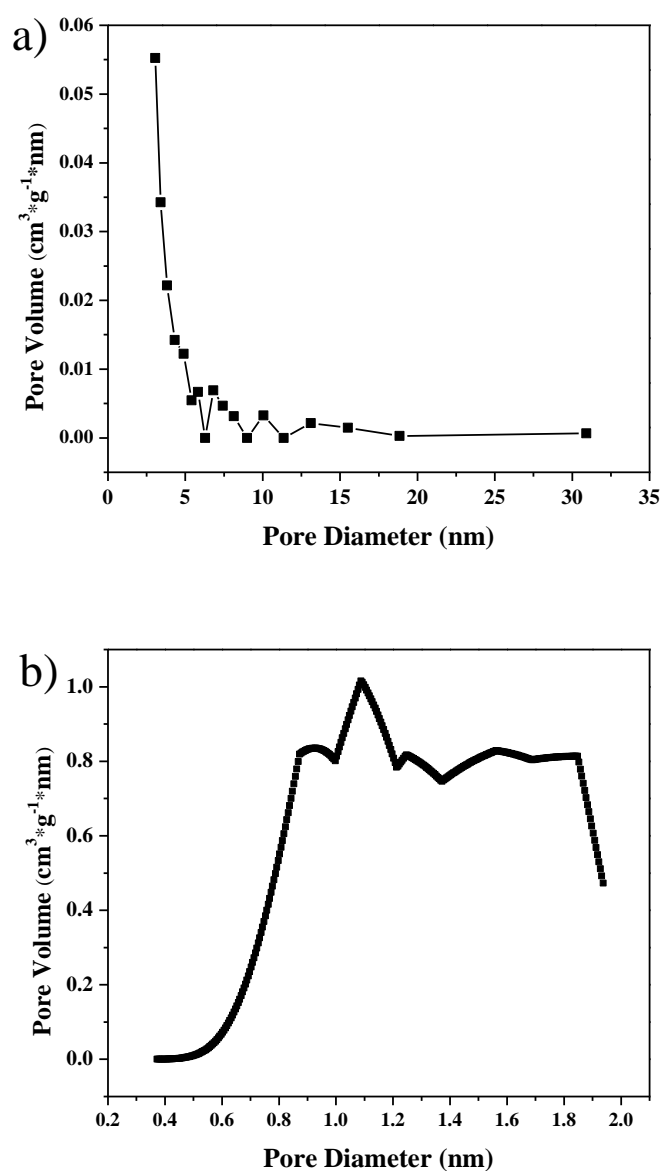


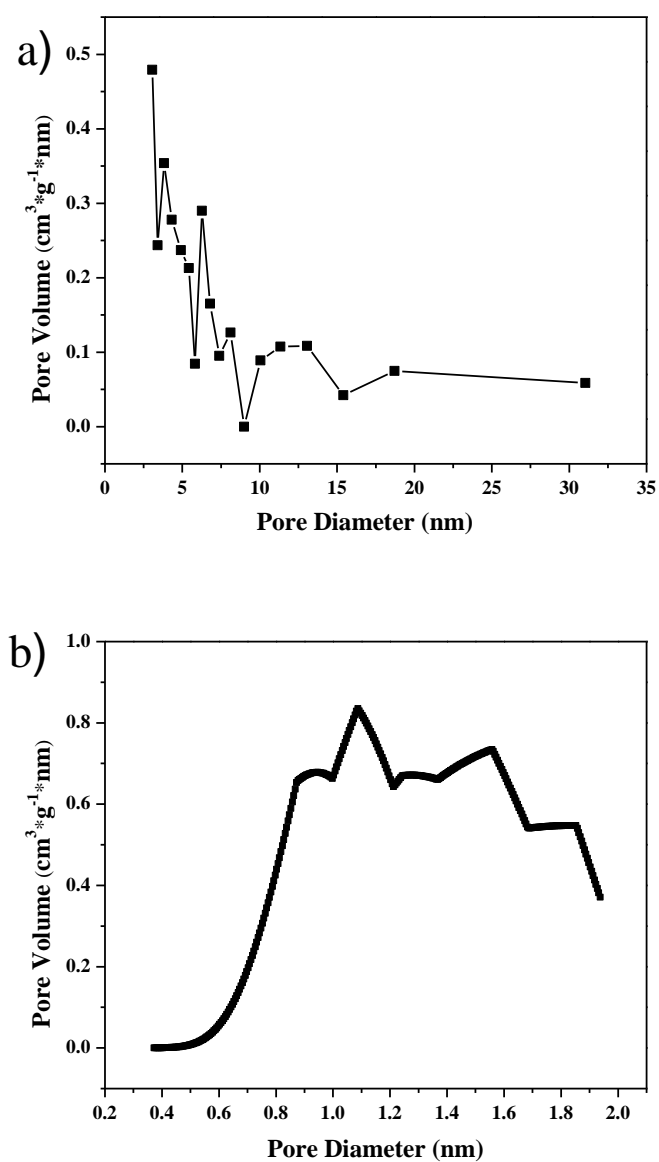
**Supporting information:**

**Preparation of cationic MOFs with mobile anions by anion stripping to remove 2,4-D from water**

Tao Chen, Cong Zhang, Yuemei Qin, Haiguan Yang, Peng Zhang and Fanggui Ye\*



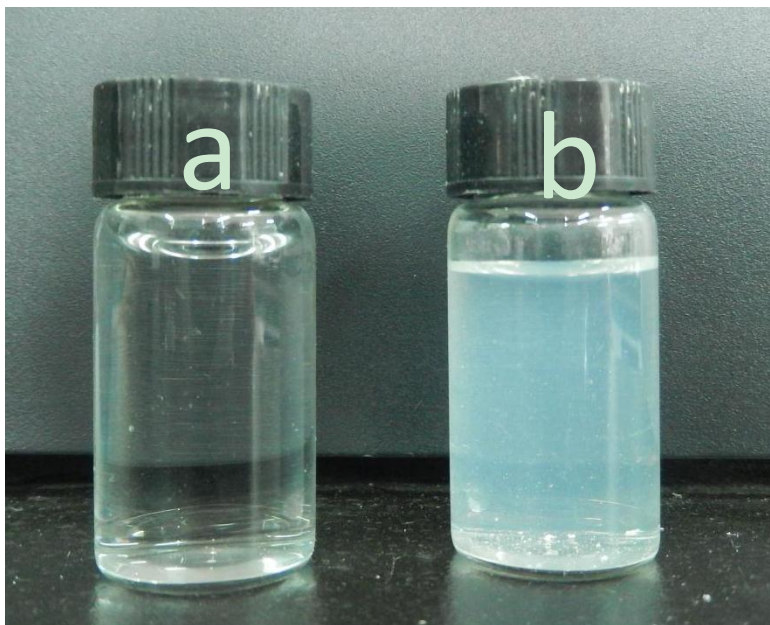
**Figure S1.** (a) The BJH pore size of MIL-101(Cr); (b) The HK pore size of MIL-101(Cr).



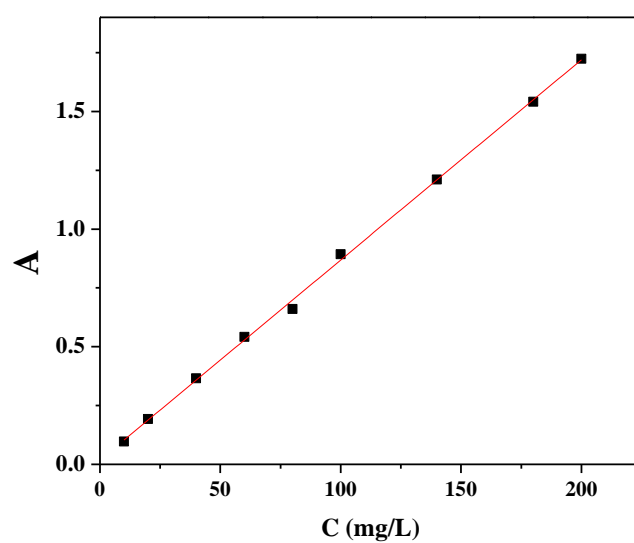
**Figure S2.** (a) The BJH pore size of MIL-101(Cr)-Cl; (b) The HK pore size of MIL-101(Cr)-Cl.

### Precipitation experiment before and after adsorption

Five milligrams of MIL-101(Cr)-Cl powders were soaked in 10 mL 100 mg/L of 2,4-D for about 12 h; after centrifuged, the supernatants were taken out, and then added 5 mM  $\text{AgNO}_3$  solution, and 100mg/L of 2,4-D was also added 5 mM  $\text{AgNO}_3$  solution.



**Figure S3.** The photos of (a) 100mg/L of 2,4-D added  $\text{AgNO}_3$  solution; (b) after adsorbed 2,4-D, the supernatants added  $\text{AgNO}_3$  solution.



**Figure S4.** The calibration curve of 2,4-D,  $A = 0.0085C + 0.0184$ ,  $R^2 = 0.999$ .

**Table S1.** The fluorine and chlorine content in MIL-100-Cr and MIL-100-Cr-Cl.

Sample	Fluorine Content	Chlorine Content
MIL-101(Cr)	5.66 wt %	-
MIL-101(Cr)-Cl	0.04 wt %	10.58 wt %