

## Supporting Information

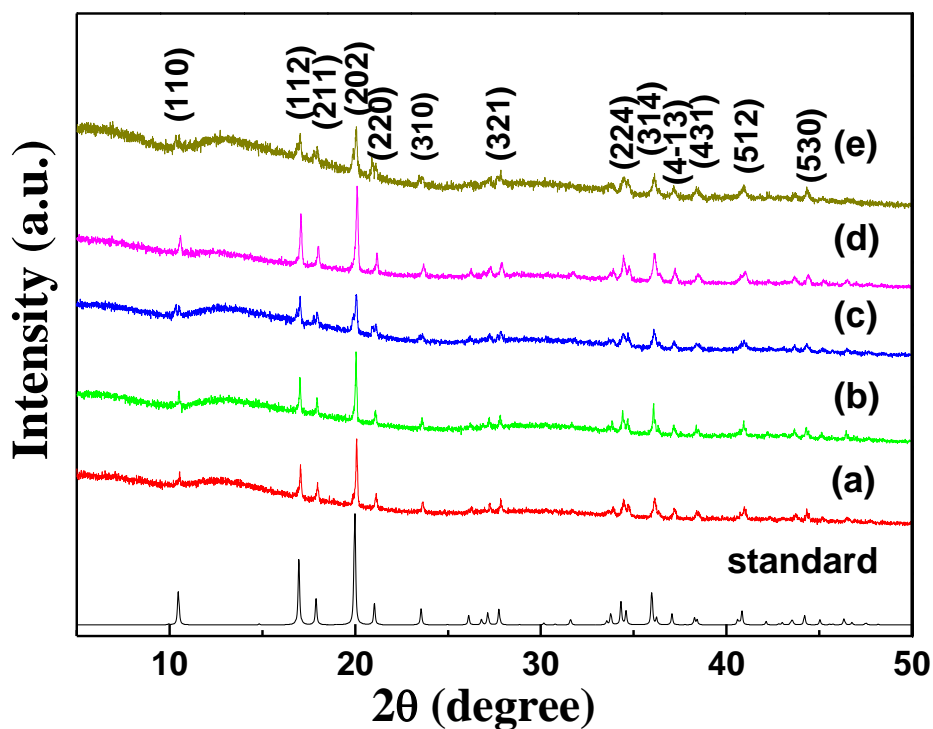
# Coordination Polymer Micro/nano-crystals: Controlled Synthesis and Formation Mechanism in the Case of $\text{Mn}_2\text{Mo}(\text{CN})_8 \cdot x\text{H}_2\text{O}$

Qingjing Zhang,<sup>a</sup> Guoxing Zhu,<sup>a</sup> Xiaoping Shen,<sup>\*a</sup> Lei Tong,<sup>a</sup> Zhefei Ye<sup>a</sup> and Kangmin Chen<sup>b</sup>

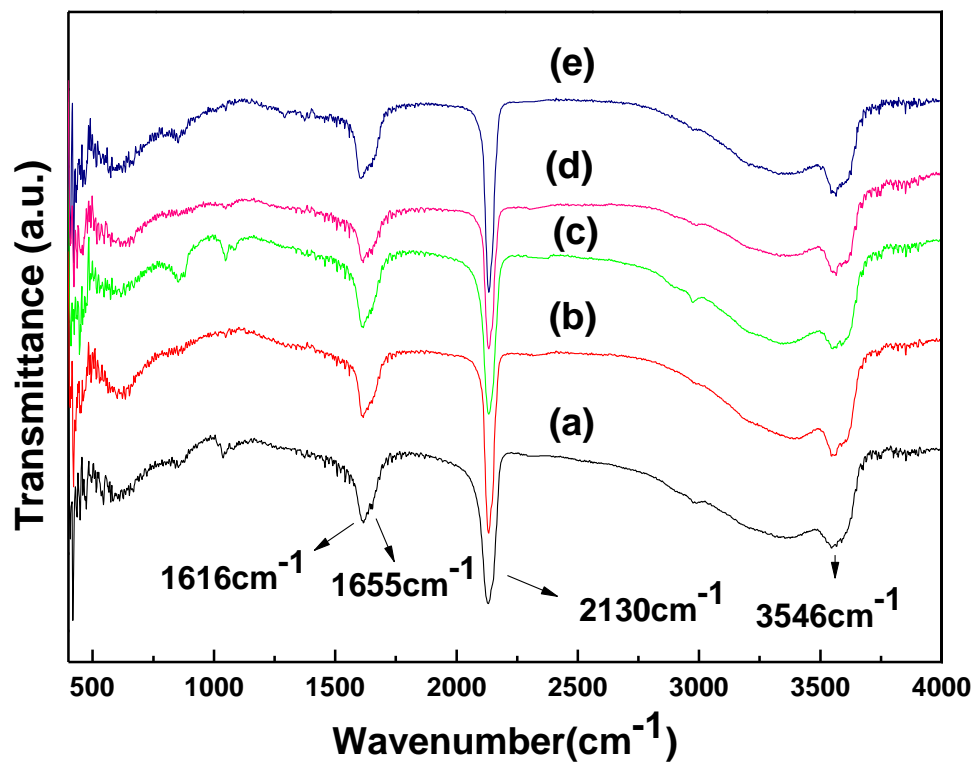
<sup>a</sup> School of Chemistry and Chemical Engineering, Jiangsu University, Zhenjiang 212013, P. R. China

<sup>b</sup> School of Materials Science and Engineering, Jiangsu University, Zhenjiang 212013, P. R. China

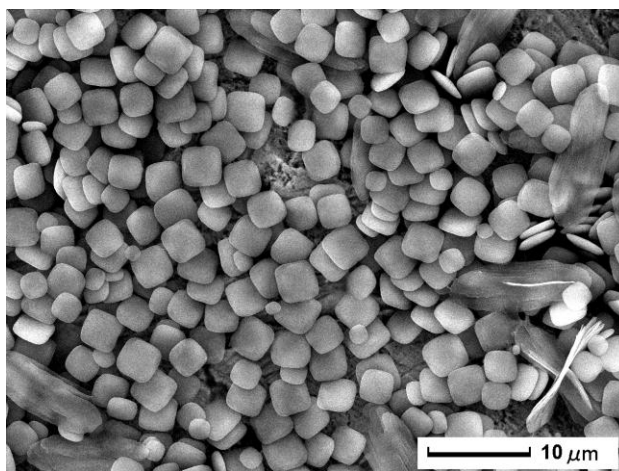
\*Corresponding author. E-mail: [xiaopingshen@163.com](mailto:xiaopingshen@163.com)



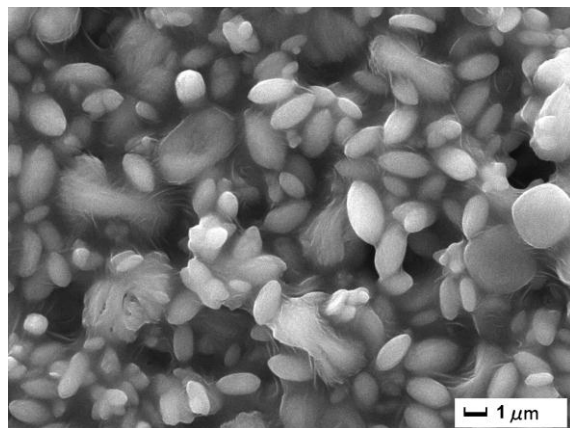
**Fig. S1** XRD patterns of  $\text{Mn}_2\text{Mo}(\text{CN})_8 \cdot x\text{H}_2\text{O}$  products: (a) sample 5, (b) sample 6, (c) sample 8, (d) sample 9, (e) sample 12. The standard XRD pattern is given for comparison.



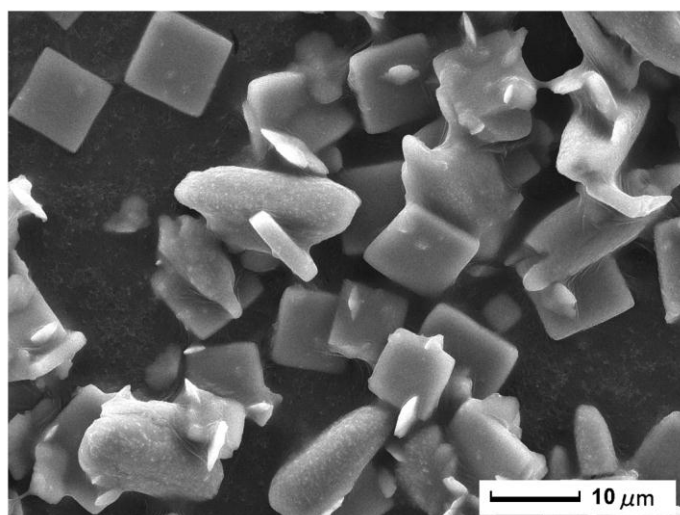
**Fig. S2** Infrared spectra of some typical  $\text{Mn}_2\text{Mo}(\text{CN})_8 \cdot x\text{H}_2\text{O}$  products: (a) sample 1, (b) sample 2, (c) sample 5, (d) sample 6 and (e) sample 8.



**Fig. S3** FESEM image of  $\text{Mn}_2\text{Mo}(\text{CN})_8 \cdot x\text{H}_2\text{O}$  micro/nano-crystals prepared under the same conditions for sample 1 but precipitated by five volumes of acetone.



**Fig. S4** FESEM image of  $\text{Mn}_2\text{Mo}(\text{CN})_8 \cdot x\text{H}_2\text{O}$  micro/nano-crystals prepared under the same conditions for sample **2** but precipitated by five volumes of acetone.



**Fig. S5** FESEM images of  $\text{Mn}_2\text{Mo}(\text{CN})_8 \cdot x\text{H}_2\text{O}$  particles prepared under the same conditions for sample **10** but without addition of PVP.