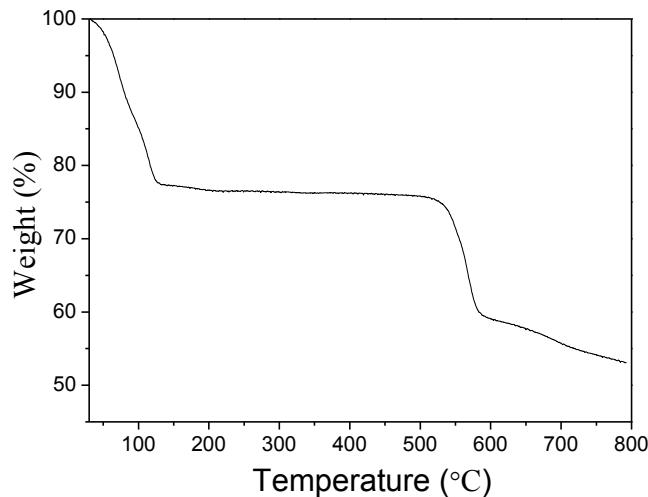


## Electronic supplementary information (ESI)

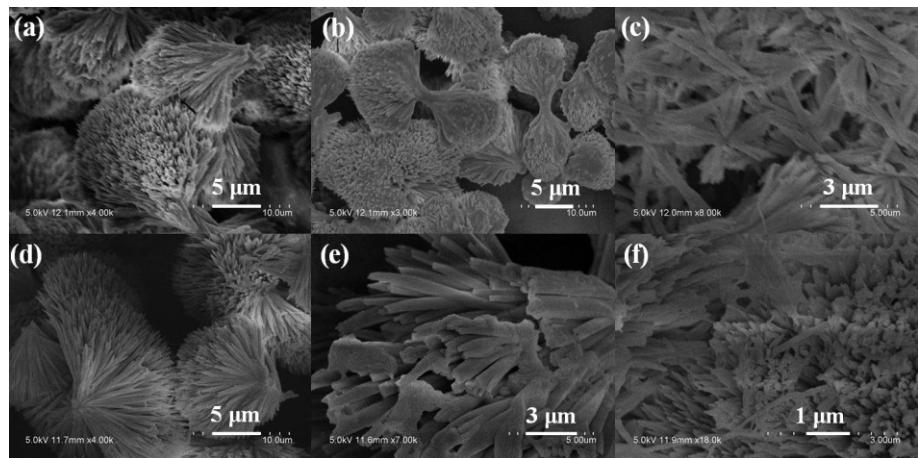
# Facile fabrication of MIL-103(Eu) porous coordination polymer nanostructures and their sorption and sensing properties

Qing Liu, Ji-Min Yang, Fan Guo, Li-Na Jin and Wei-Yin Sun\*

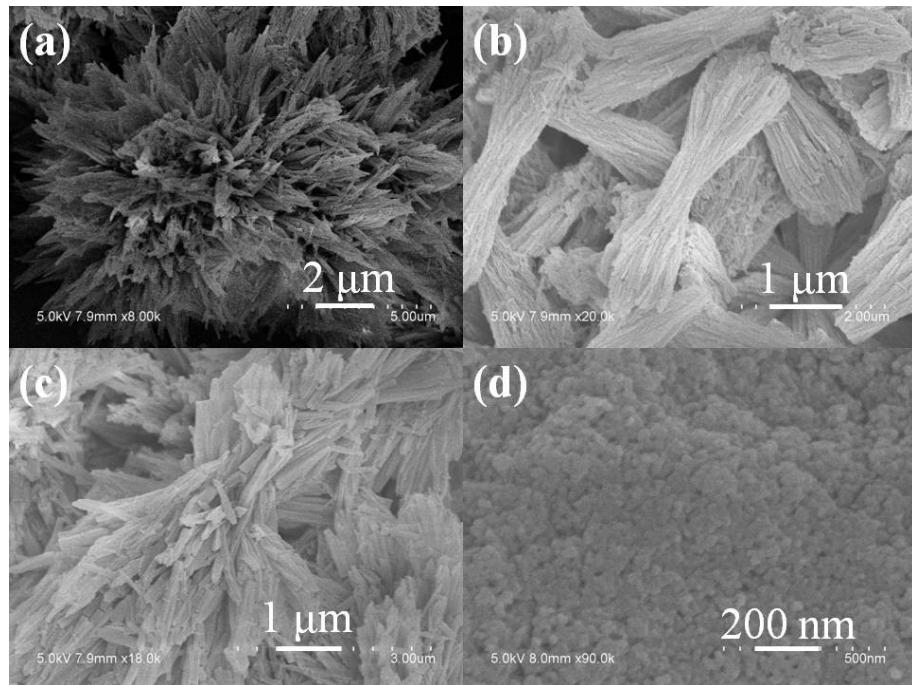
*Coordination Chemistry Institute, State Key Laboratory of Coordination Chemistry, School of Chemistry and Chemical Engineering, Nanjing National Laboratory of Microstructures, Collaborative Innovation Center of Advanced Microstructures, Nanjing University, Nanjing 210023, China. E-mail: sunwy@nju.edu.cn; Fax: +86 25 89682309*



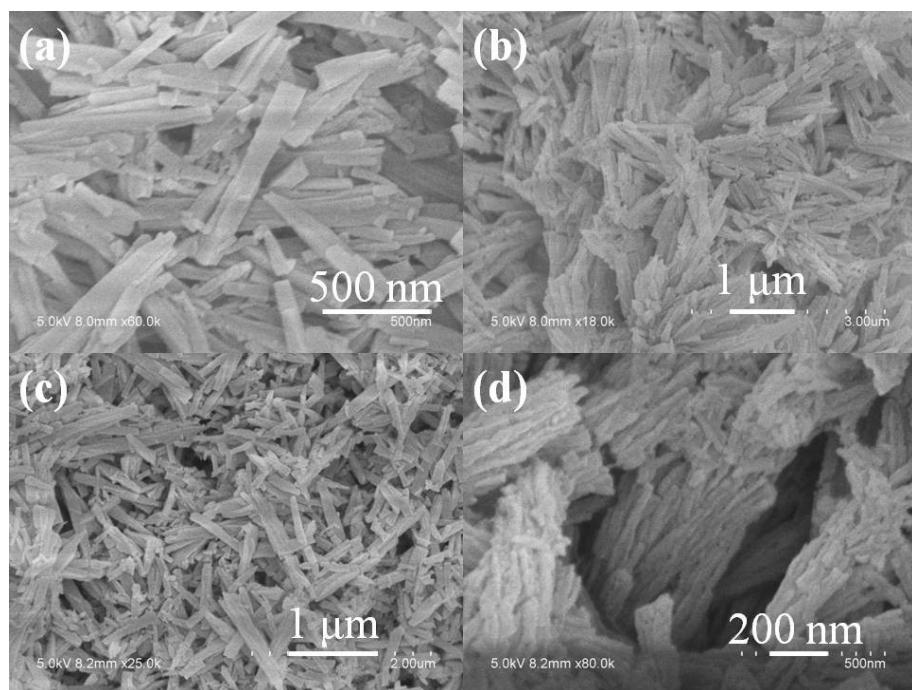
**Fig. S1** TGA curve of the as-obtained MIL-103(Eu) nanorods.



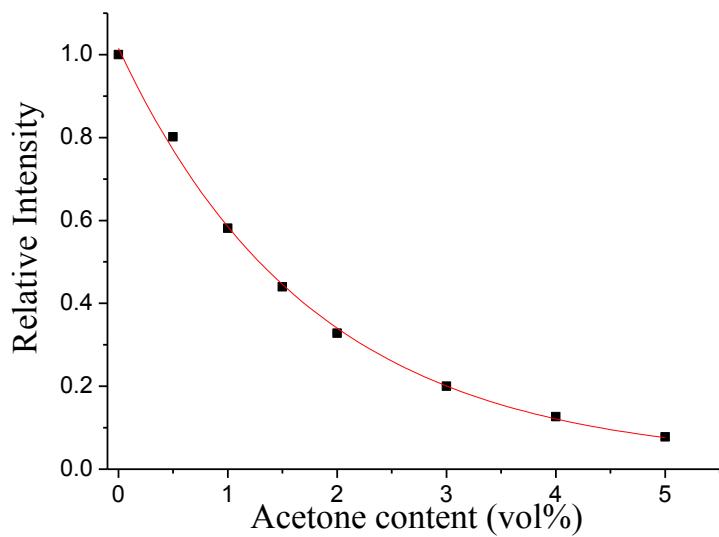
**Fig. S2** SEM images of MIL-103(Eu) crystals prepared with different amount of ammonia: (a) 1, (b) 2 and (c) 3 equiv; and NaOH: (d) 1, (e) 2 and (f) 3 equiv.



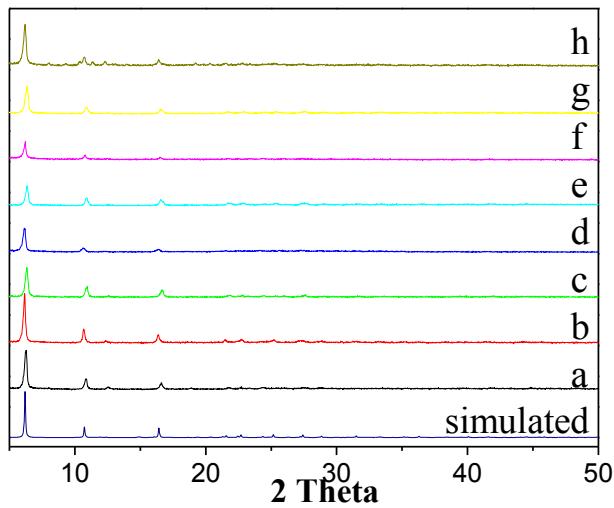
**Fig. S3** SEM images of MIL-103(Eu) crystals prepared with different amount of sodium acetate: (a) 0, (b) 1, (c) 2, (d) 3 equiv when the concentration of H<sub>3</sub>BTB is 0.125 mM.



**Fig. S4** SEM images of MIL-103(Eu) crystals prepared with different amount of sodium acetate: (a) 0, (b) 1, (c) 2, (d) 3 equiv when the concentration of H<sub>3</sub>BTB is 0.5 mM.



**Fig. S5** The luminescence intensity of the MIL-103(Eu) nanorods as a function of acetone content.



**Fig. S6** PXRD patterns of MIL-103(Eu) crystals soaked in different metal ion solutions: (a) Na(I), (b) Mn(II), (c) Co(II), (d) Mg(II), (e) Ni(II), (f) Cd(II), (g) Zn(II) and (h) Cu(II).