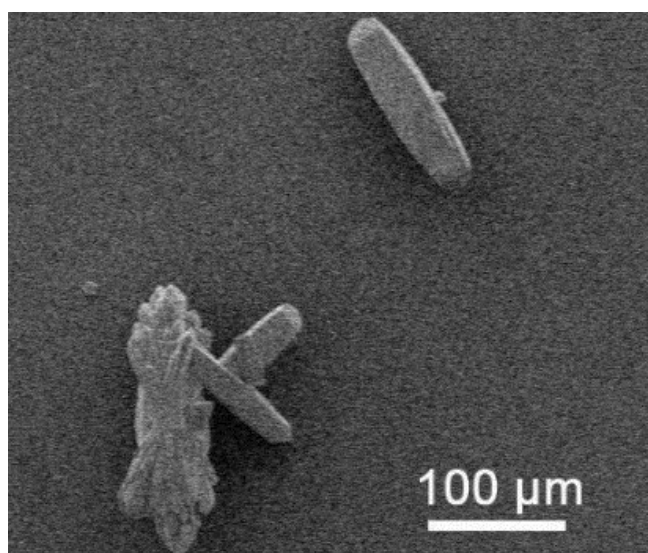


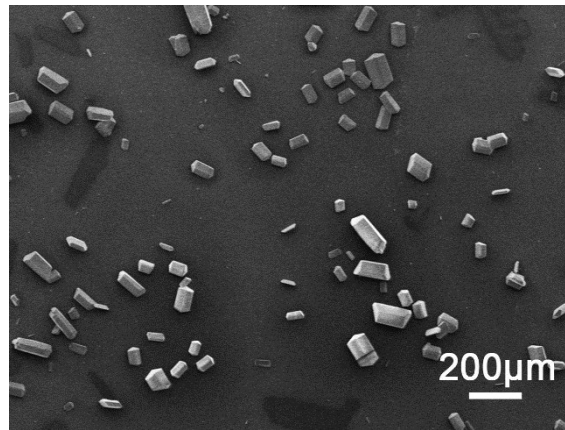
## Supporting Information

### Shape Uniformity Control of Metal-organic Framework Nanodisks via Surfactant and Substrate Synergetic Scissoring Effect and Their Fluorescent Sensing Properties

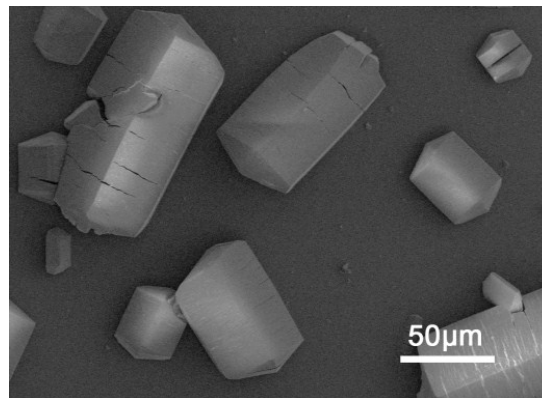
*Naien Shi, Dandan Xu, Xinhui Zhou, Lin Song, Liang Li, Linghai Xie, Lianhui Wang, Mingdong Yi, and Wei Huang*



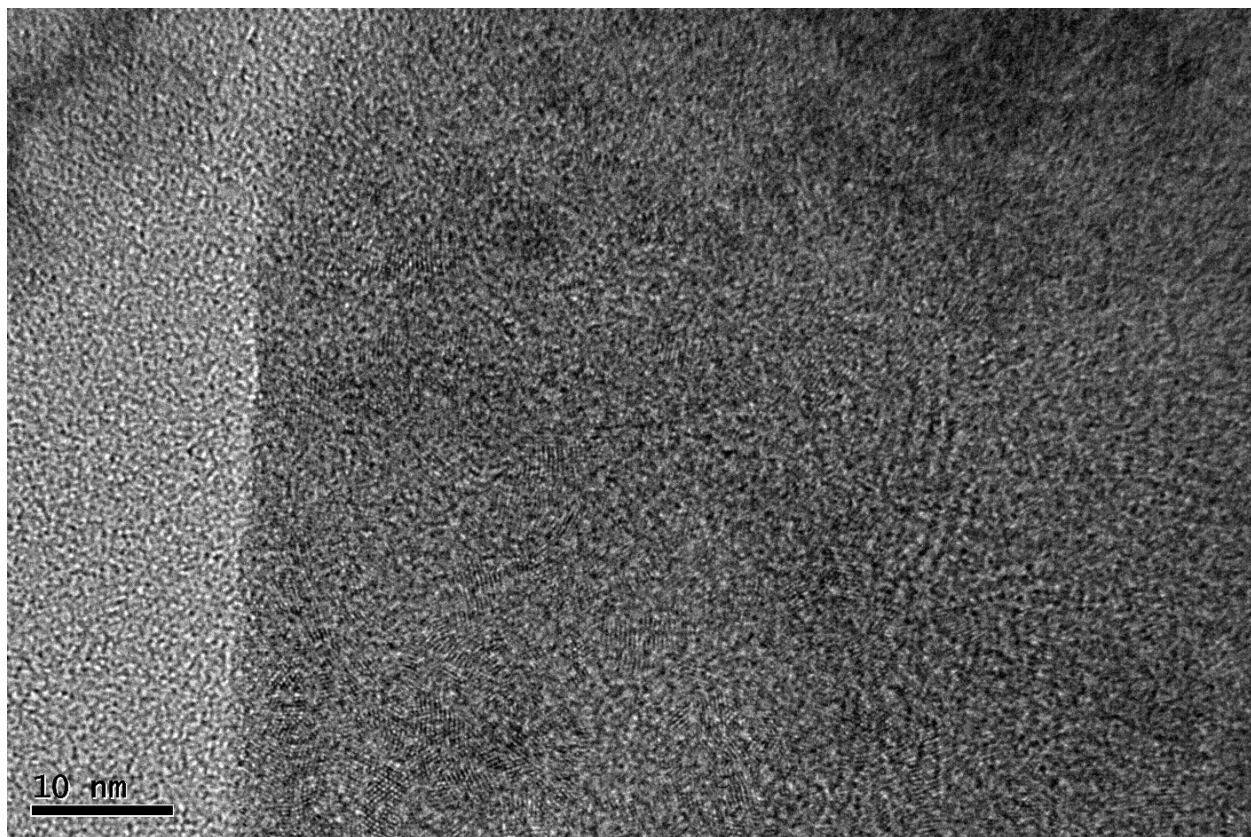
**Fig. S1** FESEM image of the obtained bulk macroscopic crystals without SDS and the supporting substrate.



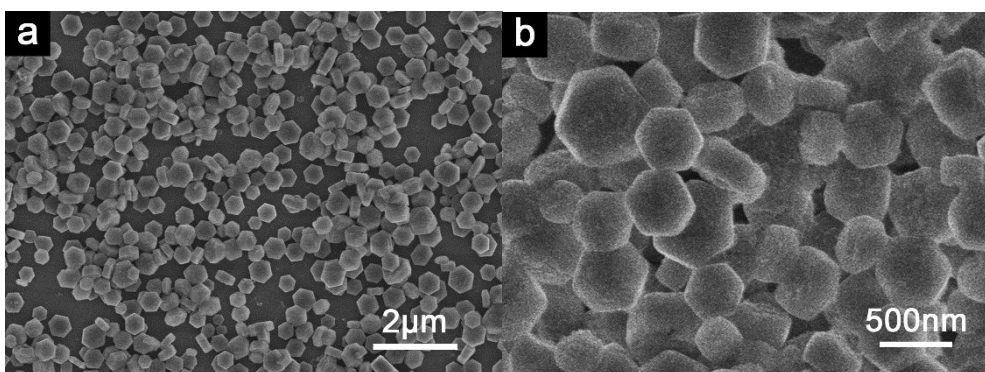
**Fig. S2** FESEM image of the products in the presence of 6.25 mM CTAB.



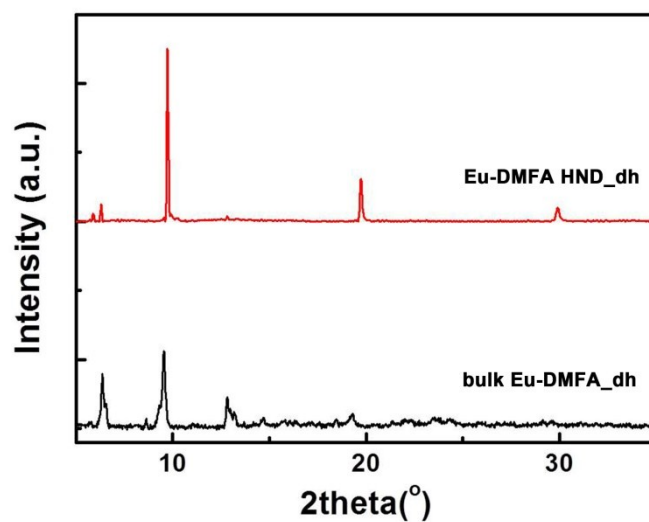
**Fig. S3** FESEM image of the obtained bulk crystals without SDS on the supporting substrate.



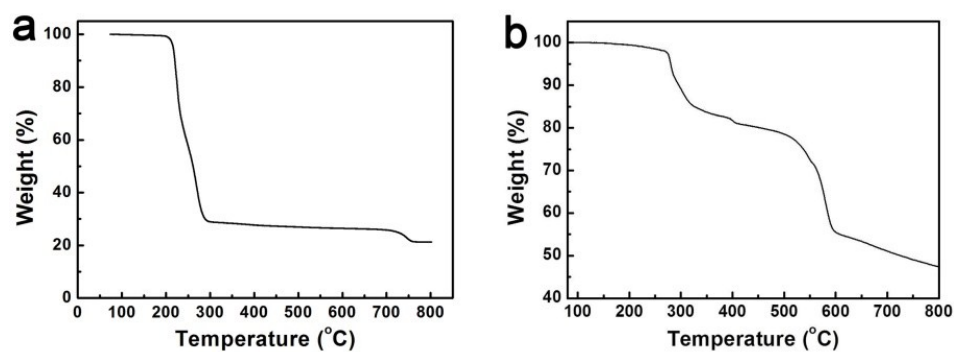
**Fig. S4** HRTEM image of a Eu-MFDA\_HND.



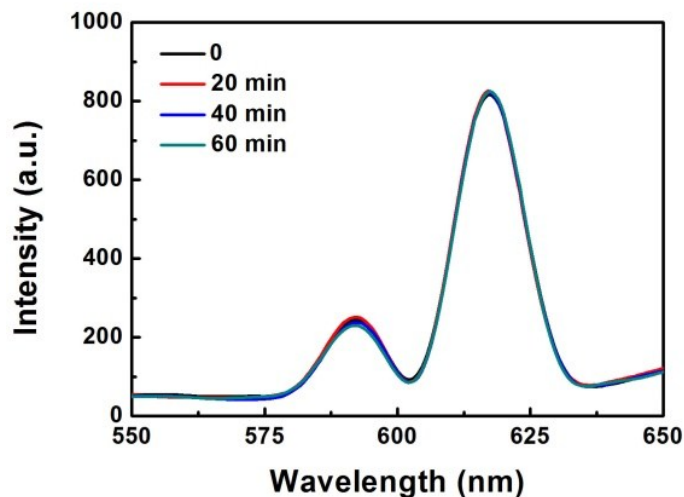
**Fig. S5** FESEM images of the obtained Eu-MFDA\_HND with SDS on the substrate of (a) Si wafer and (b) quartz plate, respectively.



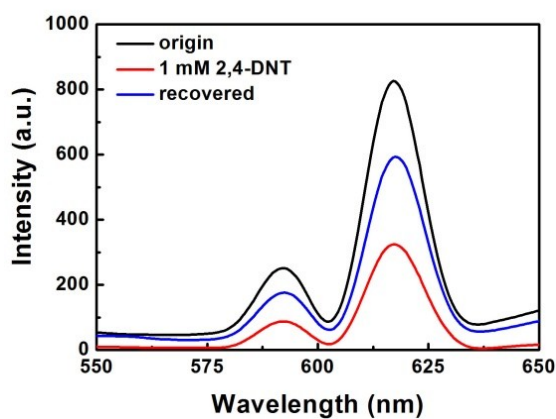
**Fig. S6** XRD patterns of Eu-MFDA\_HND\_dh (red) and bulk Eu-MFDA\_dh (black, dehydrated bulk Eu-MFDA).



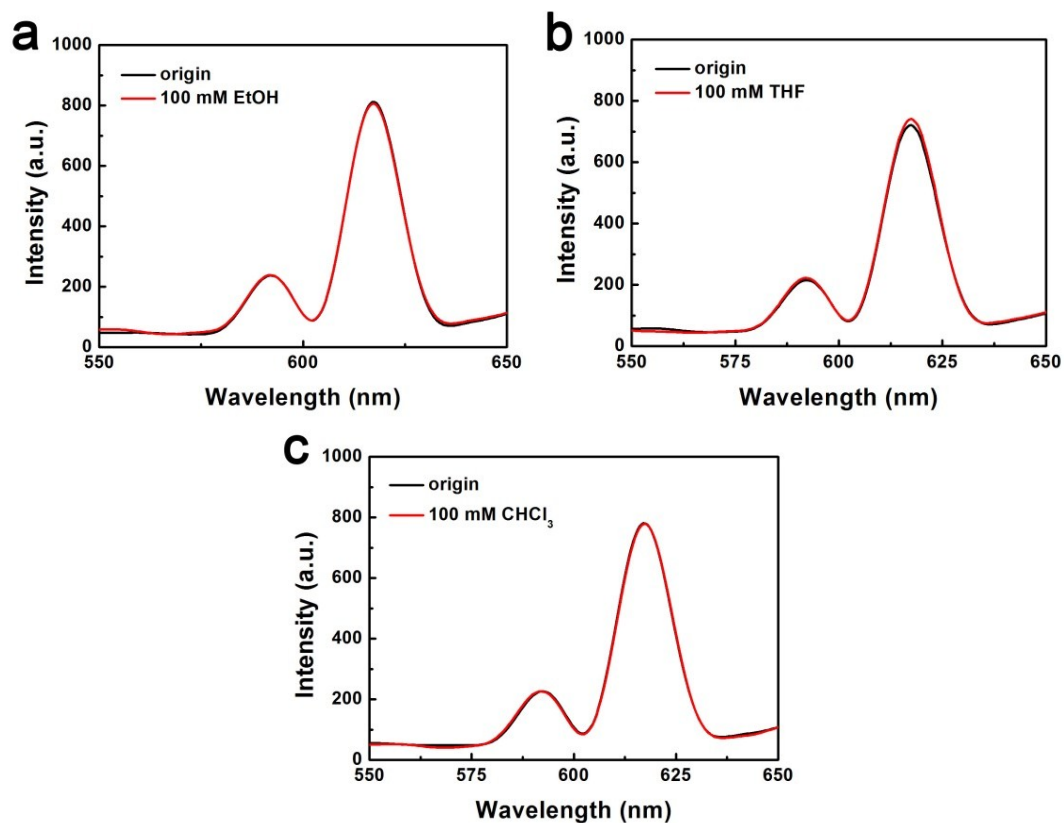
**Fig. S7** Thermogravimetric curves of (a) SDS and (b) Eu-MFDA\_HND\_dh.



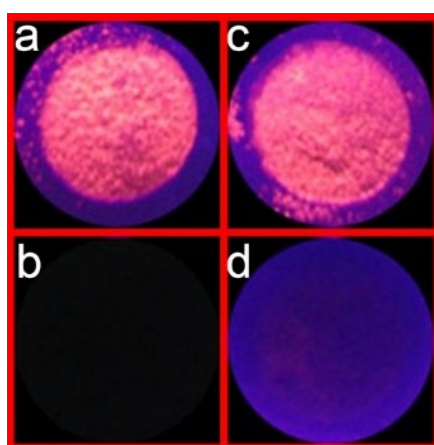
**Fig. S8** Fluorescence spectra of Eu-MFDA\_HND\_dh dispersed in DMF collected under different time of 0 (black line), 20 (red line), 40 (blue line) and 60 min (green line), respectively,  $\lambda_{ex} = 335$  nm.



**Fig. S9** The fluorescence quenching and recovery test of Eu-MFDA\_HND\_dh upon 2,4-DNT. The black, red and blue curves represent the fluorescence spectra of the original dispersion, the dispersion in 1 mM 2,4-DNT, and the recovered dispersion removing the 2,4-DNT, respectively.  $\lambda_{ex} = 335$  nm.



**Fig. S10** Fluorescence spectra of the DMF dispersion of Eu-MFDA\_HND\_dh in small molecules of (a) ethanol, (b) THF and (c) CHCl<sub>3</sub> at the concentration of 100 mM,  $\lambda_{\text{exc}} = 335$  nm.



**Fig. S11** Photographs of Eu-MFDA\_HND-coated test strips under different experimental conditions. (a) Original film and (b) the film contacted with 0.2 mL PA DMF solution for 5s, (c) Original film and (d) the film contacted with 0.2 mL 2,4-

DNT DMF solution for 5s at 10 mM. All photographs were taken under the illumination of a portable 365 nm UV lamp.