

Supporting Information

Multicolor (Vis-NIR) mesoporous silica nanospheres linking with lanthanide complexes by 2-(5-bromothiophen)imidazo[4,5-f][1,10]phenanthroline for *in vitro* bioimaging

Ying Liu,^a Lining Sun,^{*a} Jinliang Liu,^a Yu-Xin Peng,^b Xiaoqian Ge,^a Liyi Shi,^{*a} and Wei Huang,^{*b}

^a Research Center of Nano Science and Technology, Shanghai University, Shanghai 200444, P. R. China. E-mail: linsun@shu.edu.cn; shiliyi@shu.edu.cn; Tel: +86-21-66137153

^b State Key Laboratory of Coordination Chemistry, Nanjing National Laboratory of Microstructures, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210093, P. R. China. E-mail: whuang@nju.edu.cn.

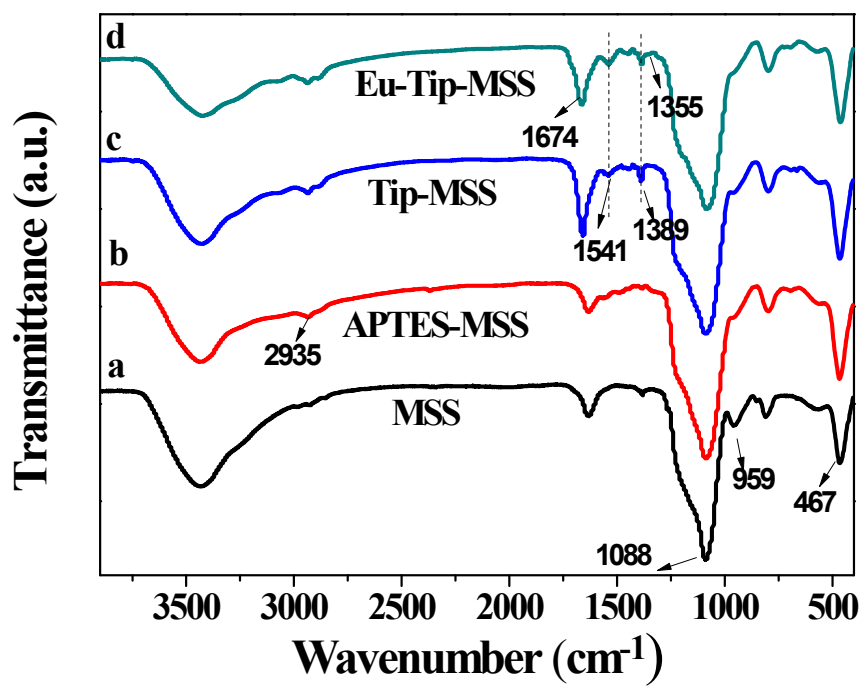


Fig. S1. FT-IR spectra of MSS (a), APTES-MSS (b), Tip-MSS (c), Eu-Tip-MSS (d).

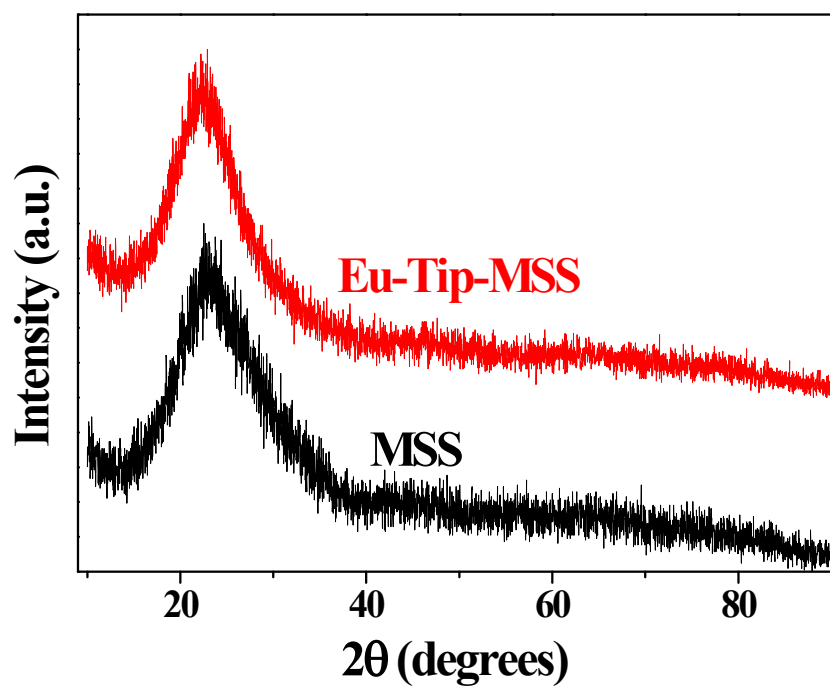


Fig. S2. Wide-angle X-ray diffraction patterns of MSS and Eu-Tip-MSS.

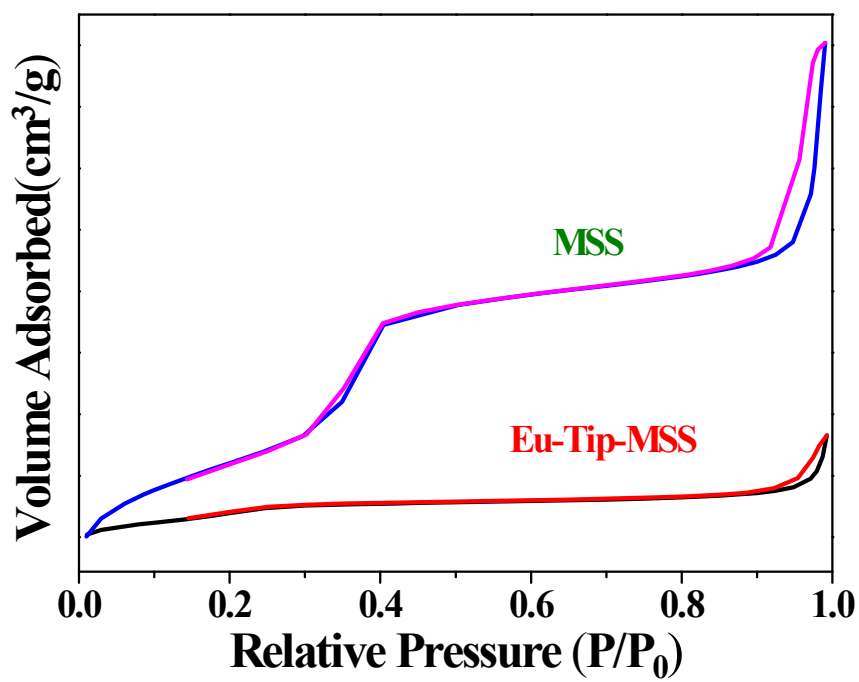


Fig. S3. N₂ adsorption/desorption isotherms of MSS and Eu-Tip-MSS.

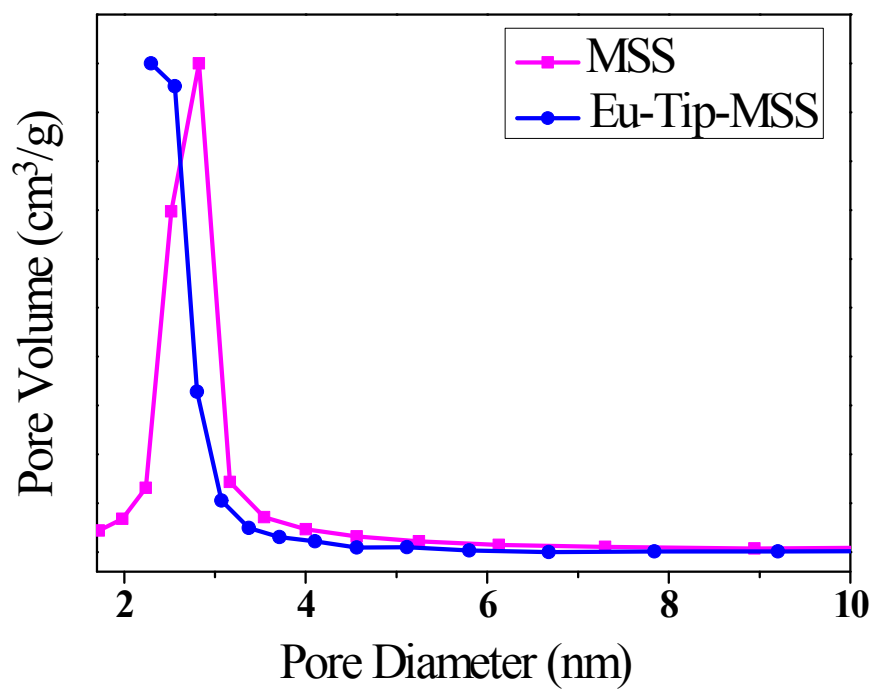


Fig. S4. The corresponding BJH pore distributions of MSS and Eu-Tip-MSS.

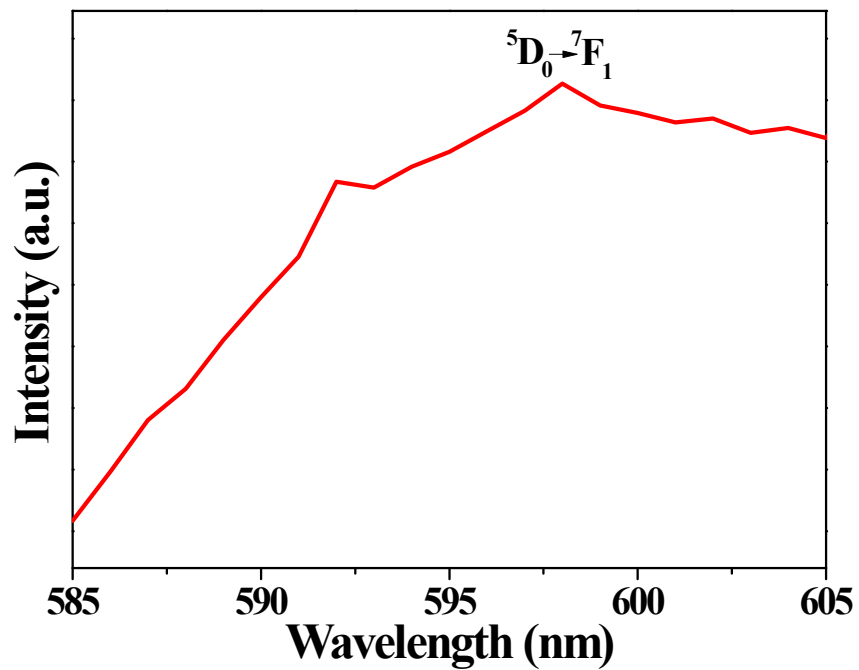


Fig. S5. Emission spectrum of Eu-Tip-MSS ($\lambda_{\text{ex}} = 401\text{ nm}$) from 585 nm to 605 nm.

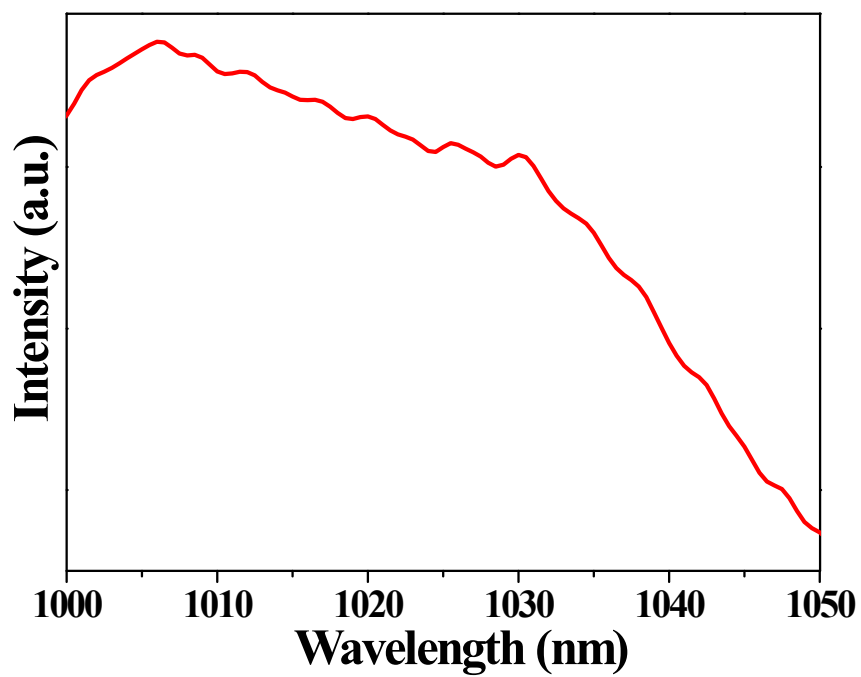


Fig. S6. Emission spectrum of Yb-Tip-MSS ($\lambda_{\text{ex}} = 401\text{nm}$) from 1000 nm to 1050 nm.

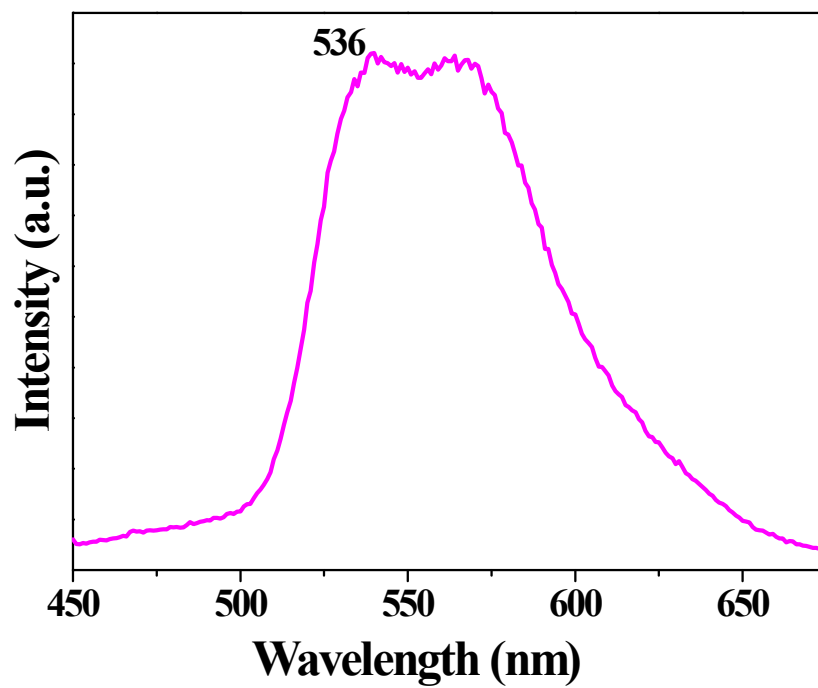


Fig. S7. Emission spectrum of Gd(5-Br-Tip)₃ complex ($\lambda_{\text{ex}} = 380$ nm) at 77 K in solid state.