

Europium-based infinite coordination polymer nanospheres as an effective fluorescence probe for phosphate sensing

Xiangyang Song,^{a,b} Yue Ma,^{a,b} Xiao Ge,^{a,b} Hongjian Zhou,^a Guozhong Wang,^a Haimin Zhang,^a
Xiaoxian Tang,^c and Yunxia Zhang^{a,*}

^a *Key Laboratory of Materials Physics, Centre for Environmental and Energy Nanomaterials, Anhui Key Laboratory of Nanomaterials and Nanotechnology, CAS Center for Excellence in Nanoscience, Institute of Solid State Physics, Chinese Academy of Sciences, Hefei 230031, China.*

^b *University of Science and Technology of China, Hefei 230026, P. R. China*

^c *Monitoring station of Environmental protection, Chaohu Lake Administration Bureau of Anhui Province, Chaohu 238007, China.*

* Correspondence Author. Email: yxzhang@issp.ac.cn
Fax: +86-551-65591434; Tel: +86-551-65592145

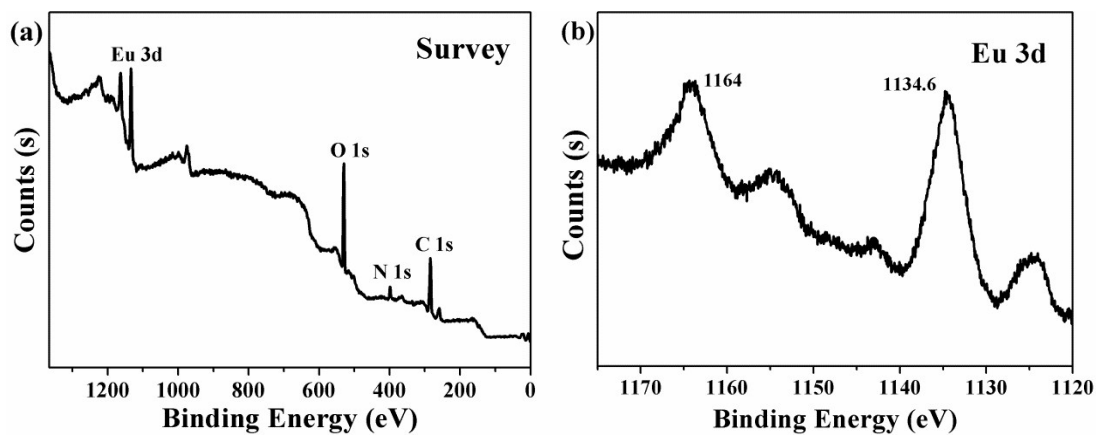


Fig. S1 XPS spectra of Eu-ICP nanospheres: (a) survey; (b) Eu 3d.

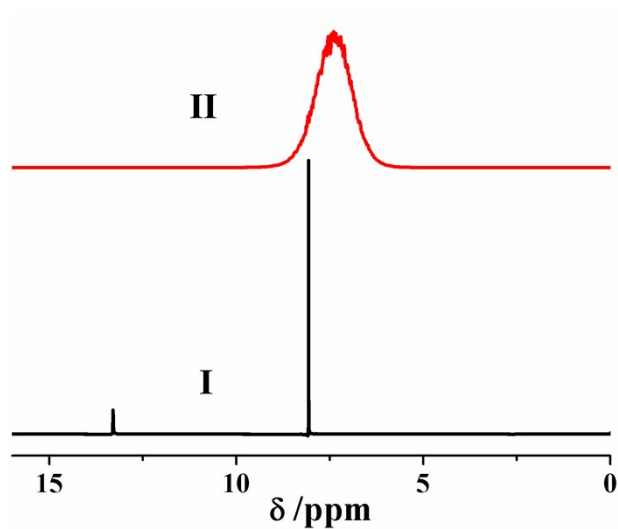


Fig. S2 ^1H NMR spectra of H_2BDC (Curve I) and Eu-ICP nanospheres (Curve II).

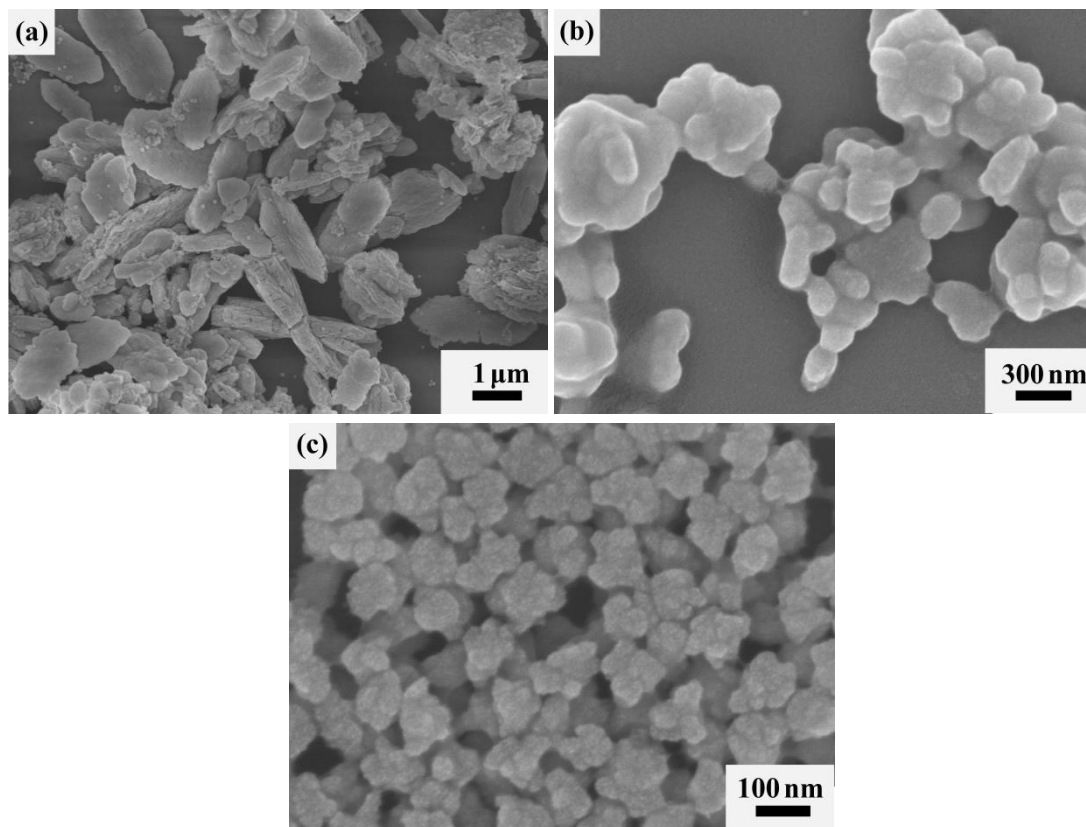


Fig. S3 SEM images of the as-synthesized Eu-ICP products with different volume ratio of ethanol to DMF: (a) 0; (b) 1/7; (c) 5/3.

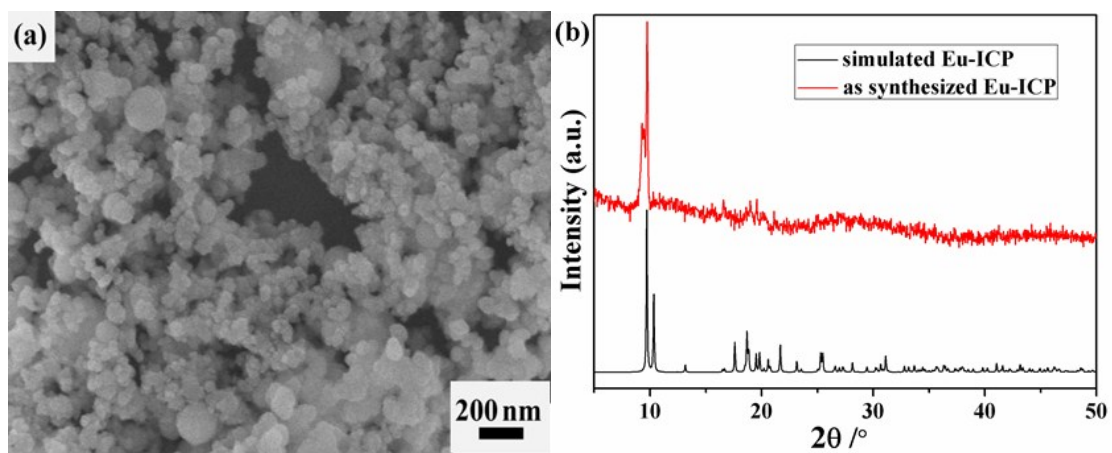


Fig. S4 SEM image (a) and XRD pattern (b) of Eu-ICP prepared in the absence of PVP.

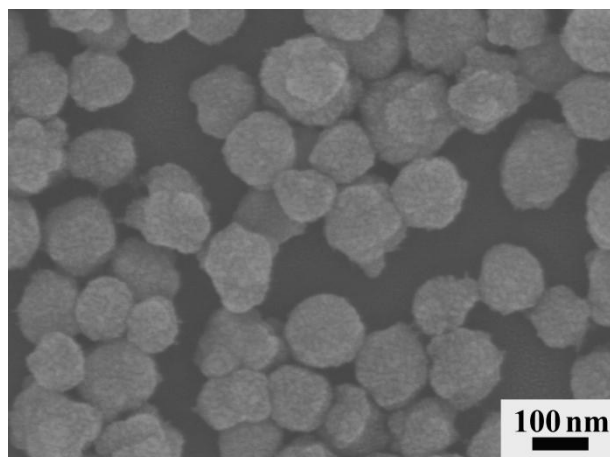


Fig. S5 SEM image of Eu-ICP nanospheres after dispersed in aqueous solution for 24 h.

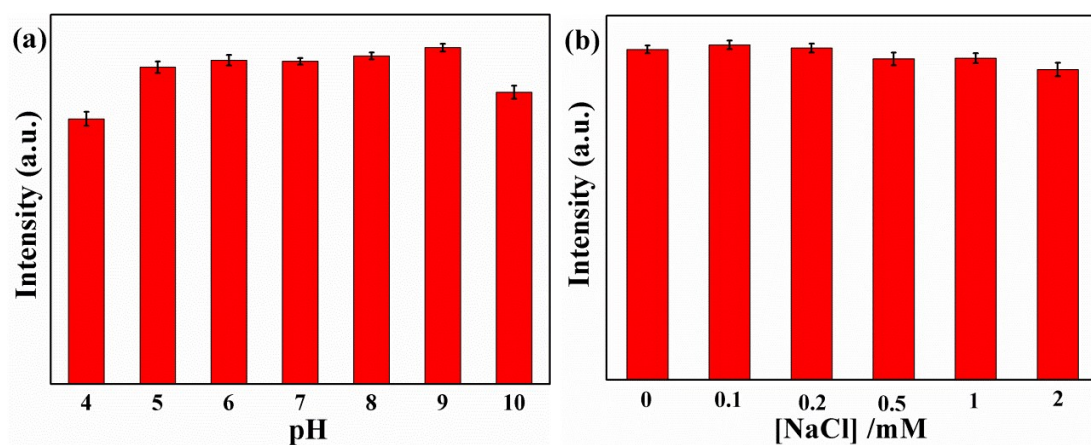


Fig. S6 Effect of pH (a) and ionic strength (b) on the fluorescence intensity (615nm) of Eu-ICP nanospheres.

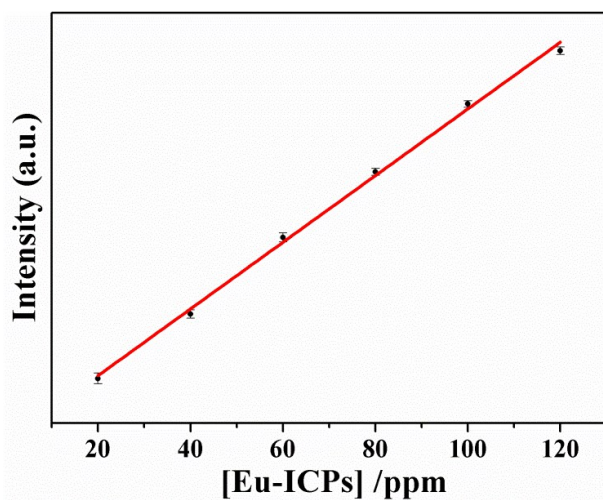


Fig. S7 The dependent relationship between fluorescence intensity versus concentration of Eu-ICP suspension.