

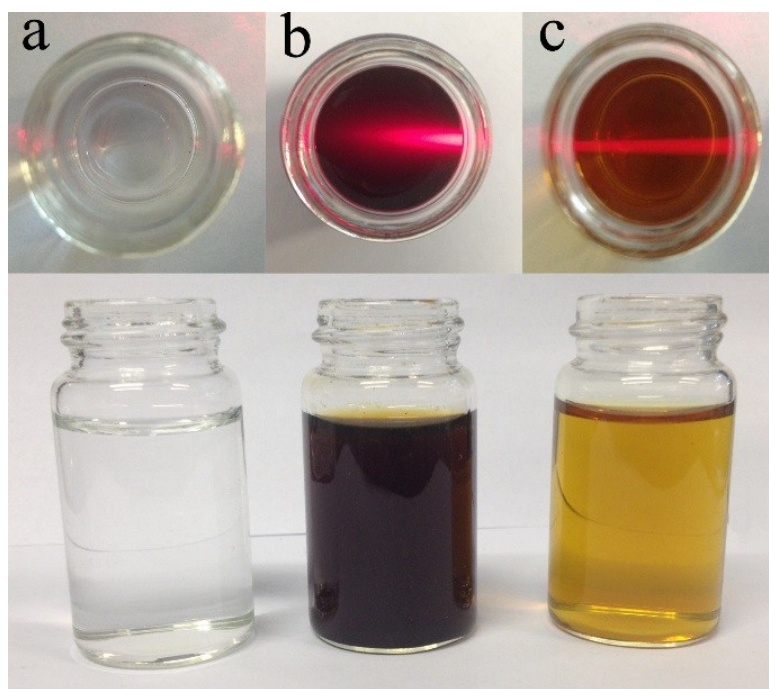
## **Electronic Supplementary Information (ESI)**

### **Room temperature synthesis of manganese oxide quantum dots and its application as fluorescent probe for the detection of metal ion in aqueous media**

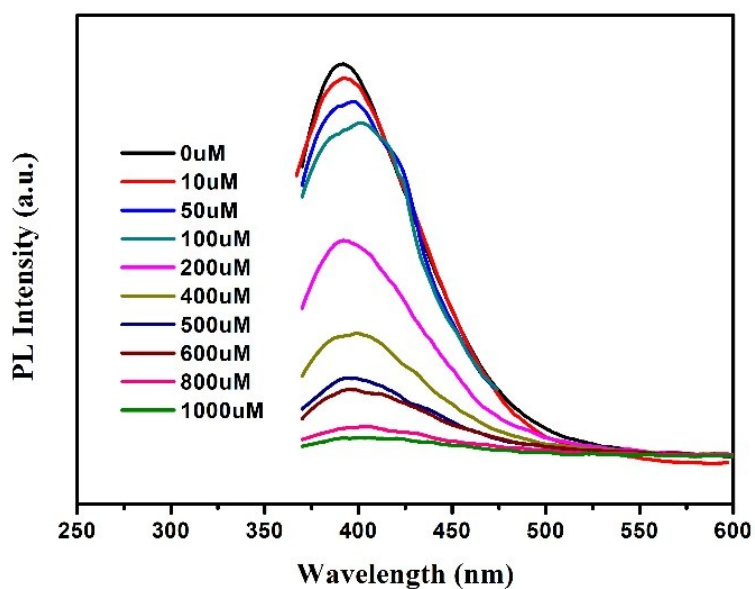
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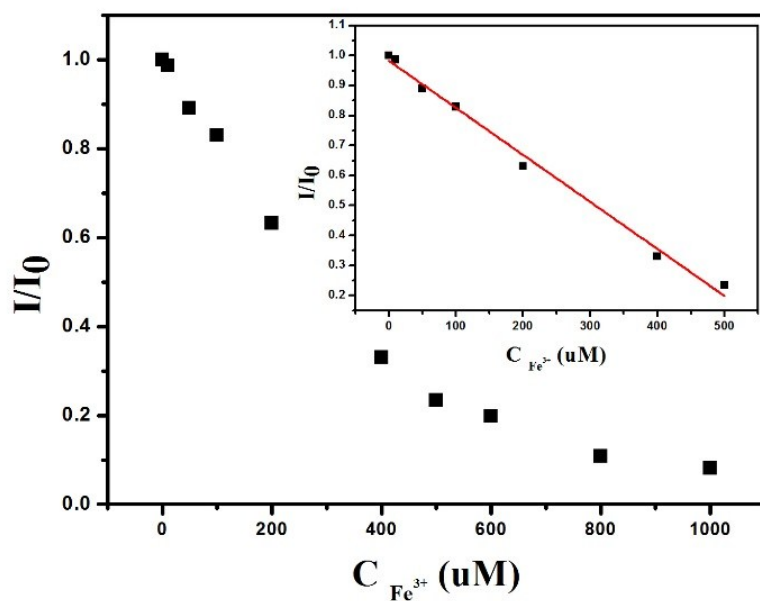
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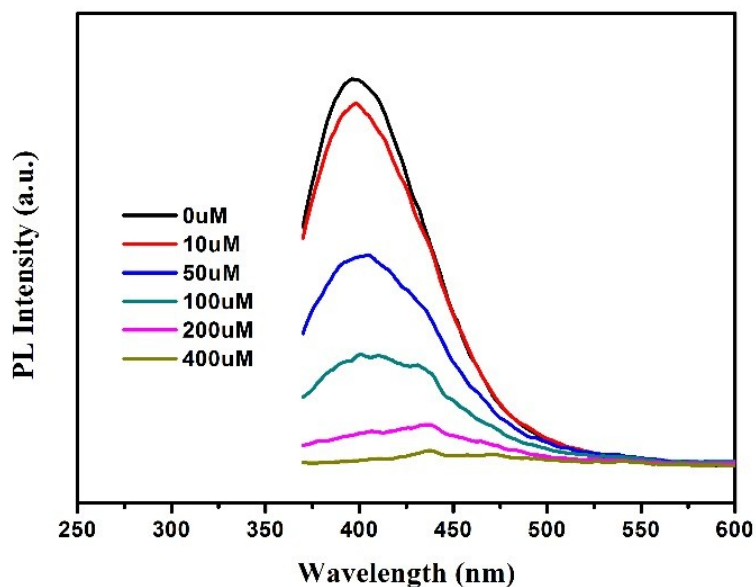
**Fig. S1.** The Tyndall effect photograph of (a) water,  $\text{MnO}_2$  nanosheets colloidal suspension (b) before and (c) after centrifugal treatment.



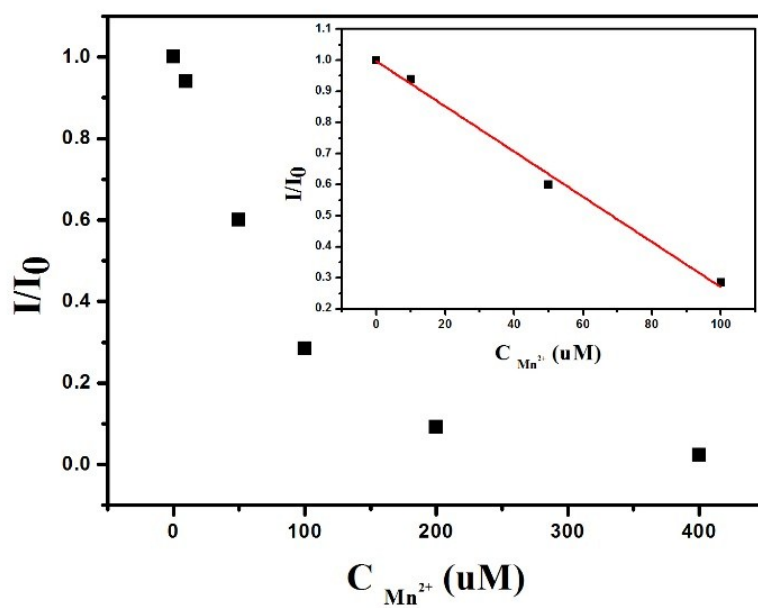
**Fig. S2.** The PL spectra of the MOQDs complex in the presence of different concentrations of  $\text{Fe}^{3+}$ .



**Fig. S3.** The PL intensity ratios ( $I/I_0$ ) of MOQDs at 320 nm as a function of  $Fe^{3+}$  concentration. Inset is a linear region.  $I$  and  $I_0$  stand for the intensities of MOQDs in the presence and absence of  $Fe^{3+}$ , respectively.



**Fig. S4.** The PL spectra of the MOQDs complex in the presence of different concentrations of  $Mn^{2+}$ .



**Fig. S5.** The PL intensity ratios ( $I/I_0$ ) of MOQDs at 320 nm as a function of  $Mn^{2+}$  concentration. Inset is a linear region.  $I$  and  $I_0$  stand for the intensities of MOQDs in the presence and absence of  $Mn^{2+}$ , respectively