## **Supporting Figure:**

Fig. S1 a)TEM image of MPA-capped Mn-doped ZnS QDs; b) The excitation and

RTP emission spectra of Mn-doped ZnS QDs (40 mg L<sup>-1</sup>). Solutions were prepared in

Tris- HCl (10 mM, pH 7.4).

Fig. S2 Effect of pH a); timeb); NaCl concentration c) on the RTP intensity of Mn-

ZnS QDs/Ce<sup>3+</sup>.

Fig. S1



Fig. S1 a)TEM image of MPA-capped Mn-doped ZnS QDs; b) The excitation and RTP emission spectra of Mn-doped ZnS QDs (40 mg L<sup>-1</sup>). Solutions were prepared in Tris- HCl (10 mM, pH 7.4).





**Fig. S2** Effect of pH a); time b); NaCl concentration c) on the RTP intensity of Mn-ZnS QDs/Ce<sup>3+</sup>.