

Supplementary Information

Carbon dots based turn-on fluorescent probes for oxytetracycline hydrochloride sensing

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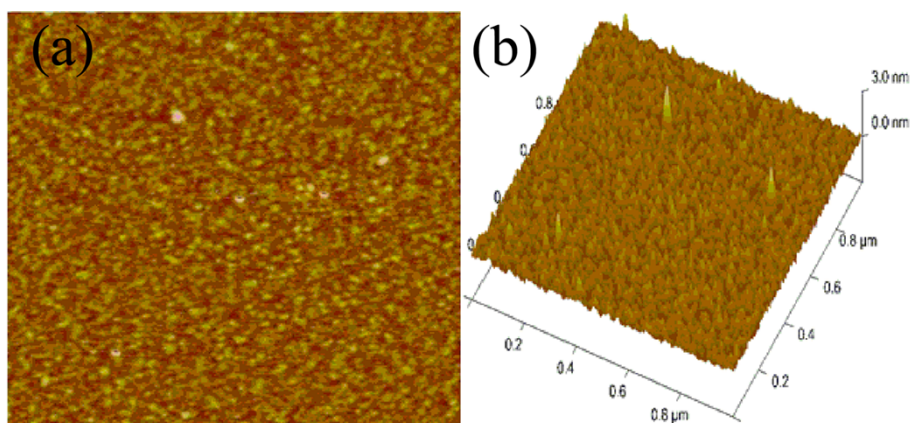


Fig. S1 (a) AFM image of as-prepared CDs; and (b) Tapping mode AFM image ($0.8\ \mu\text{m} \times 0.8\ \mu\text{m}$) of the CDs.

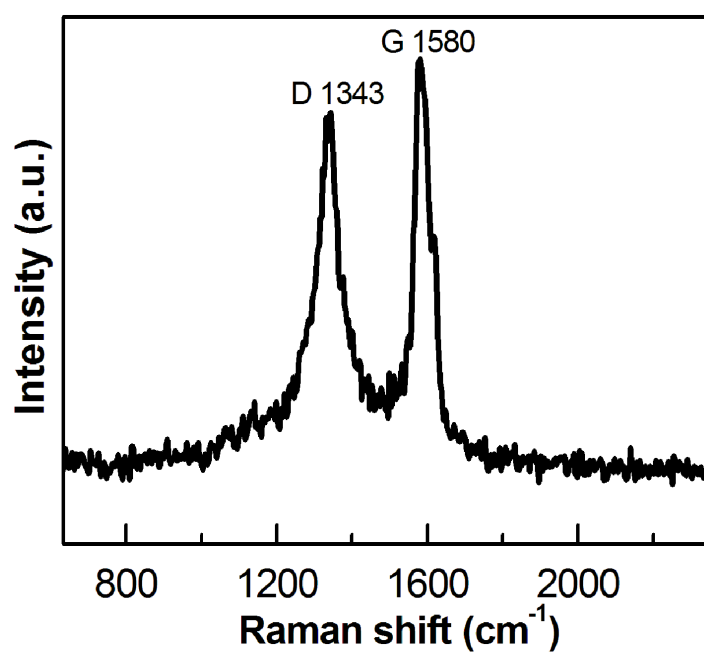


Fig. S2 Raman spectrum of the as-prepared CDs.

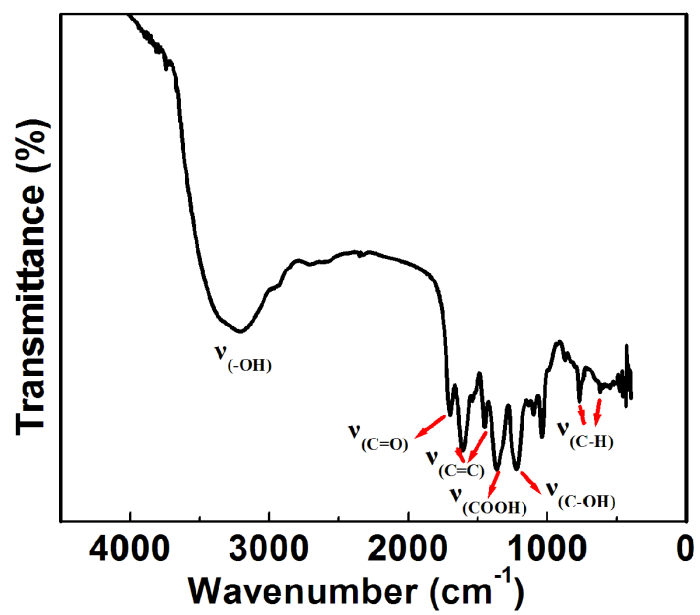


Fig. S3 FT-IR spectrum of the CDs.

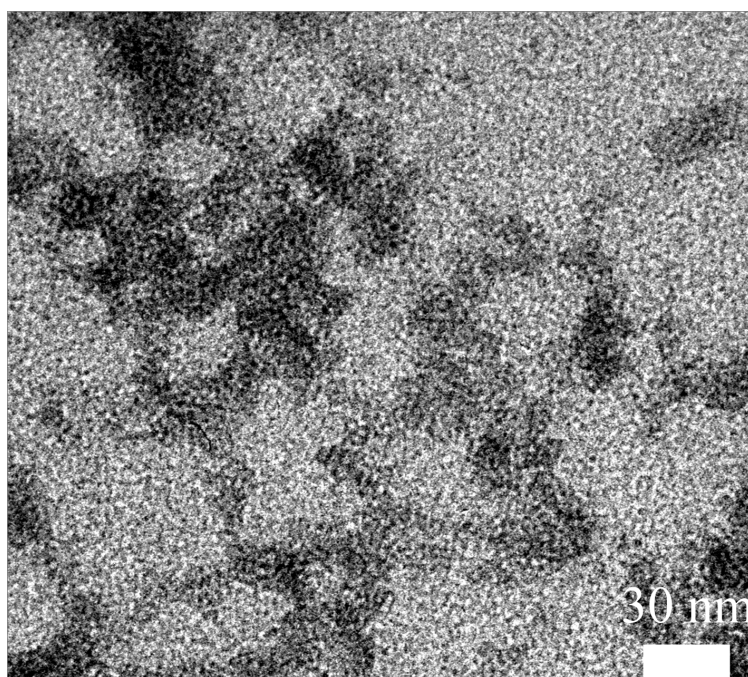


Fig. S4 TEM image of the CDs in the presence of Fe^{3+} .

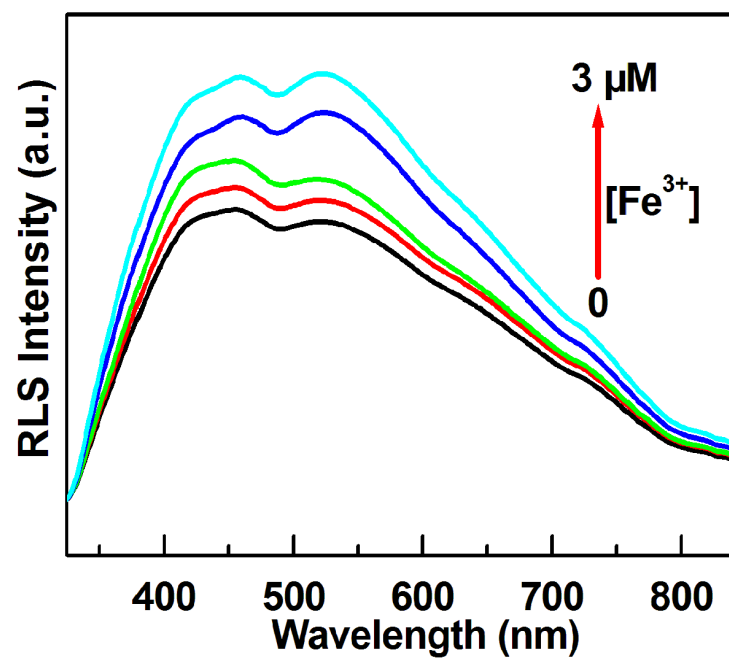


Fig. S5 RLS spectra of the CDs containing different concentrations of Fe^{3+} .

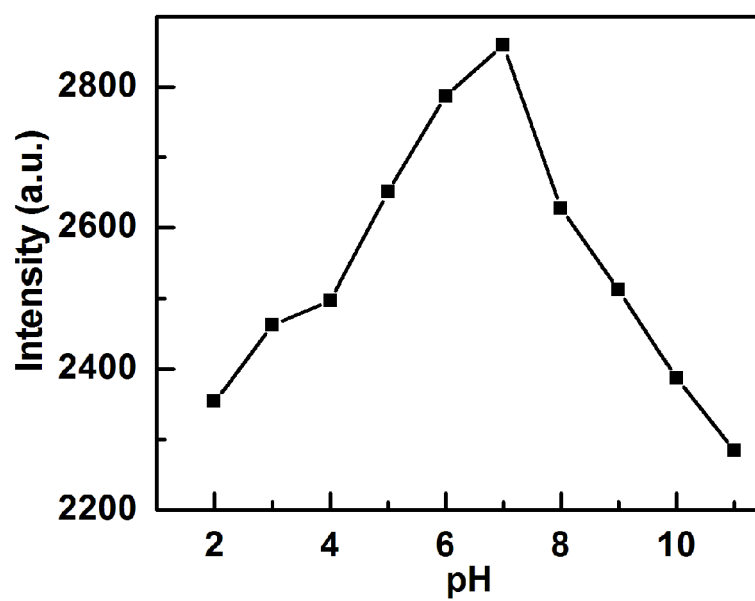


Fig. S6 Effect of pH on the fluorescence intensity of the CDs.

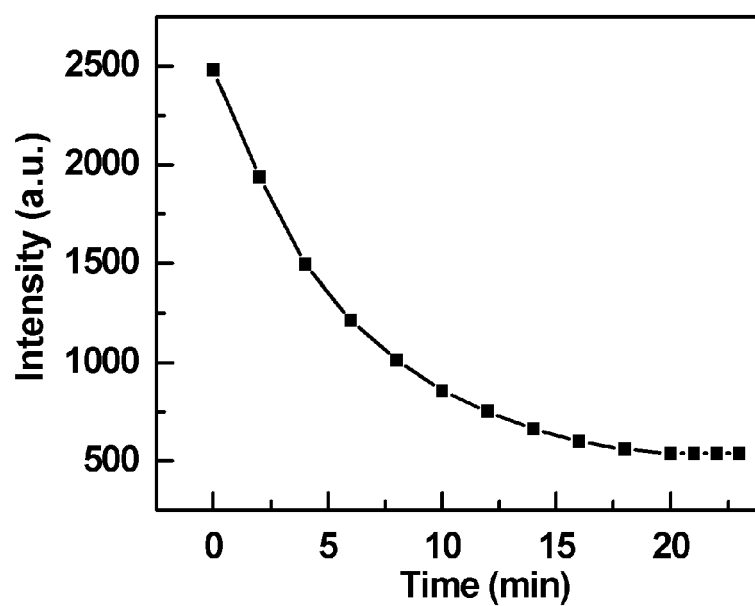


Fig. S7 Effect of incubation time on the fluorescence intensity of the CDs-Fe³⁺ system.

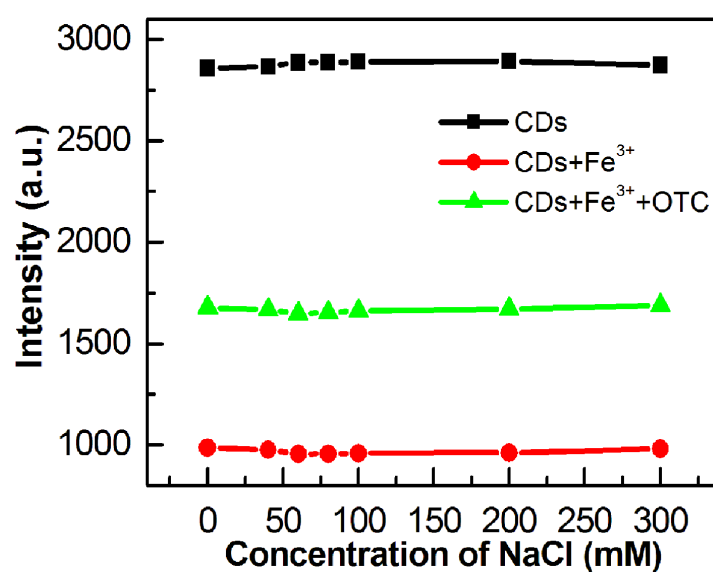


Fig. S8 Effect of ionic strength on the fluorescence signals of the CDs, CDs-Fe³⁺ and CDs-Fe³⁺-OTC. Concentration: Fe³⁺, 5 μ M; OTC, 2.7 μ M.

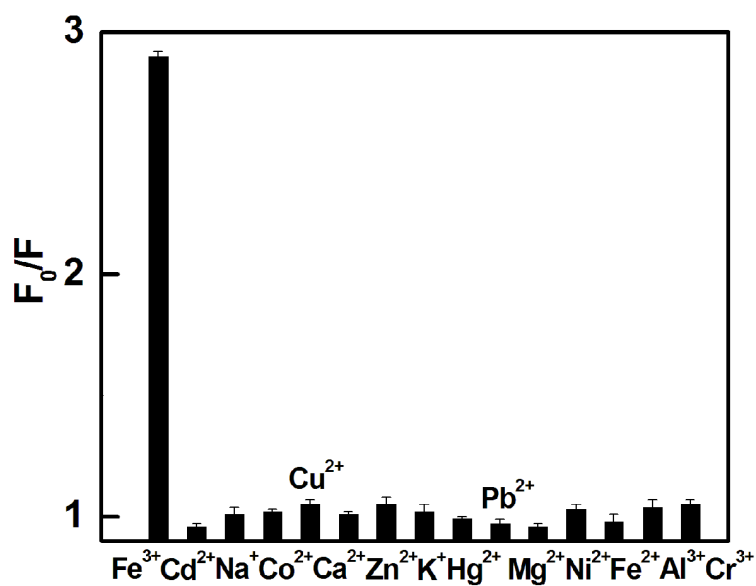


Fig. S9 Selectivity of the Fe^{3+} sensor. The concentration of all interference metal ions were 14 μM . F_0 and F are fluorescence intensities of the CDs in the absence and presence of the various metal ions, respectively. The error bars represent the standard deviation of three measurements.