Electron transfer and Fluorescence "turn-off" based CdTe quantum dots for vancomycin detection at nanogram level in aqueous serum media

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(Supplementary Material)

Fig. S1 Effect of pH on the fluorescence intensity of the solutiuon system in the presence (F) and the absence (F_0) of vancomycin ($c_{vancomycin}$: 5.0 μg mL^{-1}, c_{QDs}: 5.0×10^{-5} mol L^{-1})

Fig. S2 Effect of the concentration of GSH-CdTe QDs to the solution system in the presence (F) and the absence (F_0) of vancomycin ($c_{vancomycin}$: 5.0 μg mL^{-1}) pH = 7.4.

Fig. S3 Effect of incubation time ($c_{vancomycin}$: 5.0 μg mL^{-1}, c_{QDs}: 5.0×10^{-5} mol L^{-1}).

Fig. S4 The fluorescence spectra of GSH-CdTe QDs-vancomycin system at low concentration. The concentrations of vancomycin added for spectrum a and b were 0 and 1.534 μg mL^{-1}, respectively; Inset: the amplification refinement results of spectrum a and b.

Fig. S5 The fluorescence spectra of GSH-CdTe QDs-vancomycin system. The concentrations of vancomycin added for spectrum a – i were 0, 5, 10, 50, 100, 200, 300, 400, 500 ng mL^{-1}, respectively.

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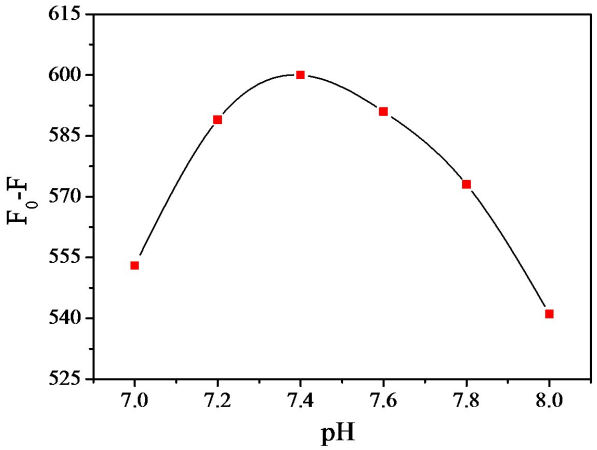


Fig. S1

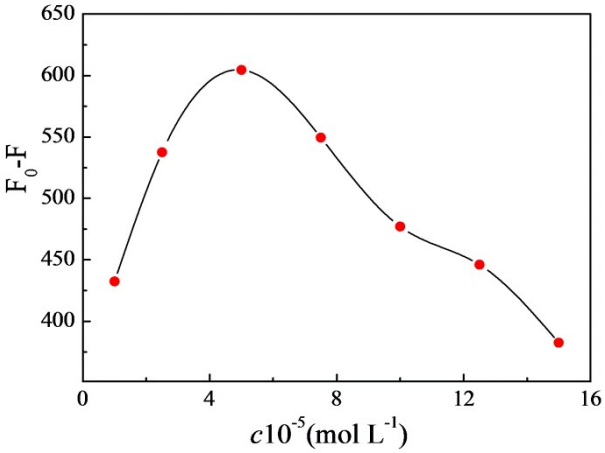


Fig. S2

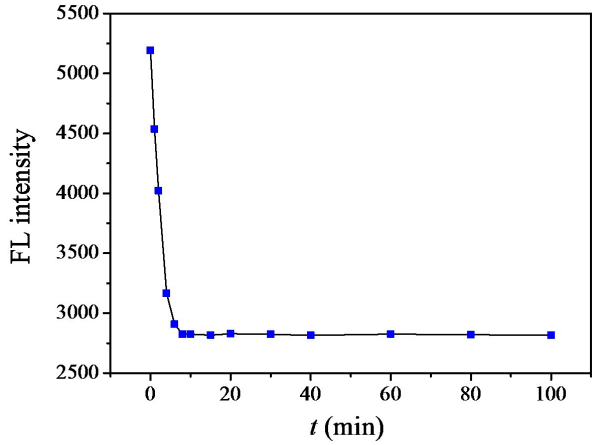
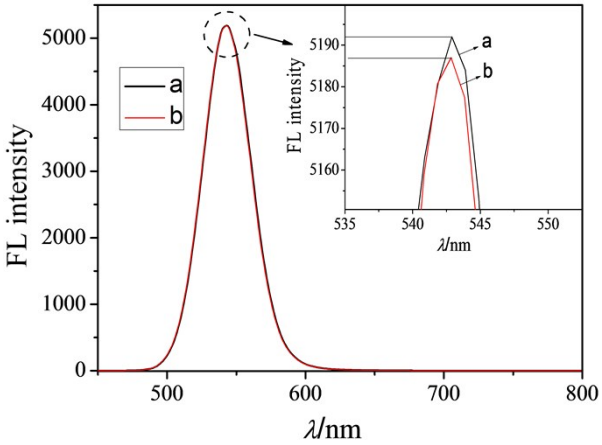


Fig. S3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λ/nm
a
b
5190
5180
5170
5160
535
540
545
550

Fig. S4

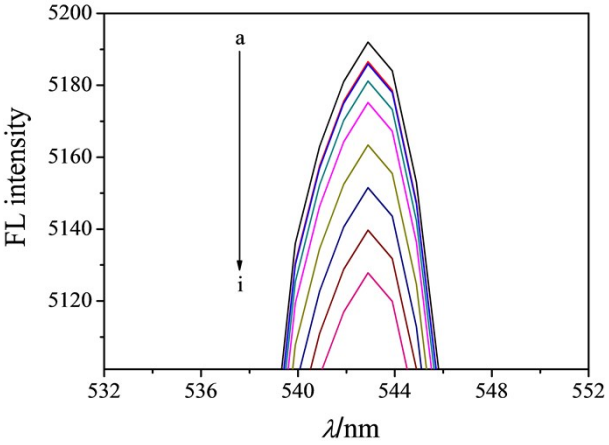
FL intensity
λ/nm
a
i
5200
5180
5160
5140
5120
532
536
540
544
548
552

Fig. S5