

# **Ratiometric fluorescence probe based on deep-red emissive CdTe quantum dots and Eu<sup>3+</sup> hybrid for oxytetracycline detection**

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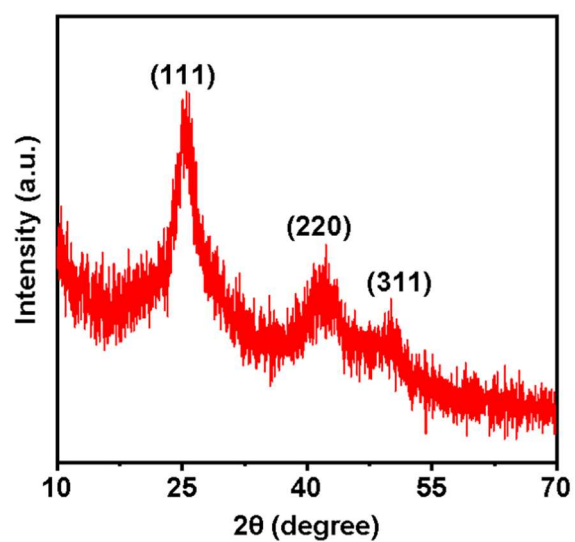


Figure S1. The XRD pattern of CdTe QDs.

Table S1. The zeta potential of CdTe QDs, CdTe QDs-Eu<sup>3+</sup> and CdTe QDs-Eu<sup>3+</sup>-OTC.

	CdTe QDs	Cd Te QDs-Eu <sup>3+</sup>	Cd Te QDs-Eu <sup>3+</sup> -OTC
1	-15.3	30.3	27.4
2	-16.5	31.5	29.0
3	-19.3	30.9	29.4
Average	-17.0	30.9	28.6

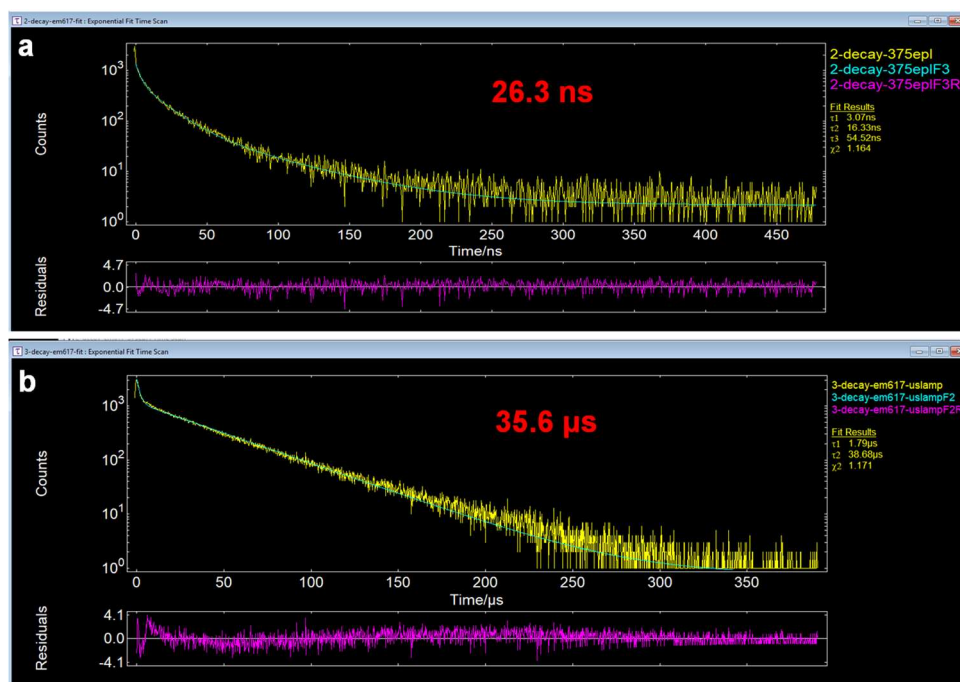


Figure S2. The lifetime of CdTe QDs-Eu<sup>3+</sup> and CdTe QDs-Eu<sup>3+</sup>-OTC at 617 nm.

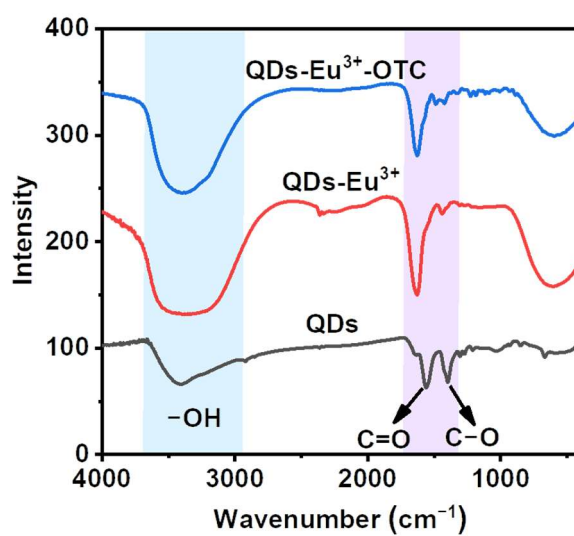


Figure S3. The FTIR spectra of CdTe QDs, CdTe QDs-Eu<sup>3+</sup>, and CdTe QDs-Eu<sup>3+</sup>-OTC.

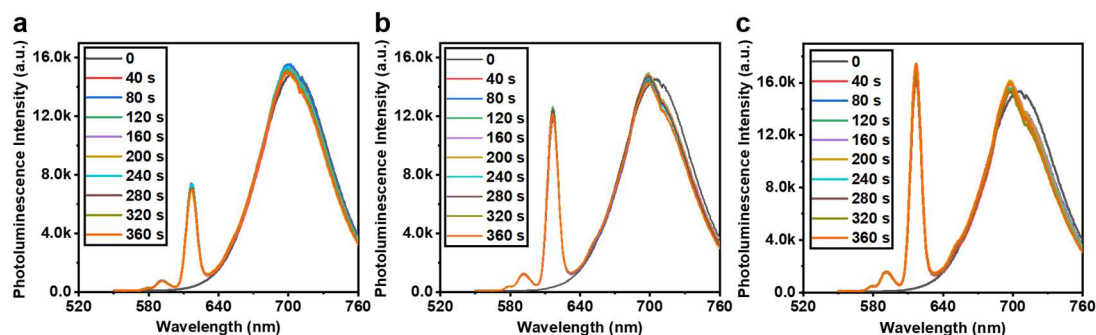


Figure S4. The fluorescence spectra of probe for OTC detection at different concentration of OTC at 3  $\mu\text{M}$  (a), 5  $\mu\text{M}$  (b), and 8  $\mu\text{M}$  (c) with reaction time changing from 0 to 360 s.

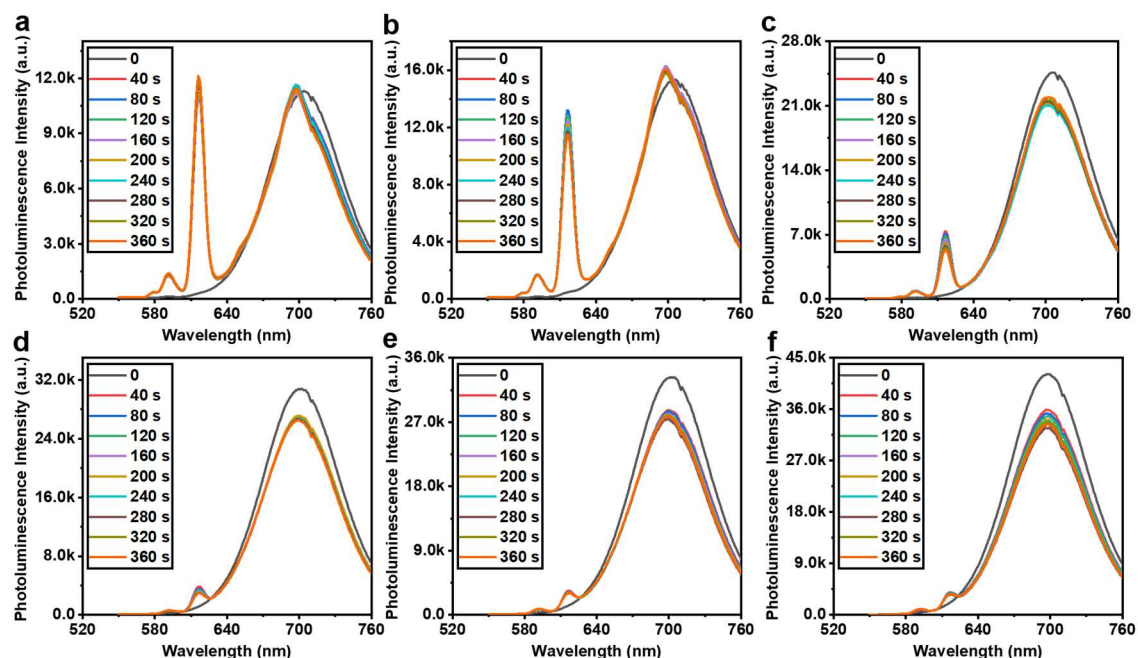


Figure S5. The fluorescence spectra of probe for OTC detection at different pH at 6.8 (a), 7.1 (b), 7.4 (c), 7.7 (d), 8.0 (e), and 8.2 (f) with reaction time changing from (0 to 360) s.