

# A Ratiometric Fiber Optic Sensor Based on CdTe QDs Functionalized with Glutathione and Mercaptopropionic Acid for On-Site Monitoring of Antibiotic Ciprofloxacin in Aquaculture Water

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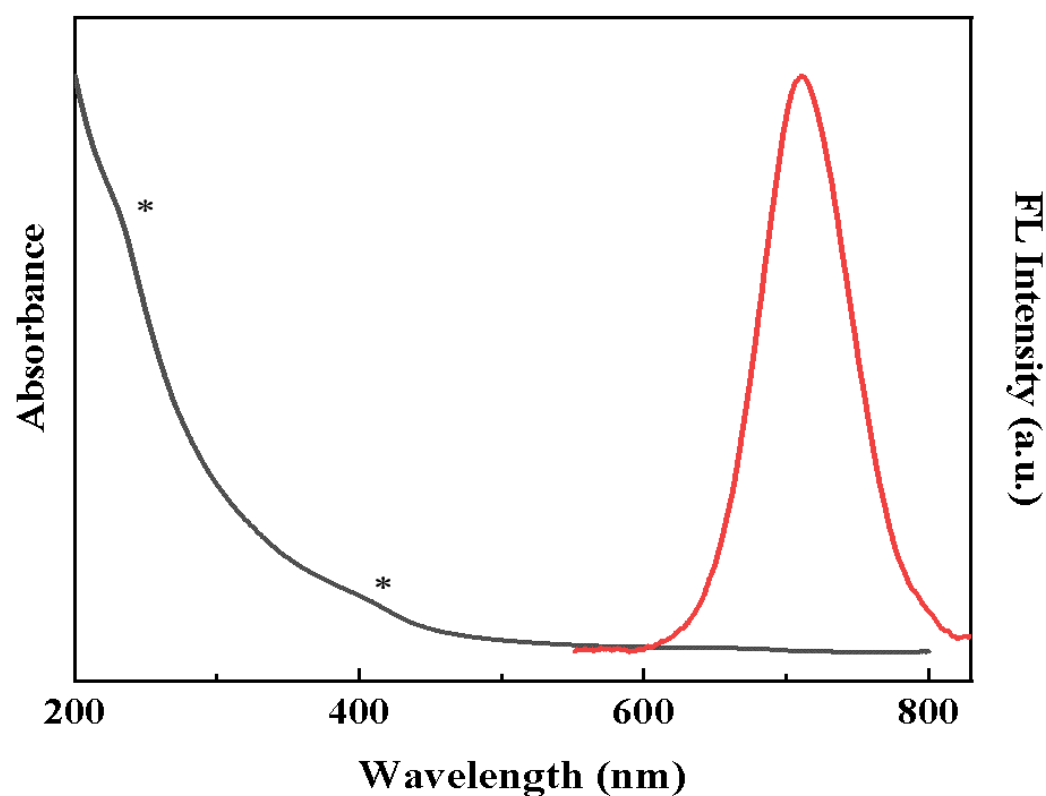


Figure S1. UV-absorption spectra and fluorescence emission spectra of GMPA@CdTe QDs.

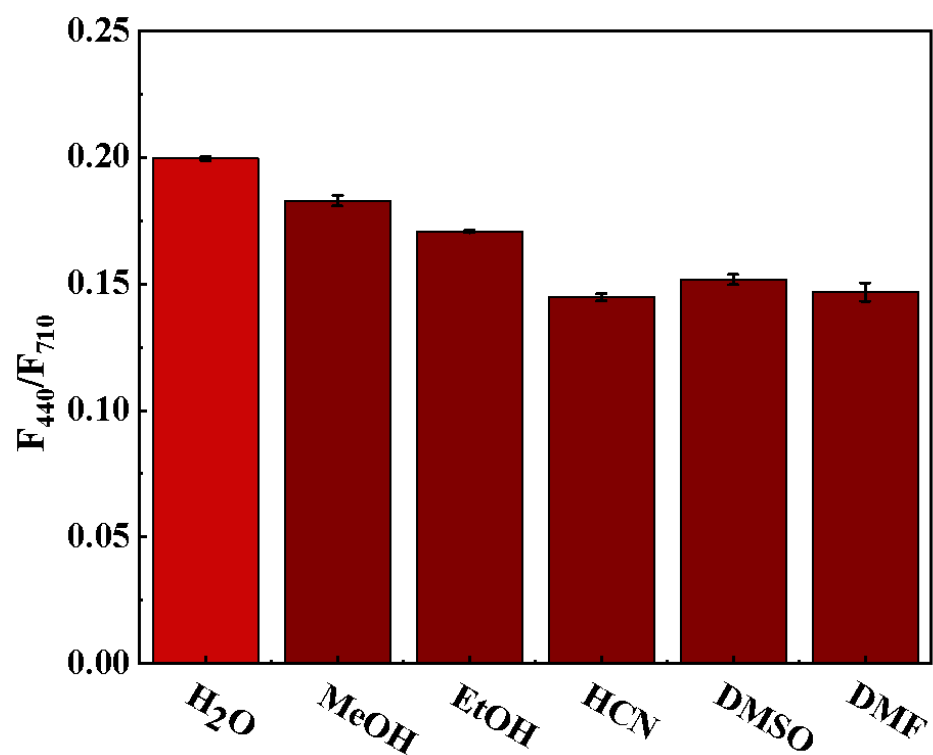


Figure S2. The influence of solvents on the signal of F440/F710.

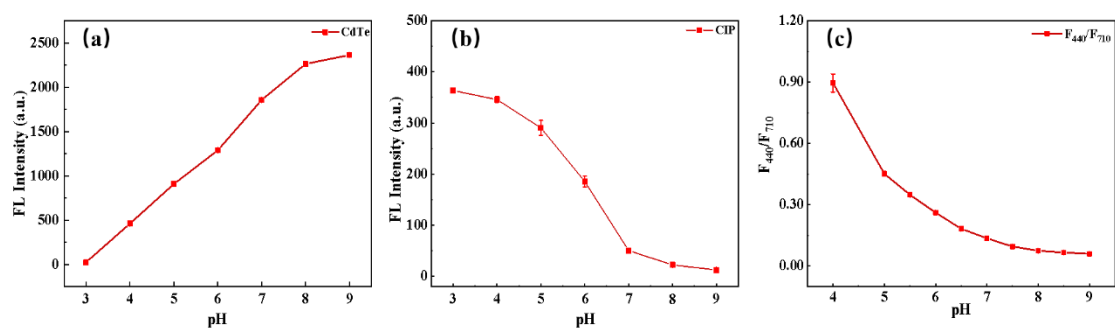


Figure S3. The influence of pH to the interaction between GMPA@CdTe QDs and CIP.

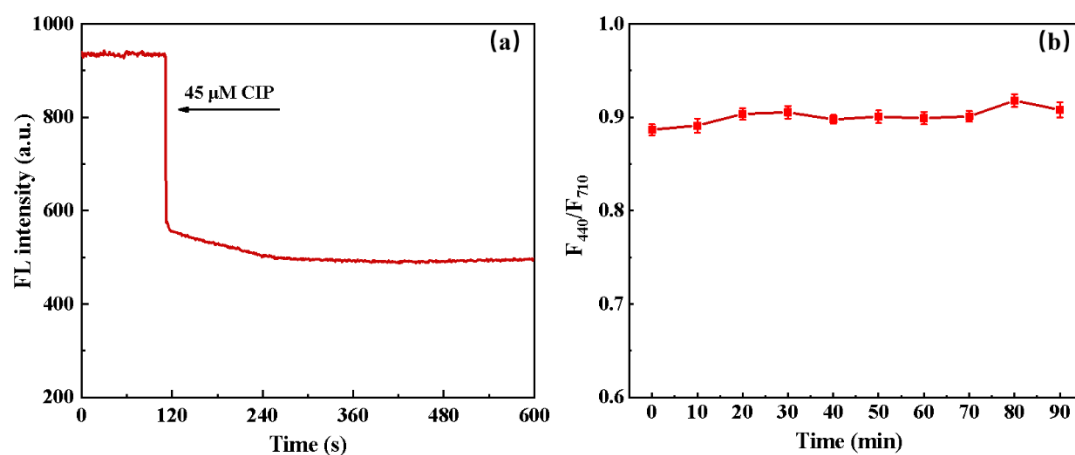
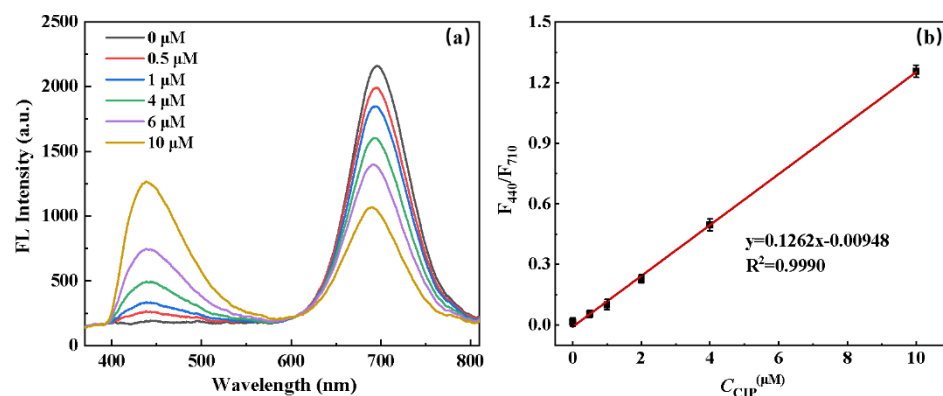
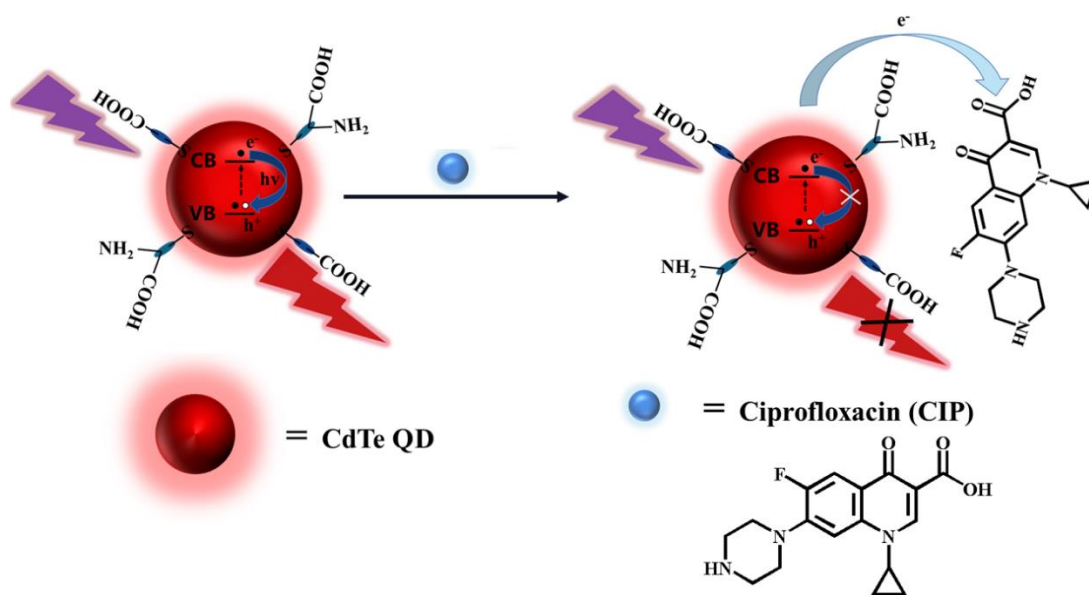


Figure S4. (a) The response time of the interaction between GMPA@CdTe QDs and CIP; (b) The stability of the fluorescence ratio ( $F_{440}/F_{710}$ ) of GMPA@CdTe QDs in PBS.



**Figure S5.** (a) Fluorescence spectra of the GMPA@CdTe QDs in the presence of various concentrations of CIP (0-10  $\mu\text{M}$ ); (b) The influence of CIP (0-10  $\mu\text{M}$ ) to the interaction between F440/F710 (FL-4600) ( $n=3$ ).



**Figure S6.** Schematic illustration of GMPA@CdTe QDs quenching by CIP.