Supporting Information for:

Construction of stable fluorescent sensor based on $CsPbBr_3$/CdS core/shell quantum dots for selective and sensitive detection of tetracycline in ethanol

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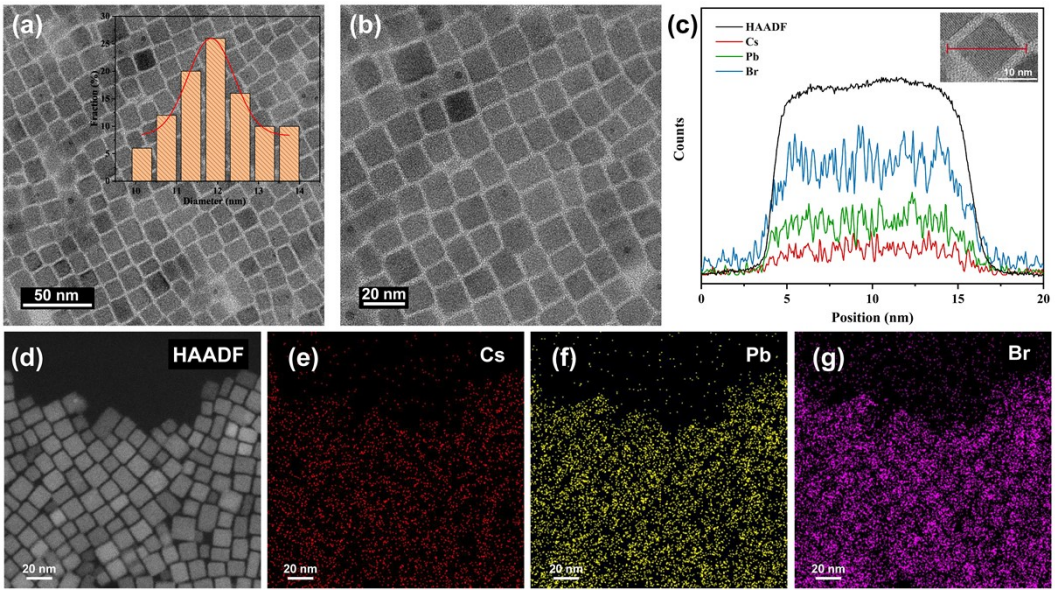

Fig. S1 (a) TEM image and size distribution of pure $CsPbBr_3$ QDs. (b) HRTEM image of pure $CsPbBr_3$ QDs. (c) EDX line profiles of Cs, Pb, and Br. (d-g) Elemental maps showing presence of Cs, Pb, and Br, respectively.

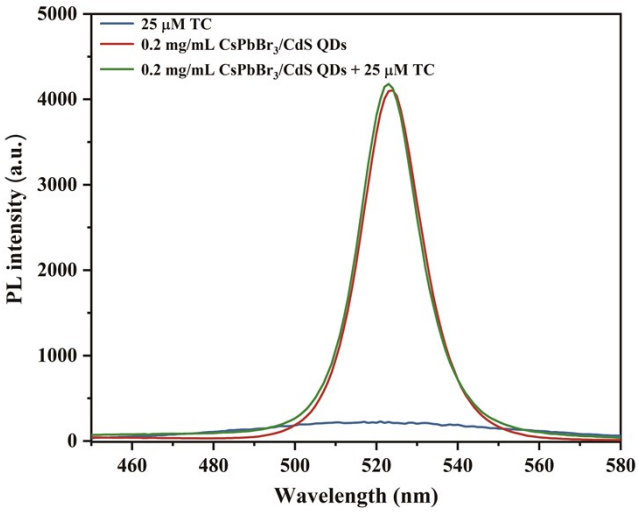

Fig. S2 Fluorescence emission spectra of 25 μM TC ethanol solution (blue line), 0.2 mg/mL $CsPbBr_3$/CdS QDs (red line), and the mixture of 25 μM TC with 0.2 mg/mL $CsPbBr_3$/CdS QDs (green line).

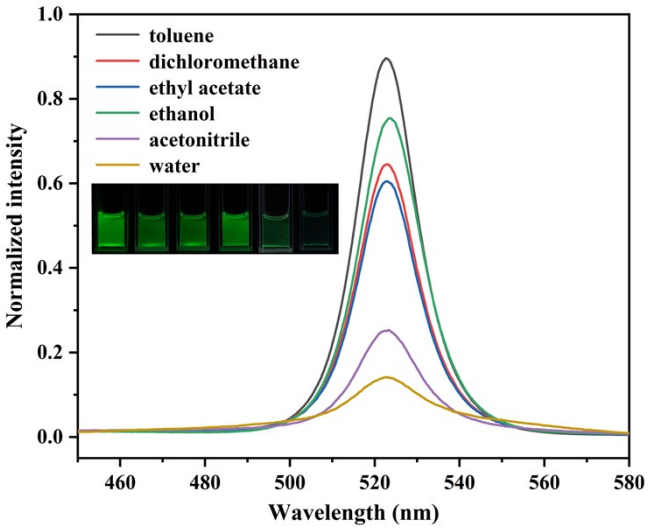

Fig. S3 Effect of several different polar solvents on the fluorescence intensity of $CsPbBr_3$/CdS QDs.

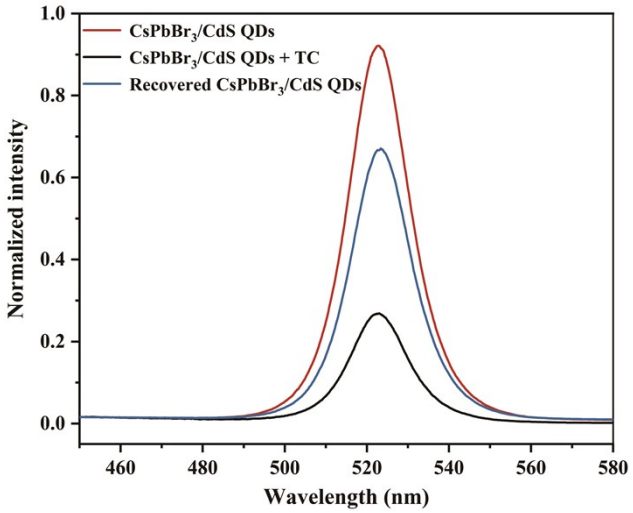

Fig. S4 Fluorescence emission spectra of $CsPbBr_3$/CdS QDs, $CsPbBr_3$/CdS QDs with TC (15 μM) and the recovered $CsPbBr_3$/CdS QDs.

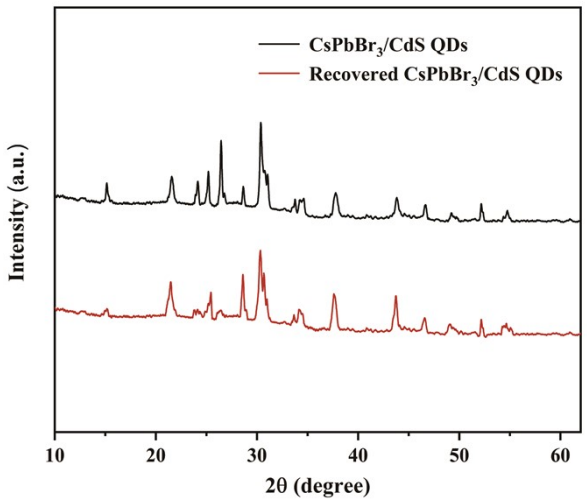

Fig. S5 XRD patterns of $CsPbBr_3$/CdS QDs and the recovered $CsPbBr_3$/CdS QDs.