Förster Resonance Energy Transfer from Quantum Dots to Rhodamine B as Mediated by a Cationic Surfactant: A Thermodynamic Perspective

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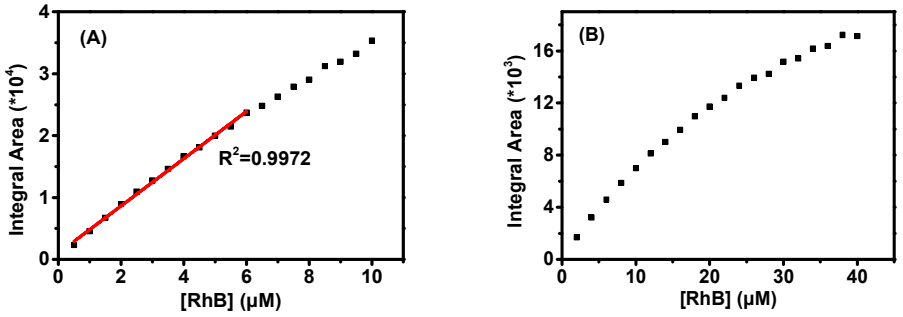

Figure S1. (A) The integral area of the emission of RhB (0-10 μM). (B) The integral area of the emission of RhB (0-40 μM).

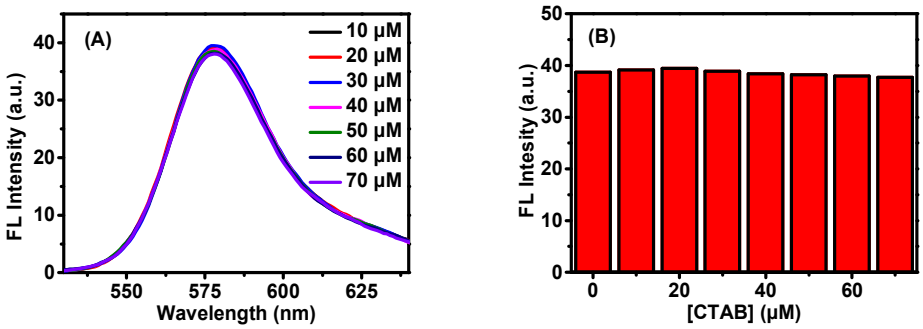

Figure S2. (A) The emission spectrum of RhB with different concentrations of CTAB. [RhB] = 1.5 μM. (B) The histogram of fluorescence intensity of RhB with different concentrations of CTAB. [RhB] = 1.5 μM.

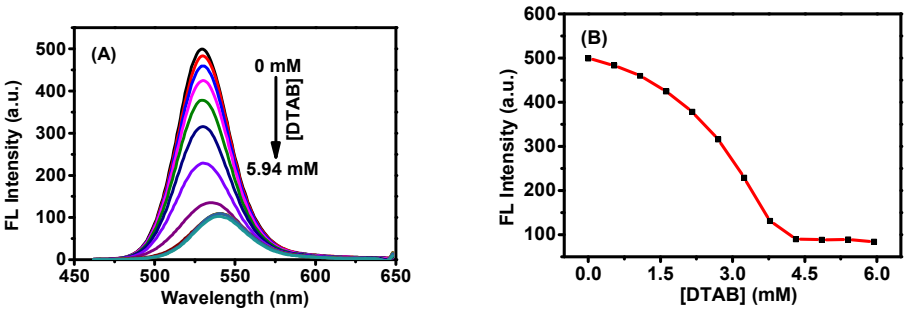

Figure S3. (A) The emission spectra of QDs with different concentrations of DTAB. (B) The scatter plots of the QDs' fluorescence intensities with different concentrations of DTAB.

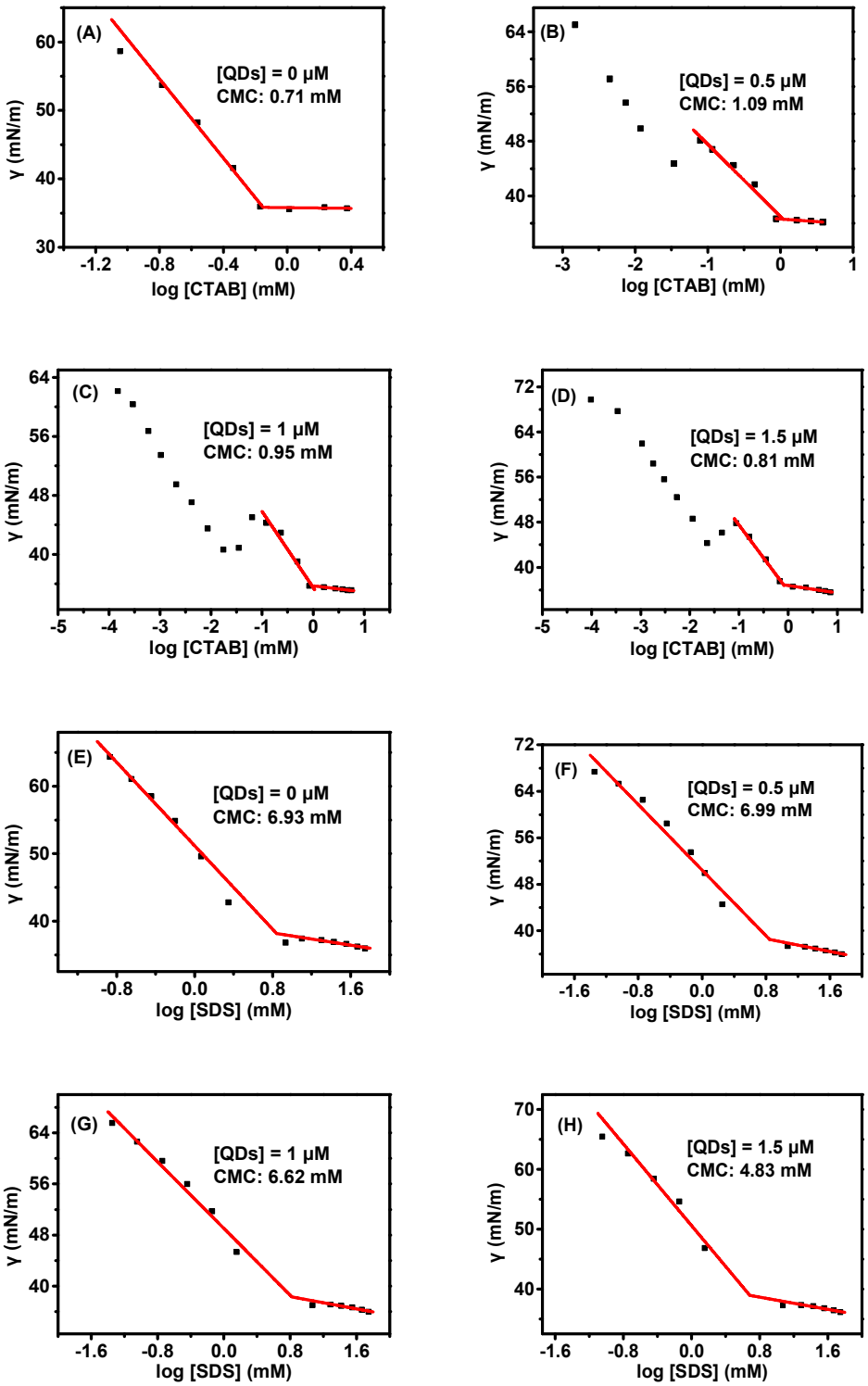

Figure S4. The surface tension and the calculated CMC of CTAB (A-D) and SDS

(E-H) with different concentrations of QDs.

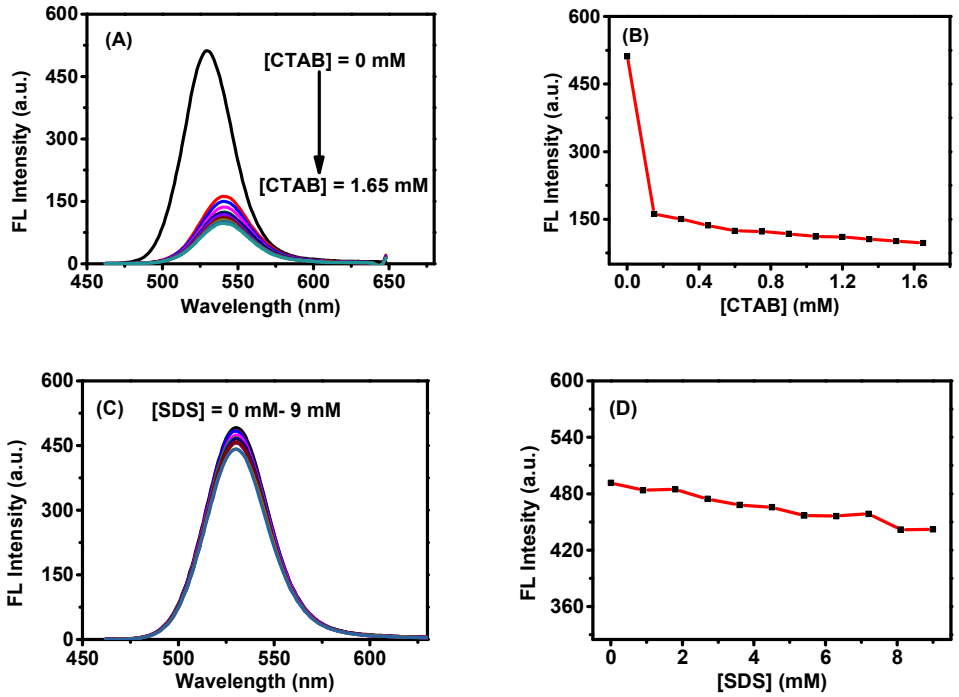

Figure S5. (A) The emission spectra of QDs in the presence of CTAB. (B) The scatter plots of the fluorescence intensities of QDs in the presence of CTAB. (C) The emission spectra of QDs in the presence of SDS. (D) The scatter plots of the fluorescence intensities of QDs in the presence of SDS.

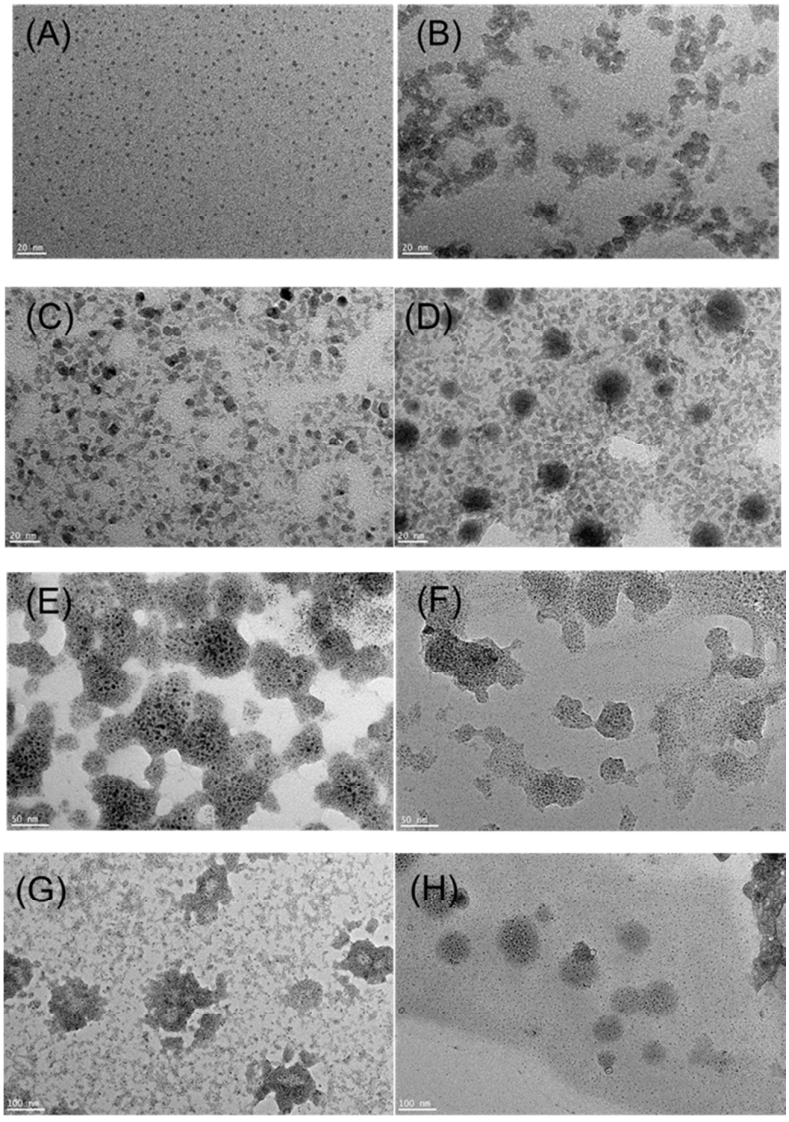

Figure S6. The TEM morphologies of QDs in the presence of CTAB. [QDs] = 1.5 μM, [CTAB] = 0 μM (A), 10 μM (B), 20 μM (C), 30 μM (D), 40 μM (E), 50 μM (F), 60 μM (G), 70 μM (H).

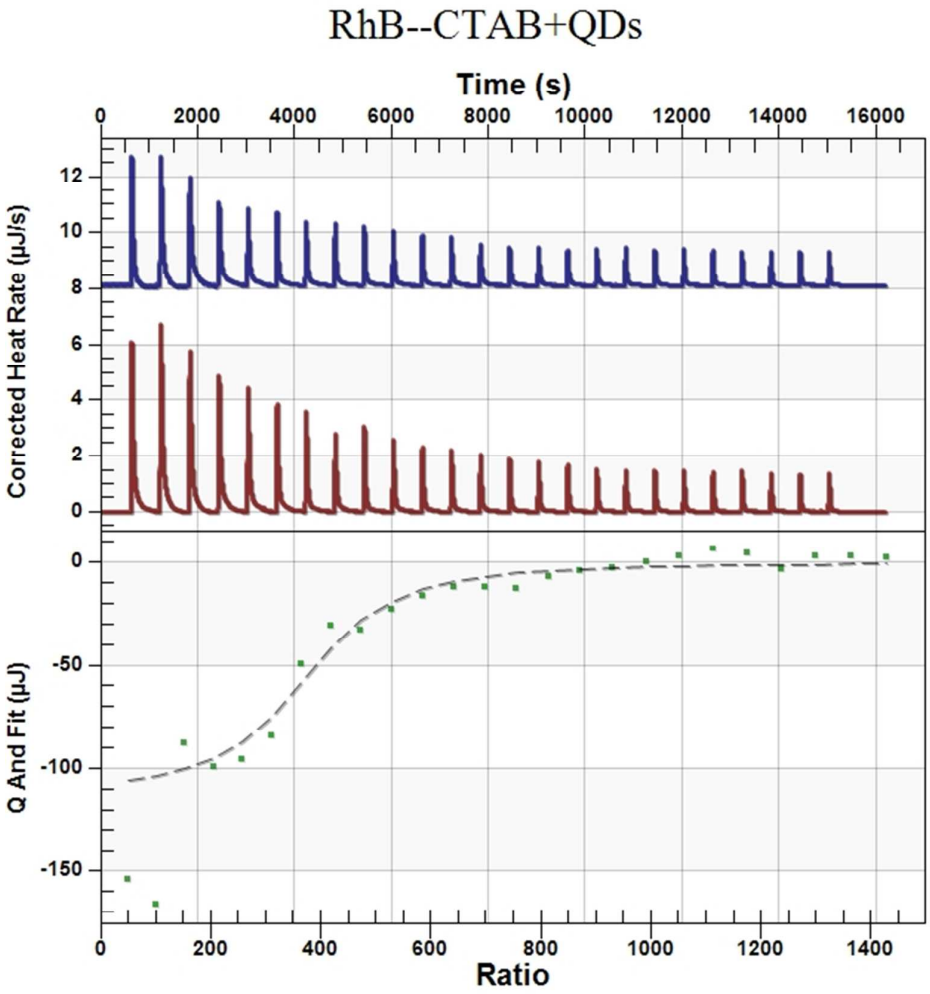

Figure S7. ITC analysis of the FRET process.