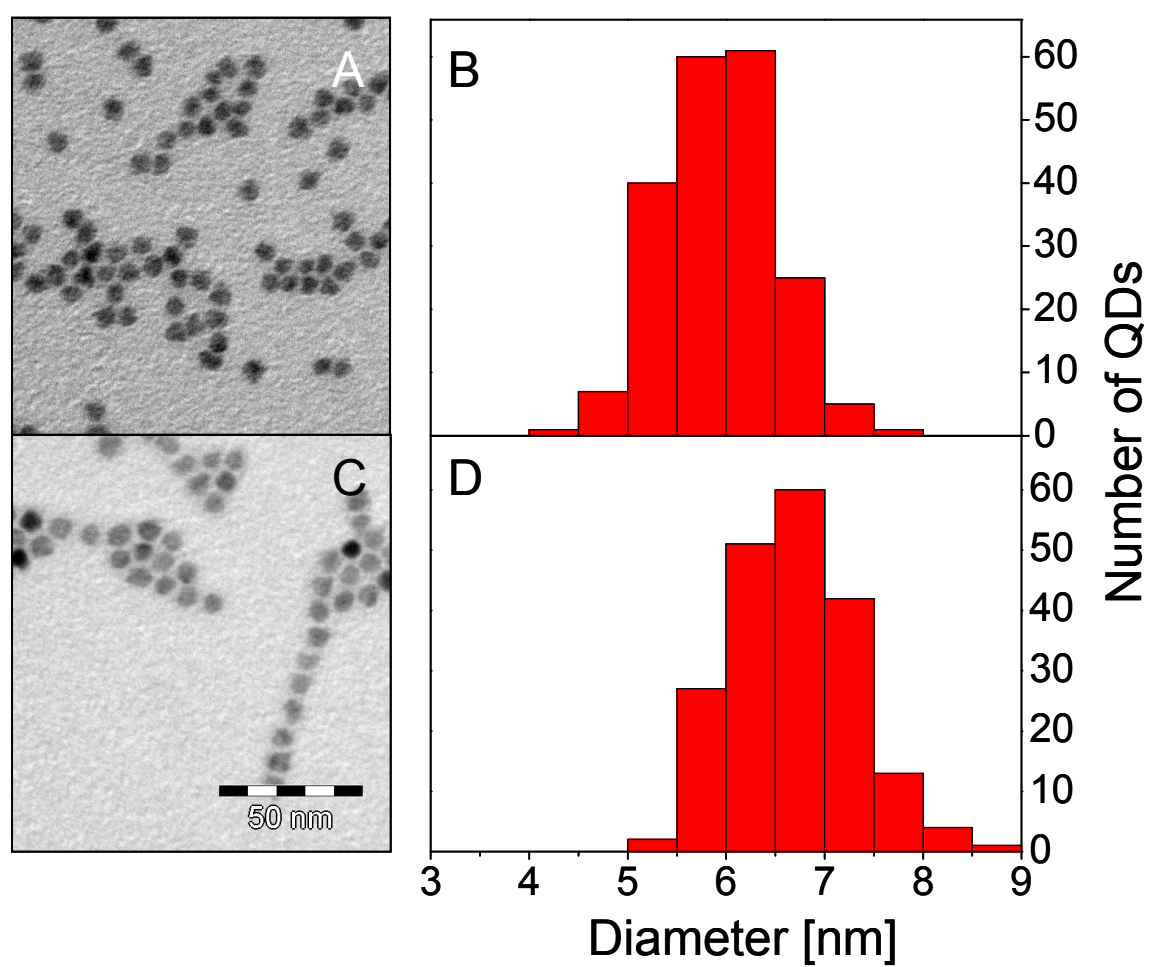
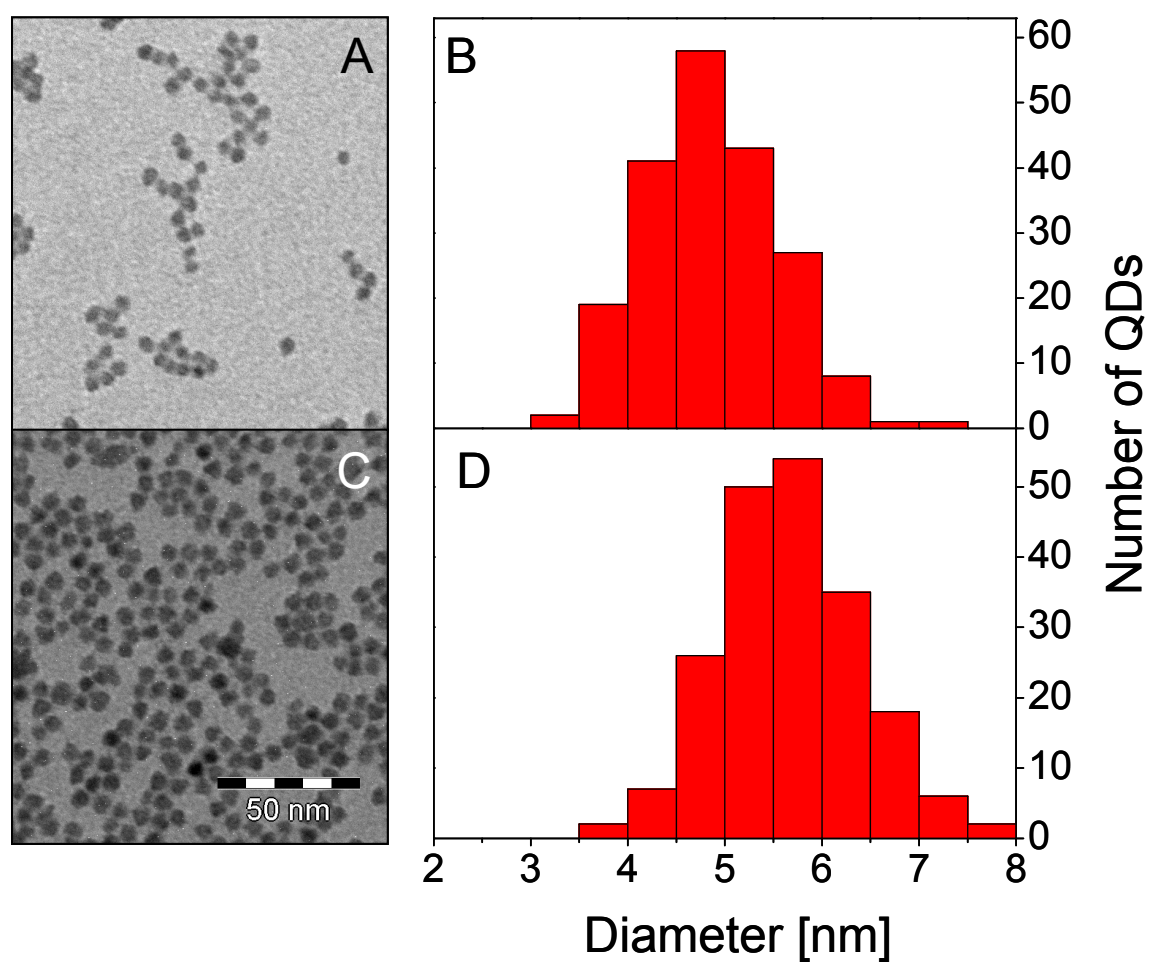
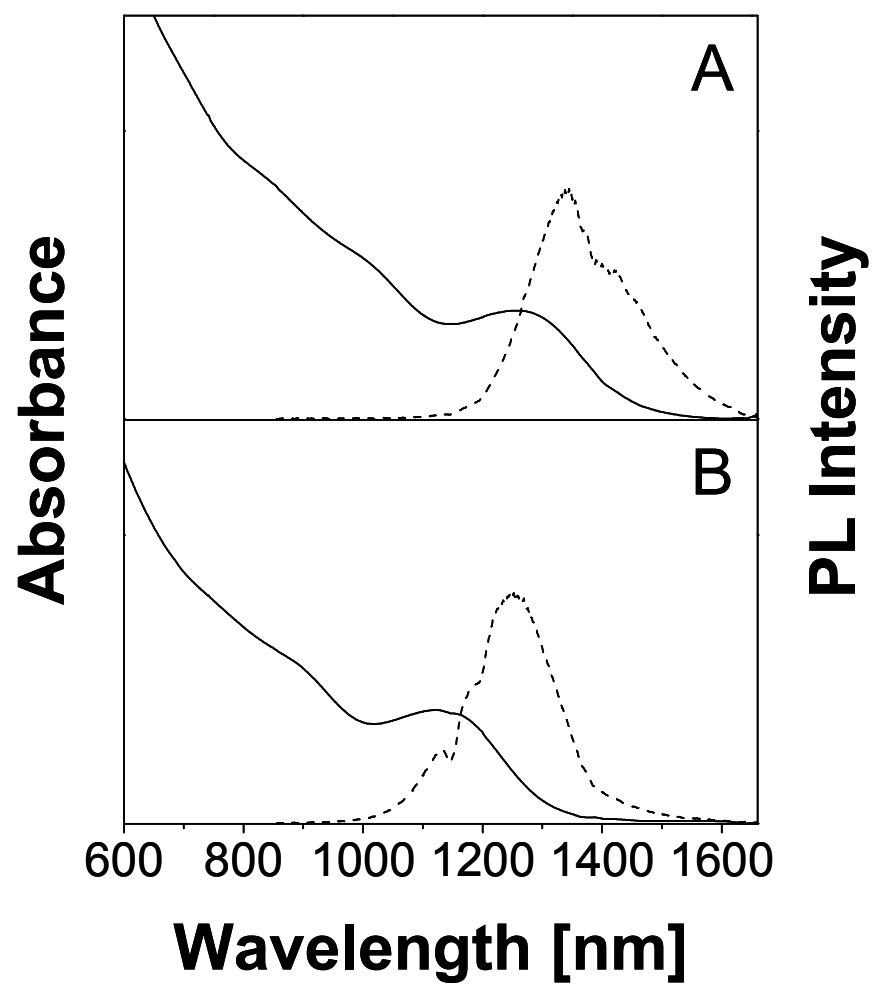




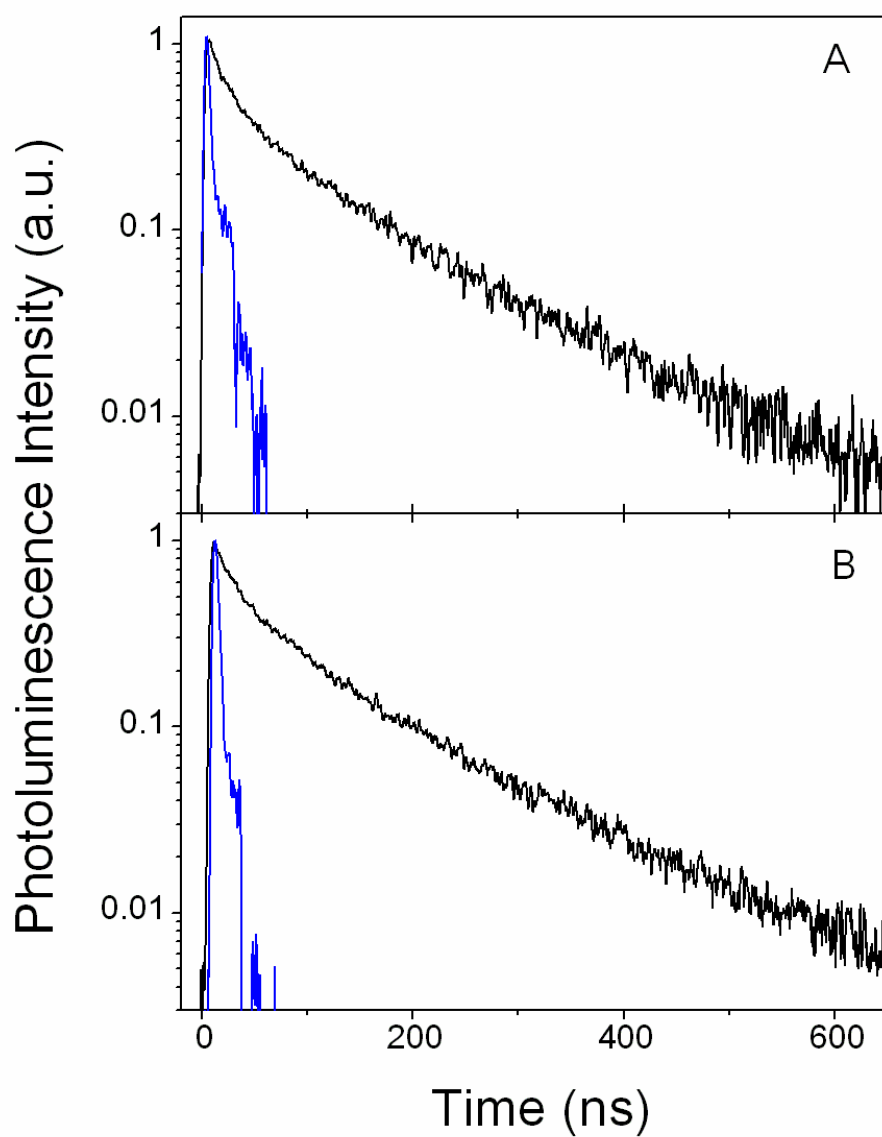
**Fig. S1.** TEM images and histograms of diameters of the InAs QDs (A and B, average diameter 5.9nm) and the CSS QDs (C and D, average diameter 6.7 nm) of sample A.



**Fig. S2.** TEM images and histograms of diameters of the InAs QDs (A and B, average diameter 4.9nm) and the CSS QDs (C and D, average diameter 5.7nm) of sample B.



**Fig. S3.** Absorption and emission spectra of sample A (A) and sample B (B).



**Fig. S4.** Fluorescent lifetime measurements for InAs QDs (Blue) and CSS (Black) for sample A (A) and B (B). Sample A exhibits a  $1/e$  decay time of 59ns and sample B 48ns.