

Supplementary Information

Synthesis and Characterization of High-Quality Water-Soluble CdTe: Zn²⁺ Quantum Dots Capped by *N*-acetyl-L-cysteine via Hydrothermal Method

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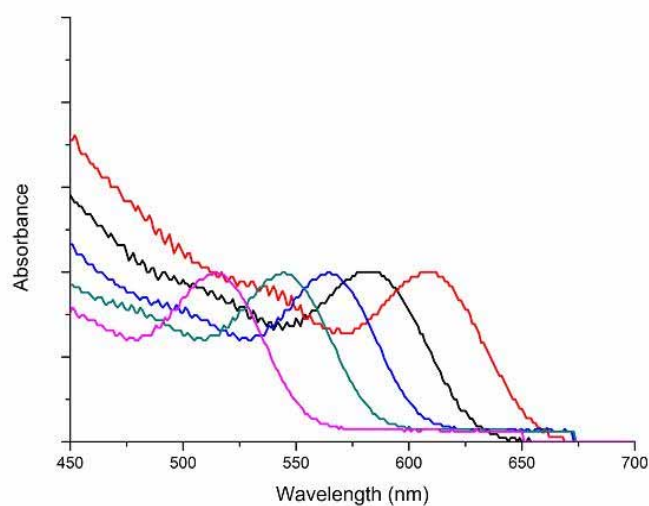


Fig. S1 UV-visible absorption of CdTe: Zn²⁺ QDs prepared from various reaction times.



Fig. S2 Teflon-lined stainless steel autoclaves (500 mL and 50 mL) used to prepare NAC-capped CdTe: Zn²⁺ QDs .(Left: stainless steel shell, Right: Teflon-lined inner liner)

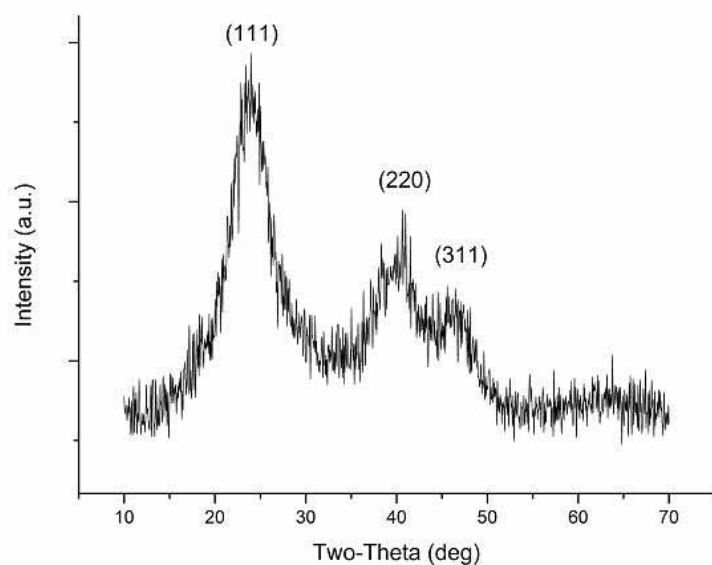
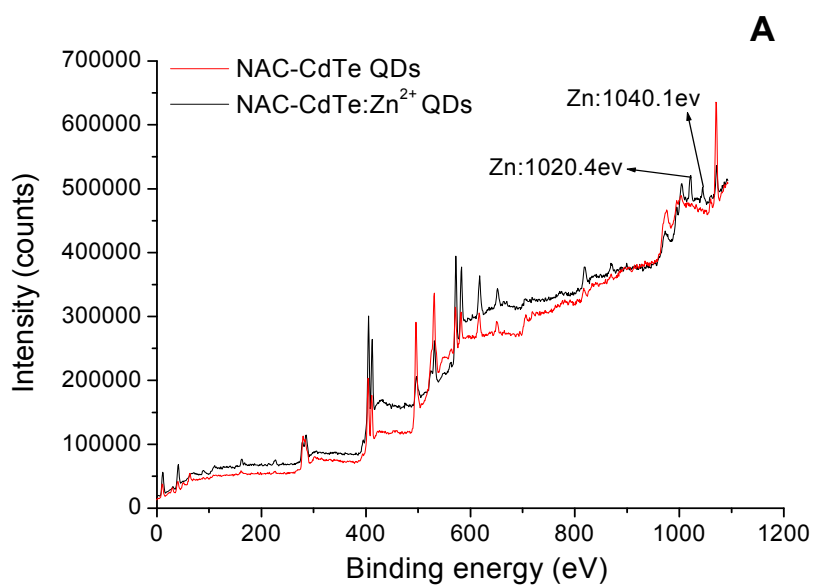


Fig. S3 Powder XRD patterns of NAC-capped CdTe: Zn²⁺ QDs ($\lambda_{\text{em}}=528$ nm).



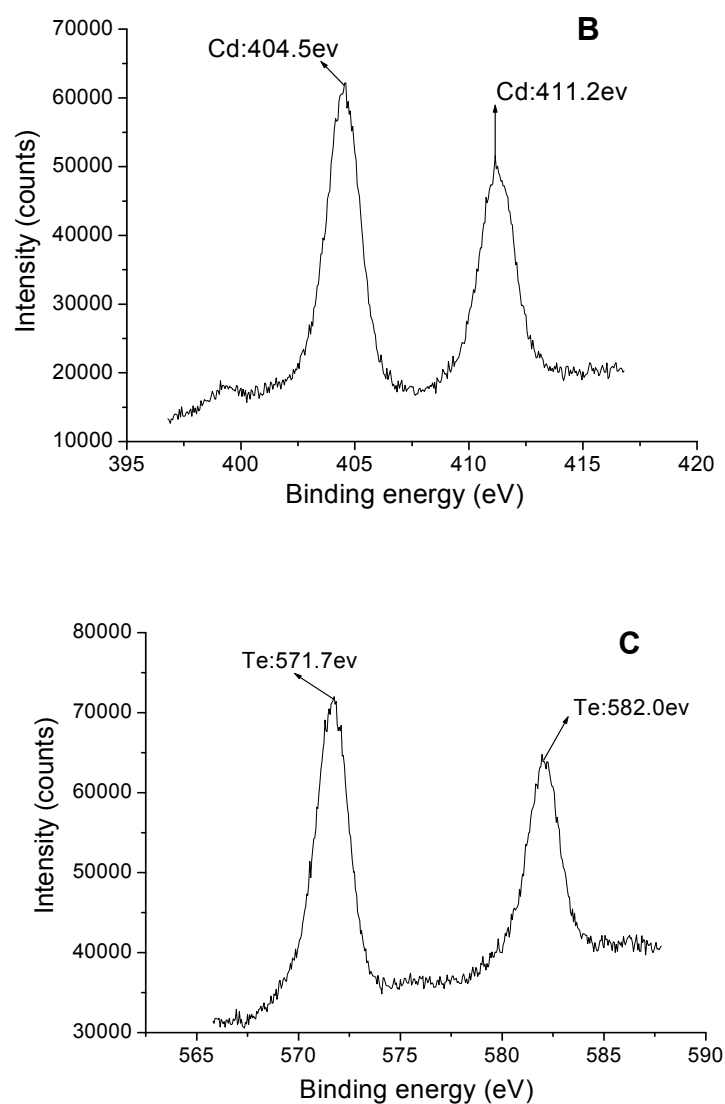


Fig S4: (A) XPS spectra of NAC-capped CdTe: Zn²⁺ QDs and CdTe QDs(λ_{em} =528 nm), (B) Cd (3d) and (C) Te (3d) regions.