Supplementary material (ESI) for RSC Advances

Electronic Supplementary Information

Preparation of monodispersed CuS nanocrystals synthesized in an oleic acid/paraffin system

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TEM

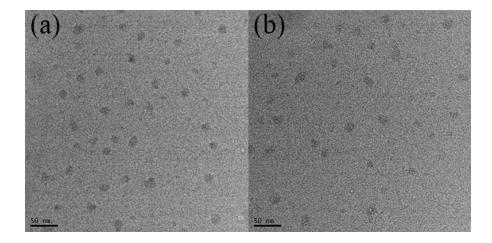


Fig. S1 TEM images of CuS NCs with different molar ratio of Cu²⁺: S²⁻ (a) 2:1, (b) 1:2.

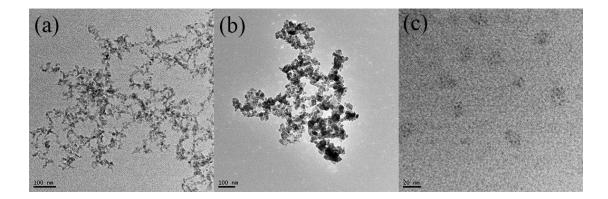


Fig. S2 TEM image of as-prepared CuS NCs with different cleaning agents (a) none, (b) ethyl alcohol, (c) cyclohexane.

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UV-Vis absorption spectra

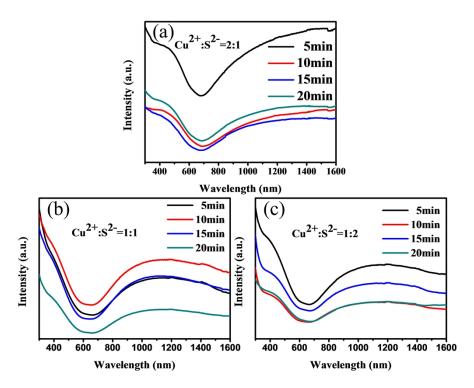


Fig. S3 UV-Vis absorption spectra of as-prepared CuS NCs with different molar ratio (a) 2:1, (b) 1:1, (c) 1:2.

PL excitation spectra

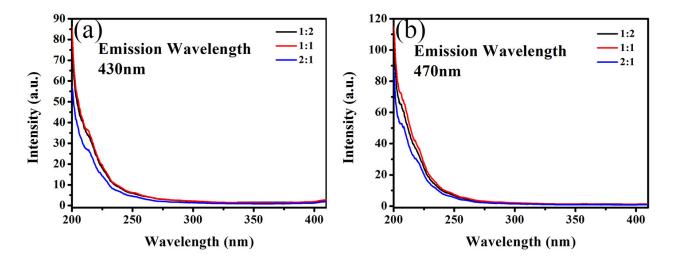


Fig. S4 PL excitation spectra of as-prepared CuS NCs with different emission wavelength (a) 430 nm, (b) 470 nm.

PL emission spectra

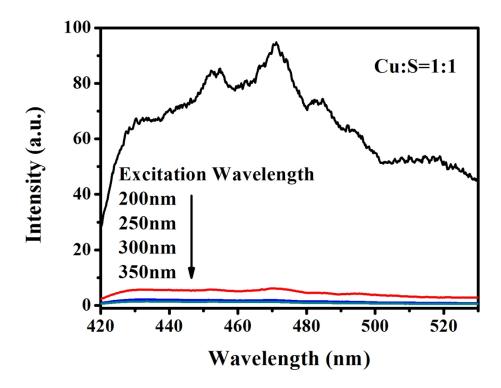


Fig. S5 PL emission spectra of CuS NCs with 1:1 molar ratio of Cu²⁺:S²⁻ with different excitation wavelength.