

Supporting Information for

**Phosphine-Free Synthesis and Optical Stabilities of Compositionally Tuneable
Monodispersed Ternary $\text{PbSe}_{1-x}\text{S}_x$ Alloyed Nanocrystals *via* Cation Exchange**

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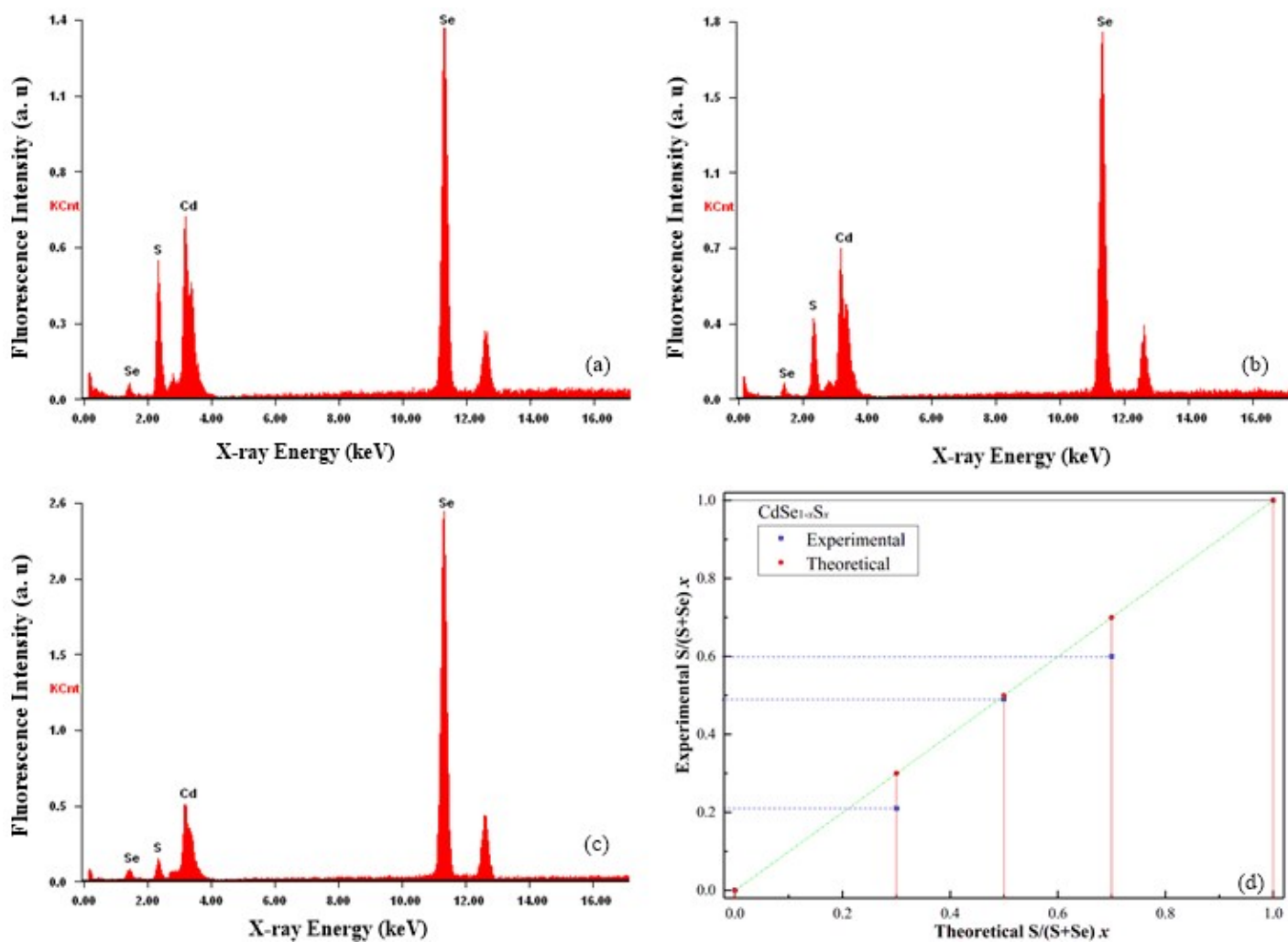


Figure S1 XRF results and corresponding element composition of (a) CdSe_{0.3}S_{0.7}, (b) CdSe_{0.5}S_{0.5} and (c) CdSe_{0.7}S_{0.3} alloyed NC samples. (d) Experimental and theoretical S content of CdSe_{1-x}S_x alloyed NCs.

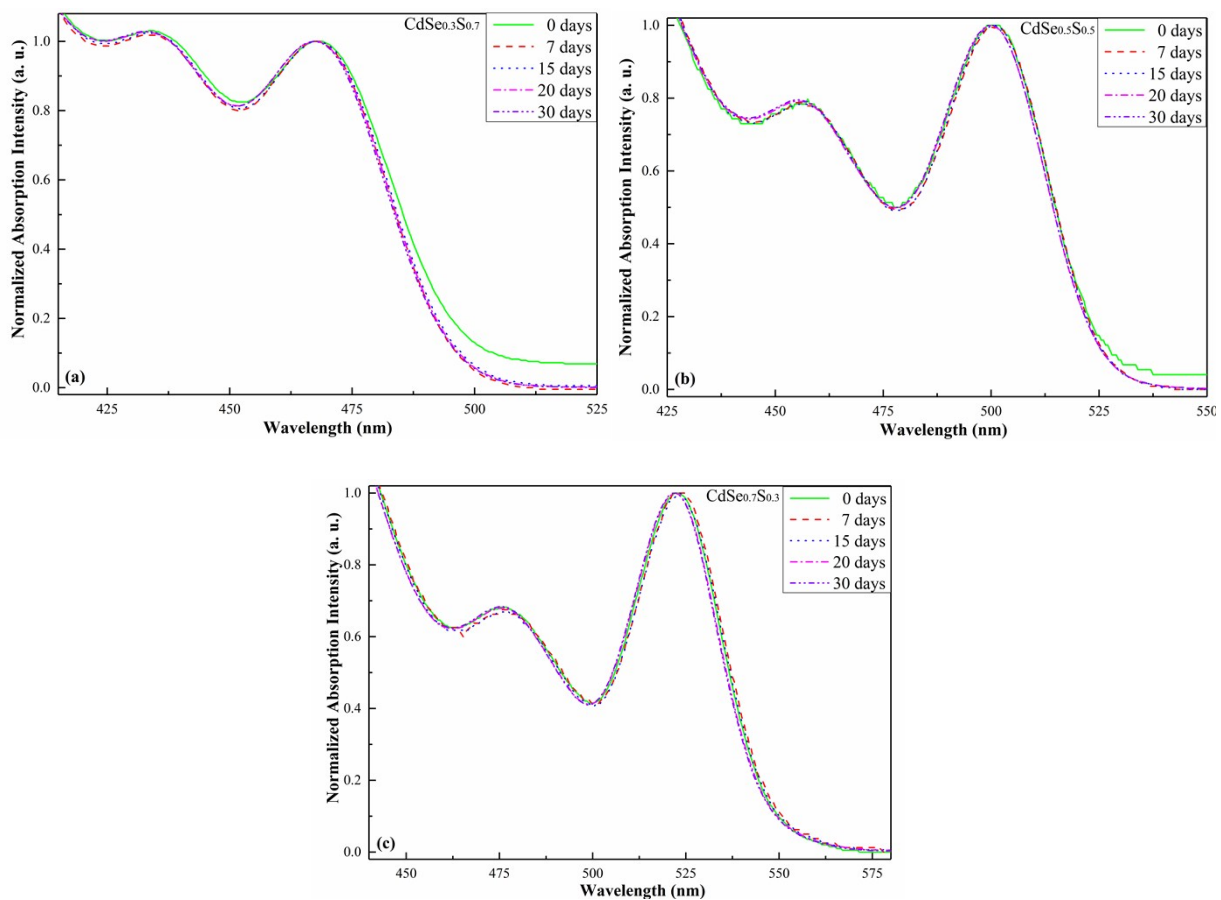


Figure S2 Temporal evolution of the absorption spectra of CdSe_{0.3}S_{0.7}, CdSe_{0.5}S_{0.5} and CdSe_{0.7}S_{0.3} alloyed NCs stored in air for 0, 7, 15, 20 and 30 days respectively.