

Highly efficient blue-green quantum dot light-emitting diodes using stable low-cadmium quaternary-alloy ZnCdSSe/ZnS core/shell nanocrystals

Huaibin Shen^a, Sheng Wang^a, Hongzhe Wang^a, Jinzhong Niu^a,

Lei Qian^a, Yixing Yang^b, Alexandre Titov^b, Jake

Hyvonen^b, Ying Zheng^{b}, and Lin Song Li^{a*}*

^aKey Laboratory for Special Functional Materials, Henan University, Kaifeng 475004,
P. R. China;

^b NanoPhotonica Inc. 747 SW 2nd Ave. Gainesville, FL 32601, (USA)

E-mail: lsli@henu.edu.cn, ying.zheng@nanophotonica.com

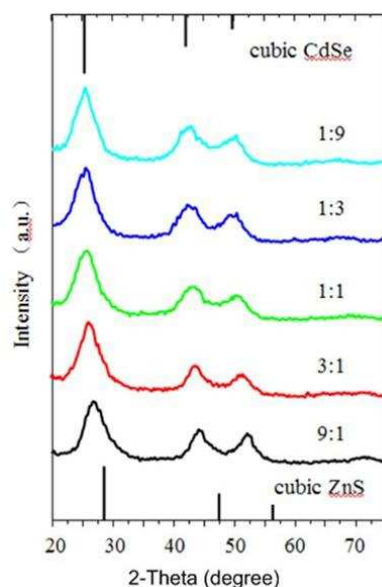


Figure S1. Powder XRD patterns of the $\text{Zn}_{0.5}\text{Cd}_{0.5}\text{S}_{1-y}\text{Se}_y$ samples with different molar ratios of S and Se.

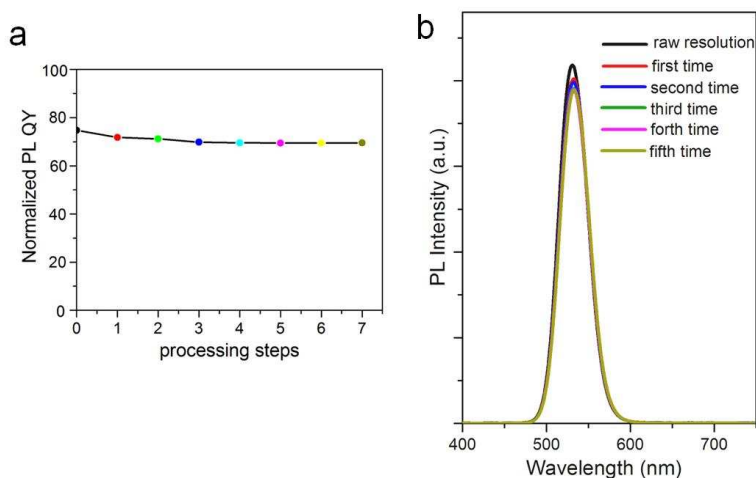


Figure S2. Evolution of the QYs (a) and PL (b) of ZnCdSSe/ZnS core/shell nanocrystals upon repeated purification process steps. Step 0: the raw nanocrystals resolution without any process. Steps 1-7: repeated precipitation of the nanocrystals and successive redispersion in hexanes.