

## Supplementary Materials:

### **Super Color Purity Green Quantum Dot Light-Emitting Diodes by Using CdSe/CdS Nanoplatelets**

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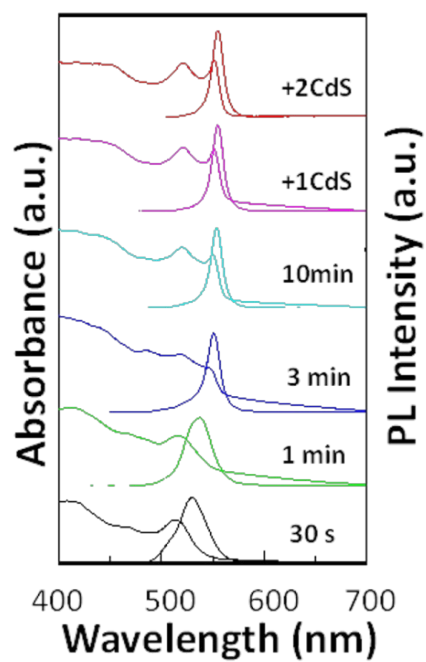
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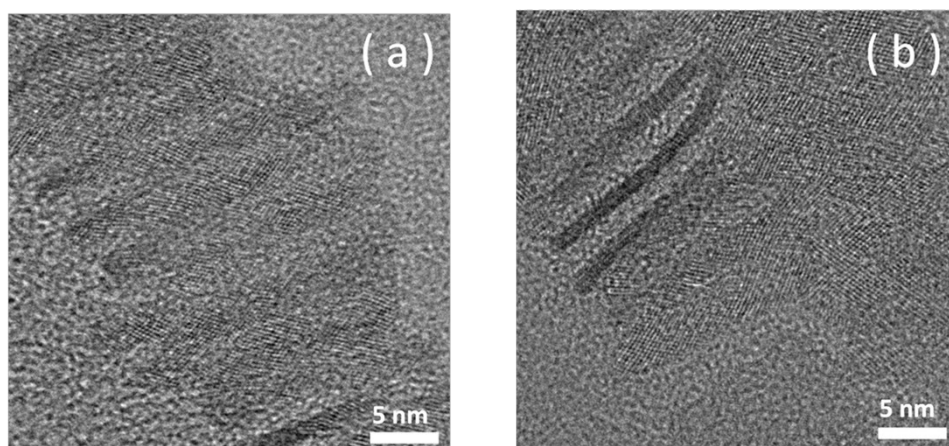
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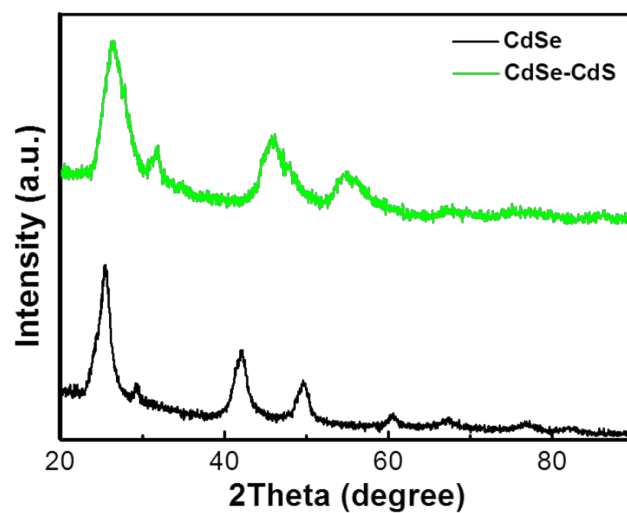
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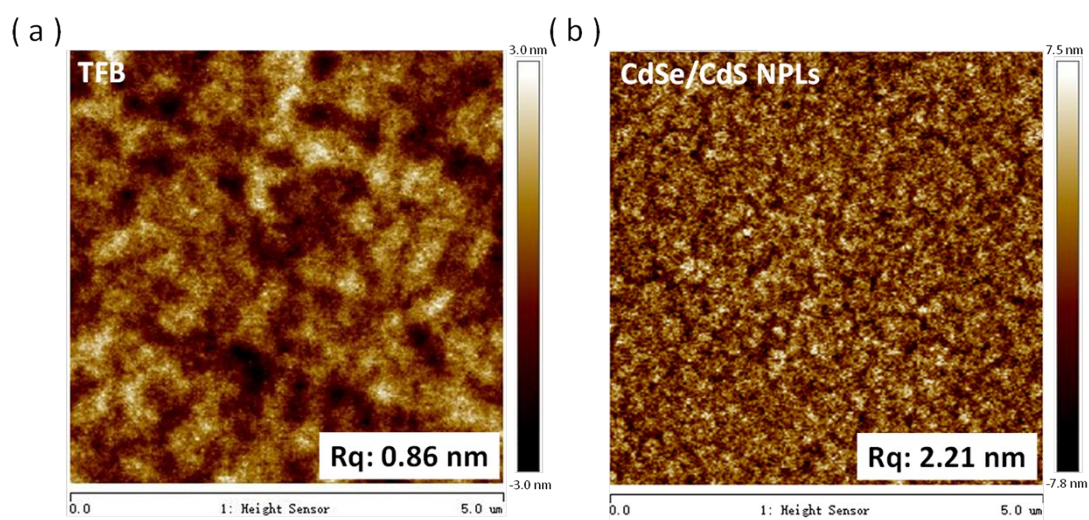
**Figure S1.** UV-vis and PL spectra of CdSe nanoplatelets with different reaction time



**Figure S2.** HRTEM images of CdSe and CdSe/CdS nanoplatelets

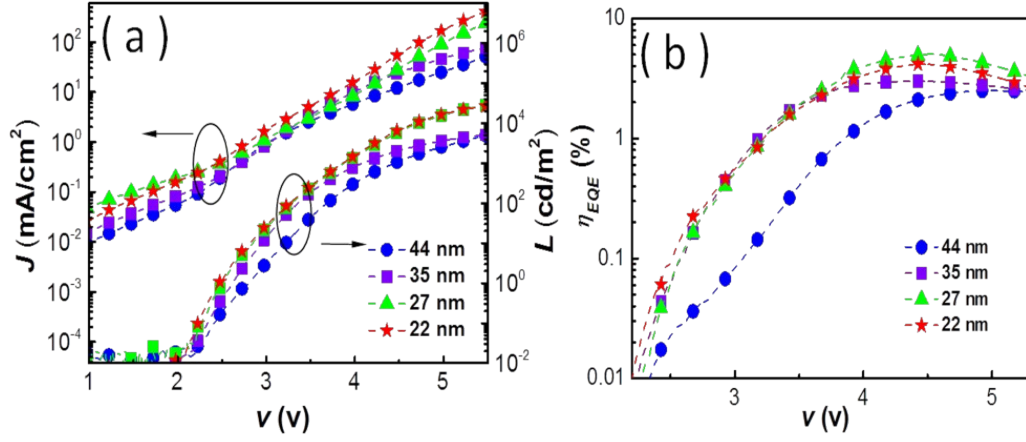


**Figure S3.** XRD pattern of CdSe and CdSe/CdS nanoplatelets

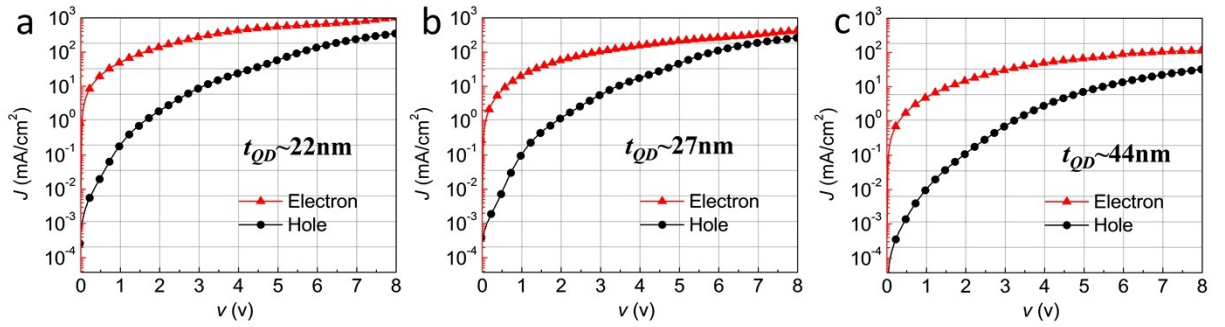


**Figure S4.** AFM characteristics of roughness ( $R_q$ ) of (a) TFB and (b) CdSe/CdS nanoplatelets layers.

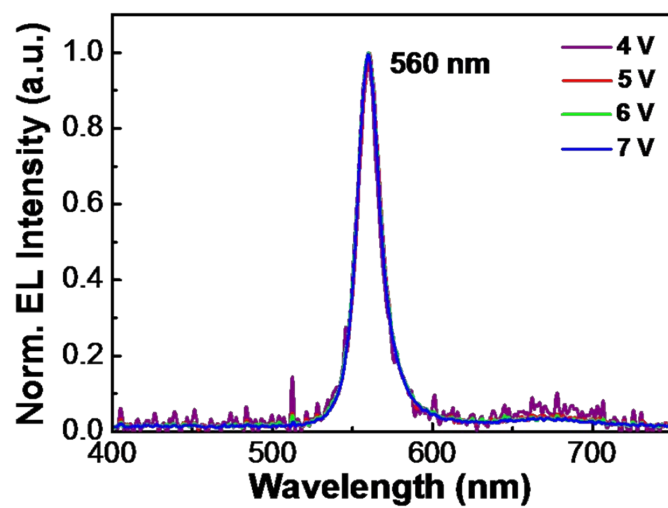
ITO/PEDOT: PSS (30 nm)/TFB (40 nm)/QDs (x nm)/ZnO (30 nm)/Al (100 nm)



**Figure S5.** (a) Current density-voltage-luminance ( $J$ - $V$ - $L$ ) characteristics of QLED based on NPL by varying the QDs layer thickness. (b) External quantum efficiency ( $\eta_{EQE}$ ) of these devices as a function of the driving voltage.



**Figure S6.** Current-density-voltage ( $J$ - $V$ ) characteristics of electron- and hole- only devices based on  $\sim 22$  nm (a), 27 nm (b), and 44 nm (c) thick QDs.



**Figure S7.** Normalize EL spectra of QLED with increasing bias voltage.