

Electronic supplementary information (ESI) for:

Effect of organic passivation on photoinduced electron transfer across the quantum dot/TiO₂ interface

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Incident Photon-to-current Efficiency (IPCE) and Light Harvesting Efficiency (LHE) Data

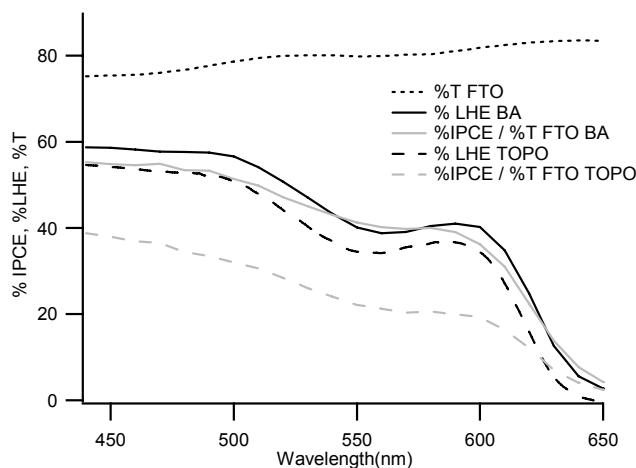


Fig. S1 LHE of n-butylamine (BA) and tri-n-octylphosphine oxide (TOPO) capped CdSe quantum dot (QD) sensitized TiO₂ films and IPCE of BA and TOPO capped QD sensitized solar cell. IPCEs are divided by transmittance (%T) of FTO.

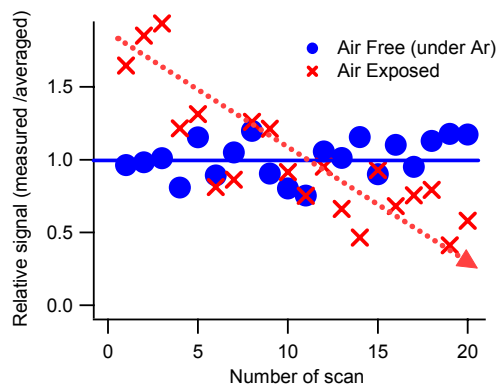


Fig. S2 TA signal at the peak of the 1S bleach (590 nm) for TiO₂/TOPO capped CdSe film as a function of number of scans under air exposed and air free conditions. Experimental conditions were: excitation wavelength 400 nm, pump fluence = 500 μ W ($\langle N_{\text{abs}} \rangle \sim 3$) for air free and 50 μ W ($\langle N_{\text{abs}} \rangle \sim 0.3$) for air exposed, repetition rate = 1 kHz.

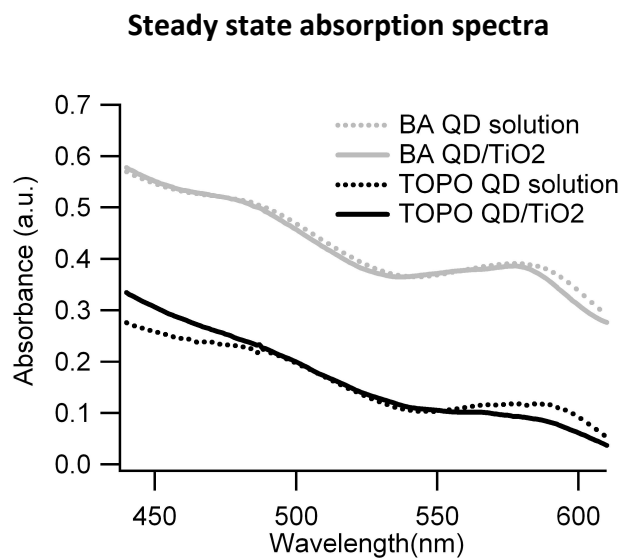


Fig. S3 Absorption spectra of QD solutions with tri-n-octylphosphine oxide (TOPO) and n-butylamine (BA) capping ligands and TOPO- and BA-capped QD/TiO₂