

Electronic Supplementary Information

Fumed SiO₂ Modified Electrolytes for Quantum Dot Sensitized Solar Cells with Exceeding 11% Efficiency and Better Stability

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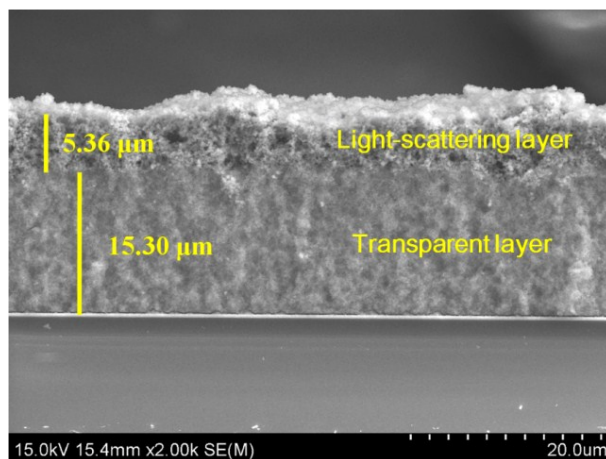


Figure S1. Cross-sectional SEM image of as deposited $\text{CdSe}_x\text{Te}_{1-x}$ QD-sensitized TiO_2 photoanode.

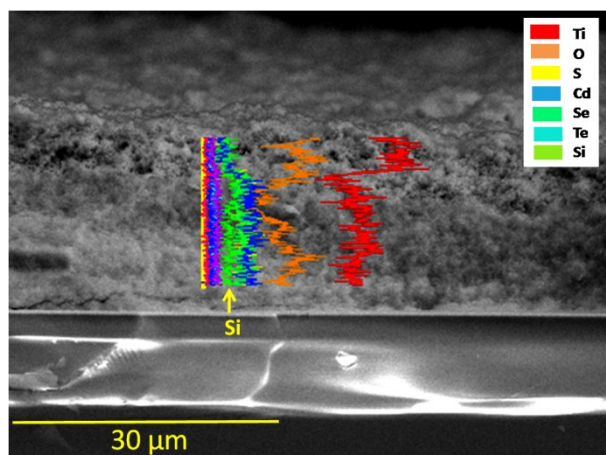


Figure S2. HRSEM image of cross-section of the $\text{TiO}_2/\text{CdSe}_x\text{Te}_{1-x}$ film after soaking in SiO_2 modified electrolyte and rinsing with distilled water for several times.

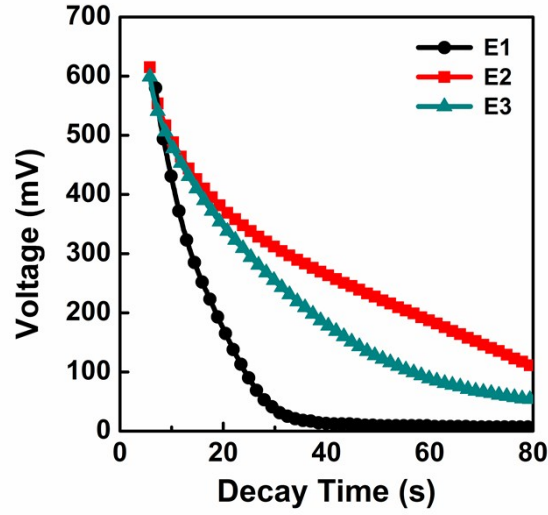


Figure S3. Voltage decay curves of the $\text{CdSe}_x\text{Te}_{1-x}$ based QDSCs with different electrolytes.

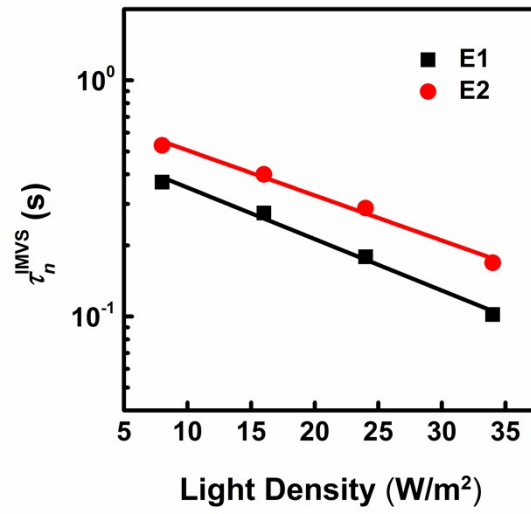


Figure S4. Electron lifetime (τ_n^{IMVS}) derived from IMVS at different light densities for $\text{CdSe}_x\text{Te}_{1-x}$ QDSCs with different electrolytes. E1: conventional polysulfide electrolyte, E2: SiO_2 NPs composite polysulfide electrolyte.