

Electronic Supplementary Information

Large-scale synthesis of Cu_2SnS_3 and $\text{Cu}_{1.8}\text{S}$ hierarchical microspheres as efficient counter electrode materials for quantum dot sensitized solar cells

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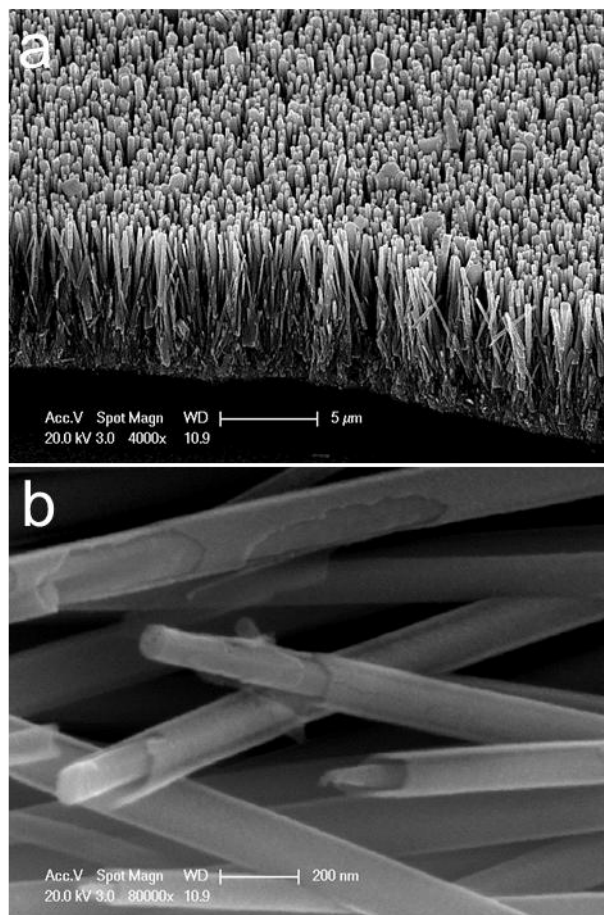


Fig. S1 (a) SEM image of an array of ZnO/ZnSe/CdSe core/shell nanocables, showing the nanocables with lengths of $\sim 7 \mu\text{m}$ and diameters of 150–200 nm; (b) SEM image of some broken nanocables, showing the core/shell structure.

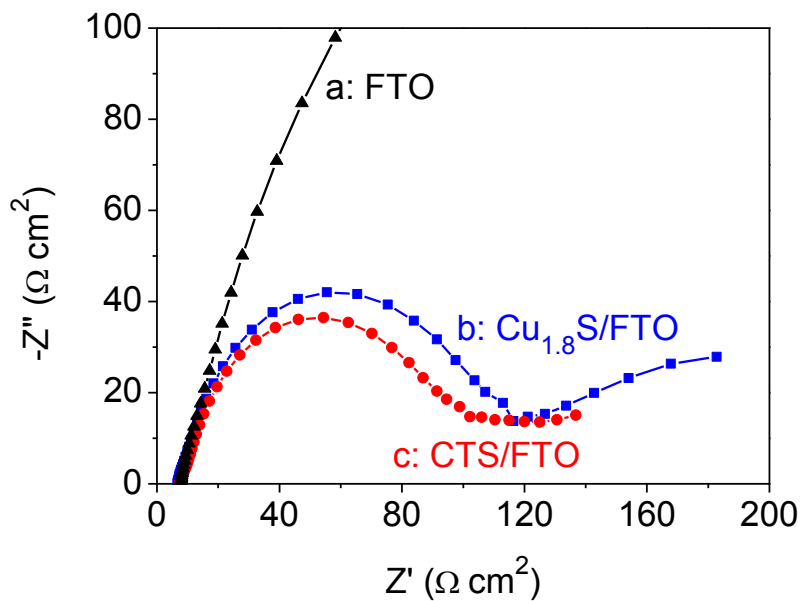


Fig. S2 Nyquist plots of real solar cells containing the same photoanode of ZnO/ZnSe/CdSe nanocables and various counter electrodes of (a) FTO, (b) $\text{Cu}_{1.8}\text{S}/\text{FTO}$, and (c) CTS/FTO . The result reveals that R_{ct} value of the CTS/FTO -based solar cell is much smaller than that of the $\text{Cu}_{1.8}\text{S}/\text{FTO}$ -based solar cell.