Enhanced quantum dot deposition on ZnO nanorods for photovoltaics through layer-by-layer processing – Supplementary Information

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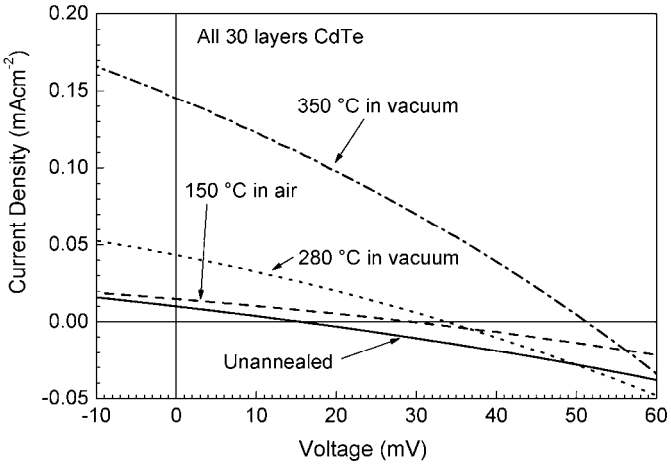

Fig. S1 Current density (J) – voltage (V) characteristics of ZnO nanorod-30 layer CdTe/PDDA-CuSCN solar cells under 1 sun AM 1.5 illumination unannealed and annealed at 150-350 °C. V_{oc} for all cells is limited compared to cells reported in the main paper due to a large number of cracks in the CuSCN film that led to a large number of short-circuits. Cells reported in the main paper contain improved CuSCN films.

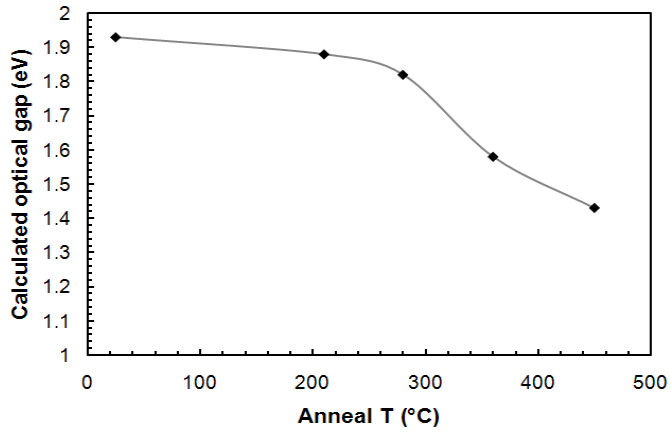

Fig. S2 Calculated optical gap of 20 layer CdTe/PDDA LbL films deposited onto glass and annealed in vacuum at the indicated temperature. Optical gap calculated from optical absorption measurements. Optical gap drops when annealing above 200 °C, and is approximately equal to the bulk band gap after annealing at 450 °C indicating quantum confinement was lost when annealing at this temperature.