

Supporting Information

Fig. 1S $J-V$ curves of CdTe NCs BNH devices with different hybrid layer thicknesses

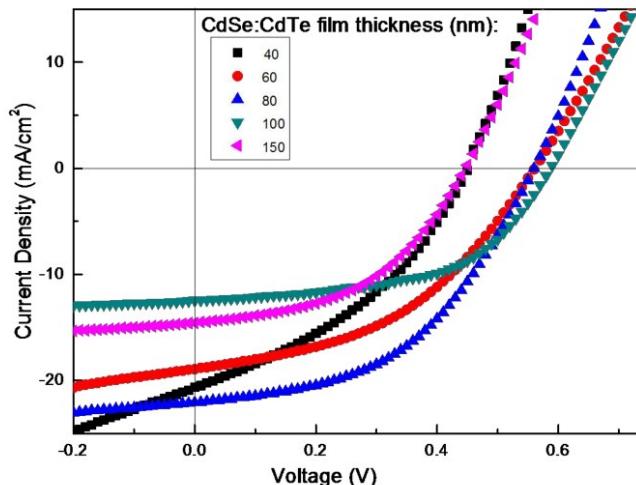


Table 1S Summarized performances of ITO/ZnO/CdSe/CdSe:CdTe/CdTe/Au devices with different hybrid layer thicknesses

Thickness (nm)	V_{oc} (V)	J_{sc} (mA/cm ²)	FF(%)	PCE (%)
40	0.45	20.66	37.86	3.52
60	0.56	18.94	43.94	4.66
80	0.56	22.08	47.39	5.86
100	0.59	12.40	54.95	4.00
150	0.45	11.75	41.61	2.46

Fig. 2S Powder XRD patterns of CdTe, 40%CdSe-60%CdTe, 50%CdSe-50%CdTe and

CdTe NCs (others can be indexed as the peaks of InSnO_x and SiO₂ as thin film was prepared on the glass/ITO substrate)

