Supplementary Information

Enhanced IR-driven photoelectrochemical responses of CdSe/ZnO heterostructures by up-conversion UV/visible light irradiation

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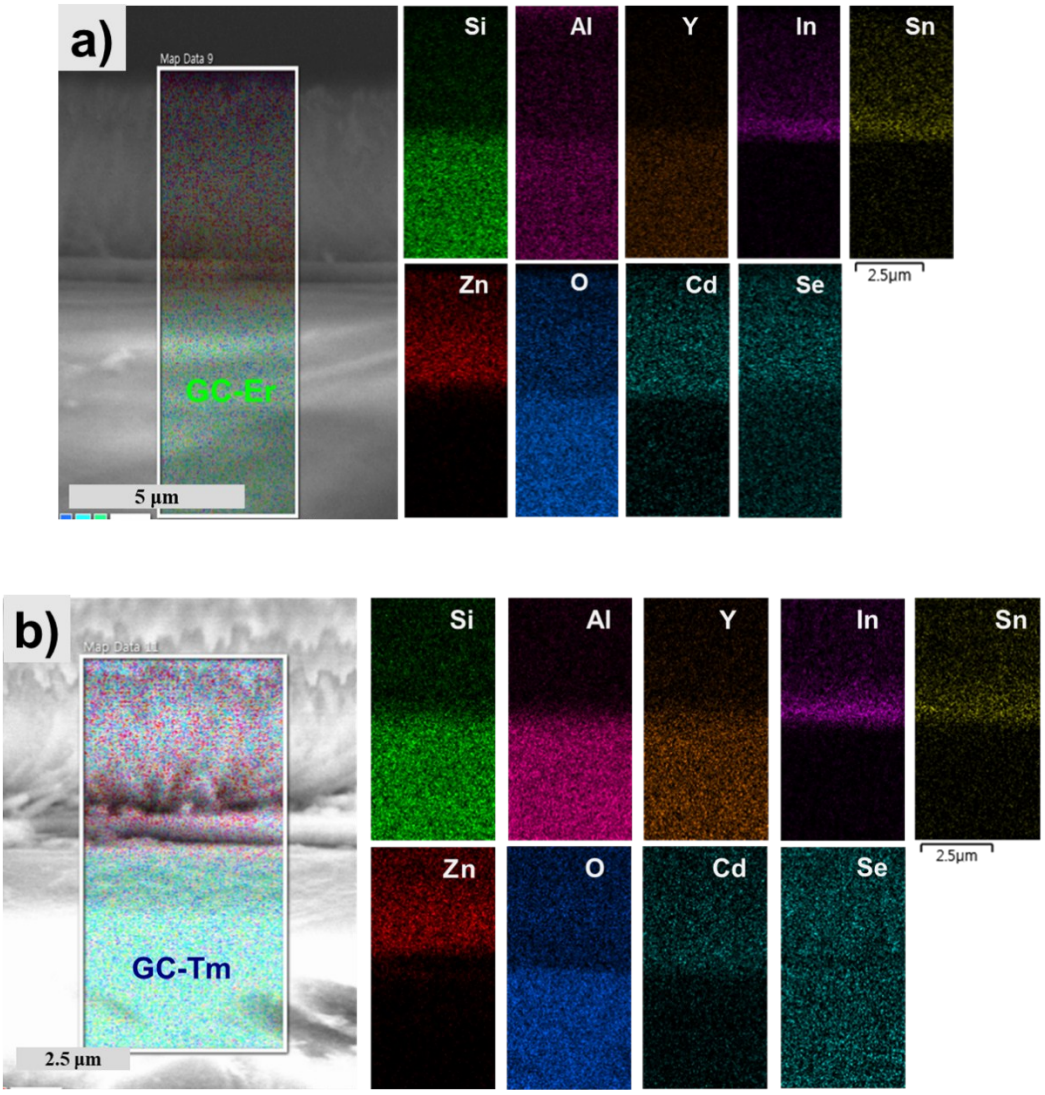

Fig. S1. HR-SEM elemental EDS mapping of CdSe QD/ ZnO NR grown on (a) the Er substrate and (b) the Tm substrate. The elements for EDS analysis are Si, Al, Y, In, Sn, Zn, O, Cd and Se.

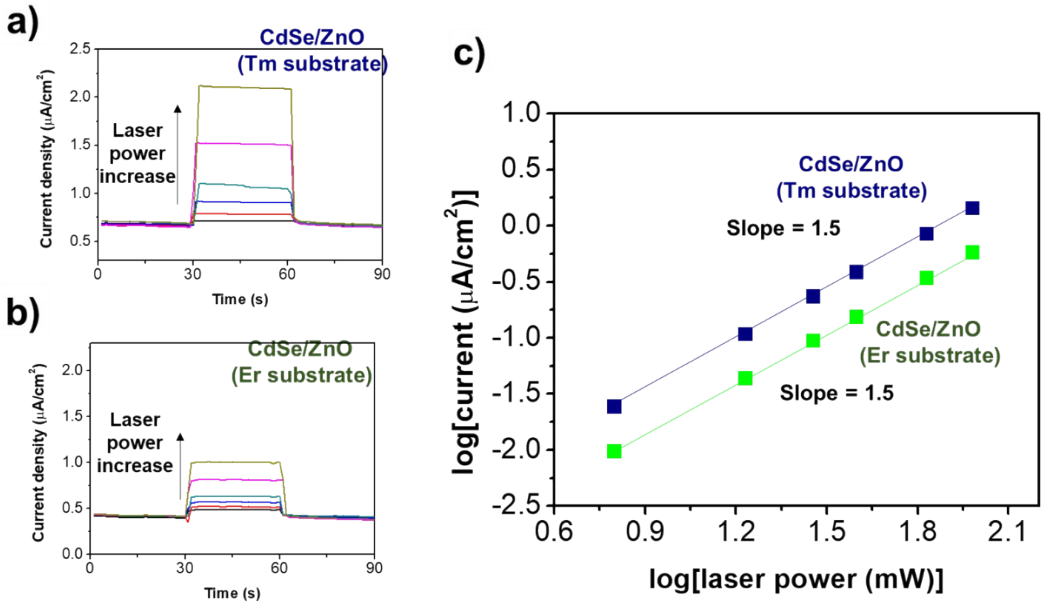

Fig. S2. Current densities under 980 nm illumination of (a) CdSe/ZnO-Tm and (b) CdSe/ZnO-Er with the change of excitation laser power (6.3, 17.1, 28.6, 40, 68 and 100 mW/cm^2). (c) Log-log plots of current density versus excitation laser power for CdSe/ZnO-Tm and CdSe/ZnO-Er.