

Supplementary Information:

Ultrafast Charge Carrier Relaxation and Charge Transfer Processes in CdS/CdTe Thin Films

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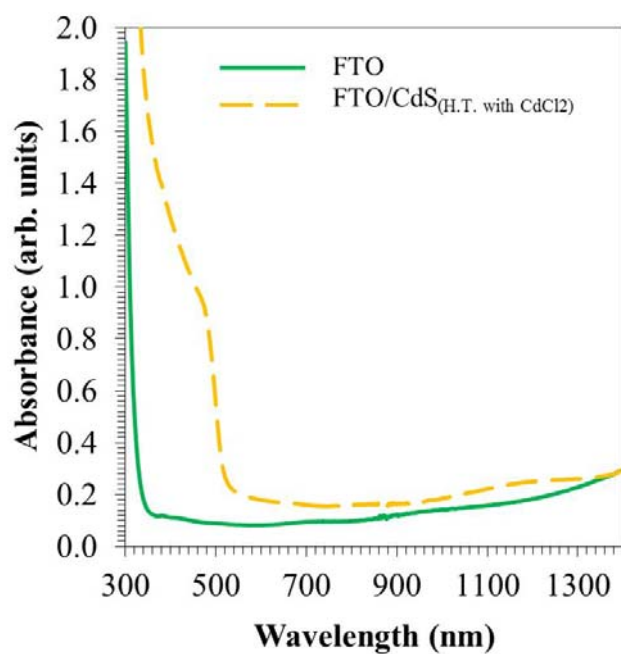


Figure S.1: UV/visible/near-IR absorption spectra of the substrate (FTO) and CdS thin films.

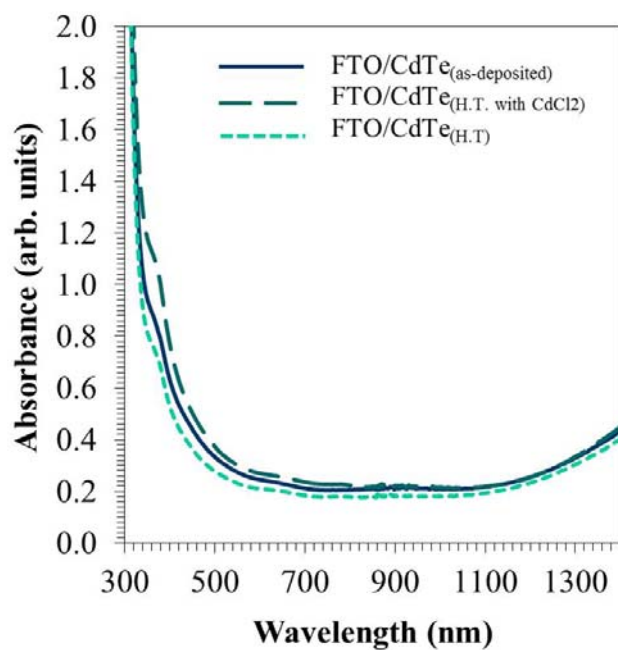


Figure S.2: UV/visible/near-IR absorption spectra of CdTe thin films.

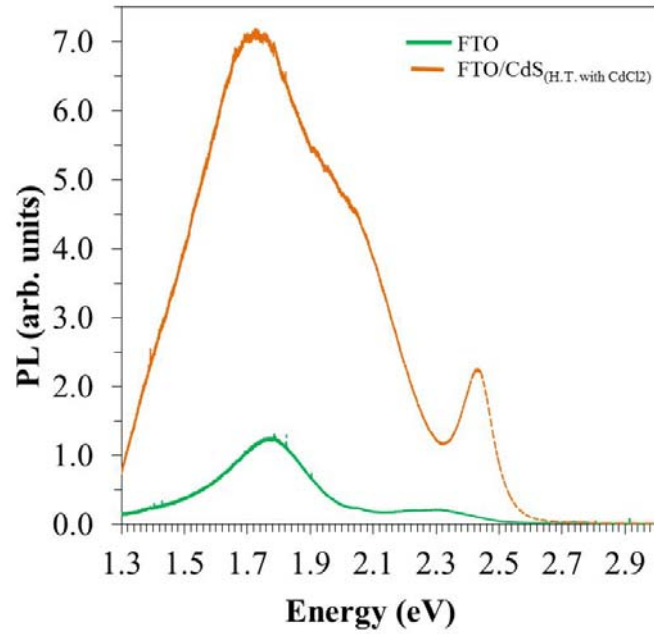


Figure S.3: Photoluminescence spectra of the substrate (FTO) and CdS thin films with 442 nm (2.81 eV) excitation.

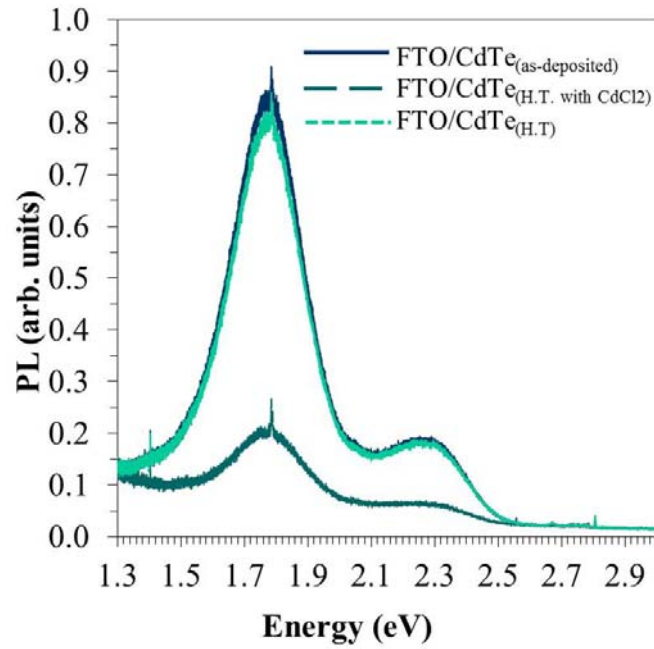


Figure S.4: Photoluminescence spectra of CdTe thin films with 442 nm (2.81 eV) excitation.

Table S.1: Time constants (τ_1 and τ_2) and weights (A_1 and A_2) derived in fitting the PB recovery kinetics of the CdS thin film (Fig. 4b).

λ_{probe} (nm)	τ_1 (ps)	A_1 (%)	τ_2 (ps)	A_2 (%)
455	1.15 ± 0.07	21	384 ± 9	79
475	0.90 ± 0.12	23	414 ± 8	77
530	0.68 ± 0.09	58	413 ± 10	42