

Electronic supplementary information for

# Heterodimers formed through a partial anionic exchange process: scanning tunneling spectroscopy to monitor bands across the junction vis-à-vis photoinduced charge separation

Abhijit Bera, Sudip K. Saha and Amlan J. Pal\*

Department of Solid State Physics, Indian Association for the Cultivation of Science, Jadavpur, Kolkata 700032, India

Author email address: sspajp@iacs.res.in

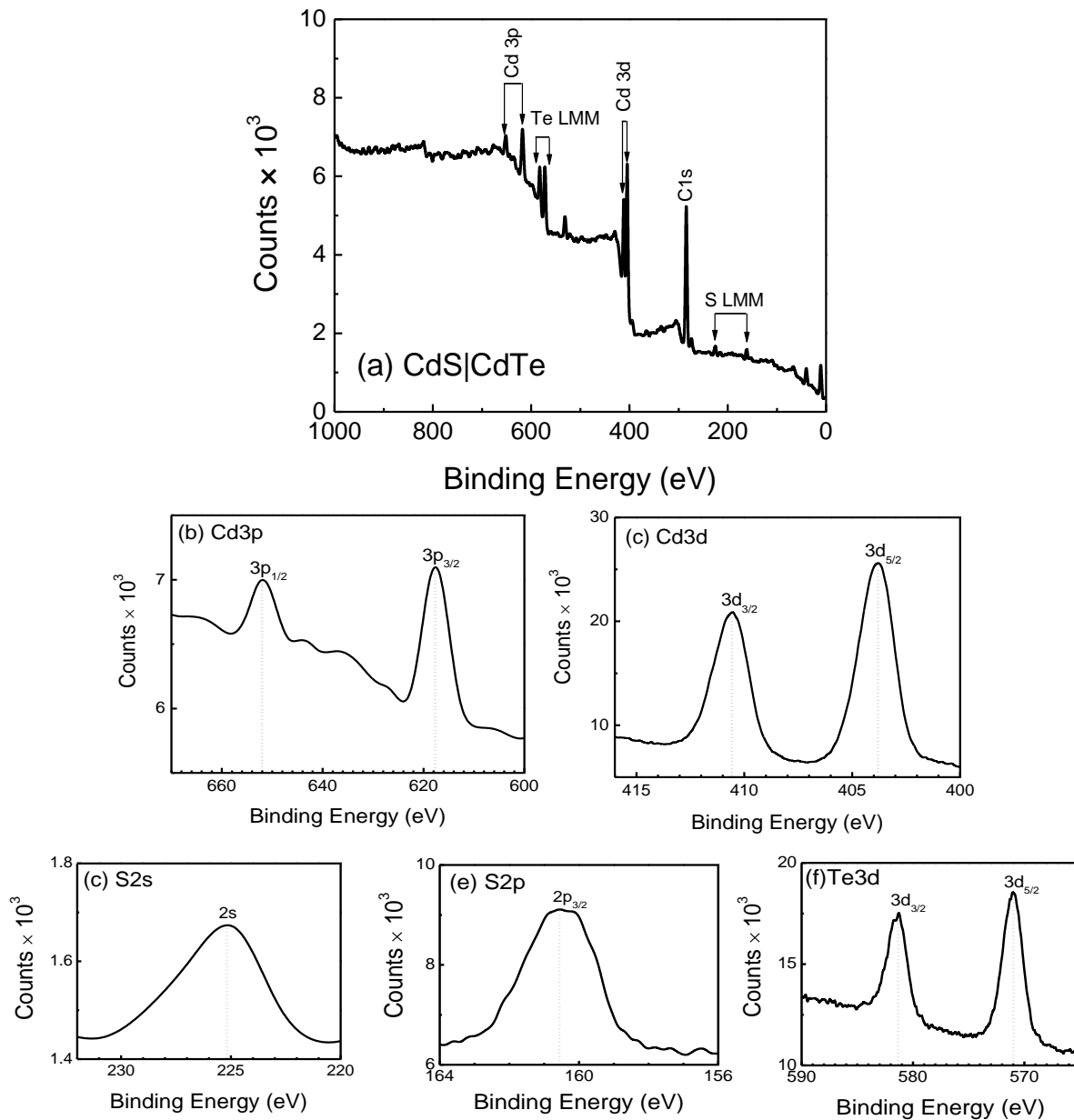
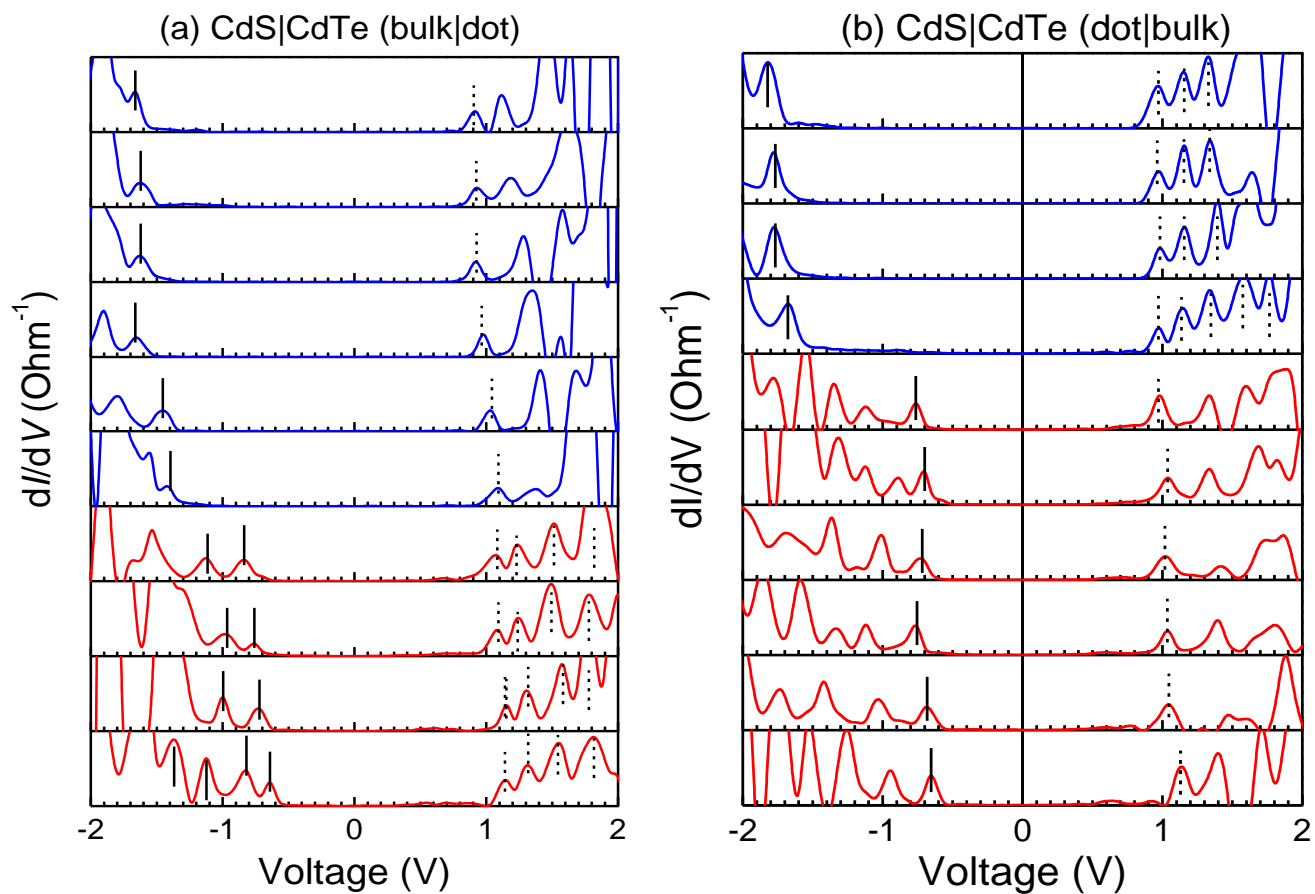


Fig. S1 XPS spectra of CdTe|CdS heterodimers, which was formed through anionic exchange reaction of CdS nanostructures for 60 min.



**Fig. S2** DOS spectra of CdS|CdTe heterodimer in (a) bulk|dot and (b) dot|bulk forms as measured at different points on each heterodimer. The broken and continuous lines indicate the location of conduction and valence band-edges in the positive and negative voltage, respectively. In the dot section of bulk|dot and dot|bulk heterodimers, quantum-confined states of the dot phase have been marked by multiple vertical lines.