

Supporting information for the manuscript

Efficiency enhancement in stoichiometrically stable CdS/TiO₂ Nanotube heterostructure electrode for sunlight driven hydrogen generation

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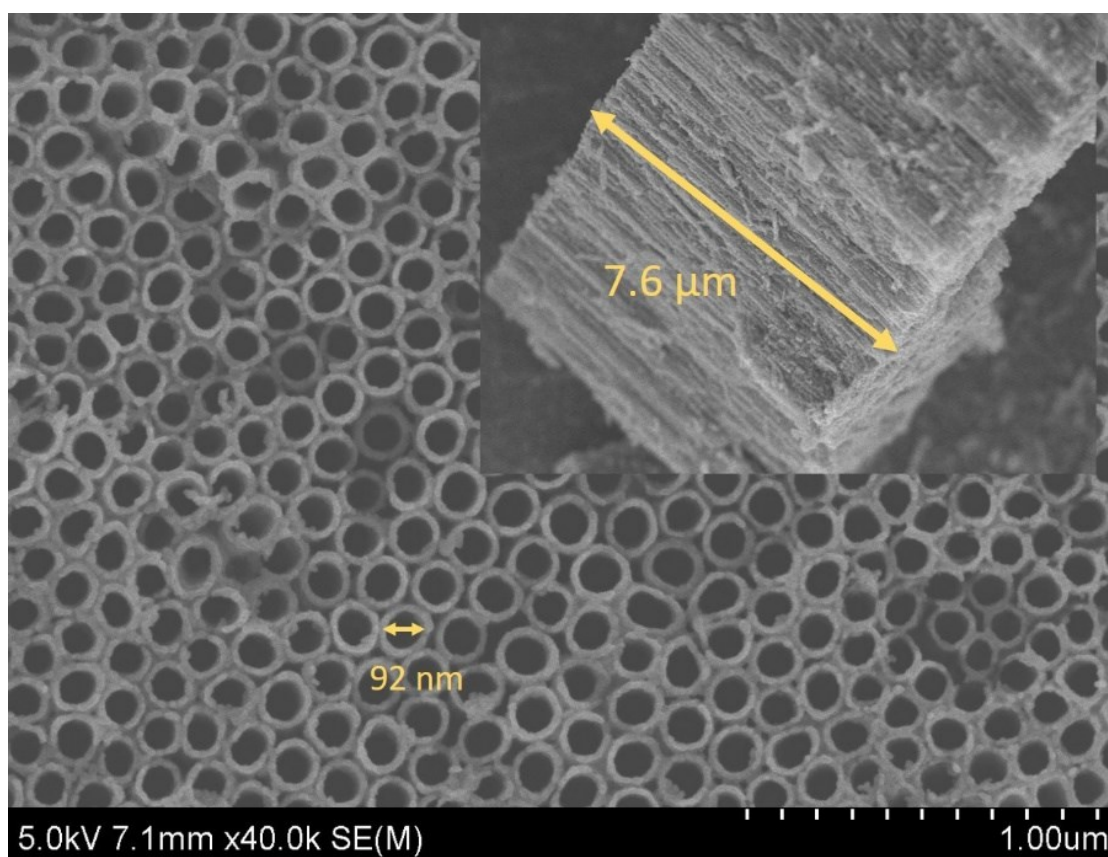


Fig. S1: FESEM images of annealed TNT arrays. Inset images is the cross-sectional view of the TNT, whose length is 7.1 μm and diameter is 92 nm

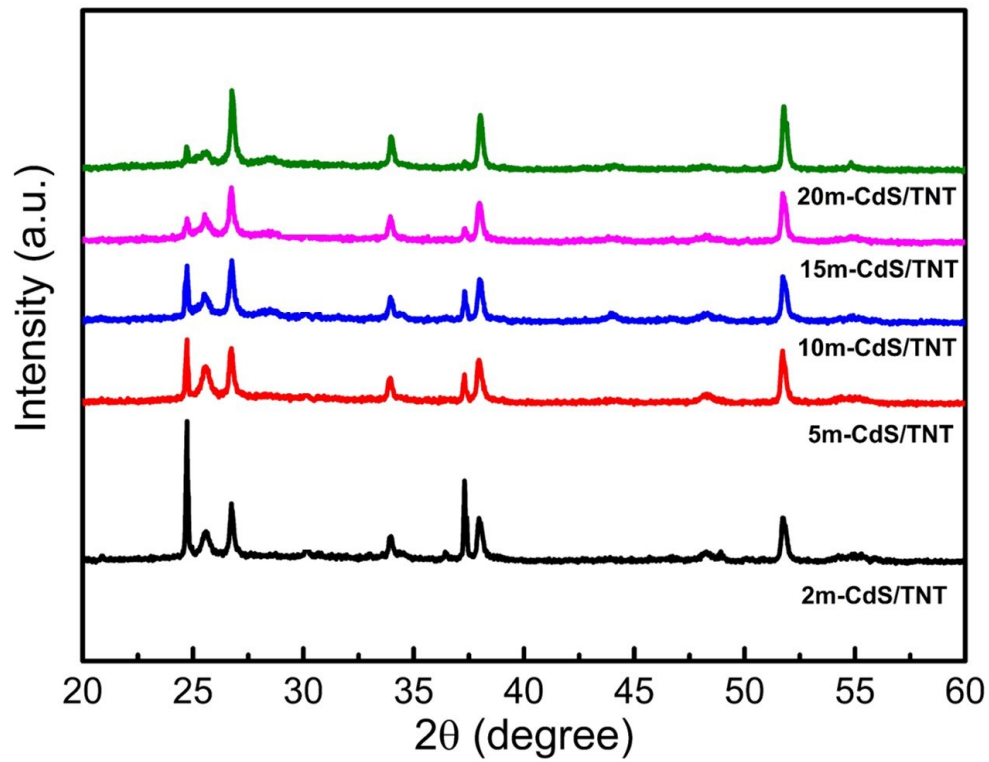


Fig. S2. XRD pattern of CdS deposited over TNT by varying the deposition time as 100 seconds, 5 minutes, 10 minutes, 15 minutes and 20 minutes.

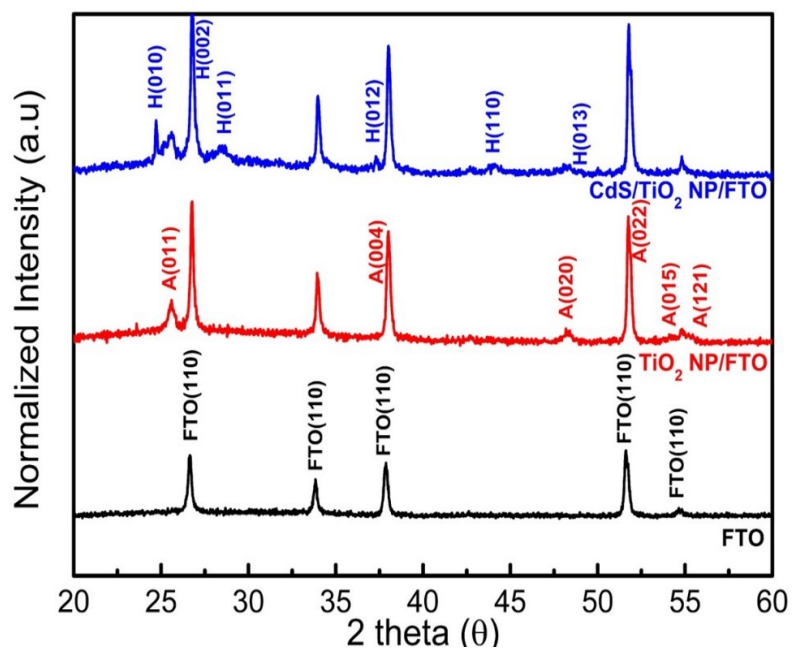


Fig. S3. XRD pattern of CdS/TNP prepared by electro deposition technique. The crystal structure of wurtzite hexagonal crystal structure CdS (ICDS:154188) can be identified. The major plane (002) of CdS situated at 26.85 ° overlap with FTO peak.

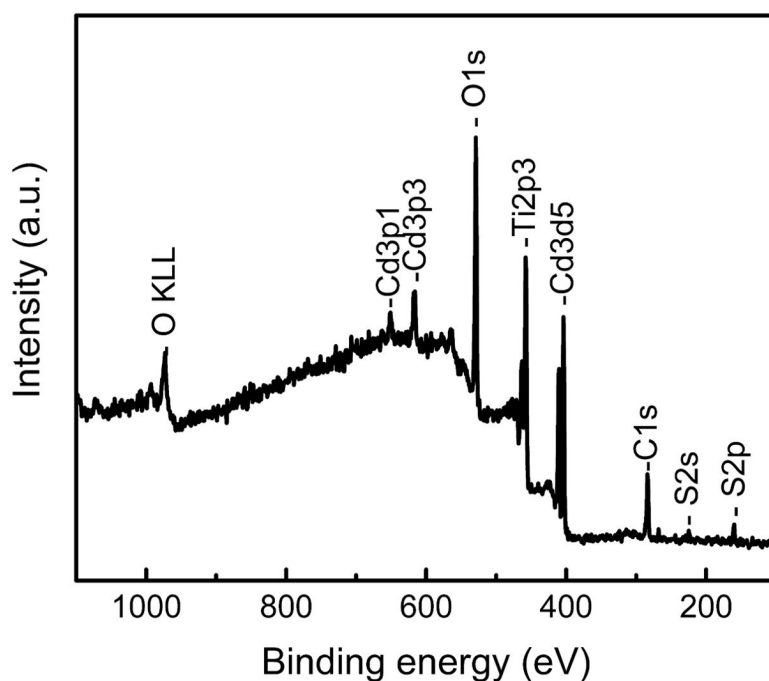


Fig. S4. XPS survey spectra of CdS/TNT nanocomposite

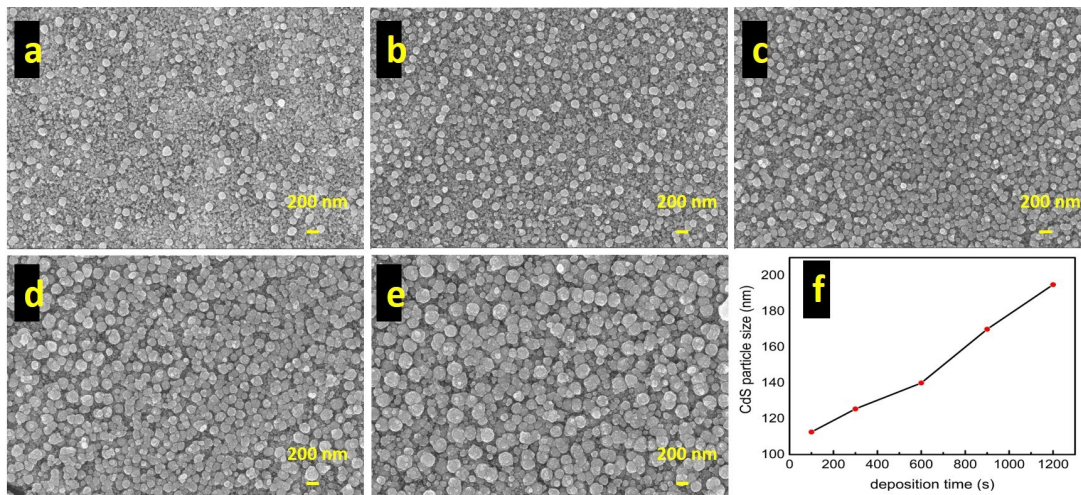


Fig. S4. FESEM images of the CdS/TNP nanocomposites. (a) 100 sec, (b) 5min, (c) 10 min, (d) 15 min, (e) 20 min. (f) CdS particle size vs deposition time.