Electronic Supplementary Material (ESI) for RSC Advances.

Supporting information

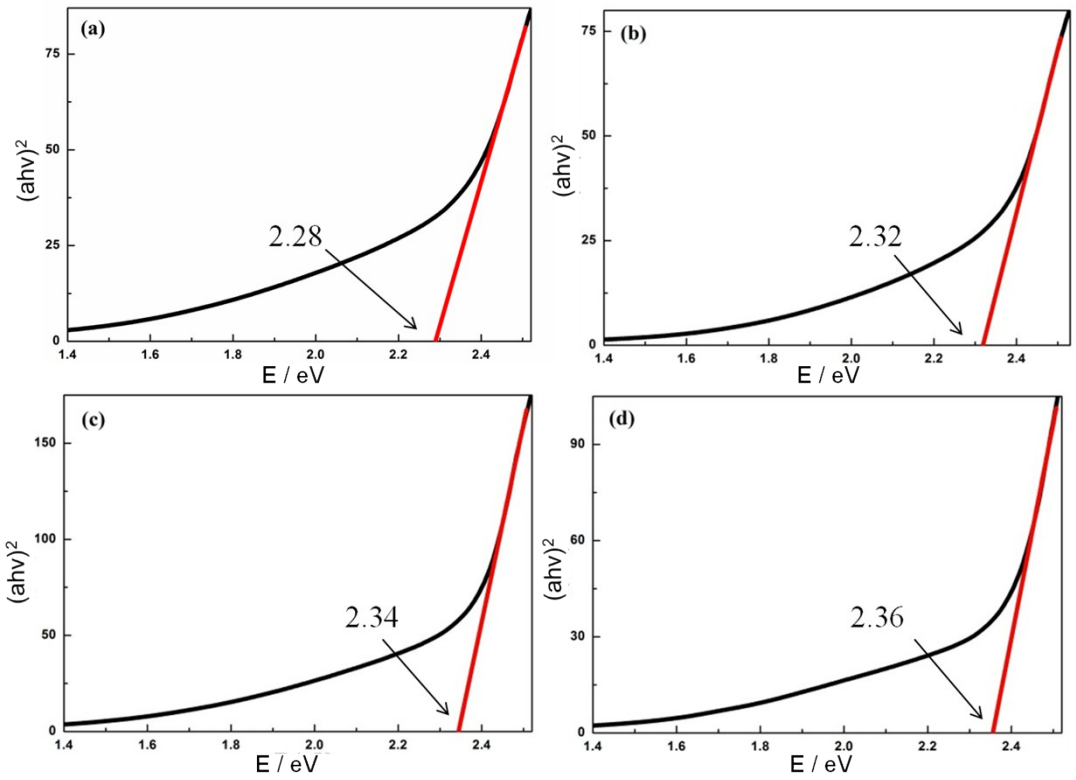

Fig. S1 The band gap of the CdS@MoS_2 nanorod prepared with different hydrothermal time. (a) 2h, (b) 3h, (c) 4h and (d) 5h

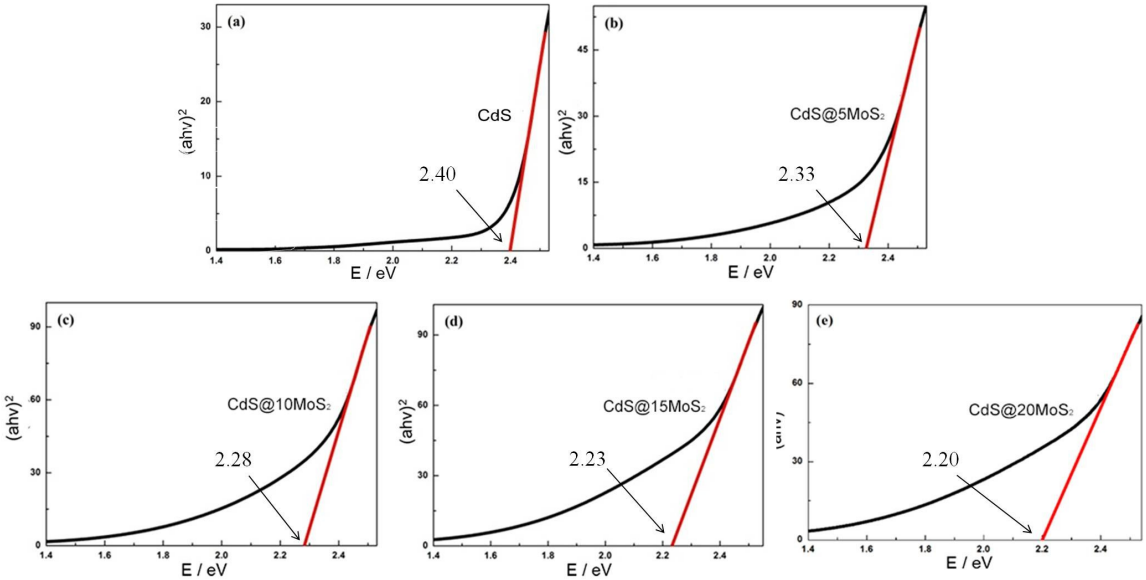

Fig. S2 The band gap of the CdS@MoS_2 nanorod prepared with different deposition time of MoS_2. (a) 0 min, (b) 5min, (c) 10min, (d) 15min and (e) 20min.

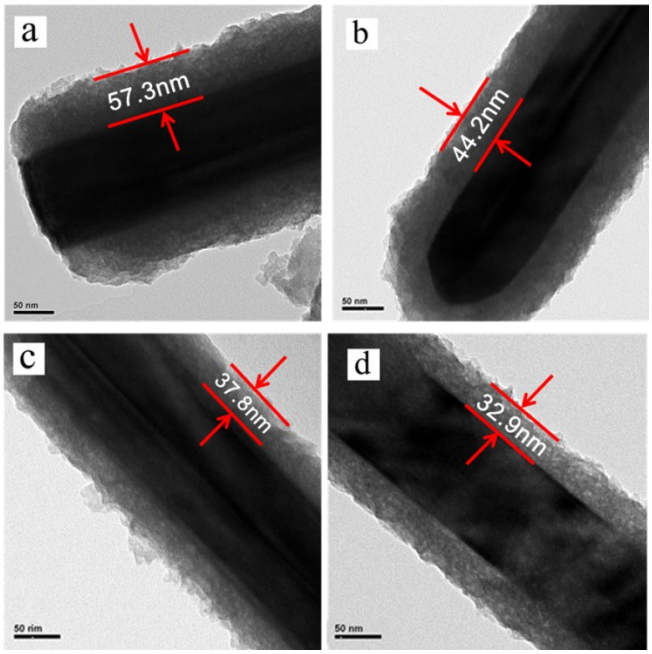

Fig.S3 d TEM images of CdS@MoS2 nanorod prepared with different hydrothermal time: （a）2h, （b）3h, （c）4h，and（d）5h. (The CdS nanorods were prepared by hydrothermal method with 7 mmol of Cd(NO3)2•4H2O ,and the electrodeposition time of MoS2 was 15min.)

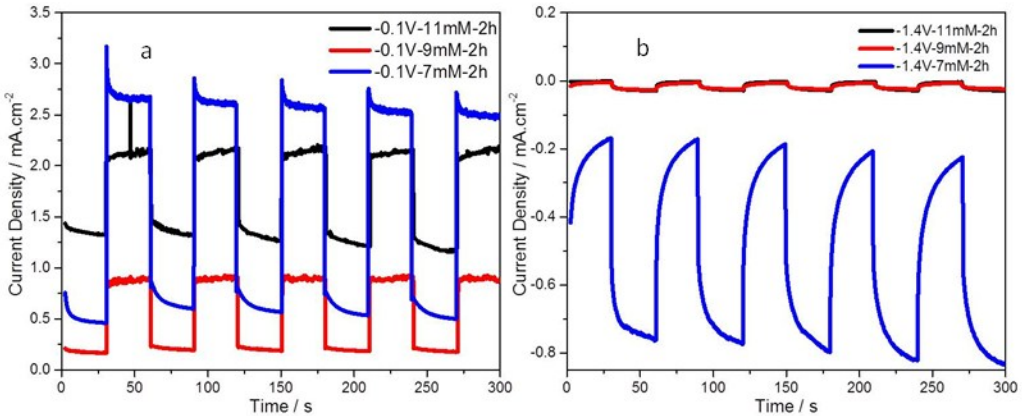

Fig.S4 On-off J–t curves of CdS@MoS2 nanorod array prepared with different precursor concentratios under bias of (a) -0.1V vs. SCE, (b) -1.4V vs. SCE in 0.50 M Na2S/Na2SO3 solution. The hydrothermal time is 2h, and the elecrodeposition time is 15 minutes.