Electronic Supplementary Material (ESI) for Dalton Transactions.

Supplementary information

Impacts of the Mn-ion in the ZnSe Passivation on Electronic Band Structure for High Efficiency CdS/CdSe Quantum Dots Solar Cells

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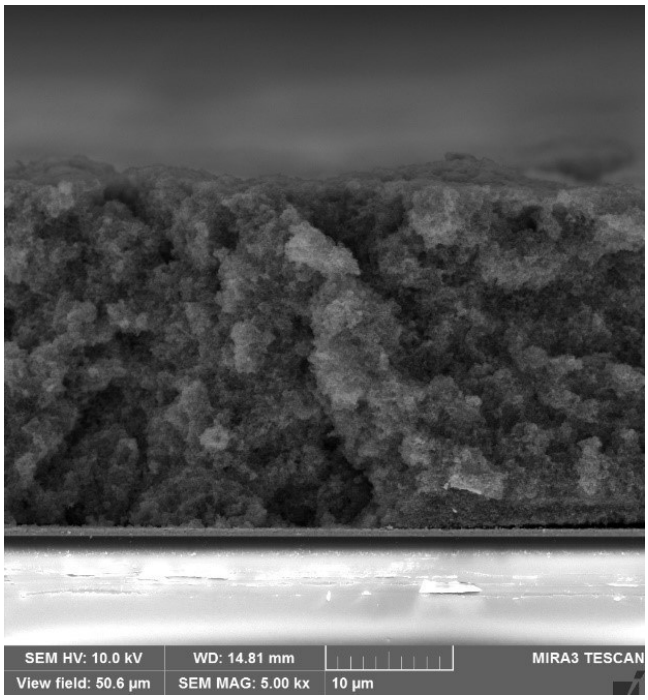


Figure S1. SEM cross-sectional image of the photoanode. It's obviously that the thickness of deposited TiO_2 film is about 25 µm.

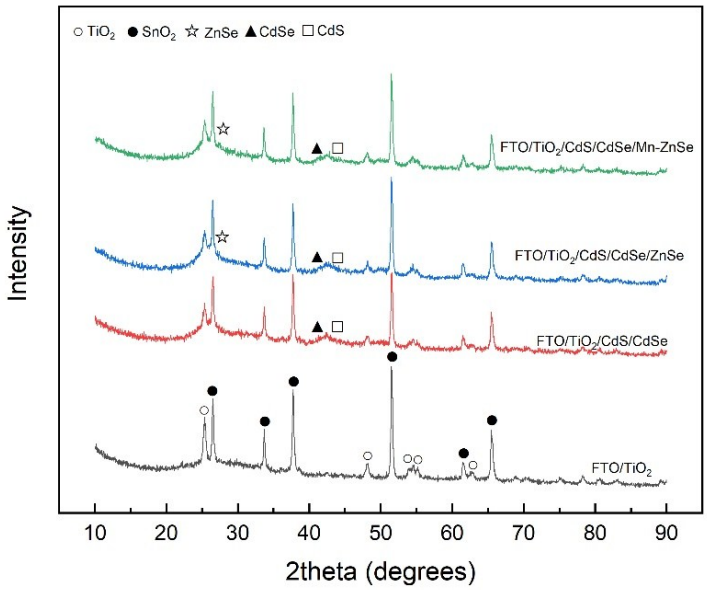
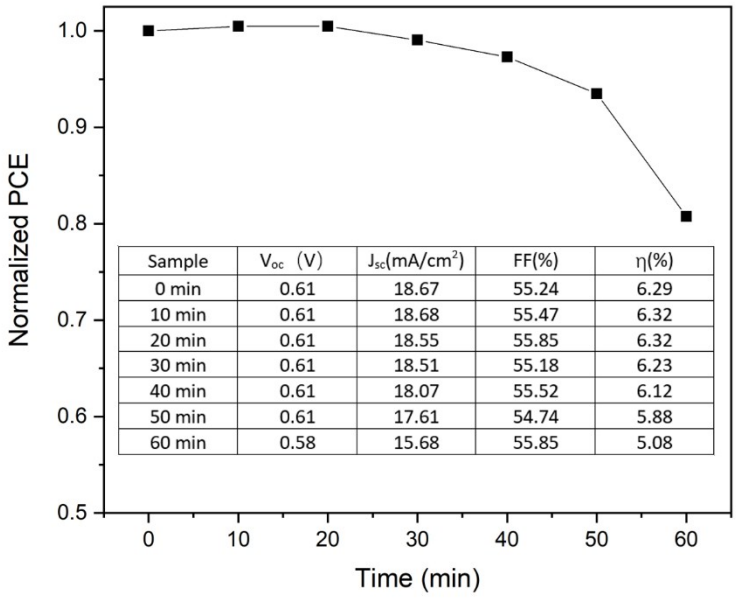


Figure S2. XRD pattern of FTO/TiO_2, FTO/TiO_2/QDs, FTO/TiO_2/QDs/ZnSe and FTO/TiO_2/QDs/Mn-ZnSe films.



Sample	V_{oc} (V)	J_{sc}(mA/cm^2)	FF(%)	η(%)
0 min	0.61	18.67	55.24	6.29
10 min	0.61	18.68	55.47	6.32
20 min	0.61	18.55	55.85	6.32
30 min	0.61	18.51	55.18	6.23
40 min	0.61	18.07	55.52	6.12
50 min	0.61	17.61	54.74	5.88
60 min	0.58	15.68	55.85	5.08

Figure S3. Stability of QDSSCs with passivation layer of Mn-ZnSe. The inset table is photovoltaic parameters corresponding to different time.