Electronic Supplementary Information

Ultrathin 1T and 2H Mixed Phase MoS_2 Decorated TiO_2 Nanorods for Photocatalytic Hydrogen Evolution†

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1. Photos of samples

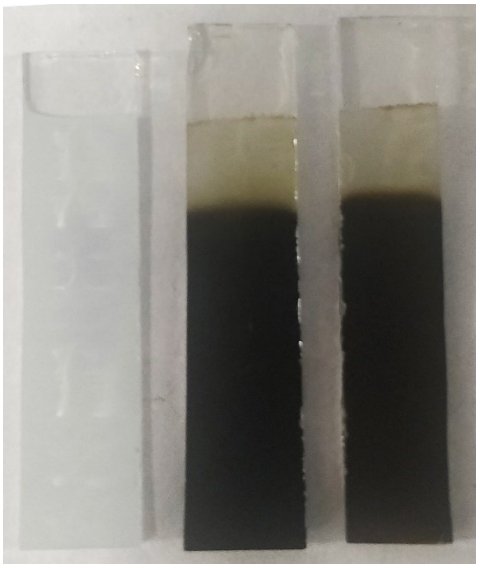

Figure S1. Photo of the prepared TiO_2, m-MoS_2@TiO_2 and s-MoS_2@TiO_2 electrodes (from left to right).

2. SEM images

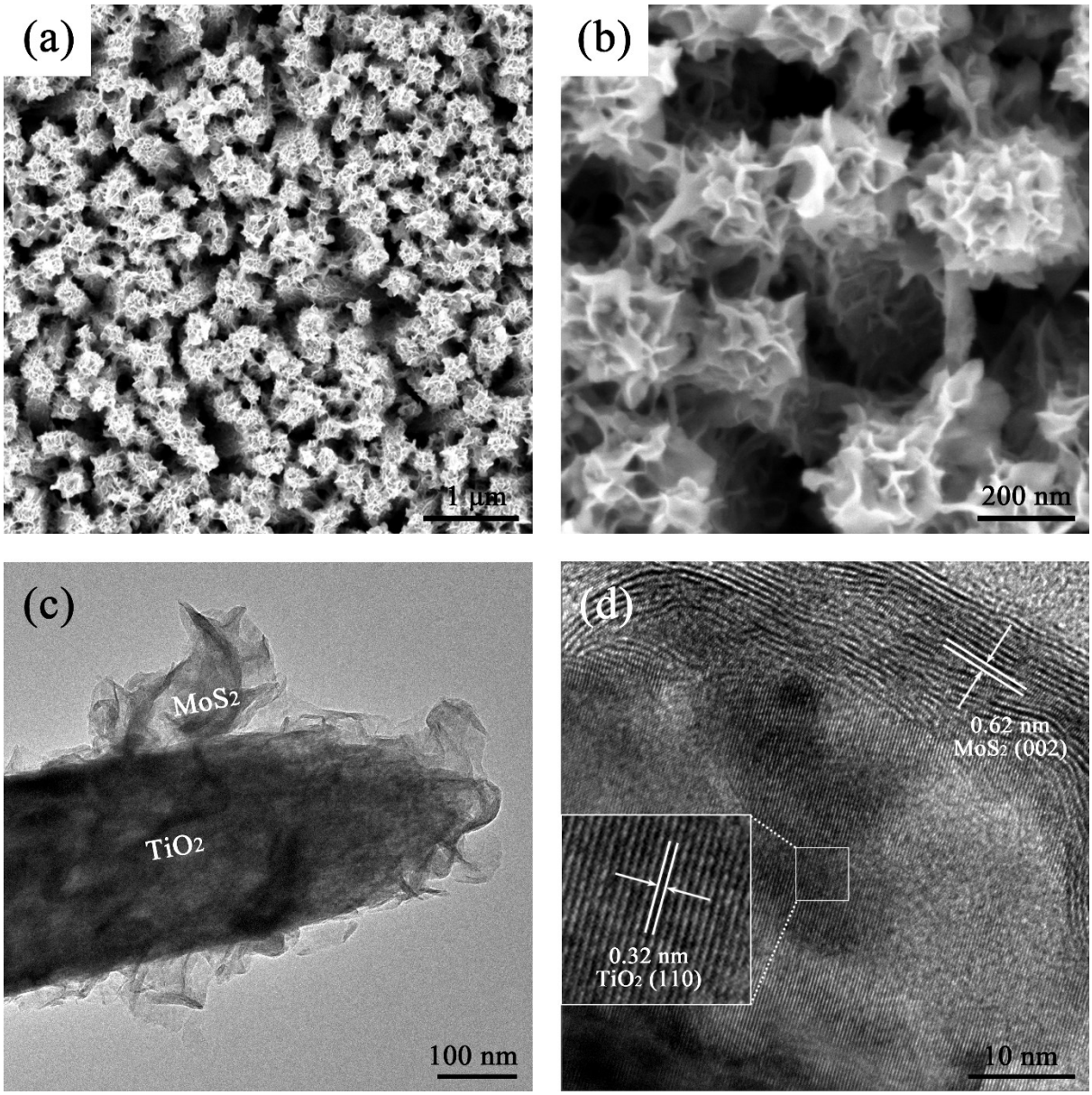

Figure S2. (a) (b) SEM, (c) TEM and (d) HRTEM images of s-MoS_2@TiO_2.

3. XPS spectra

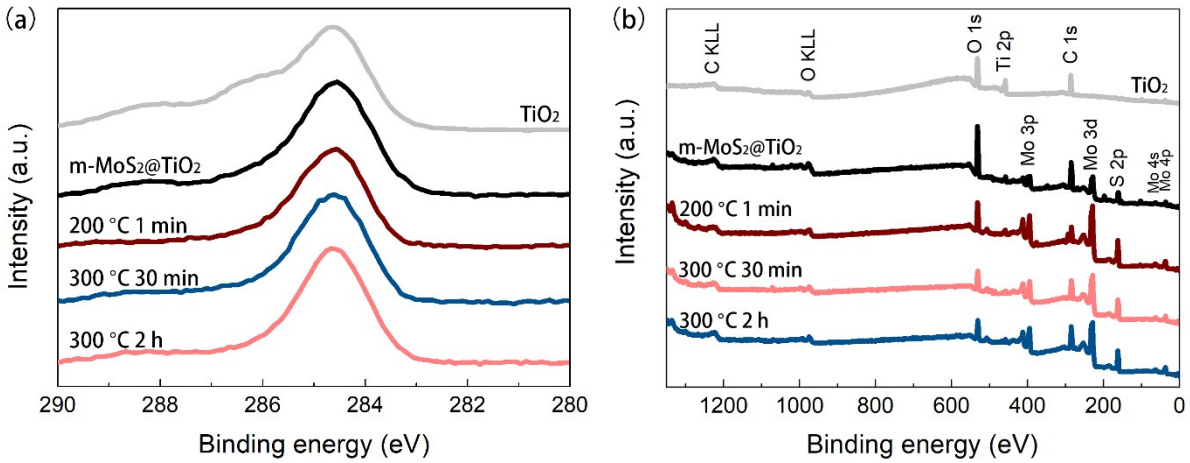

Figure S3. (a) XPS C 1s and (b) full spectra of TiO_2, m-MoS_2@TiO_2 and m-MoS_2@TiO_2 annealed at different conditions (200 °C 1 min, 300 °C 30 min and 300 °C 2h).

4. Photocatalytic chronoamperometry test

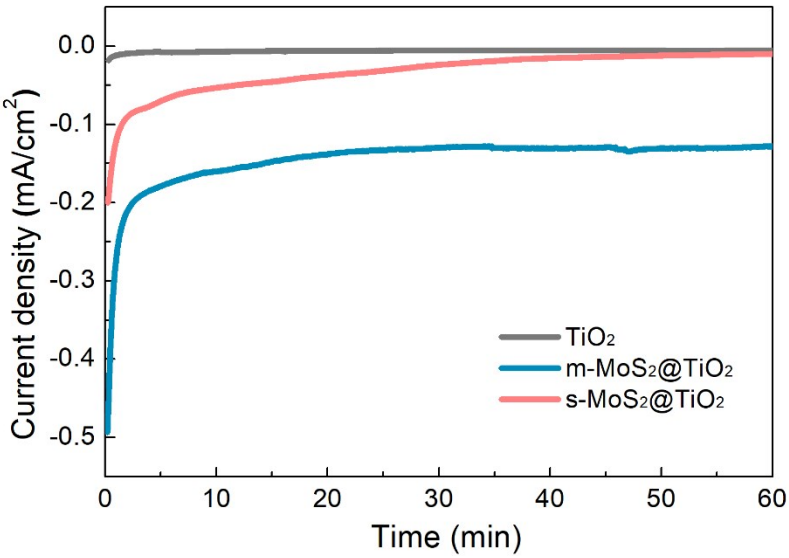

Figure S4. The photocurrent curve of TiO_2, m-MoS_2@TiO_2 and s-MoS_2@TiO_2 electrodes in 60 min.

5. Hydrogen evolution device

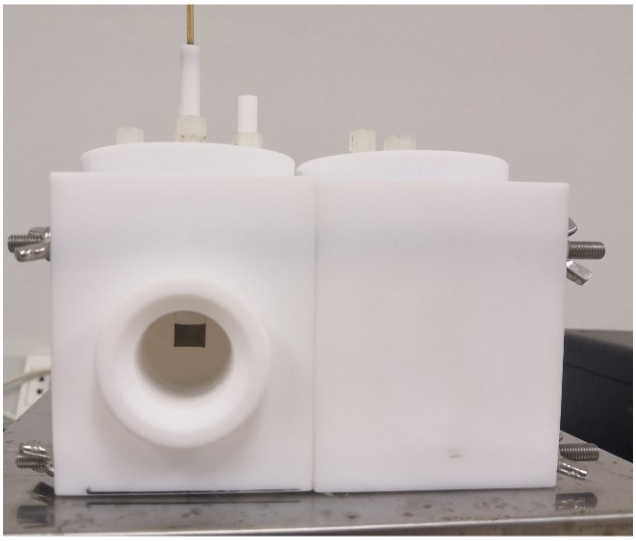

Figure S5. The Teflon electrolyzer for hydrogen evolution.