Supporting Information

Partial Ion-Exchange Derived 2D Cu-Zn-In-S Nanosheets as Sensitizers of 1D TiO_2 Nanorods for Boosting Solar Water Splitting

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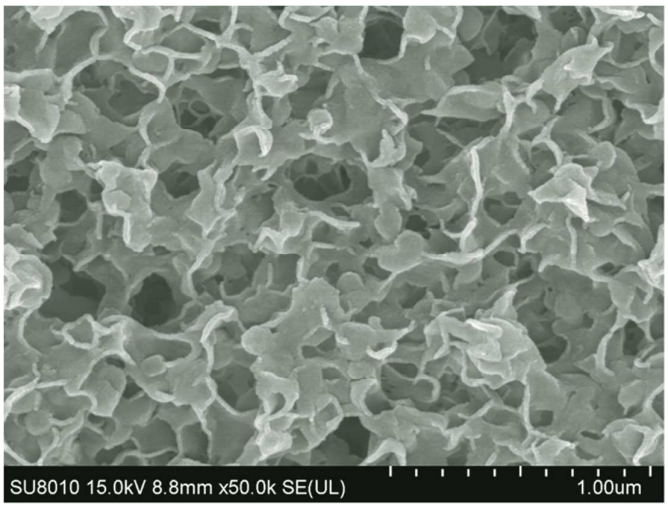

Figure S1. SEM of the top surface view of Cu(10s)/TiO_2.

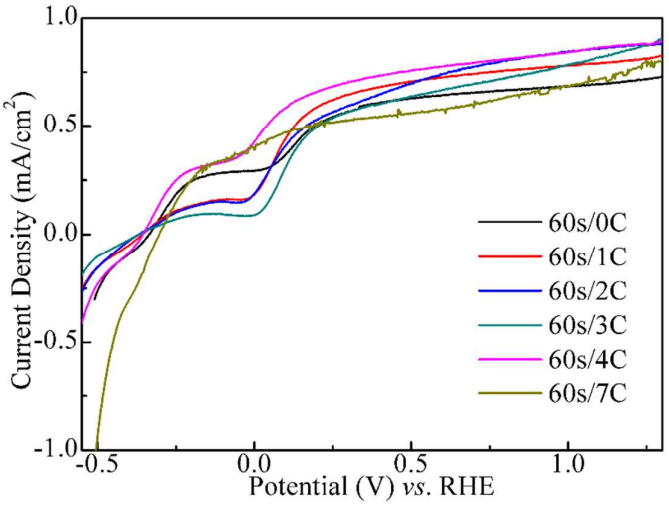

Figure S2. *J-V* curves of Cu(60s)/TiO_2 (0 C) and ZnS-coated Cu(60s)/TiO_2 with different ZnS capping cycles (1 C, 2C, 3C, 4C, 7 C) under one-sun illumination.

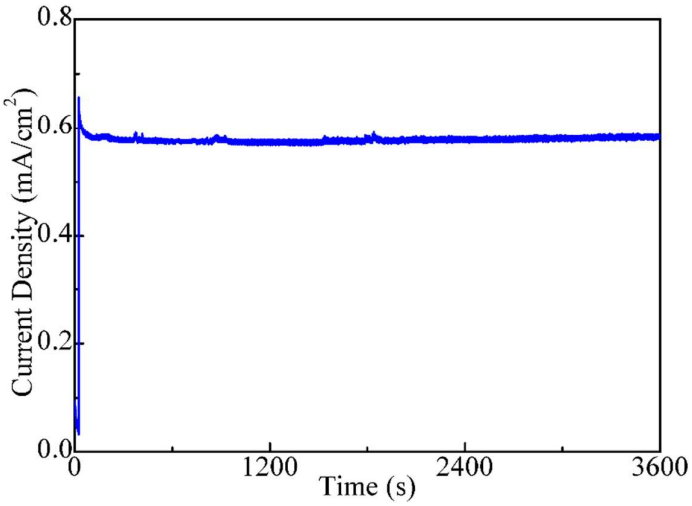

Figure S3. Photocurrent stability for the $TiO_2/ZnIn_2S_4$ electrode.

Table S1.

Samples	J (mA/cm^2) @ 0.8 V	V_{on} (V)
TiO_2	0.34	0.03
$ZnIn_2S_4/TiO_2$	0.65	-0.53
$Cu(60s)/TiO_2$	0.67	-0.34
$ZnS(4C)/Cu(60s)/TiO_2$	0.81	-0.32

Summary of parameters for the different photoanodes.

Table S2. EDS results before and after photocurrent stability measurements for the ZnS(4C)/Cu(60s)/TiO_2 sample.

60 s	Cu (%)	Zn (%)	In (%)	S (%)
Before	34.6	5.2	10.8	49.4
After	32.9	5.7	12.6	48.9