

## Electronic Supplementary Information (ESI)

### Facile solution deposition of $\text{ZnIn}_2\text{S}_4$ nanosheet films on FTO substrates for photoelectric application

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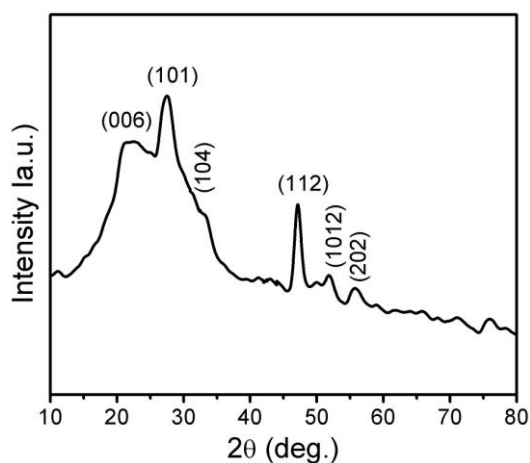


Fig. S1 XRD pattern of the  $\text{ZnIn}_2\text{S}_4$  precipitant product at the bottom of the autoclave.

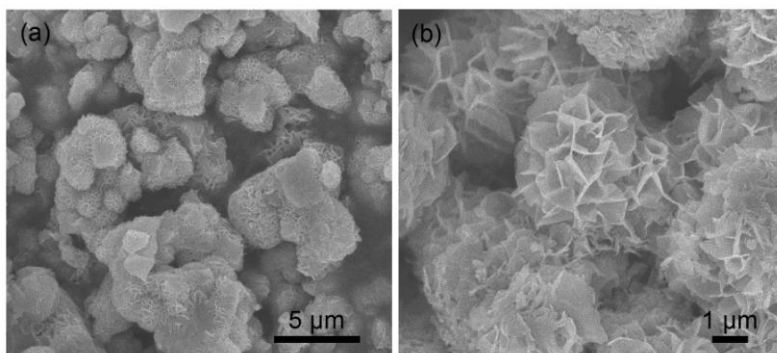


Fig. S2 SEM image (a) and the magnified part (b) of the  $\text{ZnIn}_2\text{S}_4$  precipitant product at the bottom of the autoclave.

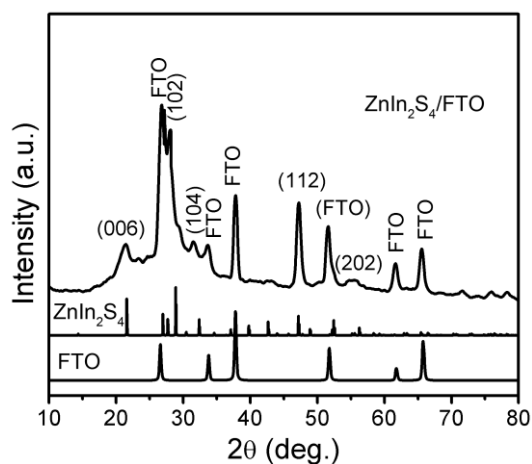


Fig. S3 XRD pattern of the ZnIn<sub>2</sub>S<sub>4</sub> film on the FTO substrate after heat treatment at 400 °C for 30 min in an Ar atmosphere.

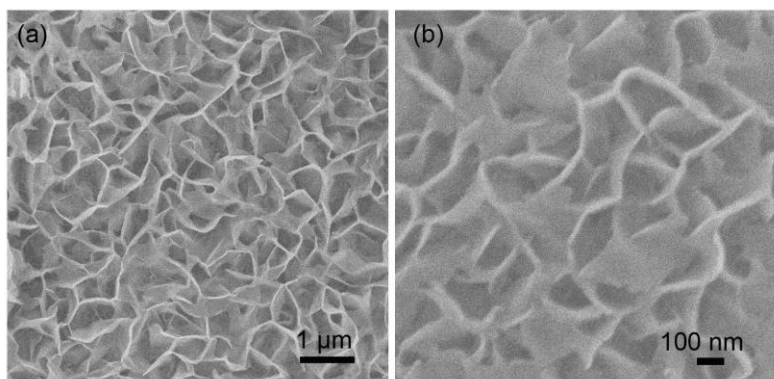


Fig. S4 SEM image (a) and the magnified part (b) of the ZnIn<sub>2</sub>S<sub>4</sub> film on the FTO substrate after heat treatment at 400 °C for 30 min in an Ar atmosphere.

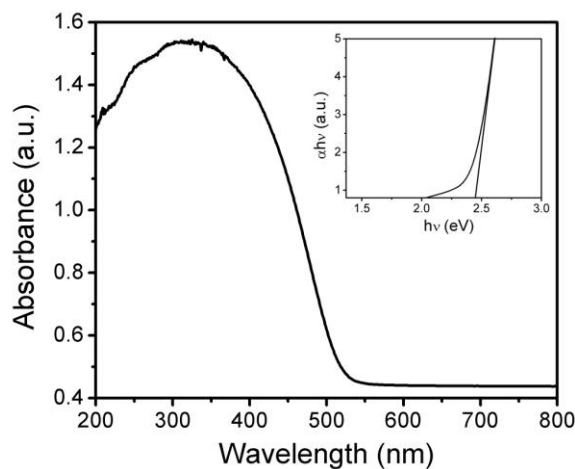


Fig. S5 UV-vis spectra of the ZnIn<sub>2</sub>S<sub>4</sub> film on FTO substrates after heat treatment at 400 °C for 30 min in an Ar atmosphere. The inset is the corresponding  $(\alpha h\nu)^2$  vs.  $h\nu$  curve.