Supporting information

Layered crystalline $ZnIn_2S_4$ nanosheets: CVD synthesis and photo-electrochemical properties

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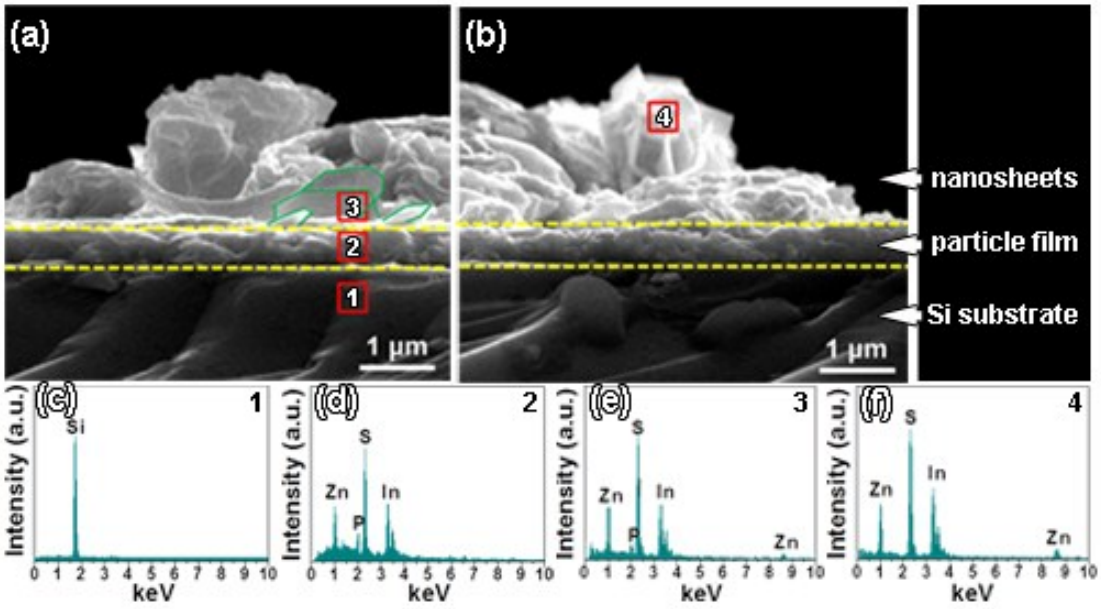


Figure S1 (a-b) Cross-section SEM images of $ZnIn_2S_4$ nanosheets grown on silicon substrate and (c-f) their corresponding EDS spectra collected from positions 1-4.

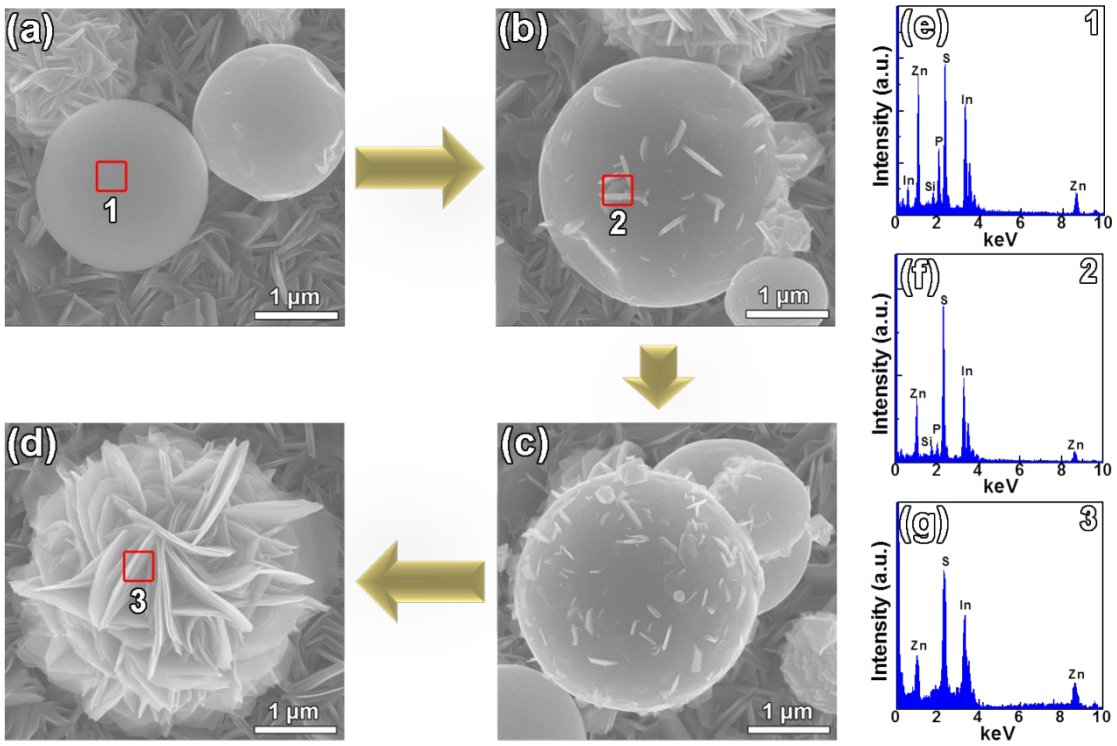


Figure S2 (a-d) SEM images of $ZnIn_2S_4$ nanosheets and microflowers at different growth stages and (e-g) their corresponding EDS spectra;

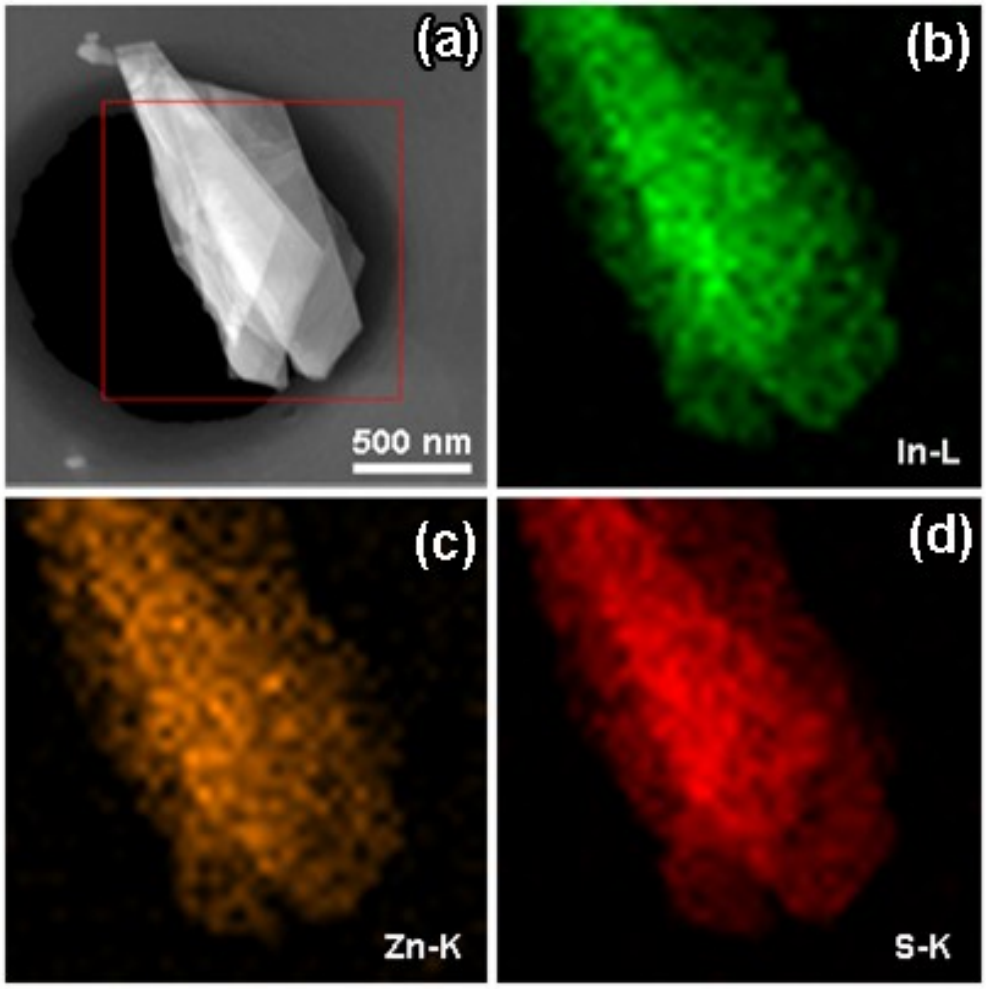
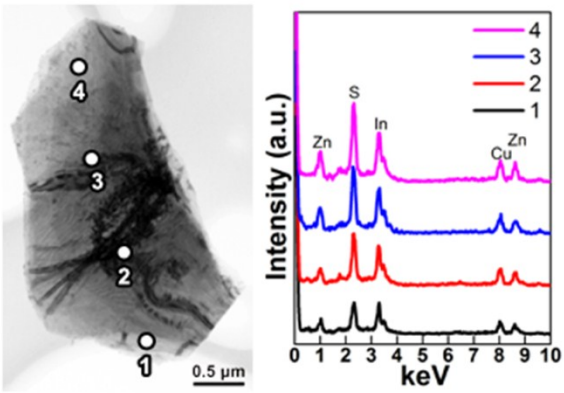


Figure S3 (a) STEM image of $ZnIn_2S_4$ nanosheets and (b-d) their spatially resolved elemental mapping of In, Zn, and S elements, respectively



Position	Zn%	In%	S%
1	11.1	41.9	47.0
2	11.9	34.5	53.6
3	9.5	32.8	57.7
4	12.0	30.1	57.9

Figure S4 TEM image, EDS spectra and quantitative results of $ZnIn_2S_4$ nanosheets

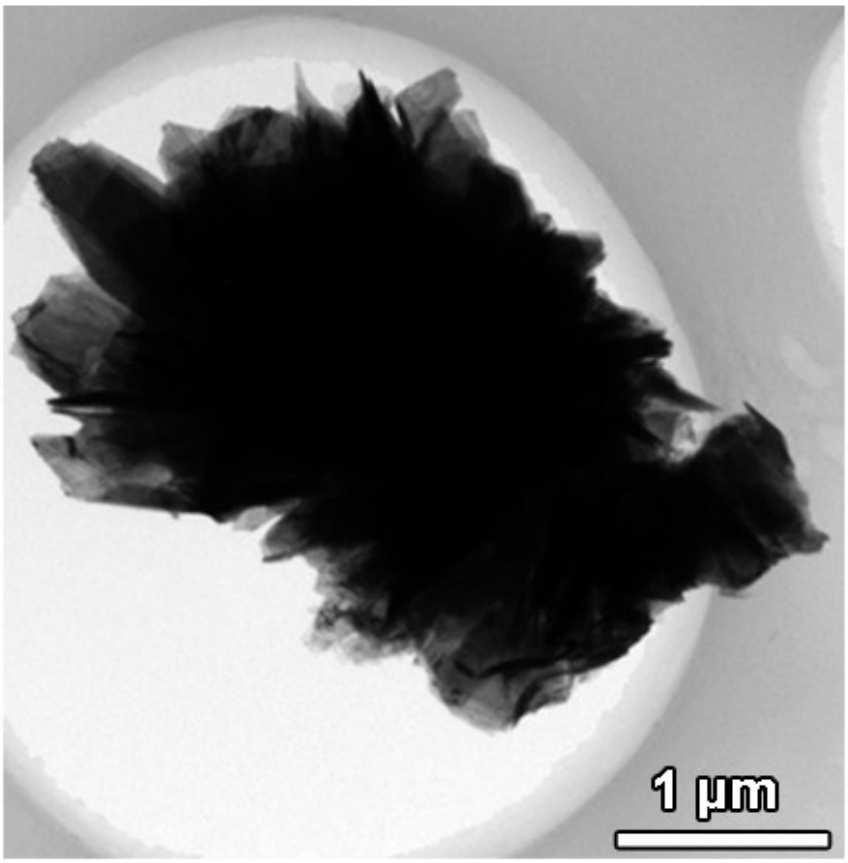


Figure S5 Typical TEM image of $ZnIn_2S_4$ microflower

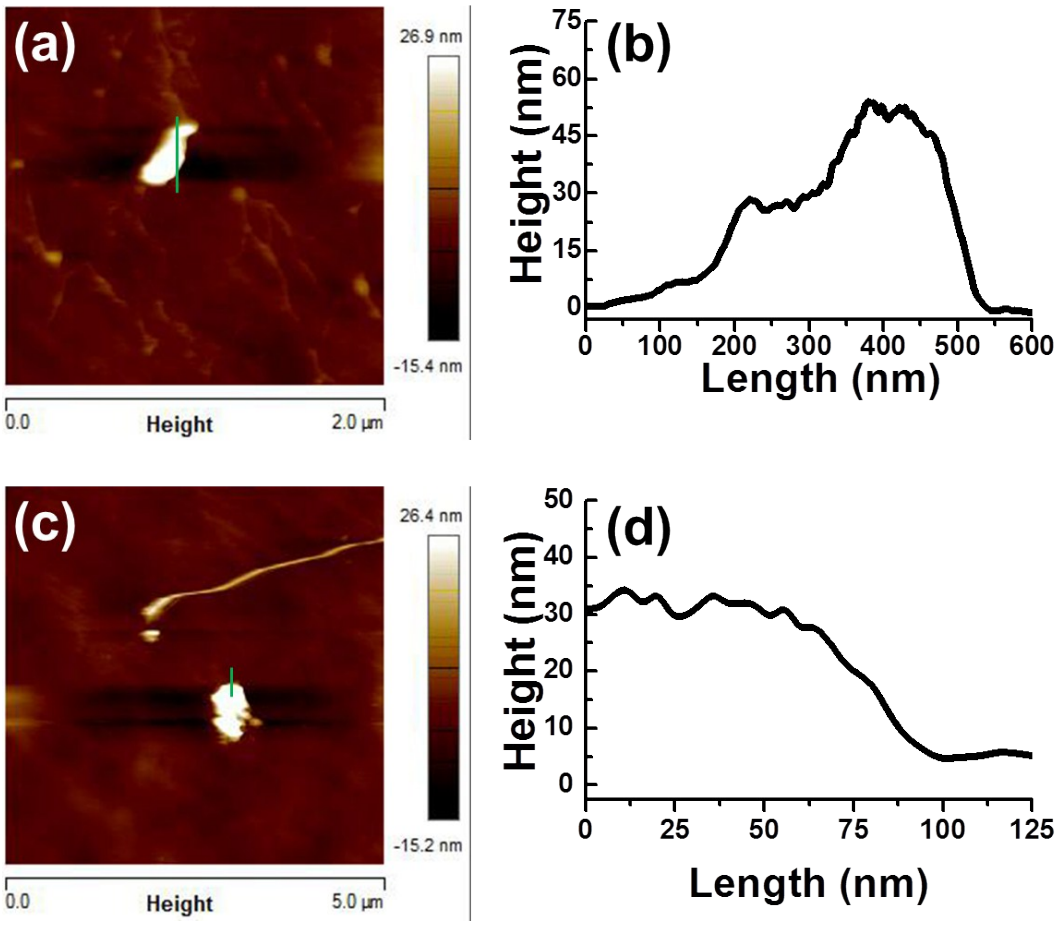


Figure S6 AFM images of $ZnIn_2S_4$ nanosheet and corresponding height results