

Supplementary Information

Novel Ag₂S quantum dots modified 3D flower-like SnS₂ composites for photocatalytic and photoelectrochemical applications

Liquan Jing,^a Yuanguo Xu,^{a*} Meng Zhang,^a Meng Xie,^a Hui Xu,^b Minqiang He,^a Jie Liu,^a Shuquan Huang,^a Huaming Li,^{a,b*}

^a School of Chemistry and Chemical Engineering, Jiangsu University, Zhenjiang 212013, PR China.

^b Institute for Energy Research, Jiangsu University, Zhenjiang 212013, PR China.

*Corresponding author: Tel.: +86-511-88791108; Fax: +86-511-88791108;

E-mail: xuyg@ujs.edu.cn; lhm@ujs.edu.cn

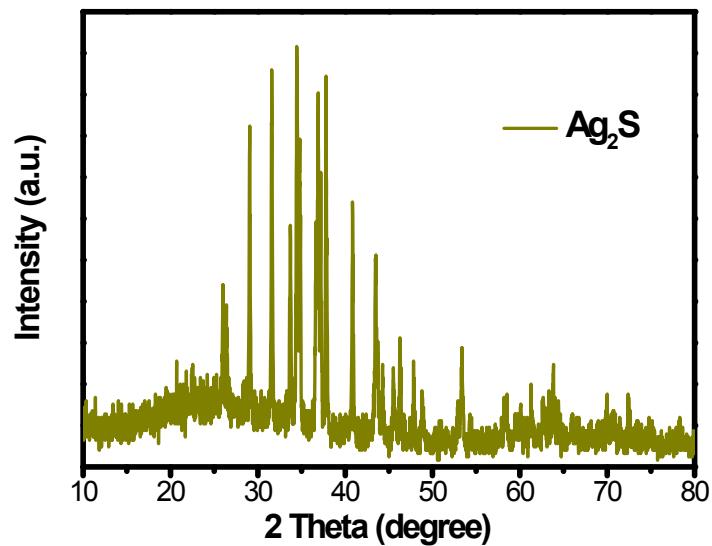


Fig.S1 XRD pattern of pure Ag_2S .

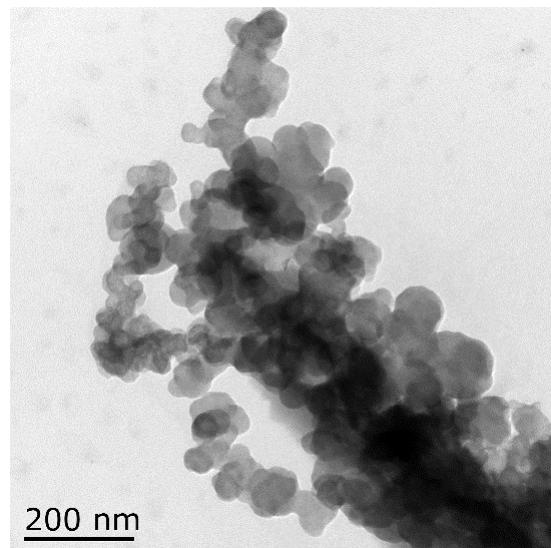


Fig.S2 TEM image of pure Ag_2S .

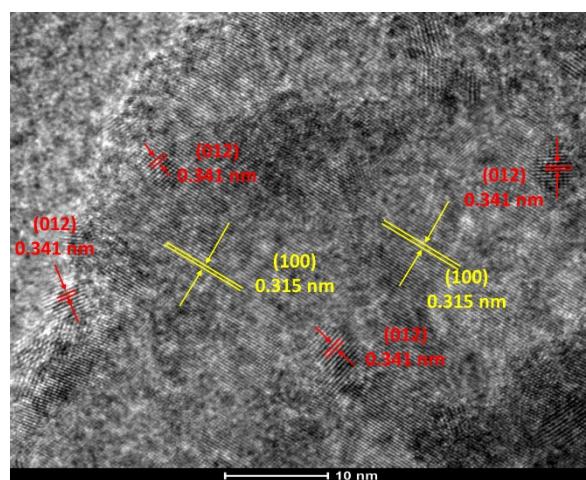


Fig. S3 The HRTEM images of as-synthesized 3 % 3D flower $\text{Ag}_2\text{S}/\text{SnS}_2$ composite

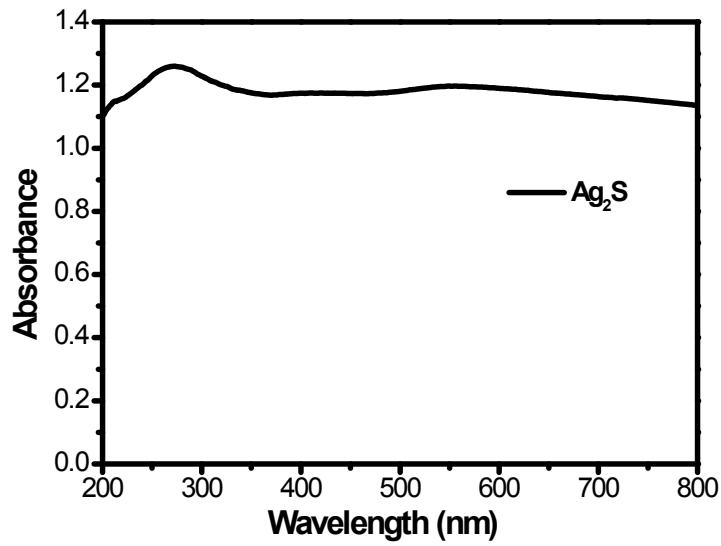


Fig. S4 UV-vis absorption spectra of Ag_2S

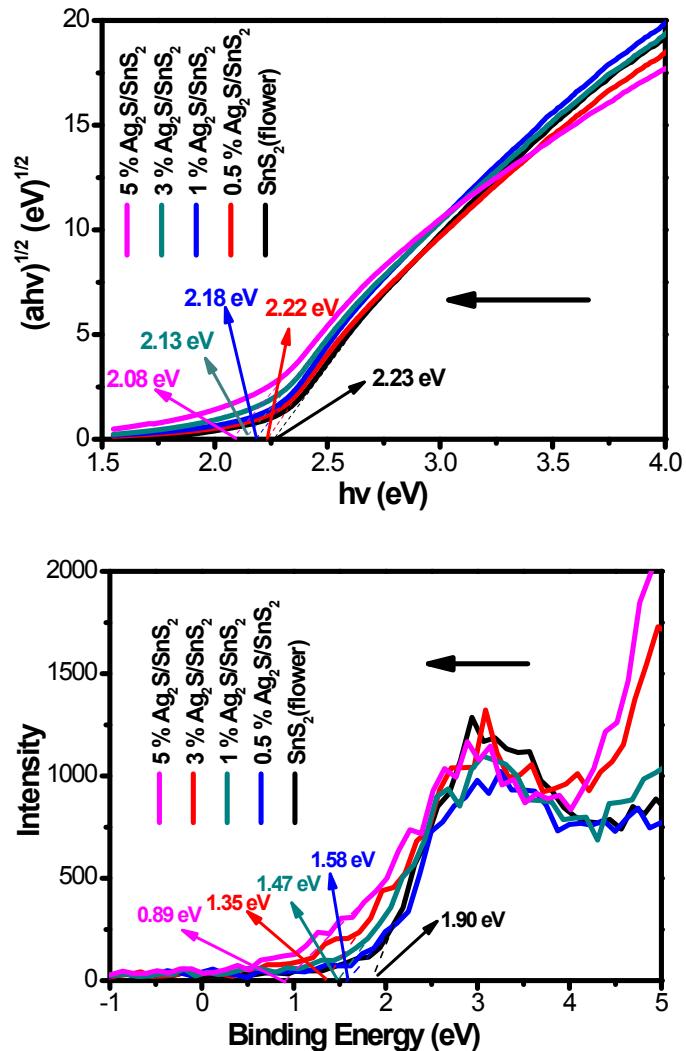


Fig. S5 (A) Plots of $(\alpha h v)^{1/2}$ versus $h v$ for as-prepared samples. **(B)** Valence-band XPS spectra of as-prepared samples.