## Electronic Supplementary Information

## Facile preparation of ZnS/ZnO nanocomposite for robust sunlight photocatalytic H<sub>2</sub> evolution from water

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Fig. S1 TGA-DTA curves of ZnO precursor. The sample was kept in N<sub>2</sub> atmosphere operating at a heating rate of 10 °C/min. As shown, a big weight loss was observed in the 50 ~ 450 °C range due to the loss of surface adsorbed water molecules and the decomposition of ZnO precursor. There was nearly no weight loss when temperature was higher than 450 °C.



Fig. S2 The photo of outdoor equipment of sunlight-driven water splitting by ZnO/ZnS system in Wuxi city 2014. Experimental condition: Outdoor temperature:  $30 \sim 32$  °C, Time:  $10: 00 \sim 14: 00$ .