

Supporting Information

Highly efficient photocatalytic activity of $\text{Ag}_3\text{PO}_4/\text{Ag}/\text{ZnS}(\text{en})_{0.5}$ photocatalysts through Z-Scheme photocatalytic mechanism

Na Wei, Hongzhi Cui*, Mingliang Wang, Xinzhen Wang, Xiaojie Song, Lei Ding, Jian

Tian*

School of Materials Science and Engineering, Shandong University of Science and Technology,

Qingdao 266590, China.

Email: cuihongzhi1965@163.com; jiantian@sdust.edu.cn

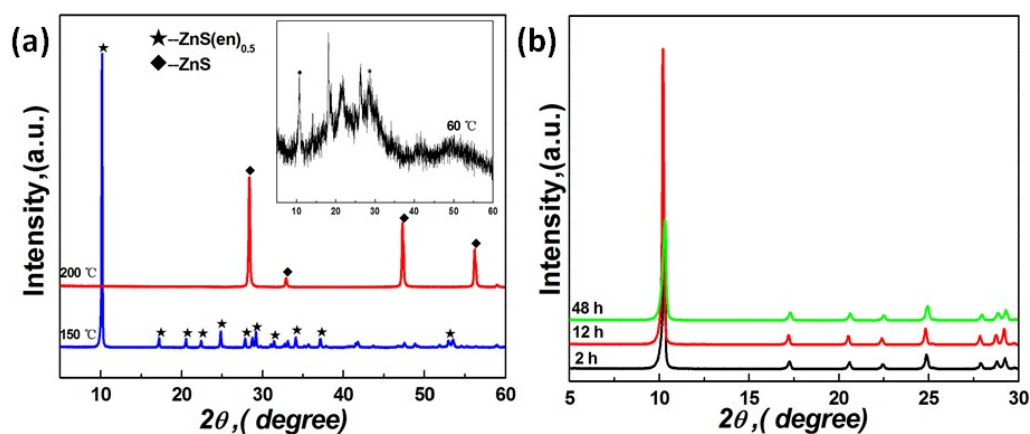


Fig. S1 XRD patterns of $\text{ZnS}(\text{en})_{0.5}$ samples prepared at (a) 60, 150 and 200 °C for 12h and (b) at 150 °C for 2, 12 and 48h.

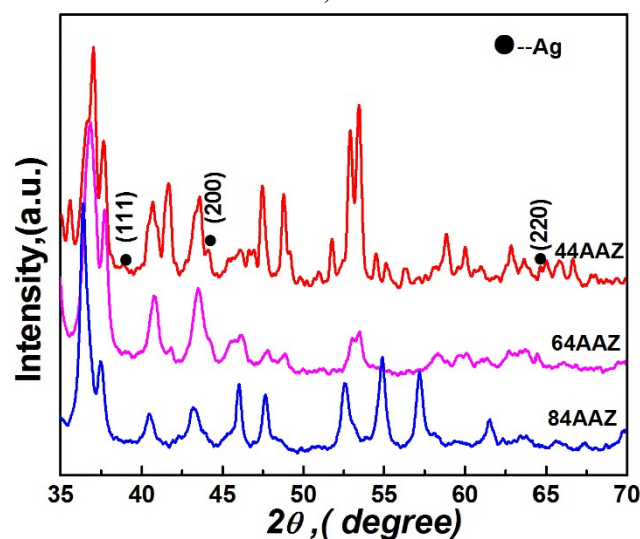


Fig. S2 XRD patterns of 44AAZ, 64AAZ, and 84AAZ.

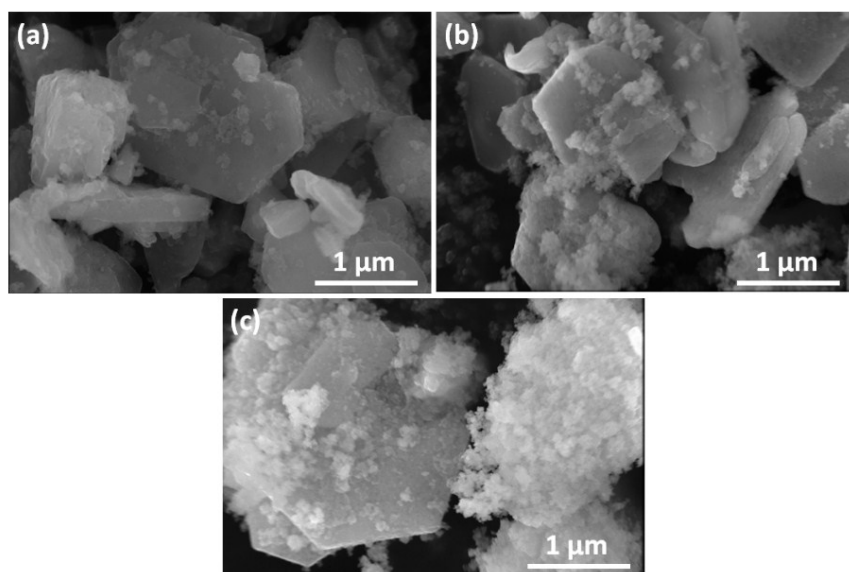


Fig. S3 SEM images of (a) 44AAZ, (b) 64AAZ, and (c) 84AAZ.

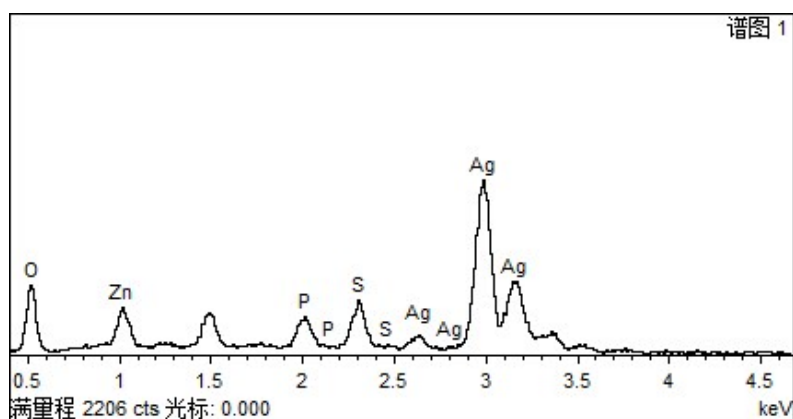


Fig. S4 EDS spectrum of 84AAZ composites.

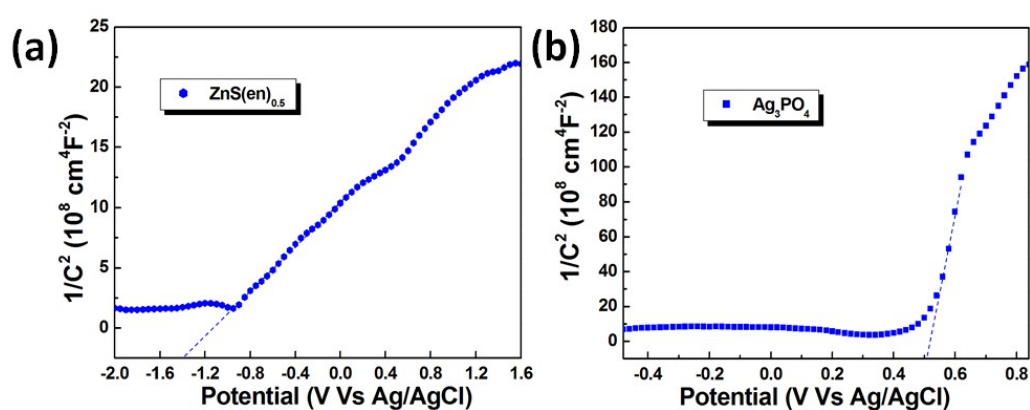


Fig. S5 The Mott-Schottky plots of Ag₃PO₄ and ZnS(en)_{0.5} for determining the flat-band potentials of samples.