Electronic Supporting Information

Photoreduction Obtained MoS$_2$/CQDs for Assembly of Ternary MoS$_2$/CQDs/ZnIn$_2$S$_4$ Nanocomposite for Efficient Photocatalytic Hydrogen Evolution under Visible Light

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**Fig. S1** CV of (NH$_4$)$_2$MoS$_4$.

Cyclic Voltammetry curve of (NH$_4$)$_2$MoS$_4$ was measured on an electrochemical analyzer (Zahner, Germany) in a standard three-electrode system using the glassy carbon electrode as the working electrodes, Pt wire as the counter electrode, and Ag/AgCl (saturated KCl) as a reference electrode.
**Fig. S2** UV–vis spectra of the precursor solution containing CQDs and (NH₄)₂MoS₄ before and after irradiation.
**Fig. S3** SEM image of bare ZnIn$_2$S$_4$
Fig. S4 Element mapping images of 3.0 wt% MoS$_2$/CQDs/ZnIn$_2$S$_4$ nanocomposite.
Fig. S5 XRD patterns of 3.0 wt% MoS$_2$/CQDs/ZnIn$_2$S$_4$ nanocomposite before and after photocatalytic reaction.
Fig. S6 XPS spectra of 3.0 wt% MoS$_2$/CQDs/ZnIn$_2$S$_4$ nanocomposite in C 1s, O 1s and Mo 3d after photocatalytic reaction.