Supporting Information

Microwave synthesis of $ZnIn_2S_4/WS_2$ composites for photocatalytic hydrogen production and hexavalent chromium reduction

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Table S1. The apparent quantum yield (AQY) of the $ZnIn_2S_4/WS_2$ photocatalyst for the photocatalytic H_2 production compared with the previous literatures.

Photocatalyst	Weight of photocatalyst (mg)	Light source details	AQY (%)	Ref.
$ZnIn_2S_4/WS_2$ (Our work)	100	150 W Xe lamp ($\lambda > 400$ nm)	9.22	-
$ZnIn_2S_4$/RGO/$BiVO_4$	200	350 W Xe lamp ($\lambda > 420$ nm)	0.8	[1]
$ZnIn_2S_4$/g-C_3N_4	500	300 W Xe lamp ($\lambda > 400$ nm)	0.28	[2]
$ZnIn_2S_4/In_2S_3$	100	300 W Xe lamp ($\lambda > 400$ nm)	1.4	[3]
$ZnIn_2S_4$/RGO/MoS_2	100	300 W Xe lamp ($\lambda > 420$ nm)	0.4	[4]
$ZnIn_2S_4/NH_2$-MIL-125(Ti)	50	300 W Xe lamp ($\lambda > 420$ nm)	4.3	[5]

Table S2. The apparent quantum yield (AQY) of the $ZnIn_2S_4/WS_2$ photocatalyst for the photocatalytic Cr(VI) reduction compared with the previous literature.

Photocatalyst	**Weight of photocatalyst (mg)**	**Light source details**	**AQY (%)**	**Ref.**
$ZnIn_2S_4/WS_2$ (Our work)	100	150 W Xe lamp (λ > 400 nm)	5.89	-
$ZnIn_2S_4/CaIn_2S_4$	50	300 W Xe lamp (λ > 420 nm)	6.6	[6]

References

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