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Electronic Supplementary Information

Controlled Synthesis of SnO_2 Decorated SnS_2 Nanosheets with Enhanced Visible Light Photocatalytic Activity

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Table S1 Composition of the SnS_2@SnO_2 NCs synthesized in binary solvent

Sample	V_{ani} (*mL*)	V_{eth} (*mL*)	V_{ani} / V_{eth}	SnO_2 molar fraction
a	20	40	33.3%	29.3%
b	30	30	50.0%	44.5%
c	40	20	66.6%	62.1%

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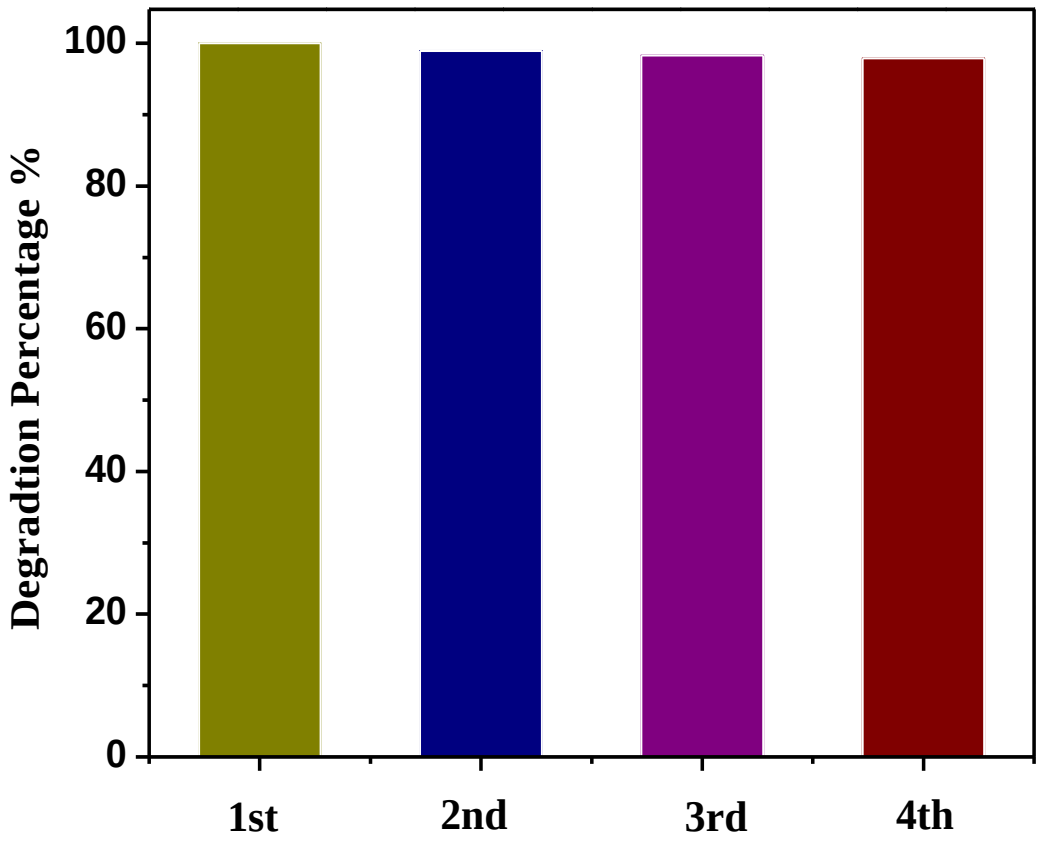

Fig. S1 Degradation percentage of the MO in the presence of SnS_2@SnS_2-2 powder (50 mg) under visible light ($\lambda > 420$ nm) irradiation after 45min

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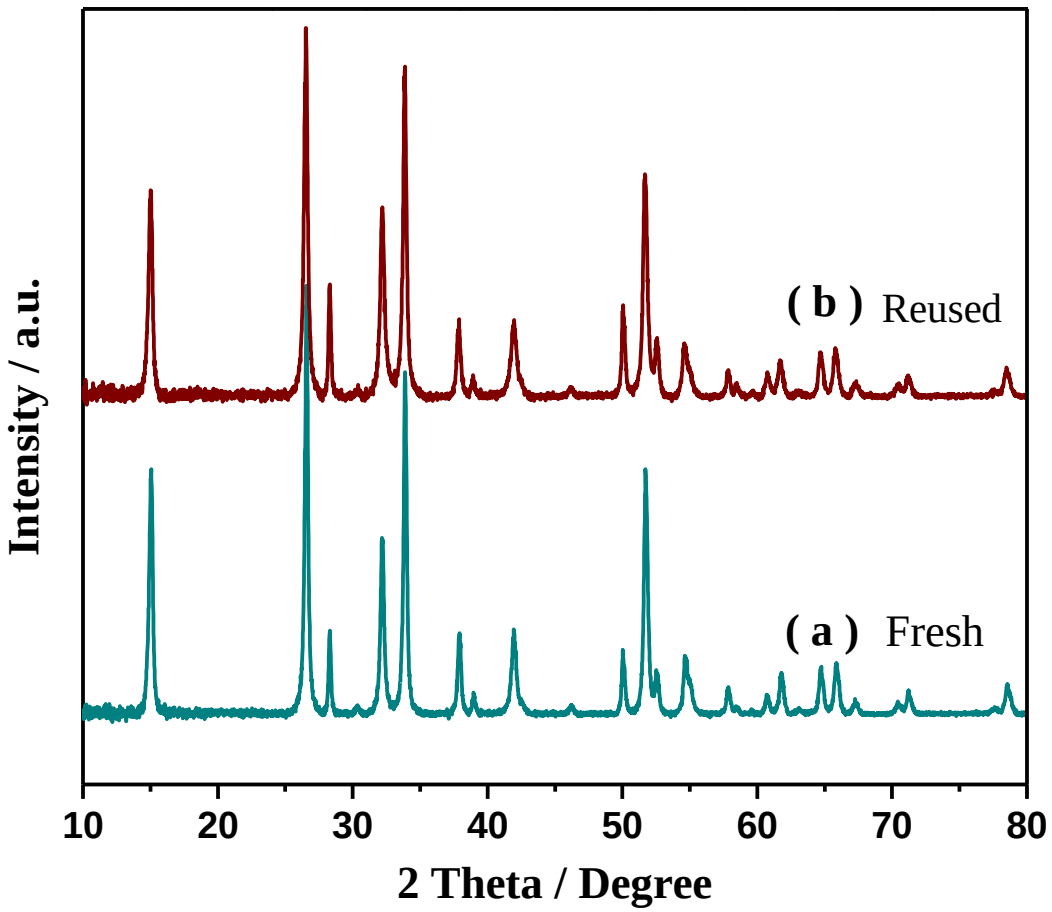

Fig. S2 XRD patterns of (a) fresh SnS_2@SnO_2-2 catalyst and (b) reused SnS_2@SnO_2-2 catalyst for four times.

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Table S2 Crystallite size and surface area of SnS_2, SnO_2 and $SnS_2@SnO_2$.

Samples	Crystallite size of SnO_2 (nm)	Crystallite size of SnS_2 (nm)	BET surface area (g/m^2)
SnS_2		13.2	41.83
SnO_2	24.9		15.45
$SnS_2@SnO_2$ (Veth / Vani = 1:2)	24.9	23.8	17.69