

Supporting information

Synthesis and visible light responded photocatalytic activity of Sn doped Bi_2S_3 Microspheres assembled by Nanosheets

Yifan Jiang, Juncheng Hu*, Jinlin Li

Key Laboratory of Catalysis and Materials Science of the State Ethnic Affairs Commission & Ministry of Education, Hubei Province, South-Central University for Nationalities, Wuhan 430074, PR China.

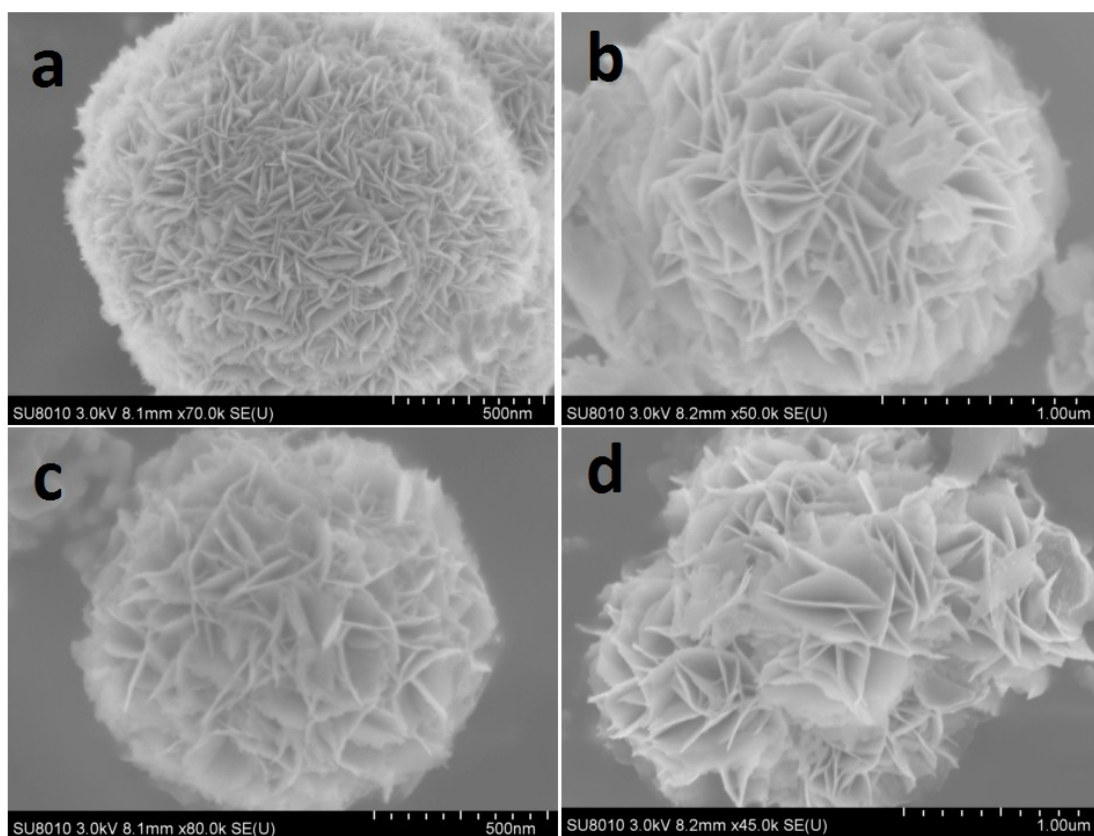


Fig. S1 SEM images of (a) 1 mol % TDB, (b) 2 mol % TDB, (c) 4 mol % TDB, (d) 5 mol % TDB.

Table S1 BET surface area of the as-synthesized samples.

	Pure Bi_2S_3	1 mol % TDB	2 mol % TDB	3 mol % TDB	4 mol % TDB	5 mol % TDB
S_{BET} ($\text{m}^2 \text{g}^{-1}$)	10.5	13.7	14.8	16.6	17.1	17.8

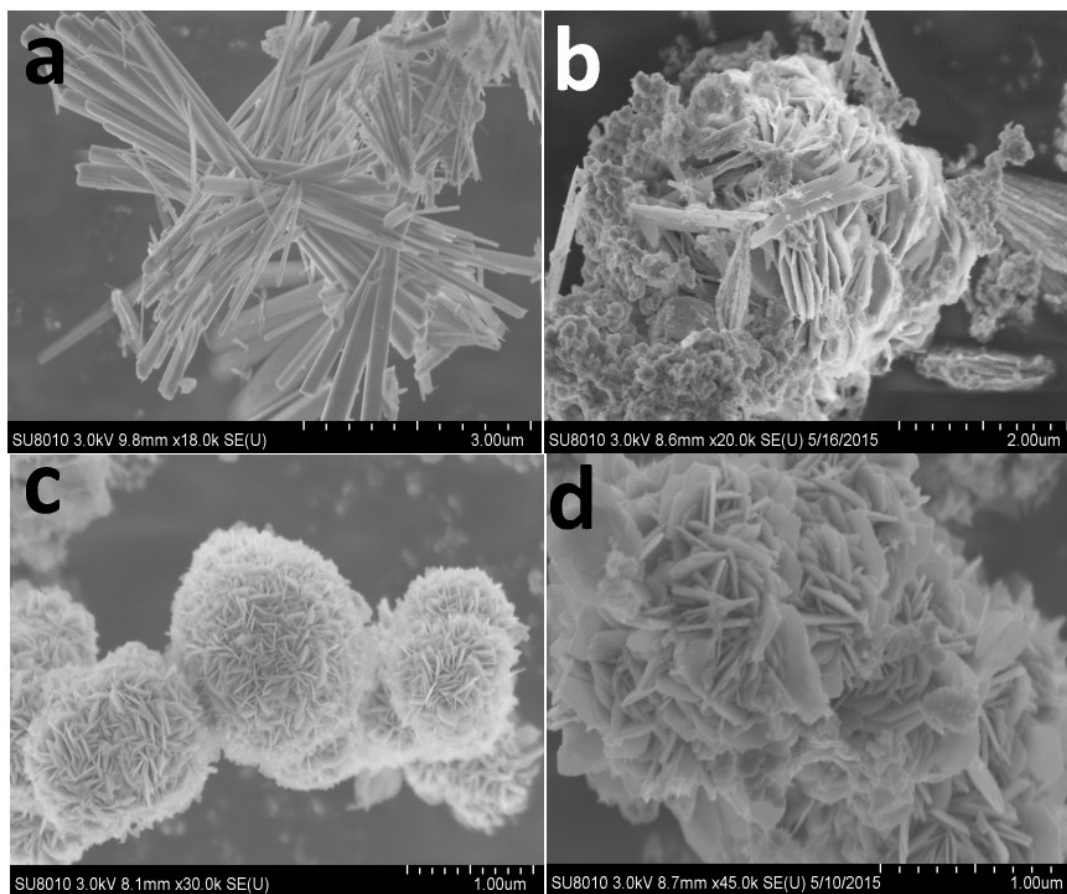


Fig. S2 SEM images of Bi_2S_3 with different amounts of oleylamine, (a) 0 mol, (b) 3 mol, (c) 6 mol, (d) 8 mol.

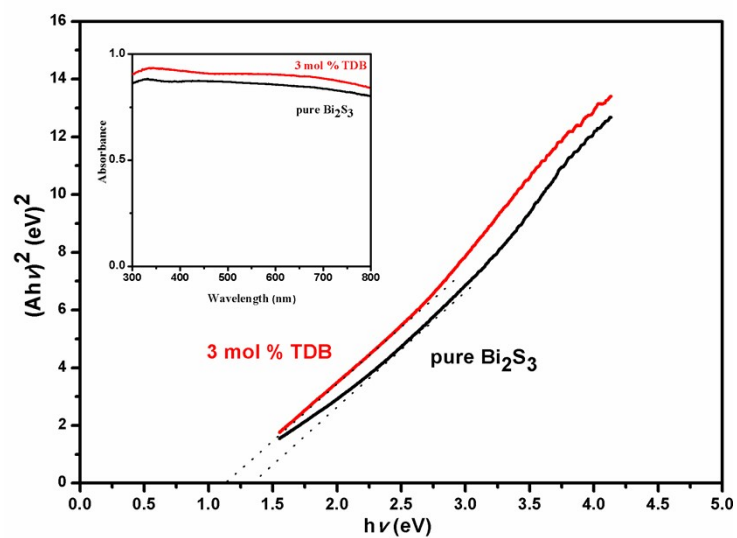


Fig. S3 $h\nu-(Ah\nu)^2$ plot of pure Bi_2S_3 and 3 mol % TDB and their UV-visible absorption spectra (the inset).

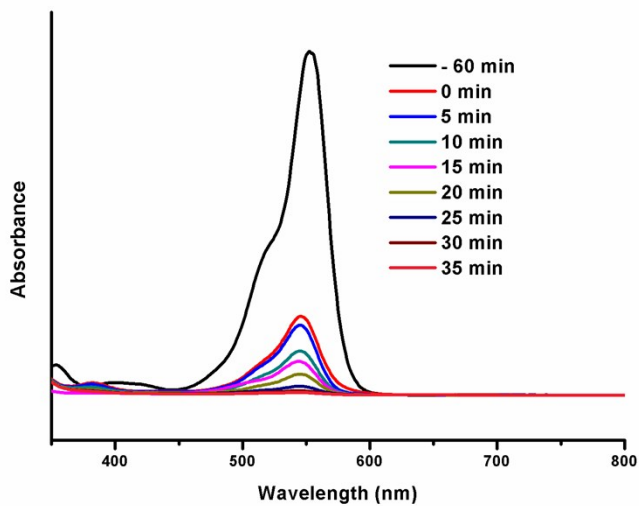


Fig. S4 The curves of degrade RhB (20 mg/L) over pure SnS_2 under visible light ($\lambda > 420$ nm) irradiation.

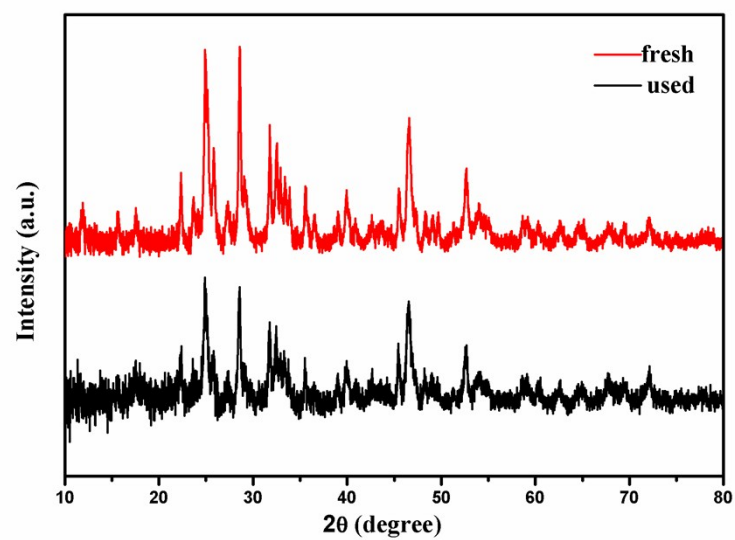


Fig. S5 XRD pattern of fresh and used photocatalysts.