

Nitrate anion-mediated morphologies control of $\text{Bi}_5\text{O}_7\text{NO}_3$

and its photocatalytic activity

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Fig. S1 Photographic image of the gram-scaled nanosheets of $\text{Bi}_5\text{O}_7\text{NO}_3$.

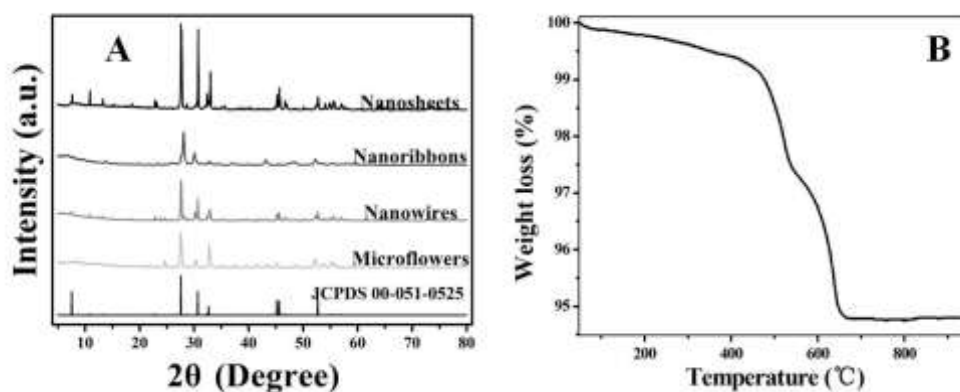


Fig. S2 A is X-ray diffraction spectra of the as-obtained microflowers, nanowires, nanoribbons, and nanosheets as well as standard spectrum of Bi₅O₇NO₃. B is thermogravimetric analysis of the nanosheets randomly chosen.

Table 1 BET surface specific area of the as-obtained samples.

Sample	Microflowers	Nanowires	Nanoribbons	Nanosheets
BET (m ² /g)	2.37	8.25	4.20	5.23

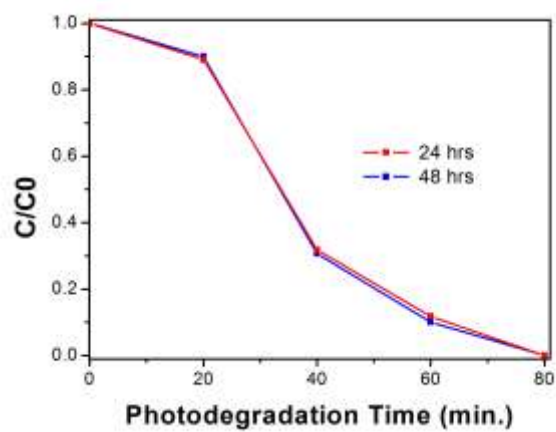


Fig. S3 RhB photodegradation of the nanosheets reacted for 24 hrs and 48 hrs respectively.

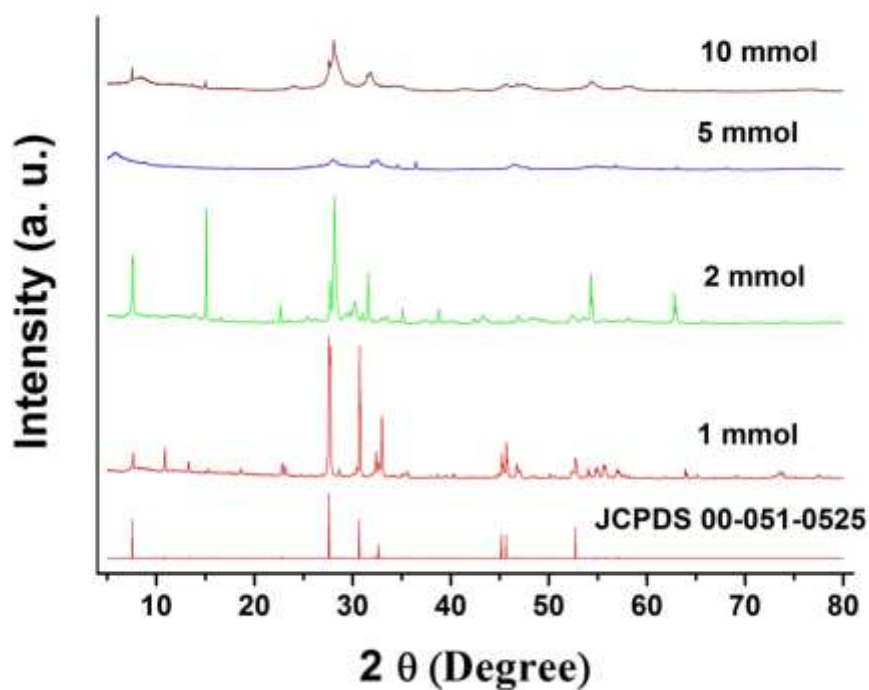


Fig. S4 XRD spectra of the samples obtained by mixing $\text{Bi}(\text{NO}_3)_3$ and $\text{Zn}(\text{Ac})_2$ with a mole ratio 2:1. The values in the diagram are corresponding to the added amount of $\text{Bi}(\text{NO}_3)_3$.

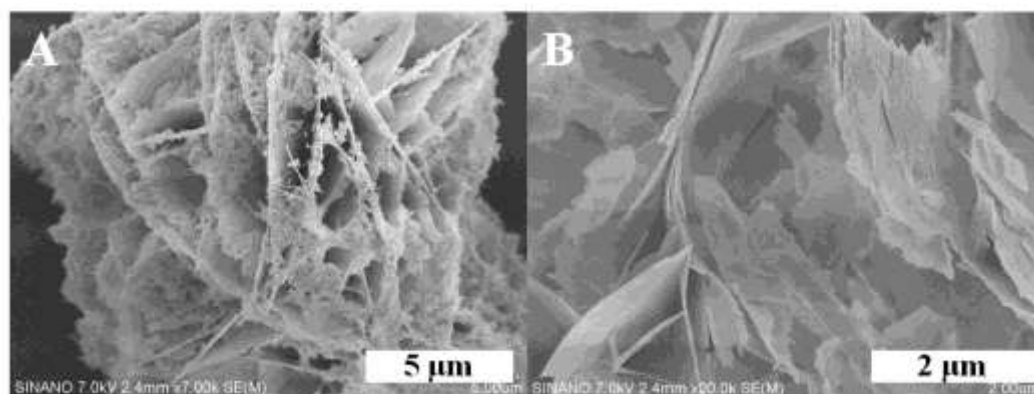


Fig. S5 SEM images of $\text{Bi}_5\text{O}_7\text{NO}_3$ synthesized by mixing 5 mmol $\text{Bi}(\text{NO}_3)_3$ and 5 mmol KNO_3 (A), 5 mmol $\text{Bi}(\text{NO}_3)_3$ and 5 mmol $\text{Zn}(\text{NO}_3)_2$ (B).

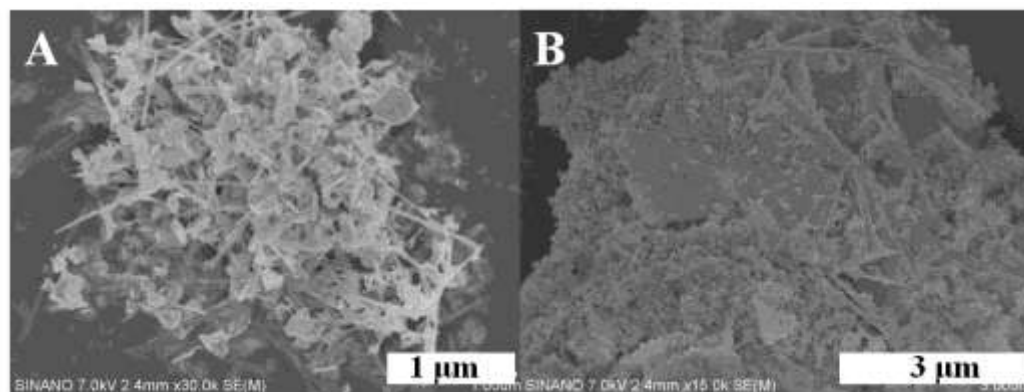


Fig. S6 SEM images of $\text{Bi}_5\text{O}_7\text{NO}_3$ by adding 10 mL $\text{NH}_3\cdot\text{H}_2\text{O}$ (A) and 2 mL $\text{NH}_3\cdot\text{H}_2\text{O}$ (B), respectively.