

Supplementary Information

Electrospun sillenite $\text{Bi}_{12}\text{MO}_{20}$ (M = Ti, Ge, Si) nanofibers: general synthesis, band structure, and photocatalytic activity

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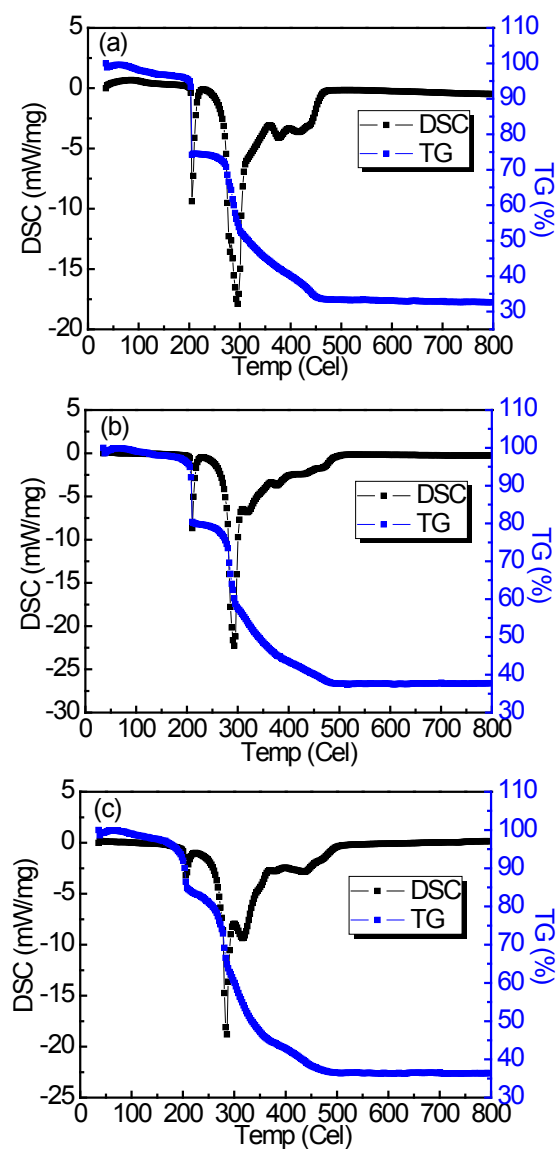


Fig. S1 TG/DSC of BMO precursor nanofibers (a) BTO, (b) BSO, and (c) BGO. The peaks of the DSC curves and the weight loss between 20 and 500 °C were assigned to the removal of volatile compounds, the decomposition of $\text{Bi}(\text{NO}_3)_3$, TBT, TEOS, $\text{Ge}(\text{OEt})_4$ and PVP, and the generation of BMO. TG-DSC curves after 600 °C show that there was no weight loss. It is convinced that all the organic substances in the BMO precursor nanofibers could be removed at 600 °C for 30 min.

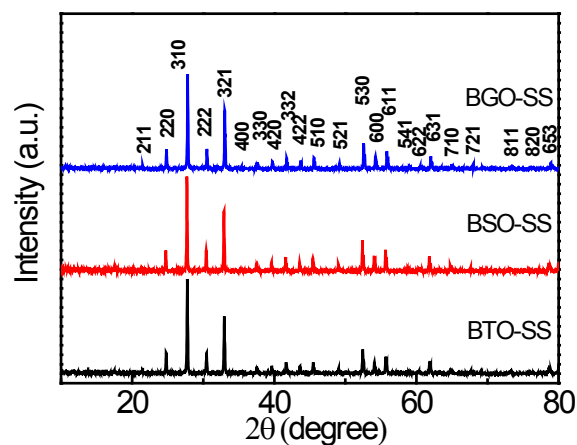


Fig. S2 XRD patterns of BTO-SS, BSO-SS, and BGO-SS by the solid-state reaction.

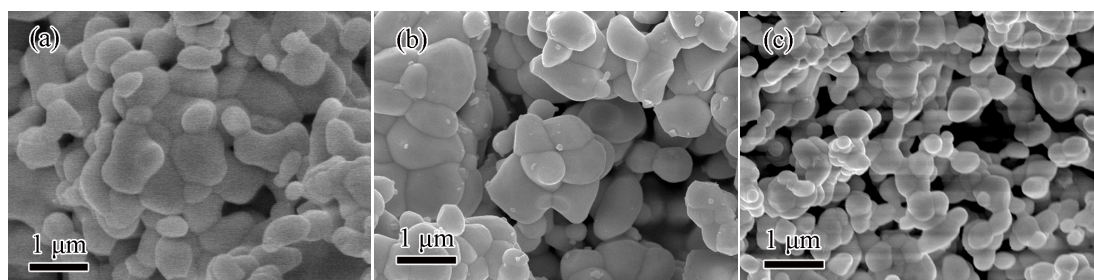


Fig. S3 FESEM images of the products prepared by the solid-state reaction: (a) BTO-SS, (b) BSO-SS, and (c) BGO-SS.

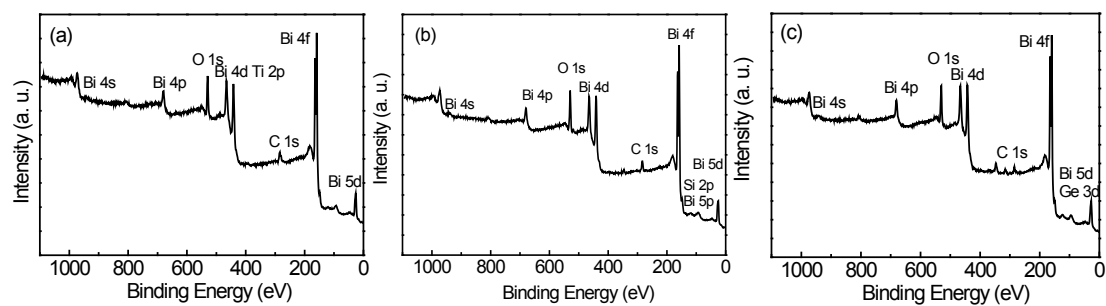


Fig. S4 Survey XPS spectra of the BMO nanofibers (a) BTO, (b) BSO, and (c) BGO.

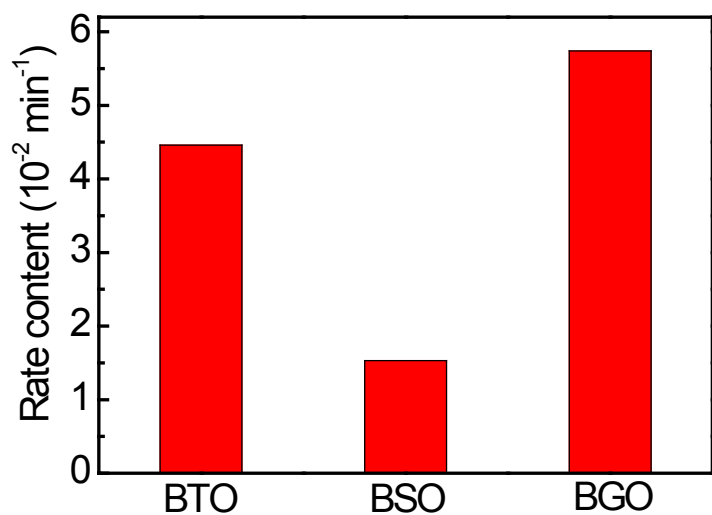


Fig. S5 Rate constant comparison of BTO, BSO and BGO.

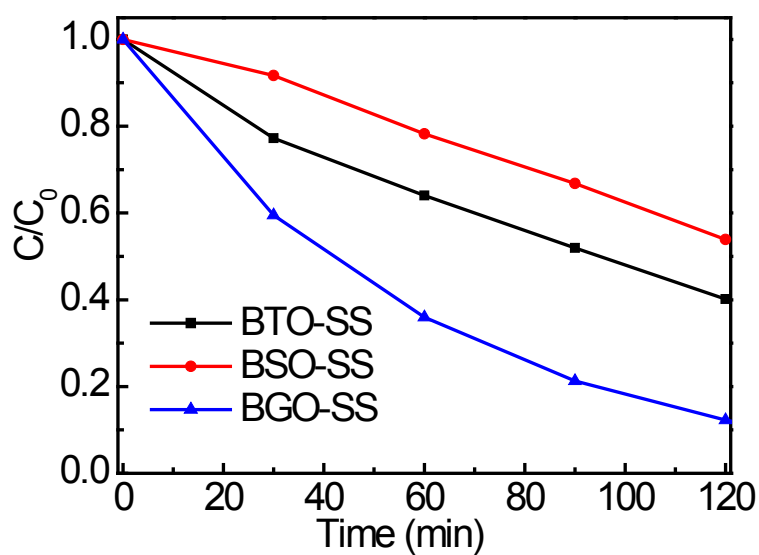


Fig. S6 Degradation profiles of RhB over different samples after adsorption-desorption equilibrium

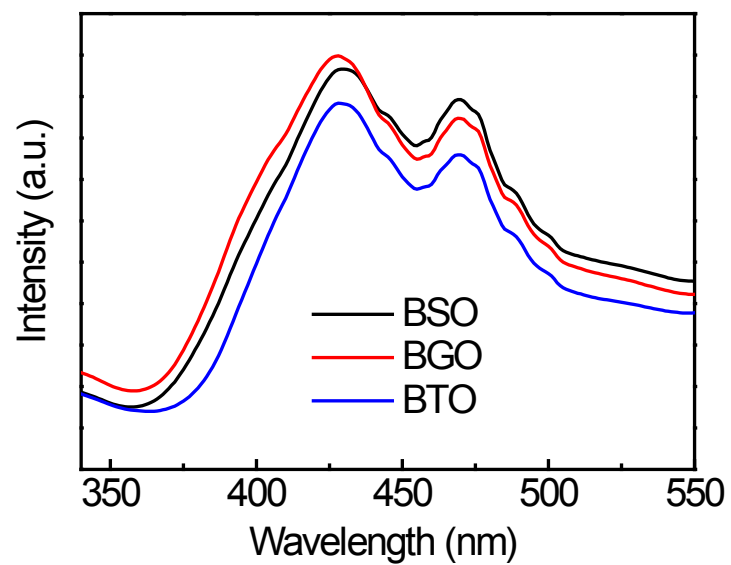


Fig. S7 Room-temperature photoluminescence spectra for all BMO nanofibers.