

Supplementary Material

Controllable synthesis of perovskite-like PbBiO_2Cl hollow microspheres with enhanced photocatalytic activity for antibiotic removal

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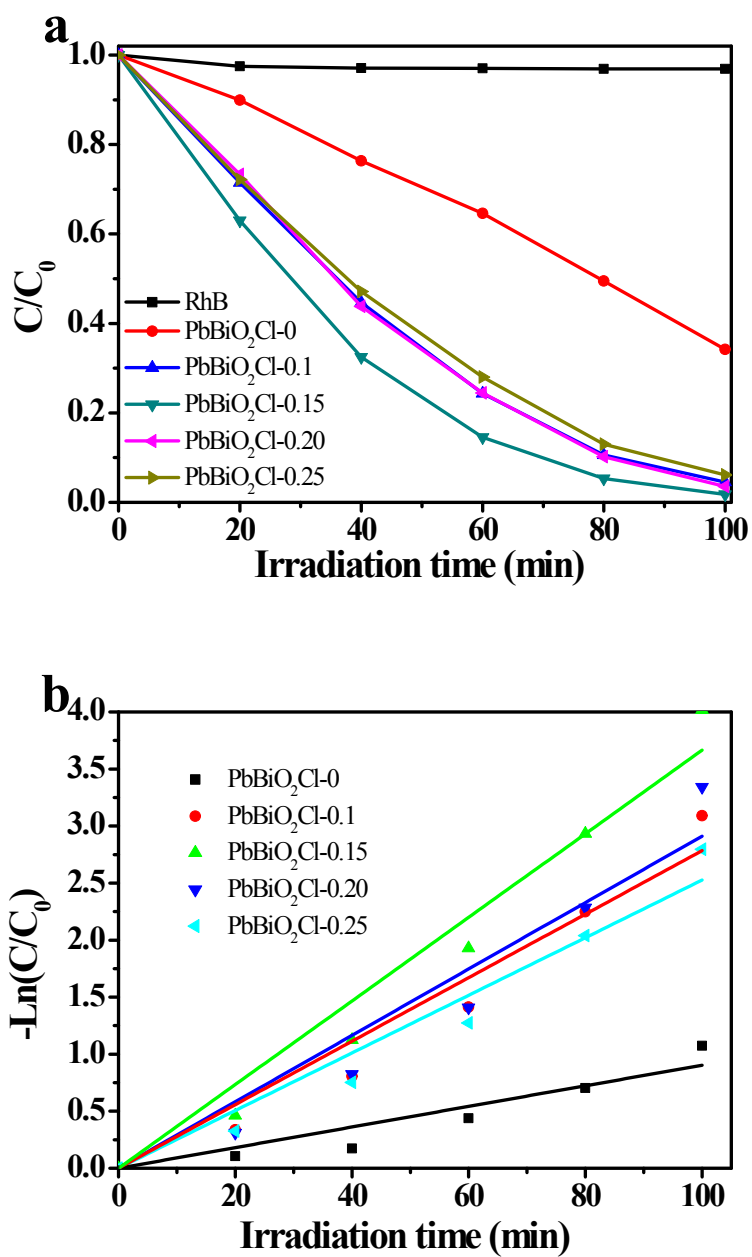


Fig. S1. (a) Photocatalytic degradation of RhB in the presence of PbBiO₂Cl samples under visible light irradiation; (b) Kinetic fit for the degradation of RhB with the PbBiO₂Cl samples.

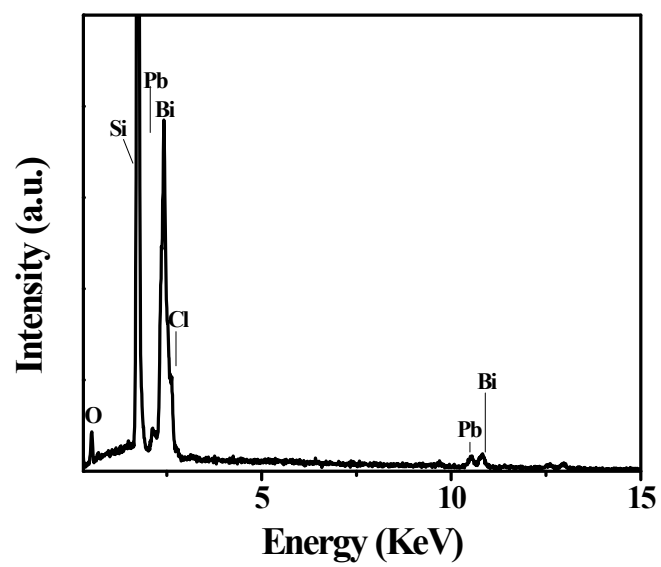


Fig. S2. EDS of $\text{PbBiO}_2\text{Cl-0.15}$ materials.

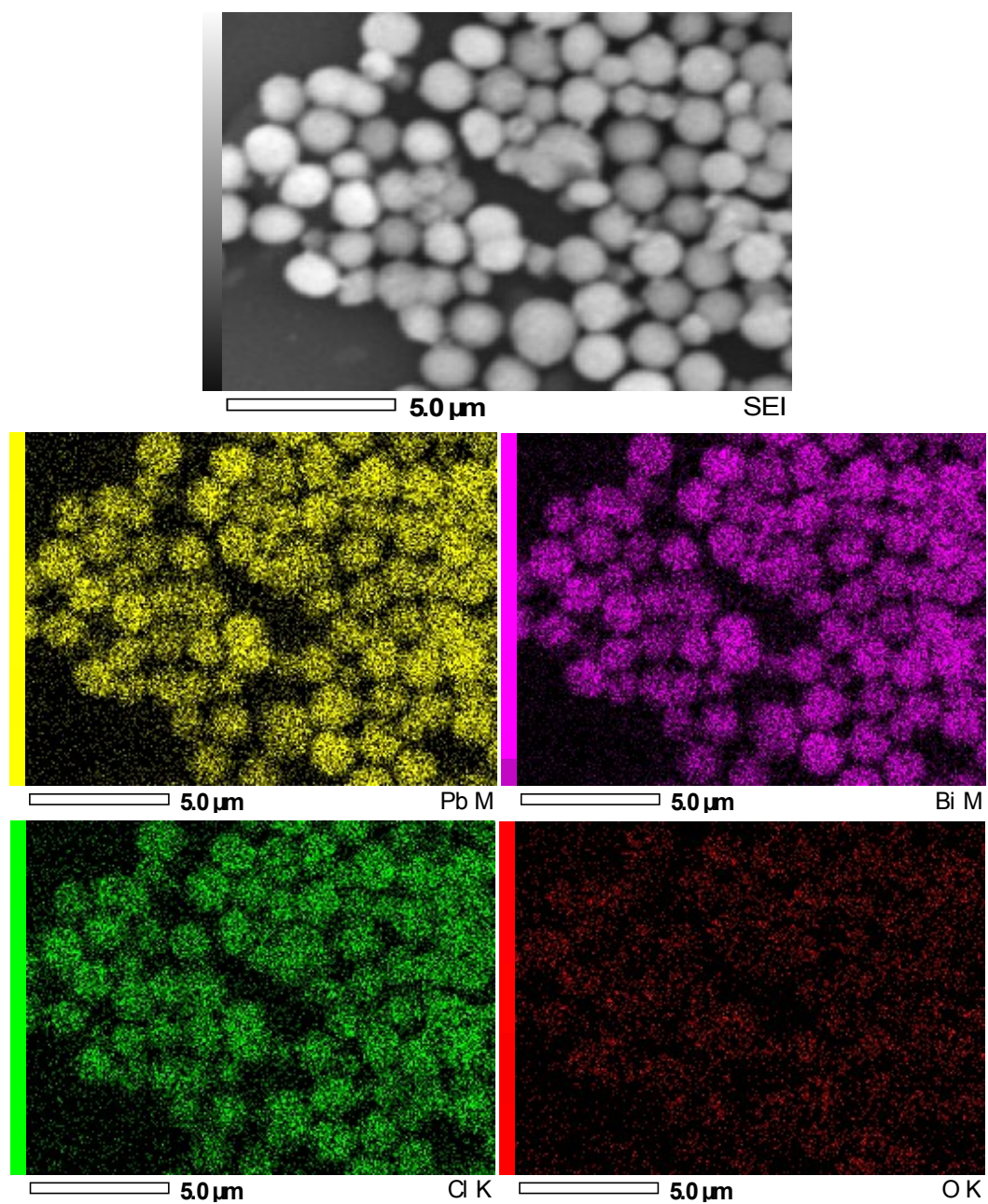


Fig. S3. Typical SEM image of $\text{PbBiO}_2\text{Cl-0.15}$ materials and corresponding elemental mapping images of Pb, Bi, O, and Cl.

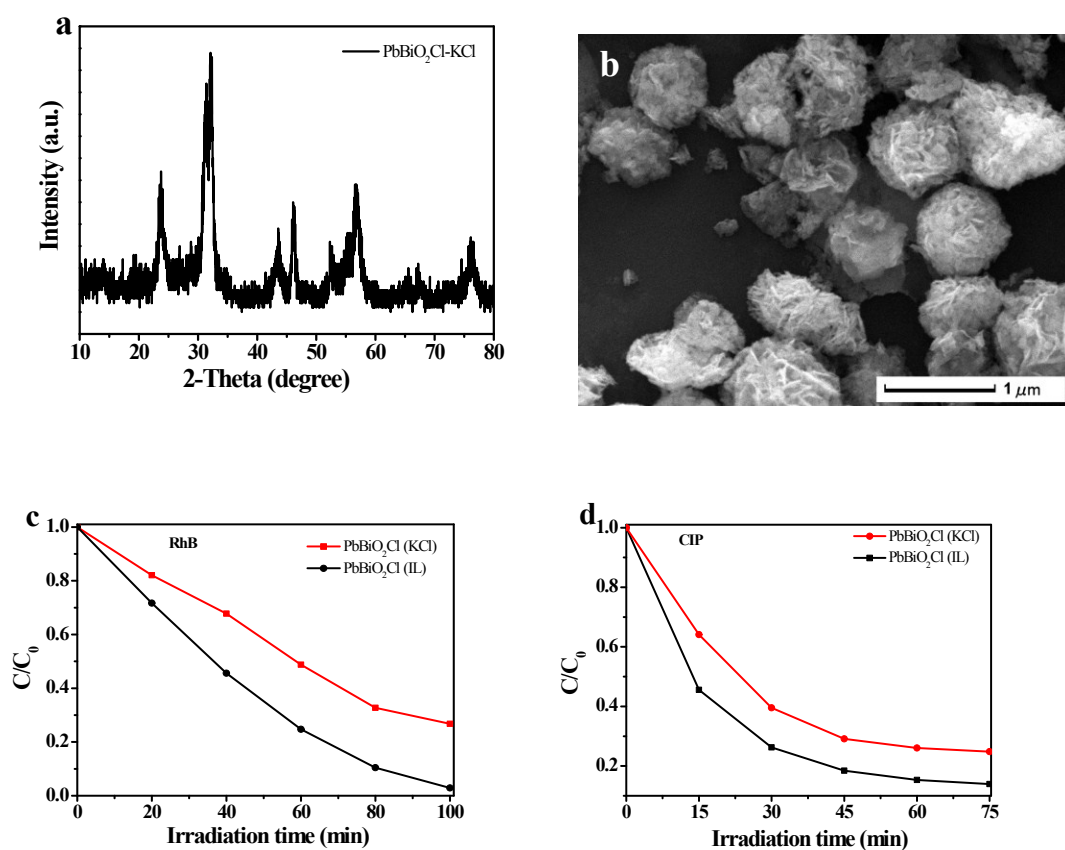
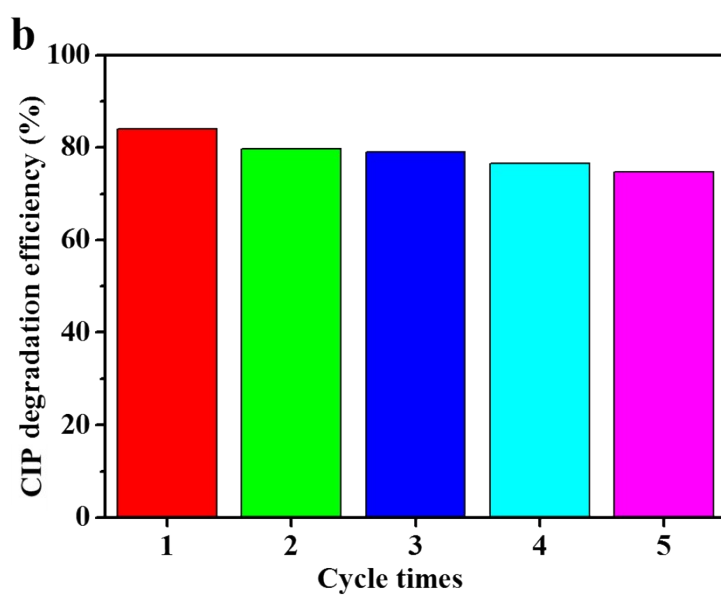
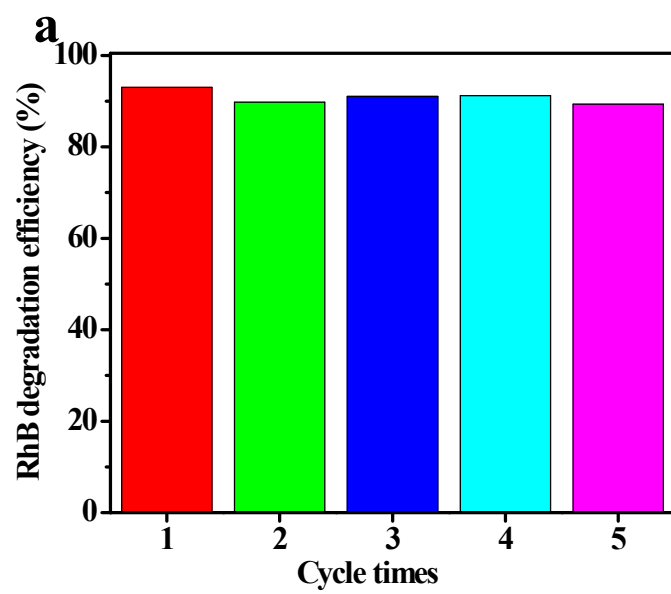


Fig. S4. (a) XRD patterns for PbBiO₂Cl-KCl and PbBiO₂Cl-0.15 materials; (b) SEM image of PbBiO₂Cl-KCl and PbBiO₂Cl-0.15 materials; Photocatalytic degradation experiment of (c) RhB and (d) CIP in the presence of PbBiO₂Cl-KCl and PbBiO₂Cl-0.15 samples under visible light irradiation.



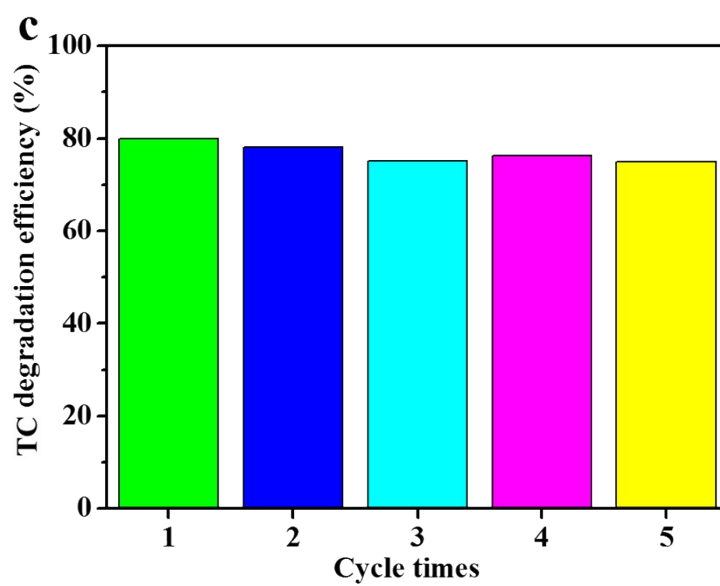
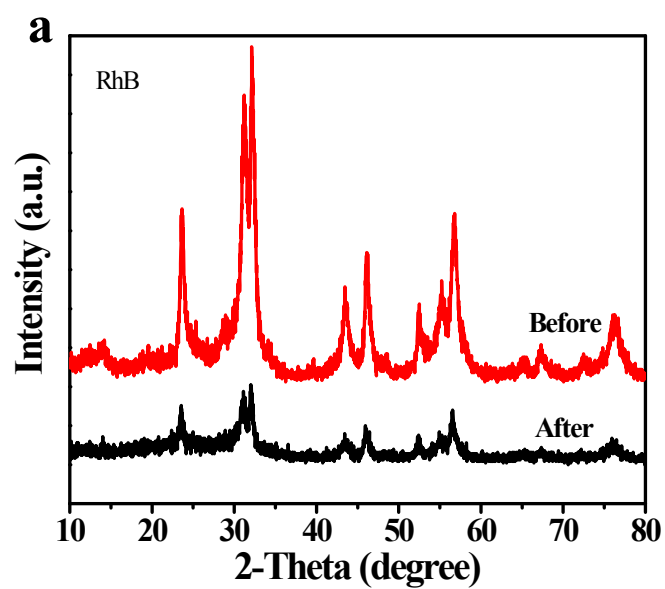


Fig. S5. Cycling runs for the photodegradation of RhB (a) CIP (b) and TC (c) in the presence of $\text{PbBiO}_2\text{Cl-0.15}$ materials under visible light irradiation.



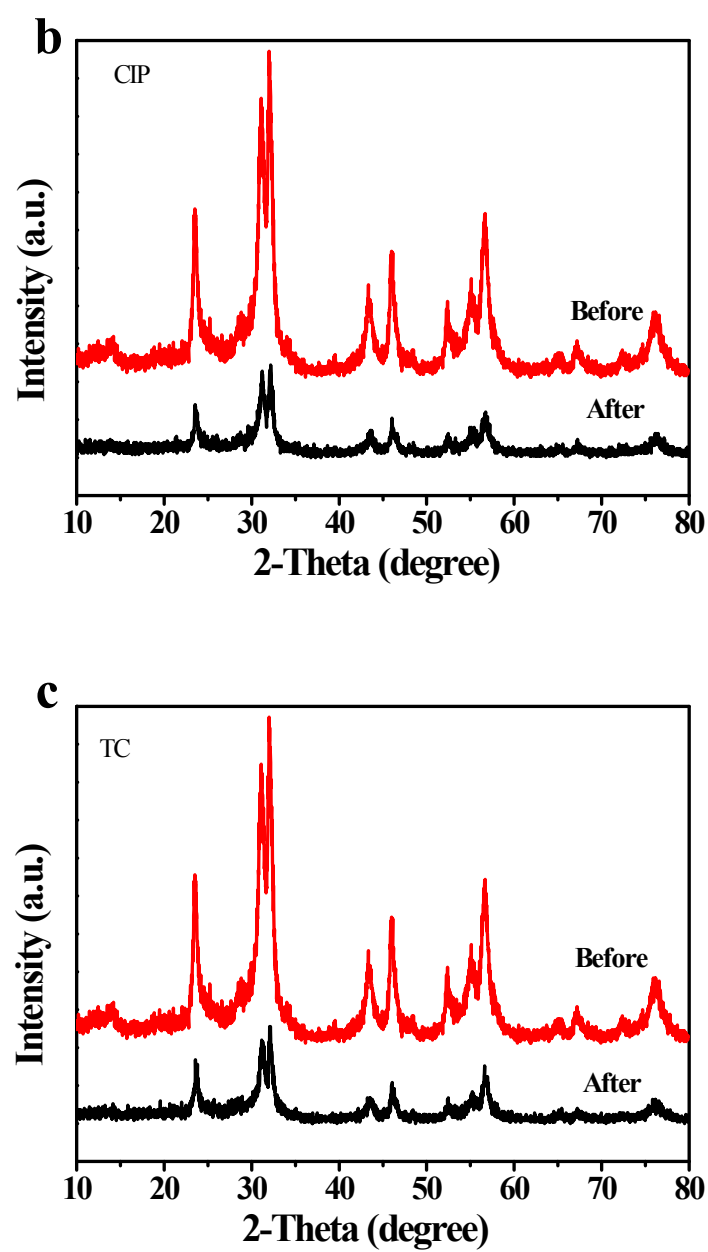


Fig. S6. XRD patterns of the $\text{PbBiO}_2\text{Cl-0.15}$ materials before and after the cycling photocatalytic experiments.

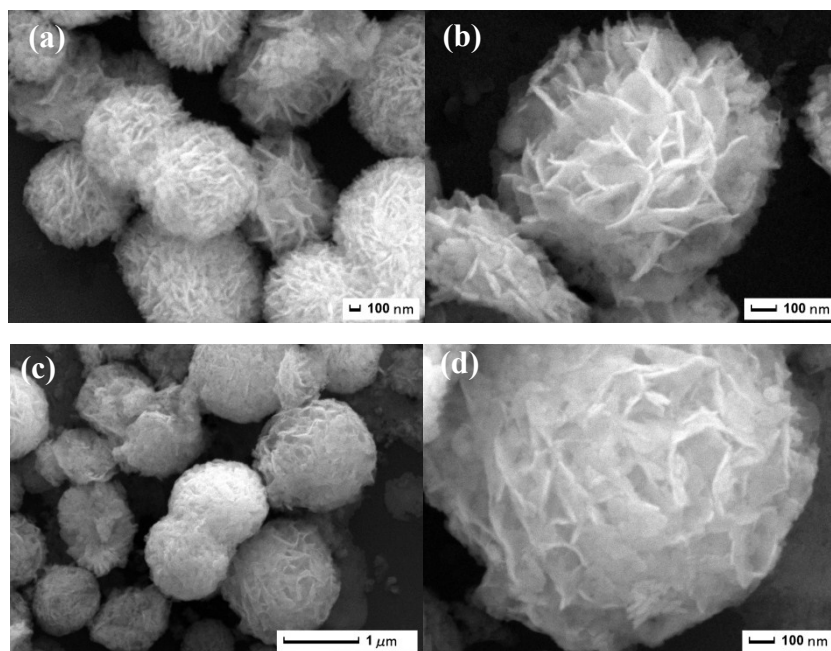


Fig. S7. SEM patterns of the PbBiO₂Cl-0.15 materials after the cycling photocatalytic experiments. (a, b) Cycle 3 times; (c, d) Cycle 5 times.

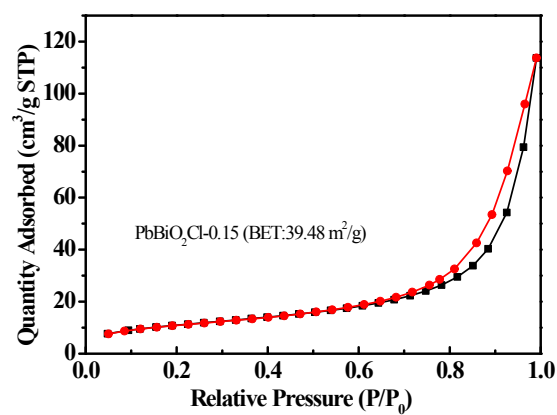


Fig. S8. Nitrogen adsorption-desorption isotherms of the PbBiO₂Cl-0.15 materials after cycle experiment.