

Electronic Supplementary Information

Solvothermal synthesis of $(\text{Na}_{0.8}\text{K}_{0.2})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ piezoelectric catalyst with morphotropic-phase-boundary structure for efficient dye degradation

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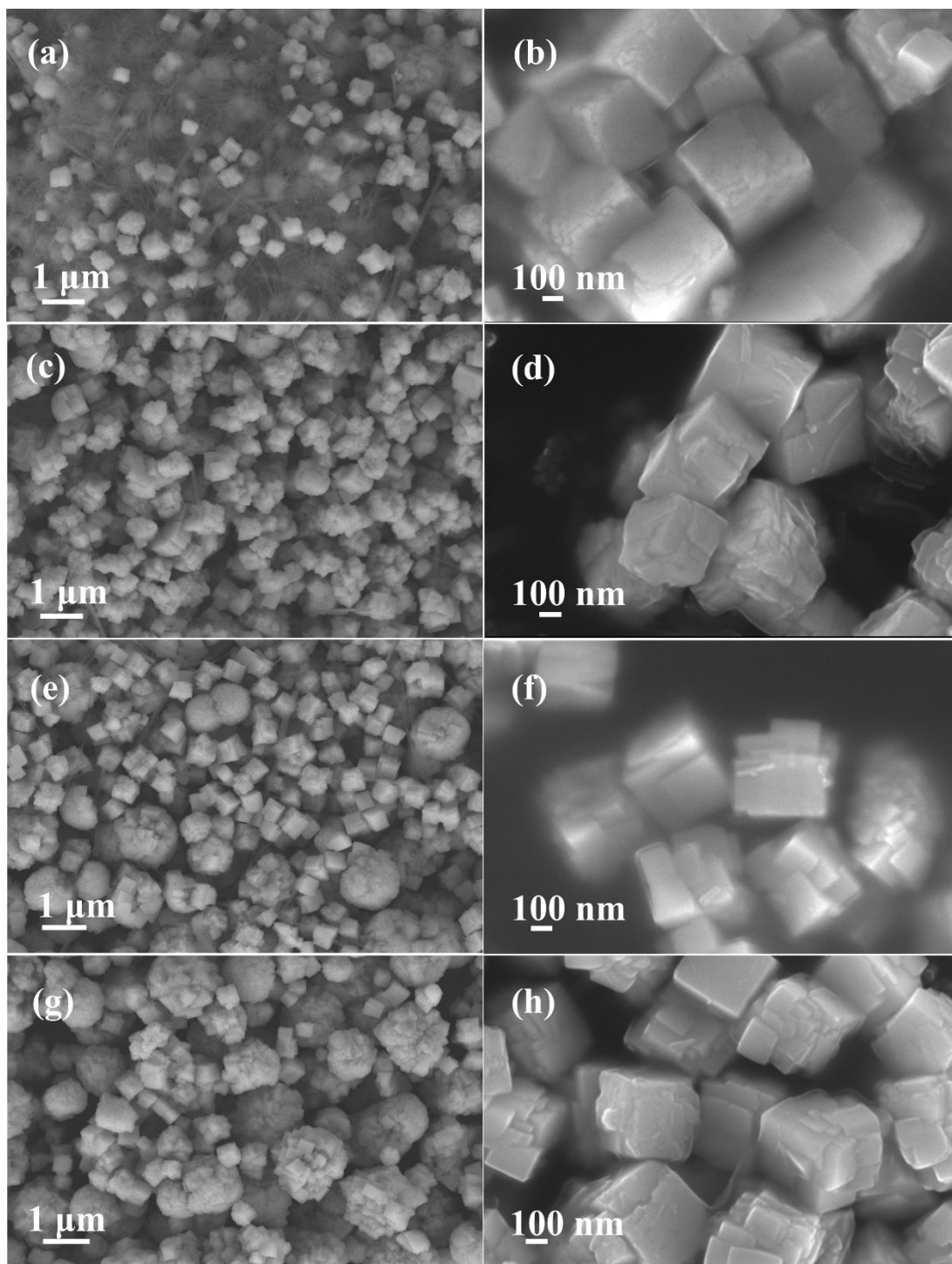


Fig. S1. The SEM images of (a-b) $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$, (c-d) $(\text{Na}_{0.9}\text{K}_{0.1})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$, (e-f) $(\text{Na}_{0.8}\text{K}_{0.2})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ and (g-h) $(\text{Na}_{0.7}\text{K}_{0.3})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ at different magnifications.

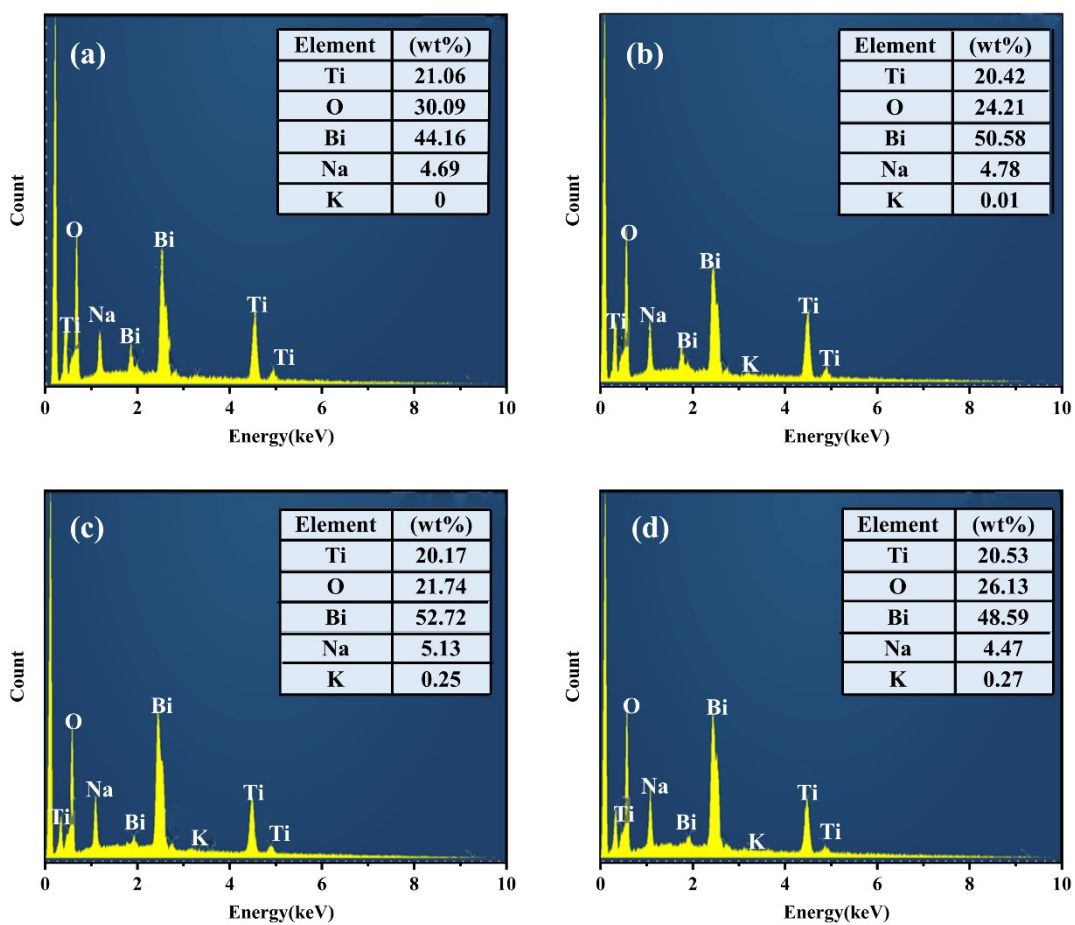


Fig. S2. EDS composition of (a) $\text{Na}_{0.5}\text{Bi}_{0.5}\text{TiO}_3$, (b) $(\text{Na}_{0.9}\text{K}_{0.1})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$, (c) $(\text{Na}_{0.8}\text{K}_{0.2})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$ and (d) $(\text{Na}_{0.7}\text{K}_{0.3})_{0.5}\text{Bi}_{0.5}\text{TiO}_3$.

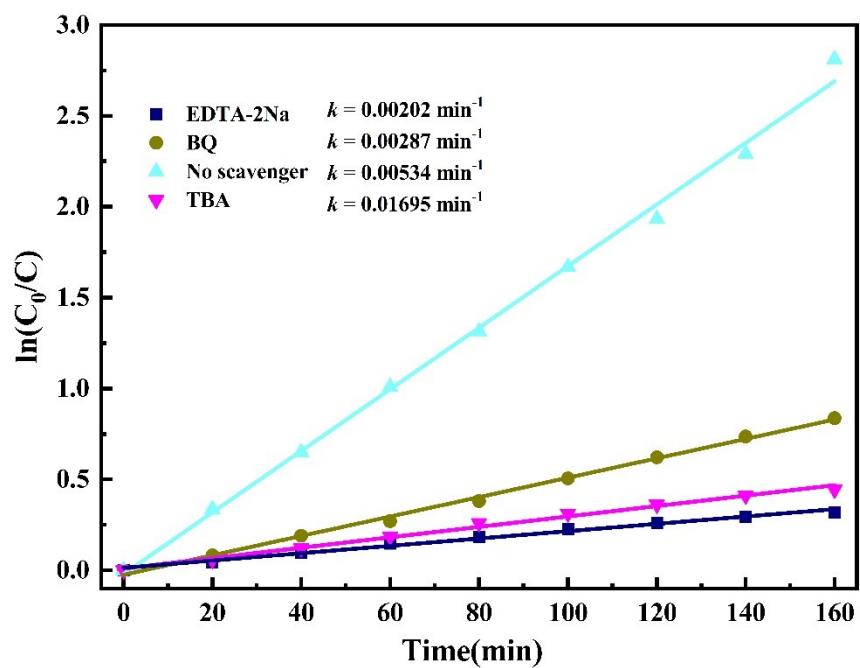


Fig. S3. First-order kinetic curves for free radical capture experiments.

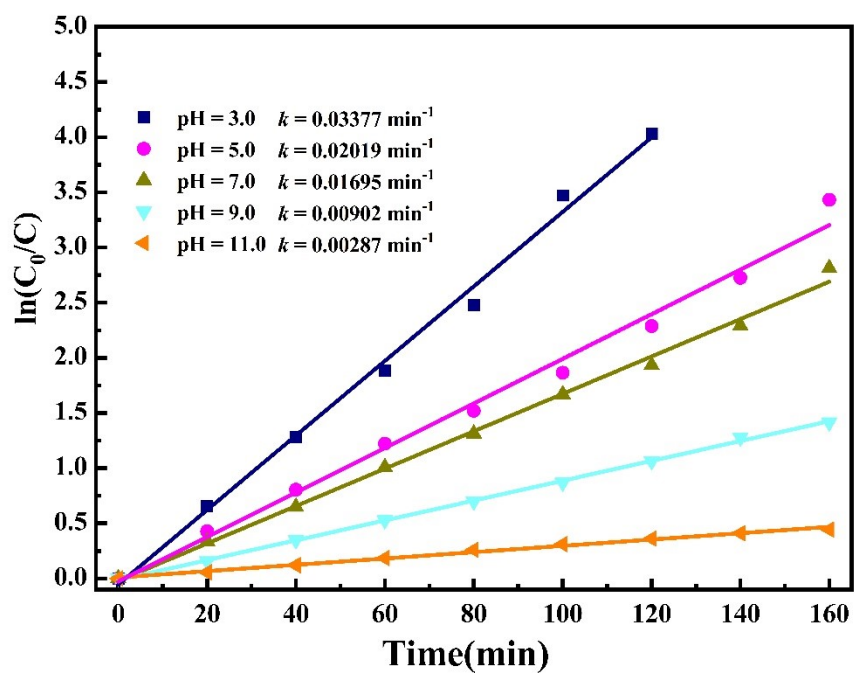


Fig. S4. First-order kinetic curves for MB degradation under different pH environments.