

Supporting Information

Facile solvothermal synthesis of BiOCl-TiO₂ heterostructures with enhanced photocatalytic activity

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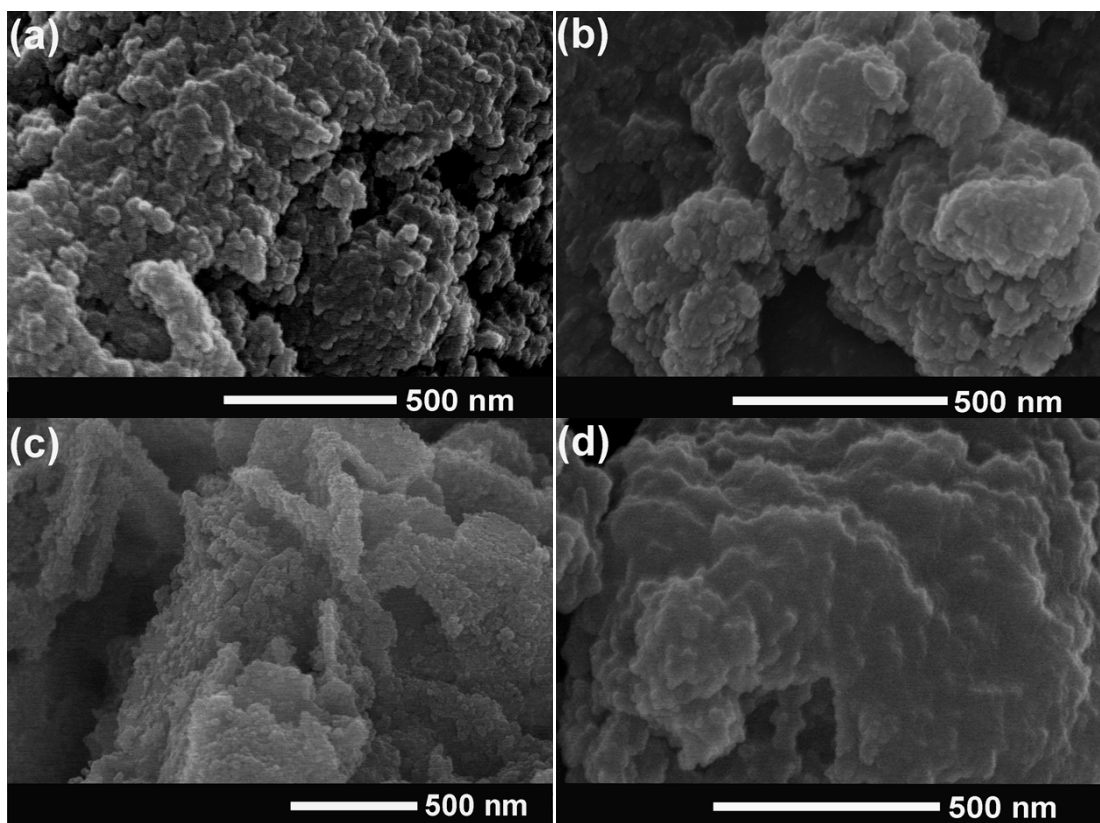


Figure S1. SEM images of BiOCl-TiO₂ (Bi:Ti = 1:3) synthesized solvothermally at (a) 120 °C, (b) 150 °C, (c) 180 °C and (d) 210 °C for 12 h.

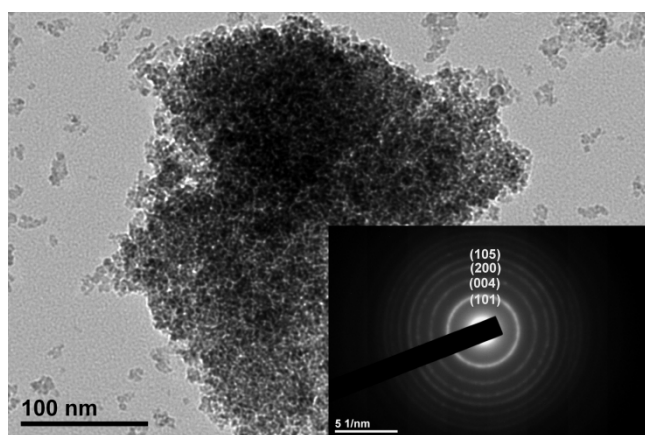


Figure S2. TEM image of BiOCl-TiO₂ (Bi:Ti = 1:3) synthesized solvothermally at 120 °C for 12 h, with corresponding selected area electron diffraction pattern (inset).

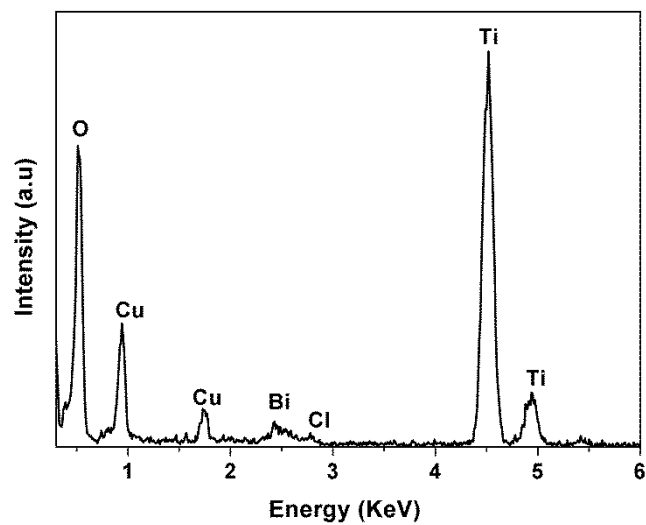


Figure S3. EDS spectrum of BiOCl-TiO₂ (Bi:Ti = 1:3) synthesized solvothermally at 120 °C for 12 h.

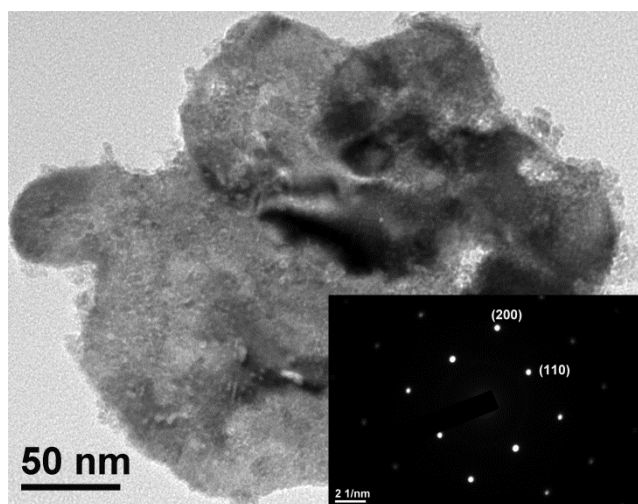


Figure S4. TEM image of BiOCl-TiO₂ (Bi:Ti = 1:3) synthesized solvothermally at 180 °C for 0.5h, with corresponding selected area electron diffraction pattern (inset).

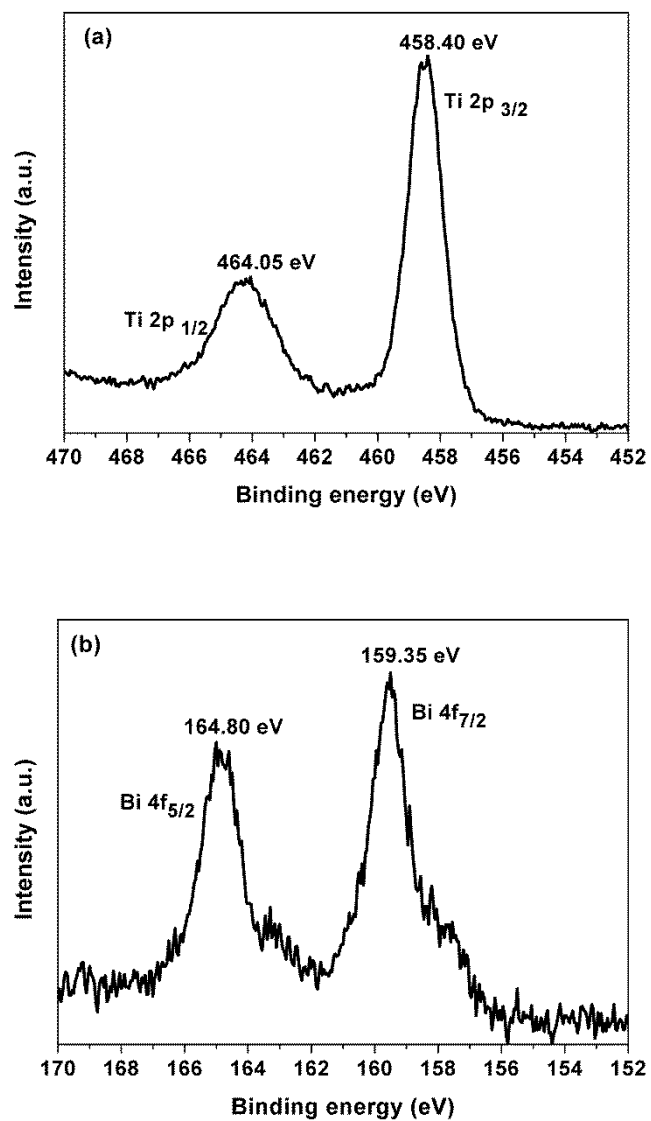


Figure S5. XPS spectra of BiOCl-TiO₂ (Bi:Ti = 1:3) synthesized solvothermally at 120 °C for 12 h : (a) Ti 2p; (b) Bi 4f.

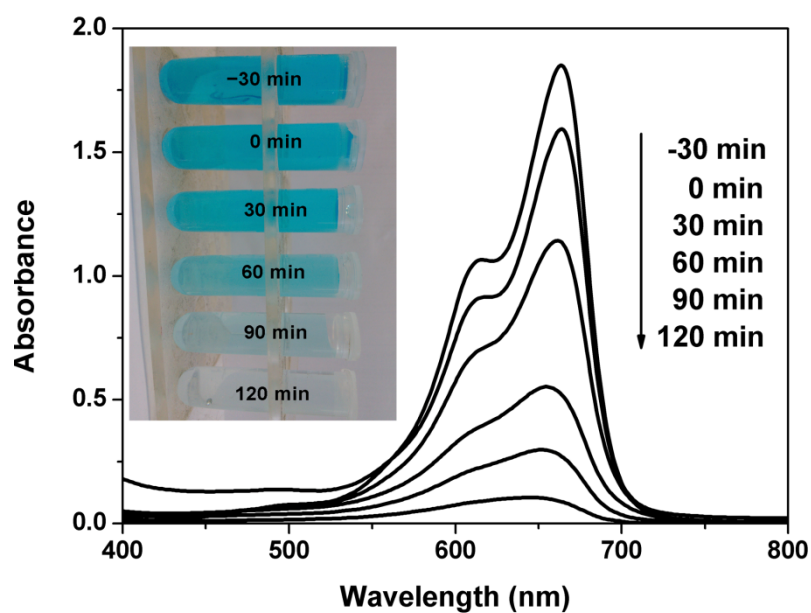


Figure S6. Absorption changes of MB solution under simulated sunlight illumination in the presence of BiOCl-TiO₂ (Bi:Ti = 1:3) synthesized solvothermally at 180 °C for 12.

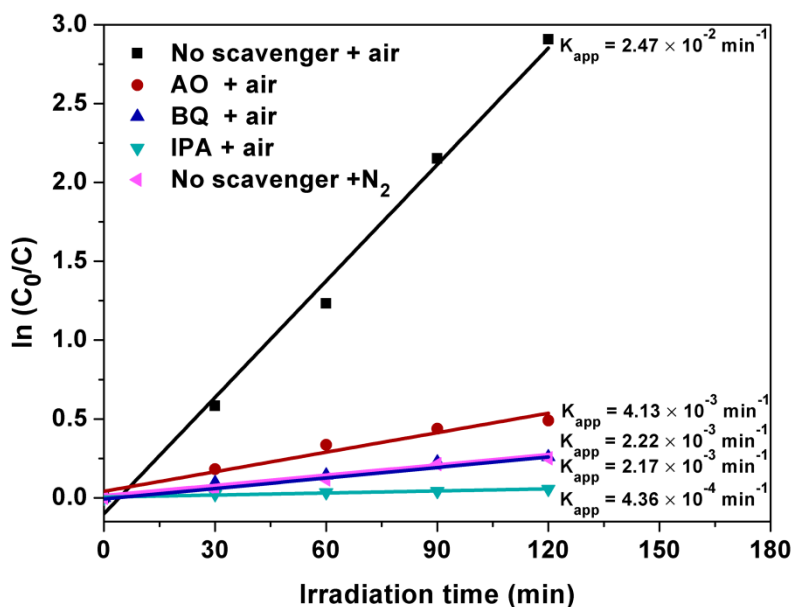


Figure S7. Kinetic fit for the degradation of MB with different scavengers under simulated sunlight illumination.

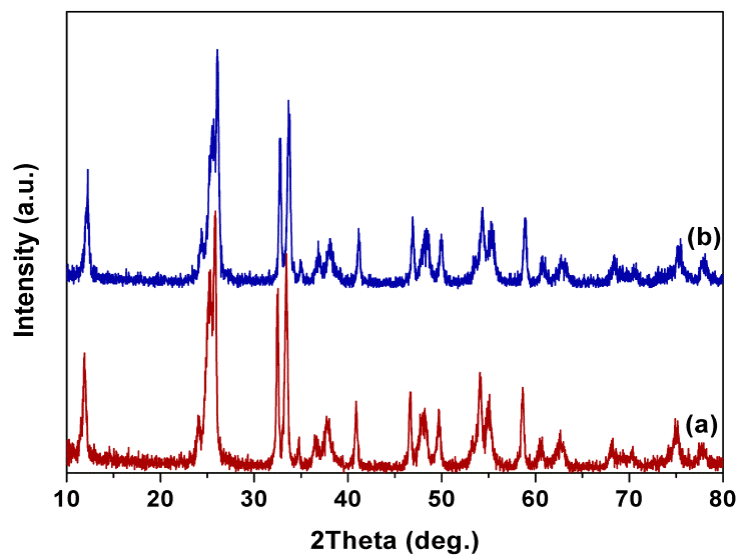


Figure S8. XRD patterns of the BiOCl-TiO₂ (Bi:Ti = 1:3) before the photocatalytic reaction (a) and after the catalytic reaction (b).