

Supporting Information

Visible-light-driven BiOBr nanosheets for highly facet-dependent photocatalytic inactivation of *Escherichia coli*

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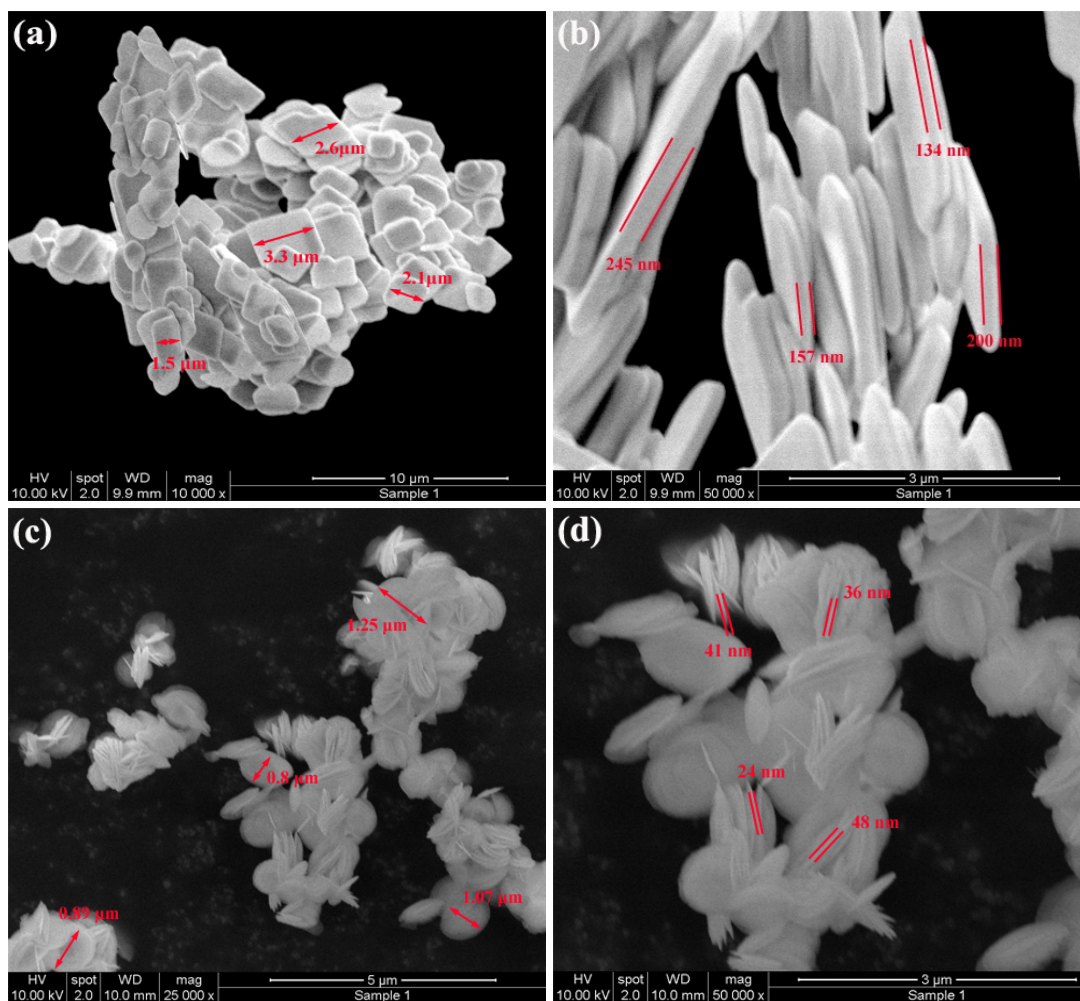


Fig. S1 SEM images of (a) and (b) for B001, and (c) and (d) for B010 nanosheets.

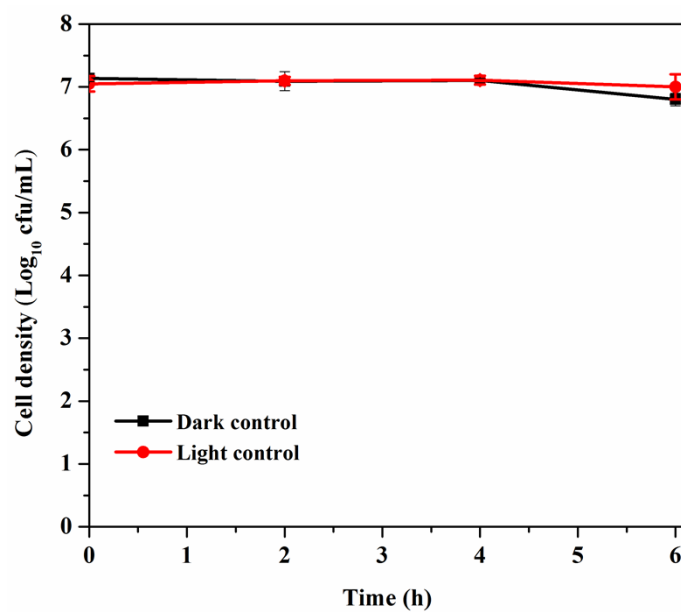


Fig. S2 Dark and light controls for the photocatalytic inactivation by B010 nanosheets towards *E. coli* K-12 (1×10^7 CFU mL⁻¹) in the presence of 0.05 mM Cr(VI).

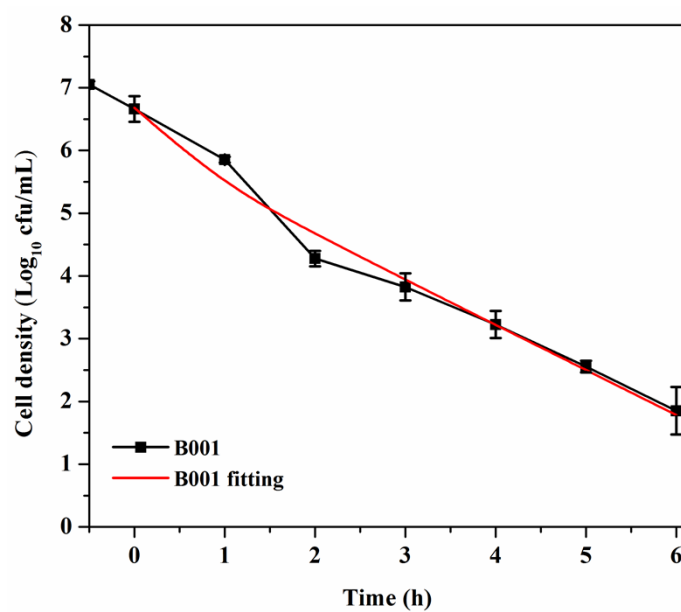


Fig. S3 Photocatalytic inactivation efficiency of *E. coli* K-12 (1×10^7 CFU mL⁻¹) in the presence of B001 nanosheets purging with Ar purging under VL irradiation.

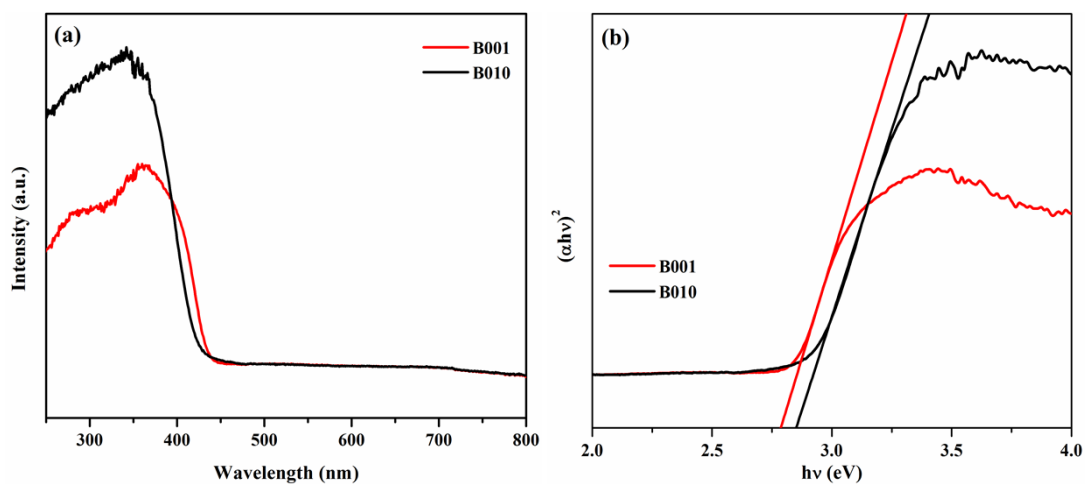


Fig. S4 (a) UV-vis diffuse reflectance spectra and (b) the plots of transformed Kubelka-Munk function *versus* the energy light of the B001 and B010 nanosheets.

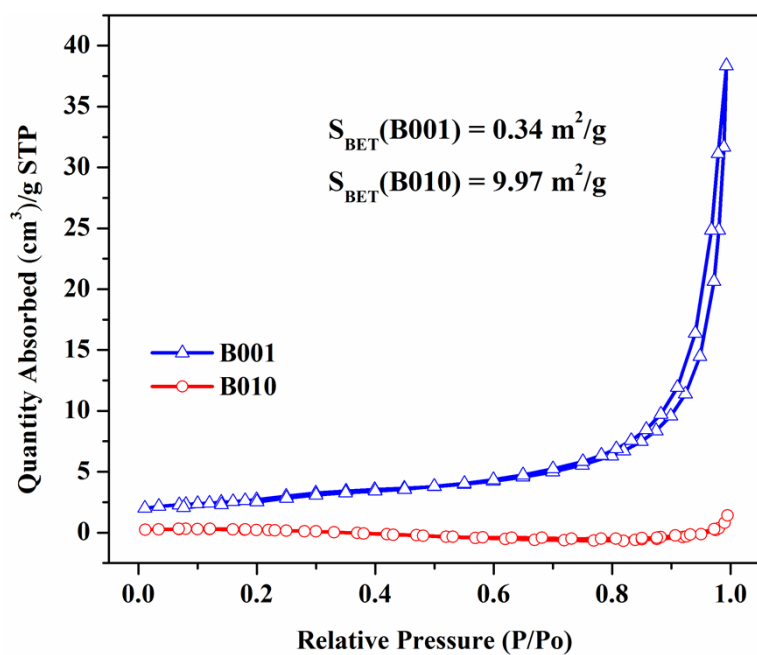


Fig. S5 Nitrogen adsorption-desorption isotherm of the B001 and B010 nanosheets.

Table S1 The fitting parameters of the equivalent circuit.

	B010	B001
R_s	28.58	32.37
R_1	12590	9157
R_2	4.955	5.823
R_3	1.109E6	1.305E7
C_3	2.099E-5	1.9841E-5
CPE1-P	0.9181	0.9178
CPE1-Y	4.481E-5	4.457E-5
CPE2-P	0.9044	0.8773
CPE2-Y	4.129E-5	4.91E-5

R_s : the resistance of the solution;

R_1 : the resistance of the work electrode (B001 or B010)

R_2 : the resistance of the counter electrode

R_3 : the resistance of the reaction;

C_3 : the capacitance of the counter electrode;

CPE-P/CPE-Y: the deviation of constant phase angle (the value is close to 1 indicating a trend to fabricate a double-layer electric).