

Architecting epitaxial-lattice-mismatch-free (LMF) zinc oxide/bismuth oxyiodide nano-heterostructures for efficient photocatalysis

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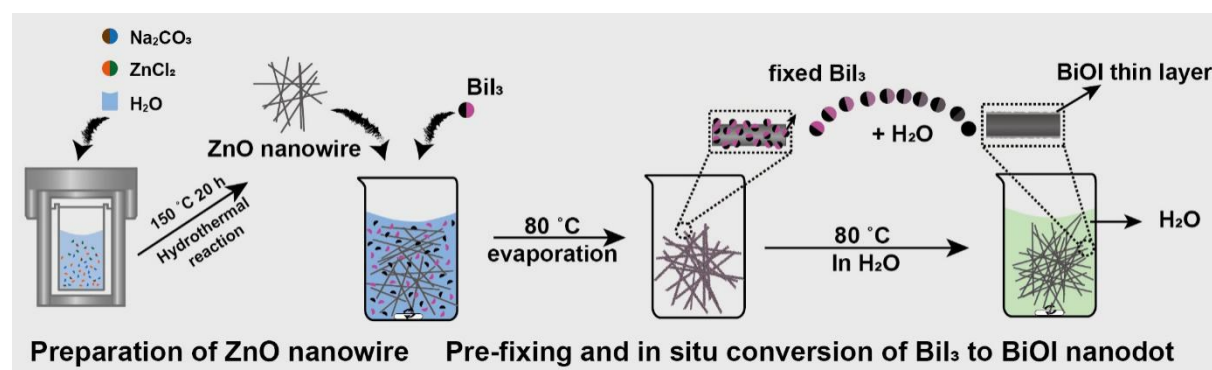


Figure S1. Illustration of synthesis procedure of the desired ZnO/BiOI heterostructure.

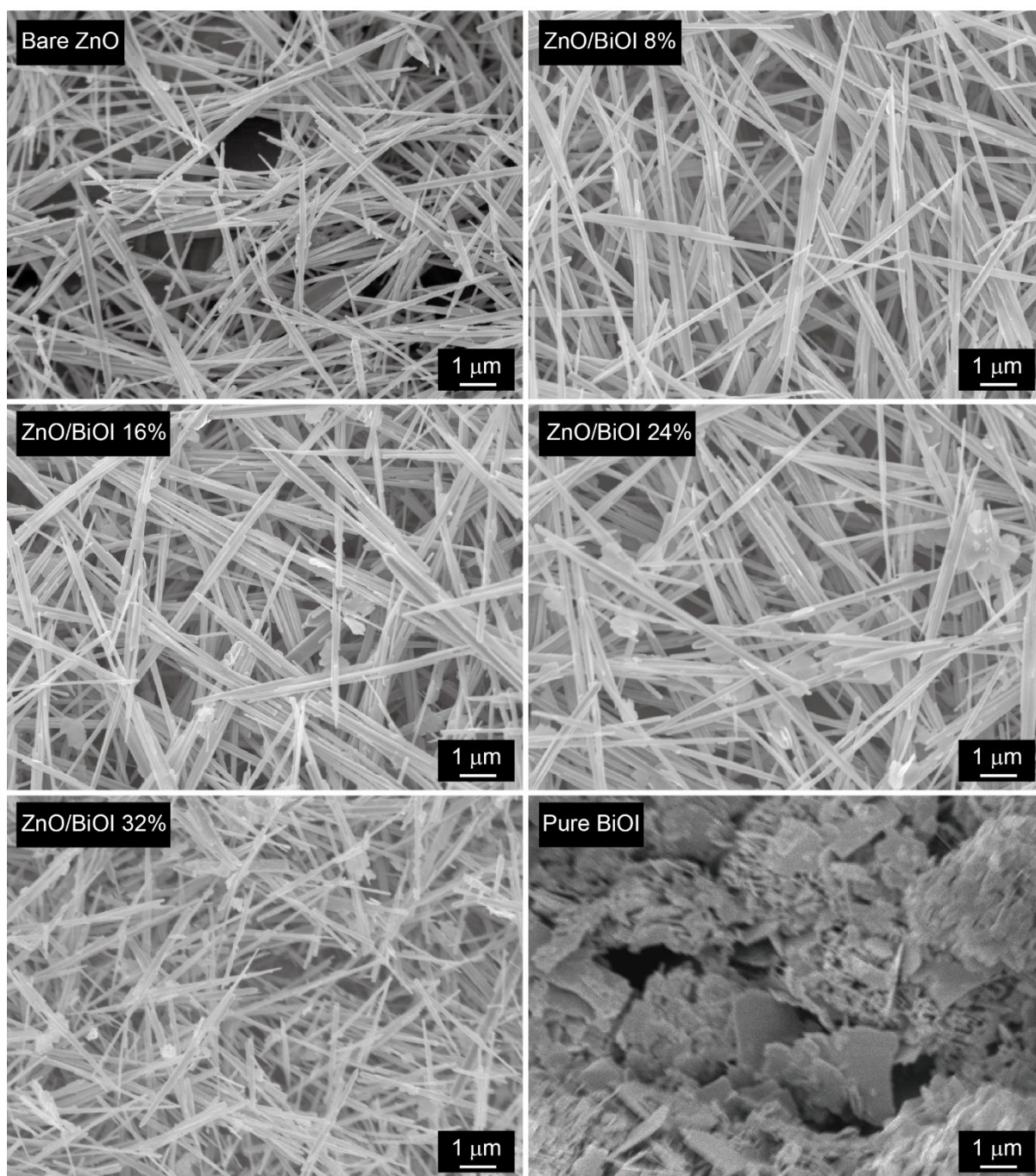


Figure S2. Morphology evolution of ZnO with different amounts of BiOI coated and the pure BiOI synthesized using the same methods without ZnO nanowire added.

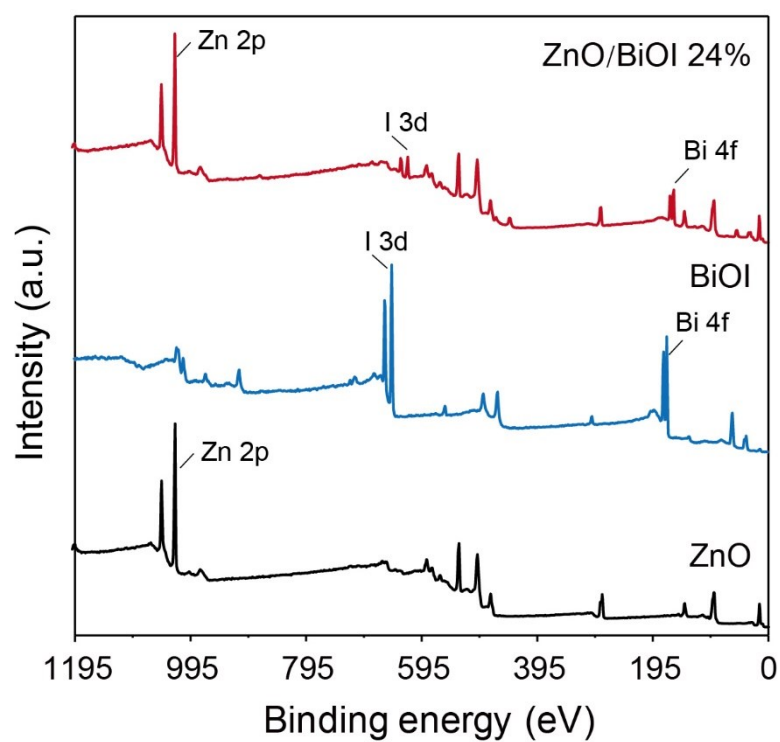


Figure S3. XPS survey spectra of ZnO, BiOI and ZnO/BiOI heterostructures.

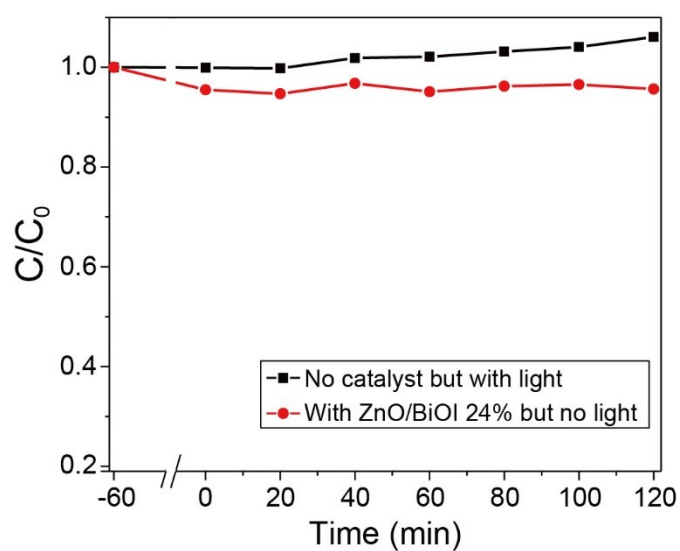


Figure S4. Control experiments for BPA photo-oxidation.

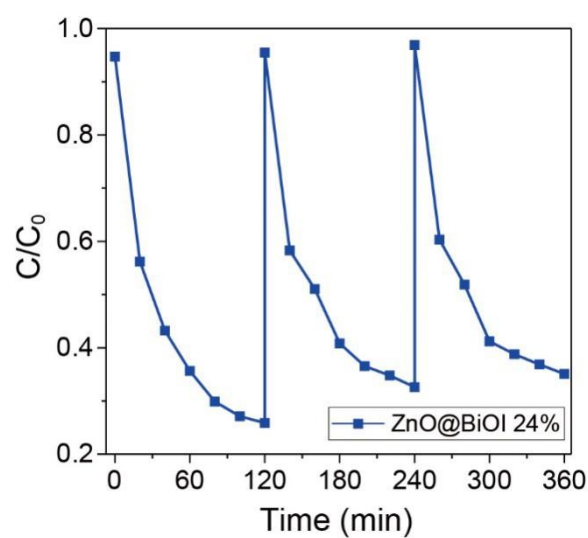


Figure S5. Recycle test of ZnO@BiOI 24% towards the degradation of BPA with visible light stimulation.

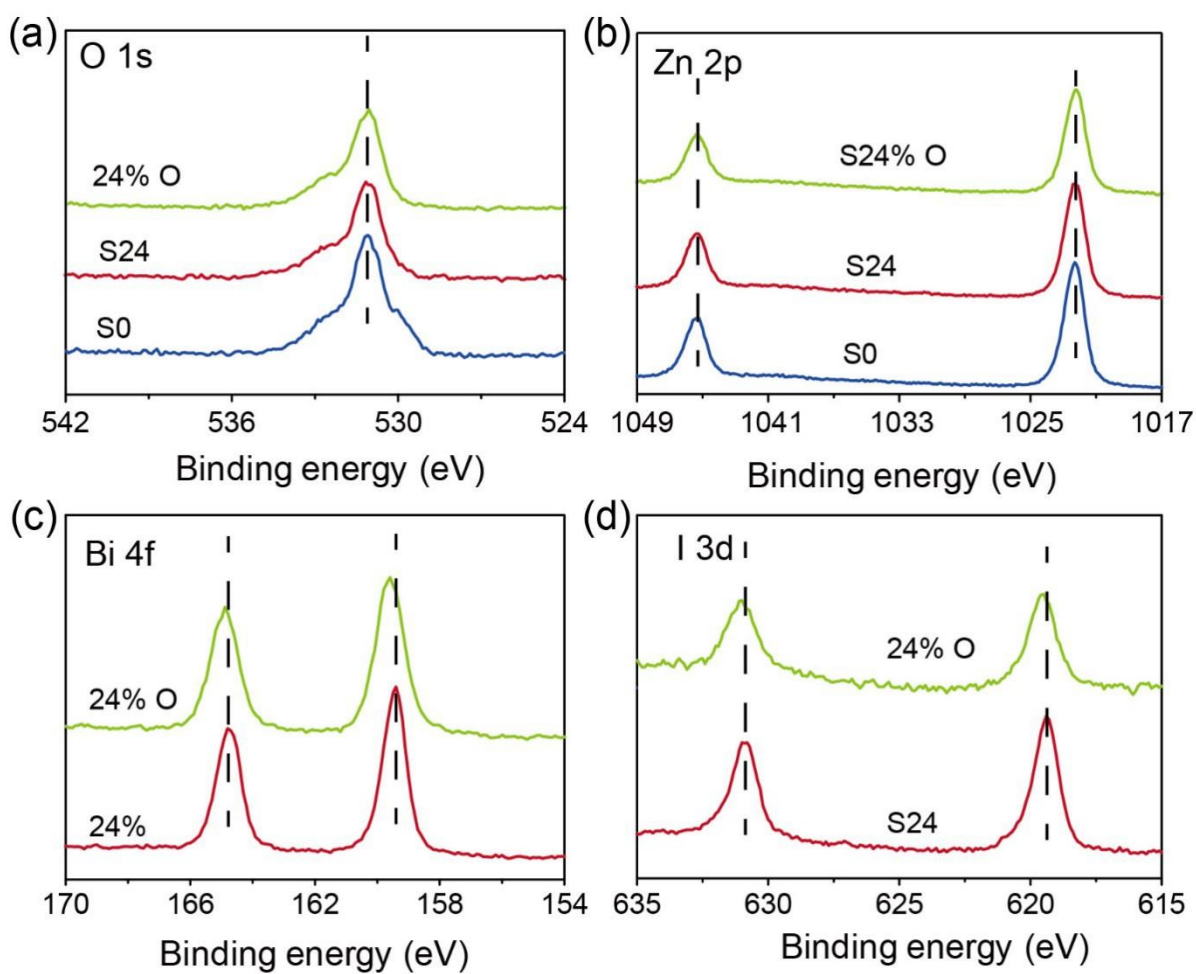


Figure S6. XPS spectra comparison for all the elements involved in the heterostructures before and after photocatalytic oxidation reaction.

Table S1. Fitted resistance based on the equivalent circuit.

	ZnO dark	ZnO vis	ZnO@BiOI 24% dark	ZnO@BiOI 24% Vis
R ₁	365	407	570	871
R ₂	105370	89422	74920	29464