Supporting Information

Hollow BiVO$_4$/Bi$_2$S$_3$ cruciate heterostructures with enhanced visible-light photoactivity

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Figure S1. Pictures of as-prepared BiVO₄ and BiVO₄/Bi₂S₃ heterostructures (samples S 1-4).
Figure S2. XPS spectra of BiVO$_4$/Bi$_2$S$_3$ heterostructures (a1, b1, c1) and BiVO$_4$ flakes (a2, b2, c2), and high-resolution spectra of the core levels of Bi 4f, O 1s and V 2p.
Figure S3. (a₁, b₁, c₁, d₁) HAADF images of sample S1-4. The correlative elemental mappings of (a₂, b₂, c₂, d₂) Bi, (a₃, b₃, c₃, d₃) O, (a₄, b₄, c₄, d₄) V, and (a₅, b₅, c₅, d₅) S elements.
Figure S4. Diagram for energy band levels of BiVO$_4$/Bi$_2$S$_3$ heterostructures and possible charge separation process.