Electronic Supplementary Information

Sheet-Like and Truncated-Dodecahedron-Like AgI Structures

via a Surfactant-Assisted Protocol and Their

Morphology–Dependent Photocatalytic Performances

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Fig. S1 The typical real-time absorption spectra of MO molecules during the photodegradation process under visible-light irradiations wherein no catalyst is used. The black and red curves marked as 0 min are the absorption spectra detected from the original MO solution before (black) and after (red) the dark adsorption experiments, respectively.



Fig. S2 The typical real-time absorption spectra of MO molecules during the photodegradation process, wherein our sheet-like AgI nanostructures are used as catalyst. The black and red curves marked as 0 min are the absorption spectra detected from the original MO solution before (black) and after (red) the dark adsorption experiments, respectively.



Fig. S3 The typical real-time absorption spectra of MO molecules during the photodegradation process, wherein our truncated-dodecahedron-like AgI nanostructures are used as catalyst. The black and red curves marked as 0 min are the absorption spectra detected from the original MO solution before (black) and after (red) the dark adsorption experiments, respectively.



Fig. S4 The EDX elemental analysis of the truncated–dodecahedron–like AgI structures measured after the photocatalytic performances.



Fig. S5 The XPS spectra of Ag 3d (panel A) and I 3d (panel B) of the truncated–dodecahedron–like AgI structures measured before (curve a) and after (curve a') the photocatalytic performances.



Fig. S6 The typical SEM images of the truncated–dodecahedron–like AgI structures measured after the photocatalytic performances.