Supporting Information

Low cost visible light driven plasmonic Ag-AgBr/$BiVO_4$ system: fabrication and application as an efficient photocatalyst

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Additional images:

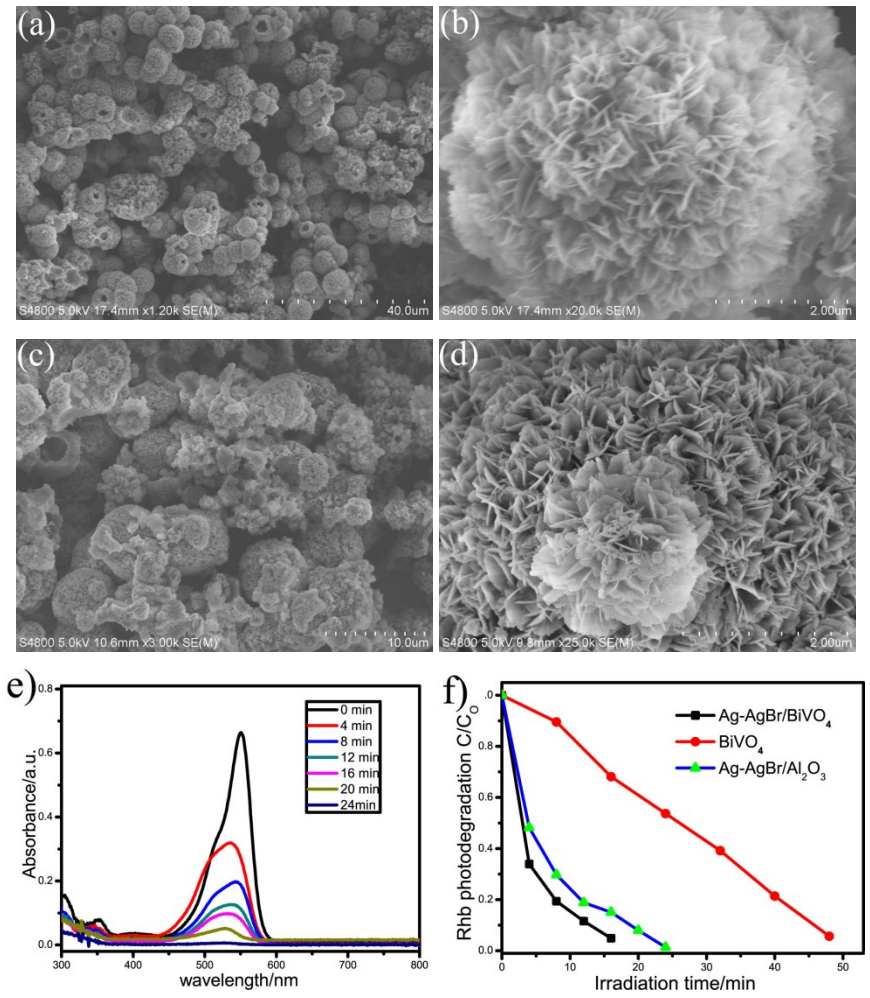

Fig. S1. (a) Low- and (b) high-magnification SEM images of Al_2O_3 structures. (c) Low- and (b) high-resolution SEM images of Ag-AgBr/Al_2O_3. (e) and The degradation of RhB by Ag-AgBr/Al_2O_3. (f) Time-dependent photo degradation curve of RhB with pure $BiVO_4$ (red line), Ag-AgBr/Al_2O_3 (blue line) and Ag-AgBr/$BiVO_4$ (black line).

Explanation: Al_2O_3 nanostructures were fabricated according the method reported elsewhere (Chem. Commun., 2011, 47, 7054). Through the same method of Ag-AgBr/$BiVO_4$, Ag-AgBr/Al_2O_3 was prepared. Fig. S1a and b are typical SEM images of the as-prepared hollow Al_2O_3 nanostructures. Fig. S1c and d show the SEM images of the as-prepared Ag-AgBr/Al_2O_3 nanostructures. The performance of Ag-AgBr/Al_2O_3 photocatalyst has also been performed through photodegradation of RhB under visible light irradiation ($\lambda \geq 420$ nm). The complete degradation of RhB by Ag-AgBr/Al_2O_3 takes nearly 24 min.