Electronic Supplementary Information

Hierarchical flake-like Bi₂MoO₆/TiO₂ bilayer films for visible-light-induced self-cleaning applications

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Fig. S1 3D AFM images of of Bi_2MoO_6/TiO_2 bilayer films obtained from different reaction time: (A) 1 h, (B) 3 h, (C) 6 h and (D) 10 h.



Fig. S2 N_2 adsorption-desorption isotherms of Bi_2MoO_6/TiO_2 bilayer films obtained from different reaction time: (a) 1 h, (b) 3 h, (c) 6 h and (d) 10 h. The inset shows the corresponding pore size distributions.

Samples obtained from different reaction time (h)	$S_{BET}(m^2/g)$	pore size (nm)
1	24.5	2.2
1	24.5	3.2
3	28.8	7.5
6	32.5	12.8
10	49.5	4.5, 15.2

Table S1 Surface areas and pore sizes of the Bi_2MoO_6/TiO_2 bilayer films obtained from different reaction time.



Fig. S3 Nyquist plots of the EIS data of the as-made thin films on FTO glass with a) TiO_2 , b) Bi_2MoO_6 , and Bi_2MoO_6/TiO_2 bilayer films obtained from different reaction time: (c) 1 h, (d) 3 h, (e) 6 h and (f) 10 h.



Fig. S4 The postulated mechanism for visible light photodegradation of alizarin red with Bi_2MoO_6/TiO_2 films.





Fig. S5 A and C is Gas chromatogram of the main component of during and after visible light photocatalytic degradation of ARS dye from GC-MS spectroscopy, respectively. B and D is Mass spectra of the corresponding main component of during and after visible light photocatalytic degradation of ARS dye from GC-MS spectroscopy, respectively.