

## Electronic Supplementary Information

### One-dimensional Bi<sub>2</sub>MoO<sub>6</sub>/TiO<sub>2</sub> hierarchical heterostructures with enhanced photocatalytic activity

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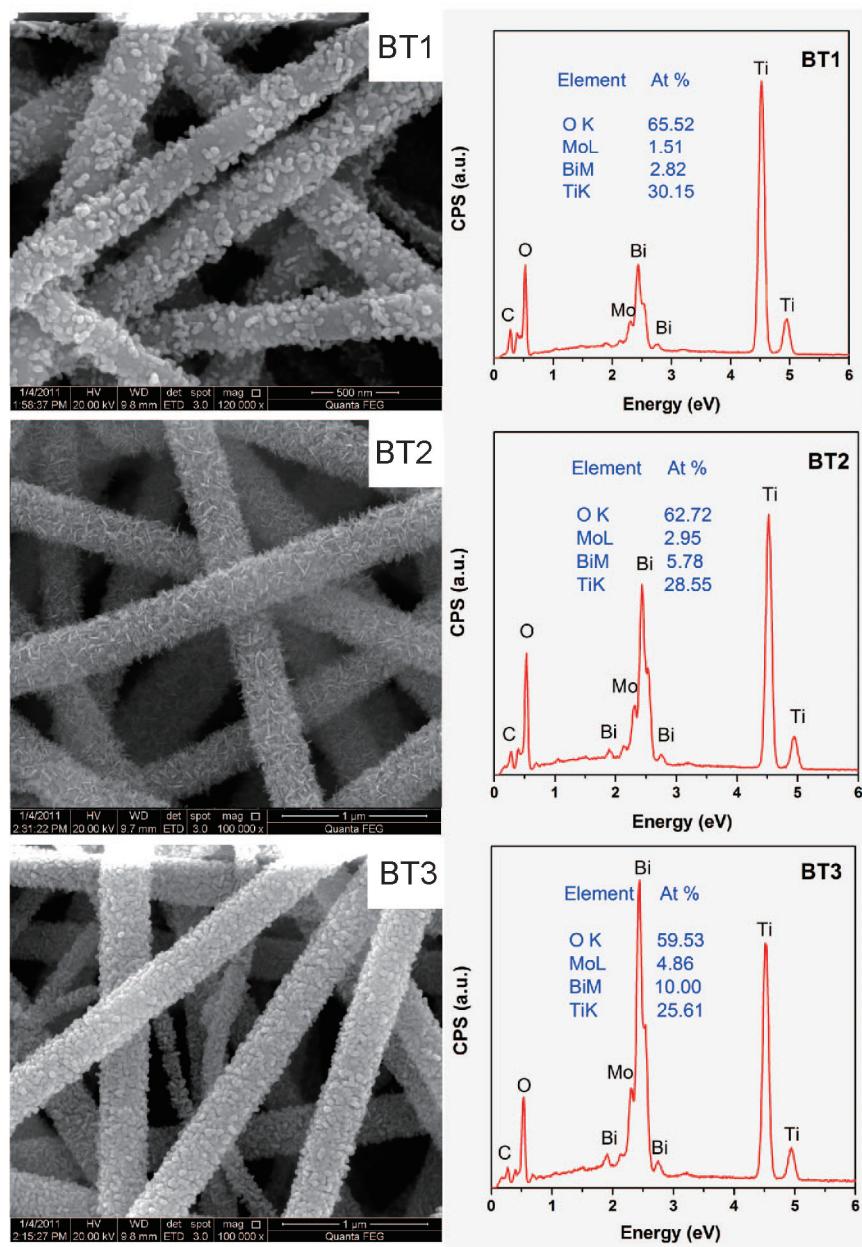
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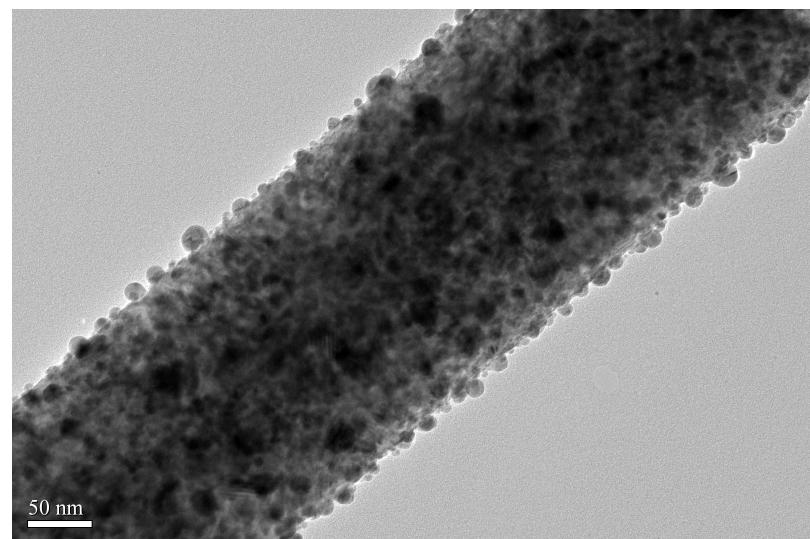
Samples	Precursors ( mg )			Morphology	Bi/Ti Molar ratio <sup>a</sup>
	Bi(NO <sub>3</sub> ) <sub>3</sub>	Na <sub>2</sub> MoO <sub>4</sub>	TiO <sub>2</sub> nanofibers		
Bi <sub>2</sub> MoO <sub>6</sub> 6	421	105	0		
BT1	210	50	15	nanoarticles	1 : 10.7
BT2	421	105	15	nanosheets	1 : 4.94
BT3	842	210	15	nanoarticles	1 : 2.59

<sup>a</sup>The value is determined by EDX.

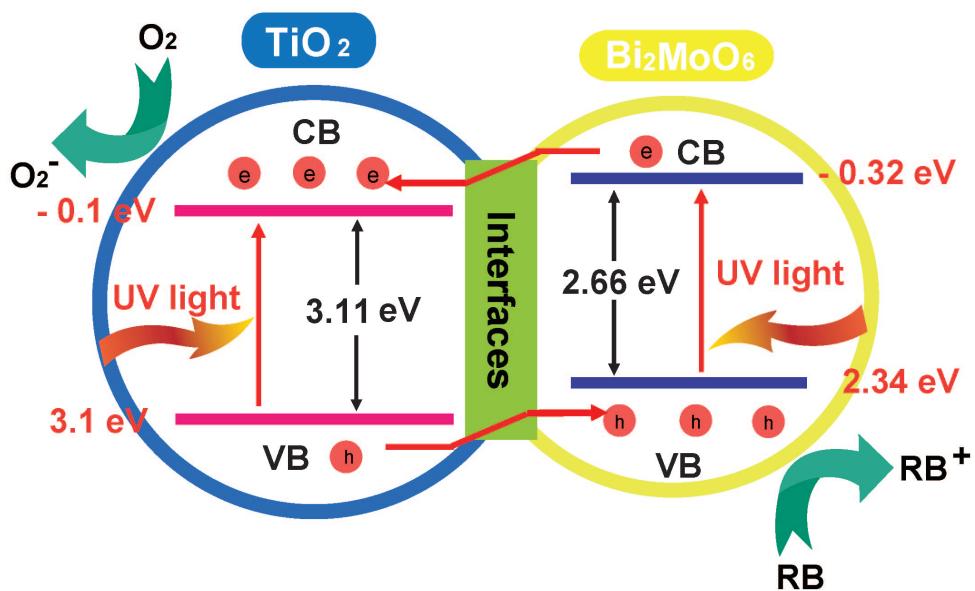
**Table S1** Experimental conditions, Bi<sub>2</sub>MoO<sub>6</sub> nanostructure characteristics, and chemical component of the prepared samples.



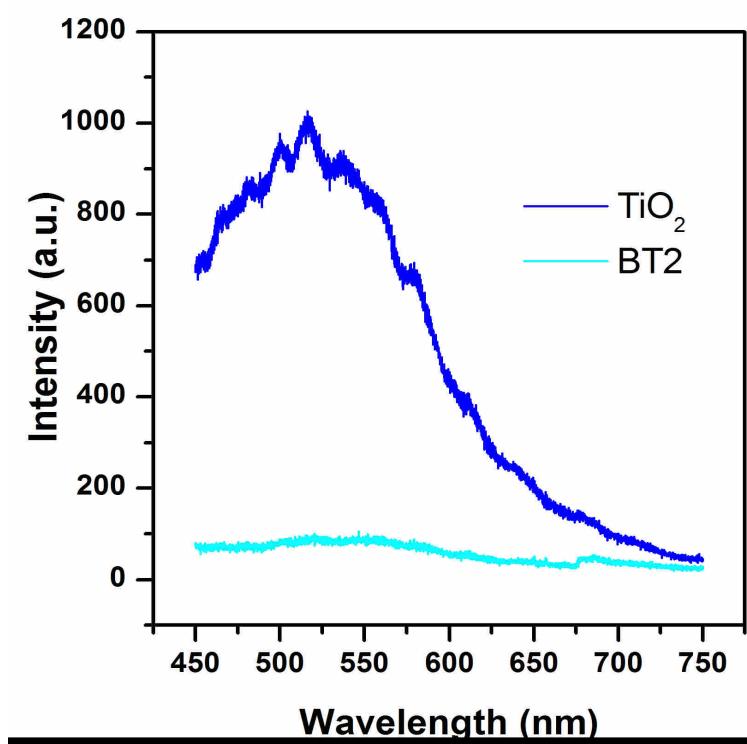
**Fig. S1** SEM images and the corresponding energy-dispersive X-ray (EDX) spectra of the  $\text{Bi}_2\text{MoO}_6/\text{TiO}_2$  hierarchical heterostructures (BT1, BT2 and BT3).



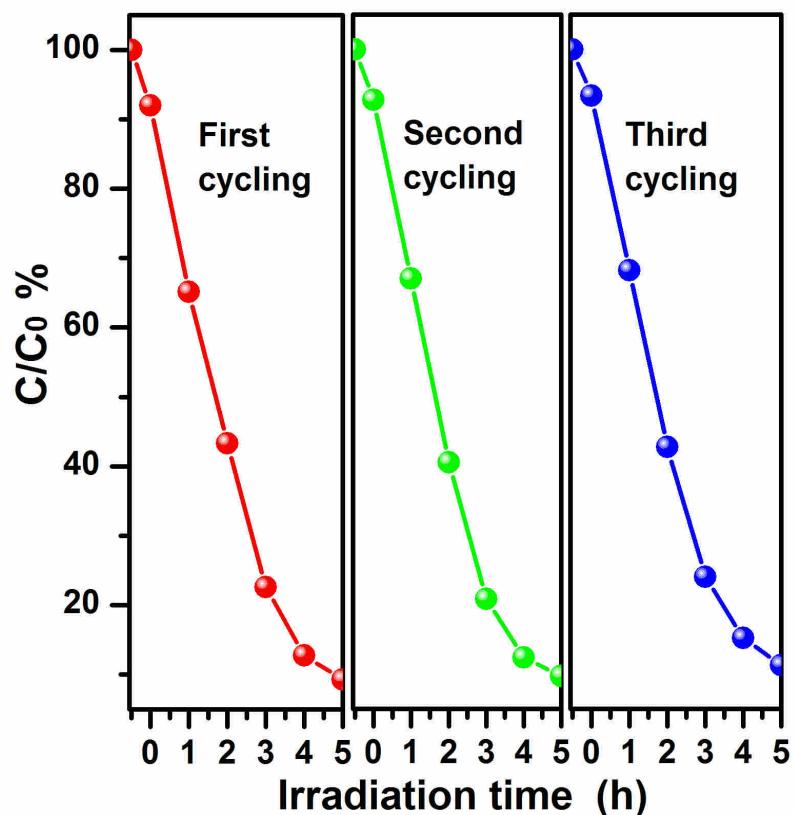
**Fig. S2** TEM image of sample BT2



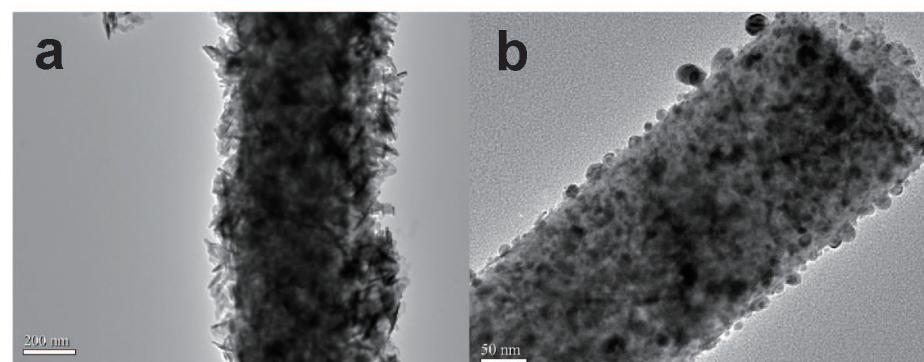
**Fig. S3** Postulate mechanism of the UV-light photodegradation of RB with  $\text{Bi}_2\text{MoO}_6/\text{TiO}_2$  hierarchical heterostructures.



**Fig. S4** PL spectra of  $\text{TiO}_2$  and BT2 nanofibers.



**Fig. S5** Degradation curves of RB over sample BT3 for resuing 3 times.



**Fig. S6** TEM images of  $\text{Bi}_2\text{MoO}_6/\text{TiO}_2$  catalyst before and after the photocatalytic reaction.(a) BT2 and (b) BT3.