Supplementary Information

Facile fabrication of few-layer MoS_2 coupled BiOBr microspheres and enhanced visible light photocatalytic activity

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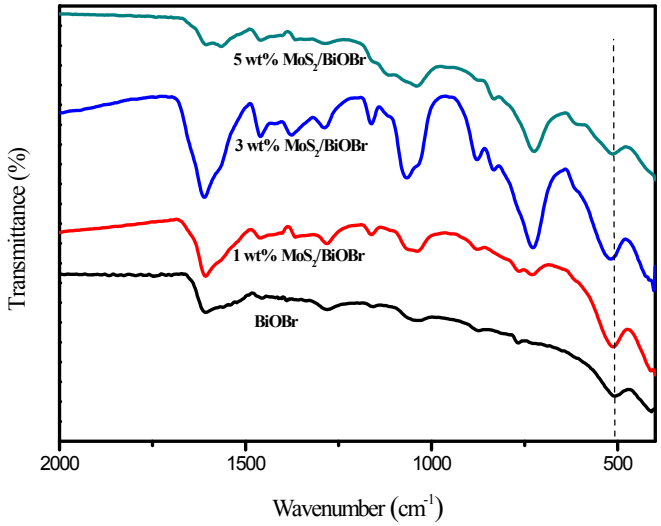

Figure S1. FT-IR of MoS_2/BiOBr composites with different contents of MoS_2.

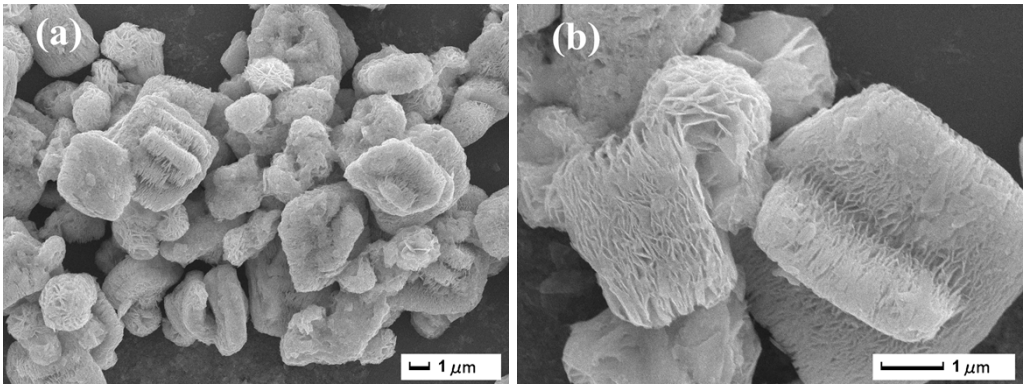

Figure S2. SEM images of 5 wt% MoS_2/BiOBr material.

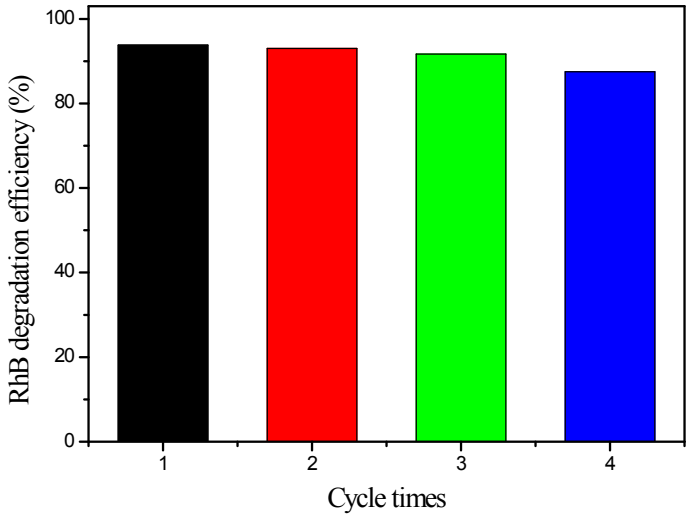

Figure S3. Cycling runs for the photodegradation of RhB in the presence of 3 wt% MoS_2/BiOBr material under visible light irradiation.

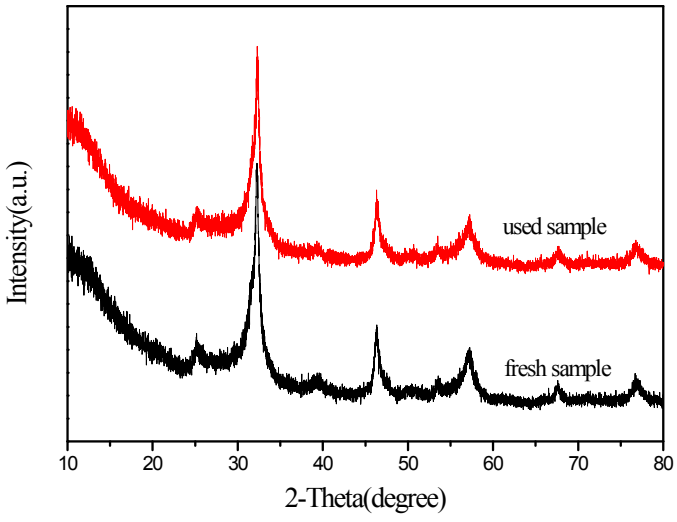

Figure S4. XRD patterns of the 3 wt% MoS_2/BiOBr composite before and after the cycling photocatalytic experiments.

Table S1 Pseudo-first-order rate constant for RhB photocatalytic oxidation under different photocatalysts.

Series	Photocatalyst	The first order kinetic equation	$k\ (min^{-1})$	R^2
1	BiOBr	$-\ln(C/C_0)=0.022\ t$	0.022	0.9950
2	1 wt% MoS_2/BiOBr	$-\ln(C/C_0)=0.039\ t$	0.039	0.9981
3	3 wt% MoS_2/BiOBr	$-\ln(C/C_0)=0.055\ t$	0.055	0.9970
4	5 wt% MoS_2/BiOBr	$-\ln(C/C_0)=0.033\ t$	0.033	0.9926