

Supporting Information (SI)

One-step Low Temperature Hydrothermal Synthesis of Flexible TiO₂/PVDF@MoS₂

Core-shell Heterostructured Fibers for Visible-Light-Driven Photocatalysis and

Self-cleaning

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Figure Captions

Fig. S1 The spectrum of LED white light used in the experiment.

Fig. S2 XRD patterns of (a) PVDF fibers, (b) MoS₂/PVDF fibers & (c) MoS₂ powder.

Fig. S3 EDS spectrum of TiO₂/PVDF@MoS₂ fiber.

Fig. S4 XPS survey spectrum of TiO₂/PVDF@MoS₂ fiber.

Fig. S5 Absorption spectra of RhB solutions at various irradiation times for different samples: (a) P25, (b) TiO₂/PVDF, (c) MoS₂/PVDF & (d) TiO₂/PVDF@MoS₂.

Fig. S6 Optical photographs of RhB solutions at various irradiation times for (a) TiO₂/PVDF and (b) TiO₂/PVDF@MoS₂.

Fig. S7 The effect of a water drop rolling on the surface of the TiO₂/PVDF@MoS₂ core-shell heterostructured fibers to remove dust.

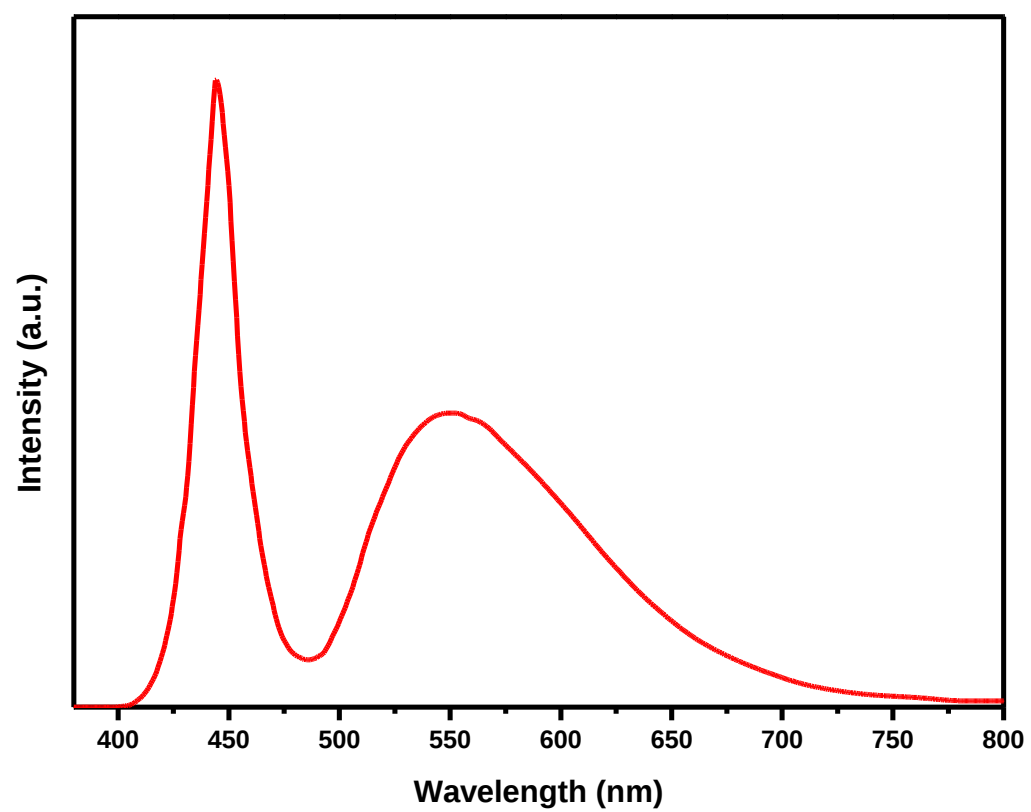


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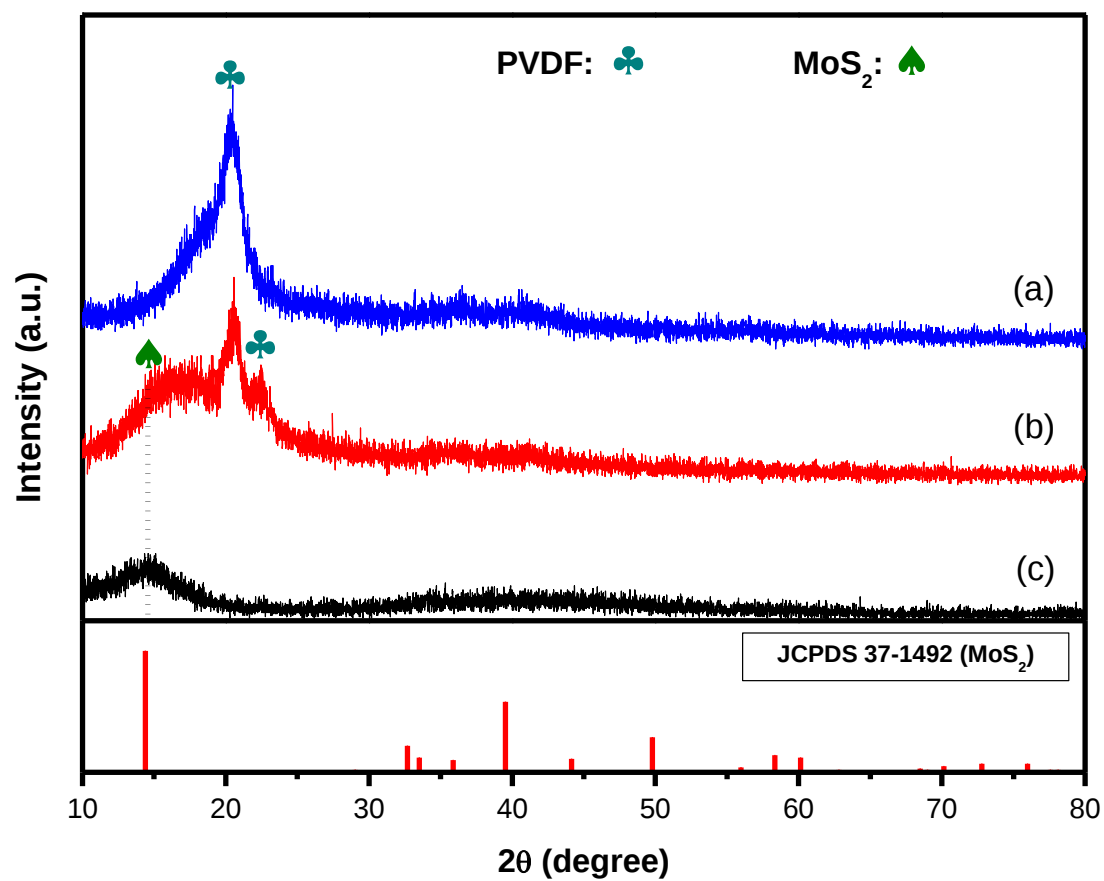


Fig. S2 XRD patterns of (a) PVDF fibers, (b) MoS₂/PVDF fibers & (c) MoS₂ powder.

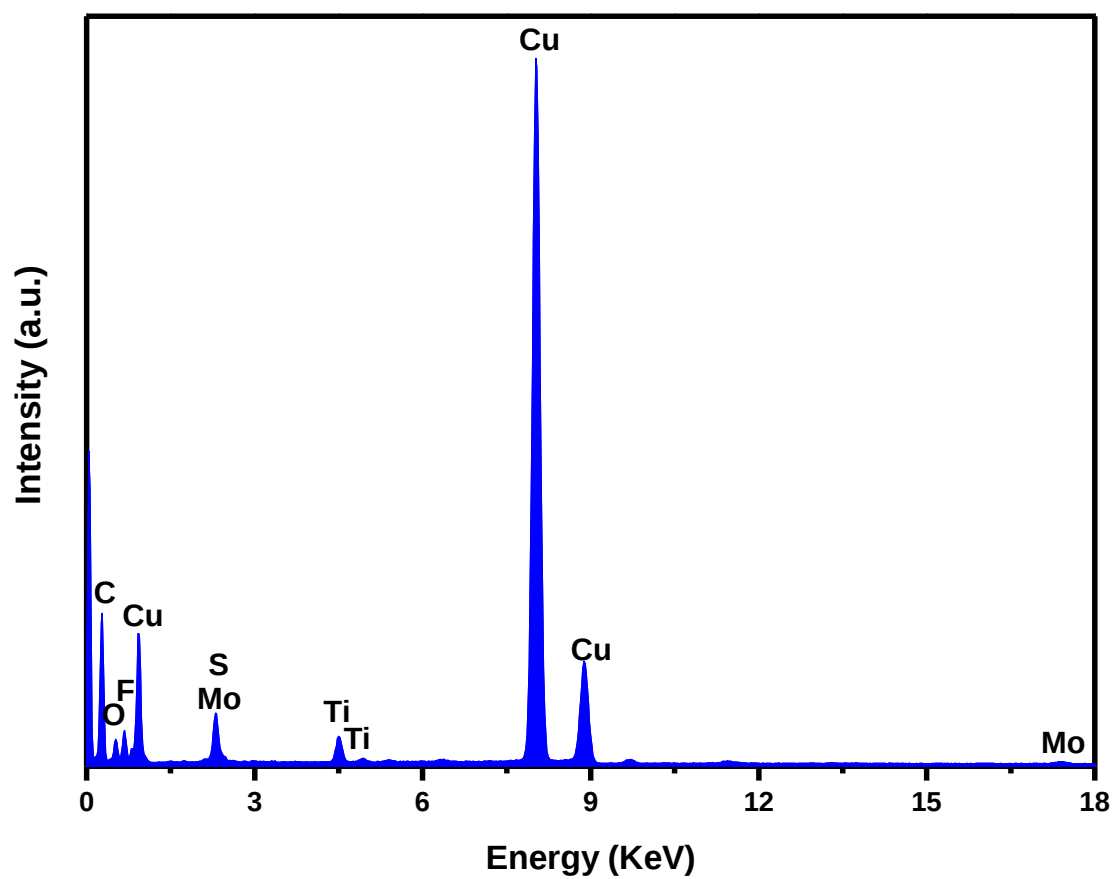


Fig. S3 EDS spectrum of $\text{TiO}_2/\text{PVDF}@ \text{MoS}_2$ fiber.

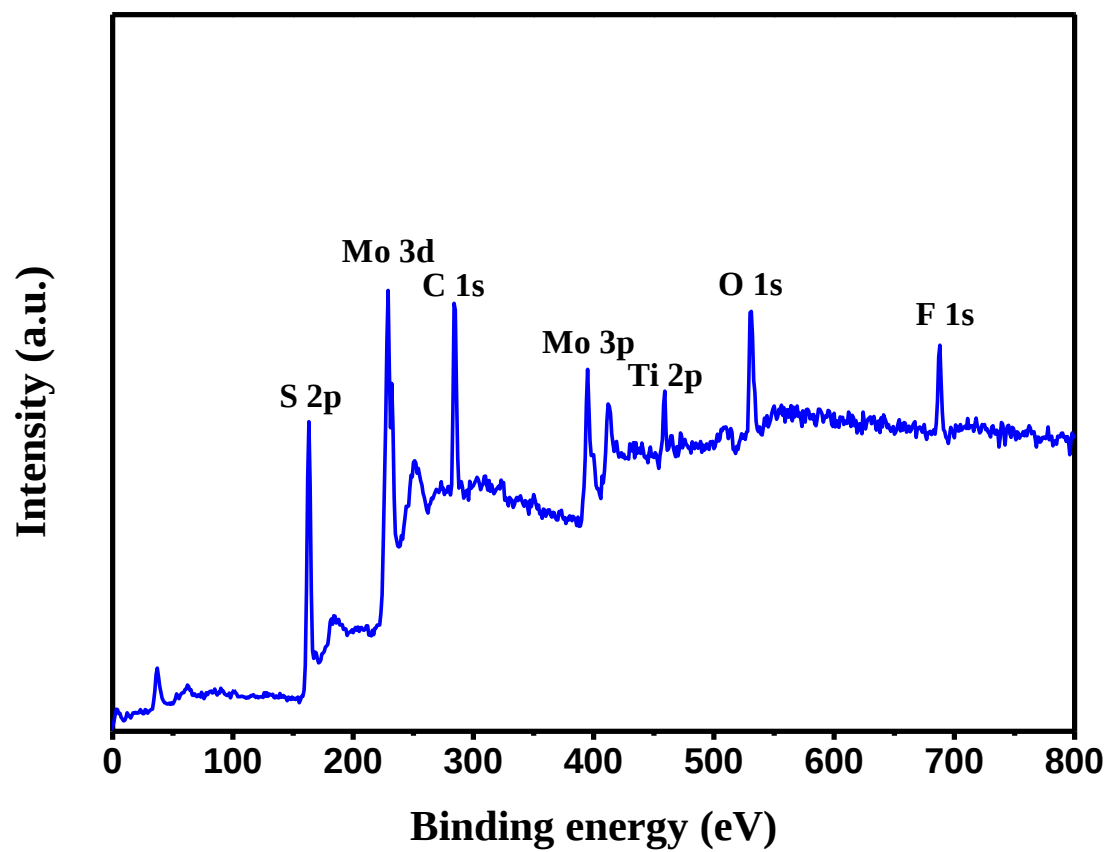


Fig. S4 XPS survey spectrum of TiO₂/PVDF@MoS₂ fiber.

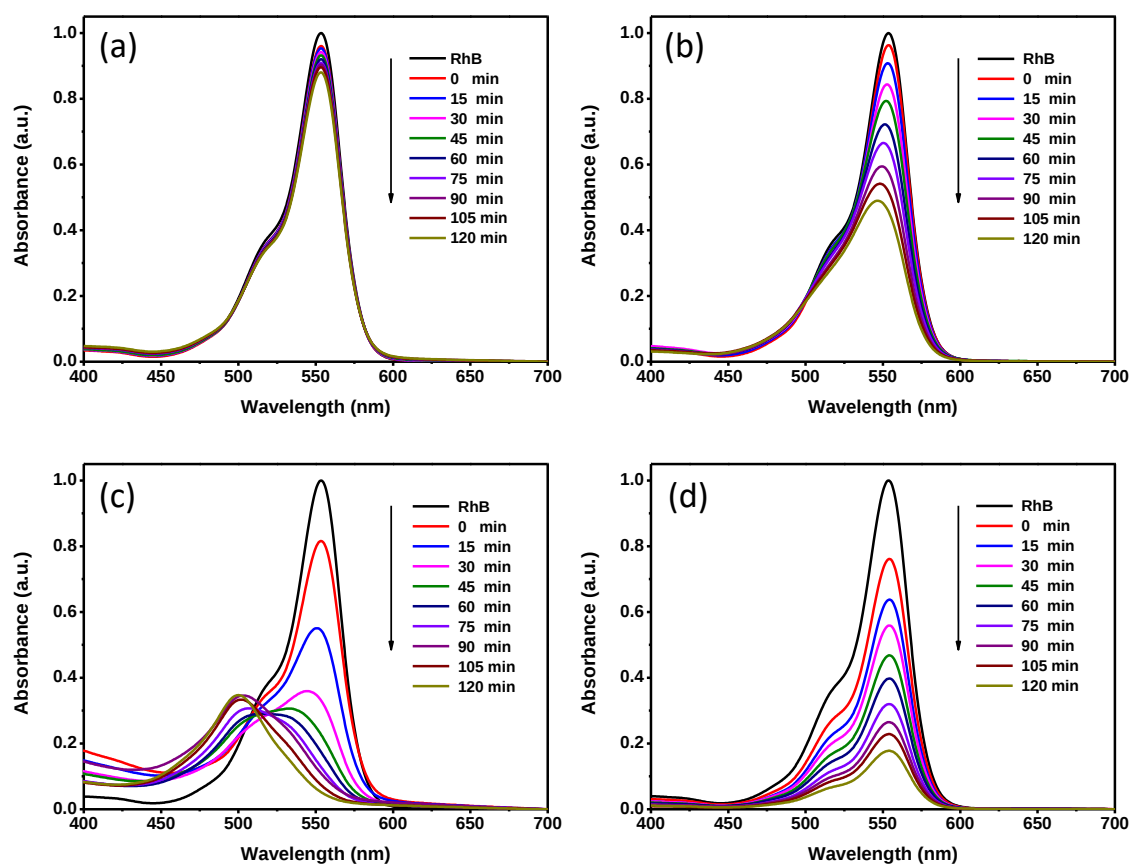


Fig. S5 Absorption spectra of RhB solutions at various irradiation times for different samples: (a) MoS₂/PVDF, (b) P25, (c) TiO₂/PVDF & (d) TiO₂/PVDF@MoS₂.



Fig. S6 Optical photographs of RhB solutions at various irradiation times for (a) TiO₂/PVDF and (b) TiO₂/PVDF@MoS₂.



Fig. S7 The effect of a water drop rolling on the surface of the $\text{TiO}_2/\text{PVDF}@ \text{MoS}_2$ core-shell heterostructured fibers to remove dust.