

Supporting Information

Eosin Y sensitized BiPO₄ nanorods for bi-functionally enhanced Visible-Light-Driven photocatalysis

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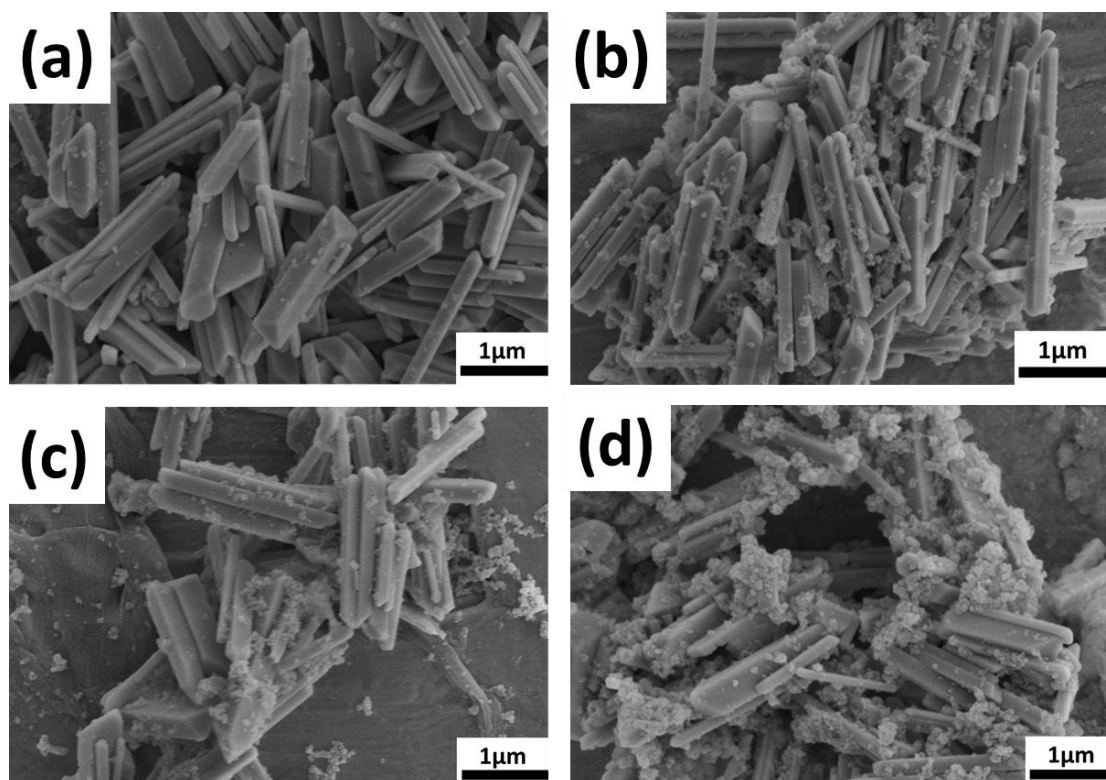


Fig. S1. SEM images of samples. (a) 5 wt% Eosin Y/BiPO₄; (b) 10 wt% Eosin Y /BiPO₄; (c) 20 wt% Eosin Y /BiPO₄; (d) 30 wt% Eosin Y /BiPO₄.

Table S1 The k value of first-order kinetics and standard errors

	K Value (min ⁻¹)	Standard Error
BiPO ₄	0.0004	±0.0001
5 wt% Eosin Y/BiPO ₄	0.0038	±0.0004
10 wt% Eosin Y/BiPO ₄	0.0049	±0.0013
15 wt% Eosin Y/BiPO ₄	0.0194	±0.0045
20 wt% Eosin Y/BiPO ₄	0.0023	±0.0003
30 wt% Eosin Y/BiPO ₄	0.0019	±0.0002
Dark control	0.0002	±0.0000
Light control	0.0001	±0.0000
Eosin Y	0	0

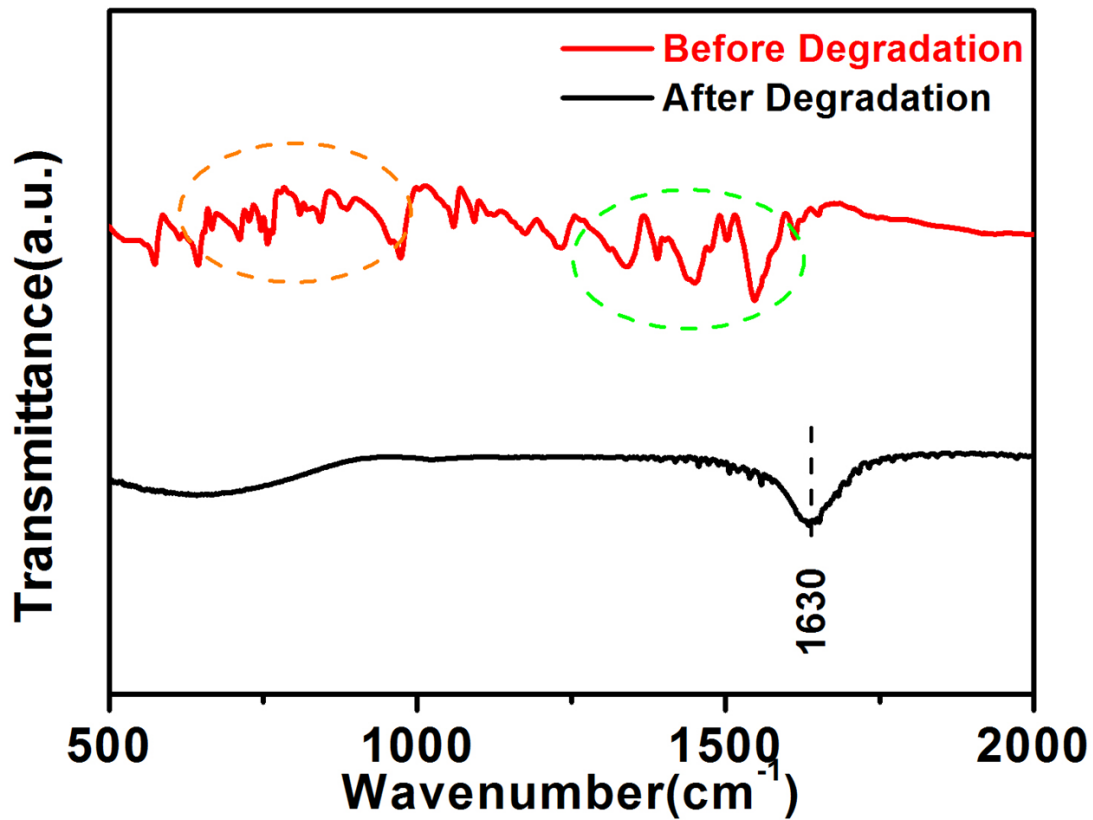


Fig. S2 FT-IR spectra of 15 wt% Eosin Y/BiPO₄ photocatalyst before and after the photodegradation test.

Table S2 The fitting parameters of the Randles equivalent circuit

Samples	R _s (ohm)	R _{ct} (ohm)	C _{ct} (10 ⁻⁴)
BiPO ₄	10.48	2713	1.43
Eosin Y/BiPO ₄	10.15	385	1.38
Eosin Y	9.86	9690	1.57

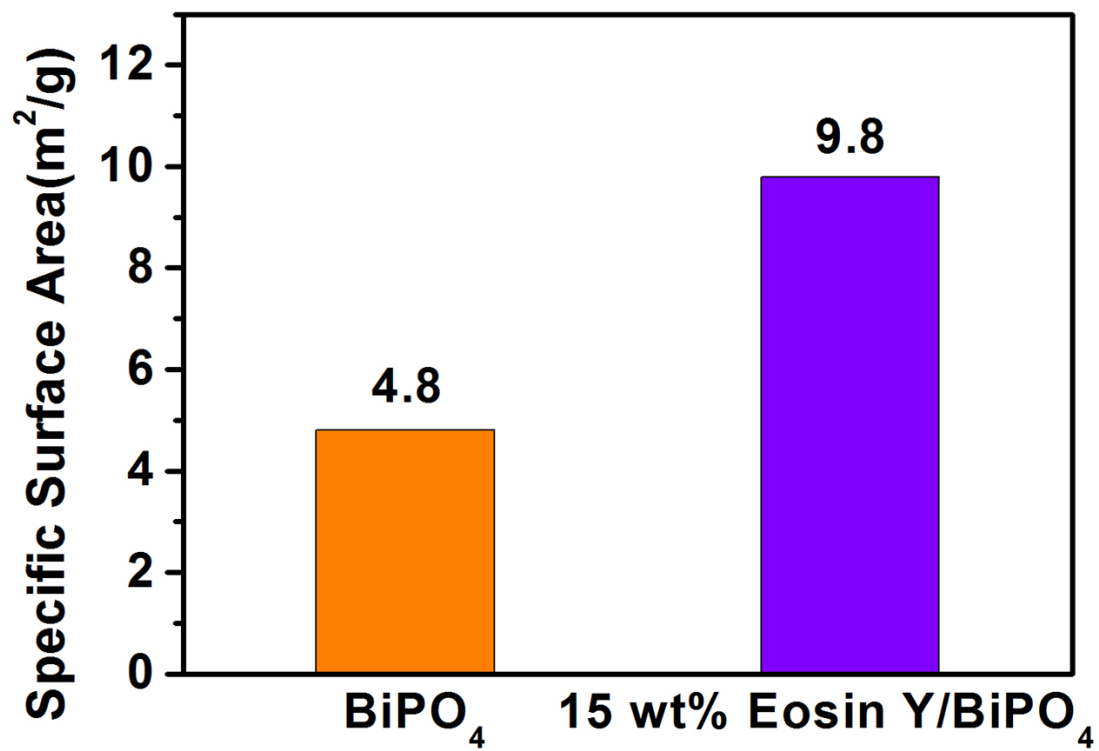


Fig. S3 Specific surface area of BiPO₄ and 15 wt% Eosin Y/BiPO₄.