

Supporting Information

Construction of a novel 2D-2D heterojunction by coupling covalent organic framework and In_2S_3 for photocatalytic removal of organic pollutants with high efficiency

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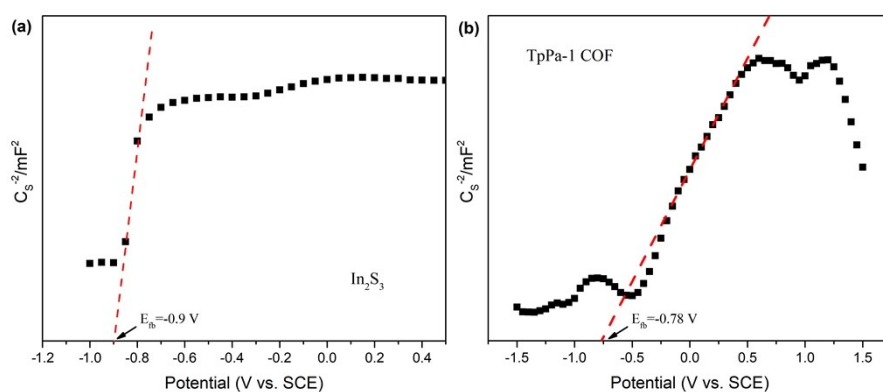


Figure S1. (a) and (b) are M-S plots of In_2S_3 and TpPa-1 COF, respectively.

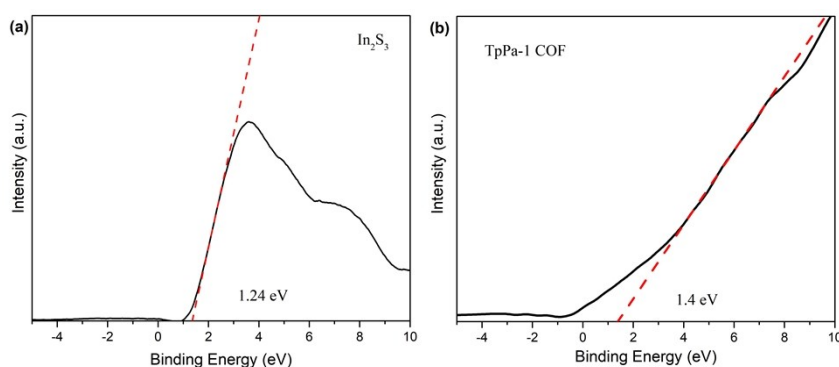


Figure S2. VB-XPS spectra of the (a) In_2S_3 and (b) TpPa-1 COF.

Table S1 Comparison with other In₂S₃-based photocatalysts for RhB degradation

Sample	Catalyst (mg)	RhB (mg/L)	Efficiency (%)	<i>k</i> value (min ⁻¹)	Light source	Ref.
In ₂ S ₃ /g-C ₃ N ₄	50	10 (50 ml)	96 (30 min)	0.099	300W Xe lamp	¹
In ₂ S ₃ -Sb ₂ S ₃ @TFPT-COFs	10	30 (35 ml)	99 (50 min)	-	500W Xe lamp	²
KNbO ₃ /In ₂ S ₃	30	2 (50 ml)	92 (60 min)	0.044	300W Xe lamp	³
In ₂ S ₃ /Bi ₂ O ₂ CO ₃	30	10 (30 ml)	91 (60 min)	0.035	400W Xe lamp	⁴
In ₂ S ₃ /TpPa-1	10	100 (15 ml)	92 (60 min)	0.041	300W Xe lamp	This work

References

- 1 C. Xing, Z. Wu, D. Jiang and M. Chen, *J Colloid Interface Sci*, 2014, **433**, 9-15.
- 2 K. Xue, R. He, T. Yang, J. Wang, R. Sun, L. Wang, X. Yu, U. Omeoga, S. Pi, T. Yang and W. Wang, *Applied Surface Science*, 2019, **493**, 41-54.
- 3 J. Xu, C. Liu, J. Niu and M. Chen, *Separation and Purification Technology*, 2020, **230**.
- 4 H. Fan, H. Zhou, W. Li, S. Gu and G. Zhou, *Applied Surface Science*, 2020, **504**.