

SUPPORTING INFORMATION

Fabrication of one-dimensional Bi₂O₃-Bi₁₄MoO₂₄ heterojunction photocatalyst with high interface quality

Yin Peng^{*a,b}, Ke Ke Wang^a, Jian Xu^a, Qing Guo Chen^a, Bin Gang Xu^{*b}, An Wu Xu^{*c}

^a The Key Laboratory of Functional Molecular Solids, Ministry of Education, College of Chemistry and Materials Science, Anhui Normal University, Wuhu 241000, China

^b Nanotechnology Center, Institute of Textiles and Clothing, The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong

E-mail: tcxubg@polyu.edu.hk

^c Division of Nanomaterials and Chemistry, Hefei National Laboratory for Physical Sciences at Microscale, Department of Chemistry, University of Science and Technology of China, Hefei 230026, P. R China.

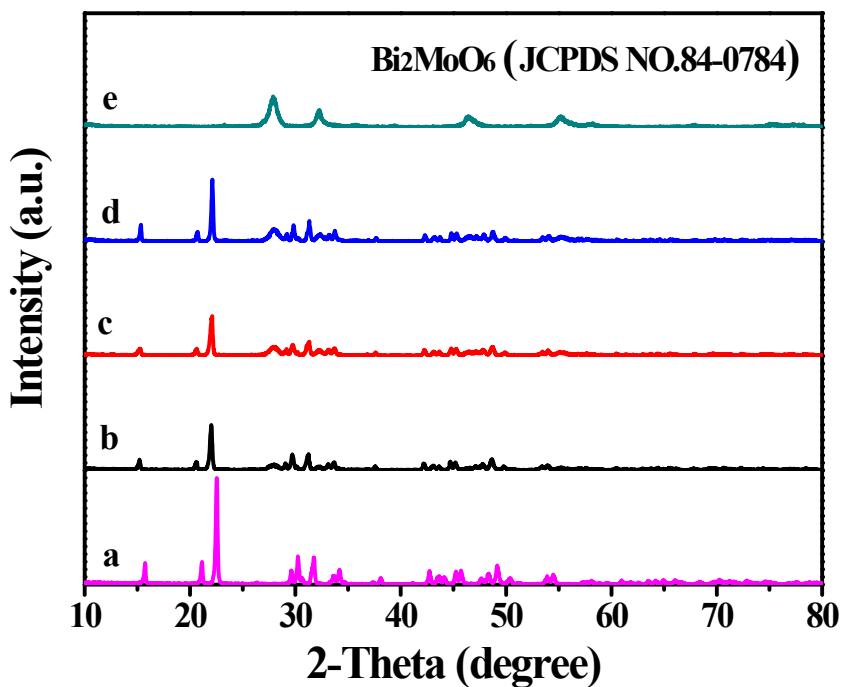


Figure S1. The XRD patterns of the precursors, (a) $\text{Bi}(\text{OHC}_2\text{O}_4)\cdot 2\text{H}_2\text{O}$, (b)S-1, (c)S-2, (d) S-3 and (e) Bi_2MoO_6 .

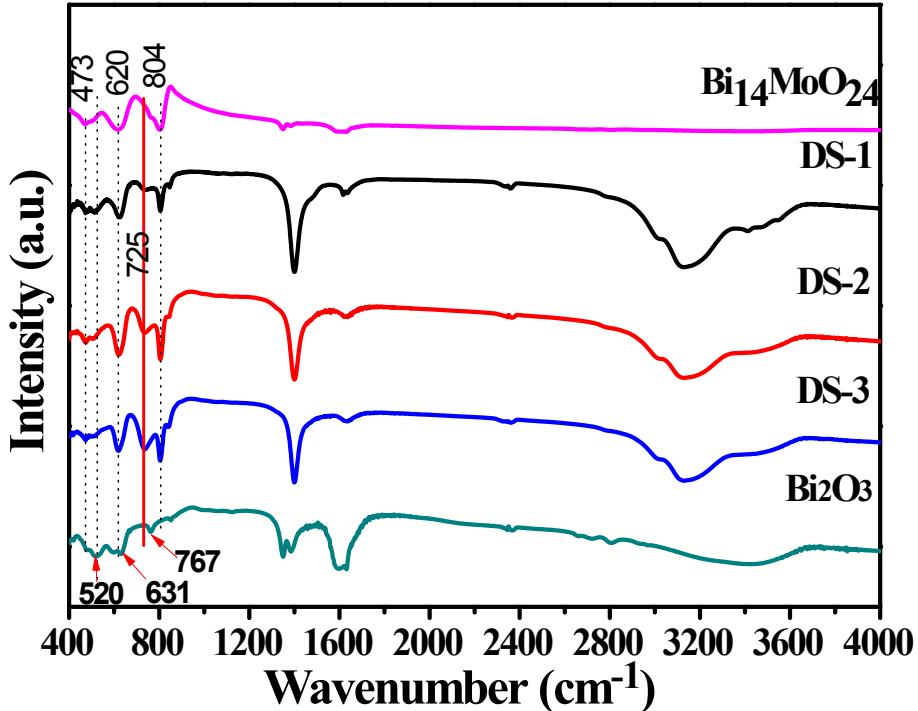


Figure S2 IR spectra of pure Bi_2O_3 , $\text{Bi}_{14}\text{MoO}_{24}$ and $\text{Bi}_2\text{O}_3\text{-}\text{Bi}_{14}\text{MoO}_{24}$ heterostructures.

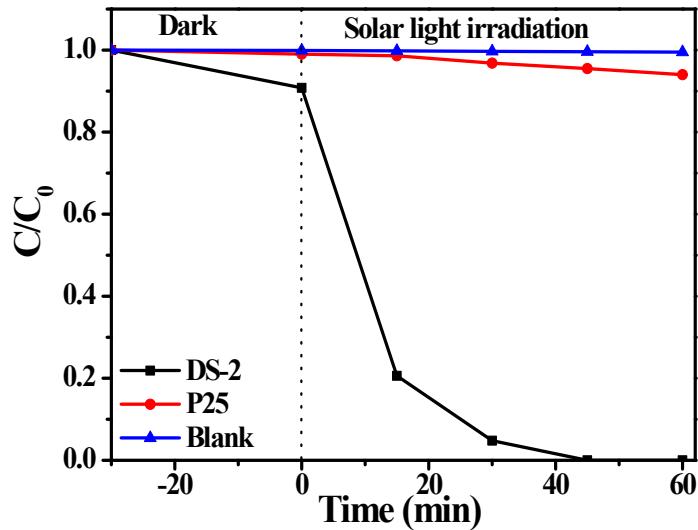


Figure S3 Photocatalytic degradation curves of MO using DS-2 and P25 as photocatalysts.

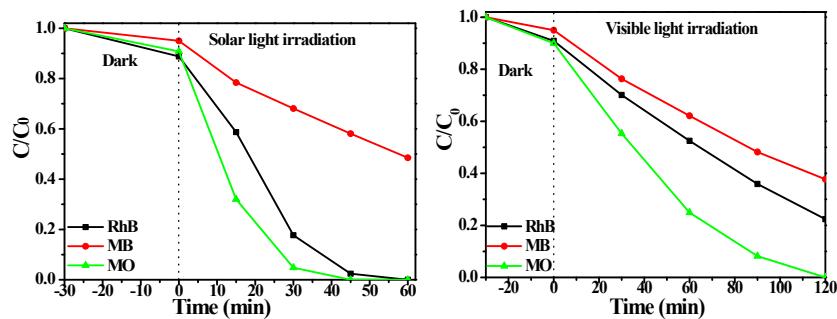


Figure S4 Photocatalytic degradation curves of different dyes (10 mg/L) using DS-2 as photocatalyst.

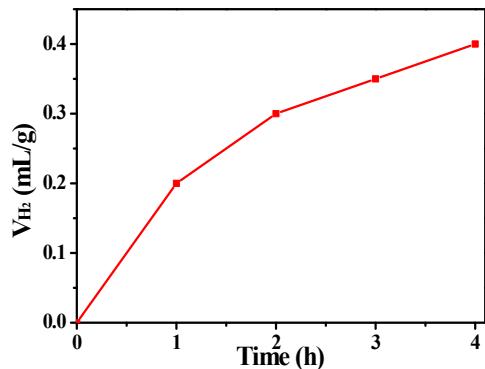


Figure S5 Volume of hydrogen generated (V_{H_2}) under solar light irradiation from a 300 W Xe light using DS-2 sample.

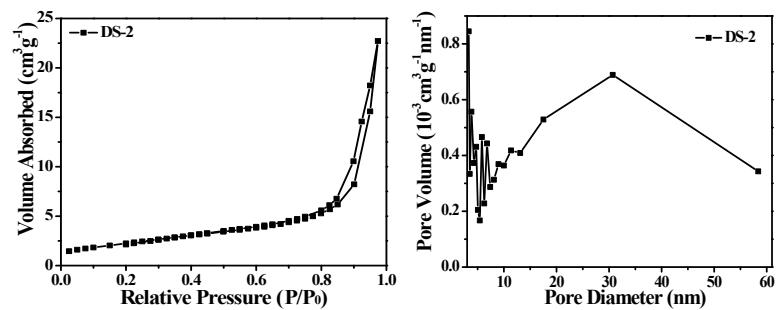


Figure S6 (a) Nitrogen adsorption–desorption isotherm and (b) the corresponding pore-size distribution of the DS-2 sample.