Supplementary Material (ESI) for CrystEngComm

Electronic supplementary information

Single-Crystalline Orthorhombic Molybdenum Oxide Nanobelts: Synthesis and Photocatalytic Properties

Yuping Chen, Chunliang Lu, Lin Xu, Ying Ma,

Wenhua Hou*, and Jun-Jie Zhu*

Key Laboratory of Mesoscopic Chemistry of MOE and Key Laboratory of Analytical Chemistry for Life Science of MOE, School of Chemistry and Chemical Engineering, Nanjing University, Nanjing 210093, P. R. China

* Corresponding author. E-mail: whou@nju.edu.cn; jjzhu@nju.edu.cn

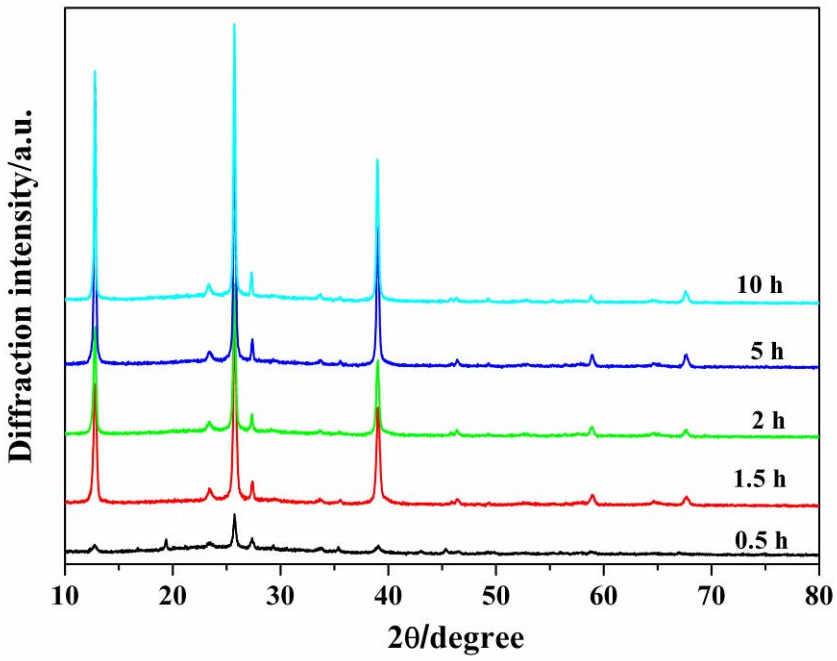

Fig. S1 XRD patterns of the products obtained at different reaction time intervals in the presence of TX-10

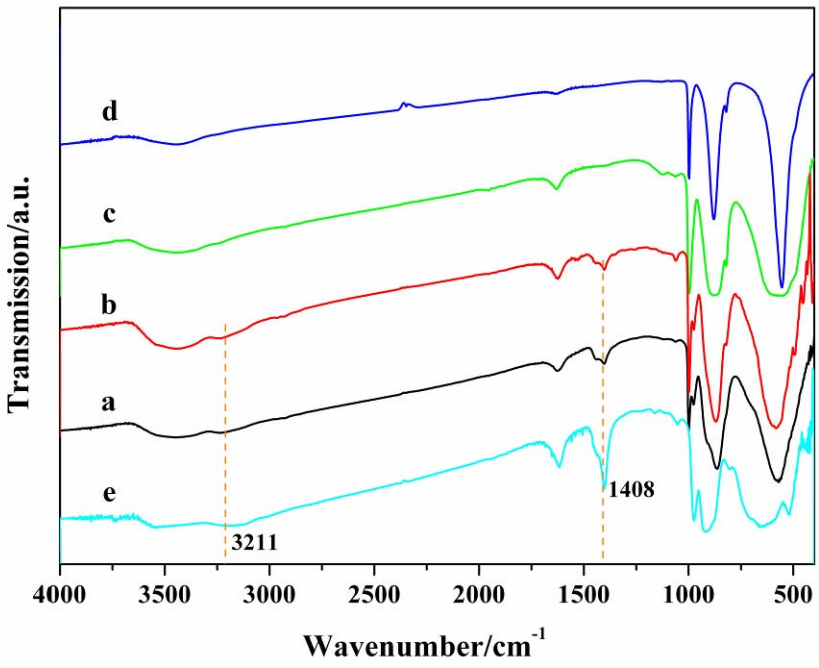

Fig. S2 FT-IR spectra of the products obtained at different reaction time intervals in the presence of TX-10. (a) 180 °C, 5 min; (b) 180 °C, 0.5 h; (c) 180 °C, 5 h; (d) 180 °C, 20 h; (e) 80 °C, 20 h

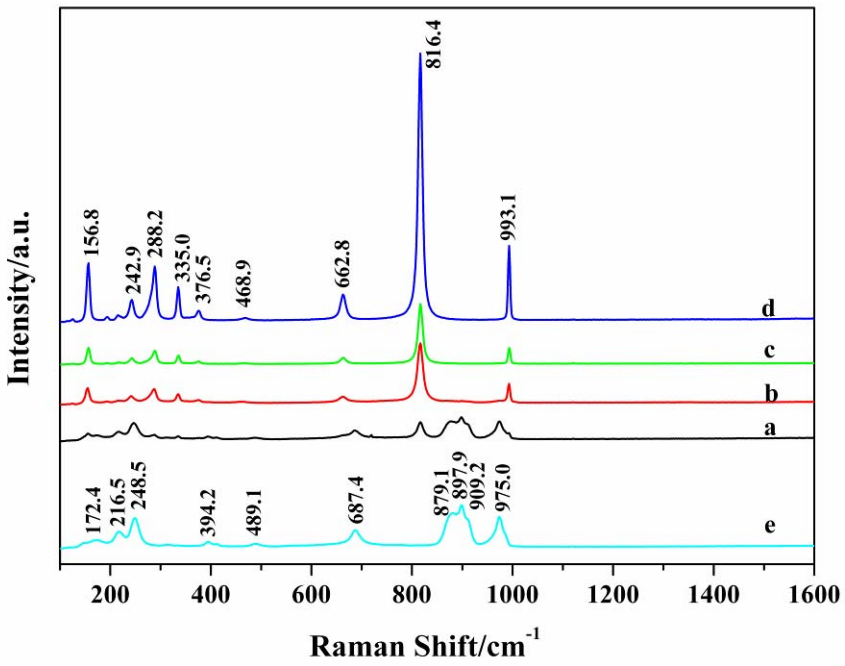

Fig. S3 Raman spectra of the products obtained at different reaction time intervals in the presence of TX-10. (a) 180 °C, 5 min; (b) 180 °C, 0.5 h; (c) 180 °C, 5 h; (d) 180 °C, 20 h; (e) 80 °C, 20 h

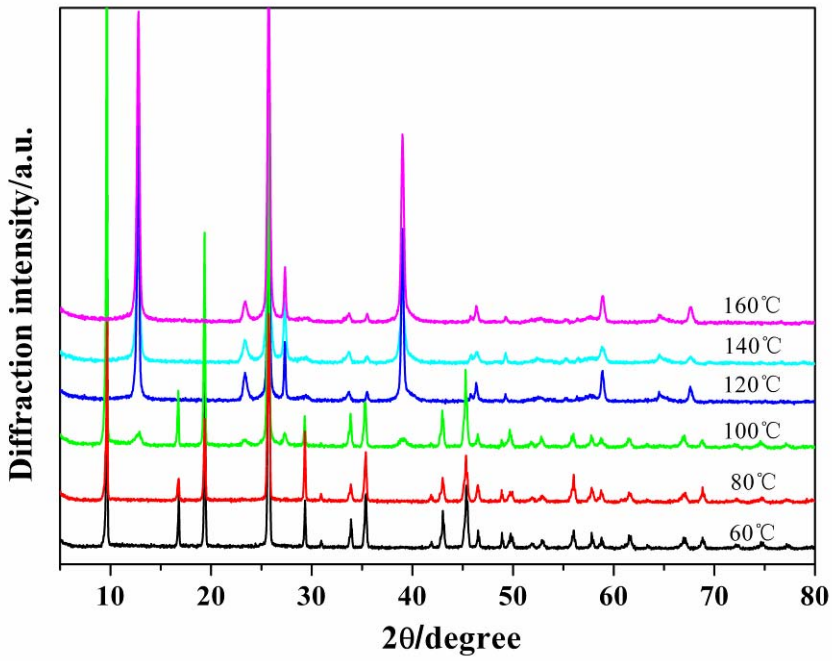

Fig. S4 XRD patterns of the products obtained at different reaction temperatures in the presence of TX-10

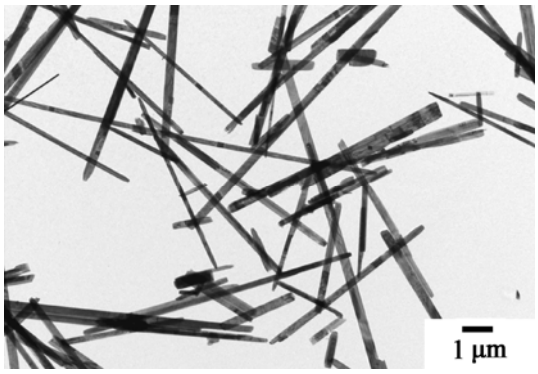

Fig. S5 TEM image of the product obtained in the absence of TX-10

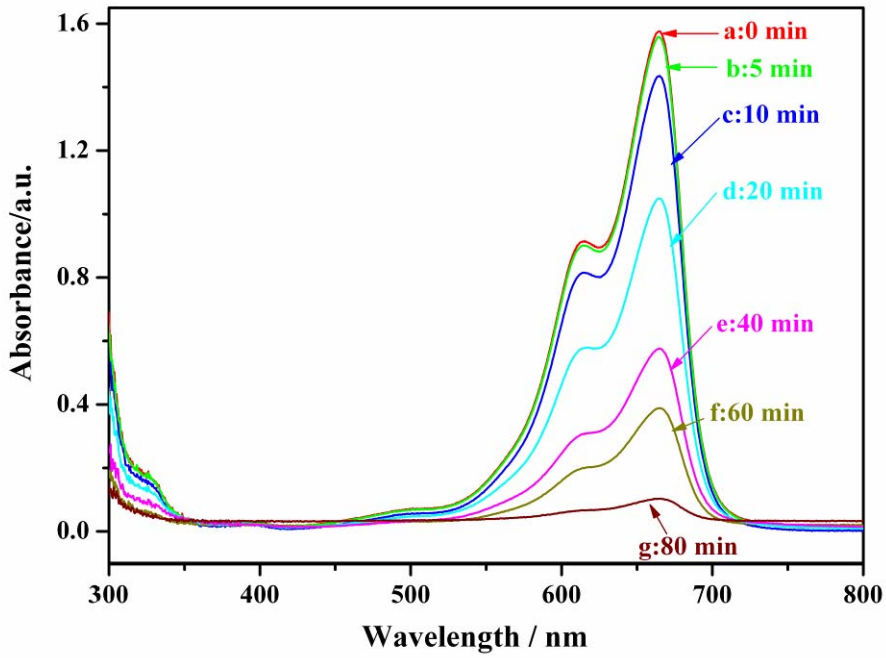

Fig. S6 Absorption spectra of the MB solution (10 mg/L, 100 mL) in the presence of 50 mg bulk MoO_3 at different time intervals

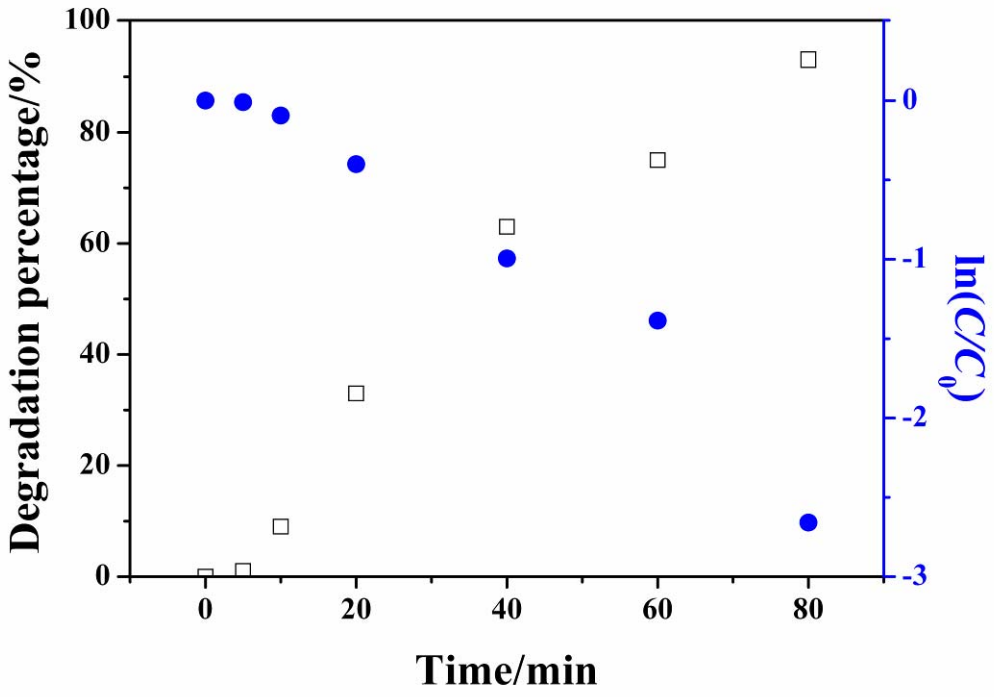

Fig. S7 Degradation percentage of MB (10 mg/L, 100 mL) in the presence of 50 mg bulk MoO_3 under visible light irradiation

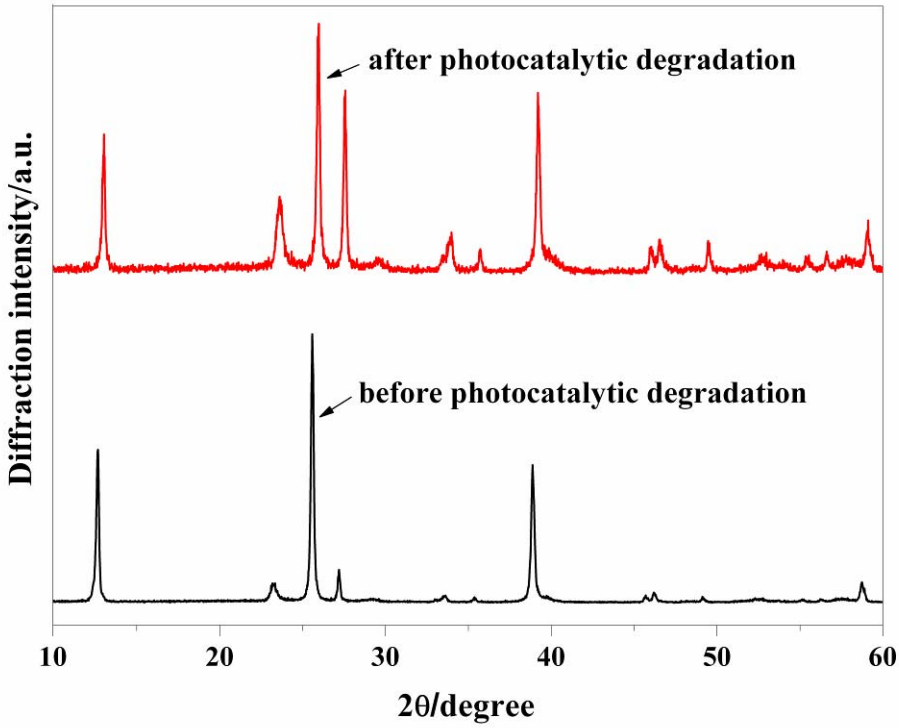

Fig. S8 XRD patterns of the as-synthesized MoO_3 nanobelts before and after photocatalytic degradation

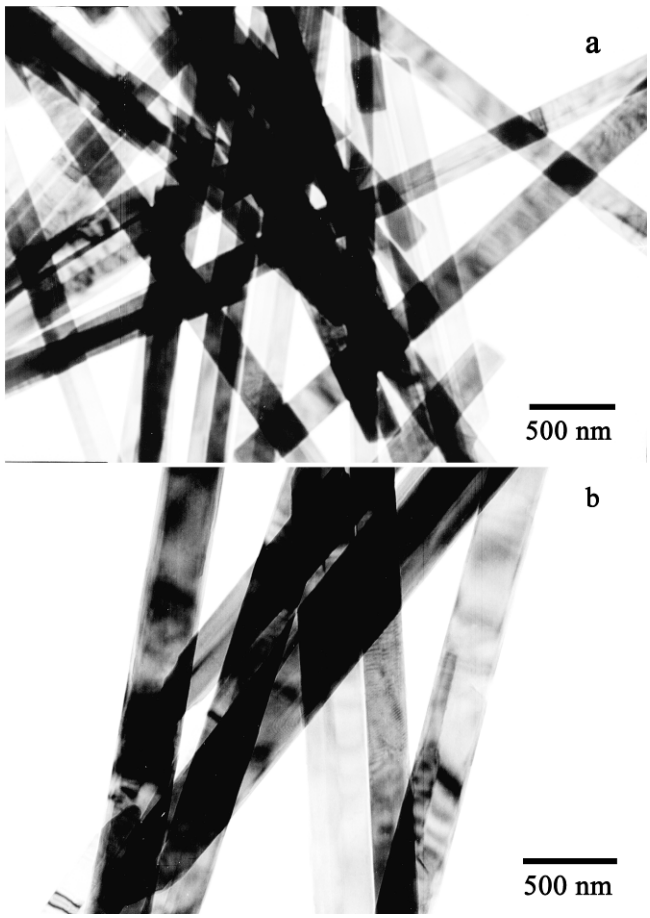

Fig. S9 TEM images of the as-synthesized MoO_3 nanobelts (a) before photocatalytic degradation; (b) after photocatalytic degradation

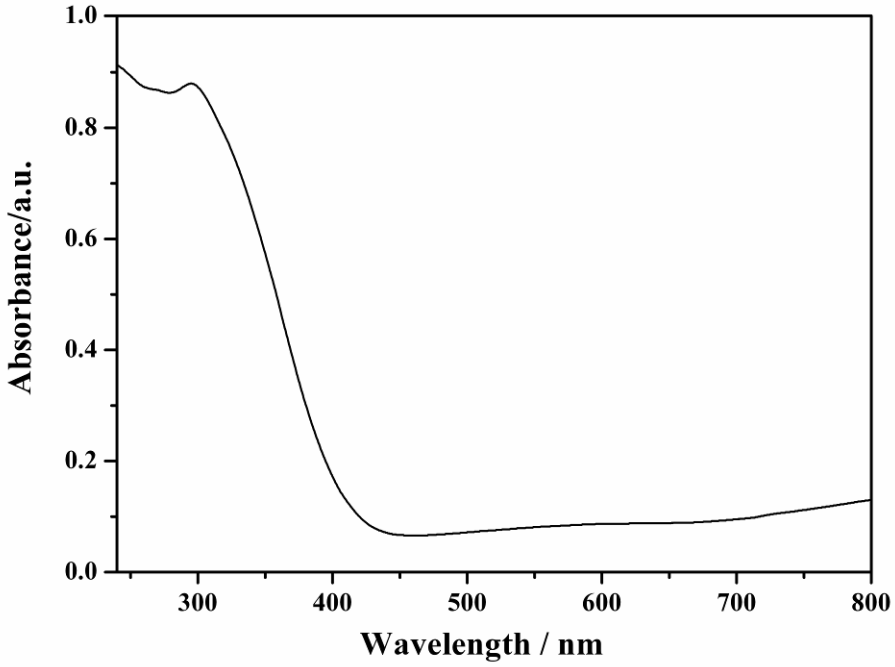

Fig. S10 Ultraviolet/visible (UV/vis) reflectance spectrum of the as-synthesized MoO_3 nanobelts