

Fig.S1. (a) UV-vis spectra. (b) The plot analysis of optical band gap of pure MoS₂

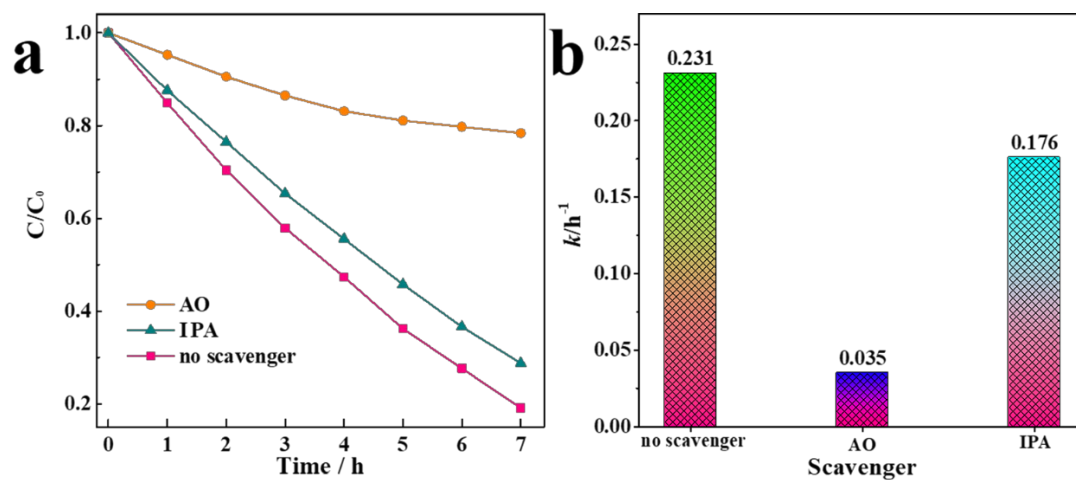


Fig.S2. (a) Effect of different active species on NO_2^- oxidation efficiency. (b) Kinetic reaction rate k of the corresponding catalytic process with different active species

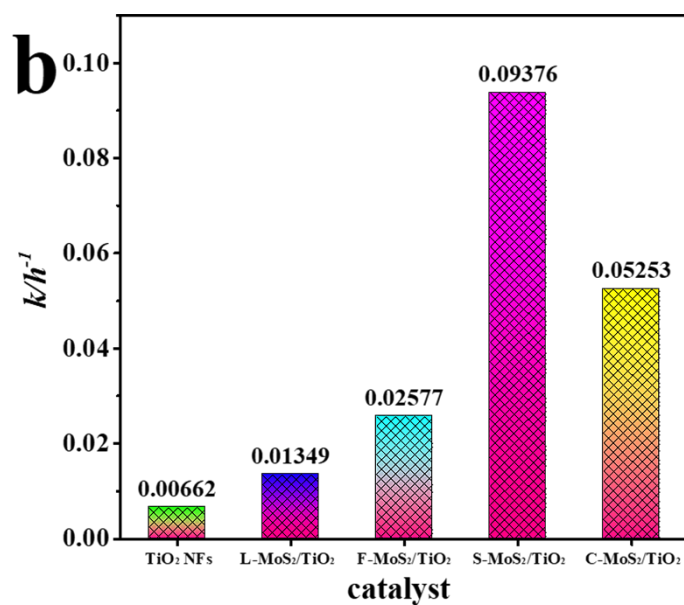
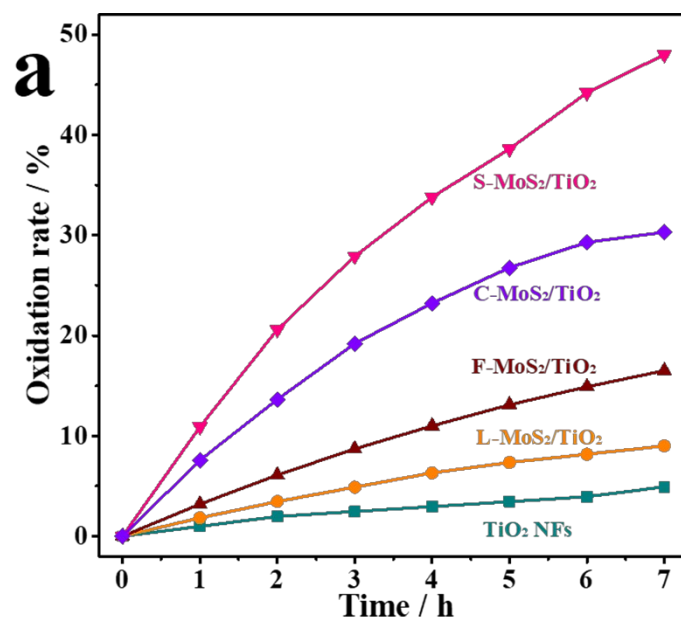


Fig.S3. (a) Curves of NO_2^- degradation rate over time under visible light by different catalysts. (b) Kinetic reaction rate k of the corresponding catalytic process.

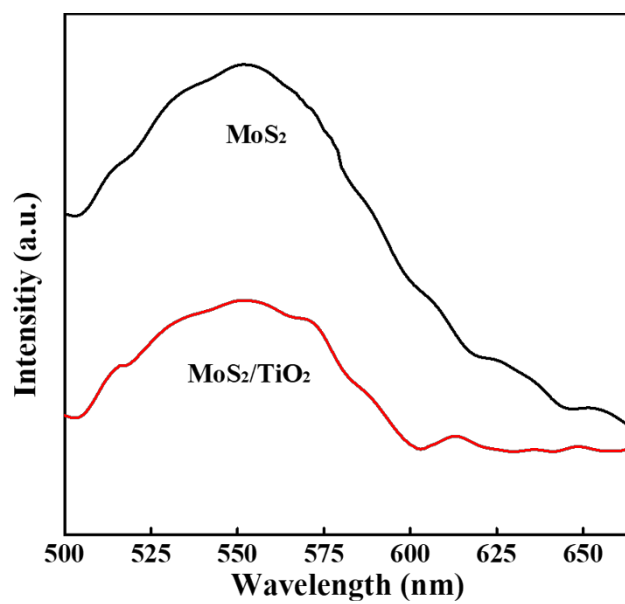


Fig. S4. PL spectra of pristine TiO₂ NFs and MoS₂/TiO₂ composites under excitation light wavelength of 500 nm.

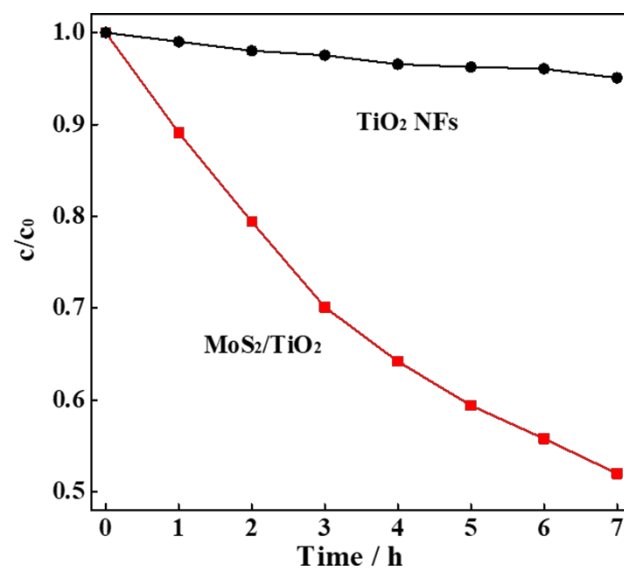


Fig. S5. Oxidation rate of NO_2^- by TiO_2 NFS and $\text{MoS}_2/\text{TiO}_2$ composite under visible light ($\lambda > 400$ nm).