TiO_2 nanotubes/Ag/MoS_2 meshy photoelectrode with excellent photoelectrocatalytic degradation activity for tetracycline hydrochloride

Tingting Li[1,2], Zhuhong Wang[1,2], Chaochao Liu[1,2], Chunmin Tang[1,2], Xinkai Wang[1,2], Gongsheng Ding[1,2],Yichun Ding[1,2], Lixia Yang[1,2,*]

[1]College of Environmental and Chemical Engineering, Nanchang Hangkong University, Nanchang 330063, China

[2]Key Laboratory of Jiangxi Province for Persisitent Pollutants Control and Resources Recyle, Nanchang Hangkong University, Nanchang 330063, China

Supporting information

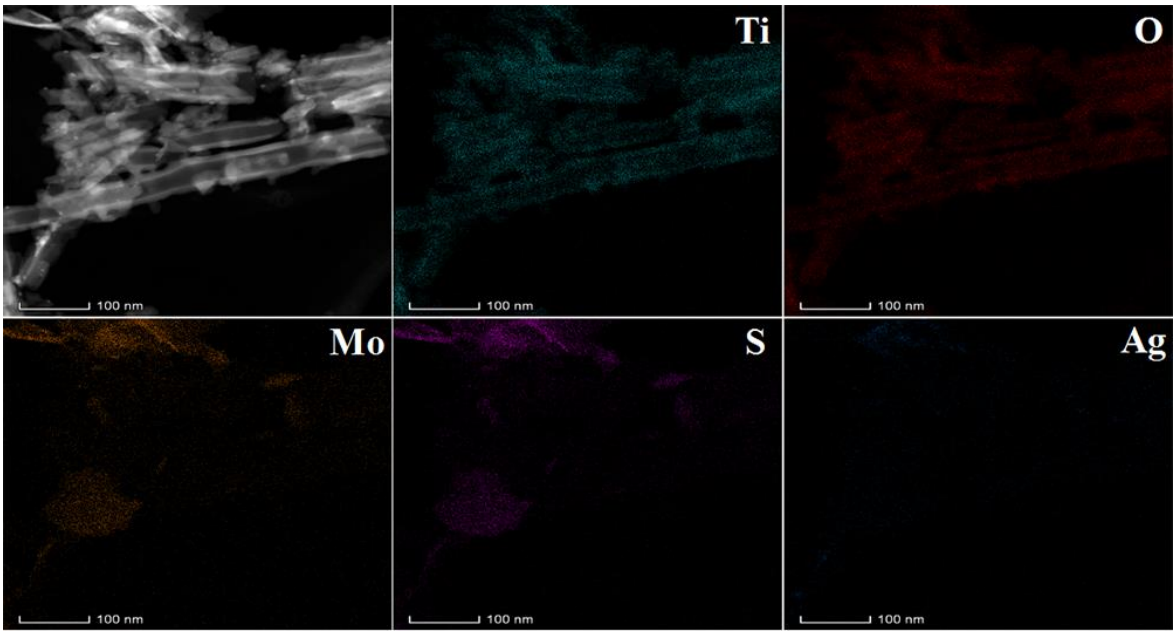


Figure S1 Element mapping pictures of TiO_2 NTs/Ag/MoS_2.

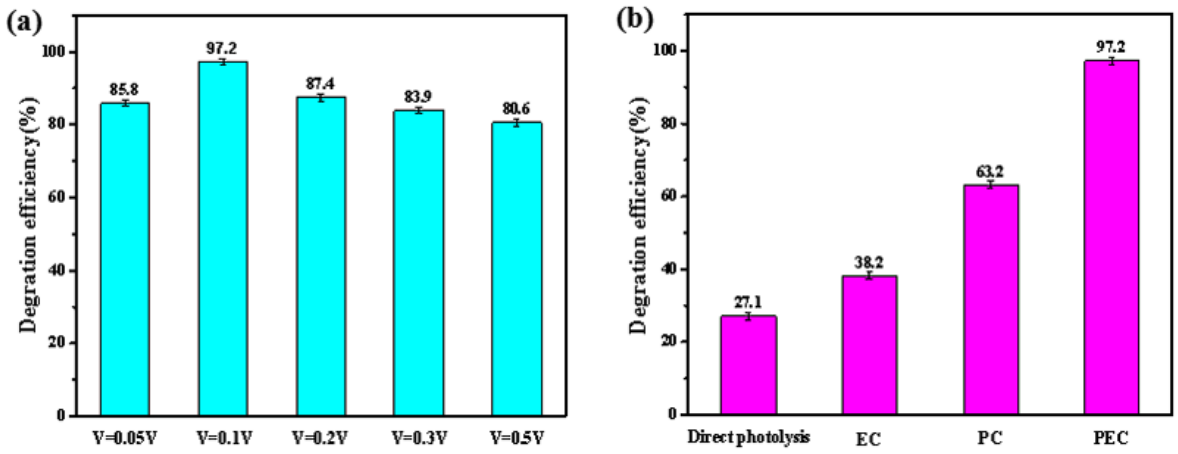


Figure S2 Degradation efficiencies of TC ⊣HCl under visible light irradiation:(a)with bias potential of 0.05 V, 0.1 V, 0.2 V, 0.3V and 0.5 V; (b) direct photolysis, electrical catalysis, photocatalysis, photoelectrocatalysis.

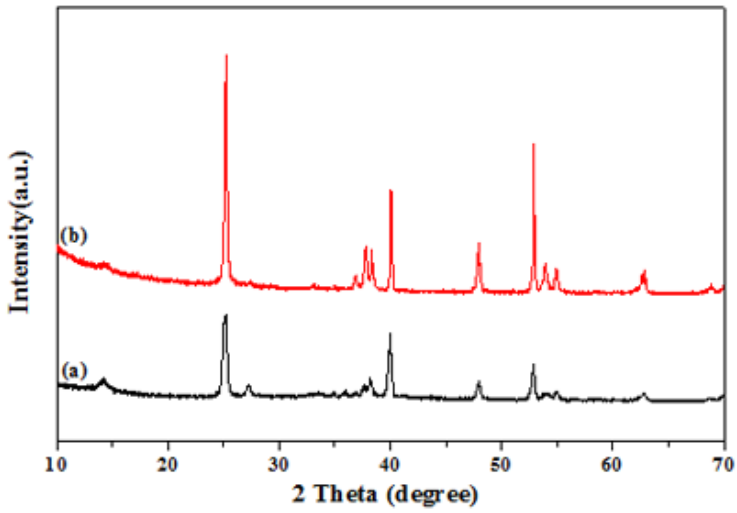


Figure S3 XRD patterns of TiO_2 NTs/Ag/MoS_2: (a)before ;(b)after PEC degradation of TC ⊣HCl.

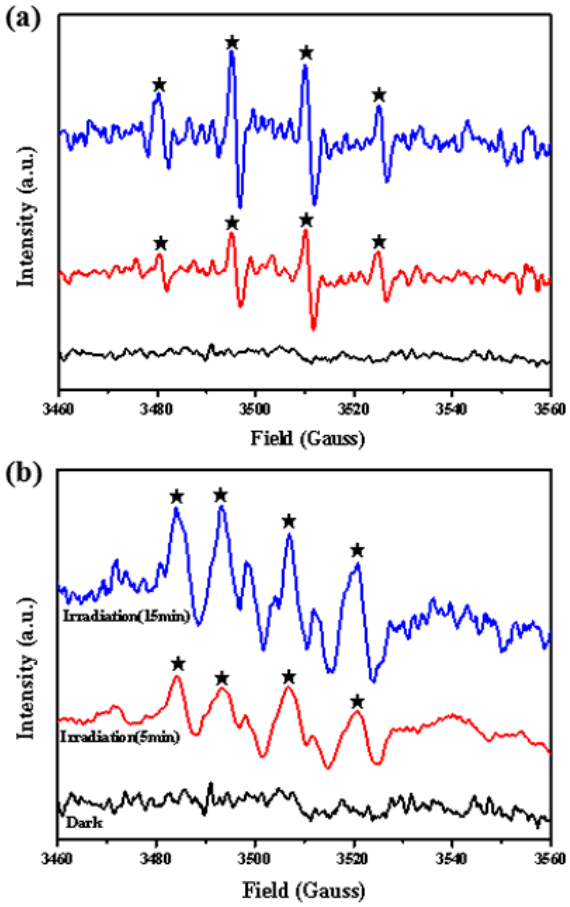


Figure S4 ESR spectra of radical adducts trapped by DMPO in TiO_2 NTs/Ag/MoS_2 dispersions in dark and under visible light irradiation: (a)DMPO-•OH; (b)DMPO-•O_2^-.