

Supporting Information

In-situ coupling TiO₂(B) and ZIF-8 with enhanced photocatalytic activity via effective deficient

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Characterization

Analysis of crystalline structure and phase purity of samples by X-ray diffraction (XRD, MAC Science, MXP18, Japan). Field emission scanning electron microscopy (FE-SEM, XL30ESEM-FEG and Hitachi S-4800) and transition electron microscopy (TEM, JEOL JEM-2010HR) were used to characterize the morphology and structure of the prepared samples. The Nicolet 360 spectrometer characterized transform infrared (FT-IR) spectroscopy. Raman spectra was recorded using an HR 800 Raman spectrometer (JY, France). The light absorption capacity of prepared samples was investigated by UV-vis diffuse reflectance spectroscopy (UV-5800PC, Shanghai). The chemical bonds and composition of the surface on the samples were performed by X-ray photoelectron spectroscopy (XPS, Thermo Electron, ESCALAB 250 Xi A1440, USA). EPR spectra were registered at 300 K using a Bruker ER083CS spectrometer, at a microwave frequency of 9.85 GHz. Analysis of photocurrent using the 300 W Xe lamp (cutting off $\lambda < 420\text{nm}$) and Na_2SO_4 (0.5M) as the source and electrolyte. Test the impedance of the samples with Na_2SO_4 (0.5M) as the electrolyte.

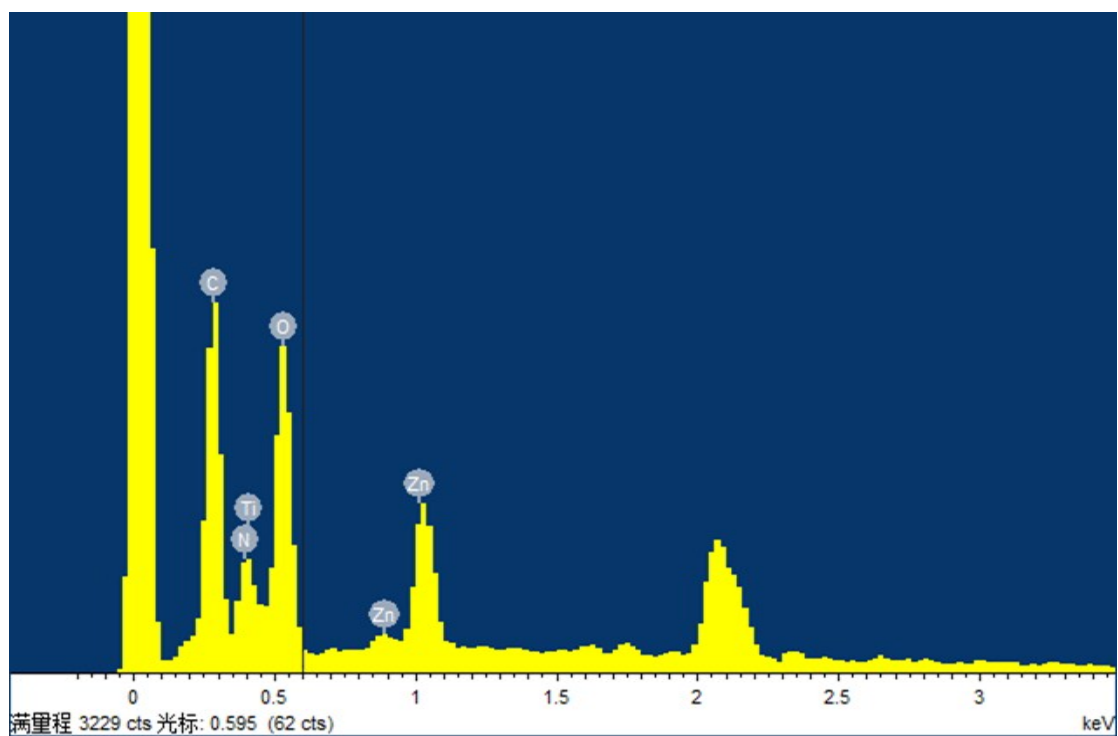


Figure S1. EDS image of b-TiO₂/ZIF-8.

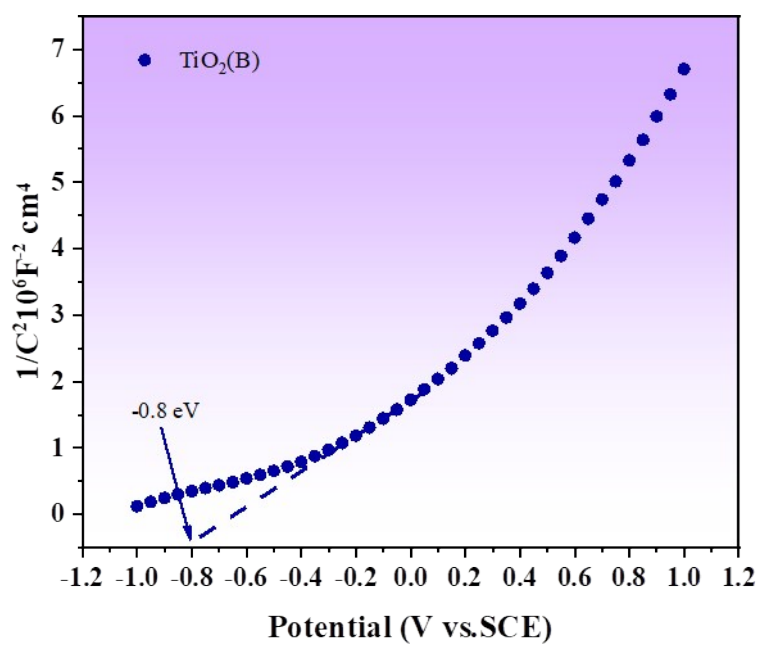


Figure S2. The Mott-Schottky plot of TiO₂(B)