Supporting information for

Importance of the ligand-to-metal charge transfer (LMCT) pathway in the photocatalytic oxidation of arsenite by TiO_2

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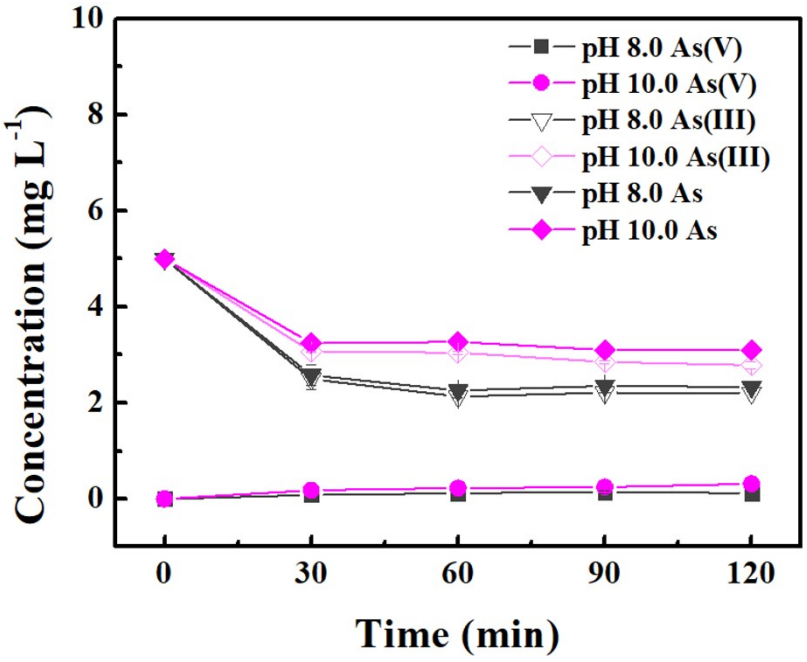

Fig. S1. Initial pH on the sorption and oxidation of As(III) by TiO_2 in the dark. Conditions: 1 g L^{-1} TiO_2 and 5 mg L^{-1} As(III).

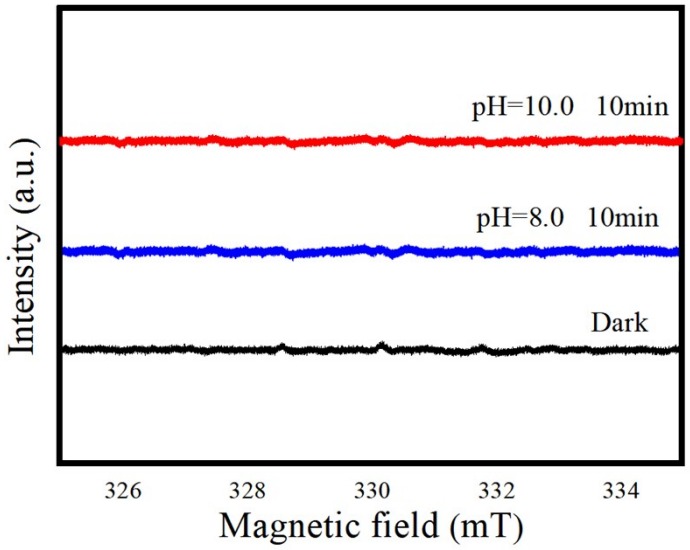

Fig. S2 ESR spectra of DMPO–$O_2^{\bullet-}$ with TiO_2 under dark and UV light for 10 min at pH 8.0 and 10.0.

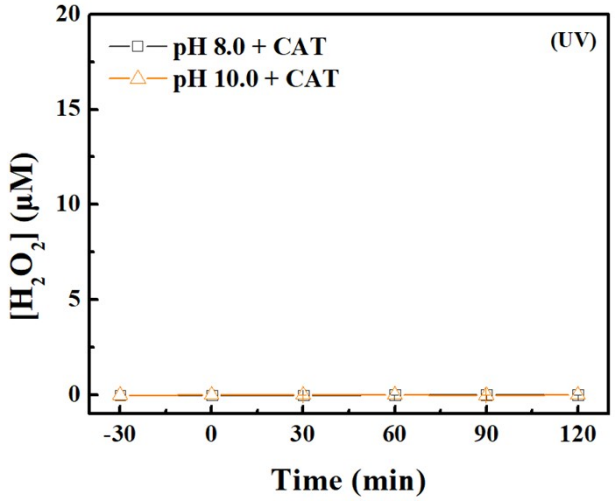

Fig. S3 H_2O_2 was measured by adding 8000 U mL^{-1} CAT to the TiO_2/UV system. Conditions：5 mg L^{-1} As(III), 1 g L^{-1} TiO_2.

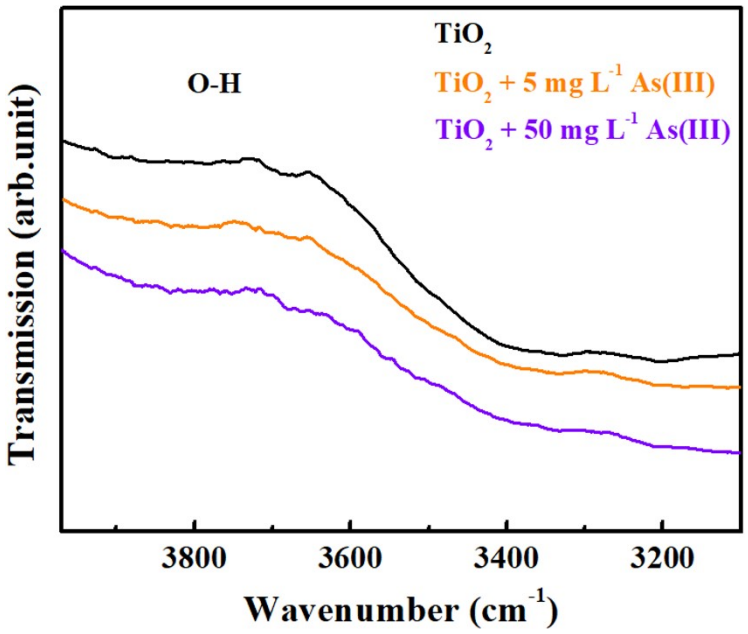

Fig. S4 ATR-FTIR spectra of TiO_2 with different concentrations of As(III) in the wavelength range of 3100-3970 cm^{-1}.

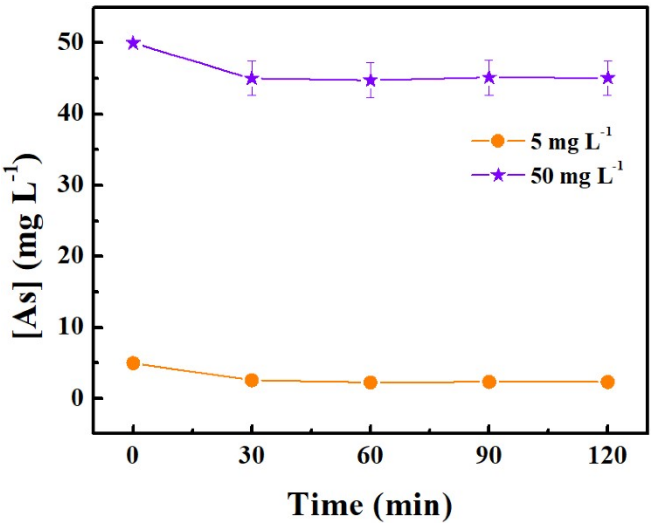

Fig. S5. Adsorption of As(III) by TiO_2 in the dark. Conditions: 1.0 g L^{-1} TiO_2 at pH 8.0.