

Supplementary Information

Grafting Silica Species on Anatase Surface for Visible Light Photocatalytic Activity

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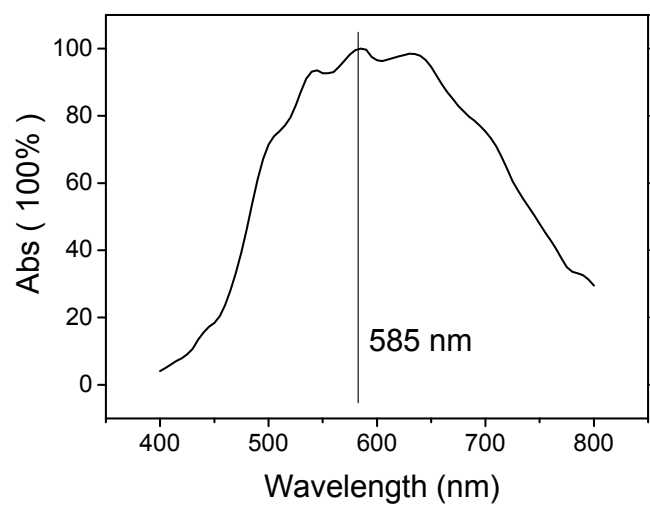


Figure S1. The irradiation spectrum of the halogen lamp.

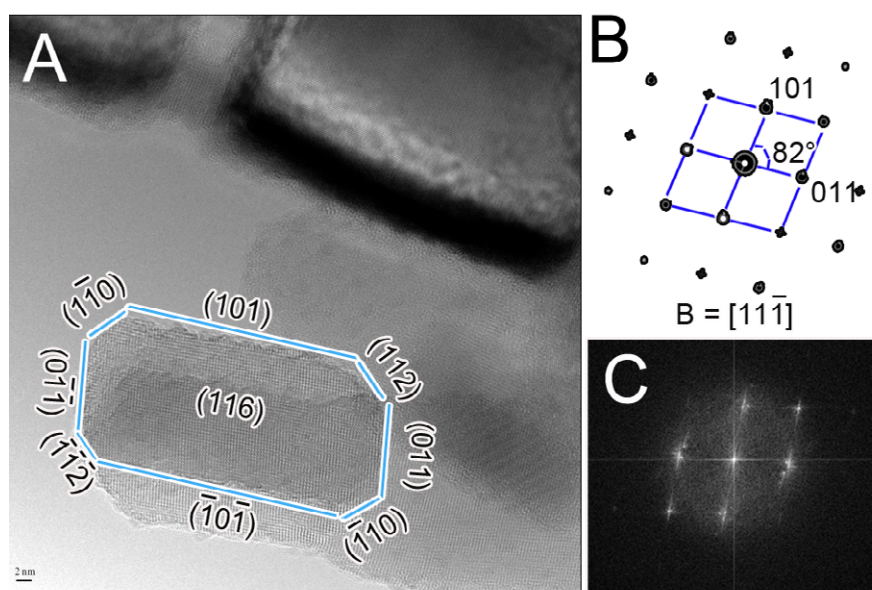


Figure S2. (A) HRTEM image of the silica grafted anatase nanorods (sample ST3) with exposed (116) plane; (B) index of the FFT image in (C); (C) an FFT image showing the electron diffraction pattern of the anatase nanorod .

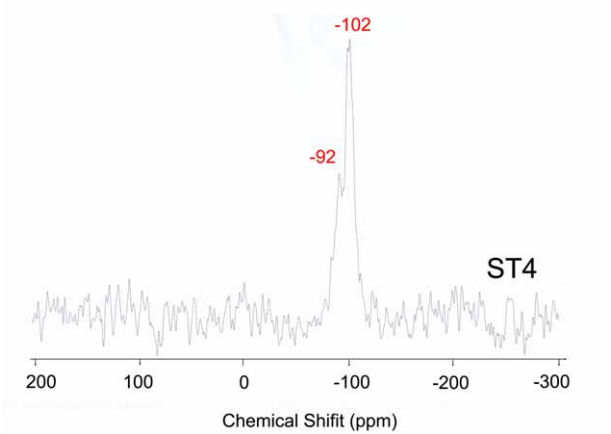


Figure S3. ^{29}Si MAS NMR spectrum of sample ST4.

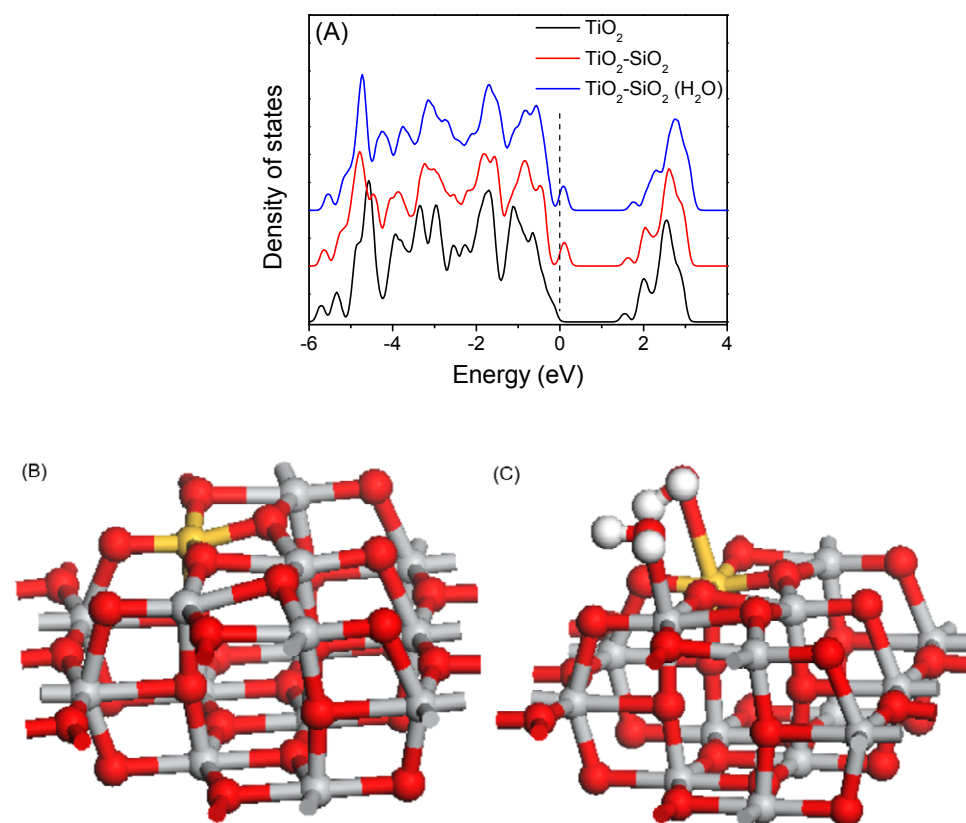


Figure S4. (A) Density of the states of the (100)/(010) surface for the situation when water molecules adsorbed at Si and Ti sites on the surface and the surface configurations (B) before and (C) after adsorption of water molecule. (Gray: Ti, red: O, and yellow: Si, light gray: H).

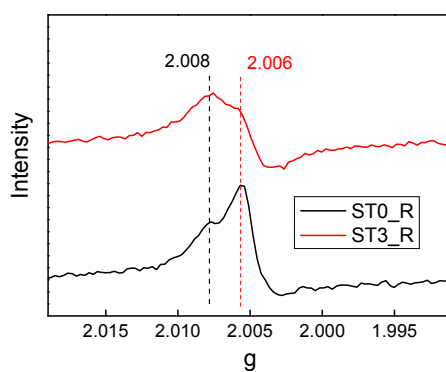


Figure S5. EPR spectra of pure anatase (ST0_R) and silica grafted anatase (ST3_R) TiO₂ nanorods after 20 min of visible light exposure (532 nm, 100 W).