

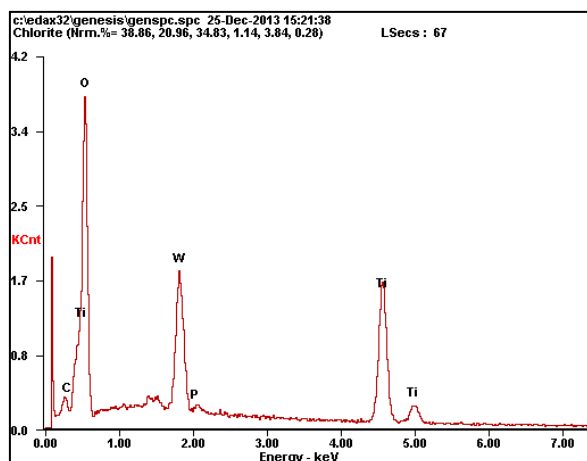
## **Photocatalytic reduction of Cr (VI) by polyoxometalates-TiO<sub>2</sub> electrospun nanofiber composites**

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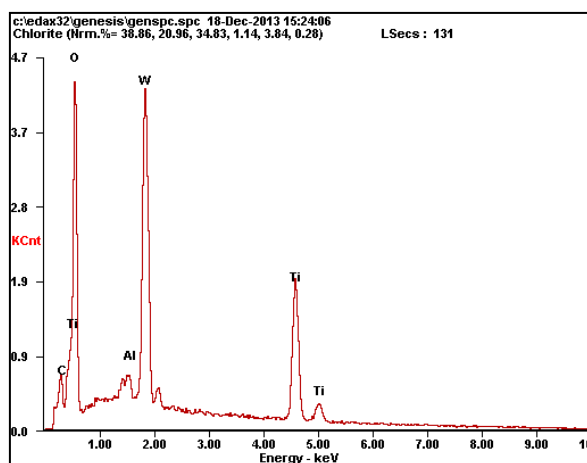
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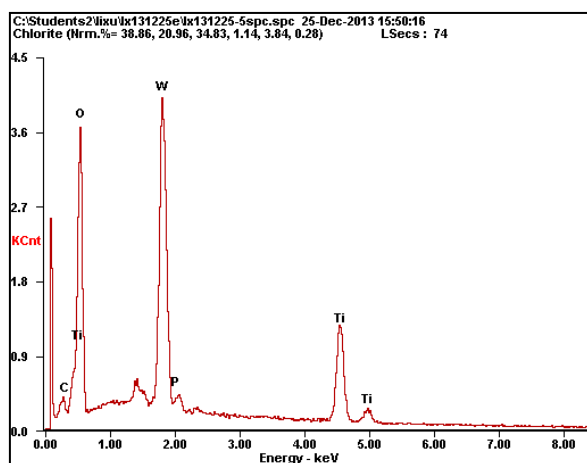
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(A)



(B)



(C)

Figure S1. EDAX spectra of PTA-TiO<sub>2</sub> nanofiber composites with different molar ratio of PTA and Ti(O<sup>i</sup>Pr)<sub>4</sub> (A) 10%, (B) 20%, (C) 30%.

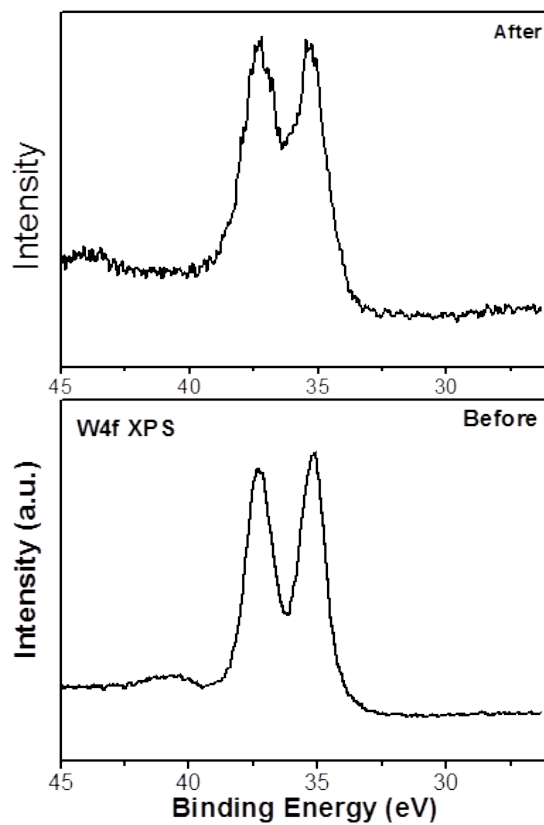


Figure S2. High resolution W 4f XPS spectra of PTA-TiO<sub>2</sub> before and after photoreduction Cr(VI).

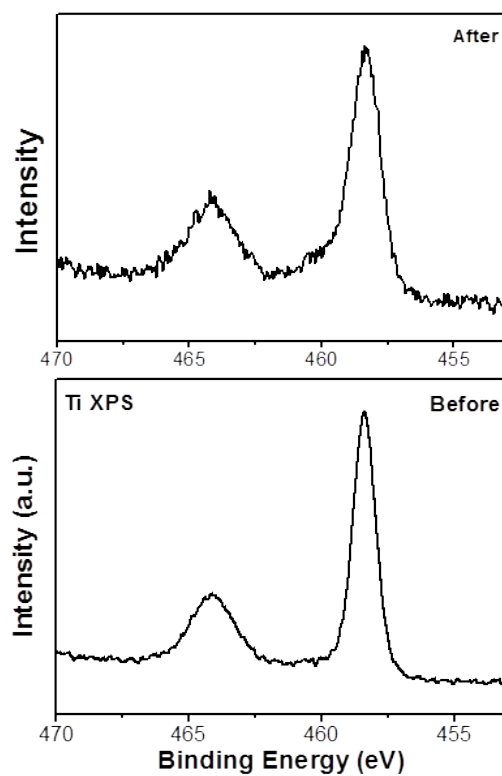


Figure S3. High resolution Ti 2p XPS spectra of PTA-TiO<sub>2</sub> before and after photoreduction Cr(VI).

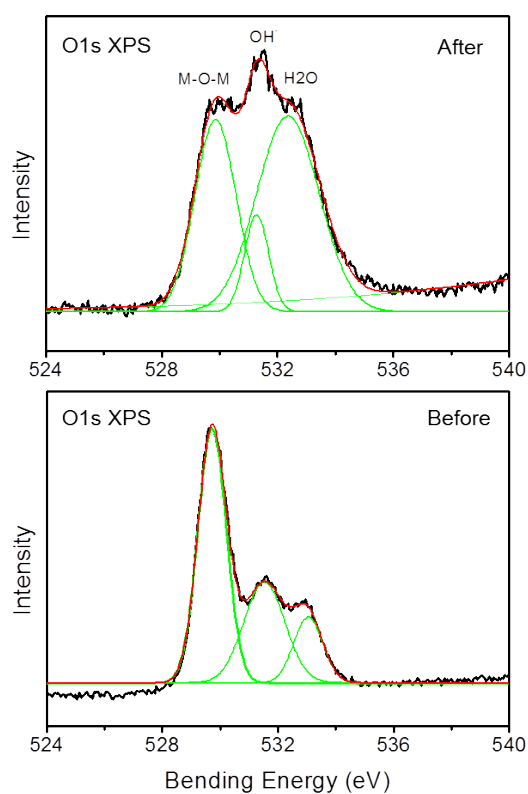


Figure S4. High resolution O 1s XPS spectra of PTA-TiO<sub>2</sub> before and after photoreduction Cr(VI).

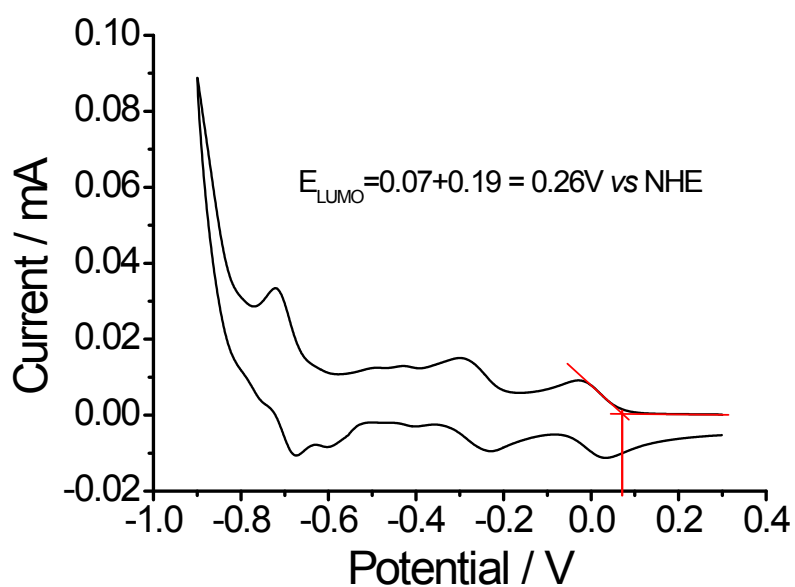


Figure S5. The cyclic voltammetry of H<sub>3</sub>PTA. Three electrodes electrochemical cells (Glass-carbon electrode, Pt and Ag/AgCl as working, counter and reference electrode, electrolyte is 0.1M Na<sub>2</sub>SO<sub>4</sub>/H<sub>2</sub>SO<sub>4</sub> aqueous solution pH=1.5, the H<sub>3</sub>PTA concentration is 10<sup>-3</sup> mol/L)

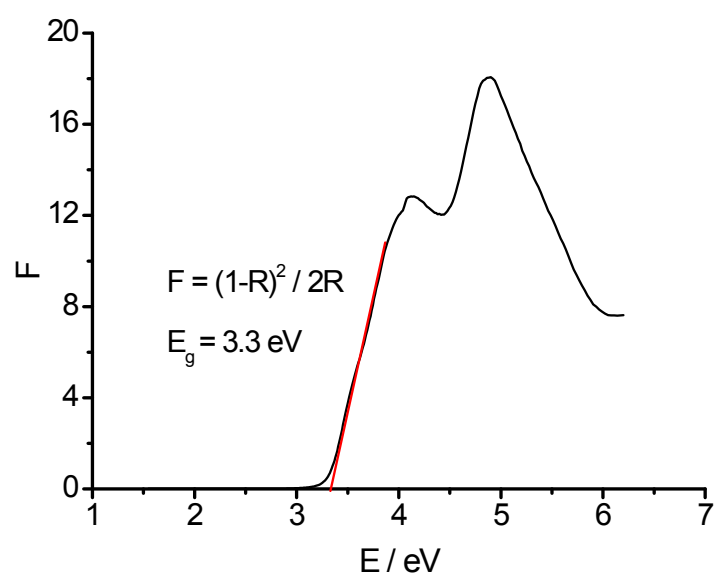


Figure S6. Optical band gap of H<sub>3</sub>PTA