

## Supporting Information

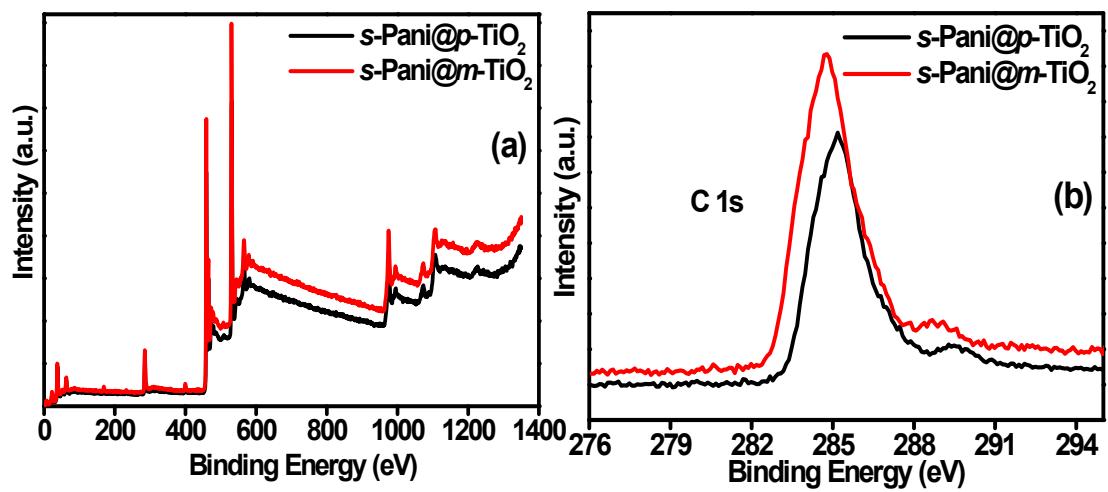
# Electrically conductive polyaniline sensitized defective-TiO<sub>2</sub> for improved visible light photocatalytic and photoelectrochemical performance: A synergistic effect

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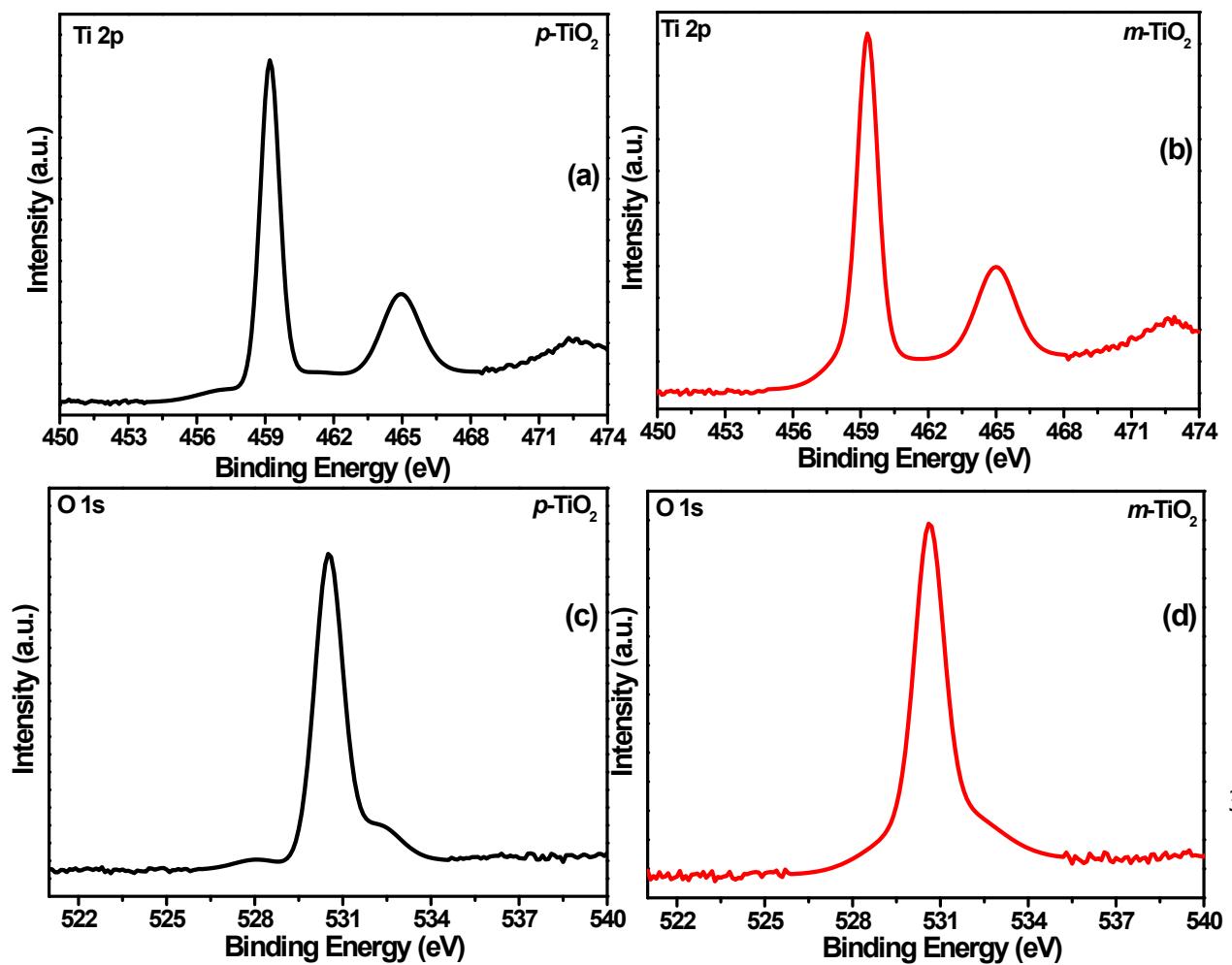
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### XPS Spectra of *s*-Pani@*p*-TiO<sub>2</sub> and *s*-Pani@*m*-TiO<sub>2</sub> nanocomposites



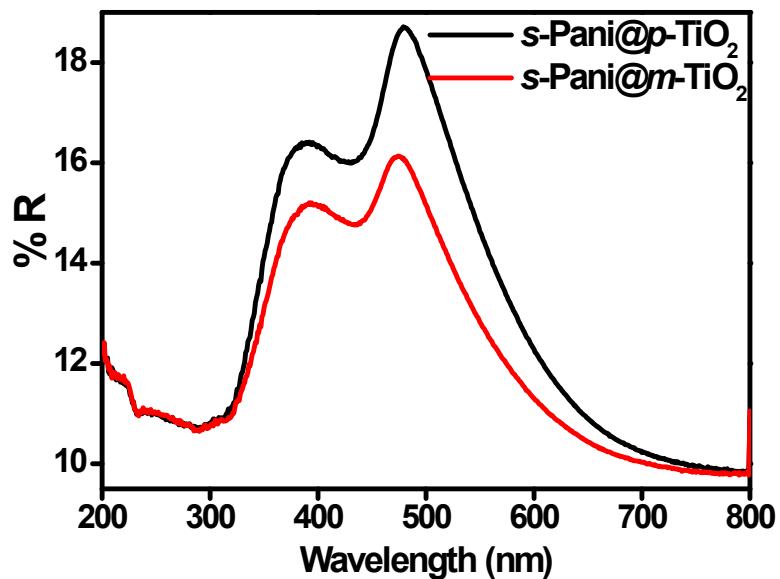
**Fig. S1.** XPS spectra of *s*-Pani@*p*-TiO<sub>2</sub> and *s*-Pani@*m*-TiO<sub>2</sub> nanocomposites for (a) survey spectra and (b) C 1s peaks.

#### XPS Ti 2p and O 1s spectra of *p*-TiO<sub>2</sub> and *m*-TiO<sub>2</sub> nanoparticles



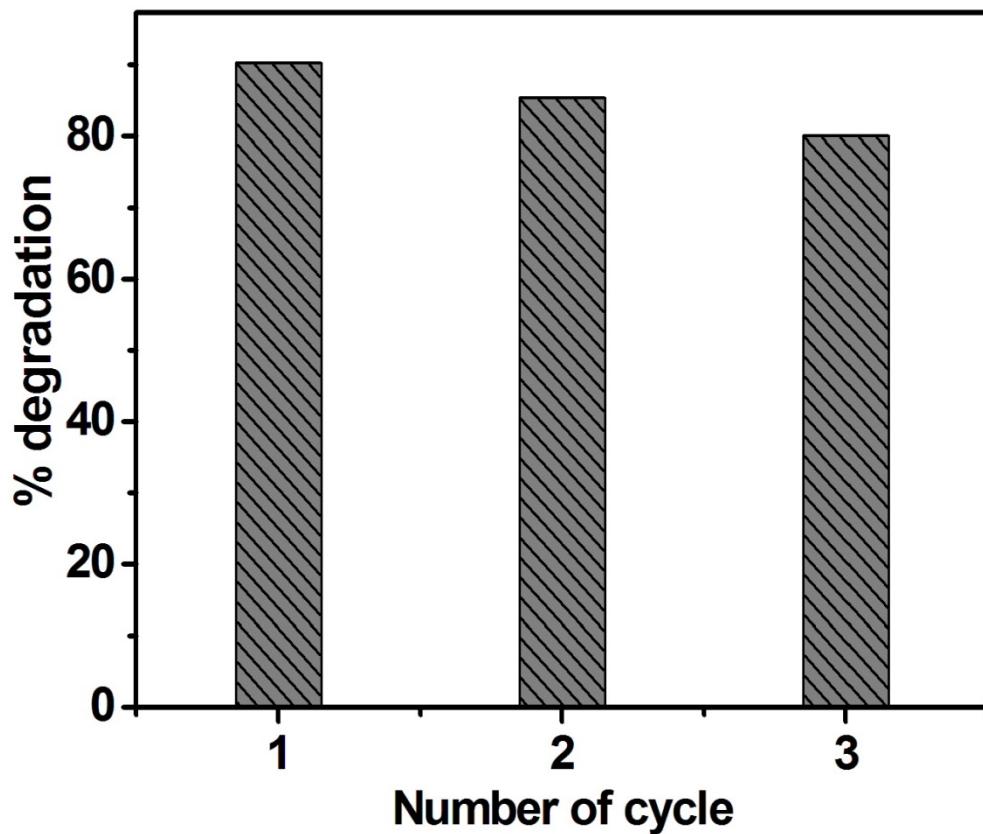
**Fig. S2.** XPS spectra of Ti 2p for *p*-TiO<sub>2</sub> (**a**), *m*-TiO<sub>2</sub> (**b**), O 1s for *p*-TiO<sub>2</sub> (**c**), and *m*-TiO<sub>2</sub> (**d**).

**UV-vis diffuse reflectance spectra of *s*-Pani@*p*-TiO<sub>2</sub> and *s*-Pani@*m*-TiO<sub>2</sub> nanocomposites**



**Fig. S3.** UV-vis diffuse reflectance spectra of *s*-Pani@*p*-TiO<sub>2</sub> and *s*-Pani@*m*-TiO<sub>2</sub> nanocomposites.

### Cyclic Stability of *s*-Pani@*m*-TiO<sub>2</sub> nanocomposites



**Fig. S4.** Cyclic stability studies of *s*-Pani@*m*-TiO<sub>2</sub> nanocomposites towards the degradation of MB under visible light irradiation.