

## Supporting Information

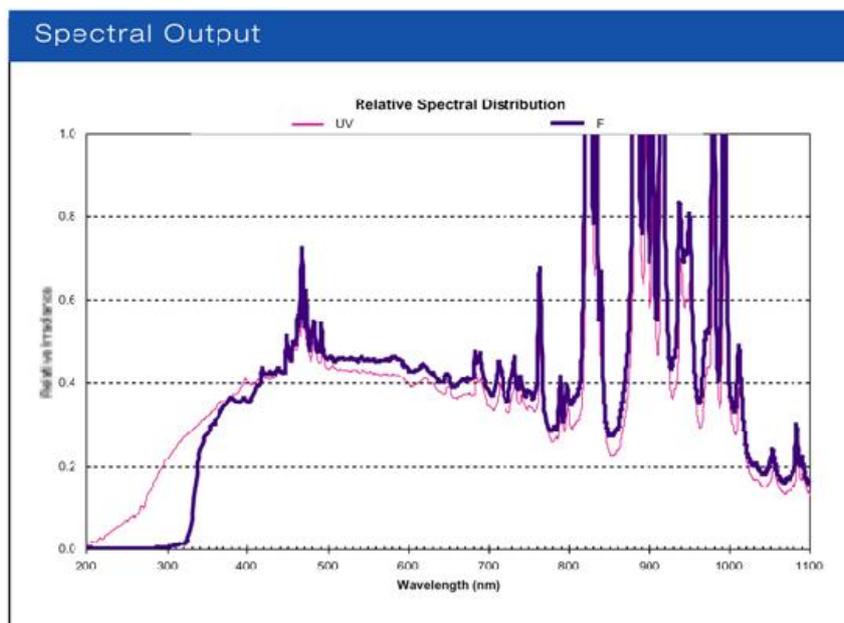


Figure S1. The original spectrum of the lamp (the pink line) get from Beijing Changtuo Lighting Corporation.

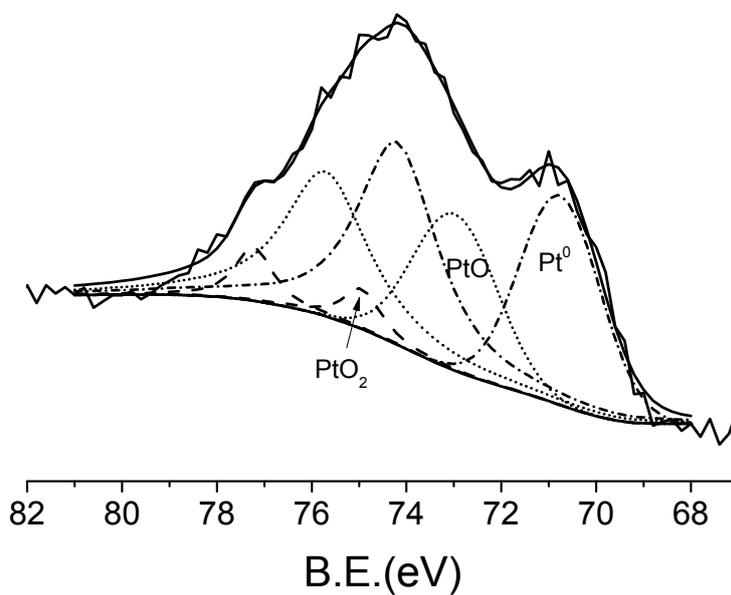


Figure S2. XPS spectra of pure TiO<sub>2</sub> and 0.18Pt-TiO<sub>2</sub>.

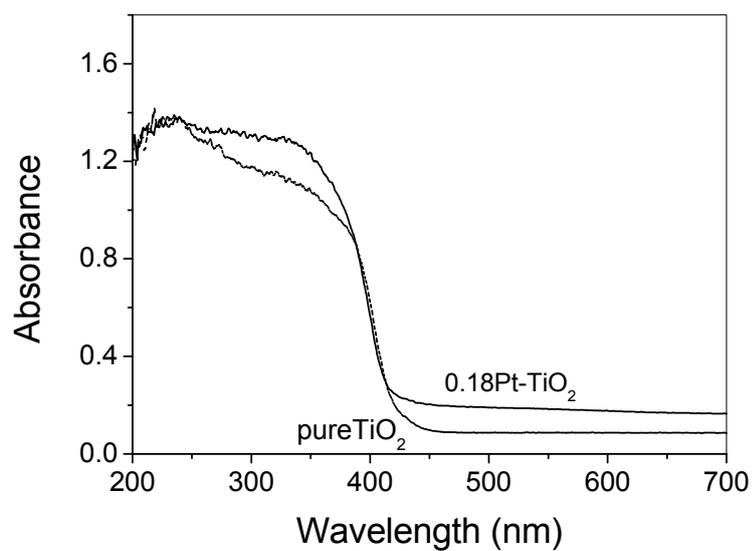
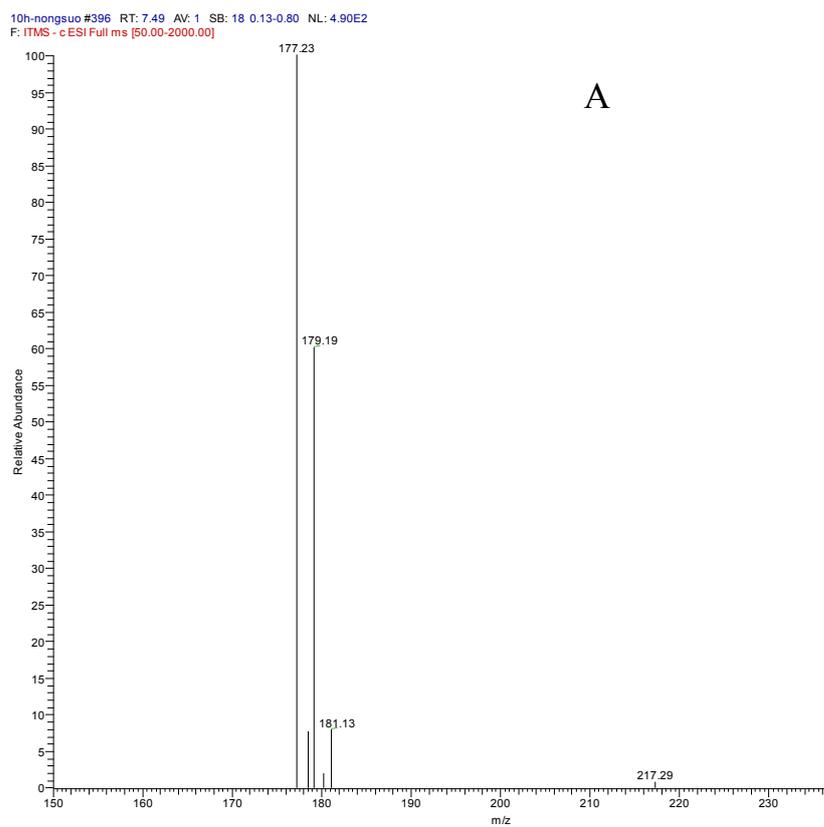


Figure S3. UV-VIS diffuse reflectance absorption spectra of pure TiO<sub>2</sub> and 0.18Pt-TiO<sub>2</sub>.



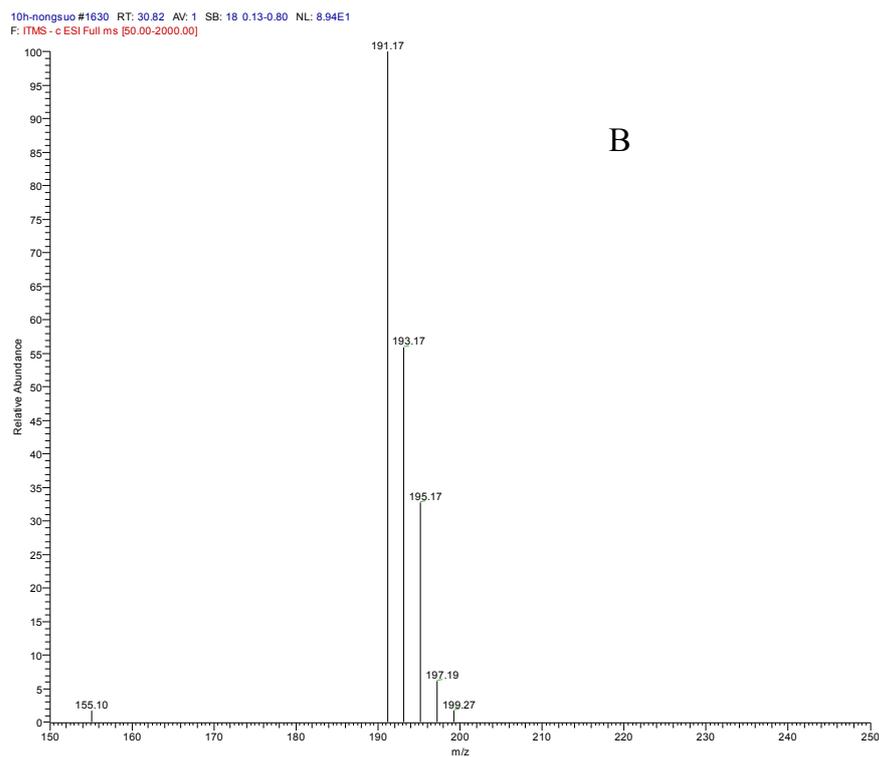


Figure S4. ESI spectra of A) 2,6-dichlorohydroquinone (DCHQ) and B) 2,6-dichloro-3-hydroxy-1,4-benzoquinone (DCHB).

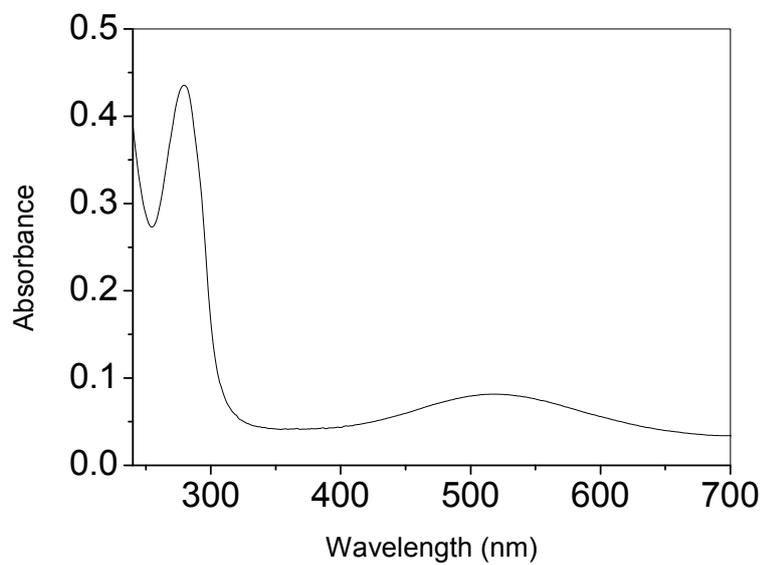


Figure S5. UV-VIS absorbance of TCP after 1 hour photoreaction in the presence of 0.18Pt-TiO<sub>2</sub>. The absorbance peak around 524 nm indicates the formation of 2,6-dichloro-3-hydroxy-1,4-benzoquinone (DCHB).

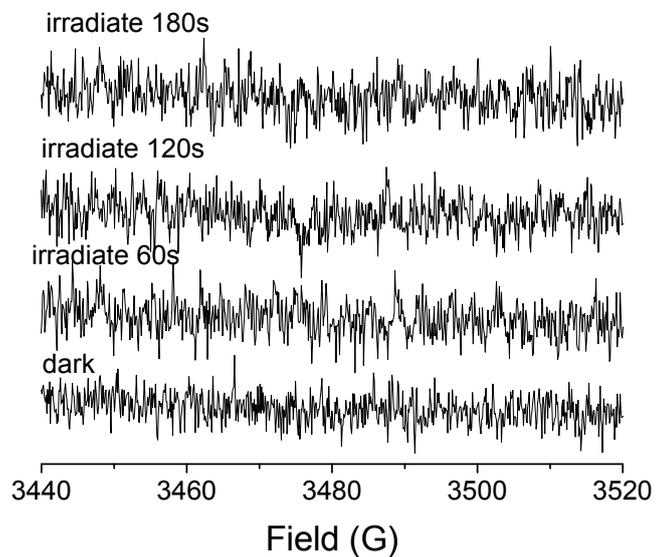


Figure S6. ESR determination of TEMP-<sup>1</sup>O<sub>2</sub> adducts in aqueous solution under 355 nm laser irradiation in the presence of 0.18Pt-TiO<sub>2</sub> and NaN<sub>3</sub>.