

Enhanced Photoelectrochemical Performance by Synthesizing CdS decorated Reduced-TiO₂ Nanotube arrays

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Supplementary Information

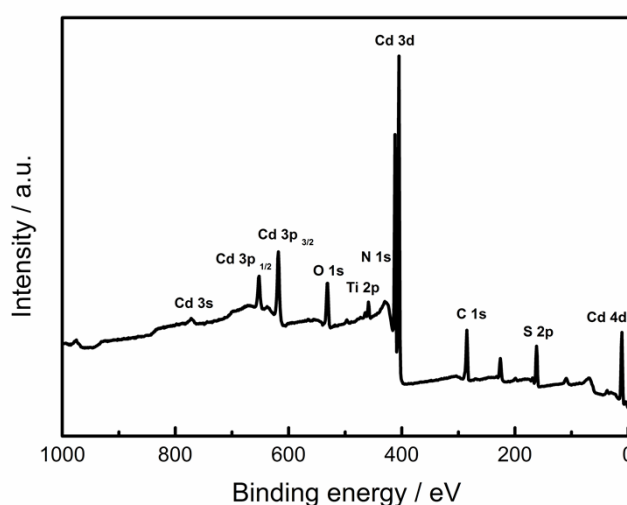
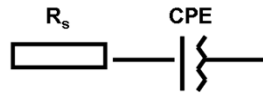
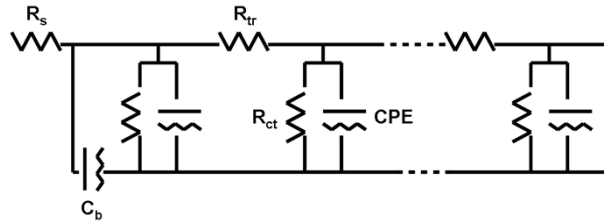


Figure S1 XPS survey spectrum of CdS/R-TiO₂ NTs.

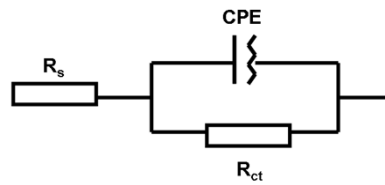
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(a) RC model



(b) Transmission line model



(c) Randles model

Figure S2 Impedance equivalent circuits

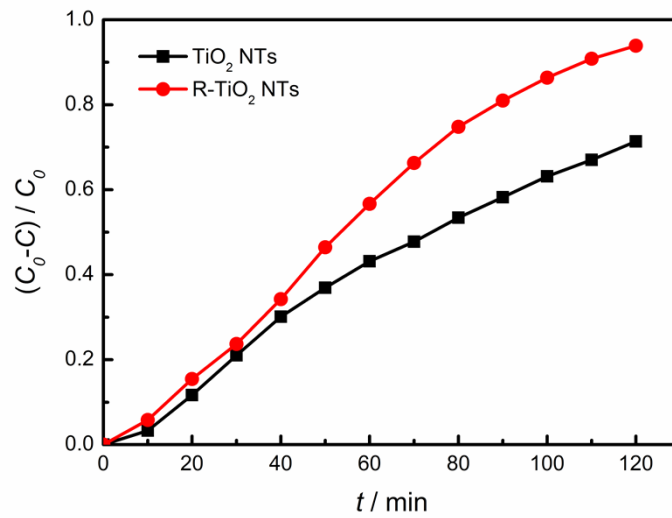


Figure S3 Photoelectrocatalytic activity evaluation of R-TiO₂ NTs by decomposition of salicylic acid. In the experimental setup, Pt and Ag/AgCl (3 M KCl) serve as counter and reference electrodes, respectively. 0.1 M Na₂SO₄ was acting as supporting electrolyte, with 20 ppm salicylic acid as the starting concentration to degrade. A UV 375 nm LED light source at power density of 300 mW cm⁻² was shined on R-TiO₂ NTs surface. The change of salicylic acid concentration as a function of time was quantified by the UV-visible spectrometer at 297 nm.