Supplementary Material (ESI) for Faraday Discussions
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Supplementary Information for:

Electron transfer kinetics in water splitting dye-sensitized solar cells based on core-shell oxide electrodes

Seung-Hyun Anna Lee, Yixin Zhao, Emil A. Hernandez-Pagan, Landy Blasdel, W. Justin Youngblood, and Thomas E. Mallouk*

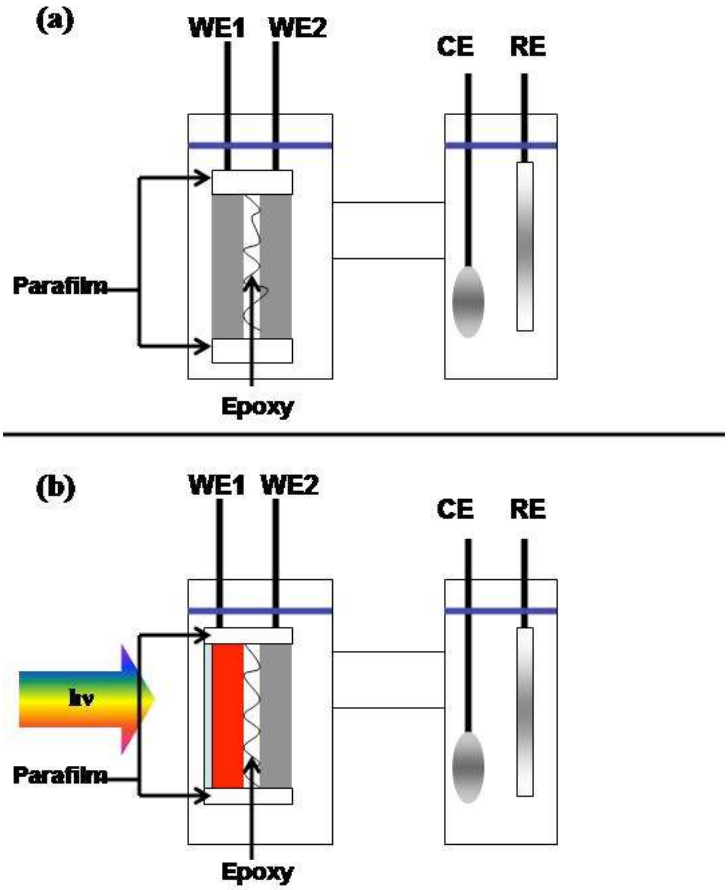

Fig. S1. Experimental setup for amperometric detection of photoelectrochemically generated oxygen. (a) Calibration of the collection efficiency using Pt generator (WE1)and collector electrodes (WE2). The cell was purged with Ar for 20-30 min. prior to calibration and testing. The counterelectrode (CE) and reference electrode (RE) were Pt mesh and Ag/AgCl, respectively. (b) Test configuration using a dye sensitized TiO_2 or core-shell oxide/TiO_2 photoanode on FTO glass.

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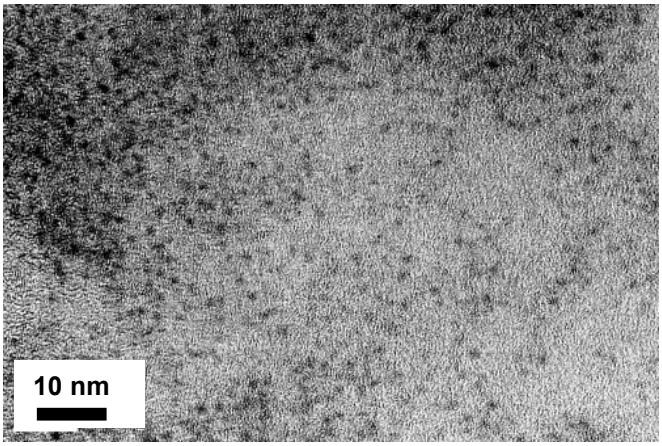

Fig. S2. HRTEM image of iridium oxide nanoparticles capped with sensitizer **1**.

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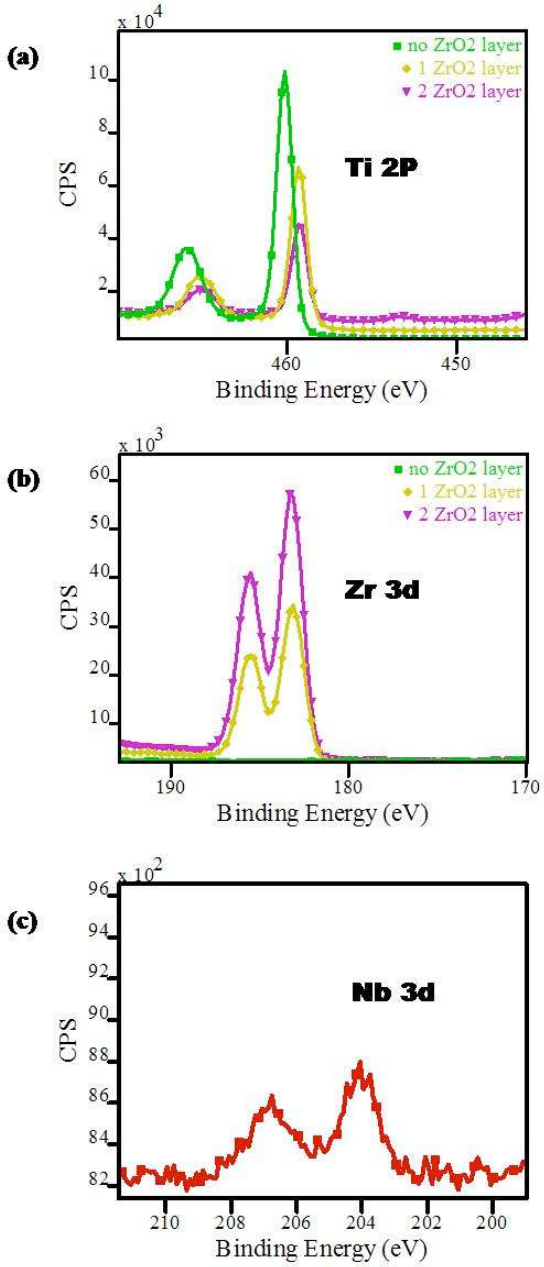

Fig. S3. X-ray photoelectron spectra (XPS) of TiO_2 and core-shell TiO_2/ZrO_2 and TiO_2/Nb_2O_5 oxide films. The sample was prepared for XPS by mechanically scraping the oxide film off the electrode surface.