Supporting Information

Controlled Synthesis of Vertically aligned Hematite on Conducting Substrate for Photoelectrochemical Cells: Nanorods versus Nanotubes

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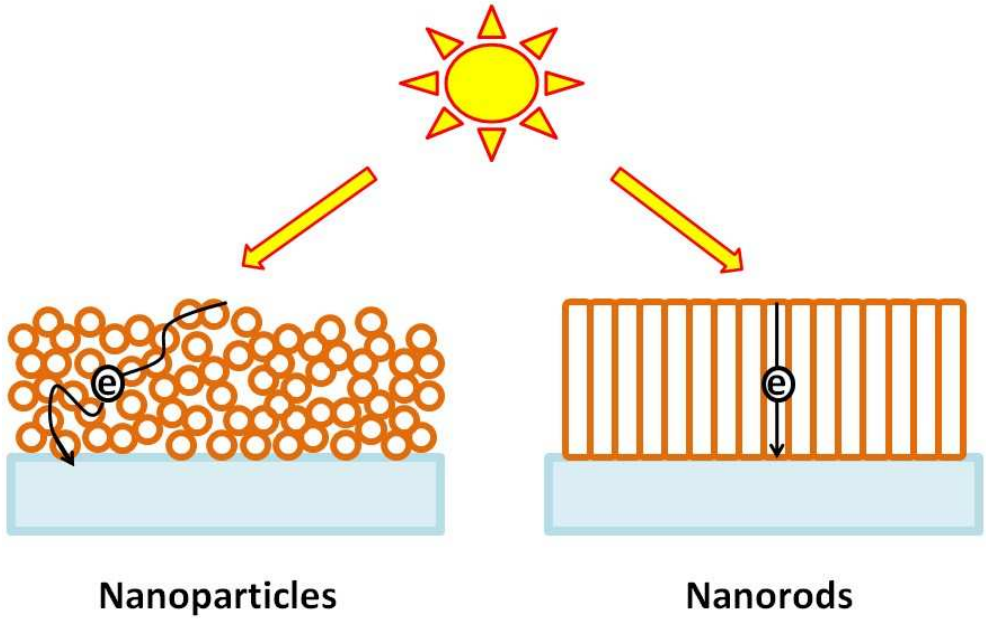

Figure S1. Schematic representation of the electron transport through nanoparticulate film and 1D nanostructures

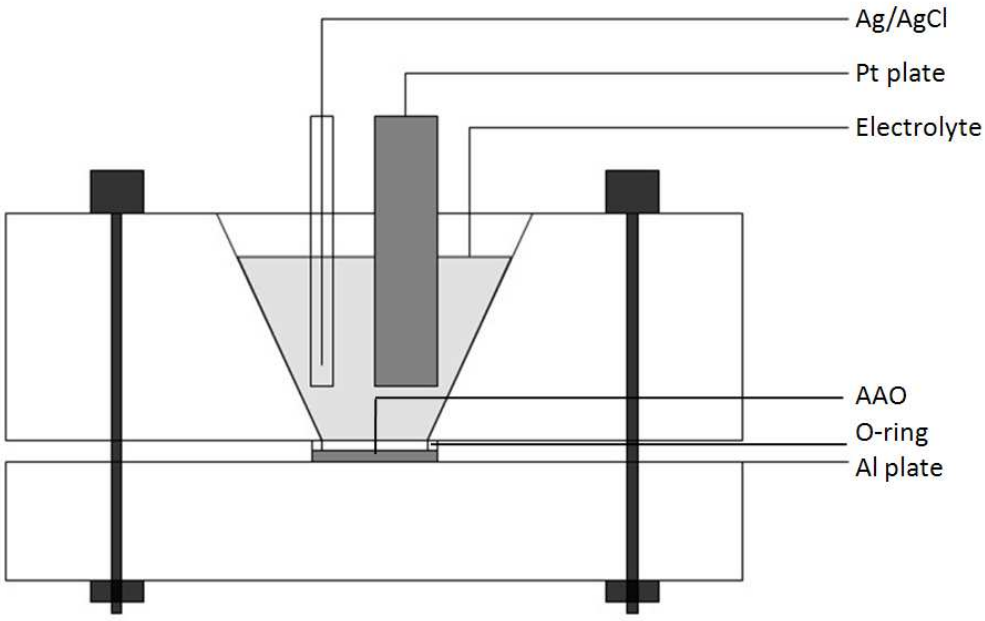

Figure S2. Schematic representation of three-electrode system for electrochemical deposition: AAO is working electrode, Pt plate is counter electrode, and Ag/AgCl is reference electrode

Comparison of surface area:

Average diameter (d) of nanorods was about 200 nm. Thus the surface area of one nanorod was about: $A = L\pi d^2/4 = 0.314\ \mu m^2$. Average outside diameter of nanotubes was about 200nm (d_{out}) and average inside diameter was about 120nm (d_{in}). Thus the surface area of one nanorod was about: $A = L\ (\pi d_{out}^2/4 + \pi d_{in}^2/4) = 0.427\ \mu m^2$. Thus, the surface area of nanotube is about 1.36 times bigger than that of nanorod.