

A Detailed Study on Working Mechanism of Heteropoly Acid Modified TiO₂ Photoanode for Efficient Dye-Sensitized Solar Cells

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Supporting Information

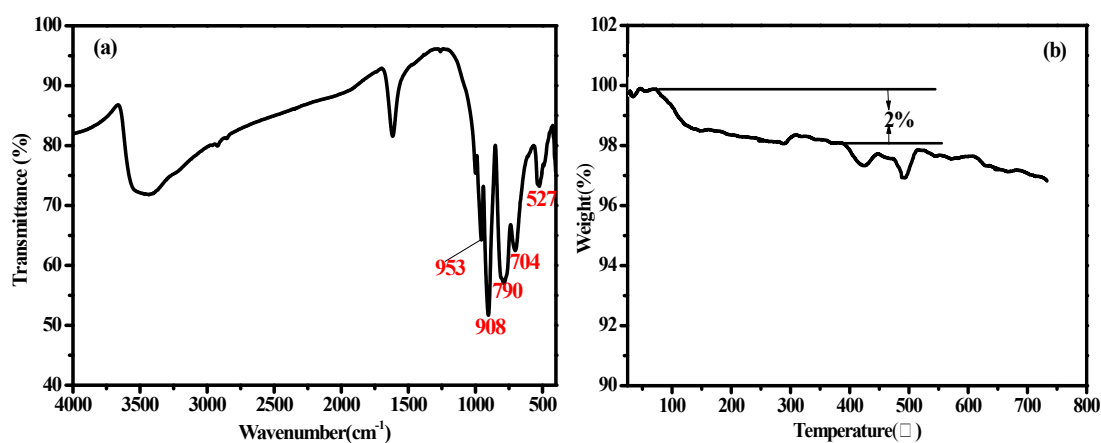


Figure S1. (a) FT-IR spectrum of SiW₁₁Ni and (b) TG spectrum of SiW₁₁Ni.

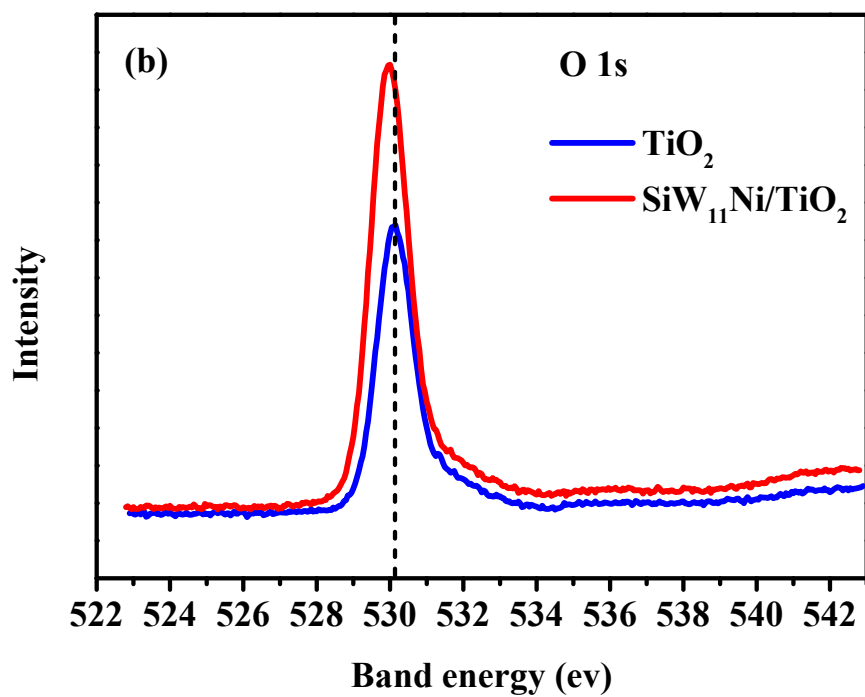
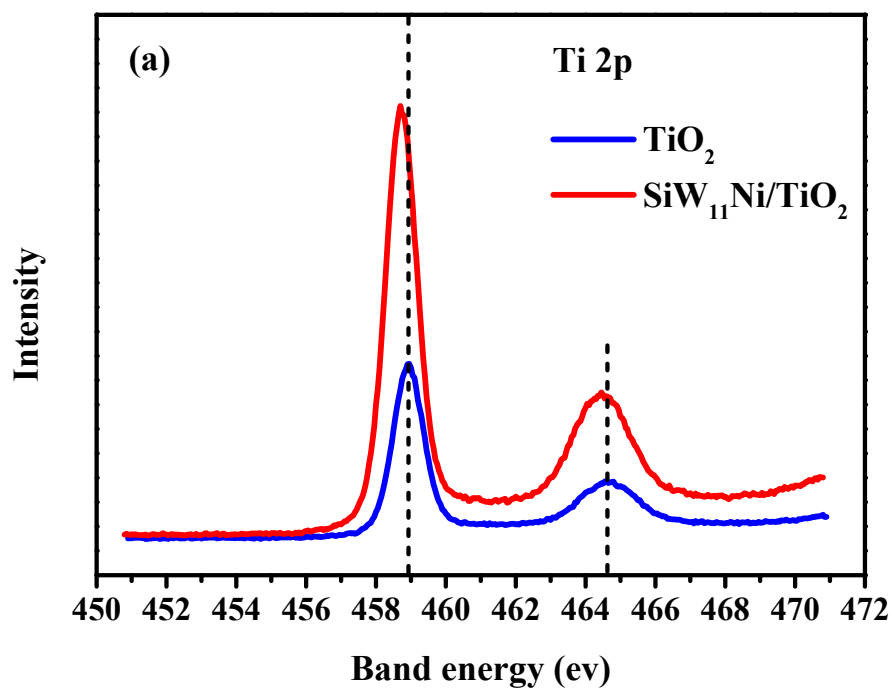


Figure S2. (a) High resolution XPS survey spectra of the Ti 2p region, (b) of the O 1s region.

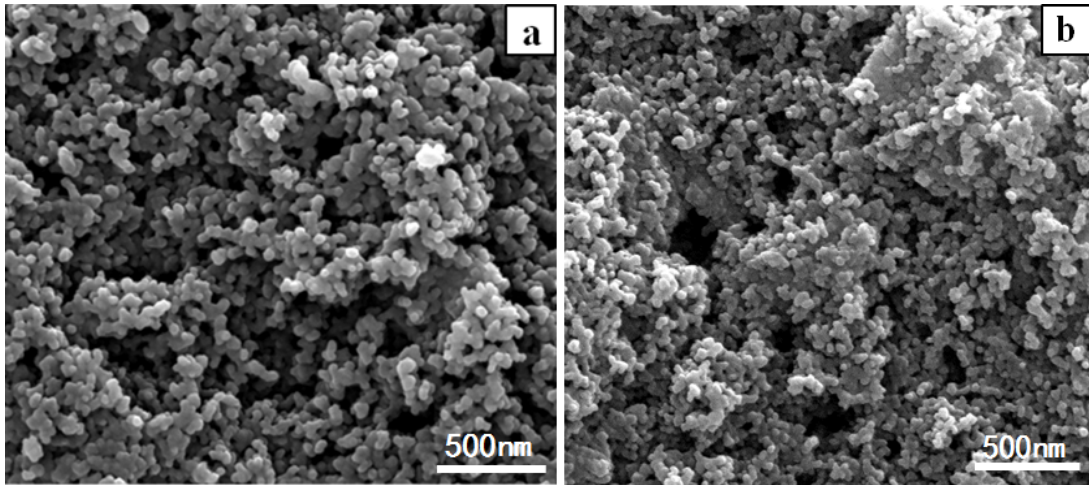


Figure S3. SEM images of TiO₂ (a) and SiW₁₁Ni/TiO₂ (b).

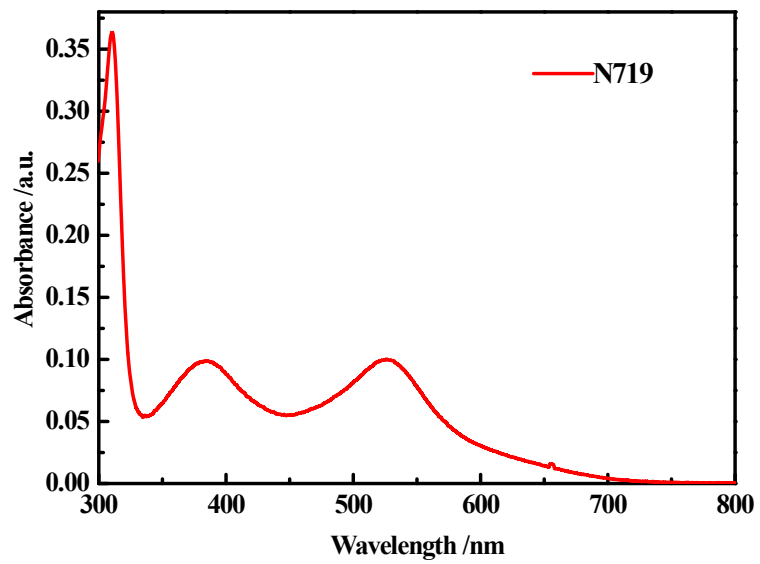


Figure S4. The absorption spectra of N719.

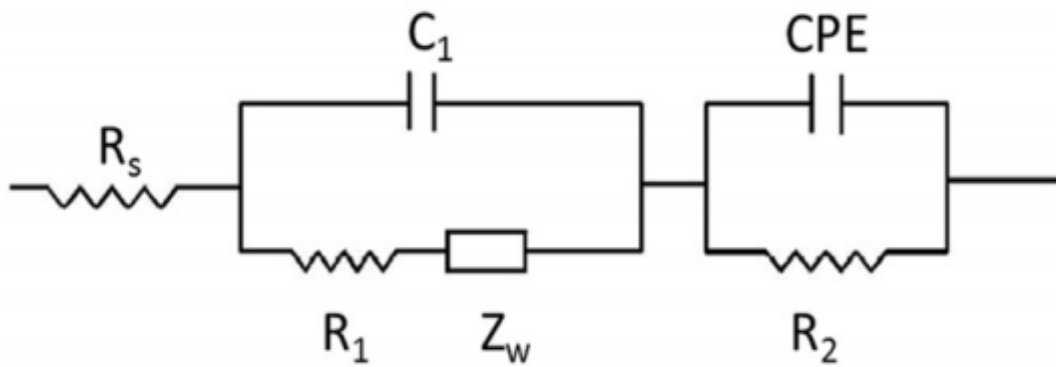
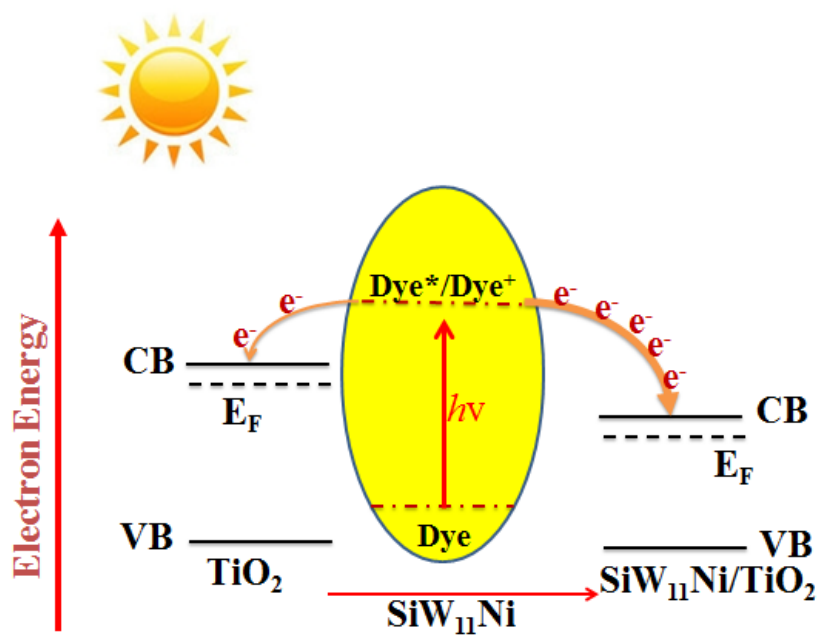


Figure S5. Equivalent circuit used to fit the impedance measurements on the DSSCs.



Scheme S1. The schematic energy level diagram for the electrode interface. (VB=valence band, CB= conduction band)