

## Supporting Information

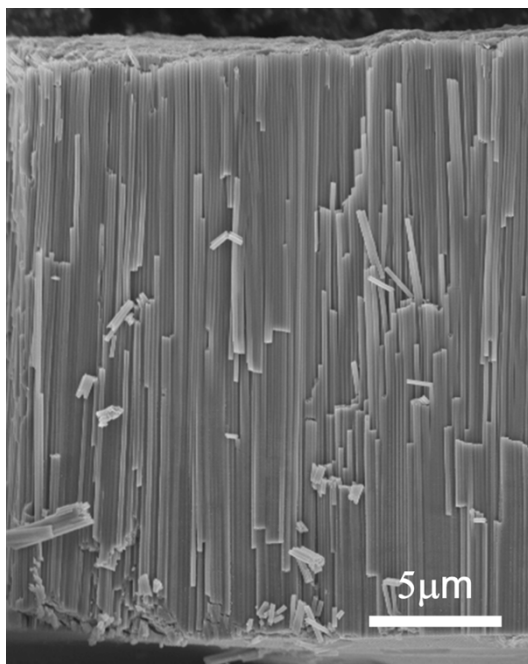
### **Assembling of a high-scattering photoelectrode using a hybrid nano-TiO<sub>2</sub> paste**

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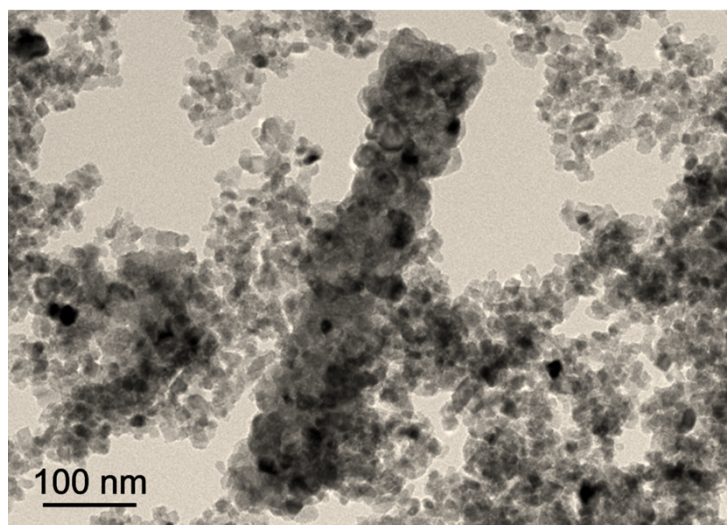
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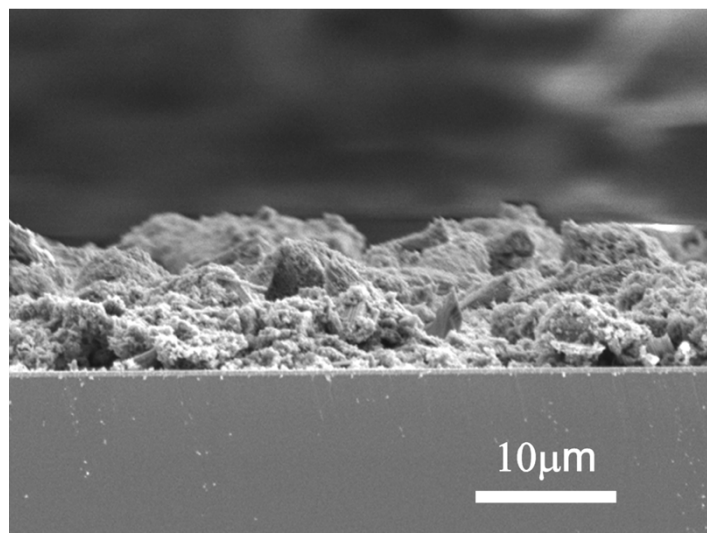
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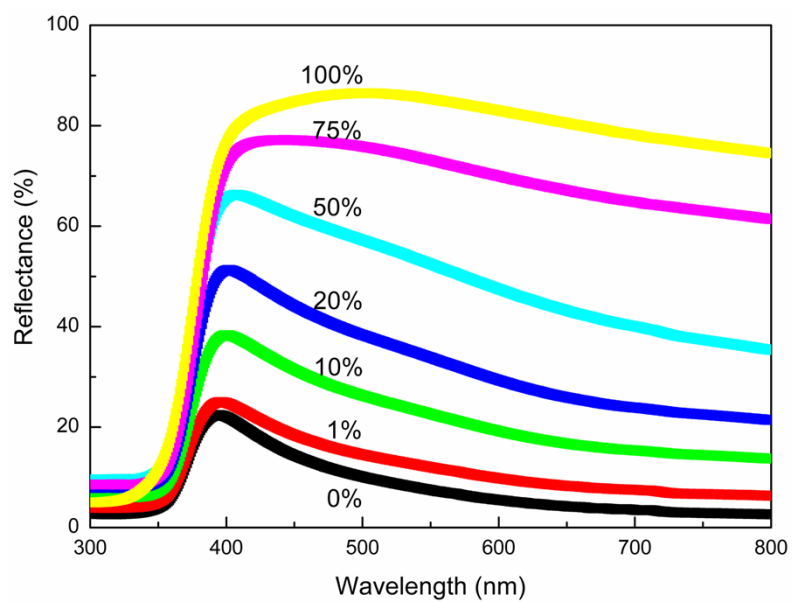
**Fig. S1** The cross-sectional SEM image of the original NT layer before ultrasonic dispersion.



**Fig. S2** The typical TEM image of the NT-NP hybrid structure.



**Fig. S3** The cross-sectional SEM image of 100%-NT sample annealed at 650 °C.



**Fig. S4** The diffuse reflectance spectra of the NT-NP hybrid photoanodes.