

Supporting Information

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An Integrated “Energy Wire” for both Photoelectric Conversion and Energy Storage**

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Supporting Information

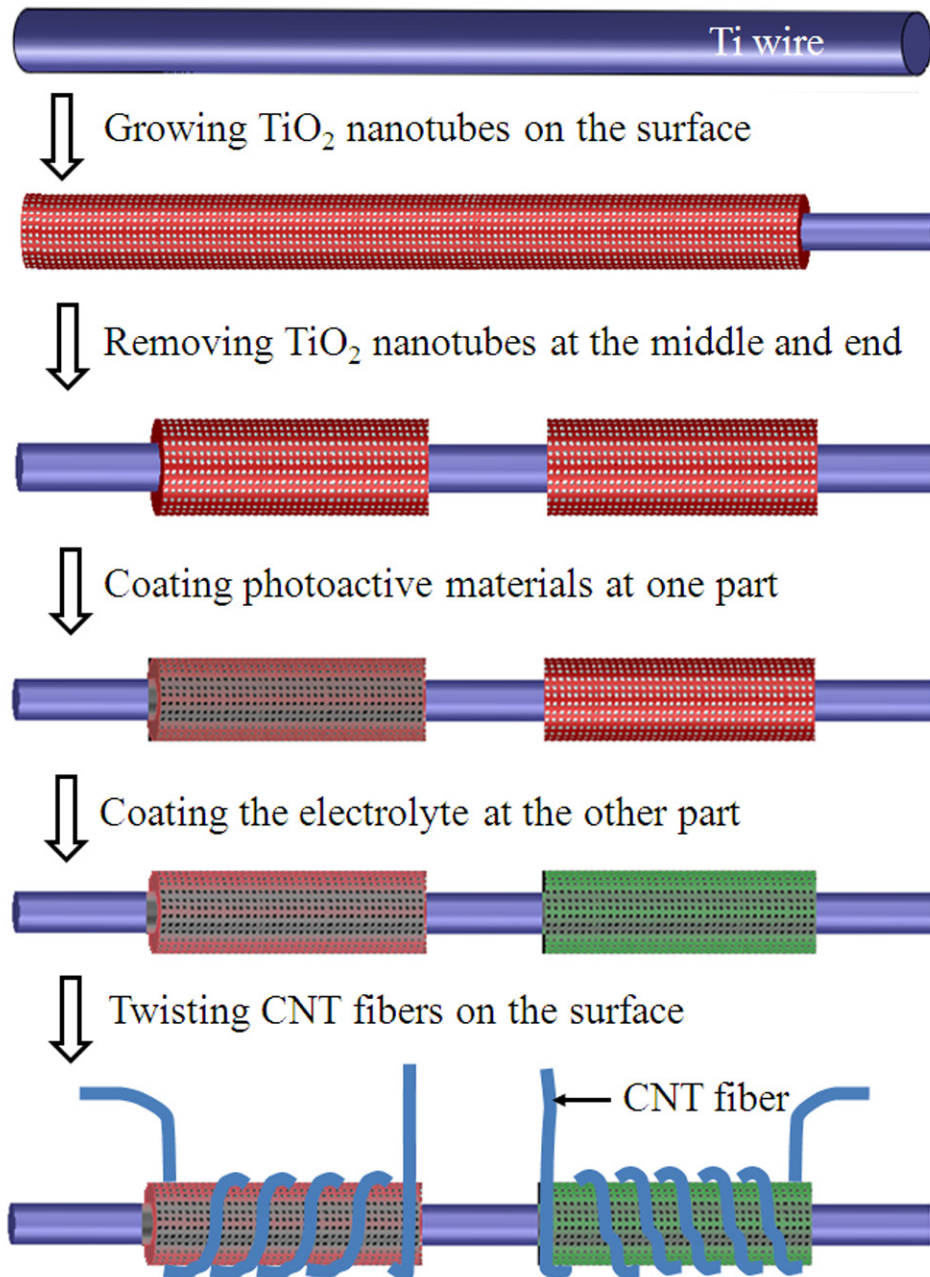


Figure S1. Schematic illustration to the fabrication of the integrated wire-shaped device.

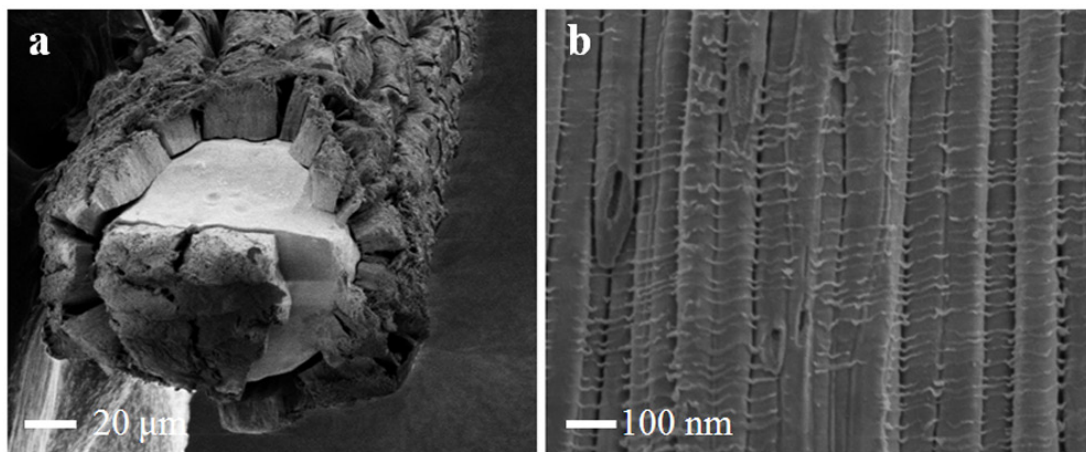


Figure S2. Scanning electron microscopy (SEM) images of a Ti wire grown with aligned titania nanotubes on the surface. **a.** Cross-sectional view. **b.** Side view.

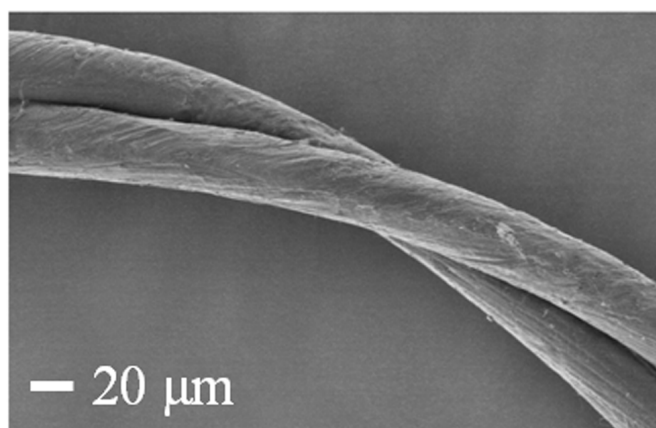


Figure S3. SEM image of two twisted CNT fibers.

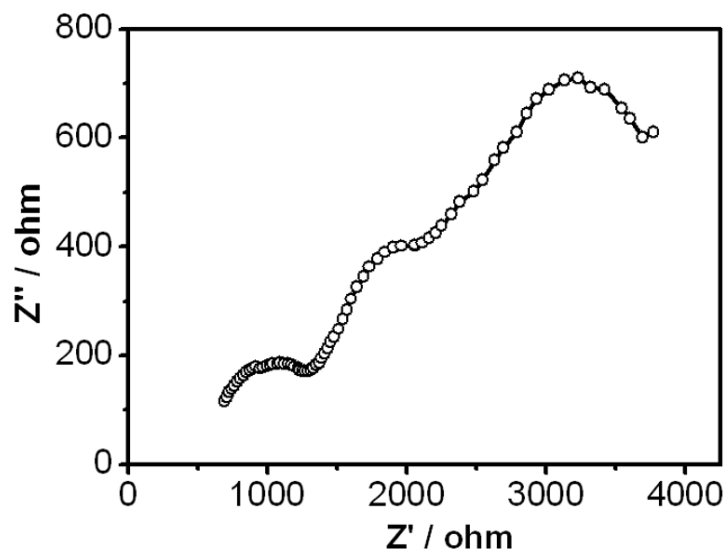


Figure S4. Nyquist plot of the PE part in the integrated device measured in the frequency range of 0.01–100 kHz at -0.7 V in dark.

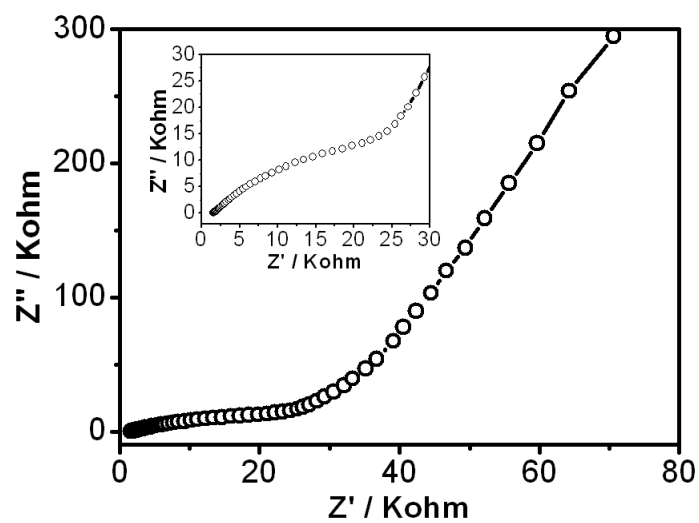


Figure S5. Nyquist plot of the ES part in the integrated device measured in the frequency range of 0.1–1000 kHz at -0.8 V.

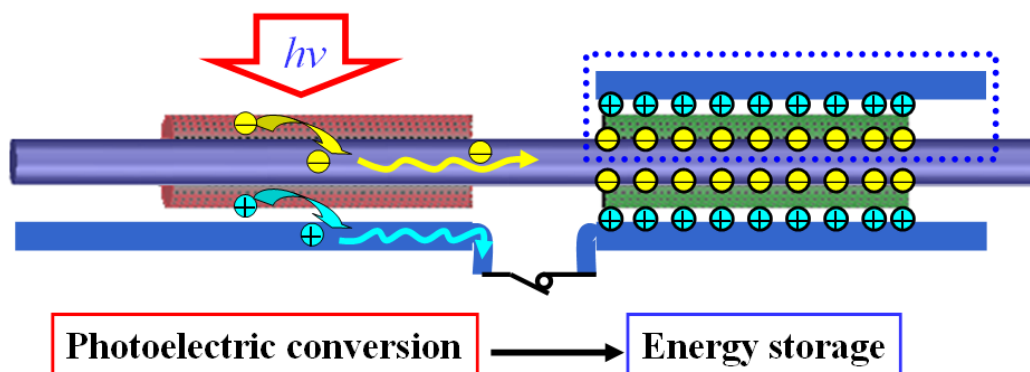


Figure S6. Schematic illustration of the charging process of the integrated wire-shaped device under light illumination.

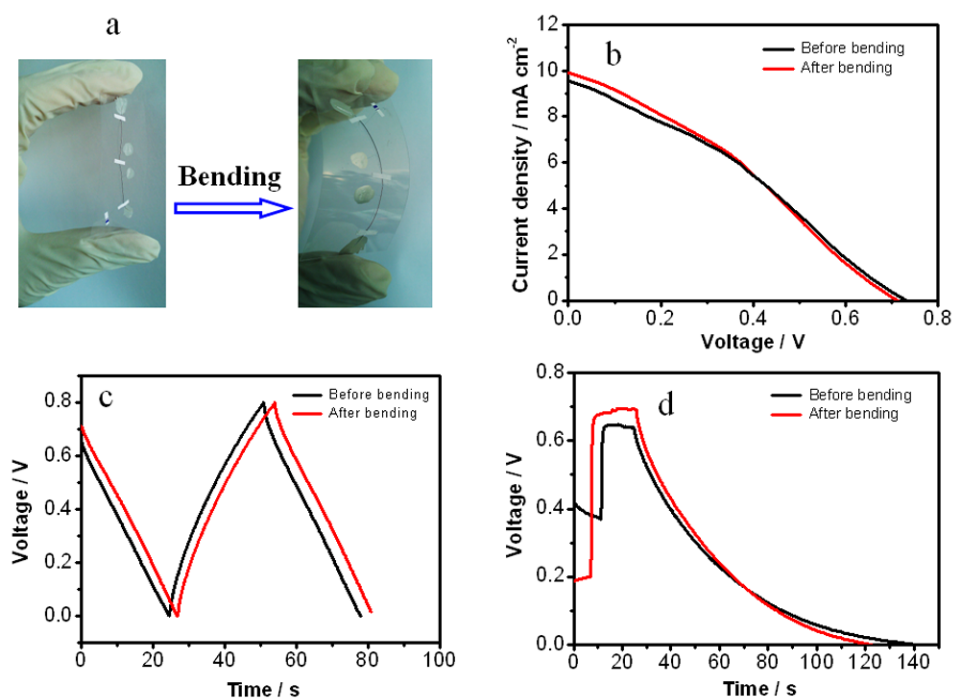


Figure S7. Stability of the integrated device under bending. **a.** Photographs of an integrated device on the flexible substrate before and after bending. **b.** J - V curves of the PC part before and after bending. **c.** Charge-discharge curves of EC part before and after bending at a current of $0.25 \mu\text{A}$. **d.** Photocharge-discharge curves of the integrated device before and after bending (the discharging current is $0.1 \mu\text{A}$).