

Supporting Information

**High Performance of Stretchable Carbon Nanotube-Polypyrrole Fiber
Supercapacitors under Dynamic Deformation and Temperature Variation**

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This file includes:

Figs. S1 to S6

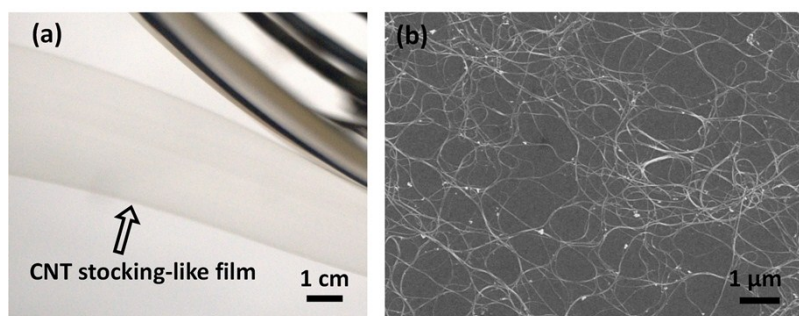


Figure S1. (a) Optical and (b) SEM images of the as-prepared stocking-like CNT ultrathin film.

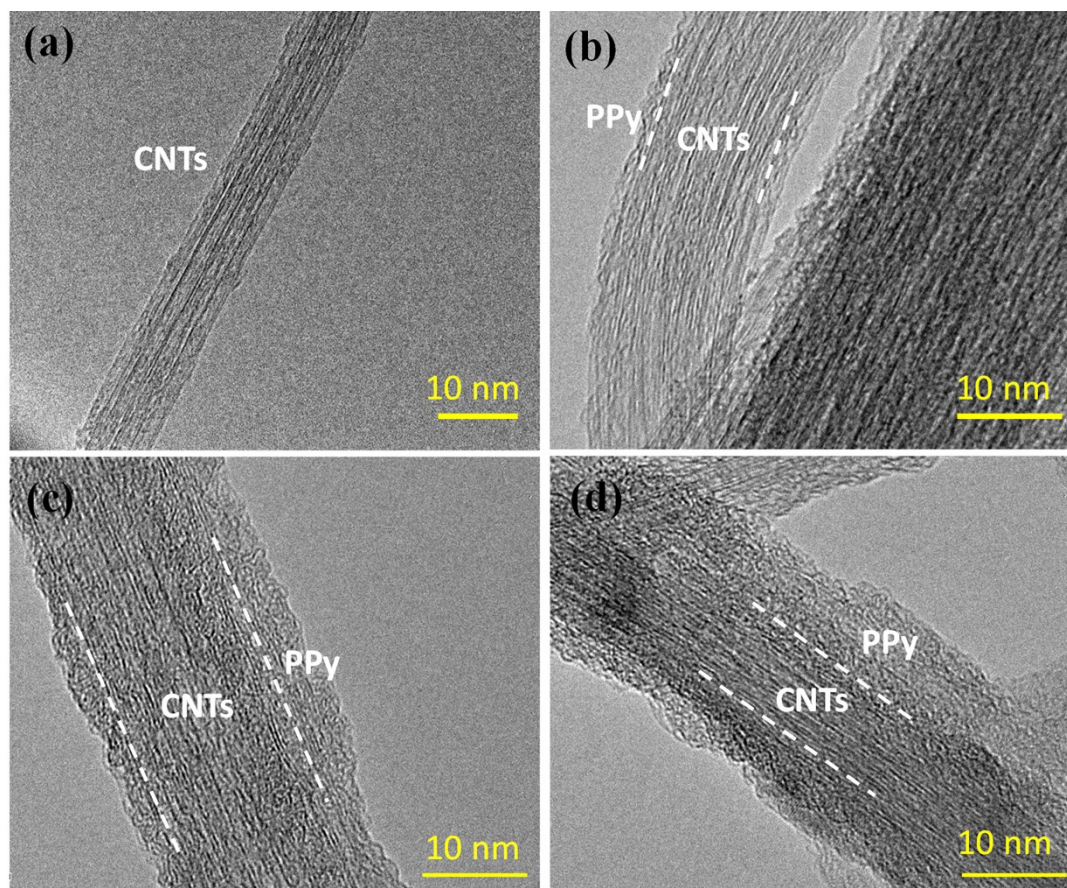


Figure S2. TEM images of pure CNT bundles (a), and CNT-PPy composites with polypyrrole content of (b) 35 wt.%, (c) 50wt.%, and (d) 75 wt.%.

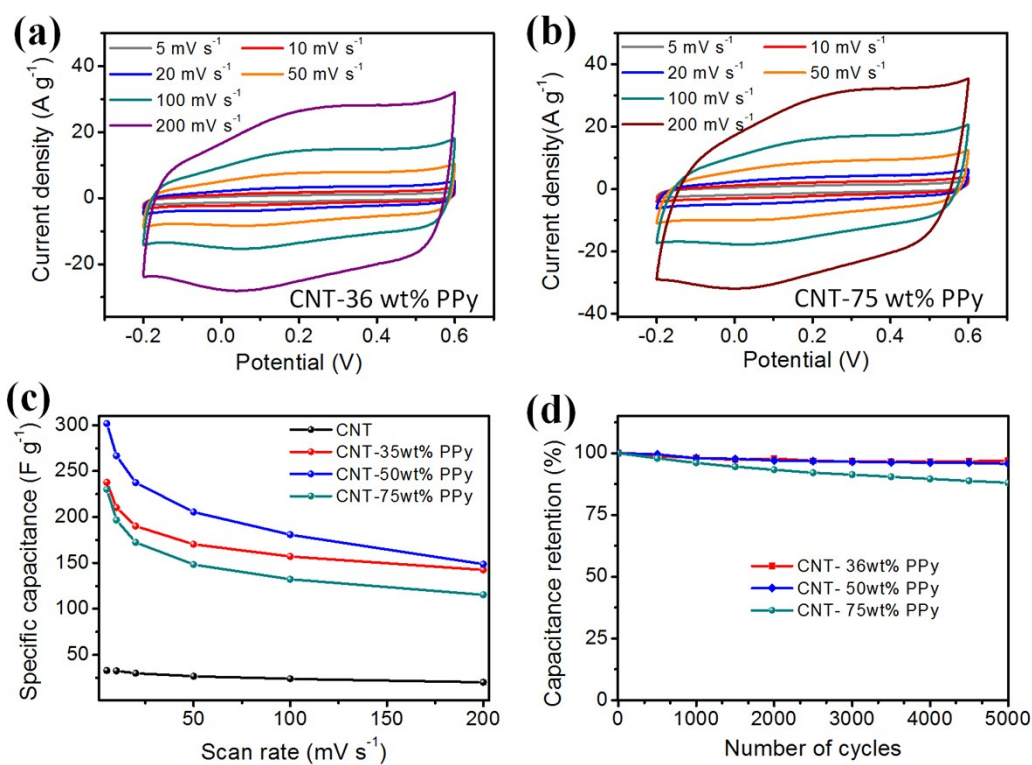


Figure S3. Electrochemical performance of CNT-PPy fiber electrodes. CV curves of the CNT-PPy electrodes with PPy content of 35 wt% (a) and 75 wt.% (b). Capacitance retention (c) and cyclic stability at scan rate 200 mV s^{-1} of different electrodes (d).

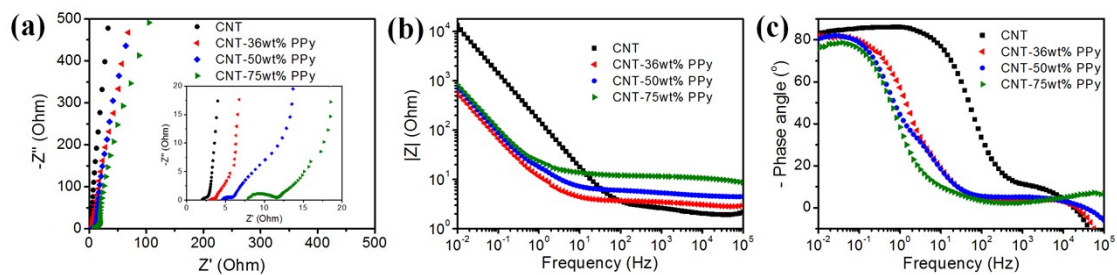


Figure S4. EIS spectrum of different fiber electrodes. Nyquist plot (a) and Bode plot (b, c) of the electrodes with different contents of PPy.

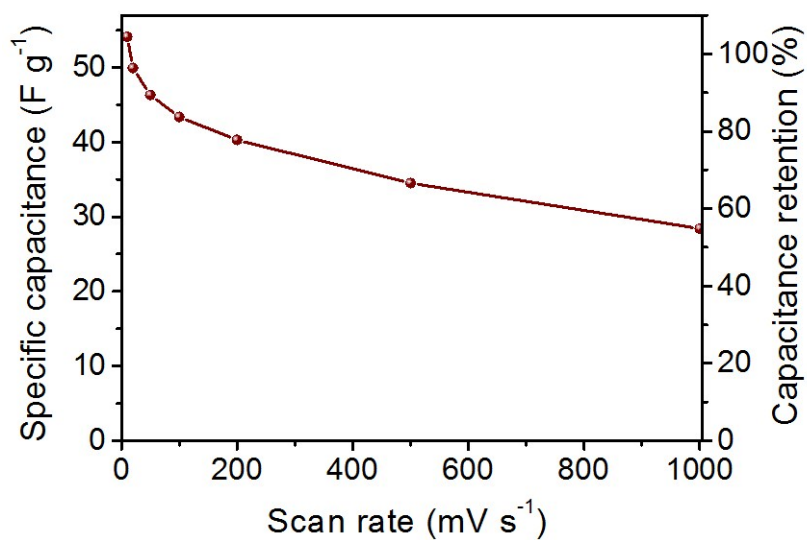


Figure S5. Capacitance retention of a FSSC at different scan rates.

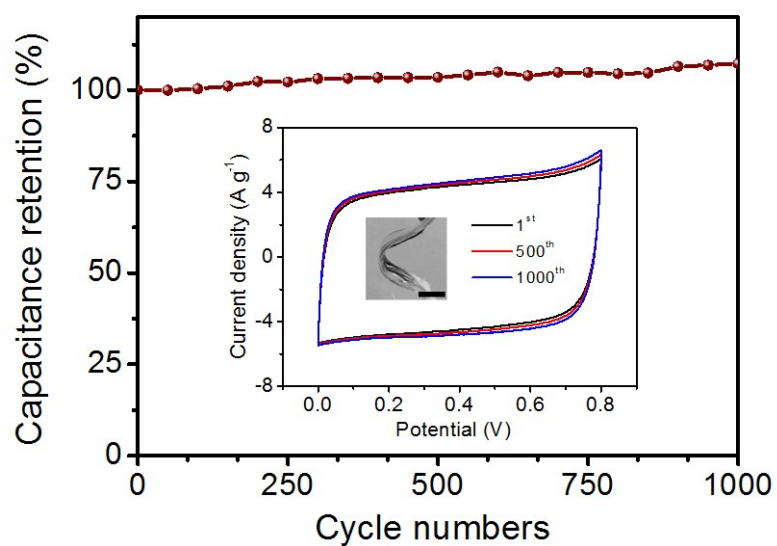


Figure S6. Stability test of FSSC under 90° bending for 1000 times at scan rate of 100 mV s^{-1} . Inset is a FSSC on PDMS bending to about 90° . Scale bar: 0.5 cm.