

Supporting Information

A Highly Flexible Micro-Supercapacitor Based on Pen Ink-Carbon-Fiber Thread

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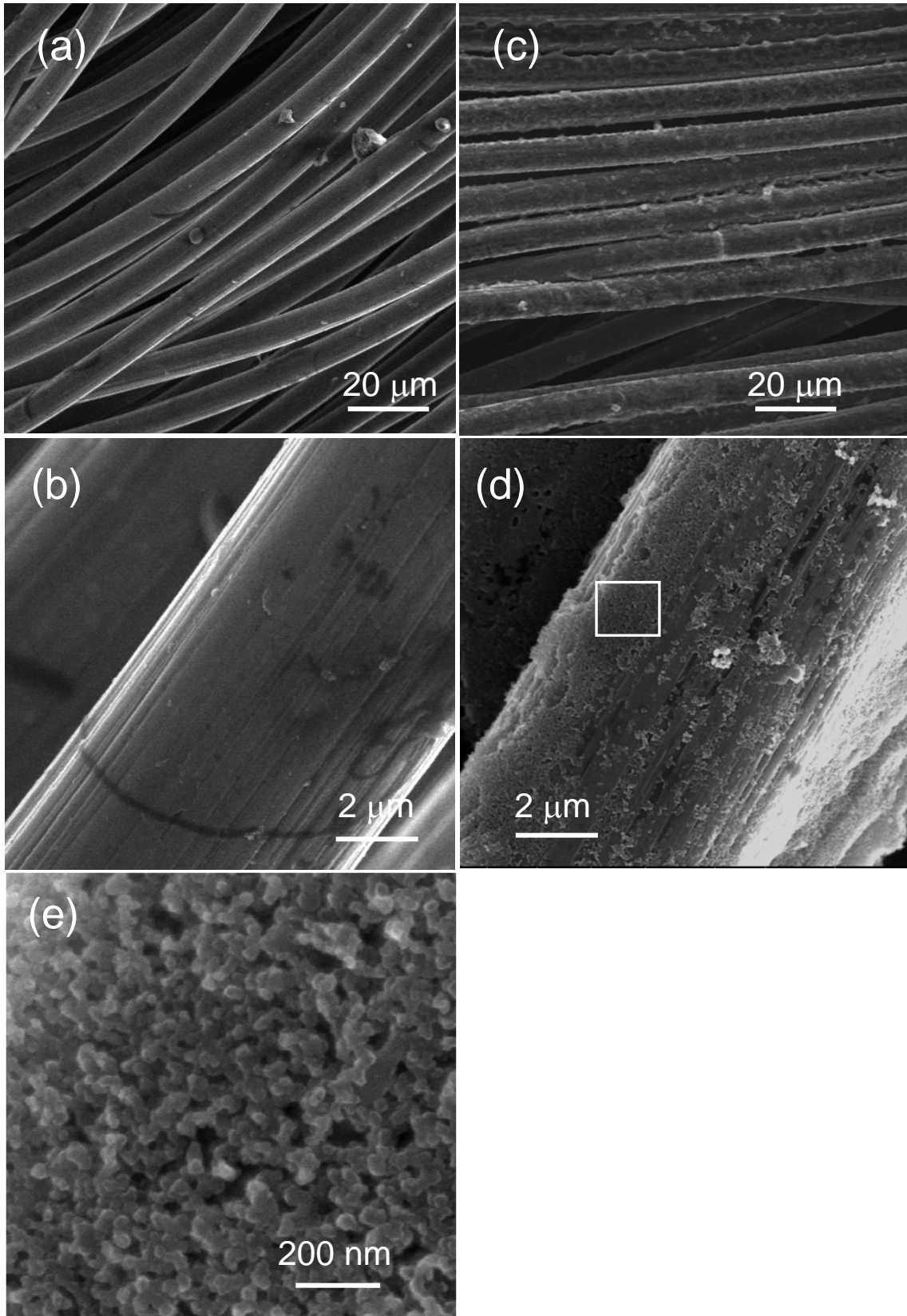


Fig. S1 SEM image of the pure CF thread (a-b) and the Ink-CF thread (c-d) and enlarged circled part in (d).**■**

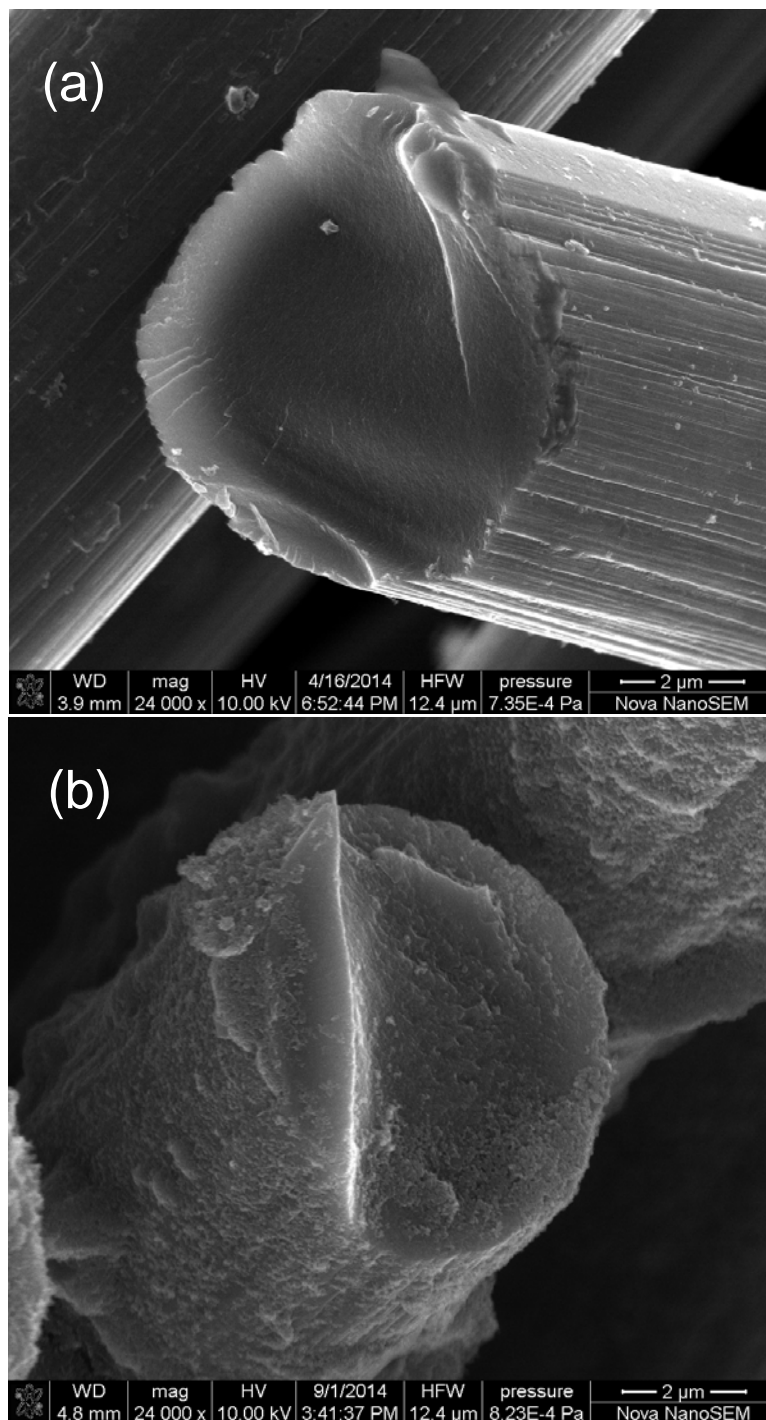


Fig. S2 Cross-sectional SEM image of the pure CF (a) and the Ink-CF (b).

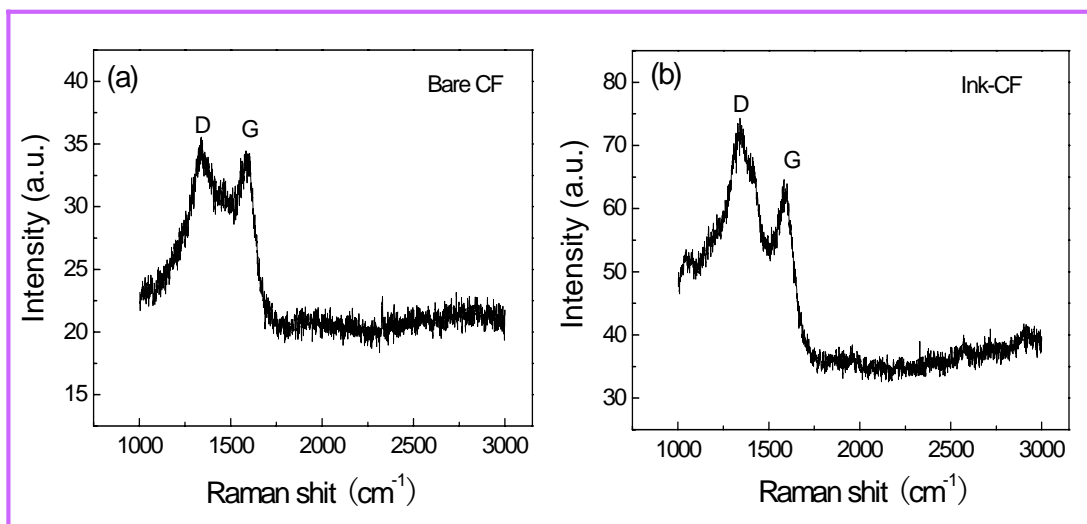


Fig. S3 Raman spectra of the pure CF (a) and the Ink-CF (b).

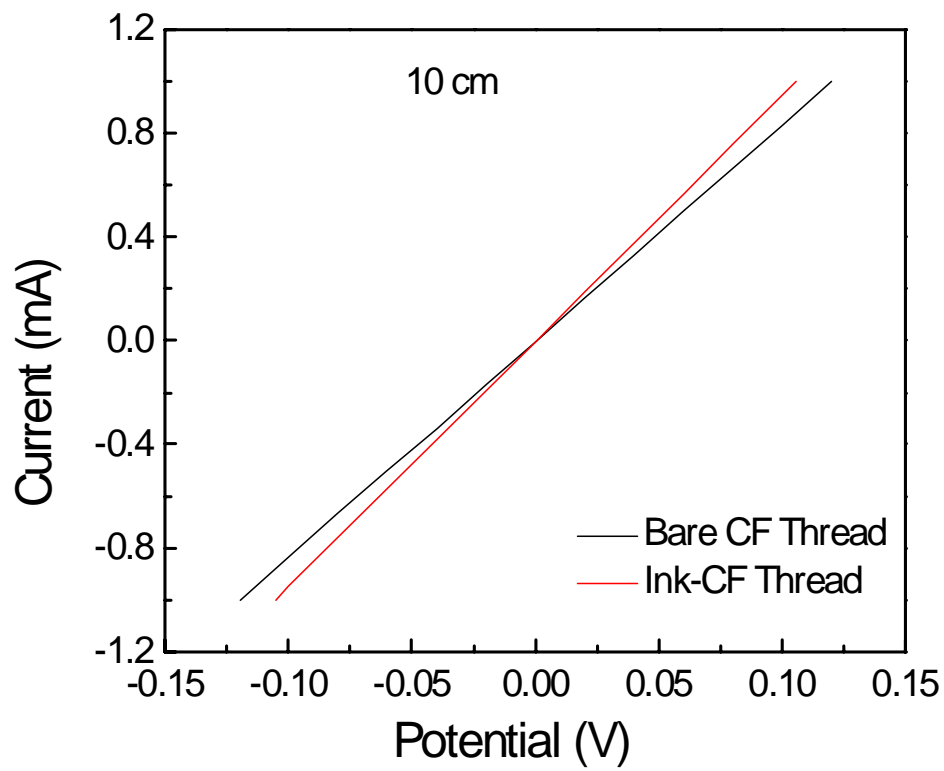


Fig. S4. I-V plots of the CF and Ink-CF threads.

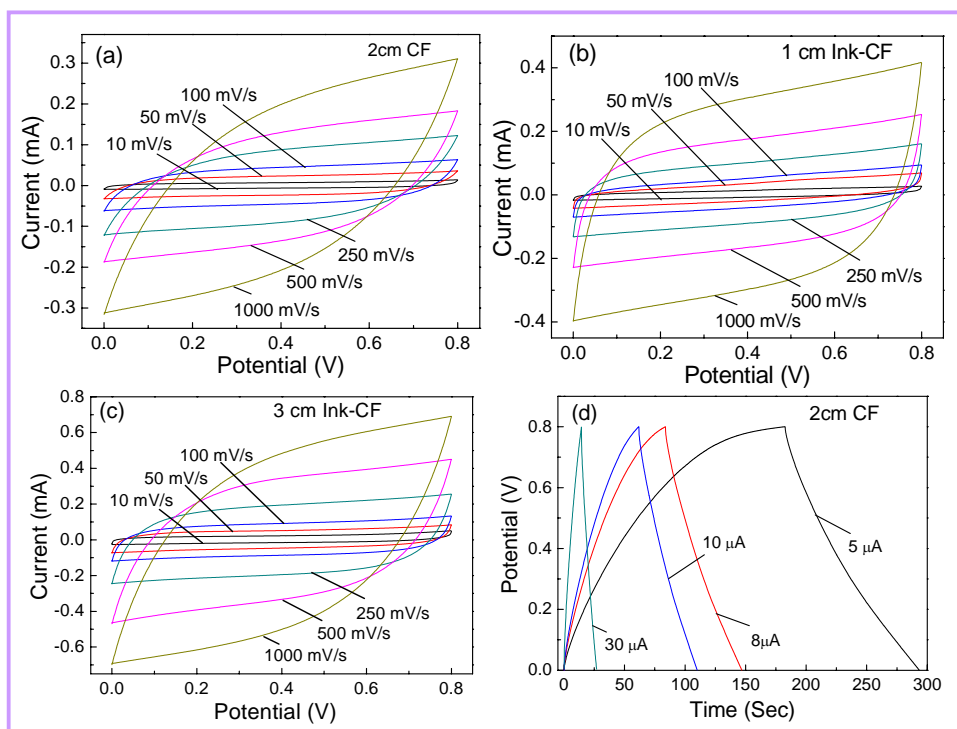


Fig. S5 (a) CV curves of the bare CF (about 2 cm) thread device at different scan rates. (b), (c) CV curves of the Ink-CF (about 1 cm, 3 cm) thread devices at different scan rates. (d) Galvanostatic charge-discharge curves of the bare CF (about 2 cm) thread devices at various currents.

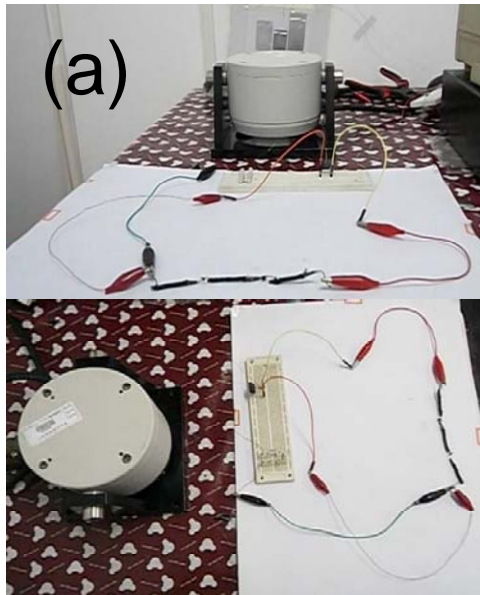


Fig. S6 Digital photographs of the self-powered nanosystems.

The screen of three micro-supercapacitors connected in series that is being charged by a triboelectric nanogenerator. See Video 1.

The screen of three micro-supercapacitors connected in series that is powering 8 commercial LEDs. See Video 2.