Supporting Information

Facile Synthesis of Polyaniline Nanotubes for High Energy Density Pseudocapacitors

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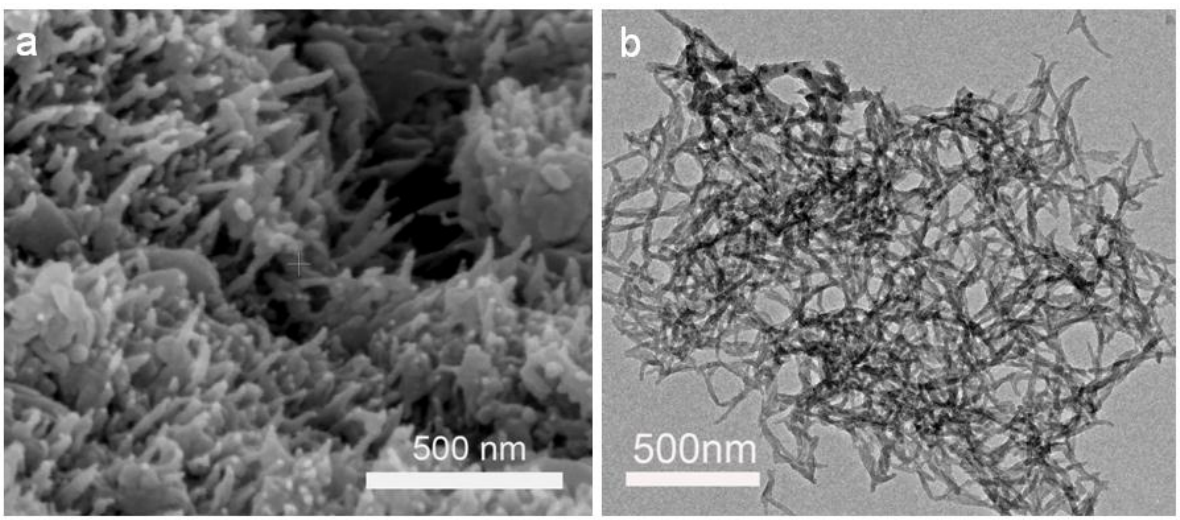

Figure S1. (a) SEM and (b) TEM images of PAni nanofibers.

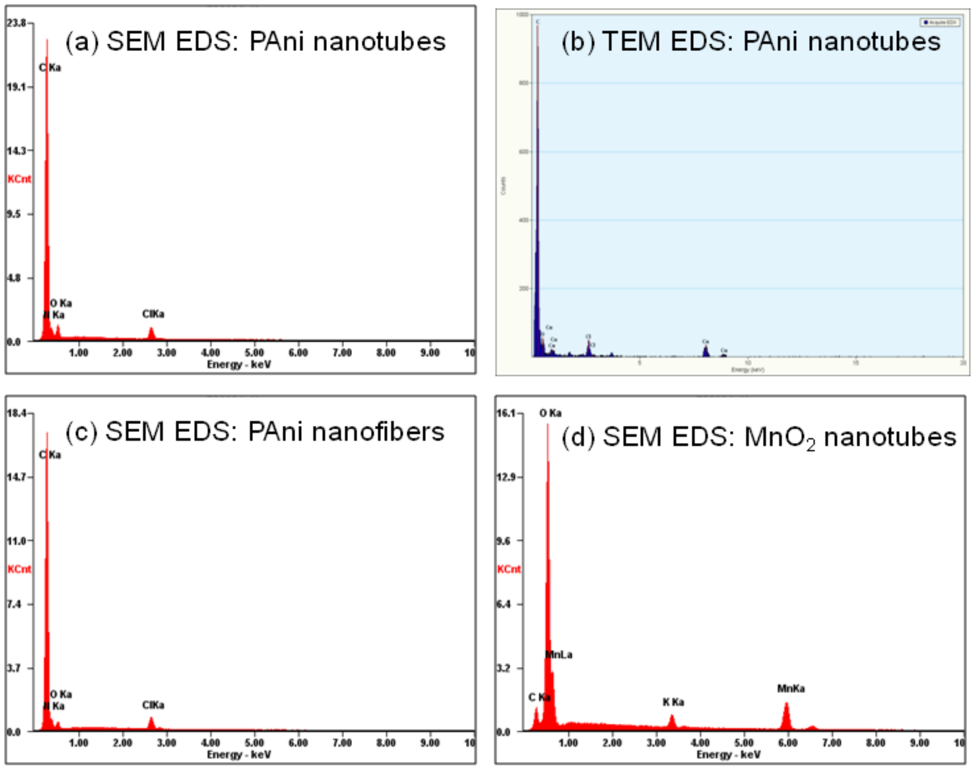

Figure S2. SEM-EDS of (a) PAni nanotubes, (c) PAni nanofibers and (d) MnO_2 nanotubes, respectively. (b) TEM-EDS of PAni nanotubes.

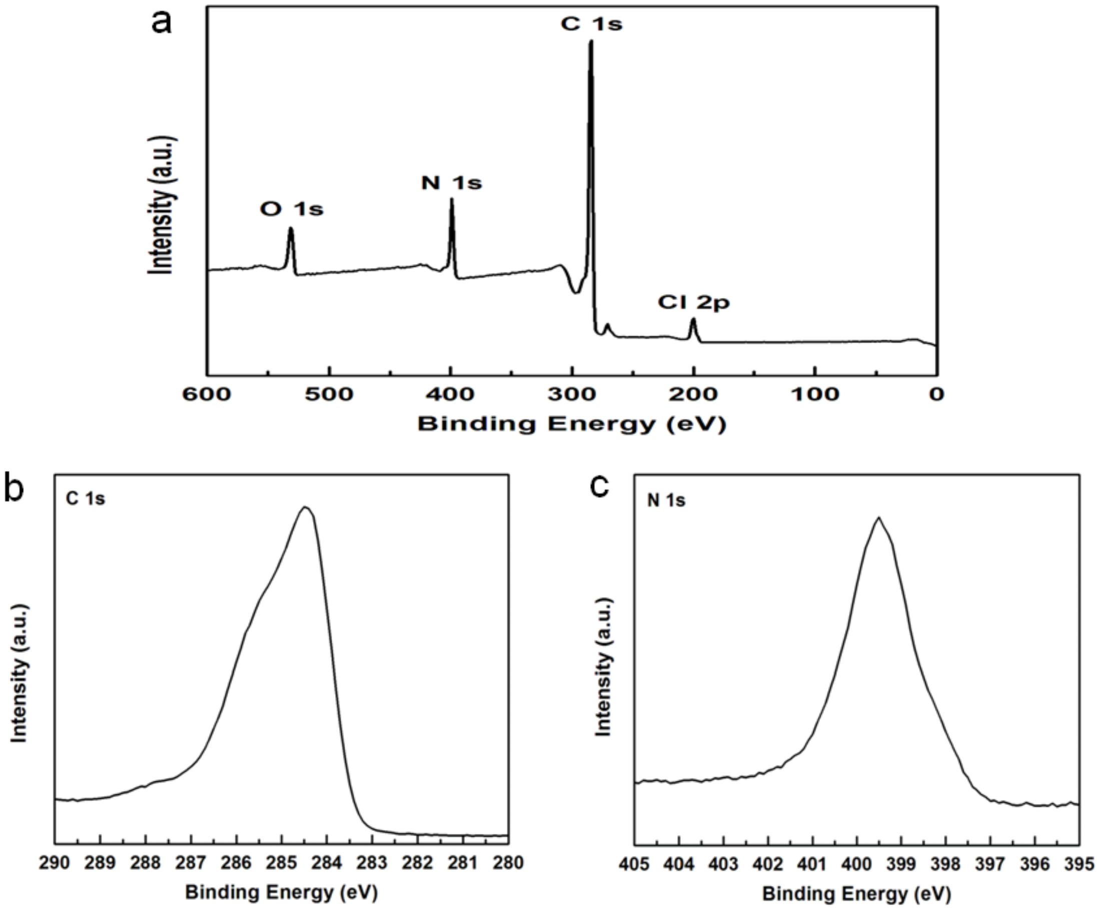

Figure S3. (a) Survey-scan, (b) C 1s, and (c) N 1s XPS spectra of PAni nanotubes.

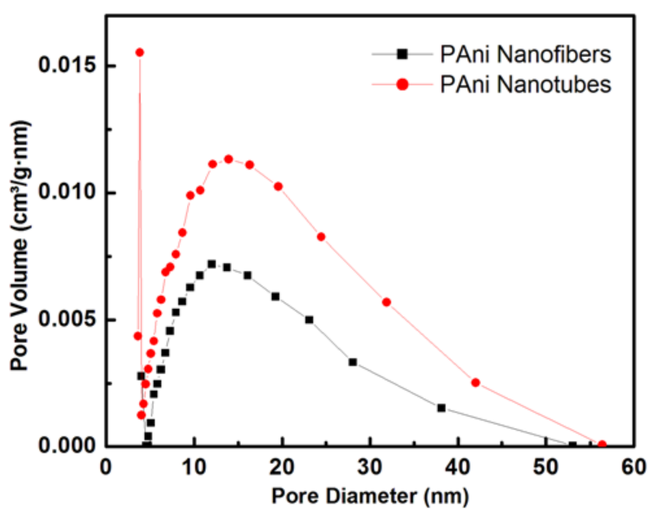

Figure S4. Pore size distribution of PAni nanofibers and PAni nanotubes obtained from BJH desorption curves.

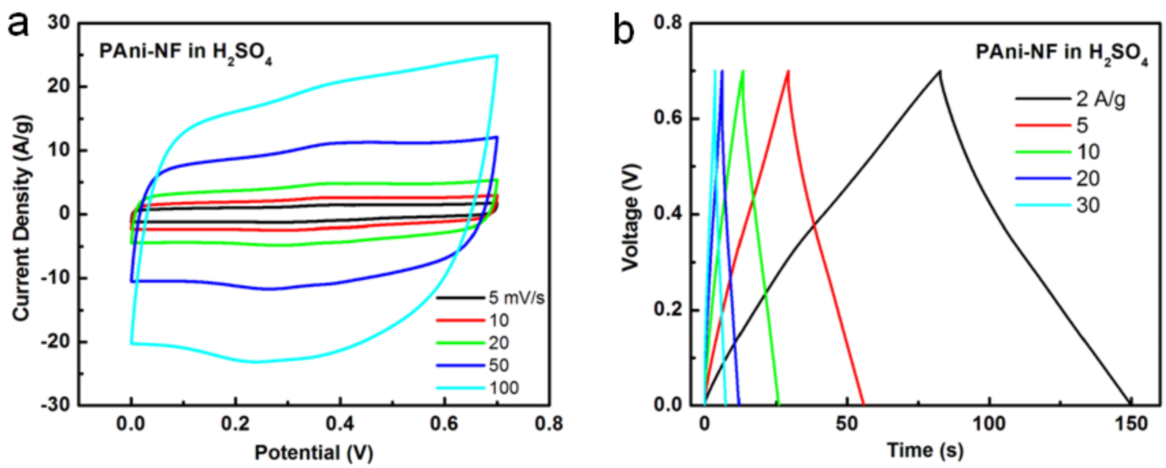

Figure S5. (a) Cyclic voltammetry and (b) galvanostatic charge-discharge curves of PAni-NF pseudocapacitors in 1M H_2SO_4 electrolyte.

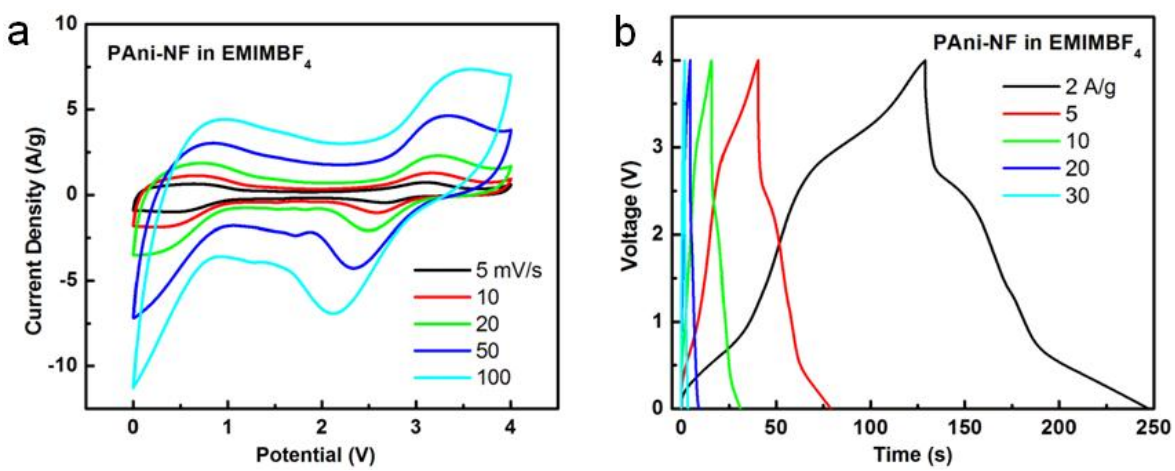

Figure S6. (a) Cyclic voltammetry and (b) galvanostatic charge-discharge curves of PAni-NF pseudocapacitors in $EMIMBF_4$ electrolyte.

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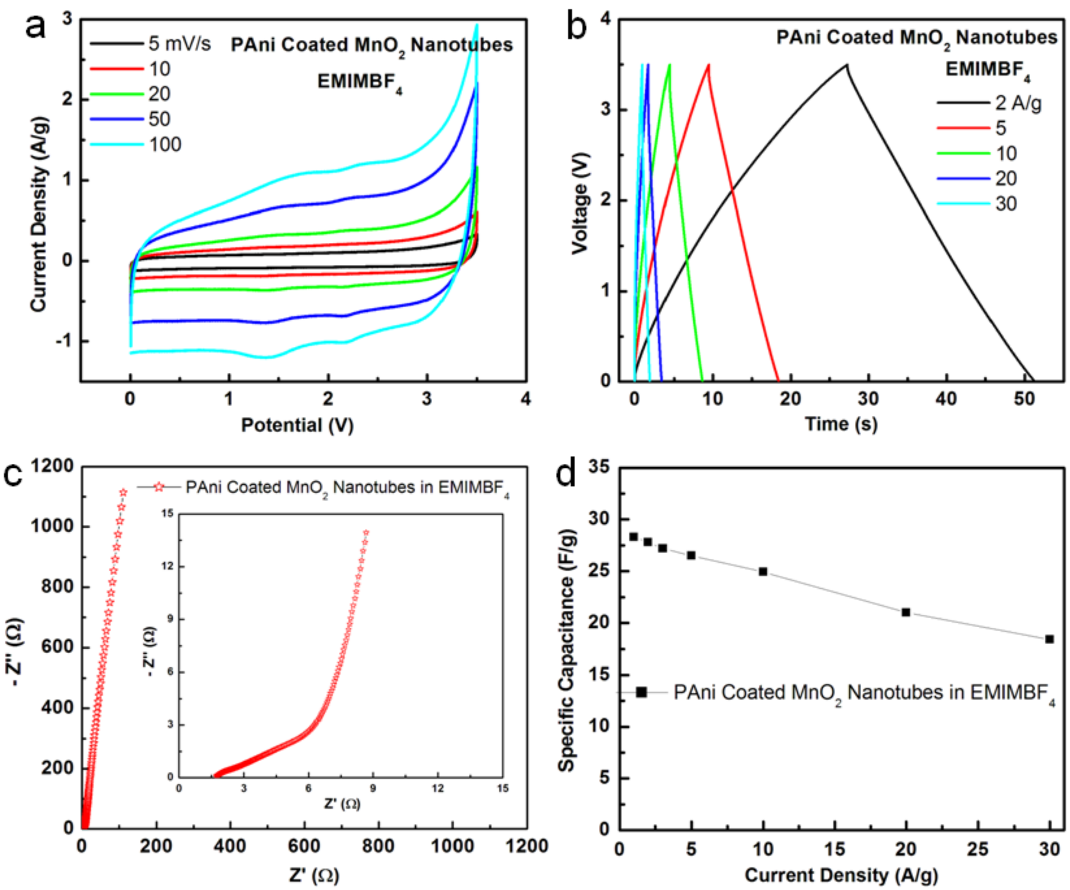

Figure S7. Electrochemical performance of PAni coated MnO_2 nanotube pseudocapacitors in $EMIMBF_4$ electrolyte. (a) Cyclic voltammograms at different scan rates. (b) Galvanostatic charge-discharge curves at different current densities. (c) Electrochemical impedance spectroscopy curves (frequency: 100 kHz-10 mHz, frequency of the inset one: 100 kHz-1 Hz). (d) Specific capacitance *vs.* current density.

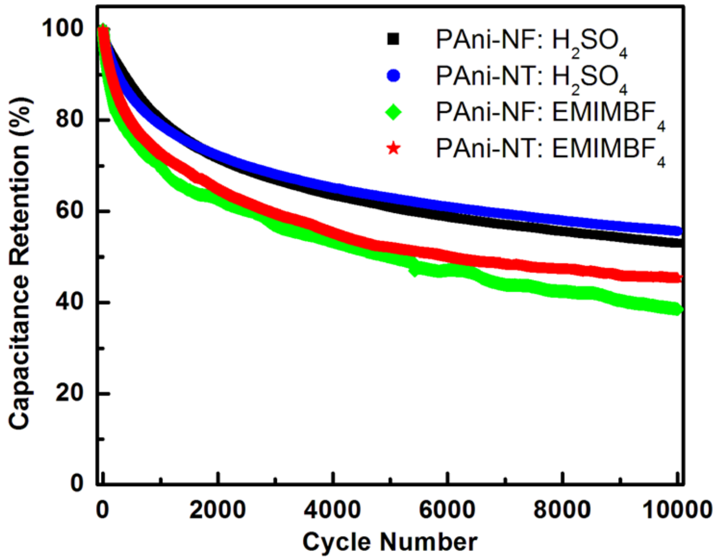

Figure S8. Cycling performance of PAni-NT and PAni-NF pseudocapacitors in different electrolytes.

Figure S9. Demonstration of five red LEDs lighting by a PAni-NT pseudocapacitor in $EMIMBF_4$ electrolyte after a long-term cycling of 10000 times under current density of 10 A/g.