Supporting Information

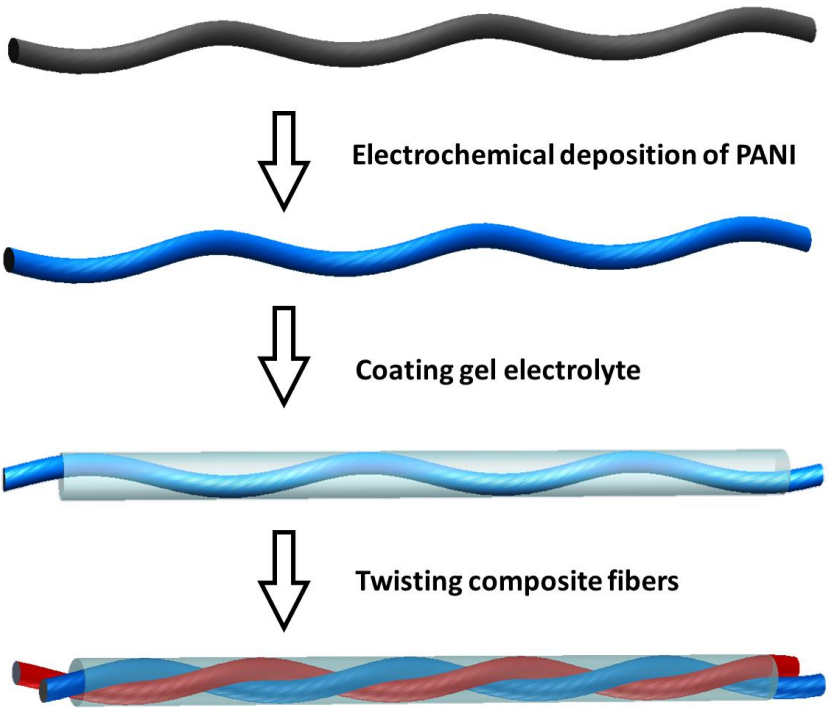

Figure S1. Schematic illustration to the preparation of the MWCNT/PANI composite fiber and resulting supercapacitor.

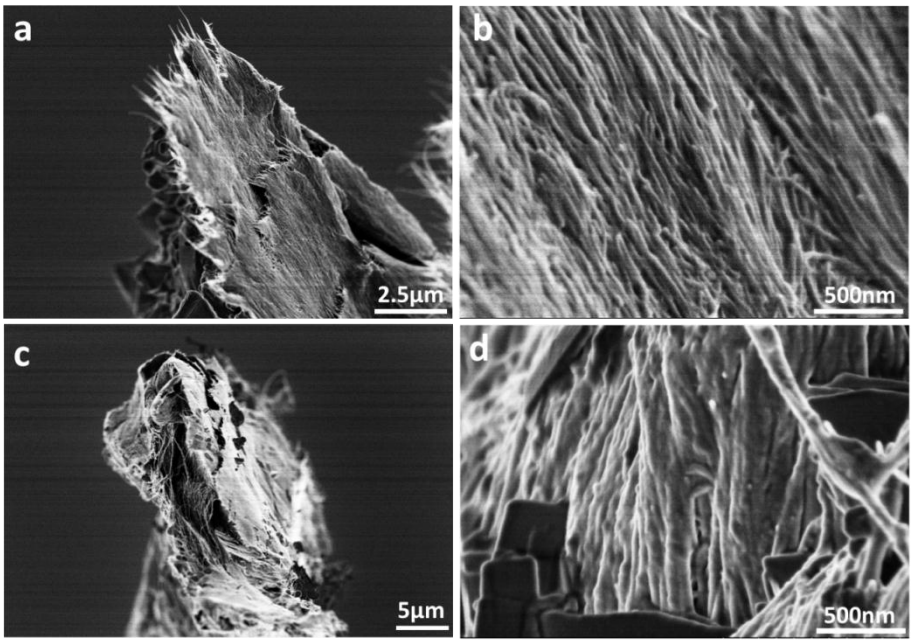

Figure S2. Typical cross-sectional scanning electron microscopy (SEM) images of two aligned MWCNT/PANI composite fibers at (**a**, **c**) low and (**b**, **d**) high magnifications.

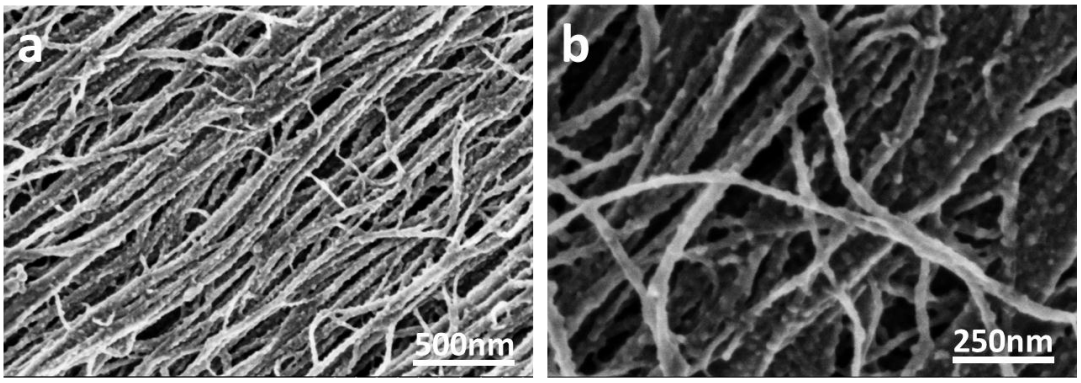

Figure S3. SEM images of a composite fiber with PANI weight percentage of 34%.

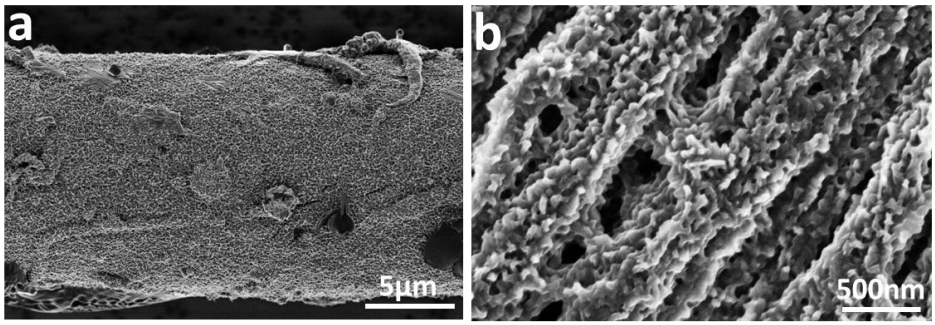

Figure S4. SEM images of aligned MWCNT/PANI composite fiber with PANI weight percentage of 70%.

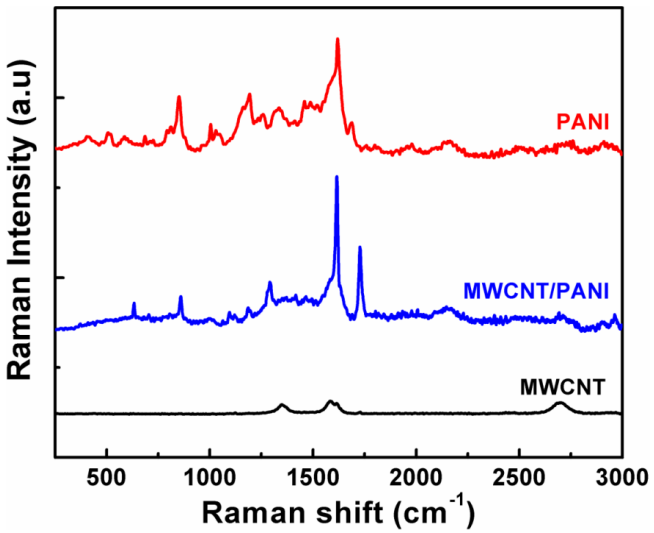

Figure S5. Raman spectra of bare MWCNT fiber, PANI, and MWCNT/PANI composite fiber with PANI weight percentage of 24%.

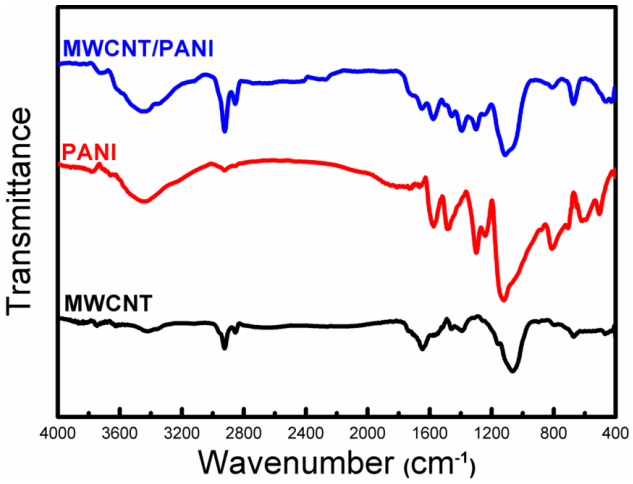

Figure S6. Fourier transform infrared spectra of bare MWCNT fiber, PANI, and aligned MWCNT/PANI composite fiber with PANI weight percentage of 24%.

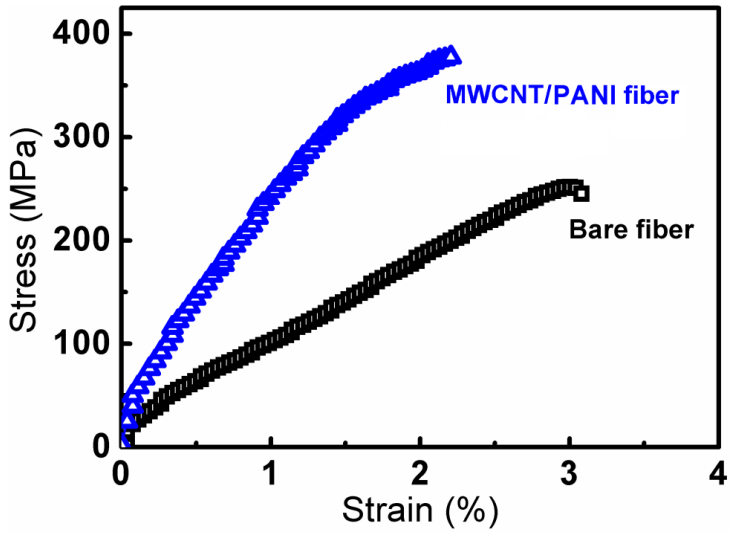

Figure S7. Typical tensile stress-strain curves for bare aligned MWCNT and MWCNT/PANI (weight percentage of 34%) composite fibers, respectively.