Electronic Supplementary Information

Boosting supercapacitor performance of carbon fibers by electrochemically reduced graphene oxide additives

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This file includes:

Figs. S1 to S5

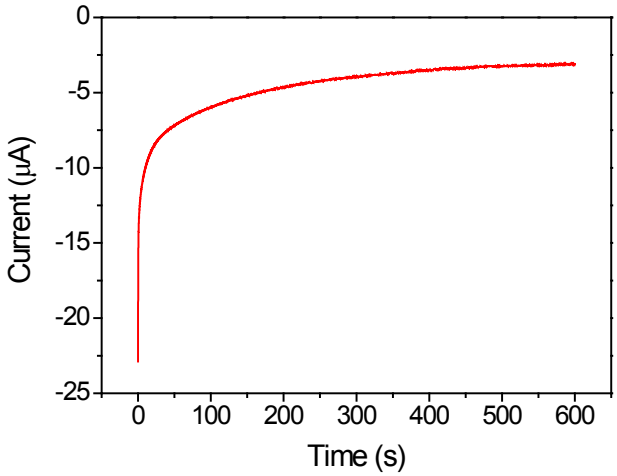

Figure S1 | A typical current-time curve of the electrochemical deposition process for a 2-cm long carbon fiber at a constant potential of -1.2 V.

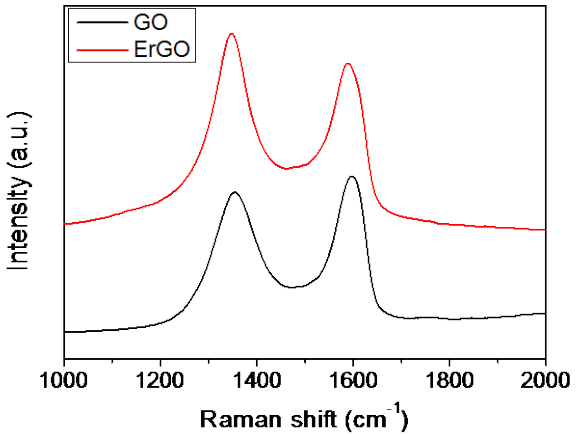

Figure S2 | Raman spectra of GO and ErGO. The ratio of D band and G band (I_D/I_G) increased from 0.93 to 1.15 after electrochemical deposition.

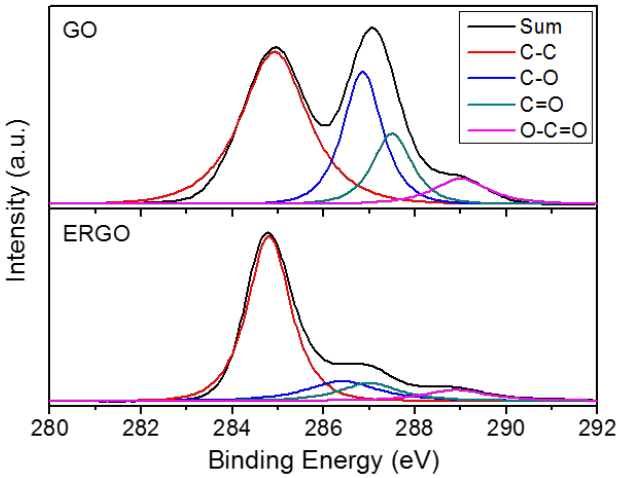

Figure S3 | XPS spectra of GO and ErGO. The C:O ratio increased from 0.48 to 2.30 after electrochemical deposition, suggesting that oxygenated groups were removed and GO sheets were reduced.

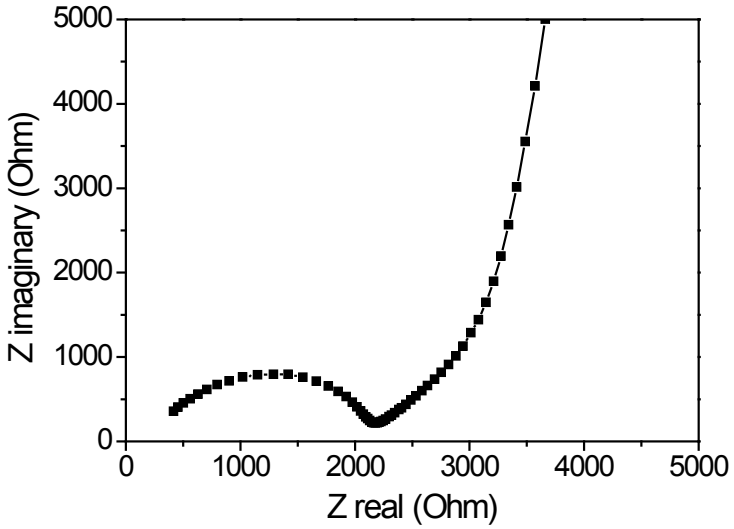

Figure S4 | Nyquist plot of the impedance of a ErGO@CF electrode with a frequency from 0.01 to 10^6 Hz.

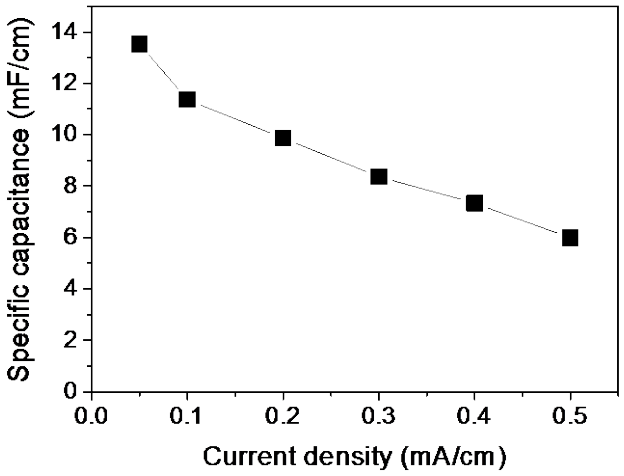

Figure S5 | Length specific capacitance with respect to current density from 0.05 to 0.5 mA cm^{-1}.