Electronic Supplementary Information

Ionic liquid-assisted microwave reduction of graphite oxide for supercapacitors

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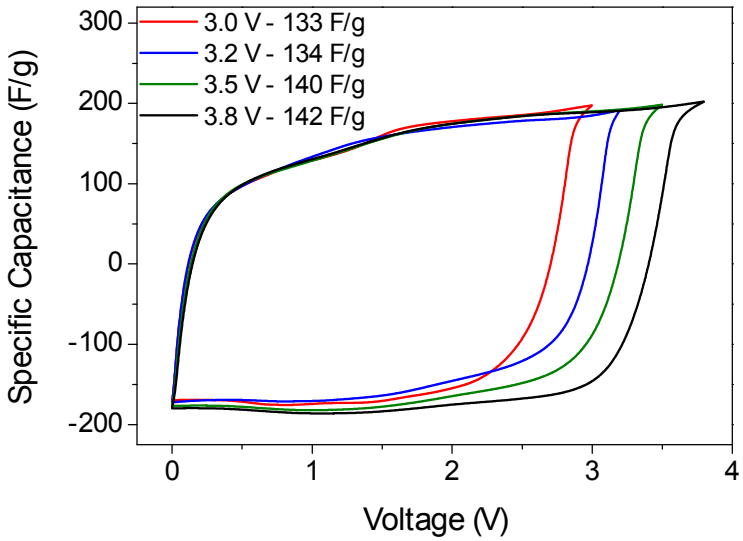

Fig. S1. CV curves of the supercapacitor assembled with mRG-O electrodes and EMIM-NTf_2/AN electrolyte. The cell was cycled to different maximum voltages (scan rate: 100 mV/s)

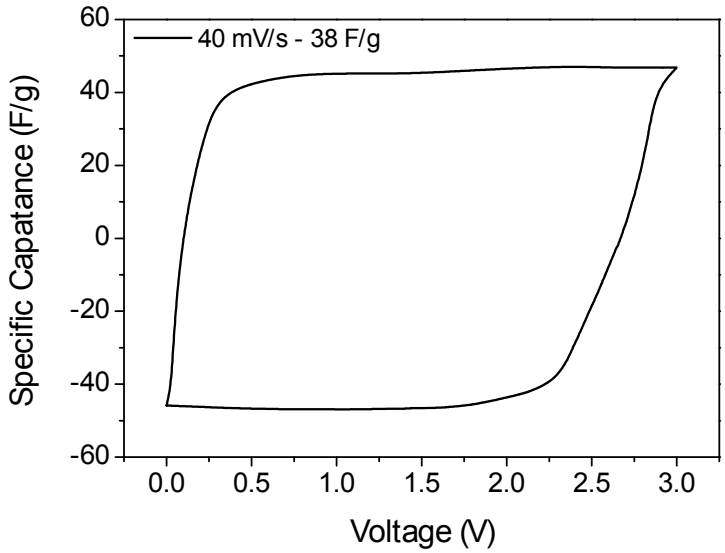

Fig. S2. CV curve of the cell assembled with activated carbon (AC) electrode and EMIM-NTf_2/AN electrolyte (scan rate: 40 mV/s) The fabrication of the AC electrodes was as follows: Commercially available AC (Norit DLC super 50) was mixed with carbon black (super P) and poly (vinylidenefluoride-*co*-hexafluoropropylene) (PVdF-HFP, in dimethylformamide) in a mass ratio of 90:5:5, respectively. The mixtures was then ground in a mortar and then rolled out onto current collector to form electrodes.

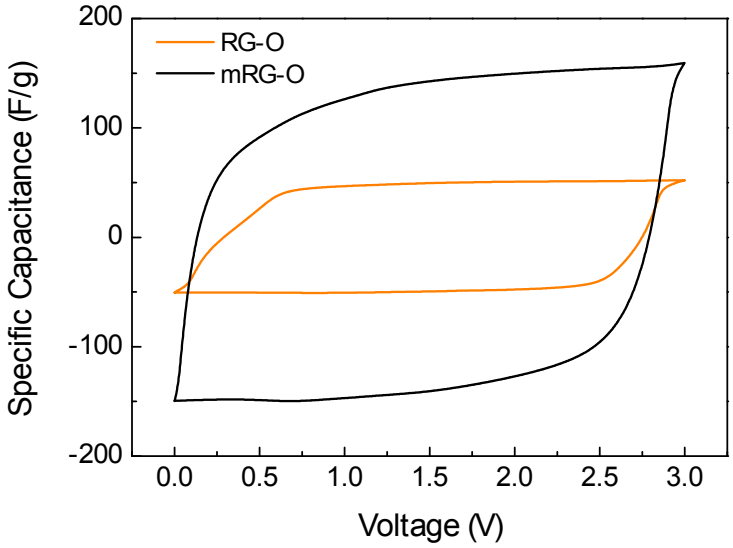

Fig. S3. Comparison of CV curves for the supercapacitor cells with mRG-O electrode and chemically reduced grapheme oxide (RG-O) electrode. (electrolyte: EMIM-NTf_2/AN, scan rate: 120 mV/s) The preparation of chemically reduced GO was as follows: Hydrazine hydrate (2.00 mL, 64.2 mmol) was added to the aqueous suspension of GO (1 mg/ml). Then, the GO suspension was heated in an oil bath at 100 °C under a water-cooled condenser for 24 h over which the reduced GO gradually precipitated out as a black solid. This product was filtrated, washed with water (100 mL, 5 times) and methanol (100 mL, 5 times), and dried under a continuous air flow through the solid product cake. .