Electronic Supplementary Material (ESI) for Journal of Materials Chemistry A
This journal is © The Royal Society of Chemistry 2013

Supporting Information

Facile synthesis of SnO_2 nanoparticles dispersed nitrogen doped graphene anode material for ultrahigh capacity lithium ion battery applications

B. P. Vinayan, and S. Ramaprabhu[*]

[*] Prof. *S. Ramaprabhu, Corresponding Author,* Alternative Energy and Nanotechnology Laboratory (AENL), Nano Functional Materials Technology Centre (NFMTC), Department of Physics, Indian Institute of Technology Madras, Chennai 600036, India

Phone: +91-44-22574862, Fax: +91-44-22570509/22574852

[*]Email: ramp@iitm.ac.in

This journal is © The Royal Society of Chemistry 2013

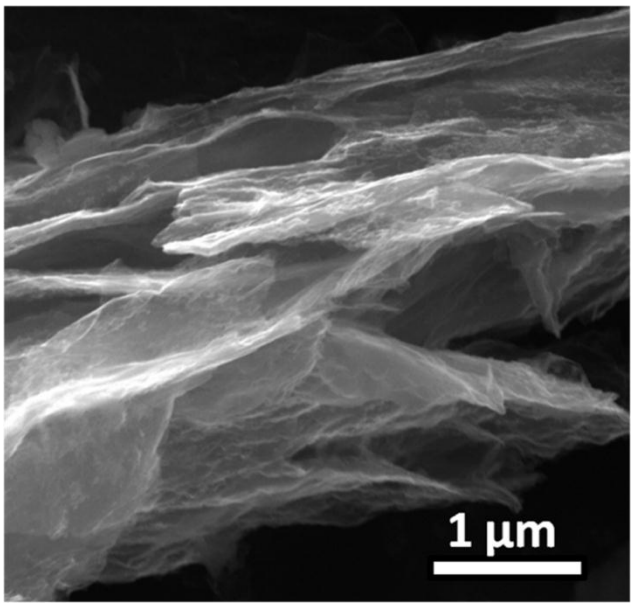

Figure S1: SEM image of SnO_2/NG anode material

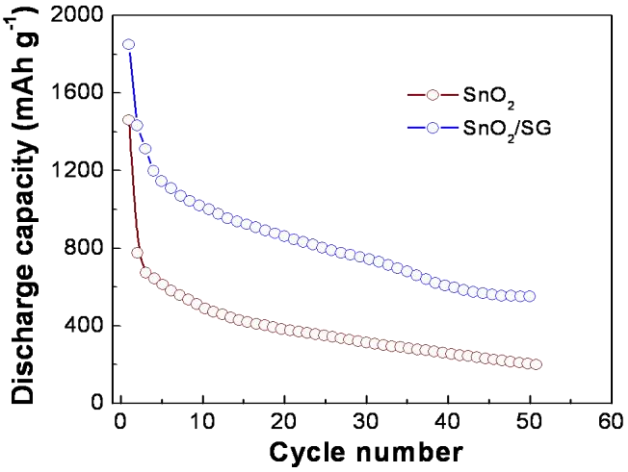

Figure S2: Cyclic stability of bare SnO_2 nanoparticles and SnO_2/solar exfoliated graphene electrode materials at a current density of 90 mA g^{-1}.

This journal is © The Royal Society of Chemistry 2013

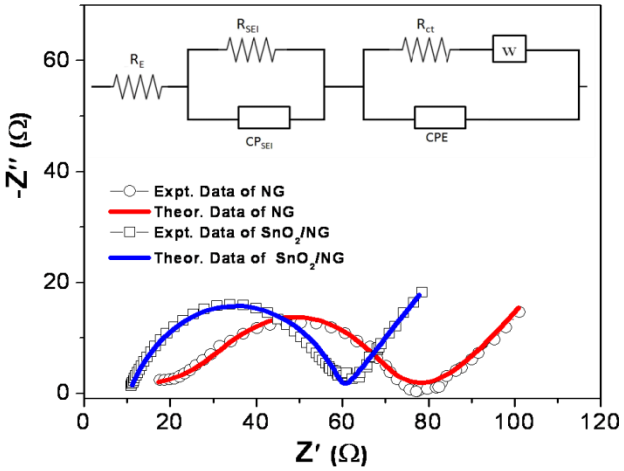

Figure S3: Nyquist plot and the equivalent circuit for a fresh cell with the electrode materials NG and SnO_2/NG.

Table S1: Impedance parameters for a fresh cell with the electrode materials NG and SnO_2/NG.

Electrode material	**R_E (Ω)**	**(R_{SEI} + R_{ct}) (Ω)**	**CP_{SEI} + CPE (μF)**
NG	17.3	92.5	40.5
SnO_2/NG	10.1	70.1	2.4