

Supporting Information for

**Graphene sheets as anode materials for Li-ion batteries:
preparation, structure, electrochemical properties and
mechanism for lithium storage**

H.F. Xiang,^{a,b} Z.D. Li,^a K. Xie,^a J.Z. Jiang,^a J.J. Chen,^b P.C. Lian,^b J.S. Wu,^{*c} Y. Yu^d, H.H. Wang^{*b}

^a *School of Materials Science and Engineering, Hefei University of Technology, Hefei,
Anhui, 230009, PR China*

^b *School of Chemistry & Chemical Engineering, South China University of Technology,
Guangdong, Guangzhou, 510640, PR China*

^c *Department of Chemistry, National University of Singapore, 3 Science Drive 3,
117543, Singapore*

^d *Department of Materials Science and Engineering, University of Science &
Technology of China, Hefei, Anhui, 230026, PR China*

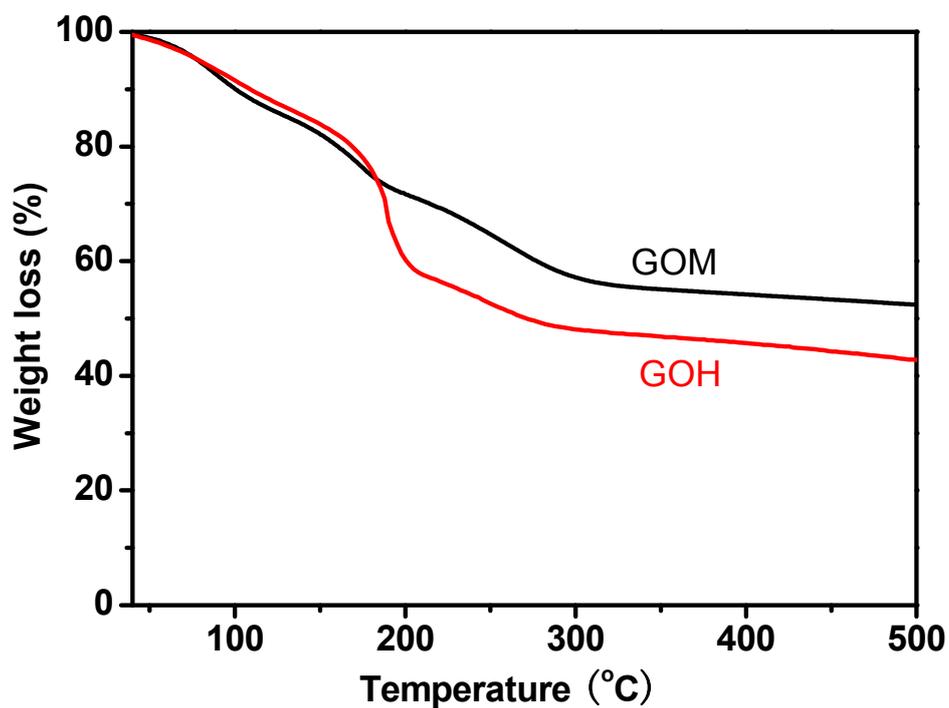


Fig. S1 TGA curves of GOM and GOH. Heating rate = 1 °C/min under a nitrogen atmosphere.

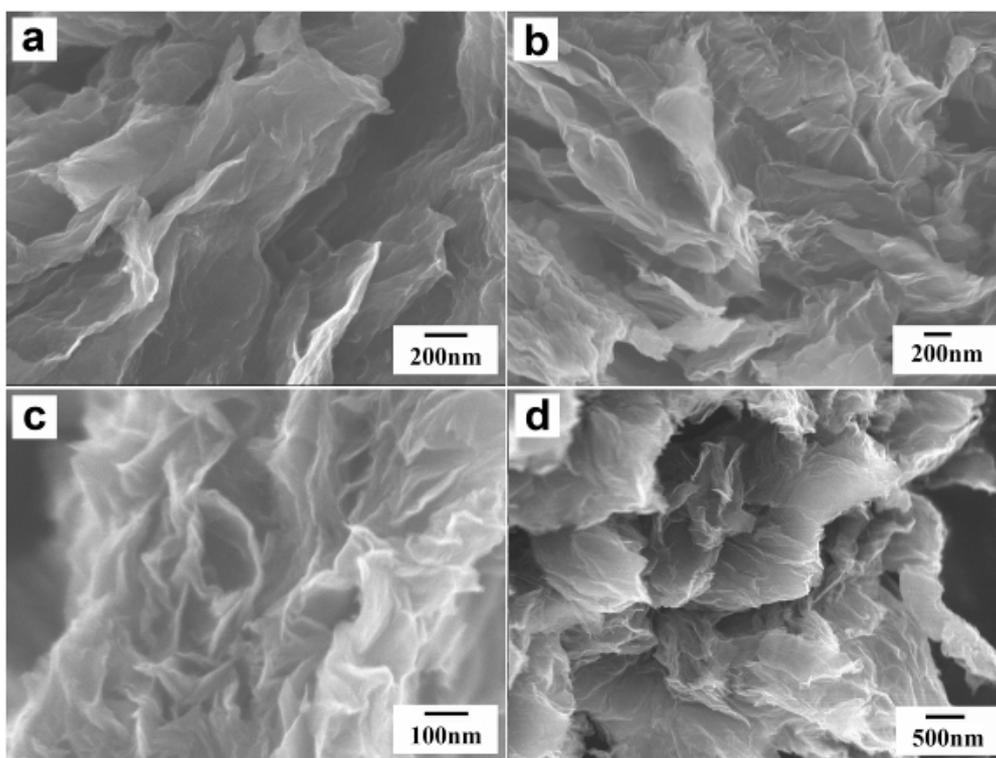


Fig. S2 SEM images of GOM (a), GO500 (b), RGO (c) and GO1050 (d).

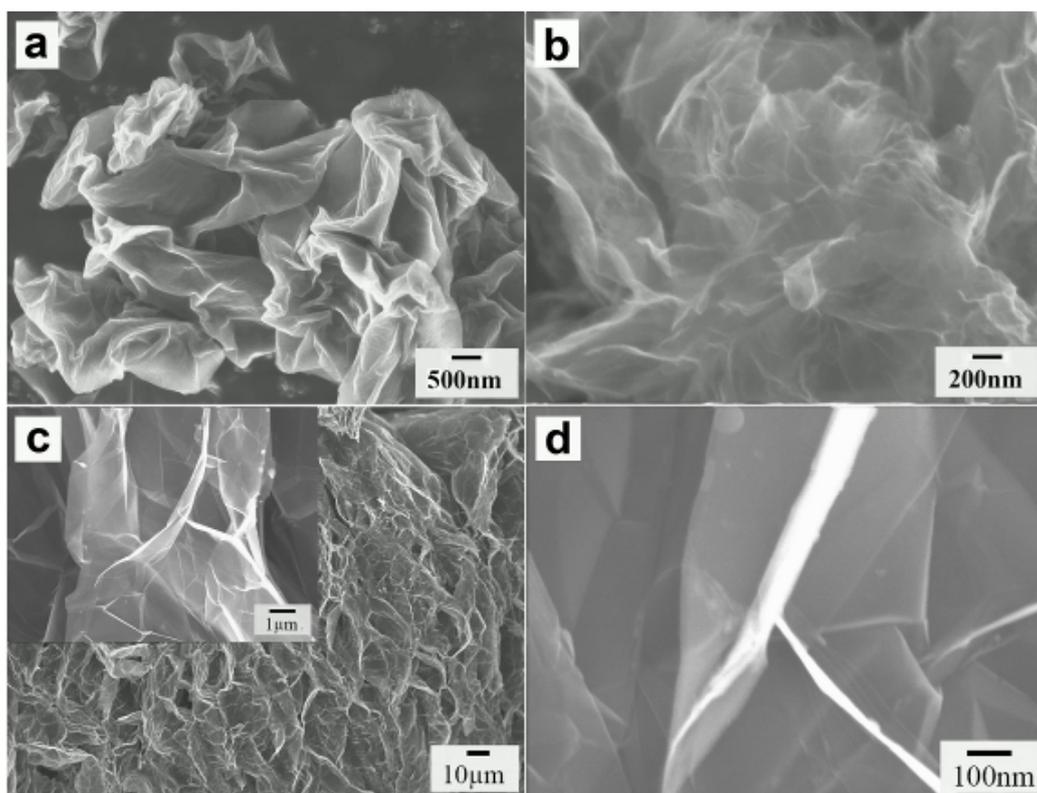


Fig. S3 SEM images of GOH (a), G1050 (b) and EG1050 (c, d). Inset of (c) displays a flat and smooth surface of graphene sheets (EG1050)

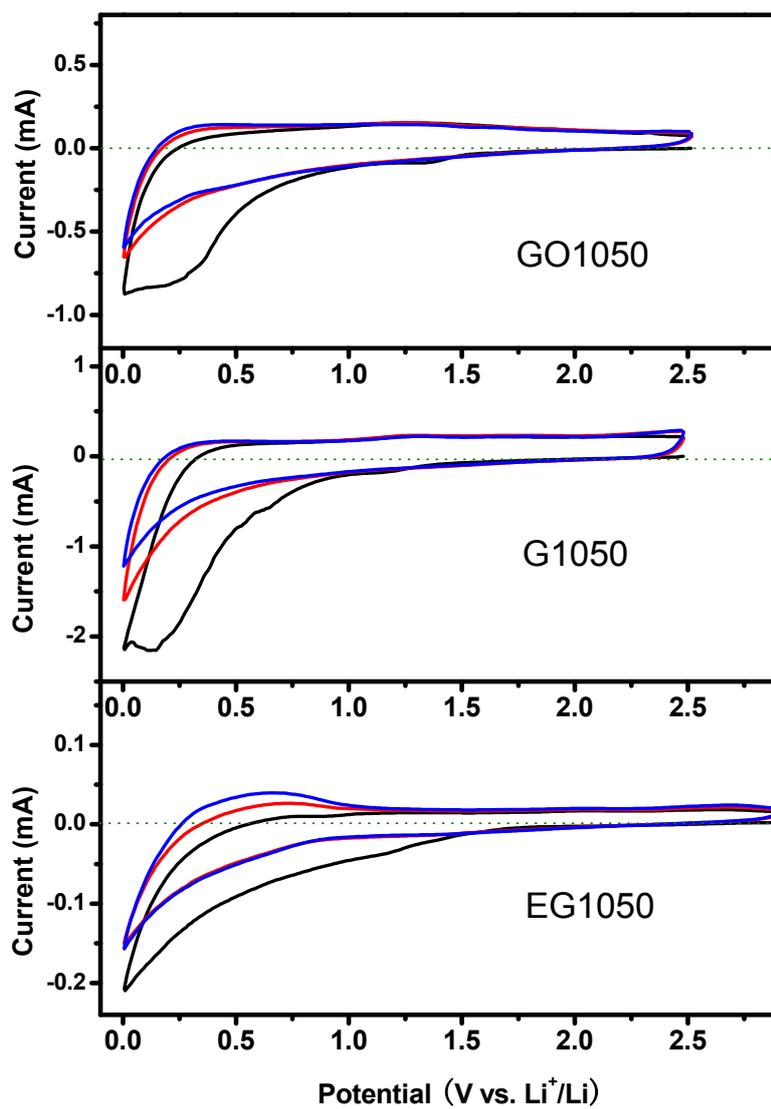


Fig.S4 CV curves of the cells with the electrodes using GO1050, G1050 and EG1050.

The scan rate is 0.2 mV s^{-1} .