Supplementary Information

Facile Hydrothermal Fabrication of ZnO-graphene hybrid Anode Materials with Excellent Lithium Storage Properties

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Fig. S1 TGA of graphene oxide (GO) in oxygen at a rate of 10 $^\circ$C min^{-1}.

Fig. S2 Cycle performances of the ZnO-LG (a) and ZnO-MG (b) anodes at a current density of 100 mA g^{-1} with cut-off voltage of 0.01-1.0, 1.5, 2.0, 2.5, and 3.0 V.

Fig. S3 (a) Cycle performances of the ZnO and ZnO-graphene anodes at a current density of 100 mA g^{-1} with the specific capacity normalized over the specific surface area of the samples (from BET analysis data in Table 2); (b) High-rate performances of the ZnO-graphene anodes compared with the ZnO anode with specific capacity normalized over the specific surface area of the samples.

Fig. S4 Cyclic voltammetry curves of the graphene anodes at a scan rate of 0.02 mV s^{-1} for the first three cycles.
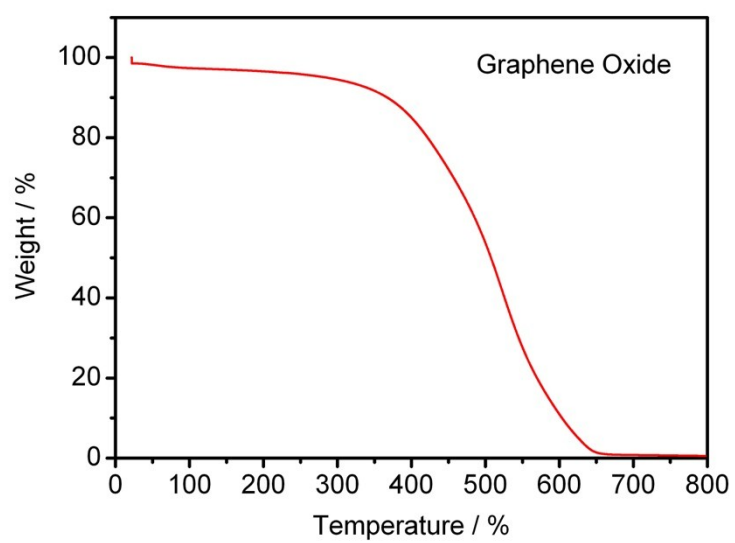
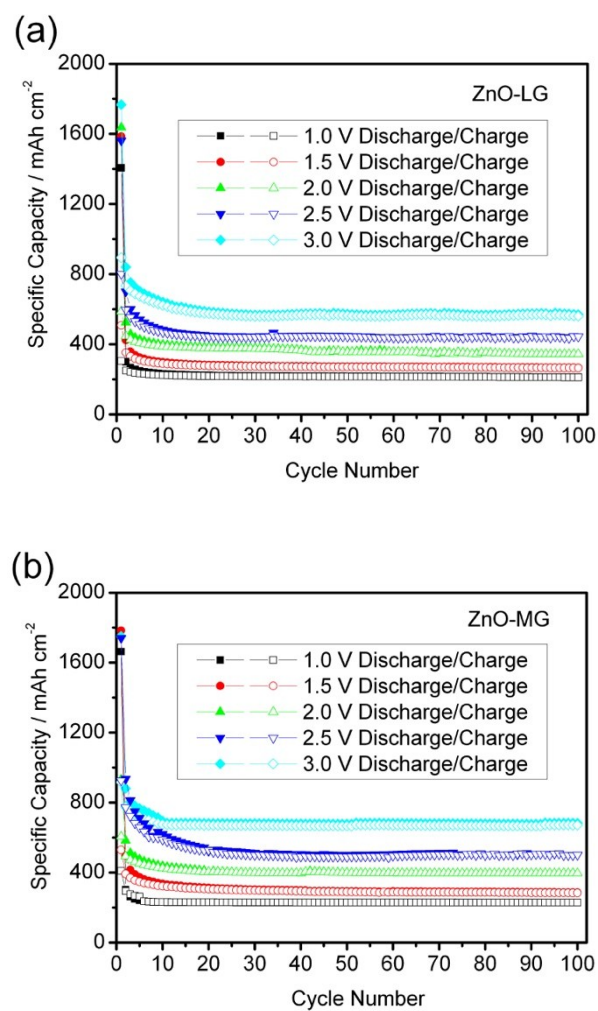**Fig. S1** TGA of graphene oxide (GO) in oxygen at a rate of 10 °C min^{-1}.

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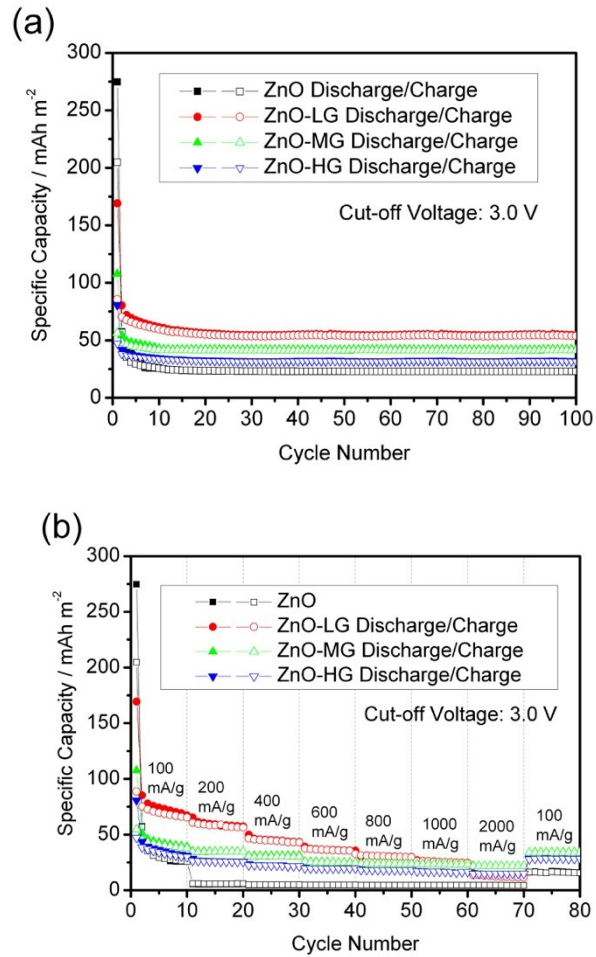
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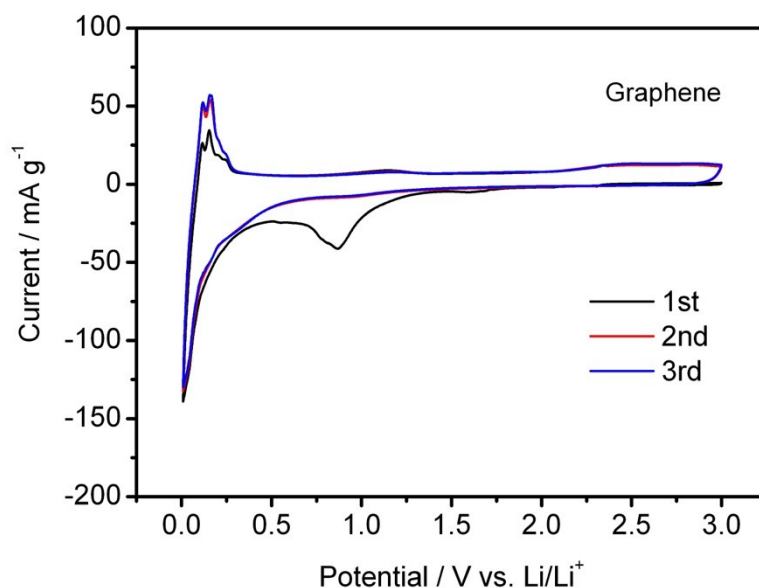
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The cathodic peak at about 0.8 V in the 1st cycle: the formation of a solid electrolyte interface (SEI) layer.

The anodic peaks at 0.11-0.16 V: the delithiation process of Li-C compounds.