

## Supporting Information

# Organic Radical Functionalized Graphene as a Superior Anode Material for Lithium-Ion Batteries

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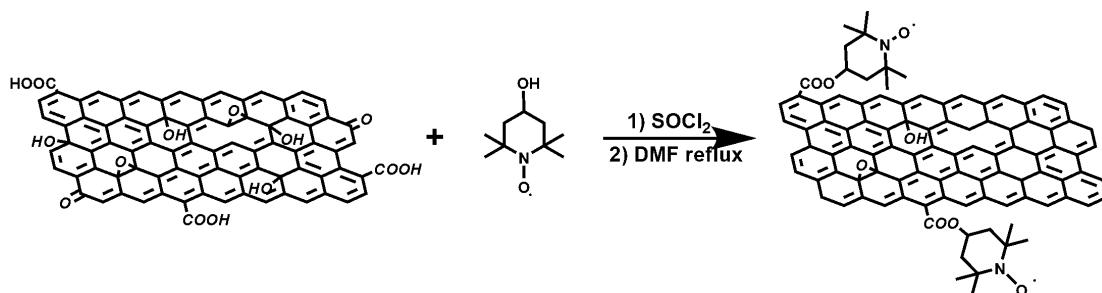


Fig. S1 Synthesis of TEMPO-G.

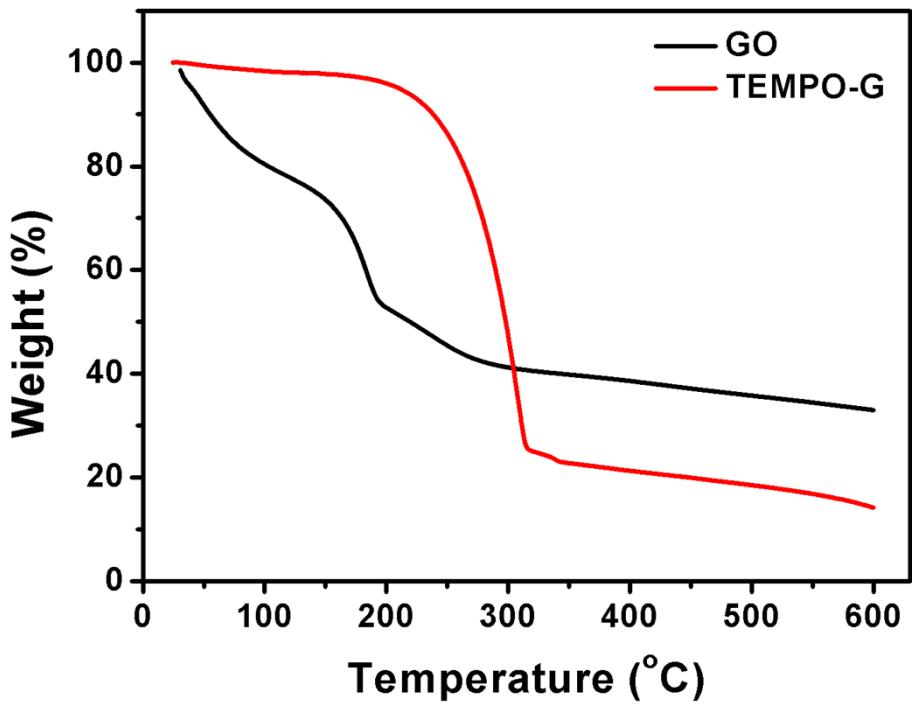


Fig. S2 TGA curves of GO and TEMPO-G.

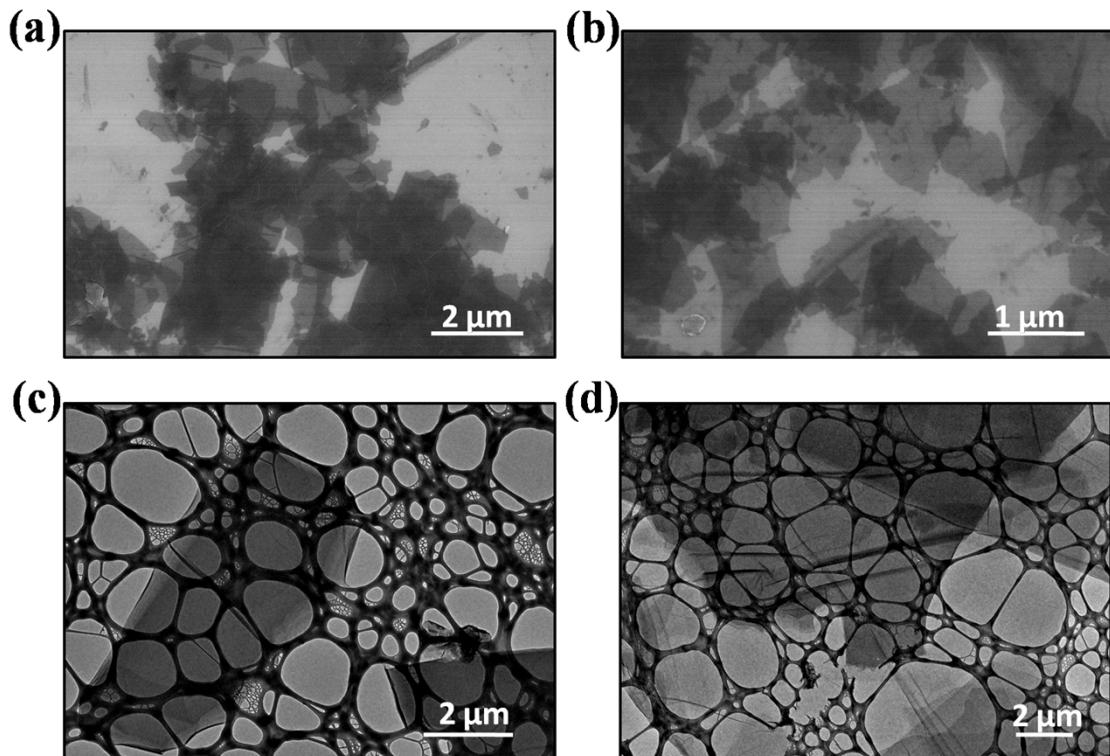


Fig. S3 (a) (b) SEM and (c) (d) TEM images of GO.

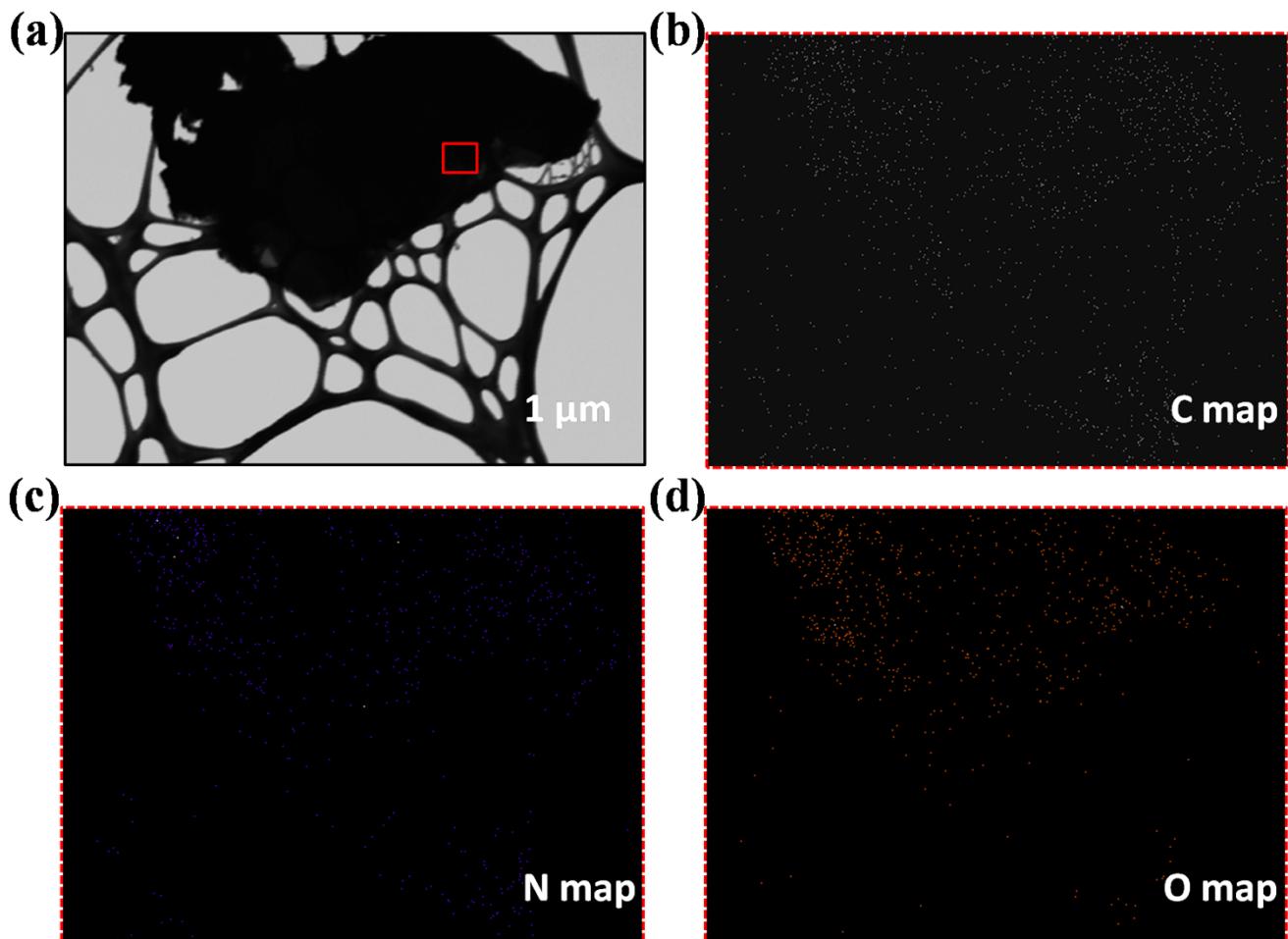


Fig. S4 (a) STEM image of TEMPO-G and the corresponding elemental mapping images of (b) carbon (c) nitrogen and (d) oxygen in the selected area.

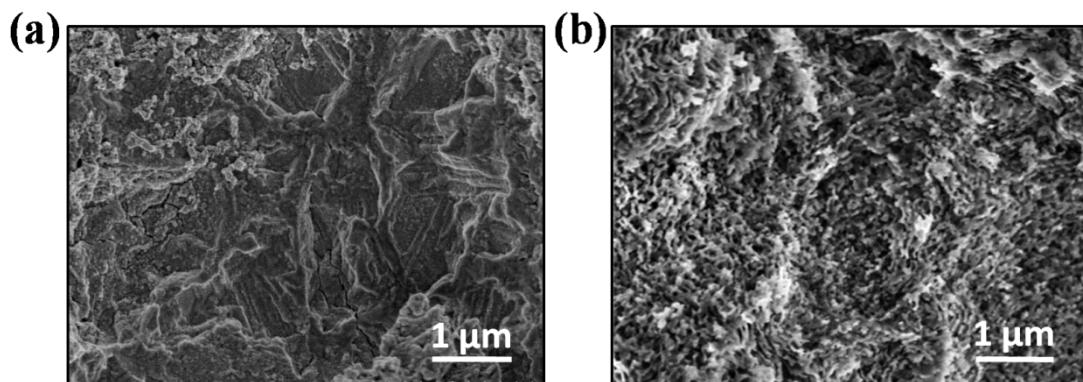


Fig. S5 SEM images of TEMPO-G electrodes (a) before and (b) after charge/discharge cycling tests for 400 cycles.

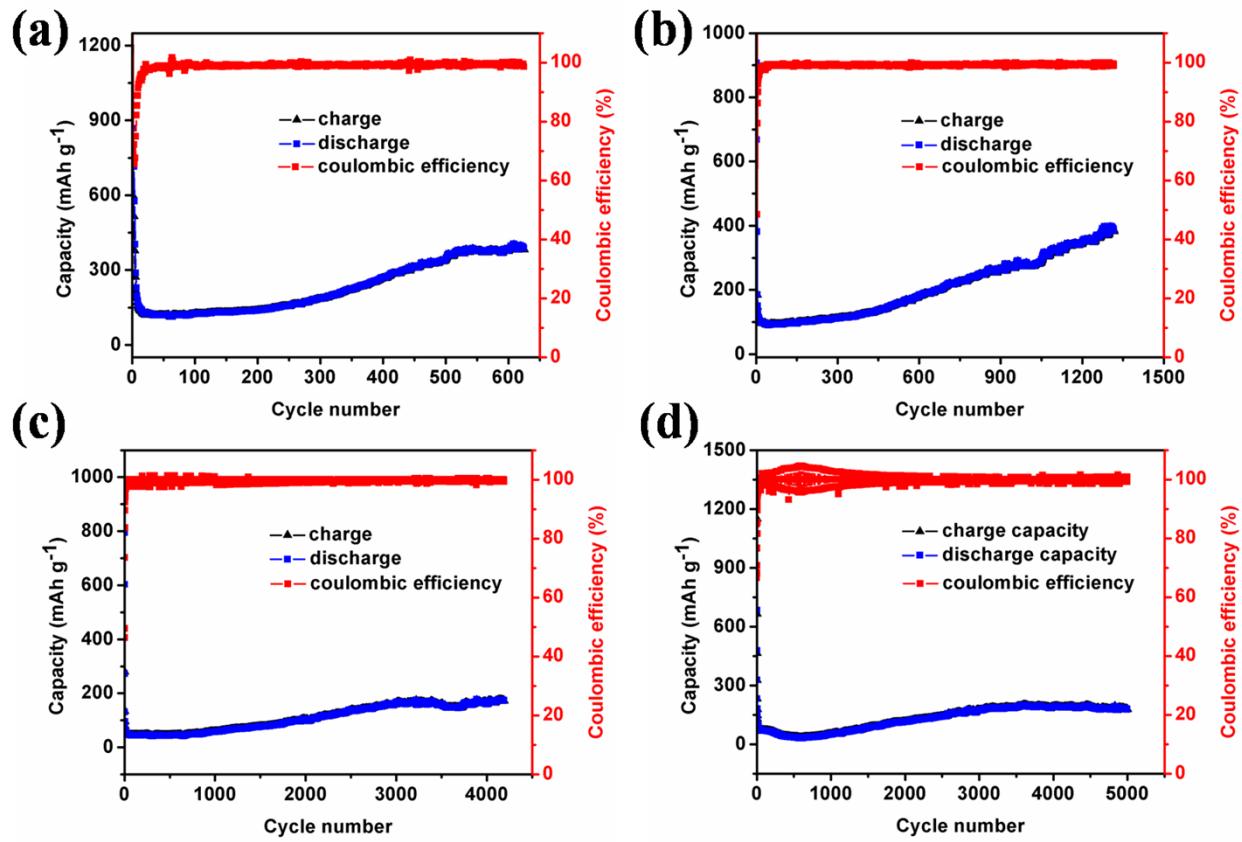


Fig. S6 Rate capability of TEMPO-G electrode at various current densities: (a) 400 mA g<sup>-1</sup>, (b) 800 mA g<sup>-1</sup>, (c) 2000 mA g<sup>-1</sup>, (d) 5000 mA g<sup>-1</sup>.