

Electronic Supplementary Information

$\text{Fe}_3\text{O}_4/\text{Carbon}$ composites obtained by electrospinning as an anode material with high rate capability for lithium ion batteries

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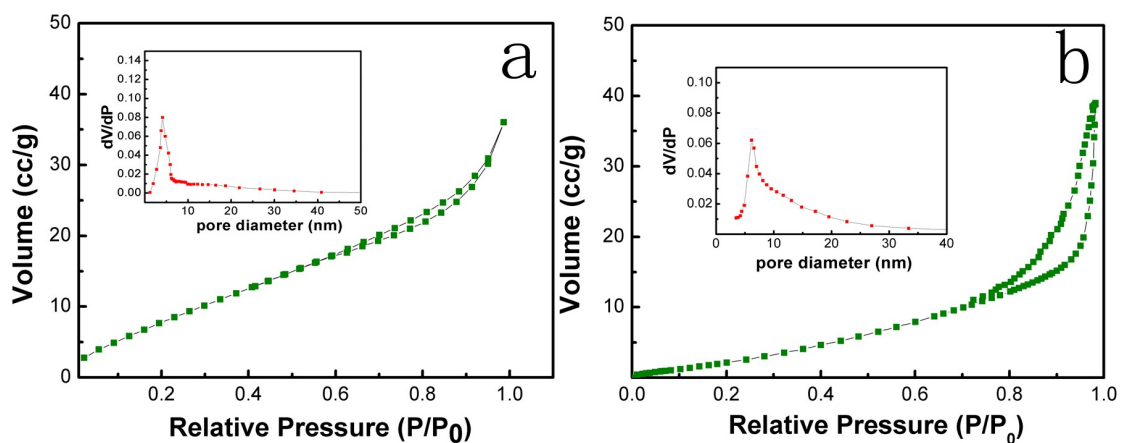


Figure. S1 Nitrogen adsorption and desorption isotherms and the corresponding BJH distributions (inset) of (a) the pure Fe_2O_3 with the average pore diameter of 6.1 nm and (b) $\text{Fe}_3\text{O}_4/\text{C}$ composites with the average pore diameter of 4.3 nm.

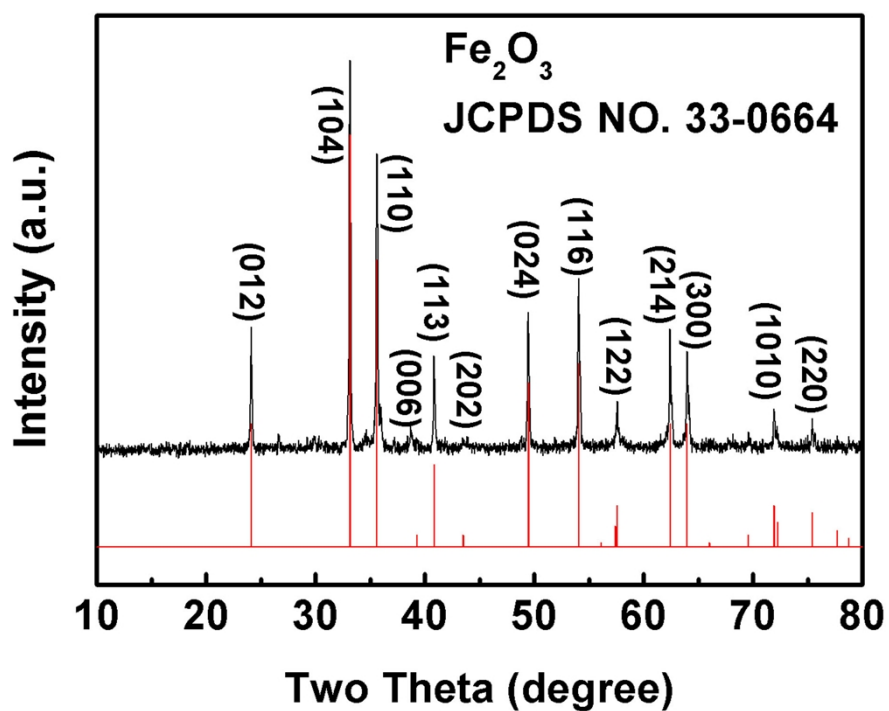


Figure. S2 XRD pattern of the sample after the TGA test at 1000 °C with the heating rate of 3.5 °C min⁻¹.

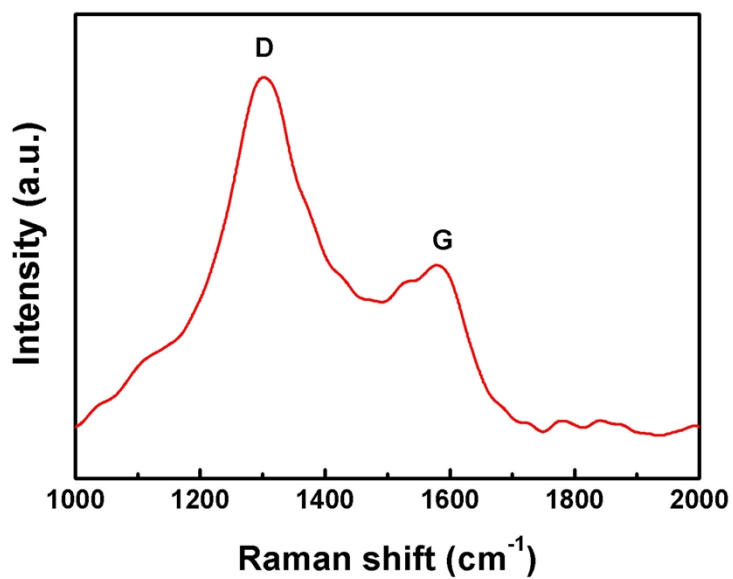


Figure. S3 Raman spectrum of the $\text{Fe}_3\text{O}_4/\text{C}$ composites.

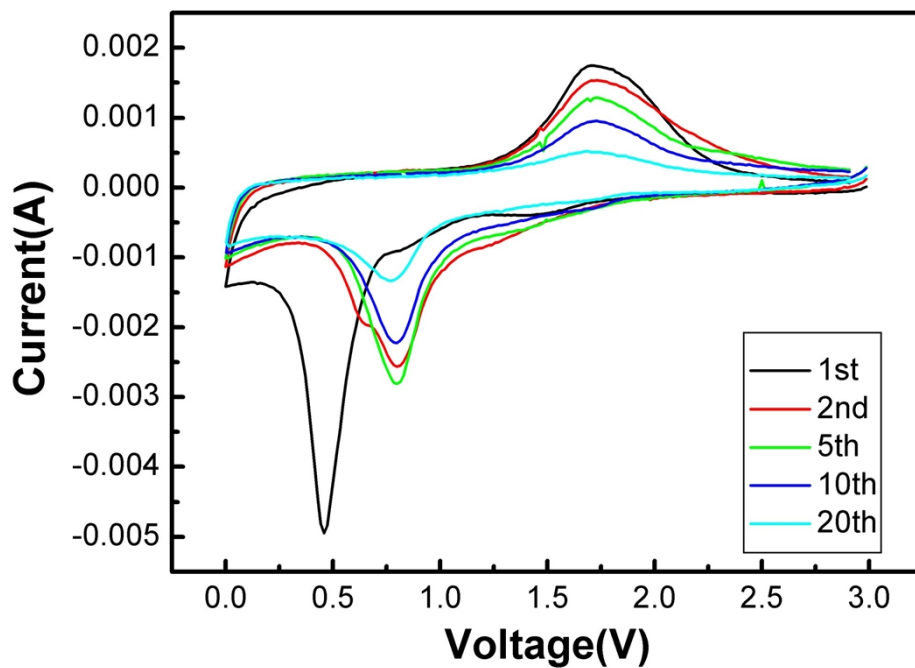


Figure. S4 Cyclic Voltammetry (CV) of the pure Fe_2O_3 at a scan rate of 0.5 mV s^{-1} over a voltage range of 0.01–3.00 V versus Li/Li^+ .

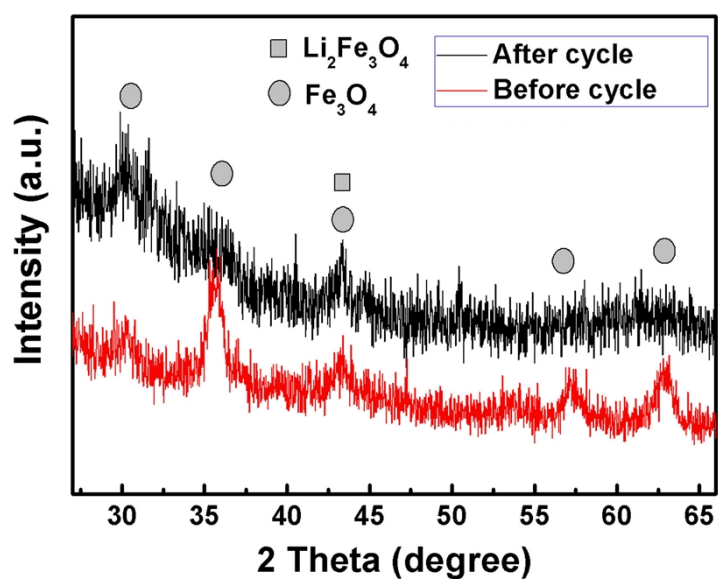


Figure. S5 The XRD pattern of $\text{Fe}_3\text{O}_4/\text{C}$ electrode before cycle and after discharging to 0.8V. Rotundity and quadrate are the symbols of Fe_3O_4 and $\text{Li}_2\text{Fe}_3\text{O}_4$ phase, respectively.

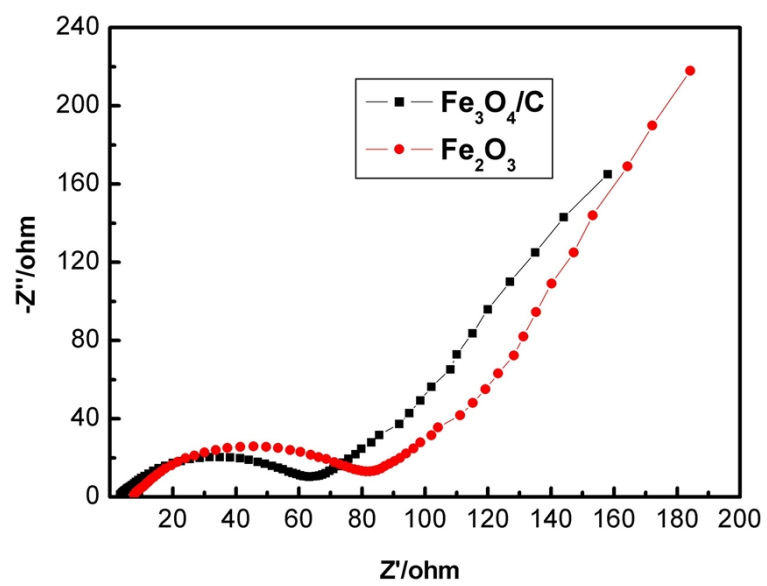


Figure. S6 Electrochemical impedance spectroscopy (EIS) of the pure Fe₂O₃ and Fe₃O₄/C composite.