Supporting information for

# Structural Optimization of Porous Single-crystal α-$Fe_2O_3$ Microrices for Lithium-ion Batteries Application

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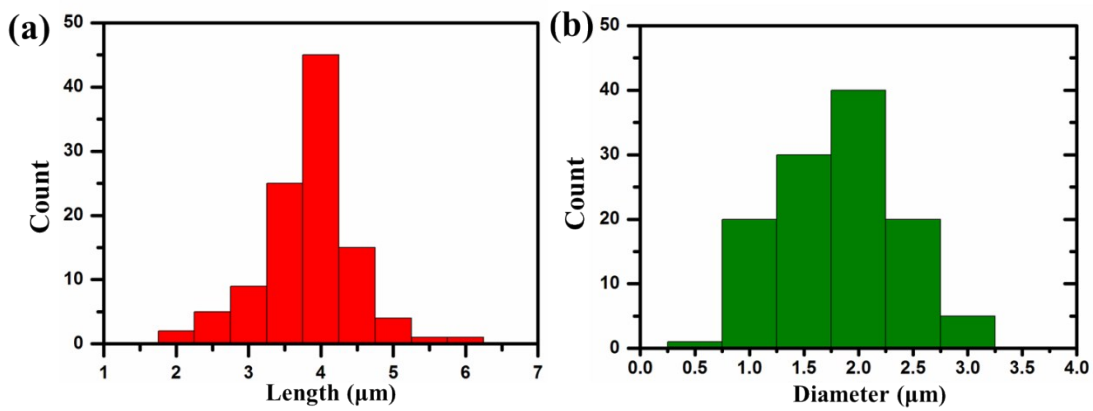


Figure S1. Particle size distribution statistics: (a) length (b) diameter

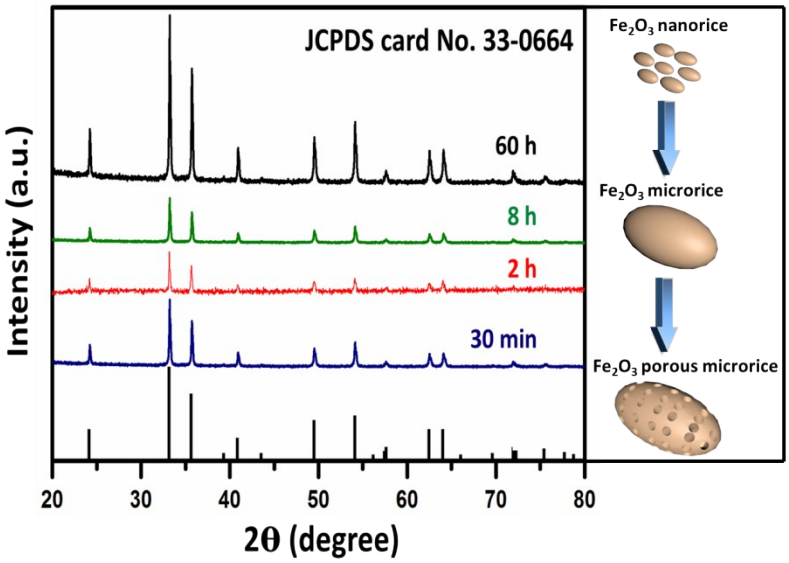


Figure S2 XRD analysis of all the products with a reaction time of 30min, 2h, 8h and 60h. The schematic illusion of the formation process of $Fe_2O_3$ porous microrices

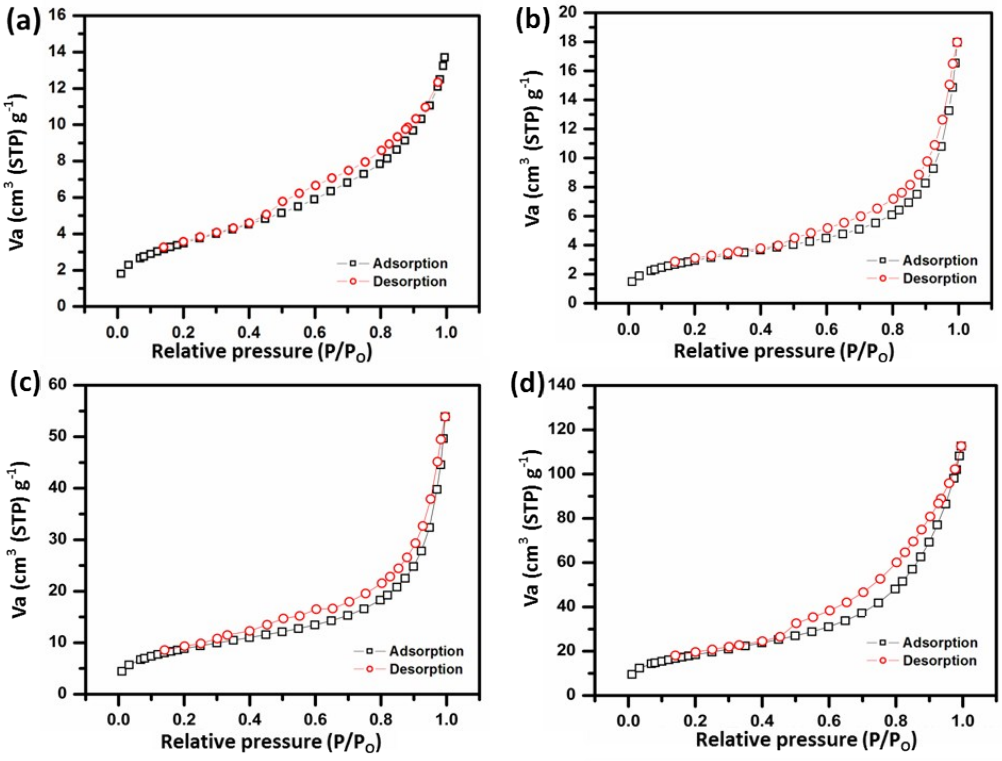


Figure S3 Nitrogen adsorption–desorption isotherms of the $Fe_2O_3$ porous microrices

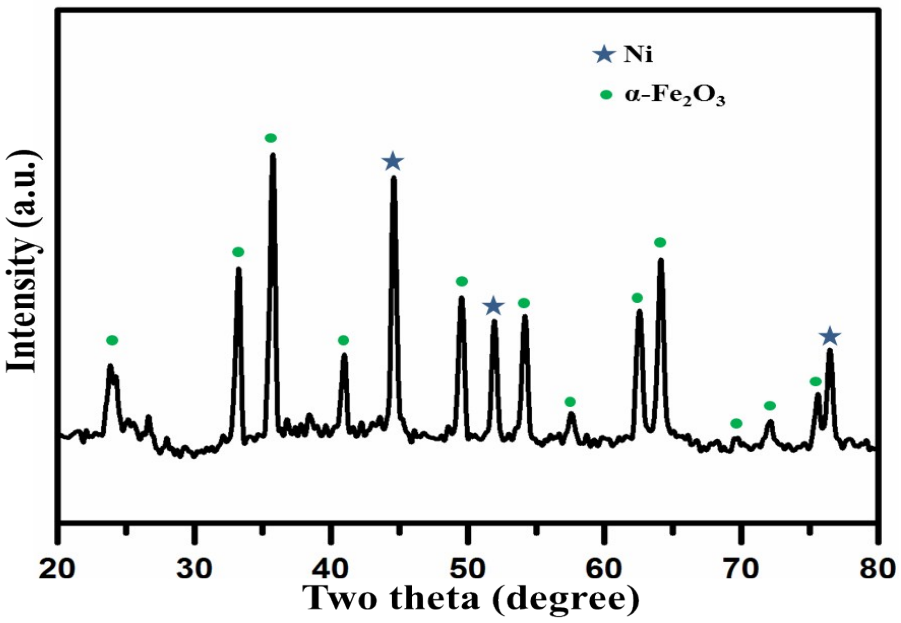


Figure S4 The XRD pattern of the $Fe_2O_3$-60@C electrode after 50 cycles. The Ni signal is attributed to the Ni foam which is used as the current collector of the battery.