

Supporting Information

Hollow nanostructured NiO particles as efficient electrode material for lithium-ion energy storage properties

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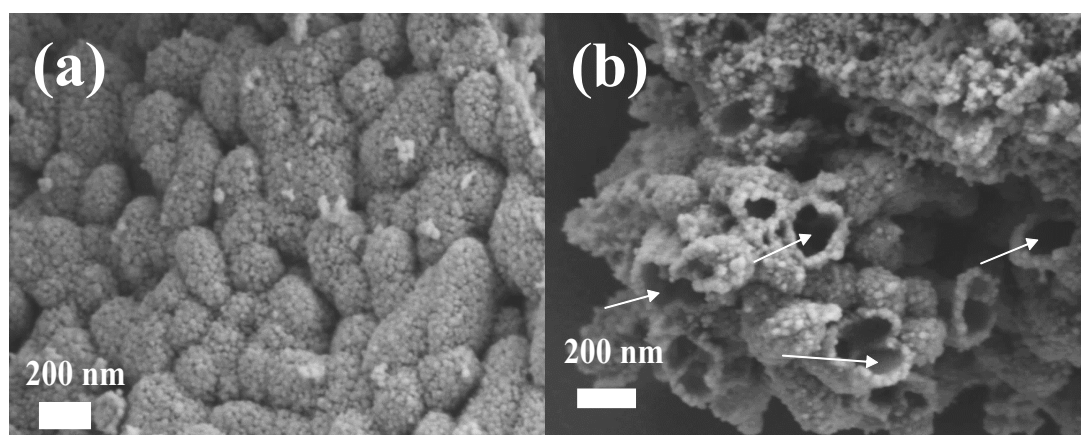


Fig. S1. a) FESEM image of h-NO hollow particles. b) shows the open mouth type partially formed hollow particles in which inner voids spaces with interior smooth nano thin-wall region of each hollow particle was witnessed (see the arrows).

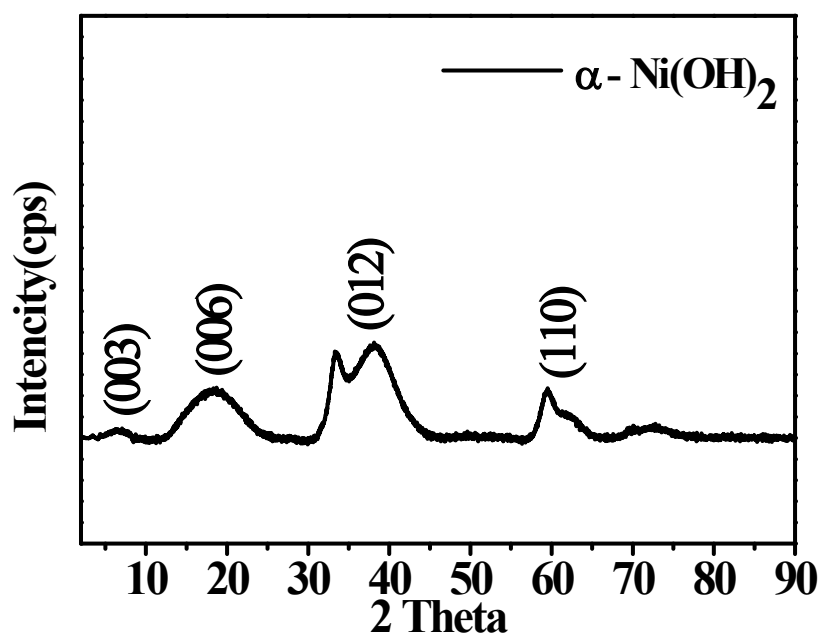


Fig. S2. XRD pattern of the as-obtained powder before being subjected to annealing treatment.

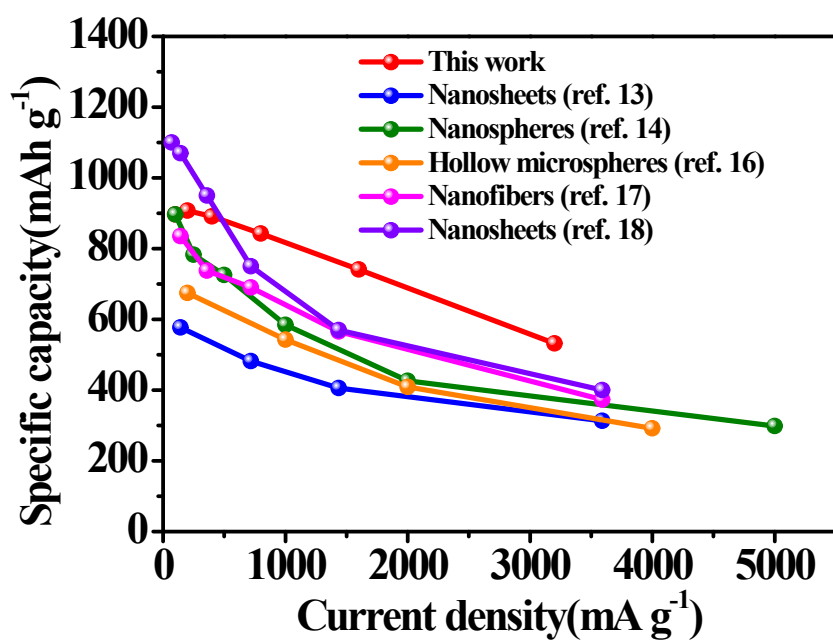


Fig. S3. Performance comparison between our NiO hollow nanostructured anode (h-NiO) material and the recently reported different NiO nanostructured anodes for LIBs. The references are mentioned in the main manuscript.

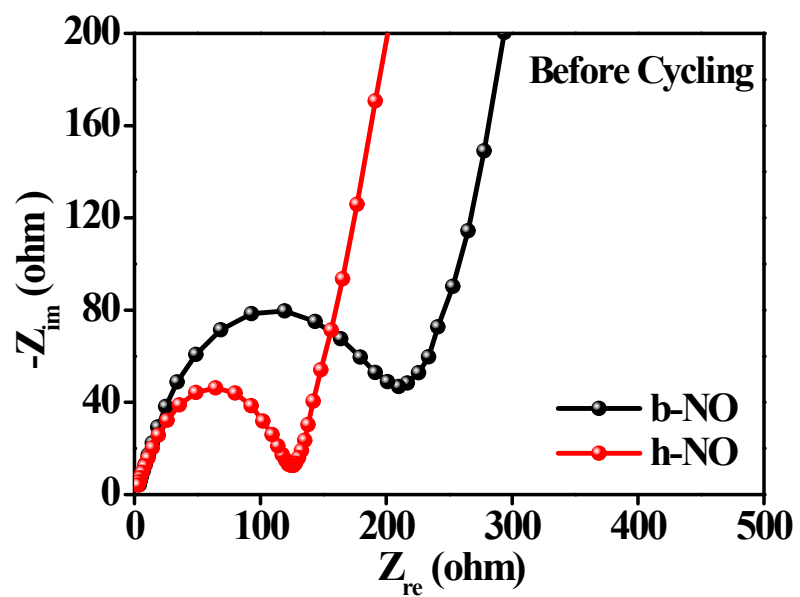


Fig. S4. Nyquist plots of the fresh h-NO and b-NO electrodes.

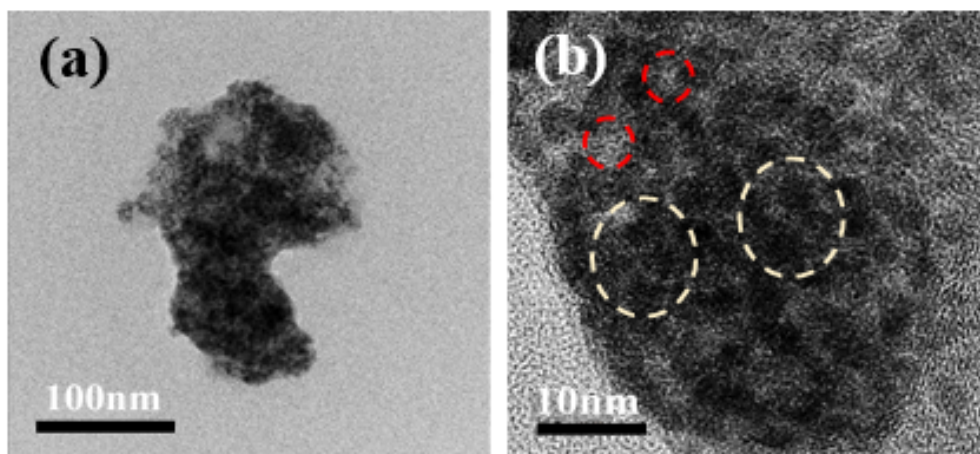


Fig. S5. TEM and HRTEM micrographs of the h-NO electrode at 200 mA hg⁻¹ after 50 cycles.

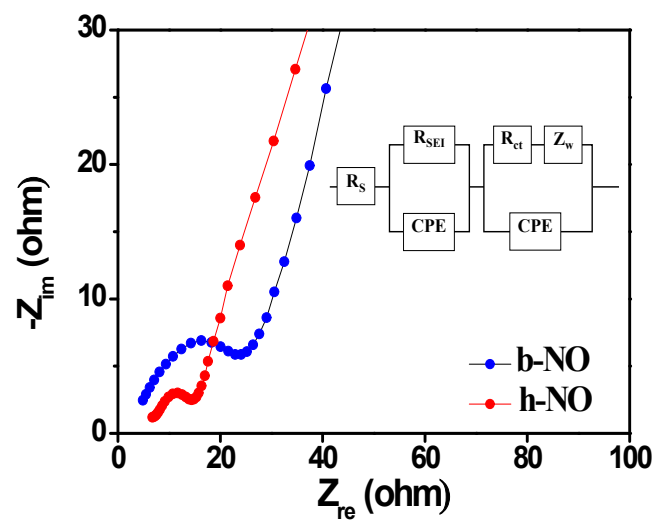


Fig. S6. EIS results (a) Nyquist plots of the h-NO and b-NO electrodes measured after six charge-discharge cycles.

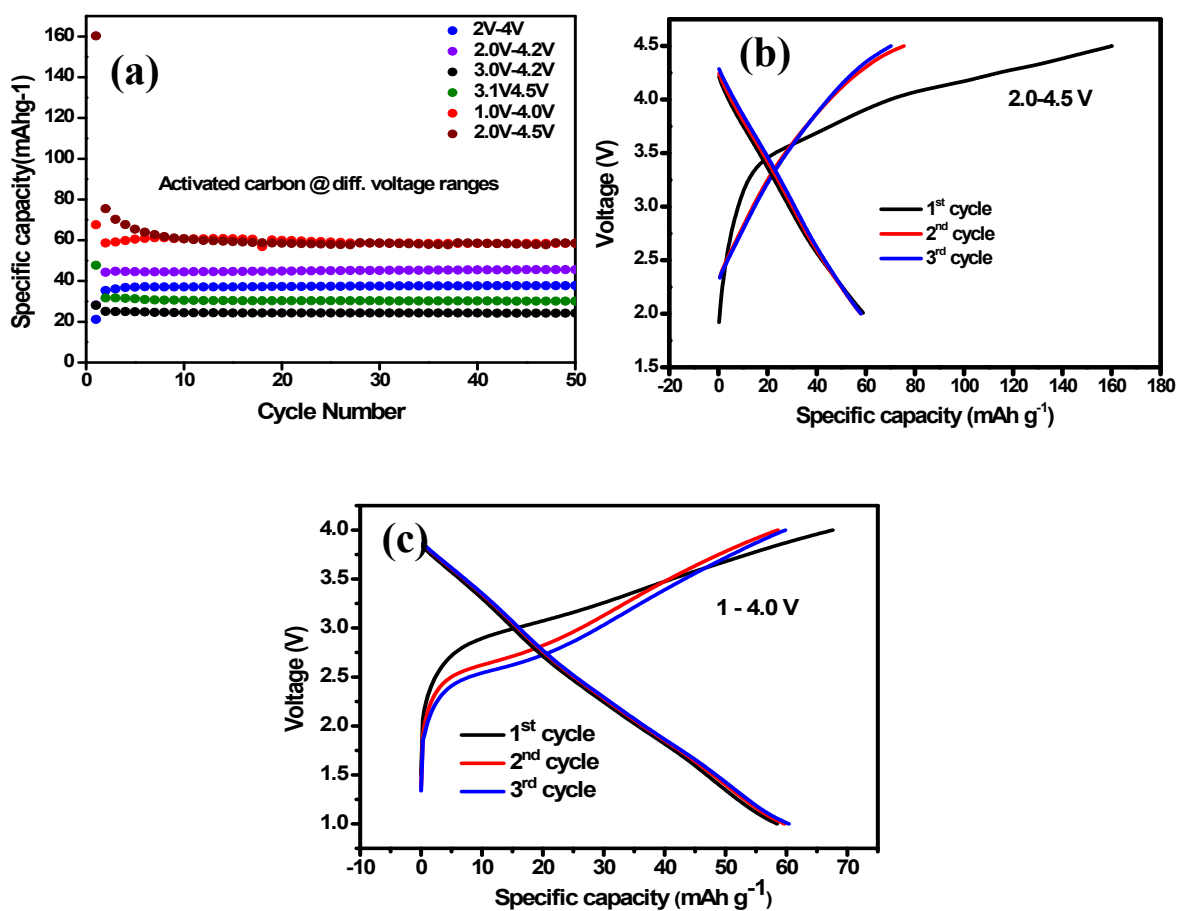


Fig. S7. (a) Cycling performance of activated carbon (AC) at different voltages at a current density of 100 mA g⁻¹. Charge-discharge curves of AC cycled between (b) 2-4.5 V (c) 1-4.0 V.

Table 1S: Summarized circuit (shown in the inset of Fig. S6) parameters values

Material	R_s (ohm)	R_{SEI} (ohm)	R_{ct} (ohm)
h-NO	6.4	10.85	16.2
b-NO	4.7	14.5	36.6