

Supporting Information

Synthesis and Electrochemical Evaluation of Nickel Hydroxide Nanosheets with Phase Transition to Nickel Oxide

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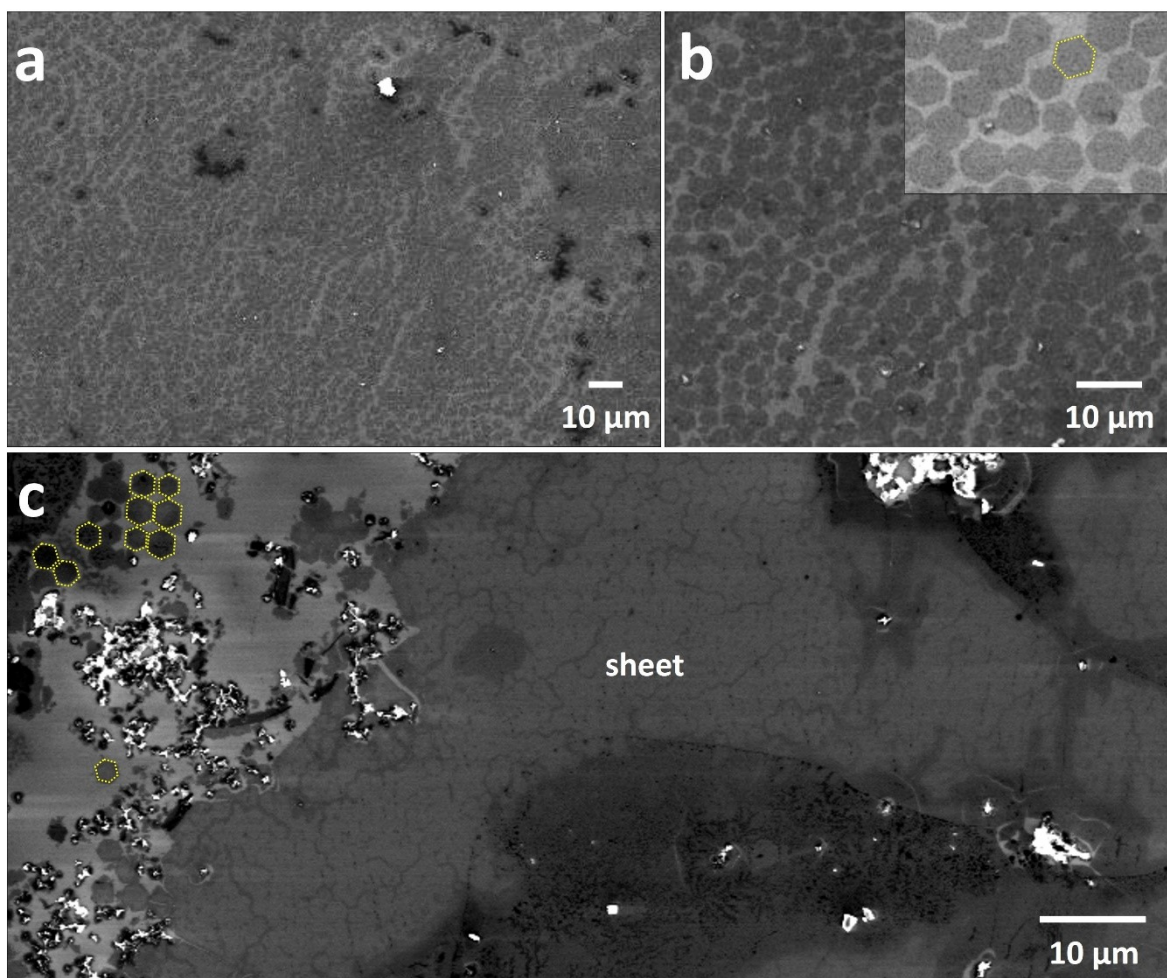


Figure S1. Scanning electron microscopy (SEM) images showing the (a, b) synthesized hexagonal $\text{Ni}(\text{OH})_2$ islands and (c) large-area nanosheet (c).

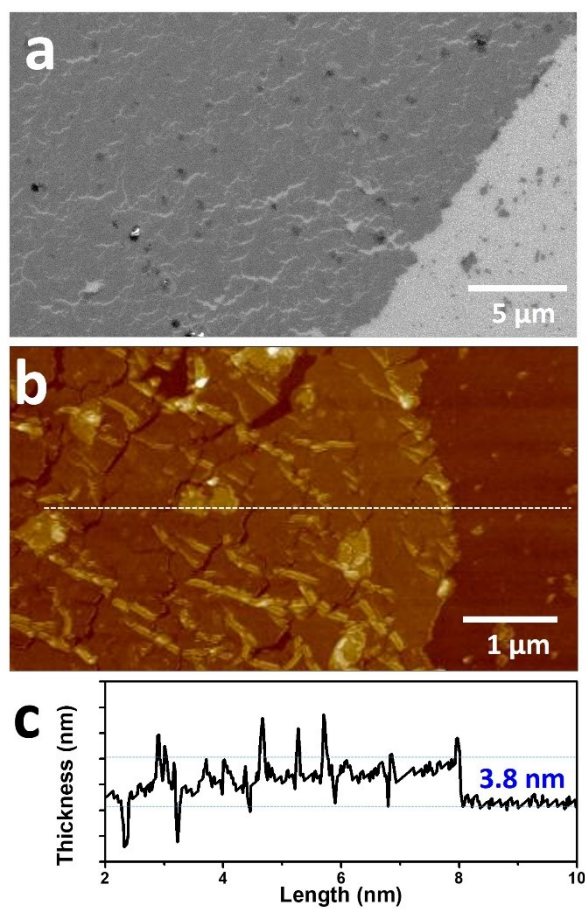


Figure S2. (a) SEM and (b) atomic force microscopy topography images showing the thickness of the nanosheet. (c) Height profile along the lines in (b).

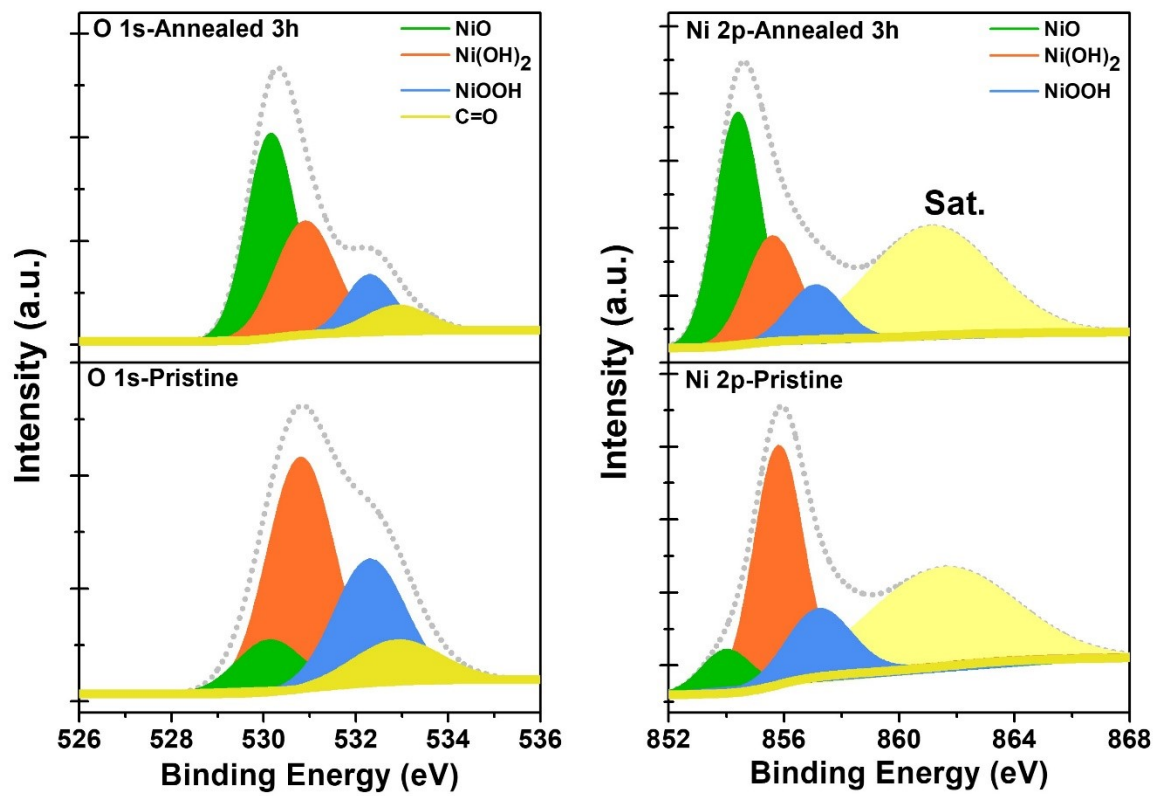


Figure S3. X-ray photoelectron spectra of the pristine and annealed nanosheets.

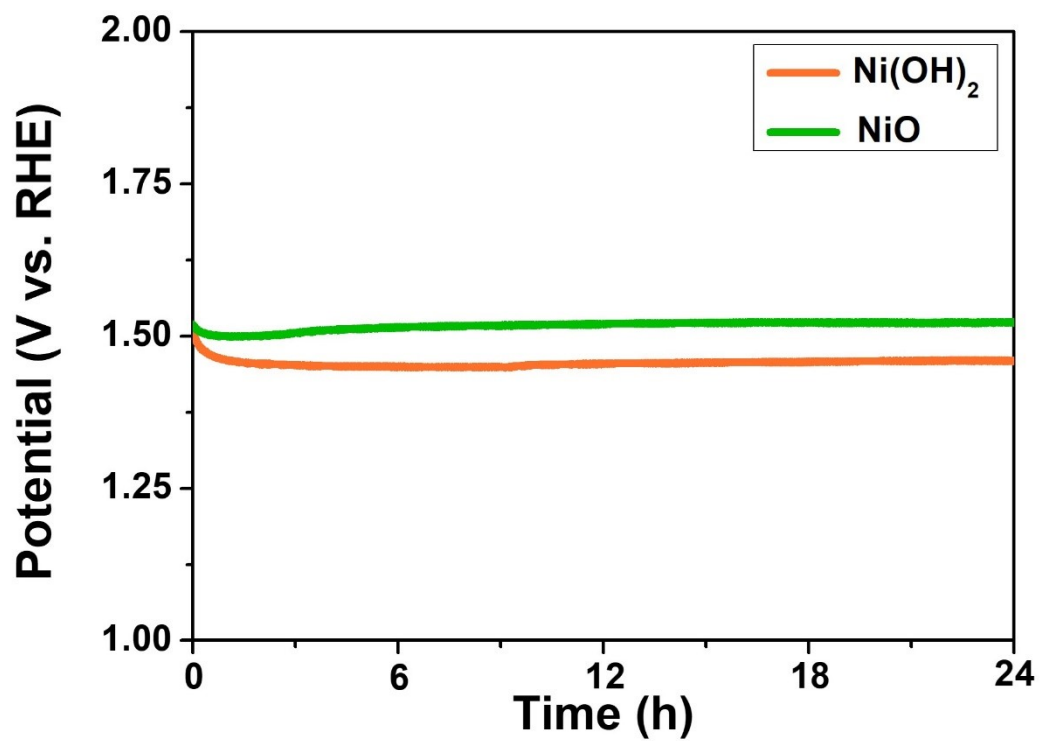


Figure S4. Results of the continuous oxygen evolution reaction chronopotentiometry test for Ni(OH)₂ and NiO nanosheets at 10 mA cm⁻².

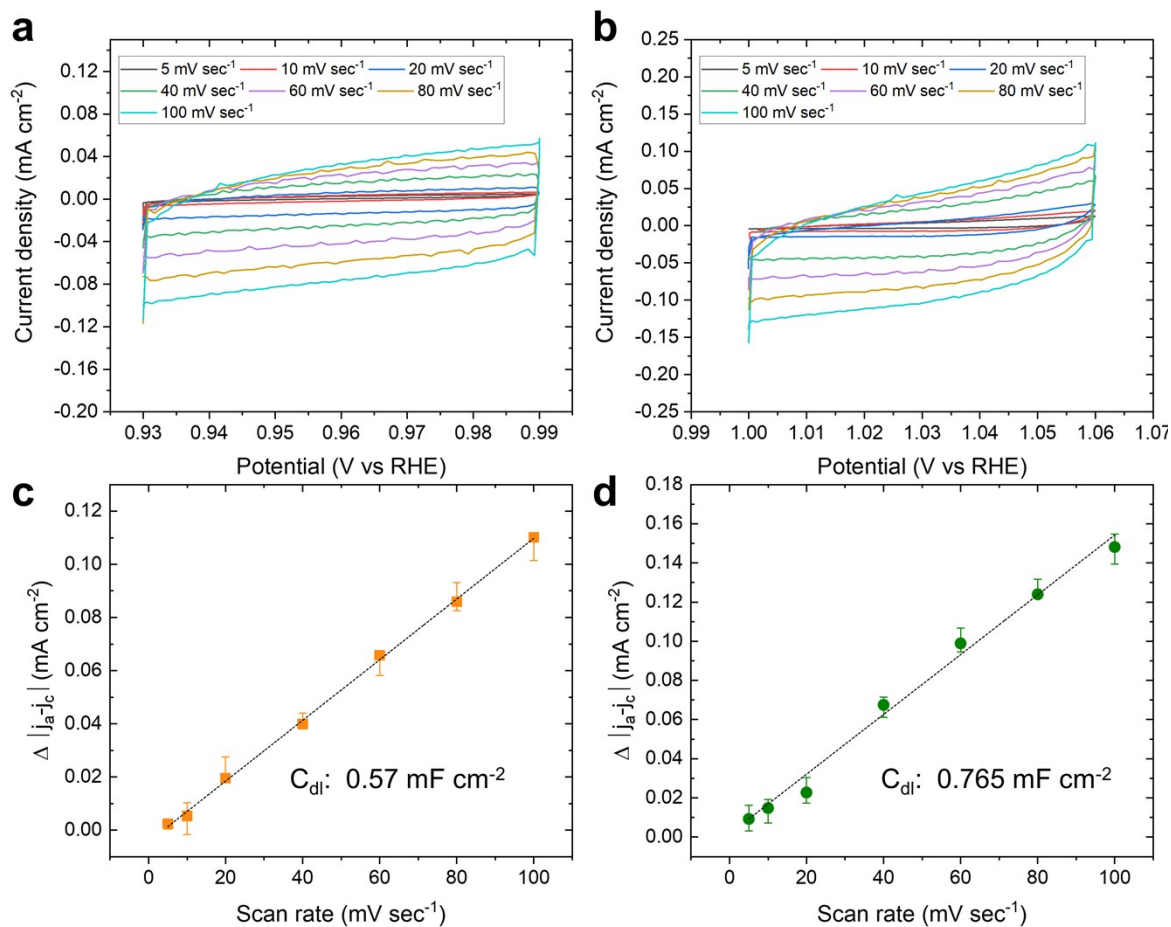


Figure S5. Cyclic voltammograms of (a) Ni(OH)₂ and (b) NiO in 1 M Fe-free KOH solutions at different scan rates (5, 10, 20, 40, 60, 80, and 100 mV s⁻¹) for estimating C_{dl} . Plots of the difference between the anodic and cathodic current densities, $\Delta J = |j_a - j_c|$, at the different scan rates for the (c) Ni(OH)₂ and (d) NiO samples, respectively.

