Mesoporous NiO Ultrathin nanowire networks Topotactically Transformed from \( \alpha \)-Ni(OH)\(_2\) Hierarchical Microspheres and Its Excellent Capability for Water Treatment and Superior Electrochemical Capacitance Properties

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Figure S1. The panoramic field-emission scanning electron microscope (FESEM) images of α-Ni(OH)₂ prepared through our hydrothermal process with a molar ratio of NiCl₂/CO(NH₂)₂ = 1:1 at 100 °C for 20 h.
**Figure S2.** FESEM images of various $\alpha$-Ni(OH)$_2$ precursor hierarchical nanostructures prepared at different quantity of urea at 100 °C for 20 h: (a, b) 2 mmol; (c, d) 4 mmol; (e, f) 6 mmol.
Figure S3. FESEM and TEM images of various NiO hierarchical nanostructures prepared by calcination of the corresponding precursor (a) shown in Fig. S2a-b, (b-c) shown in Fig. S2c-d, (d-f) shown in Fig. S2e-f.
Figure S4. HRTEM images of individual mesocrystalline NiO nanowires.