

## Supplementary Information

### Facile synthesis of single-crystalline NiO nanosheet arrays on Ni foam for high-performance supercapacitors

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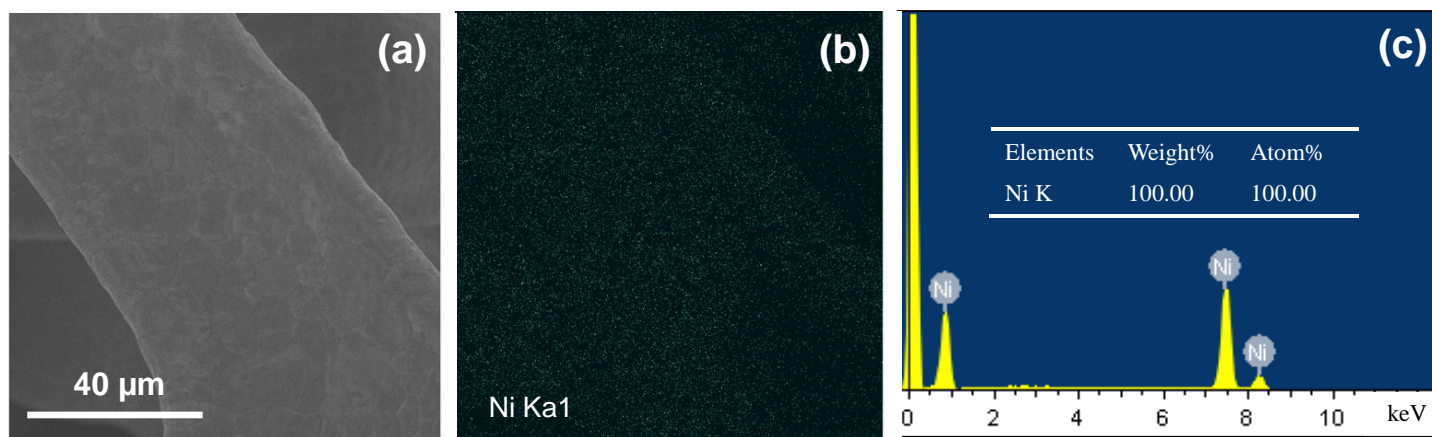
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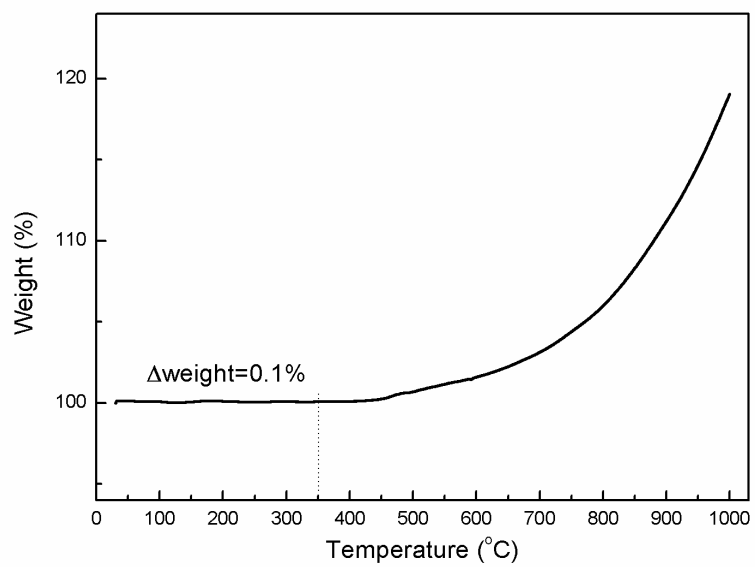
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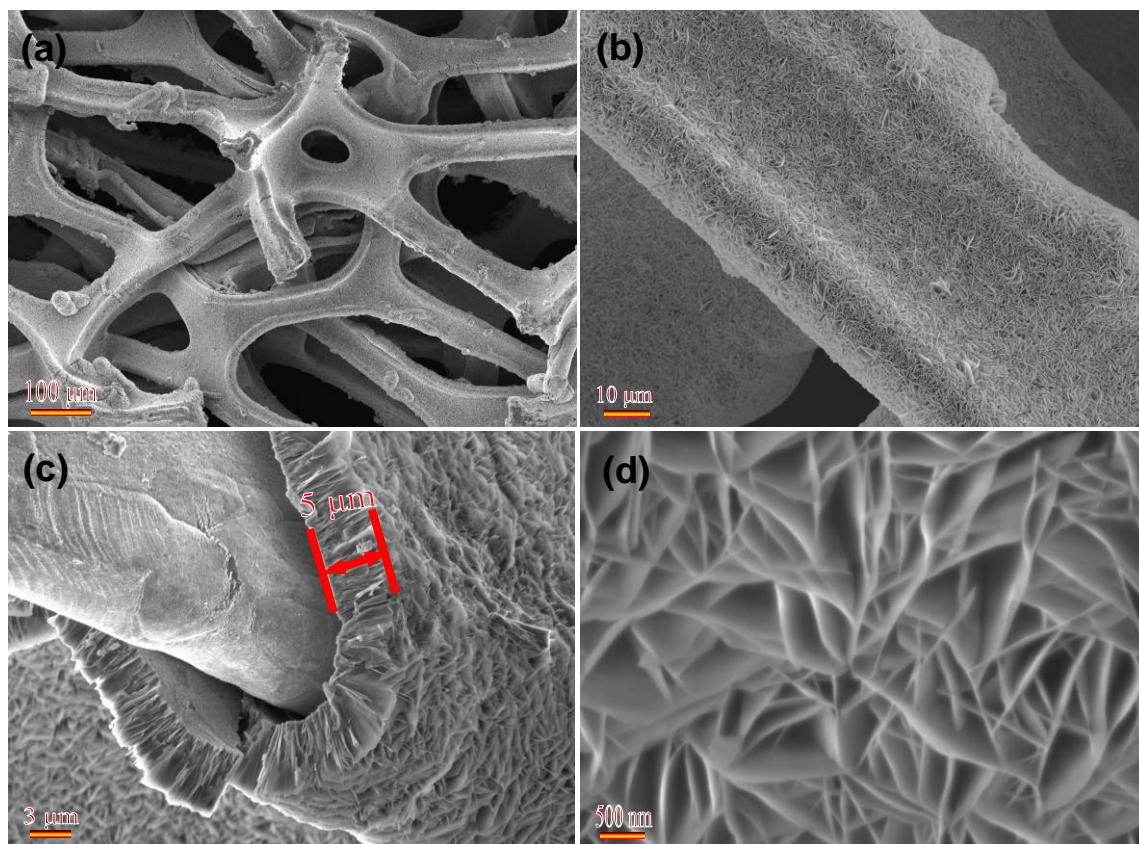
**Fig. S1.** Typical SEM image and corresponding EDS mapping of the Ni foam after annealing in air at 350 °C for 2 h.



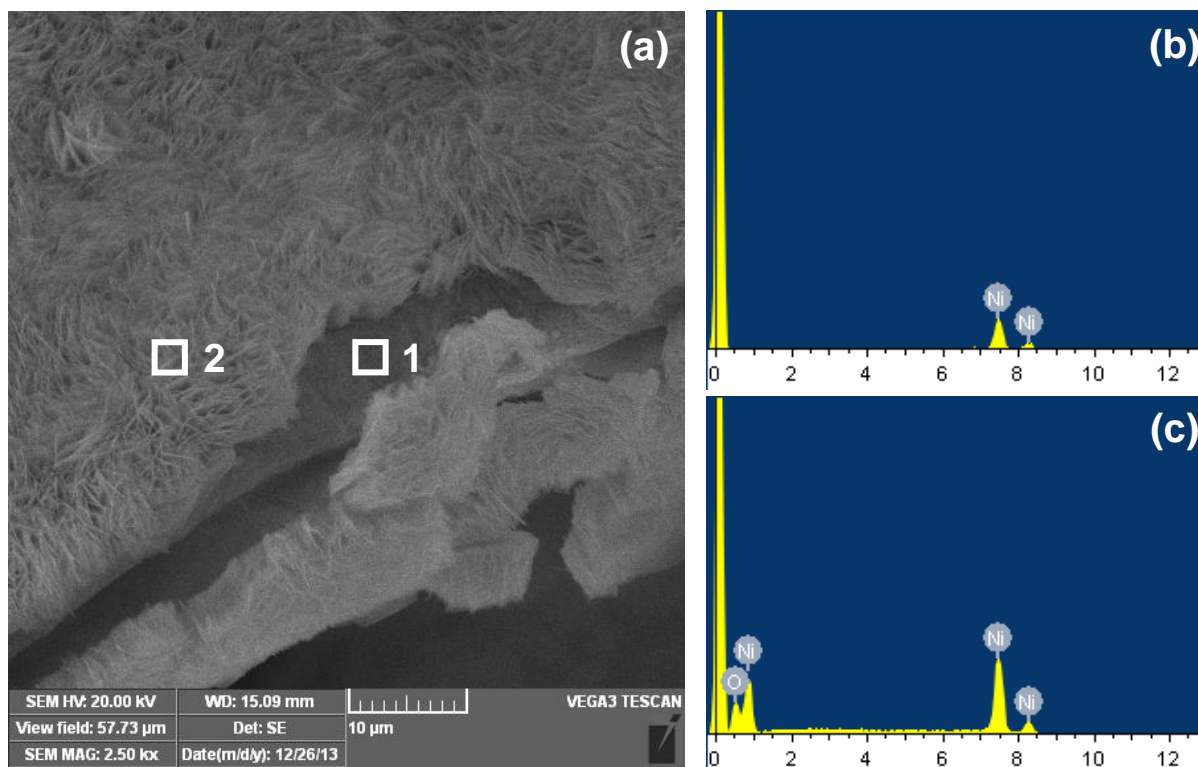
**Fig. S2.** Thermal gravity analysis curve of the bare Ni foam (after acid treatment).



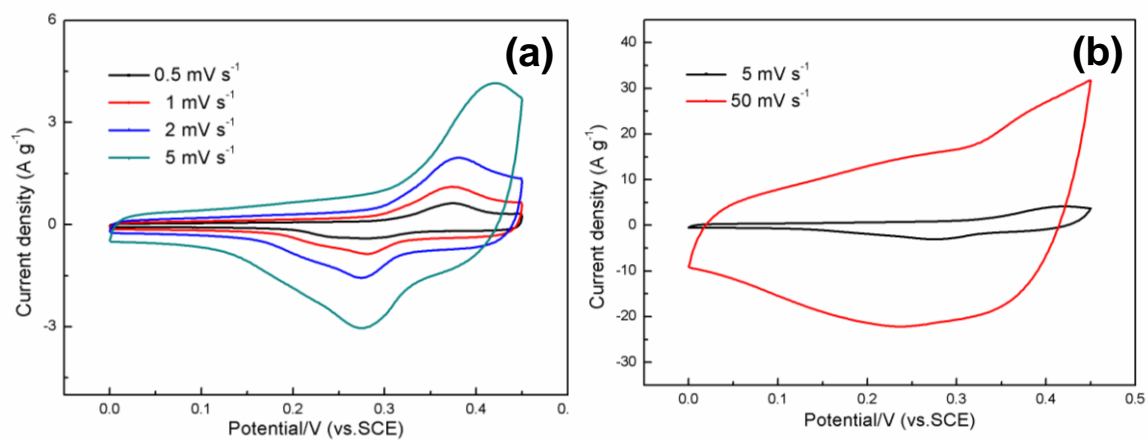
**Fig. S3.** SEM images of NiO nanosheets on Ni foam with different magnifications.



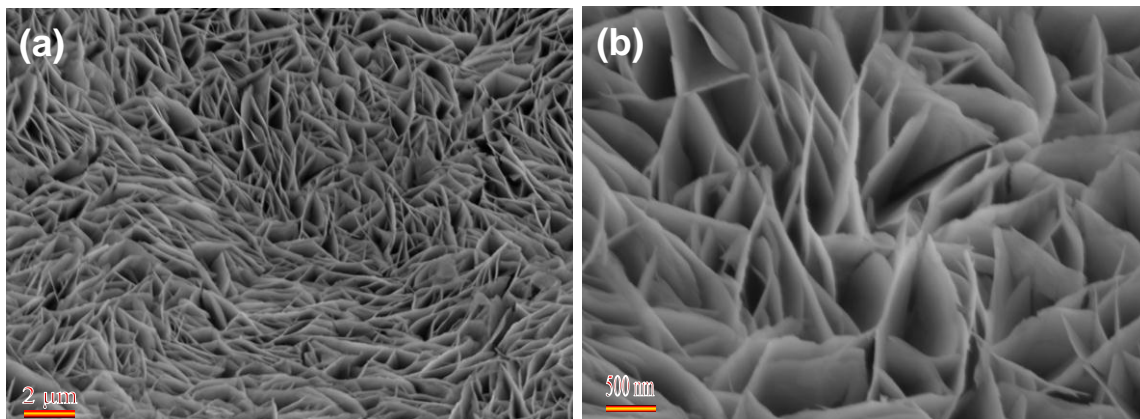
**Fig. S4.** (a) Typical SEM image of NiO nanosheet arrays on Ni foam. Representative EDS data of different regions in (a): (b) region 1 and (c) region 2.



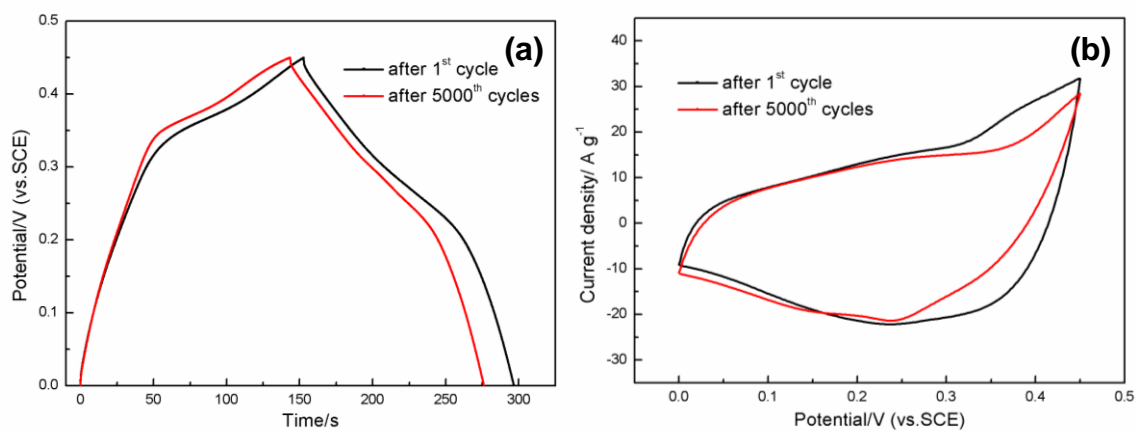
**Fig. S5.** CV curves of NiO nanosheet arrays electrode in 1 M KOH electrolyte measured at various scan rates.



**Fig. S6.** SEM images of the mesoporous NiO nanosheet arrays electrode after 5000 cycles with different magnifications.



**Fig. S7.** (a) The charging/discharging curves obtained at the current density of  $2 \text{ A g}^{-1}$  after different cycles. (b) CV curves of the NiO electrode after different charging/discharging cycles at a scan rate of  $50 \text{ mV s}^{-1}$ .





**Fig. S8.** The electrochemical impedance spectra of the NiO electrode during charging/discharging cycles at open circuit potential in the frequency range from 0.01 Hz to 100 kHz.

