Supplementary Information

A Thin Film Flexible Supercapacitor Based on Oblique Angle Deposited Ni/NiO Nanowire Arrays

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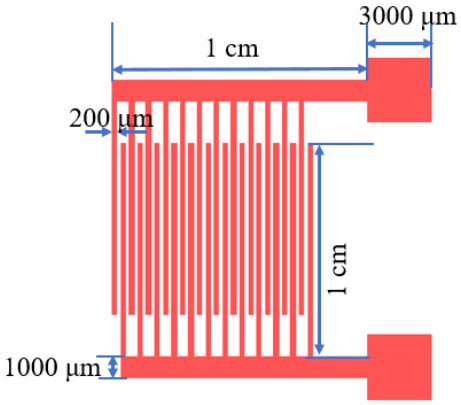


Figure S1. The interdigital shape pattern of the in-plane interdigital MSCs.

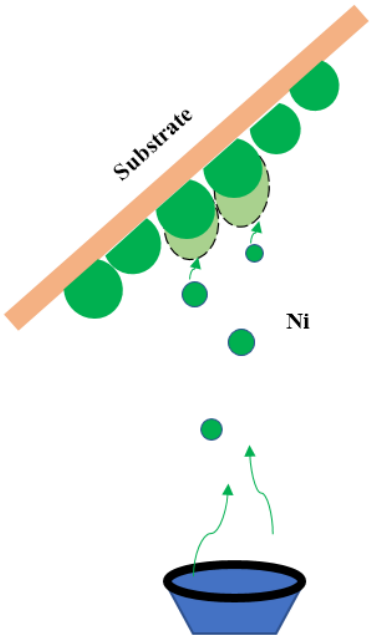


Figure S2. The growth mechanism of Ni nanowires prepared by oblique angle deposition technology.

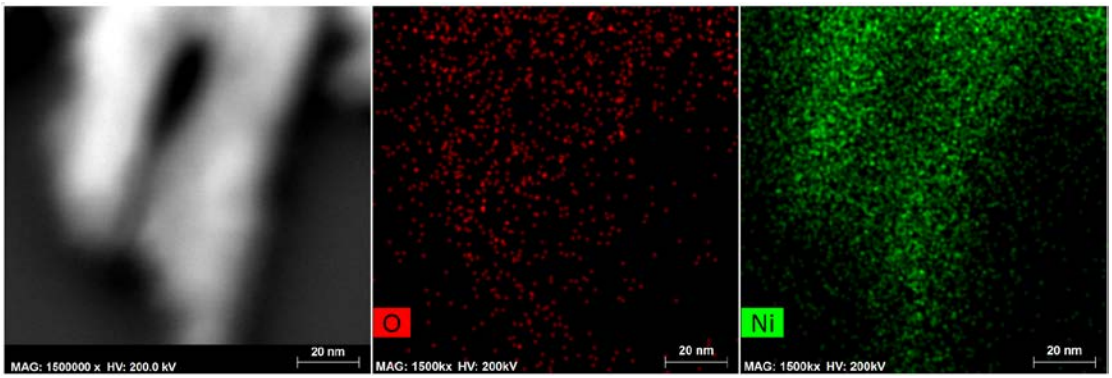


Figure S3. The EDX Mapping of the nanowires from TEM image.

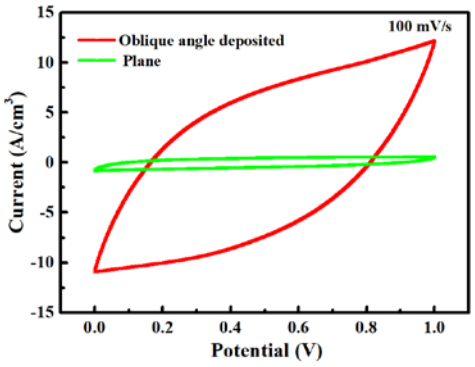


Figure S4. CV curves of NiO electrodes deposited at normal and oblique deposition angles 75° at a 100 mV/s scan rate.

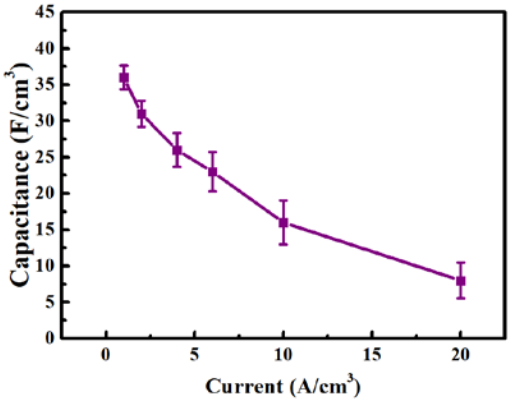
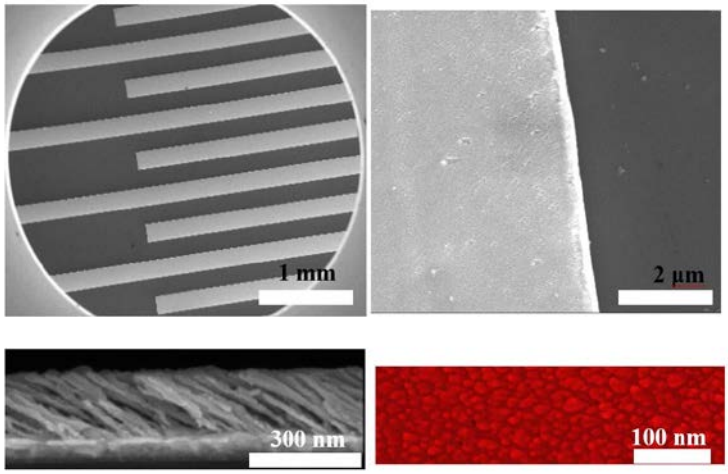


Figure S5. The capacitances of five identical MSC devices made in the same batch at varied galvanostatic charge-discharge current densities, with error bar.

Table S1. Comparation of the plane-interdigitated supercapacitors reported in recent years.

Ref.	Materials	Capacity	Cycles	Energy density	Power density	Flexible
[1]	$Ni(OH)_2$ nanoplates	8.80 F/cm³	10,000	0.59 mWh/cm³	1.80 W/cm³	Y
[2]	rGO–CNT composites	6.1 mF/cm² 3.1 F/cm³	1000	0.68 mWh/cm³	77 W/cm³	N
[3]	graphene	80.7 mF/cm² 17.9 F/cm³.	100,000	2.5 mWh/cm³	495 W/cm³	Y
[4]	MXene-based micro-supercapacitors	23 mF/cm²	10,000	2.8 mWh/cm³ 2.3 mWh/cm³	225 mW/cm³ 744 mW/cm³	Y
[5]	graphene/ polymer (PE) composite	95 mF/cm²	10,000	8.4◎ ×◎ 10^{-3} mWh/cm^{-2}	2.9 mW/cm²	N
[5]	AC/PE composite	134 mF/cm²	10,000	12◎ ×◎ 10^{-3} mWh/cm^{-2}	1.3 mW/cm²	N
[6]	MnO_2 nanoparticle onion-like carbon (OLC) electrodes	338.1 F/g	500			N
[7]		1.3 F/cm³	10,000		1 kW/cm³	N
Our work	Ni/NiO NWs	37.1 F/cm³	10,000	1.86 Wh/cm³	180 W/cm³	Y



FigureS6. SEM images of the electrodes of MSCs after bending test.

Reference

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