Supporting Information

Laser Printed In-plane Micro-supercapacitors: From Symmetric to Asymmetric Structure

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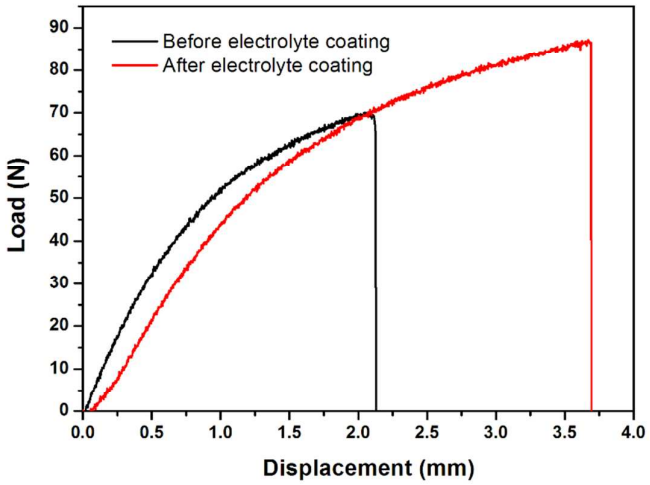

Figure S1. Tensile tests of the paper-based MSCs before and after electrolyte coating.

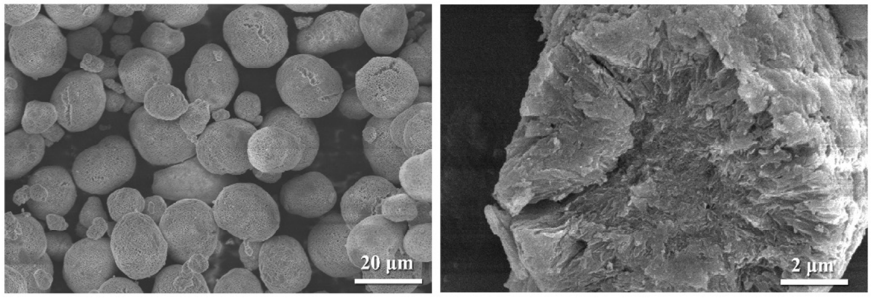

Figure S2. SEM images of the α-$Ni(OH)_2$ particles (left) and the internal structure of one particle (right).

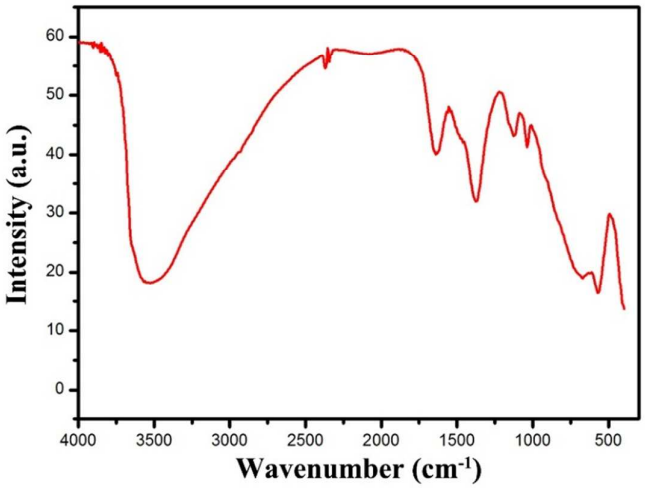

Figure S3. FTIR spectrum of the synthesized α-$Ni(OH)_2$.

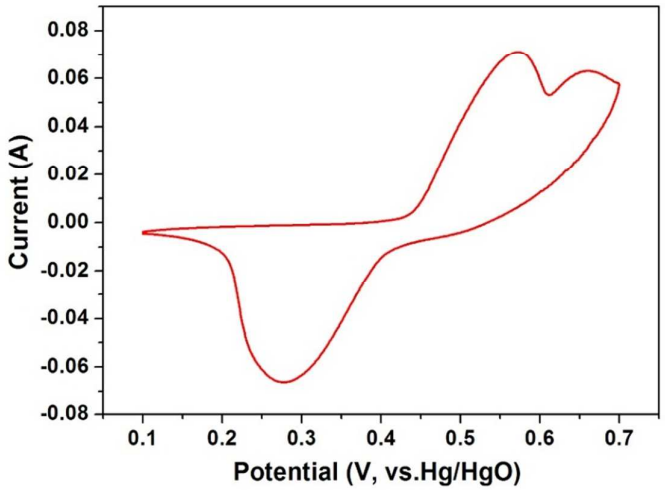

Figure S4. Cyclic voltammetry curves of the synthesized α-$Ni(OH)_2$ with scan rate of 1 mV S^{-1}.

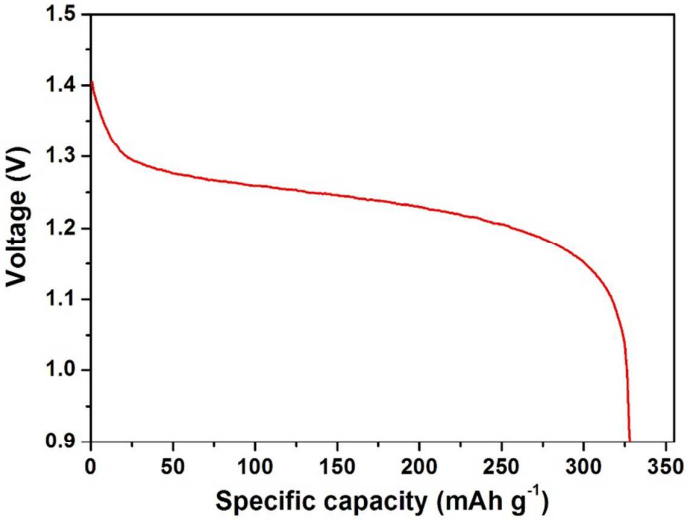

Figure S5. Typical discharge curve of the α-$Ni(OH)_2$ with hydrogen storage alloy as counter electrode at discharge current density of 30 mA g^{-1}.

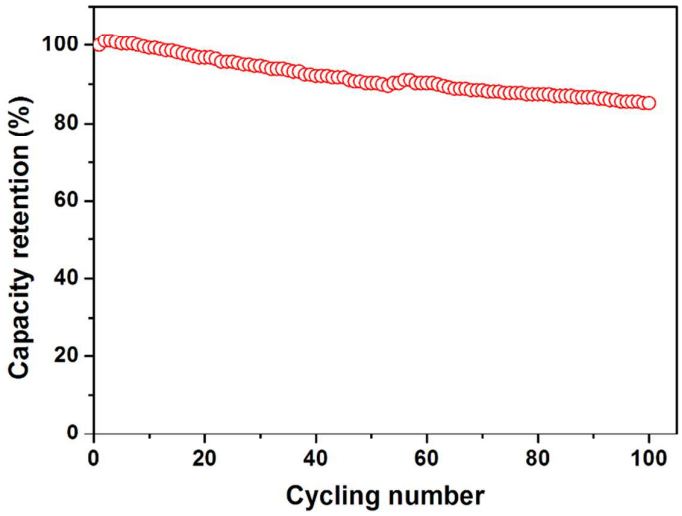

Figure S6. Cycling stability of the α-$Ni(OH)_2$ investigated at an applied current density of 300 mA g^{-1}.

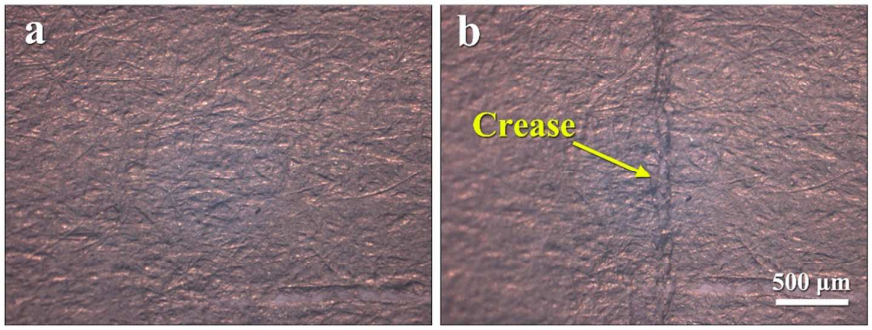

Figure S7. Optical microscopy image of the Ag-NW circuit before (a) and after (b) folding.

Table S1. Capacity, power density and energy density comparisons of in-plane micro-supercapacitors.

Electrode materials	Capacity	Power density	Energy density	Reference
RuO_x	12.6 mF cm^{-2}	0.75 mW cm^{-2}	12.5 W h kg^{-1}	[41]
Graphene quantum dots	0.535 mF cm^{-2}	7.5 µW cm^{-2}	0.074 µW h cm^{-2}	[42]
CNT	0.43 mF cm^{-2}	10 mW cm^{-2}	0.5 µW h cm^{-2}	[43]
rGO	5.5 mF cm^{-2}	0.45 mW cm^{-2}	0.388 µW h cm^{-2}	This work
$Ni(OH)_2$/rGO	8.6 mF cm^{-2}	0.73 mW cm^{-2}	0.669 µW h cm^{-2}	This work