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Supplementary Materials

Facile Preparing $CoNi_2S_4$@NiSe Nano Arrays on Compressed Nickel Foam for High Performance Flexible Supercapacitor

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To further study the cycling stability of supercapacitor based on $CoNi_2S_4$@NiSe@Nickel foam, the galvanostatic charge/discharge for 1200 cycles within 0−0.8 V at a current density of 0.015 A/cm^2 were recorded (Figure S1). It reveals that the supercapacitor can get a high retention between 200 to 1100 cycles, which is identical to the results of the cycling stability by CV.

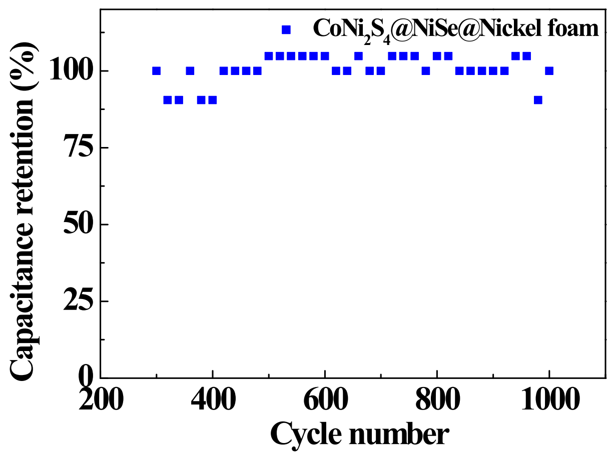

Figure S1 The cycling performance of CoNi2S4@NiSe@Nickel foam by GCD

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Table S1 Electrochemical performance for $CoNi_2S_4$@NiSe@Nickel foam in this study compared with some other reported Ni-based compounds electrodes.

Electrode structure	Specific capacitance	Cycle stability	Reference
Ni_3S_2@CNT	480 F/g[a]	88% (1500)	1
NiSe	1400 F/g[b]	70% (1000)	2
Nanoporous NiO film	1400 F/g[b]	97.9% (1500)	3
NiS@GNS@CNTs	1621 F/g[c]	68% (1000)	4
$Ni(OH)_2$/NiO/Ni	1070 F/g[d]	____	5
$Ni(OH)_2$ @ Nickel foam	1125 F/g[b]	____	6
NiS@rGO	579 F/g[a]	90.96% (1000-2000)	7
$Ni(OH)_2$@ZnO	2028 F/g[b]	68% (500)	8
Nickel sulfides@rGO	1000 F/g[b]	83.2% (1000)	9
Ni_3S_2@Nickel foam	1100 F/g[e]	91.4% (1000)	10
NiSe	851.91 F/g[f]	89.73% (1000)	This work
$CoNi_2S_4$@NiSe nano arrays	1686.03 F/g[f]	97.59% (1000)	This work

Special capacitance at [a] 5 A/g, [b] 10 A/g, [c] 9 A/g, [d] 15 A/g, [e] 6 A/g, [f] 5 mV/s

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