Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Materials

Easy Access to Nitrogen-Doped Mesoporous Interlinked Carbon/NiO Nanosheet for application in lithium-ion batteries and supercapacitors

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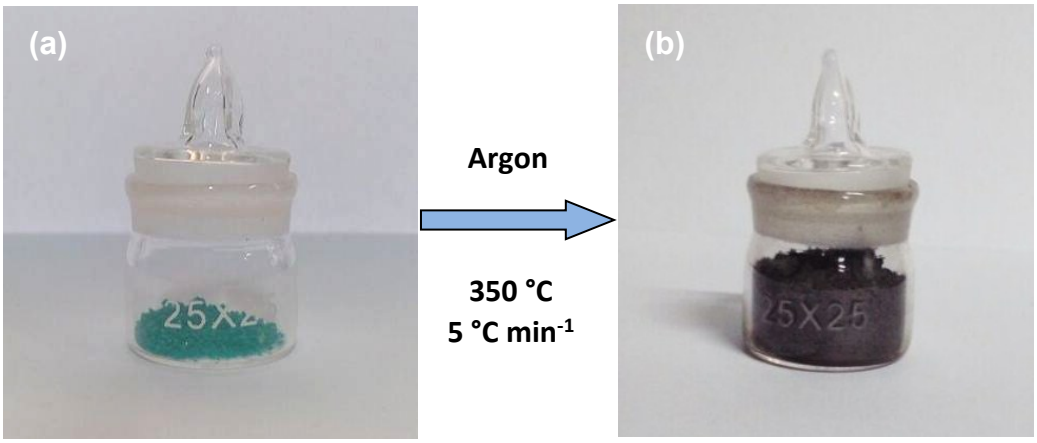

Figure S1 Photographs of (a) the precursor Ni-ZIF-8 and (b) the product after annealing process.

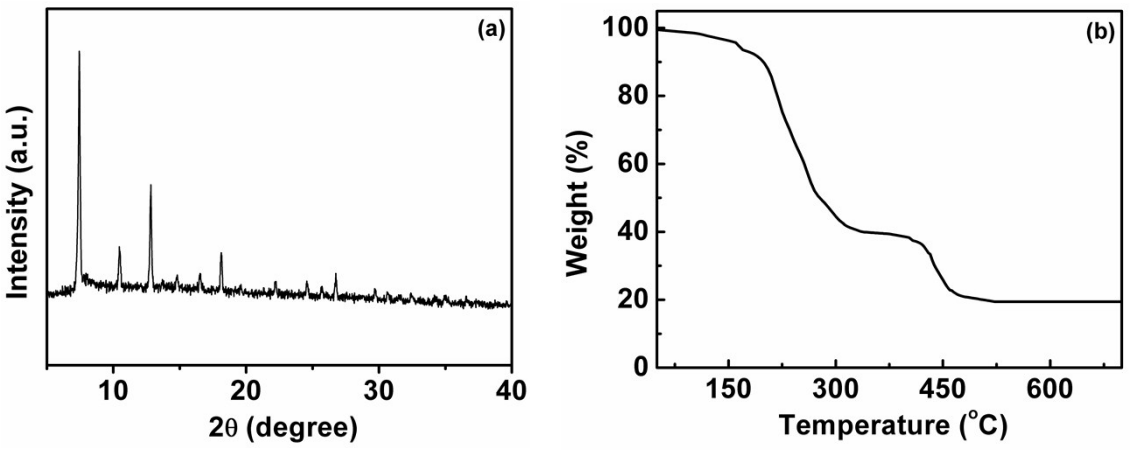

Figure S2 (a) XRD pattern and (b) TGA curve of Ni-ZIF 8 precursor (at nitrogen atmosphere from 80 to 350 °C and under air atmosphere after 350 °C).

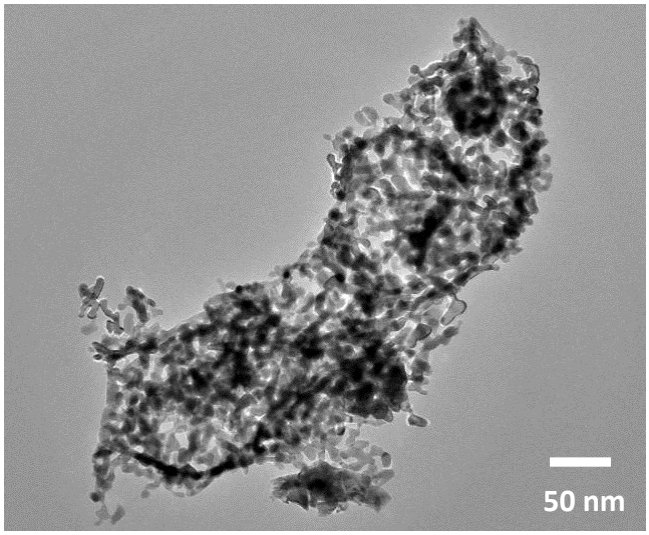

Figure S3 TEM image of carbon/NiO nanosheet electrode after 300 cycles in LIBs.

Table S1. The supercapacitive performance of previously reported carbon or NiO anode materials.

Materials	Capacity ($F\ g^{-1}$)	cycle number	current density ($A\ g^{-1}$)	capacitance retention (%)	Ref.
Carbon/NiO Nanosheet	414	3000	5	92.2	This work
Nitrogen-doped Carbon	198	10000	2	92	[49]
Carbon Networks	295	5000	0.5	97	[50]
NiO@MnO2	86.3	10000	4 A	98.3	[51]
3D flower-like NiO@PPy	595	1000	1	80.7	[52]
NiO nanoflakes/graphene	240	1500	5	120	[53]
graphene/NiO nanosheets	525	1000	0.2	95.4	[54]
8 nm NiO nanoparticles	379	1000	0.1	60.6 (at 2A g^{-1})	[55]
NiO nanoparticles	377	3750	5	62	[56]
NiO	273	1500	0.6	88	[57]
NiO/polymer CNTs	415	2000	6	83	[58]

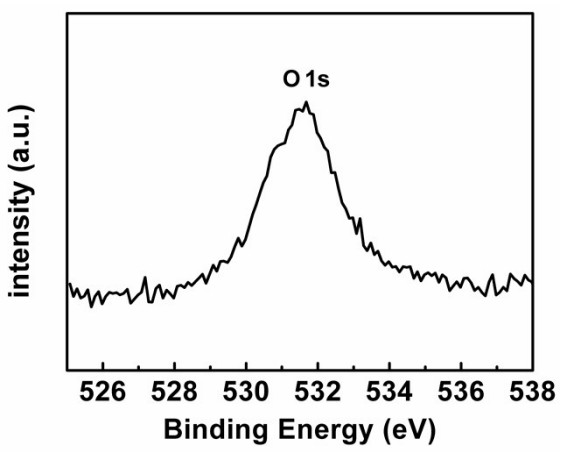

Figure S4 XPS spectrum O 1s for C/NiO nanosheet.