Electronic Supplementary Information

Facile synthesis of 3D flower-like porous NiO architectures with an excellent capacitance performance

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Supplementary Table and Figures

Tab.S1 A comparison of various published results of Ni-based supercapacitors

Electrode Materials	Specific Capacitance	Ref.
3D flower-like porous NiO	1609 F/g at 2 A/g or 1574 F/g at 5 mV/s	This work
NiO nanoparticles	182 F/g at 4.4 A/g	1
NiO nanowires	670 F/g at 1 A/g	2
porous NiO nanotube arrays	675 F/g at 2 A/g	3
porous NiO nanocolumns	390 F/g at 5 A/g	4
NiO nanoplates	285 F/g at 5 A/g	4
NiO nanoslices	176 F/g at 5 A/g	4
porous NiO nanosheets	1025 F/g at 3 A/g	5
ordered mesoporous NiO film	590 F/g at 2.5 mV/s	6
porous NiO hollow spheres	282 F/g at 2 A/g	7
flowerlike NiO hollow nanosphere	770 F/g at 2 A/g	8
hierarchical porous NiO nanoflowers	265 F/g at 5 mV/s	9
NiO nanoflower	333 F/g at 2 A/g	10
flower-like α-$Ni(OH)_2$ microspheres	1297 F/g at 2 A/g	11

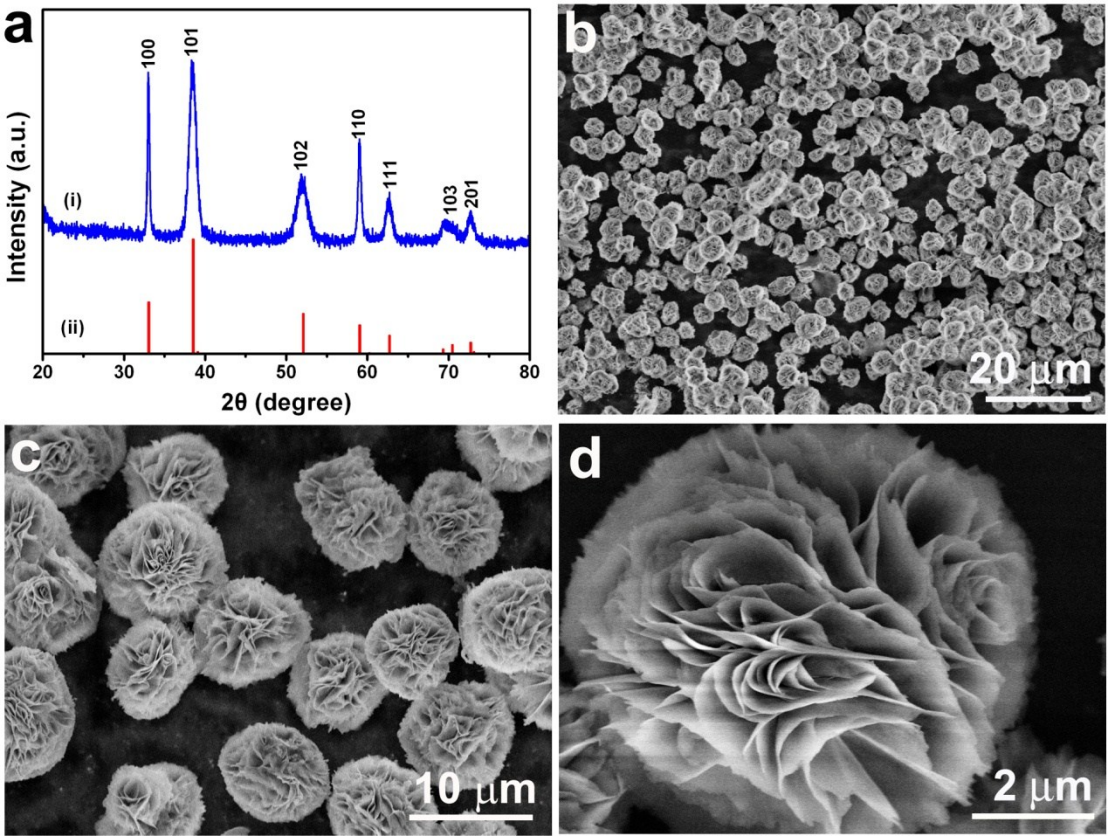

Fig.S1 (a) XRD patterns of the as-synthesized 3D hierarchical $Ni(OH)_2$ flower-like architectures (i) and the $Ni(OH)_2$ powders from the JCPDS card (ii) (No:14-0117), respectively.(b, c and d) Low-, medium- and high- magnification SEM images of as-synthesized 3D hierarchical $Ni(OH)_2$ flower-like architectures.

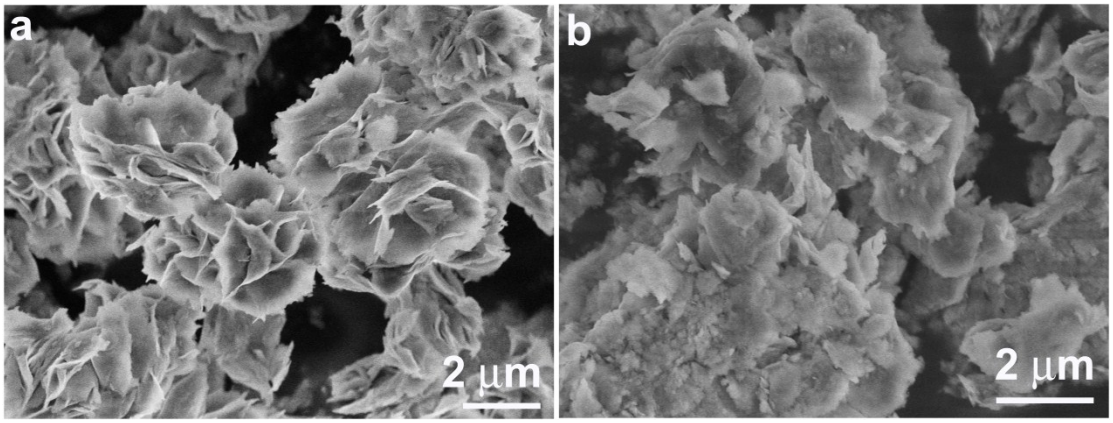

Fig.S2 SEM images of $Ni(OH)_2$ structures synthesized without glucose (a) and with 50 mg glucose (b).

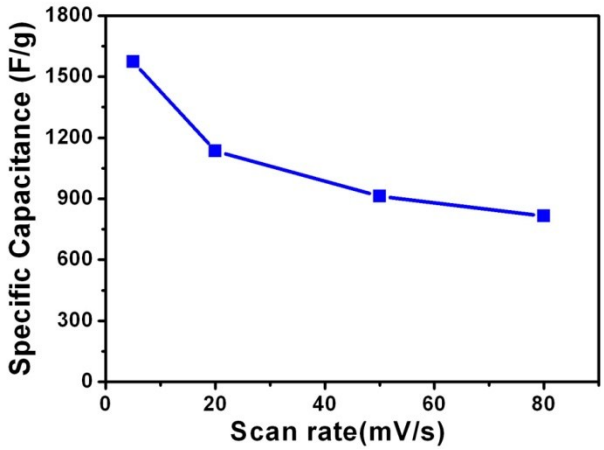

Fig.S3 Specific capacitances of the as-synthesized 3D flower-like porous NiO at different scan rates.

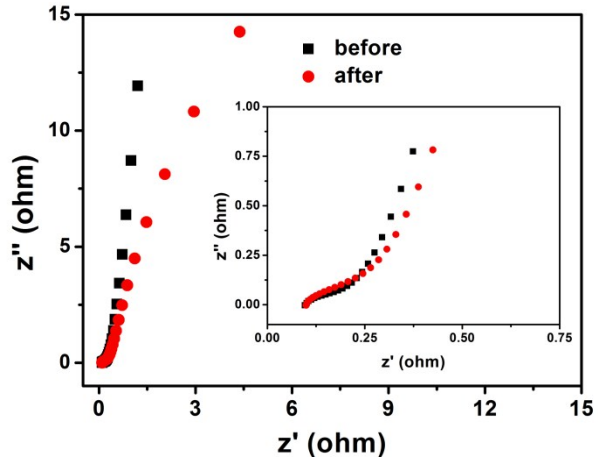

Fig.S4 Electrochemical impedance spectra before and after cycling

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