

Nanoforest of hierarchical core/shell CuO@NiCo₂O₄ nanowire heterostructure arrays on nickel foam for high-performance supercapacitors

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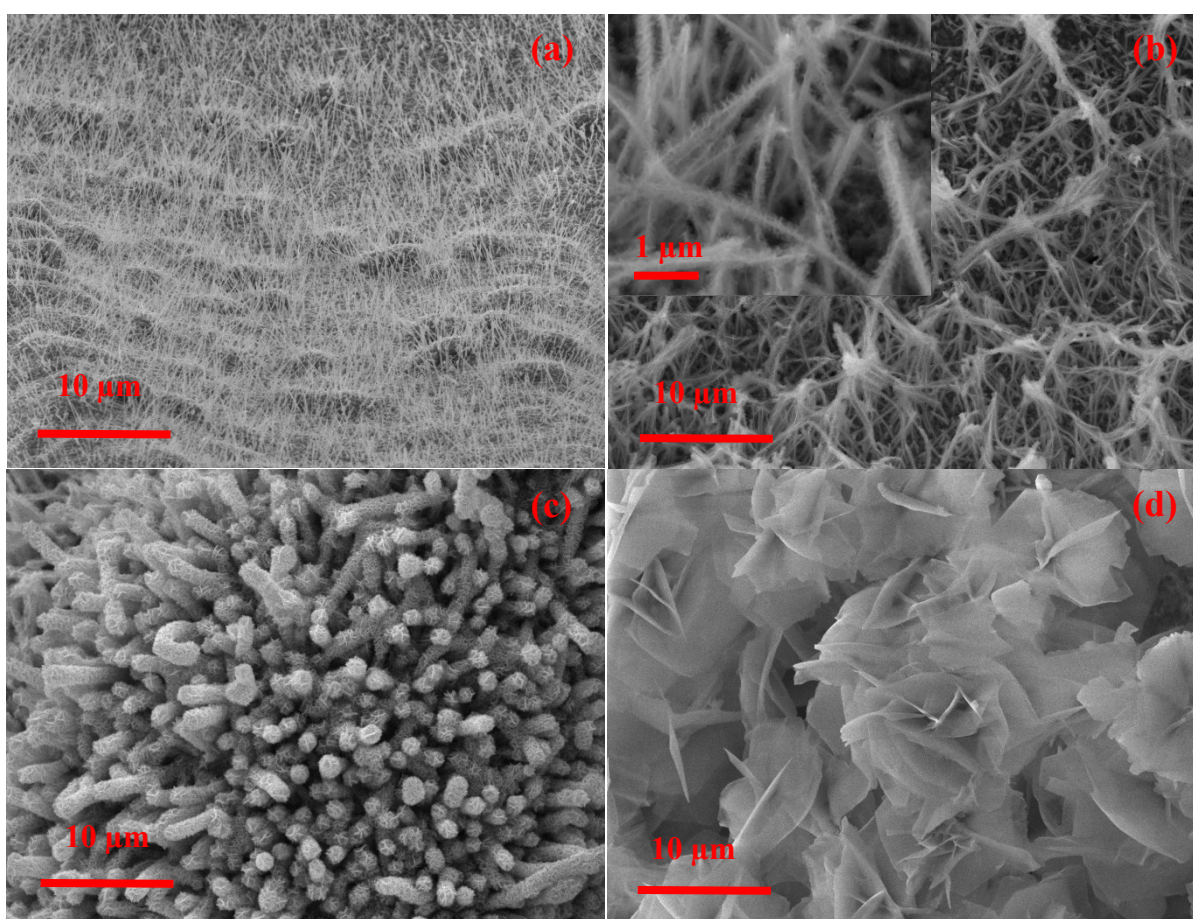


Figure S1 SEM images of (a) nickel foam supported CuO nanowires, (b-d) CuO@NiCo₂O₄ electrode materials under different reaction time, 1h, 2h and 3h.

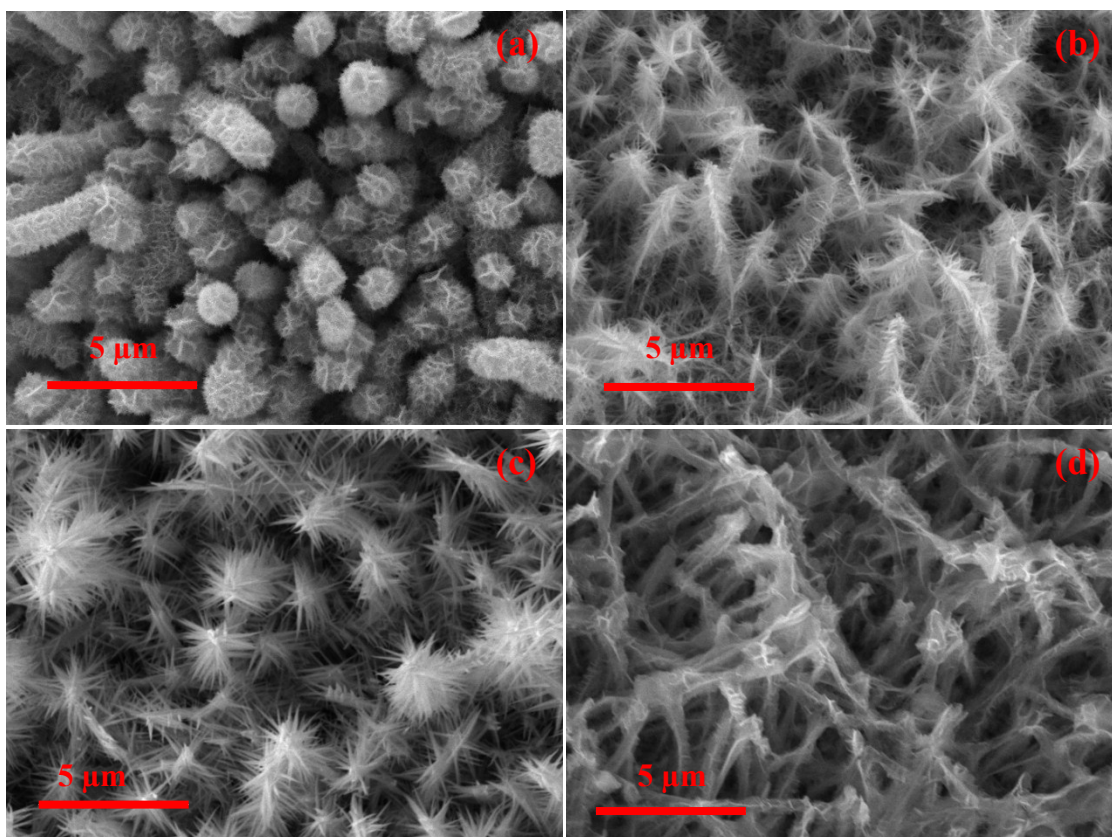


Figure S2 SEM images of CuO@NiCo₂O₄ electrode materials prepared from different salts with the same ratios between Co and Ni at 130 °C for 5 h: (a) sulfates, (b) nitrates, (c) chlorates and (d) acetates.

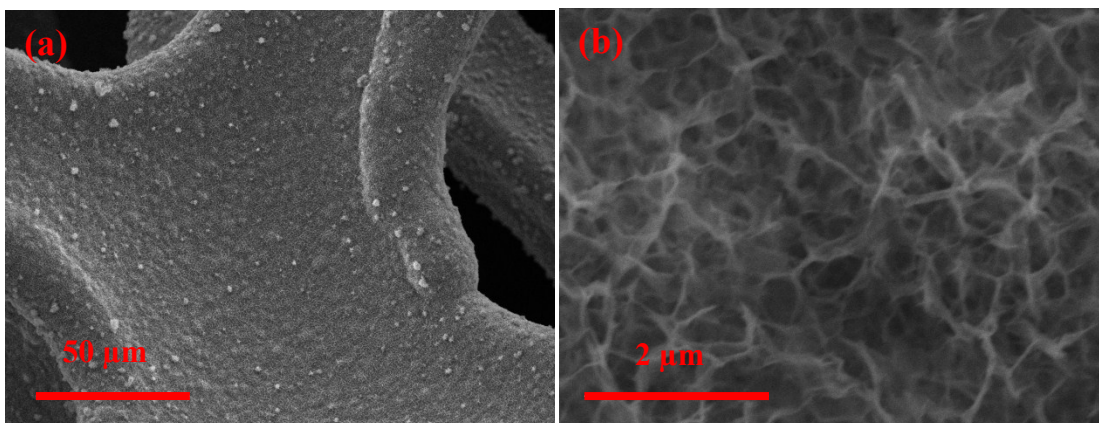


Figure S3 SEM images of nickel foam supported NiCo_2O_4 electrode material

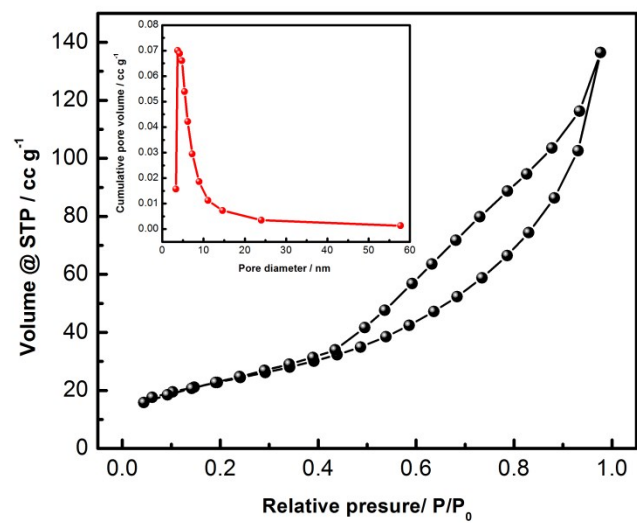


Figure S4 N₂ adsorption/desorption isotherm of the hierarchical mesoporous NiCo₂O₄ nanosheet branches, the inset is the pore distribution

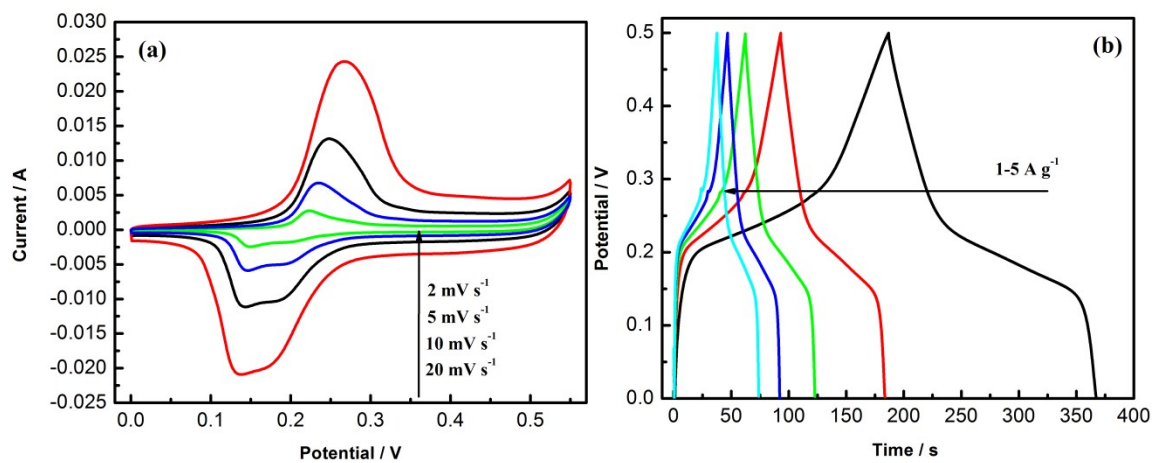


Figure S5 (a) CV and (b) charge/discharge curves of the NiCo₂O₄ electrode

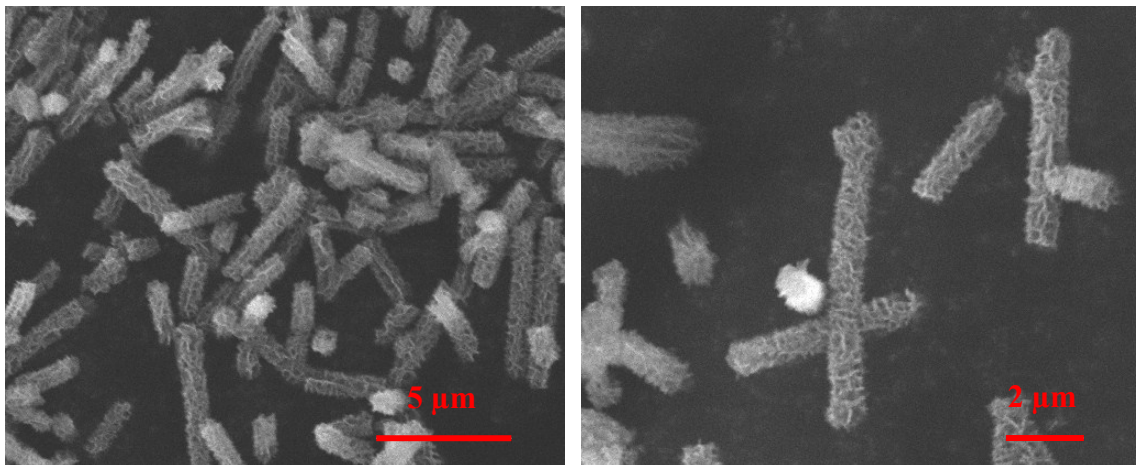


Figure S6 SEM images of CuO@NiCo₂O₄-1 electrode material

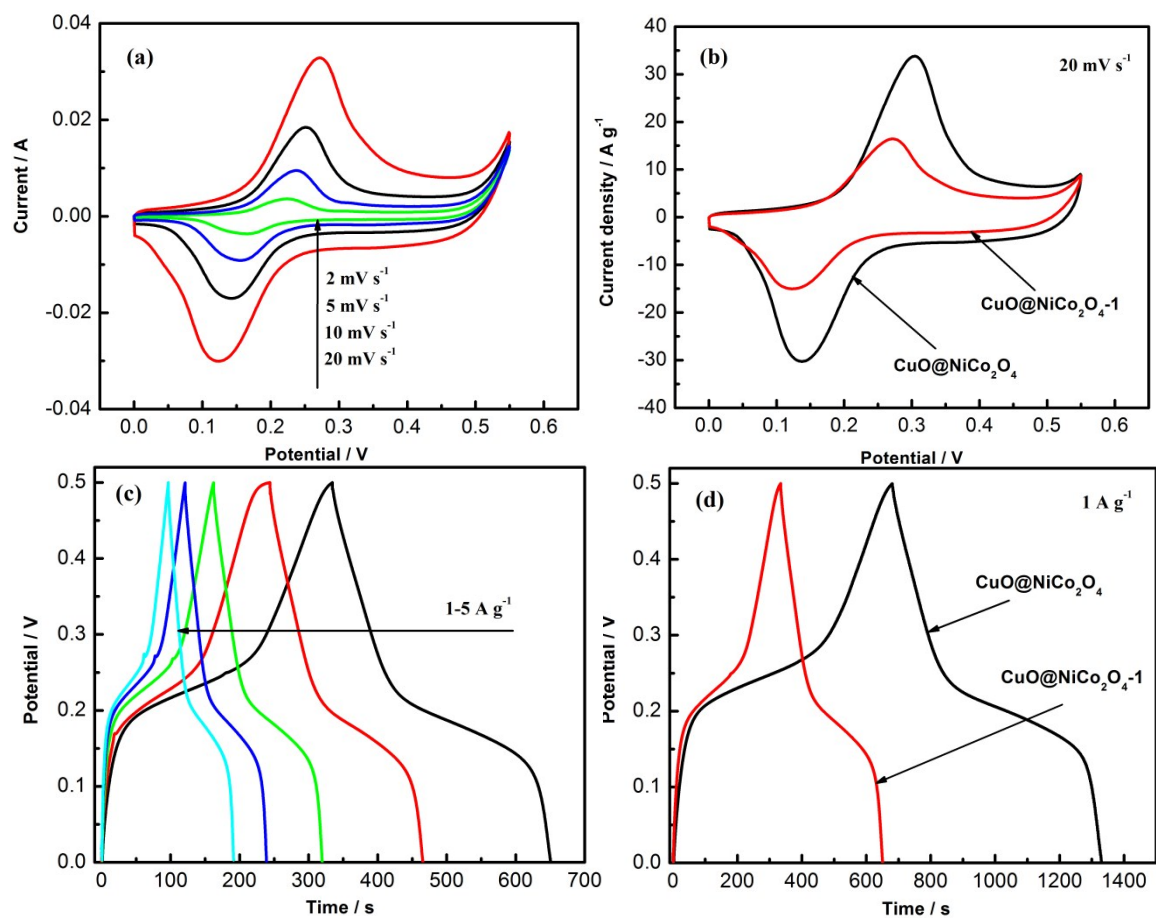


Figure S7 (a) and (c) CV and charge/discharge curves of the CuO@NiCo₂O₄-1 electrode, (b) and (d) Comparisons of CV and charge/discharge curves between CuO@NiCo₂O₄ and CuO@NiCo₂O₄-1 electrode

Table S1 Specific capacitance of different NiCo₂O₄ electrode and nickel foam supported core/shell CuO@NiCo₂O₄ nanowire heterostructure arrays

Electrode Materials	Specific Capacitance	Ref.
Flower-shaped NiCo ₂ O ₄ microsphere	1006 F g ⁻¹ at 1 A g ⁻¹	1
Porous spinel NiCo ₂ O ₄	726.8 F g ⁻¹ at 1 A g ⁻¹	2
Porous NiCo ₂ O ₄ heterostructure arrays	891 F g ⁻¹ at 1 A g ⁻¹	3
Porous NiCo ₂ O ₄ nanowires	743 F g ⁻¹ at 1 A g ⁻¹	4
Porous NiCo ₂ O ₄ flowerlike nanostructure	658 F g ⁻¹ at 1 A g ⁻¹	5
Urchin-like NiCo ₂ O ₄	636 F g ⁻¹ at 0.5 A g ⁻¹	6
Core/shell CuO@NiCo ₂ O ₄ heterostructure arrays	1129.8 F g ⁻¹ at 1 A g ⁻¹	This work

References

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