

Supporting Information

Mesoporous ZnCo₂O₄ nanoflakes grown on nickel foam as electrodes for high performance supercapacitors

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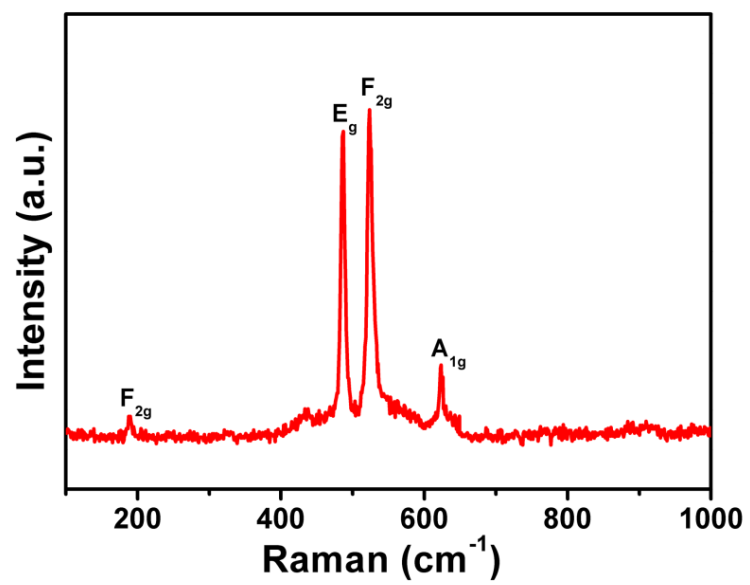


Fig. S1 Raman spectrum of ZnCo₂O₄ nanoflake.

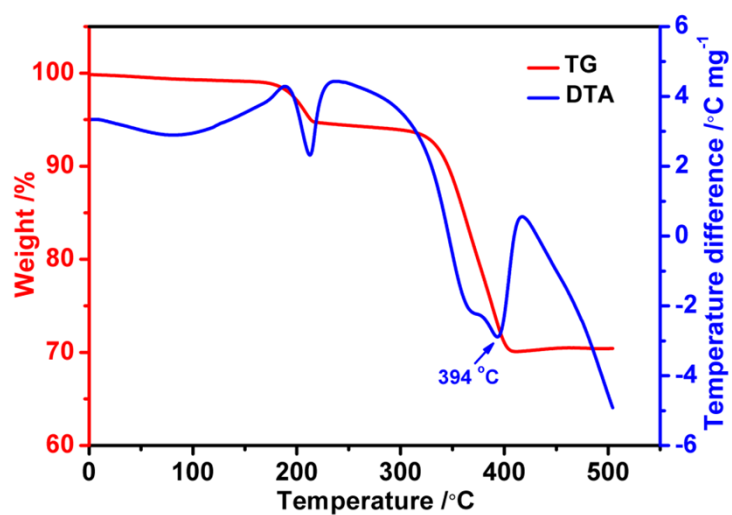


Fig. S2 TG and DTA curves of the Zn-Co hydroxide precursor after hydrothermal synthesis and before calcination.

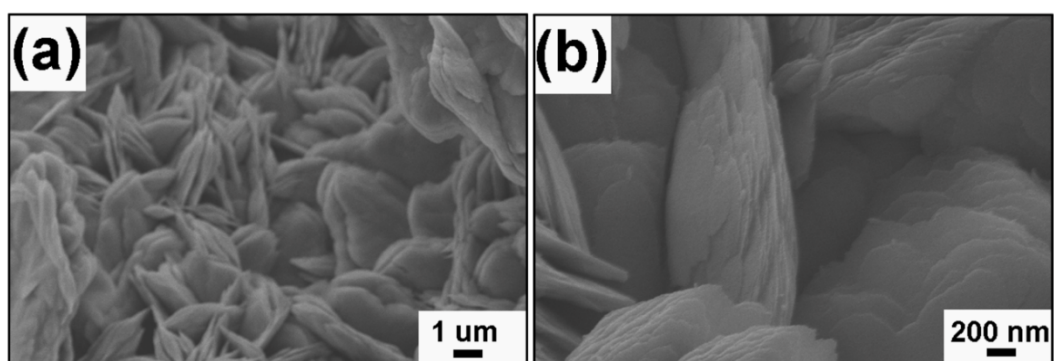


Fig. S3 (a, b) The SEM images of Co_3O_4 nanosheets.

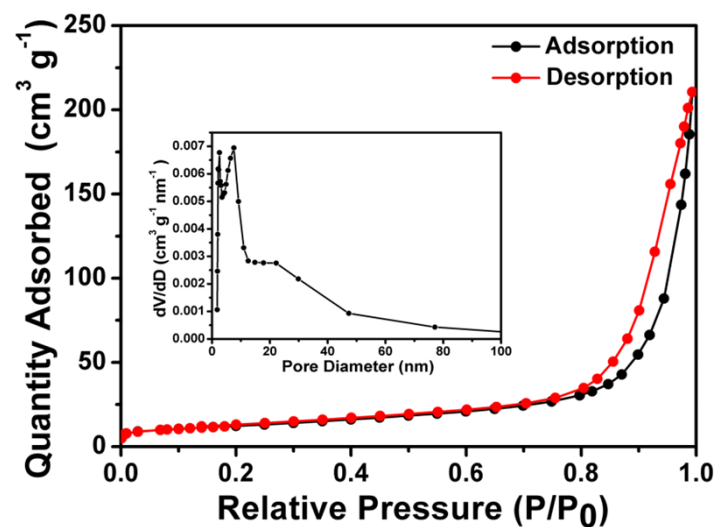


Fig. S4 Nitrogen adsorption/desorption isotherms measured at 77 K of ZnCo₂O₄ nanoflake, and the corresponding Barrett-Joyner-Halenda (BJH) pore size distribution curve (inset).

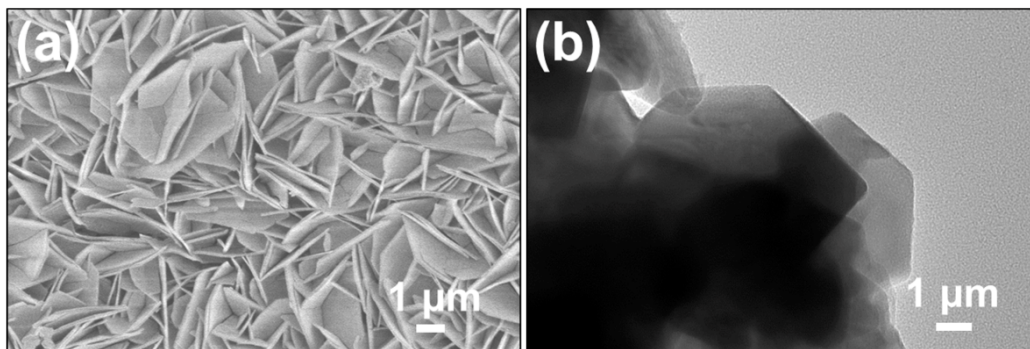


Fig. S5 (a, b) SEM and TEM images of ZnCo₂O₄ nanoflakes after 5000 cycles.

Table S1 Comparison of specific capacitances of ZnCo₂O₄ nanoflake electrodes with other nanostructured electrodes reported in literature.

Electrode material	Current density	Specific capacitance	Reference
ZnCo ₂ O ₄ nanoflake	2 A g ⁻¹	1220 F g ⁻¹	Current study
MnCo ₂ O ₄ nanowire	2 A g ⁻¹	350 F g ⁻¹	1
CuCo ₂ O ₄ nanoparticle	2 A g ⁻¹	280 F g ⁻¹	2
NiCo ₂ O ₄ nanosphere	2 A g ⁻¹	660 F g ⁻¹	3
ZnO@MnO ₂ nanorod	2 A g ⁻¹	501 F g ⁻¹	4
Co ₃ O ₄ film	2 A g ⁻¹	352 F g ⁻¹	5
Co ₃ O ₄ nanowire	2 A g ⁻¹	599 F g ⁻¹	6
MnMoO ₄ @CoMoO ₄ nanowire	2 A g ⁻¹	163 F g ⁻¹	7

References

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Table S2 Impedance parameters calculated from the equivalent circuit.

Materials	R_s (Ω)	R_{ct} (Ω)	R_{ct} (Ω) after 5000 cycles
Co ₃ O ₄	1.67	3.84	4.94
ZnCo ₂ O ₄	1.12	2.55	3.35