

Electronic Supplementary Information (ESI) for

**High energy density hybrid supercapacitor based on
cobalt-doped nickel sulfide flower-like
hierarchitectures deposited with nitrogen-doped
carbon dots**

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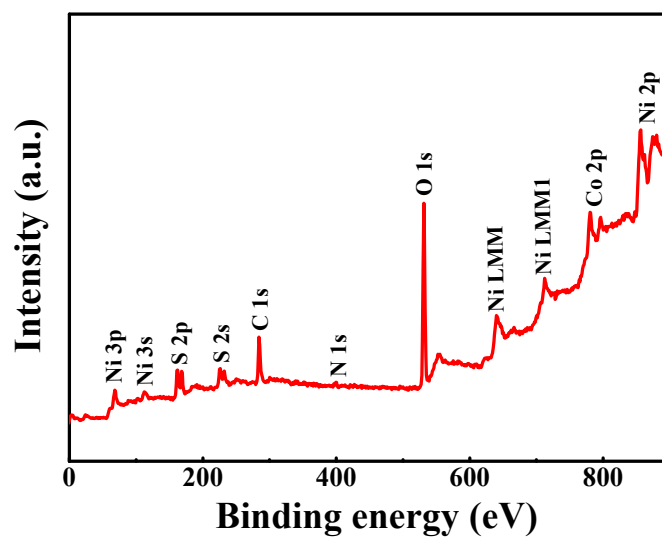


Fig. S1. XPS survey spectrum of Co-NiS/NCDs-2 flower-like hierarchitectures.

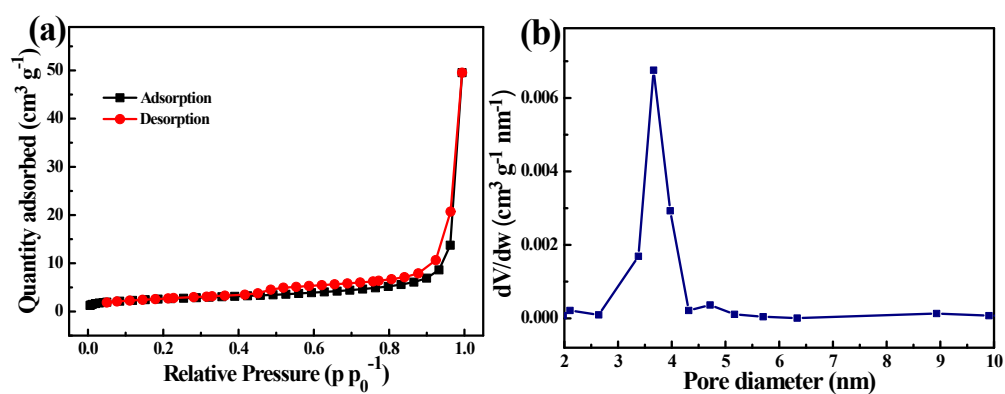


Fig. S2. (a) The nitrogen adsorption/desorption isotherm and (b) pore size distribution of Co-NiS/NCDs-2 flower-like hierarchitectures.

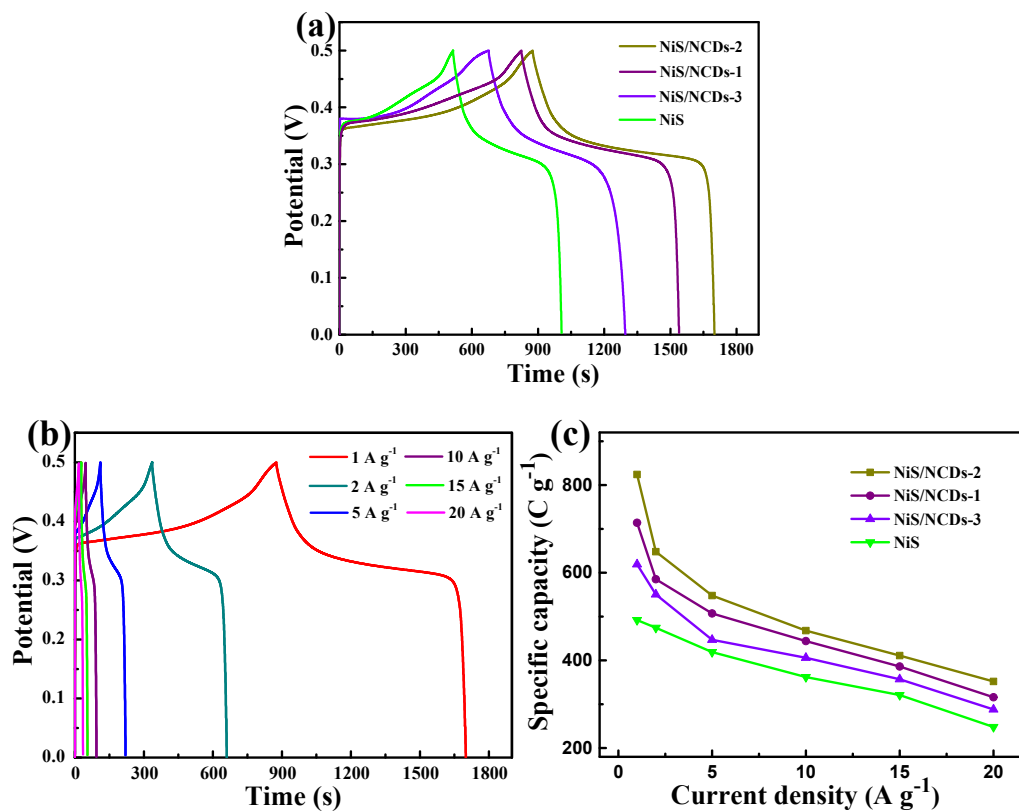


Fig. S3. (a) GCD profiles of NiS and various NiS/NCDs composites at 1 A g⁻¹; (b) GCD profiles of NiS/NCDs-2 composites at 1-20 A g⁻¹; (c) The specific capacities of NiS and various NiS/NCDs composites at 1-20 A g⁻¹.

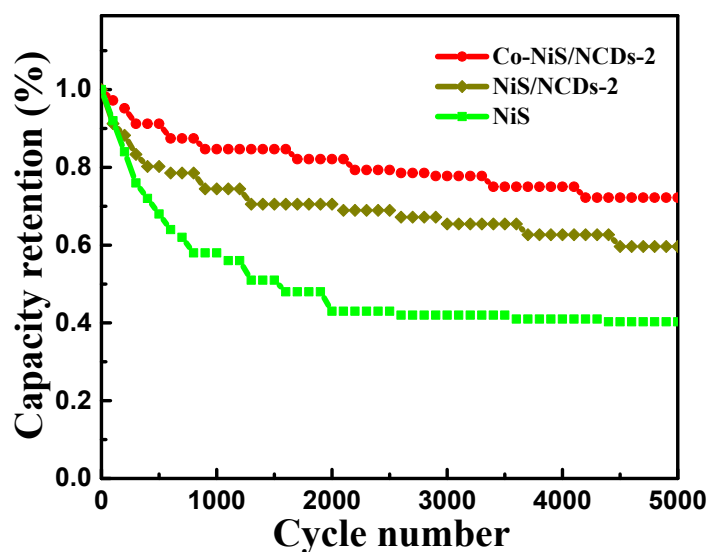


Fig. S4. The cyclic properties of NiS, NiS/NCDs-2 and Co-NiS/NCDs-2 flower-like hierarchitectures at 10 A g⁻¹.

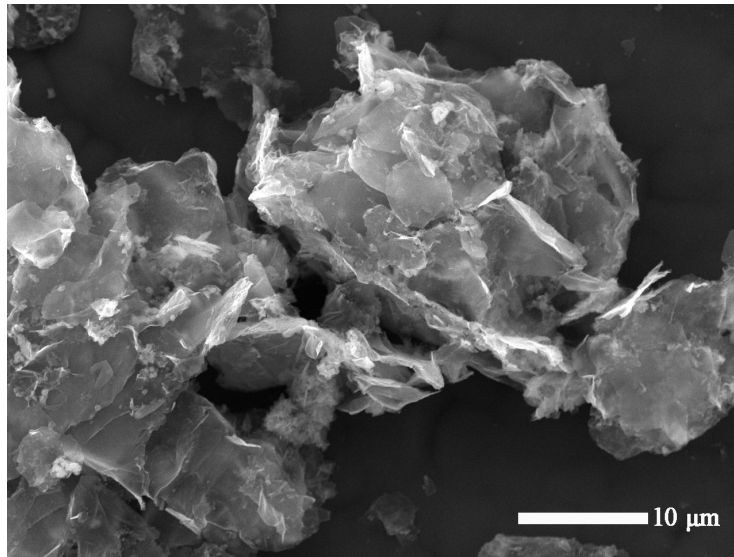


Fig. S5. SEM image of PPD/rGO composites.

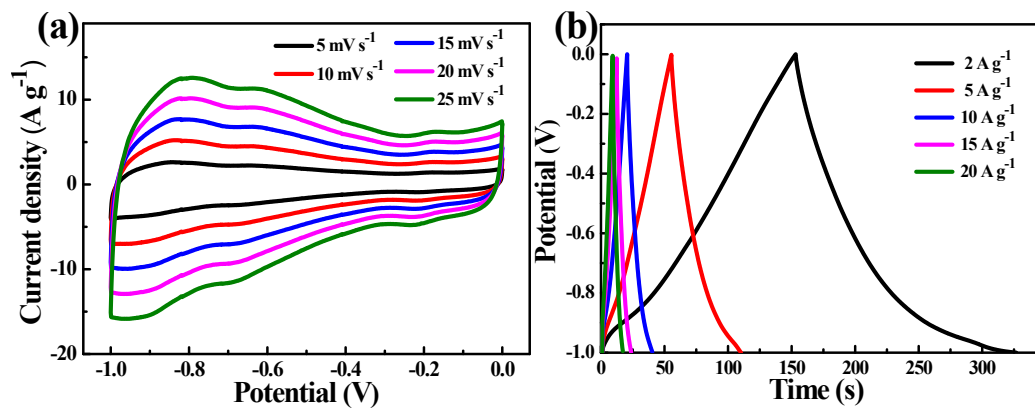


Fig. S6. (a) CV curves of PPD/rGO composites at 5-25 mV s⁻¹; (b) GCD curves of PPD/rGO composites at 2-20 A g⁻¹.