

Supplementary Information for

Ni_{1.5}CoSe₅ Nanocubes Embedded in 3D Dual N-Doped Carbon Network as Advanced Anode Material in Sodium-Ion Full Cells with Superior Low-Temperature and High-Power Properties

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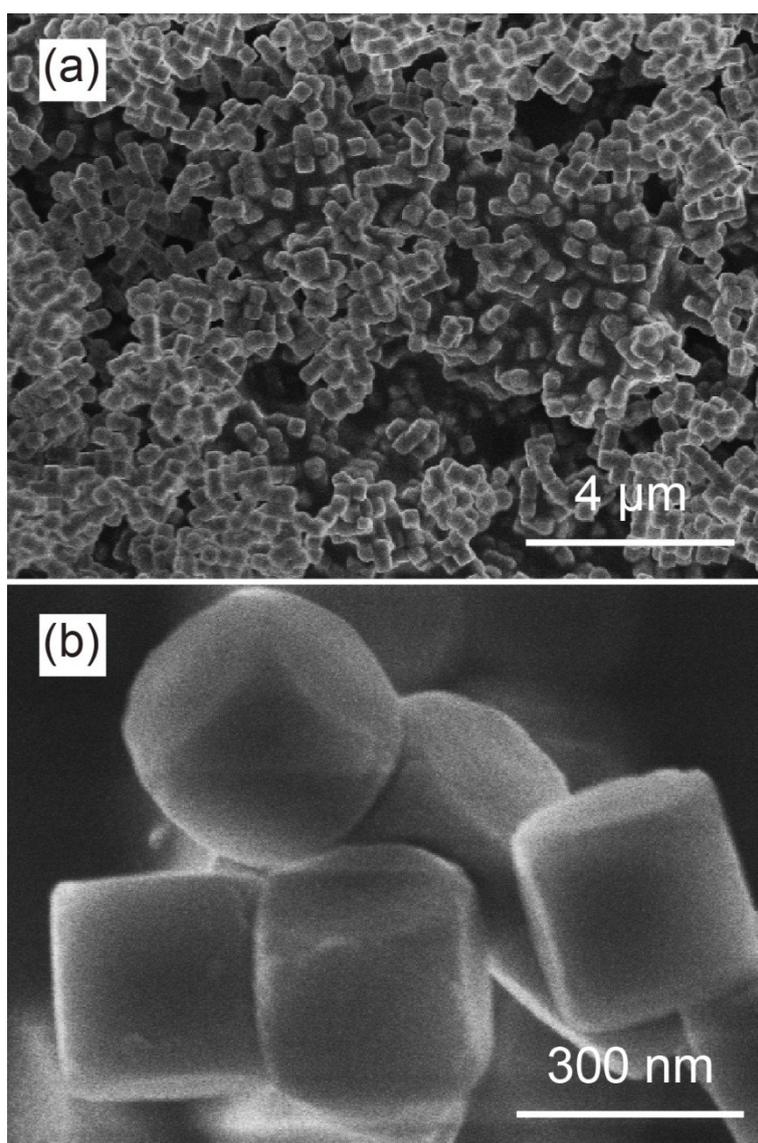


Fig. S1. SEM images of the Ni-Co BMOF under different magnifications.

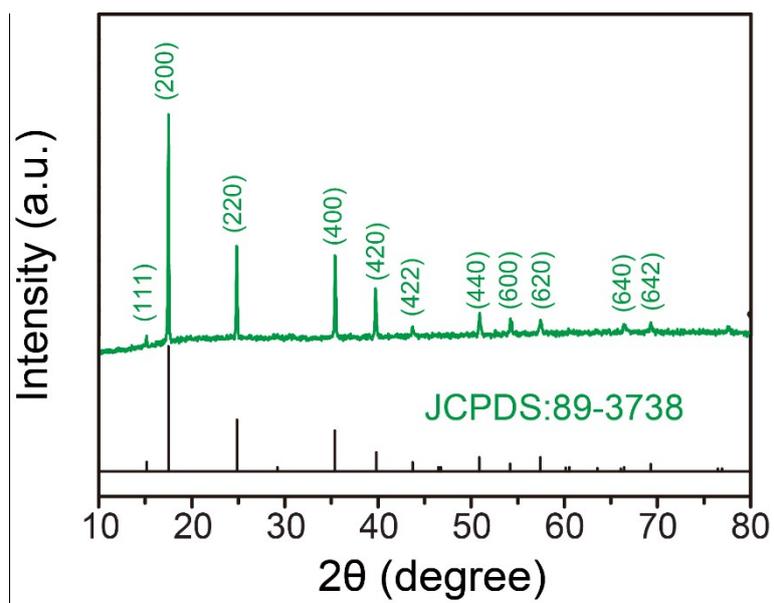


Fig. S2. XRD pattern of the Ni-Co BMOF precursor.

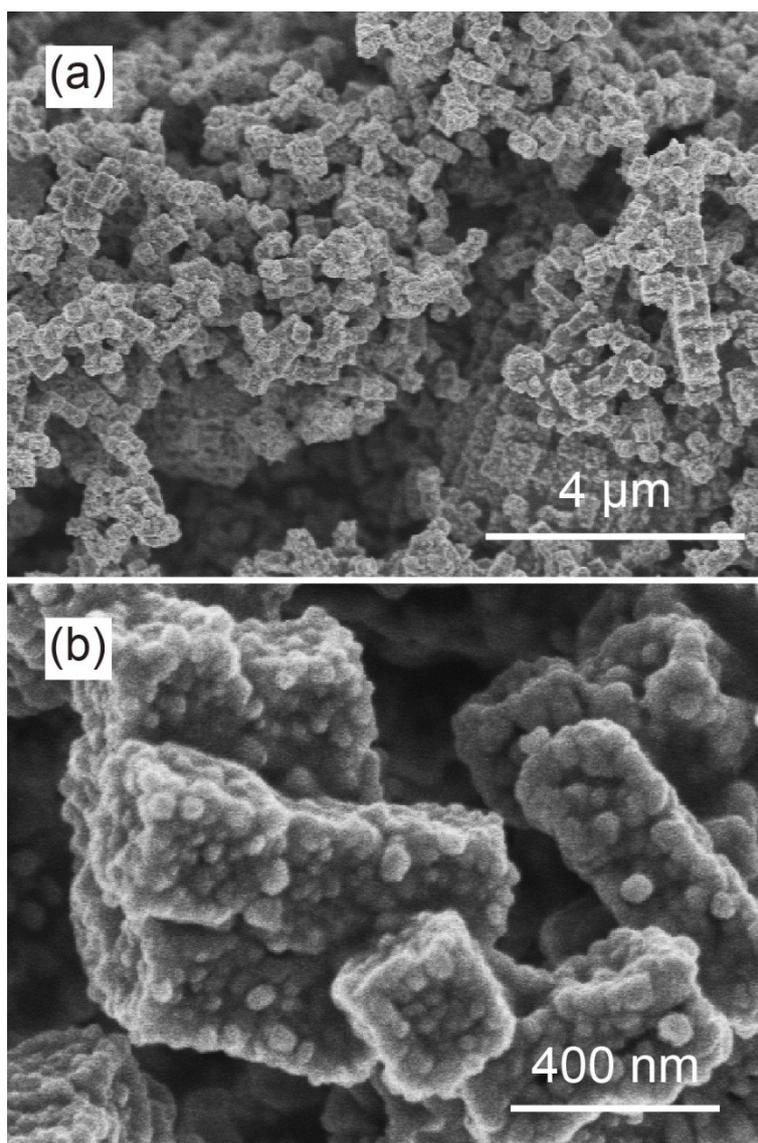


Fig. S3. SEM images of the $\text{Ni}_{1.5}\text{CoSe}_5@\text{NC}$ under different magnifications.

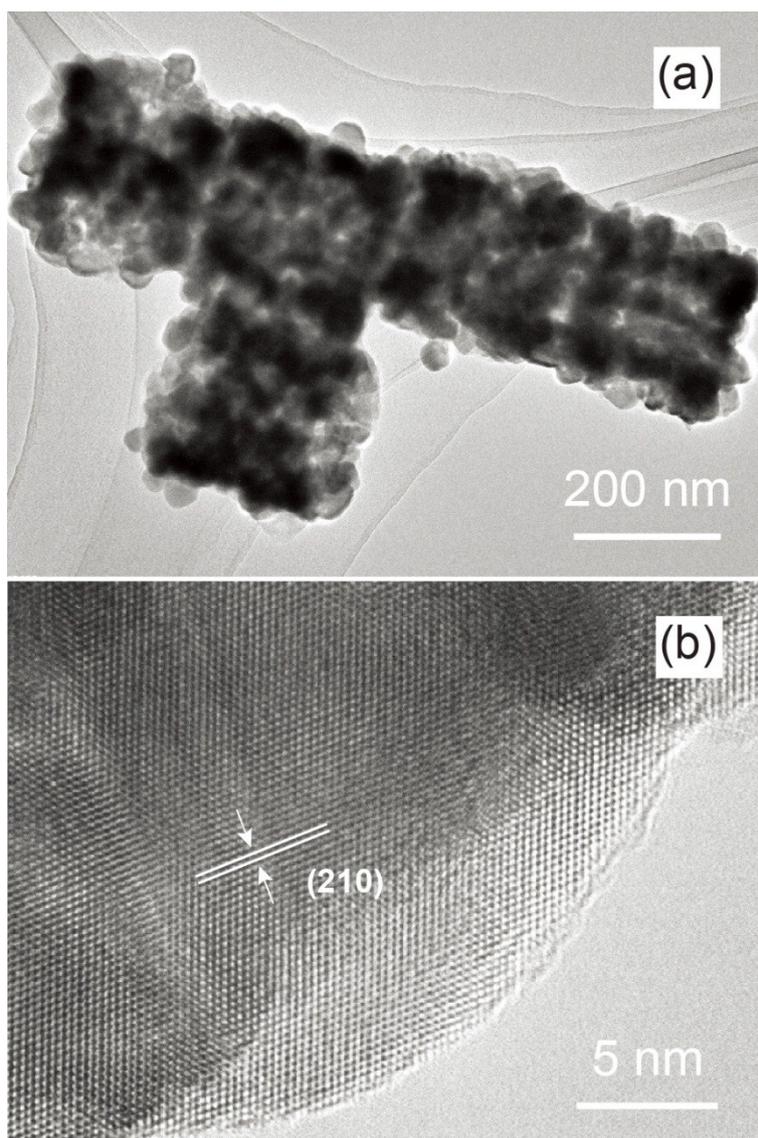


Fig. S4. (a) TEM and (b) HRTEM images of the as-prepared $\text{Ni}_{1.5}\text{CoSe}_5@\text{NC}$.

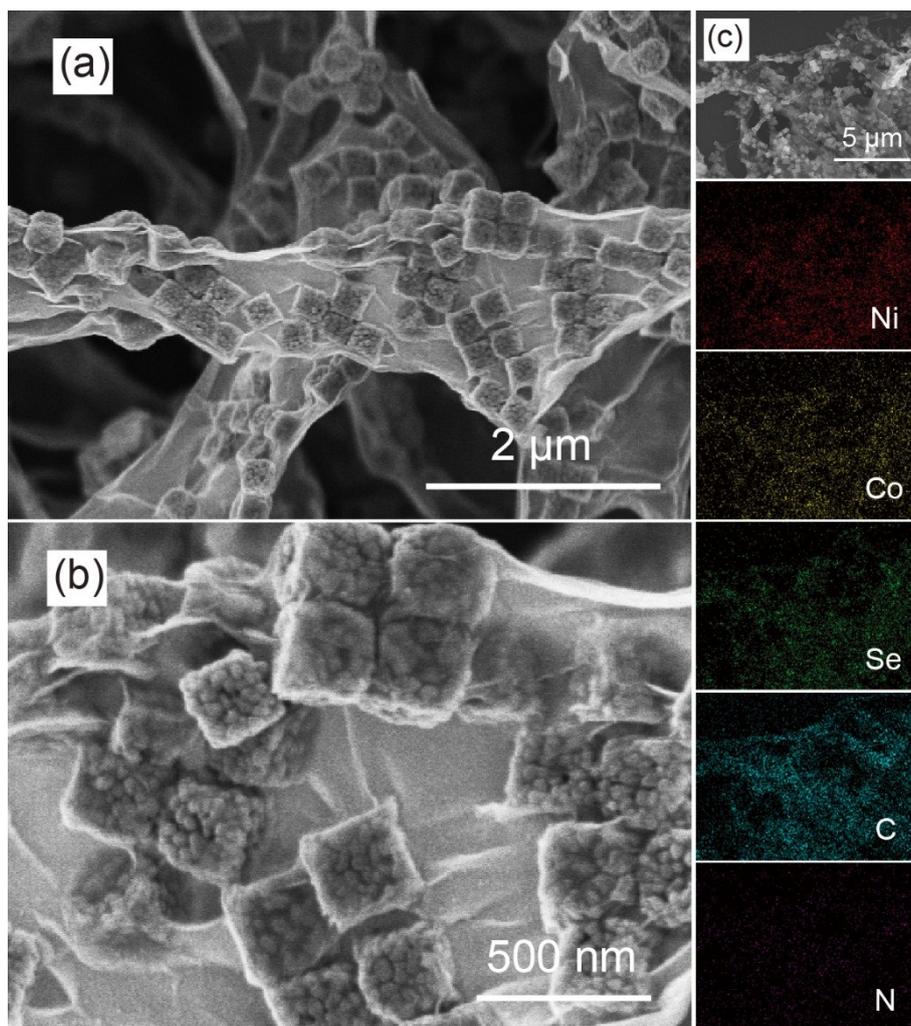


Fig. S5. (a and b) SEM images of the $\text{Ni}_{1.5}\text{CoSe}_5@\text{NC}@\text{rGO}$ under different magnifications, and (c) the elemental mapping images of the as-prepared $\text{Ni}_{1.5}\text{CoSe}_5@\text{NC}@\text{rGO}$ nanocomposite.

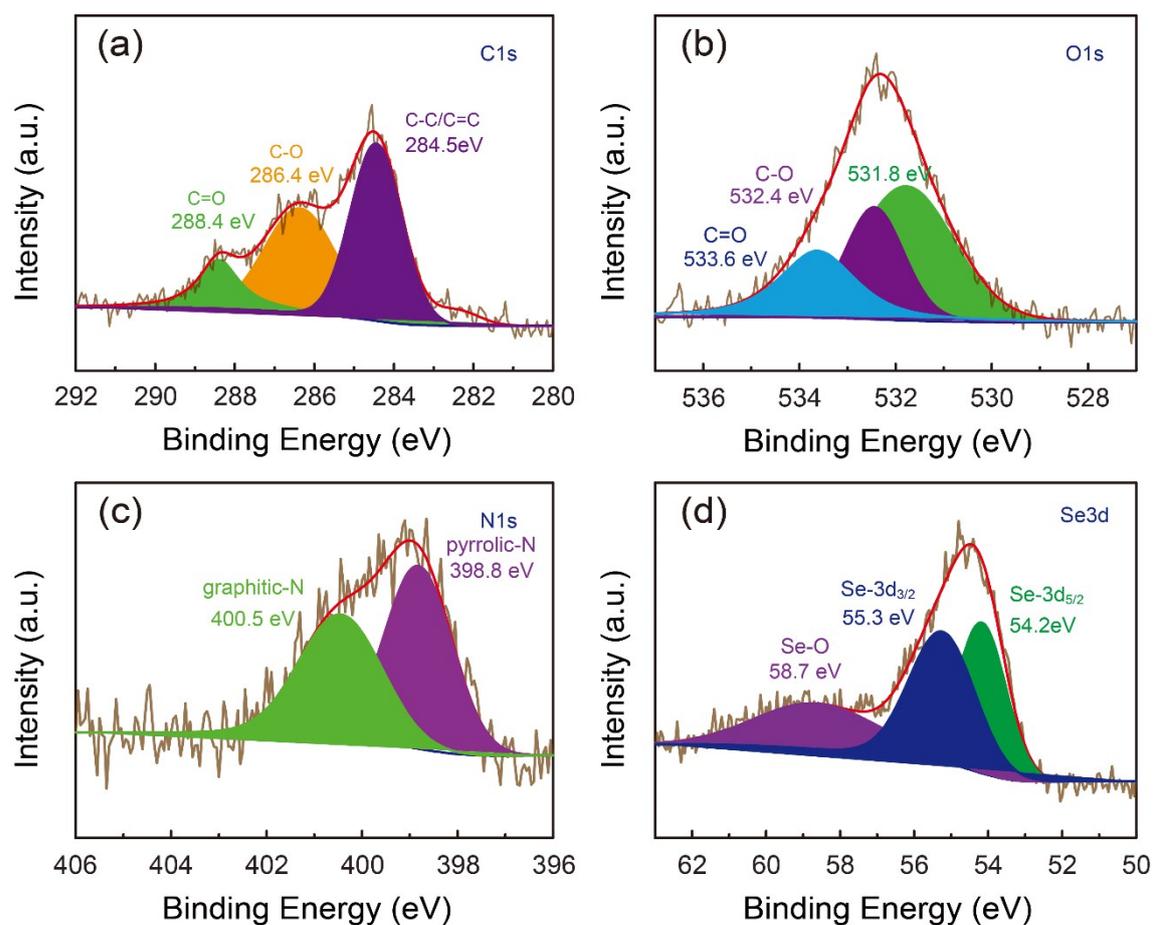


Fig. S6. (a) C1s, (b) O1s (c) N1s and (d) Se3d XPS spectra of the as-prepared $\text{Ni}_{1.5}\text{CoSe}_5@\text{NC}@\text{rGO}$.

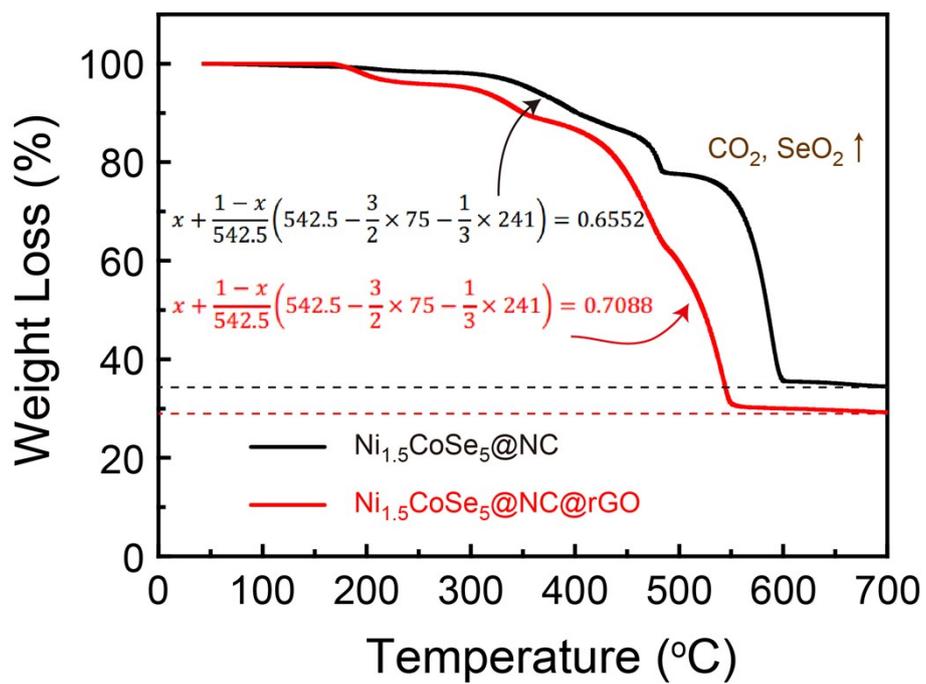


Fig. S7. TGA analysis curves of the prepared Ni_{1.5}CoSe₅@NC@rGO and Ni_{1.5}CoSe₅@NC.

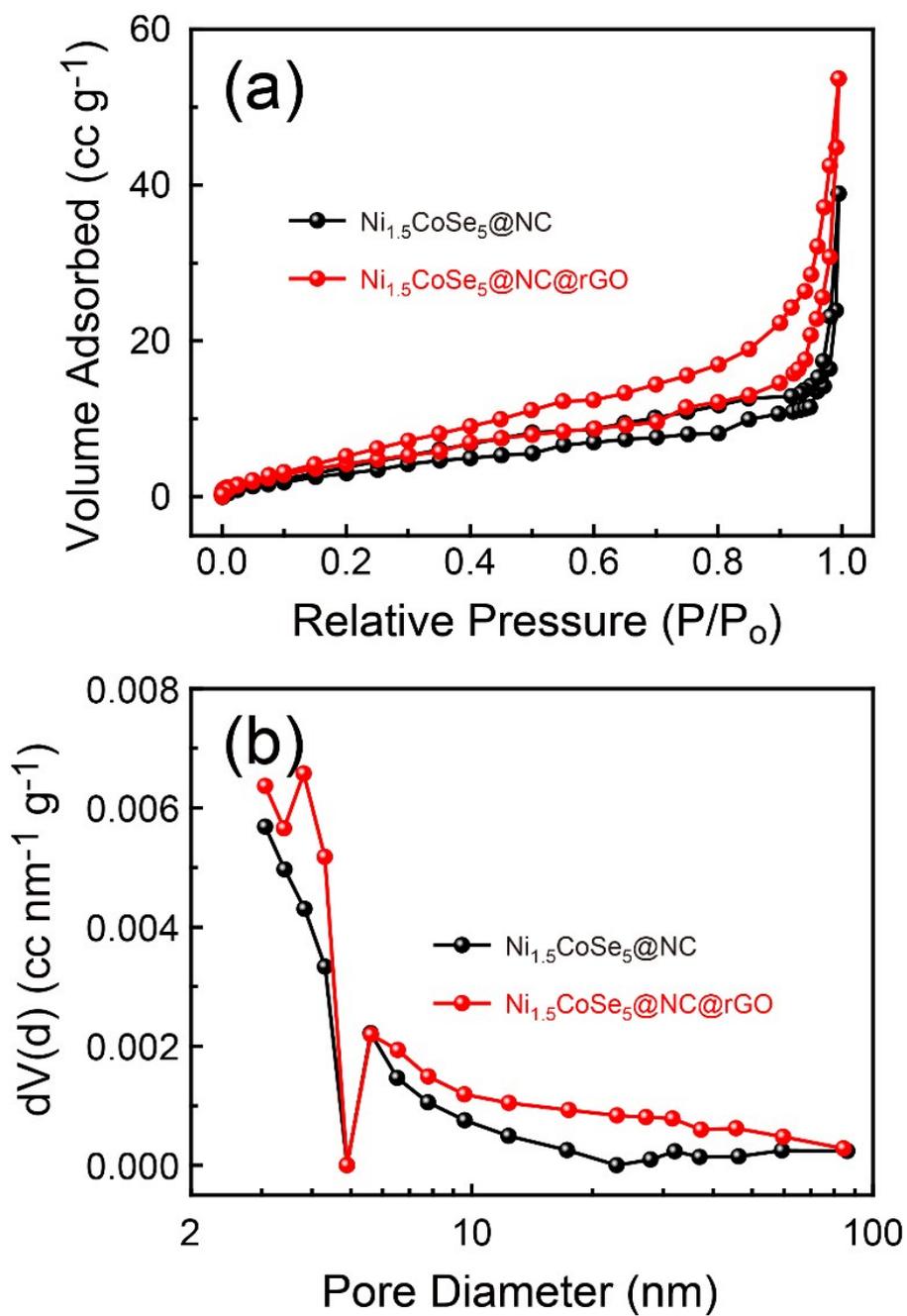


Fig. S8. (a) N_2 adsorption/desorption isotherms, (b) the corresponding BJH pore size distribution of the prepared $\text{Ni}_{1.5}\text{CoSe}_5@NC@rGO$ and $\text{Ni}_{1.5}\text{CoSe}_5@NC$.

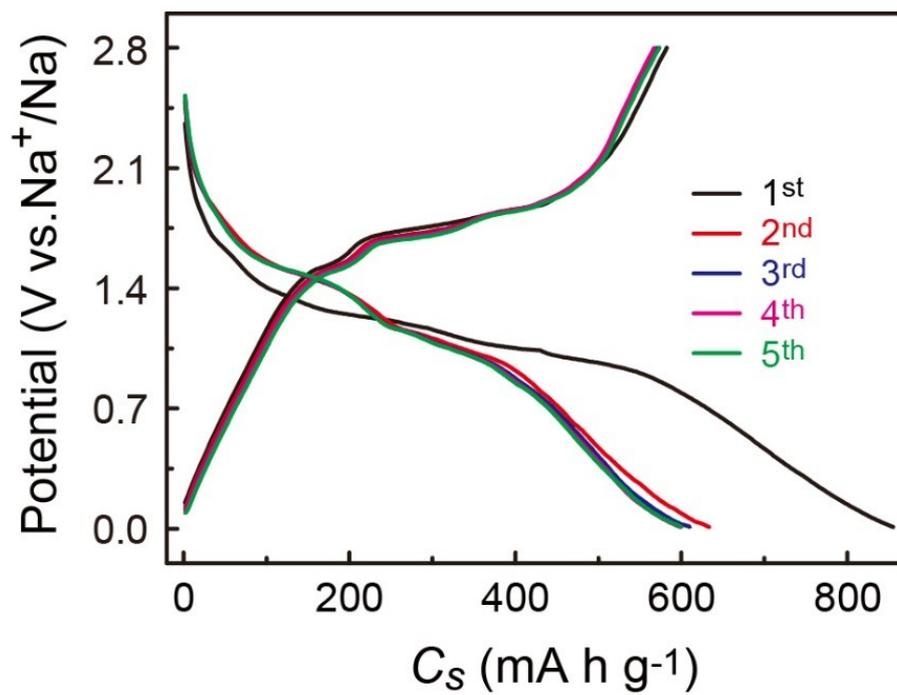


Fig. S9. GCD curves of the Ni_{1.5}CoSe₅@NC@rGO electrode of the initial 5 cycles at 0.05 A g⁻¹.

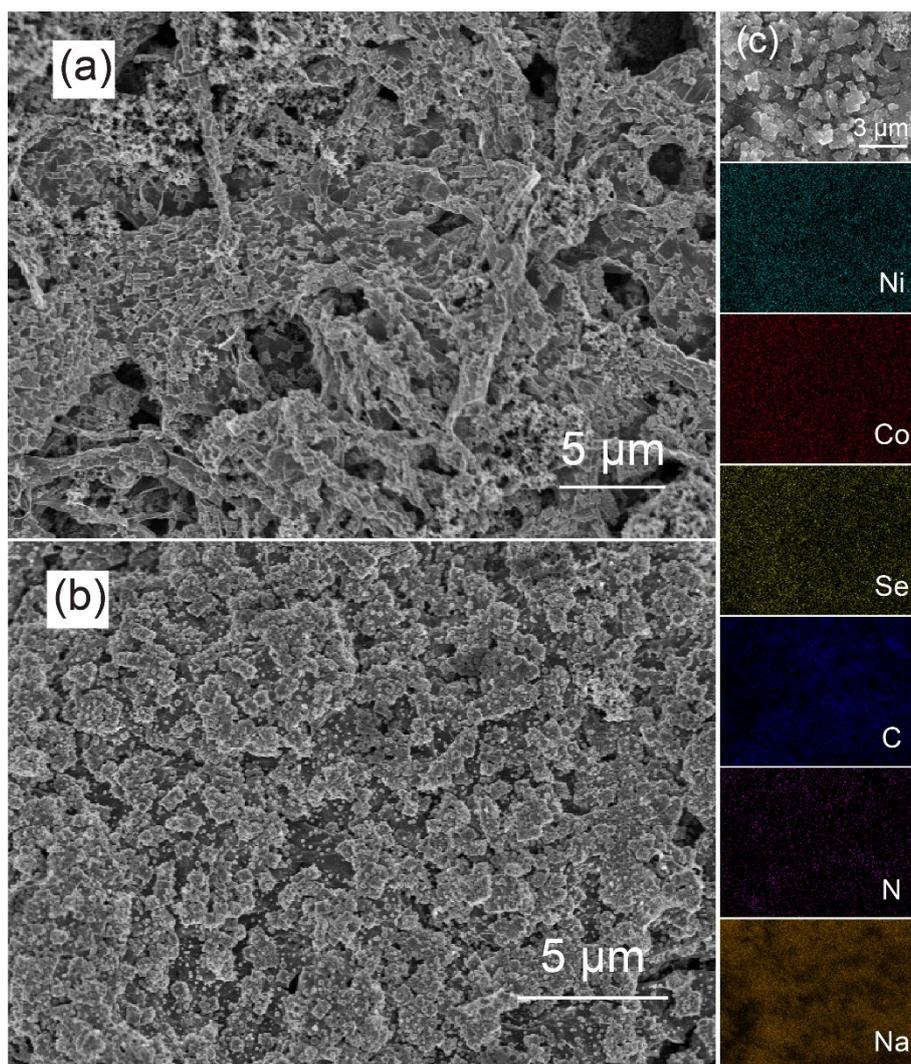


Fig. S10. SEM images of a) the fresh, b) $\text{Ni}_{1.5}\text{CoSe}_5@\text{NC}@\text{rGO}$ electrode after 40 cycles, and c) the corresponding EDS elemental (Ni, Co, Se, C, N, and Na) mappings.

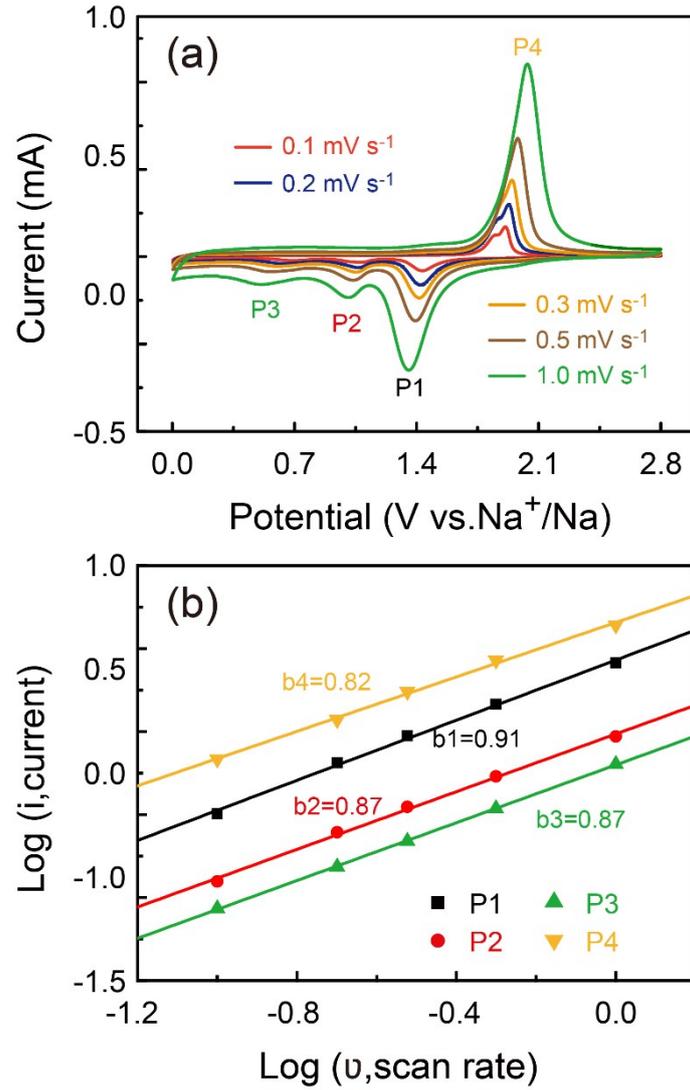


Fig. S11. (a) CV curves at varied scan rates; (b) Linear fittings of $\log i$ and $\log v$ disclosing the relationships between peak currents and scan rates from CV of the $\text{Ni}_{1.5}\text{CoSe}_5@\text{NC}$ electrode.

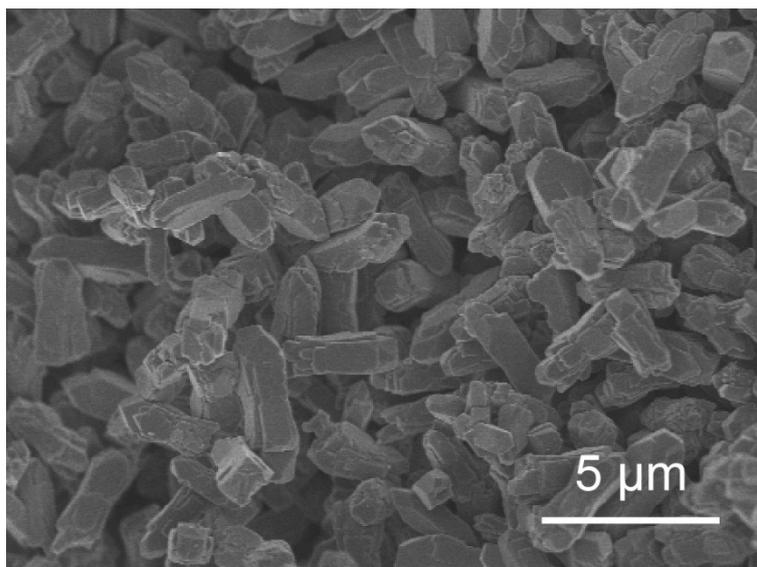


Fig. S12. SEM images of the NVPOF electrode.

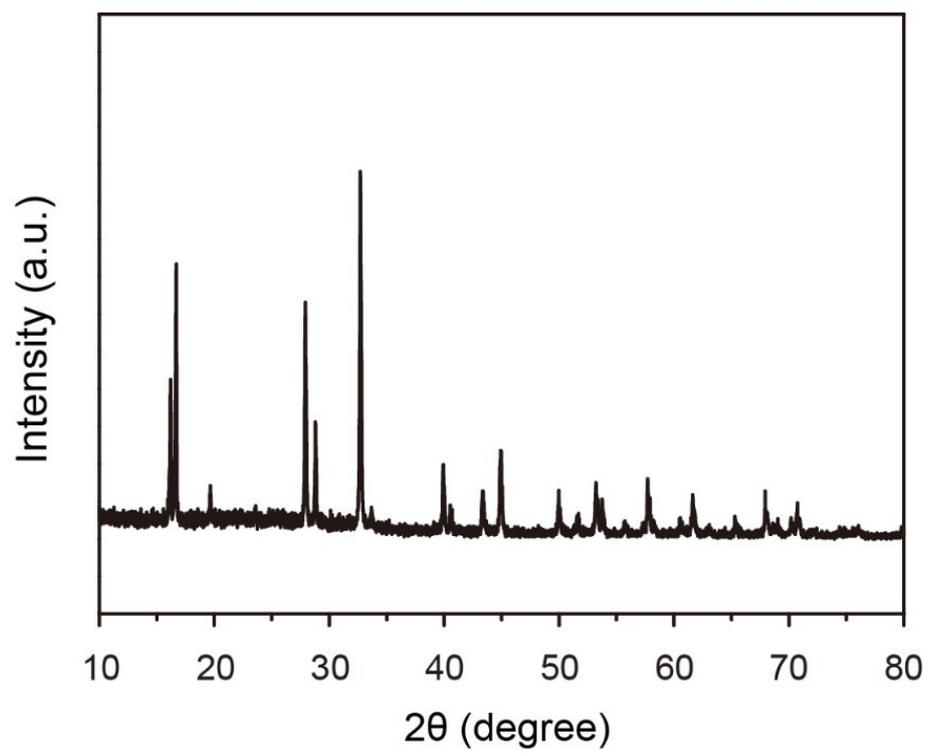


Fig. S13. XRD patterns of the NVPOF.

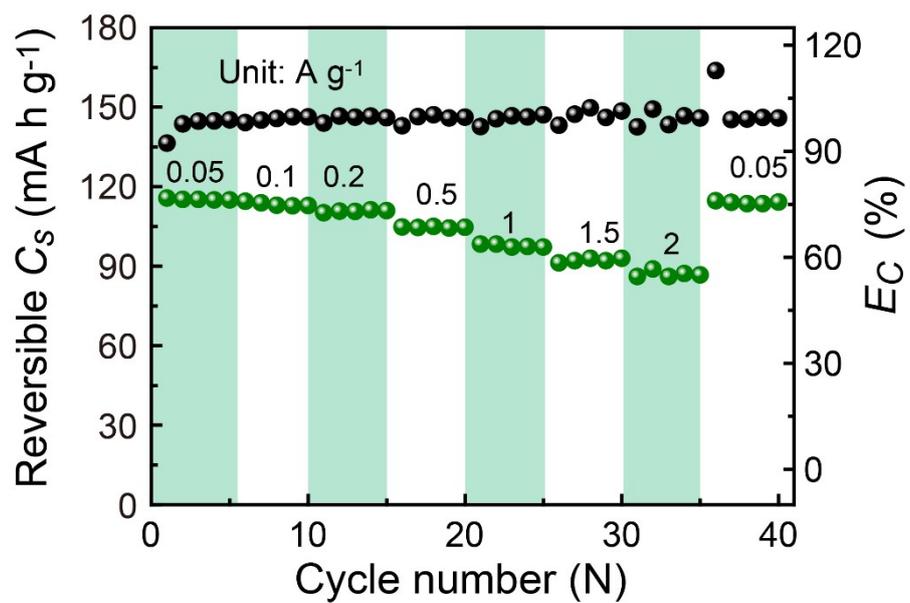


Fig. S14. Rate capability of the NVPOF.

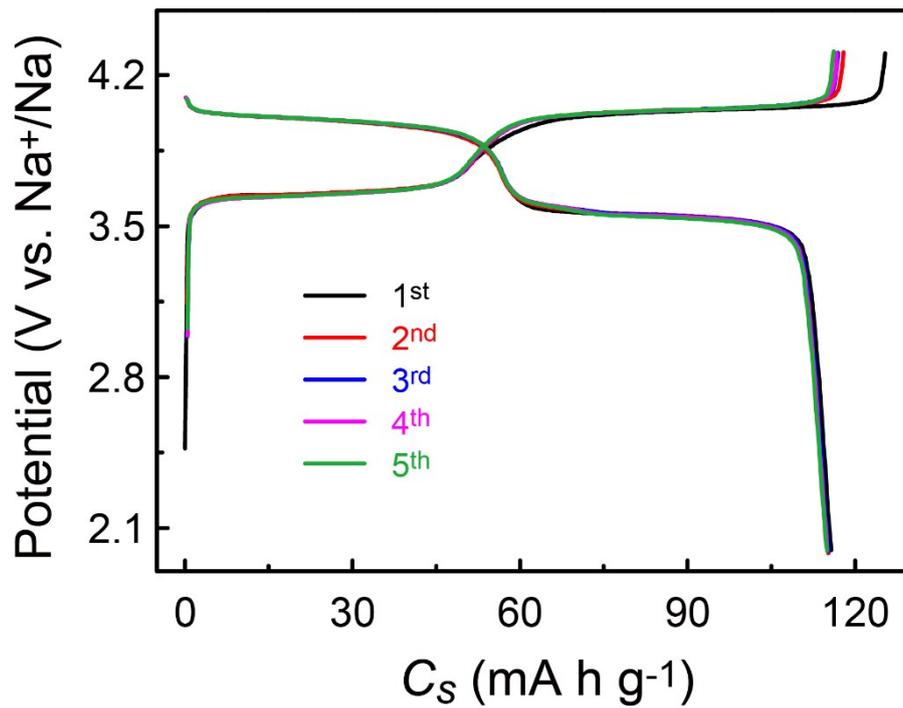


Fig. S15. Galvanostatic curves of the NVPOF at 0.05 A g⁻¹ for the first five cycles.

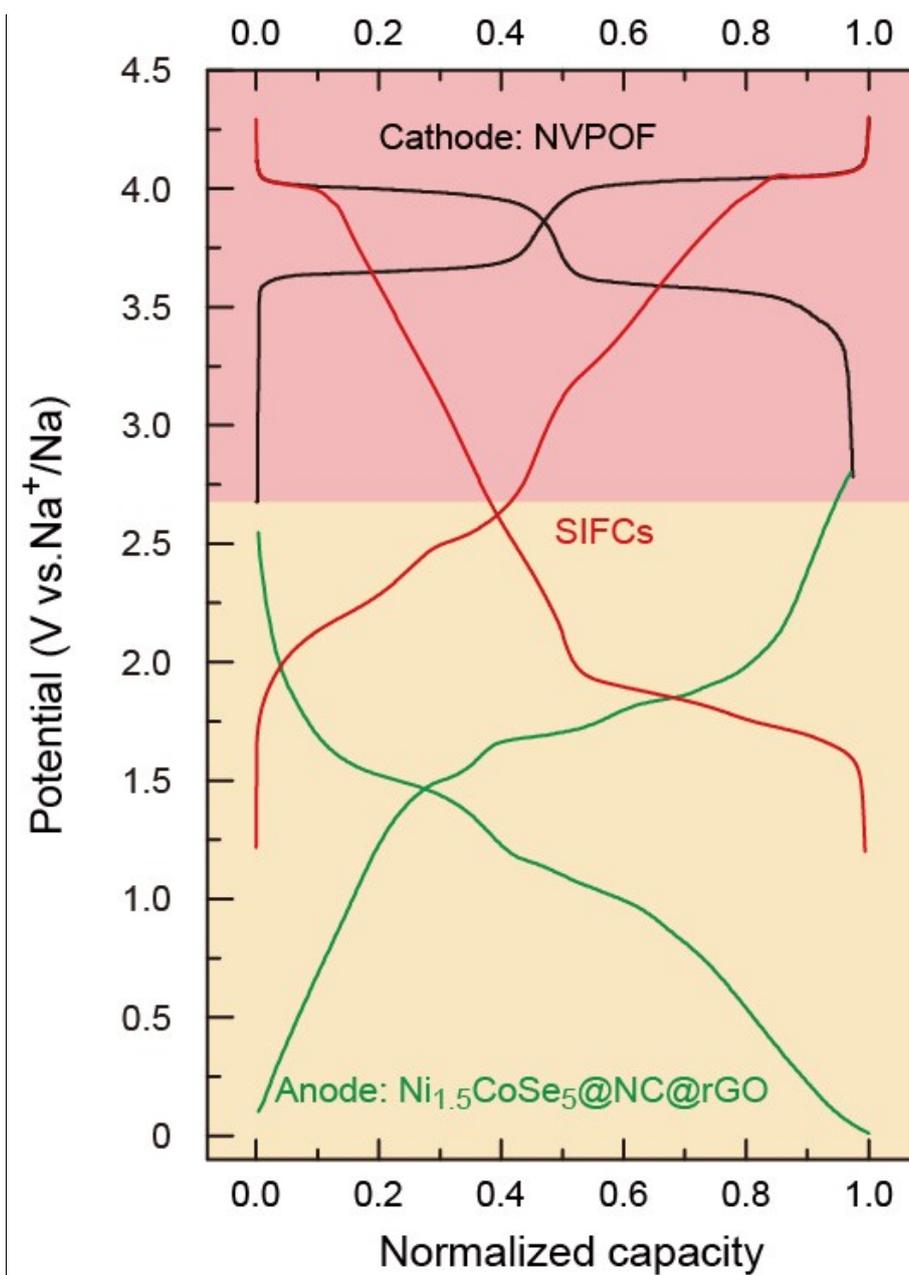


Fig. S16. The GCD curves of the cathode: NVPOF, anode: Ni_{1.5}CoSe₅@NC@rGO and full cell: Ni_{1.5}CoSe₅@NC@rGO//NVPOF.

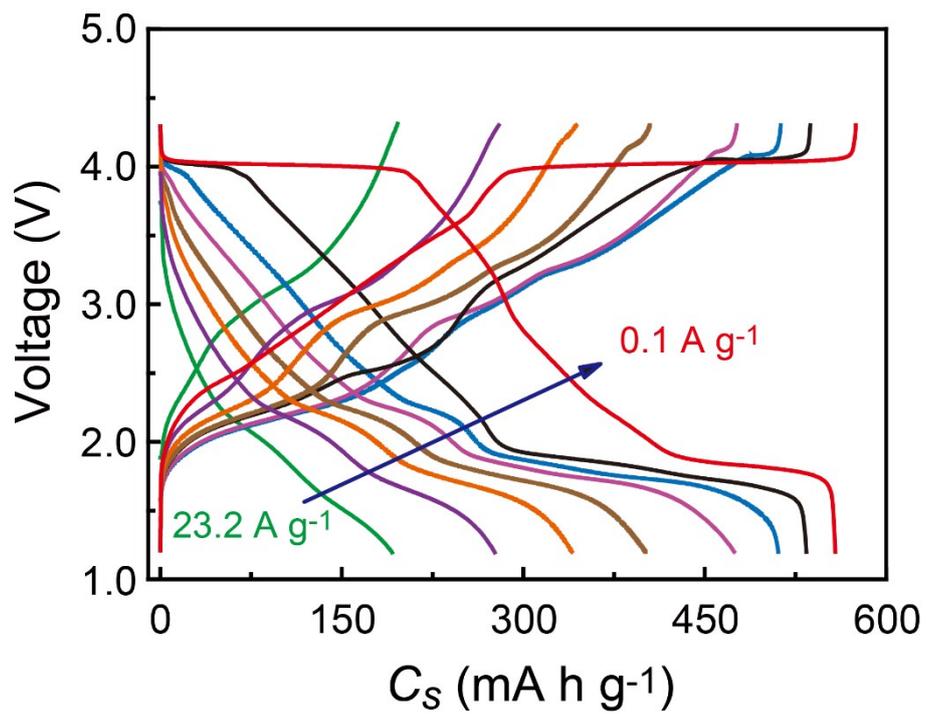


Fig. S17. The rate curves of Ni_{1.5}CoSe₅@NC@rGO//NVPOF full cells.