

Supplementary Information

Synthesis and characterization of metal-organic framework/biomass-derived CoSe/C@C hierarchical structures with excellent sodium storage performance

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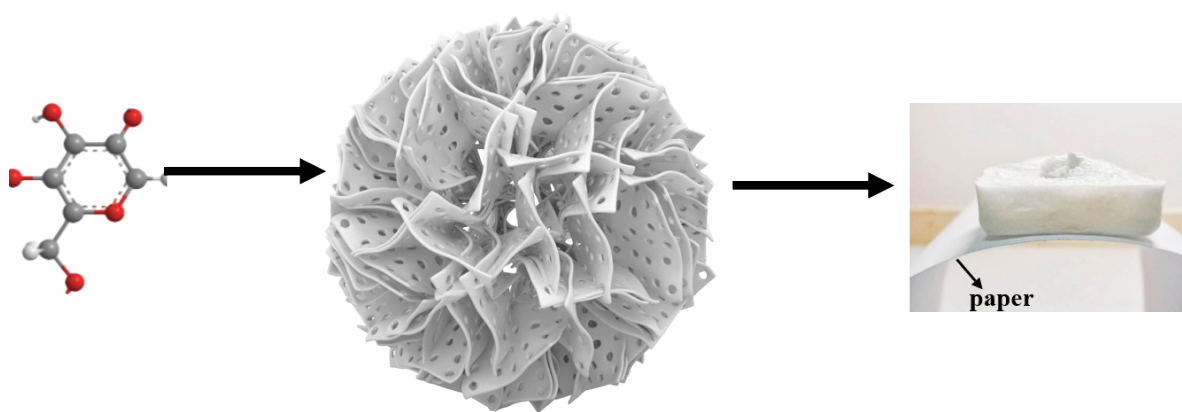


Figure S1. Schematic illustration of CMC fabrication.

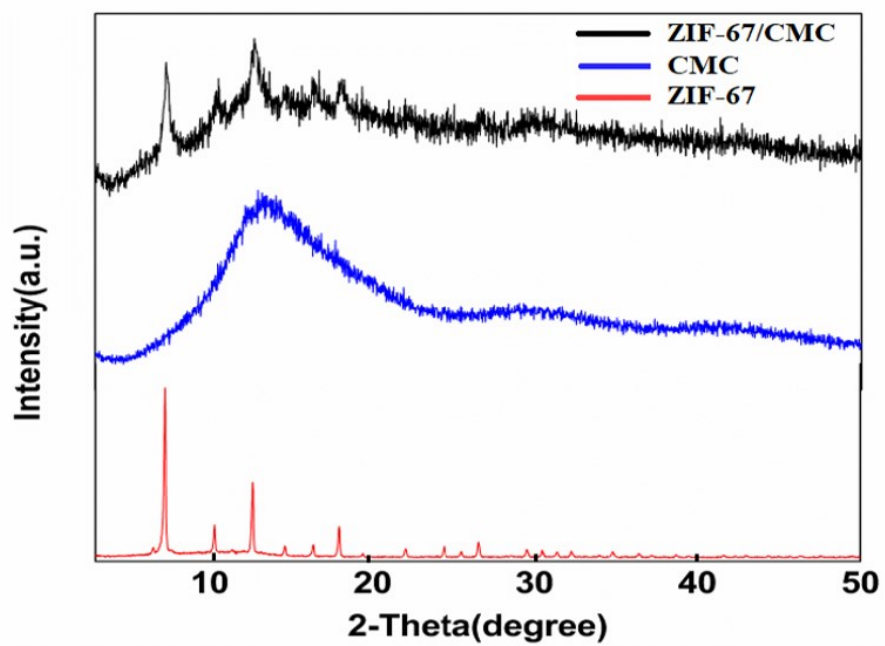


Figure S2. XRD patterns of ZIF-67/CMC, CMC, and ZIF-67.

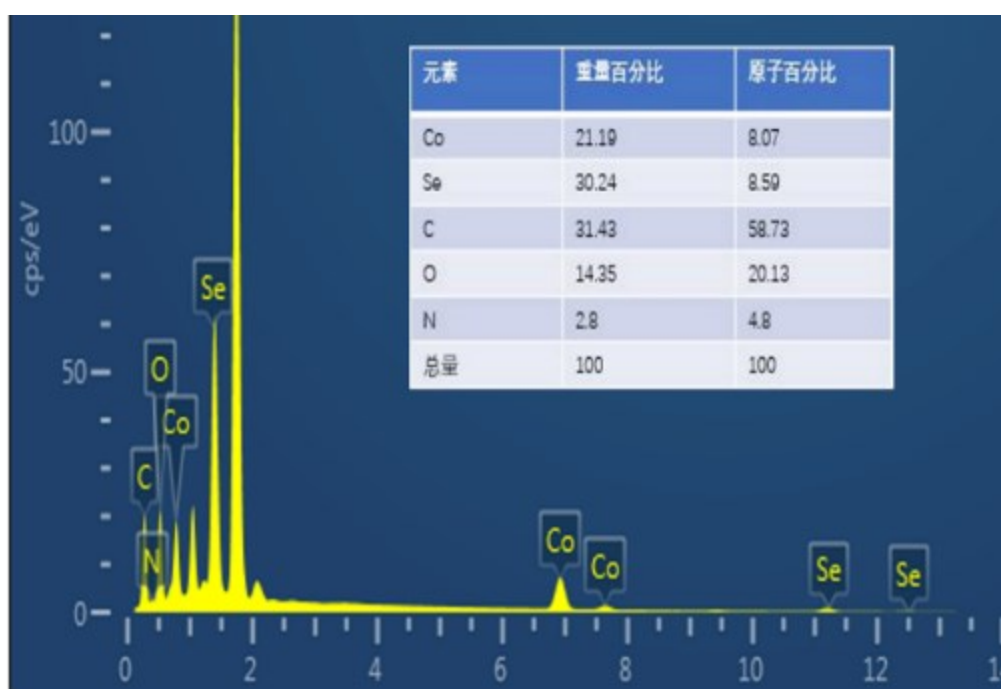


Figure S3. EDS spectrum of CoSe/C@C.

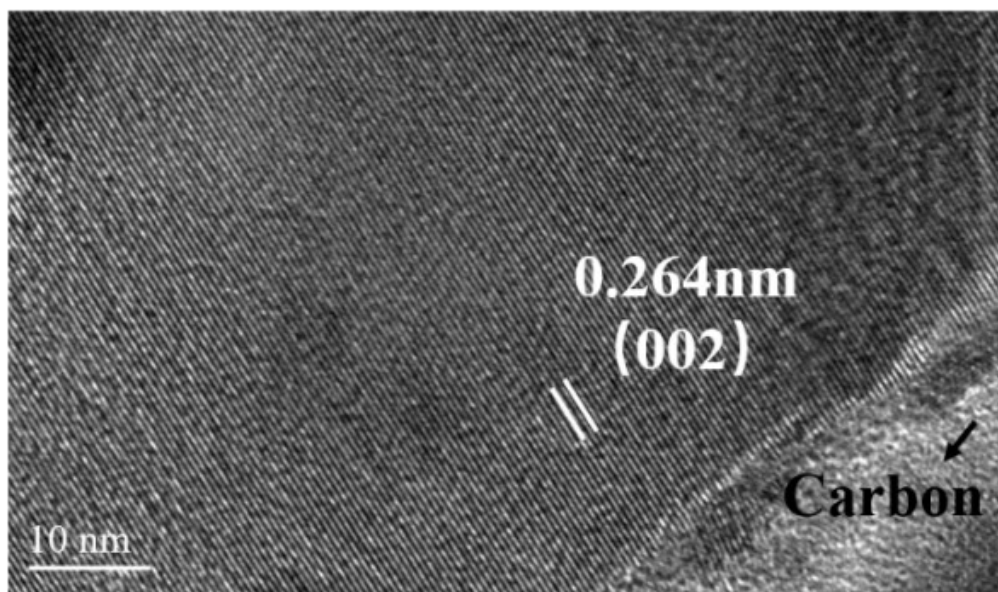


Figure S4. HRTEM images of CoSe/C@C.

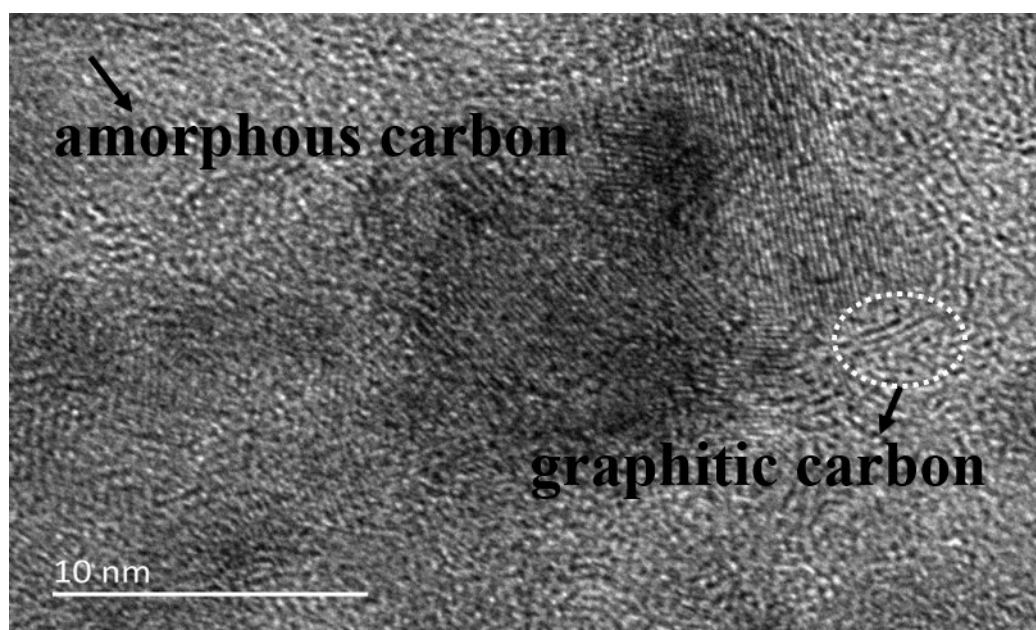


Figure S5. HRTEM images of CoSe/C@C.

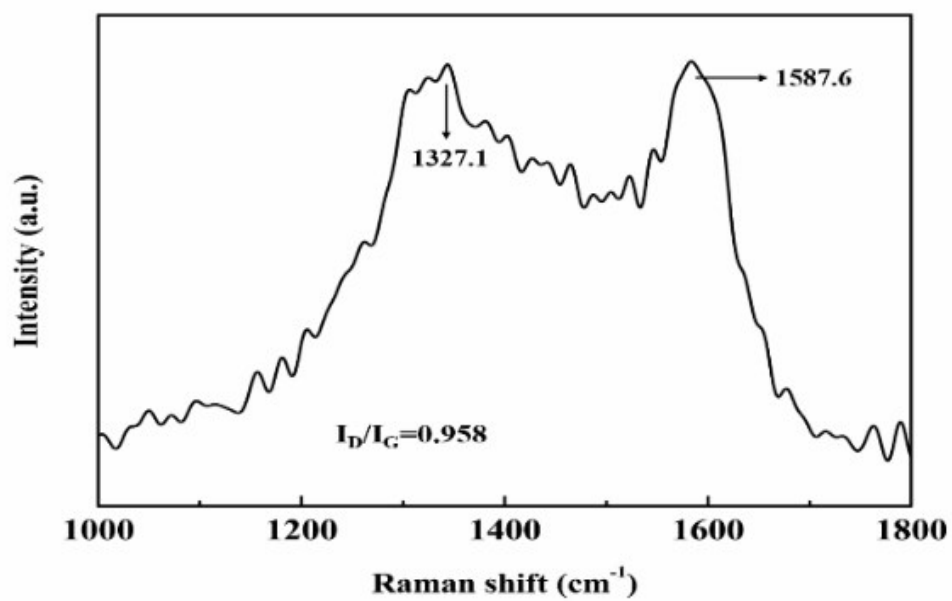


Figure S6. Raman spectra of the CoSe/C.

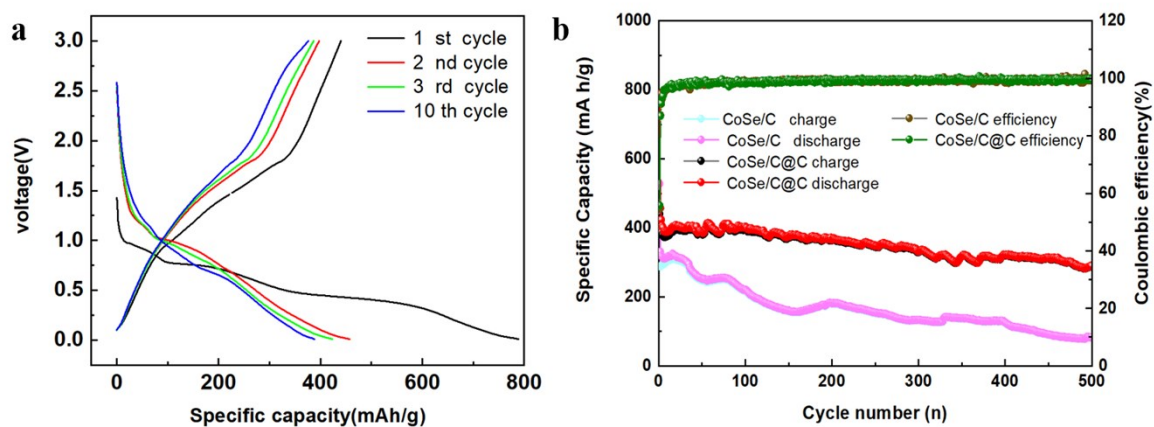


Figure S7. (a) Galvanostatic charge-discharge curves of the CoSe/C@C electrodes at 1 A/g, (b) Cycling performances of CoSe/C@C and CoSe/C electrodes at the current density of 1 A/g.

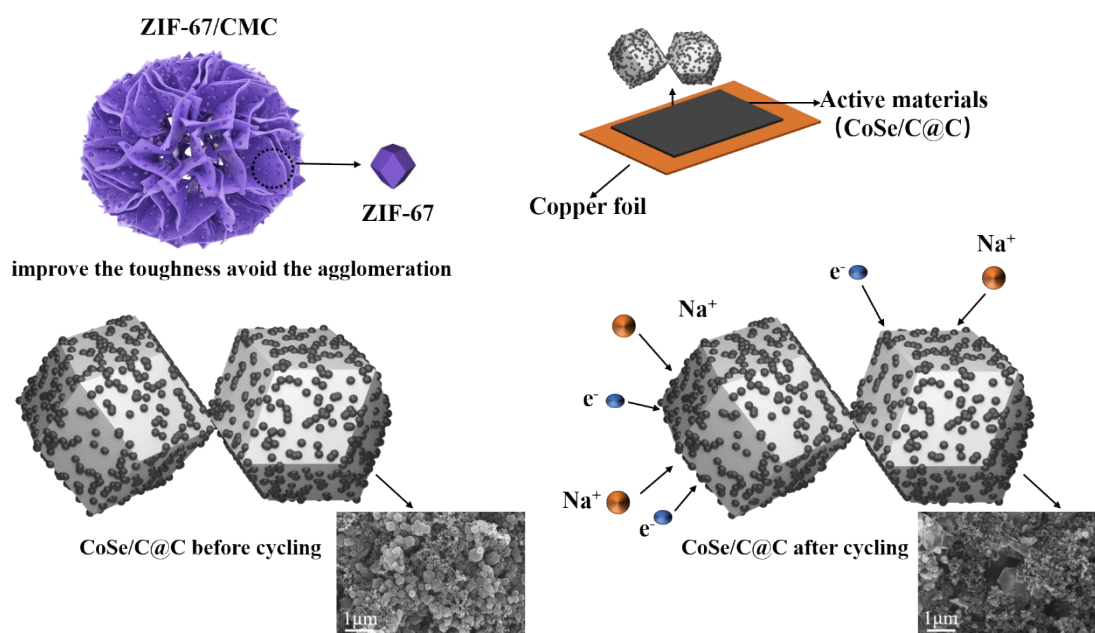


Figure S8. Schematic illustration of fast ionic and electronic transfer enhanced by the hierarchical structure of CoSe/C@C composition.

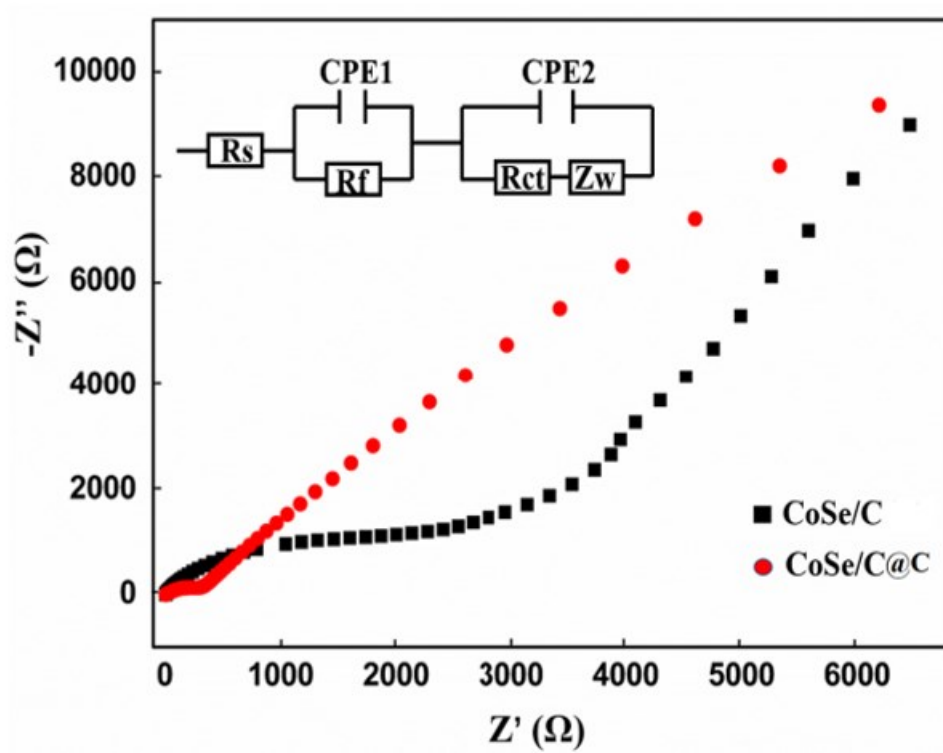


Figure S9. Electrochemical impedance spectra of CoSe/C@C and CoSe/C electrodes after 50 cycles at the open-circuit potential.