## NiCo-compounds inside and outside N-doped carbon nanotubes to construct double-enhanced hierarchical structure for high energy density supercapacitor

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Fig. S1. XRD patterns of BNF



Fig. S2. XRD patterns of NF@NCNTs/NiCo



Fig. S3. a)  $N_2$  adsorption-desorption isotherms and b) pore size distributions of the NCNTs/NiCo-Se



FigS4. Raman spectra of NF@NCNTs/NiCo



Fig. S5. XRD pattern of (a) BNF@NCNTs and (b) BNF@NCNTs/Ni-Se



Fig. S6. XPS spectra of survey scan for NF@NCNTs/NiCo-Se/NiCo-LDH.



Fig. S7 (a, b) CV curves of BNF@NCNTs/Ni-Se and NF@NCNTs/NiCo-Se, respectively. (c, d) GCD curves of BNF@NCNTs/Ni-Se and NF@NCNTs/NiCo-Se at different current densities, respectively. (e) Specific capacity decay curve.