

## Supporting Information

### **Ni<sub>0.33</sub>Co<sub>0.66</sub>(OH)F Hollow Hexagons Woven by MWCNTs for High-Performance Lithium-Ion Batteries**

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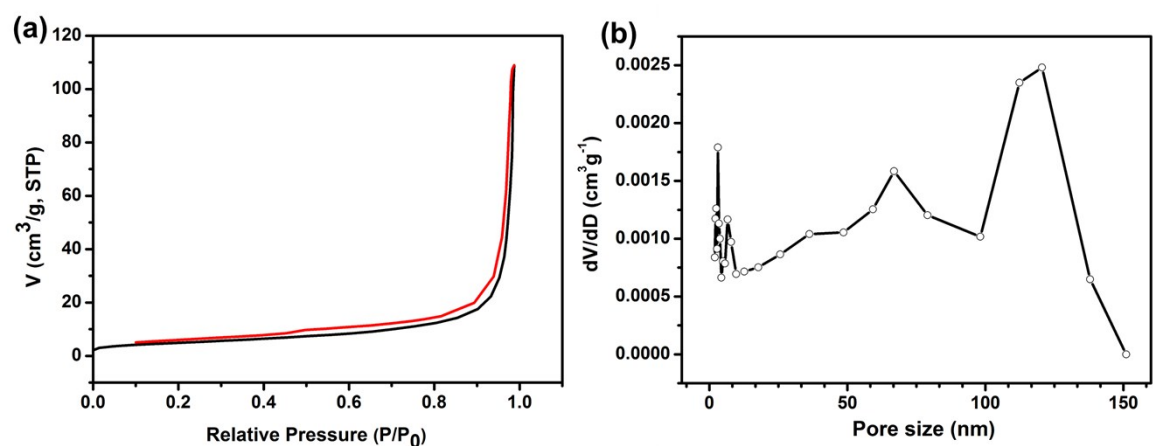


Figure S1 (a)  $N_2$  adsorption–desorption isotherms and (b) the corresponding pore size distribution.

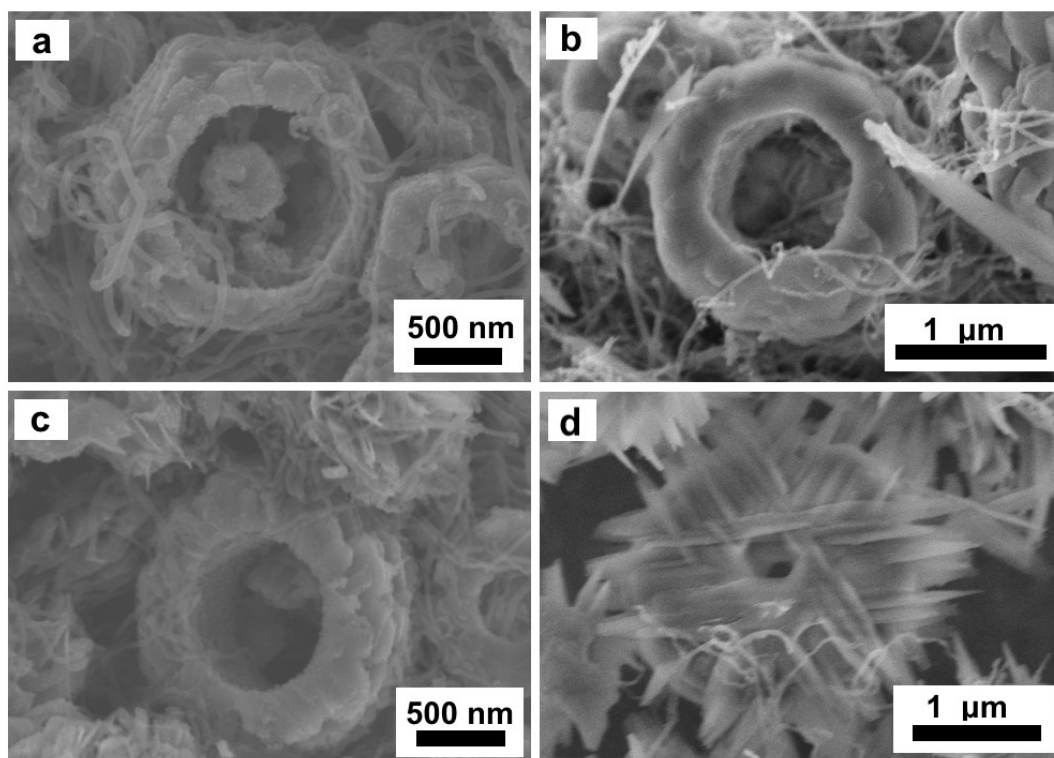


Figure S2 SEM images of the  $\text{Ni}_x\text{Co}_{1-x}(\text{OH})\text{F}/\text{CNTs}$  obtained at different concentration of  $\text{NH}_4\text{F}$ . (a) 0.09 M, (b) 0.27 M. (c) 0.36 M, (d) 0.45 M.

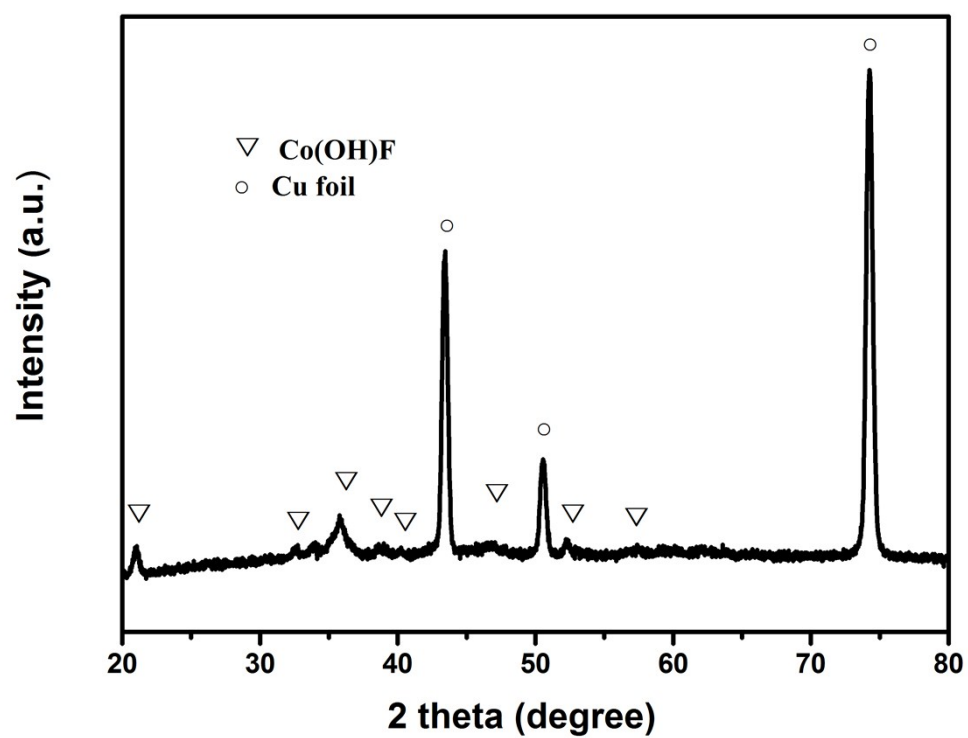


Figure S3 XRD pattern of the hollow hexagons  $\text{Ni}_x\text{Co}_{1-x}(\text{OH})\text{F}/\text{CNTs}$  after one time tested as material for LIBs.

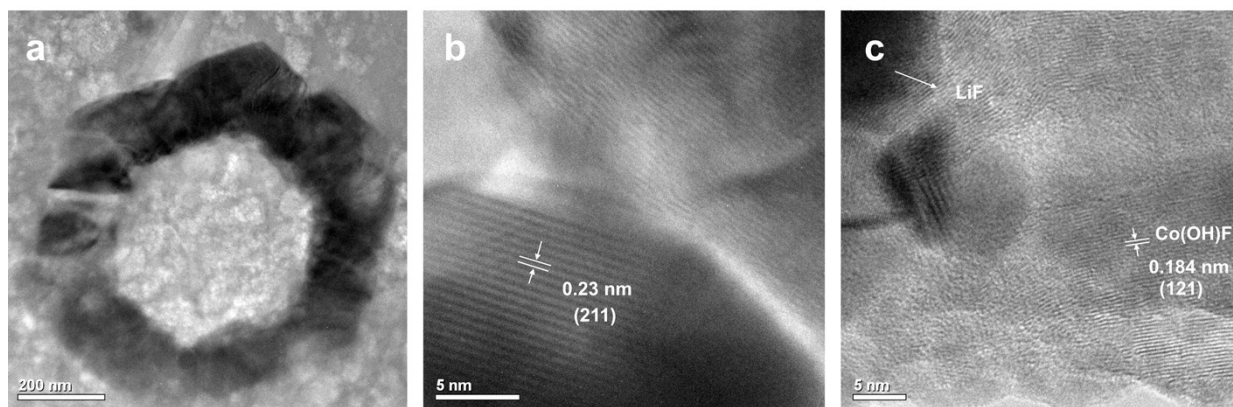


Figure S4 TEM images of hollow hexagons  $\text{Ni}_x\text{Co}_{1-x}(\text{OH})\text{F}/\text{CNTs}$  after the first discharged (lithiated) state.

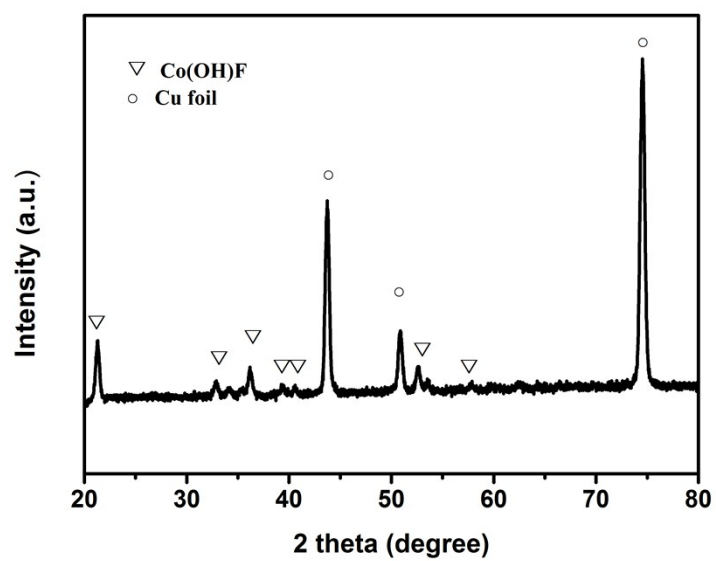


Figure S5 XRD pattern of the hollow hexagons  $\text{Ni}_x\text{Co}_{1-x}(\text{OH})\text{F}/\text{CNTs}$  after tested for 100 cycles.

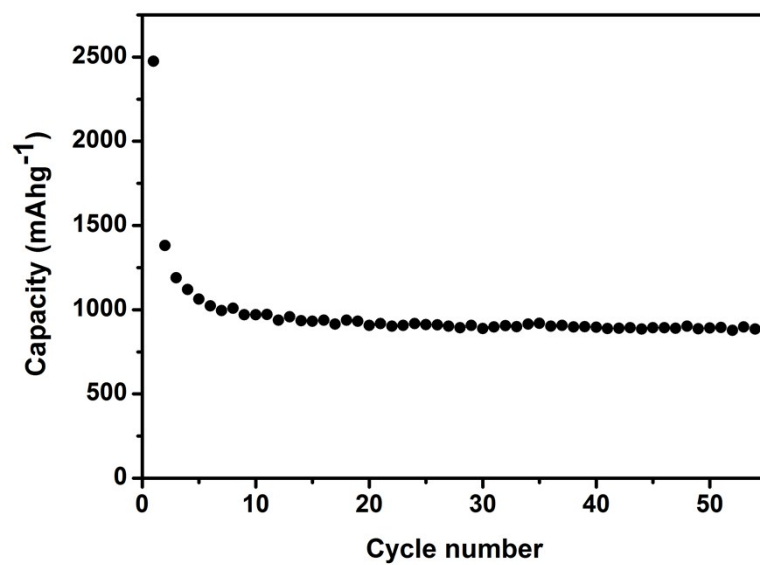


Figure S6 Cycling performance of  $\text{Ni}_{0.33}\text{Co}_{0.66}(\text{OH})\text{F}/\text{CNTs}$  at a current density of  $200 \text{ mA g}^{-1}$ .