

## Electronic Supplementary Information (ESI)

### **Hierarchical NiFe<sub>2</sub>O<sub>4</sub>/Fe<sub>2</sub>O<sub>3</sub> nanotubes derived from metal organic frameworks for superior lithium ion battery anode**

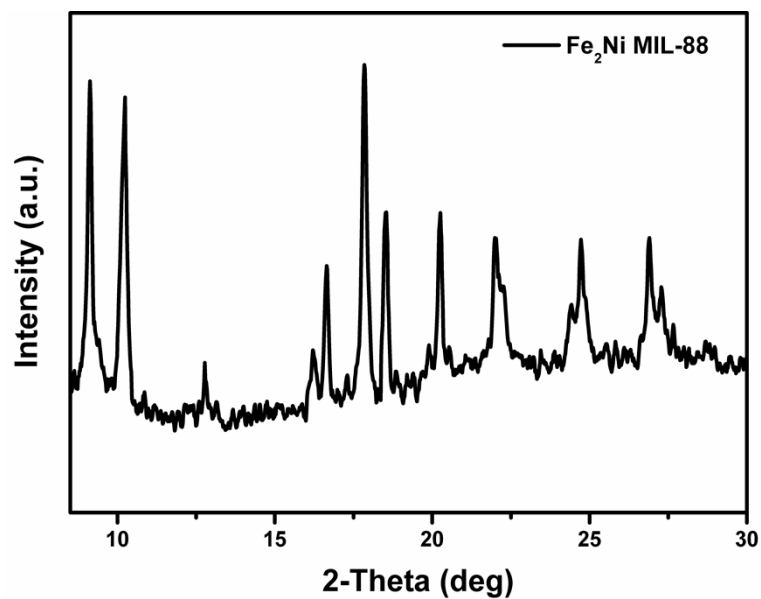
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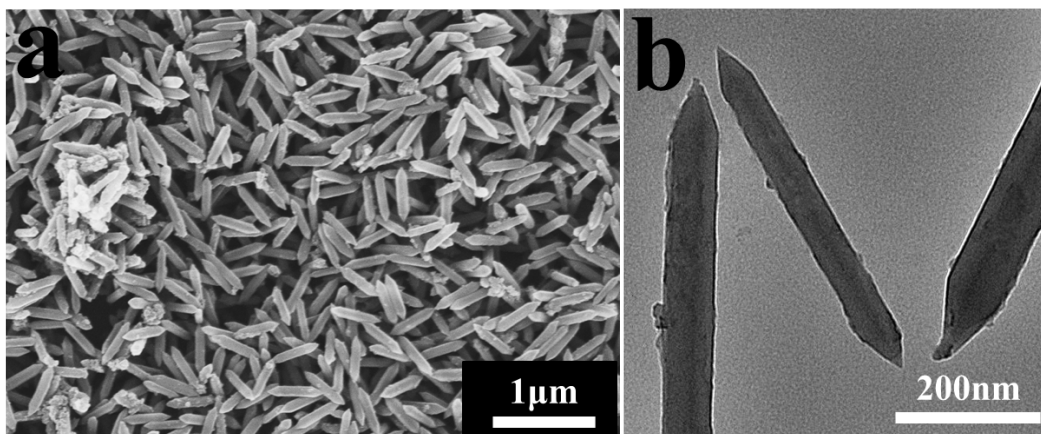
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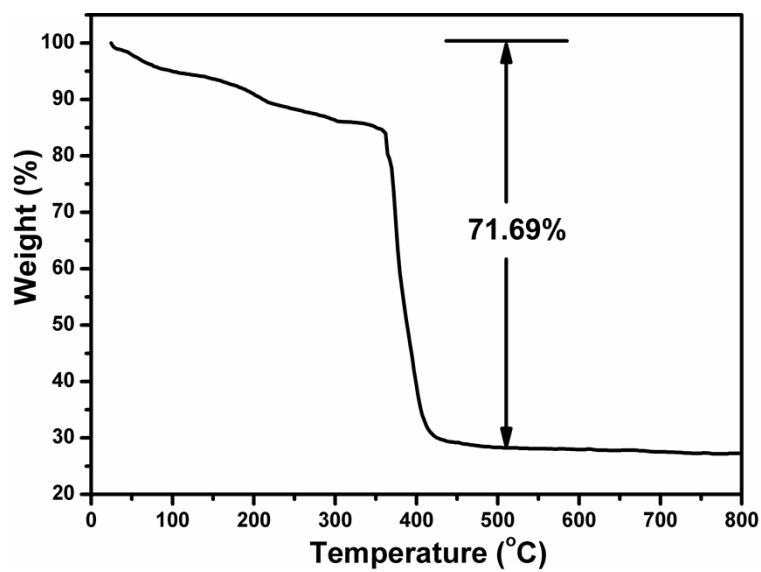
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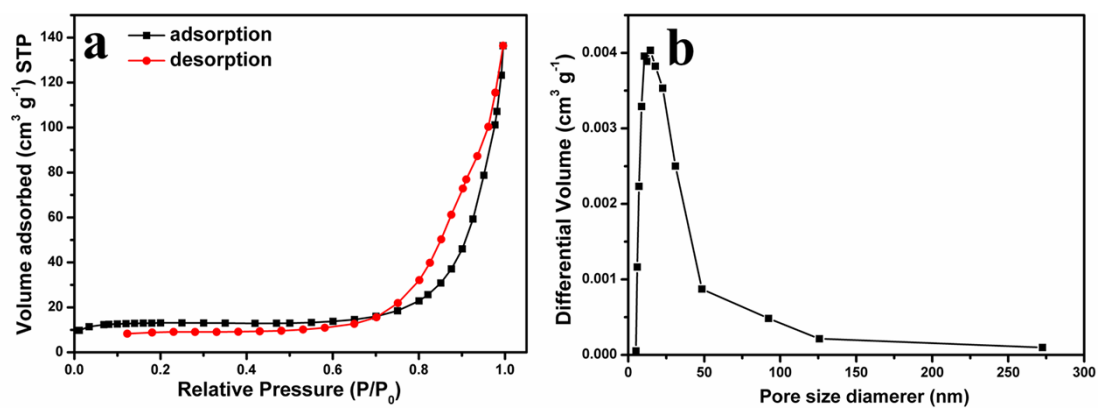
**Fig. S1** XRD patterns of the as-prepared Fe<sub>2</sub>Ni MIL-88 nanorods.



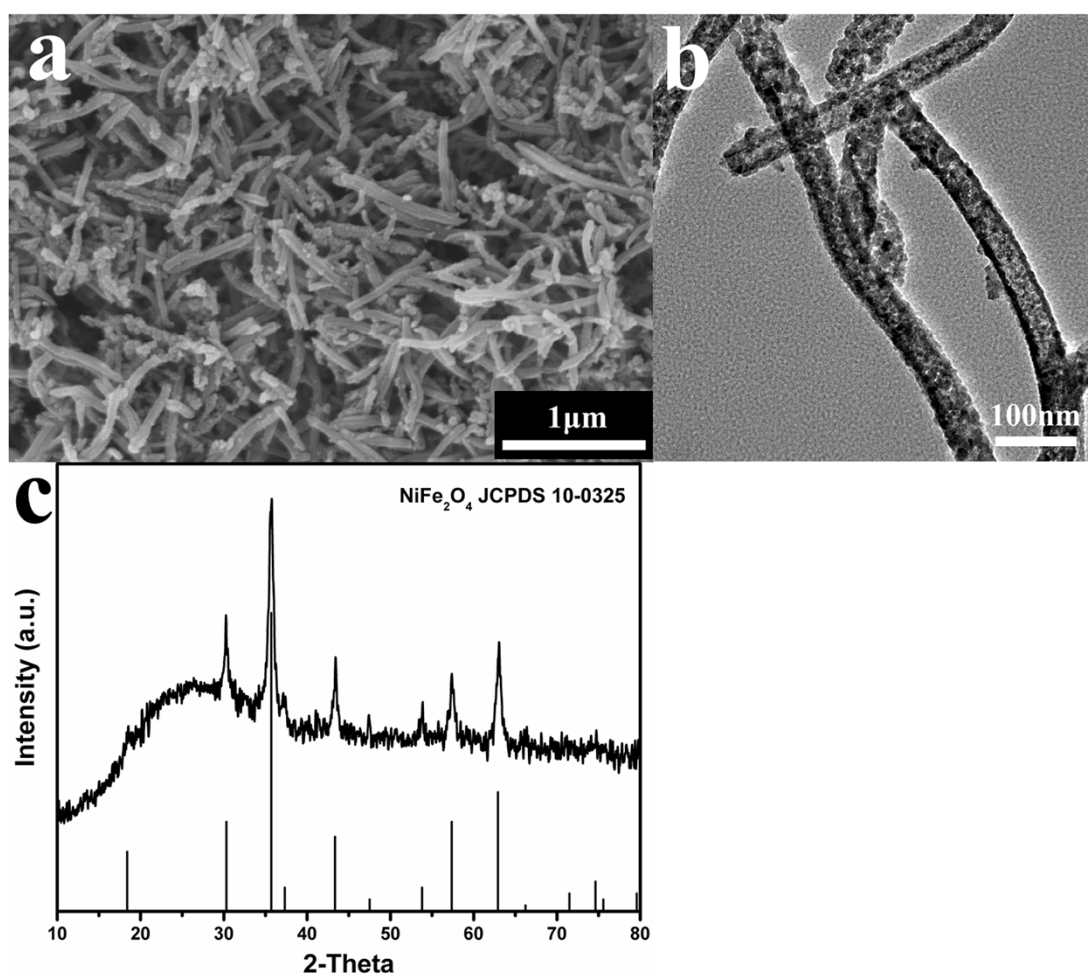
**Fig. S2** (a) SEM (b) TEM images of the as-prepared Fe<sub>2</sub>Ni MIL-88 nanorods.



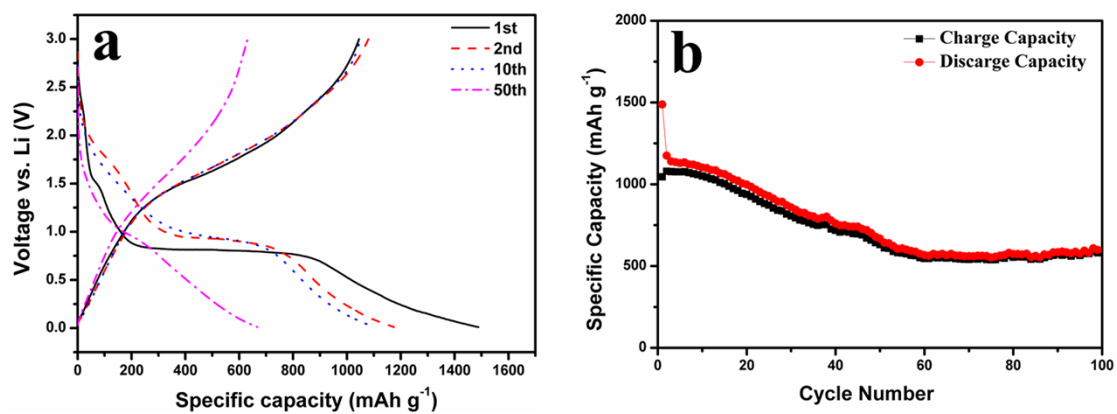
**Fig. S3** TG curve of the as-prepared core/shell Fe<sub>2</sub>Ni MIL-88/Fe MIL-88 nanorods.



**Fig. S4** (a)  $N_2$  adsorption-desorption isotherms and (b) pore size distribution of  $NiFe_2O_4/Fe_2O_3$  nanotubes.



**Fig. S5** (a) SEM (b) TEM and (c) XRD of the as-prepared  $NiFe_2O_4$  nanotubes.



**Fig. S6** (a) Charge–discharge voltage profiles of the  $\text{NiFe}_2\text{O}_4$  for the 1<sup>st</sup>, 2<sup>nd</sup>, 10<sup>th</sup> and 100<sup>th</sup> cycles in the voltage range of 0.01–3.0 V at a current rate of 100  $\text{mA g}^{-1}$  (b) Capacity vs. cycle number of the  $\text{NiFe}_2\text{O}_4$  at a current rate of 100  $\text{mA g}^{-1}$ .