MOF-derived hollow NiCo$_2$O$_4$ nanowires as stable Li-ion battery anodes

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Figure S1. SEM mapping images of Ni-Co-NTA.

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**Figure S2.** SEM images of (a) Co-NTA, (b) Ni-NTA, (c) Co$_3$O$_4$ and (d) NiO, TEM images of (e) Co$_3$O$_4$ and (f) NiO.

**Figure S3.** EDS spectrum of NiCo$_2$O$_4$ nanowires.

X-ray spectroscopy (EDS) indicates the existence of Ni, Co, and O without any other impurity elements. And the content of Ni, Co and O is 22.3 %, 44.4 % and 33.3 %, respectively.
**Figure S4.** Nitrogen adsorption-desorption isotherm and the corresponding pore size distribution (inset) of NiCo$_2$O$_4$ nanowires.

**Figure S5.** SEM images of NiCo$_2$O$_4$-600.
Figure S6. SEM images of NiCo$_2$O$_4$-600.

Figure S7. The cycling performance of NiCo$_2$O$_4$-600 at a current density of 100 mA g$^{-1}$.
Figure S8. TEM image of the electrode material after 100 cycles at 100 mA g\(^{-1}\).

Figure S9. Impedance spectra of NiCo\(_2\)O\(_4\), Co\(_3\)O\(_4\) and NiO electrode after 100 cycles at 100 mA g\(^{-1}\) in fully charged state in frequency range from 100 kHz to 0.01 Hz.