Supporting information

Unique Synthesis of Mesoporous Peapod-like NiCo$_2$O$_4$-C Nanorods Array as Enhanced Anode for Lithium Ion Batteries

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Fig. S1 XRD pattern of the Ni-Co precursors, where the Co$_2$(CO$_3$)(OH)$_2$·0.11H$_2$O and Ni$_2$(CO$_3$)(OH)$_2$·4H$_2$O are shown. The samples are scraped off by a thin knife from the substrate to better reflect the XRD peaks of the Ni-Co precursors.
Fig. S2 XPS analysis of the peapod-like NCO-C nanorods array: (a) O 1s (b) Ni 2p (c) Co 2p and (d) C 1s.
Fig. S3 EDS spectrum of the peapod-like NCO-C nanorods array scraped from the Ni-foam, the peak of Si come from the Si wafer.
Fig. S4 Elemental mapping of the peapod-like NCO-C nanorods array: (a) is the typical TEM image of the array. (b)-(e) are the corresponding elemental distribution images.
Fig. S5 Raman spectra of the peapod-like NCO-C nanorods array.
Fig. S6 The cycle performance of the NCO-C composite, which is scripted off from the Ni-sheet.