Supplementary Materials: Ternary CNTs@TiO$_2$/CoO Nanotube Composites: Improved Anode Materials for High Performance Lithium Ion Batteries

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**Figure S1.** STEM image of individual nanotubes (a) and the STEM-EDXS analysis confirming that the tubes are composed of Ti and Co oxides (b,c).

**Figure S2.** SEM images showing pure TiO$_2$ nanotubes prepared at 60 V on the Ti substrate (a) and surface overview after CNT covering at different magnifications (b-d).
Figure S3. Cyclic voltammograms of pure TiO₂ nanotubes (a) and CNTs@TiO₂ NTs (b), measured at scan rates of 0.1 mV·s⁻¹.

Figure S4. Galvanostatic cycling of CNTs foam at a current rate of 446 mA·g⁻¹ between 0.1 and 3 V.

The mass of CNTs foam electrode was 2.730 mg, mass of TiO/CoO NT + mass of CNTs is termed as CNTs@TiO₂/CoO NT. The current density of the CNTs foam was calculated based on the average mass of CNTs@TiO₂/CoO NT (1.12 mg) that was tested at 500 µA. Therefore, the current needed for 2.730 mg CNTs is 1.218 mA, which corresponds to 446 mA·g⁻¹.