Electronic supplementary information

Reduced graphene oxide networks as an effective buffer matrix to improve the electrode performance of porous $NiCo_2O_4$ nanoplates for lithium-ion batteries

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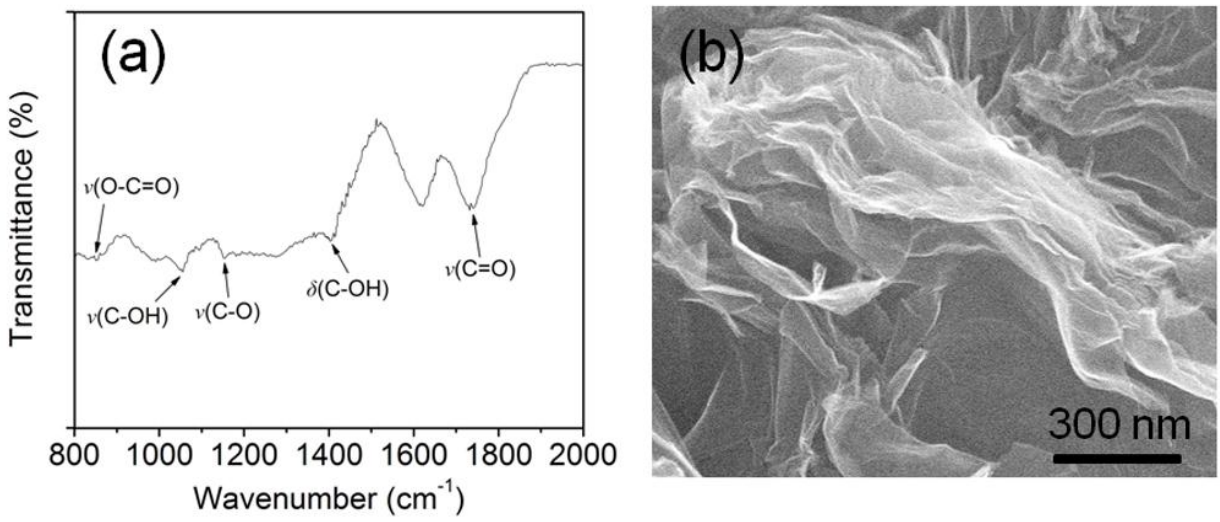

Figure S1. (a) FT-IR spectra and (b) SEM image of graphene oxide.

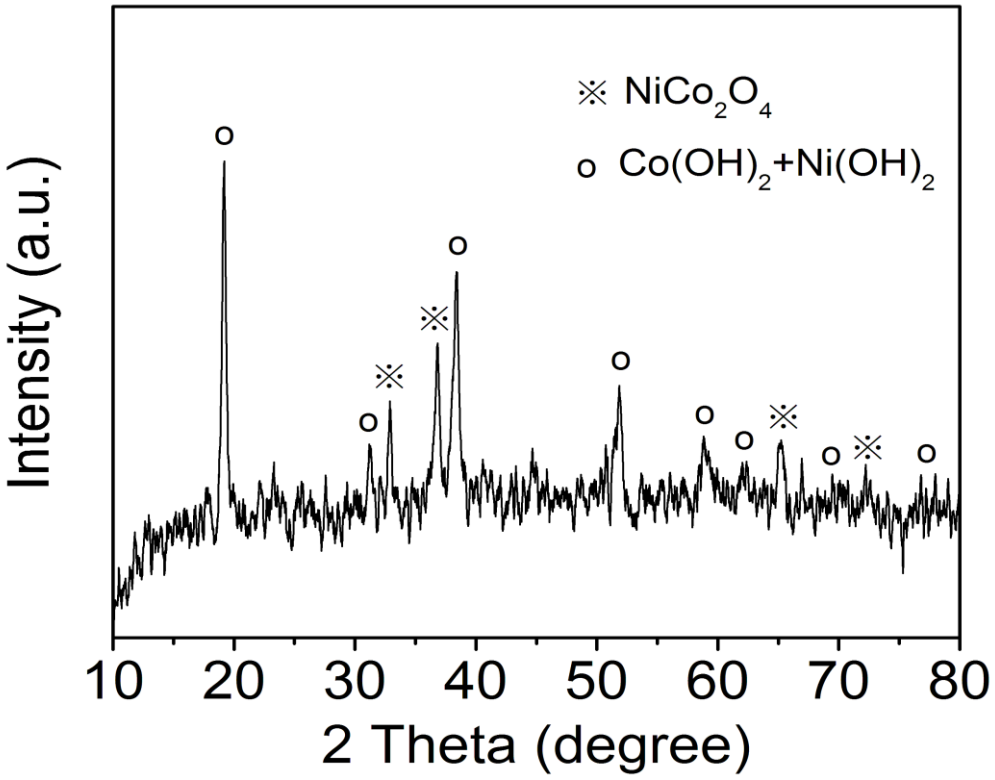

Figure S2. XRD profile of the Ni-Co hydroxide-RGO precursor.

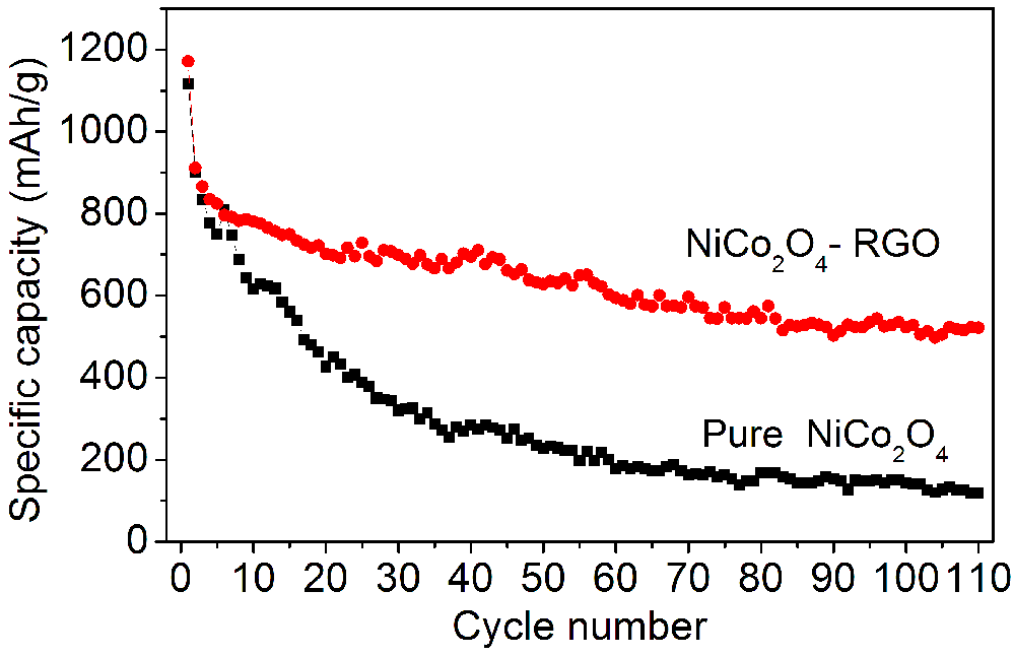

Figure S3. The cycling performances of the $NiCo_2O_4$/rGO nanocomposite and pure $NiCo_2O_4$ in the voltage window of 0.01-3.00 V at a rate of 200 mA g^{-1} for 110 cycles.

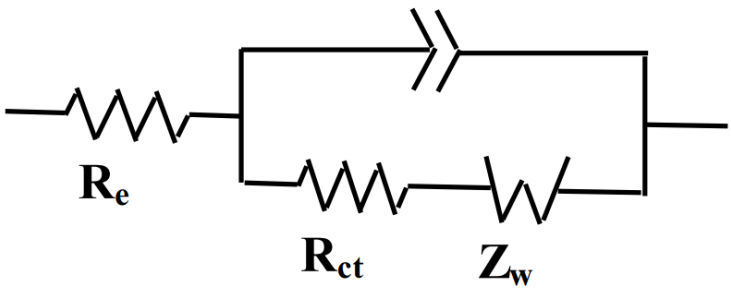

Figure S4. Equivalent electrical circuit used to fit the EIS data. Re is the electrolyte resistance, Rct is the charge-transfer resistance, Zw is the Warburg impedance related to the diffusion of Li ions into the bulk electrodes. The better wetting of the active material and refrained fragment supporting are responsible for the low Rct value for $NiCo_2O_4$/RGO.