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Supplementary Information

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Experimental Section

Stoichiometric amounts of $NaNO_3$, $Ni(NO_3)_2 \cdot 6H_2O$, $Fe(NO_3)_3 \cdot 9H_2O$, $Mn(CH_3COO)_2 \cdot 4H_2O$ and tetrabutyl titanate were dissolved in deionized water to obtain aqueous solutions (0.2 M), into which HNO_3 (2 vol%) was added to avoid hydrolyzation. Then acrylic acid (AA) was added into the solutions with AA/H_2O (1:2, v/v) as mixed solvents. The solutions were heated at 150°C for 10 h to complete the thermopolymerization reactions. The products were first preheated at 500°C for 10 h to get rid of poly(acrylic acid), and a subsequent heat treatment was carried out at 900°C for 10 h. All the heat treatment processes were carried out in air atmosphere.

The electrochemical properties of the layered cathode materials were evaluated in 2032 type coin cells using a Na disk as the counter electrode and 1.0 M $NaClO_4$ in PC solution as the electrolyte. The cathode laminates were prepared by mixing the active materials (84wt %), acetylene black (8wt %) and PVDF (8wt %) in N-methyl-pyrrolidinone into an electrode slurry and then casting the slurry on aluminium foil collector. The cells were assembled in an argon-filled glove box with above electrode laminates as working electrodes. The separator was glass fiber (Whatman Gf/D). The cells were tested on a multi-channel battery test system (NEWARE BTS-610) with galvanostatic charge and discharge in different selected voltage ranges. Cyclic voltammetry and AC impedance spectroscopy measurements on the cells were performed with a CHI 604B electrochemical workstation. The crystalline structures of the samples were characterized by using a diffractometer (Philips X'Pert Pro Super, Cu Kα radiation). The XRD spectra were collected in a range of 2θ values from 10° to 70° at a scanning rate of 10° min^{-1}. The morphologies of the samples were studied by scanning electron microscopy (Sirion 2000, FEI).

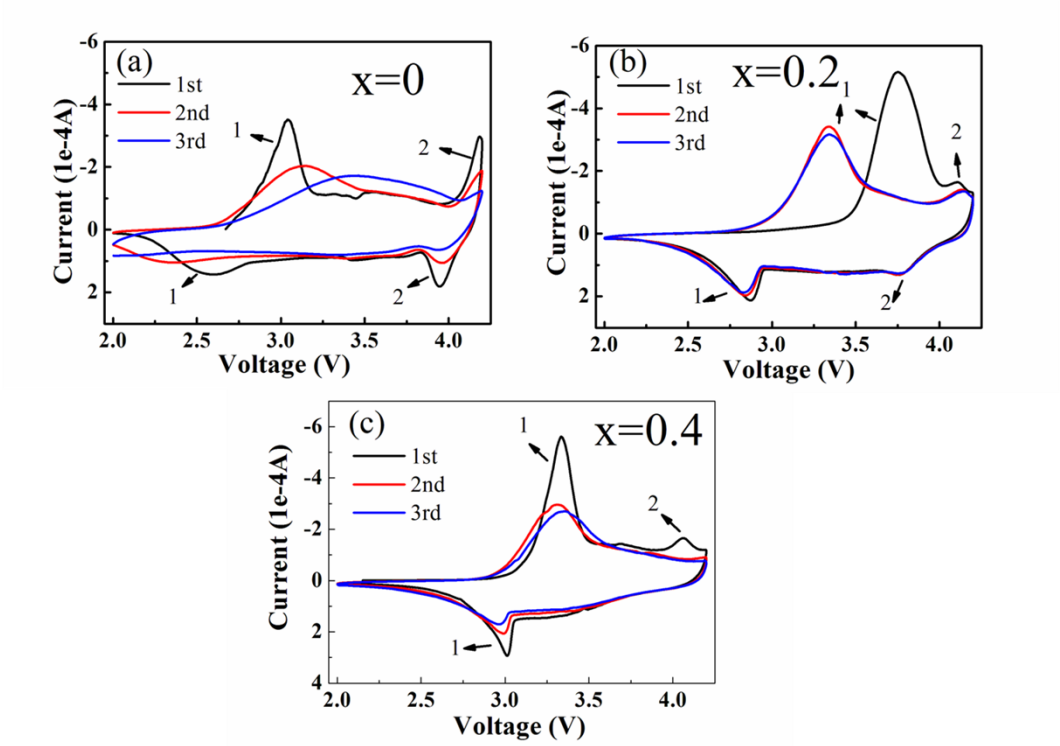

Fig. S1 CV curves of the first three cycles for cells Na/Na[$Ni_{0.4}Fe_{0.2}Mn_{0.4-x}Ti_x$]$O_2$ (x = 0, 0.2, 0.4) in the voltage range of 2 - 4.2 V and at a scan rate of 0.1 mV s^{-1}.