Supporting Information

Electrochemical Performance of Nanorod-like (La, Zr) Co-Doped Li-rich Li_{1.2}Ni_{0.2}Mn_{0.6}O₂ Cathodes for Use in Lithium-Ion Batteries

Wencong WANG, Hiromasa HANZAWA, Ken-ichi MACHIDA, Kohei MIYAZAKI, and Takeshi ABE

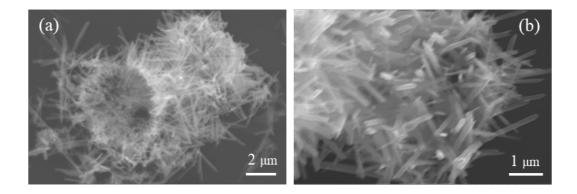


Figure S1. SEM images of the as-prepared MnO_2 powder in high magnification.

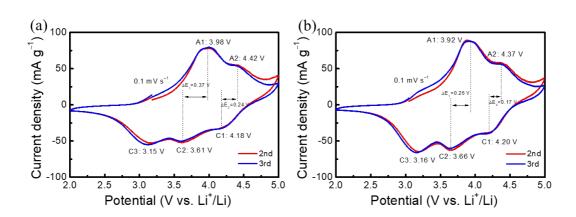


Figure S2. Cyclic voltammograms of the Li-rich electrodes after the first cycle. (a) Pristine nanorod-like $\text{Li}_{1.2}\text{Ni}_{0.2}\text{Mn}_{0.6}\text{O}_2$, (b) the electrode with a molar ratio of 0.01 for (La, Zr) dopants, (Li_{1.2}Ni_{0.2}Mn_{0.59}(La, Zr)_{0.01}O₂).

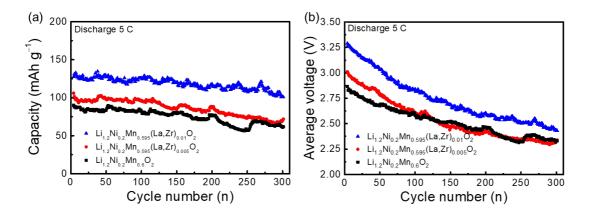


Figure S3. (a) Cycle performance of nanorod-like $\text{Li}_{1.2}\text{Ni}_{0.2}\text{Mn}_{0.6-x}\text{O}_2$ (x = 0, 0.005, and 0.01) electrodes at the current density of 5C (1000 mA g⁻¹); (b) the corresponding change of average discharge voltage decline.

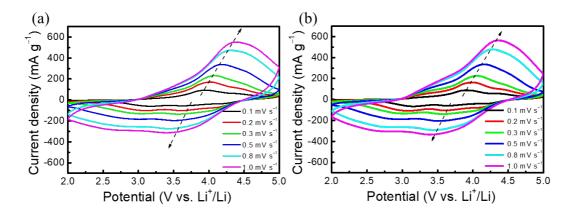


Figure S4. CV curves at different scan rates of 0.1, 0.2, 0.3, 0.5, 0.8, and 1.0 mV s^{-1} . (a) $Li_{1.2}Ni_{0.2}Mn_{0.595}(La, Zr)_{0.005}O_2$, (b) $Li_{1.2}Ni_{0.2}Mn_{0.59}(La, Zr)_{0.01}O_2$.