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## Electronic Supplementary Information for

## Synthesis and Electrochemical Properties of Layered Lithium Transition Metal Oxides

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Figure S1. SEM images of  $(Ni_{0.25}Mn_{0.75})CO_3$  prepared with (a) NaHCO<sub>3</sub> and (b)  $(NH_4)_2CO_3$ .

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Figure S2. SEM images of  $LiNi_{1/3}Co_{1/3}Mn_{1/3}O_2$ .



Figure S3. SEM images of  $LiN_{0.5}Mn_{0.5}O_2$ .



**Figure S4.** SEM images of the charged/discharged  $Li_{1.2}Ni_{0.2}Mn_{0.6}O_2$  sample at 250 mA g<sup>-1</sup> for 150 cycles. Note that the diameter of the cathode flake in the inset of Fig. S4c is 13mm, and the section of marginal in cathode flake is because the sample pieces were scrapped off for SEM characterization.