

Supporting Information

The SEM image of the sample is shown in Fig. S1

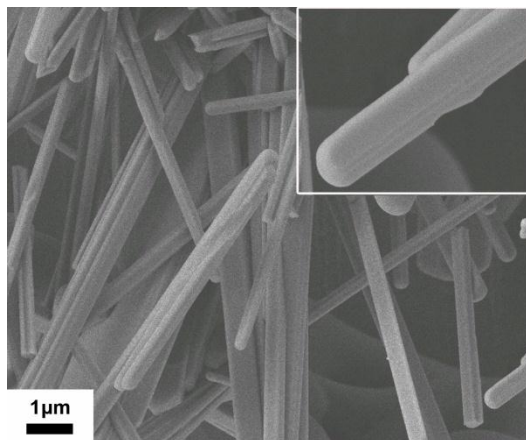


Figure S1. SEM image of the products

The capacity and cycle performance of $\text{Li}_{0.3}\text{V}_2\text{O}_5/\text{LiCoO}_2$ ALIBs at 180mA/g is shown in Fig. S2.

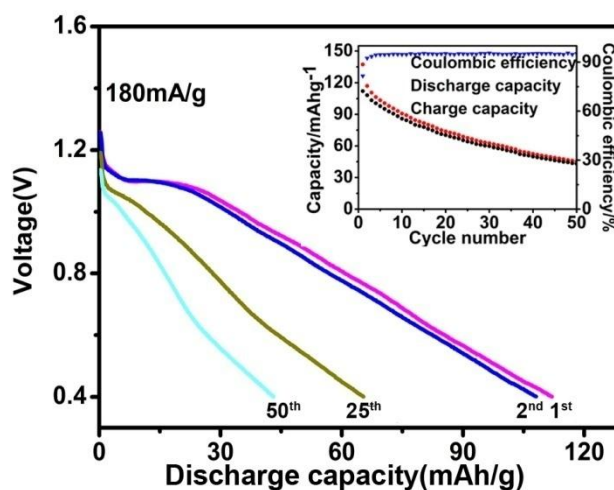


Fig. S2 (a) Voltage versus discharge capacity curves curves of the $\text{Li}_{0.3}\text{V}_2\text{O}_5/\text{LiCoO}_2$ ALIBs at 180 mA/g, the insert is the charge/discharge capacity and Coulombic efficiency versus cycle number.

Voltage versus charge capacity curves of the $\text{Li}_{0.3}\text{V}_2\text{O}_5/\text{LiCoO}_2$ ALIBs at different current densities are shown in Fig. S3 (a, b, c) and the XRD patterns of the $\text{Li}_{0.3}\text{V}_2\text{O}_5$ after 50 cycles is shown in Fig. S3 (d).

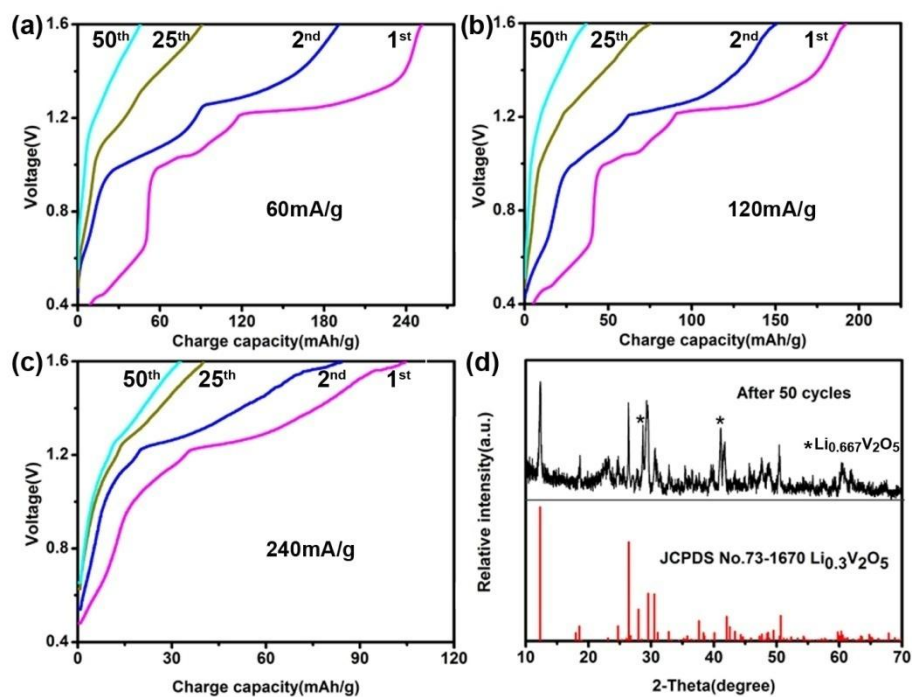


Figure S3. Voltage versus charge capacity curves of the $\text{Li}_{0.3}\text{V}_2\text{O}_5/\text{LiCoO}_2$ ALIBs at (a) 60mA/g, (b)120mA/g and (c)240mA/g, (d) is the XRD patterns of the $\text{Li}_{0.3}\text{V}_2\text{O}_5$ after 50 cycles.