## **Supplymentary Information**

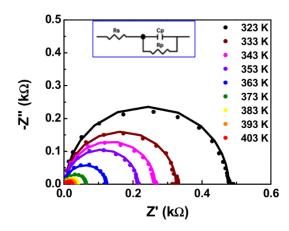
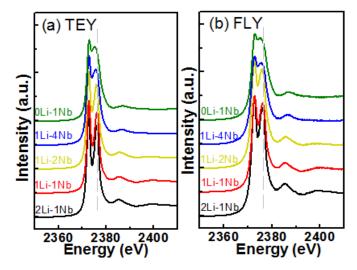


Figure S1. Impedance plots of lithium phosphate thin film deposited at 300 °C.



**Figure S2.** XANES of Nb L-edge in (a) total electron yield (TEY) mode and (b) Fluorescent Yield (FLY) mode.