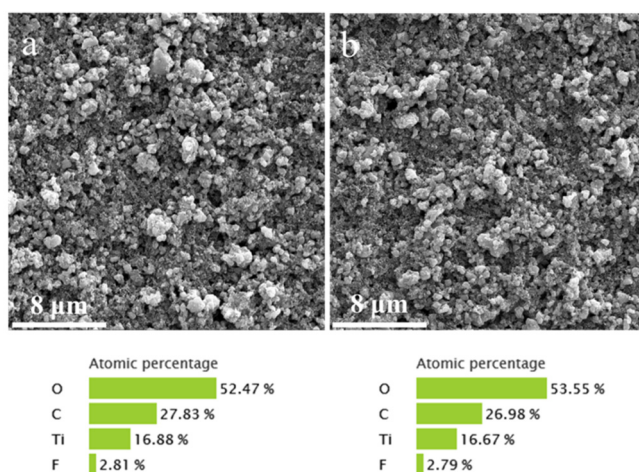
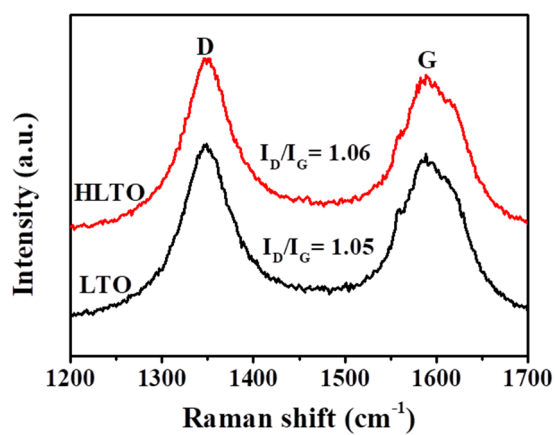


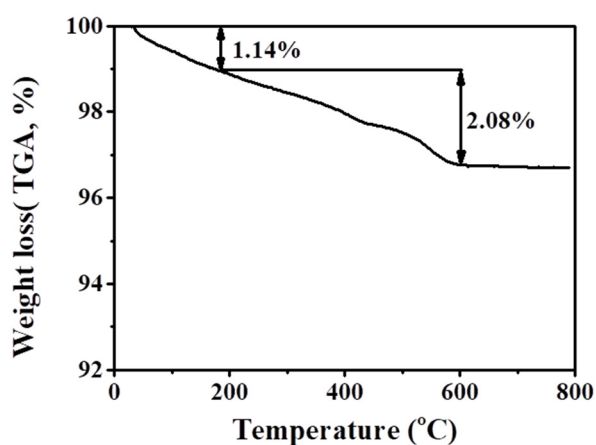
## Supplementary Materials



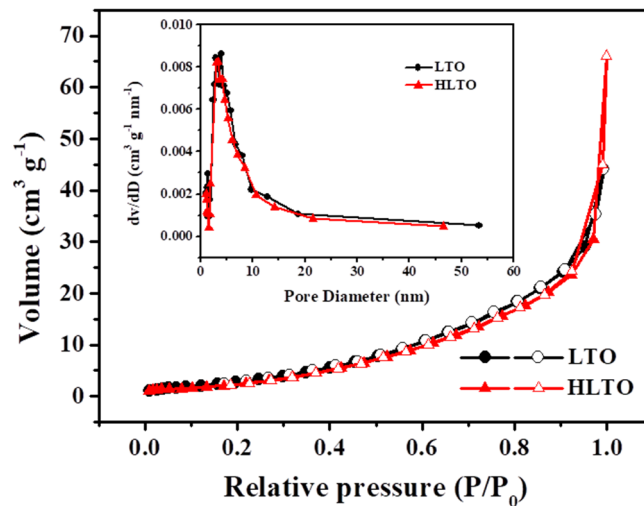
**Figure S1.** SEM (top) and EDX (bottom) results of the prepared electrodes of LTO (a), HLTO (b).



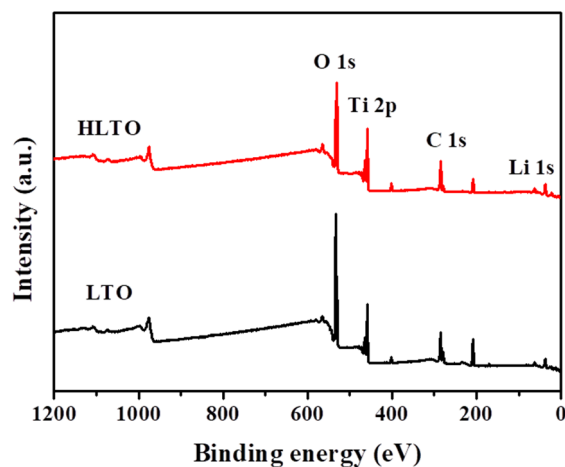
**Figure S2.** Partial Raman spectra of HLTO and LTO.



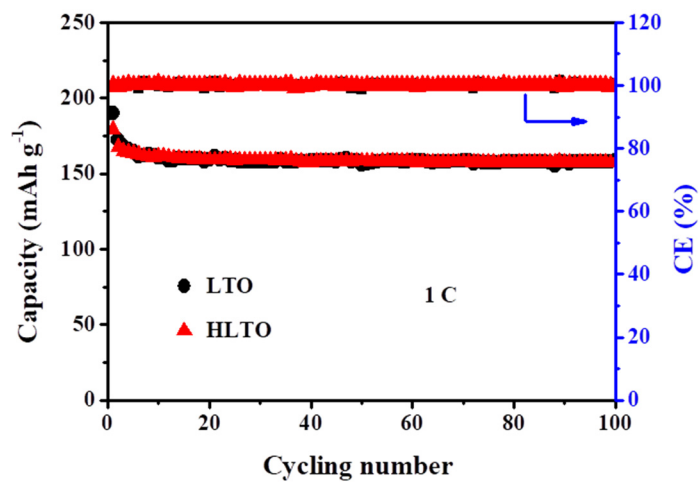
**Figure S3.** TGA results of commercial LTO.



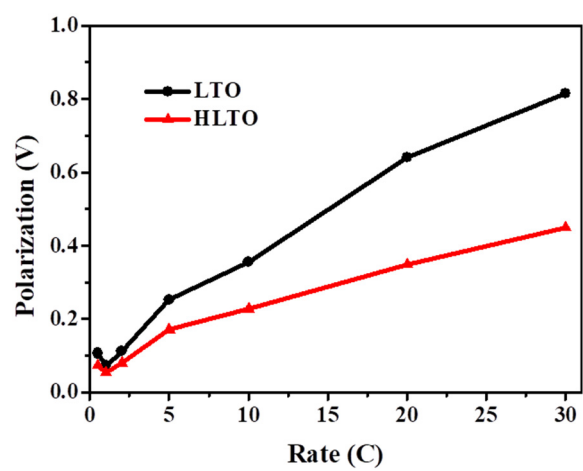
**Figure S4.** N<sub>2</sub> adsorption/desorption curves of HLTO and LTO. The inset shows the pore size distribution of both samples from adsorption branch.



**Figure S5.** XPS spectra of HLTO and LTO.



**Figure S6.** Cycling performance of LTO and HLTO at 1 C.



**Figure S7.** The polarization results of both samples at different rates.