

## **Supporting Information**

### **Effect of Particle Size and Electronic Percolation on Low Temperature Performance in Lithium Titanate based Batteries**

Joong Sun Park<sup>a,\*</sup>, Carine L. Margez<sup>a</sup>, Thomas A. Greszler<sup>a</sup>

<sup>a</sup> SAFT America, Inc., Cockeysville, MD 21030

\*Corresponding author: [joongsun.park@saftamerica.com](mailto:joongsun.park@saftamerica.com)

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Table S1: Fitting summary

$R_{ct}$ (Ohm)	25°C	0°C	-30°C
LTO A 3wt% Carbon	0.256	1.574	28.95
LTO B 3wt% Carbon	0.17	0.635	8.194
LTO A 5wt% Carbon	0.193	1.157	19.68

Figure S1. Cold crank performance (Voltage-time plot) of LTO A 3% CB, LTO B 3% CB, LTO A 5% CB (a), (b) at -30°C and (c), (d) 25°C

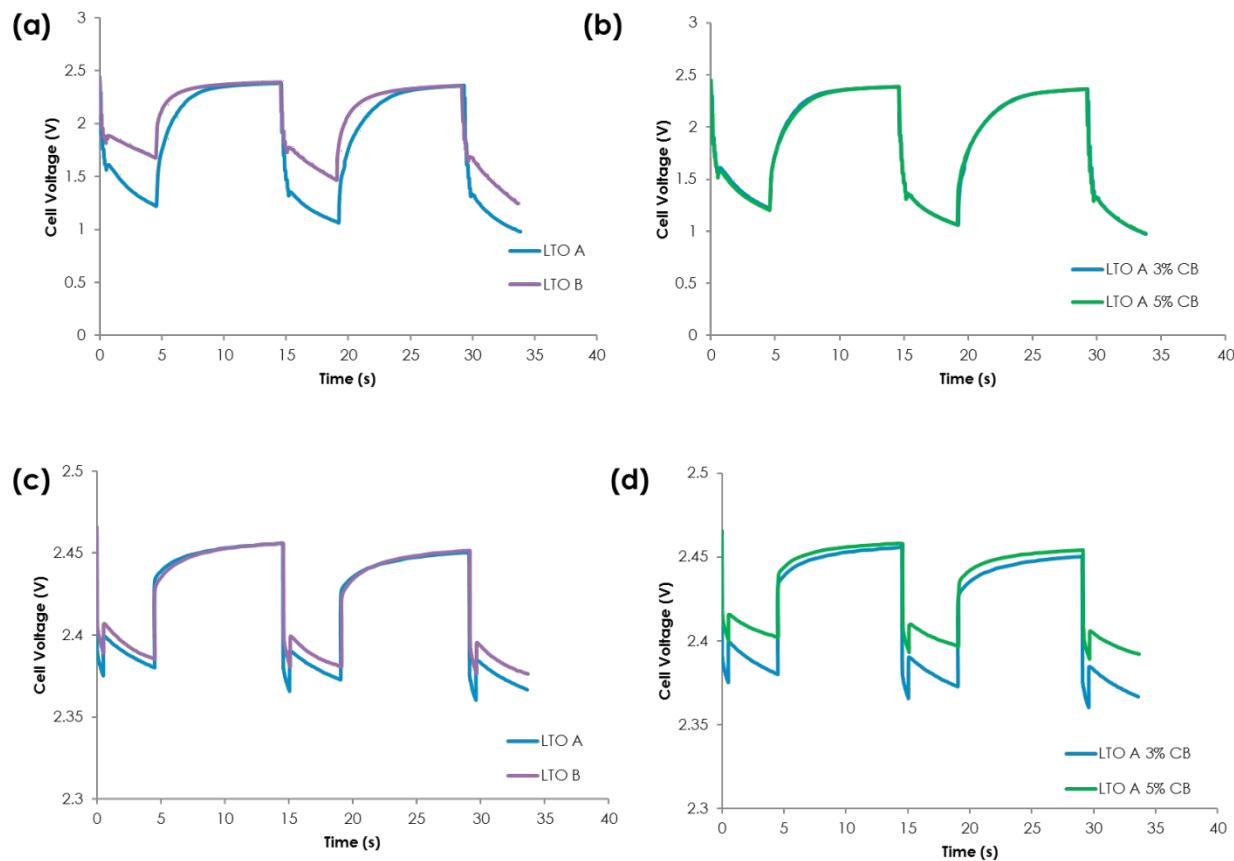


Figure S2. Nyquist plot of LTO A 3% CB, LTO B 3% CB, and LTO A 5% CB at -30°C, 0°C, and 25°C

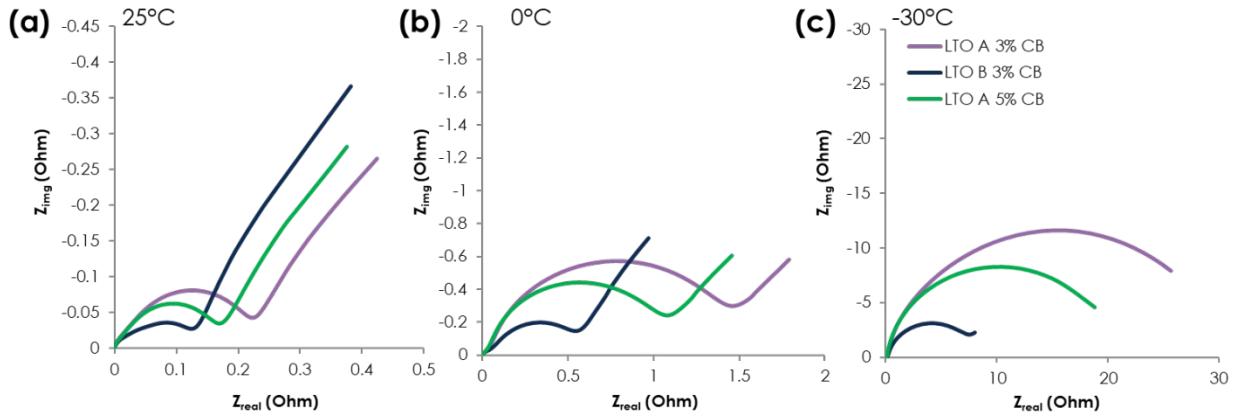


Figure S3. Electrodes and single layer pouch cell used in this study

