OAK RIDGE
MICRO-ENERGY, INC.

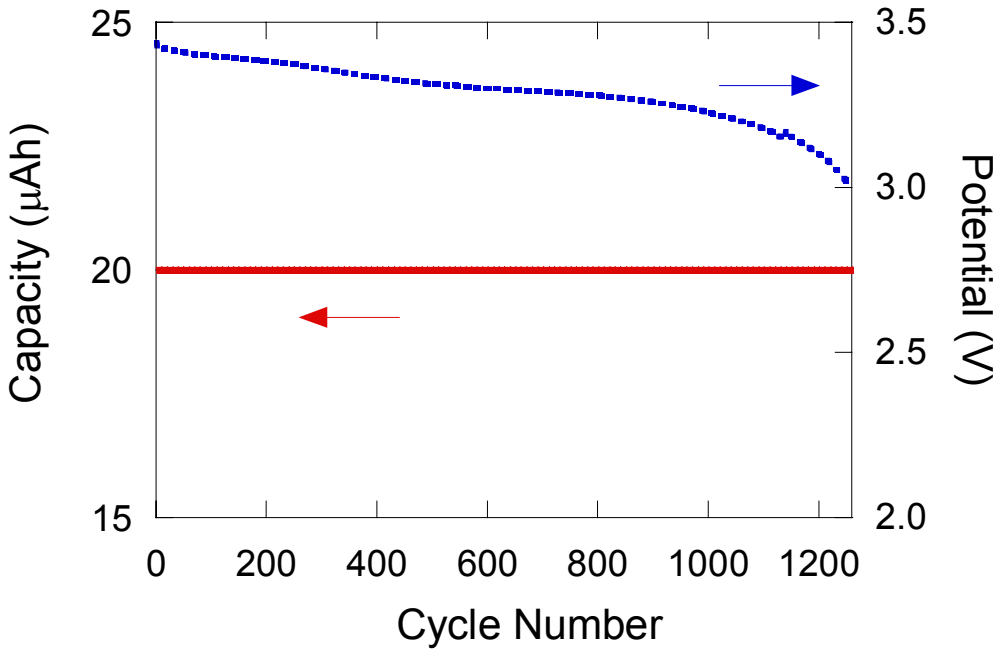
Thin Film Lithium-Ion Batteries

Constant Capacity Cycle Testing of ORLI.0.5.CL Batteries

Test Procedure

- Charge at i = 50 μA to 3.8 V and hold potential fixed until i ≤ 1.5 μA
- Discharge at i = 20 μA until q = 20 μAh; stop if cell potential ≤ 2.5 V

The discharge capacity of 20 μAh is 32 % of the average initial (as-prepared) capacity of the batteries discharged from 3.95 V to 2 V at 20 μA. Tests were conducted at 37ºC in ambient air.



Discharge capacity (red) and cell potential (blue) at the end of discharge half-cycles for an ORLI.0.5.CL series 52D battery. (Coulombic efficiency = 100 %.)