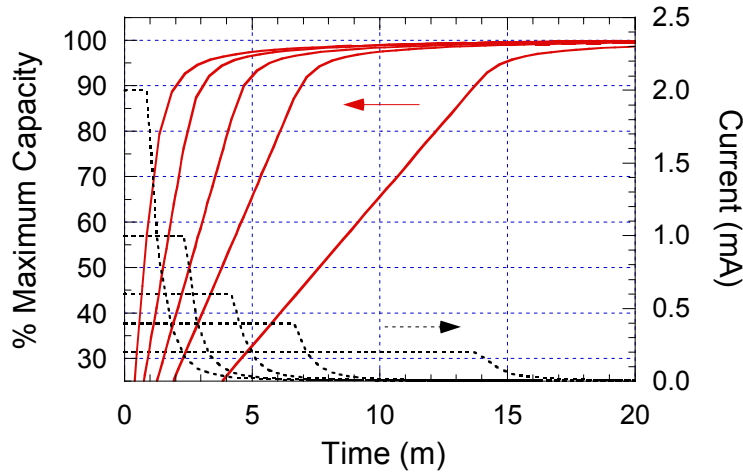


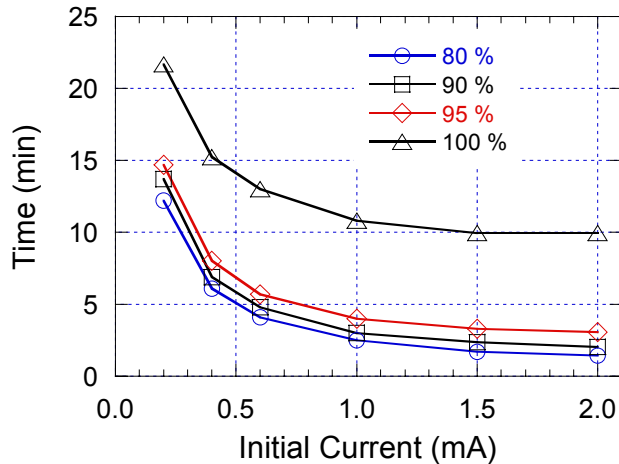
Thin Film Lithium-Ion Batteries

Recharge Time

The time required to recharge ORLI.0.5.CL batteries (28A series) to 80, 90, 95, and 100 % of the maximum 50 μ Ah capacity at 3.95 V was measured using starting currents from 0.2 mA to 2 mA. At 3.95 V, the potential was held fixed until the current decreased to $< 1 \mu$ A. After each charge half cycle, the batteries were discharged to 2.0 V at 20 μ A. All measurements at 37°C.



Percentage of maximum capacity (solid red curves) and charging current (dotted black curves) vs. charging time at initial currents of 0.2, 0.4, 0.6, 1.0, and 2.0 mA. The sharp break in the current occurred when the battery potential reached 3.95 V. Data for cell 32



Time to reach a percentage of maximum capacity vs. initial charging current. Data for cell 32.