Data Acquisition and Analysis

- Solartron Model Chas 08, modulab 8 slot chassis, Model FRA 1MHz (frequency range 10 μHz to 1MHz, swept sine, multi-sine/FFT, harmonic analysis. Model Pstat 1 MS/s Potentiostat/Galvanostat maximum data acquisition rate. Includes Modulab 2A Internal Booster option

- Solartron Model 1260 Impedance Analyzer

- Solartron/Analyzer Model 1260 Impedance Analyzer with Model 1287 electrochemical interface, used to measure ionic/electronic conductivity, electrochemical impedance spectra

- Solartron 1284 Potentiostat Single channel

- Princeton Applied Research Advanced Measurement Model VMP2/Z-40 4 channel multipotentiostat with impedance; Model VMPB2-25 2 x 5A power booster for VMP2; Model VMPB2-10 10A additional booster channel for VMP24 independent potentiostat/impedance channels that allow for testing and monitoring up to 4 single cells in parallel greatly increasing throughput on long term durability tests.

- RDP Howden Ltd Model ME46-350NG High resolution video extensometer with automatic target recognition and operating software

- Varian Inc. Micro GC Dual Channel System including software CP-4900 Provides precise gas analysis in seconds, one to four plug- and play- GC channels Each channel is a separate GC with pneumatics injector, column, and detector; the micro-electronic gas control with time programmable backflush allows injection of samples while eliminating contamination

- National Instruments Model PXI-6508 Digital I/O and DAQ system with Lab View

- National Instruments Model SCXI-1000 chassis - allows for the monitoring of 32 + temperature channels, along with digital and analog channels. System allows for efficient output control based on the inputs.

- Keithley Instruments 2701 DMM/Data Acquisition System and 7710-20 channel 60V solid state multiplexer.

- Keithley Instruments 2440 5A source meter
o Agilent Technologies 4338B milliohm meter, switch mainframe, 40 channel multiplexer /switch unit allows cell to cell resistance measurements

o Transistor Devices Dynaload Div. Computer controlled electronic load 400 watts

o Agilent 34970A data acquisition unit, allows 60 input channels scaleable as temperature, voltage or resistance, also allows 6 channels for 4-20 mA inputs