

## Data Acquisition and Analysis

- 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
- Agilent Technologies 4338B milliohm meter, switch mainframe, 40 channel multiplexer /switch unit allows cell to cell resistance measurements
- Transistor Devices Dynaload Div. Computer controlled electronic load 400 watts
- Agilent 34970A data acquisition unit, allows 60 input channels scaleable as temperature, voltage or resistance, also allows 6 channels for 4-20 mA inputs