U.S. Department of Energy
LITHIUM-ION BATTERY RECYCLING PRIZE

Admiral Instruments

Battery Sorting With Voltammetry & Impedance Data

AMERICAN MADE BATTERY RECYCLING PRIZE
U.S. DEPARTMENT OF ENERGY

Track 2 – Separation & Sorting

Squidstats™

NEXT GENERATION

electrochemical testing tools

Powerful, yet Compact

Intuitive Software

>50% Less Expensive

All while delivering research-grade

PRECISION & RELIABILITY

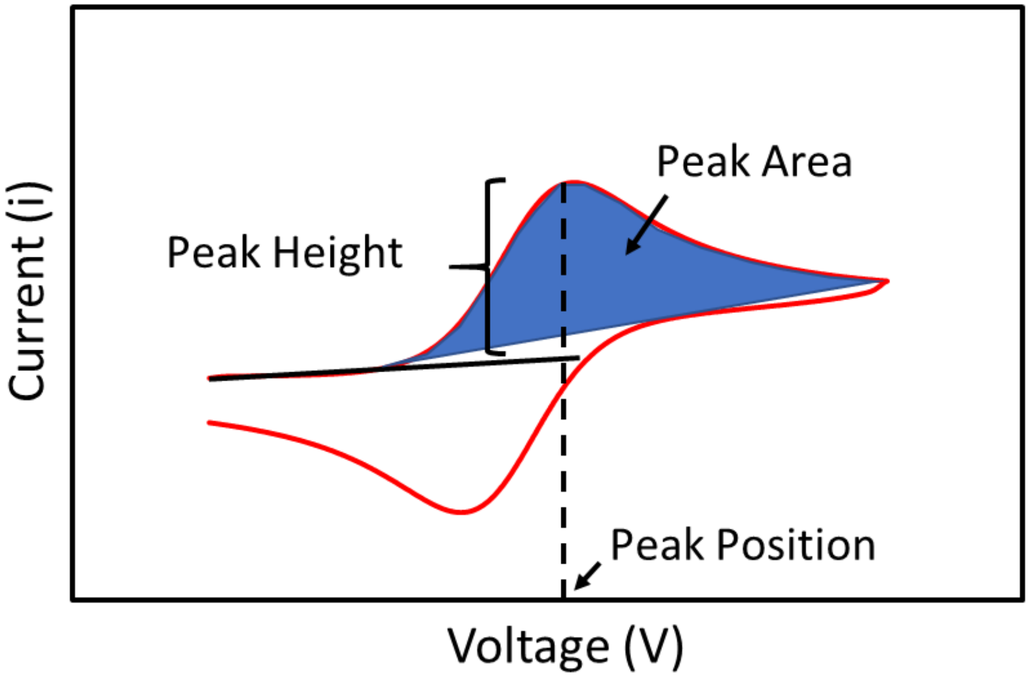
Our proven ability to design & manufacture research-grade electrochemical workstations lays a solid foundation to invent the…

Electrochemical Battery Sorting System™ (EBSS)

High throughput. Automated analysis.

In under a second
recyclers will know

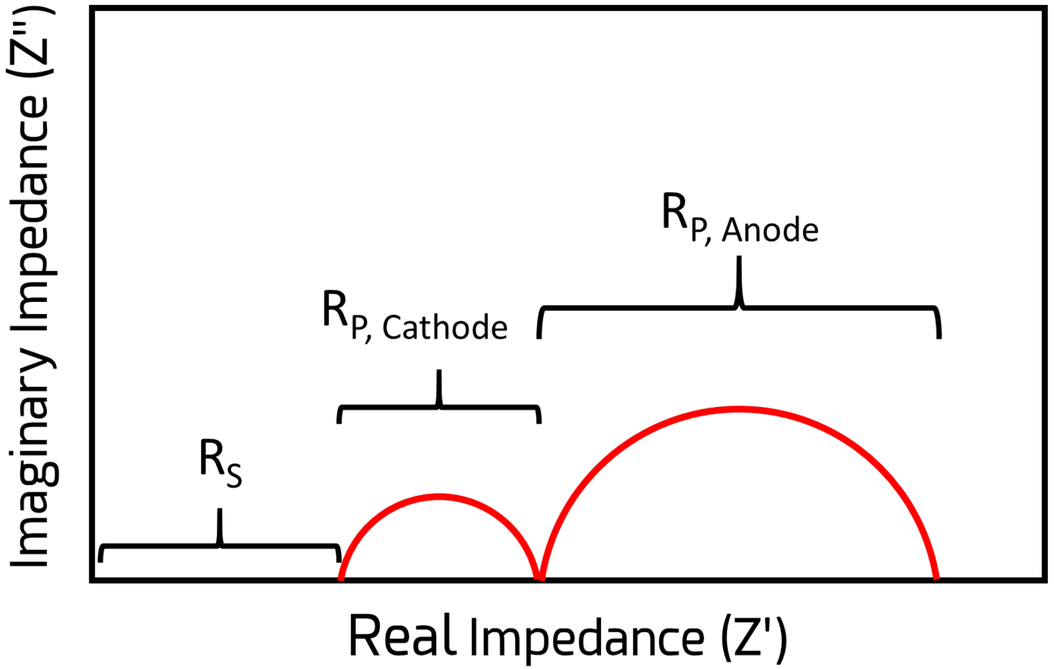
CYCLIC VOLTAMMETRY



Features Obtained

- Peak Position
- Peak Height
- Peak Area

ELECTROCHEMICAL IMPEDANCE SPECTROSCOPY



Features Obtained

- Internal Resistance
- Cathodic Polarization Resistance
- Anodic Polarization Resistance
- SEI resistance

What are the benefits?

Monthly Subscription Service

As low as $0.003 per cell sorted

+2x resale value of materials

Phase I Objectives

1. How do peak positions and voltammetry profiles obtained with CV differ as a function of cathode composition?

2. Do peak positions and profiles obtained during a CV depend on SOC?

3. How do peak positions and profiles obtained during a CV change as a function of battery degradation (SOH)?

4. Can information obtained from CV, combined with EIS, be used to develop analytical models to predict SOC, SOH and cathode composition of Li-ion batteries?

Partners

we are seeking for Phase II and III

Battery Recyclers
willing to pilot EBSS prototypes at their recycling facilities

&

Teams with proven
Pre-sorting Technologies
based on cell form factor

Admiral Instruments

Test the potential

Contact Us

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