



LIVE WEBCAST

Wednesday, May 17, 2023
11am EDT | 5pm CET

Presenter



Eric Farrell
Product Specialist
Milestone, Inc.

Moderator



Shannon Stolz
Senior Editor for Special Projects
Spectroscopy

For questions email
nvalle@mjhevents.com

Li-ion Batteries: Sample Prep Guidelines for Elemental Analysis



Register for this free webcast at:

www.spectroscopyonline.com/spec_p/li-ion

Event Overview

The quality and performance of Li-ion batteries requires elemental analysis of battery components in several steps of the value chain. For example, starting with raw materials, quantitation of the primary elements helps to determine the most appropriate extraction approach. In battery production, it is used to control impurities, as they directly impact the performance and lifespan of the batteries. Elemental analysis is also used during recycling to help purify valuable materials.

Sample preparation is the first fundamental step in ensuring reliable analysis and providing appropriate solutions for both ICP-OES and ICP-MS. Due to the variety of samples and their respective natures, from organic (like graphite) to inorganic (like ores), the sample prep protocol must ensure complete digestion to achieve the high-quality analyses required in this market.

This webinar will address the challenges related to sample preparation by considering several matrices encountered in the Li-ion battery value chain. Practical guidance will be provided for method development by exploring the most critical sample prep factors for ICP-OES and ICP-MS analysis, such as sample mass, temperature, pressure, and acid compatibility. By considering a total-workflow approach to sample prep, additional opportunities for improving lab productivity, quality, and safety will be demonstrated.

Key Learning Objectives

- The role of sample preparation in elemental analysis of Li-ion battery components
- How to address the challenges in sample prep for various matrices
- Practical approaches to method development
- Key sample prep factors and their impact on ICP-OES and ICP-MS analysis

Who Should Attend

- Lab directors, Lab managers/supervisors, Researchers, Chemists/analysts, Technicians/research assistants, QC/QA managers

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