

# Technology Spotlight: Battery Research

**November 26, 2025 8am PST | 11am EST | 4pm GMT | 5pm CEST**

Join us for an insightful webinar exploring the latest advancements in battery technology and energy storage systems. This session brings together cutting-edge research and industry perspectives to showcase how innovation is driving the next generation of batteries. Attendees will gain insights into data-driven approaches, AI integration, sustainable practices and industry-applied solutions shaping the future of energy storage.

**Attend this webinar to:**

- Discover how data-driven approaches and AI are being integrated with battery physics to optimize performance and reliability
- Learn about intelligent strategies for battery production, testing, and real-world applications
- Gain insight into advanced analytical methods supporting the development and characterization of next-generation battery materials

## TALK 1

**Talk title: Decoding Battery Physics:  
From Data to Insight with Machine Learning**

Presented by Dr. Weihan Li, Junior Professor, RWTH Aachen University



Dr. Li will share insights from the Center for Ageing, Reliability and Lifetime Prediction of Electrochemical and Power Electronic Systems (CARL) at RWTH Aachen University, Germany, focusing on data-driven battery research. By integrating physics and AI, this talk will explore intelligent strategies for battery production, testing and real-world applications, emphasizing reliability, performance and sustainability.

**Key takeaways:**

- Understanding how data-driven approaches and AI can optimize battery performance and reliability
- Insights into intelligent strategies for battery production and testing
- Perspective on sustainability and long-term lifetime prediction in modern battery research

## TALK 2

**How the Battery Market Can Get Ahead  
with Material Recovery and Recycling**

Presented by Simone Cailotto PhD,  
Associate Market Leader for Batteries and Renewable Energies, PerkinElmer



Dr. Cailotto will explore the latest lab technologies and methodologies in the battery recycling market, focusing on effective recovery of transition metals and understanding component material degradation. With the industry expecting double-digit growth between 2025-2030, analytical research is enabling companies to gain long-term cost advantages and make material recovery more economically attractive than virgin material production.

**Key takeaways:**

- Understanding advanced analytical methods for battery recycling and material recovery
- Insights into strategies to improve economic and environmental efficiency in battery production
- Awareness of market trends and growth opportunities in the battery recycling sector