



Battery Seminar 2023

Jul. 18, 2023: Day 1 – Battery Training Tutorials

8:00 am – 5:00 pm	Registration Open
8:00 am – 8:25 am	Breakfast with Networking Sponsored by AMERICAN BATTERY SOLUTIONS
8:25 am – 8:30 am	Welcome Note
8:30 am – 9:30 am	<p>Tutorial A: Seeing is Believing - Insights into X-Ray and Electron Imaging Tools for Solid State Batteries Professor Kelsey Hatzell – Princeton University</p> <p>This tutorial will survey the range of characterization tools available for dynamically examining solid state batteries. The tutorial will discuss the opportunities and trade-offs for the various interrogation probes. X-ray and electron tools will be discussed in detail as they relate to alkali metal anodes and high voltage cathodes.</p>
9:30 am – 10:30 am	<p>Tutorial B: Organic Material Design for Lithium Batteries Professor Zhenan Bao and Rachel Huang – Stanford University</p> <p>This talk will cover material design studies for both lithium metal batteries (LMBs) and Li-ion batteries (LIBs): Polymer coatings and liquid electrolytes for LMBs; porous current collectors for hybrid LMBs and LIBs; polymer-based safe, stretchable, or recyclable electrolytes for LIBs.</p>
10:30 am – 11:00 am	Coffee with Networking Sponsored by MACCOR
11:00 am – 12:00 pm	<p>Tutorial C: Pushing the Boundaries of Nickel-Rich Cathode Chemistry for Long-Range EV Batteries Assistant Professor Kent Griffith – University of California San Diego</p> <p>Nickel-rich lithium-ion battery cathode materials, including NMC and NCA, can provide high energy density while minimizing the use of cobalt. However, as the nickel content increases, material degradation can be severe, limiting the usable cycle life. In this talk, we will go through the degradation mechanisms affecting nickel-rich cathodes including microcracking, transition metal dissolution, parasitic side reactions, and oxygen loss and surface reconstruction. We will also cover strategies to improve the energy density and cycle life with high nickel contents of 80–95%.</p>
12:00 pm – 1:30 pm	Lunch with Networking
1:30 pm – 2:30 pm	<p>Tutorial D: Beyond Graphite Anodes Dee Strand – Wildcat Discovery Technologies</p> <p>This tutorial will introduce benefits and challenges to both silicon-based and lithium anodes for high energy density lithium ion cells. The effects of volumetric changes on cycling for both materials will be discussed. In addition, a review of dendrite formation and proposed methods of mitigation will be covered for lithium metal anodes.</p>
2:30 pm – 3:30 pm	<p>Tutorial E: How North America Can Create its Battery Value Chain Ken Hoffman – McKinsey & Company</p> <p>The rapid pace of development of the global battery industry has come to the shores of North America, virtually being built from scratch. We talk through how this industry can build robust value chains, that are localized to meet this rapidly evolving industry to move with each new battery chemistry. We will discuss these challenges and how we see the future of EV battery value chain evolving over the next decade.</p>
3:30 pm – 4:00 pm	Coffee with Networking Sponsored by MACCOR
4:00 pm – 5:00 pm	<p>Tutorial F: Is University IP Worth It? Todd Ostomel – Squire Patton Boggs</p> <p>Research universities are at the forefront of innovation and disruptive technology. They are abundant sources of new intellectual property. But the road from the benchtop to market is long, winding, and uncertain. In view of this, is university intellectual property valuable, particularly so in the battery field? This tutorial will highlight patent timing, ownership, licensing, and enforcement issues unique to university IP in the battery field.</p>
5:00 pm – 5:30 pm	Wrap-Up (Summary & Conclusions)

*Agenda subject to change without notice

Chairperson: Dr. John Warner – Chief Customer Officer at American Battery Solutions

Jul. 19, 2023: Day 2 – Energy Storage Systems in Automotive Applications

8:00 am – 6:00 pm	Registration Open
8:00 am – 8:30 am	Breakfast with Networking Sponsored by AMERICAN BATTERY SOLUTIONS
8:30 am – 9:00 am	Lithium Batteries Thermal Runaway Anne Dailly – General Motors
9:00 am – 9:30 am	With EV Batteries to Sustainable Luxury Tobias Glossmann – Mercedes-Benz R&D North America
9:30 am – 10:00 am	An Update on Some EV Battery Macrotrends Oliver Gross – Stellantis
10:00 am – 10:30 am	Coffee with Networking
10:30 am – 11:00 am	Solid State Battery Prototypes for Automotive Applications Celia Cunningham – Ford
11:00 am – 11:30 am	Scaling Up Li-Metal Solid State Battery Production – Overcoming Challenges and Seizing Opportunities Alex Yu – Factorial Energy
11:30 am – 12:00 pm	Transforming Battery Data into Actionable Business Insight Tal Sholklapper – Voltaiq
12:00 pm – 1:30 pm	Lunch with Networking Sponsored by VOLTAIQ
1:30 pm – 2:00 pm	Sila’s Drop-In Technology Paving the Way for a Sustainable Future Kurt Kelty – Sila Nanotechnologies
2:00 pm – 2:30 pm	Liquefied Gas Electrolyte for Next-Generation Li-Ion Batteries Cyrus Rustomji – South 8 Technologies
2:30 pm – 3:00 pm	Enabling the Trifecta of Long Range, Low Cost, and Fast Charge in Lithium-Metal Batteries Jessica Golden – Sepion Technologies
3:00 pm – 3:30 pm	Coffee with Networking
3:30 pm – 4:00 pm	Li-S Battery Development at Lyten – Approaching Commercialization Celina Mikolajczak – Lyten
4:00 pm – 4:30 pm	High Energy Density Sodium-Ion Batteries for E-mobility Darren H. S. Tan - Unigrid
4:30 pm – 5:00 pm	Recharging the Future – Crafting Sustainable Premier Cathode Materials from Spent Batteries Through Hydro-to-Cathode™ Recycling Process Yadong Liu – Ascend Elements
5:00 pm – 5:30 pm	Battery System Level Design for Range and Safety Nathan Saliga – Our Next Energy
6:00 pm – 8:00 pm	INTERTEK Facility Tours with Cocktails Reception Event attendees will get an exclusive opportunity to tour INTERTEK’s 200,000+ square-foot Battery Testing Center of Excellence to learn about the latest testing methods for batteries of all sizes from coin-cell through electric vehicles. INTERTEK performs a variety of tests out of this facility, to industry and global standards, including life-cycling, vibration, environmental, abuse and safety certifications. See this facility firsthand and ask questions to resident experts, and enjoy some light appetizers and beverages while networking with industry peers.

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Jul. 20, 2023: Day 3 – Energy Storage Systems in Stationary Grid/Utility Applications

8:00 am – 5:00 pm	Registration Open
8:00 am – 8:30 am	Breakfast with Networking Sponsored by AMERICAN BATTERY SOLUTIONS
8:30 am – 9:00 am	Enabling Ultra-fast EV Charging on Today's Power-Limited Grids Michael Spurr – ADS-TEC Energy
9:00 am – 9:30 am	The Evolution of Charging Technology to Enable More Electrification of Fleet and Bus Depot Applications Pat Hayes – ABB
9:30 am – 10:00 am	Reliability of Charging Infrastructure Jasmeen Bal – Lucid Motors
10:00 am – 10:30 am	Coffee with Networking
10:30 am – 11:00 am	Real-World Case Study for V2G DC Fast Charging Deployment with Commercial Fleets Manoj Karwa – BorgWarner
11:00 am – 11:30 am	Where do Range, Charging, and Consumer Expectation Intersect? Sean Ackley – VinFast
11:30 am – 12:00 pm	Progress on Scaling Up Modular Battery Swapping Albert Liu – Ample
12:00 pm – 1:30 pm	Lunch with Networking Sponsored by VOLTAIQ
1:30 pm – 2:00 pm	Utility Perspective and Strategy on Energy Storage for Resiliency and Electrification Ib Olsen – Consolidated Edison (ConEdison)
2:00 pm – 2:30 pm	Optimizing Stationary Battery Energy Storage System for EV Fast Charging Alejandro Plazas – Eaton
2:30 pm – 3:00 pm	State of Energy Solutions Timothy DeBastos – LG Energy Solution
3:00 pm – 3:30 pm	Coffee with Networking
3:30 pm – 4:00 pm	Energy Storage Designs That Maximize Supply Chain Flexibility Joe O'Connor – Nuvation Energy
4:00 pm – 4:30 pm	Next Generation Energy Storage for the Next Thirty Years of Mass Deployment Michael Hoff – American Battery Solutions
4:30 pm – 5:00 pm	Utilizing Chip-on-Cell Sensing for Better Battery Management Carlton Brown – Dukosi
5:00 pm – 5:15 pm	Closing Comments / End of Seminar

*Agenda subject to change without notice

Register Online: [PlugVolt Battery Seminar 2023 Online Registration Form](#)

Location – Battery Seminar

Saint John's Resort
44045 Five Mile Road
Plymouth, MI 48170 USA
Tel.: (001) 734-414-0600

Location – Facility Tour

INTERTEK
45000 Helm St. #150
Plymouth, MI 48170 USA
Tel.: (001) 734-582-2900

Pricing

January 1, 2023	Registration Opens
January 1, 2023 – May 13, 2023	Early Bird: \$899/day, \$1199/2 days or \$1499/3 days
May 14, 2023 – July 08, 2023	Regular: \$999/day, \$1399/2 days or \$1699/3 days
July 09, 2023 – July 20, 2023	Late: \$1099/day, \$1499/2 days or \$1799/3 days

- 10% group discount for 3+ attendees from the same corporation/institution (all attendees must register and pay at the same time)
- 25% discount for attendees from a government agency (a valid government ID is required)
- 25% discount for attendees from an academic institution (a valid academic institution ID is required)
- Contact us for additional attractive group discounts for parties of 5+ people attending from the same corporation/institution

PlugVolt® discounted room rate is available at the Saint John's Resort until July 02, 2023, following which rooms may not be available and/or available at the prevailing rate. Reservations can be made directly at:

[PlugVolt Battery Seminar 2023 Hotel Bookings](#)

Program Outline

This seminar will provide an entire day of technical tutorials on fundamental materials' challenges for electrochemical energy storage, opportunities and challenges with solid-state batteries, best design practices for cell engineering, battery modeling and health monitoring, second life design considerations for energy storage, etc.

These presentations will be accompanied by complementary industry updates offered by subject matter experts from major multinational OEMs, Tier 1 suppliers, and battery manufacturers. Topics will cover several existing battery chemistries and their application to stationary/grid storage and automotive xEVs, along with recent advances in some Li Ion technologies, challenges in bringing these batteries to volume production, and any specific performance requirements driven by such applications.

The seminar will also offer event attendees an exclusive opportunity to tour INTERTEK Battery Testing Center of Excellence in Plymouth, Michigan (USA) facility firsthand and ask questions to resident experts, and enjoy some light appetizers and beverages while networking with industry peers.

Questions?

Contact JC Soman at 1-877-PLUGVOLT or juratesoman@plugvolt.com for more details, or visit our website www.plugvolt.com or www.batteryseminars.com

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