



NASA
Aerospace
Battery
Workshop

2025

November 18-20

**Teague Auditorium (Building 2)
NASA-Johnson Space Center
Houston, TX**





2025 NASA Aerospace Battery Workshop

AGENDA

Tuesday, November 18

7:45 – 8:15 Food and refreshments in the lobby

Time	Presentation
8:15	Introductory and Logistical Remarks <i>Eric Darcy, NASA</i>
8:20	Welcome <i>Astronaut (TBD)</i>
8:25	Welcome <i>Julie Kramer White, NASA</i>
8:30	Lithium Primary Cells for 1x-Use Space Applications <i>James Bond, Eagle Picher Industries</i>
9:00	TBD <i>Ionel Stefan, Amprius</i>
9:30	Innovation in 21700 Cylindrical Cell Designed for Mass Production Achieving Highest Performance for Aerospace Applications <i>Stefan Permian, UniverCell</i>
10:00 – 10:15	Break
10:15	TBD <i>Joe Troutman, Forge Nano</i>
10:45	TBD <i>Tim Porcelli, Nanograf</i>
11:15	TBD <i>Karthik Ramaswami, Sionic Energy</i>
11:45 – 1:15	Lunch





2025 NASA Aerospace Battery Workshop

- 1:30 Screening Cylindrical Cells for Leaks – Can It Be Done by Visual Inspection?
Eric Darcy, Ruth Young, and Frank Samonski (NASA) and Brad Strangways (SRI)
- 1:45 Ultrasound-Enhanced Cell Selection and Validation for Long-Term Aerospace Lithium-Ion Batteries
JR Klein, Srirama Hariharan, Fredrik Westerberg, Jay Neutzler, Honeywell
- 2:15 Battery Quality Control via Glimpse’s High-Throughput CT Scanning Capabilities
Peter Attia, et al, Glimpse
- 2:45 – 3:00 Break**
- 3:00 Thermal Runaway Characterization of 18650 and 21700 Cell Designs
David Petrushenko et al, NASA
- 3:30 Electrolyte Motion in Cylindrical Cells: The Effects of Gravity, Material Selection, and Cell Geometry
Toby Bond, Sergei Gasilov and, Reid Dressler (Canadian Light Source), Remi Petibon (Tesla Motors), Sunny Hy (Tesla Motors), Jeff Dahn (Dalhousie University)
- 4:00 Repeatability of Gas Production from Closed Vessel Battery Abuse Tests
Andre Swarts, SWRI
- 4:30 Why and How to Know Heat Generation during Cycling of Batteries
Surendra Singh, Belmont Scientific, Inc.

Space Center Houston: A VIP viewing of the immersive show “The Moonwalkers: A Journey with Tom Hanks”

Space Center Houston will close to the public at 5 p.m. Workshop attendees can enter for free, enjoy the exhibits, visit the gift shop, and watch the immersive show.





2025 NASA Aerospace Battery Workshop

Wednesday, November 19

7:30 – 8:00 Food and refreshments in the lobby

Time	Presentation
8:30	TBD <i>Ray Barsa and Denis Trofimov, SpaceX</i>
9:00	VL10ES cell and batteries qualification and evolutions <i>Yannick Borthomieu, Vanessa Armel, Helene Tricot, Chengsong Ma (SAFT) and Evelyne Simon and Aurore Carre (ESA)</i>
9:30	Scalable battery pack designed for Lunar terrain vehicles <i>Franck Baldet and Michael Johanni, Venturi</i>
10:00 – 10:15	Break
10:15	Electric-Thermal Modeling of Li-Ion Battery Packs Components and Interfaces as Basis for Passive Propagation Resistance <i>R.E. White and Paul Coman, University of South Carolina</i>
10:45	TBD <i>Michael Khasin, NASA</i>
11:15	TBD <i>Cameron Bosley, MathWorks</i>
11:45 – 1:30	Lunch
1:30	TBD <i>TBD, Amphenol</i>
2:00	Advancing -60 °C Lithium-Ion Battery Technology for Lunar and Deep Space Missions: KULR ONE Space (K1S) Pathfinder with TSC SEARF <i>AJ Sauter, KULR Technology</i>





2025 NASA Aerospace Battery Workshop

- 2:30 TBD
Ben Alexander and Daniel Pounds, Thermavant
- 3:00 – 3:15 Break**
- 3:15 Battery Safety System Engineering: Integrating Cell and Pack Safety into an Integrated Safety System
Brian Morin, Soteria
- 3:45 TBD
Ed Buie and Forrest Gaskin, Coulometrics
- 4:15 Isolating Internal Shorts with Metallized Polymer Current Collectors
Eric Darcy, NASA
- 4:45 46900 Cell Design with Metalized Plastic Current Collectors
Michael Deutmeyer, EAS Batteries

Special Workshop/Tutorial: Using MathWorks battery simulation by Cameron Bosley, MathWorks

5:30 – 7 p.m.
Building 2 (across from the Teague Auditorium lobby), Room 102





2025 NASA Aerospace Battery Workshop

Thursday, November 20

7:30 – 8:00 Food and refreshments in the lobby

Time	Presentation
8:30	Reducing custom and standard battery lead time <i>Richard Coffin, Eagle Picher Industries</i>
9:00	Highest Energy-Performance 18650/21700 Silicon-Graphite Cells <i>Jignesh Parikh and Chris Kompella, Rincell</i>
9:30	Nanoscale Sulfide Coatings for High Performance Nickel-Rich Metal Oxide Cathodes <i>Xiangbo Meng, University of Arkansas</i>
10:00	Batteries for More-Electric-Aircraft and Extreme Environments <i>Roger Brewer, Lockheed Martin</i>
10:30	Development of Space-Rated Battery Management System (BMS) Architecture Designed Around Radiation Tolerant Chipset <i>Philip Xu, KULR Technology</i>
11:00	TBD
11:30	TBD
12:00 – 1:30	Closing statements and lunch

Potential tours of NASA facilities:

- Energy Systems Test Area
- Building 9 - Astronaut Training Facility
- Building 30 - Historic Mission Control
- Neutral Buoyancy Laboratory (off-site from JSC)

Tour logistics TBD.

