



CALL FOR PAPERS

ADVANCED BATTERY POWER 2027

APRIL 7–9, 2027 | AACHEN / GERMANY > WWW.BATTERY-POWER.EU

SCIENTIFIC CHAIRMEN

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Advanced Battery Power is one of the largest international scientific battery conferences in Germany. The established symposium offers a broad professional audience an excellent platform for the presentation of research work and results in the field of battery technology.

Representatives from industry and academia discuss the latest findings along the entire value chain of batteries: the current state of research on lithium-ion batteries, new types of systems and innovative materials, battery cell production and fields of application as well as second life and recycling. We are looking forward to your contribution.

TECHNICAL SESSIONS

1. MATERIAL LEVEL

- Active materials for lithium-ion and sodium-ion batteries
- Active materials for lithium metal/sulfur/air
- Solid-state batteries
- Electrolytes and separators
- Redox-flow batteries and emerging chemistries
- Material degradation mechanisms

2. CELL LEVEL

- New cell designs and architectures
- Performance and lifetime studies
- Reliability and safety
- Thermal behaviour and abuse testing
- Ageing, degradation and lithium plating
- Experimental characterization methods

3. PACK LEVEL – ANY TECHNOLOGY

- Pack/module design and integration
- Thermal management
- Battery management systems
- Diagnostics and prognostics
- Reliability, safety and fault detection
- Sensors and monitoring systems

4. PRODUCTION

- Sustainable materials & innovative processes
- Production of novel cell chemistries
- Digitalization & AI in cell manufacturing
- Gigafactories: Challenges in ramp-up
- Battery production environment
- Inline metrology

5. APPLICATIONS

- Automotive and mobility applications
- Stationary storage and grid integration
- Vehicle-to-grid (V2G), vehicle-to-home (V2H)
- Charging infrastructure
- Multi-use operation and second-life deployment
- Market integration and operation strategies

6. BATTERY LIFE CYCLE

- Raw materials and supply chains
- Second life and recycling
- Circular economy approaches
- Life cycle assessment (LCA)
- Life cycle costs (LCC)
- Sustainability metrics and environmental impact

EMERGING AND INTERDISCIPLINARY TOPICS

The conference welcomes submissions in interdisciplinary and emerging research areas that span multiple technical sessions. Contributions will be assigned to the most appropriate session by the Scientific Committee. Where a sufficient number of high-quality submissions are received, dedicated sessions may be organized.

- Computational battery engineering (modelling, simulation, machine learning, AI, digital twins)
- Fast charging and extreme operating conditions
- Standardization, testing protocols and benchmarking
- Procedure for lifetime and remaining useful life prediction



More information:
www.battery-power.eu/cfp

Partners and Organizers



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