

## Special Issue

# Advances in Battery Thermal Management: Materials, Systems, and EV Applications

### Message from the Guest Editor

This Special Issue aims to gather cutting-edge research and innovative solutions that address these challenges from multiple perspectives. We invite contributions that explore materials, system architectures, and application-driven strategies for thermal management in EV batteries. Topics of interest include, but are not limited to, the following:

- **Advanced Materials:** High-conductivity composites, phase change materials (PCMs), and multifunctional structures for heat dissipation.
- **System-Level Solutions:** Liquid cooling, immersion cooling, hybrid systems, and integration with vehicle thermal architectures.
- **Modeling and Control:** AI-driven thermal optimization, predictive algorithms, and real-time monitoring for safety and efficiency.
- **Application Scenarios:** Fast-charging environments, high-energy-density battery packs, and next-generation chemistries such as solid-state or lithium–sulfur batteries.
- **Safety and Sustainability:** Strategies to prevent thermal runaway and improve recyclability and environmental impact.

This issue seeks to bridge fundamental research and industrial applications, fostering collaboration between academia and industry.

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### Guest Editor

Prof. Dr. Pablo Olmeda

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### Deadline for manuscript submissions

closed (25 May 2026)



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## About the Journal

### Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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### Editor-in-Chief

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