Special Issue

Advanced Electrochemical Materials for Next-Generation High-Performance Batteries

Message from the Guest Editor

We welcome research papers involving theoretical, methodological, and empirical studies, as well as review papers that provide a critical overview of the state of the art of technologies. Manuscripts from cross disciplinary fields are strongly encouraged, such as battery electrochemistry, interfacial science, advanced characterization, modelling and simulation, and data-driven or AI-enabled approaches, which can provide timely and effective solutions for emerging challenges in high-performance battery systems. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but not limited to) the following:

- Lithium-ion batteries;
- Advanced cathode materials;
- Advanced anode materials;
- Solid-state and gel electrolytes;
- Low temperature and/or high temperature electrolytes;
- Other battery chemistries (Na, Zn, Mg, etc.);
- Advanced electrochemical modelling and simulation;
- Advanced materials characterization (including operando/in situ);
- Artificial intelligence applications for batteries;
- Advanced battery manufacturing.

Guest Editor

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