



## Advanced Technology and Materials of Battery and Microbial Electrochemical Cell

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### Message from the Guest Editors

Advanced batteries, especially lithium-ion batteries, have been intensively studied during the past thirty years. However, there are still challenges, including limited energy and power densities, cycling life, and safety issues. To solve these challenges, scientists have been studying advanced materials and techniques of Li-ion batteries. The novel materials include high-energy metal oxide cathodes, sulfur cathode, polymer or ceramic solid-state electrolytes, alloy anodes, and Li/Na metal anodes. On the other hand, the commercial application of these advanced materials is still challenging and requires further study. In this Special Issue, the recent efforts and advances made for novel battery materials and techniques will be discussed. The topics of interest for this Special Issue include but are not limited to the following:

- High-voltage and high-capacity cathode materials;
- Sulfide cathodes;
- Oxide/air cathodes;
- Solid-state electrolytes;
- Interface study in solid-state batteries;
- High-capacity alloy anodes;
- Metal anodes;
- Materials characterization techniques;
- Battery management and safety techniques.



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Dr. Boyang Liu  
*Guest Editor*

**Special** Issue



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## Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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