# Special Issue

# Applications of High-Performance Electrolyte Materials in Batteries

## Message from the Guest Editor

Existing battery technologies still face challenges, including barriers to specific energy, energy density, and service life, originating from the fundamental behaviour of the active and inactive materials used. With all their benefits and drawbacks, electrolytes play a critical role in terms of design and control of electrode processes, as well as regarding material interactions, and performance of a battery. Battery chemistry and the materials within are selected based on the requirements of the application. Li-ion has been dominating in applications that require high energy density. Common to all battery chemistries, understanding the phenomena and correlations within materials and at their interfaces is a requirement for the development of better and safer batteries. This Special Issue focuses on materials related to electrolytes and electrode-electrolyte interfaces of the various modern battery technologies in research. We warmly welcome contributions of manuscripts reporting the following: development of electrolyte materials and electrode coatings, as well as material characterization.

## Guest Editor

Prof. Dr. Weizhai Bao

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## Deadline for manuscript submissions

closed (20 August 2023)

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### Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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