Special Issue

Li-Ion Battery Materials: Latest Advances and Prospects—2nd Edition

Message from the Guest Editors

Lithium-ion batteries have become an indispensable part of everyday life. The triumph of this technology is based on its superior properties in terms of energy density, lifetime, and safety. It is primarily the battery materials and their ongoing development that have led to the current performance. As LIBs are the technology of choice for energy storage in electric vehicles, they will play a decisive role in shaping a greener future. Therefore, LIB material development focuses not only on improving the properties related to battery applications but also on improving the sustainability of the materials and, thus, of the whole batteries. To provide a comprehensive overview of and insight into current developments and future prospects in LIB materials, this Special Issue will focus on anode and cathode active materials, as well as electrolytes, including additive developments, to improve the following areas:

- Specific and volumetric energies;
- Rate performance;
- Lifetime (shelf and cycle life);
- Safety;
- Cost efficiency;
- Sustainability (recyclability, alternative raw and processing materials, environmental impact, content of critical raw materials, and (re-)synthesis).

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Take the opportunity to publish your original scientific work or a review paper concerning battery materials, battery technology or battery application within this new open access journal. Along with material science, the journal also addresses engineering and multidisciplinary research topics, such as cell and system design or storage system integration. Publishing proffers visibility for the benefit of other experts and facilitates discussion of the research results within the field. You are invited to publish your work, read published papers and to participate in topical discussions.

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