



## Challenges and Future Trends of Lithium Ion Battery

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Deadline for manuscript  
submissions:

**30 April 2022**

### Message from the Guest Editor

Dear Colleagues,

Energy is an indispensable key component of life. Rechargeable lithium-ion batteries (LIBs) have received a great deal of attention as they enable the development of versatile electronic devices, microgrids, and electric vehicles. This *Sustainability* Special Issue aims to highlight the collection of novel works on LIBs which significantly improve safety, sustainability, and long-term cycling stability with high energy density and low cost. It will bring an in-depth fundamental understanding of the cell design principle for the practical applications of LIBs and beyond. The facile and cost-effective material manufacturing and synthesis process, nanofabrication, and the surface functionalization of anode/cathode materials will be included. Additionally, the solid electrolyte formation mechanism, the degradation of battery components such as anode/cathode electrodes, electrolytes, separators during charge/discharge, and the corresponding advanced structural and electrochemical characterization tools, and modeling/simulation techniques to understand will be included...





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## Message from the Editor-in-Chief

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