Special Issue

Recent Progress in Advanced Materials for Solid-State Lithium Batteries

Message from the Guest Editors

We would like to invite you to submit your work to this Special Issue on “Recent Progress in Advanced Materials for Solid-State Lithium Batteries”. This Special Issue aims to give an overview of recent developments on electrode and electrolyte materials and composites for application in solid-state lithium-ion batteries (SSLIB). In recent years, SSLIB have emerged as one of the most promising technologies for replacing conventional lithium-ion batteries since they can offer simpler battery design with improved safety and durability. However, the mechanical and (electro)chemical instability of solid electrolytes, high interfacial resistance and insufficient interfacial contact between electrode and electrolyte remain challenging issues that limits their practical application. Alongside technological developments, the need for sustainable battery development is considered essential to achieve carbon neutrality. Therefore, this Special Issue aims to provide fundamental understanding to overcome these challenges and make substantial contributions to the development of safer, clean and sustainable SSLiB.

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Deadline for manuscript submissions

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Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.
Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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