



## **New Challenges in Coating Materials for Solid-State Batteries: Strategies, Technological Advances, and Applications**

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### **Message from the Guest Editors**

We invite you to submit your work to this Special Issue, which aims to showcase cutting-edge developments in battery technology, focusing on innovative coatings and materials that enhance next-generation batteries' performance, durability, and efficiency. We welcome original research articles, communications, comprehensive reviews, and insightful perspectives that explore new materials, coating technologies, and their applications in advanced battery systems. Your work could help shape the direction of battery technology development and address key challenges to sustainable and high-performance energy storage devices.

Potential topics include, but are not limited to:

1. Advanced coatings and materials for novel batteries;
2. Synthesis, characterization, and properties of the electrode materials;
3. Novel surface modifications and electrode interfaces;
4. Electrochemical performance and stability;
5. Thin-film batteries;
6. Battery design;
7. Sustainable battery development.





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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.

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