



Coating Electrode Materials for Next-Generation Energy Storage

Guest Editors:

Prof. Dr. Xiaowen Zhan

School of Materials Science and Engineering, Anhui University, Hefei 230601, China

Dr. Wei Sun

School of Petrochemical Engineering, Liaoning Petrochemical University, Fushun 113001, China

Dr. Jiangtao Hu

College of Chemistry and Environmental Engineering, Graphene Composite Research center, Shenzhen University, Shenzhen 518060, China

Deadline for manuscript submissions:

closed (20 May 2024)

Message from the Guest Editors

Dear Colleagues,

This special issue will cover surface and interface modifications of electrode materials for different battery chemistries, especially “beyond lithium-ion”, aimed at next-generation energy storage. Considering your outstanding contribution in this emerging field, I would like to cordially invite you to submit a research paper or a mini review of your research to this special issue focusing on the application of electrode coating in the context of following topics:

- Lithium-ion and lithium-metal batteries
- Sodium-ion and sodium-metal batteries
- Aqueous zinc-ion and zinc-metal batteries
- Supercapacitors
- Aqueous metal-air batteries
- Other alkali and multivalent batteries including K, Al, and Mg batteries
- Solid-state lithium/sodium-metal batteries

The scope includes their material development, testing, modelling, applications, and economy analysis.

We look forward to receiving your contributions.





an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Wei Pan

State Key Laboratory of New
Ceramics and Fine Processing,
School of Materials Science &
Engineering, Tsinghua University,
Beijing 100084, China

Dr. Emerson Coy

NanoBioMedical Centre, Adam
Mickiewicz University in Poznań,
ul. Wszechnicy Piastowskiej 3, 61-
614 Poznań, Poland

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Surfaces, Coatings and Films*)

Contact Us

Coatings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/coatings
coatings@mdpi.com
X@Coatings_MDPI