

Special Issue

Interfaces in Metal Battery

Message from the Guest Editors

Among the numerous anode materials for rechargeable battery, the metal anode has become a research hotspot in recent years owing to its high theoretical capacity at a low operating potential. Therefore, the adoption of a metal anode with high electrochemical performance and stability holds great significance for the development of high energy-density energy storage systems. Main topics of this Special Issue:

- Recent developments in electrolyte formulation, including but not limited to additive, solid-state electrolytes and high-concentration electrolytes;
- Construction of artificial SEI film by manufacturing processes, thermal spray, laser and plasma processing, CVD, plating, etc.;
- Understanding the degradation mechanisms of metal anode by a series of advanced in situ/ex situ characterization techniques;
- The latest development of test methods considering the interplay between test technique and field performance data;
- Theoretical and experimental research, knowledge, and new ideas in corrosion protective mechanisms;
- Computer modeling, simulation to reveal the electrochemical performance, durability, and reliability of metal anodes in service environments.

Guest Editors

Dr. Wen Luo

1. Department of Physics, School of Science, Wuhan University of Technology, Wuhan 430070, China

2. State Key Laboratory of Advanced Technology for Materials Synthesis and Processing, Wuhan University of Technology, Wuhan 430070, China

Prof. Dr. Jean Jacques Gaumet

LCP-A2MC, Institut Jean Barriol, Université de Lorraine, 1 Bd Arago, 57070 Metz, France

Deadline for manuscript submissions

closed (31 March 2022)



Coatings

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.4



mdpi.com/si/93877

Coatings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
coatings@mdpi.com

[mdpi.com/journal/
coatings](https://mdpi.com/journal/coatings)





Coatings

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.4



[mdpi.com/journal/
coatings](https://mdpi.com/journal/coatings)



About the Journal

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.

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

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), Ei Compendex, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Surfaces, Coatings and Films)