

## Special Issue

# Advances in Metal Materials: Electrochemical Characterization and Applications

### Message from the Guest Editor

Applied electrochemistry uses numerous methods to progressively improve the quality of life via the study of charge transfer phenomena. Electroanalytical techniques provide unique information about mechanisms and systems that are currently involved in the necessary development of a broad range of technologies, including energy conversion, conservation and storage, new battery systems, supercapacitors, solar cells, industrial synthesis, corrosion, electroplating, electrodeposition, medical application, and sensors. Thus, this Special Issue aims to compile original and innovative studies on electrochemical characterization techniques that are frequently applied to perform electrochemical studies of metallic materials. All these techniques provide clear insight into the interfacial electrochemical behavior between electrode and electrolyte. Energy saving, corrosion prevention and health pose challenges to which electrochemistry can contribute. Additionally, corrosion and protection are among the subjects that requires attention since their mitigation can preserve resources in several industries.

---

### Guest Editor

Dr. Lorena Freire

AIMEN Technology Center, Relva 27A, 36410 O Porriño, Spain

---

### Deadline for manuscript submissions

20 November 2025



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/188346](https://mdpi.com/si/188346)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

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

[appls](https://appls)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



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



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### 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, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )