Special Issue

Electrochemical and Corrosion Behavior of Promising Metallic Materials in the Field of Recent Research

Message from the Guest Editor

Magnesium and its alloys have excellent physical and chemical properties such as low density, high strength, thermal conductivity, good damping performance, biocompatibility, recyclability, etc. They are considered to have great application potential especially in the fields of transportation (including aerospace) and biomedical applications. Unfortunately, poor corrosion resistance is the most important property that limits the industrial application of magnesium-based materials. In recent years, efforts have been made to develop new compositions, surface modifications, or deformation processes to improve the corrosion resistance of magnesium and its alloys. Despite the large scientific progress, there is still potential for the development of new solutions and overcoming the knowledge gap. The scope of this Special Issue should provide comprehensive insight on corrosion processes in different environments and under different conditions, anti-corrosion coatings of different origins including current trends and advanced strategies such as superhydrophobic treatments, smart materials, etc., and corrosion inhibitors. Review papers are also welcome.

Guest Editor

Dr. Leoš Doskočil

Faculty of Chemistry, Institute of Materials Chemistry Institution, Brno University of Technology, Brno, Czech Republic

Deadline for manuscript submissions

closed (10 November 2023)

Coatings

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.4

mdpi.com/si/62966

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

mdpi.com/journal/coatings

Coatings

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.4

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

Journal Rank:

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

MDPI