

# Special Issue

## Advanced Biomaterials and Coatings

### Message from the Guest Editors

The ageing of the worldwide population requires the continuous development of advanced biomaterials and coatings by academic and industrial research. Inside the body, the implanted materials need specific biological, chemical, and mechanical properties for a good interaction with the surrounding tissues. Specifically, orthopaedic and dental surgeries need bone implants with enhanced properties and an extended lifespan. To reach this objective, many research labs focus their works on improving the osseointegration of bone implants by modifying the surface of prosthetic alloys with bioactive coatings made of calcium phosphate or bioglass. These coatings support bone cell growth at the surface of the implant, promoting the formation of an intimate link with the surrounding bone tissues. Several methods can be used to synthesize bioactive coatings on prosthetic alloys such as plasma spraying, magnetron sputtering, pulsed laser-deposition, electrophoretic deposition, or electrodeposition. In that framework, this Special Issue aims to present the latest developments in this field.

### Guest Editors

Dr. Richard Drevet

Department of Plasma Physics and Technology, Masaryk University, Brno, Czech Republic

Prof. Hicham Benhayoune

Institut de Thermique, Mécanique et Matériaux (ITheMM), Université de Reims Champagne-Ardenne (URCA), Reims, France

### Deadline for manuscript submissions

closed (31 December 2024)



## Coatings

an Open Access Journal  
by MDPI

Impact Factor 2.8  
CiteScore 5.4



[mdpi.com/si/119630](https://mdpi.com/si/119630)

*Coatings*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[coatings@mdpi.com](mailto: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), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.

#### Journal Rank:

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