

Special Issue

Fabrication and Biomedical Applications of Multifunctional Bio-Interfaces

Message from the Guest Editor

Biomaterials and biomaterial coatings play a crucial role in various biomedical applications, ranging from enhanced osseointegration with inert ceramic coatings to the prevention of thrombosis via heparin-eluting stents. These coatings' success or failure depends on factors such as surface roughness and chemical functional groups, which greatly impact the bio-interface and its interactions. Understanding these effects is essential to the optimization of the bio-interface and its interactions; for example, reducing stem cell differentiation or increasing osteointegration via the surface roughness. In this Special Issue, original research articles and reviews are welcome. Research areas may include, but are not limited to, the following:

- Intriguing fabrication methodologies and recent developments in biomaterials and bio-interfaces;
- Multi-functionality of biomedicine, and bio-interfacing and devices;
- Investigations into the interaction of the material-biological environment and its effects on in vitro/in vivo research;
- Applications of materials for tissue engineering, including orthopedics, dentistry, etc.

Guest Editor

Dr. Callum Arthur Charles Stewart

Institute for Frontier Materials, Deakin University, Waurn Ponds, VIC 3216, Australia

Deadline for manuscript submissions

closed (14 February 2025)



Coatings

an Open Access Journal
by MDPI

Impact Factor 2.8
CiteScore 5.4



mdpi.com/si/183173

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](http://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, peer-reviewed, 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. Wszechniczy 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)

