

Special Issue

Advanced Surface Functionalization for Enhancing Tribological Performance

Message from the Guest Editors

A material's surface state is the most critical factor when considering physical phenomena that involve the exchange of energy. Over the last few decades, the advances in the knowledge of surface phenomena, in combination with ever-improving characterization methods with higher resolution, have led to breakthroughs in many fields, such as tribology, energy, biology, optics, etc. The focus of this Special Issue will be on approaches of surface functionalization to tackle friction and wear. A successful design of surfaces with enhanced tribological performance will contribute to meeting industrial demands for innovation and sustainability. Possible applications for such surfaces comprise the automotive, aerospace, power, or biomedical sector. We also call for experimental or computational studies focusing on surface functionalization with the aim to improve the tribological performance. In particular, these include, but are not limited to, development of coating systems with reduced friction and/or wear, surface texturing techniques, the combination of surface textures and coatings, multiscale or hierarchical surfaces, bioinspired surfaces, and tribofilm formation.

Guest Editors

Prof. Dr. Carsten Gachot

Institute for Engineering Design and Logistics Engineering, Vienna University of Technology (TU Wien), 1040 Vienna, Austria

Dr. Philipp Grützmacher

Tribology Research Division, Institute of Engineering Design and Product Development, Vienna University of Technology, 1060 Vienna, Austria

Deadline for manuscript submissions

closed (15 August 2022)



Coatings

an Open Access Journal
by MDPI

Impact Factor 2.9
CiteScore 5.0



mdpi.com/si/87809

Coatings

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 2.9
CiteScore 5.0



[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, CAPIus / SciFinder, and other databases.

Journal Rank:

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