Special Issue

Tribological and Mechanical Properties of Coatings

Message from the Guest Editors

The goal of this Special Issue is to provide a forum for papers on the following subjects:

- Theoretical and experimental approaches on the wear prevention of protective coatings.
- Computational modelling and simulation of tribocontacts to predict wear and friction of single-component, multilayer, gradient or nanocomposite coatings, from the sub-atomic level to engineering macroscale.
- Instrumented indentation, instrumented scratching, in situ microscopy, and spectroscopy to predict additional mechanical properties of coatings, e.g., fracture toughness, residual stress at room and high temperature.
- High-temperature mechanical testing of coatings.
- Conventional and sophisticated characterization techniques (in situ, AFM, FIB, atom probe tomography, synchrotron X-ray nanodiffraction, micromechanical testing) for the investigation of tribological properties of coatings.
- Wear and friction testing of coated systems to mimic practical service environments.

We look forward to receiving your contributions.

Guest Editors

Prof. Dr. María Cristina Moré Farias

Graduate Program in Materials Science and Engineering, University of Caxias do Sul, Caxias do Sul P.O Box 1352, Brazil

Dr. Polyana Alves Radi

Programa de Pós-Graduação em Engenharia e Ciência de Materiais (PPG-ECM), UNIFESP, 12231-280 São José dos Campos, Brazil

Deadline for manuscript submissions

closed (10 December 2025)

Coatings

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.4

mdpi.com/si/139732

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

Journal Rank:

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

MDPI