

## Mechanical Properties of Advanced Multifunctional Coatings

Guest Editors:

**Dr. Rong-Guang Xu**

**Prof. Dr. Zhitong Chen**

**Prof. Dr. Peijian Chen**

**Prof. Dr. Guangjian Peng**

Deadline for manuscript  
submissions:

**closed (28 February 2022)**

### Message from the Guest Editors

Advanced multifunctional coatings have been widely used in different fields, such as aeronautics, transportation, biomedicine, electrical and electronic equipment, etc., due to the great and unpredicted progress in their synthesis, characterization, and properties. Mechanical properties are key to how advanced multifunctional coatings interact with external forces and environmental factors. An in-depth understanding of mechanical properties of these coatings, however, still requires complex material modeling and characterization tools. This Special Issue aims to present the latest findings and to promote further research in the areas of mechanical behaviors of advanced multifunctional coatings, including experimental characterization and theoretical calculations.

Potential topics:

- Advanced multifunctional coatings in mechatronics;
- Advanced characterization methods and tools;
- Advanced coatings for preparation and applications;
- Numerical simulations and computational modeling, including FEM/XFEM, MD, MC, DFT, etc.;
- Theoretical studies;
- Design and synthesis strategies affecting mechanical behaviors;
- Industrial case studies.



## 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

## Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge 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 at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. *Coatings* is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. *Coatings* publishes original research articles that report cutting-edge results and review papers on the hottest topics.

## 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, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Materials Science, Coatings & Films*) / CiteScore - Q2 (*Surfaces and Interfaces*)

## Contact Us

*Coatings* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/coatings  
coatings@mdpi.com  
X@Coatings\_MDPI