

Special Issue

Advanced Plasma Surface Treatments and Their Applications in Coating Technologies

Message from the Guest Editors

We would like to invite you to contribute to this Special Issue. Plasma surface treatments (PSTs) such as nitriding, carburizing, and advanced coatings functionalize surfaces, improving the mechanical, thermal, and corrosion performance of metallic substrates, along with other tailored properties (e.g., biocompatibility, catalysis, antibacterial response, self-lubrication, etc.). These techniques' extensive applications range from structural components, particularly in the transport sector, to more advanced fields, such as bioengineering. We welcome experimental investigations, theoretical modeling, and computer simulations of kinetic processes and mechanisms involved in PSTs, particularly as they relate to:

- Fundamental understanding, properties and performance of PST processes;
- Coating technologies combined with PSTs;
- Nitriding, carburizing, and other surface treatments;
- Functionalization and Bio-applications of PST surfaces;
- Mass-transport processes;
- Modeling and computer simulations.

Guest Editors

Prof. Dr. Arvidas Galdikas

1. Physics Department, Kaunas University of Technology, 50 Studentų St., 51368 Kaunas, Lithuania

2. Department of Physics, Mathematics and Biophysics, Lithuanian University of Health Sciences, 4 Eivenių St., 50166 Kaunas, Lithuania

Dr. Teresa Moskalioviene

Physics Department, Kaunas University of Technology, 50 Studentų St., 51368 Kaunas, Lithuania

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Coatings
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
coatings@mdpi.com

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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

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