

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

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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.

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