Special Issue

Electron-Ion-Plasma Technology Applied to Surface Engineering

Message from the Guest Editor

Electron-ion-plasma technology provides a very important direction for the surface engineering of materials and products. Due to its application, it is possible to significantly improve the functional properties of the material surface layer with thicknesses from hundreds of nanometers to hundreds of micrometers. It includes methods such as PVD (magnetron sputtering, vacuum arc deposition, etc.), and the treatment of surface materials via plasma, electron or ion beams. Nowadays, the trend of modern technologies is the use of a hybrid method, combining a few methods in different sequences, e.g., the coatings deposition and electron-beam treatment, nitriding and PVD, etc., in a single vacuum cycle. In particular, the topics of interest include, but are not limited to:

- PVD methods;
- Functional coatings;
- Electron-beam treatment of material surface;
- Ion-beam treatment of material surface;
- Hybrid electron-ion-plasma treatment of material surface;
- Properties, structure and composition of treated materials;
- Equipment for surface engineering;
- Application of electron-ion-plasma technologies.

Guest Editor

Dr. Olga Krysina
Institute of High Current Electronics SB RAS, Tomsk, Russia

Deadline for manuscript submissions

closed (31 March 2024)

Coatings

an Open Access Journal by MDPI

Impact Factor 2.8
CiteScore 5.4

mdpi.com/si/92307

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