



Nanostructured Materials and Interfaces: Energy and Environmental Applications

Guest Editors:

Dr. Ana Pimentel

CENIMAT/i3N, Department of Materials Science, NOVA School of Science and Technology (NOVA-FCT) and CEMOP/UNINOVA, NOVA University Lisbon, Campus de Caparica, 2829-516 Caparica, Portugal

Dr. Daniela Nunes

CENIMAT/i3N, Department of Materials Science, School of Science and Technology, NOVA University Lisbon, 2829-516 Caparica, Portugal

Deadline for manuscript submissions:

closed (31 December 2023)

Message from the Guest Editors

Dear Colleagues,

This Special Issue aims to give an overview of recent advances in metal and metal oxide nanostructures and nanostructured films that could contribute to water and air purification and energy production and saving, simultaneously maximizing the exploitation of our natural resources while protecting the environment. Original research article, review, and progress report submissions on theoretical and experimental results are also welcome.

Submissions are welcome in the following areas with relation (but not limited) to the synthesis and characterization of nanomaterials, nanostructured films, and hybrid nanostructured materials, applications of nanomaterials for the degradation of various types of pollutants (dyes, heavy metals, etc.), H₂ generation, oxygen evolution reaction, CO₂ reduction, water splitting, etc.

With the aim being energy and environmental applications, potential topics include, but are not limited to, the following:

- Synthesis and properties of nanostructures;
- Green synthesis of nanomaterials;
- Metal and metal oxide nanoparticles and nanostructured films;
- Photo and electro catalysis;
- CO₂ reduction;
- H₂ generation





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 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.

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)

Contact Us

Coatings Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/coatings
coatings@mdpi.com
X@Coatings_MDPI