Special Issue

Design of Nanostructures for Energy and Environmental Applications

Message from the Guest Editors

This Special Issue aims to report on recent advances in the application of various nanomaterials in energy and environmental applications. For the energy applications, the structure design of the energy devices is essential, including the deposition of electrodes and the process of electrolytes for batteries, the coating of friction materials for nanogenerators, and the dielectric layer for capacitors. For environmental applications, the design of nanostructures that are either recyclable or transient in circuit, or capable of serving as CO2 reduction catalysts, is highly welcome. The topics of particular interest include, but are not limited to:

- Synthesis, characterization and performance of 1D and 2D nanomaterials.
- High-performance photocatalysts for hydrogen production and CO2 reduction.
- Structures and recycling processes for transient electronics.
- Design and sintering techniques of conductors for solar cells and capacitors.
- Processing of solid-state electrolytes for lithium batteries.
- Structure design and property measurement of nanogenerators.

Guest Editors

Dr. Su Ding
Dr. Yong Wang
Dr. Ruiliu Wang

Deadline for manuscript submissions

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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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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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