Special Issue

Environmentally Friendly Energy Conversion Materials and Thin Films

Message from the Guest Editors

With advancements in nanotechnology and material science, coating technologies in general and especially for thin films are becoming increasingly tailored to meet specific demands, offering enhanced functionalities while minimizing resource consumption. Thin film materials used in energy conversion offer opportunities to improve the performance and efficiency of these devices, such as fuel cells, batteries, solar cells, and thermoelectric generators. The purpose of this Special Issue is to highlight research on multidisciplinary material synthesis, processing, development and application of coating technologies, and characterization of functional thin films consisting of metal oxides, organic/inorganic hybrids, organic/inorganic semiconductors, and their applications in diverse devices, including the following:

- Coating technologies;
- Highly efficient energy conversion systems;
- Photovoltaics;
- Thermoelectrics;
- Piezoelectric thin films;
- Solar cells;
- Optoelectronic devices;
- Fuel cells;
- Batteries;
- Supercapacitors;
- Thin film photocatalysis.

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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