

Special Issue

Nanostructured Thin Film Materials for Magnetic and Photovoltaic Applications

Message from the Guest Editor

Current research in renewable and sustainable energy solutions focuses on developing new materials, either magnetic materials or semiconductors, which have shown potential for such applications. The next-generation goal for this research lies in applications such as hybrid vehicles, spintronics, low-cost solar energy production, and most importantly building a pathway to sustainable human civilization without any need of critical materials such as fossil fuels. In the light of this research goal, this Special Issue focuses on the following:

- Studying nanostructured thin films for photovoltaic applications: novel synthesis techniques, new/improved photovoltaic properties, etc.
- Obtaining a deep understanding of thin-film photovoltaics with modified band structure achieved through doping or gating.
- Understanding the spin structure of thin-film magnetic materials for potential energy solutions.
- New magnetic nanostructured films with intriguing properties which can be exploited to build spintronic solutions to energy problems.

Guest Editor

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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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