

Special Issue

Advanced Thin Films for Opto-Electronic and Photovoltaic Applications

Message from the Guest Editor

Thin films and engineered surfaces have a huge potential in the realization of electrical-to-optical and optical-to-electrical transducers. New inorganic and organic optical materials, semiconductors, smart materials, nanostructures, nanocarbon, nanotubes, graphene, bioinspired and ecofriendly materials, perovskites, and related hybrid materials could be prepared as thin films with high optical quality, thus finding application in light-emitting devices, solar cells, flexible and stretchable devices, etc. Different film production strategies, including “dry” and “wet” deposition methods, are developed and optimized. Particular care is devoted to large-area deposition, high resolution patterning, solution-processing and printing, self-assembly and related fabrication techniques and emerging more environmentally friendly technologies which do not employ hazardous chemicals.

This Special Issue aims to cover recent trends and latest research advances in the field of thin film production, characterization and application to photonics, optical sensing, and solar and green energy production.

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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