Special Issue

Emerging Applications of Advanced Thin Films

Message from the Guest Editor

Advanced thin films serve as foundational components in modern technologies, including microelectronics, photovoltaics, sensors, and biomedical systems. Often described as the “skin” of a material, thin films form the critical interface with the environment, tasked with protecting underlying substrates while enabling or enhancing specific electrical, optical, mechanical, or chemical functionalities. They must also adapt responsively to external stimuli such as temperature, humidity, light, or chemical exposure. Meeting these multifunctional demands poses significant challenges. A variety of deposition and surface modification techniques are at the forefront of addressing these needs. As intelligent, multifunctional skins, advanced thin films are becoming indispensable to the performance and innovation of next-generation devices and materials.

- advanced thin films
- materials and devices
- thin films applications
- multifunctional skins
- foundational components
- deposition
- surface techniques
- coatings
- self-cleaning materials
- auxetic films

Guest Editor

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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