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Preparation and Characterization of Thin Films and Its Applications in Renewable Energy

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Deadline for manuscript
submissions:

closed (20 August 2022)

Message from the Guest Editor

Dear Colleagues,

Thin film materials have attracted much attention in recent years. These materials have been produced by different methods, such as chemical vapor deposition (CVD), physical vapor deposition (PVD), sol-gel coating, spray pyrolysis, atomic layer deposition (ALD), chemical bath deposition (CBD), and electroplating. Novel coating methods, such as sol-gel coating and CBD methods, lead to the production of nanoscale materials, which have enhanced surface properties that are essential in energy harvesting and storage. Thin film materials have been investigated for the application of many conventional devices, such as solar cells, photo electro-electro-chemical cells, supercapacitors, thin film batteries, electron emission devices, and photo-catalysts. In addition, novel thin film-based devices can be designed and fabricated for energy harvesting and storage applications. We are interested with the designing, synthesis, characterization, and fabrication of various devices using thin film materials. Theoretical studies, such as new theories that can be used to explain existing material/device phenomena and modeling of device functionalities, are also interested.



mdpi.com/si/75107

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Editor-in-Chief

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Message from the Editor-in-Chief

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