Special Issue

Thin Film Materials for Si-Based Photovoltaics: Preparation and Properties

Message from the Guest Editor

A number of modern global problems have led to a significant increase in the importance of renewable energy. Solar energy is seen as the most promising source of electricity generation. Silicon is, by far, the most common semiconductor material used in photovoltaics for the cheap raw silicon materials, its environmental friendliness, and the high level of development of modern electronics technologies. Silicon photovoltaics currently accounts for approximately 95% of the global photovoltaic market share. Thin-film technologies are the basis of thin-film devices, and they play a critical role in modern crystalline (c-Si) solar cells. Thin films are widely used in c-Si devices to create carrier-selective and/or passivating contacts. It is our pleasure to invite you to submit a manuscript to this Special Issue. Original research articles and reviews are welcome. Topics of interest for this Special Issue include, but are not limited to: Thin film fabrication technologies;
Thin-film structures and devices;
Structural, morphological, optical, and electrical properties of thin films;
Selective and passivating and contacts;
Transparent conducting oxide layers.

Guest Editor

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Deadline for manuscript submissions

closed (30 April 2024)

Coatings

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Impact Factor 2.8
CiteScore 5.4

mdpi.com/si/132639

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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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