Special Issue

Advances in Thin Films for Solar Energy Devices

Message from the Guest Editor

Solar energy devices directly convert sun energy into electrical energy via a photovoltaic effect. During the past decades, a variety of photovoltaic devices have been developed, including silicon-based solar cells, compound thin-film solar cells, and new-concept solar cells. The rise of new materials and new technologies has opened up new frontiers for the development of high-efficiency next-generation photovoltaics. In particular, the advances in thin films continuously lead to the improvement of device performance, enabling the use of low-cost materials and simple manufacturing processes to achieve effective capture of photons and rapid separation and extraction of photogenerated carriers. This Special Issue of *Materials*, "Advances in Thin Films for Solar Energy Devices", aims to present the current state-of-the-art research in novel thin-film properties and advanced film processing for photovoltaic applications. This includes the fabrication and characterization of thin films and corresponding devices, as well as related device physics. We invite authors to contribute original research articles and review articles.

Guest Editor

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Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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