Special Issue

Recent Developments and Future Challenges in Photovoltaic Materials

Message from the Guest Editors

This research topic is aimed at showcasing the recent developments and future challenges in new advanced materials for solar cell technology using methods other than fabrication and characterization, followed by the demonstration of their innovative applications for photovoltaic solar cells. Furthermore, we intend to invite the whole community of academic and industrial researchers involved in both fundamental studies and applied solutions to share their recent findings, views, and expectations in this challenging field of research concerning new advanced materials and their integration in a solar cell technology. Specific research areas of interest include, but are not limited to, the following: Advances in the synthesis and characterization of new advanced materials for solar cell technology; Quantum dot photovoltaic materials and devices; New methods for the deposition of advanced materials based on thin films; New concepts and device architectures for the next generation of solar cells; Carbon nanomaterials for the improvement of PV devices; The large-scale production of third-generation solar cell technologies using nanostructured metal oxide.

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Message from the Editorial Board

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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