



Advances in Emerging Solar Cells

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Message from the Guest Editor

Solar cells, which convert sunlight into electricity, are renewable sources of energy that are sustainable and totally inexhaustible. In particular, emerging solar cells have received intense attention because these classes of solar cells, in comparison to traditional silicon solar cells, promise to be less expensive, lighter, more flexible, and portable. Despite these features, there are some challenges that restrict the possible commercialization of these technologies. Many of these challenges can be addressed with the use of nanostructured materials. Over the past years, excellent research progress has been made in this cutting-edge research area. Moreover, it is very likely that the use of nanomaterials will contribute significantly to the future development of these emerging solar technologies.

The purpose of this Special Issue is to collect state-of-the-art works on photovoltaics, in particular on the application of nanostructured materials for emerging solar cells. In addition to original research papers, comprehensive review articles highlighting recent advances that have been made in the field of emerging solar cells are most welcomed.





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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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