

Special Issue

Advanced Nanomaterials and Nanotechnology for Solar Cells

Message from the Guest Editors

Nanomaterials are materials that are typically in the low-nanometer size range and have characteristic mesoscopic properties, making them one of the most attractive objects, both in fundamental research and functional applications. Due to their diverse applications, solar cells based on nanomaterials and nanotechnologies can be used with an interdisciplinary approach in physics, chemistry, and material science, attracting a growing number of researchers that are pushing this field forward. In this Special Issue, original research articles and reviews are welcome. Research areas may include (but are not limited to) the following: fundamental physicochemical investigations; material design; technological advances; single-junction solar cells (perovskite solar cells, organic solar cells, , dye-sensitized solar cells, quantum dot solar cells, CIGS solar cells, CdTe solar cells, and silicon solar cells); and tandem multi-junction solar cells. These aspects highlighting the use of nanotechnology in improving the performance of solar cells will be discussed in this themed Special Issue.

Guest Editors

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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.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

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