



Advances in Semiconductor Materials for Perovskite Solar Cells

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Message from the Guest Editors

Dear Colleagues,

Perovskite solar cells (PSCs) have received much attention in the last few years, and their power conversion efficiency has increased to over 25%. The efficiency of PSCs is comparable to that of silicon solar cells and is expected to be an important direction for a low-carbon society in the future. The development of novel nanomaterials, such as hole/electron transporting materials, perovskite materials, and carbon materials, is a potential way to further enhance power conversion efficiency and device stability.

The aim of this Special Issue is to collect state-of-the-art contributions related to various applications of novel semiconductor materials in the field of perovskite solar cells. This includes but is not limited to electrode materials, perovskite materials, hole/electron transport materials, and their applications in photovoltaic devices. Authors are encouraged to highlight the advantageous features of these materials as well as to address their current limitations and challenges.





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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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