

Special Issue

Nanomaterials and Thin Films for Perovskite Solar Cells

Message from the Guest Editor

Recently, perovskite solar cells have emerged as the most promising new generation of photovoltaic technology. Although significant progress with power conversion efficiency exceeding 25% has been made in recent years, the advances in new perovskite materials and additives, understanding of the role of interfaces in devices, and new techniques for perovskite solar cells are still far from satisfactory. In this Special Issue, we would like to provide an overview of the recent developments in the field of perovskite solar cells based on nanomaterials and thin films, including, for example, new structures of perovskite materials, lead-free perovskite solar cells, new fabrication techniques, the evolution of device architectures, degradation mechanisms for devices under water, heat and light, the challenges and outlooks of perovskite solar cells, and so on. Computational modeling and theoretical approaches for the physical properties and commercialization of perovskite solar cells also welcome.

Guest Editor

Dr. Jie Zhang

Guangdong Provincial Key Laboratory of Fuel Cell Technology, School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou 510641, China

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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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. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

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