Special Issue

Fabrication, Properties and Applications of Perovskite Solar Cells

Message from the Guest Editor

Two-dimensional perovskites have emerged as a promising material in solar cell technology due to their enhanced stability and tunable optoelectronic properties. Their layered structure allows for greater flexibility in engineering bandgaps, which can optimize light absorption and charge carrier dynamics, leading to higher power conversion efficiencies. These advantages position 2D perovskites as a key material in advancing the commercialization of perovskite solar cells, addressing critical challenges related to stability and efficiency.This Special Issue seeks to gather high-quality manuscripts focused on the latest advancements in perovskite solar cells, with a particular emphasis on the discovery and application of 2D perovskites. We aim to highlight cutting-edge research that explores the unique properties of 2D perovskites, such as their enhanced stability, tunable optoelectronic characteristics, and potential to overcome the limitations of traditional 3D perovskites. We invite researchers to share their insights and breakthroughs, fostering a deeper understanding of how 2D perovskites can drive the future of solar energy technologies.

Guest Editor

Dr. Wenxin Mao

Department of Chemical Engineering and Biotechnology, University of Cambridge, Cambridge, UK

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Molecules
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
molecules@mdpi.com

mdpi.com/journal/molecules

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As the premier open access journal dedicated to molecular chemistry, now in its 29th year of publication, the papers published in *Molecules* span from classical synthetic methodology to natural product isolation and characterization, as well as physicochemical studies and the applications of these molecules as pharmaceuticals, catalysts, and novel materials. Pushing the boundaries of the discipline, we invite papers on all major fields of molecular chemistry and multidisciplinary topics bridging chemistry with biology, physics, and materials science, as well as timely reviews and topical issues on cutting-edge fields in all of these areas.

Editor-in-Chief

Prof. Dr. Thomas J. Schmidt
Institute of Pharmaceutical Biology and Phytochemistry, University of Münster, Corrensstrasse 48, D-48149 Münster, Germany

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