Special Issue

Perovskite Solar Cells: Materials, Technologies, Developments and Future Prospects

Message from the Guest Editors

Perovskite solar cells (PSCs) have emerged as a revolutionary photovoltaic technology due to their exceptional power conversion efficiency, low-cost fabrication, and tunable optoelectronic properties. This Special Issue explores recent advancements in perovskite materials, device architectures, scalable manufacturing techniques, and stability-enhancing strategies. We therefore welcome the submission of articles that highlight innovations in composition engineering, interfacial modifications, and computational modeling, alongside discussions regarding their commercialization and environmental impact. By bridging fundamental research and industrial applications, this Special Issue aims to accelerate the transition of PSCs from lab-scale breakthroughs to sustainable energy solutions. We invite researchers to share innovative findings that address efficiency, durability, and scalability, which are key to the future of perovskite photovoltaics.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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