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Advances of Perovskite Solar Cells

Guest Editors:

Dr. Jing Wei

School of Materials Science and Engineering, Beijing Institute of Technology, Beijing 100081, China

Prof. Dr. Fangze Liu

School of Materials Science and Engineering, Beijing Institute of Technology, Beijing 100081, China

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Message from the Guest Editors

For perovskite solar cells (PSCs) to become a cost-effective photovoltaic technology, their efficiency, stability and industrialization are the basic merits to consider. Among these aspects, the working stability can become a large obstacle for the development of PSCs, which is mainly due to the light sensitivity of the device. In the past few years, there have been significant advances in studies on the crystal growth process, photo/moisture/oxygen/heat-induced degradation, performance optimization and the device structure design of perovskite solar cells in terms of both mechanisms and solutions. However, how do environmental factors affect the formation/degradation of the perovskite lattice? Which is more suitable for commercial development, component engineering or pure phase perovskite? How can perovskite devices achieve long-term development in the silicon market? These are currently open questions, as well as hot and timely topics. The present Special Issue on “Perovskite Solar Cells” may become a status report summarizing the progress achieved in the last five years.



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Special Issue



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Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, PI, Italy

Message from the Editor-in-Chief

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Crystals Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

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