



Mechanisms, Materials and Devices for Emerging Solar Photovoltaic and Lithium Battery Technologies

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Message from the Guest Editors

Solar photovoltaics is one of the major solutions for minimizing the use of fossil fuels to solve pivotal energy and environmental issues. For this, it is necessary to ensure electricity generation from solar energy in a cheap but effective way, and it requires going beyond traditional and existing technologies. In order to further promote these photovoltaic characteristics and achieve industrial use of the emerging semiconductor materials, academic scholars and R&D teams need to put the focus on revealing mechanisms for performance improvement and degradation, designing new efficient architecture, enhancing device performance (including conversion efficiency and stability), as well as replacing expensive or highly toxic chemicals used in device fabrication.

Special Issue provides a platform for researchers in the field of photovoltaic applications, including but not limited to organic solar cells, quantum dot solar cells, perovskite solar cells, dye-sensitized solar cells, etc. Papers published in this Special Issue describe original works, focusing on theoretical calculations, surface modifications, cost-efficient methods, and materials development.





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