Special Issue

Next-Generation Solar Cells

Message from the Guest Editor

Solar cells have attracted much attention as a renewable energy source because of their clean, quiet, and reliable properties. However, the crystalline silicon solar cells that occupy most of the market share today currently provide only a small fraction of global energy demand, mainly due to their high fabrication cost. Therefore, significant research effort has been focused on the development of next-generation solar cells, including thin film solar cells, dye-sensitized solar cells (DSSCs), organic solar cells, and quantum dot solar cells. In particular, recently, perovskite solar cells have emerged as a leading next-generation solar cell because of their excellent conversion efficiency. This Special Issue will focus on the materials, system, and fabrication process of next-generation solar cells, including thin film solar cells, DSSCs, organic solar cells, quantum dot solar cells, and perovskite solar cells. We invite not only original research articles but also review papers that provide important insight into the development of next-generation solar cells.

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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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