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Next-Generation Solar Cells

Guest Editor:

Prof. Dr. Jae-Yup Kim

Department of Chemical
Engineering, Dankook University,
152 Jukjeon-ro, Suji-gu, Yongin-si,
Gyeonggi-do, Republic of Korea

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Message from the Guest Editor

Dear Colleagues,

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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Special Issue



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Editor-in-Chief

Prof. Dr. Enrico Sciubba

Department of Mechanical and
Aerospace Engineering,
University of Roma Sapienza, Via
Eudossiana 18, 00184 Roma, Italy

Message from the Editor-in-Chief

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Energies Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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