Special Issue

Advances in Photovoltaic Technologies

Message from the Guest Editors

Solar energy is one of the viable pathways to build a global energy consumption with net-zero emissions by 2050. The report of BloombergNEF (BNEF) states that at least 455GW of new solar PV capacity should be installed each year by 2030 and 20TW of solar systems should be installed by 2050. For this Special Issue, we invite authors to submit articles on the following topics:

- Novel methods to improve the efficiency or enhance the light harvesting of solar cells and modules.
- New materials for photovoltaics to achieve a higher power output or better reliability with solar cells and modules.
- Emerging solar technologies such as heterojunctions (HIT), tunnel oxide passivated carrier-selective contacts (TOPCon) for crystalline Si solar technology, thin film technology, perovskite cells, dye-sensitized solar cells (DSSC) and organic solar cells (OPV) for organic–inorganic solar technology, quantum dot solar cell technology and 2T or 4T tandem solar cell technology.
- New PV applications for lightweight, flexible, Internet of Things (IoT), semi-transparent, outer space or hydrogen production.

Guest Editors

Prof. Dr. Kun-Mu Lee

Department of Chemical and Materials Engineering, Chang Gung University, Taoyuan City 33302, Taiwan

Dr. Wei-Hao Chiu

Center for Green Technology, Chang Gung University, Taoyuan 33302, Taiwan

Deadline for manuscript submissions

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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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About the Journal

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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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