Special Issue

Advances in Solar Photovoltaic/Thermal (PV/T) Systems for Combined Energy Production and Efficient Thermal Management

Message from the Guest Editors

The transformation of solar energy into usable forms is an essential field for reducing carbon emissions and increasing the market share of energy generated from renewable sources. Specifically, solar photovoltaic/thermal systems can provide sustainable electrical energy and thermal energy simultaneously, potentially covering most building energy consumption. Advanced PV/T systems typically include innovative solar panel designs that incorporate both PV cells for electricity and heat-absorbing materials for thermal energy collection. Additionally, advanced thermal management techniques are employed to regulate and utilize the heat generated by the system for various applications such as space heating, water heating, power generation or industrial processes. This Special Issue aims to present the advances in PV/T systems and thermal energy management in terms of theoretical, experimental and economic studies and to provide a deeper understanding of contemporary trends.

Keywords

- solar thermal collectors
- PV/T
- solar-assisted ORC
- compact thermal energy storage

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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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