

Special Issue

Solar Energy Applications: Thermal and Photovoltaic Opportunities and Challenges

Message from the Guest Editors

Solar energy, encompassing both photovoltaic (PV) and thermal technologies, has become a crucial aspect of the energy transition. In response to the growing scarcity of energy and the uncontrolled degradation of the environment, which manifests through wildfires and floods, solar energy applications are expanding across various sectors, offering ecological and sustainable solutions. This Special Issue explores the advances and challenges associated with the integration of solar energy systems (both thermal and PV) into key areas such as solar desalination, solar cooking, solar refrigeration, solar drying, and other vital sectors of society: the electrical grid, the transportation sector (automobiles, railway systems, etc.), and agriculture, particularly in solar irrigation systems, water pumping, and crop management. The combination of photovoltaic and thermal systems with other renewable energy sources enables us to meet the growing demand for energy while reducing our environmental impact. In particular, energy storage systems play a fundamental role in ensuring the reliability and availability of these solutions, even in the absence of sunlight.

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Deadline for manuscript submissions

17 August 2025



Energies

an Open Access Journal
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Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/231390

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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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