Special Issue

Advances in Solar Thermal Technologies: Renewable Energy Conversion and Utilization

Message from the Guest Editors

The conversion of solar energy into useful forms is an important sector for the reduction of carbon emissions and for boosting the share of renewable energy in the energy market. Solar thermal technologies featured high conversion efficiency due to broadband absorption and low cost, which is thanks to their cheap thermal storage pathways. Recent progress has gone beyond the conventional scope of solar heating, cooling and power generation. More emerging technologies coupled with solar thermal are showing great potential for large-scale engineering deployment, including but not limited to solar fuel processing, carbon capture, high-temperature electrochemical conversion, and desalinization for purified water production. This Special Issue will focus on the most recent progress in solar thermal technologies. Topics of interest for this Special Issue include, but are not limited to:

- Solar heating and cooling;
- Concentrated solar power generation;
- Solar thermochemical cycles for energy storage and fuel production;
- High-temperature electrochemical devices and systems;
- CO2 capture;
- Solar desalination technologies.

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Deadline for manuscript submissions

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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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