Special Issue

Thermal Performance, Analysis and Application of Solar Photovoltaic Systems

Message from the Guest Editors

Solar energy is one of the most important clean energy sources that can meet a significant portion of the energy needed in the world. Researchers are gradually paying attention to solar energy alternatives and technologies, especially solar photovoltaic. Photovoltaic can be applied to any occasion where power is needed. Temperature rise generated by the solar cell will cause serious defects in the photoelectric conversion of photovoltaic systems. Research emphasizes that integrated photovoltaic and thermal technology is the most advanced solution. The use of cooling systems has a significant impact on the electrical efficiency of photovoltaic systems, including phase change materials, nanofluids, air cooling, water cooling and thermoelectric cooling, etc. The aim of this Special Issue is to provide the insight of latest researches, development and demonstrations on the thermal performance of PV. Topics of interest for publication include, but are not limited to: (1) Photovoltaic cell materials; (2) Concentrating photovoltaic technology; (3) Building integrated with photovoltaic; (4) Photovoltaic/thermal; (5) Photovoltaic integrated with heat pump.

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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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