Special Issue

Solar Cells on Optical, Electrochemical, and Photovoltaic Properties

Message from the Guest Editors

Climate change is the most urgent problem facing Earth and mankind. The recent UN Climate Change Conference of the Parties (COP28) in Dubai concluded that governments should take immediate action to limit the global temperature increase to 1.5 °C. This can only be achieved by establishing a significant change in the way we generate electricity, shifting away from burning fossil fuels to farming renewable energy such as hydro-, wind, and solar power. Solar photovoltaic (PV) technology has become the most important form of renewable energy worldwide and has played a crucial role in tackling climate change and meeting the target of net-zero carbon emissions. Cumulative solar PV capacity first exceeded 1TWp in 2022, and it is forecast to increase to 2.35TWp by 2027. This Special Issue aims to discuss the current status of PV technology, such as silicon, CdTe, perovskite, III-V, organic, and dye-sensitised solar cells. The goal is to do this by identifying the key issues that need addressing and providing suggestions for their improvement and related future research.

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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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