

Special Issue

Advancements in Photovoltaic Technologies: Innovations for Enhanced Energy Conversion and Efficiency

Message from the Guest Editors

This Special Issue focuses on breakthroughs in photovoltaic (PV) technology to enhance energy conversion efficiency and sustainability in solar energy systems. We invite original research articles, reviews, and perspectives on various aspects of photovoltaic advancements, including:

- Development of solar cells, such as tandem and multijunction types.
- Emerging materials like perovskites, organic photovoltaics, and quantum dot solar cells.
- Advances in thin-film and flexible solar cell technologies.
- Integration of PV systems with smart grids and energy storage solutions.
- Innovations in cell architecture and design for energy conversion.
- Strategies to reduce energy losses and enhance cell longevity.
- Scaling up PV technologies for industrial application.
- Manufacturing advancements and cost reduction techniques.
- Environmental and lifecycle assessments of PV systems.

This issue aims to foster collaboration among researchers, engineers, and industry professionals, promoting progress in photovoltaic technology and its vital role in a sustainable energy future.

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Deadline for manuscript submissions

30 November 2025



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Message from the Editor-in-Chief

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