

Special Issue

Advances in Solar Cells: From Materials to Devices

Message from the Guest Editors

Advancements in nanotechnology and materials science have driven significant improvements in solar cell performance over the past decade. This Special Issue aims to bring together original research and review articles that explore the development of solar cell technologies, focusing on the relationship between material properties and device performance. Topics of interest include novel active materials such as perovskites, polymers, and 2D materials, as well as studies on interfaces, thin-film engineering, and innovative device architectures such as memristors and next-generation transistors. Emphasis will be placed on understanding the physical and chemical interactions that occur the nanoscale which impact charge transport, stability, and energy conversion efficiency. This Special Issue welcomes both experimental and theoretical contributions that advance the field of solar energy.

- organic solar cells
- thin films
- perovskite solar cells
- polymers
- perovskites
- memristors
- 2D materials
- interfaces
- nanointerfaces
- charge transport
- Si cells

Guest Editors

Prof. Dr. Eralci Moreira Therézio

Prof. Dr. Alexandre Marletta

Dr. José Carlos Germino

Dr. Paulo Ernesto Marchezi

Deadline for manuscript submissions

20 June 2026



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/250936

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
appls@mdpi.com

mdpi.com/journal/

[appls](https://appls.mdpi.com)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)