

Special Issue

Emerging Functional Devices and Advanced Photovoltaic Cells

Message from the Guest Editor

Researchers have tried to alternate the conventional and addictive fossil fuels to the renewable energy methods. Due to the limit of fossil energy-resources, human beings have been expected to encounter the energy shortage in future. Sustainable energy is ultimately desirable and clean method is highly required. We may resolve the issue by developing high-efficient photovoltaic (PV) cells and functional photoelectric devices. High-performing efficiency of solar cells can accelerate their competition in market. Moreover neo-concept of photovoltaics cells will induce the appearance of new needs, such as transparent PV cells. Various approaches are undertaking for the high-performing solar cells and functional electric devices. Dealing of electrical and optical aspects, different types of issues are considerable, including, junction processes, heterojunction structures, tandem designs, light management designs, and functional material adoptions and so on. This special issue covers the neo-concept designs and suggestions for photovoltaics cells, photoelectric devices and functional devices for energy applications.

Guest Editor

Prof. Dr. Joondong Kim

Department of Electrical Engineering, Incheon National University, 119 Academy Rd., Yeonsu, Incheon 22012, Korea

Deadline for manuscript submissions

closed (31 January 2021)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.9
CiteScore 6.1



mdpi.com/si/49669

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

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





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.9
CiteScore 6.1



[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, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (Fluid Flow and Transfer Processes)