Special Issue

Phototransistors Based on Nanofilms: Fabrication, Characterization and Application

Message from the Guest Editor

In current electronics systems, a phototransistor, a kind of device that realizes the functionality of light detection and signal magnification in a single device, is an essential optoelectronic integration component. Since William Shockley first proposed the concept of phototransistors in 1951, results with numerous types of materials and operating mechanisms have been reported. Furthermore, as vision-based machine learning technology becomes more important, interest in nanomaterials and devices that can sense images more accurately and efficiently is skyrocketing. In the flow of this science and these technologies, the aim of this Special Issue, entitled "Phototransistors Based on Nanofilms: Fabrication, Characterization, and Application" is to offer the latest cutting-edge research and development in the field. Research papers related to the synthesis, characterization of novel nanofilms, or nanocomposites and their practical applications are welcome in this Special Issue.

Guest Editor

Dr. Seoung-Ki Lee

School of Materials Science and Engineering, Pusan National University, Busan 46241, Korea

Deadline for manuscript submissions

closed (31 July 2021)



Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3
CiteScore 9.2
Indexed in PubMed



mdpi.com/si/67418

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

mdpi.com/journal/nanomaterials





Nanomaterials

an Open Access Journal by MDPI

Impact Factor 4.3 CiteScore 9.2 Indexed in PubMed



About the Journal

Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometerscale dimensions, which we call "nanomaterials". These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, Nanomaterials, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

Editor-in-Chief

Prof. Dr. Eugenia Valsami-Jones

School of Geography, Earth and Environmental Science, University of Birmingham, Birmingham B15 2TT, UK

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), PubMed, PMC, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q1 (General Chemical Engineering)

