nanomaterials

IMPACT FACTOR 5.3

Indexed in: PubMed

CITESCORE 7.4

an Open Access Journal by MDPI

Silicon Based Nanostructures for Nanoelectronics

Guest Editors:

Dr. Jordi Llobet
Institute of Microelectronics of Barcelona (IMB-CNM, CSIC), Campus de la UAB, 08193 Bellaterra, Catalonia, Spain

Dr. Gil Shalev
School of Electrical and Computer Engineering, Ben-Gurion University of the Negev, Beer-Sheva 8410501, Israel

Dr. Carlos Calaza
International Iberian Nanotechnology Laboratory, Braga, Portugal

Deadline for manuscript submissions:
closed (20 August 2021)

Message from the Guest Editors

The era extending since the late 20th century to our times has been termed the Silicon age due to the enormous contribution of microelectronics-based silicon to world economy and to our way of life. More recently, the advent of nanotechnology introduced electronics based on nanostructures, or nanoelectronics, defined as structures in which quantum mechanical effects needs to be accounted for, and more generally defined as structures with at least two dimensions that are in the range of several hundreds of nanometers. The advancement of silicon-based electronics into nanoelectronics is normally considered a disruptive technology that departs from traditional silicon devices in terms of fabrication, application, and performance among others.

Specifically, this Special Issue focuses on recent advancements in silicon nanoelectronics in terms of fabrication methods, electronic device designs (nanocircuitry), applications (optoelectronics, nanosensors, NEMS, quantum computers, energy production, medical diagnostics, etc.), hybrid electronic devices, etc.

nanomaterials

IMPACT FACTOR 5.3 | Indexed in: PubMed | CITESCORE 7.4

an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Shirley Chiang
Department of Physics, University of California Davis, One Shields Avenue, Davis, CA 95616-5270, USA

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 nanometer-scale 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.

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

Contact Us

Nanomaterials Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
𝕏@nano_mdpi