

Special Issue

Nanostructured Molecular Beam Epitaxy Growth and Quantum Device

Message from the Guest Editors

Nanostructured materials are at the forefront of 21st-century device innovation. The understanding and exploitation of nanoscale electronic materials, such as quantum dots and quantum wires, has been the subject of intense research. In addition, nanoplasmonics and functional biomaterials are emerging fields with tremendous potential. However, the underlying nanostructuring process methodology has not evolved significantly over very many years. Among technologies that harness interactions between light and matter, quantum information processing is an emerging field of science in which photons are employed to encode, transmit, and process information in the form of quantum bits. This Special Issue will focus on the developments in the field of semiconductor nanostructured molecular beam epitaxy (MBE) growth and quantum devices. The articles presented in this Special Issue will cover various topics, including but not limited to, the optimization of MBE growth, quantum dots, quantum wires, nanowires/pillars, nano-patterned growth, quantum devices, quantum light sources, and nanophotonics.

Guest Editors

Prof. Dr. Changsi Peng

School of Optoelectronic Science and Engineering, Soochow University, Suzhou 215006, China

Prof. Dr. Chaoyuan Jin

College of Information Science and Electronic Engineering, Zhejiang University, No. 38 Zheda Road, Hangzhou 310027, China

Deadline for manuscript submissions

closed (20 July 2022)



Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



mdpi.com/si/96235

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

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





Materials

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 6.4
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

Journal Rank:

JCR - Q2 (Metallurgy and Metallurgical Engineering) /
CiteScore - Q1 (Condensed Matter Physics)