



materials



an Open Access Journal by MDPI

Advances in Nanowires: Growth, Properties and Applications

Guest Editor:

Dr. Songrui Zhao

Department of Electrical and
Computer Engineering, McGill
University, Montreal, QC H3A0E9,
Canada

Deadline for manuscript
submissions:

closed (20 June 2023)

Message from the Guest Editor

Dear Colleagues,

The past decade has witnessed a continuous boom of research in nanowires. While phenomenal progress has been made in nanowire research with various material systems, this Special Issue intends to capture the exciting process in semiconductor group-III nitride nanowires throughout the process, from materials synthesis to device applications.

Group-III nitrides include InN, GaN, and AlN. The uniqueness of this material system is the ultrawide, direct, and tunable bandgaps, making them highly suitable for both photonic and electronic device applications. In the past decade, large-scale epitaxial tools have been utilized in the synthesis of group-III nitride nanowires, which makes it possible to produce wafer-scale devices which are more compatible with modern semiconductor device processing. A wide range of substrates have been used, such as Si, diamond, graphene, and flexible metal foils. A wide range of photonic devices have also been developed. While this Special Issue mainly focuses on experiments, theoretical studies on nanowire structures showing interesting physical properties will also be considered for submission.



mdpi.com/si/143945

Special Issue



an Open Access Journal by MDPI

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

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.

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 & Metallurgical Engineering*) / CiteScore - Q2 (*Condensed Matter Physics*)

Contact Us

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

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

mdpi.com/journal/materials
materials@mdpi.com
[X@Materials_Mdpi](https://twitter.com/Materials_Mdpi)