



Advances in GaN- and SiC-Based Electronics: Design and Applications

Guest Editor:

Prof. Dr. Xiaorong Luo

1. School of Electronics Science and Engineering, University of Electronic Science and Technology of China, Chengdu 610000, China
2. Chengdu University of Information Technology, Chengdu 610225, China

Deadline for manuscript submissions:

30 November 2024

Message from the Guest Editor

Dear Colleagues,

The RF and power electronics industry promote the development of the world's economy, facilitate highly efficient utilization of energy, and allow convenience in daily life. As the typical representative of wide-bandgap technology, GaN- and SiC-based electronic devices contribute to high-efficiency power conversion and advanced, high-efficiency RF communication systems.

The development of advanced GaN- and SiC-based electronics, relying on overall optimization from materials, manufacturing technology, device design, and application development. There are several scientific issues that need to be addressed in order to overcome the limits of GaN and SiC materials. Some issues include the following: (1) the development of low-defect growth methods; (2) advanced device structure optimization for high performance; (3) the optimization of device processing and passivation, with the aim of maximizing device performance; (4) advanced methodologies for driving and thermal management; (5) application-driven integration on both circuit and system levels; (6) reliability analysis and reliability-enhanced technology.

We look forward to receiving your submissions.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Ai-Qun Liu

1. Department of Electrical and Electronic Engineering, The Hong Kong Polytechnic University, Hong Kong, China
2. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore

Message from the Editor-in-Chief

You are invited to contribute research articles or comprehensive reviews for consideration and publication in *Micromachines* (ISSN 2072-666X). *Micromachines* is published in the open access format. Research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the general public have unlimited free access to the content as soon as it is published. As an open access journal, *Micromachines* is supported by the authors or their institutes by payment of article processing charges (APC) for accepted papers. We are pleased to welcome you as our authors.

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, dblp, and other databases.

Journal Rank: JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Mechanical Engineering*)

Contact Us

Micromachines Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/micromachines
micromachines@mdpi.com
[X@micromach_mdpi](https://twitter.com/micromach_mdpi)