



## 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:

**closed (31 May 2025)**

### 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.





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*Micromachines* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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