



Challenges, Innovation and Future Perspectives of GaN Technology

Guest Editor:

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Message from the Guest Editor

Deare Colleagues,

This Special Issue is aimed at addressing some of the above challenges. This includes but not limited to:

- Next-generation GaN device architecture with or without new material;
- Good linearity GaN devices;
- High power density GaN devices;
- Ultra-high switching speed GaN devices;
- Terahertz and sub-terahertz GaN devices;
- Ultra-high bandwidth GaN power amplifier;
- AI-assisted GaN fault detection and mitigation;
- AI-assisted and model-based GaN design;
- Device modeling for performance and reliability study;
- AI-assisted GaN RF amplifier for next-level performance;
- Digital GaN power amplifier for audio applications;
- Low-voltage GaN DC to DC converter;
- GaN integration technology including CMOS, logical gates, etc.;
- GaN technology integration with other technologies such as silicon and others;
- GaN in quantum electronics;
- GaN in space applications;
- GaN fabrication challenges and improvement;
- GaN manufacturing challenges and improvement;
- Ultra-high speed digital GaN;
- GaN for 5G and 6G communication networks;
- GaN CMOS.





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Message from the Editor-in-Chief

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