Fabrication and Reliability Characterizations of GaN-HEMT Devices for Power Applications

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Current status/stage of your JDP: **Comprehensive completed, total 4 years completed, .**

- Research Key Area

1. *Enhancement of device statistics through refinements in the fabrication process.*
2. *Reliability characterization of FEG-HEMT device for power application*
3. *Investigation of the degradation mechanism by using the reliability characterization.*
4. *Development of the more advanced performance HEMTs devices by utilization of the quaternary InAlGaN barrier layer and their reliability characterization.*
5. *Conducting reliability assessments on well-established industry GaN-HEMTs devices.*

- Significant Achievements

Journal Publication: IEEE-Transaction on Electron Device

Conference publication: IEEE-LAEDC