

[ThA1] Al-rich AlGaN

Session Date	July 16 (Thu.), 2026
Session Time	08:30–09:45
Session Room	Room A (Baekrok Hall A, 1F)
Session Chairs	Prof. Hoe Tan (The Australian National University, Australia), Prof. Sang Wan Ryu (Chonnam National University, Korea)

[ThA1–1]

08:30–08:45

Interface Engineering on Enhancement-Mode Al-Rich $\text{Al}_{0.8}\text{Ga}_{0.2}\text{N}$ MOSFET Enabled by Atomic Layer Etching

Tingang Liu, Haicheng Cao, Mingtao Nong, and Xiaohang Li, King Abdullah University of Science and Technology, Saudi Arabia

[ThA1–2]

08:45–09:00

Impact of AlN/AlGaN Superlattice Structure on Proton-Induced Transport in Al-Rich AlGaN Channel HEMTs

Shyam Mohan, Joocheol Jeong, Jaejin Heo, Hyogeun Cho, Mingoo Jo, Minyeong Kim, and Okhyun Nam, Tech University of Korea, Korea

[ThA1–3]

09:00–09:15

Formation of Low-Resistance Ohmic Contacts to Al-Rich AlGaN Using Compositionally Graded n-AlGaN

Riku Ando, Ryota Akaike, Shozabro Tanaka, Hiroki Yasunaga, Takao Nakamura, and Hideto Miyake, Mie University, Japan

[ThA1–4]

09:15–09:30

Investigation of Low-Resistivity Au-Free Metal Contact on n-Type $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($x \geq 0.8$)

Tingang Liu, Haicheng Cao, Mingtao Nong, and Xiaohang Li, King Abdullah University of Science and Technology, Saudi Arabia

High-Temperature and Radiation Responses of Al-Rich AlGaN Channel HEMTs Employing Various Gate Metals

Mingoo Jo¹, Joocheol Jeong¹, Shyam Mohan¹, Jaejin Heo¹, Hyogeun Cho¹, Minyeong Kim¹, Dongseok Kim², Jiun Oh³, Minji Kim³, and Okhyun Nam¹, ¹Tech University of Korea, Korea, ²Korea Atomic Energy Research Institute, Korea, ³Korea Institute of Energy Technology, Korea