



7th IEEE Electron Devices Technology and Manufacturing (EDTM) Conference 2023

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28A. Power Devices and Widebandgap Heterostructures (1)	
Session Date:	March 9(Thu.), 2023
Session Time:	13:00-14:35
Session Room:	Room A (#301)
Session Chair:	Prof. Jae-Hyun Ryou (University of Houston)
	Prof. Gökhan Atmaca (Hongik University)

[28A-1] [Keynote]

13:00-13:25

Investigation of β -Ga₂O₃ Material Properties for High Power Applications

Thaddeus J. Asel¹, Adam T. Neal¹, Brenton A. Noesges^{1,2}, Yunjo Kim^{1,3}, Kyle J. Liddy¹, Ahmad Islam¹, Kevin Leedy¹, Daniel M. Dryden^{1,4}, Jeremiah Williams¹, Nicholas P. Seplak^{1,4}, Andrew J. Green¹, John Blevins¹, Kelson D. Chabak¹ and Shin Mou¹

¹Air Force Research Laboratory, ²Azimuth Corporation, ³ARCTOS, ⁴KBR, Inc.

[28A-2] [Invited]

13:25-13:50

Enhance Gate Reliability and Threshold Voltage Stability of p-GaN Gate High-Electron-Mobility Transistors

Haohao Chen, Junting Chen, Chengcai Wang, Zuoheng Jiang and Mengyuan Hua
Southern University of Science and Technology

[28A-3]

13:50-14:05

Suppressed Dynamic Avalanche and Enhanced Turn-Off dV/dt Controllability in 3300V Scaled IGBTs

Xiang Zhou, Munetoshi Fukui, Kiyoshi Takeuchi, Takuya Saraya and Toshiro Hiramoto
The University of Tokyo

[28A-4]

14:05-14:20

High Conduction Band Offset of ALD BeO Film on Wide-Bandgap Semiconductors

Dohwan Jung¹, Yoonseo Jang¹, Prakash R. Sultane², Christopher W. Bielawski^{2,3} and Jungwoo Oh¹
¹Yonsei University, ²Institute for Basic Science, ³Ulsan National Institute of Science and Technology

[28A-5]

14:20-14:35

Effects of Oxide Species on the Reduction of Contact Resistivity of Al/oxide/n-GaN MIS Devices

Jiro Koba^{1,2} and Junichi Koike¹

¹Tohoku University, ²JX Nippon Mining & Metals Corporation