



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

March 7 – 10, 2023 / COEX Seoul, Korea

49A. Power Devices and Widebandgap Heterostructures (4)

Session Date:	March 10(Fri.), 2023
Session Time:	10:40-12:15
Session Room:	Room A (#301)
Session Chair:	Prof. Ho-Young Cha (Hongik University) Dr. Jiyoung Lim (Magnachip)

[49A-1] [Invited]

10:40-11:05

SiC CMOS Integrated Circuits and Image Sensors for Extreme Environment Applications

Shin-Ichiro Kuroki¹, Toya Kai¹, Masayuki Tsutsumi¹, Tatsuya Meguro¹, Vuong Van Cuong¹, Akinori Takeyama², Takahiro Makino², Takeshi Ohshima², Kazutoshi Kojima³ and Yasunori Tanaka³

¹Hiroshima University, ²National Institutes for Quantum Science and Technology, ³National Institute of Advanced Industrial Science and Technology

[49A-2] [Invited]

11:05-11:30

Growth of BN and BAIGaN on Foreign Substrates for Electronic Device Applications

Jen-Inn Chyi¹, Rather Muzafar¹, Ravi Loganathan¹, Tung-Yuan Yu², Chien-Ting Wu², Kun-Lin Lin² and Kun-Yu Lai¹

¹National Central University, ²Taiwan Semiconductor Research Institute

[49A-3]

11:30-11:45

A Novel 1.2kV Snap-Back Suppressed RC-VIGBT with Small Switching Energy Loss and Simple Fabrication Process

Suyang Liu, Gai Tsukamoto, Haoming Che, Sichang Zhang, Zijian Zhang and Masahide Inuishi
Waseda University

[49A-4]

11:45-12:00

Correlation Analysis on Local Capacitance-Voltage Profiles of a SiO₂/SiC Interface Observed by Time-Resolved Scanning Online Dielectric Microscopy

Kohei Yamasue and Yasuo Cho
Tohoku University

[49A-5]

12:00-12:15

Selective Area Carrier Concentration Modulation of Single Crystal β -Ga₂O₃ Film through High Temperature Oxygen Annealing Process

Qiming He¹, Qiuyan Li², Xuanze Zhou², Qi Liu², Weibin Hao², Zhao Han², Guangwei Xu², Xiaojun Wu¹ and Shibing Long²

¹Beihang University, ²University of Science and Technology of China