



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

March 7 – 10, 2023 / COEX Seoul, Korea

10C. Materials for Ferroelectric and Electronic Devices

Session Date: March 8(Wed.), 2023

Session Time: 13:30-14:50

Session Room: Room C (#307 a)

Session Chair: Dr. Jinseong Heo (Samsung Advanced Institute of Technology)

[10C-1] [Invited]

13:30-13:55

Hafnia-Based Ferroelectric Devices for Lower Power Memory and AI Applications

Shinichi Takagi, Kasidit Toprasertpong, Eishin Nako, Mitsuru Takenaka and Ryosho Nakane
The University of Tokyo

[10C-2] [Invited]

13:55-14:20

Wurtzite-Type Ferroelectrics for Microelectronic Devices: Scalability and Integration to Silicon Based Ferroelectric FETs

Simon Fichtner^{1,2}, Georg Schönweger^{1,2}, Frank Dietz¹, Henning Hanssen¹, Heiko Züge¹, Tom Niklas Kreutzer¹, Fabian Lofink², Hermann Kohlstedt², Holger Kapels^{1,2} and Michael Mensing¹
¹Fraunhofer ISIT, ²Kiel University

[10C-3]

14:20-14:35

Laser Assisted Ge Film Crystallization on MgO Substrates

Jongyeon Baek¹, Seung-Hwan Kim², Heejae Jeong³, Manh-Cuong Nguyen¹, Daeyoon Baek², Seunghun Baik³, An Hoang-Thuy Nguyen¹, Jong-Hwa Baek¹, Anh-Duy Nguyen¹, Hyung-Jun Kim^{2,4}, Hyuk-Jun Kwon³ and Rino Choi¹
¹Inha University, ²Korea Institute of Science and Technology, ³Daegu Gyeongbuk Institute of Science and Technology, ⁴KIST School, University of Science and Technology

[10C-4]

14:35-14:50

Tuning Indirect-to-Direct Bandgap of Ionsdaleite Si_{0.5}Ge_{0.5} Alloy via Compressive Strain for Optical Gain

Rishikanta Mayengbam, Subhasis Das, Chuan Seng Tan and Weijun Fan
Nanyang Technological University