



제 32회 한국반도체학술대회

The 32nd Korean Conference on Semiconductors

2025년 2월 12일(수)-14일(금) | 강원도 하이원리조트

Future Normal in Semiconductor

2025년 2월 14일(금), 10:55-12:40

Room F(사파이어 I), 5층

C. Material Growth & Characterization 분과

058_[FF2-C] Advanced Devices in Oxide Heterostructures

좌장: 이정우 교수(홍익대학교), 엄기태 교수(가천대학교)

초청 FF2-C-1 10:55-11:25	Spintronic Security Devices based on Magnetic Random -Access Memory Soogil Lee ¹ , Jaimin Kang ² , and Byong-Guk Park ² ¹ Department of Semiconductor Engineering, Gachon University, ² Department of Materials Science and Engineering, KAIST
FF2-C-2 11:25-11:40	Depletion-mode and Enhancement-mode Diamond MOSFETs Simultaneously Fabricated on Heteroepitaxial Diamond Substrates Taemyung Kwak ¹ , Yoonseok Nam ¹ , Yeonghwa Kwon ¹ , Geunho Yoo ¹ , Seong-woo Kim ² , and Okhyun Nam ¹ ¹ Tech University of Korea, ² Orbray Co., Ltd, Japan
FF2-C-3 11:40-11:55	Monolithic Integration of Quantum Dot Light Emitting Diodes on In_{0.1}Ga_{0.9}As/AIAs Distributed Bragg Reflectors on Si Tsimafei Laryn ^{1,2} , Yeonhwa Kim ^{1,3} , Eunkyo Ju ^{1,3} , Won Jun Choi ¹ , and Daehwan Jung ¹ ¹ Center for Quantum Technology, KIST, ² Division of Nanoscience and Technology, KIST School at University of Science and Technology, ³ Department of Materials Science and Engineering, Korea University
FF2-C-4 11:55-12:10	Monolithic Integration of Freestanding Ferroelectric Oxide Membranes for Electrically Tunable Energy Storage Performance Min-Seok Kim ^{1,2} , Ho Won Jang ² , Tae Heon Kim ¹ , and Seung-Hyub Baek ¹ ¹ KIST, ² Seoul National University
FF2-C-5 12:10-12:25	Wafer-scale Single-crystal Hexagonal Boron Nitride Integrated Hybrid Dielectric for Two-dimensional Transistor Arrays Jaewon Wang ¹ , Hyeonwoo Lee ¹ , Jaemin Kim ^{1,2} Haeng Un Yeo ¹ , Cheol Hwan Yoon ¹ , Min Seok Yoo ³ , Junseop Noh ¹ , Kitae Park ¹ , Joonki Suh ¹ , Tae-Sik Yoon ¹ , Minsu Seol ³ , Chanyong Hwang ⁴ , Hyung-Joon Shin ^{1,2} , Zonghoon Lee ^{1,2} , Changwook Jeong ¹ , and Soon-Yong Kwon ¹ ¹ UNIST, ² CMCM, IBS, ³ 2D Device Laboratory, SAIT, ⁴ Quantum Technology Institute, KRISS



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FF2-C-6

12:25-12:40

High-performance Flash Memory with 1T-MoS₂ Floating Gate

Hyelim Shin¹, Gunhoo Woo², and Taesung Kim^{1,2,3}

¹School of Semiconductor Convergence Engineering, Sungkyunkwan University, ²SKKU Advanced Institute of Nanotechnology, Sungkyunkwan University, ³School of Mechanical Engineering, Sungkyunkwan University