



Future Normal in Semiconductor

2025년 2월 14일(금), 09:00-10:45

Room B(그랜드볼룸III), 4층

K. Memory (Design & Process Technology) 분과

042_[FB1-K] Ferroelectric Memory Technology

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<p>FB1-K-1 09:00-09:15</p>	<p>Vertical Self-Rectifying Ferroelectric Tunnel Junction-based 3D Content Addressable Memory for Data-Centric Computing Chaeheon Kim, Junghyeon Hwang, Yongsu Kim, and Sanghun Jeon School of Electrical Engineering, KAIST</p>
<p>FB1-K-2 09:15-09:30</p>	<p>Enhanced Non-Volatile Memory Performance in CNT-FeFETs with Zr-Doped HfO₂ Ferroelectric Layer So-Jeong Park¹, Hanbin Lee¹, Hyo-In Yang¹, Gyeongsu Min¹, Jun-Ho Jang¹, Jeong Yeon Im¹, Ji Won Park¹, Seonghyeon Jeong¹, Dae Hwan Kim¹, Jong-Ho Bae¹, Min-Ho Kang², Dong Myong Kim³, and Sung-Jin Choi¹ ¹School of Electrical Engineering, Kookmin University, ²Department of Nano-process, NNFC, ³Department of Advanced Technology, DGIST</p>
<p>FB1-K-3 09:30-09:45</p>	<p>Analysis of Leakage-Current-Assisted Polarization Mechanism for Memory Window Expansion in Ferroelectric a-InGaZnO_x Thin Film Transistor Sujong Kim¹, Ha-Neul Lee¹, Hyojin Yang¹, Hwan Jin Kim¹, Hyunwook Jeong¹, Yubin Choi¹, Sung-Jin Choi¹, Dong Myong Kim², Dae Hwan Kim¹, Sung Yun Woo³, and Jong-Ho Bae¹ ¹School of Electrical Engineering, Kookmin University, ²Department of Advanced Technology, DGIST, ³School of Electronic and Electrical Engineering, Kyungpook National University</p>
<p>FB1-K-4 09:45-10:00</p>	<p>Investigation of Memory Operations in InGaAs MFMS Tunnel FET Kyuil Ko^{1,2}, Dae-Hwan Ahn¹, Jai-Youn Jeong¹, Byeong-Kwon Ju², and Jae-Hoon Han¹ ¹KIST, ²Korea University</p>



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<p>FB1-K-5 10:00-10:15</p>	<p>Low EOT & Leakage HZO Capacitor (EOT:3.6Å&J_{leak}:7×10⁻⁸A/cm²@0.8V) Enabled by Low-Temperature & Dielectric-Selective Microwave Annealing Hunbeom Shin, Giuk Kim, Sujeong Lee, Geonhyeong Kang, Hyojun Choi, Taeseung Jung, Sangho Lee, and Sanghun Jeon School of Electrical Engineering, KAIST</p>
<p>FB1-K-6 10:15-10:30</p>	<p>Low-Voltage and QLC NAND Flash Device Enabled by Hafnia Ferroelectric Layer: Experimental Validation and Modeling Giuk Kim, Hyojun Choi, and Sanghun Jeon School of Electrical Engineering, KAIST</p>
<p>FB1-K-7 10:30-10:45</p>	<p>Impact of the Starting Layer on the Electrical Properties of Superlattice HZO Jaemin Yeom¹, Jun bum Lee^{1,2}, and Woo Young Choi¹ ¹Department of Electrical and Computer Engineering, Seoul National University, ²DRAM Technology Development, Semiconductor R&D Center, Samsung Electronics Co., Ltd.</p>