



제 31회 한국반도체학술대회

The 31st Korean Conference on Semiconductors

2024년 1월 24일(수)-26일(금) | 경주화백컨벤션센터(HICO)

2024년 1월 26일(금), 09:00-10:45
Room G(201), 2층

K. Memory (Design & Process Technology) 분과

[FG1-K] Process and Modeling of Memory

좌장: 성석강 마스터(삼성전자), 김시준 교수(강원대학교)

초청발표 FG1-K-1 09:00-09:30	Device Simulation of Phase-change and Resistive Memories by Modeling Mesoscale Behaviors of Active Materials Dongmyung Jung, Chanhoo Park, Yechan Kim, Hwanwook Lee, Sagar Khot, and Yongwoo Kwon Hongik University
FG1-K-2 09:30-09:45	Analysis of Conduction Mechanism and Stress-induced Dielectric Leakage Current in 1x-nm DRAM Cell Capacitor for Cryogenic Memory Operation Soohong Eo ¹ , Sangwon Lee ¹ , Jingyu Park ¹ , Seonhaeng Lee ² , and Dae Hwan Kim ¹ ¹ School of Electrical Engineering, Kookmin University, ² Memory Division, Samsung Electronics Co., Ltd.
FG1-K-3 09:45-10:00	Realization of Ultra-Low Leakage Current ($\sim 10^{-18}$ A/ μ m) in CVD Grown Monolayer MoS ₂ 1T1C DRAM Using Semimetal Bismuth Contact Jisoo Seok ¹ , Jae Eun Seo ¹ , and Jiwon Chang ^{1,2} ¹ Department of Materials Science and Engineering, Yonsei University, ² Department of System Semiconductor Engineering, Yonsei University
FG1-K-4 10:00-10:15	3D Stackable Vertical-Sensing Electrochemical Random-Access Memory Using AP-PECVD-Grown WS ₂ Electrode for Neuromorphic Application Kyumin Lee ¹ , Seungkwon Hwang ^{1,2} , Dongmin Kim ¹ , Jongwon Yoon ² , Jung-Dae Kwon ² , Yonghun Kim ² , and Hyunsang Hwang ¹ ¹ Center for Single Atom-based Semiconductor Device and the Department of Materials Science and Engineering, POSTECH, ² Department of Energy and Electronic Materials, Nanosurface Materials Division, KIMS
FG1-K-5 10:15-10:30	Modeling the Valence Change Mechanism and Drift Behavior of Oxygen Vacancies in HfO ₂ -Based Interlayer Memristor: A Simulation Approach Eun Young Kim, Juseong Park, Woojoon Park, Woon Hyung Cheong, and Kyung Min Kim KAIST



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FG1-K-6 10:30-10:45	Investigation of Hot Carrier Degradation of 1x-nm DRAM Peripheral PMOS Transistors for Cryogenic Memory Applications Ha Young Bang ¹ , Hee Jun Lee ¹ , Jingyu Park ¹ , Seonhaeng Lee ² , and Dae Hwan Kim ¹ ¹ School of Electrical Engineering, Kookmin University, ² Memory Division, Samsung Electronics Co., Ltd.
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