



제 31회 한국반도체학술대회

The 31st Korean Conference on Semiconductors

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

2024년 1월 26일(금), 15:40-17:25

Room D(104), 1층

F. Silicon and Group-IV Devices and Integration Technology 분과

[FD3-F] Advanced Device Applications

좌장: 김시현 교수(서강대학교), 우성윤 교수(경북대학교)

FD3-F-1 15:40-15:55	TiO ₂ 층이 삽입된 시냅스용 플래시 메모리 소자의 가중치 선형성 개선 연구 이성현, 이왕주, 김진하, 김상훈, 박정우, 박민아, 정순규, 손민균, 서동우 한국전자통신연구원
FD3-F-2 15:55-16:10	CMOS-compatible Room-temperature Waveguide-integrated Photodetector based on Ge-on-insulator Photonic Platform for Mid-infrared Applications Joonsup Shim, Jinha Lim, Inki Kim, and SangHyeon Kim KAIST
FD3-F-3 16:10-16:25	Free-standing Germanium Photonic Crystal Waveguide for Mid-infrared On-chip Gas Sensor Inki Kim, Jinha Lim, Joonsup Shim, and SangHyeon Kim School of Electrical Engineering, KAIST
FD3-F-4 16:25-16:40	An Ultra-low Power 3D DRAM based on SiGe Heterojunction Hyangwoo Kim ¹ , Ju Hong Park ² , and Chang-Ki Baek ² ¹ Future IT Innovation Laboratory, POSTECH, ² Department of Convergence IT Engineering, POSTECH
FD3-F-5 16:40-16:55	Low-power and Tunable Leaky Integrate-and-Fire Neuron Using Resistive Switching Transistor based on Silicon-Germanium Heterojunction Yijoon Kim, Ju Hong Park, and Chang-Ki Baek Department of Convergence IT Engineering, POSTECH
FD3-F-6 16:55-17:10	Self-rectifying Characteristics by Metal Work Functions at TiO ₂ /HfO ₂ Multilayer RRAM Chan-Hyeok Nam and Myung-Hyun Baek Gangneung-Wonju National University



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FD3-F-7

17:10-17:25

Research on Electrical Characteristics of Neuromorphic Device with Pt/Cr/HfO₂/Pt/Cr/HfO₂/SiO₂/Si Gate Stack

Jeong Mok Yang¹, So Yeon Jeong¹, Jae Min Kim¹, Tae Hwan Koo¹, Su Hyeon Chae¹, and Moon Gyu Jang^{1,2}

¹School of Nano Convergence Technology, Hallym University, ²Center of Nano Convergence Technology, Hallym University