### 2025년 2월 12일(수)-14일(금) | 강원도 하이원리조트

### Future Normal in Semiconductor

2025년 2월 14일(금), 10:55-12:40 Room J(스페이드 II+III), 6층

### K. Memory (Design & Process Technology) 분과 062 [FJ2-K] Oxide Channel based Memory Technology

#### 좌장: 권민우 교수(강릉원주대학교), 이성태 교수(홍익대학교)

FJ2-K-1 10:55-11:10	Photoprogrammable OFET Memory Devices based on IGZO Floating Gate Gyeongho Lee <sup>1,2</sup> , Dong Hyun Lee <sup>3</sup> , and Hocheon Yoo <sup>3,4</sup> <sup>1</sup> Department of Semiconductor Total Solution Center, KICET, <sup>2</sup> Department of Materials Science and Engineering, Korea University, <sup>3</sup> Department of Electronic Engineering, Gachon University, <sup>4</sup> Department of Semiconductor Engineering, Gachon University
FJ2-K-2 11:10-11:25	Oxide Channel-Based Ferroelectric NAND Device with Enhanced Memory Window Using a Source-Tied Metal Cover Structure
	Hongrae Joh, Giuk Kim, Jihye Ock, Seungyeob Kim, Sangmok Lee, Sangho Lee, and Sanghun Jeon School of Electrical Engineering, KAIST
FJ2-K-3 11:25-11:40	Comparative Evaluation of the Impact of WL Off Voltage on BL Disturbance
	in SOI and IGZO Cell Transistors for 4F <sup>2</sup> DRAM Application  Seong Hoon Jeon, Wonjung Kim, Seungki Kim, Soohong Eo, Sae Him Jung, Jong-Ho Bae, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim  School of Electrical Engineering, Kookmin University
	Demonstration of Amorphous InGaZnOx 2T-DRAM Array and Analog
FJ2-K-4 11:40-11:55	Operation Capability for Processing-In-Memory Application  Hyunwook Jeong <sup>1</sup> , Junseong Park <sup>1</sup> , Haesung Kim <sup>1</sup> , Hyojin Yang <sup>1</sup> , Yubin Choi <sup>1</sup> , Hwan Jin Kim <sup>1</sup> , Sujong Kim <sup>1</sup> , Sung-Jin Choi <sup>1</sup> , Dae Hwan Kim <sup>1</sup> , Dong Myong Kim <sup>2</sup> , Seongjae Cho <sup>3</sup> , and Jong-Ho Bae <sup>1</sup> <sup>1</sup> School of the Electronic Engineering, Kookmin University, <sup>2</sup> Department of Advanced Technology, DGIST, <sup>3</sup> Department of Electronic and Electrical Engineering, Ewha Womans University
FJ2-K-5 11:55-12:10	Comparative Optimization of Synaptic Characteristics in IGZO-Based
	Memristors Through Interface Engineering With Metal Electrode  Jae Woo Lee, Dong Hyeop Shin, Wonjung Kim, Seung Joo Myoung, Changwook Kim,  Jong-Ho Bae, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim  School of Electrical Engineering, Kookmin University



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FJ2-K-6 12:10-12:25	Highly Linear and Symmetric Multilevel IGZO 2T Synaptic Device Utilizing Identical Potentiation and Depression Pulses  Suwon Seong <sup>1</sup> , Taejun Ha <sup>1</sup> , Sangwook Jung <sup>2</sup> , Sunwoong Ham <sup>2</sup> , and Yoonyoung Chung <sup>1,2,3,4</sup> <sup>1</sup> Department of Electrical Engineering, POSTECH, <sup>2</sup> Graduate School of Semiconductor Technology, POSTECH, <sup>3</sup> Department of Semiconductor Engineering, POSTECH, <sup>4</sup> Center for Semiconductor Technology Convergence, POSTECH
FJ2-K-7 12:25-12:40	Disturbance-Free Parallel Programming for Multilevel IGZO 2T Synapse Taejun Ha <sup>1</sup> , Suwon Seong <sup>1</sup> , and Yoonyoung Chung <sup>1,2,3</sup> <sup>1</sup> Department of Electrical Engineering, <sup>2</sup> Department of Semiconductor Engineering, <sup>3</sup> Center for Semiconductor Technology Convergence, POSTECH