## 舟 제 30회 한국반도체학술대회

The 30th Korean Conference on Semiconductors

2023년 2월 13일(월)~ 15일(수) | 강원도 하이원리조트(그랜드호텔 컨벤션타워)

## 2023년 2월 14일(화), 10:55-12:40 Room K (다이아몬드 I, 6층)

## F. Silicon and Group-IV Devices and Integration Technology 분과 [TK2-F] Ferroelectric Devices and Technology

## 좌장: 김명수 교수(UNIST), 권지민 교수(UNIST)

TK2-F-1 10:55-11:10	<b>Demonstration of Bias Scheme for Ferroelectric Field-Effect Transistor (FeFET)</b> <b>Based AND/NOR Array Operation</b> Shinhee Kim <sup>1</sup> , Dong Keun Lee <sup>2</sup> , Jae Yeon Park <sup>1</sup> , and Sangwan Kim <sup>1</sup> <sup>1</sup> Department of Electronic Engineering, Sogang University, <sup>2</sup> Department of Electrical and Computer Engineering, Ajou University
TK2-F-2 11:10-11:25	HZO 박막내 삽입층의 조건에 따른 강유전체 메모리 및 시냅스 특성 연구 Chulwon Chung <sup>1</sup> , Yu Jeong Choi <sup>2</sup> , Jin Ho Park <sup>2</sup> , Se Hyeon Choi <sup>2</sup> , and Changhwan Choi <sup>2</sup> <sup>1</sup> Department of Energy Engineering, Hanyang University, <sup>2</sup> Division of Materials Science and Engineering, Hanyang University
TK2-F-3 11:25-11:40	Influence of Gate-Source/Drain Overlap Length on MFMIS FeFETs Changha Kim <sup>1,2</sup> , Dong-Oh Kim <sup>1,2</sup> , Hyun-Min Kim <sup>1,2</sup> , and Woo Young Choi <sup>1,2</sup> <sup>1</sup> Department of Electrical and Computer Engineering, Seoul National University, <sup>2</sup> Inter- university Semiconductor Research Center, Seoul National University
TK2-F-4 11:40-11:55	<b>First Demonstration of 3D Vertical Gate-All-Around (GAA) NAND Flash Memory</b> <b>Using ALD Ferroelectric HZO and IGO Channel</b> Boncheol Ku <sup>1</sup> , Jae Seok Hur <sup>2</sup> , Jae Kyeong Jeong <sup>2</sup> , and Changhwan Choi <sup>1</sup> <sup>1</sup> Division of Materials Science and Engineering, Hanyang University, <sup>2</sup> Department of Electronic Engineering, Hanyang University
TK2-F-5 11:55-12:10	Improvement of On/Off Current Ratio (I <sub>on</sub> /I <sub>off</sub> ) in Hafnium-Based Ferroelectric Tunnel Junction (FTJ) Seonggeun Kim, Hyungju Noh, Seungwon Go, and Sangwan Kim Department of Electronic Engineering, Sogang University
TK2-F-6 12:10-12:25	Performance Analysis of Tri-layer Based Synaptic Devices according to the Deposition Sequence of HfO <sub>2</sub> and ZnO Materials with Different Oxygen Vacancy Ratios Yeong-Jin An <sup>1</sup> , Yan Han <sup>1</sup> , Hyuk-Min Kwon <sup>2</sup> , Sunil Babu Eadi <sup>1</sup> , Hyeon Seung Lee <sup>1</sup> , and Hi-Deok Lee <sup>1</sup> <sup>1</sup> Chungnam National University, <sup>2</sup> Semiconductor Convergence Campus, Korea Polytechnics College
TK2-F-7 12:25-12:40	Sub-60-mV/decade Switching ZnO Hyper-FET Integrated With Ag/HfO <sub>2</sub> /Ti/Pt- Based Threshold Switching Device Juho Sung <sup>1</sup> and Changhwan Shin <sup>2</sup> <sup>1</sup> Department of Electrical and Computer Engineering, Sungkyunkwan University, <sup>2</sup> School of Electrical Engineering, Korea University