



# 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 G (스페이드 II+III, 6층)

## K. Memory (Design & Process Technology) 분과

### [TG2-K] RRAM and Synapse Device III

좌장: 김형진 교수(인하대학교), 곽준영 박사(KIST)

<b>TG2-K-1</b> 10:55-11:10	<b>Tuning Synaptic Characteristic of Battery-like Organic Synapse by Redox Additive</b> Sooyeon Narie Kay, Jiyoung Lee, and Kyung Min Kim KAIST
<b>TG2-K-2</b> 11:10-11:25	<b>Low-Power-Consumption Nb-Doped WSe<sub>2</sub> Memtransistor with Accelerated Synaptic Plasticity</b> Jina Bak, SeungGyu Kim, Jeechan Yoon, Jihyang Park, Bolim You, Myung Gwan Hahm, and Moonsang Lee <i>Department of Materials Science and Engineering, Inha University</i>
<b>TG2-K-3</b> 11:25-11:40	<b>Ultra-Low Power 2D Tellurene Synaptic Transistor for Neuromorphic Computing</b> Jeechan Yoon <sup>1</sup> , Bolim You <sup>1</sup> , Seung Hyun Nam <sup>1</sup> , Ojun Kwon <sup>2</sup> , Jina Bak <sup>1</sup> , Jihyang Park <sup>1</sup> , Byungjin Cho <sup>2</sup> , Myung Gwan Hahm <sup>1</sup> , and Moonsang Lee <sup>1</sup> <sup>1</sup> <i>Department of Materials Science and Engineering, Inha University</i> , <sup>2</sup> <i>Department of Advanced Materials Engineering, Chungbuk National University</i>
<b>TG2-K-4</b> 11:40-11:55	<b>RRAM Reset Voltage Control Using Forming Gas Annealing</b> Kyungho Hong <sup>1,2</sup> , Sungjoon Kim <sup>1,2</sup> , Tae-Hyeon Kim <sup>1,2</sup> , and Woo Young Choi <sup>1,2</sup> <sup>1</sup> <i>Department of Electrical and Computer Engineering, Seoul National University</i> , <sup>2</sup> <i>Inter-university Semiconductor Research Center, Seoul National University</i>
<b>TG2-K-5</b> 11:55-12:10	<b>The Correlation between Frenkel Pair Dynamics and Device Properties of SiO<sub>x</sub> Based Resistive Random-access Memory</b> Taeheon Lee and Sungyeop Jung <i>Semiconductor Devices and Circuits Laboratory, Advanced Institute of Convergence Technology, Seoul National University</i>
<b>TG2-K-6</b> 12:10-12:25	<b>Molybdenum Based Low Power 1-Transistor, 1-Memristor Array Device for Homomorphic Encryption</b> Woon Hyung Cheong, Jae Hyun In, Jae Bum Jeon, and Kyung Min Kim KAIST
<b>TG2-K-7</b> 12:25-12:40	<b>Development of Artificial Neuron Using 2D hBN for Neuromorphic Applications</b> Yooyeon Jo <sup>1</sup> , Gichang Noh <sup>1</sup> , Eunpyo Park <sup>1</sup> , Min Jee Kim <sup>1</sup> , Yong Woo Sung <sup>1</sup> , Dong Yeon Woo <sup>1</sup> , Dae Kyu Lee <sup>1</sup> , Da Gil Ryu <sup>1</sup> , and Joon Young Kwak <sup>1,2</sup> <sup>1</sup> KIST, <sup>2</sup> University of Science and Technology (UST)