



# 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)

<p><b>TG2-K-1</b> 10:55-11:10</p>	<p><b>Tuning Synaptic Characteristic of Battery-like Organic Synapse by Redox Additive</b> Sooyeon Narie Kay, Jiyoung Lee, and Kyung Min Kim KAIST</p>
<p><b>TG2-K-2</b> 11:10-11:25</p>	<p><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></p>
<p><b>TG2-K-3</b> 11:25-11:40</p>	<p><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></p>
<p><b>TG2-K-4</b> 11:40-11:55</p>	<p><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></p>
<p><b>TG2-K-5</b> 11:55-12:10</p>	<p><b>The Correlation between Frenkel Pair Dynamics and Device Properties of SiOx 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></p>
<p><b>TG2-K-6</b> 12:10-12:25</p>	<p><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</p>
<p><b>TG2-K-7</b> 12:25-12:40</p>	<p><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)</p>