



Future Normal in Semiconductor

2025년 2월 14일(금), 09:00-10:45

Room G(사파이어 II+III), 5층

J. Nano-Science & Technology 분과

047_[FG1-J] Neuromorphic Electronics based on Nanomaterials

좌장: 조병진 교수(충북대학교), 이철호 교수(서울대학교)

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| <p>초청 FG1-J-1 09:00-09:30</p> | <p>A Wide Reservoir Computing based on a 3D Stacked WO_x Memristor Array for Multiple Time Series Information Processing Gunuk Wang^{1,2} ¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Department of Integrative Energy Engineering, Korea University</p> |
| <p>FG1-J-2 09:30-09:45</p> | <p>Application of Flexible Paper Substrate for Neuromorphic and Security Devices using SnO₂/PVK Heterojunctions Wangmyung Choi¹ and Hocheon Yoo^{1,2} ¹Department of Semiconductor Engineering, Gachon University, ²Department of Electronic Engineering, Gachon University</p> |
| <p>FG1-J-3 09:45-10:00</p> | <p>Optimizing the Molecular Weight of Living-Polymerized Polythiophenes for Neuromorphic Electronics Hyun-Haeng Lee¹, Min-Jun Sung¹, Gyeong-Tak Go¹, Jaeho Lee⁴, Hyunwoo Park^{4,5}, Tae-Lim Choi^{4,5}, and Tae-Woo Lee^{1,2,3} ¹Department of Materials Science and Engineering, Seoul National University, ²Soft Foundry, Seoul National University, ³School of Chemical and Biological Engineering, Institute of Engineering Research, Seoul National University, ⁴Department of Chemistry, Seoul National University, ⁵Department of Materials, ETH Zürich, Switzerland</p> |
| <p>FG1-J-4 10:00-10:15</p> | <p>Multimode Synaptic Functionality in Al₂O₃/HfO₂ High-k based IGZO Transistors: A Frequency-Dependent Trade-Off Between Charge Trapping and Ferroelectric Effects Ojun Kwon^{1,2}, Hanseul Kim^{1,2}, and Byungjin Cho^{1,2} ¹Department of Advanced Materials Engineering, Chungbuk National University, ²Department of Urban, Energy, and Environmental Engineering, Chungbuk National University</p> |



제 32회 한국반도체학술대회

The 32nd Korean Conference on Semiconductors

2025년 2월 12일(수)-14일(금) | 강원도 하이원리조트

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| <p>FG1-J-5 10:15-10:30</p> | <p>Reconfigurable VO₂ Mott Memristor for Neuromorphic Electronics Gwanyeong Park¹ and Gunuk Wang^{1,2} ¹KU-KIST Graduate School of Converging Science & Technology, Korea University, ²Department of Integrative Energy Engineering, Korea University</p> |
| <p>FG1-J-6 10:30-10:45</p> | <p>Photonically Enabled Bio-Organic Composites for Trainable Bilingual Synaptic Transistors Moon Jong Han Department of Semiconductor and Electronic Engineering, Gachon University</p> |