

Poster Session

July 3 (Thu) 16:50 – 18:20, Small hall, Basement floor

Advanced semiconductor technologies & Nano, 2D materials			
ID	Papar title	Presenter	
P-1	Development of a Random Bit Generator using Threshold Switching Memristor based on 2D hBN for Data Encryption	Yooyeon Jo	Ewha Womans Univ.
P-2	Noise Simulation Capability of Advanced Transport Solvers	Sung-Min Hong	Gwangju Inst. of Sci. and Tech.
P-3	Effects of Gate Dielectric and Channel Thickness on the Low-Frequency Noise of Oxide Field-Effect Transistors	Taegyu Kim	Sungkyunkwan Univ.
P-4	Semi-Classical Monte-Carlo Simulation of Quantum Confinement Effects in Si Fin and Nanosheet with Different Surface Orientations	Uiho Lee	Yonsei Univ.
P-5	Back-End-of-Line Compatible Metal-Ferroelectric-Insulator-Silicon Capacitor with Al ₂ O ₃ Insulator: Ferroelectricity Enhancement by ZrO ₂ Seed Layer	Minseok Kim	Sogang Univ.
P-6	Enhancemet of B Diffusivity by Heavy P Doping in Ge-on-Si Film	Mingjun Jiang	Kookmin Univ.
P-7	Preliminary Study on Simulation Challenges in Warpage Analysis from Wafer- to Panel Level Packaging Using the Equivalent CTE model	Bong Hak Lee	Seoul National Univ.
P-8	Modulation of MoS Semimetal Contact Resistance via Sb Layer Thickness Control	Ha-Yeon Choi	Chungnam National Univ.
P-9	Optimization of Sequential Co-Doping for Heavily Doped n-Type Silicon Thin Films with Phosphorus and Antimony	Minhyeok Jeong	Ajou Univ.
MOS logic and memory devices			
ID	Papar title	Presenter	
P-10	First Demonstration of Non-Destructive Read 1T-DRAM with p-n Junction Gate	Garam Kim	Myongji Univ.
P-11	Impact of Dynamically Modulated Turn-On Voltage on Program Speed and Retention Time in 2TOC DRAM Cell Introducing Charge-Trap Layer into Write Transistor	Kyung Min Kim	KyungHee Univ.
P-12	3D Stacked Nanosheets-Based Capacitorless DRAM with separated storage regions	Soobean Song	Kyungpook National Univ.
P-13	Torsion-Assisted Via-Anchor Nanoelectromechanical Memory Switches for Reliable Operation	Jin Wook Lee	Seoul National Univ.
P-14	A SiGe Based 1T DRAM Structure with Enhanced Sensing Margin via Optimized Hole Storage Region	Garam Kim	Myongji Univ.
P-15	Modeling of Monolithic Integrated SiGe Impact Ionization MOSFETs for High-speed Low-power Switching Applications	Seoyun Cho	Yonsei Univ.
P-16	Investigation into Memory Operations of IGZO-Channel NAND Flash Cell Depending on Device Scaling through Parameter Validations by TCAD Simulation	Soomin Kim	Ewha Womans Univ.
P-17	Machine-Learned Force Fields for Accurate and Efficient Atomistic Simulation of Carbon-Doped GeTe-Based Memory Device	Changmin Lim	Yonsei Univ.
P-18	Heat Dissipation Improvement Using Plugged Sidewall for 3-Dimensional (3D) Package of High-Stacked High Bandwidth Memory (HBM)	Eun Pyo Hong	Seoul National Univ.
P-19	Thermoelectric Investigation of Contact Metal Depth Design in 28 nm FDSOI MOSFET	Tae Young Yoon	Ajou Univ.

P-20	Impact of Ferroelectric Properties on the Memory Characteristics of Gate-injection Ferroelectric Field-effect Transistor (GI-FeFET)	Dongseok Oh	Sogang Univ.
P-21	Improving Program Efficiency using Dummy Cell Pre-Erase for 3D Ferroelectric NAND Flash memory	Taehyeon Song	Univ. of Seoul
P-22	SPICE Circuit Simulation of 3D NAND Flash Memory with Hybrid Ferroelectric Interfaces	Sunghyun Woo	Univ. of Seoul
P-23	Semi-Classical Monte-Carlo Study of Contact Geometry Effect on Source/Drain Junction Resistance in Si Nanosheet FETs	Jaeyeon Kim	Yonsei Univ.
P-24	Comparative Estimation for the transition from Thermocompression Bonding to Direct Metal Bonding of High Bandwidth Memory(HBM) based on 3D Finite Element Analysis Simulations	Sun Seong Kwon	Seoul National Univ.
Optoelectronics, displays, imagers and sensors			
ID	Papar title	Presenter	
P-25	An offset cancel technique for sensor read out integrated circuits	Bongsub Song	SNchips, Co., Ltd.
P-26	Model-based Analysis of Dislocations and Unintentional Doping effects for GeSn Avalanche Photodiodes	Heewon Bang	Yonsei Univ.
P-27	Reconfigurable vertical Schottky photodiodes made of ferroelectric 2D semiconductors for highly-scalable perceptual-precision neuromorphic vision sensors	Tae Hyun Yoon	Seoul National Univ.
P-28	High-Temperature Performance of a Feedback Field-Effect Transistor-Based Photodetector	Jin Dahee	Myongji Univ.
P-29	High Mobility Exceeding 200 cm ² /Vs and Robust Reliability in Top-Gate In ₂ O ₃ TFTs via 1-nm Al ₂ O ₃ Intermediate Control Layer Tuning	Se-Hyun Chun	Kyung Hee Univ.
Power electronic devices & Compound semiconductor and wide bandgap devices			
ID	Papar title	Presenter	
P-30	An Efficient Method to Calculate the Breakdown Voltage of Power Devices	Sung-Min Hong	Gwangju Inst. of Sci. and Tech.
P-31	Very High Mobility InSb Films on Glass Substrates Formed by Sputtering and Subsequent Rapid-Thermal Annealing	Taizoh Sadoh	Kyushu Univ.
P-32	Electrical and Thermal Behavior of Mg-Diffused Ohmic Contacts on p-Type GaN	Nak Hyeon Kim	Hongik Univ.
P-33	Gate Edge Sidewall Integration for Breakdown Voltage Enhancement in GaN HEMTs	Sang Woo Park	Ajou Univ.
P-34	A Fully Integrated Gate Driver with Program Pulse for Charge Trap Layer GaN HEMTs	Min Cheol Kim	Ajou Univ.
P-35	TCAD Simulation Study on the Enhancement of Breakdown Performance in MIS GaN HEMTs by Inserting a p-GaN Layer	Kanghee Lee	Ajou Univ.
P-36	Optimizing Etch Selectivity in GaN over AlGaN through Low-Temperature etching Processing	Jang Gi Young	Ajou Univ.
P-37	Performance Comparison of Al-Rich AlGaN-Based HEMTs on Sapphire and SiC Substrates	Sakhone Pharkphoumy	Kunsan National Univ.
Quantum devices and computing technologies & Neuromorphic devices, Wearable devices			
ID	Papar title	Presenter	
P-38	Effect of SiGe Channel on Learning Accuracy of ONO TFET Synaptic Devices	Garam Kim	Myongji Univ.
P-39	Capacitor-less 1T DRAM-based Synaptic Device with Improved Linearity for Neuromorphic Computing	Garam Kim	MYONGJI Univ.
P-40	Binary Neural Network Accelerators Using Nanoelectromechanical Memory Switches	Geun Tae Park	Seoul National Univ.

P-41	Si3N4 Resistive-Switching Random-Access Memory with an Al2O3 Tunneling Layer for an Energy-Efficient Neuromorphic Computing	Yeji Lee	Ewha Womans Univ.
P-42	Energy-Efficient On-Chip Training System with 1.5-bit ADC and Crossbar Synaptic Arrays of IGZO TFT-Based Update Cells Enabling Intrinsic Regularization	Jaehyeon Kang	Seoul National Univ.
P-43	Study of FeTFET-based TCAM search operation with different channel materials	Jinhong Lee	Sogang Univ.
P-44	Effect of Top Electrode Work Function on Switching Behavior in HfO/ZnO-Based Memristive Devices	Yu-Bin Kim	Chungnam National Univ.
P-45	Improvement in Energy Consumption of Vertical-Channel Synapse Transistors Using an IGZO Active Layer with a Channel Length of 40 nm via HfO2 Spacer Layer	Nayoung Jang	Kyunghee Univ.
P-46	Improvement in thermoelectric properties of NiCu fabrics covered with ZnO nanorods	Hiroya Ikeda	Shizuoka Univ.
P-47	Effect of surface roughness on Seebeck coefficient in ultrathin Si layer	Hiroya Ikeda	Shizuoka Univ.