2025년 2월 14일(금), 09:00-15:10
(공식발표시간: 14:00-15:10)
ZONE 1 (4층, 로비)

[FP] 포스터세션

E. Compound Semiconductors 분과

FP-001	Influence of Individual Parasitic Inductance on SiC MOSFET Current Hump Depending on Chip Size Taehyun Jang and Hyemin Kang KENTECH
FP-002	Comparison of TO-247-3L and TO-247-4L Pacakaged 4H-SiC MOSFETs: Dynamic Switching Under Gamma Ray Irradiation Sangyun Song[1], Donseok Kim[2], and Hyemin Kang[1] [1]Department of Energy Engineering, KENTECH, [2]KAERI
FP-003	Current Measurement Bandwidth Dependent Switching Characteristics in Small Chip Size SiC MOSFETs Yeonjun Kim, Hyunyong Park, Sungjo Yoon, and Hyemin Kang Grid Modernization, KENTECH
FP-004	Impact of Proton Irradiation Energy on Breakdown of p-GaN HEMTs Hyunyong Park and Hyemin Kang KENTECH
FP-005	The Influence of Parasitic Inductance on the Short-circuit Ruggedness of WBG Power Devices Sung Jo Yoon and Hyemin Kang KENTECH
FP-006	Understanding the Causes and Mechanisms of Switching Asymmetry in SiC MOSFETs Yeonju Lee and Hyemin Kang KENTECH

FP-007	**Synaptic Phototransistor for Signal Contrast Enhancement** Min Seo Park, Mi Jin Hong, and Gil Ju Lee [1]School of Electrical and Electronics Engineering, Pusan National University
FP-008	**벌크 전자 트랩에 의한 1.2 kV SiC 수퍼정션 다이오드의 항복전압 변화 모델링** 박수민[1], 김상엽[2], 백두산[1], 윤효원[1], 강규혁[2], 박가영[1], 석오균[1] [1]부산대학교, [2]국립금오공과대학교
FP-009	**Advanced HVPE Sublimation Sandwich Method for Si Layer Formation on SiC Substrates** Seonwoo Park[1], Eunmin Kwon[1], Suhyun Mun[1], Sohee Kim[1], Donghyeon Jeong[1], Kyoung Hwa Kim[2], Hunsoo Jeon[2], Min Yang[1], Jae Hak Lee[1,3], and Hyung Soo Ahn[1] [1]National Korea Maritime and Ocean University, [2]Busan Techno Park, [3]LNBS Co., Ltd.
FP-010	**1.2 kV SBD 내장 SiC MOSFETs의 서지 전류 내량 및 다이오드 열화특성 분석** 강규혁[1], 김상엽[1], 윤효원[2], 박수민[2], 백두산[2], 박가영[2], 석오균[2] [1]Kumoh National Institute of Technology, [2]Pusan National University
FP-011	**Growth and Characterization of 2H-Si Crystals by Mixed-Source HVPE** Suhyun Mun[1], Sohee Kim[1], Seonwoo Park[1], Eunmin Kwon[1], Myungjun Kim[1], Kyoung Hwa Kim[2], Hunsoo Jeon[2], Min Yang[1], Jae Hak Lee[1,3], and Hyung Soo Ahn[1] [1]National Korea Maritime and Ocean University, [2]Busan Techno Park, [3]LNBS Co., Ltd.
FP-012	**음극 내 알루미나 박막 증착을 통한 산화아연 포토디텍터 성능개선** 최윤호[1], 김동빈[1], 백종수[2], 조병진[1,2] [1]한국과학기술원 전기 및 전자공학부, [2]한국과학기술원 반도체공학대학원
FP-013	**Study on the Catalytic Properties of β-Ga_2O_3 Nanowires on Sapphire Substrates Using Pulsed Laser Deposition (PLD)** Jungbok Lee, Ogyun Seok, and HoJun Lee Pusan National University
FP-014	**p-GaN/AlGaN/GaN HEMT의 Extended MOS Gate를 통한 소자 특성 개선 연구** Min Keun Lee[1], Gökhan Atmaca[2], Seung Su Kim[1], Do Hyung Yeo[1], and Ho Young Cha[1] [1]Hongik University, [2]Chips K Corporation

FP-015	**Fabrication of AlGaN/GaN HEMT with Post Metal Annealing and its Electrical Characteristics by Proton Irradiation** Jin Park[1], Sang Ho Lee[1], Min Seok Kim[1], Seung Ji Bae[1], Jeong Woo Hong[1], Gang San Yun[1], Won Suk Koh[1], Young Jun Yoon[2], and In Man Kang[1] [1]School of Electronic and Electrical Engineering, Kyungpook National University, [2]Department of Electronic Engineering, Andong National University
FP-016	**Wide Gate Voltage Range and Reduced Leakage in p-GaN Gate HFETs via Al_2O_3/SiO_2 Dual-Layer T-Gate Structure** Min-Gi Jeong[1], Won-Chul Choi[1], Do-Hyeong Yeo[1], Gökhan Atmaca[2], and Ho-Young Cha[1,2] [1]School of Electronic and Electrical Engineering, Hongik University, [2]ChipsK Corporation
FP-017	**Characteristic Analysis of GaAs Metamorphic High Electron Mobility Transistors (mHEMTs) by Type of InGaAs Channel** Jae-Phil Shim, Hyunchul Jang, Eun-Kyung Chu, Inseon Song, Deok-Soo Park, and Yumin Koh KANC
FP-018	**Analysis of the Thermodynamic Mechanism for SBD-embedded SiC MOSFET** Jun Seong Kim[1], Sung Mo Koo[2], and Hyemin Kang[1] [1]KENTECH, [2]Kyungpook National University
FP-019	**Efficiency Improvement in Normally-Off β-Ga_2O_3 Heterojunction Field Effect Transistors Using p-NiO Integration** Joon Hui Park, Yu Sup Jung, Han Bit Kin, Sang Hun Kim, Tai Young Kang, and Sin Su Kyoung PowerCubeSemi Inc.
FP-020	**C-V Characteristics and Schottky Barrier Diode Fabrication of Ga_2O_3 Thin Films Grown on 4H-SiC by MOCVD** Seon Jin Mun, Dong Ho Lee, Si Gwang Kim, Jun Ha Park, Hyung Soo Ahn, and Min Yang Department of Nano-Semiconductor Engineering, National Korea Maritime and Ocean University
FP-021	**A Novel Self-Aligned TiN/p-GaN Gate Process for E-mode GaN HEMTs : Simplifying Process Flow and Minimizing AlGaN Plasma Damage** Jiseon-Lee[1,2], Myungsoo Park[1], Dong-Hyun Kim[1], Yumin Koh[1], and Jaejin Lee[2] [1]KANC, [2]Ajou University
FP-022	**Ultra-Sensitive Arc-Detecting DUV Sensor based on p-NiO/β-Ga_2O_3 Heterojunction Using p^+ NiO Interlayer** Taejun Park, Yusup Jung, Hanbit Kim, Sanghun Kim, TaiYoung Kang, and SinSu Kyoung PowerCubeSemi Inc.

FP-023	**Optimization of In-Situ Zinc Doping in p+InGaAs Layers for Enhanced HBT Performance** Yunji Jeong, Geunuk Han, Inseon Song, Eun-kyung Chu, Keun Man Song, Jae-Phil Shim, and Hyunchul Jang KANC
FP-024	**Structural and Performance Analysis of GaAs-mHEMTs with Two-Step InP Metamorphic Buffer** Geunuk Han, Yunji Jeong, Inseon Song, Eun-kyung Chu, Keun Man Song, Jae-phil Shim, and Hyunchul Jang KANC
FP-025	**Impact of Deposition and Annealing Conditions on the Device Performance of Cu_2O/SiC PiN Diodes** Hyun-Woo Lee, Seung-Hyun Park, Tae-Hee Lee, Young-Hun Cho, Weon-Ho Shin, Jong-Min Oh, and Sang-Mo Koo Department of Electronic Materials Engineering, Kwangwoon University
FP-026	**Enhancing Diode Properties by Optimizing Cleaning Method of Ga_2O_3** Ho Jung Jeon[1], Labed Madani[1], and You Seung Rim[1,2] [1]Department of Semiconductor Systems Engineering and Convergence Engineering for Intelligent Drone, Sejong University, [2]Institute of Semiconductor and System IC, Sejong University
FP-027	**Analysis of Deep Level Defects of β-Ga_2O_3/SiC Hetero-structured Schottky Diodes Deposited by Aerosol Deposition Method** Ji-Hyun Kim, Ye-Jin Kim, and Sang-Mo Koo Korea Department of Electrical Material Engineering, Kwangwoon University
FP-028	**선행 Mg 공정을 통한 P형 GaN 오믹 접촉의 전계 기반 접촉 특성** Min-Jeoung Kim, Nak-Hyeon Kim, and Ho-Young Cha School of Electronic and Electrical Engineering, Hongik University
FP-029	**Development and Analysis of GaN PiN Betavoltaic Cells** Jaewon Park[1,2], Hyeon-Tak Kwak[1], Hyun-Woo Lee[1], Donghan Kim[1], Hoe-Min Kwak[1], Dong-Young Kim[1], Dong-Seok Kim[3], Hongsik Park[2], Sung-Bum Bae[1], and Hyung-Seok Lee[1] [1]ETRI, [2]School of Electronic and Electrical Engineering, Kyungpook National University, [3]Korea Multi-Purpose Accelerator Complex, KAERI

FP-030	**Study of Normally-Off AlGaN Channel HEMT Grown on AlN/SiC** Jaejin Heo, Joocheol Jeong, Shyam Mohan, Jooyong Park, Joonhyuk Lee, and Okhyun Nam CANS, Department of Nano Semiconductor, Tech University of Korea
FP-031	**Optimization of Enhancement-Mode MIS GaN HEMT with Dual Channel for Simple Process** Kang Hee Lee, Yeon Sil Yang, and Jang Hyun Kim Department of Intelligence Semiconductor Engineering, Ajou University
FP-032	**Development of Pulsed I-V Measurement Process for Precise Analysis on Current Dispersion Effects of AlGaN/GaN HEMTs** Haechan Lee[1], Donghan Kim[1], Hyunjeong Lee[1], Jeonghoon Choe[1], Jeong-Gil Kim[2], and Hongsik Park[1] [1]Kyungpook National University, [2]Dong-A University
FP-033	**Monolithic Integration of 2T1C Driver Circuit for GaN-Based Micro-LED Panel** Dong-Ik Oh and Ho-Young Cha Hongik University
FP-034	**Direct Growth GaAs Epitaxy on Si Substrate through UHV-PEALG** G. S. Yoo and H. J. Yoo Jusung Engineering Co., Ltd.
FP-035	**Effect of Temperature on Optical and Structural Properties of Chalcogenide Thin Films** Sangyeop Kim[1,2], Siwon Park[1,2], Su-Bong Lee[1], Young-Min Kim[1,2], and Jong-Souk Yeo[1,2] [1]School of Integrated Technology, College of Computing, Yonsei University, [2]BK21 Graduate Program in Intelligent Semiconductor Technology, Yonsei University
FP-036	**Thermal Management of Ga_2O_3 MOSFETs through Electro-Thermal Modeling** Jisu Kim, Changhwan Song, and Jungwan Cho School of Mechanical Engineering, Sungkyunkwan University
FP-037	**III-V/ins./Si Waveguide-integrated Michelson-Morley Interferometer Based Optical Modulator for Co-packaged Optics** Donggil Kang, Shin Hyung Lee, and Sanghyeon Kim KAIST

FP-038	Study of Single-event Effects on AlGaN/GaN HEMTs by Proton Irradiation Dong-Seok Kim[1], Jeongtae Kim[1,2], Sung-Jae Chang[3] [1]KAERI, [2]Kumoh National Institute of Technology, [3]ETRI

O. System LSI Design 분과

FP-039	Modeling of Multi-level Trio-Signaling Transceiver with ODT Calibration and Loopback Self-Diagnosis Jun Yeong Lee and Jung Hoon Chun Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-040	Memory Allocation Aware TLB Prefetching for Embedded I/O Devices Tran Dai Duong and Jae Young Hur Department of Electronic Engineering, Jeju National University
FP-041	Attention 연산의 효율적 하드웨어 처리를 위한 계단식 지연구조 홍윤표, 김현성, 김병수 한국전자기술연구원 SoC 플랫폼연구센터

P. Device for Energy (Solar Cell, Power Device, Battery, etc.) 분과

FP-042	Fabrication of High-Density, High-Purity Hf_{1-x} La_x O_2(HLO) Ceramic Target via the Suppression of Impurity Jae Ho Park, Yoon Same, Min Joon Kim, Hyoung Wook Kim, and Chung Wung Bark Department of Semiconductor Engineering, Gachon University
FP-043	Displacement Damage Effect of Proton Irradiation on Vertical β-Ga_2O_3 Schottky Barrier Diode Young Jo Kim[1], Hyoung Woo Kim[1], Young Jun Yoon[2], and Jae Hwa Seo[1] [1]Advanced Semiconductor Research Center, Power Semiconductor Research Division, KERI, [2]Department of Electronic Engineering, Andong National University
FP-044	Z-Scheme Ag-Doped MoS_2@Cu_2O Ternary Heterojunction For Efficient Visible-Light Photocatalytic Degradation of Cationic Dyes Thi Muoi Vo and Chung Wung Bark Department of Electrical Engineering, Gachon University

FP-045	ZnO-fullerene QD Core-shell Nanocomposite for Enhanced Photoelectrochemical Cell Seok-Ho Seo, Ju Hee You, Jinseo park, and Dong Ick Son Institute of Advanced Composite Materials, KIST
FP-046	Photoelectrochemical Cells with MoS_2/TiO_2 on Stainless Steel Mesh for Hydrogen Generation Ju Hee You[1], Seok-Ho Seo[1], Donghee Park[2], and Dong Ick Son[1] [1]Institute of Advanced Composite Materials, KIST, [2]Center for Opto-Electronic Materials and Devices, Post-Silicon Semiconductor Institute, KIST
FP-047	Synthesis of Wrinkled Silicon Nanoparticles for High Performance Anode Materials Inkyeong Park, Soohyeok Park, Yebin Ahn, Hyein Cho, Sangbeom Hong, Geonhwi Kim, Yejin Han, Seongmin Lee, Taewan Kim, Jihwan Jeong, Gayeong Lee, and Han-Don Um Kangwon National University
FP-048	Enhancing 1.78 eV Wide Bandgap Perovskite Solar Cells Modifying Hole Transport Layers Jung Jun Kim, Joo Woong Yoon, Jae Ryoung Lee, Seok Beom Kang, and Dong Hoe Kim Department of Materials Science and Engineering, Korea University
FP-049	Simulation-Driven Optimization of Silicon Microwire Structures for Photoelectrochemical Cells: Strategic Catalyst Placement and Enhanced Light Absorption Soohyeok Park, Yebin Ahn, Hyein Cho, Sangbeom Hong, Geonhwi Kim, Yejin Han, Inkyeong Park, Seongmin Lee, Taewan Kim, Jihwan Jeong, Gayeong Lee, and Han-Don Um Kangwon National University
FP-050	Rapid Purification of Heavy Metals Using Porous Magnesium Oxide Synthesized via Hydrothermal Method Youngho Kim[1,2], Soo Young Kim[2], and Hak Ki Yu[1] [1]Department of Materials Science and Engineering & Department of Energy Systems Research, Ajou University, [2]Department of Materials Science and Engineering, Korea University
FP-051	Optimizing Lithium Phosphate for Enhanced Ionic Conductivity in Solid-State Batteries D. D. Megersa[1,2] and H. K. Yu[1,2] [1]Department of Energy Systems Research, Ajou University, [2]Department of Materials Science and Engineering, Ajou University

FP-052	Trap Effects in Trench-Gated Vertical AlGaN/GaN CAVET Jong-Uk Kim, Do-Yeon Park, Byeon-Jun Park, Jeon-Yun Lee, and Sung-Ho Hahm School of Electrical Engineering, Kyungpook National University
FP-053	Advancing Sustainable Hydrogen Production: GaN as An Alternative Electrocatalyst for Efficient Water Splitting G.T. Gudena[1,2] and H. K. Yu[1,2] [1]Department of Energy Systems Research, Ajou University, [2]Department of Materials Science and Engineering, Ajou University
FP-054	Control of Bulk Defects in $MAPbBr_3$ Single Crystals via Non-stoichiometric Reactions for Improving the X-ray Limit of Detection Hyemin Lee, Beomjun Park, Jangwon Byun, and Dong Hoe Kim Korea University
FP-055	Phosphor/PDMS Composite Luminescent Films for Energy Harvesting and Sensing Mandar Vasant Paranjape, Anand Kurakula, and Jae Su Yu Kyung Hee University
FP-056	A Novel Approach for Determining ZVS Conditions in Power Electronics Taeho Seo, Sion Cha, Imbo Kong, Hyeonseok Eo, and Hyunwoo Oh Department of Electrical Engineering, POSTECH
FP-057	High-Performance and Durable N-GQDs@NF Electrocatalyst for Enhanced Oxygen Evolution Reaction Chan Young Kim[1], Min Ji Im[1], Seok-Ki Hyeong[1], Sukang Bae[1], and Jae Hyun Lee[2] [1]Functional Composite Materials Research Center, KIST, [2]Department of Energy Systems, Ajou University
FP-058	Enhancing Efficiency In Sn-Pb Mixed Perovskite Solar Cells Through Applying SnF_2-Modifided PEDOT:PSS Sang Jun Park, Sangheon Lee, Changyong Kim, Ayoung Lee, Min Hyeok Park, Min Ho Park, and Dong Hoe Kim Department of Materials Science and Engineering, Korea University
FP-059	Edge Termination Design Optimization of Breakdown Voltage and Specific On-Resistance in LDMOS Jieun Lee[1], Sang-Mok Jeong[1], Jong Min Kim[1], Hyewon Du[2], Jong Ho Lee[2], Young Chul Kim[1], and Hyunchul Nah[1] [1]TE Center, DB HiTek Co. Ltd., [2]TD[2] Team, DB HiTek Co. Ltd.

FP-060	Evaluation of Bare Die 4H-SiC MOSFET Performance and Output Analysis in Half-Bridge Circuit with Frequency and Duty Cycle Variations Yu Jin Seok[1,2], Chang-seung Ha[1], Inho Kang[1], Junghun Kim[1], Hyoung Woo Kim[1], and Ho-Jun Lee[2] [1]Advanced Semiconductor Research Center, Power Semiconductor Research Division, KERI, [2]Department of Electronic and Electrical Engineering, Pusan National University
FP-061	Enhancing Wide-Bandgap Perovskite Solar Cells via $BDAI_2$ Surface Treatment Jae Ryoung Lee, Seok Beom Kang, Jung Jun Kim, Joo Woong Yoon, and Dong Hoe Kim Department of Materials Science and Engineering, Korea University
FP-062	Study on ESD Protection Circuit with High Holding Voltage for Automotive Applications Bo-Bae Song and Young-chul Kim Device Enabling Team, DB HiTek Co. Ltd
FP-063	Modified Laser Transfer Printing for Front Side Metallization of Silicon/perovskite Tandem Solar Cells Young Hyun Kim[1,2], Min Su Kim[1], Md Halim Hossain[3], Bo min Jeon[4], Jeongho Lee[4], Doh-Kwon Lee[1], Byeong-Kwon Ju[2], and Inho Kim[1] [1]KIST, [2]Korea University, [3]University of Science and Technology, [4]Seoul National University of Science and Technology
FP-064	Real-time Monitoring of Spontaneous Plasmonic Photocatalysis via Tip-enhanced Raman Spectroscopy Taeyoung Moon, Hyeongwoo Lee, and Kyoung-duck Park POSTECH
FP-065	$NiSe_2$ Electrodes with High Hole Concentration and Conductivity Inject Holes into WSe_2 Channels Ji Kwon Bae[1,2,3], Yoon Jun Ho[1,2], and Hak Ki Yu[1,2] [1]Department of Energy Systems Research, Ajou University, [2]Department of Materials Science and Engineering, Ajou University, [3]Departmen of Materials Science and Engineering, Research Institute of Advanced Materials, Seoul National University
FP-066	Trench SiC MOSFET용 TEOS Gate oxide 특성 연구 박휘승[1,4], 김준[1], 김성준[2], 박영재[2], 민경진[1], 이병훈[1,2,3,4] [1]CSTC, POSTECH, [2]NINT, POSTECH, [3]Department of Electrical Engineering, POSTECH, [4]Graduate School of Semiconductor Technology, POSTECH

FP-067	Solvent-confined van der Waals Gap Engineering to Improve Energy Storage in a 2D Layered Supercapacitor Jae Hyung Shim[1], Jin yong An[1], Jae-Ho Lee[2], Jung Hoon Kang[2], Jin S. Kim[2], Su-Yeon Joung[2], and Chul-Ho Lee[2] [1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Department of Electrical and Computer Engineering, Seoul National University
FP-068	Enhanced Piezoelectric Performance In Sn Halide Perovskites through Multi-Component Substitution Seokhyun Ham[1,2], Mingjun Li[3], Hansol Park[1,2], Tae Kyung Lee[4], Tae Whan Kim[3], Hui Joon Park[1,2,5] [1]Department of Organic and Nano Engineering, Hanyang University, [2]Human-Tech Convergence Program, Hanyang University, [3]Department of Electronics and Computer Engineering, Hanyang University, [4]Department of Materials Engineering and Convergence Technology, Gyeongsang National University, [5]Department of Semiconductor Engineering, Hanyang University

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F. Silicon and Group-IV Devices and Integration Technology 분과

FP-069	Silicon Nitride Based Non-volatile Optical Modulator Hyug Su Kwon and Youngseok Bae Agency for Defense Development
FP-070	3진 곱셈 연산이 가능한 시냅스 셀 전주희, 조경아, 김상식 고려대학교 전기전자공학과
FP-071	더블 게이트 피드백 전계효과 트랜지스터 기반 인버터의 Leaky Integrate-and-Fire 동작 연구 허효주[1], 신연우[1], 전주희[1], 류승호[2], 조경아[1], 김상식[1,2] [1]고려대학교 전기전자공학과, [2]고려대학교 반도체시스템공학과

FP-072	FBFET 기반 Logic-in-memory 셀의 3진법 로직 캐스캐이딩 동작 연구 이동형[1], 신연우[2], 손재민[2], 류승호[1], 조경아[2], 김상식[1,2] [1]고려대학교 반도체시스템공학과, [2]고려대학교 전기전자공학과
FP-073	Impact of Self-Heating Effects on the DC/AC Behavior of CFET-Based Inverter Dabin Park[1,2] and Changhwan Shin[1] [1]School of Electrical Engineering, Korea University, [2]Foundry Division, Samsung Electronics Co., Ltd.
FP-074	고압 열처리를 통한 다결정 실리콘-저마늄 채널 박막 트랜지스터의 전기적 특성 개선 신건희 [1], 박영근 [2], 정재중 [2], 조병진 [1,2] [1]한국과학기술원 반도체공학대학원, [2]한국과학기술원 전기및전자공학부
FP-075	Highly Robust pV3D3 RRAM Devices for High-Temperature Applications Sungmoon Park, Changwoo Pyo, and Myungsoo Kim UNIST
FP-076	Multi-level Probabilistic Computing with Floating Body MOSFETs for Efficiently Solving Complex Combinatorial Optimization Problems Sunwoo Cheong[1,2], Soo Hyung Lee[1,2], Janguk Han[1,2], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-077	Novel Adaptive Integrate-and-Fire Neuron Circuit Yijoon Kim, Kyounghwan Oh, Ju Hong Park, and Chang-Ki Baek POSTECH
FP-078	Electrical Characterization of Flash Memory-Based Synaptic Devices using Liganded Quantum Dots Jae Min Kim[1], So Yeon Jeong[1], Tae Hwan Koo[1], HyeongJin Chae[1], Ju Yeong Chae[1], Hyeon Seok Jeong[1], and Moon Gyu Jang[1,2] [1]School of Nano Convergence Technology, Hallym University, [2]Center of Nano Convergence Technology, Hallym University
FP-079	Trap-Enhanced Steep-Slope Operation of Negative-Capacitance Field-Effect Transistors Yungyeong PARK, Hakseon Lee, and Yeonghun LEE Department of Electronics Engineering, Incheon National University

FP-080	Analysis of Self-Heating Effects in Complementary Field-Effect Transistor (C-FET) Considering Buried Power Rail (BPR) Johyeon Kim[1] and Jongwook Jeon[2] [1]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [2]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-081	Structural Optimization of Field Oxide LDMOS Transistors for Reduced Total Gate Charge Jung Hyun Park, Jun Woo Song, Jae Sung Kim, Yu Jin Noh, So Young Choi, Tae Gyu Ryu, Yong Keon Choi, and Sang Gi Lee Process Development Team2, DB HiTek
FP-082	Z-interference Mitigation in 3D NAND Using Modified CTN Structure Changkeon Lee and Changhwan Shin School of Electrical Engineering, Korea University
FP-083	Novel 3D NAND Structure Using Ferroelectric Materials and HfO_2 Tae-Baek Lee and Changhwan Shin Department of Semiconductor System Engineering, Korea University
FP-084	Analysis of Work-Function Engineering in a Vertical Channel DRAM Cell Transistor Hansol Kim[1], Jisung Im[1], Taeseong Kwon[1], Jinsu Kim[1], Seungmin Woo[1], Jahyun Gu[1], Sung-Tae Lee[2], Dongkyu Jang[3], Yoonki Hong[4], and Sung Yun Woo[1] [1]School of Electronic and Electrical Engineering, Kyungpook National University, [2]School of Electronic and Electrical Engineering, Hongik University, [3]DRAM Yield Enhancement Team, Manufacturing & Process Technology, Samsung Electronics Co., Ltd., [4]School of Electrical & Electronics Engineering, Pusan National University
FP-085	Low-Power Analog CMOS Neuron Circuits for Implementing High-Accuracy Spiking Neural Networks Systems Jonghyuk Park and Woo Young Choi Department of Electrical and Computer Engineering, Seoul National University
FP-086	Processing Negative-Valued Spikes in AND-Type Synaptic Arrays for Hardware Spiking Neural Networks Yeonwoo Kim[1,2] and Woo Young Choi[1,2] [1]Department Electrical and Computer Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University

FP-087	Capacitance Matching for Stabilizing Negative Capacitance Effect in MOS Gate Stack based on $Hf_xZr1-_xO_2$ Ferroelectric Thin Film Sungjae Wi[1], Hyunjae Park[2], Jiwan Kim[2], Jaehyeong Jo[2], Hyunmin Kwun[2], and Kibog Park[2,3] [1]Graduate School of Semiconductor Materials and Devices Engineering, UNIST, [2]Department of Physics, UNIST, [3]Department of Electrical Engineering, UNIST
FP-088	Impact of Surface Roughness on ReRAM Device Configurations Jonggwan Park and Changhwan Shin School of Electrical Engineering, Korea University
FP-089	Ultrathin Crystalline Silicon Hot-carrier Photodetector based on Metal-Semiconductor-Metal Perfect Absorber Ji-Hwan Son[1,2], Eui-Hyoun Ryu[1], Nayeon Kim[1], Sunghyun Hwang[1], Jae-Hoon Han[1], and In-Ho Lee[1] [1]Center for Quantum Technology, KIST, [2]Department of Micro/Nano Systems, Korea University
FP-090	Electrical Characterization of Flash-Type Neuromorphic Transistors with Mesh-Structured Floating Gates at Various Gate Lengths and Widths Hyeongjin Chae[1], Soyeon Jeong[1], Jaemin Kim[1], Taehwan Koo[1], Juyeong Chae[1], Hyeonseok Jeong[1], and Moongyu Jang[1,2] [1]School of Nano Convergence Technology, Hallym University, [2]Center of Nano Convergence Technology, Hallym University
FP-091	Improvement of 5V NMOS Vt Distribution by LDD RTA in 0.18um BCD Technology Maeng Lee, Kyung Wook Kwon, Sun Goo Kim, Myung Hee Nam, and Jeong Soo Park SK Hynix system ic
FP-092	A 28-nm Ternary Latch-Based Comparator for Area and Energy Efficient Computing-in-Memory Systems Myoung Kim[1,2], Young Eun Choi[1], Woo-Seok Kim[1], Yesong Jeong[1], Junyoung Park[1], Sang Hun Yeo[1], Kwan Yong Lee[1], In Jun Jang[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.
FP-093	Ternary SRAM-Based Highly-Scalable and Energy-Efficient TCAM Young-Eun Choi[1], Woo-Seok Kim[1], Myoung Kim[1,2], Sang Hun Yeo[1], Kwan Yong Lee[1], Jun Young Park[1], Yesong Jeong[1], In Jun Jang[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.

FP-094	180 nm Bipolar-CMOS-DMOS 공정 기반 Single-Photon Avalanche Diodes 설계 및 최적화 Doyoon Eom[1,2], Eunsung Park[1], Hyo-Sung Park[1], Woo-Young Choi[1], and Myung-Jae Lee[1] [1]Department of Electrical and Electronic Engineering, Yonsei University, [2]Post-Silicon Semiconductor Institute, KIST
FP-095	Optimization of CMOS Inverter Design Using Deep Learning Algorithm Tae Young Yoon and Jang Hyun Kim Department of Intelligence Semiconductor Engineering, Ajou University
FP-096	Sub-100-nm Nanohole Formation Technique by Double-Poly-Si Inner-Sidewall Spacer Patterning at Quarter-Micron Lithography Soomin Kim, Yeji Lee, and Seongjae Cho Department of Electronic and Electrical Engineering, Ewha Womans University
FP-097	Charge Trapping Properties of Non-volatile SIS Optical Phase Shifter with Flash Gate Stack Gijun Ju[1,2], Kyunghwan Kim[1], Sunghyun Hwang[1], Dae-Hwan Ahn[1], Yong-Won Song[1], In-Ho Lee[1], Younghyun Kim[2], and Jae-Hoon Han[1] [1]Center for Quantum Technology, KIST, [2]Department of Photonics and Nanoelectronics, Hanyang University
FP-098	Non-uniform Interface Trap Distribution Modeling for Short Channel Device Reliability Analysis Yoo Bin Song[1,2], Min Je Lee[1], In Jun Jang[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.
FP-099	Low Noise And High Resolution THz Detector For Multi-pixel Imaging System Yoo Bin Song[1,2], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.
FP-100	An Accurate Modeling of Fermi Potential over Wider Range of Temperature for Future Device Applications Dayeong Kong and Seongjae Cho Department of Electronic and Electrical Engineering, Ewha Womans University
FP-101	Design of Energy-Efficient TCAM Architecture Using Selective-precharge Scheme Jun Young Park[1], Young-Eun Choi[1], Woo-Seok Kim[1], Myoung Kim[1,2], Yesong Jeong[1], Sang Hun Yeo[1], Kwan Yong Lee[1], In Jun Jang[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.

FP-102	Study on Reconfigurable Field-Effect Transistor with Nanosheet Channel Eunseo Ahn and Yun Seop Yu Major of ICT & Robotics Eng., Hankyong National University
FP-103	DTCO Analysis of Various Structures and Temperature Characteristics of Floating Gate Field Effect Transistors Sueyeon Kim[1], Sangki Cho[2], Myounggon Kang[3], Seungjae Baik[4], and Jongwook Jeon[1] [1]Department of Electrical and Computer Engineering, Sungkyunkwan University, [2]DI group ESD Team, SK keyfoundry, [3]School of Advanced Fusion Studies, University of Seoul, [4]Semiconductor Research and Development Center, Samsung Electronics Co., Ltd.
FP-104	A Novel Design of Energy Efficient System Bus Using Ternary-CMOS Yesong Jeong[1], Myoung Kim[1,2], Young-Eun Choi[1], Woo-Seok Kim[1], Jun Young Park[1], Sang Hun Yeo[1], Kwan Yong Lee[1], In Jun Jang[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.
FP-105	Dual-Layer Dielectric Stack for Extremely Low-Power and Superbly State-Distinctive Operations of Si-Compatible Memristor Yeji Lee[1], Sunghyun Woo[2], Sungjun Kim[3], Myounggon Kang[2], and Seongjae Cho[1] [1]Ewha Womans University, [2]University of Seoul, [3]Dongguk University
FP-106	Analysis of Enhanced BTI Characteristics in Ternary CMOS Technology Owing to an Additional State In jun Jang[1], Woo-Seok Kim[1], Sang Hun Yeo[1], Kwan Yong Lee[1], Young-Eun Choi[1], Myoung Kim[1], Jun Young Park[1], Yesong Jeong[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.
FP-107	Process Variation Tolerant 28-nm Ternary CMOS Technology with Gate-Underlap Engineering Kwan Yong Lee[1], Woo-Seok Kim[1], Sang Hun Yeo[1], In Jun Jang[1], Young-Eun Choi[1], Myoung Kim[1,2], Ye song Jeong[1], Jun Young Park[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.
FP-108	Ultra Low-power and Variation-immune Design of Vertical Nanowire Steep-slope T-CMOS for AIoT Memory Application Sang Hun Yeo[1], Woo-Seok Kim[1], Kwan Yong Lee[1], In Jun Jang[1], Young-Eun Choi[1], Myoung Kim[1,2], Jun Young Park[1], Yesong Jeong[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.

FP-109	PPA Improvements in 28-nm Ternary CMOS Technology Using Highly Localized Halo Profile Woo-Seok Kim[1], Young-Eun Choi[1], Myoung Kim[1,2], Sang Hun Yeo[1], Kwan Yong Lee[1], In Jun Jang[1], Jun Young Park[1], Yesong Jeong[1], Min Woo Ryu[1,2], and Kyung Rok Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Ternell Corp.

F. Silicon and Group-IV Devices and Integration Technology 분과

FP-110	Performance Enhancement of Quantum Dot Light-Emitting Devices via Surface Modification of Gradient Quantum Dots Jaesung Lee, Byoungho Kang, Sanghoon Jung, Sehyuk Yeom, and Wanghoon Lee GERI
FP-111	Enhancing Efficiency in Organic Light Emitting Diodes with Exciplex Hosts through a Lithium Flouride layer Hyunsoo Park and Byoungdeog Choi Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-112	Hydrocolloid-Based Flexible and Water-Resistant OLED for Skin Attachment in Everyday Life Seo Hyeon Kim[1,2], Young Woo Kim[2], Eou-Sik Cho[3], Sang Jik Kwon[3], and Yongmin Jeon[1,2] [1]Department of Biomedical Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University, [3]Department of Electronic Engineering, Gachon University
FP-113	Transfer Printing Technology on Curvilinear Surfaces Using Shape Deformable Stamp. Hyeon Ji Yang, Jun Hee Lee, and Yei Hwan Jung Hanyang University
FP-114	Increasing Stability of Red-Emitting Perovskite Nanocrystals for Color Conversion Layers by Surface Passivation Method Kyueun Lim[1,2], Eojin Yoon[1], Qingsen Zeng[1], and Tae-Woo Lee[1,2] [1]Seoul National University, [2]SN Display Co., Ltd.
FP-115	Scalable Preparation of Perovskite Nanocrystals with Unity Lead Utilization for Micro-LED Displays Hyun-Joon Shim[1,2], Qingsen Zeng[1], and Tae-Woo Lee[1,2] [1]Seoul National University, [2]SN Display Co., Ltd.

FP-116	Zero-backlight-leakage Color-conversion Layer from Bright Perovskite Nanocrystals Seona Kim[1], Eonsu Kim[1], Qingsen Zeng[1], and Tae-Woo Lee[1,2,3,4] [1]Department of Materials Science and Engineering, Seoul National University, [2]Interdisciplinary Program in Bioengineering, Seoul National University, [3]SN Display Co. Ltd., [4]Research Institute of Advanced Materials, Soft Foundry, Institute of Engineering Research, Seoul National University
FP-117	Stretchable Fabric OLED with a Single Surface Light Source Ye Ji Shin[1], Sang Jik Kwon[3], Eou-Sik Cho[3], and Yongmin Jeon[1,2] [1]Department of Semiconductor Engineering, Gachon University, [2]Department of Biomedical Engineering, Gachon University, [3]Department of Electronic Engineering, Gachon University
FP-118	가시광 통신을 위한 고색순도 형광 RGB OLED의 고속 응답 특성 연구 Kyumi Lee[1,2] and Jeong-Hwan Lee[1,2,3] [1]Department of Materials Science and Engineering, Inha University, [2]Program in Semiconductor Convergence, Inha University, [3]3D Convergence Center, Inha University
FP-119	High-Precision Sub-10 μm OLED Pixels Surpassing FMM Constraints Han Been Lee[1,2], Jin-Kyun Lee[3,4], and Jeong-Hwan Lee[1,2,5] [1]Department of Materials Science and Engineering, Inha University, [2]Program in Semiconductor Convergence, Inha University, [3]Department of Polymer Science and Engineering, Inha University, [4]Program in Environment and Polymer Engineering, Inha University, [5]3D Convergence Center, Inha University
FP-120	Ortho-Carborane-Based MR-TADF Emitters for Blue-Emitting OLED Da-Eun Lee[1,2], Min Hyung Lee[1], and Jeong-Hwan Lee[1,2,3] [1]Department of Materials Science and Engineering, Inha University, [2]Program in Semiconductor Convergence, Inha University, [3]3D Convergence Center, Inha University
FP-121	Depth-Graded Modulus-Engineered Elastomer Composite with 2D/3D Strain Control for Stretchable Displays Dongwon Lee[1] and Seungjun Chung[2] [1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]School of Electrical and Engineering, Korea University
FP-122	Evaluation of the Vertically Aligned Carbon Nanotubes (VA-CNTs) Electron Sources for High Resolution Semiconductor Chips Imaging Ravindra Patil and Kyu Chang Park Kyung Hee University

FP-123	High-Stability, High-Resolution FE-SEM Imaging with Cold Cathode-Based Electron Beam (C-beam) Aniket Karande, Ravindra Patil, and Kyu Chang Park Kyung Hee University
FP-124	InGaN/GaN 기반 microLED의 기판 종류 및 두께와 방열 특성에 관한 연구 Yeon-bin Kang and Dae-Myeong Geum Inha University
FP-125	High-Performance p-Type CuI TFTs with Al_2O_3 Sandwiched Structure Hyo-Won Jang[1], Hyun-Ah Lee[1], Tae In Kim[2], Ick-Joon Park[3], and Hyuck-In Kwon[1] [1]Chung-Ang University, [2]Inha University, [3]Joongbu University
FP-126	Advancements in Electrical Performance of P-type CuI Thin-Film Transistors through Vacancy Engineering Go-Eun Kim[1], Hyun-Ah Lee[1], Tae In Kim[2], Ick-Joon Park[3], and Hyuck-In Kwon[1] [1]Chung-Ang University, [2]Inha University, [3]Joongbu University
FP-127	Characterization of Low-Frequency Noise in SA TG Coplanar Oxide TFTs Chae-Eun Oh[1], Su-Hyeon Lee[1], Dong-Ho Lee[1], Younghyun Ko[2], ChanYong Jeong[2], WonSang Ryu[2], Jiyong Noh[2], Kwon-Shik Park[2], and Hyuck-In Kwon[1] [1]Chung-Ang University, [2]LG Display
FP-128	Crystallization Effects on Tellurium Oxide Thin Films for Low-Power Complementary Logic Circuit Joon-Young Lee[1], Hyun-Woo Lee[1], Tae In Kim[2], Ick-Joon Park[3], and Hyuck-In Kwon[1] [1]Chung-Ang University, [2]Inha University, [3]Joongbu University
FP-129	Optimization of SPAD Structure and Process for Improving PN Type SPAD Performance Harin Kang, Juhwan Jung, Sanghwan Kim, Hyun Yoo, Chulwoo hwang, Dohee Kim, and Manlyun Ha DB Hitek
FP-130	Two-step ADC with a Self-Successive Doubling Technique for High-Speed CIS Kyung Min Lee and Soo Youn Kim Department of System Semiconductor, Dongguk University

FP-131	Low-noise CMOS Image Sensors with Quartered Multiple Sampling Seungmin Heu and Soo Youn Kim Department of System Semiconductor, Dongguk University
FP-132	Correlation of Surface Current and Size-dependent Properties of III-V Micro-light-emitting Diodes Woo Jin Baek[1], Juhyuk Park[1], Hyun Soo Kim[1], Sang Hyeon Kim[1], Dae-Myeong Geum[2], Jung-Hong Min[3], and Tae-Hoon Chung[3] [1]School of Electrical Engineering, KAIST, [2]Department of Electronic Engineering, Inha University, [3]Photonic Semiconductor Research Center, KOPTI
FP-133	Methodology for Mitigating Image Sticking in TFT Devices Considering the Characteristics of the Poly-Si Channel Dongchan Kim[1], Jiwook Hong[2], and Jongwook Jeon[3] [1]Device Research Lab (SKKU-DRL), Department of Electrical and Computer Engineering, Sungkyunkwan University, [2]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [3]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-134	Influence of ZnO Nanoparitcles by Controlled Oxygen Vacancy as Electron Transport Layer for Quantum Dots Light-Emitting Diodes Byoungho Kang, Jaesung Lee, Sanghoon Jung, Sehyuk Yeom, and Wanghoon Lee Semiconductor·Defense Industrial Research Center, Gumi Electronics & Information Technology Research Institute
FP-135	Black Dot Performance Improvement at CMOS Image Sensor Suhye Park, Keunhyuk Lim, Junho Won, Hyosik Kim, Namyoon Kim, and Won Ho Lee SK Hynix system ic
FP-136	Versatile Full Well Capacity Model for Vertical Pinned Photodiode 안현수[1], 이지원[2] [1]Department of Photonics and Nanoelectronics, Hanyang University, [2]Department of Semiconductor Engineering, POSTECH
FP-137	Exploring High-k Dielectric Influence on Hysteresis in SWNT FETs with Stacked SOG/High-k Dielectrics Yun sung Lee[1,2], Han min Kim[1,2], Geun Lee[1,2], Geon Ho Bang[1,2], and Sung Hun Jin[1,2] [1]Department of Electronic Engineering, Incheon National University, [2]I-Nanofab Center, Incheon National University

FP-138	Fully Formed 3D Heterogeneous Integration of p-Si/n-SWNT Circuits and CuI Photodetectors for Advanced Display Technologies Hanmin Kim[1,2], Kim Bo Kyung[1,2], Park Jooho[1,2], Lee Hyunjun[1,2], and Sung Hun Jin[1,2] [1]Department of Electronic Engineering, Incheon National University, [2]I-Nanofab Center, Incheon National University
FP-139	Exploring the Effects of Inorganic Ligand on Performance of InP-based Core/Shell Quantum Dots Phototransistor Seungwoo Lee[1], Seongbeom Yeon[2], and Himchan Cho[1,2] [1]School of Electrical Engineering, Graduate School of Semiconductor Technology, KAIST [2]Department of Material Science and Engineering, KAIST
FP-140	Hybrid PDMS Stamp for the Transfer Printing of Miniaturized Devices Seol Ahn and Yei Hwan Jung Department of Electronic Engineering, Hanyang University
FP-141	Thermal Analysis of Quantum Dot Light-Emitting Diode Using Thermoreflectance Microscopy Yongjin Shin, Hyogeun LEE, Eunsang LEE, Seongyong Cho, and Younghyun Kim Department of Photonics and Nanoelectronics, BK21 FOUR ERICA-ACE Center, Hanyang University
FP-142	Dual-Functional CuI RRAM with Lateral Switching for Interactive Display Applications Geun Lee, Hyeon Jong Lee, Yun-Sung Lee, and Sung Hun Jin Incheon National University
FP-143	940nm NIR QE Enhancement for CMOS Image Sensor So-Yun Kim, Chang Ki Lee, Jun ho Won, Suhye Park, and Won Ho Lee SK Hynix system ic
FP-144	Fabrication of Intrinsically Stretchable Quantum Dot Light-emitting Diodes Dong Chan Kim Gachon University
FP-145	ZrO_2 Dielectric-Enhanced n-Type SWNT Thin Film Transistors for Zero-Latency AR/VR Display Applications Seo-Young Jo, Yun Sung Lee, Geun Ho Bang, and Sung Hun Jin Incheon National University

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(공식발표시간: 14:00-15:10)
ZONE 2-2구역 (5층, 로비)

K. Memory (Design & Process Technology) 분과

FP-146	a-ITGZO 박막 트랜지스터 기반 2T0C DRAM 셀의 로직-인-메모리 연구 류승호[1], 조경아[2], 김상식[1,2] [1]고려대학교 반도체시스템공학과, [2]고려대학교 전기전자공학과
FP-147	피드백 전계효과 트랜지스터 기반 cascaded logic-in-memory 셀 임재욱[1], 신연우[2], 전주희[2], 오정윤[2], 조경아[2], 김상식[1,2] [1]고려대학교 반도체시스템공학과, [2]고려대학교 전기전자공학과
FP-148	A Study of TiO_2/TiO_{2-x} Based Memristor Fabrication with Low Temperature Plasma Heat Treatment Process BEOM GU LEE[1], TUKHTAEV ANVAR[1], JAE-YOON LEE[1], ZHAO HANLIN[1], WANG XAIOLIN[1], JUNG HOON CHOI[1], SHI SHIKAI[1], ZHU HANG[1], MAKSUDOV MEKHROJ ABDUSAMAD UGLI[1], SHAMSIEV OKHUNJON ZAYNIDIN UGLI[1], JUNG MU SEO[1], and SUNG-JIN KIM[1,2] [1]College of Electrical and Computer Engineering, Chungbuk National University, [2]Biomedical Research Institute, Chungbuk National University
FP-149	Infrared-Triggered Retinomorphic Artificial Synapse Electronic Device Containing Multi-Dimensional van der Waals Heterojunctions Soobin Shim[1], Seongchan Kim[2], Hyeongtae Kim[1], Nuri Oh[2], and Jun Hong Park[1] [1]School of Materials Science and Engineering, Gyeongsang National University, [2]Division of Materials Science & Engineering, Hanyang National University
FP-150	피드백 전계효과 트랜지스터 기반 시냅스 셀의 동작 특성 연구 신연우, 조경아, 김상식 고려대학교 전기전자공학과
FP-151	Highly Reliable Analog HfO_y/HfO_x RRAM Synapse with Fast Write Speed for Neuromorphic Hardware Acceleration Yunsur Kim and Jiyong Woo School of Electronic and Electrical Engineering, Kyungpook National University

FP-152	HfZrO Thickness-dependent Threshold Voltage of InZnO Channel FeFETs Jiae Jeong and Jiyong Woo School of Electronic and Electrical Engineering, Kyungpook National University
FP-153	Novel Si-doped Ultrathin InZnO FeFET Hyoungjin Park and Jiyong Woo School of Electronic and Electrical Engineering, Kyungpook National University
FP-154	Fully CMOS-Compatible 1T-1R Array based on 0.18μm CMOS process 이원철[1,2], 권윤아[1], 전강혁[1], 이상화[1], 임유리[1], 설우석[1], 서동주[1], 조희재[1], 권수현[1], 박남수[1], 고형호[2], 이종원[2] [1]나노종합기술원, [2]충남대학교
FP-155	HfO_2/IGZO Bi-layer Synaptic Device with High Endurance Shivam Kumar Gautam[1], Dong Min Kim[1], Sung Ho Kim[1], Chae-Min Yeom[1], Hyuk-Min Kwon[2], Yong-Goo Kim[3], and Hi-Deok Lee[1] [1]Department of Electronics Engineering, Chungnam National University, [2]School of Electronic & Electrical Engineering, Hankyong National University, [3]Department of Green Semiconductor System, Korea Polytechnics
FP-156	Physically Unclonable Functions Using Nonvolatile Memory Devices Kyumin Sim, Hyunseok Son, and Hamin Park Department of Electronic Engineering, Kwangwoon University
FP-157	Enhanced Carrier Dynamics and Excitation of Optically Stimulated Artificial Synapse Using van der Waals Passivation Layers Su-yeon Cho[1], Somnath Suhas Kundale[2,3], Junoh Shim[4], Sojeong Park[3], Hangil Kwak[3], Anh Vo Hoang[5], Eui-Tae Kim[5], Sunkook Kim[4], and Jun Hong park[1,3] [1]School of Materials Science and Engineering, Gyeongsang National University, [2]Research Institute for Green Energy Convergence Technology, Gyeongsang National University, [3]Department of Materials Engineering and Convergence Technology, Gyeongsang National University, [4]School of Advanced Materials Science & Engineering, Sungkyunkwan University, [5]Department of Materials Science and Engineering, Chungnam National University
FP-158	Enhancing Resistive Switching Performance in Tantalum-Embedded Amorphous Oxides through Post-Oxidation Treatment Jung-Hwa Cha and Myoung-Jae Lee Research Institute, DGIST

FP-159	Efficient Stateful Neural Network based on Integration of Resistive Switching Ta/HfO_2/RuO_2 Memristor and Threshold Switching Ag/HfO_2/RuO_2 Memristor Yeong Rok Kim[1,2], Dong Hoon Shin[1,2], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-160	Low Power Memristor-based Pulse Width Modulation Circuit Byeong Su Kim[1,2], Dong Hoon Shin[1,2], Yeong Rok Kim[1,2], Kun Hee Son[1,2], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-161	A Stochastic Photo-responsive Memristive Neuron for an In-sensor Visual System based on a Restricted Boltzmann Machine Jin hong Kim[1,2], Hyun wook Kim[1,2], Min Jung Chung[1,2], Dong Hoon Shin[1,2], Yeong Rok Kim[1,2], Joon-kyu Han[3,4], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University, [3]System Semiconductor Engineering, Sogang University, [4]Department of Electronic Engineering, Sogang University
FP-162	In-memory Logic Operation and Error Correction with Dual-Polarity Memristive Crossbar Array Kunhee Son[1,2], Dong Hoon Shin[1,2], Néstor Ghenzi[1,2], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-163	Ferroelectric Memory Performance with Organic-Inorganic Composite Insulators Hyowon Jang[1], Yongju Lee[1,2], Swarup Biswas[1], and Hyeok Kim[1] [1]University of Seoul, [2]University of Paris
FP-164	Novel Structural Approaches to CMOS-Compatible Dynamically Reconfigurable FETs for Future Technologies Seung-Hyun Lee and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University
FP-165	Modulating Volatility via Crystallization in ECM-based ZrO_2 Memristor for Reservoir Computing Dae Kyu Lee[1,2], Gichang Noh[1], Seungmin Oh[1], Yooyeon Jo[1], Eunpyo Park[1,2], Min Jee Kim[1], Heerak Wi[3], Ria Choi[3], Hyun Jae Jang[1], Sangbum Kim[2], Suyoun Lee[1], and Joon Young Kwak[3] [1]KIST, [2]Seoul National University, [3]Ewha Womans University

FP-166	A Novel Approach to Enhancing Cell Current in 3D NAND Using Positive Fixed Charge on the Channel Backside Yeeun Kim[1], Jaejoong Jeong[2], Byung Jin Cho[2], and Jong Kyung Park[1] [1]Department of Semiconductor Engineering, Seoul National University of Science and Technology, [2]School of Electrical Engineering, KAIST
FP-167	Lanthanum Oxide 표면 처리를 통한 듀얼 스위칭 메모리의 계면 특성 및 메모리 성능 개선 김승훈[1], 강창연[1], 추준홍[1], 신의중[1], 조병진[1,2] [1]한국과학기술원 전기 및 전자공학부, [2]한국과학기술원 반도체공학대학원
FP-168	Memristors with Tunable Volatility for Reconfigurable Neuromorphic Computing Hyungjun Park[1,2], Kyung Seok Woo[1,2,3], Suhas Kumar[3], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University, [3]Sandia National Laboratories
FP-169	Neuromorphic Hardware Design with Emerging Material-Based Neuron and Synaptic Devices for On-chip STDP Learning Min Jee Kim[1,2], Jaegwang Im[1], Keonhee Kim[1], Yooyeon Jo[1], Gichang Noh[1], Eunpyo Park[1], Dae Kyu Lee[1], Inho Kim[1], YeonJoo Jeong[1], Hyung-Min Lee[2], and Joon Young Kwak[3] [1]KIST, [2]Korea University, [3]Ewha Womans University
FP-170	Structural and Synaptic Functional Analysis of InGaZnO Thin Film-Based Electrochemical Random Access Memory Jung Kyu Lee[1,2], Dong Hoon Shin[1,2], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University
FP-171	Programmable Thresholding Computing of Memristive Kernel for Temporal Data Analysis Sung Keun Shim[1,2] and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University
FP-172	Organic Bistable Memory Devices of PMMA Polymer Matrix-Based ZnO-C_{60} Core-Shell QDs Nanocomposites Jinseo Park, Seok-Ho Seo, Ju Hee You, and Dong Ick Son Institute of Advanced Composite Materials, KIST

FP-173	Enhancing the Characteristics of HfO_2 RRAM Using HfO_2/MgO Bilayer Structures Si-yeol Lee[1,2], Seung-Hwan Kim[1], Soeun Ahn[1], Kyu-min Sim[3], Hamin Park[3], Hyun-yong Yu[2], and Seung-heon Chris Baek[1] [1]Center for Semiconductor Technology, KIST, [2]Department of Electrical Engineering, Korea University, [3]Department of Electronic Engineering, Kwangwoon University
FP-174	Excitatory Synaptic Operation in Charge-trap type Poly-Si Synaptic Transistors with High CMOS Compatibility Seung-Hwa Choi, Hyun-Sik Choi, and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University
FP-175	Impact of Gate Underlap on Memory Window of Charge Trap TFETs Min Seok CHA[1,2], Hyung Jun Noh[1,2], Chang Heon Park[1,2], Seon Ho Lee[1,2], and Woo Young Choi[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University
FP-176	SiGe Channel 2T-DRAM Utilizing Ge Quantum Dots toward Stackable DRAM Technology Gyu Bin Lee, Su Hyun Park, Gil su Jeon, and Byoung Don Kong Department of Electrical Engineering, POSTECH
FP-177	질화붕소 배리어를 사용한 3D V-NAND Flash Memory의 전하 트랩 효율 향상 강대현[1], 정재중[1], 박영근[1], 신동훈[2], 최한메[2], 조병진[1] [1]한국과학기술원 전기 및 전자공학부, [2]삼성전자 반도체연구소
FP-178	Advancement of Passivation Techniques in Next-generation DRAM Hyun-jung Lee, Jayun Choi, Jisung Jung, Sangho Lee, Jinyeol Lee, Junsoo Kim, Sung Ho Jang, Jeonghoon Oh, Jemin Park, and Jaihyuk Song Samsung Electronics Co., Ltd.
FP-179	Maximizing the Synaptic Efficiency of Ferroelectric Tunnel Junction Devices Using a Switching Mechanism Hidden in an Identical Pulse Programming Learning Scheme Wonwoo Kho[1], Hyunjoo Hwang[1], Ji Min Lee[1], Hoseong Kim[1], Taewan Noh[1], and Seung-Eon Ahn[1,2] [1]Department of IT·Semiconductor Convergence Engineering, Tech University of Korea, [2]Department of Nano & Semiconductor Engineering, Tech University of Korea

FP-180	가변적/고집적 신경모방 iCVD기반의 유-무기 혼성 고분자 게이트 스텍 전하 포획형 비휘발성 메모리 시냅스 배열 김태훈[1], 오정엽[2], 이현지[2], 김민주[1,3,4] [1]단국대학교 파운드리공학부, [2]한국과학기술원 전기전자공학부, [3]단국대학교 융합반도체공학과, [4]단국대학교 전자전기공학부
FP-181	Completely Biodegradable, Multi-functional Wireless System of Bio-Electronics Utilizing a Shape-Programmable, Bioresorbable Elastomer So Jeong Choi, Jun Hyeon Lim, Won Bae Han, and Suk-Won Hwang KU-KIST Graduate School of Converging Science and Technology, Korea University
FP-182	Analysis of Bias-Dependent Retention Characteristics of the Flash Memory Device without Tunneling Oxide Joon Hwang[1,2], Min-Kyu Park[1,2], and Jong-Ho Lee[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University
FP-183	고대역폭 메모리(HBM) 특허 통계 분석 박소정[1], 김용태[2], 손윤식[1], 방인환[1], 최진호[1], 김희태[1] [1]특허청 반도체심사추진단, [2]한국특허기술진흥원 반도체영상조사실
FP-184	Developing Ferroelectric Semiconductor Device Compact Models Joon Hyeok Lee and Jongwook Jeon Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-185	Boolean Logic Operation Scheme in 2T DRAM Cell Array for in- Memory Computing Yeon-Seok Kim[1], Myeong Hyeon Baek[1], and Min-Woo Kwon[2] [1]Gangneung-Wonju National University, [2]Seoul National University of Science and Technology
FP-186	Low-Power Phase Control Signal Generation for Jitter Reduction in HBM3E Time-Based Feedforward Equalization Sunki Cho and Woo-Seok Choi Seoul National University
FP-187	Anti-ferroelectric FET-Based Physical Reservoir Computing Device for Enhancing Data Processing Dimensions Taeseung Jung, Giuk Kim, Seungyeob Kim, and Sanghun Jeon School of Electrical Engineering, KAIST

FP-188	신경망 운영을 위한 성능 조절 가능한 초박형 기능성 공중합 필름 기반 멤리스터 김지인[1], 박인수[1], 황남기[1], 김태훈[1], 유지호[1], 김형준[2], 김민주[1,2,3] [1]단국대학교 파운드리공학부, [2]단국대학교 전자전기공학부, [3]단국대학교 융합반도체공학과
FP-189	Investigation of Contact Resistance in Double-Gate IGZO TFT Kyusun Han[1] and Hongseok Oh[2] Soongsil University
FP-190	High Charge Trapping Density in Remote Plasma ALD ZrO_2 Thin Films for Nonvolatile Memory Applications Chan Hee Lee, So Won Kim, and Hee Chul Lee Department of Advanced Materials Engineering, Tech University of Korea
FP-191	Auto-Calibration Approach with a Compact Model for Diverse Data Conditions Minsun Cho[1], Taeheon Lee[1], and Sungyeop Jung[2] [1]Institute of Industrial Technology, Korea University, [2]Department of AI Semiconductor Engineering, Korea University
FP-192	CMP Process for Minimizing the Dummy Wordline Layer in Double Deck Structure for High Stack 3D NAND Tae Hoon Kim[1,2], Kim Chae Young[3], and Ji-Woon Yang[2,3] [1]NAND SRT TECH Mass Productivity, SK Hynix, [2]Department of Semiconductor Convergence Engineering, Korea University, [3]Department of Electronics & Information Engineering, Korea University
FP-193	Effect of Nitride Trap Levels on Hole Lateral Migration and Retention in Vertical NAND Flash Memory Da Eun Yang[1,2], Se Hyun Uhm[1,2], Jin Ho Chang[1,2], Kyung Moon Kim[1,2], Jae Hyun Nam[1,2], Jae Duk Lee[3], Ki Bong Moon[3], and Woo Young Choi[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University, [3]Flash Technology Development, Samsung Electronics Co., Ltd.
FP-194	강유전체와 전하 트랩층을 활용한 멀티비트 비휘발성 메모리의 새로운 구조 Hayoung Kim, Amos A. Boampong, and Min-Hoi Kim Department of Creative Convergence Engineering, Hanbat National University

FP-195	DRAM Pi-BCAT Structure Using Machine Learning Ju Won Lee[1], Hye Rin Lee[1], and Myoung Jin Lee[2] [1]Department of Intelligent Electronics and Computer Engineering, Chonnam National University, [2]Department of Electronic Computer Engineering, Chonnam National University
FP-196	Dynamic Power-Efficient Adder Tree Design Using Sparsity-Driven Approximation for Digital Computing-In-Memory Jisu Kang[1], TaeSung Kim[1], Dongho Kim[1], Sejun Park[1], and Hanwool Jeong[1,2] [1]Kwangwoon University, [2]Articron Inc.
FP-197	SRAM Power and Performance Optimization based on Bayesian Optimization to Determine Optimal Assist Circuit Options Jaeseung Baik[1], SeongWon Kang[1], Seokhun Kim[1], Ijun Jang[1], MinGeun Song[1], and Hanwool Jeong[1,2] [1]Kwangwoon University, [2]Articron Inc.
FP-198	Asynchronous MRAM Write Termination with Bit Line and Source Line Sensing GwanWoo Park[1], JaeHyeon Woo[1], DaHun Go[1], DooHyun Yu[1], EunTaek Kong[1], and Hanwool Jeong[1,2] [1]Kwangwoon University, [2]Articron Inc.
FP-199	The High-Precision Modeling for Predicting Z-Interference Variability in 3D NAND Flash Memory Hyeon Seo Yun and Jong Kyung Park Department of Semiconductor Engineering, Seoul National University of Science & Technology
FP-200	Machine Learning-Assisted Simulator for Threshold Voltage Distribution of 3D NAND Flash Namju Kim, Hyeun Woo Shin, Chae Eun Kim, and Byung Chul Jang School of Electronic and Electrical Engineering, Kyungpook National University
FP-201	Optimization of Charge Trap Flash Memory Using HZO Charge Trap Layer Sang Hyeok Kim, Donghyun Kim, In Kyu Yoon, Somi Lee, SeongJu Beak, Sangpil Yun, and Jae Woo Lee Department of Electronics and Information Engineering, Korea University
FP-202	Improved Reliability of Si-doped GeS Based Selector-Only Memory Jong Min Joo[1], Jun Young Choi[2], Dong Hyun Kim[1], Jin Suk Oh[1], Min Su Kang[1], Ji Eun Park[1], and Tae Geun Kim[1,2] [1]School of Electrical Engineering, Korea University, [2]Department of Semiconductor System Engineering, Korea University

FP-203	A Study on the Capping Layer Effect Depending on Oxygen Source in Ferroelectric (Hf,Zr)O_2 Thin Films Seungbin Lee[1], Jongmug Kang[1], Jae Hun Kim[1], Minjong Lee[2], Jin-Hyun Kim[2], Jiyoung Kim[2], and Si Joon Kim[1] [1]Kangwon National University, [2]The University of Texas at Dallas
FP-204	A Study on Low-thermal-budget (300℃) Process of Ferroelectric (Hf,Zr)O_2 Thin Films Using HPA and Furnace Jae Hun Kim[1], Jongmug Kang[1], Seungbin Lee[1], Minjong Lee[2], Jin-Hyun Kim[2], Jiyoung Kim[2], and Si Joon Kim[1] [1]Kangwon National University, [2]The University of Texas at Dallas
FP-205	인공 시냅스 소자 응용을 위한 이온-겔 GFET의 이온 이동 제어 박준하[1,2], 손유진[1], 장재식[1], 주병권[2], 이경석[1] [1]한국과학기술연구원 반도체기술연구단, [2]고려대학교 전기전자공학부
FP-206	Innovative 3D NAND Structure to Improve Erase Performance and On Current Level Shihun Lee[1], Gihong Park[1], and Yoon Kim[1,2] [1]University of Seoul, [2]IM Electronics Co., Ltd.
FP-207	Influence of Channel Hole Profiles on Device Variation of Vertical NAND Flash Memory Jin Ho Chang[1,2], Kyung Moon Kim[1,2], Jae Hyun Nam[1,2], Da Eun Yang[1,2], Se Hyun Uhm[1,2], Suk-Kang Sung[3], and Woo Young Choi[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-university Semiconductor Research Center, Seoul National University, [3]Advanced Flash Technology Team, Samsung Electronics Co., Ltd.
FP-208	Analysis of the Electrical and Physical Characteristics of TiN for ReRAM Electrode Ingon Bae, Seong Gil Ham, Hyeontae Lee, Yong Han Lee, Seunghoon Lee, Inhee Chang, Tae Woo Kim, Yong Keon Choi, and Sang Gi Lee Development Team2, DB HiTek
FP-209	공정 안정성 개선을 위한 CMOS 호환형 HfO_2/TaOx 기반 2-Via Type ReRAM 개발 권윤아[1], 이원철[1,2], 전강혁[1], 이상화[1], 임유리[1], 서동주[1], 정윤채[1], 조희재[1], 권수현[1], 박남수[1], 강민호[1], 김영주[1], 김광희[1], 이병일[1], 심갑섭[1], 설우석[1], 이종원[2] [1]나노종합기술원, [2]충남대학교

FP-210	Hybrid-Domain 5+1T SRAM Based Compute In-Memory For Dot-product Gyeong Been Kim and Jeong Beom Kim Kangwon National University
FP-211	Synaptic Characteristics in DPP-DTT Organic Short-term Charge Trap Flash Memory Kyeungbin Kim, Yoon Kim, and Dong-Wook Park University of Seoul
FP-212	Pre-filament Forming Characteristics of HfO_2-based ReRAM with Plasma Treatment Seonggil Ham, Ingon Bae, Tae Woo Kim, In Hee Chang, Seung Hoon Lee, Yong Han Lee, Yong Keon Choi, and Sang Gi Lee Development 2 Team, DB HiTek
FP-213	Mitigating Subthreshold Leakage in DRAM: A Comparative Study of BCAT and PI-BCAT Structures under Thermal Stress Suyeon Kim[1], Dongyeong Kim[1], Hyeona Seo[1], and Myoungjin Lee[2] [1]Department of Intelligent Electronics and Computer Engineering, Chonnam National University, [2]Department of Electronic Computer Engineering, Chonnam National University
FP-214	Atomic Layer Deposition of Indium Oxide Thin Films Using [3-(Dimethylamino)propryl](dimethyl)indium (DADI) and Characterization of Their Properties Hojin Lee, Junhyun Byun, and Dae Hwan Kang Department of Semiconductor Engineering, POSTECH
FP-215	Pattern Classification with a Fully Hardware-Based Implementation Using a 1 kb Passive Crossbar Array Integrated with Resistive Switching Memristor Kanghyeok Jeon[1], Sanghwa Lee[1], Youna Kwon[1], Won-Chul Lee[1], Yuri Lim[1], Dong Joo Seo[1], Yoon-chae Jeong[1], Woo-Suk Sul[1], Jongwon Lee[1], Doo Seok Jeong[2], and Gun Hwan Kim[3] [1]Nano Convergence Technology, National Nano Fab Center, [2]Division of Material Science and Engineering, Hanyang University, [3]Department of System Semiconductor Engineering, Yonsei University
FP-216	Considering Threshold Voltage Variation in SOM (Selector-Only Memory) Arrays based on Ge_xSe_{1-x} and Ge_xTe_{1-x} Film Chang Deok Han[1], Su Yong Chae[2], and Seung Hwan Lee[1] [1]Department of Semiconductor Engineering, Kyunghee University, [2]Department of Electronic Engineering, Kyunghee University

FP-217	High Sensing Margin TCAM based on Nanocavity-enhanced Memory Batyrbek Alimkhanuly, Minwoo Lee, Hyunwoo Son, Seungwoo Moon, Sandeep Kumar Maurya, and Seunghyun Lee Department of Electronic Engineering, Kyung Hee University
FP-218	Low-Power Programming Using Hot Carrier Injection in 3D Vertical NAND Flash Jiwook Hong[1] and Jongwook Jeon[2] [1]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [2]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-219	Investigation of a Compact Model for Hot Carrier Injection Program in VNAND Memory Technology Moonchurl kim[1], Byeongjun Joo[2], and Jongwook Jeon[3] [1]Department of Advanced Display Engineering, Sungkyunkwan University, [2]Device Research Lab (SKKU-DRL), Department of Electrical and Computer Engineering, Sungkyunkwan University, [3]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-220	Defect Density Modulated 2D Materials Based Memristor Array Integrated on CMOS Jihoon Yang[1,2], Jaehong Lim[1,2], and Soon-Yong Kwon[1,2] [1]Department of Materials Science and Engineering, UNIST, [2]Graduate School of Semiconductor Materials and Devices Engineering, UNIST
FP-221	VNAND Structural Constraints and Optimization through Wordline Gate Profile Refinement Moonchurl Kim[1], Choasub Kim[2], and Jongwook Jeon[3] [1]Department of Advanced Display Engineering, Sungkyunkwan University, [2]Department of Semiconductor and Display Engineering, Sungkyunkwan University, [3]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-222	Automated Ferroelectric Fin Field-Effect Transistors Modeling with DNN Technique Joonhan Kim[1], Changho Ra[2], and Jongwook Jeon[2] [1]Department of Display Engineering, Sungkyunkwan University, [2]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-223	Effects of Top Electrode Materials on Synaptic and Switching Properties of Synaptic Devices with HfO_2/ZnO Structure Yu-bin Kim[1], Sung-Ho Kim[1], Dong-Min Kim[1], Chae-Min Yeom[1], Hyuk-Min Kwon[2], Yong-Goo Kim[3], and Hi-Deok Lee[1]

	[1]Department of Electronics Engineering, Chungnam National University, [2]School of Electronic & Electrical Engineering, Hankyong National University, [3]Department of Green Semiconductor System, Korea Polytechnic
FP-224	The Effect of $HfO_2/ZnO/HfO_2$ Tri-Layer Insulator Structure in Synaptic Device Sung-Ho Kim[1], Yu-bin Kim[1], Dong-Min Kim[1], Chae-Min Yeom[1], Shivam Kumar Gautam[1], Hyuk-Min Kwon[2], Yong-Goo Kim[3], and Hi-Deok Lee[1] [1]Department of Electronics Engineering, Chungnam National University, [2]School of Electronic & Electrical Engineering, Hankyong National University, [3]Department of Green Semiconductor System, Korea Polytechnic
FP-225	Physically Transient RRAMs based on Lead-free Cs_2SnI_6 Perovskite Bidyashakti Dash, Seo Young Jo, and Sung Hun Jin Department of Electronic Engineering, and I-Nanofab Center, Incheon National University
FP-226	Vertical CAA IGZO FET 2T0C DRAM Compact Modeling Minseop Kim[1] and Jongwook Jeon[2] [1]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [2]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-227	A Petabit Ultrathin Nano-Optical Data Storage with Metal-Insulator-Semiconductor Tunnel Junction Huitae Joo[1], Hyeongwoo Lee[1], Taeyoung Moon[1], Yeonjeong Koo[1], Sujeong Kim[1], Soo Ho Choi[2], Ki Kang Kim[2,3], and Kyoung-Duck Park[1] [1]Department of Physics, POSTECH, [2]Center for Integrated Nanostructure Physics, IBS, [3]Department of Energy Science, Sungkyunkwan University
FP-228	TrioN : 3N0C RPU Cell with Minimal Power Consumption, Compact Footprint for Cross-Point Array-based Analog AI Accelerator Junyoung Choi, Byoungwoo Lee, Jinho Byun, Seungkun Kim, Junyong Lee, and Seyoung Kim Department of Materials Science and Engineering, POSTECH
FP-229	Retina-Inspired Structurally Tunable Synaptic Perovskite Nanocones Seungjun Park, Woojoong Kim, Gwanho Kim, Jeongwon Shin, and Cheolmin Park Department of Materials Science and Engineering, Yonsei University

FP-230	Development of Ferroelectric-semiconductor Heterostructure Devices for Neuromorphic Applications Dongyoung Lee and Jin-Hong Park Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-231	Artificially Intelligent Tactile Ferroelectric Skin Jeongwon Shin, Gwanho Kim, Seungjun Park, Woojoong Kim, and Cheolmin Park Department of Materials Science and Engineering, Yonsei University
FP-232	Enhancing Ferroelectric Properties through Scavenging Control by Nitrogen Incorporation in the Ti Electrode Hyun Deok Yoo and Rino Choi Materials Science and Engineering/Program in Semiconductor Convergence, Inha University
FP-233	Demonstration of Integrated 2T0C-DRAM based on Ferroelectric for Memory Application Simin Chen[1], Tae Hyeon Noh[1], Hyo-Bae Kim[2], Jaekyun Kim[1], Ji-Hoon Ahn[2], and Younghyun Kim[1] [1]Department of Photonics and Nanoelectronics, BK21 FOUR ERICA-ACE Center, Hanyang University, [2]Department of Materials Science and Chemical Engineering, Hanyang University
FP-234	Analyzing the Influence of Channel Layer Thickness and Vertical Hole Diameter on IGZO Vertical Channel All-Around (CAA) TFTs Zewei Wang, Simin Chen, Tae Hyeon Noh, Jaekyun Kim, and Younghyun Kim Department of Photonics and Nanoelectronics, BK21 FOUR ERICA-ACE Center, Hanyang University

FP-235	**Hybrid-type Memristive Device with Reduced D2D Variability and Its Application for SNN Inference Accelerator** Sung Jae Park[1,2], Gichan Ku[1,2], Jae Gwang Lim[1,2], Sangmin Lee[1,2], Yeonjoo Jeong[1], Jaewook Kim[1], Suyoun Lee[1], Jongkil Park[1], Gyu Weon Hwang[1], Kyeong-Seok Lee[1], Jong Keuk Park[1], Byeong-Kwon Ju[2], and Inho Kim[1] [1]Center for Neuromorphic Engineering, KIST, [2]Display and Nanosystem Laboratory, School of Electrical Engineering, Korea University
FP-236	**Reliable Multi-bit Operation of Memristors in a Sub μA Current Range by Using a Non-noble Active Electrode** Sang Min Lee[1,2], Kyeong-Seok Lee[1], Gyu Weon Hwang[1], YeonJoo Jeong[1], Jaewook Kim[1], Jongkil Park[1], Seongsik Park[1], Hyun Jae Jang[1], Jong-Keuk Park[1], Byeong-Kwon Ju[2,3], and Inho Kim[1] [1]Center for Semiconductor Technology, KIST, [2]Department of Micro/Nano-Systems, Korea University, [3]School of Electrical Engineering, Korea University
FP-237	**Study of Proton Radiation Effect Test on Metal Ion Irradiated ZnO RRAM Memory Devices** Yu-Mi Kim[1], Young-Seok Hwang[1], Eun-Joo Oh[1], Jun Kue Park[1], So-Yeon Kwon[2], Hye-Ri Hong[2], Woon-San Ko[2], Ga-Won Lee[2], and Young-Jun Yoon[3] [1]KAERI, [2]Chungnam National University, [3]Andong National University
FP-238	**Implementation of Associative Memory using Memristive Spiking Neural Networks** Jae Gwang Lim[1,2], Sungmin Yoo[1,2], Sung Jae Park[1,2], Yeonjoo Jeong[1], Jaewook Kim[1], Suyoun Lee[1], Jon gkil Park[1], Gyu Weon Hwang[1], Kyeong-Seok Lee[1], Seongsik Park[1], Hyun Jae Jang[1], Byeong-Kwon Ju[2], Jong Keuk Park[1], and Inho Kim[1] [1]Center for Semiconductor Technology, KISTI, [2]Display and Nanosystem Laboratory, School of Electrical Engineering, Korea University
FP-239	**Improved Thermal Stability and Electrical Characteristics of Carbon Doped $Ge_2Sb_2Te_5$-Based Phase Change Random Access Memory** Ji Su Park[1], San Park[2], and Changhwan Choi[1,2] [1]Department of Semiconductor Engineering, Hanyang University, [2]Division of Materials Science and Engineering, Hanyang University

FP-240	Memristive Vector Matrix Multiplication Using a Multi-step Programming Scheme Sungmin Yoo[1,2], Sang Min Lee[1,2], Jae Gwang Lim[1,2], Kyeong-Seok Lee[1], Gyu Weon Hwang[1], YeonJoo Jeong[1], Jaewook Kim[1], Jongkil Park[1], Seongsik Park[1], Hyun Jae Jang[1], Byeong-Kwon Ju[2], Jong Keuk Park[1], and Inho Kim[1] [1]Center for Semiconductor Technology, KIST, [2]Display and Nanosystem Laboratory, School of Electrical Engineering, Korea University
FP-241	First Experimental Demonstration of Single-crystalline WO_{3-x} Nanowire-based ECRAM Junyong Lee, Woochan Song, and Seyoung Kim Department of Materials Science and Engineering, POSTECH
FP-242	Synaptic Transistors with Charge-Trap Memory based on a-BN's FN Tunneling Properties Won Suk Oh[1], Hwaseon Jo[2], Jaegoo Lee[2], and Hongseok Oh[1,2] [1]Department of Intelligent Semiconductors, Soongsil University, [2]Department of Physics, Soongsil University
FP-243	A Study on the Cb/Cs Ratio in $4F^2$ DRAM Cell Array Hyeok Je Jeong[1], Ju Hui Kim[2], Chai Rok Lim[1], and Gi Yeol Yun[1] [1]Taesung Environmental Research Institute Co., [2]Pusan National University

2025년 2월 14일(금), 09:00-15:10
(공식발표시간: 14:00-15:10)
ZONE 3 (5층, 컨벤션홀K+W)

D. Thin Film Process Technology 분과

FP-244	Inorganic-Organic Hybrid Thin Films as Inhibitor in Area-Selective Atomic Layer Deposition Juyeong Lee, Quang Khanh Nguyen, Hyejeong Oh, Namseon Jang, and Myung Mo Sung Department of Chemistry, Hanyang University
FP-245	Innovative pH Sensing Membrane: Sol-Gel Processed PZTO Film with Microwave Annealing Surface Treatment Dong-Gyun Mah, Seung-Jin Lee, and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University

FP-246	Enhanced Electrical Properties of ZrO_2-MoN-Based Capacitors with Ultrathin Buffer Layer Yeon-Ji Jeon and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-247	Reliable tuning capability of 2D Te-Based Photo-synapse Device with an Al_2O_3 Interfacial Layer Shinhoi Kim[1,2] and Byungjin Cho[1,2] [1]Department of Advanced Materials Engineering, Chungbuk National University, [2]Department of Urban, Energy, and Environmental Engineering, Chungbuk National University
FP-248	$InGaZnO_x$ Thin-Film Transistors with Atomic Layer Deposition for Enhanced Mobility and Low Subthreshold Swing Hyeong Seok Choi, Dong Hee Han, Hyun Woo Jeong, Jae Joon Kim, and Min Hyuk Park Seoul National University
FP-249	알루미늄-하이브리드 iCVD 고분자 도핑공법을 적용시킨 산화아연 채널 포토트랜지스터의 자외선 검출 성능 개선 연구 백종수[1], 김희태 [2], 김동빈 [2], 최윤호 [2], 김용기 [3], 윤영빈 [3], 김민주 [4], 신명훈 [3], 조병진 [1,2] [1]한국과학기술원 반도체공학대학원, [2]한국과학기술원 전기및전자공학부, [3]한국항공대학교 항공전자정보공학부, [4]단국대학교 전자전기공학부
FP-250	All-Te Field Effect Transistor with Layer-Engineered Homojunction Min Jeong Kim[1,2] and Byungjin Cho[1,2] [1]Department of Advanced Materials Engineering, Chungbuk National University, [2]Department of Urban, Energy, and Environmental Engineering, Chungbuk National University
FP-251	Improving Hydrogen Resistance of ALD-Processed Oxide Semiconductors through Prioritizing Factors for Memory Device Seong-Hwan Ryu[1], Kwang-Hee Lee[2], Jee-Eun Yang[2], Sangwook Kim[2], and Jin-Seong Park[1] [1]Division of Materials Science and Engineering, Hanyang University, [2]Samsung Advanced Institute of Technology, Samsung Electronics Co., Ltd.
FP-252	Enhancing Electrical Performance in a-IGZO TFTs through Al-LiF Heterojunction Engineering Donghyun Kim and Byoungdeog Choi Department of Semiconductor Convergence Engineering, Sungkyunkwan University
FP-253	Area-Selective Atomic Layer Deposition of SiO_2 Thin Films to Confer Oxide versus Metal Selectivity Jeong-Min Lee and Woo-Hee Kim Department of Materials Science and Chemical Engineering, Hanyang University

FP-254	High-k Nb_2O_5/2D Metallic NbS_2 Gate Stack Architecture via Thermal Conversion of NbS_2 Minhee Kim[1,2] and Byungjin Cho[1,2] [1]Department of Advanced Materials Engineering, Chungbuk National University, [2]Department of Urban, Energy, and Environmental Engineering, Chungbuk National University
FP-255	Possibility of Improving Electrical Properties by Using TiO_2 Deposited by Atomic Layer Deposition as an Conductive Layer Yoonchul Shin and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-256	Low Temperature Solution-Processed Indium-Tungsten Oxide Thin-Film Transistor via Microwave Annealing and Ar/O2 Mixed Plasma Treatment Seung-Jin Lee, Seong-Hwan Lim, and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University
FP-257	Contact Resistance Reduction of Amorphous In-Ga-Zn-O Thin Film Transistors by Interposed Atomic-Layer-Deposited Amorphous Zn-Sn-O Interlayer Shihyun Kim[1,2], Hyungjeung Kim[1,2], Jinheon Choi[1,2], Sukin Kang[1,2], Sahngik Aaron Mun[1,2], Juneseong Choi[1,2], Jaewon Ham[1,2], Subin Moon[1,2], and Cheol Seong Hwang[1,2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-258	유기 실록산 초저유전체 소재로 합성한 절연막의 전기적 신뢰성 평가에 대한 연구 황남기[1], 김지인[1], 박인수[1], 유지호[1], 김태훈[1], 김형준[2], 김민주[3] [1]단국대학교 파운드리공학과, [2]단국대학교 전자전기공학과, [3]단국대학교 융합반도체공학과
FP-259	전도성 향상을 위한 Sn-Doped β-Ga_2O_3 박막의 두께 별 제작 및 평가 김지형, 신성민, 김기환, 김해찬, 오혜성, 홍정수 가천대학교 IT융합대학 전기공학과
FP-260	Enhancing Remnant Polarization in $Hf_{0.5}Zr_{0.5}O_2$ Thin Films through Enhanced Oxygen Migration with V_2O_5 Interlayer Utaek Cho[1], Joonyong Kim[1], Pyeongkang Hur[2], Daseob Yoon[3], Min Hyuk Park[1], and Junwoo Son[1] [1]Department of Materials Science and Engineering, Seoul National University, [2]Department of Materials Science and Engineering, POSTECH, [3]Department of Electrical Engineering, Display and Semiconductor Engineering, Pukyong National University

FP-261	Enhanced Ferroelectric Phase in Ultra-Thin $Hf_{1-x}Zr_xO_2$ Films (Sub-3nm) via Interface Engineering Hyo-Bae Kim and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-262	Synthesis of $SrTiO_3$ Thin Films Using Atomic Layer Deposition with Sr(dmts)(hfac)$_2$/Water and (CpMe$_5$)Ti(OMe)$_3$/Ozone on TiN Substrates Sangyeon Jeong, Jaejun Lee, Soonbin Kwon, and Woongkyu Lee Department of Materials Science and Engineering, Soongsil University
FP-263	Theoretical Estimation of Surface Structures of TiO_2 upon Hydration Sujin Kwon and Bonggeun Shong Hongik University
FP-264	Adsorption Mechanism of TDMAH on HfO_2 Surfaces without Hydroxyls Woong Pyo Jeon, Jinwoo Lee, and Bonggeun Shong Hongik University
FP-265	Positive bias Thermal Stress에 의한 a-ITGZO 박막 트랜지스터의 전기적 특성 열화에서 수소 확산의 영향 강민구[1], 조경아[1], 김상섭[2], 김상식[1] [1]고려대학교 전기전자공학과, [2]Samsung Display Co., Ltd.
FP-266	채널 길이 감소에 따른 a-IGZO 박막트랜지스터의 단채널 효과 분석 설민혁[1], 조경아[1], 김상섭[2], 김상식[1] [1]고려대학교 전기전자공학과, [2]Samsung Display Co., Ltd.
FP-267	부성미분전달전도 특성 기반 산화물 반도체 이종접합 트랜지스터를 활용한 다진법 논리회로 Jaeho Lee[1,2] and Jeong-Hwan Lee[1,2,3] [1]Department of Materials Science and Engineering, Inha University, [2]Program in Semiconductor Convergence, Inha University, [3]3D Convergence Center, Inha University
FP-268	이차원 소재 기반 트랜지스터의 고성능 동작을 위한 고유전율/고신뢰성 유전막 개발 및 특성 평가 유지호[1], 황남기[1], 김지인[1], 박인수[1], 김태훈[1], 김형준[2], 김민주[1,2,3] [1]단국대학교 파운드리공학부, [2]단국대학교 전자전기공학부, [3]단국대학교 융합반도체공학과

FP-269	V_{th}-Shift Depended on the Applied Electric Pulse Scheme in Amorphous Chalcogenides for Selector-Only-Memory Jongho Song and Gun Hwan Kim Department of System Semiconductor Engineering, Yonsei University
FP-270	Effect of the Ga Cycle on the Performance of In-Ga-Sn-O Thin-Film Transistors Deposited via Thermal Atomic Kang Choi, Dong-Geun Kim, Su-Jin Sim, and Ji Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-271	Development of Graphene Oxide-Waterglass Transparent Conducting Electrodes for Enhanced Light Extraction Effciency in GaN-Based LEDs Yu Na Lee[1], Yeo Jin Choi[1], Meshesha Mikiyas Mekete[1], Manal Zafar[1], Siva Pratap Reddy Mallem[2], and Sung Jin An[1] [1]Department of Materials Science and Engineering, Kumoh National Institute of Technology, [2]Advanced Material Research Center, Kumoh National Institute of Technology
FP-272	Characterizing Photo-Synaptic Behaviors in In_xTi_yO Thin Film Transistors by Optimizing Ti Composition Chaerin Yu[1,2] and Jung Wook Lim[1,2] [1]Next-Generation Semiconductor Device Research Section, ETRI, [2]Department of Semiconductor and Advanced Device Engineering, University of Science and Technology
FP-273	수소 환경 열처리를 통한 Ru/W 계면의 산화층 제거와 계면저항 개선 박준형[1,4], 김성준[2,4], 정회윤[1,4], 이태호[4], 박인성[3,4], 신왕철[1,4], 박영욱[1], 안진호[1,2,4] [1]한양대학교 신소재공학과, [2]한양대학교 나노반도체공학과, [3]한양대학교 나노과학기술연구소, [4]Center for Hyperscale, Hyperfunction, Heterogeneous Integration Pioneering Semiconductor Technology, Hanyang University
FP-274	Design Strategy of IGZO Flash Memory Device for Low Voltage Operation Sunyeol Bae[1,2], Junhyeong Park[1,2], Yumin Yun[1,2], and Soo-Yeon Lee[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-275	Rapid Microwave Synthesis and Annealing of Solution-Processed a-IGZO Thin-Film Transistors for High-Performance pH Sensing Ki-Ju Park and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University

FP-276	Promotion of Probabilistic Bit Generation in Mott Devices by Embedded Metal Nanoparticles Minho Lee[1], Yewon Seo[1], Yunkyu Park[2], Pyeongkang Hur[2], Minguk Jo[2], Jaeyeong Heo[3], Byung Joon Choi[4], and Junwoo Son[1] [1]Department of Materials Science and Engineering, Seoul National University, [2]Department of Materials Science and Engineering, POSTECH, [3]Department of Materials Science and Engineering and Optoelectronics Convergence Research Center, Chonnam National University, [4]Department of Materials Science and Engineering, Seoul National University of Science and Technology
FP-277	Enhanced Electrical Properties of ZrO_2 Thin Films Using Atomic Layer Deposition with a Novel Precursor Ji Hwan Kim, Seung Won Lee, Yoonchul Shin, Yeon-Ji Jeon, and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-278	Low-Resistivity Molybdenum -Carbide Thin Films Formed by Thermal Atomic Layer Deposition with Pressure -Assisted Decomposition Reaction Min-Ji Ha, Na-Gyeong Kang, Eun-Su Chung, and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-279	RF 스퍼터링 및 후열처리를 통한 Si Doped β-Ga_2O_3 박막의 구조적 및 전기적 특성 제어 김해찬, 신성민, 김기환, 김지형, 오혜성, 홍정수 가천대학교 IT 융합대학 전기공학과
FP-280	Mobility Improvement of Amorphous Insulator and Crystalline Semiconductor Nanolaminate Structure Grown by Atomic Layer Deposition Kyunghun Lyu, Seokho Cho, and Woongkyu Lee Department of Materials Science and Engineering, Soongsil University
FP-281	Enhancement of Dielectric Constant through Highly Stoichiometric TiO_2 Thin Films Using Ozone Post-Treatment Juan Hong[1], Hyeongjun Kim[2], and Woongkyu Lee[1,2] [1]Department of Materials Science and Engineering, Soongsil University, [2]Department of Green Chemistry and Materials Engineering, Soongsil University
FP-282	A Comparative Study of DADI and TMI as Indium Precursor of Ultra-Thin In2O3 Films Using Atomic Layer Deposition Joo-Hyeon Lee [1], Ju-yeon Chung[1], and Il-Kwon Oh[1,2] [1]Department of Intelligence Semiconductor, Ajou University, [2]Department of Electronical and Computer Engineering, Ajou University

FP-283	Deposition Characteristics of SiN Thin Film Deposited by Applying the Chucking Function in a Mono Polar ESC Heater Baek-Ju Lee, Hyun-Chul Cho, Seon-Hwa Jeon, Min-Ho Cheon, Kwang-Kyu Park, Hyung-Chul Moon, Dong-Won Seo, and Wan-Sik Kim Front End R&D Center, Hanwha Precision Machinery, Hanwha Corporation
FP-284	Enhancing the Electrical Properties of ZrO_2-Based Metal-Insulator-Metal Capacitors through a Crystallinity-Coherent Sc_2O_3 Inserting Layer Jihun Nam[1,2], Seungwoo Lee[1,2], Hansol Oh[3], Hanbyul Kim[3], Yongjoo Park[3], and Woojin Jeon[1,2] [1]Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, [2]Integrated Education Program for Frontier Science and Technology, Kyung Hee University, [3]Advanced Research Development Team, SK Trichem Co., Ltd.
FP-285	*Ab-initio* Thermodynamic Analysis of Vapor Pressure in Molybdenum Precursors for ALD Processes Ha-Neul Kim, Sun-Hye Kim, Jong-Yoon Kim, Saukinta Thapa, and Yeong-Cheol Kim School of Energy Materials and Chemical Engineering, KOREATECH
FP-286	Ferroelectric Synaptic Device by Controlling Oxygen Vacancy Migration in $Hf_{0.5}Zr_{0.5}O_2$/ $La_{0.7}Sr_{0.3}MnO_3$ Thin Films Hyunbin Chung, Dae Haa Ryu, A Young Cho, Hojin Lee, Joonbong Lee, Sangwoo Lee, and Taekjib Choi Department of Nanotechnology and Advanced Materials Engineering, Sejong University
FP-287	Effect of Channel Thickness on Electro-Thermal Annealing to Recover the Radiation-Induced Deterioration in Ultrathin 2nm IGZO TFTs Sojin Jung[1], Jaewook Yoo[1], Hyeonjun Song[1], Soyeon Kim[1], Hongseung Lee[1], Seongbin Lim[1], Seohyeon Park[1], Minah Park[1], Jin-Ha Hwang[2], Sangmoon Yoon[3], Kiyoung Lee[2], and Hagyoul Bae[1] [1]Jeonbuk National University, [2]Hongik University, [3]Gachon University
FP-288	Characterization of Al_2O_3 Layer Deposited by Thermal ALD for Inversion Junction Devices Sang Beom Hong, Yebin Ahn, Hyein Cho, Soohyeok Park, Yejin Han, Geonhwi Kim, Inkyeong Park, Seongmin lee, Taewan Kim, Jihwan Jeong, Gayeong Lee, and Han-Don Um Kangwon National University

FP-289	Exploring Surface Chemistry and Tin Composition Effects in Zinc-Tin-Oxide Thin Films Grown by Atomic Layer Deposition Dong-Hyun Lim[1], Ae-Rim Choi[1], and Il-Kwon Oh[1,2] [1]Department of Intelligence Semiconductor Engineering, Ajou University, [2]Department of Electrical and Computer Engineering, Ajou University
FP-290	Analysis of $Hf_{0.5}Zr_{0.5}O_2$ Thin Film Crystallization by Excimer Laser Annealing (ELA) Hyeonsik Kim[1,2], Seong Hyeon Kim[1], Han Young Yang[1], Jong-Ho Bae[2], and Inhee Cho[1] [1]Korea National Institute of Rare Metals, Korea Institute of Industrial Technology, [2]School of Electrical Engineering, Kookmin University
FP-291	Improved Properties of IGZO Ferroelectric Thin-Film Transistors Using a p-Type SnO_x Interlayer An Hoang-Thuy Nguyen[1] and Rino Choi[1,2] [1]3D Nano Convergence Center, Inha University, [2]Department of Materials Science and Engineering, Inha University
FP-292	상부 게이트 자기 정렬 구조를 가진 a-IGZO 박막 트랜지스터에서 후열처리 공정에 따른 채널 쇼트닝 효과의 분석 및 개선 김희태[1], 정재중[1], 박영근[1], 김동빈[1], 백종수[1], 이호석[1], 조성행[2], 조병진[1] [1]한국과학기술원 전기 및 전자공학부, [2]한국전자통신연구원 플렉시블 전자소자연구실
FP-293	Effect of Tungsten Insertion Layer on the Characteristics of TiN/Co-PEALD HZO/TiN Ferroelectric Capacitor H. J. Kim and H. C. Lee Department of Advanced Materials Engineering, Tech University of Korea
FP-294	A Study on Dry Etching of TiN and W Thin Films Using $Ar/CF_4/O_2/H_2$-Based Plasma Hong Hee Jeon and Hee Chul Lee Department of Advanced Materials Engineering, Tech University of Korea
FP-295	Improving Phosphorus Detection Efficiency with an Au/TiO_2 Photocatalytic LOC System Ki Hyun Kim[1], Seung Deok Kim[2], June Soo Kim[2], Noah Jang[2], Hyunjum Kim[2], Da Ye Kim[2], Yujin Nam[2], Jinkyung Kim[1], Jin Park[1], Maeum Han[3], and Seong Ho Kong[2] [1]School of Semiconductor, Kyungpook National University, [2]School of Electronics Engineering, Kyungpook National University, [3]Institute of Semiconductor Fusion Technology, Kyungpook National University

FP-296	Influence of RuO_2 Bottom Electrode Thickness on Interface Oxygen Vacancies and Ferroelectricity in $Hf_{1-x}Zr_xO_2$ Thin Films Hye-Won Cho, Na-Gyeong Kang, Hyo-Bae Kim, Gunho Kim, Hyungseok Lee, and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-297	엑시머 레이저 어닐링 공정을 이용한 LTPS TFT의 재료 및 전기적 특성 평가 Inhee Cho[1], Han Young Yang[1,2], Yoon Jang Chung[2], Hyeonsik Kim[1,3], and Seong Hyeon Kim[1,4] [1]KORAM, Korea Institute of Industrial Technology, [2]School of Chemical and Biological Engineering, Korea University, [3]School of Electrical Engineering, Kookmin University, [4]School of Advanced Materials Science and Engineering, Sungkyunkwan University
FP-298	Atomic Layer Deposition of Ru Thin Films Using a New Ru Precursor Na-Gyeong Kang, Min-Ji Ha, Eun-Su Chung, and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
FP-299	Initial Growth Behavior and Perovskite Crystal Structure of $SrRuO_3$ Thin Flims Using Atomic Layer Deposition Taehyun Kim, Seokho Cho, Jiyoung Park, and Woongkyu Lee Department of Materials Science and Engineering, Soongsil University
FP-300	Suppressing Agglomeration via *In-situ* Crystallization of ALD TiO_2/MoO_x Stack for Metal-Insulator-Metal Capacitor Application Chaeyeong Hwang[1,2], Ye Won Kim[1,2], Myeong Ho Kim[3], Jin-Sik Kim[3], and Woojin Jeon[1,2] [1]Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, [2]Integrated Education Program for Frontier Science and Technology, Kyung Hee University, [3]R&D Team 1, UP Chemical Co., Ltd.
FP-301	Valence-State Controlled Growth of P-Type Tin(II) Monoxide Films by Atomic Layer Deposition Using a Novel Sn Precursor Jeong Eun Shin[1], Heesun Kim[2], Bo Keun Park[2], and Jeong Hwan Han[1] [1]Department of Materials Science and Engineering, Seoul National University of Science and Technology, [2]Thin Film Materials Research Center, KRICT
FP-302	Effects of Proton Irradiation and Post-Annealing on the Electrical Performance of SnO_2-Based Thin-Film Transistors Jeongtae Kim[1,2], Roy Byung Kyu Chung[3], and Dong-Seok Kim[2] [1]Kumoh National Institute of Technology, [2]KAERI, [3]Kyungpook National University
FP-303	Numerical Analysis on Gas Flow Field for a Slip Flow Regime ALD Processing Chamber Kyung-Hoon Yoo[1], Geun-Soo Song[2], and Chun-Sik Kim[3] [1]ALD Processing Equipment Lab, KITECH, [2]Kumyoung ENG Co., Ltd.

FP-304	Enhanced Stability of RuO_2 Bottom Electrode via Insertion of Mo Interlayer during Atomic Layer Deposition of TiO_2 Seon Gu Choi, Jae Hyeon Lee, and Jeong Hwan Han Department of Materials Science and Engineering, Seoul National University of Science and Technology
FP-305	A Study on Hydrogen Solubility in In-Ga-O TFTs with Different Crystalline Qualities Min Sun Kim[1], Jin Won Bak[2], and Jae Kyeong Jeong[1,2] [1]Department of Artificial Intelligence Semiconductor Engineering, Hanyang University, [2]Department of Electronic Engineering, Hanyang University
FP-306	Autonomy of Oxide Dispersion Strengthened Nb@TiO_2 Alloy via Atomic Layer Deposition Ji Young Park[1], Seung-Hyeok Shin[1], Tae Jun Yang[1], Soo Jeong Yoon[1], Jongmin Byun[1,2], Byoungchul Hwang[1,2], and Byung Joon Choi[1,2] [1]Department of Materials Science and Engineering, Seoul National University of Science and Technology, [2]The Institute of Powder Technology, Seoul National University of Science and Technology
FP-307	High-Performance ALD-Grown SrTiO3-Based DRAM Capacitors by Interface Engineering Hong Keun Chung[1,2], Seungwan Ye[1,3], Jihoon Jeon[1,3], Han Kim[1,3], Tae Joo Park[2], and Seong Keun Kim[1,3] [1]Electronic Materials Research Center, KIST, [2]Department of Materials Science and Chemical Engineering, Hanyang University, [3]KU-KIST Graduate School of Converging Science and Technology, Korea University
FP-308	How Uniform and Ultrathin Can Atomic Layer Deposition Form Doped Materials? Taeseok Kim[1,2], Han Kim[1,2], Seung Ho Ryu[1,2], Gwang Min Park[1,2], Sung-Chul Kim[3], Sung Kwang Lee[4], Taek-Mo Chung[4], Sung Ok Won[3], Jeong Hwan Han[5], Sangtae Kim[6], and Seong Keun Kim[1,2] [1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Electronic Materials Research Center, KIST, [3]Advanced Analysis and Data Center, KIST, [4]Division of Advanced Materials, KRICT, [5]Department of Materials Science and Engineering, Seoul National University of Science and Technology, [6]Department of Nuclear Engineering, Hanyang University
FP-309	Broadband Wavelength-Responsive Optoelectronic Logic-in-Memory Device with Multi-Level Programmability Taehyun Park[1], Youngmin Han[1], Yun-Hi Kim[2], and Hocheon Yoo[1] [1]Gachon University, [2]Gyeongsang National University

FP-310	Practical Application of Morphotropic Phase Boundary of $Hf_{0.3}Zr_{0.7}O_2$ in Dynamic Random-Access Memory Operating Voltage Scheme Jaehyeon Yun[1,2], Seungyeon Kim[1,2], Taehwan Moon[3], and Woojin Jeon[1,2] [1]Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, [2]Integrated Education Program for Frontier Science and Technology, Kyung Hee University, [3]Department of Intelligence Semiconductor Engineering, Ajou University
FP-311	Exploring the Potential of Rutile TiO_2 Growth on Face-Centered-Cubic Metals Myoungsu Jang[1,2], Jihoo [1]KU-KIST Graduate Scho nology, Korea University, [2]Electronic Materials Research Cente 철회
FP-312	ALD MoO_x Using Novel Precursor & Mechanisms of Initial Tetragonal ZrO_2 Deposition at Interfaces through MoO_2/MoO_3 Phase Control Yongju Kwon and Woo-Hee Kim Department of Materials Science and Chemical Engineering, BK21 FOUR ERICA-ACE Center, Hanyang University
FP-313	Optimization Strategies for BEOL-Compatible (Hf, Zr)O_2 FeFET with IGZO Channel Kyong Jae Kim[1] and You Seung Rim[1,2] [1]Department of Semiconductor Systems Engineering and Convergence Engineering for Intelligent Drone, Sejong University, [2]Institute of Semiconductor and System IC, Sejong University
FP-314	Study on the Etching Behavior of Ruthenium Thin Films Using Thermal Atomic Layer Etching Eun Ji Joo, Jae Hyeon Lee, and Jeong Hwan Han Department of Materials Science and Engineering, Seoul National University of Science and Technology
FP-315	Effect of Te Incorporation into Se-Based Selector-Only Memory Operation Se Hwan Jeon, Ju Hwan Park, Hyun Wook Kim, Soo Jeong Yoon, and Byung Joon Choi Seoul National University of Science and Technology
FP-316	Interfacial Engineering of p-Type SnO Top-Gated Thin Film Transistors with an Ultra-Thin Al_2O_3 Interlayer Jaeyoon Shim[1,2], MinKi Choe[1,2], Seung Ho Ryu[3,4], Jihoon Jeon[3,4], Taek-Mo Chung[5], Seong Keun Kim[3,4], and In-Hwan Baek[1,2] [1]Department of Chemical Engineering, Inha University, [2]Program in Semiconductor Convergence, Inha University, [3]KU-KIST Graduate School of Converging Science and Technology, Korea University, [4]Electronic Materials Research Center, KIST, [5]Division of Advanced Materials, KRICT

FP-317	Enhanced Performance and Scalability of Organic Thin-Film Transistors via Polymer Backbone Alignment Jin Seok Yoon, Nak Hee Kang, U Seong Jin, Sang Hwa Song, Min Jeong Kim, Hyung Soo Ahn, Won Bae Cho, and Young Tea Chun Division of Electronics and Electrical Information Engineering, National Korea Maritime and Ocean University
FP-318	The Ambipolar Organic Heterojunction Transistors and its Integrated Circuits Nak Hee Kang, Jin Seok Yoon, U Seong Jin, Min Jung Kim, Sang Hwa Song, Won Bae Cho, Hyung Soo Ahn, and Young Tea Chun Division of Electronics and Electrical Information Engineering, National Korea Maritime and Ocean University
FP-319	All-Solution Synthesized High-Performance 2D Bi_2O_2Se Thin-Film Transistor Jin Seok Kim[1], Jaeho Lee[1], Jaehyung Shim[2], Yeon Ho Kim[2], Jin Yong An[2], Su-Yeon Joung[1], Junghoon Kang[1], and Chul-Ho Lee[1] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]KU-KIST Graduate School of Converging Science and Technology, Korea University
FP-320	High Crystallinity of Yttrium-Doped ZrO_2 Thin Films under 3 nm through Atomic Layer Modulation Wonjoong Kim[1], Ngoc Le Trinh[1], Bonwook Gu[1], Byung-ha Kwak[2], Hyun-Mi Kim[3], Hyeongkeun Kim[3], Youngho Kang[1], Il-Kwon Oh[2], and Han-Bo-Ram Lee[1] [1]Department of Materials Science and Engineering, Incheon National University, [2]Department of Electrical and Computer Engineering, Ajou University, [3]Electronic Convergence Materials and Devices Research Center, KETI
FP-321	Functionalization of Nitride Surface with Aldehyde Inhibitor for Selective Deposition of Oxide Thin Films 이민혁[1], 이병찬[1], 심승원[1], 김민우[2], 강영호[1], 천태훈[3], 김수현[2], 이한보람[1] [1]인천대학교 신소재공학과, [2]울산과학기술원 반도체•소재 부품 대학원, [3]대구경북과학기술원 차세대 반도체 융합 연구소
FP-322	Development of Barrier Metal, Seed-Cu Metallization by PVD Technology Sohyeon Lee, Chaehyun Kang, Dohyun Oh, Yongseok Jang, Byeonghwa Jeong, and Hattori Kazuki ULVAC KOREA, Ltd.
FP-323	Synthesis of Novel Group 3 Metals and Lanthanides Precursors for Atomic Layer Deposition Yonmin Go[1], Tae Joo Park[2], and Bo Keun Park[1] [1]Thin Film Materials Research Center, KRICT, [2]Department of Materials Science and Chemical

	Engineering, Hanyang University
FP-324	Effect of Post Deposition Annealing on Ferroelectricity of 5 nm $Hf_{0.5}Zr_{0.5}O_2$ Thin Films Yoogeun Han, Jaeyoung Joo, and Hyunchul Sohn Department of Materials Science and Engineering, Yonsei University
FP-325	Effects of Nitrogen Doping on Threshold Voltage of Poly-Crystalline ZnTe Thin Films Wansun Kim, Jusung Kim, and Hynchul Sohn Department of Materials Science and Engineering, Yonsei University
FP-326	Effect of Sulfur Doping on Crystallization Retardation of GeTe Ju Sung Kim, Wan Sun Kim, and Hyunchul Sohn Department of Materials Science and Engineering, Yonsei University
FP-327	Effect of Top Electrode Ti Interlayer on the Switching Behavior on $Hf_{0.5}Zr_{0.5}O_2$ Films Jaeyoung Joo, Yoogeun Han, and Hyunchul Sohn Department of Material Science and Engineering, Yonsei University
FP-328	Multi-Surface Passivation and Area Selective Deposition Using Sulfide Inhibitors Summal Zoha[1], Bonwook Gu[1], Hamna Fatima[1], Fabian Pieck[2], Ralf Tonner Zeck[2], and Han-Bo-Ra Lee[1] [1]Department of Materials Science and Engineering, Incheon National University, [2]Wilhelm Ostwald Institut für Physikalische und Theoretische Chemie, Universität Leipzig
FP-329	Investigation of Thermal Annealing Effects on Interdiffusion and Electrical Properties in Ferroelectric Field-Effect Transistors with IGZO/HZO Interfaces HyeJoo Kang[1], Dohee Kim[2], Jong-Young Lee[2], Seung Wook Ryu[2], and Il-Kwon Oh[1,3] [1]Department of Intelligence Semiconductor Engineering, Ajou University, [2]R&D Process, R&D division SK hynix Inc., [3]Department of Electrical and Computer Engineering, Ajou University
FP-330	Novel Indium Precursors for Indium Oxide ALD Thin Films Dong Hyeon Bang, Yongmin Go, Sunyoung Shin, Ji Yeon Ryu, and Bo Keun Park Korea Thin Film Materials Research Center, KRICT

FP-331	Investigating the Impact of Precursors on the Electrical Performance of Atomic Layer Deposition-Grown Rutile TiO_2 MIM Capacitors Min Hyuk Kim, Ji Yoon Kim, Jin Yeong Kwak, Dong Yeup Lee, and Jin Hyuk Yoo JUSUNG ENGINEERING Co., Ltd.
FP-332	Electrical Performance Comparison of Solution Processed a-InGaZnO FET Using $Hf_xZr_{1-x}O_2$ Gate Dielectrics Sangpil Yun, Donghyun Kim, In kyu Yoon, Sang Hyeok Kim, Somi Lee, Seung Gyu Lee, Yoonhye Jang, Sukyung Kang, Seungju Bak, Laehyeong Jeong, and Jae Woo Lee Department of Electronics and Information Engineering, Korea University
FP-333	Effect of Composition of La_xTi_yO Thin Films on Resistive Switching Characteristics Jeongwoo Lee, Dahee Lee, and Hyunchul Sohn Department of Materials Science and Engineering, Yonsei University
FP-334	A Study on Anti-Ambipolar Transistor based on Indium-Based Oxide/Metalloid Channel for Next-Generation Technologies Sunghun Heo and Jae Kyeong Jeong Department of Artificial Intelligence Semiconductor Engineering, Hanyang University
FP-335	원자층 증착법을 활용한 텔루륨-셀레늄 전계 효과 트랜지스터 개발 김민재[1,2], 김규헌[1,2], 반준호[1,3], 이경수[1,3], 이병훈[1,2,3] [1]Center for Semiconductor Technology Convergence, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Graduate School of Semiconductor Technology, POSTECH
FP-336	MoS_2 Surface Analysis Induced by Ar/O_2 Plasma Treatment Joon Soo Byeon, Hye Seong Park, Ha Yeon Choi, Ju Yong Shin, Seung Ri Jeong, Shivam Kumar Gauatam, and Hi-Deok Lee Department of Electronics Engineering, Chungnam National University
FP-337	Reducing Contact Resistance in Amorphous Oxide Semiconductor Thin-Film Transistors Using a Conductive Oxide Interlayer Sung-Yun Choi, Kyu-Hwan Seok, Hyun-June Park, Min-Su Cho, and Sung-Woong Chung Graduate School of Semiconductor Technology, POSTECH
FP-338	ZnO/Te 박막을 이용한 고성능 3진법 및 2진법 회로 동시 집적 연구 김기영, 이용수, 이병훈 Department of Electrical Engineering, POSTECH

FP-339	반강유전성 ZrO_2 커패시터의 내방사선 특성 연구 이찬빈[1,2], 김승모[1,2], 김민재[1,2], 이병훈[1,2,3] [1]Center for Semiconductor Technology Convergence, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Graduate School of Semiconductor Technology, POSTECH
FP-340	Riased Source/Drain 구조를 이용한 Tellurium FET의 컨택 저항 개선 반준호[1,3], 김민재[1,2], 신의관[1,3], 김규헌[1,2], 이경수[1,3], 홍준영[4], 이병훈[1,2,3] [1]Center for Semiconductor Technology Convergence, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Graduate School of Semiconductor Technology, POSTECH, [4]Department of Semiconductor Engineering, POSTECH
FP-341	Optimization of Hafnium-Zirconium Oxide in MIM Structure Seong Ju Baek, Donghyun Kim, In kyu Yoon, Sang Hyeok Kim, Somi Lee, Seung Gyu Lee, Yoonhye Jang, Sukyung Kang, Sangpil Yun, and Jae Woo Lee Department of Electronics and Information Engineering, Korea University
FP-342	극박막 Te-ZnO PN Junction의 Photomapping 분석 이경수[1,3], 김민재[1,2], 김규헌[1,2], 반준호[1,3], 민경진[1,2], 이병훈[1,2,3] [1]Center for Semiconductor Technology Convergence, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Graduate School of Semiconductor Technology, POSTECH
FP-343	Comparing CVD and C-CVD Methods for Co Liner Deposition in Advanced Semiconductor Nodes Byeong Hwa Jeong[1,2], Kokaze Yutaka[1], Sang Ho Lee[1], and Geun Young Yeom[2] [1]ULVAC KOREA, Ltd., [2]SungkyunKwan University
FP-344	Enhancement of Electrical Properties in MoO_2/TiO_2-Based MIM Capacitors via Ethanol Treatment in Atomic Layer Deposition Soomin Yoo[1,2] and Woojin Jeon[1,2] [1]Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, [2]Integrated Education Program for Frontier Science and Technology, Kyung Hee University
FP-345	상보적 Floating Gate FET을 사용한 재구성 가능 Logic-in-Memory 회로 신의관[1], 김기영[2], 최준혁[1], 이병훈[1,2] [1]Graduate School of Semiconductor Technology, POSTECH, [2]Department of Electrical Engineering, POSTECH
FP-346	레이저 공정을 활용한 a-IGZO FET의 다중 문턱전압 구현방법 연구 최준혁[1,3], 김기영[1,2], 신의관[1,3], 곽건우[2], 김현준[2], 이병훈[1,2,3] [1]Center for Semiconductor Technology Convergence, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Graduate School of Semiconductor Technology, POSTECH

FP-347	RTA/고압수소열처리공정을 이용한 IGZO FET 특성개선효과 신현석[1,2], 최준혁[1,3], 김기영[1,2], 이병훈[1,2,3] [1]Center for Semiconductor Technology Convergence, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Graduate School of Semiconductor Technology, POSTECH
FP-348	저마늄 도핑된 산화갈륨 박막의 전기적 특성 류희중[1,2], 김선재[2], 황완식[1,2] [1]한국항공대학교 스마트항공모빌리티학과, [2]한국항공대학교 신소재공학과
FP-349	Analysis of Hysteresis in Low Frequency O_2 Plasma Treated MoS_2 Devices Seung Ri Jeong, Hye Seong Park, Ha Yeon Choi, Joon Soo Byeon, Ju Yong Shin, Shivam Kumar Gautam, and Hi-Deok Lee Department of Electronics Engineering, Chungnam National University
FP-350	Unraveling the Cation Compositional Influence on Indium Tin Oxide Thin-Film Transistors via Atomic Layer Deposition Soojin Park and Jae Kyeong Jeong Department of Artificial Intelligence Semiconductor Engineering, Hanyang University
FP-351	Study on Capacitor Performance Improvement Using ALD MoO_2 Electrode in DRAM Kyu-Hwan Seok, Hyun-June Park, Su-Bin Lee, and Sung-Woong Chung POSTECH
FP-352	Low-Resistivity Ruthenium Thin Films for Advanced Interconnects Using Plasma-Enhanced ALD Young Seo Na[1], Hyun Jin Lim[2], Sang Kuk Han[2], Hyo Jin Ahn[2], Yeh Been Im[2], Won Jae Choi[1], and Changhwan Choi[1,2] [1]Department of Semiconductor Engineering, Hanyang University, [2]Division of Materials Science and Engineering, Hanyang University
FP-353	Optimization of Printing Parameters for Fine -Patterned Electrochemical Devices Sunyoung Sohn, Hoseoung Kang, Chanyoung Jung, and Gyumin Kyung Sangji University
FP-354	Effect of Interfacial Layer with Grain Size Engineering on HZO-Based Ferroelectric Devices Hyeon Cheol Jeong[1], Kyung Soo Park[2], Jun Hyeok Park[2], Seung Hyeon Yun[2], Jae Eon Yeo[2], and Changhwan Choi[1,2] [1]Department of Semiconductor Engineering, Hanyang University, [2]Division of Materials Science and

	Engineering, Hanyang University
FP-355	ALD-Based Copper Oxide Thin Films with High-Temperature Stability and High Performance for 3D NAND Applications Ji-Hwan Choi[1], Daeun Kim[2], and Jae Kyeong Jeong[1,2] [1]Department of Electronic Engineering, Hanyang University, [2]Department of Artificial Intelligence Semiconductor Engineering, Hanyang University
FP-356	Enhanced Surface Inhibition Using Plasma Pre-Treatment For Area-Selective Metal Atomic Layer Deposition (AS-Metal ALD) Yeh Been Im[1], Young Seo Na[2], Hyun Jin Lim[1], and Changhwan Choi[1,2] [1]Division of Materials Science and Engineering, Hanyang University, [2]Department of Semiconductor Engineering, Hanyang University
FP-357	Thermal Atomic Layer Deposition of AlN Films Using Tris(dimethylamido)aluminum and Ammonia Okhyeon Kim, Yerim Choi, Jian Heo, Changgyu Kim, Hye-Lee Kim, and Won-Jun Lee Department of Nanotechnology and Advanced Materials Engineering, Sejong University

G. Device & Process Modeling, Simulation and Reliability 분과

FP-358	삼중 게이트 피드백 전계효과 트랜지스터의 채널 크기에 따른 전기적 특성 연구 김동기[1], 신연우[2], 허효주[2], 류승호[1], 조경아[2], 김상식[1,2] [1]고려대학교 반도체시스템공학과, [2]고려대학교 전기전자공학과
FP-359	Macaroni 구조를 이용한 Poly-Si FBFET의 전기적 특성 산포 개선 연구 박태호, 조경아, 김상식 고려대학교 전기전자공학과
FP-360	Characterization of Oxide Semiconductors via Random Telegraph Noise Gyungwon Yun[1], Juwon Kim[1], Tae-Hwan Hyun[2], Hyun-Sik Choi[2], Won-Ju Cho[2], and Hamin Park[1] [1]Department of Electronic Engineering, Kwangwoon University, [2]Department of Electronic Materials Engineering, Kwangwoon University

FP-361	Partial Trench Gate Nanosheet FETs for Enhanced I_{ON}/ I_{OFF} Ratio Moon-Kwon Lee, Hyo-Jun Park, Eui-Cheol Yun, Ju-Won Yeon, Tae-Hyun Kil, Min-Woo Kim, Su-Jin Jeon, Da-Eun Bang, Dol Sohn, A-Young Kim, Sang-Min Kang, and Jun-Young Park Chungbuk National University
FP-362	Material Engineering of Inner Spacer in Nanosheet FETs to Reduce Off-State Current Tae-Hyun Kil, Ju-Won Yeon, Hyo-Jun Park, Da-Eun Bang, Moon-Kwon Lee, Eui-Cheol Yun, Min-Woo Kim, Su-Jin Jeon, Dol Sohn, A-Young Kim, Sang-Min Kang, and Jun-Young Park Chungbuk National University
FP-363	A Newly Designed Source Follower for Low-Noise Image Sensor Ki Yeong Kim[1], Kyounghwan Oh[1], Sungbong Park[2], Jae-Kyu Lee[2], Ju Hong Park[1], and Chang-Ki Baek[1] [1]POSTECH, [2]Samsung Electronics Co., Ltd.
FP-364	Newly Designed High-Voltage FinFET for Extended Safe Operating Area Kyounghwan Oh[1], Yijoon Kim[1], Wooyeol Maeng[2], Hyung-Jin Lee[2], and Chang-Ki Baek[1] [1]POSTECH, [2]Samsung Electronics Co., Ltd.
FP-365	Impact of Charge Trapping at the Semiconductor/Dielectric Interface on the Performance of MoTe2 and WS2 Field-Effect Transistors Gi Dan Shim[1,3], Ji Won Heo[1], and Tae Wan Kim[1,2,3] [1]Department of Intelligent Semiconductor Engineering, University of Seoul, [2]School of Advanced Fusion Studies, University of Seoul, [3]2D Epi, Inc.
FP-366	First-Principles Study of Critical Electric Field for 2D Topological Insulators Hyeonseok Choi and Yeonghun Lee Department of Electronics Engineering, Incheon National University
FP-367	Study of Positive Bias Stress Stability in Short Channel Oxide Thin-Film Transistors based on TCAD Simulation Seong-In Cho[1,2], Soobin An[1,2], and Soo-Yeon Lee[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-368	Simulation Study of High Ge Content Intrinsic SiGe Channel Nanosheet FET Da Hyeon Ryu, Jeong Wook Kim, and Byoung Don Kong Department of Electrical Engineering, POSTECH

FP-369	A Realistic Molecular Dynamics Potential For Silicon Carbide Oxidation Yeong Jin Ahn, Yun Ho Lee, Cheul Hyun Yoon, and Byoung Don Kong Department of Semiconductor Engineering, POSTECH
FP-370	An Equivalent Clamp Circuit Model for EOS Performance Analysis on System Board Sung-Hee Kang, Tai Sik Yang, and Yong Seok Kang LG Electronics
FP-371	Effects of Stoichiometry on the Dual Trap Levels in Ta_2O_5 Estimated by First Principles Calculations Dohyun Kim[1,2], Taeyoung Jeong[1,2], Seungjae Yoon[1,2], Yunjae Kim[1,2], Cheol Seong Hwang[2], and Jung-Hae Choi[1] [1]Electronic Materials Research Center, KIST, [2]Department of Materials Science and Engineering and Inter-University Semiconductor Research Center, Seoul National University
FP-372	Extention of Trap Profiles in BE-TOX Using High-Temperature Trap Spectroscopy by Charging Injection and Sensing (TSCIS) Technique for 3-D NAND Flash Memory Jinuk Ju[1], DongHyun Go[1], Junghun Park[1], Donghwi Kim[1], SeungJae Kim[2], and Jeong-Soo Lee[1,2] [1]Department of Electrical Engineering, POSTECH, [2]Graduate School of Semiconductor Technology, POSTECH
FP-373	Modeling of Voltage Ripple on CPU Power Plane Yuna Kim, Tai Sik Yang, and Yong Seok Kang LG Electronics
FP-374	Realization of Boolean Logic Function Using 2T0C DRAM Woo-Tack Choi[1], Ji-Hun Kim[1], Jea-Gun Park[1,2], and Seung-Beck Lee[1,2] [1]Department of Electronic Engineering, Hanyang University, [2]Department of Nanoscale Semiconductor Engineering, Hanyang University
FP-375	Simulation on the Electrical Characteristics of Proton-Irradiated AlGaN/GaN HEMT after Hydrogen Passivation Gang San Yun[1], Sang Ho Lee[1], Jin Park[1], Jeong Woo Hong[1], Min Seok Kim[1], Seung Ji Bae[1], Won Suk Koh[1], Young Jun Yoon[2], and In Man Kang[1] [1]School of Electronic and Electrical Engineering, Kyungpook National University, [2]Department of Electronic Engineering, Andong National University

FP-376	A Novel True Random Number Generator based on FET-Type Device with Al_2O_3/Si_3N_4 as a Gate Insulator Stack Jeong-Hyun Kim[1,2], Ji-Seong Im[1,2], and Jong-Ho Lee[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University
FP-377	Gate-Voltage Difference Method for Separate Extraction of Parasitic Source and Drain Resistances in Individual MOSFETs under Linear Operation Seonghyeon Jeong[1], Ji Won Park[1], Seung Hyeop Han[1], Hanbin Lee[1], Gyungsu Min[1], Hyo-In Yang[1], So-Jeong Park[1], Jun-Ho Jang[1], Jeong Yeon Im[1], Dae Hwan Kim[1], Jong-Ho Bae[1], Dong Myong Kim[2], and Sung-Jin Choi[1] [1]School of Electrical Engineering, Kookmin University, [2]Department of Advanced Technology, DGIST
FP-378	Gate Recess Structure Analysis for Normally-Off State GaN HEMTs Shinwook Kim, Chaehyuk Lim, and Myoung Jin Lee Department of Intelligent Electronics and Computer Engineering, Chonnam National University
FP-379	Modified PTFE Surfaces via Ion Implantation for Electrostatic Discharge Prevention in Semiconductor Manufacturing Processes Jinseok Ko[1], Myung-Jin Kim[2,3], Donghyuk Chung[4], Junghoon Kim[5], and Seongpil An[1,2,4,6] [1]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [2]SKKU Advanced Institute of Nanotechnology, Sungkyunkwan University, [3]Radpion Inc., [4]Department of Nano Engineering, Sungkyunkwan University, [5]School of Chemical Engineering, Sungkyunkwan University, [6]Department of Nano Science and Technology Engineering, Sungkyunkwan University
FP-380	*Ab Initio* Study on Polarization-Screening Charge Distribution in AlScN Horizontal Domain Walls Yunjae Kim[1,2,3], Kun Hee Ye[1,2,3], Taeyoung Jeong[1,2,3], Seung Jae Yoon[1,2,3], Dohyun Kim[1,2,3], Cheol Seong Hwang[2,3], and Jung-Hae Choi[1] [1]Electronic Materials Research Center, KIST, [2]Department of Materials Science and Engineering, Seoul National University, [3]Inter-University Semiconductor Research Center, Seoul National University
FP-381	Accurate Extraction of Mass Transport Parameters for Device Simulations Using *Ab Initio* Molecular Dynamics Taeyoung Jeong[1,2,3], Kun Hee Ye[1,2,3], Seung Jae Yoon[1,2,3], Dohyun Kim[1,2,3], Yunjae Kim[1,2,3], Cheol Seong Hwang[2,3], and Jung-Hae Choi[1]

	[1]Electronic Materials Research Center, KIST, [2]Department of Materials Science and Engineering, Seoul National University, [3]Inter-University Semiconductor Research Center, Seoul National University
FP-382	Effect of Space Length on Hot Carrier Injection during GIDL Erase in Vertical NAND Flash Memory Jae Hyun Nam[1,2], Kyung Moon Kim[1,2], Jin Ho Chang[1,2], Se Hyun Uhm[1,2], Da Eun Yang[1,2], Suk-Kang Sung[3], and Woo Young Choi[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]Inter-University Semiconductor Research Center, Seoul National University, [3]Advanced Flash Technology Team, Samsung Electronics Co., Ltd.
FP-383	Comparative Theoretical Study on Metal and Semimetal Electrodes with Top and Edge Contacts in Te p-Type Channels Seungjae Yoon[1,2,3], Wonho Choi[2,3], Byongwoo Park[2,3], Taeyoung Jeong[1,2,3], Dohyun Kim[1,2,3], Yunjae Kim[1,2,3], Cheol Seong Hwang[2,3], and Jung-Hae Choi[1] [1]Electronic Materials Research Center, KIST, [2]Department of Electrical and Computer Engineering, Seoul National University, [3]Inter-University Semiconductor Research Center, Seoul National University,
FP-384	Optimized Design of Double Pulse Test Circuit with RC Snubber for High-Power GaN Systems Chae-Jeong Hwang and Min-Su Park Department of Electronics Engineering, Dong-A University
FP-385	Bidirectional Machine Learning Technology to Predict the Electrical Characteristics and Structural Parameters of a Stacked Nanosheet FET Seung-Yoon Lee, Jaehyun On, and Joon-Kyu Han Department of Electronic Engineering, Sogang University
FP-386	Enhancing Robustness to Weight Variance in Neuromorphic Systems with Lipschitz Regularization Jaehyeon Kim and Jong-Ho Lee Department of Electrical and Computer Engineering, Seoul National University
FP-387	Impact Analysis of Moisture Exposure on IGZO Thin Film with Electrical Measurements In Kyu Yoon, Sukyoung Kang, Donghyun Kim, Sang Hyeok Kim, So Mi Lee, Seung Gyu Lee, and Jae Woo LEE Department of Electronics and Information Engineering, Korea University

FP-388	Nyquist Plot Analysis of HZO Ferroelectric Devices based on Annealing Conditions Somi Lee[1], Donghyun Kim[1], In kyu Yoon[1], Sang Hyeok Kim[1], Yoonhye Jang[1], Laehyeong Jeong[1], Jiae Jeong[2], Hyoungjin Park[2], Jiyong Woo[2], and Jae Woo Lee[1] [1]Department of Electronics and Information Engineering, Korea University, [2]Department of Electronic and Electrical Engineering, Kyungpook National University
FP-389	First-Principles Study of the Bias-Driven Structure of the Electric Double Layer for Electrochemical Transistors Hyeonwoo Yeo, Juho Lee, Ryong-Gyu Lee, and Yong-Hoon Kim School of Electrical Engineering, KAIST
FP-390	Impact of Ferroelectric Phase Variation on Standard Cell Characteristics of Metal-Ferroelectric-Metal-Insulator-Semiconductor (MFMIS) Negative Capacitance Nanosheet-FET Jun-hyeok Lee, Seong-ji Min, Won-chan Kim, Hyeong-kyu Jin, and Hyun-Yong Yu Korea University
FP-391	Non-Equilibrium Multi-Space Density Functional Simulations of MoS2 Field Effect Transistors Seunghyun Yu, Ryong-Gyu Lee, Tae Hyung Kim, Juho Lee, and Yong-Hoon Kim School of Electrical Engineering, KAIST
FP-392	Three-Dimensional Contact Resistance Model based on Tri-Layer Transmission Line Method for Precise Analysis of FinFET Source/Drain Contact Resistance Bogeun Son, Seunggyu Hwang, Huiyun Jung, and Hongsik Park School of Electronic and Electrical Engineering, Kyungpook National University
FP-393	Application of a Novel Nitride/Metal Spacer Structure for Performance Enhancement in DRAM Cells Seong-Ji Min, Jun-hyeok Lee, Hyeong-kyu Jin, Won-chan Kim, and Hyun-Yong Yu Korea University
FP-394	Design Optimization of SiC CMOS FinFET for Next-Generation System on Chip Logic Applications Jeong Hyun Moon[1], Wook Bahng[1], Moonkyong Na[1], Jae Hwa Seo[1], Park Do Yeon[2], Sung Yun Woo[2], Tae Seong Kwon[1,2], and Young Jun Yoon[3] [1]Advanced Semiconductor Research Center, Power Semiconductor Research Division, KERI, [2]School of Electronic and Electrical Engineering, Kyungpook National University, [3]Department of Electronic Engineering, Andong National University

FP-395	Effective Thermo-Electric-Mechanical Modeling of Capacitively Coupled Plasma in Low Pressure Conditions: Modeling and Application in Dry Etching Wangyu Gwak[1], Tae-Hyun Kim[1], Jong Chan Park[1], Nayoon Kang[1], Jin-Woo Sim[2], Chan-Young Choi[2], and Eun-Ho Lee[1] [1]Sungkyunkwan University, [2]SEMES Co., Ltd.
FP-396	분자동역학 기반 반도체 하이브리드 본딩을 위한 SiCN-SiCN 플라즈마 표면 활성화 접합 전산 모사 및 접합 계면 본딩 에너지 분석 김주헌, 장민기, 정하영 울산과학기술원 기계공학과
FP-397	Molecular Dynamics Study for Interfacial Void Analysis in Cu-Cu Diffusion Bonding for Hybid Bonding Applications Junhyeok Park and Hayoung Chung Department of Mechanical Engineering, UNIST
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FP-399	Impact of MEOL Heat Process on PMOS NBTI in DRAM Technology Taehyun An, Hyuck-chai Jung, Junsoo Kim, Sung Ho Jang, Jeonghoon Oh, Jemin Park, and Jaihyuk Song Samsung Electronics Co., Ltd.
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FP-491	Enhanced Electromagnetic Interference Shielding of 2D Cu@Cu_2O Core-Shell Nanosheets Film for Long-Term Stability Min-Young Seo[1], Seungyeon Kim[1], and Tae-Wook Kim[1,2] [1]Department of Flexible and Printable Electronics, Jeonbuk National University, [2]Department of JBNU-KIST Industry-Academi a Convergence Research, Jeonbuk National University
FP-492	Electrochemical Doping Strategy for Metal Halide Perovskites Dohyun Kim[1], Yongjin Kim[1], Eunje Park[1], Keehoon Kang[1], and Heebeom Ahn[2] [1]Department of Materials Science and Engineering, Seoul National University, [2]Research Institute of Advanced Materials, Seoul National University
FP-493	Vertical Stacked Organic Photodetectors for Selective Wavelength Recognition in Multi-channel Applications Jaebin Jeong, Jae-Hyun Kim, and Sungjun Park Ajou University
FP-494	Waterproof Conductive Tough Fibers for Sustainable e-textile Hansu Kim, Taeyeon Oh, Hyeongbeom Lee, and Sungjun Park Department of Intelligence Semiconductor, Ajou University
FP-495	Ternary Field-Effect Transistor based on Homojunction MoS_2 Yeonghyeon Ko, Jungi Song, Yongwook Seok, and Kayoung Lee School of Electrical Engineering, KAIST
FP-496	Enhanced Resistive Switching Characteristics of $CuInP_2S_6$-based RRAM through Cu^+ Ion Migration Control Wooyoung Kang, Seungho Bang, and Mun Seok Jeong Department of Physics, Hanyang University
FP-497	Enhanced Optoelectronic Performance of MoS_2 TFTs through Organic Doping and Fermi Level Modulation Dohyeong Kim[1], Seungho Bang[1], Wooyoung Kang[1], Chan Kwon[1], Jaekak Yoo[1], Hayoung Ko[2], Kikang Kim[2], and Mun Seok Jeong[1] [1]Department of Physics, Hanyang University, [2]Department of Energy Science, Sungkyunkwan University
FP-498	Two-dimensional Transition Metal Dichalcogenide Neuromorphic Device for in-sensor Computing and Multi-modal Processing Seungguan Lee[1], Gunuk Wang[1], and Yonghun Kim[2] [1]KU-KIST Graduate School of Converging Science & Technology, Korea University, [2]Department of

	Advanced Functional Thin Films, Surface Technology Division, KIMS
FP-499	**Self-rectifying TiO_2 Memristor for SNN Hardware Implementation** Mingyu Kim[1], Yeonseo An[1], and Gunuk Wang[1,2] [1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Department of Integrative Energy Engineering, Korea University
FP-500	**Low-Power Neuromorphic Organic Electronics based on Doped Source-Gated Phototransistors** Yonghee Kim[1,2] and Eun Kwang Lee[2] [1]Department of Chemical Engineering, POSTECH, [2]Department of Chemical Engineering, Pukyong National University
FP-501	**Uncertainty Quantification via a Probabilistic SiO_x Barristor-based Bayesian Neural Network** Hyeon Bin Kim[1], Kim Ye-jin[1], Sukang Bae[3], and Gunuk Wang[1,2] [1]KU-KIST Graduate School of Converging Science and Technology, Korea University, [2]Department of Integrative Energy Engineering, Korea University, [3]Institute of Advanced Composite Materials, KIST
FP-502	**Dilution Induced Fragmentation of $CsCl:Eu^{2+}$ Nanocrystals and Their Optical Properties** Min Jin Kim[1], Panju Kim[1], Ga-eun Kim[1], Eunyoung Lee[2], Byung Joon Moon[2], and Yong Il Park[1], and Sang Hyun Lee[1] [1]School of Chemical Engineering, Chonnam National University, [2]Institute of Advanced Composite Materials, KIST
FP-503	**Effects of Superacid Treatment on Contact Region of MoS_2 ink-based FET** Jaehyoung Park[1], Juntae Jang[1], Seongmin Ko[1], Jongeun Yoo[1], Kyungjune Cho[2], and Takhee Lee[1] [1]Department of Physics and Astronomy, Seoul National University, [2]Soft Hybrid Materials Research Center, KIST
FP-504	**Contact Physics in 2D Nanoelectronics: Comparative Study of Type-II Weyl and Dirac Semimetals** Juwon Han, Hyeonwoo Lee, Soon-Yong Kwon, and Changwook Jeong Department of Materials Science and Engineering & Graduate School of Semiconductor Materials and Devices Engineering, UNIST

FP-505	Energy Efficiency Analysis of Spin-Orbit Torque MRAM Using both Resistivity and Spin Hall Angle in Pt/W Multilayer Structure Ji-won Yoon[1,2], Hyun-jun Lee[1,3], Ji-Hyeon Yun[1,2], Si-yeol Lee[1,3], Sang-ho Lim[2], and Seung-heon Chris Baek [1]Center for Semiconductor Technology, KIST, [2]Department of Materials Science and Engineering, Korea University, [3]Department of Electrical Engineering, Korea University
FP-506	1T-$PtSe_2$/WSe_2 Interface Engineering for p-Type van der Waals Contacts Hyeonwoo Lee[1], Juwon Han[1], Jaewoong Joo[2], Soon-Yong Kwon[1], Gwan-Hyoung Lee[2], and Changwook Jeong[1] [1]Department of Materials Science and Engineering & Graduate School of Semiconductor Materials and Devices Engineering, UNIST, [2]Department of Materials Science and Engineering, Seoul National University
FP-507	Monolithic 3D Stackable MoS_2 Transistor with Low Temperature Grown Graphene-Metal Hybrid Interconnect Junseong Bae, Hanjoo Ji, Shubham V. Patil, Taemin Sim, and Seunghyun Lee Department of Electronic Engineering, Kyung Hee University
FP-508	Organic Nano-Floating-Gate Transistors with Photosynaptic and Electrical Memory Functions Enabled by a Perovskite-Nanocrystal-Based Nanocomposite Tunneling Layer Eunyoung Lee[1], Young-Seok Song[2], Tae-Wook Kim[2], Byung Joon Moon[1], and Sukang Bae[1] [1]Institute of Advanced Composite Materials, KIST, [2]Department of Flexible and Printable Electronics, LANL-JBNU Engineering Institute-Korea, Jeonbuk National University
FP-509	Engineering Ionic and Electronic Transport Properties in Metal Halide Perovskites through a Novel Doping Strategy Yongjin Kim, Jonghoon Lee, Taehyun Kong, Hyeonmin Choi, Dohyun Kim, Jaeyoon Cho, Jeongjae Lee, Takhee Lee, and Keehoon Kang Seoul National University
FP-510	Electron Radiation Effects on the 2D Materials with Complementary FETs for Next-Generation Semiconductor Devices Dongwook Kim[1], Hanggyo Jung[2] , and Jongwook Jeon[3] [1]Department of Display Engineering, Sungkyunkwan University, [2]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [3]Department of Electrical and Computer Engineering, Sungkyunkwan University

FP-511	Benchmark for SRAM Performance Metrics in CFET Structures with 2D TMDC (MoS_2, WSe_2) Channels at the 1nm Technology Node Jonghun Lee[1], Hanggyo Jung[2], and Jongwook Jeon [1]Department of Display Engineering, Sungkyunkwan University, [2]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [3]Department of Electrical and Computer Engineering, Sungkyunkwan University
FP-512	Tip-enhanced Förster Resonance Energy Transfer Spectroscopy in Atomically Thin Semiconductors YongBin Kim[1], YeonJeong Koo[1], Byong Jae Kim[2], Soo Ho Choi[2], Hyeongwoo Lee[1], Ki Kang Kim[2], Jaehoon Lim[2], and Kyoung-Duck Park[1] [1]Department of Physics, POSTECH, [2]Department of Energy Science, Sungkyunkwan University
FP-513	Valley-selectivity Enhancement at Hybrid TMD Jonggeun Hwang[1], Yeonjeong Koo[1], and Kyoung-Duck Park[1,2] [1]Department of Physics, POSTECH, [2]Institude for Convergence Research and Education in Advanced Technology, Yonsei University
FP-514	Achieving Low Leakage Current in Carbon Nanotube Field-Effect Transistors Using a Extension Doping Layer Seunghun Baek[1], Sungmin Eum[2], Yehyun Shin[2], Haksoon Jung, and Jimin Kwon[1,2] [1]Graduate School of Semiconductor Materials and Devices Engineering, UNIST, [2]Department of Electrical Engineering, UNIST
FP-515	High-mobility p-type WSe_2 Transistors Enabled by Remote Modulaton Doping Sungmin Park[1], Yeon Ho Kim[2], Jaeho Lee[1], Donghyun Lee[1], and Chul-Ho Lee[1] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]KU KIST Graduate School of Converging Science and Technology, Korea University
FP-516	Comprehensive Studies on the Synergistic Composition of Solution-Based Quaternary Oxide Dielectrics for Low-voltage Operating Thin-Film Transistors Seokhyeon Ba and Sungjun Park Department of Intelligence Semiconductor Engineering, Ajou University
FP-517	EMI Shielding Through Structural Designing of 2D Layered Materials Jong Sung Kim[1,2] and Kyungjune Cho[1] [1]Convergence Research Center for Solutions to Electromagnetic Interference in Future-mobility (SEIF), KIST, [2]Department of Materials Science and Engineering, Korea University

FP-518	Elastic Stretchable Carbon Nanotube Transistor and Circuits Yiyun Shin and Hyunseok Shim Department of Electronics Engineering, Pusan National University
FP-519	Reconfigurable Organic Electrochemical Transistors with High Dynamic Range for Physical Reservoir Computing Chungbi Han[1], Seong Jun Park[1], Mingyu Kim[2], Jung Sun Eo[2], Donghyeok Kim[2], Sungjune Jung, and Gunuk Wang [1]KU-KIST Graduate School of Converging Science & Technology, Korea University, [2]Department of Materials Science and Engineering, POSTECH
FP-520	EMI Shielding Effect in Insulating 2D Matrix Films Eunjung Lee[1,2], Jong Sung Kim[1,3], Jong Hyuk Park[1], and Kyungjune Cho[1] [1]Convergence Research Center for Solutions to Electromagnetic Interference in Future-mobility(SEIF), KIST, [2]Department of Chemical and Biological Engineering, Korea University, [3]Department of Materials Science and Engineering, Korea University
FP-521	Large-Area (111) Single-Crystal Ag Nanosheets with Surface Nanoparticles for Efficient Low-Temperature Sintering and Electrode Applications Seungyeon Kim[1], Hyeonji Joo[1], and Tae-Wook Kim[1,2] [1]Department of Flexible and Printable Electronics, LANL-JBNU Engineering Institute-Korea, Jeonbuk National University, [2]Department of JBNU-KIST Industry-Academia Convergence Research, Jeonbuk NationalUniversity
FP-522	P-type Vertical FETs Realized by Using Fermi-level Pinning-free 2D Metallic Electrodes Hyokwang Park, Hoseong Shin, and Won Jong Yoo SKKU Advanced Institute of Nano Technology, Sungkyunkwan University
FP-523	Artificial Camouflage Skins based on Distributed Elastic Stretchable Synaptic Transistors Taeheon Kim and Hyunseok Shim Department of Electronics Engineering, Pusan National University
FP-524	Enhanced on/off Current Ratio in *p*-type WSe_2 Vertical Field Effect Transistor via $NbSe_2$ van der Waals Contacts Hyungyu Choi[1], Inhee Jeong[1], Hyokwang Park[1], Boseok Kang[1,2], and Won Jong Yoo[1] [1]SKKU Advanced Institute of Nano-Technology (SAINT) and Department of Nano Science and Technology, Sungkyunkwan University, [2]Department of Nano Engineering and Department of Semiconductor Convergence Engineering, Sungkyunkwan University

FP-525	Fabrication of Flash Memory Device with UVO-treated 2D Metallic 2H-TaS_2 Hoseong Shin, Kwangro Lee, and Won Jong Yoo KKU Advanced Institute of Nano Technology, Sungkyunkwan University
FP-526	Reconfigurable Vertical Ferroelectric Semiconductor Photodiode for Perceptual-Precision In-Sensor Computing Tae Hyun Yoon[1], Jin Yong An[2], and Chul-Ho Lee[1] [1]Department of Electrical and Computer Engineering, Seoul National University, [2]KU-KIST Graduate School of Converging Science & Technology, Korea University
FP-527	Selective Growth of van der Waals Dielectric on Two-dimensional Materials Changheon Kim[1,2], Hyunjun Kim[2], Gwan-Hyoung Lee[2], and Jangyup Son[1] [1]Functional Composite Materials Research Center, KIST, [2]Department of Material Science and Engineering, Seoul National University
FP-528	Chiroptical Synaptic Memristor for Reconfigurable Physical Unclonable Functions HoYeon Kim and Cheolmin Park Department of Materials Science and Engineering, Yonsei University
FP-529	P-type Contact Engineering of 2D WSe2 with Chalcogen Interlayers for Improved Transistor Performance and Uniformity Soonhyo Kim, Taoyu Zou, Seongmin Heo, Mingyu Kim, and Yong-Young Noh Department of Chemical Engineering, POSTECH

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(공식발표시간: 14:00-15:10)
ZONE 4 (6층, 로비)

N. VLSI CAD 분과

FP-530	A Neural Network-based Branch Predictor for Ternary Pipelined Architectures Seonghoon Kim, Hanmok Park, and Taigon Song School of Electronic and Electrical Engineering, Kyungpook National University

FP-531	A 130nm RRAM Compute-in-Memory Macro with Open-Source Flow Minsang Yu, Seungsu Kim, and Jongeun Lee Department of Electrical Engineering, UNIST
FP-532	A Layout-to-Generator Conversion Framework with Graphical User Interface for Analog Layout Generators Sungyu Jeong[1], Chanhyong Lee[1], Minsu Kim[1], Iksu Jang[1], Myungguk Lee[2], Junung Choi[1], and Byungsub Kim[1] [1]POSTECH, [2]Memory Business Division, Samsung Electronics Co., Ltd.
FP-533	Bayesian 최적화를 활용한 Library Index Optimization 김찬진, 정영광, 현대준 Sejong University
FP-534	Efficient 3D IC CTS Flow with Commercial EDA Tools Geon-Hyeong Park[1] and Heechun Park[2] [1]Myong-Ji University, [2]UNIST
FP-535	Curiosity-Driven Reinforcement Learning for Analog Circuit Optimization SuMin Oh and HyunJin Kim Department of Electronics and Electrical Engineering, Dankook University
FP-536	A New Accelerated Test Pattern Generation Algorithm for Ternary Logic Taeseong Kim[1], Jiseon Seo[1], Seunghan Baek[2], and Sunmean Kim[1] [1]School of Electronic and Electrical Engineering, Kyungpook National University, [2]Department of Electrical Engineering, POSTECH
FP-537	SOM 신뢰성 향상을 위한 드리프트 내성 인코딩 기법 이현준[1,3], 양준성[1,2,3] [1]연세대학교 시스템반도체공학과, [2]연세대학교 전기전자공학과, [1]연세대학교 지능형반도체 IT 융합전공

Q. Metrology, Inspection, Analysis, and Yield Enhancement 분과

FP-538	원형 오버레이 마크 기반의 개선된 오버레이 측정 방법 Hyun Chul Lee[1,3], Hyun Jin Chang[1], Ho Sung Woo[2], and Won Gyu Lee[3] [1]AUROS Technology, Inc., [2]Korea National Open University, [3]Korea University

FP-539	**Measure and Optimize Heat Generated by Electronic Devices Using Thermal Reflection Technology** Yerim Kim, Heeyeon Noh, Jung-Hwa Cha, Won Seok Yun, Joonwoo Kim, and Hyeon-Jun Lee Division of Nanotechnology, DGIST
FP-540	**Van der Waals Heterojunction of MoS_2/InP for Optoelectronic Applications** Dong Hwi Choi[1], Jae Hyeop Lee[1], Min Su Kim[1], Jae Seo Park[2], Jun Oh Kim[2], Hong Hyuk Kim[3], and Jae Cheol Shin[1] [1]Department of Electronics and Electrical Engineering, Dongguk University, [2]Strategic Technology Research Institute, KRISS, [3]KOPTI
FP-541	**Numerical Simulation Analysis of Retainer Ring Abrasion in CMP (Chemical Mechanical Polishing) System Considering Different Types of Oscillatory Motion** Jun Ho Jang[1,2], Hyun Goo Kang[1], Seong Ji Yang[1], and Jae Woo Lee[2] [1]SK Hynix, [2]Department of Semiconductor Convergence Engineering, Korea University
FP-542	**Etch Process용 정전척(ESC)의 가스 압력에 따른 Chucking 특성 변화 및 측정 환경 고찰** Kwang-Jae Oh[1], Beom-Su Kim[1], Yun-hwi Park[1], Byung-Sung Kim[2], Sung-Rae Kim[2], Ho-kyum Kim[2], and Dae-Kyo Jung[2] [1]BOBOO HITECH Co., Ltd., [2]Sungkyunkwan University
FP-543	**Infrared Polarizing Bandpass Filter based on Metamaterials via Double-Sided Nanoimprint Lithography** Hyeonji Kim[1,2], Sanghwa Lee[1,5], Jehwan Hwang[3], Jun Oh Kim[1], Soo-Hwan Jeong[2], and Sang-Woo Kang[1,4] [1]KRISS, [2]Kyungpook National University, [3]KOPTI, [4]University of Science and Technology, [5]Hongik University
FP-544	**Optical and Electrical Characteristics of InGaAs APD with Different Method of Zn Diffusion** Sung Un Baik[1], Jae Cheol Shin[1], Hong Hyuk Kim[2], and Ho Sung Kim[3] [1]Dongguk University, [2]KOPTI, [3]ETRI
FP-545	**Optical Property Evaluation of Transparent Materials via Extreme Ultraviolet (EUV) Testing Platform** Eun Seok Choe[1], Wooram Kim[1], Do-Yeon Hwang[1], Won Chegal[1], Sang-Woo Kang[2], and Jung-Hyung Kim[1] [1]Semiconductor and Display Metrology Group, KRISS, [2]Stragetic Technology Research Institute, KRISS

FP-546	Optimization of Guard Ring Structures in Planar InGaAs/InP Avalanche Photodiodes Min Ju Moon, Sung Un Baek, and Jae Chul Shin Dongguk University
FP-547	첨단 반도체, 디스플레이 공정 검사를 위한 초분광 간섭계 기반 고속 두께 및 형상 측정 기술 Heulbi Ahn[1], Jungjae Park[2,3], and Jonghan Jin[1,2,3] [1]Meter-Lab. Inc., [2]UST, [3]KRISS
FP-548	High-Fidelity TMD Heterostructure Layering: Defect Control and Enhanced Wet Transfer in WS_2/MoS_2 and MoS_2/WS_2. Hyunwoo Kim[1,2], Junghyun Lee[1,2], Sanghwa Lee[1,2], Jun Oh kim[1], and Bongjoong Kim[2] [1]KRISS, [2]Hongik University
FP-549	WS_2/MoS_2 Vertical Hetero-Structures Using MOCVD Method: Synthesis Analysis Sanghwa Lee[1,2], Hyunwoo Kim[1,2], Junghyun Lee[1,2], Bongjoong Kim[2], and Jun Oh Kim[1] [1]KRISS, [2]Hongik University
FP-550	Highly Precise Phase Shifting Interferometry for Surface Metrology of Semiconductor Inspection Chang-Soo Kim and Joonho You Nexensor
FP-551	Process Control System Using Wafer Limit Management Eun Soo Kim[1,2] and Jae Woo Lee[2] [1]Global QRA, SK Hynix, [2]Department of Electronics and Information Engineering, Korea University
FP-552	Analysis of CD-SEM Measurement Conditions to Ensure CD Measurement Reliability Ra Seong Ki[1], Jong Hoi Cho[1], Sung Hun Lim[1], Jun Ho Lee[1], Jin Hee Han[1], Dae Young Choi[1], Ki Ro Hong[1], Yoon Gyu Park[2], Eun Hee Lee[2], and Jong Hyun Seo[1] [1]SK Hynix Inc., [2]Hitachi High-Tech Korea Co., Ltd.
FP-553	Structural-Based Vector Compression for Memory Testing Duyeon Won, Seokjun Jang, and Sungho Kang Department of Electrical and Electronic Engineering, Yonsei University

FP-554	Development of In-line Monitoring Solution for Stage Accuracy of the Optical Measurement Equipment Hyerim Ji, Jungduck Lee, Ahram Ko, Jiyoung Moon, Jongmoon Woo, Sanghyun Kim, Sunghee Choi, and Jonghyun Seo SK Hynix
FP-555	Surface Vibration Effects to Nanoparticle Contamination Prevention in Vacuum Environment Byeonghyeon Min[1,2], Bonggyu Ji[3], Seung Hyun Cho[2], Jihun Mun[2], and Sang-woo Kang[1,2] [1]UST, [2]KRISS, [3]Korea Transportation Safety Authority
FP-556	Electrical Test 측정 기인성 EUV Patterning 불량 개선방안에 대한 연구 김민철, 장성욱, 김수빈, 박찬호, 최민권, 진혜준, 안정훈 삼성전자 파운드리사업부
FP-557	Advantages of Non-Destructive Depth Profile Analysis Using TOF-MEIS over Destructive Method Kyungsu Park, Soo-Bang Kim, and Won Ja Min HB Solution
FP-558	SAT 를 활용한 반도체 Degradation Process 분석법에 대한 연구 You-Cheol Jang, Min-Woo Seo, and In-Kyu Baek HL Mando
FP-559	Thermal Metrology for Assessing Direct Bonding Interfaces Using Frequency-Domain Thermoreflectance Dongyun Seo, Jihyun Kim, Kyusung Han, and Jungwan Cho Sungkyunkwan University
FP-560	Thermal Property Imaging based on Frequency-Domain Thermoreflectance for Advanced Semiconductor Applications Jihyun Kim, Dongyun Seo, Kyusung Han, and Jungwan Cho Sungkyunkwan University
FP-561	Optical Image Analysis through Semiconductor Defect Detection Simulation and Suggestion on How to Improve the Fine Particle Detection Capability of Semiconductor Equipment HyoSeop Shin[1,2] and Dongkun Shin[3,4] [1]Department of Semiconductor and Display Engineering, Sungkyunkwan University, [2]Memory Division, Samsung Electronics Co., Ltd., [3]Department of Semiconductor and Display Engineering,

	Sungkyunkwan University, [4]Department of software and Computer Engineering

U. Bio-Medical 분과

FP-562	Interdigitated Structure Circulating Free DNA RF Sensor based on Solution-Processed MoS_2 Seungchan Lee, Jiho Shin, Changwoo Pyo, and Myungsoo Kim UNIST
FP-563	반도체 공정을 이용한 ECIS 기반의 Multi-Well Array Impedance Biosensor의 약물 독성 평가 및 정량적 분석 연구 Seok-Kyu Kim[1], Su Gwon Nam[1], Seong Bin Yeon[2], Kang Min Yoo[2], and Moon Gyu Jang[1,2,3] [1]School of Nano Convergence Technology, Hallym University, [2]School of Semiconductor & Display Technology, Hallym University, [3]Center of Nano Convergence Technology, Hallym University
FP-564	Importance Analysis of Carrier Block Layer of Organic Photodiodes and Its Applications Young Woo Kim[1], Dong Gyun Kim[1], Sung Jin Park[2], Ko Eun Ham[2], Geon Woo Choi[2], Yongmin Jeon[1,3], Eou-Sik Cho[1,2], and Sang Jik Kwon[1,2] [1]Department of semiconductor Enginerring Gachon University, [2]Department of electrical Engineering, Gachon University, [3]Department of biomedical Enginerring, Gachon University
FP-565	A 1.66-μW Analog Front-End IC with 45-GΩ Input Impedance for Bio-Potential Monitoring in 110-nm CMOS Yeong-Jin Mo and Seong-Jin Kim Sogang University
FP-566	Scalable Fabrication of Single-Molecule Biosensors for Unamplified Circulating Tumor DNA Detection Eunui Kim[1], Soohyun Park[2], Hongki Kang[1,3], and Yoonhee Lee[2] [1]Department of Electrical Engineering and Computer Science, DGIST, [2]Division of Biomedical Technology, DGIST, [3]Department of Biomedical Engineering, Seoul National University College of Medicine
FP-567	Real-Time, Multiplexed Detection of Indoor Bioaerosols Using Aptamer-Functionalized FET Sensors Soohyun Park[1], Eunui Kim[2], Beomsoo Park[2], Eun-sook Choi[3], Hongki Kang[4], Eunjoo Kim[3], and Yoonhee Lee[1]

	[1]Division of Biomedical Technology, DGIST, [2]Department of Electrical Engineering and Computer Science, DGIST, [3]Division of AI, Big data and Block chain, DGIST, [4]Department of Biomedical Engineering, Seoul National University College of Medicine