

2024년 1월 26일(금) 09:00-17:25

저자 Q&A 세션: 10:45-11:25

A. Interconnect & Package 분과

ZONE 4 (3층 로비)

FP1-001	<p>Optimization of O₂ Plasma Treatment on Cu Surface for Hybrid Cu Bonding</p> <p>Sangwoo Park¹, Sangmin Lee¹, Junyoung Choi², and Sarah Eunkyung Kim¹</p> <p>¹Department of Semiconductor Engineering, Seoul National University of Science and Technology, ²Department of Electrical and Information Engineering, Seoul National University of Science and Technology</p>
FP1-002	<p>Potential Use of Fly Cutting Method for Cu/Polymer Planarization in Hybrid Bonding</p> <p>Sangmin Lee¹, Suin Jang², Sangwoo Park¹, and Sarah Eunkyung Kim¹</p> <p>¹Department of Semiconductor Engineering, Seoul National University of Science and Technology, ²Research Center for Advanced Semiconductor Packaging, Seoul National University of Science and Technology</p>
FP1-003	<p>Evaluation of PVD SiCN for Cu/SiCN Hybrid Bonding</p> <p>Junyoung Choi¹, Sangwoo Park², Sangmin Lee², and Sarah Eunkyung Kim²</p> <p>¹Department of Electrical and Information Engineering, Seoul National University of Science and Technology, ²Department of Semiconductor Engineering, Seoul National University of Science and Technology</p>
FP1-004	<p>A Study of Surface Treatment on SiO₂/SiO₂ Bonding for Cu/SiO₂ Hybrid Wafer Bonding</p> <p>Joong-Heon Kim¹, Sung-Min Park¹, Sang Hyun Jung¹, and Kyung-Ho Park²</p> <p>¹System IC Platform Lab, ²Advanced Packaging TF, KANC</p>
FP1-005	<p>Reliability Investigations of Polymer-Based Redistribution Layers (RDL) by Oxygen and Moisture</p> <p>Ji-Youn Kwak¹, Emmanuel Chery², Julien Bertheau², John Slabbekoorn², Joke De Messemaeker², Eric Beyne², and Ju-Young Kim¹</p> <p>¹UNIST, ²imec</p>
FP1-006	<p>ALD ZnO 확산방지층이 Cu와 Ru 배선의 계면접착에너지에 미치는 영향</p> <p>정대윤^{1,2}, 김가희^{1,2}, 김민진^{1,2}, 손예슬³, Yuki Mori^{3,4}, 김수현^{3,5}, 박영배^{1,2}</p> <p>¹안동대학교 신소재공학부, ²안동대학교 청정에너지 소재기술연구센터, ³울산과학기술원 반도체 소재부품 대학원, ⁴Chemical Materials Development Department, TANAKA Precious Metals, ⁵울산과학기술원 신소재공학과</p>
FP1-007	<p>Low-temperature Hybrid Bonding for Enhanced Semiconductor Integration and Reliability</p> <p>Youngju Sim, Gyeong-Seok Hwang, and Ju-Young Kim</p> <p>UNIST</p>
FP1-008	<p>The Study of the Erosion and Dishing Shape in the Cu CMP Process for 3D Hybrid Bonding</p> <p>Sang-Soo Kim, Su-Jeong Kang, Won-Youl Shin, Ju-Young An, Min-Jae Kim, Sungmin Park, Dongkeun Lee, and Kyung-Ho Park</p> <p>Advanced Packaging TF, KANC</p>
FP1-009	<p>저온 구리 접합 성능 향상을 위한 금속 패시베이션 결정성에 관한 연구</p> <p>Min Seong Jeong, Sang Woo Park, Yeon Ju Kim, Ji Hoon Kim, and Jong Kyung Park</p> <p>Seoul National University of Science and Technology</p>
FP1-010	<p>대기압 플라즈마 표면 처리 활성화를 이용한 웨이퍼 본딩 기술</p> <p>Wonyoung Choi, Bumki Moon, Kyeongbin Lim, Yongjoo Lee, Yongin Lee, Seung ho Han, Nungpyo Hong, and Minwoo Rhee</p> <p>Mechatronics Research, Samsung Electronics Co., Ltd.</p>

FP1-011	<p>Low Temperature Cu/Polymer Hybrid Bonding for 3D Multi-chip Stacking Process</p> <p>Ji-Hun-Kim, Yeon-Ju Kim, Min-Seong Jung, Sang-Woo Park, and Jong Kyung Park Department of Semiconductor Engineering, Seoul National University of Science and Technology</p>
FP1-012	<p>AI 및 수치해석 시뮬레이션을 활용한 반도체 패키지 열 기계적 유효 물성 모델링 방법 설계</p> <p>Jeong-Hyeon Park¹, Sukwon Jang², Sunggu Kang², Sungho Mun², Jaechoon Kim², and Eun-Ho Lee¹ ¹Sungkyunkwan University, ²Samsung Electronics Co., Ltd.</p>
FP1-013	<p>Reflow Temp Profile 제어를 통한 Sn Micro-bump Ball Shape 개선 연구</p> <p>Beomwoo Lee SK hynix</p>
FP1-014	<p>Analysis of Fermi Level Pinning of Metal-InGaZnO Junction with Interfacial Self-assembled Monolayer</p> <p>Sungbin Lim¹, Dong-Gyun Mah², Won-Ju Cho², and Hamin Park¹ ¹Department of Electronic Engineering, Kwangwoon University, ²Department of Electronic Materials Engineering, Kwangwoon University</p>
FP1-015	<p>A Study of Signal Integrity in Hybrid Bonding with Void</p> <p>Chan-Woong Park^{1,2} and Kee-Won Kwon^{1,2} ¹Department of Electrical and Computer Engineering, Sungkyunkwan University, ²Department of Semiconductor Convergence Engineering, Sungkyunkwan University</p>
FP1-016	<p>The Study of the Effects of Cu-density and Pad Size in the CMP Process for 3D Hybrid Boding</p> <p>Su-Jeong Kang, Sang-Soo Kim, Won-Youl Shin, Min-Jae Kim, Sungmin Park, Dongkeun Lee, and Kyung-Ho Park Advanced Packaging TF, KANC</p>
FP1-017	<p>Effect of Adhesion on Compression Fatigue Reliability of Cu Interconnect.</p> <p>Jun Hyeok Hyun, Min Ju Kim, Jeong A Heo, and So-Yeon Lee Department of Materials Science and Engineering, Kumoh National Institute of Technology</p>
FP1-018	<p>Effects of Plasma Power on Properties of SiCOH Low Dielectric Constant Films in Plasma Enhanced Chemical Vapor Deposition Process Using the Tris(trimethylsiloxy)silane Precursor</p> <p>Namwuk Baek¹, Chanyong Seo¹, Jihwan Cha¹, Hyewon Han^{1,2}, Kyubeom Bae¹, Jeongbeom Choi¹, Jaeyeon Kim¹, and Donggeun Jung¹ ¹Department of Physics, Sungkyunkwan University, ²Research Laboratory, L&P Lab Co., Ltd.</p>
FP1-019	<p>Microwave-Reduced Graphene Oxide with Doping towards VLSI Interconnect</p> <p>Jaegyung Kim, Cheol-Hyeon Yoon, and Byoung Don Kong Department of Electrical Engineering, POSTECH</p>
FP1-020	<p>시간 및 첨가제에 따른 Through-hole via Fill 거동 연구</p> <p>Eun-Bi Lee¹, So-Yeon Lee¹, Kyung-A Won², and Seung-Yong Lee² ¹Kumoh National Institute of Technology, ²LG Innotek</p>
FP1-021	<p>3D Printing of Through-Hole-Embedded Organic Interposer Substrates</p> <p>Guk Cho¹, Haksoon Jung^{1,2}, Yechan Han¹, Seongmin Eum¹, and Jimin Kwon¹ ¹Department of Electrical Engineering, UNIST, ²Department of Chemical Engineering, POSTECH</p>
FP1-022	<p>Etch-Free Formation of Vertical Conductive Path in Silicon-Based Dielectrics for Enhanced Semiconductor Integration and Reliability</p> <p>Soon Joo Yoon, Jin Tae Park, and Yoon Kyeung Lee Division of Advanced Materials Engineering, Jeonbuk National University</p>
FP1-023	<p>Area Shrinkage 에 따른 Fringing Cap의 BEOL 성능에 대한 영향성 분석</p> <p>Seon Gyo Jang, Jun Nyeong Lee, Hye Jun Jin, Jeong Hoon Ahn, and Jong Ho Lee Foundry Business, Samsung Electronics Co., Ltd.</p>

FP1-024	Investigation of Size-Dependent Electrical Properties in Schottky Barrier Diodes 설유진 ¹ , 김현규 ¹ , 황해철 ¹ , 윤봉노 ¹ , 남은서 ¹ , 김정식 ³ , 김기현 ^{1,2} ¹ 전북대학교 전자정보공학부, ² 전북대학교 전자공학부, ³ 경상대학교 전기공학과
FP1-025	Effects of ALD Al₂O₃ Layer on Interfacial Reaction of Sn-3.0Ag-0.5Cu Solder Joints Eun-Chae Noh and Jeong-Won Yoon Department of Advanced Materials Engineering, Chungbuk National University
FP1-026	Bridge-contact Resistance Method to Precisely Evaluate the Electrical Contact Characteristics of Nano-scale Semiconductor Devices Huiyun Jung, Jiyeong Yun, and Hongsik Park School of Electronic and Electrical Engineering, Kyungpook National University
FP1-027	DAF-less Chip Bonding Package Process by Using Self-assembled Monolayer 김원빈 ¹ , 최성재 ¹ , 이선기 ¹ , 김병준 ² , 주영창 ¹ ¹ 서울대학교 재료공학부, ² 한국공학대학교 신소재공학과
FP1-028	3차원 반도체 패키징 접합부의 기계적 신뢰성 평가 Youngju Sim, Ji-Youn Kwak, and Ju-Young Kim UNIST
FP1-029	Effect of Bending Frequency on Cu Flexible Interconnect 이선기 ¹ , 현준혁 ² , 이소연 ² , 주영창 ¹ ¹ 서울대학교 재료공학부, ² 금오공과대학교 신소재공학과
FP1-030	Enhancing Heat Dissipation in Chiplet-Based AI Semiconductors: A Comprehensive Modeling Approach Sam Yaw Anaman ¹ , Min-Jun Cheon ¹ , Jung-Won Lee ² , Lewis Kang ² , Jung Ho Kim ³ , Jae Yong Song ⁴ , Inhak Han ⁵ , and Hoon-Hwe Cho ¹ ¹ Hanbat National University, ² Nepes, ³ Asciland, ⁴ POSTECH, ⁵ Baum
FP1-032	WBG 및 UWBG 전력반도체 모듈의 열적 성능 확인을 위한 시뮬레이션 Guesuk Lee KETI

B. Patterning (Lithography & Etch Technology) 분과

ZONE 1 (1층 전시장)

FP1-033	<p>A Study on Silicon Oxide Etching with High Aspect Ratio Using the CCP-type MERIE Process Byeong-Hyeok Choi, Woong Sun Lim, Sung-Min Park, and Sang Hyun Jung KANC</p>
FP1-034	<p>Effects of Oxygen Plasma Treatment on the Structural and Electronic Properties of MoS₂ Grown by MOCVD Jiwon Heo and Taewan Kim ¹Department of Electrical Engineering, Jeonbuk National University, ²Smart Grid Research Center, Jeonbuk National University</p>
FP1-035	<p>Effect of Alkaline Earth Elements on the Plasma-Resistance Properties of the Li₂O-Al₂O₃-SiO₂ Glasses for the Semiconductor Etch Process So Won Kim, Hwan Seok Lee, Deok Sung Jun, and Hee Chul Lee Tech University of Korea</p>
FP1-036	<p>Perfluoroalkyl Vinyl Ether의 분자구조에 따른 SiO₂ 식각 특성: PPVE와 PIPVE의 비교 전동준^{1,2}, 유상현^{1,2}, 김창구^{1,2} ¹Department of Chemical Engineering, Ajou University, ²Department of Energy Systems Research, Ajou University</p>
FP1-037	<p>Selective Etch of Boron-Doped Silicon Hard Mask Using Chlorine-Based Reactive Ion Etching Process Sangbae Lee¹, Heeju Ha¹, Hojin Kang¹, Hyeongwu Lee², Minsung Jeon³, and Heeyeop Chae^{1,2,3} ¹School of Chemical Engineering, Sungkyunkwan University, ²Department of Nano Science and Technology, SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University, ³Department of Semiconductor Convergence Engineering, Sungkyunkwan University</p>
FP1-038	<p>Fluoro-alcohol Plasma에서 방전 가스 Chemistry에 따른 SiO₂ 식각 특성 비교 양현석^{1,2}, 유상현^{1,2}, 김창구^{1,2} ¹Department of Chemical Engineering, Ajou University, ²Department of Energy Systems Research, Ajou University</p>
FP1-039	<p>Solution Processed Bilayer Source/Drain Electrodes for High Performance and Stable Metal Oxide Thin-Film Transistors Sungyun Kim¹, Sehwan Park¹, Duhyoung Gong¹, Bongjun Kim², and Hanul Moon^{1,2} ¹Department of Chemical Engineering (BK21 FOUR Graduate Program), ²Department of Semiconductors, Dong-A University, ³Department of Electronics Engineering, Sookmyung Women's University</p>
FP1-040	<p>EUV 마스크 용 Pt 기반 흡수 소재 식각 성능 김연수^{1,2}, 정동민^{1,2}, 이승호^{1,2}, 안진호^{1,2} ¹한양대학교 신소재공학과, ²EUV-IUCC</p>
FP1-041	<p>Fluorine 및 Chlorine계 플라즈마 적용 유기-무기 수직분자선 다층 분자막 EUV 포토레지스트의 건식 현상 성능 비교 평가 석지후^{1,4}, 정지우^{1,4}, 지현석², 이재혁², 박인성³, 성명모^{2,4}, 안진호^{1,4} ¹한양대학교 신소재공학과, ²한양대학교 화학과, ³한양대학교 나노과학기술연구소, ⁴EUV-IUCC</p>
FP1-042	<p>Focus 에 따른 마스크 특성 변화 완화가 가능한 High-NA EUV 노광 공정용 High-k Binary 마스크 연구 이승호^{1,2}, 정동민^{1,2}, 김연수^{1,2}, 안진호^{1,2} ¹한양대학교 신소재공학과, ²EUV-IUCC</p>
FP1-043	<p>라디칼 모듈을 이용한 Low GWP Precursor의 원자층 식각 공정 Eun Chong Kang, Se Jun Son, Jong Hyeon Kim, Hojune Chang, and Kyong Nam Kim Daejeon University</p>

FP1-044	<p>C₄H₂F₆가스를 이용한 플라즈마 식각공정 및 가스 재사용에 관한 연구</p> <p>Sejun Son, Eunchong Kang, Jinu Choi, Jeongwoon Bae, and Kyongnam Kim Daejeon University</p>
FP1-045	<p>A Study on Dry Etching Mechanism of TiN and HfO₂ Thin Films Ar/CF₄/O₂/H₂-Based Plasma for High-k Capacitor Process</p> <p>Deok-Seong Jeon, So-Won Kim, Hong-Hee Jeon, and Hee Chul Lee Department of Advanced Materials Engineering, Tech University of Korea</p>
FP1-046	<p>Grain Size 및 조성비에 따른 EUV 펄리클의 기계적 특성 변화</p> <p>김원진^{1,2}, 김하늘^{1,2}, 강영우^{1,2}, 김정연^{1,2}, 박영욱^{1,2}, 안진호^{1,2} ¹한양대학교 신소재공학과, ²EUV-IUCC</p>
FP1-047	<p>Theoretical Study of Structural Properties and Adhesion Improvement of P(VDF-HFP) Polymers by Using Molecular Dynamics Simulation.</p> <p>Seung Weon Jeong¹, Sangheon Lee¹, and Hyung Kyu Lim² ¹Department of Chemical Engineering and Materials Science, Ewha Womans University, ²Department of Chemical Engineering, Kangwon National University</p>
FP1-048	<p>Nanometer-Scale Etching of Cobalt Thin Films Using High Density Plasma of Acetone/Ar</p> <p>Geum Bin Baek, Kyung Ho Oh, Seung Hyun Kim, and Chee Won Chung Department of Chemical Engineering, Inha University</p>
FP1-050	<p>Atomic Layer Etching of SnO₂</p> <p>Hyun Seo Park, Kyung Min Mo, and Ji Hye Kim ISAC Research</p>
FP1-051	<p>Isotropic Atomic Layer Etching of HfO₂ Using NF₃ Plasma and Metal Precursor</p> <p>Gyejun Cho, Yewon Kim, Jehwan Hong, Hye-Lee Kim, and Won-Jun Lee Department of Nanotechnology and Advanced Materials Engineering, Sejong University</p>
FP1-052	<p>플라즈마 표면 처리에 따른 유연성 기판의 AFM Force-distance 특성 연구</p> <p>Juhyeon Lee, Jhongwoong Park, and Jaewook Jeong School of Information and Communication Engineering, Chungbuk National University</p>
FP1-053	<p>Correlation between Mask Slope and Redeposition in Cu Dry Etching</p> <p>Yoon Jae Cho, Su Myung Ha, and Chee Won Chung Department of Chemical Engineering, Inha University</p>
FP1-054	<p>Ab Initio Study of Chelation on Amorphous CoCl₂ Films for Atomic Layer Etching</p> <p>Eugene Huh and Sangheon Lee Ewha Womans University</p>
FP1-055	<p>불소화 유기 단분자 극자외선 레지스트의 감도 향상 전략</p> <p>김가영¹, 구예진¹, 이진균¹, 김지호², 박병규², 이상설², 장유하³, 정병준³, 고차원⁴, 니시츠네히로⁴, 김현우⁴ ¹Inha University, ²Pohang Accelerator Laboratory, ³University of Seoul, ⁴Samsung Electronics Co., Ltd.</p>
FP1-056	<p>Antimony Organometallic Photoresists for EUV Lithography</p> <p>Sun Jin Lee¹, Dong Kyun You², Kang Mun Lee², and Myung-Gil Kim¹ ¹School of Advanced Materials Science and Engineering, Sungkyunkwan University, ²Department of Chemistry, Institute for Molecular Science and Fusion Technology, Kangwon National University</p>
FP1-057	<p>Development of Environmentally Friendly Semiconductor Patterning Technology Using Supercritical Carbon Dioxide</p> <p>Yejin Ku¹, Gayoung Kim¹, Jin-Kyun Lee¹, Sangsul Lee², Byung Jun Jung³, Chawon Koh⁴, Tsunehiro Nishi⁴, and Hyun-Woo Kim⁴ ¹Inha University, ²Pohang Accelerator Laboratory, ³Korea University, ⁴Samsung Electronics Co., Ltd.</p>

<p>FP1-058</p>	<p>The Theoretical Study of the Decomposition Mechanism of C₂HF₅ and C₄F₈O. Mihyeon Cho and Sangheon Lee Department of Chemical Engineering and Materials Science, Ewha Womans University</p>
<p>FP1-059</p>	<p>Calculation of Decomposition Properties of Fluoro-ketone as C₃F₆O Minji Kim and Sangheon Lee Chemical Engineering and Materials Science, Ewha Womans University</p>
<p>FP1-060</p>	<p>Cryogenic Aspect Ratio Etching of SiO₂ Using CF₄/H₂/Ar Plasma in a Cryogenic Reactive Ion Etch System Hyeon Jo Kim, In Young Bang, Hee Tae Kwon, Jae Hyeon Kim, Seong Yong Lim, Seo Yeon Kim, Seong Hee Cho, Ji Hwan Kim, Woo Jae Kim, Gi Won Shin, and Gi-Chung Kwon Department of Electrical and Biological Physics, Kwangwoon University</p>

C. Material Growth & Characterization 분과

ZONE 4 (3층 로비)

FP1-061	<p>Ferroelectricity and Phase Pure Orthorhombic Formation in PLD-grown $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$ MoS_2 Negative Capacitance Field Effect Transistors</p> <p>Avis Wee Sin Hui¹, Pavan Pujar², Haewon Cho³, and Sunkook Kim¹</p> <p>¹Department of Advanced Materials Science and Engineering, Sungkyunkwan University, ²Indian Institute of Technology (IIT-BHU) Varanasi, ³Samsung Electronics Co., Ltd.</p>
FP1-062	<p>Polarization Control of Photocurrent in $\text{KNiF}_3/\text{BaTiO}_3$ Composite Ceramics</p> <p>Gwangbo Sim, Chang Won Ahn, Gu cheol Ahn, Ill Won Kim, and Tae Heon Kim</p> <p>Department of Physics and Energy Harvest-Storage Research Center (EHSRC), University of Ulsan</p>
FP1-063	<p>Highly Crystalline Flexible Oxide Membranes for Energy Harvesting</p> <p>Jiwon Kim, Muhammad Sheeraz, Chang Won Ahn, Ill Won Kim, and Tae Heon Kim</p> <p>Department of Physics and Energy Harvest-Storage Research Center (EHSRC), University of Ulsan</p>
FP1-064	<p>Probing Physical Properties of ZnSnN_2 Grown on GaN/c-sapphire Template Using Reactive RF-sputtering</p> <p>Juchan Hwang¹, Dohyun Kim¹, Chu-Young Cho², and Kwangwook Park^{1,3}</p> <p>¹Division of Advanced Materials Engineering, Jeonbuk National University, ²Electronic Devices Lab, KANC, ³Hydrogen and Fuel Cell Research Center, Jeonbuk National University</p>
FP1-065	<p>Highly Ordered $\text{Ti}_3\text{C}_2\text{T}_x$ MXene Film with Improved Mechanical Strength and Oxidation Resistance</p> <p>Colin Wing-Lok Cheng, Gang San Lee, and Sang Ouk Kim</p> <p>Department of Materials Science and Engineering, KAIST</p>
FP1-067	<p>Synthesis of Highly c-axis Oriented VSe_2 Thin Films on Si Substrates via a Hybrid Deposition Method</p> <p>Inhyeok Oh¹, Jung-Woo Lee², and Sanghan Lee¹</p> <p>¹GIST, ²Hongik University</p>
FP1-068	<p>Laser-assisted Synthesis of Multidimensional Polymorphic MoS_2 Crystals</p> <p>Chanjin Kim¹, Sunhwa Hong¹, Seoungwoong Park², and Byung Hee Hong¹</p> <p>¹Department of Chemistry, Seoul National University, ²RIST</p>
FP1-069	<p>Enhanced Remnant Polarization in TMDs-capped $\text{Hf}_{0.5}\text{Zr}_{0.5}\text{O}_2$ Thin Films</p> <p>Soyeon Lee and Sanghan Lee</p> <p>GIST</p>
FP1-070	<p>Analysis of Ar/H_2S Inductively Coupled Plasma Reaction Using Global Model for MoS_2 Synthesis</p> <p>Nayoon Kang¹, Tae-Hyun Kim², and Eun-Ho Lee^{1,2}</p> <p>¹Department of Mechanical Engineering, Sungkyunkwan University, ²Department of Smart Fab. Technology, Sungkyunkwan University</p>
FP1-071	<p>Energy-efficient Memcapacitor based on BiFeO_3: A Feasible In-memory Computing</p> <p>Jiwoong Yang and Sanghan Lee</p> <p>GIST</p>
FP1-072	<p>A Large-area Active-matrix Image Sensor based on Nanoporous MoS_2 Phototransistors with Enhanced Photoresponsivity and Uniformity</p> <p>Myat Thet Khine¹, Heekyeong Park², Anamika Sen¹, and Sunkook Kim¹</p> <p>¹Sungkyunkwan University, ²Samsung Electronics Co., Ltd.</p>
FP1-073	<p>Growth of HfSe_2 with in-situ BN Passivation for Improved Electrical Properties</p> <p>Jung Dae Lee and Sanghan Lee</p> <p>GIST</p>

<p>FP1-074</p>	<p>Exploring the Optical Defect Properties of Amorphous SiNx Using Spectroscopic Ellipsometry Hyun Don Kim^{1,2}, Minseon Gu¹, Xuan Au Nguyen³, Junghyeon Beak^{1,2}, Hanyeol Ahn¹, Tae Jung Kim³, Young Dong Kim³, Moonsup Han¹, Young Jun Chang^{1,2,4}, and E.J. Choi¹ ¹Department of Physics, University of Seoul, ²Department of Smart Cities, University of Seoul, ³Department of Physics, Kyung Hee University, ⁴Department of Intelligent Semiconductor, University of Seoul</p>
<p>FP1-075</p>	<p>P형 Tellurium FET의 저온 특성 분석 김민재^{1,2}, 이용수^{1,2}, 김규현^{1,2}, 김승모^{1,2}, 이해원^{1,2}, 전재현^{1,2}, 황현준^{1,2}, 이병훈^{1,2} ¹CSTC, POSTECH, ²Department of Electrical Engineering, POSTECH</p>
<p>FP1-076</p>	<p>Highly Efficient Vertical Outgassing Channel Technique for Direct Wafer Bonding and III-V Membrane Regrowth Honghwi Park, Hosung Kim, Dong-Hun Lee, and Won Seok Han Photonic/Wireless Devices Research Division, ETRI</p>
<p>FP1-077</p>	<p>Enhancing P-Type FET Performance in WSe₂ via Se-vacancy Healing and Oxygen Substitution HyeonHo Jeong, Haewon Cho, Younghyun Ju, and Sunkook Kim Sungkyunkwan University</p>
<p>FP1-078</p>	<p>Engineering In-Gap States of Silicon Nitride (SiN_x) for Charge Trap Flash Memory Hanyeol Ahn¹, Minseon Gu¹, Hyun Don Kim^{1,2}, Kyu-Myung Lee³, Jinwoo Byun⁵, Gukhyon Yon⁵, Yongsup Park³, E.J. Choi¹, Young Jun Chang^{1,2,4}, and Moonsup Han¹ ¹Department of Physics, University of Seoul, ²Department of Smart Cities, University of Seoul, ³Department of Physics, Kyung Hee University, ⁴Department of Intelligent Semiconductor, University of Seoul, ⁵Advanced Process Development Team, Semiconductor R&D Center, Samsung Electronics Co., Ltd.</p>
<p>FP1-079</p>	<p>Evaluation of Atomic-level Interfacial Layer Using AFM Minhyung Kim¹, Jina Kim¹, Yong Hyeon Cho², Seungjae Heo¹, Hu Young Jeong³, Min Hyuk Park², and Yunseok Kim¹ ¹School of Advanced Materials Science and Engineering, Sungkyunkwan University, ²Department of Materials Science and Engineering, Seoul National University, ³Graduate School of Semiconductor Materials and Devices Engineering, UNIST</p>
<p>FP1-080</p>	<p>Defect States of Al_xGa_{1-x}N Epilayers Grown on Si-doped GaN by Metal Organic Chemical Vapor Deposition Kyoung Su Lee¹, Joocheol Jeong², Yunseok Heo², Okhyun Nam², and Eun Kyu Kim¹ ¹Department of Physics and Research Institute of Natural Sciences, Hanyang University, ²Department of Nano & Semiconductor Engineering, Tech University of Korea</p>
<p>FP1-081</p>	<p>Room Temperature Growth of In-plane Controllable MgO Thin Film by Off-axis Sputtering for Monolithic 3D Integration of Epi-Ge Daeyoon Baek^{1,2}, Seung-Hwan Kim², Seong-hyun Son^{1,2}, Seung-heon Chris Baek², and Hyung-jun Kim² ¹School of Electrical Engineering, Korea University, ²Center for Spintronics, KIST</p>
<p>FP1-082</p>	<p>Epitaxial Growth 를 통한 Poly-Si 기판에서의 선택적 증착 특성 연구 김성준¹, 박준형², 정희운², 신왕철², 박인성³, 박영욱², 안진호^{1,2,4} ¹한양대학교 나노반도체공학과, ²한양대학교 신소재공학과, ³한양대학교 나노과학기술연구소, ⁴EUV-IUCC</p>
<p>FP1-083</p>	<p>Switching Control of ZnTe Layer Modulated by Bottom TiN Electrode Yeong Gwang Kim^{1,2}, Wansun Kim³, Sang Hwa Park⁴, Min Jay Kim^{1,2}, Jaeyeon Kim³, Tae Gyu Rhee^{1,2}, In Hak Lee⁵, Hyuk Jin Kim¹, Sang Mo Yang⁴, Hyunchul Sohn³, and Young Jun Chang^{1,2,6} ¹Department of Physics, University of Seoul, ²Department of Smart Cities, University of Seoul, ³Department of Material Science and Engineering, Yonsei University, ⁴Department of Physics, Sogang University, ⁵Department of Physics, UC Berkeley, ⁶Department of Intelligent Semiconductor Engineering, University of Seoul</p>

FP1-084	<p>Fabrication of Fe-MST Memory with Van Der Waals Heterostructure based on Characteristics of Ferroelectric HZO and Ferroelectric-phase Transition Material</p> <p>Do Kyeong Yun and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-085	<p>Observation of Ferroelectric Phase Transitions in Two-dimensional Hybrid Organic Inorganic Perovskites through Piezoresponse Force Microscopy</p> <p>Tae Hyun Jung¹, Yun Seung Kuk², Sang Woo Lee¹, Kang Min Ok², and Sang Mo Yang¹ ¹Department of Physics, Sogang University, ²Department of Chemistry, Sogang University</p>
FP1-086	<p>New Volatile Strontium Precursors for Next Generation Capacitor in DRAM</p> <p>Chanwoo Park², Chang Seop Hong¹, and Taek-Mo Chung² ¹Department of Chemistry, Korea University, ²Advanced Materials Division, KRICT</p>
FP1-087	<p>Strain Effect on the Ferroelectric Domain Morphology in Rhombohedral Multilayer Molybdenum Disulfide</p> <p>June Hee Shin, Sae-A Kim, and Sang Mo Yang Department of Physics, Sogang University</p>
FP1-088	<p>Post-heat Treatment Effect of Tin Monosulfide Synthesized by Metal Organic Chemical Vapor Deposition</p> <p>Ji Woon Choi¹ and Taek-Mo Chung^{1,2} ¹Thin Film Materials Research Center, KRICT, ²Department of Chemical Convergence Materials, UST</p>
FP1-089	<p>Si-assisted Growth of Multilayer h-BN on Ge</p> <p>Seung-Hwa Baek^{1,2} and Cheol-Joo Kim^{1,2} ¹Department of Chemical Engineering, POSTECH, ²Center of Van der Waals Quantum Solids, IBS</p>
FP1-090	<p>Growth of Amorphous BN Using Chemical Vapor Deposition to Find an Optimum Growth Condition</p> <p>Jun Sun Son and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-091	<p>도핑 제어된 전이금속 WSe₂/MoS₂ 이종 접합 포토 다이오드</p> <p>Sung Hyun Kim and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University</p>

E. Compound Semiconductors 분과

ZONE 4 (3층 로비)

<p>FP1-092</p>	<p>Growth of Hexagonal-shape Si Epilayer on 4H-SiC Using Mixed-source HVPE Seonwoo Park¹, Suhyun Mun¹, Kyoung Hwa Kim¹, Hyung Soo Ahn¹, Jae Hak Lee^{1,2}, Min Yang¹, Young Tea Chun¹, Sam Nyung Yi¹, Yeon-Suk Jang³, Won Jae Lee³, Myeong-Cheol Shin⁴, and Sang-Mo Koo⁴ ¹Department of Nano-Semiconductor Engineering, Korea Maritime and Ocean University, ²LNBS Co., Ltd., ³Department of Advanced Materials Engineering, Dong-Eui University, ⁴Department of Electronic Materials Engineering, Kwangwoon University</p>
<p>FP1-093</p>	<p>Growth of Ge-AlN Hexa-cone Core-shell Microneedles by AlN Nanowires Suhyun Mun¹, Seonwoo Park¹, Kyoung Hwa Kim¹, Hyung Soo Ahn¹, Jae Hak Lee^{1,2}, Min Yang¹, Young Tea Chun¹, Sam Nyung Yi¹, Yeon-Suk Jang³, Won Jae Lee³, Myeong-Cheol Shin⁴, and Sang-Mo Koo⁴ ¹Department of Nano-Semiconductor Engineering, Korea Maritime and Ocean University, ²LNBS Co., Ltd., ³Department of Advanced Materials Engineering, Dong-Eui University, ⁴Department of Electronic Materials Engineering, Kwangwoon University</p>
<p>FP1-094</p>	<p>Design and Analysis of Multiple Fin-type Vertical GaN Power Device based on Epitaxially Grown GaN-on-sapphire Jeong Woo Hong, Sang Ho Lee, Jin Park, Ga Eon Kang, Jun Hyeok Heo, So Ra Jeon, Min Seok Kim, Seung Ji Bae, and In Man Kang School of Electronic and Electrical Engineering, Kyungpook National University</p>
<p>FP1-095</p>	<p>Analysis of Thermal Characteristics of AlGaIn/GaN High Electron Mobility Transistors by Adjusting Recessed Source-connected Field-plate: A Simulation Study Ji-Hun Kim, Jae-Hun Lee, and Hyun-Seok Kim Division of Electronics and Electrical Engineering, Dongguk University</p>
<p>FP1-096</p>	<p>Growth and Device Characterization of 6 inch GaAs Metamorphic High Electron Mobility Transistors (mHEMTs) Jae-Phil Shim¹, Hyunchul Jang¹, Ki-Yong Shin¹, Yongeun Kim¹, Geunuk Han¹, Yunji Jeong¹, Myungsoo Park¹, Seung Heon Shin², Donghyun Kim¹, and Chan-Soo Shin¹ ¹KANC, ²Korea Polytechnics</p>
<p>FP1-097</p>	<p>Properties of Post Annealed Ga₂O₃ Thin Films Grown on Si Substrates by MOCVD at Low Temperature Jang Beom An, Nam Jun Ahn, Hyung Soo Ahn, Kyung Hwa Kim, and Min Yang Department of Nano-Semiconductor Engineering, Korea Maritime and Ocean University</p>
<p>FP1-098</p>	<p>First Demonstration of HZO/β-Ga₂O₃ Ferroelectric FinFET for High-Performance Power Devices Seohyeon Park¹, Jaewook Yoo¹, Hyeonjun Song¹, Soyeon Kim¹, Hongseung Lee¹, Seongbin Lim¹, Minah Park¹, Peide D. Ye², and Hagyoul Bae¹ ¹Jeonbuk National University, ²Purdue University</p>
<p>FP1-099</p>	<p>Thermal Conductivity Measurement of Gallium Nitride Thin Films Using Thermoreflectance Jihyun Kim and Jungwan Cho Sungkyunkwan University</p>
<p>FP1-100</p>	<p>Ti 및 Ni 금속 기판 위에 MOCVD 방법에 의해 저온 성장한 Ga₂O₃ 박막들의 특성 평가 Ji Ye Lee, Seon Jin Mun, Dong Ho Lee, Nam Jun Ahn, Jang Beom Ahn, Hyung Soo Ahn, Kyoung Hwa Kim, and Min Yang Electronic Material Engineering, Korea Maritime and Ocean University</p>
<p>FP1-101</p>	<p>Effect of Ramp Rates of Oxidation Temperature on the Characteristics of 4H-SiC MOS Capacitor Young Jae Park¹, Seongjun Kim¹, Joon Kim², Hyeon Ju Hwang¹, Yu Jeong Lee¹, Kyeong-Keun Choi¹, Myung Jin Park¹, Woong-Suk Yang¹, Sung-Woong Han¹, Dae-Hwan Kang^{1,3}, and Hoon-Kyu Shin¹ ¹National Institute for Nanomaterials Technology, POSTECH, ²Center for Semiconductor Technology Convergence, POSTECH, ³Department of Semiconductor Engineering, POSTECH</p>

<p>FP1-102</p>	<p>Epitaxial Growth and Characterization of GaAs-mHEMT with InP Two-step Metamorphic Buffer Using MOCVD Hyunchul Jang¹, Jaephil Shim¹, Yongeun Kim¹, Ki-Yong Shin¹, Geunuk Han¹, Yunji Jeong¹, Seung Heon Shin², Sooseok Kang¹, Keun Man Song¹, Yongsu Choi¹, Donghyun Kim¹, and Chan-Soo Shin¹ ¹KANC, ²Korea Polytechnics</p>
<p>FP1-103</p>	<p>Improving Contact Resistance in InAs Nanowires through Surface Passivation and Annealing Yeon Hak Mu and Jae Cheol Shin 동국대학교 전자전기공학부</p>
<p>FP1-104</p>	<p>Analysis of Switching Characteristics of 1.2 kV SiC Trench MOSFETs for Improving Breakdown Voltage Yeongeun Park¹, Hyowon Yoon¹, Chaeyun Kim¹, Sangyeob Kim¹, Gyuhyeok Kang¹, Jinhun Kim¹, Gukhwa Jeon¹, Sumin Park¹, Dusan Baek¹, Kanghee Shin¹, Jaejin Song², Jeongyun Lee², Soontak Kwon², and Ogyun Seok¹ ¹Kumoh National Institute of Technology, ²KEC</p>
<p>FP1-105</p>	<p>매립형 산화막 구조를 통한 1.2 kV SiC MOSFET 의 스위칭 특성 개선 윤효원, 김채운, 박영은, 김상엽, 강규혁, 김진훈, 박수민, 백두산, 석오균 금오공과대학교</p>
<p>FP1-106</p>	<p>Investigation of Post-Annealing on Self-Powered UV-C Photodetector based on High-Performance p-NiO/β-Ga₂O₃ Heterojunction Taejun Park, Yusup Jung, TaiYoung Kang, and SinSu Kyoung Powercubesemi Inc.</p>
<p>FP1-107</p>	<p>Application of High-Power PECVD for GaN HEMTs Arim Choi, Yumin Koh, Jiseon Lee, Chuyoung Cho, Dae Young Kim, Eunhae Jun, Yun-hee Shin, Dong-Hyun Kim, and Kwang-Seok Seo KANC</p>
<p>FP1-108</p>	<p>Ferroelectric Characteristic of Hf_{0.5}Zr_{0.5}O_x Film on InGaAs Substrate with Annealing Temperature Engineering and Electric-Field Cycling Yoon-Je Suh, Jaeyong Jeong, Bong Ho Kim, Song-Hyeon Kuk, Seong Kwang Kim, Joon Pyo Kim, and Sangheyon Kim KAIST</p>
<p>FP1-109</p>	<p>Effect of Anneal Conditions of Al-implanted p-type Junction on a Specific Resistance and a TCR(Temperature Coefficient of Resistance) in 4H-SiC MOSFETs Kyeong-Keun Choi¹, Su Kon Kim¹, Seongjeen Kim², and Jae Kyoung Mun³ ¹POSTECH, ²Kyungnam University, ³ETRI</p>
<p>FP1-110</p>	<p>A 150-mm Wafer Process Technology for Schottky-type p-GaN Gate HEMTs Jiseon Lee, Yumin Koh, Arim Choi, Myungsoo Park, Eunhae Jun, Yun-hee Shin, Dong-Hyun Kim, and Kwang-Seok Seo KANC</p>
<p>FP1-111</p>	<p>A Semi-control-gate Transistor based on MoS₂/MoTe₂ Heterostructure with the Tunable Multi-valued Logic Characteristic Jing-Yao Yu^{1,2} and Gyu-Tae Kim^{1,2} ¹Nano Devive Lab., ²Korea University</p>
<p>FP1-112</p>	<p>Investigation of the Temperature Sensitivity and the Sensing Voltage Drift of the Body Diode of SiC Power MOSFET Inho Kang, Kinam Song, Kihyun Kim, Kyoungho Lee, and Jonghyun Kim KERI</p>

FP1-113	<p>Gate Reliability of Schottky-type p-GaN Gate HEMTs Under Time Dependent Gate Stress</p> <p>Eunchae Jun, Yumin Koh, Jiseon Lee, Arim Choi, Deoksoo Park, Sang Hyun Jung, Dong-Hyun Kim, and Kwang-Seok Seo</p> <p>KANC</p>
FP1-114	<p>멀티에피를 이용한 1,700V P-Shielding Trench Gate MOSFET 성능 개선</p> <p>안병섭, 남태진, 김대희, 강태영, 경신수</p> <p>Powercubesemi Inc.</p>
FP1-115	<p>Control Doping Concentration of Sn-doped α-Ga₂O₃ Epitaxial Films by Mist-CVD</p> <p>Jang Hyeok Park^{2,3} and You Seung Rim^{1,2,3}</p> <p>¹Department of Intelligent Mechatronics Engineering, ²Intelligent Convergence Engineering, ³Semiconductor System Engineering, Sejong University</p>
FP1-116	<p>P형 물질의 홀 농도에 따른 D-Mode GaN HEMT 문턱전압 연구</p> <p>Hyun-Ho Jeong¹, Hyeon-Young Jeong¹, Hyeon-Cheol Kim¹, Sakhone Pharkphoumy¹, Taehoon Jang², Chel-Jong Choi¹, Dae Woo Kim², and Kyu-Hwan Shim^{1,2}</p> <p>¹Jeonbuk National University, ²R&D Division, Sigetronics Inc.</p>
FP1-117	<p>Optimization of Double p-base SiC MOSFETs for Reaching SiC Limit</p> <p>Junghun Kim, Inho Kang, and Hyoung Woo Kim</p> <p>KERI</p>
FP1-118	<p>열특성을 이용한 광반도체 광특성 평가</p> <p>마병진, 정태희, 최성순, 이관훈</p> <p>KETI</p>
FP1-119	<p>Optimization and Characterization of p-type Gallium Nitride Contacts for High Power Device Applications</p> <p>Donghan Kim^{1,2}, Hongsik Park¹, Sung-Beum Bae², and Hyung-seok Lee²</p> <p>¹School of Electronic and Electrical Engineering, Kyungpook National University, ²ETRI</p>
FP1-120	<p>AlGaIn/GaN HD-GIT 의 Dynamic R_{on}개선 연구</p> <p>Min-Keun Lee, Jun-hyeok Yim, and Ho-Young Cha</p> <p>School of Electronic and Electrical Engineering, Hongik University</p>
FP1-121	<p>The Energy Transfer of Eu²⁺/Mn²⁺ in Cation Disordered Ba₆CaNaYAl₂Si₆O₂₄ Phosphors for NUV-LED Applications</p> <p>Heonji Ha¹, Jeonghun Lee², and Sangmoon Park^{1,2,3}</p> <p>¹Department of Electronics-Energy Materials, Silla University, ²Division of Energy and Chemical Engineering Major in Energy and Applied Chemistry, Silla University, ³Department of Fire Protection and Safety Management, Silla University</p>
FP1-122	<p>High Efficiency Single Junction GaAs Thin-film Solar Cell with Deep Junction on an Al Carrier</p> <p>Doyoung Yuk¹, Wook Kim¹, Younghan Yook¹, Sujong Kim¹, Minseong Seo¹, Haoyan Rong¹, Sangin Kim^{1,2}, and Jaejin Lee^{1,2}</p> <p>¹Department of Intelligence Semiconductor Engineering, Ajou University, ²Department of Electrical and Computer Engineering, Ajou University</p>
FP1-123	<p>Design and Simulation of Normally-Off GaN FINFET</p> <p>Soo-Young Moon^{1,2}, Sang-Mo Koo¹, Sung-Beum Bae², and Hyung-seok Lee²</p> <p>¹Department of Electronic Materials Engineering, Kwangwoon University, ²ETRI</p>

G. Device & Process Modeling, Simulation and Reliability 분과

ZONE 2 (2층 로비)

FP1-124	<p>Random Dopant Fluctuation에 따른 FBFET의 전기적 특성 변화 분석</p> <p>전주희, 조경아, 김상식 고려대학교 전기전자공학과</p>
FP1-125	<p>채널 도핑 농도에 따른 다결정 실리콘 FBFET의 전기적 특성 연구</p> <p>박태호, 조경아, 김상식 고려대학교 전기전자공학과</p>
FP1-126	<p>채널 길이와 두께에 따른 FBFET 배열 소자의 IMP 연산 신뢰성 연구</p> <p>오정윤, 전주희, 손재민, 조경아, 김상식 고려대학교 전기전자공학과</p>
FP1-127	<p>Study on the Sustainability of Low-Temperature Deuterium Annealing for Damaged Gate Dielectric by Ionizing Radiation</p> <p>Hyo-Jun Park, Tae-Hyun Kil, Ju-Won Yeon, and Jun-Young Park Chungbuk National University</p>
FP1-128	<p>Phase-field and Electrothermal Simulation of Conductive Filament Behavior in Resistive Memory for Neuromorphic Applications with Varied Pulse Voltages and Initial Defects</p> <p>Chanhoo Park, Dongmyung Jung, and Yongwoo Kwon Hongik University</p>
FP1-129	<p>A Study on ESD Performance depending on Power Clamp Structure</p> <p>Dong-sin Kim, Young-bum Eom, Heon Park, Tae-ho Yeom, Hwang-gon Jeon, Ji-hye Jang, and Sun-ha Hwang SK hynix system ic</p>
FP1-130	<p>Numerical Analysis of Warpage by HBM Structure during Hybrid Bonding</p> <p>Seong-Hwan Park and Eun-Ho Lee Sungkyunkwan University</p>
FP1-131	<p>A Novel Capacitorless 1T DRAM with Self-refresh Mechanism</p> <p>Sang Ho Lee, Jin Park, Ga Eon Kang, Jun Hyeok Heo, So Ra Jeon, Min Seok Kim, Seung Ji Bae, Jeong Woo Hong, and In Man Kang School of Electronic and Electrical Engineering, Kyungpook National University</p>
FP1-132	<p>Efficient Improvements of Poly-Based Resistor Variation Employing Implantation Impact for Achieving High Yield of Mobile Display Driver IC</p> <p>Myeonghwan Kim, Jooyeok Seo, Dong-Il Park, Youngmok Kim, Kyunglyong Kang, Jun-gu Kang, and Yongsang Jeong Foundry Division, Samsung Electronics Co., Ltd.</p>
FP1-133	<p>A Novel ESD Protection Diode with Dual Current Path for High ESD Performance</p> <p>Youngbum Eom, Myoungchul Lim, Woojong Lee, Myunghee Nam, and Jeongsoo Park SK hynix system ic</p>
FP1-134	<p>다중 목적 베이지안 최적화를 활용한 차세대 트랜지스터 설계</p> <p>정현준, 공정택, 김소영 성균관대학교 정보통신대학</p>
FP1-135	<p>래치업 면역 특성 및 고전압 어플리케이션을 위한 N-Stack 기술을 이용한 SCR 기반 ESD 보호소자에 대한 연구</p> <p>Jeong Min Lee¹, Sang Wook Kwon², Seung Gu Jeong², Seung Hwan Baek¹, U Yeol Seo¹, and Yong-Seo Koo² ¹Department of Foundry Engineering, Dankook University, ²Department of Electronics and Electrical Engineering, Dankook University</p>

FP1-136	<p>고전압 ESD 보호를 위한 PNP 소자 설계 방법 연구</p> <p>Myoungchul Lim, Woojong Lee, Youngbum Eom, Myunghee Nam, and Jeongsoo Park TD (ESD), R&D Center, SK hynix system ic</p>
FP1-137	<p>회로 성능 기반 차세대 트랜지스터의 Inverse Design</p> <p>최진영, 공정택, 김소영 성균관대학교 정보통신대학</p>
FP1-138	<p>Optimization of Work Function Material for Enhanced N-type and P-type Device Performance</p> <p>Min Kyun Sohn, Jeong Woo Park, Sang Hoon Kim, Wang Joo Lee, Seong Hyun Lee, and Dong Woo Suh ETRI</p>
FP1-139	<p>로직 어플리케이션을 위한 델타전도 스위칭 소자의 Scalability 연구</p> <p>전재현^{1,2}, 이용수^{1,2}, 김기영^{1,2}, 김민재^{1,2}, 이해원^{1,2}, 황현준^{1,2}, 이병훈^{1,2} ¹CSTC, POSTECH, ²Department of Electrical Engineering, POSTECH</p>
FP1-140	<p>Local Plasma Treatment Effect on TMD Device Analyzed by DC and LFN</p> <p>Jiyoon Kim¹, Yonghun Kim², and Hyunjin Ji¹ ¹Department of Electrical Engineering, University of Ulsan, ²Department of Energy & Electronic Materials, KIMS</p>
FP1-141	<p>Comparison between Au and Al Top Electrode in MoS₂ Memristor</p> <p>Hee Yoon Jang, Do Young Kim, Min Chul Chun, and Seoung-Ki Lee School of Materials Science and Engineering, Pusan National University</p>
FP1-142	<p>Finite-bias Molecular Dynamics Simulations of Water at the Electrified Graphene Surface</p> <p>Hyeonwoo Yeo, Juho Lee, Ryong Gyu Lee, and Yong-Hoon Kim School of Electrical Engineering, KAIST</p>
FP1-143	<p>Strain-induced Phase Transformation In MoTe₂: A Phase-field Simulation Study</p> <p>Muhammad Hassaan Ali, Won-Kyu Lee, and Yongwoo Kwon Hongik University</p>
FP1-144	<p>Modeling and Analysis on DRAM Cell Write Failure due to Word-line Metal Void Formation</p> <p>Donggyu Heo, Dongsik Kong, Kijae Huh, Junsoo Kim, Jeonghoon Oh, Ilgweon Kim, Jemin Park, and Jaihyuk Song Semiconductor R&D Center, Samsung Electronics Co., Ltd.</p>
FP1-145	<p>Study on Leakage Current and Scaling Limit of Cell Transistor Gate Oxide in DRAM for TDDB Reliability</p> <p>Ji hye Kwon, Pyung Moon, Myeong jin Bang, Dong sik Gong, Kyul Ko, Jun bum Lee, Jea hyun Choi, Jun soo Kim, Jeong hoon Oh, Il gweon Kim, Je min Park, and Jai hyuk Song Samsung Electronics Co., Ltd.</p>
FP1-146	<p>Study on the Breakdown Voltage Characteristics of SiC Planar MOSFET by Changing P-base Doping Level</p> <p>Seung Hwan Baek¹, Sang Wook Kwon², Seung Gu Jeong², Jeong Min Lee¹, U Yeol Seo¹, and Yong Seo Koo² ¹Department of Foundry Engineering, Dankook University, ²Department of Electronics and Electrical Engineering, Dankook University</p>
FP1-147	<p>First-principles Approach for the Capacitor Characteristics of Two-dimensional Heterojunctions based on Electrostatic Potential Embedding</p> <p>Ryong-Gyu Lee, Kaptan Rajput, Tae Hyung Kim, and Yong-Hoon Kim School of Electrical Engineering, KAIST</p>

FP1-148	<p>Reliability Assessment Method for Development of High Quality Gate Oxide in DRAM Transistor</p> <p>Su Hyun Kim, Sang Il Han, Gyu Hyun Lee, Hyuck Chai Jung, Jun Soo Kim, Sung Ho Jang, Jeong Hoon Oh, Il Gweon Kim, Je Min Park, and Jai Hyuk Song</p> <p>Samsung Electronics Co., Ltd.</p>
FP1-149	<p>Indium Gallium Arsenide Electron and Phonon Properties Study by Density Functional Theory</p> <p>Tae Hui Lee and Byoung Don Kong</p> <p>Department of Electrical Engineering, POSTECH</p>
FP1-150	<p>Non-equilibrium First-principles Simulations of Transition Metal Dichalcogenide Field Effect Transistors</p> <p>Seunghyun Yu, Tae Hyung Kim, and Yong-Hoon Kim</p> <p>School of Electrical Engineering, KAIST</p>
FP1-151	<p>Simulation of Crystallization in Deposited Semiconductor Thin Films Using Phase Field Method.</p> <p>Jung In Park, Hwanwook Lee, and Yongwoo Kwon</p> <p>Hongik University</p>
FP1-152	<p>Analysis of Interconnect Structures for Thermal Reliability Improvement and Study of Improved Structures</p> <p>Tae Yeong Hong and Seul Ki Hong</p> <p>Department of Semiconductor Engineering, Seoul National University of Science and Technology</p>
FP1-153	<p>Impacts of Plasma-Induced Physical Damage on DRAM High-k Metal Gate Transistor Oxide Reliability Degradation</p> <p>Sanggyu Ko, Hyuck-chai Jung, Sungho Jang, Junsoo Kim, Jeonghoon Oh, Ilgweon Kim, Jemin Park, and Jaihyuk Song</p> <p>DRAM Technology Development, Samsung Electronics Co., Ltd.</p>
FP1-154	<p>Ising Machine based on Ovonic Threshold Switch Oscillator</p> <p>Young Woong Lee¹, Unhyeon Kang^{1,3}, Sangheon Kim^{1,2}, Seungmin Oh^{1,3}, Jaewook Kim^{1,3}, Daseung Jeong¹, Jingyeong Hwang¹, and Suyoun Lee^{1,5}</p> <p>¹Center for Neuromorphic Engineering, KIST, ²Department of Materials Science and Engineering, Korea University, ³Materials Science & Engineering, Seoul National University, ⁴Department of Materials Science & Engineering, Seoul National University of Science and Technology, ⁵Division of Nano & Information Technology, Korea University of Science and Technology</p>
FP1-155	<p>First-principles Study of Gating-Based Modulation Defect Energy Levels in Hexagonal Boron Nitride on MoS₂</p> <p>Ji-Yoon Song, Ryong-Gyu Lee, and Yong-Hoon Kim</p> <p>School of Electrical Engineering, KAIST</p>
FP1-156	<p>Electronic Structures of Ovonic Threshold Switching Chalcogenide Materials from First-principles Simulations</p> <p>Su-Bong Lee¹, Young-Min Kim^{1,2}, and Jong-Souk Yeo¹</p> <p>¹School of Integrated Technology, Yonsei University, ²BK21 Graduate Program in Intelligent Semiconductor Technology</p>
FP1-157	<p>FBFET Model Using Artificial Neural Network for Circuit Simulation</p> <p>Seung Su Jeong and Yun Seop Yu</p> <p>Major of ICT & Robotics Engineering, Hankyong National University</p>
FP1-158	<p>Strain & Low-temperature Behavior of Quantum Hybridization Negative Differential Resistance from Non-Pb 1D Halide Perovskite</p> <p>Jeongwon Lee, Tae Hyung Kim, Juho Lee, and Yong-Hoon Kim</p> <p>School of Electrical Engineering, KAIST</p>

FP1-159	<p>Investigation of Electrical Performance of Vertical MoS₂ Transistors</p> <p>So Min An, Hyun Woo Kim, Sang Hwa Lee, and Bongjoong Kim Hongik University</p>
FP1-160	<p>Investigation of Breakdown Performance in Multi-Finger HS nLDMOS according to the Length between Drain and Iso Contact</p> <p>Semyung Kwon, Jieun Lee, Jong Min Kim, and Hyun Chul Nah Device Enabling Team, DB HiTek</p>
FP1-161	<p>Enhancement of the Electrical Safe Operating Area with Deep p-Well in LDMOS</p> <p>Jieun Lee, Jong Min Kim, and Hyun Chul Nah Device Enabling Team, DB HiTek</p>
FP1-162	<p>TCAD Simulation Method of Hot Carrier Degradation in LDMOS</p> <p>Jihye Park¹, Jieun Lee¹, Jong Min Kim¹, Jungho Kim², Junhee Cho², Hyewon Du², and Hyun Chul Nah¹ ¹Device Enabling Team, DB HiTek, ²Device Development Team, DB HiTek</p>
FP1-163	<p>Investigation of Transport Phenomenon and Conduction Mechanism in HfO₂-Based Metal-Ferroelectric-Metal Capacitor</p> <p>Ki-Sik Im¹ and Ho-Young Cha² ¹Department of Green Semiconductor System, Daegu Campus, Korea Polytechnics, ²School of Electronic and Electrical Engineering, Hongik University</p>
FP1-164	<p>Investigation of Contact Resistance between WO_x Channel and Metal Electrodes in Electrochemical Random-Access Memory</p> <p>Juhee Kim, Junyoung Choi, Seungkun Kim, Hyunjeong Kwak, and Seyoung Kim Department of Materials Science and Engineering, POSTECH</p>
FP1-165	<p>Whole-Chip All-Directional ESD Protection Circuit with SCR Structure for Low Voltage Applications</p> <p>Bo-Bae Song, Young-chul Kim, and Hyun-chul Nah Device Enabling Team, DB HiTek</p>
FP1-166	<p>Impact of Work-function Variation on Inverter Characteristics of a Gate-all-around Complementary FET (CFET) for 3-nm Technology Nodes</p> <p>Seong-Ji Min, Sang-pill Kim, Eun-young Park, Jun-hyeok Lee, Hae-yong Park, Hyeong-kyu Jin, and Hyun-Yong Yu Korea University</p>
FP1-167	<p>Extraction of Subgap Density-of-States in AOS TFTs through Capacitance-Voltage Characteristics Considering Photovoltaic Effect</p> <p>Sueng Hyeop Han, Haesung Kim, Ju Young Park, Jong-Ho Bae, Sung- Jin Choi, Dae Hwan Kim, and Dong Myong Kim Kookmin University</p>
FP1-168	<p>Quantitative Modeling of the Endurance Degradation in NAND Flash Memory</p> <p>Han Byeol Oh and Byung Chul Jang School of Electronic and Electrical Engineering, Kyungpook National University</p>
FP1-169	<p>Breakdown Voltage Improvement in Junction Isolation Type LDMOS</p> <p>Sin Wook Kim, Dong Yeong Kim, Su Yeon Kim, Je Won Park, Chae Hyuk Lim, and Myoung Jin Lee Department of ICT Convergence System Engineering, Chonnam National University</p>
FP1-170	<p>Switching Performance Improvements of RRAM by Applying Protruding Top Electrode and Utilizing Surface Roughness: Multi-physics Simulations</p> <p>Jeonghwan Jang and Mincheol Shin School of Electrical Engineering, KAIST</p>

FP1-171	<p>Development of High Voltage ESD Lateral PNP with Base External Resistor and NWELL Cut-out</p> <p>Young Sang Son, Young Chul Kim, and Jong Min Kim Technology Enabling Design Support Team, DB HiTek</p>
FP1-172	<p>A Physic-Based Numerical Model for Potentiation/Depression Characteristics of Electrochemical Metallization Memristor</p> <p>Yeongkwon Kim and Byung Chul Jang School of Electronic and Electrical Engineering, Kyungpook National University</p>
FP1-173	<p>Comparative Analysis of the Low-Frequency Noise Behavior of a-IGZO TFT with Different Source/Drain Metal</p> <p>Junseong Park, Seongwon Lee, Haesung Kim, Hyunwook Jeong, Yubin Choi, Sung-Jin Choi, Dae Hwan Kim, Dong Myong Kim, and Jong-Ho Bae School of Electronic Engineering, Kookmin University</p>
FP1-174	<p>Analysis on Drain Current Transient Response in Amorphous InGaZnO_x Thin-Film Transistors</p> <p>Yubin Choi, Haesung Kim, Hyojin Yang, Sejun Park, Junseong Park, Sung-Jin Choi, Dae Hwan Kim, Dong Myong Kim, and Jong-Ho Bae School of Electrical Engineering, Kookmin University</p>
FP1-175	<p>3D Simulation Study of an Edge Termination for Improving Breakdown Characteristics</p> <p>Jee Hun Jeong, Min Seok Jang, Da Hui Yoo, Jung Bok Lee, and Ho Jun Lee Pusan National University</p>
FP1-176	<p>D-mode Short Circuit Failure Simulation of Silicon IGBT</p> <p>Da Hui Yoo¹, Jee Hun Jeong¹, Min Seok Jang¹, Jung Bok Lee¹, Won Seok Kwon², and Ho Jun Lee¹ ¹Pusan National University, ²TRinno Technology Co., Ltd.</p>
FP1-177	<p>Ar/CF₄ 플라즈마 식각 공정 내 물리적 스퍼터링에서 화학적 스퍼터링으로의 전이에 따른 고중황비 SiO₂ 식각 프로파일 변화에 대한 전산모사 연구</p> <p>최병엽¹, 김시준², 정원녕¹, 이영석², 성인호¹, 조철희¹, 최민수¹, 설유빈², 이우빈¹, 서성현¹, 유신재^{1,2} ¹Department of Physics, Chungnam National University, ²Institute of Quantum System (IQS), Chungnam National University</p>
FP1-178	<p>Analysis of Silicon RC-IGBT for Improving Forward Voltage with Backside Processing</p> <p>Jung Bok Lee¹, Jee Hun Jeong¹, Da Hui Yoo¹, Min Seok Jang¹, Jun Seong Kim², and Ho Jun Lee¹ ¹Pusan University, ²TRinno Technology Co., Ltd.</p>
FP1-179	<p>Impact of Atomic Arrangements in Te-Based Binary Ovonic Threshold Switches during Switching Process in Local Biasing System</p> <p>Young-Min Kim^{1,2}, Su-Bong Lee¹, Sangyeop Kim^{1,2}, and Jong-Souk Yeo¹ ¹School of Integrated Technology, College of Computing, Yonsei University, ²BK21 Graduate Program in Intelligent Semiconductor Technology</p>

<p>FP1-180</p>	<p>Study of Transparent Conductive Oxide through Electrical and Optical Properties of SrRuO₃ Deposited on Glass and PET Substrates Seung Woo Baek¹, Jun Hyeok Byeon¹, Ahn Hyung Soo¹, Jang Nak Won¹, Ji-Hoon Ahn², and Hong Seung Kim¹ ¹Korea Maritime and Ocean University, ²Hanyang University ERICA</p>
<p>FP1-181</p>	<p>Near-Infrared Quantum Efficiency Improvement via Process Optimization for CIS Application Suhye Park, So-Yun Kim, Hyun Yoo, Nam Yoon Kim, Hyo Sik Kim, Young-Ju Lee, Chang Ki Lee, Keun Hyuk Lim, Jun ho Won, and Won Ho Lee SK hynix system ic</p>
<p>FP1-182</p>	<p>Polymer Light-emitting Diodes by Using 3PTZ and 3PXZ Small Molecular Hole-transport Layer Ji-Yeon Kim¹, Ju Hee You¹, Seok Ho Seo¹, and Dong Ick Son^{1,2,3} ¹Institute of Advanced Composite Materials, KIST, ²KIST School, UST, ³Department of Nanomaterials and Nano Science, UST</p>
<p>FP1-183</p>	<p>A Study on the Drain Induced Barrier Lowering of IGO TFT Using TCAD Simulation Seon Woong Bang and Jae Kyeong Jeong Department of Electronic Engineering, Hanyang University</p>
<p>FP1-184</p>	<p>HZO-Based Ferroelectric FET Using Oxide Semiconductor He Young Kang and Jae Kyeong Jeong Department of Electronic Engineering, Hanyang University</p>
<p>FP1-185</p>	<p>Enhancing IGZO/Quantum-dots Broadband Photo Sensor through Ga₂O₃ Passivation Layer Yongjun Jeong and JaeKyeong Jeong Department of Electronic Engineering, Hanyang University</p>
<p>FP1-186</p>	<p>Wavy Structure-Based Thin-Film Transistor for Stretchable Displays Jeong Eun Oh and Jae Kyeong Jeong Department of Electronics Engineering, Hanyang University</p>
<p>FP1-187</p>	<p>Bifunctional Solution-processed Thin Film Transistors with Organic Dielectrics for High Performance and Stability Min Ki Kim, Seung Yeon Koh, Hwa Pyeong Noh, Hyo Won Jang, Swarup Biswas, and Hyeok Kim School of Electrical and Computer Engineering, University of Seoul</p>
<p>FP1-188</p>	<p>Comparative Study of 3-D Field-Effect-Transistors with Indium-Gallium-Zinc Oxide Channel by TCAD Simulation Yena Kim and Jae Kyeong Jeong Department of Electronic Engineering, Hanyang University</p>
<p>FP1-189</p>	<p>Optimization of Hf_xZr_{1-x}O₂ Ferroelectric Field-effect Transistors by IGZO Channel Oxygen Vacancy Control Kyong Jae Kim², Eun Seo Jo², and You Seung Rim^{1,2} ¹Department of Intelligent Mechatronics Engineering and Convergence Engineering for Intelligent Drone, Sejong University, ²Department of Semiconductor Systems Engineering and Institute of Semiconductor and System IC, Sejong University</p>
<p>FP1-190</p>	<p>Facile Fabrication of Strain-Insensitive Capacitive Touch Sensor for Stretchable Displays Geonoh Choe and Yei Hwan Jung Department of Electronic Engineering, Hanyang University</p>

FP1-191	<p>Hybrid PDMS Stamp for Micro-LED Transfer</p> <p>Seol Ahn and 철희 Department of Electronic Engineering, Hanyang University</p>
FP1-192	<p>Transparent Red OLED Using AZO-Ag-AZO Electrode as Anode</p> <p>Yong Hyeok Seo¹, Won Woo Lee¹, Dongwoon Lee¹, Dong Gyun Kim¹, Young Woo Kim¹, Minseong Park², Ye Ji Shin², Yongmin Jeon², Sang Jik Kwon¹, and Eou-Sik Cho¹</p> <p>¹Department of Electronic Engineering, Gachon University, ²Department of Biomedical Engineering, Gachon University</p>
FP1-193	<p>Rapid Photonic Curing Effects of Xenon Flash Lamp on Sputtered AZO-Ag-AZO Multilayer TCO Films</p> <p>Yong Hyeok Seo¹, Won Woo Lee¹, Dong Gyun Kim¹, Kirak Kim¹, Yongmin Jeon², Sang Jik Kwon¹, and Eou-Sik Cho¹</p> <p>¹Department of Electronic Engineering, Gachon University, ²Department of Biomedical Engineering, Gachon University</p>
FP1-194	<p>Vacancy Engineering of Copper Iodide Semiconductor for High-performance p-Type Thin-film Transistors</p> <p>Hyun-Ah Lee¹, Hyo-Won Jang¹, Tae In Kim², Ick-Joon Park³, and Hyuck-In Kwon¹</p> <p>¹Chung-Ang University, ²Inha University, ³Joongbu University</p>
FP1-195	<p>Influence of Oxygen Content on Output Characteristics of IGZO TFTs during High Current Operation</p> <p>Chae-Eun Oh¹, Dong-Ho Lee¹, Myeong-Ho Kim², Kyoung Seok Son², Jun-Hyung Lim², Sang-Hun Song¹, and Hyuck-In Kwon¹</p> <p>¹Chung-Ang University, ²Samsung Display Co., Ltd.</p>
FP1-196	<p>Effects of Al₂O₃ Surface Passivation on the Radiation Stability of IGTO Thin Film Transistors under High-Energy X-ray Irradiation</p> <p>Hyun-Ah Lee¹, Hyo-Won Jang¹, Kie Yatsu¹, Ick-Joon Park², and Hyuck-In Kwon¹</p> <p>¹Chung-Ang University, ²Joongbu University</p>
FP1-197	<p>A Study on the Incorporation Behavior of In, Ga, and Zn in IGZO Thin Films according to Sub-Cycle Ratio during Thermal Atomic Layer Deposition</p> <p>Hanseok Jeong¹, Soo Min Yoo¹, Minki Choe², In-Hwan Baek², and Woojin Jeon¹</p> <p>¹Department of Advanced Materials Engineering for Information and Electronics, and Integrated Education Program for Frontier Science & Technology (BK21 Four), Kyung Hee University, ²Department of Chemical Engineering, Inha University</p>
FP1-198	<p>High-Performance p-Type Tellurium Thin Film Transistors with Organic-Inorganic Hybrid Passivation Layer</p> <p>Jong-Sang Oh¹, Joon-Young Lee¹, Seung-Hyun Lim¹, Tae In Kim², Ick-Joon Park³, and Hyuck-In Kwon¹</p> <p>¹Chung-Ang University, ²Inha University, ³Joongbu University</p>
FP1-199	<p>TFT Off Current Stabilization Method : Using Machine Learning ANN</p> <p>Won Woo Lee¹, Hyun Woo Kim¹, Yong Hyeok Seo¹, Yun Hyeok Jeong¹, Yongmin Jeon², Sang Jik Kwon¹, Zong Woo Geem³, and Eou-Sik Cho¹</p> <p>¹Department of Electronic Engineering, Gachon University, ²Department of Biomedical Engineering, Gachon University, ³Department of Smart City, Gachon University</p>
FP1-200	<p>Surface Pre-treatment in Molybdenum Disulfide Atomic Layer Deposition for Next-generation Channel Materials</p> <p>Soo Min Yoo¹, Hanseok Jeong¹, Minki Choe², In-Hwan Baek², and Woojin Jeon¹</p> <p>¹Department of Advanced Materials Engineering for Information and Electronics, and Integrated Education Program for Frontier Science & Technology (BK21 Four), Kyung Hee University, ²Department of Chemical Engineering, Inha University</p>

<p>FP1-201</p>	<p>Effects of Channel Width on Electrical Performance Degradation in IGZO TFTs under Self-heating Stresses</p> <p>Dong-Ho Lee¹, Jin-Ha Hwang¹, Myeong-Ho Kim², Kyoung Seok Son², Jun-Hyung Lim², Sang-Hun Song¹, and Hyuck-In Kwon¹</p> <p>¹Chung-Ang University, ²Samsung Display Co., Ltd.</p>
<p>FP1-202</p>	<p>Enhancing Stability of CsPbBr₃ Perovskite Quantum Dots via Atomic Layer Deposition for Light-Emitting Diodes</p> <p>Min Ju Kim¹, Ju Young Woo², and Seong-Yong Cho¹</p> <p>¹Department of Photonics and Nanoelectronics, Hanyang University, ²Digital Transformation R&D Department, KITECH</p>
<p>FP1-203</p>	<p>Self-Assembled Monolayer에 의한 금속-산화물 반도체 사이의 Metal Oxide 형성 억제와 접촉 저항 개선</p> <p>Dowan Kang¹, Juyoung Yun¹, and Yoonyoung Chung^{1,2,3}</p> <p>¹Department of Electrical Engineering, POSTECH, ²Department of Semiconductor Engineering, POSTECH, ³Center for Semiconductor Technology Convergence, POSTECH</p>
<p>FP1-204</p>	<p>Device Feasibility and Process Optimization of Atomic-Layer Deposited Al Doped ZnO Thin Films as Electrodes for Oxide TFT Applications</p> <p>Ye-Jin Seo¹, Young-Ha Kwon², Nak-Jin Seong², Kyu-Jeong Choi², and Sung-Min Yoon¹</p> <p>¹Kyung Hee University, ²NCD Co., Ltd.</p>
<p>FP1-205</p>	<p>Ligand-Exchanged NiO Nanoparticles as a Hole Injection Layer of Quantum Dot LED</p> <p>Hyojun Lim¹, Thi Huong Thao Dang¹, Nayoon Lee¹, Sunwoo Jin¹, Van Khoe Vo¹, Joon-Hyung Lee¹, Byoung-Seong Jeong², and Young-Woo Heo¹</p> <p>¹School of Materials Science and Engineering, Kyungpook National University, ²Department of Hydrogen and Renewable Energy, Kyungpook National University</p>
<p>FP1-206</p>	<p>Improved Light Extraction Efficiency and Color Control in Quantum Dot LEDs Using Metal-Insulator-Metal (MIM) Structure</p> <p>Eun Sang Lee¹, Hyuntai Kim², and Seong-Yong Cho¹</p> <p>¹Department of Photonics and Nanoelectronics, Hanyang University, ²Department of Electronic and Electrical Convergence Engineering, Hongik University</p>
<p>FP1-207</p>	<p>Enhanced QLED Performance through Improved Charge Balance Using Doped NiO as the Hole Injection Layer.</p> <p>Nayoon Lee¹, Hyojun Lim¹, Van Khoe Vo¹, Thi Huong Thao Dang¹, Byoung-Seong Jeong², Joon-Hyung Lee¹, and Young-Woo Heo¹</p> <p>¹School of Materials Science and Engineering, Kyungpook National University, ²Department of Hydrogen and Renewable Energy, Kyungpook National University</p>
<p>FP1-208</p>	<p>A Study on the Logarithmic Sensitivity of X-ray Detectors with Multiple Pinning Voltages</p> <p>Du Hee Lee, Nak won Yu, Jong Min Kim, and Hyun Chul Nah</p> <p>Device Enabling Team, DB HiTek</p>
<p>FP1-209</p>	<p>Improvement of Uniformity on Spray-printed Organic Electrochemical Transistors with Thermally-assisted Reformation</p> <p>Dongyeol Seo, Donguk Kim, and Felix Sunjoo Kim</p> <p>School of Chemical Engineering and Materials Science, Chung-Ang University</p>
<p>FP1-210</p>	<p>Demonstration of Vertically Stacked Dual-color Micro-LED Using CMOS-compatible Monolithic 3D Integration Technology for Ultra-high Resolution Display</p> <p>Hyunsu Kim, Juhyuk Park, Woo Jin Baek, and SangHyeon Kim</p> <p>School of Electrical Engineering, KAIST</p>

FP1-211	<p>Metal Ion-Doped Metal-Oxide Dielectric and Semiconducting Films for Low-Voltage Operating Thin-Film Transistors</p> <p>Se-Ryong Park, Sang-Joon Park, and Tae-Jun Ha Department of Electronic Materials Engineering, Kwangwoon University</p>
FP1-212	<p>Resistive Random-access Memory Properties for Cu₂CoSnS₄ Films on the ITO Glass via Direct Spin-coating Process</p> <p>Seo-young Jo, Taewon Jin, Gyubeen Kim, Yujin Choi, and Sung Hun Jin Department of Electronic Engineering, and I-Nanofab Center, Incheon National University</p>
FP1-213	<p>Low-Cost, Spin-On Dopant Based N-type MOSFET Implementation for Active Matrixed Micro-Light-Emitting Diode Display Operation</p> <p>Hanmin Kim, Hogeon Jeon, Chaeyeong Kim, Taeyeon Lee, Changsoo Park, and Sung Hun Jin Department of Electronic Engineering, and I-Nanofab Center, Incheon National University</p>
FP1-214	<p>Monolithic Integration of p-GaN/AlGaN/GaN Driving IC for Active-Matrix Micro-LEDs</p> <p>Hee Jae Oh, Jun Hyeok Lim, and Ho Young Cha Hongik University</p>
FP1-215	<p>Solvent Dependency on Copper-Iodide Film Formation via Dip-Coating and Their RRAM Properties</p> <p>Geun Lee, Da Han Lee, Tae Ho Kang, Tae Won Jin, Woo In Kim, and Sung Hun Jin Department of Electronic Engineering, and I-Nanofab Center, Incheon National University</p>

FP1-216	<p>Bismuth Doping Strategies in GeTe to Enhance Phase-change Transition</p> <p>Chang Woo Lee¹, Hyeonwook Lim¹, Yeonwoo Seong¹, and Mann-Ho Cho^{1,2}</p> <p>¹Department of Physics, Yonsei University, ²Department of System Semiconductor Engineering, Yonsei University</p>
FP1-217	<p>Selective Synthesis of Atomically-thin Semiconducting Materials and Its Electronics Applications</p> <p>Seoungwoong Park¹, Han Duk Song¹, Suk Yong Jung¹, Junwoo Kim¹, Jaekwang Song², and Chan-Jin Kim³</p> <p>¹RIST, ²Semiconductor R&D Center, Samsung Electronics Co., Ltd., ³Seoul National University</p>
FP1-218	<p>Performance Enhancement of MoS₂ Transistor based on Metallic NbS₂ as a Local Bottom Gate Electrode</p> <p>Hyun Young Seo¹ and Byungjin Cho^{1,2}</p> <p>¹Department of Urban, Energy, and Environmental Engineering, Chungbuk National University, ²Department of Advanced Material Engineering, Chungbuk National University</p>
FP1-219	<p>Electrochemical Doping of Metal Halide Perovskites</p> <p>Yongjin Kim¹, Dohyun Kim¹, Eunje Park¹, Jeongjae Lee², Takhee Lee³, and Keehoon Kang¹</p> <p>¹Department of Materials Science and Engineering, Seoul National University, ²School of Earth and Environmental Sciences, Seoul National University, ³Department of Physics and Astronomy, Seoul National University</p>
FP1-220	<p>MoS₂ Field Effect Transistor with Graphene-embedded Al₂O₃ Gate Dielectric Structure</p> <p>Eunjeong Cho^{1,2} and Byungjin Cho^{1,2}</p> <p>¹Department of Advanced Material Engineering, Chungbuk National University, ²Department of Urban, Energy, and Environmental Engineering, Chungbuk National University</p>
FP1-221	<p>Molecular Level Modulation by Electrolyte Gating in Mixed SAM Molecular Vertical Junctions</p> <p>Donguk Kim, Changjun Lee, Minwoo Song, Jongwoo Nam, Hyemin Lee, and Takhee Lee</p> <p>Department of Physics and Astronomy, Seoul National University</p>
FP1-222	<p>Exploring the Impact of Dimensional Engineering on the Reliability and Performance of Metal Halide Perovskite Field-Effect Transistors</p> <p>Hyeonmin Choi, Joonha Jung, Yongjin Kim, Taehyun Kong, and Keehoon Kang</p> <p>Department of Materials Science and Engineering, Seoul National University</p>
FP1-223	<p>Human-muscle-inspired Single Fibre Actuator with Reversible Percolation</p> <p>Kee Woong Oh, In Ho Kim, and Sang Ouk Kim</p> <p>Department of Materials Science & Engineering, KAIST</p>
FP1-224	<p>High Rate and Large Capacity Supercapacitors by Three-dimensional Shape Engineering, Interfacial Gelation of Reduced Graphene Oxide</p> <p>S. J. Cha, U. N. Maiti, and S. O. Kim</p> <p>KAIST</p>
FP1-225	<p>Highly Sensitive Multi-sensing Memristor based on CuBr Thin Film</p> <p>Juyoung Jin¹, Young-Seok Song¹, Seungyeon Kim¹, Jongwon Yoon³, and Tae-Wook Kim^{1,2}</p> <p>¹Jeonbuk National University, ²JBNU-KIST, ³KIMS</p>
FP1-226	<p>Exploring the Interplay between Plasmonic Hot Electron-coupled Photoconductive Energy Conversion and Defect States in N-face GaN</p> <p>Jihyang Park¹, Kyoung Su Lee², Jeechan Yoon¹, Jina Bak¹, Bolim You¹, Eun Kyu Kim², and Moonsang Lee¹</p> <p>¹Department of Materials and Engineering, Inha University, ²Department of Physics, Hanyang University</p>

FP1-227	<p>Metallic NbSe₂ Used for Van Der Waals Contacts to 2D WSe₂ Channel</p> <p>Hoseong Shin, Hyokwang Park, and WonJong Yoo SKKU Advanced Institute of Nano Technology, Sungkyunkwan University</p>
FP1-228	<p>Influence of Oxidation State on Voltage-controlled Magnetic Anisotropy</p> <p>Ji-Hyeon Yun^{1,2}, Ji-won Yoon^{1,2}, Hyun-jun Lee^{1,3}, Si-yeol Lee¹, Sang-Ho Lim², and Seung-heon Chris Baek¹</p> <p>¹Center for Spintronics, KIST, ²Department of Materials Science and Engineering, Korea University, ³Department of Electrical Engineering, Korea University</p>
FP1-229	<p>Enhancing Spin-orbit Torque in Pt and W Multilayers</p> <p>Ji-won Yoon^{1,2}, Hyun-jun Lee^{1,3}, Ji-hyeon Yun^{1,2}, Si-yeol Lee¹, Sang-ho Lim², and Seung-heon Chris Baek¹</p> <p>¹Center for Spintronics, KIST, ²Department of Materials Science and Engineering, Korea University, ³Department of Electrical Engineering, Korea University</p>
FP1-230	<p>Tunneling-Based Source Follower for Low Noise Image Sensor</p> <p>Ki Yeong Kim¹, Hyangwoo Kim¹, Kyoungwan Oh¹, Hyeongseok Yoo¹, Sungbond Park², Jaekyu Lee², Chang-Ki Baek¹, and Ju Hong Park¹</p> <p>¹POSTECH, ²Samsung Electronics Co., Ltd.</p>
FP1-231	<p>Piezoresistive Ti₃C₂T_x MXene/ Graphene Nanoribbon Composite for Highly Accurate Pressure Sensor</p> <p>Chan Woo Lee, Ho Jin Lee, and Sang Ouk Kim Department of Material Science & Engineering, KAIST</p>
FP1-232	<p>Artificial Sensory Electronic Skin Devices</p> <p>Jiyong Yoon, Yewon Kim, and Donghee Son Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-233	<p>Charge Transfer Doping of 2D Perovskites via Bulk Incorporation of Organic Molecular Dopants</p> <p>Jonghoon Lee¹, Jeongjae Lee², Kyeong-Yoon Baek¹, Heebeom Ahn¹, Yongjin Kim³, Hyungbin Lim¹, Yeeun Kim¹, Jaeyong Woo¹, Keehoon Kang³, and Takhee Lee¹</p> <p>¹Department of Physics and Astronomy, Seoul National University, ²School of Earth and Environmental Sciences, Seoul National University, ³Department of Materials Science and Engineering, Seoul National University</p>
FP1-234	<p>Broad-range Modulation of Guest-species Interactions in MoS₂ Transistors for Electrochemical Phase Transitions</p> <p>Jaeun Kwon¹, Hanbin Cho², and Joonki Suh^{1,2}</p> <p>¹Graduate School of Semiconductor Materials and Devices Engineering, UNIST, ²Department of Materials Science and Engineering, UNIST</p>
FP1-235	<p>Effective Lubricating Effect of OD Nanodiamonds for Highly Bendable and Stretchable Graphene Liquid Crystalline Fibers</p> <p>Jin-Hyo Kim, Jin Goo Kim, and Sang Ouk Kim Department of Material Science & Engineering, KAIST</p>
FP1-236	<p>Enhanced Electrostatic Controllability of MoS₂ FETs Using Dual Gate Structure</p> <p>Habin Baek¹, Kyungmin Ko², Chanho Lee², and Joonki Suh^{1,2}</p> <p>¹Graduate School of Semiconductor Materials and Devices Engineering, UNIST, ²Department of Materials Science and Engineering, UNIST</p>
FP1-237	<p>The Flow Field-flow Fractionation Based Size Selection Methodology Used as Effective Wide-range Size Separation for Graphene Oxide</p> <p>J. U. Jang, H. J. Choi, and S. O. Kim Department of Material Science & Engineering, KAIST</p>

FP1-238	<p>Pt-Ta Multilayer Channels for Energy Efficient Spin-orbit Torque MRAM</p> <p>Lee Hyun-jun^{1,2}, Yoon Ji-won^{1,3}, Yun Ji-hyeon^{1,3}, Lee Si-yeol¹, B.K. Ju², and Seung-heon Chris Baek¹</p> <p>¹Center for Spintronics, KIST, ²Department of Electrical Engineering, Korea University, ³Department of Materials Science and Engineering, Korea University</p>
FP1-239	<p>텅스텐 이황화물 수직 이중구조의 무질서와 쿨롬 상호작용이 금속-절연체 전이에 미치는 영향</p> <p>Hyungyu Choi, Nasir Ali, Inhee Jung, and Won Jong Yoo</p> <p>SKKU Advanced Institute of Nano Technology, Sungkyunkwan University</p>
FP1-240	<p>Effect of RTA Process on Heavy Metal/CoFeB/MgO Heterostructures for P-MTJ</p> <p>Si-yeol Lee¹, Ji-won Yoon^{1,2}, Hyun-jun Lee^{1,3}, Ji-hyeon Yun^{1,2}, and Seung-heon Chris Baek¹</p> <p>¹Center for Spintronics, KIST, ²Department of Materials Science and Engineering, Korea University, ³Department of Electrical Engineering, Korea University</p>
FP1-241	<p>Developing Advanced Interfacial Phase Change Materials with Selectively Modulating Covalency of the Superlattice</p> <p>Hyeonwook Lim¹, Chang-woo Lee¹, and Mann-Ho Cho^{1,2}</p> <p>¹Department of Physics, Yonsei University, ²Department of System Semiconductor Engineering, Yonsei University</p>
FP1-242	<p>Imitation on Signal Degradation Procedure in Neural System with Ferroelectric Neuromorphic Transistor via Photocrosslinking</p> <p>Young-Seok Song¹, Dae-Hong Kim¹, Juyoung Jin¹, Hyeonji Joo¹, Minyoung Seo¹, Sneha Bhise¹, and Tae-Wook Kim^{1,2}</p> <p>¹Jeonbuk National University, ²Jeonbuk National University-KIST</p>
FP1-243	<p>Enhancing the Electrical Properties of Thin-Film Transistors through the Incorporation of Two-Dimensional Metal Nanosheets into the Semiconducting Channel</p> <p>Hyeonji Joo¹, Young-Seok Song¹, Seungyeon Kim¹, and Tae-Wook Kim^{1,2}</p> <p>¹Jeonbuk National University, ²Jeonbuk National University-KIST</p>
FP1-244	<p>Tilt-engineered Molecular-scale Selector Capable of Enhancing Pattern Recognition Accuracy</p> <p>Jung Sun Eo¹, Jaeho Shin², Takkyeong Jeon¹, Jingon Jang¹, and Gunuk Wang¹</p> <p>¹KU-KIST Graduate School of Converging Science & Technology, Korea University, ²Department of Chemistry, Rice University</p>
FP1-245	<p>Low Temperature and Solution-processed Sol-gel Aluminium Oxide Charge-trap Layer for Floating Gate Memory Transistors and Their Artificial Synapse Application</p> <p>Sneha Bhise¹, Young-Seok Song¹, Dae-Hong Kim¹, and Tae-Wook Kim^{1,2}</p> <p>¹Jeonbuk National University, ²Jeonbuk National University-KIST</p>
FP1-246	<p>Atomic Reconstruction of Transition Metal Dichalcogenides Hetero-bilayers with Large Lattice Mismatch</p> <p>Seongchul Hong¹, Ji-Hwan Baek¹, Yunyeong Chang¹, Hong M. Nguyen², Changheon Kim^{1,3}, Yeonjoon Jung¹, Hyeongseok Lee¹, Kenji Watanabe⁴, Takashi Taniguchi⁴, Jangyup Son³, Hyeonsik Cheong², Miyoung Kim¹, and Gwan-Hyoung Lee¹</p> <p>¹Seoul National University, ²Sogang University, ³KIST, ⁴National Institute for Materials Science</p>
FP1-247	<p>2D Reliable Electromagnetic Interference (EMI) Shielding Properties of 2D Copper@Copper Oxide Core-Shell Nanosheets Film</p> <p>Minyoung Seo¹, Seungyeon Kim¹, and Tae-Wook Kim^{1,2}</p> <p>¹Jeonbuk National University, ²Jeonbuk National University-KIST</p>
FP1-248	<p>Double-sided Charge Transfer Doping Method for 2D WSe₂ FET</p> <p>Kwangro Lee¹, Brian S. Y. Kim^{2,3}, Hoseong Shin¹, James Hone², and Won Jong Yoo¹</p> <p>¹Department of Nano Science and Technology, SKKU Advanced Institute of Nanotechnology, Sungkyunkwan University, ²Department of Mechanical Engineering, Columbia University, ³Department of Materials Science and Engineering, University of Arizona</p>

FP1-249	<p>Laterally Stitched 2D Metal–semiconductor Junction with Low Contact Resistance Fabricated by Pd-to-PdTe₂ Transition</p> <p>Jaewoong Joo, Hyeong Sung, Hyunjun Kim, Yoona Kim, Byeongchan Kim, and Gwan-Hyoung Lee Department of Materials Science and Engineering, Seoul National University</p>
FP1-250	<p>Spintronic Artificial Synapse based on Voltage-controlled Magnetic Easy-axis</p> <p>Jimin Jeong¹, Yun-ho Jang², Min-Gu Kang¹, Seungeon Hwang², Jongsun Park², and Byong-Guk Park¹ ¹Department of Materials Science and Engineering, KAIST, ²Department of Electrical Engineering, Korea University</p>
FP1-251	<p>Lateral Junctions of Twisted and Zero-twisted Transition Metal Dichalcogenide Heterobilayers via Atomic Reconstruction</p> <p>Hyeong Seok Lee, Ji-Hwan Baek, Seong Chul Hong, and Gwan-Hyoung Lee Department of Material Science and Engineering, Seoul National University</p>
FP1-252	<p>Multi-terminal Floating Gate Memristor in Van Der Waals Heterostructures for Unsupervised Learning</p> <p>Mi Hyang Park and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-253	<p>Wafer-scale Integration of Logic Circuits Using 2D-MoS₂ FETs with a Buried-Gate Structure</p> <p>Ju-Ah Lee^{1,2}, Jongwon Yoon¹, and Yonghun Kim¹ ¹Department of Energy & Electronic Materials, Surface & Nano Materials Division, KIMS, ²School of Materials Science and Engineering, Pusan National University</p>
FP1-254	<p>One-dimensional WO_x-Based Physical Reservoir Computing for Wearable Neuromorphic Applications</p> <p>Hyojin Shin¹, Haein Cho¹, Dae-Hong Kim², Tae-Wook Kim², and Gunuk Wang¹ ¹Korea University, ²Jeonbuk National University</p>
FP1-255	<p>Stochastic P-bits Generation by Spin-Orbit Torques in Magnetic Trilayers</p> <p>Donghyeon Han¹, Chaehyeon Shin², Seok-Jong Kim¹, Yunho Jang², Geun-Hee Lee¹, Jeongchun Ryu¹, Makoto Kohda³, Junsaku Nitta³, Kab-Jin Kim¹, Jongsun Park², Kyung-Jin Lee¹, and Byong-Guk Park¹ ¹KAIST, ²Korea University, ³Tohoku University</p>
FP1-256	<p>Gate-injection Synaptic Transistors based on 2D Van Der Waals Heterojunction with Band Offset</p> <p>Won-seok Choi and Gwan-Hyoung Lee Department of Materials Science and Engineering, Seoul National University</p>
FP1-257	<p>Inkjet-printed Stretchable Thin-film Transistors with Van Der Waals Heterostructures</p> <p>Jiwoo Yang^{1,3}, Jongsung Kim¹, Kyungjune Cho¹, Takhee Lee², Yongtaek Hong³, and Seungjun Chung¹ ¹Soft Hybrid Materials Research Center, KIST, ²Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University, ³Department of Electrical & Computer Engineering, Seoul National University</p>
FP1-258	<p>High-Performance Near-Infrared Photodetection via Gate Modulation in GeAs/ReS₂ Heterostructures</p> <p>Byung Hoon Lee^{1,3}, Jung Ho Kim^{1,2}, and Ki Kang Kim^{1,3} ¹Department of Energy Science, Sungkyunkwan University, ²Department of Materials Science and Metallurgy, University of Cambridge, ³CINAP, IBS</p>
FP1-259	<p>Reconfigurable VO₂ Mott Memristor for Neuromorphic Electronics</p> <p>Gwaneong Park, Sanghyeon Choi, and Gunuk Wang KU-KIST Graduate School of Converging Science and Technology, Korea University</p>

FP1-260	<p>Reconfigurable Two-dimensional Floating Gate Field-effect Transistors for Highly Integrated In-memory Computing</p> <p>June-Chul Shin^{1,5}, Taegyun Park^{1,5}, Dong Hoon Shin^{1,5}, Hyun-Young Choi^{1,5}, Kenji Watanabe², Takashi Taniguchi³, Yeonwoong Jung⁴, Cheol Seong Hwang¹, and Gwan-Hyoung Lee¹</p> <p>¹Department of Materials Science and Engineering, Seoul National University, ²Research Center for Functional Materials, National Institute for Materials Science, ³International Center for Materials Nanoarchitectonics, National Institute for Materials Science</p>
FP1-261	<p>Inkjet-Printed Polyelectrolyte-coated BaTiO₃ Based Capacitor Arrays for Physical Unclonable Function</p> <p>Woongki Hong¹, Murali Bissannagari², Donghoon Lee¹, and Hongki Kang¹</p> <p>¹Department of Electrical Engineering and Computer Science, DGIST, ²Information and Communication Research Center, DGIST</p>
FP1-262	<p>Tailoring Thermoelectric Properties of Large-Area MoS₂ Films with Effective Doping Strategies</p> <p>Sooyeon Moon^{1,2}, Kyungjune Cho¹, and Seungjun Chung¹</p> <p>¹Soft Hybrid Materials Research Center, KIST, ²Department of Material Science and Engineering, Seoul National University</p>
FP1-263	<p>Dynamic Response Analysis of 2D TMD Channel FETs with Compact Modeling</p> <p>Yeon Su Kim and Gyu-Tae Kim</p> <p>School of Electrical Engineering, Korea University</p>
FP1-264	<p>Dual-gate Graphene Field-effect Transistor with a Thin HfO₂ Insulator</p> <p>Dong Yeong Kim, Jun woo Kim, Young Jun Rho, and Sang Hyun Lee</p> <p>School of Chemical Engineering, Chonnam National University</p>
FP1-265	<p>금속-ReS₂ 엣지 접촉시 발생하는 비등방성 전하 수송</p> <p>Hyokwang Park¹, Myeongjin Lee¹, Xinbiao Wang¹, Nasir Ali¹, Kenji Watanabe², Takashi Taniguchi², Euyheon Hwang¹, and Won Jong Yoo¹</p> <p>¹SKKU Advanced Institute of Nano-Technology, Sungkyunkwan University, ²National Institute for Materials Science</p>
FP1-266	<p>Contact Resistance Effects on Vertical Carrier Density Profile and Surface Defect Density of WSe₂ Multilayers</p> <p>Dahyun Choi, Eunji Sim, Young-Hye Son, and Min-Kyu Joo</p> <p>Department of Applied Physics, Sookmyung Women's University</p>
FP1-267	<p>Modulation of Interlayer Resistance Driven by Vertical Conducting Channel Migration within Multilayer WSe₂</p> <p>Yeongseo Han, Minji Chae, Suin Seong, Hyejin Kim, and Min-Kyu Joo</p> <p>Department of Applied Physics, Sookmyung Women's University</p>
FP1-268	<p>Electrical Characterization of Metal-Hexagonal Boron Nitride-Graphene Multilayers for Nanoscale Light Source Applications</p> <p>Seunghwan Moon^{1,2}, Young-Min Kim^{1,2}, and Jong-Souk Yeo¹</p> <p>¹School of Integrated Technology, College of Computing, Yonsei University, ²BK21 Graduate Program in Intelligent Semiconductor Technology, Yonsei University</p>
FP1-269	<p>Development of CMOS-integrated TiOx Memristor Array for In-memory Computing</p> <p>Yeon Seo An¹, Jingon Jang¹, Dowon Kim³, Byunggeun Lee³, and Gunuk Wang^{1,2}</p> <p>¹KU-KIST Graduate School of Converging Science and Technology, ²Department of Integrative Energy Engineering, Korea University</p>
FP1-270	<p>Three-terminal Vertical HZO Ferroelectric Synapse for High-performance and Energy-efficient Pattern Recognition</p> <p>Yongjun Kim¹, Seonghoon Jang¹, Jihoon Jeon³, Seonggil Ham¹, Sanghyeon Choi¹, Seong-Keun Kim³, Jingon Jang¹, and Gunuk Wang^{1,2,4}</p> <p>¹KU-KIST Graduate School of Converging Science and Technology, ²Department of Integrative Energy Engineering, Korea University, ³Electronic Materials Research Center, KIST, ⁴Center for Neuromorphic Engineering, KIST</p>
FP1-271	<p>Development of All-solid State Organic Electrochemical Transistor for Neuromorphic Applications</p> <p>Chung-Bi Han¹ and Gunuk Wang²</p> <p>¹KU-KIST Graduate School of Converging Science & Technology, Korea University, ²Department of Integrative Energy Engineering, Korea University</p>

FP1-272	<p>Modulation of Metal-insulator Transition in Single-crystalline VO₂ Films for Switching Device Applications</p> <p>Ki Hoon Shin¹, Sumin Jeong¹, Eunmin Kim¹, Woong-Ki Hong², and Jung Inn Sohn¹</p> <p>¹Division of Physics and Semiconductor Science, Dongguk University, ²Center for Scientific Instrumentation, KBSI</p>
FP1-273	<p>Strain-mediated Excitonic Behaviors at the Interface of Heterostructured 2D Transition Metal Dichalcogenides</p> <p>Eunmin Kim¹, Ki Hoon Shin¹, Sangyeon Pak², and Jung Inn Sohn¹</p> <p>¹Division of Physics and Semiconductor Science, Dongguk University, ²School of Electronics and Electrical Engineering, Hongik University</p>
FP1-274	<p>Lateral-dual Gate CNT FET for Physical Unclonable Function Applications</p> <p>Jeong Yeon Im¹, Hyo-In Yang¹, Hanbin Lee¹, Jeonghee Ko¹, Yulim An¹, GyeongSu Min¹, So Jeong Park¹, Jun-Ho Jang¹, Dong Myong Kim¹, Dae Hwan Kim¹, Jong-Ho Bae¹, Min-Ho Kang², and Sung-Jin Choi¹</p> <p>¹School of Electrical Engineering, Kookmin University, ²Department of Nano-process, NNFC</p>
FP1-275	<p>Van Der Waals Epitaxially-grown Molecular Crystal Dielectric α-Sb₂O₃ for 2D Electronics</p> <p>Huije Ryu², Hyunjun Kim¹, Jae Hwan Jeong¹, Byeong Chan Kim¹, and Gwan-Hyoung Lee¹</p> <p>¹Department of Materials Science and Engineering, Seoul National University, ²New Material Lab, SAIT, Samsung Electronics Co., Ltd.</p>
FP1-276	<p>Development of Ferroelectric Field-Effect Transistor Using a Stack of Halide Perovskite Channel and HZO Thin Film for Neuromorphic Electronics</p> <p>Donghyeok Kim¹, Young ran Park¹, Chanhyeok Kim¹, Jihoon Jeon³, Seong Keun Kim³, Hanul Min^{1,2}, and Gunuk Wang^{1,2}</p> <p>¹KU-KIST Graduate School of Converging Science and Technology, Korea University, ²Department of Integrative Energy Engineering, Korea University, ³Electronic Materials Research Center, KIST</p>
FP1-278	<p>TMDs/Si Heterojunction Photodetectors: A Step towards High-Performance Photodetector</p> <p>Beomsu Jo, Singri Ramu, Sung Hyeon Cha, and Young Lae Kim</p> <p>Department of Electronic Engineering, Gangneung-Wonju University</p>
FP1-279	<p>Photon-Based Radiation Exposure Study on Transparent Conducting Oxide Semiconductor Operating in Radiation-Rich Environments</p> <p>Junho Noh and Byoungdeog Choi</p> <p>Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-280	<p>Microwave Annealed High Performance a-IGTO Thin Film Transistor</p> <p>Sungsoo Park and Byoungdeog Choi</p> <p>Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-281	<p>Electrical Analysis of MoS₂ FET on HZO Film</p> <p>In Kyu Yoon¹, Ki Seok Heo¹, Dong Hyun Kim¹, Jung Chun Kim¹, Sang Hyeok Kim¹, So Mi Lee¹, Seung Gyu Lee¹, YeChan Jung¹, Yun Hye Jang¹, Jiae Jeong², Jiyong Woo², and Jae Woo Lee¹</p> <p>¹Department of Electronics & Information Engineering, Korea University, ²Department of Electronics Engineering, Kyungpook National University</p>
FP1-282	<p>Shell Thickness Dependence of Strain Profile and Electronic Structure of InP-Based Colloidal Quantum Dots</p> <p>Jin Hyong Lim and Nobuya Mori</p> <p>Graduate School of Engineering, Osaka University</p>
FP1-283	<p>Complementary 2D Tunnel FETs with Extremely Asymmetric Dual-barrier Heterostructures</p> <p>Hanbin Cho¹, Seonguk Yang¹, Donggyu Park², and Joonki Suh^{1,2}</p> <p>¹Department of Materials Science and Engineering, UNIST, ²Graduate School of Semiconductor Materials and Devices Engineering, UNIST</p>
FP1-284	<p>2-dimensional High-sensitivity Gas Molecule Detector with Variable Metal/Semiconductor Junction Schottky Barrier</p> <p>Ji Hun Sim and Woo Jong Yu</p> <p>Department of Electrical and Computer Engineering, Sungkyunkwan University</p>

FP1-285	<p>Insertion of an Interfacial Layer for Schottky Barrier Modulation in RRAM Using Finite Element Method</p> <p>Sagar Khot, Dongmyung Jung, and Yongwoo Kwon Department of Materials Science and Engineering, Hongik University</p>
FP1-286	<p>Single-ended Sense Amplifier with Offset Cancellation</p> <p>Kee Won Kwon and Jin-Gon Oh Sungkyunkwan University</p>
FP1-287	<p>Self-enabled Write Assist Cells for High-density SRAM in Resistance Dominated Technology Node</p> <p>Minjune Yeo¹, Keonhee Cho², Seung Jae Yei¹, and Seong-Ook Jung¹ ¹Yonsei University, ²Samsung Electronics Co., Ltd.</p>
FP1-288	<p>Development and Optimization of Ferroelectric Hafnium Oxide Thin Film Fabrication Processes</p> <p>Yu Jin Jeong and Keon Jae Lee Department of Materials Sciences and Engineering, KAIST</p>
FP1-289	<p>유기물 기반 비휘발성 전하 포획형 메모리 두께 증가에 따른 전기적 특성에 관한 연구</p> <p>Jun Hyup Jin, Ji In Kim, In Su Park, Ji Ho Yu, Nam Ki Hwang, and Min Ju Kim Department of Foundry Engineering, Dankook University</p>
FP1-290	<p>피드백 전계효과 트랜지스터의 시냅스 동작 특성 연구</p> <p>신연우, 조경아, 김상식 고려대학교 전기전자공학과</p>
FP1-291	<p>Threshold Switching – Phase Change Memory (TS-PCM), which Simultaneously Achieves the Plasticity of Neurons and Synapses</p> <p>Sang Hyun Sung, Kyung Bae Kim, and Keon Jae Lee Department of Materials Sciences and Engineering, KAIST</p>
FP1-292	<p>A Study on the Sense Amplifier Scheme of eFuse OTP IP</p> <p>Heon Park, Hwang-gon Jeon, Ji-hye Jang, Tae-ho Yeom, Dong-shin Kim, and Sun-ha Hwang SK hynix system ic</p>
FP1-293	<p>Unidentified Phase Transition of Elemental Tellurium in the Ovonic Threshold Selector Device</p> <p>Namwook Hur¹, Seunghwan Kim¹, Sohui Yoon¹, Changhwan Kim¹, and Joonki Suh^{1,2} ¹Department of Materials Science and Engineering, UNIST, ²Graduate School of Semiconductor Materials and Devices Engineering, UNIST</p>
FP1-294	<p>Process Variability Analysis in 3D NAND Macaroni Structures: Machine Learning for Predicting Program and Erase Characteristics</p> <p>Hwanhee Chan Choi¹, Jangkyu Lee¹, and Hyungcheol Shin^{1,2} ¹Inter-University Semiconductor Research Center, Department of Electrical and Computer Engineering, Seoul National University, ²Integra Semiconductor Co., Ltd.</p>
FP1-295	<p>A Study on Auto Tracking of VREF for Reading Low Density Memory IP</p> <p>Hwang-gon Jeon, Heon Park, Ji-hye Jang, Tae-ho Yeom, Dong-shin Kim, and Sun-ha Hwang SK hynix system ic</p>
FP1-296	<p>Investigation of Z-interference based on The Confined Nitride Trap Layer Structure in 3D NAND Flash Memory</p> <p>Ye Eun Kim and Jong Kyung Park Department of Semiconductor Engineering, Seoul National University of Science and Technology</p>

FP1-297	<p>Analysis of Program Speed Degradation with ON Pitch Scaling in 3D NAND Flash Memory</p> <p>Hee young Bae and Jong Kyung Park Department of Semiconductor Engineering, Seoul National University of Science and Technology</p>
FP1-298	<p>Temperature Dependency of Endurance and Recovery Characteristics in 3D NAND Flash Memories</p> <p>Donghyuk So^{1,2}, Yonggyu Cho³, Hyunyoung Shim³, Jaesung Sim³, and Hyungcheol Shin^{1,2,4}</p> <p>¹Inter-University Semiconductor Research Center, Seoul National University, ²Department of Electrical and Computer Engineering, Seoul National University, ³NAND Technology Development Division Team, SK hynix, ⁴Integra Semiconductor Co., Ltd.</p>
FP1-299	<p>Development of Polymer/NMO Composite Based Resistive Random Access Memory</p> <p>Yu-Kyung Kim¹ and Jea Young Choi²</p> <p>¹Department of Metallurgical Engineering, Dong-A University, ²Department of Materials Sciences & Engineering, Dong-A University</p>
FP1-300	<p>The Investigation of Stable Reset Voltage Control in TaO_x-Based RRAM Devices via Oxygen Plasma Treatment</p> <p>Jung-Hwa Cha, Hee yeon Noh, Yeongsam Kim, and Myoung-Jae Lee Research Institute, DGIST</p>
FP1-301	<p>Design of Energy-efficient Circuit for In-memory Computing</p> <p>Na-hyun Kim and Jeong Beom Kim Kangwon National University</p>
FP1-303	<p>Investigation of Grain Boundary Effect on Threshold Voltage and ISPP Slope in 3D NAND Flash Memories</p> <p>Insang Han^{1,2}, Sangmin Ahn^{1,2}, and Hyungcheol Shin^{1,2,3}</p> <p>¹Inter-University Semiconductor Research Center, Department of Electrical and Computer Engineering, Seoul National University, ²Integra Semiconductor Co., Ltd.</p>
FP1-306	<p>Reliable PVDF-TrFE Ferroelectric Polymer-Based InGaZnO Synaptic Transistors with Buried-gate Structure</p> <p>Minjeong Kim^{1,2}, Ojun Kwon^{1,2}, and Byungjin Cho^{1,2}</p> <p>¹Department of Urban, Energy, and Environmental Engineering, Chungbuk National University, ²Department of Advanced Material Engineering, Chungbuk National University</p>
FP1-307	<p>Compute-in-memory for Vison Transformer Using Flash Thin Film Transistor Memory</p> <p>Jong Hyun Ko and Jong Ho Lee</p> <p>¹Department of Electrical and Computer Engineering, Seoul National University, ²ISRC, Seoul National University</p>
FP1-308	<p>무기 농도 변화에 따른 초박형 하이브리드 필름 기반 저항성 랜덤 액세스 메모리 동작</p> <p>Ji In Kim, Jun Hyup Jin, In Su Park, Nam Ki Hwang, Ji Ho Yu, Tae Hoon Kim, and Min Ju Kim Department of Foundry Engineering, Dankook University</p>
FP1-309	<p>A Long-term Plasticity dependent on a Gate Read-voltage of a Synaptic Thin-Film Transistors</p> <p>Jeongseok Pi, Junyeong Jang, Donggeon Park, Dohyeong kim, Haeri Kim, Gyoungyeop Do, Danyoung Cha, and Sungsik Lee Department of Electronics Engineering, Pusan National University</p>
FP1-310	<p>A Tunneling Oxide Thickness-dependent Synaptic Characteristics of ZnO-Based Thin-Film Transistors</p> <p>Seokhyun Byun, Sangheon Chae, Sunbin Jo, Jeongmyeon Je, Nayeong Lee, Kunhee Tae, Danyoung Cha, and Sungsik Lee Department of Electronics Engineering, Pusan National University</p>
FP1-311	<p>Organic-inorganic Hybrid Methyl-silsesquioxanes Based Electric-Double-Layer for CMOS-compatible Synaptic Transistors</p> <p>Tae-Hwan Hyun, Tae-Gyu Hwang, Hamin Park, and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University</p>

FP1-312	<p>Enhancing Perceptual Artificial Intelligence Systems with a Dynamically Reconfigurable CMOS-compatible Synaptic Transistor</p> <p>Seung-Hyun Lee, Hwi-Su Kim, Dong-Hee Lee, Hamin Park, and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University</p>
FP1-313	<p>Stabilizing Resistive Memories through Conductive Filament Regulation Using Self-Organized Silica Nanodot</p> <p>Soyi Park, Byoung Kuk You, Jong Min Kim, and Keon Jae Lee Department of Materials Science and Engineering, KAIST</p>
FP1-314	<p>Effect of Phosphorus Concentration of PSG Electric Double Layer on Synaptic Operation Characteristics of Electrolyte Gate Transistor</p> <p>Yeong-Ung Kim¹, Dong-Gyun Mah¹, Seong-Hwan Lim², Ha-Min Park², and Won-Ju Cho¹ ¹Department of Electronic Materials Engineering, Kwangwoon University, ²Department of Electronic Engineering, Kwangwoon University</p>
FP1-315	<p>Organic-inorganic Hybrid Ferroelectric Organic Thin-Film Transistors to Minimize Leakage Current</p> <p>Hyowon Jang, Yongju Lee, Swarup Biswas, and Hyeok Kim School of Electrical and Computer Engineering, University of Seoul</p>
FP1-316	<p>Characterization of HfO₂ Thin Films Prepared by Sequential Plasma Atomic Layer Deposition (SPALD) for the Charge Trapping Memory</p> <p>Jae Hoon Yu, Won Ji Park, and Hee Chul Lee Department of Advanced Materials Engineering, Tech University of Korea</p>
FP1-317	<p>Study of Non-volatile TCAM based on Ferro-FinFET Including Circuit Characteristics</p> <p>Juhwan Park, Huijun Kim, and Jongwook Jeon Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-318	<p>3nm Ferro-FinFET 기반 Full Adder 회로 적용에 대한 배선효과 연구</p> <p>Hui Jun Kim, Ju Hwan Park, and Jong Wook Jeon Sungkyunkwan University</p>
FP1-319	<p>Effect of Interfacial SiO₂ Layer Thickness on the Memory Performances in the HfAlO_x-Based Ferroelectric Tunnel Junction for a Neuromorphic System</p> <p>Yongjin Park, Minseo Noh, Seoyoung Park, Suyong Park, Woohyun Park, Jonghyuk Park, Jihee Park, and Sungjun Kim Division of Electronics and Electrical Engineering, Dongguk University</p>
FP1-320	<p>Improving Synaptic Characteristics of Organic Field-Effect Transistors through UV Modification of High-glass Transition Polymer Electrets</p> <p>Hoyoung Cho¹, Danyoung Cha², Moonsuk Yi², Sungsik Lee², and Jeongkyun Roh¹ ¹Department of Electrical Engineering, Pusan National University, ²Department of Electronics Engineering, Pusan National University</p>
FP1-321	<p>스토캐스틱 비트 기반의 스파이킹 뉴럴 네트워크 설계</p> <p>Hye Yeon Jeon¹, Yoon Kim¹, and Min Suk Koo² ¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학부</p>
FP1-323	<p>Synaptic Characteristics of a-IGZO Thin Film Transistor with Embedded ZnO Charge Trapping Layer for Neuromorphic System</p> <p>Junwon Jang, Jungwoo Lee, Eunjin Lim, Hyeonseung Ji, Jungang Heo, Seongmin Kim, Chaewon Youn, and Sungjun Kim Division of Electronics and Electrical Engineering, Dongguk University</p>

FP1-324	<p>The Two-terminal Self-gate Diode with Exceptionally Low Ideal Factors Developed from a Two-dimensional Van Der Waals Heterostructure</p> <p>So Hyeon Park and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-325	<p>Room Temperature Ferromagnetism in Two-dimensional Transition Metal Dichalcogenides Induced by Magnetic Intercalation</p> <p>Yong Ha Shin and Woo Jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
FP1-326	<p>Enhancing Charge Boosting Efficiency Using Polarization Switching Characteristics of Hafnia-Based Ferroelectric for DRAM Application</p> <p>Jimin Lee¹, Minjeong Kang¹, Yoomi Kang¹, Taewan Noh¹, Hoseong Kim¹, Jisu Byun¹, Wonwoo Kho¹, Hyunjoo Hwang¹, Hyo-Bae Kim³, Ji-Hoon Ahn³, and Seung-Eon Ahn^{1,2}</p> <p>¹Department of IT-Semiconductor Convergence Engineering, Tech University of Korea, ²Department of Nano&Semiconductor Engineering, Tech University of Korea, ³Department of Materials Science and Chemical Engineering, Hanyang University</p>
FP1-328	<p>A Nonlinear Self-rectifying Synaptic Device Using Molybdenum Disulfide Nanomaterials</p> <p>Jongho Lim, DongJun Jang, TaeYong Lee, and Min-Woo Kwon Department of Electric Engineering, Gangneung-Wonju National University</p>
FP1-329	<p>HfAlO_x-Based Ferroelectric Tunnel Junction with High Polarization for Neuromorphic System</p> <p>Sunghun Kim, Hyogeun Park, Yongjin Byun, Euncho Seo, Gyuhoon Lee, Seungjun Lee, Yoonseok Lee, and Sungjun Kim Division of Electronics and Electrical Engineering, Dongguk University</p>
FP1-330	<p>Nitrogen-doped CMOS-compatible ReRAM with Improved Uniformity.</p> <p>Youna Kwon, Gapseop Sim, Huijae Cho, Youngjoo Kim, Dongeun Yoo, Minho Kang, Namsoo Park, Yeeun Na, Yuri Lim, and Jongwon Lee Nano Convergence Technology Division, NNFC</p>
FP1-331	<p>Improvement of Refresh and Row Hammer Characteristics by Fluorine Passivation</p> <p>Hyunseung Choi, Taeyoon Lee, Sanghyun Park, Jae-Hyun Choi, Junsoo Kim, Jeong-Hoon Oh, Jemin Park, and Jaihyuk Song Samsung Electronics Co., Ltd.</p>
FP1-337	<p>A Fully Hardware-Based Neural Network Accelerator Using Self-Rectifying Memristor Integrated Passive Crossbar Array</p> <p>Kanghyeok Jeon^{1,2}, Doo Seok Jeong¹, Taeyong Eom², and Gun Hwan Kim³</p> <p>¹Division of Materials Science and Engineering, Hanyang University, ²Division of Advanced Materials, KRICT, ³Department of System Semiconductor Engineering, Yonsei University</p>
FP1-339	<p>Enhancing Reliability in 3D NAND Memory: A New Programming Scheme for Z-Interference Reduction</p> <p>Hyeon Seo Yun and Jong Kyung Park Department of Semiconductor Engineering, Seoul National University of Science and Technology</p>
FP1-340	<p>Content Addressable Memory 동작 구현을 위한 주변 회로 시스템</p> <p>김진혁¹, 구민석², 김윤¹</p> <p>¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학부</p>
FP1-341	<p>Charge-trap Memristor Device based on 180nm Si CMOS Foundry Process</p> <p>이원철, 권윤아, 서동주, 임유리, 설우석, 이종원 Nano Convergence Technology Division, NNFC</p>

FP1-342	<p>Comparative Study on Ferroelectric Properties of (Hf,Zr)O₂ Thin Films Using H₂O₂ and O₃ as ALD Oxidants</p> <p>Juntak Jeong¹, Yong Chan Jung², Jin-Hyun Kim², Hye Ryeon Park¹, Seongbin Park¹, Jongmug Kang¹, Yeseo Choi¹, Jiyoung Kim², and Si Joon Kim¹</p> <p>¹Kangwon National University, ²The University of Texas at Dallas</p>
FP1-343	<p>A Study on Low-temperature (<400°C) Furnace Annealing for BEOL Compatible Ferroelectric ALD-(Hf,Zr)O₂ Thin Films</p> <p>Jongmug Kang¹, Seongbin Park¹, Hye Ryeon Park¹, Juntak Jeong¹, Yeseo Choi¹, Jin-Hyun Kim², Minjong Lee², Jiyoung Kim², and Si Joon Kim¹</p> <p>¹Kangwon National University, ²The University of Texas at Dallas</p>
FP1-344	<p>Reliable HZO (0.5) Based Ferroelectric Memory with Ultra-low Operation Voltage of 1.1V by Synergy Effect of Thickness Scaling and Microwave Annealing</p> <p>Mostafa Habibi, Hojung Jang, Pendar Azaripour, Kyumin Lee, Seungyeol Oh, and Hyunsang Hwang POSTECH</p>
FP1-345	<p>Precision Control of HfO₂- Based Ferroelectric Tunnel Junction Memory State</p> <p>Taewan Noh¹, Wonwoo Kho¹, Hyunjoo Hwang¹, Hoseong Kim¹, Jimin Lee¹, Jisu Byun¹, Yoomi Kang¹, Minjeong Kang¹, and Seung-Eon Ahn^{1,2}</p> <p>¹Department of IT · Semiconductor Convergence Engineering, Tech University of Korea, ²Department of Nano & Semiconductor Engineering, Tech University of Korea</p>
FP1-346	<p>NoC 기반 최적의 PIM 하드웨어 가속기 디자인 탐구를 위한 시뮬레이터</p> <p>이원주¹, 김 윤¹, 구민석²</p> <p>¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학과</p>
FP1-347	<p>Indium-Gallium-Zinc-Oxide CTF-Based Reconfigurable Logic Gates</p> <p>Eunpyo Park^{1,2}, Dong Yeon Woo¹, Dae Kyu Lee¹, Gichang Noh¹, Yooyeon Jo¹, Jongkil Park¹, Jaewook Kim¹, YeonJoo Jeong¹, Suyoun Lee¹, Inho Kim¹, Jong-Keuk Park¹, Seongsik Park¹, Hyun Jae Jang¹, Sangbum Kim², and Joon Young Kwak^{1,3}</p> <p>¹KIST, ²Seoul National University, ³UST</p>
FP1-348	<p>Flexible Artificial Synapse Devices based on Integrated Two-dimensional Material for Wearable Electronic Systems</p> <p>Hyeon Seung Lee¹, Chae Min Yeom¹, Sunil Babu Eadi³, Kolleboyina Jayaramulu³, Hyuk Min Kwon², and Hi Deok Lee¹</p> <p>¹Chungnam National University, ²Semiconductor Convergence Campus of Korea Polytechnics College, ³Department of Chemistry, Indian Institute of Technology</p>
FP1-349	<p>Graphene Diffusion Barrier를 이용한 PPXC 기반의 RRAM Crossbar Array</p> <p>이선정¹, 김수경¹, 김보람¹, 구민석², 박동욱¹, 김 윤¹</p> <p>¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학과</p>
FP1-350	<p>Study the Impact of Metal Ion Doping Location on the Performance of ZnO RRAM Memory Devices</p> <p>Yu-Mi Kim¹, Jun Kue Park¹, So-Yeon Kwon², Woon-San Ko², and Ga-Won Lee²</p> <p>¹KAERI, ²Chungnam National University</p>
FP1-351	<p>Implementation of Threshold Switching in ZrO₂ Memristor through Crystallization</p> <p>Dae Kyu Lee^{1,2}, Gichang Noh¹, Yooyeon Jo¹, Eunpyo Park¹, Min Jee Kim¹, Yong Woo Sung¹, Dong Yeon Woo¹, and Joon Young Kwak^{1,3}</p> <p>¹KIST, ²Korea University, ³UST</p>
FP1-352	<p>Switchable Memory Operation of Reconfigurable Dopingless Feedback Field Effect Transistors</p> <p>Yuna Suh and Doohyeok Lim Kyonggi University</p>

FP1-353	<p>Cryogenic Behaviors of Capacitorless 1T-DRAM</p> <p>Hakin Kim and Doohyeok Lim Kyonggi University</p>
FP1-354	<p>True Random Number Generator based on Memristor Array for Medical Image Synthesis Using Generative Network</p> <p>Namju Kim and Byung Chul Jang School of Electronic and Electrical Engineering, Kyungpook National University</p>
FP1-355	<p>TiO₂ Interlayer for Ferroelectric Thin-film Transistor with SnO Channel and HZO Gate Dielectric</p> <p>An Hoang-Thuy Nguyen¹ and Choi Rino^{1,2} ¹3D Convergence Center, Inha University, ²Department of Materials Science and Engineering, Inha University</p>
FP1-356	<p>3D Vertical RRAM 기반 nvSRAM 및 CNN 구현 방법</p> <p>안지훈¹, 구민석², 김 윤¹ ¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학부</p>
FP1-357	<p>멤리스터 기반 임계-지점 가변형 전기화학 바이오센서의 구현</p> <p>권윤아^{1,2}, 배남호¹, 안재혁², 설우석¹, 임부택¹, 이종원¹, 김영준³ ¹나노융합기술원, ²충남대학교, ³가천대학교</p>
FP1-358	<p>CMOS Compatible Short-Term Memory Implementation</p> <p>윤병호¹, 김보람¹, 안지훈¹, 구민석², 김 윤¹ ¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학부</p>
FP1-359	<p>2 로직 셀 기반 싱글 레벨 셀 낸드 플래시 메모리 상에서의 로직 연산 구현</p> <p>금건우¹, 안지훈¹, 김 윤¹, 구민석² ¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학부</p>
FP1-360	<p>NAND 플래시 메모리와 DRAM이 융합된 NAD 메모리</p> <p>김소중¹, 안지훈¹, 구민석², 김 윤¹ ¹서울시립대학교 전자전기컴퓨터공학과, ²인천대학교 컴퓨터공학부</p>
FP1-361	<p>Effect of Program Error in Memristor-Based Ternary Content Addressable Memory</p> <p>Sangwook Youn, Jinwoo Park, Kyuree Kim, Jungjin Lee, and Hyungjin Kim Department of Electrical and Computer Engineering, Inha University</p>
FP1-362	<p>Physical Unclonable Function with Memcapacitor Crossbar Array Using NAND Flash Structure</p> <p>Min Suk Song, Suhyeon Ahn, Hwiho Hwang, and Hyungjin Kim Department of Electrical and Computer Engineering, Inha University</p>
FP1-363	<p>True Random Number Generator Using Random Telegraph Noise of Memristor</p> <p>Hwiho Hwang, Min Suk Song, Suhyeon Ahn, Dayeon Yu, and Hyungjin Kim Department of Electrical and Computer Engineering, Inha University</p>
FP1-364	<p>Impacts of Annealing on the Operation Characteristics of Phase Change Memory Using Ge₂Sb₂Te₅ (GST) Material</p> <p>San Park¹, Sejin Kim¹, Sehyeon Choi¹, Boncheol Ku¹, Jun Woo Park², Pil Seong Park², Sang Hyun Ji², and Changhwan Choi¹ ¹Division of Materials Science & Engineering, Hanyang University, ²AP Systems</p>
FP1-365	<p>Passing Word Line Induced Subthreshold Leakage Reduction by a Partial Insulator in a Buried Channel Array Transistor</p> <p>Suyeon Kim, Dongyeong Kim, Jewon Park, Sinwook Kim, Sowon Kim, and Myeong Jin Lee Department of ICT Convergence System Engineering, Chonnam National University</p>

FP1-366	<p>Row Hammer Characteristics by Total Ionization Dose Effect (TID) in Partial Isolation Type Buried Channel Array Transistor (PI-BCAT)</p> <p>Je-Won Park, Dong-Yeong Kim, Su-Yeon Kim, Sin-Wook Kim, Ju-Won Lee, and Myoung Jin Lee Department of ICT Convergence System Engineering, Chonnam National University</p>
FP1-367	<p>Improving Endurance of Ferroelectric Devices Using Nitrogen Incorporation into Interfacial Dielectric</p> <p>Jae Kyeong Kim and Rino Choi 3D Convergence Center and Materials Science and Engineering, Inha University</p>
FP1-368	<p>Monolithic 3D Integrated Non-Volatile Logic Circuits with Hafnia-Based Ferroelectric TFT Formed by Low Temperature MWA Process</p> <p>Hongrae Joh, Hyojun Choi, Yunseok Nam, Sangmok Lee, Woongjin Kim, Jihye Ock, Sujeong Lee, Hyunjun Kang, and Sanghun Jeon School of Electrical Engineering, KAIST</p>
FP1-369	<p>Cryogenic Phase Change Memory</p> <p>Sohui Yoon¹, Dong-Hyeok Lim¹, Namwook Hur¹, Beomsung Park¹, Hongsik Jeong^{1,2}, and Joonki Suh^{1,2} ¹Department of Materials Science and Engineering, UNIST, ²Graduate School of Semiconductor Materials and Devices Engineering, UNIST</p>
FP1-371	<p>기판 바이어스 및 과구동 전압 활용 CMOS 인버터 특성 개선 기법</p> <p>Dong Yeong Kim, Su Yeon Kim, Je Won Park, Sin Wook Kim, Hyeona Seo, and Myoung Jin Lee ICT Convergence System Engineering, Chonnam National University</p>
FP1-372	<p>Analysis of Wake-up Degradation in Amorphous InGaZnO_x Ferroelectric Thin-Film Transistor with HfZrO_x Gate Insulator</p> <p>Hwan Jin Kim, Hyojin Yang, Haesung Kim, Ha-Neul Lee, Se Jun Park, Jun Seong Park, Sung-Jin Choi, Dong Myong Kim, Dae Hwan Kim, and Jong-Ho Bae School of Electrical Engineering, Kookmin University</p>
FP1-373	<p>Empowering High-Performance, Low-Power Memristor Applications with Large-Area Molybdenum Disulfide Grown on a Flexible Substrate</p> <p>Yu Seong Lee, Arindam Bala, Anamika Sen, and Sun Kook Kim Sungkyunkwan University</p>
FP1-374	<p>Excellent Reliability and Electro-resistance Properties of Ferroelectric Tunnel Junction by Employing Oxygen-Rich Hafnia Ferroelectric Film</p> <p>Chaeheon Kim, Junghyeon Hwang, and Sanghun Jeon School of Electrical Engineering, KAIST</p>
FP1-375	<p>Analysis and Modeling of Ferroelectric Amorphous InGaZnO_x Thin-Film Transistor at Initial State and during Memory Operation</p> <p>Ha-Neul Lee, Hyojin Yang, Sejun Park, Haesung Kim, Sanghyuk Yun, Sung-Jin Choi, Dong Myong Kim, Dae Hwan Kim, and Jong-Ho Bae School of Electrical Engineering, Kookmin University</p>
FP1-376	<p>Characteristics of Gradual Resistive Switching in Oxide-Based Memristors depending on Electrode Oxidation Methods</p> <p>Yeongsam Kim, Hee Yeon Noh, Jung-Hwa Cha, Yerim Kim, Myoung-Jae Lee, June-Seo Kim, and Hyeon-Jun Lee Division of Nanotechnology, DGIST</p>
FP1-377	<p>GST Insertion Effects on Stacked ITO/IGZO/ZrO₂/GST RRAM Devices</p> <p>Bidyashakti Dash, Ajit Kumar, and Sung Hun Jin Department of Electronic Engineering, and I-Nanofab Center, Incheon National University</p>

<p>FP1-378</p>	<p>Analysis of Interface State according to the Polarization Switching of Ferroelectric Field-Effect Transistor</p> <p>Sujong Kim, Ha-Neul Lee, Hyojin Yang, Haesung Kim, Sejun Park, Sung-Jin Choi, Dong Myong Kim, Dae Hwan Kim, and Jong-Ho Bae</p> <p>School of Electrical Engineering, Kookmin University</p>
<p>FP1-379</p>	<p>ALD Al₂O₃ Thickness Effects on Switching Behaviors for Stacked ZnO_x/Al₂O₃ Resistive Random-Access Memories (RRAMs)</p> <p>Chae Yeong Kim, Seo-Young Jo, Geun Lee, and Sung Hun Jin</p> <p>Department of Electronic Engineering, and I-Nanofab Center, Incheon National University</p>
<p>FP1-380</p>	<p>ALD Al₂O₃ Capping Effects on Reliable Operation of Multi-layered AlO_x/Al₂O₃ Resistive Random-Access Memories</p> <p>Hanmin Kim, Jongjoon Park, Yunsung Lee, Hogeon Jeon, and Sung Hun Jin</p> <p>Department of Electronic Engineering, and I-Nanofab Center, Incheon National University</p>

FP1-381	Impedance Calibration for High Accuracy NEMTCAM Changwoo Park, Seung-Ju Lee, Hyuk-Jin Kim, Min-Joo Yoo, and Jinwook Burm Department of Electronic Engineering, Sogang University
FP1-382	A 6.78MHz Active Rectifier for Wireless Power Transfer Systems Sung Sik Hong and Jinwook Burm Sogang University
FP1-383	28Gb/s에서 32.2dB Channel Loss를 보상하는 Adaptive Feedforward Continuous Time Linear Equalize 박준희, 박종민, 조요셉, 이승주, 채종혁, 김혁진, 유민주, 박창우, 범진욱 Sogang University
FP1-384	Fast-Slow Ring Oscillator Type TDC의 Frequency 고정을 위한 Digital PLL 유민주, 이승주, 김혁진, 박창우, 채종혁, 박준희, 홍성식, 범진욱 Department of Electronic Engineering, Sogang University
FP1-385	Design of 16Gb/s/pin 8-Channel Transceiver Using Multiwire Signaling Technique with Skew Compensation for Memory Interface Sinho Lee, Daeun Yun, Junhak Kim, and Kwanso Park Yonsei University
FP1-386	Offset Decrease of N-Channel Transistor Inverter Youngjin Kim ¹ , Janghoo Lee ¹ , Hyekang Park ¹ , Seo Yun Kim ² , Seung Jae Moon ¹ , and Byoung Seong Bae ¹ ¹ School of Electronic Convergence Engineering, Hoseo University, ² Department of Chemical Engineering, Hoseo University
FP1-387	Capacitor Ratio-Independent Switched-Capacitor Type 4-Times Voltage-Amplifier for OLED Source Driver IC Yu-Guan Kim, Min-Woo Kim, Won-Jo Lee, Yun-Su Kim, and Byung-do Yang Department of Electronics Engineering, Chungbuk National University
FP1-388	28GS/s 시간 교차 아날로그-디지털 변환기를 위한 다중-위상 지연 고정 루프 Yun Kuk Park and Jung Hoon Chun Department of Electrical and Computer Engineering, Sungkyunkwan University
FP1-389	A 500frames/sec CMOS Image Sensor with 11-bit Column-Parallel Two Step Single Slope ADC 김혁진, 박종민, 홍성식, 이승주, 채종혁, 박준희, 유민주, 박창우, 범진욱 Sogang University
FP1-390	Operation Principle of Reconfigurable Integrate-and-Fire Neuron Circuit Kyu-Ho Lee, Woo Young Choi, and Jong-Ho Lee School of ECE and ISRC, Seoul National University
FP1-391	Direct ToF를 효율적으로 Readout하기 위한 Macro-pixel Readout Circuit Eun-Chang Lee, Dahwan Park, Hoochan Lee, Haksoo Kim, Jin-Seon Kim, Min-Seok Shin, and Min-Kyu Kim SK hynix
FP1-392	과도진동 제거를 위한 디지털 저드롭아웃 레귤레이터 우기찬, 김인태, 김유신, 박정주, 윤대한, 윤세환, 조미령 한국광기술원
FP1-393	High-resolution Sigma-Delta ADC for Sensor Applications Jeonghee Jeon, Donghyun Kim, Hohyun Kim, Seoyeon Park, Heejin Lee, and Joongho Choi University of Seoul
FP1-394	Module Integrated Converter for Photovoltaic Power System Jaehyeong Lee, Donghyun Kim, Jisoo Kim, Jongchul Chae, and Joongho Choi University of Seoul

FP1-395	Millimeter-wave Dual-patch Antenna on Silicon Substrate Deokgi Kim, Juhyeong Seo, Seungmin Ryu, Byeongju Kang, Donghyuk Jung, Sangyoon Lee, JaeHyun Noh, Sarah Eunkyung Kim, and Dongha Shim Seoul National University of Science and Technology
FP1-396	Design of GaN X-band Power Amplifier MMI Chiyong Ha, Juwon Kwon, and Junghwan Han Department of Radio and Information Communication Engineering, Chungnam National University
FP1-397	X-band GaN Low-Noise Amplifier MMIC Juwon Kwon, Chiyong Ha, and Junghwan Han Department of Radio and Information Communication Engineering, Chungnam National University
FP1-398	최소 타이밍 스큐 디지털-아날로그 변환기를 집적한 56-Gb/s PAM-4 송신기 김현민, 전정훈 성균관대학교 전기컴퓨터공학과
FP1-399	56-Gbps PAM4 수신단 Analog Front-End 회로 Je Hyeok Yu and Jung-Hoon Chun Department of Semiconductor and Display Engineering, Sungkyunkwan University
FP1-400	Large-Area Electrolyte-Gated Network Carbon Nanotube Thin Film Transistors for Reflective RF Metasurfaces Yechan Han ¹ , Haksoon Jung ^{1,2} , Seongmin Eum ¹ , and Jimin Kwon ¹ ¹ Department of Electrical Engineering, UNIST, ² Department of Chemical Engineering, POSTECH
FP1-401	2.4 GHz Low-power BLE Receiver Front-end for IoT Applications Sengjun Jo, Hyeonjun kim, and Kuduck Kwon Department of Electronics Engineering, Kangwon National University
FP1-402	A 7-9 GHz IQ Up-Conversion Mixer for 5G New Radio FR2 IF Cellular Transceivers Sukju Yun, Donggu Lee, and Kuduck Kwon Department of Electronic Engineering, Kangwon National University

FP1-403	<p>Ternary Cell Optimization and Its Impact on VLSI</p> <p>Hyundong Lee and Taigon Song School of Electronic and Electrical Engineering, Kyungpook National University</p>
FP1-404	<p>Switching-Based Ternary Circuit Design Methodology and It's Optimization Method for Inkjet-printed Anti-ambipolar Transistors (AAT) and CMOS</p> <p>Jongbeom Kim and Taigon Song School of Electronic and Electrical Engineering, Kyungpook National University</p>
FP1-405	<p>FS2K: A Forksheet FET Technology Library and a Study of VLSI Prediction for 2nm and Beyond</p> <p>Yunjeogn Shin¹, Daehyeok Park², Dohun Koh², Dongryul Heo², Jieun Park², Hyundong Lee¹, Jongbeom Kim¹, Hyunsoo Lee¹, and Taigon Song¹</p> <p>¹School of Electronic and Electrical Engineering, Kyungpook National University, ²School of Electronics Engineering, Kyungpook National University</p>
FP1-406	<p>A Human-Based Routing Algorithm for Unified Printed Circuit Board Routing</p> <p>Yunjeong Go and Taigon Song School of Electronic and Electrical Engineering, Kyungpook National University</p>
FP1-407	<p>Thermal-aware Floorplanning for 3D ICS</p> <p>Joonyoung Seo and Seokhyeong-Kang Department of Electrical Engineering, POSTECH</p>
FP1-408	<p>Cache Register Sharing Structure for Channel-level Near-memory Processing in NAND Flash Memory</p> <p>Hyunwoo Kim¹ and Taigon Song^{1,2}</p> <p>¹School of Electronic and Electrical Engineering, Kyungpook National University, ²School of Electronics Engineering, Kyungpook National University</p>
FP1-409	<p>One-stage Global Placement Using Clustering Based Initial Placement</p> <p>Hyeonwoo Park and Seokhyeong Kang Department of Electrical Engineering, POSTECH</p>
FP1-410	<p>Packing-Based Initialization for Improved Macro Placement</p> <p>Donghyuk Kim, Jaekyung Im, and Seokhyeong Kang Department of Electrical Engineering, POSTECH</p>
FP1-411	<p>Enhancement of ML-Based Standard Cell Library Generation</p> <p>Sung Gyu Jang and Seokhyeong Kang POSTECH</p>

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

ZONE 4 (3층 로비)

FP1-412	<p>Proton Irradiation Effects on 1.2 kV SiC MOSFETs</p> <p>Jae Hwa Seo¹, Young Jo Kim¹, Jeong Hyun Moon¹, Young Jun Yoon², Junghun Kim¹, and Hyoung Woo Kim¹</p> <p>¹Advanced Semiconductor Research Center, Power Semiconductor Research Division, KERI, ²Department of Electronic Engineering, Andong National University</p>
FP1-413	<p>Gamma-ray on Superjunction MOSFETs and Gate Ringing</p> <p>Sangyun Song and Hyemin Kang</p> <p>Department of Energy Engineering, KENTECH</p>
FP1-414	<p>Thermal Conductivity Reduction by Phonon Backscattering in a Silicon Nanowire with Wavy Surfaces</p> <p>Hyeongseok Yoo, Ki Yeong Kim, Ju Hong Park, and Chang-Ki Baek</p> <p>POSTECH</p>
FP1-415	<p>Characteristic Dual-domain Structure of Reduced Graphene Oxide and Its Application to Higher Specific Capacitance</p> <p>Jun Beom Kim, Sung Hwan Koo, In Ho Kim, and Sang Ouk Kim</p> <p>KAIST</p>
FP1-416	<p>Regulation of Thermal Radiation based on a CVD-grown VO₂ Thin Film on a Plastic Substrate for Dynamic Radiative Cooling Application</p> <p>Nayoung Wi^{1,2}, Hyojin Bang^{1,2}, Hongseung Kim², Yonghun Kim¹, and Jongwon Yoon¹</p> <p>¹Department of Energy and Electronic Materials, KIMS, ²Major of Nano-Semiconductor Engineering, Korea Maritime and Ocean University</p>
FP1-417	<p>Tailoring the Composition and Morphology of RuO_x (0≤x≤2) Recombination Layers for High Efficiency Perovskite Tandem Solar Cells</p> <p>Pil Ju Youn¹, Mun Young Woo², Jun Hong Noh², and Jeong Hwan Han¹</p> <p>¹Department of Material Science and Engineering, Seoul National University of Science and Technology, ²School of Civil, Environmental and Architectural Engineering, Korea University</p>
FP1-418	<p>Optimal Doping Level of Bismuth Titanate to Modulate Optical Bandgap for Oxide Optoelectronics</p> <p>He Rui, Tang Rui, and Chung Wung Bark</p> <p>Gachon University</p>
FP1-419	<p>Maximized Internal Scattering in Heterostack Ti₃C₂T_x MXene/Graphene Oxide Film for Effective Electromagnetic Interference Shielding</p> <p>YeoHoon Yoon, GangSan Lee, and SangOuk Kim</p> <p>Department of Materials Science and Engineering, KAIST</p>
FP1-420	<p>Energy Efficient Memristive Logic System and Its Implementation in a HfO_x Memristive Crossbar Array</p> <p>Moon Gu Choi, Jae Hyun In, Hanchan Song, and Kyung Min Kim</p> <p>Department of Materials Science and Engineering, KAIST</p>
FP1-421	<p>Power Handling Capability 개선을 위한 전류분산 구조가 적용된 PIN Limit 다이오드</p> <p>원종일, 정동윤, 장현규, 박건식</p> <p>ETRI ICT 창의연구소 반도체소부장기술센터</p>

<p>FP1-422</p>	<p>Unlocking the Potential of Porous Bi₂Te₃-Based Thermoelectrics Using Precise Interface Engineering through Atomic Layer Deposition</p> <p>Seunghyeok Lee^{1,2}, Gwang Min Park^{1,3}, Younghoon Kim⁴, So-Hyeon Lee⁴, Junpyo Hong¹, Sung-Chul Kim¹, Sung Ok Won¹, Albert S. Lee¹, Ju-Young Kim⁴, Heesuk Kim¹, Seung-Hyub Baek¹, Jin-Sang Kim¹, Tae Joo Park², and Seong Keun Kim^{1,3}</p> <p>¹KIST, ²Hanyang University, ³Korea University, ⁴UNIST</p>
<p>FP1-423</p>	<p>Self-heating 특성을 고려한 GaN HEMT 고주파 회로 모델</p> <p>권경배¹, 전종욱²</p> <p>¹건국대학교 전자정보통신공학과, ²성균관대학교 전자전기컴퓨터공학과</p>
<p>FP1-424</p>	<p>Characterization of Bulk Trap Density Using Fully I-V-Based Optoelectronic Differential Ideality Factor in Multi-Layer MoS₂ FET</p> <p>Soyeon Kim, Jaewook Yoo, Hyeonjun Song, Hongseung Lee, Seongbin Lim, Minah Park, Seohyeon Park, and Hagyoul Bae</p> <p>Jeonbuk National University</p>