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[SP] 학부생포스터세션

A. Interconnect & Package 분과

SP-001	**Development of Plasma Surface Modification and Dry Etching Processes for Cu/polymer Hybrid Structures** Gwangyu Kim, Jaewoon Koo, Junmo Koo, Jueon Park, Leejun Choi, Kyungjoon Kim, Minseong Ko, and Gangtae Jin Department of Semiconductor Engineering, Gachon University
SP-002	**Electrical and Thermal Reliability of Fine-Line RDLs on Glass Interposers for 2.1D Integration** Kyungjoon Kim, Jueon Park, Leejun Choi, Jaewoon Koo, Jungsoo Lee, Sangmin Yeo, Dongjun Jo, Youngsang Jo, Junmo Koo, Minseong Ko, Gwangyu Kim, and Gangtae Jin Department of Semiconductor Engineering, Gachon University
SP-003	**Co/SiO_2에서의 누설전류 메커니즘** 조동준, 여상민, 구준모, 조용상, 이정수, 진강태 가천대학교 반도체대학 반도체공학과
SP-004	**Mo 박막의 결정립계 산란을 통한 비저항 증가의 정량적 평가** 차동현[1], 한승우[2], 최두호[3] [1]가천대학교 화학과, [2]가천대학교 의공학과, [3]가천대학교 반도체공학과
SP-005	**저저항 반도체 Interconnection을 위한 Ar 플라즈마 기반 초평탄 SiO_2/Cu 계면 구현 기술** 한승우[1], 차동현[2], 최두호[3] [1]가천대학교 의공학과, [2]가천대학교 화학과, [3]가천대학교 반도체공학과
SP-006	**개시제를 이용한 화학기상증착 공정으로 증착된 실록산계 초저유전율 박막의 전기적 및 신뢰성 특성** 오채은[1], 황남기[2], 유지호[2], 한상혁[1], 김형준[1], 박태원[1], 김민주[1,2,3] [1]단국대학교 공과대학 전자전기공학부, [2]단국대학교 공과대학 파운드리공학과, [3]단국대학교 공과대학 융합반도체공학과

SP-007	**접촉 불량 저감을 위한 하이브리드 본딩 패드 최적화** 최진영, 김민회 국립한밭대학교 창의융합학과
SP-008	**반도체 배선재료 저 비저항화 및 EM 신뢰성 향상 연구를 위한 Agent Framework 구축** 김민재[1], 정민주[2], 서형대[3], 김민지[2], 구예림[2], 안승준[1], 조용은[4], 이동우[1] [1]성균관대학교 기계공학부, [2]성균관대학교 화학공학부, [3]성균관대학교 융합생명공학부, [4]KAILOS LAB Co., Ltd.
SP-009	**금속 배선에서 선폭 감소와 배리어 점유율 증가가 총저항에 미치는 영향에 관한 연구** 김민재, 김선현, 이학준, 이재우, 홍슬기 서울과학기술대학교 지능형반도체공학과
SP-010	**Cu 결정립 크기와 리플로우 TAL (Time-Above-Liquidus)이 솔더 접합 부 계면 금속간화합물의 형성과 성장에 미치는 영향** 정선주, 윤정원 충북대학교 신소재공학과
SP-011	**Highly-Conductive Cobalt Thin Film Prepared by Plasma-Enhanced Atomic Layer Deposition as a Copper Alternative Interconnect** Hyeonbin Kim[1], Yeseul Son[2], and Soo-Hyun Kim[2,3] [1]School of Energy and Chemical Engineering, UNIST, [2]Graduate School of Semiconductor Materials and Devices Engineering, UNIST, [3]Department of Materials Science and Engineering, UNIST
SP-012	**선택적 증착 기반 Ru/Mn Barrier를 통한 BEOL 미세화 난제 해결** 서형대[1], 김예지[2], 이용재[3], 정민주[4] [1]성균관대학교 융합생명공학과, [2]성균관대학교 건설환경공학부, [3]성균관대학교 신소재공학부, [4]성균관대학교 화학공학부
SP-013	**Low-Loss Glass-Interposer-Based CPW Interconnection for Millimeter-Wave Applications** Han-Soo Kim, Ye-Chan Park, Jung-Yoon Choi, Sang-Hoon Jeon, and Jong-Ryul Yang Konkuk University
SP-014	**Sn-Bi계 솔더의 저온 공정 최적화 및 계면 특성 분석** 이민석[1], 김민서[2], 김도연[2], 장창훈[2], 최문보[3], 정인회[4], 최성재[2], 김병모[2], 최승용[2], 김병모[5] [1]성균관대학교 시스템경영공학과, [2]성균관대학교 전자전기공학부, [3]성균관대학교 바이오메카트로닉스학과, [4]성균관대학교 한문학과, [5]성균관대학교 신소재공학부

SP-015	**Finite Element Analysis of Dielectric Property Effects on Cu Deformation Behavior in Hybrid Bonding Interfaces** Euntaek Lim and Jong Kyung Park Department of Mechanical System Design Engineering, Seoul National University of Science & Technology
SP-016	**Polyimide Bonding Characteristics for Cu/Polymer Hybrid Bonding Applications** Jaemin Yu[1], Injoo Kim[2], Siye Lee[2], Minji Kang[2], Hyein Jin[2], and Sungdong Kim[1] [1]Department of Mechanical System Design Engineering, Seoul National University of Science & Technology, [2]Department of Mechanical Design and Robot Engineering, Seoul National University of Science & Technology
SP-017	**Role of the Hollow Structure of Silica Nanoparticles in CMP Applications** Yewon Seol[1], Junwoo Park[2], Minji Son[2], Wonbin Lee[3], Jakyeong Koo[4], In-Kyung Park[4], and Jae-Do Nam[4] [1]Department of Chemical Engineering, Sungkyunkwan University, [2]Department of Chemistry, Sungkyunkwan University, [3]Department of Electronic and Electrical Engineering, Sungkyunkwan University, [4]Department of Polymer Science and Engineering, Sungkyunkwan University
SP-018	**Investigation of Co-Co Direct Bonding Characteristics for Hybrid Bonding Applications** Soohyun Ko[1], Injoo Kim[2], Siye Lee[2], Hyein Jin[2], Minji Kang[2], Hyun-Kyu Ryu[3], and Sungdong Kim[1] [1]Department of Mechanical System Design Engineering, Seoul National University of Science & Technology, [2]Department of Mechanical Design and Robot Engineering, Seoul National University of Science & Technology, [3]UP Chemical Co., Ltd.

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C. Material Growth & Characterization 분과

SP-025	**Synthesis and Characterization of VO_2 Thin Films Prepared by DC Magnetron Sputtering** Yegeon KANG[1], Junseo PARK[1], YeongUk CHOI[2], HyunSoo AHN[2], JongHoon JUNG[2], and Jung Woo LEE[1] [1]Hongik University, [2]Inha University
SP-026	**A Study on Electron Transport in ITO Electrodes on Oxide Semiconductors under Various RF Sputtering Conditions** Hyunchae Yoon[1], Hyunjeong Kwak[2], Junyoung Choi[2], Minho Kim[1], and Seyoung Kim[1,2,3] [1]Department of Semiconductor Engineering, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Graduate School of Semiconductor Technology, POSTECH
SP-027	**Structural and Electrical Properties of Vanadium Oxide Thin Films via a Solution-Based Process** Hyun Seok Myoung[1], Hyun Soo Ahn[2], Yeong Uk Choi[2], Jong Hoon Jung[2], and Jung-Woo Lee[1] [1]Department of Materials Science and Engineering, Hongik University, [2]Department of Physics, Inha University
SP-028	**Time-Composition Decoupling for Layer-by-Layer MoS_2 in Pulsed-MOCVD : Roles of Residence Time, Partial Pressure, and Mo dose** Daniel Jang[1], Byeongmin Son[2], and Changgu Lee[3] [1]SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University, [2]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [3]School of Mechanical Engineering, Sungkyunkwan Univ
SP-029	**Direct Tellurization Growth of High-quality Topological Semimetal PtTe2 Films** Kyungwu Kwon[1,2], Kangpyo Cho[1,2], Inbae Song[1,2], Yunjung Cho[1,2], Wonchan Lee[1,2], Jonghyeon Kim[2], Byung Cheol Park[2], and Seunguk Song[1,2] [1]Department of Energy Science, Sungkyunkwan University, [2]Center for 2D Quantum Heterostructures, IBS, Sungkyunkwan Unive
SP-030	**Reactive Sputtering of AlN Thin Films for Enhanced Electrical Insulation and Thermal Conductivity** Geulha Kim[1], Jaemin Yang[1], Gwantae Kim[2], Insung Park[2], Jeongtae Kim[2], Hongsoo Ha[2], and Jung-Woo Lee[1] [1]Department of Materials Science and Engineering, Hongik University, [2]Cryogenic Apparatus Research Center, KERI

SP-031	**Atomic-Scale Control of Built-in Fields for Schottky-Like Contacts in Oxide Heterostructures** Huichang Yang, Minho Baek, Woojin Bae, Yunju Jeong, Taekyeong Eom, Jinsan Choi, and Kitae Eom Gachon University
SP-032	**Crosslinkable Parylene Encapsulation for Advanced 3D Semiconductor Packaging Applications** Hyoungjun Choi[1,2], Dohyung Lee[1,2], SooHyun Kim[1,2], Taewoong Lim[1,2], Seungju Kang[1,2], Taewoong Han[1,2], and Boseok Kang[1,2] [1]SKKU Advanced Institute of Nano Technology, Sungkyunkwan University, [2]Department Nanoscience and Technology, Sungkyunkwan University
SP-033	**Epitaxial Growth of BeO on Sapphire Using Plasma Enhanced Atomic Layer Deposition** Gyeonghan Nae[1], Jonghyun Bae[1,2], Dohwan Jung[1], Siwon Lee[1,2], and Jungwoo Oh[1,2*] [1]School of Integrated Technology, Yonsei University, [2]BK21 Graduate Program in Intelligent Semiconductor Technology, Yonsei University
SP-034	**수열합성을 통한 V Doped β-Ga_2O_3 합성** 홍다연[1], 김선재[1], 류희중[1,2], 황완식[1,2] [1]한국항공대학교 신소재공학과, [2]한국항공대학교 스마트항공모빌리티학과
SP-035	**$(Sr, Ca)_xCuO_2$ Epitaxial Thin Film Deposition on $SrTiO_3$ Substrates** Hyungmok Lee[1,2], Jaewoo Lee[1,2], Jiwon Lee[1,2], and Woo Jin Kim[1,2] [1]Department of Materials Science and Engineering, Pusan National University, [2]Institute of Materials Technology, Pusan National University
SP-036	**Wet-Etch-Free Transfer of Epitaxial van der Waals Oxide Films via Mechanical Exfoliation** Donghoon Shin[1], Hyeondong Do[1,2], and Woo Jin Kim[1,2] [1]Department of Materials Science and Engineering, Pusan National University, [2]Institute of Materials Technology, Pusan National University

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D. Thin Film Process Technology 분과

SP-037	**원자층 증착을 통한 HfO_2 박막의 공정 조건 최적화** 윤정현, 조규진, 최화중, 조경률, 김진영, 김호준, 최민섭 충남대학교 신소재공학과
SP-038	**ALD 공정을이용한 HfO_2/Mo 금속 게이트 절연막의 전기적 특성 분석** 김정인 고려대학교 반도체물리학과
SP-039	**Atomically Thin Monolayer WS_2 Diffusion Barrier for Advanced-Node Interconnect** Sangmin Yeo, Dongjun Jo, Junmo Koo, Yongsang Jo, Junghwan Lim, Seojin Kim, and Gangtae Jin Department of Semiconductor Engineering, Gachon University
SP-040	**Process-Dependent TDDB Improvement and Breakdown Analysis of Low-k Polymer Dielectric** Junmo Koo, Sangmin Yeo, Dongjun Jo, Yongsang Jo, and Gangtae Jin Department of Semiconductor Engineering, Gachon University
SP-041	**Achieving High-Mobility (~25 cm^2/Vs) ZnON TFTs through Optimization of N_2/O_2 Ratio and Low-Temperature Annealing** Seung Min Lee[1], Joo Hyun Jeong[1], Sang Jik Kwon[2], Eou-Sik Cho[2], and Min-Kyu Park[1] [1]Department of Semiconductor Engineering, Gachon University, [2]Department of Electronic Engineering, Gachon University
SP-042	**조성상경계(MPB) 기반 $Hf_xZr_{1-x}O_2$ 박막의 저온 특성 연구** 공성민[1], 김준용[2], 박민혁[2], 이영환[3] [1]전남대학교 에너지자원공학과, [2]서울대학교 재료공학부, [3]전남대학교 신소재공학부
SP-043	**Effect of Channel Thickness Scaling on Reliability of α-ITZO TFTs** Gyeong-Hun Hwang and Min-Kyu Song School of Electrical Engineering, Korea University

SP-044	**Mo 전극 표면 제어가 $Hf_xZr_{1-x}O_2$ 강유전 박막의 특성에 미치는 영향** 남호원[1], 정문식[2], 박민혁[2], 이영환[1] [1]전남대학교 신소재공학부, [2]서울대학교 재료공학부
SP-045	**Theoretical Analysis on Small-Molecule Inhibitors for Area-Selective ALD on Ru/SiO_2 Surfaces** Chan Hee Lee and Bonggeun Shong Hongik University
SP-046	**MoS_2 박막의 탄소 불순물 절감을 위한 수평 층류 기반 MOCVD 시스템의 유체역학적 분석** 강정완, 최용관, 김예빈, 김동현, 신현호, 홍웅기 단국대학교 융합반도체공학과
SP-047	**Process-Dependent Dual-Functional Organic Devices Exhibiting Synaptic and PUFs Behaviors** Min Ju Jung and Eun Kwang Lee Department of Chemical Engineering, Pukyong National University
SP-048	**Threshold Voltage Tuning in Thin-Film Transistors via Gate Dielectric Multistacks** Chaeyeon Jeong, Junho Choi, Sanghyeon Kim, Myung Jun Yu, Kiho Lee, and Chanyoung Yoo Department of Materials Science and Engineering, Hongik University
SP-049	**마이크로컨택프린팅 방식으로 유전층을 형성한 유기 트랜지스터의 적층** 박형규, 김민회 국립한밭대학교 창의융합학과
SP-050	**Sc_2O_3-Mediated Interfacial Engineering for Crystallinity and Electrical Reliability Enhancement in ZrO_2/TiN Capacitors** Seo-Young Choi, Yeon-Ji Jeon, Yoonchul Shin, Ji Hwan Kim, Chan-Bin Hong, and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
SP-051	**A Study of a-IGZO Phototransistors Fabrication with Plasma-Based Low-Temperature Annealing Process** Jeong Moo Seo[1], Tukhtaev Anvar[1], Jae-Yun Lee[1], Zhao Hanlin[1], Wang Xaiolin[1], Zhu Hang[1], Maksudov Mekhroj Abdusamad Ugli[1], Shamsiev Okhunjon Zaynidin Ugli[1], Sucang Yoo[1], and Sung-Jin Kim[1,2,3] [1]College of Electrical and Computer Engineering, Chungbuk National University, [2]Biomedical Research Institute, Chungbuk National University, [3]SJ System

SP-052	**Atomic Layer Deposition of Tellurium-Based p-Type Semiconductor Films** Myung Jun Yu, Sanghyeon Kim, Dongjue Seol, Chaeyeon Jeong, Jungi Chae, and Chanyoung Yoo Department of Materials Science and Engineering, Hongik University
SP-053	**Thickness-Dependent Synaptic Characteristics of HIZO Thin-Film Transistors for Neuromorphic Applications** Chang Woo Lee[1], Hyeon Ji Kim[2], and Sang Yeol Lee[2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University
SP-054	**Enhanced Switching Performance of $Hf_{1-x}Zr_xO_2$ Ferroelectric Films through Thickness Scaling and Gradient Composition Strategy** Ji Woo Kim, Hyo-Bae Kim, Gunho Kim, Hye Won Cho, Hyung-Seok Lee, and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University
SP-055	**ZAZ 및 HAH 커패시터의 Al_2O_3 층 두께에 따른 전기적 특성 비교** 박찬울[1], 한동인[2], 박민혁[2], 이영환[1] [1]전남대학교 신소재공학부, [2]서울대학교 재료공학부
SP-056	**Tunable CuOx Surface Engineering for Fully Self-Aligned via Application in Cu/SiO_2 Interconnect Structures** Seung-Jun Lee[1], Soon-Kyeong Park[2], and Il-Kwon Oh[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University
SP-057	**Investigation of the Effect of Trap Density on the Performance of Ga-Zn-Sn-O Based Amorphous Oxide Thin-Film-Transistors by Controlling Channel Thickness** Jun Young Park[1], Kim Tae Ho[2], Kim Hyeon Ji[2], and Sang Yeol Lee[2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University
SP-058	**Co-Sputtered Hf-In-Zn-O Thin-Film Transistors: Mobility-Stability Trade-Off and Optical-Electrical Correlation** Ju Young Lee[1], Jun Young Park[1], and Sang Yeol Lee[2] [1]Department of Electronics Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University
SP-059	**Surface-Controlled Selective ALD of HfO_2 for Advanced Semiconductor Device Fabrication** Hanseong Ko[1], Hyosik Jo[1], and Hwanyeol Park[1,2] [1]Department of Display Materials Engineering, Soonchunhyang University, [2]Department of Electronic Materials, Device and Equipment Engineering, Soonchunhyang University

SP-060	**Effect of Ar Plasma Treatment on Electrical Characteristics of a-SZTO TFTs for Logic Circuit Applications** Ha Young Lee[1,3], Taeho Kim[2,3], and Sang Yeol Lee[2,3] [1]Department of Mechanical Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University, [3]Gachon Advanced Institute of Semiconductor Technology, Gachon University
SP-061	**Improved Adhesion for Printed Organic Electrochemical Transistors with Annealing Treatment** Woojin Lee[1], Jeonggyo Kwon[2], Chanyeong Jung[3], and Sunyoung Sohn[1,2,3] [1]Department of Electrical and Electronic Engineering, Sangji University, [2]Department of Semiconductor and Energy, Sangji University, [3]Department of Semiconductor Engineering, Sangji University
SP-062	**A Study on Improving Electrical Conductivity for Electric Field-Induced PEDOT:PSS Channels and Their Applications to the OECT Devices** Jeonggyo Kwon[1], Gyu Min Kyung[1], Chanyeong Jung[2], and Sunyoung Sohn[1,2,3] [1]Department of Semiconductor and Energy, Sangji University, [2]Department of Semiconductor Engineering, Sangji University, [3]Department of Electrical and Electronic Engineering, Sangji Univeristy
SP-063	**Inherent Area-Selective Deposition by HfO_2 via PEALD Using Amorphous Carbon as a Non-Growth Surface** Jun Seo Hwang, So Won Kim, and Hee Chul Lee Department of Advanced Materials Engineering, Tech University of Korea
SP-064	**Wafer-Scale Thin Film Grown WSe2 via Molten Salt Method and Device Applications** SeongMin Kim, Hyeongtae Kim, Subin Shim, and Jun Hong Park School of Materials Science & Engineering, Gyeongsang National University
SP-065	**Comparison of Various Characteristics and Lifetime Enhancement of ZnON TFTs via Organic Passivation** Hyun Seo Kim[1], Ye Ji Choi[1], Ko Eun Ham[2], Sang Jik Kwon[1], Min-Kyu Park[2], and Eou Sik Cho[1,2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University
SP-066	**ALD Super-Cycle 구성에 따른 IGZO 트랜지스터의 전기적 특성 분석** 하태준[1], 최유성[2], 조민서[2], 서민혁[2], 정광원[1], 정윤영[1,2,3] [1]포항공과대학교 전자전기공학과, [2]포항공과대학교 반도체공학과, [3]포항공과대학교 반도체기술융합센터
SP-067	**Enhancing Semiconductor Miniaturization Processes and Exploring New Applications based on the Principle of AS-ALD** Subin Cho[1], Gyeongmo Gu[1], Hyunmin Roh[1], Seongho An[1], Haekyun Bong[1,2], and Jungwoo Oh[1,2] [1]School of Integrated Technology, Yonsei University, [2]BK21 Graduate Program in Intelligent Semiconductor Technology, Yonsei University

SP-068	**Electrical Characterization of PEALD-Grown MgO Gate Dielectrics and Interface Charge Behavior** Intae Hwang[1] , Byungjun Yu[1,2], Jongha Lim[1,2], and Jungwoo Oh[1,2] [1]School of Integrated Technology, Yonsei University, [2]BK21 Graduate Program in Intelligent Semiconductor Technology, Yonsei University
SP-069	**Dielectric Enhancement in Tetragonal ZrO_2 Thin Films via Bottom Nb_2O_5 Insertion Induced Preferred Orientation Control** Yujin Lim[1], Chaeyeong Hwang[1], Kyungmo Yang[1], Myeong Ho Kim[2], Jin-Sik Kim[2], and Woojin Jeon[1] [1]Department of Materials Science and Engineering, Kyung Hee University, [2]R&D Team 1, UP Chemical Co., Ltd.
SP-070	**Improved Reliability of IGZO TFTs with SU-8 Passivation and Stability Analysis of NBIS/PBIS** Gyeongmin Ku[1], Yunjeong Kim[3], Gio Lee[1], Bogyeom Jeong[4], Kyusun Han[2], and Hongseok Oh[3] [1]Department of Materials Science and Engineering, Soongsil University, [2] Department of Intelligent Semiconductor, Soongsil University, [3]Department of Physics, Soongsil University, [4]Department of Electrical and Electronics Engineering, Chung-Ang University
SP-071	**Analysis of Al_2O_3 Thin Film Characteristics and IGZO Device Electrical Behavior according to Low-Temperature ALD Deposition Temperature** Kim Seo-Yeon[1], Han Sung-Min[1], Kim Hyo-Sang[2], and Oh Hong-Seok[3,*] [1]Department of Materials Science and Engineering, Soongsil University, [2]Department of Intelligent Semiconductor Engineering, Soongsil University, [3]Department of Physics/Department of Intelligent Semiconductor Engineering, Soongsil University
SP-072	**Three-Dimensional Stacked Conjugated Polymer Transistor for Flexible Logic Circuits** Sang Hwa Song, U Seong Jin, Ji Min Baek, Won Bae Cho, Hyung Soo Ahn, and Young Tea Chun Division of Electronics and Electrical Information Engineering, Korea Maritime & Ocean University
SP-073	**천연 목재의 밀도와 Ga_2O_3 코팅 두께에 따른 X-선 차폐 거동 분석** 곽지원[1], 김선재[1], 류희중[1,2], 황완식[1,2] [1]한국항공대학교 신소재공학과, [2]한국항공대학교 스마트항공모빌리티학과
SP-074	**Selective Infiltration of Al_2O_3 in Polymeric Encapsulation Layer for Flexible OLED** Ye Jin Jeong[1], Si Eun Jung[1], Su Min Eun[1], Ji Ho Jeon[1], Kwanhyuck Yoon[2], Woo Yong Sung[2], Jeong Hwan Han[1], and Byung Joon Choi[1] [1]Seoul National University of Science & Technology, [2]Display Research Center, Samsung Display Co., Ltd.

SP-075	**ALD-Grown SnO Thin-Film Transistors with Enhanced Hole Mobility via a Novel Sn Precursor and Optimized Annealing Process** Hyun Hak Lee, Jeong Woo Kim, and Jeong Hwan Han Department of Materials Science and Engineering, Seoul National University of Science & Technology
SP-076	**The Influence of MoNx Interfacial Layers on Ferroelectric Properties of Hf Zr-O Capacitors** Jeong Min Han, Wangu Kang, Jae Hyeon Lee, Seon Gu Choi, and Jeong Hwan Han Department of Materials Science and Engineering, Seoul National University of Science & Technology
SP-077	**Thermal Atomic Layer Deposition of Low-Resistivity and Highly Conformal Molybdenum Films** Kyoung Hwan Kim, Ji Sang Ahn, Min Seok Kim, and Jeong Hwan Han Department of Materials Science and Engineering, Seoul National University of Science & Technology
SP-078	**Investigation of ZnO Infiltration Behavior and Depth Enhancement in PMMA Using Atomic Layer Infiltration (ALI)** 전지호[1], 정시은[1], 은수민[1], 정예진[1], 윤관혁[2], 성우용[2], 최병준[1], 한정환[1] [1]Seoul National University of Science & Technology, [2]Display Research Center, Samsung Display Co., Ltd.
SP-079	**Theoretical Analysis on Small-Molecule Inhibitors for Area-Selective ALD on TiN/SiN Surfaces** Su Min Wang and Bonggeun Shong Hongik University
SP-080	**Theoretical Analysis of the Surface Reaction of Silicon Nitride ALD Using Si_2Cl_6** Kyung Han Yang and Bonggeun Shong Hongik University
SP-081	**Theoretical Analysis on the Light Absorption of Metal-Oxide Resists in the EUV Regime** Daewoong Kim, Woong Pyo Jeon, and Bonggeun Shong Hongik University
SP-082	**Theoretical Analysis on the Reactivity of EUV-absorbing Molecules** Seo Yeon Gwak and Bonggeun Shong Hongik University

SP-083	**Bipolar Switching in Correlated LTO: Interplay of Oxygen Vacancy Dynamics and Mott Transition** Seunghwan Kim, Gyeongil Son, Wonnyeon Kim, Satish B. Jadhav, and Minjae Kim School of Materials Science & Engineering, Yeungnam University
SP-084	**From Filaments to Interfaces: Tailoring Switching Mechanisms in Ta-O Memristors for Brain-Inspired Computing** Seongjin Joo, Gyeongil Son, Juyoung Park, Suraj B. Madake, and Minjae Kim School of Materials Science & Engineering, Yeungnam University
SP-085	**Self-Rectifying Interface-Type RRAM based on Fluorine-Doped TiO_2 Thin Films Prepared by Atomic Layer Deposition** Inseob Shin, Gyeongil Son, Wonnyeon Kim, Satish B. Jadhav, and Minjae Kim School of Materials Science & Engineering, Yeungnam University
SP-086	**High-Performance Selector-Only Memory via Buffer Layer Engineering** Yoon Jae Hong, Ju Hwan Park, Se Hwan Jeon, Hyun Wook Kim, and Byung Joon Choi Department of Materials Science and Engineering, Seoul National University of Science & Technology
SP-087	**Operation of Te-Rich $GeTe_x$ Based Selector-Only Memory** Tae Jun Yang, Se Hwan Jeon, Ju Hwan Park, Hyun Wook Kim, Dong Hyun Kim, and Byung Joon Choi Seoul National University of Science & Technology
SP-088	**Analysis of Electrical Characteristics of MoS_2 FETs with Different Layers of Film** Jong Mun Park, Ha Yeon Choi, Joon Soo Byeon, Seung Ri Jeong, Shivam Kumar Gautam, and Hi-Deok Lee Department of Electronics Engineering, Chungnam National University
SP-089	**Analysis of Grain Boundary Scattering and Grain Coarsening for Low-Resistivity Ru Interconnects** Soobin Bae[1,2], Dahui Jeon[1,2], and In-Hwan Baek[1,2] [1]Department of Chemical Engineering, Inha University, [2]Program in Semiconductor Convergence, Inha University
SP-090	**Effect of Annealing on a-IGZO Thin-Film Transistors and Cryogenic Electrical Characteristics for Extreme Environment** Ji Min Baek, Jee Hun Kim, and Young Tea Chun Division of Electronics and Electrical Information Engineering, Korea Maritime & Ocean University

SP-091	**Interface Engineering for Enhanced Thermoelectric Performance via UV-Assisted ALD of Al_2O_3 on P-Type Bi-Te Compounds** Jin Kyeong Shin[1], Su Min Eun[1], Yu Min Lee[1], Jun Sang Lee[1], Yeongtae Choi[2], and Byung Joon Choi[1] [1]Department of Materials Science and Engineering, Seoul National University of Science & Technology, [2]MAJE TECHNOLOGY Co., Ltd.
SP-092	**Hafnia 기반 강유전체 소자의 산소공공 농도에 따른 Retention 특성 분석** 김민규[1], 박은형[1], 하의진[2], 조원태[3], 이장식[1,3] [1]포항공과대학교 반도체공학과, [2]포항공과대학교 무은재학부, [3]포항공과대학교 신소재공학과
SP-093	**Enhancement of Electrical Conductivity in Atomic Layer Deposited SnO_2 by Fluorine Doping** Sang Beom Seo[1,2], Dahui Jeon[1,2], and In-Hwan Baek[1,2] [1]Department of Chemical Engineering, Inha University, [2]Program in Semiconductor Convergence, Inha University
SP-094	**Reliability Enhancement of HfO_2-Based Memristor via TiO_2 Interlayer** Soonbin Kwon, Seokho Cho, Juan Hong, and Woongkyu Lee Department of Materials Science and Engineering, Soongsil University
SP-095	**Controlling Oxygen Vacancy Migration for Stable Resistive Switching in Hafnium Oxide Memories** Hae In Kim, Yura Oh, and Hae Jin Kim Department of Materials Science and Engineering, Myongji University
SP-096	**Analog Resistive Switching Behavior Realized through Oxygen Vacancy Engineering in TiOx/Al_2O_3 Bilayer Oxides** Minsu Kim, SuA Han, and Hae Jin Kim Department of Materials Science and Engineering, Myongji University
SP-097	**적층형 인쇄 전자 소자 제작을 위한 용액공정 조건 확립** 김영민[1], 문현우[1], 정금성[1], 양윤숙[1,2], 김우영[1,2] [1]제주대학교 전자공학과, [2]제주대학교 반도체디스플레이연구센터

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E. Compound Semiconductors 분과

SP-098	**Heteroepitaxial Growth of High-Quality (100) Single-Crystal Diamond Assisted by SiO_2 Nanospheres** Min Yoon, Taemyung Kwak, Jeong Ju-cheol, Geunho Yoo, and Okhyun Nam Department of Nano-Semiconductor Engineering, Tech University of Korea
SP-099	**Double Epitaxial 구조에 따른 4.5 kV Trench SiC JBS 다이오드의 전기적 특성 분석** 박가영[1], 김상엽[2], 최수빈[1], 백두산[2], 정승완[2], 석오균[1] [1]부산대학교 전기전자공학부, [2]부산대학교 전기전자공학과
SP-100	**P-Base Tilt Implant를 적용한 1.2 kV SiC MOSFET의 중이온 조사 내성 향상** 최수빈[1], 김상엽[2], 백두산[2], 정승완[2], 박가영[1], 석오균[1] [1]부산대학교 전기전자공학부, [2]부산대학교 전기전자공학과
SP-101	**SiC MOSFET 칩 표면의 구역별 열 분포 및 발열 특성 분석** 류종현[1], 강규혁[2], 정승완[2], 백두산[2], 석오균[3] [1]부산대학교 기계공학부, [2]부산대학교 전기전자공학부, [3]부산대학교 전기전자공학과
SP-102	**1.2kV급 SBD 내장형 SiC MOSFET의 게이트 바이어스에 따른 서지 전류 성능 분석** 박진우[1], 강규혁[2], 정승완[2], 김상엽[2], 석오균[1] [1]부산대학교 전기전자공학부, [2]부산대학교 전기전자공학과
SP-103	**전하 균형 확보를 위해 인(P) 채널링 이온주입을 적용한 1.2kV 급 SiC Semi-Superjunction MOSFET 설계** 양승리[1], 정준기[2], 박수민[2], 백두산[2], 정승완[2], 석오균[1] [1]부산대학교 전기전자공학부, [2]부산대학교 전기전자공학과
SP-104	**4H-SiC 기판 위 MOCVD로 성장한 Ga_2O_3 박막의 C-V 특성 및 쇼트키 배리어 다이오드 제작** Si Gwang Kim, Ju Eon Bae, Jun Ha Park, Dong Ho Lee, Seon Jin Mun, Hyung Soo Ahn, and Min Yang Department of Nano-Semiconductor Engineering, Korea Maritime & Ocean University

SP-105	**GaN 템플릿 위 MOCVD로 성장한 Ga_2O_3 박막의 결정상 변환 분석** Ju Eon Bae, Si Gwang Kim, Jun Ha Park, Dong Ho Lee, Seon Jin Mun, Hyung Soo Ahn, and Min Yang Department of Nano-Semiconductor Engineering, Korea Maritime & Ocean University
SP-106	**Study of 2-Dimensional Hole Gas (2DHG) Characteristics in p-(Al)GaN/AlGaN/AlN Heterostructures** Minyeong Kim, Joocheol Jeong, Shyam Mohan, Jaejin Heo, Hyogeun Cho, Mingoo Jo, and Okhyun Nam Convergence Center for Advanced Nano Semiconductor, Department of Nano-Semiconductor, Tech University of Korea
SP-107	**Tuning α-Ga_2O_3 Growth Mode via Surface Energy Modulation for High-Performance UV Photodetectors** Hee Won Shin[1] and You Seung Rim[1,2,3] [1]Department of Intelligent Mechatronics Engineering, Sejong University, [2]Semiconductor Systems Engineering and Intelligent Convergence Engineering, Sejong University, [3]Institute of Semiconductor and System IC, Sejong University
SP-108	**5G mmWave 응용을 위한 RF GaN HEMT 최적화 시뮬레이션 연구** 이희우[1], 이강희[2], 이석균[2] [1]아주대학교 전자공학과, [2]아주대학교 지능형반도체공학과
SP-109	**Electrical Control of Light-Induced Synaptic Plasticity in Mechanically Exfoliated MoS_2 Thin-Film Transistors** Yuchang Oh, Jaewon Shin, and Seok Daniel Namgung School of Electrical and Electronics Engineering, Chung-Ang University
SP-110	**Pulse-Doping Control of B-N Cluster Formation for n-Type Diamond via MPCVD** Sangwook Park, Taemyung Kwak, Geunho Yoo, Yoonseok Nam, and Okhyun Nam Department of Nano & Semiconductor Engineering, Tech University of Korea
SP-111	**Growth Behavior of Diamond on r-Plane Sapphire Using Metal Mask-Based ELO Pattern Structures** Donghyun Kyung, Taemyung Kwak, Seolyoung Oh, Yoonseok Nam, Hyunsu Ma, Min Yoon, Sangwook Park, Geunho Yoo, Jeong Ju-cheol, and Okhyun Nam Department of Nano-Semiconductor, Convergence Center for Advanced Nano Semiconductor
SP-112	**NiO/β-Ga_2O_3 이종접합 Double-Layer 다이오드 최적화 설계에 대한 연구** 김선범[1], 이태은[2], 우솔아[1,2] [1]부경대학교 전자공학과, [2]부경대학교 지능로봇공학과

SP-113	**InAlAs/InGaAs HEMT에 양성자 조사에 따른 전기적 특성 및 저주파 잡음 열화 분석** 이주형[1], 반선호[1], 염지훈[1], 김유미[2], 손승우[3], 김대현[3], 권혁민[1] [1]한경국립대학교 전자전기공학부 전자공학전공, [2]한국원자력연구원, [3]경북대학교 IT대학 전자공학부
SP-114	**Evolution and Future Perspectives of HfO_2-Based FeFET** Minji Hong and Mingyu Sang Department of Electronic Engineering, Gachon University

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G. Device & Process Modeling, Simulation and Reliability 분과

SP-129	**Enhancement of Ion/Ioff Ratio in a 20 nm Gate Length Bcat Structure by Tuning Various Module Target Specs Using TCAD Simulation** Soo Young Park Soongsil University
SP-130	**Analysis of Silicide Formation and Resistance as a Function of Ti Thickness and Annealing Temperature** Hyekyo Kim, Seoyoung Kim, Hyeonseok Song, Seonghoon Lee, and Seulki Hong Department of Semiconductor Engineering, Seoul National University of Science & Technology
SP-131	**Development and Characteristic Prediction of a Nanosheet FET Artificial Neural Network Model Utilizing a MATLAB-Based GUI** Jun Hyeong Lee[1,2], Ji ho Hyun[1,2], and Yun Seop Yu[1,2] [1]Major of Semiconductor Engineering Hankyong National University, [2]Major of ICT & Robotics Engineering, Hankyong National University
SP-132	**Threshold Voltage Prediction of In2O3 TFTs via Unified Parameter Set Modeling based on Multi-Condition Fitting** Minkyung Seo, Jaemin Kim, Sunwoo Jeong, Hyeongjun Jang, and Changwook Jeong UNIST
SP-133	**A System-Level Analysis of Key Parameters in Peptide-Based Memristors for In-Memory Computing** Jun Ha Park[1], Jeong Hyun Yoon[2], and Min-Kyu Song[1] [1]School of Electrical Engineering, Korea University , [2]School of Integrated Technology, Yonsei University
SP-134	**Theoretical Mobility Analysis through Self-Consistent Schrödinger-Poisson Solver Implementation** Hyeonmo Hwang, Jongheon Lee, Hyeongjun Jang, and Changwook Jeong UNIST
SP-135	**Improving Low-Temperature Ferroelectricity by Suppressing Bottom TiO_2 Formation with an SiO_2 Capping Layer** Doh Won Kim, Sang Jae Kim, Hyo Young Park, Changyoung Song, Hyeokjun You, and Sihyun Kim Department of Electronic Engineering, Sogang University

SP-136	**Quantum-Limit Contact Resistance in 2D Semiconductors Predictions** Jongheon Lee, Hyeonmo Hwang, Hyeongjun Jang, Ilun Kim, and Changwook Jeong UNIST
SP-137	**Nanosheet FETs with an Inner Spacer Barrier for Suppression of Substrate Parasitic Effects and Punch-Through** Yeon-Seok Lee, Eui-Cheol Yun, Hyo-Jun Park, and Jun-Young Park School of Semiconductor Engineering, Chungbuk National University
SP-138	**GIDL을 활용한 Floating Gate 제어 기반 FinFET의 Multi Vt 동작 구현** 윤용노, 선태민, 홍슬기 서울과학기술대학교 지능형반도체공학과
SP-139	**Design of Multi-Threshold Voltage Transistors via Channel Region Segmentation** Tae Min Sun, Yong No Yoon, and Seul Ki Hong Seoul National University of Science & Technology
SP-140	**Research on the Performance of IGZO Based Source-Gated Transistors with UV Sensors** Hyunmin Joo[1], Hyunsoo Kim[2], Won Suk Oh[2], Kyusun Han[2], and Hongseok Oh[1,2] [1]Department of Physics, Soongsil University, [2]Department of Intelligent Semiconductor, Soongsil University
SP-141	**Performance Optimization of 3D Ferroelectric Flash Memory through S/D Recess Engineering Using TCAD Simulation** 남서현, 조성효, 김장생 서강대학교 전자공학과
SP-142	**Analysis of Signal Distortion in RRAM Crossbar Arrays Caused by Process-Induced Line Resistance Variation** Geun-Tak Lim and Tae-Hyeon Kim Seoul National University of Science & Technology
SP-143	**CMOS-Compatible Backside Fabrication Scheme for $4F^2$ DRAM** Donghyeon Kim, Yoonwoo Choi, Geonu An, and Jaehyun Lee School of Electrical and Electronics Engineering, Pusan National University

SP-144	**Ion Implantation 및 RTA 공정에 따른 전기적 영향의 머신 러닝 분석** 안휘, 최백룡, 권태진, 권혁주 숭실대학교 전자정보공학부
SP-145	**단일 카메라 기반 저심도 물리 거리 측정 시스템 개발(Efficient Monocular Depth-Based Physical Distance Measurement for Low-Depth Scales)** 문경돈[1], 조선민[2], 최재연[2] [1]서강대학교 전자공학과, [2]서강대학교 물리학과
SP-146	**Wrap-Around Contact Formation for High-Performance 4F² DRAM** Minju Kim[1], Donghyeon Kim[1], Sehoon Jung[1], Hyeok Je Jeong[2], Chai Rok Lim[2], Gi Yeol Yun[2], and Jaehyun Lee[1] [1]School of Electrical and Electronics Engineering, Pusan National University, [2]Taesung Environmental Research Institute Co., Ltd.
SP-147	**Design Optimization of MIFIS FeFETs for Enhanced Memory Window : A TCAD Simulation Study on the Role of G.IL Thickness and Interfacial Charge Trapping** Jaehyuck Cha[1], Ho Seo[2], Wonseob Shin[2], Jehyeok Jung[1], and Sihyun Kim[1] [1]Department of Electronic Engineering, Sogang University, [2]Department of Physics, Sogang University
SP-148	**Ising Model-Based Monte Carlo Simulation Modeling for Fractional Coverage and Selectivity Prediction in Area Selective ALD** 이동규, 이태영, 이지민, 황서영, 김보성 고려대학교 세종캠퍼스 반도체물리학과
SP-149	**TCAD-Based Analysis and Suppression of Coupling Effects in 3D-Stackable 2T0C DRAM Using Electrostatic Shielding** Giung Kim[1], Yongwoo Ryu[2], Gyuheon Bae[2], Youngjoon Lee[3], Dae Hwan Kang[1,2], and Changwook Jeong[3] [1]Department of Semiconductor Engineering, [2]Graduate School of Semiconductor Technology, POSTECH, [3]Graduate School of Semiconductor Materials and Devices Engineering, UNIST
SP-150	**Performance Optimization of 2T-nC FeRAM via NLS-Based Compact Ferroelectric Modeling** Hyunwu Yoo, Jaewoog Jung, and Hyunwoo Kim Department of Electrical and Electronics Engineering, Konkuk University
SP-151	**Improving the Short Channel Effect Using Concave Channel with Dual Material Gate in MOSFET** 정규성[1,2], 강대웅[1] [1]서울대학교 차세대반도체융합대학, [2]중앙대학교 전자전기공학부

SP-152	**Selective AlN-Assisted Thermal Design for Self-Heating Mitigation in Nanosheet FETs** Jung Yeon Nam[1], Ha Yeong Byeon[1], Tae Young Yoon[2], Jang Hyun Kim[1,2], and Junseok Heo[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University
SP-153	**자가 정렬형 매립 게이트 및 돌출 소스-비대칭 MOSFET을 이용한 Short Channel Effect 개선** 박준영[1,2], 강대웅[1] [1]서울대학교 차세대반도체융합대학, [2]중앙대학교 화학신소재공학부
SP-154	**Comparative Electro-Thermal Analysis of CFET Structures with Frontside BPR and Backside BSC Configurations** JiSung Lee[1], JoHyeon Kim[2], Jaehoon Yoon[3], and Jongwook Jeon[4] [1]Department of Electronic Engineering, Chungnam National University, [2] Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [3]Department of Electrical and Electronics Engineering, Konkuk University, [4]Department of Electrical and Computer Engineering, Sungkyunkwan University
SP-155	**Analysis of Double-Sided Row Hammer Mechanism in 3D BCAT-Based DRAM** Jigwang Kim, Hansol Kim, Jisung Im, Taeseong Kwon, Jinsu Kim, Wonjun Song, Hojin Moon, Jahyun Gu, Doyeon Park, Eunjeong Jang, Hyeontae Yun, and Sung Yun Woo School of Electronic and Electrical Engineering, Kyungpook National University
SP-156	**Comparative Compact Modeling of FeFETs for Memory Application: Landau-Khalatnikov, Preisach, and NLS Approaches** Hae Seul Cho, Jae Woog Jung, and Hyunwoo Kim School of Electrical and Electronics Engineering, Konkuk University
SP-157	**Si 및 SiC 기반 상용 다이오드의 가속 신뢰성 평가 및 누설전류 거동 분석** 김환[1], 김선재[1], 류희중[1,2], 뷰흐엉[1,2], 황완식[1,2] [1]한국항공대학교 신소재공학과, [2]한국항공대학교 스마트항공모빌리티학과
SP-158	**Total Ionizing Dose Effects in Fin- and GAA-FETs** Dongwook Heo[1], Dongwook Kim[3], Hanggyo Jung[2], Soomin Kim[3], and Jongwook Jeon[4] [1]Department of Advanced Materials Science and Engineering, Sungkyunkwan University, [2]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [3]Department of Display Engineering, Sungkyunkwan University, [4]Department of Electrical and Computer Engineering, Sungkyunkwan University

SP-159	**Dual-Workfunction a-Si SGT with Enhanced Drive and Early Saturation for Low Power Logic Applications** Min-Hoo Gong, Sung-Min Woo, Seong-Yeon Yoon, Yuni Jee, and Joon-Seok Kim School of Electronics and Electrical Engineering, Hongik University
SP-160	**Electrical Characteristics of ZnON-Based TFTs with Additional Channel Deposition and Controlled Oxidation Conditions** Geon Woo Choi[1], Gang Guk Park[1], Hyuk Ju An[1], Seung Min Lee[2], Sang Jik Kwon[1], Min-Kyu Park[2], and Eou-Sik Cho[1,2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University
SP-161	**Investigation of IGZO-Based 3D Vertical Channel Transistors and Physics-Informed Neural Network Modeling for Next-Generation DRAM** Wonbin Lee[1], Minje Park[1], and Saeroonter Oh[2] [1]Department of Electronic and Electrical Engineering, Sungkyunkwan University, [2]Department of Semiconductor Convergence Engineering, Sungkyunkwan University
SP-162	**Analytical Modeling of Fringe Capacitance Considering Dual-k Spacer for GAA-NS FETs and Its Impact on RC Delay** Jea Won Choi and Hyoun Sik Yang Department of Physics, Yonsei University

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H. Display and Imaging Technologies 분과

SP-163	**Thickness-Dependent Threshold Voltage Control of a-IGZO Thin-Film Transistors: A Comparison between Xenon Flash Lamp Annealing and Conventional Thermal Annealing** Hyuk Ju Ahn[1], Yun Hyeok Jeong[2], Sungjin Park[2], Jisu Kim[1], Sang Jik Kwon[1], Min-Kyu Park[2], and Eou-Sik Cho[1,2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University
SP-164	**A Single-Step Fabrication and Debonding Process for High-Performance Flexible and Transparent a-IGZO TFTs** SeYoon Jeon[1], Ji Won Woo[1], Minsu Kim[3], Yun Hyeok Jeong[2], Sang Jik Kwon[1], Min-Kyu Park[2], and Eou-Sik Cho[1,2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University, [3]Department of Materials Science and Engineering, Gachon University
SP-165	**Electrical and Optical Characteristics of Indium-Free ZnON TFTs with AZO-Ag-AZO Transparent Electrodes** Dong Hyeon Kim[1], Dong Beom Lee[1], Joo Hyun Jeong[2], Yun Hyeok Jeong[2], Sang Jik Kwon[1], Min-Kyu Park[2], and Eou-Sik Cho[1,2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University
SP-166	**Guided-Mode Resonance in 1D Grating Structure Formed on Si Thin Film** Sungbeom Lee[1], Jinhong An[1], Hyun Hong[2], Eunsol Cho[2], and Byoung-Ho Cheong[2] [1]Department of Display and Semiconductor Physics, Korea University, [2]Department of Applied Physics, Korea University
SP-167	**Simulation Study of Sidewall Engineering in GaN-Based Blue Micro-Light-Emitting Diodes** Sangjin Yu[1], Yeonbin Kang[2], and Dae-Myeong Geum[1,2] [1]Department of Electrical and Electronic Engineering, Inha University, [2]Department of Electrical and Computer Engineering, Inha University
SP-168	**단일 이미지 기반 초해상도 딥러닝 모델 성능 비교** 원빈, 문창빈, 강석주 서강대학교 전자공학과

SP-169	**Crystallinity Analysis of Laser-Treated Amorphous Silicon Films** Jin-Hong An[1], Sung-Beom Lee[1], Hyun Hong[2], Eun-Sol Cho[2], and Byoung-Ho Cheong[2] [1]Department of Display and Semiconductor Physics, Korea University, [2]Department of Applied Physics, Korea University
SP-170	**E-spun Ferroelectric PVDF Photodetectors Doped with Cs_2SnBr_6 Perovskite** Gi Beom Lim[1], Han Min Kim[1], Hyeon Bin Jo[2], Yun Sung Lee[2], and Sung Hun Jin[1] [1]Department of Information Display, Kyung Hee University, [2]Department of Intelligent Semiconductor Engineering, Incheon National University
SP-171	**Investigation on Origin of Negative Photo-Conductance in Single Walled Carbon Nanotube/ Copper-Iodide Heterostructure Devices** So Yeon Jeon[1], Han Min Kim[2], Hyeon Bin Jo[1], Yun Sung Lee[2], and Sung Hun Jin[1] [1]Department of Information Display, Kyung Hee University, [2]Department of Intelligent Semiconductor Engineering, Incheon National University
SP-172	**Optimization of SA-UDA Composition in Shape Memory Polymer Stamps for Reliable Micro-Transfer Printing of μ-LEDs** Mingi Chai[1], Hyun Tak[1], and Youngmin Kim[1] [1]School of Materials Science and Engineering, Kookmin University
SP-173	**Initiated CVD-Gate Dielectric Dependency on Hysteresis Behaviors in Single Walled Carbon Nanotubes Thin Film Transistors** Su Yeon Son[1], Yun Sung Lee[2], Han Min Kim[2], Hyeon Bin Jo[1], and Sung Hun Jin[1] [1]Department of Information Display, Kyung Hee University, [2]Department of Intelligent Semiconductor Engineering, Incheon National University
SP-174	**Electrospun PVDF Photodetectors Doped with Cs2SnI6 Perovskites for Reservoir Computing Applications** Chae Hyun Ryu[1], Han Min Kim[2], Yun Sung Lee[2], Hyeon Bin Jo[1], and Sung Hun Jin[1] [1]Department of Information Display, Kyung Hee University, [2]Department of Intelligent Semiconductor Engineering, Incheon National University
SP-175	**CMOS 기반 플래시 LiDAR 센서의 In-Pixel Zoom Histogramming TDC 설계 및 특성 분석(A CMOS Flash LiDAR Sensor with In-Pixel Zoom Histogramming Time-to-Digital Converters)** 정창식, 이철민, 홍태규, 박현우 서강대학교 전자공학과
SP-176	**Analysis of Short-Channel Effects on IGZO Thin-Film Transistors** Seung Wook Ha[1], Jonghyun Yun[2], Sungmin Park[3], Su Bo Lee[2], Gil Ju Lee[3], and Yoonki Hong[3] [1]School of Optics and Mechatronics Engineering, Pusan National University, [2]Department of Electrical and Electronics Engineering, Pusan National University, [3]School of Electrical and Electronics Engineering, Pusan National University

SP-177	**Dimension-dependent Characteristics of IGZO TFTs Using Outside-Gated Probe-Based TLM Method** Yeongjin Lee[1], Jonghyun Yun[2], Sungmin Park[3], Su Bo Lee[2], Gil Ju Lee[3], and Yoonki Hong[3] [1]School of Electrical and Electronics Engineering, Electrical Engineering Major, Pusan National University, [2]Department of Electrical and Electronics Engineering, Pusan National University, [3]School of Electrical and Electronics Engineering, Pusan National University

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I. MEMS & Sensors Systems 분과

SP-178	**Stretchable, Self-Adhesive PEDOT:PSS-PDMS Composites Enabled by PEIE for Epidermal Biopotential Monitoring** Sung Min Bae[1], Dong Jin Lee[3], and Dae Yu Kim[1,2,3,4] [1]Department of Electrical and Electronic Engineering, College of Engineering, Inha University, [2]Department of Electrical and Computer Engineering, College of Engineering, Inha University, [3]Center for Sensor Systems, Inha University, [4]Inha Research Institute for Aerospace Medicine, Inha University
SP-179	**Paper-Based Laser-Induced Graphene Electrode for Non-Enzymatic Uric Acid Detection** Jueun Park, Yunhoe Koo, Ji Min Kim, and A-Rang Jang Division of Electrical, Electronic and Control Engineering, Kongju National University
SP-180	**PEDOT:PSS Fiber-Based Dual-Gate Sensor for pH-Tuned Selective Copper Detection in Marine Environment** Minseo Park and Eun Kwang Lee School of Chemical Engineering, Pukyong National University
SP-181	**Mixed-Gas Identification Using Silicon FET-Based Gas Sensors and Machine Learning** Cheoljin Park[1], Jaehyeon Kim[1], Jong-Ho Lee[1], and Gyuweon Jung[1,2] [1]Department of Electrical and Computer Engineering and Inter-university Semiconductor Research Center, Seoul National University, [2]School of Transdisciplinary Innovations, Seoul National University
SP-182	**In-Sensor Motion Detection based on Decaying Dynamics in ITZO Optical Synaptic Devices** Yeong-In Kim[1], Jaewon Shin[2], Seok Daniel Namgung[2], and Min-Kyu Song[1] [1]School of Electrical Engineering, Korea University, [2]School of Electrical and Electronics Engineering, Chung-Ang University
SP-183	**Optical Synaptic Thin-Film Transistor based on Polymeric Surface Treatment under DNTT Channel** Suhyeon Kim[1], Seungme Kang[2], and Hocheon Yoo[2] [1]Department of Electrical Engineering, Sookmyung Women's University, [2]Department of Electronic Engineering, Hanyang University

SP-184	**Tunable Transition between Anti-Ambipolar and N-Shaped NTC Characteristics in Split-Gate Heterojunction Transistors** Taejun Ohm[1], Jaechan Song[2], and Hocheon Yoo[2,3] [1]Department of Electrical and Electronic Engineering, Inha University, [2]Department of Artificial Intelligence Semiconductor Engineering, Hanyang University, [3]Department of Electronic Engineering, Hanyang University
SP-185	**생분해성 마이크로니들을 이용한 장기 특이적 약물전달 기술** Chan young Choi and Yoonseok Park Department of Materials Science and Engineering, Kyung Hee University
SP-186	**High-Resolution Motion Recognition Using a High-Performance TENG-Based JMTQS for Human-Robot Interaction and Remote Control** Minseo So[1], Seho Cho[1], Chaerin Han[3], Jaeseok Kim[1], Dahee Jeong[1], Jamyeong Lee[1], Gyeongmin Lee[1], Sungwoo Jang[1], Hyunjoo Hwang[2], Dongjun Min[1], Seokhhyun Han[2], Myeungsoung Kim[2], Jihun Lee[2], and Seung-Eon Ahn[1,2] [1]Department of Nano & Semiconductor Engineering, Tech University of Korea, [2]Department of IT · Semiconductor Convergence Engineering, Tech University of Korea, [3]Department of Advanced Materials Engineering, Tech University of Korea
SP-187	**A Wearable CNT/PDMS Sensing System Integrated with Deep Learning for Sign Language Recognition** Jaeseok Kim[1], Dahee Jeong[1], Minseo So[1], Seho Cho[1], Chaerin Han[3], Jihun Park[1], Kiwoong Son[1], Seotae An[1], Wonwoo Kho[2], Hyunjun Kim[1], Narim Lee[1], Seokhyun Han[2], Jihun Lee[2], and Seung-Eon Ahn[1,2] [1]Department of Nano & Semiconductor Engineering, Tech University of Korea, [2]Department of IT · Semiconductor Convergence Engineering, Tech University of Korea, [3]Department of Advanced Materials Engineering, Tech University of Korea
SP-188	**Hydrogen Gas Sensor Using Graphene/Semiconductor Heterojunctions Decorated With Pd NPs** Jongyun Jeong and Woo jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University
SP-189	**Metal Mesh Ultrasound Triboelectric Nanogenerator for Optimal Energy Harvesting Property** Ki-Yoon Park[1,2] and Hong-Joon Yoon[1,2] [1]Department of Semiconductor Engineering, Gachon University, [2]Department of Electronic Engineering, Gachon University
SP-190	**Bioimpedance-Based Wound Healing Monitoring System Using a Suction-Cup-Inspired Patch** JiYou Jung and Yoonseok Park Department of Materials Science and Engineering, Kyung Hee University

SP-191	**Dual-Probe Nano-Structured Pt Resistance Temperature Detectors** 이지원[1], 김수영[2,3], 김대주[2], 조제희[1,2,3] [1]전북대학교 반도체과학기술학과, [2]전북대학교 반도체화학공학부, [3]전북대학교 반도체물성연구소
SP-192	**UVtron, SiC, Ga_2O_3 기반 자외선 화염 센서의 특성 비교** 서정호[1], 김선재[1], 류희중[1,2], 황완식[1,2] [1]한국항공대학교 신소재공학과, [2]한국항공대학교 스마트항공모빌리티학과
SP-193	**유리 분말 재흘림 공정을 이용한 유리 구조 제작** 채건[1], 박진영[2], 최재빈[2], 이승기[1,2], 박재형[1,2] [1]단국대학교 융합반도체공학과, [2]단국대학교 파운드리공학과
SP-194	**Aqueous, Flux-Free Eco Friendly Paste Enabled by Photoactivation and Micro-Alloying** Jinsu Park, Seongu Kim, Lurong Yang, Hyejun Kim, Junghoon Lee, Yeonjae Yang, Chengwen Wang, and Jeonghyun Kim Department of Electronic Convergence Engineering, Kwangwoon University
SP-195	**Magnetically Reconfigurable Mechanical Logic Gate and Its Implementation toward a Mechanical FPGA System** Dongkyu Jeong, Jeongmin Yoo, Gooyoon Chung, and Yoonseok Park Department of Materials Science and Engineering, Kyung Hee University
SP-196	**Hydrogen Sensing Characteristics of Pd-SWCNT under Various Conditions** Sang Jun Park[1], Myeong Hoon Lee[1], Beom Joon Jung[2], and Young Lae Kim[1] [1]Department of Electronic and Semiconductor, Gangneung-Wonju National University, [2]Department of Electronic Engineering, Gangneung-Wonju National University
SP-197	**Ambient-Condition NOx Detection System via ZnO-Carbon Nanotube Hybrid Sensors** Kyung Eun Kim[1], Min Hyeok Yang[2], Jae Hyeon Kim[2], Ha Jeong Jeon[2], and Young Lae Kim[2] [1]Department of Electronic Engineering, Gangneung-Wonju National University, [2]Department of Electronic and Semiconductor Engineering, Gangneung-Wonju National University
SP-198	**Optical Motion Tracking via Photodetector Arrays for Adaptive Metastructures** Gyuri Shin and Yoonseok Park Department of Materials Science and Engineering, Kyung Hee University

SP-199	**Enhanced Nitrogen Dioxide Sensing via Lithium-Ion Deposited SWCNT Nanostructures** Jae Hyeon Kim[1], Beom Joon Jung[2], and Young Lae Kim[1] [1]Department of Electronic and Semiconductor Engineering, Gangneung-Wonju National University, [2]Department of Electronic Engineering, Gangneung-Wonju National University, [3]Department of Electronic Engineering, Gachon University
SP-200	**Wearable Sweat Sensor with a Porous Active Thermal Layer for Enhanced Signal Repolarization and Amplification** Junseok Lee[1], Doohyun J. Lee[2], Ki Jun Yu[2], and Mingyu Sang[2] [1]Department of Biomedical Engineering, Gachon University, [2]School of Electrical and Electronic Engineering, Yonsei University
SP-201	**Piezoelectric Wearable Strain Sensor with Al_2O_3/P(VDF-TrFE) Thin Film** Hyosang Yoon, Minji Hong, and Mingyu Sang Department of Electronic Engineering, Gachon University
SP-202	**Breathprint Analysis for Respiratory Disease Monitoring Using a Hybrid Gas Sensor Array** Junseok Lee[1], Yena Lee[2], and Mingyu Sang[2] [1]Department of Biomedical Engineering, Gachon University, [2]Department of Electronic Engineering, Gachon University
SP-203	**Alkylamine-Functionalized Graphene Quantum Dots for Efficient Quantum Dots Light-Emitting Diodes** Dong Geun Han, Yeseul Lim, and Minsu Park Department of Polymer Science and Engineering, Dankook University
SP-204	**Long-Lived Room-Temperature Phosphorescence of Graphene Quantum Dots Embedded in Polymer Matrix** Taesik Eom, Daeyoung Kim, and Minsu Park Department of Polymer Science and Engineering, Dankook University
SP-205	**A Multi-Electrode US-TENG with an Optimized Half-Wave Rectifier for Implantable Medical Devices** 박기윤[1], 정종훈[2], 김윤성[1], 이주열[2], 윤홍준[3] [1]가천대학교 전자공학과, [2]가천대학교 시스템반도체학과, [3]가천대학교 반도체공학과

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J. Nano-Science & Technology 분과

SP-206	**High-Responsivity TeOx/p-Si Photodiodes Enabled by Two-Dimensional Tellurium Electrodes** Serim Oh[1] and Byungjin Cho[1,2] [1]Department of Advanced Materials Engineering, Chungbuk National University, [2]Department of Urban, Energy, and Environmental Engineering, Chungbuk National University
SP-207	**Highly Durable Neuromorphic Synaptic Transistors Enabled by C-Axis Aligned Crystalline InGaZnO** Jeongwoo Kim[1] and Byungjin Cho[1,2] [1]Department of Advanced Materials Engineering, Chungbuk National University, [2]Department of Urban, Energy, and Environmental Engineering, Chungbuk National University
SP-208	**Truly Form-Factor-Free Industrially Scalable System Integration for Electronic Textile Architectures with Multifunctional Fiber Devices** Taewook Kang, Hyeongseok Kim, Jiae Jung, Hyeonyeong Cho, and Sanghyo Lee Department of Materials Science and Engineering, Kumoh National Institute of Technology
SP-209	**Solution-Processed Patterning and Characterization of ZnO-Based Memristors Using Zinc Acrylate Precursors** Yong-Wook Jeong[1,2], Tae Kyu An[1,2], and Yong Jin Jeong[1,2] [1]Department of Polymer science & Engineering, Korea National University of Transportation, [2]Department of Materials Science & Engineering, Korea National University of Transportation
SP-210	**WS2 FET의 금속/반도체 계면 O2 플라즈마를 통한 접촉 특성 향상** 이정훈[1], 서동현[3], 김태완[2,3] [1]서울시립대학교 전자전기컴퓨터공학부, [2]서울시립대학교 첨단융합학부, [3]서울시립대학교 지능형반도체학과
SP-211	**Strain-Engineered Nanogap Control on Stretchable Substrates for Surface Enhanced Raman Spectroscopy** Ji Eun Han, Ji Hyo Lim, Geon Park, Joo Hyung Ham, Jun Ho Choi, Seung Hyeon Park, and Khang June Lee Department of Semiconductor Engineering, University of Suwon

SP-212	**Anchoring Effect of Polymer-Wrapped CNT via Self-Assembled Molecules on Transistor Performance** Jin Kim[1], Sanghyeon Park[3], Seyoung Oh[1,2], Yujung Kim[1,2], Bogyu Lim[3] , and Byungjin Cho[1,2] [1]Department of Advanced Materials Engineering, Chungbuk National University, [2]Department of Urban, Energy, and Environmental Engineering, Chungbuk National Universit
SP-213	**Low Voltage Operating Self-Rectifying Resistive Memory with Ferroelectric Polymer-MXene Nanosheet Blends** Seungjae Choi[1] and Beomjin Jeong[2] [1]School of Organic Material Science Engineering, Pusan National University, [2]School of Chemical Engineering, Pusan National University
SP-214	**Investigation of Trap-Induced Threshold Voltage Instabilities in MoS_2 Thin-Film Transistor under Electrical and Optical Stress** Ji Hyo Lim, Geon Park, Joo Hyung Ham, Ji Eun Han, Choi Jun Ho, Park Seung Hyeon, and Khang June Lee Department of Semiconductor Engineering, University of Suwon
SP-215	**Signal Modulation and MIMO RF Applications Enabled by Vector-Matrix Multiplication Using Oxidized MoS2-Based RRAM** Juho Son[1], Changwoo Pyo[2], Sungmoon Park[2], and Myungsoo Kim[1,2] [1]Department of Electrical Engineering, UNIST, [2]Graduate School of Semiconductor Materials and Devices Engineering, UNIST
SP-216	**Electrochemically Transparent Gas Sensor based on Reverse-Transferred Pd-Functionalized Graphene** JiHyeok Choi[1], Hangyeol Choi[1], Junyoung Jung[2], Geonhee Lee[3], and A-Rang Jang[1] [1]Division of Electrical, Electronic and Control Engineering, Kongju National University, [2]Department of Electrical and Computer Engineering, Texas A&M University, [3]R&D Group, Simmtech
SP-217	**Characterization of WSe_2 FETs via WO_x Layer Engineering** Gwanwoo Kim, Tran Van Duc, Dinh Le Thao Nhi, Gun Won Seo, Hojun Kim, and Min Sup Choi Department of Materials Science and Engineering, Chungnam National University
SP-218	**AI-Based Image Analysis and Correlation with Electrical Optical Properties of Oxidized MoS_2** Sungyong Park[1], Jiwon Sung[1], Dahyeon Kim[1], Jiyoon Kim[1], Seok Joon Yun[2], and Hyunjin Ji[1] [1]Department of Electrical, Electronic and Computer Engineering, University of Ulsan, [2]Department of Semiconductor Physics and Engineering, University of Ulsan
SP-219	**Engineering Selected-Channel Polarity with Photoelectroactive Doping in Single-Gate van der Waals Transistors** Sang Hyun Lee[1], Hyeonbin Seo[1], Joo-Sung Kim[2], and Seyong Oh[1] [1]Division of Electrical Engineering, Hanyang University ERICA, [2]TESCAN KOREA Co., Ltd.

SP-220	**Thickness-Dependent Optical and Electrical Characteristics of Laser-Thinned WSe_2 for Tunable 2D Optoelectronic Devices** Geonwoo Kang, Yujin Sagong, and Seok Daniel Namgung School of Electrical and Electronics Engineering, Chung-Ang University
SP-221	**Lignin-Mediated Carrier Concentration Enhancement in CVD-Grown MoS2 Monolayer Field-Effect Transistors** Cheol Ho Lee[1], Hyung Su Kim[1], Do Hyeon Kim[1], Chan Kwon[2], Mun Seok Jeong[2], and Hyun Jeong[1] [1]Department of Semiconductor and Electronic Engineering, Daegu University, [2]Department of Physics, Hanyang University
SP-222	**Thermoelectric Property Investigation of Te-Based Nanostructures Synthesized Under Different Stirring Conditions in Hydrothermal Processes** Ji Woo Kim, Yong-Wook Jeong, and Yong Jin Jeong Department of Materials Science & Engineering, Korea National University of Transportation
SP-223	**Enhanced Performances of Oxide Thin-Film Transistors by Introducing Overcoating Layers from Zinc Acrylate/Tin Ethylhexanoate Precursors** Miso Shin[1,2], Seong Woo Jo[1,2], Yong-Wook Jeong[1,2], and Yong Jin Jeong[1,2] Department of Polymer Science & Engineering, Korea National University of Transportation[1], Department of Materials Science & Engineering, Korea National University of Transportation[2]
SP-224	**Study on Thermally Evaporated Binary Metal Halide CuBr Thin Films for Reliable Resistive Switching Applications** Dong-Hyun Kim[1], Young-Seok Song[1], and Tae-Wook Kim[1,2] [1]Department of Flexible and Printable Electronics, LANL-JBNU Engineering Institute-Korea, Jeonbuk National University, [2]Department of JBNU-KIST Industry-Academia Convergence Research, Jeonbuk National
SP-225	**Stretchable Organic-Inorganic Hybrid Electrodes for On-Skin Sensing** Hyuna Kim[1] and Sungjun Park[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor, Ajou University

SP-228	**Organic Electrochemical Transistor Array for Physical Unclonable Function Driven by Dynamic Ionic-Electronic Variability** Wonseok Shin[1], Inho Lee[2], Jonghyun Won[2], Namhee Kim[1] and Sungjun Park[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University
SP-229	**High-Performance Vertical Organic Electrochemical Transistors for Sensitive and Stable Glucose Monitoring** Namhee Kim[1], Inho Lee[2], Jonghyun Won[2], Wonseok Shin[1], and Sungjun Park[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University
SP-230	**Ternary Structure Organic Photodetectors Achieving High External Quantum Efficiency in Short-Wavelength Infrared Region** Seunghun Lee[1], Jae-Hyun Kim[1], Jaebin Jeong[1], and Sungjun Park[1,2] [1]Department of Intelligence Semiconductor Engineering, Ajou University, [2]Department of Electrical Engineering, Ajou University
SP-231	**Performance Benchmarking of 2D-Based FETs With Fully-Gated, Carbon Nanotube, and Mirror Twin Boundary Architectures** Jiwon Yoo[1], Hanggyo Jung[2], Junyeol Lee[3], and Jongwook Jeon[3] [1]Department of Advanced Materials Science and Engineering, Sungkyunkwan University, [2]Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [3]Department of Electrical and Computer Engineering, Sungkyunkwan University
SP-232	**Fast Photoresponse in CVD-Grown Monolayer Transition Metal Dichalcogenides Enabled by UV-Ozone Treatment** Daehyun Kim[1], Hyerim Lee[1], Jaeseok Ko[2], and Jung Inn Sohn[1] [1]Department of Physics, Dongguk University, [2]School of Electronics and Electrical Engineering, Dongguk University
SP-233	**Evolutional Photoluminescence Behaviors in Ultraviolet-Ozone-Treated Monolayer Transition Metal Dichalcogenides** Hyerim Lee[1], Daehyun Kim[1], Jaeseok Ko[2], and Jung Inn Sohn[1] [1]Department of Physics, Dongguk University, [2]School of Electronics and Electrical Engineering, Dongguk University
SP-234	**Solvent Effect on Laser-Ablated Au Nanoparticle for Exothermic Hydrogel Composites** Junmo Park[1], Jun-Gyu Choi[2], and Sungjun Park[1,2] [1]Department of Intelligence Semiconductor and Engineering, Ajou University, [2]Department of Electrical and Computer Engineering, Ajou University
SP-235	**Mechanism and Applicability of Neuromorphic Devices: Focusing on FeFETs and RRAMs** Minseo Jeong, Zamyeong Wang, and Joonseok Kim School of Electronics and Electrical Engineering, Hongik University

SP-236	**High-Efficiency Polymer Based Phototransistor via Nanowire Structure** U Seong Jin, Sang Hwa Song, Won Bae Cho, Hyung Soo Ahn, and Young Tea Chun Division of Electronics and Electrical Information Engineering, Korea Maritime & Ocean University
SP-237	**셀룰로오스 나노크리스탈 기반의 전극 소재 제조 연구** 이도희, 김현찬 국립금오공과대학교 기계공학부
SP-238	**2차원 물질 기반 FET의 극저온 전기적 특성 연구** 변석현, 하지원, 김병훈, 최민기, 안종태 창원대학교 반도체물리학과

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K. Memory (Design & Process Technology) 분과

SP-239	**Exploiting Hardware Non-Idealities for Low-Precision Ensembles on Analog Compute-in-Memory** Donghyuck Lee and Tae-Hyeon Kim Seoul National University of Science & Technology
SP-240	**Single-Ended 3T Sense Amplifiers for Amorphous Oxide Semiconductor 2T0C DRAM** Seong-Jun Byun, Jeong-min Lee, and Joon-Kyu Han Department of Material Science & Engineering, Seoul National University
SP-241	**Improvement of Pt/Ti/HfO_2/Mo Resistive Random-Access Memory by Bottom Electrode Oxidation** Wooyoung Jung[1] and Taehwan Moon[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University
SP-242	**Protonic Electrochemical Random-Access Memory (ECRAM) with Improved ALD ZrO2 Electrolyte for Neuromorphic Computing** Minwoo Jeon, Gyumin Hwang, and Chuljun Lee Department of Electronic Engineering, Korea National University of Transportation
SP-243	**Complementary Two- and Three-Terminal $Pr_{0.7}C_{0.3}MO_3$ (PCMO)-Based Resistive Switching Device for Neuromorphic Computing** Gyumin Hwang[1] , Minwoo Jeon[1] , Daeseok Lee[2], and Chuljun Lee[1] [1]Department of Electronic Engineering, Korea National University of Transportation, [2]School of Semiconductor System Engineering, Kwangwoon University
SP-244	**Reservoir Computing Enabled by Multidirectional Gating in Fiber Organic Transistor** Chang Min Lee and Eun Kwang Lee School of Chemical Engineering, Pukyong National University
SP-245	**Impact of RRAM Device Characteristics on Compute-in-Memory Accelerator Performance Analyzed with DNN+ NeuroSim** Jaewon Sim and Tae-Hyeon Kim Seoul National University of Science & Technology

SP-246	**멀티비트 메모리 구현을 위한 강유전체 고분자 박막의 패턴 공정** 정재웅, 김민회 국립한밭대학교 창의융합학과
SP-247	**전하 트랩 층에 생분해성 유기 분자의 혼합을 이용하여 균형 잡힌 쓰기/지우기 동작이 가능한 박막 트랜지스터 메모리** 김동인, 이종희, 김민회 국립한밭대학교 창의융합학과
SP-248	**Implementation of Target-Modulated STDP for Synaptic Device Based Spiking Neural Networks (SNNs)** Sarah Yoon[1], Yuna Kim[2], Minsu Kang[2], Sion Kim[2], Eungcheol Kim[1], Songye Lim[1], and Daeseok Lee[2] [1]Department of Electronic materials Engineering, Kwangwoon University, [2]School of Semiconductor System Engineering, Kwangwoon University
SP-249	**Comparison of Switching Kinetics across the Antiferroelectric Phase Transition** Seung Yeol Pyo[1] and Taehwan Moon[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University
SP-250	**Enhanced Reliability and Synaptic Modulation in Acidically Post-Treated ZnMgO/ZnO Bilayer Resistive Switching Devices** Hee Sung Shin, Sangyeop Kim, and Jaehoon Kim Department of Electronic Engineering, Gachon University
SP-251	**Cryogenic Switching Behavior of Ferroelectric TiN/HZO/TiN Capacitors** Yechan Kim, Seongbin Lee, Hyeonhong Min, Gwanghyeon Jang, and Si Joon Kim Kangwon National University
SP-252	**Cryogenic Performance and Reliability of IGZO Thin-Film Transistors** Hoyoung Kim, Seongbin Lee, Hyeonhong Min, Gwanghyeon Jang, Yechan Kim, Minseop Song, Homin Lee, Insung Kim, and Si Joon Kim Kangwon National University
SP-253	**Array-Level Demonstration of Spiking Neural Network Using RRAM Synapse Integrated with NbO_x Neuron** Eungchul Kim[1], Sarah Yoon[1], Yuna Kim[2], Minsu Kang[2], Sion Kim[2], and Daeseok Lee[2] [1]Department of Electronic Materials Engineering, Kwangwoon University, [2]School of Semiconductor System Engineering, Kwangwoon University

SP-254	**A High-Yield Vertical Floating Gate Memristor Array with Diode Characteristics for Neuromorphic System Development** Min seo Kim and Woo jong Yu Department of Electrical and Computer Engineering, Sungkyunkwan University
SP-255	**Dual-Mode Organic Transistor with Voltage-Controlled EGOFET-OECT Switching** Seong Bin Woo and Eun Kwang Lee School of Chemical Engineering, Pukyong National University
SP-256	**Low-A Robust Synaptic Memristor Enabled by a Low-Cost, High-Stability Bilayer Electrolyte with a SiO_2 Surface Layer** Sungjun Hwang and Doowon Lee Divison of Electronics, Electrical and Control Engineering, Kongju National University
SP-257	**Enhanced Low-Voltage Operation of Proton-Irradiated A/N Synaptic Device with Preserved Retention Characteristics** Gang Guk Park[1], Joon Hwang[4], Sung Yun Woo[3], Jong Ho Lee[4], Sang Jik Kwon[1], Eou-Sik Cho[1,2], and Min-Kyu Park[2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University, [3]Department of Electronic Engineering, Kyungpook National University, [4]Inter-university Semiconductor Research Center, Seoul National University
SP-258	**Study about Electrical Characteristics of Ferroelectric NAND** Heonwoo Park, Seongho Kim, Taejun Park, Jinhwan Jung, Jinhong Lee, and Sangwan Kim Department of Electronic Engineering, Sogang University
SP-259	**저항성 메모리 반도체 기반 Cross-Point Array 구조 내 IR-drop과 RC-Delay에 의한 입력 전압 신호 왜곡 현상 보정 기법** 김범준[1], 변진호[2], 김세영[1,2,3] [1]포항공과대학교 반도체공학과, [2]포항공과대학교 전자전기공학과, [3]포항공과대학교 반도체대학원
SP-260	**Reliable and Energy-Efficient HfOx-Based RRAM Realized by Al2Oz Interlayer Optimization for Neuromorphic Applications** Hyeonwoo Kim[1], Yunsur Kim[2], and Jiyong Woo[1] [1]School of Electronics Engineering, Kyungpook National University, [2]School of Electronic and Electrical Engineering, Kyungpook National University
SP-261	**MXene/LCO-PVA -Based Dendritic Memristor Featuring Interface Engineering for Enhanced Synaptic Plasticity** Seeun Kim[1], Eunbin Jo[1], Sun Ah Park[2], Hee-Joon Lee[2], and Doowon Lee[1] [1]Divison of Electronics, Electrical and Control Engineering, Kongju National University, [2]Mirtech R&D Corporation

SP-262	**3D Flash Memory 공정 최적화: Top-View Corner Effect에 의한 메모리 성능 분석 및 SDrecess에 따른 Channel Profile 분석** 김휘준, 안명진, 김장생 서강대학교 전자공학과
SP-263	**Suppression of Z-Axis Grain Growth and Improvement of Memory Characteristics in HZO-FeFETs Using an Ultrathin Al_2O_3 Interlayer** Je-Hyun Yoon and Tae-Hyeon Kim Seoul National University of Science & Technology
SP-264	**A Poly-Si Charge Trap Transistor with Dynamic Short-Term Memory for Physical Reservoir Computing** Beomsu Kim[1], Kye-Yeong Jo[1], Joon Hwang[3], Jong-Ho Lee[3], Eou-Sik Cho[1,2], and Min-Kyu Park[2] [1]Department of Electronic Engineering, Gachon University, [2]Department of Semiconductor Engineering, Gachon University, [3]Inter-University Semiconductor Research Center, Seoul National University
SP-265	**Characterization of MIS-Type Nand Memory Devices Using Al-Doped ZrO_2 as a Charge Trap Layer** Seong U Heo, Do Han Kim, Chan Hee Lee, and Hee Chul Lee Department of Advanced Materials Engineering, Tech University of Korea
SP-266	**Design of Cross-Point Array for AI Acceleration and Verification of Neuromorphic Computing System** Seongmin Lee[1], Jimin Lee[1], Junyoung Choi[1], and Seyoung Kim[1,2] [1]Department of Electrical Engineering, POSTECH, [2]Graduate School of Semiconductor Technology, POSTECH
SP-267	**Rapid Cooling Effects on Ferroelectric Phase Formation in HZO for FeFET Applications** Su Young Park[1], HyeJoo Kang[3], Dohee Kim[2], Seung Wook Ryu[2], and Il-Kwon Oh[1,3] [1]Department of Electrical and Computer Engineering, Ajou University, [2]R&D Process, R&D division SK hynix Inc., [3]Department of Intelligence Semiconductor Engineering, Ajou University
SP-268	**IGZO TFT-Gated Electrochemical Random-Access Memory with Excellent Performance for Analog AI Computing** Jonghyeok Tae[1], Seungkun Kim[3] , Junyoung Choi[2] , Byoungwoo Lee[3] , and Seyoung Kim[1, 2] [1]Department of Semiconductor Engineering, POSTECH, [2]Department of Electrical Engineering, POSTECH, [3]Department of Materials Science and Engineering, POSTECH

SP-269	**First Demonstration of ECRAM-Based TCAM with Excellent Performance** Minho Kim[1], Seungmin Han[2], Hyejin Kim[2], Junyoung Choi[2], and Seyoung Kim[1,2] [1]Department of Semiconductor Engineering, POSTECH, [2]Department of Electrical Engineering, POSTECH
SP-270	**Dynamic Band-Pass Filtering based on Short-Term Memory Characteristics of TiO_x/Al_2O_3 RRAM Devices** Seohyeon Son, Sungjoon Kim, and Sungmin Hwang Department of AI Semiconductor Engineering, Korea University
SP-271	**Oxygen-Based ECRAM with Double Electrolyte Layers for Reconciling Switching Speed and Retention** Jaehun Lee[1], Woochan Song[2], Jeonghoon Son[2], and Seyoung Kim[1,2] [1]Department of Semiconductor Engineering, POSTECH, [2]Department of Electrical Engineering, POSTECH
SP-272	**Hardware Neuromorphic Bad Pixel Correction Using Flash Synapse and Positive Feedback Neuron** Seohyun Kim[1], Minjeong Koo[1], Suyeon Park[1], Dongseok Kwon[2], Jong-Ho Bae[3], and Sung Yun Woo[1] [1]School of Electronic and Electrical Engineering, Kyungpook National University, [2]Department of Semiconductor Engineering, Gwangju Institute of Science and Technology, [3]Department of System Semiconductor Engineering, Yonsei University
SP-273	**Analysis of Z-Interference Mitigation through Switching WL Voltage Engineering in HCI-Based Programming** Byeongjun Joo[1], Moonchurl Kim[2], Yewon Lee[3], and Jongwook Jeon[1] [1]Department of Electrical and Computer Engineering, Sungkyunkwan University, [2]Department of Display Engineering, Sungkyunkwan University, [3]SKKU Device Research Laboratory, Sungkyunkwan University
SP-274	**A Low-Power Charge Trap Memory-Based Synaptic Devices for Brain-Inspired Neural Network Emulation** Da Hyeon Son, Chan Hee Lee, and Hee Chul Lee Department of Advanced Materials Engineering, Tech University of Korea
SP-275	**Proposal of Raised S/D Transistor with Buried Insulator Walls and Air Gap to Suppress Leakage Current in DRAM** 고호연[1,2], 선승현[1,3], 강대웅[1] [1]서울대학교 차세대반도체융합대학, [2]중앙대학교 첨단소재공학과, [3]숭실대학교 전자정보공학부 전자공학과
SP-276	**피드백 전계효과 트랜지스터의 주파수 변화에 따른 C-V 히스테리시스 특성 연구** 김예지[1], 손승원[2], 우솔아[1,2] [1]부경대학교 전자공학과, [2]부경대학교 지능로봇학과

SP-277	**Comparative Study on Resistive Switching Behavior of Al_2O_3-Based Synaptic Devices With Different Structural Configurations** Sun-Young Kwak, Yu-Bin Kim, Dong-Min Kim, Sung-Ho Kim, Shivam Kumar Gautam, and Hi-Deok Lee Department of Electronics Engineering, Chungnam National University
SP-278	**어닐링에 따른 HfO_2/ZnO 이중층 뉴로모픽 시냅틱 소자의 스위칭 특성 분석** 반선호[1], 이주형[1], 염지훈[1], 김용구[2], 권혁민[1] [1]한경국립대학교 전기전자공학부, [2]한국폴리텍대학 대구캠퍼스 그린반도체시스템과
SP-279	**Improving the Short Channel Effect Using High-k Material Inside Buried Oxide in NAND Flash Memory** 나성현[1,2], 강대웅[1] [1]서울대학교 차세대반도체융합대학, [2]숭실대학교 신소재공학과
SP-280	**MRAM-PIM 구조 기반 tanh 활성화 함수의 근사 모델 설계** 신원규, 채형주, 류성주 서강대학교 전자공학과
SP-281	**Simulation of Conductance Modulation and Filament Evolution in RRAM for Neuromorphic Applications** Junyoung Choi[1], Dongmyung Jung[2], and Yongwoo Kwon[2] [1]Department of Electronics and Electrical Engineering, Hongik University, [2]Department of Materials Science and Engineering, Hongik University
SP-282	**Self-rectifying Memristor with Enhanced Retention via Oxygen Vacancy Engineering** Hyunwook Ryu[1] and Jongwon Lee[2] [1]Department of Organic Materials Engineering, Chungnam National University, [2]Department of Semiconductor Convergence, Chungnam National University
SP-283	**Improving Cell Characteristics in IGZO Channel-Based 3D NAND Flash with p-Type Polysilicon Injection Layer** Sungho Park[1,2], Joohyo Kim[1,2], Nayoon Kang[1,3], Hojun Lee[1,2], Sihyun Park[1,2], Siwon Park[1,3], Youngho Jung[4], and Daewoong Kang[1] [1]Seoul National University, [2]Chung-Ang University, [3]Soongsil University, [4]Daegu University
SP-284	**Effect of Crystallographic Orientation of Bottom Electrode on Resistive Switching Behavior** Junseo Park[1] and Taehwan Moon[1,2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University

SP-285	**Achieving Wide Memory Window Using p-Doped Polysilicon in Ferroelectric 3D NAND Flash** Nayoon Kang[1,2], Sungho Park[1,3], Joohyo Kim[1,3], Siwon Park[1,2], Sihyun Park[1,3], Hojun Lee[1,3], Youngho Jung[4], and Daewoong Kang[1] [1]Seoul National University, [2]Soongsil University, [3]Chung-Ang University, [4]Daegu University
SP-286	**Capacitive Coupling-Based Compute-In-Memory (CIM) Architecture for Spiking Neural Network** Dongryul Lee[1], Hyunho Kim[1], Hakrae Yu[2], Jungmin Mun[2], Honggu Kim[2], and Yong Shim[1,2] [1]School of Electrical and Electronics Engineering, Chung-Ang University, [2]Department of Intelligent Semiconductor Engineering, Chung-Ang University
SP-287	**A Cell-Embedded DAC and Column-Embedded ADC Based Charge-Domain 11T SRAM Compute-In-Memory Macro** Junha Shim[1], Wonseok Kim[1], Junsang Lee[1], Jaeyoun Kim[2], Yerim An[2], and Yong Shim[1,2] [1]School of Electrical and Electronics Engineering, Chung-Ang University, [2]Department of Intelligent Semiconductor Engineering, Chung-Ang University
SP-288	**Physical Reservoir Computing Using IGZO Thin-Film Transistors with Tunneling Contacts** Mingeun Park[1] and Hongseok Oh[2] [1]School of Electrical and Electronics Engineering, Chung-Ang University, [2]Department of Physics, Soongsil University
SP-289	**HEMT 구조를 이용한 NAND FLASH Program/Erase 특성 개선** 이재현[1,2], 선승현[1,3], 강대웅[1] [1]서울대학교 차세대반도체융합대학, [2]중앙대학교 전자전기공학부, [3]숭실대학교 전자정보공학부 전자공학과
SP-290	**ML-Based Simulator for 3D FeNAND Device Optimization** Seah Min, Insu Sohn, and Min-woo Kwon Department of Electronic Engineering, Seoul National University of Science & Technology
SP-291	**Impact of DIBL Degradation and Circuit Variation on Sensed Vt Fluctuation in 3D NAND Flash Memory** Seah Min[1] and Jong Kyung Park[2] [1]Department of Electronic Engineering, Seoul National University of Science & Technology, [2]Department of Semiconductor Engineering, Seoul National University of Science & Technology
SP-292	**Suppression of GIDL Using Asymmetric Gate Oxide in DRAM Cell Transistor** 이수호[1,2], 송혜원[1,3], 강대웅[1] [1]서울대학교 차세대반도체융합대학, [2]숭실대학교 전자정보공학부, [3]중앙대학교 전자전기공학부

SP-293	Optimizing Swing Characteristics Using Drain-Side HfO2 Extension and Dual Work Function Asymmetric Gate in DRAM 윤철호[1,2,3], 임한규[1,4], 강대웅[1] [1]서울대학교 차세대반도체융합대학, [2]중앙대학교 반도체시스템공학과, [3]중앙대학교 첨단소재공학과, [4]중앙대학교 전자전기공학부
SP-350	Proposal and Optimization of a Dual-Channel JLFET-Based 3D DRAM Cell Architecture Minseong Kim, Taewoo Kim, Junho Shin, and Jangsaeng Kim Department of Electronic Engineering, Sogang University

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L. Analog Design 분과

SP-294	**1.8 V LDO Regulator Design Using Resistor-Current Mirror Based Reference Voltage Circuit** 정평교, 이태건, 이은호, 김경생 청주대학교 시스템반도체공학과
SP-295	**웨어러블 기기에 적합한 180nm 공정 초저전력 8bit SAR ADC 설계** 이상혁, 차민혁, 김경생 청주대학교 반도체 공학과
SP-296	**Design of an 8-bit 800 MS/s Compact Single-Channel SAR ADC with Coarse-Fine Charge-Injection DAC** Min-Jae Lee, Beom-Yeon Cho, Woo-Jin Jeon, and Chan-Ho Kye College of Semiconductor, Gachon University
SP-297	**An External Capacitor-Less Ultralow-Dropout Regulator Using a Loop-Gain Stabilizing Technique for High Power-Supply Rejection Over a Wide Range of Load Current** Changin Yoon and Younghyun Lim Department of Semiconductor Engineering, Kyung Hee University
SP-298	**A Command-Aware Distributed Hybrid LDO Achieving High PSR and Fast Settling Time in HBM Interfaces** Taehyub Kim and Younghyun Lim Department of Electrical Engineering, Kyung Hee University
SP-299	**A TID-Robust LDO with Replica-Referenced Bias and EA Output Decoupled from the Pass Gate** Deok Won Koh and Younghyun Lim Department of Electronic Engineering, Kyung Hee University
SP-300	**A 48 Gb/s PAM-3 Receiver with CTLE and 4-Tap Adaptive DFE Equalizing 15dB Channel Loss** 오동석, 강민, 계찬호 가천대학교 반도체대학

SP-301	**3 to1 MUX 를 이용한 저전력 8-bit SAR ADC 설계** 박용준, 이원영 서울과학기술대학교 스마트ICT융합공학과
SP-302	**A Wide Input Range Low-Power Bandgap Reference with Pre-Regulator and Cascode Subthreshold BMR Compensation** 김윤성[1], 문경민[1], 오승표[1], 이주열[2] [1]가천대학교 전자공학과, [2]가천대학교 시스템반도체학과
SP-303	**A Fast Transient and High PSRR, Output-Capacitorless FVF LDO** 오승표[1], 문경민[1], 김윤성[1], 이주열[2] [1]가천대학교 전자공학과, [2]가천대학교 시스템반도체학과

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M. RF and Wireless Design분과

SP-304	**2.4 GHz Class-F Rectifier Using Time-Reversal Duality for Energy Harvesting Applications** Jinbeom Bae[1], Jinho Yoo[2], and Changkun Park[1,2] [1]School of Electronic Engineering, Soongsil University, [2]Department of Intelligent Semiconductor Soongsil University
SP-305	**Design of a Class-F RF-to-DC Rectifier Employing Time-Reversal Duality at 2.4 GHz** Dongjun Joo[1], Jinho Yoo[2], and Changkun Park[1,2] [1]School of Electronic Engineering, Soongsil University, [2]Department of Intelligent Semiconductor, Soongsil University
SP-306	**A 65-nm CMOS Two-Stage Cascode VGA with Low Phase Error for 7–9 GHz Phased-Array Applications** Song Min[1], Hyeonhui Roh[2], Yejin Kim[2], and Changkun Park[1,2] [1]School of Electronic Engineering, Soongsil University, [2]Department of Intelligent Semiconductor, Soongsil University
SP-307	**Design of a Two-Stage FD-SOI Low-Noise Amplifier for 6G Wireless Receiver Front-End** Woong Chae[1], Bohyeon Kim[2] Chaeyun Kim[2], and Changkun Park[1,2] [1]School of Electronic Engineering, Soongsil University, [2]Department of Intelligent Semiconductor Soongsil University
SP-308	**Through Glass Via 인덕터를 활용한 초소형 3D Balun의 설계** 황석영, 김영준 가천대학교 전자공학부 전자공학전공

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N. VLSI CAD 분과

SP-309	**Low-Power Register File Design Using Multi-Vth MUX-Based Clock Gating** Jeongmin An , Minseo Choi , Keonwoo Kim , Seunghoon Lee , and Jeongbeom Kim Department of Electronics Engineering, Kangwon National University
SP-310	**Multibit Flip-Flop 적용 방식에 따른 설계 PPA 분석** 석준규[1], 현대준[2] [1]국립공주대학교 전기전자제어공학부, [2]세종대학교 반도체시스템공학과
SP-311	**GSEP : Graph-based Speculative Expert Prefetching for Efficient Mixture-of-Experts(MoE) Inference** Seungchan Lee[1] and Joon-Sung Yang[1,2,3] [1]Department of Electrical and Electronic Engineering, Yonsei University, [2]Department of Systems Semiconductor Engineering, Yonsei University.[3]BK21
SP-312	**SPICE 시뮬레이션 연동을 위한 GUI Schematic Editor 구현** 한신희, 정태경, 이찬형, 김민수, 김병섭 포항공과대학교 전자전기공학과, 포항공과대학교 반도체공학과

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O. System LSI Design 분과

SP-313	**Automated Exploration of the Area–Throughput Trade-Off in Parallel CRC Design** Bee Shin and Injae Yoo School of Electrical and Electronics Engineering, Pusan National University
SP-314	**저전력 메모리 인터페이스를 위한 DBI Embedded MTA 인코딩을 통한 PAM-4 송신기 전력 저감 기법** 김현정[1], 김근호[1], 정재혁[1], 안엽[2], 윤재광[3] [1]가천대학교 전자공학전공, [2]가천대학교 차세대반도체전공, [3]가천대학교 시스템반도체학과
SP-315	**A PAM-4 Transmitter Using Asymmetric Fractional-Spaced FFE for MTA Encoding** 정재혁[1], 안엽[2], 김현정[1], 김근호[1], 윤재광[3] [1]가천대학교 전자공학전공, [2]가천대학교 차세대반도체전공, [3]가천대학교 시스템반도체학과
SP-316	**Neuromorphic Hardware Control Design for Ball Balancing System** 김한음, 신효송, 이예나, 류성주 서강대학교 전자공학과
SP-317	**Matrix Multiplication Optimization based on HLS** Jihyeon Jo, Sehyun Lee, and Woong Choi Department of Electrical Engineering, Sookmyung Women's University
SP-318	**Verilog 및 HLS 기반 FFT 구조의 비교 분석을 통한 하드웨어-소프트웨어 공설계 연구** 백세현, 신지훈 서강대학교 전자공학과
SP-319	**"내 칩 제작 서비스"를 통한 12비트 CORDIC 기반 NCO 설계 및 칩 테스트** [1]지하은, [2]국일호 [1]경희대학교 전자공학과, [2]한국전자통신연구원

SP-320	**병렬 PRBS 생성기의 구현 및 검증** 유승현[1], 박준성[2], 장익수[2], 임재균[3], 김병섭[2] [1]성균관대학교 전자전기공학부, [2]포항공과대학교 전자전기공학과, [3]포항공과대학교 반도체대학원

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[SP] 학부생포스터세션

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

SP-330	**DC Characterization of Saline Droplet for Non-Destructive Probing** Beom-Jin Park, Seo-Yeon Park, Joo-Young Son, Jeong-Bin Cho, Dongjoo Kim, Namsu Kim, Yeong-Seok Lee, Chanho Kim, Seong-Pil Choi, and Dongha Shim Department of Manufacturing System and Design Engineering, Seoul National University of Science & Technology
SP-331	**Real-Time Diagnostic of Atomic Layer Deposition on 3D Structures Using Quadrupole Mass Spectrometry** Seong-Min Jang[1], Dong-Hyun Lim[1], Young-Ho Hong [2], Kyung-Won Park[2] , and Il-Kwon Oh[1,3] [1]Department of Intelligence Semiconductor Engineering, Ajou University, [2]R&D Center, ATIK CO., LTD., [3]Department of Electrical and Computer Engineering, Ajou University
SP-332	**Cold Cathode Electron Beam Trajectory Analysis with Deflection Electrode for High Quality SEM Imaging** Yu Seong Lee, Chan Woong Jeon, Dana Chung, Chan Woo Kim, Iksu Kim, and Kyu Chang Park Department of Future Information Display, College of Sciences, Kyung Hee University
SP-333	**Effects of Electron Beam Size on High Resolution X-Ray Sources for HBM Inspection Application** Chanwoo Kim, Chan Woong Jeon, Dana Chung, Yu Seong Lee, Iksu Kim, and Kyu Chang Park Department of Future Information Display, College of Sciences, Kyung Hee University
SP-334	**SimulationandMeasurementforReconstructionofEUVLightSpectrumwithColdCathode Beam (C-beam)Irradiation** 정단아, 김익수, 김범준, 전찬웅, 김은주, 이유성, 김찬우, 박규창 경희대학교 미래정보디스플레이학부

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[SP] 학부생포스터세션

B. Patterning (Lithography & Etch Technology) 분과

SP-019	**저 지구온난화지수 Hexafluoropropylene Oxide Plasma를 이용한 SiO_2와 Si_3N_4 식각** 백시은[1], 김창구[1,2] [1]Department of Chemical Engineering, Ajou University, [2]Department of Energy Systems Research, Ajou University
SP-020	**VO_2-W 계면의 접촉 저항 특성 및 온도 의존성 분석** 손혜원[1], 박동희[2], 전민성[3] [1]성균관대학교 기계공학과, [2]KIST 양자기술연구단, [3]성균관대학교 반도체융합공학과 반도체특성화대학지원사업단
SP-021	**Lithography-Free Interdigitated Electrodes by Trench-Filling Patterning on Polymer Substrate for Alzheimer's Disease Detection** Junsoo Moon, Heewoo Jeon, Wonho Lee, and Joonsub Shim Department of Electronic Convergence Engineering, Kwangwoon University
SP-022	**Bilayer Ag/Au Catalyst Optimization for Fast and Uniform Metal-Assisted Chemical Etching on Si** Sumin Jeon[1], Haekyun Bong[2,3], and Jungwoo Oh[2,3] [1]Department of Chemistry, Yonsei University, [2]School of Integrated Technology, Yonsei University, [3]BK21 Graduate Program in Intelligent Semiconductor Technology, Yonsei University
SP-023	**Wet-Process-Induced Surface Damage in IGZO Thin Films** Jimin Lee[1], Hojun Jung[1], and Boseong Kim[2] [1]Department of Display and Semiconductor Physics, Korea University, [2]Department of Applied Physics, Korea University
SP-024	**JNU Semi Fab 환경에 최적화된 포토리소그래피 공정 레시피 개발 및 공정 변수 분석** 노유지[1], 고유권[1], 김민수[1], 문서연[1], 이소영[1], 김성완[1,2], 김우영[1,2] [1]제주대학교 전자공학과, [2]제주대학교 반도체디스플레이연구센터

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[SP] 학부생포스터세션

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

SP-115	**Agent-Driven LLM Framework for Interactive Parasitic Capacitance Prediction in CFETs via Model Context Protocol** Wooseok Choi[1], Jaehong Park[2,3], Seung Kyu Kim[2,3], Johyeon Kim[4], Kee-Won Kwon[2], and Jongwook Jeon[4] [1]Department of Electronic and Electrical Engineering, Sungkyunkwan University, [2]Department of Semiconductor and Display Engineering, Sungkyunkwan University, [3]Samsung Electronics, [4]Department of Electrical and Computer Engineering, Sungkyunkwan University
SP-116	**Analysis of Seed Layer and Bonding Pressure Effects on Domain Separation-Induced Split-Up in Ferroelectric H0.5Z0.5O2 Films** Chaeho Kwon[1], Jeongheon Cho[1], Myeongjae Choi[2], and Changhwan Shin[3] [1]School of Semiconductor Engineering, College of Engineering, Korea University, [2]Department of Semiconductor System Engineering, Korea University, [3]School of Electrical Engineering, College of Engineering, Korea University
SP-117	**Study About Total Ionizing Dose Effects** Seungmin Yoon, Jeonggeun Park, Gwanhee Lee, Hojun Kim, Seonggeun Kim, and Sangwan Kim Department of Electronic Engineering, Sogang University
SP-118	**Optimization of SiO_2 Capping Layer for Single Crystal Ge Formation via Rapid Melting Growth** Jongmin Son, Hyeseo Park, Dong Woo Lee, Donghwan Ahn, and Youngmin Kim School of Materials Science & Engineering, Kookmin University
SP-119	**GAA-NS FET CMOS 인버터의 PPA 25% 향상을 위한 DTCO 전략** 윤진수[1], 최재원[2], 내경한[3], 전수민[4], 배종현[3,5], 정도환[3], 오정우[3,5] [1]연세대학교 간호학과, [2]연세대학교 물리학과, [3]연세대학교 IT융합공학과, [4]연세대학교 화학과, [5]연세대학교 지능형반도체 융합전공
SP-120	**Comprehensive Simulation Study on the 3D NAND Flash Operation of Gate-Injection Ferroelectric Field-Effect Transistors (GI-FeFETs)** YoonSoo Choi, YeonJong Jeong, Changmin Chae, Dongseok Oh, HyungJu Noh, and Sangwan Kim Department of Electronic Engineering, Sogang University

SP-121	**Analysis on Single-Event Transients in High-Temperature-FETs** Kyu Jin Jung [1] , Woo Young Choi[2], and Il Hwan Cho[1] [1]College of Semiconductor and ICT, Electronic Engineering Major, Myongji University , [2]Department of Electrical and Computer Engineering and the Inter-university Semiconductor Research Center (ISRC), Seoul National University
SP-122	**Characteristics of High-Temperature FET Based Static Random Access Memory** Eun Ji Cho[1], Woo Young Choi[2] , and Il Hwan Cho[1] [1]Electronic Engineering Major, College of Semiconductor and ICT, Myongji University, [2]Department of Electrical and Computer Engineering and the Inter-university Semiconductor Research Center (ISRC), Seoul National University
SP-123	**Delay Control with Parameter Engineering under Temperature Effect Inversion in Saddle MOSFETs** SungHyuk Lee[1], Woojoo Lee[2], and Il Hwan Cho[1] [1]Electronic Engineering Major, College of Semiconductor and ICT, MyongJi University, [2]School of Electrical & Electronics Engineering, Chung-Ang University
SP-124	**Radiation-Induced Transient Characteristics of Feedback FETs** Hwan Hee Lee[1], Woo Young Choi[2], and Il Hwan Cho[1] [1]Electronic Engineering Major, College of Semiconductor and ICT, Myongji University, [2]Department of Electrical and Computer Engineering and the Inter-university Semiconductor Research Center (ISRC), Seoul N
SP-125	**Thermal Performance Analysis of BPR-Based Complementary Field-Effect Transistor (C-FET) according to Packaging Method** Jaehoon Yoon[1], Jisung Lee[2], Johyeon Kim[3], and Jongwook Jeon[4] [1]Department of Electrical and Electronics Engineering, Konkuk University, [2] Department of Electronic Engineering, Chungnam National University, [3] Department of Semiconductor Convergence Engineering, Sungkyunkwan University, [4]Department of Electrical and Computer Engineering, Sungkyunkwan University
SP-126	**Mitigate of Bottom Channel Depletion in Drain Extension Gate-All-Around FETs** Jun seok Lee[1], Kanghee Lee[2], and Jang Hyun Kim[2] [1]Department of Electrical and Computer Engineering, Ajou University, [2]Department of Intelligence Semiconductor Engineering, Ajou University
SP-127	**Improved Light Absorption in Slanted Silicon Nanowire Arrays via SiO_2 Surface Passivation** Hayoung Jang[1], Sangho Shin[2], and Youngmin Kim[1] [1]School of Material Science and Engineering, Kookmin University, [2]Department of Nano Manufacturing Technology, KIMM

SP-128	**Inner Metal Gate 변경을 통한 CFET의 Multi-Vth 구현 및 최적화** 김동욱, 김종우 단국대학교 공과대학 전자전기공학부

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

SP-321	**$Bi_4Ti_3O_{12}$/PDMS Triboelectric Nanogenerator-Based Sensing and Signal Classification** Taehun Kang[1], Hongmu Park[2], Jaesik Kim[1], Anand Kurakula[2], Jae Su Yu[2], and Yeong Hwan Ko[1] [1]Kongju National University, [2]Kyung Hee University
SP-322	**환원 정도에 따른 환원산화 그래핀 박막의 광학적 특성 연구** 임벼리[1], 김예은[1], 김수근[1,2], 강영호[1,3] [1]전남대학교 물리교육과, [2]전남대학교 광전자융합기술연구소, [3]전남대학교 양자기술연구소
SP-323	**Design of Vertical Merged PN-Schottky (MPS) GaN Diode with Multi-Drift-Layer and Field-Plate Termination Structures Using TCAD** Sebeen Youn, Jong Hyuck Oh, and Yun Seop Yu Major of Semiconductor Convergence and Major of ICT & Robotics Engineering, Hankyong National University
SP-324	**Purifying Heavy Metals from Various Solution by Chemical Adsorption on Porous Magnesium Oxide Surface** Hee Eun Choi, Youngho Kim, and Hak Ki Yu Department of Materials Science and Engineering & Department of Energy Systems Research, Ajou University
SP-325	**Enhanced Efficiency and Stability in Organic Photovoltaics via Morphology Control Using Solid Additives** Unyong Lee, Hyeonil Ahn, Seungpil Baek, and Minwoo Nam Department of Electronic Engineering, Keimyung University
SP-326	**이중 기능 광센서를 이용한 지능형 온실 차광 시스템 구현** 심상우, 서준표, 정현우, 남민우 계명대학교 전자공학과
SP-327	**Work Function Tuning in Co-Evaporated BixSey via Composition Control** Jeong Seok Lee[1,2] and Hak ki Ryu[1,2] [1]Department of Energy Systems Research, Ajou University, [2]Department of Materials Science and Engineering, Ajou University

SP-328	**Oxygen Vacancy-Rich CuO Nanoflowers for High-Performance Glucose Sensing** Hyeong Gyu Kim, Jin Guk Kim, and Hak Ki Yu Department of Materials Science and Engineering & Department of Energy Systems Research, Ajou University
SP-329	**Synergistic Piezoelectric–Flexoelectric Coupling in Porous PVDF-TrFE for Enhanced Energy Harvesting** Han Bi Woo[1], Minji Hong[1], Junseok Lee[2], and Mingyu Sang[1] [1]Department of Electronic Engineering, Gachon University, [2]Department of Biomedical Engineering, Gachon University

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T. AI 분과

SP-335	**FPGA 기반 실시간 음성 위험 감지 시스템의 설계 및 구현** 황선준, 예승희 연세대학교 소프트웨어학부
SP-336	**최적 Shared-Exponent 탐색과 재학습을 통한 AI 모델 압축 기법** 강우현 한국외국어대학교 전자공학과
SP-337	**PRiNSS : A Hardware-Efficient Posit Regime-NOR-Shift and Split MAC** Se Mee Eom, Do Hyun Kim, and Jae Joon Kim Department of Electrical and Computer Engineering, Seoul National University
P-338	**A Data-Driven Framework for Predicting Multi-Vt Characteristics of Multi-Bridge Channel GAAFETs** Do Jun Lee[1], Jung Ki Hong[1], Min seo Lee[1], Seul Ki Hong[2], and Dong Jin Ji[2] [1]Department of Electronics Engineering, Seoul National University of Science & Technology, [2]Department of Semiconductor Engineering, Seoul National University of Science & Technology
SP-339	**Hebbian-Learning-Based Method for On-Chip Training on NVM Crossbar Hardware** Jaeyoung Choi[1] and Gyuweon Jung[1,2] [1]Department of Electrical and Computer Engineering, Seoul National University, [2] School of Transdisciplinary Innovations, Seoul National University
SP-340	**Inference Optimization of Google Gemma-3 on Edge Devices** Dojin Park[1] and Injae Yoo[2] [1]Department of Biomedical Engineering, Pusan National University, [2]School of Electrical and Electronics Engineering, Pusan National University
SP-341	**딥러닝 기반 학습형 오디오 프런트엔드(LEAF)를 이용한 드론 음향 탐지 모델** 김도진[1], 이준범[2], 김도영[3], 박형민[2] [1]서강대학교 기계공학과, [2]서강대학교 전자공학과, [3]서강대학교 인공지능학과

SP-342	**Design of CMOS Neurons for Faithful Emulation of Memristive Spiking Neural Network and Its Application for Associative Memory** Jiseok Park[1,2], Sangmin Lee[1,3], Sungmin Yoo[1,4], Seungkyu Kang[1], Hyunjae Jang[1], and Inho Kim[1] [1]Center for Semiconductor Technology, KIST, [2]School of Electronics, Seoul National University of Science & Technology, [3]Department of Micro/Nano Systems, Korea University, [4]School of Electrical Engineering, Korea University
SP-343	**아날로그 하드웨어 비이상성이 대규모 언어모델의 연산 정확도에 미치는 영향 분석** 김세현[1], 주봉준[2], 허가은[2], 김세영[1,2,3] [1]포항공과대학교 반도체공학과, [2]포항공과대학교 반도체대학원, [3]포항공과대학교 전자전기공학과
SP-344	**진화 알고리즘을 이용한 초저전력 e-Flash 시냅틱 소자의 산화막 두께 최적화** 서채은, 이윤진, 권찬영, 송민석, 이창희 국민대학교 전자공학부
SP-345	**Scaling-Aware Physical Interpretation of MOSFET Design Parameters Using Explainable Machine Learning** Won Taek Oh, Su A Go, Hae In Yun, Yea Ji Lee, Jae Hyuk Choi, Ji Seon Park, and Dong Jin Ji Department of Semiconductor Engineering, Seoul National University of Science & Technology
SP-346	**주파수 도메인 기반 다중 스케일 Transformer를 이용한 이미지 복원 성능 향상 기법** 이주성[1], 이호섭[2] [1]국립금오공과대학교 전자공학부 전자시스템전공, [2]국립금오공과대학교 전자공학부 반도체시스템전공
SP-347	**FPGA 기반 Weight-Stationary 구조의 MNIST 분류 가속기 성능 비교** 정찬우[1], 김은수[1], 박서인[1], 이계석[1], 김태경[2] [1]가천대학교 전자공학과, [2]가천대학교 시스템반도체학과

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U. Bio-Medical 분과

SP-348	**Polymer-Engineered Multimodal Sensing Platform for Real-Time pH Detection and Alarming** Hye Yeon Yun[1], Hyeon Bin Jo[1], Kwang Hoon Song[2], and Sung Hun Jin[1] [1]Department of Information Display, Kyung Hee University, [2]Department of Intelligent Semiconductor Engineering, Incheon National University

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V. Quantum Technology 분과

SP-349	**Trade-Off between Inference Time and Error Correction Rate for Machine Learning Based Quantum Error Correction** Seokhyeon Son[1], Junyong Lee[2], Jeihee Cho[2], Euimin Lee[2], Hyeonseong Jung[2], Yunah Choi[2], and Shiho Kim[1] [1]School of Integrated Technology, Yonsei University, [2]BK21 Graduate Program in Intelligent Semiconductor Technology, Yonsei University