

V. 포스터 발표

A. Interconnect & Package	
PA-001	<p>Experimental Characterization of Cu-to-Cu Bonding</p> <p>Yoonho Kim¹, Seungmin Park¹, Hae-Sung Park¹, Han Kyeol Seo², and Sarah Eunkyung Kim² ¹Graduate School of General Engineering, Seoul National University of Science and Technology, ²Graduate School of Nano-IT Design, Seoul National University of Science and Technology</p>
PA-002	<p>Intrinsically Stretchable and Self-healable Composite Conductor for Robust Interconnection</p> <p>Sun Hong Kim^{1,2}, Geunwoo Baek^{1,2}, Donghee Son³, and Jeonghun Kwak^{1,2} ¹Department of Electrical and Computer Engineering, Seoul National University, ²Inter-University Semiconductor Research Center, Seoul National University, ³Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
PA-003	<p>굽힘 피로 시험에서 폴리머 코팅이 구리 박막에 미치는 영향</p> <p>Min-Su Park and Byoung-Joon Kim School of Materials Science and Engineering, Andong National University</p>
PA-004	<p>구리 도금층의 증착 시간과 전류밀도에 따른 굽힘 피로 시험</p> <p>Geum-yong Park and Byoung-Joon Kim School of Materials Science and Engineering, Andong National University</p>
PA-005	<p>Study on the Various Micro-structured Electrode for Stretchable Electronics</p> <p>Taeseung Jung and Sanghun Jeon School of Electrical Engineering, KAIST</p>
PA-006	<p>패키징 칩이 존재하는 유연 전자 소자의 신뢰성 개선을 위한 배선 디자인</p> <p>Jong-Sung Lee¹, Jaegeun Seol², Young-Joo Lee³, Young-Chang Joo¹, and Byoung-Joon Kim² ¹Department of Materials Science and Engineering, Seoul National University, ²School of Materials Science and Engineering, Andong National University, ³Department of Materials Science and Engineering, University of Pennsylvania</p>
PA-007	<p>250°C이하의 Cu/Sn/Sn/Cu Solid State Bonding의 구현</p> <p>Mose Park¹, Hoon Choi¹, and Hoo-Jeong Lee^{1,2} ¹School of Advanced Materials Science and Engineering, Sungkyunkwan University, ²Sungkyunkwan University Advanced Institute of Nano Technology, Sungkyunkwan University</p>
PA-008	<p>Improved Contact Resistivity and Thermal Stability of Ti/n-Ge Contact with Carbon Pre-Implantation</p> <p>Iksoo Park, Donghun Lee, and Jeong-Soo Lee Department of Electrical Engineering, POSTECH</p>
PA-009	<p>Study on The Size Effect of Resistivity of Copper Thin Film Depending on Interfacial Materials</p> <p>Myeong Won Son and Kyung Min Kim KAIST</p>

B. Patterning

PB-001	<p>Plasma Etching Of SiO₂ Using Perfluoroalkyl Vinyl Ethers</p> <p>Sanghyun You and Chang-Koo Kim <i>Department of Chemical Engineering and Department of Energy Systems Research, Ajou University</i></p>
PB-002	<p>A Study on the Change in Characteristics of SiOC Thin Films by Plasma Exposure</p> <p>Junmyung Lee¹, Younghun Oh¹, Hyun Woo Lee², and Kwang-Ho Kwon¹ ¹<i>Department of Control and Instrumentation Engineering, Korea University,</i> ²<i>Department of Aeronautic Computer Engineering, Hanseo University</i></p>
PB-003	<p>Evaluation of Etch Profile Shapes in Pulsed Wave Plasma Etching Processes</p> <p>Byung Jun Lee¹, Yunho Nam¹, Young Hun Oh¹, Hyun Woo Lee², and Kwang-Ho Kwon¹ ¹<i>Department of Control and Instrumentation Engineering, Korea University,</i> ²<i>Department of Aeronautic computer Engineering, Hanseo University</i></p>
PB-004	<p>Sidewall Surface Analysis of Plasma-etched Nano-patterns</p> <p>Jaemin Lee¹, Yeonsik Choi¹, Hyun Woo Lee², and Kwang-Ho Kwon¹ ¹<i>Department of Control and Instrumentation Engineering, Korea University,</i> ²<i>Department of Aeronautic Computer Engineering, Hanseo University</i></p>
PB-005	<p>Comparison of Relative Moisture Between N₂ Purge and Rough Pumping Through Residual Gas Analyzer With The Visual Inspection On The Condensation At Liquid Nitrogen Supply Line Equipped In Cryogenic Test System</p> <p>JiHwan Kim, HeeTae Kwon, WooJae Kim, GiWon Shin, BumSoo On, YeonSoo Park, InYoung Bang, and Gi-Chung Kwon <i>Electrical and Biological Physics, Kwangwoon University</i></p>
PB-006	<p>Fabrication of Indium-gallium-zinc-oxide TFT Using Self-aligned Imprint lithography</p> <p>Changyun Na, Chanho Kim, Sangmin Lee, Hangil Lee, and Sung Min Cho <i>School of Chemical Engineering, Sungkyunkwan University</i></p>
PB-007	<p>High Density Plasma Etching of Copper Thin Films in a Piperidine/O₂/Ar Plasma</p> <p>Ji Soo Lee, Eun Taek Lim, Mun Hwan Cha, Sung Yong Park, and Chee Won Chung <i>Department of Chemical Engineering, Inha University</i></p>
PB-008	<p>Dry Etching of Nanometer-scale Patterned Copper Thin Films Using Inductively Coupled Plasma of Organic Materials</p> <p>Sung Yong Park, Eun Taek Lim, Mun Hwan Cha, Ji Soo Lee, and Chee Won Chung <i>Department of Chemical Engineering, Inha University</i></p>
PB-009	<p>극자외선 노광공정용 마스크 이미징 특성 향상 연구</p> <p>김득규^{1,3}, 정동민^{2,3}, 한윤종^{1,3}, 김연수^{2,3}, 안진호^{1,2,3} ¹<i>한양대학교 나노반도체공학과, ²한양대학교 신소재공학과, ³한양대학교 EUV-IUCC</i></p>
PB-010	<p>철회</p>



PB-011	Fluoroether and Fluoroalcohol Plasmas for Silicon Oxide Etching in Dual Frequency Capacitively Coupled Plasmas Hojin Kang ¹ , Junhyun Kim ³ , Yongjae Kim ² , and Heeyeop Chae ^{1,2} ¹ <i>School of Chemical Engineering, Sungkyunkwan University,</i> ² <i>SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University,</i> ³ <i>Institute of Convergent Chemical Engineering and Technology, Sungkyunkwan University</i>
PB-012	철회
PB-013	I-line Scanner 용 성능개선 PR 도입 및 Issue 개선을 위한 고찰 Jung Hye Lee, Minseok Son, and Seyoung Oh <i>SK Hynix Inc.</i>
PB-014	Plasma Etching of SiO₂ Using Hydrofluoroethers and Fluoroalcohols Jun-Hyun Kim ¹ , Sanghyun You ² , Heeyeop Chae ³ , and Chang-Koo Kim ² ¹ <i>Institute of Convergent Chemical Engineering and Technology, Sungkyunkwan University,</i> ² <i>Department of Chemical Engineering and Department of Energy Systems Research, Ajou University,</i> ³ <i>Sungkyunkwan University Advanced Institute of Nanotechnology, Sungkyunkwan University</i>

C. Material Growth & Characterization

PC-001	<p>Boron Nitride와 MXene을 혼합한 열전달 접착제의 열전도도 측정 연구</p> <p>박윤범, 조경아, 박태호, 김상식 고려대학교 전기전자공학과</p>
PC-002	<p>Controlling the Schottky Barriers via Patterned Transition Metal Ditetelluride Electrode Contacts</p> <p>Seunguk Song¹, Yeoseon Sim¹, Se-Yang Kim¹, Jung Hwa Kim¹, Inseon Oh¹, Woongki Na², Do Hee Lee¹, Jaewon Wang¹, Shili Yan³, Yinan Liu⁴, Jinsung Kwak¹, Jian-Hao Chen^{3,4}, Hyeonsik Cheong², Jung-Woo Yoo¹, Zonghoon Lee¹, and Soon-Yong Kwon¹</p> <p>¹School of Materials Science and Engineering and Center for Future Semiconductor Technology (FUST), UNIST, ²Department of Physics, Sogang University, ³Beijing Academy of Quantum Information Sciences, ⁴International Center for Quantum Materials, School of Physics, Peking University</p>
PC-003	<p>Ink Application of 2D Carbide MXene Flakes Exhibiting High Yield and Performance via Highly-purified-precursor Synthesis</p> <p>Shi-Hyun Seok^{1,2}, Seungjun Choo^{1,2}, Jinsung Kwak^{1,2}, Hyejin Ju^{1,2}, Ju-Hyoung Han^{1,2}, Woo-Seok Kang^{1,2}, Joonsik Lee^{2,2}, Se-Yang Kim^{1,2}, Do Hee Lee^{1,2}, Jungsoo Lee^{1,2}, Jaewon Wang^{1,2}, Seunguk Song^{1,2}, Wook Jo^{1,2}, Byung Mun Jung³, Han Gi Chae^{1,2}, Jae Sung Son^{1,2}, and Soon-Yong Kwon^{1,2}</p> <p>¹School of Materials Science and Engineering, UNIST, ²Center for Future Semiconductor Technology (FUST), UNIST, ³Composites Research Division, KIMS</p>
PC-004	<p>Selective Area Growth of WSe₂ on SiO₂ Surface between Patterned Graphene Layers</p> <p>Seung Won Lee, Hyo-Bae Kim, and Ji-Hoon Ahn Department of Materials Science and Chemical Engineering, Hanyang University</p>
PC-005	<p>Fabrication of Graphene-Embedded Organic Flexible Transparent Electrodes for Flexible Organic Optoelectronics</p> <p>Do Hee Lee, Hyung Duk Yun, Eui Dae Jung, Jae Hwan Chu, Yun Seok Nam, Seunguk Song, Shi-Hyun Seok, Myung Hoon Song, and Soon-Yong Kwon School of Materials Science and Engineering, UNIST</p>
PC-006	<p>The Variation of Schottky Barrier Height Induced by Phase Separation of InAlAs Layers used for InP HEMT Devices</p> <p>Sang Tae Lee¹, Hyunchul Jang¹, Changhoon Song^{1,3}, Shinkeun Kim¹, Do-Young Yun², Dae-Hyun Kim², Minwoo Kong⁴, and Chan-Soo Shin¹</p> <p>¹KANC, ²School of Electronics Engineering, Kyungpook National University, ³Department of Material Science and Engineering, Yonsei University, ⁴Seoul National University</p>
PC-007	<p>Study on Phase Stability in Ni-based Halide Perovskite Powders Using Solvent-free Mechanical Milling</p> <p>Jin San Choi, Chang Won Ahn, and Tae Heon Kim ¹Department of Physics and Energy Harvest-Storage Research Center (EHSRC), University of Ulsan</p>
PC-008	<p>Characterization of Si- and Te-doped InAs Nanowires Selectively Grown by MOCVD on InP(111) B Substrates</p> <p>Chang-Hun Song^{1,2}, Minwoo Kong^{2,3}, Hyunchul Jang¹, Sang Tae Lee¹, Hyeong-Ho Park¹, Chang Zoo Kim¹, Shinkeun Kim¹, Youngsu Choi¹, Dae-Hong Ko², Kwangseok Seo³, and Chan-Soo Shin¹</p> <p>¹KANC, ²Department of Material Science and Engineering, Yonsei University, ³Department of Electrical and Computer Engineering, Seoul National University</p>

PC-009	<p>Effect of In-situ Zn Doping on Suppression of Phase Separation in $\text{In}_x\text{Al}_{1-x}\text{As}$ Epitaxial Layer Grown on InP(001) Substrate by MOCVD</p> <p>Hyunchul Jang¹, Sang Tae Lee¹, Chang-Hun Song^{1,2}, Minwoo Kong^{1,3}, Chang Zoo Kim¹, Hyeong-Ho Park¹, Shinkeun Kim¹, Kyung-Ho Park¹, and Chan-Soo Shin¹</p> <p>¹KANC, ²Department of Material Science and Engineering, Yonsei University, ³Department of Electrical and Computer Engineering, Seoul National University</p>
PC-010	<p>Annealing Effect on the Crystallinity and Stress of Yttria-stabilized Zirconia Epitaxial Thin Films</p> <p>Hyung-Jin Choi and Seung-Hyub Baek</p> <p>Center for Electronic Materials, KIST</p>
PC-011	<p>Single Crystalline PMN-PZT Thin Film on Silicon Using Bonding Technology</p> <p>RuiGuang Ning^{1,2}, and Seung-Hyub Baek^{1,2}</p> <p>¹Center for Electronic Materials, KIST, ²Department of Nanomaterials Science and Engineering, University of Science & Technology</p>
PC-012	<p>Epitaxial PMN-PZT Thin Film on Silicon with Buffer Layers</p> <p>Soo Young Jung^{1,2}, Jin Soo Park^{3,4}, Byeong-hyeon Lee⁵, Sung-Ok Won⁵, Byung Chul Lee³, Ho Won Jang², and Seung-Hyub Baek^{1,6}</p> <p>¹Center for Electronic Materials, KIST, ²Department of Materials Science and Engineering, Seoul National University, ³Brain Science Institute, KIST, ⁴Department of Electrical Engineering, Korea University, ⁵Advanced Analysis Center, KIST, ⁶Department of Nanomaterials Science and Technology, University of Science and Technology</p>
PC-013	<p>Low Temperature Silicon-Germanium Epitaxial Growth Using Disilane, Trisilane, Tetrasilane, and Germane Precursors</p> <p>Dae-Seop Byeon, Yongjoon Choi, Choong-Hee Cho, and Dae-Hong Ko</p> <p>Department of Materials Science and Engineering, Yonsei University</p>
PC-014	<p>Cr 기반의 이중박막 내에서 발생하는 스핀-오빗 토크에 대한 연구</p> <p>박은강¹, 장희찬¹, 정세엽¹, 이년종¹, 강민구², 이수길², 박병국², 김상훈¹</p> <p>¹울산대학교 물리학과, ²한국과학기술원 신소재공학과</p>
PC-015	<p>Synthesis of Small-Angle Twisted Bilayer Graphene on Atomic-Stepped Copper Surface by Chemical Vapor Deposition</p> <p>Hyeyeon Cho¹, Yohwan Park¹, Soyoung Kim¹, Taemin Ahn², Tae-Hwan Kim², and Hee Cheul Choi¹</p> <p>¹Department of Chemistry, POSTECH, ²Department of Physics, POSTECH</p>
PC-016	<p>Band-Gap Tuning of Double Perovskite Halides by Anion Doping</p> <p>Jae Hun Jo, Jin San Choi, Chang Won Ahn, and Tae Heon Kim</p> <p>Department of Physics and Energy Harvest-Storage Research Center(EHSRC), University of Ulsan</p>
PC-017	<p>Morphologies of Synthesized Wafer Scale MoS₂ at Various Pressure</p> <p>Hyun-Geun Oh and Gwan-Hyoung Lee</p> <p>Seoul National University</p>



PC-018	Growth and Characterization of InGaN/GaN Nanowires Including Uniaxial and Coaxial MQWs by MOCVD Ji-Yeon Kim, Dae-Young Um, Ga-Eun Hong, Jeong-Kyun Oh, and Cheul-Ro Lee <i>School of Advanced Materials Engineering, Jeonbuk National University</i>
PC-019	Hybrid Nanostructures Built by Simultaneously Growing Star-Shaped GaN Nanowires and Si Nanoworms Jeong-Kyun Oh, Dae-Young Um, Ga-Eun Hong, Ji-Yeon Kim, and Cheul-Ro Lee <i>School of Advanced Materials Engineering, Jeonbuk National University</i>
PC-020	Synthesis of Surface Roughness Optimized MXene ($Ti_3C_2T_x$) Sheet with Lowered Contact Resistance Sukhbayar Gankhuyag ^{1,2} and Seunghyun Lee ^{1,2} ¹ <i>Institute of Wearable Convergence Electronics, Kyung Hee University, </i> ² <i>Department of Electronic Engineering, Kyung Hee University</i>

D. Thin Film Process Technology

<p>PD-001</p>	<p>Heterostructured Anti-Ambipolar Phototransistors Using Small Molecules-based Organic Semiconductors</p> <p>Seongjae Kim¹, Seongjin Hong², Won Jae Lee¹, and Hocheon Yoo¹ ¹ Department of Electronic Engineering, Gachon University, ²School of Advanced Materials Science and Engineering, Sungkyunkwan University</p>
<p>PD-002</p>	<p>Study on Off-Current of Amorphous Indium-Gallium-Zinc-Oxide ThinFilm Transistor for Dynamic Random Access Memory Cell Transistor</p> <p>Yonghee Lee^{1,2}, Jun Shik Kim^{1,2}, Younjin Jang^{1,2}, Kwangmin Kim³, Sukin Kang^{1,2}, Whayoung Kim^{1,2}, and Cheol Seong Hwang^{1,2,3} ¹Department of Materials Science and Engineering, Seoul National University, ²Inter-University Semiconductor Research Center, Seoul National University, ³Graduate School of Engineering Practice, Seoul National University</p>
<p>PD-003</p>	<p>Study on the Improvement of Electrical Performance of IZO TFT through Plasma Treatment</p> <p>Jae-Yun Lee, Fei Shan, Hao-Zhou Sun, Han-Lin Zhao, Bo-Ra Ok, Xiao-Lin Wang, Tukhtaev Anvar, Isamaddinov Shukhrat, Erdenebat Oyu Erdene, and Sung-Jin Kim <i>College of Electrical and Computer Engineering, Chungbuk National University</i></p>
<p>PD-004</p>	<p>A Study on the Effect of Multi-layer Structure on Electrical Characteristics of IZO Oxide Thin Film Transistor</p> <p>Isamaddinov Shukhrat, Hao-Zhou Sun, Jae-Yun Lee, Fei Shan, Han-Lin Zhao, Bo-Ra Ok, Xiao-Lin Wang, Tukhtaev Anvar, Erdenebat Oyu Erdene, and Sung-Jin Kim <i>College of Electrical and Computer Engineering, Chungbuk National University</i></p>
<p>PD-005</p>	<p>High Performance DIPS-pentacene Thin-film Transistors Using BarCoating Method</p> <p>Somi Kim¹, Hyeon Ji Lee¹, Se In Chung², John Anthony³, Kilwon Cho², and Hocheon Yoo¹ ¹Department of Electronic Engineering, Gachon University, ²Department of Chemical Engineering, POSTECH, ³Department of Chemistry, University of Kentucky</p>
<p>PD-006</p>	<p>게이트 절연막 증착 온도에 따른 a-ITGZO 박막트랜지스터의 히스테리시스 특성 연구</p> <p>이호상, 조경아, 김상식 <i>고려대학교 전기전자공학과</i></p>
<p>PD-007</p>	<p>Characterization of SiCOH Low Dielectric Constant Films by Plasma Chemical Vapor Deposition for Various Flow Rate Ratios of the He Carrier Gas and the Diethoxymethylsilane Precursor</p> <p>Yoonsoo Park¹, Hyuna Lim¹, Namwuk Baek¹, Sungwoo Lee², Jeayoung Yang², and Donggeun Jung¹ ¹Department of Physics, Sungkyunkwan University, ²Advanced Research Laboratory, TES Co.,Ltd</p>
<p>PD-008</p>	<p>Lead-free (K,Na)NbO₃ Thick Films for Flexible Non-volatile Memory Applications</p> <p>Yeong Min Kwak, Tae Kwon Lee, Dae Sol Kong, Young Joon Ko, Dong Geun Jeong, and Jong Hoon Jung <i>Department of Physics, Inha University</i></p>

<p>PD-009</p>	<p>Investigation of the Frequency Dependent Dielectric Characteristics of ZrO₂ Based High-k Dielectrics Dong Hee Han¹, Ji Hyeon Hwang^{1,2}, and Woojin Jeon¹ ¹Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, ²Soft Hybrid Materials Research Center, KIST</p>
<p>PD-010</p>	<p>Improved Interface Properties of ZrO₂-TiN Using Passivation Layer to Suppress Interfacial Layer Caused Degradation Byung Seok Kim¹, Ji Hyeon Hwang^{1,2}, Dong Hee Han¹, and Woojin Jeon ¹Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University, ²Soft Hybrid Materials Research Center, KIST</p>
<p>PD-011</p>	<p>실시간 분석을 통한 ALD 비정질 HfO₂ 의 결정화 거동에 대한 연구 이상길, 유승조, 이지현, 성보경, 장재혁 한국기초과학지원연구원 연구장비운영부</p>
<p>PD-012</p>	<p>Enhancing the Electrical Properties of ALD-grown Homogeneous Zr_xHf_{1-x}O₂ Thin Film by CpZr-CpHf Cocktail Precursor Using Liquid Delivery System Jenam Kim, Byung Seok Kim, Ae Jin Lee, and Woojin Jeon Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University</p>
<p>PD-013</p>	<p>ReRAM-based Sensitivity Programmable High-performance Bio-sensor Hyeong Un Jeon and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University</p>
<p>PD-014</p>	<p>High Performance A-IGZO Nanowire Field-Effect Transistors with Flexible Random Network Channels by Electrospun PVP Nanofiber Template Transfer Ki-Woong Park and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University</p>
<p>PD-015</p>	<p>게이트 절연막 분석용 Damage-free FIB 시편 제작을 위한 Ar 이온 밀링에 관한 연구 이지현, 유승조, 이상길, 장재혁 한국기초과학지원연구원 연구장비운영부</p>
<p>PD-016</p>	<p>Effects of Phase Transformation on Thermo-optic Properties of Atomic Layer Deposited TiO₂ Films Honghwi Park, Jaedong Jung, Heungsup Won, and Hongsik Park School of Electronic and Electrical Engineering, Kyungpook National University</p>
<p>PD-017</p>	<p>Growth Behavior of Two-dimensional MoS₂ by Plasma-Enhanced Atomic Layer Deposition Ah-Jin Cho¹, In-Hwan Baek¹, Chong-Yun Kang^{1,2}, and Seong Keun Kim¹ ¹Electronic Materials Research Center, KIST, ²KU-KIST Graduate School of Converging Science and Technology, Korea University</p>
<p>PD-018</p>	<p>Atomic Layer Deposition of MoO₂ as Thermally Stable Conductive Oxide for the Metal Electrode for the Next Generation DRAM Capacitor Ye Won Kim, Byung Seok Kim, Dae Cheol Lee, and Woojin Jeon Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University</p>



PD-019	<p>Atomic Layer Deposition of Al₂O₃ Thin Films with Trimethylaluminum and Acetone</p> <p>Yeji Lee, Daeun Lim, Yujin Kim, and Woongkyu Lee <i>Department of Electrical Engineering, Myongji University</i></p>
PD-020	<p>Optimizing the Laminated Structure of High-K Dielectric Consisting of ZrO₂ and HfO₂ for Dynamic Random Access Memory Capacitor</p> <p>Ae Jin Lee¹, Byung Seok Kim¹, Ji Hyeon Hwang^{1,2}, Dong Hee Han¹, and Woojin Jeon ¹<i>Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University,</i> ²<i>Soft Hybrid Materials Research Center, KIST</i></p>
PD-021	<p>High Performance Ambipolar Poly-Si TFTs with Silicided Schottky Barrier Source/drain by Low Thermal Budget Microwave Annealing</p> <p>Man-Ho Cho and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i></p>
PD-022	<p>원자층 식각 공정을 위한 플라즈마 내 라디칼 제어 기술</p> <p>Junho Jung, Jiyong Oh, Seokjun kim, Yunseok Lee, Minhee Kim, Subin Choi, Eunchong Kang, and Kyongnam Kim <i>Department of Advanced Materials Engineering, Daejeon University</i></p>
PD-023	<p>Bias Stability Enhancement of a Sol-gel Based IGZO Transistor via Plasma Treatment onto High-k Dielectric</p> <p>Seyoung Oh, Woojin Park, Heejeong Park, Hyun Young Seo, and Byungjin Cho <i>Department of Advanced Material Engineering, Chungbuk National University</i></p>
PD-024	<p>Artificial Synaptic Plasticity of Charge Trap Based IGZO Transistor for a Neuromorphic Application</p> <p>Deokchan Yang, Ojun Kwon, Seunggi Jeom, Yeji Seong, and Byungjin Cho <i>Department of Advanced Materials Engineering, Chungbuk National University</i></p>
PD-025	<p>Endurance Characteristics According to Frequencies and Magnitudes of the Cycling Pulse in Ge-Doped HfO₂ Ferroelectric Films</p> <p>Yoogeun Han, Ju-Young Jeong, and Hyunchul Sohn <i>Department of Materials Science and Engineering, Yonsei University</i></p>
PD-026	<p>Electrical Modulation of SnSe by Changing the Thickness of ZnO Coating Layer</p> <p>Myeong Jun Jung¹, So Hyun Kwon¹, Ye Jun Yun¹, Jong Min Byun^{1,2}, and Byung Joon Choi^{1,2} ¹<i>Department of Material Science and Engineering, Seoul National University of Science and Technology,</i> ²<i>The Institute of Powder Technology, Seoul National University of Science and Technology</i></p>
PD-027	<p>Relation between Remnant Conducting Filament and Its Relaxation in Diffusive Memristors</p> <p>Ju-Hwan Park, Won-Hee Jeong, Hee-Ju Yun, and Byung-Joon Choi <i>Department of Materials Science and Engineering, Seoul National University of Science and Technology</i></p>

PD-028	<p>Asymmetric Electrical Transport of Bidirectional Diode based on Hafnium Nitride Film Grown by Atomic Layer Deposition</p> <p>Ha Young Lee and Byung Joon Choi <i>Department of Materials Science and Engineering, Seoul National University of Science and Technology</i></p>
PD-029	<p>Thermally Robust HfN-based Resistive Switching Memory</p> <p>Hee Ju Yun¹, Ha Young Lee¹, Hogyoung Kim², and Byung Joon Choi¹ <i>¹Department of Materials Science and Engineering, Seoul National University of Science and Technology, ²Department of Visual Optics, Seoul National University of Science and Technology</i></p>
PD-030	<p>A Study of Crystallinity and Polarization Characteristics with Deposition Temperature of Ga-doped HfO₂ Films Deposited by ALD</p> <p>Ju-young Jeong, Yoogeun Han, and Hyunchul Sohn <i>Department of Materials Science and Engineering, Yonsei University</i></p>
PD-031	<p>Catalytic Metals-Accelerated Crystallization of Solution-processed Metal Oxide Semiconductors for High-mobility Thin-Film Transistors</p> <p>Sung Woon Cho <i>Department of Printed Electronics Engineering, Suncheon National University</i></p>
PD-032	<p>AlGaN-based Ternary Nitride Memristors</p> <p>Seok Choi¹, Ju Hwan Park¹, Hee Ju Yun¹, Hogyoung Kim², and Byung Joon Choi¹ <i>¹Department of Materials Science and Engineering, Department of Optometry, Seoul National University of Science and Technology, ²Department of Visual Optics, Seoul National University of Science and Technology</i></p>
PD-033	<p>분말 원자층증착법을 이용한 SnS 및 SnO 박막 코팅 및 이를 이용한 TiO₂ 촉매 특성 향상</p> <p>Seung Chul Shin¹, Bo Keun Park², Taek-Mo Chung², and Jeong Hwan Han¹ <i>¹Department of Materials Science and Engineering, Seoul National University of Science and Technology, ²Division of Advanced Materials, KRICT</i></p>
PD-034	<p>Fabrication of High-efficiency Thin-film GaAs Single-junction Solar Cell Using Double-transfer Technique</p> <p>Yujeong Jang, Yeojun Yun, Sunghyun Moon, Minhyung Lee, YongHyun Nam, and Jaejin Lee <i>Department of Electrical and Computer Engineering, Ajou University</i></p>
PD-035	<p>원자층증착법으로 증착된 전계 유도 강유전성 HfO₂/ZrO₂ Nanolaminate의 Electrocaloric Effect에 대한 연구</p> <p>양건, 이동현, 박주용, 박민혁 <i>부산대학교 재료공학부</i></p>
PD-036	<p>9.2nm Hf_{0.5}Zr_{0.5}O₂ 박막에서 분극 스위칭 펄스의 최적화에 의한 Wake-Up 효과의 완화</p> <p>Ju Yong Park¹, Dong Hyun Lee¹, Kun Yang¹, Se Hyun Kim^{2,3}, and Min Hyuk Park¹ <i>¹School of Materials Science and Engineering, College of Engineering, Pusan National University, ²Technology Licensing Office, Pusan National University, ³Institute for Research and Industry Cooperation, Pusan National University</i></p>

PD-037	<p>IGZO Channel Thin Film Transistor-based Biosensor with Monolithic 3-dimension Integration</p> <p>Hongrae Cho, Minhyun Jung, and Sanghun jeon <i>Department of Electrical Engineering, KAIST</i></p>
PD-038	<p>F-free 전구체를 이용한 Molybdenum 금속 박막의 원자층증착성장 및 물성 평가 연구</p> <p>안지상, 한정환 <i>서울과학기술대학교 신소재공학과</i></p>
PD-039	<p>Hf_{0.5}Zr_{0.5}O₂ 박막의 원자층 증착 온도에 따른 강유전체 분극 반전 키네틱스에 대한 영향</p> <p>Dong Hyun Lee¹, Kun Yang¹, Ju Yong Park¹, Se Hyun Kim^{2,3}, Geun Taek Yu¹, and Min Hyuk Park¹ <i>¹School of Materials Science and Engineering, Pusan National University, ²Technology Licensing Office, Pusan National University, ³Institute for Research and Industry Cooperation, Pusan National University</i></p>
PD-040	<p>Dimerization of Group 13 Precursors: a DFT study</p> <p>Miso Kim and Bonggeun Shong <i>Chemical Engineering, Hongik University</i></p>
PD-041	<p>Two-Dimensional Electron Gas Density Adjustment in Thin Film Oxide Heterostructures</p> <p>Chang Hee Ko¹, Seong Hwan Kim¹, Tae Joo Park², and Sang Woon Lee¹ <i>¹Department of Energy Systems Research and Department of Physics, Ajou University, ²Department of Materials Science and Chemical Engineering, Hanyang University</i></p>
PD-042	<p>Low Temperature Growth of Beryllium Oxide Thin Films by Plasma Enhanced Atomic Layer Deposition</p> <p>Yoonseo Jang¹, Dohwan Jung^{2,3}, Christopher W. Bielawski^{2,3}, and Jungwoo Oh¹ <i>¹School of Integrated Technology, Yonsei Institute of Convergence Technology, Yonsei University, ²Center for Multidimensional Carbon Material, IBS, ³Department of Chemistry, UNIST</i></p>
PD-043	<p>Evaluation of Various ALD Precursors toward Reduction of the TiO₂ Substrate: a DFT Study</p> <p>Woojin Bae, Hyobin Eom, Jeongwoo Park, and Bonggeun Shong <i>Chemical Engineering, Hongik University</i></p>
PD-044	<p>Role of Cyclopentadienyl Ligands of Precursors Toward High-temperature Atomic Layer Deposition of High-K Dielectrics</p> <p>Tran Thi Ngoc Van, Jeongwoo Park, and Bonggeun Shong <i>Chemical Engineering, Hongik University</i></p>
PD-045	<p>Effect of Substrate Bias on SiNx PECVD Process</p> <p>Se Jin Ahn, Hye Jin Cho, Chan Ho Kim, Wung Sun Eo, Seung Wu Lee, and Sung Min Cho <i>School of Chemical Engineering, Sungkyunkwan University</i></p>
PD-046	<p>Analysis of Crystallinity of Laser-annealed Polysilicon Thin Film Using 355-nm Nanosecond Laser</p> <p>표정상, 류한열 <i>인하대학교 물리학과</i></p>



PD-047	Investigation of the VFB Modulation by ALD La_2O_3 Thin Film Capped HKMG Device for Gate Last Process Weinan Jin, Moonsuk Choi, Juhyeon Lee, Minhyuk Kim, and Changhwan Choi <i>Division of Materials Science and Engineering, Hanyang University</i>
PD-048	Improvement of Lanthanum Oxide Dielectric Film by Hydrogen Peroxide Incorporation Won-Young Kim and Yong-Sang Kim <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i>
PD-049	Characteristics of VO_{2-x} Thin Films Prepared by Pulsed DC Sputtering for High-temperature Microbolometer Jaeyeong Bae ^{1,2} and Donghee Park ² ¹ <i>Department of Materials Science and Engineering, Korea University,</i> ² <i>Center for Opto-electronic Materials and Devices, KIST</i>
PD-050	ALD 오존 주입량 제어와 Al_2O_3 산소확산방지막 삽입을 통한 TiN/ZrO_2 계면의 화학적/전기적 특성 향상 Dokyoung Kim ¹ , Hongseon Song ² , and Kijung Yong ¹ ¹ <i>Department of Chemical Engineering, POSTECH,</i> ² <i>Samsung Electronics Co., Ltd.</i>
PD-051	Smooth and Large Scale Organometallic Complex Thin Film Prepared by Vapor Phase Ligand Substitution Reaction Myeonggeun Choe, Soyoung Kim, and Hee Cheul Choi <i>Department of Chemistry, POSTECH</i>
PD-052	Ultrasoath Molecular Organic Thin Films via Nucleation Suppression by Fast Cooling Method Youngkwan Yoon, Jinho Lee, Soyoung Kim, Seulgi Lee, and Hee Cheul Choi <i>Department of Chemistry, POSTECH</i>

E. Compound Semiconductors

PE-001	<p>Radiation Hardening and Shielding of Transistors and Photonic Devices Using Layered 2D Materials</p> <p>Dasom Jeon, Jinho Lim, and Seunghyun Lee <i>Department of Electronic Engineering, Kyung Hee University</i></p>
PE-002	<p>고방열 접합소재를 사용한 TO247 모듈 제작 및 특성 측정</p> <p>오애선¹, 김동환^{1,2}, 안현식¹, 박은영¹, 김경현¹, 백범규³, 박웅비³, 배현철^{1,2} ¹한국전자통신연구원 DMC 융합연구단 국방전력/센서모듈연구실, ²과학기술연합대학원대학교 차세대소자공학, ³㈜경동엠텍 연구개발팀</p>
PE-003	<p>Analysis of RF Performances in Recessed-gate Based GaN MIS-HEMTs Using a Dual Gate-Insulator</p> <p>So Ra Min¹, Min Su Cho¹, Sang Ho Lee¹, Jin Park¹, Hee Dae An¹, Yun Hwan Kim¹, Young Jun Yoon², Jae Hwa Seo³, Jaewon Jang¹, Jin-Hyuk Bae¹, and In Man Kang¹ ¹School of Electronic and Electrical Engineering, Kyungpook National University, ²Korea Multi-purpose Accelerator Complex, KAERI, ³Flash TD Team, Semiconductor R&D Center, Samsung Electronics Co Ltd.</p>
PE-004	<p>철회</p>
PE-005	<p>P-GaN/AlGaIn/GaN 이중 접합 트랜지스터의 Post-metallization Annealing 공정에 따른 특성 개선 연구</p> <p>Jun-Hyeok Yim, Tae-Hyeon Kim, Won-Ho Jang, and Ho-Young Cha <i>School of Electrical and Electronic Engineering, Hongik University</i></p>
PE-006	<p>UV 광원을 이용한 상온 동작 AlGaIn/GaN 이중접합 트랜지스터 수소가스 센서 연구</p> <p>June-Heang Choi¹, Taehyun Park³, Wontae Choi¹, Chan-Hee Jang¹, Jung-Jin Kim², Jaehyun Hur³, and Ho-Young Cha^{1,2} ¹School of Electronic and Electrical Engineering, Hongik University, ²Metamaterial Electronic Device Research Center, Hongik University, ³Department of Chemical and Biological Engineering, Gachon University</p>
PE-007	<p>Extraction of the Effective Mobility for In_{0.7}Ga_{0.3}As/In_{0.52}Al_{0.48}As High-Electron Mobility Transistors</p> <p>Jun-Gyu Kim¹, Hyeon-Bhin Jo¹, Seung-Won Yun¹, Dae-Hyun Kim¹, Takuya Tsutsumi², Hiroki Sugiyama², and Hideaki Matsuzaki² ¹School of Electronic and Electrical Engineering, Kyungpook National University, ²NTT Device Technology Laboratories</p>
PE-008	<p>Design of Recessed-gate GaN MIS-HEMTs With Dual Gate-Dielectrics Using TiO₂ And SiN</p> <p>Yun Hwan Kim¹, Min Su Cho¹, Sang Ho Lee¹, Jin Park¹, Hee Dae An¹, So Ra Min¹, Young Jun Yoon², Jae Hwa Seo³, Jaewon Jang¹, Jin-Hyuk Bae¹, and In Man Kang¹ ¹School of Electronic and Electrical Engineering, Kyungpook National University, ²Korea Multi-purpose Accelerator Complex, KAERI, ³Flash TD Team, Semiconductor R&D Center, SEC</p>



PE-009	<p>The Effect of Surface Defects on Electrical Characteristics of 6.5kV 4H-SiC PIN Diode</p> <p>Hyemin Jang^{1,2}, Junki Jung^{1,3}, In Ho Kang¹, Ogyun Seok⁴, Jeong Hyun Moon¹, Wook Bahng¹, Jung Woo Lee², and Moonkyong Na¹</p> <p>¹Power Semiconductor Research Center, KERI, ²Department of Materials Science and Engineering, Pusan National University, ³Department of Electrical Engineering, Pusan National University, ⁴School of Electronic Engineering, Kumoh National Institute of Technology</p>
PE-010	<p>Effect of p-type NiOx interlayers on β-Ga₂O₃ Schottky Barrier Diodes</p> <p>Ji Young Min^{1,2}, Joon Hui Park^{1,2}, and You Seung Rim^{1,2}</p> <p>¹Department of Intelligent Mechatronics Engineering, Sejong University, ²Convergence Engineering for Intelligent Drone, Sejong University</p>
PE-011	<p>Effects of Different Metal Contacts Deposited with Confined Magnetic Fieldbased Sputtering in β-Ga₂O₃ Schottky Barrier Diodes</p> <p>Da Sol Kim^{1,2} and You Seung Rim^{1,2}</p> <p>¹Department of Intelligent Mechatronics Engineering, Sejong University, ²Convergence Engineering for Intelligent Drone, Sejong University</p>
PE-012	<p>AlGaN/AlN Self-powered Visible Blind Far-UV Photodetector Using an Asymmetric Electrodes</p> <p>Jungho Ahn, Joocheol Jeong, and John Son</p> <p>Genicom Co., Ltd.</p>

F. Silicon and Group-IV Devices and Integration Technology

PF-001	<p>Low Temperature DUV Laser Annealing for Monolithic 3-D Integration</p> <p>Jiyeon Yoon, Manh Cuong Nguyen, An Hoang Thuy Nguyen, Nam-Hun Kim, Yeongcheol Seok, Hyewon Kim, Sangwoo Kim, and Rino Choi <i>Materials Science and Engineering, Inha University</i></p>
PF-002	<p>Demonstration of Highly Scalable Ternary-CMOS with Compact Model</p> <p>JaeWon Jeong¹, YoungEunChoi¹, Woo-Seok Kim¹, Jae Hyeon Jun¹, Jong-Eun Jeong¹, and KyungRok Kim^{1,2} ¹<i>Department of Electrical Engineering, UNIST,</i> ²<i>Ternell Corp.</i></p>
PF-003	<p>p-채널 피드백 전계효과 트랜지스터의 전기적 안정성 연구</p> <p>손재민, 임두혁, 김상식 <i>고려대학교 전기전자공학과</i></p>
PF-004	<p>단일 게이트 피드백 전계효과 트랜지스터의 메모리 특성 연구</p> <p>최상익¹, 손재민², 임두혁², 김상식^{1,2} ¹<i>고려대학교 반도체시스템공학과,</i> ²<i>고려대학교 전기전자공학과</i></p>
PF-005	<p>단일 게이트 피드백 소자를 이용한 인버터 특성 연구</p> <p>임은혁¹, 임두혁², 손재민², 김상식^{1,2} ¹<i>고려대학교 반도체시스템공학과,</i> ²<i>고려대학교 전기전자공학과</i></p>
PF-006	<p>Improvement of HCI Degradation Over 85V High-voltage P-channel MOSFET</p> <p>Youngkwon Kim, Jongmin Kim, Youngchul Kim, and Joontae Jang <i>Technology Enabling Design Support Team, DB HiTek Co., Ltd.</i></p>
PF-007	<p>실리콘 나노선을 이용한 삼중게이트 피드백 전계효과 트랜지스터의 전기적 특성 연구</p> <p>김택함¹, 임두혁², 손재민², 김상식^{1,2} ¹<i>고려대학교 반도체시스템공학과,</i> ²<i>고려대학교 전기전자공학과</i></p>
PF-008	<p>Implementation of Sensing Methods for Feed Back Field Effect Transistor Based Bio Sensor</p> <p>Inyoung Lee¹, Hyo Jin Park¹, Mingi Pae¹, Ryun Hwa Lee¹, Dong-Wook Park², and Il Hwan Cho¹ ¹<i>Department of Electronic Engineering, Myongji University,</i> ²<i>School of Electrical and Computer Engineering, University of Seoul</i></p>
PF-009	<p>철회</p>
PF-010	<p>Optimization of Intrinsic Layer for High On-state Current in Multi-Bridge-channel Tunnel Field-effect Transistor (MBC TFET)</p> <p>Sora Park and Sangwan Kim <i>Department of Electrical and Computer Engineering, Ajou University</i></p>

PF-011	<p>Hardware Implementation of Reinforcement Learning with Analog Synaptic Devices</p> <p>Jangsaeng Kim^{1,2}, Sung Yun Woo^{1,2}, Won-Mook Kang^{1,2}, Soochang Lee^{1,2}, Seongbin Oh^{1,2}, Gyuho Yeom^{1,2}, Jiseong Im^{1,2}, Joon Hwang^{1,2}, Byung-Gook Park^{1,2}, and Jong-Ho Lee^{1,2}</p> <p>¹Department of Electrical and Computer Engineering, Seoul National University, ²Inter-University Semiconductor Research Center, Seoul National University</p>
PF-012	<p>A Study on Parasitic Effects of Si-FET for Plasmonic Terahertz Detector</p> <p>E-San Jang, Sang Hyo Ahn, Min Woo Ryu, and Kyung Rok Kim</p> <p>Department of Electrical Engineering, UNIST</p>
PF-013	<p>Low-Temperature Polycrystalline Germanium Processing by Seed Induced Lateral Crystallization</p> <p>Mingjun Jiang, Hoesup Soh, and Donghwan Ahn</p> <p>School of Materials Science and Engineering, Kookmin University</p>
PF-014	<p>Electrical Coupling of Hybrid Monolithic 3-D Integrated Circuit Consisting of FBFET and MOSFET</p> <p>Jong Hyeok Oh and Yun Seop Yu</p> <p>Department of ICT robot Engineering, Hankyong National University</p>
PF-015	<p>Electrical Characteristic Investigation of Logic Circuit Consisting of Modularized Monolithic 3D Inverter Unit Cell</p> <p>Geun Jae Lee, Tae Jun Ahn, and YunSeop Yu</p> <p>Department of Electrical, Electronic and Control Engineering, Hankyong National University</p>
PF-016	<p>Interlayer Coupling in Monolithic 3D Inverter Consisting of Tunnel Field-effect Transistors</p> <p>Young Sun Kang, Tae Jun Ahn, and Yun Seop Yu</p> <p>Department of Electrical, Electronic and Control Engineering, Hankyong National University</p>
PF-017	<p>Reset Circuit Analysis for Multi-pixel THz Imaging system</p> <p>Sang Hyo Ahn, Min Woo Ryu, E-San Jang, and Kyung Rok Kim</p> <p>Department of Electrical Engineering, UNIST</p>
PF-018	<p>Improvement of Electrical Characteristics of Heterojunction Fin Tunnel Field-Effect Transistor (Fin TFET) with Negative Capacitance</p> <p>Mun-Jeong Choe and Sangwan Kim</p> <p>Department of Electrical and Computer Engineering, Ajou University</p>
PF-019	<p>Effect of Conductance Variation in Synaptic Devices on Classification Accuracy with Three Classification Methods</p> <p>Hyeongsu Kim, Sung-Tae Lee, Dongseok Kwon, Byung-Gook Park, and Jong-Ho Lee</p> <p>Department of Electrical and Computer Engineering and Inter-university Semiconductor Research Center, Seoul National University</p>
PF-020	<p>Study on the I/V Characteristic of MOSFET with VO₂ as a Gate Dielectric</p> <p>Joonho Park, Unhyun Im, and Sangwan Kim</p> <p>Department of Electrical and Computer Engineering, Ajou University</p>

PF-021	<p>Ge P-channel MOSFET by Solid Phase Diffusion Using Zn Doped Spin on Glass</p> <p>Dae-Hwan Ahn, Jindong Song, and Jae-Hoon Han <i>KIST</i></p>
PF-022	<p>Compact Modeling and Corner Analysis of Ternary-CMOS</p> <p>Young-Eun Choi¹, Jae Won Jeong¹, Woo-Seok Kim¹, Jae Hyeon Jun¹, and Kyung Rok Kim^{1,2} ¹<i>Department of Electrical Engineering, UNIST, ²Ternell Corporation</i></p>
PF-023	<p>Effect of Active Carrier Concentration on Formation of Titanium Silicide</p> <p>Seran Park, Hyunsu Shin, and Dae-Hong Ko <i>Department of Materials Science and Engineering, Yonsei University</i></p>
PF-024	<p>A Novel Ternary-CMOS Based on Tunneling-Only Current Mechanism for Ultra-Enhanced Power-Scalability Using Steep-Slope Device Characteristics</p> <p>Woo-Seok Kim¹, Jae Won Jeong¹, Young-Eun Choi¹, Jae-Hyeon Jun¹, and Kyung Rok Kim^{1,2} ¹<i>Department of Electrical Engineering, UNIST, ²Ternell Corp.</i></p>
PF-025	<p>Analysis and Characterization of Pass Transistor-Based Ternary Inverter for Optimized Low-Power Design</p> <p>Jae Hyeon Jun¹, Jae Won Jeong¹, Young Eun Choi¹, Woo-Seok Kim¹, and Kyung Rok Kim^{1,2} ¹<i>Department of Electrical Engineering, UNIST, ²Ternell Corporation</i></p>
PF-026	<p>Improved Hot Carrier Reliability in Fin-Based High Electron Mobility Transistor</p> <p>Yoo Bin Song, Sung-Ho Kim, Jong Yul Park, and Kyung Rok Kim <i>Department of Electrical Engineering, UNIST</i></p>
PF-027	<p>Analysis of the Self-Heating Effect of Complementary Field Effect Transistors (FETs) beyond the 3nm Technology Node</p> <p>Hyunwoo Kim¹, Changhyun Yoo¹, Yoongeun Seon¹, Myunggon Kang², and Jongwook Jeon¹ ¹<i>Department of Electrical and Electronic Engineering, Konkuk University, ²Department of Electronics Engineering, Korea National University of Transportation</i></p>
PF-028	<p>Edge Channel Effect of Three-Dimensional FinFET on Plasmonic THz Detection Characteristics</p> <p>Min Woo Ryu, Jong Yul Park, E-San Jang, Sang Hyo Ahn, and Kyung Rok Kim <i>Department of Electrical Engineering, UNIST</i></p>
PF-029	<p>Study of Random Dopant Fluctuation Effect in Monolithic 3D Inverter</p> <p>Tae Jun Ahn^{1,2}, Young Baek Kim², and YunSeop Yu¹ ¹<i>Department of Electrical, Electronic and Control Engineering, Hankyong National University, ²Group for Smart Energy Nano Convergence Technology, KITECH</i></p>

G. Device & Process Modeling, Simulation and Reliability

PG-001	<p>Transient Characteristics of Poly-Si 1T-DRAM Depending on the Channel Length and Doping Concentration</p> <p>Yejin Ha^{1,2}, Songyi Yoo^{1,2}, Woogyung Sun³, Jisun Park^{1,2}, and Hyungsoon Shin^{1,2} ¹Department of Electronic and Electrical Engineering, Ewha Womans University, ²Smart Factory Multidisciplinary Program, Ewha Womans University, ³Department of Electrical and Computer Engineering, Seoul National University</p>
PG-002	<p>Negative Capacitance Control and Modeling of Si-doped HfO₂ Ferroelectric in a Circuit Theory Point of View for Mass-production of NCFET</p> <p>Dante Ahn, Woori Ham, Yoseop Lee, Sungmun Song, and Seung-Eon Ahn Department of Nano-Semiconductor Engineering, Korea Polytechnic University</p>
PG-003	<p>A Study on Impact of Oxide Layers in Punch-through Annealing for Low Power Applications</p> <p>Dong Woo Cha¹, Hagyoul Bae², and Jun-Young Park¹ ¹Chungbuk National University, ²Purdue University, West Lafayette</p>
PG-004	<p>실리콘 나노와이어 피드백 전계효과 트랜지스터 계면에 존재하는 이온 전하에 따른 전기적 특성 변화 연구</p> <p>양예진¹, 임두혁², 손재민², 김상식^{1,2} ¹고려대학교 반도체시스템공학과, ²고려대학교 전기전자공학과</p>
PG-005	<p>온도에 따른 피드백 전계 효과 트랜지스터의 전기적 특성 변화 연구</p> <p>전주희, 임두혁, 손재민, 김상식 고려대학교 전기전자공학과</p>
PG-006	<p>A New Fast 3D TCAD Methodology for Development of CIS Pixel</p> <p>Dong Jun Oh, Jongmin Kim, Youngchul Kim, and Joontae Jang TE team, DB HiTek</p>
PG-007	<p>An Accurate And Effective TCAD Method for Evaluating Floating Node Capacitance In CIS Pixel</p> <p>Jong Min Kim, Dong Jun OH, Youngchul Kim, and Joontae Jang TE Team, DB HiTek</p>
PG-008	<p>Analysis of Substrate Effects on Voltage Imbalance in the Multi-stacked RF-switches on a SOI Wafer</p> <p>Nakwon Yu, Jongmin Kim, Youngchul Kim, and Joontae Jang TEDS Team, DB HiTek Co., Ltd.</p>
PG-009	<p>Analysis of Self-Heating Effects in Monolithic Complementary FET (CFET)</p> <p>Dongwon Jang, Seung-Geun Jung, and Hyun-Yong Yu School of Electronic Engineering, Korea University</p>
PG-010	<p>Off-State Stress(OSS) Analysis Methodology of MOSFET Using TCAD</p> <p>Jaeyoul Kim, Sanha Lee, Changsun Lim, Kiron Park, Jihun Park, and Jongwook Jeon Department of Electrical and Electronic Engineering, Konkuk University</p>

PG-011	<p>Surface Potential Modeling of Negative Capacitance Gate-All-Around FET with Interface Trap</p> <p>Yeji Kim, Yoongeun Seon, and Jongwook Jeon <i>Department of Electrical and Electronic Engineering, Konkuk University</i></p>
PG-012	<p>High Responsivity in ReS₂-Based Optoelectronic Devices: A First-Principles Study</p> <p>Ryong Gyu Lee, Tae Hyung Kim, and Yong-Hoon Kim <i>School of Electrical Engineering, KAIST</i></p>
PG-013	<p>First-principles Study of CuInP₂S₆ Based Van der Waals Heterostructure at Non-equilibrium State</p> <p>Yumin Song, Juho Lee, and Yong-Hoon Kim <i>School of Electrical Engineering, KAIST</i></p>
PG-014	<p>낮은 온저항 및 높은 홀딩전압을 갖는 양방향 ESD 보호소자에 관한 연구</p> <p>Seung-Hoo Jin, Sang-Wook Kwon, Je-Wook Woo, June-Ho Kong, and Yong-Seo Koo <i>Department of Engineering of Electronic and Electrical, Dankook University</i></p>
PG-015	<p>Effect of Localized Noncircular Deformations on Memory Characteristics of 3-D NAND Cells</p> <p>Jaeseok Jin, Gilsang Yoon, Donghyun Go, Jounghun Park, and Jeong-Soo Lee <i>Department of Electrical Engineering, POSTECH</i></p>
PG-016	<p>첼희</p>
PG-017	<p>Implementation of Three-Dimensional Kinetic Monte Carlo Simulator for HfO₂ Resistive Random-Access-Memories</p> <p>Minjae Kim, Jae-Hyung Jang, and Sung-Min Hong <i>School of Electrical Engineering and Computer Science, GIST</i></p>
PG-018	<p>Trap Analysis from Hysteresis Characteristics of 3D-NAND Flash Memory</p> <p>DongHyun Go, GilSang Yoon, Jaeseok Jin, Jounghun Park, and Jeong-Soo Lee <i>Department of Electrical Engineering, POSTECH</i></p>
PG-019	<p>Device and Circuit Exploration of Multi-Nanosheet Transistor for 3nm Technology Node</p> <p>Yoongeun Seon, Changhyun Yoo, Hyunwoo Kim, and Jongwook Jeon <i>Department of Electrical and Electronic Engineering, Konkuk University</i></p>
PG-020	<p>Thermal Resistance Evaluation of GaN HEMT Device</p> <p>최성순, 오솔빈, 마병진, 이관훈 <i>한국전자기술연구원 신뢰성연구센터</i></p>
PG-021	<p>The Carrier Transport Characteristics in LTPS TFTs</p> <p>Donghyun Kim and Jae Woo LEE <i>Department of Electronics and Information Engineering, Korea University</i></p>
PG-022	<p>Analysis of Capacitances in Signal Pads for Millimeter-Wave Integrated Circuits</p> <p>Ji-In Jeong and Jong-Ryul Yang <i>Department of Electronic Engineering, Yeungnam University</i></p>

H. Display and Imaging Technologies

PH-001	<p>Low-temperature Passivation of Flexible a-InGaZnO Thin-film Transistors Using Self-Assembled Monolayer Treatment</p> <p>Mingyu Kim, Ji-Yong Yim, Jong-Yeon Baek, Jeong-Han Kim, Manh-Cuong Nguyen, An Hoang-Thuy Nguyen, Anh-Duy Nguyen, and Rino Choi <i>Department of Materials Science and Engineering, Inha University</i></p>
PH-002	<p>The Enhancement in the Performance of QLEDs Through Proper Modification of the Charge Transport Layer</p> <p>Taesoo Lee¹, Byong Jae Kim², Jaehoon Lim², and Jeonghun Kwak¹ ¹<i>Seoul National University</i>, ²<i>Sungkyunkwan University</i></p>
PH-003	<p>Efficient and Stable ZnSeTe Pure-blue Quantum Dot Light-emitting Diodes via Optimization of Charge Transport Layers</p> <p>Minhyung Lee^{1,2}, Yeseul Park^{1,2}, and Jeonghun Kwak^{1,2} ¹<i>Department of Electrical and Computer Engineering, Seoul National University</i>, ²<i>Inter-University Semiconductor Research Center(ISRC), Seoul National University</i></p>
PH-004	<p>Imprint- and Plasma-etch-patterned Organic Light-emitting Diode Micropixels with Through-hole Anode Connections</p> <p>Hyungki Park, Chanho Kim, Sangmin Lee, Hangil Lee, Jiho Jeon, and Sung Min Cho <i>School of Chemical Engineering, Sungkyunkwan University</i></p>
PH-005	<p>Optimization of Highly Flexible and Passivated Amorphous Indium-Gallium-Zinc Oxide Thin Film Transistor</p> <p>Yeon Jun Kim^{1,2}, Geun woo Baek^{1,2}, and Jeonghun Kwak^{1,2} ¹<i>Department of Electrical and Computer Engineering, Seoul National University</i>, ²<i>Inter-University Semiconductor Research Center (ISRC), Seoul National University</i></p>
PH-006	<p>Low Current-driven Multi-quantum Well Red Light Emitting Diode by Band Offset Engineering</p> <p>Ju-Hyuk Park, Dae-Myeong Geum, Woo-Jin Baek, and Sang-Hyeon Kim <i>School of Electrical Engineering, KAIST</i></p>
PH-007	<p>철회</p>
PH-008	<p>언더 패널 카메라 디스플레이를 위한 이미지 처리</p> <p>Jungkyu Kim, Myeongwoo Lee, Bitna Lee, Deokhwa Woo, Manseoung Cho, Junhee Moon, and Bonghyun Yu <i>Display Electronics Research Team, Samsung Display Co., Ltd.</i></p>
PH-009	<p>Improved Performance of ITZO TFT with Stacked High-k ZrO₂/SiO₂ Gate Insulator in Nanoscale by Plasma Enhanced Atomic Layer Deposition</p> <p>Wan-ho Choi¹, Woojin Jeon², and Jin-Seong Park¹ ¹<i>Division of Materials Science and Engineering, Hanyang University</i>, ²<i>Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University</i></p>



PH-010	Cellulose/Single-walled Carbon Nanotubes (SWCNT) Based Flexible Pressure Sensor Daesik Kim ^{1,2} , Geonhee Kim ^{1,2} , Jiseok Seo ^{1,2} , Jinsu Yoon ^{1,2} , and Yongtaek Hong ^{1,2} ¹ <i>Department of Electrical and Computer Engineering, Seoul National University,</i> ² <i>ISRC, Seoul National University</i>
PH-011	Effects of Hydrogen on Amorphous InGaZnO Thin-Film Transistors with Stacked Gate Insulator KyoungRok Kim ¹ , Wan-ho Choi ¹ , Seok-Goo Jeong ² , Hyun-Mo Lee ¹ , Ju-Hwan Han ¹ , and Jin-Seong Park ^{1,2} ¹ <i>Division of Materials Science and Engineering, Hanyang University,</i> ² <i>Division of Nanoscale of Semiconductor Engineering, Hanyang University</i>
PH-012	Effects of Post-Deposition Annealing Ambient on Electrical Characteristics and Stability of High-Mobility IGTO TFTs Hwan-Seok Jeong, Hyun Seok Cha, Seong Hyun Hwang, and Hyuck-In Kwon <i>School of Electrical and Electronics Engineering, Chung-Ang University</i>
PH-013	Optimization of the Al Capping Layer Thickness for High Performance and Stability of IGTO TFTs Hyun-Seok Cha, Hwan-Seok Jeong, Seong Hyun Hwang, and Hyuck-In Kwon <i>School of Electrical and Electronics Engineering, Chung-Ang University</i>
PH-014	Utilizing Open-Source Compiler in Deep Neural Network Accelerators Muhammad Usman, Muhammad Junaid, and HyungWon Kim <i>MSIS Lab, Chungbuk National University</i>
PH-015	Pulse Responses of Transistors based on Organic Semiconductor Blends Taemin Kim, Jaehwan Shin, Solin Lee, and Felix Sunjoo Kim <i>School of Chemical Engineering and Materials Science, Chung-Ang University</i>
PH-016	High-sensitivity Real-Time Healthcare Monitoring Platform with Solution-Processed Metal Oxide Electrochemical Transistors Joon Hui Park ^{1,2} and You Seung Rim ^{1,2} ¹ <i>Department of Intelligent Mechatronics Engineering, Sejong University,</i> ² <i>Convergence Engineering for Intelligent Drone, Sejong University</i>

I. MEMS & Sensor Systems

<p>PI-001</p>	<p>pH Sensor based on Extended Gate Field-effect Transistor Using Ring Oscillator Ji Hyun Kim¹, Seong Jun Park¹, Jin-Woo Han², and Jae-Hyuk Ahn³ ¹Department of Electronic Engineering, Kwangwoon University, ²Center for Nanotechnology, NASA Ames Research Center, ³Department of Electronics Engineering, Chungnam National University</p>
<p>PI-002</p>	<p>High Sensitivity P-channel Dual-gate Ion-sensitive Field-effect Transistor with Microwave-assisted Ni silicide Schottky-barrier Source/Drain Seong-Kun Cho and Won-Ju Cho Department of Electronic Materials Engineering, Kwangwoon University</p>
<p>PI-003</p>	<p>Low Power Consumption Micro Alcohol Gas Sensor based on Micro-heater for Mobile Applications S. E. Moon¹, J. Lee¹, J. H. Kim¹, J. P. Im¹, J. J. Jung², and D. J. Yoo² ¹ETR, ²Sentech korea Corp.</p>
<p>PI-004</p>	<p>Sonochemical Synthesis of PEDOT:PSS Intercalated Ammonium Vanadate Nanofiber Composite for Room-Temperature NH₃ Sensing Hyoun Woo Kim¹, Jae Hoon Bang¹, Seungmin Han¹, Ha Young Lee¹, Ka Yoon Shin¹, and Sanjit Manohar Majhi² ¹Division of Materials Science and Engineering, Hanyang University, ²The Research Institute of Industrial Science, Hanyang University</p>
<p>PI-005</p>	<p>Cu Micro - nano particle paste의 레이저 소결을 통한 Cu 배선 형성 및 터치 센서 구현 안현식^{1,2}, 오애선¹, 김동환^{1,3}, 최윤석², 김경현¹, 배현철^{1,3} ¹한국전자통신연구원 DMC 융합연구단 국방전력/센서모듈 연구실, ²한밭대학교 전자공학과, ³과학기술연합대학원대학교 차세대소자공학과</p>
<p>PI-006</p>	<p>레이저가 투과하는 나노와이어를 이용한 기체 센서 개발 이도원, 홍정수, 김명훈, 서태현, 이문주 POSTECH 전자전기공학과</p>
<p>PI-007</p>	<p>Wireless and Miniaturized Potentiostat for Cyclic Voltammetry Joon-Woo Kim, Sung-Gu Kang, Min-Su Song, and Jeonghyun Kim Department of Electronics Convergence Engineering, Kwangwoon University</p>
<p>PI-008</p>	<p>Rotational Based Mechano-neurostimulator Minseok Kang¹, Yujin Jo, Youngjun Cho, Heejae Shin, and Sanghoon Lee Department of Robotics Engineering, DGIST</p>
<p>PI-009</p>	<p>실내 IoT 센서 시스템 상시 전원용 낮은 밴드갭 유기 반도체 기반 태양전지 연구 이용주, 이형원, 김혁 서울시립대학교 전자전기컴퓨터공학부</p>

<p>PI-010</p>	<p>Wafer-scale Fabrication of Nanometer Silicon Posts for Capacitive Micromachined Ultrasonic Transducers with Substrate-embedded Springs Hae Youn Kim^{1,2}, Dong-Hyun Kang¹, Jungmok Seo², Butrus T. Khuri-Yakub³, and Byung Chul Lee¹ ¹Brain Science Institute, KIST, ²Electrical and Electronic Engineering, Yonsei University, ³Electrical Engineering, Stanford University</p>
<p>PI-011</p>	<p>Flexible Resistive Type Humidity Sensor based on Carbon Nanotube Sheet Sungmun Song¹, Yeeun Lee¹, Doyoon Lee¹, Haegang Park¹, Woonggu Kang¹, Dokyung An¹, Jisoo Kim², and Seung-Eon Ahn¹ ¹Department of Nano & Semiconductor Engineering, Korea Polytechnic University, ²Department of Advanced Materials Engineering, Korea Polytechnic University</p>
<p>PI-012</p>	<p>철회</p>
<p>PI-013</p>	<p>Flexible Dry ECG Sensor for Wearable Device Using CNT Sheet Electrode Woori Ham¹, Gyuil Park¹, Hyunjoo Hwang¹, Jongchul Moon¹, Jinyoung Baek¹, Wonwoo Kho², and Seung-Eon Ahn¹ ¹Department of Nano and Semiconductor Engineering, Korea Polytechnic University, ²Department of Advanced Materials Engineering, Korea Polytechnic University</p>
<p>PI-014</p>	<p>Influence of O₂ Plasma on Surface Functionalization and Electrical Characteristics for FET-Based Biosensor Applications Seonghwan Shin, Donghoon Kim, Wonyeong Choi, Jiwon Park, and Jeong-Soo Lee Department of Electrical Engineering, POSTECH</p>
<p>PI-015</p>	<p>Inertial Microfluidic Particles Separation System with Spiral Channel Obstacle Structure Soon Yeol Kwon, June Soo Kim, Jae Yong Lee, Seung Deok Kim, Yu Seong Kim, and Seong Ho Kong School of Electronic and Electrical Engineering, KyungPook National University</p>
<p>PI-016</p>	<p>실리콘 나노와이어를 포함하는 스프링 구조물 기반 MEMS 마이크로폰 장보배로^{1,2}, 이승현^{1,2}, Ailian Jin^{1,2}, 김태엽^{1,2}, 조동일^{1,2} ¹서울대학교 전기정보공학부, 자동화시스템연구소 (ASRI), ²서울대학교 반도체공동연구소 (ISRC)</p>
<p>PI-017</p>	<p>철회</p>

J. Nano-Science & Technology

PJ-001	<p>Development of a Single-unit Artificial Tactile Synapse for Intelligent Skin Applications</p> <p>Seonghoon Jang², Kyuho Lee¹, Kang Lib Kim¹, Min Koo¹, Chanho Park¹, Seokyeong Lee¹, Junseok Lee¹, Cheolmin Park¹, and Gunuk Wang²</p> <p>¹Department of Materials Science and Engineering, Yonsei University, ²KU-KIST Graduate School of Converging Science and Technology, Korea University</p>
PJ-002	<p>One-dimensional Artificial Multi-synapses based on the Organic Ferroelectric Transistor Enabling Electronic-textile Neural Network</p> <p>Seonggil Ham¹, Minji Kang², Seonghoon Jang¹, Jingon Jang¹, Sanghyeon Choi¹, Tae-Wook Kim², and Gunuk Wang¹</p> <p>¹KU-KIST Graduate School of Converging Science & Technology, Korea University, ²Department of Flexible and Printable Electronics, Jeonbuk National University</p>
PJ-003	<p>High-performance Surface Acoustic Wave Devices Based on Two-dimensional Hexagonal Boron Nitride</p> <p>Seok Hyun Yoon and Byoung Don Kong</p> <p>Department of Electrical Engineering, POSTECH</p>
PJ-004	<p>Tunable Optical Characteristics of Metal Graphene Quantum Dot Complexes</p> <p>Do Hyeon Kim and Byoung Don Kong</p> <p>Department of Electrical Engineering, POSTECH</p>
PJ-005	<p>Deep Learning Inverse Design of Graphene FET for RF Applications</p> <p>Gyeong Min Seo and Byoung Don Kong</p> <p>Department of Electrical Engineering, POSTECH</p>
PJ-006	<p>Surface Charge Transfer Doping of MoS₂-FETs Using Selective Inkjet Printing</p> <p>Inho Jeong^{1,2}, Minwoo Song³, Takhee Lee³, and Seungjun Chung¹</p> <p>¹Soft Hybrid Materials Research Center, KIST, ²School of Electrical Engineering, Korea University, ³Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University</p>
PJ-007	<p>The Effect of Thermal Annealing to Radiatively Recombination of Interlayer Exciton in MoSe₂/WSe₂ Heterobilayer</p> <p>Ji-Hwan Baek¹, Huije Ryu¹, Soo Yeon Lim², Jung Cheol Kim², Hyeonsik Cheong², and Gwan-Hyoung Lee¹</p> <p>¹Department of Material Science and Engineering, Seoul National University, ²Department of Physics, Sogang University</p>
PJ-008	<p>Evolution of Defect Formation in Monolayer MoS₂ under Exposing Indirect Hydrogen Plasma</p> <p>Jong-Young Lee¹, Jong Hun Kim¹, Jangyup Son², Yeonjoon Jung¹, June Chul Shin¹, Yangjin Lee³, Kwanpyo Kim³, Arend van der Zande⁴, and Gwan-Hyoung Lee¹</p> <p>¹Research Institute of Advanced Materials (RIAM), Seoul National University, ²KIST, ³Department of Physics, Yonsei University, ⁴Department of Mechanical Science and Engineering, University of Illinois Urbana-Champaign</p>

<p>PJ-009</p>	<p>3D-printed Stretchable Conductors based on Silver/Polydimethylsiloxane Composites for Deformable Electronics Hyunjoo Cho^{1,2} Youngpyo Ko¹, Heesuk Kim¹, Jaewook Jeong², Byeongmoon Lee¹, and Seungjun Chung¹ ¹Soft Hybrid Materials Research Center, KIST, ²School of Information and Communication Engineering, Chungbuk National University</p>
<p>PJ-010</p>	<p>Two-Dimensional Quantum Heterostructures with Enhanced Photoluminescence Achieved by Layer-by-layer Oxidation Sojung Kang¹, Yoon Seok Kim², Jae Hwan Jeong¹, Jong Hun Kim³, Chul-Ho Lee², and Gwan-Hyoung Lee³ ¹Department of Materials Science and Engineering, Yonsei University, ²KU-KIST Graduate School of Converging Science and Engineering, Korea University, ³Department of Materials Science and Engineering, Seoul National University</p>
<p>PJ-011</p>	<p>첼희</p>
<p>PJ-012</p>	<p>Graphene Multi-via Contacts for 3D Integration of 2D Devices Yongjun Shin, Junyoung Kwon, and Gwan-Hyoung Lee ¹Department of Materials Science and Engineering, Seoul National University, ²Department of Materials Science and Engineering, Yonsei University</p>
<p>PJ-013</p>	<p>Stretchable and Sensitive Strain Sensor Using Carbon Nanotube Yarn for Human Motion Detection Maeum Han¹, Jun-Yeop Lee^{1,2}, Seong Ho Kong¹, and Daewoong Jung² ¹Kyungpook National University, ²KITECH</p>
<p>PJ-014</p>	<p>PVDF-TrFE/Si NW Synaptic Device Woojin Park¹, Moonsang Lee², Myung Gwan Hahm³, Ojun Kwon¹, Seyong Oh¹, and Byungjin Cho¹ ¹Department of Advanced Material Engineering, Chungbuk National University, ²Research Center for Materials Analysis, Korea Basic Science Institute, ³Department of Materials Science and Engineering, Inha University</p>
<p>PJ-015</p>	<p>Highly Efficient All-2D Light-emitting Diode June-Chul Shin and Gwan-Hyoung Lee Department of Materials Science and Engineering, Seoul National University</p>
<p>PJ-016</p>	<p>Formation of Confined 2D Channel in Organic Electrolyte-gated Transistors based on Conductive Polymer Composites Donguk Kim¹, Hong Jang², Seungjin Lee¹, Bumjoon J. Kim¹, and Felix Sunjoo Kim² ¹Department of Chemical and Biomolecular Engineering, KAIST, ²School of Chemical Engineering and Materials Science, Chung-Ang University</p>
<p>PJ-017</p>	<p>Highly Scalable, Low Power Spintronic Logic Device based on Magnetic Skyrmion Moojune Song, San Ko, Sung Kyu Jang, Min Gyu Park, and Kab-Jin Kim Department of Physics, KAIST</p>

PJ-018	<p>Large-area Alignment of Supramolecular Assembly by Photothermal Laser Writing for Sub-5 nm Nanopatterning</p> <p>Hee Jae Choi, Hyeong Min Jin, and Sang Ouk Kim <i>Department of Material Science and Engineering, KAIST</i></p>
PJ-019	<p>Improving the Long-Term Plasticity of Metal Halide Perovskite-based Artificial Synapses by Restricting Ion Migration Path</p> <p>Dae-Han Kang, Hea-Lim Park, Joo-Sung Kim, Jung-Min Heo, and Tae-Woo Lee <i>Department of Materials Science and Engineering, Seoul National University</i></p>
PJ-020	<p>Electrolyte-Gated Artificial Synapse based on Molybdenum Disulfide (MoS₂)/Ion Gel Dielectric Hybrid Structure</p> <p>Ju-Hee Lee and Jin-Hong Park ¹<i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PJ-021	<p>Synthesis of Efficient Blue Emitting CsPb(Br/Cl)₃ Nanoparticles by Post-treatment with Short Organic Ligands and LED Fabrication</p> <p>Kyung Yeon Jang^{1,2,3,4,5}, Jinwoo Park^{1,2,3,4,5}, and Tae-Woo Lee^{1,2,3,4,5} ¹<i>Department of Materials Science and Engineering, Seoul National University, ²Institute of Engineering Research, Seoul National University, ³Research Institute of Advanced Materials, Seoul National University, ⁴Nano Systems Institute (NSI), Seoul National University, ⁵BK21 PLUS SNU Materials Division for Educating Creative Global Leaders, Seoul National University</i></p>
PJ-022	<p>Defect-induced Modulation of Electrical and Optical Properties in Two-Dimensional Insulator by Plasma Treatment</p> <p>Youn Sung Na¹, Jong Hun Kim^{1,4}, Sojung Kang², Jae Hwan Jeong², Sunho Park³, Kenji Watanabe⁷, Takashi Taniguchi⁸, Young-Kyun Kwon³, D.H. Kim⁹, Kyuwook Lim⁹, Young Duck Kim³, and Gwan-Hyoung Lee^{1,4,5,6} ¹<i>Department of Materials Science and Engineering, Seoul National University, ²Department of Materials Science and Engineering, Yonsei University, ³Department of Physics, Kyung Hee University, ⁴Research Institute of Advanced Materials, Seoul National University, ⁵Institute of Engineering Research, Seoul National University, ⁶Institute of Applied Physics, Seoul National University, ⁷Research Center for Functional Materials, NIMS, ⁸International Center for Materials Nanoarchitectonics, NIMS, ⁹Beamline Research Division, POSTECH</i></p>
PJ-023	<p>Artificial van der Waals Opto-electroactive Synapse for Spiking Neural Networks</p> <p>Ho-Jun Lee and Jin-Hong Park <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PJ-024	<p>Light-emitting Synaptic Transistor for Visualization of Information Processing in Artificial Sensory Nervous Systems</p> <p>Kwan-Nyeong Kim, Hea-Lim Park, Jinwoo Park, and Tae-Woo Lee <i>Department of Materials Science and Engineering, Seoul National University</i></p>
PJ-025	<p>Influence of Lamellar Orientation in Synaptic Plasticity of Ion-gel Gated Organic Synaptic Transistors</p> <p>Min-Jun Sung¹, Dae-Gyo Seo¹, Changduk Yang², and Tae-Woo Lee¹ ¹<i>Department of Material Science and Engineering, Seoul National University, ²School of Energy and Chemical Engineering, UNIST</i></p>

PJ-026	<p>Ferroelectric Nonvolatile Memory based on Two-Dimensional Van der Waals CuInP_2S_6 and WSe_2 Heterojunction</p> <p>Jeonghyeon Kim, Eunyeong Yang, Jae eun Seo, Tanmoy Das, and Jiwon Chang <i>Department of Electrical and Computer Engineering, UNIST</i></p>
PJ-027	<p>Atomic Layer Etching of Al_2O_3 Using Ligand Exchange in Inductively Coupled Plasmas</p> <p>Jihyun Kim¹, Yongjae Kim, Dahee Shim, and Heeyeop Chae^{1,2} ¹<i>School of Chemical Engineering, Sungkyunkwan University,</i> ²<i>SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University</i></p>
PJ-028	<p>Stretchable Organic Synaptic Transistor for Wearable Neuro-inspired Electronics</p> <p>Gyeong-Tak Go¹, Dae-Gyo Seo¹, and Tae-Woo Lee^{1,2,3,4} ¹<i>Department of Material Science and Engineering, Seoul National University,</i> ²<i>Institute of Engineering Research, Seoul National University,</i> ³<i>Research Institute of Advanced Materials, Seoul National University,</i> ⁴<i>BK21 PLUS SNU Materials Division for Educating Creative Global Leaders, Seoul National University</i></p>
PJ-029	<p>High-Performance Field-Effect Transistor based on Tungsten Diselsnide (WSe_2) with Doping Technique and Contact Engineering</p> <p>Jeong-Ick Cho and Jin-Hong Park <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PJ-030	<p>Large-Scale CNT Sheet Electrode Decorated by Ru Nanoparticles for Deformable Electrochemical Capacitors</p> <p>Jong Han Jun¹, Ji-Hoon Lee², and In-Suk Choi¹ ¹<i>Seoul National University,</i> ²<i>KIMS</i></p>
PJ-031	<p>Multi-Operation Mode Light-Emitting Field-Effect Transistors based on Van der Waals Heterostructure</p> <p>Junyoung Kwon¹, June-Chul Shin², Huije Ryu², Jae Yoon Lee³, Chul-Ho Lee³, and Gwan-Hyoung Lee² ¹<i>Department of Materials Science and Engineering, Yonsei University,</i> ²<i>Department of Materials Science and Engineering, Seoul National University,</i> ³<i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i></p>
PJ-032	<p>텡스텐옥사이드(WO_x)-질화탄소 (C_3N_4) 나노복합체의 광전기 화학적물분해를 통한 수소생산 증대 연구</p> <p>Inju Hong and Kijung Yong <i>Department of Chemical Engineering, POSTECH</i></p>
PJ-033	<p>Gold Photodeposition on g-C_3N_4 to Enhance Photocatalytic Hydrogen Production by Utilizing Plasmonic Effect</p> <p>Selda Odabasi Lee and Kijung Yong <i>Department of Chemical Engineering, POSTECH</i></p>
PJ-034	<p>NiFeVP 나노구조 기반 고효율 산소발생 촉매</p> <p>정용재, 용기중 <i>POSTECH</i></p>

PJ-035	<p>A Low-Temperature Deposition of Sol-Gel Derived Indium Oxide in Nitrate-Rich Condition and Its Application for Thin-Film Transistors</p> <p>Jun-Gyu Choi, Won-June Lee, and Myung-Han Yoon <i>School of Materials and Science and Engineering, GIST</i></p>
PJ-036	<p>Graphene Synthesis through Carbonization of Contorted-hexabenzocoronene Derivatives</p> <p>Yoon-jeong Kim^{1,2}, Jungmo Kim¹, Kim yang hui¹, Youngjong Kang², and Seokhoon Ahn ¹KIST, ²Hanyang University</p>
PJ-037	<p>Electrical Investigation of Epitaxial C₆₀ Layer on Black Phosphorus</p> <p>Taekeun Yun¹, Yangjin Lee¹, Min Je Kim², Jeongwoo Park³, Jeong HoCho², Bonggeun Shong³, and Kwanpyo Kim¹ ¹Department of Physics, Yonsei University, ²Department of Chemical and Biomolecular Engineering, Yonsei University, ³Department of Chemical Engineering, Hongik University</p>
PJ-038	<p>Floating Gate Memory based on 2D materials</p> <p>Oh Hun Gwon¹, Jong-Yun Kim², Seok-Ju Kang², and Young-Jun Yu¹ ¹Department of Physics, Chungnam National University, ²Institute of Quantum Systems, Chungnam National University</p>
PJ-039	<p>Multifunctional Devices based on 2-Dimensional Black Phosphorus</p> <p>Pawan Kumar Srivastava¹, Yasir Hassan², and Changgu Lee^{1,2} ¹School of Mechanical Engineering, Sungkyunkwan University, ²Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University</p>
PJ-040	<p>Spatial Multiplexing Method for Achromatic Metalens</p> <p>Sangwon Baek¹, Jae Yong Park¹, and Jong-Lam Lee^{1,2} ¹Department of Materials Science and Engineering, POSTECH, ²Division of Advanced Materials Science, POSTECH</p>
PJ-041	<p>Deep-Injection Floating-Catalyst Chemical Vapor Deposition for Continuous Synthesis of Carbon Nanotubes with High Aspect Ratio</p> <p>Ji Hong Park^{1,2}, Sung-Hyun Lee¹, and Seung Min Kim¹ ¹Institute of Advanced Composite Materials, KIST, ²Department of Materials Science and Engineering, KAIST</p>
PJ-042	<p>Characterizations of MoS₂ Monolayers on Transparent Substrates</p> <p>Nguyen Thi Anh, Soyeong Kwon, Jungeun Song, Hyeji Choi, Bora Kim, and Dong-Wook Kim <i>Department of Physics, Ewha Womans University</i></p>
PJ-043	<p>Laser-Induced Phase Transition of MoTe₂ in Van Der Waals Heterostructures</p> <p>Huije Ryu¹, Yunah Lee¹, Jae Hwan Jung¹, Yangjin Lee², Yeryun Cheon³, Kenji Watanabe⁴, Takashi Taniguchi⁵, Kwanpyo Kim², Hyeonsik Cheong³, and Gwan-Hyoung Lee¹ ¹Department of Materials Science and Engineering, Seoul National University, ²Department of Physics, Yonsei University, ³Department of Physics, Sogang University, ⁴Research Center for Functional Materials, NIMS, ⁵International Center for Materials Nanoarchitectonics, NIMS</p>

PJ-044	<p>Surface Oxidation Doping induced Carrier Type Variations in 2D Materials Based Transistors</p> <p>Seok-Ju Kang¹, Jong Yun Kim¹, Oh Hun Gwon², and Young-Jun Yu^{1,2} ¹Institute of Quantum Systems (IQS), ²Department of Physics, Chungnam National University</p>
PJ-045	<p>Anisotropy Strain and Doping of Graphene by Epitaxially Grown MoO₃</p> <p>Hangyel Kim^{1,2}, Jong-Hun Kim^{1,2}, and Gwan-Hyoung Lee^{1,2,3,4} ¹Department of Materials Science and Engineering, Seoul National University, ²Research Institute of Advanced Materials (RIAM), Seoul National University, ³Institute of Engineering Research, Seoul National University, ⁴Institute of Applied Physics, Seoul National University</p>
PJ-046	<p>RGB-Color-Generating Structural Reflective Color Filters based on Dual Fabry-Perot Cavities</p> <p>Incheol Jung, Hojae Kwak, Hyeonwoo Kim, Jisoo Jeon, and Kyu-Tae Lee Department of Physics, Inha University</p>
PJ-047	<p>Tunable Multi-Valued Logic Devices Realized through Phase Modulation of MoTe₂</p> <p>Yasir Hassan¹, Pawan Kumar Srivastava², Changgu Lee^{1,2} ¹SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University, ²School of Mechanical Engineering, Sungkyunkwan University</p>
PJ-048	<p>Carbonized Contorted-Hexabenzocoroene Derivatives for Supercapacitor</p> <p>Minsung Kang^{1,2}, Minseok Yang¹, Eunji Lee², and Seokhoon Ahn¹ ¹KIST, ²GIST</p>
PJ-049	<p>Unidirectional Alignment of AgCN Microwires on Distorted TMDC Crystals</p> <p>Myeongjin Jang^{1,2}, Hyeonhu Bae³, Yangjin Lee^{1,2}, Woongki Na⁴, Byungkyu Yu², Soyeon Choi¹, Hyeonsik Cheong⁴, Hoonkyung Lee³, and Kwanpyo Kim^{1,2} ¹Department of Physics, Yonsei University, ²Center for Nanomedicine, Institute for Basic Science (IBS), ³Department of Physics, Konkuk University, ⁴Department of Physics, Sogang University</p>
PJ-050	<p>Optical and Electrical Characteristics of MoS₂ Monolayers on SiO₂ Nanopillar Arrays</p> <p>Hyeji Choi¹, Soyeong Kwon¹, Jayeong Kim¹, Seokhyun Yoon¹, Yong Soo Kim², and Dong-Wook Kim¹ ¹Department of Physics, Ewha Womans University, ²Department of Physics and Energy Harvest Storage Research Center, University of Ulsan</p>
PJ-051	<p>Observing Grain Boundaries of Chemically Grown MoS₂ by Atomic Force Microscopy</p> <p>Jae Hwan Jeong¹, Yeonjoon Jung², Jong Hun Kim², and Gwan-Hyoung Lee² ¹Department of Materials Science and Engineering, Yonsei University, ²Department of Materials Science and Engineering, Seoul National University</p>
PJ-052	<p>High-Quality, Layer-Controlled Transition Metal Dichalcogenides (TMDs) Using Physical Vapor Deposition</p> <p>Yeonjoon Jung¹, Jaewoong Joo¹, Hangyel Kim¹, Huije Ryu¹, and Gwan-Hyoung Lee¹ ¹Department of Materials Science and Engineering, Seoul National University</p>
PJ-053	<p>Stitching Graphene Nanoribbon Arrays for Conducting Films with 1D Characteristics</p> <p>Namjo Kim¹, Shinyoung Choi¹, Seong-Jun Yang¹, Kwanghee Park², Sunmin Ryu², and Cheol-Joo Kim¹ ¹Department of Chemical Engineering, POSTECH, ²Department of Chemistry, POSTECH</p>



PJ-054	Effect of Shapes of Metallic Nanoparticles on Forward Scattering Characteristics in Organic Semiconductors in Photovoltaics Hyeonwoo Kim ¹ , Incheol Jung ¹ , DaeChan Kim ² , Yoo-Sung Kim ² , Wonsoo Ji ³ , SeungGol Lee ² , and Kyu-Tae Lee ¹ <i>¹Department of Physics, Inha University, ²Department of Information and Communication Engineering, Inha University, ³Solution R&D Center, Envision</i>
PJ-055	Application of Graphene Quantum Dot as a Host Material for Deep-Red Organic Phosphor for Organic Light Emitting Diode Sukki Lee ¹ , Jin Kim ¹ , Jinho Lee ¹ , Myoungwoo Choi ¹ , and SeokWoo Jeon ¹ <i>¹Department of Materials Science and Engineering, KAIST</i>

K. Memory (Design & Process Technology)

PK-001	<p>Highly in Dual Li/Ag Intercalation-based MoTe₂ Memory for Artificial Synapse Features</p> <p>Thi Thanh Huong Vu and Woo Jong Yu <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PK-002	<p>Negative-set Improvement and CMOS-ReRAM Integration IP Results Using Passivation Layer</p> <p>Hyun-Chan Jo, In-Hee Jang, Tae-Woo Kim, Yong-Keon Choi, and Sang-Gi Lee <i>Process Development Team, DB HiTek Co., Ltd.</i></p>
PK-003	<p>Switching of Tantalum Amorphous Oxide Using Self-Compliance Bipolar Resistive Switching</p> <p>Jung-Hwa Cha and Myoung-Jae Lee <i>Research Institute, DGIST</i></p>
PK-004	<p>Investigation of Mechanical Stress of 3D NAND Flash Memory</p> <p>Juyoung Lee and YunHeub Song <i>Division of Nanoscale Semiconductor Engineering, Hanyang University</i></p>
PK-005	<p>A High-performance 1-Selector/1-Resistor Device for Neuromorphic Application</p> <p>Hyocheon Woo^{1,2}, Jihun Kim^{1,2}, Gil Seop Kim^{1,2}, Chanyoung Yoo^{1,2}, and Cheol Seong Hwang^{1,2} ¹<i>Department of Materials Science and Engineering, Seoul National University,</i> ²<i>Inter-university Semiconductor Research Center, Seoul National University</i></p>
PK-006	<p>Parasitic BJT 영향을 고려한 High Voltage Switch 설계</p> <p>Heon Park, Jae-hyung Lee, Eun-sang Jo, Hyun-sup Jung, and Joon-tae Jang <i>TE DS Team, DB HiTek Co., Ltd.</i></p>
PK-007	<p>Embedded Single Poly OTP IP for Thicker Gate Oxide Process</p> <p>Ji Eon Kim, Liyan Jin, Eun Sang Jo, Hyun Sup Jung, and Jun Tae Jang <i>TE DS Team, DB HiTek Co., Ltd.</i></p>
PK-008	<p>Non-linear, Self-rectifying and Analog Synaptic Charge Trap Memristor for a High Density Crossbar Application</p> <p>Seoil Son, Geun Young Kim, Hanchan Song, and Kyung Min Kim <i>Department of Materials Science and Engineering, KAIST</i></p>
PK-009	<p>A 128bit/256bit Serial Access Electrical Fuse Memory for EPC Identifiers of UHF Passive RFID Tags</p> <p>Seongwook Choi, Jinhong Ahn, and Young June Park <i>Department of Electrical and Computer Engineering, Seoul National University</i></p>
PK-010	<p>Transparent and Stretchable Sol-gel Derived Amorphous Indium Gallium Zinc Oxide Thin Film Synaptic Transistors for Wearable Intelligent Electronics</p> <p>Jin-Gi Min and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i></p>

<p>PK-011</p>	<p>Implementation of Poly-Si Thin-Film Synaptic Transistor with Modulation of Excitation Behavior by Organic-Inorganic Hybrid Electric-Double Layer Shin-yi Min and Won-Ju Cho <i>Department of Electronic Materials Engineering, Kwangwoon University</i></p>
<p>PK-012</p>	<p>Study on Local Interconnect Resistance at Sub-5nm Technology Node Semin Bae, Hyunji Kim, Yoongeun Seon, and Jongwook Jeon <i>Department of Electrical and Electronic Engineering, Konkuk University</i></p>
<p>PK-013</p>	<p>Complementary Resistive Switching Behavior Controlled by Nanostructure Modulation Ji Hyeon Hwang^{1,2}, Minsung Kim², Youngjin Kim³, Eui Young Jung¹, Sang-Soo Lee², and Woojin Jeon¹ ¹<i>Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University,</i> ²<i>Soft Hybrid Materials Research Center, KIST,</i> ³<i>Department of Electronic and Computer Engineering, Hanyang University</i></p>
<p>PK-014</p>	<p>Investigation of Current Sum Error in the Spiking Neural Network of RRAM Synapse Array Suhyun Bang^{1,2}, Tae-Hyeon Kim^{1,2}, Dong Keun Lee^{1,2}, Kyung Kyu Min^{1,2}, Sungjoon Kim^{1,2}, Yeon-Joon Choi^{1,2}, Kyungho Hong^{1,2}, and Byung-Gook Park^{1,2} ¹<i>Inter-University Semiconductor Research Center, Seoul National University,</i> ²<i>Department of Electrical and Computer Engineering, Seoul National University</i></p>
<p>PK-015</p>	<p>Study on Improvement of Retention Time of Charge-Storage Based Neuromorphic Synapse Device by Minimizing IGZO TFT Leakage Current Sangjun HONG^{1,2}, Jae Hyeon KANG², Jongun WON², and SangBum KIM² ¹<i>Samsung Electronics Co., Ltd.,</i> ²<i>Seoul National University</i></p>
<p>PK-016</p>	<p>Electrolyte-Engineered High On/Off Window Battery-like Synapse Device for Neuromorphic Computing Hyun Soo Nam, Jiyoung Lee, Younghyun Lee, and Kyung Min Kim <i>Department of Materials Science and Engineering, KAIST</i></p>
<p>PK-017</p>	<p>Electrical Characteristics Analyzing Techniques of Ferroelectric Device Sangho Lee and Sanghun Jeon <i>School of Electrical Engineering, KAIST</i></p>
<p>PK-018</p>	<p>Effect of the Thickness of Ag-inserted Layer on the Mechanism of TiN/Ag/SiN_x/TiN RRAM Yeon-Joon Choi¹, Suhyun Bang^{1,2}, Tae-Hyeon Kim^{1,2}, Dong Keun Lee^{1,2}, Kyungho Hong^{1,2}, Sungjun Kim³, and Byung-Gook Park^{1,2} ¹<i>Inter-University Semiconductor Research Center, Seoul National University,</i> ²<i>Department of Electrical and Computer Engineering, Seoul National University,</i> ³<i>Division of Electronics and Electrical Engineering, Dongguk University</i></p>
<p>PK-019</p>	<p>A Universal Error Correction Method for Memristive Stateful Logic Devices for Practical Near-memory Computing Jae Hyun In, Young Seok Kim, Hanchan Song, Gwang Min Kim, Jae Bum Jeon, and Kyung Min Kim <i>Department of Materials Science and Engineering, KAIST</i></p>

PK-020	<p>Recognition Accuracy Depending on Weight-Update Overlap Region of Synaptic Devices</p> <p>Geunho Lee¹, Tae-Hyeon Kim², Yeongjin Hwang¹, Sungjoon Kim², Jinwoo Park³, Byung-Gook Park², and Hyungjin Kim³ ¹Department of Electronic Engineering, Yeungnam University, ²Department of Electrical and Computer Engineering, Seoul National University, ³Department of Electronic Engineering, Inha University</p>
PK-021	<p>Self-clocking Fast and Variation Tolerant True Random Number Generator based on a Stochastic Mott Memristor</p> <p>Gwang Min Kim, Jae Hyun In, Hanchan Song, Woojoon Park, Hakseung Rhee, and Kyung Min Kim <i>Department of Materials Science and Engineering, KAIST</i></p>
PK-022	<p>Mimicking Localized Brain Activity via a Novel Stashing Algorithm for Energy-efficient Neuromorphic Hardware</p> <p>Woon Hyung Cheong¹, Jae Hyun In¹, Hanchan Song¹, Jae Bum Jeon¹, Juseong Park¹, Young Seok Kim¹, Gil Seop Kim², Cheol Seong Hwang², and Kyung Min Kim¹ ¹KAIST, ²Seoul National University</p>
PK-023	<p>Realization of Genetic Algorithm via Stateful Logic and Its Application to Binary Memristive Neural Network Training</p> <p>Do Hoon Kim, Young Seok Kim, Woon Hyung Cheong, Hanchan Song, and Kyung Min Kim <i>Department of Materials Science and Engineering, KAIST</i></p>
PK-024	<p>Improvement Of Memory Window Using The Relationship Between k And Ec Of Al-doped HfO2</p> <p>Minki Kim¹, Jeonghyeon Hwang¹, and Sanghun Jeon² <i>School of Electrical Engineering, KAIST</i></p>
PK-025	<p>Optoelectronic Synaptic Device Using Copper-Phthalocyanine (CuPc) and Para-sexiphenyl (p-6P) Heterojunction and Its Operation under Solar-stimulation</p> <p>Hyongsuk Choo and Jin-Hong Park <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PK-026	<p>Artificial Synapse based on 2D Van der Waals Heterostructure</p> <p>Seojoo Lee and Jin-Hong Park <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PK-027	<p>Effect of Embedded Ag Film on Threshold Switching Characteristics of Ga₂Te₃ Selector</p> <p>Jaeyeon Kim, Dayoon Lee, Minkyu Kang, Jeonngwoo Lee, and Hyunchul Sohn <i>Department of Materials Science and Engineering, Yonsei University</i></p>
PK-028	<p>Study on the Optimum Filament Configuration for Inhibiting Retention Failure of TaOx-based Memristor via Dynamic Vacancy Distribution Modeling</p> <p>Juseong Park¹, Gwang Min Kim¹, Geunyoung Kim¹, Gil Seop Kim², Cheol Seong Hwang², and Kyung Min Kim¹ ¹KAIST, ²Seoul National University</p>



PK-029	Improved Memory Characteristics of Thin Film Transistor (TFT) with Amorphous In-Ga-Zn-O (a-IGZO) and High-K Thin Films Seok Min Jang, Soonoh Jeong, Tae Hun Kim, Zeli Wang, and Changhwan Choi <i>Division of Materials Science and Engineering, Hanyang University</i>
PK-030	Negative Differential Resistance Characteristic in Forming-free NbO_x Device with Crystalline NbO₂ Jimin Lee, Jeongwoo Lee, and Hyunchul Sohn <i>Department of Materials Science and Engineering, Yonsei University</i>
PK-031	Circuit Analysis of Low Power Logic Devices with Phase Change Materials Dasol Kim, Jongwon Oh, Yoongeun Seon, and Jongwook Jeon <i>Department of Electrical and Electronic Engineering, Konkuk University</i>
PK-032	Effects of Various Process Options on Self-Heating in Multi-Nanosheet FET Changhyun Yoo, Hyunwoo Kim, Yoongeun Seon, and Jongwook Jeon <i>Department of Electrical and Electronic Engineering, Konkuk University</i>
PK-033	Statistical Time Dependent Dielectric Breakdown Analysis Methodology of 3D Nanoscale Semiconductor Device based on Monte Carlo Simulation Dayoung Ahn, Kangryun Kim, Kiron Park, and Jongwook Jeon <i>Department of Electrical and Electronic Engineering, Konkuk University</i>
PK-034	Comparing TID-Resilience of Two SRAM Cells in 65nm Technology: 6T and we-Quatro Trinh Dinh Linh, Nguyen Thanh Dat, Ik Joon Chang, and Jinsang Kim <i>Electronics and Radio Engineering, Kyunghee University</i>
PK-035	Energy-Efficient 3T1C eDRAM for Skewed Data System Le Dinh Trang Dang, Duc Viet Tran, Ik Joon Chang, and Jinsang Kim <i>Electronics and Radio Engineering, Kyunghee University</i>
PK-036	Realization of Stochastic Computing by Using 1/f noise in Phase Change Memory Bridge Cell Deokyoung Kang, Sejeung Choi, and Sangbum Kim <i>Department of Materials Science and Engineering, Seoul National University</i>
PK-037	Super Spike Generating NbO_x-Based Threshold Switching Devices for Neuromorphic Applications Woojoon Park, Gwangmin Kim, Hanchan Song, Jae Hyun In, Hakseung Rhee, and Kyung Min Kim <i>Department of Materials Science and Engineering, KAIST</i>

L. Analog Design

PL-001	<p>A Customized Integrated Circuit for Active EMI Filter</p> <p>Sangyeong Jeong^{1,2} and Jinguok Kim^{1,2} ¹UNIST, ²EMcoretech Co.</p>
PL-002	<p>이중출력 스위치-커패시터 직류-직류 전력변환 회로 설계</p> <p>장두진, 정완영 KAIST</p>
PL-003	<p>대역 조절 기능을 가진 파이프라인 밴드 패스 ADC</p> <p>Juyong Lee¹ and Hyungil Chae¹ ¹Department of Electronic Engineering, Konkuk University</p>
PL-004	<p>A Wide-Bandwidth Dual-loop Hybrid DC-DC Step-down Converter with AC-Coupling Capacitor for Digital RF Power Amplifier</p> <p>Younghwan Choo^{1,2}, Ji-Hun Lee², Ji-Seon Paek¹, Jongwoo Lee¹, Hyun-Sik Kim², and Gyu-Hyeong Cho² ¹Samsung Electronics Co., Ltd., ²Department of Electrical Engineering, KAIST</p>
PL-005	<p>A Sensor Interface Circuit for Single-transducer-based Ultrasound Doppler Sensor Module</p> <p>Hyun-Tae Park and Ji-Yong Um Department of Electronic Engineering, Hannam University</p>
PL-006	<p>최적화 기술을 이용한 고속의 SAR ADC</p> <p>Jihyun Baek¹, Younggyun Oh², Juyong Lee¹, Seungjun Lee¹, Kihyun Kim¹, JooHwan Jin¹, and Hyungil Chae¹ ¹Department of Electronic Engineering, Konkuk University, ²Department of Electronic Engineering, Kookmin University</p>
PL-007	<p>A Zero-crossing Detector Based Bit-sequential Multiplying ADC for Convolutional Neural Networks (CNN) Acceleration</p> <p>Deokjin Kim and Jaeha Kim Department of Electrical and Computer Engineering, Seoul National University</p>
PL-008	<p>Gate Driver Circuit for Improving Degradation of Pull-Down TFT with Bidirectional Transmission</p> <p>Yong-Hoo Hong, Eun Kyo Jung, Jungwoo Lee, and Yong-Sang Kim Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
PL-009	<p>Bidirectional Gate Driver Circuit with AC-driven Pull-Up TFT for High Stability</p> <p>Eun Kyo Jung, Jungwoo Lee, Yong-Hoo Hong, and Yong-Sang Kim Department of Electrical and Computer Engineering, Sungkyunkwan University</p>
PL-010	<p>3.3 Gbps CMOS Rx Analog Front-end IP for MIPI D-PHY Interface</p> <p>김성도, 이자열, 구본태 ETRI</p>
PL-011	<p>Low Energy Power on Reset Circuit of a 90 nm SOI CMOS Process</p> <p>Sang Hee Yun¹ and Kang-Yoon Lee² ¹Department of Electrical and Computer Engineering, Sungkyunkwan University</p>



M. RF and Wireless Design

PM-001	철회
PM-002	Design of Millimeter-Wave Frequency Quadrupler based on Phase Controlled Push-push Topology in 40nm CMOS Kangseop Lee, Kyunghwan Kim, Gibeom Shin, and Ho-Jin Song <i>POSTECH</i>
PM-003	900MHz N-path 필터를 이용한 Wake-up 수신기 설계 강민교, 이윤기, 김영식 한동대학교 정보통신공학과
PM-004	Design of 24 GHz High Power Transmitter Using 65-nm CMOS Technology Dong Yeol Yang, Jae Hyun Park, and Byung Sung Kim <i>RF Microelectronic Design Laboratory, Sungkyunkwan University</i>
PM-005	Design of 2 Channel 24 GHz Receiver Using 65-nm CMOS Technology Tae Yeon Kim, Dong Yeol Yang, Jae Hyun Park, and Byung Sung Kim <i>RF Microelectronic Design Laboratory, Sungkyunkwan University</i>
PM-006	DC/DC 부스트 컨버터 설계를 위한 손실 모델링 김준태, 권익진 아주대학교 전자공학과
PM-007	A 800MHz to 1.066GHz All Digital Delay Locked Loop With Offset Calibration Phase Detector for LPDDR3 and DDR3 Seunghyun Oh, Kyungmin Kim, Hyeongmin Seo, Jiyun Han, Changsik Yoo, and Jaeduk Han <i>Department of Electronic Computer Engineering, Hanyang University</i>



N. VLSI CAD

PN-001	Learning-Based Analysis of Aging Effects on Clock Tree Synthesis Sungkwon Kim, Changyoung Maeng, Jeongwoo Hong, and Juho Kim <i>Sogang University</i>
PN-002	Q-Learning-Based Power Management for Mobile Systems Eunji Kwon, Jongho Yoon, and Seokhyeong Kang <i>POSTECH</i>

O. System LSI Design

PO-001	Open-drain Output Circuit to Improve ESD Characteristics Sangmok Lee, Seunghoo Kim, Hyunsub Jung, and Joontae Jang <i>TE DS Team, DBHiTek</i>
PO-002	A Temperature Sensor and 256bit Serial Access Electrical Fuse Memory for UHF Passive RFID Tags with Temperature History Check Seongwook Choi, Jinhong Ahn, and Young June Park <i>Department of Electrical and Computer Engineering, Seoul National University</i>
PO-003	Ring-LWE 암호 프로세서를 위한 고효율, 저면적 NTT 곱셈기 신예린, 유호영 <i>충남대학교 전자공학과</i>
PO-004	뉴로모픽 신소자용 디지털 펄스 발생기 이성룡, 유호영 <i>충남대학교 전자공학과</i>

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

PP-001	<p>Large-scale 2D Heterojunction Catalyst on a <i>p</i>-type Silicon for Efficient Photoelectrochemical Hydrogen Evolution</p> <p>Jae Yoon Lee, Hee Seong Kang, Jinyong An, and Chul-Ho Lee <i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i></p>
PP-002	<p>Comparison of Thermoelectric Properties of PBTTT Doped by Various Doping Methods</p> <p>Jeehyun Jeong^{1,2}, Juhyung Park^{1,2}, and Jeonghun Kwak^{1,2} ¹<i>Department of Electrical and Computer Engineering, Seoul National University,</i> ²<i>Inter-university Semiconductor Research Center, Seoul National University</i></p>
PP-003	<p>Investigation of Charge Transport Properties in Doped Conjugated Polymers Using Thermoelectric Properties</p> <p>Juhyung Park^{1,2}, Jeehyun Jeong^{1,2}, and Jeonghun Kwak^{1,2} ¹<i>Department of Electrical and Computer engineering, Seoul National University,</i> ²<i>Inter-university Semiconductor Research Center, Seoul National University</i></p>
PP-004	<p>Continuous Bandgap Engineering of Wafer-scale Monolayer WS₂Se_{2(1-x)} Alloys</p> <p>Hee Seong Kang, Do Hyoung Koo, and Chul-Ho Lee <i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i></p>
PP-005	<p>Channel Density Reduction to Improve Short-Circuit Capability in Super Junction MOSFET</p> <p>Jieun Lee¹, Jong Min Kim¹, Jae Hyun Kim¹, Myeong Bum Pyun², Kwang Young Ko², Youngchul Kim¹, and Joontae Jang¹ ¹<i>Technology Enabling Design Support Team, DB HiTek Co., Ltd.,</i> ²<i>Device Development Team, DB HiTek Co., Ltd.</i></p>
PP-006	<p>Wafer-scale Homogeneous Growth of High Quality Tungsten Disulfides via Surfactant-Assisted Metal-organic Chemical Vapor Deposition</p> <p>Do Hyoung Koo¹, Hee Seong Kang¹, and Chul-Ho Lee ¹<i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i></p>
PP-007	<p>CVD Graphene Properties Study According to Crystallinity of Ruthenium Thin Film.</p> <p>D. D. Megersa^{1,2}, Y. Kim^{1,2}, N. Kim^{1,2}, and H. K. Yu^{1,2} ¹<i>Department of Energy Systems Research, Ajou University,</i> ²<i>Department of Materials Science and Engineering, Ajou University</i></p>
PP-008	<p>Predictive TCAD Approach for the Statistical BV Analysis considering Process Variation in SJ-MOSFET</p> <p>Jaehyun kim¹, Jongmin kim¹, Jieun Lee¹, Myoengbum Pyun², Kwangyoung Ko², Youngchul Kim¹, and Joontae Jang¹ ¹<i>Technology Enabling Design Support Team, DB HiTek Co., Ltd.,</i> ²<i>Device Development Team, DB HiTek Co., Ltd.</i></p>

PP-009	<p>Precise Modulation of Synaptic Plasticity Implemented in IGZO:Al NPs Synaptic Transistor</p> <p>Ojun Kwon, Jeehoon Kim, Tae Hyeon Kim, Se Young Oh, and Byungjin Cho <i>Department of Advanced Material Engineering, Chungbuk National University</i></p>
PP-010	<p>High Efficient Ni-63/SiC Betavoltaic Battery</p> <p>Juhee Son, Byoung Gun Choi, Taewook Kang, Seongmo Park, and Kyunghwan Park <i>ETRI</i></p>
PP-011	<p>Nanodiamond-induced Graphitic Carbon Nanodots for Lithium Metal Anode</p> <p>Son Ha, Jong Chan Hyun, Dong Hyuk Kang, and Young Soo Yun <i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i></p>
PP-012	<p>Waste Biomass-derived Porous Carbon Cathode for Pseudocapacitive Lithium-Ion Storage</p> <p>Jong Chan Hyun, Son Ha, Dong Hyuk Kang, and Young Soo Yun <i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i></p>
PP-013	<p>Effective Solid-electrolyte-interface Layers for Potassium Ion Transports</p> <p>Dong Hyuk Kang, Jong Chan Hyun, Son Ha, and Young Soo Yun <i>KU-KIST Graduate School of Converging Science and Technology, Korea University</i></p>
PP-014	<p>Surface CMP Treatment of Transparent Electrode for Improving Efficiency of Perovskite Solar Cells (PSCs)</p> <p>Shin Kyu Lee, Sangmo Kim, and Chung Wung Bark <i>Department of Electrical Engineering, Gachon University</i></p>
PP-015	<p>트렌치 게이트 하단의 전계완화를 통한 향상된 항복전압을 가진 1700V급 P-Shielding Trench Gate SiC MOSFET 제작</p> <p>서정윤, 남태진, 김은하, 전준혁, 경신수 <i>파워큐브세미(주)</i></p>
PP-016	<p>Photocatalytic Performance for Transition Metals-Doped TiO₂ Nanostructures</p> <p>Van-Quyet Nguyen, J. M. Yang, and B. Yang <i>¹Kumoh National Institute of Technology, ²National Nanofab Center, KAIST</i></p>
PP-017	<p>Development of 2D Material-Based Floating Gate Memory Device for Artificial Synapse Application</p> <p>Jong Yun Kim¹, Oh Hun Gwon², Seok-Ju Kang², and Young-Jun Yu^{1,2} <i>¹Institute of Quantum Systems, Chungnam National University, ²Department of Physics, Chungnam National University</i></p>
PP-018	<p>Organic-Based Ambient Energy Harvesters</p> <p>Sang Hyeon Kim and Jae Won Shim <i>School of Electrical Engineering, Korea University</i></p>

Q. Metrology, Inspection, Analysis, and Yield Enhancement

PQ-001	철회
PQ-002	<p>기관 상태 및 플라즈마 상태 측정을 위한 측정 시스템</p> <p>신기원, 김지환, 박연수, 온범수, 권희태, 김우재, 권기청 광운대학교 전자바이오효물리학과</p>
PQ-003	<p>Plasma Density Diagnostic System Using Power and Phase Difference Measurement of Reflectometer</p> <p>Yeon-Soo Park, Gi-Won Shin, Woo-Jae Kim, Hee-Tae Kwon, Bum-Soo On, Ji-Hwan Kim, In-Young Bang, and Gi-Chung Kwon <i>Electrical And Biological Physics, Kwangwoon University</i></p>
PQ-004	<p>MoSi₂ 단일막 펄리클의 열적광학적 특성 평가</p> <p>김하늘^{1,4}, 장용주^{2,4}, 위성주^{1,4}, 김창수^{3,4}, 안진호^{1,2,3,4} ¹한양대학교 신소재공학과, ²한양대학교 나노반도체공학과, ³한양대학교 나노융합과학과, ⁴한양대학교 EUV-IUCC</p>
PQ-005	<p>EUV Ptychography Microscope를 이용한 Actinic 마스크 이미징 연구</p> <p>김영웅^{1,4}, 유병민^{2,4}, 이동기^{1,4}, 구창모³, 조중휘³, 안진호^{1,2,4} ¹한양대학교, 신소재공학과, ²한양대학교, 나노반도체공학과, ³인천대학교, 임베디드시스템공학과, ⁴한양대학교, EUV-IUCC</p>
PQ-006	<p>PCI-Express Gen4.0 Based Portable SSD Test System</p> <p>Jung-Hoon Cho, Soo-IL Choi, Jung-Yoon Park, and In-Cheol Hwang <i>Exicon Co., Ltd</i></p>
PQ-007	<p>3D MoS₂-Based PUF Using PL-on and -off Signal Measurement</p> <p>Jaeseo Park^{1,2}, Jung Woo Leem³, Zahyun Ku⁴, Jun Oh Kim¹, Won Chegal¹, Sang-Woo Kang¹, and Young L. Kim³ ¹Advanced Instrumentation Institute, KRISS, ²Science of Measurement, UST, ³Weldon School of Biomedical Engineering, Purdue University, ⁴Materials and Manufacturing Directorate, AFRL</p>
PQ-008	<p>Wafer Critical Pattern의 EPE 정량화 분석을 통한 Hotspot 검출</p> <p>Sang-Woo Kim, Jong-Min Park, Jung-Chan Kim, Sang-Ho Lee, and Chan-Ha Park <i>Research & Development Division, SK Hynix Inc.</i></p>
PQ-009	<p>반도체 공정 가스 측정 센서의 신뢰성 평가 플랫폼 개발에 관한 연구</p> <p>류종원^{1,2}, 문지훈¹, 신재철², 강상우^{1,3} ¹한국표준과학연구원 첨단측정장비연구소, ²영남대학교 물리학과, ³과학기술연합대학원대학교 측정과학</p>
PQ-010	<p>Method to Measure the TCD of Through-Silicon Vias Using the Radial Profile</p> <p>Junhee Jeong^{1,2}, Changmo Gu², and Joonghwee Cho² ¹NextIn Solutions CO., LTD, ²Department of Embedded Systems Engineering, Incheon National University</p>

PQ-011	<p>Photocatalytic Conversion Study of QDs/TiO₂ NRs by In-situ Liquid Cell TEM</p> <p>Van-Quyêt Nguyen¹, J.-M. Yang², and B. Yang¹ ¹<i>School of Materials Science and Engineering, Kumoh National Institute of Technology,</i> ²<i>Nano-Convergence Technology Division, National Nanofab Center</i></p>
PQ-012	<p>반도체 제조 공정의 ESD 현상 개선을 위한 완전 방호형 X-ray 정전기 제거장치 개발</p> <p>Jeongdong Kim and Si-Hwan Heo <i>SUNJE R&D Center</i></p>
PQ-013	<p>Multi-task Deep Learning Model for Noise Reduction and Regression: Application to Optical Emission Spectrum</p> <p>Min Su Kim¹, JunHui Lee¹, In Seok Park¹, ChiHoon Lee², SooSeok Lee², Souk Kim², WanSik Nam², ChungHun Park², JinGook Park², SeokJun Kwon², Seul-Ki Park², and PooGyeon Park¹ ¹<i>POSTECH,</i> ²<i>Samsung Electronics Co., Ltd.</i></p>
PQ-014	<p>Solving Constraint Satisfaction Problem with Spiking Neural Network based on PCM Synaptic Array with LIF Neurons Neuromorphic Hardware</p> <p>Seongwon Yoon, Uicheol Shin, and Sangbum Kim <i>Department of Materials Science and Engineering, Seoul National University</i></p>

R. Semiconductor Software

PR-001	<p>멀티스트림 SSD에서 갱신 시점 예측을 통한 가비지 컬렉션 성능 향상</p> <p>조용운, 김태석 <i>광운대학교 컴퓨터공학과</i></p>
PR-002	<p>SLC/TLC SSD에서 머신러닝을 활용한 버퍼 관리</p> <p>조희성, 김태석 <i>광운대학교 컴퓨터공학과</i></p>
PR-003	<p>비휘발성 메모리의 공간효율성을 고려한 하이브리드 플래시 정책</p> <p>Soojung Lim and Hyokyung Bahn <i>Department of Artificial Intelligence and Software, Ewha Womans University</i></p>
PR-004	<p>머신러닝을 이용한 환경데이터 예측을 위한 특징공학 적용방안</p> <p>Hye Jung Yoon and Hyokyung Bahn <i>Department of Computer Science and Engineering, Ewha Womans University</i></p>

S. Chip Design Contest

PS-001	Low-Power MPPT Interface for Vibration Energy Harvesting Sources Hyeon-Jung Kim and Chong-Gun Yu <i>Department of Electronics Engineering, Incheon National University</i>
PS-002	Design of Wide-Range Self-Resonant Boost Converter for Solar Energy Harvesting with 80 mV Self-Startup and 97% Tracking Efficiency Seneke Chamith Chandrarathna and Jong-Wook Lee <i>Department of Electronic Engineering, Kyung Hee University</i>
PS-003	A Low-Noise Neural Recording Analog Front-End IC for Implantable Devices Luat Tran ^{1,2} and Hyouk-Kyu Cha ² <i>¹Pixel Plus, ²Seoul National University of Science and Technology</i>
PS-004	A Wide-band Referenceless CDR Using Bidirectional Frequency Detecto Ho-Jun Lee, Hyung-Wook Lee, and Jin-Ku Kang <i>Department of Electronical and Computer Engineering, Inha University</i>
PS-005	Design of 10Gb/s NRZ / PAM-4 Dual-Mode Receiver with Adaptive Threshold Voltage Min-ji Kim, Do-hyeon Kwon, Jin-Ku Kang, and Jin Liu <i>Department of Electronical and Computer Engineering, Inha University, Department of Electronic Engineering, University of Texas at Dallas</i>
PS-006	Design of The First-order Delta-Sigma Time-to-Digital Converter Using Time Difference Repetition Integrator Nam-Hoon Kim, Kyeong-Min Ko, Jin-Ku Kang, and Jin Liu <i>Department of Electronical and Computer Engineering, Inha University, Department of Electronic Engineering, University of Texas at Dallas</i>
PS-007	Design of 8bit, 5ps Two-Step Time-to-Digital Converter Using Pulse-Shifting Time Difference Repetition Circuit Change Han Ro, Jae Myung Kim, and Jin-Ku Kang <i>Department of Electronical and Computer Engineering, Inha University</i>
PS-008	A Broadband Impedance Monitoring IC Myunghun Lee and Kuduck Kwon <i>Department of Electronic Engineering, Kangwon National University</i>
PS-009	A 2.4-GHz RF-to-BB-Current-Reuse Receiver Architecture with Simultaneous Noise and Input Matching for IoT Application Beomyu Park and Kuduck Kwon <i>Department of Electronics Engineering and Graduate Program in BIT Medical Convergence, Kangwon National University</i>

PS-010	<p>A CMOS High-Q RF Bandpass Filtering LNA for Advanced Cellular Applications</p> <p>Donggu Lee and Kuduck Kwon <i>Department of Electronics Engineering and Graduate Program in BIT Medical Convergence, Kangwon National University</i></p>
PS-011	<p>An Effect of the Antenna Performance in the Calculation of the Voltage Responsivity of a CMOS Plasmon Detector</p> <p>Moon-Jeong Lee, Ha-Neul Lee, and Jong-Ryul Yang <i>Department of Electronic Engineering, Yeungnam University</i></p>
PS-012	<p>Multi-level Driver Integrated Circuit for Low Distorted Class D Amplifier</p> <p>Ha-Neul Lee, Moon-Jeong Lee, and Jong-Ryul Yang <i>Yeungnam University</i></p>
PS-013	<p>NTV 영역에서 동작하는 IoT 프로세서 설계</p> <p>김창현, 김선욱 <i>고려대학교 전기전자공학과</i></p>
PS-014	<p>A 0.3V 0.87fJ/Conversion-step SAR ADC with 4VDD Input Range</p> <p>Kyoung-Rog Lee, Minseo Kim, and Hoi-Jun Yoo <i>KAIST</i></p>
PS-015	<p>A 2.45-GHz RF Energy Harvester System with On-chip Switched-capacitor Booster for IoT Devices</p> <p>Chae-Hyun Kim, Han-Sol Lee, and Hyungmin Lee <i>School of Electrical Engineering, Korea University</i></p>
PS-016	<p>Low Power and Low Input Voltage High Efficiency DC-DC Converter for Energy-harvesting-generator Using a Analog-to-digital-converter Based Maximum-power-point-tracking Scheme</p> <p>Jung-ho Kim, Chae-yeon Shin, and Byung-do Yang <i>Department of Electronics Engineering, Chungbuk National University</i></p>
PS-017	<p>Time-shared 3-Stage DAC with Capacitor Charge-sharing Scheme</p> <p>Sang-Ho Lee, Jae-Min Kim, and Byung-Do Yang <i>Department of Electronics Engineering, Chungbuk National University</i></p>
PS-018	<p>기생 커패시턴스 영향을 없앤 코스-파인 전하 감산 방식을 이용한 커패시턴스-디지털 컨버터</p> <p>Hyeonsam Shin, Youngrak Choi, and Byungdo Yang <i>Department of Electronics Engineering, Chungbuk National University</i></p>
PS-019	<p>Charge Sensitive Amplifier for Pulse Signal Processing in Gamma-ray Detection</p> <p>Su-Jin Jeon, Jae-Sang Lee, and Young-Wan Choi <i>Department of Electrical and Electronics Engineering, Chung-Ang University</i></p>
PS-020	<p>The ROIC Array Design for Distance Image Measurement</p> <p>Jae-Eun Lee, Eun-Gyu Lee, and Choul-Young Kim <i>Department of Electronics Engineering, Chungnam National University</i></p>



PS-021	<p>Ultra Low EMI and THD+N Multi-Level Class D Audio Amplifier</p> <p>Ji-Hun Lee and Gyu-Hyeong Cho <i>School of Electrical Engineering, KAIST</i></p>
PS-022	<p>28GHz In-band Full Duplex Transceiver 설계</p> <p>이진섭, 하재권, 김유민, 조춘식 <i>한국항공대학교 항공전자정보공학과</i></p>
PS-023	<p>Full-duplex Design for High Self-interference Cancellation</p> <p>Kangseop Lee, Ji-Seong Kim, KyungHwan Kim, Sung-Min Cho, and Ho-Jin Song <i>Department of Electrical Engineering, POSTECH</i></p>
PS-024	<p>A 28-GHz Linear Power Amplifier in 65-nm CMOS</p> <p>Kyunghwan Kim¹, Kangseop Lee¹, Ji-Seong Kim², Sungmin Cho¹, and Ho-Jin Song¹ <i>¹Department of Electrical Engineering, POSTECH, ²Samsung Electronics Co., Ltd.</i></p>
PS-025	<p>Energy-efficient Write Driver Circuit Using Charge-sharing for 8T SRAM</p> <p>Kiryong Kim, Seong-Ook Jung <i>Yonsie University</i></p>
PS-026	<p>Level Shifter with Low Energy · Delay Product of 21.63 ns·fJ</p> <p>Jiyoung Kim, Kiryong Kim, and Seong-Ook Jung <i>School of Electrical Engineering, Yonsei University</i></p>
PS-027	<p>A 60GHz Low Noise Amplifier Design in Samsung 28nm CMOS</p> <p>In Cheol Yoo, Dong Ouk Cho, and Chul Woo Byeon <i>Department of Electronic Engineering, Wonkwang University</i></p>
PS-028	<p>A Low-power Scalable Multi-mode Neural Network Processor</p> <p>Suchang Kim, Soyoun Cha, Hyewon Jeong, Daesung Kim, Seungho Na, Wooyoung Kim, and In-Cheol Park <i>School of Electrical Engineering, KAIST</i></p>
PS-029	<p>A Simple Biphasic Current Pulse Generator with Variable Parameters and On-chip Coil for Distributed Neural Interfaces</p> <p>Shinyong Shim^{1,3}, Jaehoon Sung^{2,3}, and Sung June Kim³ <i>¹Brain Science Institute, KIST, ²Pratt School of Engineering, Duke University, ³Department of Electrical and Computer Engineering, Seoul National University</i></p>
PS-030	<p>A Design of Reconfigurable RF-DC Converter with Adaptive Matching Network for 5.8 GHz Energy Harvesting System</p> <p>Jae Bin Kim, Jong Wan Jo, and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>

PS-031	<p>Current DCO a Design of Fully Integrated Signal Conditioning IC with SENT Interface for Pressure and Temperature</p> <p>Soon Ho Choi, Jae Bin Kim, Jong Wan Jo, and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PS-032	<p>Design of Two-steps Dynamic Element Matching Gated Ring Oscillator Based Time-to-digital Converter in 28nm CMOS Process</p> <p>Van Nhan Nguyen and Jong-Wook Lee <i>Department of Electronic Engineering, Kyung Hee University</i></p>
PS-033	<p>Two-band Selective Band Pass Filter Circuit SoC with Low Noise 5kHz Bandwidth Using Chopper Structure</p> <p>Tae Seob Oh, Jae Bin Kim, Jong Wan Jo, and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PS-034	<p>Asymmetric SECE Piezoelectric Energy Harvester under Weak Excitation</p> <p>Seong Jin Yun, Seung Soo Kwak, and Yong Sin Kwak <i>School of Electronic Engineering, Korea University</i></p>
PS-035	<p>Design of Active Diode Rectifier IC for Wireless Power Transfer System</p> <p>Gyoul Han, Jae Bin Kim, Jong Wan Jo, and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>
PS-036	<p>64-pixel Neural Stimulator for a Subretinal implants : In-Vivo and In-vitro Experiment Reports</p> <p>Hosung Kang¹, Wajahat Abbasi², Ruhaifi B.A. Jawawi², and Jungsuk Kim² <i>¹Korea University, ²Gachon University</i></p>
PS-037	<p>256-pixel Neural Stimulator Design for Subretinal System</p> <p>Hosung Kang¹, Wajahat Abbasi², Ruhaifi B.A. Jawawi², and Jungsuk Kim² <i>¹Korea University, ²Gachon University</i></p>
PS-038	<p>High PSRR Wide Supply Range Dual-voltage Reference Circuit for Bio-implantable Applications</p> <p>Ruhaifi Bin Abdullah Zawawi¹ Hosung Kang², Wajahat Abbasi¹, and Jungsuk Kim¹ <i>¹Gachon University, ²Korea University</i></p>
PS-039	<p>An Energy-efficient Capsule Network Processor for 3D Point Cloud Segmentation in Mobile Devices</p> <p>Gwangtae Park and Hoi-Jun Yoo <i>KAIST</i></p>
PS-040	<p>A Design of Ultra-low Power DC-DC Converter without Unstable at Outside Temperature Variation</p> <p>Dae Geun Cho, Jae Bin Kim, Jong Wan Jo, and Kang Yoon Lee <i>Department of Electrical and Computer Engineering, Sungkyunkwan University</i></p>

PS-041	<p>Design of a Neuromorphic Controller for Multiple Neuromorphic Memories</p> <p>Do Young Choi, Young Hyun Yoon, Su Yeon Jang, and Seung Eun Lee <i>Department of Electronic Engineering, Seoul National University of Science and Technology</i></p>
PS-042	<p>14GHz Phase Locked Loop for a 56 Gb/s Serial Link Transmitter based on a Two-stage Ring Oscillator in 28nm CMOS</p> <p>Jongchan An and Junyoung Song <i>Department of Electronics Engineering, Incheon National University</i></p>
PS-043	<p>Dynamic Vision Sensor Design in Standard CMOS Process</p> <p>Dong-Hwan Seo¹ and Byung-Geun Lee² ¹<i>Analog and Mixed-Signal Integrated Circuit Design Laboratory, GIST,</i> ²<i>School of Electrical Engineering and Computer Science, GIST</i></p>
PS-044	<p>A 28Gb/s Quad-rate 1-FIR 2-IIR DFE with 20dB Loss Compensation in 65nm CMOS Process</p> <p>Yunha Kang and Junyoung Song <i>Department of Electronics Engineering, Incheon National University</i></p>
PS-045	<p>1/2/4 Bit Reconfigurable BCH Decoder for Near-Threshold Voltage Operation</p> <p>Junghoon Cho, Sunghyun Choi, and Jongsun Park <i>School of Electrical Engineering, Korea University</i></p>
PS-046	<p>Varactor를 사용한 Ka-band 2-bit CMOS 위상 천이기</p> <p>Seongjin Jang and Changkun Park <i>Department of Electronic Engineering, Soongsil University</i></p>
PS-047	<p>Tile-to-tile Operation of Monolithic Three-dimensional (M3D) CMOSNanoelectromechanical (NEM) Reconfigurable Logic (RL)</p> <p>Hyug Su Kwon and Woo Young Choi <i>Department of Electronic Engineering, Sogang University</i></p>
PS-048	<p>5 GHz CMOS 180 nm Voltage Controlled Oscillator (VCO)</p> <p>Taehun Kim and Changkun park <i>Department of Electronic Engineering, Soongsil University</i></p>
PS-049	<p>Ka-Band 4x4 Butler Matrix Using 65-nm CMOS</p> <p>Young Joo Lee and Byung-Wook Min <i>Department of Electrical and Electronic Engineering, Yonsei University</i></p>
PS-050	<p>System-Level Transient ESD Noise Monitoring Using an On-die Oscilloscope Circuit</p> <p>Zakirbek Mamatair Uulu¹, Wooryong Lee¹, Junsik Park², and Jinguok Kim¹ ¹<i>School of ECE, UNIST,</i> ²<i>Solution Development Team, Samsung Electronics Co., Ltd.</i></p>

PS-051	<p>Design and Implementation of a Novel Mihalas-niebur Neuron Model Using 0.18um CMOS Process</p> <p>Songwook-Lee^{1,2}, AlaaDdin Al-Shidaifat^{1,2}, Yechan Jung^{1,2}, Bogyong Kang^{1,2}, and Hanjung Song^{1,2} ¹Department of Nanoscience and Engineering, Inje University, ²Centre for Nano Manufacturing, Inje University</p>
PS-052	<p>A 90.2% Peak Efficiency Multi-input Single-inductor Multi-output Energy Harvesting Interface</p> <p>Hyunjin Kim and Chulwoo Kim Department of Electrical Engineering, Korea University</p>
PS-053	<p>0.3V Operated Fully Integrated TFET (Tunneling-FET) and CMOS Hybrid Logic Circuit Demonstration Using 65nm RF CMOS Technology</p> <p>Heesauk Jhon¹, Sungho Park¹, Ilsik Ham², Hyeonjae Won², and Myounggon Kang² ¹Department of Electronics, Information and Communication Engineering, Mokpo National University, ²Department of Electronics Engineering, Korea National University of Transportation</p>
PS-054	<p>Cost-effective 4 GHz VCO Realized in a 0.18 um Mixed Signal CMOS Process for Wireless Sensor Network (WSN) Applications</p> <p>Heesauk Jhon¹, Sungho Park¹, Ilsik Ham², Hyeonjae Won², and Myounggon Kang² ¹Department of Electronics, Information and Communication Engineering, Mokpo National University, ²Department of Electronics Engineering, Korea National University of Transportation</p>
PS-055	<p>Modified 6T-SRAM Based In-memory Computing for Energy-efficient Deep Learning with Variability Compensation</p> <p>Jongho Kim and Jintae Kim Konkuk University</p>
PS-056	<p>A Design of Wireless Pwer Receiver for Biomedical Implant Device</p> <p>박준호, 김우영, 문용 송실대학교 전자공학과</p>
PS-057	<p>Gradient-Descent Optimization Based Background Calibration of Pipelined SAR ADC Using Inter-Stage Gain Adjustment</p> <p>Nam-Kyu Kim^{1,2} and Ji-Yong Um² ¹Samsung Electronics Co., Ltd., ²Department of Electronic Engineering, Hannam University</p>
PS-058	<p>TCAM with Low R-ratio Nonvolatile Memory</p> <p>Jin-Yong Hwang and Kee-Won Kwon College of Information and Communication Engineering, Sungkyunkwan University</p>
PS-059	<p>Multi Source/Drain CMOS Implementation for Energy-efficient Neural Network Device</p> <p>Junsung Park and Sung-Min Hong School of Electrical Engineering and Computer Science, GIST</p>
PS-060	<p>A High-efficiency Four-Phase Synchronous Buck Converter</p> <p>Jun Tang, Tian Guo, and Jeongjin Roh Department of Electronics and Communications Engineering, Hanyang University</p>



PS-061	<p>Settling-Time 개선기법이 적용된 11 비트 Ring Amplifier 파이프라인 ADC</p> <p>Chankyu Bae^{1,2}, Seungwoo Shin^{1,2}, Jiteck Jung^{1,2}, Minsu Park^{1,2}, Kibaek Kwon^{1,2}, Myunsik Kim^{1,2}, Jiwon Son^{1,2}, Heain Kim^{1,2}, and Joongho Choi^{1,2} <i>¹Department of Electrical and Computer Engineering, University of Seoul, ²Cesign Inc.</i></p>
PS-062	<p>A Wide Load Range and High Efficiency Multi-Path Step-up DC-DC Converter for Mobile OLED Display Panel</p> <p>Gyeong-Gu Kang, Ji-Hun Lee, Jaeyoung Ko, and Gyu-Hyeong Cho <i>School of Electrical Engineering, KAIST</i></p>
PS-063	<p>A High Step-down Multi-Path DC-DC Converter with Energy-Balancing Capacitors for Li-Ion Battery Management</p> <p>Jaeyoung Ko, Ji-Hun Lee, Gyeong-Gu Kang, and Gyu-Hyeong Cho <i>School of Electrical Engineering, KAIST</i></p>
PS-064	<p>Addressable Sub-mm Neural Stimulators for Brain-machine Interface</p> <p>Ah-Hyoung Lee, Jung Woo Jang, Chae-Eun Lee, and Yoon-Kyu Song <i>Department of Nano Science and Technology, Seoul National University</i></p>
PS-065	<p>Tri-State Nanoelectromechanical Memory Switches</p> <p>Gwangryeol Baek, Jisoo Yoon, and Woo Young Choi <i>Department of Electronic Engineering, Sogang University</i></p>
PS-066	<p>Wireless Resistivity Reading Chip</p> <p>HongHyeon Park, Hyeonkeon Lee, and Sanghoek Kim <i>Department of Electronic Engineering, Kyung Hee University</i></p>
PS-067	<p>단일-오류를 처리하기 위한 극 부호용 전처리 복호기</p> <p>최소연, 유호영 <i>충남대학교 전자공학과</i></p>
PS-068	<p>Buck-Boost Converter with Damping Control</p> <p>Giwon Kim, Taewoong Kim, and SoYoung Kim <i>College of Information and Communication Engineering, Sungkyunkwan University</i></p>
PS-069	<p>Hybrid Delta-sigma Modulator</p> <p>Hwa-Seong Shin¹, Seung-Gi Hong², and Jeong Jin Roh³ <i>Department of Electronics and Communication Engineering, Hanyang University</i></p>
PS-070	<p>Hybrid Delta-sigma Modulator</p> <p>Hwa-Seong Shin¹, Seung-Gi Hong², and Jeong Jin Roh³ <i>Department of Electronics and Communication Engineering, Hanyang University</i></p>
PS-071	<p>A Capacitively-coupled Chopper Instrumentation Amplifier</p> <p>Seokjae Song and Jeongjin Roh <i>Division of Electrical Engineering, Hanyang University</i></p>

PS-072	<p>A Resistor-based Discrete-time Delta-sigma Modulator for High Resolution Analog Front End</p> <p>Seokjae Song and Jeongjin Roh <i>Division of Electrical Engineering, Hanyang University</i></p>
PS-073	<p>CMOS Microwave Active Inductor with Tunable Negative Resistance</p> <p>Qi Wang and Yongchae Jeong <i>Division of Electronics and Information Engineering, Jeonbuk National University</i></p>
PS-074	<p>무선충전 기능을 포함한 NFC 아날로그 프론트 엔드의 설계</p> <p>김우영, 장준범, 문용 <i>송실대학교 전자공학과</i></p>
PS-075	<p>다중 수동태그를 위한 SoC 설계</p> <p>김우영, 장준범, 문용 <i>송실대학교 전자공학과</i></p>
PS-076	<p>Front-End ASIC Including Fast Digitizer for Coplanar-grid Radiation Detector and Radiation Hardened Circuits for Research</p> <p>Waseem Muhammad¹, Byeongjae Yu¹, Youngtaek Kim¹, and Jung-Yeol Yeom^{1,2} ¹<i>Department of Bio-convergence Engineering, Korea University,</i> ²<i>School of Biomedical Engineering, Korea University</i></p>
PS-077	<p>Wireless Power Transfer System with Low Power Bidirectional Data Telemetry for Inductively-powered Devices</p> <p>Min-Jae Kim, Hyun-Su Lee, and Hyung-Min Lee <i>School of Electrical Engineering, Korea University</i></p>
PS-078	<p>Meta-VCO를 사용한 28.5GHz PLL의 설계</p> <p>권노용, 김우영, 문용 <i>송실대학교 전자공학과</i></p>
PS-079	<p>Embedded DRAM Based In-memory Computing Circuit</p> <p>Jiyong An, Tien Van Nguyen, Ngoc Thanh Le, and Kyeong-Sik Min <i>School of Electrical Engineering, Kookmin University</i></p>
PS-080	<p>Characterization of Non-resonant Plasmonic Terahertz Detector</p> <p>Sang Hyo Ahn, E-San Jang, Min Woo Ryu, and Kyung Rok Kim <i>Department of Electrical Engineering, UNIST</i></p>
PS-081	<p>RF 에너지 하베스팅 무선 센서를 위한 DC/DC 부스트 컨버터 설계</p> <p>김준태, 권익진 <i>전자공학과 아주대학교</i></p>
PS-082	<p>A Wireless Multi-채널 Closed-loop Neuromodulator for Brain Implant</p> <p>Jungwoo Jang, Cha Eun Lee, Ah-Hyoung Lee, and Yoon-Kyu Song <i>Department of Nano Science and Technology, Graduate School of Convergence Science and Technology, Seoul National University</i></p>



PS-083	A Voltage Controlled Oscillator and Injection Locked Frequency Divider for V-Band Phase Locked Loop in 65-nm CMOS Waseem Abbas and Munkyo Seo <i>School of Electronic and Electrical Engineering, Sungkyunkwan University</i>
PS-084	Toward Energy-Scalable and Lightweight CNN Accelerator Sangwoo Jung and Jaeha Kung <i>Department of Information and Communication Engineering, DGIST</i>
PS-085	Compact CNN Accelerator Chip Design With Optimized MAC and Pooling Layer Dong-Young Lee, Hyun-Wook Son, Mohammed E. Elbity, and Hyung-Won Kim <i>Mixed Signal Integrated System Lab, ChungBuk National University</i>
PS-086	A Low-Power Scalable Flexible Band Processor for Artificial Intelligence Suchang Kim, Seungho Na, Wooyoung Kim, Jaewoong Choi, Kyungpil Lee, Jaehyun Park, Seongjin Lee, and In-Cheol Park <i>School of Electrical Engineering, KAIST</i>
PS-087	A 15.2 TOPS/W CNN Accelerator with Similar Feature Skipping for Face Recognition in Mobile Devices Sangyeob Kim, Juhyoung Lee, Sanghoon Kang, Jinsu Lee, and Hoi-Jun Yoo <i>KAIST</i>
PS-088	K/Ka-Band Tri-Mode Voltage-Controlled Oscillator using Single Switched Resonator Seongwoog Oh and Jungsuek Oh <i>Department of ECE and INMC, Seoul National University</i>
PS-089	Row-Wise Processing Memory Architecture with a General-Purpose CNN Inference Processor Soyoung Cha, Sungjin Lee, and In-Cheol Park <i>School of Electrical Engineering, KAIST</i>
PS-090	Low Power Asynchronous 8-Bit MCU Design Using NCL Jin Kyung Lee and Kyung Ki Kim <i>Department of Electronics, Daegu University</i>