VI 논문발표

[TP1] Poster I

2017년 2월 14일 (화), 15:00-16:00
Room I (다이아몬드 2, 3층)

[TP1] Poster I

TP1-1	**Flexible Resistive Memory Devices Using Aluminum Oxide Active Layer Fabricated on a Wrapping Paper Substrate** Jingon Jang, Younggul Song, Kyungjune Cho, Youngrok Kim, Woocheol Lee, Daekyoung Yoo, Seungjun Chung, and Takhee Lee *Department of Physics and Astronomy, Seoul National University*
TP1-2	**Attachable Aluminum Oxide Resistive Non-Volatile Memory Devices Fabricated on a Scotch Tape as a Substrate** Woocheol Lee, Jingon Jang, Younggul Song, Daekyoung Yoo, Youngrok Kim, and Takhee Lee *Department of Physics and Astronomy, Seoul National University*
TP1-3	**Atomic Layer Deposition of $TiTe_2$ Thin Films for Ti-Sb-Te Phase Change Memory Application** Chanyoung Yoo, Taehong Gwon, Sijung Yoo, Eui-sang Park, Sanggyun Kim, and Cheol Seong Hwang *Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University*
TP1-4	**Self-Limiting Synthesis of Two Dimensional Molybdenum Disulfide Using MoF_6 and H_2S** Dae Guen Choi, Youngjun Kim, Jeong-Gyu Song, Jusang Park, and Hyungjun Kim *School of Electrical and Electronic Engineering, Yonsei University*
TP1-5	**Atomic Layer Deposition of SnTe Phase-Change Materials** Eui-sang Park[1], Taehong Gwon[1], Sijung Yoo[1], Chanyoung Yoo[1], Sanggyun Kim[1], Jaesun Jung[2], and Cheol Seong Hwang[1] *[1]Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University, [2]Soulbrain*
TP1-6	**Growth and Electric Characteristics of $SrRuO_3$/Pt Bimetal Electrodes for $SrTiO_3$ Dielectric Layer** Cheol Hyun An[1], Sang Hyeon Kim[1,2], Hoju Song, Dae Seon Kwon[1], and Cheol Seong Hwang[1] *[1]Department of Materials Science and Engineering, Seoul National University, [2]Memory Thin Film Technology Team, Memory Division, Samsung Electronics Co., Ltd.*

TP1-7	**Patch-Type Nitric Oxygen Gas Sensor based on Functionalized Single-Wall Carbon Nanotube Thin Films** Ban-Suk Park[1], Kyeoung Heon Kim[2], Jun-Young Jeon[1], Young Tae Byun[2], and Tae-Jun Ha[1] *[1]Department of Electronic Materials Engineering, Kwangwoon University, [2]Sensor System Research Center, Korea Institute of Science and Technology (KIST)*
TP1-8	**산화물 적층을 이용한 고효율 열차폐 박막 연구** Myoung Su Seo, Sung Min Kim, and Sang Woon Lee *Department of Physics and Division of Energy Systems Research, Ajou University*
TP1-9	**Chemical Reaction-Mediated Crystallization of Indium Gallium Zinc Oxide Semiconductors for High Mobility TFTs** Yeonwoo Shin[1], Jiwon Lee[1], Taeho Kim[1], Azida Azmi[2], Min Hoe Cho[1], Taejung Gim[1], Injae Chung[1], and Jae Kyeong Jeong[1] *[1]Department of Electronics and Computer Engineering, Hanyang University, [2]Department of Materials science and Engineering, Inha University*
TP1-10	**ESD Robustness of Semiconductor made of Thin Silicon Epitaxial Films** Sakhone Pharkphoumy[1], Moon-Ho Lee[2], Dae-Gi Kim[3], Sang-Sik Choi[4], Deok-Ho Cho[4], Chel-Jong Choi[1], and Kyu-Hwan Shim[1] *[1]School of Semiconductor and Chemical Engineering, Semiconductor Physics Research Center, Chonbuk National University, [2]The 4th R&D Institute, Agency for Defense Development, [3]Defence R&D Center, Hanwah Corporation, [4]R&D Division, Sigetronics, Inc.*
TP1-11	**Ga-Doped Amorphous Zinc Oxy-Nitride Semiconductors for High Mobility and Stability TFTs** Jiwon Lee[1], Yeonwoo Shin[1], Taejung Gim[1], Min Hoe Cho[1], Azida Azmi[2], Taeho Kim[1], Injae Chung[1], and Jae Kyeong Jeong[1] *[1]Department of Electronics and Computer Engineering, Hanyang University, [2]Department of Materials Science and Engineering, Inha University*
TP1-12	**Study on Ferroelectric Switching Kinetics in Polycrystalline $Hf_{0.5}Zr_{0.5}O_2$ Films** Seung Dam Hyun, Min Hyuk Park, Yu Jin Kim, Han Joon Kim, Taehwan Moon, Keum Do Kim, Young Hwan Lee, Hyeonwoo Park, Yong Bin Lee, and Cheol Seong Hwang *Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University*
TP1-13	**Low Current Operation of Ta_2O_5-based Vertical Resistive Switching Memory** Sung Yeon Ryu and Byung Joon Choi *Department of Materials Science and Engineering, Seoul National University of Science and Technology*
TP1-14	**환원된 그래핀 옥사이드 첨가를 통한 PVDF 박막의 정전용량 증가** 이준우, 오은석, 이진훈, 나지훈, 임상우 *연세대학교 화공생명공학과*
TP1-15	**Temperature Dependence of AlN Films Grown by Thermal Atomic Layer Deposition** Min Soo Kim, Dong Ha Kim, and Byung Joon Choi *Department of Materials Science and Engineering, Seoul National University of Science and Technology*

TP1-16	**Transparent Multi Level Cell (MLC) Novolatile Flash Memory with Dual Gate Amorphous-InGaZnO Thin-Film Transistors** Min-Ju Ahn and Won-Ju Cho *Department of Electrical Material Engineering, Kwangwoon University*
TP1-17	**The Effect of Annealing on the Structural and Electrical Properties of Sputter-Deposited SnO_x Thin Films by a Composite Target** Cheol Kim[1], Sungdong Kim[2], and Sarah Eunkyung Kim[1] *[1]Graduate School of NID Fusion Technology, Seoul National University of Science and Technology, [2]Department of Mechanical System Design Engineering, Seoul National University of Science and Technology*
TP1-18	**Passivation Layer Effects on Ge Substrate for TiO_2 Gate Dielectric Layer** Dong Gun Kim, Jae-Ho Lee, Hyun Jae Lee, and Cheol Seong Hwang *Department of Materials Science & Engineering and Inter-university Semiconductor research Center, Seoul National University*
TP1-19	**Fast Transient Charging Behavior of InSnZnO Thin Film Transistor** Changyong Oh[1], Taeho Kim[2], and Sanghun Jeon[1,2] *[1]Department of Display and Semiconductor Physics, [2]Department of Applied Physics, Korea University*
TP1-20	**Surge Robustness of Semiconductor Bridge Ignition Chips** Sakhone Pharkphoumy[1], Khonepachith Ouduangvilai[1], Moon-Ho Lee[2], Dae-Gi Kim[3], Sang-Sik Choi[4], Deok-Ho Cho[4], Chel-Jong Choi[1], and Kyu-Hwan Shim[1] *[1]School of Semiconductor and Chemical Engineering, Semiconductor Physics Research Center, Chonbuk National University, [2]The 4th R&D Institute, Agency for Defense Development, [3]Defence R&D Center, Hanwah Corporation, [4]R&D Division, Sigetronics, Inc.*
TP1-21	**High Performing Pentacene-Based Thin-film Transistors by UV Treatment between Two Organic Gate Insulator Layers** Min Su Kim, Dong-Hoon Lee, Hyeong Jun Cho, Eung-Kyu Park, and Yong-Sang Kim *School of Electronic and Electrical Engineering, Sungkyunkwan University*
TP1-22	**Indium Gallium Zinc Oxide Thin Film Transistors with ZrO_2-Al_2O_3 Dielectric** So Young Lee, Eung-Kyu Park, Jongsu Oh, Min Su Kim, and Yong-Sang Kim *School of Electronic and Electrical Engineering, Sungkyunkwan University*
TP1-23	**Resistive Switching Behavior of Pt/TiO_2/Cu Electrochemical Metallization Device Governed by the Interplay between the Field and Thermal Effects** Hae Jin Kim, Kyung Jean Yoon, Tae Hyung Park, Han Joon Kim, Young Jae Kwon, Xing Long Shao, Dae Eun Kwon, Yu Min Kim, and Cheol Seong Hwang *Department of Materials Science and Engineering and Inter-University Semiconductor Research Center, Seoul National University*
TP1-24	**우수한 전기적 특성을 가지는 박막형 InGaAs MOSCAP 개발** 김수빈, 이상운 *아주대학교 에너지시스템학과 응용물리전공*

TP1-25	**The Influence of Defects on Charge Transport in Nanocrystalline InSnZnO Oxide-Semiconductor Thin Film Transistors** Hyeonjae Jeong[1], Youngin Goh[2], and Sanghun Jeon[1,2] *[1]Department of Display and Semiconductor Physics, Korea University, [2]Department of Applied Physics, Korea University*
TP1-26	**Influence of Fast Charging on Accuracy of Mobility in a-InSnZnO Thin-Film Transistor** Jidong Kim[1], Hyunsuk Woo[2], and Sanghun Jeon[1,2] *[1]Department of Display and Semiconductor Physics, Korea University, [2]Department of Applied Physics, Korea University*
TP1-27	**Determination of Intrinsic Mobility of In-Sn-Zn-O Thin Film Transistor by Pulsed I-V Method** Jayoung Son[1], Hyunsuk Woo[2], and Sanghun Jeon[1,2] *[1]Department of Display and Semiconductor Physics, Korea University, [2]Department of Applied Physics, Korea University*
TP1-28	**Atomic Layer Deposition of High-k Oxides on Graphene Surface** Yong Hyun Park[1], Hae Jun Jung[1], Myeong Su Ko[2], Sang Woo Jeon[2], and Sang Woon Lee[1] *[1]Department of Physics and Division of Energy Systems Research, Ajou University, [2]Gyeonggi Science High School for the Gifted*
TP1-29	**Atomic Layer Deposition of $Zn_{1-x}Sn_xO_y$ Thin Films for Buffer Layer Application in Photovoltaic Cells** Raphael Edem Agbenyeke, Bo Keun Park, Chang Gyoun Kim, Taek-Mo Chung, and Jeong Hwan Han *University of Science and Technology, Korea Research Institute of Chemical Technolog*
TP1-30	**Effect of Post Annealing Conditions on the Crystallinity and Polarization of $(HfO_2)_{0.5}$ $(ZrO_2)_{0.5}$ Films by Atomic Layer Deposition** Ju-young Jeong[1], Hee do Na[1], Hee Young Shin[1], Jae-Sung Roh[2], and Hyunchul Sohn[1] *[1]Department of Materials Science and Engineering, Yonsei University, [2]Yonsei Institute of Green Technology, Yonsei University*
TP1-31	**Investigation of ALD-Nickel as P type Work Function Metal Electrode on High-K Dielectrics** Hyun Jun Ahn[1], Jungmin Moon[1], Yongjun Kim[1], Il Cheol Rho[2], Choon Hwan Kim[2], and Byung Jin Cho[1] *[1]School of Electrical Engineering, KAIST, [2]SK Hynix Semiconductor Inc.*
TP1-32	**Evaluation of Microwave Annealing Effect on the Interface Properties between Top Silicon Layer and Buried Oxide Layer in SOI Substrates** Gi-yong Lee and Won-Ju Cho *Department of Electrical Materials Enginieering, Kwnagwoon University*
TP1-33	**DRAM Capacitor 상부 전극으로 High eWF TiON 적용을 통한 Cap Leakage 개선 연구** SeungBum Hong, DongSu Jang, EuiSeong Hwang, and SungGon Jin *DRAM Thinfilm, SK Hynix Semiconductor Inc.*

TP1-34	**Electrical Characterization of Au/n-InP Contacts by Inserting Al_2O_3 Layer by Atomic Layer Deposition** Hogyoung Kim[1], Min Soo Kim[2], Seung Yu Yoon[2], and Byung Joon Choi[2] *[1]Department of Visual Optics, Seoul National University of Science and Technology (Seoultech), [2]Department of Materials Science and Engineering, Seoul National University of Science and Technology (Seoultech)*
TP1-35	**그래핀을 포함한 복합구조체 EUV 펠리클의 광학적, 기계적 특성 분석** 장용주[1], 김정환[2], 안진호[1,2] *[1]한양대학교 나노반도체공학과, [2]한양대학교 신소재공학과*
TP1-36	**Digital and Analog Resistive Switching Behaviors in Organolead Halide Perovskite Based Ag/$CH_3NH_3PbI_{3-x}Cl_x$/FTO Structure** Eun Ji Yoo and Young Jin Choi *Department of Nanotechnology and Advanced Materials Engineering, Sejong University*
TP1-37	**Improvements in Device Performance of In-Ga-Zn-O Schottky Diodes** Jae Won Kim, Won-Ho Lee, and Sung-Min Yoon *Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University*
TP1-38	**Effects of Double-Stacked Solution-Processed ZrO_2 Insulator on Electrical Characteristics of Pentacene Thin-Film Transistors** Jin-Hyuk Kwon[1], Xue Zhang[2], Jaehoon Park[2], and Jin-Hyuk Bae[1] *[1]School of Electronics Engineering, Kyungpook National University, [2]Department of Electronic Engineering, Hallym University*
TP1-39	**Optoelectronic Device Applications Using $Ge_2Sb_2Te_5$ Phase-Change Memories with Variations in Active Layer Thickness and Electrodes** Han-Byeol Kang[1,2], Yong-Hae Kim[2], Seong-Mok Cho[2], Sang-Hoon Cheon[2], Tae-Youb Kim[2], and Sung-Min Yoon[1] *[1]Kyung Hee University Yongin, [2]Smart I/O Platform Research Department, Electronics and Telecommunications Research Institute*
TP1-40	**Work Function Tuning of Titanium Nitride Gate Electrode Employing Atomic Layer Deposition for PMOS Devices** Jungmin Moon[1], Hyun Jun Ahn[1], Il Cheol Rho[2], Choon Hwan Kim[2], and Byung Jin Cho[1] *[1]School of Electrical Engineering, KAIST, [2]SK Hynix Semiconductor Inc.*
TP1-41	**Solution-Processed Li-Doped Indium Zinc Oxide Thin Film Transistors Fabricated Using Blue Laser Annealing** Soo-Yeun Han, Manh-Cuong Nguyen, Jae-Won Choi, An Hoang-Thuy Nguyen, Jung-Youn Kim, Su-Jin Choi, and Rino Choi *Department of Materials Science & Engineering, Inha University*
TP1-42	**Al concentration Dependent Electrical Characteristics Modulation of Al-Doped ZnO Thin Film Using Atomic Layer Deposition** Ji Woon Choi, Gun Whan Kim, Chang Wan Lee, Jung Hwan Han, Dong Joon Kim, Taek-Mo Chung, and Young Kuk Lee *Center for Thin Film Materials, Korea Research Institute of Chemical Technology*

TP1-43	**Improved Performance of Double-Stacked Sn-Doped Indium-Zinc-Oxide Thin Film Transistors Using a Solution Process** Ki Won Lim and Byoung Deog Choi *College of Information and Communication Engineering, Sungkyunkwan University*
TP1-44	**Thermal Budget이 향상된 열처리 시스템을 이용한 IGZO 박막의 열처리 특성 비교** Taehoon Lee[1], Yong Chan Jung[1], Sejong Seong[1], Bo Li[2], In-Sung Park[1,3], and Jinho Ahn[1,3] *[1]Division of Materials Science and Engineering, Hanyang University, [2]Department of Convergence Nanoscience, Hanyang University, [3]Institute of Nano Science and Technology, Hanyang University*
TP1-45	**Study on Dielectric Constant of Ga-Doped ZrO_2 Thin Films by Atomic Layer Deposition** Jiwon Choi, Heedo Na, Juyoung Jung, and Hyunchul Sohn *Department of Materials Science and Engineering, Yonsei University*
TP1-46	**Optical Doping을 통한 ZnO-TFT의 이동도 향상** Chan Young Kim, Myung ju Kim, Tae Ho Lee, Dae Yun Kang, and Tae Geun Kim *School of Electrical Engineering, Korea University*
TP1-47	**Channel Width Effects on Self-heating for Amorphous Silicon Thin Film Transistors on Glass Substrate** Yu Jin Park, Jae Hyun Ryu, Geun Woo Baek, and Sung Hun Jin *Department of Electronic Engineering, Incheon National University*
TP1-48	**Flexible Ferroelectric P(VDF-TrFE) Memory Thin-Film Transistors Fabricated on Plastic PEN Substrates** Ji-hee Yang, Da-Jeong Yun, Gi-Ho Seo, and Sung-Min Yoon *Department of Advanced Materials Engineering for Information and Electronics, Kyung Hee University*
TP1-49	**Thin Film Encapsulation by VHF (162 MHz)-PECVD Using a Multi-Tile Push-Pull Plasma Source** Kiseok Kim[1], Kihyun Kim[1], Youjin ji[1], Dohan Kim[1], and Geunyoung Yeom[1,2] *[1]School of Advanced Materials Science and Engineering, Sungkyunkwan University, [2]Sungkyunkwan University Advanced Institute of Nano Technology (SAINT), Sungkyunkwan University*
TP1-50	**Development of Ga_2O_3/GaN Ozone Sensors Operating by UV-Assisted Reduction Mechanism** J.H.Yu[1], T.S. Jeong[1], C. J. Youn[1], and K. H. Shim[1,2] *[1]Department of Semiconductor Chemical Engineering, Semiconductor Physics Research Center, Chonbuk National University, [2]R&D Division, Sigetronics Inc.*
TP1-51	**Effects of Molar Ratio and Annealing Temperature on the Electrical Properties of HfO_2 Dielectric** Young-hwan Hyeon and Byoung-deog Choi *College of Information and Communication Engineering, Sungkyunkwan University*

TP1-52	**Passivation of IGZO Thin Film Transistors Using SiC Thin Film** Woon-Young, Jung, HyeKyung Oh, JeongBin Son, and Jong-Wan Jung *Department of Nano and Materials Engineering, Sejong University*
TP1-53	**In-situ FTIR Analysis on the Catalyzed Atomic Layer Deposition of Silicon Oxide at Ultra-Low Temperatures** Tirta R Mayangsari, Jae-Min Park, and Won-Jun Lee *Department of Nanotechnology and Advanced Materials Engineering, Sejong University*
TP1-54	**Preliminary Experimental Study for Understanding the Limit of Switching Speed in Negative Capacitance Field Effect Transistor** Hansol Ku and Changhwan Shin *Department of Electrical and Computer Engineering, University of Seoul*
TP1-55	**Experimental Demonstration of Capacitance Matching Process in Negative Capacitance Field Effect Transistor** Jaesung Jo and Changhwan Shin *Department of Electrical and Computer Engineering, University of Seoul*
TP1-56	**Experimental Observation of Quantum Capacitance in Topological Insulator at Room Temperature** Hyunwoo Choi and Changhwan Shin *Department of Electrical and Computer Engineering, University of Seoul*
TP1-57	**Process-Induced Random Variation in Stacked-Nanowire FET: Line Edge Roughness + Interface Traps** Jinyoung Park and Changhwan Shin *Department of Electrical and Computer Engineering, University of Seoul*
TP1-58	**Homeostatic Neuron Circuit Using Double-Gate Device for Spiking Neural Network** Sung Yun Woo, Chul-Heung Kim, Kyu-Bong Choi, Suhwan Lim, Jaeha Kim, Byung-Gook Park, and Jong-Ho Lee *Department of Electrical and Computer Engineering, Seoul National University and Inter-university Semiconductor Research Center, Seoul National University*
TP1-59	**다층그래핀을 이용한 재구성형 나노스케일 기계적 스위치** 이용수, 황현준, 노진우, 김승모, 유지애, 이병훈 *Center for Emerging Electronic Devices and Systems, School of Materials Science and Engineering, Gwangju Institute of Science and Technology*
TP1-60	**EOT Scaling of Atomic Layer Deposited HfO_2 on Buried-Gate Graphene FET** 김기영, 허선우, 김윤지, 이상경, 강수철, 이병훈 *Center for Emerging Electronic Devices and Systems, School of Materials Science and Engineering*
TP1-61	**H_2 Annealing에 의한 Tunnel FET Inverter의 전기적 특성 변화** 강수철[1], 노진우[1], 임동환[2], 김승모[1], 임성관[1], 최창환[2], 이병훈[1] *[1]Center for Emerging Electric Devices and Systems, School of Material Science and Engineering, [2]Division of Materials Science and Engineering, Hanyang University*

TP1-62	**Simulation Technique for Modeling Nanoelectromechanical Relay** Karam Cho and Changhwan Shin *Department of Electrical and Computer Engineering, University of Seoul*
TP1-63	**Recess Gate Structure Tunneling Field Effect Transistor for High on-Current Drivability** Seung gyu Ji, Dongseob Kim, and Il Hwan Cho *Department of Electronic Engineering, Myongji University*
TP1-64	**Investigation of Charge Trap Flash Memory for High Temperature Operation** Ikhyun Kwon and Il Hwan Cho *Department of Electronic Engineering, Myongji University*
TP1-65	**Self-Compliance Bipolar Resistive Switching in SiN-Based RRAM with MIS Structure** Sungjun Kim[1], Tae-Hyeon Kim[1], Hee-Dong Kim[2], Seongjae Cho[3], and Byung-Gook Park[1] *[1]Department of Electrical and Computer Engineering, Seoul National University, [2]Department of Electrical Engineering, Sejong University, [3]Department of Electronic Engineering, Gachon University*
TP1-66	**Threshold-Voltage Tunable Poly-Crystalline Silicon Feedback Field-Effect Transistor with Vertical Structure** Dae Woong Kwon, Junil Lee, Euyhwan Park, Sihyun Kim, Ryoongbin Lee, Taehyung Park, Hyun-Min Kim, Kitae Lee, and Byung-Gook Park *Department of Electrical and Computer Engineering, Seoul National University*
TP1-67	**Ultra-Thin SiGe Channel FinFET for Sub-10-nm Technology Node** Eunseon Yu[1], Junsoo Lee[1], and Seongjae Cho[1,2] *[1]Graduate School of IT Convergence Engineering, [2]Department of Electronics Engineering, Gachon University*
TP1-68	**An Analysis of Gate-All-Around Nanowire MOSFET Channel Mobility on the Nanowire Shape Variation** Suhyeon Kim, Junil Lee, Myung-Hyun Baek, Sihyun Kim, Taehyung Park, and Byung-Gook Park *Department of Electrical Engineering, Seoul National University*
TP1-69	**Simulation Study on the Effect of Source Length in Schottky Barrier Tunnel Field Effect Transistor** Sihyun Kim, Dae Woong Kwon, Euyhwan Park, Junil Lee, Roongbin Lee, Jong-Ho Lee, and Byung-Gook Park *Department of Electrical and Computer Engineering, Seoul National University*
TP1-70	**The Effects of Deuterium Annealing Pressure on P-type Si TFET with ALD $HfAlO_x$ and HfO_2 Gate Dielectrics** Jae Ho Lee, Donghwan Lim, Andrey Sokolov Sergeevich, Young Jin Kim, Hoon Hee Han, Seok Ki Son, Yu-Rim Jeon, and Changhwan Choi *Division of Materials Science and Engineering, Hanyang University*
TP1-71	**Investigation on Pulse Operation of Cu/IGZO/Si Structured ReRAM** Suhyun Bang, Sungjun Kim, Hyungjin Kim, Tae-Hyeon Kim, and Byung-Gook Park *Department of Electrical and Computer Engineering, Seoul National University*

TP1-72	**Dopant Activation Using Green Laser Annealing** Jung Yeon Kim[1], Jae-Won Choi[1], Young Hwan Choi[2], Manh-Cuong Nguyen[1], An Hoang-Thuy Nguyen[1], Soo-Yeon Han[1], SuJin Choi[1], Han-Youl Ryu[2], and Rino Choi[1] *[1]Department of Material Science & Engineering, Inha University, [2]Department of Physics, Inha University*
TP1-73	**Design of a GeSi Electro-Absorption Modulator for Monolithically Integration on an Bulk Si Wafer** Yoonyoung Bae and Donghwan Ahn *School of Advanced materials engineering, Kookmin University*
TP1-74	**Read Margin Analysis of Crossbar Array Using Cell-Variability-Aware Simulation Method** Wookyung Sun, Sujin Choi, and Hyungsoon Shin *Department of Electronic and Electrical Engineering, Ewha Womans University*
TP1-75	**Trench를 활용한 나노와이어의 성능 향상과 이에 따른 Self Heating Effect (SHE) 영향력 분석** 김현석[1], 명일호[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-76	**트렌치 구조 소오스-드레인을 가지는 적층형 나노와이어 펫의 6-T SRAM 성능 최적화** 손도균[1], 고결[1], 우창범[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-77	**스페이서 특성 변화에 따른 기생 저항 및 기생 커패시턴스 분석** 고형우[1], 김종수[1], 김민수[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-78	**FinFET, Lateral and Vertical Nanowire FET를 이용한 6T-SRAM 특성 비교 분석 및 최적화** 서영수[1], 김신근[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-79	**Work Function Variation에 따른 적층형 나노와이어 펫의 6T SRAM 특성 분석** 고결[1], 손도균[1], 우창범[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-80	**수직 구조 나노와이어 펫의 특성 분석 및 최적화** 우창범[1], 손도균[1], 고결[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-81	**나노와이어 펫에서 DC 및 AC모드에서의 Self Heating Effect 특성 분석과 이에 따른 성능 분석** 명일호[1], 김현석[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*

TP1-82	**Intrinsic Gate Delay를 고려한 Nanowire-FET에서의 최적의 Underlap 길이** 김민수[1], 김종수[1], 고형우[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-83	**AlGaN/GaN Fin-Channel Field Effect Transistor for High Voltage Gain and Broadband Transconductance** Min Su Cho, Young In Jang, Young Jun Yoon, Jae Hwa Seo, Ra Hee Kwon, Bo Gyeong Kim, Sang Hyuk Lee, Jung-Hee Lee, and In Man Kang *School of Electronics Engineering, Kyungpook National University*
TP1-84	**DC Characteristics in Polysilicon Nanowire Tunneling Field-Effect Transistors** Joonyong Choi[1], Jun-Sik Yoon[1], Kihyun Kim[1], and Chang-Ki Baek[1,2] *[1]Department of Creative IT Engineering, Pohang University of Science and Technology, [2]Department of Electronic Engineering, Pohang University of Science and Technology*
TP1-85	**A Macro-Model for Telegraphic Switching of Magnetic Tunnel Junctions** Gi Yoon Bae, Dong Ik Suh, Young-jae Kim, Hyungjune Lee, and Wanjun Park *Department of Electronic Engineering, Hanyang University*
TP1-86	**전기적 특성과 기생 성분 관점에서의 FinFET 과 Nanowire FET 성능 비교 및 소자 최적화** 김종수[1], 고형우[1], 강명곤[2], 신형철[1] *[1]School of Electrical Engineering and Computer Science, Seoul National University, [2]Department of Electronics Engineering, Korea National University of Transportation*
TP1-87	**Separate Extraction of Source and Drain Resistances in Vertically Integrated Junctionless Nanowire Field Effect Transistors** Myungsoo Seo, Byung-Hyun Lee, Hagyoul Bae, Gun-Hee Kim, and Yang-Kyu Choi *School of Electrical Engineering, KAIST*
TP1-88	**U-shaped Reconfigurable Field-Effect Transistor** Daehoon Wee, Huitae Kwon, Hyunsuk Choi, Won Joo Lee, Yujeong Park, and Yoon Kim *Department of Nanoenergy Engineering, BK21 Plus Nanoconvergence Technology Division, Pusan National University*
TP1-89	**Trap Measurement in Floating Body MOSFET Using a Modified DC-IV Technique** 최수진, 응웬 만 끄엉, 최재원, 응웬 황 투이 안, 한수연, 김정연, 최리노 *인하대학교 공과대학 신소재공학과*
TP1-90	**Fast Parameterized Static Timing Analysis based on Branch and Bound Approach** Min Yeong Seo, Dong Ah Kim, Deok Keun Oh, and Ju ho Kim *Department of Computer Science and Engineering, Sogang University*
TP1-91	**3D NAND Flash의 Erase Right Tail 열화원인분석** Dasom Lee, Eunmee Kwon, and Minsoo Kim *SK Hynix Inc.*

TP1-92	**Area-Efficient & High-Holding-Voltage-Isolated SCR with Resistor-Triggered Technique for PMIC ESD Protection** Young-sang Son, Jong-min Kim, Seok-soon Noh, Young-chul Kim, Joong-hyeok Byeon, Joon-tae Jang, Geun-tae Kwon, and Yoon-jong Lee *TE team, Dongbu HiTecks Co., Ltd.*
TP1-93	**A Novel SCR ESD Clamp with High Holding Voltage of over 40V in BCD Process** Seoksoon Noh, Youngsang Son, Jongmin Kim, Jowoon Lee, Joonghyeok Byeon, Joontae Jang, Geuntae Kwon, and Yoonjong Lee *Technology Enabling team, Dongbu HiTecks Co., Ltd.*
TP1-94	**Development of High Density Depletion MOS Capacitor for CDS Circuits** Horyeong Lee, Sang-uk Park, Jutae Ryu, and Sunha Hwang *Department of CIS-Device, SK Hynix Inc.*
TP1-95	**Comparison of Gate Workfunction Variability and Random Discrete Dopant on Analog Figure-of-Merits of Inversion-Mode and Junctionless Nanowire Transistors** Jiwon Kim[1], Hyeongwan Oh[1], Sangwon Baek[1], Chanoh Park[2], Nanki Hong[1], Donghoon Kim[1], Bo Jin[1], and Jeong-Soo Lee[1] *[1]Department of Electrical Engineering, Pohang University of Science and Technology, [2]Division of IT Convergence Engineering, Pohang University of Science and Technology*
TP1-96	**Ab-initio calculation on trap states in amorphous Si_3N_{4-x}** Gijae Kang and Seungwu Han *Department of Materials Science and Engineering, Seoul National University*
TP1-97	**Cu의 Stress Migration 특성 개선을 위한 CMP 후 열처리 진행 효과 연구** Jinhyeon Park, Jongtaek Hwang, and Seunghwan Choi *CIS Division, SK Hynix Inc.*
TP1-98	**Interatomic Potential Development for Si System via Neural Network Method** Wonseok Jeong, Kyuhyun Lee, and Seungwu Han *Department of Materials Science and Engineering, Seoul National University*
TP1-99	**Simulation of Steady-State and Small-Signal Characteristics of Multi Source-Drain MOSFET** Junsung Park and Sung-Min Hong *School of Electrical Engineering and Computer Science, Gwangju Institute Science and Technology*
TP1-100	**HfAlO Film을 이용한 High Cap MIM 공정 개발** ByoungIN Kim *CIS Division, SK Hynix Inc.*
TP1-101	**TiO_x Based Thin-Film Transistors Prepared by Femtosecond Laser Pre-Annealing** Fei Shan and Sung-Jin Kim *College of Electrical and Computer Engineering, Chungbuk National University*

TP1-102	**Solution-Processed Amorphous Indium Zinc Oxide Thin-Film Transistors Via Low Temperature Pre-Annealing** Fei Shan and Sung-Jin Kim *College of Electrical and Computer Engineering, Chungbuk National University*
TP1-103	**An Accurate Lag Evaluation Method for CMOS Image Sensor** Tae Sun Shin *SK Hynix Inc.*
TP1-104	**Strategy for Determining in-situ Dry Cleaning Process Conditions** Jung-Hwan Um, Tae-Kyun Kang, Hyun-Jung Park, and Tae-Yang Yoon *Etch Technology, Memory Division, Samsung Electronics Co., Ltd.*
TP1-105	**BSI Image Sensor의 자유로운 Sensitivity 및 Color Ratio 조절에 관한 연구** Yeonghoon Jeong and Yeounsoo.Kim *Research & Development Division, SK Hynix Inc.*
TP1-106	**3D NAND Flash Memory구조에서 Poly-Si Channel의 전기적 특성 향상을 위한 Gas Curing 기법** 홍석범, 이병룡, 최신환, 김태근 *고려대학교 전기전자공학과*
TP1-107	**3D NAND TCAT(Terabit Cell Array Transistor) 구조 Nitride층 분리를 통한 신뢰성 향상** 최신환, 손경락, 홍석범, 박주현, 김태근 *고려대학교 전기전자공학과*
TP1-108	**Simulation Study on GIDL Current of a Short Channel P-MOSFET** Shuang Zhao[1], Keon Yoo[1,2], Kyungjin Lee[2], Minsoo Yoo[2], and Jong-Ho Lee[1] *[1]Department of ECE, Seoul National University, [2]SK Hynix Semiconductor Inc.*
TP1-109	**Influence of the Oxygen Flow Rate during Sputter Deposition on the Current Stress Instability in Bottom-Gate Amorphous InGaZnO Thin-Film Transistors** Jae-Young Kim, Sungju Choi, Hara Kang, Jun Tae Jang, Daehyun Ko, Jihyun Rhee, Yu Hye Ri, Sung-Jin Choi, Dong Myong Kim, and Dae Hwan Kim *School of Electrical Engineering, Kookmin University*
TP1-110	**Simulation of DC/RF Characteristics of AlInGaN/GaN HEMTs** Suhyeong Cha, Ji Hyun Hwang, Jae-Hyung Jang, and Sung-Min Hong *School of Electrical Engineering and Computer Science, Gwangju Institute of Science and Technology*
TP1-111	**Sputtering Pressure Effect on the Electrical Characteristics of Amorphous In-Ga-Zn-O TFTs deposited on Flexible Substrates** Hyungon Oh, Kyoungah Cho, and Sangsig Kim *Department of Electrical Engineering, Korea University*
TP1-112	**Influence of Oxygen Flow Rate on the Electrical Instability of ZnON Thin-Film Transistors** Dae-Hwan Kim, Hwan-Seok Jeong, Chan-Yong Jeong, Sang-Hun Song, and Hyuck-In Kwon *School of Electrical and Electronics Engineering, Chung-Ang University*

TP1-113	**Optimization of Annealing Temperature and Active Layer Thickness in High Mobility ZnON Thin-Film Transistors** Hwan-Seok Jeong, Dae-Hwan Kim, Hun Jeong, Chan-Yong Jeong, and Hyuck-In Kwon *Department of Electrical and Electronics Engineering, Chung-Ang University*
TP1-114	**The One-Body Type LED Light Using a Patterned Metal Plate(PMP)** Choong-Mo Nam, Chan-Yong Kim, Sung-Ryeol Choi, Hyun-Gun Kim, Tae-Uk Kim, and Byung-Tak Jang *Department of Electronics Engineering, Korea Polytechnic University*
TP1-115	**The LED Headlight of Vehicle Using a Patterned Metal Plate(PMP)** Choong-Mo Nam, Do-Hyeon Lee, Min-Seob Jeong, and Byung-Tak Jang *Department of Electronics Engineering, Korea Polytechnic University*
TP1-116	**New Emerging Optoelectronic Si Nano-Membrane Light Emitting Device** JeongWoong Shin and Sukwon Hwang *KU-KIST Graduate School of Converging Science and Technology, Korea University*
TP1-117	**A New V_T-Compensating Pixel Circuit for OLED Display** SangHo Lee and KeeChan Park *Department of Electronics Engineering, Konkuk University*
TP1-118	**A Study on the Overlap Effects in Bottom Gate Polycrystalline Silicon Thin Film Transistors** Yong-Woo Lee[1] and Seung-Ki Joo[2] *[1]NAND Flash Process Integration Team, SK Hynix Inc., [2]Department of Materials Science Eng, Seoul National University*
TP1-119	**Improvement of Efficiency and Color Purity Using Tandem Structure in White OLED** Dong-Eun Kim, Min-Jae Kang, and Hoon-Kyu Shin *National Institute for Nanomaterials Technology, Pohang University of Science and Technology*
TP1-120	**Transfer-Independent, Micro-Scale Quantum Dot Patterning Method** ShinYoung Jeong[1,2], Joon-Suh Park[1], Jihoon Kyhm[3], Song-ee Lee[1,2], Byeong-Kwon Ju[2], and Il Ki Han[1] *[1]Nanophotonics Research Center, Korea Institute of Science and Technology, [2]School of Electrical Engineering, Korea University, [3]Department of Physics, Dongguk University*
TP1-121	**투명전극을 위한 Ag Nanowire Welding 연구** Do Han Kim[1], Tae Hyoung Kim[1], Won Kyun Yeom[2], and Geun Young Yeom[1,2] *[1]Department of Materials Science and Engineering, Sungkyunkwan University, [2]SKKU Advanced Institute of Nano Technology (SAINT), Sungkyunkwan University*
TP1-122	**Investigation of Meyer-Neldel Rlue in Solution-Processed Indium-Gallium-Zinc-Oxide Thin-Film Transistor** Min-Soo Kim and Byoung-Deog Choi *College of Information and Communication Engineering, Sungkyunkwan University*

TP1-123	**Charge Sharing Detection and Differential Read-Out Circuit for Capacitive Fingerprint Sensor Array** Hossam Hassan[1,2], Syed Asmat Ali Shah[1], KwonBin Im, A. N. Ragheb[1,2], and HyungWon Kim[1] *[1]Department of Electronics Engineering, Chungbuk National University, [2]Electronics Department, National Telecommunication Institute*
TP1-124	**Electrically Tunable Soft-Solid Block Copolymer Structural Color** Taehyun Park, Hansol Kang, Minjoo Kim, and Cheolmin Park *Department of Materials Science and Engineering, Yonsei University*
TP1-125	**AC-driven Hole Generation Layer for High Performance Organic Light Emitting Device** Seung Won Lee, Hwang Ihn, Sung Hwan Cho, and Cheolmin Park *Department of Material Science and Engineering, Yonsei University*
TP1-126	**Etch Possibility of He Gas for Magnetic Tunneling Junction Materials** Kyung Chae Yang[1], Sung Woo Park[1], Ho Seok Lee[2], and Geun Young Yeom[1,2] *[1]School of Advanced Materials Science and Engineering, Sungkyunkwan University, [2]SKKU Advanced Institute of Nanotechnology (SAINT), Sungkyunkwan University*
TP1-127	**Electrical Property of Vertically Stacked Microscale Organic Resistive Memory** Daekyoung Yoo, Younggul Song, Jingon Jang, Youngrok Kim, Woocheol Lee, and Takhee Lee *Department of Physics and Astronomy, and Institute of Applied Physics, Seoul National University*
TP1-128	**Vertical Structure Memory Device for High Density 3D ReRAM** Yumin Kim, Jung Ho Yoon, Dae Eun Kwon, Young Jae Kwon, Tae Hyung Park, Hae Jin Kim, Kyung Jean Yoon, Xing Long Shao, and Cheol Seong Hwang *Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University*
TP1-129	**TCAD Simulation of a Memristor Device Utilizing an Organic-Inorganic Hybrid Perovskite** Hayeon Shim and Yongwoo Kwon *Department of Materials Science and Engineering, Hongik University*
TP1-130	**Study of Phase-Change Memory Cell Geometry for Better Analog Characteristics Using TCAD Simulation** Min-Kyu Shin and Yongwoo Kwon *Department of Materials Science and Engineering, Hongik University*
TP1-131	**Multi-Level Resistive Switching in Solution-Processed Al-Zn-Sn-O Film Using Microwave Irradiation** Tae-Wan Kim and Won-Ju Cho *Department of Electronic Materials Engineering, Kwangwoon University*
TP1-132	**Fabrication of AlO_x-PMMA Organic-Inorganic Hybrid ReRAM** Il-Jin Baek and Won-Ju Cho *Department of Electronic Materials Engineering, Kwangwoon University*

TP1-133	**Realization of Neuron-Synapse System based on Telegraphic and Memristive Characteristics of Magnetic Tunnel Junction** Young-jae Kim, Dong Ik Suh, Gi Yoon Bae, Hyungjune Lee, and Wanjun Park *Department of Electronic Engineering, Hanyang University*
TP1-134	**Tri-Cycle Logic Using Complementary Connection of Magnetic Tunnel Junctions** Hyungjune Lee, Dong Ik Suh, Gi Yoon Bae, Young-jae Kim, and Wanjun Park *Department of Electronic Engineering, Hanyang University*
TP1-135	**Single Nanoporous Structure-based Silicon Oxide Memory** Soonbang Kwon and Gunuk Wang *KU-KIST Graduate School of Converging Science and Technology, Korea University*
TP1-136	**A Single Magnetic Tunnel Junction Representing the Basic Logic Functions - NAND, NOR, and Implication** Dong Ik Suh, Gi Yoon Bae, and Wanjun Park *Department of Electronic Engineering, Hanyang University*
TP1-137	**Investigation on Resistive Switching Characteristics of Solution Processed Organic-Inorganic Blended Thin Film** Jae-Won Lee and Won-Ju Cho *Department of Electronic Materials Engineering, Kwangwoon University*
TP1-138	**Post-Annealing Effect on the Switching Characteristics of HfO_x-based RRAM** Sung Yeon Ryu[1], You Rim Kwon[1], Tae Hyung Park[2], Hae Jin Kim[2], Soo Gil Kim[3], Cheol Seong Hwang[2], and Byung Joon Choi[1] *[1]Department of Materials Science and Engineering, Seoul National University of Science and Technology, [2]Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University, [3]SK Hynix Inc.*
TP1-139	**Highly Reliable Triple Level Cell (TLC) NAND Flash Memory Using Capacitive Coupled Self Amplifying Effect** Min-Ju Ahn and Won-Ju Cho *Department of Electrical Material Engineering, Kwangwoon University*
TP1-140	**Impact of Oxygen Concentration Variability upon Tantalum Oxide-based Resistive Switching Behaviors** Gwang Ho Baek[1], Tae Yoon Kim[2], and Jin Pyo Hong[1,2] *[1]Division of Nanoscale Semiconductor engineering, Hanyang University, [2]The research Institute for Natural Science, Novel Functional Materials and Devices Lab, Department of Physics, Hanyang University*
TP1-141	**Non-hysteretic Negative Capacitance in Al_2O_3/$BaTiO_3$ Bilayers** Yu Jin Kim, Hyeon woo Park, Hiroyuki Yamada, Taehwan Moon, Young Jae Kwon, Cheol Hyun An, Han Joon Kim, Keum Do Kim, Young Hwan Lee, Seung Dam Hyun, Min Hyuk Park, and Cheol Seong Hwang *Department of Materials Science and Engineering and Inter-university Semiconductor Research Center, Seoul National University*

TP1-142	**A study of Manganite-based Bipolar Heterojunction Memristor** Hong-Sub Lee, Kyung-Mun Kang, and Hyung-Ho Park *Department of Materials Science and Engineering, Yonsei University*
TP1-143	**DRAM ISO LINER POLY 계면 특성 개선을 통한 전기적 특성 개선** 박은실, 이금범, 윤성열, 황태준, 진승우, 김상덕 *SK하이닉스 미래기술연구원*
TP1-144	**A Wide Range Delay Locked Loop for DDR4.** Ji-Hoon Lim, Byungsub Kim, Jae-Yoon Sim, and Hong June Park *Pohang University of Science and Technology*
TP1-145	**저항성 스위칭 소자를 이용한 뉴로모픽 시냅스의 Spike-timing-dependent Plasticity (STDP) 특성 및 연구 동향** Jongtae Kim, Taeheon Kim, and James Jungho Pak *Department of Electrical Engineering, Korea University*
TP1-146	**Direct Observation of a Nanofilament in Highly Uniform Low-Power Operating Atomic Switch Prepared with Controlled Bi-Layer Structure** Jae Hyeok Ju, Sumin Jeon, Hyeonje Son, Sookyung Kim, and Sungjoo Lee *SKKU Advanced Institute of Nano Technology(SAINT), Sungkyunkwan University*
TP1-147	**Self-Rectifying Resistive Memory with Electroforming-Free Characteristics in the Ti/ SiN_x/NbO_x/Pt Structure** Ju Hyun Park, Dong Su Jeon, Tae Hoon Park, and Tae Geun Kim *School of Electrical Engineering, Korea University*
TP1-148	**Effect of Hafnium on Threshold Switching in NbO_2 Thin Films by DC/RF Co-Sputtering** Jimin Lee, Taeho Kim, Dayoon Lee, and Hyunchul Sohn *Department of Materials Science and Engineering, Yonsei University*
TP1-149	**Highly Improved Performance in Resistive Memories with Pyramid Electrodes for Tip-Enhanced Electric Fields** Youngjin Kim[1,2], Keun-Young Shin[3], Felipe V. Antolinez[4], Jong Hyuk Park[1], and Sang-Soo Lee[1,2] *[1]Photo-electronic Hybrids Research Center, Korea Institute of Science and Technology, [2]KU-KIST Graduate School of Converging Science and Technology, Korea University, [3]School of Electrical & Electronic Engineering, Yonsei University, [4]Optical Materials Engineering Laboratory, ETH Zurich*
TP1-150	**Characteristics of 1T-DRAM as Floating-Body Capacitorless Device** Sehyun Kwon[1], Minho Choi[1], Sorin Cristoloveanu[2], Yong Tae Kim[3], and Jinho Ahn[1] *[1]Department of Materials Science and Engineering, Hanyang University, [2]IMEP-LAHC, Grenoble INP Minatec, [3]Korea Institute of Science and Technology*
TP1-151	**Self-Structured Block Copolymer Nano-Patterned Low Power Phase Change Memory on a Flexible Substrate** Beom Ho Mun, Gyeong Cheol Park, and Keon Jae Lee *Department of Materials Science and Engineering, KAIST*

TP1-152	**Effect of Thermal Boundary Resistance on Thermal Distribution in Phase Change Memory (PCM)** Jun Seop An[1], Jun Young Kweon[1], Kyung Jun Kim[1], and Yun Heub Song[1] *[1]Department of Electronic Engineering, Hanyang University*
TP1-153	**A 24-mW 28-Gb/s Wireline Equalizer** Minseo Kim and Hoi-Jun Yoo *Department of Electrical Engineering, KAIST*
TP1-154	**Design of a Single-Slope ADC for on-Chip Infrared Sensor ROIC** Yeong Seon Kim and Hee Chul Lee *Department of Electrical Engineering, KAIST*
TP1-155	**자기결합을 이용한 3D-IC 무선 데이터 전송 송수신 단 설계** 문동우, 이미림, 이창현, 박혜진, 박창근 *숭실대학교 전자공학과*
TP1-156	**CMOS 2-Ports High-Q Active Inductor** Jagoen Koo *Chonbuk National University*
TP1-157	**10Mhz Frequency Ring Oscillator, 3.3V→15V Dickson Charge Pump** Seongsoo Park *Chonbuk National University*
TP1-158	**A 10-bit 1.6GS/s Flash-Assisted Time-Interleaved (FATI) SAR ADC** Ba-Ro-Saim Sung, Dong-Jin Chang, and Seung-Tak Ryu *School of Electrical Engineering, KAIST*
TP1-159	**메타 물질을 이용한 이중 대역 고주파 CMOS 전력 증폭기** 정하연, 이창현, 박창근 *숭실대학교 전자공학과*
TP1-160	**An X-band CMOS Transceiver Chip for Doppler Motion Sensors** Hyoun Kyou Dam, Jae-Yeon Hwang, and Young Gi Kim *Department of Information and Communication, Anyang University*
TP1-161	**Extended Dynamic Range of Dual-Mode Pixel CMOS Image Sensor Using Feedback Structure by Column-Parallel Capacitor** Sang-Hwan Kim and Jang-Kyoo Shin *School of Electronics Engineering, Kyungpook National University*
TP1-162	**가변프레임을 이용한 저전력 CMOS 이미지 센서** Byoung-Soo Choi, Myunghan Bae, and Jang-Kyoo Shin *School of Electronics Engineering, Kyungpook National University*
TP1-163	**비교기를 이용한 Logarithmic CMOS Iamge Sensor의 동작범위 개선** Myunghan Bae and Jang-Kyoo Shin *School of Electronics Engineering, Kyungpook National University*

TP1-164	**A CABAC Binarization Core Implementation for H.264** Seung Kuk Noh and Jong-Yeol Lee *Department of Electronic Engineering, Chonbuk National University*
TP1-165	**Low Power Processor Using Clock-Gating by Instruction Set** Changkyu Park, Jong-Yeol Lee, and Jin-Gyun Chung *Department of Electronic Engineering, Chonbuk National University*
TP1-166	**A 100kS/s 12b SAR ADC for Biomedical Application** Chan-Kyeong Jung and Shin-Il Lim *Department of Electronics Engineering, Seokyeong University*
TP1-167	**블록 연산 기반 디지털 홀로그램 생성 기의 ASIC 설계** 서영호, 이윤혁, 강이슬, 김동욱 *광운대학교 인제니움학부, 광운대학교 전자재료공학과*
TP1-168	**0.18um CMOS 밴드갭 기준전압 회로의 TID 효과 영향분석** Minwoong Lee[1], Youlin Jin[1], Namho Lee[2], Sanghun Jeong[2], Seongik Cho[1] *[1]Department of Electronic Engineering, Chonbuk National University, [2]Korea Atomic Energy Research Institute*
TP1-169	**A 11-bit 4-MS/s Cyclic ADC** Jongwoo Bong, Kang-Il Cho, and Gil-Cho Ahn *Department of Electronic Engineering, Sogang University*
TP1-170	**A 1-bit Redundancy Error Correction Scheme for Pipelined SAR ADC** Han-Yeol Lee, Seung-Hun Shin, and Young-Chan Jang *Department of Electronic Engineering, Kumoh National Institute of Technology*
TP1-171	**A 50-MS/s 10-bit Pipelined SAR ADC Using a Dynamic Amplifier** Han-Yeol Lee, Yeong-Woong Kim, and Young-Chan Jang *Department of Electronic Engineering, Kumoh National Institute of Technology*
TP1-172	**Design of Charge Sensitive Amplifier based on CMOS for Gamma-Ray Detection Circuit** Su-Jin Jeon, Ji Hoon Kim, Myung-Gi Ji, Jun-Hee Park, and Young-Wan Choi *School of Electrical and Electronics Engineering, Chung-Ang University*
TP1-173	**Lock-in amplifier to detect small signal of optical biosensors** 김지훈, 전수진, 지명기, 박준희, 최영완 *중앙대학교 전자전기공학부 광전자 및 회로시스템 연구실*
TP1-174	**A High-speed Low-power CMOS Image Sensor with DI-readout Scheme** Hyeon-June Kim, Sun-Il Hwang, and Seung-Tak Ryu *Department of Electrical engineering, KAIST*
TP1-175	**A Phase Shifter with Wideband Transmission Phase Using Phase Compensation Technique** Ngoc-Duy-Hien Lai, Nhut-Tan Doan, Dong-Kwan Han, Ju-Hwan Lim, and Sang-Woong Yoon *Department of Electronics and Radio Engineering, Kyung Hee University*

TP1-176	**Design of Grounded Co-planar Waveguide and Power Amplifier for High Frequency Application** Daegwang Jang, Jihoon Kim, and Youngwoo Kwon *Department of Electrical and Computer Engineering, Seoul National University*
TP1-177	**An Auto-Switching Energy Harvesting Circuit Using Vibration and Thermal Energy** Eun-Jung Yoon, Jong-Tae Park, and Chong-Gun Yu *Department of Electronics Engineering, Incheon National University*
TP1-178	**Multiple Energy Harvesting Circuit for Micro Sensor Nodes** Eun-Jung Yoon, Jong-Tae Park, and Chong-Gun Yu *Department of Electronics Engineering, Incheon National University*
TP1-179	**A High-Efficient Full-Wave Rectifier with Vibration Detector** Eun-Jung Yoon, Jong-Tae Park, and Chong-Gun Yu *Department of Electronics Engineering, Incheon National University*
TP1-180	**CMOS Electromagnetic Band Gap Antenna for 300 GHz Imaging Detector Array** S.H. Choi, C.H. Yi, and M. Kim *School of Electrical Engineering, Korea University*
TP1-181	**High Speed WAVE Security Chip** Piljoo Choi and Dong Kyue Kim *Department of Electronic Engineering, Hanyang University*
TP1-182	**Maximum Power Point Tracking for the PV Module** Hyo Bin Choi, Ji Hee Han, and Yong Sin Kim *Department of Electrical Engineering, Korea University*
TP1-183	**A Reference-Less Clock and Data Recovery Circuit Using a PWM Signaling With Improved Data Bit Error Rate Tolerance** Eunho Yang, Seong Mun An, and Jin-Ku Kang *Department of Electronics Engineering, Inha University*
TP1-184	**A Burst-mode Clock and Data Recovery Circuit** Bum-Hee Choi, Kyung-Sub Son, and Jin-Ku Kang *Department of Electronics Engineering, Inha University*
TP1-185	**Design of Wireless Inductive-Coupled Power & Data Link with New Charge Balancing Algorithm for Deep Brain Stimulator** Byeonggyu Park, Hyeok Seol, and Jin-Ku Kang *Department of Electronics Engineering, Inha University*
TP1-186	**Design of Crosstalk Cancellation Circuit Using Data Duty Cycle Variation with Channel Injection Capacitor Scheme** Youngjin Kim, Min Kim, and Gil Dong Hong *Department of Electronics Engineering, Inha University*
TP1-187	**Synchronization and Channel Estimation for OFDM-based IEEE 802.11ad WLAN** Nguyen Thi My Kieu, L.D.Trang Dang, Ik Joon Chang, and Jinsang Kim *Electronics and Radio Engineering, Kyunghee University*

TP1-188	**MIPI CSI-2와 DSI 비디오 모드를 지원하는 수신단 인터페이스 설계** 이용환, 신기웅 *금오공과대학교 전자공학부*
TP1-189	**Voltage-Mode Buck Converter Using Compensated Error Amplifier** Sungmi Kim, Yeunho Seo, Youlin Jin, and Seongik Cho *Department of Electronic Engineering, Chonbuk National University*
TP1-190	**CMOS 0.18um 내방사선 n-MOSFET 구조 연구 및 분석** Minwoong Lee[1], Yeunho Seo[1], Namho Lee[2], Sanghun Jeong[2], and Seongik Cho[1] *[1]Department of Electronic Engineering, Chonbuk National University, [2]Korea Atomic Energy Research Institute*
TP1-191	**확장 가능한 플레시 ADC 설계를 위한 동작 검증** 배명섭, 김진태, 최평 *경북대학교 전자공학부*
TP1-192	**The Design of Motion Estimator in HEVC** Taewook Park and Seongsoo Lee *School of Electronic Engineering, Soongsil University*
TP1-193	**Design of an Asynchronous Detector based on a Priority Encoding Technique** Youngchul Son, Daehyeok Kim, Sooho Son, and Minkyu Song *Department of Semiconductor Science, Dongguk University*
TP1-194	**Digital Standard Library Cell Designed for Near Threshold Supply Voltage** Jaekeun Song, Jaehun Jeon, and Chulwoo Kim *Department of Electronic Engineering, Korea University*
TP1-195	**A 88dB SNDR 24kHz BW ΔΣ Modulator with Slew-boosting** Chaegang Lim and Chulwoo Kim *Department of Electrical Engineering, Korea University*
TP1-196	**Taste Sensor based on Cascoded Compatible Lateral Bipolar Transistor (C-CLBT) with Lipid/Polymer Membrane** Hyun-Min Jeong, Jin-Bum Kwon, Hyurk-Choon Kwon, Sae-Wan Kim, Ju-Seong Kim, Binrui Xu, and Shin-Won Kang *School of Electronics Engineering, College of IT Engineering, Kyungpook National University*
TP1-197	**Design of W-band Neutralized LNA Using 65-nm CMOS Technology** Hyun-woo Seo, Jun-seong Kim, and Byung-sung Kim *RF Microelectronic Design Laboratory, Sungkyunkwan University*
TP1-198	**Resistive Sensor Readout Circuit with Ripple Rejection Loop** Youngwoon Ko, Hyungseup Kim, Yunjong Park, Yeongjin Mun, and Hyoungho Ko *Department of Electronics, Chungnam National University*

TP1-199	**A 10bit SAR ADC with a Self-Calibrated Current Amplifier for Wide Dynamic-Range Sensor Systems** Nak-Won Yoo, Oh Hyun Kwon, Jun Yeon Yun, Seongwook Choi, Jinhong Ahn, and Young June Park *Department of Electrical and Computer Engineering, Seoul National University*
TP1-200	**A 256-stage UART Programmable Arbitrary Digital Signal Generator for RFID Reader Applications** Oh Hyun Kwon, Nak-Won Yoo, Jun Yeon Yun, Seongwook Choi, Jinhong Ahn, and Young June Park *Department of Electrical and Computer Engineering, Seoul National University*
TP1-201	**Detection of Phonon by the BTBT(Band-to-band Tunneling) Current in MOSFET** Nakwon Yoo, Seongwook Choi, and Young June Park *Department of Electrical and Computer Engineering, Seoul National University*
TP1-202	**A 1.5 dBm Output Power G-band Oscillator with Novel Coupling Structure** Dat Nguyen and Jong-Phil Hong *School of Electrical Engineering, Chungbuk National University*
TP1-203	**Wireless Multi-Channel Neural Recording Chip for Brain Implant** Jung Woo Jang and Yoon-Kyu Song *Department of Nano Science and Technology, Seoul National University*
TP1-204	**Time interleaved Analog-to-Digital Converter with Mismatch Calibration** Yunsoo Park and Chulwoo Kim *School of Electrical Engineering, Korea University*
TP1-205	**Design of an 8-b 2.2GS/s Even Folding & Interpolation A/D Converter Using the Distributed Track and Hold** Seonghyeon Park and Minkyu Song *Department of Semiconductor Science, Dongguk University*
TP1-206	**Design of a 2-Shared 4-Tr APS for a Standard CMOS Process** Yongjun Cho, Seongjoo Lee, Siwon Jeon, and Minkyu Song *Department of Semiconductor Science, Dongguk University*
TP1-207	**A Silicon Nanowire Field Effect Transistor for Label-Free Detection of Avian Influenza** Hyunsun Mo, Jungmok Kim, Jungkyu Jang, Seohyeon Kim, Jisun Park, and Dae Hwan Kim *Department of Electronic Engineering, Kookmin University*
TP1-208	**Design of 1.8V DC-DC Buck Converter with High Precison Ramp Generator in 0.18-um CMOS** Van-Ha Nguyen, Minji Lee, Yeji Han, Sunghyon Ji, Jakyeong Lee, and Hanjung Song *Department of Nanoscience and Engineering, Inje University*
TP1-209	**Design of Low Voltage PWM/SFM Dual Mode DC-DC Converter with Variable Output Voltage** Myeong-hak Lee, Bo-Kyeong Kim, Seung-Chan Yun, Young-Ho Shin, and Ho-Yong Choi *Department of Semiconductor Engineering, Chungbuk National University*

TP1-210	**Sharing 기법을 이용한 저면적 Successive Cancellation List decoder 설계** Dongjoo Shin and Jin-Gyun Chung *Department of Electronic Engineering, Chonbuk National University*
TP1-211	**16-PSK Modem Design for Data Communication** Nam-Won Kim, Na-Hae Gi, and Myong-Seob Lim *Department of Electronic Engineering, Chonbuk National University*
TP1-212	**A Process Compensating Analog PIE Decoder for EPC Gen2 UHF RFID Tag IC** Jae-Hun Lee, Dasom Park, Hyun-Sik Lee, Woo-Jin Jo, and Jong-Wook Lee *Department of Electronics and Radio Engineering, Kyung Hee University*
TP1-213	**A Low Power Chopper Instrumentation Amplifier for Multichannel Biosignal Interface** Hyun-Sik Lee, Jae-Hun Lee, Dasom Park, Do-Young Chung, Woo-Jin Jo, and Jong-Wook Lee *Department of Electronics and Radio Engineering, Kyung Hee University*
TP1-214	**A Secure Mutual Authentication Protocol for EPC Gen2v2 RFID Tag IC** Nguyen Xuan Hieu, Jae-Hun Lee, Dasom Park, Woo-Jin Jo, and Jong-Wook Lee *Department of Electronics and Radio Engineering, Kyung Hee University*
TP1-215	**A Symmetric Bias-Flip Rectifier for Piezoelectric Energy Scavenging Applications** Amad Ud Din, Jae-Hun Lee, Woo-Jin Jo, and Jong-Wook Lee *Department of Electronics and Radio Engineering, Kyung Hee University*
TP1-216	**A Mixed Control Method in Single Inductor Multiple Output(SIMO) DC/DC Converter for High-Current Application with Rapid Change** Minseob Sim, Hyunbin Park, and Shiho Kim *School of Integrated Technology and YICT, Yonsei University*
TP1-217	**Large Touch Screen Sensing Circuit with 21-dB SNR Enhancement Using an Instrumentation Amplifier Architecture** A. N. Ragheb[1,2], Kyeong Han Park[1], and Hyoung Won Kim[1] *[1]Department of Electronic Engineering, Chungbuk University, [2]Electronics Department, National Telecommunication Institute*
TP1-218	**Low Power Dynamic Voltage Scaler with Fine Voltage-Steps based on a Capacitor Array DAC Architecture** Kyeong Han Park, A. N. Ragheb, and Hyoung Won Kim *Department of Electronic Engineering, Chungbuk University*
TP1-219	**Sample and Hold Circuit for Driving Touch Screen Panel with Concurrent Sinusoid Signals** Syed Asmat Ali Shah[1,2], Kyeong Han Park[1], and Hyung Won Kim[1] *[1]School of Electronics Engineering, Chungbuk National University, [2]Electrical Engineering Department, COMSATS Institute of Information Technology*
TP1-220	**Design of a Differential SAR ADC based on Multi-Level Reference Voltages for Low Power and Compact Size** Ho-Jin Kang and Hyung-Won Kim *Department of Electronic Engineering, Chungbuk National University*

TP1-221	**A 10-Gb/s Programmable and Flexible CDR with a FPGA** Han-Ho Choi, Yoon-ho Jeon, and Hyeon-min Bae *Department of Electricals Engineering, KAIST*
TP1-222	**65nm CMOS 공정기반 128 GHz LC Cross-Coupled 발진기** Doyoon Kim and Jae-Sung Rieh *School of Electrical Engineering, Korea University*
TP1-223	**65nm CMOS 공정기반 140 GHz 저잡음 증폭 회로 설계** Doyoon Kim and Jae-Sung Rieh *School of Electrical Engineering, Korea University*
TP1-224	**A 282/94 GHz Dual-mode Voltage Controlled Oscillator in 65-nm CMOS Technology** Junghwan Yoo, Heekang Son, Sooyeon Kim, and Jae-Sung Rieh *School of Electrical Engineering, Korea University*
TP1-225	**Design a Divide-by-3 Regenerative Frequency Divider** 박상용, 이정윤, 이종연, 백동현 *중앙대학교 전자전기공학과*
TP1-226	**ECG/PPG Acquisition IC with Offset Calibration Loop** Hyungseup Kim, Yunjong Park, Youngwoon Ko, Yeongjin Mun, and Hyoungho Ko *Department of Electronics, Chungnam National University*
TP1-227	**Opamp 공유기법을 이용한 저전력 저잡음 용량형 센싱 증폭기** 박윤종, 김형섭, 고영운, 문영진, 고형호 *충남대학교 전자전파정보통신공학부*
TP1-228	**Nano-Electromechanical- (NEM-) Memory-Based Field-Programmable Gate Arrays (FPGAs)** Tae Min Cha and Woo Young Choi *Department of Electronic Engineering, Sogang University*
TP1-229	**Nano-Electromechanical (NEM) Relay Design Using CMOS Back-End-of-Line (BEOL) Process** Tae Min Cha and Woo Young Choi *Department of Electronic Engineering, Sogang University*
TP1-230	**Decision Tree Computing Processor based on C4.5** Hae-Young Kim, Jang-Hyun Ji, and Ho-won Kim *School of Computer Science & Engineering, Pusan National University Information Security & IoT Lab*
TP1-231	**A Chopper-Stablized Current-Feedback Instrumentation Amplifier with a Tunable Gain and Low-cutoff Frequency for EEG Acquisition Applications** Chung-Jae Lee and Jong-In Song *School of Electrical Engineering and Computer Science, Gwangju Institute of Science and Technology*

TP1-232	**A Micropower Low-Noise Analog Front-End Design for Bio-Signal Acquisition** Man-Seok Park and Jong-In Song *School of Electrical Engineering and Computer Science, Gwangju Institute of Science and Technology*
TP1-233	**A Chopper-Stabilized Amplifier for EEG Acquisition Applications** Chung-Jae Lee and Jong-In Song *School of Electrical Engineering and Computer Science, Gwangju Institute of Science and Technology*
TP1-234	**A Digital Nonlinearity Calibration Technique for Asynchronous SAR A/D Converter with Bridge Capacitor DAC** Jae Sik Yoon and Jin Tae Kim *Mixed Signal Electronics Lab, Konkuk University*
TP1-235	**Design of a Dividerless Fractional Frequency Synthesizer Using a Multiphase Ring VCO** Sang Bum Huh[1] and Jae Hoon Shim[2] *[1]FCI, [2]School of Electronics Engineering, Kyungpook National University*
TP1-236	**인버터 기반의 클럭 생성기를 포함하는 듀얼 벅 변환기** 조용민, 이태헌, 김종구, 윤광섭 *인하대학교 전자공학과*
TP1-237	**Design of 9-bit Low Power Differential SAR ADC** Sang Heon Lee, Jong Gu Kim, and Kwang Sub Yoon *Department of Electronic Engineering, Inha University*
TP1-238	**Design of 10-bit SAR ADC with Enhancement of Linearity on C-DAC Array** Jeong Heum Kim, Jong Gu Kim, and Kwang Sub Yoon *Department of Electronic Engineering, Inha University*
TP1-239	**4th Order ΣΔ Modulator Using Subthreshold OP-Amp** Jae Hyeon Seong, Jong Gu Kim, and Kwang Sub Yoon *Department of Electronic Engineering, Inha University*