

AWAD 2023 Poster Session ~ July 11 (Tuesday) 13:05~14:05

H1 Bldg. 3rd Floor Lounge

(notice) >Posters can be put up from the morning of the July 11th.

>Please remove your poster immediately after the poster session ends.

Area	Poster ID	Paper Title	Authors
Advanced semiconductor technologies & Nano, 2D materials, wearable devices	P-1	Vertical Growth of ZnO Nanorods on NiCu Fabric for Flexible Thermoelectric Devices	Hiroya Ikeda (Shizuoka Univ.)*
	P-2	Electrochemical Measurement of Functional Groups on 4H-SiC Surface for Application of Biochemical Sensor	Sung-Woong Han (Pohang Univ. of Science and Technology)*; Dong-Eun Kim (Pohang Univ. of Science and Technology(POSTECH)); Min-Jae Kang (Pohang Univ. of Science and Technology); Hoon-Kyu Shin (Pohang Univ. of Science and Technology)
	P-3	Growth Characteristics of Sn-Doped Si Thin-Films on Insulator	Yuki Hanafusa (Kyushu Univ.); Kota Okamoto (Kyushu Univ.); Taizoh Sadoh (Kyushu Univ.)*
	P-4	Characterization of MONOS-Type Polycrystalline Silicon Thin Film Transistors	Tetsuya Goto (Tohoku Univ.)*; Tomoyuki Suwa (Tohoku Univ.); Keita Katayama (Kyushu Univ.); Shu Nishida (Kyushu Univ.); Hiroshi Ikenoue (Kochi Univ. of Technology); Shigetoshi Sugawa (Tohoku Univ.)
	P-5	Thermal Characterization of Wrap Around Contact in Junctionless FinFET	do gyun An (Ajou Univ.)*; Jang Hyun Kim (Ajou Univ.)
	P-6	Investigation on the Ambipolar Behavior of Si1-xGex Tunnel Field-Effect Transistors	Minjeong Ryu (Seoul National Univ.); Woo Young Choi (Seoul National Univ.)*
	P-7	Low temperature growth of Germanium on MoS2	Hwayong Choi (ajou Univ.)*; Junseok Heo (Ajou Univ.)
	P-8	Metal-Assisted Chemical Etching for Wide Area Etching with High Aspect Ratio	yeji yeji Kim (Ajou Univ.)*; Junseok Heo (Ajou Univ.)
	P-9	Study about Thermal Stability in Ferroelectric Hf0.5Zr0.5O2 Film with Al2O3 Layer	Seonggeun Kim (Sogang Univ.)*; Seungwon Go (Sogang Univ.); HyungJu Noh (Sogang Univ.); Dong Keun Lee (Sogang Univ.); Sangwan Kim (Sogang Univ.)
	P-10	Influence of Deposition Temperature on the Electrical Properties of Polycrystalline Germanium Thin Films	Young ho Cho (Kookmin Univ.)*; Woong Choi (Kookmin Univ.); Hoesup Soh (Kookmin Univ.); Ahn Donghwan (Kookmin Univ.)
MOS logic and memory devices	P-11	Analysis of row hammer based on interfacial trap	Lim Chang Young (gangneung-wonju national Univ.); MinWoo Kwon (Gangneung-Wonju National Univ.)*
	P-12	Influence of Trapped Electrons in Charge Trap Layers on Oxide Degradation of NAND Flash Memory	Gyeong Wook Kwak (Sogang Univ.); Seung Hyun Ahn (Sogang Univ.); Jin Ho Chang (Seoul National Univ.); Woo Young Choi (Seoul National Univ.)*
	P-13	Influence of Channel Width Effect on Snapback Breakdown of MOSFETs	Seung Hyun Ahn (Sogang Univ.); Gyeong Wook Kwak (Sogang Univ.); Siyoum Lee (Sogang Univ.); Seong-Yeon Kim (SK hynix); Haesoon Oh (SK hynix); Jaesung Sim (SK hynix); Woo Young Choi (Seoul National Univ.)*
	P-14	Analysis of Cell Current according to Retention in Vertical NAND Flash Memory	Yun-Jae Oh (Univ. of Myongji); Yunejae Suh (Soongsil Univ.); Daewoong Kang (Seoul National Univ.); IL HWAN CHO (Myongji Univ.)*
	P-15	Non-volatile Memory Based on Tunneling Field-Effect Transistors Using Localized Charge Trap Layers	ChangHeon Park (Seoul National Univ.); Woo Young Choi (Seoul National Univ.)*
	P-16	Content-Addressable Memory Based on Nanoelectromechanical Memory Switches	Geuntae Park (Seoul National Univ.); Woo Young Choi (Seoul National Univ.)*
	P-17	Nanoelectromechanical Content-Addressable Memory as Nearest Neighbor Classifier	Jin wook Lee (Seoul National Univ.); Woo Young Choi (Seoul National Univ.)*
	P-18	Improvement of Current Path by using ferroelectric material in 3D NAND Flash Memory	jihwan Lee (Korea National Univ. of Transportation)*
	P-19	Digital/Analog Mixed-Operation of Hf-based FeNOS Nonvolatile Memory with Ferroelectric Nondoped HfO2 Blocking Layer	Shun-ichiro Ohmi (Tokyo Institute of Technology)*; Eun-Ki Hong (Tokyo Institute of Technology); Sachi Awakura (Tokyo Institute of Technology); Yuki Sekiguchi (Tokyo Institute of Technology)

Compound semiconductor and wide bandgap devices	P-20	Hybrid Schottky Drain Contact α -Ga ₂ O ₃ MOSFET with 2.8kV Breakdown Voltage	Seung Yoon Oh(Soongsil Univ), Gyuhung Lee(Soongsil Univ), Yeong Je Jeong(Soongsil Univ), Inho Kang ³ , Ji-Hyeon Park(KICET), Dae-Woo Jeon(KICET)*, and Geonwook Yoo(Soongsil Univ)
	P-21	Improved Performance of Normally-off GaN-based MIS-HEMTs with recessed-gate and ultrathin regrown AlGa _N barrier	Joel T Asubar (Univ. of Fukui)*
	P-22	Effects of low thermal budget V/Al/Mo/Au ohmic contacts on the performance of AlGa _N /Ga _N MIS HEMTs	Ali Baratov (Univ. of Fukui)*; Joel T Asubar (Univ. of Fukui)
	P-23	Electrical and X-ray Photoelectron Spectroscopy Studies of Ti/Al/Ti/Au Ohmic Contacts to AlGa _N /Ga _N	Hiroshi Okada (Toyohashi Univ. of Technology)*
	P-24	Novel Design of GaN-LEDs with Dual p-GaN Layers for Improved Efficiency	Jun Lee (Myongji Univ.); Garam Kim (Myongji Univ.)*
	P-25	Design Optimization of Trench MIS Field Plate for Ga _N Vertical PN Diode	Sung-Hoon Lee (Hongik Univ.)*; Ho-Young Cha (Hongik Univ.)
	P-26	Design of the vertical cylinder-type Ga _N Junctionless FET based on Ga _N -on-Ga _N Substrate and its electrical performances	So Ra Jeon (Kyungpook National Univ.); Sang Ho Lee (Kyungpook National Univ.); Jin Park (Kyungpook National Univ.); Ga Eon Kang (Kyungpook National Univ.); Jun Hyeok Heo (Kyungpook National Univ.); Min Seok Kim (Kyungpook National Univ.); Seung Ji Bae (Kyungpook National Univ.); Jeong Woo Hong (Kyungpook National Univ.); In Man Kang (Kyungpook National Univ.)*
	P-27	Parasitic channel induced by on-state stress in 0.18 μ m short-channel Ga _N HEMT	Junwoo Jung (Hongik Univ.)*; Hyungtak Kim (Hongik Univ.)
Power electronic devices	P-28	Comparison of Characteristics of 1.2kV SiC MOSFET with Different JFET Widths & Dopant Concentrations	Ren-Jie Pan (Fengchia Univ.)*; Huang Ke-Yang (Feng-Chia Univ.); Hsu-Chien Wang (Feng Chia Univ.); Fengtso Chien (Feng-Chia Univ.)
	P-29	Floating P-Pillar with Carrier Stored Layer Trench Insulated Gate Bipolar Transistor	Huang Ke-Yang (Feng-Chia Univ.)*; Hsu-Chien Wang (Feng Chia Univ.); Ren-Jie Pan (Fengchia Univ.); Fengtso Chien (Feng-Chia Univ.)
	P-30	3300V trench gate field stop insulated gate bipolar transistor (IGBT) with separate P-pillar design for enhanced breakdown voltage and short-circuit capability	Hsu-Chien Wang (Feng Chia Univ.)*; Huang Ke-Yang (Feng-Chia Univ.); Ren-Jie Pan (Fengchia Univ.); Fengtso Chien (Feng-Chia Univ.)
	P-31	Extraction of Organic/Semiconductor Interfacial Thermal Resistance based on Optical-Interference Contactless Thermometry (OICT)	Jiawen Yu (Hiroshima Univ.)*
	P-32	Analysis of Breakdown Voltage in AlGa _N /Ga _N HEMT based on Curvature of Field Plate Corners	Chaewon Yun (Myongji Univ.); Garam Kim (Myongji Univ.)*
	P-33	Simulation and Experiment Investigation of Overshoot Voltage and Settling Time in RC Snubber Integrated Silicon Carbide Power Module	Seokjin Shin (Hanyang Univ.); Sang Won Yoon (Hanyang Univ.)*
	P-34	Thermal Performance Analysis of Vertically-Stacked Structure in Double-Sided Cooling SiC MOSFET Power Modules	SeungHyun Won (Hanyang Univ.)*
Optoelectronics, Displays, and Imagers	P-35	Monolithic Integration of LED and Two Transistors Fabricated on the p-GaN Layer of a Ga _N LED Epi Wafer for Micro-LED Display	Boseong Son (Yeungnam Univ.)*; Huijin Kim (Yeungnam Univ.); Young-Woong Lee (Yeungnam Univ.); Si-Hyun Park (Yeungnam Univ.)
	P-36	Micro LED Electroluminescence Measurement using Probing Wafer	Huijin Kim (Yeungnam Univ.)*; Boseong Son (Yeungnam Univ.); Young-Woong Lee (Yeungnam Univ.); Si-Hyun Park (Yeungnam Univ.)
	P-37	Reduced peripheral leakage current in pin photodetectors of Ge on n-type Si by P implantation to compensate surface holes	Koji Abe (Toyohashi Univ. of Technology)*; Mikiya Kuzutani (Toyohashi Univ. of Technology); Satoki Furuya (Toyohashi Univ. of Technology); Jose A. Piedra-Lorenzana (Toyohashi Univ. of Technology); Takeshi Hizawa (Toyohashi Univ. of Technology); Yasuhiko Ishikawa (Toyohashi Univ. of Technology)
	P-38	Implementation of Ambipolar Tin oxide Thin-Film Transistors using Hydrogen plasma Treatment	Jong-Sang Oh (Chung-Ang Univ.); Seung-Hyun Lim (Chung-Ang Univ.); Joon-Young Lee (Chung-Ang Univ.); Ick-Joon Park (Joongbu Univ.); Hyuck In Kwon (Chung-Ang Univ.)*
	P-39	Surface Passivation Effects on the Radiation Tolerance of IGTO Thin-Film Transistors under Proton Irradiation	HyunAh Lee (Chung-Ang Univ.); HyoWon Jang (Chung-Ang Univ.); IckJoon Park (Joongbu Univ.); Hyuck In Kwon (Chung-Ang Univ.)*
	P-40	Vacancy Engineering of CuI Semiconductor for p-Type Thin-Film Transistors	HyunAh Lee (Chung-Ang Univ.); Hyowon Jang (Chung-Ang Univ.); Taeln Kim (Inha Univ.); IckJoon Park (Joongbu Univ.); Hyuck In Kwon (Chung-Ang Univ.)*
	P-41	Fast response and high detectivity in α -Ga ₂ O ₃ solar blind photodetector	Mingi Seo (Ajou Univ.)*; Young Hoon Kim (Ajou Univ.); John Son (Genicom Co., Ltd); Junseok Heo (Ajou Univ.)
	P-42	Study on Conformational Change of Poly(9,9-dioctylfluorene) by Mixing with Polystyrene	Tomoya Sato (National Institute of Advanced Industrial Science and Technology)*

Quantum devices and compute technologies & Neuromorphic devices and compute technologies	P-43	Electric-Field Concentration in Cone-Shaped SONOS Flash Memory Enables Efficient Hole-Trapping to Improve Synaptic Plasticity	Seung Jun Lee (Myongji Univ.); Garam Kim (Myongji Univ.)
	P-44	Synaptic Flash Memory with Indium-Gallium-Zinc Oxide Channel	Eunpyo Park (Korea Institute of Science and Technology)*; Joon Young Kwak (Korea Institute of Science and Technology)
	P-45	A Capacitor-Truncated Compact Neuron Circuit with Spike Frequency Tunability	Arati Shah (Gachon Univ.); Seongjae Cho (Ewha Womans Univ.); Woo Young Choi (Seoul National Univ.); Hyungcheol Shin (Seoul National Univ.)
	P-46	Theoretical prediction of zero bias detection in 300 GHz band by using rectennas monolithically integrated with InP-based triple barrier resonant tunneling diodes	Hijiri Shimokawatoko (Tokyo Metropolitan Univ.); Michihiko Suhara (Tokyo Metropolitan Univ.)
	P-47	Evaluation of parasitic circuit component effects on a matching circuit for RF reflectometry of a quantum dot	Ryo Matsuda (Tokyo Institute of Technology)*
	P-48	Magic-T design towards reduction of crosstalk effects in RF reflectometry of quantum dots	Raisei Mizokuchi (Tokyo Institute of Technology)*; Tetsuo Kodera (Tokyo Institute of Technology)
Characterization and simulation & Others	P-49	In-Depth Optoelectronic Properties Analysis of the Cs ₂ AgBiBr ₆ Double Perovskite-Based Solar Cell by Scaling the Layer Thickness	Kyeong-Ho Seo (Kyungpook National Univ.)*
	P-50	The Analysis of Retention Characteristic according to Ferroelectric Polarization in 3D NAND Flash Memory	Jaewoo Lee (Korea National Univ. of Transportation)*
	P-51	The Recovery Time of Channel Potential in 3D NAND Flash Memory	Gyunseok Ryu (Korea National Univ. of Transportation)*
	P-52	Output Compression Scheme of Multi-Site Testing for System-on-Chip	Hyunbeen Kim (Chonnam National Univ.); Junyeong Bae (Chonnam National Univ.); Young-woo Lee (Chonnam National Univ.)*
	P-53	Reduced Pin-Count Test Scheme for High Parallel Test Capabilities	Jaehwan Shin (Chonnam National Univ.); Junyeong Bae (Chonnam National Univ.); Young-woo Lee (Chonnam National Univ.)*
	P-54	An Artificial Neural Network-based Compact Model for Organic Field-Effect Transistors with the Gaussian Disorder Model	Minsun Cho (Advanced Institute of Convergence Technology); O-Joun Lee (The Catholic Univ. of Korea); Sungyeop Jung (Advanced Institute of Convergence Technology)*
	P-55	Analysis of AC Kink Effect in Floating Body PD-SOI MOSFETs	Kyeongjun Kim (Department of Electronic Engineering, Hankuk Univ. of Foreign Studies)*; Seonghearn Lee (Department of Electronic Engineering, Hankuk Univ. of Foreign Studies)
	P-56	Design of a Low Power Computer Vision Sensor Based on Analog Convolutional Neural Network	Hohyun Lee (Dongguk Univ.); Giyeol Kim (Dongguk Univ.); Minkyu Song (Dongguk Univ.)*
	P-57	Design of a lamp current diagnostic circuit with upper and lower limit values using offset applied to a rectifier circuit	Sungho Jeon (Hyundai Kefico)*; Jooyong Kim (Hyundai Kefico)
	P-58	Wearable Fabric Sensors for Cardiac Activity and Respiratory Signal Measurements	HYUN SEUNG CHO (Yonsei Univ.)*
	P-59	Ferroelectric-gate Thin Film Transistors Using Indium Tin Oxide with Various Sn Compositions	Yoshiro Kubota (Japan Advanced Institute of Science and Technology); Eisuke Tokumitsu (Japan Advanced Institute of Science and Technology)*
	P-60	FPGA-Based Wireless Telemetry Architecture for Intelligent Semiconductor Systems	Wajahat Abbasi (Ewha Womans Univ.); Arati Shah (Gachon Univ.); Yeori Kim (Gachon Univ.); Soomin Kim (Ewha Womans Univ.); Seongjae Cho (Ewha Womans Univ.)*
	P-61	Design of a 14-bit 100MSPS Full-Swing Current Steering Digital-to-Analog Converter with a Half Power Supply Calibration Technique	Kwang Jin Park (Dongguk Univ.)*; Minkyu Song (Dongguk Univ.)
	P-62	Design of a Low Power 12-bit Pipelined Analog-to-Digital Converter with a Novel Modularized SAR Block and a New Residue Amplifier	Jiwon Kim (Dongguk Univ.)*; Minkyu Song (Dongguk Univ.)