

Session Title:	P1. Poster Session 1
Session Date:	August 20 (Wed.), 2025
Session Time:	13:20-14:50
Session Room:	2A Hall

[P1-001]

Long-Term Stability of a Hydrophobic-Protected InSnZnO TFT Pressure Sensor

Mei Yang (South China Univ. of Tech., China), Man Chun Tseng, Fion Sze Yan Yeung, Hoi Sing Kwok (HKUST, China), and Rongsheng Chen (South China Univ. of Tech. & HKUST, China)

[P1-002]

Phonon-Induced Evaporation Technology for 10Kppi RGB OLEDoS Microdisplays

Changhun Hwang (OLEDON Co. & Dankook Univ., Korea)

[P1-003]

Efficiency Improvement of Blue Top Emission Organic Light-Emitting Diodes through a High-Aspect-Ratio Lens

Jooho Lee, Chi-Sun Hwang (ETRI, Korea), Jonghee Lee (Hanbat Nat'l Univ., Korea), and Hyunsu Cho (ETRI, Korea)

[P1-005]

Single-Lift-Off Process for Efficient Two-Subpixel Quantum-Dot Light Emitting Diodes with AC-Tunable Emission

Hyo-Bin Kim, Seong-Kuk Park, Jae-In Yoo, Sang Min Won, and Jang-Kun Song (Sungkyunkwan Univ., Korea)

[P1-006]

Characterization of 8K LCoS Microdisplay

Hong Joo Song, Kyoungwon Park (KETI, Korea), Mi Kyoung Lee, Chungwoo Han, Nam Chol Song (Selcos Co., Ltd., Korea), and Jeongno Lee (KETI, Korea)

[P1-007]

Silicone-Incorporated Lithography of Hole Transport Layers for Crosstalk-Free Micro-OLEDs

Hayoung Oh, Hyukmin Kwon (Hanyang Univ., Korea), Seonkwon Kim (Yonsei Univ., Korea), Borina Ha (Hanyang Univ., Korea), Seunghan Lee (Sogang Univ., Korea), Soyeon Lee (Hanyang Univ., Korea), Seung Hwan Roh (Sogang Univ., Korea), Jiyeon Ha (Hanyang Univ., Korea), Minsu Kang (Yonsei Univ., Korea), Moon Sung Kang (Sogang Univ., Korea), Jeong Ho Cho (Yonsei Univ., Korea), and Do Hwan Kim (Hanyang Univ., Korea)

[P1-008]

AC-Driven Color-Tunable Organic Light-Emitting Diodes with Yb-Based Semi-Transparent Intermediate Electrodes for High-Resolution Displays

Yerim Yang, Yeonsu Hwang, Soobin Sim, Nayoung Bae, and Hyunkoo Lee (Sookmyung Women's Univ., Korea)

[P1-009]

Three-Dimensional Microfabrication of Glass via Femtosecond Laser Irradiation

Yeon-Wha Oh (Nat'l Nanofab Center & Chungnam Nat'l Univ., Korea), Il-Suk Kang, Yeeun Na (Nat'l Nanofab Center, Korea), Ga-Won Lee (Chungnam Nat'l Univ., Korea), and Jongcheol Park (Nat'l Nanofab Center, Korea)

[P1-010]

Influence of 1,6-Bis (Trichlorosilyl) Hexane on Amorphous IGZO TFTs

Tae-Hee Jung (Sungkyunkwan Univ., Korea), Hwarim Im (Konkuk Univ., Korea), Jae-Hong Jeon (Korea Aerospace Univ., Korea), Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-011]

A Weighted-Ensemble SHAP Analysis of IGZO TFT Threshold Voltage

Kyongtae Park, Hongyoub Na, and Seonil Kim (Samsung Display Co., Ltd., Korea)

[P1-012]

Low Parasitic Capacitance Thin-Film Transistor Design in a Back-Channel-Etched Structure for Displays

Minjae Jeong (Yonsei Univ. & LG Display Co., Ltd., Korea), Hwa Seon Kim (Yonsei Univ., Korea), Ki Taeg Shin, Hoon Jeong, Jeong Ki Park (LG Display Co., Ltd., Korea), and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-013]

InSnZnO Thin-Film Transistors with Controlled Threshold Voltage for Capacitorless Memory

Xiangcheng Liu (South China Univ. of Tech., China), Man Chun Tseng, Fion Sze Yan Yeung, Hoi Sing Kwok (HKUST, Hong Kong), and Rongsheng Chen (South China Univ. of Tech., China & HKUST, Hong Kong)

[P1-014]

Fluorine-Doped Zr:ZnO TFTs for Improved Performance and Stability

Arqum Ali and Jeong-Hwan Lee (Inha Univ., Korea)

[P1-015]

Low-Temperature Crosslinked Soluble Polyimide as a Dielectric for High Performance Organic Thin-Film Transistors

Jae Uk Yun and Taek Ahn (Kyungsung Univ., Korea)

[P1-016]

Preparation and Thin Film Properties of a Novel Polyimide/Surface Modified TiO₂ Nanoscomposite Layer for Solution Processable High k Dielectric

Jae Uk Yun and Taek Ahn (Kyungsung Univ., Korea)

[P1-017]

Enhanced Contact Resistance Analysis in IGZO TFTs via Gated Van der Pauw Method Across Temperatures

Woo-Seok Lee and Jeong-Hwan Lee (Inha Univ., Korea)

[P1-018]

Time-Dependent Voltage Shift Induced by Charge Trapping and Detrapping in IGTO Thin-Film Transistors: Stretched Exponential Model Analysis

Bu-Yong Choi and Byoung-Deog Choi (Sungkyunkwan Univ., Korea)

[P1-019]

Wafer-Scale, Low-Power and Ultraflexible Monolithic 3D CMOS Circuits with 2D Material Inks for Next-Generation Display Backplanes

Taoyu Zou, Seongmin Heo, Youjin Reo, Gi-Seong Ryu, and Yong-Young Noh (POSTECH, Korea)

[P1-020]

Effect of Ultraviolet on ZnSnO Field Effect Transistors Fabricated at Low Annealing Temperatures

Minseo Kang, Tan Tan Bui, and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

[P1-021]

Electrospun Semiconductor Metal Oxide Nanofibers for High Performance Field-Effect Transistors

Tan Tan Bui and Ji-Hoon Lee (Jeonbuk Nat'l Univ., Korea)

[P1-022]

Improvement of Mobility and Stability of Solution-Processed IGZO TFTs by Using Fluoride Precursor

Seol A Park (Sungkyunkwan Univ., Korea), Hwarim Im (Konkuk Univ., Korea), Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-023]

Effects of Post-Annealing on Solution-Processed Al_2O_3 -Based IGZO TFTs for Ultra-Low Voltage Operation

Huicheol Shin, Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-024]

Organic Photo-Memory Devices with High-k Trapping Layers: Mechanisms and Performance

Tae Ho Shin, Jae Won Park, Dong Hyun Nam, Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-025]

Flexible CMOS Logic Inverter based on TIPS-Pentacene:N2200 BHJ with P(VDF-TrFE) Dielectric

Deokhee Yun, Hyowon Jang, Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-026]

Investigation of Ferroelectric Memory Devices Using Complementary Organic-Inorganic Hybrid Insulators

Hyowon Jang (Univ. of Seoul, Korea), Yongju Lee (Univ. of Seoul, Korea & Univ. of Paris, France), Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-027]

Stability Enhancement of Solution-Processed IGZO TFTs with Organic-Inorganic Passivation Layer

Hanzhi Huang, Dae Woong Kim, Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-028]

Organic Phototransistor for NIR Detection Using Y6

Bung Chan Ko, Jae Won Park, Dong Hyun Nam, Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-029]

Investigation of Aluminum Inter-Diffusion in α -IGZO TFTs through Optimal Barrier Metal Selection

Tae-Hyun Cho, Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-030]

Degradation of Subthreshold Swing Under Strong Positive Gate Bias Stress in Solution-Processed Nanometer-Thin Crystalline Indium Oxide Transistors

Dohyeon Gil, Se Jin Park (Kyungpook Nat'l Univ., Korea), Do-Kyung Kim (Kangwon Nat'l Univ., Korea), and Jin-Hyuk Bae (Kyungpook Nat'l Univ., Korea)

[P1-031]

Hybrid Zn-ON and Te Thin-Film Transistors for Robust CMOS Inverter Performance Under Low-Temperature Processing

Jimin Kim, Muhammad Naqi, Yongin Cho, Joo On Oh, and Sunkook Kim (Sungkyunkwan Univ., Korea)

[P1-032]

Enhanced Stability of Double-Gate Oxide Thin-Film Transistors under Positive Bias Temperature Stress through Improved Bottom Channel Interface

Seung-Hun Lee, Kyoung-Seok Son, Myeong-Ho Kim, Jaybum Kim, Jaehwan Chu, Eun-Hye Ko, Joon Seok Park, and Sunhee Lee (Samsung Display Co., Ltd., Korea)

[P1-033]

Low-Voltage Operating Organic-Oxide Hybrid CMOS TFT Inverter with Solution-Processed Semiconductors

Min Ki Kim, Tae ho Shin, Hyowon Jang, Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-034]

A Micro-LED Pixel Circuit based on α -IGZO TFT with Compensation for both Positive and Negative Threshold Voltages

Young Jin Kim, Jang Hoo Lee, Seo Yun Kim (Hoseo Univ., Korea), Seung Jae Moon (UNIST, Korea), and Byung Seong Bae (Hoseo Univ., Korea)

[P1-035]

Enhancement of IGTO TFT Stability Using Organic Passivation Layers

Keon Joo Park, Min Suk Oh, and Byungwook Yoo (KETI, Korea)

[P1-036]

Effect of Passivation Layers on the Device Characteristics of Integrated ITZO TFTs-InP Quantum-Dot Light-Emitting Diodes for Active-Matrix Display Applications

Uiseok Jung, Hyeonseung Ban, Seongyong Cho, and Jaekyun Kim (Hanyang Univ., Korea)

[P1-037]

IGZO/Y6 Charge Trapping-Based Near-Infrared Synaptic Phototransistor

Jae Won Park, Min Ki Kim, Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-038]

Analysis of Y Doping Induced Positive VTH Shift in Solution-Processed IGZO TFTs

Su Hyeon Chae (Sungkyunkwan Univ., Korea), Hwarim Im (Konkuk Univ., Korea), Kook Chul Moon (Sungkyunkwan Univ., Korea), and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-039]

Enhanced Optical Response in Organic Phototransistors via Donor-Acceptor BHJ Structure

Dong Hyun Nam, Jae Won Park (Univ. of Seoul, Korea), Yongju Lee (Univ. of Seoul, Korea & Univ. of Paris, France), Swarup Biswas, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-040]

High-Performance IGTO TFTs with High Bias Stability Enhanced by Ga₂O₃ Passivation

Zhenyuan Xiao, Jidong Jin, Junhe Zhang, and Jaekyun Kim (Hanyang Univ., Korea)

[P1-041]

Symmetric VTFT with Atomic Layer Deposition Al₂O₃ Spacer and Gate Insulator for Short-Channel Effects Suppression

Heesung Jung and Jaekyun Kim (Hanyang Univ., Korea)

[P1-042]

Effect of Depth-Dependent Composition Gradient on Bias Stress Stability in Solution-Processed IGZO TFTs

Hyunchul Yoon, Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-043]

Investigation of Bias Stress Reliability and Recovery in Double-Gate IGZO TFTs

Dae Woong Kim, Shin-Hyeong Kim, Kook Chul Moon, and Yong-Sang Kim (Sungkyunkwan Univ., Korea)

[P1-044]

Monolithic 3D Integration for Vertically Stacked IGZO-Te CMOS Inverters with a Via-Hole-Less Structure

Dong Bin Lee, Seong Cheol Jang, and Hyun-Suk Kim (Dongguk Univ., Korea)

[P1-045]

Analysis of Short-Channel Effect in Staggered-Bottom Gate Amorphous InGaZnO Thin-Film Transistors

Yun Seok Kye, Jaewon Jang, Dongjun Jang, Seungwon Go, and Sangwan Kim (Sogang Univ., Korea)

[P1-047]

Light-to-Sound Signal Conversion for Structurally Random Cryptographic Key Generation

Tachyon Park (Gachon Univ., Korea), Junhyung Kim, Byullee Park (Sungkyunkwan Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-048]

Observation of Correlated Low Frequency Noise in Photo-Activated NDR Heterojunction Devices: Interfacial Transport Dynamics and Applications in Image Encryption

Youngmin Han (Hanyang Univ., Korea), Ryun-Han Koo (Seoul Nat'l Univ., Korea), Wonjun Shin (Sungkyunkwan Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-051]

Spectrally Selective Floating-Gate Synapse Transistor for Neuromorphic Computing

Seungme Kang, Jisoo Park, Jinmin Park (Gachon Univ., Korea), Hyeonjung Kim (Hanyang Univ., Korea), Seonjeong Lee, Yun-Hi Kim (Gyeongsang Nat'l Univ., Korea), Seyong Oh (Hanyang Univ., Korea), Chung Whan Lee (Gachon Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-052]

Physiological Signal Classification Using Trap-Detrap of DPP-DTT Nanowire Phototransistors

Wangmyung Choi, Hocheon Yoo, Gun Ho Hong, and Seyoung Oh (Hanyang Univ., Korea)

[P1-054]

High-Accuracy Electric Demand Forecasting Prediction Utilizing Gaussian Curves Derived from ZnON/DNTT Heterojunction Devices

Sumyeong Kim, Dong Hyun Lee (Gachon Univ., Korea), Ryun-Han Koo (Seoul Nat'l Univ., Korea), Wonjun Shin (Sungkyunkwan Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-056]

Interface-Driven Electrical Modulation and Reconfigurable Logic Operation in Dual-Gate ZnON Thin-Film Transistors

Heebeen Shin (Gachon Univ., Korea), Youngmin Han, and Hocheon Yoo (Hanyang Univ., Korea)

[P1-058]

Gaussian-Sigmoid Reinforcement Transistors: Resolving Exploration-Exploitation Trade-Off through Gate Voltage-Controlled Activation Functions

Jisoo Park (Gachon Univ., Korea), Juhyung Seo (Hanyang Univ., Korea), Ryun-Han Koo (Seoul Nat'l Univ., Korea), Dinithi P. Jayasuriya, Nethmi W. Ralalage, Amit R.Trivedi (Univ. of Illinois, USA), Wonjun Shin (Sungkyunkwan Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-059]

Heterojunction-Driven Stochasticity: Bi-Heterojunction Noise-Enhanced Negative Transconductance Transistor in Image Generation

Jaechan Song (Gachon Univ., Korea), Youngmin Han (Hanyang Univ., Korea), Ryun-Han Koo (Seoul Nat'l Univ., Korea), Eun Kwang Lee (Pukyong Nat'l Univ., Korea), Wonjun Shin (Sungkyunkwan Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-061]

Organic Semiconductor-Insulator Multilayer Devices with Insulator Thickness-Dependent Negative Differential Transconductance and Photomemory Characteristics

Dong Hyun Lee (Hanyang Univ., Korea), Yunchae Jeon (Gachon Univ., Korea), Junhwan Choi (Dankook Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-063]

Twist Contact Transistor Enabling ReLU Function Implementation

Kyounghoon Kim (Gachon Univ., Korea), Youngmin Han (Hanyang Univ., Korea), Eousik Cho (Gachon Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-064]

Gaussian-Sigmoid Switchable Split-Gate Anti-Ambipolar Transistor

Minseo Kim, Raksan Ko (Gachon Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-066]

A Gaussian-Sigmoid Balanced Model Proposed for Stable Maximization of Machine Learning Rewards

Seungeun Jeong, Seungme Kang (Gachon Univ., Korea), Ryun-Han Koo (Seoul Nat'l Univ., Korea), Eou-Sik Cho (Gachon Univ., Korea), Yun-Hi Kim (Gyeongsang Nat'l Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-068]

Integrated Circuit with Zinc Tin Oxide Nanoparticle based Deep UV Photodetector for Wireless Flame Monitoring

Junhyung Cho (Gachon Univ., Korea), Junhwa Oh (Hanyang Univ., Korea), Taehyun Park (Gachon Univ., Korea), Seyong Oh, and Hocheon Yoo (Hanyang Univ., Korea)

[P1-069]

Random Current Path Generation in Oxide/Polymer Heterojunction Devices for Advanced Reservoir Computing Applications

Jeongwon Kim, Jaechan Song (Gachon Univ., Korea), and Hocheon Yoo (Hanyang Univ., Korea)

[P1-070]

Electrically Stable Sol-Gel Processed SnO₂ Thin Film Transistors with Sol-Gel Processed Ga₂O₃ Passivation Layers

Suhyeon Choi (Kyungpook Nat'l Univ., Korea), Kwangeun Kim (Korea Aerospace Univ., Korea), and Jaewon Jang (Kyungpook Nat'l Univ., Korea)

[P1-071]

2351-Ppi AMOLED Pixel Circuit with VTH Compensation Scheme Using Stacked BCE/Vertical Oxide TFTs

Junyeong Kim, Yong-Duck Kim, Ji Hun Choi, Seong M. Cho, Jong-Heon Yang, Chun-Won Byun, Jae-Eun Pi, and Chi-Sun Hwang (ETRI, Korea)

[P1-072]

Amorphous IGZO TFTs Developed Using Siloxane-Based Photoresist

Jung Hyeon Jeon, Seung Jun Choi (Hoseo Univ., Korea), Seung Jae Moon (UNIST, Korea), Ji Soo Yoo, Sun Yu (Herachem Tech. Co., Ltd., Korea), and Byung Seong Bae (Hoseo Univ., Korea)

[P1-073]

Analysis of Channel-Length-Dependent Positive Gate-Bias-Induced Instability in Staggered Bottom-Gate Amorphous InGaZnO Thin-Film Transistors

Jaewon Jang, Youn Seok Kye, Dongjun Jang, Seungwon Go, and Sangwan Kim (Sogang Univ., Korea)

[P1-074]

Channel Shortening in BCE Oxide TFTs Induced by Source/Drain Material-Dependent Oxygen Vacancy Diffusion

Jong Beom Ko (Hanbat Nat'l Univ., Korea) and Sang-Hee Park (KAIST, Korea)

[P1-075]

Enhanced Electrical Performance and Reliability of IGZO Thin-Film Transistor by Plasma Enhanced Atomic Layer Deposition

Shaocong Lv, Xianglong Li, and Jiawei Zhang (Shandong Univ., China)

[P1-076]

Photo-Crosslinked Polyimide Gate Dielectric for Reliable Flexible Metal Oxide Thin-Film Transistors

Cao Van Thu and Myung-Gil Kim (Sungkyunkwan Univ., Korea)

[P1-077]

Oxide Thin-Film Transistors with Tunable Swing via Electrohydrodynamic Jet Printed Parasitic Conduction Path

Yong Seon Hwang (Yonsei Univ., Korea), Jae Won Na (ETRI, Korea), I. Sak Lee, Sujin Jung, and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-078]

Control of Conductive Filament in Ultrathin Copolymer-Based Memristors for Neuromorphic Computing

Minsu So, Ji In Kim, Tae Hoon Kim, Min Ju Kim, and Junhwan Choi (Dankook Univ., Korea)

[P1-079]

Highly Sensitive and Low-Power Multi-Wavelength Phototransistor based on Bulk-Heterojunction Structures

Yongju Lee (Univ. of Seoul, Korea & Université Paris Cité, France), Hyowon Jang, Jaewon Park, Dong-Hyun Nam, and Hyeok Kim (Univ. of Seoul, Korea)

[P1-080]

Photoresponsive Bimodal Memory Transistor Enabling Charge Storage and Synaptic Function for Optically Modulated Information Processing

Sunwoo Jeong (Dankook Univ., Korea), Gyeongho Lee (Korea Inst. of Ceramic Engineering and Tech., Korea & Korea Univ., Korea), Hyeonjung Kim (Hanyang Univ., Korea), Yeong Jae Kim (Korea Inst. of Ceramic Engineering and Tech., Korea), Seyong Oh, Hocheon Yoo (Hanyang Univ., Korea), and Junhwan Choi (Dankook Univ., Korea)

[P1-081]

Reactive Ion Etching of Organosilicon Polymer Dielectric Film Deposited via Initiated Vapor-Phase Process and Its Application

Jeonghoon Oh, Jueun Baek, Soohwan Jang, and Junhwan Choi (Dankook Univ., Korea)

[P1-082]

Tellurium-Selenium Oxides Thin-Films for High-Performance P-Type Transistor Applications

Hojeong Jo, Jeong Hyeon Lee, and Hyun-Suk Kim (Dongguk Univ., Korea)

[P1-083]

Top-Gated SWNT TFTs Using iCVD Gate Dielectrics for High-Resolution Micro-LED Backplanes

Yunsung Lee (Incheon Nat'l Univ., Korea), Jeonghoon Oh (Dankook Univ., Korea), Hanmin Kim (Incheon Nat'l Univ., Korea), Junhwan Choi (Dankook Univ., Korea), and Sung Hun Jin (Kyung Hee Univ., Korea)

[P1-084]

Scaled Indium Oxide Thin-Film Deposited by PEALD for 3D Ferroelectric-FET

Jaewon Park and Hyun-Suk Kim (Dongguk Univ., Korea)

[P1-085]

Hysteresis-Free SWNT TFTs with SOG/HfO₂ Dielectric Stacks for High-Performance Micro-LED Display Applications

Yunsung Lee, Hanmin Kim, Bokyoung Kim, Seoyoung Jo (Incheon Nat'l Univ., Korea), and Sung Hun Jin (KyungHee Univ., Korea)

[P1-086]

Flexible Metal Oxide Thin-Film Transistors Produced by Nanofiber-to-Film Process

Danna Zhang, Guangtan Miao, Guoxia Liu, and Fukai Shan (Qingdao Univ., China)

[P1-087]

Influence of Gate Dielectric Layer on the Low-Frequency Noise Characteristics of InGaZnO Thin-Film Transistors

Taegyu Kim, Youngjin Kang, and Yong-Hoon Kim (Sungkyunkwan Univ., Korea)

[P1-088]

High-Mobility ZnON Phototransistor-Based Sensor in Display Platform for OLED Driving and Light Detection

Won Woo Lee, Youngwoo Yoo, Ko Eun Ham, Dong Hyun Lee (Gachon Univ., Korea), Yongmin Jeon (Kyung Hee Univ., Korea), Hocheon Yoo (Hanyang Univ., Korea), Young-Joon Kim, Sang Jik Kwon, and Eou-Sik Cho (Gachon Univ., Korea)

[P1-089]

Fully Transparent and Stretchable α -IGZO Thin-Film Transistor With Polyimide Island Structure for Deformable Electronics

Hyunjin Choi, Soobin An, Seong-Eun Kim, and Soo-Yeon Lee (Seoul Nat'l Univ., Korea)

[P1-090]

Improved Contact Resistance in IGZO TFTs Using ITO Interlayer

Sungsoo Lee and Jin-Hong Park (Sungkyunkwan Univ., Korea)

[P1-091]

Enabling Enhancement-Mode Operation in Tin Perovskite Transistors via Passivation Layer Deposition

Geonwoong Park, Donghyeon Lee, Wonryeol Yang, Soohwan Yoo, Sungjae Cho, Mingoo Kwon, Youjin Reo, and Yong-Young Noh (POSTECH, Korea)

[P1-092]

Oxide Semiconductor-Based Photodetecting Transistors with a Photoresponsive Semiconductor and Bilayer Electrode

Yujeong Hwang, Eun-Seon Sim, Min-Hoi Kim, and Jin-Hyuk Kwon (Hanbat Nat'l Univ., Korea)

[P1-093]

Low-Frequency Noise Characterization of SWNT FETs with SOG/High-k Stacked Gate Dielectrics

Yunsung Lee (Incheon Nat'l Univ., Korea), Seohyeon Park (Jeonbuk Nat'l Univ., Korea), Bogyung Kim (Incheon Nat'l Univ., Korea), Hagyoul Bae (Jeonbuk Nat'l Univ., Korea), and Sung Hun Jin (KyungHee Univ., Korea)

[P1-094]

Metal-Oxide Thin-Film Transistors with Alternative Gas-Based SiO₂ Dielectric Films for Display Backplanes

Eun-Ha Kim, Se-Ryong Park (Kwangwoon Univ., Korea), Yunhui Jang, Youngjin Kang, Yong-Hoon Kim, Junsin Yi (Sungkyunkwan Univ., Korea), and Tae-Jun Ha (Kwangwoon Univ., Korea)

[P1-095]

Enhancing Display Image Quality in LTPO AMOLED Display via the Improvement of Oxide Morphology

Hyo Young Jun, Li Jin Kim (Yonsei Univ. & LG Display Co., Ltd., Korea), Nack Bong Choi, Sang Yoon Park (LG Display Co., Ltd., Korea), and Hyun Jae Kim (Yonsei Univ., Korea)

[P1-096]

Stable Oxide Semiconductor-Based Transistors with Steep Subthreshold Swing

Ji Hyeon Min (Dongguk Univ., Korea), Kyong Jae Kim, You Seung Rim (Sejong Univ., Korea), and Hyun-Suk Kim (Dongguk Univ., Korea)

[P1-097]

A Study on Enhancing Contact Resistance in α -IGZO TFTs through Hole Patterning of the Channel Using TCAD Simulation

Ju Seok Jeong, Dongseon Kim, Seon Woong Bang, Ye Na Kim, Joo Hee Jeong, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-098]

Hydrogen-Doped Indium Oxide ($\text{In}_2\text{O}_3\text{:H}$) Channel Layer for High-Performance Thin-Film Transistors

Ye-Jin Shim, Hyeon Seok Lee, Doha Lim, So Mang Park, Jong-Hyun Jang, and Han-Ki Kim (Sungkyunkwan Univ., Korea)

[P1-099]

Suppression of Channel Shortening and Drain Induced Barrier Lowering in 2- μm Poly-InOx TFTs via Optimized Ion Implantation

Mir Mutakabbir Alom, Forhaz Farid, Motoki Ando, and Mamoru Furuta (Kochi Univ. of Technology, Japan)

[P1-100]

Fabricating In_2O_3 Thin-Film Transistors with High Performance and High Reliability by Channel Surface Treatment

Jeong Eun Oh, Nahyun Kim, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-101]

A Comparative Study on Structural Modification of Heterojunction Transistor Combining n-Type In-Based Oxide and p-Type Metalloid Channel

Sunghun Heo and Jae Kyeong Jeong (Hanyang Univ., Korea)

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Study of The Effect of Oxygen Concentration In Te Channel On p-Type FeFET Characteristics

Daeun Kim, Heyoung Kang, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-103]

A Study on Crystallization and Electrical Performance in IGZO Channel with Varying Ga and Zn Ratios for Next-Generation Display Backplanes

Seongkyu Kang and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-104]

Electrical Characterization of Oxide-Based M-I-S-M Structure Using Impedance Analysis Method

Seungkyun Ham and Jaewook Jeong (Chungbuk Nat'l Univ., Korea)

[P1-105]

TeOx Films for High-Performance p-Channel Field-Effect Transistors

Seok Hyun Hwang, Chanwoo Jung, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-106]

Sn Subcycle Engineering for Subthreshold Swing Control with Maintained Mobility and VTH in Oxide Semiconductors

Jae Young Lee and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-107]

Ultrahigh Detectivity and Fast-Response Organic BHJ-IGZO Hybrid Phototransistors for Real-Time NIR Imaging

MD. Redowan Mahmud Arnob, Hansol Jeong (Kyung Hee Univ., Korea), Wei-Hsiang Lin, Yi-Ming Chang (Raynergy Tek Inc., Taiwan), and Jin Jang (Kyung Hee Univ., Korea)

[P1-108]

Low-Temperature Process α -IGO (Indium-Gallium Oxide) GAA (Gate-All-Around) FETs for Stretchable Displays

Tea Bong Kim, Seong Min Park, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-109]

Optimization of Oxide TFT's Design for Panel Reliability Improvement under Various Bias Temperature Stress Conditions by Role of Each Transistor

Wan-Ho Choi, HeeSung Han, Sueon Lee, Hyunwook So, Changjun Lee, JungWoong Baek, JaeMoon Soh, and YooSeok Park (LG Display Co., Ltd., Korea)

[P1-110]

Short-Channel Planar TFTs Fabricated via Low-Temperature Processes for Stretchable Displays

Seong Min Park, Tae Bong Kim, Seong Hun Yoon, Jeong Eun Oh, and Jae Kyeong Jeong(Hanyang Univ., Korea)

[P1-111]

CMOS-Compatible Ternary Logic Device based on IGTO/TeOX Heterojunction Transistor

Chanwoo Jung, Sung Hun Heo, and Jae Kyeong Jeong (Hanyang Univ., Korea)

[P1-112]

Temperature Sensors based on Tellurium Thin-Film Transistors for Interactive Displays

Joo-Hyun Oh, Eun-Ha Kim (Kwangwoon Univ., Korea), Chang-Hyeon Kim, Ick-Joon Park (Joongbu Univ., Korea), and Tae-Jun Ha (Chung-Ang Univ., Korea)

[P1-113]

A Novel Atomic-Scale Interlayer Insertion Strategy for Effective Contact Resistance Reduction in IGZO TFTs toward Ultra-High-Resolution Displays

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Method for Enhancing Contactless Touch Signals through Variable Touch Sensor Grouping Technology

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Improving AMOLED Response Delay at Low Frequencies during Gray Level Transitions Using Short-Duration and High-Frequency Frame Insertion

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Optimizing High-Performance OLED Display Driving via Dynamic Control of Frequency, Resolution, and Sensing Period

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High-Accuracy and Stability-Enhanced Readout Circuit for High-Resolution Active-Matrix Resistive Sensor Arrays with Small-Sized TFTs

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Monolithic Integration of LED and Driving Circuit with a Releasable Structure

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